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9:14 am, Jul 08, 2011

Alameda County  
Environmental Health

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Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

Re: Former Signal Oil Station No. 20-6145  
800 Center Street  
Oakland, CA

I have reviewed the attached Low Flow Air Sparge Pilot Test Report dated July 6, 2011.

I agree with the conclusions and recommendations presented in the referenced report. This information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Conestoga Rovers Associates, upon who assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code Section 13267(b)(1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct to the best of my knowledge.

Sincerely,

A handwritten signature in blue ink, appearing to read "I. Robb".

Ian Robb  
Project Manager

Attachment: Low Flow Air Sparge Pilot Test



## **LOW FLOW AIR SPARGE PILOT TEST**

**FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET  
OAKLAND, CALIFORNIA  
FUEL LEAK CASE NO. RO0454**

**Prepared For:**

**Mr. Mark Detterman  
Alameda County Environmental Health (ACEH)  
1131 Harbor Bay Parkway  
Alameda, California 94502**

**JULY 6, 2011  
REF. NO. 312002 (16)**  
This report is printed on recycled paper.

**Prepared by:  
Conestoga-Rovers  
& Associates**

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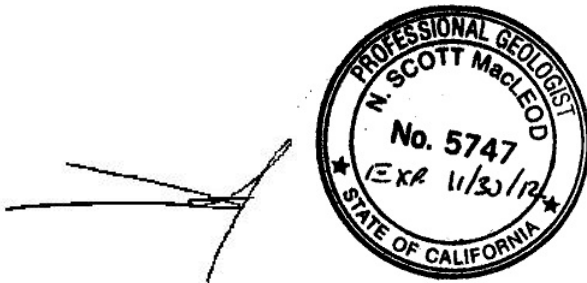


## LOW FLOW AIR SPARGE PILOT TEST

FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET  
OAKLAND, CALIFORNIA  
FUEL LEAK CASE NO. RO0454

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Kiersten Hoey



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N. Scott MacLeod, PG 5747

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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) is submitting this *Low Flow Air Sparge Pilot Test* report on behalf of Chevron Environmental Management Company (Chevron) for the Former Signal Oil Station located at 800 Center Street in Oakland, California. CRA installed eight low flow air sparge (LFAS) wells in accordance with CRA's November 1, 2007 *Feasibility Study and Corrective Action Plan* and April 27, 2009 *Work Plan for Low Flow Air Sparging Pilot Test and Additional Soil Vapor Sampling*, and as approved with comments by Alameda County Environmental Health Services (ACEH) in their letter dated December 23, 2009 (Appendix A). Presented below are a summary of the site background, description of the well installations, and CRA's conclusions and recommendations.

### 1.1 SITE BACKGROUND

The site is a former Signal Oil gasoline service station located on the northeastern corner of the intersection of 8<sup>th</sup> Street and Center Street in a mixed commercial and residential area of Oakland, California (Figure 1). The site is currently undeveloped.

The site was first developed as a service station in 1932. Four 1,000-gallon fuel underground storage tanks (USTs) and one used oil UST were installed when the site was built. These USTs were removed in 1973 when the station was closed.

Environmental investigation has been ongoing since 1989. To date, 17 monitoring wells, eight air sparge wells, 61 soil borings, and 11 soil vapor probes have been drilled. A remedial excavation was completed in 2002, removing approximately 1,584 tons of soil. Groundwater is currently monitored by 17 onsite and offsite monitoring wells. A summary of previous investigations and remediation conducted to date at the site is presented in Appendix B.

### 1.2 SITE GEOLOGY AND HYDROGEOLOGY

The site is part of the Oakland sub-area of the East Bay Plain. Sediments beneath the site are likely Holocene and late Pleistocene alluvial fans.<sup>1</sup> Local topography is relatively flat and the site is approximately 15 feet above mean sea level. Subsurface sediments

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<sup>1</sup> East Bay Plain Groundwater Basin Beneficial Use Evaluation Report, Alameda and Contra Costa Counties, CA prepared by the California Regional Water Quality Control Board San Francisco Bay Region Groundwater Committee, June 1999

consist of medium permeability sand and silty sand to the maximum depth explored of 80 feet below grade (fbg). Silt with clayey stringers were encountered between approximately 50 and 65 fbg.

Groundwater in the East Bay Plain basin is designated as a potential drinking water source; however, groundwater in the basin is not currently used as a municipal drinking water supply due to readily available imported surface water.<sup>2</sup> Groundwater has been monitored since 1997. Three possible water-bearing zones have been identified and deeper screened wells have monitored deep groundwater since 2007. A summary of well construction specifications are detailed in Table 1. Historical depth to groundwater in the shallow-screened wells ranges from approximately 2.5 to 13 fbg. Shallow and intermediate groundwater flows consistently toward the southwest. Deeper groundwater flow varies from southwest to northeast. The nearest surface water body is Oakland inner harbor, approximately 1 mile south of the site.

## **2.0 LOW FLOW AIR-SPARGE WELL INSTALLATION**

On February 9-10, 2010, CRA installed eight LFAS wells for the anticipated LFAS pilot test. Well locations are shown on Figure 2. The locations and number of wells were chosen based on the area with the highest dissolved-phase hydrocarbons and to provide sufficient overlapping coverage. As requested by ACEH, one LFAS well was also installed in the vicinity of soil samples EXB-3 (12), SW-6, and SW-7 to address residual hydrocarbons in this area. Well installation activities are summarized below.

### ***Permits***

Alameda County Public Works – Well Permit No. W2010-0003 (Appendix C).

### ***CRA Personnel***

Belew Yifru and Ian Hull supervised all field work under the supervision of California Professional Geologist Brandon S. Wilken (P.G. #7564).

### ***Geophysical Survey***

Prior to drilling, CRA contacted Underground Service Alert (USA) to mark any existing underground utilities at and surrounding the proposed LFAS well locations. CRA also contracted Underground Location Services (ULS) Corporation of Pocatello, Idaho to

---

<sup>2</sup> Table 2-2 Existing and Potential Beneficial Uses in Groundwater in Identified Basins; *Water Quality Control Plan (Basin Plan) for the San Francisco Bay Basin*; California Regional Water Quality Control Board- San Francisco Bay Region, January 18, 2007.



locate underground utilities beneath the site using a metal detector and ground penetrating radar (GPR) equipment in the vicinity of the proposed boring locations.

### ***Drilling Company***

Gregg Drilling of Martinez, California (C-57 #485165) advanced the borings and installed the LFAS wells.

### ***Utility Clearance***

Per Chevron and CRA safety procedures, each boring was hand-cleared to 8 fbg using an air-knife to ensure no underground utilities were located beneath the drilling locations.

### ***Well Installation & Construction***

Eight well borings were advanced to 20 fbg using 8-inch diameter hollow-stem augers and were completed as LFAS wells AS-1 through AS-8 (Figure 2). Each well was constructed of 2-inch diameter Schedule 80 polyvinyl chloride (PVC) casing with a two-foot 0.010-inch slotted screen from 16 to 18 fbg above a two-foot blank casing sump. The well annulus was packed with Lonestar #2/12 sand to one foot above the screen, followed by a two-foot thick bentonite seal and completed with cement grout to 1 fbg. The LFAS wells were sealed with well boxes equipped with traffic-rated lids installed flush with grade. The well specifications and soil types encountered are described on the boring logs presented in Appendix D. CRA's Standard Field Procedures for Remediation Well Installation is presented in Appendix E.

### ***Well Development***

On February 25, 2010, Gettler-Ryan (G-R) of Dublin, California developed the wells and measured depth to groundwater. This event was reported in G-R's March 30, 2010 *Groundwater Monitoring and Sampling Report* (Appendix F).

### ***Monitoring Well Survey***

On March 5, 2010, Morrow Surveying of West Sacramento, California surveyed the latitude, longitude and top of casing elevation of the eight LFAS wells. Survey data is presented in Appendix G.

### ***Waste Disposal***

Soil cuttings and rinsate water generated during well installation were temporarily stored onsite in sealed and labeled DOT-approved 55-gallon drums. On March 17, 2010, Integrated Wastestream Management (IWM) of San Jose California transported and disposed 12 drums of soil at Forward Landfill in Manteca, California and 2 drums of rinsate water at Chemical Waste Management in Kettleman Hills, California.

### **3.0 SURFICIAL SOIL SAMPLING**

On January 22, 2010, CRA collected soil samples from 12 locations approximately 0.5 and 2.5 fbg to assess potential risk associated with exposure to lead for future onsite residents. Soil samples were analyzed for lead, organochlorine pesticides, and polychlorinated byphenyls. Soil sampling details and results were detailed in CRA's February 15, 2010 *Surficial Soil Lead Results*.

### **4.0 LOW FLOW AIR-SPARGE PILOT TEST**

In September 2010, CRA installed the LFAS system and power pole and notified Pacific Gas and Electric (PG&E) to provide a power source to the system. PG&E connected and activated the electrical service on December 21, 2010. In October 2010, California Occupational Safety & Health Administration conducted their inspection of the compressed air tank on the LFAS system. The LFAS began operation on January 5, 2011 and operated continuously until it was shutdown on April 8, 2011. Air was injected sequentially into each of the eight sparge wells, AS-1 through AS-8, for approximately 60 minutes per sparge cycle. Sparge cycle time was determined based on the observed time for the induced groundwater mound to dissipate to pre-injection elevation. The 3 months of continuous operation was consistent with the previously submitted and approved *Work Plan for Low Flow Air Sparging Pilot Test and Additional Soil Vapor Sampling* dated April 27, 2009.

#### **4.1 OPERATION AND MAINTENANCE**

After system startup, CRA conducted weekly operation and maintenance site visits and recorded system operating parameters. Operational data is included as Table 2. The system parameters measured included:

- Individual well sparge times
- Air flow rates
- Manifold and wellhead pressures

In addition, during operation and maintenance site visits, CRA collected field measurements of groundwater bio-parameters from monitoring wells MW-1A and

MW-2 through MW-4. Monitoring well casing bioparameter data is included as Table 3. Measured groundwater bio-parameters included:

- Dissolved Oxygen (DO)
- Temperature
- pH
- Oxygen Reduction Potential (ORP)
- Headspace VOC Concentrations

## 5.0 COMPLIANCE SAMPLING RESULTS

Approximately 1 month after the LFAS pilot test was completed, groundwater samples were collected from source area wells MW-1A, MW-2, MW-3, and MW-4 and soil vapor samples were collected from vapor probes VP-1 through VP-4 and VP-6. VP-5 was filled with water and could not be sampled.

### 5.1 GROUNDWATER

On May 4, 2011, Gettler-Ryan, Inc. (G-R) of Dublin, California collected groundwater samples from wells MW-1A, MW-2, MW-3, and MW-4. The samples were analyzed by Lancaster Laboratories of Lancaster, Pennsylvania for:

- Total Petroleum Hydrocarbons as Diesel (TPHd) by Environmental Protection Agency (EPA) Method 8015B with silica gel cleanup
- Total Petroleum Hydrocarbons as Gasoline (TPHg) by EPA Method 8015B
- Benzene, toluene, ethylbenzene, total xylenes (BTEX), and methyl tertiary butyl ether (MTBE) by EPA Method 8021B

Groundwater samples from MW-3 and MW-4 were additionally analyzed for carbon dioxide (from headspace), nitrate and sulfate by EPA Method 300.0, and alkalinity by standard method (SM) 20 2320 B (Table 4).

G-R's field data sheets and Lancaster Laboratories' analytical results are included in Appendix H. Analytical results before and after the LFAS pilot test are presented in Table A, and cumulative groundwater data is presented in Table 4.

TABLE A: PRE AND POST LFAS PILOT TEST HYDROCARBON CONCENTRATIONS IN GROUNDWATER								
Location	Sample Date	TPHd	TPHg	B	T	E	X	MTBE
		concentrations in micrograms per liter (µg/L)						
<i>Groundwater ESLs</i> <sup>3</sup>		<b>100</b>	<b>100</b>	<b>1</b>	<b>40</b>	<b>30</b>	<b>20</b>	<b>5</b>
MW-1A	09/03/2010	<b>590</b>	<50	<0.5	<0.5	<0.5	<1.5	<2.5
MW-1A	02/03/2011	<b>840</b>	<b>100</b>	<b>2.5</b>	0.6	6.7	2.0	<2.5
MW-1A	05/04/2011	<b>1,500</b>	<50	<b>6.7</b>	<0.5	<0.5	<1.5	<2.5
MW-2	09/03/2010	<b>310</b>	<50	<0.5	<0.5	<0.5	<1.5	<2.5
MW-2	02/03/2011	<b>430</b>	75	<0.5	<0.5	<0.5	<1.5	<b>8.9</b>
MW-2	05/04/2011	<b>160</b>	<b>1,300</b>	<b>12</b>	<b>48</b>	0.7	<b>47</b>	<100
MW-3	09/03/2010	<b>4,000</b>	<b>32,000</b>	<b>65</b>	<b>690</b>	<b>3,100</b>	<b>4,900</b>	<b>380</b>
MW-3	02/03/2011	<b>1,400</b>	<b>2,000</b>	<b>17</b>	34	<b>250</b>	<b>190</b>	<b>26</b>
MW-3	05/04/2011	<b>340</b>	57	<0.5	1.1	3.8	7.7	<2.5
MW-4	09/03/2010	<b>400</b>	<b>310</b>	<5.0	<0.5	1.2	<1.5	<2.5
MW-4	02/03/2011	<b>160</b>	55	<b>1.6</b>	<0.5	<0.5	<1.5	<2.5
MW-4	05/04/2011	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5

Prior to the pilot test, the highest concentrations were detected in well MW-3. The two samples collected during (February 3, 2011) and after (May 4, 2011) LFAS operation indicated decreasing concentrations to near or below drinking water environmental screening levels (ESLs). Concentrations also decreased in well MW-4 to below detection limits, but concentrations in wells MW-1A and in MW-2 increased slightly. During the post-pilot test sampling event TPHd concentrations exceeded the ESLs in three wells, TPHg and BTEX exceeded the ESLs in only well MW-2, and MTBE concentrations were below ESLs in all wells.

## 5.2 VAPOR

On May 10, 2011, CRA collected soil vapor samples from VP-1 through VP-4, and VP-6. No sample was collected from VP-5 due to the presence of water in the probe and tubing. On May 11, 2011, CRA attempted to purge the water from VP-5 for approximately 1 hour; however, water continued to recharge in to the probe. Vapor samples were analyzed by Air Toxics LTD (Air Toxics) for:

- TPHg and BTEX by EPA Method TO-15 GC/MS
- Oxygen, nitrogen, carbon dioxide, methane, and helium by modified American Society for Testing and Materials (ASTM) D-1946

3 Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final*, November 2007, revised May 2008. – Table F-1a where groundwater is a potential drinking water source

Hydrocarbon concentrations in soil vapor before and after the pilot test are summarized in Table B below and cumulative vapor data is presented in Table 5. Air Toxics' analytical results are included in Appendix I.

<b>TABLE B: PRE AND POST LFAS PILOT TEST HYDROCARBON CONCENTRATIONS IN SOIL VAPOR</b>							
<i>Location</i>	<i>Sample Date</i>	<i>TPHg</i>	<i>B</i>	<i>T</i>	<i>E</i>	<i>X</i>	<i>MTBE</i>
		<i>concentrations in micrograms per meter cubed (µg/m<sup>3</sup>)</i>					
<i>Shallow Soil Gas ESLs <sup>4</sup></i>		<b>10,000</b>	<b>84</b>	<b>6,300</b>	<b>980</b>	<b>21,000</b>	<b>9,400</b>
VP-1	10/03/2008	<97	<3.8	<4.5	<5.2	<5.2	<4.3
VP-1	05/10/2011	<b>57,000,000</b>	<b>9,200</b>	<3,200	<3,700	<3,700	<3,100
VP-2	10/03/2008	Water in probe: couldn't collect sample					
VP-2	05/10/2011	6,500	<4.1	5.1	<5.6	<5.6	<4.7
VP-3	10/03/2008	<92	<3.6	<4.2	<4.9	<4.9	<4.0
VP-3	05/10/2011	<b>22,000,000</b>	<b>10,000</b>	<b>21,000</b>	<b>4,200</b>	<b>60,000</b>	<1,600
VP-4	10/03/2008	390	<4.1	<4.9	<5.6	<5.6	<4.6
VP-4	05/10/2011	<b>12,000,000</b>	<b>2,600</b>	3,400	160	13,000	<36
VP-5	10/03/2008	<b>57,000</b>	<86	<100	<120	<120	<97
VP-5	05/10/2011	Water in probe: couldn't collect sample					
VP-6	10/03/2008	<97	<3.8	<4.5	<5.2	<5.2	<4.3
VP-6	05/10/2011	<b>2,200,000</b>	<190	<230	<260	380	<220

Concentrations detected in soil vapor samples collected after the LFAS pilot test were as much as six orders of magnitude higher than prior to system operation and three orders of magnitude higher than the ESLs.

## 6.0 CONCLUSIONS AND RECOMMENDATIONS

The following conclusions have been made based on current site conditions and on the results of the LFAS pilot test conducted between January 5 and April 8, 2011:

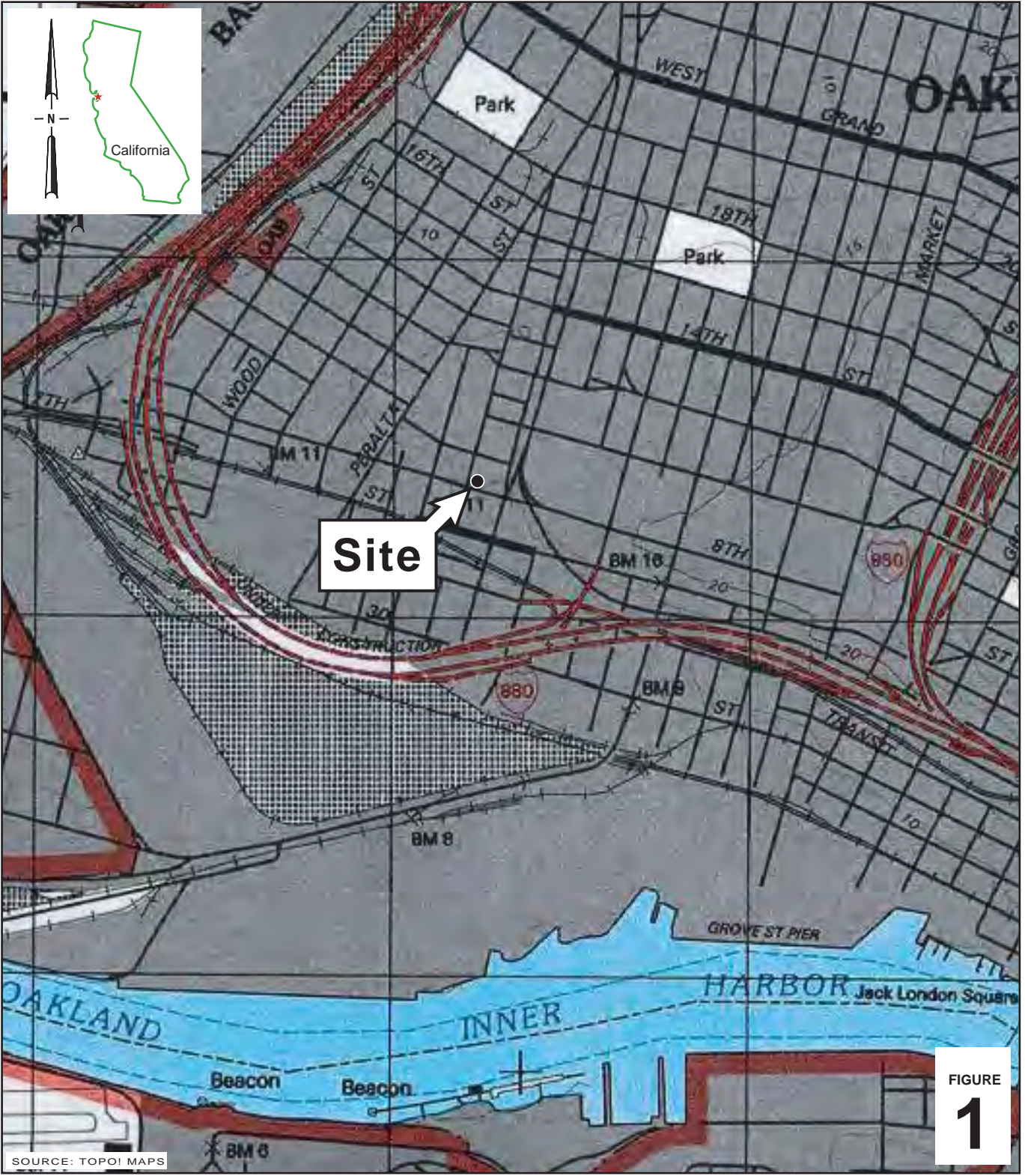
- Dissolved petroleum hydrocarbon concentrations generally declined from before the pilot test to after the test.
- Hydrocarbon concentrations in soil vapor samples collected after the test increased by several orders of magnitude from concentrations detected prior to testing.
- Vapor samples were collected from the monitoring well casings during the pilot test to confirm air sparging was performed at a sufficiently low flow rate to prevent

4 Regional Water Quality Control Board, San Francisco Bay Region (RWQCB), *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final*, November 2007, revised May 2008. – Table E-2 for lowest residential exposure scenario.

stripping of hydrocarbons from the saturated zone into the vadose zone. Therefore it is unclear whether soil vapor concentrations increased due to LFAS operation.

The LFAS pilot test results suggest air sparging would be successful in reducing dissolved hydrocarbon concentrations in groundwater. There appears to be a potential risk of vapor intrusion based on the soil vapor concentrations detected after the pilot test; therefore, Chevron and CRA recommend resuming air sparging combined with soil vapor extraction to mitigate both dissolved concentrations, as well as hydrocarbons in vapor in the vadose zone. Upon approval by ACEH, CRA will prepare a Remedial Action Plan for implementation of the proposed remedial action.

## FIGURES



I:\VSFO-SHARED\CHEVRON\206145 OAKLAND\FIGURES\VICINITY-MAP.A1

FIGURE 1

### Former Signal Oil Station 206145

800 Center Street  
Oakland, California



**CONESTOGA-ROVERS  
& ASSOCIATES**

### Vicinity Map



**LEGEND**

- SHALLOW MONITORING WELL LOCATION
- ⊕ INTERMEDIATE MONITORING WELL LOCATION
- ⊖ DEEP MONITORING WELL LOCATION
- ⊖ VAPOR PROBE LOCATION
- ⊖ DESTROYED WELL LOCATION
- △ AIR SPARGE WELL LOCATIONS

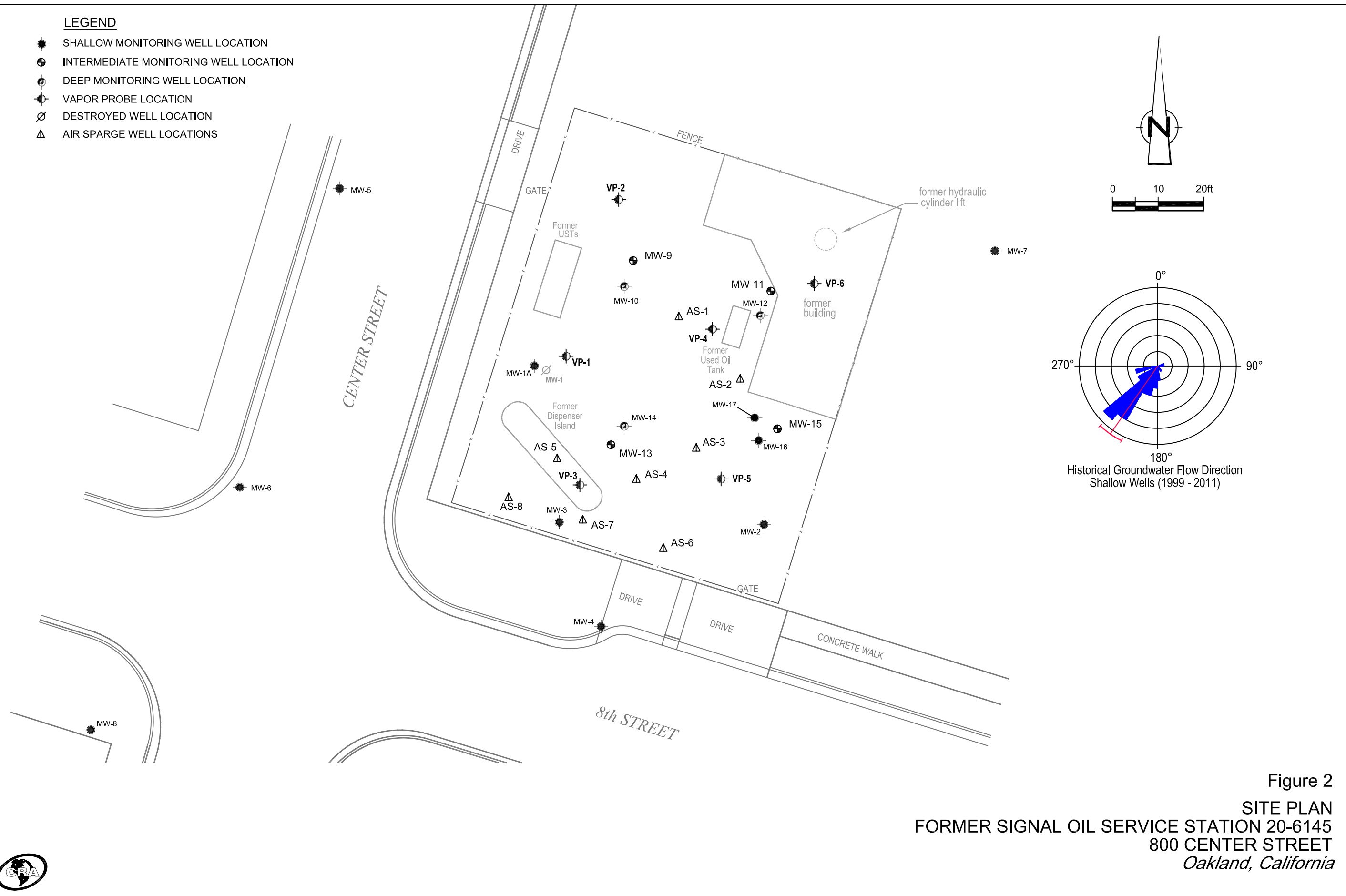


Figure 2  
 SITE PLAN  
 FORMER SIGNAL OIL SERVICE STATION 20-6145  
 800 CENTER STREET  
 Oakland, California



## TABLES

**TABLE 1**  
**WELL CONSTRUCTION SPECIFICATIONS**  
**FORMER SIGNAL OIL SERVICE STATION**  
**(CHEVRON STATION #20-6145)**  
**800 CENTER STREET, OAKLAND, CALIFORNIA**

<i>Well ID</i>	<i>Date Installed</i>	<i>Status</i>	<i>Top of Casing (TOC) (ft-msl)</i>	<i>Casing Diameter (inches)</i>	<i>Total Depth (fbg)</i>	<i>Top of Screen Interval (fbg)</i>	<i>Bottom Screen of Interval (fbg)</i>	<i>Length of Screen (ft)</i>
MW-1A	01/29/03	Active	18.11	2	16.5	6.5	16.5	10
MW-2	10/17/95	Active	18.40	2	16.5	5	15	10
MW-3	10/17/95	Active	18.07	2	16.5	5	15	10
MW-4	10/18/95	Active	16.98	2	16.5	5	15	10
MW-5	12/18/96	Active	17.68	2	20	5	20	15
MW-6	12/18/96	Active	17.33	2	20	5	20	15
MW-7	12/18/96	Active	19.26	2	20	5	20	15
MW-8	12/18/96	Active	17.79	2	21.5	NA	NA	NA
MW-9	04/09/07	Active	18.42	2	40	35	40	5
MW-10	04/10/07	Active	17.99	2	60	55	60	5
MW-11	04/09/07	Active	18.68	2	40	35	40	5
MW-12	04/10/07	Active	18.46	2	60	55	60	5
MW-13	04/11/07	Active	18.43	2	40	35	40	5
MW-14	04/11/07	Active	18.59	2	60	55	60	5
MW-15	04/12/07	Active	18.38	2	40	35	40	5
MW-16	04/12/07	Active	18.57	2	60	55	60	5
MW-17	04/13/07	Active	18.55	2	75	70	75	5
AS-1	02/09/10	Not Sampled	18.67	2	20	16	18	2
AS-2	02/09/10	Not Sampled	19.04	2	20	16	18	2
AS-3	02/09/10	Not Sampled	18.97	2	20	16	18	2
AS-4	02/09/10	Not Sampled	18.83	2	20	16	18	2
AS-5	02/10/10	Not Sampled	18.68	2	20	16	18	2
AS-6	02/10/10	Not Sampled	18.8	2	20	16	18	2
AS-7	02/10/10	Not Sampled	18.85	2	20	16	18	2
AS-8	02/10/10	Not Sampled	18.81	2	20	16	18	2

**Note:**

fbg = feet below grade

ft = feet

NA= not available

AS well TOC is actually the well bos elevation

TABLE 2

LOW FLOW AIR SPARGE SYSTEM OPERATIONAL DATA  
 FORMER SIGNAL OIL STATION 20-6145  
 800 CENTER STREET, OAKLAND, CALIFORNIA

Site Visit Date/Time (mm/dd/yy hh:mm)	Cumulative Injection Hours	Injection Uptime (%)	Valve Position (Open/ Closed)	AS-1			
				Sparge Hours	Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
1/5/11 16:45	2.7		Closed	1.0	NM	NM	NM
1/11/11 16:00	137.6	94	Open	2.4	0.5	NM	6.50
1/19/11 15:15	324.0	97	Open	25.4	0.5	8.0	6.50
1/24/11 14:00	451.0	107	Open	40.1	1.4	7.0	5.50
2/1/11 15:00	640.5	98	Open	63.5	1.0	7.0	5.50
2/10/11 15:30	853.3	98	Open	89.7	1.1	8.0	NM
2/15/11 14:00	971.9	100	Open	104.5	1.5	6.0	4.50
2/22/11 15:00	1,136.5	97	Open	125.1	1.3	6.0	4.50
3/3/11 15:00	1,349.7	99	Open	151.5	1.4	6.0	4.50
3/7/11 14:00	1,443.7	99	Open	163.3	1.1	6.0	5.00
3/14/11 15:00	1,609.0	98	Open	183.8	1.4	6.0	5.00
3/21/11 15:30	1,775.8	99	Open	204.3	1.4	8.0	5.00
3/30/11 13:45	1,987.5	99	Open	230.3	1.2	7.0	5.00
4/8/11 12:45	2,201.0	99	Closed	255.6	1.4	6.0	4.50

**Abbreviations & Notes:**

scfm = Standard cubic feet per minute

psi = Pounds per square inch

NM = Not measured

Cumulative Injection Hours is the sum of the individual hour meters for each sparge point.

**LOW FLOW AIR SPARGE SYSTEM OPERATIONAL DATA  
FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

Site Visit Date/Time (mm/dd/yy hh:mm)	Cumulative Injection Hours	Injection Uptime (%)	AS-2					AS-3				
			Valve Position (Open/ Closed)	Sparge Hours	Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position (Open/ Closed)	Sparge Hours	Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
1/5/11 16:45	2.7		Closed	0	NM	NM	NM	Closed	0	NM	NM	NM
1/11/11 16:00	137.6	94	Open	1.2	0.8	NM	7.50	Open	1	1.3	NM	6.00
1/19/11 15:15	324.0	97	Open	24.6	1.0	7.5	6.50	Open	25.2	1.1	8.0	6.25
1/24/11 14:00	451.0	107	Open	39.3	1.0	9.0	6.50	Open	40.9	1.4	9.0	6.25
2/1/11 15:00	640.5	98	Open	62.9	1.0	8.0	6.25	Open	65.3	1.1	8.0	5.50
2/10/11 15:30	853.3	98	Open	89.2	1.0	8.0	6.00	Open	93.1	1.1	8.0	5.50
2/15/11 14:00	971.9	100	Open	103.9	1.1	8.0	6.50	Open	108.5	1.2	7.0	5.00
2/22/11 15:00	1,136.5	97	Open	124.3	1.0	8.0	6.50	Open	130.2	1.1	8.0	5.50
3/3/11 15:00	1,349.7	99	Open	150.4	1.1	8.0	6.25	Open	157.9	1.1	7.5	5.50
3/7/11 14:00	1,443.7	99	Open	162.2	1.0	9.0	6.50	Open	170.5	1.1	8.0	5.50
3/14/11 15:00	1,609.0	98	Open	183	1.0	8.0	6.50	Open	192.2	1.2	8.0	5.50
3/21/11 15:30	1,775.8	99	Open	203.5	1.1	9.0	7.00	Open	214.2	1.0	8.0	6.00
3/30/11 13:45	1,987.5	99	Open	230.4	1.0	8.0	6.50	Open	242.1	1.1	8.0	6.00
4/8/11 12:45	2,201.0	99	Closed	257.0	1.1	8.5	6.00	Closed	270.4	1.1	8.0	5.50

**Abbreviations & Notes:**

scfm = Standard cubic feet per minute

psi = Pounds per square inch

NM = Not measured

Cumulative Injection Hours is the sum of the individual hours

**LOW FLOW AIR SPARGE SYSTEM OPERATIONAL DATA  
FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

Site Visit Date/Time (mm/dd/yy hh:mm)	Cumulative Injection Hours	Injection Uptime (%)	AS-4					AS-5				
			Valve Position (Open/ Closed)	Sparge Hours	Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position (Open/ Closed)	Sparge Hours	Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
1/5/11 16:45	2.7		Closed	0	NM	NM	NM	Closed	0	NM	NM	NM
1/11/11 16:00	137.6	94	Closed	43.0	1.1	NM	6.50	Open	0.9	1.0	NM	7.00
1/19/11 15:15	324.0	97	Closed	65.1	0.0	0.0	0.00	Open	24.0	1.1	7.5	6.25
1/24/11 14:00	451.0	107	Open	88.9	1.1	9.0	6.50	Open	38.1	1.0	9.0	6.50
2/1/11 15:00	640.5	98	Open	112.6	1.0	8.0	6.25	Open	60.7	1.0	8.0	6.00
2/10/11 15:30	853.3	98	Open	138.7	1.1	8.0	5.50	Open	86.6	1.5	8.0	6.00
2/15/11 14:00	971.9	100	Open	152.8	1.1	8.0	5.50	Open	102.3	1.2	8.0	6.00
2/22/11 15:00	1,136.5	97	Open	173.9	1.1	9.0	6.00	Open	120.5	1.1	8.0	6.00
3/3/11 15:00	1,349.7	99	Open	199.9	1.2	8.0	6.00	Open	146.4	1.3	7.0	6.50
3/7/11 14:00	1,443.7	99	Open	211.2	1.0	8.0	6.00	Open	157.4	1.0	9.0	6.50
3/14/11 15:00	1,609.0	98	Open	232.2	1.1	9.0	6.50	Open	177.3	1.5	8.0	6.50
3/21/11 15:30	1,775.8	99	Open	252.4	1.0	8.0	6.50	Open	197.1	1.3	8.0	6.50
3/30/11 13:45	1,987.5	99	Open	278.6	1.0	8.0	6.50	Open	222.9	1.2	8.0	6.50
4/8/11 12:45	2,201.0	99	Closed	306.1	1.0	8.0	6.00	Closed	249.2	1.3	8.0	6.50

**Abbreviations & Notes:**

scfm = Standard cubic feet per minute

psi = Pounds per square inch

NM = Not measured

Cumulative Injection Hours is the sum of the individual hou

**LOW FLOW AIR SPARGE SYSTEM OPERATIONAL DATA  
FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

Site Visit Date/Time (mm/dd/yy hh:mm)	Cumulative Injection Hours	Injection Uptime (%)	AS-6					AS-7				
			Valve Position (Open/ Closed)	Sparge Hours	Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)	Valve Position (Open/ Closed)	Sparge Hours	Flow (acfm)	Manifold Pressure (psi)	Wellhead Pressure (psi)
1/5/11 16:45	2.7		Closed	0	NM	NM	NM	Open	1.2	1.8	9.0	NM
1/11/11 16:00	137.6	94	Open	0.7	1.0	NM	5.50	Open	44.4	1.6	NM	8.50
1/19/11 15:15	324.0	97	Open	23.8	1.0	8.0	6.50	Open	68.0	0.5	7.5	6.00
1/24/11 14:00	451.0	107	Open	38.3	1.1	10.0	6.50	Open	82.6	1.1	10.0	6.50
2/1/11 15:00	640.5	98	Open	61.4	1.2	8.0	5.50	Open	106.7	1.1	10.0	6.00
2/10/11 15:30	853.3	98	Open	88.1	1.6	8.0	6.00	Open	133.5	1.2	9.0	5.50
2/15/11 14:00	971.9	100	Open	102.3	1.4	8.0	5.00	Open	148.4	1.3	8.0	5.50
2/22/11 15:00	1,136.5	97	Open	122.7	1.5	8.0	5.50	Open	169.7	1.2	10.0	6.00
3/3/11 15:00	1,349.7	99	Open	149.9	1.2	8.0	5.50	Open	196.8	1.0	8.0	6.00
3/7/11 14:00	1,443.7	99	Open	161.4	1.3	8.0	5.50	Open	208.8	1.2	9.0	6.00
3/14/11 15:00	1,609.0	98	Open	181.5	1.3	8.0	6.00	Open	229.5	1.4	9.0	6.00
3/21/11 15:30	1,775.8	99	Open	202.3	1.2	9.0	6.50	Open	250.9	1.1	8.0	6.50
3/30/11 13:45	1,987.5	99	Open	228.0	1.1	9.0	6.00	Open	277.4	1.1	11.0	7.00
4/8/11 12:45	2,201.0	99	Closed	254.0	1.3	8.0	6.00	Closed	304.3	1.1	8.0	6.50

**Abbreviations & Notes:**

scfm = Standard cubic feet per minute

psi = Pounds per square inch

NM = Not measured

Cumulative Injection Hours is the sum of the individual hours

TABLE 2

**LOW FLOW AIR SPARGE SYSTEM OPERATIONAL DATA  
FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

<i>Site Visit Date/Time (mm/dd/yy hh:mm)</i>	<i>Cumulative Injection Hours</i>	<i>Injection Uptime (%)</i>	<i>Valve Position (Open/ Closed)</i>	<i>AS-8</i>			
				<i>Sparge Hours</i>	<i>Flow (acfm)</i>	<i>Manifold Pressure (psi)</i>	<i>Wellhead Pressure (psi)</i>
1/5/11 16:45	2.7		Open	0.5	NM	NM	NM
1/11/11 16:00	137.6	94	Open	44	1.2	NM	6.50
1/19/11 15:15	324.0	97	Open	67.9	0.5	12.0	6.50
1/24/11 14:00	451.0	107	Open	82.8	1.6	12.0	6.25
2/1/11 15:00	640.5	98	Open	107.4	1.4	11.0	6.00
2/10/11 15:30	853.3	98	Open	134.4	1.4	10.0	6.00
2/15/11 14:00	971.9	100	Open	149.2	1.1	10.0	5.50
2/22/11 15:00	1,136.5	97	Open	170.1	1.1	12.0	6.50
3/3/11 15:00	1,349.7	99	Open	196.9	1.0	11.0	6.50
3/7/11 14:00	1,443.7	99	Open	208.9	1.4	12.0	6.50
3/14/11 15:00	1,609.0	98	Open	229.5	1.1	12.0	6.00
3/21/11 15:30	1,775.8	99	Open	251.1	1.2	12.0	6.50
3/30/11 13:45	1,987.5	99	Open	277.8	1.2	12.0	6.50
4/8/11 12:45	2,201.0	99	Closed	304.4	1.2	12.0	6.50

**Abbreviations & Notes:**

scfm = Standard cubic feet per minute

psi = Pounds per square inch

NM = Not measured

Cumulative Injection Hours is the sum of the individual hou



**PILOT TEST MONITORING WELL BIOPARAMETER DATA  
FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

<i>Well ID</i>	<i>Total Depth (ft)</i>	<i>Screen Interval (fbg)</i>	<i>Date (mm/dd/yy)</i>	<i>DTW (ft TOC)</i>	<i>VOC (ppmV)</i>	<i>DO (mg/L)</i>	<i>Temperature (°C)</i>	<i>pH</i>	<i>ORP (mV)</i>
<b>MW-1A</b>	<b>16.5</b>	<b>6.5 - 16.5</b>	12/21/10	8.03	NM	2.00	17.4	6.58	-43
			01/05/11	6.98	21	2.85	16.8	7.30	92
			01/19/11	7.52	0.3	2.30	17.0	6.81	-91
			01/24/11	7.72	6	2.13	18.5	7.34	91
			02/01/11	8.05	39	1.78	16.8	7.63	98
			02/10/11	8.20	108	1.71	16.5	7.40	98
			02/15/11	8.28	132	1.51	16.3	7.40	141
			02/22/11	6.87	18	2.91	15.7	7.75	141
			03/03/11	6.85	90	2.10	16.3	6.77	110
			03/07/11	6.94	35	3.78	15.4	7.81	122
			03/14/11	7.07	58	2.94	15.8	7.44	105
			03/21/11	5.90	38	3.13	15.2	7.48	118
			03/30/11	5.10	0	3.06	15.8	7.67	133
			04/08/11	5.87	1	2.53	17.0	7.81	100
<b>MW-2</b>	<b>16.5</b>	<b>5.0 - 15.0</b>	12/21/10	8.32	NM	1.46	17.1	6.85	-57
			01/05/11	7.65	0	2.61	17.6	6.73	-45
			01/19/11	7.88	170	2.25	17.1	6.90	-138
			01/24/11	8.40	565	2.07	18.1	7.20	-122
			02/01/11	8.27	767	1.64	16.7	6.93	-104
			02/10/11	8.55	714	2.16	16.8	6.86	-22
			02/15/11	8.58	757	2.02	16.3	7.04	38
			02/22/11	7.05	794	5.46	16.3	7.12	177
			03/03/11	7.45	710	2.63	16.4	7.04	121
			03/07/11	7.43	499	5.01	15.9	7.16	162
			03/14/11	7.68	419	2.92	16.0	7.14	10
			03/21/11	6.55	324	7.03	16.0	7.22	170
			03/30/11	5.75	413	5.94	16.1	7.20	147
			04/08/11	6.78	445	5.65	16.8	7.19	101
<b>MW-3</b>	<b>16.5</b>	<b>5.0 - 15.0</b>	12/21/10	8.05	NM	1.55	18.3	7.24	-78
			01/05/11	7.35	1	2.59	18.1	6.65	-75
			01/19/11	7.83	334	4.69	18.0	6.76	-79
			01/24/11	7.33	520	7.55	18.8	6.97	86
			02/01/11	8.07	611	3.18	17.6	6.83	-4
			02/10/11	8.45	400	4.89	17.6	6.80	46
			02/15/11	8.62	140	7.09	16.8	6.87	125
			02/22/11	6.18	111	9.97	17.9	6.90	154
			03/03/11	7.40	380	5.65	17.6	6.84	116

