



# erSchy Environmental, Inc.

March 18, 2004  
Project A51-01.04

Alameda County

MAR 23 2004

Environmental Health

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 February, 2004 Quarterly Groundwater Monitoring and Interim Remedial Action Related to Underground Storage Tank (UST) Removal Activities, 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 and interim remedial action performed in conjunction with UST removal activities 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 62<sup>nd</sup> 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. The interim remedial action (IRA) performed in conjunction with tank removal activities was authorized in correspondence from your office dated December 29, 2003.

## **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. Groundwater monitoring/remediation wells MW-1R and EX-1, which were recently installed, were developed using an electric "Monsoon" purger pump until the discharge water was relatively clear and free of sand. Upon development of MW-1R and EX-1, a sample was

collected with disposable bailers. 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 paired 40-milliliter vials. Each of the sample containers were filled 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 (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and for methyl tertiary butyl ether (MTBE). Laboratory analysis was performed using EPA method 8015M for TPHg, and EPA method 8020 for BTEX.

**RESULTS OF INVESTIGATION**

Groundwater Conditions:

Groundwater was present beneath the site at an average depth of 5.25 feet below the surveyed well elevations during the February 19-20, 2004 monitoring event. During this event, the elevation of groundwater averaged 28.76 feet above mean sea level. The groundwater elevation increased approximately 1.28 feet since the December, 2003 monitoring event. Due to the presence of floating product in MW-4, the groundwater elevation for this well was not used in determining the groundwater flow direction or gradient. Groundwater flow direction was South 42 degrees West at a gradient of .0154 during the December 9, 2003 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
<b>November 17, 2001:</b>			
MW-1	34.70	8.09	26.61
MW-2	34.94	7.75	27.19
MW-3	33.74	7.18	26.56
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

**Table 1  
(continued)**

Well Number	Elevation	Depth to GW	GW Elevation
<b>March 31, 2002:</b>			
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			
<b>September 9, 2003:</b>			
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			
<b>December 9, 2003:</b>			
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			
<b>February 19-20, 2004:</b>			
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			

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. Wells MW-1R and EX-1 were not used to determine groundwater flow direction and gradient for the February, 2004 sampling event. 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 Gasline, Oakland**

<u>Well No.</u>	<u>TPHg</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethylbenzene</u>	<u>Xylenes</u>	<u>MTBE</u>
<b>November 17, 2001:</b>						
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
<b>March 31, 2002:</b>						
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
<b>September 9, 2003:</b>						
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
<b>December 9, 2003:</b>						
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

**Table 2  
(Continued)**

Well No.	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
<b>February 19-20, 2004:</b>						
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

All results presented in parts per billion (ppb)

NA= no analysis

ND= below detectable limits

All of the on-site monitoring wells are impacted with gasoline constituents. No sample was taken from MW-4 because 0.25 feet of floating product was detected. Other than MW-4, concentrations are highest in the down gradient wells EX-1 and 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.

## **INTERIM REMEDIAL ACTION**

### Tank Removal Activities:

On February 12, 2004, three ten-thousand gallon USTs were removed from the site. Tank removal activities were performed in accordance with Alameda County Environmental Health Services and City of Oakland requirements. The USTs were removed under the direction of Mr. Hernan Gomez as a representative of the City of Oakland. Pertinent UST documentation is provided in Appendix C. Currently, groundwater is being extracted from the excavation in order to lower the groundwater table prior to the installation of the new USTs. It is anticipated that a total of approximately 60,000 gallons of groundwater will be extracted before the new USTs are installed. The extracted groundwater will be stored in 20,000-gallon Baker tanks, sampled, and disposed of properly utilizing the most cost effective method available. Once the new USTs are installed, the excavation will be back filled with pea gravel to the surface and covered with concrete or asphalt. Approximately 900 tons of impacted soil were removed throughout the course of the UST excavation.

### Soil and Groundwater Sampling:

Upon removal of the three USTs, soil samples were collected from the sidewalls and base of the excavation on February 12, 2004. Soil samples were collected as requested in correspondence from your office dated December 29, 2003. Soil samples were collected from two depths at a frequency of 1 per every 20 linear feet along the sidewalls of the excavation, and two soil samples were collected from the excavation base. A groundwater sample was collected from MW-6, which is near the northwest corner of the excavation, as requested by

Mr. Gomez. A total of 14 soil samples and 1 groundwater sample were collected in order to characterize the soil and groundwater removed from the excavation (Figure 3).

Soil and Groundwater Sampling Procedures:

Soil samples were collected by driving a brass liner into soil with a wooden mallet, capped with Teflon tape and end caps, and sealed with duct tape. Prior to collection of the groundwater sample from MW-6, the depth to groundwater was measured to the nearest 0.01 feet using an electric sounder. 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. Over three casing volumes were purged from MW-6 prior to collecting a groundwater sample. 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 a field sampling data sheet which is presented in Appendix D. The groundwater sample was collected and contained in two 40-milliliter vials. Each of the sample containers were filled completely to form a positive meniscus, capped, and checked to ensure no air bubbles were present.

Soil and groundwater 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. Soil and groundwater samples were handled under chain-of-custody documentation until delivered to a California certified laboratory.

Laboratory Analysis:

Soil and groundwater samples were analyzed for gasoline-range total petroleum hydrocarbons (TPHg), benzene, toluene, ethylbenzene, and xylenes (BTEX), and for methyl tertiary butyl ether (MTBE). The two most contaminated soil samples were analyzed for lead (Pb). Laboratory analysis was performed using EPA method 8015M for TPHg, EPA method 8020 for BTEX, and EPA method SW6010C for lead. The laboratory analytical results are presented in Appendix E and summarized in Table 3 below:

**Table 3**

**Laboratory Analytical Results, Excavation Soil and Groundwater, Alaska Gasoline Co.**

<u>Well No.</u>	<u>TPHg</u>	<u>Benzene</u>	<u>Toluene</u>	<u>Ethylbenzene</u>	<u>Xylenes</u>	<u>MTBE</u>
MW-6*	210*	14*	1.4*	9.5*	26*	44*
W Base	19	0.21	0.025	0.0066	0.031	37
E Base	1,600	3.2	29	27	130	17
W-5'	29	0.10	0.34	0.36	2.2	1.7
W-10'	5,100	24	290	130	670	18
E-5'	13	0.12	0.010	0.33	0.19	6.9
E-10'	2,500	4.0	28	52	300	5.6
SW-5'	11	0.020	ND	0.017	0.019	0.51
SW-10'	1,000	3.3	47	22	110	11

**Table 3  
(Continued)**

Well No.	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
SE-5'	32	0.41	1.1	0.54	2.3	50
SE-10'	3,700	11	240	79	460	38
NW-5'	4.3	0.025	0.012	0.045	0.047	4.1
NW-10'	150	0.29	1.6	2.5	14	8.7
NE-5'	2.8	ND	ND	0.019	0.024	1.2
NE-10'	780	ND	0.68	6.5	32	0.86

All soil results in parts per million (ppm)

\* Groundwater sample, reported in parts per billion (ppb)

ND = below detectable limits

All of the samples collected from the excavation and the nearby groundwater monitoring well MW-6 contained concentrations of fuel constituents. Overall, the highest concentrations were observed in the samples collected at 10 feet below surface grade. Soil sample SE-10' contained the highest concentration of MTBE at 38 ppm, while sample W-10' contained the highest concentration of TPHg at 5,100 ppm.

Additional Site Investigation

On March 8, 2004, nine soil samples were collected from beneath the di line system (Figure 4). Samples were collected approximately two feet below tl by forcing soil into a brass liner using a hand-driven slide hammer. Sampling ber lines was performed under the direction of Mr. Hernan Gomez as a representativ of Oakland. A water sample was also collected from each of the two 20,000- tanks and the water extraction line in order to characterize water for disposal pu laboratory analytical results of the dispenser fuel line samples are presented in Appendix F and summarized in Table 4 below:

*Off-site  
wells  
work plan*

**Table 4  
Laboratory Analytical Results, Dispenser Line Samples, Alaska Gasolin Co.**

Well No.	TPHg	Benzene	Toluene	Ethylbenzene	Xylenes	MTBE
L1-I1-2'	1,200	2.6	34	15	100	41
L2-I1-2'	800	0.83	17	11	73	67
L3-I1-2'	52	1.5	3.8	0.74	4.0	30
L1-I2-2'	110	0.61	1.2	1.8	11	14
L2-I2-2'	81	1.9	3.1	1.5	8.5	13
L3-I2-2'	24	1.3	1.8	0.30	1.7	10
L1-I3-2'	190	2.8	11	3.3	17	8.4
L2-I3-2'	200	2.8	12	3.3	18	5.4
L3-I3-2'	37	1.9	2.8	0.71	4.0	11

All results in parts per million (ppm)

All of the soil samples contained gasoline constituents. The highest concentrations were present in L1-I1-2' and L2-I1-2', which were collected near the northeast corner of the dispenser system (Figure 4). Approximately 150-200 tons of soil were removed by the dispenser fuel line excavation.

