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Alameda County
Environmental Health

March 9, 2009

Mr. Steven Plunkett
Alameda County Health Care Services Agency
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577

SUBJECT: First Quarter 2008 Groundwater Monitoring Report
PSI Project No. 575-8G004
Alcopark Fueling Facility - Site No. 2
165 13th Street, Oakland, California

Dear Mr. Plunkett:

I declare, under penalty of perjury, that the information and/or recommendations contained in the attached subject monitoring report are true and correct to the best of my knowledge.

Respectfully submitted,



Rod Freitag
Environmental Program Manager
Alameda County General Services Agency

**FIRST QUARTER 2009
GROUNDWATER MONITORING REPORT
ALCOPARK FUELING FACILITY
OAKLAND, CALIFORNIA**

**FIRST QUARTER 2009
GROUNDWATER MONITORING REPORT
ALCOPARK FUELING FACILITY
OAKLAND, CALIFORNIA**

Prepared for

ALAMEDA COUNTY GENERAL SERVICES AGENCY
1401 Lakeside Drive, 11th Floor
Oakland, California

Prepared by

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March 6, 2009
575-8G004

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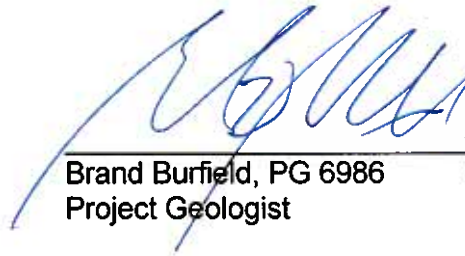
STATEMENT OF LIMITATIONS AND PROFESSIONAL CERTIFICATION

The information provided in this report prepared by Professional Service Industries, Inc. (PSI), Project Number 575-8G004, is intended exclusively for the use of Alameda County General Services Agency (ACGSA), for the evaluation of groundwater contamination as it pertains to the property at 165 13th Street, Oakland, California, at the time the activities were conducted. The professional services provided have been performed in accordance with practices generally accepted by other appropriate environmental professionals, geologists, hydrologists, hydrogeologists, engineers, and environmental scientists practicing in this field. No other warranty, either expressed or implied, is made. As with all subsurface groundwater sampling, there is no guarantee that the work conducted has identified any and all sources or locations of petroleum hydrocarbons or hazardous substances or chemicals in the groundwater.

This report is issued with the understanding that ACGSA is responsible for ensuring that the information contained herein is brought to the attention of the appropriate regulatory agency.



Frank R. Foss, REA
Department Manager



Brand Burfield, PG 6986
Project Geologist



1. INTRODUCTION

Professional Service Industries, Inc. (PSI) was retained by the Alameda County General Services Agency (ACGSA) to perform quarterly groundwater monitoring at their Alcopark Fueling Facility - Site No. 2, located at 165 13th Street in Oakland, California. The site location is presented on Figure 1.

The groundwater monitoring program was initially prompted by a request by the Alameda County Health Care Services Agency (ACEH), which requested additional information on the extent of petroleum hydrocarbon impacted groundwater (ACEH, May 20, 1997).

1.1 SCOPE OF WORK

The scope of work consisted of the following tasks:

- Measure the depth to water in wells MW-1, MW-4 and MW-5 and prepare a groundwater elevation map.
- Determine the groundwater flow direction and gradient.
- Collect and chemically analyze groundwater samples from wells MW-1, MW-6 and MW-7.
- Prepare a report documenting the field procedures, analytical results, and presenting our conclusions regarding the data generated.

1.2 SITE BACKGROUND

The ACGSA operates two 10,000-gallon Underground Storage Tanks (USTs) at the Alcopark fueling station to fuel Alameda County vehicles. Three groundwater monitoring wells MW-1, MW-4, and MW-5 were installed at the site in March, 1989 to assess environmental conditions subsequent to the repair of a line leak at Dispenser No. 1. Initial sample results indicated the presence of BTEX (benzene, toluene, ethyl-benzene, and xylenes) in the groundwater. Subsequent sample results indicated the presence of Total Petroleum Hydrocarbons as Gasoline (TPH-G). Based on the analytical data, it was concluded that contaminants detected on-site had originated from a source area located upgradient of the site. Sampling activities were halted in 1992 pending investigation of an upgradient source (ACGSA, Dec 2, 1997).

In September of 1992, overfill protection, spill containment, and automatic tank gauging were installed on the two underground tanks. In July and August of 1996, additional upgrade work was done to comply with Title 23 of the California Code of Regulations. This

included replacement of underground single-walled steel piping with double-wall fiberglass piping, and installation of dispenser sumps, piping sumps, and sump leak sensors (ACGSA, 1997).

In their letter dated May 30, 1997, the ACEH instructed ACGSA to resume groundwater monitoring at Alcopark (ACEH, May, 20 1997). Sampling resumed in July, 1997. Analytical data from that sampling event indicated elevated TPH-G and BTEX concentrations in downgradient well MW-1, compared with historic levels. Methyl tert-Butyl ether (MTBE) was also detected. Additional samples collected in October, 1997 provided similar results. In their letter dated September 11, 1997, the ACEH directed ACGSA to investigate the extent and stability of the plume.

To better define groundwater conditions downgradient of the USTs, two borings were drilled on March 23, 1998. A grab groundwater sample was collected from one of the borings, and a small diameter (1/2 inch inner diameter) groundwater monitoring well MW-6 was installed in the other boring. In March 1999, the ACEH allowed sampling of MW-4 and MW-5 to be discontinued and recommended installation of another downgradient well. One additional small-diameter groundwater monitoring well (MW-7) was installed by PSI in September, 1999.

The ACEH issued a letter, dated July 18, 2000, requiring ACGSA to prepare a Site Conceptual Model in accordance with the Regional Water Quality Control Board's final draft "Guideline for Investigation and Cleanup of MTBE and Other Ether-Based Oxygenates." The Site Conceptual Model (PSI, 2000), indicated that there are no drinking water wells within 1/2 mile of the site, and Lake Merritt, the nearest surface water receptor, is salt water and not a potential source of drinking water. Based on these findings, it was concluded that, "...an Interim Remedial Action should not be required for the subject site because the migration of MTBE contaminated groundwater to the nearest receptor, Lake Merritt, is unlikely. Furthermore, since no potential drinking water sources are at risk, a risk assessment is not necessary for the site."

After reviewing the Site Conceptual Model report, the ACEH required that a supplemental fate and transport screening be done to assess potential MTBE impacts on the Lake Merritt ecosystem. A Fate and Transport report was issued (PSI, 2001) indicating no expectation of a significant impact on the ecology of Lake Merritt.

In accordance with the e-mailed authorization of Mr. Steven Plunkett of the ACEH, dated July 27, 2006, the frequency of groundwater sampling was changed to annually, beginning in 2007. In response to a 2008 request for case closure, the ACEH issued a review letter which denied the request and required that an updated Site Conceptual Model be prepared for the site to identify data gaps. In accordance with the ACEH review of the fuel leak case (ACEH, 2008) and with subsequent discussions with the ACEH, quarterly groundwater monitoring has resumed as of 2009.

2. GROUNDWATER MONITORING ACTIVITIES

A PSI representative performed groundwater monitoring activities on February 6th and 9th, 2009. The activities were performed in accordance with PSI standard procedures presented below in section 2.2.

2.1 GROUNDWATER ELEVATION AND FLOW DIRECTION

Prior to groundwater sampling, on February 6, 2009, depth to groundwater was measured from the top of the well casings in monitoring wells MW-1, MW-4, and MW-5. Monitoring wells MW-6 and MW-7 have casing too narrow to accommodate a standard water level meter. The groundwater measurements were converted to groundwater elevations and the data were plotted on a groundwater elevation map (presented as Figure 2). The groundwater elevation data are presented in Table 1.

PSI's interpretation of the groundwater elevation data indicates the groundwater is flowing to the east under a hydraulic gradient of 0.005. The flow direction is consistent with the flow direction determined for previous quarterly monitoring events.

2.2 GROUNDWATER SAMPLING

In the 2007 and 2008 Annual Groundwater Monitoring events, MW-1, MW-6, and MW-7 were sampled without purging, as requested in the ACEH letter dated September 11, 1997. As per our discussion with Mr. Paresh Khatri of the ACEH, it was determined that for future groundwater sampling events, the wells should be purged.

On February 6 and 9, 2009, groundwater samples were collected from monitoring wells MW-1, MW-6, and MW-7. Prior to the collection of groundwater samples, the monitoring wells were purged of approximately three well volumes of water until pH, conductivity, and temperature stabilized. The groundwater monitoring purge logs are presented in Appendix A.

The following procedures for well monitoring, well purging, and water sampling were implemented while sampling the wells:

1. All non-dedicated equipment was washed prior to entering the well with a Liquinox solution, followed by a deionized water rinse.
2. Prior to purging the wells, depth-to-water was measured using a Solinst electric water level indicator to an accuracy of approximately 0.01 foot. The measurements were made to the top of the well casing on the north side.

3. Monitoring wells at the site were prepared for sampling by purging the well of approximately three well volumes of water using a battery-powered purge pump or dedicated vinyl tube with a check valve.
4. Water samples were collected with a battery-powered pump or dedicated vinyl tubing with check valve after the well was purged. The water collected was immediately decanted into laboratory-supplied vials and bottles. The containers were filled, capped, labeled, and placed in a chilled cooler through delivery to the laboratory for analysis.
5. Chain-of-custody procedures, including chain-of-custody forms, were used to document water sample handling and transport from collection to delivery to the laboratory for analyses.

To minimize the possibility of cross-contamination between sampling locations, most of the sampling equipment used is dedicated. To further minimize the possibility of cross-contamination, the water sounder and all other reusable sampling equipment were cleaned with a non-phosphate detergent and rinsed twice with deionized water prior to their use in another well.

