SFHD 1262
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PARKER ENVIRONMENTAL SERVICES

January 7, 2000

Project Number 192-01-03

Mr. Hooshang Hadjian
Foothill Beacon
7240 Dublin Boulevard
Dublin, CA 94568

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Subject: **Report of Groundwater Monitoring at Foothill Beacon, 16210 Foothill Boulevard, San Leandro, California**

This Groundwater Monitoring Report describes the site history, field work and laboratory analysis results for a sampling event at the subject property.

The project site is located at 16210 Foothill Boulevard, San Leandro, California. The site is currently used as a convenience store that retails gasoline under the name Foothill Beacon.

SITE BACKGROUND

Four underground storage tanks were removed from this site by California Petroleum Equipment, Inc., of Fresno on January 28, 1997. There were two 8,000 gallon tanks and two 5,000 gallon tanks, single wall steel, and appeared to be in fair condition, with some pitting evident on the tanks with close inspection.

The Alameda County inspector probed the pitted areas and found two 1/4" to 1/2" holes at the end of one of the 5,000 gallon tanks. The holes were about three feet from the bottom of the tank at the weld by the tank cylinder and tank end. Although the metal was soft enough to disintegrate with the probing of a screw-driver, it appears that the tank did not leak from these spots. The tanks were sitting in about four feet of water, and if the tanks leaked, water would have been three to four feet deep in this tank. Since no water was pumped from the tank during service, the tank was apparently intact until removal. Groundwater was eleven feet below grade surface on the day of the tank removal, as measured by a tape measure.

Soil samples were collected from the tank excavation. Sample analysis results show up to 360 ppm TPH-g, up to 9.4 ppm MTBE, up to 2.3 ppm benzene, up to 2.3 ppm toluene, up to 3.0 ppm ethyl-benzene, and up to 98 ppm xylenes.

190 East 7th Street • Pittsburg, CA 94565-2317 • FAX (925) 439-2566 • Phone (925) 439-1024

Three monitoring wells were installed and soil samples were taken by Parker Environmental Services on October 13, 1998, results found in Table 1.

Table 1 - Soil Sample Analysis Results
Foothill Beacon
Samples Taken October 13, 1998

Sample	TPH-g	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1 @ 25.5′	ND	ND	ND	ND	ND	ND
MW-1 @ 30.5′	ND	ND	ND	ND	ND	ND
MW-2 @ 5.5′	ND	ND	ND	ND	ND	ND
MW-2 @ 10.5′	ND	ND	ND	ND	ND	ND
MW-2 @ 15.5′	ND	ND	ND	ND	ND	ND
MW-3 @ 5.5′	ND	1.8	ND	ND	0.005	0.019
MW-3 @ 10.5′	ND	0.38	ND	ND	ND	ND
MW-3 @ 15.5′	ND	0.34	ND	ND	ND	ND
Detect. Limit	1.0	0.05	0.005	0.005	0.005	0.005

ND means not detected. Results are in µg/L or parts per billion.

From the survey and depth to groundwater measurement data, the site groundwater on October 26, 1998 was approximately ten feet below grade surface (BGS) and the gradient direction was N 79.83 °E, with an apparent gradient of 0.0082 ft./ft. The gradient on November 2, 1998 was found to have an apparent gradient direction of S 69.30 °E, with an average gradient of 0.0036 ft./ft.

Groundwater samples were obtained from the wells on November 2, 1998 and analyzed for TPH as gasoline (EPA method 5030/8015) with BTEX and MTBE (method 602). Sample analysis shows no TPH-g, BTEX or MTBE detected in MW-1 and MW-2. TPH-g and BTEX were not detected in MW-3, but MTBE was detected at 190 parts per billion (ppb).

The first quarter groundwater monitoring of February 1999 showed groundwater about 10 feet BGS, with gradient direction S 63.15° E and apparent slope of 0.003 ft/ft. Sample analysis only showed MTBE in MW-3 at 340 ppb. All other analysis showed non-detect.

Current Activities

Sampling and measurements were done on January 7, 2000. Prior to sampling, the groundwater elevations were measured using an electric water level meter. Initial depths below ground surface were as follows:

Table 2: Groundwater Elevations
Foothill Beacon
16210 Foothill Boulevard
Measured January 7, 2000

Well	Casing Elevation	Depth to Water	Ground Water Elevation
MW-1	138.57	11.80	126.77
MW-2	137.94	10.85	127.09
MW-3	138.88	11.90	126.98

* elevation above mean sea level, in feet

Groundwater gradient direction on January 7, 2000 was S 85.87° E at an apparent slope of 0.005937ft/ft. Figure 2 shows apparent groundwater gradient.

