

March 10, 1997

97 MAR 17 PM 2:45

USA Gasoline Corporation  
30101 Agoura Court, Suite 200  
Agoura Hills, California 91301-4311

Alton Project No. 41-0034

ATTN: MR. SRIKANTH DASAPPA

SITE: FORMER USA GASOLINE STATION #57  
10700 MACARTHUR BOULEVARD  
OAKLAND, CALIFORNIA

RE: QUARTERLY PROGRESS REPORT  
FIRST QUARTER 1997

Dear Mr. Dasappa:

This quarterly progress report presents the results of groundwater monitoring and sampling activities at former USA Gasoline Station #57, located at 10700 MacArthur Boulevard in Oakland, California (Figure 1).

#### FIELD ACTIVITIES

On January 31, 1997 fluid levels were measured in eight monitoring wells, and groundwater samples were collected in seven monitoring wells. Refer to the Appendix for a description of the general field procedures, fluid measurement sheet, and monitoring well sampling forms. A groundwater elevation contour map based on the fluid level measurements is shown in Figure 2. Average depth to water was 13.5 feet, approximately 6.1 feet higher than the previous monitoring event. Due to the unforeseen high groundwater levels and limited capacity for purge water storage onsite, only one casing volume of groundwater was purged from each well prior to sampling. Purged groundwater was stored onsite in Department of Transportation-approved 55-gallon drums pending disposal arrangements.

Groundwater samples were submitted to a State-certified laboratory for analysis for total petroleum hydrocarbons as gasoline (TPH-G), total petroleum hydrocarbons as diesel (TPH-D), benzene, ethylbenzene, toluene, and total xylenes (BTEX), and methyl-tertiary-butyl-ether (MTBE). This work was performed in accordance with the guidelines of the Regional Water Quality Control Board (RWQCB), San Francisco Bay Region, and the Alameda County Environmental Health Department (ACEHSD).

#### ANALYTICAL RESULTS

- Results of the chemical analyses for the water samples are listed in Table 1 and shown in Figure 3.
- A trace of free product, less than 0.01 foot thick, was found in Monitoring Well S-2, located adjacent to the former underground storage tank (UST) cavity.

**Quarterly Progress Report, First Quarter 1997**  
Former USA Gasoline Station #57  
March 10, 1997

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- Dissolved-phase TPH-G concentrations were detected in all monitoring wells at the site except MW-4.
- No dissolved-phase benzene concentration above the State drinking water MCL (1.0 ppb) was detected in any sample, except S-1 and MW-3 (11 ppb benzene was detected in S-1 and 130 ppb benzene was detected in MW-3).
- Dissolved-phase TPH-D concentrations were not detected in any wells at the site. The laboratory indicated that the chromatogram given by Monitoring Well S-1's sample did not match the diesel hydrocarbon range.
- MTBE was detected in all monitoring wells at the site by EPA Method 8020. The presence of MTBE was confirmed by EPA Method 8260 in MW-3 (180 ppb).

**LIST OF ATTACHMENTS**

Figures: Vicinity Map, Groundwater Elevation Contour Map, Dissolved-phase Hydrocarbon Concentrations  
Table: Summary of Groundwater Monitoring and Analysis  
Appendix: General Field Procedures, Monitoring Well Sampling Forms, Official Laboratory Reports, Quality Assurance/Quality Control Reports, and Chain of Custody Records.

If you have any questions regarding this report, please call us at (510) 606-9150.

