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

April 13, 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:

The following information is provided in response to your letter dated March 15, 2000. In that letter you requested additional information for the preparation of the case closure. A copy of your letter is attached for reference.

1) **Manifest for Underground Tanks:** A copy of manifest #88228617 is attached. This manifest covers the disposal of all three former underground tanks. The former 8,000 gallon Diesel tank was erroneously listed on this manifest as a Gasoline tank.

2) **Manifest for Soil Disposal:** Copies of the seven Non-Hazardous Special Waste Manifests for the disposal of 126 cubic yards of soil are attached. The soil was transported to the BFI Vasco Landfill in Livermore, CA.

3) **Logs for Wells MW-2 and MW-3:** Hageman-Aguiar, Inc., began work at the site in April 1992. At that time, existing wells MW-2 and MW-3 were found to be only partially completed. That is to say, a bentonite seal was obvious on top of the sand pack for each of the wells, but no cement seal or well box was present. Hageman-Aguiar, Inc., subsequently completed the well constructions by setting appropriate monitoring well boxes and then sealing up to the surface with cement grout.

At the time that Hageman-Aguiar, Inc., began work at the site, Aldo Guidotti informed us that the wells were installed by Bernabe and Brinker, Inc., with the boreholes logged by an independent geologist. According to Mr. Guidotti, Bernabe and Brinker had since been discharged as the consultant and the independent geologist had not been heard from since. The report of the first "round" of groundwater sampling is found in a report by Bernabe and Brinker, dated March 20, 1992. A copy of this report is provided. No information regarding the lithology or well construction is provided in the report.

The boring logs and well construction information for wells MW-2 and MW-3 are not available. In terms of probable borehole lithology, reference should be made to the attached cross-section for the subsequent soil excavation project. It is still uncertain, however, exactly how the two monitoring wells are screened.

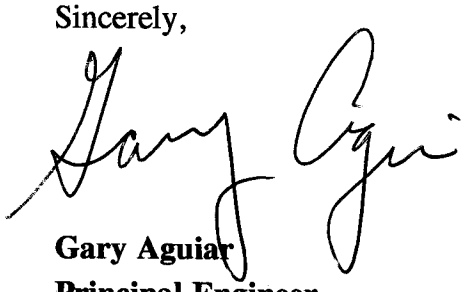
4) **Copy of Progressive Report :** A copy of the progressive report by Geo-Environmental Technology dated November 20, 1990, is provided.

5) **Groundwater Analyticals for VOC's:** No groundwater samples have ever been analyzed for either chlorinated solvents or any other VOC's.

6) **Groundwater Samples near Former Diesel Tank:** Reference should be made to the "*Quarterly Groundwater Sampling Report and Report of Subsurface Investigation*" by Hageman-Aguiar, Inc., dated December 8, 1993. Copies of Figures 5 and 6 from this report are provided. Although "hydropunch" #3 was located approximately 120 feet away from the tank, this location is more-or-less down-gradient.

If you have any questions or require further information, please call me at (510)620-0891.

Sincerely,



Gary Aguiar
Principal Engineer

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

March 15, 2000

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

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

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

Mr. Aguiar:

I am preparing the case closure summary for the above site. Please submit the following information and documents to me to assist me in my efforts to close this case.

1) Copy of the manifest for disposal of the underground tanks removed in June & July 1989
2) Copy of the manifest for disposal of the impacted soil
3) Copy of the drilling log and well construction for MW-2 and MW-3 installed sometime in 1991
4) Copy of Progressive Report dated 11-20-90 from Geo-Environmental
5) Copy of all groundwater analytical for VOC's.
6) Copy of any groundwater sample taken near and/or downgradient from the former diesel tank location. Benzene was detected in the groundwater at a concentration of 6.3 ppb in a water sample taken during tank removal.

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

Sincerely,

Larry Seto
Sr. Hazardous Materials Specialist

Cc: Aldo Guidotti, Guidotti and Lee, One Bates Blvd., Suite 300, Orinda, CA 95663
Files

Item #1: Manifests for Underground Tanks

State of California—Health and Welfare Agency
Form Approved OMB No. 2050—0039 (Expires 9-30-91)
Please print or type. *(Form designed for use on elite (12-pitch typewriter).*

Department of Health Services
Toxic Substances Control Division
Sacramento, California

UNIFORM HAZARDOUS WASTE MANIFEST

1. Generator's US EPA ID No. CAC001188466 | Manifest Document No. 0001

2. Page 1 of 1 | Information in the shaded areas is not required by Federal law.

3. Generator's Name and Mailing Address
MR. ALDO QUIDOTTI
P. O. Box 3842
Oakland, CA 94609
4. Generator's Phone (415) 652-8772

A. State Manifest Document Number 88228617
B. State Generator's ID

5. Transporter 1 Company Name: H & H Ship Service Company
6. US EPA ID Number: CAD006771168
C. State Transporter's ID 003758
D. Transporter's Phone (415) 543-4835

7. Transporter 2 Company Name
8. US EPA ID Number
E. State Transporter's ID
F. Transporter's Phone

9. Designated Facility Name and Site Address
H & H Ship Service Company
220 China Basin Street
San Francisco, CA 94107
10. US EPA ID Number: CAD006771168
G. State Facility's ID: CAD006771168
H. Facility's Phone (415) 543-4835

11. US DOT Description (Including Proper Shipping Name, Hazard Class, and ID Number)	12. Containers No.	12. Containers Type	13. Total Quantity	14. Unit Wt/Vol	I. Waste No.
a. RESIDUE GASOLINE TANK (CALIFORNIA ONLY REGULATED WASTE)	001	TP	00500	P	State 512 / EPA/Other
b. RESIDUE GASOLINE TANK (CALIFORNIA ONLY REGULATED WASTE)	001	TP	00000	P	State 512 / EPA/Other
c. RESIDUE WASTE OIL TANK (CALIFORNIA ONLY REGULATED WASTE)	001	TP	00500	P	State 512 / EPA/Other
d.					State / EPA/Other

J. Additional Descriptions for Materials Listed Above
PUMPED OUT 8,000, 10000 and 500 gallon tanks last containing gasoline and waste oil.

K. Handling Codes for Wastes Listed Above
a. b. c. d.

15. Special Handling Instructions and Additional Information
APPROPRIATE PROTECTIVE CLOTHING AND RESPIRATOR.

16. **GENERATOR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by proper shipping name and are classified, packed, marked, and labeled, and are in all respects in proper condition for transport by highway according to applicable international and national government regulations.

If I am a large quantity generator, I certify that I have a program in place to reduce the volume and toxicity of waste generated to the degree I have determined to be economically practicable and that I have selected the practicable method of treatment, storage, or disposal currently available to me which minimizes the present and future threat to human health and the environment; OR, if I am a small quantity generator, I have made a good faith effort to minimize my waste generation and select the best waste management method that is available to me and that I can afford.

