

HYDRO ANALYSIS, INC.

*Environmental & Water Resources Engineering  
Groundwater Consultants*

February 7, 2001

**Larry Seto**  
**Alameda County Environmental Health**  
**1131 Harbor Bay Pkwy**  
**Alameda, CA 94502**

**RE: Pacific Cryogenic Company**  
2311 Magnolia Street, Oakland, CA  
RWQCB LUST Case File No. 01-0833

Dear Mr. Seto:

Please find enclosed a copy of the report titled "*Certification of Well Destruction, Former Pacific Cryogenic Company, 2311 Magnolia Street, Oakland, California*" by Hydro Analysis, Inc., dated February 6, 2001.

If you have any questions, please contact me at (925)620-0891.

Sincerely,

**Gary Aguiar**

**Principal Engineer**



HYDRO ANALYSIS, INC.

*Environmental & Water Resources Engineering  
Groundwater Consultants*

February 6, 2001

## **CERTIFICATION OF WELL DESTRUCTION**

### **FORMER PACIFIC CRYOGENIC COMPANY**

2311 Magnolia Street  
Oakland, California

#### **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.

On June 30, 1989, and July 12, 1989, Geo-environmental Technology removed three underground storage tanks from the property: one 8,000-gal Diesel tank, one 1,000-gal Gasoline tank, and one 550-gal Waste Oil tank. The locations of the tanks are shown in

