RO 127

HerSchy Environmental, Inc.

July 9, 2004
Project A51-01

Mr. Barney Chan
Alameda County
Health Care Services Agency
Environmental Health Services
1131 Harbor Bay Parkway, Ste. 250
Alameda, CA 94502-6577

Re: Results of May, 2004 Quarterly Groundwater Monitoring, Alaska Gasoline Company, Oakland, California, Case #RO0000127

Dear Mr. Chan:

HerSchy Environmental is pleased to present the results of the most recent quarterly groundwater monitoring event for the above-referenced site. The site is located at 6211 San Pablo Avenue, which is on the northwest corner of San Pablo Avenue and 62nd Street in Oakland, Alameda County, California (Figure 1). Previous work includes the drilling, sampling, and laboratory analysis of soil and groundwater. Details of this investigation are contained in the April 22, 1999 report titled, *"Results of Underground Storage Tank (UST) Site Assessment, Alaska Gasoline Company, Oakland, California"*, prepared by HerSchy Environmental.

METHODS OF INVESTIGATION

Groundwater Sampling Procedures:

The depth to groundwater in each well was measured to the nearest 0.01 feet using an electric sounder prior to initiating groundwater sampling activities. The groundwater elevation was determined for each well by subtracting the depth to groundwater from the surveyed well elevation. The depth to groundwater, total depth of the well, and the well diameter were used to calculate the volume of groundwater within the well casing. At least three casing volumes were purged from each well prior to collecting a groundwater sample using a Waterra electric pump and dedicated hoses. Physical characteristics (temperature, electrical conductivity, and pH), were measured at the initiation of purging and then again just prior to collection of the groundwater sample. These characteristics were recorded on field sampling data sheets which are presented in Appendix A. One sample from each well was collected and contained in three 40-milliliter vials. Each of the sample containers were filled

P.O. Box 229 ◆ Bass Lake, CA 93604-0229 ◆ Phone: 559 • 641-7320 ◆ Fax: 559 • 641-7340

completely to form a positive meniscus, capped, and checked to ensure no air bubbles were present.

Samples were sealed in a ziplock bag and placed in a cooler chest with frozen gel packs ("blue ice") immediately after sampling. Samples were maintained at or below four degrees Celsius until delivered to the laboratory. Groundwater samples were handled under chain-of-custody documentation until delivered to a California certified laboratory.

Laboratory Analysis:

Groundwater samples were analyzed for gasoline-range total petroleum hydrocarbons (TPH-g), benzene, toluene, ethylbenzene, and xylenes (BTEX), and methyl tertiary butyl ether (MTBE). Samples were analyzed using EPA method 8020 for BTEX and MTBE. Groundwater samples were also analyzed for the fuel oxegynates and additives MTBE, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butanol (TBA), 1,2-dichloroethane (1,2-DCA) and ethylene dibromide (EDB) using EPA method 8260. Groundwater samples were also analyzed for ethanol and methanol as requested by your office.

RESULTS OF INVESTIGATION

Groundwater Conditions:

Because wells MW-4 and EX-1 contained floating product, no samples were collected from these wells, and groundwater data from these wells was not used in determining the groundwater flow direction or gradient. Also, MW-6 was buried under a large pile of pea gravel and was therefore not available this monitoring event. Efforts have subsequently been made to move the pea gravel and this well will be sampled during the next quarterly monitoring event. Groundwater was present beneath the site at an average depth of 7.48 feet below the surveyed well elevations during the May 24-25, 2004 monitoring event. During this event, the elevation of groundwater averaged 27.03 feet above mean sea level. The groundwater elevation decreased approximately 2.23 feet since the February, 2004 monitoring event based on average depth to groundwater. Groundwater flow direction was South 71 degrees West at a gradient of .0081 during the May, 2004 monitoring event. Groundwater conditions are summarized in Table 1 and presented graphically in Figure 2.

