First Quarter 2015 Annual Groundwater Monitoring Report

Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California
Case #: RO0000138

Stantec

Prepared for:
Chevron Environmental Management Company
6101 Bollinger Canyon Road
San Ramon, CA 94583

Prepared by:
Stantec Consulting Services Inc.
15575 Los Gatos Blvd., Building C
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March 25, 2015

Carryl MacLeod
Project Manager
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Chevron Environmental Management Company
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March 25, 2015

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

Dear Mr. Detterman:

Attached for your review is the *First Quarter 2015 Annual Groundwater Monitoring Report* for former Chevron-branded service station 90517, located at 3900 Piedmont Avenue in Oakland, California (**Case #:** RO0000138). This report was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct, to the best of my knowledge.

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,

Carryl MacLeod

Carryl MacLeod
Project Manager

March 25, 2015

Attention: **Mr. Mark Detterman**
Alameda County Environmental Health
1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502

Reference: **First Quarter 2015 Annual Groundwater Monitoring Report**
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue, Oakland, California

Dear Mr. Detterman:

On behalf of Chevron Environmental Management Company (Chevron), Stantec Consulting Services Inc. (Stantec) is pleased to submit the *First Quarter 2015 Annual Groundwater Monitoring Report* for former Chevron-branded service station 90517, which was located at 3900 Piedmont Avenue, Oakland, Alameda County, California (Site - shown on **Figure 1**). This report is presented in three sections: Site Background, First Quarter 2015 Groundwater Monitoring and Sampling Program, and Conclusions and Recommendations.

SITE BACKGROUND

The Site is a former Chevron-branded service station located on the eastern corner at the intersection of Piedmont Avenue and Montell Street in Oakland, California. The Site is currently occupied by a one-story commercial building and associated parking areas. The Site background is summarized according to the *Case Closure Request*, prepared by Conestoga-Rovers & Associates (CRA) and dated October 12, 2010, and indicates a Chevron-branded service station operated at the Site from at least 1940 until 1978.

Based on a Site Plan from 1940, first-generation Site features consisted of three gasoline underground storage tanks (USTs; 928-gallon, 440-gallon, and 550-gallon) located in the southwestern portion of the Site, a lubrication building with a waste oil sump in the eastern corner of the Site, two fuel dispenser islands located in the western portion of the Site, and a small station building located adjacent to the fuel dispenser islands. Based on a Site Plan from 1955, the first-generation gasoline USTs were removed and three second-generation gasoline USTs (3,000-gallon, 5,000-gallon, and 7,500-gallon) were installed to the northwest of the first-generation USTs. A 1,000-gallon waste oil UST is shown to the northwest of the lubrication building and two hydraulic hoists are shown within the building. In addition, the first-generation fuel dispenser islands were removed and second-generation fuel dispenser islands were installed to the east of the first-generation fuel dispenser islands. Based on a Site Plan from 1971, the mid-size gasoline UST is identified as 5,700 gallons instead of 5,000 gallons. In 1978, the service station was closed and all remaining Site features, including underground fuel structures, were removed. The existing commercial building was then constructed.

Land use near the Site consists of a mixture of commercial and residential properties. The Site is bounded on the northwest by Piedmont Avenue, to the northeast by a commercial building that appears to be vacant, to the southeast by residences, and on the southwest by Montell Street.

FIRST QUARTER 2015 GROUNDWATER MONITORING AND SAMPLING PROGRAM

Gettler-Ryan, Inc. (G-R) performed the First Quarter 2015 groundwater monitoring and sampling event on February 4, 2015. 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-1 through MW-4) prior to collecting groundwater samples for laboratory analysis. Three Site wells (MW-1, MW-3, and MW-4) were purged and sampled this quarter using low-flow procedures. Well MW-2 was gauged for DTW only because it is not a part of the groundwater sampling program. All samples collected were submitted for laboratory analysis.

Investigation-derived waste (IDW) generated during the First Quarter 2015 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 four 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 First Quarter 2015 data) is shown on **Figure 2**. The direction of groundwater flow at the time of sampling was generally towards the northwest at an approximate hydraulic gradient of 0.021 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 Third Quarter 1998 to present.

Schedule of Laboratory Analysis

Groundwater samples were collected and analyzed for total petroleum hydrocarbons (TPH) as gasoline range organics (TPH-GRO) and TPH as diesel range organics (TPH-DRO) with silica gel cleanup using United States Environmental Protection Agency (US EPA) Method 8015B (SW-846) and TPH as motor oil (TPH-MO) with silica gel cleanup using US EPA Method 8015B modified (SW-846). Benzene, toluene, ethylbenzene, and total xylenes (BTEX compounds), fuel oxygenates (methyl *tertiary*-butyl ether [MtBE], *tertiary*-butyl alcohol [TBA], *tertiary*-amyl methyl ether [TAME], ethyl *tertiary*-butyl ether [EtBE], di-isopropyl ether [DIPE], 1,2-dichloroethane [1,2-DCA], and 1,2-dibromoethane [1,2-DBA]), ethanol, and priority pollutant list (PPL) volatiles were analyzed using US EPA Method 8260B (SW-846). Metals (cadmium, chromium, lead, nickel, and zinc) were analyzed using US EPA Method 6010B (SW-846). In addition, the laboratory reported total TPH for internal quality assurance/quality control purposes.

Groundwater Analytical Results

During First Quarter 2015, groundwater samples were collected from three Site wells (MW-1, MW-3, and MW-4). Current and historical groundwater analytical results are included in **Table 2** through **Table 6**. 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 TPH-DRO isoconcentration map is shown on **Figure 6**. A benzene isoconcentration map is shown on **Figure 7**. An isoconcentration map was not developed for TPH-MO because the concentration in well MW-1 was below the California Regional Water Quality Control Board – San Francisco Bay Region (RWQCB) Environmental Screening Level (ESL) for groundwater that is a current or potential source of drinking water (100 micrograms per liter [µg/L]) and all other concentrations

were below method detection limits (MDLs). An isoconcentration map was not developed for MtBE because all concentrations were below MDLs.

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 for wells that were sampled this quarter are included in **Attachment C**.
A summary of First Quarter 2015 groundwater analytical results follows:

- **TPH-GRO** was detected in two Site wells this quarter, at concentrations of 84 µg/L (well MW-3) and 2,300 µg/L (well MW-4), which are within historical limits for each respective well.

- **TPH-DRO** was detected in two Site wells this quarter, at concentrations of 290 µg/L (well MW-4) and 360 µg/L (well MW-1). The concentration in well MW-1 is within historical limits, while the concentration in well MW-4 is a historical low.

- **TPH-MO** was detected in one Site well this quarter, at a concentration of 71 µg/L (well MW-1), which is a historical low for this well.

- **Benzene** was detected in two Site wells this quarter, at concentrations of 0.8 µg/L (well MW-3) and 43 µg/L (well MW-4). The concentration in well MW-3 is within historical limits, while the concentration in well MW-4 is a historical low.

- **Toluene** was detected in one Site well this quarter, at a concentration of 15 µg/L (well MW-4), which is within historical limits for this well.

- **Ethylbenzene** was detected in one Site well this quarter, at a concentration of 5 µg/L (well MW-4), which is within historical limits for this well.

- **Total Xylenes** were detected in three Site wells this quarter, at concentrations of 0.6 µg/L (well MW-1), 0.7 µg/L (well MW-3), and 11 µg/L (well MW-4). The concentrations in wells MW-3 and MW-4 are within historical limits, while the concentration in well MW-1 is a historical high.

- **MtBE** was not detected above the MDL (0.5 µg/L) in any Site well sampled this quarter.

- **TBA** was not detected above the MDL (5 µg/L) in any Site well sampled this quarter.

- **TAME** was not detected above the MDL (0.5 µg/L) in any Site well sampled this quarter.

- **EtBE** was not detected above the MDL (0.5 µg/L) in any Site well sampled this quarter.

- **DIPE** was not detected above the MDL (0.5 µg/L) in any Site well sampled this quarter.

- **1,2-DCA** was not detected above the MDL (0.5 µg/L) in any Site well sampled this quarter.

- **1,2-DBA** was not detected above the MDL (0.5 µg/L) in any Site well sampled this quarter.

- **Ethanol** was not detected above the MDL (50 µg/L) in any Site well sampled this quarter.

- **Cadmium** was not detected above the MDL (0.33 µg/L) in any Site well sampled this quarter.

- **Chromium** was detected in three Site wells this quarter, at concentrations of 5.7 µg/L (well MW-3), 8.8 µg/L (well MW-4), and 9.8 µg/L (well MW-1), which are historical lows for each respective well.

- **Lead** was not detected above the MDL (4.7 µg/L) in any Site well sampled this quarter.

- **Nickel** was detected in three Site wells this quarter, at concentrations of 10.7 µg/L (well MW-1), 12.9 µg/L (well MW-3), and 55.1 µg/L (well MW-4), which are historical lows for each respective well.

- **Zinc** was detected in three Site wells this quarter, at concentrations of 12.7 µg/L (well MW-3), 18.7 µg/L (well MW-1), and 47.2 µg/L (well MW-4), which are historical lows for each respective well.

A summary of First Quarter 2015 detections reported above MDLs from the PPL volatile analyses performed follows:

- **Acetone** was detected in one Site well this quarter, at a concentration of 12 µg/L (well MW-4).

- ***n*-Butylbenzene** was detected in one Site well this quarter, at a concentration of 2 µg/L (well MW-4).

- ***sec*-Butylbenzene** was detected in one Site well this quarter, at a concentration of 4 µg/L (well MW-4).

- **Isopropylbenzene** was detected in two Site wells this quarter, at concentrations of 1 µg/L (well MW-3) and 24 µg/L (well MW-4).

- ***p*-Isopropyltoluene** was detected in one Site well this quarter, at a concentration of 2 µg/L (well MW-4).

- **Naphthalene** was detected in one Site well this quarter, at a concentration of 1 µg/L (well MW-4).

- ***n*-Propylbenzene** was detected in two Site wells this quarter, at concentrations of 2 µg/L (well MW-3) and 18 µg/L (well MW-4).

CONCLUSIONS AND RECOMMENDATIONS

Concentrations were conservatively compared to ESLs for groundwater that is a current or potential source of drinking water, and TPH-GRO, TPH-DRO, benzene, and nickel were observed above ESLs as follows:

- The TPH-GRO concentration exceeds the ESL of 100 µg/L in well MW-4;
- TPH-DRO concentrations exceed the ESL of 100 µg/L in wells MW-1 and MW-4;
- The benzene concentration exceeds the ESL of 1 µg/L in well MW-4; and
- Nickel concentrations exceed the ESL of 8.2 µg/L in wells MW-1, MW-3, and MW-4.

Maximum concentrations of TPH-GRO, BTEX compounds, nickel, zinc, and select PPL volatiles were observed in well MW-4, located approximately 20 feet down-gradient of the northern-most first-generation fuel dispenser island. Maximum concentrations of TPH-MO, TPH-DRO, and chromium were observed in well MW-1, located in the vicinity of the former waste oil UST and sump.

Site conditions do not currently satisfy the Low-Threat UST Case Closure Policy (LTCP) Groundwater-Specific Criteria scenarios because the dissolved-phase petroleum hydrocarbon plume is currently not defined in all directions and the plume length is unknown. Additionally, potential vapor intrusion risks to the on-Site commercial building need to be evaluated.

Based on concentrations of TPH-GRO, TPH-DRO, benzene, and nickel exceeding ESLs, Stantec recommends continuation of the annual groundwater monitoring and sampling program. Reports will continue to be submitted to Alameda County Environmental Health (ACEH) within 60 days following groundwater monitoring and sampling events.

In a letter dated December 18, 2013, ACEH requested a Data Gap Work Plan Addendum and Focused Site Conceptual Model. Stantec submitted the *Site Conceptual Model and Data Gap Work Plan* to ACEH on March 21, 2014. In that report, Stantec included a scope of work for the advancement and sampling of six on-Site shallow soil borings (B-1 through B-6) to evaluate petroleum hydrocarbons in soil near former fueling features, installation and sampling of six soil vapor probes (VP-1 through VP-6) to evaluate potential vapor concentrations on and off Site, and completion of a sensitive receptor survey to evaluate building and occupancy types and conduct an updated well search. ACEH approved the *Site Conceptual Model and Data Gap Work Plan* with contingencies in a letter dated May 6, 2014, and requested a Subsurface Investigation Report by July 25, 2014. In addition, ACEH requested use of LTCP technical justification papers to estimate the likely maximum length of the dissolved-phase plume and determine if sensitive receptors lie within that area. In a letter dated August 19, 2014, Stantec proposed canceling vapor probe VP-6 because the building at 3891 Piedmont Avenue (a restaurant) extends to the sidewalk and the City of Oakland indicated that sidewalk work would not be approved. Two soil borings (B-7 and B-8) are proposed within Piedmont Avenue to collect soil and groundwater samples in lieu of the proposed vapor probe. Stantec also plans on collecting a crawl space air sample from the building at 3891 Piedmont Avenue, as previously recommended by ACEH.

Due to issues obtaining an encroachment permit from the City of Oakland, Stantec requested multiple extensions on the due date for the Subsurface Investigation Report. Stantec is close to receiving final approval on the City of Oakland permit; however, as described in the extension request letter dated March 16, 2015, final field dates need to be established before the permit will be approved. Final field dates cannot yet be established due to delays obtaining access to the property located at 3891 Piedmont Avenue. An additional extension was requested to submit the Subsurface Investigation Report to ACEH by July 2, 2015. ACEH approved the extension request in an email dated March 17, 2015.

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

LIMITATIONS

This document entitled First Quarter 2015 Annual 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 Erin O'Malley
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Attachments:

Table 1 – Well Details / Screen Interval Assessment – First Quarter 2015
Table 2 – Groundwater Monitoring Data and Analytical Results
Table 3 – Groundwater Analytical Results – Oxygenate Compounds
Table 4 – Groundwater Analytical Results – PPL Volatiles
Table 5 – Groundwater Analytical Results – Metals
Table 6 – Groundwater Analytical Results – PCBs

Figure 1 – Site Location Map
Figure 2 – Groundwater Elevation Contour Map – First Quarter 2015
Figure 3 – Groundwater Flow Direction Rose Diagram – First Quarter 2015
Figure 4 – Site Plan Showing Groundwater Concentrations – First Quarter 2015
Figure 5 – TPH-GRO Isoconcentration Map – First Quarter 2015
Figure 6 – TPH-DRO Isoconcentration Map – First Quarter 2015
Figure 7 – Benzene Isoconcentration Map – First Quarter 2015

Attachment A – Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures – First Quarter 2015
Attachment B – Certified Laboratory Analysis Reports and Chain-of-Custody Documents
Attachment C – Hydrographs

cc:

Ms. Carryl MacLeod, Chevron Environmental Management Company, 6101 Bollinger Canyon Road, San Ramon, CA 94583 – Electronic Copy

Neil and Diane Goodhue, 300 Hillside Avenue, Piedmont, CA 94611

TABLES

Table 1
Well Details / Screen Interval Assessment
First Quarter 2015
Former Chevron-Branded Service Station 90517
3900 Piedmont Avenue, 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-1	07/21/98	Monitoring	2	87.89	16.50	16.62	7.98	3.5-16.5	Depth-to-groundwater within screen interval.
MW-2	07/21/98	Monitoring	2	86.09	16.50	16.50	5.59	3.5-16.5	Depth-to-groundwater within screen interval.
MW-3	07/21/98	Monitoring	2	86.28	17.50	17.71	6.78	4.5-17.5	Depth-to-groundwater within screen interval.
MW-4	07/21/98	Monitoring	2	87.22	16.50	16.25	8.60	3.5-16.5	Depth-to-groundwater within screen interval.

Notes:
bgs = below ground surface
msl = mean sea level
TOC = top of casing
[1] = As measured prior to groundwater sampling on February 4, 2015.

