



**CONESTOGA-ROVERS  
& ASSOCIATES**

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www.CRAworld.com

## TRANSMITTAL

DATE: October 1, 2012 REFERENCE NO.: 240902  
 PROJECT NAME: 230 West MacArthur Boulevard,  
Oakland

TO: Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

Please find enclosed:  Draft  Final  
 Originals  Other  
 Prints

Sent via:  Mail  Same Day Courier  
 Overnight Courier  Other GeoTracker and Alameda County FTP

QUANTITY	DESCRIPTION
1	Well Destruction Work Plan

As Requested  For Review and Comment  
 For Your Use

**COMMENTS:**

If you have any questions regarding the contents of this document, please call Peter Schaefer at (510) 420-3319.

Copy to: Denis Brown, Shell Oil Products US (electronic copy)  
 AU Energy LLC (lessee), c/o Nick Goyal, 41805 Albrae Street, 2nd Floor, Fremont, CA 94538  
 Zheng Xiaoyi (property owner), 639 Kearney Street, El Cerrito, CA 94530-3126

Completed by: Peter Schaefer Signed: *Peter Schaefer*

Filing: Correspondence File



Jerry Wickham  
Alameda County Environmental Health  
1131 Harbor Bay Parkway, Suite 250  
Alameda, California 94502-6577

**Denis L. Brown**  
**Shell Oil Products US**  
HSE – Environmental Services  
20945 S. Wilmington Ave.  
Carson, CA 90810-1039  
Tel (707) 865 0251  
Fax (707) 865 2542  
Email [denis.l.brown@shell.com](mailto:denis.l.brown@shell.com)

Re: Shell-branded Service Station  
230 West MacArthur Boulevard  
Oakland, California  
SAP Code 135676  
Incident No. 98995741  
ACEH Case No. RO0000303

Dear Mr. Wickham:

The attached document is provided for your review and comment. Upon information and belief, I declare, under penalty of perjury, that the information contained in the attached document is true and correct.

If you have any questions or concerns, please call me at (707) 865-0251.

Sincerely,

A handwritten signature in black ink, appearing to read "Denis L. Brown", is written over a horizontal line.

Denis L. Brown  
Senior Program Manager



## WELL DESTRUCTION WORK PLAN

**SHELL-BRANDED SERVICE STATION  
230 WEST MACARTHUR BOULEVARD  
OAKLAND, CALIFORNIA**

**SAP CODE            135676  
INCIDENT NO.      98995741  
AGENCY NO.        RO0000303**

**Prepared by:  
Conestoga-Rovers  
& Associates**

**SEPTEMBER 27, 2012  
REF. NO. 240902 (10)**

This report is printed on recycled paper.

5900 Hollis Street, Suite A  
Emeryville, California  
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## 1.0 INTRODUCTION

Conestoga-Rovers & Associates (CRA) prepared this work plan on behalf of Equilon Enterprises LLC dba Shell Oil Products US (Shell). The proposed well destructions are required for final case closure per Alameda County Environmental Health's (ACEH's) September 12, 2012 letter.

The site is a Shell-branded service station located on the northern corner of West MacArthur Boulevard and Piedmont Avenue in Oakland, California (Figure 1). Currently, the site layout consists of a kiosk, three underground storage tanks, and two dispenser islands (Figure 2). The surrounding area is primarily commercial. A former Gulf service station, now Oakland Auto Works, is located northwest of and adjacent to the site. The Kaiser Oakland Medical Center occupies a portion of the building located directly across West MacArthur Boulevard from the subject site.

## 2.0 WORK TASKS

### 2.1 PERMITS

CRA will obtain an appropriate permit from Alameda County Public Works Agency.

### 2.2 HEALTH AND SITE SAFETY PLAN (HASP)

CRA will prepare a HASP to protect site workers. The plan will be kept on site during field activities and will be reviewed and signed by each site worker.

### 2.3 UTILITY CLEARANCE

CRA will mark the well locations, and the locations will be cleared through Underground Service Alert and a private line locator prior to removing the well boxes.

### 2.4 MONITORING WELL DESTRUCTION

CRA proposes to properly destroy five monitoring wells (MW-1 through MW-5). The monitoring wells will be destroyed by backfilling with neat cement under pressure (pressure grouting). The well vaults will be removed, and the surface pavement will be

patched with concrete to match the surrounding grade. CRA includes the well logs in Appendix A. The proposed scope of work will be performed under the supervision of a professional geologist or engineer.

## **2.5      REPORT PREPARATION**

Following completion of the well destructions, CRA will submit a brief report documenting the activities.

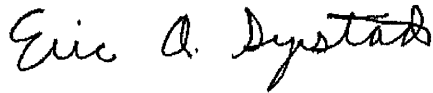
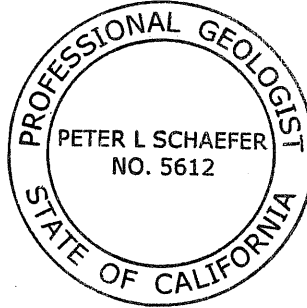
## **3.0      SCHEDULE**

CRA will implement the well destructions upon receipt of the appropriate permits. Per ACEH's September 12, 2012 letter, we will provide a well destruction report to ACEH by December 14, 2012.

