

**ExxonMobil**  
**Refining and Supply Company**  
Downstream - Safety, Health & Environment  
Environmental Remediation

2300 Clayton Road, Suite 1250  
P.O. Box 4032  
Concord, CA 94524-4032  
(925) 246-8768 Telephone  
(925) 246-8798 Facsimile  
darin.l.rouse@exxon.com

**Darin L. Rouse**  
Senior Engineer  
Environmental Remediation

**ExxonMobil**  
*Refining & Supply*

January 19, 2001

Mr. Barney Chan  
Alameda County Health Care Services Agency  
Environmental Health Services  
1131 Harbor Bay Parkway, Room 250  
Alameda, California 94502-6577

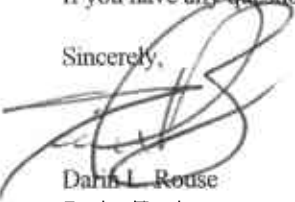
**RE: Former Exxon RAS #7-3006/720 High Street, Oakland, California.**

Dear Mr. Chan:

Attached for your review and comment is a letter report entitled *Well Destruction and Quarterly Status Report, Fourth Quarter 2000*, dated January 16, 2001, for the above referenced site. The report was prepared by Environmental Resolutions, Inc. (ERI) of Novato, California, and presents the results of well destruction activities and the fourth quarter 2000 status at the subject site.

If you have any questions or comments, please contact me at (925) 246-8768.

Sincerely,

  
Darin L. Rouse  
Senior Engineer

Attachment: ERI's Well Destruction and Quarterly Status Report, Fourth Quarter 2000, dated January 16, 2001.

cc: w/attachment  
Mr. Stephen Hill, California Regional Water Quality Control Board, San Francisco Bay Region  
Mr. Frank Codd, Alameda County Public Works Agency, Water Resources Section

w/o attachment  
Mr. James F. Chappell, Environmental Resolutions, Inc.

#136

00 JAN 24 PM 2:59  
ENVIRONMENTAL  
PROTECTION



January 16, 2001  
ERI 201014.R03

Mr. Darin L. Rouse  
ExxonMobil Refining and Supply  
P.O. Box 4032  
Concord, California 94524-4032

Subject: Well Destruction and Quarterly Status Report, Fourth Quarter 2000,  
Former Exxon Service Station 7-3006, 720 High Street, Oakland, California.

Mr. Rouse:

At the request of ExxonMobil Refining and Supply (formerly known as Exxon Company, U.S.A.) (ExxonMobil), Environmental Resolutions, Inc. (ERI) performs environmental activities at the subject site. This document summarizes the fourth quarter 2000 site status and the destruction of seven groundwater monitoring wells (MW7 through MW11, MW13 and MW15), three groundwater recovery wells (RW5 through RW7), and two vadose wells (VW2 and VW3) at the subject site. The location of the site is shown on the Site Vicinity Map (Plate 1). The locations of the destroyed wells are shown on the Generalized Site Plan (Plate 2).

### WELL DESTRUCTION

ERI performed the field work in accordance with well destruction permits issued by the Alameda County Public Works Agency, dated June 14, 2000 (Attachment A), and a site-specific Health and Safety Plan. The Alameda County Health Care Services Agency provided written concurrence to destroy the monitoring wells in a letter dated July 28, 2000 (Attachment B). The recovery wells were destroyed due to shut-off and removal of the onsite soil vapor extraction (SVE) system. Well construction logs for select wells are included as Attachment C.

On December 21 and 22, 2000, ERI observed Woodward Drilling Company, Inc. (Woodward) of Rio Vista, California, destroy the wells. ERI was unable to destroy monitoring well MW3 and recovery wells RW1 through RW4 due to construction activities. ERI measured and recorded the total depth and depth to water of the wells. The results of well sounding are presented in Table 1. The wells were destroyed by drilling out the top two feet of casing, filter pack, and grout seal. The remaining casing was pressure-grouted with a cement/bentonite slurry from the total depth to two feet immediately below ground surface. The borehole was filled with concrete from two feet below ground surface to the ground surface.

### GROUNDWATER MONITORING AND SAMPLING

Groundwater monitoring and sampling are performed on an annual basis, with samples collected in the first quarter of the year.

## SOIL AND GROUNDWATER REMEDIATION

### Air Sparge/Soil Vapor Extraction

ExxonMobil operated an air sparge/soil vapor extraction (AS/SVE) system at the site from August 1996 through July 28, 1999. The AS/SVE system removed approximately 5,144 pounds of total purgeable petroleum hydrocarbons as gasoline (TPPHg) and 61 pounds of benzene.

### Groundwater Extraction and Treatment

ExxonMobil operated a groundwater remediation system (GRS) at the site from January 1, 1995 through December 23, 1998. The GRS removed approximately 10 pounds of gasoline hydrocarbons (calculated as TPPHg) and 3 pounds of benzene.

## STATUS OF INVESTIGATION

At the request of ExxonMobil, ERI is continuing annual groundwater monitoring and sampling. The property owner is currently remodeling the site. During a December 28, 2000 site visit, ERI observed that the USTs and the product dispensers were installed and construction activities were near completion. The station is scheduled to open soon after complete paving of site, which was reportedly scheduled for the week of January 15, 2001. ERI plans to implement biosparging after the completion of construction activities.

ERI recommends forwarding copies of this report to:

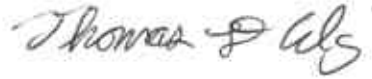
Mr. Barney Chan  
Alameda County Health Care Services Agency  
Department of Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Mr. Stephen Hill  
California Regional Water Quality Control Board  
San Francisco Bay Region  
1515 Clay Street, Suite 1400  
Oakland, California 94612

Mr. Frank Codd  
Alameda County Public Works Agency  
Water Resources Section  
399 Elmhurst Street  
Hayward, California 94544-1395

Please call Mr. James F. Chappell at (415) 382-4323 with any questions regarding this project.

Sincerely,  
Environmental Resolutions, Inc.