3. LABORATORY ANALYSIS PROGRAM

The groundwater samples collected during this investigation were submitted to McCampbell Analytical, Inc. of Pittsburg, California. McCampbell Analytical is a State of California Department of Health Services certified environmental laboratory (Environmental Laboratory Accreditation Program #1644). A summary of the analytical methods is presented below. The groundwater samples collected at the site were analyzed for the following constituents by the methods indicated:

- Volatile Organic Compounds (VOCs) using EPA Method 8260B.
- Total Petroleum Hydrocarbons as Gasoline (TPH-G) by EPA Method 8015-M

3.1 ANALYTICAL RESULTS

Tested analytes were detected in the samples from all three groundwater-monitoring wells sampled for this monitoring event.

- TPH-G was detected in wells MW-1 (2,600 micrograms per liter ($\mu\text{g/l}$)) and MW-6 (120 $\mu\text{g/l}$) and was not detected in MW-7.
- Benzene was detected in wells MW-1 (43 $\mu\text{g/l}$) and MW-6 (2.9 $\mu\text{g/l}$). Figure 3 depicts the benzene concentration with time in MW-1, MW-6, and MW-7. Benzene concentrations have varied with time and have not shown a consistent overall trend.
- MTBE was detected in wells MW-6 (26 $\mu\text{g/l}$) and MW-7 (5.8 $\mu\text{g/l}$). The MTBE concentrations decreased in wells MW-6 and MW-7 since the previous sampling event. Figure 4 depicts the MTBE concentration with time in MW-1, MW-6, and MW-7. In general, MTBE concentrations appear to be decreasing over time.
- Additional VOCs, commonly associated with gasoline-impacted groundwater, were detected in the groundwater samples.

Current and historic analytical data is presented in Table 1. Laboratory reports are presented in Appendix B.

4. CONCLUSIONS AND RECOMMENDATIONS

Based on the information presented in this report, the following conclusions have been reached:

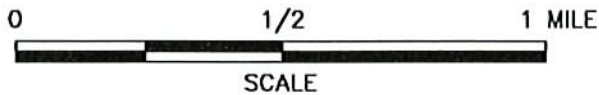
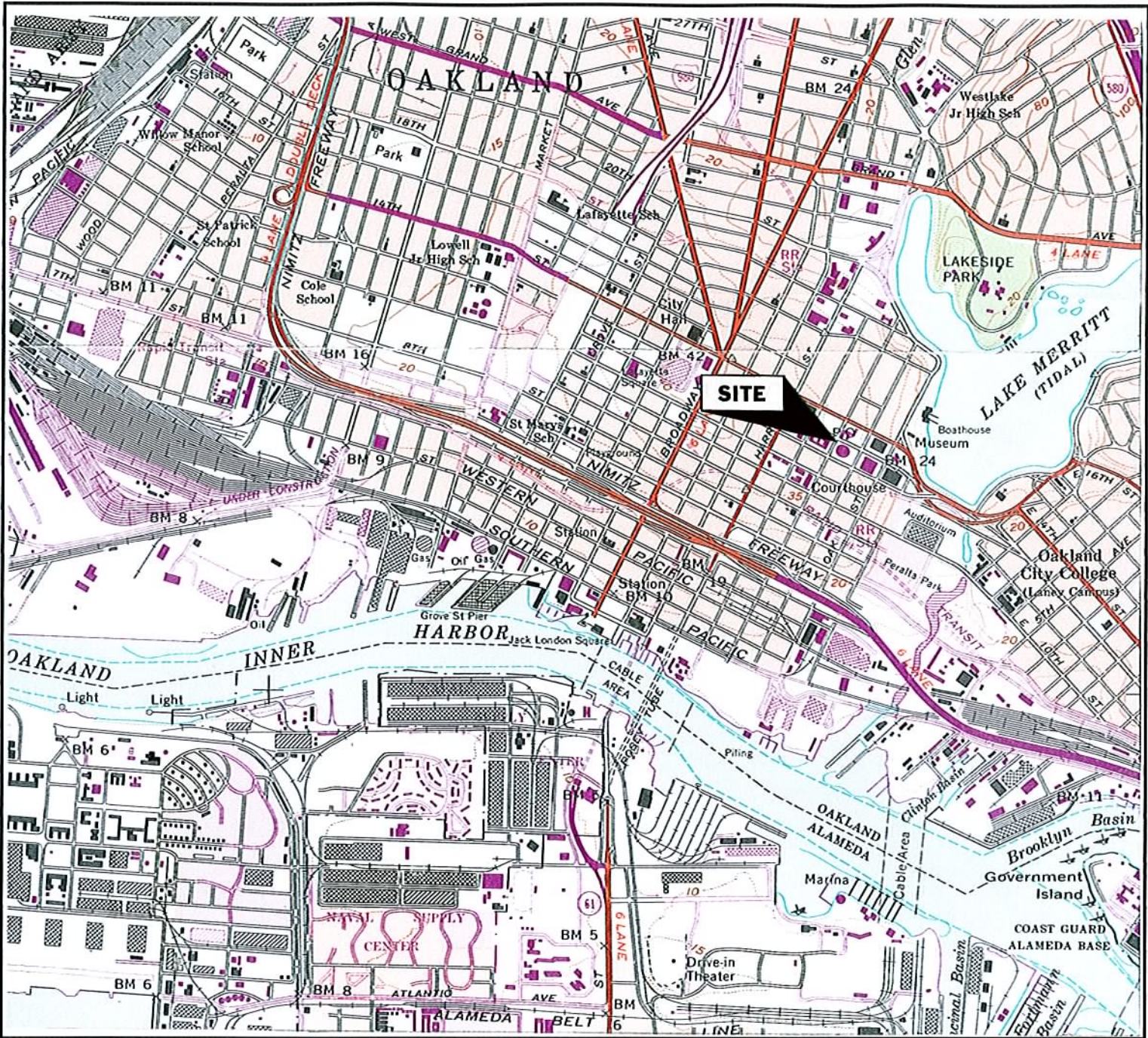
- Groundwater elevations measured at the site range from 13.15 to 13.33 feet above msl.
- Groundwater flow direction is to the southeast under a hydraulic gradient of 0.005, which is consistent with historic conditions.
- The groundwater samples collected from wells MW-1, MW-6 and MW-7 contained measurable concentrations of TPH-G, BTEX, and MTBE with benzene and MTBE being the primary contaminants of concern.

PSI is submitting a Data Gap Workplan for the updated Site Conceptual Model requested by the ACEH. PSI recommends the continuation of quarterly monitoring at the site through 2009.

5. REFERENCES

1. USGS, 1980, Oakland West, California, topographic map
2. ACEH, May 20, 1997; Continuation of Groundwater Monitoring Request, Letter to Mr. Jim DeVos.
3. ACEH, September 11, 1997; Workplan Request Letter to Mr. Rodman Freitag.
4. ACGSA, December 2, 1997; Request For Proposal (RFP) for Groundwater Services.
5. PSI, 2000; Site Conceptual Model Report.
6. PSI, 2001; MTBE Fate and Transport Screening Report.
7. ACEH, 2008; Fuel Leak Case Review, Letter to Mr. Rod Freitag.

FIGURES

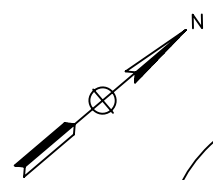


REFERENCE:
 U.S.G.S. OAKLANDWEST, CALIFORNIA, 1959
 PHOTOREVISED 1980



SITE LOCATION
 ALCOPARK FUELING STATION
 165 13TH STREET
 OAKLAND, CALIFORNIA
 PROJECT NUMBER: 575-4G009

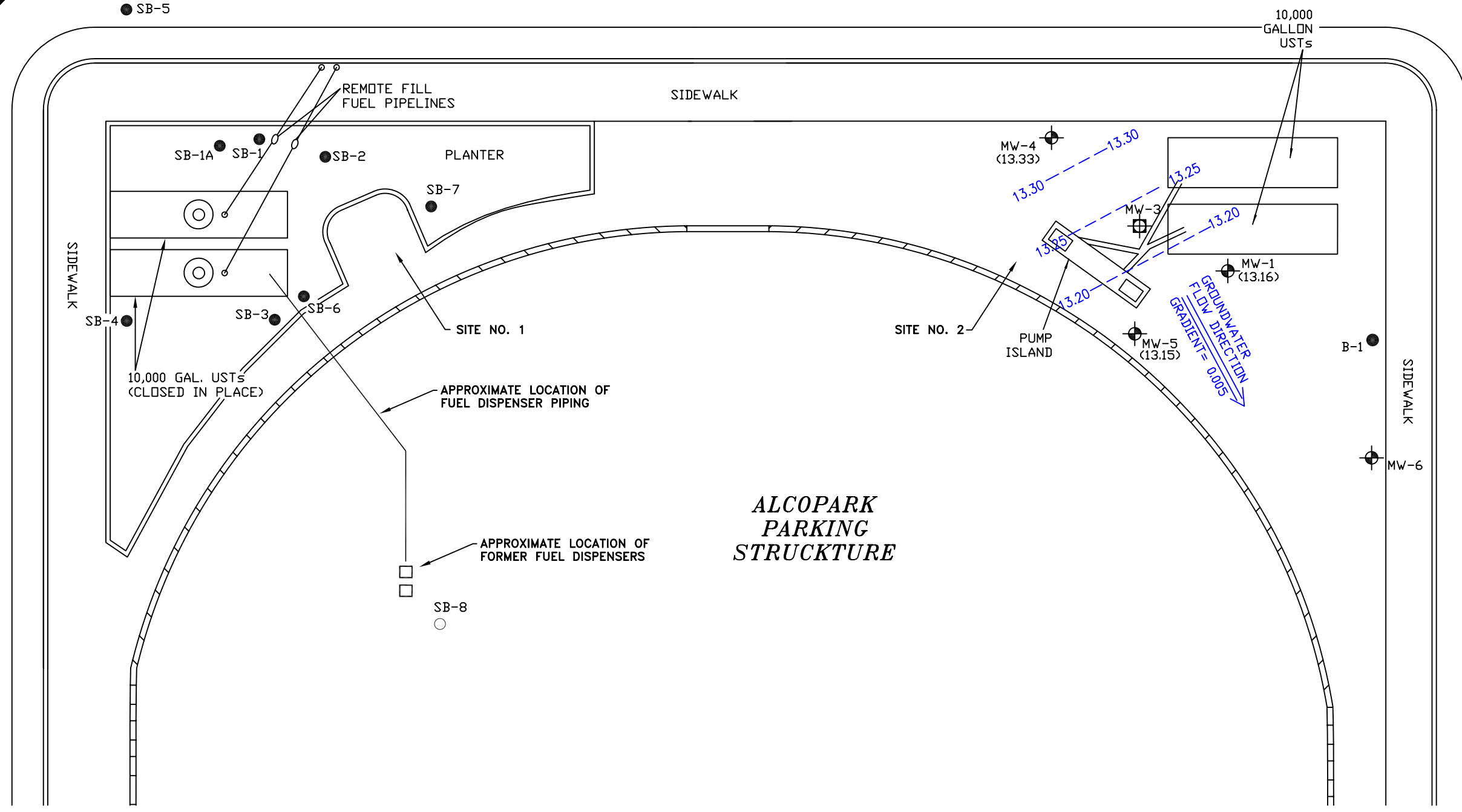
DATE: 3/04	CKD BY: F.P.	FIGURE NO: 1
FILE NO: 4G009-1		DRAWN BY: B.S.