Table 1
Groundwater Conditions, Alaska Gasoline, Oakland

Well Number	Elevation	Depth to GW	GW Elevation
November 17, 2001:			
MW-1	34.70	8.09	26.61
MW-2	34.94	7.75	27.19
MW-3	33.74	7.18	26.56

Table 1
(Continued)

Well Number	Elevation	Depth to GW	GW Elevation
MW-4	32.38	5.75	26.63
MW-5	33.75	6.22	27.53
MW-6	34.68	7.19	27.49
Flow Direction = S. 50 W.; Gradient = .0091			
March 31, 2002:			
MW-1	34.70	7.18	27.52
MW-2	34.94	6.68	28.26
MW-3	33.74	6.27	27.47
MW-4	32.38	5.40	26.98
MW-5	33.75	6.35	27.40
MW-6	34.68	6.58	28.10
Flow Direction = S. 26 W.; Gradient = .0108			
September 9, 2003:			
MW-1	34.70	8.54	26.16
MW-2	34.94	8.26	26.68
MW-3	33.74	7.52	26.22
MW-4	32.38	0.51'free product	------
MW-5	33.75	7.08	26.67
MW-6	34.68	8.21	26.47
Flow Direction = S. 50 W; Gradient = .0031			
December 9, 2003:			
MW-1	34.70	7.50	27.20
MW-2	34.94	7.20	27.74
MW-3	33.74	6.45	27.29
MW-4	32.38	0.25'free product	------
MW-5	33.75	6.13	27.62
MW-6	34.68	7.11	27.57
Flow Direction = S. 56 W; Gradient = .0075			
February 19-20, 2004:			
MW-1R	Not Surveyed	5.45	-----
MW-2	34.94	5.81	29.13
MW-3	33.74	5.56	28.18
MW-4	32.38	0.25'free product	------
MW-5	33.75	5.11	28.64
MW-6	34.68	5.61	29.07
EX-1	Not Surveyed	3.96	------
Flow Direction = S. 42 W; Gradient = .0154			

Table 1
(Continued)

Well Number	Elevation	Depth to GW	GW Elevation
May 24-25, 2004:			
MW-1R	Not Surveyed	8.58	-----
MW-2	34.94	7.79	27.15
MW-3	33.74	6.99	26.75
MW-4	32.38	0.33'free product	------
MW-5	33.75	6.57	27.18
MW-6	34.68	Not Available	Not Available
EX-1	Not Surveyed	0.76' free product	------
Flow Direction = S. 71 W; Gradient = .0081			

Wells MW-1R and EX-1 have not been surveyed because of ongoing site construction. Once the current construction project is complete, all of the existing site wells will be surveyed by a licensed surveyor. Based on the data gathered from MW-2, MW-3, and MW-5, the groundwater flow direction is toward San Francisco Bay, located approximately 0.75 miles southwest of the site. Regional groundwater flow appears to parallel the surface grade in the area.

Groundwater Quality:

Groundwater samples were submitted to the laboratory and analyzed for the above-mentioned fuel constituents. Certified analytical reports and chain-of-custody documentation are presented in Appendix B and summarized in Table 2 below:

Table 2
Laboratory Analytical Results for Groundwater, Alaska Gasoline, Oakland

Well No.	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
November 17, 2001:						
MW-1	10,000	230	210	60	250	22,000
MW-2	18,000	3,700	180	610	640	16,000
MW-3	110,000	1,600	ND	ND	ND	300,000
MW-4	64,000	960	1,400	360	1,600	140,000
MW-5	210	15	12	11	23	4.8
MW-6	3,500	160	260	95	420	1,500
March 31, 2002:						
MW-1	12,000	61	ND	ND	29	35,000
MW-2	32,000	6,500	270	1,700	2,700	19,000
MW-3	130,000	2,400	670	300	390	300,000
MW-4	78,000	4,400	4,700	690	2,700	150,000
MW-5	120	11	7.4	6.1	16	4.2
MW-6	3,200	410	170	82	280	3,000

Table 2
(Continued)