#### Impacted Soil and Groundwater Disposal:

Approximately 1100 tons of impacted soil from the UST and dispenser line excavation were removed from the site by All Environmental, Inc. (AEI) and disposed of at a Class II landfill. A copy of the waste manifest from Keller Canyon Sanitary Landfill is presented in Appendix G.

Extracted groundwater, which is currently being stored in three 20,000-gallon tanks, will be treated and discharged to East Bay Municipal Utility District (EBMUD) sewer line upon approval. Water will be discharged from the 20,000-gallon tanks, run through granular activated carbon (GAC) canisters, and sampled in order to characterize the treated water. Water must meet EBMUD discharge criteria before a permit is issued. The current standards state that gasoline-impacted water must contain concentrations of benzene, toluene, ethylbenzene, and total xylenes below 5 parts per million.

#### **CONCLUSIONS AND RECOMMENDATIONS**

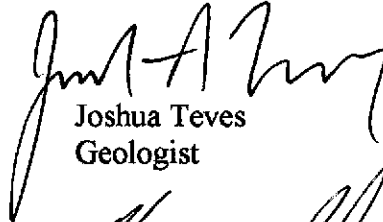
A total of approximately 1100 tons of impacted soil have been removed from the site. Also, between 40,000 and 60,000 gallons of impacted groundwater has been extracted from the site and will be disposed of when the appropriate permits are attained.

The soil vapor extraction system (SVES), as outlined in the interim remedial action (IRA) work plan that was conditionally approved by Alameda County Environmental Health Services in correspondence dated August 13, 2003, is anticipated to be operational sometime during the second quarter of 2004. Installation of horizontal piping will begin within the next two weeks, in conjunction with dispenser line trenching and installation. Once the installation of horizontal piping is complete, a vapor extraction test (VET) will be performed. A work plan for the VET is currently being prepared and will be sent to your office within the next two weeks.



The next quarterly monitoring event is currently scheduled for late May, 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.

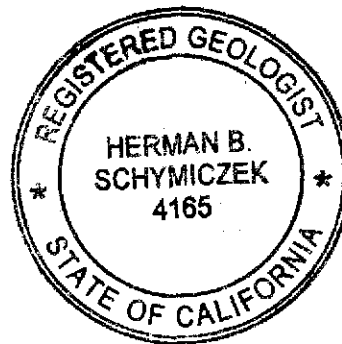


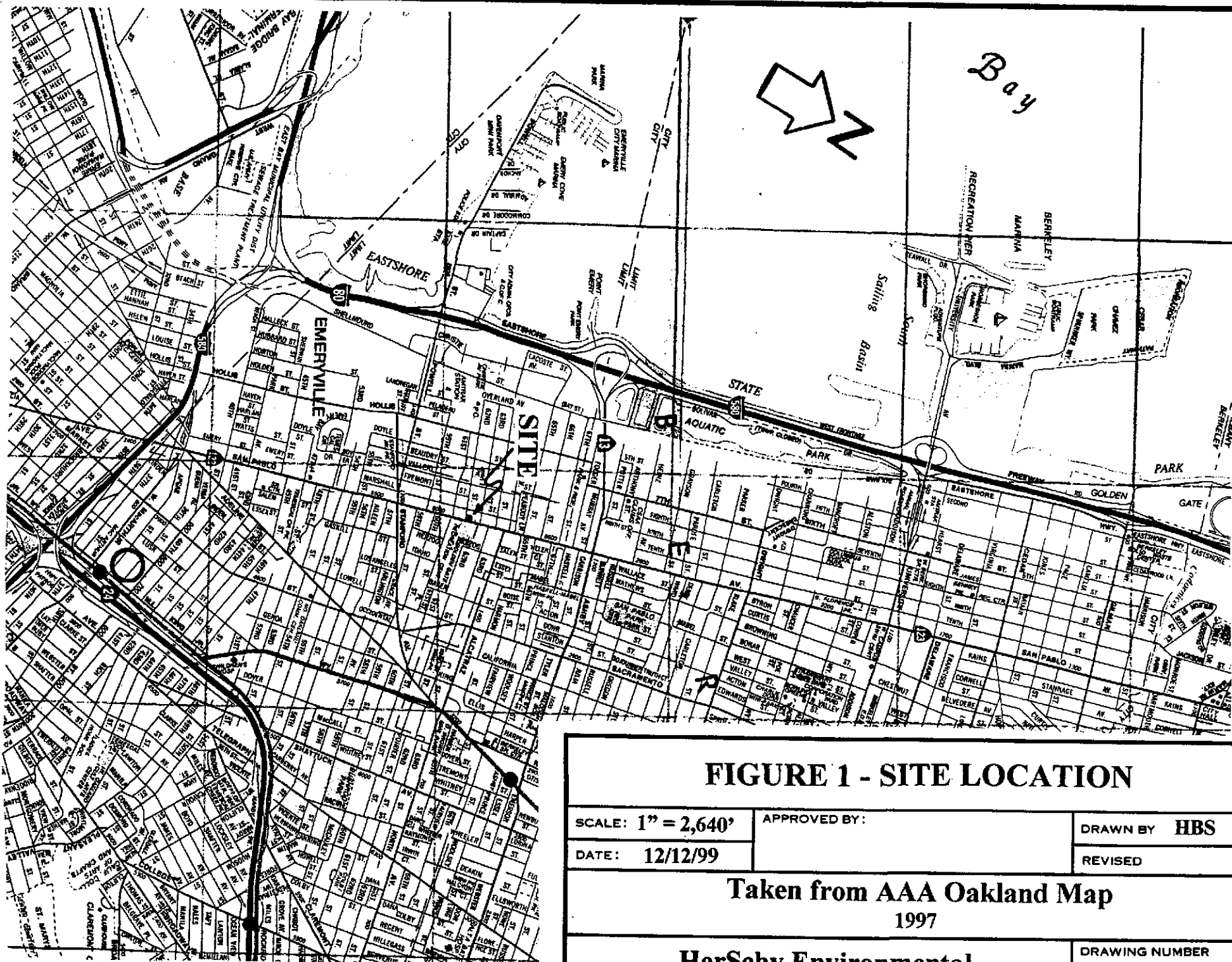
Joshua Teves  
Geologist



Herman Schymiczek  
Registered Geologist #4165

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





## FIGURE 1 - SITE LOCATION

SCALE: 1" = 2,640'

APPROVED BY:

