

Quik Stop Markets, Inc.

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

RECEIVED

By Alameda County Environmental Health at 5:18 pm, Jan 31, 2013

January 28, 2013

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

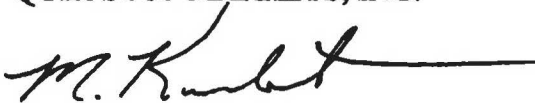
Reference: Quik Stop Market #56
3132 Beaumont Avenue
Oakland, CA 94602

Subject: **Fourth Quarter 2012 Semiannual Groundwater Monitoring Report**

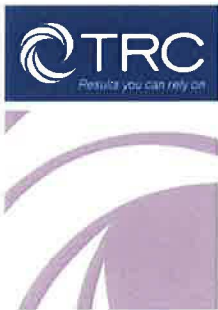
Dear Ms. Detterman:

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

January 31, 2013

Project No. 191546

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
FOURTH QUARTER 2012

Dear Ms. Detterman:

Enclosed is a copy of the *Fourth Quarter 2012 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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Project No. 191546

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
FOURTH QUARTER 2012

Dear Mr. Karvelot:

This *Fourth Quarter 2012 Semiannual Groundwater Monitoring Report* presents the results of the Fourth Quarter 2012 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, MW-6 and MW-7 on December 4, 2012. 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 122.31 feet above mean sea level (MSL) in MW-6 at the south end of the study area to 131.47 feet above MSL in MW-3 in the north, with an average elevation of 127.22 feet above MSL. Groundwater flow direction was predominantly to the southwest at a gradient of 0.06 feet per foot in the northern portion of the study area, and approximately 0.041 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.

2.0 GROUNDWATER SAMPLING

2.1 Field Sampling and Analytical Testing

On December 4, 2012, groundwater samples were collected from onsite wells MW-1, MW-2, and MW-3, and offsite monitoring wells MW-4, MW-5, MW-6 and MW-7. Approximately 110 gallons of purge water and equipment rinsate were generated during groundwater sampling activities conducted on December 4, 2012. The purge water was stored onsite in two 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

Fourth Quarter 2012 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 460 $\mu\text{g/L}$ (MW-4). MTBE concentrations ranged from non-detect (<0.50 $\mu\text{g/L}$) to 120 $\mu\text{g/L}$ (MW-7), and TBA concentrations ranged from non-detect (<10 $\mu\text{g/L}$) to 400 $\mu\text{g/L}$ (MW-4) during this sampling event. Total xylenes were detected in MW-4 at 0.90 $\mu\text{g/L}$. No other analytes were detected above their respective reporting limits.

2.3 Discussion

The Fourth Quarter 2012 monitoring event represents the tenth monitoring with the expanded well network (i.e., including offsite wells MW-4 through MW-7), and is also the tenth 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 Second Quarter 2012 monitoring event.

The presence of a detectable level of TPH-G was reported in the southern and western (downgradient) offsite areas, in wells MW-4 and MW-7. TBA was also detected in both downgradient wells MW-1 and MW-4 located immediately beyond the southern Site perimeter.

SEMIANNUAL GROUNDWATER MONITORING REPORT, FOURTH QUARTER 2012

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

January 31, 2013

Page 3

MTBE was detected in five of the seven groundwater samples analyzed (i.e., except for MW-3 and MW-5). The maximum concentration of MTBE was reported in MW-7 at a concentration of 120 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), with the exception of MW-7 where TPH-G was detected for the first time during 2nd Quarter 2012 and was again detected in 4th Quarter 2012. 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, MW-4).

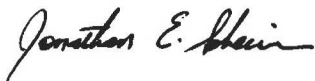
As concluded in the Site Conceptual Model, the lateral extent of impacts to shallow groundwater has been defined, and the well network is deemed adequate (TRC, 2011). Pursuant to a request by the ACDEH dated June 23, 2011, the vertical extent of groundwater impacts was evaluated and defined during the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

3.0 LIST OF ATTACHMENTS

- Figure 1: Vicinity Map
- Figure 2: Groundwater Elevation Contour Map, December 4, 2012
- Figure 3: Dissolved-Phase Constituent Concentrations, December 4, 2012
- 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,



