HYDRO ANALYSIS, INC.
Environmental & Water Resources Engineering
Groundwater Consultants

JUL 18 2002

July 16, 2002

191 / RO395

Barney Chan
Alameda County Environmental Health
1131 Harbor Bay Parkway
2nd Floor
Alameda, CA 94502

Re: Golden Gate Petroleum
421-23rd Ave, Oakland, CA

Dear Mr. Chan:

On behalf of Golden Gate Petroleum, please find enclosed a copy of the "*Quarterly Groundwater Monitoring Report*" by Hydro Analysis, Inc., dated July 9, 2002.

If you have any questions, please contact me at (510)620-0891.

Gary Aguiar
Principal Engineer

11100 SAN PABLO AVE., SUITE 200-A, EL CERRITO, CALIFORNIA 94530 • TEL 510-620-0891 • FAX 510-620-0894
www.HydroAnalysis.com

HYDRO ANALYSIS, INC.
Environmental & Water Resources Engineering
Groundwater Consultants

QUARTERLY

GROUNDWATER MONITORING REPORT

(sampled June 4, 2002)

GOLDEN GATE PETROLEUM

421 - 23rd Avenue
Oakland, California

July 9, 2002

11100 SAN PABLO AVE., SUITE 200-A, EL CERRITO, CALIFORNIA 94530 • TEL 510-620-0891 • FAX 510-620-0894
www.HydroAnalysis.com

TABLE OF CONTENTS

I. **INTRODUCTION** 1
Background Information 1

II. **FIELD WORK** 4
Monitoring Well Sampling 4

III. **RESULTS OF WATER LEVEL MEASUREMENTS** 5
Shallow Groundwater Flow Direction 5
Shallow Groundwater Table Hydraulic Gradient 5
Historical Water Level Measurements 5

IV. **ANALYTICAL RESULTS** 9
Laboratory Analysis 9
Analytical Results: Groundwater 10

V. **DATA ANALYSIS** 13

ATTACHMENT A -- Well Sampling Logs.

ATTACHMENT B -- Analytical Results.

I. INTRODUCTION

The site location is the Golden Gate Petroleum Cardlock at 421 23rd Avenue in Oakland. California (Figure 1). The site is situated at the northwest corner of the intersection of Kennedy Street and 23rd Avenue. The current layout of the site is shown in Figure 2.

This report presents the results of recent quarterly groundwater sampling conducted on June 4, 2002, as required by Alameda County Environmental Health Services.

Background Information

The site has operated as a service station since 1976. In August 1998, five underground storage tanks (UST's) and associated piping were removed from the property. The UST's were used to store premium unleaded gasoline, regular unleaded gasoline, and diesel fuel. The UST's were replaced with two 20,000-gallon, double-walled, fiberglass underground storage tanks. During the tank removal activities, approximately 1,300 cubic yards of petroleum-impacted soil was excavated and removed from the site. In addition, approximately 28,000 gallons of petroleum-impacted groundwater and floating product were removed.

On November 1999, Hageman-Aguiar, Inc., (now Hydro Analysis, Inc.) installed four monitoring wells in the vicinity of the former tank excavation (see Figure 2). In July 2000, Hydro Analysis, Inc., installed three off-site monitoring wells along the south side of Kennedy Street. Hydro Analysis, Inc., has performed periodic groundwater monitoring at the site since November 1999.

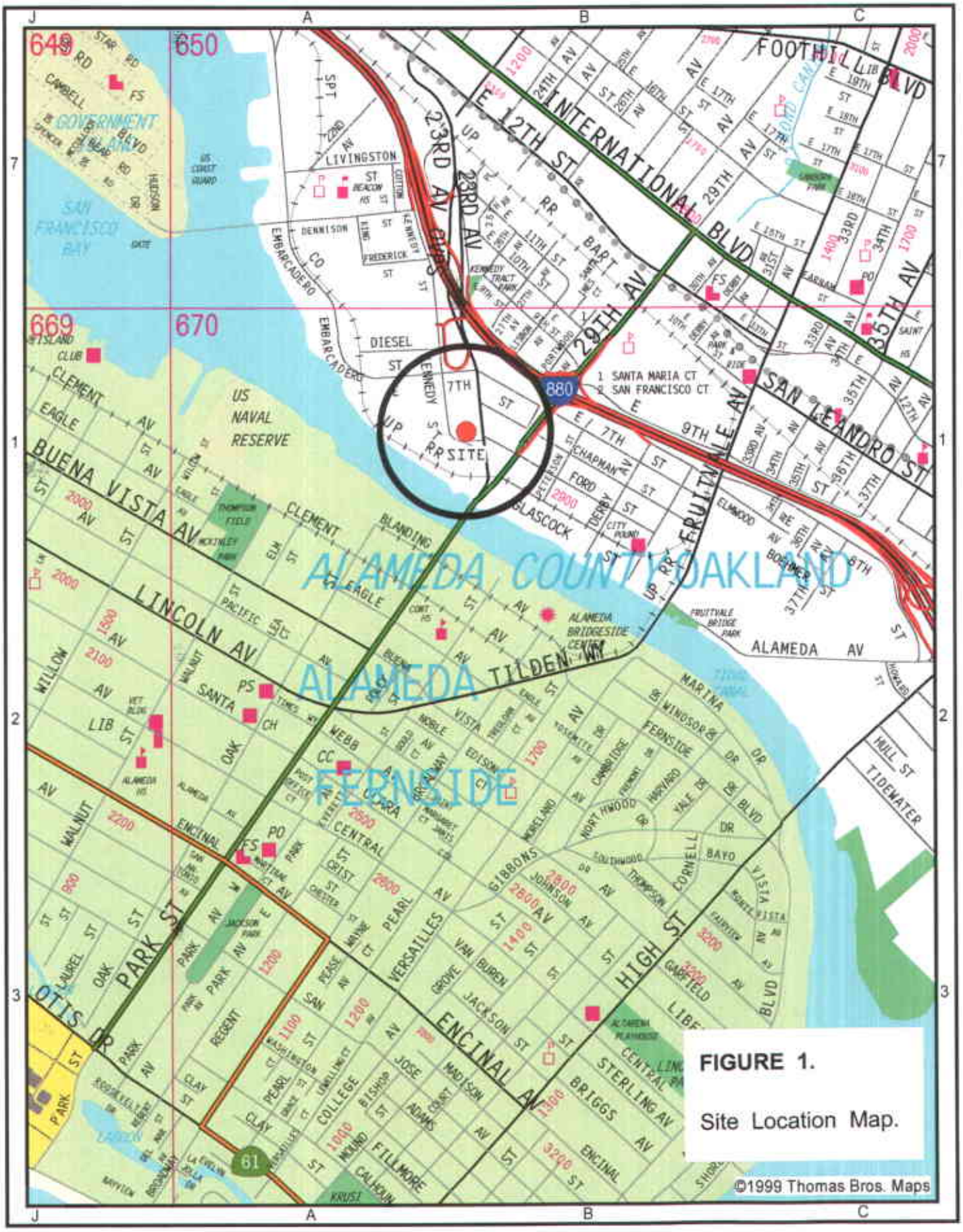


FIGURE 1.

Site Location Map.

II. FIELD WORK

Monitoring Well Sampling

The locations of the seven shallow groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7 are shown in Figure 2. On June 4, 2002, all seven monitoring wells were sampled. Prior to sampling, several casing volumes were removed from each well. Field conductivity, temperature, and pH meters were present on-site during the monitoring well sampling. As the purging process proceeded, the three parameters were monitored. Purging continued until readings appeared to had reasonably stabilized. Groundwater samples were subsequently collected using a decontaminated sample collection bailer. The water samples were placed inside appropriate 40 ml VOA vials free of any headspace and 1-liter amber bottles. The samples were immediately placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the work day.

At the time each monitoring well was sampled, the following information was recorded in the field: 1) depth-to-water prior to purging, using an electrical well sounding tape, 2) identification of any floating product, sheen, or odor prior to purging, using a clear Teflon bailer, 3) sample pH, 4) sample temperature, and 5) specific conductance of the sample.

Copies of the well sampling logs are provided in Attachment A.

III. RESULTS OF WATER LEVEL MEASUREMENTS

Shallow Groundwater Flow Direction

The shallow water table elevations were measured on June 4, 2002. These measurements are shown in Table 1. Figure 3 presents a contour map for the shallow groundwater table beneath the site. Based upon the recent water level data, the shallow groundwater beneath the site appears to flow in a southwesterly direction.

