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

February 9, 2001

Barney Chan
Alameda County Environmental Health Services
1131 Harbor Bay Parkway
Alameda, CA 94502-6577

Quarterly Groundwater Monitoring Report
Golden Gate Petroleum
421 23rd Avenue, Oakland, California
Fuel Leak Case No. 191

Dear Mr. Chan:

The enclosed report documents the following activities at the subject property:

- Measurement of water levels in 7 monitoring wells,
- Evaluation of the groundwater flow and magnitude, and
- Collection and analysis of groundwater samples from 7 monitoring wells.

If you have any questions, please call me at 510/620-0891.

Sincerely,

Hydro Analysis, Inc.

K. B. Alex

Kenneth B. Alexander, RG, CH
Principal Hydrogeologist

REGISTERED GEOLOGIST
KENNETH B. ALEXANDER
No. HG512
CERTIFIED HYDROGEOLOGIST
exp. 7/01
STATE OF CALIFORNIA

cc: Dennis O'Keefe/Golden Gate Petroleum, Concord, California

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

QUARTERLY GROUNDWATER MONITORING REPORT

(Sampled January 29, 2001)

GOLDEN GATE PETROLEUM

421 23rd Avenue
Oakland, California

February 9, 2001

Hydro Analysis, Inc. Project No. 0277

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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.

This report describes groundwater monitoring activities completed in January 2001 at 421 23rd Avenue, Oakland, CA. The work was performed at the request of Barney Chan, Alameda County Environmental Health Services (ACEHS). His December 6, 2000 request letter is included in Attachment A.

Background

The site has operated as a service station since 1976. In August 1998, five underground storage tanks (USTs) and associated piping were removed from the property. The USTs were used to store premium unleaded gasoline, regular unleaded gasoline, and diesel fuel. The USTs 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 (Figure 2). In July 2000, Hydro Analysis installed three offsite monitoring wells along the south side of Kennedy Street. Hydro Analysis has performed quarterly groundwater sampling since November 1999. Gasoline, MTBE, and diesel constituents have been detected in groundwater under and downgradient of the site.

II. FIELD WORK: GROUNDWATER SAMPLING

Monitoring Well Sampling

On January 29, 2001, Hydro Analysis, Inc. sampled the seven groundwater monitoring wells. The locations of the wells are shown in Figure 2. Prior to sampling, several casing volumes of water were removed from each well. Field conductivity, temperature, and pH were monitored during purging. Purging continued until these parameters stabilized. Groundwater samples were subsequently collected using new, disposable sampling bailers. The water samples were placed inside appropriate 40-ml VOA vials free of any headspace. The samples were immediately placed on crushed ice, then transported under chain-of-custody to the laboratory at the end of the workday.

The following information was recorded in the field at the sampling time: (1) depth-to-water prior to purging, (2) observation of any floating product, sheen, or odor prior to purging, (3) pH, (4) temperature, and (5) specific conductance. Copies of the well sampling logs are included in Attachment B.

Wastewater Generation

All water and other liquid waste removed from the wells during purging was drummed and stored onsite. The water and liquid waste is periodically picked up by a licensed waste hauler and transported under manifest to an appropriate recycling and disposal facility.

III. RESULTS OF WATER LEVEL MEASUREMENTS

Groundwater Flow Direction and Hydraulic Gradient

On January 29, 2001, Hydro Analysis, Inc. measured water levels in the seven monitoring wells (Table 1). Figure 3 presents a contour map for the groundwater beneath the site. As shown in Figure 3, the water level data indicate that groundwater flow in January 2001was toward the west-southwest direction (S57°W).

The calculated hydraulic gradient for January 2001 was approximately 0.0026 feet/feet (about 14 feet per mile).

Floating Product

Measurements of floating product were performed prior to water level measurements on January 29, 2001. No floating product was observed.

IV. ANALYTICAL RESULTS

Laboratory Analysis

All analyses were performed by Entech Analytical Labs, Inc., of Santa Clara, California, a California State Department of Health Services-certified laboratory. All samples were analyzed in accordance with U.S. EPA recommended procedures.

All groundwater samples were analyzed for:

- Total Petroleum Hydrocarbons as Gasoline (modified EPA Method 8015)
- Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA Method 8020)
- Methyl Tertiary Butyl Ether (MTBE) (EPA Method 8260B)
- Total Petroleum Hydrocarbons as Diesel (modified EPA Method 8015)

Analytical Results: Groundwater

Table 2 presents the analytical results for all groundwater samples collected at the site. Copies of the laboratory reports and chain-of-custody records for the January 29, 2001 sampling event are provided in Attachment C.

As shown in Table 2, gasoline was detected at a maximum concentration of 1,100 µg/L (ppb) in the groundwater sample from well MW-2. MTBE was detected at a maximum concentration of 4,300 µg/L in the groundwater sample from well MW-2. Diesel was detected at a maximum concentration of 750 µg/L in the groundwater sample from well MW-2.

V. DATA ANALYSIS AND RECOMMENDATIONS

The results of the January 2001 groundwater sampling revealed elevated concentrations of gasoline and MTBE in several monitoring wells, particularly MW-2, MW-3, and MW-6. Figures 4 and 5 show lines of equal concentration for gasoline and MTBE, respectively, using analytical data from the January 29, 2001 groundwater sampling event.

As shown on Figures 4 and 5, gasoline and MTBE plumes appear to have moved in the downgradient direction beneath Kennedy Street and the adjoining southern property. In well MW-6, located farthest downgradient, groundwater sampling revealed gasoline at a concentration of 780 µg/L and MTBE at a concentration of 1,200 µg/L. The relatively coarse-grained sand observed in the boring for well MW-6 may facilitate the movement of contaminated groundwater through an ancient stream channel deposit.

The results of our sensitive receptor survey conducted in October 2000 indicate that the only sensitive receptor downgradient of the site is the Tidal Channel of the Oakland Estuary. In our opinion, the risk of impacting the estuary is minimal. The results of our conduit study confirmed that the movement of contaminated groundwater is not influenced by any manmade conduits but is facilitated by an ancient stream channel deposit in the vicinity of MW-6. There does not appear to be a human health or ecological risk associated with the groundwater contamination emanating from the site.