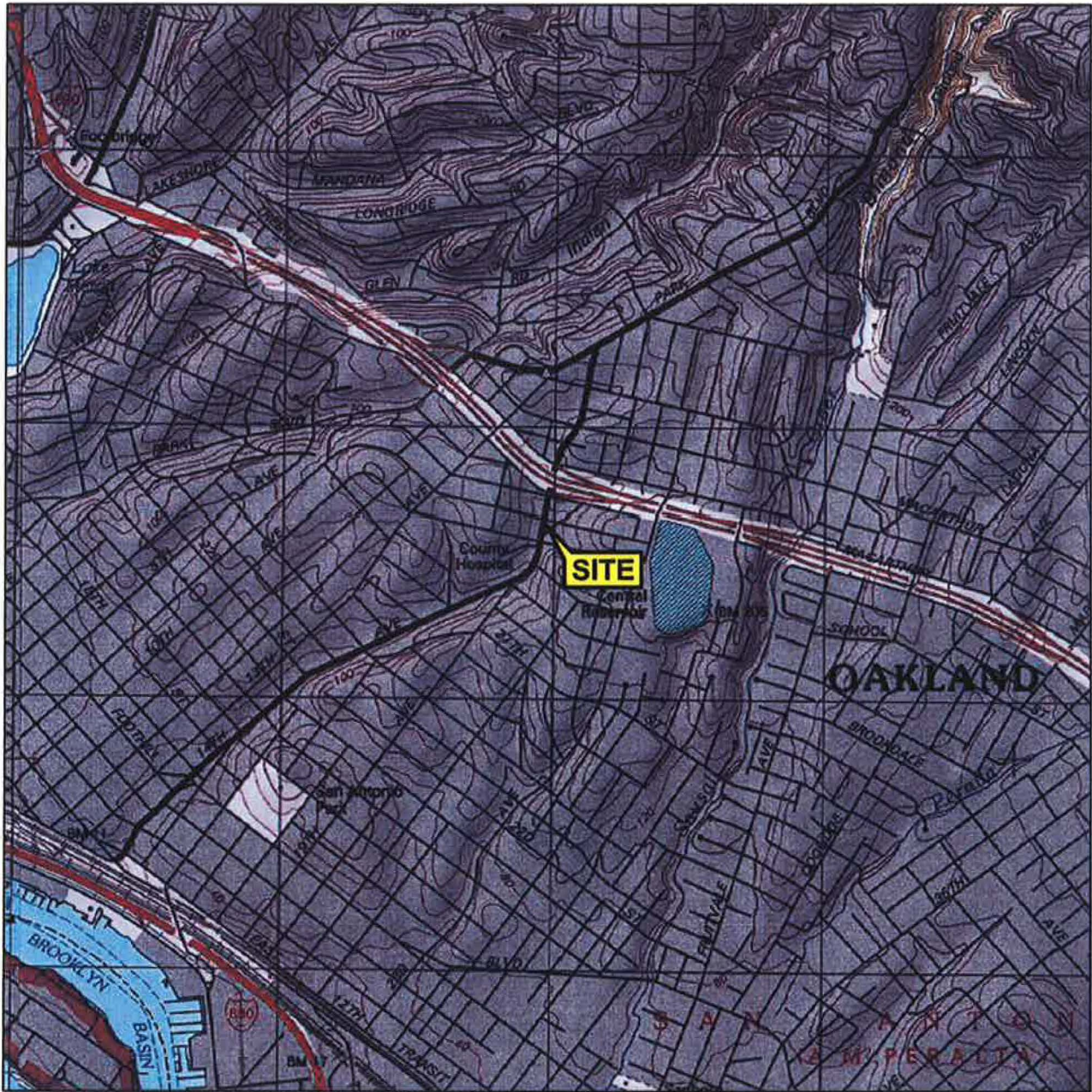
Jonathan Scheiner
Project Manager



Rachelle Clair, P.G.
Project Geologist



FIGURES



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



SCALE 1 : 24,000



QUADRANGLE
LOCATION

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

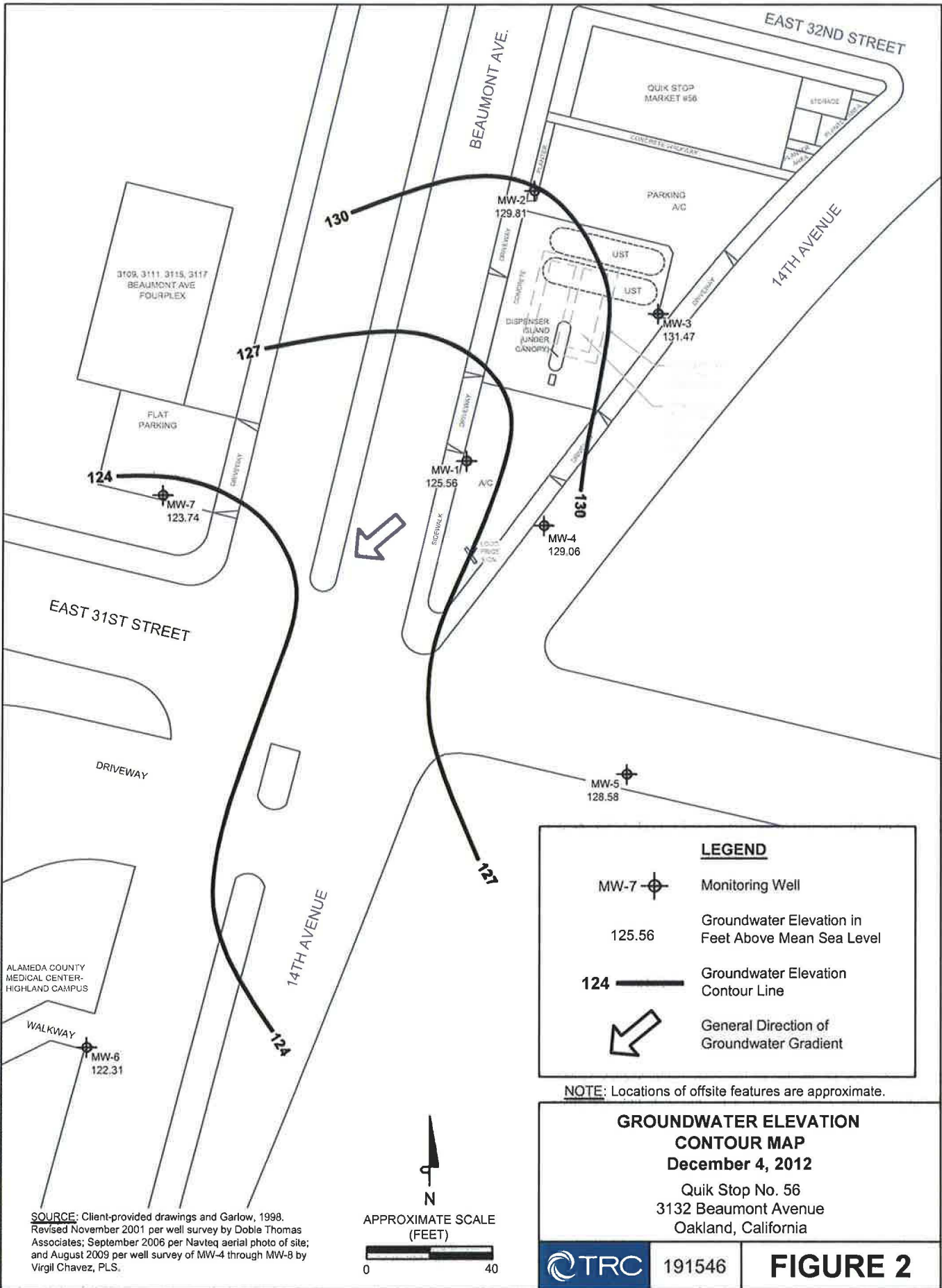
VICINITY MAP

Quik Stop No. 56
3132 Beaumont Avenue
Oakland, California

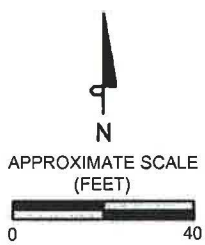


FIGURE 1

FILE NAME: Z:\Gas Stations\QUICKSTOP\0509\4012 QMS\Fig2_GW_4012.dwg | Layout Tab: 8x11



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.

