R0179

QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT
at
FORMER SEKHON GAS STATION
6600 Foothill Boulevard
Oakland, California

Prepared for:

Mr. Ravi Sekhon
21696 Knuppe Place
Castro Valley, California

February 15, 2006

ADVANCED ASSESSMENT AND REMEDIATION SERVICES

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February 15, 2006

Mr. Donald Hwang
Alameda County Health Agency
Department of Environmental Health
1131 Harbor Bay Parkway, Suite 250
Alameda, California 94502

Subject: Quarterly Groundwater Monitoring and Sampling Report for FORMER SEKHON GAS STATION, 6600 Foothill Boulevard, Oakland, California

Dear Mr. Hwang:

The enclosed report presents the results and findings of the November 2005, quarterly groundwater monitoring and sampling for the above-referenced facility. An electronic copy of the report in "PDF" format will be submitted electronically to the State Board's Geo Tracker database.

Should you have any questions regarding the report please contact Tridib Guha at (925) 363-1999.

Sincerely,

Advanced Assessment and Remediation Services

Tridib K. Guha, P.G.
Principal

cc: Mr. Ravi Sekhon, Castro Valley
Mr. Sunil Ramdass, SWRCB, UST, Sacramento

SekhonQ7RPT

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QUARTERLY GROUNDWATER MONITORING AND SAMPLING REPORT
For
FORMER SEKHON GAS STATION
6600 Foothill Boulevard
Oakland, California

1.0 INTRODUCTION

This report presents the results and findings of the November 2005, quarterly groundwater monitoring and sampling performed at 6600 Foothill Boulevard, Oakland, California. This is the first monitoring event after the site characterization. This report is intended to fulfill quarterly self-monitoring requirements and to establish a groundwater monitoring history for the site. A site vicinity map is shown in Figure 1.

2.0 GROUNDWATER MONITORING WELLS

This section presents the field observations and groundwater elevation measurement, sampling, and analysis procedures, as well as the analytical methods. The location of the groundwater monitoring wells is presented in Figure 2. The work and related field sampling activities were conducted in accordance with the guidelines and requirements of the Alameda County Department of Environmental Health (ACDEH) and the California Regional Water Quality Control Board, San Francisco Bay Region (RWQCB).

2.1 Groundwater Elevation Monitoring and Surveying

The groundwater elevation in each well was measured to the nearest 0.01 foot from the top of the PVC casing, using an electronic sounder tape. A groundwater surface elevation map based on interpretation of groundwater elevation measurements taken on May 21, 2004 and survey data is presented in Figure 3. The survey data and groundwater elevation measurements are presented in Table 1. The site was surveyed as per Geotracker requirements on July 11, 2003 by PLS Surveys, Inc., a California licensed surveyor. All groundwater elevations are reported with respect to Mean Sea Level (MSL).

2.2 Field Observations

Groundwater was purged from a total of six groundwater monitoring wells, MW-1 through MW-6. The purged water from all six monitoring wells was clear initially. As the purging proceeded, the water from monitoring well MW-1 and MW-3 turned clear with brown flakes, from monitoring well MW-2 and MW-6 turned brownish gray, from monitoring well MW-5 turned clear with small brownish gels, and the purged water from monitoring wells MW-4, turned silty brownish gray. Approximately three well volumes of groundwater were purged from each well. After purging each well was allowed some time for groundwater recovery. Subsequently, the water was again clear and water samples were collected. Floating product and sheen were not observed in the groundwater samples from monitoring wells. Petroleum odor was noticed in the groundwater samples from monitoring wells MW-4, and MW-6.

2.3 Sampling and Analytical Procedures

Groundwater samples were collected on November 30, 2005, following groundwater elevation measurements. Samples were analyzed by McCampbell Analytical, Inc. (MAI) of Pacheco, California, which is certified by the California Department of Health Services (DHS) to perform the specified analyses.

Before purging, groundwater elevations were measured in all wells with an electronic sounder tape. Purging preceded sampling in order to ensure collection of non-stagnant water. A minimum of three casing volumes was removed before sampling the wells. The purged water was monitored for temperature, pH, and conductivity. Purging was considered complete when these parameters had stabilized. The field parameters for groundwater sampling are presented in Table 3.

To prevent potential cross-contamination, all measuring, purging and sampling equipment was washed in an Alconox detergent solution, rinsed with tap water, and finally with distilled water between wells.

The sampling procedure for each monitoring well involved extracting well water with a clean PVC bailer on a clean nylon cord. Groundwater collected from each monitoring well for analysis of Total Petroleum Hydrocarbon as gasoline (TPHg) and Benzene, Toluene, Ethylbenzene and total Xylenes (BTEX), Methyl Tertiary Butyl Ether (MTBE), was decanted into three 40-milliliter volatile organic analysis vials with Teflon-lined septa. Samples to be analyzed for TPHg/BTEX/MTBE were preserved using hydrochloric acid to a pH of 2.0. All samples were labeled and placed in an iced cooler, along with the chain-of-custody document (Appendix A). Samples transported to the laboratory were analyzed within the specified holding time.

Groundwater produced during purging and sampling was contained in 55-gallon steel drums. The drummed water was labeled with the source (i.e. well number) and date.

2.4 Analytical Methods

All groundwater samples from monitoring wells MW-1 through MW-6 were analyzed for TPHg using EPA Method 8015Cm and BTEX/MTBE using EPA Method 8021B. A summary of the analytical results of groundwater samples from the monitoring wells is presented in Table 2. The certified analytical reports and chain of custody documents for this sampling event are included in Appendix A.

3.0 INTERPRETATION OF RESULTS

The results of water elevation measurements, groundwater sampling and analytical results are discussed in the following sections.

3.1 Groundwater Elevations and Gradients

A groundwater elevation contour map for May 21, 2004, is presented in Figure 3. The flow directions, based on groundwater elevation data, between monitoring wells MW-1, MW-2 and MW-3 was toward the N25^{0}W; between monitoring wells MW-3, MW-2 and MW-5 was toward the S22^{0}W; and between monitoring wells MW-5, MW-2 and MW-6 was toward the S20^{0}W. The average hydraulic gradient calculated was approximately 0.018 foot per foot. The average depth to groundwater in these wells was

approximately 8.25 feet below ground surface (bgs). The depth to groundwater in monitoring well MW-4 was 6.05 feet bgs, which is the shallowest depth. The groundwater elevation in MW-4 does not match groundwater gradient, therefore, was not used for groundwater elevation contour map. Figure 3A is a rose diagram for historical groundwater flow direction for the site between June 2001 to November 2005.

3.2 Analytical Results

The analytical results for groundwater samples from monitoring wells were found to contain TPHg ranging from non-detect (ND) to 4,300 parts per billion (ppb); benzene concentrations ranging from ND to 310 ppb; toluene concentrations ND to 30; ethylbenzene concentrations ranging from ND to 84 ppb; and xylenes concentrations ranging from ND to 130 ppb. MTBE was detected in groundwater samples from all monitoring wells at concentrations ranging from 28 to 8,400. Analytical results for groundwater samples from six monitoring wells are presented in Tables 2. The official laboratory reports and chain of custody documents are included in Appendix A. TPHg, benzene and MTBE concentrations in groundwater are presented in Figures 4, 5 and 6, respectively.