JACKSON STREET

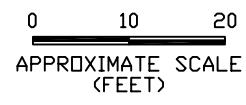
12TH STREET

13TH STREET



LEGEND:

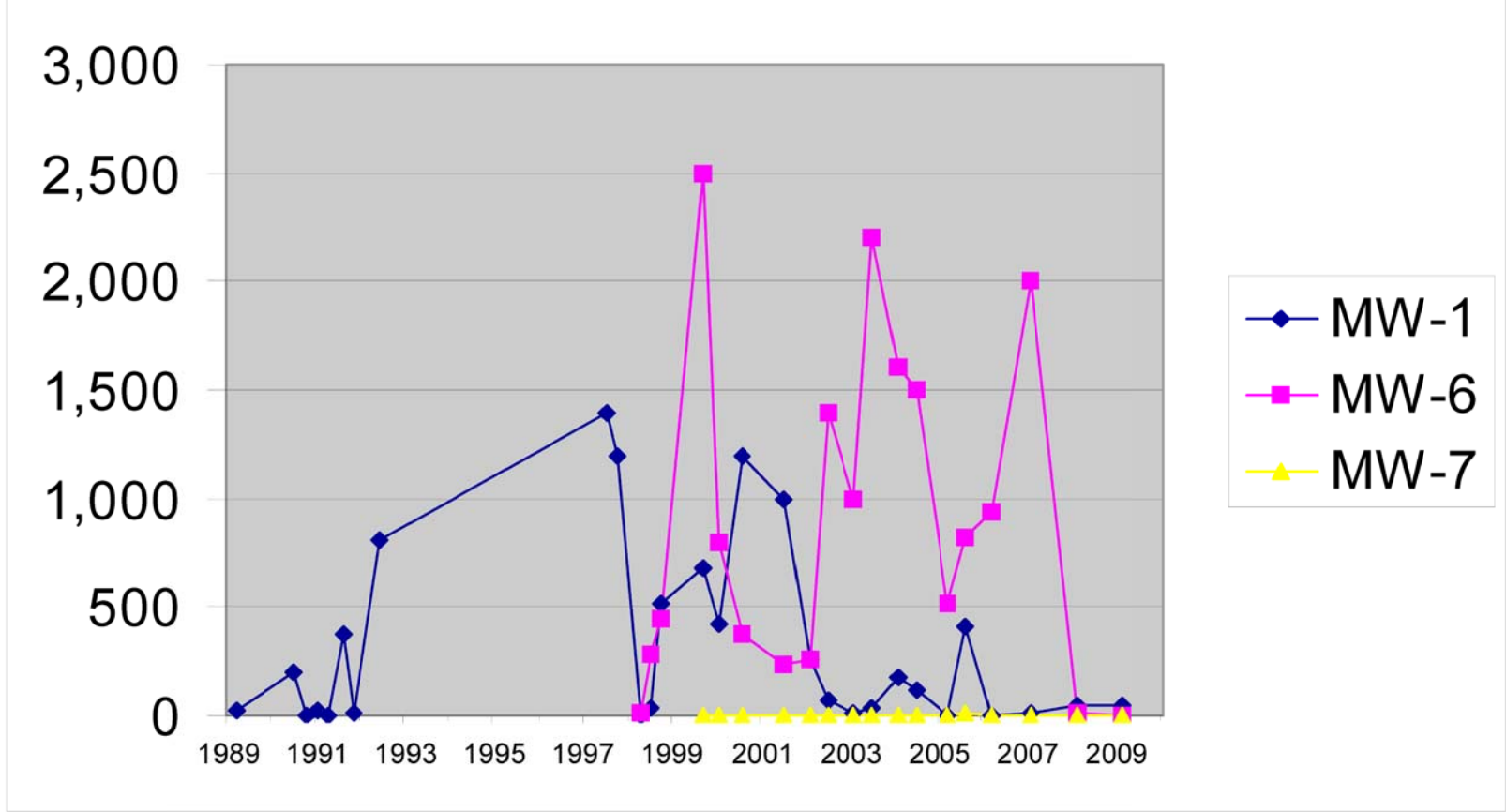
- MW-5 (13.15) - MONITORING WELL LOCATION WITH GROUNDWATER ELEVATION INDICATED IN FEET MSL
- 13.30 - GROUNDWATER CONTOUR (ELEVATION INDICATED IN FEET MSL)
- MW-3 - VADOSE MONITORING WELL LOCATION
- B-1 - SOIL BORING
- UNDERGROUND PIPING



GROUNDWATER ELEVATION MAP - 2/6/09
ALCOPARK PARKING FACILITY
INTERSECTION OF JACKSON AND 13TH STREETS
OAKLAND, CALIFORNIA
PROJECT NUMBER: 575-8G004

DATE: 3/09	CKD BY: F.P.	FIGURE NO.: 2
FILE NO.: 8G004-08		DRAWN BY: B. BURFIELD

Benzene Concentrations (ug/L)



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Project Name:
**ALCOPARK PARKING FACILITY
SEC OF JACKSON AND 13TH STREET, OAKLAND, CA**

Drawn By:
E.R.

Date:
3/09

File No.:
8G004-BEN

Figure No.:

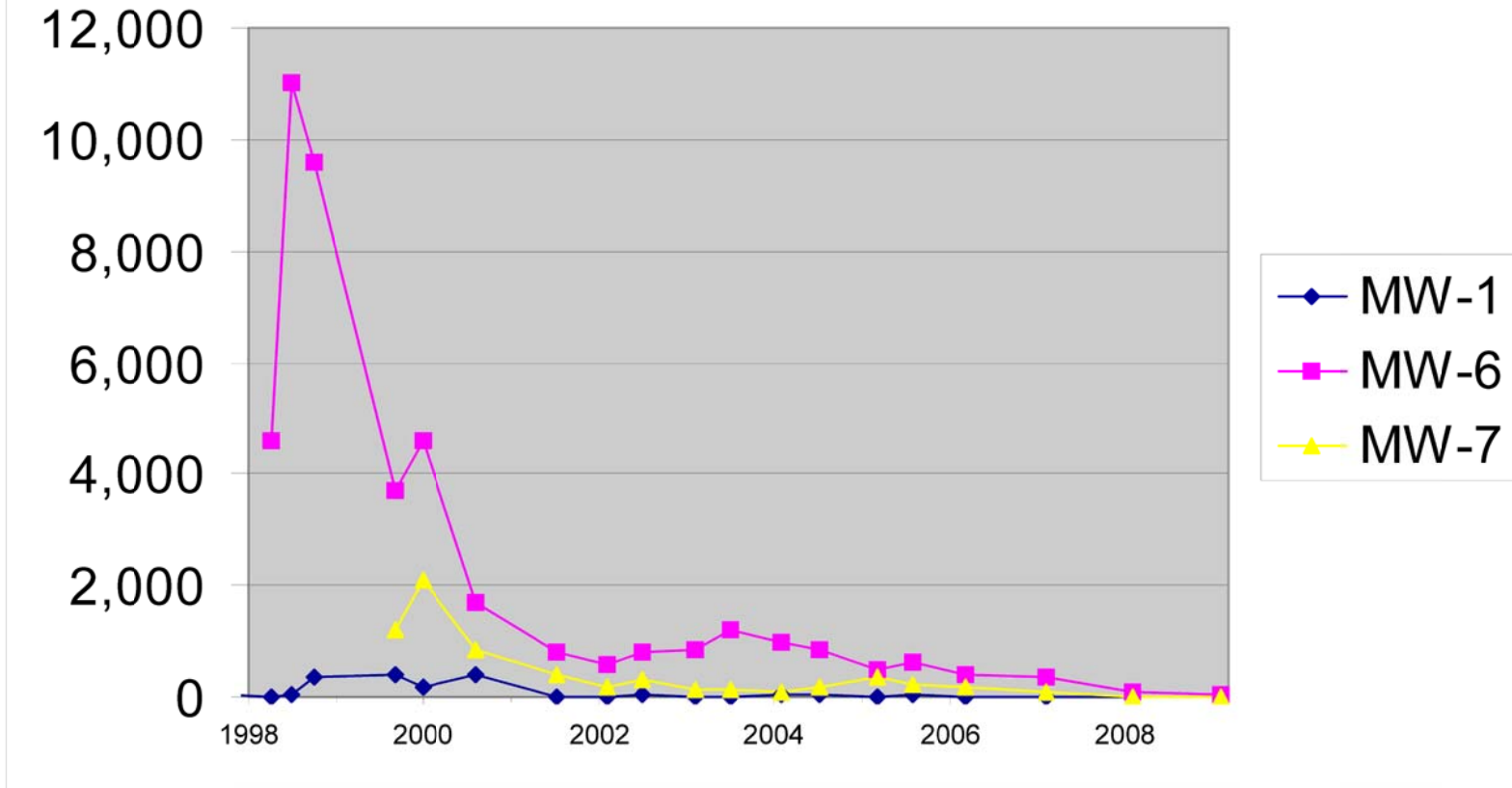
Title:
BENZENE VS. TIME

Approved By:
B.B.