Printed/Typed Name: DAVID WHITFIELD | Signature | Month Day Year: 06 30 89

TRANSPORTER

17. Transporter 1 Acknowledgement of Receipt of Materials
Printed/Typed Name: KEVIN E. JOHNSON | Signature | Month Day Year: 06 30 89

18. Transporter 2 Acknowledgement of Receipt of Materials
Printed/Typed Name | Signature | Month Day Year

FACILITY

19. Discrepancy Indication Space

20. Facility Owner or Operator Certification of receipt of hazardous materials covered by this manifest except as noted in item 19.
Printed/Typed Name | Signature | Month Day Year

GENERATOR

IN CASE OF AN EMERGENCY OR SPILL, CALL THE NATIONAL RESPONSE CENTER 1-800-424-8802; WITHIN CALIFORNIA CALL 1-800-852-7550

88228617

DHS 8022 A (1/88)
EPA 8700—22
(Rev. 9-88) Previous editions are obsolete.

Do Not Write Below This Line

YELLOW: GENERATOR RETAINS

Item #2: Manifests for Soil Disposal

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 913544

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name PACIFIC OXYGEN
Address 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No. 510-2543450

Generating Location PACIFIC OXYGEN
Address 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No. 510-2543450

BFI Waste Code CA 405 112293 02902

Description of Waste: SPECIAL WASTE SOIL

Quantity	Units	Containers No.	Containers Type
18	Y	01	T

Container Type: D - Drum; C - Carton; B - Bag; T - Truck; P - Pounds; Y - Yards; O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

HAGEMAN - AGUIAR, INC.
Generator Authorized Agent Name

Signature

Shipment Date 12-07-93

TRANSPORTER

Truck No. 210
Phone No. 570 783 2881
Transporter Name TRIDENT TRUCKING
Driver Name (Print) MICHAEL CAMARA
Address 23422 CLAWITER
HAYWARD, CA
Vehicle License No./State 9C17558
Vehicle Certification

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature

Shipment Date 12-07-93

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature

Delivery Date 12-07-93

DESTINATION

Site Name
Phone No.
Address

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

Signature

Receipt Date 12-8-93

PASS CODE

DF 1260-720

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 913545

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name PACIFIC OXYGEN
Address 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No. 510-2543450

Generating Location PACIFIC OXYGEN
Address 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No. 510-2543450

BFI Waste Code CA 405 112293 02902

Description of Waste

SPECIAL WASTE SOIL

Quantity	Units	Containers No.	Type
18	Y	02	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

HAGEMAN - AGUIAR, INC.
Generator/Authorized Agent Name
Signature
120793
Shipment Date

TRANSPORTER

Truck No. 200/201
Transporter Name TRIDENT TRUCKING
Address 23422 CLAWITER RD
HAYWARD, CA

Phone No. 510 783-2851
Driver Name (Print) Tommy [illegible]
Vehicle License No./State [illegible]
Vehicle Certification

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature
120793
Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature
12[illegible]
Delivery Date

DESTINATION

Site Name
Phone No.
Address

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
12[illegible]
Receipt Date

PASS CODE

BF-260 7/90

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 913546

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: PACIFIC OXYGEN
Address: 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No: 510 - 2543450

Generating Location: PACIFIC OXYGEN
Address: 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No: 510 - 2543450

BFI Waste Code: CA 405 112293 02902

Description of Waste: SPECIAL WASTE SOIL

Quantity	Units	Containers No	Containers Type
18	Y	03	T

Type: D Drum, C Carton, B Bag, T Truck, P Pounds, Y Yards, O Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

HACKMAN - AGUIAR, INC.
Generator/Authorized Agent Name

Bruce Hagner
Signature

12 07 93
Shipment Date

TRANSPORTER

Truck No: 264
Transporter Name: TRIDENT TRUCKING
Address: 33427 CLAWITER RD.
HAYWARD, CA

Phone No: 370 583-2891
Driver Name (Print): MILT MCKNA
Vehicle License No./State: 1N3196 CA
Vehicle Certification:

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature

12 07 93
Shipment Date

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature

12 12 93
Delivery Date

DESTINATION

Site Name:
Phone No:
Address:

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent
Signature
Receipt Date

PASS CODE

10Sc

BFI 760-720

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 913547

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: PACIFIC OXYGEN
Address: 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No: 510-2543450

Generating Location: PACIFIC OXYGEN
Address: 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No: 510-2543450

BF Waste Code: CA 405 112293 02302

Description of Waste: SPECIAL WASTE SOIL

Quantity	Units	Containers No.	Containers Type
18	Y	04	T

Container Type: D Drum, C Carton, B Bag, T Truck, P Pounds, Y Yards, O Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator Authorized Agent Name: VALLEY AGUIAR, INC.
Signature: Bruce Aguiar
Shipment Date: 12 07 93

TRANSPORTER

Truck No: 210
Phone No: 209-583-2281
Transporter Name: TRIXIT TRUCKING
Driver Name (Print): MIKE CAMPOS
Address: 23422 CLAWITER RD
HAYWARD, CA
Vehicle License No./State: K17958 CA
Vehicle Certification:

I hereby certify that the above named material was picked up at any generator site listed above.

Driver Signature: [signature]
Shipment Date: 12 07 93

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: [signature]
Delivery Date: 12 07 93

DESTINATION

Site Name:
Phone No:
Address:

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Facility Authorized Agent:
Signature: [signature]
Receipt Date: 12 07 93

PASS CODE:

0486

11-260/R0

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 913548

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: PACIFIC OXYGEN
Generating Location: PACIFIC OXYGEN

Address: 2311 MAGNOLIA STREET
OAKLAND, CA

Address: 2311 MAGNOLIA STREET
OAKLAND, CA

Phone No. 510 – 2543450
Phone No. 510 – 2543450

BFI Waste Code: CA 405 112293 02902

Description of Waste	Quantity	Units	Containers No.	Containers Type
SPECIAL WASTE SOIL	18	Y	02	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

HAGEMAN - AGUIAR, INC.
Generator Authorized Agent Name

Signature: [signature]

Shipment Date: 120993

TRANSPORTER

Truck No. 200/201
Phone No. 510 783-2891

Transporter Name: TRIDENT TRUCKING
Driver Name (Print): Tommy [illegible]

Address: 23 4?? CLAWITER RD
HAYWARD, CA

Vehicle License No./State: [illegible]
Vehicle Certification:

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature: [signature]
Shipment Date: 120793

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: [signature]
Delivery Date: 12[illegible]93

DESTINATION

Site Name:
Phone No.

Address:

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent

Signature: [signature]

Receipt Date: [illegible]

PASS CODE

BFI 260-726

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 913549

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: PACIFIC OXYGEN
Address: 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No: 510 - 2543450

Generating Location: PACIFIC OXYGEN
Address: 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No: 510 - 2543450

BFI Waste Code: CA 405 112293 02902

Description of Waste: SPECIAL WASTE SOIL

Quantity	Units	Containers No.	Containers Type
18	Y	06	T

Type: D - Drum, C - Carton, B - Bag, T - Truck, P - Pounds, Y - Yards, O - Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

AGTRAN - AGUIAR, INC. (Generator Authorized Agent Name) Signature: [signature] Shipment Date: 12/7/93

TRANSPORTER

Truck No.:
Phone No.: 633-2891
Transporter Name: TRIDENT TRUCKING
Driver Name (Print): MIKE MUCHO
Address: 23422 CLAWITER RD
HAYWARD, CA
Vehicle License No./State: 1N31986 CA
Vehicle Certification:

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature: [signature] Shipment Date: 12/7/93

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature: [signature] Delivery Date: 12/7/93

DESTINATION

Gen. Name:
Phone No.:
Address:

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

Name of Authorized Agent: Signature: [signature] Receipt Date: 12/7/93

PASS CODE:

BFI 250-720

Waste Systems™
BROWNING-FERRIS INDUSTRIES

No. 915568

NON-HAZARDOUS SPECIAL WASTE MANIFEST

GENERATOR

Generator Name: PACIFIC OXYGEN
Address: 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No: 510-254-3450

Generating Location: PACIFIC OXYGEN
Address: 2311 MAGNOLIA STREET
OAKLAND, CA
Phone No: 510-254-3450

EF Waste Code: CA 405 112293 02902

Description of Waste: SPECIAL WASTE - SOIL

Quantity	Units	Containers No.	Containers Type
18	Y	3	T

Containers Type: B Drum, C Carton, G Bag, T Truck, P Pounds, Y Yards, O Other

I hereby certify that the above named material does not contain free liquid as defined by 40 CFR Part 260.10 or any applicable state law, is not a hazardous waste as defined by 40 CFR Part 261 or any applicable state law, has been properly described, classified and packaged, and is in proper condition for transportation according to applicable regulations.

Generator's Authorized Agent Name: HAGEMAN - AGUIAR, INC.
Signature: Bruce Hagen
Shipment Date: 12/9/93

TRANSPORTER

Truck No.:
Phone No.: 583-2431
Transporter Name: TRIDENT TRUCKING
Driver Name (Print): MIKE MACHADO
Address: 23422 CLAWITER RD.
HAYWARD, CA
Vehicle License No./State: 1N31986
Vehicle Certification:

I hereby certify that the above named material was picked up at the generator site listed above.

Driver Signature:
Shipment Date: 12/9/93

I hereby certify that the above named material was delivered without incident to the destination listed below.

Driver Signature:
Delivery Date: 12/9/93

DESTINATION

Site Name: BFI VASCO LANDFILL
Phone No.: 510-447-4949
Address:

I hereby certify that the above named material has been accepted and to the best of my knowledge the foregoing is true and accurate.

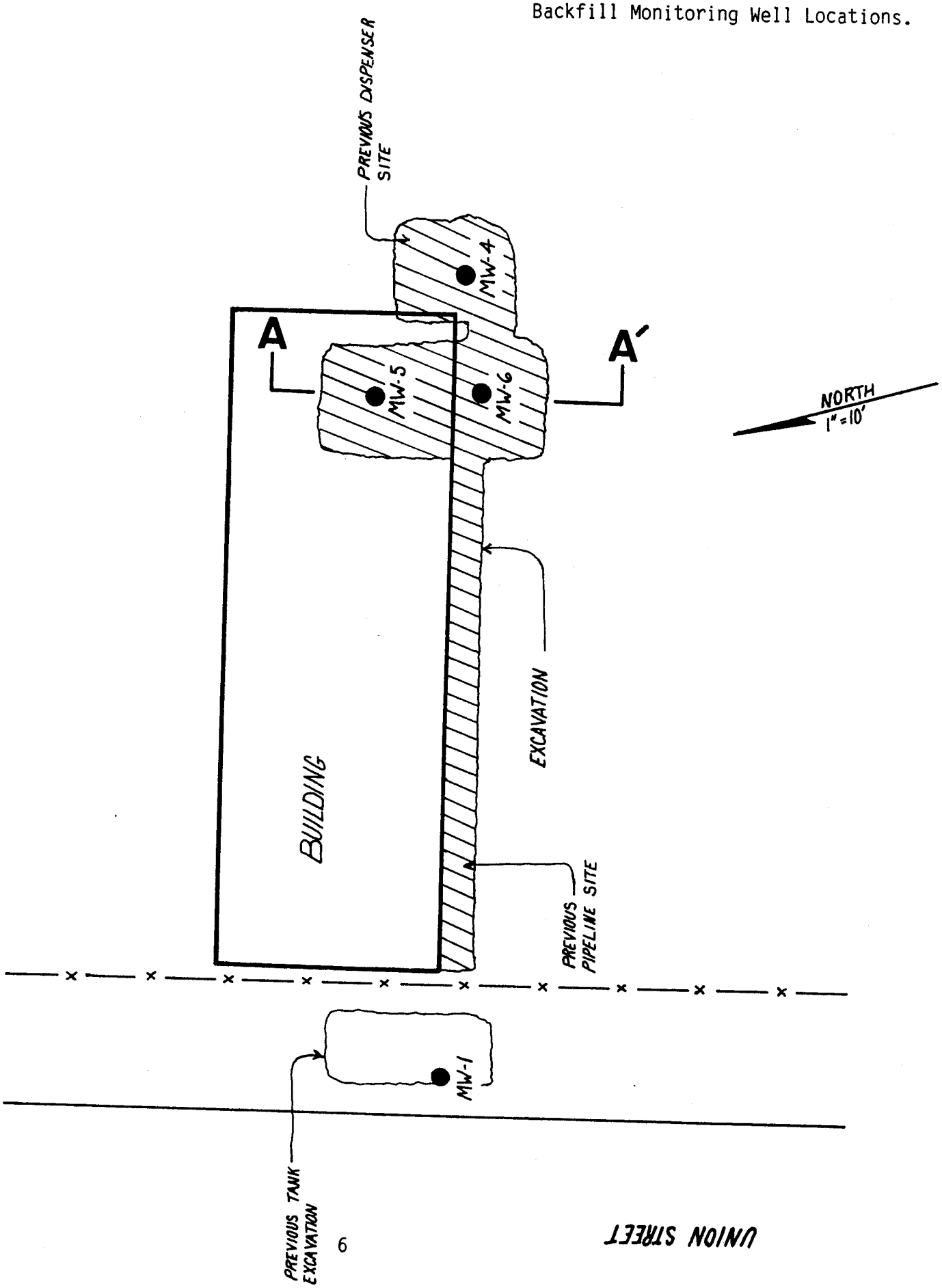
Name of Authorized Agent:
Signature:
Receipt Date: 12/9/93

Gate:
PASS CODE:

BF-669.720

Item #3:
Subsurface Lithology
Bernabe and Brinker Report

FIGURE 3.
Backfill Monitoring Well Locations.



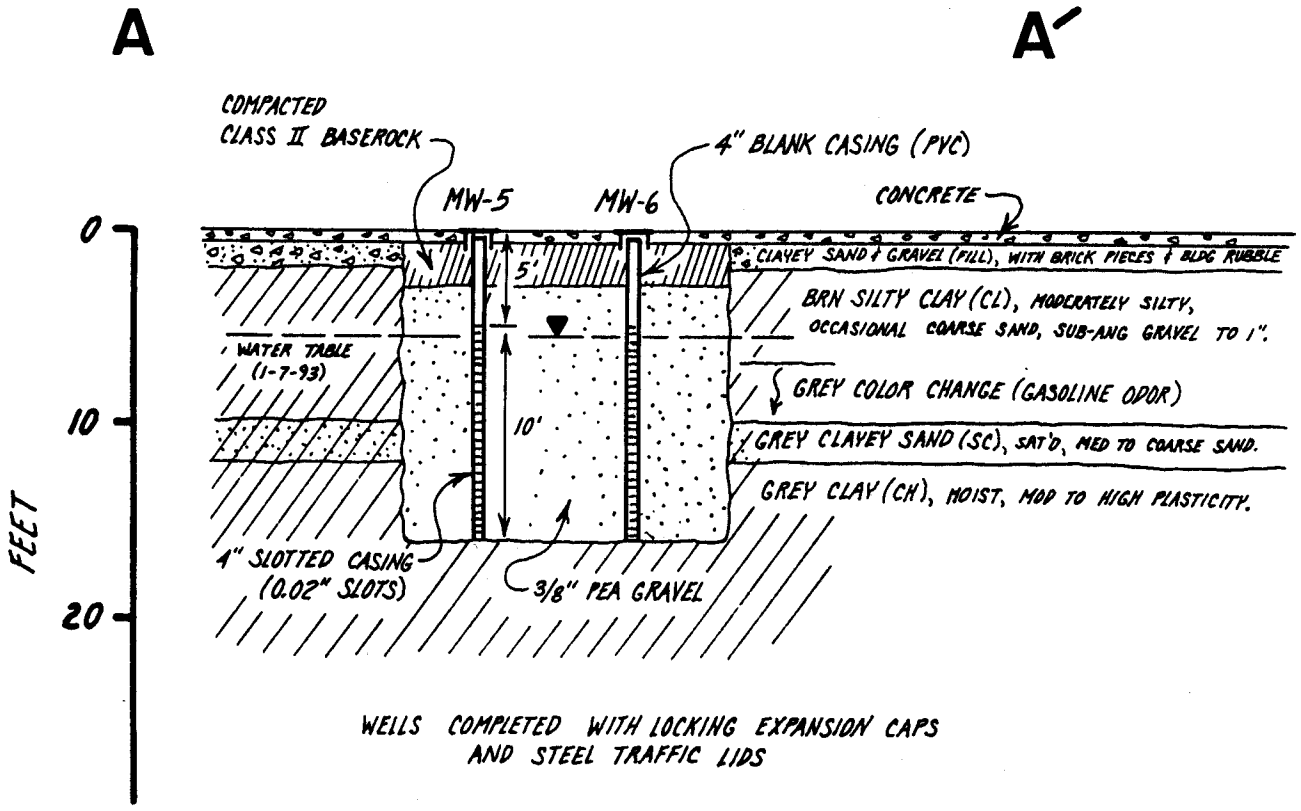


FIGURE 4.
Section A-A'.

BERNABE AND BRINKER INC.

General Engineering Contractor • Hazardous Substances Removal • License #610617

1281 - 30th Street
Oakland, California 94608

TEL: 510 • 451 • 3482
FAX: 510 • 836 • 2635

March 20, 1992

Mr. Aldo P. Guidotti
One Bates Blvd.,
P.O. Box 778
Orinda, CA 94563

Subject: Results of Groundwater Sampling and Analyses, for site located between 2311 Magnolia Street and 2210 Union Street, Oakland.

Dear Mr. Guidotti,

As per our agreement, the following tasks were carried out at the subject site in March of this year:

1) Establish groundwater levels and elevations at the three existing wells on the site as generally required as part of the overall site monitoring;

2) Sampling and analyses of the groundwater from the three wells on site. The water sample from each well were tested for TPH as gasoline with BTEX and TPH as diesel fuel;

3) Interpretation of the analytical data and preparation of a letter report.

GROUNDWATER GRADIENT

The groundwater levels measured for the three wells are listed below:

WELL	DEPTH	RELATIVE ELEVATION
MW-1	2.76	6.44
MW-2	6.17	3.07
MW-3	6.93	3.00

The depth to groundwater was measured in each well using an electronic probe. The measurement was to a mark on the north side of the top of the casing and was measured to a hundreth of a foot. The relative elevation for the top of the casing was established for each well by surveying. The elevation are not related to any other datum.

The data indicate a steep southward gradient that is a typical of the natural gradient in the site area. This may be the results of a continuing source of shallow water in the area of MW-1 such as a leaking pipe or may be the result of a perched condition.

RESULTS OF GROUNDWATER ANALYSES

A water sample was collected from each of the three wells, MW-2 and MW-3 had to be cleaned of bentonite and other debris before they could be sampled. Each well was purged of five to ten gallons of water before the sample was collected. The samples were collected by bailer and put into bottles and vials. The samples were kept in a cooled ice chest and transported to a State Certified Laboratory under chain of custody control.

The certified results are presented in Appendix A of this report. They indicate that both MW-1 and MW-3 contain elevated levels of diesel, gasoline and BTEX which exceed the action levels generally enforced by both the County Department of Environmental Health and the State RWQCB. The sample from MW-2 was nondetected for the analyses that were done.

Locks were placed on each well after the sampling was completed. It was noted that wells MW-2 and MW-3 are not set in surface boxes and surface water was flowing into the space around the casing of MW-3.

CONCLUSIONS AND RECOMMENDATIONS

A site plan was not available for plotting the three existing wells. We do not have any data regarding the installation of MW-2 (western) and MW-3 (eastern) which are the two wells on the property. MW-1 is the sidewalk on Union Street.

The next step in these types of situation is generally to better charaterize the extent of the groundwater contamination on the site and to assess whether or not these are any remaining sources of contamination still present. It is recommended that a work plan be prepared to address the work needed to charaterize the site. I would be happy to discuss this with you in more detail.

BERNABE AND BRINKER INC.

March 20, 1992

Re: 2311 Magnolia St., Oakland, California
Attn: Mr. Aldo P. Guidotti

The above report was prepared and submitted to our company by our Registered Geologist, Mr. John Alt of Epigene International and Campbell Analytical, Inc.

Enclosed are the following:

1. The results of 3 samples from your 90-021; Magnolia Street project.
2. A QC report for the samples.
3. A copy of the chain of custody

Thank you for your business and I look forward to working with you again.

Sincerely,

James E. Brinker

James E. Brinker
National Sales Manager

JEB/gfb

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Client Project ID: 90-021; 2311 Magnolia St	Date Sampled: 03/04/92
	Date Received: 03/04/92
	Date Extracted:
	Date Analyzed: 03/05/92

Low Boiling Point TPH* (as Gasoline) and BTEX*

DOHS LUFT procedure; EPA method 5030, modified 8020 & 602

Lab ID	Client ID	Matrix	TPH(G)+	Benzene	Toluene	Ethyl Benzene	Xylenes	% Rec. Surrogate
12121	MW 1	W	460,a	120	9.0	16	44	96
12122	MW 2	W	ND	ND	ND	ND	ND	98
12123	MW 3	W	14,000,a	6200	60	110	740	97
Detection Limit unless otherwise stated; ND means Not Detected		W	50 ug/L	0.3	0.3	0.3	0.3	
		S	1.0 mg/kg	0.005	0.005	0.005	0.005	

*water samples are reported in ug/L and soils in mg/kg

#cluttered chromatogram; sample peak co-elutes with surrogate peak

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately unmodified or weakly modified gasoline; b) heavier gasoline range compounds predominate (aged gasoline?); c) lighter gasoline range compounds predominate (the most mobile gas compounds); d) heavy and light gasoline range compounds predominate (aged gasoline together with introduced light compounds?); e) one to a few isolated peaks predominate; f) gasoline range compounds together with higher boiling point (diesel range) compounds; g) diesel range compounds predominate.

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

Client Project ID: 90-021; 2311 Magnolia St	Date Sampled: 03/04/92
	Date Received: 03/04/92
	Date Extracted: 03/07/92
	Date Analyzed: 03/07/92

Medium Boiling Point TPH (as Diesel) *

DOHS LUFT procedure modified EPA method 3550 or 3510

Lab ID	Client ID	Matrix	TPH(D)+
12121	MW 1	W	590,c
12122	MW 2	W	ND
12123	MW 3	W	360,c

Detection Limit unless otherwise stated; ND means Not Detected	W	50 ug/L
	S	10 mg/kg

*water samples are reported in ug/L and soils in mg/kg

+The following descriptions of the TPH chromatogram are cursory in nature and McCampbell Analytical is not responsible for their interpretation: a) predominately diesel compounds; b) diesel range compounds together with gasoline range compounds; c). oil range compounds together with gasoline range compounds; d) gasoline range compounds predominate; e) medium boiling point pattern that does not match diesel; f) peaks elute in the diesel range but no pattern is present; g) one to a few isolated peaks predominate.

Edward Hamilton, Lab Director

McCAMPBELL ANALYTICAL INC.
1110 2nd Avenue South, #D7, Pacheco, CA 94553
Tele: 510-798-1620 Fax: 510-798-1622

QC REPORT

Date: 03/06-03/09/92 Matrix: water

Analyte	Concentration (ug/L) Sample	MS	MSD	Amount Spiked (ug/L)	% Recovery MS	MSD	RPD
TPH (gas)	0.0	103.2	100.2	102	101	98	3.0
Benzene	0.0	11.4	11.3	10	114	113	0.9
Toluene	0.0	10.7	10.5	10	107	105	1.9
Ethyl Benzene	0.0	10.9	10.7	10	109	107	1.9
Xylenes	0.0	32.5	32.0	30	108	107	1.6
TPH (diesel)	0	436	435	600	73	72	0.3
TRPH (oil & grease)	N/A	N/A	N/A	1000	N/A	N/A	N/A

% Rec. = (MS - Sample) / amount spiked x 100

RPD = (MS - MSD) / (MS + MSD) x 2 x 100

SHIPMENT NO.: _____

CHAIN OF CUSTODY RECORD

PAGE 1 OF 1

DATE 3/4/92

PROJECT NAME: 2311 Magnolia St.

PROJECT NO.: 90-021

Sample Number	Location	Type of Sample Material	Type of Sample Method	Type of Container	Type of Preservation Temp	Type of Preservation Chemical	Analysis Required
MW 1		groundwater (by bailer)		3) 40 ml Vials 1 liter bottle			TPH Gasoline TPH Diesel
MW 2		"		"			"
MW 3		"		"			"

No. 12121
No. 12122
No. 12123

Total Number of Samples Shipped: _____ Sampler's Signature: John N. Ait

Relinquished By: Signature: John N. Ait; Printed Name: John N. Ait; Company: Engeo; Reason: Analyses	Received By: Signature: _____; Printed Name: Eugene Bowen; Company: Seaonics Drilling	Date: 3/4/92; Time: 3:50
Relinquished By: Signature: _____; Printed Name: Eugene Bowen; Company: Seaonics Drilling; Reason: _____	Received By: Signature: Ed Hamilton; Printed Name: Hamilton; Company: Mobile	Date: 3/4/92; Time: 7:05

REMARKS:

MW 2 & MW 3 contain abundant silt which could not be cleared during the purging

Special Shipment / Handling / Storage Requirements:

preservative, ice, no headspace

Item #4: Geo-Environmental Technology Report

Geo-Environmental Technology

260 Cristich Lane
Campbell, CA 95008
(408)559-1220

November 20, 1990
Project No. 9070

Mr. Aldo Guidotti - Trustee
P.O. Box 778
Orinda, CA. 94563

PROGRESSIVE REPORT
Groundwater Investigation
2311 Magnolia & 2210 Union St.
Oakland, CA. 94609

Introduction

This letter presents the findings of the investigation of subsurface conditions conducted by Geo-Environmental Technology (GET), at the above-referenced site. This investigation has been performed in accordance with the guidelines of the Alameda County Flood and Water Conservation District, Alameda County Health Care Services, Department of Environmental Health and the Regional Water Quality Control Board. The purpose of this work was to investigate the extent of any groundwater contamination beneath the subject property. The completed work includes:

1. The drilling of one monitoring well and the collection of soil samples from the borings.
2. The proper development and sampling of groundwater from these wells.
3. Providing for the laboratory analysis of the soil and water samples from the soil borings and groundwater monitoring wells.
4. This report of findings.

Site Location

The site is located at 2311 Magnolia St and 2210 Union St. in Oakland, California. The site location is shown on Figure 1.

Background

The subject site, previously owned by Mr. Bill Josephian, was the location for Pacific Oxygen Company from approximately 1940 to 1984. The property is currently owned by the estate of Josephian. Portions of the property are being used for oxygen tank repair and storage, whereas the original plant has not been operated for 8 years.

On June 30, and July 12, 1989, Geo-Environmental Technology removed three underground storage tanks from the subject site. An 8000 gallon steel underground storage tank containing diesel fuel was removed on June 30, 1989, and both a 1000 gallon steel underground storage tank containing gasoline and a 550 gallon steel underground storage tank containing waste oil were removed on July 12, 1989. Three soil samples entitled GS-1, GS-2, and GS-3 were taken from beneath the middle, north and south ends respectively of the 8000 gallon tank, two soils samples entitled GG-1 and GTP-3 were taken from beneath north and south ends respectively of the 1000 gallon tank, and one soil sample entitled GWO-1 was taken from beneath the waste oil tank. All samples were taken at depths of approximately 1.5 to 2.0 feet below the bottom of the tanks at the native soil interface.

There was no groundwater encountered during the excavation of tanks #2 and #3. Groundwater was encountered at the bottom 6 inches of tank pit #1. This water was reported to appear slightly contaminated and had a slight odor. As a result, one ground water sample was taken from the tank pit of the 8000 gallon tank.

Samples GS-1, GS-2 and GS-3 were analyzed for TPHD calculated as diesel, and for BTXE. Sample GG-1 was analyzed for TPHG calculated as gasoline, and for BTXE. (benzene, toluene, ethyl benzene, & xylenes) Sample GTP-3 was analyzed for TPHG calculated as gasoline, BTXE, and total oil and grease. Sample GWO-1 was analyzed for TPHG calculated as gasoline, TPHD calculated as diesel, total oil and grease, and EPA method 8270. Sample GWS-1 (groundwater) was analyzed for TPHD calculated as diesel, and BTXE. Chains of custody and sample results are included in Appendix B. Of the six soil samples, only the one (GWO-1) taken from below the waste oil tank revealed levels of TPH and some volatile organic compounds considered actionable under RWQCB standards. This sample contained TPHD concentrations of 270 parts per million (ppm), Toluene of 750 parts per billion, Xylenes of 1,400 parts per billion, and Xylenes of 430 parts per billion. The water sample taken from below the 8000 gallon tank in pit #1 showed no trace of contamination.

Site Description

A site map showing the current layout of the site is presented in Figure 2. This figure shows the locations of existing structures and the former underground storage tanks, as well as adjacent streets. Site sketch maps showing the sources of the samples are shown in figures 3 and 4

Well Installation

In order to determine if site operations have impacted groundwater, GET installed one groundwater monitoring well within the tank pit excavation area. The well is within five feet of the former waste oil storage tank location in the estimated downgradient direction. The well location is shown on Figure 2 entitled Site Map and Soil Sample Plot Plan and on Figure 3 entitled Boring Log MW-1.

The soils boring was drilled using an 8-inch diameter continuous-flight hollow-stem B-57 mobile drill augur. The boring was logged by a Professional Engineer using the Unified Soil Classification System and standard geologic techniques. (See Appendix A) Soil samples for logging and chemical analysis were collected at 9', 14', and 20' depths and were entitled SB-1 ,SB-2 and SB-3 respectively. These samples were collected by advancing a California-modified split-spoon sampler with brass liners into undisturbed soil beyond the tip of the auger. The sampler was driven 18 inches, using a 140-pound hammer with a 30" drop. Soil samples above groundwater were retained in brass liners, capped with aluminum foil and plastic end caps, and sealed in clean glass containers for possible chemical analysis. The samples were placed on ice and transported to the laboratory accompanied by the appropriate chain-of-custody documentation. All drilling and sampling equipment was thoroughly steam-cleaned prior to utilization.

The boring for the monitoring well (appendix A) penetrated 14.5 feet through the water bearing zone to a depth of 21 feet. Permeable sand and gravel was encountered at 19.5 feet. As a result, the boring was stopped and bentonite used to seal the well between 19.5 and 21 feet. The boring was then converted to a groundwater monitoring well with the installation of a 2-inch diameter, flush-threaded Schedule 40 PVC casing and 0.020-inch factory slotted Triloc screen. 13 feet of screen was placed through the entire saturated section extending to two feet above the static water level in order to account for fluctuations in groundwater elevation. A 2 X 12 graded #3 RMC Lone Star Lapis Lustre sand pack was placed in the annular space across the

screened interval, and extended to approximately 1 foot above the screen. A bentonite and concrete seal was placed from the top of the sand pack to the ground surface. A locking cap and protective traffic-rated vault box was installed on the top of the well.

Potentially contaminated soil cuttings and samples not retained for chemical analysis were contained in secured 55 gallon storage on-site. The storage drums were properly sealed and labeled. All drilling and sampling equipment was steam-cleaned upon completion of well installation.

Groundwater Sampling Procedure

Groundwater sampling was performed by GET using techniques approved by the Environmental Protection Agency (EPA), and the California Regional Water Quality Control Board, (RWQCB). These techniques require that:

1. Wells will be developed until the water is free of fine-grained sediments and/or until field measurements of pH, electrical conductivity, and temperature stabilize. Approximately four to ten well volumes of water will be removed during development of the well.

2. Equipment inserted into the well during development will be decontaminated by washing or steam cleaning prior to and after its use.

GET's sampling procedure consisted of first measuring the water level in the well and then checking for the presence of floating petroleum product using a clear teflon bailer. Because no free product was detected, the well was purged of four casing volumes of water. In order to ensure that a representative sample was obtained, the pH, electrical conductivity and temperature were monitored and documented on a well sampling field sheet. (See Figure 4). Using a teflon bailer, two samples entitled 9070-1 and 9070-2 were collected on 10/26/90 at 1:30 pm. They had a pH of_7.4_an electrical conductivity of .01, and a temperature of 65 degrees.___Samples were placed into appropriate EPA-approved containers, labeled, logged onto chain-of-custody documents, and transported to the laboratory. All sampling equipment was properly decontaminated with a trisodiumphosphate, (TSP), solution followed with a tap water rinse. A field blank sample (9070-2) was prepared for quality control purposes prior to collection of groundwater samples. Potentially contaminated purge water and decontaminant rinsate was contained in secured 55-gallon storage drums on-site. The drums were properly sealed and labeled.

Laboratory Analysis and Results

Groundwater samples and selected soils samples were analyzed by Chromalab, Inc., a state certified laboratory (E 694), for the presence of TPHD (Total Petroleum Hydrocarbons as Diesel) and BTEX (Benzene, Toluene, Ethyl Benzene, and Xylenes). This analysis was requested in order to remain consistent with previous contaminants found in the soil sampling performed beneath the waste oil tank (see page 2 paragraph 4 of this report).

The analytical results of the soil samples (SB-1, SB-2, and SB-3) revealed no detectable amounts of either TPHD or BTEX (See Appendix A). The analytical results of the groundwater sample (9070-1), reported 5400 parts per billion of TPHD, 1200 parts per billion of benzene, 18 parts per billion of toluene, 7.1 parts per billion of ethyl benzene, and 37 parts per billion of total xylenes.(See appendix B).

Conclusions

The results of the analysis of the water sample (9070-1) revealed TPHD and BTEX in excess of actionable limits set by the RWQCB. Under the guidelines as established by the California Regional Water Quality Control Board and the Alameda County Department of Environmental Health, further action will be required. This will require establishing an accurate groundwater gradient (direction of the water flow), determining the extent (dimensions) of the contamination plume, and recommending and implementing a course of action for effective remediation of the groundwater contamination.

RECOMMENDATIONS

The guidelines will require that two additional water wells be installed in order to establish the gradient. Once this is accomplished, it may then be necessary to add at least one to two wells to determine the limits of the plume of contamination.

Upon completion of these stages, an interim report concerning these findings and a work plan addressing the recommended course of action consistent with remediating the contaminated groundwater will be written and filed with the responsible agencies.

The field work for this project is scheduled to be performed during December of 1990 and January of 1991, pending obtaining the required permits and access to the site.

If you have any questions regarding the contents of this report, please do not hesitate to call us at (408) 559-1220.

Sincerely,

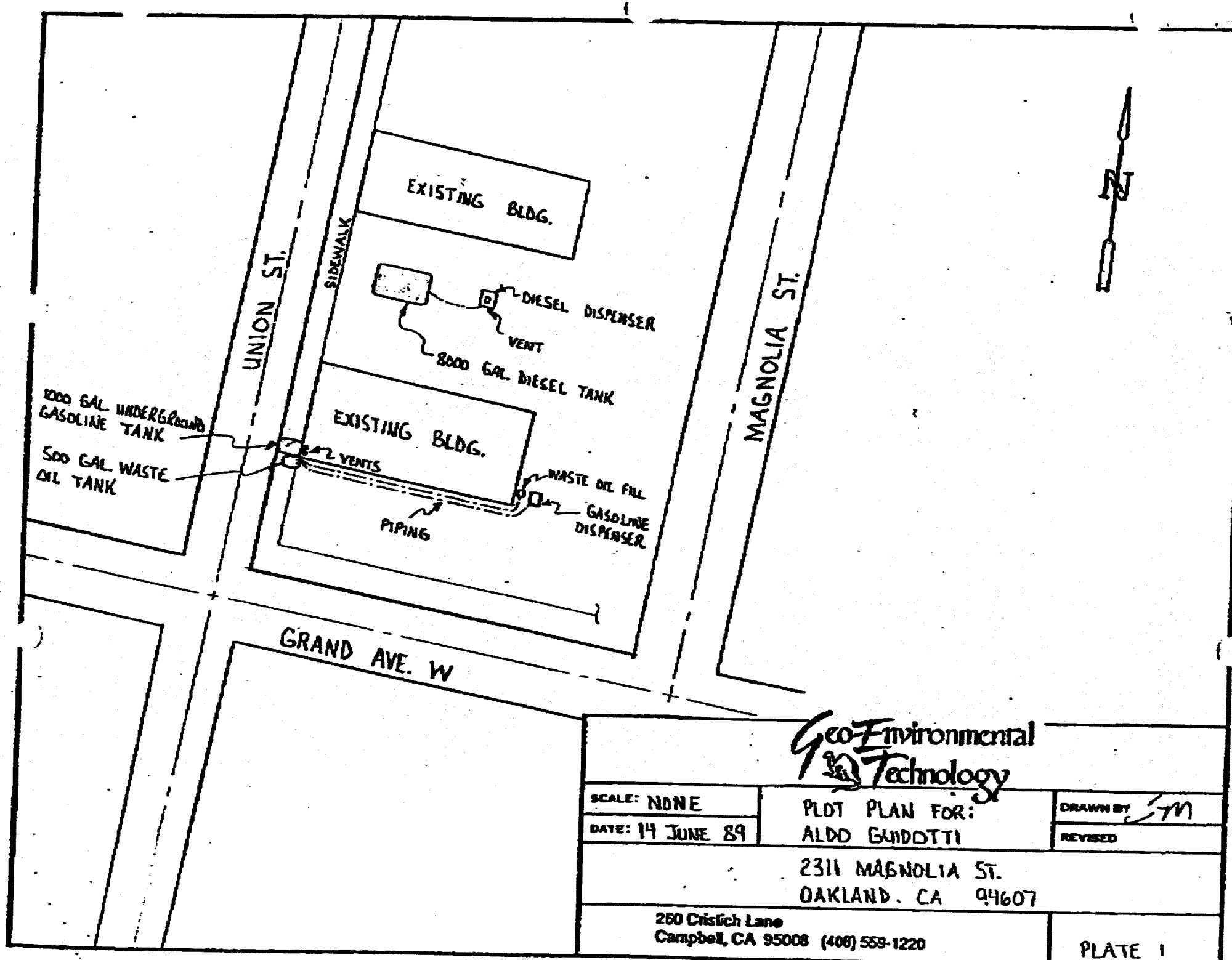
GEO-ENVIRONMENTAL TECHNOLOGY

REGISTERED PROFESSIONAL ENGINEER STATE OF CALIFORNIA

Sept 93

Robert Croyle
Registered Professional Engineer
No. 20397

Stuart G. Solomon
President



GeoEnvironmental Technology

SCALE: NONE	PLOT PLAN FOR: ALDO GUIDOTTI	DRAWN BY: JM
DATE: 14 JUNE 89		REVISED
	2311 MAGNOLIA ST. OAKLAND, CA 94607	

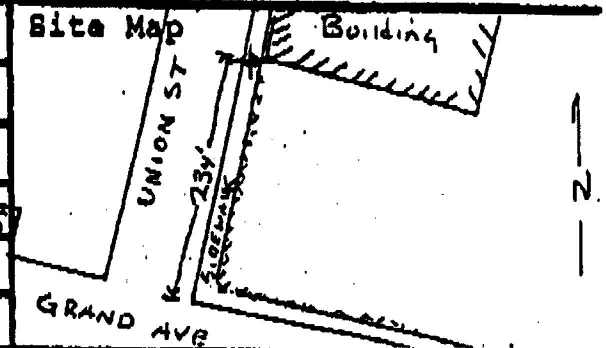
260 Cristich Lane
Campbell, CA 95008 (408) 559-1220

PLATE 1

BORING LOG ____ __ OF __

Client	Guidott
Date	9.27.90
Location	2210 Union St, Oakland Ca.
Driller	Aqua Science #487000
Method	8" Hollow Stem Auger Mobile Drill B57
Sampler	Calif. 2" 140# w/ 30" Fall
Logger	B. Halsted
Inspector	

Site Map



Sample Number	Depth	Blows/ft	Moisture	Depth	USCS	Description of Subsurface Materials	Completion Data (Univ. Well Geo Store 2" Exp. ...)
				0		Concrete Backfill; Import soil	Portland Cement Sanitary Seal; 2" PVC Blank Triloc
				5	OH	BAY MUD NO ODOR	3½ Bentonite 4½
				6.5		WATER LEVEL	#3 AMG Lone Star Lapis Lustre Sand Pack
SB-1	8½-10		WET	10	OH	BAY MUD NO ODOR	
SB-2	13½-15		WET	15	OH		Triloc 2" .020 Screen PVC 15'
SB-3	19½-21		WET	20	GC	GRAVEL/SAND/MUD BOH @ 21'	Slip cap 19½; 21 Bentonite

Blows/ft column note: DUE TO LOW OVERHEAD ELECTRIC LINE, DRILLED W/ MAST DOWN; UNABLE TO DRIVE, SAMPLER W/ HAMMER, DRIVE SAMPLER HYDRAULIC

Total Depth	19.5'
Water Level	6.5'
Sanitary Seal	Portland Cement 3.5'
Permit #	90577
Agency	Alameda Co. Flood Control & WATER CONSE[illegible]

Geo-Environmental Technology

CHAIN OF CUSTODY RECORD

PROJECT NO.	SITE NAME & ADDRESS
9070	GUTOSKI 2311 MACARTHUR STREET OAKLAND CA 94607

WITNESSING AGENCY / INSPECTOR NAME / DATE

ID NO.	DATE	TIME	SOIL	WATER	SAMPLING LOCATION	TPH (Gasoline) & B,T,X, & E	TPH (Diesel) & B,T,X & E	Total Oil & Grease	Halogenated HC's	B,T,X & E	Heavy Metals		REMARKS
9070-1	10/26	2:45		X	MW-1		X						NTAT
9070-2	10/26	2:45		X	BLANK (CONTAINER SUPPLIED)								TCE ONLY IF #'S IS CONTAMINATED

ANALYSES REQUESTED

Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	10/26 6:00	
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
	10-29 11:35	Tara Donovan
Relinquished by: (Signature)	Date/Time	Received by: (Signature)
Relinquished by: (Signature)	Date/Time	Rec'd for Laboratory by: (Signature)

The following MUST BE completed by the laboratory accepting samples for analysis:

1. Have all samples received for analysis been stored in ice? yes
2. Will samples remain refrigerated until analyzed? yes
3. Did any samples received for analysis have head space? no
4. Were samples in appropriate containers and properly packaged? yes

Tara Donovan	Lab Asst.	10-29-98
Signature	Title	Date

Rev: 12-93

Item #6: Results of Previous Investigation

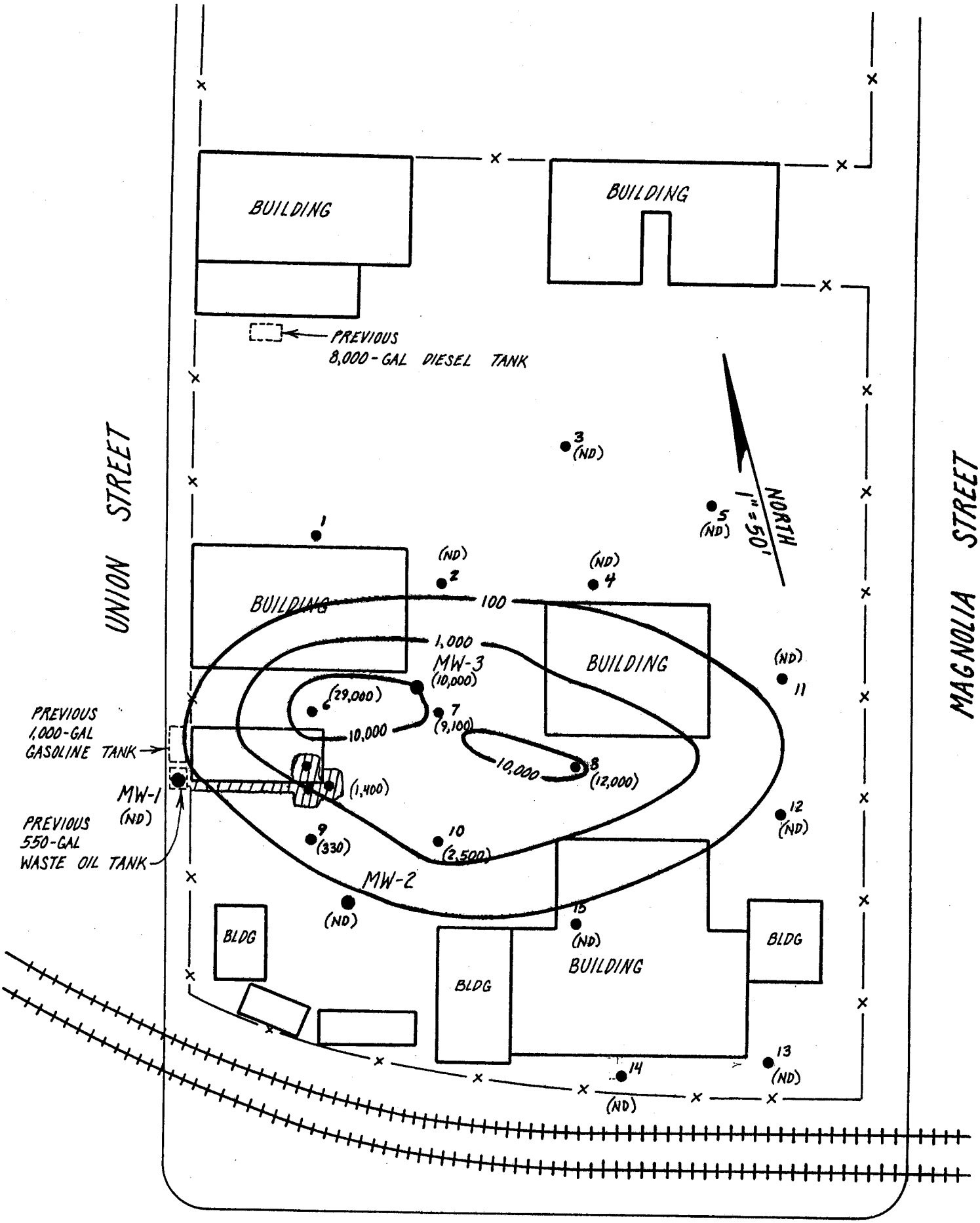


FIGURE 5. Lines of Equal Concentration of Gasoline in ug/L (ppb) in the Shallow Groundwater.

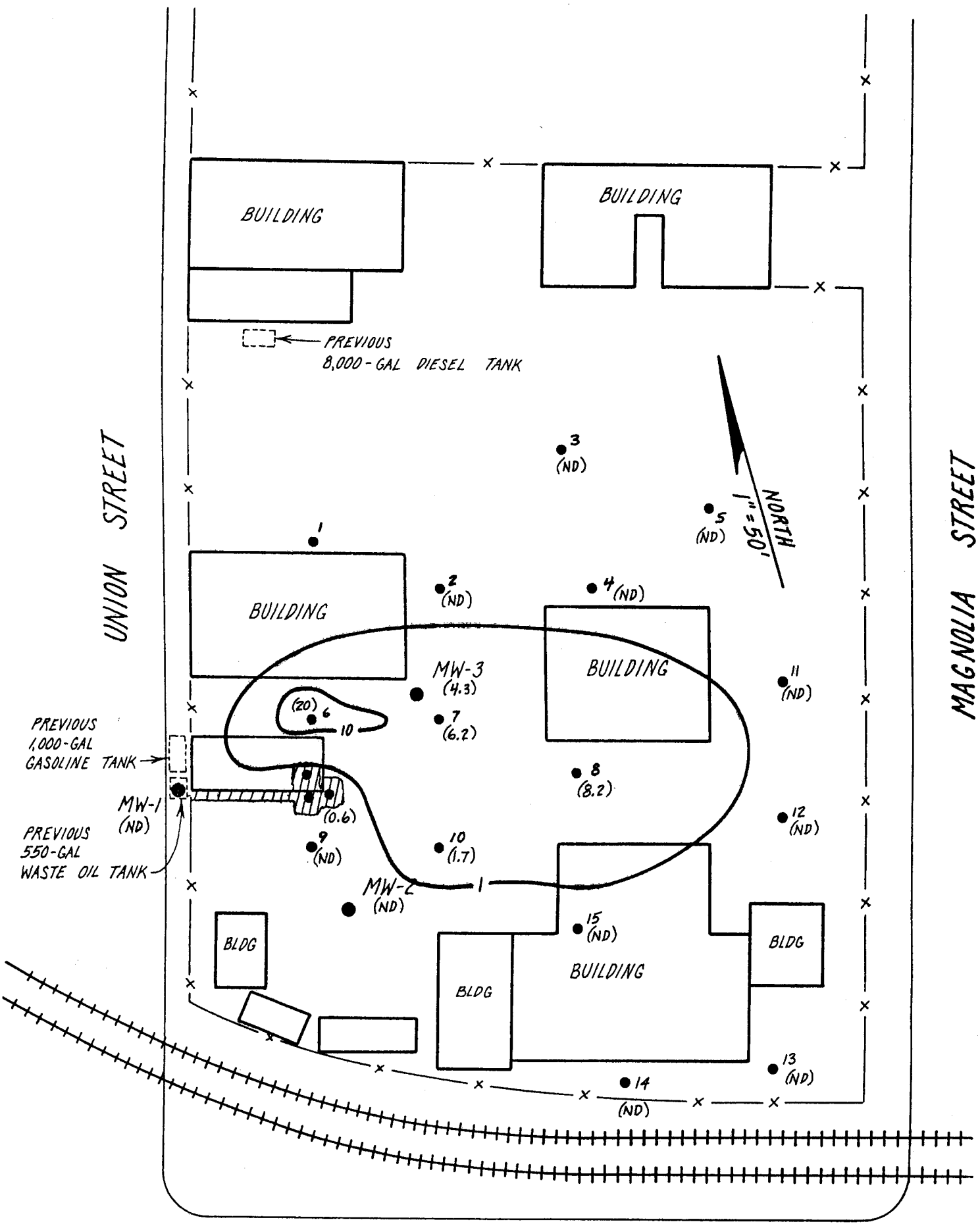


FIGURE 6. Lines of Equal Concentration of Benzene in ug/L (ppb) in the Shallow Groundwater.