4.0 SELF-MONITORING PROJECT SCHEDULE AND RECOMMENDATIONS

In this sampling event, MTBE was detected in groundwater samples from all six monitoring wells. The highest concentration is in MW-1. The analytical results for this sampling event indicate that the highest concentration of Benzene occurs in the farthest downgradient monitoring well, MW-6. The next monitoring event scheduled for the site is February 24, 2006.

5.0 CERTIFICATION

The information provided in this report is based on the groundwater sampling activities conducted at the site. All data presented in this report are believed to be factual and accurate, unless proven otherwise. Any conclusions or recommendations provided within this report are based on our expertise and experience conducting work of a similar nature.

Advanced Assessment and Remediation Services

Tridib K. Guha, P.G. 5836

TABLE 1: SURVEY AND WATER LEVEL MONITORING DATA

SEKHON GAS STATION

6600 Foothill Blvd.

Oakland, California

Well No.	Date of Measurement	Casing Elevation (Feet - MSL)	Depth to Groundwater (Feet - MSL)	Product Thickness (Feet)	Groundwater Elevation (Feet - MSL)
MW-1	7/11/2003	160.25	8.66	0	151.59
MW-1	11/13/2003	160.25	8.10	0	152.15
MW-1	2/19/2004	160.25	8.24	0	152.01
MW-1	5/21/2004	160.25	8.51	0	151.74
MW-1	8/11/2005	160.25	8.34	0	151.91
MW-1	11/30/2005	160.25	9.86	0	150.39
MW-2	7/11/2003	158.97	7.58	0	150.39
MW-2	11/13/2003	158.97	8.01	0	150.96
MW-2	2/19/2004	158.97	6.43	0	152.54
MW-2	5/21/2004	158.97	6.83	0	152.14
MW-2	8/11/2005	158.97	7.31	0	151.66
MW-2	11/30/2005	158.97	7.98	0	150.99
MW-3	7/11/2003	160.17	9.35	0	150.82
MW-3	11/13/2003	160.17	8.85	0	151.32
MW-3	2/19/2004	160.17	8.46	0	151.71
MW-3	5/21/2004	160.17	9.09	0	151.08
MW-3	8/11/2005	160.17	8.87	0	151.30
MW-3	11/30/2005	160.17	9.73	0	150.44
MW-4	7/11/2003	158.42	6.73	0	151.69
MW-4	11/13/2003	158.42	6.54	0	151.88
MW-4	2/19/2004	158.42	4.37	0	154.05
MW-4	5/21/2004	158.42	5.79	0	152.63
MW-4	8/11/2005	158.42	6.65	0	151.77
MW-4	11/30/2005	158.42	6.05	0	152.37
MW-5	7/11/2003	158.03	7.94	0	150.09
MW-5	11/13/2003	158.03	7.41	0	150.62
MW-5	2/19/2004	158.03	6.14	0	151.89
MW-5	5/21/2004	158.03	7.42	0	150.61
MW-5	8/11/2005	158.03	7.67	0	150.36
MW-5	11/30/2005	158.03	8.51	0	149.52
MW-6	7/11/2003	157.24	7.98	0	149.26
MW-6	11/13/2003	157.24	7.47	0	149.77
MW-6	2/19/2004	157.24	5.09	0	152.15
MW-6	5/21/2004	157.24	6.38	0	150.86
MW-6	8/11/2005	157.24	6.68	0	150.56
MW-6	11/30/2005	157.24	7.43	0	149.81

Note:

The site was surveyed as per Geotracker standard on July 11,2003, by PLS Surveys, Inc., a California licensed surveyor

All elevations reported with respect to feet above mean sea level (MSL).

TABLE 2: SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLING

Sekhon Gas Station

6600 Foothill Boulevard

Oakland, California

Sample ID	Date of Sampling	TPHg ug/L	MTBE ug/L	Benzene ug/L	Toluene ug/L	Ethylbenzene ug/L	Xylenes ug/L	TBA ug/L
MW-1/GW	6/13/2001	ND	130	ND	ND	ND	ND	NA
MW-1/GW	3/21/2002	95	72.5	ND	ND	ND	ND	NA
MW-1/GW	7/9/2002	ND	208	ND	ND	ND	ND	NA
MW-1/GW	7/11/2003	ND	636	0.7	ND	ND	1.2	NA
MW-1/GW	11/13/2003	ND<5000#	72000	ND	ND	ND	ND	22000
MW-1/GW	2/19/2004	1350	82000	460	ND	ND	ND	8630
MW-1/GW	5/21/2004	ND	12000	ND<50	ND<50	ND<50	ND<100	ND<1000
MW-1/GW	8/11/2005	ND	4900	ND	ND	ND	ND	NA
MW-1/GW	11/30/2005	ND<250	8400	ND<2.5	ND<2.5	ND<2.5	ND<2.5	NA
MW-2/GW	6/13/2001	5800	94000*	160	210	290	980	980
MW-2/GW	3/21/2002	452	79100*	3.4	ND	1.6	2.1	NA
MW-2/GW	7/9/2002	497	37600*	61.6	ND	ND	1.6	NA
MW-2/GW	7/11/2003	553	38200*	48.9	ND	ND	ND	NA
MW-2/GW	11/13/2003	ND<2500#	47000	ND	ND	ND	ND	11000
MW-2/GW	2/19/2004	4390	26700	410	265	160	490	3930
MW-2/GW	5/21/2004	1150	24600	254	ND<200	ND<200	ND<400	ND<4000
MW-2/GW	8/11/2005	91	6500	ND	1.1	ND	ND	NA
MW-2/GW	11/30/2005	69	2300	ND	1.4	ND	ND	NA
MW-3/GW	6/13/2001	300	450	1	ND	0.07	2	NA
MW-3/GW	3/21/2002	274	7520	1.1	ND	1	2.5	NA
MW-3/GW	7/9/2002	ND	40.8	ND	ND	ND	ND	NA
MW-3/GW	7/11/2003	ND	24.3	ND	ND	ND	ND	NA
MW-3/GW	11/13/2003	ND	37	ND	ND	ND	ND	27
MW-3/GW	2/19/2004	83	42.7	ND	ND	ND	ND	508
MW-3/GW	5/21/2004	ND	54	ND	ND	ND	ND	1100
MW-3/GW	8/11/2005	ND	27	ND	ND	ND	ND	NA
MW-3/GW	11/30/2005	ND	28	ND	ND	ND	ND	NA
MW-4/GW	7/9/2002	9680	28300	43	17	369	1990	NA
MW-4/GW	7/11/2003	3170	16600	16.5	6.4	71.7	244	NA
MW-4/GW	11/13/2003	ND<1000#	16000	49	ND	340	900	4500
MW-4/GW	2/19/2004	7230	14300	107	7	497	1063	1440
MW-4/GW	5/21/2004	9340	7380	194	ND	309	860	ND<2000
MW-4/GW	8/11/2005	3000	1200	15	24	87	190	NA
MW-4/GW	11/30/2005	4300	340	18	28	84	130	NA
MW-5/GW	7/9/2002	275	18600	30.2	ND	ND	3	NA
MW-5/GW	7/11/2003	890	5090	10	0.6	ND	7.1	NA
MW-5/GW	11/13/2003	ND<1000#	3400	ND	ND	ND	ND	3100
MW-5/GW	2/19/2004	1310	438	ND	0.7	ND	2.2	1340
MW-5/GW	5/21/2004	1960	214	9.7	0.7	ND	ND	436
MW-5/GW	8/11/2005	410**	100	ND	3.3	ND	ND	NA
MW-5/GW	11/30/2005	240**	82	ND	1.8	ND	1.4	NA

