

**Nicole Arceneaux** Project Manager Marketing Business Unit Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583 Tel (925) 790-6912 Nicole.Arceneaux@chevron.com

RECEIVED

By Alameda County Environmental Health at 4:33 pm, Apr 06, 2015

April 6, 2015

Mr. Keith Nowell Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, CA 94502

Dear Mr. Nowell:

Attached for your review is the *Well Destruction Report* for 376 Lewelling Boulevard in San Lorenzo, California (**ACEH File No.:** RO0000344; **Case:** Unocal #5760). This report was prepared by Stantec Consulting Services Inc. (Stantec), upon whose assistance and advice I have relied. I declare under penalty of perjury that the information and/or recommendations contained in the attached report are true and correct, to the best of my knowledge.

If you should have any further questions, please do not hesitate to contact me or the Stantec project manager, Sean Coyle, at (916) 861-0400 Ext. 222 or <a href="mailto:sean.coyle@stantec.com">sean.coyle@stantec.com</a>.

Sincerely,

Nicole Arceneaux Project Manager

mu my

#### **Well Destruction Report**

376 Lewelling Boulevard San Lorenzo, California ACEH File No.: RO0000344

Case: Unocal #5760



#### Submitted to:

Mr. Keith Nowell Alameda County Environmental Health 1131 Harbor Bay Parkway, Suite 250 Alameda, California 94502

#### Submitted by:

Stantec Consulting Services Inc. 3017 Kilgore Road, Suite 100 Rancho Cordova, California 95670 916-861-0400

#### Prepared on behalf of:

Chevron Environmental Management Company 6101 Bollinger Canyon Road San Ramon, CA 94583

April 6, 2015



#### **WELL DESTRUCTION REPORT**

376 Lewelling Boulevard, San Lorenzo, California April 6, 2015

#### **Table of Contents**

1.0	INTRODUCTION	1
2.0	WELL DESTRUCTION ACTIVITIES	1
2.1	HEALTH AND SAFETY	1
2.2	PERMITTING	1
2.3	UTILITY CLEARANCE	1
2.4	WELL DESTRUCTIONS	2
2.5	WASTE DISPOSAL	
3.0	CONCLUSION	
4.0	LIMITATIONS AND CERTIFICATION	3

#### **LIST OF FIGURES**

Figure 1 Site Location Map

Figure 2 Site Plan

### LIST OF ATTACH MENTS

Attachment A Regulatory Correspondence

Attachment B Boring Logs

Attachment C Well Destruction Permits



#### 1.0 Introduction

On behalf of Chevron Environmental Management Company's (EMC's) affiliate, Union Oil Company of California ('Union Oil"), Stantec Consulting Services Inc. (Stantec) is submitting this report documenting the proper destruction of four onsite and five offsite groundwater monitoring wells related to the current 76-branded service station and auto repair shop located at 376 Lewelling Boulevard in San Lorenzo, California ("Site") (**Figure 1**).

In a letter dated December 23, 2014, Alameda County Environmental Health Services (ACEH) authorized Stantec to proceed with well destruction activities (**Attachment A**).

The scope of work related to the well destruction activities performed at the Site is presented below.

#### 2.0 Well Destruction Activities

Between March 16 and 19, 2015, Stantec oversaw the destruction of four onsite monitoring wells (U-1R, U-2, U-3R and U-4) and five offsite monitoring wells (U-5 through U-9). Copies of all available boring logs can be found in **Attachment B**. Well locations are shown on **Figure 2**.

#### 2.1 HEALTH AND SAFETY

A health and safety plan was prepared for the scope of work as required by the Occupational Safety and Health Administration Standard "Hazardous Waste Operations and Emergency Response" guidelines (29 CFR 1910.120). The document was reviewed and signed daily by all applicable personnel and subcontractors performing work at the Site.

#### 2.2 PERMITTING

Stantec obtained well destruction permits from Alameda County Public Works Agency (ACPWA) prior to destroying the wells. An encroachment permit was obtained from the ACPWA to safely implement the well destruction activities of wells (U-5, U-6 and U-7) located in the County's right of way on Usher Street. Copies of the approved well destruction and encroachment permits can be found in **Attachment C**.

#### 2.3 UTILITY CLEARANCE

Prior to the initiation of field work Stantec marked the well locations, contacted Underground Service Alert, and contracted with a private utility locator, to verify that the locations were clear of subsurface obstructions.