Eight gallons were removed from each well, between two and three well volumes. All purge water was placed in a sealed plastic drum and remains on site. Samples were taken from the end of the discharge hose at a flow rate of less than one liter per minute. The water from each well was placed in two 40-milliliter vials filled so that there was no air (head space) remaining in them. Samples were labeled and placed on ice in a cooler for transport to a state certified hazardous materials testing laboratory, McCampbell Analytical of Pacheco, California.

Sampling equipment was cleaned in one bucket with TSP Substitute and rinsed in two separate buckets with tap water, then rinsed with deionized water after use at each well. All purge water and equipment wash water was placed in a plastic drum and remains on-site. A copy of the Water Level Measurements Form is attached to this report.

The samples were analyzed for TPH-gasoline, MTBE and BTEX using EPA Methods 8015 and 8020. A copy of the laboratory report and Chain of Custody form are attached to this report. Results are shown in Table 3 and Figure 3, the Hydrocarbon Concentration Map.

Table 3 - Groundwater Sample Analysis Results
Foothill Beacon
Samples Collected January 7, 2000

Sample #	TPH-g	MTBE	Benzene	Toluene	Ethylbenzene	Xylenes
MW-1	ND	ND	ND	ND	0.52	2.3
MW-2	ND	ND	ND	ND	ND	ND
MW-3	ND	67	ND	ND	ND	ND
Det. Limit	50	5.0	0.5	0.5	0.5	0.5

ND means not detected. Results are in µg/L or parts per billion.

Future Directions

Enclosed is a case closure summary form. Copies of this report will be forwarded to the Alameda County Environmental Management Department, and to the California Regional Water Quality Control Board, San Francisco Bay Region.

Sincerely:
PARKER ENVIRONMENTAL SERVICES

James D. Parker
President

STATE OF CALIFORNIA REGISTERED ENVIRONMENTAL ASSESSOR No. 1059 Expires: 6-00

Reviewed By:

REGISTERED GEOLOGIST GARY D. LOWE No. 1559 CERTIFIED ENGINEERING GEOLOGIST STATE OF CALIFORNIA

02/04/00

Gary D. Lowe, R.G., C.E.G.
Principal, Hydrogeologist
H_2OGEOL, A GroundWater Consultancy

