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October 30, 2009

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Alameda County
Environmental Health

Project No. 166562

Mr. Steven Plunkett
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: QUARTERLY GROUNDWATER MONITORING REPORT
THIRD QUARTER 2009


Dear Mr. Plunkett:

Enclosed is a copy of the *Third Quarter 2009 Quarterly 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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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: QUARTERLY GROUNDWATER MONITORING REPORT
THIRD QUARTER 2009

Dear Mr. Karvelot:

This *Third Quarter 2009 Quarterly Groundwater Monitoring Report* presents the results of the Third Quarter 2009 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 September 11, 2009. 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 122.36 feet above mean sea level (MSL) in MW-6 at the south end of the study area to 129.71 feet above MSL in MW-3 in the north, with an average elevation of 125.93 feet above MSL. Groundwater flow direction was predominantly to the southwest at a gradient of 0.071 feet per foot in the northern portion of the study area, and approximately 0.004 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). South-southeastern and western components of groundwater flow are also evident at the west and east portions of the well network, respectively. The observed variation in groundwater flow direction and gradient may be attributed to local topography, with 14th Avenue (Beaumont Avenue) forming a north-south depression relative to the steeply trending perpendicular

QUARTERLY GROUNDWATER MONITORING REPORT, THIRD QUARTER 2009

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

October 30, 2009

East 31st Street to the east and west. Surface topography is also 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 September 11, 2009, 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 49 gallons of purge water and equipment rinsate were generated during groundwater sampling activities conducted on September 11, 2009. The purge water was stored onsite in one Department of Transportation-approved 55-gallon drum 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.
- Methyl tert-butyl ether (MTBE) by EPA Method SW8260B
- Tertiary butyl alcohol (TBA) by EPA Method SW8260B
- Di-isopropyl ether (DIPE) by EPA Method SW8260B
- Ethyl tertiary butyl ether (ETBE) by EPA Method SW8260B
- Tertiary amyl methyl ether (TAME) by EPA Method SW8260B
- Ethanol by EPA Method SW8260B-DI.

2.2 Analytical Results

Third Quarter 2009 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 1,100 $\mu\text{g/L}$. MTBE concentrations ranged from non-detect (<0.50 $\mu\text{g/L}$) to 980 $\mu\text{g/L}$, and TBA concentrations ranged from non-detect (<10 $\mu\text{g/L}$) to 13,000 $\mu\text{g/L}$ during this sampling event. No other analytes were detected above their respective reporting limits.

2.3 Discussion

The Third Quarter 2009 monitoring event represents the first monitoring with the expanded well network (i.e., including offsite wells MW-4 through MW-7), and is also the first 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.

The presence of detectable levels of TPH-G and TBA was reported in the southern (downgradient) Site area – in MW-1 and MW-4, the latter located immediately beyond the southern Site perimeter. Both TPH-G and TBA were reported at their maximum concentrations in MW-4, which is situated approximately 60 feet south of and downgradient of the former UST location.



QUARTERLY GROUNDWATER MONITORING REPORT, THIRD QUARTER 2009

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

October 30, 2009

MTBE was detected in each groundwater sample except for that of MW-5, which is located southeast of the Site, and for which no detectable levels of analytes were reported. The maximum concentration of MTBE was reported in MW-1, which is consistent with historical results. The observed spatial pattern of MTBE levels is not readily apparent, but will be the subject of ongoing investigation as part of the required Site Conceptual Model currently being developed per ACDEH request.

3.0 LIST OF ATTACHMENTS

- Figure 1: Vicinity Map
- Figure 2: Groundwater Elevation Contour Map, September 11, 2009
- Figure 3: Dissolved-Phase Constituent Concentrations, September 11, 2009
- 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,