We believe that contaminant migration is limited due to the very low permeability of the clay and silt encountered beneath the site with the notable exception of the sandy channel deposits in the vicinity of well MW-6. Accordingly, we recommend continuing quarterly groundwater monitoring of the existing monitoring wells. The next groundwater sampling event is scheduled for April 2001. If the concentrations of gasoline and MTBE in the groundwater sample from monitoring well MW-6 increase, we will recommend further offsite investigation to evaluate the downgradient extent of contamination.

TABLE 1.

Groundwater Elevation Measurements
Golden Gate Petroleum, 421 23rd Avenue, Oakland, California

	MW-1		MW-2		MW-3		MW-4		MW-5		MW-6		MW-7	
	MP Elev = 9.47 feet		MP Elev = 8.72 feet		MP Elev = 9.00 feet		MP Elev = 9.30 feet		MP Elev = 10.19 feet		MP Elev = 9.86 feet		MP Elev = 8.60 feet	
Date	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev	Depth	Elev
Nov. 11, 1999	8.27	1.20	7.75	0.97	8.09	0.91	8.44	0.86	--	--	--	--	--	--
Mar. 28, 2000	8.02	1.45	7.50	1.22	8.92	1.08	8.33	0.97	--	--	--	--	--	--
Aug. 7, 2000	8.30	1.17	7.78	0.94	8.22	0.78	8.60	0.70	9.67	0.52	9.34	0.52	7.92	0.68
Oct. 18, 2000	8.31	1.16	7.81	0.91	8.20	0.80	8.54	0.76	9.68	0.51	9.33	0.53	7.93	0.67
Jan. 29, 2001	7.92	1.55	7.39	1.33	7.78	1.22	8.20	1.10	9.36	0.83	8.95	0.91	7.48	1.12

General Notes

(a) Depth measurements cited in units of feet below measuring point (MP). MP is top of PVC well casing.

(b) Elevation measurements cited in units of feet above Mean Sea Level and referenced to City of Oakland benchmark at 333 23rd Avenue. Benchmark elevation is 7.91 feet above Mean Sea Level.

TABLE 2.

Groundwater Analytical Results
Golden Gate Petroleum, 421 23rd Avenue, Oakland, California

Well Number	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 (µg/L)
MW-1	Nov 11, 1999	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
	Mar 28, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
	Aug 7, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5
	Oct 18, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5*
	Jan 29, 2001	<50	<50	<0.5	<0.5	<0.5	<0.5	<5*
MW-2	Nov 11, 1999	220	***6,800***	<50	<50	<50	<50	***13,000****
	Mar 28, 2000	***1,800***	***2,500***	<25	<25	<25	<25	***1,800***
	Aug 7, 2000	620	***4,500***	<25	<25	<25	<25	***6,300***
	Oct 18, 2000	510	***2,300***	<5	<5	<5	<5	***8,300****
	Jan 29, 2001	***750***	***1,100***	11	<0.5	<0.5	<0.5	***4,300****
MW-3	Nov 11, 1999	<50	***1,600***	<12.5	<12.5	<12.5	<12.5	***2,500****
	Mar 28, 2000	<50	280	<2.5	<2.5	<2.5	<2.5	610
	Aug 7, 2000	<50	***1,100***	<5	<5	<5	<5	1,500
	Oct 18, 2000	58	***900***	<5	<5	<5	<5	***2,000****
	Jan 29, 2001	<50	***700***	2.0	<0.5	<0.5	<0.5	920*
MW-4	Nov 11, 1999	<50	***650***	<5	<5	<5	<5	540*
	Mar 28, 2000	<50	430	<2.5	<2.5	<2.5	<2.5	800
	Aug 7, 2000	<50	***600***	<5	<5	<5	<5	500
	Oct 18, 2000	<50	260	<2.5	<2.5	<2.5	<2.5	410*
	Jan 29, 2001	<56	160	1.7	<0.5	<0.5	<0.5	230*

TABLE 2 (Concluded).

Groundwater Analytical Results
Golden Gate Petroleum, 421 23rd Avenue, Oakland, California

