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By Alameda County Environmental Health at 2:44 pm, Aug 01, 2013

# Quik Stop Markets, Inc.

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4567 Enterprise Street • Fremont, CA 94538 • (510) 657-8500 • Fax: (510) 657-1544

July 26, 2013

Ms. Karel Detterman, PG  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Department of Environmental Health  
Hazardous Materials Program  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577

Reference: Quik Stop Market #56  
3132 Beaumont Avenue  
Oakland, CA 94602

**Subject: Second Quarter 2013 Semiannual Groundwater Monitoring Report**

Dear Ms. Detterman:

I have reviewed and approved the subject report. I declare, under penalty of perjury, that the information and/or conclusions contained in the report are true and correct, to the best of my knowledge.

Sincerely,  
QUIK STOP MARKETS, INC.



Mike Karvelot  
Director of Environmental Affairs



One Concord Center  
2300 Clayton Road, Suite 610  
Concord, CA 94520

925.688.1200 PHONE  
925.688.0388 FAX

[www.TRCsolutions.com](http://www.TRCsolutions.com)

July 30, 2013

Project No. 201892

Ms. Karel Detterman, PG  
Hazardous Materials Specialist  
Alameda County Health Care Services Agency  
Department of Environmental Health  
Hazardous Materials Program  
1131 Harbor Bay Parkway  
Alameda, California 94502-6577

SITE: QUIK STOP MARKET NO. 56  
3132 BEAUMONT AVENUE  
OAKLAND, CALIFORNIA

RE: SEMIANNUAL GROUNDWATER MONITORING REPORT  
SECOND QUARTER 2013

Dear Ms. Detterman:

Enclosed is a copy of the *Second Quarter 2013 Semiannual Groundwater Monitoring Report* for the property located at 3132 Beaumont Avenue in Oakland, California. This report is submitted on behalf of Quik Stop Markets, Inc.

Please direct all questions and correspondence to:

Mr. Mike Karvelot  
Quik Stop Markets, Inc.  
4567 Enterprise Street  
Fremont, California 94538  
Phone: (510) 657-8500

Sincerely,

Jonathan Scheiner  
Project Manager

cc: Mr. Mike Karvelot, Quik Stop Markets, Inc.



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July 30, 2013

Project No. 201892

Mr. Mike Karvelot  
Quik Stop Markets, Inc.  
4567 Enterprise Street  
Fremont, California 94538

SITE: QUIK STOP MARKET NO. 56  
3132 BEAUMONT AVENUE  
OAKLAND, CALIFORNIA

RE: SEMIANNUAL GROUNDWATER MONITORING REPORT  
SECOND QUARTER 2013

Dear Mr. Karvelot:

This *Second Quarter 2013 Semiannual Groundwater Monitoring Report* presents the results of the Second Quarter 2013 fluid level monitoring and groundwater sampling at the above-referenced site (Figure 1). The work at the Site was performed in accordance with the requirements of the Alameda County Health Care Services Agency, Department of Environmental Health (ACDEH).

## **1.0 FLUID-LEVEL MONITORING AND GROUNDWATER FLOW PATTERNS**

Fluid levels were measured in onsite monitoring wells MW-1, MW-2, and MW-3, and offsite monitoring wells MW-4, MW-5 and MW-6 on June 21, 2013. Offsite well, MW-7, located on private residential property, was inaccessible this quarter. Refer to Table 1 for fluid-level monitoring data, and to Figure 2 for a groundwater elevation contour map based on the fluid-level measurements. A description of fluid-level monitoring procedures is included in the Appendix.

Groundwater elevations range between 121.25 feet above mean sea level (MSL) in MW-6 at the south end of the study area to 129.64 feet above MSL in MW-3 in the north, with an average elevation of 126.04 feet above MSL. Groundwater flow direction was predominantly to the southwest at a gradient of 0.050 feet per foot in the northern portion of the study area, and approximately 0.022 feet per foot over the entire extent of the well network (i.e., extending to MW-6 at the southern end of the study area). Surface topography is generally steeper at the north end of the study area (near Site) than at the south end (near MW-6), which could explain the gentler gradient in the south relative to that in the northern portion of the study area. Groundwater flow direction and gradient remains consistent with historical trends.

## **2.0 GROUNDWATER SAMPLING**

### **2.1 Field Sampling and Analytical Testing**

On June 21, 2013, groundwater samples were collected from onsite wells MW-1, MW-2, and MW-3, and offsite monitoring wells MW-4, MW-5 and MW-6. Approximately 140 gallons of purge water and equipment rinsate were generated during groundwater sampling activities conducted on June 21, 2013. The purge water was stored onsite in three Department of Transportation-approved 55-gallon drums pending disposal. General Field Procedures, Field Measurement Forms, Official Laboratory Reports, and Chain of Custody Records are included in the Appendix. Groundwater samples were submitted to a state-certified laboratory for analysis of the following constituents:

- Total petroleum hydrocarbons as gasoline (TPH-G) by EPA Method SW8015B
- Benzene, toluene, ethylbenzene, and total xylenes (BTEX) by EPA Method SW8260B.
- Fuel Oxygenates by EPA Method 8260B, including:
  - Methyl tert-butyl ether (MTBE)
  - Tertiary butyl alcohol (TBA)
  - Di-isopropyl ether (DIPE)
  - Ethyl tertiary butyl ether (ETBE)
  - Tertiary amyl methyl ether (TAME)
- Ethanol by EPA Method SW8260B-DI.

### **2.2 Analytical Results**

Second Quarter 2013 groundwater analytical results are summarized in Table 1 and Figure 3. TPH-G concentrations reported during this event ranged from non-detect (<50 micrograms per liter [ $\mu\text{g/L}$ ]) to 580  $\mu\text{g/L}$  (MW-4). MTBE concentrations ranged from non-detect (<0.50  $\mu\text{g/L}$ ) to 8.4  $\mu\text{g/L}$  (MW-1), and TBA concentrations ranged from non-detect (<10  $\mu\text{g/L}$ ) to 1,500  $\mu\text{g/L}$  (MW-4) during this sampling event. Benzene was detected in MW-4 at 0.63  $\mu\text{g/L}$ . No other analytes were detected above their respective reporting limits.

### **2.3 Discussion**

The Second Quarter 2013 monitoring event represents the eleventh monitoring with the expanded well network (i.e., including offsite wells MW-4 through MW-7), and is also the eleventh monitoring event to include the analysis of dissolved phase TBA, DIPE, ETBE and TAME. In general, the results are consistent with those from historic sampling events and the previous Fourth Quarter 2012 monitoring event.

The presence of a detectable level of TPH-G was reported in the southern (downgradient) offsite area, in well MW-4. TBA was also detected in downgradient wells MW-1, MW-4 and MW-6 located beyond the southern Site perimeter.

**SEMIANNUAL GROUNDWATER MONITORING REPORT, SECOND QUARTER 2013**

Quik Stop Market No 56-3132 Beaumont Avenue, Oakland, California

July 30, 2013

Page 3

MTBE was detected in four of the six groundwater samples analyzed (i.e., except for MW-3 and MW-5). The maximum concentration of MTBE was reported in MW-1 at a concentration of 8.4 µg/L.

Overall diminishing trends are apparent for TPH-G in wells where detectable levels have been historically reported (i.e., downgradient, near Site wells MW-1, MW-4). Similarly diminishing trends are apparent for MTBE in wells where highest detectable levels have historically been reported (e.g., MW-1), and for TBA in MW-1.

As concluded in the Site Conceptual Model (SCM), the lateral extent of impacts to shallow groundwater has been defined, and the well network is deemed adequate (TRC, 2011). Pursuant to a request by the ACDEH dated June 23, 2011, the vertical extent of groundwater impacts was evaluated and defined during the Additional Soil and Groundwater Investigation, completed in December 2011 (TRC, January 2012).

Previous requests for consideration of low risk case closure are hereby reiterated based on the findings of the SCM and the Additional Soil and Groundwater Investigation, and by consistent results reported during routine quarterly and semiannual monitoring.

**3.0 LIST OF ATTACHMENTS**

- Figure 1: Vicinity Map
- Figure 2: Groundwater Elevation Contour Map, June 21, 2013
- Figure 3: Dissolved-Phase Constituent Concentrations, June 21, 2013
- Table 1: Summary of Groundwater Levels and Chemical Analysis
- Appendix: General Field Procedures, Field Measurement Forms, Official Laboratory Reports, and Chain of Custody Records

If you have any questions regarding this report, please call me at (925) 688-2473.