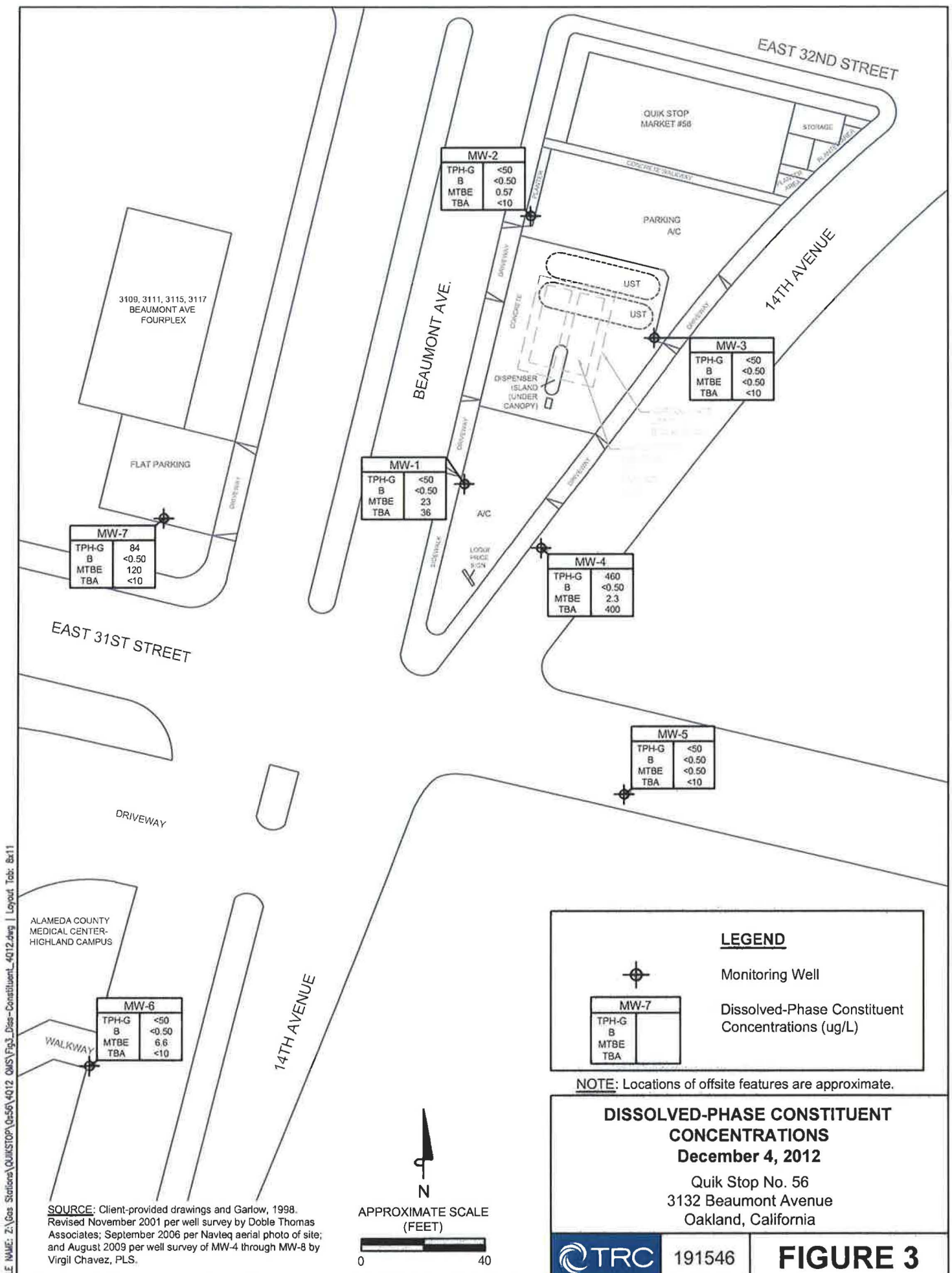


LEGEND

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

NOTE: Locations of offsite features are approximate.

GROUNDWATER ELEVATION CONTOUR MAP
December 4, 2012
 Quik Stop No. 56
 3132 Beaumont Avenue
 Oakland, California



MW-7	
TPH-G	84
B	<0.50
MTBE	120
TBA	<10

MW-1	
TPH-G	<50
B	<0.50
MTBE	23
TBA	36

MW-2	
TPH-G	<50
B	<0.50
MTBE	0.57
TBA	<10

MW-3	
TPH-G	<50
B	<0.50
MTBE	<0.50
TBA	<10

MW-4	
TPH-G	460
B	<0.50
MTBE	2.3
TBA	400

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

MW-6	
TPH-G	<50
B	<0.50
MTBE	6.6
TBA	<10

LEGEND

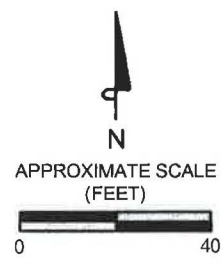
Monitoring Well

Dissolved-Phase Constituent Concentrations (ug/L)

MW-7	
TPH-G	
B	
MTBE	
TBA	

NOTE: Locations of offsite features are approximate.

DISSOLVED-PHASE CONSTITUENT CONCENTRATIONS
December 4, 2012
 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 Naveq aerial photo of site; and August 2009 per well survey of MW-4 through MW-8 by Virgil Chavez, PLS.

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TABLE

Table 1
Summary of Groundwater Levels and Chemical Analysis
 Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of Casing	Depth to Water (feet)	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)	
		Elevation (ft-MSL)		Elevation (feet)													
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	Depth to	Groundwater	TPH-G	Benzene	Toluene	Ethyl-	Total	MTBE	Ethanol	TBA	DIPE	ETBE	TAME	DO	
		Casing		Elevation													Elevation
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-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	—	—	—	—	—	
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	—	
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	—	

Table 1
Summary of Groundwater Levels and Chemical Analysis
 Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of Casing	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)
		Elevation (ft-MSL)	Water (feet)	Elevation (feet)												
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-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	—
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	—

Table 1
Summary of Groundwater Levels and Chemical Analysis
 Quik Stop No. 56 - 3132 Beaumont Avenue, Oakland

Sample ID	Date	Top of Casing	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)
		Elevation (ft.-MSL)	Water (feet)	Elevation (feet)												
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-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-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-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-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	—
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	—

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-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	—

NOTES:

ft-MSL = feet above mean sea level	MTBE = methyl tert butyl ether
µg/L = micrograms per liter	TBA = tertiary butyl alcohol
mg/L = milligrams per liter	DIPE = di-isopropyl ether
TPH-G = total petroleum hydrocarbons as gasoline	ETBE = ethyl tertiary butyl ether
DO = dissolved oxygen	TAME = tertiary amyl methyl ether
< = not detected at or above the stated detection limit	

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.