TABLE 2: SUMMARY OF ANALYTICAL RESULTS OF GROUNDWATER SAMPLING(contd.)								
MW-6/GW	7/9/2002	12000	11300	432	22	637	1740	NA
MW-6/GW	7/11/2003	2970	18000	534	6.3	70.1	278	NA
MW-6/GW	11/13/2003	ND<2500#	18000	300	ND	ND	52	ND
MW-6/GW	2/19/2004	5340	5310	184	5	65	127	4260
MW-6/GW	5/21/2004	6110	3900	340	12.7	205	308.8	4060
MW-6/GW	8/11/2005	6100	3200	470	48	23	30	NA
MW-6/GW	11/30/2005	3700	3400	310	30	16	12	NA
RL	12/2-3/05	50	5	0.5	0.5	0.5	0.5	

Notes:

ND- Not Detected NA- Not Analyzed RL- Reporting Limit for DF=1

ug/L- Microgram per liter (parts per billion)

TPHg- Total petroleum hydrocarbon as gasoline (EPA method 8015 Cm)

MTBE- Methyl Tertiary Butyl Ether (EPA Method 8021B)

BTEX- Benzene, toluene, ethylbenzene, and xylenex (EPA Method 8021B)

TBA- tert-Butanol (EPA Method 8260B) Other oxygenates were not detected

* Confirmed by GC/MS method 8260B

** Laboratory reported does not match gasoline pattern

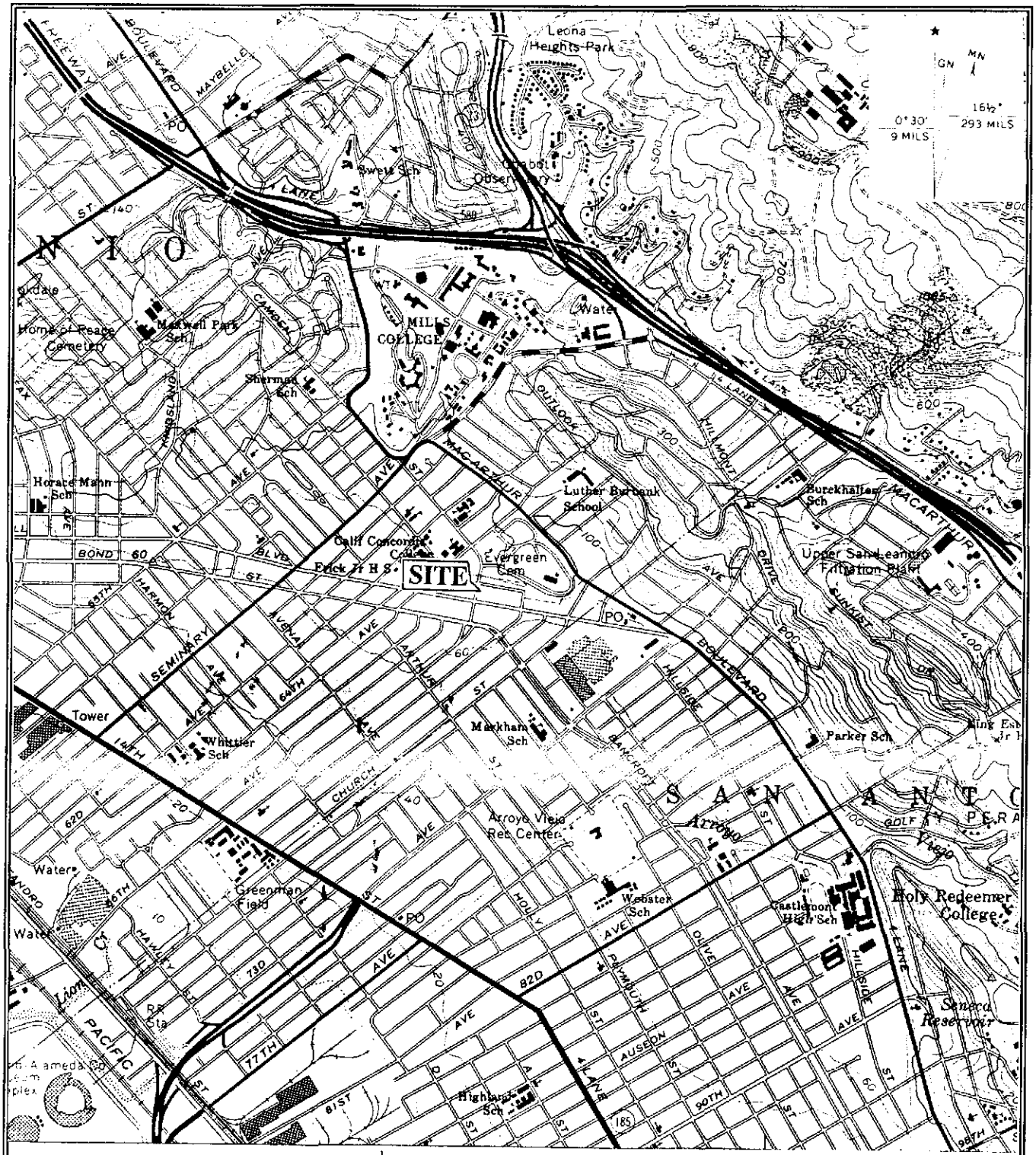
See Laboratory explanations (dated November 26 & December 8, 2003)

TABLE 3: FIELD PARAMETERS OF GROUNDWATER SAMPLING
Former Sekhon Gas Station
6600 Foothill Boulevard, Oakland , California

Sample I.D. No.	Date of Sampling	Temperature °F	pH	Conductivity uS
MW-1	7/11/2003	70.1	7.57	682
MW-1	11/13/2003	70.2	6.88	658
MW-1	2/19/2004	65.8	7.12	964
MW-1	5/21/2004	67.5	6.98	642
MW-1	8/11/2005	73.1	7.56	529
MW-1	11/30/2005	70.2	6.72	633
MW-2	7/11/2003	71.6	6.50	598
MW-2	11/13/2003	72.3	6.79	863
MW-2	2/19/2004	66.2	6.55	816
MW-2	5/21/2004	70.3	6.33	817
MW-2	8/11/2005	74.4	6.58	811
MW-2	11/30/2005	71.4	6.62	780
MW-3	7/11/2003	71.2	6.87	166
MW-3	11/13/2003	73.6	7.28	144
MW-3	2/19/2004	67.4	6.73	403
MW-3	5/21/2004	69.0	6.82	392
MW-3	8/11/2005	74.4	6.82	222
MW-3	11/30/2005	67.1	7.31	383
MW-4	7/11/2003	71.3	6.61	1012
MW-4	11/13/2003	73.0	6.71	1002
MW-4	2/19/2004	65.2	6.49	958
MW-4	5/21/2004	68.7	6.38	921
MW-4	8/11/2005	74.9	6.65	954
MW-4	11/30/2005	69.7	6.77	977
MW-5	7/11/2003	70.6	6.81	515
MW-5	11/13/2003	69.3	6.73	558
MW-5	2/19/2004	64.3	7.18	455
MW-5	5/21/2004	67.3	6.82	396
MW-5	8/11/2005	71.0	6.82	424
MW-5	11/30/2005	68.1	6.85	441
MW-6	7/11/2003	70.6	6.64	978
MW-6	11/13/2003	67.1	6.75	983
MW-6	2/19/2004	61.2	6.85	682
MW-6	5/21/2004	65.6	6.63	860
MW-6	8/11/2005	70.3	6.73	893
MW-6	11/30/2005	65.9	6.71	830