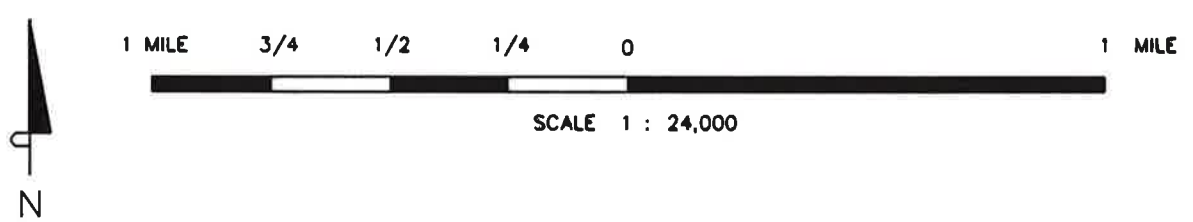
Jonathan Scheiner
Project Manager



Keith Woodburne, P.G.
Senior Project Geologist



FIGURES



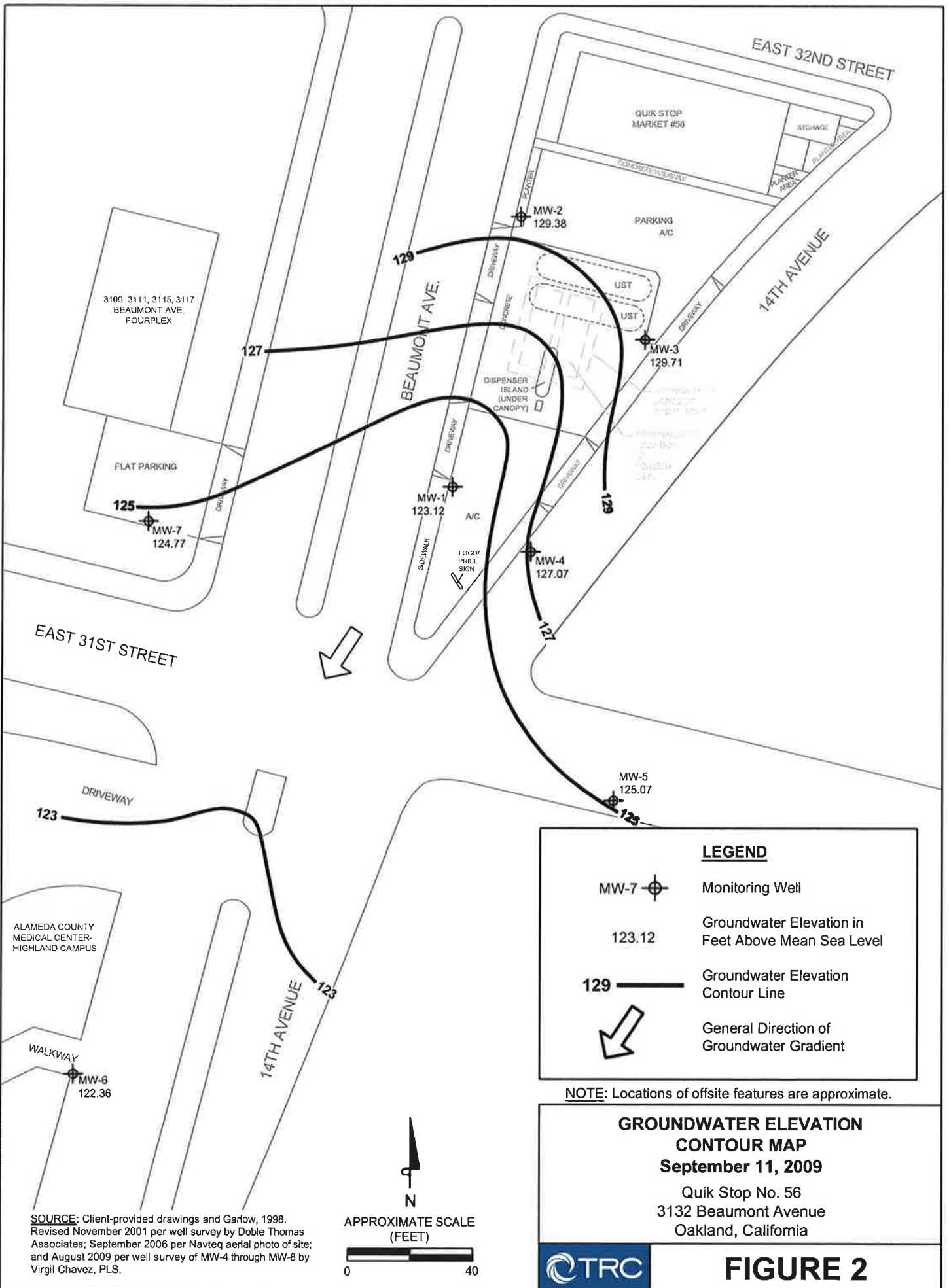
SOURCE:
 United States Geological Survey
 7.5 Minute Topographic Maps:
 Oakland East and
 Oakland West Quadrangles



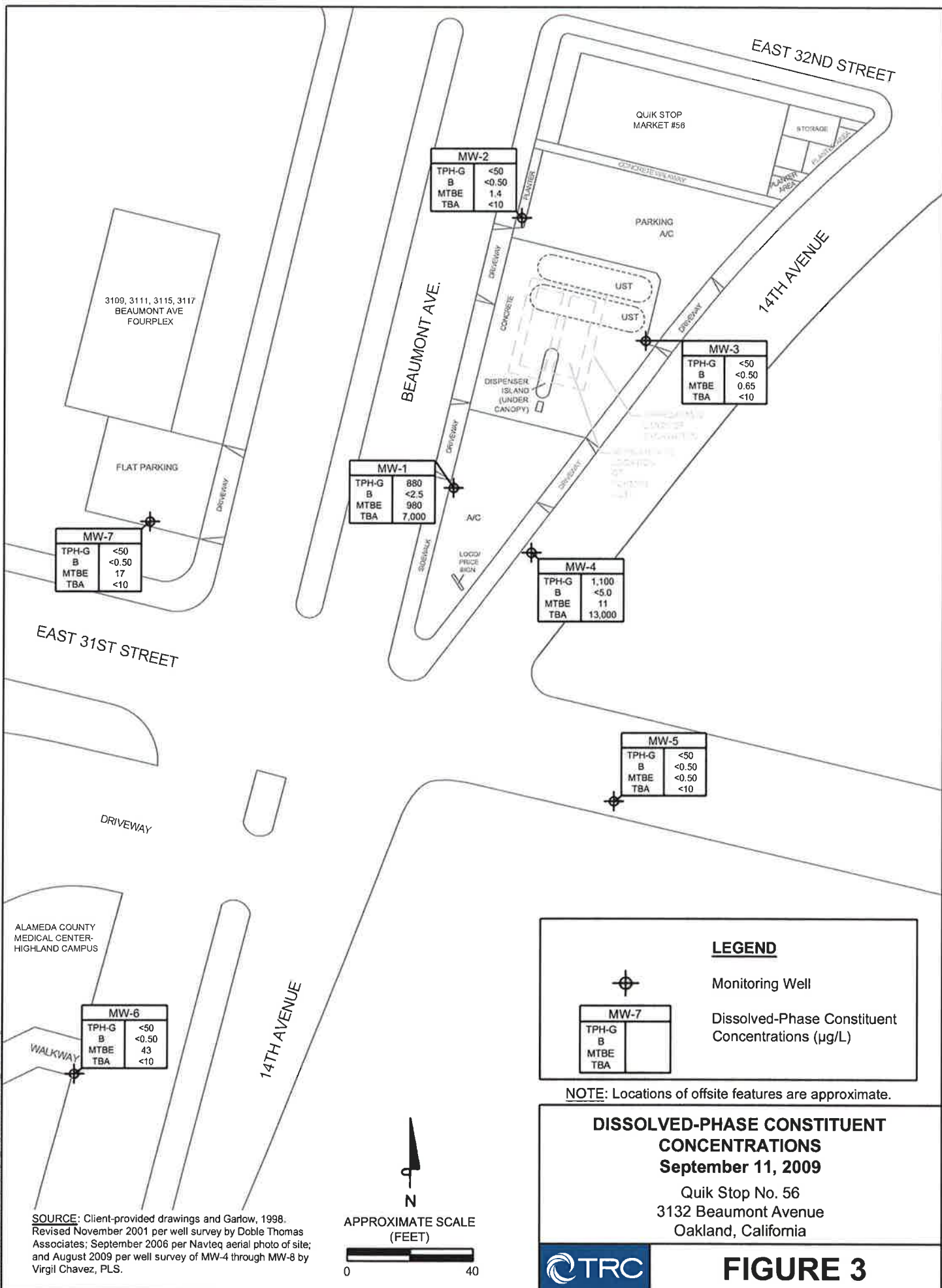
VICINITY MAP
 Quik Stop No. 56
 3132 Beaumont Avenue
 Oakland, California



FIGURE 1



quik stop 56 3132 Beaumont Ave 3-2009.dwg



MW-7	
TPH-G	<50
B	<0.50
MTBE	17
TBA	<10

MW-1	
TPH-G	880
B	<2.5
MTBE	980
TBA	7,000

MW-2	
TPH-G	<50
B	<0.50
MTBE	1.4
TBA	<10


MW-3	
TPH-G	<50
B	<0.50
MTBE	0.65
TBA	<10

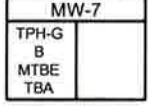
MW-4	
TPH-G	1,100
B	<5.0
MTBE	11
TBA	13,000

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

MW-6	
TPH-G	<50
B	<0.50
MTBE	43
TBA	<10

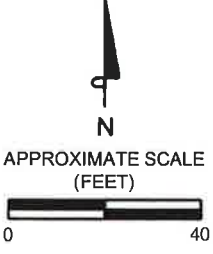
LEGEND

 Monitoring Well

 Dissolved-Phase Constituent Concentrations (µg/L)

NOTE: Locations of offsite features are approximate.

DISSOLVED-PHASE CONSTITUENT CONCENTRATIONS
September 11, 2009
 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.



FIGURE 3

quik stop 56 3009 amstug3_dists-constituent_3009.dwg

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	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-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-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													

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	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-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	—	—	—	—	—	—

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	12/24/03	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-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-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-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-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	—

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

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.

FLUID MEASUREMENT FIELD FORM

Project No.: 166562

TRC Alton Personnel: J. Chidester

Station No.: Quik Stop #56

Date: 9/11/09

Well Number	Screen Interval	Depth to Water	Depth to Product	Free Product Thickness (ft)	Free Product Recovery	Total Depth	Dissolved O ₂ (mg/L)	Comments
MW-2		5.78				30.02		
MW-3		6.64				30.49		
MW-5		8.51				10.26		
MW-6		6.47				19.87		
MW-4		6.52				14.79		
MW-1		11.01				30.14		
MW-7		9.60				24.85		

GROUND WATER SAMPLING FIELD NOTES

Site: Quik Stop #56 Project No.: 166562 Sampled By: J. Chidester Date: 9/11/09

Well No. MW-2 Purge Method: 2" Sub Well No. MW-3 Purge Method: 2" Sub
 Total Depth (feet) 30.02 Depth to Product (feet): - Total Depth (feet) 30.79 Depth to Product (feet): -
 Depth to Water (feet): 5.78 Product Recovered (gallons): - Depth to Water (feet): 6.64 Product Recovered (gallons): -
 Water Column (feet): 24.24 Casing Diameter (Inches): 2" Water Column (feet): 23.85 Casing Diameter (Inches): 2"
 80% Recharge Depth (feet): 10.63 1 Well Volume (gallons): 3.88 80% Recharge Depth (feet): 11.41 1 Well Volume (gallons): 3.82

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH
0846			4	1161	19.4	7.62
			8	1176	20.7	6.97
	0850		12	1179	22.2	6.69
Total Purged			12	Time Sampled		1307

Comments:
Turbidity=

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH
0907			4	989.7	22.2	6.37
			8	978.6	22.4	6.06
	0939		11	982.5	24.1	5.86
Total Purged			11	Time Sampled		1310

Comments: Problems with generator
Turbidity=

Well No. MW-5 Purge Method: H.B. Well No. MW-6 Purge Method: 2" Sub
 Total Depth (feet) 10.26 Depth to Product (feet): - Total Depth (feet) 19.87 Depth to Product (feet): -
 Depth to Water (feet): 8.51 Product Recovered (gallons): - Depth to Water (feet): 6.47 Product Recovered (gallons): -
 Water Column (feet): 1.75 Casing Diameter (Inches): 2" Water Column (feet): 13.40 Casing Diameter (Inches): 2"
 80% Recharge Depth (feet): 8.86 1 Well Volume (gallons): 0.28 80% Recharge Depth (feet): 7.15 1 Well Volume (gallons): 2.14

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH
1009			0.25	589.3	23.5	6.24
			0.5	493.4	22.6	5.88
	1014		1	710.3	22.4	5.63
Total Purged			1	Time Sampled		1230

Comments:
Turbidity=

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH
0954				1053	24.3	6.03
				691.8	23.1	6.04
	0957			1037	22.0	5.88
Total Purged			6	Time Sampled		1210