All of Which is Respectfully Submitted,  
CONESTOGA-ROVERS & ASSOCIATES



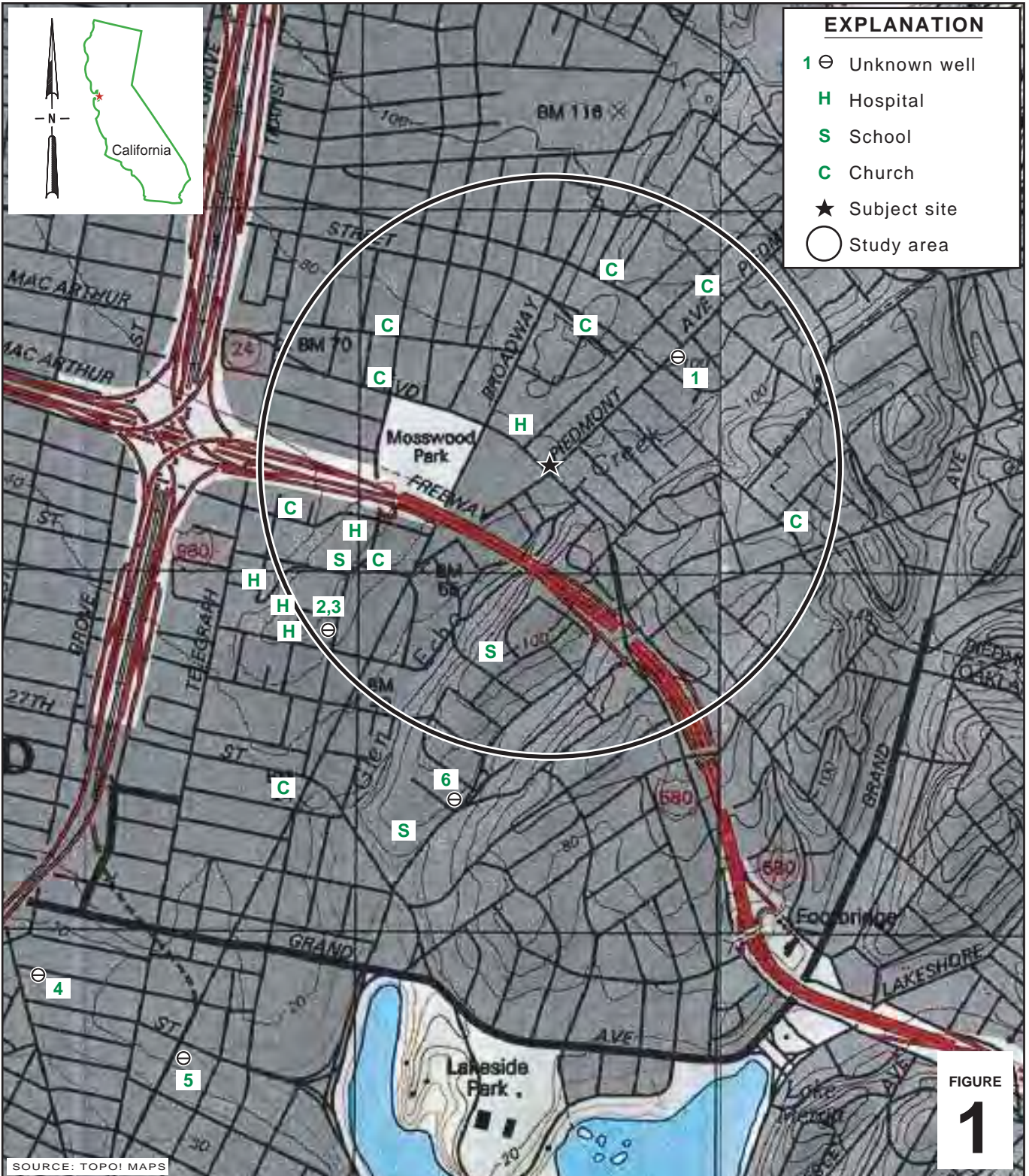
Peter Schaefer, CEG, CHG



Eric A. Syrstad, PG



FIGURES



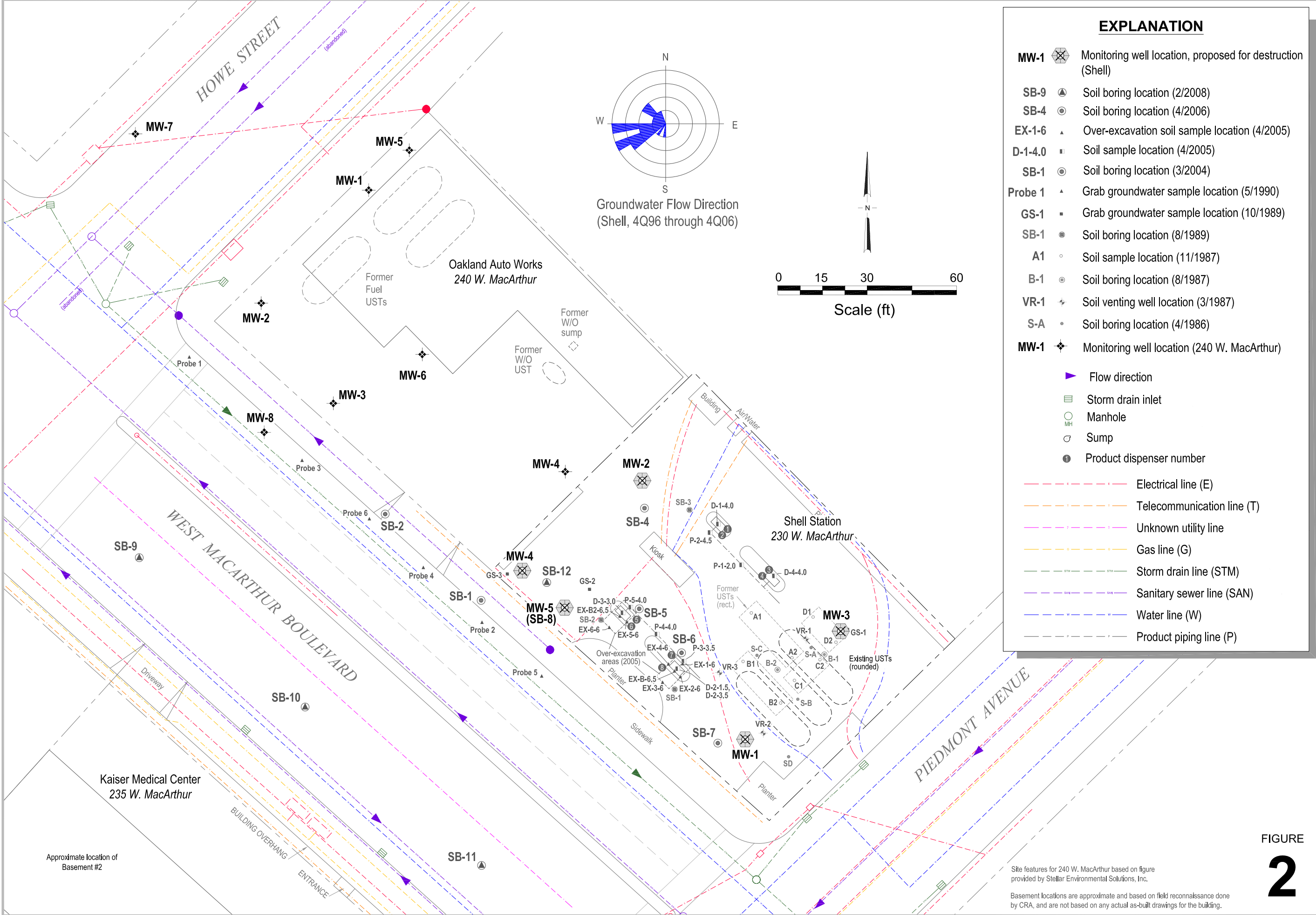
I:\Shell\6-chars\2409--1\240902-Oakland 230 MacArthur\240902-FIGURES\240902 VICINITY.AI

**Shell-branded Service Station**  
 230 West MacArthur Boulevard  
 Oakland, California



**CONESTOGA-ROVERS  
 & ASSOCIATES**

**Vicinity Map**



**EXPLANATION**

- MW-1** Monitoring well location, proposed for destruction (Shell)
- SB-9** Soil boring location (2/2008)
- SB-4** Soil boring location (4/2006)
- EX-1-6** Over-excavation soil sample location (4/2005)
- D-1-4.0** Soil sample location (4/2005)
- SB-1** Soil boring location (3/2004)
- Probe 1** Grab groundwater sample location (5/1990)
- GS-1** Grab groundwater sample location (10/1989)
- SB-1** Soil boring location (8/1989)
- A1** Soil sample location (11/1987)
- B-1** Soil boring location (8/1987)
- VR-1** Soil venting well location (3/1987)
- S-A** Soil boring location (4/1986)
- MW-1** Monitoring well location (240 W. MacArthur)
- Flow direction
- Storm drain inlet
- Manhole
- Sump
- Product dispenser number
- Electrical line (E)
- Telecommunication line (T)
- Unknown utility line
- Gas line (G)
- Storm drain line (STM)
- Sanitary sewer line (SAN)
- Water line (W)
- Product piping line (P)



**Shell-branded Service Station**  
 230 West MacArthur Boulevard  
 Oakland, California

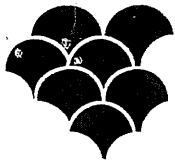
FIGURE  
**2**

Site features for 240 W. MacArthur based on figure provided by Stellar Environmental Solutions, Inc.  
 Basement locations are approximate and based on field reconnaissance done by CRA, and are not based on any actual as-built drawings for the building.

I:\Shell\6-chars\2409--\240902-Oakland 230 MacArthur\240902-FIGURES\240902 SITE PLAN.DWG

APPENDIX A

WELL LOGS



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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

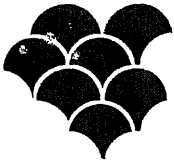
BORING No.: MW-1  
DATE DRILLED: 7-11-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT 140 ft/lbs.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
1				8" concrete over 6" pea gravel		
2			SP	CLAYEY SAND, greenish gray, predominantly fine sand 20% fine gravel, damp		
3						
4				SAND, greenish gray, predominantly fine to medium sand, 5-10% coarse sand, 10-15% fine gravel, <5% fines, very dense, damp		
5						
6	1-1	72	SP	SAND, olive brown, fine to medium grained trace silt, very dense, damp	0	
7						
8						
9						
10				CLAYEY SAND, orangish brown, fine to medium grained organic staining, 4" lens of fine to medium sand (poorly sorted, greenish gray), dense, damp		
11	1-2	30	SC		1	
12						
13						
14						
15			SW	SAND, bluish gray, fine to coarse grained <5% fines, color to brown at 15.5 feet, wet, dense	2	
16	1-3	37	CL	SANDY CLAY, yellowish brown, 30% fine sand, very moist		
17						
18			SC	CLAYEY SAND, tannish brown, predominantly fine sand, trace medium sand, 15-20% fines, rare rootholes, moist, dense		
19			SP	SAND, brown, predominantly fine sand, becomes silty at 20.5', dense, very moist to wet		
20						

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Page 1 of 2



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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

BORING No.: MW-1  
DATE DRILLED: 7-11-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT 140 ft/lps.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
20	1-4	30	SP	SAND cont.		0
21			CL	SILTY CLAY, brown, 5-10% fine sand locally to 20% disseminated, hard, very moist		
22						
23						
24			SP-SC	SAND, light olive, fine to medium grained <10% clay fines, rare oxidation stains, dense, very moist to wet		
25						
26	1-5	48	SC	CLAYEY SAND, light olive, predominantly fine to medium sand, 40% clay, rare organics, dense, very moist to wet	1	
27						
28						
29						
30			SP-SC	SAND, light olive, predominantly fine to medium grained, 15% coarse sand, <10% clay fines, dense, saturated		
31	1-6	36				
32						
33				BOTTOM OF BORING 31.5'		
34						
35						
36						
37						
38						
39						
40						

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# Monitoring Well Detail

PROJECT NUMBER 1847 G Shell Oil Co.  
 PROJECT NAME 230 MacArthur Blvd.  
 COUNTY Oakland, Alameda Co.  
 WELL PERMIT NO. 88305

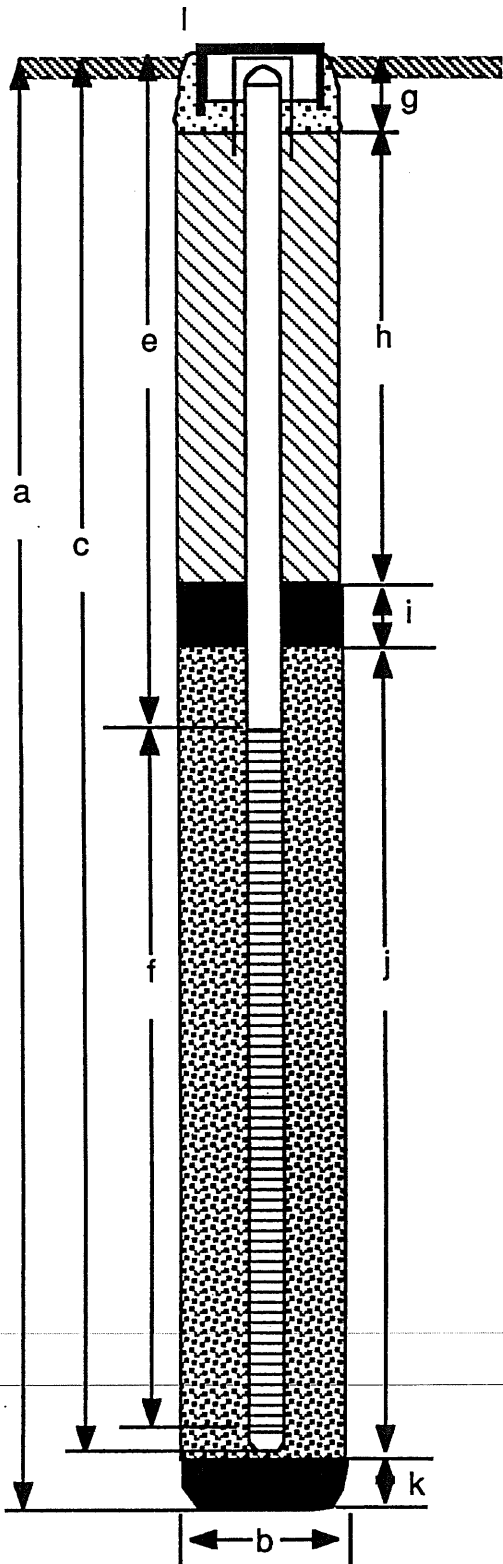
BORING / WELL NO. MW-1  
 TOP OF CASING ELEV. 73.89'  
 GROUND SURFACE ELEV. 74.34'  
 DATUM 72.96' City of Oakland

## EXPLORATORY BORING

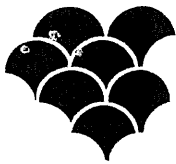
a. Total Depth 31.5 ft.  
 b. Diameter 10 in.  
 Drilling method Hollowstem Auger

## WELL CONSTRUCTION

c. Casing length 30 ft.  
 Material Schedule 40 PVC  
 d. Diameter 4 in.  
 e. Depth to top perforations 10 ft.  
 f. Perforated length 20 ft.  
 Perforated interval from 30 to 10 ft.  
 Perforation type machine slot  
 Perforation size 0.020 in.  
 g. Surface seal 1 ft.  
 Seal Material Concrete  
 h. Backfill 5 ft.  
 Backfill material Cement Grout  
 i. Seal 2 ft.  
 Seal Material Bentonite Pellets  
 j. Gravel pack 22 ft.  
 Pack material #2/12 Aqua Sand  
 k. Bottom seal -- ft.  
 Seal material NA  
 l. F-8 vault box, locking cover and lock



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services, Inc.

PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

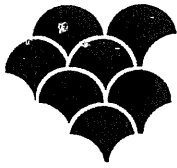
BORING No.: MW-2  
DATE DRILLED: 7-11-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT 140 ft/lps.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
1				4" Asphalt pavement over 9" baserock		
2			SC	CLAYEY SAND, orangish brown, fine to medium sand, 20% fines, damp		
3						
4				-as above; color to dark olive gray, locally 40% fine to coarse gravel composed of angular chert fragments, rare coarse sand, dense, damp		
5						
6	2-1	44	SC			2
7						
8						
9						
10			SC	-as above, color to yellowish brown with minor olive gray staining, ~40% fines, trace organic black staining, rare rootholes, dense, damp		
11	2-2	34				1
12			CL	SANDY TO SILTY CLAY, olive beige with slight orange staining, 10 to 20% fine sand, orange staining low plasticity, hard, damp		
13						
14						
15					▽	
16	2-3	34	SP-SM	SAND, brown, predominantly fine sand, 5 to 10% silt, trace organic staining, dense, wet, fine to medium sand		0.5
17						
18						
19						
20						

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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

BORING No.: MW-2  
DATE DRILLED: 7-11-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

### EXPLORATORY BORING LOG

DEPTH (ft.)	SAMPLE No	BLOYS/FOOT 140 ft/lbs.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
20						
21	2-4	28	CL	SILTY CLAY, tannish brown, trace of organic staining, 10% very fine sand, low plasticity, very stiff, wet, color changes to tan in shoe		0
22						
23						
24						
25						
26	2-5	64		SILTY CLAY, light olive gray and orangish brown, organic staining common, low to moderate plasticity, hard, moist, (4" lens of sandy silt with clay, damp to moist)		0
27						
28						
29						
30	2-6	26		-- as above: becomes sandy and orangish brown, 30% fine sand, abundant silt, very stiff		0
31				BOTTOM OF BORING 30.0'		
32						
33						
34						
35						
36						
37						
38						
39						
40						

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Page 2 of 2

# Monitoring Well Detail

PROJECT NUMBER 1847 G Shell Oil Co.  
 PROJECT NAME 230 MacArthur Blvd.  
 COUNTY Oakland, Alameda Co.  
 WELL PERMIT NO. 88305

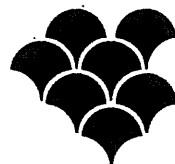
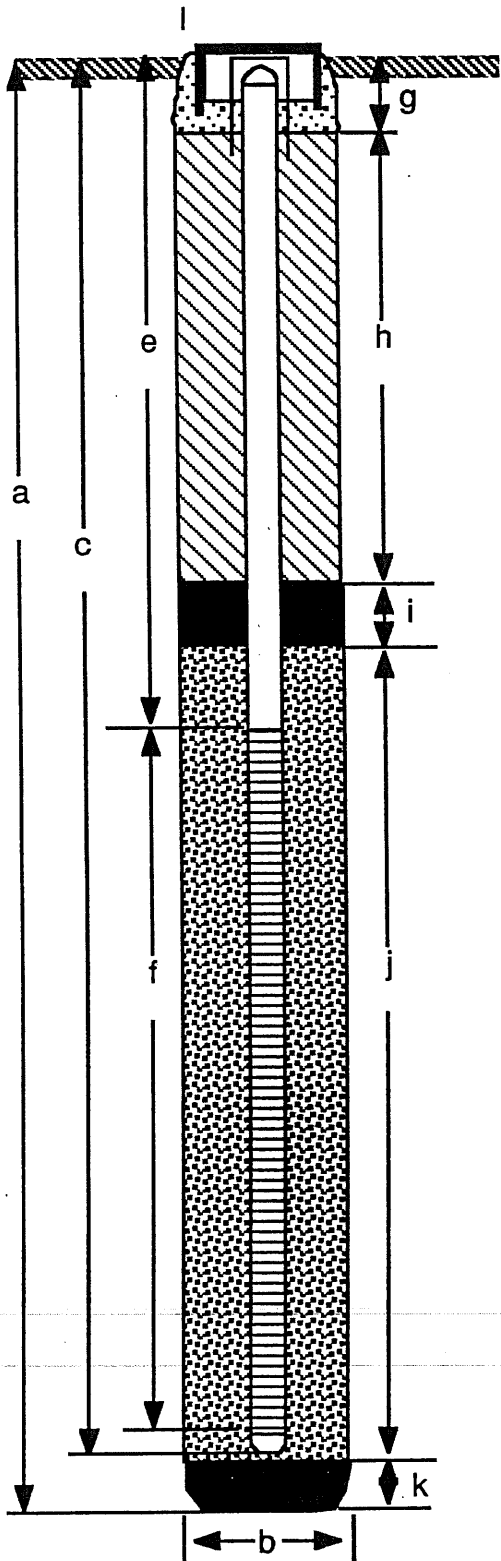
BORING / WELL NO. MW-2  
 TOP OF CASING ELEV. 75.24'  
 GROUND SURFACE ELEV. 75.96'  
 DATUM 72.96' City of Oakland

## EXPLORATORY BORING

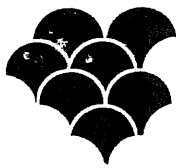
a. Total Depth 30 ft.  
 b. Diameter 10 in.  
 Drilling method Hollowstem Auger

## WELL CONSTRUCTION

c. Casing length 28 ft.  
 Material Schedule 40 PVC  
 d. Diameter 4 in.  
 e. Depth to top perforations 10 ft.  
 f. Perforated length 18 ft.  
 Perforated interval from 28 to 10 ft.  
 Perforation type machine slot  
 Perforation size 0.020 in.  
 g. Surface seal 1 ft.  
 Seal Material Concrete  
 h. Backfill 5 ft.  
 Backfill material Cement Grout  
 i. Seal 2 ft.  
 Seal Material Bentonite Pellets  
 j. Gravel pack 20 ft.  
 Pack material #2/12 Aqua Sand  
 k. Bottom seal -- ft.  
 Seal material NA  
 l. F-8 vault box, locking cover and lock



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services, Inc.

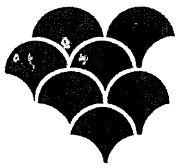
PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, California

BORING No.: MW-3  
DATE DRILLED: 7-12-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

### EXPLORATORY BORING LOG

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT 140 ft/lbs.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
1				8" concrete		
2				FILL, pea gravel		
3						
4						
5						
6					0	
7						
8						
9						
10						
11	3-1	12	SC	CLAYEY SAND, olive grey mottled with orangish brown, 50 to 60% fine sand, trace medium to coarse sand, slight petroleum odor, medium dense, damp		120
12						
13			SW	SAND, orangish brown, fine to coarse grained with fine angular chert gravels, medium dense, damp		
14						
15						
16	3-2	13		SAND, greenish gray, well graded, fine to coarse grained 10 to 15% fine gravels (angular to subangular white, yellow, and red cherts, graywacke), very faint petroleum odor, medium dense, saturated	▽	2
17						
18			CL	SILTY CLAY, tannish brown, trace organic staining, 10% fine sand, rare root holes, low plasticity, stiff, moist		
19						
20			SC			

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PROJECT NAME: SHELL Service Station  
230 MacArthur Blvd.  
Oakland, CA

BORING No.: MW-3  
DATE DRILLED: 7-12-88  
PROJECT No.: 1847 G  
LOGGED BY: SC

**EXPLORATORY BORING LOG**

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT 140 ft/lbs.	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVA READING ppm
20	3-3	31	SC	CLAYEY SAND, brown, 70% fine sand, medium dense, moist to wet	0	
21			CL	SILTY CLAY, tannish brown, 10% fine sand, trace organic staining, no rootholes, low plasticity, very stiff, wet		
22						
23						
24			SC	CLAYEY SAND, olive with minor orange staining, 60% fine sand, 10% medium to coarse sand, shell fragment, very dense, moist to wet		
25	3-4	72			0	
26			CL	SANDY CLAY to SILTY CLAY, olive, 25% fine sand (locally sand <10%), low plasticity, hard, moist		
27						
28						
29	3-5	44	SP	CLAYEY SAND, olive with minor orange oxide staining, 60 to 70% fine sand, locally clay to 50%, (becomes very sandy at 30', olive to bluish gray), dense, moist		
30				BOTTOM OF BORING 30'	0	
31						
32						
33						
34						
35						
36						
37						
38						
39						
40						

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# Monitoring Well Detail

PROJECT NUMBER 1847 G Shell Oil Co.  
 PROJECT NAME 230 MacArthur Blvd  
 COUNTY Oakland, Alameda Co.  
 WELL PERMIT NO. 88305

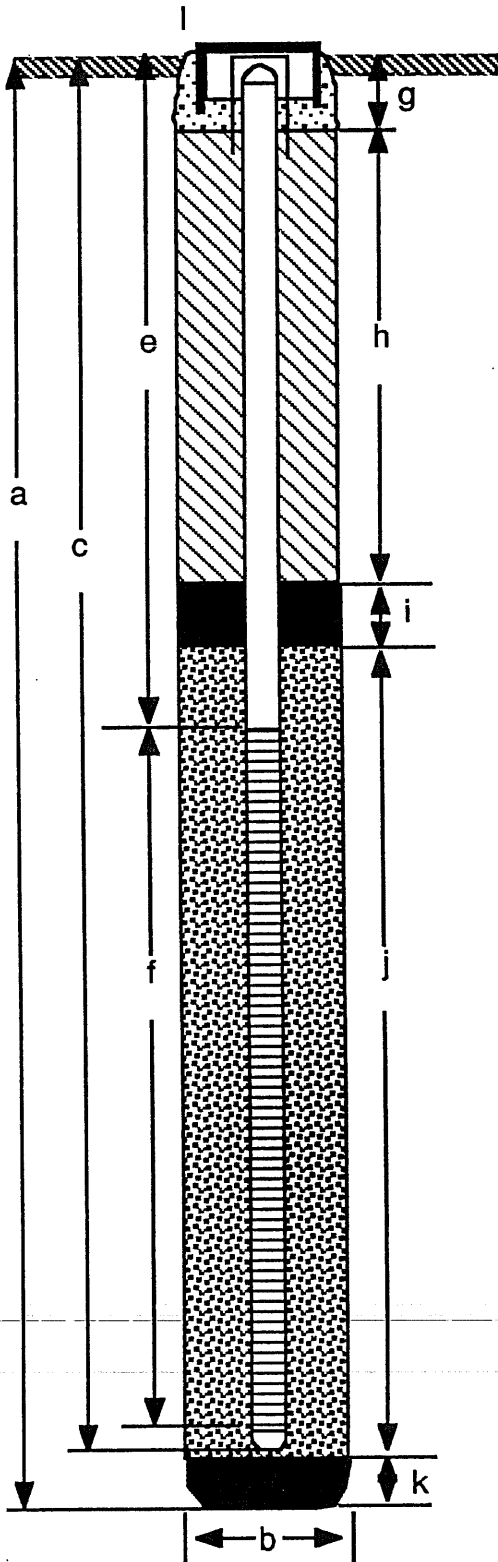
BORING / WELL NO. MW-3  
 TOP OF CASING ELEV. 74.68'  
 GROUND SURFACE ELEV. 75.05'  
 DATUM 72.96' City of Oakland

## EXPLORATORY BORING

a. Total Depth 30 ft.  
 b. Diameter 10 in.  
 Drilling method Hollowstem Auger

## WELL CONSTRUCTION

c. Casing length 28.5 ft.  
 Material Schedule 40 PVC  
 d. Diameter 4 in.  
 e. Depth to top perforations 11.5 ft.  
 f. Perforated length 17 ft.  
 Perforated interval from 28.5 to 11.5 ft.  
 Perforation type machine slot  
 Perforation size 0.020 in.  
 g. Surface seal 1 ft.  
 Seal Material Concrete  
 h. Backfill 7.5 ft.  
 Backfill material Cement Grout  
 i. Seal 1.5 ft.  
 Seal Material Bentonite Pellets  
 j. Gravel pack 18.5 ft.  
 Pack material #2/12 Aqua Sand  
 k. Bottom seal -- ft.  
 Seal material NA  
 l. F-8 vault box, locking cover and lock



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# EXPLORATORY BORING LOG



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PROJECT NAME: Shell Oil Company  
230 MacArthur Blvd.  
Oakland, CA

BORING NO. MW-4

DATE DRILLED: 1/9/90

PROJECT NUMBER: 1847-2G

LOGGED BY: J.M.

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OYA READING ppm
1	MW-4-1	64	CL	SANDY CLAY, light olive brown (2.5Y 5/6), 30-40% rounded to subangular fine to medium grained sand, ≈ 10% coarse gravel to 2", iron stain, black mottling, hard, very low plasticity, dry to damp		0
2						
3						
4						
5						
6						
7	MW-4-2	40	SW	SAND, light olive brown (2.5Y 5/6), fine to medium grained sand, 30% clay, rounded to subangular, poorly sorted, medium dense		0
8						
9						
10						
11	MW-4-3	27	CL	SANDY CLAY, light olive brown (2.5Y 5/6), 35-45% sand, rounded to subangular, fine to medium grained, iron stain, very stiff, low plasticity, damp  Silty lenses		0
12						
13						
14						
15						
16	MW-4-4	33	SP	SAND, olive gray (5Y 4/2), fine to medium grained sand, well sorted, rounded to subrounded, some iron stain, clay 10-20%, silt 10-20%, loose, moist		0
17						
18						
19						
20						
21						

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# EXPLORATORY BORING LOG



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PROJECT NAME: Shell Oil Company  
 230 MacArthur Blvd.  
 Oakland, CA

BORING NO. MW-4

DATE DRILLED: 1/9/90

PROJECT NUMBER: 1847-2G

LOGGED BY: J.M.

DEPTH (ft.)	SAMPLE No	BLOWS/FOOT	UNIFIED SOIL CLASSIFICATION	SOIL DESCRIPTION	WATER LEVEL	OVM READING ppm
-22						
-23						
-24			CL	same as above		
-25	MW-4-5	33				0
-26				Bottom of Boring = 25.5 feet		
-27						
-28						
-29						
-30						
-31						
-32						
-33						
-34						
-35						
-36						
-37						
-38						
-39						
-40						
-41						
-42						

REVIEWED BY R.G./C.E.G.

# Monitoring Well Detail

PROJECT NUMBER 1847-2G  
 PROJECT NAME Shell -Oakland  
 COUNTY Alameda  
 WELL PERMIT NO. 90116

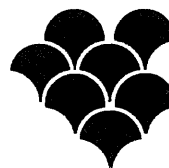
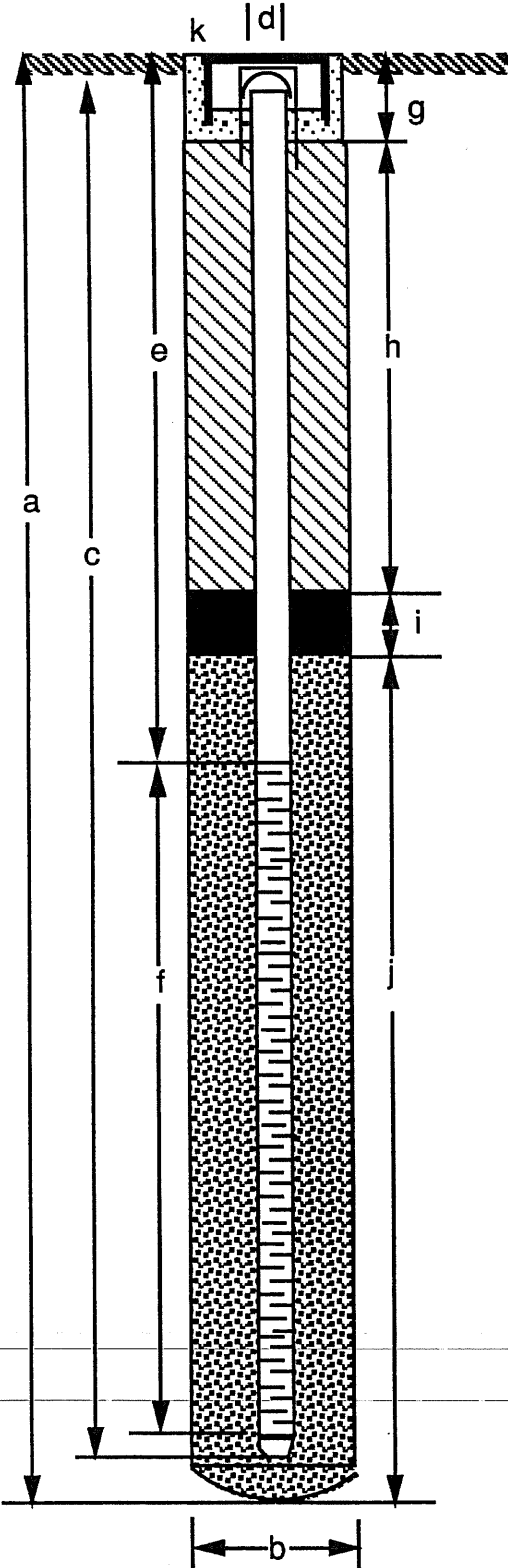
BORING / WELL NO. MW-4  
 TOP OF CASING ELEV. 73.83  
 GROUND SURFACE ELEV. 74.46  
 DATUM 72.96

## EXPLORATORY BORING

- a. Total depth 25.5 ft.  
 b. Diameter 12 in.  
 Drilling method Hollow stem auger

## WELL CONSTRUCTION

- c. Casing length 25 ft.  
 Material schedule 40 PVC  
 d. Diameter 4 in.  
 e. Depth to top perforations 15 ft.  
 f. Perforated length 10 ft.  
 Perforated interval from 15 to 25 ft.  
 Perforation type slotted screen  
 Perforation size 0.020 in.  
 g. Surface seal 1 ft.  
 Seal material concrete  
 h. Backfill 12 ft.  
 Backfill material neat cement grout  
 i. Seal 1 ft.  
 Seal material bentonite  
 j. Gravel pack 11 ft.  
 Pack material clean sand  
 k. \_\_\_\_\_  
 \_\_\_\_\_