DRAWN BY **HBS**

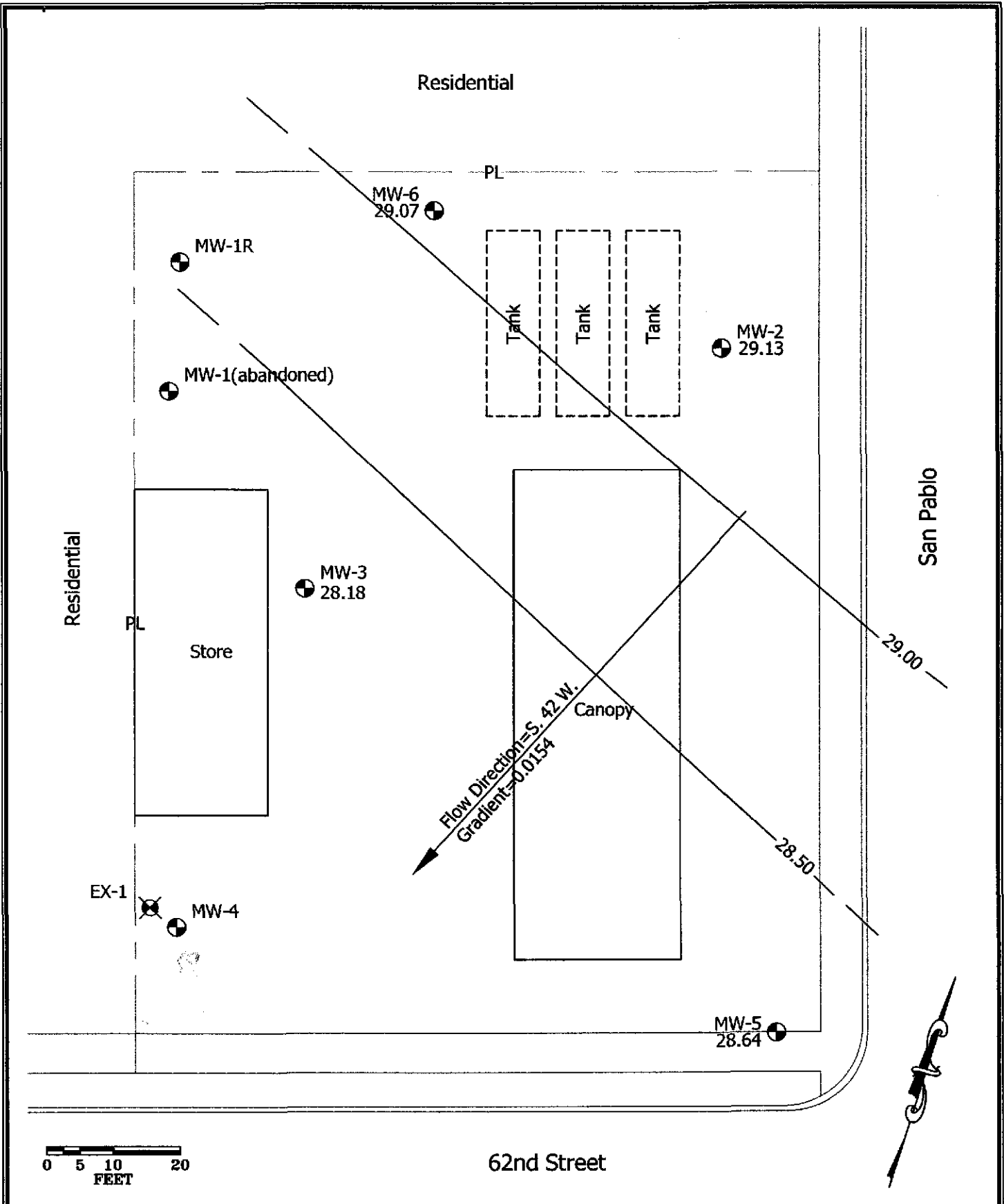
DATE: 12/12/99

REVISED

Taken from AAA Oakland Map  
1997

HerSchy Environmental

DRAWING NUMBER



**HerSchy Environmental, Inc.**  
Environmental Consulting and Remediation

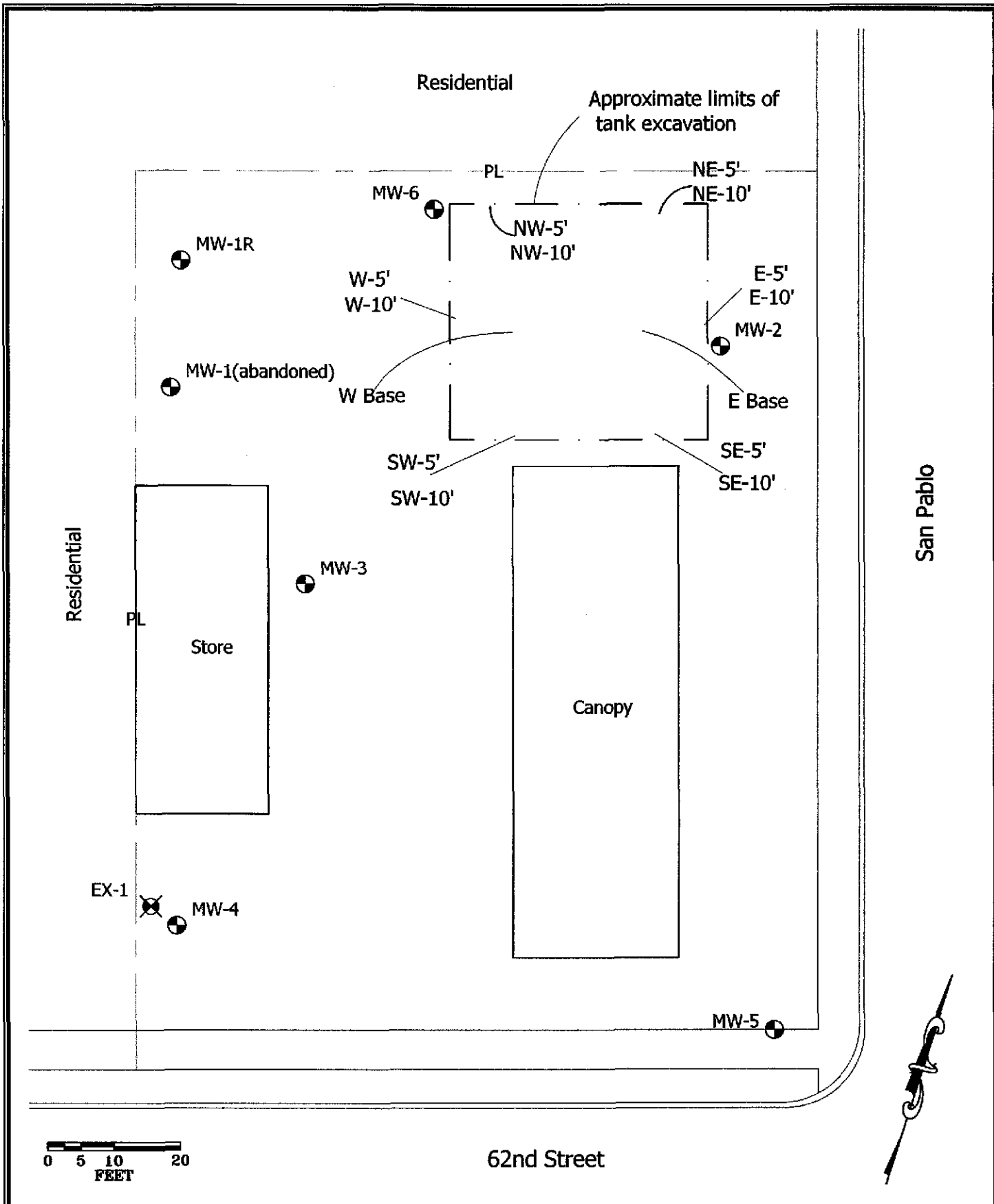
P. O. Box 229  
Bass Lake, California 93604-0229  
Tel. (559) 641-7320, Fax (559) 641-7340

FEB., 2004 GROUNDWATER CONDITIONS  
ALASKA GASOLINE COMPANY

6211 San Pablo Avenue, Oakland, California

DATE: March 2004  
FILE NO.: A51-01.02  
DRAWN BY: JSO

FIGURE  
2



**HerSchy Environmental, Inc.**  
Environmental Consulting and Remediation

P. O. Box 229  
Bass Lake, California 93604-0229  
Tel. (559) 641-7320, Fax (559) 641-7340

TANK REMOVAL SOIL SAMPLE LOCATIONS  
ALASKA GASOLINE COMPANY  
6211 San Pablo Avenue, Oakland, California

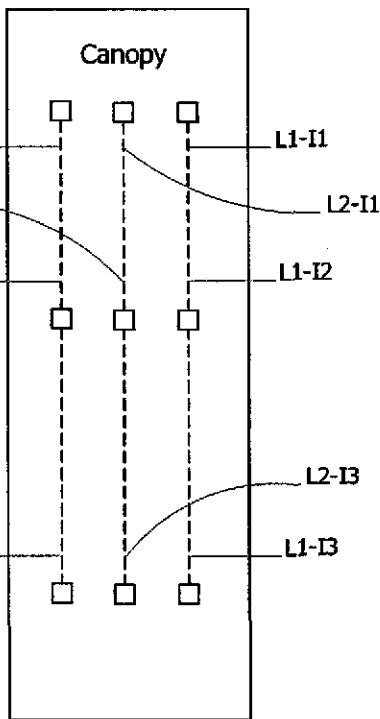
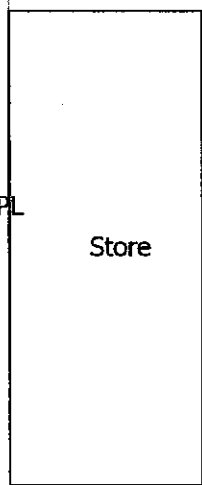
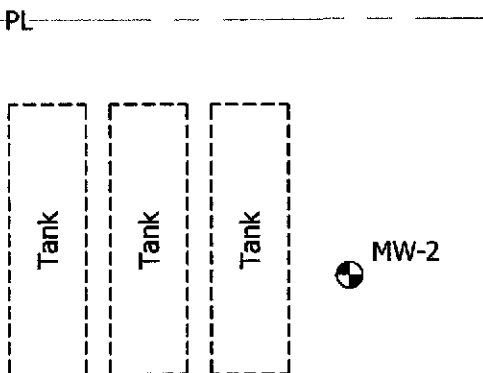
DATE: March 2004  
FILE NO.: A51-01.02  
DRAWN BY: JSO

FIGURE  
3

Residential

Residential

San Pablo



62nd Street



**HerSchy Environmental, Inc.**  
 Environmental Consulting and Remediation

P. O. Box 229  
 Bass Lake, California 93604-0229  
 Tel. (559) 641-7320, Fax (559) 641-7340

FUEL LINE SAMPLE LOCATIONS  
 ALASKA GASOLINE COMPANY

6211 San Pablo Avenue, Oakland, California

DATE: March 2004  
 FILE NO.: A51-01.02  
 DRAWN BY: ISO

FIGURE  
 4

APPENDIX A

GROUNDWATER SAMPLING

FIELD DATA SHEETS

**HerSchy Environmental WATER SAMPLE FIELD DATA SHEET**

Client Name: Alaska Gas Comp. Location: Oakland

Purged By: Oscar Sampled by: Oscar

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

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

Casing Elevation (feet/MSL): \_\_\_\_\_ Volume in Casing (gal.): 17.1

Depth of Well (feet): 30.2 Calculate Purge Volume (gal.): 51.4

Depth to Water (feet): 3.96 Actual Purge Volume (gal.): 55.0

Date Purged: 2-20-04 Date Sampled: 2-20-04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
<u>11:00</u>	<u>—</u>	<u>6.85</u>	<u>1124</u>	<u>69.6</u>	<u>C</u>
<u>12:05</u>	<u>55 gal</u>	<u>6.91</u>	<u>1106</u>	<u>68.4</u>	<u>C</u>

Other Observations: sheen Odor: Petroleum

Purging Equipment: Monsoon Pump

Sampling Equipment: Bailer

Remarks: Went I was purging EX-1 Monsoon start pumping white water and gasoline product, pump 1/2 gal gasoline, continue pumping white product.