Project No.:
575-8C004

3

MTBE Concentrations (ug/L)



psi Information
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Oakland, California 94601
(510) 434-9200

Project Name: ALCOPARK PARKING FACILITY SEC OF JACKSON AND 13TH STREET, OAKLAND, CA		Drawn By: E.R.	Date: 3/09	File No.: 86004-MTBE	Figure No.: 4
Title: MTBE VS. TIME		Approved By: B.B.	Project No.: 575-8C004		

TABLE

**TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL DATA SUMMARY
ALCOPARK FUELING FACILITY SITE NO. 2
OAKLAND, CALIFORNIA**

<i>All concentrations in ug/l (PPB).</i>								
Well	Date	Groundwater Elevation	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1	3/21/1989	12.2	ND	NA	21	3.9	0.4	4.5
	7/26/1990	12.3	1,400	NA	200	45	ND	53
	10/25/1990	12.1	1,200	NA	ND	7.3	2.2	46
	1/25/1991	11.9	270	NA	23	1.5	ND	3.1
	4/25/1991	11.8	230	NA	ND	ND	ND	ND
	8/27/1991	11.8	8,300	NA	370	64	ND	120
	11/25/1991	11.7	810	NA	9.3	ND	7.8	32
	6/11/1992	12.85	2,600	NA	810	16	21	42
	7/16/1997	14.36	19,000	ND (150)	1,400	2,800	500	2,600
	10/21/1997	13.92	14,000	29	1,200	1,000	590	2,800
	3/11/1998	17.14	NS	NS	NS	NS	NS	NS
	4/1/1998	17.14	ND (50)	6.3	5.4	ND (0.5)	ND (0.5)	0.82
	7/15/1998	16.41	71	57	31	ND (0.5)	ND (0.5)	3.1
	10/22/1998	15.62	5,100	360	520	140	250	950
	9/9/1999	15.42	2,400	400	680	140	130	370
	1/18/2000	14.49	4,100	180	420	11	210	350
	5/4/2000	16.19	NS	NS	NS	NS	NS	NS
	8/22/2000	15.34	9,400	410	1,200	130	410	920
	2/8/2001	14.53	NS	NS	NS	NS	NS	NS
	7/20/2001	14.60	9,600	ND (50)	1,000	300	350	2,000
	2/18/2002	15.08	1,500	ND (100)	260	6.5	2.8	49
	7/19/2002	14.84	180	28	68	ND (1.7)	ND (1.7)	6.8
	2/10/2003	14.83	210	11	14	0.75	ND (0.5)	4.0
	7/15/2003	14.80	370	4.6	31	0.99	22	75
	2/12/2004	14.87	1,800	29	170	2.7	140	87
	7/7/2004	14.81	800	37	120	ND (2.5)	67	38
	3/24/2005	15.92	ND (50)	4.7	4	ND (0.5)	2.5	2
	8/17/2005	15.60	4,100	59	410	35	380	1,500
	3/29/2006	16.97	NA	2.4	4.7	ND (0.5)	ND (0.5)	ND (0.5)
	2/8/2007	14.93	100	3.7	13	ND (0.5)	1.1	3.9
2/27/2008	14.44	270	ND (10)	49	0.81	3.2	17.0	
2/6/2009	13.16	2,600	ND (2.5)	43	24	62	320	

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL DATA SUMMARY
ALCOPARK FUELING FACILITY SITE NO. 2
OAKLAND, CALIFORNIA

<i>All concentrations in ug/l (PPB).</i>								
Well	Date	Groundwater Elevation	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-4	3/21/1989	12.4	ND	NA	13	1.4	1.0	ND
	7/26/1990	12.5	NA	NA	0.8	ND	ND	ND
	10/25/1990	12.2	NA	NA	120	1.2	1.1	0.9
	1/25/1991	12.0	NA	NA	230	2.8	1.2	2.0
	4/25/1991	13.0	170	NA	12	ND	ND	2.3
	8/27/1991	11.8	ND	NA	87	1.3	0.8	0.8
	11/25/1991	11.8	1,400	NA	ND	1.7	8.6	3.6
	6/11/1992	12.93	560	NA	150	1.8	1.8	1.1
	7/16/1997	14.46	50	ND	ND	ND	ND	ND
	10/21/1997	14.10	ND	ND	ND	ND	ND	ND
	3/11/1998	17.39	NS	NS	NS	NS	NS	NS
	4/1/1998	17.40	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	7/15/1998	16.92	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	10/22/1998	15.75	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	9/9/1999	15.57	NS	NS	NS	NS	NS	NS
	1/18/2000	14.32	NS	NS	NS	NS	NS	NS
	5/4/2000	16.34	NS	NS	NS	NS	NS	NS
	8/22/2000	15.47	NS	NS	NS	NS	NS	NS
	2/8/2001	14.73	NS	NS	NS	NS	NS	NS
	7/20/2001	14.72	NS	NS	NS	NS	NS	NS
	2/18/2002	15.05	NS	NS	NS	NS	NS	NS
	7/19/2002	14.97	NS	NS	NS	NS	NS	NS
	2/10/2003	14.94	NS	NS	NS	NS	NS	NS
	7/15/2003	14.94	NS	NS	NS	NS	NS	NS
	2/12/2004	14.93	NS	NS	NS	NS	NS	NS
	7/7/2004	14.94	NS	NS	NS	NS	NS	NS
	3/24/2005	16.05	NS	NS	NS	NS	NS	NS
	8/17/2005	15.82	NS	NS	NS	NS	NS	NS
	3/29/2006	17.22	NS	NS	NS	NS	NS	NS
	2/8/2007	15.15	NS	NS	NS	NS	NS	NS
	2/27/2008	15.06	NS	NS	NS	NS	NS	NS
	2/6/2009	13.33	NS	NS	NS	NS	NS	NS

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL DATA SUMMARY
ALCOPARK FUELING FACILITY SITE NO. 2
OAKLAND, CALIFORNIA

<i>All concentrations in ug/l (PPB).</i>								
Well	Date	Groundwater Elevation	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-5	3/21/1989	12.2	ND	NA	ND	ND	ND	ND
	7/26/1990	12.4	670	NA	0.8	ND	ND	ND
	10/25/1990	12.1	120	NA	13	ND	ND	ND
	1/25/1991	11.9	120	NA	3.2	ND	ND	ND
	4/25/1991	12.3	ND	NA	ND	ND	ND	ND
	8/27/1991	11.5	ND	NA	20	ND	0.5	ND
	11/25/1991	11.7	190	NA	2.7	ND	0.8	2.5
	6/11/1992	12.85	150	NA	37	ND	ND	ND
	7/16/1997	14.33	ND	22	ND	ND	ND	ND
	10/21/1997	13.88	ND	14	ND	ND	ND	ND
	3/11/1998	17.14	NS	NS	NS	NS	NS	NS
	4/1/1998	17.14	ND (50)	11	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	7/15/1998	16.43	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	10/22/1998	15.60	ND (50)	ND (5.0)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	9/9/1999	15.44	NS	NS	NS	NS	NS	NS
	1/18/2000	14.67	NS	NS	NS	NS	NS	NS
	5/4/2000	16.18	NS	NS	NS	NS	NS	NS
	8/22/2000	15.32	NS	NS	NS	NS	NS	NS
	2/8/2001	14.53	NS	NS	NS	NS	NS	NS
	7/20/2001	14.59	NS	NS	NS	NS	NS	NS
	2/18/2002	14.94	NS	NS	NS	NS	NS	NS
	7/19/2002	14.83	NS	NS	NS	NS	NS	NS
	2/10/2003	14.83	NS	NS	NS	NS	NS	NS
	7/15/2003	14.80	NS	NS	NS	NS	NS	NS
	2/12/2004	14.87	NS	NS	NS	NS	NS	NS
	7/7/2004	14.82	NS	NS	NS	NS	NS	NS
	3/24/2005	15.91	NS	NS	NS	NS	NS	NS
	8/17/2005	15.59	NS	NS	NS	NS	NS	NS
	3/29/2006	16.97	NS	NS	NS	NS	NS	NS
	2/8/2007	14.93	NS	NS	NS	NS	NS	NS
	2/27/2008	14.85	NS	NS	NS	NS	NS	NS
	2/6/2009	13.15	NS	NS	NS	NS	NS	NS