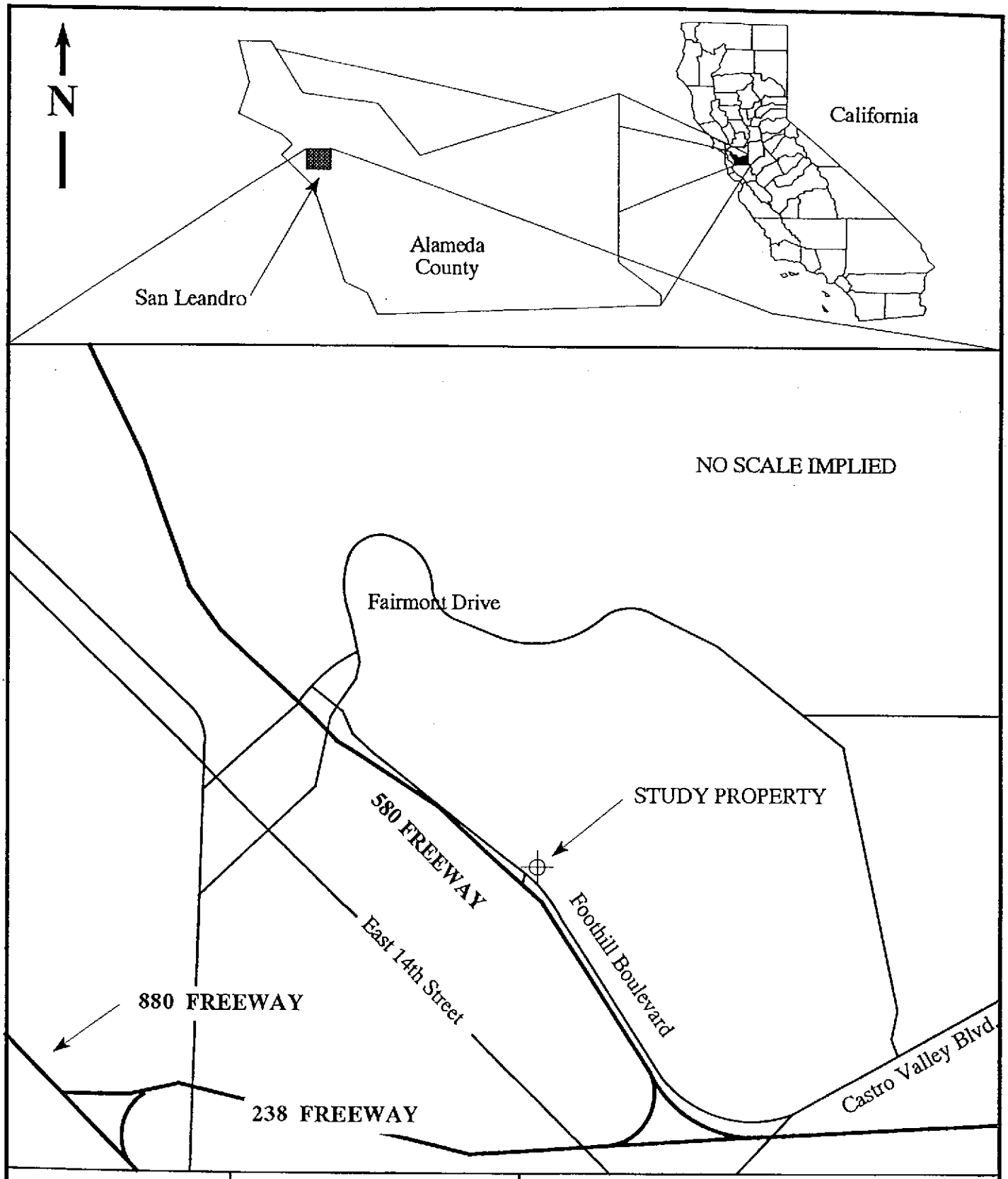
Attachments

cc: Mr. Robert Weston, Alameda County Environmental Management Department
Mr. Lester Feldman, San Francisco Bay Regional Water Quality Control Board

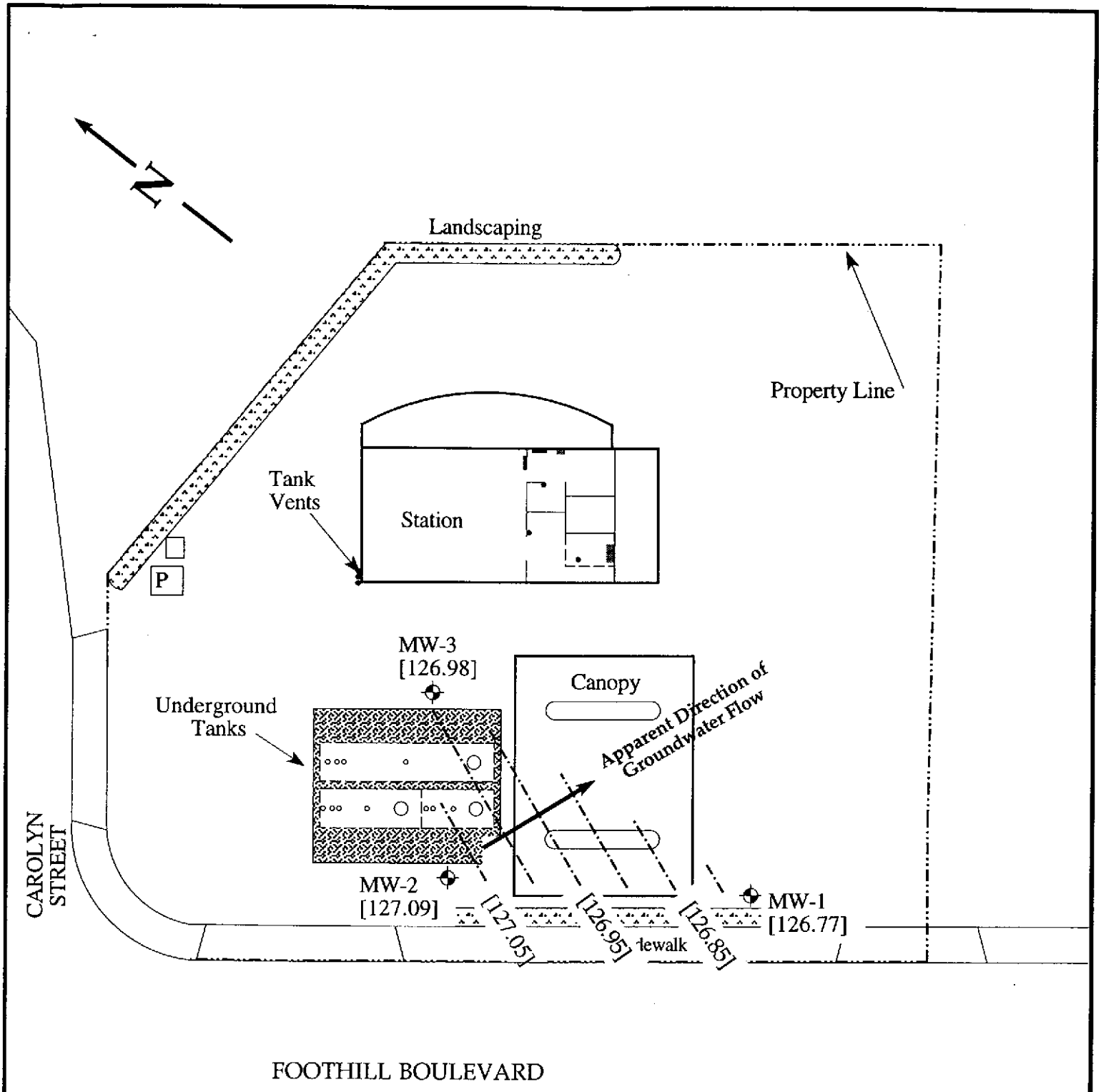
Cumulative Table of Well Data and Analytical Results