Sincerely,

ALTON GEOSCIENCE



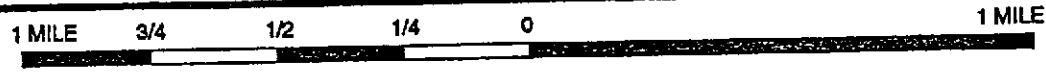
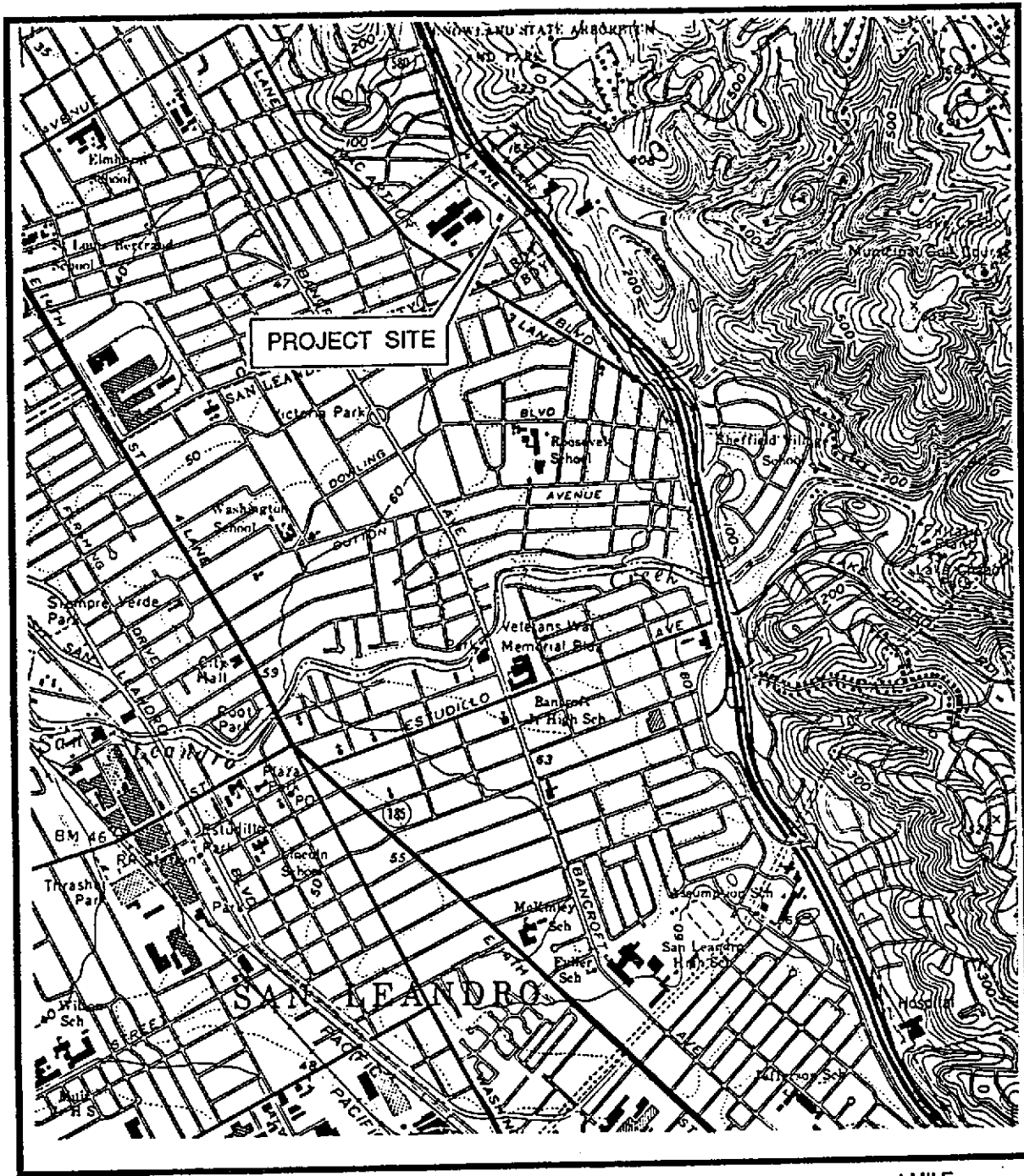
Ailsa S. Le May  
Geologist



Matthew W. Katen, RG  
Associate

Attachments  
41-0034/USAGAS01.QFM





SCALE 1:24,000




Source: U.S.G.S. Map  
 San Leandro Quadrangle  
 California  
 7.5 Minute Series