Well No.	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
September 9, 2003:						
MW-1	19,000	ND	ND	ND	ND	50,000
MW-2	24,000	4,600	ND	1200	440	19,000
MW-3	190,000	1,600	ND	ND	ND	420,000
MW-4	NA	NA	NA	NA	NA	NA
MW-5	ND	1.5	ND	ND	ND	1.7
MW-6	800	49	ND	7.4	ND	1,700
December 9, 2003:						
MW-1	22,000	150	ND	ND	ND	66,000
MW-2	31,000	6,200	170	1,600	2,700	19,000
MW-3	170,000	2,000	ND	ND	ND	4,500,000
MW-4	NA	NA	NA	NA	NA	NA
MW-5	130	32	ND	2.6	0.57	5.0
MW-6	970	150	9.9	31	83	1,200
February 19-20, 2004:						
MW-1R	1,800	95	130	44	200	220
MW-2	21,000	4,600	120	970	2,000	15,000
MW-3	86,000	1,800	630	ND	ND	160,000
MW-4	NA	NA	NA	NA	NA	NA
MW-5	ND	ND	ND	ND	ND	1.5
MW-6	1,900	280	58	17	160	2,700
EX-1	120,000	9,500	4,300	840	3,900	150,000
May 24-25, 2004:						
MW-1R	210	12	10	5.4	23	79
MW-2	1,200	120	3.0	63	67	1,900
MW-3	120,000	2,200	ND	180	220	400,000
MW-4	NA	NA	NA	NA	NA	NA
MW-5	ND	ND	ND	ND	ND	0.55
MW-6	NA	NA	NA	NA	NA	NA
EX-1	NA	NA	NA	NA	NA	NA

All results presented in parts per billion (ppb)
MTBE results by EPA method 8260
NA= no analysis
ND= below detectable limits

As requested by your office, groundwater samples were also analyzed for the fuel oxegynates and additives MTBE, di-isopropyl ether (DIPE), ethyl tertiary butyl ether (ETBE), tertiary amyl methyl ether (TAME), tertiary butanol (TBA), 1,2-dichloroethane (1,2-DCA), ethylene dibromide (EDB), methanol, and ethanol. Laboratory analytical results are presented in Appendix B and summarized in Table 3 below:

Table 3

Laboratory Analytical Results for Groundwater, Alaska Gasoline, Oakland

Sample	TAME	TBA	Methanol	Ethanol
MW-1R	2.1	37	ND	ND
MW-2	ND	ND	ND	ND
MW-3	15,000	ND	ND	ND
MW-5	ND	ND	ND	ND

All results in parts per billion (ppb)
ND = below detectable concentrations

There was no EDB, 1,2-DCA, DIPE, or ETBE detected in the groundwater samples. Ethanol and methanol were not detected in any of the groundwater samples and will not be analyzed for in future monitoring events unless specifically requested by your office.

All of the on-site monitoring wells sampled during the May, 2004 quarter are impacted with gasoline constituents. No samples were collected from MW-4 and EX-1 due to the presence of floating product. Other than MW-4 and EX-1, concentrations are highest in the down gradient well MW-3. Concentrations are significantly lower in MW-5 than any of the other wells, reflecting its distance from, and up gradient location relative to, the USTs.

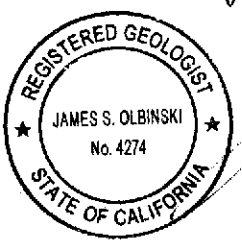
CONCLUSIONS AND RECOMMENDATIONS

Installation of the soil vapor extraction system (SVES) is now complete. A vapor extractions test (VET) was performed on June 28-30, 2004. A report detailing the results of the VET will be prepared upon receipt of laboratory analytical results. The next quarterly monitoring event is currently scheduled for late August, 2004.

If you have any questions or need additional information, please contact me at the letterhead address or at (559) 641-7320.

With best regards,
HerSchy Environmental, Inc.

Joshua Teves
Geologist



James S. Olbinski
Registered Geologist #4274

pc: Mr. Pritpaul Sappal
Mr. Syed Nawab, Alaska Gasoline Company
Mr. Hernan Gomez, Oakland Fire Services Agency
Mrs. Susan M. Torrence, Deputy District Attorney