Vertical Measurements are in feet. Analytical values are in parts ber billion (ppb)

DATE	Well Head Elevation	Ground Water Elevation	Depth To Water	Notes	TPH-Gasoline	Benzene	Toluene	Ethyl-Benzene	Xylenes	MTBE	tert-Butanol
MW-1											
2/20/99	138.57	128.08	10.49		ND	ND	ND	ND	ND	ND	--
6/24/99	138.57	127.45	11.12		ND	ND	ND	ND	ND	ND	--
8/24/99	138.57	127.14	11.43		ND	ND	ND	ND	ND	ND	--
1/7/00	138.57	126.77	11.80		ND	ND	ND	0.52	2.3	ND	--
MW-2											
2/20/99	137.94	128.28	9.66		ND	ND	ND	ND	ND	ND	--
6/24/99	137.94	127.62	10.32		ND	ND	ND	ND	ND	ND	--
8/24/99	137.94	127.29	10.65		ND	ND	ND	ND	ND	ND	--
1/7/00	137.94	127.09	10.85		ND	ND	ND	ND	ND	ND	--
MW-3											
2/20/99	138.88	128.27	10.61		ND	ND	ND	ND	ND	340	--
6/24/99	138.88	127.60	10.61		ND	ND	ND	ND	ND	86	--
8/24/99	138.88	127.30	11.58		ND	ND	ND	ND	ND	81	--
1/7/00	138.88	126.98	11.90		ND	ND	ND	ND	ND	67	--



PARKER *Environmental Services*	*190 East 7th Street* *Pittsburg, CA 94565* *(510) 439-1024*	FOOTHILL BEACON 16210 Foothill Boulevard San Leandro, California Figure 1 - Vicinity Map 3/98



580 FREEWAY

Wells measured on January 7, 2000

◈ = monitoring well

[X.X] = groundwater elevation

-·-·- = line of equal elevation

Location of site features are approximate.