Sampler's Signature: [Signature]

**HerSchy Environmental WATER SAMPLE FIELD DATA SHEET**

Client Name: Alaska Gas Comp. Location: Oakland

Purged By: Oscar Sampled by: Oscar

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

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

Casing Elevation (feet/MSL): \_\_\_\_\_ Volume in Casing (gal.): 2.9

Depth of Well (feet): 23.3 Calculate Purge Volume (gal.): 8.7

Depth to Water (feet): 5.45 Actual Purge Volume (gal.): 10.0 gal

Date Purged: 2-19-04 Date Sampled: 2-19-04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
<u>16:20</u>	<u>—</u>	<u>6.87</u>	<u>596</u>	<u>66.2</u>	<u>C</u>
<u>16:35</u>	<u>10.9 gal</u>	<u>6.80</u>	<u>594</u>	<u>66.7</u>	<u>C</u>

Other Observations: \_\_\_\_\_ Odor: Petroleum

Purging Equipment: Waterma

Sampling Equipment: U

Remarks: Developing well with Blansoon Pump

Sampler's Signature: [Signature]



**HerSchy Environmental WATER SAMPLE FIELD DATA SHEET**

Client Name: Alaska Gas Comp. Location: Oakland

Purged By: Oscar Sampled by: Oscar

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

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

Casing Elevation (feet/MSL): \_\_\_\_\_ Volume in Casing (gal.): 2.4

Depth of Well (feet): 20.7 Calculate Purge Volume (gal.): 7.3

Depth to Water (feet): 5.81 Actual Purge Volume (gal.): 10.0

Date Purged: 2-20-04 Date Sampled: 2-20-04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
<u>7:48</u>	<u>—</u>	<u>6.83</u>	<u>971</u>	<u>60.1</u>	<u>C</u>
<u>8:03</u>	<u>10.gal</u>	<u>6.87</u>	<u>892</u>	<u>63.1</u>	<u>C</u>

Other Observations: \_\_\_\_\_ Odor: Petroleum

Purging Equipment: Waferra

Sampling Equipment: 1

Remarks: \_\_\_\_\_

Sampler's Signature: [Signature]

**HerSchy Environmental WATER SAMPLE FIELD DATA SHEET**

Client Name: Alaska Gas Comp. Location: Oakland

Purged By: Oscar Sampled by: Oscar

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

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

Casing Elevation (feet/MSL): \_\_\_\_\_ Volume in Casing (gal.): 2.5

Depth of Well (feet): 21.1 Calculate Purge Volume (gal.): 7.6

Depth to Water (feet): 5.56 Actual Purge Volume (gal.): 10.0

Date Purged: 2-20-04 Date Sampled: 2-20-04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
<u>9:34</u>	<u>—</u>	<u>7.75</u>	<u>933</u>	<u>63.7</u>	<u>C</u>
<u>9:52</u>	<u>10.0</u>	<u>7.14</u>	<u>839</u>	<u>65.8</u>	<u>cloudy</u>

Other Observations: \_\_\_\_\_ Odor: Petroleum

Purging Equipment: water

Sampling Equipment: 1

Remarks: \_\_\_\_\_

Sampler's Signature: [Signature]

**HerSchy Environmental WATER SAMPLE FIELD DATA SHEET**

Client Name: Alaska Gas Comp. Location: Oakland

Purged By: ~~\_\_\_\_\_~~ Sampled by: \_\_\_\_\_

Sample ID: MW-4 Type: Groundwater  Surface Water \_\_\_\_\_ Other \_\_\_\_\_

Casing Diameter (inches): 2  3 \_\_\_\_\_ 4 \_\_\_\_\_ 5 \_\_\_\_\_ 6 \_\_\_\_\_ Other \_\_\_\_\_

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

Depth of Well (feet): \_\_\_\_\_ Calculate Purge Volume (gal.): \_\_\_\_\_

Depth to Water (feet): 3.56 Actual Purge Volume (gal.): \_\_\_\_\_

Date Purged: \_\_\_\_\_ Date Sampled: \_\_\_\_\_

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Other Observations: \_\_\_\_\_ Odor: Petroleum

Purging Equipment: \_\_\_\_\_

Sampling Equipment: \_\_\_\_\_

Remarks: Floating gasoline (3 inches) 2-20-04

Sampler's Signature: 

HerSchy **WATER SAMPLE FIELD DATA SHEET**  
Environmental

Client Name: Alaska Gas Comp. Location: Oakland

Purged By: Oscar Sampled by: Oscar

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

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

Casing Elevation (feet/MSL): \_\_\_\_\_ Volume in Casing (gal.): 3.2

Depth of Well (feet): 24.7 Calculate Purge Volume (gal.): 9.6

Depth to Water (feet): 5.11 Actual Purge Volume (gal.): 11.0 gal

Date Purged: 2-20-03 Date Sampled: 2-20-03

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
<u>8:22</u>	<u>—</u>	<u>6.92</u>	<u>726</u>	<u>62.0</u>	<u>C</u>
<u>8:41</u>	<u>11.0 gal</u>	<u>6.89</u>	<u>781</u>	<u>62.9</u>	<u>Cloudy</u>
_____	_____	_____	_____	_____	_____
_____	_____	_____	_____	_____	_____

Other Observations: \_\_\_\_\_ Odor: petroleum

Purging Equipment: water

Sampling Equipment: 1

Remarks: \_\_\_\_\_

Sampler's Signature: [Signature]

**HerSchy Environmental WATER SAMPLE FIELD DATA SHEET**

Client Name: Alaska Gas Comp. Location: Oakland

Purged By: Oscar Sampled by: Oscar

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

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

Casing Elevation (feet/MSL): \_\_\_\_\_ Volume in Casing (gal.): 3.0

Depth of Well (feet): 23.8 Calculate Purge Volume (gal.): 8.9

Depth to Water (feet): 5.61 Actual Purge Volume (gal.): 10.0 gal

Date Purged: 2-20-03 Date Sampled: 2-20-03

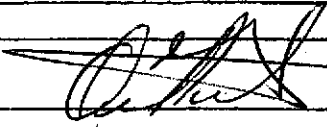
TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
<u>7:10</u>	<u>—</u>	<u>6.70</u>	<u>605</u>	<u>60.1</u>	<u>C</u>
<u>7:27</u>	<u>10.0 gal</u>	<u>6.73</u>	<u>622</u>	<u>63.1</u>	<u>C</u>

Other Observations: \_\_\_\_\_ Odor: Petroleum

Purging Equipment: Wasterra

Sampling Equipment: 41

Remarks: \_\_\_\_\_

Sampler's Signature: 

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 93804 Attn: Joshua Teves	Client Project ID: Alaska Gas Company - Oakland Reference Number: 6670 Sample Description: Water Sample Prep/Analysis Method: EPA 5030/8015M, 8020 Lab Numbers: 6670-1W, 2W, 3W, 4W, 5W	Sampled: See Below Received: 02-20-04 Extracted: 02-25-04 Analyzed: 02-25-04 Reported: 03-05-04
--	---	---

## TOTAL PETROLEUM HYDROCARBONS - GASOLINE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT µg/L	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
		MW-1R (µg/L)	MW-2 (µg/L)	MW-5 (µg/L)	MW-6 (µg/L)	MW-3 (µg/L)
MTBE	0.50	220	15000	1.5	2700	160000
BENZENE	0.50	95	4600	ND	280	1800
TOLUENE	0.50	130	120	ND	58	630
ETHYLBENZENE	0.50	44	970	ND	17	ND
TOTAL XYLENES	0.50	200	2000	ND	160	ND
GASOLINE RANGE HYDROCARBONS	50	1800	21000	ND	1900	86000
Report Limit Multiplication Factor:		10	100	1	10	10
Report Limit Multiplication Factor MTBE only:			500		100	10000
Date Sampled:		02-19-04	02-20-04	02-20-04	02-20-04	02-20-04

Surrogate % Recovery:	FID: 100% / PID: 100%	FID: 102% / PID: 88.1%	FID: 101% / PID: 103%	FID: 88.6% / PID: 83.8%	FID: 92.2% / PID: 92.4%
Instrument ID:	VAR-GC1	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

ANALYST: Clari J. Cono APPROVED BY: James C. Phillips  
*Clari J. Cono* *James C. Phillips*  
 Laboratory Director

**CASTLE ANALYTICAL LABORATORY**Environmental Testing Services  
Certificate #2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930  
Fax: (209) 384-1507HerSchy Environmental  
P.O. Box 229  
Bass Lake, CA 93604  
Attn: Joshua TevesClient Project ID: Alaska Gas Company - Oakland  
Reference Number: 6670  
Sample Description: Water  
Sample Prep/Analysis Method: EPA 5030/8015M, 8020  
Lab Numbers: 6670-6WSampled: 02-20-04  
Received: 02-20-04  
Extracted: 02-25-04  
Analyzed: 02-25-04  
Reported: 03-05-04**TOTAL PETROLEUM HYDROCARBONS - GASOLINE  
WITH BTEX DISTINCTION**