Comments:
Turbidity=

Well No. MW-7 Purge Method: 2" Sub Well No. MW-4 Purge Method: 2" Sub
 Total Depth (feet) 24.85 Depth to Product (feet): - Total Depth (feet) 14.79 Depth to Product (feet): -
 Depth to Water (feet): 9.60 Product Recovered (gallons): - Depth to Water (feet): 6.52 Product Recovered (gallons): -
 Water Column (feet): 15.25 Casing Diameter (Inches): 2" Water Column (feet): 8.27 Casing Diameter (Inches): 2"
 80% Recharge Depth (feet): 12.65 1 Well Volume (gallons): 2.44 80% Recharge Depth (feet): 8.17 1 Well Volume (gallons): 1.32

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH
1032			2	817.3	25.0	6.10
			4	1445	22.6	5.60
	1038		6	1484	22.1	5.62
Total Purged			7	Time Sampled		1215

Comments: Run Dry @ 6 gal.
Turbidity=

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F. C)	pH
1055			2	251.1	21.5	7.01
			3	737.1	24.6	5.98
	1100		4	775.2	24.2	5.85
Total Purged			4	Time Sampled		1330

Comments:
Turbidity=

GROUND WATER SAMPLING FIELD NOTES

Site: Quik Stop #56 Project No.: 166562 Sampled By: J. Chidester Date: 9/11/09

Well No. MW-1 Purge Method: 2" Sub. Well No. _____ Purge Method: _____
 Total Depth (feet) 30.14 Depth to Product (feet): - Total Depth (feet) _____ Depth to Product (feet): _____
 Depth to Water (feet): 11.01 Product Recovered (gallons): - Depth to Water (feet): _____ Product Recovered (gallons): _____
 Water Column (feet): 19.13 Casing Diameter (Inches): 2" Water Column (feet): _____ Casing Diameter (Inches): _____
 80% Recharge Depth (feet): 14.84 1 Well Volume (gallons): 3.06 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
1111			3	911.4	25.4	6.03
			6	952.2	23.8	5.51
	1116		9	1036	24.0	5.75
Total Purged			9	Time Sampled		1320
Comments:						
Turbidity=						

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
Total Purged				Time Sampled		
Comments:						
Turbidity=						

Well No. _____ Purge Method: _____ Well No. _____ Purge Method: _____
 Total Depth (feet) _____ Depth to Product (feet): _____ Total Depth (feet) _____ Depth to Product (feet): _____
 Depth to Water (feet): _____ Product Recovered (gallons): _____ Depth to Water (feet): _____ Product Recovered (gallons): _____
 Water Column (feet): _____ Casing Diameter (Inches): _____ Water Column (feet): _____ Casing Diameter (Inches): _____
 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____ 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
Total Purged				Time Sampled		
Comments:						
Turbidity=						

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
Total Purged				Time Sampled		
Comments:						
Turbidity=						

Well No. _____ Purge Method: _____ Well No. _____ Purge Method: _____
 Total Depth (feet) _____ Depth to Product (feet): _____ Total Depth (feet) _____ Depth to Product (feet): _____
 Depth to Water (feet): _____ Product Recovered (gallons): _____ Depth to Water (feet): _____ Product Recovered (gallons): _____
 Water Column (feet): _____ Casing Diameter (Inches): _____ Water Column (feet): _____ Casing Diameter (Inches): _____
 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____ 80% Recharge Depth (feet): _____ 1 Well Volume (gallons): _____

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
Total Purged				Time Sampled		
Comments:						
Turbidity=						

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conduc-tivity (uS/cm)	Temper-ature (F, C)	pH
Total Purged				Time Sampled		
Comments:						
Turbidity=						

Billing Information:

Name TRC
 Address _____
 City, State, Zip _____
 Phone Number _____ Fax _____



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

Samples Collected From Which State?
 AZ _____ CA NV _____ WA _____
 ID _____ OR _____ OTHER _____

26350

Page # 1 of 1

Client Name <u>TRC</u>		P.O. # _____		Job # <u>166562 - TA06</u>		Analyses Required TPH-P BTEX, MTBE TAME, ETBE, PIPE, TBA, ETOH				Required QC Level? I II III IV EDD/EDF? YES <input checked="" type="checkbox"/> NO Global ID # <u>706019774175</u>							
Address <u>1590 Solano Way, Ste. A</u>		E-Mail Address <u>jchidester@trcsolutions.com</u>		Phone # <u>(925) 688-1200</u>						Fax # <u>(925) 688-0388</u>		REMARKS					
City, State, Zip <u>Concord, CA 94520</u>		Report Attention <u>J. Chidester</u>		Total and type of containers ** See below													
Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by <u>J. Chidester</u>	Lab ID Number	Office (Use Only)	Sample Description	TAT	Field Filtered									
<u>1300</u>	<u>9/14/09</u>	<u>AQ</u>				<u>MW-2</u>	<u>STD</u>		<u>6 Vw/(K1)</u>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>				
<u>1310</u>						<u>MW-3</u>											
<u>1230</u>						<u>MW-5</u>											
<u>1210</u>						<u>MW-6</u>											
<u>1245</u>						<u>MW-7</u>											
<u>1330</u>						<u>MW-4</u>											
<u>1320</u>	<u>↓</u>	<u>↓</u>				<u>MW-1</u>	<u>↓</u>		<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>	<u>↓</u>				

ADDITIONAL INSTRUCTIONS: Site @ Quik Stop #56 Oakland, CA

Signature	Print Name	Company	Date	Time
<u>[Signature]</u>	<u>James Chidester</u>	<u>TRC</u>	<u>9/14/09</u>	<u>1200</u>
Relinquished by				
Received by				
Relinquished by				
Received by				
Relinquished by				
Received by				

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other
 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.