Scale: 1" = 30'

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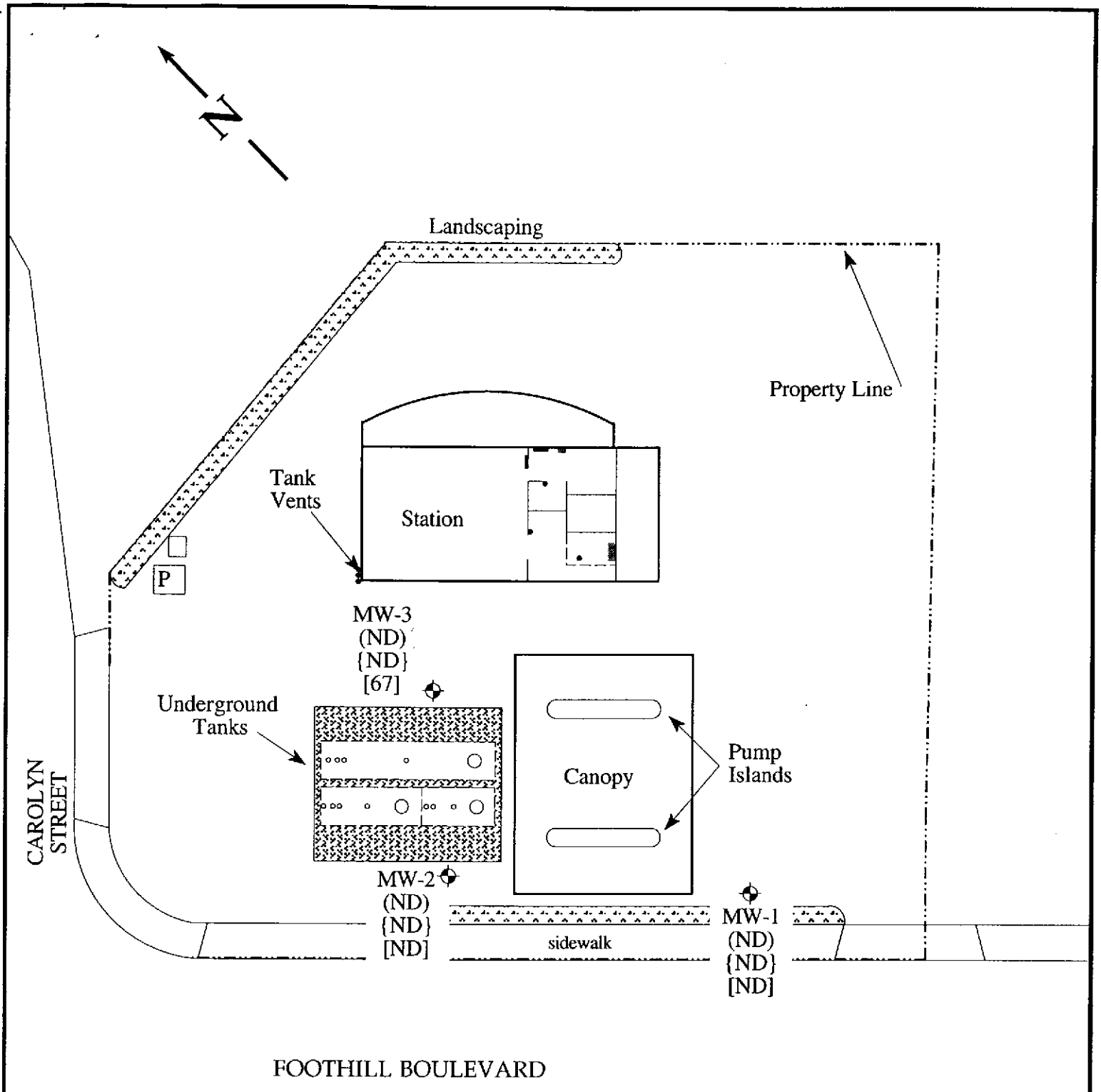
Figure 2 - Groundwater Gradient
Foothill Beacon
16210 Foothill Boulevard
San Leandro, CA



Key:

◈ = monitoring well

(X.X) = TPH-g

{X.X} = Benzene

[X.X] = MTBE

580 FREEWAY

Samples collected January 7, 2000.
Results are in parts per billion (ppb).

Location of site features are approximate.

Scale: 1" = 30'

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Pittsburg, CA 94565
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Figure 3, Groundwater Sample Results
Foothill Beacon
16210 Foothill Boulevard
San Leandro, CA

1/00

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

Parker Environmental Services 190 East 7th Street Pittsburg, CA 94565	Client Project ID: #192-01-03; Foothill Beacon	Date Sampled: 01/07/00
		Date Received: 01/07/00
	Client Contact: Jim Parker	Date Extracted: 01/08-01/10/00
	Client P.O:	Date Analyzed: 01/08-01/10/00

Gasoline Range (C6-C12) Volatile Hydrocarbons as Gasoline*, with Methyl tert-Butyl Ether* & BTEX*