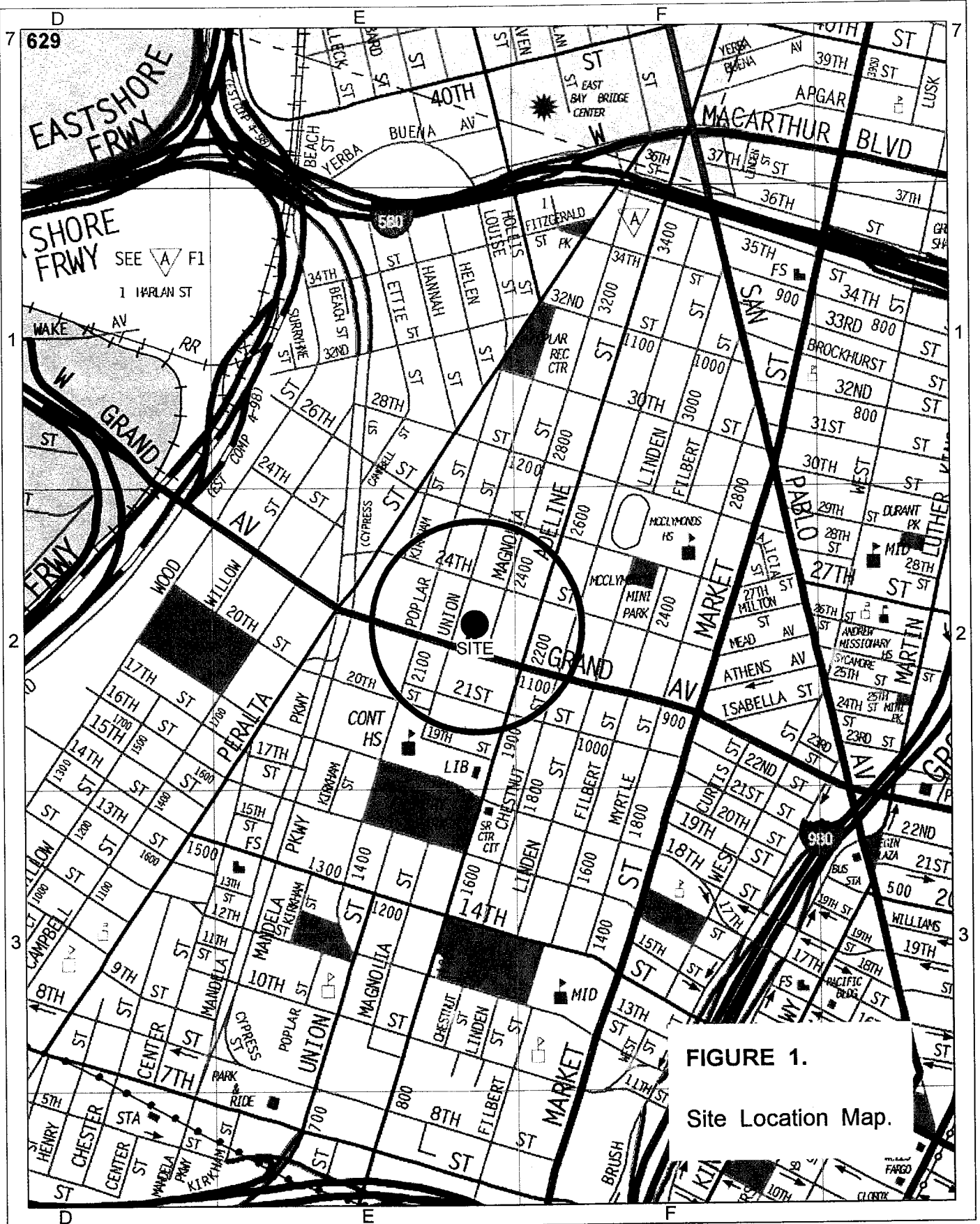
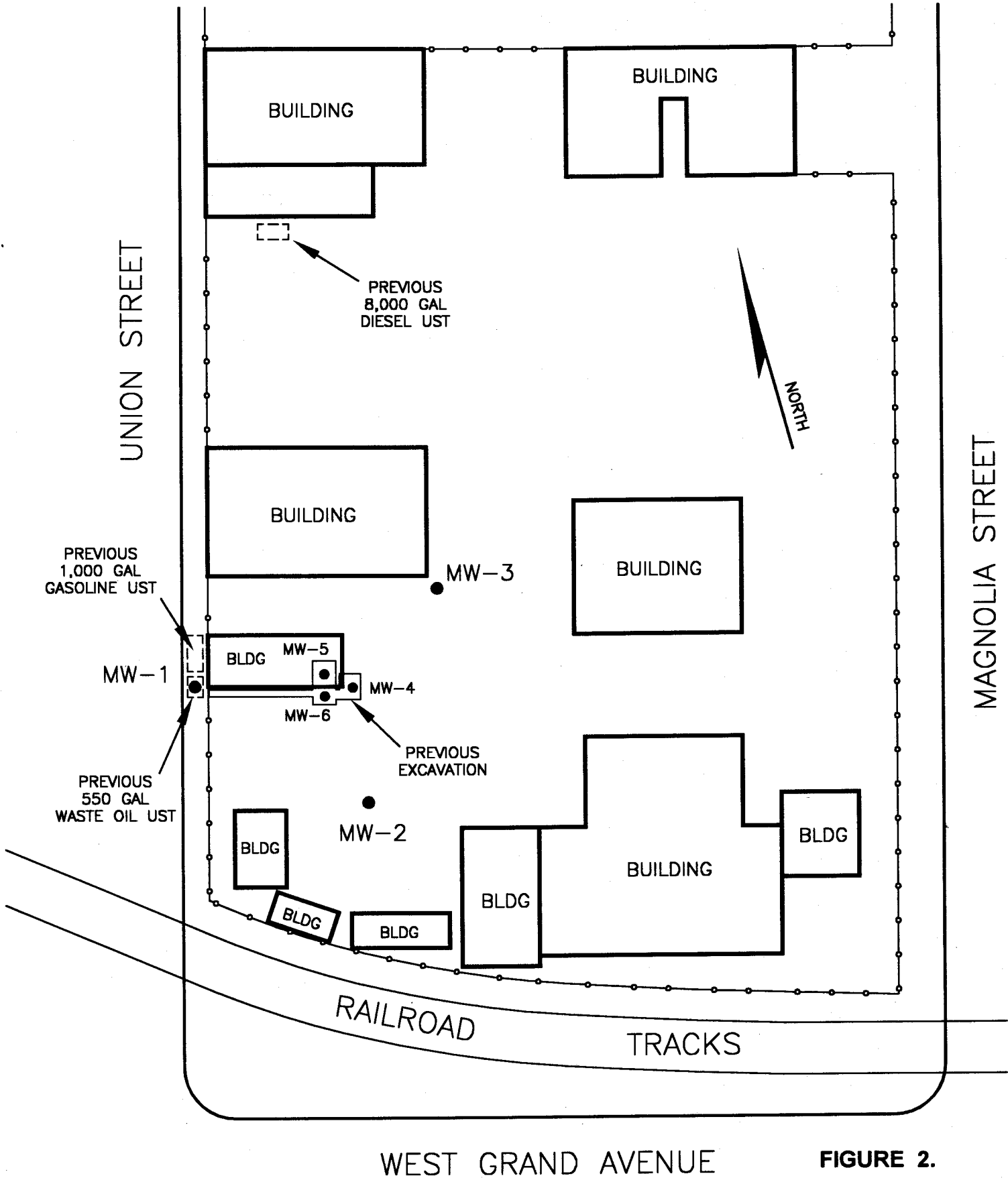