**PILOT TEST MONITORING WELL BIOPARAMETER DATA  
FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

<i>Well ID</i>	<i>Total Depth (ft)</i>	<i>Screen Interval (fbg)</i>	<i>Date (mm/dd/yy)</i>	<i>DTW (ft TOC)</i>	<i>VOC (ppmV)</i>	<i>DO (mg/L)</i>	<i>Temperature (°C)</i>	<i>pH</i>	<i>ORP (mV)</i>
<b>MW-3 (cont)</b>			03/07/11	8.12	16	10.33	17.1	6.98	141
			03/14/11	8.05	20	9.66	17.0	6.97	65
			03/21/11	6.05	4	9.38	17.6	6.95	160
			03/30/11	5.73	15	8.14	17.6	6.97	140
			04/08/11	5.62	3	9.15	17.8	6.97	96
<b>MW-4</b>	<b>16.5</b>	<b>5.0 - 15.0</b>	12/21/10	7.05	NM	2.02	17.6	7.00	-44
			01/05/11	6.40	0	3.12	17.4	6.90	-5
			01/19/11	6.75	0.2	4.23	17.6	7.41	-92
			01/24/11	7.05	0.3	2.02	19.9	7.28	-50
			02/01/11	7.12	0.3	2.07	17.1	6.88	-91
			02/10/11	7.45	2	2.01	17.0	6.61	-86
			02/15/11	7.23	2	2.91	16.4	6.94	73
			02/22/11	6.35	2.5	4.70	17.3	6.86	169
			03/03/11	6.28	1	2.45	17.1	7.80	123
			03/07/11	6.37	1	4.48	16.5	6.81	42
			03/14/11	6.48	1	3.57	16.3	6.83	-76
			03/21/11	5.85	1	5.09	17.2	6.82	139
			03/30/11	5.13	0	3.51	17.8	6.83	129
			04/08/11	5.50	0	3.77	17.2	6.85	75

**Abbreviations & Notes:**

DTW, DO, Temp., pH and ORP are field measurements taken during site visits

DTW = Depth to groundwater

VOC = Volatile organic compounds

DO = Dissolved oxygen

ORP = Oxidation-reduction potential

ft = Feet

fbg = Feet below grade

°C = Degrees Celsius

ft TOC = Feet below top of well casing

ppmV = Parts per million by volume

mg/L = Milligrams per liter

mV = Milli volts

TPHd = Total purgeable hydrocarbons as Diesel

TPHg = Total purgeable hydrocarbons as Gasoline

NM = Not measured

**TABLE 4  
GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER CHEVRON SERVICE STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS		PRIMARY VOCS				GENERAL CHEMISTRY						
					TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE by SW8021	Carbon dioxide	Nitrate Nitrogen	Sulfate	Alkalinity to pH 4.5	Alkalinity to pH 8.3	Ferrous Iron
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-1A	09/03/2010 <sup>1</sup>	18.11	9.54	8.57	590	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
MW-1A	02/03/2011 <sup>1</sup>	18.11	8.05	10.06	840	100	2.5	0.6	6.7	2.0	<2.5	-	-	-	-	-	-
<b>MW-1A</b>	<b>05/04/2011<sup>1,7</sup></b>	<b>18.11</b>	<b>7.16</b>	<b>10.95</b>	<b>1,500</b>	<b>&lt;50</b>	<b>6.7</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	<b>&lt;2.5</b>	-	-	-	-	-	-
MW-2	09/03/2010 <sup>1</sup>	18.40	9.98	8.42	130	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
MW-2	02/03/2011 <sup>1</sup>	18.40	8.61	9.79	430	75	<0.5	<0.5	<0.5	<1.5	8.9	-	-	-	-	-	-
<b>MW-2</b>	<b>05/04/2011<sup>1,7</sup></b>	<b>18.40</b>	<b>4.55</b>	<b>13.85</b>	<b>160</b>	<b>1,300</b>	<b>12</b>	<b>48</b>	<b>0.7</b>	<b>47</b>	<b>&lt;100</b>	-	-	-	-	-	-
MW-3	09/03/2010 <sup>1</sup>	18.07	9.70	8.37	4,000	32,000	65	690	3,100	4,900	380	160,000	390	45,900	531,000	<460	21,500
MW-3	02/03/2011 <sup>1</sup>	18.07	8.39	9.68	1,400	2,000	17	34	250	190	26	44,000	<250	180,000	385,000	<460	28,500
<b>MW-3</b>	<b>05/04/2011<sup>1,7</sup></b>	<b>18.07</b>	<b>7.30</b>	<b>10.77</b>	<b>340</b>	<b>57</b>	<b>&lt;0.5</b>	<b>1.1</b>	<b>3.8</b>	<b>7.7</b>	<b>&lt;2.5</b>	<b>20,000</b>	<b>&lt;250</b>	<b>222,000</b>	<b>310,000</b>	<b>&lt;460</b>	<b>10,500</b>
MW-4	09/03/2010 <sup>1</sup>	16.98	8.63	8.35	400	310	<5.0	<0.5	1.2	<1.5	<2.5	210,000	<250	2,000	400,000	<460	7,500
MW-4	02/03/2011 <sup>1</sup>	16.98	7.43	9.55	160	55	1.6	<0.5	<0.5	<1.5	<2.5	75,000	<250	52,600	309,000	<460	4,100
<b>MW-4</b>	<b>05/04/2011<sup>1,7</sup></b>	<b>16.98</b>	<b>6.32</b>	<b>10.66</b>	<b>&lt;50</b>	<b>&lt;50</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;0.5</b>	<b>&lt;1.5</b>	<b>&lt;2.5</b>	<b>76,000</b>	<b>&lt;250</b>	<b>16,700</b>	<b>183,000</b>	<b>&lt;460</b>	<b>2,600</b>
MW-5	09/03/2010 <sup>1</sup>	17.68	9.28	8.40	62	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
MW-5	02/03/2011 <sup>1</sup>	17.68	7.83	9.85	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
<b>MW-5</b>	<b>05/04/2011<sup>1</sup></b>	<b>17.68</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-6	09/03/2010 <sup>1</sup>	17.33	9.13	8.20	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
MW-6	02/03/2011 <sup>1</sup>	17.33	7.65	9.68	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
<b>MW-6</b>	<b>05/04/2011<sup>1</sup></b>	<b>17.33</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-7	09/03/2010 <sup>1</sup>	19.26	10.74	8.52	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
MW-7	02/03/2011 <sup>1</sup>	19.26	9.20	10.06	220	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
<b>MW-7</b>	<b>05/04/2011<sup>1</sup></b>	<b>19.26</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**TABLE 4  
GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER CHEVRON SERVICE STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS		PRIMARY VOCS				GENERAL CHEMISTRY						
					TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE by SW8021	Carbon dioxide	Nitrate Nitrogen	Sulfate	Alkalinity to pH 4.5	Alkalinity to pH 8.3	Ferrous Iron
Units		ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-8	09/03/2010 <sup>1</sup>	17.79	9.75	8.04	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
MW-8	02/03/2011 <sup>1</sup>	17.79	8.46	9.33	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
<b>MW-8</b>	<b>05/04/2011<sup>1</sup></b>	<b>17.79</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-9	09/03/2010 <sup>2</sup>	18.42	10.01	8.41	95	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-9	02/03/2011 <sup>2,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-9</b>	<b>05/04/2011<sup>2,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-10	09/03/2010 <sup>3</sup>	17.99	10.35	7.64	<50	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-10	02/03/2011 <sup>3,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-10</b>	<b>05/04/2011<sup>3,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-11	09/03/2010 <sup>2</sup>	18.68	10.21	8.47	<50	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-11	02/03/2011 <sup>2,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-11</b>	<b>05/04/2011<sup>2,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-12	09/03/2010 <sup>3</sup>	18.46	11.05	7.41	65	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-12	02/03/2011 <sup>3,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-12</b>	<b>05/04/2011<sup>3,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-13	09/03/2010 <sup>2</sup>	18.43	10.09	8.34	58	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-13	02/03/2011 <sup>2,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-13</b>	<b>05/04/2011<sup>2,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-14	09/03/2010 <sup>3</sup>	18.59	11.52	7.07	<50	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-14	02/03/2011 <sup>3,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-14</b>	<b>05/04/2011<sup>3,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**TABLE 4  
GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER CHEVRON SERVICE STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS		PRIMARY VOCS				GENERAL CHEMISTRY						
					TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE by SW8021	Carbon dioxide	Nitrate Nitrogen	Sulfate	Alkalinity to pH 4.5	Alkalinity to pH 8.3	Ferrous Iron
Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
MW-15	09/03/2010 <sup>2</sup>	18.38	9.95	8.43	<50	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-15	02/03/2011 <sup>2,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-15</b>	<b>05/04/2011<sup>2,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-16	09/03/2010 <sup>3</sup>	18.57	10.95	7.62	<50	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-16	02/03/2011 <sup>3,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-16</b>	<b>05/04/2011<sup>3,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
MW-17	09/03/2010 <sup>3</sup>	18.55	10.81	7.74	67	<50	<0.5	<0.5	<0.5	<1.5	-	-	-	-	-	-	-
MW-17	02/03/2011 <sup>3,4,5</sup>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>MW-17</b>	<b>05/04/2011<sup>3,4,5</sup></b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-1	02/03/2011 <sup>6</sup>	18.42	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>AS-1</b>	<b>05/04/2011</b>	<b>18.42</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-2	02/03/2011 <sup>6</sup>	17.99	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>AS-2</b>	<b>05/04/2011</b>	<b>17.99</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-3	02/03/2011 <sup>6</sup>	18.68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>AS-3</b>	<b>05/04/2011</b>	<b>18.68</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-4	02/03/2011 <sup>6</sup>	18.46	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>AS-4</b>	<b>05/04/2011</b>	<b>18.46</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-5	02/03/2011 <sup>6</sup>	18.43	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
<b>AS-5</b>	<b>05/04/2011</b>	<b>18.43</b>	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

**TABLE 4  
GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER CHEVRON SERVICE STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS		PRIMARY VOCS				GENERAL CHEMISTRY						
					TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE by SW8021	Carbon dioxide	Nitrate Nitrogen	Sulfate	Alkalinity to pH 4.5	Alkalinity to pH 8.3	Ferrous Iron
	Units	ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L
AS-6	02/03/2011 <sup>6</sup>	18.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-6	05/04/2011	18.59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-7	02/03/2011 <sup>6</sup>	18.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-7	05/04/2011	18.38	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-8	02/03/2011 <sup>6</sup>	18.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
AS-8	05/04/2011	18.57	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
QA	09/03/2010	-	-	-	-	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
QA	02/03/2011	-	-	-	-	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-
QA	05/04/2011	-	-	-	-	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-	-	-	-	-	-

**TABLE 4  
GROUNDWATER MONITORING AND SAMPLING DATA  
FORMER CHEVRON SERVICE STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA**

Location	Date	TOC	DTW	GWE	HYDROCARBONS		PRIMARY VOCS					GENERAL CHEMISTRY				
					TPH-DRO w/ Si Gel	TPH-GRO	B	T	E	X	MTBE by SW8021	Carbon dioxide	Nitrate Nitrogen	Sulfate	Alkalinity to pH 4.5	Alkalinity to pH 8.3
Units		ft	ft	ft-amsl	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L	µg/L

**Abbreviations and Notes:**

TOC = Top of Casing

DTW = Depth to Water

GWE = Groundwater elevation

(ft-amsl) = Feet Above Mean sea level

ft = Feet

µg/L = Micrograms per Liter

TPH-DRO = Total Petroleum Hydrocarbons - Diesel Range Organics

TPH-GRO = Total Petroleum Hydrocarbons - Gasoline Range Organics

VOCS = Volatile Organic Compounds

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylene

MTBE = Methyl tert butyl ether

-- = Not available / not applicable

<x = Not detected above laboratory method detection limit

1 Shallow Well

2 Intermediate Well

3 Deep Well

4 Monitored annually during the third quarter

5 Sampled bi-annually during the third quarter

6 Not able to access well. Well connected to Air Sparge System

7 Special Sampling Event

TABLE 5

VAPOR ANALYTICAL DATA  
FORMER SIGNAL OIL STATION 20-6145  
800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	Sample Date	Probe Depth Interval (fbg)	TPHg	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes <sup>1</sup>	MTBE	Naphthalene	Isobutane <sup>2</sup> ppbv	Oxygen	Nitrogen	Carbon		
			(by TO-3)	(by TO-15)										% Volume		
Concentrations reported in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )																
ESL	--	--	10,000	84	63,000	980	21,000	9,400	72	--	--	--	--	--	--	
VP-1	11/6/2007	5.0-5.5	1,400	--	<3.8	16	<5.2	<5.2	<17	<25	6.6	10	--	<0.024	<0.00024	--
VP-1	LAB DUPLICATE		--	--	<3.8	14	<5.2	<5.2	<17	<25	6.5	--	--	--	--	--
VP-1	10/3/2008	5.0-5.5	--	<97	<3.8	<4.5	<5.2	<5.2	<4.3	<25	--	14	--	0.027	0.00027	<0.12
VP-1	5/10/2011	5.0-5.5	--	<b>57,000,000</b>	<b>9,200</b>	<3,200	<3,700	<3,700	<3,100	<18,000	--	8.7	88	1.6	0.0059	<0.12
VP-2	11/6/2007	5.0-5.5	<250	--	<3.9	<4.6	<5.2	<5.2	<17	<25	ND	10	--	0.88	<0.00024	--
VP-2	LAB DUPLICATE		<250	--	--	--	--	--	--	--	--	10	--	0.88	<0.00024	--
VP-2	10/3/2008 <sup>3</sup>	5.0-5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--
VP-2	5/10/2011	5.0-5.5	--	6,500	<4.1	5.1	<5.6	<5.6	<4.7	<27	--	15	84	1.4	0.00039	<0.13
VP-2 DUP	5/10/2011	5.0-5.5	--	<b>13,000</b>	<4.1	7.5	<5.6	<5.6	<4.7	<27	--	15	84	1.4	0.00037	<0.13
VP-3	11/6/2007	5.0-5.5	<240	--	<3.7	<4.4	<5.0	<5.0	<17	<24	ND	16	--	2.0	<0.00023	--
VP-3	10/3/2008	5.0-5.5	--	<92	<3.6	<4.2	<4.9	<4.9	<4.0	<23	--	16	--	2.4	<0.00022	<0.11
VP-3	LAB DUPLICATE		--	--	--	--	--	--	--	--	--	16	--	2.4	<0.00022	<0.11
VP-3	5/10/2011	5.0-5.5	--	<b>22,000,000</b>	<b>10,000</b>	21,000	<b>4,200</b>	<b>60,000</b>	<1600	<9000	--	14	82	3.8	0.0054	<0.13
VP-4	11/6/2007	5.0-5.5	280	--	<3.9	<4.6	<5.2	<5.2	<17	<25	ND	9.7	--	4.0	<0.00024	--
VP-4	10/3/2008	5.0-5.5	--	390	<4.1	<4.9	<5.6	<5.6	<4.6	<27	--	11	--	4.8	0.00028	<0.13
VP-4 DUPLICATE	10/3/2008	5.0-5.5	--	240	<4.2	<5.0	<5.7	<5.7	<4.8	<28	--	11	--	5.0	0.00028	<0.13
VP-4	5/10/2011	5.0-5.5	--	<b>12,000,000</b>	<b>2,600</b>	3,400	160	13,000	<36	<210	--	6.5	86	6.8	0.0034	<0.12
VP-5	11/6/2007	5.0-5.5	<b>120,000 *</b>	<b>2,100,000</b>	<760	<900	<1,000	<1,000	<3,400	<5,000	13,000	16	--	4.4	<0.00024	--
VP-5	10/3/2008	5.0-5.5	--	<b>57,000</b>	<86	<100	<120	<120	<97	<560	--	17	--	4.1	<0.00024	<0.12
VP-5	LAB DUPLICATE		--	<b>65,000</b>	<15	<18	<21	<21	<17	<100	--	--	--	--	--	--
VP-5	5/10/2011 <sup>3</sup>	5.0-5.5	--	--	--	--	--	--	--	--	--	--	--	--	--	--



TABLE 5

VAPOR ANALYTICAL DATA  
 FORMER SIGNAL OIL STATION 20-6145  
 800 CENTER STREET, OAKLAND, CALIFORNIA

Sample ID	Sample Date	Probe Depth Interval (fbg)	TPHg	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes <sup>1</sup>	MTBE	Naphthalene	Isobutane <sup>2</sup>	Oxygen	Nitrogen	Carbon		Helium
			(by TO-3)	(by TO-15)										Dioxide	Methane	
Concentrations reported in micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ )																
% Volume																
ESL	--	--	10,000	84	63,000	980	21,000	9,400	72	--	--	--	--	--	--	--
VP-6	11/6/2007	5.0-5.5	<260	--	<4.0	<4.8	<5.5	<5.5	<18	<26	ND	20	--	1.0	<0.00025	--
VP-6 DUPLICATE	11/6/2007	5.0-5.5	<250	--	<3.9	<4.6	<5.4	<5.4	<18	<26	ND	20	--	1.0	<0.00025	--
VP-6	10/3/2008	5.0-5.5	--	<97	<3.8	<4.5	<5.2	<5.2	<4.3	<25	--	20	--	0.98	<0.00024	<0.12
VP-6	5/10/2011	5.0-5.5	--	<b>2,200,000</b>	<190	<230	<260	380	<220	<1,200	--	19	79	1.8	<0.00024	<0.12

**Notes/Abbreviations:**

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method TO-3 for samples collected 11/06/07

TPHg = Total petroleum hydrocarbons as gasoline by EPA Method TO-15 for samples collected 10/03/08

Benzene, toluene, ethylbenzene, xylenes (BTEX), methyl-tertiary butyl ether (MTBE), naphthalene by EPA method TO-15

Oxygen, nitrogen, carbon dioxide, methane and helium by ASTM D-1946

fbg = feet below grade

ppbv = parts per billion volume

<x.xxx = Below laboratory method detection limits

ND = Not detected above laboratory method detection limits, detection limit not reported by laboratory

-- = Not analyzed

ESL - Environmental Screening Level from Table E-2 of *Screening for Environmental Concerns at Sites with Contaminated Soil and Groundwater, Interim Final* November 2007 (Updated May 2008) prepared by the San Francisco Regional Water Quality Control Board.

1 = Values for highest value of xylenes detected

2 = Constituent used as leak detector for samples collected 11/06/07 determined as a Tentatively Identified Compound (TICs) by Modified EPA Method TO-15. Match quality was below 50%.

3 = Water in probe tubing: sample couldn't be collected

\* = TPHg samples collected on 10/03/08 from VP-5 were analyzed by EPA Method TO-15 and EPA Method TO-3 for comparison purposes. Results were within laboratory limits.

APPENDIX A  
ACEH CORRESPONDENCE



ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
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October 16, 2009

Mr. Ian Robb  
6001 Bollinger Canyon Road K2256 B  
PO Box 6012  
San Ramon, CA 94583-2324  
(sent via electronic mail to [irobb@chevron.com](mailto:irobb@chevron.com))

Mr. Rene Boisvert  
Boulevard Equity Group  
484 Lake Park Ave #246  
Oakland, CA 94610-2730

Terrilla Sadler  
618 Brooklyn Avenue  
Oakland, CA 94606-1004

Subject: Incomplete Human Health Risk Assessment, Rejection of Revised CAP, and Approval of LFAS Workplan – Fuel Leak Case No. RO0000454 (Global ID # T0600102230), Chevron #20-6145/Signal SS, 800 Center Street, Oakland CA 94607

Dear Mr. Robb, Mr. Boisvert, and Ms. Sadler:

I wanted to let you know that I have recently been assigned to your case. In the future, please send all correspondence or inquiries to my attention. Alameda County Environmental Health (ACEH) staff has reviewed the case file for the above referenced site and the documents entitled *Work Plan for Low Flow Air Sparging Pilot Test and Additional Soil Vapor Sampling*, dated April 27, 2009, and *Revised Draft Corrective Action Plan*, dated May 14, 2009, prepared by Conestoga-Rovers & Associates (CRA) and Arcadis, respectively. Thank you for submitting them. Although the Arcadis document is entitled *Revised Draft Corrective Action Plan* the document is a Human Health Risk Assessment (HHRA); it does not propose alternative corrective actions as requested in Technical Comment 1 of the ACEH letter dated March 16, 2009. It does however evaluate risk associated with residual contamination, as also requested in Technical Comment 1. Both of these recent document submittals were generated in response to Technical Comment 1 contained in the March 2009 ACEH letter.

Based on ACEH staff review of the case file, we request that you address the following technical comments and send us the reports described below.

#### **TECHNICAL COMMENTS**

- 1) **Human Health Risk Assessment.** ACEH has several concerns to note:
  - a) Of potential concern is the timing of the LFAS pilot testing, a future full scale system, and construction and occupation of the residential units. While no human health risk currently appear to exist at the site, completed exposure pathways were found (for a construction worker through soil ingestion and vapor inhalation, and for a resident child or adult through vapor inhalation) associated with existing soil and soil vapor concentrations; however, the pending redevelopment of the site will also change site conditions. According to the January 2005 DTSC *Guidance for the Evaluation and Mitigation of Subsurface Vapor Intrusion to Indoor Air* document these can include:
    - i) Vapor concentrations in the subsurface may increase, accumulating directly under the foundation of a future building,
    - ii) Moisture content of the vadose zone directly under a building may decrease due to the inability of rainwater to infiltrate under the building,

- iii) Air permeability and moisture content of the subsurface may be altered due to construction activities associated with building construction, thereby altering the subsurface air permeability and significantly increasing the potential for vapor intrusion to indoor air.

It is understood that, with the exclusion of the highest data point due to data quality concerns, maximum soil vapor concentrations were used to model risk to future residents, and that a standard attenuation factor for slab-on-grade construction of 0.001 was used. However, it is not apparent that soil vapor changes due to future site changes (construction modifications) were evaluated, as these were not discussed in the report. The lack of detailed site specific development plans (including among other, foundation type, utility locations, and etc.) complicates this evaluation. Consequently, while the HHRA appears to have approached the site with available information the HHRA must be considered incomplete for the future residential development. Should detailed site specific development plans exist, please provide a copy to ACEH with the documents requested below. Additionally, ACEH requires a clarification of the timing of the completion of corrective actions in relationship to site development events. This information can be included in the documents requested below.

- b) The HHRA did not model groundwater hydrocarbon concentrations, due to either lack of direct exposure at the site specifically, or due to pending groundwater concentration changes, as a result of LFAS pilot testing, or a future full scale system. However, in Figure 3-1 the HHRA stated that the exclusion of domestic / industrial use of groundwater in the risk assessment was because it was an incomplete pathway, and that this was based on a the lack of plans by the City of Oakland to develop local groundwater resources for use as drinking water due to existing or potential salt water intrusion, contamination, or poor / limited quality (*East Bay Plain Groundwater Basin Beneficial Use Evaluation Report*, San Francisco RWQCB Groundwater Committee, June 1999).

Unfortunately this does not account for significant historical usage of groundwater in older parts of Oakland as is documented by the high density of historic wells in west Oakland (Figure B-3, Appendix B of this reference) which can lead to exposure of residents to residual groundwater contamination if used for irrigation or other consumptive purposes. Because of the likely presence of groundwater wells (either existing or improperly destroyed) in the vicinity, the likelihood of exposure to residual contamination could reasonably be presumed to be higher than is typical for most of the East Bay Plain. At present groundwater in this area of the basin remains classified as 'MUN' (potentially suitable for municipal or domestic water supply). Reflective of this, Figure 19 (op. cite.) includes this region of Oakland in Zone A, a "significant drinking water resource." Until otherwise classified, groundwater beneath the subject site must be considered beneficial for these uses unless shown to be non-beneficial using criteria presented in the Basin Plan. Please adjust your evaluation to reflect this in future reports. However, please also be aware that case closure does not necessarily require cleanup to MUN cleanup goals, only that those goals can be met within a reasonable timeframe. However, ACEH is requesting that a vicinity well survey be conducted that includes at a minimum Alameda County sources to determine if these old wells remain in the vicinity and report the results in the documents requested below.

- c) To protect construction workers from risks associated with lead in soil, the HHRA utilized data from twelve soil samples analyzed for lead from six locations, each collected at 5 and 10 feet bgs, and excluded resident contact with subsurface soil. However, should there be a concern with lead concentrations at the site future residents would most likely be exposed to surficial lead concentrations. From a review of the comprehensive soil data tables contained in the June 3, 2008, *Site Conceptual Model and Corrective Action Plan* generated by CRA, it appears that surficial lead concentrations in soil have not been evaluated at the site. From a development perspective it would be warranted to preclude future residential exposure to this potentiality in an area of older development. We request that you submit a work plan to conduct the work required to collect, analyze, and evaluate surface soil for lead content, and report the results with conclusions in the report requested below.

- 2) **Revised CAP / HHRA.** As you are likely aware, public participation is a requirement for the Corrective Action Plan (CAP) process. Remediation goals for all media, including soil, groundwater classified as MUN, and vapor phase, must be identified in a CAP. Within a CAP, each viable alternative requires evaluation not only for cost-effectiveness, but also the timeframe to reach the identified cleanup levels and cleanup goals, includes a discussion of the feasibility and limitations for each remedial alternative, a detailed description of the proposed remediation including confirmation sampling and monitoring during implementation, and post-remedial monitoring. Consequently the submitted revised CAP is useful as a HHRA representative of this site; however, is inadequate as a revised CAP. We request that you update the draft CAP in order to address remediation goals in all media including soil, vapor, and groundwater, and submit a revised draft CAP according to the schedule below. Again, please note that soil cleanup levels should ultimately (within a reasonable timeframe) achieve water quality objectives (cleanup goals) for groundwater in accordance with the SFRWQCB Basin Plan. Please specify appropriate cleanup levels and cleanup goals in accordance with 23 CCR Section 2725, 2726, and 2727 in the revised draft CAP.

Upon ACEH approval of a revised CAP, ACEH will notify potentially affected members of the public who live or own property in the surrounding area of the proposed remediation described in the revised CAP. Public comments on the proposed remediation will be accepted for a 30-day period.

- 3) **Work Plan for Low Flow Air Sparging.** The ACEH generally concurs with the implementation of the pilot test for LFAS. LFAS is believed by CRA to be effective at enhancing biodegradation of groundwater and in soils in the saturated zone, and may be effective with residual contamination in the vadose zone as indicated by CRA (smear zone). Residual soil contamination is predominately documented at two discrete sampling depths of 10 and 15 feet below grade surface (bgs), while samples at 5 feet and 20 feet bgs are significantly cleaner. Consequently it appears that the bulk of residual soil contamination is within or below the zone of groundwater fluctuation, which has generally ranged between approximately 5 and 10 feet bgs. ACEH has three potential concerns relative to the proposed remediation methodology:
- a) While LFAS is not anticipated to volatilize hydrocarbons from the saturated zone, it appears warranted to verify this hypothesis by monitoring soil vapor at multiple existing vapor points a minimum of one time during the pilot test period, closely associated but prior to termination of the pilot test when soil vapor conditions have stabilized or are likely close to a maximum. We request that you collect soil vapor at existing vapor points VP-1, VP-3, VP-4, and VP-5 to confirm the working hypothesis, and report the results with conclusions in the report of pilot test results requested below.
  - b) Confirmation of the reduction of residual soil contamination between 10 and 20 feet bgs is warranted to verify the effectiveness of LFAS on the residual soil mass. Presumably this would be in close proximity to previously documented elevated soil concentrations, but at an appropriate time associated with termination of a LFAS system (pilot or full scale) in the future.
  - c) Additional benefit may be derived by the installation of an additional LFAS point in the vicinity of soil samples EXB-3 (12), SW-6, and SW-7 due to elevated residual soil concentrations and a position upgradient of well MW-1A. Residual soil concentrations in this vicinity are likely contributory to the groundwater plume located further downgradient at the site as indicated by groundwater samples collected from wells MW-1A, MW-13, and MW-14, but which do not appear to contribute to soil vapor concentrations detected at VP-4.

#### **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Mark Detterman), according to the following schedule:

- **December 1, 2009 – LFAS Work Plan Addenda.** Including clarifications relative to construction timing.
- **December 15, 2009 – Surficial Soil Sampling Work Plan.**
- **February 15, 2010 – Report on Surficial Soil Sampling & Well Survey.**

- **Seven Months After LFAS Work Plan Approval – Report on Pilot Test.** Report summarizing pilot test results, field procedures, laboratory results, boring logs, confirmation vapor point sampling, analysis of surficial lead to future residents, and recommendations.
- **Three Months After Pilot Test Report – Revised Draft CAP.**

These reports are requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

#### ELECTRONIC SUBMITTAL OF REPORTS

ACEH's Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of reports in electronic form. The electronic copy replaces paper copies and is expected to be used for all public information requests, regulatory review, and compliance/enforcement activities. Instructions for submission of electronic documents to the Alameda County Environmental Cleanup Oversight Program FTP site are provided on the attached "Electronic Report Upload Instructions." Submission of reports to the Alameda County FTP site is an addition to existing requirements for electronic submittal of information to the State Water Resources Control Board (SWRCB) Geotracker website. In September 2004, the SWRCB adopted regulations that require electronic submittal of information for all groundwater cleanup programs. For several years, responsible parties for cleanup of leaks from underground storage tanks (USTs) have been required to submit groundwater analytical data, surveyed locations of monitoring wells, and other data to the Geotracker database over the Internet. Beginning July 1, 2005, these same reporting requirements were added to Spills, Leaks, Investigations, and Cleanup (SLIC) sites. Beginning July 1, 2005, electronic submittal of a complete copy of all reports for all sites is required in Geotracker (in PDF format). Please visit the SWRCB website for more information on these requirements ([http://www.swrcb.ca.gov/ust/electronic\\_submittal/report\\_rqmts.shtml](http://www.swrcb.ca.gov/ust/electronic_submittal/report_rqmts.shtml)).

#### PERJURY STATEMENT

All work plans, technical reports, or technical documents submitted to ACEH must be accompanied by a cover letter from the responsible party that states, at a minimum, the following: "I declare, under penalty of perjury, that the information and/or recommendations contained in the attached document or report is true and correct to the best of my knowledge." This letter must be signed by an officer or legally authorized representative of your company. Please include a cover letter satisfying these requirements with all future reports and technical documents submitted for this fuel leak case.

#### PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

Ian Robb, Rene Boisvert and Terrella Sadler  
October 16, 2009  
RO0000454, Page 5

AGENCY OVERSIGHT

If it appears as though significant delays are occurring or reports are not submitted as requested, we will consider referring your case to the Regional Board or other appropriate agency, including the County District Attorney, for possible enforcement actions. California Health and Safety Code, Section 25299.76 authorizes enforcement including administrative action or monetary penalties of up to \$10,000 per day for each day of violation.

If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org).

Sincerely,

Mark E. Detterman, PG, CEG  
Hazardous Materials Specialist

cc: Charlotte Evans, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA 94608  
(sent via electronic mail to [cevens@croworld.com](mailto:cevens@croworld.com))  
Leroy Griffin, Oakland Fire Department 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032  
(sent via electronic mail to [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))  
Donna Drogos (sent via electronic mail to [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Mark Detterman (sent via electronic mail to [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org))  
File

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>ISSUE DATE:</b> July 5, 2005
	<b>REVISION DATE:</b> March 27, 2009
	<b>PREVIOUS REVISIONS:</b> December 16, 2005, October 31, 2005
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

The Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC) require submission of all reports in electronic form to the county's ftp site. Paper copies of reports will no longer be accepted. The electronic copy replaces the paper copy and will be used for all public information requests, regulatory review, and compliance/enforcement activities.

#### REQUIREMENTS

- Entire report including cover letter must be submitted to the ftp site as a **single portable document format (PDF) with no password protection**. (Please do not submit reports as attachments to electronic mail.)
- It is **preferable** that reports be converted to PDF format from their original format, (e.g., Microsoft Word) rather than scanned.
- Signature pages and perjury statements **must** be included and have either original or electronic signature.
- **Do not password protect the document**. Once indexed and inserted into the correct electronic case file, the document will be secured in compliance with the County's current security standards and a password. **Documents with password protection will not be accepted.**
- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:  
RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

#### Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

#### Submission Instructions

- 1) Obtain User Name and Password:
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org)  
Or
    - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
  - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
    - (i) Note: Netscape and Firefox browsers will not open the FTP site.
  - b) Click on File, then on Login As.
  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.





ENVIRONMENTAL HEALTH SERVICES  
ENVIRONMENTAL PROTECTION  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577  
(510) 567-6700  
FAX (510) 337-9335

December 23, 2009

Mr. Ian Robb  
6001 Bollinger Canyon Road, Rm 3660  
PO Box 6012  
San Ramon, CA 94583-2324  
(sent via electronic mail to [irobb@chevron.com](mailto:irobb@chevron.com))

Mr. Rene Boisvert  
Boulevard Equity Group  
484 Lake Park Ave #246  
Oakland, CA 94610-2730

Terrilla Sadler  
618 Brooklyn Avenue  
Oakland, CA 94606-1004

Subject: Approval of Low Flow Air Sparge Work Plan Addendum and Approval of Modified Surficial Soil Sampling Work Plan – Fuel Leak Case No. RO0000454 (Global ID # T0600102230), Chevron #20-6145/Signal SS, 800 Center Street, Oakland CA 94607

Dear Mr. Robb, Mr. Boisvert, and Ms. Sadler:

Alameda County Environmental Health (ACEH) staff has reviewed the *Low Flow Air Sparge Work Plan Addendum* (addendum), dated December 1, 2009, and the *Work Plan for Surficial Soil Sampling* (work plan), dated December 15, 2009; both prepared by Conestoga-Rovers & Associates (CRA). Thank you for submitting the two documents.

ACEH generally concurs with the proposed scope of work in the addendum, requests that you implement the proposed work, and send us the technical reports requested below. ACEH is also in general agreement with the approach outlined in the work plan, but requests several modifications, as detailed in the following technical comments. Provided the technical comments are incorporated into the work, it may be implemented. Please provide advance written notification to this office by e-mail ([mark.detterman@acgov.org](mailto:mark.detterman@acgov.org)) 72 hours prior to the start of field activities.

### **TECHNICAL COMMENTS**

1. **Surficial Soil Sampling** – Sixteen soil samples (shallow and deeper) are proposed to be collected at eight soil locations to characterize shallow lead, termiticides, and polychlorinated biphenyls from electrical transformers. Provided the following technical comments are incorporated into the work, it may be implemented.
  - a. In conformance with the Department of Toxics Substances Control (DTSC) Guidance cited in the Work Plan, shallower soil samples are typically collected between the depth of 0 to 6 inches; however, based on a telephone conversation with Mr. Ian Robb of Chevron on December 1, 2009, it is understood that the top 6-inches of soil is likely to be removed from the site prior to development to accommodate base rock and road bed paving, or concrete slab construction, and that the intent is to characterize soil remaining onsite after construction. As such the collection of the shallower set of soil samples at a depth of 6 to 12 inches appears reasonable; however, it is also appropriate to characterize the 0 to 6 inch interval for future disposal purposes or for use as potential landscaping soils, as is very typical. Please additionally collect soil samples from the 0 to 6 inch interval to characterize these soils.
  - b. The work plan proposed a grid network to evenly distribute the proposed sample locations across the site. ACEH additionally requests that the grid network sample locations be positively biased toward proposed future landscape areas in order to better identify potential risks associated with exposed residual soils at the site (e.g. samples near MW-14 and VP-1).

- c. Table 3 of the cited DTSC guidance also indicates that four samples are to be additionally collected for out buildings (shed or similar small structures). The former restrooms along the northern property line can be considered an out building. Please collect an additional eight samples at four sample locations at the site, and submit a revised Figure 2 with planned (and revised) soil sample locations.

### **TECHNICAL REPORT REQUEST**

Please submit technical reports to Alameda County Environmental Health (Attention: Mr. Mark Detterman), according to the following schedule:

- **February 15, 2010 – Soil Sampling Report - Report on Surficial Soil Sampling & Well Survey**
- **July 2, 2010 – Interim Remedial Action Plan (Pilot Test Results)** Report summarizing pilot test results, field procedures, laboratory results, boring logs, confirmation vapor point sampling, analysis of surficial lead to future residents, and recommendations.
- **October 2, 2010 – Revised Draft CAP**

These reports are requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

### **ELECTRONIC SUBMITTAL OF REPORTS**

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### **PERJURY STATEMENT**

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### **PROFESSIONAL CERTIFICATION & CONCLUSIONS/RECOMMENDATIONS**

The California Business and Professions Code (Sections 6735, 6835, and 7835.1) requires that work plans and technical or implementation reports containing geologic or engineering evaluations and/or judgments be performed under the direction of an appropriately registered or certified professional. For your submittal to be considered a valid technical report, you are to present site specific data, data interpretations, and recommendations prepared by an appropriately licensed professional and include the professional registration stamp, signature, and statement of

professional certification. Please ensure all that all technical reports submitted for this fuel leak case meet this requirement.

#### UNDERGROUND STORAGE TANK CLEANUP FUND

Please note that delays in investigation, later reports, or enforcement actions may result in your becoming ineligible to receive grant money from the state's Underground Storage Tank Cleanup Fund (Senate Bill 2004) to reimburse you for the cost of cleanup.

#### AGENCY OVERSIGHT

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If you have any questions, please call me at (510) 567-6876 or send me an electronic mail message at [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org).

Sincerely,



Digitally signed by Mark E.  
Detterman  
DN: cn=Mark E. Detterman, c=US  
Reason: I am the author of this  
document  
Date: 2009.12.23 15:10:38 -08'00'

Mark E. Detterman, PG, CEG  
Hazardous Materials Specialist

cc: Charlotte Evans, Conestoga-Rovers & Associates, 5900 Hollis Street, Suite A, Emeryville, CA 94608  
(sent via electronic mail to [cevens@croworld.com](mailto:cevens@croworld.com))  
Leroy Griffin, Oakland Fire Department 250 Frank H. Ogawa Plaza, Ste. 3341, Oakland, CA 94612-2032  
(sent via electronic mail to [lgriffin@oaklandnet.com](mailto:lgriffin@oaklandnet.com))  
Donna Drogos (sent via electronic mail to [donna.drogos@acgov.org](mailto:donna.drogos@acgov.org))  
Mark Detterman (sent via electronic mail to [mark.detterman@acgov.org](mailto:mark.detterman@acgov.org)), File

<b>Alameda County Environmental Cleanup Oversight Programs (LOP and SLIC)</b>	<b>ISSUE DATE:</b> July 5, 2005
	<b>REVISION DATE:</b> March 27, 2009
	<b>PREVIOUS REVISIONS:</b> December 16, 2005, October 31, 2005
<b>SECTION:</b> Miscellaneous Administrative Topics & Procedures	<b>SUBJECT:</b> Electronic Report Upload (ftp) Instructions

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- Each page in the PDF document should be rotated in the direction that will make it easiest to read on a computer monitor.
- Reports must be named and saved using the following naming convention:  
RO#\_Report Name\_Year-Month-Date (e.g., RO#5555\_WorkPlan\_2005-06-14)

#### Additional Recommendations

- A separate copy of the tables in the document should be submitted by e-mail to your Caseworker in **Excel** format. These are for use by assigned Caseworker only.

#### Submission Instructions

- 1) Obtain User Name and Password:
  - a) Contact the Alameda County Environmental Health Department to obtain a User Name and Password to upload files to the ftp site.
    - i) Send an e-mail to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org)  
Or
    - ii) Send a fax on company letterhead to (510) 337-9335, to the attention of My Le Huynh.
  - b) In the subject line of your request, be sure to include **"ftp PASSWORD REQUEST"** and in the body of your request, include the **Contact Information, Site Addresses, and the Case Numbers (RO# available in Geotracker) you will be posting for.**
- 2) Upload Files to the ftp Site
  - a) Using Internet Explorer (IE4+), go to <ftp://alcoftp1.acgov.org>
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  - c) Enter your User Name and Password. (Note: Both are Case Sensitive.)
  - d) Open "My Computer" on your computer and navigate to the file(s) you wish to upload to the ftp site.
  - e) With both "My Computer" and the ftp site open in separate windows, drag and drop the file(s) from "My Computer" to the ftp window.
- 3) Send E-mail Notifications to the Environmental Cleanup Oversight Programs
  - a) Send email to [dehloptoxic@acgov.org](mailto:dehloptoxic@acgov.org) notify us that you have placed a report on our ftp site.
  - b) Copy your Caseworker on the e-mail. Your Caseworker's e-mail address is the entire first name then a period and entire last name @acgov.org. (e.g., firstname.lastname@acgov.org)
  - c) The subject line of the e-mail must start with the RO# followed by **Report Upload**. (e.g., Subject: RO1234 Report Upload) If site is a new case without an RO# use the street address instead.
  - d) If your document meets the above requirements and you follow the submission instructions, you will receive a notification by email indicating that your document was successfully uploaded to the ftp site.

APPENDIX B  
SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATION  
AND REMEDIATION

## SUMMARY OF PREVIOUS ENVIRONMENTAL INVESTIGATION AND REMEDIATION

### FORMER SIGNAL OIL SERVICE STATION (CHEVRON SITE NO. 206145) 800 CENTER STREET, OAKLAND, CALIFORNIA

#### *August 1989 Subsurface Investigation*

Subsurface Consultants Inc. (Subsurface) advanced soil borings B1 through B5 to depths ranging from 4.5 to 26 feet below grade (fbg) in the vicinity of the former underground storage tanks (USTs), dispenser island, and sumps along the eastern property boundary. Temporary wells were installed in borings B1 and B3. The highest hydrocarbon concentrations detected in soil were 14,000 milligrams per kilogram (mg/kg) total petroleum hydrocarbons as diesel (TPHd), 31,000 mg/kg total petroleum hydrocarbons as gasoline (TPHg), and 500 mg/kg benzene. A soil sample collected from 3.5 fbg in boring B-5, near the former hydraulic hoist, contained 16,000 mg/kg oil and grease. No TPHd was detected in grab groundwater samples collected from borings B1 and B3. The groundwater sample from boring B3 contained 340 micrograms per liter ( $\mu\text{g/L}$ ) benzene. Subsurface noted in their report that the former USTs had been removed in 1973 when the station closed based on a permit search at city of Oakland. Additional information is available in Subsurface's October 13, 1989 *Preliminary Hydrocarbon Contamination Assessment*.

#### *October 1995 Subsurface Investigation*

Groundwater Technology Inc. (GTI) advanced borings SB-1 through SB-3 and installed groundwater monitoring wells MW-1 through MW-4. The highest hydrocarbon concentrations detected in soil were 14,000 mg/kg TPHg and 120 mg/kg benzene. Additional information is available in GTI's November 14, 1995 *Additional Site Assessment Report*.