Note:

°F = degree Fahrenheit
uS = microSiemens



Source: U.S.G.S. Maps; 7.5 Minute Series (Topographic)
Oakland East Quadrangle, CA
Aerial Photograph taken 1959 Photorevised 1980

FIGURE 1: SITE VICINITY MAP
SEKHON GAS STATION
6600 Foothill Blvd.
Oakland, California

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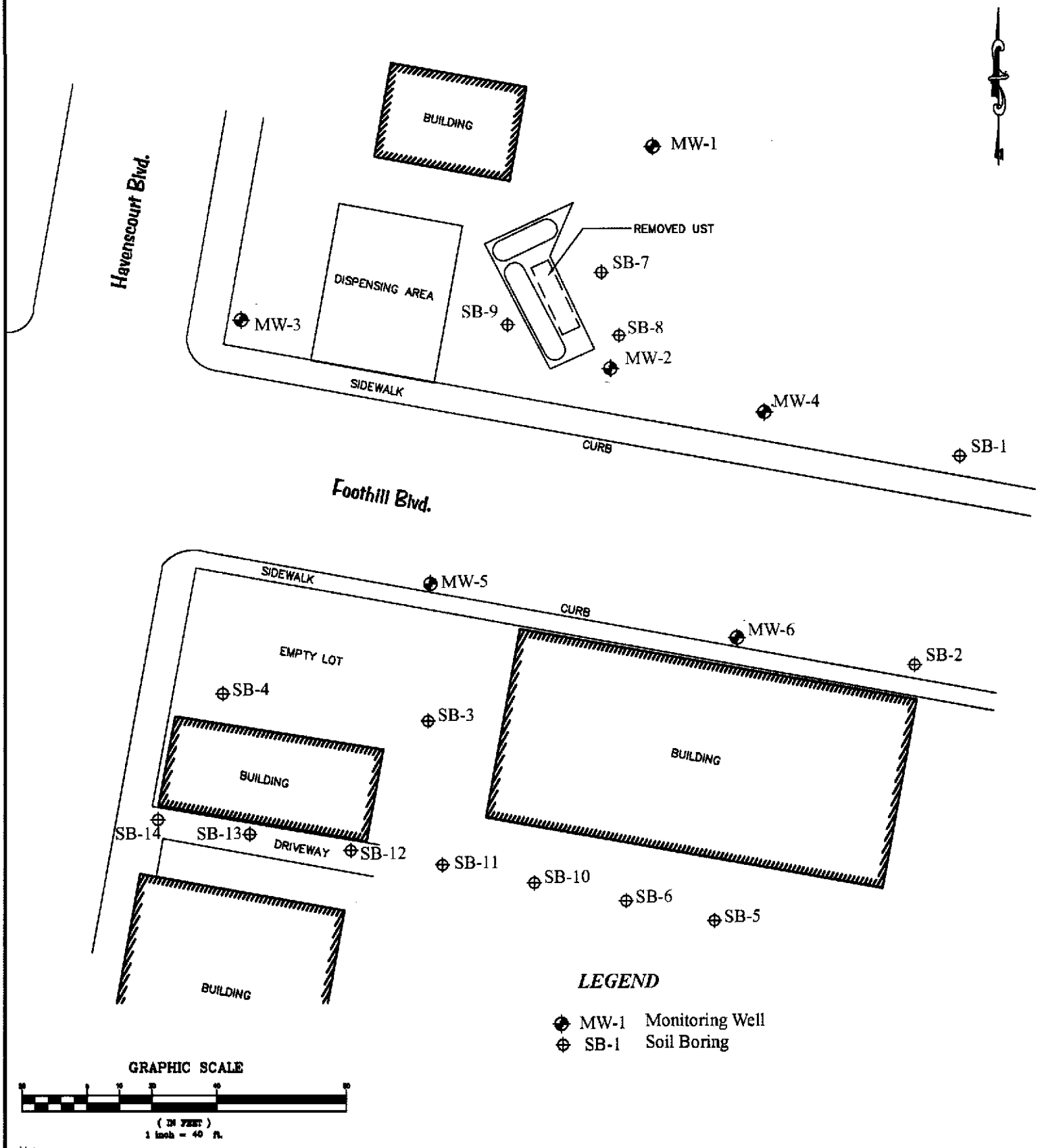

Notes
1. Locations of the and borings are georeferenced by GPS Surveying method by PLS Survey Inc.
2. Background map information from City of Oakland 1/40 scale areals and P&D Environmental report

FIGURE 2: SITE PLAN
FORMER SEKHON GAS STATION
6600 Foothill Boulevard
Oakland, CA 94544

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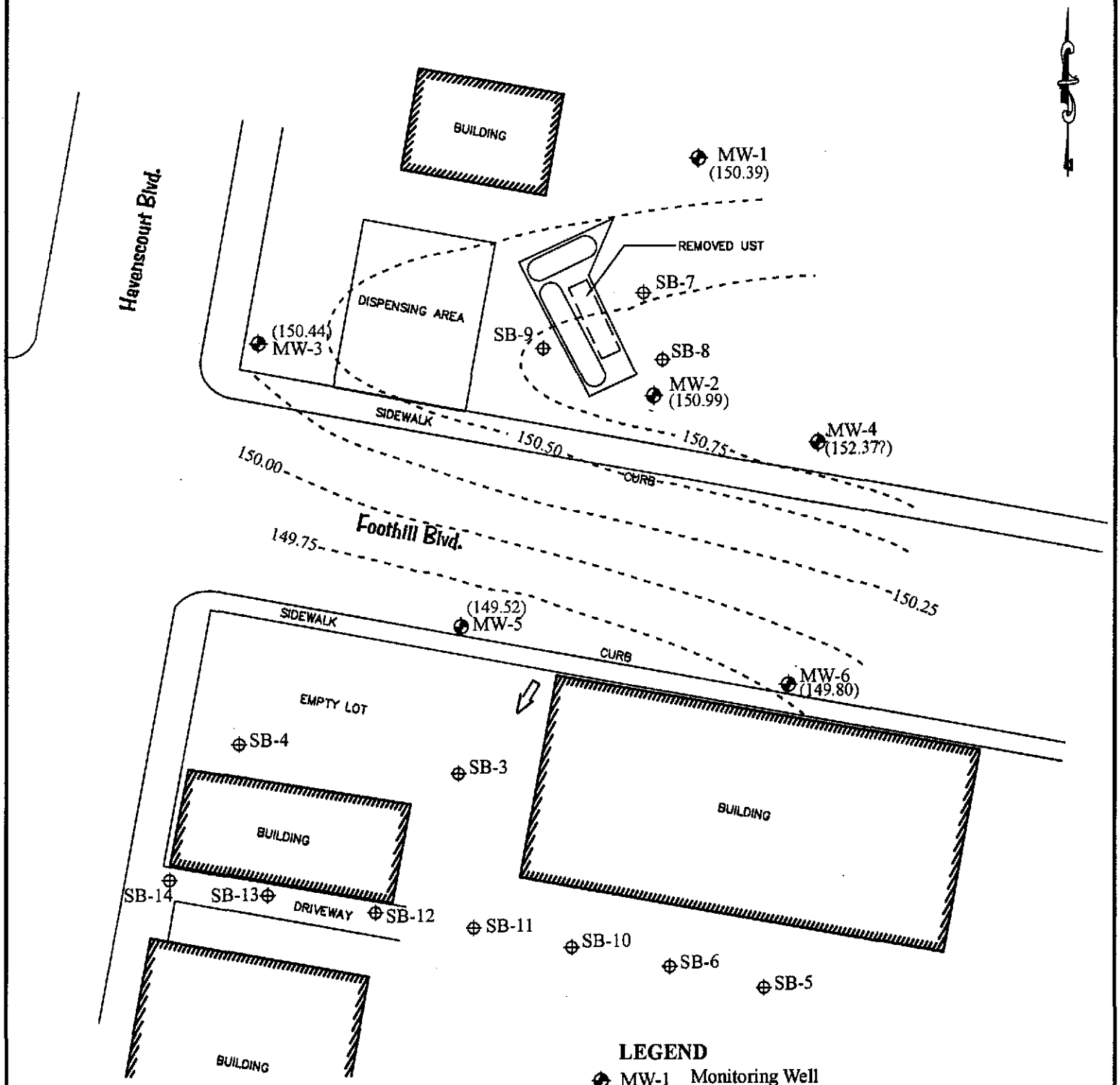
Concord, CA 94520



GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

Notes
1. Locations of the and borings are georeferenced by GPS Surveying method by PLS Survey Inc.
2. Background map information from City of Oakland 1/40 scale areals and P&D Environmental report

LEGEND

MW-1	Monitoring Well
SB-1	Soil Boring
(150.99)	Groundwater Elevations in feet (MSL)
150.50	Groundwater Elevation Contour
	General Direction of Groundwater Flow

Notes:
1. Water levels in monitoring wells measured on November 30, 2005
2. Contour intervals = 0.25 foot
3. Hydraulic Gradient = 0.017 foot/foot

FIGURE 3: GROUNDWATER SURFACE ELEVATIONS
FORMER SEKHON GAS STATION
6600 Foothill Boulevard
Oakland, CA 94544

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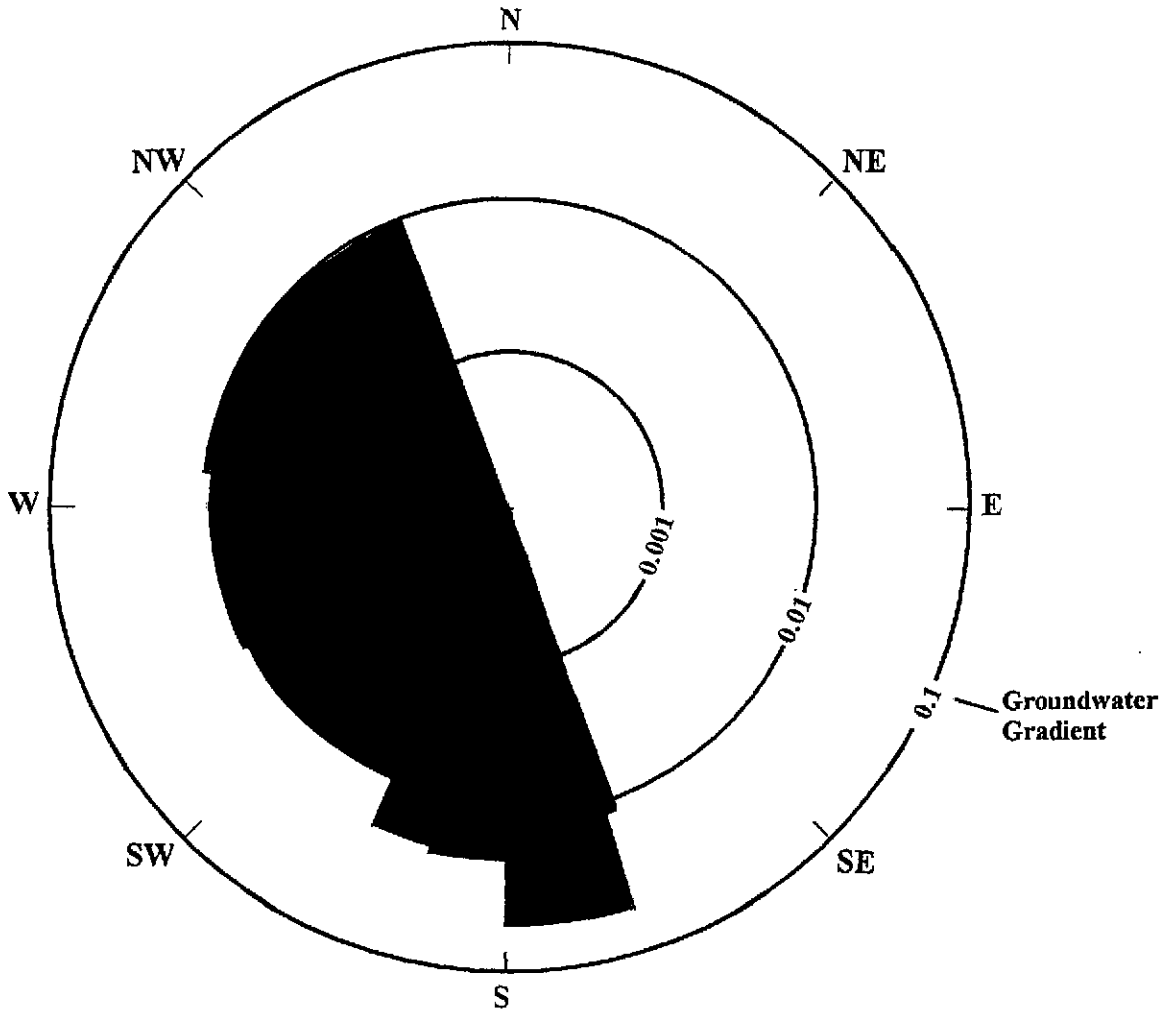

0.001

FIGURE 3A: HISTORICAL GROUNDWATER FLOW DIRECTION
FORMER SEKHON GAS STATION (June 2001 - November 2005)
6600 Foothill Blvd.
Oakland, California