FIGURE 1.  
Site Location Map.

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



**FIGURE 2.**

Site Map.

Figure 2. Groundwater monitoring well MW-1 was subsequently installed at the location of the gasoline and waste oil tanks. Two additional wells (MW-2 and MW-3) were installed between November 1990 and March 1992. On November 12, 1992, the underground piping running between the previous Gasoline and Waste Oil underground storage tanks and the previous dispenser pedestal were removed. Due to the existence of significant soil contamination, additional soil excavation was conducted on November 18, 1992. The excavation extended to a depth of approximately 15 feet below grade surface. During the backfilling of the excavation, three additional monitoring well casings were installed into the excavation. The location of the excavation and all six wells are shown in figure 2. Periodic sampling of the onsite wells continued until November 1996.

### Case Closure

In response to "*Health-Based Risk Assessment And Recommendation For UST Case Closure - Pacific Cryogenic Company*" by Hageman-Aguiar, Inc., dated June 3, 1998, the Leaking Underground Fuel Tank (LUFT) case at this site has been classified as "No Further Action" in accordance with California Regional Water Quality Control (RWQCB) guidelines. Correspondence pertaining to the site closure and the Alameda County Health Care Services request for monitoring well destruction is provided in Attachment A. The letter from Alameda County Health Care Services also indicates that upon submittal of this well destruction report, the LUFT case will be assigned a "Closed" status.

**Permitting**

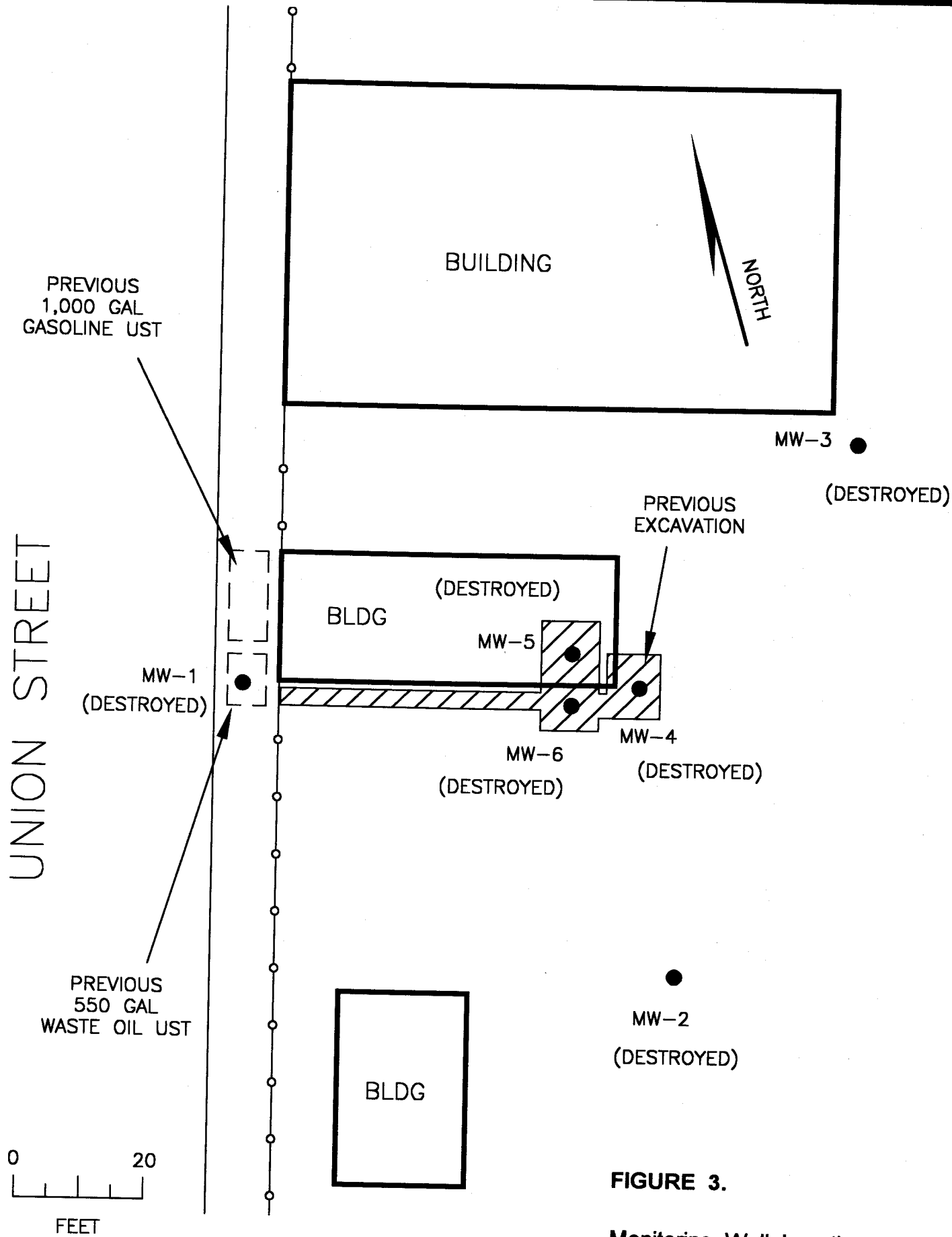
Prior to conducting the well destruction activities at the site, Well Destruction Permits were obtained from the County Of Alameda Public Works Agency. Copies of the permits are provided in Attachment B.

**Monitoring Well Destruction**

On January 22, 2001, shallow groundwater monitoring wells MW-1, MW-2, MW-3, MW-4, MW-5, and MW-6 were destroyed. The locations of the destroyed monitoring wells are shown in Figure 3.

The work was conducted by Gregg Drilling of Martinez, California, under the supervision of Randal Wilson of Hydro Analysis, Inc. Each well was destroyed by tremmie filling the well with "neat" Portland cement and then pressure-grouting the well with approximately 25 psi for 5 minutes. Prior to the well destruction, the total depth of each well below ground surface (bgs) was recorded:

WELL	TOTAL DEPTH (feet bgs)
MW-1	19.1
MW-2	23.0
MW-3	23.7
MW-4	13.7
MW-5	14.0
MW-6	14.0



**FIGURE 3.**  
Monitoring Well Locations.

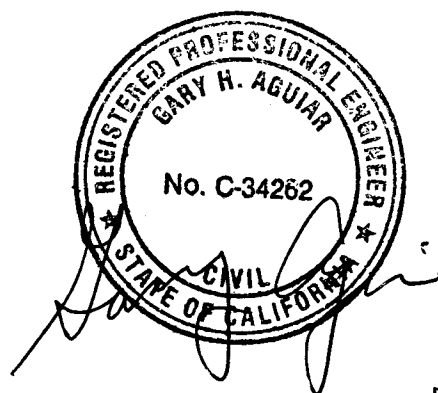
Upon completion of the pressure-grouting, the well box at each location was removed and then filled to finish grade with Portland cement concrete.

Copies of the completed DWR Forms 188 are provided in Attachment C.



CERTIFICATION OF WELL DESTRUCTION  
FORMER PACIFIC CRYOGENIC COMPANY  
2311 Magnolia Street, Oakland, CA.

February 6, 2001



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) 237-9335

December 5, 2000

Estate of Jean Josephian c/o  
Mr. Aldo Guidotti, Attorney at Law  
One Bates Boulevard, Suite 300  
Orinda, CA 94563  
STID 1211

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

Dear Mr. Guidotti:

This office and the San Francisco Regional Water Quality Control Board have reviewed the case closure summary for the above referenced site. We concur that no further action related to the underground tank release is required at this time. Before a remedial action completion letter is sent, the on-site monitoring well(s) should be decommissioned, if they will no longer be used for monitoring. Please notify this office upon completion of well destruction so a closure letter can be issued.

Well destruction permits may be obtained from Alameda County Public Works. They can be reached at (510) 670-5575 or 670-5248.

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

Sincerely,



Larry Seto  
Sr. Hazardous Materials Specialist

Cc: Paul Discoc, O2 Artisans Aggregate, 2500 Kirkham Street, Oakland, CA 94607  
Files

**ATTACHMENT B**

**Permits**



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-8554 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Pacific Cryogenics
2311 Magnolia Street
Oakland, CA 94607

PERMIT NUMBER W01-068
WELL NUMBER
APN

PERMIT CONDITIONS
Checked Permit Requirements Apply

CLIENT Name Aldo Guidotti / Estate of Jean Josephine
Address 1 Bates Blvd #300 Phone (925) 254-3450
City Orinda Zip 94536

- 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 original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

APPLICANT Name Hydro Analysis, Inc.
1100 San Pablo Ave Fax (510) 620-0894
Address Suite 200-A Phone (510) 620-0891
City El Cerrito, CA Zip 94530

B. WATER SUPPLY WELLS

TYPE OF PROJECT
Well Construction
Cathodic Protection
Water Supply
Monitoring
monitoring well destruction by pressure-grouting
PROPOSED WATER SUPPLY WELL USE
New Domestic
Municipal
Industrial
Geotechnical Investigation
General
Contamination
Well Destruction
Replacement Domestic
Irrigation
Other

- 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specifically approved.

C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS

DRILLING METHOD:
Mud Rotary
Cable
Air Rotary
Other
Auger

- 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

DRILLER'S NAME Gregg Drilling
DRILLER'S LICENSE NO. 057 - 485165

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted curings.

E. CATHODIC

WELL PROJECTS
Drill Hole Diameter
Casing Diameter
Surface Seal Depth
Maximum
Depth
Owner's Well Number MW-1

- Fill hole anode zone with concrete placed by tremie.
F. WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.
G. SPECIAL CONDITIONS

GEOTECHNICAL PROJECTS
Number of Borings
Hole Diameter
Maximum
Depth

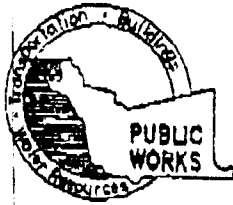
NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

ESTIMATED STARTING DATE 01/22/01
ESTIMATED COMPLETION DATE 01/22/01

APPROVED [Signature] DATE 1/19/01

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

APPLICANT'S SIGNATURE [Signature] DATE 1/19/01
PLEASE PRINT NAME Gary Aguilar



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-3354 MARLON MAGALLANES/FRANK CODD (510) 670-3783
FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Pacific Cryogenics
2311 Magnolia Street
Oakland, CA 94607

PERMIT NUMBER W01-069
WELL NUMBER
APN

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT Name Aldo Guidotti / Estate of Jean Josephine
Address 1 Bates Blvd #300 Phone (925) 254-3450
City Orinda Zip 94536

- (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 original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

APPLICANT Name Hydro Analysis, Inc.
1100 San Pablo Ave Fax (510) 620-0894
Address Suite 200-A Phone (510) 620-0894
City El Cerrito, CA Zip 94530

B. WATER SUPPLY WELLS

- 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT

- New Construction
Cathodic Protection
Water Supply
Monitoring
Geotechnical Investigation
General
Contamination
Well Destruction

monitoring well destruction by pressure-grouting
PROPOSED WATER SUPPLY WELL USE

- New Domestic
Municipal
Industrial
Replacement Domestic
Irrigation
Other

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.

DRILLING METHOD:

- Mud Rotary
Cable
Air Rotary
Other
Auger

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

DRILLER'S NAME Gregg Drilling

DRILLER'S LICENSE NO. C57 - 485165

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

(P) WELL DESTRUCTION

See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

(G) SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

WELL PROJECTS

Drill Hole Diameter in. Maximum
Casing Diameter in. Depth ft.
Surface Seal Depth ft. Owner's Well Number: MW-2

measure the well

GEOTECHNICAL PROJECTS

Number of Borings
Maximum Hole Diameter in. Depth ft.

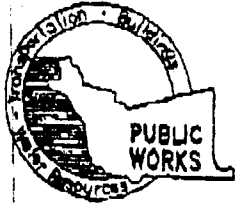
ESTIMATED STARTING DATE 01/22/01
ESTIMATED COMPLETION DATE 01/22/01

APPROVED [Signature] DATE 1/19/01

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

APPLICANT'S SIGNATURE [Signature] DATE 1/19/01

PLEASE PRINT NAME Gary Aguir Rev. 6-3-00



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510) 782-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Pacific Cryogenics
2311 Magnolia Street
Oakland, CA 94607

PERMIT NUMBER W01-070
WELL NUMBER
APN

CLIENT Name Aldo Guidotti / Estate of Jean Josephine
Address Bates Blvd #300 Phone (925) 254-3450
City Orinda Zip 94536

PERMIT CONDITIONS
Circled Permit Requirements Apply

APPLICANT Name Hydro Analysis, Inc.
11100 San Pablo Ave Fax (510) 620-0894
Address Suite 200-A Phone (510) 620-0891
City El Cerrito, CA Zip 94530

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 original Department of Water Resources Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

TYPE OF PROJECT

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

monitoring well destruction by pressure-grouting
PROPOSED WATER SUPPLY WELL USE

New Domestic
Municipal
Industrial
Replacement Domestic
Irrigation
Other

B. WATER SUPPLY WELLS

- 1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 30 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.

DRILLING METHOD:

Mud Rotary
Cable
Air Rotary
Other
Auger

D. GEOTECHNICAL

Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-thirds feet replaced in kind or with compacted cuttings.

DRILLER'S NAME Gregg Drilling

DRILLER'S LICENSE NO. 057 - 485165

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

WELL PROJECTS

Drill Hole Diameter
Casing Diameter
Surface Seal Depth
Maximum Depth
Owner's Well Number MW3

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

GEOTECHNICAL PROJECTS

Number of Borings
Hole Diameter
Maximum Depth

Measure the well

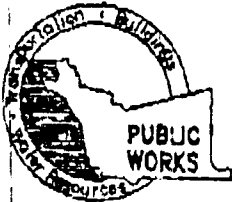
ESTIMATED STARTING DATE 01/22/01
ESTIMATED COMPLETION DATE 01/22/01

APPROVED [Signature] DATE 1-19-01

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

APPLICANT'S SIGNATURE [Signature] DATE 1/19/01

PLEASE PRINT NAME Gary Aguilar Rev. 6-5-00



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510) 982-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Pacific Cryogenics
2511 Magnolia Street
Oakland, CA 94607

PERMIT NUMBER W01-071
WELL NUMBER
APN

PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT Name Aldo Guidotti / Estate of Jean Josephine
Address 1 Bates Blvd #300 Phone (925) 254-3450
City Orinda Zip 94536

- 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 original Department of Water Resources-Well Completion Report.
3. Permit is void if project not begun within 90 days of approval date.