Shallow Groundwater Table Hydraulic Gradient

As shown in Figure 3, for this most recent round of groundwater monitoring, the shallow groundwater table beneath the site appears to have a calculated hydraulic gradient of dH/dL = 0.4'/150'= 0.0027 ft/ft.

Historical Water Level Measurements

Table 2 presents the results of all water level measurements collected between November 11, 1999, and the present time.

TABLE 1.

Shallow Water Table Elevations
June 4, 2002

Well	Top of Casing Elevation (feet)	Depth to Water (feet)	Product Thickness (inch)	Elevation Adjustment (feet)	Water Table Elevation (feet)
MW-1	9.47	7.79	0	0.00	1.68
MW-2	8.72	7.29	0	0.00	1.43
MW-3	9.00	7.62	0	0.00	1.38
MW-4	9.30	7.84	0	0.00	1.46
MW-5	10.19	9.09	0	0.00	1.10
MW-6	9.86	8.72	0	0.00	1.14
MW-7	8.60	7.27	0	0.00	1.33

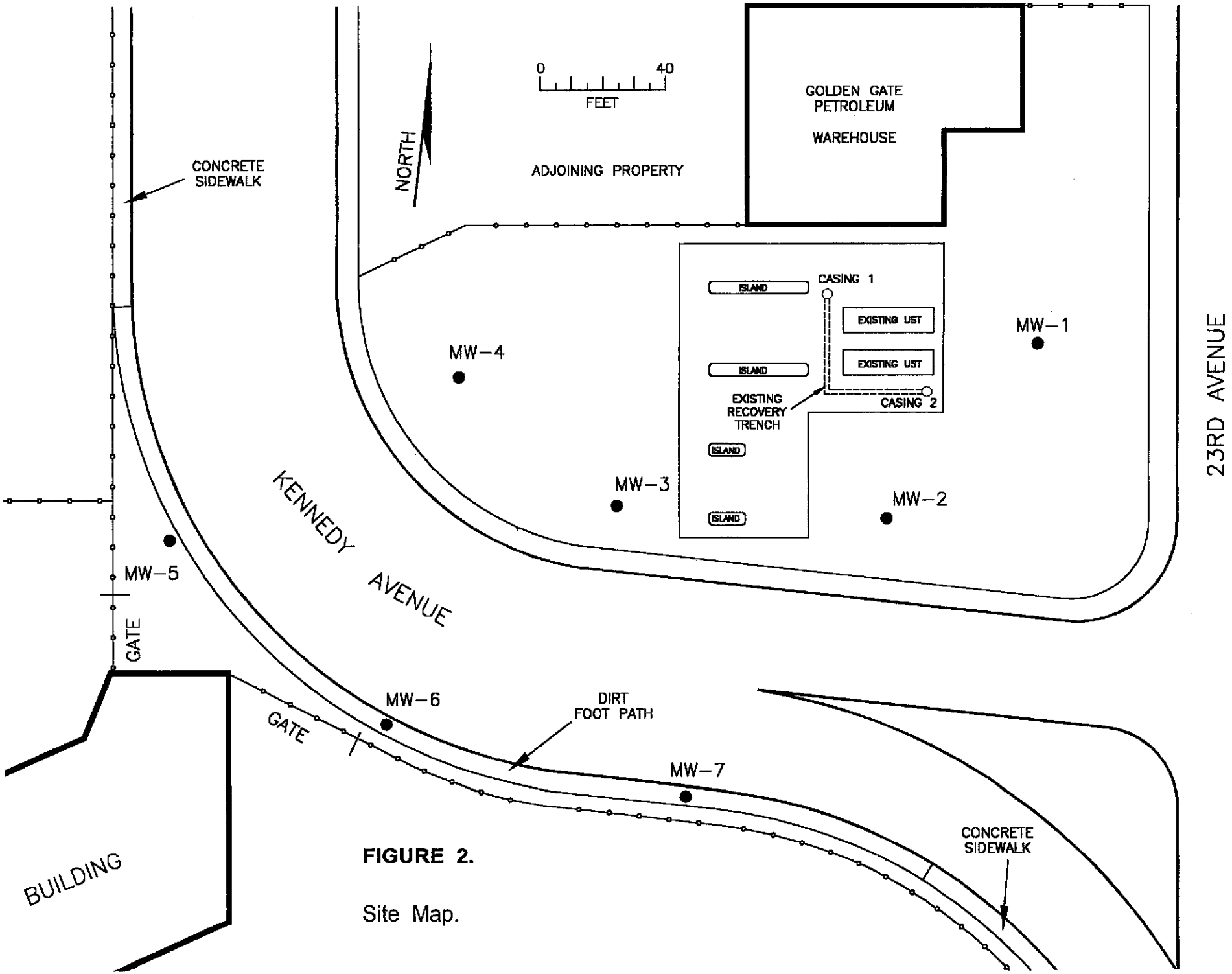


FIGURE 2.

Site Map.

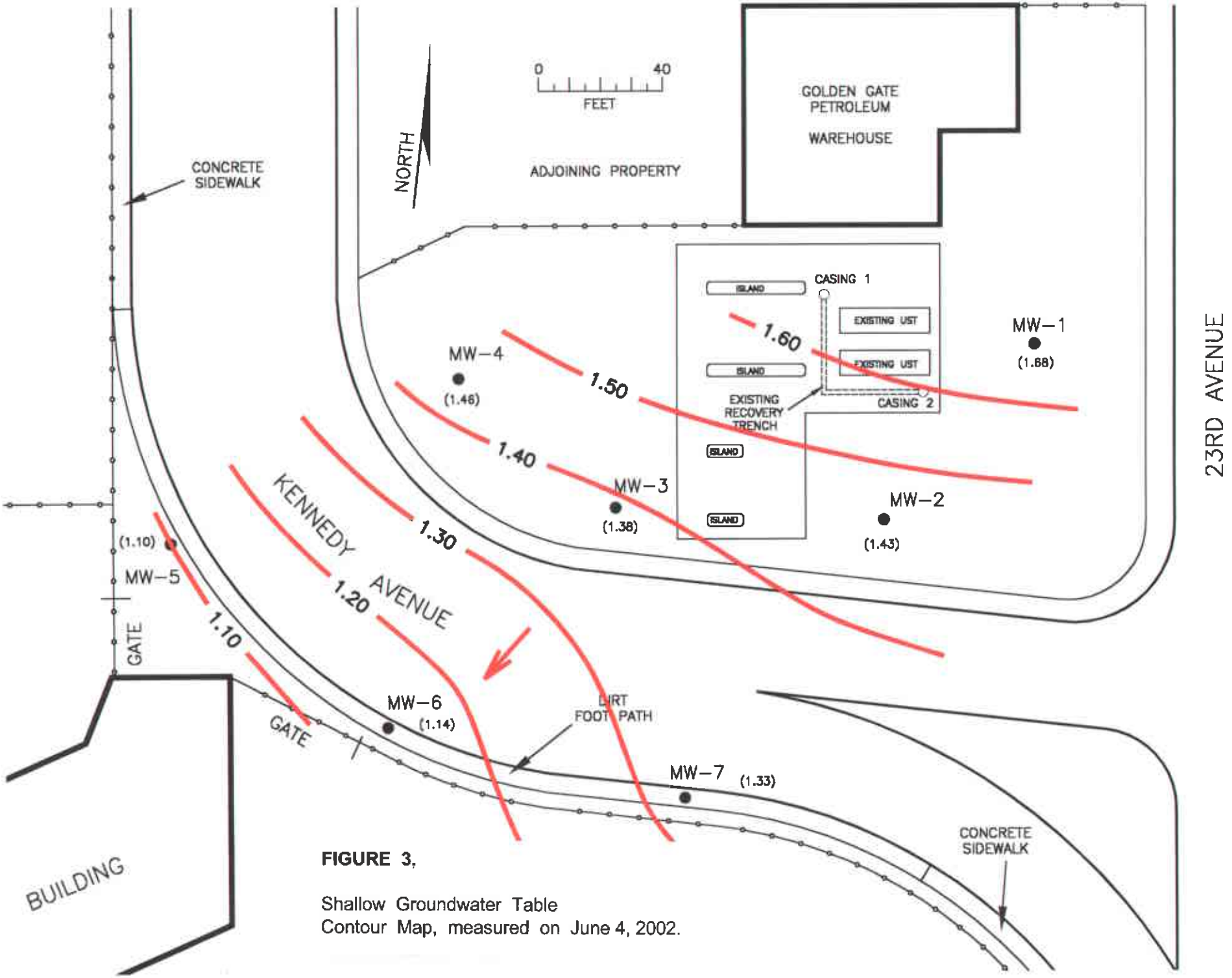


FIGURE 3.