ANALYTE	REPORTING LIMIT	SAMPLE ID
	µg/L	EX-1 (µg/L)
MTBE	0.50	160000
BENZENE	0.50	9500
TOLUENE	0.50	4300
ETHYLBENZENE	0.50	840
TOTAL XYLENES	0.50	3900
GASOLINE RANGE HYDROCARBONS	50	120000
Report Limit Multiplication Factor:		1000
Report Limit Multiplication Factor for MTBE only:		10000

Surrogate % Recovery:

FD: 99.1% / ND: 100%

Instrument ID:

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

ANALYST:

Clay J. Cone

APPROVED BY:

James C. Phillips  
Laboratory Director



# CASTLE ANALYTICAL LABORATORY

Environmental Testing Services  
Certificate No.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 Teves	Client Project ID: Alaska Gas Company - Oakland Reference Number: 6670 Sample Description: Water Sample Prep/Analysis Method: LUFT/EPA 8015B Lab Numbers: 6670-6W	Sampled: 02-20-04 Received: 02-20-04 Extracted: 03-03-04 Analyzed: 03-03-04 Reported: 03-05-04
--	---	--

## TOTAL PETROLEUM HYDROCARBONS - DIESEL RANGE

ANALYTE	REPORTING LIMIT (µg/L)	SAMPLE ID EX-1 (µg/L)
DIESEL RANGE HYDROCARBONS C10->C28	50	2300
Report Limit Multiplication Factor:		1
		lighter hydrocarbons also present

Instrument ID: HP-GC1

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

ANALYST: *Clan J. Corb*  
*Clan J. Corb*

APPROVED BY: *James C. Phillips*  
*James C. Phillips*  
Laboratory Director

# CASTLE ANALYTICAL LABORATORY

# CHAIN OF CUSTODY

Location: 2333 Shuttle Drive, Bldg 908/909, Atwater, CA 95301

Certificate No. 2480

Mailing Address: 2333 Shuttle Drive, Atwater, CA 95301

PAGE \_\_\_\_\_ OF \_\_\_\_\_

Phone: (209) 384-2930 - Fax: (209) 384-1507

Customer: <u>Alaska Gas Company</u>					SAMPLE TYPE (g) grab (c) composite (d) discrete  SAMPLE MATRIX (s) solid (l) liquid (o) other	REQUESTED ANALYSES						Method of Shipment:  Notes:  OBSERVATIONS/REMARKS	
Address: _____						BTEX/TPH-GAS  MTBE  TPH-DIESEL  TRPH 418.1M  Oxy's / EDB / DCA by 8260  8260	Electronic Deliverables (EDF)	NUMBER OF CONTAINERS	Method of Shipment:				
City/State/ZIP: <u>Oakland</u>									Notes:				
Phone / FAX: _____													
Proj # / P.O. #: _____													
Report Attention: <u>Joshua</u>													
Sampler Signature: <u>[Signature]</u>													
Printed: <u>Oscar Sebastian</u>													
Lab ID#	SAMPLE ID	DATE	TIME	DESCRIPTION/LOCATION	BTEX/TPH-GAS	MTBE	TPH-DIESEL	TRPH 418.1M	Oxy's / EDB / DCA by 8260	8260	Electronic Deliverables (EDF)	NUMBER OF CONTAINERS	OBSERVATIONS/REMARKS
	AW-1R	2-19-04	16:40		g	k	x	x				2	
	AW-2	2-20-04	8:05		g	k	x	x				2	
	AW-5	2-20-04	8:45		g	k	x	x				2	
	AW-6	2-20-04	7:30		g	k	x	x				2	
	AW-3	2-20-04	9:55		g	k	x	x				2	
	EX-1	2-20-04	12:10		g	k	x	x				3	
Relinquished by: <u>[Signature]</u>					Printed Name		Date	Time	Company Name				
Received by: <u>[Signature]</u>					Oscar Sebastian		2-20-04	12:20	Herschel Environmental				
Relinquished by:					James Phillip		2-21-04	1:50	Castle Analytical				
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 : _____		
											<input type="checkbox"/> VERBAL <input type="checkbox"/> WRITTEN		

APPENDIX C

UST REMOVAL DOCUMENTATION



**City Of Oakland**  
**FIRE PREVENTION BUREAU**  
 250 Frank Ogawa Plaza, Ste. 3341  
 Oakland California 94612-2032  
 510-238-3851



*Permit To Excavate And Install, Repair,  
 Or Remove Inflammable Liquid Tanks*



Oakland, California December 8, 2003

Tank Permit Number: 2003 - 087

**Permission Is Hereby Granted To:**

Remove Gasoline, Diesel Tank And Excavate Commencing: Feet Inside: Property Line.

**On The:**

Site Address: 6211 San Pablo Avenue

Present Storage:

Owner: Syed Nawab

Address: 6211 San Pablo Ave., Oakland, 94608

Phone: 510-547-3335

Applicant: ~~Too Accutite~~ Terry Hamilton

Address: ~~35 So. Linden, South San Francisco, CA 94080~~ Phone: ~~415-559-3496~~

Dimensions Of Street (sidewalk) Surface To Be Disturbed : X No. Of Tanks 3 Capacity 16,000 Gallons, Each

Remarks - Lines will be removed @ a later time

30 K

This Permit Is Granted In Accordance With Existing City Ordinances. Owner Hereby Agrees To Remove Tanks On Discontinuance Of Use Or When Notified By The City Authorities When Installing, Removing Or Repairing Tanks, No Open Flame To Be On Or Near Premises.

**CERTIFICATE OF TANK AND EQUIPMENT INSPECTION**

Type Of Inspection: UST Rem

Inspected And Passed On: 2/12/04

By: H. Gomez

Approved: \_\_\_\_\_

*Fire Marshal*

**UST/AST Installations/modifications:**

Pressure Test: Inspected By: \_\_\_\_\_ Date: \_\_\_\_\_

Primary Piping Test: Inspected By: \_\_\_\_\_ Date: \_\_\_\_\_

Inspection Fee Paid: \$ 1902.00

Received By: M McCarthy ck# 3173 rec# 867605

**Secondary Containment & Sump Testing:**

Inspected By: \_\_\_\_\_ Date: \_\_\_\_\_

Final: Inspected By: \_\_\_\_\_ Date: \_\_\_\_\_

*Before Covering Tanks, Above Certification Must Be Signed When Ready For Inspection Notify Fire Prevention Bureau 238-3851*

**THIS PERMIT MUST BE LEFT ON THE WORK SITE AS AUTHORITY THEREFORE**



**OAKLAND FIRE DEPARTMENT, OES  
UNDERGROUND STORAGE TANK CLOSURE/REMOVAL FIELD INSPECTION REPORT**

Site Address: <u>6111 San Pablo</u>	Name of Facility: <u>Alaska Gas</u>
Inspector: <u>J. Garcia</u>	Contact on site: <u>Hamilton</u>
Date and Time of Arrival: <u>2/18/04</u>	Contractor/Consultant:

General Requirements	Yes	No	N/A
Approved closure plan on site.	✓		
Changes to approved plan noted.	✓		
Residuals properly stored/transported.	✓		
Receipt for adequate dry ice noted.	✓		

General Requirements	Yes	No	N/A
Site Safety Plan properly signed.	✓		
40B:C fire extinguisher on site.	✓		
"No Smoking" signs posted.	✓		
Gas detector challenged by inspector.	✓		

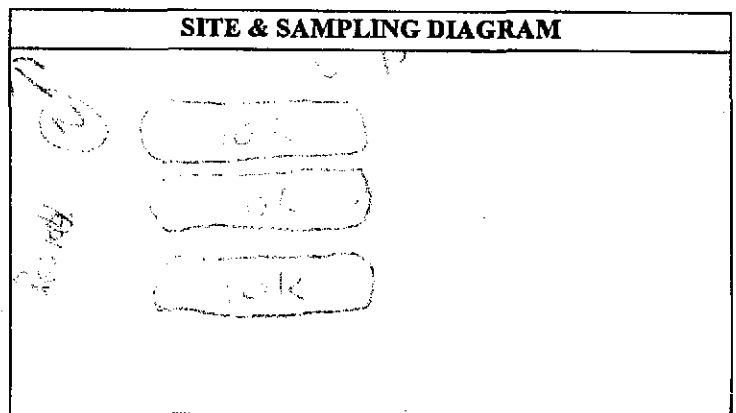
Tank Observations	T #1	T #2	T #3	T #4
Tank Capacity (gallons)	10K	10K	10K	
Material last stored	Gas	Gas	Gas	
Dry ice used (pounds)	300	300	300	
Combustible gas concentration as %LEL. (Note time & sampling point)				
(1)	2	2.5	2.4	
(2)				
(3)				
Oxygen concentration as % volume. (Note time & sampling point)				
(1)	9	9	10	
(2)				
(3)				
Tank Material	Steel			
Wrapping/Coating, if any	✓			
Obvious holes?	✓			