APPLICANT Name Hydro Analysis, Inc.
1100 San Pablo Ave Fax (510) 620-0894
Address Suite 200-A Phone (510) 620-0891
City El Cerrito, CA Zip 94530

- B. WATER SUPPLY WELLS
1. Minimum surface seal thickness is two inches of cement grout placed by tremie.
2. Minimum seal depth is 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specially approved.

TYPE OF PROJECT
Well Construction
Cathodic Protection
Water Supply
Monitoring
Geotechnical Investigation
General
Contamination
Well Destruction
monitoring well destruction by pressure-grouting
PROPOSED WATER SUPPLY WELL USE
New Domestic
Municipal
Industrial
Replacement Domestic
Irrigation
Other

- 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.

DRILLING METHOD:
Mud Rotary
Cable
Air Rotary
Other
Auger

- D. GEOTECHNICAL
Backfill bore hole by tremie with cement grout or cement grout/sand mixture. Upper two-three feet replaced in kind or with compacted cuttings.

DRILLER'S NAME Gregg Drilling
DRILLER'S LICENSE NO. C57 - 485165

- E. CATHODIC
Fill hole anode zone with concrete placed by tremie.
F. WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.
G. SPECIAL CONDITIONS

WELL PROJECTS
Drill Hole Diameter
Casing Diameter
Surface Seal Depth
Maximum Depth
Owner's Well Number MW-4

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

GEOTECHNICAL PROJECTS
Number of Borings
Hole Diameter
Maximum Depth

APPROVED [Signature] DATE 1/19/01
measure the well

ESTIMATED STARTING DATE 01/22/01
ESTIMATED COMPLETION DATE 01/22/01

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

APPLICANT'S SIGNATURE Gary Aguir DATE 1/19/01

PLEASE PRINT NAME GARY AGUIR Rev. 6 - 5/00





ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION

399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510) 762-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

LOCATION OF PROJECT Pacific Cryogenics
2311 Magnolia Street
Oakland, CA 94607

CLIENT Name: Aldo Guidotti / Estate of Jean Josephine
Address: Bates Blvd #300 Phone: (925) 254-3450
City: Orinda Zip: 94536

APPLICANT Name: Hydro Analysis, Inc.
11100 San Pablo Ave Fax: (510) 620-0894
Address: Suite 200-A Phone: (510) 620-0891
City: El Cerrito, CA Zip: 94530

TYPE OF PROJECT

- Well Construction
Cathodic Protection
Water Supply
Monitoring
monitoring well destruction by pressure-grouting
PROPOSED WATER SUPPLY WELL USE
New Domestic
Municipal
Industrial
Geotechnical Investigation
General
Contamination
Well Destruction
Replacement Domestic
Irrigation
Other

DRILLING METHOD:

- Mud Rotary
Cable
Air Rotary
Other
Auger

DRILLER'S NAME Gregg Drilling

DRILLER'S LICENSE NO. 057 - 485165

WELL PROJECTS

Drill Hole Diameter
Casing Diameter
Surface Seal Depth
Maximum Depth
Owner's Well Number MW-5

GEOTECHNICAL PROJECTS

Number of Borings
Hole Diameter
Maximum Depth

ESTIMATED STARTING DATE 01/22/01
ESTIMATED COMPLETION DATE 01/22/01

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

APPLICANT'S SIGNATURE Gary Agui DATE 1/19/01

PLEASE PRINT NAME Gary Agui Rev. 5-5-00

FOR OFFICE USE

PERMIT NUMBER W01-072
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 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 two-three feet replaced in kind or with compacted cuttings.

E. CATHODIC

Fill hole anode zone with concrete placed by tremie.

F. WELL DESTRUCTION

See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 45 feet.