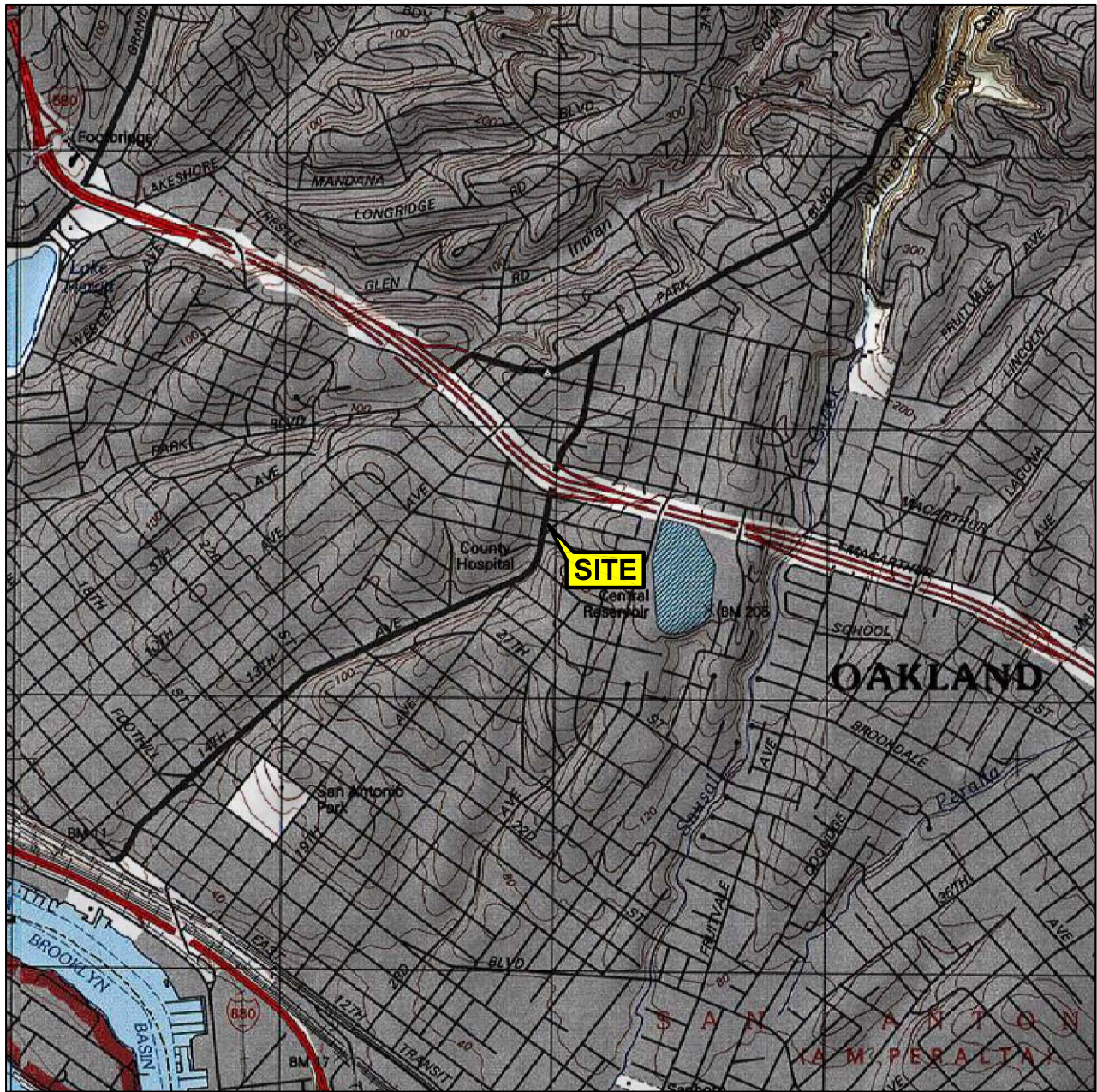
Sincerely,

Jonathan Scheiner  
Project Manager

Rachelle Clair, P.G.  
Project Geologist



## **FIGURES**



1 MILE    3/4    1/2    1/4    0    1 MILE



SCALE 1 : 24,000



SOURCE:  
United States Geological Survey  
7.5 Minute Topographic Maps:  
Oakland East and  
Oakland West Quadrangles

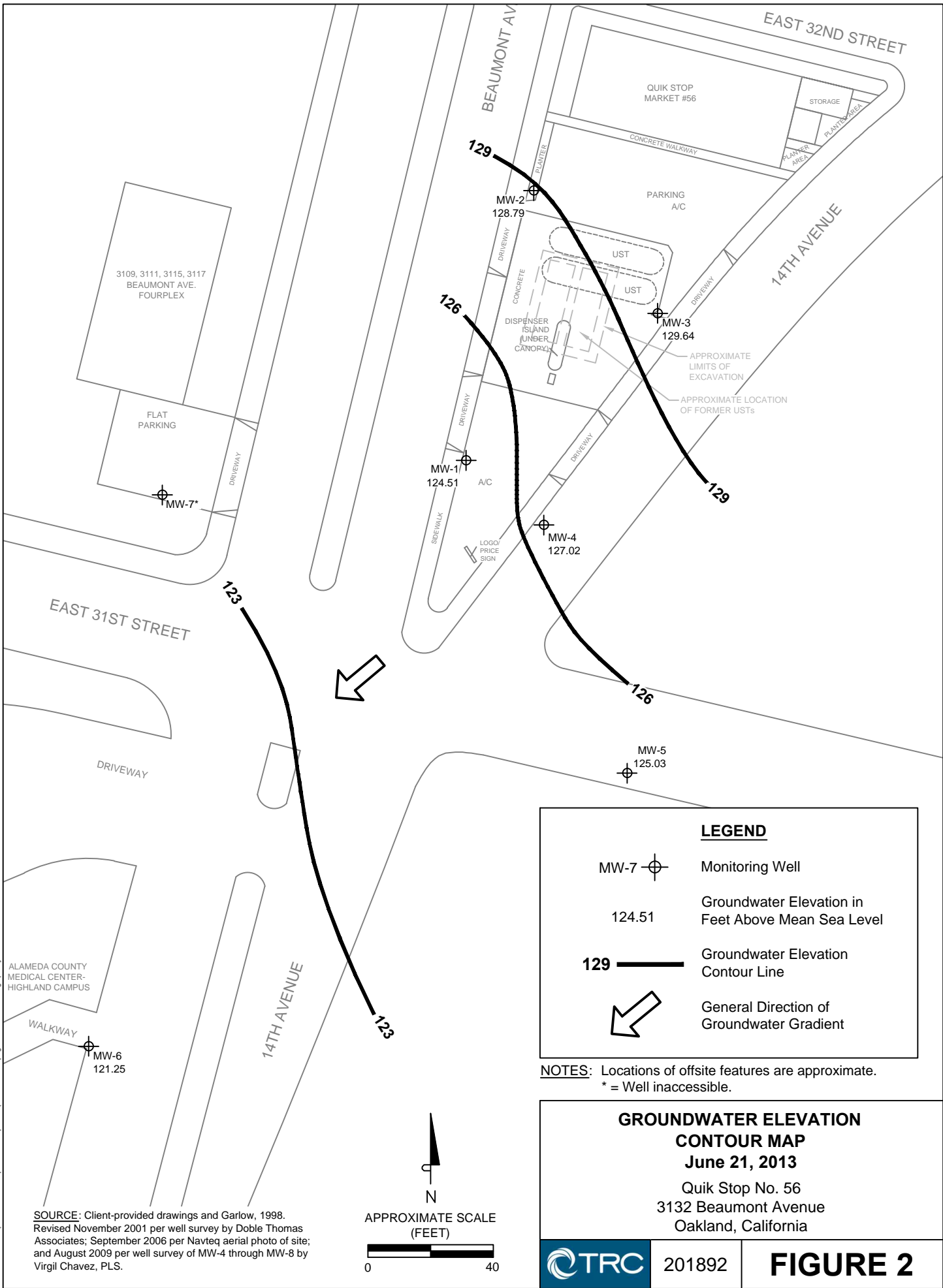
**VICINITY MAP**

Quik Stop No. 56  
3132 Beaumont Avenue  
Oakland, California



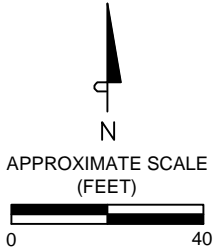
**FIGURE 1**

FILE NAME: Z:\Gas Stations\QUIKSTOP\Qas6\Fig2\_GW\_2013.dwg | Layout Tab: Bx11



ALAMEDA COUNTY MEDICAL CENTER-HIGHLAND CAMPUS

SOURCE: Client-provided drawings and Garlow, 1998. Revised November 2001 per well survey by Doble Thomas Associates; September 2006 per Naveq aerial photo of site; and August 2009 per well survey of MW-4 through MW-8 by Virgil Chavez, PLS.



**LEGEND**

- MW-7 Monitoring Well
- 124.51 Groundwater Elevation in Feet Above Mean Sea Level
- 129 Groundwater Elevation Contour Line
- General Direction of Groundwater Gradient

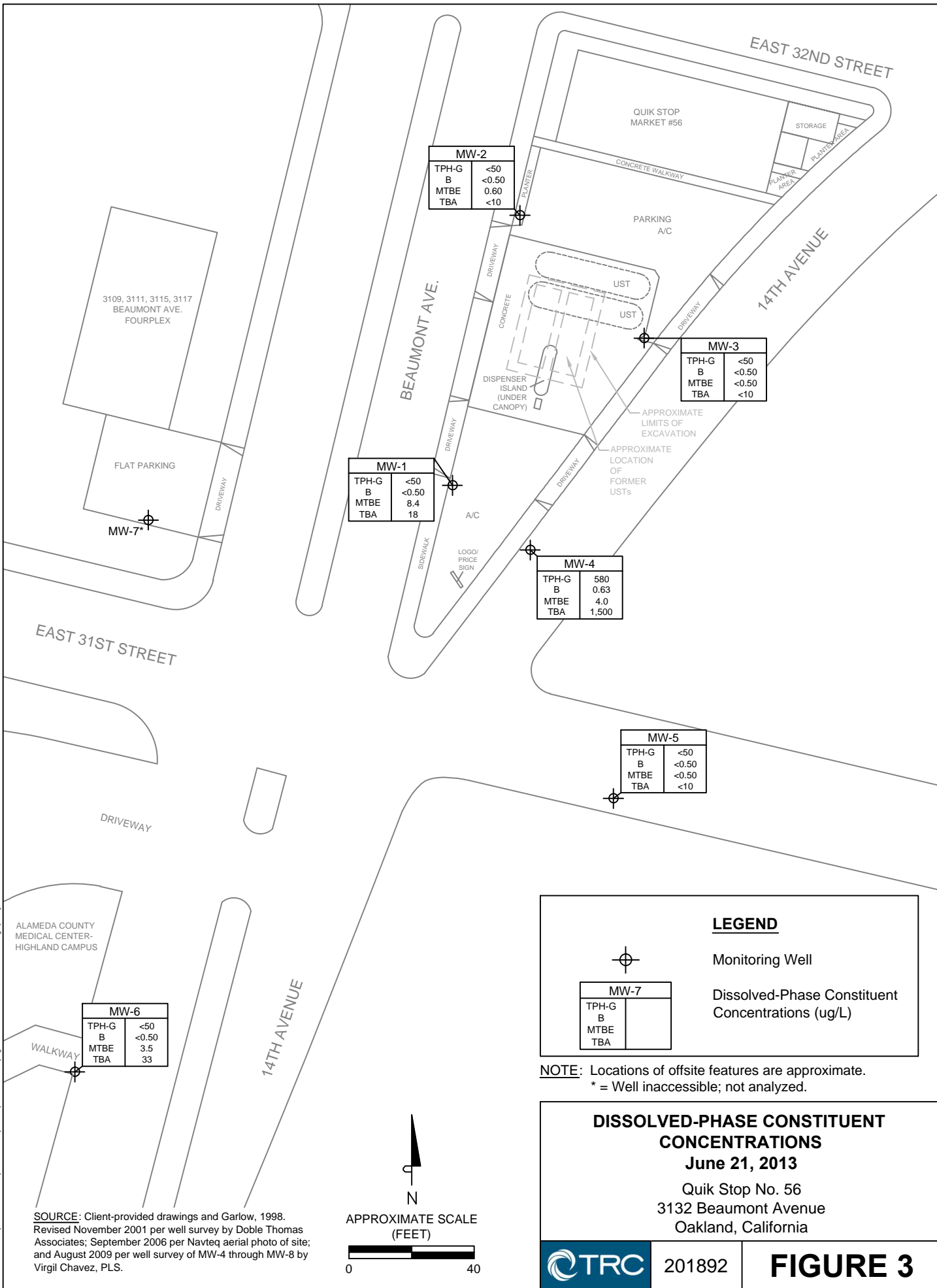
NOTES: Locations of offsite features are approximate. \* = Well inaccessible.