**VICINITY MAP**

USA Gasoline Station #57  
 10700 MacArthur Boulevard  
 Oakland, California

**FIGURE 1**



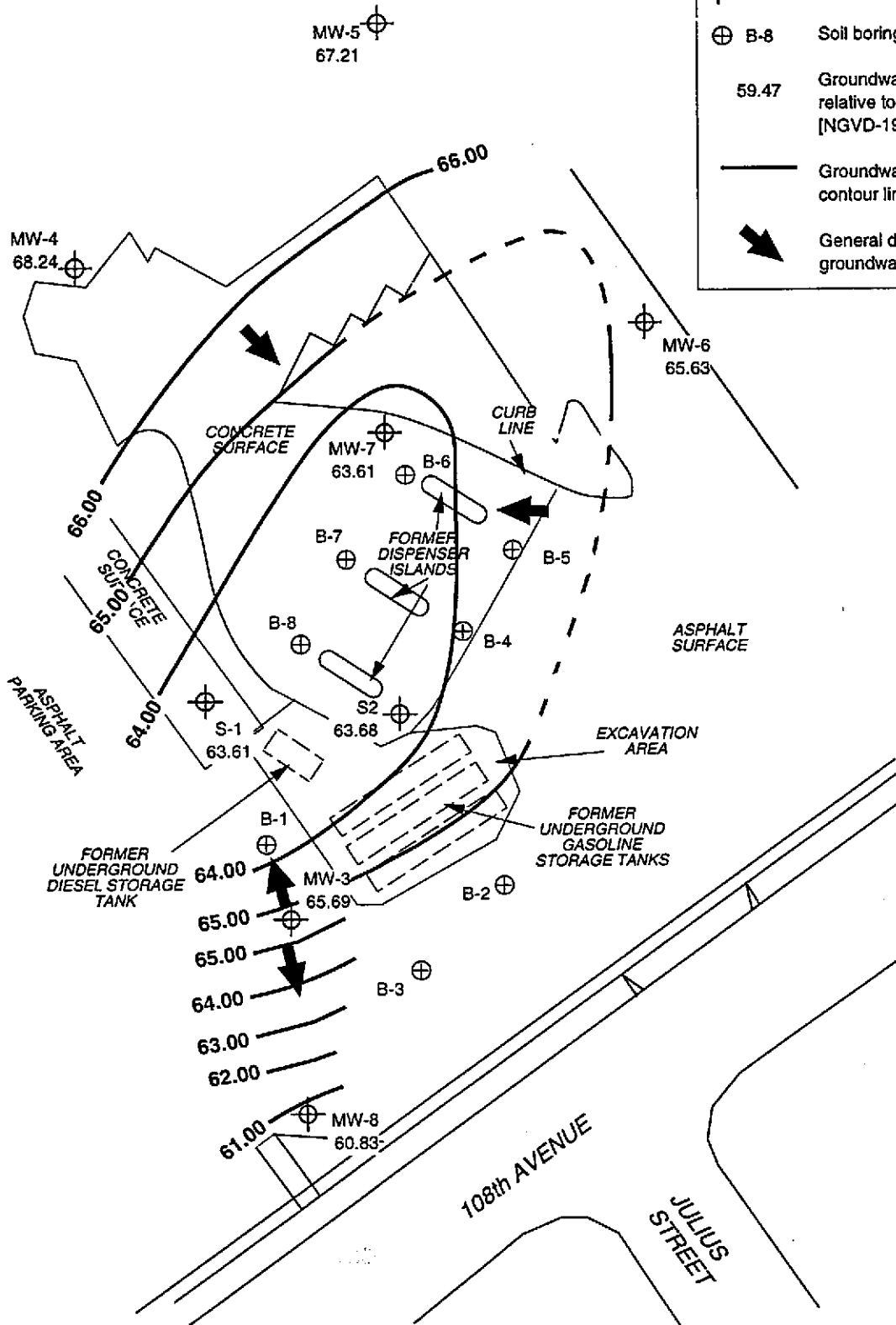
**ALTON  
 GEOSCIENCE**  
 Livermore, California

Project No. 41-0034

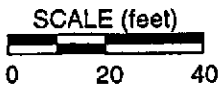


**LEGEND**

- MW-8 Groundwater monitoring well
- B-8 Soil boring
- 59.47 Groundwater elevation (feet relative to mean sea level [NGVD-1929])
- Groundwater elevation contour line
- General direction of groundwater gradient



**NOTES:**  
 Contour lines are interpretive based on fluid level measurements collected January 31, 1997.  
 Contour interval = 1.00 foot.