Thomas D. Culig  
Staff Geologist



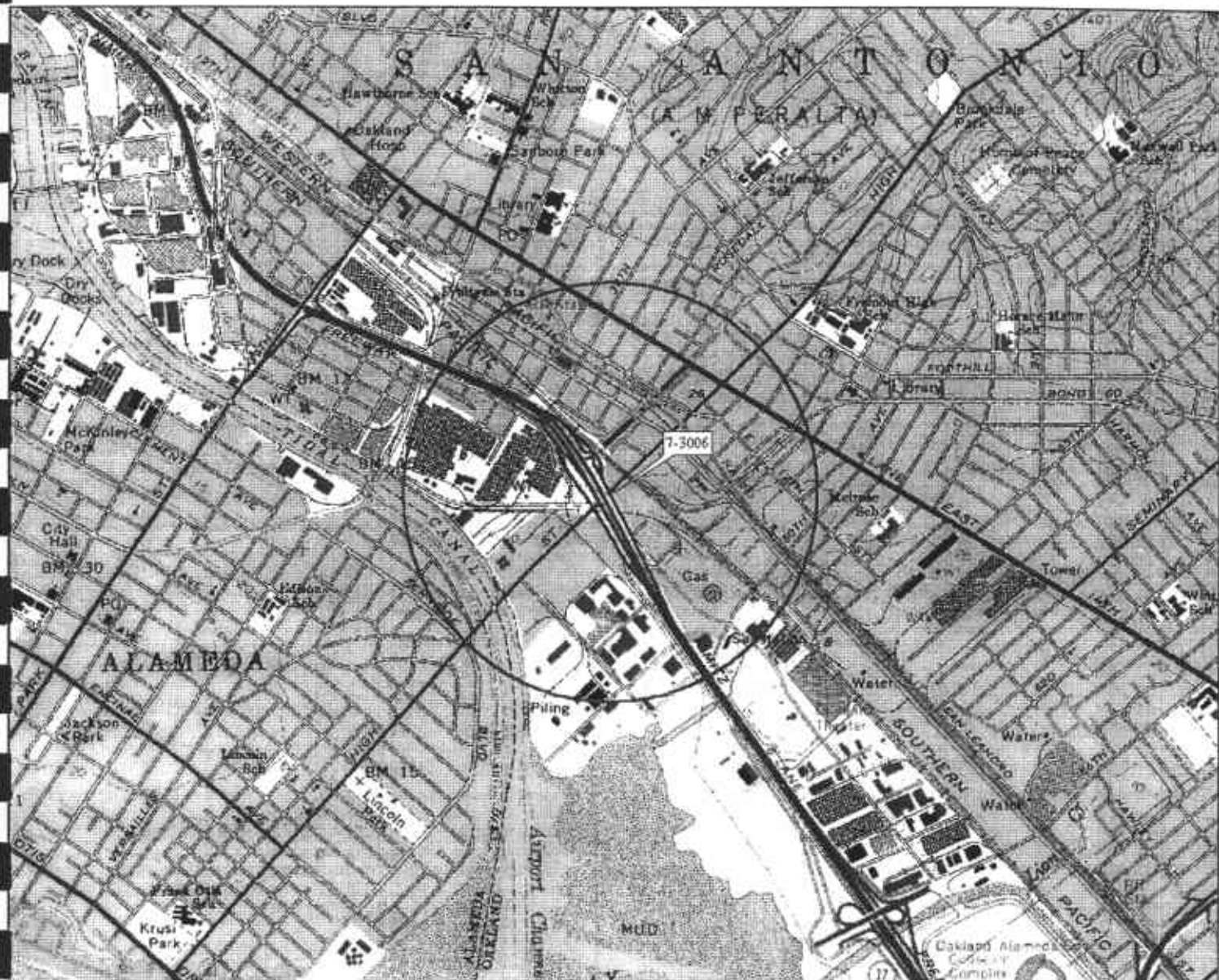
John B. Bobbitt  
R.G. 4313

- Attachments: Table 1: Well Information Data
- Plate 1: Site Vicinity Map
- Plate 2: Generalized Site Plan
- Attachment A: Well Destruction Permits
- Attachment B: Alameda County Health Care Services Agency Letter  
Dated July 28, 2000
- Attachment C: Well Construction Logs

Table 1  
Well Information Data  
Former Exxon Service Station 7-3006  
720 High Street  
Oakland, California

*wells destroyed*

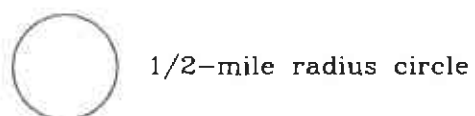
Well Designation	Date	Casing Diameter (inches)	Measured Depth (feet)	Depth to Water (feet)
MW7	12/21/00	4	34.71	6.85
MW8	12/21/00	4	34.50	6.61
MW9	12/21/00	4	31.39	6.98
MW10	12/21/00	4	24.11	6.72
MW11	12/21/00	4	29.64	6.98
MW13	12/21/00	4	15.60	6.90
MW15	12/21/00	4	16.97	7.14
RW5	12/21/00	6	~17.0	5.80
RW6	12/21/00	6	~17.0	---
RW7	12/21/00	6	~17.5	---
VW2	12/21/00	4	7.20	6.10
VW3	12/21/00	4	7.73	6.30



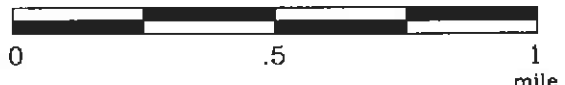
U.S. TopoQuads Copyright © 1999 DeLorme Yarmouth, ME 04094 Source Data: USGS 1:50,000 Scale 1:10,000 Detail: USGS Datum: WGS84

FN 2010

**EXPLANATION**



**APPROXIMATE SCALE**



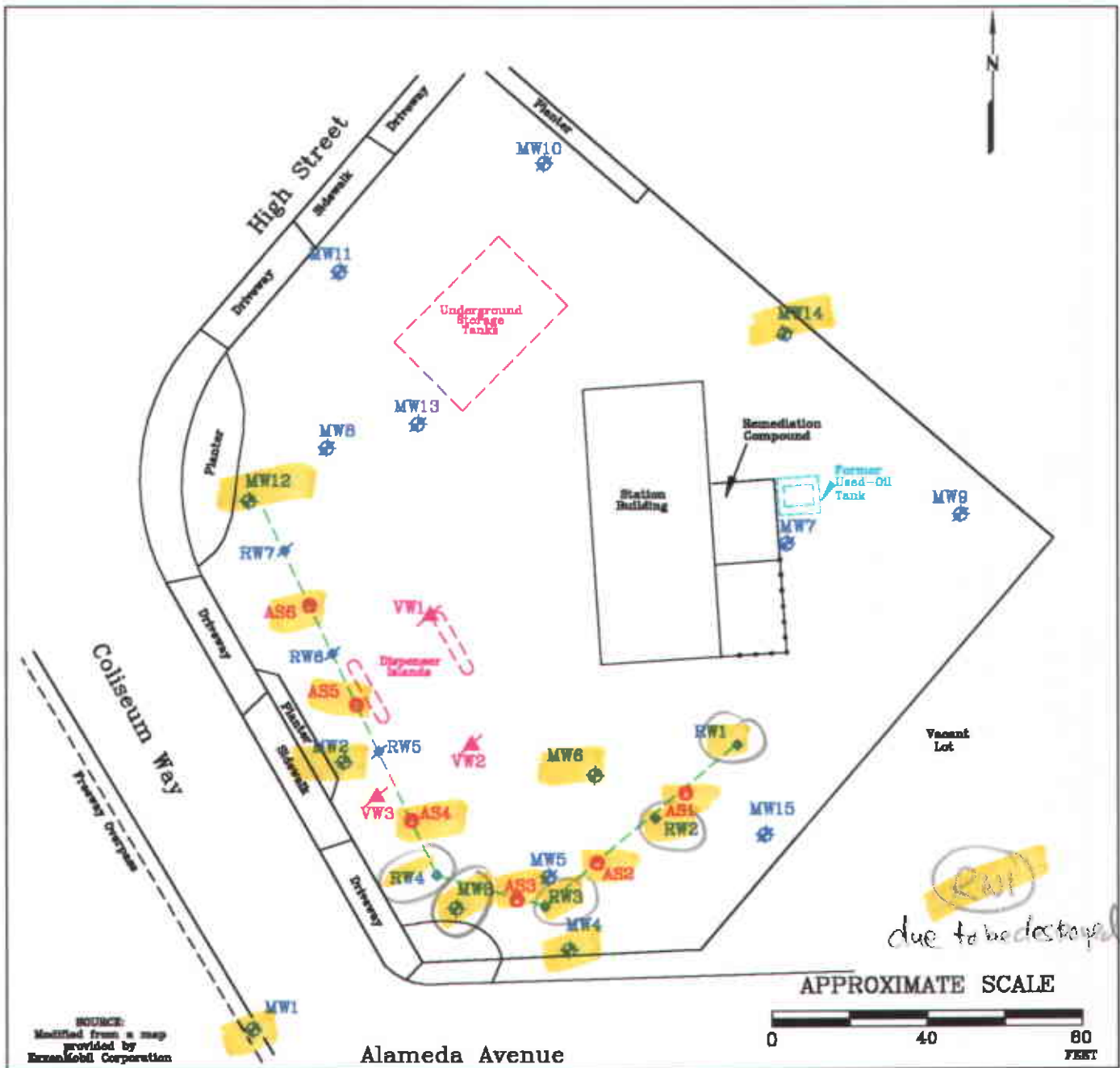
SOURCE:  
Modified from a map  
provided by  
DeLorme 3-D TopoQuads