Table 2
Groundwater Monitoring Data and Analytical Results
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TOTAL TPH (µg/L)	TPH-MO (µg/L)	O&G (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)
	Groundwater ESL			**100**	**100**	**100**	**100**	**100**	**1**	**40**	**30**	**20**	**5**
MW-1													
08/03/98	87.89	12.43	75.46	--	--		--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/23/98	87.89	9.05	78.84	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
02/08/99	87.89	6.50	81.39	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/07/99	87.89	7.13	80.76	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
08/23/99	87.89	9.15	78.74	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/03/99	87.89	9.54	78.35	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/15/00	87.89	5.90	81.99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
05/12/00[3]	87.89	7.05	80.84	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/31/00	87.89	8.40	79.49	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
10/30/00	87.89	8.65	79.24	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.50	<2.50
02/27/01	87.89	5.83	82.06	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.50
05/15/01	87.89	7.71	80.18	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.50
08/23/01	87.89	DRY	--	--	--	--	--	--	--	--	--	--	--
02/25/02	87.89	6.71	81.18	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/05/02	87.89	8.89	79.00	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
02/11/03	87.89	7.36	80.53	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/09/03[5]	87.89	9.47	78.42	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/25/04[5]	87.89	6.30	81.59	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/04[5]	87.89	10.12	77.77	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/11/05[5]	87.89	6.79	81.10	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/15/05[5]	87.89	8.89	79.00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/10/06[5]	87.89	6.65	81.24	--	--	--	--	<50	1	<0.5	<0.5	<0.5	<0.5
08/02/06[5]	87.89	7.73	80.16	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/09/07[5]	87.89	7.77	80.12	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/07[5]	87.89	9.59	78.30	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/18/08[5]	87.89	7.41	80.48	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/12/08[5]	87.89	9.78	78.11	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/19/09[5]	87.89	5.61	82.28	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/07/09	87.89	10.22	77.67	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
01/29/10	87.89	6.04	81.85	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
08/11/10	87.89	8.35	79.54	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
02/02/11	87.89	6.54	81.35	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
01/31/12	INACCESSIBLE		--	--	--	--	--	--	--	--	--	--	--
05/10/12[5]	87.89	7.28	80.61	2,800[6]/ 1,300[6,7,8]	2,800[6]/ 1,300[6,7,8]	--	1,400/ 720[7,8]	<50	<0.5	<0.5	<0.5	<1	<0.5
02/09/13[5]	87.89	7.47	80.42	1,400[6]/ 700[6,7,8]	1,400[6]/ 700[6,7,8]	1,600/ 2,400[7]	650/ 220[7,8]	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/24/14[5]	87.89	8.68	79.21	2,400[6]	2,400[6]	<1,400/ <1,400[7]	1,100/ 570[7,8]	<50	<0.5	<0.5	<0.5	<0.5	<2
02/04/15[5]	**87.89**	**7.98**	**79.91**	**71[6,7,8]**	**71[6,7,8]**	**--**	**360[7,8]**	**<50**	**<0.5**	**<0.5**	**<0.5**	**0.6**	**<0.5**

Table 2
Groundwater Monitoring Data and Analytical Results
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TOTAL TPH (µg/L)	TPH-MO (µg/L)	O&G (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)
	Groundwater ESL			**100**	**100**	**100**	**100**	**100**	**1**	**40**	**30**	**20**	**5**
MW-2													
08/03/98	86.09	11.34	74.75	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	3.4
11/23/98	86.09	6.90	79.19	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
02/08/99	86.09	5.23	80.86	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/07/99	86.09	6.12	79.97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
08/23/99	86.09	6.41	79.68	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/03/99	86.09	7.29	78.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/15/00	86.09	4.49	81.60	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
05/12/00	86.09	5.90	80.19	--	--	--	--	4,000[3]	240	26	100	76	<100
07/31/00	86.09	6.58	79.51	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
10/30/00	86.09	6.23	79.86	--	--	--	--	<51	<0.50	2.92	<0.50	1.88	4.89
02/27/01	86.09	4.60	81.49	--	--	--	--	<52	<0.50	<0.50	<0.50	<0.50	<2.50
05/15/01	86.09	6.3	79.79	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.50
08/23/01	86.09	7.28	78.81	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
02/25/02	86.09	5.61	80.48	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/05/02	86.09	7.10	78.99	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
02/11/03	86.09	7.45	78.64	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/09/03[5]	86.09	7.65	78.44	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/25/04[5]	86.09	4.85	81.24	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/04[5]	86.09	8.23	77.86	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/11/05[5]	86.09	5.93	80.16	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/15/05[5]	86.09	7.59	78.50	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/10/06[5]	86.09	5.73	80.36	--	--	--	--	<50	0.6	<0.5	<0.5	<0.5	<0.5
08/02/06[5]	86.09	6.95	79.14	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/09/07[5]	86.09	6.29	79.80	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/07[5]	86.09	7.40	78.69	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/18/08[5]	86.09	6.47	79.62	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/12/08[5]	86.09	7.08	79.01	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/19/09[5]	86.09	6.50	79.59	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/07/09	86.09	8.51	77.58	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
01/29/10	86.09	6.29	79.80	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
08/11/10	86.09	7.20	78.89	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
02/02/11	86.09	6.87	79.22	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
01/31/12	86.09	6.81	79.28	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
02/09/13	86.09	5.80	80.29	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
02/24/14	86.09	6.95	79.14	NOT PART OF GROUNDWATER SAMPLING PROGRAM					--	--	--	--	--
02/04/15	**86.09**	**5.59**	**80.50**	**NOT PART OF GROUNDWATER SAMPLING PROGRAM**					**--**	**--**	**--**	**--**	**--**

Table 2
Groundwater Monitoring Data and Analytical Results
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TOTAL TPH (µg/L)	TPH-MO (µg/L)	O&G (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)
	Groundwater ESL			**100**	**100**	**100**	**100**	**100**	**1**	**40**	**30**	**20**	**5**
MW-3													
08/03/98	86.28	12.08	74.20	--	--	--	--	4,000	160	<5.0	<5.0	73	180
11/23/98	86.28	7.69	78.59	--	--	--	--	4,000	67.7	7.56	17.1	24.5	41.2
02/08/99	86.28	6.27	80.01	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/07/99	86.28	6.96	79.32	--	--	--	--	1,800	53.6	8.96	33	18.6	21.4
08/23/99	86.28	7.92	78.36	--	--	--	--	3,970	155	24	88.8	39.8	185
11/03/99	86.28	7.92	78.36	--	--	--	--	3,320	108	19.9	98.4	44.8	<25
02/15/00	86.28	5.74	80.54	--	--	--	--	779	26.7	3.82	15.4	4.24	<12.5
05/12/00	86.28	6.76	79.52	--	--	--	--	12,000[3]	3,100	120	980	1,400	820
07/31/00	86.28	7.30	78.98	--	--	--	--	1,200[3]	32	<5.0	11	7.3	39
10/30/00	86.28	7.02	79.26	--	--	--	--	3,300[4]	119	<5.00	40	<15.0	<25.0
02/27/01	86.28	5.89	80.39	--	--	--	--	432[3]	15.5	1.53	14.9	1.06	15.7
05/15/01	86.28	7.07	79.21	--	--	--	--	3,220[3]	96.4	12.6	11.5	11.6	128
08/23/01	86.28	8.05	78.23	--	--	--	--	2,300	48	<10	<10	<10	100
02/25/02	86.28	6.73	79.55	--	--	--	--	3,100	27	2.1	4.8	6.6	<2.5
08/05/02	86.28	7.95	78.33	--	--	--	--	4,100	87	21	90	47	21
02/11/03	86.28	7.05	79.23	--	--	--	--	3,700	21	2.3	4.4	9	<20
08/09/03[5]	86.28	8.23	78.05	--	--	--	--	1,600	12	1	2	4	0.7
02/25/04[5]	86.28	5.85	80.43	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/04[5]	86.28	9.05	77.23	--	--	--	--	3,000	21	3	3	9	<0.5
02/11/05[5]	86.28	7.02	79.26	--	--	--	--	540	15	1	<0.5	0.8	<0.5
08/15/05[5]	86.28	8.41	77.87	--	--	--	--	2,600	11	1	1	2	<0.5
02/10/06[5]	86.28	6.93	79.35	--	--	--	--	970	20	2	<0.5	3	<0.5
08/02/06[5]	86.28	8.00	78.28	--	--	--	--	1,000	16	1	<0.5	3	<0.5
02/09/07[5]	86.28	7.33	78.95	--	--	--	--	590	3	<0.5	<0.5	0.5	<0.5
08/23/07[5]	86.28	8.83	77.45	--	--	--	--	2,700	18	4	2	8	<0.5
02/18/08[5]	86.28	7.27	79.01	--	--	--	--	1,300	8	1	0.6	1	<0.5
08/12/08[5]	86.28	9.58	76.70	--	--	--	--	2,000	21	3	1	4	<0.5
02/19/09[5]	86.28	6.76	79.52	--	--	--	--	810	<0.5	<0.5	<0.5	1	<0.5
08/07/09[5]	86.28	9.17	77.11	--	--	--	--	900	4	0.9	3	3	<0.5
01/29/10[5]	86.28	6.57	79.71	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/11/10[5]	86.28	8.61	77.67	--	--	--	--	1,800	9	2	6	5	<0.5
2/2/2011[5]	86.28	7.16	79.12	--	--	--	--	97	<0.5	<0.5	<0.5	<0.5	<0.5
01/31/12[5]	86.28	7.67	78.61	--	--	--	--	720	0.9	<0.5	<0.5	0.9	<0.5
02/09/13[5]	86.28	6.87	79.41	86[6]/ <41[6,7,8]	86[6]/ <41[6,7,8]	<1,400/ 2,400[7]	120/ <50[7,8]	75	<0.5	<0.5	<0.5	<0.5	<0.5
02/24/14[5]	86.28	7.11	79.17	<40[6]	<40[6]	1,500/ <1,400[7]	<50/ <50[7,8]	<50	<0.5	<0.5	<0.5	<0.5	<2
02/04/15[5]	**86.28**	**6.78**	**79.50**	**<38[6,7,8]**	**<38[6,7,8]**	**--**	**<50[7,8]**	**84**	**0.8**	**<0.5**	**<0.5**	**0.7**	**<0.5**

Table 2
Groundwater Monitoring Data and Analytical Results
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TOTAL TPH (µg/L)	TPH-MO (µg/L)	O&G (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)
	Groundwater ESL			**100**	**100**	**100**	**100**	**100**	**1**	**40**	**30**	**20**	**5**
MW-4													
08/03/98	87.22	12.92	74.30	--	--	--	--	1,900	110	12	<0.5	55	130
11/23/98	87.22	9.40	77.82	--	--	--	--	4,080	136	17.8	37.2	30.1	51.8
02/08/99[1]	87.22	7.82	79.40	--	--	--	--	2,900	150	16	<5.0	15	230/30.7[2]
05/07/99	87.22	7.42	79.80	--	--	--	--	6,050	161	<25	39.8	36.9	<250/30.2[2]
08/23/99	87.22	9.39	77.83	--	--	--	--	3,930	203	37.6	58.6	42.2	255
11/03/99	87.22	9.81	77.41	--	--	--	--	5,350	324	44.7	91.5	56.1	<50
02/15/00	87.22	7.72	79.50	--	--	--	--	4,080	161	27.7	31.1	39.1	73.9
05/12/00	87.22	7.91	79.31	--	--	--	--	3,600[3]	170	27	49	64	170
07/31/00	87.22	8.65	78.57	--	--	--	--	2,900[3]	160	20	15	56	170
10/30/00	87.22	9.08	78.14	--	--	--	--	5,630[4]	301	17.8	11.8	51.5	<25.0
02/27/01	87.22	7.30	79.92	--	--	--	--	2,140[3]	95.1	12.8	53.4	43.0	235
05/15/01	87.22	8.15	79.07	--	--	--	--	4,580[3]	200	44.1	46.3	51.7	172
08/23/01	87.22	9.33	77.89	--	--	--	--	2,700	250	44	21	72	130
02/25/02	87.22	7.80	79.42	--	--	--	--	4,100	100	18	27	39	<10
08/05/02	87.22	7.10	80.12	--	--	--	--	4,100	130	18	50	20	<10
02/11/03	87.22	8.12	79.10	--	--	--	--	4,100	100	23	20	51	<50
08/09/03[5]	87.22	9.55	77.67	--	--	--	--	3,700	110	24	10	45	8
02/25/04[5]	87.22	8.06	79.16	--	--	--	--	5,400	94	28	34	49	5
08/23/04[5]	87.22	10.19	77.03	--	--	--	--	5,100	100	26	7	43	5
02/11/05[5]	87.22	7.97	79.25	--	--	--	--	3,900	58	16	25	16	2
08/15/05[5]	87.22	8.82	78.40	--	--	--	--	2,400	76	16	11	26	3
02/10/06[5]	87.22	7.81	79.41	--	--	--	--	1,600	68	16	8	27	4
08/10/06[5]	87.22	8.58	78.64	--	--	--	--	2,500	100	19	5	30	3
02/09/07[5]	87.22	8.71	78.51	--	--	--	--	6,200	200	39	16	52	3
08/23/07[5]	87.22	10.38	76.84	--	--	--	--	5,800	190	48	20	61	3
02/18/08[5]	87.22	8.11	79.11	--	--	--	--	4,900	110	24	11	32	2
08/12/08[5]	87.22	10.58	76.64	--	--	--	--	6,100	180	31	9	52	3
02/19/09[5]	87.22	7.72	79.50	--	--	--	--	2,900	84	20	5	24	2
08/07/09[5]	87.22	10.42	76.80	--	--	--	--	4,900	120	34	11	36	2
01/29/10[5]	87.22	8.02	79.20	--	--	--	--	3,800	49	15	4	17	1
08/11/10[5]	87.22	10.19	77.03	--	--	--	--	5,400	110	36	11	36	1
2/2/2011[5]	87.22	8.65	78.57	--	--	--	--	3,800	76	29	16	31	1
01/31/12[5]	87.22	9.24	77.98	--	--	--	--	6,700	110	32	7	34	1
02/09/13[5]	87.22	8.14	79.08	300[6,9]/ <40[6,7]	300[6,9]/ <40[6,7]	<1,400/ 1,900[7]	2,300/ 1,500[7,8]	1,800	77	17	4	10	0.8
02/24/14[5]	87.22	9.50	77.72	92[6]	92[6]	<1,400/ <1,400[7]	1,200/ 720[7,8]	6,000	80	29	9	30	<2
02/04/15[5]	**87.22**	**8.60**	**78.62**	**<38[6,7,8]**	**<38[6,7,8]**	**--**	**290[7,8]**	**2,300**	**43**	**15**	**5**	**11**	**<0.5**

Table 2
Groundwater Monitoring Data and Analytical Results
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

WELL ID/ DATE	TOC* (ft.)	DTW (ft.)	GWE (msl)	TOTAL TPH (µg/L)	TPH-MO (µg/L)	O&G (µg/L)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MtBE (µg/L)
	Groundwater ESL			**100**	**100**	**100**	**100**	**100**	**1**	**40**	**30**	**20**	**5**
TRIP BLANK													
08/03/98	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/23/98	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0
02/08/99	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
05/07/99	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
08/23/99	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
11/03/99	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5
02/15/00	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0
05/12/00	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
07/31/00	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
10/30/00	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.50	<2.50
02/27/01	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.50
05/15/01	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.50
08/23/01	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5
QA													
02/25/02	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/05/02	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
02/11/03	--	--	--	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5
08/09/03[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/25/04[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/04[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/11/05[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/15/05[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/10/06[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/02/06[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/09/07[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/23/07[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/18/08[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/12/08[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/19/09[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
08/07/09[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/09/13[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<0.5
02/24/14[5]	--	--	--	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2
02/04/15[5]	**--**	**--**	**--**	**--**	**--**	**--**	**--**	**<50**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table 2
Groundwater Monitoring Data and Analytical Results
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results prior to May 12, 2000 were compiled from reports prepared by Blaine Tech Services, Inc.
Groundwater monitoring data and laboratory analytical results from May 12, 2000 to May 12, 2012 were provided by Gettler-Ryan Inc.
Current groundwater monitoring data was provided by Gettler-Ryan Inc. Current laboratory analytical results were provided by Eurofins Lancaster Laboratories.