April 6, 2015

#### 2.4 WELL DESTRUCTIONS

All well destruction activities at the Site were performed by National EWP of Richmond, California (C57 license #953646), in accordance with ACPWA guidelines. All wells were destroyed by pressure grout and the surfaces were capped to match the existing grade. Pressure grouting was performed by emplacing neat cement grout via a tremie pipe into the respective well casings prior to applying 25 pounds per square inch (psi) of pressure for duration of 5 to 10 minutes. Following the pressure grouting, the top 5 feet of wells U-5, U-6 and U-7 were removed as per ACPWA protocols since they were each located in the roadway (Usher Street)/City right-of-way. The casing of the other wells destroyed (U-1 through U-4, U-8, and U-9) remained intact following pressure grouting activities. All wells had a cement mushroom cap applied, and the surface patched to match existing grade.

Associated Department of Water Resources (DWR) well completion reports were submitted on April 3, 2015 to the ACPWA and DWR for each well destroyed.

#### 2.5 WASTE DISPOSAL

Waste generated during the well destruction activities, including soil, concrete blocks, and well casing debris was temporarily stored onsite pending profiling and was later removed from site to a proper waste disposal facility at the conclusion of field activities.

#### 3.0 Conclusion

As requested by the ACEH, all site-related wells associated with the subject case have been properly destroyed in accordance with ACPWA protocols. This completion of the well destruction activities marks the remaining action needed to satisfy case closure and accommodate the issuance of final no further action correspondence related to the case.

#### 4.0 Limitations and Certification

This report was prepared in accordance with the scope of work outlined in Stantec's contract and with generally accepted professional engineering and environmental consulting practices existing at the time this report was prepared and applicable to the location of the site was prepared for the exclusive use of EMC, for the express purpose stated above. Any re-use of this report for a different purpose or by others not identified above shall be at the user's sole risk without liability to Stantec. To the extent that this report is based on information provided to Stantec by third parties, Stantec may have made efforts to verify this third party information, but Stantec cannot guarantee the completeness or accuracy of this information. The opinions expressed and data collected are based on the conditions of the site existing at the time of the field investigation. No other warranties, expressed or implied are made by Stantec.

Prepared by:

Colin Ryan

Geologic Associate

Sean Coyle

Associate Scientist

Information, conclusions, and recommendations provided by Stantec in this document regarding the site have been prepared under the supervision of and reviewed by the licensed professional whose signature appears below.

Dan Sahrahas Na: 7046

Licensed Approver:

Dan Schreiner, P.G.

Senior Geologist

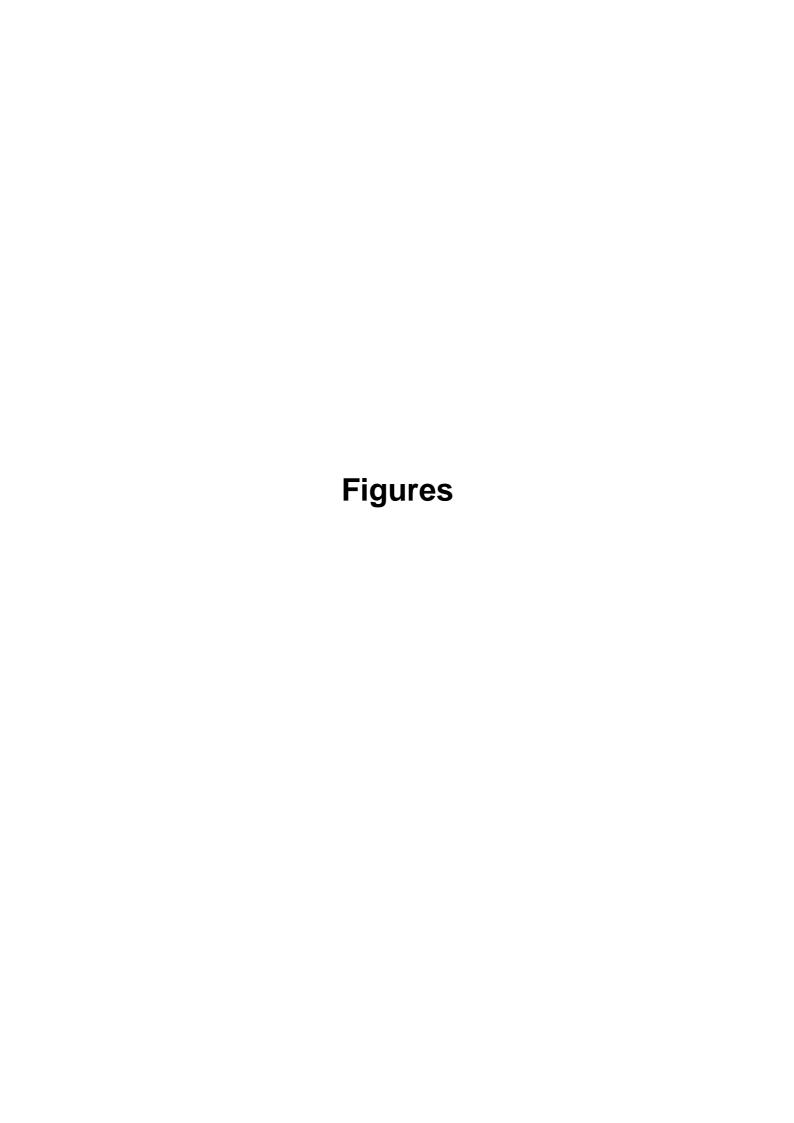
cc: Ms. Nicole Arceneaux, EMC (via electronic upload to Strata)