#### *March 1996 Subsurface Investigation*

Pacific Environmental Group (PEG) advanced soil borings P-1 through P-9. The highest hydrocarbon concentrations detected in soil were 5,400 mg/kg TPHg and 41 mg/kg benzene in boring P-3. The highest hydrocarbon concentrations detected in grab-groundwater samples were 800,000  $\mu\text{g/L}$  TPHg and 13,000  $\mu\text{g/L}$  benzene in boring P-2, located in Center Street. Additional information is available in PEG's April 18, 1996 *Soil and Groundwater Investigation*.

#### *December 1996 Well Installation*

PEG installed offsite wells MW-5 through MW-7 and drilled a boring for MW-8. Well MW-8 was not installed because no evidence of petroleum hydrocarbons was observed. No TPHg or benzene was detected in soil. Additional information is available in PEG's January 24, 1997 *Soil and Groundwater Investigation*.

### ***1997 Soil Vapor Sampling***

PEG advanced soil vapor points SV-1 through SV-5 to depths up to 12 fbg. The highest hydrocarbon concentrations detected in soil were 8,000 mg/kg TPHg and 52 mg/kg benzene. The highest hydrocarbon concentrations detected in soil vapor were 50,000 µg/L TPHg and 65 µg/L benzene. Hydrocarbon concentrations in soil vapor were highest between 6 and 10 fbg. Additional information is available in PEG's January 24, 1997 *Soil and Groundwater Investigation*.

### ***1999/2001 Site Demolition***

Gettler-Ryan, Inc. (G-R) removed the dispenser island, sumps, the hydraulic hoist, building foundations, garbage enclosure, yard lights and asphalt. An orphaned 1,000-gallon UST, an orphaned 550-gallon used-oil UST, and a buried 55-gallon drum (apparently a makeshift used oil UST) were encountered and removed. This work was initiated in September 1999 and postponed until April 2001, while Chevron and the property owner determined UST ownership. The highest hydrocarbon concentrations detected in soil were 630 mg/kg TPHg and 10 mg/kg benzene in the former gasoline UST cavity. Additional information is available in Delta Environmental Consultants, Inc. (Delta) May 21, 2001 *Compliance Soil Sampling During Removal of Underground Storage Tanks*.

### ***2002 Monitoring Well Installation***

G-R installed groundwater monitoring well MW-8 offsite. No TPHd, TPHg, benzene, or methyl tertiary butyl ether (MTBE) were detected in soil. Additional information is available in Delta's April 11, 2002 *Monitoring Well Installation Report*.

### ***2002 Subsurface Investigation***

G-R advanced soil borings GP-1 through GP-23 to approximately 12 fbg. Soil samples were collected at 5 and 10 fbg in each boring to profile soil for disposal for the planned remedial excavation. The highest hydrocarbon concentrations detected in soil were 19,000 mg/kg TPHg and 83 mg/kg benzene in boring GP-9 at 10 fbg. The highest MTBE concentration detected in soil was 170 mg/kg in boring GP-14 at 10 fbg. Additional information is available in G-R's July 31, 2002 *Soil Borings*.

### ***November 2002 Remedial Excavation***

G-R excavated hydrocarbon-bearing soil in the areas of the former USTs, dispenser island, hydraulic lift, and sumps to a total depth of approximately 12 fbg, with a maximum depth of 14 fbg in one location. Approximately 1,584 tons of hydrocarbon-bearing soil were removed and transported to Allied Waste Landfill in Manteca, California. Thirty-four confirmation soil samples were collected. Well MW-1 was destroyed by excavation during this event. Prior to backfilling, approximately 900 pounds of oxygen releasing compound was placed in the excavation bottoms, and Class II aggregate base was used for backfill. Additional information is available in Delta's January 23, 2003 *Well Destruction, Over-Excavation and Soil Sampling Report*.

### ***2003 Soil Borings and Well installation***

Delta advanced soil borings GP-24 through GP-30 to approximately 16 fbg. Monitoring well MW-1A was installed near former monitoring well MW-1. The highest hydrocarbon concentrations detected in soil were 1,600 mg/kg TPHd, 16,000 mg/kg TPHg, 92 mg/kg benzene, and 150 mg/kg MTBE in boring GP-30 at 10 fbg. A sample from 15 fbg in GP-27 also contained 1,600 mg/kg TPHd. Additional information is available in Delta's May 15, 2003 *Soil Boring and Well Installation Report*.

### ***October and November 2004 Geoprobe and CPT Investigation***

Cambria Environmental Technology advanced cone penetration test (CPT) borings CPT-1 through CPT-5 and direct push borings C-1 through C-9 to further define the lateral and vertical extents of hydrocarbons in soil. All borings were advanced onsite except CPT-5, which was located offsite in Center Street. Vertical delineation of hydrocarbons in soil was achieved between 15 and 20 fbg, except for concentrations just above TPHg detection limits between 25 and 50 fbg. Anomalous hydrocarbon grab-groundwater analytical results were detected in deeper groundwater samples. It was surmised that these detections may result from cross contamination during drilling. Additional information is in Cambria's January 14, 2005 *Subsurface Investigation Report*.

### ***2007 Well Installation and Subsequent Sampling***

Conestoga-Rovers & Associates, Inc. (CRA) installed clustered monitoring wells MW-9 through MW-17 to further define the vertical extent of hydrocarbons in groundwater. Wells MW-9 through MW-16 were screened from 35 to 40 fbg or from 55 to 60 fbg to collect depth-discrete groundwater samples. Well MW-17 was screened from 70 to 75 fbg to vertically delineate dissolved-phase hydrocarbons. Dissolved-phase hydrocarbons were detected in all wells and were highest in well MW-14 screened from 55-60 fbg. Subsequent groundwater monitoring and sampling events indicated that hydrocarbon concentrations were decreasing in these wells. Additional information is available in CRA's May 14, 2007 *Well Installation Report* and October 1, 2007 *Third Multi-Level Groundwater Monitoring Report*.

### ***October 2007 Soil Vapor Probe Installation***

CRA installed soil vapor probes VP-1 through VP-6 and on November 6, 2007 collected soil vapor samples to evaluate the potential for vapor intrusion to proposed residential housing units. TPHg was detected in vapor probes VP-1, VP-4 and VP-5. The highest TPHg concentration was detected in vapor probe VP-5 at 2,100,000 micrograms per cubic meter ( $\mu\text{g}/\text{m}^3$ ). No benzene was detected in soil vapor. Additional information is available in CRA's January 23, 2008 *Feasibility Study/Corrective Action Plan Addendum*.



### ***October 2008 Soil Vapor Investigation***

CRA re-sampled vapor probes VP-1 and VP-3 through VP-6 to confirm initial results. VP-2 could not be sampled due to water in the tubing. TPHg was detected in vapor probes VP-4 and VP-5 and was highest in VP-5 at 120,000 µg/m<sup>3</sup>. No benzene was detected. Additional information is available in CRA's November 18, 2008 *Soil Vapor Investigation Results*.

### ***January 2010 Surficial Sampling***

CRA collected surficial soil samples at the surface and at depths of 0.5 and 2.5 fbg from 12 locations, the majority of which are designated as future landscaping areas where potential direct human contact may occur. The locations were designated SS-1 through SS-12. The scope of work was based on California's Department of Toxic Substances Control (DTSC) 2006 *Interim Guidance Evaluation of School Sites with Potential Soil Contamination as a Result of Lead from Lead-Based Paint, Organochlorine Pesticides from Termiticides, and Polychlorinated Biphenyls from Electrical Transformers*. The highest lead concentrations of up to 5760 mg/kg were detected at SS-1, SS-2, SS-3, and SS-6, located in the northern portion of the site. This data will be incorporated into the future "Revised Human Health Risk Assessment." In December 2009, CRA conducted a Department of Water Resources (DWR) file review and identified one irrigation well within 1/2-mile radius of the site, located approximately 2,100 feet upgradient of the site. The well was installed in 1915 and has a total depth of 55 fbg. Additional details are available in CRA's February 15, 2010 *Surficial Soil Lead Results*.

APPENDIX C  
WELL PERMIT

# Alameda County Public Works Agency - Water Resources Well Permit



399 Elmhurst Street  
Hayward, CA 94544-1395  
Telephone: (510)670-6633 Fax:(510)782-1939

**Application Approved on: 01/04/2010 By jamesy**

**Permit Numbers: W2010-0003**  
**Permits Valid from 02/08/2010 to 02/11/2010**

**Application Id:** 1261177116482  
**Site Location:** 800 Center Street  
**Project Start Date:** 02/08/2010  
**Assigned Inspector:** Contact Vicky Hamlin at (510) 670-5443 or vickyh@acpwa.org

**City of Project Site:**Oakland

**Completion Date:**02/11/2010

**Applicant:** Conestoga-Rovers & Associates - Belew Yifru  
5900 Hollis St Suite A, Emeryville, CA 94608  
**Phone:** 510-420-3356

**Property Owner:** Rene Boisvert  
484 Lake Park Ave., Oakland, CA 94610  
**Phone:** --

**Client:** Chevron Environmental Management Company  
6111 Bollinger Canyon Road, San ramon, CA 94383  
**Phone:** --

**Total Due:** \$265.00  
**Receipt Number: WR2010-0003 Total Amount Paid:** \$265.00  
**Payer Name : Conestoga-Rovers & Associates Paid By: CHECK** **PAID IN FULL**

**Works Requesting Permits:**

Remediation Well Construction-Injection - 8 Wells  
Driller: Grgg Drilling - Lic #: 485165 - Method: hstem

**Work Total: \$265.00**

**Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth
W2010-0003	01/04/2010	05/09/2010	AS-1	8.00 in.	2.00 in.	13.00 ft	20.00 ft
W2010-0003	01/04/2010	05/09/2010	AS-2	8.00 in.	2.00 in.	13.00 ft	20.00 ft
W2010-0003	01/04/2010	05/09/2010	AS-3	8.00 in.	2.00 in.	13.00 ft	20.00 ft
W2010-0003	01/04/2010	05/09/2010	AS-4	8.00 in.	2.00 in.	13.00 ft	20.00 ft
W2010-0003	01/04/2010	05/09/2010	AS-5	8.00 in.	2.00 in.	13.00 ft	20.00 ft
W2010-0003	01/04/2010	05/09/2010	AS-6	8.00 in.	2.00 in.	13.00 ft	20.00 ft
W2010-0003	01/04/2010	05/09/2010	AS-7	8.00 in.	2.00 in.	13.00 ft	20.00 ft
W2010-0003	01/04/2010	05/09/2010	AS-8	8.00 in.	2.00 in.	13.00 ft	20.00 ft

**Specific Work Permit Conditions**

1. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, properly damage, personal injury and wrongful death.

2. Permitte, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or

## Alameda County Public Works Agency - Water Resources Well Permit

waterways or be allowed to move off the property where work is being completed.

3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days. Including permit number and site map.
  4. Applicant shall submit the copies of the approved encroachment permit to this office within 60 days.
  5. Applicant shall contact Vicky Hamlin for an inspection time at 510-670-5443 or email to vickyh@acpwa.org at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
  6. Minimum seal depth (Neat Cement Seal) is 2 feet below ground surface (BGS).
  7. Minimum surface seal thickness is two inches of cement grout placed by tremie
  8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.
  9. Prior to any drilling activities onto any public right-of-ways, it shall be the applicants responsibilities to contact and coordinate a Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits required for that City or to the County and follow all City or County Ordinances. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County a Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
-

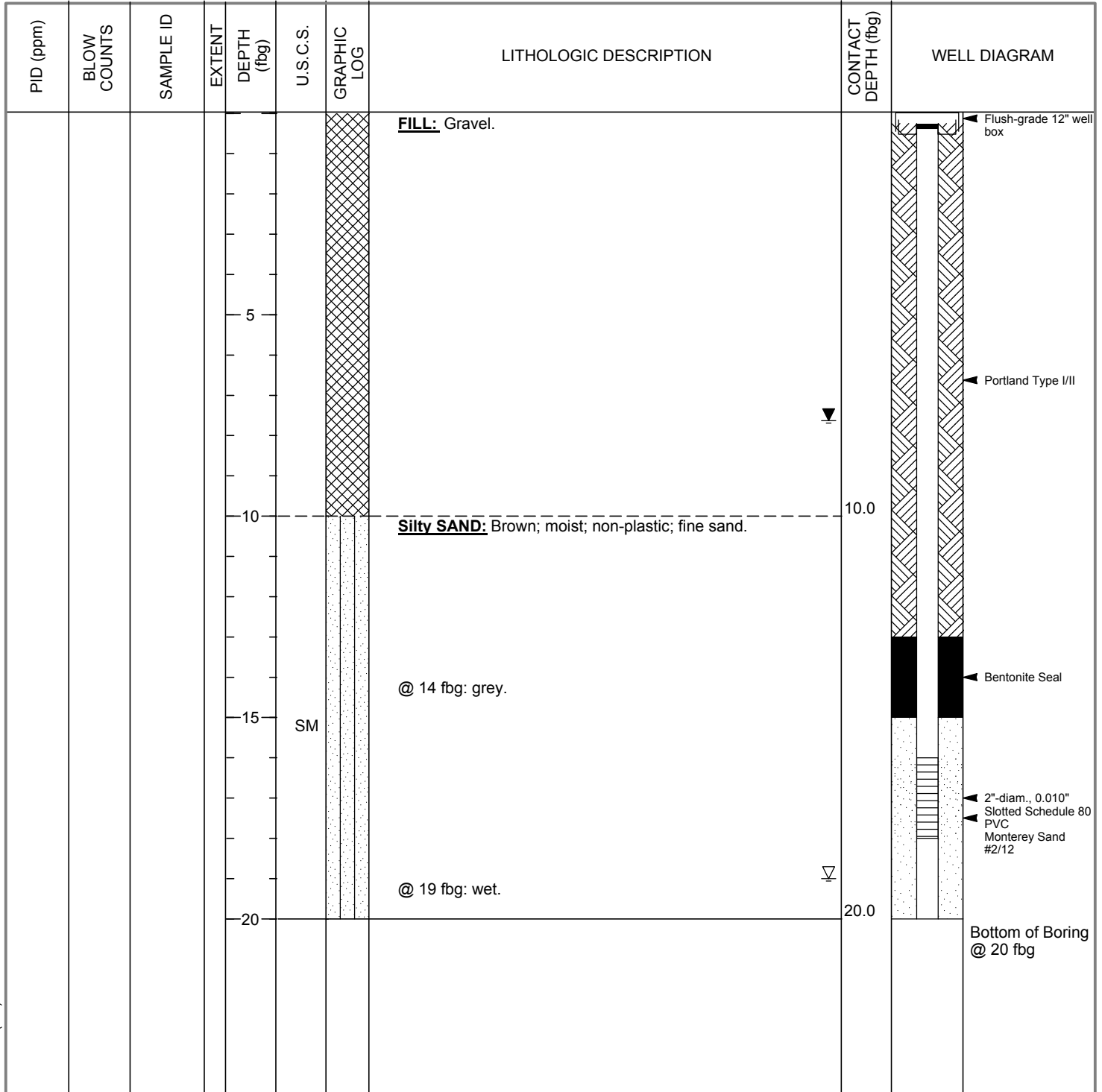
APPENDIX D  
BORING LOGS



Conestoga Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

<b>CLIENT NAME</b>	<u>Chevron Environmental Management Company</u>	<b>BORING/WELL NAME</b>	<u>AS-1</u>
<b>JOB/SITE NAME</b>	<u>20-6145</u>	<b>DRILLING STARTED</b>	<u>08-Feb-10</u>
<b>LOCATION</b>	<u>800 Center Street, Oakland CA</u>	<b>DRILLING COMPLETED</b>	<u>09-Feb-10</u>
<b>PROJECT NUMBER</b>	<u>312002</u>	<b>WELL DEVELOPMENT DATE (YIELD)</b>	<u>25-Feb-10</u>
<b>DRILLER</b>	<u>Gregg Drilling, C-57 #485165</u>	<b>GROUND SURFACE ELEVATION</b>	<u>18.67 ft above msl</u>
<b>DRILLING METHOD</b>	<u>Hollow-stem auger</u>	<b>TOP OF CASING ELEVATION</b>	<u>NA</u>
<b>BORING DIAMETER</b>	<u>8"</u>	<b>SCREENED INTERVALS</b>	<u>16 to 18 fbg</u>
<b>LOGGED BY</b>	<u>B. Yifru</u>	<b>DEPTH TO WATER (First Encountered)</b>	<u>19.00 fbg (09-Feb-10)</u> ▼
<b>REVIEWED BY</b>	<u>B. Wilken, PG# 7564</u>	<b>DEPTH TO WATER (Static)</b>	<u>7.63 fbg (25-Feb-10)</u> ▼
<b>REMARKS</b>	<u>Cleared to 8 fbg with air knife.</u>		



WELL LOG (PID) I:\CHEVRON\312002-1\312002-1\312002-GINT.GPJ DEFAULT.GDT 6/4/10



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# BORING / WELL LOG

<b>CLIENT NAME</b>	<u>Chevron Environmental Management Company</u>	<b>BORING/WELL NAME</b>	<u>AS-2</u>
<b>JOB/SITE NAME</b>	<u>20-6145</u>	<b>DRILLING STARTED</b>	<u>08-Feb-10</u>
<b>LOCATION</b>	<u>800 Center Street, Oakland CA</u>	<b>DRILLING COMPLETED</b>	<u>09-Feb-10</u>
<b>PROJECT NUMBER</b>	<u>312002</u>	<b>WELL DEVELOPMENT DATE (YIELD)</b>	<u>25-Feb-10</u>
<b>DRILLER</b>	<u>Gregg Drilling, C-57 #485165</u>	<b>GROUND SURFACE ELEVATION</b>	<u>19.04 ft above msl</u>
<b>DRILLING METHOD</b>	<u>Hollow-stem auger</u>	<b>TOP OF CASING ELEVATION</b>	<u>NA</u>
<b>BORING DIAMETER</b>	<u>8"</u>	<b>SCREENED INTERVALS</b>	<u>16 to 18 fbg</u>
<b>LOGGED BY</b>	<u>B. Yifru</u>	<b>DEPTH TO WATER (First Encountered)</b>	<u>NA</u> ▼
<b>REVIEWED BY</b>	<u>B. Wilken, PG# 7564</u>	<b>DEPTH TO WATER (Static)</b>	<u>8.05 fbg (25-Feb-10)</u> ▼
<b>REMARKS</b>	<u>Cleared to 8 fbg with air knife.</u>		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				5			<b>Silty SAND</b> Brown; moist; non-plastic; fine sand.  @ 5 fbg: light brown.		<p>Portland Type I/II</p> <p>Bentonite Seal</p> <p>2"-diam., 0.010" Slotted Schedule 80 PVC Monterey Sand #2/12</p> <p>Bottom of Boring @ 20 fbg</p>
				10	SM		@ 9 fbg: brown.		
				15					
				20				20.0	

WELL LOG (PID) I:\CHEVRON\312002-1\312002-GINT.GPJ DEFAULT.GDT 6/4/10



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# BORING / WELL LOG

<b>CLIENT NAME</b>	<u>Chevron Environmental Management Company</u>	<b>BORING/WELL NAME</b>	<u>AS-3</u>
<b>JOB/SITE NAME</b>	<u>20-6145</u>	<b>DRILLING STARTED</b>	<u>08-Feb-10</u>
<b>LOCATION</b>	<u>800 Center Street, Oakland CA</u>	<b>DRILLING COMPLETED</b>	<u>09-Feb-10</u>
<b>PROJECT NUMBER</b>	<u>312002</u>	<b>WELL DEVELOPMENT DATE (YIELD)</b>	<u>25-Feb-10</u>
<b>DRILLER</b>	<u>Gregg Drilling, C-57 #485165</u>	<b>GROUND SURFACE ELEVATION</b>	<u>18.97 ft above msl</u>
<b>DRILLING METHOD</b>	<u>Hollow-stem auger</u>	<b>TOP OF CASING ELEVATION</b>	<u>NA</u>
<b>BORING DIAMETER</b>	<u>8"</u>	<b>SCREENED INTERVALS</b>	<u>16 to 18 fbg</u>
<b>LOGGED BY</b>	<u>B. Yifru</u>	<b>DEPTH TO WATER (First Encountered)</b>	<u>14.00 fbg (09-Feb-10) ▼</u>
<b>REVIEWED BY</b>	<u>B. Wilken, PG# 7564</u>	<b>DEPTH TO WATER (Static)</b>	<u>8.12 fbg (25-Feb-10) ▼</u>
<b>REMARKS</b>	<u>Cleared to 8 fbg with air knife.</u>		

WELL LOG (PID) I:\CHEVRON\312002-1\312002-1\312002-GINT.GPJ DEFAULT.GDT 6/4/10

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				5			<b>Silty SAND</b> Brown; loose; moist; fine-grained; non-plastic.		<p>Portland Type I/II</p> <p>Bentonite Seal</p> <p>2"-diam., 0.010" Slotted Schedule 80 PVC Monterey Sand #2/12</p> <p>Bottom of Boring @ 20 fbg</p>
				10	SM		@ 10 fbg: gray.		
				15			@ 14 fbg: wet.		
				20				20.0	



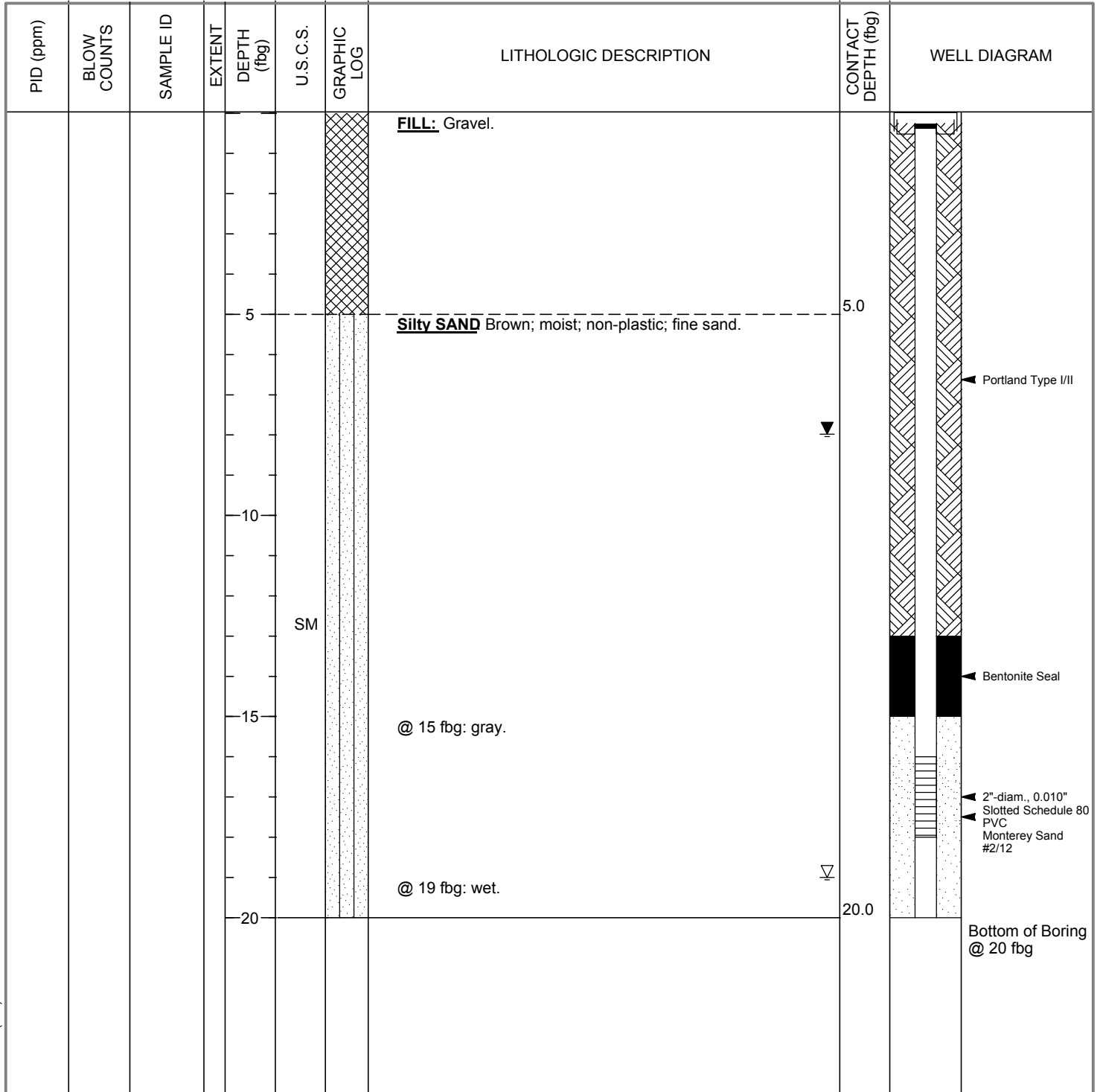


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# BORING / WELL LOG

<b>CLIENT NAME</b>	Chevron Environmental Management Company	<b>BORING/WELL NAME</b>	AS-4
<b>JOB/SITE NAME</b>	20-6145	<b>DRILLING STARTED</b>	08-Feb-10
<b>LOCATION</b>	800 Center Street, Oakland CA	<b>DRILLING COMPLETED</b>	09-Feb-10
<b>PROJECT NUMBER</b>	312002	<b>WELL DEVELOPMENT DATE (YIELD)</b>	25-Feb-10
<b>DRILLER</b>	Gregg Drilling, C-57 #485165	<b>GROUND SURFACE ELEVATION</b>	18.83 ft above msl
<b>DRILLING METHOD</b>	Hollow-stem auger	<b>TOP OF CASING ELEVATION</b>	NA
<b>BORING DIAMETER</b>	8"	<b>SCREENED INTERVALS</b>	16 to 18 fbg
<b>LOGGED BY</b>	B. Yifru	<b>DEPTH TO WATER (First Encountered)</b>	19.00 fbg (09-Feb-10) ▽
<b>REVIEWED BY</b>	B. Wilken, PG# 7564	<b>DEPTH TO WATER (Static)</b>	7.98 fbg (25-Feb-10) ▽
<b>REMARKS</b>	Cleared to 8 fbg with air knife.		

WELL LOG (PID) I:\CHEVRON\312002-1\312002-1\312002-GINT.GPJ DEFAULT.GDT 6/4/10

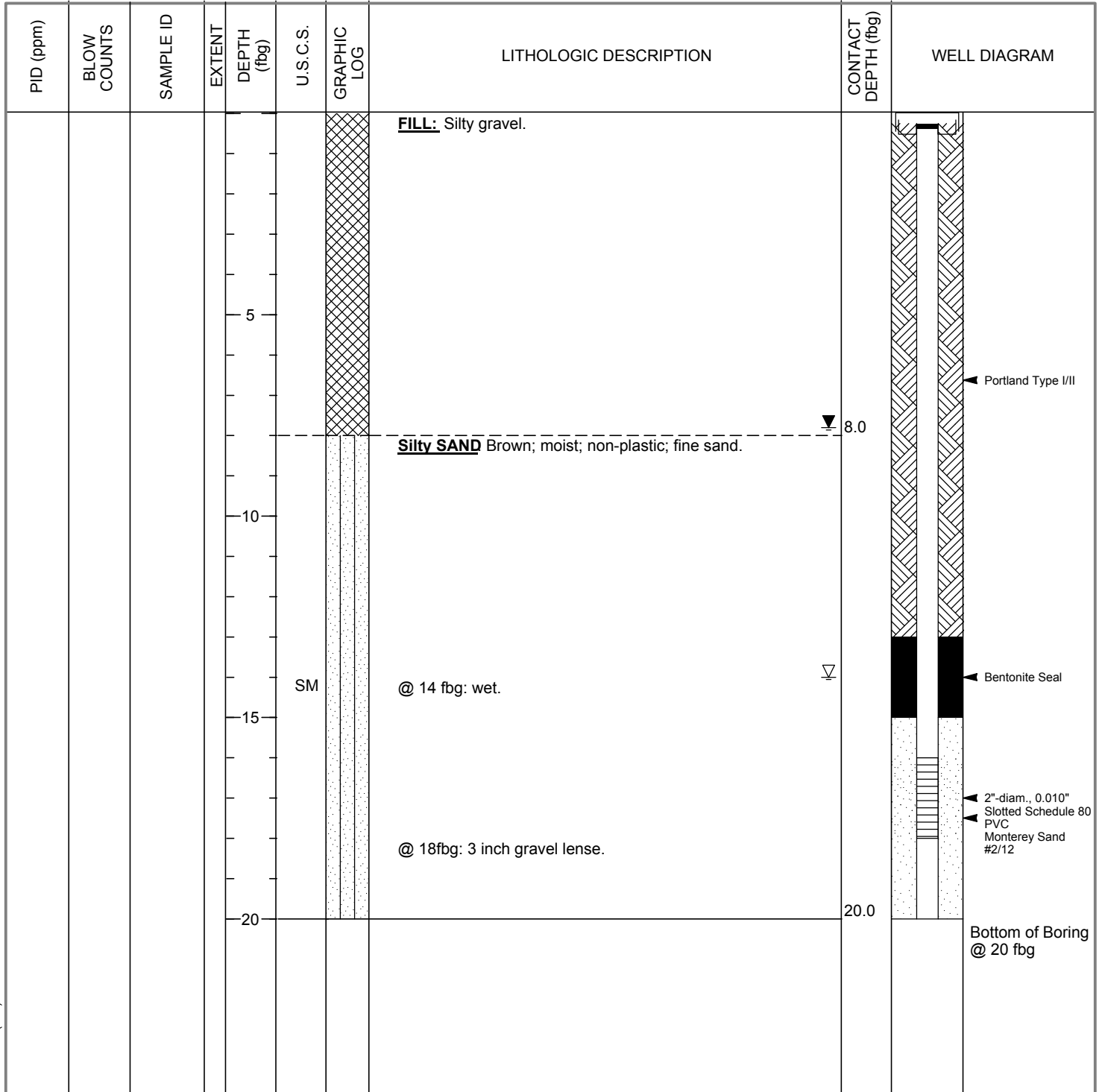




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# BORING / WELL LOG

<b>CLIENT NAME</b>	Chevron Environmental Management Company	<b>BORING/WELL NAME</b>	AS-5
<b>JOB/SITE NAME</b>	20-6145	<b>DRILLING STARTED</b>	09-Feb-10
<b>LOCATION</b>	800 Center Street, Oakland CA	<b>DRILLING COMPLETED</b>	10-Feb-10
<b>PROJECT NUMBER</b>	312002	<b>WELL DEVELOPMENT DATE (YIELD)</b>	25-Feb-10
<b>DRILLER</b>	Gregg Drilling, C-57 #485165	<b>GROUND SURFACE ELEVATION</b>	18.68 ft above msl
<b>DRILLING METHOD</b>	Hollow-stem auger	<b>TOP OF CASING ELEVATION</b>	NA
<b>BORING DIAMETER</b>	8"	<b>SCREENED INTERVALS</b>	16 to 18 fbg
<b>LOGGED BY</b>	B. Yifru	<b>DEPTH TO WATER (First Encountered)</b>	14.00 fbg (09-Feb-10) ▽
<b>REVIEWED BY</b>	B. Wilken, PG# 7564	<b>DEPTH TO WATER (Static)</b>	7.80 fbg (25-Feb-10) ▽
<b>REMARKS</b>	Cleared to 8 fbg with air knife.		



WELL LOG (PID) I:\CHEVRON\3120-1\312002-1\312002-GINT.GPJ DEFAULT.GDT 6/4/10



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# BORING / WELL LOG

<b>CLIENT NAME</b>	<u>Chevron Environmental Management Company</u>	<b>BORING/WELL NAME</b>	<u>AS-6</u>
<b>JOB/SITE NAME</b>	<u>20-6145</u>	<b>DRILLING STARTED</b>	<u>09-Feb-10</u>
<b>LOCATION</b>	<u>800 Center Street, Oakland CA</u>	<b>DRILLING COMPLETED</b>	<u>10-Feb-10</u>
<b>PROJECT NUMBER</b>	<u>312002</u>	<b>WELL DEVELOPMENT DATE (YIELD)</b>	<u>25-Feb-10</u>
<b>DRILLER</b>	<u>Gregg Drilling, C-57 #485165</u>	<b>GROUND SURFACE ELEVATION</b>	<u>18.80 ft above msl</u>
<b>DRILLING METHOD</b>	<u>Hollow-stem auger</u>	<b>TOP OF CASING ELEVATION</b>	<u>NA</u>
<b>BORING DIAMETER</b>	<u>8"</u>	<b>SCREENED INTERVALS</b>	<u>16 to 18 fbg</u>
<b>LOGGED BY</b>	<u>B. Yifru</u>	<b>DEPTH TO WATER (First Encountered)</b>	<u>18.00 fbg (09-Feb-10) ▼</u>
<b>REVIEWED BY</b>	<u>B. Wilken, PG# 7564</u>	<b>DEPTH TO WATER (Static)</b>	<u>8.04 fbg (25-Feb-10) ▼</u>
<b>REMARKS</b>	<u>Cleared to 8 fbg with air knife.</u>		

WELL LOG (PID) I:\CHEVRON\312002-1\312002-1\312002-GINT.GPJ DEFAULT.GDT 6/4/10

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				5			<b>Silty SAND</b> Brown; moist; non-plastic; fine sand.		
				10	SM		@ 9 fbg: gray.		Portland Type I/II
				15					Bentonite Seal
				20			@ 18fbg: 3 inch gravel lense.		2"-diam., 0.010" Slotted Schedule 80 PVC Monterey Sand #2/12
								20.0	Bottom of Boring @ 20 fbg



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# BORING / WELL LOG

<b>CLIENT NAME</b>	<u>Chevron Environmental Management Company</u>	<b>BORING/WELL NAME</b>	<u>AS-7</u>
<b>JOB/SITE NAME</b>	<u>20-6145</u>	<b>DRILLING STARTED</b>	<u>09-Feb-10</u>
<b>LOCATION</b>	<u>800 Center Street, Oakland CA</u>	<b>DRILLING COMPLETED</b>	<u>10-Feb-10</u>
<b>PROJECT NUMBER</b>	<u>312002</u>	<b>WELL DEVELOPMENT DATE (YIELD)</b>	<u>25-Feb-10</u>
<b>DRILLER</b>	<u>Gregg Drilling, C-57 #485165</u>	<b>GROUND SURFACE ELEVATION</b>	<u>18.85 ft above msl</u>
<b>DRILLING METHOD</b>	<u>Hollow-stem auger</u>	<b>TOP OF CASING ELEVATION</b>	<u>NA</u>
<b>BORING DIAMETER</b>	<u>8"</u>	<b>SCREENED INTERVALS</b>	<u>16 to 18 fbg</u>
<b>LOGGED BY</b>	<u>B. Yifru</u>	<b>DEPTH TO WATER (First Encountered)</b>	<u>18.00 fbg (09-Feb-10) ▼</u>
<b>REVIEWED BY</b>	<u>B. Wilken, PG# 7564</u>	<b>DEPTH TO WATER (Static)</b>	<u>8.01 fbg (25-Feb-10) ▼</u>
<b>REMARKS</b>	<u>Cleared to 8 fbg with air knife.</u>		

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				5			<b>Silty SAND</b> Brown; loose; moist; non-plastic; fine sand.		<p>Portland Type I/II</p> <p>Bentonite Seal</p> <p>2"-diam., 0.010" Slotted Schedule 80 PVC Monterey Sand #2/12</p> <p>Bottom of Boring @ 20 fbg</p>
				10	SM		@ 10 fbg: gray.		
				15			@ 18fbg: wet; 3 inch gravel lense.		
				20				20.0	

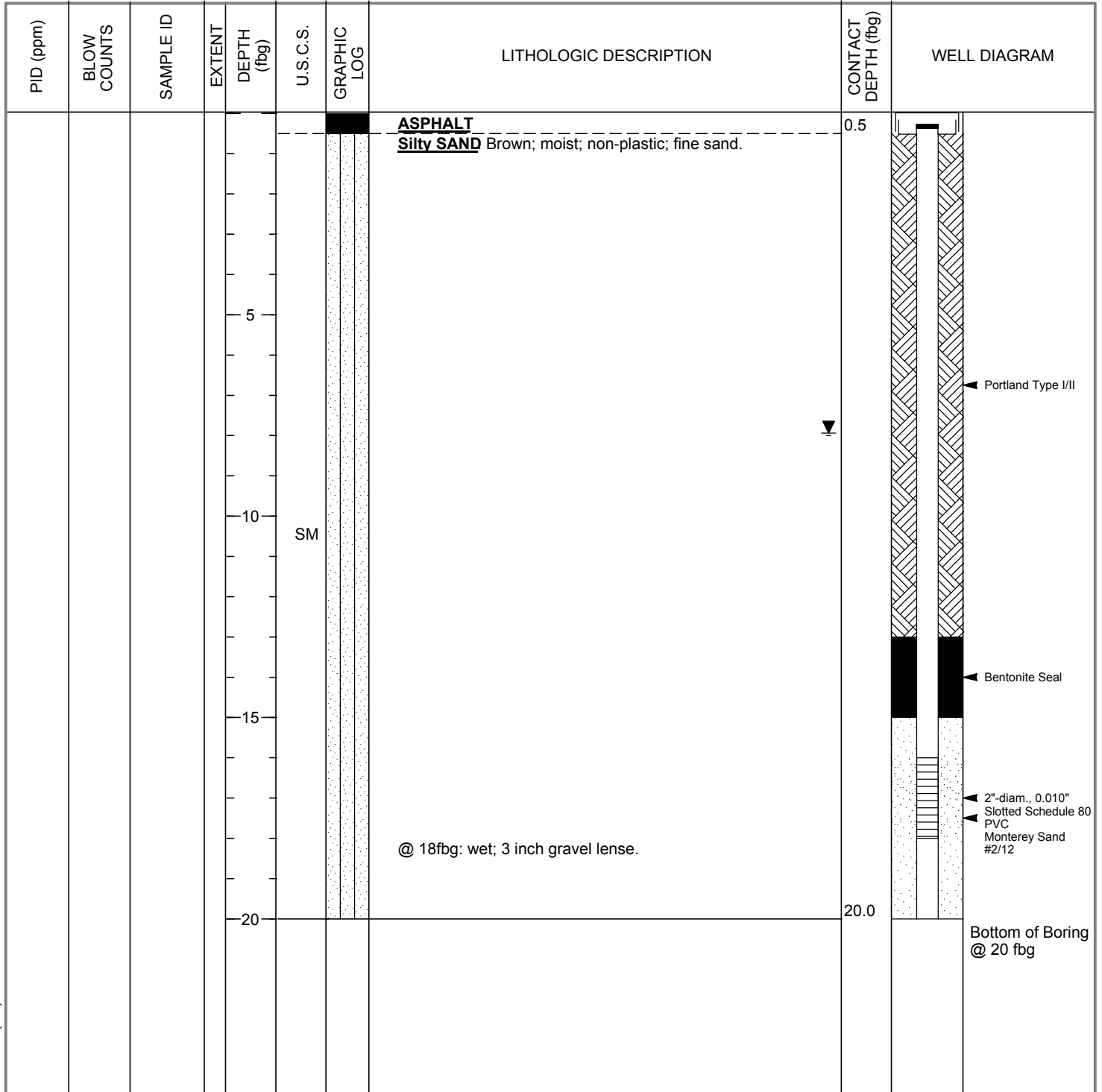
WELL LOG (PID) I:\CHEVRON\312002-1\312002-1\312002-GINT.GPJ DEFAULT.GDT 6/4/10



Conestoga Rovers & Associates  
 5900 Hollis Street, Suite A  
 Emeryville, CA 94608  
 Telephone: 510-420-0700  
 Fax: 510-420-9170

# BORING / WELL LOG

<b>CLIENT NAME</b>	<u>Chevron Environmental Management Company</u>	<b>BORING/WELL NAME</b>	<u>AS-8</u>
<b>JOB/SITE NAME</b>	<u>20-6145</u>	<b>DRILLING STARTED</b>	<u>09-Feb-10</u>
<b>LOCATION</b>	<u>800 Center Street, Oakland CA</u>	<b>DRILLING COMPLETED</b>	<u>10-Feb-10</u>
<b>PROJECT NUMBER</b>	<u>312002</u>	<b>WELL DEVELOPMENT DATE (YIELD)</b>	<u>25-Feb-10</u>
<b>DRILLER</b>	<u>Gregg Drilling, C-57 #485165</u>	<b>GROUND SURFACE ELEVATION</b>	<u>18.81 ft above msl</u>
<b>DRILLING METHOD</b>	<u>Hollow-stem auger</u>	<b>TOP OF CASING ELEVATION</b>	<u>NA</u>
<b>BORING DIAMETER</b>	<u>8"</u>	<b>SCREENED INTERVALS</b>	<u>16 to 18 fbg</u>
<b>LOGGED BY</b>	<u>B. Yifru</u>	<b>DEPTH TO WATER (First Encountered)</b>	<u>NA</u> ▼
<b>REVIEWED BY</b>	<u>B. Wilken, PG# 7564</u>	<b>DEPTH TO WATER (Static)</b>	<u>7.94 fbg (25-Feb-10)</u> ▼
<b>REMARKS</b>	<u>Cleared to 8 fbg with air knife.</u>		



WELL LOG (PID) I:\CHEVRON\312002-1\312002-1\312002-GINT.GPJ DEFAULT.GDT 6/4/10

APPENDIX E

STANDARD FIELD PROCEDURES FOR REMEDIATION WELL INSTALLATION

# Conestoga-Rovers & Associates

## STANDARD FIELD PROCEDURES FOR REMEDIATION WELL INSTALLATION

This document presents standard field methods for drilling and sampling soil borings and installing remediation wells. These procedures are designed to comply with Federal, State and local regulatory guidelines. Specific field procedures are summarized below.

### SOIL BORING AND SAMPLING

#### *Objectives*

Soil samples are collected to characterize subsurface lithology, assess whether the soils exhibit obvious hydrocarbon or other compound vapor or staining, and to collect samples for analysis at a State-certified laboratory. All borings are logged using the Unified Soil Classification System by a trained geologist working under the supervision of a California Professional Geologist (PG) or a Certified Engineering Geologist (CEG).

#### *Soil Boring and Sampling*

Soil borings are typically drilled using hollow-stem augers or push technologies such as the Geoprobe. Prior to drilling, the first 8 ft of the boring are cleared using an air or water knife and vacuum extraction. This minimizes the potential for impacting utilities.

Soil samples are collected at least every five feet to characterize the subsurface sediments and for possible chemical analysis. Additional soil samples are collected near the water table and at lithologic changes. Samples are collected using lined split-barrel or equivalent samplers driven into undisturbed sediments at the bottom of the borehole.

Drilling and sampling equipment is steam-cleaned prior to drilling and between borings to prevent cross-contamination. Sampling equipment is washed between samples with trisodium phosphate or an equivalent EPA-approved detergent.

#### *Sample Analysis*

Sampling tubes chosen for analysis are trimmed of excess soil and capped with Teflon tape and plastic end caps. Soil samples are labeled and stored at or below 4°C on either crushed or dry ice, depending upon local regulations. Samples are transported under chain-of-custody to a State-certified analytic laboratory.