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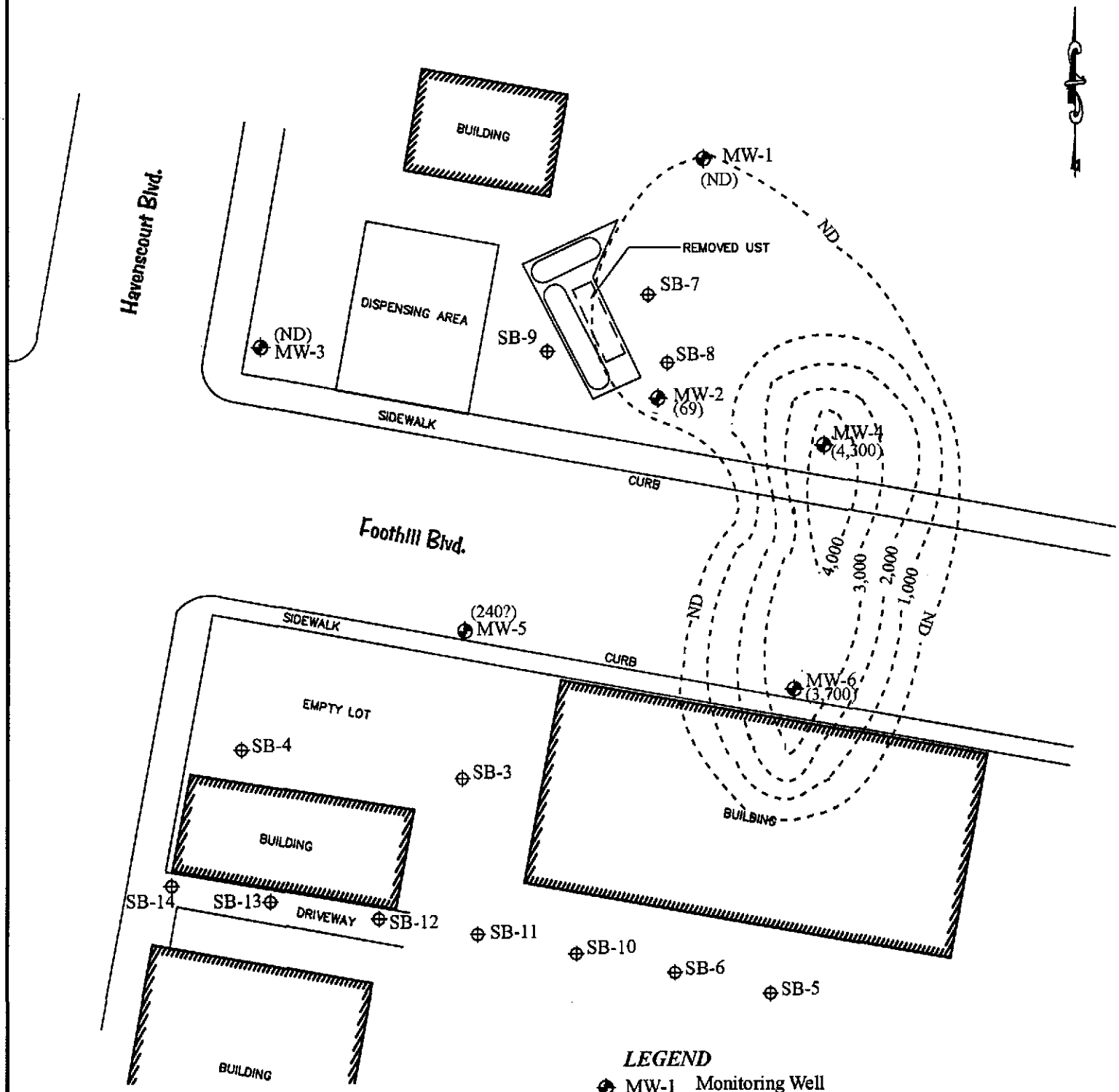

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

Notes
1. Locations of the and borings are georeferenced by GPS Surveying method by PLS Survey Inc.
2. Background map information from City of Oakland 1/40 scale areals and P&D Environmental report

LEGEND

MW-1	Monitoring Well
SB-1	Soil Boring
(4,300)	Total Petroleum Hydrocarbon as Gasoline (TPHg) Concentrations in Groundwater in Parts per Billion (ppb)
-3,000-	TPHg concentration contour

Notes:
1. Groundwater samples collected on November 30, 2005
2. Contour intervals = As labelled

FIGURE 4: TPHg CONCENTRATIONS IN GROUNDWATER
FORMER SEKHON GAS STATION
6600 Foothill Boulevard
Oakland, CA 94544

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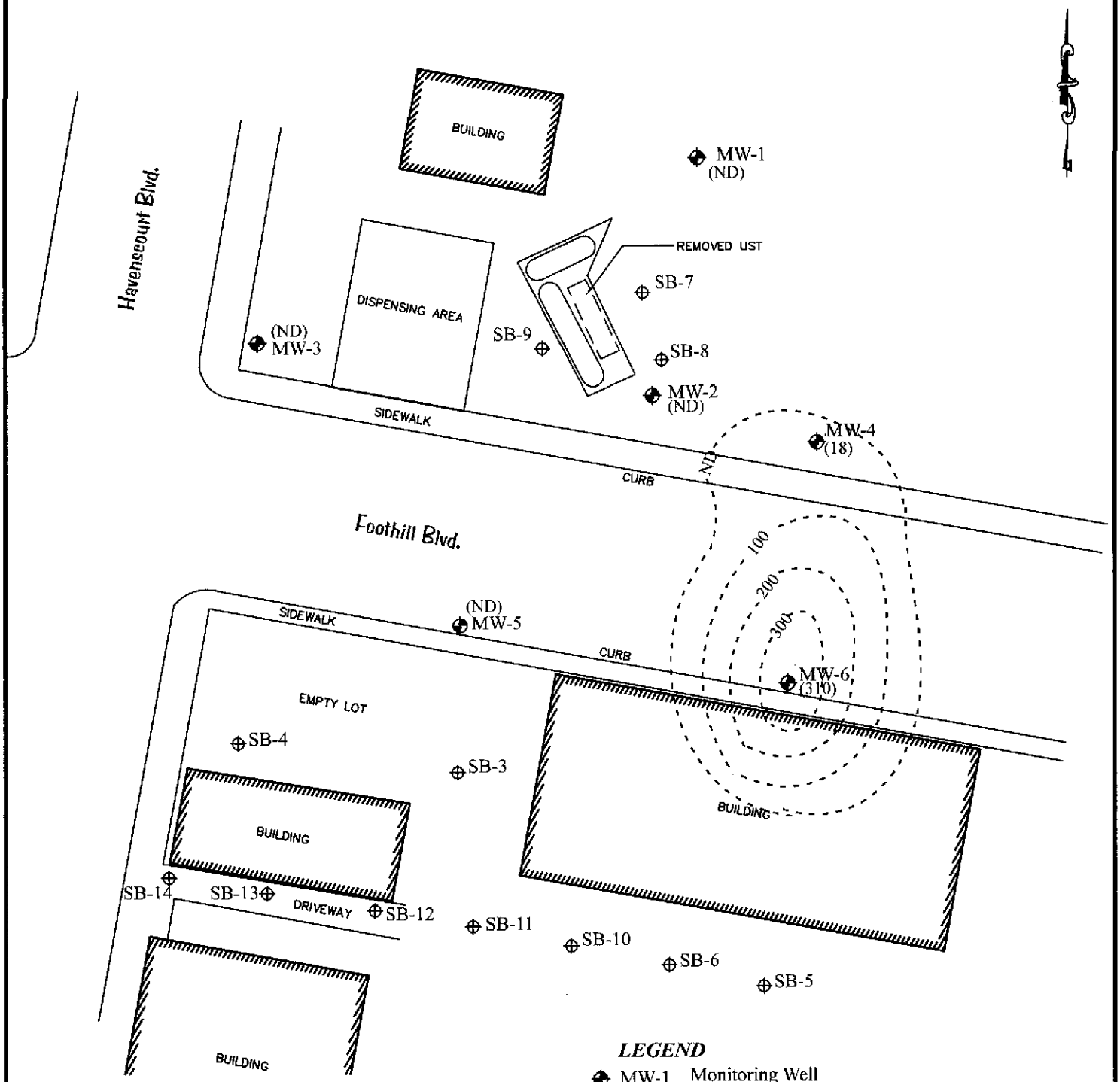

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

Notes
1. Locations of the and borings are georeferenced by GPS Surveying method by *PLS Survey Inc.*
2. Background map information from City of Oakland 1/40 scale areals and P&D Environmental report