**GROUNDWATER ELEVATION  
 CONTOUR MAP  
 January 31, 1997**

USA Gas # 57  
 10700 MacArthur Boulevard  
 Oakland, California

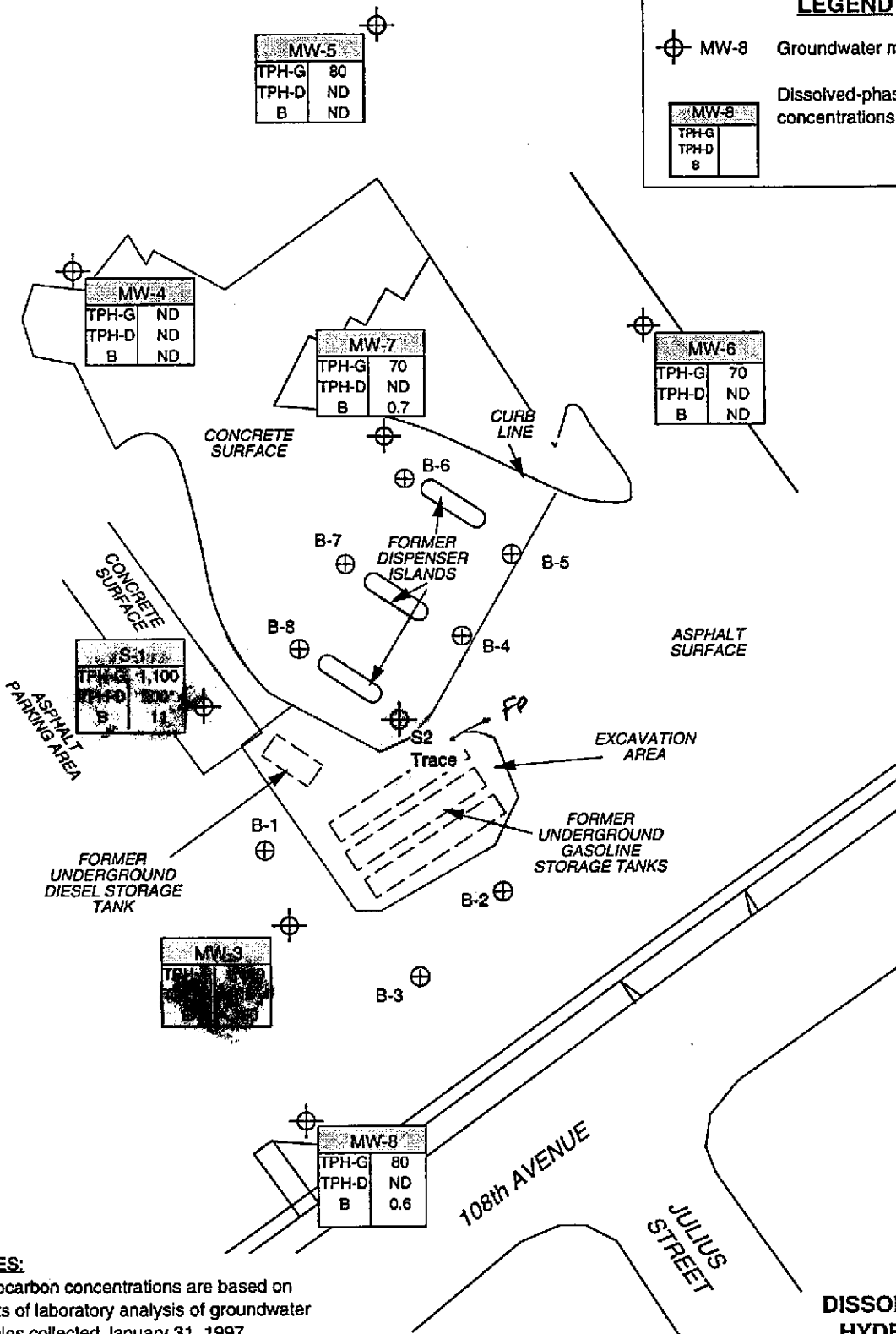


Source: Ron Archer, Civil Engineer, Inc.

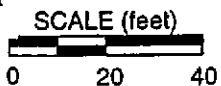
**FIGURE 2**



LEGEND															
	MW-8 Groundwater monitoring well														
	Dissolved-phase hydrocarbon concentrations (ppb)														
<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>MW-8</td><td></td></tr><tr><td>TPH-G</td><td></td></tr><tr><td>TPH-D</td><td></td></tr><tr><td>B</td><td></td></tr></table>	MW-8		TPH-G		TPH-D		B		<table border="1" style="display: inline-table; vertical-align: middle;"><tr><td>TPH-G</td><td>80</td></tr><tr><td>TPH-D</td><td>ND</td></tr><tr><td>B</td><td>ND</td></tr></table>	TPH-G	80	TPH-D	ND	B	ND
MW-8															
TPH-G															
TPH-D															
B															
TPH-G	80														
TPH-D	ND														
B	ND														



**NOTES:**  
 Hydrocarbon concentrations are based on results of laboratory analysis of groundwater samples collected January 31, 1997.  
 ND = not detected at or above method detection limit. TPH-G = total petroleum hydrocarbons as gasoline; TPH-D = total petroleum hydrocarbons as diesel; B = benzene; ppb = parts per billion.  
 \* = laboratory indicates the chromatogram does not match the diesel hydrocarbon range pattern.



**DISSOLVED-PHASE  
 HYDROCARBON  
 CONCENTRATIONS  
 January 31, 1997**

USA Gas # 57  
 10700 MacArthur Boulevard  
 Oakland, California

**FIGURE 3**



Source: Ron Archer, Civil Engineer, Inc.

Table 1

## Summary of Groundwater Monitoring and Analysis

Former USA Gas #57

Well ID	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8015 (ppb)	MTBE 8260 (ppb)
S-1	3/3/95	74.74	13.10	61.64	0.00	910	5,900	260	7.6	16	14	—	—
	7/24/95		12.35	62.39	0.00	—	—	—	—	—	—	—	—
	11/22/95	78.68	19.30	59.38	0.00	460	6,100	13	0.69	0.99	1.1	460	—
	12/6/95		19.59	59.09	0.00	—	—	—	—	—	—	—	—
	1/4/96		19.52	59.16	0.00	—	—	—	—	—	—	—	—
	1/31/97		15.07	63.61	0.00	1,100	200*	11	6	3	6	200	—
S-2	3/3/95	76.86	15.39	61.47	0.00	24,000	6,000	1,900	440	600	2,500	—	—
	7/24/95		14.47	62.39	0.00	—	—	—	—	—	—	—	—
	11/22/95	80.93	21.52	59.41	Trace PP	—	—	—	—	—	—	—	—
	12/6/95		21.78	59.15	0.00	—	—	—	—	—	—	—	—
	1/4/96		21.75	59.18	0.00	—	—	—	—	—	—	—	—
	1/31/97		17.25	63.68	Trace PP	—	—	—	—	—	—	—	—
MW-3	3/3/95	76.30	13.99	62.31	0.00	2,500	1,600	540	92	36	200	—	—
	7/24/95		13.33	62.97	0.00	—	—	—	—	—	—	—	—
	11/22/95	80.32	20.94	59.38	0.00	14,000	5,400	5,700	230	430	650	820	—
	12/6/95		17.48	62.84	0.00	—	—	—	—	—	—	—	—
	1/4/96		20.01	60.31	0.00	—	—	—	—	—	—	—	—
	1/31/97		14.63	65.69	0.00	1,100	ND	130	8	5	5	—	180
MW-4	11/22/95	76.42	14.99	61.43	0.00	ND	200	ND	1.5	ND	1.7	6.4	—
	12/6/95		11.21	65.21	0.00	—	—	—	—	—	—	—	—
	1/4/96		14.62	61.80	0.00	—	—	—	—	—	—	—	—
	1/31/97		8.18	68.24	0.00	ND	ND	ND	2	ND	2	11	—