TOC = Top of Casing
(ft.) = Feet
GWE = Groundwater Elevation
(msl) = Mean sea level
DTW = Depth to Water
TPH = Total Petroleum Hydrocarbons
DRO = Diesel Range Organics
MO = Motor Oil
GRO = Gasoline Range Organics
O&G = Oil and Grease (n-Hexane Extractable Material)
B = Benzene
T = Toluene
E = Ethylbenzene
X = Xylenes (sum of m+p and o)
MtBE = Methyl tertiary-butyl ether
(µg/L) = Micrograms per liter
-- = Not Measured/Not Analyzed
QA = Quality Assurance/Trip Blank

ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water

* TOC elevations are referenced to msl.

[1] Chromatogram pattern indicates gas and an unidentified hydrocarbon.

[2] Confirmation run.

[3] Laboratory report indicates gasoline C_6-C_{12}.

[4] Laboratory report indicates hydrocarbon pattern present in the requested fuel quantitation range but does not resemble the pattern of the requested fuel.

[5] BTEX and MtBE by EPA Method 8260.

[6] TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C_8 (n-octane) through C_{40} (n-tetracontane) normal hydrocarbons.

[7] Analyzed with silica gel cleanup.

[8] Laboratory report indicates the reverse surrogate, capric acid, is present at <1%.

[9] Laboratory report indicates the surrogate data is outside the QC limits due to unresolvable matrix problems evident in the sample chromatogram.

Table 3
Groundwater Analytical Results - Oxygenate Compounds
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

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)
Groundwater ESL	**NE**	**12**	**NE**	**NE**	**NE**	**0.5**	**0.05**
MW-1							
05/10/12	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5
02/09/13	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5
02/24/14	<500	<100	<2	<2	<2	<2	<2
02/04/15	**<50**	**<5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-3							
02/09/13	<50	<5	<0.5	<0.5	<0.5	<0.5	<0.5
02/24/14	<500	<100	<2	<2	<2	<2	<2
02/04/15	**<50**	**<5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**
MW-4							
02/09/13	<50	5	<0.5	<0.5	<0.5	<0.5	<0.5
02/24/14	<500	<100	<2	<2	<2	<2	<2
02/04/15	**<50**	**<5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**	**<0.5**

Table 3
Groundwater Analytical Results - Oxygenate Compounds
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results on May 12, 2012 were provided by Gettler-Ryan Inc.
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
(µg/L) = Micrograms per liter
ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water

ANALYTICAL METHOD:

EPA Method 8260 for Oxygenate Compounds

Table 4
Groundwater Analytical Results - PPL Volatiles
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

WELL ID/ DATE	Acetone (µg/L)	2-Butanone (µg/L)	n-Butyl-benzene (µg/L)	sec-Butyl-benzene (µg/L)	2-Chlorotoluene (µg/L)	Isopropyl-benzene (µg/L)	p-Isopropyl-toluene (µg/L)	Naphth-alene (µg/L)	n-Propyl-benzene (µg/L)	1,3,5-Trimethyl-benzene (µg/L)	Diethylphthalate (µg/L)
Groundwater ESL	**1,500**	**4,900**	**NE**	**NE**	**NE**	**NE**	**NE**	**6.1**	**NE**	**NE**	**1.5**
MW-1											
05/10/12	<6	<3	<1	<1	<1	<1	<1	7	<1	<1	2
02/09/13	<6	<3	<1	<1	<1	<1	<1	<1	<1	<1	--
02/24/14	<6	<3	<1	<1	<1	<2	<1	<2	<1	<1	--
02/04/15	**<6**	**<3**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**<1**	**--**
MW-3											
02/09/13	<6	<3	<1	<1	<1	<1	<1	<1	<1	<1	--
02/24/14	<6	<3	<1	<1	<1	<2	<1	<2	<1	<1	--
02/04/15	**<6**	**<3**	**<1**	**<1**	**<1**	**1**	**<1**	**<1**	**2**	**<1**	**--**
MW-4											
02/09/13	13	5	<1	1	<1	14	1	<1	7	<1	--
02/24/14	20	<3	5	7	2	44	7	<2	35	2	--
02/04/15[1]	**12**	**<3**	**2**	**4**	**<1**	**24**	**2**	**1**	**18**	**<1**	**--**

Table 4
Groundwater Analytical Results - PPL Volatiles
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

EXPLANATIONS:

Groundwater monitoring data and laboratory analytical results on May 12, 2012 were provided by Gettler-Ryan Inc.
Current groundwater monitoring data was provided by Gettler-Ryan Inc. and current laboratory analytical results were provided by Eurofins Lancaster Laboratories.

Only constituents with currently or historically detected concentrations are shown. Complete analytical results for the current monitoring period can be found in Attachment B.

(µg/L) **=** Micrograms per liter
PPL = priority pollutant list
-- = Not Measured/Not Analyzed
ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water

[1] Laboratory report indicates the LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC standards. The following analytes are accepted based on this allowance: Acetone.

Table 5
Groundwater Analytical Results - Metals
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

WELL ID/ DATE	Cadmium (µg/L)	Chromium (µg/L)	Lead (µg/L)	Nickel (µg/L)	Zinc (µg/L)
Groundwater ESL	**0.25**	**50**	**2.5**	**8.2**	**81**
MW-1					
05/10/12	<0.27	153	92.3	195	154
02/09/13	<0.36	37.7	5.4	42.0	36.1
02/24/14	<0.76	38.7	<4.7	49.8	39.3
02/04/15	**<0.33**	**9.8**	**<4.7**	**10.7**	**18.7**
MW-3					
02/09/13	<0.36	34.6	8.4	40.6	52.1
02/24/14	<0.76	30.3	6.0	38.3	41.6
02/04/15	**<0.33**	**5.7**	**<4.7**	**12.9**	**12.7**
MW-4					
02/09/13	0.49	54.7	17.5	145	664
02/24/14	<0.76	22.5	<4.7	57.6	69.9
02/04/15	**<0.33**	**8.8**	**<4.7**	**55.1**	**47.2**

EXPLANATIONS:

(µg/L) = Micrograms per liter

ANALYTICAL METHOD:

Metals by EPA Method 6010B

ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water

Table 6
Groundwater Analytical Results - PCBs
Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California

WELL ID/ DATE	PCB- 1016 (µg/L)	PCB- 1221 (µg/L)	PCB- 1232 (µg/L)	PCB- 1242 (µg/L)	PCB- 1248 (µg/L)	PCB- 1254 (µg/L)	PCB- 1260 (µg/L)
Groundwater ESL	**0.014**	**0.014**	**0.014**	**0.014**	**0.014**	**0.014**	**0.014**
MW-1							
05/10/12	<0.095	<0.05	<0.19	<0.095	<0.095	<0.095	<0.14

EXPLANATIONS:

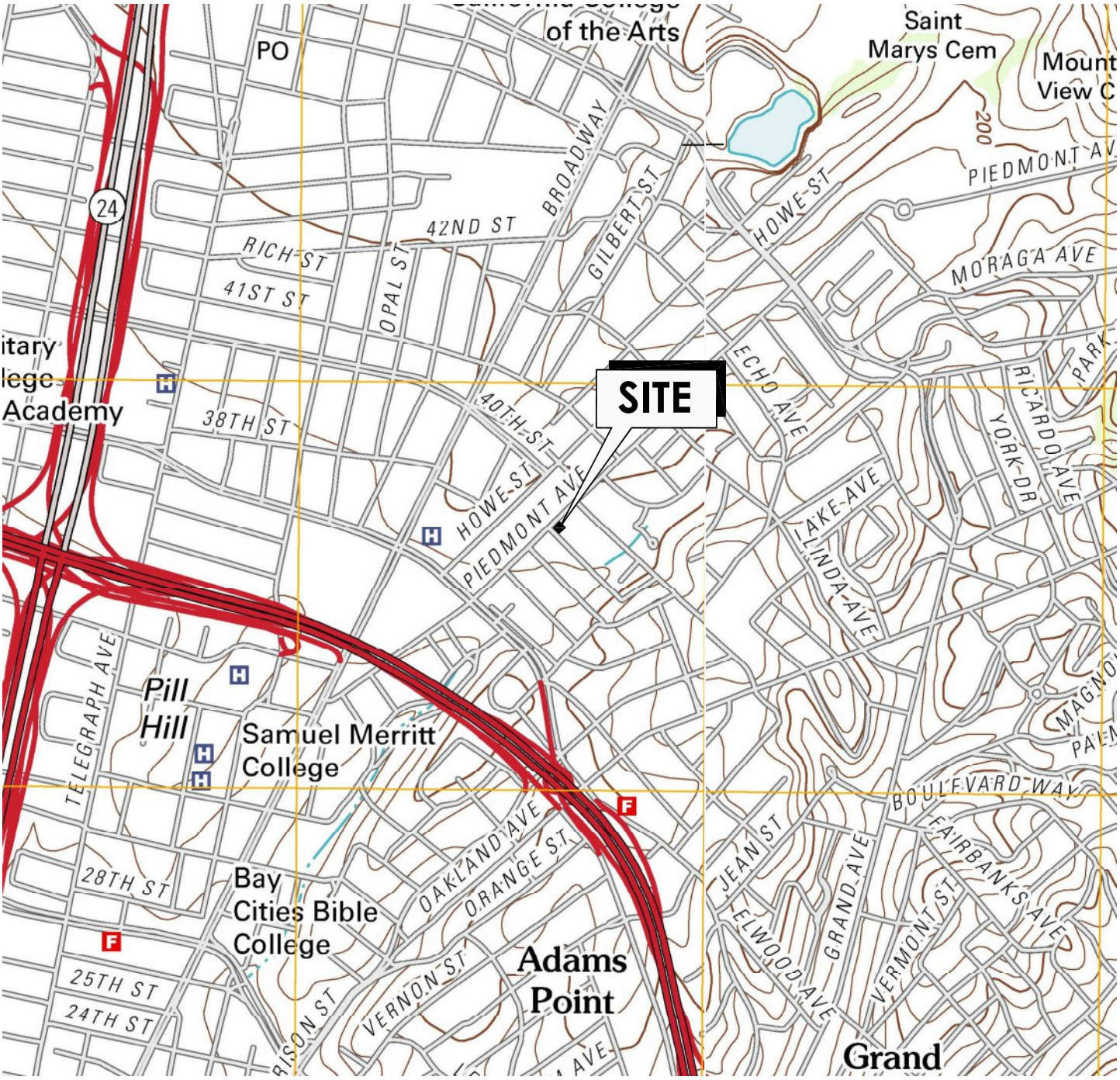
(µg/L) = Micrograms per liter
PCB = Polychlorinated Biphenyl

ESL = California Regional Water Quality Control Board - San Francisco Bay Region Environmental Screening Level for groundwater that is a current or potential source of drinking water

ANALYTICAL METHOD:

PCBs by EPA Method 8082

FIGURES



REFERENCE: USGS 7.5 MINUTE QUADRANGLES;
OAKLAND WEST, CALIFORNIA; 2012 AND OAKLAND EAST, CALIFORNIA; 2012

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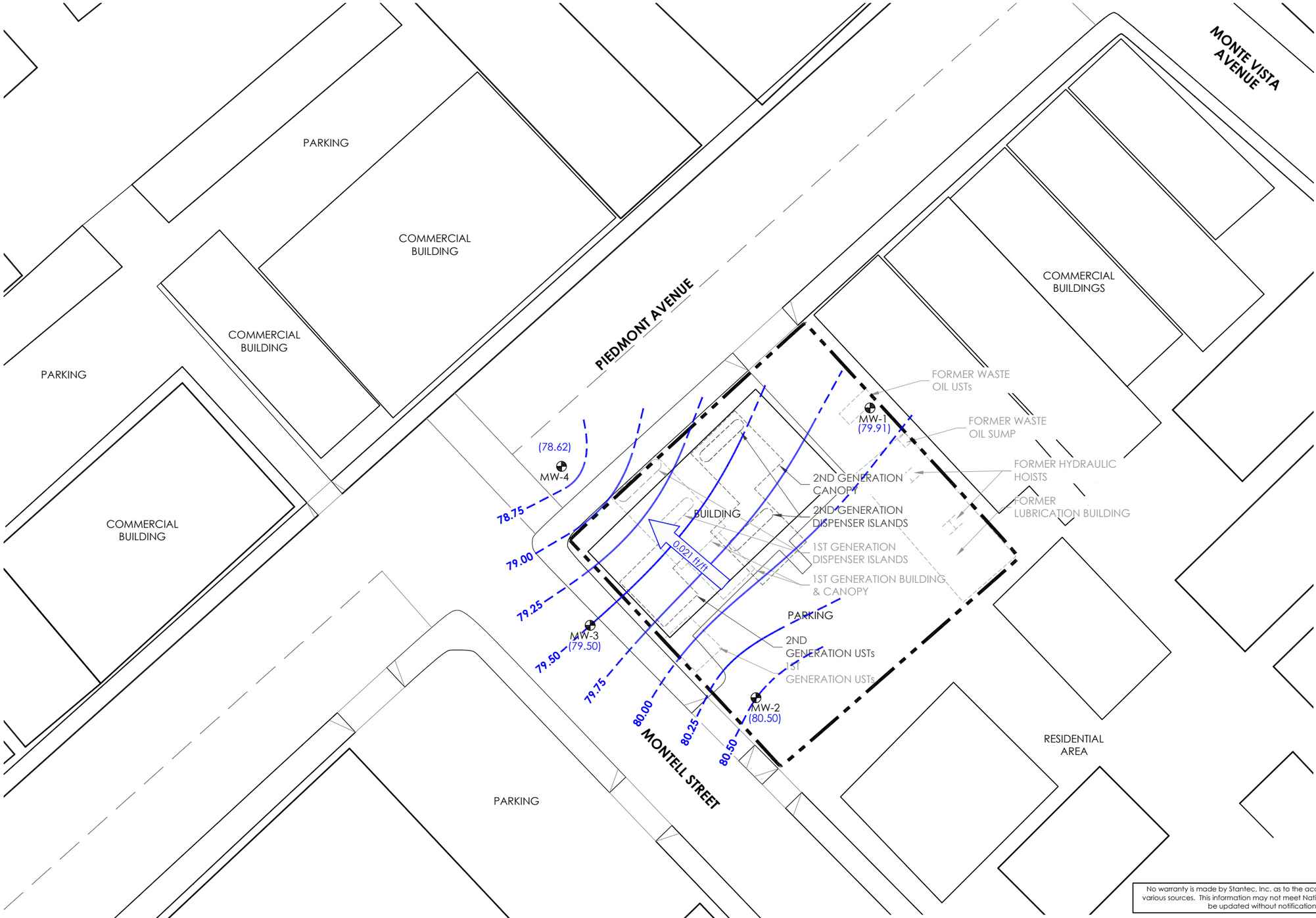
FOR:			FIGURE:
FORMER CHEVRON-BRANDED SERVICE STATION 90517 3900 PIEDMONT AVENUE OAKLAND, CALIFORNIA		SITE LOCATION MAP	1

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602403	JRO	EEO/MRK	TLF	02/27/15

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\90517\GWM\2015\1Q15\Figures\CAD\90517_1Q15.dwg | jopalekopsahl | Mar 03, 2015 at 11:51 | Layout: Fig 1_SLM