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
1590 Solano Way Suite A
Concord, CA 94520

Attn: James Chidester
Phone: (925) 688-2485
Fax: (925) 688-0388
Date Received : 09/15/09

Job: 166562-TA06

GC/MSD by Direct Injection
EPA Method SW8260B-DI

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed
Client ID: MW-2 Lab ID : TRC09091552-01A Ethanol Date Sampled 09/11/09 13:00	ND	5.0 µg/L	09/17/09 08:37	09/17/09
Client ID: MW-3 Lab ID : TRC09091552-02A Ethanol Date Sampled 09/11/09 13:10	ND	5.0 µg/L	09/17/09 08:37	09/17/09
Client ID: MW-5 Lab ID : TRC09091552-03A Ethanol Date Sampled 09/11/09 12:30	ND	5.0 µg/L	09/17/09 08:37	09/17/09
Client ID: MW-6 Lab ID : TRC09091552-04A Ethanol Date Sampled 09/11/09 12:10	ND	5.0 µg/L	09/17/09 08:37	09/17/09
Client ID: MW-7 Lab ID : TRC09091552-05A Ethanol Date Sampled 09/11/09 12:45	ND	5.0 µg/L	09/17/09 08:37	09/17/09
Client ID: MW-4 Lab ID : TRC09091552-06A Ethanol Date Sampled 09/11/09 13:30	ND	5.0 µg/L	09/17/09 08:37	09/17/09
Client ID: MW-1 Lab ID : TRC09091552-07A Ethanol Date Sampled 09/11/09 13:20	ND	5.0 µg/L	09/17/09 08:37	09/17/09
Client ID: Trip Blanks Lab ID : TRC09091552-08A Ethanol Date Sampled 09/11/09 00:00	ND	5.0 µg/L	09/17/09 08:37	09/17/09

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) 736-7522 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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

9/28/09

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
1590 Solano Way Suite A
Concord, CA 94520

Attn: James Chidester
Phone: (925) 688-2485
Fax: (925) 688-0388
Date Received : 09/15/09

Job: 166562-TA06

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

Parameter	Concentration	Reporting Limit	Date Extracted	Date Analyzed	
Client ID : MW-2					
Lab ID : TRC09091552-01A	TPH-P (GRO)	ND	0.050 mg/L	09/17/09	09/17/09
Date Sampled 09/11/09 13:00	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	09/17/09	09/17/09
	Methyl tert-butyl ether (MTBE)	1.4	0.50 µg/L	09/17/09	09/17/09
	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	09/17/09	09/17/09
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	09/17/09	09/17/09
	Benzene	ND	0.50 µg/L	09/17/09	09/17/09
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	09/17/09	09/17/09
	Toluene	ND	0.50 µg/L	09/17/09	09/17/09
	Ethylbenzene	ND	0.50 µg/L	09/17/09	09/17/09
	Xylenes, Total	ND	0.50 µg/L	09/17/09	09/17/09
Client ID : MW-3					
Lab ID : TRC09091552-02A	TPH-P (GRO)	ND	0.050 mg/L	09/21/09	09/21/09
Date Sampled 09/11/09 13:10	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	09/21/09	09/21/09
	Methyl tert-butyl ether (MTBE)	0.65	0.50 µg/L	09/21/09	09/21/09
	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	09/21/09	09/21/09
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	09/21/09	09/21/09
	Benzene	ND	0.50 µg/L	09/21/09	09/21/09
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	09/21/09	09/21/09
	Toluene	ND	0.50 µg/L	09/21/09	09/21/09
	Ethylbenzene	ND	0.50 µg/L	09/21/09	09/21/09
	Xylenes, Total	ND	0.50 µg/L	09/21/09	09/21/09
Client ID : MW-5					
Lab ID : TRC09091552-03A	TPH-P (GRO)	ND	0.050 mg/L	09/17/09	09/17/09
Date Sampled 09/11/09 12:30	Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	09/17/09	09/17/09
	Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	09/17/09	09/17/09
	Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	09/17/09	09/17/09
	Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	09/17/09	09/17/09
	Benzene	ND	0.50 µg/L	09/17/09	09/17/09
	Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	09/17/09	09/17/09
	Toluene	ND	0.50 µg/L	09/17/09	09/17/09
	Ethylbenzene	ND	0.50 µg/L	09/17/09	09/17/09
	Xylenes, Total	ND	0.50 µg/L	09/17/09	09/17/09



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Client ID	Lab ID	Date Sampled	Compound	Concentration	Unit	Time	Result	
MW-6	TRC09091552-04A	09/11/09 12:10	TPH-P (GRO)	ND	0.050 mg/L	09/21/09	09/21/09	
			Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	09/21/09	09/21/09	
			Methyl tert-butyl ether (MTBE)	43	0.50 µg/L	09/21/09	09/21/09	
			Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	09/21/09	09/21/09	
			Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	09/21/09	09/21/09	
			Benzene	ND	0.50 µg/L	09/21/09	09/21/09	
			Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	09/21/09	09/21/09	
			Toluene	ND	0.50 µg/L	09/21/09	09/21/09	
			Ethylbenzene	ND	0.50 µg/L	09/21/09	09/21/09	
			Xylenes, Total	ND	0.50 µg/L	09/21/09	09/21/09	
MW-7	TRC09091552-05A	09/11/09 12:45	TPH-P (GRO)	ND	0.050 mg/L	09/21/09	09/21/09	
			Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	09/21/09	09/21/09	
			Methyl tert-butyl ether (MTBE)	17	0.50 µg/L	09/21/09	09/21/09	
			Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	09/21/09	09/21/09	
			Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	09/21/09	09/21/09	
			Benzene	ND	0.50 µg/L	09/21/09	09/21/09	
			Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	09/21/09	09/21/09	
			Toluene	ND	0.50 µg/L	09/21/09	09/21/09	
			Ethylbenzene	ND	0.50 µg/L	09/21/09	09/21/09	
			Xylenes, Total	ND	0.50 µg/L	09/21/09	09/21/09	
MW-4	TRC09091552-06A	09/11/09 13:30	TPH-P (GRO)	1.1	1.0 mg/L	09/21/09	09/21/09	
			Tertiary Butyl Alcohol (TBA)	13,000	100 µg/L	09/21/09	09/21/09	
			Methyl tert-butyl ether (MTBE)	11	5.0 µg/L	09/21/09	09/21/09	
			Di-isopropyl Ether (DIPE)	ND	V	10 µg/L	09/21/09	09/21/09
			Ethyl Tertiary Butyl Ether (ETBE)	ND	V	10 µg/L	09/21/09	09/21/09
			Benzene	ND	V	5.0 µg/L	09/21/09	09/21/09
			Tertiary Amyl Methyl Ether (TAME)	ND	V	10 µg/L	09/21/09	09/21/09
			Toluene	ND	V	5.0 µg/L	09/21/09	09/21/09
			Ethylbenzene	ND	V	5.0 µg/L	09/21/09	09/21/09
			Xylenes, Total	ND	V	5.0 µg/L	09/21/09	09/21/09
MW-1	TRC09091552-07A	09/11/09 13:20	TPH-P (GRO)	0.88	0.50 mg/L	09/21/09	09/21/09	
			Tertiary Butyl Alcohol (TBA)	7,000	50 µg/L	09/21/09	09/21/09	
			Methyl tert-butyl ether (MTBE)	980	2.5 µg/L	09/21/09	09/21/09	
			Di-isopropyl Ether (DIPE)	ND	V	5.0 µg/L	09/21/09	09/21/09
			Ethyl Tertiary Butyl Ether (ETBE)	ND	V	5.0 µg/L	09/21/09	09/21/09
			Benzene	ND	V	2.5 µg/L	09/21/09	09/21/09
			Tertiary Amyl Methyl Ether (TAME)	ND	V	5.0 µg/L	09/21/09	09/21/09
			Toluene	ND	V	2.5 µg/L	09/21/09	09/21/09
			Ethylbenzene	ND	V	2.5 µg/L	09/21/09	09/21/09
			Xylenes, Total	ND	V	2.5 µg/L	09/21/09	09/21/09
Trip Blanks	TRC09091552-08A	09/11/09 00:00	TPH-P (GRO)	ND	0.050 mg/L	09/17/09	09/17/09	
			Tertiary Butyl Alcohol (TBA)	ND	10 µg/L	09/17/09	09/17/09	
			Methyl tert-butyl ether (MTBE)	ND	0.50 µg/L	09/17/09	09/17/09	
			Di-isopropyl Ether (DIPE)	ND	1.0 µg/L	09/17/09	09/17/09	
			Ethyl Tertiary Butyl Ether (ETBE)	ND	1.0 µg/L	09/17/09	09/17/09	
			Benzene	ND	0.50 µg/L	09/17/09	09/17/09	
			Tertiary Amyl Methyl Ether (TAME)	ND	1.0 µg/L	09/17/09	09/17/09	
			Toluene	ND	0.50 µg/L	09/17/09	09/17/09	
			Ethylbenzene	ND	0.50 µg/L	09/17/09	09/17/09	
			Xylenes, Total	ND	0.50 µg/L	09/17/09	09/17/09	



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Gasoline Range Organics (GRO) C4-C13

Note: Sample 08A internal standard Chlorobenzene-d5 area was less than half of the initial calibration. No more sample was available for re-run.

V = Reporting Limits were increased due to high concentrations of target analytes.

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) 736-7522 / info@alpha-analytical.com

Alpha certifies that the test results meet all requirements of NELAC unless footnoted otherwise.

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.

9/28/09

Report Date



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VOC Sample Preservation Report

Work Order: TRC09091552

Job: 166562-TA06

Alpha's Sample ID	Client's Sample ID	Matrix	pH
09091552-01A	MW-2	Aqueous	2
09091552-02A	MW-3	Aqueous	2
09091552-03A	MW-5	Aqueous	2
09091552-04A	MW-6	Aqueous	2
09091552-05A	MW-7	Aqueous	2
09091552-06A	MW-4	Aqueous	2
09091552-07A	MW-1	Aqueous	2
09091552-08A	Trip Blanks	Aqueous	2

9/28/09

Report Date



Alpha Analytical, Inc.

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Date:
25-Sep-09

QC Summary Report

Work Order:
09091552

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B-DI**

File ID: C:\HPCHEM\MS11\DATA\090917\09091704.D

Batch ID: 22718

Analysis Date: 09/17/2009 17:18

Sample ID: **MBLK-22718**

Units : **µg/L**

Run ID: **MSD_11_090917A**

Prep Date: 09/17/2009 08:37

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	ND	5								
Surr: Hexafluoro-2-propanol	504		500		101	70	130			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B-DI**

File ID: C:\HPCHEM\MS11\DATA\090917\09091705.D

Batch ID: 22718

Analysis Date: 09/17/2009 17:37

Sample ID: **LCS-22718**

Units : **µg/L**

Run ID: **MSD_11_090917A**

Prep Date: 09/17/2009 08:37

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	176	5	250		70	70	142			
Surr: Hexafluoro-2-propanol	485		500		97	70	130			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B-DI**