Tank Observations	T #1	T #2	T #3	T #4
Obvious corrosion?	✓			
Obvious odors from tank?	✓			
Seams intact?	✓			
Tank bed backfill material	✓			
Obvious discoloration?	✓			
Obvious odors ex tank bed?	✓			
Water in excavation?	✓			
Sheen/product on water?	✓			
Tank tagged by transporter?	✓			
Tank wrapped for transport?	✓			
Tank plugged w/ vent cap?	✓			
Date/time tank hauled off?	2/18/04			
No. of soil samples taken?	3			
Depth of soil samples ( ft. bgs)	5			

Piping Removal	Yes	No	N/A
All piping removed hauled off w/ tanks?		✓	
Obvious holes on pipes?		✓	
Obvious odors from pipes?			✓
Obvious soil discoloration in piping trench?			✓
Obvious odors from piping trench?			✓
Water in piping trench?			✓
Number & depth of soil samples from piping trench?			✓
Number & depth of water samples from piping trench?			✓

General Observations	Yes	No	N/A
Leak from any tank suspected?		✓	
"Leak Report" form given to the operator?			✓
Obviously contaminated soil excavated?	✓		
Soil stockpile sampled?	✓		
Stockpile lined AND covered?			
Water in excavation sampled?			
Number/depth of water samples taken?			
All samples properly preserved for transport?	✓		

Additional Observations	Yes	No	N/A
Soil/water sampling protocols acceptable?	✓		
Sampling "chain of custody" noted?	✓		
Tank pit filled in or covered?			
Tank pit fenced or barricaded?	✓		
Transporter a registered HW hauler?	✓		
Uniform HW Manifest completed?	✓		
Contractor/Consultant reminded of complete UST Removal Report due within 30 days?	✓		
Date/Time removal/closure operations completed?			2/18/04
OT hours or additional charges due from contractor?			



**Notes/Comments:** Site in under LOP. No sample taken from T1. T1 & T2 are UST tanks - will not be hauled out.

APPENDIX D

UST REMOVAL GROUNDWATER FIELD DATA SHEET

HerSchy **WATER SAMPLE FIELD DATA SHEET**  
Environmental

Client Name: Alaska Gas Location: Oakland

Purged By: J. Teves Sampled by: J. Teves

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

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

Casing Elevation (feet/MSL): \_\_\_\_\_ Volume in Casing (gal.): 2.65

Depth of Well (feet): 23.32 Calculate Purge Volume (gal.): 7.96

Depth to Water (feet): 7.04 Actual Purge Volume (gal.): +8

Date Purged: 2/12/04 Date Sampled: 2/12/04

TIME	VOLUME	pH	E. C.	TEMP.	TURBIDITY
<u>1330</u>	<u>-</u>	<u><del>7.20</del> 6.05</u>	<u>605</u>	<u>68.7</u>	<u>murky</u>
<u>1330</u>	<u>+8</u>	<u>7.05</u>	<u>576</u>	<u>67.3</u>	<u>✓</u>

Other Observations: \_\_\_\_\_ Odor: H<sub>2</sub>S strong

Purging Equipment: Waterra

Sampling Equipment: ✓

Remarks: \_\_\_\_\_

Sampler's Signature: [Signature]

APPENDIX E  
LABORATORY ANALYTICAL RESULTS  
FOR UST REMOVAL GROUNDWATER AND SOIL SAMPLES  
WITH CHAIN-OF-CUSTODY DOCUMENTATION



**CASTLE ANALYTICAL LABORATORY**Environmental Testing Services  
Certificate #2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930  
Fax: (209) 384-1507HerSchy Environmental  
P.O. Box 229  
Bass Lake, CA 93604  
Attn: Joshua TevesClient Project ID: Alaska Gasoline Company - Oakland  
Reference Number: 6626  
Sample Description: Water  
Sample Prep/Analysis Method: EPA 5030/8015M, 8020  
Lab Numbers: 6626-15WSampled: 02-12-04  
Received: 02-13-04  
Extracted: 02-17-04  
Analyzed: 02-17-04  
Reported: 02-23-04**TOTAL PETROLEUM HYDROCARBONS - GASOLINE  
WITH BTEX DISTINCTION**

ANALYTE	REPORTING LIMIT	SAMPLE ID
	µg/L	MW-6 (µg/L)
MTBE	0.50	44
BENZENE	0.50	14
TOLUENE	0.50	1.4
ETHYLBENZENE	0.50	9.5
TOTAL XYLENES	0.50	26
GASOLINE RANGE HYDROCARBONS	50	210
Report Limit Multiplication Factor:		2

Surrogate % Recovery:

ND: 118% / PID: 118%

Instrument ID:

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

ANALYST:

Clari J. Cone

APPROVED BY:

James C. Phillips  
Laboratory Director

# CASTLE ANALYTICAL LABORATORY

Environmental Testing Services  
Certificate # 2480

2333 Shuttle Drive, Alwater, CA 95301

Phone: (209) 384-2930  
Fax: (209) 384-1507

HerSchy Environmental P.O. Box 229 Bass Lake, CA 93604 Attn: Joshua Teves	Client Project ID: Alaska Gasoline Company - Oakland Reference Number: 6626 Sample Description: Soil Sample Prep/Analysis Method: EPA 5030/8015M, 8020 Lab Numbers: 6626-1S, 2S, 3S, 4S, 5S	Sampled: 02-12-04 Received: 02-13-04 Extracted: 02-17-04 Analyzed: 02-20-04 Reported: 02-20-04
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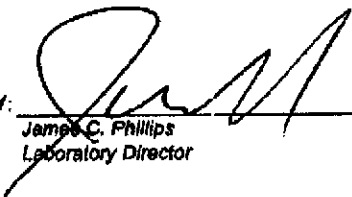
## TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
		W Base (mg/kg)	E Base (mg/kg)	W-5' (mg/kg)	W-10' (mg/kg)	E-5' (mg/kg)
MTBE	0.010	37	17	1.7	18	8.9
BENZENE	0.0050	0.21	3.2	0.10	24	0.12
TOLUENE	0.0050	0.025	29	0.34	200	0.010
ETHYLBENZENE	0.0050	0.0066	27	0.36	130	0.33
TOTAL XYLENES	0.0050	0.031	130	2.2	670	0.19
GASOLINE RANGE HYDROCARBONS	1.0	19	1600	29	5100	13
Report Limit Multiplication Factor:		1	200	2	1000	1
Report Limit Multiplication Factor for MTBE only:		100				20

Surrogate % Recovery:	RD: 113% / PD: 97.1%	NA	NA	NA	RD: 127% / PD: 108%
Instrument ID:	VAR-GC1	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

ANALYST:   
 Clari J. Cone

APPROVED BY:   
 James C. Phillips  
 Laboratory Director

# CASTLE ANALYTICAL LABORATORY

Environmental Testing Services  
Certificate # 2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930  
Fax: (209) 384-1507

Hartschy Environmental P.O. Box 229 Bass Lake, CA 93604 Attn: Joshua Teves	Client Project ID: Alaska Gasoline Company - Oakland Reference Number: 6626 Sample Description: Soil Sample Prep/Analysis Method: EPA 5030/8015M. 8020 Lab Numbers: 6626-6S, 7S, 8S, 9S, 10S	Sampled: 02-12-04 Received: 02-13-04 Extracted: 02-17-04 Analyzed: 02-20-04 Reported: 02-20-04
---	--	--

## TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
		E-10' (mg/kg)	SW-5' (mg/kg)	SW-10' (mg/kg)	SE-5' (mg/kg)	SE-10' (mg/kg)
MTBE	0.010	5.6	0.51	11	50	38
BENZENE	0.0050	4.0	0.020	3.3	0.41	11
TOLUENE	0.0050	28	ND	47	1.1	240
BIPHENYLBENZENE	0.0050	52	0.017	22	0.54	79
TOTAL XYLENES	0.0050	300	0.019	110	2.3	460
GASOLINE RANGE HYDROCARBONS	1.0	2500	11	1000	32	3700
Report Limit Multiplication Factor:		500	1	100	5	500

Surrogate % Recovery:	NA	FD: 122% / PD: 100%	NA	NA	NA
Instrument ID:	VAR-GC1	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

ANALYST: *Clara J. Cone*  
Clara J. Cone

APPROVED BY: *James C. Phillips*  
James C. Phillips  
Laboratory Director

# CASTLE ANALYTICAL LABORATORY

Environmental Testing Services  
Certificate # 2480

2333 Shuttle Drive. Atwater, CA 95301

Phone: (209) 384-2830  
Fax: (209) 384-1507

HerSchy Environmental  
P. O. Box 229  
Bass Lake, CA 93804  
Attn: Joshua Teves

Client Project ID: Alaska Gasoline Company - Oakland  
Reference Number: 8626  
Sample Description: Soil  
Sample Prep/Analysis Method: EPA 5030/8015M. 8020  
Lab Numbers: 6626-11S, 12S, 13S, 14S