LEGEND

- APPROXIMATE SITE BOUNDARY
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- (79.91) — GROUNDWATER ELEVATION (FEET ABOVE MEAN SEA LEVEL)
- GROUNDWATER ELEVATION CONTOUR; DASHED WHERE INFERRED (FEET ABOVE MEAN SEA LEVEL)
- APPROXIMATE DIRECTION OF GROUNDWATER FLOW. HYDRAULIC GRADIENT IS APPROXIMATELY 0.021 FEET PER FOOT (ft/ft)

NOTES

GROUNDWATER ELEVATION DATA WERE COLLECTED ON FEBRUARY 4, 2015

GROUNDWATER CONTOURS WERE CREATED USING SURFER VERSION 11.6

N

0 30 60

APPROXIMATE SCALE IN FEET

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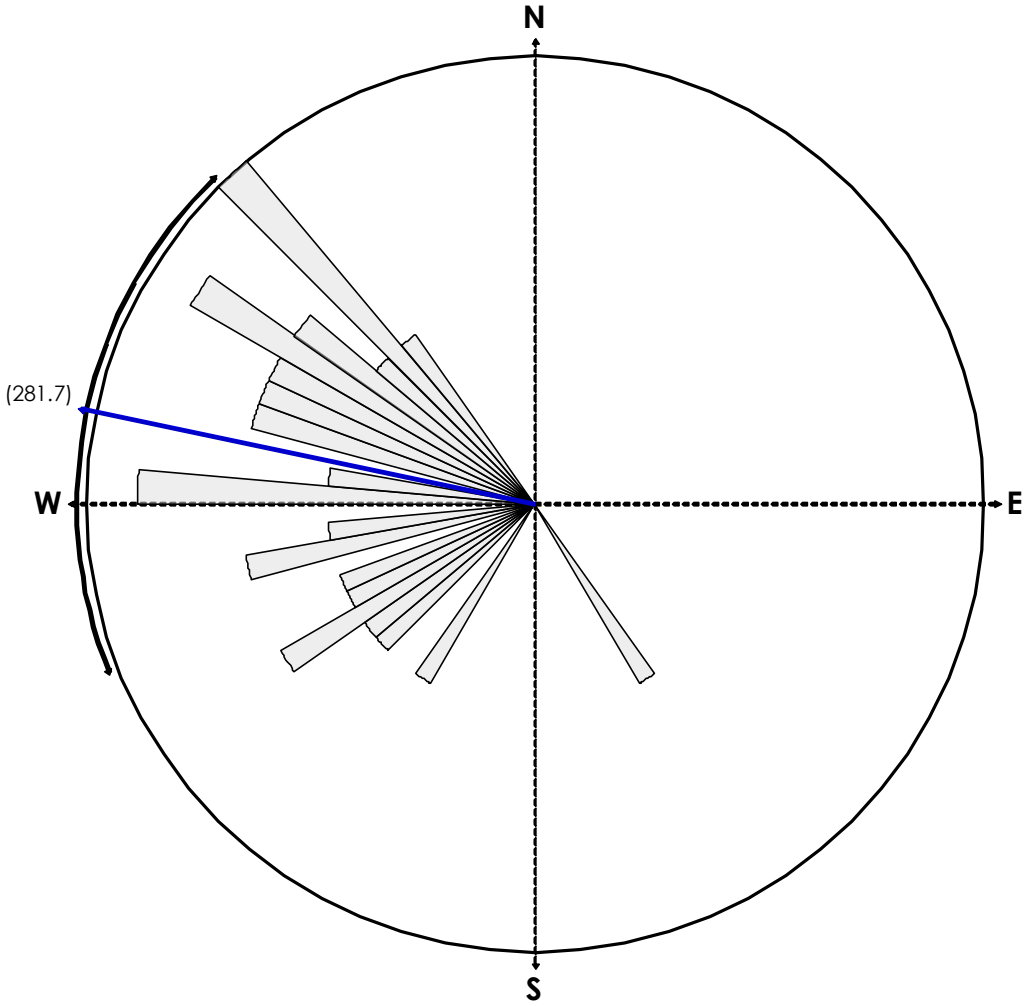
FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 90517
3900 PIEDMONT AVENUE
OAKLAND, CALIFORNIA

GROUNDWATER ELEVATION CONTOUR MAP - FIRST QUARTER 2015

FIGURE: 2

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602403	JRO	EEO/MRK	TLF	02/27/15

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\90517\GWM\2015\1Q15\Figures\CAD\90517_1Q15.dwg | jopalekopsahl | Mar 03, 2015 at 11:53 | Layout: Fig 2_GWE



EQUAL AREA PLOT

Number of Points	35
Class Size	5
Vector Mean	281.74
Vector Magnitude	28.86
Consistency Ratio	0.82

NOTE: ROSE DIAGRAM IS BASED ON THE DIRECTION OF GROUNDWATER FLOW BEGINNING THIRD QUARTER 1998.

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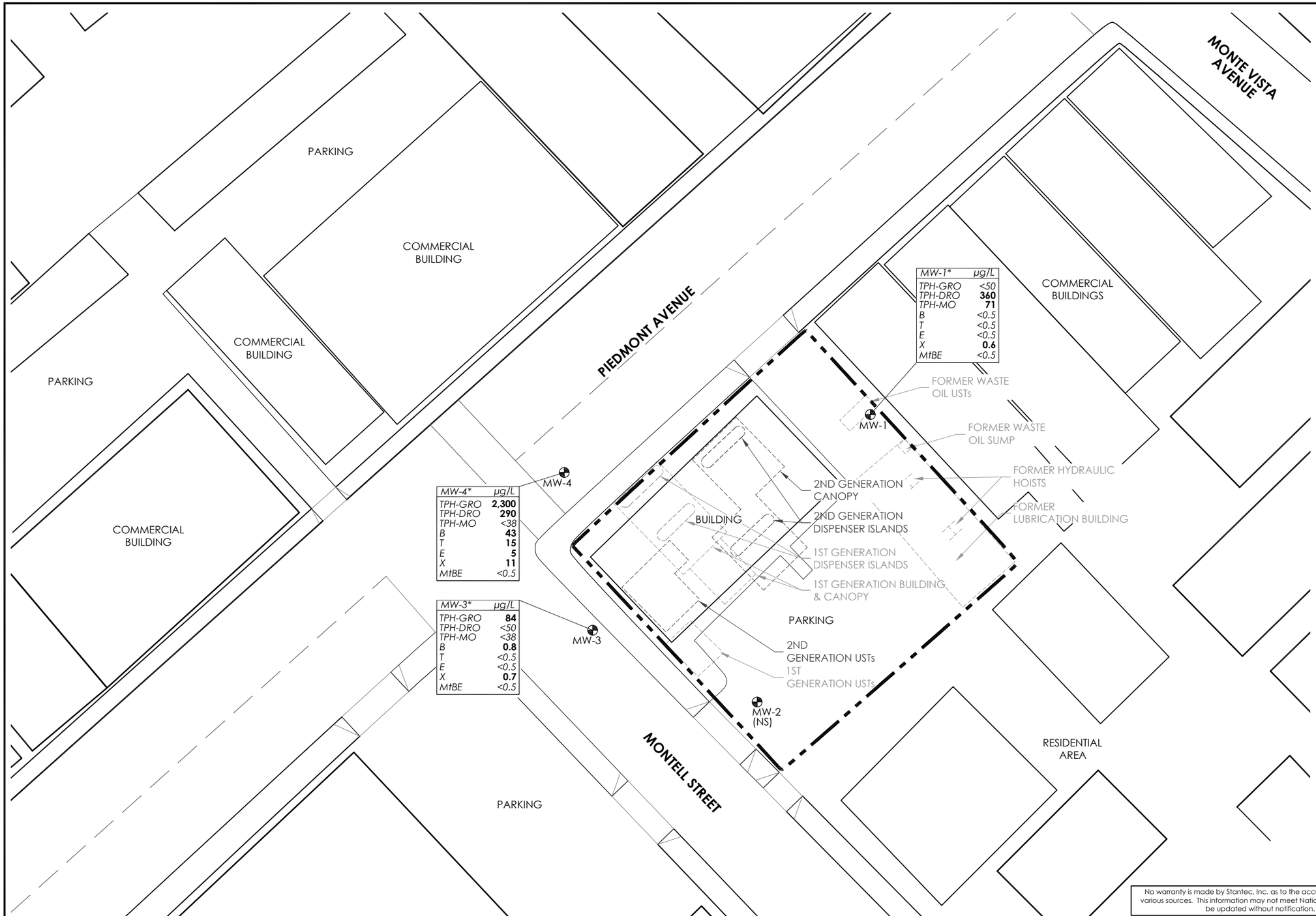
FOR:		GROUNDWATER FLOW DIRECTION ROSE DIAGRAM - FIRST QUARTER 2015		FIGURE:
FORMER CHEVRON-BRANDED SERVICE STATION 90517 3900 PIEDMONT AVENUE OAKLAND, CALIFORNIA				3
JOB NUMBER: 211602403	DRAWN BY: JRO	CHECKED BY: EEO/MRK	APPROVED BY: TLF	DATE: 02/27/15

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\90517\GWM\2015\1Q15\Figures\CAD\90517_1Q15.dwg | jopalekopsahl | Mar 03, 2015 at 11:56 | Layout: Fig 3_ROSE



LEGEND

- APPROXIMATE SITE BOUNDARY
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- (NS) — NOT SAMPLED

ANALYTES

- *TPH-GRO* — TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS
- *TPH-DRO* — TOTAL PETROLEUM HYDROCARBONS AS DIESEL RANGE ORGANICS
- *TPH-MO* — TOTAL PETROLEUM HYDROCARBONS AS MOTOR OIL
- *B* — BENZENE
- *T* — TOLUENE
- *E* — ETHYLBENZENE
- *X* — TOTAL XYLENES
- *MtBE* — METHYL TERTIARY-BUTYL ETHER

* = ADDITIONAL ANALYSES WERE RUN AND COMPLETE RESULTS ARE PRESENTED IN TABLES 3, 4, & 5 AND ATTACHMENT B

µg/L = MICROGRAMS PER LITER

NOTE

TPH-DRO AND TPH-MO RESULTS ARE WITH SILICA GEL CLEANUP

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FOR:
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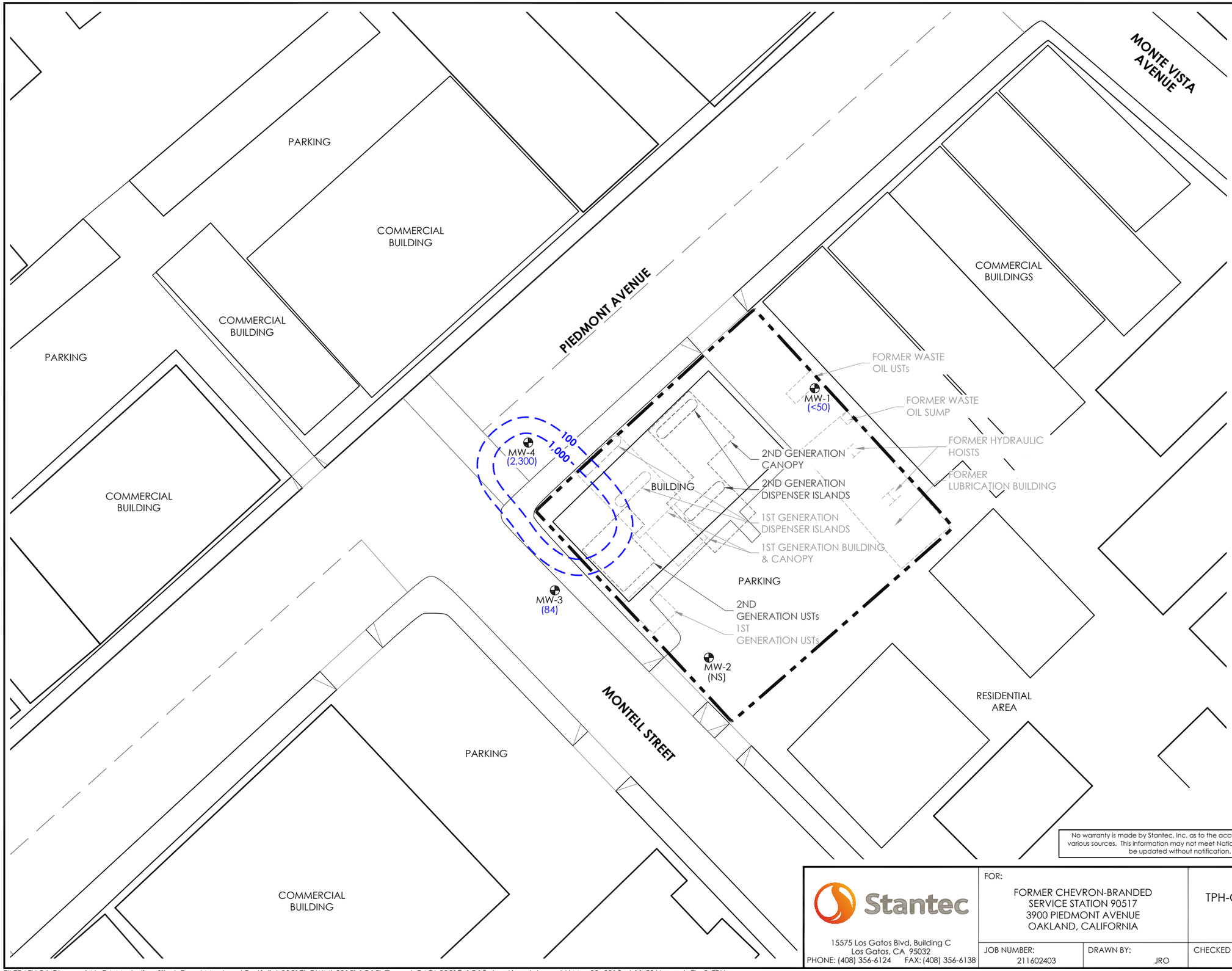
3900 PIEDMONT AVENUE
OAKLAND, CALIFORNIA

SITE PLAN SHOWING GROUNDWATER CONCENTRATIONS - FIRST QUARTER 2015

FIGURE: 4

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602403	JRO	EEO/MRK	TLF	02/27/15

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\90517\GWM\2015\1Q15\Figures\CAD\90517_1Q15.dwg | jopalekopsahl | Mar 03, 2015 at 11:59 | Layout: Fig 4_GWC



LEGEND

▬ · ▬	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
⊕	GROUNDWATER MONITORING WELL
(84)	TPH-GRO CONCENTRATION (µg/L)
———	TPH-GRO CONTOUR; DASHED WHERE INFERRED
(NS)	NOT SAMPLED
TPH-GRO	TOTAL PETROLEUM HYDROCARBONS AS GASOLINE RANGE ORGANICS
(µg/L)	MICROGRAMS PER LITER