Table 1

## Summary of Groundwater Monitoring and Analysis

Former USA Gas #57

Well ID	Date	Top of Casing Elevation (feet)	Depth to Water (feet)	Groundwater Elevation (feet)	Product Thickness (feet)	TPH-G (ppb)	TPH-D (ppb)	Benzene (ppb)	Toluene (ppb)	Ethyl- benzene (ppb)	Total Xylenes (ppb)	MTBE 8015 (ppb)	MTBE 8260 (ppb)
MW-5	11/22/95	80.52	19.56	60.96	0.00	ND	280	ND	1.8	ND	3.0	2.2	—
	12/6/95		15.84	64.68	0.00	—	—	—	—	—	—	—	—
	1/4/96		19.36	61.16	0.00	—	—	—	—	—	—	—	—
	1/31/97		13.31	67.21	0.00	80	ND	ND	0.6	ND	ND	6	—
MW-6	11/22/95	81.64	21.73	59.91	0.00	ND	140	ND	1.2	ND	1.5	5.3	—
	12/6/95		18.03	63.61	0.00	—	—	—	—	—	—	—	—
	1/4/96		21.67	59.97	0.00	—	—	—	—	—	—	—	—
	1/31/97		16.01	65.63	0.00	70	ND	ND	ND	ND	ND	5	—
MW-7	11/22/95	78.86	19.38	59.48	0.00	ND	180	ND	0.57	ND	0.62	0.73	—
	12/6/95		19.72	59.14	0.00	—	—	—	—	—	—	—	—
	1/4/96		19.76	59.10	0.00	—	—	—	—	—	—	—	—
	1/31/97		15.25	63.61	0.00	70	ND	0.7	1	ND	ND	8	—
MW-8	11/22/95	79.55	33.33	46.22	0.00	ND	360	ND	1.3	ND	2.1	2.1	—
	12/6/95		17.57	61.98	0.00	—	—	—	—	—	—	—	—
	1/4/96		20.08	59.47	0.00	—	—	—	—	—	—	—	—
	1/31/97		18.72	60.83	0.00	80	ND	0.6	1	ND	1	8	—

NOTES: ppb = parts per billion  
 TPH-G = total petroleum hydrocarbons as gasoline  
 TPH-D = total petroleum hydrocarbons as diesel  
 \* = laboratory indicates the chromatogram does not match the diesel hydrocarbon range pattern.

— = not measured/not analyzed  
 MTBE = methyl-tert butyl ether  
 ND = not detected at or above method detection limit



## FLUID MEASUREMENT FIELD FORM

Project No.: 41-0034  
 Station No.: USA GAS

Alton Personnel: CC  
 Date: 1-31-97

Well Number	Well Elevation	Depth to Water	Depth to Product	Free Product Thickness (ft)	Free Product Recovery	Total Depth	D.O. Comments
MW-6		16.01				41.80	1.45
MW-7		15.25				41.85	2.09
MW-4		8.18				42.44	2.01
MW-5		13.31				37.64	6.63
MW-8		14.72				37.69	2.22
S-1		15.07				40.75	1.41
MW-3		14.63				47.95	0.80
S-2		17.25	17.25	Trace		42.75	



# Alton Geoscience, Northern California Operations GROUND WATER SAMPLING FIELD NOTES

Site: USA Gas Project No.: 41-0034 Sampled By: CC

Date: 1-31-97

Well No. MW-6 Purge Method: Sub  
Total Depth (feet) 41.80 Depth to Product (feet):  
Depth to Water (feet): 16.01 Product Recovered (gallons):  
Water Column (feet): 25.79 Casing Diameter (Inches): 4"  
80% Recharge Depth (feet): 1 Well Volume (gallons): 17.02

Well No. MW-7 Purge Method: Sub  
Total Depth (feet) 41.85 Depth to Product (feet):  
Depth to Water (feet): 15.25 Product Recovered (gallons):  
Water Column (feet): 26.60 Casing Diameter (Inches): 4"  
80% Recharge Depth (feet): 1 Well Volume (gallons): 17.02

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				9.09	64.0	8.48
				9.72	64.7	8.30
				9.07	65.3	8.21
Total Purged				Time Sampled		11:10