Shallow Groundwater Table
Contour Map, measured on June 4, 2002.

TABLE 2.

Historical Water Table Elevations
(feet)

Well	Date of Measurement								
	11-11-99	03-28-00	08-07-00	10-18-00	01-29-01	06-04-02			
MW-1	1.20	1.45	1.17	1.16	1.55	1.68			
MW-2	0.97	1.22	0.94	0.91	1.33	1.43			
MW-3	0.91	1.08	0.78	0.80	1.22	1.38			
MW-4	0.86	0.97	0.70	0.76	1.10	1.46			
MW-5	- - -	- - -	0.52	0.51	0.83	1.10			
MW-6	- - -	- - -	0.52	0.53	0.91	1.14			
MW-7	- - -	- - -	0.68	0.67	1.12	1.33			
Hydraulic Gradient	0.0023	0.0026	0.002	0.0027	0.0026	0.0027			
Flow Direction	SW	SW	SW	SW	SW	SW			

IV. ANALYTICAL RESULTS

Laboratory Analysis

All groundwater sample analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures. The laboratory analyses were performed by North State Environmental Laboratory in South San Francisco, California.

All Groundwater samples were analyzed for:

1) Total Petroleum Hydrocarbons as Gasoline (method SW8020F).

2) Benzene, Toluene, Ethylbenzene, Total Xylenes and MTBE (method SW8020F).

3) Total Extractable Petroleum Hydrocarbons as Diesel (method CATFH).

Analytical Results: Groundwater

Table 3 presents the results of the laboratory analysis for groundwater samples collected from monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, MW-6 and MW-7. Copies of the laboratory reports for the water sample analyses are provided in Attachment B.

As shown in Table 3, Gasoline was detected in the groundwater samples collected from monitoring wells MW-2, MW-3 and MW-4 at concentrations of 59 µg/L (ppb), 56 µg/L (ppb) and 89 µg/L (ppb), respectively.

As shown in Table 3, MTBE was detected in all of the shallow groundwater samples. MTBE concentrations ranged between 2,710 µg/L (ppb) for on-site well MW-3 and 1.1 µg/L (ppb) for off-site well MW-7.

As shown in Table 3, no detectable concentrations of either Benzene or Diesel were found in any of the shallow groundwater samples.

TABLE 3.

Shallow Groundwater Sampling Results

Well	Date	TPH as Diesel (µg/L)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE Methyl-t-butyl ether (µg/L)
MW-1	11-Nov-99	ND	ND	ND	ND	ND	ND	ND < 5
	28-Mar-00	ND	ND	ND	ND	ND	ND	ND < 5
	07-Aug-00	ND	ND	ND	ND	ND	ND	ND < 5
	18-Oct-00	ND	ND	ND	ND	ND	ND	ND < 5
	29-Jan-01	ND	ND	ND	ND	ND	ND	ND < 5
	04-Jun-02	ND	**51**	ND	ND	ND	ND < 1	**1.6**
MW-2	11-Nov-99	**220**	**6,800**	ND < 50	ND < 50	ND < 50	ND < 50	**13,000**
	28-Mar-00	**1,800**	**2,500**	ND < 25	ND < 25	ND < 25	ND < 25	**1,800**
	07-Aug-00	**620**	**4,500**	ND < 25	ND < 25	ND < 25	ND < 25	**6,300**
	18-Oct-00	**510**	**2,300**	ND < 5	ND < 5	ND < 5	ND < 5	**8,300**
	29-Jan-01	**750**	**1,100**	**11**	ND	ND	ND	**4,300**
	04-Jun-02	ND	**59**	ND	ND	ND	ND < 1	**582**
MW-3	11-Nov-99	ND	**1,600**	ND < 25	ND < 25	ND < 25	ND < 25	**2,500**
	28-Mar-00	ND	**280**	ND < 2.5	ND < 2.5	ND < 2.5	ND < 2.5	**610**
	07-Aug-00	ND	**1,100**	ND < 5	ND < 5	ND < 5	ND < 5	**1,500**
	18-Oct-00	**58**	**900**	ND < 5	ND < 5	ND < 5	ND < 5	**2,000**
	29-Jan-01	ND	**700**	**2**	ND	ND	ND	**920**
	04-Jun-02	ND	**56**	ND	**0.5**	**0.8**	**3.2**	**2,710**
MW-4	11-Nov-99	ND	**650**	ND < 10	ND < 10	ND < 10	ND < 10	**540**
	28-Mar-00	ND	**430**	ND < 2.5	ND < 2.5	ND < 2.5	ND < 2.5	**800**
	07-Aug-00	ND	**600**	ND < 5	ND < 5	ND < 5	ND < 5	**500**
	18-Oct-00	ND	**260**	ND < 2.5	ND < 2.5	ND < 2.5	ND < 2.5	**410**
	29-Jan-01	ND < 56	**160**	**1.7**	ND	ND	ND	**230**
	04-Jun-02	ND	**89**	ND	ND	**1.1**	**6.3**	**35**
Detection Limit		50	50	0.5	0.5	0.5	0.5	0.5

ND= not detected

TABLE 3. (continued)

Shallow Groundwater Sampling Results

Well	Date	TPH as Diesel (µg/L)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE Methyl-t-butyl ether (µg/L)
MW-5	07-Aug-00	ND	**110**	ND	ND	ND	ND	**470**
	18-Oct-00	**83**	**150**	ND	ND	ND	ND	**420**
	29-Jan-01	**86**	**190**	**1.9**	ND	ND	ND	**290**
	04-Jun-02	ND	ND	ND	ND	ND	ND < 1	**108**
MW-6	07-Aug-00	ND	**460**	ND	ND	ND	ND	**1,900**
	18-Oct-00	**62**	**890**	**5.6**	ND < 2.5	ND < 2.5	**3.1**	**2,400**
	29-Jan-01	ND < 69	**780**	**4.2**	ND	ND	ND	**1,200**
	04-Jun-02	ND	ND	ND	ND	ND	**1.7**	**725**
MW-7	07-Aug-00	ND	ND	ND	ND	ND	ND	ND < 5
	18-Oct-00	ND	ND	ND	ND	ND	ND	ND < 5
	29-Jan-01	ND < 63	ND	ND	ND	ND	ND	ND < 5
	04-Jun-02	ND	ND	ND	ND	ND	**1.9**	**1.1**
CASING-1	11-Nov-99	ND	ND < 250	ND < 2.5	ND < 2.5	ND < 2.5	ND < 2.5	**350**
	29-Jan-01	**69**	ND < 500	ND < 5	ND < 5	ND < 5	ND < 5	**760**
	07-Aug-00	**140**	**54**	ND	ND	ND	ND	**30**
CASING-2	11-Nov-99	ND	**150**	ND < 1	ND < 1	ND < 1	ND < 1	**320**
	28-Mar-00	ND	**270**	ND < 2.5	ND < 2.5	ND < 2.5	ND < 2.5	**150**
	07-Aug-00	**110**	**82**	ND	ND	ND	ND	**190**
Detection Limit		50	50	0.5	0.5	0.5	0.5	0.5

ND= not detected

V. DATA ANALYSIS

Figures 4 and 5 show lines of equal concentration for Gasoline and MTBE, respectively, in the shallow groundwater.

As shown in Figure 4, very low dissolved Gasoline concentrations in the shallow groundwater appear to be generally centered around the existing underground tanks and pump islands. These concentrations in the shallow groundwater appear to coincide with residual concentrations of Gasoline that still remains in the soil within this area. Figure 4 clearly indicates no significant off-site migration of dissolved Gasoline in the shallow groundwater at the present time.

As shown in Figure 5, MTBE is present in the shallow groundwater at elevated concentrations, with the plume configuration corresponding closely with the measured southwesterly groundwater flow direction. Off-site migration of dissolved MTBE in the shallow groundwater is clearly indicated.

Based upon the analysis of the most recent groundwater sampling data, it can be concluded that Diesel, Gasoline and Benzene are no longer constituents-of-concern for this site.

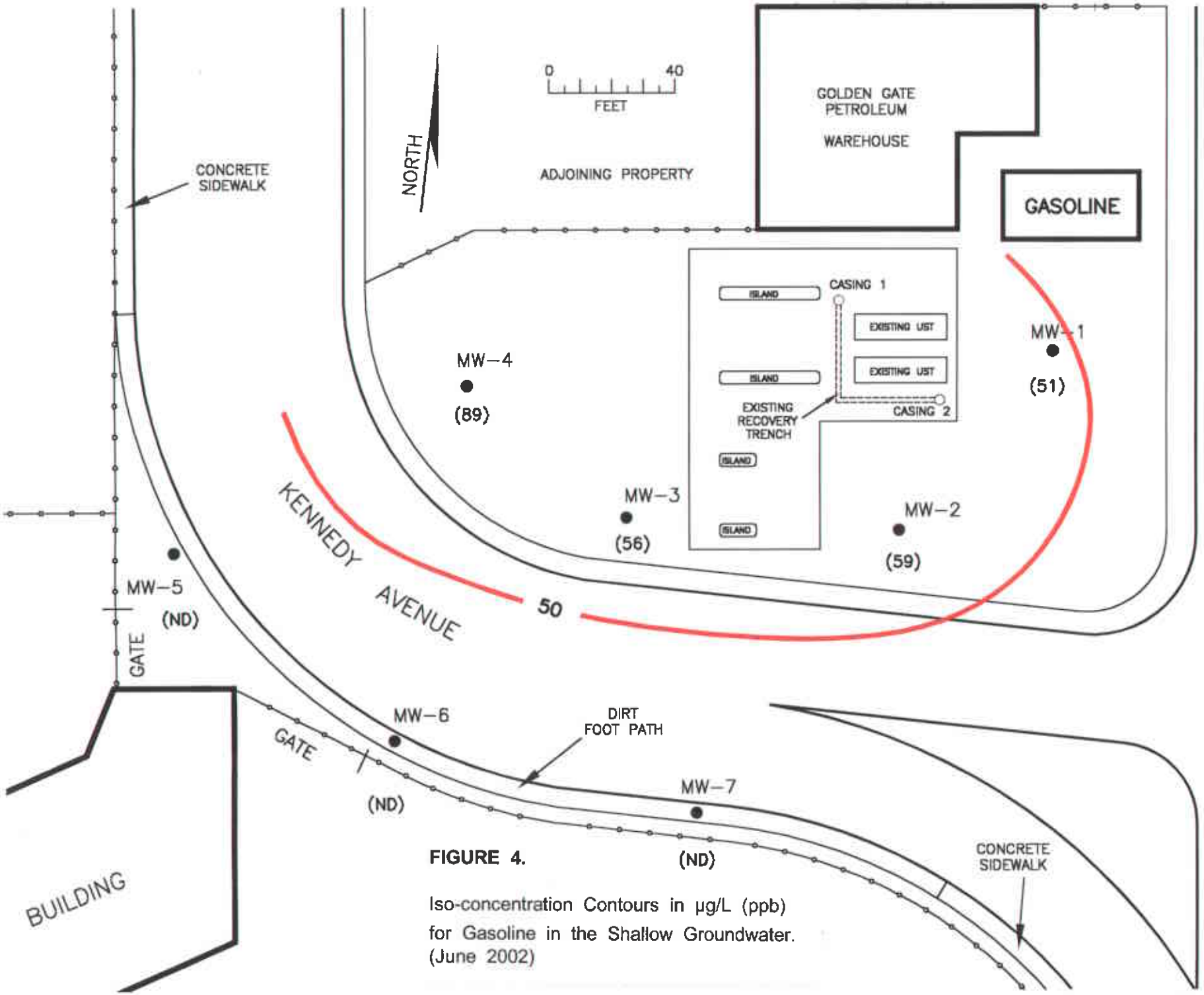


FIGURE 4.

Iso-concentration Contours in µg/L (ppb) for Gasoline in the Shallow Groundwater. (June 2002)

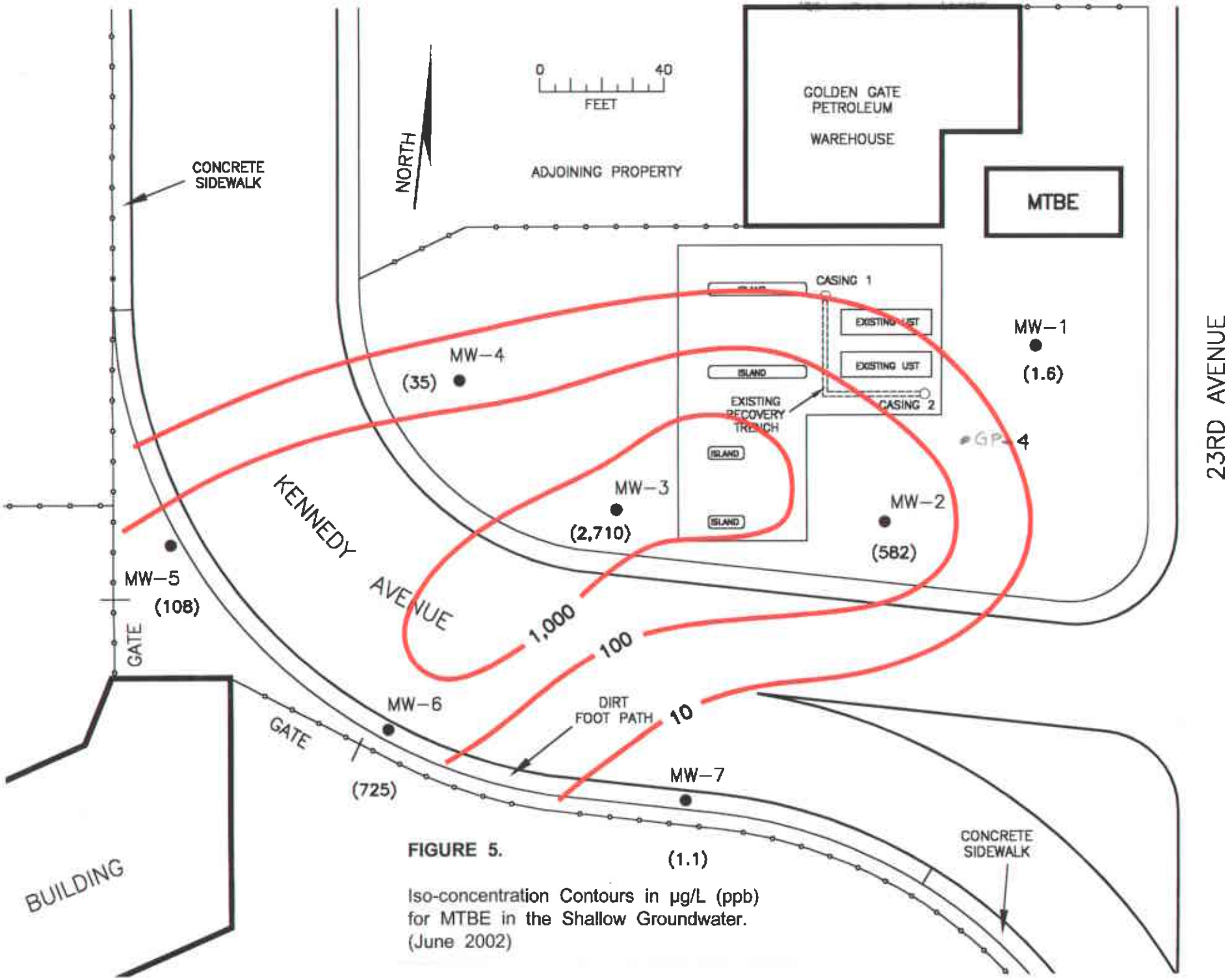


FIGURE 5.

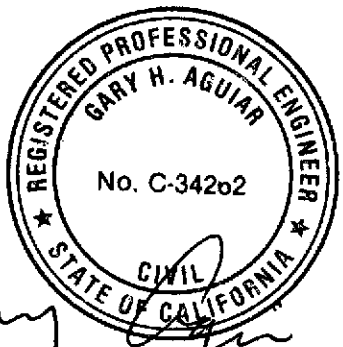
Iso-concentration Contours in µg/L (ppb) for MTBE in the Shallow Groundwater. (June 2002)

QUARTERLY GROUNDWATER MONITORING REPORT

GOLDEN GATE PETROLEUM

421 23rd Avenue, Oakland, California

July 9, 2002



EXP, 9-30-02

Gary Aguiar **RCE 34262**

ATTACHMENT A

Well Sampling Logs

HYDRO ANALYSIS, Inc.