EPA methods 5030, modified 8015, and 8020 or 602; California RWQCB (SF Bay Region) method GCFID(5030)

Lab ID	Client ID	Matrix	TPH(g)+	MTBE	Benzene	Toluene	Ethylben-zene	Xylenes	% Recovery Surrogate
28736	MW-1	W	ND	ND	ND	ND	0.52	2.3	100
28737	MW-2	W	ND	ND	ND	ND	ND	ND	104
28738	MW-3	W	ND	67	ND	ND	ND	ND	101
Reporting Limit unless otherwise stated; ND means not detected above the reporting limit		W	50 ug/L	5.0	0.5	0.5	0.5	0.5	
		S	1.0 mg/kg	0.05	0.005	0.005	0.005	0.005	

* water and vapor samples are reported in ug/L, wipe samples in ug/wipe, soil and sludge samples in mg/kg, and all TCLP and SPLP extracts in ug/L

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 (?); f) one to a few isolated peaks present; g) strongly aged gasoline or diesel range compounds are significant; h) lighter than water immiscible sheen is present; i) liquid sample that contains greater than ~5 vol. % sediment; j) no recognizable pattern.

DHS Certification No. 1644

Edward Hamilton, Lab Director

WATER SAMPLING DATA FORM

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Project Name	Project No.	Well Name	Date	Time	Name	Page	of
Foothill Beacon	192-01-03	MW-1	1-7-00	10:45	Robert Lowell	1	3

Well Depth (ft.)	Sounded Depth (ft.)	Sampling Equipment
39.29		☒ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft.)	Date/Time	
11.90'	1-7-00 11:08	
Well Diameter (in.)	LHC Present? ☐ Yes ☐ No	LHC Thickness
2"		

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
27.39	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☒ Bladder Pump ☐ Bailer PVC Bailer ☐ 1/2 inch Teflon " ☐ 1 1/4 inch ☐ 3 inch
Volume (gal)		Sampling Port No.
4.47		Volume / Rate (gpm)
Volume to be Evacuated ☒ x 3 ☐ x 4		

Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1 11:25	12.97	43.1	1.67
2 11:26	11.42	42.8	1.49
3 11:28	12.58	43.4	2.01
4			
5			
6			

Evacuation

	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time	11:40			
Start Time	11:20			
Minutes	20			
Amt Evacuated	8 gal			

Total Evacuated: 8 gal

Total Minutes: 20 min

Evacuation Rate: _____ gpm

Point of Collection	Time Samples Taken	Date
☒ PE Hose ☐ End of Bailer ☐ Other:	11:35 p.m.	1-7-00
	Depth to Water (ft) 11.90	Refrigerated? ☒ Yes ☐ No

Sample Color: Light Brown Odor: No

Sediment/Foreign Matter: 28%

Sampling Sequence:

Sample ID Number	Volume	Time	Preservative	Analysis	Lab
MW-1	2 ✓	11:36	HCl	1	
MW-1	2 ✓	11:38	HCl	1	

Container Codes: P = Plastic Bottle, V = VOA, B = Brown Glass, C = Clear Glass, ml = milliliter, L = liter, Other: describe

Pumped Dry?	If After (gal)
☐ Yes ☒ No	
Depth to Water During Pumping (ft)	Time
Depth to Water for 80% Recovery	Recovery Rate (gpm)
Sampled After: ☐ 80% Rec. ☐ 2 hrs	% Recovery at Time of Sampling

Recovery

	Time	Depth to Water
1.		
2.		
3.		
4.		
5.		

Notes:

WATER SAMPLING DATA FORM

PARKER ENVIRONMENTAL SERVICES

Project Name	Project No.	Well Name	Date	Time	Name	Page
Foothill Beacon	192-01-03	MW-2	1-7-00	10:45	Robert Lorello	2 of 3

Well Depth (ft.)	Sounded Depth (ft.)	Sampling Equipment
24.55		☒ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft.)	Date/Time	
10.85	11:04 1-7-00	
Well Diameter (in.)	LHC Present? ☐ Yes ☐ No	LHC Thickness
2"		

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
13.70	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☒ Bladder Pump ☐ Bailer PVC Bailer / Teflon " ☐ 1/2 inch ☐ 1 1/4 inch ☐ 3 inch Sampling Port No.
Volume (gal)		Volume / Rate (gpm)
2.25		
Volume to be Evacuated ☒ x 3 ☐ x 4		