N

0 30 60

APPROXIMATE SCALE IN FEET

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FOR:
FORMER CHEVRON-BRANDED SERVICE STATION 90517
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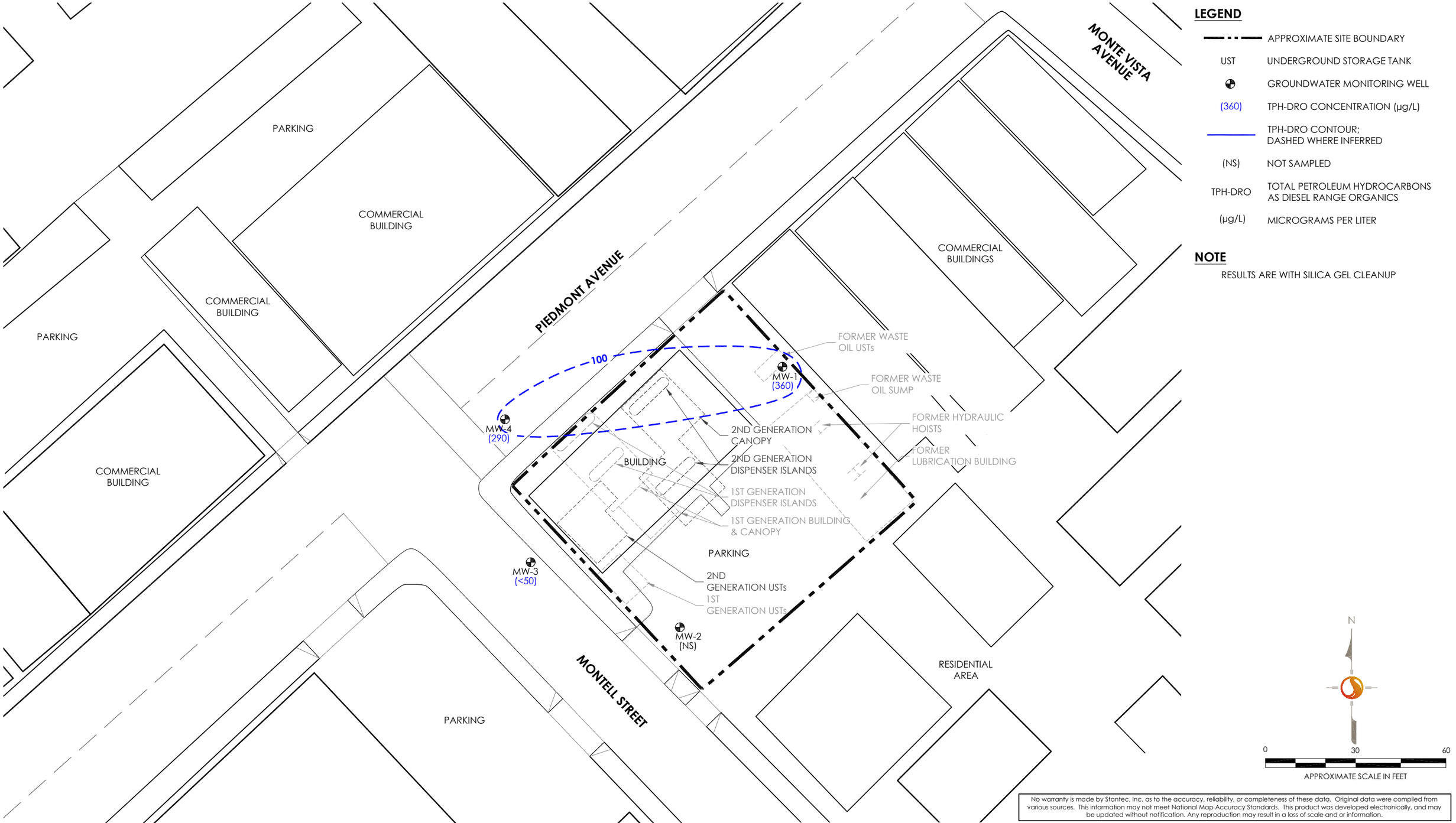
OAKLAND, CALIFORNIA

TPH-GRO ISOCONCENTRATION MAP - FIRST QUARTER 2015

FIGURE: 5

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602403	JRO	EEO/MRK	TLF	02/27/15

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\90517\GWM\2015\1Q15\Figures\CAD\90517_1Q15.dwg | jopalekopsahl | Mar 03, 2015 at 11:59 | Layout: Fig 5_TPHg



LEGEND

▬·▬	APPROXIMATE SITE BOUNDARY
UST	UNDERGROUND STORAGE TANK
⊕	GROUNDWATER MONITORING WELL
(360)	TPH-DRO CONCENTRATION (µg/L)
———	TPH-DRO CONTOUR; DASHED WHERE INFERRED
(NS)	NOT SAMPLED
TPH-DRO	TOTAL PETROLEUM HYDROCARBONS AS DIESEL RANGE ORGANICS
(µg/L)	MICROGRAMS PER LITER

NOTE

RESULTS ARE WITH SILICA GEL CLEANUP

N

0 30 60

APPROXIMATE SCALE IN FEET

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FOR:
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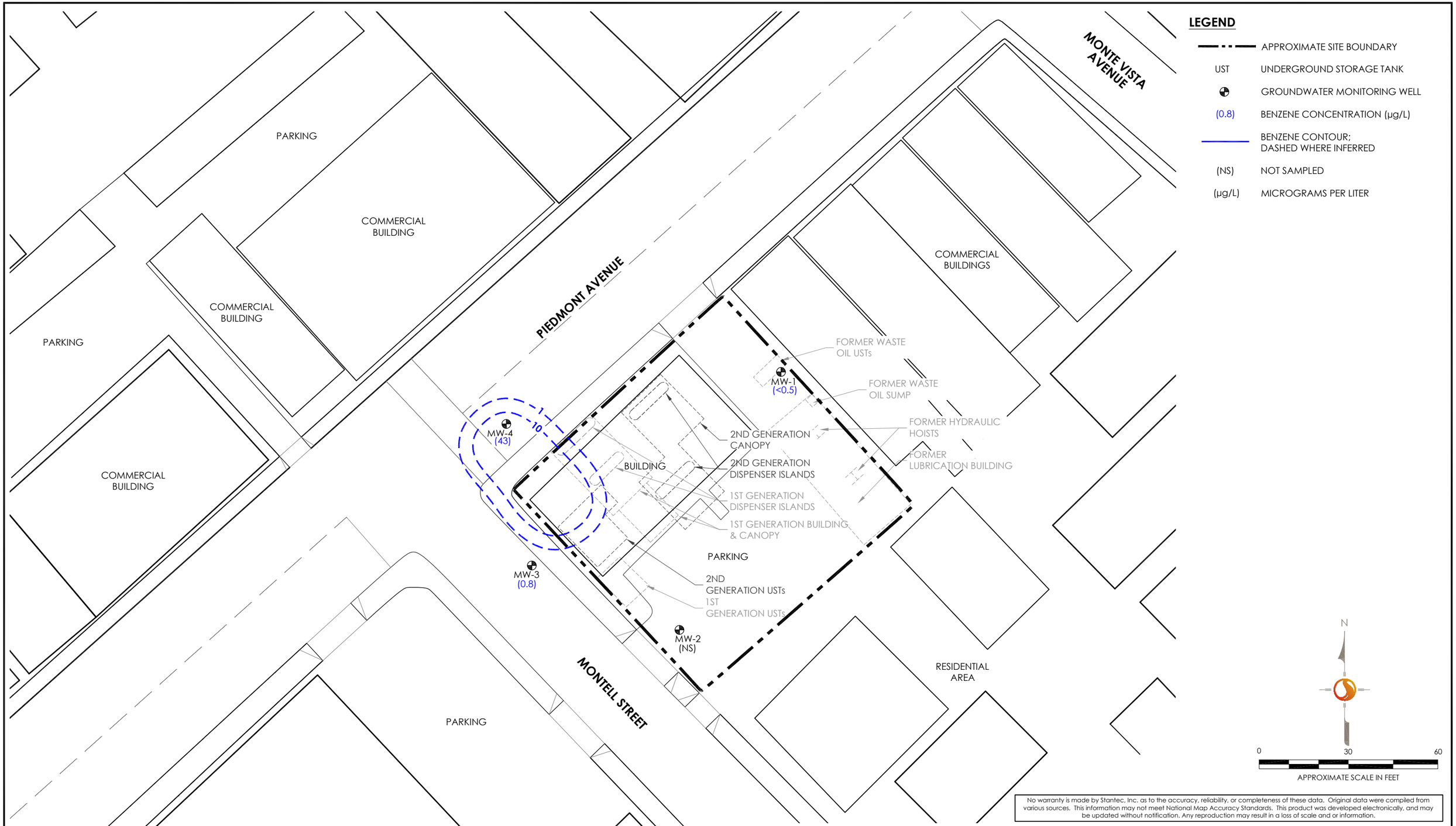
3900 PIEDMONT AVENUE
OAKLAND, CALIFORNIA

TPH-DRO ISOCONCENTRATION MAP - FIRST QUARTER 2015

FIGURE: 6

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602403	JRO	EEO/MRK	TLF	02/27/15

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\90517\GWM\2015\1Q15\Figures\CAD\90517_1Q15.dwg | jopalekopsahl | Mar 03, 2015 at 12:01 | Layout: Fig 6_TPHd



LEGEND

- APPROXIMATE SITE BOUNDARY
- UST — UNDERGROUND STORAGE TANK
- GROUNDWATER MONITORING WELL
- (0.8) — BENZENE CONCENTRATION (µg/L)
- BENZENE CONTOUR; DASHED WHERE INFERRED
- (NS) — NOT SAMPLED
- (µg/L) — MICROGRAMS PER LITER

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BENZENE ISOCONCENTRATION MAP - FIRST QUARTER 2015

FIGURE: 7

JOB NUMBER:	DRAWN BY:	CHECKED BY:	APPROVED BY:	DATE:
211602403	JRO	EEO/MRK	TLF	02/27/15

FILEPATH:P:\Chevron\N. CA Marketing Sites\Carryl MacLeod Portfolio\90517\GWM\2015\1Q15\Figures\CAD\90517_1Q15.dwg | jopalekopsahl | Mar 03, 2015 at 13:58 | Layout: Fig 7_BZN

ATTACHMENT A
Gettler-Ryan Inc. Field Data Sheets and Standard Operating Procedures – First Quarter 2015

GETTLER-RYAN INC.

TRANSMITTAL

February 13, 2015
G-R #386420

TO: Mr. Travis Flora
Stantec
15575 Los Gatos Blvd., Building C
Los Gatos, California 95032

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6805 Sierra Court, Ste. G
Dublin, California 94568

RE: Former Chevron Service Station
#9-0517
3900 Piedmont Avenue
Oakland, California
RO 0000138

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package **Annual Event of February 4, 2015**

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/9-0517

WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #9-0517
Site Address: 3900 Piedmont Avenue
City: Oakland, CA

Job #: 386420
Event Date: 2/4/15
Sampler: JH

WELL ID	Vault Frame Condition	Gasket/ O-Ring (M)missing	BOLTS (M) Missing (R) Replaced	Bolt Flanges B= Broken S= Stripped R=Retap	APRON Condition C=Cracked B=Broken G=Gone	Grout Seal (Deficient) inches from TOC	Casing (Condition prevents tight cap seal)	REPLACE LOCK Y / N	REPLACE CAP Y / N	WELL VAULT Manufacture/Size/ # of Bolts	Pictures Taken Yes / No
MW-1	o/c	—	—	—	—	—	→	N	N	8" 13L	N
MW-2	o/c	—	—	—	—	—	→	↓	↓	↓	↓
MW-3	o/c	—	—	—	—	—	→	↓	↓	↓	↓
MW-4	o/c	—	—	—	—	—	→	↓	↓	8" Morrison	↓

Comments

Standard Operating Procedure, Low-Flow Purging and Sampling

Gettler-Ryan Inc. field personnel adhere to the following Standard Operating Procedure (SOP) for the collection and handling of representative groundwater samples using the Low-Flow (Minimal-Drawdown) Purging technique. This SOP incorporates purging and sampling methods discussed in U.S. EPA, Ground Water Issue, Publication Number EPA/540/S-95/504, April 1996 by Puls, R.W. and M.J. Barcelona - *"Low-Flow (Minimal-Drawdown) Ground-Water Sampling Procedures."*

A QED Well Wizard™ (or equivalent) bladder pump or Peristaltic Pump will be used to purge and sample selected wells as outlined in the scope-of-work. An in-line flow cell or other multi-parameter meter is used to collect water quality indicating parameters during purging.

Initial Pump Discharge Test Procedures

The Static Water Level (SWL) is measured in all wells at the site prior to the installation of the pump or tubing and initiation of the test procedures in any well. In addition, the presence or absence of separate-phase hydrocarbons (SPH) is determined using an interface probe. Product thickness, if present, is measured to the nearest 0.01 foot. The SWL measurement and SPH thickness, if any, will be recorded on the field data sheet.

The bladder pump or suction inlet tubing of the peristaltic pump is then positioned with its inlet located within the screened interval of the well. The in-line flow cell is then connected to the discharge tubing. After pump installation, the SWL is allowed to recover to its original level. The pump is then started at a discharge rate between 100 ml to 300 ml per minute with the in-line flow cell connected. The water level is monitored continuously for any change from the original measurement and the discharge rate is adjusted until an optimum discharge rate (ODR) is determined. The goal for the ODR is to produce a stable drawdown of less than 0.1 meter as allowed by site conditions; however the total drawdown from the initial SWL should not exceed 25% of the distance between pump inlet location and the top of the well screen. Once achieved, the ODR will be confirmed by volumetric discharge measurement and recorded on the field data sheet.

Purging and Water Quality Parameter Measurement

When the ODR has been determined and the SWL drawdown has been established within the acceptable range, and a minimum of one pump system volume (bladder volume and/or discharge tubing volume) has been purged, field measurements for temperature (T), pH, conductivity (Ec), and if required, oxygen reduction potential (ORP) and dissolved oxygen (DO) will be collected and documented on the field data sheet. Measurements should be taken every three to five minutes until parameters stabilize for three consecutive readings. The minimum parameter subset of T (± 10%), pH (± 0.1 unit), and Ec (± 10 uS) are required to stabilize. Additional parameters that may be required are DO (± 0.2 mg/l) and ORP (± 20 mV).

Sample Collection

When water quality parameters have stabilized, and the SWL drawdown remains established within the acceptable range, groundwater sample collection may begin. If used, the in-line flow cell and its tubing are disconnected from the discharge tubing prior to sample collection. Water samples are collected from the discharge tubing into appropriate containers. Pre-preserved containers, supplied by analytical laboratories, are used when possible. 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. 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. 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.

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.

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #9-0517 Job Number: 386420
Site Address: 3900 Piedmont Avenue Event Date: 2/4/15 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-1 Date Monitored: 2/4/15
Well Diameter 2 in.
Total Depth 16.62 ft.
Depth to Water 7.98 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

8.64 xVF ~ = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.70

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump X
QED Bladder Pump

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump X
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr

Start Time (purge): 1145 Weather Conditions: Cloudy
Sample Time/Date: 1235 / 2/4/15 Water Color: Cloudy Odor: (Y) / N Low
Approx. Flow Rate: 200 ml/m lpm. Sediment Description: Low
Did well de-water? No If yes, Time: Volume: ltr. DTW @ Sampling: 8.34

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS/ mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1203	3.6	7.59	739	19.5			8.07
1206	4.2	7.82	745	19.4			8.19
1209	4.8	7.48	753	19.3			8.34

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/ FULL SCAN VOC's(8260B)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN
	2 x 1 liter ambers	YES	NP	LANCASTER	TPH-MO w/sgc COLUMN
	1 x 250ml poly	YES	HNO3	LANCASTER	CAM 5 METALS(6010B)

COMMENTS: DEPTH PUMP SET AT: 9.00

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #9-0517 Job Number: 386420
Site Address: 3900 Piedmont Avenue Event Date: 2/4/15 (inclusive)
City: Oakland, CA Sampler: JH

Well ID MW-2 Date Monitored: 2/4/15
Well Diameter 2 in.
Total Depth 16.50 ft.
Depth to Water 5.59 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

☐ Check if water column is less then 0.50 ft.

10.91 xVF ___ = ___ x3 case volume = Estimated Purge Volume: ___ gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: ___

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump
QED Bladder Pump

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump
QED Bladder Pump
Other: ___

Time Started: ___ (2400 hrs)
Time Completed: ___ (2400 hrs)
Depth to Product: ___ ft
Depth to Water: ___ ft
Hydrocarbon Thickness: ___ ft
Visual Confirmation/Description: ___
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ___ ltr
Amt Removed from Well: ___ ltr
Water Removed: ___ ltr

Start Time (purge): ___ Weather Conditions: ___
Sample Time/Date: ___ / ___ Water Color: ___ Odor: Y / N ___
Approx. Flow Rate: ___ lpm. Sediment Description: ___
Did well de-water? ___ If yes, Time: ___ Volume: ___ ltr. DTW @ Sampling: ___

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/ FULL SCAN VOC's(8260B)
	x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN
	x 1 liter ambers	YES	NP	LANCASTER	TPH-MO w/sgc COLUMN
	x 250ml poly	YES	HNO3	LANCASTER	CAM 5 METALS(6010B)

COMMENTS: DEPTH PUMP SET AT: M/O

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: Chevron #9-0517 | Job Number: 386420
Site Address: 3900 Piedmont Avenue | Event Date: 2/4/15 (inclusive)
City: Oakland, CA | Sampler: JH

Well ID: MW-3 | Date Monitored: 2/4/15
Well Diameter: 2 in.
Total Depth: 17.71 ft.
Depth to Water: 6.78 ft. ☐ Check if water column is less then 0.50 ft.