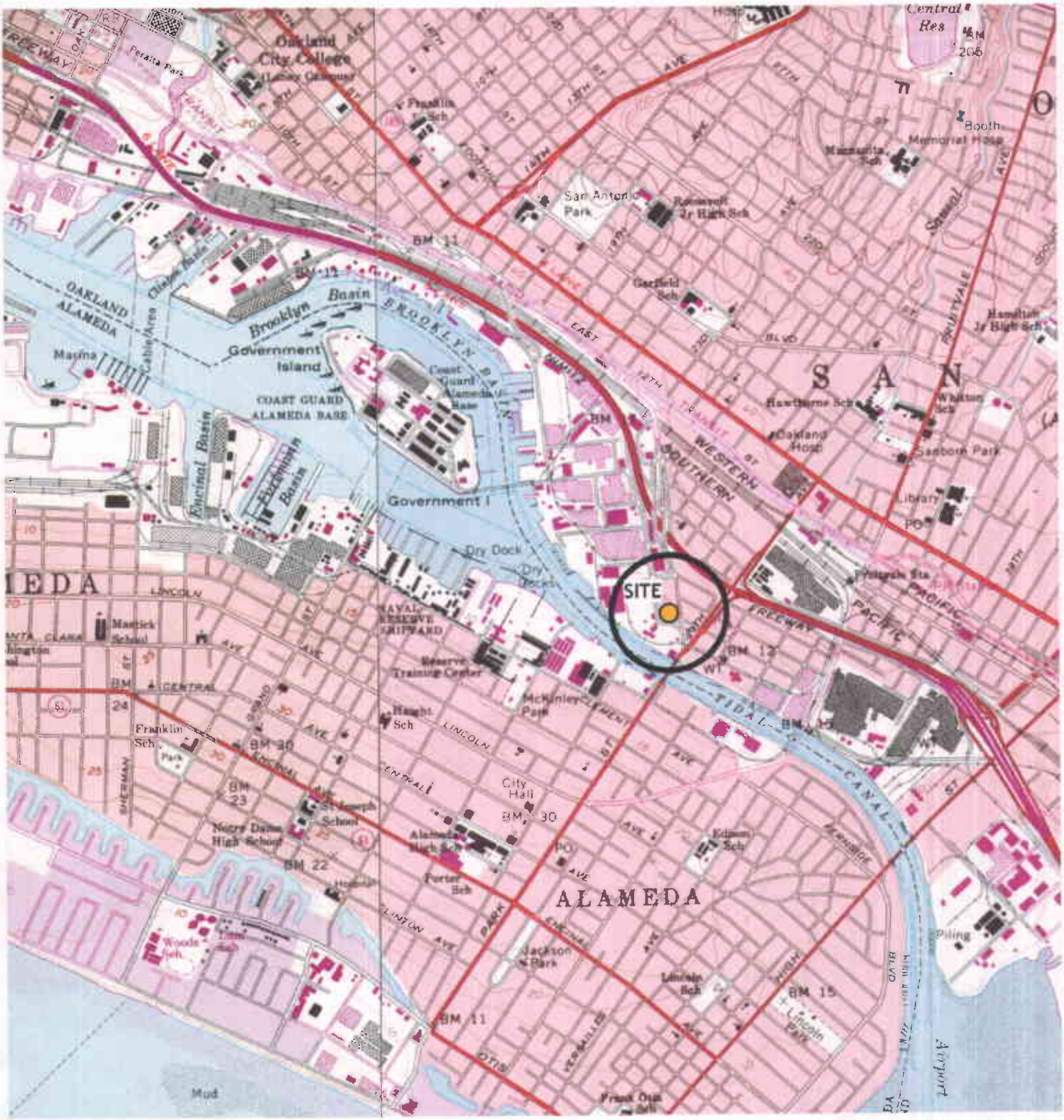
Well Number	Date	TPH as Diesel (µg/L)	TPH as Gasoline (µg/L)	Benzene (µg/L)	Toluene (µg/L)	Ethyl-benzene (µg/L)	Total Xylenes (µg/L)	MTBE (µg/L)
MW-5	Aug 7, 2000	<50	110	<0.5	<0.5	<0.5	<0.5	470*
	Oct 18, 2000	83	150	<0.5	<0.5	<0.5	<0.5	420*
	Jan 29, 2001	86	190	1.9	<0.5	<0.5	<0.5	290*
MW-6	Aug 7, 2000	<50	460	<0.5	<0.5	<0.5	<0.5	***1,900****
	Oct 18, 2000	62	***890***	5.6	<2.5	<2.5	3.1	***2,400****
	Jan 29, 2001	<69	***780***	4.2	<0.5	<0.5	<0.5	1,200*
MW-7	Aug 7, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5*
	Oct 18, 2000	<50	<50	<0.5	<0.5	<0.5	<0.5	<5*
	Jan 29, 2001	<63	<50	<0.5	<0.5	<0.5	<0.5	<5*
Screening Criteria--RBSLs Drinking Water Resource NOT Threatened		640	500	46	130	290	13	1,800
EPA Method No.		Modified 8015	Modified 8015	8020	8020	8020	8020	8020 or 8260B

General Notes

(a) "<" = parameter below laboratory method reporting limit.

(b) * = MTBE confirmed by EPA Method 8260B.

(c) Screening criteria is for comparison purposes only. RBSLs are conservative, risk-based screening levels for soil and groundwater that can be directly compared to environmental data collected at a site. The criteria used in this table assume that groundwater is NOT a current or potential drinking water source and contaminated soil is subsurface (>10 feet deep). Source: *Application of RBSLs and Decision Making to Sites with Impacted Soil and Groundwater (Table D)*, San Francisco Bay Regional Water Quality Control Board, Oakland, CA, August 2000. Concentrations exceeding the screening criteria are in ***bold italic***.



Basemap: USGS 7.5-minute topographic quadrangles,
Oakland West, Calif. and Oakland East, Calif., Photorevised 1980.

FIGURE 1.

Location Map

Golden Gate Petroleum
421 23rd Avenue
Oakland, California

Hydro Analysis, Inc.