TABLE 1
GROUNDWATER ELEVATION AND ANALYTICAL DATA SUMMARY
ALCOPARK FUELING FACILITY SITE NO. 2
OAKLAND, CALIFORNIA

<i>All concentrations in ug/l (PPB).</i>								
Well	Date	Groundwater Elevation	TPH-G	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-6	4/1/1998	NA	740	4,600	9.8	3.2	3.0	15
	7/15/1998	NA	6,200	11,000	280	43	180	350
	7/15/1998	NA	NA	13,000	ND (500)	ND (500)	ND (500)	ND (500)
	10/22/1998	NA	4,700	9,600	450	13	200	200
	10/22/1998	NA	NA	9,100	470	ND (250)	ND (250)	ND (250)
	9/9/1999	NA	6,600	3,700	2,500	43	310	250
	1/18/2000	NA	3,500	4,600	800	ND (5.0)	40	13
	5/4/2000	NA	NS	NS	NS	NS	NS	NS
	8/22/2000	NA	1,400	1,700	370	4.8	12	35
	2/8/2001	NA	NS	NS	NS	NS	NS	NS
	7/20/2001	NA	1,100	800	240	2.9	2.3	3.4
	2/18/2002	NA	1,500	570	260	ND (2.0)	11	4.3
	7/19/2002	NA	1,800	800	1,400	ND (50)	ND (50)	ND (50)
	2/10/2003	NA	4,000	830	1,000	ND (50)	ND (50)	ND (50)
	7/15/2003	NA	4,100	1,200	2,200	ND (25)	180	260
	2/12/2004	NA	7,200	980	1,600	ND (25)	100	440
	7/7/2004	NA	4,000	840	1,500	ND (25)	150	210
	3/24/2005	NA	4,600	480	520	ND (10)	86	280
	8/17/2005	NA	2,800	610	820	ND (17)	190	250
	3/29/2006	NA	NA	410	940	ND (50)	85	140
2/15/2007	NA	6,800	340	2,000	ND (50)	130	190	
2/14/2008	NA	780	80	11	1.3	8.8	37	
2/6/2009	NA	120	26	2.9	ND (0.5)	ND (0.5)	0.56	
MW-7	9/9/1999	NA	92	1,200	1.6	ND (0.5)	ND (0.5)	ND (0.5)
	1/18/2000	NA	ND	2,100	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	5/4/2000	NA	140	1,100	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	8/22/2000	NA	160	830	0.62	ND (0.5)	ND (0.5)	ND (0.5)
	2/8/2001	NA	130	650	ND (0.5)	0.53	ND (0.5)	ND (0.5)
	7/20/2001	NA	56	400	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	2/18/2002	NA	ND (50)	200	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
	7/19/2002	NA	ND (50)	300	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
	2/10/2003	NA	ND (50)	140	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
	7/15/2003	NA	ND (50)	140	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
	2/12/2004	NA	ND (50)	100	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)
	7/7/2004	NA	56	200	ND (2.5)	ND (2.5)	ND (2.5)	ND (2.5)
	3/24/2005	NA	ND (50)	350	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
	8/17/2005	NA	66	230	9	ND (5.0)	ND (5.0)	7
	3/29/2006	NA	NA	160	ND (5.0)	ND (5.0)	ND (5.0)	ND (5.0)
	2/15/2007	NA	70	87	ND (1.7)	ND (1.7)	ND (1.7)	ND (1.7)
	2/14/2008	NA	ND (50)	13	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)
2/6/2009	NA	ND (50)	5.8	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	
W-B1	3/23/1998	NA	3,100	4,200	250	18	160	290

Notes:

TPH-G denotes Total Petroleum Hydrocarbons as Gasoline. MTBE denotes Methyl tert-Butyl Ether.

NA denotes Not Analyzed. NS denotes Not Sampled. ND denotes Not Detected. () denotes detection limit.

Data collected prior to 1998 was reported in Alameda County Request for Proposal dated December 2, 1997.

APPENDIX A

GROUNDWATER PURGE LOGS

FLUID MEASUREMENT FIELD DATA

SHEET: 1 OF 1

DATE: 2/6/09 PROJECT NAME: ALKO PARK - OAKLAND, CA PROJECT NO: 575-7G006
 WATER LEVEL MEASUREMENT INSTRUMENT: SOLINST SERIAL NO: 12080
 PRODUCT DETECTION INSTRUMENT: SERIAL NO:

EQUIP. DECON: ALCONOX WASH DIST/DEION 1 RINSE ISOPROPANOL ANALYTE FREE FINAL RINSE TAP WATER FINAL RINSE
 TAP WATER WASH LIQUINOX WASH DIST/DEION 2 RINSE OTHER SOLVENT DIST/DEION FINAL RINSE AIR DRY

WELL NUMBER	GROUND SURFACE ELEVATION	TOP OF CASING ELEVATION	DEPTH TO PRODUCT BELOW TOC	DEPTH TO WATER BELOW TOC	WELL DEPTH BELOW TOC	PRODUCT THICKNESS	WATER TABLE ELEVATION	ACTUAL TIME	
MW-1		33.00		19.84	34.02 35		13.16	13:34	
MW-4		33.63		20.30	34.40 35		13.33	13:40	
MW-5		33.01		19.86	34.20 35		13.15	13:28	
2/9/09 → MW-6					24				
MW-7					24				
MW-6 (lower)				6.79	18.78 20			12:50	
			2/6/09: Wells opened					12:06- 12:31	
			2/9/09: Wells opened					7:20-7:25	
2/9/09 → MW-6-lower				6.82	18.78			8:00	
			Left 1 drum on site w/ ≈ 45 Gal of water inside						

REMEMBER TO CORRECT PRODUCT THICKNESS FOR DENSITY BEFORE CALCULATING WATER TABLE ELEVATION

PREPARED BY: EZEKIEL ROBLES

WELL PURGING AND SAMPLING DATA

					WELL NO: <i>MW-1</i>						
DATE: 2/6/2009		PROJECT NAME: ALCO PARK, OAKLAND, CA			PROJECT NO: 575-8G004						
WEATHER CONDITIONS: <i>Intermittent showers</i>											
WELL DIAMETER (IN.) <input type="checkbox"/> 1 <input type="checkbox"/> 2 <input checked="" type="checkbox"/> 4 <input type="checkbox"/> 6 <input type="checkbox"/> OTHER _____											
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER											
WELL DEPTH (TOC) <i>34.02</i> FT.					DEPTH TO WATER BEFORE PURGING (TOC) <i>19.84</i> FT.						
LENGTH OF WATER <i>14.18</i> FT.					CALCULATED ONE WELL VOLUME ¹ : <i>9.3</i> GAL.						
PURGING DEVICE: <i>Submersible Pump</i> <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED											
SAMPLING DEVICE: <i>Submersible Pump</i> <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input checked="" type="checkbox"/> DECONTAMINATED											
EQUIP. DECON. <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> ISOPROPNOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE											
<input type="checkbox"/> ALCONOX WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> OTHER SOLVENT <input checked="" type="checkbox"/> DIST/DEION FINAL RINSE											
<input checked="" type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> TAP WATER FINAL RINSE <input type="checkbox"/> AIR DRY											
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED											
WATER ANALYZER MODEL & SERIAL NO: MYRON L ULTRAMETER 6P SERIAL # 6201300											
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP <input type="checkbox"/> °F <input checked="" type="checkbox"/> °C	SPECIFIC CONDUCT.	pH	DEPTH TO GROUND WATER		WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID)			
<i>16:25</i>	<i>INITIAL</i>	<i>16.9</i>	<i>841.1μS</i>	<i>7.20</i>			<i>CL</i>	<i>No Odor / Clear</i>			
<i>16:35</i>	<i>10</i>	<i>18.4</i>	<i>776.7</i>	<i>7.27</i>			<i>CL</i>	<i>Slighty HC Odor</i>			
<i>16:48</i>	<i>20</i>	<i>18.2</i>	<i>814.2</i>	<i>7.20</i>			<i>"</i>	<i>" "</i>			
<i>17:07</i>	<i>30</i>	<i>18.5</i>	<i>722.7</i>	<i>7.34</i>			<i>"</i>	<i>" "</i>			
<i>17:14</i>	<i>35</i>	<i>18.5</i>	<i>733.0</i>	<i>7.34</i>			<i>"</i>	<i>" "</i>			
DEPTH TO WATER AFTER PURGING (TOC) _____ FT.					SAMPLE FILTERED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO SIZE _____						
NOTES:						SAMPLE TIME: <i>17:20</i>		ID# <i>MW-1</i>			
						DUPLICATE <input type="checkbox"/>		TIME:		ID#:	
						EQUIP. BLANK: <input type="checkbox"/>		TIME:		ID#:	
						PREPARED BY: EZEKIEL ROBLES					

¹A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

WELL PURGING AND SAMPLING DATA

						WELL NO: <i>MW-6</i>	
DATE: 2/6/2009		PROJECT NAME: ALCO PARK, OAKLAND, CA			PROJECT NO: 575-8G004		
WEATHER CONDITIONS: <i>Intermittent Showers</i>							
WELL DIAMETER (IN.)		<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 4	<input type="checkbox"/> 6	<input type="checkbox"/> OTHER <i>1/2</i>	
SAMPLE TYPE: <input checked="" type="checkbox"/> GROUNDWATER <input type="checkbox"/> WASTEWATER <input type="checkbox"/> SURFACE WATER <input type="checkbox"/> OTHER							
WELL DEPTH (TOC) _____ FT.				DEPTH TO WATER BEFORE PURGING (TOC) _____ FT.			
LENGTH OF WATER <i>≈ 4</i> FT.				CALCULATED ONE WELL VOLUME ¹ : <i>≈ 0.1</i> GAL.			
PURGING DEVICE: <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED							
SAMPLING DEVICE: <input type="checkbox"/> DEDICATED <input type="checkbox"/> DISPOSABLE <input type="checkbox"/> DECONTAMINATED							
EQUIP. DECON. <input type="checkbox"/> TAP WATER WASH <input type="checkbox"/> ISOPROPANOL <input type="checkbox"/> ANALYTE FREE FINAL RINSE							
<input type="checkbox"/> ALCONOX WASH <input type="checkbox"/> DIST/DEION 1 RINSE <input type="checkbox"/> OTHER SOLVENT <input checked="" type="checkbox"/> DIST/DEION FINAL RINSE							
<input checked="" type="checkbox"/> LIQUINOX WASH <input type="checkbox"/> DIST/DEION 2 RINSE <input type="checkbox"/> TAP WATER FINAL RINSE <input type="checkbox"/> AIR DRY							
CONTAINER PRESERVATION: <input checked="" type="checkbox"/> LAB PRESERVED <input type="checkbox"/> FIELD PRESERVED							
WATER ANALYZER MODEL & SERIAL NO: MYRON L ULTRAMETER 6P SERIAL # 6201300							
ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP <input type="checkbox"/> °F <input checked="" type="checkbox"/> °C	SPECIFIC CONDUCT.	pH	DEPTH TO GROUND WATER	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID)
<i>16:00</i>	<i>INITIAL</i>	<i>16.2</i>	<i>5770us</i>	<i>7.42</i>		<i>CO</i>	<i>No Odor / Grey</i>
<i>16:08</i>	<i>Well Purged Dry with initial reading</i>						
DEPTH TO WATER AFTER PURGING (TOC) _____ FT.					SAMPLE FILTERED <input type="checkbox"/> YES <input checked="" type="checkbox"/> NO SIZE _____		
NOTES:						SAMPLE TIME: <i>8:50 2/9/09</i> ID# <i>MW-6</i>	
						DUPLICATE <input type="checkbox"/> TIME: _____ ID#: _____	
						EQUIP. BLANK: <input type="checkbox"/> TIME: _____ ID#: _____	
PREPARED BY: EZEKIEL ROBLES							

¹A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

WELL PURGING AND SAMPLING DATA

		WELL NO: <u>MW-7</u>
DATE: <u>2/6/2009</u>	PROJECT NAME: <u>ALCO PARK, OAKLAND, CA</u>	PROJECT NO: <u>575-8G004</u>

WEATHER CONDITIONS:

WELL DIAMETER (IN.) 1 2 4 6 OTHER 1/2"

SAMPLE TYPE: GROUNDWATER WASTEWATER SURFACE WATER OTHER

WELL DEPTH (TOC) _____ FT. DEPTH TO WATER BEFORE PURGING (TOC) _____ FT.