FIELD MONITORING DATA SHEET

 Technician: JOE

 Job #/Task #: 191546/TA01

 Date: 12/4/12

 Site # QUIL STOP 56

 Project Manager J. Scheiner

 Page 1 of 1

Well #	TOC	Time Gauged	Total Depth	Depth to Water	Depth to Product	Product Thickness (feet)	Time Sampled	Misc. Well Notes
MW-2	X	0502	29.90	5.35	—	—	0835	<i>Allowed wells to stabilize for 1 Hour</i>
MW-3	X	0506	30.31	4.88	—	—	0823	
MW-1	X	0510	30.02	8.59	—	—	0845	
MW-4	X	0513	14.77	4.53	—	—	0853	
MW-5	X	0517	10.22	5.00	—	—	0909	
MW-6	X	0520	19.74	6.52	—	—	0748	
MW-7	X	0524	24.82	10.63	—	—	0858	
Duplicate 1	—	—	—	—	—	—	0900	

FIELD DATA COMPLETE QA/QC COC WELL BOX CONDITION SHEETS

MANIFEST DRUM INVENTORY TRAFFIC CONTROL



GROUNDWATER SAMPLING FIELD NOTES

Technician: JOE

Site: Quirk Stop 56

Project No.: 191546/JA01

Date: 12/4/12

Well No. MW-2

Purge Method: SUB

Depth to Water (feet): 5.35

Depth to Product (feet):

Total Depth (feet): 29.90

LPH & Water Recovered (gallons):

Water Column (feet): 24.55

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 10.26

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
Pre-Purge									
<u>0636</u>			<u>4</u>	<u>1147</u>	<u>18.6</u>	<u>5.36</u>			
			<u>8</u>	<u>1241</u>	<u>20.1</u>	<u>5.24</u>			
	<u>0641</u>		<u>12</u>	<u>1224</u>	<u>20.0</u>	<u>5.20</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>5.67</u>			<u>12</u>			<u>0835</u>			
Comments:									

Well No. MW-3

Purge Method: SUB

Depth to Water (feet): 4.88

Depth to Product (feet):

Total Depth (feet): 30.31

LPH & Water Recovered (gallons):

Water Column (feet): 25.43

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 9.96

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
Pre-Purge									
<u>0556</u>			<u>4</u>	<u>904.6</u>	<u>18.5</u>	<u>7.15</u>			
			<u>8</u>	<u>878.7</u>	<u>20.1</u>	<u>6.28</u>			
	<u>0601</u>		<u>12</u>	<u>887.9</u>	<u>20.3</u>	<u>6.12</u>			
Static at Time Sampled			Total Gallons Purged			Sample Time			
<u>5.19</u>			<u>12</u>			<u>0823</u>			
Comments:									

GROUNDWATER SAMPLING FIELD NOTES

Technician: JOE

Site: Wiki Stop 56

Project No.: 191546/TA01

Date: 12/4/12

Well No. MW-1

Purge Method: SUB

Depth to Water (feet): 8.59

Depth to Product (feet):

Total Depth (feet): 30.02

LPH & Water Recovered (gallons):

Water Column (feet): 21.43

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 12.87

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
Pre-Purge									
0609			4	891.1	18.9	6.26			
			8	889.2	20.1	5.70			
	0613		12	884.1	19.7	5.80			
Static at Time Sampled			Total Gallons Purged			Sample Time			
11.65			12			0845			
Comments:									

Well No. MW-4

Purge Method: SUB

Depth to Water (feet): 4.53

Depth to Product (feet):

Total Depth (feet): 14.77

LPH & Water Recovered (gallons):

Water Column (feet): 10.24

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 6.57

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
Pre-Purge									
0622			2	744.7	18.2	5.70			
			4	744.4	19.6	5.27			
	0624		6	739.9	19.7	5.21			
Static at Time Sampled			Total Gallons Purged			Sample Time			
4.60			6			0853			
Comments:									

GROUNDWATER SAMPLING FIELD NOTES

Technician: JOE

Site: RW11L570P 56 Project No.: 191546/TA01 Date: 12/4/12

Well No. MW-5 Purge Method: HB
 Depth to Water (feet): 5.00 Depth to Product (feet):
 Total Depth (feet): 10.22 LPH & Water Recovered (gallons):
 Water Column (feet): 5.22 Casing Diameter (Inches): 2"
 80% Recharge Depth(feet): 6.04 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
Pre-Purge									
0729			1	292.4	16.6	5.35			
			2	290.1	16.3	5.20			
	0734		3	289.0	16.0	5.13			
Static at Time Sampled			Total Gallons Purged			Sample Time			
5.65			3			0900			
Comments:									

Well No. MW-6 Purge Method: SUB
 Depth to Water (feet): 6.52 Depth to Product (feet):
 Total Depth (feet): 19.74 LPH & Water Recovered (gallons):
 Water Column (feet): 13.22 Casing Diameter (Inches): 2"
 80% Recharge Depth(feet): 9.16 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
Pre-Purge									
0655			2	836.5	17.2	5.65			
	0700		4	848.3	18.1	5.55			
0704	0705		6	879.2	17.3	5.80			
Static at Time Sampled			Total Gallons Purged			Sample Time			
7.36			6			0748			
Comments: Dry at 4 1/2 gals									

GROUNDWATER SAMPLING FIELD NOTES

Technician: JOE

Site: WILK STEP 56

Project No.: 191546/TAG

Date: 12/4/12

Well No. MW-7

Purge Method: HB

Depth to Water (feet): 10.63

Depth to Product (feet):

Total Depth (feet): 24.82

LPH & Water Recovered (gallons):

Water Column (feet): 14.19

Casing Diameter (Inches): 2"