**SITE VICINITY MAP**

FORMER EXXON SERVICE STATION 7-3006  
720 High Street  
Oakland, California

<b>PROJECT NO.</b>
2010
<b>PLATE</b>
1





SOURCE:  
Modified from a map  
provided by  
ExxonMobil Corporation

FN 2010002

**EXPLANATION**

- Groundwater Monitoring Well
- Destroyed Groundwater Monitoring Well
- Recovery Well
- Destroyed Recovery Well
- Vadose Well
- Destroyed Vadose Well
- Air Sparging/Vapor Extraction Well
- Groundwater Interceptor Trench

*Viable wells*

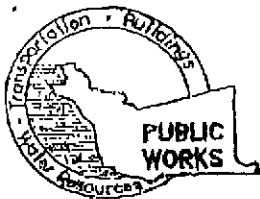


**GENERALIZED SITE PLAN**  
FORMER EXXON SERVICE STATION 7-3006  
720 High Street  
Oakland, California

**PROJECT NO.**  
2010  
**PLATE**  
2

**ATTACHMENT A**  
**WELL DESTRUCTION PERMITS**





# 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 Former Exxon Gas Station 7-2006  
720 High Street  
Oakland California

PERMIT NUMBER W00-361  
WELL NUMBER \_\_\_\_\_  
AFN \_\_\_\_\_

PERMIT CONDITIONS  
Circled Permit Requirements Apply

#### CLIENT

Name Exxon Mobil  
Address P.O. Box 4032 Phone (925) 246-0790  
City San Pablo Zip 94924-4032

#### APPLICANT

Name Environmental Resolution, Inc.  
Address 73 Digital Dr. Phone (415) 323-1856  
City Alameda Zip 94949

#### TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

#### PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

#### DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S LICENSE NO. 710079

#### WELL PROJECTS

Drill Hole Diameter	<u>4</u> in.	Maximum Depth	<u>36</u> ft.
Casing Diameter	<u>4</u> in.	Number	<u>MW7, MW8, MW9, MW10, MW11, MW13, MW15</u>
Surface Seal Depth	<u>4</u> ft.		

#### GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

ESTIMATED STARTING DATE 7-1-00  
ESTIMATED COMPLETION DATE \_\_\_\_\_

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

APPLICANT'S SIGNATURE Tom Cullig DATE 6-13-00

PLEASE PRINT NAME Tom Cullig Rev. A-4-00

#### 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 and mixture. Upper two-thirds feet replaced in kind or with compacted cuttings.

#### E. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

#### F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 43 feet.

#### G. SPECIAL CONDITIONS

APPROVED

*Frank Codd*

DATE

6/13/00

MW#7

06/13/00 15:28 FAX

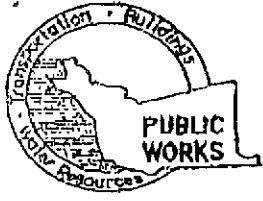
E.R.I.

003  
P. 02

JUN-12-00 MON 02:41 PM

ALAMEDA COUNTY PWA RM239

FAX NO. 5107821939



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

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

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Former Exxon Service Station 7-2006  
720 High Street  
Daly City, California

PERMIT NUMBER W00-361  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

PERMIT CONDITIONS  
Circled Permit Requirements Apply

CLIENT  
Name Exxon Mobil  
Address P.O. Box 4032 Phone (925) 246-8790  
City Concord Zip 94724-4032

- 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.

APPLICANT  
Name Environmental Resolutions, Inc. Fax (415) 382-1854  
Address 73 Deyland Dr. Phone (415) 382-9805  
City Novato Zip 94949

- D. 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.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

- C. GROUNDWATER MONITORING WELLS INCLUDING MEZOMETERS**
  - 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.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

- 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.

DRILLING METHOD

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

- E. CATHODIC**  
Fill hole above anode zone with concrete placed by tremie
- F. WELL DESTRUCTION**  
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

DRIILLER'S LICENSE NO. 710079

**G. SPECIAL CONDITIONS**

WELL PROJECTS

Drill Hole Diameter	<u>11</u> in.	Maximum Depth	<u>36</u> ft
Casing Diameter	<u>4</u> in.	Number	<u>MW7, MW8, MW9, MW10, MW11, MW13, MW15</u>
Surface Seal Depth	<u>24</u> ft.		

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

ESTIMATED STARTING DATE 7-1-00  
ESTIMATED COMPLETION DATE \_\_\_\_\_

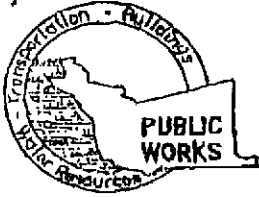
APPROVED Frank Codd DATE 6/14/00

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

MW#8

APPLICANT'S SIGNATURE Tom Cullig DATE 6-13-00

PLEASE PRINT NAME Tom Cullig Rev. 4-4-00



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION  
399 ELMHURST BT. HAYWARD CA. 94544-1395  
PHONE (510) 670-3554 MARLON MAGALLANES/FRANK CODD (510) 670-5783  
FAX (510)782-1939

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE  
**W00-361**

LOCATION OF PROJECT Former Exxon Service Station 7-2006  
720 High Street  
Daly City California

PERMIT NUMBER \_\_\_\_\_  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

PERMIT CONDITIONS  
Circled Permit Requirements Apply

CLIENT  
Name Exxon Mobil  
Address P.O. Box 4032 Phone (925) 346-8790  
City Concord Zip 94924-4032

- 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.

APPLICANT  
Name Environmental Protection, Inc.  
Address 73 Bighal Dr. Phone (415) 382-1856  
City Alameda Zip 94949

- 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.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

- 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.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

- 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.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

- E. CATHODIC**  
Fill hole above anode zone with concrete placed by tremie
- F. WELL DESTRUCTION**  
Send a map of work site. A separate permit is required for wells deeper than 49 feet.

DRIILLER'S LICENSE NO. 710079

**G. SPECIAL CONDITIONS**

WELL PROJECTS

Drill Hole Diameter	<u>11</u> in.	Maximum Depth	<u>36</u> ft.
Casing Diameter	<u>4</u> in.	Number	<u>mw7, mw8, mw9, mw10, mw11, mw13, mw15</u>
Surface Seal Depth	<u>NA</u> ft.		