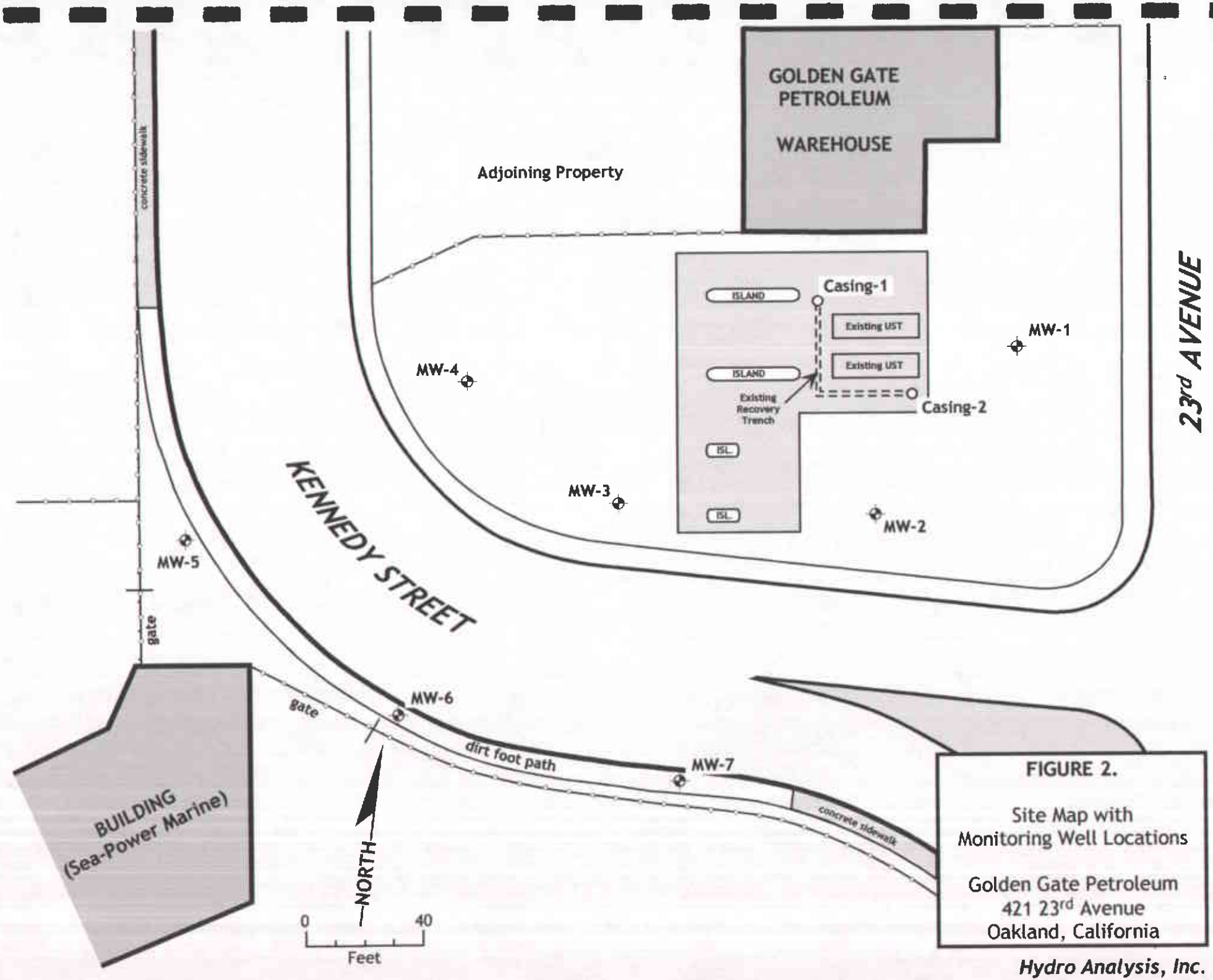
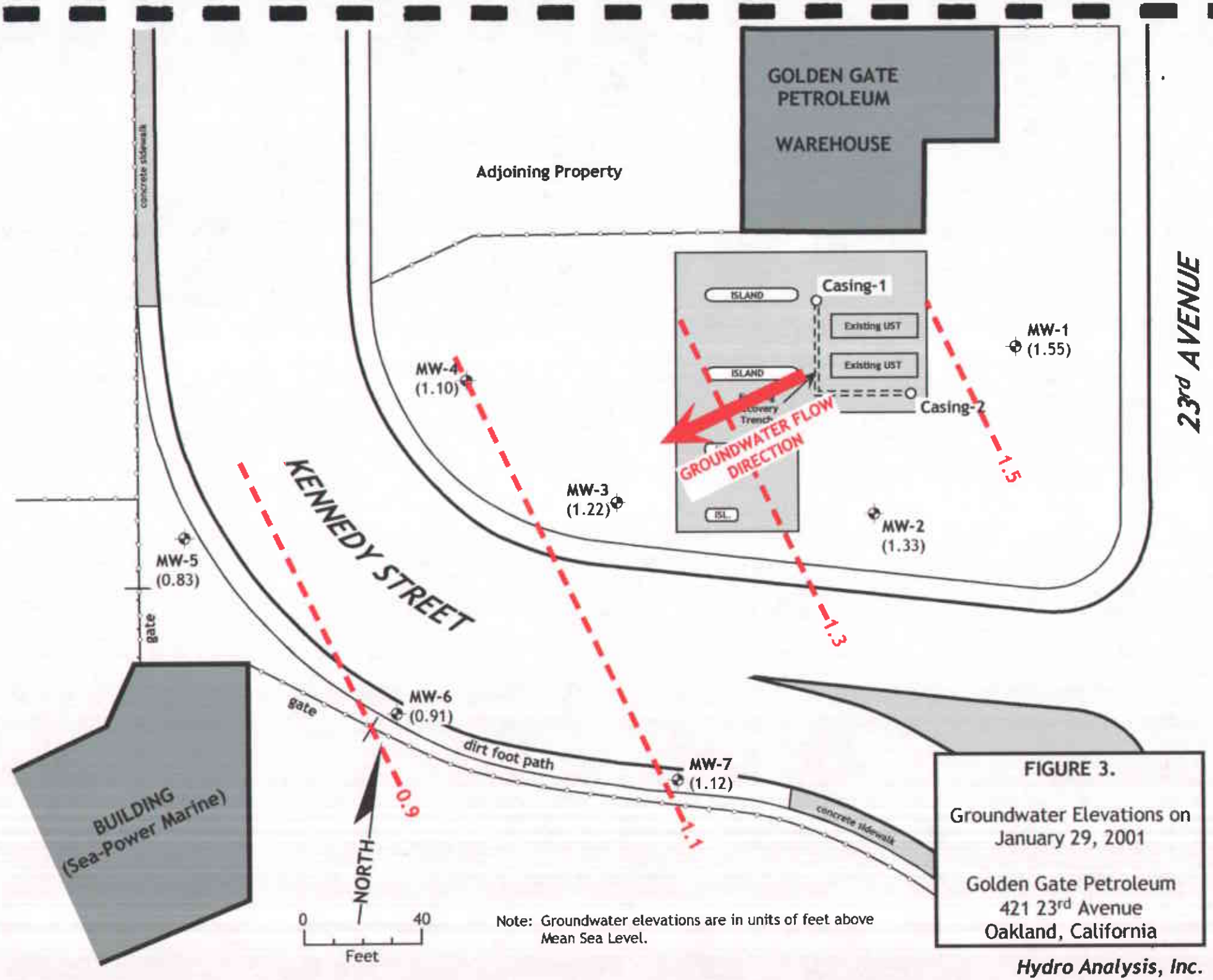


FIGURE 2.

Site Map with
Monitoring Well Locations

Golden Gate Petroleum
421 23rd Avenue
Oakland, California

Hydro Analysis, Inc.