80% Recharge Depth(feet): 13.46

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
Pre-Purge									
0713			2	1583	18.9	5.97			
			4	1750	19.0	5.76			
	0723		6	1741	19.0	5.56			
Static at Time Sampled			Total Gallons Purged			Sample Time			
11.30			6			0858			
Comments: <u>Duplicate taken from well</u>									

Well No. _____

Purge Method: _____

Depth to Water (feet): _____

Depth to Product (feet): _____

Total Depth (feet): _____

LPH & Water Recovered (gallons): _____

Water Column (feet): _____

Casing Diameter (Inches): _____

80% Recharge Depth(feet): _____

1 Well Volume (gallons): _____

Time Start	Time Stop	Pump Depth (feet)	Volume Purged (gallons)	Conductivity (µS/cm)	Temperature (F, C)	pH	D.O. (mg/L)	ORP	Turbidity
Pre-Purge									
Static at Time Sampled			Total Gallons Purged			Sample Time			
Comments: _____									

DRUM INVENTORY FIELD SHEET

CLIENT: TRC SOLUTIONS

PROJECT NUMBER: 191546/TA01 DATE: 12/4/12

SITE #: QUIK STOP 56

ADDRESS: 3132 BEAUMONT AVE.

CITY: OAKLAND

ACTIVE STATION: Yes No

DRUMS EMPTY: DRUMS FULL: 2

DRUMS LABELED: Yes No

TOTAL GALLONS GENERATED:

DRUMS LEFT ONSITE: Yes No

SPECIAL INSTRUCTIONS: TOTAL GALLONS PURGED 57 + 53 GALLONS
OF DECON WATER TOTALING 110 GALLONS LEFT ON SITE, ALSO 2 ADDITIONAL
DRUMS ON SITE FROM PREVIOUS EVENT, TOTAL OF 4 DRUMS

Technician: JOE

METER CALIBRATION LOG

CLIENT NAME: TRC

SITE #: QUICK STOP 56

LOCATION: 3132 Beaumont Ave.

METER BRAND NAME: ULTREmeter II

METER MODEL #: 6208075

ALTON METER #: 0951

CALIBRATION STANDARD EXP. DATE: 12/4

CALIBRATED BY: JOE

DATE: 12/4/12

METER BRAND NAME: _____

METER MODEL #: _____

ALTON METER #: _____

CALIBRATION STANDARD EXP. DATE: 12/4

SITE INITIAL CALIBRATION			POST-SAMPLING STANDARD MEASUREMENTS		
	Standard	Final Calibrated Values		Standard	Measured Values
pH	4.00	4.00	pH	4.00	
pH	7.00	7.00	pH	7.00	
pH	10.00	10.00	pH	10.00	
Conductivity	1000 ¹⁴¹³	1413	Conductivity	1000	
Conductivity	10000		Conductivity	10000	
Turbidity	1.0		Turbidity	1.0	
Turbidity	10.0		Turbidity	10.0	

REMARKS:

SIGNATURE: 



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 : 12/05/12

Job: Quik Stop 56

GC/MSD by Direct Injection
EPA Method SW8260B-DI

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: MW-2				
Lab ID: TRC12120544-01A Ethanol	ND	5.0 µg/L	12/07/12	12/07/12
Date Sampled 12/04/12 08:35				
Client ID: MW-3				
Lab ID: TRC12120544-02A Ethanol	ND	5.0 µg/L	12/07/12	12/07/12
Date Sampled 12/04/12 08:23				
Client ID: MW-1				
Lab ID: TRC12120544-03A Ethanol	ND	5.0 µg/L	12/07/12	12/07/12
Date Sampled 12/04/12 08:45				
Client ID: MW-4				
Lab ID: TRC12120544-04A Ethanol	ND	5.0 µg/L	12/07/12	12/07/12
Date Sampled 12/04/12 08:53				
Client ID: MW-5				
Lab ID: TRC12120544-05A Ethanol	ND	5.0 µg/L	12/07/12	12/07/12
Date Sampled 12/04/12 09:09				
Client ID: MW-6				
Lab ID: TRC12120544-06A Ethanol	ND	5.0 µg/L	12/07/12	12/07/12
Date Sampled 12/04/12 07:48				
Client ID: MW-7				
Lab ID: TRC12120544-07A Ethanol	ND	5.0 µg/L	12/07/12	12/07/12
Date Sampled 12/04/12 08:58				
Client ID: Duplicate-1				
Lab ID: TRC12120544-08A Ethanol	ND	5.0 µg/L	12/07/12	12/07/12
Date Sampled 12/04/12 09:00				

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.

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.

PS

12/17/12

Report Date



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 : 12/05/12

Job: Quik Stop 56

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-2					
Lab ID :	TRC12120544-01A	TPH-P (GRO)	ND	0.050 mg/L	12/10/12	12/10/12
Date Sampled	12/04/12 08:35	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	12/10/12	12/10/12
		Methyl tert-butyl ether (MTBE)	0.57	0.50 µg/L	12/10/12	12/10/12
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	12/10/12	12/10/12
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	12/10/12	12/10/12
		Benzene	ND	0.50 µg/L	12/10/12	12/10/12
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	12/10/12	12/10/12
		Toluene	ND	0.50 µg/L	12/10/12	12/10/12
		Ethylbenzene	ND	0.50 µg/L	12/10/12	12/10/12
		Xylenes, Total	ND	0.50 µg/L	12/10/12	12/10/12
Client ID :	MW-3					
Lab ID :	TRC12120544-02A	TPH-P (GRO)	ND	0.050 mg/L	12/10/12	12/10/12
Date Sampled	12/04/12 08:23	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	12/10/12	12/10/12
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	12/10/12	12/10/12
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	12/10/12	12/10/12
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	12/10/12	12/10/12
		Benzene	ND	0.50 µg/L	12/10/12	12/10/12
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	12/10/12	12/10/12
		Toluene	ND	0.50 µg/L	12/10/12	12/10/12
		Ethylbenzene	ND	0.50 µg/L	12/10/12	12/10/12
		Xylenes, Total	ND	0.50 µg/L	12/10/12	12/10/12
Client ID :	MW-1					
Lab ID :	TRC12120544-03A	TPH-P (GRO)	ND	0.050 mg/L	12/10/12	12/10/12
Date Sampled	12/04/12 08:45	Tertiary Butyl Alcohol (TBA)	36	10 µg/L	12/10/12	12/10/12
		Methyl tert-butyl ether (MTBE)	23	0.50 µg/L	12/10/12	12/10/12
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	12/10/12	12/10/12
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	12/10/12	12/10/12
		Benzene	ND	0.50 µg/L	12/10/12	12/10/12
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	12/10/12	12/10/12
		Toluene	ND	0.50 µg/L	12/10/12	12/10/12
		Ethylbenzene	ND	0.50 µg/L	12/10/12	12/10/12
		Xylenes, Total	ND	0.50 µg/L	12/10/12	12/10/12