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

10.93 xVF — = — x3 case volume = Estimated Purge Volume: — gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.96

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump X
QED Bladder Pump

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump X
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr

Start Time (purge): 1250 | Weather Conditions: Cloudy
Sample Time/Date: 1335 / 2/4/15 | Water Color: Cloudy Odor: Y / (N)
Approx. Flow Rate: 200 ml/m lpm. | Sediment Description: No H2O
Did well de-water? no If yes, Time: Volume: ltr. DTW @ Sampling: 7.18

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1308	3.6	7.73	622	19.5			6.91
1311	4.2	7.76	628	19.4			7.05
1314	4.8	7.84	641	19.2			7.18

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/ FULL SCAN VOC's(8260B)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN
	2 x 1 liter ambers	YES	NP	LANCASTER	TPH-MO w/sgc COLUMN
	1 x 250ml poly	YES	HNO3	LANCASTER	CAM 5 METALS(6010B)

COMMENTS: DEPTH PUMP SET AT: 8.00

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

GETTLER-RYAN INC.

WELL MONITORING/SAMPLING
LOW FLOW FIELD DATA SHEET

Client/Facility#: **Chevron #9-0517** Job Number: **386420**
Site Address: **3900 Piedmont Avenue** Event Date: 2/4/15 (inclusive)
City: **Oakland, CA** Sampler: JH

Well ID: MW-4 Date Monitored: 2/4/15
Well Diameter: 2 in.
Total Depth: 16.25 ft.
Depth to Water: 8.60 ft. ☐ Check if water column is less then 0.50 ft.
7.65 xVF — = — x3 case volume = Estimated Purge Volume: — gal.
Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.13

Volume Factor (VF)	3/4"= 0.02	1"= 0.04	2"= 0.17	3"= 0.38
	4"= 0.66	5"= 1.02	6"= 1.50	12"= 5.80

Purge Equipment:
Disposable Bailer
Stainless Steel Bailer
Stack Pump
Peristaltic Pump X
QED Bladder Pump

Sampling Equipment:
Disposable Bailer
Pressure Bailer
Metal Filters
Peristaltic Pump X
QED Bladder Pump
Other:

Time Started: (2400 hrs)
Time Completed: (2400 hrs)
Depth to Product: ft
Depth to Water: ft
Hydrocarbon Thickness: ft
Visual Confirmation/Description:
Skimmer / Absorbant Sock (circle one)
Amt Removed from Skimmer: ltr
Amt Removed from Well: ltr
Water Removed: ltr

Start Time (purge): 1345 Weather Conditions: Cloudy
Sample Time/Date: 1430 / 2/4/15 Water Color: Cloudy Odor: Y / N
Approx. Flow Rate: 200 m lpm. Sediment Description: Light
Did well de-water? NO If yes, Time: Volume: ltr. DTW @ Sampling: 8.58

Time (2400 hr.)	Volume (Liters)	pH	Conductivity (µS / mS µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)	Gauge DTW as parameters are recorded
1403	3.6	6.96	681	19.5			8.72
1406	4.2	6.85	695	19.3			8.85
1409	4.8	6.82	703	19.1			8.98

LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	6 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8260)/ FULL SCAN VOC's(8260B)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc COLUMN
	2 x 1 liter ambers	YES	NP	LANCASTER	TPH-MO w/sgc COLUMN
	1 x 250ml poly	YES	HNO3	LANCASTER	CAM 5 METALS(6010B)

COMMENTS: DEPTH PUMP SET AT: 9.50

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

Chevron California Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

For Eurofins Lancaster Laboratories use only
Acct. # ______ Group # ______ Sample # ______
Instructions on reverse side correspond with circled numbers.

SCR #: ______

1 Client Information

Facility # / WBS: SS#9-0517-OML G-R#386420 Global ID#T0600102248

Site Address: 3900 PIEDMONT AVENUE, OAKLAND, CA

Chevron PM: CM STANTECTF   Lead Consultant: Firm

Consultant/Office: Gettler-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568

Consultant Project Mgr.: Deanna L. Harding, deanna@grinc.com

Consultant Phone #: (925) 551-7444 x180

Sampler:

4 Matrix: Sediment ☐ Ground ☒ Surface ☐ (Water); Potable ☐ NPDES ☐ Air ☐

5 Analyses Requested: BTEX + MTBE 8260 ☒ 8021 ☐; TPH-GRO 8260 ☐ 8015 ☒; TPH-DRO 8015 without Silica Gel Cleanup ☐; TPH-DRO 8015 with Silica Gel Cleanup ☒ (column)

2 Sample Identification	Soil Depth	Collected Date	Collected Time	3 Grab	Composite	Soil	Water	Oil	Total Number of Containers	BTEX + MTBE	TPH-GRO	TPH-DRO 8015 without Silica Gel Cleanup	TPH-DRO 8015 with Silica Gel Cleanup	8260 Full Scan	Oxygenates	Total Lead Method	Dissolved Lead Method	TPH-MO w/SGC column (8015)	CAM 5 metals (6010B)		
QA		2/4/15		X			X		2	X	X										
MW-1		↓	1235	↓			↓		11	X	X		X	X				X	X		
MW-3		↓	1325 (circled)	↓			↓		↓	X	X		X	X				X	X		
MW-4		↓	1430	↓			↓		↓	X	X		X	X				X	X		

☐ Results in Dry Weight
☐ J value reporting needed
☒ Must meet lowest detection limits possible for 8260 compounds
☐ 8021 MTBE Confirmation
☐ Confirm highest hit by 8260
☐ Confirm all hits by 8260
☐ Run ______ oxy's on highest hit
☐ Run ______ oxy's on all hits

6 Remarks

MW-3 collection time is 1335, not 1325 JMM 2/12/15

7 Turnaround Time Requested (TAT) (please circle)

Standard (circled) | 5 day | 4 day
72 hour | 48 hour | 24 hour

EDF/EDD

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
EDFFLAT (default)
Other: ______

Relinquished by	Date	Time	Received by	Date	Time
[signature]	2/4/15		[signature]	2/4/15	1500
Relinquished by	Date	Time	Received by	Date	Time

Relinquished by Commercial Carrier:
UPS ______ FedEx ______ Other ______
Received by ______ Date ______ Time ______

Temperature Upon Receipt ______ °C

Custody Seals Intact? Yes No

9

Eurofins Lancaster Laboratories, Inc. • 2425 New Holland Pike, Lancaster, PA 17601 • 717-656-2300
The white copy should accompany samples to Eurofins Lancaster Laboratories. The yellow copy should be retained by the client.

Issued by Dept. 40 Management
7050.03

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

ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

February 16, 2015

Project: 90517

Submittal Date: 02/05/2015
Group Number: 1536154
PO Number: 0015141332
Release Number: CMACLEOD

State of Sample Origin: CA

Client Sample Description	Lancaster Labs (LL) #
QA-T-150204 NA Water	7761846
MW-1-W-150204 Grab Groundwater	7761847
MW-3-W-150204 Grab Groundwater	7761848
MW-4-W-150204 Grab Groundwater	7761849

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 scopes of accreditation can be viewed at http://www.eurofinsus.com/environment-testing/laboratories/eurofins-lancaster-laboratories-environmental/resources/certifications/ .

ELECTRONIC COPY TO	Gettler-Ryan Inc.	Attn: Gettler Ryan
ELECTRONIC COPY TO	Stantec	Attn: Laura Viesselman
ELECTRONIC COPY TO	Stantec	Attn: Erin O'Malley
ELECTRONIC COPY TO	Stantec	Attn: Marisa Kaffenberger
ELECTRONIC COPY TO	Stantec International	Attn: Travis Flora

Respectfully Submitted,

Amek Carter
Specialist

(717) 556-7252

Sample Description: QA-T-150204 NA Water
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761846
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAOQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10945	Benzene	71-43-2	N.D.	0.5	1
10945	Ethylbenzene	100-41-4	N.D.	0.5	1
10945	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 Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1

General 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	P150392AA	02/08/2015 12:34	Sarah A Guill	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	P150392AA	02/08/2015 12:34	Sarah A Guill	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15040B20A	02/10/2015 11:54	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15040B20A	02/10/2015 11:54	Brett W Kenyon	1

Sample Description: MW-1-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761847
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 12:35 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	N.D.	6	1
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10335	Benzene	71-43-2	N.D.	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.				
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethanol	64-17-5	N.D.	50	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1

Sample Description: MW-1-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761847
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 12:35 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Isopropylbenzene	98-82-8	N.D.	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	N.D.	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	0.6	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	360	50	1
	The reverse surrogate, capric acid, is present at <1%.				
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B modified**		**ug/l**	**ug/l**	
10006	Motor Oil C16-C36 w/Si Gel	n.a.	71	40	1
10006	Total TPH w/Si Gel	n.a.	71	40	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.				
Metals	**SW-846 6010B**		**ug/l**	**ug/l**	
07049	Cadmium	7440-43-9	N.D.	0.33	1
07051	Chromium	7440-47-3	9.8	1.3	1
07055	Lead	7439-92-1	N.D.	4.7	1
07061	Nickel	7440-02-0	10.7	1.6	1
07072	Zinc	7440-66-6	18.7	2.0	1

Sample Description: MW-1-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761847
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 12:35 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO01

General 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
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	W150411AA	02/10/2015 23:03	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W150411AA	02/10/2015 23:03	Amanda K Richards	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15040B20A	02/10/2015 12:48	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15040B20A	02/10/2015 12:48	Brett W Kenyon	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	150370006A	02/09/2015 21:08	Christine E Dolman	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	150370026A	02/12/2015 01:14	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	150370006A	02/07/2015 07:30	Olivia Arosemena	1
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	150370026A	02/09/2015 11:00	Denise L Trimby	1
07049	Cadmium	SW-846 6010B	1	150371848001	02/09/2015 04:51	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	150371848001	02/09/2015 04:51	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	150371848001	02/09/2015 04:51	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	150371848001	02/09/2015 04:51	Tara L Snyder	1
07072	Zinc	SW-846 6010B	1	150371848001	02/09/2015 04:51	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150371848001	02/08/2015 11:04	James L Mertz	1

Sample Description: MW-3-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761848
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 13:25 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	N.D.	6	1
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10335	Benzene	71-43-2	0.8	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	1
10335	n-Butylbenzene	104-51-8	N.D.	1	1
10335	sec-Butylbenzene	135-98-8	N.D.	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.				
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethanol	64-17-5	N.D.	50	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	N.D.	0.5	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1

Sample Description: MW-3-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761848
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 13:25 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO03

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Isopropylbenzene	98-82-8	1	1	1
10335	p-Isopropyltoluene	99-87-6	N.D.	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	N.D.	1	1
10335	n-Propylbenzene	103-65-1	2	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	N.D.	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	0.7	0.5	1
10335	o-Xylene	95-47-6	N.D.	0.5	1
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	84	50	1
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
	The reverse surrogate, capric acid, is present at <1%.				
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B modified**		**ug/l**	**ug/l**	
10006	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	38	1
10006	Total TPH w/Si Gel	n.a.	N.D.	38	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.				
Metals	**SW-846 6010B**		**ug/l**	**ug/l**	
07049	Cadmium	7440-43-9	N.D.	0.33	1
07051	Chromium	7440-47-3	5.7	1.3	1
07055	Lead	7439-92-1	N.D.	4.7	1
07061	Nickel	7440-02-0	12.9	1.6	1
07072	Zinc	7440-66-6	12.7	2.0	1

Sample Description: MW-3-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761848
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 13:25 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO03

General 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
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	W150411AA	02/11/2015 00:13	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W150411AA	02/11/2015 00:13	Amanda K Richards	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15040B20A	02/10/2015 13:16	Brett W Kenyon	1
01146	GC VOA Water Prep	SW-846 5030B	1	15040B20A	02/10/2015 13:16	Brett W Kenyon	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	150370006A	02/09/2015 21:30	Christine E Dolman	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	150370026A	02/12/2015 01:35	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	150370006A	02/07/2015 07:30	Olivia Arosemena	1
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	150370026A	02/09/2015 11:00	Denise L Trimby	1
07049	Cadmium	SW-846 6010B	1	150371848001	02/09/2015 04:55	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	150371848001	02/09/2015 04:55	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	150371848001	02/09/2015 04:55	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	150371848001	02/09/2015 04:55	Tara L Snyder	1
07072	Zinc	SW-846 6010B	1	150371848001	02/09/2015 04:55	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150371848001	02/08/2015 11:04	James L Mertz	1

Sample Description: MW-4-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761849
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 14:30 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Acetone	67-64-1	12	6	1
10335	t-Amyl methyl ether	994-05-8	N.D.	0.5	1
10335	Benzene	71-43-2	43	0.5	1
10335	Bromobenzene	108-86-1	N.D.	1	1
10335	Bromochloromethane	74-97-5	N.D.	1	1
10335	Bromodichloromethane	75-27-4	N.D.	0.5	1
10335	Bromoform	75-25-2	N.D.	0.5	1
10335	Bromomethane	74-83-9	N.D.	0.5	1
10335	2-Butanone	78-93-3	N.D.	3	1
10335	t-Butyl alcohol	75-65-0	N.D.	5	1
10335	n-Butylbenzene	104-51-8	2	1	1
10335	sec-Butylbenzene	135-98-8	4	1	1
10335	tert-Butylbenzene	98-06-6	N.D.	1	1
10335	Carbon Disulfide	75-15-0	N.D.	1	1
10335	Carbon Tetrachloride	56-23-5	N.D.	0.5	1
10335	Chlorobenzene	108-90-7	N.D.	0.5	1
10335	Chloroethane	75-00-3	N.D.	0.5	1
10335	2-Chloroethyl Vinyl Ether	110-75-8	N.D.	2	1
	2-Chloroethyl vinyl ether may not be recovered if acid was used to preserve this sample.				
10335	Chloroform	67-66-3	N.D.	0.5	1
10335	Chloromethane	74-87-3	N.D.	0.5	1
10335	2-Chlorotoluene	95-49-8	N.D.	1	1
10335	4-Chlorotoluene	106-43-4	N.D.	1	1
10335	1,2-Dibromo-3-chloropropane	96-12-8	N.D.	2	1
10335	Dibromochloromethane	124-48-1	N.D.	0.5	1
10335	1,2-Dibromoethane	106-93-4	N.D.	0.5	1
10335	Dibromomethane	74-95-3	N.D.	0.5	1
10335	1,2-Dichlorobenzene	95-50-1	N.D.	1	1
10335	1,3-Dichlorobenzene	541-73-1	N.D.	1	1
10335	1,4-Dichlorobenzene	106-46-7	N.D.	1	1
10335	Dichlorodifluoromethane	75-71-8	N.D.	0.5	1
10335	1,1-Dichloroethane	75-34-3	N.D.	0.5	1
10335	1,2-Dichloroethane	107-06-2	N.D.	0.5	1
10335	1,1-Dichloroethene	75-35-4	N.D.	0.5	1
10335	cis-1,2-Dichloroethene	156-59-2	N.D.	0.5	1
10335	trans-1,2-Dichloroethene	156-60-5	N.D.	0.5	1
10335	1,2-Dichloropropane	78-87-5	N.D.	0.5	1
10335	1,3-Dichloropropane	142-28-9	N.D.	0.5	1
10335	2,2-Dichloropropane	594-20-7	N.D.	0.5	1
10335	1,1-Dichloropropene	563-58-6	N.D.	1	1
10335	cis-1,3-Dichloropropene	10061-01-5	N.D.	0.5	1
10335	trans-1,3-Dichloropropene	10061-02-6	N.D.	0.5	1
10335	Ethanol	64-17-5	N.D.	50	1
10335	Ethyl t-butyl ether	637-92-3	N.D.	0.5	1
10335	Ethylbenzene	100-41-4	5	0.5	1
10335	Freon 113	76-13-1	N.D.	2	1
10335	Hexachlorobutadiene	87-68-3	N.D.	2	1
10335	2-Hexanone	591-78-6	N.D.	3	1
10335	di-Isopropyl ether	108-20-3	N.D.	0.5	1