### *Field Screening*

One of the remaining tubes is partially emptied leaving about one-third of the soil in the tube. The tube is capped with plastic end caps and set aside to allow hydrocarbons to volatilize from the soil. After ten to fifteen minutes, a portable photoionization detector (PID) measures volatile hydrocarbon vapor concentrations in the tube headspace, extracting the vapor through a slit in the cap. PID measurements are used along with the field observations, odors, stratigraphy and groundwater depth to select soil samples for analysis.

### *Grouting*

If the borings are not completed as wells, the borings are filled to the ground surface with cement grout poured or pumped through a tremie pipe.

## **REMEDICATION WELL INSTALLATION**

### *Well Construction*

Remediation wells are commonly installed for multi-phase extraction (MPE), soil vapor extraction (SVE), groundwater extraction (GWE), oxygenation, air sparging (AS), and vapor monitoring (VM). Well depths and screen lengths will vary depending upon several factors including the intended use of the well, groundwater depth, occurrence of hydrocarbons or other compounds in the borehole, stratigraphy and State and local regulatory guidelines.

Well casing and screen are typically one to four inch diameter flush-threaded Schedule 40 PVC. Screen slot size varies according to the sediments screened, but slots are generally 0.010 or 0.020 inches wide. A rinsed and graded sand occupies the annular space between the boring and the well screen to about one to two feet above the well screen. A two foot thick hydrated bentonite seal separates the sand from the overlying sanitary surface seal composed of Portland type I,II cement. Well-heads are typically connected with remediation piping set in traffic-rated vaults finished flush with the ground surface. Typical well screen intervals for each type of well are described below.

The well top-of-casing elevation is surveyed with respect to mean sea level and the well is surveyed for horizontal location with respect to an onsite or nearby offsite landmark.

### *MPE Wells*

MPE wells are screened in the vadose zone targeting horizons with the highest hydrocarbon concentrations and a few feet into the saturated zone, targeting SPH on or submerged by the water table. A vacuum is applied to the well casing and/or a 'stinger' (a one-inch diameter tube) placed in the well about 1 to 2 feet below the static fluid level. Vacuums can be adjusted to fine tune the performance of the well/system and to optimize the removal of SPH without excessive production of ground water.

### *SVE Wells:*

SVE wells are screened in the vadose zone targeting horizons with the highest hydrocarbon concentrations. SVE wells are also occasionally screened as concurrent soil vapor and groundwater extraction wells with screen interval above and below the water table.



### ***GWE Wells***

Groundwater extraction wells are typically screened ten to fifteen feet below the first water-bearing zone encountered. The well screen may or may not be screened above the water table depending upon whether the water bearing zone is unconfined or confined.

### ***Oxygenation Wells***

Oxygenation wells are installed above or below the water table to supply oxygen and enhance naturally occurring hydrocarbon biodegradation. Oxygenation wells installed in the vadose zone typically have well screens that are two to ten feet long and target horizons with the highest hydrocarbon concentrations. Oxygenation wells installed below the water table typically have a two foot screen interval set ten to fifteen ft below the water table.

### ***AS Wells***

Air sparging wells are installed below the water table and typically have a two foot screen interval set ten to fifteen feet below the water table.

### ***VM Wells***

Vapor monitoring wells are installed in the vadose zone to check for hydrocarbon vapor migration during air injection. The wells are typically constructed with short screens to target horizons through which hydrocarbon vapor migration could occur. These wells can also be constructed in borings drilled using push technologies such as the Geoprobe by using non-collapsible Teflon tubing set in small sand packed regions overlain by grout.

### ***Well Development***

Groundwater extraction wells are generally developed using a combination of groundwater surging and extraction. Surging agitates the groundwater and dislodges fine sediments from the sand pack. After about ten minutes of surging, groundwater is extracted from the well using bailing, pumping and/or reverse air-lifting through an eductor pipe to remove the sediments from the well. Surging and extraction continue until at least ten well-casing volumes of groundwater are extracted and the sediment volume in the groundwater is negligible. This process usually occurs prior to installing the sanitary surface seal to ensure sand pack stabilization. If development occurs after surface seal installation, then development occurs 24 to 72 hours after seal installation to ensure that the Portland cement has set up correctly.

All equipment is steam-cleaned prior to use and air used for air-lifting is filtered to prevent oil entrained in the compressed air from entering the well. Wells that are developed using air-lift evacuation are not sampled until at least 24 hours after they are developed.

### ***Waste Handling and Disposal***

Soil cuttings from drilling activities are usually stockpiled onsite and covered by plastic sheeting. At least three individual soil samples are collected from the stockpiles and composited at the analytic laboratory. The composite sample is analyzed for the same constituents analyzed in the borehole samples in addition to any analytes required by the receiving disposal facility. Soil cuttings are transported by licensed waste haulers and disposed in secure, licensed facilities based on the composite analytic results.

Groundwater removed during development and sampling is typically stored onsite in sealed 55-gallon drums. Each drum is labeled with the drum number, date of generation, suspected

contents, generator identification and consultant contact. Upon receipt of analytic results, the water is either pumped out using a vacuum truck for transport to a licensed waste treatment/disposal facility or the individual drums are picked up and transported to the waste facility where the drum contents are removed and disposed of appropriately.

APPENDIX F

G-R'S MARCH 30, 2010 GROUNDWATER MONITORING AND SAMPLING REPORT



TRANSMITTAL

March 30, 2010
G-R #386492

TO: Ms. Charlotte Evans
Conestoga-Rovers & Associates
5900 Hollis Street, Suite A
Emeryville, CA 94608
(VIA PDF)

FROM: Deanna L. Harding
Project Coordinator
Gettler-Ryan Inc.
6747 Sierra Court, Suite J
Dublin, California 94568

RE: Former Chevron (Signal Oil)
Service Station #206145 (S-800)
800 Center Street
Oakland, California
RO 0000454

WE HAVE ENCLOSED THE FOLLOWING:

Table with 3 columns: COPIES, DATED, DESCRIPTION. Row 1: 1, March 22, 2010, Groundwater Monitoring and Sampling Report First Semi-Annual Event of February 25, 2010

COMMENTS:

Pursuant to your request, we are providing you with copies of the above referenced items for your use and distribution (including PDF submittal of the entire report to GeoTracker):

- Mr. Steven Plunkett, Alameda County Health Care Services, Dept. of Environmental Health, 1131 Harbor Bay Parkway, Suite 250, Alameda, CA 94502-6577 (Distributed by CRA via PDF)
Mr. Ian Robb, Chevron Environmental Management Company, 6111 Bollinger Canyon Road, Room 3612, San Ramon, CA 94583 (Distributed by CRA via PDF)
Mr. Rene Boisvert, Boulevard Equity Group, (Owner), 484 Lake Park Ave., #246, Oakland, CA 94610
Mr. Hollis Rodgers, 215 West MacArthur Boulevard, Apt# 434, Oakland, CA 94611

Enclosures

trans/206145-IR



Ian Robb  
Project Manager  
Marketing Business Unit

Chevron Environmental  
Management Company  
6001 Bollinger Canyon Road  
San Ramon, CA 94583  
Tel (925) 842-9496  
Fax (925) 842-8370  
ianrobb@chevron.com

March 30, 2010

Alameda County Health Care Services  
1131 Harbor Bay Parkway, Suite 250  
Alameda, CA 94502-6577

RE: Chevron Service Station # 206145

Address 800 Center Street, Oakland, California

I have reviewed the attached routine groundwater monitoring report dated March 30, 2010.

I agree with the conclusions and recommendations presented in the referenced report. The information in this report is accurate to the best of my knowledge and all local Agency/Regional Board guidelines have been followed. This report was prepared by Gettler-Ryan Inc., upon whose assistance and advice I have relied.

This letter is submitted pursuant to the requirements of California Water Code section 13267(b) (1) and the regulating implementation entitled Appendix A pertaining thereto.

I declare under penalty of perjury that the foregoing is true and correct.

Sincerely,

A handwritten signature in black ink, appearing to read "I. Robb", written in a cursive style.

Ian Robb

Attachment: Report

### WELL CONDITION STATUS SHEET

Client/Facility #: **Chevron #206145**  
 Site Address: **800 Center Street**  
 City: **Oakland, CA**

Job # **386492**  
 Event Date: **2-25-10**  
 Sampler: **SH**

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-9	OK									Emco/12"/2	
MW-10	OK									11	
MW-13	OK									11	
MW-14	OK									11	
MW-1A	OK		2M	2S	OK					Morrison/6"/2	
MW-5	OK			2S	OK					Morrison/8"/2	
MW-6	OK			2S	OK					11	
MW-8	OK			2S	OK					11	

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

## WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #206145  
 Site Address: 800 Center Street  
 City: Oakland, CA

Job # 386492  
 Event Date: 2-25-10  
 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
AS-1	OK						→	Y	N	Emco/12" 12	
AS-2	OK						→	Y	N	"	
AS-3	OK						→	Y	N	"	
AS-4	OK						→	Y	N	"	
AS-5	OK						→	Y	N	"	
AS-6	OK						→	Y	N	"	
AS-7	OK						→	Y	N	"	
AS-8	OK						→	Y	N	"	

Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #206145  
 Site Address: 800 Center Street  
 City: Oakland, CA

Job # 386492  
 Event Date: 2-25-10  
 Sampler: AW

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-7	OK	→	→	→	→	→	→	Y	N	EMCO / 8" / 2	
MW-11	OK	→	→	→	→	→	→	N	N	EMCO / 12" / 2	
MW-12	OK	→	→	→	→	→	→	↓	↓	↓	
MW-15	OK	→	→	→	→	→	→	Y	↓	↓	
MW-16	OK	→	→	→	→	→	→	N	↓	↓	
MW-17	OK	→	→	→	→	→	→	↓	↓	↓	
MW-2	OK	OK	OK	2S	OK	→	→	↓	↓	marlson / 8" / 2	
MW-4	OK	→	→	1S	OK	→	→	↓	↓	↓	
MW-3	OK	OK	3M	2B/1S	OK	→	→	↓	↓	Boart Laysan / 8" / 3	

Comments \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_





# GETTLER-RYAN INC.



March 22, 2010  
G-R Job #386492

Mr. Ian Robb  
Chevron Environmental Management Company  
6111 Bollinger Canyon Road, Room 3612  
San Ramon, CA 94583

**RE: First Semi-Annual Event of February 25, 2010**  
Groundwater Monitoring & Sampling Report  
Former Chevron (Signal Oil) Service Station  
#206145 (S-800)  
800 Center Street  
Oakland, California

Dear Mr. Robb:

This report documents the well development and most recent groundwater monitoring and sampling event performed by Gettler-Ryan Inc. (G-R) at the referenced site. All field work was conducted in accordance with G-R Standard Operating Procedure - Groundwater Sampling (attached).

Static groundwater levels were measured and the wells were checked for the presence of separate-phase hydrocarbons. Static water level data, groundwater elevations and separate-phase hydrocarbon thickness (if any) are presented in the attached Table 1. Potentiometric Maps are included as Figures 1, 2, and 3.

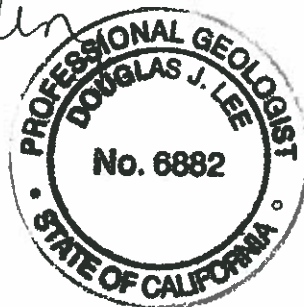
Groundwater samples were collected from the monitoring wells and submitted to a state certified laboratory for analyses. The field data sheets for this event are attached. Analytical results are presented in the table(s) listed below. The chain of custody document and laboratory analytical report are also attached. All groundwater and decontamination water generated during sampling activities was removed from the site, per the Standard Operating Procedure.

Please call if you have any questions or comments regarding this report. Thank you.

Sincerely,

Deanna L. Harding  
Project Coordinator

Douglas J. Lee  
Senior Geologist, P.G. No. 6882


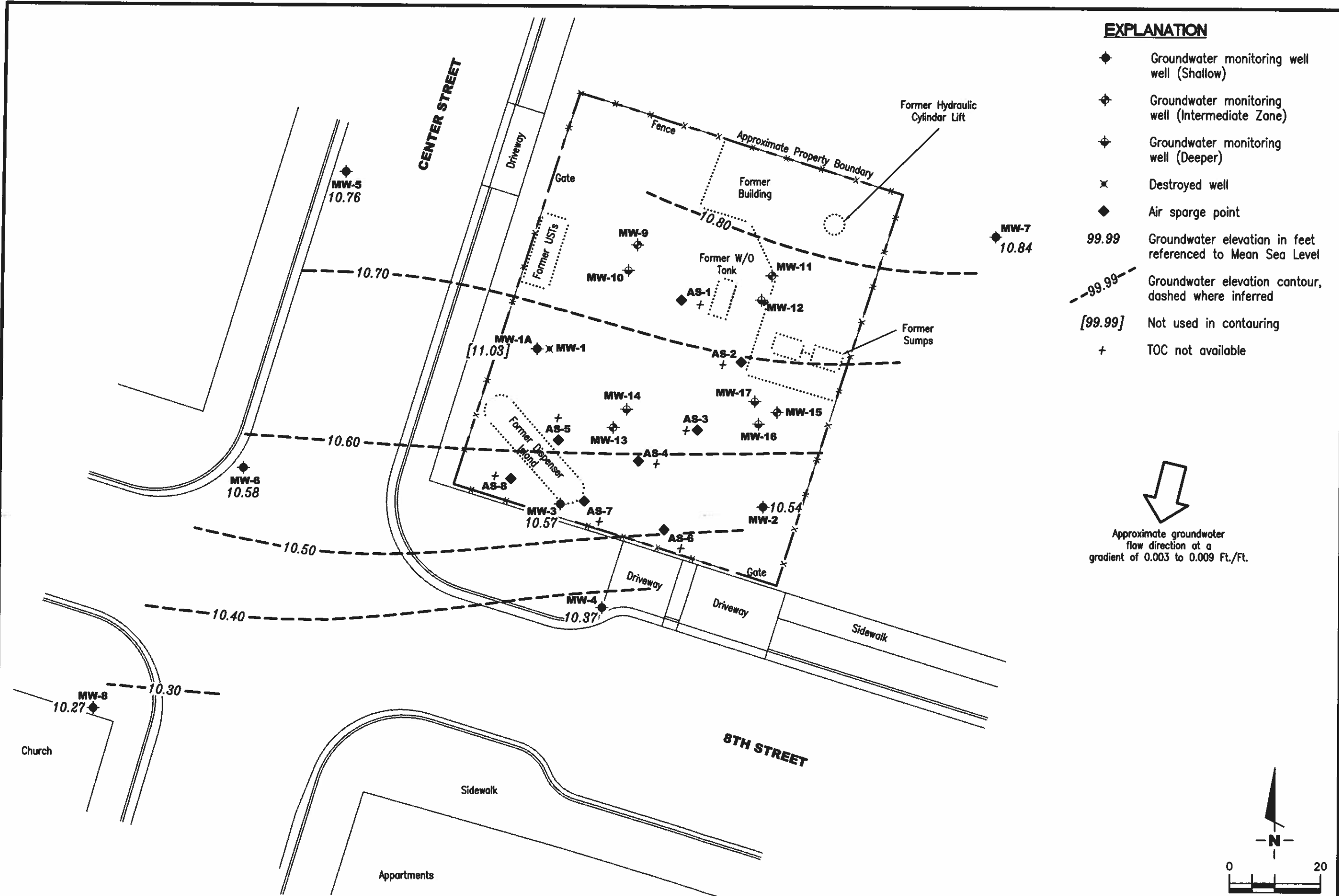


- Figure 1: Potentiometric Map – (Shallow Zone)
- Figure 2: Potentiometric Map – (Intermediate Zone)
- Figure 3: Potentiometric Map – (Deeper Zone)
- Table 1: Groundwater Monitoring Data and Analytical Results
- Table 2: Field Measurements and Analytical Results
- Table 3: Groundwater Analytical Results - Oxygenate Compounds
- Attachments: Standard Operating Procedure - Groundwater Sampling  
Field Data Sheets  
Chain of Custody Document and Laboratory Analytical Reports

**EXPLANATION**

- ◆ Groundwater monitoring well (Shallow)
- ⊕ Groundwater monitoring well (Intermediate Zone)
- ⊖ Groundwater monitoring well (Deeper)
- × Destroyed well
- ◆ Air sparge point
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- - - 99.99 - - - Groundwater elevation contour, dashed where inferred
- [99.99] Not used in contouring
- + TOC not available

Approximate groundwater flow direction at a gradient of 0.003 to 0.009 Ft./Ft.


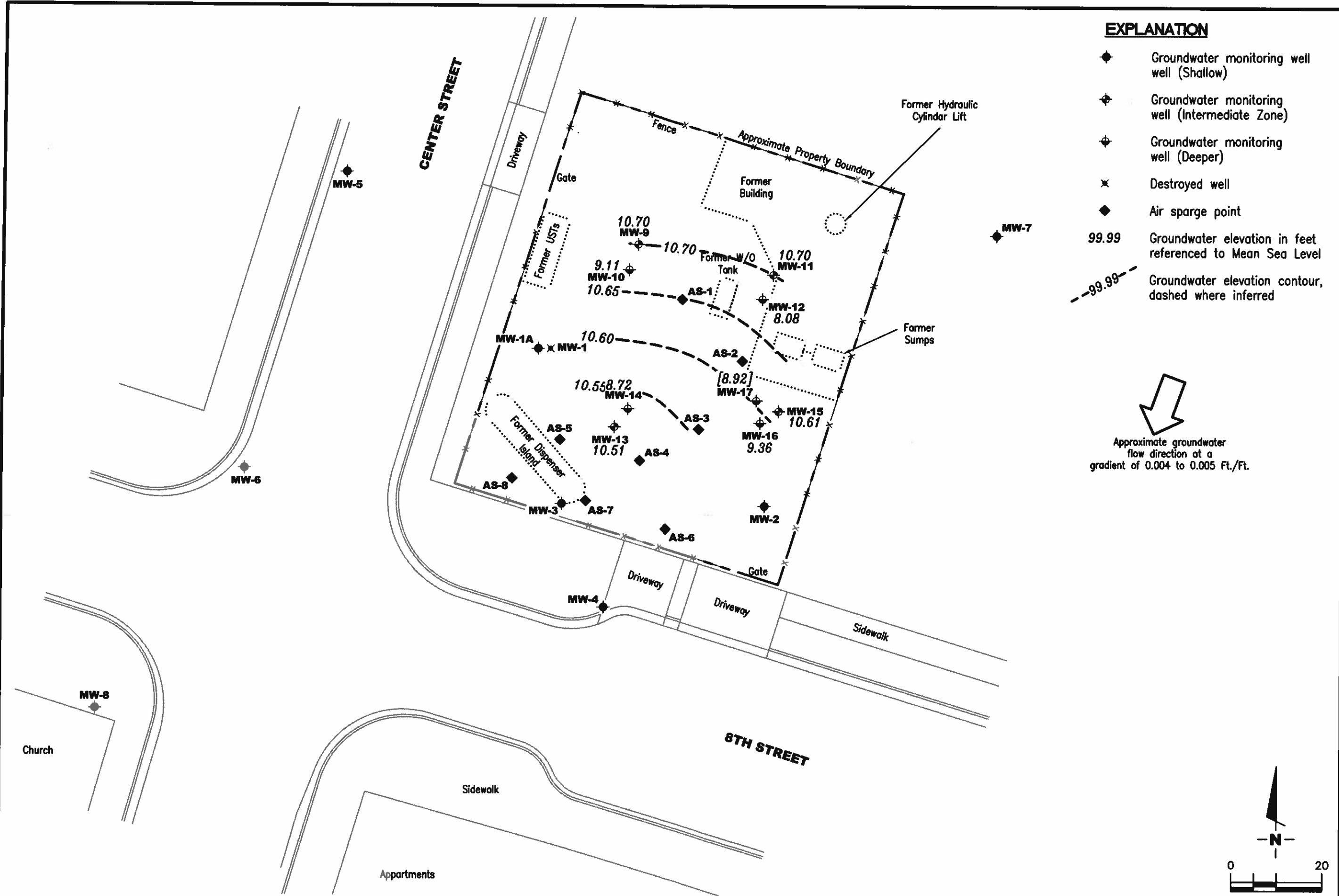



Source: Figure modified from drawing provided by Morrow Surveying, Monitoring Well Exhibit, Sheet 1 of 1, Dated: 3/5/10 and RRM engineering contracting firm.

**EXPLANATION**

- ◆ Groundwater monitoring well (Shallow)
- ◊ Groundwater monitoring well (Intermediate Zone)
- ⊕ Groundwater monitoring well (Deeper)
- ✕ Destroyed well
- ◆ Air sparge point
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- - - 99.99 - - - Groundwater elevation contour, dashed where inferred

Approximate groundwater flow direction at a gradient of 0.004 to 0.005 Ft./Ft.

**POTENTIOMETRIC MAP - INTERMEDIATE ZONE**  
 Former Chevron (Signal Oil) Service Station #206145(S-800)  
 800 Center Street  
 Oakland, California

**GETTLER - RYAN INC.**  
 6747 Sierr Court, Suite J  
 Dublin, CA 94568  
 (925) 551-7555

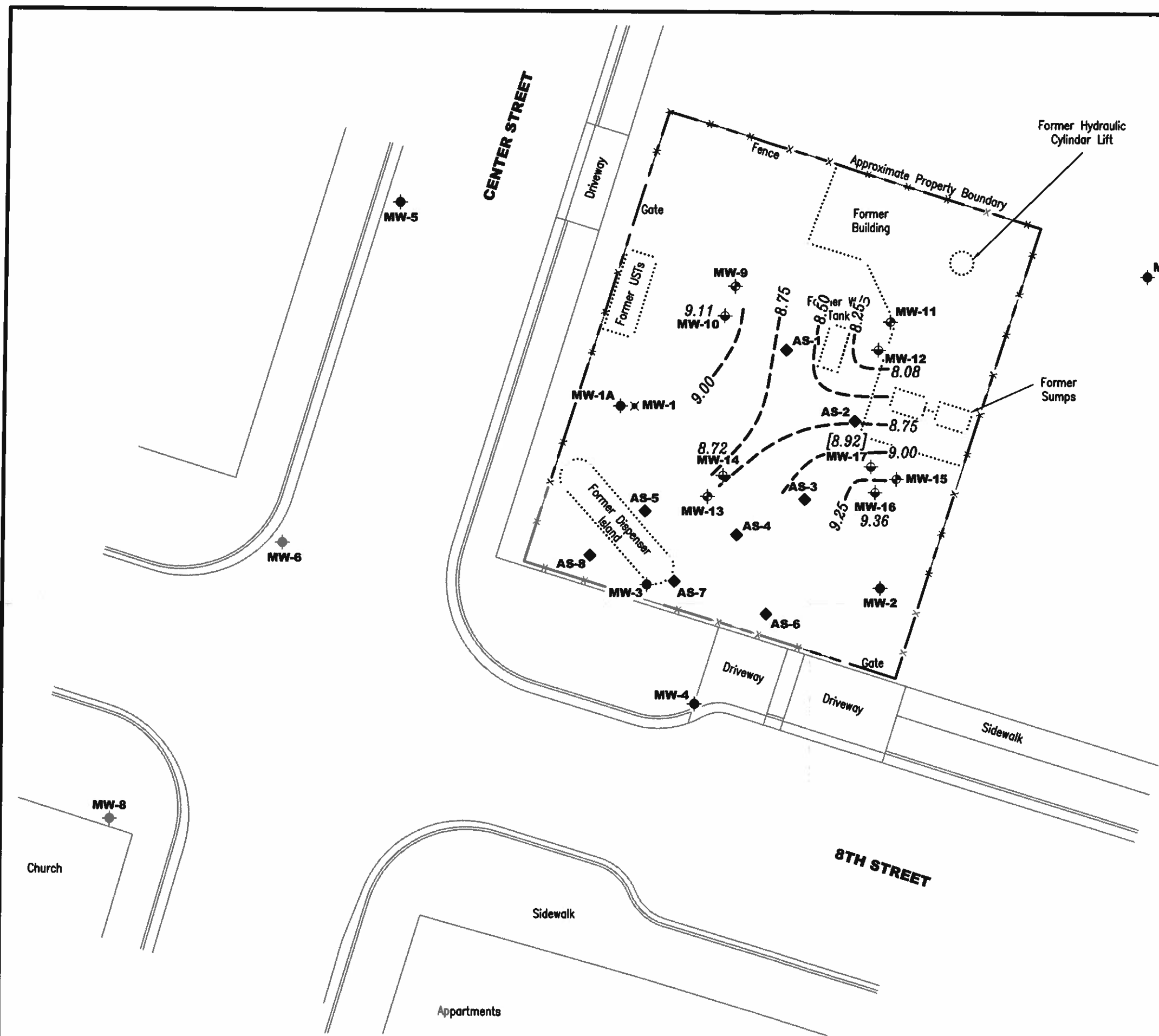
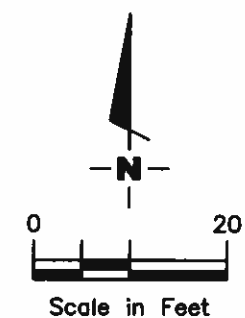
PROJECT NUMBER: 386492  
 DATE: February 25, 2010  
 REVISIONS: DATE

Source: Figure modified from drawing provided by Morrow Surveying, Monitoring Well Exhibit, Sheet 1 of 1, Dated: 3/5/10 and RRM engineering contracting firm.

**EXPLANATION**

- ◆ Groundwater monitoring well (Shallow)
- ◆ Groundwater monitoring well (Intermediate Zone)
- ◆ Groundwater monitoring well (Deeper)
- ✕ Destroyed well
- ◆ Air sparge point
- 99.99 Groundwater elevation in feet referenced to Mean Sea Level
- - - 99.99 Groundwater elevation contour, dashed where inferred
- [99.99] Not used in contouring - screened in deeper zone

Groundwater flow direction varies at a gradient of 0.02 to 0.05 Ft./Ft.



Source: Figure modified from drawing provided by Morrow Surveying, Monitoring Well Exhibit, Sheet 1 of 1, Dated: 3/5/10 and RRM engineering contracting firm.

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
**Former Chevron (Signal Oil) Service Station #206145 (S-800)**  
**800 Center Street**  
**Oakland, California**

WELL ID/ DATE	TOC* ( <i>fl.</i> )	GWE ( <i>msl</i> )	DTW ( <i>fl.</i> )	TPH-DRO ( <i>µg/L</i> )	TPH-GRO ( <i>µg/L</i> )	B ( <i>µg/L</i> )	T ( <i>µg/L</i> )	E ( <i>µg/L</i> )	X ( <i>µg/L</i> )	MTBE ( <i>µg/L</i> )	CUB ( <i>cfu/ml</i> )
<b>MW-1A</b>											
02/24-25/03 <sup>1</sup>	15.49	8.17	7.32	4,600	5,100	92	340	66	480	<10	--
06/02/03	15.49	7.15	8.34	5,500	3,800	150	490	72	450	<13	--
09/02/03	15.49	6.10	9.39	10,000	6,200	100	580	110	760	47	--
11/21/03	15.49	5.29	10.20	3,800	3,200	29	150	49	240	<10	--
02/27/04	15.49	9.87	5.62	2,800	280	9.7	19	3.0	30	<2.5	--
05/28/04	15.49	6.88	8.61	5,500	1,100	35	81	27	140	17	--
08/31/04	15.49	5.58	9.91	4,500	1,100	13	68	27	110	<2.5	--
12/17/04	15.49	7.09	8.40	2,300 <sup>o</sup>	560	8.0	17	9.6	36	<2.5	--
03/28/05	15.49	10.36	5.13	340 <sup>o</sup>	87	16	4.2	3.3	11	<2.5	--
06/09/05	15.49	9.69	5.80	6,400 <sup>o</sup>	260	26	3.7	7.7	13	5.3	--
08/19/05	15.49	6.70	8.79	1,100 <sup>o,p,q</sup>	440	38	7.8	9.4	17	<2.5	--
11/18/05	15.49	6.25	9.24	1,300 <sup>o,q</sup>	450	11	12	17	22	<2.5	--
03/07/06	15.49	10.51	4.98	2,300 <sup>o</sup>	150	33	1.6	3.4	2.7	<2.5	--
05/17/06	15.49	9.02	6.47	2,600 <sup>o</sup>	110	18	<0.5	0.7	<1.5	<2.5	--
08/30/06	15.49	5.68	9.81	3,600 <sup>o</sup>	420	24	0.7	8.1	9.2	<10	--
11/28/06	15.49	5.79	9.70	2,900 <sup>o</sup>	220	8.6	2.7	6.1	9.3	<2.5	--
02/06/07	18.11	8.83	9.28	1,500 <sup>o</sup>	230	19	<0.5	1.8	2.7	<2.5	--
05/02/07	18.11	9.83	8.28	1,300 <sup>o</sup>	190	16	<0.5	1	1.8	<2.5	--
08/17/07	18.11	8.61	9.50	1,100 <sup>o</sup>	160	2.5	0.8	2.0	2.7	<2.5	--
11/16/07 <sup>v</sup>	18.11	8.27	9.84	3,600 <sup>o</sup>	30,000	610	1,100	4,100	2,800	310	--
02/05/08	18.11	11.63	6.48	2,100 <sup>o</sup>	63	4.8	<0.5	<0.5	<1.5	<2.5	--
05/20/08	18.11	9.18	8.93	940 <sup>o</sup>	50	1.5	<0.5	<0.5	<1.5	<2.5	--
08/06/08	18.11	8.25	9.86	1,900 <sup>o</sup>	98	0.7	<0.5	<0.5	<1.5	<2.5	--
12/05/08	18.11	7.68	10.43	940 <sup>o</sup>	96	0.6	<0.5	0.5	<1.5	<2.5	--
02/09/09	18.11	8.10	10.01	630 <sup>o</sup>	130	2.7	<0.5	2.1	<1.5	<2.5	--
05/08/09	18.11	9.91	8.20	1,300 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/07/09	18.11	8.35	9.76	1,300 <sup>o</sup>	97	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/25/10	18.11	11.03	7.08	500 <sup>o,z</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
<b>MW-2</b>											
10/27/95	15.77	10.60	5.17	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/20/97	15.72	8.51	7.21	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
04/24/97	15.72	7.82	7.90	--	83 <sup>d</sup>	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	15.72	5.92	9.80	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	15.72	5.13	10.59	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
01/28/98	15.72	9.21	6.51	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-2 (cont)</b>											
05/11/98	15.72	8.82	6.90	SAMPLED ANNUALLY			--	--	--	--	--
07/16/98	15.72	7.37	8.35	--	--	--	--	--	--	--	--
08/04/98 <sup>a</sup>	15.72	7.03	8.69	--	--	--	--	--	--	--	1.9 x 10 <sup>1</sup>
09/03/98 <sup>a</sup>	15.72	6.44	9.28	--	--	--	--	--	--	--	3.0 x 10 <sup>2</sup>
10/21/98 <sup>b</sup>	15.72	5.51	10.21	--	--	--	--	--	--	--	8.8 x 10 <sup>2</sup>
11/04/98	15.72	5.60	10.12	--	--	--	--	--	--	--	--
01/26/99	15.72	6.87	8.85	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--
05/06/99	15.72	8.20	7.52	--	--	--	--	--	--	--	--
08/21/99	15.72	13.21	2.51	--	--	--	--	--	--	--	--
10/28/99	15.72	6.35	9.37	--	--	--	--	--	--	--	--
01/31/00	15.72	7.25	8.47	--	<50	<0.5	0.541	<0.5	<0.5	<2.5	--
05/19/00	15.72	7.65	8.07	--	--	--	--	--	--	--	--
08/07/00	15.72	6.35	9.37	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5/<2.0 <sup>f</sup>	--
12/01/00	15.72	5.60	10.12	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--
02/09/01	15.72	6.05	9.67	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
05/29/01	15.72	6.73	8.99	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
08/27/01 <sup>h</sup>	15.72	5.68	10.04	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0 <sup>f</sup>	--
11/28/01	15.72	5.86	9.86	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
02/14/02	15.69	7.86	7.83	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
05/15/02	15.69	7.09	8.60	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
08/05/02	15.69	6.02	9.67	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
11/30/02	15.69	DRY	--	--	--	--	--	--	--	--	--
02/24-25/03 <sup>1</sup>	15.69	8.04	7.65	140	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
06/02/03	15.69	7.33	8.36	150 <sup>m</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
09/02/03	15.69	5.97	9.72	150 <sup>m</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/21/03	-- <sup>n</sup>	-- <sup>n</sup>	10.39	180	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/27/04	-- <sup>n</sup>	-- <sup>n</sup>	6.90	310	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/28/04	-- <sup>n</sup>	-- <sup>n</sup>	9.13	160	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/31/04	-- <sup>n</sup>	-- <sup>n</sup>	10.30	180 <sup>m</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/17/04	-- <sup>n</sup>	-- <sup>n</sup>	8.91	77 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/28/05	-- <sup>n</sup>	-- <sup>n</sup>	6.51	<50 <sup>o</sup>	<50	<0.5	0.5	<0.5	<1.5	<2.5	--
06/09/05	-- <sup>n</sup>	-- <sup>n</sup>	7.09	53 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/19/05	-- <sup>n</sup>	-- <sup>n</sup>	9.27	<50 <sup>o,p</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/18/05	-- <sup>n</sup>	-- <sup>n</sup>	9.66	<50 <sup>n</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/07/06	-- <sup>n</sup>	-- <sup>n</sup>	6.75	<50 <sup>n</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/17/06	-- <sup>n</sup>	-- <sup>n</sup>	7.09	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/30/06	-- <sup>n</sup>	-- <sup>n</sup>	9.03	640 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)	
<b>MW-2 (cont)</b>												
11/28/06	— <sup>n</sup>	— <sup>n</sup>	10.02	560 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
02/06/07	18.40	8.72	9.68	200 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
05/02/07	18.40	9.71	8.69	480 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
08/17/07	18.40	8.52	9.88	1,000 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
11/16/07	18.40	8.30	10.10	1,900 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
02/05/08	18.40	10.97	7.43	1,100 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
05/20/08	18.40	9.09	9.31	650 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
08/06/08	18.40	8.25	10.15	200 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
12/05/08	18.40	7.12	11.28	680 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
02/09/09	18.40	8.08	10.32	420 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
05/08/09	18.40	9.98	8.42	75 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
08/07/09	18.40	8.23	10.17	610 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	—	
02/25/10	18.40	10.54	7.86	120 <sup>o</sup> <sup>e</sup>	<50 <sup>o</sup> <sup>e</sup>	<0.5	<0.5	<0.5	<1.5	<2.5	—	
<b>MW-3</b>												
10/27/95	15.46	10.37	5.09	—	33,000	11,000	1,700	2,300	4,200	—	—	
02/20/97	15.42	8.37	7.05	—	260	56	<1.0	7.6	5.9	<5.0	—	
04/24/97	15.42	7.29	8.13	—	1,400	310	28	76	75	74	—	
07/23/97	15.42	5.84	9.58	—	37,000	10,000	1,500	2,700	4,200	2,500	—	
10/29/97	15.42	5.09	10.33	—	53,000	12,000	1,200	3,000	3,100	2,500	—	
01/28/98	15.42	8.94	6.48	—	210	43	1.5	1.7	3.9	10	—	
05/11/98	15.42	8.49	6.93	—	59	11	<0.5	2.1	<0.5	<2.5	—	
07/16/98	15.42	7.14	8.28	—	260	90	4.8	18	5.7	<10	—	
08/04/98 <sup>a</sup>	15.42	6.88	8.54	—	—	—	—	—	—	—	8.5 x 10 <sup>2</sup>	
09/03/98 <sup>a</sup>	15.42	6.34	9.08	—	—	—	—	—	—	—	2.4 x 10 <sup>3</sup>	
10/21/98 <sup>b</sup>	15.42	5.62	9.80	—	—	—	—	—	—	—	6.0 x 10 <sup>1</sup>	
11/04/98	15.42	5.60	9.82	—	73,000	17,000	3,800	4,900	8,100	<250	—	
01/26/99	15.42	6.70	8.72	—	32,400	10,200	1,850	2,650	3,140	715/<500 <sup>c</sup>	—	
05/06/99	15.42	7.97	7.45	—	3,160	668	89.6	180	123	<200/<10 <sup>c</sup>	—	
08/21/99	15.42	7.95	7.47	—	53,800	9,700	2,040	2,880	5,000	<1,250/<40 <sup>c</sup>	—	
10/28/99	15.42	5.37	10.05	—	71,300	14,000	3,420	4,320	8,360	<1,000	—	
01/31/00	15.42	7.16	8.26	—	1,650	496	49.1	134	82.6	<12.5	—	
05/19/00	15.42	7.60	7.82	—	110 <sup>e</sup>	36	2.5	9.1	4.0	6.3	—	
08/07/00	15.42	6.29	9.13	—	36,000 <sup>e</sup>	9,000	3,000	2,700	2,800	2,500/<10 <sup>f</sup>	—	
12/01/00	15.42	2.45	12.97	NOT SAMPLED DUE TO INSUFFICIENT WATER				—	—	—	—	—
02/09/01	15.42	5.98	9.44	—	32,000 <sup>e</sup>	11,000	3,900	3,200	4,800	3,200/<2.0 <sup>f</sup>	—	

**Table 1**  
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**Former Chevron (Signal Oil) Service Station #206145 (S-800)**  
**800 Center Street**  
**Oakland, California**

WELL ID/ DATE	TOC <sup>a</sup> (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-3 (cont)</b>											
05/29/01	15.42	6.65	8.77	--	13,000	4,200	2,000	1,800	1,500	74/<2.0 <sup>f</sup>	--
08/27/01 <sup>h</sup>	15.42	5.70	9.72	--	40,000	7,600	2,800	2,500	2,700	<25 <sup>f</sup>	--
11/28/01	15.42	5.77	9.65	--	57,000	10,000	2,900	2,900	2,800	<250/<5.0 <sup>f</sup>	--
02/14/02	15.40	7.73	7.67	--	51	2.9	<0.50	1.9	1.8	<2.5/<2 <sup>f</sup>	--
05/15/02	15.40	7.05	8.35	--	4,100	910	250	210	240	<20/<2 <sup>f</sup>	--
08/05/02	15.40	5.96	9.44	--	58,000	11,000	4,300	3,400	4,000	<250/<10 <sup>f</sup>	--
11/30/02	15.40	5.14	10.26	--	46,000	13,000	2,900	3,700	2,600	<100/<10 <sup>f</sup>	--
02/24-25/03 <sup>l</sup>	15.40	7.89	7.51	4,500	52,000	9,600	4,800	2,900	4,100	<130	--
06/02/03	15.40	7.24	8.16	6,500	67,000	11,000	9,600	3,400	5,700	<250	--
09/02/03	15.40	5.89	9.51	10,000	73,000	8,900	10,000	3,600	7,000	300	--
11/21/03	15.40	5.17	10.23	8,000	29,000	3,300	3,200	1,200	1,500	<200	--
02/27/04	15.40	8.84	6.56	200	59	8.2	6.3	1.7	6.8	<2.5	--
05/28/04	15.40	6.57	8.83	5,400	18,000	2,600	970	1,600	950	<100	--
08/31/04	15.40	5.41	9.99	9,100	58,000	3,200	9,600	2,800	7,500	<50	--
12/17/04	15.40	6.81	8.59	2,200 <sup>o</sup>	23,000	1,100	2,100	1,200	2,600	<25	--
03/28/05	15.40	9.29	6.11	3,200 <sup>o</sup>	43,000	1,500	10,000	2,600	7,300	<130	--
06/09/05	15.40	8.65	6.75	7,800 <sup>o</sup>	38,000	980	7,000	2,100	4,800	190	--
08/19/05	15.40	6.43	8.97	5,000 <sup>o,p,r</sup>	75,000	1,500	14,000	3,400	9,600	<130	--
11/18/05	15.40	5.95	9.45	3,900 <sup>o,r</sup>	72,000	1,400	14,000	3,600	9,700	380	--
03/07/06	15.40	9.05	6.35	1,100 <sup>o</sup>	15,000	280	2,300	820	2,000	<100	--
05/17/06	15.40	8.57	6.83	4,400 <sup>o</sup>	57,000	650	8,100	2,900	8,100	410	--
08/30/06	15.40	5.44	9.96	4,300 <sup>o</sup>	54,000	540	7,600	4,100	10,000	550	--
11/28/06	15.40	5.62	9.78	4,400 <sup>o</sup>	43,000	260	3,400	3,800	5,800	<1,000	--
02/06/07	18.07	8.70	9.37	5,000 <sup>o</sup>	43,000	290	6,200	3,400	6,400	<500	--
05/02/07	18.07	9.67	8.40	4,500 <sup>o</sup>	43,000	290	4,100	3,800	6,500	<500	--
08/17/07	18.07	8.50	9.57	4,900 <sup>o</sup>	46,000	240	1,900	3,800	5,600	310	--
11/16/07 <sup>y</sup>	18.07	8.29	9.78	860 <sup>o</sup>	450	34	23	53	25	4.1	--
02/05/08	18.07	10.97	7.10	2,400 <sup>o</sup>	18,000	210	950	1,800	1,700	<500	--
05/20/08	18.07	8.99	9.08	6,900 <sup>o</sup>	45,000	190	4,900	2,800	6,200	<500 <sup>w</sup>	--
08/06/08	18.07	8.26	9.81	5,000 <sup>o</sup>	40,000	220	1,500	3,200	6,500	<500 <sup>w</sup>	--
12/05/08	18.07	7.56	10.51	4,000 <sup>o</sup>	15,000	26	590	1,800	1,800	230	--
02/09/09	18.07	8.02	10.05	2,800 <sup>o</sup>	20,000	170	710	1,800	2,500	<400 <sup>w</sup>	--
05/08/09	18.07	9.95	8.12	2,900 <sup>o</sup>	15,000	88	900	2,100	1,400	<250 <sup>w</sup>	--
08/07/09	18.07	8.20	9.87	2,900 <sup>o</sup>	41,000	150	2,400	3,800	6,700	<500 <sup>w</sup>	--
02/25/10	18.07	10.57	7.50	1,800 <sup>o</sup>	15,000	42	320	1,600	1,100	330	--