51.0

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				2.67	64.2	8.68
				2.45	64.6	8.54
				2.02	64.7	8.43
Total Purged				Time Sampled		11:40

Well No. MW-4 Purge Method: Sub  
Total Depth (feet) 42.44 Depth to Product (feet):  
Depth to Water (feet): 8.14 Product Recovered (gallons):  
Water Column (feet): 34.26 Casing Diameter (Inches): 4"  
80% Recharge Depth (feet): 1 Well Volume (gallons): 22.6

Well No. MW-5 Purge Method: Sub  
Total Depth (feet) 37.64 Depth to Product (feet):  
Depth to Water (feet): 13.31 Product Recovered (gallons):  
Water Column (feet): 24.33 Casing Diameter (Inches): 4"  
80% Recharge Depth (feet): 1 Well Volume (gallons): 16.2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				1.33	65.0	10.48
				1.20	65.9	9.92
				1.31	65.8	9.66
Total Purged				Time Sampled		12:10

67.8

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				4.44	65.7	11.33
				4.58	67.6	11.70
				4.68	67.3	11.82
Total Purged				Time Sampled		12:40

Well No. MW-8 Purge Method: Sub  
Total Depth (feet) 37.67 Depth to Product (feet):  
Depth to Water (feet): 14.72 Product Recovered (gallons):  
Water Column (feet): 22.97 Casing Diameter (Inches): 4"  
80% Recharge Depth (feet): 1 Well Volume (gallons): 15.16

Well No. S-1 Purge Method: Sub  
Total Depth (feet) 40.75 Depth to Product (feet):  
Depth to Water (feet): 15.07 Product Recovered (gallons):  
Water Column (feet): 25.68 Casing Diameter (Inches): 4"  
80% Recharge Depth (feet): 1 Well Volume (gallons): 16.2

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				1.45	66.4	8.84
				1.50	63.3	8.18
				1.52	63.6	8.33
Total Purged				Time Sampled		13:10

45.1

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				1.38	69.0	8.96
				1.40	65.1	8.59
				1.37	65.4	8.44
Total Purged				Time Sampled		13:40

# Alton Geoscience, Northern California Operations

## GROUND WATER SAMPLING FIELD NOTES

Site: USA Gas Project No.: 41-0034 Sampled By: CC Date: 1-31-97

Well No. MW-2 Purge Method: Sub  
 Total Depth (feet) 47.95 Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): 14.63 Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): 33.32 Casing Diameter (Inches): 4"  
 80% Recharge Depth (feet): \_\_\_\_\_ 1 Well Volume (gallons): 21.99

Well No. S-2 Purge Method: \_\_\_\_\_  
 Total Depth (feet) \_\_\_\_\_ Depth to Product (feet): 17  
 Depth to Water (feet): \_\_\_\_\_ Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): \_\_\_\_\_ Casing Diameter (Inches): 4"  
 80% Recharge Depth (feet): \_\_\_\_\_ 1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
				256	63.0	8.31
				248	64.7	8.31
				249	65.2	8.18
Total Purged				Time Sampled		<u>1/1/10</u>

Comments: \_\_\_\_\_  
Turbidity= \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
<u>Trace FP</u>						
Total Purged				Time Sampled		<u>10/1/10</u>

Comments: \_\_\_\_\_  
Turbidity= \_\_\_\_\_

Well No. \_\_\_\_\_ Purge Method: \_\_\_\_\_  
 Total Depth (feet) \_\_\_\_\_ Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): \_\_\_\_\_ Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): \_\_\_\_\_ Casing Diameter (Inches): \_\_\_\_\_  
 80% Recharge Depth (feet): \_\_\_\_\_ 1 Well Volume (gallons): \_\_\_\_\_

Well No. \_\_\_\_\_ Purge Method: \_\_\_\_\_  
 Total Depth (feet) \_\_\_\_\_ Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): \_\_\_\_\_ Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): \_\_\_\_\_ Casing Diameter (Inches): \_\_\_\_\_  
 80% Recharge Depth (feet): \_\_\_\_\_ 1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
Total Purged				Time Sampled		

Comments: \_\_\_\_\_  
Turbidity= \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
Total Purged				Time Sampled		

Comments: \_\_\_\_\_  
Turbidity= \_\_\_\_\_

Well No. \_\_\_\_\_ Purge Method: \_\_\_\_\_  
 Total Depth (feet) \_\_\_\_\_ Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): \_\_\_\_\_ Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): \_\_\_\_\_ Casing Diameter (Inches): \_\_\_\_\_  
 80% Recharge Depth (feet): \_\_\_\_\_ 1 Well Volume (gallons): \_\_\_\_\_