Sample Description: MW-4-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761849
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 14:30 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
GC/MS Volatiles	**SW-846 8260B**		**ug/l**	**ug/l**	
10335	Isopropylbenzene	98-82-8	24	1	1
10335	p-Isopropyltoluene	99-87-6	2	1	1
10335	Methyl Tertiary Butyl Ether	1634-04-4	N.D.	0.5	1
10335	4-Methyl-2-pentanone	108-10-1	N.D.	3	1
10335	Methylene Chloride	75-09-2	N.D.	2	1
10335	Naphthalene	91-20-3	1	1	1
10335	n-Propylbenzene	103-65-1	18	1	1
10335	Styrene	100-42-5	N.D.	1	1
10335	1,1,1,2-Tetrachloroethane	630-20-6	N.D.	0.5	1
10335	1,1,2,2-Tetrachloroethane	79-34-5	N.D.	0.5	1
10335	Tetrachloroethene	127-18-4	N.D.	0.5	1
10335	Toluene	108-88-3	15	0.5	1
10335	1,2,3-Trichlorobenzene	87-61-6	N.D.	1	1
10335	1,2,4-Trichlorobenzene	120-82-1	N.D.	1	1
10335	1,1,1-Trichloroethane	71-55-6	N.D.	0.5	1
10335	1,1,2-Trichloroethane	79-00-5	N.D.	0.5	1
10335	Trichloroethene	79-01-6	N.D.	0.5	1
10335	Trichlorofluoromethane	75-69-4	N.D.	0.5	1
10335	1,2,3-Trichloropropane	96-18-4	N.D.	1	1
10335	1,2,4-Trimethylbenzene	95-63-6	N.D.	1	1
10335	1,3,5-Trimethylbenzene	108-67-8	N.D.	1	1
10335	Vinyl Chloride	75-01-4	N.D.	0.5	1
10335	m+p-Xylene	179601-23-1	9	0.5	1
10335	o-Xylene	95-47-6	2	0.5	1
	The LCS and/or LCSD recoveries are outside the stated QC window but within the marginal exceedance allowance of +/- 4 standard deviations as defined in the NELAC Standards. The following analytes are accepted based on this allowance: Acetone				
GC Volatiles	**SW-846 8015B**		**ug/l**	**ug/l**	
01728	TPH-GRO N. CA water C6-C12	n.a.	2,300	250	5
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B**		**ug/l**	**ug/l**	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	290	50	1
	The reverse surrogate, capric acid, is present at <1%.				
GC Petroleum Hydrocarbons w/Si	**SW-846 8015B modified**		**ug/l**	**ug/l**	
10006	Motor Oil C16-C36 w/Si Gel	n.a.	N.D.	38	1
10006	Total TPH w/Si Gel	n.a.	N.D.	38	1
	TPH quantitation is based on peak area comparison of the sample pattern to that of a hydrocarbon component mix calibration in a range that includes C8 (n-octane) through C40 (n-tetracontane) normal hydrocarbons. The reverse surrogate, capric acid, is present at <1%.				
Metals	**SW-846 6010B**		**ug/l**	**ug/l**	
07049	Cadmium	7440-43-9	N.D.	0.33	1
07051	Chromium	7440-47-3	8.8	1.3	1

Sample Description: MW-4-W-150204 Grab Groundwater
Facility# 90517 Job# 386420 GRD
3900 Piedmont Ave-Oakland T0600102248

LL Sample # WW 7761849
LL Group # 1536154
Account # 10906

Project Name: 90517

Collected: 02/04/2015 14:30 by JH

Submitted: 02/05/2015 09:10
Reported: 02/16/2015 14:08

Chevron
6001 Bollinger Canyon Rd L4310
San Ramon CA 94583

PAO04

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
Metals	**SW-846 6010B**		ug/l	ug/l	
07055	Lead	7439-92-1	N.D.	4.7	1
07061	Nickel	7440-02-0	55.1	1.6	1
07072	Zinc	7440-66-6	47.2	2.0	1

General 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
10335	8260 Full List w/ Sep. Xylenes	SW-846 8260B	1	W150411AA	02/11/2015 00:36	Amanda K Richards	1
01163	GC/MS VOA Water Prep	SW-846 5030B	1	W150411AA	02/11/2015 00:36	Amanda K Richards	1
01728	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	15040B20A	02/10/2015 19:40	Brett W Kenyon	5
01146	GC VOA Water Prep	SW-846 5030B	1	15040B20A	02/10/2015 19:40	Brett W Kenyon	5
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	150370006A	02/09/2015 21:52	Christine E Dolman	1
10006	TPH Fuels water w/Si Gel	SW-846 8015B modified	1	150370026A	02/12/2015 01:57	Tracy A Cole	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	150370006A	02/07/2015 07:30	Olivia Arosemena	1
11195	TPH w/ Silica Gel Waters Ext.	SW-846 3510C	1	150370026A	02/09/2015 11:00	Denise L Trimby	1
07049	Cadmium	SW-846 6010B	1	150371848001	02/09/2015 04:59	Tara L Snyder	1
07051	Chromium	SW-846 6010B	1	150371848001	02/09/2015 04:59	Tara L Snyder	1
07055	Lead	SW-846 6010B	1	150371848001	02/09/2015 04:59	Tara L Snyder	1
07061	Nickel	SW-846 6010B	1	150371848001	02/09/2015 04:59	Tara L Snyder	1
07072	Zinc	SW-846 6010B	1	150371848001	02/09/2015 04:59	Tara L Snyder	1
01848	ICP-WW, 3005A (tot rec) - U3	SW-846 3005A	1	150371848001	02/08/2015 11:04	James L Mertz	1

Quality Control Summary

Client Name: Chevron Group Number: 1536154
Reported: 02/16/15 at 02:08 PM

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

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

Laboratory Compliance Quality Control

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
Batch number: P150392AA	Sample number(s): 7761846							
Benzene	N.D.	0.5	ug/l	94	93	78-120	1	30
Ethylbenzene	N.D.	0.5	ug/l	92	90	79-120	2	30
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	95	95	75-120	0	30
Toluene	N.D.	0.5	ug/l	95	94	80-120	1	30
Xylene (Total)	N.D.	0.5	ug/l	100	98	80-120	2	30
Batch number: W150411AA	Sample number(s): 7761847-7761849							
Acetone	N.D.	6.	ug/l	137*		55-129		
t-Amyl methyl ether	N.D.	0.5	ug/l	99		75-120		
Benzene	N.D.	0.5	ug/l	102		78-120		
Bromobenzene	N.D.	1.	ug/l	97		80-120		
Bromochloromethane	N.D.	1.	ug/l	109		80-121		
Bromodichloromethane	N.D.	0.5	ug/l	97		73-120		
Bromoform	N.D.	0.5	ug/l	88		61-120		
Bromomethane	N.D.	0.5	ug/l	105		53-130		
2-Butanone	N.D.	3.	ug/l	139*		54-133		
t-Butyl alcohol	N.D.	5.	ug/l	102		75-120		
n-Butylbenzene	N.D.	1.	ug/l	92		68-120		
sec-Butylbenzene	N.D.	1.	ug/l	96		75-120		
tert-Butylbenzene	N.D.	1.	ug/l	96		80-120		
Carbon Disulfide	N.D.	1.	ug/l	100		58-126		
Carbon Tetrachloride	N.D.	0.5	ug/l	95		74-130		
Chlorobenzene	N.D.	0.5	ug/l	97		80-120		
Chloroethane	N.D.	0.5	ug/l	104		56-120		
2-Chloroethyl Vinyl Ether	N.D.	2.	ug/l	113		62-128		
Chloroform	N.D.	0.5	ug/l	102		80-122		
Chloromethane	N.D.	0.5	ug/l	106		63-120		
2-Chlorotoluene	N.D.	1.	ug/l	97		80-120		
4-Chlorotoluene	N.D.	1.	ug/l	99		80-120		
1,2-Dibromo-3-chloropropane	N.D.	2.	ug/l	107		56-120		
Dibromochloromethane	N.D.	0.5	ug/l	95		72-120		
1,2-Dibromoethane	N.D.	0.5	ug/l	107		80-120		
Dibromomethane	N.D.	0.5	ug/l	104		80-120		
1,2-Dichlorobenzene	N.D.	1.	ug/l	98		80-120		
1,3-Dichlorobenzene	N.D.	1.	ug/l	95		80-120		
1,4-Dichlorobenzene	N.D.	1.	ug/l	97		80-120		
Dichlorodifluoromethane	N.D.	0.5	ug/l	106		55-127		
1,1-Dichloroethane	N.D.	0.5	ug/l	101		80-120		
1,2-Dichloroethane	N.D.	0.5	ug/l	101		65-135		
1,1-Dichloroethene	N.D.	0.5	ug/l	105		76-124		
cis-1,2-Dichloroethene	N.D.	0.5	ug/l	103		80-120		
trans-1,2-Dichloroethene	N.D.	0.5	ug/l	108		80-120		
1,2-Dichloropropane	N.D.	0.5	ug/l	101		80-120		

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

Quality Control Summary

Client Name: Chevron Group Number: 1536154
Reported: 02/16/15 at 02:08 PM

Analysis Name	Blank Result	Blank MDL	Report Units	LCS %REC	LCSD %REC	LCS/LCSD Limits	RPD	RPD Max
1,3-Dichloropropane	N.D.	0.5	ug/l	99		80-120		
2,2-Dichloropropane	N.D.	0.5	ug/l	94		67-124		
1,1-Dichloropropene	N.D.	1.	ug/l	106		80-126		
cis-1,3-Dichloropropene	N.D.	0.5	ug/l	102		80-120		
trans-1,3-Dichloropropene	N.D.	0.5	ug/l	96		76-120		
Ethanol	N.D.	50.	ug/l	73		58-139		
Ethyl t-butyl ether	N.D.	0.5	ug/l	98		69-120		
Ethylbenzene	N.D.	0.5	ug/l	97		79-120		
Freon 113	N.D.	2.	ug/l	102		67-127		
Hexachlorobutadiene	N.D.	2.	ug/l	72		51-125		
2-Hexanone	N.D.	3.	ug/l	131*		57-127		
di-Isopropyl ether	N.D.	0.5	ug/l	104		61-132		
Isopropylbenzene	N.D.	1.	ug/l	97		80-120		
p-Isopropyltoluene	N.D.	1.	ug/l	93		76-120		
Methyl Tertiary Butyl Ether	N.D.	0.5	ug/l	99		75-120		
4-Methyl-2-pentanone	N.D.	3.	ug/l	134*		51-124		
Methylene Chloride	N.D.	2.	ug/l	105		80-120		
Naphthalene	N.D.	1.	ug/l	105		47-126		
n-Propylbenzene	N.D.	1.	ug/l	99		80-120		
Styrene	N.D.	1.	ug/l	96		80-120		
1,1,1,2-Tetrachloroethane	N.D.	0.5	ug/l	93		80-120		
1,1,2,2-Tetrachloroethane	N.D.	0.5	ug/l	104		70-120		
Tetrachloroethene	N.D.	0.5	ug/l	100		80-120		
Toluene	N.D.	0.5	ug/l	98		80-120		
1,2,3-Trichlorobenzene	N.D.	1.	ug/l	94		68-123		
1,2,4-Trichlorobenzene	N.D.	1.	ug/l	92		73-120		
1,1,1-Trichloroethane	N.D.	0.5	ug/l	97		66-126		
1,1,2-Trichloroethane	N.D.	0.5	ug/l	100		80-120		
Trichloroethene	N.D.	0.5	ug/l	102		80-120		
Trichlorofluoromethane	N.D.	0.5	ug/l	116		58-135		
1,2,3-Trichloropropane	N.D.	1.	ug/l	112		76-120		
1,2,4-Trimethylbenzene	N.D.	1.	ug/l	96		80-120		
1,3,5-Trimethylbenzene	N.D.	1.	ug/l	98		80-120		
Vinyl Chloride	N.D.	0.5	ug/l	110		63-120		
m+p-Xylene	N.D.	0.5	ug/l	99		80-120		
o-Xylene	N.D.	0.5	ug/l	99		80-120		
Batch number: 15040B20A	Sample number(s): 7761846-7761849							
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	116	115	80-139	0	30
Batch number: 150370006A	Sample number(s): 7761847-7761849							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	50.	ug/l	66	63	40-105	6	20
Batch number: 150370026A	Sample number(s): 7761847-7761849							
Motor Oil C16-C36 w/Si Gel	N.D.	40.	ug/l					
Total TPH w/Si Gel	N.D.	40.	ug/l	60	67	35-120	11	20
Batch number: 150371848001	Sample number(s): 7761847-7761849							
Cadmium	N.D.	0.33	ug/l	98		80-120		
Chromium	N.D.	1.3	ug/l	86		80-120		
Lead	N.D.	4.7	ug/l	100		80-120		
Nickel	N.D.	1.6	ug/l	87		80-120		
Zinc	N.D.	2.0	ug/l	91		80-120		

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

Quality Control Summary

Client Name: Chevron Group Number: 1536154
Reported: 02/16/15 at 02:08 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
Batch number: W150411AA	Sample number(s): 7761847-7761849 UNSPK: 7761847								
Acetone	134	134	35-144	0	30				
t-Amyl methyl ether	102	100	65-117	3	30				
Benzene	111	108	72-134	3	30				
Bromobenzene	104	100	82-115	4	30				
Bromochloromethane	115	111	76-134	3	30				
Bromodichloromethane	101	97	73-125	4	30				
Bromoform	91	87	48-118	5	30				
Bromomethane	117	115	47-129	1	30				
2-Butanone	142*	135	44-135	5	30				
t-Butyl alcohol	102	98	67-119	4	30				
n-Butylbenzene	99	93	74-134	6	30				
sec-Butylbenzene	106	100	74-137	6	30				
tert-Butylbenzene	105	102	81-121	2	30				
Carbon Disulfide	113	110	53-149	3	30				
Carbon Tetrachloride	105	102	75-148	3	30				
Chlorobenzene	103	99	87-124	4	30				
Chloroethane	112	115	55-130	3	30				
2-Chloroethyl Vinyl Ether	0*	0*	10-151	0	30				
Chloroform	108	106	81-134	2	30				
Chloromethane	117	120	61-125	2	30				
2-Chlorotoluene	107	101	82-118	5	30				
4-Chlorotoluene	102	99	84-122	3	30				
1,2-Dibromo-3-chloropropane	106	106	50-123	0	30				
Dibromochloromethane	99	96	74-116	3	30				
1,2-Dibromoethane	109	108	77-116	2	30				
Dibromomethane	109	106	83-119	2	30				
1,2-Dichlorobenzene	103	100	84-119	3	30				
1,3-Dichlorobenzene	102	98	86-121	4	30				
1,4-Dichlorobenzene	103	98	85-121	5	30				
Dichlorodifluoromethane	123	118	58-156	4	30				
1,1-Dichloroethane	108	105	84-129	3	30				
1,2-Dichloroethane	100	98	63-142	2	30				
1,1-Dichloroethene	119	115	79-137	3	30				
cis-1,2-Dichloroethene	114	108	80-141	5	30				
trans-1,2-Dichloroethene	118	113	86-131	4	30				
1,2-Dichloropropane	108	103	83-124	5	30				
1,3-Dichloropropane	103	100	81-120	2	30				
2,2-Dichloropropane	100	97	69-135	3	30				
1,1-Dichloropropene	117	110	86-137	6	30				
cis-1,3-Dichloropropene	105	102	70-116	3	30				
trans-1,3-Dichloropropene	99	94	74-119	5	30				
Ethanol	63	68	53-146	7	30				
Ethyl t-butyl ether	100	99	74-122	0	30				
Ethylbenzene	106	101	71-134	5	30				
Freon 113	125	118	89-148	6	30				
Hexachlorobutadiene	78	77	56-134	2	30				
2-Hexanone	134*	129	38-131	4	30				
di-Isopropyl ether	106	103	70-129	3	30				
Isopropylbenzene	105	102	75-128	4	30				