File ID: C:\HPCHEM\MS11\DATA\090917\09091707.D

Batch ID: 22718

Analysis Date: 09/17/2009 18:16

Sample ID: **09091552-02AMS**

Units : **µg/L**

Run ID: **MSD_11_090917A**

Prep Date: 09/17/2009 08:37

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	213	5	250		0 85	68	143			
Surr: Hexafluoro-2-propanol	510		500		102	70	130			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B-DI**

File ID: C:\HPCHEM\MS11\DATA\090917\09091708.D

Batch ID: 22718

Analysis Date: 09/17/2009 18:35

Sample ID: **09091552-02AMSD**

Units : **µg/L**

Run ID: **MSD_11_090917A**

Prep Date: 09/17/2009 08:37

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Ethanol	168	5	250		0 67	68	143	212.7	23.3(20)	M2 R58
Surr: Hexafluoro-2-propanol	487		500		97	70	130			

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.

R58 = MS/MSD RPD exceeded the laboratory control limit.

M2 = Matrix spike recovery was low, the method control sample recovery was acceptable.



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Date:
24-Sep-09

QC Summary Report

Work Order:
09091552

Method Blank

Type **MBLK** Test Code: **EPA Method SW8015B**

File ID: **09092105.D**

Batch ID: **MS09W0921B**

Analysis Date: **09/21/2009 12:46**

Sample ID: **MBLK MS09W0921B**

Units : **mg/L**

Run ID: **MSD_09_090921A**

Prep Date: **09/21/2009 12:46**

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	0.0109		0.01		109	70	130			
Surr: Toluene-d8	0.009		0.01		90	70	130			
Surr: 4-Bromofluorobenzene	0.0103		0.01		103	70	130			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8015B**

File ID: **09092104.D**

Batch ID: **MS09W0921B**

Analysis Date: **09/21/2009 12:22**

Sample ID: **GLCS MS09W0921B**

Units : **mg/L**

Run ID: **MSD_09_090921A**

Prep Date: **09/21/2009 12:22**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	0.455	0.05	0.4		114	70	130			
Surr: 1,2-Dichloroethane-d4	0.011		0.01		110	70	130			
Surr: Toluene-d8	0.00885		0.01		89	70	130			
Surr: 4-Bromofluorobenzene	0.0101		0.01		101	70	130			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8015B**

File ID: **09092118.D**

Batch ID: **MS09W0921B**

Analysis Date: **09/21/2009 17:37**

Sample ID: **09091423-15AGS**

Units : **mg/L**

Run ID: **MSD_09_090921A**

Prep Date: **09/21/2009 17:37**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.32	0.25	2		0	116	58	135		
Surr: 1,2-Dichloroethane-d4	0.0564		0.05		113	70	130			
Surr: Toluene-d8	0.0448		0.05		90	70	130			
Surr: 4-Bromofluorobenzene	0.0485		0.05		97	70	130			

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8015B**

File ID: **09092119.D**

Batch ID: **MS09W0921B**

Analysis Date: **09/21/2009 18:00**

Sample ID: **09091423-15AGSD**

Units : **mg/L**

Run ID: **MSD_09_090921A**

Prep Date: **09/21/2009 18:00**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
TPH-P (GRO)	2.49	0.25	2		0	124	58	135	2.315	7.2(20)
Surr: 1,2-Dichloroethane-d4	0.055		0.05		110	70	130			
Surr: Toluene-d8	0.0444		0.05		89	70	130			
Surr: 4-Bromofluorobenzene	0.0448		0.05		90	70	130			

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:
24-Sep-09

QC Summary Report

Work Order:
09091552

Method Blank

Type **MBLK** Test Code: **EPA Method SW8260B**

File ID: **09092105.D**

Batch ID: **MS09W0921A**

Analysis Date: **09/21/2009 12:46**

Sample ID: **MBLK MS09W0921A**

Units: **µg/L**

Run ID: **MSD_09_090921A**

Prep Date: **09/21/2009 12:46**

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	10.9		10		109	70	130			
Surr: Toluene-d8	9		10		90	70	130			
Surr: 4-Bromofluorobenzene	10.3		10		103	70	130			

Laboratory Control Spike

Type **LCS** Test Code: **EPA Method SW8260B**

File ID: **09092103.D**

Batch ID: **MS09W0921A**

Analysis Date: **09/21/2009 11:59**

Sample ID: **LCS MS09W0921A**

Units: **µg/L**

Run ID: **MSD_09_090921A**

Prep Date: **09/21/2009 11:59**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	11.4	0.5	10		114	62	136			
Benzene	10.7	0.5	10		107	70	130			
Toluene	9.1	0.5	10		91	80	120			
Ethylbenzene	9.78	0.5	10		98	80	120			
Xylenes, Total	19.2	0.5	20		96	70	130			
Surr: 1,2-Dichloroethane-d4	11		10		110	70	130			
Surr: Toluene-d8	8.92		10		89	70	130			
Surr: 4-Bromofluorobenzene	9.19		10		92	70	130			

Sample Matrix Spike

Type **MS** Test Code: **EPA Method SW8260B**

File ID: **09092116.D**

Batch ID: **MS09W0921A**

Analysis Date: **09/21/2009 16:53**

Sample ID: **09091604-04AMS**

Units: **µg/L**

Run ID: **MSD_09_090921A**

Prep Date: **09/21/2009 16:53**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	62.4	1.3	50		0	125	56	141		
Benzene	56.1	1.3	50		2.04	108	67	130		
Toluene	43.4	1.3	50		0	87	66	130		
Ethylbenzene	45.6	1.3	50		0	91	68	130		
Xylenes, Total	85.7	1.3	100		0	86	70	130		
Surr: 1,2-Dichloroethane-d4	58.4		50			117	70	130		
Surr: Toluene-d8	43.6		50			87	70	130		
Surr: 4-Bromofluorobenzene	47.9		50			96	70	130		

Sample Matrix Spike Duplicate

Type **MSD** Test Code: **EPA Method SW8260B**

File ID: **09092117.D**

Batch ID: **MS09W0921A**

Analysis Date: **09/21/2009 17:15**

Sample ID: **09091604-04AMSD**

Units: **µg/L**

Run ID: **MSD_09_090921A**

Prep Date: **09/21/2009 17:15**

Analyte	Result	PQL	SpkVal	SpkRefVal	%REC	LCL(ME)	UCL(ME)	RPDRefVal	%RPD(Limit)	Qual
Methyl tert-butyl ether (MTBE)	63.6	1.3	50		0	127	56	141	62.39	1.9(20)
Benzene	57	1.3	50		2.04	110	67	130	56.09	1.7(20)
Toluene	44.9	1.3	50		0	90	66	130	43.38	3.4(20)
Ethylbenzene	47	1.3	50		0	94	68	130	45.62	3.0(20)
Xylenes, Total	88.4	1.3	100		0	88	70	130	85.65	3.2(20)
Surr: 1,2-Dichloroethane-d4	56.7		50			113	70	130		
Surr: Toluene-d8	44.1		50			88	70	130		
Surr: 4-Bromofluorobenzene	47.2		50			94	70	130		

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.

Billing Information :

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 : TRC09091552
Report Due By : 5:00 PM On : 29-Sep-09

Client:
TRC-Alton Geoscience
1590 Solano Way Suite A

Report Attention	Phone Number	E-Mail Address
James Chidester	(925) 688-2485 x 238	jchidester@trcsolutions.com

EDD Required : Yes

Sampled by : J. Chidester

PO :
Client's COC # : 26350

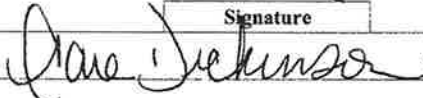
Job : 166562-TA06

Cooler Temp	Samples Received	Date Printed
4 °C	15-Sep-09	15-Sep-09

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

Alpha Sample ID	Client Sample ID	Collection Matrix	Collection Date	No. of Bottles			Requested Tests						Sample Remarks			
				Alpha	Sub	TAT	ALCOHOL_W	TPHP_W	VOC_W							
TRC09091552-01A	MW-2	AQ	09/11/09 13:00	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY_C							
TRC09091552-02A	MW-3	AQ	09/11/09 13:10	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY_C							
TRC09091552-03A	MW-5	AQ	09/11/09 12:30	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY_C							
TRC09091552-04A	MW-6	AQ	09/11/09 12:10	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY_C							
TRC09091552-05A	MW-7	AQ	09/11/09 12:45	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY_C							
TRC09091552-06A	MW-4	AQ	09/11/09 13:30	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY_C							
TRC09091552-07A	MW-1	AQ	09/11/09 13:20	6	0	10	Low Level EtOH	GAS-C	BTEX/OXY_C							
TRC09091552-08A	Trip Blanks	AQ	09/11/09 00:00	2	0	10	Low Level EtOH	GAS-C	BTEX/OXY_C							Reno 8260 TB (1) 8/11/09, Alcohol TB (1) 8/24/09

Comments: Security seals intact. Frozen ice. Total Xylenes. Site @ Quik Stop #56 Oakland, CA. :

Logged in by:	Signature	Print Name	Company	Date/Time
		Tara Dickerson	Alpha Analytical, Inc.	9/15/09

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

Billing Information:

Name TRC
 Address _____
 City, State, Zip _____
 Phone Number _____ Fax _____



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

Samples Collected From Which State? 26350
 AZ _____ CA NV _____ WA _____
 ID _____ OR _____ OTHER _____ Page # 1 of 1

Client Name			P.O. #	Job #		Analyses Required					Required QC Level?					
TRC				166562 - TA06		TPH-P	BTEX, MTBE	TAME, ETBE,	DURE, TBO, ETOH							
Address			E-Mail Address	Phone #	Fax #											Global ID #
1590 Solano Way, Ste. A			jchidester@trcsolutions.com			206019774175				EDD/EDF? YES <input checked="" type="checkbox"/> NO _____						
Concord, CA 94520			(925) 688-1200 (925) 688-0388			REMARKS										
Time Sampled	Date Sampled	Matrix* See Key Below	Sampled by	Report Attention	Sample Description	TAT	Field Filtered	Total and type of containers								
			J. Chidester	J. Chidester				** See below								
1300	9/14/09	AQ	TR0091091552-01		MW-2	STD		6 V _n (H ₂ O)		X	X	X	X			
1310			-02		MW-3											
1230			-03		MW-5											
1210			-04		MW-6											
1245			-05		MW-7											
1330			-06		MW-4											
1320	↓	↓	-07		MW-1	↓		↓		↓	↓	↓	↓			
-	↓	↓	-08		Trip Blanks	↓		2 V		↓	↓	↓	↓			

ADDITIONAL INSTRUCTIONS: site @ Quik Stop #56 Oakland, CA

Signature	Print Name	Company	Date	Time
<i>James Chidester</i>	James Chidester	TRC	9/14/09	1200
<i>Alea Dickerson</i>	Alea Dickerson	Alpha	9/15/09	052
Relinquished by				
Received by				
Relinquished by				
Received by				

*Key: AQ - Aqueous SO - Soil WA - Waste OT - Other AR - Air **: L-Liter V-Voa S-Soil Jar O-Orbo T-Tedlar B-Brass P-Plastic OT-Other
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