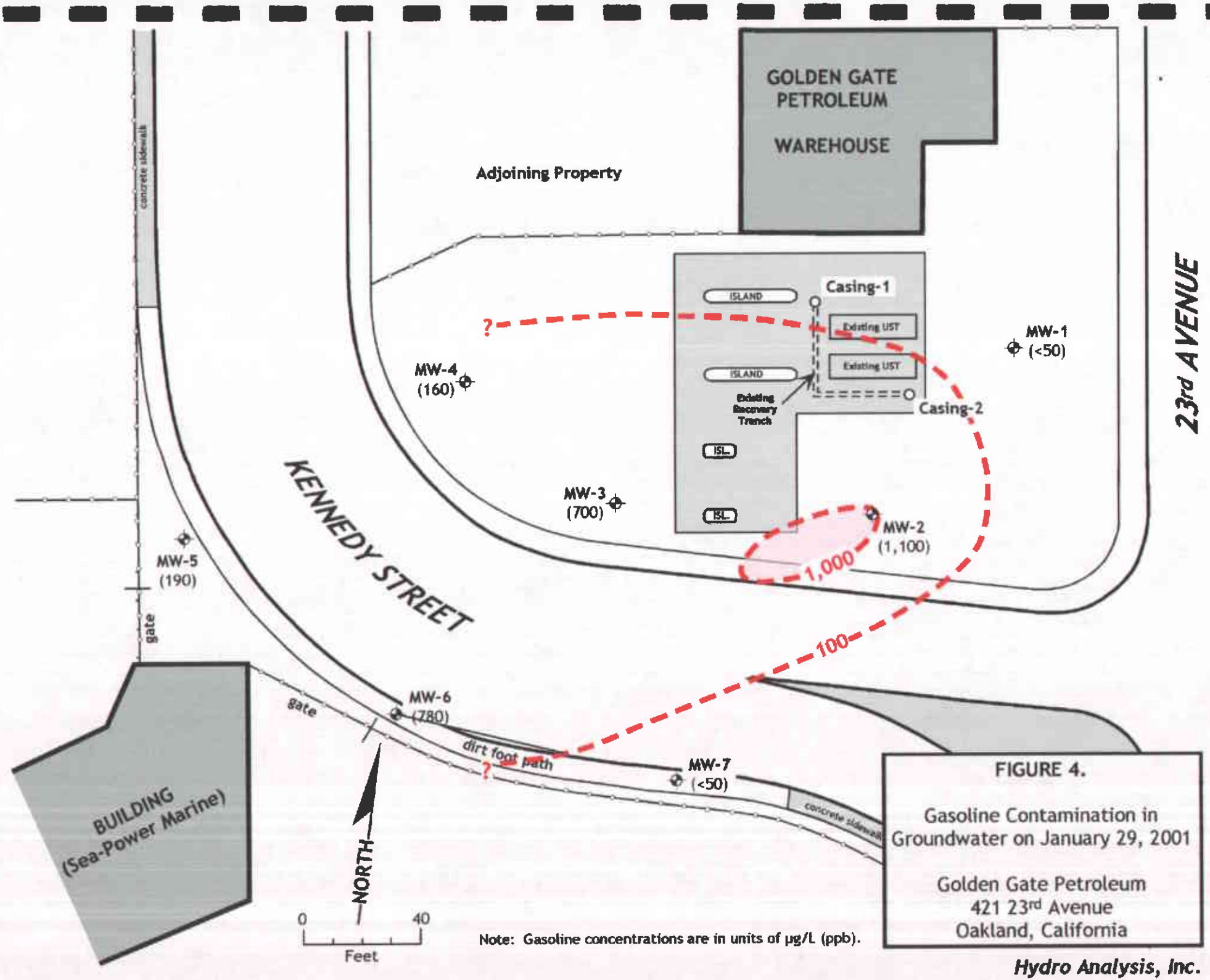
Note: Groundwater elevations are in units of feet above Mean Sea Level.

FIGURE 3.

Groundwater Elevations on January 29, 2001

Golden Gate Petroleum
421 23rd Avenue
Oakland, California

Hydro Analysis, Inc.



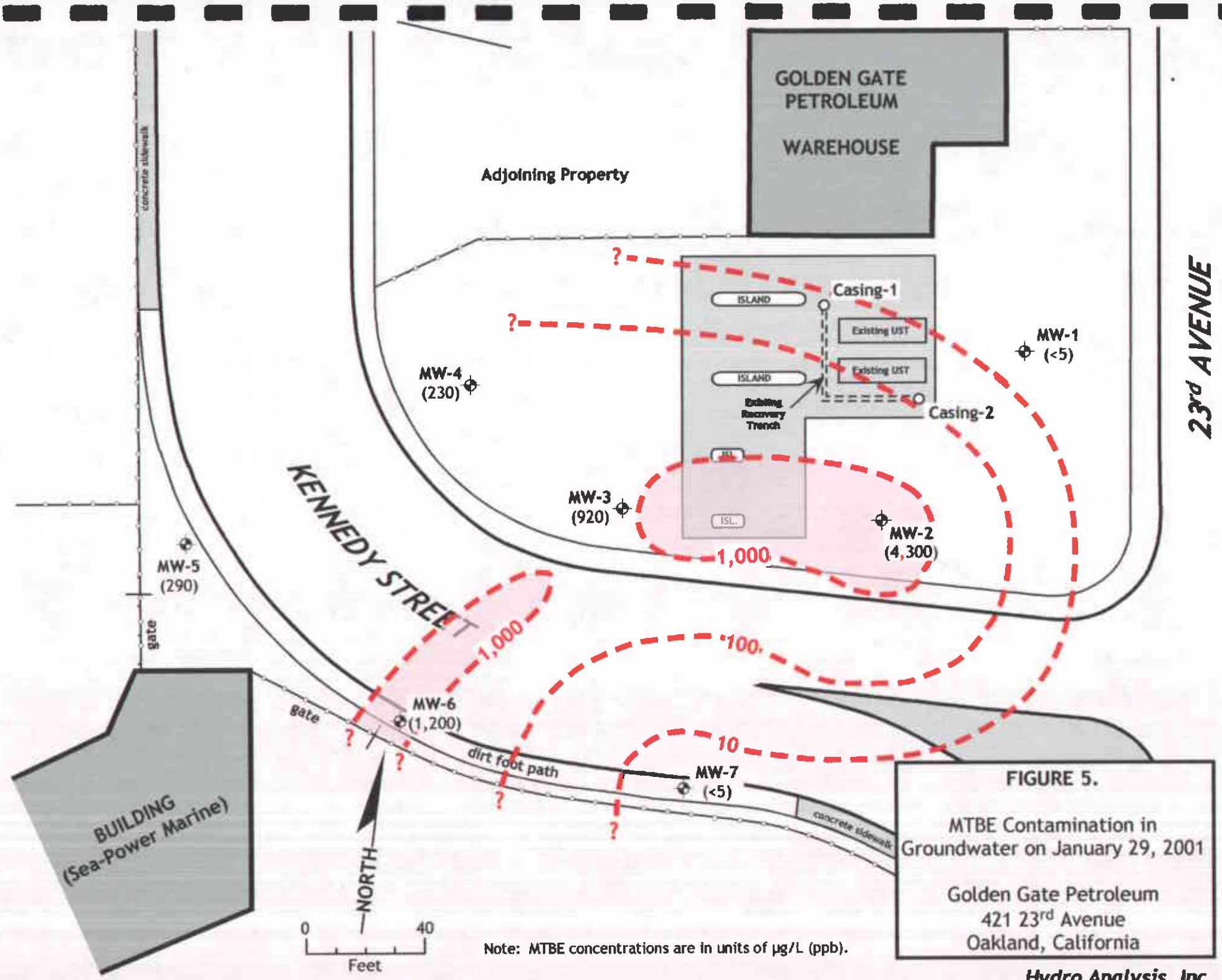
Note: Gasoline concentrations are in units of µg/L (ppb).

FIGURE 4.

Gasoline Contamination in Groundwater on January 29, 2001

Golden Gate Petroleum
421 23rd Avenue
Oakland, California

Hydro Analysis, Inc.



Note: MTBE concentrations are in units of µg/L (ppb).

FIGURE 5.

MTBE Contamination in Groundwater on January 29, 2001

Golden Gate Petroleum
421 23rd Avenue
Oakland, California

Hydro Analysis, Inc.

ATTACHMENT A

Correspondence

ALAMEDA COUNTY
HEALTH CARE SERVICES
AGENCY
DAVID J. KEARS, Agency Director

ENVIRONMENTAL HEALTH SERVICES
ENVIRONMENTAL PROTECTION
1131 Harbor Bay Parkway, Suite 250
Alameda, CA 94502-6577
(510) 567-6700
FAX (510) 337-9335

December 6, 2000
StID # 191

Mr. Dennis O'Keefe
Golden Gate Petroleum
1001 Galaxy Way, Suite 308
Concord, CA 94520

Re: Golden Gate Petroleum Site, 421 23rd Ave., Oakland CA 94606

Dear Mr. O'Keefe:

Thank you for the submission of the November 17, 2000 Quarterly Groundwater Monitoring and Sensitive Receptor Survey and Conduit Study as prepared by your consultant, Hydro Analysis, Inc. These surveys did not identify any water supply wells, basements or sumps or private wells. One subsurface storm drain was identified that runs eastward towards 23rd Ave. to a connection which, empties into the Tidal Canal. However, no potential human health or ecological health risk currently exists, though concentrations of total petroleum hydrocarbons as gasoline and MTBE remain elevated in the down-gradient well, MW-6.

Consistent with current policy, groundwater monitoring should continue until a trend analysis (typically after compiling a minimum of four quarters of groundwater monitoring data) and a reasonable assumption that natural attenuation will attenuate the current levels can be made.

Please contact me at (510) 567-6765 if you have any comments or questions.

Sincerely,

Barney M. Chan

Barney M. Chan
Hazardous Materials Specialist

C: B. Chan, files
Mr. K. Alexander, Hydro Analysis, Inc., 11100 San Pablo Ave., Suite 200-A, El Cerrito, CA, 94530

Mon421 23rd

ATTACHMENT B

Well Sampling Logs

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd Ave.
Page: 1 of 7

Well Number: MW-7
Date: 01/29/2001

Weather: Sunny, 45°-55°
Time Began: 09:12

Sampling Personnel: R Wilson
Completed: 09:24

EVACUATION DATA

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

Total Sounded Depth of Well Below MP: 19.26'+0.27'
- Depth to Water Below MP: 7.48'
= Water Column in Well: 12.05'
x Casing Diameter Multiplier: 0.169 2"
= Gallons in Casing: 2.03
Gallons Pumped Prior to Sampling: 8

Sample Collected
- Volatile Organics (VOA's): 5
- 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	09:15	09:18	09:21	09:24	
Gals Removed	2	4	6	8	
Temperature	17.4	17.7	17.6	17.8	
Conductivity	5.51×10^3	9.18×10^3	9.87×10^3	9.91×10^3	
pH	6.73	6.71	6.77	6.74	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	med	med	med	med	
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd Ave.
Well Number: MW-1
Weather: Sunny, 45°-55°
Sampling Personnel: R Wilson

Page: 2 of 7
Date: 01/29/2001
Time Began: 10:00
Completed: 10:10

EVACUATION DATA

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

Total Sounded Depth of Well Below MP	18.56' + 0.27'		Sample Collected
- Depth to Water Below MP	7.92'	Volatile Organics (VOA's)	5
= Water Column in Well	10.91'	1 Liter Amber Glass	2
x Casing Diameter Multiplier	0.169 (2")	Polyethylene (plastic)	
= Gallons in Casing	1.84	Other	
Gallons Pumped Prior to Sampling	7.5	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: (thickness to 0.01 foot, if any) None, Clear

Time	10:02	10:04	10:06	10:08	10:10
Gals Removed	1.5	3	4.5	6	7.5
Temperature	19.8	20.7	21.2	21.2	21.0
Conductivity	1226	987	957	888	879
pH	7.13	7.10	7.13	7.16	7.18
Color / Odor	Tan	Tan	Tan	Tan	Tan
Turbidity	med	high	high	high	high
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd Ave.
Well Number: MW-4
Weather: Sunny, 50°-60°
Sampling Personnel: R Wilson

Page: 3 of 7
Date: 01/29/2001
Time Began: 10:42
Completed: 10:50

EVACUATION DATA

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

Total Sounded Depth of Well Below MP: 18.73' +0.27'
- Depth to Water Below MP: 8.20'
= Water Column in Well: 10.80'
x Casing Diameter Multiplier: 0.169 2"
= Gallons in Casing: 1.82
Gallons Pumped Prior to Sampling: 6

Sample Collected
Volatile Organics (VOA's): 5
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	10:44	10:46	10:48	10:50	
Gals Removed	1.5	3	4.5	6	
Temperature	20.9	21.1	21.1	21.0	
Conductivity	731	757	744	739	
pH	6.86	6.75	6.69	6.72	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	med	med	med	med	
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd Ave.
Page: 4 of 7

Well Number: MW-5
Date: 01/29/2001

Weather: Sunny, 50°-60°
Time Began: 11:19

Sampling Personnel: R Wilson
Completed: 11:28

EVACUATION DATA

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

Total Sounded Depth of Well Below MP	19.32' + 0.27'	Sample Collected	
- Depth to Water Below MP	9.36'	Volatile Organics (VOA's)	5
= Water Column in Well	10.23'	1 Liter Amber Glass	2
x Casing Diameter Multiplier	0.169 2"	Polyethylene (plastic)	
= Gallons in Casing	1.73	Other	
Gallons Pumped Prior to Sampling	6	Samples Filtered	no