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Oakland, California

WELL ID/ DATE	TOC <sup>a</sup> (ft)	GWE (msl)	DTW (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-4</b>											
10/27/95	14.45	9.37	5.08	--	66	6.8	<0.5	<0.5	<0.5	--	--
02/20/97	14.40	8.12	6.28	--	54	<0.5	<0.5	<0.5	7.4	39	--
04/24/97	14.40	7.29	7.11	--	54	1.4	<0.5	0.65	3.0	100	--
07/23/97	14.40	5.80	8.60	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	14.40	5.74	8.66	--	--	--	--	--	--	--	--
11/13/97	14.40	4.97	9.43	--	<50	<0.5	0.79	<0.5	<0.5	<2.5	--
01/28/98	14.40	8.88	5.52	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	14.40	8.40	6.00	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
07/16/98	14.40	7.08	7.32	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
08/04/98 <sup>a</sup>	14.40	6.28	8.12	--	--	--	--	--	--	--	1.8 x 10 <sup>4</sup>
09/03/98 <sup>a</sup>	14.40	6.32	8.08	--	--	--	--	--	--	--	1.4 x 10 <sup>4</sup>
10/21/98 <sup>b</sup>	14.40	5.64	8.76	--	--	--	--	--	--	--	8.6 x 10 <sup>4</sup>
11/04/98	14.40	5.61	8.79	--	--	--	--	--	--	--	--
01/26/99	14.40	6.71	7.69	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--
05/06/99	14.40	8.15	6.25	--	--	--	--	--	--	--	--
08/21/99	14.40	8.13	6.27	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
10/28/99	14.40	4.14	10.26	--	--	--	--	--	--	--	--
01/31/00	14.40	7.07	7.33	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/19/00	14.40	7.52	6.88	--	--	--	--	--	--	--	--
08/07/00	14.40	6.23	8.17	--	<50	4.3	0.60	<0.50	<0.50	<2.5/<2.0 <sup>f</sup>	--
12/01/00	14.40	INACCESSIBLE	--	--	--	--	--	--	--	--	--
02/09/01	14.40	INACCESSIBLE	--	--	--	--	--	--	--	--	--
05/29/01	14.40	6.58	7.82	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
08/27/01	14.40	6.52	7.88	NOT SAMPLED DUE TO INSUFFICIENT WATER			--	--	--	--	--
11/28/01	14.40	DRY	--	--	--	--	--	--	--	--	--
02/14/02	14.37	7.66	6.71	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>f</sup>	--
05/15/02	14.37	6.96	7.41	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>f</sup>	--
08/05/02	14.37	DRY	--	--	--	--	--	--	--	--	--
11/30/02	14.37	DRY	--	--	--	--	--	--	--	--	--
02/24-25/03 <sup>1</sup>	14.37	7.77	6.60	200	<50	8.0	<0.50	<0.50	<1.5	<2.5	--
06/02/03	14.37	7.11	7.26	300	<50	4.3	<0.5	<0.5	<1.5	<2.5	--
09/02/03	14.37	5.80	8.57	410	51	4.3	<0.5	<0.5	<1.5	<2.5	--
11/21/03	-- <sup>n</sup>	-- <sup>n</sup>	10.24	560	110	25	0.6	1.5	<1.5	<2.5	--
02/27/04	-- <sup>n</sup>	-- <sup>n</sup>	5.71	340	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/28/04	-- <sup>n</sup>	-- <sup>n</sup>	7.88	430	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/31/04	-- <sup>n</sup>	-- <sup>n</sup>	9.03	460	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/17/04	-- <sup>n</sup>	-- <sup>n</sup>	7.67	390 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-4 (cont)</b>											
03/28/05	-- <sup>n</sup>	-- <sup>n</sup>	5.32	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
06/09/05	-- <sup>n</sup>	-- <sup>n</sup>	6.70	120°	90	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/19/05	-- <sup>n</sup>	-- <sup>o</sup>	8.03	190 <sup>o,p,q</sup>	200	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/18/05	-- <sup>n</sup>	-- <sup>o</sup>	9.43	310 <sup>o,t</sup>	230	2.7	<0.5	0.8	<1.5	<2.5	--
03/07/06	-- <sup>n</sup>	-- <sup>n</sup>	5.55	230°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/17/06	-- <sup>n</sup>	-- <sup>n</sup>	5.89	150°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/30/06	-- <sup>n</sup>	-- <sup>n</sup>	7.71	380°	1,300	47	<2.5	<2.5	<7.5	<50	--
11/28/06	-- <sup>n</sup>	-- <sup>o</sup>	8.75	1,800°	1,200	36	1.1	3.4	<5.0	<20	--
02/06/07	16.98	8.58	8.40	1,600°	13,000 <sup>u</sup>	3,700 <sup>u</sup>	60 <sup>u</sup>	880 <sup>u</sup>	170 <sup>u</sup>	210 <sup>u</sup>	--
05/02/07	16.98	9.53	7.45	170°	1,400	170	0.6	0.9	1.6	<50	--
08/17/07	16.98	8.35	8.63	1,600°	4,700	870	3.8	49	<10	30	--
11/16/07	16.98	8.20	8.78	2,000°	3,700	780	5.6	100	7.8	25	--
02/05/08	16.98	10.75	6.23	250°	1,100	270	2.2	63	7.6	<50	--
05/20/08	16.98	8.91	8.07	1,100°	3,300	720	4.1	13	15	<50 <sup>w</sup>	--
08/06/08	16.98	8.09	8.89	2,200°	11,000	2,700	33	460	87	<100 <sup>w</sup>	--
12/05/08	16.98	7.46	9.52	540°	2,500	380	1.4	22	<5.0 <sup>x</sup>	11	--
02/09/09	16.98	7.97	9.01	610°	890	6.4	0.5	2.9	<1.5	<5.0 <sup>w</sup>	--
05/08/09	16.98	9.80	7.18	140°	560	29	<0.5	1.2	<1.5	<5.0 <sup>w</sup>	--
08/07/09	16.98	8.10	8.88	1,000°	1,900	260	1.2	7.1	3.0	8.3	--
02/25/10	16.98	10.37	6.61	54 <sup>o,x</sup>	56	<0.5	<0.5	<0.5	<1.5	<2.5	--
<b>MW-5</b>											
01/03/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/20/97	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
04/24/97	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
04/30/97	15.03	7.06	7.97	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
10/29/97	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
01/28/98	15.03	8.83	6.20	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
07/16/98	15.03	7.28	7.75	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
08/04/98	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
11/04/98	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
01/26/99	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
05/06/99	15.03	INACCESSIBLE	--	--	--	--	--	--	--	--	--
08/21/99	15.03	6.74	8.29	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* ( <i>µ</i> L)	GWE ( <i>msl</i> )	DTW ( <i>ft</i> )	TPH-DRO ( <i>µ</i> g/L)	TPH-GRO ( <i>µ</i> g/L)	B ( <i>µ</i> g/L)	T ( <i>µ</i> g/L)	E ( <i>µ</i> g/L)	X ( <i>µ</i> g/L)	MTBE ( <i>µ</i> g/L)	CUB ( <i>cfu/ml</i> )
<b>MW-5 (cont)</b>											
10/28/99	15.03	4.60	10.43	--	--	--	--	--	--	--	--
01/31/00	15.03	7.39	7.64	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/19/00	15.03	7.85	7.18	--	--	--	--	--	--	--	--
08/07/00	15.03	INACCESSIBLE		--	--	--	--	--	--	--	--
12/01/00	15.03	5.68	9.35	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50/<2.0 <sup>f</sup>	--
02/09/01	15.03	6.22	8.81	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5/<2.0 <sup>f</sup>	--
05/29/01	15.03	INACCESSIBLE - CAR PARKED OVER WELL		--	--	--	--	--	--	--	--
08/27/01	15.03	INACCESSIBLE - CAR PARKED OVER WELL		--	--	--	--	--	--	--	--
11/28/01	15.03	INACCESSIBLE - CAR PARKED OVER WELL		--	--	--	--	--	--	--	--
02/14/02	15.01	7.96	7.05	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>f</sup>	--
05/15/02	15.01	7.23	7.78	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>f</sup>	--
08/05/02	15.01	6.13	8.88	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>f</sup>	--
11/30/02	15.01	5.27	9.74	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>f</sup>	--
02/24-25/03 <sup>1</sup>	15.01	7.99	7.02	<50	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
06/02/03	15.01	7.14	7.87	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
09/02/03	15.01	6.02	8.99	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/21/03	15.01	5.26	9.75	68	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/27/04	15.01	8.42	6.59	140	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/28/04	15.01	6.71	8.30	76	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/31/04	15.01	INACCESSIBLE - CAR PARKED OVER WELL		--	--	--	--	--	--	--	--
12/17/04	15.01	6.98	8.03	52°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/28/05	15.01	8.66	6.35	51°	<50	<0.5	0.7	<0.5	<1.5	<2.5	--
06/09/05	15.01	9.16	5.85	72°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/19/05	15.01	6.52	8.49	<50° <sup>p</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/18/05	15.01	6.12	8.89	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/07/06	15.01	8.98	6.03	<50°	<50	<0.5	<0.5	1.4	<1.5	<2.5	--
05/17/06	15.01	8.83	6.18	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/30/06	15.01	6.86	8.15	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/28/06	15.01	6.46	8.55	200°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/06/07	17.68	8.83	8.85	55°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/02/07	17.68	9.91	7.77	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/17/07	17.68	8.63	9.05	66°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/16/07	17.68	INACCESSIBLE - CAR PARKED OVER WELL		--	--	--	--	--	--	--	--
02/05/08	17.68	INACCESSIBLE - CAR PARKED OVER WELL		--	--	--	--	--	--	--	--
02/29/08	17.68	10.88	6.80	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/20/08	17.68	9.21	8.47	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/06/08	17.68	8.29	9.39	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Former Chevron (Signal Oil) Service Station #206145 (S-800)  
 800 Center Street  
 Oakland, California

WELL ID/ DATE	TOC* ( <i>fl</i> )	GWE ( <i>msl</i> )	DTW ( <i>fl</i> )	TPH-DRO ( <i>µg/L</i> )	TPH-GRO ( <i>µg/L</i> )	B ( <i>µg/L</i> )	T ( <i>µg/L</i> )	E ( <i>µg/L</i> )	X ( <i>µg/L</i> )	MTBE ( <i>µg/L</i> )	CUB ( <i>cfu/ml</i> )	
<b>MW-5 (cont)</b>												
12/05/08	17.68	7.63	10.05	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--	
02/09/09	17.68	8.21	9.47	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--	
05/08/09	17.68	10.16	7.52	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--	
08/07/09	17.68	8.33	9.35	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--	
02/25/10	17.68	10.76	6.92	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--	
<b>MW-6</b>												
01/03/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--	
02/20/97	14.73	8.11	6.62	--	800	310	23	11	28	<12	--	
04/24/97	14.73	7.13	7.60	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
07/23/97	14.73	5.73	9.00	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
10/29/97	14.73	4.98	9.75	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
01/28/98	14.73	8.19	6.54	--	160	38	<0.5	<0.5	<0.5	<2.5	--	
05/11/98	14.73	8.08	6.65	--	1,700	490	72	39	52	<25	--	
07/16/98	14.73	7.04	7.69	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	
08/04/98 <sup>a</sup>	14.73	6.89	7.84	--	--	--	--	--	--	--	8.6 x 10 <sup>3</sup>	
09/03/98 <sup>a</sup>	14.73	6.24	8.49	--	--	--	--	--	--	--	2.9 x 10 <sup>3</sup>	
10/21/98 <sup>b</sup>	14.73	5.46	9.27	--	--	--	--	--	--	--	1.8 x 10 <sup>3</sup>	
11/04/98	14.73	5.52	9.21	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
01/26/99	14.73	6.49	8.24	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--	
05/06/99	14.73	7.91	6.82	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	
08/21/99	14.73	7.93	6.80	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	
10/28/99	14.73	5.27	9.46	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--	
01/31/00	14.73	7.16	7.57	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--	
05/19/00	14.73	7.60	7.13	--	<50	11	<0.5	<0.5	<0.5	<2.5	--	
08/07/00	14.73	6.22	8.51	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5/<2.0 <sup>f</sup>	--	
12/01/00	14.73	DRY	--	--	--	--	--	--	--	--	--	
02/09/01	14.73	DRY	--	--	--	--	--	--	--	--	--	
05/29/01	14.73	6.63	8.10	NOT SAMPLED DUE TO INSUFFICIENT WATER								--
08/27/01 <sup>h</sup>	14.73	9.83	4.90	--	150	<0.50	5.7	<0.50	<0.50	<5.0 <sup>f</sup>	--	
11/28/01	14.73	DRY	--	--	--	--	--	--	--	--	--	
02/14/02	14.68	7.90	6.78	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	
05/15/02	14.68	7.32	7.36	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	
08/05/02	14.68	DRY	--	--	--	--	--	--	--	--	--	
11/30/02	14.68	DRY	--	--	--	--	--	--	--	--	--	
02/24-25/03 <sup>l</sup>	14.68	7.89	6.79	<50	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--	

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* ( <i>fl</i> )	GWE ( <i>msl</i> )	DTW ( <i>fl</i> )	TPH-DRO ( <i>µg/L</i> )	TPH-GRO ( <i>µg/L</i> )	B ( <i>µg/L</i> )	T ( <i>µg/L</i> )	E ( <i>µg/L</i> )	X ( <i>µg/L</i> )	MTBE ( <i>µg/L</i> )	CUB ( <i>cfu/ml</i> )
<b>MW-6 (cont)</b>											
06/02/03	14.68	7.20	7.48	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
09/02/03	14.68	5.77	8.91	190	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/21/03	14.68	4.86	9.82	98	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/27/04	14.68	8.12	6.56	240	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/28/04	14.68	6.43	8.25	150	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/31/04	14.68	5.29	9.39	360 <sup>m</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/17/04	14.68	6.85	7.83	91°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/28/05	14.68	8.34	6.34	61°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
06/09/05	14.68	7.95	6.73	64°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/19/05	14.68	6.27	8.41	<50 <sup>o,p</sup>	<50 <sup>s</sup>	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/18/05	14.68	DRY AT 15.70 FEET		--	--	--	--	--	--	--	--
03/07/06	14.68	8.03	6.65	<50°	<50	<0.5	<0.5	0.9	<1.5	<2.5	--
05/17/06	14.68	7.98	6.70	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/30/06	14.68	6.63	8.05	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/28/06	14.68	6.09	8.59	120°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/06/07	17.33	8.58	8.75	96°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/02/07	17.33	9.64	7.69	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/17/07	17.33	8.38	8.95	66°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/16/07	17.33	8.19	9.14	250°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/05/08	17.33	10.55	6.78	120°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/20/08	17.33	8.92	8.41	70°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/06/08	17.33	8.06	9.27	<160°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/05/08	17.33	7.44	9.89	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/09/09	17.33	7.99	9.34	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/08/09	17.33	10.01	7.32	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/07/09	17.33	8.11	9.22	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/25/10	17.33	10.58	6.75	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
<b>MW-7</b>											
01/03/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	--	--
02/20/97	16.36	8.86	7.50	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
04/24/97	16.36	7.59	8.77	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	16.36	6.09	10.27	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	16.36	5.28	11.08	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
01/28/98	16.36	9.10	7.26	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	16.36	9.11	7.25	SAMPLED ANNUALLY		--	--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (%)	GWE (msl)	DTW (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-7 (cont)</b>											
07/16/98	16.36	8.00	8.36	--	--	--	--	--	--	--	--
08/04/98 <sup>a</sup>	16.36	7.32	9.04	--	--	--	--	--	--	--	1.5 x 10 <sup>3</sup>
09/03/98 <sup>a</sup>	16.36	6.65	9.71	--	--	--	--	--	--	--	6.5 x 10 <sup>2</sup>
10/21/98 <sup>b</sup>	16.36	5.96	10.40	--	--	--	--	--	--	--	4.8 x 10 <sup>3</sup>
11/04/98	16.36	5.89	10.47	--	--	--	--	--	--	--	--
01/26/99	16.36	8.25	8.11	--	<50	<0.5	<0.5	<0.5	0.5	<2.0	--
05/06/99	16.36	8.47	7.89	--	--	--	--	--	--	--	--
08/21/99	16.36	8.51	7.85	--	--	--	--	--	--	--	--
10/28/99	16.36	6.04	10.32	--	--	--	--	--	--	--	--
01/31/00	16.36	7.57	8.79	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/19/00	16.36	UNABLE TO LOCATE		--	--	--	--	--	--	--	--
08/07/00	16.36	6.67	9.69	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5/<2.0 <sup>f</sup>	--
12/01/00	16.36	5.84	10.52	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--
02/09/01	16.36	6.30	10.06	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
05/29/01	16.36	UNABLE TO LOCATE		--	--	--	--	--	--	--	--
08/27/01 <sup>h</sup>	16.36	6.02	10.34	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0 <sup>f</sup>	--
11/28/01	16.36	6.09	10.27	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
02/14/02	16.31	8.21	8.10	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
05/15/02	16.31	7.41	8.90	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
08/05/02	16.31	6.26	10.05	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
11/30/02	16.31	5.39	10.92	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
02/24-25/03 <sup>i</sup>	16.31	8.30	8.01	<50	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
06/02/03	16.31	7.67	8.64	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
09/02/03	16.31	6.17	10.14	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/21/03	16.31	UNABLE TO LOCATE - BURIED		--	--	--	--	--	--	--	--
02/27/04	16.31	UNABLE TO LOCATE - BURIED		--	--	--	--	--	--	--	--
05/28/04	-- <sup>n</sup>	-- <sup>n</sup>	9.40	91	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/31/04	-- <sup>n</sup>	-- <sup>n</sup>	10.61	150 <sup>m</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/17/04	-- <sup>n</sup>	-- <sup>n</sup>	9.16	170 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/28/05	-- <sup>n</sup>	-- <sup>n</sup>	7.21	<50 <sup>n</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
06/09/05	-- <sup>n</sup>	-- <sup>n</sup>	7.71	86 <sup>o</sup>	55	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/19/05	-- <sup>n</sup>	-- <sup>n</sup>	9.88	820 <sup>n,p,q</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/18/05	-- <sup>n</sup>	-- <sup>n</sup>	10.06	<50 <sup>n</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/07/06	-- <sup>n</sup>	-- <sup>n</sup>	6.95	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/17/06	-- <sup>n</sup>	-- <sup>n</sup>	7.52	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/30/06	-- <sup>n</sup>	-- <sup>n</sup>	10.73	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/28/06	-- <sup>n</sup>	-- <sup>n</sup>	10.70	<50 <sup>o</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (ft)	GWE (msl)	DTW (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfw/ml)
<b>MW-7 (cont)</b>											
02/06/07	19.26	8.91	10.35	73°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
05/02/07	19.26	9.98	9.28	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
08/17/07	19.26	8.75	10.51	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
11/16/07	19.26	8.56	10.70	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
02/05/08	19.26	11.43	7.83	100°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
05/20/08	19.26	9.32	9.94	52°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
08/06/08	19.26	8.41	10.85	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
12/05/08	19.26	7.71	11.55	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
02/09/09	19.26	8.23	11.03	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
05/08/09	19.26	10.23	9.03	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
08/07/09	19.26	8.40	10.86	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
02/25/10	19.26	10.84	8.42	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	-
<b>MW-8</b>											
02/14/02 <sup>j</sup>	15.29	7.30	7.99	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5/<2 <sup>f</sup>	--
05/15/02 <sup>k</sup>	15.29	6.66	8.63	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
08/05/02 <sup>k</sup>	15.29	5.48	9.81	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
11/30/02 <sup>k</sup>	15.29	4.85	10.44	-	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
02/24-25/03 <sup>l</sup>	15.29	7.46	7.83	<50	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
06/02/03	15.29	6.83	8.46	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
09/02/03	15.29	5.57	9.72	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/21/03	15.29	4.89	10.40	<50	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/27/04	15.29	8.38	6.91	280	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/28/04	15.29	6.33	8.96	72	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/31/04	15.29	4.79	10.50	92 <sup>m</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/17/04	15.29	6.68	8.61	53°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/28/05	15.29	8.79	6.50	<50°	<50	<0.5	0.9	<0.5	<1.5	<2.5	--
06/09/05	15.29	8.26	7.03	63°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/19/05	15.29	6.18	9.11	<50° <sup>p</sup>	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/18/05	15.29	5.47	9.82	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/07/06	15.29	8.60	6.69	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/17/06	15.29	8.21	7.08	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/30/06	15.29	6.57	8.72	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/28/06	15.29	6.38	8.91	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/06/07	17.79	8.39	9.40	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/02/07	17.79	9.33	8.46	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-8 (cont)</b>											
08/17/07	17.79	8.18	9.61	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/16/07	17.79	8.04	9.75	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/05/08	17.79	10.44	7.35	120°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/20/08	17.79	8.69	9.10	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/06/08	17.79	7.89	9.90	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/05/08	17.79	7.30	10.49	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/09/09	17.79	7.86	9.93	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/08/09	17.79	9.60	8.19	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/07/09	17.79	7.95	9.84	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/25/10	17.79	10.27	7.52	<50°	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
<b>MW-9</b>											
04/20/07 <sup>1</sup>	18.42	10.39	8.03	1,100°	4,100	28	6.9	9.2	240	--	--
06/22/07	18.42	8.82	9.60	310°	500	4.4	<0.5	<0.5	12	--	--
08/17/07	18.42	8.67	9.75	92°	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/16/07	18.42	8.40	10.02	470°	92	<0.5	<0.5	<0.5	<1.5	--	--
02/05/08	18.42	11.08	7.34	390°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/20/08	18.42	9.16	9.26	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/06/08	18.42	8.31	10.11	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/05/08	18.42	7.64	10.78	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/09/09	18.42	8.15	10.27	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	18.42	10.11	8.31	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	18.42	8.33	10.09	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	18.42	10.70	7.72	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
<b>MW-10</b>											
04/20/07 <sup>1</sup>	17.99	8.35	9.64	260°	1,200	29	31	11	140	--	--
06/22/07	17.99	8.29	9.70	110°	<50	1.5	<0.5	<0.5	<1.5	--	--
08/17/07	17.99	7.81	10.18	53°	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/16/07	17.99	6.90	11.09	140°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/05/08	17.99	9.65	8.34	330°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/20/08	17.99	8.28	9.71	120°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/06/08	17.99	7.50	10.49	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/05/08	17.99	6.67	11.32	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* ( <i>ft.</i> )	GWE ( <i>msf</i> )	DTW ( <i>ft.</i> )	TPH-DRO ( <i>µg/L</i> )	TPH-GRO ( <i>µg/L</i> )	B ( <i>µg/L</i> )	T ( <i>µg/L</i> )	E ( <i>µg/L</i> )	X ( <i>µg/L</i> )	MTBE ( <i>µg/L</i> )	CUB ( <i>cfu/ml</i> )
<b>MW-10 (cont)</b>											
02/09/09	17.99	7.19	10.80	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	17.99	8.96	9.03	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	17.99	7.41	10.58	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	17.99	9.11	8.88	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
<b>MW-11</b>											
04/20/07 <sup>1</sup>	18.68	9.88	8.80	350°	77	<2.0	4.6	<0.5	3.2	--	--
06/22/07	18.68	9.35	9.33	140°	51	<0.5	<0.5	<0.5	<1.5	--	--
08/17/07	18.68	8.66	10.02	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/16/07	18.68	8.47	10.21	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/05/08	18.68	11.10	7.58	84°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/20/08	18.68	9.20	9.48	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/06/08	18.68	8.37	10.31	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/05/08	18.68	7.63	11.05	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/09/09	18.68	8.17	10.51	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	18.68	10.12	8.56	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	18.68	8.34	10.34	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	18.68	10.70	7.98	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
<b>MW-12</b>											
04/20/07 <sup>1</sup>	18.46	12.88	5.58	430°	400	2.3	40	14	49	--	--
06/22/07	18.46	7.75	10.71	390°	<50	0.7	1.1	<0.5	4.3	--	--
08/17/07	18.46	7.91	10.55	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/16/07	18.46	6.96	11.50	200°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/05/08	18.46	8.62	9.84	200°	51	0.9	<0.5	<0.5	<1.5	--	--
02/05/08	18.46	8.80	9.66	66°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/06/08	18.46	6.40	12.06	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/05/08	18.46	6.20	12.26	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/09/09	18.46	6.53	11.93	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	18.46	8.64	9.82	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	18.46	6.41	12.05	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	18.46	8.08	10.38	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--

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Oakland, California

WELL ID/ DATE	TOC* (ft)	GWE (msl)	DTW (ft)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-13</b>											
04/20/07 <sup>1</sup>	18.43	9.46	8.97	140°	650	16	23	7.5	61	--	--
06/22/07	18.43	8.99	9.44	400°	<50	0.6	0.9	<0.5	<1.5	--	--
08/17/07	18.43	8.53	9.90	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/16/07	18.43	8.37	10.06	350°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/05/08	18.43	10.85	7.58	57°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/20/08	18.43	8.99	9.44	100°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/06/08	18.43	8.18	10.25	78°	<50	<0.5	<0.5	<0.5	<1.5	--	--
12/05/08	18.43	7.53	10.90	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/09/09	18.43	8.00	10.43	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	18.43	9.93	8.50	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	18.43	8.20	10.23	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	18.43	10.51	7.92	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
<b>MW-14</b>											
04/20/07 <sup>1</sup>	18.59	8.17	10.42	2,000°	16,000	550	1,600	620	2,400	--	--
06/22/07	18.59	7.55	11.04	1,300°	3,700	190	150	49	580	--	--
08/17/07	18.59	7.82	10.77	780°	2,600	74	54	11	220	--	--
11/16/07	18.59	7.58	11.01	690°	850	45	3.5	14	32	--	--
02/05/08	18.59	8.99	9.60	160°	450	16	2.7	7.6	3.0	--	--
05/20/08	18.59	7.69	10.90	120°	<50	0.7	<0.5	<0.5	<1.5	--	--
08/06/08	18.59	7.35	11.24	88°	<50	0.9	<0.5	<0.5	<1.5	--	--
12/05/08	18.59	6.83	11.76	<50°	100	1.7	0.5	<0.5	<1.5	--	--
02/09/09	18.59	7.11	11.48	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	18.59	8.01	10.58	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	18.59	7.48	11.11	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	18.59	8.72	9.87	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
<b>MW-15</b>											
04/20/07 <sup>1</sup>	18.38	9.78	8.60	720°	240	1.0	1.3	<0.5	20	--	--
06/22/07	18.38	9.09	9.29	150°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/17/07	18.38	8.65	9.73	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
11/16/07	18.38	8.41	9.97	140°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/05/08	18.38	10.97	7.41	52°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/20/08	18.38	9.12	9.26	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/06/08	18.38	8.30	10.08	190°	<50	<0.5	<0.5	<0.5	<1.5	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-15 (cont)</b>											
12/05/08	18.38	7.58	10.80	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/09/09	18.38	8.12	10.26	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	18.38	10.02	8.36	53°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	18.38	8.30	10.08	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	18.38	10.61	7.77	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
<b>MW-16</b>											
04/20/07 <sup>i</sup>	18.57	8.75	9.82	2,200°	15,000	87	1,200	500	2,000	--	--
06/22/07	18.57	8.20	10.37	2,100°	10,000	130	1,800	580	1,400	--	--
08/17/07	18.57	7.81	10.76	640°	8,200	110	1,400	280	730	--	--
11/16/07	18.57	7.54	11.03	370°	1,600	22	270	60	160	--	--
02/05/08	18.57	9.74	8.83	350°	930	2.6	15	9.3	18	--	--
05/20/08	18.57	8.26	10.31	79°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/06/08	18.57	7.49	11.08	74°	<50	<0.5	<0.5	0.6	<1.5	--	--
12/05/08	18.57	6.80	11.77	89°	<50	<0.5	<0.5	<0.5	<1.5	--	--
02/09/09	18.57	7.18	11.39	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	18.57	8.92	9.65	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	18.57	7.52	11.05	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	18.57	9.36	9.21	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
<b>MW-17</b>											
04/20/07 <sup>i</sup>	18.55	-0.95	19.50	1,300°	7,400	66	880	300	1,300	--	--
06/22/07	18.55	8.21	10.34	690°	2,000	35	27	9.3	360	--	--
08/17/07	18.55	2.33	16.22	240°	380	6.7	2.3	0.5	15	--	--
11/16/07	18.55	3.22	15.33	270°	190	4.0	4.0	1.5	27	--	--
02/05/08	18.55	4.94	13.61	460°	1,000	16	26	49	60	--	--
05/20/08	18.55	8.29	10.26	89°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/06/08	18.55	5.82	12.73	150°	180	2.5	2.0	2.8	1.5	--	--
12/05/08	18.55	6.62	11.93	120°	360	3.4	<2.0 <sup>y</sup>	0.7	<1.5	--	--
02/09/09	18.55	6.68	11.87	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
05/08/09	18.55	8.79	9.76	<50°	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/07/09	18.55	7.51	11.04	SAMPLED SEMI-ANNUALLY			--	--	--	--	--
02/25/10	18.55	8.92	9.63	<50	<50	<0.5	<0.5	<0.5	<1.5	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (fl)	GWE (msl)	DTW (fl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
AS-1 02/25/10 <sup>i</sup>	-	-	7.63	-	-	-	-	-	-	-	-
AS-2 02/25/10 <sup>i</sup>	-	-	8.05	-	-	-	-	-	-	-	-
AS-3 02/25/10 <sup>i</sup>	-	-	8.12	-	-	-	-	-	-	-	-
AS-4 02/25/10 <sup>i</sup>	-	-	7.98	-	-	-	-	-	-	-	-
AS-5 02/25/10 <sup>i</sup>	-	-	7.80	-	-	-	-	-	-	-	-
AS-6 02/25/10 <sup>i</sup>	-	-	8.04	-	-	-	-	-	-	-	-
AS-7 02/25/10 <sup>i</sup>	-	-	8.01	-	-	-	-	-	-	-	-
AS-8 02/25/10 <sup>i</sup>	-	-	7.94	-	-	-	-	-	-	-	-
MW-1 10/27/95	15.69	10.54	5.15	--	170,000	19,000	34,000	4,800	26,000	--	--
02/20/97	15.64	8.96	6.68	--	18,000	870	3,500	470	2,100	<250	--
04/24/97	15.64	7.30	8.34	--	76,000	4,600	16,000	1,600	8,300	1,000	--
07/23/97	15.64	5.90	9.74	--	37,000	2,700	8,000	870	6,100	<250	--
10/29/97	15.64	INACCESSIBLE		--	--	--	--	--	--	--	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
 Former Chevron (Signal Oil) Service Station #206145 (S-800)  
 800 Center Street  
 Oakland, California

WELL ID/ DATE	TOC* (fL)	GWE (msl)	DTW (fL)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>MW-1 (cont)</b>											
01/28/98	15.64	9.30	6.34	--	10,000	380	2,000	300	1,500	<25	--
05/11/98	15.64	8.72	6.92	--	17,000	880	3,100	380	2,300	<250	--
07/16/98	15.64	7.23	8.41	--	29,000	2,700	6,800	890	3,900	<1,000	--
08/04/98 <sup>a</sup>	15.64	6.90	8.74	--	--	--	--	--	--	--	<1.0 x 10 <sup>1</sup>
09/03/98 <sup>a</sup>	15.64	6.43	9.21	--	--	--	--	--	--	--	4.1 x 10 <sup>3</sup>
10/21/98 <sup>b</sup>	15.64	5.59	10.05	--	--	--	--	--	--	--	4.7 x 10 <sup>2</sup>
11/04/98	15.64	5.64	10.00	--	25,000	1,900	5,900	810	4,300	<125	--
01/26/99	15.64	6.86	8.78	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--
05/06/99	15.64	8.17	7.47	--	8,050	515	1,840	256	1,190	300/<20 <sup>c</sup>	--
08/21/99	15.64	13.27	2.37	--	46,500	2,530	8,700	1,010	5,300	<1,250/<40 <sup>c</sup>	--
10/28/99	15.64	5.46	10.18	--	31,600	1,580	6,100	794	4,400	1,270	--
01/31/00	15.64	7.49	8.15	--	7,270	366	1,280	171	935	<12.5	--
05/19/00	15.64	7.78	7.86	--	8,000 <sup>e</sup>	870	1,200	430	1,200	<250	--
08/07/00	15.64	6.42	9.22	--	37,000 <sup>e</sup>	2,400	8,500	1,100	5,500	1,500/<4.0 <sup>f</sup>	--
12/01/00	15.64	5.25	10.39	--	25,500 <sup>g</sup>	1,390	4,920	801	4,330	<500/<10 <sup>f</sup>	--
02/09/01	15.64	6.10	9.54	--	8,900 <sup>e</sup>	850	1,300	470	1,700	820/<2.0 <sup>f</sup>	--
05/29/01	15.64	6.79	8.85	--	24,000 <sup>e</sup>	1,800	5,600	740	3,700	<250/<2.0 <sup>f</sup>	--
08/27/01 <sup>h</sup>	15.64	5.83	9.81	--	27,000	1,400	4,400	710	3,400	<20 <sup>f</sup>	--
11/28/01	15.64	5.84	9.80	--	26,000	1,300	3,900	620	3,400	<100/<2 <sup>f</sup>	--
02/14/02	15.63	8.34	7.29	--	1,400	100	360	45	240	9.3/<2 <sup>f</sup>	--
05/15/02	15.63	7.18	8.45	--	37,000	2,400	7,300	1,000	4,800	<100/<3.0 <sup>f</sup>	--
08/05/02	15.63	6.09	9.54	--	27,000	1,500	4,600	700	3,400	<100/<3.0 <sup>f</sup>	--
<b>DESTROYED</b>											
<b>TRIP BLANK</b>											
02/20/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
04/24/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/23/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
10/29/97	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
01/28/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
05/11/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
07/16/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.5	--
11/04/98	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--
01/26/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--
05/06/99	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<2.0	--
01/31/00	--	--	--	--	<50	<0.5	<0.5	<0.5	<0.5	<5.0	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (ft.)	GWE (msl)	DTW (ft.)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
<b>TRIP BLANK (cont)</b>											
05/19/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
08/07/00	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
12/01/00	--	--	--	--	<50.0	<0.500	<0.500	<0.500	<0.500	<2.50	--
02/09/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
05/29/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<2.5	--
08/27/01 <sup>h</sup>	--	--	--	--	<50	<0.50	<0.50	<0.50	<0.50	<5.0 <sup>f</sup>	--
<b>QA</b>											
11/28/01	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
02/14/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
05/15/02	--	--	--	--	<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	--
11/30/02	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
02/24-25/03	--	--	--	--	<50	<0.50	<0.50	<0.50	<1.5	<2.5	--
06/02/03	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
09/02/03	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/21/03	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/27/04	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/28/04	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/31/04	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/17/04	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/28/05	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
06/09/05	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/19/05	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/18/05	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
03/07/06	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/17/06	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/30/06	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/28/06	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/06/07	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
04/20/07	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/02/07	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
06/22/07	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	--	--
08/17/07	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
11/16/07	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/05/08	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/29/08	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/20/08	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID/ DATE	TOC* (fl)	GWE (msl)	DTW (fl)	TPH-DRO (µg/L)	TPH-GRO (µg/L)	B (µg/L)	T (µg/L)	E (µg/L)	X (µg/L)	MTBE (µg/L)	CUB (cfu/ml)
QA (cont)											
08/06/08	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
12/05/08	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/09/09	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
05/08/09	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
08/07/09	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--
02/25/10	--	--	--	--	<50	<0.5	<0.5	<0.5	<1.5	<2.5	--

**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results prior to May 19, 2000 were compiled from reports prepared by Blaine Tech Services, Inc.

TOC = Top of Casing  
(ft.) = Feet

GWE = Groundwater Elevation  
(msl) = Mean sea level

DTW = Depth to Water

TPH-D = Total Petroleum Hydrocarbons as Diesel

TPH-G = Total Petroleum Hydrocarbons as Gasoline

TPH = Total Petroleum Hydrocarbons

DRO = Diesel Range Organics

GRO = Gasoline Range Organics

B = Benzene

T = Toluene

E = Ethylbenzene

X = Xylenes

MTBE = Methyl Tertiary Butyl Ether

CUB = Contaminate utilizing bacteria

(cfu/ml) = Colony forming unit per milliliter

(µg/L) = Micrograms per liter

(ppb) = Parts per billion

-- = Not Measured/Not Analyzed

QA = Quality Assurance/Trip Blank

- \* TOC elevations were surveyed on May 30, 2007, by Morrow Surveying. Vertical Datum is NAVD 88 from GPS observations. Gettler-Ryan received updated TOC data March 12, 2007. Vertical Datum is NAVD 88 from GPS observations. TOC elevations were surveyed on August 17, 2005, by Morrow Surveying. On February 18, 2003, MW-1A was surveyed using the previous benchmark. TOC elevations were surveyed on December March 4, 2002, by Virgil Chavez Land Surveying. The benchmark for the survey was a City of Oakland benchmark, #25-H monument disk in well casting in sidewalk at the northwest corner of 7th and Center. The latitude, longitude and coordinates are for top of casings and are based on the California State Coordinate System, Zone III (NAD83), (Benchmark Elevation = 10.784 feet NGVD 29).
- <sup>a</sup> Contaminate hydrocarbon utilizing bacteria plate count was run with diesel and jet fuel degraders.
- <sup>b</sup> Contaminate hydrocarbon utilizing bacteria plate count was run with gasoline degraders.
- <sup>c</sup> Confirmation run.
- <sup>d</sup> Chromatogram pattern indicates an unidentified hydrocarbon.
- <sup>e</sup> Laboratory report indicates gasoline C6-C12.
- <sup>f</sup> MTBE by EPA Method 8260.
- <sup>g</sup> Laboratory reports indicates weathered gasoline C6-C12.
- <sup>h</sup> TPH-G and BTEX by EPA Method 8260.
- <sup>i</sup> Well development performed.
- <sup>j</sup> TPH-D was detected at 130 ppb.
- <sup>k</sup> TPH-D was <50 ppb.
- <sup>l</sup> Well re-development performed.
- <sup>m</sup> Laboratory report indicates the observed sample pattern is not typical of diesel/#2 fuel oil.
- <sup>n</sup> TOC damaged; unable to calculate an accurate GWE.
- <sup>o</sup> Analyzed with silica gel clean-up.
- <sup>p</sup> Laboratory report indicates analysis performed out of hold time.
- <sup>q</sup> Laboratory report indicates the observed sample pattern includes #2 fuel/diesel and an additional pattern which elutes later in the DRO range.
- <sup>r</sup> Laboratory report indicates the observed sample pattern is not typical of #2 fuel/diesel. It elutes in the DRO range earlier than #2 fuel.



**Table 1**  
**Groundwater Monitoring Data and Analytical Results**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

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**EXPLANATIONS:**

- <sup>s</sup> Laboratory report indicates the analysis was performed from a previously opened vial and the results are therefore estimated.
- <sup>t</sup> Laboratory report indicates the observed sample pattern includes #2 fuel/diesel, an additional pattern which elutes later in the DRO range, and individual peaks eluting in the DRO range.
- <sup>u</sup> Laboratory confirmed result.
- <sup>v</sup> Current laboratory analytical results do not coincide with historical data and although laboratory results were confirmed; it appears that the samples were switched.
- <sup>w</sup> Laboratory report indicates that due to the presence of an interferent near its retention time, the normal reporting limit was not attained for MTBE. The presence or concentration of this compound cannot be determined due to the presence of this interferent.
- <sup>x</sup> Laboratory report indicates that due to the presence of an interferent near its retention time, the normal reporting limit was not attained for total xylenes. The presence or concentration of this compound cannot be determined due to the presence of this interferent.
- <sup>y</sup> Laboratory report indicates that due to the presence of an interferent near its retention time, the normal reporting limit was not attained for toluene. The presence or concentration of this compound cannot be determined due to the presence of this interferent.
- <sup>z</sup> Laboratory report indicates DRO was detected in the method blank at a concentration of 50 µg/L. Due to insufficient sample volume, a repeat analysis could not be performed to confirm the results.
- <sup>aa</sup> Laboratory report indicates the ending calibration check standard did not meet the 15% criteria for the original analysis. The sample was reanalyzed from the vial with headspace and the result was <50 µg/L.

**Table 2**  
**Field Measurements and Analytical Results**  
 Former Chevron (Signal Oil) Service Station #206145 (S-800)  
 800 Center Street  
 Oakland, California

WELL ID/ DATE	Pre-purge DO (mg/L)	Post-purge D.O. (mg/L)	Pre-purge ORP (mV)	Post-purge ORP (mV)	Total Alkalinity (µg/L)	Ferrous Iron (µg/L)	Nitrate as Nitrate (µg/L)	Sulfate (µg/L)
MW-1 09/03/98	2.3	1.6	-90	-103	230,000	9,800	<1,000	6,100
MW-2 09/03/98	2.8	2.5	-206	-163	390,000	7,400	<1,000	21,000
MW-3 09/03/98	3.1	0.7	-124	-99	830,000	45,000	<1,000	10,000
MW-4 09/03/98	2.6	1.1	-190	-206	--	--	--	--
MW-6 09/03/98	2.6	3.2	-148	-167	94,000	62	28,000	47,000
MW-7 09/03/98	2.7	3.2	-207	-229	170,000	120	7,800	57,000

**EXPLANATIONS:**

Groundwater monitoring data and laboratory analytical results were compiled from reports prepared by Blaine Tech Services, Inc.