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

ESTIMATED STARTING DATE 7-1-00  
ESTIMATED COMPLETION DATE \_\_\_\_\_

APPROVED Frank Codd DATE 6-14-00

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

APPLICANT'S SIGNATURE Tom Cullig DATE 6-13-00

MW#9

PLEASE PRINT NAME Tom Cullig Rev. 4-4-00

06/13/00 15:28 FAX

E.R.I.

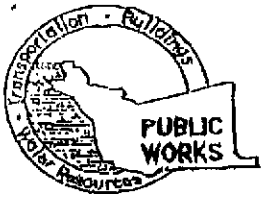
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JUN-12-00 MON 02:41 PM

ALAMEDA COUNTY PWA RM239

FAX NO. 5107821939



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION  
399 ELMHURST ST. HAYWARD CA. 94544-1395  
PHONE (510) 476-3554 MARLON MAGALLANES/FRANK CODD (510) 670-5743  
FAX (510) 782-1939

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Former Exxon Service Station 72006  
720 High Street  
Daly City, California

PERMIT NUMBER W00-361  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

PERMIT CONDITIONS  
Circled Permit Requirements Apply

CLIENT  
Name Exxon/Mobil  
Address P.O. Box 4032 Phone (925) 246-9790  
City Concord Zip 94724-4032

APPLICANT  
Name Environmental Resolutions, Inc.  
Address 73 Digital Dr. Phone (415) 382-1856  
City Albany Zip 94749

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 \_\_\_\_\_

DRILLING METHOD:  
Mud Rotary  Air Rotary  Auger   
Cable  Other

DRIILLER'S LICENSE NO. 710079

WELL PROJECTS  
Drill Hole Diameter 11 in. Maximum Depth 36 ft.  
Casing Diameter 4 in. Number MW7, MW8, MW9, MW10, MW11, MW13, MW15  
Surface Seal Depth N/A ft.

GEOTECHNICAL PROJECTS  
Number of Borings \_\_\_\_\_ Maximum Depth \_\_\_\_\_ ft.  
Hole Diameter \_\_\_\_\_ in.

ESTIMATED STARTING DATE 7-1-00  
ESTIMATED COMPLETION DATE \_\_\_\_\_

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

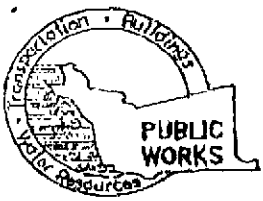
APPLICANT'S SIGNATURE Tom Cullig DATE 6-13-00

PLEASE PRINT NAME Tom Cullig Rev. 4-4-00

- (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 two-three feet replaced in kind or with compacted cuttings.
- E. CATHODIC  
Fill hole above anode zone with concrete placed by tremie.
- (F) WELL DESTRUCTION  
Send a map of work site. A separate permit is required for wells deeper than 45 feet.
- G. SPECIAL CONDITIONS

APPROVED Frank Codd DATE 6/14/00

MW#10



# 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 Former Exxon Service Station 72006  
720 High Street  
Dakland, California

PERMIT NUMBER W00-361  
 WELL NUMBER \_\_\_\_\_  
 APN \_\_\_\_\_

PERMIT CONDITIONS  
 Circled Permit Requirements Apply

CLIENT  
 Name Exxon Mobil  
 Address P.O. Box 4032 Phone (925) 246-8710  
 City Concord Zip 94974-4032

APPLICANT  
 Name Environmental Resolutions, Inc. Fax (415) 382-1856  
 Address 73 Digital Dr. Phone (415) 382-9805  
 City Novato Zip 94949

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S LICENSE NO. 710079

WELL PROJECTS

Drill Hole Diameter	<u>4</u> in.	Maximum Depth	<u>36</u> ft.
Casing Diameter	<u>4</u> in.	Number	<u>MW7, MW8, MW9, MW10, MW11, MW13, MW15</u>
Surface Seal Depth	<u>NA</u> ft.		

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
U-tube Diameter	_____ in.		

ESTIMATED STARTING DATE 7-1-00  
 ESTIMATED COMPLETION DATE \_\_\_\_\_

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

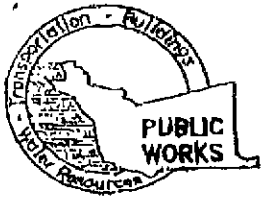
APPLICANT'S SIGNATURE Tom Cullig DATE 6-13-00

PLEASE PRINT NAME Tom Cullig Rev. 4-4-00

- 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 and mixture. Upper two-three feet replaced in kind or with compacted cuttings.
- E. CATHODIC**
- Fill hole above anode zone with concrete placed by tremie.
- F. WELL DESTRUCTION**
- Send a map of work site. A separate permit is required for wells deeper than 15 feet.
- G. SPECIAL CONDITIONS**

APPROVED Frank J. Codd DATE 6/14/00

MW#11



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION  
 399 ELMHURST ST. HAYWARD CA. 94544-1395  
 PHONE (510) 670-3554 MARLON MAGALLANES/FRANK CODD (510) 670-5783  
 FAX (510) 782-1939

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE  
**W00-361**

LOCATION OF PROJECT Former Exxon Service Station 7-2006  
720 High Street  
Dakland, California

PERMIT NUMBER W00-361  
 WELL NUMBER \_\_\_\_\_  
 AFW \_\_\_\_\_

PERMIT CONDITIONS  
 Circled Permit Requirements Apply

CLIENT  
 Name Exxon Mobil  
 Address P.O. Box 4032 Phone (925) 246-8790  
 City Concord Zip 95924-4032

- 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.

APPLICANT  
 Name Environmental Resources, Inc.  
 Address 73 Digital Dr. Phone (415) 382-1850  
 City Albany Zip 94949

- D. 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.

TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

- C. GROUND WATER 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.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

- 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!

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

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

DRILLER'S LICENSE NO. 710079

- F. WELL DESTRUCTION**  
 Send a map of work site. A separate permit is required for wells deeper than 45 feet.

WELL PROJECTS

Drill Hole Diameter	<u>11</u> in.	Maximum Depth	<u>36</u> ft
Casing Diameter	<u>4</u> in.	Number	<u>MW7, MW8, MW9, MW10, MW11, MW13, MW15</u>
Surface Seal Depth	<u>40</u> ft.		

- G. SPECIAL CONDITIONS**

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

ESTIMATED STARTING DATE 7-1-00  
 ESTIMATED COMPLETION DATE \_\_\_\_\_

APPROVED Frank Codd DATE 6/13/00

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 71-68.

**MW#13**

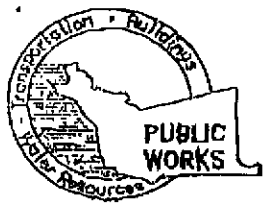
APPLICANT'S SIGNATURE Tom Cullig DATE 6-13-00

PLEASE PRINT NAME Tom Cullig Rev. 4-4-00

JUN-12-00 MON 02:41 PM

ALAMEDA COUNTY PWA RM239

FAX NO. 5107821939



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

WATER RESOURCES SECTION  
399 ELMHURST ST. HAYWARD CA. 94544-1395  
PHONE (510) 470-5554 MARLON MAGALLANES/FRANK CODD (510) 570-5783  
FAX (510)782-1939

## DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE  
PERMIT NUMBER W00-361

LOCATION OF PROJECT Former Exxon Service Station 7-2006  
720 High Street  
Dakland, California

PERMIT NUMBER W00-361  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

PERMIT CONDITIONS  
Circled Permit Requirements Apply

CLIENT  
Name Exxon Mobil  
Address P.O. Box 4032 Phone (925) 246-8740  
City Concord Zip 92924-4032

- 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.

APPLICANT  
Name Environmental Protection, Inc.  
Address 73 Bighal Dr. Phone (415) 382-1856  
City Novato Zip 94949

- D. 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.

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

- 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.

PROPOSED WATER SUPPLY WELL USE  
New Domestic  Replacement Domestic   
Municipal  Irrigation   
Industrial  Other

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

DRILLING METHOD:  
Mud Rotary  Air Rotary  Auger   
Cable  Other

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

DRILLER'S LICENSE NO. 710079

- F. WELL DESTRUCTION**  
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

WELL PROJECTS  
Drill Hole Diameter 11 in. Maximum Depth 36 ft  
Casing Diameter 4 in. Number MW7, MW8, MW9, MW10, MW11, MW12, MW13, MW14, MW15  
Surface Seal Depth NA ft.

GEOTECHNICAL PROJECTS  
Number of Borings \_\_\_\_\_ Maximum Depth \_\_\_\_\_ ft.  
Hole Diameter \_\_\_\_\_ in.

ESTIMATED STARTING DATE 7-1-00  
ESTIMATED COMPLETION DATE \_\_\_\_\_

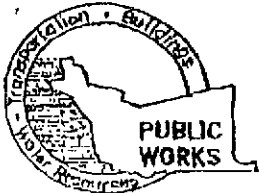
APPROVED Frank Codd DATE 6/14/00

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

APPLICANT'S SIGNATURE Tom Cullig DATE 6-13-00

MW#15

PLEASE PRINT NAME Tom Cullig Rev. 4-4-00



# 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 Former Exxon Service Station 7-2006  
720 High Street  
Oakland, California

PERMIT NUMBER W100-362  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

#### PERMIT CONDITIONS

Circled Permit Requirements Apply

#### CLIENT

Name Exxon Mobil  
Address P.O. Box 4032 Phone (925) 224-8790  
City Concord Zip 94924-4032

#### APPLICANT

Name Environmental Resolutions, Inc.  
Address 73 Digital Dr. Phone (415) 392-1854  
City Albany Zip 94949

#### TYPE OF PROJECT

Well Construction	<input type="checkbox"/>	Geotechnical Investigation	<input type="checkbox"/>
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

#### PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

#### DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S LICENSE NO. 710079

#### WELL PROJECTS

Drill Hole Diameter 11 in. Maximum Depth 20 ft.  
Casing Diameter 6 in. Number RW1, RW2, RW3, RW4, RW5, RW6, RW7  
Surface Seal Depth N/A ft.

#### GEOTECHNICAL PROJECTS

Number of Borings \_\_\_\_\_ Maximum Depth \_\_\_\_\_ ft.  
Hole Diameter \_\_\_\_\_ in.

ESTIMATED STARTING DATE 7-1-00  
ESTIMATED COMPLETION DATE \_\_\_\_\_

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

APPLICANT'S SIGNATURE Tom Celig DATE 6-13-00

PLEASE PRINT NAME Tom Celig Rev. 4-1-00

#### 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.

#### D. 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 culling.

#### E. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

#### F. WELL DESTRUCTION

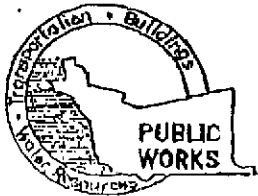
Send a map of work site. A separate permit is required for wells deeper than 45 feet.

#### G. SPECIAL CONDITIONS

APPROVED Frank Codd DATE 6/14/00

RW#5





# ALAMEDA COUNTY PUBLIC WORKS AGENCY

## WATER RESOURCES SECTION

399 ELMHURST ST. HAYWARD CA. 94544-1395

PHONE (510) 670-5594 MARLON MAGALLANES/FRANK CODD (510) 670-5783

FAX (510) 787-1939

### DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Former Exxon Service Station 7-2006  
720 High Street  
Daly City, California

PERMIT NUMBER W00-362  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

#### PERMIT CONDITIONS

Circled Permit Requirements Apply

#### CLIENT

Name Exxon Mobil  
Address 810 Ave 4032 Phone (925) 246-0790  
City Concord Zip 94924-4032

#### APPLICANT

Name Environmental Resolutions Inc.  
Address 73 Digital Dr. Phone (415) 392-1454  
City Novato Zip 94949

#### TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

#### PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

#### DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

DRILLER'S LICENSE NO. 710079

#### WELL PROJECTS

Drill Hole Diameter 11 in. Maximum  
Casing Diameter 6 in. Depth 20 ft.  
Surface Seal Depth N/A ft. Number RW1, RW2, RW3, RW4  
RW5, RW6, RW7

#### GEOTECHNICAL PROJECTS

Number of Borings \_\_\_\_\_ Maximum  
Hole Diameter \_\_\_\_\_ in. Depth \_\_\_\_\_ ft.

ESTIMATED STARTING DATE 7-1-00

ESTIMATED COMPLETION DATE \_\_\_\_\_

I hereby agree to comply with all requirements of this permit and Alameda County Ordinance No. 73-58.

APPLICANT'S SIGNATURE Tom Celig DATE 6-13-00

PLEASE PRINT NAME Tom Celig Rev. 4-4-00

#### 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 two-three feet replaced in kind or with compacted cuttings.

#### E. CATHODIC

Fill hole above anode zone with concrete placed by tremie.

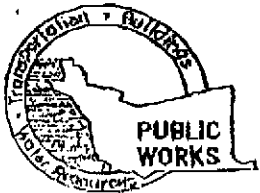
#### F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

#### G. SPECIAL CONDITIONS

APPROVED Frank L. Codd DATE 6/13/00

RWH#6



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

## WATER RESOURCES SECTION

399 ELMHURST ST. HAYWARD CA. 94544-1395  
PHONE (510) 670-5354 MARLON MAGALLANES/FRANK CODD (510) 670-5783  
FAX (510) 782-1939

### DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Former Exxon Service Station 7-2006  
720 High Street  
Oakland, California

PERMIT NUMBER W00-362  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

#### PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT  
Name Exxon Mobil  
Address P.O. Box 4032 Phone (925) 245-0790  
City Concord Zip 94924-4032

- (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.

APPLICANT  
Name Environmental Resolutions, Inc. Fax (415) 382-1856  
Address 72 Digital Dr. Phone (415) 392-905  
City Novato Zip 94949

- 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.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

- 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.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

- 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.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

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

DRILLER'S LICENSE NO. 710079

- F. WELL DESTRUCTION
  - Send a map of work site. A separate permit is required for wells deeper than 45 feet.

WELL PROJECTS

Drill Hole Diameter	<u>11</u> in.	Maximum Depth	<u>30</u> ft.
Casing Diameter	<u>6</u> in.	Number	<u>RW1, RW2, RW3, RW4, RW5, RW6, RW7</u>
Surface Seal Depth	<u>N/A</u> ft.		

- G. SPECIAL CONDITIONS

GEOTECHNICAL PROJECTS

Number of Borings	_____	Maximum Depth	_____ ft.
Hole Diameter	_____ in.		

ESTIMATED STARTING DATE 7-1-00  
ESTIMATED COMPLETION DATE \_\_\_\_\_

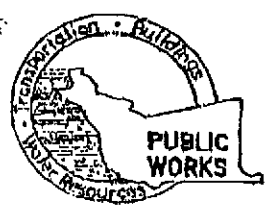
APPROVED Frank Codd DATE 6/13/00

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

APPLICANT'S SIGNATURE Tom Celig DATE 6-13-00

RW#7

PLEASE PRINT NAME Tom Celig Rev. 4-4-00



# ALAMEDA COUNTY PUBLIC WORKS AGENCY

## WATER RESOURCES SECTION

395 ELMHURST ST. WAYWARD CA. 94544-1395

PHONE (510) 678-5354 MARLON MAGALLANES/FRANK CODD (510) 678-3783

FAX (510)782-1939

### DRILLING PERMIT APPLICATION

FOR APPLICANT TO COMPLETE

FOR OFFICE USE

LOCATION OF PROJECT Former Exxon Service Station 7-2006  
710 High Street  
Oakland, California

PERMIT NUMBER W00-363  
WELL NUMBER \_\_\_\_\_  
APN \_\_\_\_\_

#### PERMIT CONDITIONS

Circled Permit Requirements Apply

CLIENT Name Exxon Mobil  
Address P.O. Box 4032 Phone (925) 246-0790  
City San Carlos Zip 95074-4032

- 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.

APPLICANT Name Environmental Resolutions, Inc.  
Address 73 Dwight Dr. Phone (415) 392-1856  
City Novato Zip 94949

#### D. 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.

TYPE OF PROJECT

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

#### 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.

PROPOSED WATER SUPPLY WELL USE

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other	<input type="checkbox"/>

#### 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.

DRILLING METHOD:

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

#### E. CATHODIC

Fill hole above anode zone with concrete placed by tremie

#### F. WELL DESTRUCTION

Send a map of work site. A separate permit is required for wells deeper than 45 feet.

DRILLER'S LICENSE NO. 710079

#### G. SPECIAL CONDITIONS

WELL PROJECTS

Drill Hole Diameter	<u>11</u> in.	Maximum	
Casing Diameter	<u>4</u> in.	Depth	<u>10</u> ft.
Surface Seal Depth	<u>N/A</u> ft.	Number	<u>2</u> VW2, VW3

GEOTECHNICAL PROJECTS

Number of Borings		Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

ESTIMATED STARTING DATE 7-1-00  
ESTIMATED COMPLETION DATE \_\_\_\_\_

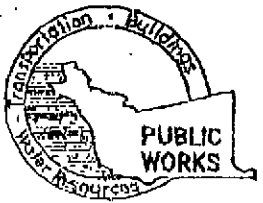
APPROVED Frank L. Codd DATE 6/14/00

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

APPLICANT'S SIGNATURE Tom Cella DATE 6-13-00

PLEASE PRINT NAME Tom Cella Rev. 4-1-80

VW#2



**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 Former Exxon Service Station 7-3006  
720 High Street  
Rickland, California

PERMIT NUMBER W00-363  
 WELL NUMBER \_\_\_\_\_  
 APN \_\_\_\_\_

**PERMIT CONDITIONS**  
 Circled Permit Requirements Apply

CLIENT  
 Name Exxon Mobil  
 Address P.O. Box 4032 Phone (925) 246-9790  
 City Emeryville Zip 94608

- (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.

APPLICANT  
 Name Environmental Resolutions Inc. Fax (415) 382-1854  
 Address 73 Arguello Dr. Phone (415) 382-7105  
 City Novato Zip 94949

**B. WATER SUPPLY WELLS**

**TYPE OF PROJECT**

Well Construction		Geotechnical Investigation	
Cathodic Protection	<input type="checkbox"/>	General	<input type="checkbox"/>
Water Supply	<input type="checkbox"/>	Contamination	<input type="checkbox"/>
Monitoring	<input type="checkbox"/>	Well Destruction	<input checked="" type="checkbox"/>

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.

**PROPOSED WATER SUPPLY WELL USE**

New Domestic	<input type="checkbox"/>	Replacement Domestic	<input type="checkbox"/>
Municipal	<input type="checkbox"/>	Irrigation	<input type="checkbox"/>
Industrial	<input type="checkbox"/>	Other _____	<input type="checkbox"/>

**C. GROUNDWATER MONITORING WELLS INCLUDING PIEZOMETERS**

**DRILLING METHOD:**

Mud Rotary	<input type="checkbox"/>	Air Rotary	<input type="checkbox"/>	Auger	<input type="checkbox"/>
Cable	<input type="checkbox"/>	Other	<input type="checkbox"/>		

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**

DRIILLER'S LICENSE NO. 710079

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**

**WELL PROJECTS**

Drill Hole Diameter	<u>11</u> in.	Maximum	
Casing Diameter	<u>4</u> in.	Depth	<u>10</u> ft.
Surface Seal Depth	<u>N/A</u> ft.	Number	<u>XW2, YW3</u>

- Fill hole above snode zone with concrete placed by tremie.
- (F) WELL DESTRUCTION**  
 Send a map of work site. A separate permit is required for wells deeper than 45 feet.

**G. SPECIAL CONDITIONS**

**GEOTECHNICAL PROJECTS**

Number of Borings	_____	Maximum	
Hole Diameter	_____ in.	Depth	_____ ft.

ESTIMATED STARTING DATE 7-1-00  
 ESTIMATED COMPLETION DATE \_\_\_\_\_

APPROVED Frank Codd DATE 6/14/00

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

APPLICANT'S SIGNATURE Tom Cwig DATE 6-13-00

PLEASE PRINT NAME Tom Cwig Rev. 4-4-00

**W#3**

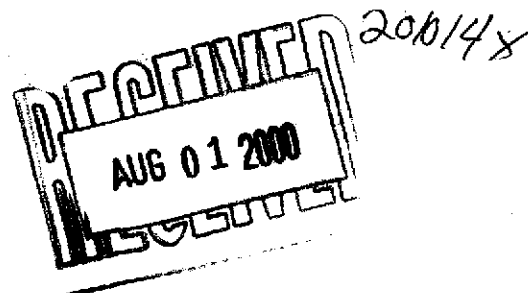
**ATTACHMENT B**

**ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY  
LETTER, DATED JULY 11, 2000**

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

July 28, 2000  
StID # 136

Mr. Darin Rouse  
ExxonMobil Corporation  
P.O. Box 4032  
Concord, CA 94524-4032

**Re: Former Exxon Service Station, 720 High St., Oakland CA 94601**

Dear Mr. Rouse:

Our office has received and reviewed Environmental Resolutions, Inc. (ERI) May 1, 2000 Quarterly Groundwater report for the above site. Subsequently, our office reviewed ERI's work plan, **Well and Remediation System and Annual Monitoring** report. After discussion, we concurred on the destruction of wells #3, 7,8,9,10,11, 13 and 15. ERI would restart air sparging in the sparge wells located in the extraction trench to enhance aerobic bio-remediation. Any off-site investigation would be put on hold and lastly, the remaining wells, MW 1,2,4,6,12 and 14 would be sampled annually, presumably within the first quarter of each year.

In addition, our office is aware of the ongoing piping and dispenser upgrade being performed by the current operator. Apparently, soil sampling was not done during the upgrade and the City of Oakland has requested this work be done, with the County's urging. It is unfortunate that any former release from these areas may never be totally identified. Please attempt to obtain and provide our office of a copy of the sampling report and any qualitative description of the original conditions of the piping and dispenser areas.

I understand that because of the renovation and upgrade activities going on at this site, the proposed well destruction and air sparging is on hold. Please continue to update our office in a quarterly report of any activities or change of status on this site.

You may contact me at (510) 567-6765 if you have any questions.

Sincerely,

Barney M. Chan  
Hazardous Materials Specialist

C: B. Chan, files  
Mr. J. Chappell, ERI, 73 Digital Dr., Suite 100, Novato, CA 94949-5791

Stat720High

**ATTACHMENT C**  
**WELL CONSTRUCTION LOGS**

DEPTH IN FEET	Blows/ Ft.	Sample No.	USCS	DESCRIPTION	WELL CONST.
	0			CL	Silty clay with trace of coarse-grained sand, black, damp, medium plasticity, stiff.
2					
4					
6	16	S-5		Change color to green with orange mottling.	
8					
10	18	S-10	SC	Clayey sand, medium-grained sand, green-black, wet, medium dense, obvious product odor.	
12					
14					
16	27	S-15		Change color to brown with green mottling.	
18					
20	16	S-20	GW	Sandy gravel with some clay lenses, medium- to coarse-grained sand, brown, wet, medium dense.	
22					
24			GC	Clayey gravel with some coarse-grained sand, coarse-grained gravel, brown-gray, wet, medium dense.	
26	12	S-25			
28					
30					



43255 Alvaron Blvd. Suite B Fremont, CA 94539 415/451-9906

PROJECT NO. 87042-5

LOG OF BORING B-7/MW-7

Exxon Station No. 7-3006

720 High Street  
Oakland, California

PLATE

P - 15



DEPTH IN FEET

Blows/ Ft.	Sample No.	USCS	DESCRIPTION	WELL CONST.
16	S-30	GC	Clayey gravel, fine-grained gravel and clay, brown-white, moist, low plasticity, very stiff.	
20	S-35	CL	Silty clay, brown, damp, high plasticity, very stiff	
			Total Depth = 36 feet. Boring terminated at sufficient depth to evaluate contamination above and below ground-water table.	



Applied GeoSystems  
42255 Mission Blvd Suite B Fremont, CA 94538 TEL: 651-1906

PROJECT NO. 87042-5

**LOG OF BORING B-7/MW-7**  
 Exxon Station No. 7-3006  
 720 High Street  
 Oakland, California

PLATE  
**P - 16**

Blows/ Fl.	Sample No.	USCS	DESCRIPTION	WELL CONST.
0		ML	Clayey silt, black, damp, noticeable product odor.	
2				
4		CL	Silty clay, brown, damp, high plasticity, stiff.	
20	S-5			
6				
8				
10	42	S-10	GW	Sandy gravel, coarse-grained sand, some coarse-grained gravel with trace of clay, brown-green, moist, dense.
12				
14				
18	S-15	CL	Silty clay with trace of very coarse-grained sand, brown with black mottling, moist, medium plasticity, very stiff.	
16				
18				
20	30	S-20	GC	Clayey gravel, fine- to coarse-grained gravel and sand, brown, damp, dense.
22				
24		CL	Silty clay, brown-black mottled, damp, high plasticity, very stiff.	
22	S-25			
26				
28				
30			Change color to brown, moist, medium plasticity.	



**LOG OF BORING B-8/MW-8**

Exxon Station No. 7-3006

720 High Street

Oakland, California

PLATE

P - 17

PROJECT NO. 87042-5

DEPTH IN FEET	Blows/ Ft.	Sample No.	USCS	DESCRIPTION	WELL CONST.
	30	11	S-30	CL	Silty clay, brown, damp, high plasticity, stiff.
32					
34					
36	16	S-35		Total Depth = 36 feet. Boring terminated at sufficient depth to evaluate contamination above and below ground-water table.	
38					
40					



Applied GeoSystems  
41255 Alameda Blvd., Suite B, Fremont, CA 94538-4151-906

PROJECT NO. 87042-5

**LOG OF BORING B-8/MW-8**  
Exxon Station No. 7-3006  
720 High Street  
Oakland, California

PLATE  
P - 18

Blows/ Ft.	Sample No.	USCS	DESCRIPTION	WELL CONST.
0			Asphalt (2 inches) over base rock (3 inches).	
2		CL	Silty clay with fine-grained sand, dark gray, moist, medium plasticity, stiff.	
4	22	S-5	CL Silty clay with a trace of small gravel, brown, damp, medium plasticity, very stiff.	
8	26	S-9	Some fine-grained sand and gravel.	
14	9	S-15	Less sand; brown-gray.	
20	11	S-21	CL Silty clay with fine-grained sand and gravel, gray-brown, damp, medium plasticity, hard.	
26	31	S-26	More sand; very stiff.	

(Section continues downward)




**LOG OF BORING B-9/MW-9**  
 Exxon Station No. 7-3006  
 720 High Street  
 Oakland, California

PLATE  
**P - 19**

PROJECT NO. **87042-5**

DEPTH IN FEET

Blows/ Fl.	Sample No.	USCS	DESCRIPTION	WELL CONST.
20	S-31	CL	Silty clay with fine-grained sand and gravel, gray-brown, damp, medium plasticity, stiff.	
Total Depth = 33 feet.				



**LOG OF BORING B-9/MW-9**  
 Exxon Station No. 7-3006  
 720 High Street  
 Oakland, California

PLATE  
**P - 20**

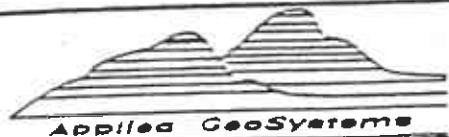
PROJECT NO. **87042-5**

Total depth of boring: 25 - 2 feet Diameter of boring: 10 inches Date drilled: 11-27-89  
 Casing diameter: 4 inches Length: 25 feet Slot size: 0.010-inch  
 Screen diameter: 4 inches Length: 10 feet Material type: Sch 40 PVC  
 Drilling Company: Kvilhaug Well Drilling, Inc. Driller: Rod and Mike  
 Method Used: Hollow-Stem Auger Field Geologist: Russell Bak

Signature of Registered Professional: \_\_\_\_\_  
 Registration No.: \_\_\_\_\_ State: CA

Depth	Sample No.	Blows	P.L.D.	USCS Code	Description	Well Const.
0					Asphalt (3 inches) over case rock (3 feet).	
2						
4	S-5	3 8 20	0.4	CL	Clay, with trace gravel, gray-brown, moist, high plasticity, very stiff.	
6		8 16				
8	S-7	25	0.8	GC	Gravel with clay inclusions, brown and gray with red and yellow staining, damp, hard.	
10		12 6			Grades coarse with little clay.	
10	S-10	6	0.4	ML	Silt with trace coarse sand, tan, damp, medium plasticity.	
12						
14	S-15	9 6 6	0.1	CL	Clay, gray-tan, damp, medium plasticity, stiff.  Grades with increasing sand.	
16						
18		4 6				
20	S-20	6	0.4	GC	Medium gravel, gray-brown with yellow staining, damp, medium dense.	