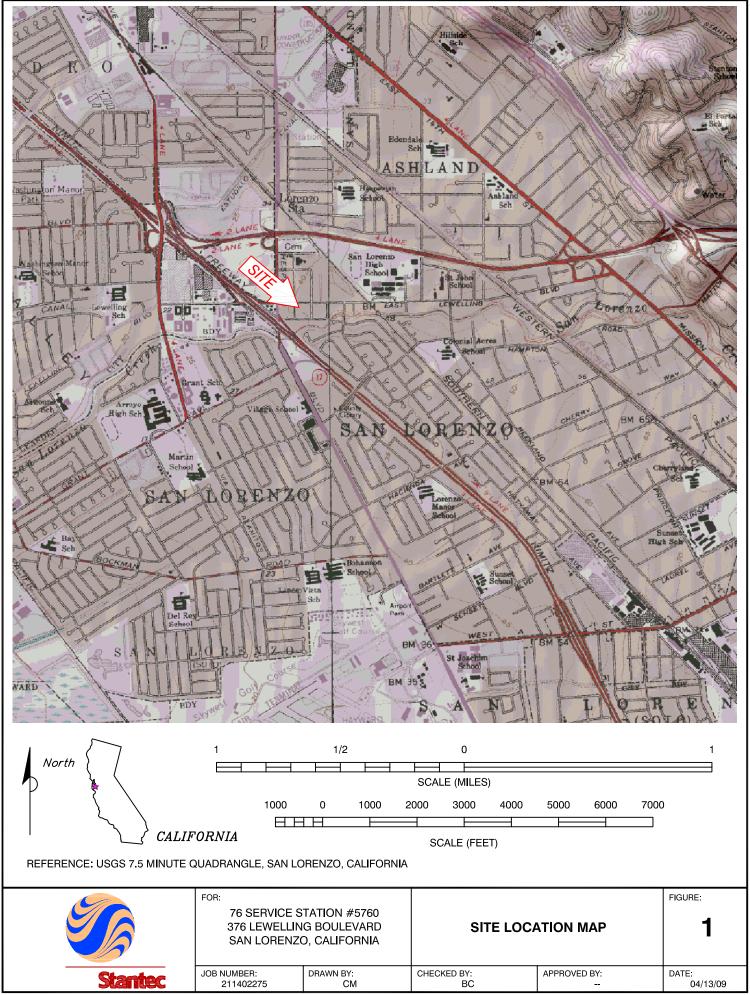
Ramesh Sood Family Trust, 7189 Fawn Hills Lane, Pleasanton, CA 94566

OF CAL

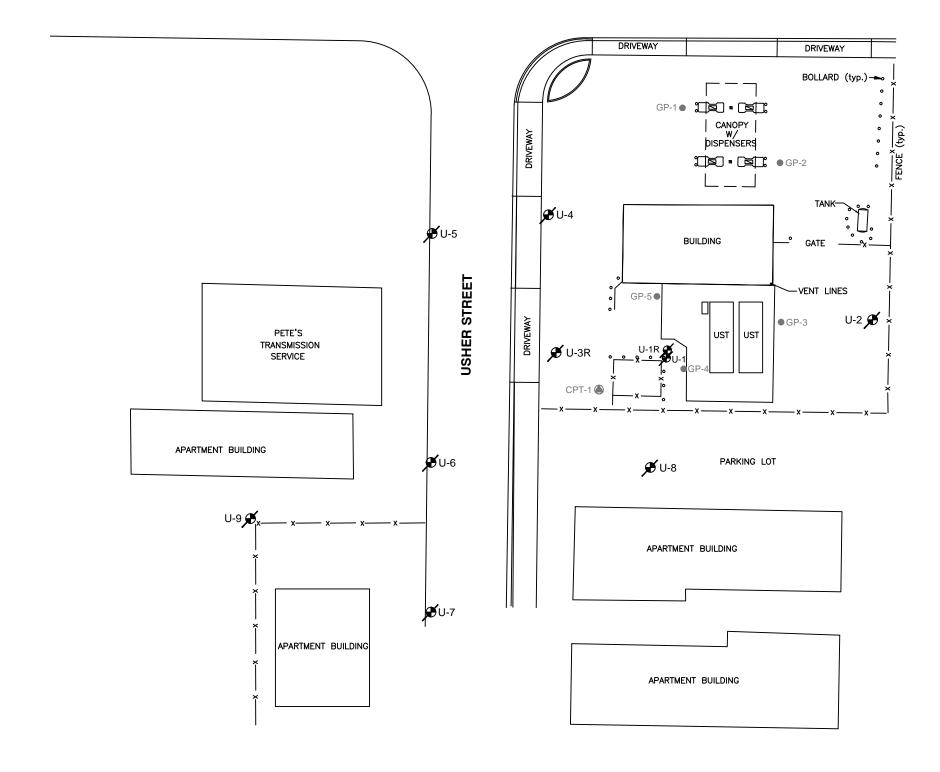
Mr. Ed Ralston, Phillips 66 Company, 76 Broadway, Sacramento, CA 95818

Upload to Geotracker





#### LEWELLING BOULEVARD

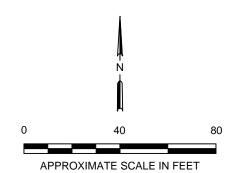


LEGEND:

U-1 **G** DESTROYED MONITORING WELL LOCATION

GP-1 • GEOPROBE SOIL BORING LOCATION

CPT-1 
CPT LOCATION



No warranty is made by Stantec Consulting Services Inc. as to the accuracy, reliability, or completeness of these data. Original data were compiled from various sources. This information may not meet National Map Accuracy Standards. This product was developed electronically, and may be updated without notification. Any reproduction may result in a loss of scale and or information.



FOR:
76 SERVICE STATION #5760 376 LEWELLING BOULEVARD
SAN LORENZO, CALIFORNIA

SITE PLAN	

CHECKED BY:

FIGURE:

04/01/15

JOB NUMBER: DRAWN BY: 211902149 CM/STA

APPROVED BY: DATE: SC 04

REFERENCE: SITE PLAN BASED ON FIGURE PROVIDED BY DELTA

# Attachment A Regulatory Correspondence

### ALAMEDA COUNTY HEALTH CARE SERVICES AGENCY



ALEX BRISCOE, Agency Director

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

December 23, 2014

Ms. Nicole Arceneaux
Chevron Environmental Management Co.
6101 Bollinger Canyon Rd, Rm 5310
San Ramon, CA 94583
(sent via electronic mail to:
Nicole.Arceneaux@Chevron.com)

Ramesh Sood Family Trust Attn: Ramesh and Promila Sood 7183 Fawn Hills Lane Pleasanton, CA 94566 Mr. Ed Ralston
Phillips 66 Company
76 Broadway
Sacramento, CA 95818
(sent via electronic mail to
Ed.C.Ralston@p66.com)

Scarteen Corp. PO Box 7600 Los Angeles, CA 94580

Subject: Fuel Leak Case No. RO0000344 and Geotracker Global ID T0600101469, Unocal #5760, 376 Lewelling, San Lorenzo, CA 94621

#### Dear Responsible Parties:

The public comment period for the subject site ended on December 20, 2014. No comments were received by Alameda County Environmental Health (ACEH).

You are free to proceed with the destruction of all wells associated with the site (groundwater, vapor, etc), as requested in the attached November 20, 2014 letter from ACEH. As requested in the letter, please contact the Alameda County Public Works Agency to obtain well destruction permits. Following the well destruction, please provide ACEH a well destruction report according to the schedule outlined below. The well destruction report should document site activities, provide well destruction permit documentation, and documentation indicating that any remaining investigation, remediation, and well destruction derived waste have been removed from the site.

#### **TECHNICAL REPORT REQUEST**

Please submit reports to Alameda County Environmental Health (Attention: Keith Nowell), and upload technical reports to the ACEH ftp site (Attention: Keith Nowell), and to the State Water Resources Control Board's Geotracker website, in accordance with the following specified file naming convention and schedule:

April 14, 2015 – Well Destruction Report - File to be named RO344\_WELL\_DCM\_R\_yyyy-mm-dd

These reports are being requested pursuant to California Health and Safety Code Section 25296.10. 23 CCR Sections 2652 through 2654, and 2721 through 2728 outline the responsibilities of a responsible party in response to an unauthorized release from a petroleum UST system, and require your compliance with this request.

Responsible Parties RO000344 December 23, 2014, Page 2

Should you have any questions, please contact me at (510) 567- 6764 or send me an electronic mail message at keith.nowell@acgov.org.

Sincerely,

First Novell

Digitally signed by Keith Nowell

DN: cn=Keith Nowell, o=Alameda County,
ou=Department of Environmental Health,
email=keith.nowell@acgov.org, c=US

Date: 2014.12.23 11:03:35 - 08'00'

Keith Nowell, PG, CHG Hazardous Materials Specialist

Enclosures:

Attachment 1 - Responsible Party (ies) Legal Requirements/Obligations and

Electronic Report Upload (ftp) Instructions

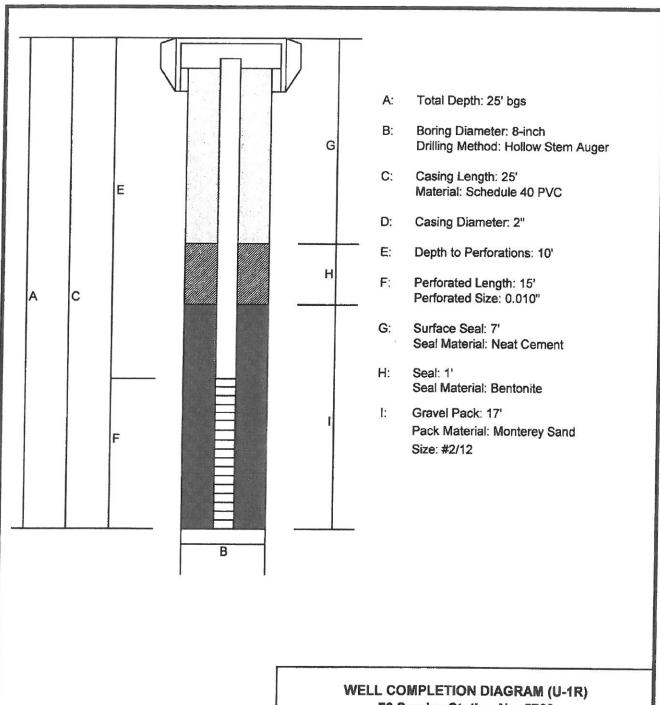
Attachment 2 - ACEH Directive Letter dated November 20, 2014

CC:

Sean Coyle, Stantec Consulting Services Inc., 3017 Kilgore Road, Suite 100, Rancho Cordova, CA 95670-6150 (Sent via E-mail to: <a href="mailto:sean.coyle@stantec.com">sean.coyle@stantec.com</a>)

Dilan Roe, ACEH, (sent via e-mail to dilan.roe@acgov.org) Keith Nowell, ACEH, (sent via e-mail keith.nowell@acgov.org) Geotracker, Electronic File

## Attachment B Boring Logs



WELL COMPLETION DIAGRAM (U-1R) 76 Service Station No. 5760 San Lorenzo, California