D.O. = Dissolved Oxygen

(mg/L) = Milligram per liter

ORP = Oxidation Reduction Potential

(mV) = Millivolts

(µg/L) = Micrograms per liter

-- = Not Analyzed

**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
Former Chevron (Signal Oil) Service Station #206145 (S-800)  
800 Center Street  
Oakland, California

WELL ID	DATE	METHANOL (mg/L)	ETHANOL (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-1	08/07/00	--	<1,000	410	<4.0	<4.0	<4.0	<4.0	<4.0	<4.0
	12/01/00	--	<2,500	<250	<10	<10	<10	<10	<10	<10
	02/09/01	--	<500	340	<2.0	<2.0	<2.0	53	<2.0	<2.0
	05/29/01	--	<500	<20	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	08/27/01	<2,000	<200	230	<20	<20	<20	<20	<20	<20
	11/28/01	--	<500	130	<2	<2	<2	<2	<2	<2
	02/14/02	--	<500	<100	<2	<2	<2	<2	<2	<2
	05/15/02	--	<500	120	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
	08/05/02	--	<500	100	<3.0	<3.0	<3.0	<3.0	<3.0	<3.0
DESTROYED										
MW-2	08/07/00	--	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	08/27/01	--	--	--	<5.0	--	--	--	--	--
MW-3	08/07/00	--	<500	2,600	<10	<10	<10	<10	490	17
	02/09/01	--	<500	2,000	<2.0	<2.0	<2.0	35	<2.0	<2.0
	05/29/01	--	<500	1,700 <sup>1</sup>	<2.0	<2.0	<2.0	38	980 <sup>1</sup>	7.4
	08/27/01	<5,000	<250	1,300	<25	<25	<25	<25	380	<25
	11/28/01	--	<500	1,500	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
	02/14/02	--	<500	<100	<2	<2	<2	<2	<2	<2
	05/15/02	--	<500	110	<2	<2	<2	<2	120	<2
	08/05/02	--	<1,000	1,400	<10	<10	<10	<10	670	<10
	11/30/02	--	<1,000	1,200	<10	<10	<10	<10	380	<10
MW-4	08/07/00	--	<500	<100	<2.0	<2.0	<2.0	<2.0	18	<2.0
	08/27/01	NOT SAMPLED DUE TO INSUFFICIENT WATER				--	--	--	--	--
	11/28/01	DRY				--	--	--	--	--
	02/14/02	--	<500	<100	<2	<2	<2	<2	9	<2
	05/15/02	--	<500	<100	<2	<2	<2	<2	4	<2
	08/05/02	DRY				--	--	--	--	--
	11/30/02	DRY				--	--	--	--	--
MW-5	12/01/00	--	<500	<50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	02/09/01	--	<500	<50	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	08/27/01	INACCESSIBLE - CAR PARKED OVER WELL				--	--	--	--	--
	11/28/01	INACCESSIBLE - CAR PARKED OVER WELL				--	--	--	--	--
	02/14/02	--	<500	<100	<2	<2	<2	<2	<2	<2

**Table 3**  
**Groundwater Analytical Results - Oxygenate Compounds**  
 Former Chevron (Signal Oil) Service Station #206145 (S-800)  
 800 Center Street  
 Oakland, California

WELL ID	DATE	METHANOL (mg/L)	ETHANOL (µg/L)	TBA (µg/L)	MTBE (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	1,2-DCA (µg/L)	EDB (µg/L)
MW-5 (cont)	05/15/02	--	<500	<100	<2	<2	<2	<2	<2	<2
	08/05/02	--	<500	<100	<2	<2	<2	<2	<2	<2
	11/30/02	--	<500	<100	<2	<2	<2	<2	<2	<2
MW-6	08/07/00	--	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	08/27/01	--	--	--	<5.0	--	--	--	--	--
	11/30/02	DRY	--	--	--	--	--	--	--	--
MW-7	08/07/00	--	<500	<100	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	08/27/01	--	--	--	<5.0	--	--	--	--	--
MW-8	02/14/02	--	<500	<100	<2	<2	<2	<2	<2	<2

**EXPLANATIONS:**

TBA = t-Butyl alcohol  
 MTBE = Methyl Tertiary Butyl Ether  
 DIPE = Di-Isopropyl ether  
 ETBE = Ethyl t-butyl ether  
 TAME = t-Amyl methyl ether

1,2-DCA = 1,2-Dichloroethane  
 EDB = 1,2-Dibromoethane  
 (mg/L) = milligrams per liter  
 (µg/L) = Micrograms per liter  
 -- = Not Analyzed

**ANALYTICAL METHODS:**

EPA Method 8260 (modified) for Methanol  
 EPA Method 8260 for Oxygenate Compounds

<sup>1</sup> Laboratory report indicates this sample was originally analyzed within holding time. Re-analysis for confirmation or dilution was performed past the recommended holding time.

## STANDARD OPERATING PROCEDURE –WELL DEVELOPMENT GROUNDWATER SAMPLING

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

Prior to well development, each well is monitored for the presence of free-phase hydrocarbons and the depth to water is recorded. Wells are then developed by alternately surging the well with the bailer, then purging the well with a pump to remove accumulated sediments and draw groundwater into the well. Development continues until the groundwater parameters (temperature, pH, and conductivity) have stabilized.

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

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

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

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

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

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: SH

Well ID: MW-1A  
 Well Diameter: 2 in.  
 Total Depth: 16.72 ft.  
 Depth to Water: 7.08 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.64 xVF .17 = 1.64 x3 case volume = Estimated Purge Volume: 5 gal.

### Purge Equipment:

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump X  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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:	_____ gal
Amt Removed from Well:	_____ gal
Water Removed:	_____ gal
Product Transferred to:	_____

Start Time (purge): 1043 Weather Conditions: Clear  
 Sample Time/Date: 1110 12-25-10 Water Color: Tur Odor: Y (N)  
 Approx. Flow Rate: 2 gpm. Sediment Description: 1043  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.13

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (S))	Temperature (C F)	D.O. (mg/L)	ORP (mV)
<u>1049</u>	<u>1.5</u>	<u>6.98</u>	<u>691</u>	<u>18.0</u>	<u>Pre: 1.7</u>	
<u>1054</u>	<u>3</u>	<u>6.93</u>	<u>683</u>	<u>17.6</u>		
<u>1059</u>	<u>5</u>	<u>6.87</u>	<u>678</u>	<u>16.8</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-1A</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8021)</u>
	<u>2</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX(8021)</u>
	<u>2</u> 500ml ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sg (8015)</u>

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-2 Date Monitored: 2-25-10  
 Well Diameter: 2 in.  
 Total Depth: 13.47 ft.  
 Depth to Water: 7.86 ft.

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

Check if water column is less than 0.50 ft.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.98  
 xVF 0.17 = 0.95 x3 case volume = Estimated Purge Volume: 3.0 gal.

Purge Equipment:  Disposable Bailer  
 Stainless Steel Bailer  
 Stack Pump  
 Suction Pump  
 Grundfos  
 Peristaltic Pump  
 QED Bladder Pump  
 Other: \_\_\_\_\_

Sampling Equipment:  Disposable Bailer  
 Pressure Bailer  
 Discrete Bailer  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1250 Weather Conditions: Sunny  
 Sample Time/Date: 1310 / 2-25-10 Water Color: dark Odor: ON / Slight  
 Approx. Flow Rate: ✓ gpm. Sediment Description: moderat  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.47

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1253</u>	<u>1.0</u>	<u>7.16</u>	<u>982</u>	<u>16.6</u>	<u>1.6</u>	
<u>1256</u>	<u>2.0</u>	<u>6.65</u>	<u>841</u>	<u>16.4</u>		
<u>1300</u>	<u>3.0</u>	<u>6.50</u>	<u>790</u>	<u>16.4</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8021)</u>
	x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX(8021)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sg (8015)</u>

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-3  
 Well Diameter: 2 in.  
 Total Depth: 14.01 ft.  
 Depth to Water: 7.50 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.51 xVF .17 = 1.10 x3 case volume = Estimated Purge Volume: 3.5 gal.  
8.80

### Purge Equipment:

Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1400 Weather Conditions: Sunny  
 Sample Time/Date: 1430 / 2-25-10 Water Color: Cloudy Odor: DIN Strong  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: Cloudy  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.80

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm US)	Temperature (° / F)	D.O. (mg/L)	ORP (mV)
<u>1405</u>	<u>1.0</u>	<u>6.68</u>	<u>912</u>	<u>17.4</u>	<u>1.4</u>	
<u>1410</u>	<u>2.0</u>	<u>6.74</u>	<u>1024</u>	<u>17.9</u>		
<u>1415</u>	<u>3.5</u>	<u>6.92</u>	<u>1096</u>	<u>18.4</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-3</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sg (8015)

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_





# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-4 Date Monitored: 2-25-10  
 Well Diameter: 2 in.  
 Total Depth: 13.37 ft.  
 Depth to Water: 6.61 ft.  Check if water column is less than 0.50 ft.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.96  
 $xVF = .17 = 1.15$  x3 case volume = Estimated Purge Volume: 3.5 gal.

**Purge Equipment:**  
 Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**Sampling Equipment:**  
 Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1320 Weather Conditions: Sunny  
 Sample Time/Date: 1345 / 2-25-10 Water Color: Cloudy Odor: DN Moderate  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: Cloudy  
 Did well de-water?  If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 7.81

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1324</u>	<u>1.0</u>	<u>6.62</u>	<u>511</u>	<u>16.6</u>	<u>1.5</u>	
<u>1327</u>	<u>2.0</u>	<u>6.67</u>	<u>523</u>	<u>17.1</u>		
<u>1331</u>	<u>3.5</u>	<u>6.74</u>	<u>570</u>	<u>17.4</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-4	3 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/s (8015)

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: SH

Well ID: MW-5 Date Monitored: 2-25-10  
 Well Diameter: 2 in.  
 Total Depth: 19.38 ft.  
 Depth to Water: 6.92 ft.  Check if water column is less than 0.50 ft.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.41  
 $12.46 \times VF = 1.17 = 2.12 \times 3 \text{ case volume} = \text{Estimated Purge Volume: } 6.5 \text{ gal.}$

### Purge Equipment:

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0956 Weather Conditions: Clear  
 Sample Time/Date: 1025 / 2-25-10 Water Color: Clear Odor: Y / N  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: None  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 7.82

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1000</u>	<u>2</u>	<u>6.93</u>	<u>532</u>	<u>16.8</u>	<u>pre: 2.4</u>	
<u>1005</u>	<u>4</u>	<u>6.72</u>	<u>537</u>	<u>17.2</u>		
<u>1011</u>	<u>6.5</u>	<u>6.67</u>	<u>541</u>	<u>17.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-5</u>	<u>3</u> x vovial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	x vovial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sg (8015)

COMMENTS: m/8" / 2 252

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: SH

Well ID: MW6  
 Well Diameter: 2 in.  
 Total Depth: 15.17 ft.  
 Depth to Water: 6.75 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.43  
 $8.42 \times VF .17 = 1.43 \times 3 \text{ case volume} = \text{Estimated Purge Volume: } 4.5 \text{ gal.}$

### Purge Equipment:

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ←  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0916 Weather Conditions: Clear  
 Sample Time/Date: 0940 / 2-25-10 Water Color: cloudy Odor: Y / N  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: light  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 7.53

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>DS</u> )	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0920</u>	<u>1.5</u>	<u>6.83</u>	<u>427</u>	<u>16.9</u>	<u>PRE 2.2</u>	
<u>0925</u>	<u>3</u>	<u>6.74</u>	<u>431</u>	<u>17.3</u>		
<u>0930</u>	<u>4.5</u>	<u>7.03</u>	<u>436</u>	<u>17.5</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-6</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	<u>2</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sg (8015)

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-7  
 Well Diameter: 2 in.  
 Total Depth: 15.91 ft.  
 Depth to Water: 8.42 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.92  
 xVF 0.17 = 1.27 x3 case volume = Estimated Purge Volume: 4.0 gal.

Purge Equipment:  
 Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

Sampling Equipment:  
 Disposable Bailer   
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0835 Weather Conditions: Cloudy  
 Sample Time/Date: 0900 / 2-25-10 Water Color: Cloudy Odor: Y / 0  
 Approx. Flow Rate: 7 gpm. Sediment Description: Cloudy  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 9.19

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm / µS)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0840</u>	<u>1.5</u>	<u>6.94</u>	<u>541</u>	<u>13.6</u>	<u>1.7</u>	
<u>0845</u>	<u>3.0</u>	<u>6.91</u>	<u>549</u>	<u>14.1</u>		
<u>0850</u>	<u>4.0</u>	<u>6.88</u>	<u>553</u>	<u>14.9</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-7</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sg (8015)

COMMENTS: \_\_\_\_\_

Add/Replaced Lock:  Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: SH

Well ID: MW-8  
 Well Diameter: 2 in.  
 Total Depth: 20.06 ft.  
 Depth to Water: 7.52 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.03  
 Estimated Purge Volume: 6.5 gal.

### Purge Equipment:

Disposable Bailer X  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0833 Weather Conditions: cloudy  
 Sample Time/Date: 0905 / 2-25-10 Water Color: Clear Odor: Y (N)  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: 119  
 Did well de-water? Y If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 8.53

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>0840</u>	<u>2</u>	<u>6.93</u>	<u>102</u>	<u>16.5</u>	<u>pre: 1.9</u>	
<u>0845</u>	<u>4</u>	<u>6.87</u>	<u>113</u>	<u>16.7</u>		
<u>0851</u>	<u>6.5</u>	<u>6.83</u>	<u>119</u>	<u>16.8</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-8</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sg (8015)

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: SH

Well ID: MW-9  
 Well Diameter: 2 in.  
 Total Depth: 38.34 ft.  
 Depth to Water: 7.72 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge ((Height of Water Column x 0.20) + DTW): 13.84  
 $30.62 \times VF \cdot 17 = 5.21 \times 3 \text{ case volume} = \text{Estimated Purge Volume: } 16 \text{ gal.}$

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump X  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1432 Weather Conditions: Clear  
 Sample Time/Date: 1510 12-25-10 Water Color: clear Odor: Y1  
 Approx. Flow Rate: 2 gpm. Sediment Description: light  
 Did well de-water? yes If yes, Time: 1440 Volume: 13 gal. DTW @ Sampling: 12.21

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1435</u>	<u>6</u>	<u>6.83</u>	<u>266</u>	<u>17.6</u>	<u>pre. 2.3</u>	
<u>1438</u>	<u>12</u>	<u>6.78</u>	<u>243</u>	<u>17.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-9</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	<u>2</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sg (8015)

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_

5/20/12/17



# GETTLER - RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: SH

Well ID: MW-10  
 Well Diameter: 2 in.  
 Total Depth: 57.54 ft.  
 Depth to Water: 8.88 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 18.62  
 $48.66 \times VF .17 = 8.27 \times 3 \text{ case volume} = \text{Estimated Purge Volume: } 25 \text{ gal. } (14)$

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump X  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1339 Weather Conditions: Clear  
 Sample Time/Date: 1415 2-25-10 Water Color: Clear Odor: Y (N)  
 Approx. Flow Rate: 2 gpm. Sediment Description: light  
 Did well de-water? yes If yes, Time: 1347 Volume: 14 gal. DTW @ Sampling: 18.13

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>1343</u>	<u>8</u>	<u>6.79</u>	<u>349</u>	<u>17.6</u>	<u>pre: 2.5</u>	
_____	_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____	_____

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-10</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8021)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sg (8015)</u>

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_

*Completed work*



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-11  
 Well Diameter: 2 in.  
 Total Depth: 38.77 ft.  
 Depth to Water: 7.98 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.14  
 xVF .17 = 5.23 x3 case volume = Estimated Purge Volume: 16.0 gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump  \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer  \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0910 Weather Conditions: Cloudy  
 Sample Time/Date: 0930 / 2-25-10 Water Color: Cloudy Odor: Y 16  
 Approx. Flow Rate: 2.0 gpm. Sediment Description: Cloudy  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 13.19

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm) (PS)	Temperature (°/ F)	D.O. (mg/L)	ORP (mV)
<u>0913</u>	<u>5.0</u>	<u>7.14</u>	<u>447</u>	<u>16.4</u>	<u>1.5</u>	
<u>0916</u>	<u>10.0</u>	<u>6.80</u>	<u>460</u>	<u>17.0</u>		
<u>0920</u>	<u>16.0</u>	<u>6.68</u>	<u>463</u>	<u>17.2</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-11</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8021)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX(8021)</u>
					<u>TPH-DRO w/sg (8015)</u>

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_





# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-12  
 Well Diameter: 2 in.  
 Total Depth: 55.94 ft.  
 Depth to Water: 10.34 ft.

Date Monitored: 2-25-10

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

Depth to Water 45.56 xVF .17 = 7.74 x3 case volume = Estimated Purge Volume: 23.5 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.49

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump /  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer /  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0940 Weather Conditions: Sunny  
 Sample Time/Date: 1020 / 2-25-10 Water Color: Cloudy Odor: Y / N  
 Approx. Flow Rate: 1-2 gpm. Sediment Description: Moderate  
 Did well de-water? Y If yes, Time: 0946 Volume: ~10.0 gal. DTW @ Sampling: 19.49

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm @ 25°C)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)
<u>0944</u>	<u>8.0</u>	<u>7.10</u>	<u>706</u>	<u>19.1</u>	<u>1.1</u>	
<u>0953</u>	<u>16.0</u>	<u>7.63</u>	<u>661</u>	<u>18.1</u>		
<u>1005</u>	<u>24.0</u>	<u>7.64</u>	<u>657</u>	<u>18.1</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-12</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8021)</u>
	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX(8021)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sq (8015)</u>

COMMENTS: Extra time needed for recovery during purging.

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: SH

Well ID: MW-13

Date Monitored: 2-25-10

Well Diameter: 2 in.

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

Total Depth: 39.29 ft.

Depth to Water: 7.92 ft.

Check if water column is less than 0.50 ft.

31.37 xVF .17 = 5.33 x3 case volume = Estimated Purge Volume: 16 gal. (14)

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 14.19

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump X  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer X  
 Discrete Bailer \_\_\_\_\_  
 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 / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1124 Weather Conditions: Clear  
 Sample Time/Date: 1210 / 2-25-10 Water Color: Clear Odor: Y (N)  
 Approx. Flow Rate: 2 gpm. Sediment Description: light  
 Did well de-water? YES If yes, Time: 1145 Volume: 14 gal. DTW @ Sampling: 9.21

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - US)	Temperature (C) (F)	D.O. (mg/L)	ORP (mV)
<u>1137</u>	<u>6</u>	<u>6.83</u>	<u>537</u>	<u>16.8</u>	<u>pre-2-7</u>	
<u>1141</u>	<u>12</u>	<u>6.92</u>	<u>542</u>	<u>16.9</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-13	x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	<u>23</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	x500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sg (8015)

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: SH

Well ID: MW-14  
 Well Diameter: 2 in.  
 Total Depth: 56.48 ft.  
 Depth to Water: 9.87 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 19.19  
 $46.61 \times VF .17 = 8$  x3 case volume = Estimated Purge Volume: 24 gal. 13

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump X  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer X  
 Discrete Bailer \_\_\_\_\_  
 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 / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1232 Weather Conditions: Clear  
 Sample Time/Date: 1320 / 2-25-10 Water Color: Clear Odor: YIN  
 Approx. Flow Rate: 2 gpm. Sediment Description: light  
 Did well de-water? yes If yes, Time: 1245 Volume: 13 gal. DTW @ Sampling: 18.39

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm / µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1236</u>	<u>8</u>	<u>6.99</u>	<u>431</u>	<u>17.3</u>	<u>ppb: 25</u>	

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-14</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-GRO(8015)/BTEX(8021)
					TPH-DRO w/sg (8015)

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-15 Date Monitored: 2-25-10  
 Well Diameter: 2 in.  
 Total Depth: 35.18 ft.  
 Depth to Water: 7.77 ft.  Check if water column is less than 0.50 ft.

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

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 13.25  
 $27.41 \times VF .17 = 4.66 \times 3 \text{ case volume} = \text{Estimated Purge Volume: } 14.0 \text{ gal.}$

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer /  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ✓  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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 / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1050 Weather Conditions: Cloudy / Sunny  
 Sample Time/Date: 1056 / 2-25-10 Water Color: Clear Odor: Y  
 Approx. Flow Rate: 2.0 gpm. Sediment Description: Clear  
 Did well de-water? N If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 11.19

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm @ 25)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1053</u>	<u>5.0</u>	<u>7.54</u>	<u>366</u>	<u>18.5</u>	<u>2.0</u>	
<u>1056</u>	<u>10.0</u>	<u>6.83</u>	<u>370</u>	<u>18.1</u>		
<u>1059</u>	<u>14.0</u>	<u>6.62</u>	<u>373</u>	<u>18.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-15</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX(8021)
	<u>2x</u> 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sg (8015)

### COMMENTS:

Add/Replaced Lock: ✓ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-16  
 Well Diameter: 2 in.  
 Total Depth: 56.90 ft.  
 Depth to Water: 9.21 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 18.75  
 $47.69 \times VF .17 = 8.10$  x3 case volume = Estimated Purge Volume: 24.5 gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump ✓  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer ✓  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1125 Weather Conditions: Sunny  
 Sample Time/Date: 1150 / 2-25-10 Water Color: Clear Odor: Y / 0  
 Approx. Flow Rate: 2.0 gpm. Sediment Description: Clear  
 Did well de-water? ✓ If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 17.69

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - US)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1129</u>	<u>8.0</u>	<u>7.04</u>	<u>560</u>	<u>17.4</u>	<u>1.4</u>	
<u>1133</u>	<u>16.0</u>	<u>7.22</u>	<u>577</u>	<u>17.9</u>		
<u>1138</u>	<u>24.5</u>	<u>7.27</u>	<u>562</u>	<u>18.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-16</u>	<u>1</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8021)</u>
	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX(8021)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sg (8015)</u>

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2-25-10 (inclusive)  
 City: Oakland, CA Sampler: AW

Well ID: MW-17  
 Well Diameter: 2 in.  
 Total Depth: 71.24 ft.  
 Depth to Water: 9.63 ft.

Date Monitored: 2-25-10

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

Check if water column is less than 0.50 ft.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 21.95  
 $61.61 \times VF .17 = 10.47$  x3 case volume = Estimated Purge Volume: 31.5 gal.

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump /  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer /  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1200 Weather Conditions: Sunny  
 Sample Time/Date: 1240 / 2-25-10 Water Color: Clear Odor: Y  
 Approx. Flow Rate: 1-2.0 gpm. Sediment Description: Clear  
 Did well de-water? Y If yes, Time: 1207 Volume: ~120 gal. DTW @ Sampling: 21.95

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - 25)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>1206</u>	<u>10.5</u>	<u>7.49</u>	<u>1053</u>	<u>17.4</u>	<u>2.1</u>	
<u>1212</u>	<u>21.0</u>	<u>7.76</u>	<u>1025</u>	<u>17.8</u>		
<u>1225</u>	<u>31.5</u>	<u>7.81</u>	<u>1019</u>	<u>18.3</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-17</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8021)</u>
	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX(8021)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sg (8015)</u>

COMMENTS: Extra time to recover during purging

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206145  
 Site Address: 800 Center Street  
 City: Oakland, CA

Job Number: 386492  
 Event Date: 2/25/10 (inclusive)  
 Sampler: JH

Well ID: AS-1  
 Well Diameter: 2 in.  
 Initial Total Depth: 19.95 ft.  
 Final Total Depth: 19.95 ft.  
 Depth to Water: 7.63 ft.

Date Monitored: 2/25/10

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 than 0.50 ft.

12.32 xVF -17 = 2.09 x10 case volume = Estimated Purge Volume: 20.94 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.09

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer X  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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 / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0815  
 Sample Time/Date: 2/25/10  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? Yes If yes, Time: 0852 Volume: 7 gal.

Weather Conditions: cloudy  
 Water Color: cloudy Odor: Y10  
 Sediment Description: 1.5 H<sub>2</sub>O  
 DTW @ Sampling: \_\_\_\_\_

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - @S)	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0835</u>	<u>2</u>	<u>7.64</u>	<u>816</u>	<u>17.6</u>		
<u>0845</u>	<u>4</u>	<u>7.62</u>	<u>819</u>	<u>17.4</u>		
<u>0851</u>	<u>6</u>	<u>7.57</u>	<u>827</u>	<u>17.3</u>		
<u>0916</u>	<u>8</u>	<u>7.45</u>	<u>830</u>	<u>17.4</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY Well De-watered 2nd time at 0917 - 9 Gallons.  
Hept Bottom.

Add/Replaced Lock: X Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2/25/10 (inclusive)  
 City: Oakland, CA Sampler: JD

Well ID: AS-2 Date Monitored: 2/25/10

Well Diameter: 2 in.

Initial Total Depth: 20.08 ft.

Final Total Depth: 20.08 ft.

Depth to Water: 8.05 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 than 0.50 ft.

12.03 xVF .17 = 2.04 x10 case volume = Estimated Purge Volume: 20.45 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.45

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer X  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer X  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 0925 Weather Conditions: cloudy  
 Sample Time/Date: - / - Water Color: cloudy Odor: Y10  
 Approx. Flow Rate: - gpm. Sediment Description: light  
 Did well de-water? Yes If yes, Time: 0959 Volume: 7 gal. DTW @ Sampling: ←

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>NS</u> )	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>0940</u>	<u>2</u>	<u>7.09</u>	<u>704</u>	<u>17.0</u>		
<u>0947</u>	<u>4</u>	<u>6.98</u>	<u>720</u>	<u>17.1</u>		
<u>0953</u>	<u>6</u>	<u>6.96</u>	<u>717</u>	<u>17.0</u>		
<u>1008</u>	<u>8</u>	<u>6.98</u>	<u>721</u>	<u>16.9</u>		
<u>1014</u>	<u>10</u>	<u>6.94</u>	<u>730</u>	<u>16.8</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY well De watered 2nd time 1015 at 11 Cells Hand Bottom.

Add/Replaced Lock: X Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_





# GETTLER-RYAN INC.

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206145  
 Site Address: 800 Center Street  
 City: Oakland, CA

Job Number: 386492  
 Event Date: 2/25/10 (inclusive)  
 Sampler: JH

Well ID: AS-3  
 Well Diameter: 2 in.  
 Initial Total Depth: 20.10 ft.  
 Final Total Depth: 20.10 ft.  
 Depth to Water: 8.12 ft.  
11.98 xVF .17 = 2.03

Date Monitored: 2/25/10

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 than 0.50 ft.

x10 case volume = Estimated Purge Volume: 20.36 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.51

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer X  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1025  
 Sample Time/Date: 1  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? Yes If yes, Time: 1051

Weather Conditions: cloudy  
 Water Color: cloudy Odor: Y10  
 Sediment Description: 1.2 lbs  
 Volume: 7 gal. DTW @ Sampling: \_\_\_\_\_

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1035</u>	<u>2</u>	<u>7.61</u>	<u>847</u>	<u>18.2</u>		
<u>1045</u>	<u>4</u>	<u>7.29</u>	<u>901</u>	<u>18.1</u>		
<u>1050</u>	<u>6</u>	<u>7.30</u>	<u>930</u>	<u>17.9</u>		
<u>1105</u>	<u>8</u>	<u>7.15</u>	<u>922</u>	<u>18.4</u>		
<u>1110</u>	<u>10</u>	<u>7.16</u>	<u>915</u>	<u>18.2</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY Well Dewatered 2nd time at 1111 at 11 Gallons  
Hard Bottom

Add/Replaced Lock: X Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206145  
 Site Address: 800 Center Street  
 City: Oakland, CA

Job Number: 386492  
 Event Date: 2/25/10 (inclusive)  
 Sampler: JH

Well ID: AS-4

Date Monitored: 2/25/10

Well Diameter: 2 in.

Initial Total Depth: 20.10 ft.

Final Total Depth: 20.10 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 than 0.50 ft.

12.12 xVF .17 = 2.06 x10 case volume = Estimated Purge Volume: 20.60 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.40

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer X  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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:	_____ gal
Amt Removed from Well:	_____ gal
Water Removed:	_____ gal
Product Transferred to:	_____

Start Time (purge): 1120

Weather Conditions: cloudy

Sample Time/Date: - / -

Water Color: cloudy Odor: Y 100

Approx. Flow Rate: - gpm.

Sediment Description: Heavy

Did well de-water? Yes If yes, Time: 1146 Volume: 7 gal. DTW @ Sampling: -

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (umhos/cm - <u>MS</u> )	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1135</u>	<u>2</u>	<u>7.52</u>	<u>906</u>	<u>18.2</u>		
<u>1140</u>	<u>4</u>	<u>7.48</u>	<u>930</u>	<u>18.1</u>		
<u>1145</u>	<u>6</u>	<u>7.40</u>	<u>931</u>	<u>18.0</u>		
<u>1200</u>	<u>8</u>	<u>7.43</u>	<u>952</u>	<u>18.4</u>		
<u>1204</u>	<u>10</u>	<u>7.46</u>	<u>957</u>	<u>18.2</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY Well De-watered 2nd time 1205 at 11 gallons  
Hard Bottom

Add/Replaced Lock: X

Add/Replaced Plug: \_\_\_\_\_

Add/Replaced Bolt: \_\_\_\_\_



# GETTLER - RYAN INC.

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2/25/10 (inclusive)  
 City: Oakland, CA Sampler: JH

Well ID: AS-5  
 Well Diameter: 2 in.  
 Initial Total Depth: 20.11 ft.  
 Final Total Depth: 20.11 ft.  
 Depth to Water: 7.80 ft.

Date Monitored: 2/25/10

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 than 0.50 ft.

12.31 xVF .17 = 2.09 x10 case volume = Estimated Purge Volume: 20.92 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.26

**Purge Equipment:**  
 Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer X  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**Sampling Equipment:**  
 Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1215 Weather Conditions: clear  
 Sample Time/Date: 1-21 Water Color: clear Odor: Y 10  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: 1.5 lb  
 Did well de-water? Yes If yes, Time: 1253 Volume: 7 gal. DTW @ Sampling: \_\_\_\_\_

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - <u>US</u> )	Temperature (°C / F)	D.O. (mg/L)	ORP (mV)
<u>1230</u>	<u>2</u>	<u>7.39</u>	<u>622</u>	<u>17.4</u>		
<u>1235</u>	<u>4</u>	<u>7.27</u>	<u>649</u>	<u>17.9</u>		
<u>1240</u>	<u>6</u>	<u>7.20</u>	<u>680</u>	<u>18.1</u>		
<u>1244</u>	<u>8</u>	<u>7.28</u>	<u>691</u>	<u>18.4</u>		
<u>1248</u>	<u>10</u>	<u>7.31</u>	<u>704</u>	<u>18.3</u>		
<u>1252</u>	<u>12</u>	<u>7.36</u>	<u>690</u>	<u>18.5</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY Well De-watered 2nd time at 1253 - 13 gallons  
Hon L B. Thom

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206145  
 Site Address: 800 Center Street  
 City: Oakland, CA

Job Number: 386492  
 Event Date: 2/25/10 (inclusive)  
 Sampler: JU

Well ID: AS-6  
 Well Diameter: 2 in.  
 Initial Total Depth: 19.95 ft.  
 Final Total Depth: 19.95 ft.  
 Depth to Water: 8.04 ft.  
11.91 xVF .17 = 2.02

Date Monitored: 2/25/10

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 than 0.50 ft.

x10 case volume = Estimated Purge Volume: 20.24 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.42

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer X  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1310  
 Sample Time/Date: 1-21  
 Approx. Flow Rate: \_\_\_\_\_ gpm.  
 Did well de-water? Yes If yes, Time: 1334

Weather Conditions: cloudy  
 Water Color: cloudy Odor: Y/N  
 Sediment Description: 1.5 ft  
 Volume: 9 gal. DTW @ Sampling: \_\_\_\_\_

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°S / °F)	D.O. (mg/L)	ORP (mV)
<u>1320</u>	<u>2</u>	<u>7.4</u>	<u>952</u>	<u>17.9</u>		
<u>1323</u>	<u>4</u>	<u>7.49</u>	<u>983</u>	<u>17.6</u>		
<u>1327</u>	<u>6</u>	<u>7.52</u>	<u>1022</u>	<u>17.4</u>		
<u>1332</u>	<u>8</u>	<u>7.55</u>	<u>1037</u>	<u>17.2</u>		
<u>1345</u>	<u>10</u>	<u>7.53</u>	<u>1061</u>	<u>17.5</u>		
<u>1350</u>	<u>12</u>	<u>7.29</u>	<u>1041</u>	<u>17.7</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY - well Dewatered 2nd time at 1351 - 1360 hrs

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 2/25/10 (inclusive)  
 City: Oakland, CA Sampler: JH

Well ID: AS-7  
 Well Diameter: 2 in.  
 Initial Total Depth: 20.10 ft.  
 Final Total Depth: 20.10 ft.  
 Depth to Water: 8.01 ft.  
12.09 xVF .17 = 2.05

Date Monitored: 2/25/10

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

Check if water column is less than 0.50 ft.

x10 case volume = Estimated Purge Volume: 20.55 gal.

Depth to Water w/ 80% Recharge ((Height of Water Column x 0.20) + DTW): 10.42

**Purge Equipment:**  
 Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**Sampling Equipment:**  
 Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1405 Weather Conditions: Clear  
 Sample Time/Date: 2/25/10 Water Color: clear Odor: Y 10  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: 1.5 ft  
 Did well de-water? Yes If yes, Time: 5 Volume: 1421 gal. DTW @ Sampling: \_\_\_\_\_

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - (S))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>1415</u>	<u>2</u>	<u>7.38</u>	<u>922</u>	<u>18.4</u>		
<u>1420</u>	<u>4</u>	<u>7.37</u>	<u>961</u>	<u>18.4</u>		
<u>1430</u>	<u>6</u>	<u>7.32</u>	<u>940</u>	<u>18.2</u>		
<u>1434</u>	<u>8</u>	<u>7.31</u>	<u>943</u>	<u>18.1</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY well De-watered 2nd time 9 bottles - 1435  
Hard Bottom

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/DEVELOPMENT FIELD DATA SHEET

Client/Facility#: Chevron #206145  
 Site Address: 800 Center Street  
 City: Oakland, CA

Job Number: 386492  
 Event Date: 2/25/10 (inclusive)  
 Sampler: JH

Well ID: AS-8  
 Well Diameter: 2 in.  
 Initial Total Depth: 20.08 ft.  
 Final Total Depth: 20.08 ft.  
 Depth to Water: 7.94 ft.  
12.14 xVF .17 = 2.06

Date Monitored: 2/25/10

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

Check if water column is less than 0.50 ft.

x10 case volume = Estimated Purge Volume: 20.60 gal.

Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 10.36

### Purge Equipment:

Disposable Bailer \_\_\_\_\_  
 Stainless Steel Bailer X  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

### Sampling Equipment:

Disposable Bailer \_\_\_\_\_  
 Pressure Bailer \_\_\_\_\_  
 Discrete Bailer \_\_\_\_\_  
 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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_  
 Product Transferred to: \_\_\_\_\_

Start Time (purge): 1445  
 Sample Time/Date: — / 2  
 Approx. Flow Rate: — gpm.  
 Did well de-water? Yes If yes, Time: 1566 Volume: 7 gal.

Weather Conditions: cloudy  
 Water Color: cloudy Odor: Y10  
 Sediment Description: 1.5 Hr  
 DTW @ Sampling: \_\_\_\_\_

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - 15)	Temperature (°/ F)	D.O. (mg/L)	ORP (mV)
<u>1455</u>	<u>2</u>	<u>7.09</u>	<u>755</u>	<u>18.8</u>		
<u>1500</u>	<u>4</u>	<u>7.05</u>	<u>752</u>	<u>18.7</u>		
<u>1505</u>	<u>6</u>	<u>7.01</u>	<u>749</u>	<u>18.5</u>		
<u>1520</u>	<u>8</u>	<u>6.94</u>	<u>748</u>	<u>18.3</u>		
<u>1524</u>	<u>10</u>	<u>6.93</u>	<u>742</u>	<u>18.3</u>		
<u>1527</u>	<u>12</u>	<u>6.91</u>	<u>740</u>	<u>18.1</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES

COMMENTS: DEVELOP ONLY well Dewatered 2nd time at 1528 13 gallons

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_

# Chevron California Region Analysis Request/Chain of Custody



AMENDED

For Lancaster Laboratories use only  
 Acct. #: 10904 Sample #: 5916231-48 Group #: 017631

Group# 118403

Facility #: SS1206145-DML G-R-F386192 G16081ND#10800102230  
 Site Address: 800 CENTER STREET, OAKLAND, CA  
 Site Address IR: CRACE  
 Chevron PM: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568  
 Consultant/Office: Lead Consultant  
Deanna L. Harding (deanna@grinc.com)  
 Consultant Prj. Mgr.:  
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7889  
 Sampler: SL

Sample Identification		Date Collected	Time Collected	Grab	Composites	Matrix			Total Number of Containers	Analyses Requested						
						Soil	Water	Oil <input type="checkbox"/> Air <input type="checkbox"/>		STEX + MTBE 8260	TPH 8015 MOD GFC	TPH 8015 MOD DRO	8260 full scan	Organics	Total Lead Method	Dissolved Lead Method
									<u>11</u>	<u>11</u>						
	<u>GA</u>	<u>7-25-08</u>	<u>11:40</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>0</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-1</u>		<u>11:40</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-2</u>		<u>11:40</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-3</u>		<u>11:40</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-4</u>		<u>11:40</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-5</u>		<u>10:25</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-6</u>		<u>09:40</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-7</u>		<u>09:00</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-8</u>		<u>09:05</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-9</u>		<u>15:00</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-10</u>		<u>11:45</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-11</u>		<u>09:30</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<u>M1-12</u>		<u>10:20</u>	<input checked="" type="checkbox"/>		<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<u>1</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

**Preservative Codes**  
 H = HCl    T = Thiourea  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>    O = Other

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 \_\_\_\_\_ oxys on highest hit  
 Run \_\_\_\_\_ oxys on all hits

*Amend CO to include M1-11 & M1-12*  
*(M1-11) on all TPH-SC samples*  
*AM*

**Turnaround Time Requested (TAT) (please circle)**  
 STD. TAT    72 hour    48 hour  
 24 hour    4 day    5 day

**Data Package Options (please circle if required)**  
 QC Summary    Type I - Full    **EDF/EDD**  
 Type VI (Raw Data)     Coalt Deliverable not needed  
 WIP (RWQCS)  
 Disk:

Relinquished by: <u>[Signature]</u>	Date: <u>7-26-08</u>	Time: <u>07:00</u>	Received by: <u>[Signature]</u>	Date: <u>7-26-08</u>	Time: <u>15:30</u>
Relinquished by: <u>[Signature]</u>	Date: <u>7-26-08</u>	Time: <u>15:30</u>	Received by: <u>[Signature]</u>	Date: <u>7-26-08</u>	Time: <u>15:30</u>
Relinquished by: <u>[Signature]</u>	Date: <u>7-26-08</u>	Time: <u>15:30</u>	Received by: <u>[Signature]</u>	Date: <u>7-26-08</u>	Time: <u>15:30</u>
Relinquished by Commercial Carrier: UPS    FedEx    Other _____	Received by:		Date:	Time:	
Temperature Upon Receipt: _____ °C	Custody Seals Intact?		Yes	No	

# Chevron California Region Analysis Request/Chain of Custody



AMENDED

For Lancaster Laboratories use only  
 Acct. #: 10904 Sample #: 5916231-48 Group #: 017633

Grp#1184031

Facility #: SS#208145-OML GR#385492 GIGB#ID#10600102230  
 Site Address: 800 CENTER STREET, OAKLAND, CA  
 IR CRACE  
 Chevron PM: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568  
 Lead Consultant:  
 Consultant/Office: Deanna L. Harding (deanna@gimc.com)  
 Consultant Prj. Mgr.:  
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899  
 Sampler: SH

Matrix		Analysis Requested										
		Preservation Codes										
Soil	Water	Oil	Air	Total Number of Containers	BTEX	TPH 8015 MOD GPC	TPH 8015 MOD DRO	Silox Gel Cleanup	8260 full scan	Cryogenics	Total Lead Method	Distilled Lead Method
	<input checked="" type="checkbox"/>			5	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<input checked="" type="checkbox"/>			20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<input checked="" type="checkbox"/>			20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
	<input checked="" type="checkbox"/>			20	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				

**Preservative Codes**  
 H = HCl      T = Thiocyanate  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>    O = Other

J value reporting needed  
 Must meet lowest detection limit 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

Sample Identification	Date Collected	Time Collected	Grain	Composite	Soil	Water	Oil	Air
MW-13	7-25-16	1210	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
MW-14	↓	1320	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
MW-15	↓	1115	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
MW-16	↓	1150	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		
MW-17	↓	1210	<input checked="" type="checkbox"/>			<input checked="" type="checkbox"/>		

**Comments / Remarks**  
2 of 2

**Turnaround Time Requested (TAT) (please circle)**  
 STD. TAT      72 hour      48 hour  
 24 hour      4 day      5 day

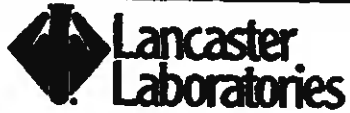
**Data Package Options (please circle if required)**  
 QC Summary      Type I - Full      **EDF/EDD**  
 Type VI (Raw Data)       Coelt Deliverable not needed  
 WIP (RWOCB)  
 Disk

Relinquished by: <u>[Signature]</u>	Date: <u>7-26-16</u>	Time: <u>1:10P</u>	Received by: <u>[Signature]</u>	Date: <u>7-26-16</u>	Time: <u>1:10P</u>
Relinquished by: <u>[Signature]</u>	Date: <u>7-26-16</u>	Time: <u>1:50P</u>	Received by: <u>[Signature]</u>	Date: <u>7-27-16</u>	Time: <u>1:10P</u>
Relinquished by: <u>[Signature]</u>	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				





# Chevron California Region Analysis Request/Chain of Custody



022610-01

For Lancaster Laboratories use only  
 Acct. #: 10904 Sample # 594231-49 Group #: 017633

gr# 118403/

Facility #: SS#206145-OML G-R#386492 Global ID#T0600102230 Site Address: 800 CENTER STREET, OAKLAND, CA Chevron PM: IR Lead Consultant: CRACE Consultant/Office: G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568 Consultant Prj. Mgr.: Deanna L. Harding (deanna@grinc.com) Consultant Phone #: 925-551-7555 Fax #: 925-551-7899 Sampler: <u>3H</u>				Matrix <input type="checkbox"/> Potable <input type="checkbox"/> MPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		Analytes Requested Preservation Codes # BTEX + 8260 <input type="checkbox"/> 8021 <input checked="" type="checkbox"/> TPH 8015 MOD GRO TPH 8015 MOD DFO <input type="checkbox"/> Silica Gel Cleanup 8200 full scan Organohal Total Lead Method Dissolved Lead Method										Preservative Codes H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits				
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + 8260	8021	TPH 8015 MOD GRO	TPH 8015 MOD DFO	Silica Gel Cleanup	8200 full scan	Organohal	Total Lead Method	Dissolved Lead Method	Comments / Remarks	
MW-13	2-25-10	1210	X			X			3	X	X	X	X	X						(2 of 2)
MW-14	↓	1320	X			X			3	X	X	X	X	X						
MW-15	↓	1115	X			X			3	X	X	X	X	X						
MW-16	↓	1150	X			X			3	X	X	X	X	X						
MW-17	↓	1210	X			X			3	X	X	X	X	X						
Turnaround Time Requested (TAT) (please circle) STD. TAT 24 hour 72 hour 48 hour 4 day 5 day				Relinquished by: <u>[Signature]</u> Date: <u>2-26-10</u> Time: <u>0100</u>				Received by: <u>[Signature]</u> Date: <u>2-26-10</u> Time: <u>1530</u>				Relinquished by: <u>[Signature]</u> Date: <u>2-26-10</u> Time: <u>0740</u>				Received by: <u>[Signature]</u> Date: <u>2-26-10</u> Time: <u>0910</u>				
Data Package Options (please circle if required) QC Summary Type I - Full <b>EDF/EDD</b> Type VI (Raw Data) <input type="checkbox"/> Cook Deliverable not needed WIP (RWQCB) Disk				Relinquished by Commercial Carrier: UPS FedEx Other				Received by: UPS FedEx Other				Temperature Upon Receipt: <u>0.7-1.6</u> °C Custody seals intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								

**ANALYTICAL RESULTS**

Prepared for:

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

925-842-8582

Prepared by:

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

March 15, 2010

Project: 206145

RECEIVED

MAR 15 2010

GETTLER-BYER INC.  
GENERAL CONTRACTORS

Samples arrived at the laboratory on Saturday, February 27, 2010. The PO# for this group is 0015058478 and the release number is ROBB. The group number for this submittal is 1184031.