LEGEND

MW-1 Monitoring Well
SB-1 Soil Boring
(310) Benzene Concentrations in Groundwater in Parts per Billion (ppb)
-200- Benzene concentration contour

Notes:
1. Groundwater samples collected on November 30, 2005
2. Contour intervals = 100 ppb

FIGURE 5: BENZENE CONCENTRATIONS IN GROUNDWATER
FORMER SEKHON GAS STATION
6600 Foothill Boulevard
Oakland, CA 94544

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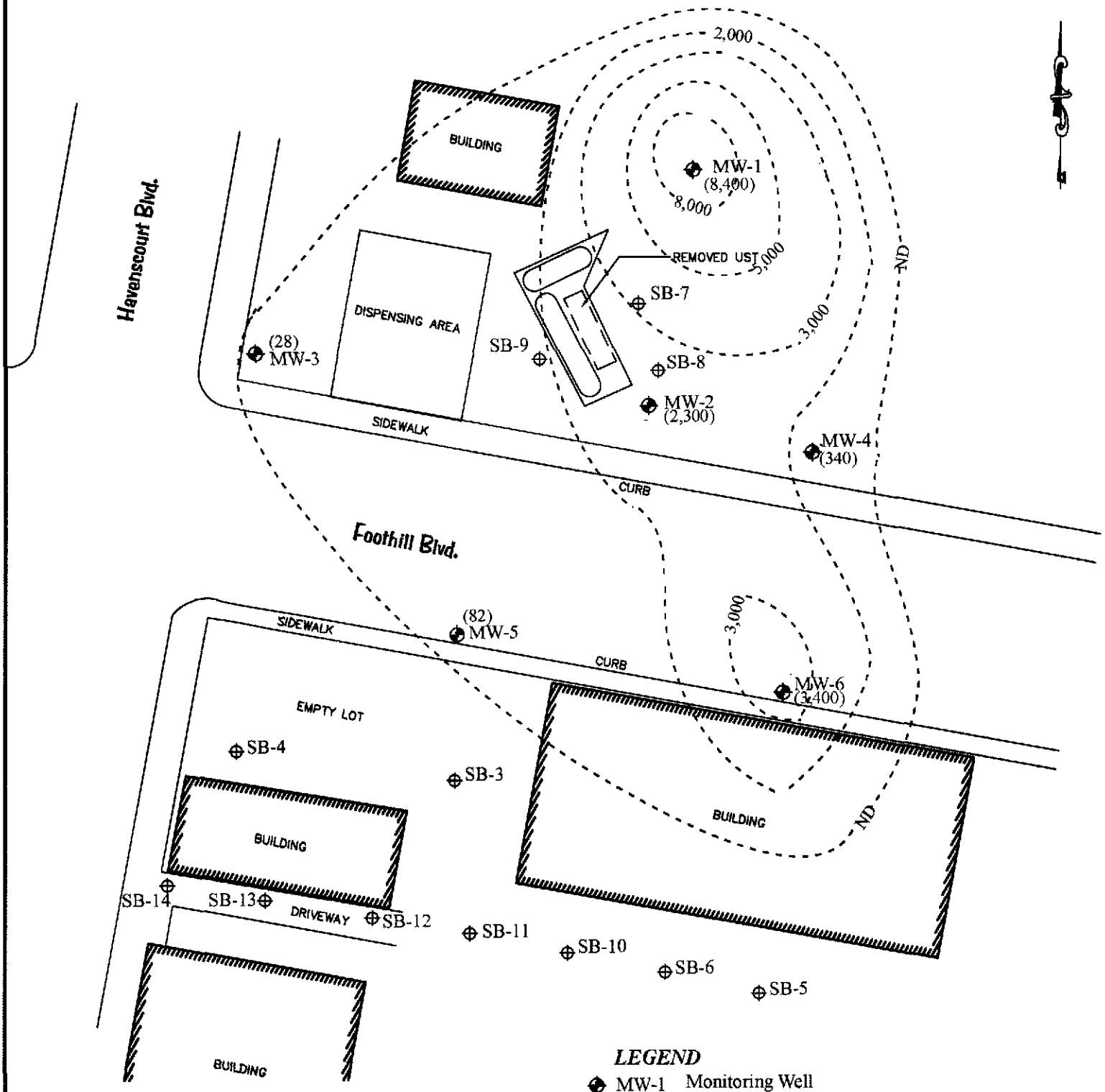

GRAPHIC SCALE

(IN FEET)
1 inch = 40 ft.

Notes
1. Locations of the and borings are georeferenced by GPS Surveying method by PLS Survey Inc.
2. Background map information from City of Oakland 1/40 scale areals and P&D Environmental report

LEGEND

MW-1 Monitoring Well
SB-1 Soil Boring
(8,400) Methyl Tertiary Butyl Ether (MTBE) Concentrations in Groundwater in Parts per Billion (ppb)
-5,000- MTBE concentration contour

Notes:
1. Groundwater samples collected on November 30, 2005
2. Contour intervals = As labelled

FIGURE 6: MTBE CONCENTRATIONS IN GROUNDWATER
FORMER SEKHON GAS STATION
6600 Foothill Boulevard
Oakland, CA 94544

ADVANCED ASSESSMENT AND REMEDIATION SERVICES
2380 Salvio Street, Suite 202
Concord, CA 94520

APPENDIX A

Laboratory Reports and Chain of Custody Documents

McCampbell Analytical, Inc.

110 2nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Advanced Assessment and Remed	Client Project ID: Former Sekhom Gas Station	Date Sampled: 11/30/05
2380 Salvio Street, Suite 202		Date Received: 11/30/05
Concord, CA 94520	Client Contact: Tridib Guha	Date Reported: 12/06/05
	Client P.O.:	Date Completed: 12/06/05

WorkOrder: 0511542

December 06, 2005

Dear Tridib:

Enclosed are:

1). the results of **6** analyzed samples from your **Former Sekhom Gas Station project,**

2). a QC report for the above samples

3). a copy of the chain of custody, and

4). a bill 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 please contact me. McCampbell Analytical Laboratories strives for excellence in quality, service and cost. Thank you for your business and I look forward to working with you again.

Yours truly,

Angela Rydelius, Lab Manager

McCampbell Analytical, Inc.

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Advanced Assessment and Remediation	Client Project ID: Former Sekhom Gas Station	Date Sampled: 11/30/05
2380 Salvio Street, Suite 202		Date Received: 11/30/05
Concord, CA 94520	Client Contact: Tridib Guha	Date Extracted: 12/02/05-12/03/05
	Client P.O.:	Date Analyzed: 12/02/05-12/03/05

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline with BTEX and MTBE*

Extraction method: SW5030B Analytical methods: SW8021B/8015Cm Work Order: 0511542

Lab ID	Client ID	Matrix	TPH(g)	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes	DF	% SS
001A	MW-1/GW	W	ND<250,j,i	8400	ND<2.5	ND<2.5	ND<2.5	ND<2.5	5	104
002A	MW-2/GW	W	69,f	2300	ND	1.4	ND	ND	1	110
003A	MW-3/GW	W	ND,i	28	ND	ND	ND	ND	1	106
004A	MW-4/GW	W	4300,a,i	340	18	28	84	130	10	109
005A	MW-5/GW	W	240,m,i	82	ND	1.8	ND	1.4	1	113
006A	MW-6/GW	W	3700,a,i	3400	310	30	16	12	3.3	116
Reporting Limit for DF =1; ND means not detected at or above the reporting limit	W	50	5.0	0.5	0.5	0.5	0.5	1	µg/L
	S	NA	NA	NA	NA	NA	NA	1	mg/Kg

* 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.