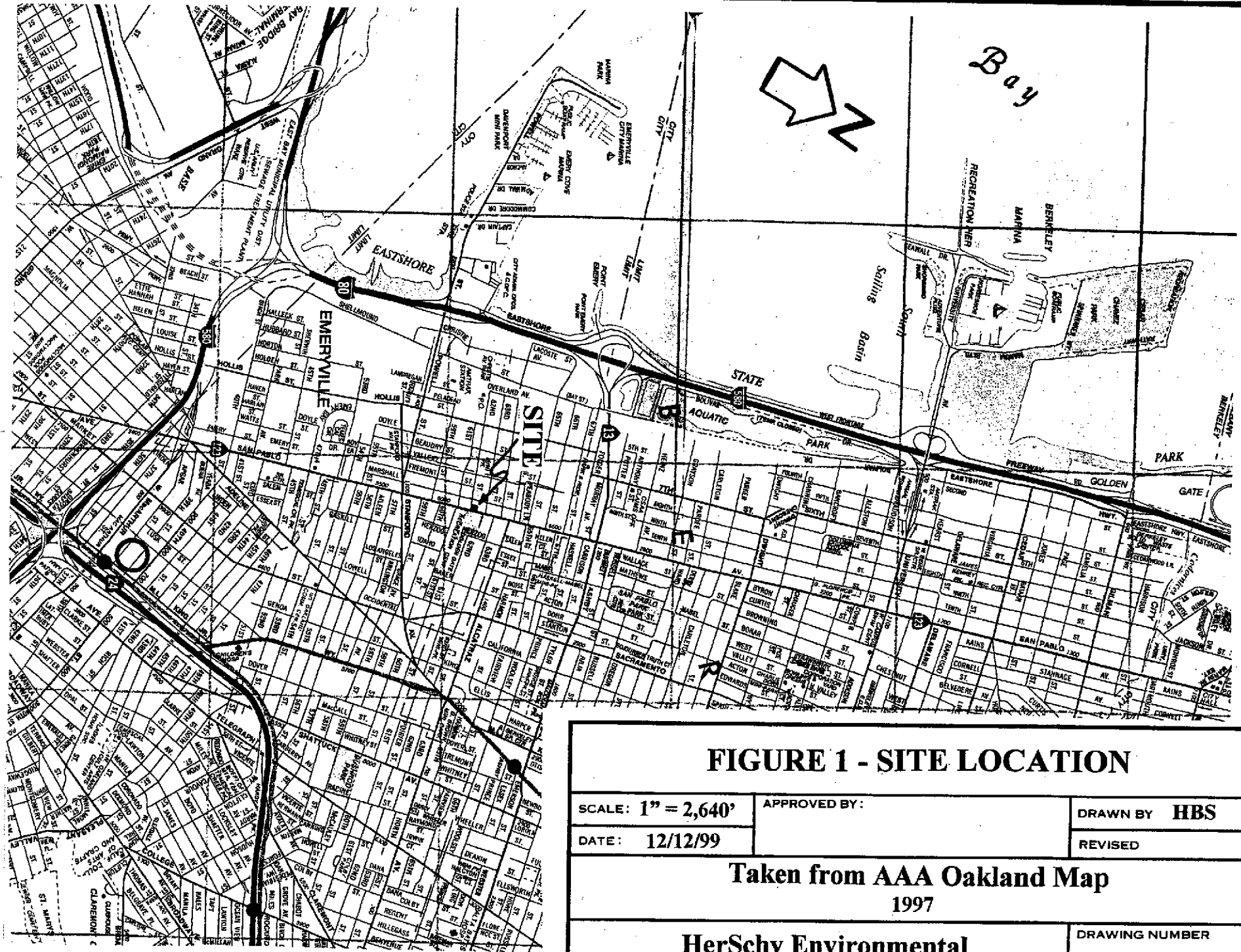


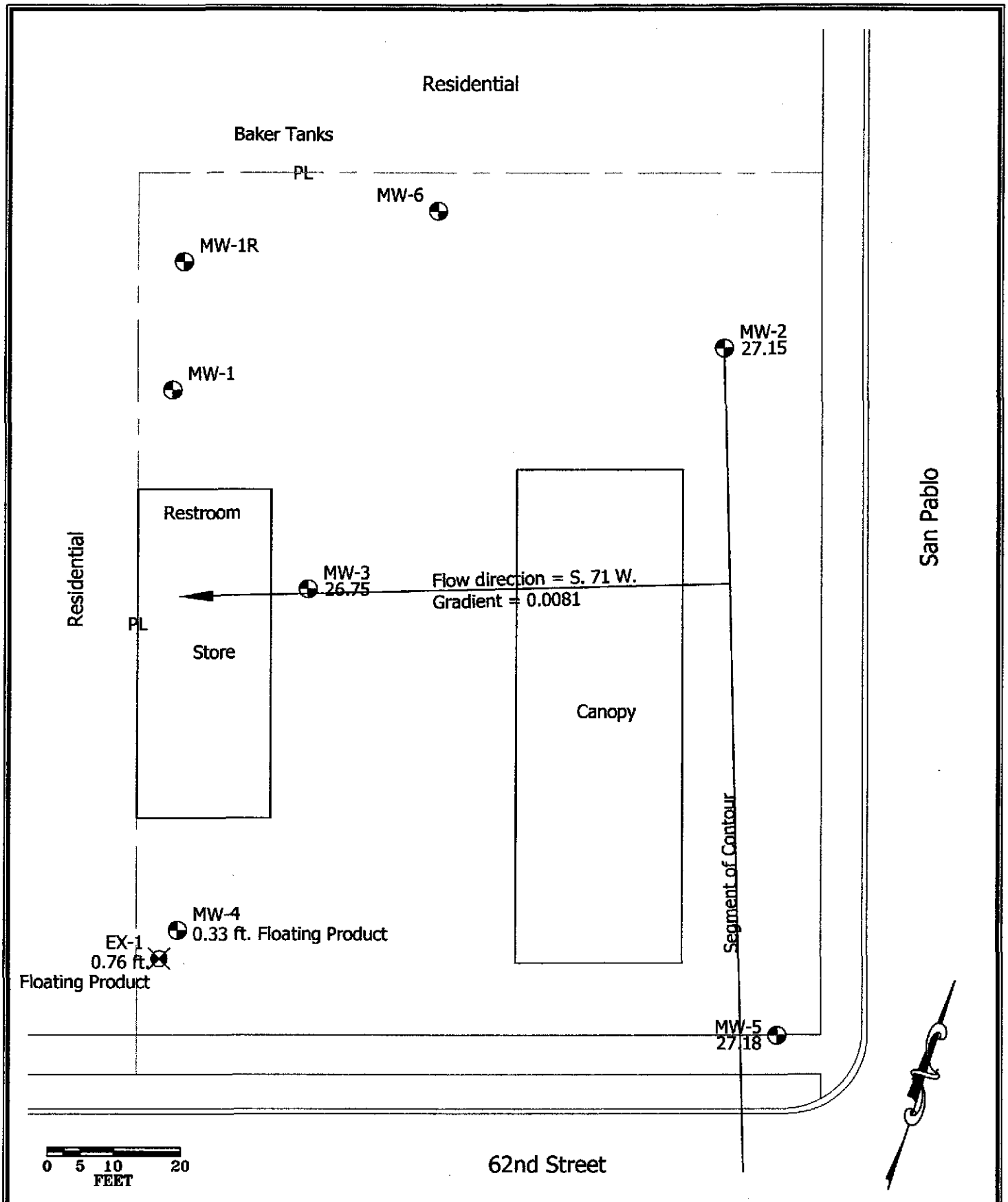
FIGURE 1 - SITE LOCATION

SCALE: 1" = 2,640'	APPROVED BY:	DRAWN BY HBS
DATE: 12/12/99		REVISED

Taken from AAA Oakland Map
1997

HerSchy Environmental

DRAWING NUMBER



HerSchy Environmental, Inc. Environmental Consulting and Remediation P. O. Box 229 Bass Lake, California 93604-0229 Tel. (559) 641-7320, Fax (559) 641-7340	MAY, 2004 GROUNDWATER CONDITIONS ALASKA GASOLINE COMPANY 6211 San Pablo Avenue, Oakland, California	DATE: July 2004 FILE NO.: A51-01.02 DRAWN BY: JSO	FIGURE 2

APPENDIX A

GROUNDWATER SAMPLING

FIELD DATA SHEETS

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: Alaska Gas Location: Oakland

Purged By: Jeff Gurule Sampled by: Jeff Gurule

Sample ID: EX-1 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 ____ 3 ____ 4 X 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): NA Volume in Casing (gal.): NA