<u>Client Sample Description</u>	<u>Lancaster Labs (LLI) #</u>
QA-T-100225 NA Water	5916231
MW-1A-W-100225 Grab Water	5916232
MW-2-W-100225 Grab Water	5916233
MW-3-W-100225 Grab Water	5916234
MW-4-W-100225 Grab Water	5916235
MW-5-W-100225 Grab Water	5916236
MW-6-W-100225 Grab Water	5916237
MW-7-W-100225 Grab Water	5916238
MW-8-W-100225 Grab Water	5916239
MW-9-W-100225 Grab Water	5916240
MW-10-W-100225 Grab Water	5916241
MW-11-W-100225 Grab Water	5916242
MW-12-W-100225 Grab Water	5916243
MW-13-W-100225 Grab Water	5916244
MW-14-W-100225 Grab Water	5916245
MW-15-W-100225 Grab Water	5916246
MW-16-W-100225 Grab Water	5916247
MW-17-W-100225 Grab Water	5916248

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



## Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17603-2425 • 717-656-2300 Fax: 717-656-2881 • www.lancasterlabs.com

ELECTRONIC      CRA c/o Gettler-Ryan  
COPY TO

Attn: Cheryl Hansen

Questions? Contact your Client Services Representative  
Jill M Parker at (717) 656-2300

Respectfully Submitted,

*Martha L. Seidel*

Martha L. Seidel  
Senior Chemist



# Analysis Report

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

Page 1 of 1

Sample Description: QA-T-100225 NA Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 QA

LLI Sample # WW 5916231  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAKQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02159	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060A94A	03/02/2010 16:08	Elizabeth J Marin	1
02159	BTEX, MTBE	SW-846 8021B	1	10060A94A	03/02/2010 16:08	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060A94A	03/02/2010 16:08	Elizabeth J Marin	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

**Sample Description:** MW-1A-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-1A

LLI Sample # WW 5916232  
LLI Group # 1184031  
CA

**Project Name:** 206145

Collected: 02/25/2010 11:10 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAK1A

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02159	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l 500	ug/l 50	1
DRO was detected in the method blank at a concentration of 50 ug/l. Due to insufficient sample volume, a repeat analysis could not be performed to confirm the results.					

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060A94A	03/02/2010 21:31	Elizabeth J Marin	1
02159	BTEX, MTBE	SW-846 8021B	1	10060A94A	03/02/2010 21:31	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060A94A	03/02/2010 21:31	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/12/2010 00:40	Dustin A Underkoffler	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

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

Sample Description: MW-2-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-2

LLI Sample # WW 5916233  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 13:10 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAKM2

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles SW-846 8015B ug/l</b>					
01729	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
The ending calibration check standard did not meet the 15% criteria for the original analysis. The sample was reanalyzed from the vial with headspace and the result was < 50 ug/l.					
<b>GC Volatiles SW-846 8021B ug/l</b>					
02159	Benzene	71-43-2	N.D.	0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH SW-846 8015B ug/l</b>					
<b>w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	120	50	1
DRO was detected in the method blank at a concentration of 50 ug/l. Due to insufficient sample volume, a repeat analysis could not be performed to confirm the results.					

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10061A94A	03/02/2010 17:02	Elizabeth J Marin	1
02159	BTEX, MTBE	SW-846 8021B	1	10061A94A	03/01/2010 21:45	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10061A94A	03/01/2010 21:45	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 19:07	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17905-2425 • 717-656-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-3-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-3

LLI Sample # WW 5916234  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 14:30 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAKM3

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
	SW-846 8015B		ug/l	ug/l	
01729	TPH-GRO N. CA water C6-C12	n.a.	15,000	250	5
<b>GC Volatiles</b>					
	SW-846 8021B		ug/l	ug/l	
02159	Benzene	71-43-2	42	2.5	5
02159	Ethylbenzene	100-41-4	1,600	2.5	5
02159	Methyl tert-Butyl Ether	1634-04-4	330	13	5
02159	Toluene	108-88-3	320	2.5	5
02159	Total Xylenes	1330-20-7	1,100	7.5	5
<b>GC Extractable TPH w/Si Gel</b>					
	SW-846 8015B		ug/l	ug/l	
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	1,800	65	2

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060A94A	03/02/2010 23:47	Elizabeth J Marin	5
02159	BTEX, MTBE	SW-846 8021B	1	10060A94A	03/02/2010 23:47	Elizabeth J Marin	5
01146	GC VOA Water Prep	SW-846 5030B	1	10060A94A	03/02/2010 23:47	Elizabeth J Marin	5
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/10/2010 10:08	Melissa McDermott	2
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1





# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

**Sample Description:** MW-4-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-4

LLI Sample # WW 5916235  
LLI Group # 1184031  
CA

**Project Name:** 206145

**Collected:** 02/25/2010 13:45 by SH

**Account Number:** 10904

**Submitted:** 02/27/2010 09:20

**Chevron**

**Reported:** 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

**Discard:** 04/15/2010

OAKM4

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l 56	ug/l 50	1
<b>GC Volatiles</b>					
02159	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l 54	ug/l 50	1
DRO was detected in the method blank at a concentration of 50 ug/l. Due to insufficient sample volume, a repeat analysis could not be performed to confirm the results.					

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060A94A	03/02/2010 21:59	Elizabeth J Marin	1
02159	BTEX, MTBE	SW-846 8021B	1	10060A94A	03/02/2010 21:59	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060A94A	03/02/2010 21:59	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 19:50	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

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

**Sample Description:** MW-5-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-5

LLI Sample # WW 5916236  
LLI Group # 1184031  
CA

**Project Name:** 206145

Collected: 02/25/2010 10:25 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAKM5

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02159	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 02:01	Elizabeth J Marin	1
02159	BTEX, MTBE	SW-846 8021B	1	10060B53A	03/03/2010 02:01	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 02:01	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 20:12	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-858-2300 Fax: 717-858-2681 • www.lancasterlabs.com

**Sample Description:** MW-6-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-6

LLI Sample # WW 5916237  
LLI Group # 1184031  
CA

**Project Name:** 206145

Collected: 02/25/2010 09:40 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAKM6

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02159	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 02:26	Elizabeth J Marin	1
02159	BTEX, MTBE	SW-846 8021B	1	10060B53A	03/03/2010 02:26	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 02:26	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 20:34	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

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

Sample Description: MW-7-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-7

LLI Sample # WW 5916238  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 09:00 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAKM7

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02159	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 02:50	Elizabeth J Marin	1
02159	BTEX, MTBE	SW-846 8021B	1	10060B53A	03/03/2010 02:50	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 02:50	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 20:56	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

Sample Description: MW-8-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-8

LLI Sample # NW 5916239  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 09:05 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAKM8

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02159	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02159	Ethylbenzene	100-41-4	N.D.	0.5	1
02159	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02159	Toluene	108-88-3	N.D.	0.5	1
02159	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 03:14	Elizabeth J Marin	1
02159	BTEX, MTBE	SW-846 8021B	1	10060B53A	03/03/2010 03:14	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 03:14	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 21:18	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

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

**Sample Description:** MW-9-W-100225 Grab Water  
 Facility# 206145 Job# 386492 GRD  
 800 Center St-Oakland, CA T0600102230 MW-9

LLI Sample # WW 5916240  
 LLI Group # 1184031  
 CA

**Project Name:** 206145

Collected: 02/25/2010 15:10 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAKM9

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 03:38	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 03:38	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 03:38	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 22:24	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

Sample Description: MW-10-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-10

LLI Sample # WW 5916241  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 14:15 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAK10

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 04:03	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 04:03	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 04:03	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 22:46	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

Sample Description: MW-11-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-11

LLI Sample # WW 5916242  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 09:30 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAK11

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 04:27	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 04:27	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 04:27	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 23:08	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1





# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

Sample Description: MW-12-W-100225 Grab Water  
 Facility# 206145 Job# 386492 GRD  
 800 Center St-Oakland, CA T0600102230 MW-12

LLI Sample # WW 5916243  
 LLI Group # 1184031  
 CA

Project Name: 206145

Collected: 02/25/2010 10:20 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAK12

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 04:52	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 04:52	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 04:52	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 23:30	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

Sample Description: MW-13-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-13

LLI Sample # WW 5916244  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 12:10 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAK13

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 05:16	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 05:16	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 05:16	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/09/2010 23:52	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100600027A	03/02/2010 12:30	Kerrie A Freeburn	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	2	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-856-2300 Fax: 717-856-2681 • www.lancasterlabs.com

Sample Description: MW-14-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-14

LLI Sample # WW 5916245  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 13:20 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAK14

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 05:40	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 05:40	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 05:40	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/10/2010 00:14	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100600027A	03/02/2010 12:30	Kerrie A Freeburn	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	2	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

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

**Sample Description:** MW-15-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-15

LLI Sample # WW 5916246  
LLI Group # 1184031  
CA

**Project Name:** 206145

Collected: 02/25/2010 11:15 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20  
Reported: 03/15/2010 at 08:29  
Discard: 04/15/2010

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

OAK15

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 07:17	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 07:17	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 07:17	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/10/2010 00:36	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100600027A	03/02/2010 12:30	Kerrie A Freeburn	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	2	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

2425 New Holland Pike, PO Box 12425, Lancaster, PA 17605-2425 • 717-658-2300 Fax: 717-656-2681 • www.lancasterlabs.com

Sample Description: MW-16-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-16

LLI Sample # WW 5916247  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 11:50 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20  
Reported: 03/15/2010 at 08:29  
Discard: 04/15/2010

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

OAK16

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 07:42	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 07:42	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 07:42	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/10/2010 00:58	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100600027A	03/02/2010 12:30	Kerrie A Freeburn	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	2	100630007A	03/04/2010 16:15	JoElla L Rice	1



# Analysis Report

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

Sample Description: MW-17-W-100225 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland, CA T0600102230 MW-17

LLI Sample # WW 5916248  
LLI Group # 1184031  
CA

Project Name: 206145

Collected: 02/25/2010 12:40 by SH

Account Number: 10904

Submitted: 02/27/2010 09:20

Chevron

Reported: 03/15/2010 at 08:29

6001 Bollinger Canyon Rd L4310

Discard: 04/15/2010

San Ramon CA 94583

OAK17

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
05879	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
05879	Ethylbenzene	100-41-4	N.D.	0.5	1
05879	Toluene	108-88-3	N.D.	0.5	1
05879	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	10060B53A	03/03/2010 08:06	Elizabeth J Marin	1
05879	BTEX	SW-846 8021B	1	10060B53A	03/03/2010 08:06	Elizabeth J Marin	1
01146	GC VOA Water Prep	SW-846 5030B	1	10060B53A	03/03/2010 08:06	Elizabeth J Marin	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	100630007A	03/10/2010 01:20	Melissa McDermott	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	1	100600027A	03/02/2010 12:30	Kerrie A Freeburn	1
02376	Extraction - Fuel/TPH (Waters)	SW-846 3510C	2	100630007A	03/04/2010 16:15	JoElla L Rice	1

## Quality Control Summary

 Client Name: Chevron  
 Reported: 03/15/10 at 08:29 AM

Group Number: 1184031

Matrix QC may not be reported if 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.

### Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 10060A94A	Sample number(s): 5916231-5916232, 5916234-5916235							
Benzene	N.D.	0.5	ug/l	105	110	80-120	5	30
Ethylbenzene	N.D.	0.5	ug/l	100	105	80-120	5	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	110	110	78-125	0	30
Toluene	N.D.	0.5	ug/l	100	105	80-120	5	30
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	127	127	75-135	0	30
Total Xylenes	N.D.	1.5	ug/l	103	107	80-120	3	30
Batch number: 10060B53A	Sample number(s): 5916236-5916248							
Benzene	N.D.	0.5	ug/l	105	100	80-120	5	30
Ethylbenzene	N.D.	0.5	ug/l	105	100	80-120	5	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	100	105	78-125	5	30
Toluene	N.D.	0.5	ug/l	105	100	80-120	5	30
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	127	118	75-135	7	30
Total Xylenes	N.D.	1.5	ug/l	105	105	80-120	0	30
Batch number: 10061A94A	Sample number(s): 5916233							
Benzene	N.D.	0.5	ug/l	110	105	80-120	5	30
Ethylbenzene	N.D.	0.5	ug/l	105	100	80-120	5	30
Methyl tert-Butyl Ether	N.D.	2.5	ug/l	110	110	78-125	0	30
Toluene	N.D.	0.5	ug/l	105	100	80-120	5	30
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	109	109	75-135	0	30
Total Xylenes	N.D.	1.5	ug/l	107	105	80-120	2	30
Batch number: 100630007A	Sample number(s): 5916232-5916248							
TPH-DRO CA C10-C28 w/ Si Gel	50	32.	ug/l	80	83	52-126	3	20

### 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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 10060B53A	Sample number(s): 5916236-5916248 UNSPK: 5916236, 5916237								
Benzene	115		80-152						
Ethylbenzene	115		80-133						
Methyl tert-Butyl Ether	110		62-145						
Toluene	115		80-133						
TPH-GRO N. CA water C6-C12	127		63-154						
Total Xylenes	118		80-148						

\*- 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  
Reported: 03/15/10 at 08:29 AM

Group Number: 1184031

### 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: 10060A94A

	Trifluorotoluene-F	Trifluorotoluene-P
5916231	83	95
5916232	84	94
5916234	118	114
5916235	90	95
Blank	83	95
LCS	86	95
LCSD	88	94
Limits:	63-135	58-146

Analysis Name: BTEX, MTBE

Batch number: 10060B53A

	Trifluorotoluene-F	Trifluorotoluene-P
5916236	81	82
5916237	79	82
5916238	81	82
5916239	81	83
5916240	81	84
5916241	81	84
5916242	80	85
5916243	78	84
5916244	80	84
5916245	78	84
5916246	80	84
5916247	84	83
5916248	83	83
Blank	79	82
LCS	89	85
LCSD	91	84
MS	85	84
Limits:	63-135	58-146

Analysis Name: BTEX, MTBE

Batch number: 10061A94A

	Trifluorotoluene-F	Trifluorotoluene-P
5916233	82	95
Blank	89	95
LCS	95	94
LCSD	94	94
Limits:	63-135	58-146

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel

Batch number: 100630007A

Orthoterphenyl

\*- 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  
Reported: 03/15/10 at 08:29 AM

Group Number: 1184031

### Surrogate Quality Control

5916232	86
5916233	95
5916234	99
5916235	90
5916236	88
5916237	76
5916238	85
5916239	74
5916240	82
5916241	69
5916242	77
5916243	78
5916244	78
5916245	71
5916246	79
5916247	82
5916248	77
Blank	75
LCS	94
LCSD	95

Limits: 59-131

\*- 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.

## Lancaster Laboratories Explanation of Symbols and Abbreviations

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

<b>N.D.</b>	none detected	<b>BMQL</b>	Below Minimum Quantitation Level
<b>TNTC</b>	Too Numerous To Count	<b>MPN</b>	Most Probable Number
<b>IU</b>	International Units	<b>CP Units</b>	cobalt-chloroplatinate units
<b>umhos/cm</b>	micromhos/cm	<b>NTU</b>	nephelometric turbidity units
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>Cal</b>	(diet) calories	<b>lb.</b>	pound(s)
<b>meq</b>	milliequivalents	<b>kg</b>	kilogram(s)
<b>g</b>	gram(s)	<b>mg</b>	milligram(s)
<b>ug</b>	microgram(s)	<b>l</b>	liter(s)
<b>ml</b>	milliliter(s)	<b>ul</b>	microliter(s)
<b>m<sup>3</sup></b>	cubic meter(s)	<b>fib &gt;5 um/ml</b>	fibers greater than 5 microns in length per ml
<b>&lt;</b>	less than – The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>ppm</b>	parts per million – One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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.		

U.S. EPA data qualifiers:

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

Analytical test results for methods listed on the laboratories' accreditation scope meet all requirements of NELAC unless otherwise noted under the individual analysis.

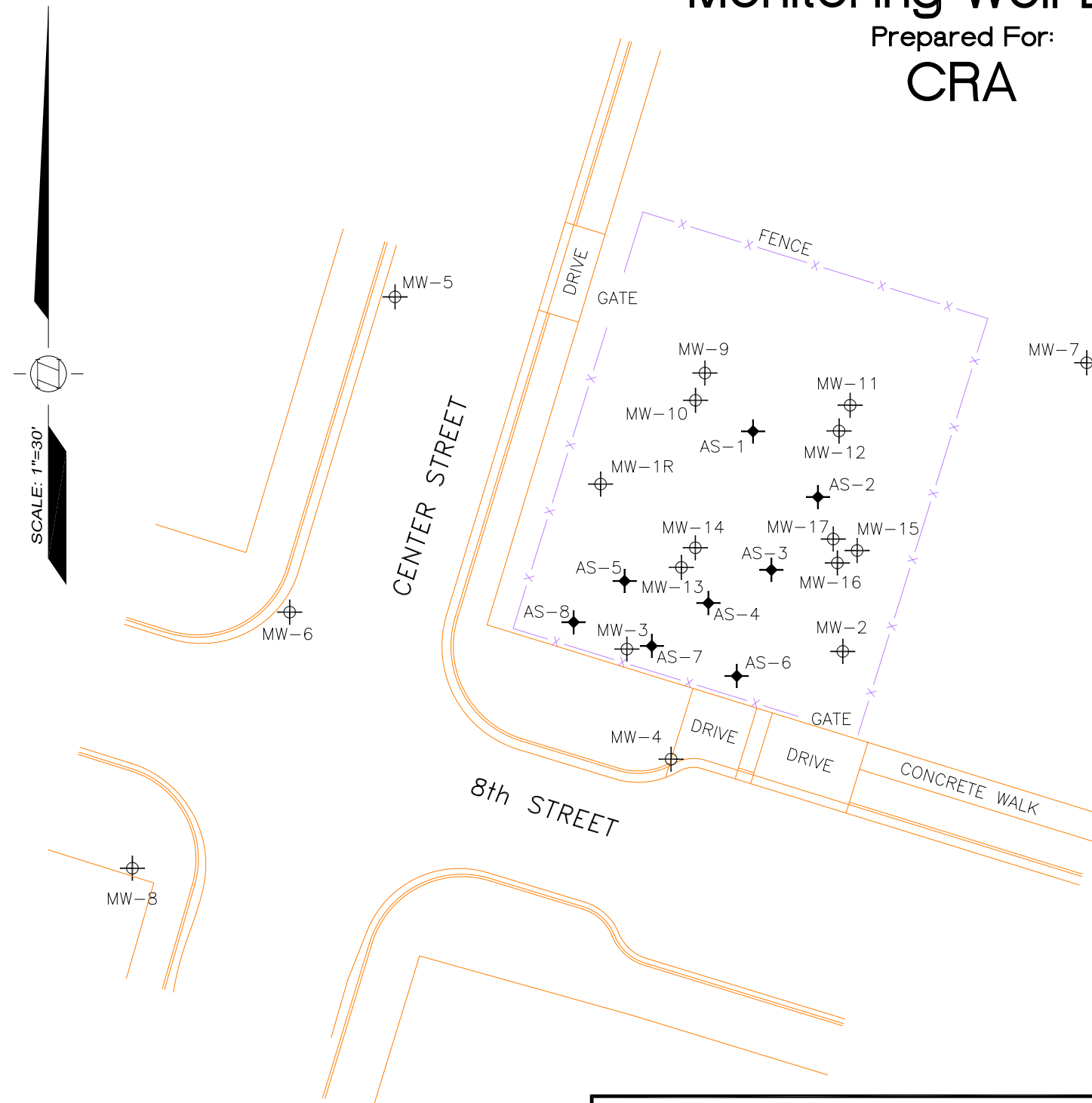
Tests results relate only to the sample tested. Clients should be aware that a critical step in a chemical or microbiological analysis is the collection of the sample. Unless the sample analyzed is truly representative of the bulk of material involved, the test results will be meaningless. If you have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

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APPENDIX G  
WELL SURVEY DATA

# Monitoring Well Exhibit

Prepared For:  
**CRA**



DESCRIPTION	NORTHING	EASTING	LATITUDE	LONGITUDE	ELEV (PVC)	ELEV (BOX)
MW-1R	2121103.6	6043307.3	37.8065199	-122.2943693	18.11	18.57
MW-2	2121069.0	6043357.5	37.8064274	-122.2941934	18.40	18.81
MW-3	2121069.4	6043312.8	37.8064264	-122.2943482	18.07	18.73
MW-4	2121046.7	6043321.9	37.8063643	-122.2943150	16.98	17.59
MW-5	2121142.4	6043264.8	37.8066241	-122.2945192	17.68	18.08
MW-6	2121077.1	6043243.0	37.8064437	-122.2945903	17.33	17.79
MW-7	2121128.7	6043408.0	37.8065942	-122.2940226	19.26	19.60
MW-8	2121024.1	6043210.4	37.8062964	-122.2946995	17.79	18.33
MW-9	2121126.6	6043328.9	37.8065842	-122.2942961	18.42	18.64
MW-10	2121121.0	6043327.0	37.8065686	-122.2943024	17.99	18.72
MW-11	2121120.0	6043359.0	37.8065675	-122.2941916	18.68	19.05
MW-12	2121114.6	6043356.7	37.8065527	-122.2941991	18.46	18.90
MW-13	2121086.4	6043324.1	37.8064734	-122.2943102	18.43	18.95
MW-14	2121090.4	6043327.0	37.8064847	-122.2943005	18.59	18.95
MW-15	2121089.9	6043360.5	37.8064849	-122.2941845	18.38	18.99
MW-16	2121087.3	6043356.4	37.8064777	-122.2941985	18.57	18.99
MW-17	2121092.2	6043355.5	37.8064912	-122.2942018	18.55	19.00
AS-1	2121114.5	6043338.9	37.8065516	-122.2942608		18.67
AS-2	2121100.9	6043352.3	37.8065149	-122.2942134		19.04
AS-3	2121085.8	6043342.7	37.8064730	-122.2942457		18.97
AS-4	2121079.0	6043329.6	37.8064534	-122.2942904		18.83
AS-5	2121083.5	6043312.3	37.8064651	-122.2943508		18.68
AS-6	2121063.9	6043335.5	37.8064123	-122.2942691		18.80
AS-7	2121070.1	6043317.9	37.8064284	-122.2943304		18.85
AS-8	2121075.0	6043301.7	37.8064411	-122.2943867		18.81

**BASIS OF COORDINATES AND ELEVATIONS:**

COORDINATES ARE CALIFORNIA STATE PLANE ZONE 3 COORDINATES FROM GPS OBSERVATIONS USING UNIVERSITY OF CALIFORNIA BAY AREA DEFORMATION CORRS STATION OBSERVATION FILES AND BASED ON THE CALIFORNIA SPATIAL REFERENCE CENTER DATUM, REFERENCE EPOCH 2000.35.

COORDINATE DATUM IS NAD 83(1986).

DATUM ELLIPSOID IS GRS80.

REFERENCE GEOID IS NGS99.

CORS STATIONS USED WERE UCD1 AND DIAB.

VERTICAL DATUM IS NAVD 88 FROM GPS OBSERVATIONS.



800 Center Street  
Oakland  
Alameda County  
California



1255 Starboard Dr.  
West Sacramento  
California 95691  
(916) 372-8124  
mark@morrrowsurveying.com

Date: 8-17-05  
Scale: 1" = 30'  
Sheet 1 of 1  
Revised: 3-5-10  
Field Book: MW-20,33,51  
Dwg. No. 0857-061 MAM

APPENDIX H

GETTERL-RYAN'S FIELD DATA SHEETS AND LANCASTER'S LABORATORY  
ANALYTICAL REPORT



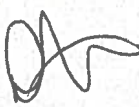
# GETTLER-RYAN INC.



## TRANSMITTAL

May 10, 2011  
G-R #386492

TO: Ms. Kiersten Hoey  
Conestoga-Rovers & Associates  
5900 Hollis Street, Suite A  
Emeryville, CA 94608

FROM: Deanna L. Harding  
Project Coordinator   
Gettler-Ryan Inc.  
6747 Sierra Court, Suite J  
Dublin, California 94568

RE: **Former Chevron (Signal Oil)  
Service Station #206145 (S-800)  
800 Center Street  
Oakland, California  
RO 0000454**

WE HAVE ENCLOSED THE FOLLOWING:

COPIES	DESCRIPTION
VIA PDF	Groundwater Monitoring and Sampling Data Package Special Event of May 4, 2011

### 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/206145

## WELL CONDITION STATUS SHEET

Client/Facility #: Chevron #206145  
 Site Address: 800 Center Street  
 City: Oakland, CA

Job #: 386492  
 Event Date: 5-4-11  
 Sampler: Joe

WELL ID	Vault Frame Condition	Gasket/O-Ring (M) Missing (R) Replaced	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-1A	O.K	O.K	R-1	1-B 1-R	O.K	O.K	O.K	N	N	6" Morrison/2	NO
MW-2	↓	↓	O.K	2-S	↓	↓	↓	↓	↓	8" Morrison/2	↓
MW-3	↓	↓	↓	3-S	↓	↓	↓	↓	↓	8" Boeckl. / 3	↓
MW-4	↓	↓	↓	2-S	↓	↓	↓	↓	↓	8" Morrison/2	↓

Comments \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

## STANDARD OPERATING PROCEDURE - GROUNDWATER SAMPLING

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

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

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

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

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

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

As requested by Chevron Environmental Management Company, the purge water and decontamination water generated during sampling activities is transported by IWM to Chemical Waste Management located in Kettleman Hills, California.





# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 5-4-11 (inclusive)  
 City: Oakland, CA Sampler: Joe

Well ID: MW-1A Date Monitored: 5-4-11  
 Well Diameter: 2 in.  
 Total Depth: 16.71 ft.  
 Depth to Water: 7.16 ft.  Check if water column is less than 0.50 ft.  
9.55 xVF 0.17 = 1.62 x3 case volume = Estimated Purge Volume: 5 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 9.07

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 \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**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 / Absorbent Sock (circle one)  
 Amt Removed from Skimmer: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_

Start Time (purge): 0856 Weather Conditions: Hot  
 Sample Time/Date: 0918 / 5-4-11 Water Color: clear Odor: PHN moderate  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: none  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 7.46

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm (µS))	Temperature (C / F)	D.O. (mg/L)	ORP (mV)
<u>0900</u>	<u>1.5</u>	<u>6.63</u>	<u>510</u>	<u>20.4</u>	<u>PRE: 0.7</u>	<u>PRE: -16</u>
<u>0904</u>	<u>3</u>	<u>6.67</u>	<u>519</u>	<u>20.7</u>		
<u>0909</u>	<u>5</u>	<u>6.62</u>	<u>524</u>	<u>21.1</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-1A	3 x vov vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc (8015)
	x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON
	x vov vial	YES	NP	LANCASTER	NITRATE AS NITROGEN/SULFATE
	x 500ml poly	YES	NP	LANCASTER	ALKALINITY
	x vov vial	YES	NP	LANCASTER	CARBON DIOXIDE

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: (1) 1/2"



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 5-4-11 (inclusive)  
 City: Oakland, CA Sampler: Joc

Well ID: MW-2 Date Monitored: 5-4-11  
 Well Diameter: 2 in.  
 Total Depth: 13.43 ft.  
 Depth to Water: 4.55 ft.  Check if water column is less than 0.50 ft.  
8.88 x VF 0.17 = 1.51 x3 case volume = Estimated Purge Volume: 4.5 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 6.32

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

**Purge Equipment:**  
 Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_

Start Time (purge): 0730 Weather Conditions: Hot  
 Sample Time/Date: 0805 5-4-11 Water Color: clear Odor: PHN moderate  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: none  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 5.04

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - 15)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>0737</u>	<u>1.5</u>	<u>6.90</u>	<u>636</u>	<u>19.8</u>	<u>PRE: 0.6</u>	<u>PRE: -67</u>
<u>0743</u>	<u>3</u>	<u>6.87</u>	<u>652</u>	<u>19.9</u>		
<u>0750</u>	<u>4.5</u>	<u>6.85</u>	<u>655</u>	<u>20.2</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-2</u>	<u>3</u> x voa vial	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>TPH-GRO(8015)/BTEX+MTBE(8021)</u>
	<u>2</u> x 500ml ambers	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>TPH-DRO w/sgc (8015)</u>
	<u>x</u> 250ml amber	<u>YES</u>	<u>HCL</u>	<u>LANCASTER</u>	<u>FERROUS IRON</u>
	<u>x</u> voa vial	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>NITRATE AS NITROGEN/SULFATE</u>
	<u>x</u> 500ml poly	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>ALKALINITY</u>
	<u>x</u> voa vial	<u>YES</u>	<u>NP</u>	<u>LANCASTER</u>	<u>CARBON DIOXIDE</u>

COMMENTS: \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 5-4-11 (inclusive)  
 City: Oakland, CA Sampler: Joc

Well ID: MW-3 Date Monitored: 5-4-11  
 Well Diameter: 2 in.  
 Total Depth: 14.03 ft.  
 Depth to Water: 7.30 ft.  Check if water column is less than 0.50 ft.  
6.73 xVF 0.17 = 1.14 x3 case volume = Estimated Purge Volume: 3.5 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 8.64

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

**Purge Equipment:**  
 Disposable Bailer   
 Stainless Steel Bailer \_\_\_\_\_  
 Stack Pump \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_

Start Time (purge): 0938 Weather Conditions: Hot  
 Sample Time/Date: 1000 5-4-11 Water Color: clear Odor: 01N Strong  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: none  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 7.52

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - µS)	Temperature (°C / °F)	D.O. (mg/L)	ORP (mV)
<u>0942</u>	<u>1.5</u>	<u>6.72</u>	<u>521</u>	<u>20.7</u>	<u>PRE: 0.4</u>	<u>PRE: -49</u>
<u>0946</u>	<u>2.5</u>	<u>6.77</u>	<u>528</u>	<u>21.1</u>		
<u>0950</u>	<u>3.5</u>	<u>6.74</u>	<u>523</u>	<u>21.6</u>		

### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
MW-3	3 x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	2 x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc (8015)
	1 x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON
	2 x voa vial	YES	NP	LANCASTER	NITRATE AS NITROGEN/SULFATE
	1 x 500ml poly	YES	NP	LANCASTER	ALKALINITY
	2 x voa vial	YES	NP	LANCASTER	CARBON DIOXIDE

### COMMENTS:

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_



# GETTLER-RYAN INC.

## WELL MONITORING/SAMPLING FIELD DATA SHEET

Client/Facility#: Chevron #206145 Job Number: 386492  
 Site Address: 800 Center Street Event Date: 5-4-11 (inclusive)  
 City: Oakland, CA Sampler: Joe

Well ID: MW-4 Date Monitored: 5-4-11  
 Well Diameter: 2 in.  
 Total Depth: 13.37 ft.  
 Depth to Water: 6.32 ft.  Check if water column is less than 0.50 ft.  
7.05 xVF 0.17 = 1.20 x3 case volume = Estimated Purge Volume: 4 gal.  
 Depth to Water w/ 80% Recharge [(Height of Water Column x 0.20) + DTW]: 7.73

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 \_\_\_\_\_  
 Suction Pump \_\_\_\_\_  
 Grundfos \_\_\_\_\_  
 Peristaltic Pump \_\_\_\_\_  
 QED Bladder Pump \_\_\_\_\_  
 Other: \_\_\_\_\_

**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: \_\_\_\_\_ gal  
 Amt Removed from Well: \_\_\_\_\_ gal  
 Water Removed: \_\_\_\_\_

Start Time (purge): 0820 Weather Conditions: Hot  
 Sample Time/Date: 0845 5-4-11 Water Color: clear Odor: 01N moderate  
 Approx. Flow Rate: \_\_\_\_\_ gpm. Sediment Description: none  
 Did well de-water? no If yes, Time: \_\_\_\_\_ Volume: \_\_\_\_\_ gal. DTW @ Sampling: 6.73

Time (2400 hr.)	Volume (gal.)	pH	Conductivity (µmhos/cm - US)	Temperature (°F)	D.O. (mg/L)	ORP (mV)
<u>0825</u>	<u>1</u>	<u>6.85</u>	<u>721</u>	<u>20.7</u>	<u>PRE: 0.8</u>	<u>PRE: -14</u>
<u>0830</u>	<u>2.5</u>	<u>6.80</u>	<u>714</u>	<u>20.8</u>		
<u>0836</u>	<u>4</u>	<u>6.76</u>	<u>727</u>	<u>21.1</u>		

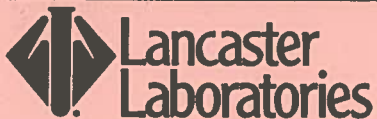
### LABORATORY INFORMATION

SAMPLE ID	(#) CONTAINER	REFRIG.	PRESERV. TYPE	LABORATORY	ANALYSES
<u>MW-4</u>	<u>3</u> x voa vial	YES	HCL	LANCASTER	TPH-GRO(8015)/BTEX+MTBE(8021)
	<u>2</u> x 500ml ambers	YES	NP	LANCASTER	TPH-DRO w/sgc (8015)
	<u>1</u> x 250ml amber	YES	HCL	LANCASTER	FERROUS IRON
	<u>2</u> x voa vial	YES	NP	LANCASTER	NITRATE AS NITROGEN/SULFATE
	<u>1</u> x 500ml poly	YES	NP	LANCASTER	ALKALINITY
	<u>2</u> x voa vial	YES	NP	LANCASTER	CARBON DIOXIDE

COMMENTS: \_\_\_\_\_

Add/Replaced Lock: \_\_\_\_\_ Add/Replaced Plug: \_\_\_\_\_ Add/Replaced Bolt: \_\_\_\_\_

# Chevron California Region Analysis Request/Chain of Custody



For Lancaster Laboratories use only

Acct. #: \_\_\_\_\_ Sample # \_\_\_\_\_ Group #: **006190**

*05 24 11 - 24*

Facility #: SS#206145-OML G-R#386492 Global ID#T0600102230  
 Site Address: 800 CENTER STREET, OAKLAND, CA  
 Chevron PM: IR Lead Consultant: CRAHK Hoey  
G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568  
 Consultant/Office: Deanna L. Harding (deanna@grinc.com)  
 Consultant Prj. Mgr.: \_\_\_\_\_  
 Consultant Phone #: 925-551-7555 Fax #: 925-551-7899  
 Sampler: JOE AJEMIAN

Matrix		Analyses Requested												
		Preservation Codes												
Soil	Water	Oil <input type="checkbox"/> Air	Total Number of Containers	BTEX + MTBE 8260 <input type="checkbox"/> 8020 <input checked="" type="checkbox"/>	TPH 8015 MOD GRO	TPH 8015 MOD DRO <input type="checkbox"/> Silica Gel Cleanup	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method	Ferous Iron	Alkalinity	Nitrate as Nitrogen Sulfate	Carbon Dioxide

**Preservative Codes**  
 H = HCl      T = Thiosulfate  
 N = HNO<sub>3</sub>    B = NaOH  
 S = H<sub>2</sub>SO<sub>4</sub>    O = Other

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

Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil <input type="checkbox"/> Air	Total Number of Containers	BTEX + MTBE 8260 <input type="checkbox"/> 8020 <input checked="" type="checkbox"/>	TPH 8015 MOD GRO	TPH 8015 MOD DRO <input type="checkbox"/> Silica Gel Cleanup	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method	Ferous Iron	Alkalinity	Nitrate as Nitrogen Sulfate	Carbon Dioxide
QA																			
MW 1A	5-4-11	0918						2											
MW 2		0805						5											
MW 3		1000						11											
MW 4		0845						11											

**Comments / Remarks**

Please forward the lab results directly to the Lead Consultant and cc: G-R.

**Turnaround Time Requested (TAT)** (please circle)

STD. TAT      72 hour      48 hour  
 24 hour      4 day      5 day

**Data Package Options** (please circle if required)

QC Summary      Type I - Full      **EDF/EDD**  
 Type VI (Raw Data)       Coelt Deliverable not needed  
 WIP (RWQCB)  
 Disk

Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
Relinquished by Commercial Carrier: _____	Date: _____	Time: _____	Received by: _____	Date: _____	Time: _____
UPS      FedEx      Other _____			Received by: _____	Date: _____	Time: _____
Temperature Upon Receipt _____ C°			Custody Seals Intact?    Yes    No		

## ANALYTICAL RESULTS

Prepared by:

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

Prepared for:

Chevron  
6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

May 17, 2011

Project: 206145

Submittal Date: 05/05/2011  
Group Number: 1245361  
PO Number: 0015073761  
Release Number: ROBB  
State of Sample Origin: CAClient Sample DescriptionQA-T-110504 NA Water  
MW-1A-W-110504 Grab Water  
MW-2-W-110504 Grab Water  
MW-3-W-110504 Grab Water  
MW-4-W-110504 Grab WaterLancaster Labs (LLI) #6277740  
6277741  
6277742  
6277743  
6277744

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

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CRA c/o Gettler-Ryan

Chevron c/o CRA

Chevron

CRA

Attn: Rachelle Munoz

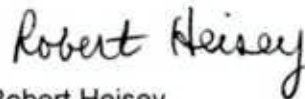
Attn: Report Contact

Attn: Anna Avina

Attn: Kiersten Hoey

Questions? Contact your Client Services Representative  
Jill M Parker at (717) 656-2300 Ext. 1241

Respectfully Submitted,



Robert Heisey  
Senior Specialist



# Analysis Report

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

Page 1 of 1

**Sample Description:** QA-T-110504 NA Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland T0600102230 QA

LLI Sample # WW 6277740  
LLI Group # 1245361  
Account # 10904

**Project Name:** 206145

Collected: 05/04/2011

Chevron

Submitted: 05/05/2011 09:35

6001 Bollinger Canyon Rd L4310

Reported: 05/17/2011 22:15

San Ramon CA 94583

CSOQA

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02102	Benzene	SW-846 8021B 71-43-2	ug/l N.D.	ug/l 0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11126A53A	05/09/2011 17:29	Laura M Krieger	1
02102	Method 8021 Water Master	SW-846 8021B	1	11126A53A	05/09/2011 17:29	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11126A53A	05/09/2011 17:29	Laura M Krieger	1





# Analysis Report

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

Page 1 of 1

**Sample Description:** MW-1A-W-110504 Grab Water  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland T0600102230 MW-1A

LLI Sample # WW 6277741  
LLI Group # 1245361  
Account # 10904

**Project Name:** 206145

Collected: 05/04/2011 09:18 by JA

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 05/05/2011 09:35

Reported: 05/17/2011 22:15

CSO01

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles</b>					
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B n.a.	ug/l N.D.	ug/l 50	1
<b>GC Volatiles</b>					
02102	Benzene	SW-846 8021B 71-43-2	ug/l 6.7	ug/l 0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B n.a.	ug/l 1,500	ug/l 50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11126A53A	05/10/2011 10:16	Laura M Krieger	1
02102	Method 8021 Water Master	SW-846 8021B	1	11126A53A	05/10/2011 10:16	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11126A53A	05/10/2011 10:16	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	111250024A	05/11/2011 14:11	Glorines Suarez-Rivera	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	111250024A	05/06/2011 08:45	Catherine R Wiker	1



# Analysis Report

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**Sample Description: MW-2-W-110504 Grab Water**  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland T0600102230 MW-2

LLI Sample # WW 6277742  
LLI Group # 1245361  
Account # 10904

**Project Name: 206145**

Collected: 05/04/2011 08:05 by JA

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 05/05/2011 09:35

Reported: 05/17/2011 22:15

CSO02

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles SW-846 8015B</b>					
01729	TPH-GRO N. CA water C6-C12	n.a.	1,300	50	1
<b>GC Volatiles SW-846 8021B</b>					
02102	Benzene	71-43-2	12	0.5	1
02102	Ethylbenzene	100-41-4	0.7	0.5	1
02102	Methyl tert-Butyl Ether	1634-04-4	N.D.	100	1
02102	Toluene	108-88-3	48	0.5	1
02102	Total Xylenes	1330-20-7	47	1.5	1
Reporting limits were raised due to interference from the sample matrix.					
<b>GC Extractable TPH SW-846 8015B</b>					
<b>w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	160	50	1

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11126A53A	05/09/2011 19:43	Laura M Krieger	1
02102	Method 8021 Water Master	SW-846 8021B	1	11126A53A	05/09/2011 19:43	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11126A53A	05/09/2011 19:43	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	111260004A	05/12/2011 05:48	Glorines Suarez-Rivera	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	111260004A	05/06/2011 10:40	Roza S Goslawska	1



# Analysis Report

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

**Sample Description:** MW-3-W-110504 Grab Water  
 Facility# 206145 Job# 386492 GRD  
 800 Center St-Oakland T0600102230 MW-3

LLI Sample # WW 6277743  
 LLI Group # 1245361  
 Account # 10904

**Project Name:** 206145

Collected: 05/04/2011 10:00 by JA

Chevron

6001 Bollinger Canyon Rd L4310  
 San Ramon CA 94583

Submitted: 05/05/2011 09:35

Reported: 05/17/2011 22:15

CS003

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles SW-846 8015B</b>					
01729	TPH-GRO N. CA water C6-C12	n.a.	57	50	1
<b>GC Volatiles SW-846 8021B</b>					
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	3.8	0.5	1
02102	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02102	Toluene	108-88-3	1.1	0.5	1
02102	Total Xylenes	1330-20-7	7.7	1.5	1
<b>GC Extractable TPH SW-846 8015B</b>					
<b>w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	340	50	1
<b>GC Miscellaneous SW-846 8015B modified</b>					
08097	CO2 by Headspace	124-38-9	20,000	4,000	1
<b>Wet Chemistry EPA 300.0</b>					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	222,000	6,000	20
<b>SM20 2320 B</b>					
00202	Alkalinity to pH 4.5	n.a.	310,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1
<b>SM20 3500 Fe B modified</b>					
08344	Ferrous Iron	n.a.	10,500	1,000	100

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11126A53A	05/09/2011 20:10	Laura M Krieger	1
02102	Method 8021 Water Master	SW-846 8021B	1	11126A53A	05/09/2011 20:10	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11126A53A	05/09/2011 20:10	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	111260004A	05/12/2011 06:08	Glorines Suarez-Rivera	1



# Analysis Report

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**Sample Description: MW-3-W-110504 Grab Water**  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland T0600102230 MW-3

LLI Sample # WW 6277743  
LLI Group # 1245361  
Account # 10904

**Project Name: 206145**

Collected: 05/04/2011 10:00 by JA

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 05/05/2011 09:35

Reported: 05/17/2011 22:15

CSO03

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08097	CO2 by Headspace	SW-846 8015B modified	1	111260020A	05/09/2011 19:32	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	111260004A	05/06/2011 10:40	Roza S Goslawska	1
00368	Nitrate Nitrogen	EPA 300.0	1	11126196603B	05/06/2011 09:39	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11126196603B	05/10/2011 06:24	Ashley M Adams	20
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11132020201A	05/12/2011 08:40	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11132020201A	05/12/2011 08:40	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	11127834401A	05/07/2011 08:10	Daniel S Smith	100



# Analysis Report

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Sample Description: **MW-4-W-110504 Grab Water**  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland T0600102230 MW-4

LLI Sample # **WW 6277744**  
LLI Group # **1245361**  
Account # **10904**

Project Name: **206145**

Collected: 05/04/2011 08:45 by JA

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 05/05/2011 09:35

Reported: 05/17/2011 22:15

CS004

CAT No.	Analysis Name	CAS Number	As Received Result	As Received Method Detection Limit	Dilution Factor
<b>GC Volatiles SW-846 8015B ug/l</b>					
01729	TPH-GRO N. CA water C6-C12	n.a.	N.D.	50	1
<b>GC Volatiles SW-846 8021B ug/l</b>					
02102	Benzene	71-43-2	N.D.	0.5	1
02102	Ethylbenzene	100-41-4	N.D.	0.5	1
02102	Methyl tert-Butyl Ether	1634-04-4	N.D.	2.5	1
02102	Toluene	108-88-3	N.D.	0.5	1
02102	Total Xylenes	1330-20-7	N.D.	1.5	1
<b>GC Extractable TPH SW-846 8015B ug/l</b>					
<b>w/Si Gel</b>					
06610	TPH-DRO CA C10-C28 w/ Si Gel	n.a.	N.D.	50	1
<b>GC Miscellaneous SW-846 8015B modified ug/l</b>					
08097	CO2 by Headspace	124-38-9	76,000	4,000	1
<b>Wet Chemistry EPA 300.0 ug/l</b>					
00368	Nitrate Nitrogen	14797-55-8	N.D.	250	5
00228	Sulfate	14808-79-8	16,700	1,500	5
<b>SM20 2320 B ug/l as CaCO3</b>					
00202	Alkalinity to pH 4.5	n.a.	183,000	460	1
00201	Alkalinity to pH 8.3	n.a.	N.D.	460	1
<b>SM20 3500 Fe B ug/l</b>					
08344	Ferrous Iron	n.a.	2,600	100	10

### General Sample Comments

State of California Lab Certification No. 2501

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
01729	TPH-GRO N. CA water C6-C12	SW-846 8015B	1	11126A53A	05/09/2011 20:36	Laura M Krieger	1
02102	Method 8021 Water Master	SW-846 8021B	1	11126A53A	05/09/2011 20:36	Laura M Krieger	1
01146	GC VOA Water Prep	SW-846 5030B	1	11126A53A	05/09/2011 20:36	Laura M Krieger	1
06610	TPH-DRO CA C10-C28 w/ Si Gel	SW-846 8015B	1	111260004A	05/12/2011 07:08	Glorines Suarez-Rivera	1



# Analysis Report

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

**Sample Description: MW-4-W-110504 Grab Water**  
Facility# 206145 Job# 386492 GRD  
800 Center St-Oakland T0600102230 MW-4

LLI Sample # WW 6277744  
LLI Group # 1245361  
Account # 10904

**Project Name: 206145**

Collected: 05/04/2011 08:45 by JA

Chevron

6001 Bollinger Canyon Rd L4310  
San Ramon CA 94583

Submitted: 05/05/2011 09:35

Reported: 05/17/2011 22:15

CSO04

### Laboratory Sample Analysis Record

CAT No.	Analysis Name	Method	Trial#	Batch#	Analysis Date and Time	Analyst	Dilution Factor
08097	CO2 by Headspace	SW-846 8015B modified	1	111260020A	05/09/2011 19:54	Elizabeth J Marin	1
11180	Low Vol Ext(W) w/SG	SW-846 3510C	1	111260004A	05/06/2011 10:40	Roza S Goslawska	1
00368	Nitrate Nitrogen	EPA 300.0	1	11126196603B	05/06/2011 09:53	Ashley M Adams	5
00228	Sulfate	EPA 300.0	1	11126196603B	05/06/2011 09:53	Ashley M Adams	5
00202	Alkalinity to pH 4.5	SM20 2320 B	1	11132020201A	05/12/2011 08:40	Susan A Engle	1
00201	Alkalinity to pH 8.3	SM20 2320 B	1	11132020201A	05/12/2011 08:40	Susan A Engle	1
08344	Ferrous Iron	SM20 3500 Fe B modified	1	11127834401A	05/07/2011 08:10	Daniel S Smith	10

## Quality Control Summary

Client Name: Chevron

Group Number: 1245361

Reported: 05/17/11 at 10:15 PM

Matrix QC may not be reported if 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.