/i cluttered chromatogram; sample peak coelutes with surrogate peak.

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) unmodified or weakly modified gasoline is significant; b) heavier gasoline range compounds are significant(aged gasoline?); c) lighter gasoline range compounds (the most mobile fraction) are significant; d) gasoline range compounds having broad chromatographic peaks are significant; biologically altered gasoline?; e) TPH pattern that does not appear to be derived from gasoline (stoddard solvent / mineral spirit?); f) one to a few isolated non-target peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) reporting limit raised due to high MTBE content; k) TPH pattern that does not appear to be derived from gasoline (aviation gas). m) no recognizable pattern; n) TPH(g) range non-target isolated peaks subtracted out of the TPH(g) concentration at the client's request.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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QC SUMMARY REPORT FOR SW8021B/8015Cm

W.O. Sample Matrix: Water QC Matrix: Water WorkOrder: 0511542

EPA Method: SW8021B/8015Cm **Extraction: SW5030B** **BatchID: 19218** **Spiked Sample ID: 0511538-002A**

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	LCS / LCSD
TPH(btex)£	ND	60	101	95.2	5.66	104	99.9	3.97	70 - 130	70 - 130
MTBE	ND	10	92.4	91.4	1.08	102	99.9	2.39	70 - 130	70 - 130
Benzene	ND	10	90.4	91.1	0.793	91.1	96.3	5.61	70 - 130	70 - 130
Toluene	ND	10	96.8	98	1.19	96.6	103	6.16	70 - 130	70 - 130
Ethylbenzene	ND	10	103	104	0.813	105	110	4.26	70 - 130	70 - 130
Xylenes	ND	30	107	107	0	107	110	3.08	70 - 130	70 - 130
%SS:	103	10	98	101	2.88	95	100	4.68	70 - 130	70 - 130

All target compounds in the Method Blank of this extraction batch were ND less than the method RL with the following exceptions:

NONE

BATCH 19218 SUMMARY

Sample ID	Date Sampled	Date Extracted	Date Analyzed	Sample ID	Date Sampled	Date Extracted	Date Analyzed
0511542-001A	11/30/05 10:30 AM	12/02/05	12/02/05 4:51 AM	0511542-001A	11/30/05 10:30 AM	12/03/05	12/03/05 6:44 AM
0511542-002A	11/30/05 11:00 AM	12/02/05	12/02/05 5:24 AM	0511542-002A	11/30/05 11:00 AM	12/02/05	12/02/05 7:46 PM
0511542-003A	11/30/05 9:30 AM	12/02/05	12/02/05 7:32 AM	0511542-004A	11/30/05 10:00 AM	12/02/05	12/02/05 7:02 AM
0511542-005A	11/30/05 11:30 AM	12/02/05	12/02/05 7:26 PM	0511542-006A	11/30/05 12:00 PM	12/02/05	12/02/05 5:04 AM
0511542-006A	11/30/05 12:00 PM	12/03/05	12/03/05 4:08 AM				

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 applicable or 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.

DHS Certification No. 1644

QA/QC Officer

0511542 aars

McCAMPBELL ANALYTICAL, INC.

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CHAIN OF CUSTODY RECORD

TURN AROUND TIME ☐ RUSH ☐ 24 HR ☐ 48 HR ☐ 72 HR ☒ 5 DAY

EDF Required? (Coelt) (Normal) No Write On (DW) No

Report To: Tridib Guha Bill To: Tridib Guha

Company: Advanced Assessment & Remediation Services

2380 SalvioStreet, Suite 202, Concord, CA 94553

E-Mail: ~~aars@netscape.com~~

Tele: (925) 363- 1999 Fax: ( ) aaars@sbcglobal.net

Project #: FORMER SEKHON GAS STATION Project Name: FORMER SEKHON GAS STATION

Project Location: 6600 FOOTHILL BLVD., OAKLAND, CA

Sampler Signature: Tridib Guha

SAMPLE ID (~~Field Point Name~~)	LOCATION FIELD POINT ID	SAMPLING Date	SAMPLING Time	# Containers	Type Containers	MATRIX Water	MATRIX Soil	MATRIX Air	MATRIX Sludge	MATRIX Other	METHOD PRESERVED ICE	METHOD PRESERVED HCL	METHOD PRESERVED HNO_3	METHOD PRESERVED Other
MW-1/GW	MW-1	11/30/05	10:30	3	VOAs	X					X	X		
MW-2/GW	MW-2		11:00											
MW-3/GW	MW-3		9:30											
MW-4/GW	MW-4		10:00											
MW-5/GW	MW-5		11:30											
MW-6/GW	MW-6		12:00											

Analysis Request

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 (Cl Pesticides)	EPA 608 / 8082 PCB's ONLY; Aroclors / Congeners	EPA 507 / 8141 (NP Pesticides)	EPA 515 / 8151 (Acidic Cl Herbicides)	EPA 524.2 / 624 / 8260 (VOCs)	EPA 525.2 / 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)
X															
X															
X															
X															
X															
X															

Other

Comments: Filter Samples for Metals analysis: Yes / No * LAB REPORT IN PDF

Relinquished By:	Date:	Time:	Received By:
Tridib Guha	11/30	5:54p	
Relinquished By:	Date:	Time:	Received By:
Relinquished By:	Date:	Time:	Received By:

ICE/t° ✓
GOOD CONDITION ✓
HEAD SPACE ABSENT
DECHLORINATED IN LAB
APPROPRIATE CONTAINERS ✓
PRESERVED IN LAB

COMMENTS:

PRESERVATION VOAS | O&G | METALS pH<2 | OTHER

McCampbell Analytical, Inc.
110 Second Avenue South, #D7
Pacheco, CA 94553-5560
(925) 798-1620

CHAIN-OF-CUSTODY RECORD

WorkOrder: 0511542 **ClientID: AARS** **EDF: YES**

Report to:
Tridib Guha
Advanced Assessment and Remediati
2380 Salvio Street, Suite 202
Concord, CA 94520
TEL: (925) 363-1999
FAX: (925) 363-4070
ProjectNo: Former Sekhom Gas Station
PO:

Bill to:
Tridib Guha
Advanced Assessment and Remediati
2380 Salvio Street, Suite 202
Concord, CA 94520

Requested TAT: 5 days
Date Received: 11/30/2005
Date Printed: 11/30/2005

Sample ID	ClientSampID	Matrix	Collection Date	Hold	Requested Tests (See legend below)											
					1	2	3	4	5	6	7	8	9	10	11	12
0511542-001	MW-1/GW	Water	11/30/2005	☐	A	A										
0511542-002	MW-2/GW	Water	11/30/2005	☐	A											
0511542-003	MW-3/GW	Water	11/30/2005	☐	A											
0511542-004	MW-4/GW	Water	11/30/2005	☐	A											
0511542-005	MW-5/GW	Water	11/30/2005	☐	A											
0511542-006	MW-6/GW	Water	11/30/2005	☐	A											

Test Legend:

1	G-MBTEX_W	2	PREDF REPORT	3		4		5	
6		7		8		9		10	
11		12							

Prepared by: Juanita Venegas

Comments:

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.