Depth of Well (feet): 30.20 Calculate Purge Volume (gal.): ↓

Depth to Water (feet): 5.56 Actual Purge Volume (gal.): ____

Depth to Product (ft.): 4.80

Date Purged: NA Date Sampled: NA

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
		NA			

Other Observations: ____ Odor: Strong Petroleum

Purging Equipment: NA

Sampling Equipment: NA

Remarks: .76' of floating product 5/24/04

Sampler's Signature: Jeff Gurule

/Water Sample Sheet.wpd

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: Alaska Gas Location: Oakland

Purged By: Jeff Gurule Sampled by: Jeff Gurule

Sample ID: MW-1R Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): NA Volume in Casing (gal.): 2.34

Depth of Well (feet): 22.87 Calculate Purge Volume (gal.): 7.03

Depth to Water (feet): 8.58 Actual Purge Volume (gal.): 8

Date Purged: 5/24/04 Date Sampled: 5/24/04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
1609	—	6.59	603	67.9	Murky
1617	7+	6.60	588	67.2	11

Other Observations: ____ Odor: Strong petroleum

Purging Equipment: Waterra

Sampling Equipment: 11

Remarks: ____

Sampler's Signature: Jeff Gurule

/Water Sample Sheet.wpd

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: Alaska Gas Location: Oakland

Purged By: Jeff Gurule Sampled by: Jeff Gurule

Sample ID: MW-2 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 34.94 Volume in Casing (gal.): 2.06

Depth of Well (feet): 20.35 Calculate Purge Volume (gal.): 6.18

Depth to Water (feet): 7.79 Actual Purge Volume (gal.): 7

Date Purged: 5/25/04 Date Sampled: 5/25/04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
945	—	6.61	684	66.1	Clear
953	6+	6.68	685	66.8	Cloudy

Other Observations: ____ Odor: Petroleum

Purging Equipment: Waterra

Sampling Equipment: "

Remarks: ____

Sampler's Signature: Jeff Gurule

/Water Sample Sheet.wpd

HerSchy **WATER SAMPLE FIELD DATA SHEET**
Environmental

Client Name: Alaska Gas Location: Oakland

Purged By: Jeff Gurule Sampled by: Jeff Gurule

Sample ID: MW-3 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 33.74 Volume in Casing (gal.): 2.25

Depth of Well (feet): 20.70 Calculate Purge Volume (gal.): 6.75

Depth to Water (feet): 6.99 Actual Purge Volume (gal.): 7+

Date Purged: 5/24/04 Date Sampled: 5/24/04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
1541	—	6.30	1071	70.9	Cloudy
1550	7	6.41	1033	69.0	11

Other Observations: ____ Odor: Strong Petroleum

Purging Equipment: Waterra

Sampling Equipment: "

Remarks: ____

Sampler's Signature: Jeff Gurule

/Water Sample Sheet.wpd

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: Alaska Gas Location: Oakland

Purged By: Jeff Gurule Sampled by: Jeff Gurule

Sample ID: MW-4 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 32.38 Volume in Casing (gal.): NA

Depth of Well (feet): 19.52 Calculate Purge Volume (gal.): ↓

Depth to Water (feet): 5.70 Actual Purge Volume (gal.): ____

Depth to Product (Ft.): 5.37

Date Purged: NA Date Sampled: NA

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
		NA			

Other Observations: ____ Odor: Strong Petroleum

Purging Equipment: NA

Sampling Equipment: NA

Remarks: .33' of Floating product 5/24/04

Sampler's Signature: Jeff Gurule

/Water Sample Sheet.wpd

HerSchy Environmental

WATER SAMPLE FIELD DATA SHEET

Client Name: Alaska Gas Location: Oakland

Purged By: Jeff Gurule Sampled by: Jeff Gurule

Sample ID: MW-5 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 33.75 Volume in Casing (gal.): 2.90

Depth of Well (feet): 24.25 Calculate Purge Volume (gal.): 8.70

Depth to Water (feet): 6.57 Actual Purge Volume (gal.): 9+

Date Purged: 5/25/04 Date Sampled: 5/25/04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
1010	—	6.71	771	66.8	Muddy
1020	9	6.66	732	67.2	Murky

Other Observations: ____ Odor: None

Purging Equipment: Waterra

Sampling Equipment: "