LENGTH OF WATER _____ FT. CALCULATED ONE WELL VOLUME¹: ≈ 0.07 GAL.

PURGING DEVICE: DEDICATED DISPOSABLE DECONTAMINATED

SAMPLING DEVICE: DEDICATED DISPOSABLE DECONTAMINATED

EQUIP. DECON. TAP WATER WASH ISOPROPRANOL ANALYTE FREE FINAL RINSE
 ALCONOX WASH DIST/DEION 1 RINSE OTHER SOLVENT DIST/DEION FINAL RINSE
 LIQUINOX WASH DIST/DEION 2 RINSE TAP WATER FINAL RINSE AIR DRY

CONTAINER PRESERVATION: LAB PRESERVED FIELD PRESERVED

WATER ANALYZER MODEL & SERIAL NO: MYRON L ULTRAMETER 6P SERIAL # 6201300

ACTUAL TIME (MIN)	CUMUL. VOLUME PURGED (GAL)	TEMP		SPECIFIC CONDUCT.	pH	DEPTH TO GROUND WATER	WATER APPEAR CL=CLEAR CO=CLOUDY TU=TURBID	REMARKS (EVIDENT ODOR, COLOR, PID)
		<input type="checkbox"/> °F	<input checked="" type="checkbox"/> °C					
<u>14:38</u>	<u>INITIAL</u>	<u>14.2</u>		<u>682 μS</u>	<u>7.87</u>		<u>TU</u>	<u>Grey / Slight HC Odor</u>
<u>14:56</u>	<u>.08</u>	<u>14.5</u>		<u>600.5</u>	<u>7.69</u>		<u>CO</u>	<u>brown / "</u>
<u>15:01</u>	<u>.16</u>	<u>15.3</u>		<u>596.5</u>	<u>7.55</u>		<u>"</u>	<u>" / No odor</u>
<u>15:05</u>	<u>.24</u>	<u>15.3</u>		<u>591.5</u>	<u>7.56</u>		<u>"</u>	<u>" "</u>
<u>15:12</u>	<u>.32</u>	<u>14.6</u>		<u>583.1</u>	<u>7.50</u>		<u>"</u>	<u>" "</u>
<u>15:20</u>	<u>.75</u>	<u>14.3</u>		<u>595.2</u>	<u>7.44</u>		<u>"</u>	<u>" "</u>
<u>15:24</u>	<u>.90</u>	<u>14.7</u>		<u>592.2</u>	<u>7.46</u>		<u>"</u>	<u>" "</u>

DEPTH TO WATER AFTER PURGING (TOC) _____ FT. SAMPLE FILTERED YES NO SIZE _____

NOTES:

SAMPLE TIME: <u>15:30</u>	ID# <u>MW-7</u>
DUPLICATE <input type="checkbox"/>	TIME: ID#:
EQUIP. BLANK: <input type="checkbox"/>	TIME: ID#:
PREPARED BY: <u>EZEKIEL ROBLES</u>	

¹A 1 FOOT LENGTH OF WATER = 0.05 GAL IN 1" DIA. PIPE 0.17 GAL IN 2" DIA PIPE 0.65 GAL IN 4" DIA PIPE 1.5 GAL IN 6" DIA PIPE

Well Purging And Sampling Data $\frac{1}{4}'' = 0.0025 \text{ gal/ft}$ $\frac{1}{2}'' = 0.017 \text{ gal/ft}$ Rev. 3/07

APPENDIX B

LABORATORY REPORT AND CHAIN OF CUSTODY



McC Campbell Analytical, Inc.

"When Quality Counts"

1534 Willow Pass Road, Pittsburg, CA 94565-1701
Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 02/06/09
		Date Received: 02/10/09
	Client Contact: Ezekiel Robles	Date Reported: 02/17/09
	Client P.O.:	Date Completed: 02/12/09

WorkOrder: 0902247

February 17, 2009

Dear Ezekiel:

Enclosed within are:

- 1) The results of the **3** analyzed samples from your project: **#575-8G004; ALCO Park,**
- 2) A QC report for the above samples,
- 3) A copy of the chain of custody, and
- 4) An invoice for analytical services.

All analyses were completed satisfactorily and all QC samples were found to be within our control limits.

If you have any questions or concerns, please feel free to give me a call. Thank you for choosing McC Campbell Analytical Laboratories for your analytical needs.

Best regards,

Angela Rydelius
Laboratory Manager
McC Campbell Analytical, Inc.

0902247

McCAMPBELL ANALYTICAL, INC.

1534 WILLOW PASS ROAD
PITTSBURG, CA 94565-1701
Website: www.mcccampbell.com Email: main@mcccampbell.com
Telephone: (877) 252-9262 Fax: (925) 252-9269

CHAIN OF CUSTODY RECORD

TURN AROUND TIME RUSH 24 HR 48 HR 72 HR 5 DAY
 GeoTracker EDF PDF Excel Write On (DW)

Report To: Ezekiel Robles Bill To: Alameda County General Services
Company: PSI Attn: Rod Freitag
4703 Tidewater Ave, Suite B 1401 Lakeside Drive, 11th Floor
Oakland, CA 94601 Oakland, CA 94601
E-Mail: ezekiel.robles@psiusa.com
Tele: (510) 434-9200 Fax: (510) 434-7676
Project #: 575-8G004 Project Name: ALCO Park
Project Location: 165 13th Street, Oakland, CA
Sampler Signature: *[Signature]*

Analysis Request Other Comments

SAMPLE ID	LOCATION/ Field Point Name	SAMPLING		# Containers	Type Containers	MATRIX					METHOD PRESERVED												
		Date	Time			Water	Soil	Air	Sludge	Other	ICE	HCL	HNO ₃	Other									
MW-1	MW-1	2/6/09	17:20	4	VOA	X					X												
MW-6	MW-6	2/9/09	8:50	2	VOA	X					X												
MW-7	MW-7	2/6/09	15:30	4	VOA	X					X												

MTBE / BTEX & TPH as Gas (602 / 8021 + 8015)	
MTBE / BTEX ONLY (EPA 602 / 8021)	
TPH as Diesel / Motor Oil (8015)	
Total Petroleum Oil & Grease (1664 / 5520 E/B&F)	
Total Petroleum Hydrocarbons (418.1)	
EPA 502.2 / 601 / 8010 / 8021 (HVOCs)	
EPA 505 / 608 / 8081 (CI Pesticides)	
EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	
EPA 507 / 8141 (NP Pesticides)	
EPA 515 / 8151 (Acidic Cl Herbicides)	
EPA 824.2 / 624 / 8260 (VOCs)	
EPA 825.2 / 625 / 8270 (SVOCs)	
EPA 8270 SIM / 8310 (PAHs / PNAS)	
CAM 17 Metals (200.7 / 200.8 / 6010 / 6020)	
LUFT 5 Metals (200.7 / 200.8 / 6010 / 6020)	
Lead (200.7 / 200.8 / 6010 / 6020)	
8260 (VOCs + Oxygenates)	X
8015 (TPH as Gas)	X

Filter
Samples
for Metals
analysis:
Yes / No

(+)
+
+

Relinquished By: <i>[Signature]</i>	Date: 2/9/09	Time: 16:45	Received By: <i>[Signature]</i>
Relinquished By: <i>[Signature]</i>	Date: 2/10/09	Time: 13:40	Received By: <i>[Signature]</i>
Relinquished By: <i>[Signature]</i>	Date: 2/10/09	Time: 2:45	Received By: <i>[Signature]</i>

ICE/No *6.4c*
GOOD CONDITION ✓
HEAD SPACE ABSENT ✓
DECHLORINATED IN LAB ✓
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB ✓
PRESERVATION: VOAS O&G METALS OTHER pH<2
COMMENTS: Please produce EDF using Global ID# T0600100049

McC Campbell Analytical, Inc.