WELL MONITORING DATA SHEET

Project: Golden Gate Petroleum - 23rd Ave. **Date:** 06/04/2002

WELL #	DEPTH TO WATER	PRODUCT	WELL DEPTH	PRODUCT REMOVED	WATER REMOVED	COMMENTS
MW-1	7.79	none	18.80	--	6 gal	
MW-2	7.29	none	19.84	--	21 gal	
MW-3	7.62	none	20.13	--	18 gal	
MW-4	7.84	none	18.99	--	6 gal	
MW-5	9.09	none	19.60	--	6 gal	
MW-6	8.72	none	19.65	--	6 gal	
MW-7	7.27	none	19.52	--	6 gal	

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd
Well Number: MW-5
Weather: Sunny, 65°-75°
Sampling Personnel: R Wilson

Page: 1 of 7
Date: 06/04/2002
Time Began: 10:47
Completed: 10:59

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP	19.33' + 0.27'	Sample Collected	
- Depth to Water Below MP	9.09'	Volatile Organics (VOA's)	3
= Water Column in Well	10.51'	1 Liter Amber Glass	2
x Casing Diameter Multiplier	0.169 (2")	Polyethylene (plastic)	
= Gallons in Casing	1.78	Other	
Gallons Pumped Prior to Sampling	6	Samples Filtered	NO

Evacuation Method:		Sample Method:	
PVC Bailer	X	Evacuation Bailer	X
Acrilyc Bailer		Disposable Bailer	
Pump		Pump	
Other		Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: (thickness to 0.01 foot, if any) None, Clear

Time	10:50	10:53	10:56	10:59	
Gals Removed	1.5	3	4.5	6	
Temperature	19.4	19.2	19.1	19.1	
Conductivity	865	868	874	887	
pH	6.69	6.77	6.73	6.78	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	med	med	high	high	
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd
Well Number: MW-6
Weather: Sunny, 65°-75°
Sampling Personnel: B Wilson

Page: 2 of 7
Date: 06/04/2002
Time Began: 11:32
Completed: 11:44

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP	19.38' ± 0.27'	Sample Collected	
- Depth to Water Below MP	8.72'	Volatile Organics (VOA's)	3
= Water Column in Well	10.93'	1 Liter Amber Glass	2
x Casing Diameter Multiplier	0.169 (2")	Polyethylene (plastic)	
= Gallons in Casing	1.85	Other	
Gallons Pumped Prior to Sampling	6	Samples Filtered	NO

Evacuation Method:		Sample Method:	
PVC Bailer	X	Evacuation Bailer	X
Acrillyc Bailer		Disposable Bailer	
Pump		Pump	
Other		Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: None, Clear
(thickness to 0.01 foot, if any)

Time	11:35	11:38	11:41	11:44	
Gals Removed	1.5	3	4.5	6	
Temperature	18.6	18.5	18.4	18.4	
Conductivity	3.42×10^3	3.79×10^3	3.89×10^3	3.98×10^3	
pH	6.90	6.92	6.94	6.94	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	high	high	high	high	
Other					

Comments:

WELL SAMPLING LOG

Site Location G.G.P. - 23rd

Well Number MW-7

Weather Sunny, 70°-80°

Sampling Personnel R Wilson

Page 3 of 7

Date 06/04/2002

Time Began 12:10

Completed 12:25

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP: 19.25' + 0.27'

- Depth to Water Below MP: 7.27'

= Water Column in Well: 12.25'

x Casing Diameter Multiplier: 0.169

= Gallons in Casing: 2.07

Gallons Pumped Prior to Sampling: 8

Evacuation Method:
- PVC Bailer: X
- Acrillyc Bailer:
- Pump:
- Other:

Sample Collected
- Volatile Organics (VOA's): 3
- 1 Liter Amber Glass: 2
- Polyethylene (plastic):
- Other:
- Samples Filtered: NO

Sample Method:
- Evacuation Bailer: X
- Disposable Bailer:
- Pump:
- Direct:

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: (thickness to 0.01 foot, if any) None, Clear

Time	12:13	12:17	12:21	12:25	
Gals Removed	2	4	6	8	
Temperature	19.4	19.0	18.9	18.9	
Conductivity	7.15×10^3	6.72×10^3	6.85×10^3	7.29×10^3	
pH	7.08	7.11	7.14	7.17	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	low	med	med	med	
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd
Well Number: MW-1
Weather: Sunny, 70°-80°
Sampling Personnel: R Wilson

Page: 4 of 7
Date: 06/04/2002
Time Began: 14:02
Completed: 14:14

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP: 18.53' + 0.27'
- Depth to Water Below MP: 7.79'
= Water Column in Well: 11.01'
x Casing Diameter Multiplier: 0.169 2"
= Gallons in Casing: 1.86
Gallons Pumped Prior to Sampling: 6

Sample Collected
- Volatile Organics (VOA's): 3
- 1 Liter Amber Glass: 2
- Polyethylene (plastic):
- Other:
- Samples Filtered: NO

Evacuation Method:
- PVC Bailer: X
- Acrillyc Bailer:
- Pump:
- Other:

Sample Method:
- Evacuation Bailer: X
- Disposable Bailer:
- Pump:
- Direct:

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: (thickness to 0.01 foot, if any) None, clear

Time	14:05	14:08	14:11	14:14	
Gals Removed	1.5	3	4.5	6	
Temperature	21.9	21.2	21.0	21.2	
Conductivity	1130	1016	996	994	
pH	7.23	7.35	7.40	7.34	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	high	high	high	high	
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P-23rd
Well Number: MW-4
Weather: Sunny, 70°-80°
Sampling Personnel: R Wilson

Page: 5 of 7
Date: 06/04/2002
Time Began: 14:42
Completed: 14:54

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP	18.72' ±0.27'
- Depth to Water Below MP	7.84'
= Water Column in Well	11.15'
x Casing Diameter Multiplier	0.169
= Gallons in Casing	1.88
Gallons Pumped Prior to Sampling	6

Sample Collected

Volatile Organics (VOA's)	3
1 Liter Amber Glass	2
Polyethylene (plastic)	
Other	
Samples Filtered	NO

Evacuation Method:

PVC Bailer	x
Acrillyc Bailer	
Pump	
Other	

Sample Method:

Evacuation Bailer	x
Disposable Bailer	
Pump	
Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: None, clear
(thickness to 0.01 foot, if any)

Time	14:45	14:48	14:51	14:54	
Gals Removed	1.5	3	4.5	6	
Temperature	21.5	21.4	21.3	21.4	
Conductivity	748	750	743	752	
pH	6.84	6.82	6.82	6.84	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	med	high	high	high	
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd
Well Number: MW-3
Weather: Sunny, 70°-80°
Sampling Personnel: R Wilson

Page: 6 of 7
Date: 06/04/2002
Time Began: 15:15
Completed: 15:34

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP	19.86' + 0.27'	
- Depth to Water Below MP	7.62'	
= Water Column in Well	12.51'	
x Casing Diameter Multiplier	0.653	4"
= Gallons in Casing	8.17	
Gallons Pumped Prior to Sampling	18	

Sample Collected

Volatile Organics (VOA's)	3
1 Liter Amber Glass	2
Polyethylene (plastic)	
Other	
Samples Filtered	NO

Evacuation Method:

PVC Bailer	X
Acrillyc Bailer	
Pump	
Other	

Sample Method:

Evacuation Bailer	X
Disposable Bailer	
Pump	
Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: (thickness to 0.01 foot, if any) None, clear

				Sample	
Time	15:19	15:22	15:24	15:34	
Gals Removed	7	14	18	18	
Temperature	21.0	20.8	20.7	21.0	
Conductivity	1116	1103	1111	1091	
pH	7.03	7.21	7.27	7.46	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	low	med	high	low	
Other			dewatered		

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. – 23rd

Well Number: MW-2

Weather: Sunny, 70°-80°

Sampling Personnel: B Wilson

Page: 7 of 7

Date: 06/04/2002

Time Began: 15:54

Completed: 16:14

EVACUATION DATA

Description of Measuring Point (MP): T.O.C.