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Client ID :	MW-4					
Lab ID :	TRC12120544-04A	TPH-P (GRO)	0.46	0.050 mg/L	12/10/12	12/10/12
Date Sampled	12/04/12 08:53	Tertiary Butyl Alcohol (TBA)	400	10 µg/L	12/10/12	12/10/12
		Methyl tert-butyl ether (MTBE)	2.3	0.50 µg/L	12/10/12	12/10/12
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	12/10/12	12/10/12
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	12/10/12	12/10/12
		Benzene	ND	0.50 µg/L	12/10/12	12/10/12
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	12/10/12	12/10/12
		Toluene	ND	0.50 µg/L	12/10/12	12/10/12
		Ethylbenzene	ND	0.50 µg/L	12/10/12	12/10/12
		Xylenes, Total	0.90	0.50 µg/L	12/10/12	12/10/12
Client ID :	MW-5					
Lab ID :	TRC12120544-05A	TPH-P (GRO)	ND	0.050 mg/L	12/10/12	12/10/12
Date Sampled	12/04/12 09:09	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	12/10/12	12/10/12
		Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	12/10/12	12/10/12
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	12/10/12	12/10/12
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	12/10/12	12/10/12
		Benzene	ND	0.50 µg/L	12/10/12	12/10/12
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	12/10/12	12/10/12
		Toluene	ND	0.50 µg/L	12/10/12	12/10/12
		Ethylbenzene	ND	0.50 µg/L	12/10/12	12/10/12
		Xylenes, Total	ND	0.50 µg/L	12/10/12	12/10/12
Client ID :	MW-6					
Lab ID :	TRC12120544-06A	TPH-P (GRO)	ND	0.050 mg/L	12/10/12	12/10/12
Date Sampled	12/04/12 07:48	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	12/10/12	12/10/12
		Methyl tert-butyl ether (MTBE)	6.6	0.50 µg/L	12/10/12	12/10/12
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	12/10/12	12/10/12
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	12/10/12	12/10/12
		Benzene	ND	0.50 µg/L	12/10/12	12/10/12
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	12/10/12	12/10/12
		Toluene	ND	0.50 µg/L	12/10/12	12/10/12
		Ethylbenzene	ND	0.50 µg/L	12/10/12	12/10/12
		Xylenes, Total	ND	0.50 µg/L	12/10/12	12/10/12
Client ID :	MW-7					
Lab ID :	TRC12120544-07A	TPH-P (GRO)	0.084	0.050 mg/L	12/10/12	12/10/12
Date Sampled	12/04/12 08:58	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	12/10/12	12/10/12
		Methyl tert-butyl ether (MTBE)	120	0.50 µg/L	12/10/12	12/10/12
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	12/10/12	12/10/12
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	12/10/12	12/10/12
		Benzene	ND	0.50 µg/L	12/10/12	12/10/12
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	12/10/12	12/10/12
		Toluene	ND	0.50 µg/L	12/10/12	12/10/12
		Ethylbenzene	ND	0.50 µg/L	12/10/12	12/10/12
		Xylenes, Total	ND	0.50 µg/L	12/10/12	12/10/12
Client ID :	Duplicate-1					
Lab ID :	TRC12120544-08A	TPH-P (GRO)	0.095	0.050 mg/L	12/10/12	12/10/12
Date Sampled	12/04/12 09:00	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	12/10/12	12/10/12
		Methyl tert-butyl ether (MTBE)	140	0.50 µg/L	12/10/12	12/10/12
		Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	12/10/12	12/10/12
		Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	12/10/12	12/10/12
		Benzene	ND	0.50 µg/L	12/10/12	12/10/12
		Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	12/10/12	12/10/12
		Toluene	ND	0.50 µg/L	12/10/12	12/10/12
		Ethylbenzene	ND	0.50 µg/L	12/10/12	12/10/12
		Xylenes, Total	ND	0.50 µg/L	12/10/12	12/10/12



Alpha Analytical, Inc.

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

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.

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.

AS

12/17/12

Report Date



Alpha Analytical, Inc.

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VOC Sample Preservation Report

Work Order: TRC12120544

Job: Quik Stop 56

Alpha's Sample ID	Client's Sample ID	Matrix	pH
12120544-01A	MW-2	Aqueous	2
12120544-02A	MW-3	Aqueous	2
12120544-03A	MW-1	Aqueous	2
12120544-04A	MW-4	Aqueous	2
12120544-05A	MW-5	Aqueous	2
12120544-06A	MW-6	Aqueous	2
12120544-07A	MW-7	Aqueous	2
12120544-08A	Duplicate-1	Aqueous	2



Alpha Analytical, Inc.