Evacuation	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time	12:05			
Start Time	11:45			
Minutes	20			
Amt Evacuated	8 gal			

Total Evacuated: 8 gal

Total Minutes: 20 min

Evacuation Rate: _____ gpm

Pumped Dry? ☐ Yes ☐ No	After (gal)
Depth to Water During Pumping (ft)	Time
Depth to Water for 80% Recovery	Recovery Rate (gpm)
Sampled After: ☐ 80% Rec. ☐ 2 hrs	% Recovery at Time of Sampling

Recovery

	Time	Depth to Water
1.		
2.		
3.		
4.		
5.		

	Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1	12:01	13.01	44.1	1.98
2	12:03	14.09	43.8	2.08
3	12:04	13.57	43.2	2.19
4				
5				
6				

Point of Collection	Time Samples Taken	Date
☒ PE Hose ☐ End of Bailer ☐ Other:	11:55	1-7-00
	Depth to Water (ft) 10.85	Refrigerated? ☒ Yes ☐ No

Sample Color: Cloudy/Clear Odor: No

Sediment/Foreign Matter: 15%

Sampling Sequence:

Sample ID Number	Volume	Time	Preservative	Analysis	Lab
MW-2	2x	11:55	HCl	1	
MW-2	2x	11:58	HCl	1	

Container Codes: P = Plastic Bottle, V = VOA, B = Brown Glass, C = Clear Glass, ml = milliliter, Other: describe, L = liter

Notes:

WATER SAMPLING DATA FORM

PARKER ENVIRONMENTAL SERVICES

Project Name	Project No.	Well Name	Date	Time	Name	Page
Foothill Beacon	192-01-03	MW-3	1-7-00	10:45	Robert Zoulla	3 of 3

Well Depth (ft.)	Sounded Depth (ft.)	Sampling Equipment
24.37		☐ Monitoring Well ☐ Sampling Point ☐ Other (describe)
Depth to Water (ft.) 11.90	Date/Time	
Well Diameter (in.) 2"	LHC Present? ☐ Yes ☐ No	LHC Thickness

Initial Height of Water in Casing (ft)	Well Volume Conversions	Sampling Equipment
12.47	2" casing = 0.163 gal/ft 3" casing = 0.367 gal/ft 4" casing = 0.653 gal/ft 4.5" casing = 0.826 gal/ft 6" casing = 1.470 gal/ft 8" casing = 2.610 gal/ft 10" casing = 4.080 gal/ft	Dedicated System ☐ Bladder Pump ☐ Bailer PVC Bailer / Teflon " ☐ 1/2 inch ☐ 1 1/4 inch ☐ 3 inch Sampling Port No. Volume / Rate (gpm)
Volume (gal) 2.02		
Volume to be Evacuated ☒ x 3 ☐ x 4		

Evacuation

	Evacuated	Evacuated	Evacuated	Evacuated
Stop Time	12:30			
Start Time	12:10			
Minutes	20			
Amt Evacuated	9 gal			

Total Evacuated 8 gal
Total Minutes 20 min
Evacuation Rate _____ gpm

Pumped Dry?	After (gal)
☐ Yes ☒ No	
Depth to Water During Pumping (ft)	Time
Depth to Water for 80% Recovery	Recovery Rate (gpm)
Sampled After: ☐ 80% Rec. ☐ 2 hrs	% Recovery at Time of Sampling

Recovery

	Time	Depth to Water
1.		
2.		
3.		
4.		
5.		

	Time	pH Probe No.	Temp. Probe No.	Cond. Probe No.
1	12:18	12:48	43.4	1.67
2	12:19	13.09	44.3	2.41
3				
4				
5				
6				

Point of Collection	Time Samples Taken	Date
☒ PE Hose ☐ End of Bailer ☐ Other:	12:25	1-7-00
	Depth to Water (ft) 11.90	Refrigerated? ☒ Yes ☐ No

Sample Color Dark Brown Odor No

Sediment/Foreign Matter 40%

Sampling Sequence

Sample ID Number	Volume	Time	Preservative	Analysis	Lab
MW-3	2 v	12:25	HCl	1	
MW-3	2 v	12:27	HCl	1	

Container Codes: P = Plastic Bottle, V = VOA, B = Brown Glass, C = Clear Glass, ml = milliliter, Other: describe, L = liter

Notes: