HAGEMAN-AGUIAR, INC.
Environmental & Water Resources Engineering
Groundwater Consultants

July 11, 2000

Larry Seto
Alameda County Environmental Health
1131 Harbor Bay Parkway
2nd Floor
Alameda, CA 94502

Re: Pacific Cryogenic
2311 Magnolia Street
Oakland, CA.

Dear Mr. Seto:

Please find enclosed a copy of the "*Report Of Subsurface Investigation, Pacific Cryogenic, 2311 Magnolia Street, Oakland, CA*" by Hageman-Aguiar, Inc., dated July 10, 2000.

Based upon the results of this investigation, it can be concluded that the existing shallow groundwater monitoring wells accurately reflect the shallow groundwater quality beneath the site. If you have any questions or require further information, please call me at (510)620-0891.

Sincerely,

Gary Aguiar
Principal Engineer

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

HAGEMAN-AGUIAR, INC.
Environmental & Water Resources Engineering
Groundwater Consultants

REPORT OF
SUBSURFACE INVESTIGATION

FORMER
PACIFIC CRYOGENIC COMPANY

2311 Magnolia Street
Oakland, California

July 10, 2000

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

TABLE OF CONTENTS

I. INTRODUCTION

The site location is the property located at 2311 Magnolia Street in Oakland, California. The location of the site is shown in Figure 1. The current layout of the site is shown in Figure 2.

The purpose of this subsurface investigation was to investigate the shallow groundwater quality down-gradient of the former locations of the underground tanks and previous pipelines & dispensers. Since there are no boring logs or well construction information available for monitoring wells MW-2 and MW-3, there has been concern that they may not accurately reflect the groundwater quality.

The investigation was conducted in accordance with the "*Workplan for Subsurface Investigation*," by Hageman-Aguiar, Inc., dated June 12, 2000. The letter of approval by Larry Seto, dated June 20, 2000, is provided in Attachment A.

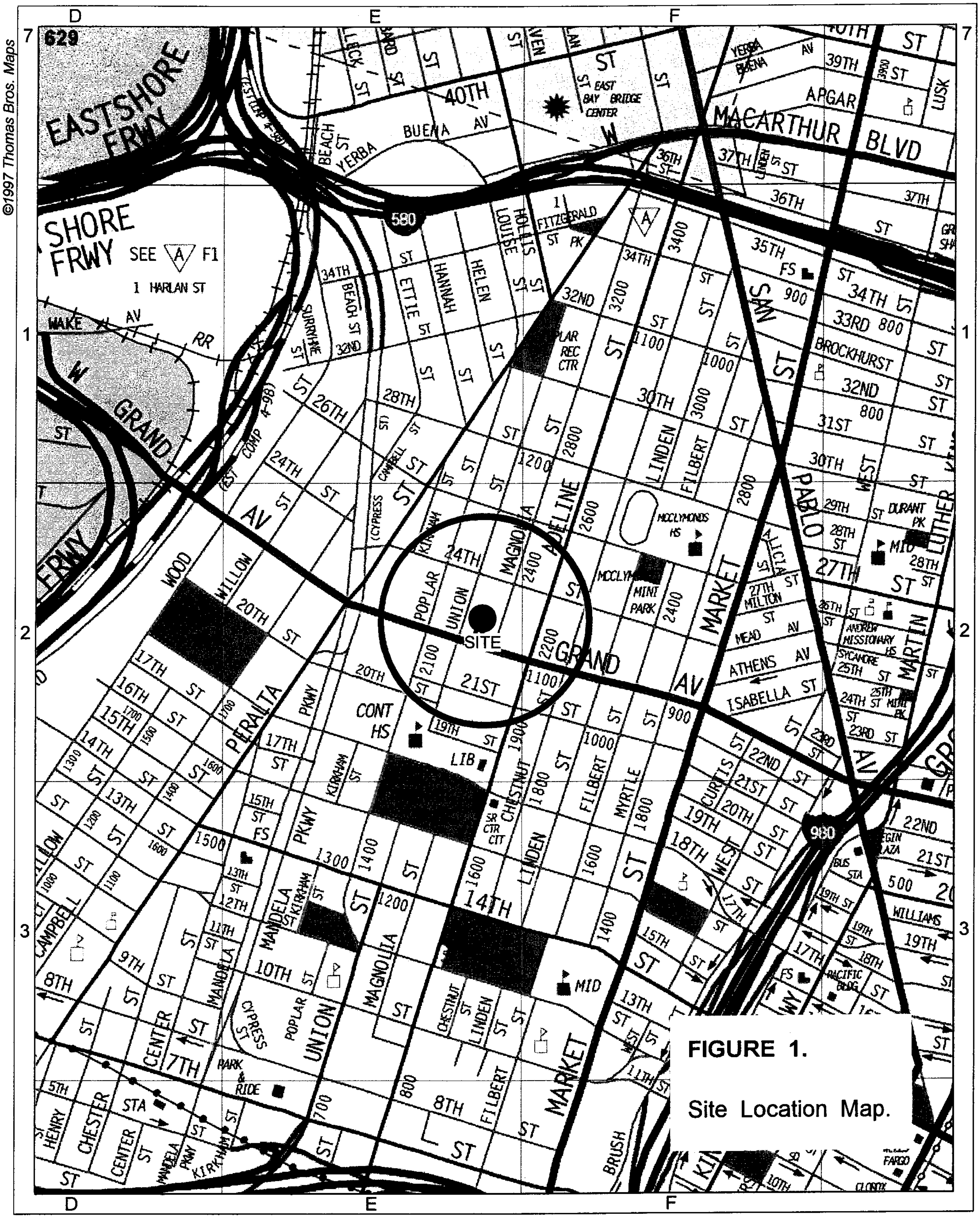


FIGURE 1.

Site Location Map.

● *SITE: 2311 Magnolia St, Oakland, 94607, Page & Grid 649 E2*

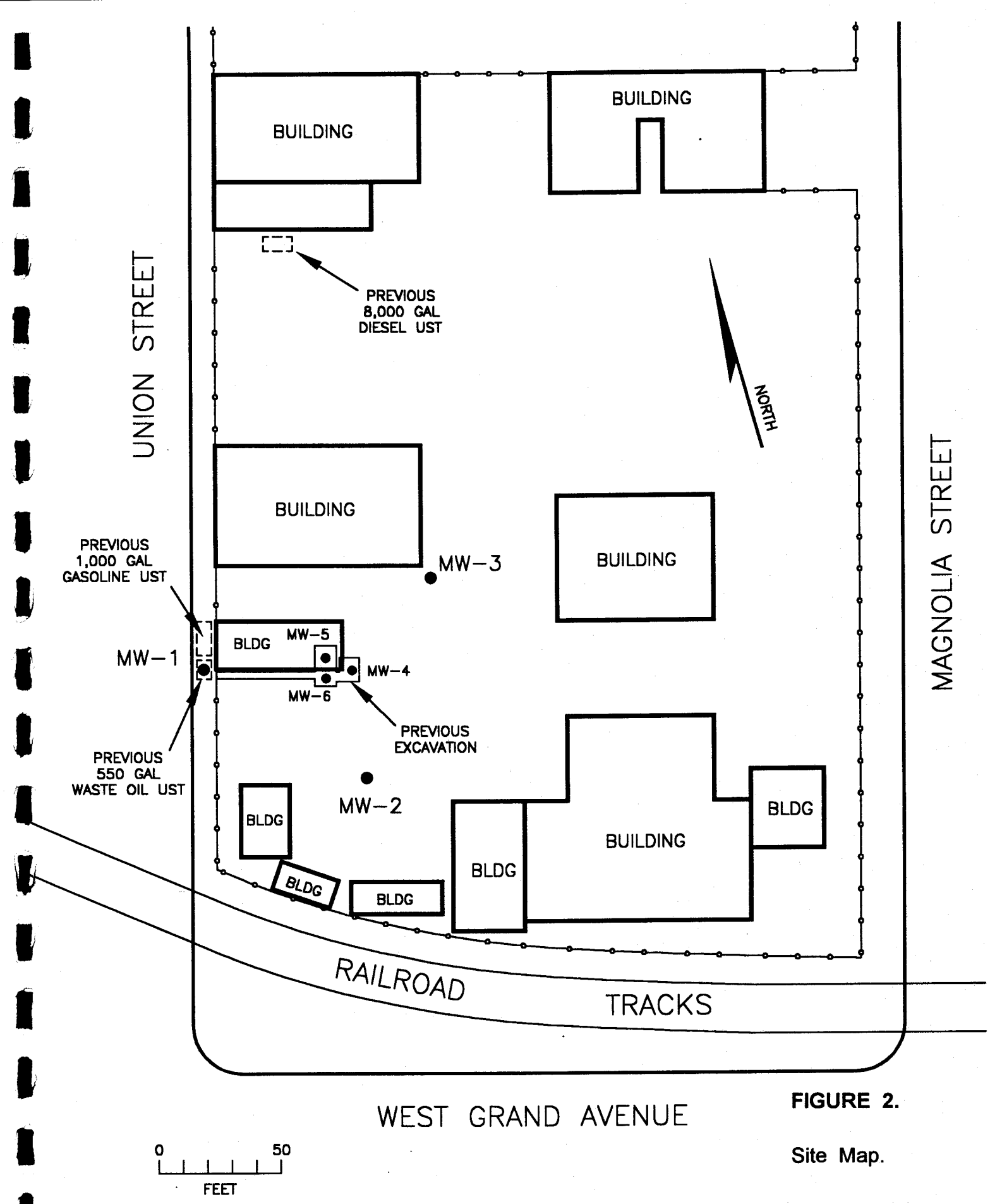


FIGURE 2.

Site Map.

II. SCOPE OF WORK

Sampling Locations

The four "geoprobe" sampling locations are shown in Figure 3. The locations were selected in order to collect representative "grab" shallow groundwater samples immediately down-gradient of the previous underground tanks, pipelines and excavations, as well as in close proximity to the existing shallow groundwater monitoring wells MW-2 and MW-3.

Permit

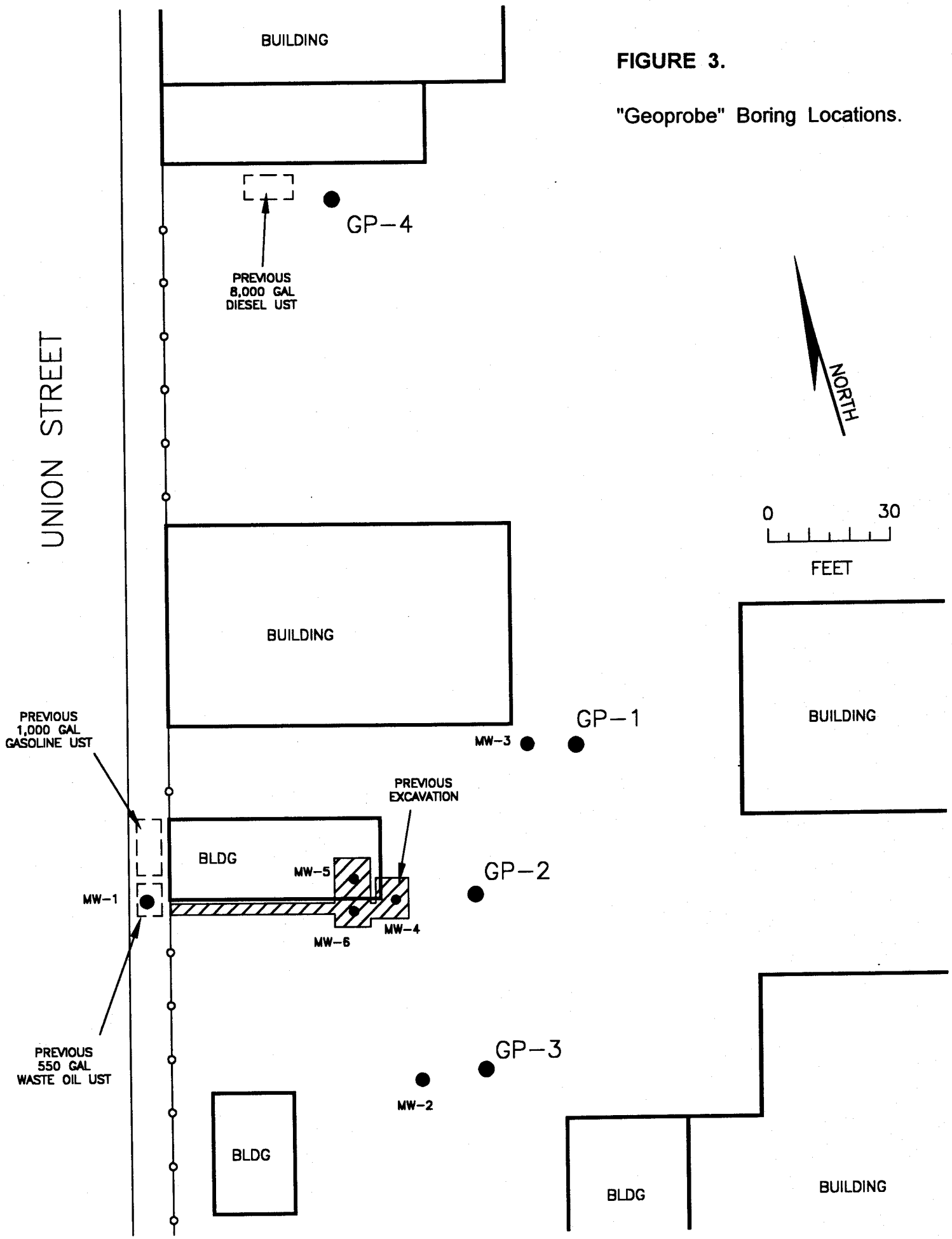
Prior to the conduct of field work at the site, a drilling permit was obtained from the Alameda County Public Works Department. A copy of the permit is provided in Attachment B.

Soil Sampling

At each sampling location, a "geoprobe" macrocore barrel was hydraulically driven into the ground. For each drive, the entire 4 feet of barrel length was fitted with a clear acrylic plastic insert. The "geoprobe" sampling was conducted at 4-foot intervals. At the

FIGURE 3.

"Geoprobe" Boring Locations.



desired sampling depth, the plastic "geoprobe" insert was cut to produce a six-inch cylinder of soil packed in clear plastic. The ends of the plastic cylinder were then sealed with Teflon film, over which was placed plastic end-caps. The samples were immediately placed on ice and delivered under chain-of-custody to the laboratory at the end of the work day.

Groundwater Sampling

At each "geoprobe" location, temporary 3/4" PVC casing and slotted well screen was installed following the completion of the soil sampling activities. A "grab" groundwater sample was then collected using a stainless steel bailer. The water samples were placed inside 40 ml VOA vials free of any headspace and 1-liter amber bottles. The groundwater samples were immediately placed on ice and delivered under chain-of-custody to the laboratory at the end of the work day.

Boring Logs

Each of the four "geoprobe" borings were logged in the field by Gary Aguiar, California Registered Civil Engineer 34262. The boring logs are provided in Attachment C.

As shown by these boring logs, the site is largely underlain by Silty Clay (CL), with shallow groundwater first being encountered in thin layers of fine-grained sand (SC, SM) and then in deeper sand & gravel. Saturated soils were typically first encountered at depths ranging between 14.5 and 21 feet below ground surface. After allowing water

levels to stabilize in the open boreholes, static water levels were measured at approximately 8.5 feet below ground surface. The location of saturated soil with respect to the stabilized water level may be indicative of **confined groundwater conditions**.

Hole Sealing

Following the completion of the groundwater sampling operation, the temporary well casing was removed and each "geoprobe" hole was filled with neat cement grout.

Equipment Decontamination

Prior to the conduct of field work, all equipment, including "geoprobe" barrels and drill rods, had been cleaned by Gregg Drilling personnel before arriving at the site. Field decontamination of sampling equipment was conducted by washing in a water/TSP solution, followed by a double water rinse.

III. ANALYTICAL RESULTS

Laboratory Analysis

All analyses were conducted by a California State DOHS certified laboratory in accordance with EPA recommended procedures. The laboratory analyses were performed by Chromalab, located in Pleasanton, California.

Selected soil samples were analyzed for:

1) Total Petroleum Hydrocarbons as Gasoline (EPA method 8015M).
2) Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA method 8020).
3) Methyl Tertiary Butyl Ether (EPA method 8020).
4) Total Petroleum Hydrocarbons as Diesel (EPA method 8015M).

All groundwater samples were analyzed for:

1) Total Petroleum Hydrocarbons as Gasoline (EPA method 8015).
2) Benzene, Toluene, Ethylbenzene, and Total Xylenes (EPA method 8020).
3) Methyl Tertiary Butyl Ether (EPA method 8020).
4) Total Petroleum Hydrocarbons as Diesel (EPA method 8015).

Analytical Results: Soil

Table 1 presents the results of the laboratory analysis of the soil samples collected from the four "geoprobe" boring locations. Copies of the laboratory reports for the soil sample analyses are provided in Attachment D.

TABLE 1.

Soil Sampling Results

Boring	Depth (feet)	TPH as Diesel (mg/kg)	TPH as Gasoline (mg/kg)	Benzene (mg/kg)	Toluene (mg/kg)	Ethyl-benzene (mg/kg)	Xylenes (mg/kg)	MTBE (mg/kg)
GP-1	10 15	**20** **1.1**	**100** ND	ND ND	ND ND	ND ND	**0.90** ND	ND ND
GP-2	10	**5.9**	**56**	ND	ND	**0.85**	**2.8**	ND
GP-3	10	**1.3**	ND	ND	ND	ND	ND	ND
GP-4	5 10	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND	ND ND
Detection Limit		1.0	1.0	0.0050	0.0050	0.0050	0.0050	0.0050

ND = not detected

samples collected on 06-26-2000

Analytical Results: Groundwater

Table 2 presents the results of the laboratory analysis of the "grab" groundwater samples collected from the four "geoprobe" borings. Copies of the laboratory reports for the groundwater sample analyses are provided in Attachment D.

As shown in Table 2, Gasoline was detected in the "grab" groundwater samples collected from borings GP-1, GP-2 and GP-4 at concentrations of 200 μg/L (ppb), 560 μg/L (ppb) and 150 μg/L (ppb), respectively. Benzene was detected in the "grab" groundwater samples collected from borings GP-1, GP-2 and GP-4 at concentrations of 13 μg/L (ppb), 96 μg/L (ppb) and 0.56 μg/L (ppb), respectively.

As shown in Table 2, Diesel was detected in the "grab" groundwater samples collected from borings GP-2 and GP-4 at concentrations of 340 μg/L (ppb) and 190 μg/L (ppb), respectively.

TABLE 2.

"Grab" Groundwater Sampling Results

Boring	Date	TPH as Diesel (ug/L)	TPH as Gasoline (ug/L)	Benzene (ug/L)	Toluene (ug/L)	Ethyl-benzene (ug/L)	Xylenes (ug/L)	MTBE (ug/L)
GP-1	06-26-00	ND	200	13	ND	1.2	2.0	ND
GP-2	06-26-00	340	560	96	39	14	58	110
GP-3	06-26-00	ND	ND	ND	ND	ND	ND	17
GP-4	06-26-00	190	150	0.56	2.5	1.8	11	ND
Detection Limit		63	50	0.50	0.50	0.50	0.50	5.0

ND = not detected

IV. CONCLUSIONS

As described in this report, saturated soils were typically first encountered at depths ranging between 14.5 and 21 feet below ground surface, with static water levels measured at approximately 8.5 feet below ground surface. The shallow groundwater beneath the site appears to be somewhat confined.

Comparison of the analytical results for the recent "grab" groundwater samples with the historical analytical results for wells MW-3 and well MW-4 indicate good agreement with the reported concentrations of Gasoline and Benzene. In fact, due to the confined nature of the shallow groundwater beneath the site, the reported concentrations for well MW-3 appear to have been somewhat higher than the actual concentration within the confined layer below. This would be due to the fact that water within the monitoring well would have been in contact with the contaminated soil of the confining layer above.

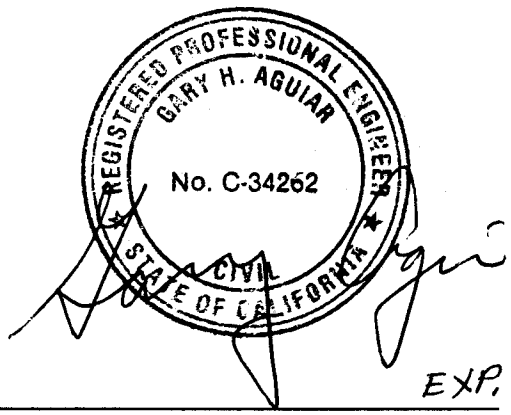
Based upon the results of this investigation, it can be concluded that **the existing shallow groundwater monitoring wells accurately reflect the shallow groundwater quality beneath the site**.

REPORT OF SUBSURFACE INVESTIGATION

PACIFIC CRYOGENIC

2311 Magnolia Street, Oakland, CA.

July 10, 2000



EXP. 9-30-03

Gary Aguiar **RCE 34262**

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

June 20, 2000

Mr. Aldo Guidotti
Attorney At Law
One Bates Boulevard
Orinda, CA 94563
STID 1211

RE: Pacific Cryogenics, 2311 Magnolia Street, Oakland, CA 94607

Dear Mr. Guidotti:

I have reviewed the Workplan for Subsurface Investigation dated June 12, 2000 that was prepared by Hageman-Aguiar, Inc. It is acceptable with the condition that a minimum of one soil, and one water sample be collected from each boring and submitted to the laboratory for analysis. The soil samples collected near the former tank diesel tank should be tested for the presence of TPH(d), TPH(g), BTEX and MTBE. The soil sample collected near the MW-2, MW-3 and pipeline should be tested for the presence of TPH(g), BTEX and MTBE. If greater than 200 ppb of MTBE is detected in the groundwater using EPA method 8020, confirmation should be done using EPA method 8260.

If you have any questions, please contact me at (510) 567-6774.

Sincerely,

Larry Seto
Sr. Hazardous Materials Specialist

Cc: Gary Aguiar, Hageman-Aguiar, Inc., 11100 San Pablo Ave., Suite 200-A, El Cerrito, CA 94530
Files

ATTACHMENT B

Permit

ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD, CA. 94544
PHONE (510) 670-5554 FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT 2311 Magnolia Street Oakland, CA

California Coordinate Source ____ ft. Accuracy ± ____ ft.
LON ____ / ____ / ____ ft. CCS ____ / ____ / ____ ft.
LAT ____ / ____ / ____

CLIENT
Name Estate of Jean K. Josephson
Address 250 Bates Blvd. Phone ____
City Orinda Zip 94563

APPLICANT
Name Hageman-Aguiar Inc
Address 1100 San Pablo Ave #200A Fax 510-620-0894
City El Cerrito Phone 510-620-0891 Zip 94530

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	☐	General	☐
Water Supply	☐	Contamination	☒
Monitoring	☐	Well Destruction	☐

PROPOSED WATER SUPPLY WELL USE

New Domestic	☐	Replacement Domestic	☐
Municipal	☐	Irrigation	☐
Industrial	☐	Other Temporary Boring only	☒

DRILLING METHOD:

Mud Rotary	☐	Air Rotary	☐	Auger	☐
Cable	☐	Other	☒ direct push		

DRILLER'S LICENSE NO. Gregg Drilling 485165

WELL PROJECTS
Drill Hole Diameter ____ in. Maximum
Casing Diameter ____ in. Depth ____ ft
Surface Seal Depth ____ ft. Number ____

GEOTECHNICAL PROJECTS
Number of Borings 4 Maximum
Hole Diameter 2 in. Depth 12 ft

ESTIMATED STARTING DATE 06/26/2000
ESTIMATED COMPLETION DATE 06/26/2000

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-68.

APPLICANT'S SIGNATURE Harry Aguiar DATE 6/20/00

JUN 20 2000 16:03

FOR OFFICE USE

PERMIT NUMBER WO0-384
WELL NUMBER ____
APN ____

PERMIT CONDITIONS

Circled Permit Requirements Apply

A. GENERAL
1. A permit application should be submitted so as to arrive at the ACPWA office five days prior to proposed starting date.
2. Submit to ACPWA within 60 days after completion of permitted work the original Department of Water Resources — WELL COMPLETION REPORT
3. Permit is void if project not begun within 90 days of approval date.

B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 50 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth for monitoring wells is the maximum depth practicable or 20 feet

D. GEOTECHNICAL
Backfill bore hole by tremie with Cement grout or cement grout/sand mixture. Upper 2-3 ft. replace in kind or with compacted cuttings.

E. CATHODIC
Fill hole above anode zone with concrete placed by tremie

F. WELL DESTRUCTION
See attached.

G. SPECIAL CONDITIONS

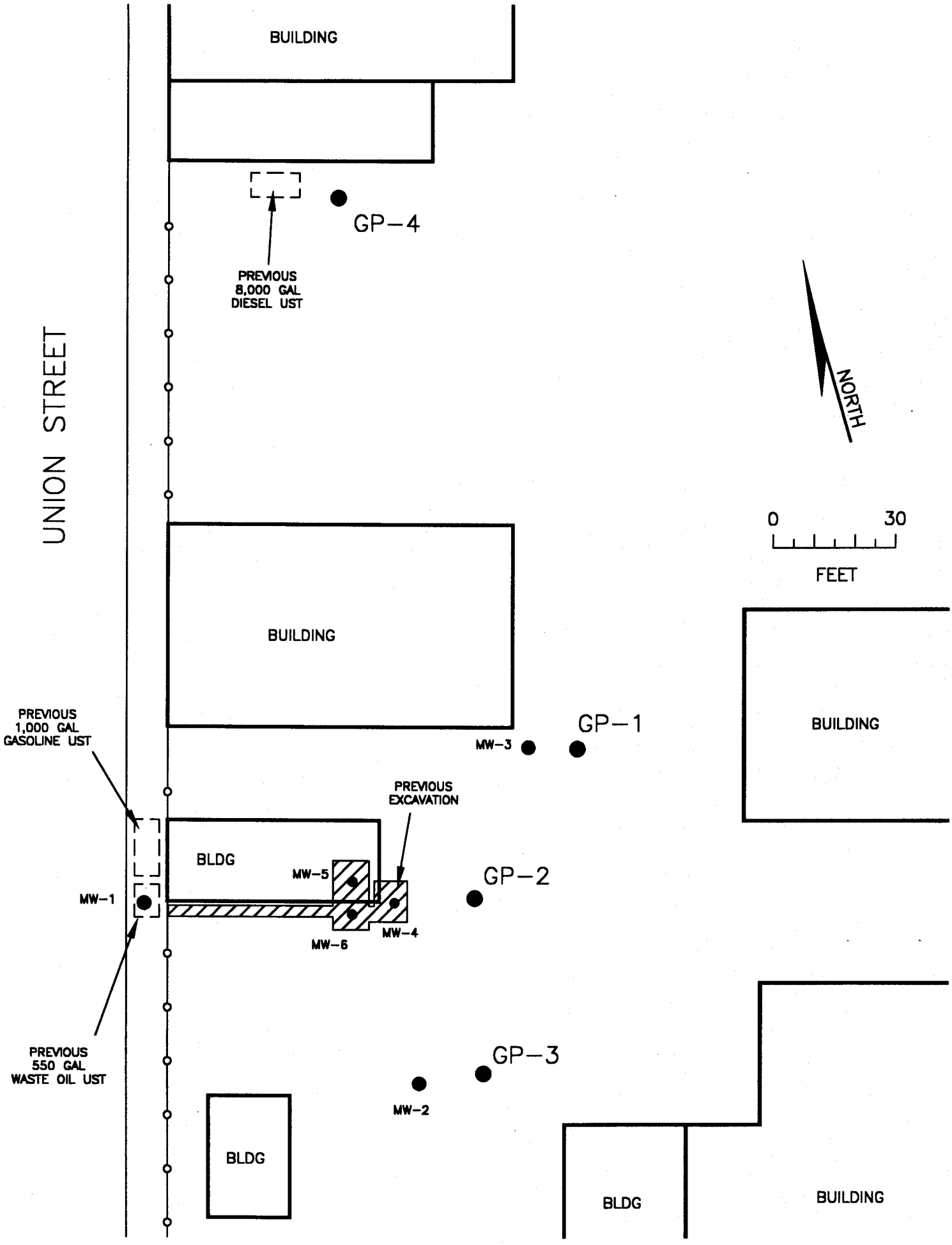
APPROVED Frank Cadd DATE 6/21/00

FAXED 6-21-00

PAGE. 01

ATTACHMENT C

Boring Logs


BUILDING
GP-4
PREVIOUS
8,000 GAL
DIESEL UST
UNION STREET
NORTH
0
30
FEET
BUILDING
BUILDING
PREVIOUS
1,000 GAL
GASOLINE UST
GP-1
MW-3
PREVIOUS
EXCAVATION
BLDG
MW-5
GP-2
MW-1
MW-4
MW-6
PREVIOUS
550 GAL
WASTE OIL UST
GP-3
MW-2
BLDG
BLDG
BUILDING

HAGEMAN-AGUIAR, INC.

11100 San Pablo Ave, Suite 200-A
El Cerrito, CA 94530

(510)620-0891 (510)620-0894 (fax)

FIELD BOREHOLE LOG

BOREHOLE NO.: **GP-1**

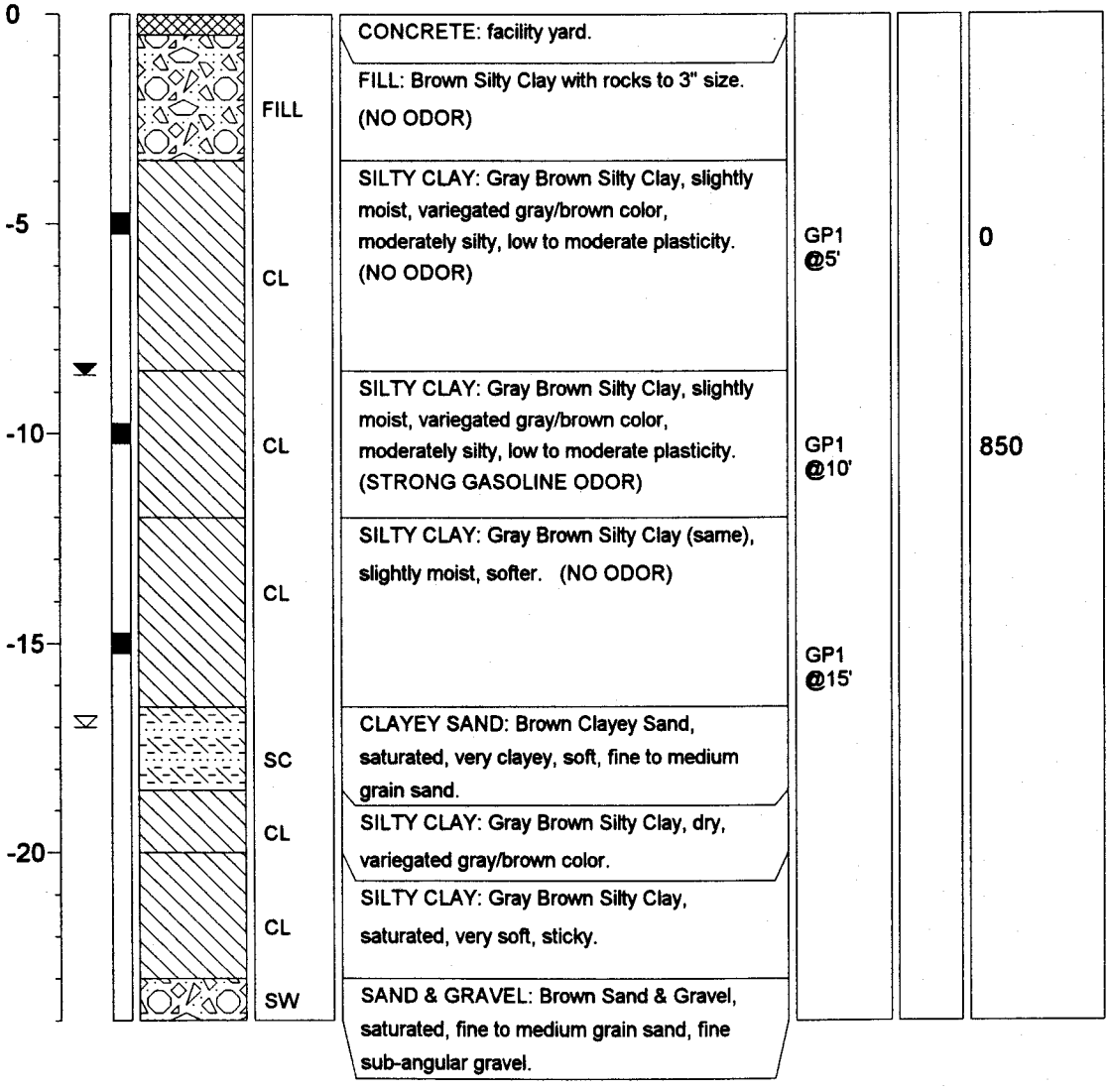
TOTAL DEPTH: **24'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Pacific Cryogenic**	DRILLING CO.:	**Gregg Drilling**
JOB NO.:	**0096**		**Martinez, CA**
SITE LOCATION:	**2311 Magnolia Street**	RIG TYPE:	**Geoprobe**
	Oakland, CA	METHOD OF DRILLING:	**Direct Push**
LOGGED BY:	**Gary Aguiar**	SAMPLING METHOD:	**Macrocore Barrel**
DATE DRILLED:	**06-26-00**	HAMMER WT./DROP:	

NOTES:

▽ Water level during drilling

▼ Stabilized water level in borehole



DEPTH (feet)	sample	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NUMBER		PID (ppm)	
0			FILL	CONCRETE: facility yard.				
				FILL: Brown Silty Clay with rocks to 3" size. (NO ODOR)				
-5			CL	SILTY CLAY: Gray Brown Silty Clay, slightly moist, variegated gray/brown color, moderately silty, low to moderate plasticity. (NO ODOR)	GP1 @5'		0	
-10			CL	SILTY CLAY: Gray Brown Silty Clay, slightly moist, variegated gray/brown color, moderately silty, low to moderate plasticity. (STRONG GASOLINE ODOR)	GP1 @10'		850	
			CL	SILTY CLAY: Gray Brown Silty Clay (same), slightly moist, softer. (NO ODOR)				
-15					GP1 @15'			
			SC	CLAYEY SAND: Brown Clayey Sand, saturated, very clayey, soft, fine to medium grain sand.				
-20			CL	SILTY CLAY: Gray Brown Silty Clay, dry, variegated gray/brown color.				
			CL	SILTY CLAY: Gray Brown Silty Clay, saturated, very soft, sticky.				
			SW	SAND & GRAVEL: Brown Sand & Gravel, saturated, fine to medium grain sand, fine sub-angular gravel.				

HAGEMAN-AGUIAR, INC.

11100 San Pablo Ave, Suite 200-A
El Cerrito, CA 94530
(510)620-0891 (510)620-0894 (fax)

FIELD BOREHOLE LOG

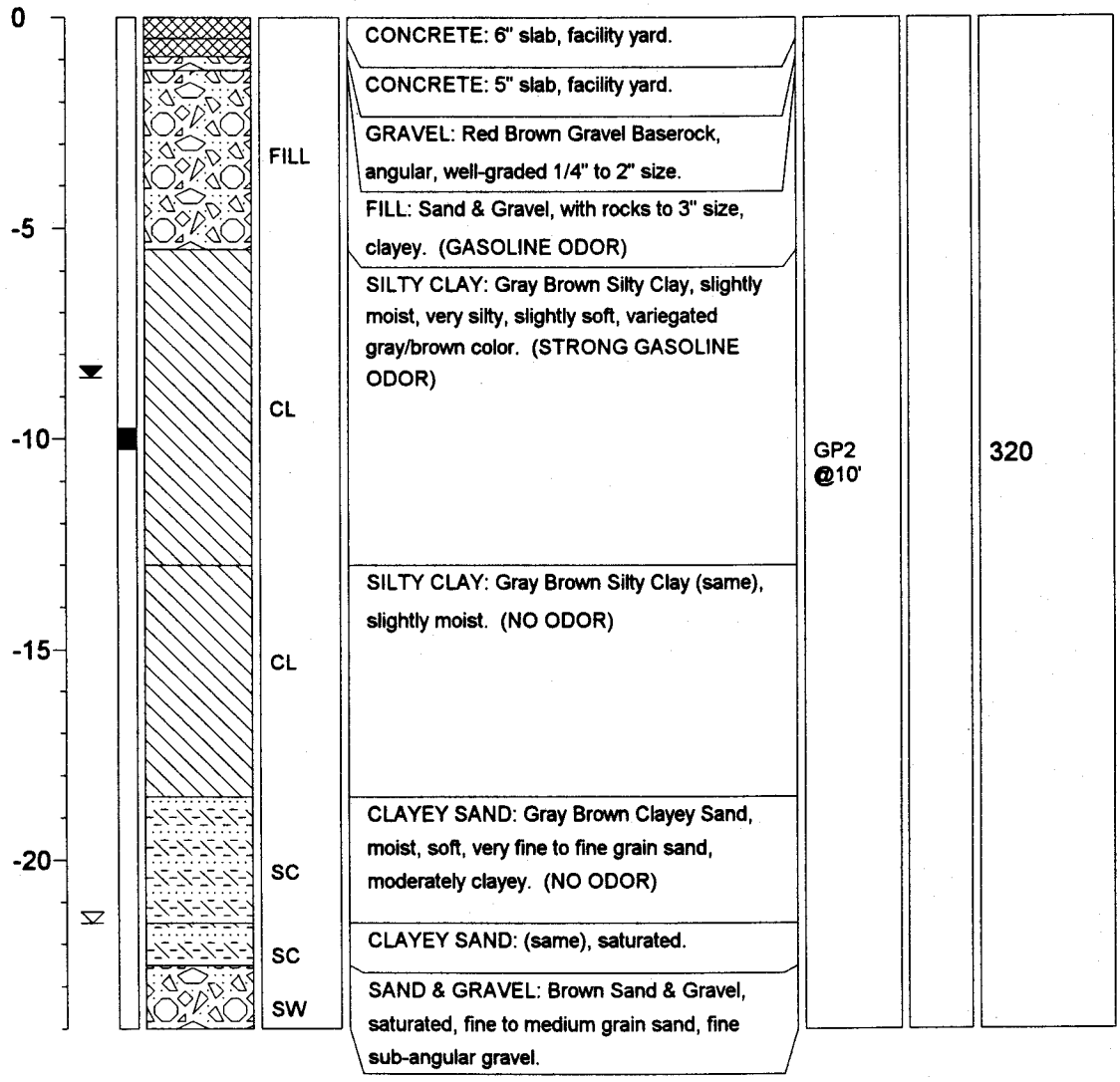
BOREHOLE NO.: **GP-2**

TOTAL DEPTH: **24'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Pacific Cryogenic**	DRILLING CO.:	**Gregg Drilling**
JOB NO.:	**0096**		**Martinez, CA**
SITE LOCATION:	**2311 Magnolia Street**	RIG TYPE:	**Geoprobe**
	Oakland, CA	METHOD OF DRILLING:	**Direct Push**
LOGGED BY:	**Gary Aguiar**	SAMPLING METHOD:	**Macrocore Barrel**
DATE DRILLED:	**06-26-00**	HAMMER WT./DROP:	

NOTES:

▽ Water level during drilling
▼ Stabilized water level in borehole



HAGEMAN-AGUIAR, INC.

11100 San Pablo Ave, Suite 200-A
El Cerrito, CA 94530
(510)620-0891 (510)620-0894 (fax)

FIELD BOREHOLE LOG

BOREHOLE NO.: **GP-3**

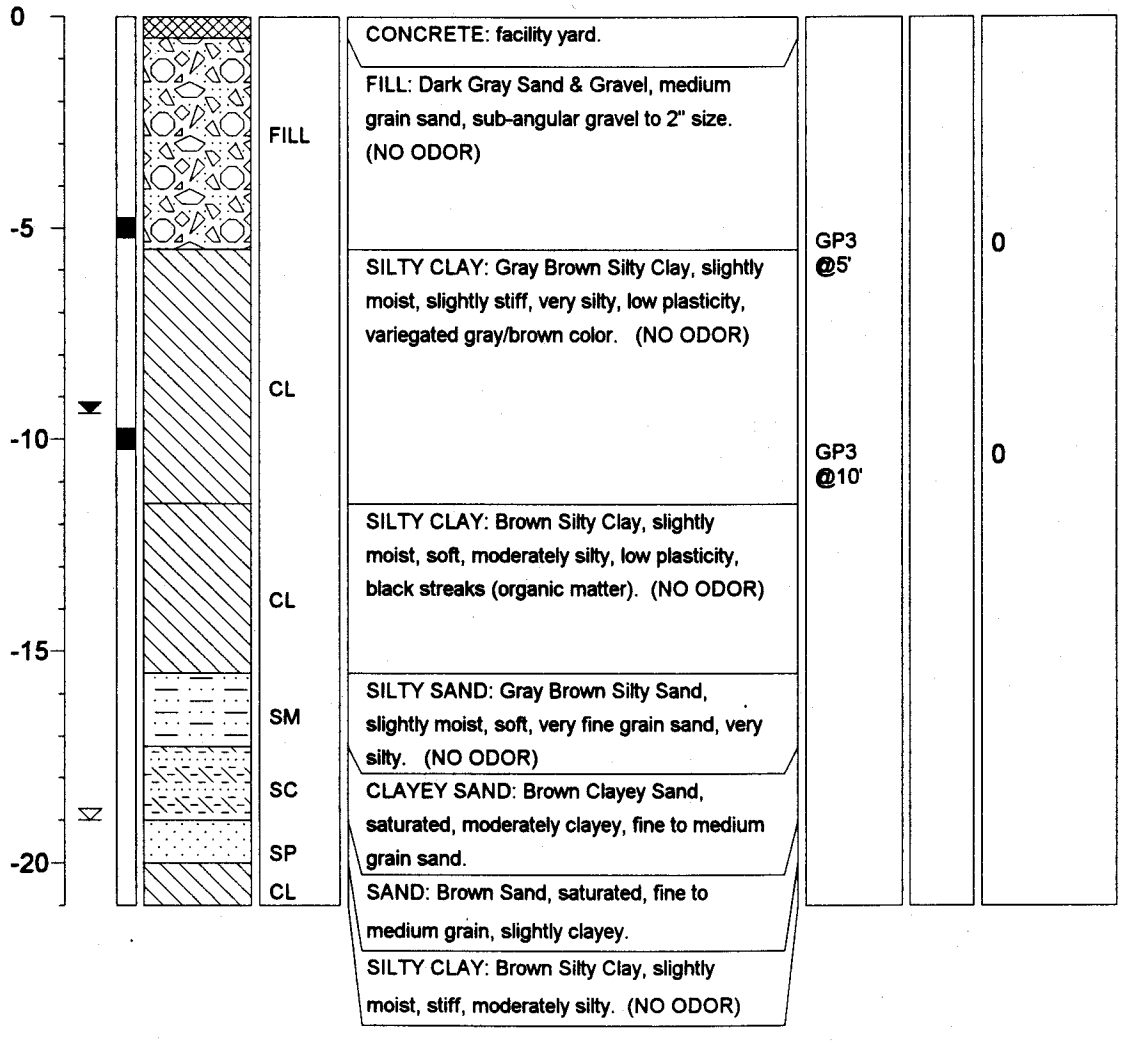
TOTAL DEPTH: **21'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Pacific Cryogenic**	DRILLING CO.:	**Gregg Drilling**
JOB NO.:	**0096**		**Martinez, CA**
SITE LOCATION:	**2311 Magnolia Street**	RIG TYPE:	**Geoprobe**
	Oakland, CA	METHOD OF DRILLING:	**Direct Push**
LOGGED BY:	**Gary Aguiar**	SAMPLING METHOD:	**Macrocore Barrel**
DATE DRILLED:	**06-26-00**	HAMMER WT./DROP:	

NOTES:

▽ Water level during drilling
▼ Stabilized water level in borehole

Page 1 of 1



HAGEMAN-AGUIAR, INC.

11100 San Pablo Ave, Suite 200-A
El Cerrito, CA 94530

(510)620-0891 (510)620-0894 (fax)

FIELD BOREHOLE LOG

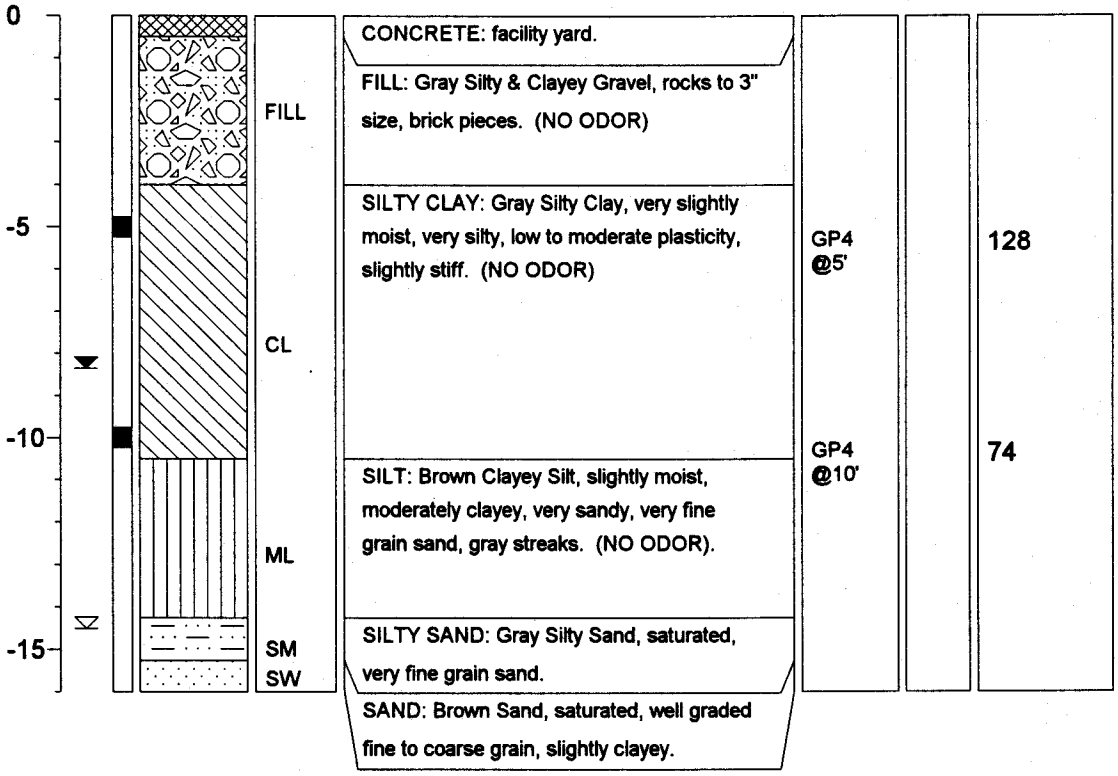
BOREHOLE NO.: **GP-4**

TOTAL DEPTH: **16'**

PROJECT INFORMATION		DRILLING INFORMATION	
PROJECT:	**Pacific Cryogenic**	DRILLING CO.:	**Gregg Drilling**
JOB NO.:	**0096**		**Martinez, CA**
SITE LOCATION:	**2311 Magnolia Street**	RIG TYPE:	**Geoprobe**
	Oakland, CA	METHOD OF DRILLING:	**Direct Push**
LOGGED BY:	**Gary Aguiar**	SAMPLING METHOD:	**Macrocore Barrel**
DATE DRILLED:	**06-26-00**	HAMMER WT./DROP:	

NOTES:

▽ Water level during drilling
▼ Stabilized water level in borehole



DEPTH (feet)	sample	SOIL SYMBOLS	USCS	SOIL DESCRIPTION	SAMPLE NUMBER		PID (ppm)	
0			FILL	CONCRETE: facility yard.				
				FILL: Gray Silty & Clayey Gravel, rocks to 3" size, brick pieces. (NO ODOR)				
-5			CL	SILTY CLAY: Gray Silty Clay, very slightly moist, very silty, low to moderate plasticity, slightly stiff. (NO ODOR)	GP4 @5'		128	
-10			ML	SILT: Brown Clayey Silt, slightly moist, moderately clayey, very sandy, very fine grain sand, gray streaks. (NO ODOR).	GP4 @10'		74	
-15			SM SW	SILTY SAND: Gray Silty Sand, saturated, very fine grain sand.				
				SAND: Brown Sand, saturated, well graded fine to coarse grain, slightly clayey.				

ATTACHMENT D

Analytical Results

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-06-0502
Date: July 3, 2000

Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Attn.: Mr. Gary Aguiar

Project: Pacific Cryogenic

Site: 2311 Magnolia Street
Oakland, CA

Dear Mr. Aguiar,

Attached is our report for your samples received on Monday June 26, 2000
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after July 26, 2000 unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: vvancil@chromalab.com

Sincerely,

Vincent Vancil

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

Diesel

Hageman-Aguiar, Inc.

Attn: Gary Aguiar

Project #:

Site: 2311 Magnolia Street
Oakland, CA

11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Phone: (510) 620-0891 Fax: (510) 620-0894

Project: Pacific Cryogenic

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
GP-4 @ 5`	Soil	06/26/2000 09:40	1
GP-4 @ 10`	Soil	06/26/2000 09:45	2
GP-1 @ 10`	Soil	06/26/2000 10:40	4
GP-1 @ 15`	Soil	06/26/2000 10:45	5
GP-2 @ 10`	Soil	06/26/2000 11:15	6
GP-3 @ 10`	Soil	06/26/2000 11:55	8

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**
Attn.: Gary Aguiar

Test Method: 8015m
Prep Method: 3550/8015M

Diesel

Sample ID:	**GP-4 @ 5`**	Lab Sample ID:	**2000-06-0502-001**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/27/2000 11:07
Sampled:	06/26/2000 09:40	QC-Batch:	2000/06/27-02.10
Matrix:	Soil		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	06/28/2000 02:04	
Surrogate(s)						
o-Terphenyl	78.5	60-130	%	1.00	06/28/2000 02:04	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**
Attn.: Gary Aguiar

Test Method: 8015m
Prep Method: 3550/8015M

Diesel

Sample ID:	**GP-4 @ 10`**	Lab Sample ID:	**2000-06-0502-002**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/27/2000 11:07
Sampled:	06/26/2000 09:45	QC-Batch:	2000/06/27-02.10
Matrix:	Soil		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	1.0	mg/Kg	1.00	06/28/2000 02:43	
Surrogate(s)						
o-Terphenyl	87.3	60-130	%	1.00	06/28/2000 02:43	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**
Attn.: Gary Aguiar

Test Method: 8015m
Prep Method: 3550/8015M

Diesel

Sample ID:	**GP-1 @ 10'**	Lab Sample ID:	**2000-06-0502-004**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/27/2000 11:07
Sampled:	06/26/2000 10:40	QC-Batch:	2000/06/27-02.10
Matrix:	Soil		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	20	1.0	mg/Kg	1.00	06/28/2000 03:22	edr
Surrogate(s)						
o-Terphenyl	81.9	60-130	%	1.00	06/28/2000 03:22	

To: **Hageman-Aguiar, Inc.**
Attn:Gary Aguiar

Test Method: 8015m
Prep Method: 3550/8015M

Legend & Notes

Diesel

Analyte Flags

edr

Hydrocarbon reported is in the early Diesel range, and does not match our Diesel standard

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

nhc

Compounds reported are in this range but they do not exhibit a pattern characteristic of petroleum hydrocarbon.

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

Gas/BTEX and MTBE

Hageman-Aguiar, Inc.

Attn: Gary Aguiar

Project #:

Site: 2311 Magnolia Street
Oakland, CA

11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Phone: (510) 620-0891 Fax: (510) 620-0894

Project: Pacific Cryogenic

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
GP-4 @ 5`	Soil	06/26/2000 09:40	1
GP-4 @ 10`	Soil	06/26/2000 09:45	2
GP-1 @ 15`	Soil	06/26/2000 10:45	5
GP-3 @ 10`	Soil	06/26/2000 11:55	8

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**GP-4 @ 5`**	Lab Sample ID:	**2000-06-0502-001**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/30/2000 16:39
Sampled:	06/26/2000 09:40	QC-Batch:	2000/06/30-01.01
Matrix:	Soil		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/30/2000 16:39	
Benzene	ND	0.0050	mg/Kg	1.00	06/30/2000 16:39	
Toluene	ND	0.0050	mg/Kg	1.00	06/30/2000 16:39	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/30/2000 16:39	
Xylene(s)	ND	0.0050	mg/Kg	1.00	06/30/2000 16:39	
MTBE	ND	0.0050	mg/Kg	1.00	06/30/2000 16:39	
Surrogate(s)						
Trifluorotoluene	75.5	53-125	%	1.00	06/30/2000 16:39	
Trifluorotoluene-FID	79.9	53-125	%	1.00	06/30/2000 16:39	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**GP-4 @ 10`**	Lab Sample ID:	**2000-06-0502-002**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/30/2000 17:13
Sampled:	06/26/2000 09:45	QC-Batch:	2000/06/30-01.01
Matrix:	Soil		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/30/2000 17:13	
Benzene	ND	0.0050	mg/Kg	1.00	06/30/2000 17:13	
Toluene	ND	0.0050	mg/Kg	1.00	06/30/2000 17:13	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/30/2000 17:13	
Xylene(s)	ND	0.0050	mg/Kg	1.00	06/30/2000 17:13	
MTBE	ND	0.0050	mg/Kg	1.00	06/30/2000 17:13	
Surrogate(s)						
Trifluorotoluene	70.3	53-125	%	1.00	06/30/2000 17:13	
4-Bromofluorobenzene-FID	64.6	58-124	%	1.00	06/30/2000 17:13	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**GP-1 @ 15'**	Lab Sample ID:	**2000-06-0502-005**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/30/2000 17:48
Sampled:	06/26/2000 10:45	QC-Batch:	2000/06/30-01.01
Matrix:	Soil		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/30/2000 17:48	
Benzene	ND	0.0050	mg/Kg	1.00	06/30/2000 17:48	
Toluene	ND	0.0050	mg/Kg	1.00	06/30/2000 17:48	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/30/2000 17:48	
Xylene(s)	ND	0.0050	mg/Kg	1.00	06/30/2000 17:48	
MTBE	ND	0.0050	mg/Kg	1.00	06/30/2000 17:48	
Surrogate(s)						
Trifluorotoluene	76.5	53-125	%	1.00	06/30/2000 17:48	
4-Bromofluorobenzene-FID	75.1	58-124	%	1.00	06/30/2000 17:48	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**GP-3 @ 10'**	Lab Sample ID:	**2000-06-0502-008**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/30/2000 19:32
Sampled:	06/26/2000 11:55	QC-Batch:	2000/06/30-01.01
Matrix:	Soil		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	1.00	06/30/2000 19:32	
Benzene	ND	0.0050	mg/Kg	1.00	06/30/2000 19:32	
Toluene	ND	0.0050	mg/Kg	1.00	06/30/2000 19:32	
Ethyl benzene	ND	0.0050	mg/Kg	1.00	06/30/2000 19:32	
Xylene(s)	ND	0.0050	mg/Kg	1.00	06/30/2000 19:32	
MTBE	ND	0.0050	mg/Kg	1.00	06/30/2000 19:32	
Surrogate(s)						
Trifluorotoluene	78.6	53-125	%	1.00	06/30/2000 19:32	
4-Bromofluorobenzene-FID	71.7	58-124	%	1.00	06/30/2000 19:32	

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

Method Blank | **Soil** | **QC Batch # 2000/06/30-01.01**

MB: 2000/06/30-01.01-001

Date Extracted: 06/30/2000 07:14

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	06/30/2000 07:14	
Benzene	ND	0.0050	mg/Kg	06/30/2000 07:14	
Toluene	ND	0.0050	mg/Kg	06/30/2000 07:14	
Ethyl benzene	ND	0.0050	mg/Kg	06/30/2000 07:14	
Xylene(s)	ND	0.0050	mg/Kg	06/30/2000 07:14	
MTBE	ND	0.0050	mg/Kg	06/30/2000 07:14	
Surrogate(s)					
Trifluorotoluene	88.6	53-125	%	06/30/2000 07:14	
4-Bromofluorobenzene-FID	92.2	58-124	%	06/30/2000 07:14	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**

Attn: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) **Soil** **QC Batch # 2000/06/30-01.01**

LCS: 2000/06/30-01.01-002 Extracted: 06/30/2000 07:49 Analyzed 06/30/2000 07:49

LCSD: 2000/06/30-01.01-003 Extracted: 06/30/2000 08:24 Analyzed 06/30/2000 08:24

Compound	Conc. [mg/Kg]		Exp.Conc. [mg/Kg]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	0.532	0.472	0.500	0.500	106.4	94.4	12.0	75-125	35		
Benzene	0.0983	0.0985	0.1000	0.1000	98.3	98.5	0.2	77-123	35		
Toluene	0.0924	0.0921	0.1000	0.1000	92.4	92.1	0.3	78-122	35		
Ethyl benzene	0.0958	0.0953	0.1000	0.1000	95.8	95.3	0.5	70-130	35		
Xylene(s)	0.290	0.285	0.300	0.300	96.7	95.0	1.8	75-125	35		
Surrogate(s)											
Trifluorotoluene	444	431	500	500	88.8	86.2		53-125			
4-Bromofluorobenzene-FI	459	425	500	500	91.8	85.0		58-124			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

Gas/BTEX (Methanol Extraction)

Hageman-Aguiar, Inc.	✉ 11100 San Pablo Avenue, Suite 200-A El Cerrito, CA 94530
Attn: Gary Aguiar	Phone: (510) 620-0891 Fax: (510) 620-0894
Project #:	Project: Pacific Cryogenic
Site: 2311 Magnolia Street Oakland, CA	

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
GP-1 @ 10`	Soil	06/26/2000 10:40	4
GP-2 @ 10`	Soil	06/26/2000 11:15	6

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX (Methanol Extraction)

Sample ID:	**GP-1 @ 10'**	Lab Sample ID:	**2000-06-0502-004**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/30/2000 18:23
Sampled:	06/26/2000 10:40	QC-Batch:	2000/06/30-05.02
Matrix:	Soil		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	100	10	mg/Kg	1.00	06/30/2000 18:23	
Benzene	ND	0.62	mg/Kg	1.00	06/30/2000 18:23	
Toluene	ND	0.62	mg/Kg	1.00	06/30/2000 18:23	
Ethyl benzene	ND	0.62	mg/Kg	1.00	06/30/2000 18:23	
Xylene(s)	0.90	0.62	mg/Kg	1.00	06/30/2000 18:23	
MTBE	ND	0.62	mg/Kg	1.00	06/30/2000 18:23	
Surrogate(s)						
4-Bromofluorobenzene	135.9	58-124	%	1.00	06/30/2000 18:23	sh
4-Bromofluorobenzene-FID	192.1	58-124	%	1.00	06/30/2000 18:23	sh

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0502

To: **Hageman-Aguiar, Inc.**

Test Method: 8020
8015M

Attn: Gary Aguiar

Prep Method: 5030

Batch QC Report

Gas/BTEX (Methanol Extraction)

Laboratory Control Spike (LCS/LCSD) **Soil** **QC Batch # 2000/06/30-05.02**

LCS: 2000/06/30-05.02-002 Extracted: 06/30/2000 14:27 Analyzed 06/30/2000 14:27

LCSD: 2000/06/30-05.02-003 Extracted: 06/30/2000 14:59 Analyzed 06/30/2000 14:59

Compound	Conc. [mg/Kg]		Exp.Conc. [mg/Kg]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	0.754	0.748	0.625	0.625	120.6	119.7	0.7	75-125	35		
Benzene	0.118	0.130	0.125	0.125	94.4	104.0	9.7	77-123	35		
Toluene	0.116	0.130	0.125	0.125	92.8	104.0	11.4	78-122	35		
Ethyl benzene	0.121	0.133	0.125	0.125	96.8	106.4	9.4	70-130	35		
Xylene(s)	0.370	0.401	0.375	0.375	98.7	106.9	8.0	75-125	35		
Surrogate(s)											
Trifluorotoluene	455	530	500	500	91.0	106.0		53-125			
4-Bromofluorobenzene-FI	618	615	500	500	123.6	123.0		58-124			

To: **Hageman-Aguiar, Inc.**

Attn:Gary Aguiar

Test Method: 8015M
8020

Prep Method: 5030

Legend & Notes

Gas/BTEX (Methanol Extraction)

Analyte Flags

sh

Surrogate recoveries were higher than QC limits due to matrix interference.

2000-06-0502

CHAIN OF CUSTODY RECORD

52994

Pg 1 of 1

PROJECT NAME AND ADDRESS:

Pacific Cryogenic
2311 Magnolia Street
Oakland

SAMPLER: (Signature) Randal Wilson

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

ANALYSIS REQUESTED

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	SAMPLE LOCATION	TPH-Diesel	TPH-Gas, BTEX, MTBE						REMARKS
GP-4@5'	06/26/00	09:40	X		Geoprobe #4@ 5' bgs	X	X						Confirm MTBE
GP-4@10'	06/26/00	09:45	X		" #4@ 10' bgs	X	X						By 8260 only
GP-1@5'	06/26/00	10:35	X		" #1@ 5' bgs	X	X			HOLD			if detected
GP-1@10'	06/26/00	10:40	X		" #1@ 10' bgs	X	X						by 8020/8015
GP-1@15'	06/26/00	10:45	X		" #1@ 15' bgs	X	X						
GP-2@10'	06/26/00	11:15	X		" #2@ 10' bgs	X	X						
GP-3@5'	06/26/00	11:50	X		" #3@ 5' bgs	X	X			HOLD			
GP-3@10'	06/26/00	11:55	X		" #3@ 10' bgs	X	X						
													3.8°

RELINQUISHED BY: (Signature) Randal Wilson	DATE 06/26/00 TIME 15:27	RECEIVED BY: (Signature)	DATE TIME
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 06/26/00 TIME 1525

CHROMALAB, INC.
Environmental Services (SDB)

Submission #: 2000-06-0501
Date: July 3, 2000

Hageman-Aguiar, Inc.
11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Attn.: Mr. Gary Aguiar

Project: Pacific Cryogenic

Site: 2311 Magnolia Street
Oakland, CA

Dear Mr. Aguiar,

Attached is our report for your samples received on Monday June 26, 2000
This report has been reviewed and approved for release. Reproduction of this report is permitted only in its entirety.

Please note that any unused portion of the samples will be discarded after July 26, 2000 unless you have requested otherwise. We appreciate the opportunity to be of service to you.
If you have any questions, please call me at (925) 484-1919. You can also contact me via email.
My email address is: vvancil@chromalab.com

Sincerely,

Vincent Vancil

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

Diesel

Hageman-Aguiar, Inc.

11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Attn: Gary Aguiar

Phone: (510) 620-0891 Fax: (510) 620-0894

Project #:

Project: Pacific Cryogenic

Site: 2311 Magnolia Street
Oakland, CA

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
GP-1	Water	06/26/2000	1
GP-2	Water	06/26/2000	2
GP-3	Water	06/26/2000	3
GP-4	Water	06/26/2000	4

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**
Attn.: Gary Aguiar

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID: **GP-1**
Lab Sample ID: **2000-06-0501-001**

Project: Pacific Cryogenic
Received: 06/26/2000 15:25

Site: 2311 Magnolia Street Oakland, CA
Extracted: 06/26/2000 14:18

Sampled: 06/26/2000
QC-Batch: 2000/06/26-06.10

Matrix: Water

Sample/Analysis Flag rl (See Legend & Note section)

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	63	ug/L	1.25	06/29/2000 22:34	
Surrogate(s)						
o-Terphenyl	82.9	60-130	%	1.25	06/29/2000 22:34	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**
Attn.: Gary Aguiar

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID: **GP-2**
Lab Sample ID: **2000-06-0501-002**

Project: Pacific Cryogenic
Received: 06/26/2000 15:25

Site: 2311 Magnolia Street Oakland, CA
Extracted: 06/26/2000 14:18

Sampled: 06/26/2000
QC-Batch: 2000/06/26-06.10

Matrix: Water

Sample/Analysis Flag rl (See Legend & Note section)

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	340	63	ug/L	1.25	06/30/2000 11:27	ndp
Surrogate(s)						
o-Terphenyl	51.7	60-130	%	1.25	06/30/2000 11:27	sl

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**
Attn.: Gary Aguiar

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID:	**GP-3**	Lab Sample ID:	**2000-06-0501-003**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/26/2000 14:18
Sampled:	06/26/2000	QC-Batch:	2000/06/26-06.10
Matrix:	Water		

Sample/Analysis Flag rl (See Legend & Note section)

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	ND	63	ug/L	1.25	06/29/2000 23:52	
Surrogate(s)						
o-Terphenyl	87.8	60-130	%	1.25	06/29/2000 23:52	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**
Attn.: Gary Aguiar

Test Method: 8015m
Prep Method: 3510/8015M

Diesel

Sample ID:	**GP-4**	Lab Sample ID:	**2000-06-0501-004**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/26/2000 14:18
Sampled:	06/26/2000	QC-Batch:	2000/06/26-06.10
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Diesel	190	50	ug/L	1.00	06/30/2000 12:01	ndp
Surrogate(s)						
o-Terphenyl	37.2	60-130	%	1.00	06/30/2000 12:01	sl

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**
Attn.: Gary Aguiar

Test Method: 8015m
Prep Method: 3510/8015M

Batch QC Report
Diesel

Method Blank | **Water** | **QC Batch # 2000/06/26-06.10**

MB: 2000/06/26-06.10-001 | Date Extracted: 06/26/2000 14:18

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Diesel	ND	50	ug/L	06/29/2000 13:23	
Surrogate(s)					
o-Terphenyl	90.0	60-130	%	06/29/2000 13:23	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**

Attn: Gary Aguiar

Test Method: 8015m

Prep Method: 3510/8015M

Batch QC Report

Diesel

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/06/26-06.10**

LCS: 2000/06/26-06.10-002 Extracted: 06/26/2000 14:18 Analyzed 06/29/2000 14:02

LCSD: 2000/06/26-06.10-003 Extracted: 06/26/2000 14:18 Analyzed 06/29/2000 14:42

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Diesel	826	830	1250	1250	66.1	66.4	0.5	60-130	25		
Surrogate(s)											
o-Terphenyl	16.7	16.3	20.0	20.0	83.5	81.5		60-130			

To: **Hageman-Aguiar, Inc.**
Attn:Gary Aguiar

Test Method: 8015m
Prep Method: 3510/8015M

Legend & Notes

Diesel

Analysis Flags

rl

Reporting limits raised due to reduced sample size.

Analyte Flags

ndp

Hydrocarbon reported does not match the pattern of our Diesel standard

sl

Surrogate recoveries were lower than QC limit due to matrix interference, confirmed by reanalysis.

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

Gas/BTEX and MTBE

Hageman-Aguiar, Inc.

✉ 11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Attn: Gary Aguiar

Phone: (510) 620-0891 Fax: (510) 620-0894

Project #:

Project: Pacific Cryogenic

Site: 2311 Magnolia Street
Oakland, CA

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
GP-1	Water	06/26/2000	1
GP-2	Water	06/26/2000	2
GP-3	Water	06/26/2000	3
GP-4	Water	06/26/2000	4

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

Gas/BTEX and MTBE

Hageman-Aguiar, Inc.