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Date:
17-Dec-12

QC Summary Report

Work Order:
12120544

Method Blank

Method Blank		Type: MBLK	Test Code: EPA Method SW8260B-DI							
File ID: C:\HPCHEM\MS11\DATA\121207\12120804.D			Batch ID: 30055		Analysis Date: 12/07/2012 09:58					
Sample ID: MBLK-30055	Units: µg/L		Run ID: MSD_11_121207A		Prep Date: 12/07/2012 09:09					
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	ND	5								
Surr: Hexafluoro-2-propanol	465		500		93	61	134			

Laboratory Control Spike

Laboratory Control Spike		Type: LCS	Test Code: EPA Method SW8260B-DI							
File ID: C:\HPCHEM\MS11\DATA\121207\12120805.D			Batch ID: 30055		Analysis Date: 12/07/2012 10:17					
Sample ID: LCS-30055	Units: µg/L		Run ID: MSD_11_121207A		Prep Date: 12/07/2012 09:09					
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	353	5	250		141	62	150			
Surr: Hexafluoro-2-propanol	525		500		105	61	134			

Sample Matrix Spike

Sample Matrix Spike		Type: MS	Test Code: EPA Method SW8260B-DI							
File ID: C:\HPCHEM\MS11\DATA\121207\12120807.D			Batch ID: 30055		Analysis Date: 12/07/2012 11:00					
Sample ID: 12120544-02AMS	Units: µg/L		Run ID: MSD_11_121207A		Prep Date: 12/07/2012 09:09					
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	293	5	250	0	117	56	153			
Surr: Hexafluoro-2-propanol	454		500		91	61	134			

Sample Matrix Spike Duplicate

Sample Matrix Spike Duplicate		Type: MSD	Test Code: EPA Method SW8260B-DI							
File ID: C:\HPCHEM\MS11\DATA\121207\12120808.D			Batch ID: 30055		Analysis Date: 12/07/2012 11:20					
Sample ID: 12120544-02AMSD	Units: µg/L		Run ID: MSD_11_121207A		Prep Date: 12/07/2012 09:09					
Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	337	5	250	0	135	56	153	292.9	14.0(40)	
Surr: Hexafluoro-2-propanol	550		500		110	61	134			

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:
17-Dec-12

QC Summary Report

Work Order:
12120544

Method Blank

File ID: 12121004.D

Type: MBLK Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS08W1210B

Analysis Date: 12/10/2012 13:43

Sample ID: MBLK MS08W1210B

Units : mg/L

Run ID: MSD_08_121210B

Prep Date: 12/10/2012 13:43

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	ND	0.05								
Surr: 1,2-Dichloroethane-d4	0.00976		0.01		98	70	130			
Surr: Toluene-d8	0.0116		0.01		116	70	130			
Surr: 4-Bromofluorobenzene	0.00714		0.01		71	70	130			

Laboratory Control Spike

File ID: 12121003.D

Type: LCS Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS08W1210B

Analysis Date: 12/10/2012 12:57

Sample ID: GLCS MS08W1210B

Units : mg/L

Run ID: MSD_08_121210B

Prep Date: 12/10/2012 12:57

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	0.394	0.05	0.4		99	70	130			
Surr: 1,2-Dichloroethane-d4	0.00933		0.01		93	70	130			
Surr: Toluene-d8	0.0105		0.01		105	70	130			
Surr: 4-Bromofluorobenzene	0.00889		0.01		89	70	130			

Sample Matrix Spike

File ID: 12121028.D

Type: MS Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS08W1210B

Analysis Date: 12/10/2012 23:05

Sample ID: 12120544-01AGS

Units : mg/L

Run ID: MSD_08_121210B

Prep Date: 12/10/2012 23:05

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1.7	0.25	2	0	85	51	144			
Surr: 1,2-Dichloroethane-d4	0.0486		0.05		97	70	130			
Surr: Toluene-d8	0.0524		0.05		105	70	130			
Surr: 4-Bromofluorobenzene	0.0447		0.05		89	70	130			

Sample Matrix Spike Duplicate

File ID: 12121029.D

Type: MSD Test Code: EPA Method SW8015B/C / SW8260B

Batch ID: MS08W1210B

Analysis Date: 12/10/2012 23:28

Sample ID: 12120544-01AGSD

Units : mg/L

Run ID: MSD_08_121210B

Prep Date: 12/10/2012 23:28

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	1.78	0.25	2	0	89	51	144	1.696	4.7(29)	
Surr: 1,2-Dichloroethane-d4	0.0497		0.05		99	70	130			
Surr: Toluene-d8	0.0516		0.05		103	70	130			
Surr: 4-Bromofluorobenzene	0.0456		0.05		91	70	130			

Comments:

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Date:
17-Dec-12

QC Summary Report

Work Order:
12120544

Method Blank

Type: MBLK Test Code: EPA Method SW8260B

File ID: 12121004.D

Batch ID: MS08W1210A

Analysis Date: 12/10/2012 13:43

Sample ID: MBLK MS08W1210A

Units: µg/L

Run ID: MSD_08_121210B

Prep Date: 12/10/2012 13:43

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	9.76		10		98	70	130			
Surr: Toluene-d8	11.6		10		116	70	130			
Surr: 4-Bromofluorobenzene	7.14		10		71	70	130			

Laboratory Control Spike

Type: LCS Test Code: EPA Method SW8260B

File ID: 12121002.D

Batch ID: MS08W1210A

Analysis Date: 12/10/2012 12:34

Sample ID: LCS MS08W1210A

Units: µg/L

Run ID: MSD_08_121210B

Prep Date: 12/10/2012 12:34

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	11.7	0.5	10		117	65	140			
Benzene	10.8	0.5	10		108	70	130			
Toluene	10.4	0.5	10		104	80	120			
Ethylbenzene	9.96	0.5	10		99.6	80	120			
Xylenes, Total	20.2	0.5	20		101	70	130			
Surr: 1,2-Dichloroethane-d4	10.6		10		106	70	130			
Surr: Toluene-d8	9.7		10		97	70	130			
Surr: 4-Bromofluorobenzene	9.22		10		92	70	130			

Sample Matrix Spike

Type: MS Test Code: EPA Method SW8260B

File ID: 12121026.D

Batch ID: MS08W1210A

Analysis Date: 12/10/2012 22:20

Sample ID: 12120544-01AMS

Units: µg/L

Run ID: MSD_08_121210B

Prep Date: 12/10/2012 22:20

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	66	1.3	50	0.57	131	47	150			
Benzene	49.4	1.3	50	0	99	59	138			
Toluene	44	1.3	50	0	88	68	130			
Ethylbenzene	42.3	1.3	50	0	85	68	130			
Xylenes, Total	85.9	1.3	100	0	86	70	130			
Surr: 1,2-Dichloroethane-d4	55.5		50		111	70	130			
Surr: Toluene-d8	46.5		50		93	70	130			
Surr: 4-Bromofluorobenzene	46.3		50		93	70	130			

Sample Matrix Spike Duplicate

Type: MSD Test Code: EPA Method SW8260B

File ID: 12121027.D

Batch ID: MS08W1210A

Analysis Date: 12/10/2012 22:42

Sample ID: 12120544-01AMSD

Units: µg/L

Run ID: MSD_08_121210B

Prep Date: 12/10/2012 22:42

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	69.5	1.3	50	0.57	138	47	150	66.02	5.1(40)	
Benzene	55.4	1.3	50	0	111	59	138	49.38	11.5(21)	
Toluene	48	1.3	50	0	96	68	130	44.01	8.7(20)	
Ethylbenzene	47.6	1.3	50	0	95	68	130	42.31	11.9(20)	
Xylenes, Total	95.4	1.3	100	0	95	70	130	85.87	10.5(20)	
Surr: 1,2-Dichloroethane-d4	57		50		114	70	130			
Surr: Toluene-d8	45.8		50		92	70	130			
Surr: 4-Bromofluorobenzene	46.5		50		93	70	130			



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QC Summary Report

Date:
17-Dec-12

Work Order:
12120544

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.