Total Sounded Depth of Well Below MP: 19.57' ± 0.27'

- Depth to Water Below MP: 7.29'

= Water Column in Well: 12.55'

x Casing Diameter Multiplier: 0.653 (4")

= Gallons in Casing: 8.20

Gallons Pumped Prior to Sampling: 21

Sample Collected

Volatile Organics (VOA's)	3
1 Liter Amber Glass	2
Polyethylene (plastic)	
Other	
Samples Filtered	NO

Evacuation Method:

PVC Bailer	X
Acrillyc Bailer	
Pump	
Other	

Sample Method:

Evacuation Bailer	X
Disposable Bailer	
Pump	
Direct	

SAMPLING DATA / FIELD PARAMETERS

Inspection for Free Product: None, clear
(thickness to 0.01 foot, if any)

				Sample	
Time	15:58	16:01	16:04	16:14	
Gals Removed	7	14	21	21	
Temperature	20.9	20.5	20.4	21.5	
Conductivity	1128	1196	1209	917	
pH	7.22	7.29	7.34	7.10	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	low	low	med	low	
Other			dewatered		

Comments:

ATTACHMENT B

Analytical Results

North State Environmental Laboratory
CA ELAP # 1753
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • **(650) 266-4563** • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0752
Client: Hydro Analysis, Inc.
Project: G.G.P.-23RD 421 23RD AVENUE OAKLAND

Date Reported: 06/17/2002

Diesel Range Hydrocarbons by Method CATFH
Gasoline, BTEX and MTBE by Methods SW8020F

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 02-0752-01 Client ID: MW-1				06/04/2002	W
Benzene	SW8020F	ND<0.5	UG/L		06/12/2002
Ethylbenzene	SW8020F	ND<0.5	UG/L		06/12/2002
Gasoline Range Organics	SW8020F	51	UG/L		06/12/2002
Methyl-tert-butyl ether	SW8020F	1.6	UG/L		06/12/2002
Toluene	SW8020F	ND<0.5	UG/L		06/12/2002
Xylenes	SW8020F	ND<1.0	UG/L		06/12/2002
Diesel Fuel #2	CATFH	ND<0.05	MG/L		06/13/2002
Sample: 02-0752-02 Client ID: MW-2				06/04/2002	W
Benzene	SW8020F	ND<0.5	UG/L		06/12/2002
Ethylbenzene	SW8020F	ND<0.5	UG/L		06/12/2002
Gasoline Range Organics	SW8020F	59	UG/L		06/12/2002
Methyl-tert-butyl ether	SW8020F	582	UG/L		06/12/2002
Toluene	SW8020F	ND<0.5	UG/L		06/12/2002
Xylenes	SW8020F	ND<1.0	UG/L		06/12/2002
Diesel Fuel #2	CATFH	ND<0.05	MG/L		06/13/2002
Sample: 02-0752-03 Client ID: MW-3				06/04/2002	W
Benzene	SW8020F	ND<0.5	UG/L		06/12/2002
Ethylbenzene	SW8020F	0.8	UG/L		06/12/2002
Gasoline Range Organics	SW8020F	56	UG/L		06/12/2002
Methyl-tert-butyl ether	SW8020F	[redacted]	[redacted]		06/12/2002
Toluene	SW8020F	0.5	UG/L		06/12/2002

[redacted] Confirmed by GC/MS.

North State Environmental Laboratory
CA ELAP # 1753
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • **(650) 266-4563** • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0752
Client: Hydro Analysis, Inc.
Project: G.G.P.-23RD 421 23RD AVENUE OAKLAND

Date Reported: 06/17/2002

Diesel Range Hydrocarbons by Method CATFH
Gasoline, BTEX and MTBE by Methods SW8020F

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 02-0752-03 Client ID: MW-3				06/04/2002	W
Xylenes	SW8020F	3.2	UG/L		06/12/2002
Diesel Fuel #2	CATFH	ND<0.05	MG/L		06/13/2002
Sample: 02-0752-04 Client ID: MW-4				06/04/2002	W
Benzene	SW8020F	ND<0.5	UG/L		06/12/2002
Ethylbenzene	SW8020F	1.1	UG/L		06/12/2002
Gasoline Range Organics	SW8020F	89	UG/L		06/12/2002
Methyl-tert-butyl ether	SW8020F	35	UG/L		06/12/2002
Toluene	SW8020F	ND<0.5	UG/L		06/12/2002
Xylenes	SW8020F	6.3	UG/L		06/12/2002
Diesel Fuel #2	CATFH	ND<0.05	MG/L		06/13/2002
Sample: 02-0752-05 Client ID: MW-5				06/04/2002	W
Benzene	SW8020F	ND<0.5	UG/L		06/12/2002
Ethylbenzene	SW8020F	ND<0.5	UG/L		06/12/2002
Gasoline Range Organics	SW8020F	ND<50	UG/L		06/12/2002
Methyl-tert-butyl ether	SW8020F	108	UG/L		06/12/2002
Toluene	SW8020F	ND<0.5	UG/L		06/12/2002
Xylenes	SW8020F	ND<1.0	UG/L		06/12/2002
Diesel Fuel #2	CATFH	ND<0.05	MG/L		06/13/2002

*Confirmed by GC/MS.

C E R T I F I C A T E O F A N A L Y S I S

Lab Number: 02-0752
Client: Hydro Analysis, Inc.
Project: G.G.P.-23RD 421 23RD AVENUE OAKLAND

Date Reported: 06/17/2002

Diesel Range Hydrocarbons by Method CATFH
Gasoline,BTEX and MTBE by Methods SW8020F

Analyte	Method	Result	Unit	Date Sampled	Date Analyzed
Sample: 02-0752-06 Client ID: MW-6				06/04/2002	W
Benzene	SW8020F	ND<0.5	UG/L		06/12/2002
Ethylbenzene	SW8020F	ND<0.5	UG/L		06/12/2002
Gasoline Range Organics	SW8020F	ND<50	UG/L		06/12/2002
Methyl-tert-butyl ether	SW8020F	725	UG/L		06/12/2002
Toluene	SW8020F	ND<0.5	UG/L		06/12/2002
Xylenes	SW8020F	1.7	UG/L		06/12/2002
Diesel Fuel #2	CATFH	ND<0.05	MG/L		06/13/2002
Sample: 02-0752-07 Client ID: MW-7				06/04/2002	W
Benzene	SW8020F	ND<0.5	UG/L		06/12/2002
Ethylbenzene	SW8020F	ND<0.5	UG/L		06/12/2002
Gasoline Range Organics	SW8020F	ND<50	UG/L		06/12/2002
Methyl-tert-butyl ether	SW8020F	1.1	UG/L		06/12/2002
Toluene	SW8020F	ND<0.5	UG/L		06/12/2002
Xylenes	SW8020F	1.9	UG/L		06/12/2002
Diesel Fuel #2	CATFH	ND<0.05	MG/L		06/13/2002

*Confirmed by GC/MS.

North State Environmental Laboratory
CA ELAP # 1753
90 South Spruce Avenue, Suite V • South San Francisco, CA 94080 • **(650) 266-4563** • FAX (650) 266-4560

C E R T I F I C A T E O F A N A L Y S I S

Quality Control/Quality Assurance

Lab Number: 02-0752
Client: Hydro Analysis, Inc.
Project: G.G.P.-23RD 421 23RD AVENUE OAKLAND

Date Reported: 06/17/2002
Diesel Range Hydrocarbons by Method CATFH
Gasoline,BTEX and MTBE by Methods SW8020F

Analyte	Method	Reporting Limit	Unit	Blank	Avg MS/MSD Recovery	RPD
Diesel Fuel #2	CATFH	0.05	MG/L	ND	88/85	3
Gasoline Range	SW8020F	50	UG/L	ND	87/89	2
Benzene	SW8020F	0.5	UG/L	ND	88/90	2
Toluene	SW8020F	0.5	UG/L	ND	92/95	3
Ethylbenzene	SW8020F	0.5	UG/L	ND	93/95	2
Xylenes	SW8020F	1.0	UG/L	ND	95/97	2
Methyl-tert-butyl	SW8020F	0.5	UG/L	ND	95/100	5

ELAP Certificate NO:1753
Reviewed and Approved

John A.Murphy,Laboratory Director

Laboratory Report Project Overview

EDF 1.2a

Laboratory:	North State Environmental, South San Francisco, CA
Lab Report Number:	02-0752
Project Name:	G.G.P.-23RD 421 23RD AVE
Work Order Number:	02-0752
Control Sheet Number:	NA

Case Narrative

North State Environmental, South San Francisco, CA

Report Date: 06/17/2002	Project: G.G.P.-23RD 421 23RD AVE
Report Number: 02-0752	Order #: 02-0752

Seven water samples were analyzed for Diesel range hydrocarbons, Gasoline range hydrocarbons, BTEX and MTBE. The MTBE identification was confirmed by GC/MS method 8260B. No errors were found during analysis.

Approved by: _____ Date: 6/17/02

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run Sub
02-0752	MW-1	02-0752-01	W	CS	CATFH	SW3510	06/04/2002	06/12/2002	06/13/2002	06122TPHDW	1
02-0752	MW-1	02-0752-01	W	CS	SW8020F	SW5030B	06/04/2002	06/12/2002	06/12/2002	06132MGBXW	1
02-0752	MW-2	02-0752-02	W	CS	CATFH	SW3510	06/04/2002	06/12/2002	06/13/2002	06122TPHDW	1
02-0752	MW-2	02-0752-02	W	CS	SW8020F	SW5030B	06/04/2002	06/12/2002	06/12/2002	06132MGBXW	1
02-0752	MW-3	02-0752-03	W	CS	CATFH	SW3510	06/04/2002	06/12/2002	06/13/2002	06122TPHDW	1
02-0752	MW-3	02-0752-03	W	CS	SW8020F	SW5030B	06/04/2002	06/12/2002	06/12/2002	06132MGBXW	1
02-0752	MW-4	02-0752-04	W	CS	CATFH	SW3510	06/04/2002	06/12/2002	06/13/2002	06122TPHDW	1
02-0752	MW-4	02-0752-04	W	CS	SW8020F	SW5030B	06/04/2002	06/12/2002	06/12/2002	06132MGBXW	1
02-0752	MW-5	02-0752-05	W	CS	CATFH	SW3510	06/04/2002	06/12/2002	06/13/2002	06122TPHDW	1
02-0752	MW-5	02-0752-05	W	CS	SW8020F	SW5030B	06/04/2002	06/12/2002	06/12/2002	06132MGBXW	1
02-0752	MW-6	02-0752-06	W	CS	CATFH	SW3510	06/04/2002	06/12/2002	06/13/2002	06122TPHDW	1
02-0752	MW-6	02-0752-06	W	CS	SW8020F	SW5030B	06/04/2002	06/12/2002	06/12/2002	06132MGBXW	1
02-0752	MW-7	02-0752-07	W	CS	CATFH	SW3510	06/04/2002	06/12/2002	06/13/2002	06122TPHDW	1
02-0752	MW-7	02-0752-07	W	CS	SW8020F	SW5030B	06/04/2002	06/12/2002	06/12/2002	06132MGBXW	1
		02-0768-08	W	NC	SW8020F	SW5030B	/ /	06/13/2002	06/13/2002	06132MGBXW	1
		LCSD	W	BD1	CATFH	SW3510	/ /	06/12/2002	06/13/2002	06122TPHDW	1
		LCS	W	BS1	CATFH	SW3510	/ /	06/12/2002	06/13/2002	06122TPHDW	1
		BLK	W	LB1	SW8020F	SW5030B	/ /	06/13/2002	06/13/2002	06132MGBXW	1
		BLKW	W	LB1	CATFH	SW3510	/ /	06/12/2002	06/12/2002	06122TPHDW	1
		0768-08MS	W	MS1	SW8020F	SW5030B	/ /	06/13/200	06/13/200	06132MGBXW	1

Report Summary

Labreport	Sampid	Labsampid	Mtrx	QC	Anmcode	Exmcode	Logdate	Extdate	Anadate	Lablotctl	Run	Sub
								2	2			
		0768-08MSD	W	SD1	SW8020F	SW5030B	/ /	06/13/200	06/13/200	06132MGBXW	1	
								2	2			

North State Environmental, South San Francisco, CA

Lab Report No.: 02-0752 Date: 06/17/2002 Page: 1

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	CA LUFT Method for Total Fuel Hydrocarbons
Project No:	02-0752	Method:	CATFH
		Prep Meth:	SW3510

Field ID:	MW-1	Lab Samp ID:	02-0752-01
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1414	Analysis Date:	06/13/2002
Matrix:	Water	QC Batch:	06122TPHDW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.02	0.05	PQL		ND	MG/L	1

Approved by: _____ Date: _____

North State Environmental, South San Francisco, CA

Lab Report No.: 02-0752 Date: 06/17/2002 Page: 2

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	CA LUFT Method for Total Fuel Hydrocarbons
Project No:	02-0752	Method:	CATFH
		Prep Meth:	SW3510

Field ID:	MW-2	Lab Samp ID:	02-0752-02
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1641	Analysis Date:	06/13/2002
Matrix:	Water	QC Batch:	06122TPHDW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.02	0.05	PQL		ND	MG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	CA LUFT Method for Total Fuel Hydrocarbons
Project No:	02-0752	Method:	CATFH
		Prep Meth:	SW3510
Field ID:	MW-3	Lab Samp ID:	02-0752-03
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1534	Analysis Date:	06/13/2002
Matrix:	Water	QC Batch:	06122TPHDW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.02	0.05	PQL		ND	MG/L	1

Approved by: _____ Date: _____

North State Environmental, South San Francisco, CA

Lab Report No.: 02-0752 Date: 06/17/2002 Page: 4

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	CA LUFT Method for Total Fuel Hydrocarbons
Project No:	02-0752	Method:	CATFH
		Prep Meth:	SW3510

Field ID:	MW-4	Lab Samp ID:	02-0752-04
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1454	Analysis Date:	06/13/2002
Matrix:	Water	QC Batch:	06122TPHDW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.02	0.05	PQL		ND	MG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	CA LUFT Method for Total Fuel Hydrocarbons
Project No:	02-0752	Method:	CATFH
		Prep Meth:	SW3510

Field ID:	MW-5	Lab Samp ID:	02-0752-05
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1059	Analysis Date:	06/13/2002
Matrix:	Water	QC Batch:	06122TPHDW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.02	0.05	PQL		ND	MG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	CA LUFT Method for Total Fuel Hydrocarbons
Project No:	02-0752	Method:	CATFH
		Prep Meth:	SW3510

Field ID:	MW-6	Lab Samp ID:	02-0752-06
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1144	Analysis Date:	06/13/2002
Matrix:	Water	QC Batch:	06122TPHDW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.02	0.05	PQL		ND	MG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	CA LUFT Method for Total Fuel Hydrocarbons
Project No:	02-0752	Method:	CATFH
		Prep Meth:	SW3510

Field ID:	MW-7	Lab Samp ID:	02-0752-07
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1225	Analysis Date:	06/13/2002
Matrix:	Water	QC Batch:	06122TPHDW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.02	0.05	PQL		ND	MG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)
Project No:	02-0752	Method:	SW8020F
		Prep Meth:	SW5030B

Field ID:	MW-1	Lab Samp ID:	02-0752-01
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1414	Analysis Date:	06/12/2002
Matrix:	Water	QC Batch:	06132MGBXW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Gasoline Range Organics	27.	50.	PQL		51.	UG/L	1
Benzene	0.26	0.5	PQL		ND	UG/L	1
Toluene	0.48	0.5	PQL		ND	UG/L	1
Ethylbenzene	0.44	0.5	PQL		ND	UG/L	1
Xylenes	0.51	1.0	PQL		ND	UG/L	1
Methyl-tert-butyl ether (MTBE)	0.16	0.5	PQL		1.6	UG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)
Project No:	02-0752	Method:	SW8020F
		Prep Meth:	SW5030B

Field ID:	MW-2	Lab Samp ID:	02-0752-02
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1641	Analysis Date:	06/12/2002
Matrix:	Water	QC Batch:	06132MGBXW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Gasoline Range Organics	27.	50.	PQL		59.	UG/L	1
Benzene	0.26	0.5	PQL		ND	UG/L	1
Toluene	0.48	0.5	PQL		ND	UG/L	1
Ethylbenzene	0.44	0.5	PQL		ND	UG/L	1
Xylenes	0.51	1.0	PQL		ND	UG/L	1
Methyl-tert-butyl ether (MTBE)	0.16	0.5	PQL		582.	UG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)
Project No:	02-0752	Method:	SW8020F
		Prep Meth:	SW5030B

Field ID:	MW-3	Lab Samp ID:	02-0752-03
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1534	Analysis Date:	06/12/2002
Matrix:	Water	QC Batch:	06132MGBXW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Gasoline Range Organics	27.	50.	PQL		56.	UG/L	1
Benzene	0.26	0.5	PQL		ND	UG/L	1
Toluene	0.48	0.5	PQL		0.5	UG/L	1
Ethylbenzene	0.44	0.5	PQL		0.8	UG/L	1
Xylenes	0.51	1.0	PQL		3.2	UG/L	1
Methyl-tert-butyl ether (MTBE)	0.16	0.5	PQL	GI	2710.	UG/L	1

GI: Analyte confirmed by GC/MS

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)
Project No:	02-0752	Method:	SW8020F
		Prep Meth:	SW5030B

Field ID:	MW-4	Lab Samp ID:	02-0752-04
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1454	Analysis Date:	06/12/2002
Matrix:	Water	QC Batch:	06132MGBXW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Gasoline Range Organics	27.	50.	PQL		89.	UG/L	1
Benzene	0.26	0.5	PQL		ND	UG/L	1
Toluene	0.48	0.5	PQL		ND	UG/L	1
Ethylbenzene	0.44	0.5	PQL		1.1	UG/L	1
Xylenes	0.51	1.0	PQL		6.3	UG/L	1
Methyl-tert-butyl ether (MTBE)	0.16	0.5	PQL		35.	UG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)
Project No:	02-0752	Method:	SW8020F
		Prep Meth:	SW5030B

Field ID:	MW-5	Lab Samp ID:	02-0752-05
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1059	Analysis Date:	06/12/2002
Matrix:	Water	QC Batch:	06132MGBXW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Gasoline Range Organics	27.	50.	PQL		ND	UG/L	1
Benzene	0.26	0.5	PQL		ND	UG/L	1
Toluene	0.48	0.5	PQL		ND	UG/L	1
Ethylbenzene	0.44	0.5	PQL		ND	UG/L	1
Xylenes	0.51	1.0	PQL		ND	UG/L	1
Methyl-tert-butyl ether (MTBE)	0.16	0.5	PQL		108	UG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)
Project No:	02-0752	Method:	SW8020F
		Prep Meth:	SW5030B

Field ID:	MW-6	Lab Samp ID:	02-0752-06
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1144	Analysis Date:	06/12/2002
Matrix:	Water	QC Batch:	06132MGBXW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Gasoline Range Organics	27.	50.	PQL		ND	UG/L	1
Benzene	0.26	0.5	PQL		ND	UG/L	1
Toluene	0.48	0.5	PQL		ND	UG/L	1
Ethylbenzene	0.44	0.5	PQL		ND	UG/L	1
Xylenes	0.51	1.0	PQL		1.7	UG/L	1
Methyl-tert-butyl ether (MTBE)	0.16	0.5	PQL		725.	UG/L	1

Approved by: _____ Date: _____

Project Name:	G.G.P.-23RD 421 23RD	Analysis:	BTEX/Gasoline Range Organics (SW8020/8015)
Project No:	02-0752	Method:	SW8020F
		Prep Meth:	SW5030B

Field ID:	MW-7	Lab Samp ID:	02-0752-07
Descr/Location:	NA	Rec'd Date:	06/05/2002
Sample Date:	06/04/2002	Prep Date:	06/12/2002
Sample Time:	1225	Analysis Date:	06/12/2002
Matrix:	Water	QC Batch:	06132MGBXW
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Gasoline Range Organics	27.	50.	PQL		ND	UG/L	1
Benzene	0.26	0.5	PQL		ND	UG/L	1
Toluene	0.48	0.5	PQL		ND	UG/L	1
Ethylbenzene	0.44	0.5	PQL		ND	UG/L	1
Xylenes	0.51	1.0	PQL		1.9	UG/L	1
Methyl-tert-butyl ether (MTBE)	0.16	0.5	PQL		1.1	UG/L	1

Approved by: _____ Date: _____

QA/QC Report
Method Blank Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 02-0752 Date: 06/17/2002

QC Batch:	06122TPHDW	Analysis:	CA LUFT Method for Total Fuel
Matrix:	Water	Method:	CATFH
Lab Samp ID:	BLKW	Prep Meth:	SW3510
Analysis Date:	06/12/2002	Prep Date:	06/12/2002
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Diesel Fuel #2	0.02	0.05	PQL		ND	MG/L	1

QA/QC Report
Blank Spike/Duplicate Blank Spike Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 02-0752 Date: 06/17/2002

QC Batch: 06122TPHDW
Matrix: Water
Lab Samp ID: LCS

Analyte	Analysis Method	Spike Level LCS	Spike Level LCD	Spike Result LCS	Spike Result LCD	Units		% Recoveries LCS	% Recoveries LCD	% Recoveries RPD	Acceptance Criteria %Rec		Acceptance Criteria RPD
Diesel Fuel #2	CATFH	2.5	2.5	2.19	2.13	MG/L	ww	87.6	85.2	2.8	107-65	MSA	25MSP

QA/QC Report
Method Blank Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 02-0752 Date: 06/17/2002

QC Batch:	06132MGBXW	Analysis:	BTEX/Gasoline Range Organics
Matrix:	Water	Method:	SW8020F
Lab Samp ID:	BLK	Prep Meth:	SW5030B
Analysis Date:	06/13/2002	Prep Date:	06/13/2002
Basis:	Wet	Notes:	

Analyte	Det Limit	Rep Limit		Note	Result	Units	Pvc Dil
Gasoline Range Organics	27.	50.	PQL		ND	UG/L	1
Benzene	0.26	0.5	PQL		ND	UG/L	1
Toluene	0.48	0.5	PQL		ND	UG/L	1
Ethylbenzene	0.44	0.5	PQL		ND	UG/L	1
Xylenes	0.51	1.0	PQL		ND	UG/L	1
Methyl-tert-butyl ether (MTBE)	0.16	0.5	PQL		ND	UG/L	1

QA/QC Report
Matrix Spike/Duplicate Matrix Spike Summary

North State Environmental, South San Francisco, CA

Lab Report No.: 02-0752 Date: 06/17/2002

QC Batch: 06132MGBXW
Matrix: Water
Lab Samp ID: 0768-08MS
Basis: Wet

Project Name: Lab Generated or Non COE Sample
Project No.: Lab Generated or Non COE Sample
Field ID: Lab Generated or Non COE Sample
Lab Ref ID: 02-0768-08

Analyte	Analysis Method	Spike Level MS	Spike Level DMS	Sample Result	Spike Result MS	Spike Result DMS	Units		% Recoveries MS	% Recoveries DMS	% Recoveries RPD	Acceptance Criteria % Rec		Acceptance Criteria RPD
Benzene	SW8020F	100.0	100.0	ND	87.5	90.1	UG/L	ww	87.5	90.1	2.9	123-59	MSA	31 MSP
Ethylbenzene	SW8020F	100.0	100.0	ND	93.4	95.4	UG/L	ww	93.4	95.4	2.1	130-76	MSA	15 MSP
Gasoline Range Organics	SW8020F	1000.	1000.	ND	873.	893.	UG/L	ww	87.3	89.3	2.3	133-64	MSA	25 MSP
Methyl-tert-butyl ether (MTBE)	SW8020F	100.	100.	2.9	98.4	103.	UG/L	ww	95.5	100	4.6	121-59	MSA	28 MSP
Toluene	SW8020F	100.0	100.0	ND	91.9	94.6	UG/L	ww	91.9	94.6	2.9	119-75	MSA	11 MSP
Xylenes	SW8020F	300.0	300.0	ND	285.	291.	UG/L	ww	95.0	97.0	2.1	129-78	MSA	11 MSP

02-0752

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:

G.G.P. - 23rd
421 23rd Avenue
Oakland

SAMPLER: (Signature) Randal Wilson

HYDRO ANALYSIS, INC.
11100 San Pablo Ave., Suite 200-A
El Cerrito, CA 94530
(510)620-0891 (510)620-0894 (FAX)

ANALYSIS REQUESTED: TPH-Diesel; TPH-Gas, BTEX MTBE by 8020/8015

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	SAMPLE LOCATION	TPH-Diesel	TPH-Gas, BTEX MTBE by 8020/8015						REMARKS
MW-1	06/04/02	14:14		X	Monitor Well # MW-1	X	X	X					
MW-2	06/04/02	16:14		X	" " # MW-2	X	X	X					
MW-3	06/04/02	15:34		X	" " # MW-3	X	X	X					
MW-4	06/04/02	14:54		X	" " # MW-4	X	X	X					
MW-5	06/04/02	10:59		X	" " # MW-5	X	X	X					
MW-6	06/04/02	11:44		X	" " # MW-6	X	X	X					
MW-7	06/04/02	12:25		X	" " # MW-7	X	X	X					
													EDF Data Please
													Normal Turnaround Time

RELINQUISHED BY: (Signature) Randal Wilson	DATE 06/05/02 TIME 10:30	RECEIVED BY: (Signature) NS CADS	DATE 6-5-2002 TIME 10:45 (A)
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE TIME