**ensco**  
**environmental**  
**services, inc.**

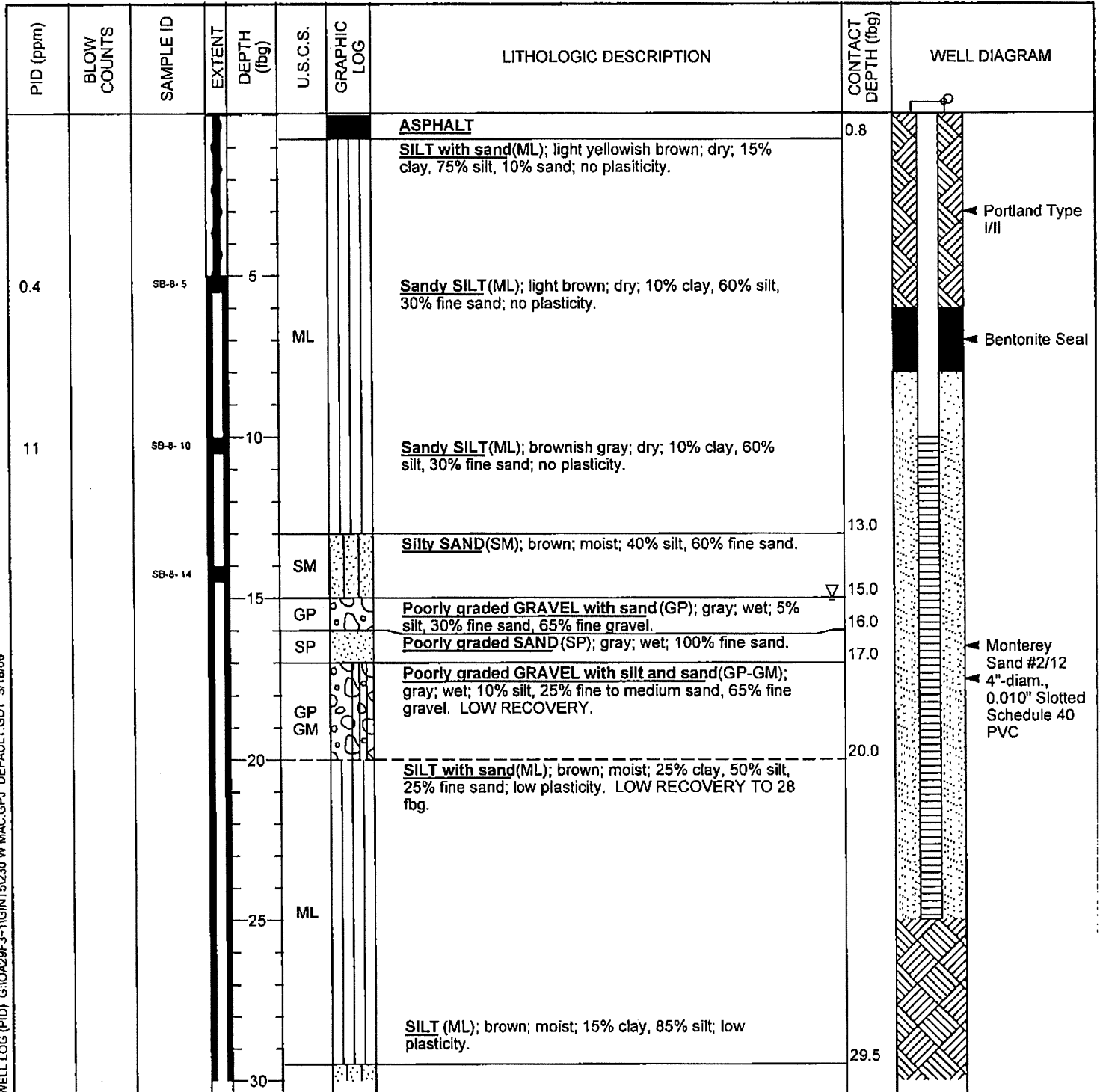




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# BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-8/MW-5
JOB/SITE NAME	Shell-branded Service Station	DRILLING STARTED	04-Apr-06
LOCATION	230 W. MacArthur Blvd, Oakland, CA	DRILLING COMPLETED	06-Apr-06
PROJECT NUMBER	248-0902-006	WELL DEVELOPMENT DATE (YIELD)	NA
DRILLER	Gregg Drilling	GROUND SURFACE ELEVATION	77.34 ft above msl
DRILLING METHOD	Hydraulic push and Hollow Stem Auger	TOP OF CASING ELEVATION	76.97 ft above msl
BORING DIAMETER	10"	SCREENED INTERVALS	10 to 25 fbg
LOGGED BY	Ron Barone	DEPTH TO WATER (First Encountered)	15.0 fbg (06-Apr-06)
REVIEWED BY	David Gibbs PG 7804	DEPTH TO WATER (Static)	NA
REMARKS	Airknife to 5 fbg		



WELL LOG (PID) G:\0A29F3-1\GINT5230 W MAC.GPJ DEFAULT.GDT 5/18/06

Continued Next Page



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# BORING/WELL LOG

CLIENT NAME	Shell Oil Products US	BORING/WELL NAME	SB-8/MW-5
JOB/SITE NAME	Shell-branded Service Station	DRILLING STARTED	04-Apr-06
LOCATION	230 W. MacArthur Blvd, Oakland, CA	DRILLING COMPLETED	06-Apr-06

Continued from Previous Page

PID (ppm)	BLOW COUNTS	SAMPLE ID	EXTENT	DEPTH (fbg)	U.S.C.S.	GRAPHIC LOG	LITHOLOGIC DESCRIPTION	CONTACT DEPTH (fbg)	WELL DIAGRAM
				32.0	SM		<u>Silty SAND(SM)</u> ; light yellowish brown; moist; 10% clay, 20% silt, 70% fine sand; no plasticity.	32.0	
							<u>NO RECOVERY</u>		
				36.0			<u>Poorly graded SAND with silt (SP-SM)</u> ; greenish gray; moist; 5% clay, 25% silt, 70% fine sand.	36.0	
				40.0	SP SM		<u>Poorly graded SAND with silt (SP-SM)</u> ; greenish gray; moist; 5% clay, 40% silt, 55% fine sand.	41.0	
				41.0			<u>SILT with sand(ML)</u> ; greenish gray; moist; 5% clay, 80% silt, 15% fine sand; no plasticity.		
				45.0	ML		<u>SILT (ML)</u> ; brown; dry; 40% clay, 60% silt; low plasticity.		
				48.0			<u>SILT (ML)</u> ; dark brown; dry; 25% clay, 75% silt; no to low plasticity.	48.0	Bottom of Boring @ 48 fbg

WELL LOG (PID) G:\029F3-1\GINT5230 W MAC.GPJ DEFAULT.GDT 5/18/06