Evacuation Method: PVC Bailer	X	Sample Method: 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	11:21	11:23	11:25	11:28	
Gals Removed	1.5	3	4.5	6	
Temperature	18.9	19.0	19.3	18.9	
Conductivity	655	649	678	675	
pH	6.73	6.79	6.75	6.78	
Color / Odor	Tan	Tan	Tan	Tan	
Turbidity	high	high	high	high	
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd Ave.
Page: 5 of 7

Well Number: MW-6
Date: 01/29/2001

Weather: Sunny, 55°-65°
Time Began: 11:59

Sampling Personnel: R Wilson
Completed: 12:11

EVACUATION DATA

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

Total Sounded Depth of Well Below MP	19.37' ± 0.26'	Sample Collected	
- Depth to Water Below MP	8.95'	Volatile Organics (VOA's)	5
= Water Column in Well	10.69'	1 Liter Amber Glass	2
x Casing Diameter Multiplier	0.169 2"	Polyethylene (plastic)	
= Gallons in Casing	1.80	Other	
Gallons Pumped Prior to Sampling	7.5	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	12:01	12:04	12:06	12:09	12:11
Gals Removed	1.5	3	4.5	6	7.5
Temperature	18.2	18.2	18.3	18.2	18.3
Conductivity	3508	3898	5.09×10^3	5.32×10^3	5.53×10^3
pH	6.63	6.64	6.64	6.64	6.64
Color / Odor	Tan	Tan	Tan	Tan	Tan
Turbidity	high	high	high	high	high
Other					

Comments:

WELL SAMPLING LOG

Site Location: G.G.P. - 23rd Ave.
Well Number: MW-2
Weather: Sunny, 55°-65°
Sampling Personnel: R Wilson

Page: 6 of 7
Date: 01/29/2001
Time Began: 14:18
Completed: 14:37

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: 7.39'
= Water Column in Well: 12.45'
x Casing Diameter Multiplier: 0.653 (4")
= Gallons in Casing: 8.13
Gallons Pumped Prior to Sampling: 21

Sample Collected
- Volatile Organics (VOA's): 5
- 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	14:21	14:24	14:27	14:37	
Gals Removed	7	14	21	21	
Temperature	20.2	20.9	21.3	19.8	
Conductivity	1240	1096	1034	849	
pH	6.94	7.01	7.08	6.88	
Color / Odor	Tan	Tan	Tan	clear	
Turbidity	low	low	med	low	
Other			dewatered		

Comments:

ATTACHMENT C

Groundwater Analytical Results

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

February 07, 2001

Randal Wilson
Hydro Analysis, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Order: 24201
Project Name: Golden Gate Petroleum
Project Number:
Project Notes:

Date Collected: 1/29/01
Date Received: 1/30/01
P.O. Number:

On January 30, 2001, samples were received under documentented chain of custody. Results for the following analyses are attached:

Matrix	Test	Method
Liquid	Gas/BTEX	EPA 8015 MOD. (Purgeable)
		EPA 8020
	MTBE by EPA 8260B	EPA 8260B
	TPH as Diesel	EPA 8015 MOD. (Extractable)

Chemical analysis of these samples has been completed. Summaries of the data are contained on the following pages. USEPA protocols for sample storage and preservation were followed.

Entech Analytical Labs, Inc. is certified by the State of California (#2346). If you have any questions regarding procedures or results, please call me at 408-588-0200.

Sincerely,

Michelle L. Anderson
Lab Director

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-001 **Client Sample ID:** MW-1
Sample Time: 10:10 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	50	50	µg/L	1/30/01	2/1/01	DW010109	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	64	45 - 105

Order ID: 24201 **Lab Sample ID:** 24201-002 **Client Sample ID:** MW-2
Sample Time: 2:37 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	750	x	1	50	50	µg/L	1/30/01	2/1/01	DW010109	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	79	45 - 105

Order ID: 24201 **Lab Sample ID:** 24201-003 **Client Sample ID:** MW-3
Sample Time: 3:29 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	50	50	µg/L	2/2/01	2/2/01	DW010109	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	70	45 - 105

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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Hydro Analysis, Inc.
11100 San Pablo Avenue, Suite 200-A
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Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-004 **Client Sample ID:** MW-4
Sample Time: 10:50 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	56	56	µg/L	1/30/01	2/[illegible]/01	DW010109	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	67	45 - 105

Comment: Reporting limit increased due to limited sample volume.

Order ID: 24201 **Lab Sample ID:** 24201-005 **Client Sample ID:** MW-5
Sample Time: 11:28 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	86	x	1	50	50	µg/L	2/2/01	2/2/01	DW010109	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	89	45 - 105

Order ID: 24201 **Lab Sample ID:** 24201-006 **Client Sample ID:** MW-6
Sample Time: 12:09 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	69	69	µg/L	2/2/01	2/5/01	DW010109	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	85	45 - 105

Comment: Reporting limit increased due to limited sample volume.

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Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-007 **Client Sample ID:** MW-7

Sample Time: 9:24 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Diesel	ND		1	63	63	µg/L	2/2/01	2/5/01	DW010109	EPA 8015 MOD. (Extractable)

Surrogate	Surrogate Recovery	Control Limits (%)
o-Terphenyl	67	45 - 105

Comment: Reporting limit increased due to limited sample volume

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-001 **Client Sample ID:** MW-1

Sample Time: 10:10 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	95	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	1/31/01	WGC2010130	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	106	65 - 135

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Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-002 **Client Sample ID:** MW-2

Sample Time: 2:37 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	11		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	84	55 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	1100	x	1	50	50	µg/L	N/A	1/31/01	WGC2010130	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	101	65 - 135

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Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-003 **Client Sample ID:** MW-3

Sample Time: 3:29 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	2.0		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	89	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	700	x	1	50	50	µg/L	N/A	1/31/01	WGC2010130	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	105	65 - 135

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Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-004 **Client Sample ID:** MW-4

Sample Time: 10:50 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	1.7		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	94	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	160	x	1	50	50	µg/L	N/A	1/31/01	WGC2010130	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	107	65 - 135

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El Cerrito, CA 94530
Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-005 **Client Sample ID:** MW-5

Sample Time: 11:28 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	1.9		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	91	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	190	x	1	50	50	µg/L	N/A	1/31/01	WGC2010130	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	105	65 - 135