**GROUNDWATER ELEVATION CONTOUR MAP**  
**June 21, 2013**  
 Quik Stop No. 56  
 3132 Beaumont Avenue  
 Oakland, California

201892 **FIGURE 2**



FILE NAME: Z:\Gas Stations\QUIKSTOP\qs56\2013 QMS\Fig3\_Diss-Constituent\_2013.dwg | Layout Tab: Bx11



3109, 3111, 3115, 3117  
BEAUMONT AVE.  
FOURPLEX

FLAT PARKING

MW-7\*

EAST 31ST STREET

DRIVEWAY

ALAMEDA COUNTY  
MEDICAL CENTER-  
HIGHLAND CAMPUS

WALKWAY

MW-6	
TPH-G	<50
B	<0.50
MTBE	3.5
TBA	33

BEAUMONT AVE.

MW-2	
TPH-G	<50
B	<0.50
MTBE	0.60
TBA	<10

MW-1	
TPH-G	<50
B	<0.50
MTBE	8.4
TBA	18

A/C

LOGO/  
PRICE  
SIGN

MW-4	
TPH-G	580
B	0.63
MTBE	4.0
TBA	1,500

MW-5	
TPH-G	<50
B	<0.50
MTBE	<0.50
TBA	<10

EAST 32ND STREET

QUIK STOP  
MARKET #56

STORAGE

CONCRETE WALKWAY

PARKING  
A/C

14TH AVENUE

PLANTER

DRIVEWAY

CONCRETE

DRIVEWAY

DRIVEWAY

DRIVEWAY

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**LEGEND**



Monitoring Well

MW-7	
TPH-G	
B	
MTBE	
TBA	

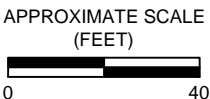
Dissolved-Phase Constituent  
Concentrations (ug/L)

NOTE: Locations of offsite features are approximate.  
\* = Well inaccessible; not analyzed.

**DISSOLVED-PHASE CONSTITUENT  
CONCENTRATIONS  
June 21, 2013**

Quik Stop No. 56  
3132 Beaumont Avenue  
Oakland, California

SOURCE: Client-provided drawings and Garlow, 1998.  
Revised November 2001 per well survey by Doble Thomas  
Associates; September 2006 per Navteq aerial photo of site;  
and August 2009 per well survey of MW-4 through MW-8 by  
Virgil Chavez, PLS.



201892

**FIGURE 3**

**TABLE**

**Table 1**  
**Summary of Groundwater Levels and Chemical Analysis**

Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260 (µg/L)	Ethanol (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	DO (mg/L)
MW-1	03/02/00	131.58	10.33	121.25	670	<1.0	<1.0	<1.0	<1.0	2,200	—	—	—	—	—	0.62
MW-1	11/16/00	131.58	11.86	119.72	<500	<0.5	<0.5	<0.5	<0.5	18,000	—	—	—	—	—	0.34
MW-1	01/23/01	131.58	11.05	120.53	6,400	<10	<10	<10	<10	21,000	—	—	—	—	—	0.83
MW-1	04/25/01	131.58	12.06	119.52	12,000	<20	<20	<20	<20	17,000	—	—	—	—	—	0.39
MW-1	07/24/01	131.58	12.42	119.16	8,800	<13	<13	<13	<13	14,000	—	—	—	—	—	7.61
MW-1	11/08/01	131.58	12.00	119.58	18,000	<25	<25	<25	<25	28,000	—	—	—	—	—	—
MW-1	11/27/01	134.13	Well resurveyed to new reference point													
MW-1	02/05/02	134.13	10.99	123.14	28,000	<50	<50	<50	<50	44,000	—	—	—	—	—	—
MW-1	04/29/02	134.13	10.97	123.16	12,000	<25	<25	<25	<25	30,000	—	—	—	—	—	—
MW-1	07/29/02	134.13	10.20	123.93	16,000	<25	<25	<25	<25	22,000	—	—	—	—	—	—
MW-1	10/21/02	134.13	10.48	123.65	17,000	<50	<50	<50	<50	39,000	—	—	—	—	—	—
MW-1	03/05/03	134.13	8.94	125.19	40,000	<100	<100	<100	<100	69,000	—	—	—	—	—	—
MW-1	06/06/03	134.13	8.68	125.45	27,000	<50	<50	<50	<50	63,000	—	—	—	—	—	—
MW-1	09/05/03	134.13	9.21	124.92	28,000	<25	<25	<25	<25	51,000	—	—	—	—	—	—
MW-1	12/24/03	134.13	8.65	125.48	29,000	<50	<50	<50	<50	84,000	—	—	—	—	—	—
MW-1	03/25/04	134.13	8.66	125.47	39,000	<100	<100	<100	<100	72,000	—	—	—	—	—	—
MW-1	06/25/04	134.13	8.66	125.47	50,000	<100	<100	<100	<100	90,000	—	—	—	—	—	—
MW-1	09/16/04	134.13	9.02	125.11	30,000	<50	<50	<50	<50	75,000	—	—	—	—	—	—
MW-1	12/17/04	134.13	7.46	126.67	35,000	<50	<50	<50	<50	59,000	—	—	—	—	—	—
MW-1	03/10/05	134.13	7.17	126.96	14,000	<25	<25	<25	<25	33,000	—	—	—	—	—	—
MW-1	06/09/05	134.13	8.14	125.99	36,000	<50	<50	<50	<50	60,000	—	—	—	—	—	—
MW-1	09/13/05	134.13	12.64	121.49	<20,000	<100	<100	<100	<100	32,000	—	—	—	—	—	—
MW-1	12/06/05	134.13	11.40	122.73	<5,000	<25	<25	<25	<25	5,700	—	—	—	—	—	—
MW-1	03/29/06	134.13	10.51	123.62	16,000	<25	<25	<25	<25	23,000	—	—	—	—	—	—
MW-1	06/29/06	134.13	11.28	122.85	8,200	<15	<15	<15	<15	12,000	<5.0	—	—	—	—	—
MW-1	09/21/06	134.13	11.90	122.23	4,500	<10	<10	<10	<10	7,900	<5.0	—	—	—	—	—
MW-1	12/08/06	134.13	11.65	122.48	3,900	<10	<10	<10	<10	4,100	<5.0	—	—	—	—	—
MW-1	03/28/07	134.13	11.22	122.91	5,000	<10	<10	<10	<10	7,700	<5.0	—	—	—	—	—
MW-1	06/14/07	134.13	12.18	121.95	3,600	<10	<10	<10	<10	4,300	<5.0	—	—	—	—	—
MW-1	09/06/07	134.13	12.84	121.29	3,400	<10	<10	<10	<10	4,500	<5.0	—	—	—	—	—
MW-1	12/31/07	134.13	12.52	121.61	2,900	<5.0	<5.0	<5.0	<5.0	3,300	<5.0	—	—	—	—	—
MW-1	03/18/08	134.13	12.74	121.39	1,800	<2.5	<2.5	<2.5	<2.5	3,400	<5.0	—	—	—	—	—
MW-1	06/30/08	134.13	13.00	121.13	1,400	<2.5	<2.5	<2.5	<2.5	2,400	<5.0	—	—	—	—	—
MW-1	09/26/08	134.13	13.77	120.36	1,100	<2.0	<2.0	<2.0	<2.0	2,200	<5.0	—	—	—	—	—
MW-1	11/25/08	134.13	13.57	120.56	1,300	<2.5	<2.5	<2.5	<2.5	2,000	<5.0	—	—	—	—	—
MW-1	03/09/09	134.13	11.09	123.04	1,100	<2.0	<2.0	<2.0	<2.0	1,600	<5.0	—	—	—	—	—
MW-1	06/29/09	134.13	11.33	122.80	430	<1.0	<1.0	<1.0	<1.0	730	<5.0	—	—	—	—	—
MW-1	09/11/09	134.13	11.01	123.12	880	<2.5	<2.5	<2.5	<2.5	980	<5.0	7,000	<5.0	<5.0	<5.0	—
MW-1	12/08/09	134.13	11.86	122.27	710	<2.5	<2.5	<2.5	<2.5	1,300	<5.0	9,900	<5.0	<5.0	<5.0	—
MW-1	03/19/10	134.13	10.09	124.04	1,100	<2.5	<2.5	<2.5	<2.5	1,000	<5.0	5,300	<5.0	<5.0	<5.0	—
MW-1	06/08/10	134.13	9.67	124.46	<300	<1.5	<1.5	<1.5	<1.5	500	<5.0	3,500	<3.0	<3.0	<3.0	—
MW-1	09/14/10	134.13	10.48	123.65	320	<1.0	<1.0	<1.0	<1.0	470	<5.0	2,500	<2.0	<2.0	<2.0	—
MW-1	12/03/10	134.13	10.45	123.68	500	<1.0	<1.0	<1.0	<1.0	740	<5.0	1,900	<2.0	<2.0	<2.0	—
MW-1	06/09/11	134.13	9.09	125.04	240	<0.50	<0.50	<0.50	<0.50	500	<5.0	1,700	<1.0	<1.0	<1.0	—
MW-1	12/05/11	134.13	10.70	123.43	130	<0.50	<0.50	<0.50	<0.50	220	<5.0	370	<1.0	<1.0	<1.0	—
MW-1	06/19/12	134.13	7.30	126.83	<50	<0.50	<0.50	<0.50	<0.50	26	<5.0	61	<1.0	<1.0	<1.0	—