CHAIN-OF-CUSTODY RECORD

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

CA

WorkOrder : TRC12120544
Report Due By : 5:00 PM On : 18-Dec-12

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

Report Attention	Phone Number	E-Mail Address
Jonathan Scheiner	(925) 688-2473 x 236	jscheiner@trcsolutions.com

EDD Required : Yes

Sampled by : Client

PO : 24004

Cooler Temp	Samples Received	Date Printed
2 °C	05-Dec-12	05-Dec-12

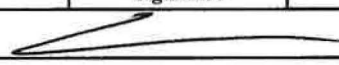
Client's COC # : 10519

Job : Quik Stop 56

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

Alpha Sample ID	Client Sample ID	Collection Matrix	No. of Bottles Alpha Sub TAT	Requested Tests						Sample Remarks	
				ALCOHOL_W	TPHP_W	VOC_W					
TRC12120544-01A	MW-2	AQ 12/04/12 08:35	6 0 9	Low Level EtOH	GAS-C	BTEX/OXY_C					
TRC12120544-02A	MW-3	AQ 12/04/12 08:23	6 0 9	Low Level EtOH	GAS-C	BTEX/OXY_C					
TRC12120544-03A	MW-1	AQ 12/04/12 08:45	6 0 9	Low Level EtOH	GAS-C	BTEX/OXY_C					
TRC12120544-04A	MW-4	AQ 12/04/12 08:53	6 0 9	Low Level EtOH	GAS-C	BTEX/OXY_C					
TRC12120544-05A	MW-5	AQ 12/04/12 09:09	6 0 9	Low Level EtOH	GAS-C	BTEX/OXY_C					
TRC12120544-06A	MW-6	AQ 12/04/12 07:48	6 0 9	Low Level EtOH	GAS-C	BTEX/OXY_C					
TRC12120544-07A	MW-7	AQ 12/04/12 08:58	6 0 9	Low Level EtOH	GAS-C	BTEX/OXY_C					
TRC12120544-08A	Duplicate-1	AQ 12/04/12 09:00	5 0 9	Low Level EtOH	GAS-C	BTEX/OXY_C					

Comments: Security seals intact. Frozen ice. Total Xylenes. Low Level Alcohols, per client notes. :

Signature	Print Name	Company	Date/Time
	Samira Nain	Alpha Analytical, Inc.	12/5/12 11:15

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 SOLUTIONS
 Attn: Jonathan Scheiner
 Address: 2300 CLAYTON RD. ONE CENTER STE 610
 City, State, Zip: CONCORD, CA 94520
 Phone Number: 925-643-1200 Fax: _____



Alpha Analytical, Inc.
 Main Laboratory: 255 Glendale Ave, Suite 21 Sparks, NV 89431
Satellite Service Centers:
 Northern CA: 9891 Hom Road, Suite C, Rancho Cordova, CA 95827
 Southern NV: 6255 McLeod Ave, Suite 24, Las Vegas, NV 89120
 Southern CA: 1007 E. Dominguez St., Suite O, Carson, CA 90746

Phone: 775-355-1044
 Fax: 775-355-0406
 Phone: 916-368-9089
 Phone: 702-281-4848
 Phone: 714-386-2901

10510

Page # 1 of 1

Consultant/ Client Info: Company: <u>TRC SOLUTIONS</u> Address: <u>2300 CLAYTON RD. STE 610</u> City, State, Zip: <u>CONCORD, CA 94520</u>	Job and Purchase Order Info: Job # <u>QUICK STOP 56</u> Job Name: _____ P.O. #: <u>24004</u>	Report Attention/Project Manager: Name: <u>Jonathan Scheiner</u> Email Address: <u>jscheiner@trcsolutions.com</u> Phone #: <u>925-643-1200</u> Cell #: <u>925-260-4309</u>	QC Deliverable Info: EDD Required? Yes / No _____ EDF Required? <u>Yes</u> / No _____ Global ID: <u>706019774175</u> Data Validation Level: III or IV _____
--	--	---	---

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

Time Sampled (HHMM)	Date Sampled (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
								TFH-G by 8260B	BTEX/MTHL by 8260B	Ethanol by 8260B	
0835	12/4	GW	TRC0120544-DIA	MW-2	STD	No	6	X	X	X	Send EDF to Jonathan Scheiner at jscheiner@trcsolutions.com
0823			DIA	MW-3	STD						
0845			DA	MW-1	STD						
0853			DA	MW-4	STD						
0909			DA	MW-5	STD						
0918			DA	MW-6	STD						
0958			DA	MW-7	STD						
0900				Duplicate -1	STD		5				

ADDITIONAL INSTRUCTIONS:

I (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).

Relinquished by: (Signature/Affiliation) <u>Joe D. Seiner</u>	Date: <u>12/4/12</u>	Time: <u>1240</u>	Received by: (Signature/Affiliation) <u>E. P. Luciano</u>	Date: <u>12.04.12</u>	Time: <u>1240</u>
Relinquished by: (Signature/Affiliation)	Date:	Time:	Received by: (Signature/Affiliation) <u>Alpha</u>	Date: <u>12/5/12</u>	Time: <u>1100</u>
Relinquished by: (Signature/Affiliation)	Date:	Time:	Received by: (Signature/Affiliation)	Date:	Time:

* Key: AQ - Aqueous WA - Waste OT - Other ** L - Liter 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.