## Laboratory Compliance Quality Control

<u>Analysis Name</u>	<u>Blank Result</u>	<u>Blank MDL</u>	<u>Report Units</u>	<u>LCS %REC</u>	<u>LCSD %REC</u>	<u>LCS/LCSD Limits</u>	<u>RPD</u>	<u>RPD Max</u>
Batch number: 11126A53A	Sample number(s): 6277740-6277744							
Benzene	N.D.	0.2	ug/l	110	110	80-120	0	30
Ethylbenzene	N.D.	0.2	ug/l	115	110	80-120	4	30
Methyl tert-Butyl Ether	N.D.	0.3	ug/l	105	100	78-125	5	30
Toluene	N.D.	0.2	ug/l	115	110	80-120	4	30
TPH-GRO N. CA water C6-C12	N.D.	50.	ug/l	100	100	75-135	0	30
Total Xylenes	N.D.	0.6	ug/l	117	113	80-120	3	30
Batch number: 111250024A	Sample number(s): 6277741							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	ug/l	86	86	52-126	0	20
Batch number: 111260004A	Sample number(s): 6277742-6277744							
TPH-DRO CA C10-C28 w/ Si Gel	N.D.	32.	ug/l	83	91	52-126	10	20
Batch number: 111260020A	Sample number(s): 6277743-6277744							
CO2 by Headspace	N.D.	4,000.	ug/l	86		67-124		
Batch number: 11126196603B	Sample number(s): 6277743-6277744							
Nitrate Nitrogen	N.D.	50.	ug/l	107		90-110		
Sulfate	N.D.	300.	ug/l	101		89-110		
Batch number: 11127834401A	Sample number(s): 6277743-6277744							
Ferrous Iron	N.D.	10.	ug/l	97		92-105		
Batch number: 11132020201A	Sample number(s): 6277743-6277744							
Alkalinity to pH 4.5	N.D.	460.	ug/l as CaCO3			98-103		

## 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

<u>Analysis Name</u>	<u>MS %REC</u>	<u>MSD %REC</u>	<u>MS/MSD Limits</u>	<u>RPD</u>	<u>RPD MAX</u>	<u>BKG Conc</u>	<u>DUP Conc</u>	<u>DUP RPD</u>	<u>Dup RPD Max</u>
Batch number: 111260020A	Sample number(s): 6277743-6277744 UNSPK: P274794								
CO2 by Headspace	64	56	15-145	4	20				
Batch number: 11126196603B	Sample number(s): 6277743-6277744 UNSPK: P278146 BKG: P278146								
Nitrate Nitrogen	127*		90-110			3,800	4,400	16	20
Sulfate	116*		90-110			1,600	N.D.	200* (1)	20
Batch number: 11127834401A	Sample number(s): 6277743-6277744 UNSPK: P278146 BKG: P278146								

\*- 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: 1245361  
 Reported: 05/17/11 at 10:15 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

<u>Analysis Name</u>	<u>MS</u> <u>%REC</u>	<u>MSD</u> <u>%REC</u>	<u>MS/MSD</u> <u>Limits</u>	<u>RPD</u> <u>RPD</u>	<u>RPD</u> <u>MAX</u>	<u>BKG</u> <u>Conc</u>	<u>DUP</u> <u>Conc</u>	<u>DUP</u> <u>RPD</u>	<u>Dup RPD</u> <u>Max</u>
Ferrous Iron	90	84	73-120	7*	6	N.D.	N.D.	0 (1)	5
Batch number: 11132020201A	Sample number(s): 6277743-6277744		UNSPK: P278110	BKG: P278110					
Alkalinity to pH 4.5	98		73-121			110,000	112,000	2	5
Alkalinity to pH 8.3						N.D.	N.D.	0 (1)	5

### Surrogate Quality Control

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

Analysis Name: TPH-GRO N. CA water C6-C12  
 Batch number: 11126A53A

	Trifluorotoluene-F	Trifluorotoluene-P
6277740	74	77
6277741	76	77
6277742	111	100
6277743	73	78
6277744	69	77
Blank	69	77
LCS	87	77
LCSD	87	76
Limits:	63-135	58-146

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel  
 Batch number: 111250024A

	Orthoterphenyl
6277741	107
Blank	110
LCS	114
LCSD	112
Limits:	59-131

Analysis Name: TPH-DRO CA C10-C28 w/ Si Gel

	Orthoterphenyl
6277742	102
6277743	105
6277744	92
Blank	97
LCS	104
LCSD	108
Limits:	59-131

\*- 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  
Reported: 05/17/11 at 10:15 PM

Group Number: 1245361

### Surrogate Quality Control

\*- 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



050411-04

For Lancaster Laboratories use only

Acct. #: 10904 Sample # 6271740-44 Group #: 006190

C\*1245361

Facility #: <u>SS#206145-OML G-R#386492 Global ID#T0600102230</u> Site Address: <u>800 CENTER STREET, OAKLAND, CA</u> Chevron PM: <u>IR</u> Lead Consultant: <u>CRAHK Hoey</u> Consultant/Office: <u>G-R, Inc., 6747 Sierra Court, Suite J, Dublin, CA 94568</u> Consultant Prj. Mgr.: <u>Deanna L. Harding (deanna@grinc.com)</u> Consultant Phone #: <u>925-551-7555</u> Fax #: <u>925-551-7899</u> Sampler: <u>JOE AJEMIAN</u>				<b>Matrix</b> <input type="checkbox"/> Potable <input type="checkbox"/> NPDES <input type="checkbox"/> Soil <input type="checkbox"/> Water <input type="checkbox"/> Oil <input type="checkbox"/> Air		<b>Analyses Requested</b> <b>Preservation Codes</b> HTEX + MTBE 8260 <input type="checkbox"/> 8021 <input checked="" type="checkbox"/> TPH 8015 MOD GRO <input type="checkbox"/> TPH 8015 MOD DRO <input checked="" type="checkbox"/> Silica Gel Cleanup 8260 full scan Oxygenates Total Lead Method Dissolved Lead Method Ferrous Iron Alkalinity Nitrate as Nitrogen Sulfate Carbon Dioxide										<b>Preservative Codes</b> H = HCl T = Thiosulfate N = HNO <sub>3</sub> B = NaOH S = H <sub>2</sub> SO <sub>4</sub> O = Other <input type="checkbox"/> J value reporting needed <input type="checkbox"/> Must meet lowest detection limits possible for 8260 compounds 8021 MTBE Confirmation <input type="checkbox"/> Confirm highest hit by 8260 <input type="checkbox"/> Confirm all hits by 8260 <input type="checkbox"/> Run ___ oxy's on highest hit <input type="checkbox"/> Run ___ oxy's on all hits							
Sample Identification	Date Collected	Time Collected	Grab	Composite	Soil	Water	Oil	Air	Total Number of Containers	BTEX + MTBE 8260	8021	TPH 8015 MOD GRO	TPH 8015 MOD DRO	8260 full scan	Oxygenates	Total Lead Method	Dissolved Lead Method	Ferrous Iron	Alkalinity	Nitrate as Nitrogen Sulfate	Carbon Dioxide	Comments / Remarks	
QA	—	—	✓			✓			2	✓	✓	✓											Please forward the lab results directly to the Lead Consultant and cc: G-R.
MW-1A	5-4-11	0918	✓			✓			5	✓	✓	✓											
MW-2	↓	0805	✓			✓			5	✓	✓	✓											
MW-3	↓	1000	✓			✓			11	✓	✓	✓						✓	✓	✓	✓		
MW-4	↓	0845	✓			✓			11	✓	✓	✓						✓	✓	✓	✓		
<b>Turnaround Time Requested (TAT) (please circle)</b> STD TAT 72 hour 48 hour 24 hour 4 day 5 day			Relinquished by: <u>[Signature]</u> Date: <u>5-4-11</u> Time: <u>1120</u>			Relinquished by: <u>[Signature]</u> Date: <u>5/4/11</u> Time: <u>1630</u>			Relinquished by: _____ Date: _____ Time: _____			Received by: <u>[Signature]</u> Date: <u>04 MAY 11</u> Time: <u>1120</u>			Received by: <u>[Signature]</u> Date: _____ Time: _____			Received by: _____ Date: _____ Time: _____					
<b>Data Package Options (please circle if required)</b> QC Summary Type I - Full <b>EDF/EDD</b> Type VI (Raw Data) <input type="checkbox"/> Coelt Deliverable not needed WIP (RWQCB) Disk			Relinquished by: _____ Date: _____ Time: _____			Relinquished by Commercial Carrier: UPS <input checked="" type="checkbox"/> RedEx <input type="checkbox"/> Other _____			Received by: <u>[Signature]</u> Date: <u>05/11</u> Time: <u>0905</u>			Received by: _____ Date: _____ Time: _____			Temperature Upon Receipt: <u>04-08</u> °C Custody Seals Intact? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No								

# Explanation of Symbols and Abbreviations

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

<b>RL</b>	Reporting Limit	<b>BMQL</b>	Below Minimum Quantitation Level
<b>N.D.</b>	none detected	<b>MPN</b>	Most Probable Number
<b>TNTC</b>	Too Numerous To Count	<b>CP Units</b>	cobalt-chloroplatinate units
<b>IU</b>	International Units	<b>NTU</b>	nephelometric turbidity units
<b>umhos/cm</b>	micromhos/cm	<b>ng</b>	nanogram(s)
<b>C</b>	degrees Celsius	<b>F</b>	degrees Fahrenheit
<b>meq</b>	milliequivalents	<b>lb.</b>	pound(s)
<b>g</b>	gram(s)	<b>kg</b>	kilogram(s)
<b>ug</b>	microgram(s)	<b>mg</b>	milligram(s)
<b>ml</b>	milliliter(s)	<b>l</b>	liter(s)
<b>m3</b>	cubic meter(s)	<b>ul</b>	microliter(s)
<b>&lt;</b>	less than - The number following the sign is the <u>limit of quantitation</u> , the smallest amount of analyte which can be reliably determined using this specific test.		
<b>&gt;</b>	greater than		
<b>J</b>	estimated value – The result is $\geq$ the Method Detection Limit (MDL) and $<$ the Limit of Quantitation (LOQ).		
<b>ppm</b>	parts per million - One ppm is equivalent to one milligram per kilogram (mg/kg), or one gram per million grams. For aqueous liquids, ppm is usually taken to be equivalent to milligrams per liter (mg/l), because one liter of water has a weight very close to a kilogram. For gases or vapors, one ppm is equivalent to one microliter of gas per liter of gas.		
<b>ppb</b>	parts per billion		
<b>Dry weight basis</b>	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.		

## U.S. EPA CLP Data Qualifiers:

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

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

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

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

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

APPENDIX I  
AIR TOXICS ANALYTICAL REPORT

5/26/2011

Mr. Ian Hull

Conestoga-Rovers Associates (CRA)

5900 Hollis Street

Suite A

Emeryville CA 94608

Project Name: Chevron 20-6145

Project #: 312002

Workorder #: 1105242A

Dear Mr. Ian Hull

The following report includes the data for the above referenced project for sample(s) received on 5/12/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified TO-15 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori

Project Manager

**WORK ORDER #: 1105242A**

Work Order Summary

<b>CLIENT:</b>	Mr. Ian Hull Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	<b>BILL TO:</b>	Mr. Ian Hull Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
<b>PHONE:</b>	510-420-0700	<b>P.O. #</b>	312002
<b>FAX:</b>	510-420-9170	<b>PROJECT #</b>	312002 Chevron 20-6145
<b>DATE RECEIVED:</b>	05/12/2011	<b>CONTACT:</b>	Kyle Vagadori
<b>DATE COMPLETED:</b>	05/26/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-1	Modified TO-15	4.6 "Hg	15 psi
02A	VP-2	Modified TO-15	6.6 "Hg	15 psi
03A	VP-2 DUP	Modified TO-15	6.6 "Hg	15 psi
04A	VP-3	Modified TO-15	6.6 "Hg	15 psi
05A	VP-4	Modified TO-15	5.4 "Hg	15 psi
06A	VP-6	Modified TO-15	4.8 "Hg	15 psi
07A	TRIP BLANK	Modified TO-15	28.2 "Hg	15 psi
08A	Lab Blank	Modified TO-15	NA	NA
08B	Lab Blank	Modified TO-15	NA	NA
08C	Lab Blank	Modified TO-15	NA	NA
09A	CCV	Modified TO-15	NA	NA
09B	CCV	Modified TO-15	NA	NA
09C	CCV	Modified TO-15	NA	NA
10A	LCS	Modified TO-15	NA	NA
10AA	LCSD	Modified TO-15	NA	NA
10B	LCS	Modified TO-15	NA	NA
10BB	LCSD	Modified TO-15	NA	NA


Continued on next page

**WORK ORDER #: 1105242A**

Work Order Summary

<b>CLIENT:</b>	Mr. Ian Hull Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	<b>BILL TO:</b>	Mr. Ian Hull Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
<b>PHONE:</b>	510-420-0700	<b>P.O. #</b>	312002
<b>FAX:</b>	510-420-9170	<b>PROJECT #</b>	312002 Chevron 20-6145
<b>DATE RECEIVED:</b>	05/12/2011	<b>CONTACT:</b>	Kyle Vagadori
<b>DATE COMPLETED:</b>	05/26/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
10C	LCS	Modified TO-15	NA	NA
10CC	LCSD	Modified TO-15	NA	NA

CERTIFIED BY:   
Laboratory Director

DATE: 05/26/11

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,  
 NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719  
 Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
 Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11  
 Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards  
 This report shall not be reproduced, except in full, without the written approval of Air Toxics Ltd.

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
 (916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE  
EPA Method TO-15  
Conestoga-Rovers Associates (CRA)  
Workorder# 1105242A**

Seven 1 Liter Summa Canister (100% Certified) samples were received on May 12, 2011. The laboratory performed analysis via EPA Method TO-15 using GC/MS in the full scan mode.

This workorder was independently validated prior to submittal using 'USEPA National Functional Guidelines' as generally applied to the analysis of volatile organic compounds in air. A rules-based, logic driven, independent validation engine was employed to assess completeness, evaluate pass/fail of relevant project quality control requirements and verification of all quantified amounts.

**Receiving Notes**

There were no receiving discrepancies.

**Analytical Notes**

A single point calibration for TPH referenced to Gasoline was performed for each daily analytical batch. Recovery is reported as 100% in the associated results for each CCV.

Dilution was performed on samples VP-1, VP-3, VP-4 and VP-6 due to the presence of high level non-target species.

The recovery of surrogate 1,2-Dichloroethane-d4 in sample VP-4 was outside control limits due to high level hydrocarbon matrix interference. Data is reported as qualified.

**Definition of Data Qualifying Flags**

Eight qualifiers may have been used on the data analysis sheets and indicates as follows:

B - Compound present in laboratory blank greater than reporting limit (background subtraction not performed).

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the reporting limit.

UJ- Non-detected compound associated with low bias in the CCV and/or LCS.

N - The identification is based on presumptive evidence.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue





**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS**

**Client Sample ID: VP-1**

**Lab ID#: 1105242A-01A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	860	2900	2700	9200
TPH ref. to Gasoline (MW=100)	17000	14000000	70000	57000000

**Client Sample ID: VP-2**

**Lab ID#: 1105242A-02A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Toluene	1.3	1.4	4.9	5.1
TPH ref. to Gasoline (MW=100)	65	1600	260	6500

**Client Sample ID: VP-2 DUP**

**Lab ID#: 1105242A-03A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Toluene	1.3	2.0	4.9	7.5
TPH ref. to Gasoline (MW=100)	65	3100	260	13000

**Client Sample ID: VP-3**

**Lab ID#: 1105242A-04A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	430	3300	1400	10000
Toluene	430	5600	1600	21000
Ethyl Benzene	430	970	1900	4200
m,p-Xylene	430	14000	1900	60000
o-Xylene	430	5700	1900	25000
TPH ref. to Gasoline (MW=100)	8600	5400000	35000	22000000

**Client Sample ID: VP-4**

**Lab ID#: 1105242A-05A**

**Summary of Detected Compounds  
EPA METHOD TO-15 GC/MS FULL SCAN**

**Client Sample ID: VP-4**

**Lab ID#: 1105242A-05A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	9.8	820	31	2600
Ethyl Benzene	9.8	36	43	160
Toluene	9.8	890	37	3400
m,p-Xylene	9.8	680	43	2900
o-Xylene	9.8	3000	43	13000
TPH ref. to Gasoline (MW=100)	490	3000000	2000	12000000

**Client Sample ID: VP-6**

**Lab ID#: 1105242A-06A**

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
m,p-Xylene	60	86	260	380
TPH ref. to Gasoline (MW=100)	1200	530000	4900	2200000

**Client Sample ID: TRIP BLANK**

**Lab ID#: 1105242A-07A**

No Detections Were Found.

Client Sample ID: VP-1

Lab ID#: 1105242A-01A

**EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>14052319</b>	<b>Date of Collection: 5/10/11 2:45:00 PM</b>
<b>Dil. Factor:</b>	<b>171</b>	<b>Date of Analysis: 5/23/11 01:15 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Methyl tert-butyl ether	860	Not Detected	3100	Not Detected
Benzene	860	2900	2700	9200
Toluene	860	Not Detected	3200	Not Detected
Ethyl Benzene	860	Not Detected	3700	Not Detected
m,p-Xylene	860	Not Detected	3700	Not Detected
o-Xylene	860	Not Detected	3700	Not Detected
TPH ref. to Gasoline (MW=100)	17000	14000000	70000	57000000
Naphthalene	3400	Not Detected	18000	Not Detected

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	106	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: VP-2

Lab ID#: 1105242A-02A

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052024</b>	<b>Date of Collection:</b> 5/10/11 2:16:00 PM
<b>Dil. Factor:</b>	<b>2.59</b>	<b>Date of Analysis:</b> 5/20/11 05:56 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	1.3	Not Detected	4.1	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
Toluene	1.3	1.4	4.9	5.1
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.7	Not Detected
Naphthalene	5.2	Not Detected	27	Not Detected
TPH ref. to Gasoline (MW=100)	65	1600	260	6500

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: VP-2 DUP

Lab ID#: 1105242A-03A

**EPA METHOD TO-15 GC/MS FULL SCAN**

File Name:	3052025	Date of Collection: 5/10/11 2:16:00 PM
Dil. Factor:	2.59	Date of Analysis: 5/20/11 06:31 PM

Compound	Rpt. Limit (ppbv)	Amount (ppbv)	Rpt. Limit (ug/m3)	Amount (ug/m3)
Benzene	1.3	Not Detected	4.1	Not Detected
Ethyl Benzene	1.3	Not Detected	5.6	Not Detected
Toluene	1.3	2.0	4.9	7.5
m,p-Xylene	1.3	Not Detected	5.6	Not Detected
o-Xylene	1.3	Not Detected	5.6	Not Detected
Methyl tert-butyl ether	1.3	Not Detected	4.7	Not Detected
Naphthalene	5.2	Not Detected	27	Not Detected
TPH ref. to Gasoline (MW=100)	65	3100	260	13000

Container Type: 1 Liter Summa Canister (100% Certified)

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: VP-3

Lab ID#: 1105242A-04A

**EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>14052318</b>	<b>Date of Collection:</b> 5/10/11 12:54:00 PM
<b>Dil. Factor:</b>	<b>86.3</b>	<b>Date of Analysis:</b> 5/23/11 12:49 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Methyl tert-butyl ether	430	Not Detected	1600	Not Detected
Benzene	430	3300	1400	10000
Toluene	430	5600	1600	21000
Ethyl Benzene	430	970	1900	4200
m,p-Xylene	430	14000	1900	60000
o-Xylene	430	5700	1900	25000
TPH ref. to Gasoline (MW=100)	8600	5400000	35000	22000000
Naphthalene	1700	Not Detected	9000	Not Detected

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	115	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: VP-4

Lab ID#: 1105242A-05A

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052123</b>	<b>Date of Collection:</b> 5/10/11 1:36:00 PM
<b>Dil. Factor:</b>	<b>19.7</b>	<b>Date of Analysis:</b> 5/21/11 10:09 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	9.8	820	31	2600
Ethyl Benzene	9.8	36	43	160
Toluene	9.8	890	37	3400
m,p-Xylene	9.8	680	43	2900
o-Xylene	9.8	3000	43	13000
Methyl tert-butyl ether	9.8	Not Detected	36	Not Detected
Naphthalene	39	Not Detected	210	Not Detected
TPH ref. to Gasoline (MW=100)	490	3000000	2000	12000000

Q = Exceeds Quality Control limits of 70% to 130%, due to matrix effects.

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	622 Q	70-130
Toluene-d8	108	70-130
4-Bromofluorobenzene	100	70-130

Client Sample ID: VP-6

Lab ID#: 1105242A-06A

**EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>14052316</b>	<b>Date of Collection: 5/10/11 3:09:00 PM</b>
<b>Dil. Factor:</b>	<b>12.0</b>	<b>Date of Analysis: 5/23/11 11:58 AM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Methyl tert-butyl ether	60	Not Detected	220	Not Detected
Benzene	60	Not Detected	190	Not Detected
Toluene	60	Not Detected	230	Not Detected
Ethyl Benzene	60	Not Detected	260	Not Detected
m,p-Xylene	60	86	260	380
o-Xylene	60	Not Detected	260	Not Detected
TPH ref. to Gasoline (MW=100)	1200	530000	4900	2200000
Naphthalene	240	Not Detected	1200	Not Detected

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	114	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130



Client Sample ID: TRIP BLANK

Lab ID#: 1105242A-07A

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052026</b>	<b>Date of Collection:</b> 5/10/11 3:00:00 PM
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis:</b> 5/20/11 06:54 PM

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

**Container Type: 1 Liter Summa Canister (100% Certified)**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: Lab Blank

Lab ID#: 1105242A-08A

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052007</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/20/11 09:17 AM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	101	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	98	70-130

Client Sample ID: Lab Blank

Lab ID#: 1105242A-08B

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052107</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/21/11 01:27 PM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Benzene	0.50	Not Detected	1.6	Not Detected
Ethyl Benzene	0.50	Not Detected	2.2	Not Detected
Toluene	0.50	Not Detected	1.9	Not Detected
m,p-Xylene	0.50	Not Detected	2.2	Not Detected
o-Xylene	0.50	Not Detected	2.2	Not Detected
Methyl tert-butyl ether	0.50	Not Detected	1.8	Not Detected
Naphthalene	2.0	Not Detected	10	Not Detected
TPH ref. to Gasoline (MW=100)	25	Not Detected	100	Not Detected

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	100	70-130
4-Bromofluorobenzene	97	70-130

Client Sample ID: Lab Blank

Lab ID#: 1105242A-08C

**EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>14052308</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/23/11 08:38 AM</b>

<b>Compound</b>	<b>Rpt. Limit (ppbv)</b>	<b>Amount (ppbv)</b>	<b>Rpt. Limit (ug/m3)</b>	<b>Amount (ug/m3)</b>
Methyl tert-butyl ether	5.0	Not Detected	18	Not Detected
Benzene	5.0	Not Detected	16	Not Detected
Toluene	5.0	Not Detected	19	Not Detected
Ethyl Benzene	5.0	Not Detected	22	Not Detected
m,p-Xylene	5.0	Not Detected	22	Not Detected
o-Xylene	5.0	Not Detected	22	Not Detected
TPH ref. to Gasoline (MW=100)	100	Not Detected	410	Not Detected
Naphthalene	20	Not Detected	100	Not Detected

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	97	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: CCV

Lab ID#: 1105242A-09A

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052002</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/19/11 10:25 PM</b>

<b>Compound</b>	<b>%Recovery</b>
Benzene	94
Ethyl Benzene	98
Toluene	95
m,p-Xylene	97
o-Xylene	96
Methyl tert-butyl ether	92
Naphthalene	85
TPH ref. to Gasoline (MW=100)	100

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	99	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	107	70-130

Client Sample ID: CCV

Lab ID#: 1105242A-09B

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052103</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/21/11 11:09 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Benzene	92
Ethyl Benzene	95
Toluene	88
m,p-Xylene	94
o-Xylene	96
Methyl tert-butyl ether	97
Naphthalene	92
TPH ref. to Gasoline (MW=100)	100

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	102	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: CCV

Lab ID#: 1105242A-09C

**EPA METHOD TO-15 GC/MS**

<b>File Name:</b>	<b>14052303</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/23/11 06:53 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Methyl tert-butyl ether	91
Benzene	93
Toluene	92
Ethyl Benzene	94
m,p-Xylene	96
o-Xylene	97
TPH ref. to Gasoline (MW=100)	100
Naphthalene	90

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCS

Lab ID#: 1105242A-10A

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052003</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/19/11 11:01 PM</b>

<b>Compound</b>	<b>%Recovery</b>
Benzene	94
Ethyl Benzene	95
Toluene	93
m,p-Xylene	93
o-Xylene	93
Methyl tert-butyl ether	94
Naphthalene	60
TPH ref. to Gasoline (MW=100)	Not Spiked

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	103	70-130
Toluene-d8	111	70-130
4-Bromofluorobenzene	105	70-130



Client Sample ID: LCSD

Lab ID#: 1105242A-10AA

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052004</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/20/11 06:55 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Benzene	94
Ethyl Benzene	91
Toluene	90
m,p-Xylene	92
o-Xylene	92
Methyl tert-butyl ether	96
Naphthalene	62
TPH ref. to Gasoline (MW=100)	Not Spiked

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	102	70-130
Toluene-d8	110	70-130
4-Bromofluorobenzene	103	70-130

Client Sample ID: LCS

Lab ID#: 1105242A-10B

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052104</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/21/11 11:50 AM</b>

<b>Compound</b>	<b>%Recovery</b>
Benzene	90
Ethyl Benzene	91
Toluene	84
m,p-Xylene	90
o-Xylene	97
Methyl tert-butyl ether	96
Naphthalene	70
TPH ref. to Gasoline (MW=100)	Not Spiked

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	94	70-130
Toluene-d8	101	70-130
4-Bromofluorobenzene	104	70-130

Client Sample ID: LCSD

Lab ID#: 1105242A-10BB

**EPA METHOD TO-15 GC/MS FULL SCAN**

<b>File Name:</b>	<b>3052105</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/21/11 12:16 PM</b>

<b>Compound</b>	<b>%Recovery</b>
Benzene	90
Ethyl Benzene	91
Toluene	83
m,p-Xylene	92
o-Xylene	93
Methyl tert-butyl ether	97
Naphthalene	67
TPH ref. to Gasoline (MW=100)	Not Spiked

**Container Type: NA - Not Applicable**

<b>Surrogates</b>	<b>%Recovery</b>	<b>Method Limits</b>
1,2-Dichloroethane-d4	92	70-130
Toluene-d8	99	70-130
4-Bromofluorobenzene	102	70-130

Client Sample ID: LCS

Lab ID#: 1105242A-10C

**EPA METHOD TO-15 GC/MS**

File Name:	14052305	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/23/11 07:42 AM

Compound	%Recovery
Methyl tert-butyl ether	89
Benzene	91
Toluene	88
Ethyl Benzene	93
m,p-Xylene	94
o-Xylene	95
TPH ref. to Gasoline (MW=100)	Not Spiked
Naphthalene	85

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	95	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	99	70-130

Client Sample ID: LCSD

Lab ID#: 1105242A-10CC

**EPA METHOD TO-15 GC/MS**

File Name:	14052306	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/23/11 08:00 AM

Compound	%Recovery
Methyl tert-butyl ether	90
Benzene	91
Toluene	88
Ethyl Benzene	92
m,p-Xylene	92
o-Xylene	94
TPH ref. to Gasoline (MW=100)	Not Spiked
Naphthalene	90

Container Type: NA - Not Applicable

Surrogates	%Recovery	Method Limits
1,2-Dichloroethane-d4	96	70-130
Toluene-d8	98	70-130
4-Bromofluorobenzene	98	70-130

5/26/2011

Mr. Ian Hull

Conestoga-Rovers Associates (CRA)

5900 Hollis Street

Suite A

Emeryville CA 94608

Project Name: Chevron 20-6145

Project #: 312002

Workorder #: 1105242B

Dear Mr. Ian Hull

The following report includes the data for the above referenced project for sample(s) received on 5/12/2011 at Air Toxics Ltd.

The data and associated QC analyzed by Modified ASTM D-1946 are compliant with the project requirements or laboratory criteria with the exception of the deviations noted in the attached case narrative.

Thank you for choosing Air Toxics Ltd. for your air analysis needs. Air Toxics Ltd. is committed to providing accurate data of the highest quality. Please feel free to contact the Project Manager: Kyle Vagadori at 916-985-1000 if you have any questions regarding the data in this report.

Regards,



Kyle Vagadori

Project Manager

**WORK ORDER #: 1105242B**

Work Order Summary

<b>CLIENT:</b>	Mr. Ian Hull Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608	<b>BILL TO:</b>	Mr. Ian Hull Conestoga-Rovers Associates (CRA) 5900 Hollis Street Suite A Emeryville, CA 94608
<b>PHONE:</b>	510-420-0700	<b>P.O. #</b>	312002
<b>FAX:</b>	510-420-9170	<b>PROJECT #</b>	312002 Chevron 20-6145
<b>DATE RECEIVED:</b>	05/12/2011	<b>CONTACT:</b>	Kyle Vagadori
<b>DATE COMPLETED:</b>	05/26/2011		

<u>FRACTION #</u>	<u>NAME</u>	<u>TEST</u>	<u>RECEIPT VAC./PRES.</u>	<u>FINAL PRESSURE</u>
01A	VP-1	Modified ASTM D-1946	4.6 "Hg	15 psi
02A	VP-2	Modified ASTM D-1946	6.6 "Hg	15 psi
03A	VP-2 DUP	Modified ASTM D-1946	6.6 "Hg	15 psi
04A	VP-3	Modified ASTM D-1946	6.6 "Hg	15 psi
05A	VP-4	Modified ASTM D-1946	5.4 "Hg	15 psi
06A	VP-6	Modified ASTM D-1946	4.8 "Hg	15 psi
07A	TRIP BLANK	Modified ASTM D-1946	28.2 "Hg	15 psi
08A	Lab Blank	Modified ASTM D-1946	NA	NA
08B	Lab Blank	Modified ASTM D-1946	NA	NA
09A	LCS	Modified ASTM D-1946	NA	NA
09AA	LCSD	Modified ASTM D-1946	NA	NA

CERTIFIED BY: 

DATE: 05/26/11

Laboratory Director

Certification numbers: CA NELAP - 02110CA, LA NELAP/LELAP- AI 30763,  
NY NELAP - 11291, UT NELAP - 9166389892, AZ Licensure AZ0719

Name of Accrediting Agency: NELAP/Florida Department of Health, Scope of Application: Clean Air Act,  
Accreditation number: E87680, Effective date: 07/01/09, Expiration date: 06/30/11

Air Toxics Ltd. certifies that the test results contained in this report meet all requirements of the NELAC standards

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

180 BLUE RAVINE ROAD, SUITE B FOLSOM, CA - 95630  
(916) 985-1000 . (800) 985-5955 . FAX (916) 985-1020

**LABORATORY NARRATIVE**  
**Modified ASTM D-1946**  
**Conestoga-Rovers Associates (CRA)**  
**Workorder# 1105242B**

Seven 1 Liter Summa Canister (100% Certified) samples were received on May 12, 2011. The laboratory performed analysis via Modified ASTM Method D-1946 for Methane and fixed gases in air using GC/FID or GC/TCD. The method involves direct injection of 1.0 mL of sample.

On the analytical column employed for this analysis, Oxygen coelutes with Argon. The corresponding peak is quantitated as Oxygen.

Since Nitrogen is used to pressurize samples, the reported Nitrogen values are calculated by adding all the sample components and subtracting from 100%.

Method modifications taken to run these samples are summarized in the table below. Specific project requirements may over-ride the ATL modifications.

<i>Requirement</i>	<i>ASTM D-1946</i>	<i>ATL Modifications</i>
Calibration	A single point calibration is performed using a reference standard closely matching the composition of the unknown.	A 3-point calibration curve is performed. Quantitation is based on a daily calibration standard which may or may not resemble the composition of the associated samples.
Reference Standard	The composition of any reference standard must be known to within 0.01 mol % for any component.	The standards used by ATL are blended to a $\geq 95\%$ accuracy.
Sample Injection Volume	Components whose concentrations are in excess of 5 % should not be analyzed by using sample volumes greater than 0.5 mL.	The sample container is connected directly to a fixed volume sample loop of 1.0 mL on the GC. Linear range is defined by the calibration curve. Bags are loaded by vacuum.
Normalization	Normalize the mole percent values by multiplying each value by 100 and dividing by the sum of the original values. The sum of the original values should not differ from 100% by more than 1.0%.	Results are not normalized. The sum of the reported values can differ from 100% by as much as 15%, either due to analytical variability or an unusual sample matrix.
Precision	Precision requirements established at each concentration level.	Duplicates should agree within 25% RPD for detections $> 5 X$ 's the RL.



### **Receiving Notes**

There were no receiving discrepancies.

### **Analytical Notes**

The trip blank sample TRIP BLANK has a reportable level of Oxygen present. Reanalysis confirmed the initial result.

### **Definition of Data Qualifying Flags**

Seven qualifiers may have been used on the data analysis sheets and indicate as follows:

B - Compound present in laboratory blank greater than reporting limit.

J - Estimated value.

E - Exceeds instrument calibration range.

S - Saturated peak.

Q - Exceeds quality control limits.

U - Compound analyzed for but not detected above the detection limit.

M - Reported value may be biased due to apparent matrix interferences.

File extensions may have been used on the data analysis sheets and indicates as follows:

a-File was requantified

b-File was quantified by a second column and detector

r1-File was requantified for the purpose of reissue

**Summary of Detected Compounds**  
**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

**Client Sample ID: VP-1**

**Lab ID#: 1105242B-01A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	8.7
Nitrogen	0.24	88
Carbon Dioxide	0.024	1.6
Methane	0.00024	0.0059

**Client Sample ID: VP-2**

**Lab ID#: 1105242B-02A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.26	15
Nitrogen	0.26	84
Carbon Dioxide	0.026	1.4
Methane	0.00026	0.00039

**Client Sample ID: VP-2 DUP**

**Lab ID#: 1105242B-03A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.26	15
Nitrogen	0.26	84
Carbon Dioxide	0.026	1.4
Methane	0.00026	0.00037

**Client Sample ID: VP-3**

**Lab ID#: 1105242B-04A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.26	14
Nitrogen	0.26	82
Carbon Dioxide	0.026	3.8
Methane	0.00026	0.0054

**Summary of Detected Compounds**  
**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

**Client Sample ID: VP-4**

**Lab ID#: 1105242B-05A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.25	6.5
Nitrogen	0.25	86
Carbon Dioxide	0.025	6.8
Methane	0.00025	0.0034

**Client Sample ID: VP-6**

**Lab ID#: 1105242B-06A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.24	19
Nitrogen	0.24	79
Carbon Dioxide	0.024	1.8

**Client Sample ID: TRIP BLANK**

**Lab ID#: 1105242B-07A**

<b>Compound</b>	<b>Rpt. Limit (%)</b>	<b>Amount (%)</b>
Oxygen	0.10	0.11
Nitrogen	0.10	100



Client Sample ID: VP-1

Lab ID#: 1105242B-01A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052009	Date of Collection:	5/10/11 2:45:00 PM
Dil. Factor:	2.39	Date of Analysis:	5/20/11 06:50 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	8.7
Nitrogen	0.24	88
Carbon Dioxide	0.024	1.6
Methane	0.00024	0.0059
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-2

Lab ID#: 1105242B-02A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052005	Date of Collection: 5/10/11 2:16:00 PM
Dil. Factor:	2.59	Date of Analysis: 5/20/11 05:13 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	15
Nitrogen	0.26	84
Carbon Dioxide	0.026	1.4
Methane	0.00026	0.00039
Helium	0.13	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-2 DUP

Lab ID#: 1105242B-03A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052006	Date of Collection:	5/10/11 2:16:00 PM
Dil. Factor:	2.59	Date of Analysis:	5/20/11 05:36 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	15
Nitrogen	0.26	84
Carbon Dioxide	0.026	1.4
Methane	0.00026	0.00037
Helium	0.13	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-3

Lab ID#: 1105242B-04A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052010	Date of Collection:	5/10/11 12:54:00 PM
Dil. Factor:	2.59	Date of Analysis:	5/20/11 07:15 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.26	14
Nitrogen	0.26	82
Carbon Dioxide	0.026	3.8
Methane	0.00026	0.0054
Helium	0.13	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: VP-4

Lab ID#: 1105242B-05A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052012	Date of Collection:	5/10/11 1:36:00 PM
Dil. Factor:	2.46	Date of Analysis:	5/20/11 08:00 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.25	6.5
Nitrogen	0.25	86
Carbon Dioxide	0.025	6.8
Methane	0.00025	0.0034
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)





Client Sample ID: VP-6

Lab ID#: 1105242B-06A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052014	Date of Collection:	5/10/11 3:09:00 PM
Dil. Factor:	2.40	Date of Analysis:	5/20/11 08:49 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.24	19
Nitrogen	0.24	79
Carbon Dioxide	0.024	1.8
Methane	0.00024	Not Detected
Helium	0.12	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: TRIP BLANK

Lab ID#: 1105242B-07A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052007	Date of Collection:	5/10/11 3:00:00 PM
Dil. Factor:	1.00	Date of Analysis:	5/20/11 05:59 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	0.11
Nitrogen	0.10	100
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected
Helium	0.050	Not Detected

Container Type: 1 Liter Summa Canister (100% Certified)



Client Sample ID: Lab Blank

Lab ID#: 1105242B-08A

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052004	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/20/11 04:44 PM

Compound	Rpt. Limit (%)	Amount (%)
Oxygen	0.10	Not Detected
Nitrogen	0.10	Not Detected
Carbon Dioxide	0.010	Not Detected
Methane	0.00010	Not Detected

Container Type: NA - Not Applicable



Client Sample ID: Lab Blank

Lab ID#: 1105242B-08B

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052003b	Date of Collection:	NA
Dil. Factor:	1.00	Date of Analysis:	5/20/11 04:21 PM

Compound	Rpt. Limit (%)	Amount (%)
Helium	0.050	Not Detected

Container Type: NA - Not Applicable



**Client Sample ID: LCS**

**Lab ID#: 1105242B-09A**

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

<b>File Name:</b>	<b>9052002</b>	<b>Date of Collection: NA</b>
<b>Dil. Factor:</b>	<b>1.00</b>	<b>Date of Analysis: 5/20/11 03:56 PM</b>

<b>Compound</b>	<b>%Recovery</b>
Oxygen	100
Nitrogen	100
Carbon Dioxide	100
Methane	99
Helium	92

**Container Type: NA - Not Applicable**



Client Sample ID: LCSD

Lab ID#: 1105242B-09AA

**NATURAL GAS ANALYSIS BY MODIFIED ASTM D-1946**

File Name:	9052018	Date of Collection: NA
Dil. Factor:	1.00	Date of Analysis: 5/20/11 10:18 PM

Compound	%Recovery
Oxygen	100
Nitrogen	101
Carbon Dioxide	101
Methane	97
Helium	94

Container Type: NA - Not Applicable