**Table 1**  
**Summary of Groundwater Levels and Chemical Analysis**

Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260 (µg/L)	Ethanol (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	DO (mg/L)
MW-1	12/04/12	134.13	8.57	125.56	<50	<0.50	<0.50	<0.50	<0.50	23	<5.0	36	<1.0	<1.0	<1.0	—
MW-1	06/21/13	134.13	9.62	124.51	<50	<0.50	<0.50	<0.50	<0.50	8.4	<5.0	18	<1.0	<1.0	<1.0	—
MW-2	03/02/00	132.63	5.88	126.75	<50	<0.50	<0.50	<0.50	<0.50	<0.50	—	—	—	—	—	1.45
MW-2	11/16/00	132.63	6.40	126.23	<50	<0.5	<0.5	<0.5	<0.5	<1.0	—	—	—	—	—	1.67
MW-2	01/23/01	132.63	5.67	126.96	<50	<0.50	<0.50	<0.50	<0.50	<0.50	—	—	—	—	—	1.20
MW-2	04/25/01	132.63	6.26	126.37	<50	<0.50	<0.50	<0.50	<0.50	<0.50	—	—	—	—	—	0.76
MW-2	07/24/01	132.63	6.38	126.25	<50	<0.50	<0.50	<0.50	<0.50	<0.50	—	—	—	—	—	2.92
MW-2	11/08/01	132.63	5.97	126.66	<50	<0.50	<0.50	<0.50	<0.50	2.7	—	—	—	—	—	—
MW-2	11/27/01	135.16	Well resurveyed to new reference point													
MW-2	02/05/02	135.16	4.95	130.21	<50	<0.50	<0.50	<0.50	<0.50	2.7	—	—	—	—	—	—
MW-2	04/29/02	135.16	5.03	130.13	<50	<0.50	<0.50	<0.50	<0.50	2.8	—	—	—	—	—	—
MW-2	07/29/02	135.16	5.46	129.70	<50	<0.50	<0.50	<0.50	<0.50	4.1	—	—	—	—	—	—
MW-2	10/21/02	135.16	5.68	129.48	<50	<0.50	<0.50	<0.50	<0.50	8.1	—	—	—	—	—	—
MW-2	03/05/03	135.16	4.87	130.29	<50	1.4	<0.50	0.61	0.69	5.5	—	—	—	—	—	—
MW-2	06/06/03	135.16	4.88	130.28	<50	<0.50	<0.50	<0.50	<0.50	5.2	—	—	—	—	—	—
MW-2	09/05/03	135.16	5.60	129.56	<50	<0.50	<0.50	<0.50	0.66	6.4	—	—	—	—	—	—
MW-2	12/24/03	135.16	5.25	129.91	<50	<0.50	<0.50	<0.50	<0.50	5.4	—	—	—	—	—	—
MW-2	03/25/04	135.16	5.25	129.91	<50	<0.50	<0.50	<0.50	<0.50	5.3	—	—	—	—	—	—
MW-2	06/25/04	135.16	6.89	128.27	<50	<0.50	<0.50	<0.50	<0.50	5.4	—	—	—	—	—	—
MW-2	09/16/04	135.16	6.09	129.07	<50	<0.50	<0.50	<0.50	<0.50	5.5	—	—	—	—	—	—
MW-2	12/17/04	135.16	5.30	129.86	<50	<0.50	<0.50	<0.50	<0.50	5.4	—	—	—	—	—	—
MW-2	03/10/05	135.16	4.49	130.67	<50	<0.50	<0.50	<0.50	<0.50	3.7	—	—	—	—	—	—
MW-2	06/09/05	135.16	4.85	130.31	<50	<0.50	<0.50	<0.50	<0.50	4.8	—	—	—	—	—	—
MW-2	09/13/05	135.16	5.82	129.34	<50	<0.50	<0.50	<0.50	<0.50	5.6	—	—	—	—	—	—
MW-2	12/06/05	135.16	5.14	130.02	<50	<0.50	<0.50	<0.50	<0.50	4.5	—	—	—	—	—	—
MW-2	03/29/06	135.16	4.27	130.89	<50	<0.50	<0.50	<0.50	<0.50	4.4	—	—	—	—	—	—
MW-2	06/29/06	135.16	5.21	129.95	<50	<0.50	<0.50	<0.50	<0.50	5.1	<5.0	—	—	—	—	—
MW-2	09/21/06	135.16	5.62	129.54	<50	<0.50	<0.50	<0.50	<0.50	3.3	<5.0	—	—	—	—	—
MW-2	12/08/06	135.16	5.29	129.87	<50	<0.50	<0.50	<0.50	<0.50	3.1	<5.0	—	—	—	—	—
MW-2	03/28/07	135.16	5.08	130.08	<50	<0.50	<0.50	<0.50	<0.50	2.5	<5.0	—	—	—	—	—
MW-2	06/14/07	135.16	5.30	129.86	<50	<0.50	<0.50	<0.50	<0.50	1.5	<5.0	—	—	—	—	—
MW-2	09/06/07	135.16	5.64	129.52	<50	<0.50	<0.50	<0.50	<0.50	3.2	<5.0	—	—	—	—	—
MW-2	12/31/07	135.16	5.10	130.06	<50	<0.50	<0.50	<0.50	<0.50	1.8	<5.0	—	—	—	—	—
MW-2	03/18/08	135.16	5.45	129.71	<50	<0.50	<0.50	<0.50	<0.50	1.8	<5.0	—	—	—	—	—
MW-2	06/30/08	135.16	5.61	129.55	<50	<0.50	<0.50	<0.50	<0.50	1.0	<5.0	—	—	—	—	<5.0
MW-2	09/26/08	135.16	6.00	129.16	<50	<0.50	<0.50	<0.50	<0.50	1.7	<5.0	—	—	—	—	—
MW-2	11/25/08	135.16	5.73	129.43	<50	<0.50	<0.50	<0.50	<0.50	1.4	<5.0	—	—	—	—	—
MW-2	03/09/09	135.16	4.56	130.60	<50	<0.50	<0.50	<0.50	<0.50	1.7	<5.0	—	—	—	—	—
MW-2	06/29/09	135.16	5.39	129.77	<50	<0.50	<0.50	<0.50	<0.50	1.1	<5.0	—	—	—	—	—
MW-2	09/11/09	135.16	5.78	129.38	<50	<0.50	<0.50	<0.50	<0.50	1.4	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	12/08/09	135.16	5.48	129.68	<50	<0.50	<0.50	<0.50	<0.50	1.5	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	03/19/10	135.16	4.47	130.69	<50	<0.50	<0.50	<0.50	<0.50	1.0	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	06/08/10	135.16	4.73	130.43	<50	<0.50	<0.50	<0.50	<0.50	1.0	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	09/14/10	135.16	5.47	129.69	<50	<0.50	<0.50	<0.50	<0.50	1.2	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	12/03/10	135.16	4.83	130.33	<50	<0.50	<0.50	<0.50	<0.50	1.0	<5.0	<10	<1.0	<1.0	<1.0	—

**Table 1**  
**Summary of Groundwater Levels and Chemical Analysis**

Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260 (µg/L)	Ethanol (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	DO (mg/L)
MW-2	06/09/11	135.16	4.70	130.46	<50	<0.50	<0.50	<0.50	<0.50	0.92	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	12/05/11	135.16	5.48	129.68	<50	<0.50	<0.50	<0.50	<0.50	0.70	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	06/19/12	135.16	5.37	129.79	<50	<0.50	<0.50	<0.50	<0.50	0.67	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	12/04/12	135.16	5.35	129.81	<50	<0.50	<0.50	<0.50	<0.50	0.57	<5.0	<10	<1.0	<1.0	<1.0	—
MW-2	06/21/13	135.16	6.37	128.79	<50	<0.50	<0.50	<0.50	<0.50	0.60	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	03/02/00	133.78	6.41	127.37	<50	<0.50	<0.50	<0.50	<0.50	0.96	—	—	—	—	—	0.90
MW-3	11/16/00	133.78	6.46	127.32	<50	<0.5	<0.5	<0.5	<0.5	24	—	—	—	—	—	3.91
MW-3	01/23/01	133.78	5.75	128.03	<50	<0.50	<0.50	<0.50	<0.50	72	—	—	—	—	—	1.47
MW-3	04/25/01	133.78	5.90	127.88	<50	<0.50	<0.50	<0.50	<0.50	25	—	—	—	—	—	0.56
MW-3	07/24/01	133.78	6.56	127.22	<50	<0.50	0.79	0.73	0.68	5.2	—	—	—	—	—	6.67
MW-3	11/08/01	133.78	6.92	126.86	<50	<0.50	<0.50	<0.50	<0.50	14	—	—	—	—	—	—
MW-3	11/27/01	136.35	Well resurveyed to new reference point													
MW-3	02/05/02	136.35	5.13	131.22	<50	<0.50	<0.50	<0.50	<0.50	10	—	—	—	—	—	—
MW-3	04/29/02	136.35	5.67	130.68	<50	<0.50	<0.50	<0.50	<0.50	5.1	—	—	—	—	—	—
MW-3	07/29/02	136.35	6.11	130.24	<50	<0.50	<0.50	<0.50	<0.50	31	—	—	—	—	—	—
MW-3	10/21/02	136.35	6.57	129.78	<50	<0.50	<0.50	<0.50	<0.50	5.8	—	—	—	—	—	—
MW-3	03/05/03	136.35	5.02	131.33	<50	<0.50	<0.50	<0.50	<0.50	4.9	—	—	—	—	—	—
MW-3	06/06/03	136.35	5.12	131.23	<50	<0.50	<0.50	<0.50	<0.50	6.6	—	—	—	—	—	—
MW-3	09/05/03	136.35	6.53	129.82	<50	<0.50	<0.50	<0.50	<0.50	4.4	—	—	—	—	—	—
MW-3	12/24/03	136.35	5.20	131.15	<50	<0.50	<0.50	<0.50	<0.50	1.2	—	—	—	—	—	—
MW-3	03/25/04	136.35	5.42	130.93	<50	<0.50	<0.50	<0.50	<0.50	3.2	—	—	—	—	—	—
MW-3	06/25/04	136.35	6.50	129.85	<50	<0.50	<0.50	<0.50	<0.50	13	—	—	—	—	—	—
MW-3	09/16/04	136.35	6.79	129.56	<50	<0.50	<0.50	<0.50	<0.50	3.0	—	—	—	—	—	—
MW-3	12/17/04	136.35	5.20	131.15	<50	<0.50	<0.50	<0.50	<0.50	1.6	—	—	—	—	—	—
MW-3	03/10/05	136.35	4.42	131.93	<50	<0.50	<0.50	<0.50	<0.50	3.8	—	—	—	—	—	—
MW-3	06/09/05	136.35	4.98	131.37	<50	<0.50	<0.50	<0.50	<0.50	3.6	—	—	—	—	—	—
MW-3	09/13/05	136.35	6.42	129.93	<50	<0.50	<0.50	<0.50	<0.50	11	—	—	—	—	—	—
MW-3	12/06/05	136.35	5.35	131.00	<50	<0.50	<0.50	<0.50	<0.50	1.4	—	—	—	—	—	—
MW-3	03/29/06	136.35	4.01	132.34	<50	<0.50	<0.50	<0.50	<0.50	3.2	—	—	—	—	—	—
MW-3	06/29/06	136.35	5.41	130.94	<50	<0.50	<0.50	<0.50	<0.50	3.5	<5.0	—	—	—	—	—
MW-3	09/21/06	136.35	6.31	130.04	<50	<0.50	<0.50	<0.50	<0.50	2.1	<5.0	—	—	—	—	—
MW-3	12/08/06	136.35	5.75	130.60	<50	<0.50	<0.50	<0.50	<0.50	1.6	<5.0	—	—	—	—	—
MW-3	03/28/07	136.35	5.09	131.26	<50	<0.50	<0.50	<0.50	<0.50	2.0	<5.0	—	—	—	—	—
MW-3	06/14/07	136.35	5.47	130.88	<50	<0.50	<0.50	<0.50	<0.50	1.1	<5.0	—	—	—	—	—
MW-3	09/06/07	136.35	6.35	130.00	<50	<0.50	<0.50	<0.50	<0.50	2.4	<5.0	—	—	—	—	—
MW-3	12/31/07	136.35	5.21	131.14	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	—	—	—	—	—
MW-3	03/18/08	136.35	5.59	130.76	<50	<0.50	<0.50	<0.50	<0.50	0.77	<5.0	—	—	—	—	—
MW-3	06/30/08	136.35	6.16	130.19	<50	<0.50	<0.50	<0.50	<0.50	0.68	<5.0	—	—	—	—	—
MW-3	09/26/08	136.35	6.84	129.51	<50	<0.50	<0.50	<0.50	<0.50	0.54	<5.0	—	—	—	—	—
MW-3	11/25/08	136.35	6.37	129.98	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	—	—	—	—	—
MW-3	03/09/09	136.35	4.19	132.16	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	—	—	—	—	—
MW-3	06/29/09	136.35	5.94	130.41	<50	<0.50	<0.50	<0.50	<0.50	0.68	<5.0	—	—	—	—	—
MW-3	09/11/09	136.35	6.64	129.71	<50	<0.50	<0.50	<0.50	<0.50	0.65	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	12/08/09	136.35	5.92	130.43	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	03/19/10	136.35	4.30	132.05	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—

**Table 1**  
**Summary of Groundwater Levels and Chemical Analysis**

Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of Casing Elevation (ft-MSL)	Depth to Water (feet)	Groundwater Elevation (feet)	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260 (µg/L)	Ethanol (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	DO (mg/L)
MW-3	06/08/10	136.35	5.04	131.31	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	09/14/10	136.35	6.13	130.22	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	12/03/10	136.35	5.07	131.28	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	06/09/11	136.35	4.67	131.68	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	12/05/11	136.35	5.91	130.44	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	06/19/12	136.35	5.70	130.65	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	12/04/12	136.35	4.88	131.47	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-3	06/21/13	136.35	6.71	129.64	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-4	09/11/09	133.59	6.52	127.07	1,100	<5.0	<5.0	<5.0	<5.0	11	<5.0	13,000	<10	<10	<10	—
MW-4	12/08/09	133.59	5.28	128.31	780	<1.0	<1.0	<1.0	1.5	2.7	<5.0	1,200	<2.0	<2.0	<2.0	—
MW-4	03/19/10	133.59	4.22	129.37	680	<0.50	<0.50	<0.50	0.97	2.5	<5.0	550	<1.0	<1.0	<1.0	—
MW-4	06/08/10	133.59	4.44	129.15	370	<0.50	<0.50	<0.50	0.68	2.0	<5.0	450	<1.0	<1.0	<1.0	—
MW-4	09/14/10	133.59	5.88	127.71	520	<1.0	<1.0	<1.0	<1.0	6.3	<5.0	2,900	<2.0	<2.0	<2.0	—
MW-4	12/03/10	133.59	4.66	128.93	510	<0.50	<0.50	<0.50	0.86	2.3	<5.0	980	<1.0	<1.0	<1.0	—
MW-4	06/09/11	133.59	4.44	129.15	320	<0.50	<0.50	<0.50	<0.50	2.0	<5.0	350	<1.0	<1.0	<1.0	—
MW-4	12/05/11	133.59	5.48	128.11	510	<0.50	<0.50	<0.50	0.69	2.3	<5.0	790	<1.0	<1.0	4.2	—
MW-4	06/19/12	133.59	5.23	128.36	140	<0.50	<0.50	<0.50	<0.50	1.4	<5.0	300	<1.0	<1.0	<1.0	—
MW-4	12/04/12	133.59	4.53	129.06	460	<0.50	<0.50	<0.50	0.90	2.3	<5.0	400	<1.0	<1.0	<1.0	—
MW-4	06/21/13	133.59	6.57	127.02	580	0.63	<0.50	<0.50	<0.50	4.0	<5.0	1,500	<1.0	<1.0	<1.0	—
MW-5	09/11/09	133.58	8.51	125.07	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	12/08/09	133.58	7.09	126.49	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	03/19/10	133.58	5.23	128.35	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	06/08/10	133.58	5.97	127.61	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	09/14/10	133.58	7.62	125.96	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	12/03/10	133.58	6.12	127.46	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	06/09/11	133.58	5.54	128.04	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	12/05/11	133.58	7.00	126.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	06/19/12	133.58	6.97	126.61	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	12/04/12	133.58	5.00	128.58	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-5	06/21/13	133.58	8.55	125.03	<50	<0.50	<0.50	<0.50	<0.50	<0.50	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	09/11/09	128.83	6.47	122.36	<50	<0.50	<0.50	<0.50	<0.50	43	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	12/08/09	128.83	6.23	122.60	<50	<0.50	<0.50	<0.50	<0.50	29	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	03/19/10	128.83	5.53	123.30	<50	<0.50	<0.50	<0.50	<0.50	23	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	06/08/10	128.83	5.78	123.05	<50	<0.50	<0.50	<0.50	<0.50	24	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	09/14/10	128.83	6.27	122.56	<50	<0.50	<0.50	<0.50	<0.50	26	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	12/03/10	128.83	5.89	122.94	<50	<0.50	<0.50	<0.50	<0.50	19	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	06/09/11	128.83	5.66	123.17	<50	<0.50	<0.50	<0.50	<0.50	39	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	12/05/11	128.83	6.34	122.49	<50	<0.50	<0.50	<0.50	<0.50	21	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	06/19/12	128.83	6.10	122.73	<50	<0.50	<0.50	<0.50	<0.50	16	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	12/04/12	128.83	6.52	122.31	<50	<0.50	<0.50	<0.50	<0.50	6.6	<5.0	<10	<1.0	<1.0	<1.0	—
MW-6	06/21/13	128.83	7.58	121.25	<50	<0.50	<0.50	<0.50	<0.50	3.5	<5.0	33	<1.0	<1.0	<1.0	—
MW-7	09/11/09	134.37	9.60	124.77	<50	<0.50	<0.50	<0.50	<0.50	17	<5.0	<10	<1.0	<1.0	<1.0	—

**Table 1**  
**Summary of Groundwater Levels and Chemical Analysis**

Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of	Depth to	Groundwater	TPH-G (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl- benzene (µg/L)	Total Xylenes (µg/L)	MTBE 8260 (µg/L)	Ethanol (µg/L)	TBA (µg/L)	DIPE (µg/L)	ETBE (µg/L)	TAME (µg/L)	DO (mg/L)
		Casing Elevation (ft-MSL)	Water Depth (feet)	Elevation (feet)												
MW-7	12/08/09	134.37	9.24	125.13	<50	<0.50	<0.50	<0.50	<0.50	15	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7	03/19/10	134.37	8.42	125.95	<50	<0.50	<0.50	<0.50	<0.50	18	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7	06/08/10	134.37	8.68	125.69	<50	<0.50	<0.50	<0.50	<0.50	22	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7	09/14/10	134.37	9.39	124.98	<50	<0.50	<0.50	<0.50	<0.50	35	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7	12/03/10	134.37	8.88	125.49	<50	<0.50	<0.50	<0.50	<0.50	34	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7	06/09/11	134.37	8.69	125.68	<50	<0.50	<0.50	<0.50	<0.50	51	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7	12/05/11	134.37	9.54	124.83	<50	<0.50	<0.50	<0.50	<0.50	59	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7	06/19/12	134.37	9.25	125.12	59	<0.50	<0.50	<0.50	<0.50	70	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7	12/04/12	134.37	10.63	123.74	84	<0.50	<0.50	<0.50	<0.50	120	<5.0	<10	<1.0	<1.0	<1.0	—
MW-7*	06/21/13	134.37	—	—	—	—	—	—	—	—	—	—	—	—	—	—

NOTES: ft-MSL = feet above mean sea level  
µg/L = micrograms per liter  
mg/L = milligrams per liter  
TPH-G = total petroleum hydrocarbons as gasoline  
DO = dissolved oxygen  
< = not detected at or above the stated detection limit

MTBE = methyl tert butyl ether  
TBA = tertiary butyl alcohol  
DIPE = di-isopropyl ether  
ETBE = ethyl tertiary butyl ether  
TAME = tertiary amyl methyl ether  
\* = well inaccessible

**APPENDIX**

**GENERAL FIELD PROCEDURES, FIELD MEASUREMENT FORMS, OFFICIAL  
LABORATORY REPORTS, AND CHAIN OF CUSTODY RECORDS**



## GENERAL FIELD PROCEDURES

General field procedures used during fluid-level monitoring and groundwater sampling activities are described below.

### FLUID-LEVEL MONITORING

Fluid levels are monitored in the wells using an electronic interface probe with conductance sensors. The presence of liquid-phase hydrocarbons is verified using a hydrocarbon-reactive paste. The depth to liquid-phase hydrocarbons and water is measured relative to the well box top or top of casing. Well box or casing elevations are surveyed to within 0.02 foot relative to a county or city benchmark.

### GROUNDWATER SAMPLING

Groundwater monitoring wells are purged and sampled in accordance with standard regulatory protocol. Typically, monitoring wells that contain no liquid-phase hydrocarbons are purged of groundwater prior to sampling so that fluids sampled are representative of fluids within the formation. Temperature, pH, and specific conductance are typically measured after each well casing volume has been removed. Purging is considered complete when these parameters vary less than 10% from the previous readings, or when four casing volumes of fluid have been removed. Samples are collected without further purging if the well does not recharge within 2 hours to 80% of its volume before purging.

The purged water is stored in labeled drums prior to transport to an appropriate treatment or recycling facility. If an automatic recovery system (ARS) is operating at the site, purged water may be pumped into the ARS for treatment.

Groundwater samples are collected by lowering a 1.5-inch-diameter, bottom-fill, disposable polyethylene bailer just below the static water level in the well. The samples are carefully transferred from the check-valve-equipped bailer to 1-liter and 40-milliliter glass containers. The sample containers are filled to zero headspace and fitted with Teflon-sealed caps. Each sample is labeled with the project number, well number, sample date, and sampler's initials. Samples remain chilled at approximately 4°C prior to analysis by a state-certified laboratory.



## GROUNDWATER SAMPLING FIELD NOTES

Technician: R. RODRIGUEZ

Site: QUICKSTOP 56

Project No.: 201892

Date: 6/21/13

Well No. MW-6

Purge Method: Sub

Depth to Water (feet): 7.58

Depth to Product (feet): —

Total Depth (feet): 19.65

LPH & Water Recovered (gallons): —

Water Column (feet): 12.07

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 9.99

1 Well Volume (gallons): 2

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature ( F , C )	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>0802</u>			<u>2</u>	<u>851.2</u>	<u>17.3</u>	<u>7.54</u>			
			<u>4</u>	<u>867.4</u>	<u>18.3</u>	<u>7.21</u>			
	<u>0806</u>		<u>6</u>	<u>870.2</u>	<u>18.6</u>	<u>7.16</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>7.92</u>			<u>6</u>			<u>1042</u>			
<b>Comments:</b> <u>DRY AT 6 GALLONS. SLOW RECOVERY.</u>									

Well No. MW-5

Purge Method: HB

Depth to Water (feet): 8.55

Depth to Product (feet): —

Total Depth (feet): 10.18

LPH & Water Recovered (gallons): —

Water Column (feet): 1.63

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 8.87

1 Well Volume (gallons): 0.30

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature ( F , C )	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>0816</u>			<u>0.30</u>	<u>341.9</u>	<u>19.4</u>	<u>6.78</u>			
			<u>0.60</u>	<u>331.9</u>	<u>19.4</u>	<u>6.65</u>			
	<u>0819</u>		<u>0.90</u>	<u>327.0</u>	<u>19.4</u>	<u>6.49</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>8.87</u>			<u>0.90</u>			<u>0830</u>			
<b>Comments:</b>									

## GROUNDWATER SAMPLING FIELD NOTES

Technician: R. RODRIGUEZ

Site: QUIKSTOP 56

Project No.: 201892

Date: 6/21/13

Well No. MW-3

Purge Method: Sub

Depth to Water (feet): 6.71

Depth to Product (feet):       

Total Depth (feet) 30.23

LPH & Water Recovered (gallons):       

Water Column (feet): 23.52

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 11.41

1 Well Volume (gallons): 4

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature ( F , C )	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>0859</u>			<u>4</u>	<u>884.4</u>	<u>20.2</u>	<u>6.65</u>			
			<u>8</u>	<u>746.0</u>	<u>20.5</u>	<u>6.49</u>			
	<u>0906</u>		<u>12</u>	<u>954.0</u>	<u>20.4</u>	<u>6.55</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>6.93</u>			<u>12</u>			<u>1105</u>			
<b>Comments:</b>									

Well No. MW-2

Purge Method: Sub

Depth to Water (feet): 6.37

Depth to Product (feet):       

Total Depth (feet) 29.83

LPH & Water Recovered (gallons):       

Water Column (feet): 23.46

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 11.06

1 Well Volume (gallons): 4

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature ( F , C )	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>0929</u>			<u>4</u>	<u>1222</u>	<u>20.7</u>	<u>7.17</u>			
			<u>8</u>	<u>1237</u>	<u>20.9</u>	<u>6.65</u>			
	<u>0934</u>		<u>12</u>	<u>1200</u>	<u>20.5</u>	<u>6.54</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>6.78</u> <u>6.93</u> <u>RR</u>			<u>12</u>			<u>1120</u>			
<b>Comments:</b>									

## GROUNDWATER SAMPLING FIELD NOTES

Technician: R. RODRIGUEZ

Site: Quikstop 56

Project No.: 201892

Date: 6/21/13

Well No. MW-4

Purge Method: Sub HB

Depth to Water (feet): 6.57

Depth to Product (feet): —

Total Depth (feet): 14.68

LPH & Water Recovered (gallons): —

Water Column (feet): 8.11

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 8.19

1 Well Volume (gallons): 1

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>0950</u>			<u>1</u>	<u>792.7</u>	<u>21.9</u>	<u>6.90</u>			
			<u>2</u>	<u>791.1</u>	<u>21.7</u>	<u>6.50</u>			
	<u>0955</u>		<u>3</u>	<u>793.0</u>	<u>21.4</u>	<u>6.47</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>7.39</u>			<u>3</u>			<u>1005</u>			
<b>Comments:</b>									

Well No. MW-1

Purge Method: Sub

Depth to Water (feet): 9.62

Depth to Product (feet): —

Total Depth (feet): 29.93

LPH & Water Recovered (gallons): —

Water Column (feet): 20.31

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 13.68

1 Well Volume (gallons): 4

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
<b>Pre-Purge</b>									
<u>0841</u>			<u>4</u>	<u>906.2</u>	<u>19.4</u>	<u>6.21</u>			
			<u>8</u>	<u>952.1</u>	<u>20.5</u>	<u>6.20</u>			
	<u>0849</u>		<u>12</u>	<u>980.8</u>	<u>20.4</u>	<u>6.30</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>13.03</u>			<u>12</u>			<u>1053</u>			
<b>Comments:</b>									

# METER CALIBRATION LOG

CLIENT NAME: \_\_\_\_\_

SITE #: QUICKSTOP 56

CALIBRATED BY: P. RODRIGUEZ

LOCATION: DAKLAND

DATE: 6/21/13

METER BRAND NAME: ULTRAMETER

METER BRAND NAME: \_\_\_\_\_

METER MODEL #: 6219185

METER MODEL #: \_\_\_\_\_

ALTON METER #: 090451

ALTON METER #: \_\_\_\_\_

CALIBRATION STANDARD EXP. DATE: 12/13

CALIBRATION STANDARD EXP. DATE: \_\_\_\_\_

SITE INITIAL CALIBRATION			POST-SAMPLING STANDARD MEASUREMENTS		
	Standard	Final Calibrated Values		Standard	Measured Values
pH	4.00	3.99	pH	4.00	
pH	7.00	7.00	pH	7.00	
pH	10.00	10.02	pH	10.00	
Conductivity	<del>1000</del> 1413	1413	Conductivity	1000	
Conductivity	10000	_____	Conductivity	10000	
Turbidity	1.0	_____	Turbidity	1.0	
Turbidity	10.0	_____	Turbidity	10.0	

REMARKS:

SIGNATURE: 

# DRUM INVENTORY FIELD SHEET

CLIENT: Quikstop 56

PROJECT NUMBER: 201892 DATE: 6/21/13

SITE #: Quikstop 56

ADDRESS: 3132 BEAUMONT AVE

CITY: OAKLAND

ACTIVE STATION: Yes  No

DRUMS EMPTY: \_\_\_\_\_ DRUMS FULL: 3

DRUMS LABELED: Yes  No

TOTAL GALLONS GENERATED: 140 GAL 46 GALS RURG WATER  
94 GALS DECON

DRUMS LEFT ONSITE: Yes  No

SPECIAL INSTRUCTIONS: 3 DRUMS LEFT BEHIND BUILDING  
WHERE SPECIFIED ON THE MAP

Technician: D. RODRIGUEZ



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

## ANALYTICAL REPORT

TRC-Alton Geoscience  
One Concord Center  
Concord, CA 94520

Attn: Jonathan Scheiner  
Phone: (925) 688-2473  
Fax: (925) 688-0388  
Date Received : 06/25/13

Job: 201892/QUIKSTOP

GC/MSD by Direct Injection  
EPA Method SW8260B-DI

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: MW-6 Lab ID : TRC13062544-01A Ethanol Date Sampled 06/21/13 10:42	ND	5.0 µg/L	06/27/13	06/27/13
Client ID: MW-5 Lab ID : TRC13062544-02A Ethanol Date Sampled 06/21/13 08:30	ND	5.0 µg/L	06/27/13	06/27/13
Client ID: MW-1 Lab ID : TRC13062544-03A Ethanol Date Sampled 06/21/13 10:53	ND	5.0 µg/L	06/27/13	06/27/13
Client ID: MW-3 Lab ID : TRC13062544-04A Ethanol Date Sampled 06/21/13 11:05	ND	5.0 µg/L	06/27/13	06/27/13
Client ID: MW-2 Lab ID : TRC13062544-05A Ethanol Date Sampled 06/21/13 11:20	ND	5.0 µg/L	06/27/13	06/27/13
Client ID: MW-4 Lab ID : TRC13062544-06A Ethanol Date Sampled 06/21/13 10:05	ND	5.0 µg/L	06/27/13	06/27/13

ND = Not Detected



*Roger Scholl*     *Randy Gardner*     *Walter Hinchman*  
Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.  
Statement of Data Authenticity : Alpha Analytical, Inc. attests that the data reported has not been altered in any way.