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1536154
Reported: 02/16/15 at 02:08 PM

Sample Matrix Quality Control

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

Analysis Name	MS %REC	MSD %REC	MS/MSD Limits	RPD	RPD MAX	BKG Conc	DUP Conc	DUP RPD	Dup RPD Max
p-Isopropyltoluene	102	96	76-123	6	30				
Methyl Tertiary Butyl Ether	103	100	72-126	2	30				
4-Methyl-2-pentanone	137*	132*	45-128	4	30				
Methylene Chloride	111	107	78-133	4	30				
Naphthalene	113	109	52-125	3	30				
n-Propylbenzene	107	101	74-134	5	30				
Styrene	102	98	78-125	4	30				
1,1,1,2-Tetrachloroethane	99	98	80-123	1	30				
1,1,2,2-Tetrachloroethane	110	105	72-128	4	30				
Tetrachloroethene	109	104	80-128	5	30				
Toluene	106	102	80-125	4	30				
1,2,3-Trichlorobenzene	97	95	62-133	2	30				
1,2,4-Trichlorobenzene	97	92	56-137	5	30				
1,1,1-Trichloroethane	105	101	69-140	3	30				
1,1,2-Trichloroethane	105	100	71-141	5	30				
Trichloroethene	115	109	88-133	5	30				
Trichlorofluoromethane	135	128	63-163	5	30				
1,2,3-Trichloropropane	114	110	76-118	4	30				
1,2,4-Trimethylbenzene	105	99	72-130	5	30				
1,3,5-Trimethylbenzene	105	101	65-132	4	30				
Vinyl Chloride	126	123	66-133	3	30				
m+p-Xylene	107	103	79-125	4	30				
o-Xylene	106	103	79-125	3	30				
Batch number: 150371848001	Sample number(s): 7761847-7761849 UNSPK: P761178 BKG: P761178								
Cadmium	114	84	75-125	22*	20	16.9	16.6	1 (1)	20
Chromium	94	76	75-125	21*	20	2.5	2.1	14 (1)	20
Lead	115	92	75-125	22*	20	N.D.	N.D.	0 (1)	20
Nickel	96	78	75-125	20	20	2.1	2.1	2 (1)	20
Zinc	104	81	75-125	25*	20	7.9	7.8	2 (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: BTEX/MTBE
Batch number: P150392AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7761846	101	99	98	94
Blank	99	98	97	94
LCS	101	101	98	96
LCSD	100	99	98	96
Limits:	80-116	77-113	80-113	78-113

Analysis Name: 8260 Full List w/ Sep. Xylenes
Batch number: W150411AA

	Dibromofluoromethane	1,2-Dichloroethane-d4	Toluene-d8	4-Bromofluorobenzene
7761847	100	103	94	95

*- Outside of specification
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(2) The unspiked result was more than four times the spike added.

Quality Control Summary

Client Name: Chevron Group Number: 1536154
Reported: 02/16/15 at 02:08 PM

Surrogate Quality Control

7761848	99	104	95	96
7761849	101	100	97	98
Blank	99	103	96	95
LCS	102	106	98	98
MS	100	103	97	97
MSD	101	106	96	97
Limits:	80-116	77-113	80-113	78-113

Analysis Name: TPH-GRO N. CA water C6-C12
Batch number: 15040B20A

	Trifluorotoluene-F
7761846	89
7761847	85
7761848	91
7761849	93
Blank	83
LCS	93
LCSD	94
Limits:	63-135

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel
Batch number: 150370006A

	Orthoterphenyl
7761847	66
7761848	66
7761849	66
Blank	65
LCS	69
LCSD	64
Limits:	42-126

Analysis Name: TPH Fuels water w/Si Gel
Batch number: 150370026A

	Chlorobenzene	Orthoterphenyl
7761847	68	73
7761848	64	71
7761849	78	73
Blank	72	88
LCS	61	72
LCSD	62	75
Limits:	29-107	33-117

*- 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 California Region Analysis Request/Chain of Custody

eurofins | Lancaster Laboratories

Acct. # 10966 Group # 1536154 Sample # 776846-49
For Eurofins Lancaster Laboratories use only
Instructions on reverse side correspond with circled numbers.

020415-05 IL SDD

1 Client Information

Facility # SS#9-0517-OML G-R#386420 Global ID#T0600102248 WBS
Site Address 3900 PIEDMONT AVENUE, OAKLAND, CA
Chevron PM CM Lead Consultant STANTECTF Flora
Consultant/Office Getter-Ryan, Inc., 6805 Sierra Court, Suite G, Dublin, CA 94568
Consultant Project Mgr. Deanna L. Harding, deanna@grinc.com
Consultant Phone # (925) 551-7444 x180
Sampler J. Herrera

2 Sample Identification | **Soil Depth** | **Collected Date** | **Time** | **3 Grab** | **Composite**

4 Matrix: Soil | Sediment | Potable Water | Ground Water | NPDES | Surface Water | Oil | Air

Total Number of Containers

5 Analyses Requested: BTEX + MTBE 8260 | 8021 | TPH-GRO 8260 | 8015 | TPH-DRO 8015 without Silica Gel Cleanup | TPH-DRO 8015 with Silica Gel Cleanup Column | 8260 Full Scan | Oxygenates ____ | Total Lead Method ____ | Dissolved Lead Method ____ | TPH-MO w/ SGC column (8015) | CAM 5 Metals (6010B)

Sample Identification	Soil Depth	Date	Time	Grab	Composite	Soil	Sediment	Potable Water	Ground Water	NPDES	Surface Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8260	TPH-GRO 8260	TPH-DRO 8015 without Silica Gel Cleanup	TPH-DRO 8015 with Silica Gel Cleanup Column	8260 Full Scan	Oxygenates	Total Lead Method	Dissolved Lead Method	TPH-MO w/ SGC column (8015)	CAM 5 Metals (6010B)
GA		2/4/15		X				X					2	X	X									
MW-1		↓	1235	↓				↓					11	X	X		X	X				X	X	
MW-3		↓	1325	↓				↓					↓	X	X		X	X				X	X	
MW-4		↓	1430	↓				↓					↓	X	X		X	X				X	X	

SCR #: ____

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

6 Remarks

7 Turnaround Time Requested (TAT) (please circle)
Standard | 5 day | 4 day | 72 hour | 48 hour | 24 hour | EDF/EDD

8 Data Package (circle if required)
Type I - Full
Type VI (Raw Data)

EDD (circle if required)
EDFFLAT (default)
Other: ____

	Relinquished by	Date	Time	Received by	Date	Time
9		2/4/15			2/4/15	1500
	A. Salazar	04FEB15	1636	FX		
					2-5-15	910

Relinquished by Commercial Carrier: UPS ____ FedEx X Other ____

Temperature Upon Receipt 0.2-0.2 °C

Custody Seals Intact? Yes No

Explanation of Symbols and Abbreviations

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

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

<	less than
>	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.

Laboratory Data Qualifiers:

B - Analyte detected in the blank
C - Result confirmed by reanalysis
E - Concentration exceeds the calibration range
J (or G, I, X) - estimated value ≥ 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…

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, ISO17025) 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.

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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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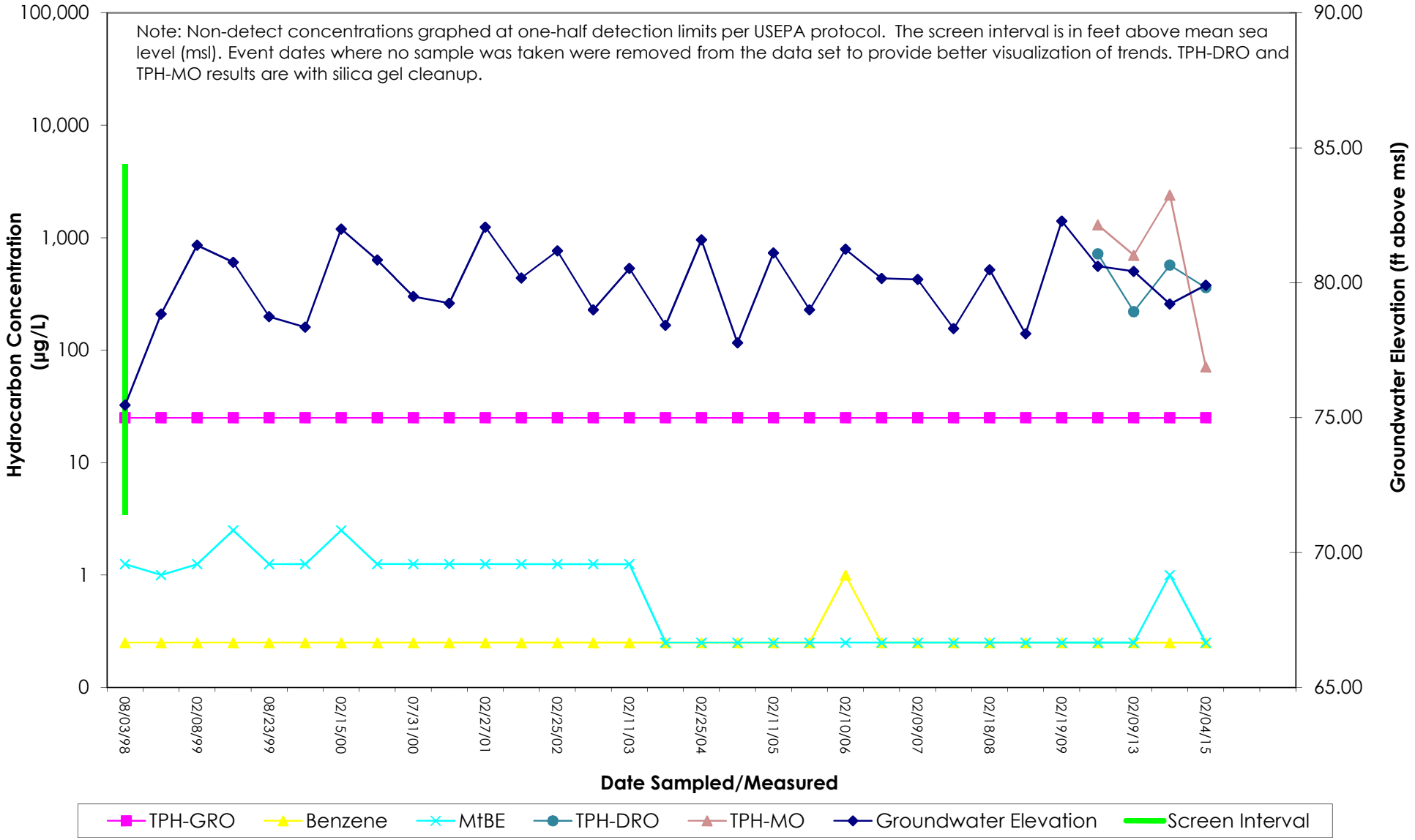
ATTACHMENT C
Hydrographs

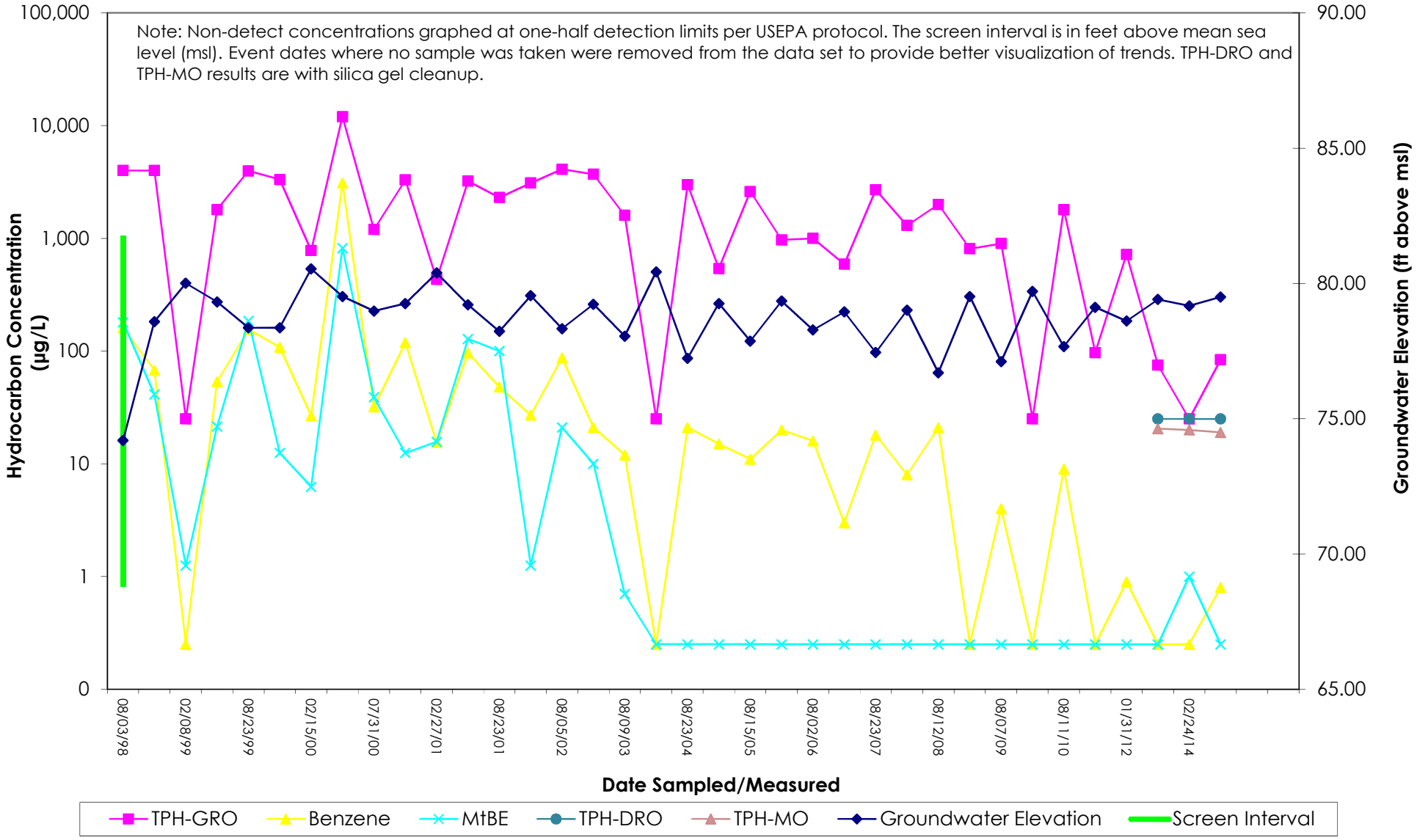
MW-1 TPH-GRO, TPH-DRO, TPH-MO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California



MW-3 TPH-GRO, TPH-DRO, TPH-MO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California



MW-4 TPH-GRO, TPH-DRO, TPH-MO, Benzene, & MtBE Concentrations and Groundwater Elevations vs. Time

Former Chevron-branded Service Station 90517
3900 Piedmont Avenue
Oakland, California