Well No. \_\_\_\_\_ Purge Method: \_\_\_\_\_  
 Total Depth (feet) \_\_\_\_\_ Depth to Product (feet): \_\_\_\_\_  
 Depth to Water (feet): \_\_\_\_\_ Product Recovered (gallons): \_\_\_\_\_  
 Water Column (feet): \_\_\_\_\_ Casing Diameter (Inches): \_\_\_\_\_  
 80% Recharge Depth (feet): \_\_\_\_\_ 1 Well Volume (gallons): \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
Total Purged				Time Sampled		

Comments: \_\_\_\_\_

Time Start	Time Stop	Depth To Water (feet)	Volume Purged (gallons)	Conductivity (uS/cm)	Temperature (F, C)	pH
Total Purged				Time Sampled		

Comments: \_\_\_\_\_



North State Environmental  
Chemical Waste Disposal • Trucking • Consulting

## CERTIFICATE OF ANALYSIS

Lab No:	97-086	Date Sampled:	01-31-97
Client:	Alton Geoscience	Date Analyzed:	02-10-97
Project:	41-0034 / USA Gas	Date Reported:	02-11-97

Gasoline Range Hydrocarbons by Method 8015 M  
MTBE, Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020  
Diesel Range Hydrocarbons by EPA Method 8015M

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
97-086-01	MW-6 WATER	MTBE	8020	5 ug/L
		Benzene	8020	ND
		Toluene	8020	ND
		Ethylbenzene	8020	ND
		Xylenes	8020	ND
		Gasoline	8015M	70 ug/L
		Diesel	8015M	ND
97-086-02	MW-7 WATER	MTBE	8020	8 ug/L
		Benzene	8020	0.7 ug/L
		Toluene	8020	1 ug/L
		Ethylbenzene	8020	ND
		Xylenes	8020	ND
		Gasoline	8015M	70 ug/L
		Diesel	8015M	ND
97-086-03	MW-4 WATER	MTBE	8020	11 ug/L
		Benzene	8020	ND
		Toluene	8020	2 ug/L
		Ethylbenzene	8020	ND
		Xylenes	8020	2 ug/L
		Gasoline	8015M	ND
		Diesel	8015M	ND



North State Environmental  
Chemical Waste Disposal • Trucking • Consulting

## CERTIFICATE OF ANALYSIS

Lab No: 97-086                      Date Sampled: 01-31-97  
Client: Alton Geoscience              Date Analyzed: 02-10-97  
Project: 41-0034 / USA Gas              Date Reported: 02-11-97

Gasoline Range Hydrocarbons by Method 8015 M  
MTBE Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020  
Diesel Range Hydrocarbons by EPA Method 8015M

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
97-086-04	MW-5 WATER	MTBE	8020	6 ug/L
		Benzene	8020	ND
		Toluene	8020	0.6 ug/L
		Ethylbenzene	8020	ND
		Xylenes	8020	ND
		Gasoline	8015M	80 ug/L
		Diesel	8015M	ND
97-086-05	MW-8 WATER	MTBE	8020	8 ug/L
		Benzene	8020	0.6 ug/L
		Toluene	8020	1 ug/L
		Ethylbenzene	8020	ND
		Xylenes	8020	1 ug/L
		Gasoline	8015M	80 ug/L
		Diesel	8015M	ND
97-086-06	S-1 WATER	MTBE	8020	200 ug/L
		Benzene	8020	11 ug/L
		Toluene	8020	6 ug/L
		Ethylbenzene	8020	3 ug/L
		Xylenes	8020	6 ug/L
		Gasoline	8015M	1100 ug/L
		Diesel	8015M	* 0.2 mg/L

Page 2 of 3



## CERTIFICATE OF ANALYSIS

Lab No: 97-086                      Date Sampled: 01-31-97  
Client: Alton Geoscience              Date Analyzed: 02-10-97  
Project: 41-0034 / USA Gas              Date Reported: 02-11-97

Gasoline Range Hydrocarbons by Method 8015 M  
MTBE, Benzene, Toluene, Ethylbenzene and Xylenes by Method 8020  
Diesel Range Hydrocarbons by EPA Method 8015M

SAMPLE NO	CLIENT ID	ANALYTE	METHOD	RESULT
97-086-07	MW-3	MTBE	8020	** 180 ug/L
	WATER	Benzene	8020	130 ug/L
		Toluene	8020	8 ug/L
		Ethylbenzene	8020	5 ug/L
		Xylenes	8020	5 ug/L
		Gasoline	8015M	1100 ug/L
		Diesel	8015M	ND

### Quality Control/Quality Assurance Summary-WATER

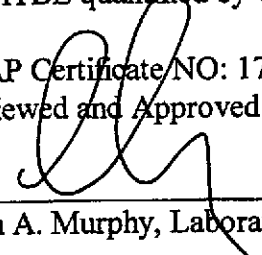
Analyte	Method	Reporting Limit	Blank	MS/MSD Recovery	RPD
MTBE	8020	0.5 ug/L	ND	94	3
Benzene	8020	0.5 ug/L	ND	96	3
Toluene	8020	0.5 ug/L	ND	97	3
Ethylbenzene	8020	0.5 ug/L	ND	97	3
Xylenes	8020	1.0 ug/L	ND	100	3
Gasoline	8015M	50 ug/L	ND	109	2
Diesel	8015M	0.05 mg/L	ND	92	1

\* The chromatogram does not match the diesel hydrocarbon range.