*[Signature]*

7/8/13

Report Date

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.





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## ANALYTICAL REPORT

TRC-Alton Geoscience  
One Concord Center  
Concord, CA 94520

Attn: Jonathan Scheiner  
Phone: (925) 688-2473  
Fax: (925) 688-0388  
Date Received : 06/25/13

Job: 201892/QUIKSTOP

Total Petroleum Hydrocarbons - Purgeable (TPH-P) EPA Method SW8015B / SW8260B  
Volatile Organic Compounds (VOCs) EPA Method SW8260B

	Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID :	MW-6					
Lab ID :	TRC13062544-01A	TPH-P (GRO)	ND	0.050 mg/L	07/02/13	07/02/13
Date Sampled	06/21/13 10:42	Tertiary Butyl Alcohol (TBA)	33	10 µg/L	07/02/13	07/02/13
		Methyl tert-butyl ether (MTBE)	3.5	0.50 µg/L	07/02/13	07/02/13
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	07/02/13	07/02/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	07/02/13	07/02/13
		Benzene	ND	0.50 µg/L	07/02/13	07/02/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	07/02/13	07/02/13
		Toluene	ND	0.50 µg/L	07/02/13	07/02/13
		Ethylbenzene	ND	0.50 µg/L	07/02/13	07/02/13
		Xylenes, Total	ND	0.50 µg/L	07/02/13	07/02/13
Client ID :	MW-5					
Lab ID :	TRC13062544-02A	TPH-P (GRO)	ND	0.050 mg/L	07/02/13	07/02/13
Date Sampled	06/21/13 08:30	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	07/02/13	07/02/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	07/02/13	07/02/13
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	07/02/13	07/02/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	07/02/13	07/02/13
		Benzene	ND	0.50 µg/L	07/02/13	07/02/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	07/02/13	07/02/13
		Toluene	ND	0.50 µg/L	07/02/13	07/02/13
		Ethylbenzene	ND	0.50 µg/L	07/02/13	07/02/13
		Xylenes, Total	ND	0.50 µg/L	07/02/13	07/02/13
Client ID :	MW-1					
Lab ID :	TRC13062544-03A	TPH-P (GRO)	ND	0.050 mg/L	07/02/13	07/02/13
Date Sampled	06/21/13 10:53	Tertiary Butyl Alcohol (TBA)	18	10 µg/L	07/02/13	07/02/13
		Methyl tert-butyl ether (MTBE)	8.4	0.50 µg/L	07/02/13	07/02/13
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	07/02/13	07/02/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	07/02/13	07/02/13
		Benzene	ND	0.50 µg/L	07/02/13	07/02/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	07/02/13	07/02/13
		Toluene	ND	0.50 µg/L	07/02/13	07/02/13
		Ethylbenzene	ND	0.50 µg/L	07/02/13	07/02/13
		Xylenes, Total	ND	0.50 µg/L	07/02/13	07/02/13



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Client ID : MW-3

Lab ID :	TRC13062544-04A	TPH-P (GRO)	ND	0.050 mg/L	07/01/13	07/01/13
Date Sampled	06/21/13 11:05	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	07/01/13	07/01/13
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	07/01/13	07/01/13
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	07/01/13	07/01/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	07/01/13	07/01/13
		Benzene	ND	0.50 µg/L	07/01/13	07/01/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	07/01/13	07/01/13
		Toluene	ND	0.50 µg/L	07/01/13	07/01/13
		Ethylbenzene	ND	0.50 µg/L	07/01/13	07/01/13
		Xylenes, Total	ND	0.50 µg/L	07/01/13	07/01/13

Client ID : MW-2

Lab ID :	TRC13062544-05A	TPH-P (GRO)	ND	0.050 mg/L	07/01/13	07/01/13
Date Sampled	06/21/13 11:20	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	07/01/13	07/01/13
		Methyl tert-butyl ether (MTBE)	0.60	0.50 µg/L	07/01/13	07/01/13
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	07/01/13	07/01/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	07/01/13	07/01/13
		Benzene	ND	0.50 µg/L	07/01/13	07/01/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	07/01/13	07/01/13
		Toluene	ND	0.50 µg/L	07/01/13	07/01/13
		Ethylbenzene	ND	0.50 µg/L	07/01/13	07/01/13
		Xylenes, Total	ND	0.50 µg/L	07/01/13	07/01/13

Client ID : MW-4

Lab ID :	TRC13062544-06A	TPH-P (GRO)	0.58	0.10 mg/L	07/01/13	07/01/13
Date Sampled	06/21/13 10:05	Tertiary Butyl Alcohol (TBA)	1,500	10 µg/L	07/01/13	07/01/13
		Methyl tert-butyl ether (MTBE)	4.0	0.50 µg/L	07/01/13	07/01/13
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	07/01/13	07/01/13
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	07/01/13	07/01/13
		Benzene	0.63	0.50 µg/L	07/01/13	07/01/13
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	07/01/13	07/01/13
		Toluene	ND	0.50 µg/L	07/01/13	07/01/13
		Ethylbenzene	ND	0.50 µg/L	07/01/13	07/01/13
		Xylenes, Total	ND	0.50 µg/L	07/01/13	07/01/13

Gasoline Range Organics (GRO) C4-C13

ND = Not Detected



*Roger Scholl*     *Randy Gardner*     *Walter Hinchman*  
 Roger L. Scholl, Ph.D., Laboratory Director • Randy Gardner, Laboratory Manager • Walter Hinchman, Quality Assurance Officer  
 Sacramento, CA • (916) 366-9089 / Las Vegas, NV • (702) 281-4848 / Carson, CA • (714) 386-2901 / info@alpha-analytical.com

Alpha Analytical, Inc. certifies that the test results meet all requirements of NELAC unless footnoted otherwise.  
 Statement of Data Authenticity: Alpha Analytical, Inc. attests that the data reported has not been altered in any way.



*pg*

7/8/13

Report Date

Alpha Analytical, Inc. currently holds appropriate and available California (#2019) and NELAC (01154CA) certifications for the data reported. Test results relate only to reported samples.



# Alpha Analytical, Inc.

255 Glendale Ave. • Suite 21 • Sparks, Nevada 89431-5778  
(775) 355-1044 • (775) 355-0406 FAX • 1-800-283-1183

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## VOC Sample Preservation Report

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Work Order: TRC13062544

Job: 201892/QUIKSTOP

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Alpha's Sample ID	Client's Sample ID	Matrix	pH
13062544-01A	MW-6	Aqueous	2
13062544-02A	MW-5	Aqueous	2
13062544-03A	MW-1	Aqueous	2
13062544-04A	MW-3	Aqueous	2
13062544-05A	MW-2	Aqueous	2
13062544-06A	MW-4	Aqueous	2

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7/8/13

Report Date

Page 1 of 1



# Alpha Analytical, Inc.

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Date:  
03-Jul-13

## QC Summary Report

Work Order:  
13062544

### Method Blank

Method Blank		Type	MBLK	Test Code: EPA Method SW8260B-DI						
File ID: C:\HPCHEM\MS11\DATA\130627\13062707.D		Batch ID: 31171		Analysis Date: 06/27/2013 16:52						
Sample ID: MBLK-31171	Units: µg/L	Run ID: MSD_11_130627A		Prep Date: 06/27/2013 14:11						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	ND	5								
Surr: Hexafluoro-2-propanol	562		500		112	58	133			

### Laboratory Control Spike

Laboratory Control Spike		Type	LCS	Test Code: EPA Method SW8260B-DI						
File ID: C:\HPCHEM\MS11\DATA\130627\13062708.D		Batch ID: 31171		Analysis Date: 06/27/2013 17:11						
Sample ID: LCS-31171	Units: µg/L	Run ID: MSD_11_130627A		Prep Date: 06/27/2013 14:11						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	254	5	250		102	66	152			
Surr: Hexafluoro-2-propanol	573		500		115	58	133			

### Sample Matrix Spike

Sample Matrix Spike		Type	MS	Test Code: EPA Method SW8260B-DI						
File ID: C:\HPCHEM\MS11\DATA\130627\13062710.D		Batch ID: 31171		Analysis Date: 06/27/2013 17:49						
Sample ID: 13062544-01AMS	Units: µg/L	Run ID: MSD_11_130627A		Prep Date: 06/27/2013 14:11						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	259	5	250	0	104	63	152			
Surr: Hexafluoro-2-propanol	563		500		113	58	133			

### Sample Matrix Spike Duplicate

Sample Matrix Spike Duplicate		Type	MSD	Test Code: EPA Method SW8260B-DI						
File ID: C:\HPCHEM\MS11\DATA\130627\13062711.D		Batch ID: 31171		Analysis Date: 06/27/2013 18:09						
Sample ID: 13062544-01AMSD	Units: µg/L	Run ID: MSD_11_130627A		Prep Date: 06/27/2013 14:11						
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	230	5	250	0	92	63	152	259.5	12.0(26)	
Surr: Hexafluoro-2-propanol	561		500		112	58	133			

### Comments:

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.



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Date:  
03-Jul-13

## QC Summary Report

Work Order:  
13062544

### Method Blank

File ID: 13070110.D

Sample ID: MBLK MS12W0701B

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	0.06	0.05								
Surr: 1,2-Dichloroethane-d4	0.0121		0.01		121	70	130			
Surr: Toluene-d8	0.0116		0.01		116	70	130			
Surr: 4-Bromofluorobenzene	0.00869		0.01		87	70	130			

### Laboratory Control Spike

File ID: 13070109.D

Sample ID: GLCS MS12W0701B

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	0.433	0.05	0.4		93	70	130			
Surr: 1,2-Dichloroethane-d4	0.0101		0.01		101	70	130			
Surr: Toluene-d8	0.0101		0.01		101	70	130			
Surr: 4-Bromofluorobenzene	0.00964		0.01		96	70	130			

### Sample Matrix Spike

File ID: 13070124.D

Sample ID: 13062725-01AGS

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1.81	0.25	2	0	91	54	143			
Surr: 1,2-Dichloroethane-d4	0.0505		0.05		101	70	130			
Surr: Toluene-d8	0.052		0.05		104	70	130			
Surr: 4-Bromofluorobenzene	0.0477		0.05		95	70	130			

### Sample Matrix Spike Duplicate

File ID: 13070125.D

Sample ID: 13062725-01AGSD

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1.79	0.25	2	0	90	54	143	1.815	1.2(23)	
Surr: 1,2-Dichloroethane-d4	0.0477		0.05		95	70	130			
Surr: Toluene-d8	0.0525		0.05		105	70	130			
Surr: 4-Bromofluorobenzene	0.0509		0.05		102	70	130			

### Comments:

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# Alpha Analytical, Inc.

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Date:  
03-Jul-13

## QC Summary Report

Work Order:  
13062544

### Method Blank

File ID: 13070110.D

Sample ID: MBLK MS12W0701A

Units: µg/L

Type MBLK

Test Code: EPA Method SW8260B

Batch ID: MS12W0701A

Analysis Date: 07/01/2013 19:35

Run ID: MSD\_12\_130701A

Prep Date: 07/01/2013 19:35

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Tertiary Butyl Alcohol (TBA)	ND	10								
Methyl tert-butyl ether (MTBE)	ND	0.5								
Di-isopropyl Ether (DIPE)	ND	1								
Ethyl Tertiary Butyl Ether (ETBE)	ND	1								
Benzene	ND	0.5								
Tertiary Amyl Methyl Ether (TAME)	ND	1								
Toluene	ND	0.5								
Ethylbenzene	ND	0.5								
Xylenes, Total	ND	0.5								
Surr: 1,2-Dichloroethane-d4	12.1		10		121	70	130			
Surr: Toluene-d8	11.6		10		116	70	130			
Surr: 4-Bromofluorobenzene	8.69		10		87	70	130			

### Laboratory Control Spike

File ID: 13070107.D

Sample ID: LCS MS12W0701A

Units: µg/L

Type LCS

Test Code: EPA Method SW8260B

Batch ID: MS12W0701A

Analysis Date: 07/01/2013 18:11

Run ID: MSD\_12\_130701A

Prep Date: 07/01/2013 18:11

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	10.5	0.5	10		105	63	137			
Benzene	9.44	0.5	10		94	70	130			
Toluene	10.1	0.5	10		101	80	120			
Ethylbenzene	9.3	0.5	10		93	80	120			
Xylenes, Total	19	0.5	20		95	70	130			
Surr: 1,2-Dichloroethane-d4	6.31		10		63	70	130			S54
Surr: Toluene-d8	9.88		10		99	70	130			
Surr: 4-Bromofluorobenzene	8.94		10		89	70	130			

### Sample Matrix Spike

File ID: 13070122.D

Sample ID: 13062441-06AMS

Units: µg/L

Type MS

Test Code: EPA Method SW8260B

Batch ID: MS12W0701A

Analysis Date: 07/01/2013 23:57

Run ID: MSD\_12\_130701A

Prep Date: 07/01/2013 23:57

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	43	1.3	50	0	86	56	140			
Benzene	41.5	1.3	50	0	83	67	134			
Toluene	50.1	1.3	50	0	100	38	130			
Ethylbenzene	44.6	1.3	50	0	89	70	130			
Xylenes, Total	90.7	1.3	100	0	91	70	130			
Surr: 1,2-Dichloroethane-d4	44.5		50		89	70	130			
Surr: Toluene-d8	47.8		50		96	70	130			
Surr: 4-Bromofluorobenzene	44.2		50		88	70	130			

### Sample Matrix Spike Duplicate

File ID: 13070123.D

Sample ID: 13062441-06AMSD

Units: µg/L

Type MSD

Test Code: EPA Method SW8260B

Batch ID: MS12W0701A

Analysis Date: 07/02/2013 00:19

Run ID: MSD\_12\_130701A

Prep Date: 07/02/2013 00:19

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	49.9	1.3	50	0	99.8	56	140	42.96	15.0(40)	
Benzene	46.4	1.3	50	0	93	67	134	41.54	11.0(21)	
Toluene	54.4	1.3	50	0	109	38	130	50.07	8.4(20)	
Ethylbenzene	49.3	1.3	50	0	99	70	130	44.6	9.9(20)	
Xylenes, Total	98.4	1.3	100	0	98	70	130	90.65	8.2(22)	
Surr: 1,2-Dichloroethane-d4	45.7		50		91	70	130			
Surr: Toluene-d8	48.3		50		97	70	130			
Surr: 4-Bromofluorobenzene	45		50		90	70	130			



# *Alpha Analytical, Inc.*

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**Date:**  
*03-Jul-13*

## QC Summary Report

**Work Order:**  
13062544

**Comments:**

Calculations are based off of raw (non-rounded) data. However, for reporting purposes, all QC data is rounded to three significant figures. Therefore, hand calculated values may differ slightly.

S54 = Surrogate recovery was below laboratory acceptance limits.

Billing Information :

**CHAIN-OF-CUSTODY RECORD**

**CA**

**Alpha Analytical, Inc.**  
 255 Glendale Avenue, Suite 21 Sparks, Nevada 89431-5778  
 TEL: (775) 355-1044 FAX: (775) 355-0406

**WorkOrder : TRC13062544**  
**Report Due By : 5:00 PM On : 09-Jul-13**

Client:

TRC-Alton Geoscience  
 One Concord Center  
 2300 Clayton Rd., Ste. 610  
 Concord, CA 94520

Report Attention **Jonathan Scheiner** Phone Number (925) 688-2473 x 236 j.scheiner@trcsolutions.com Email Address

EDD Required : Yes

Sampled by : Rick Rodriguez

Cooler Temp **5 °C** Samples Received **25-Jun-13** Date Printed **25-Jun-13**

PO : 24004 Client's COC # : 13662 Job : 201892/QUIKSTOP

QC Level : S3 = Final Rpt, MBLK, LCS, MS/MSD With Surrogates

Alpha Sample ID	Client Sample ID	Collection Date	No. of Bottles Alpha	Sub TAT	Requested Tests			Sample Remarks	
					ALCOHOL_W	TPHP_W	VOC_W		
TRC13062544-01A	MW-6	06/21/13 10:42	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY C	
TRC13062544-02A	MW-5	06/21/13 08:30	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY C	
TRC13062544-03A	MW-1	06/21/13 10:53	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY C	
TRC13062544-04A	MW-3	06/21/13 11:05	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY C	
TRC13062544-05A	MW-2	06/21/13 11:20	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY C	
TRC13062544-06A	MW-4	06/21/13 10:05	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY C	

Comments: No security seals. Frozen ice. Total Xylenes. :

Logged in by: \_\_\_\_\_ Signature \_\_\_\_\_ Print Name **Simon Nwa** Company **Alpha Analytical, Inc.** Date/Time **6/25/13 12:17**

NOTE: Samples are discarded 60 days after results are reported unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report. Matrix Type : Aq(Aqueous) AR(Air) SO(Soil) WS(Waste) DW(Drinking Water) OT(Other) Bottle Type: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other



Company: TRC  
 Attn: JONATHAN SCHEINER  
 Address: 2500 DAYTON  
 City, State, Zip: CONCORD, CA 94520  
 Phone Number: 925-688-1200 Fax: 925-688-0388



Alpha Analytical, Inc.  
 Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431  
 Satellite Service Centers:  
 Northern CA: 9991 Horn Road, Suite C, Rancho Cordova, CA 95827  
 Southern NV: 6235 Mead Ave, Suite 24, Las Vegas, NV 89120  
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90748

Phone: 775-355-1044  
 Fax: 775-355-0406  
 Phone: 916-366-9089  
 Phone: 702-281-4848  
 Phone: 714-366-2901

Page # 1 of 1  
 136662

Company: Quikstop Site Info  
 Address: 3132 BEAUMONT AVE  
 City, State, Zip: DAVENPORT, CA

Job and Purchase Order Info:  
 Job #: 201892  
 Job Name: QUIKSTOP  
 P.O. #: 21009

Report Attention/Project Manager:  
 Name: JONATHAN SCHEINER  
 Email Address: JSCH@TRCENVIRONMENTALS.COM  
 Phone #: 925-688-1200  
 Cell #: 925-260-4809

QC Deliverable Info:  
 EDD Required? Yes / No  
 EDF Required?  Yes / No

Samples Collected from which State? (circle one) AZ CA NV WA ID OR OOD Site Other

Time Sampled (HHMM)	Date (MM/DD)	Matrix (See Key Below)	Lab ID Number (For Lab Use Only)	Sample Description	TAT	Field Filtered?	# Containers** (See Key Below)	Analysis Requested	Remarks
0830	6/21	AG	TRC0000544-01A	NW-5	STD	2	6	X TPH-G by 8260B X BTEX/MTBE/50xys by 8260B X ETHANOL by 8260B	
1053				NW-1					
1105				NW-3					
1120				NW-2					
1005				NW-4					

ADDITIONAL INSTRUCTIONS:

(Field sampler) attest to the validity and authenticity of this sample(s). I am aware that tampering with or intentionally mislabeling the sample location, date or time of collection is considered fraud and may be grounds for legal action. NAC 445.0636 (c) (2).

Sampled by: Rich Rodriguez Date: 6/21/13 Time: 1400  
 Relinquished by: (Signature/Affiliation): [Signature]  
 Relinquished by: (Signature/Affiliation): [Signature] Date: 6/25/13 Time: 1200  
 Relinquished by: (Signature/Affiliation): [Signature] Date: 6/25/13 Time: 1400

\* Key: AQ - Aqueous WA - Waste OT - Other \*\* L - Lifer V - VOA S - Soil Jar O - Orbo T - Tedlar B - Brass P - Plastic OT - Other  
 NOTE: Samples are discarded 60 days after sample receipt unless other arrangements are made. Hazardous samples will be returned to client or disposed of at client expense. The report for the analysis of the above samples is applicable only to those samples received by the laboratory with this COC. The liability of the laboratory is limited to the amount paid for the report.