Remarks: ____

Sampler's Signature: Jeff Gurule

/Water Sample Sheet.wpd

HerSchy Environmental **WATER SAMPLE FIELD DATA SHEET**

Client Name: Alaska Gas Location: Oakland

Purged By: Jeff Gurule Sampled by: Jeff Gurule

Sample ID: MW-6 Type: Groundwater X Surface Water ____ Other ____

Casing Diameter (inches): 2 X 3 ____ 4 ____ 5 ____ 6 ____ Other ____

Casing Elevation (feet/MSL): 34.68 Volume in Casing (gal.): NA

Depth of Well (feet): NA Calculate Purge Volume (gal.): ↓

Depth to Water (feet): ↓ Actual Purge Volume (gal.): ↓

Date Purged: NA Date Sampled: NA

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
		NA			

Other Observations: ____ Odor: NA

Purging Equipment: NA

Sampling Equipment: NA

Remarks: Well buried under large pile of pea gravel. Unable to ~~sample~~ locate or sample.

Sampler's Signature: Jeff Gurule

/Water Sample Sheet.wpd

APPENDIX B

CERTIFIED ANALYTICAL RESULTS--GROUNDWATER

WITH CHAIN OF CUSTODY

CASTLE ANALYTICAL LABORATORY

Environmental Testing Services
Certificate #2480
2333 Shuttle Drive, Atwater, CA 95301
Phone: (209) 384-2930
Fax: (209) 384-1507

HerSchy Environmental
P.O. Box 229
Bass Lake, CA 93604
Attn: Joshua Tevos

Client Project ID: Alaska Gasoline Co. - Oakland
Reference Number: 6997
Sample Description: Water
Sample Prep/Analysis Method: EPA 5030/8015, 8020
Lab Numbers: 6997-1W, 2W, 3W, 4W

Sampled: See Below
Received: 05-27-04
Extracted: 05-29-04
Analyzed: 05-29-04
Reported: 06-11-04

TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT µg/L	SAMPLE ID MW-1R (µg/L)	SAMPLE ID MW-2 (µg/L)	SAMPLE ID MW-3 (µg/L)	SAMPLE ID MW-5 (µg/L)
MTBE	0.50	47	1400	410000	0.55
BENZENE	0.50	12	120	2200	ND
TOLUENE	0.50	10	3.0	ND	ND
ETHYLBENZENE	0.50	5.4	63	180	ND
TOTAL XYLENES	0.50	23	67	220	ND
GASOLINE RANGE HYDROCARBONS	50	210	1200	120000	ND
Report Limit Multiplication Factor:		1	5	250	1
Report Limit Multiplication Factor for MTBE only:			500	10000	
Date Sampled:		05-24-04	05-25-04	05-24-04	05-25-04

Surrogate % Recovery:	FID: 119% / PID: 103%	FID: 98.5% / PID: 104%	FID: 84.2% / PID: 91.3%	FID: 93.8% / PID: 92.6%
Instrument ID:	VAR-GC1	VAR-GC1	VAR-GC1	VAR-GC1

Analytes reported as ND were not detected or below the Practical Quantitation Limit
Practical Quantitation Limit = Reporting Limit x Report Limit Multiplication Factor

APPROVED BY: _____ APPROVED BY: _____
Clari J. Cone
Laboratory Manager
James C. Phillips
Laboratory Director

McCampbell Analytical, Inc.

1102nd Avenue South, #D7, Pacheco, CA 94553-5560
Telephone : 925-798-1620 Fax : 925-798-1622
Website: www.mccampbell.com E-mail: main@mccampbell.com

Castle Analytical Laboratory 2333 Shuttle Drive Bldg 908/909 Atwater, CA 95301	Client Project ID: #6997/Alaska Gasoline Co., Oakland	Date Sampled: 05/24/04-05/25/04
		Date Received: 06/04/04
	Client Contact: James Phillips	Date Extracted: 06/07/04-06/08/04
	Client P.O.:	Date Analyzed: 06/07/04-06/08/04

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0406057

Lab ID	0406057-001A	0406057-002A			Reporting Limit for DF =1	
Client ID	MW-1R	MW-2				
Matrix	W	W				
DF	2	100			S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	2.1	ND<50			NA	0.5
t-Butyl alcohol (TBA)	37	ND<500			NA	5.0
1,2-Dibromoethane (EDB)	ND<1.0	ND<50			NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<1.0	ND<50			NA	0.5
Diisopropyl ether (DIPE)	ND<1.0	ND<50			NA	0.5
Ethanol	ND<100	ND<5000			NA	50
Ethyl tert-butyl ether (ETBE)	ND<1.0	ND<50			NA	0.5
Methanol	ND<1000	ND<50,000			NA	500
Methyl-t-butyl ether (MTBE)	79	1900			NA	0.5
Surrogate Recoveries (%)						
%SS:	104	102				
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.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