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Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-006 **Client Sample ID:** MW-6

Sample Time: 12:09 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	4.2		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	90	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	750	x	1	50	50	µg/L	N/A	1/31/01	WGC2010130	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	106	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-007 **Client Sample ID:** MW-7

Sample Time: 9:24 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Toluene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Ethyl Benzene	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020
Xylenes, Total	ND		1	0.5	0.5	µg/L	N/A	1/31/01	WGC2010130	EPA 8020

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	93	65 - 135

Parameter	Result	Flag	DF	PQL	DLR	Units	Extraction Date	Analysis Date	QC Batch ID	Method
TPH as Gasoline	ND		1	50	50	µg/L	N/A	1/31/01	WGC2010130	EPA 8015 MOD. (Purgeable)

Surrogate	Surrogate Recovery	Control Limits (%)
aaa-Trifluorotoluene	106	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-001 **Client Sample ID:** MW-1

Sample Time: 10:10 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	2/5/01	WMS2010205	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	101	65 - 135
Dibromofluoromethane	113	65 - 135
Toluene-d8	96	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-002 **Client Sample ID:** MW-2

Sample Time: 2:37 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	4300		50	5	250	µg/L	2/6/01	WMS2010205	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	99	65 - 135
Dibromofluoromethane	109	65 - 135
Toluene-d8	101	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-003 **Client Sample ID:** MW-3

Sample Time: 3:29 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	920		10	5	50	µg/L	2/6/01	WMS2010205	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96	65 - 135
Dibromofluoromethane	109	65 - 135
Toluene-d8	99	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

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Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-004 **Client Sample ID:** MW-4

Sample Time: 10:50 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	230		5	5	25	µg/L	2/6/01	WMS2010205	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	98	65 - 135
Dibromofluoromethane	108	65 - 135
Toluene-d8	100	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

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Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-005 **Client Sample ID:** MW-5

Sample Time: 11:28 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	290		5	5	25	µg/L	2/6/01	WMS2010205	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	97	65 - 135
Dibromofluoromethane	108	65 - 135
Toluene-d8	99	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle D. Anderson, Laboratory Director

Environmental Analysis Since 1983

Entech Analytical Labs, Inc.

3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

Hydro Analysis, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-006 **Client Sample ID:** MW-6

Sample Time: 12:09 PM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	1200		20	5	100	µg/L	2/6/01	WMS2010205	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	96	65 - 135
Dibromofluoromethane	107	65 - 135
Toluene-d8	99	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

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Hydro Analysis, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530
Attn: Randal Wilson

Date: 02/07/01
Date Received: 1/30/01
Project Name: Golden Gate Petroleum
Project Number:
P.O. Number:
Sampled By: CLIENT

Certified Analytical Report

Order ID: 24201 **Lab Sample ID:** 24201-007 **Client Sample ID:** MW-7

Sample Time: 9:24 AM **Sample Date:** 1/29/01 **Matrix:** Liquid

Parameter	Result	Flag	DF	PQL	DLR	Units	Analysis Date	QC Batch ID	Method
Methyl-t-butyl Ether	ND		1	5	5	µg/L	2/6/01	WMS2010205	EPA 8260B

Surrogate	Surrogate Recovery	Control Limits (%)
4-Bromofluorobenzene	102	65 - 135
Dibromofluoromethane	116	55 - 135
Toluene-d8	100	65 - 135

DF = Dilution Factor ND = Not Detected DLR = Detection Limit Reported PQL = Practical Quantitation Limit

Analysis performed by Entech Analytical Labs, Inc. (CA ELAP #2346)

Michelle L. Anderson, Laboratory Director

Environmental Analysis Since 1983

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3334 Victor Court • Santa Clara, CA 95054 • (408) 588-0200 • Fax (408) 588-0201

STANDARD LAB QUALIFIERS (FLAGS)

All Entech lab reports now reference standard lab qualifiers. These qualifiers are noted in the adjacent column to the analytical result and are adapted from the U.S. EPA CLP program. The current qualifier list is as follows:

Qualifier (Flag)	Description
U	Compound was analyzed for but not detected
J	Estimated value for tentatively identified compounds or if result is below PQL but above MDL
N	Presumptive evidence of a compound (for Tentatively Identified Compounds)
B	Analyte is found in the associated Method Blank
E	Compounds whose concentrations exceed the upper level of the calibration range
D	Multiple dilutions reported for analysis; discrepancies between analytes may be due to dilution
X	Results within quantitation range; chromatographic pattern not typical of fuel

CHAIN OF CUSTODY RECORD

PROJECT NAME AND ADDRESS:

Golden Gate Petroleum
421 23rd Ave
Oakland

SAMPLER: (Signature) Randal Wilson

HYDRO ANALYSIS, INC.
11100 San Pablo Ave., Suite 200-A
El Cerrito, CA 94530
(510)620-0891 (510)820-0894 (FAX)

ANALYSIS REQUESTED: TPH-Gas, BTEX; MtBE by 8260; TPH-Diesel

01 JAN 30 11:40

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	SAMPLE LOCATION	TPH-Gas, BTEX	MtBE by 8260	TPH-Diesel	REMARKS
MW-1	01/29/01	10:10		X	Monitor Well # MW-1	X	X	X	24201-001
MW-2	01/29/01	14:37		X	" " MW-2	X	X	X	-002
MW-3	01/29/01	15:29		X	" " MW-3	X	X	X	-003
MW-4	01/29/01	10:50		X	" " MW-4	X	X	X	-004
MW-5	01/29/01	11:20		X	" " MW-5	X	X	X	-005
MW-6	01/29/01	12:09		X	" " MW-6	X	X	X	-006
MW-7	01/29/01	09:24		X	" " MW-7	X	X	X	-007
									Normal Turnaround Time

RELINQUISHED BY: (Signature) Randal Wilson	DATE 01/30/01 TIME 10:22	RECEIVED BY: (Signature)	DATE 1-30-01 TIME 10:22
RELINQUISHED BY: (Signature)	DATE 1-30-01 TIME 11:40	RECEIVED BY: (Signature) Joseph Machado	DATE 1/30/01 TIME 1140
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED BY: (Signature)	DATE TIME
RELINQUISHED BY: (Signature)	DATE TIME	RECEIVED FOR LABORATORY BY: (Signature)	DATE TIME