(Section continues downward)



PROJECT NO. 87042-6

**LOG OF BORING B-10/MW-10**  
 Exxon Station No. 7-3006  
 720 High Street  
 Oakland, California

PLATE  
 C - 2

Depth	Sample No.	BLWS	P.L.D.	US Code	Descriptive	Well Const.
22				GC	Medium gravel, gray-brown with yellow staining, damp, medium dense.	
24		15 17 12	1.4	▼ CL	Wet. Clay, tan-brown, damp, medium to high plasticity, very stiff.	
26	S-25				Total Depth = 25-1/2 feet.	
28						
30						
32						
34						
36						
38						
40						
42						
44						
46						
48						
50						



PROJECT NO. 87042-6

**LOG OF BORING B-10/MW-10**  
 Exxon Station No. 7-3008  
 720 High Street  
 Oakland, California

PLATE  
**C - 3**

**Total depth of boring:** 30-1/2 feet **Diameter of boring:** 10 inches **Date drilled:** 11-27-89  
**Casing diameter:** 4 inches **Length:** 30 feet **Slot size:** 0.010-inch  
**Screen diameter:** 4 inches **Length:** 15 feet **Material type:** Sch 40 PVC  
**Drilling Company:** Kvilhaug Well Drilling, Inc. **Driller:** Rod and Mike  
**Method Used:** Hollow-Stem Auger **Field Geologist:** Russell Bak

**Signature of Registered Professional:** \_\_\_\_\_  
**Registration No.:** \_\_\_\_\_ **State:** CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt (3 inches) over base rock (3 feet).	
4	S-5	6 10 12	0	CL	Silty clay, gray, damp, medium plasticity, very stiff.	
6		3 4		SW	Fine to coarse sand, brown with yellow and green staining, damp.	
8	S-7	5	0	CL	Silty clay, tan, damp, medium to high plasticity, stiff.	
		5 10		SP	Fine to medium sand, gray with red-brown and orange mottling, damp.	
10	S-9.5	12	0	GM	Gravel, gray, wet, noticeable odor.	
12				CL	Clay, dark gray, damp, high plasticity, very stiff.	
14	S-15	4 8 10	1.1			
20	S-20	5 7 16	2.4	GC	Fine to medium gravel with clay and fine to coarse sand, tan with gray-brown mottling, wet, dense.	



**PROJECT NO. 87042-6**

**LOG OF BORING B-11/MW-11**  
**Exxon Station No. 7-3006**  
**720 High Street**  
**Oakland, California**

**PLATE**  
**C - 4**



Depth	Sample No.	BLOWS	P.L.D.	USCS Code	Description	Well Const.
-22				GC	Fine to medium gravel with clay and fine to coarse sand, tan with gray-brown mottling, wet, dense.	
-24	S-25	20	0.4	SP	Medium to coarse sand, tan-brown, wet, very dense.	
-26		30				
-28						
-30	S-30	5	0	ML	Silt with trace sand, gray-tan, moist, low plasticity, stiff.	
-30		7		CL	Clay, gray-brown, damp, high plasticity, stiff.	
-32	Total Depth = 30-1/2 feet.					
-34						
-36						
-38						
-40						
-42						
-44						
-46						
-48						
-50						



PROJECT NO. 87042-6

**LOG OF BORING B-11/MW-11**

Exxon Station No. 7-3006  
720 High Street  
Oakland, California

PLATE

**C - 5**

**Total depth of boring:** 15-1/2 feet **Diameter of boring:** 10 inches **Date drilled:** 11-28-89  
**Casing diameter:** 4 inches **Length:** 15 feet **Slot size:** 0.010-inch  
**Screen diameter:** 4 inches **Length:** 10 feet **Material type:** Sch 40 PVC  
**Drilling Company:** Kvilhaug Well Drilling, Inc. **Driller:** Rod and Mike  
**Method Used:** Hollow-Stem Auger **Field Geologist:** Russell Bak

**Signature of Registered Professional:** \_\_\_\_\_  
**Registration No.:** \_\_\_\_\_ **State:** CA

Depth	Sample No.	Blows	P.I.D.	USCS Code	Description	Well Const.
0					Asphalt (3 inches) over base rock (6 inches).	
2				CL	Clay, dark gray, damp, medium plasticity, stiff.	
4	S-5	3 7 11	0.8	ML	Sandy silt, light and medium gray mottled, slightly damp, low plasticity, stiff.	
6	S-7	3 12 36	14	GM	Sandy, silty gravel, light gray with yellow staining, damp, dense, noticeable odor.	
10	S-10	6 30 30	48	GW	Coarse gravel, dark gray-green with yellow staining, wet, dense, noticeable odor.	
14	S-15	4 11 17	0.4	ML	Sandy silt with trace fine gravel, tan-brown, damp, low plasticity, very stiff.	
16					Total Depth = 15-1/2 feet.	
18						
20						



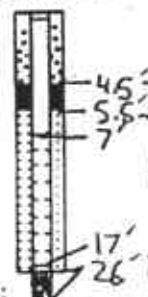
PROJECT NO. 87042-6

**LOG OF BORING B-13/MW-13**

Exxon Station No. 7-3006  
 720 High Street  
 Oakland, California

PLATE

C - 7



- 10' Sanded Blank
- 7' RUBBER BENTONITE BAGS BENTONITE CHIPS
- 4.5' RASS SAND
- 5.5' WOODEN PLUG
- 7' SUP CAP
- 17' Locking Cap
- 26' (9' BENTONITE)

Drilling Method: <u>WALL &amp; STEM AUGER</u>		Boring No.: <u>MW 15</u>
Drilling Company: <u>KVILLIUS &amp; XE</u>		Sheet No.: <u>#002</u>
Drilling Crew: <u>MIKE &amp; JOEL</u>		Drilling Time:
Geologist: <u>T. W. M. H. P.</u>		Start Time:
Sampling Method: <u>MAN. CALIB. SPLIT SPIN</u>		Finish Time:
Water Level:		Time:
Time:		Date:
Date:		Date:
Casing Depth:		<u>1031</u>

Datum: \_\_\_\_\_ Elevation: \_\_\_\_\_

Recovery	Sample Type	Sample Depth	Blows Per 6 in.	Moisture Content	Product Color	Depth in Feet	USCS Code	Surface Conditions:
						0		ASPHALT
						1		
						2		
18	SS	35	5 1/4	6	0	3		
						4	ML	CLAYEY SILT Silty clay, dk. brown / buff; damp; low plastic; MED STIFF
						5		
18	SS	6	3 1/2	12	0	6	CL	Silty clay; brown w/ grey blotches; damp; MED PLASTIC; STIFF
						7		
						8		
18	SS	85	7 1/4	17	800	9	CL	AS ABOVE w/ STRONG PRODUCT COLOR; VERY MOIST
						10		
18	SS	11	15 1/2	25	> 1000	11	GC	GRAVEL-SAND-CLAY; GRAVEL MED COARSE; BROWN & GREY w/ RED & ORANGE MOTTLES; WET; MED. PLASTIC; MED; STRONG COOR
						12		
						13		
18	SS	135	4 1/4	11	0	14	CL	Silty clay w/ trace gravel & sand; brown; moist; MED PLASTIC; STIFF
						15		
18	SS	16	3 1/4	15	0	16		AS ABOVE; NO GRAVEL
						17		
18	SS	185	4 1/2	12	0	18		
						19		AS ABOVE
						20		