G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [Signature] DATE 1-19-01



ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION
399 ELMHURST ST. HAYWARD CA. 94544-1395
PHONE (510) 670-5554 MARLON MAGALLANES/FRANK CODD (510) 670-5783
FAX (510) 670-1939

DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Pacific Cryogenics
2311 Magnolia Street
Oakland, CA 94607

PERMIT NUMBER W01-073
WELL NUMBER
APN

CLIENT Name: Aldo Guidotti / Estate of Jean Josephine
Address: 1 Bates Blvd #300 Phone: (925) 254-3450
City: Orinda Zip: 94536

APPLICANT Name: Hydro Analysis, Inc.
1100 San Pablo Ave Fax: (510) 620-0894
Address: Suite 200-A Phone: (510) 620-0891
City: El Cerrito, CA Zip: 94530

TYPE OF PROJECT
Well Construction Geotechnical Investigation
Cathodic Protection
Water Supply
Monitoring
PROPOSED WATER SUPPLY WELL USE
New Domestic
Municipal
Industrial
Replacement Domestic
Irrigation
Other
monitoring well destruction by pressure-grouting

DRILLING METHOD:
Mud Rotary
Cable
Air Rotary
Other
Auger

DRILLER'S NAME Gregg Drilling
DRILLER'S LICENSE NO. C57 - 485165

WELL PROJECTS
Drill Hole Diameter
Casing Diameter
Surface Seal Depth
Maximum Depth
Owner's Well Number MW-6

GEOTECHNICAL PROJECTS
Number of Borings
Hole Diameter
Maximum Depth

ESTIMATED STARTING DATE 01/22/01
ESTIMATED COMPLETION DATE 01/22/01

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

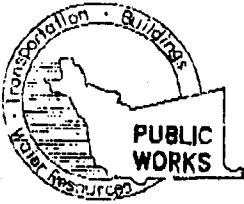
APPLICANT'S SIGNATURE Gary Aguiar DATE 1/19/01
PLEASE PRINT NAME Gary Aguiar

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 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 30 feet for municipal and industrial wells or 20 feet for domestic and irrigation wells unless a lesser depth is specifically 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 two-three feet replaced in kind or with compacted cuttings.
E. CATHODIC
Fill hole anode zone with concrete placed by tremie.
F. WELL DESTRUCTION
See attached requirements for destruction of shallow wells. Send a map of work site. A different permit application is required for wells deeper than 65 feet.
G. SPECIAL CONDITIONS

NOTE: One application must be submitted for each well or well destruction. Multiple borings on one application are acceptable for geotechnical and contamination investigations.

APPROVED [Signature] DATE 1-19-01
Measure the well



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION  
399 ELMHURST ST. HAYWARD, CA. 94544-1395  
PHONE (510) 670-5554 FAX (510) 782-1939

PERMIT NO. W01-068-073

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WATER RESOURCES SECTION  
GROUNDWATER PROTECTION ORDINANCE  
Destruction of Monitoring Wells (Less than 45 feet in depth)

Destruction Requirements: - *Pressure Grouting* -

1. ~~Overdrill or clean out to original depth.~~ *St.*
2. Remove any casing(s) and annular seal to 2 feet below finished grade of original ground, whichever is the lower elevation.
3. Destroy well by grouting neat cement with a tremie pipe to the bottom of the well and by filling with neat cement to three (3) feet below surface grade. Allow the sealing material to spill over the top of the casing to fill any annular space between casing and soil.
4. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.
5. Drilling permits are valid from the start date to the completion date. Permits can be extended by a phone call, but drilling permit applications will not be extended beyond 90 days from the approved start date.
6. Compliance with the above well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate state reporting-requirements related to well destruction (Sections 13750 through 13755 (Division 7, Chapter 10, Article 3) of the California Water Code). Contractor must complete State DWR Form 188 and mail original to the Alameda County Public Works Agency, Water Resources Section, within 60 days.
7. Permittee shall assume entire responsibility for all activities and uses under this permit and shall indemnify, defend and save the Alameda County Public Works Agency, its officers, agents, and employees free and harmless from any and all expense, cost, liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

**ATTACHMENT C**

**DWR 188 Forms**

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**CONFIDENTIAL**

STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)

**REMOVED**

**CONFIDENTIAL**

**STATE OF CALIFORNIA DWR  
WELL COMPLETION REPORT  
(WELL LOGS)**

**REMOVED**

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STATE OF CALIFORNIA DWR  
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**REMOVED**