Attn: Gary Aguiar

Project #:

Site: 2311 Magnolia Street
Oakland, CA

11100 San Pablo Avenue, Suite 200-A
El Cerrito, CA 94530

Phone: (510) 620-0891 Fax: (510) 620-0894

Project: Pacific Cryogenic

Samples Reported

Sample ID	Matrix	Date Sampled	Lab #
GP-1	Water	06/26/2000	1
GP-2	Water	06/26/2000	2
GP-3	Water	06/26/2000	3
GP-4	Water	06/26/2000	4

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**GP-1**	Lab Sample ID:	**2000-06-0501-001**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/29/2000 15:27
Sampled:	06/26/2000	QC-Batch:	2000/06/29-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	200	50	ug/L	1.00	06/29/2000 15:27	g
Benzene	13	0.50	ug/L	1.00	06/29/2000 15:27	
Toluene	ND	0.50	ug/L	1.00	06/29/2000 15:27	
Ethyl benzene	1.2	0.50	ug/L	1.00	06/29/2000 15:27	
Xylene(s)	2.0	0.50	ug/L	1.00	06/29/2000 15:27	
MTBE	ND	5.0	ug/L	1.00	06/29/2000 15:27	
Surrogate(s)						
4-Bromofluorobenzene	93.3	50-150	%	1.00	06/29/2000 15:27	
4-Bromofluorobenzene-FID	95.0	50-150	%	1.00	06/29/2000 15:27	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**GP-2**	Lab Sample ID:	**2000-06-0501-002**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/29/2000 16:02
Sampled:	06/26/2000	QC-Batch:	2000/06/30-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	560	50	ug/L	1.00	06/29/2000 16:02	
Benzene	96	0.50	ug/L	1.00	06/29/2000 16:02	
Toluene	39	0.50	ug/L	1.00	06/29/2000 16:02	
Ethyl benzene	14	0.50	ug/L	1.00	06/29/2000 16:02	
Xylene(s)	58	0.50	ug/L	1.00	06/29/2000 16:02	
MTBE	110	5.0	ug/L	1.00	06/29/2000 16:02	
Surrogate(s)						
Trifluorotoluene	113.7	58-124	%	1.00	06/29/2000 16:02	
4-Bromofluorobenzene-FID	95.8	50-150	%	1.00	06/29/2000 16:02	

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**GP-3**	Lab Sample ID:	**2000-06-0501-003**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/29/2000 16:37
Sampled:	06/26/2000	QC-Batch:	2000/06/29-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	ND	50	ug/L	1.00	06/29/2000 16:37	
Benzene	ND	0.50	ug/L	1.00	06/29/2000 16:37	
Toluene	ND	0.50	ug/L	1.00	06/29/2000 16:37	
Ethyl benzene	ND	0.50	ug/L	1.00	06/29/2000 16:37	
Xylene(s)	ND	0.50	ug/L	1.00	06/29/2000 16:37	
MTBE	17	5.0	ug/L	1.00	06/29/2000 16:37	
Surrogate(s)						
Trifluorotoluene	90.3	58-124	%	1.00	06/29/2000 16:37	
4-Bromofluorobenzene-FID	93.5	50-150	%	1.00	06/29/2000 16:37	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Gas/BTEX and MTBE

Sample ID:	**GP-4**	Lab Sample ID:	**2000-06-0501-004**
Project:	Pacific Cryogenic	Received:	06/26/2000 15:25
Site:	2311 Magnolia Street Oakland, CA	Extracted:	06/29/2000 17:12
Sampled:	06/26/2000	QC-Batch:	2000/06/29-01.01
Matrix:	Water		

Compound	Result	Rep.Limit	Units	Dilution	Analyzed	Flag
Gasoline	150	50	ug/L	1.00	06/29/2000 17:12	
Benzene	0.56	0.50	ug/L	1.00	06/29/2000 17:12	
Toluene	2.5	0.50	ug/L	1.00	06/29/2000 17:12	
Ethyl benzene	1.8	0.50	ug/L	1.00	06/29/2000 17:12	
Xylene(s)	11	0.50	ug/L	1.00	06/29/2000 17:12	
MTBE	ND	5.0	ug/L	1.00	06/29/2000 17:12	
Surrogate(s)						
4-Bromofluorobenzene	92.4	50-150	%	1.00	06/29/2000 17:12	
4-Bromofluorobenzene-FID	92.6	50-150	%	1.00	06/29/2000 17:12	

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report
Gas/BTEX and MTBE

Method Blank | **Water** | **QC Batch # 2000/06/29-01.01**

MB: 2000/06/29-01.01-001 | Date Extracted: 06/29/2000 06:54

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	50	ug/L	06/29/2000 06:54	
Benzene	ND	0.5	ug/L	06/29/2000 06:54	
Toluene	ND	0.5	ug/L	06/29/2000 06:54	
Ethyl benzene	ND	0.5	ug/L	06/29/2000 06:54	
Xylene(s)	ND	0.5	ug/L	06/29/2000 06:54	
MTBE	ND	5.0	ug/L	06/29/2000 06:54	
Surrogate(s)					
Trifluorotoluene	97.2	58-124	%	06/29/2000 06:54	
4-Bromofluorobenzene-FID	95.8	50-150	%	06/29/2000 06:54	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**

Attn.: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Method Blank | **Soil** | **QC Batch # 2000/06/30-01.01**

MB: 2000/06/30-01.01-001

Date Extracted: 06/30/2000 07:14

Compound	Result	Rep.Limit	Units	Analyzed	Flag
Gasoline	ND	1.0	mg/Kg	06/30/2000 07:14	
Benzene	ND	0.0050	mg/Kg	06/30/2000 07:14	
Toluene	ND	0.0050	mg/Kg	06/30/2000 07:14	
Ethyl benzene	ND	0.0050	mg/Kg	06/30/2000 07:14	
Xylene(s)	ND	0.0050	mg/Kg	06/30/2000 07:14	
MTBE	ND	0.0050	mg/Kg	06/30/2000 07:14	
Surrogate(s)					
Trifluorotoluene	88.6	53-125	%	06/30/2000 07:14	
4-Bromofluorobenzene-FID	92.2	58-124	%	06/30/2000 07:14	

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**

Test Method: 8020
8015M

Attn: Gary Aguiar

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) **Water** **QC Batch # 2000/06/29-01.01**

LCS: 2000/06/29-01.01-002 Extracted: 06/29/2000 07:29 Analyzed 06/29/2000 07:29

LCSD: 2000/06/29-01.01-003 Extracted: 06/29/2000 08:03 Analyzed 06/29/2000 08:03

Compound	Conc. [ug/L]		Exp.Conc. [ug/L]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	531	485	500	500	106.2	97.0	9.1	75-125	20		
Benzene	105	103	100.0	100.0	105.0	103.0	1.9	77-123	20		
Toluene	99.6	96.9	100.0	100.0	99.6	96.9	2.7	78-122	20		
Ethyl benzene	102	99.1	100.0	100.0	102.0	99.1	2.9	70-130	20		
Xylene(s)	303	296	300	300	101.0	98.7	2.3	75-125	20		
Surrogate(s)											
Trifluorotoluene	468	454	500	500	93.6	90.8		58-124			
4-Bromofluorobenzene-FI	441	423	500	500	88.2	84.6		50-150			

CHROMALAB, INC.

Environmental Services (SDB)

Submission #: 2000-06-0501

To: **Hageman-Aguiar, Inc.**

Attn: Gary Aguiar

Test Method: 8020
8015M

Prep Method: 5030

Batch QC Report

Gas/BTEX and MTBE

Laboratory Control Spike (LCS/LCSD) **Soil** **QC Batch # 2000/06/30-01.01**

LCS: 2000/06/30-01.01-002 Extracted: 06/30/2000 07:49 Analyzed 06/30/2000 07:49

LCSD: 2000/06/30-01.01-003 Extracted: 06/30/2000 08:24 Analyzed 06/30/2000 08:24

Compound	Conc. [mg/Kg]		Exp.Conc. [mg/Kg]		Recovery [%]		RPD	Ctrl. Limits [%]		Flags	
	LCS	LCSD	LCS	LCSD	LCS	LCSD	[%]	Recovery	RPD	LCS	LCSD
Gasoline	0.532	0.472	0.500	0.500	106.4	94.4	12.0	75-125	35		
Benzene	0.0983	0.0985	0.1000	0.1000	98.3	98.5	0.2	77-123	35		
Toluene	0.0924	0.0921	0.1000	0.1000	92.4	92.1	0.3	78-122	35		
Ethyl benzene	0.0958	0.0953	0.1000	0.1000	95.8	95.3	0.5	70-130	35		
Xylene(s)	0.290	0.285	0.300	0.300	96.7	95.0	1.8	75-125	35		
Surrogate(s)											
Trifluorotoluene	444	431	500	500	88.8	86.2		53-125			
4-Bromofluorobenzene-FI	459	425	500	500	91.8	85.0		58-124			

To: **Hageman-Aguiar, Inc.**

Attn:Gary Aguiar

Test Method: 8015M
8020

Prep Method: 5030

Legend & Notes

Gas/BTEX and MTBE

Analyte Flags

g

Hydrocarbon reported in the gasoline range does not match our gasoline standard.

2000-06-0501

CHAIN OF CUSTODY RECORD

52993

PROJECT NAME AND ADDRESS:

Pacific Cryogenic
2311 Magnolia Street
Oakland

SAMPLER: (Signature) Randal Wilson

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

CROSS REFERENCE NUMBER	DATE	TIME	SOIL	WATER	SAMPLE LOCATION	TPH-Diesel	TPH-Gas, BTEX, MTBE						REMARKS
GP-1	06/26/00			X	Geoprobe Location #1	X	X						confirm MTBE
GP-2	06/26/00			X	" " #2	X	X						by 8260 only
GP-3	06/26/00			X	" " #3	X	X						if detected by
GP-4	06/26/00			X	" " #4	X	X						8020/8015
													Normal T.A.T.
													3-8°

RELINQUISHED BY: (Signature) Randal Wilson	DATE 06/26/00 TIME 15:27	RECEIVED BY: (Signature)	DATE TIME
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 06/26/00 TIME 1525