Sampled: 02-12-04  
Received: 02-13-04  
Extracted: 02-17-04  
Analyzed: 02-20-04  
Reported: 02-20-04

## TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
		NW-5' (mg/kg)	NW-10' (mg/kg)	NE-5' (mg/kg)	NE-10' (mg/kg)
MTBE	0.010	4.1	8.7	1.2	0.86
BENZENE	0.0050	0.025	0.29	ND	ND
TOLUENE	0.0050	0.012	1.6	ND	0.68
ETHYLBENZENE	0.0050	0.046	2.5	0.019	6.5
TOTAL XYLENES	0.0050	0.047	14	0.024	32
GASOLINE RANGE HYDROCARBONS	1.0	4.3	150	2.8	780
Report Limit Multiplication Factor:		1	20	2	50
Report Limit Multiplication Factor for MTBE only:		5		5	

Surrogate % Recovery:

FB: 110% / PID: 100%

NA

NA

NA

Instrument ID:

VAR-GC1

VAR-GC1

VAR-GC1

VAR-GC1

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

ANALYST:

*Clari J. Cone*  
Clari J. Cone

APPROVED BY:

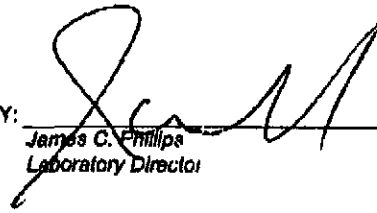
*Jamie C. Phillips*  
Jamie C. Phillips  
Laboratory Director

**CASTLE ANALYTICAL LABORATORY - PORTERVILLE**Environmental Testing Services  
Certificate No. 25512780 Yowumne Ave., Suite C  
Porterville, CA 93258Phone: (559) 781-6098  
Fax: (559) 781-6091HerSchy Environmental  
P.O. Box 229  
Bass Lake, CA 93604  
Attn: Joshua TevesClient Project ID: Alaska Gasoline Company - Oakland  
Reference Number: P262 / 6626  
Sample Description: SOIL  
Lab Numbers: P262-18, 2SSampled: 02-12-04  
Received: 02-25-04  
Prepared: 02-26-04  
Analyzed: 02-26-04  
Reported: 02-27-04**ICP Metals - EPA SW6010C**

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID W-10' (mg/kg)	SAMPLE ID SE-10' (mg/kg)
LEAD (Pb)	5.0	ND	ND
Report Limit Multiplication Factor:		1	1

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

APPROVED BY:


  
James C. Phillips  
Laboratory Director

**CASTLE ANALYTICAL LABORATORY - PORTERVILLE**

Environmental Testing Services

2780 Yowlumne Ave., Suite C  
Porterville, CA 93258

Phone: (559) 781-6099

Fax: (559) 781-6091

HerSchy Environmental P.O. Box 229 Bass Lake, CA 93804 Attn: Joshua Teves	Client Project ID: Alaska Gasoline Company - Oakland Reference Number: P262 / 6626 Sample Description: SOIL Instrument ID: TJA 81E	Sample Prep Method: SW3050 Analysis Method: SW6010C Prepared: 02-26-04 Analyzed: 02-26-04 Reported: 02-27-04
--	---	--

**QUALITY CONTROL DATA REPORT**

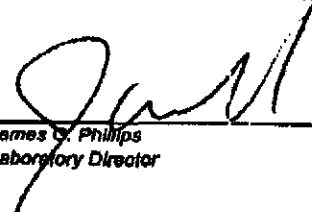
SPIKE ID: ICP 2264

	Reporting Limit mg/kg	BLANK Result mg/kg	Spiking Level mg/kg	Control Spike %R	%R Limits
<b>COMPOUNDS</b>					
Lead	5.0	ND	100	98.5%	80 - 120

	Spiking Level mg/kg	MATRIX SPIKE %R	MATRIX SPIKE DUP %R	%R Limits	%RPD
<b>COMPOUNDS</b>					
Lead	100	91.8%	91.3%	70 - 130	0.27%

The LCS (Laboratory Control Spike) is a control sample of known, interferent free matrix that is fortified with representative analytes and analyzed using the same reagents, preparation and analytical methods employed for the samples. The LCS % recovery is used for validation of sample batch results. Due to matrix effects, the QC limits and recoveries for MS/MSD's are advisory only and are not used to accept or reject batch results.

APPROVED BY:

  
 James C. Phillips  
 Laboratory Director

**CASTLE ANALYTICAL LABORATORY**Environmental Testing Services  
Certificate # 2480

2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930  
Fax: (209) 384-1507HerSchy Environmental  
P.O. Box 229  
Bass Lake, CA 93804  
Attn: Joshua TevesClient Project ID: Alaska Gasoline Company - Oakland  
Reference Number: 6626  
Sample Description: TCLP ZHE Extract  
Sample Prep/Analysis Method: EPA 1311/5030/8020  
Lab Numbers: 6626-45Sampled: 02-12-04  
Received: 02-13-04  
Extracted: 02-25-04  
Analyzed: 02-27-04  
Reported: 02-27-04**TCLP ZHE EXTRACTION**

ANALYTE	REPORTING LIMIT	SAMPLE ID
	(ug/L)	W-10 <sup>o</sup> (ug/L)
BENZENE	0.50	320
Report Limit Multiplication Factor:		10

Surrogate % Recovery:

125%

Instrument ID:

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

ANALYST:

Clari J. Cons

APPROVED BY:

James C. Phillips  
Laboratory Director

# CASTLE ANALYTICAL LABORATORY

# CHAIN OF CUSTODY

Location: 2333 Shuttle Drive, Bldg 908/909, Atwater, CA 95301

Certificate No. 2480

PAGE \_\_\_\_ OF \_\_\_\_

Mailing Address: 2333 Shuttle Drive, Atwater, CA 95301

Phone: (209) 384-2930 - Fax: (209) 384-1507

Customer: <u>Alaska Gasoline Company</u>					SAMPLE TYPE (g) grab (c) composite (d) discrete  SAMPLE MATRIX (a) solid (l) liquid (o) other  BYE/TPH-GAS  MTBE  TPH-DIESEL  TPH 416.1M  Oxy's / EDB / OCA by 8200  8280  Electronic Deliverables (EDL)  NUMBER OF CONTAINERS	Method of Shipment:			
Address:						Notes: * Sample two most contaminated for Lead			
City/State/ZIP: <u>Oakland</u>									
Phone / FAX:									
Proj # / P.O. #:									
Report Attention: <u>Joshua Teves</u>									
Sampler Signature: <u>[Signature]</u>									
Printed: <u>Josh Teves</u>									
Lab ID#	SAMPLE ID	DATE	TIME	DESCRIPTION/LOCATION			OBSERVATIONS/REMARKS		
<u>1020-10</u>	<u>W Base</u>	<u>2/12/04</u>			<u>d</u>	<u>S</u>			
<u>-25</u>	<u>E Base</u>								
<u>-35</u>	<u>W-5'</u>								
<u>-45</u>	<u>W-10'</u>								
<u>-55</u>	<u>E-5'</u>								
<u>-65</u>	<u>E-10'</u>								
<u>-75</u>	<u>SW-5'</u>								
<u>-85</u>	<u>SW-10'</u>								
<u>-95</u>	<u>SE-5'</u>								
<u>-105</u>	<u>SE-10'</u>								
<u>-115</u>	<u>NW-5'</u>								
<u>-125</u>	<u>NW-10'</u>								
<u>-135</u>	<u>NE-5'</u>								
<u>-145</u>	<u>NE-10'</u>								
	<u>1111-6</u>	<u>2/12/04</u>	<u>1338</u>		<u>SLC</u>	<u>W</u>			
Relinquished by: <u>[Signature]</u>					Signature	Printed Name	Date	Time	Company Name
Received by:					<u>[Signature]</u>	<u>Joshua Teves</u>	<u>2/12/04</u>		<u>HerSchy</u>
Relinquished by:									
Received by:									
Relinquished by:					<u>[Signature]</u>	<u>Faridhe Ambig</u>	<u>2/12/04</u>	<u>0930</u>	<u>Castle Analytical</u>
Received by:									
					Total number of containers submitted to the laboratory		4		
					Note: All special requests (e.g. quick turn times) must be cleared through authorized laboratory personnel.				
					RESULTS DUE: <input type="checkbox"/> VERBAL <input type="checkbox"/> WRITTEN				



APPENDIX F

LABORATORY ANALYTICAL RESULTS

FOR DISPENSER LINE SOIL SAMPLES AND CHAIN OF CUSTODY

No Pb on 200 pipette samples as req. in Chain

# 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 Teves	Client Project ID: Alaska Gasoline Corp. - Oakland Reference Number: 6737 Sample Description: Soil Sample Prep/Analysis Method: EPA 5030/8015M, 8020 Lab Numbers: 6737-6S, 7S, 8S, 9S	Sampled: 03-08-04 Received: 03-11-04 Extracted: 03-11-04 Analyzed: 03-11-04 Reported: 03-12-04
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## TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
		L3-I2-2 (mg/kg)	L1-I3-2 (mg/kg)	L2-I3-2 (mg/kg)	L3-I3-2 (mg/kg)
MTBE	0.010	10	8.4	5.4	11
BENZENE	0.0050	1.3	2.8	2.8	1.9
TOLUENE	0.0050	1.8	11	12	2.8
ETHYLBENZENE	0.0050	0.30	3.3	3.3	0.71
TOTAL XYLENES	0.0050	1.7	17	18	4.0
GASOLINE RANGE HYDROCARBONS	1.0	24	190	200	37
Report Limit Multiplication Factor:		2	20	20	5
Report Limit Multiplication Factor for MTBE only:		50			50