\*\* MTBE quantified by GC/MS by EPA Method 8260.

ELAP Certificate NO: 1753

Reviewed and Approved:

  
John A. Murphy, Laboratory Director

Page 3 of 3



North State Environmental  
Chemical Waste Disposal · Trucking · Consulting

## CERTIFICATE OF ANALYSIS

JOB NO: 97-086  
CLIENT: Alton Geoscience  
PROJECT ID: 41-0034/USA Gas

DATE SAMPLED: 01-31-97  
DATE ANALYZED: 02-11-97  
DATE REPORTED: 02-11-97

### Methyl t-Butyl Ether by Method 8260 GC/MS

Laboratory Number 97-086-07  
Client ID MW-3  
Matrix Water

Analyte Results  
Methyl t-Butyl ether 180 ug/L

#### Surrogate Recoveries %

1,2-Dichloroethane d4 136  
Toluene d8 110  
4-Bromofluorobenzene 99

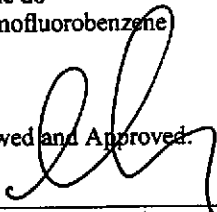
### Quality Control/Quality Assurance Summary

Laboratory Number	97-086	MS/MSD	RPD
Client ID	Blank	Recoveries	
Matrix	Water	Control	
Analyte	Results	Water	
	ug/L		
Methyl t-Butyl Ether	ND<25		
1,1-Dichloroethane	ND<25	117	14
Benzene	ND<25	96	8
Toluene	ND<25	89	8
Trichloroethene	ND<25	89	7
Chlorobenzene	ND<25	100	1

#### Surrogate Recoveries %

1,2-Dichloroethane d4	120	133/127
Toluene d8	110	104/109
4-Bromofluorobenzene	105	94/98

Reviewed and Approved:

  
John A. Murphy, Laboratory Director



# North State Environmental Analytical Laboratory 97-086

## Chain of Custody/Request for Analysis

(415) 588-9652

Client: <i>Atton Geoscience</i>	Phone: <i>(570) 606-9150</i>	Report to: <i>Ailsa Le May</i>	Turnaround Time
Mailing Address: <i>30 A Lindbergh Ave Livermore CA 94550</i>	Billing to: <i>Same</i>	8 Hr <input type="checkbox"/>	24 Hr <input type="checkbox"/>
Site Address: <i>USA Gas</i>	PO# / Billing Reference: <i>41-0034</i>	40 Hr <input type="checkbox"/>	5 Days <input checked="" type="checkbox"/>
Sampler: <i>Chris Buckley</i>	Date: <i>1-31-97</i>	Other <input type="checkbox"/>	

Sample ID	Sample Description	Container # / type	Sampling Time/Date	ANALYSIS REQUESTED							Remarks
				TPH-D	TPH-G	BTEX	O+G	MTEC*			
<i>1st MW-6</i>	<i>H2O</i>	<i>4 Amber</i>	<i>11:10 1-31-97</i>	<i>X</i>	<i>X</i>	<i>X</i>		<i>X</i>		<i>X</i>	<i>* For</i>
<i>2nd MW-7</i>			<i>11:40</i>	<i>X</i>	<i>X</i>	<i>X</i>		<i>X</i>		<i>X</i>	<i>His best</i>
<i>3rd MW-4</i>			<i>12:10</i>	<i>X</i>	<i>X</i>	<i>X</i>		<i>X</i>		<i>X</i>	<i>Concentration</i>
<i>4th MW-5</i>			<i>12:40</i>	<i>X</i>	<i>X</i>	<i>X</i>		<i>X</i>		<i>X</i>	<i>for 8260</i>
<i>5th MW-8</i>			<i>13:10</i>	<i>X</i>	<i>X</i>	<i>X</i>		<i>X</i>		<i>X</i>	<i>Confirmation</i>
<i>6th S-1</i>			<i>13:40</i>	<i>X</i>	<i>X</i>	<i>X</i>		<i>X</i>		<i>X</i>	
<i>7th MW-3</i>			<i>14:10</i>	<i>X</i>	<i>X</i>	<i>X</i>		<i>X</i>		<i>X</i>	

Relinquished by: <i>Chris Buckley</i>	Date: <i>2/3/97</i> Time: <i>11:40A</i>	Received by: <i>John King</i>	Yes	No
Relinquished by: <i>John King</i>	Date: <i>2/3/97</i> Time: <i>12:55P</i>	Received by: <i>[Signature]</i>	Were samples Preserved ?	<input checked="" type="checkbox"/>
Relinquished by: <i>[Signature]</i>	Date: _____ Time: _____	Received in lab by: <i>[Signature]</i>	In good condition ?	<input checked="" type="checkbox"/>