1534 Willow Pass Rd
 Pittsburg, CA 94565-1701
 (925) 252-9262

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0902247

ClientCode: PSIO

WriteOn EDF Excel Fax Email HardCopy ThirdParty J-flag

Report to:
 Ezekiel Robles
 Professional Service Industries
 4703 Tidewater Ave., Suite B
 Oakland, CA 94601
 (510) 434-9200 FAX (510) 434-7676

Email: ezekiel.robles@psiusa.com
 cc:
 PO:
 ProjectNo: #575-8G004; ALCO Park

Bill to:
 Rod Freitag
 Alameda County General Services
 1401 Lakeside Drive, 11th Floor
 Oakland, CA 94601

Requested TAT: 5 days
Date Received: 02/10/2009
Date Printed: 02/10/2009

Lab ID	Client ID	Matrix	Collection Date	Hold	Requested Tests (See legend below)												
					1	2	3	4	5	6	7	8	9	10	11	12	
0902247-001	MW-1	Water	2/6/2009 17:20	<input type="checkbox"/>	B	A	A										
0902247-002	MW-6	Water	2/6/2009 8:50	<input type="checkbox"/>	B	A											
0902247-003	MW-7	Water	2/6/2009 15:30	<input type="checkbox"/>	B	A											

Test Legend:

1	8260B+7OXY_W	2	G-MBTEX_W	3	PREFD REPORT	4		5	
6		7		8		9		10	
11		12							

Prepared by: Melissa Valles

Comments:

NOTE: Soil samples are discarded 60 days after results are reported unless other arrangements are made (Water samples are 30 days).
 Hazardous samples will be returned to client or disposed of at client expense.



Sample Receipt Checklist

Client Name: **Professional Service Industries**

Date and Time Received: **2/10/09 3:32:28 PM**

Project Name: **#575-8G004; ALCO Park**

Checklist completed and reviewed by: **Melissa Valles**

WorkOrder N°: **0902247** Matrix Water

Carrier: Rob Pringle (MAI Courier)

Chain of Custody (COC) Information

- Chain of custody present? Yes No
- Chain of custody signed when relinquished and received? Yes No
- Chain of custody agrees with sample labels? Yes No
- Sample IDs noted by Client on COC? Yes No
- Date and Time of collection noted by Client on COC? Yes No
- Sampler's name noted on COC? Yes No

Sample Receipt Information

- Custody seals intact on shipping container/cooler? Yes No NA
- Shipping container/cooler in good condition? Yes No
- Samples in proper containers/bottles? Yes No
- Sample containers intact? Yes No
- Sufficient sample volume for indicated test? Yes No

Sample Preservation and Hold Time (HT) Information

- All samples received within holding time? Yes No
 - Container/Temp Blank temperature Cooler Temp: 6.4°C NA
 - Water - VOA vials have zero headspace / no bubbles? Yes No No VOA vials submitted
 - Sample labels checked for correct preservation? Yes No
 - TTLC Metal - pH acceptable upon receipt (pH<2)? Yes No NA
 - Samples Received on Ice? Yes No
- (Ice Type: WET ICE)

* NOTE: If the "No" box is checked, see comments below.

Client contacted:

Date contacted:

Contacted by:

Comments:



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Web: www.mcccampbell.com E-mail: main@mcccampbell.com
Telephone: 877-252-9262 Fax: 925-252-9269

Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 02/06/09
	Client Contact: Ezekiel Robles	Date Received: 02/10/09
	Client P.O.:	Date Extracted: 02/12/09
		Date Analyzed: 02/12/09

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0902247

Lab ID	0902247-001B
Client ID	MW-1
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND<50	5.0	10	tert-Amyl methyl ether (TAME)	ND<2.5	5.0	0.5
Benzene	43	5.0	0.5	Bromobenzene	ND<2.5	5.0	0.5
Bromochloromethane	ND<2.5	5.0	0.5	Bromodichloromethane	ND<2.5	5.0	0.5
Bromoform	ND<2.5	5.0	0.5	Bromomethane	ND<2.5	5.0	0.5
2-Butanone (MEK)	ND<10	5.0	2.0	t-Butyl alcohol (TBA)	ND<10	5.0	2.0
n-Butyl benzene	ND<2.5	5.0	0.5	sec-Butyl benzene	ND<2.5	5.0	0.5
tert-Butyl benzene	ND<2.5	5.0	0.5	Carbon Disulfide	ND<2.5	5.0	0.5
Carbon Tetrachloride	ND<2.5	5.0	0.5	Chlorobenzene	ND<2.5	5.0	0.5
Chloroethane	ND<2.5	5.0	0.5	Chloroform	ND<2.5	5.0	0.5
Chloromethane	ND<2.5	5.0	0.5	2-Chlorotoluene	ND<2.5	5.0	0.5
4-Chlorotoluene	ND<2.5	5.0	0.5	Dibromochloromethane	ND<2.5	5.0	0.5
1,2-Dibromo-3-chloropropane	ND<1.0	5.0	0.2	1,2-Dibromoethane (EDB)	ND<2.5	5.0	0.5
Dibromomethane	ND<2.5	5.0	0.5	1,2-Dichlorobenzene	ND<2.5	5.0	0.5
1,3-Dichlorobenzene	ND<2.5	5.0	0.5	1,4-Dichlorobenzene	ND<2.5	5.0	0.5
Dichlorodifluoromethane	ND<2.5	5.0	0.5	1,1-Dichloroethane	ND<2.5	5.0	0.5
1,2-Dichloroethane (1,2-DCA)	12	5.0	0.5	1,1-Dichloroethene	ND<2.5	5.0	0.5
cis-1,2-Dichloroethene	ND<2.5	5.0	0.5	trans-1,2-Dichloroethene	ND<2.5	5.0	0.5
1,2-Dichloropropane	ND<2.5	5.0	0.5	1,3-Dichloropropane	ND<2.5	5.0	0.5
2,2-Dichloropropane	ND<2.5	5.0	0.5	1,1-Dichloropropene	ND<2.5	5.0	0.5
cis-1,3-Dichloropropene	ND<2.5	5.0	0.5	trans-1,3-Dichloropropene	ND<2.5	5.0	0.5
Diisopropyl ether (DIPE)	ND<2.5	5.0	0.5	Ethanol	ND<250	5.0	50
Ethylbenzene	62	5.0	0.5	Ethyl tert-butyl ether (ETBE)	ND<2.5	5.0	0.5
Freon 113	ND<50	5.0	10	Hexachlorobutadiene	ND<2.5	5.0	0.5
Hexachloroethane	ND<2.5	5.0	0.5	2-Hexanone	ND<2.5	5.0	0.5
Methanol	ND<2500	5.0	500	Isopropylbenzene	ND<2.5	5.0	0.5
4-Isopropyl toluene	ND<2.5	5.0	0.5	Methyl-t-butyl ether (MTBE)	ND<2.5	5.0	0.5
Methylene chloride	ND<2.5	5.0	0.5	4-Methyl-2-pentanone (MIBK)	ND<2.5	5.0	0.5
Naphthalene	23	5.0	0.5	n-Propyl benzene	5.4	5.0	0.5
Styrene	ND<2.5	5.0	0.5	1,1,1,2-Tetrachloroethane	ND<2.5	5.0	0.5
1,1,2,2-Tetrachloroethane	ND<2.5	5.0	0.5	Tetrachloroethene	ND<2.5	5.0	0.5
Toluene	24	5.0	0.5	1,2,3-Trichlorobenzene	ND<2.5	5.0	0.5
1,2,4-Trichlorobenzene	ND<2.5	5.0	0.5	1,1,1-Trichloroethane	ND<2.5	5.0	0.5
1,1,2-Trichloroethane	ND<2.5	5.0	0.5	Trichloroethene	ND<2.5	5.0	0.5
Trichlorofluoromethane	ND<2.5	5.0	0.5	1,2,3-Trichloropropane	ND<2.5	5.0	0.5
1,2,4-Trimethylbenzene	60	5.0	0.5	1,3,5-Trimethylbenzene	14	5.0	0.5
Vinyl Chloride	ND<2.5	5.0	0.5	Xylenes	320	5.0	0.5

Surrogate Recoveries (%)

%SS1:	84	%SS2:	93
%SS3:	71		

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 02/06/09
	Client Contact: Ezekiel Robles	Date Received: 02/10/09
	Client P.O.:	Date Extracted: 02/12/09
		Date Analyzed: 02/12/09

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0902247

Lab ID	0902247-002B
Client ID	MW-6
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	1.4	1.0	0.5
Benzene	2.9	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	78	1.0	2.0	t-Butyl alcohol (TBA)	17	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	ND	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethanol	ND	1.0	50
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Freon 113	ND	1.0	10	Hexachlorobutadiene	ND	1.0	0.5
Hexachloroethane	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Methanol	ND	1.0	500	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	26	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	2.0	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	0.56	1.0	0.5

Surrogate Recoveries (%)

%SS1:	84	%SS2:	93
%SS3:	73		

Comments:

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 02/06/09
	Client Contact: Ezekiel Robles	Date Received: 02/10/09
	Client P.O.:	Date Extracted: 02/12/09
		Date Analyzed: 02/12/09

Volatiles Organics + Oxygenates by P&T and GC/MS (Basic Target List)*

Extraction Method: SW5030B

Analytical Method: SW8260B

Work Order: 0902247

Lab ID	0902247-003B
Client ID	MW-7
Matrix	Water

Compound	Concentration *	DF	Reporting Limit	Compound	Concentration *	DF	Reporting Limit
Acetone	ND	1.0	10	tert-Amyl methyl ether (TAME)	ND	1.0	0.5
Benzene	ND	1.0	0.5	Bromobenzene	ND	1.0	0.5
Bromochloromethane	ND	1.0	0.5	Bromodichloromethane	ND	1.0	0.5
Bromoform	ND	1.0	0.5	Bromomethane	ND	1.0	0.5
2-Butanone (MEK)	ND	1.0	2.0	t-Butyl alcohol (TBA)	ND	1.0	2.0
n-Butyl benzene	ND	1.0	0.5	sec-Butyl benzene	ND	1.0	0.5
tert-Butyl benzene	ND	1.0	0.5	Carbon Disulfide	ND	1.0	0.5
Carbon Tetrachloride	ND	1.0	0.5	Chlorobenzene	ND	1.0	0.5
Chloroethane	ND	1.0	0.5	Chloroform	ND	1.0	0.5
Chloromethane	ND	1.0	0.5	2-Chlorotoluene	ND	1.0	0.5
4-Chlorotoluene	ND	1.0	0.5	Dibromochloromethane	ND	1.0	0.5
1,2-Dibromo-3-chloropropane	ND	1.0	0.2	1,2-Dibromoethane (EDB)	ND	1.0	0.5
Dibromomethane	ND	1.0	0.5	1,2-Dichlorobenzene	ND	1.0	0.5
1,3-Dichlorobenzene	ND	1.0	0.5	1,4-Dichlorobenzene	ND	1.0	0.5
Dichlorodifluoromethane	ND	1.0	0.5	1,1-Dichloroethane	ND	1.0	0.5
1,2-Dichloroethane (1,2-DCA)	1.2	1.0	0.5	1,1-Dichloroethene	ND	1.0	0.5
cis-1,2-Dichloroethene	ND	1.0	0.5	trans-1,2-Dichloroethene	ND	1.0	0.5
1,2-Dichloropropane	ND	1.0	0.5	1,3-Dichloropropane	ND	1.0	0.5
2,2-Dichloropropane	ND	1.0	0.5	1,1-Dichloropropene	ND	1.0	0.5
cis-1,3-Dichloropropene	ND	1.0	0.5	trans-1,3-Dichloropropene	ND	1.0	0.5
Diisopropyl ether (DIPE)	ND	1.0	0.5	Ethanol	ND	1.0	50
Ethylbenzene	ND	1.0	0.5	Ethyl tert-butyl ether (ETBE)	ND	1.0	0.5
Freon 113	ND	1.0	10	Hexachlorobutadiene	ND	1.0	0.5
Hexachloroethane	ND	1.0	0.5	2-Hexanone	ND	1.0	0.5
Methanol	ND	1.0	500	Isopropylbenzene	ND	1.0	0.5
4-Isopropyl toluene	ND	1.0	0.5	Methyl-t-butyl ether (MTBE)	5.8	1.0	0.5
Methylene chloride	ND	1.0	0.5	4-Methyl-2-pentanone (MIBK)	ND	1.0	0.5
Naphthalene	ND	1.0	0.5	n-Propyl benzene	ND	1.0	0.5
Styrene	ND	1.0	0.5	1,1,1,2-Tetrachloroethane	ND	1.0	0.5
1,1,2,2-Tetrachloroethane	ND	1.0	0.5	Tetrachloroethene	ND	1.0	0.5
Toluene	ND	1.0	0.5	1,2,3-Trichlorobenzene	ND	1.0	0.5
1,2,4-Trichlorobenzene	ND	1.0	0.5	1,1,1-Trichloroethane	ND	1.0	0.5
1,1,2-Trichloroethane	ND	1.0	0.5	Trichloroethene	ND	1.0	0.5
Trichlorofluoromethane	ND	1.0	0.5	1,2,3-Trichloropropane	ND	1.0	0.5
1,2,4-Trimethylbenzene	ND	1.0	0.5	1,3,5-Trimethylbenzene	ND	1.0	0.5
Vinyl Chloride	ND	1.0	0.5	Xylenes	ND	1.0	0.5

Surrogate Recoveries (%)

%SS1:	86	%SS2:	94
%SS3:	74		

Comments: b1

* water and vapor samples and all TCLP & SPLP extracts are reported in µg/L, soil/sludge/solid samples in µg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

ND means not detected above the reporting limit; N/A means analyte not applicable to this analysis.

surrogate diluted out of range or surrogate coelutes with another peak.

b1) aqueous sample that contains greater than ~1 vol. % sediment



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Professional Service Industries 4703 Tidewater Ave., Suite B Oakland, CA 94601	Client Project ID: #575-8G004; ALCO Park	Date Sampled: 02/06/09
	Client Contact: Ezekiel Robles	Date Received: 02/10/09
	Client P.O.:	Date Extracted: 02/11/09
		Date Analyzed: 02/11/09

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*

Extraction method SW5030B

Analytical methods SW8015Bm

Work Order: 0902247

Lab ID	Client ID	Matrix	TPH(g)	DF	% SS
001A	MW-1	W	2600,d1	10	105
002A	MW-6	W	120,d1	1	104
003A	MW-7	W	ND,b1	1	100

Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	µg/L
	S	NA	NA

* water and vapor samples and all TCLP & SPLP extracts are reported in ug/L, soil/sludge/solid samples in mg/kg, wipe samples in µg/wipe, product/oil/non-aqueous liquid samples in mg/L.

cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McC Campbell Analytical is not responsible for their interpretation:

b1) aqueous sample that contains greater than ~1 vol. % sediment
d1) weakly modified or unmodified gasoline is significant



QC SUMMARY REPORT FOR SW8260B

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 41289

WorkOrder 0902247

EPA Method SW8260B		Extraction SW5030B							Spiked Sample ID: 0902208-016b			
Analyte	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
tert-Amyl methyl ether (TAME)	ND	10	89.4	88	1.49	82	85.5	4.19	70 - 130	30	70 - 130	30
Benzene	ND	10	119	116	2.68	101	104	2.82	70 - 130	30	70 - 130	30
t-Butyl alcohol (TBA)	ND	50	81.7	81.4	0.320	79.8	88.1	9.87	70 - 130	30	70 - 130	30
Chlorobenzene	ND	10	104	103	1.34	97.3	100	2.96	70 - 130	30	70 - 130	30
1,2-Dibromoethane (EDB)	ND	10	102	102	0	97.5	101	3.89	70 - 130	30	70 - 130	30
1,2-Dichloroethane (1,2-DCA)	ND	10	84.8	84.6	0.284	93	95.8	3.05	70 - 130	30	70 - 130	30
1,1-Dichloroethene	ND	10	88.7	87.4	1.49	75.8	77.1	1.72	70 - 130	30	70 - 130	30
Diisopropyl ether (DIPE)	ND	10	113	112	1.08	95.9	100	4.45	70 - 130	30	70 - 130	30
Ethyl tert-butyl ether (ETBE)	ND	10	108	106	1.49	103	107	3.05	70 - 130	30	70 - 130	30
Methyl-t-butyl ether (MTBE)	ND	10	92.8	92.2	0.676	92.8	96.5	3.98	70 - 130	30	70 - 130	30
Toluene	ND	10	117	116	1.03	104	107	3.05	70 - 130	30	70 - 130	30
Trichloroethene	ND	10	102	99.3	2.43	99.1	102	2.44	70 - 130	30	70 - 130	30
%SS1:	85	25	86	87	1.39	83	84	0.730	70 - 130	30	70 - 130	30
%SS2:	93	25	90	90	0	94	95	0.395	70 - 130	30	70 - 130	30
%SS3:	83	2.5	77	76	1.01	77	77	0	70 - 130	30	70 - 130	30

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 41289 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0902247-001B	02/06/09 5:20 PM	02/12/09	02/12/09 9:38 PM	0902247-002B	02/06/09 8:50 AM	02/12/09	02/12/09 10:22 PM
0902247-003B	02/06/09 3:30 PM	02/12/09	02/12/09 11:06 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

* MS and / or MSD spike recoveries may not be near 100% or the RPDs near 0% if: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) if that specific sample matrix interferes with spike recovery.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content.

Laboratory extraction solvents such as methylene chloride and acetone may occasionally appear in the method blank at low levels.



QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water

QC Matrix: Water

BatchID: 41312

WorkOrder: 0902247

Analyte	EPA Method SW8021B/8015Bm		Extraction SW5030B						Spiked Sample ID: 0902267-015A			
	Sample	Spiked	MS	MSD	MS-MSD	LCS	LCSD	LCS-LCSD	Acceptance Criteria (%)			
	µg/L	µg/L	% Rec.	% Rec.	% RPD	% Rec.	% Rec.	% RPD	MS / MSD	RPD	LCS/LCSD	RPD
TPH(btex) [£]	ND	60	90.5	88.2	2.59	89.5	84.5	5.74	70 - 130	20	70 - 130	20
MTBE	ND	10	89.4	95	6.00	90.3	89.9	0.448	70 - 130	20	70 - 130	20
Benzene	ND	10	86.4	90.3	4.33	88.5	86.2	2.57	70 - 130	20	70 - 130	20
Toluene	ND	10	88.1	91.4	3.67	89.8	87.8	2.22	70 - 130	20	70 - 130	20
Ethylbenzene	ND	10	87.9	92.5	5.05	90.5	87.9	3.01	70 - 130	20	70 - 130	20
Xylenes	ND	30	97.4	102	4.86	101	97.9	3.49	70 - 130	20	70 - 130	20
%SS:	107	10	102	103	0.211	103	105	2.24	70 - 130	20	70 - 130	20

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:
NONE

BATCH 41312 SUMMARY

Lab ID	Date Sampled	Date Extracted	Date Analyzed	Lab ID	Date Sampled	Date Extracted	Date Analyzed
0902247-001A	02/06/09 5:20 PM	02/11/09	02/11/09 7:30 PM	0902247-002A	02/06/09 8:50 AM	02/11/09	02/11/09 8:00 PM
0902247-003A	02/06/09 3:30 PM	02/11/09	02/11/09 9:00 PM				

MS = Matrix Spike; MSD = Matrix Spike Duplicate; LCS = Laboratory Control Sample; LCSD = Laboratory Control Sample Duplicate; RPD = Relative Percent Deviation.

% Recovery = 100 * (MS-Sample) / (Amount Spiked); RPD = 100 * (MS - MSD) / ((MS + MSD) / 2).

MS / MSD spike recoveries and / or %RPD may fall outside of laboratory acceptance criteria due to one or more of the following reasons: a) the sample is inhomogenous AND contains significant concentrations of analyte relative to the amount spiked, or b) the spiked sample's matrix interferes with the spike recovery.

£ TPH(btex) = sum of BTEX areas from the FID.

cluttered chromatogram; sample peak coelutes with surrogate peak.

N/A = not enough sample to perform matrix spike and matrix spike duplicate.

NR = matrix interference and/or analyte concentration in sample exceeds spike amount for soil matrix or exceeds 2x spike amount for water matrix or sample diluted due to high matrix or analyte content, or inconsistency in sample containers.