Surrogate % Recovery:	NA	NA	NA	NA
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

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

# 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 Teves	Client Project ID: Alaska Gasoline Corp. - Oakland Reference Number: 6737 Sample Description: Soil Sample Prep/Analysis Method: EPA 5030/6015M, 8020 Lab Numbers: 6737-1S, 2S, 3S, 4S, 5S	Sampled: 03-08-04 Received: 03-11-04 Extracted: 03-11-04 Analyzed: 03-11-04 Reported: 03-12-04
--	---	--

## TOTAL PETROLEUM HYDROCARBONS - GASOLINE RANGE WITH BTEX DISTINCTION

ANALYTE	REPORTING LIMIT (mg/kg)	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID	SAMPLE ID
		L1-11-2 (mg/kg)	L2-11-2 (mg/kg)	L3-11-2 (mg/kg)	L1-12-2 (mg/kg)	L2-12-2 (mg/kg)
MTBE	0.010	41	67	30	14	13
BENZENE	0.0050	2.6	0.83	1.5	0.61	1.9
TOLUENE	0.0050	34	17	3.8	1.2	3.1
ETHYLBENZENE	0.0050	15	11	0.74	1.8	1.5
TOTAL XYLENES	0.0050	100	73	4.0	11	8.5
GASOLINE RANGE HYDROCARBONS	1.0	1200	800	52	110	81
Report Limit Multiplication Factor:		100	100	5	20	20
Report Limit Multiplication Factor for MTBE only:				50		

Surrogate % Recovery:	NA	NA	NA	NA	NA
Instrument ID:	VAR-GC1	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

ANALYST: Clayton  
Clayton Cone

APPROVED BY: James C. Phillips  
James C. Phillips  
Laboratory Director

# 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: <u>Alaska Gasline Company</u>				SAMPLE TYPE (g) grab (c) composite (d) discrete  SAMPLE MATRIX (s) solid (l) liquid (o) other	REQUESTED ANALYSES						Electronic Deliverables (EDF)  NUMBER OF CONTAINERS	Method of Shipment:		
Address:					BTEX/TPH-GAS  MTBE  TPH-DIESEL  TRPH 418:1M  Oxy's / EDB / DCA by 8260  8260							Notes:		
City/State/ZIP: <u>Oakland</u>												Test the 2 most contaminated samples for lead.		
Phone / FAX:														
Proj # / P.O. #:														
Report Attention: <u>Josh Teves</u>										OBSERVATIONS/REMARKS				
Sampler Signature: <u>Jeff Gurule</u>														
Printed: <u>Jeff Gurule</u>														
Lab ID#	SAMPLE ID	DATE	TIME	DESCRIPTION/LOCATION										
	L1-I1-2	3/8/04	1230		S	XX					1 Rush Please!			
	L2-I1-2		1220		↓	↓					↓			
	L3-I1-2		1240		↓	↓					↓			
	L1-I2-2		1255		↓	↓					↓			
	L2-I2-2		1300		↓	↓					↓			
	L3-I2-2		1305		↓	↓					↓			
	L1-I3-2		1325		↓	↓					↓			
	L2-I3-2		1320		↓	↓					↓			
	L3-I3-2	↓	1315		↓	↓					↓			
Signature				Printed Name		Date	Time	Company Name						
Relinquished by: <u>Jeff Gurule</u>				Jeff Gurule		3/10/04	2130	HerSchy						
Received by:														
Relinquished by:														
Received by:														
Relinquished by:														
Received by:														
										Total number of containers submitted to the laboratory				
										9				
Note: All special requests (e.g. quick turn times) must be cleared through authorized laboratory personnel.														
										RESULTS DUE :				
										<input type="checkbox"/> VERBAL <input checked="" type="checkbox"/> WRITTEN				

**APPENDIX G**  
**WASTE MANIFEST**


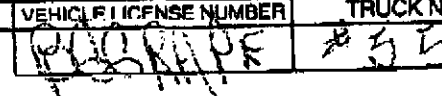

**Keller Canyon**  
**Sanitary Landfill**  
901 Bailey Road  
Pittsburg, CA 94565  
Phone (925) 458-9800  
Fax (925) 458-9891

**Ox Mountain**  
**Sanitary Landfill**  
12310 San Mateo Road  
Half Moon Bay, CA 94019  
Phone (650) 726-1819  
Fax (650) 726-9183

**Newby Island**  
**Sanitary Landfill**  
1601 Dixon Landing Road  
Milpitas, CA 95035  
Phone (408) 945-2800  
Fax (408) 262-2871

**Forward**  
**Landfill**  
9999 S. Austin Road  
Maritaca, CA 95336  
Phone (209) 982-4298  
Fax (209) 982-1009

### NON-HAZARDOUS WASTE MANIFEST

<b>GENERATOR</b> Alaska Gasline Company		<b>WASTE ACCEPTANCE NO.</b> SWTC - 05765	
<b>MAILING ADDRESS</b> 6211 San Pablo Ave		<b>REQUIRED PERSONAL PROTECTIVE EQUIPMENT</b>	
<b>CITY, STATE, ZIP</b> Oakland, CA 94608		<input type="checkbox"/> GLOVES <input type="checkbox"/> GOGGLES <input type="checkbox"/> RESPIRATOR <input type="checkbox"/> HARD HAT <input type="checkbox"/> TY-VEK <input type="checkbox"/> OTHER	
<b>PHONE</b> (707) 557-4999		<b>SPECIAL HANDLING PROCEDURES:</b>	
<b>CONTACT PERSON</b> Primal Samal		<b>RECEIVING FACILITY</b>  	
<b>SIGNATURE OF AUTHORIZED AGENT / TITLE</b>	<b>DATE</b>		
* 			
<small>GENERATOR'S CERTIFICATION: I hereby certify that the above named material is not a hazardous waste as defined by 40 CFR Part 261 or title 22 of the California code of regulations, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations; AND, if the waste is a treatment residue of a previously restricted hazardous waste subject to the Land Disposal Restrictions, I certify and warrant that the waste has been treated in accordance with the requirements of 40 CFR Part 268 and is no longer a hazardous waste as defined by 40 CFR Part 261.</small>			
<b>WASTE TYPE:</b>			
<input type="checkbox"/> DISPOSAL <input type="checkbox"/> CONSTRUCTION <input type="checkbox"/> DEBRIS <input type="checkbox"/> SPECIAL WASTE		<input type="checkbox"/> SLUDGE <input type="checkbox"/> WOOD <input type="checkbox"/> OTHER	
<b>GENERATING FACILITY</b> 6211 San Pablo Ave Oakland			
<b>TRANSPORTER</b> Dunbrite Transportation		<b>NOTES:</b> VEHICLE LICENSE NUMBER TRUCK NUMBER	
<b>ADDRESS</b> 320 Dunbrite Ct.			
<b>CITY, STATE, ZIP</b> Windsor, CA 95492		<input checked="" type="checkbox"/> END DUMP <input type="checkbox"/> BOTTOM DUMP <input type="checkbox"/> TRANSFER	
<b>PHONE</b> (707) 939-1407		<input type="checkbox"/> ROLL-OFF(S) <input type="checkbox"/> FLAT-BED <input type="checkbox"/> VAN <input type="checkbox"/> DRUMS	
<b>SIGNATURE OF AUTHORIZED AGENT OR DRIVER</b>		<b>DATE</b>	
* 		B-12-04	
<p>I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.</p>			
<b>REMARKS</b>			
<b>FACILITY TICKET NUMBER</b>			
<b>SIGNATURE OF AUTHORIZED AGENT</b>		<b>DATE</b>	
*			
		<b>CUBIC YARDS</b>	
		<b>DISPOSAL METHOD: (TO BE COMPLETED BY LANDFILL)</b>	
		<b>DISPOSE</b>	<b>OTHER</b>
		<input type="checkbox"/> SOIL	
		<input type="checkbox"/> CONSTRUCTION DEBRIS	
		<input type="checkbox"/> NON-FRIABLE ASBESTOS	
		<input type="checkbox"/> WOOD	
		<input type="checkbox"/> ASH	
		<input type="checkbox"/> SPECIAL OTHER	

SCHEDULING MUST BE MADE PRIOR TO 3:00 P.M. THE DAY PRIOR TO EXPECTED ARRIVAL • ANY UNSCHEDULED LOADS ARE SUBJECT TO REFUSAL UPON ARRIVAL. ONGOING DAILY DELIVERIES MUST BE SCHEDULED WITH THE LANDFILL THE DAY BEFORE.

GENERATOR COPY

MANIFEST # 196510