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

Castle Analytical Laboratory 2333 Shuttle Drive Bldg 908/909 Atwater, CA 95301	Client Project ID: #6997; Alaska Gasoline Co.-Oakland	Date Sampled: 05/24/04-05/25/04
		Date Received: 06/03/04
	Client Contact: James Phillips	Date Extracted: 06/03/04
	Client P.O.:	Date Analyzed: 06/03/04

Oxygenated Volatile Organics + EDB and 1,2-DCA by P&T and GC/MS*

Extraction Method: SW5030B Analytical Method: SW8260B Work Order: 0406037

Lab ID	0406037-001A	0406037-002A			Reporting Limit for DF =1	
Client ID	MW-3	MW-5				
Matrix	W	W				
DF	20000	1			S	W
Compound	**Concentration**				ug/kg	µg/L
tert-Amyl methyl ether (TAME)	15,000	ND			NA	0.5
t-Buryl alcohol (TBA)	ND<100,000	ND			NA	5.0
1,2-Dibromoethane (EDB)	ND<10,000	ND			NA	0.5
1,2-Dichloroethane (1,2-DCA)	ND<10,000	ND			NA	0.5
Diisopropyl ether (DIPE)	ND<10,000	ND			NA	0.5
Ethanol	ND<1,000,000	ND			NA	50
Ethyl tert-butyl ether (ETBE)	ND<10,000	ND			NA	0.5
Methyl-t-butyl ether (MTBE)	400,000	0.55			NA	0.5
Surrogate Recoveries (%)						
%SS:	105	115				
Comments	i	i				

* 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.

h) lighter than water immiscible sheen/product is present; i) liquid sample that contains greater than ~1 vol. % sediment; j) sample diluted due to high organic content.

DHS Certification No. 1644

Angela Rydelius, Lab Manager

CASTLE ANALYTICAL LABORATORY

CHAIN OF CUSTODY

Location: 2333 Shuttle Drive, Bldg 908/909, Atwater, CA 95301
Mailing Address: 2333 Shuttle Drive, Atwater, CA 95301
Phone: (209) 384-2930 - Fax: (209) 384-1507

Certificate No. 2480

PAGE 1 OF 1

Customer: Alaska Gasoline Co.
Address:
City/State/ZIP: Oakland
Phone / FAX:
Proj # / P.O. #:
Report Attention: Josh Tevis
Sampler Signature: Jeff Gurule
Printed: Jeff Gurule

Lab ID#	SAMPLE ID	DATE	TIME	DESCRIPTION/LOCATION	SAMPLE TYPE (g) grab (c) composite (d) discrete	SAMPLE MATRIX (s) solid (l) liquid (o) other	BTEX/TPH-GAS	MTBE	TPH-DIESEL	TRPH 418.1M	Oxy's / EDB / DCA by 8260	8260	Ethanol			Electronic Deliverables (EDF)	NUMBER OF CONTAINERS	OBSERVATIONS/REMARKS
	MW-1R	5/24/04	1620		g	l	X	X			X		X				3	
	MW-2	5/25/04	1000		"	"	"	"			"		"				"	
	MW-3	5/24/04	1555		"	"	"	"			"		"				"	
	MW-5	5/25/04	1025		↓	↓	↓	↓			↓		↓				↓	

Method of Shipment:

Notes:

Signature	Printed Name	Date	Time	Company Name
Relinquished by: Jeff Gurule	Jeff Gurule	5/27/04	1210	Hercon
Received by: Veronica Soto	Veronica Soto	5/27/04	1210	Castle Analytical
Relinquished by:				
Received by:				
Relinquished by:				
Received by:				

Total number of containers submitted to the laboratory

Note: All special requests (e.g. quick turn times) must be cleared through authorized laboratory personnel .

RESULTS DUE : _____

☐ VERBAL ☐ WRITTEN