PROJECT NO. PREPARED BY TC DRAWN BY TC C105760131

DATE REVIEWED BY FILE NAME COP 7725/2007 5760



	WELL CONSTRUCTION DETAIL
M DE	
	A Total Depth of Boring 33.0 ft.
	B Diameter of Boring 8 in.  Drilling Method Hollow Stem Auger
	Drilling Method Hollow Stem Auger
	C Top of Box Elevation 41.62 ft.  X Referenced to Mean Sea Level
	Referenced to Project Datum
	D Casing Length 30.0 ft.  Material Schedule 40 PVC
	Material Schedule 40 PVC
	E Casing Diameter 3_ in.
	F Depth to Top Perforations 15.0 ft.
	Perforated Length 15.0 ft. Perforated Interval from 15.0 to 30.0 ft. Perforation Type Machine Slot
The state of the s	Perforated Interval from 15.0 to 30.0 ft.
1	Perforation Type Machine Slot Perforation Size 0,020 in.
	H Surface Seal from 0.5 to 1.5 ft. Seal Material Concrete
	Seal Material Concrete
	I Backfill from 1.5 to 11.0 ft. Backfill Material Concrete Grout
	Backfill Material Concrete Grout
	J Seal from 11.0 to 13.0 ft
	J Seal from 11.0 to 13.0 ft. Seal Material Bentonite
	K Gravel Pack from 13.0 to 30.0 ft.  Pack Material #2/12 Graded Sand
	THE STREET CALL
	L Bottom Seal 3.0 ft.
	Seal Material 2 feet Slough/1 foot Beritonite
	M Waterproof vault with locking well cap and
	lock.
	_
	•
A A	_
<b>■</b> B	
	Note: Depths measured from initial ground surface.
GeoStrategies Inc.	Well Construction Detail WELL NO.
GSI deconategies inc.	U-2
DOB NUMBER REVIEWED BY RG/CEG	DATE REVISED DATE REVISED DATE
7809 CMP (1261262	08/90

Field locat	ion of i		See Plat	ار م				Project No.: Client: Location:	UNOCAL #5		08/06/90	Boring U-	
		(-	Sec Pial	C 2)				City:	San Lorenzo	California		Sheet	7
									M.J.J.	Driller:	Bayland	of	
								Casing install			Daylaria		
Onilling me			Stem Au	uger				Top of Box E	levation: 41.6	20	Datum: MS	NI .	_
		8-Inche	<u> </u>	T			6	Water Level	20.0'	21.52	Datoin. IVIS	T	_
. 8	Blows/ft. or Pressure (pis)	50	e se	Depth (ft.)	90	= 3	38	Time	10:30	16:02	<del>                                     </del>	+	
Of Grand	llows pr ssure	Type of Sample	Semple	100	Sample	Well	D od	Date	08/06/90	08/06/90	<b></b>	1	
	B &			0			Soit Group Symbol (USCS)			Description	<u> </u>		_
		ļ	-	0				PAVEM	ENT SECTIO	N - 0.5 feet			_
				1									_
				1			8 9 1	FILL - G	ravel with Sa	nd (GW) - d	ark brown (7	.5YR 3/	4)
				1_					amp; 75% fin		gravel; 20%	sand; 5	%
			-	2	$\vdash$		771		themical odo		wish have	/40×/0 0	10
-+				3	$\vdash\vdash$			SANDY	SILT (ML) - v	ery dark gra	yish brown	CIUYH3	72
-+			<del> </del>	13	$\vdash$			chemica	stiff, damp; 5	576 SIII, 357	o Sallu; 10%	ciay; no	U
$\dashv$			<b></b>	4	H				CHANGE to	olive hrown	(2.5Y 4/4) a	t 3 O fee	+
-+				1	$\vdash$				ng sand at 3.0		و (۱۳ ال	. 0,0 100	4
	150	S&H		5			1-1-1-1						
0	150	push	U-2-5	1									-
	150			6				SILTYS	AND (SM) - (	olive brown	(2.5Y 4/4), s	oft, dam	p;
							[:[]:[:]	60% fine	sand; 40%	silt; no chem	ical odor.		_
		····		7			1:1:1:1:1						
							1000						
				8			1: :: 1						
				1	$\square$								
	150	S&H		9									
	150	push	U-2-10	10				CAND /	SP) - dark bro	un (tOVD 2	(2) Japan d	ampi 95	0/
	150	pusii	0-2-10	10				fine sand	d; 15% silt; no	chemical o	ndor	amp; oo	70
	100			11				Time out	2, 1070 5111, 111	onemour c	7001.		
	$\neg \uparrow$						1		<del></del>		<del></del>	<del></del>	
				12									
				13	$\dashv$					•			
				14									
	0						// 11		LAY (CL/ML)				
0	0	S&H	U-2-15	15					, saturated; 5		% silt; 10% 1	ine sand	1;
_	4							rootholes	s; no chemica	al odor.			
-				16	-		////						
	$\rightarrow$			17	$\dashv$		// 11						-
													_
_	-			18	$\dashv$		1/1						
$\dashv$				19			1111t						_

GSI

GeoStrategies Inc.

Log of Boring

**U-2** 

JOB NUMBER REVIEWED BY RGICEG DATE REVISED DATE REVISED DATE 7809 UND GET 1262 08/90

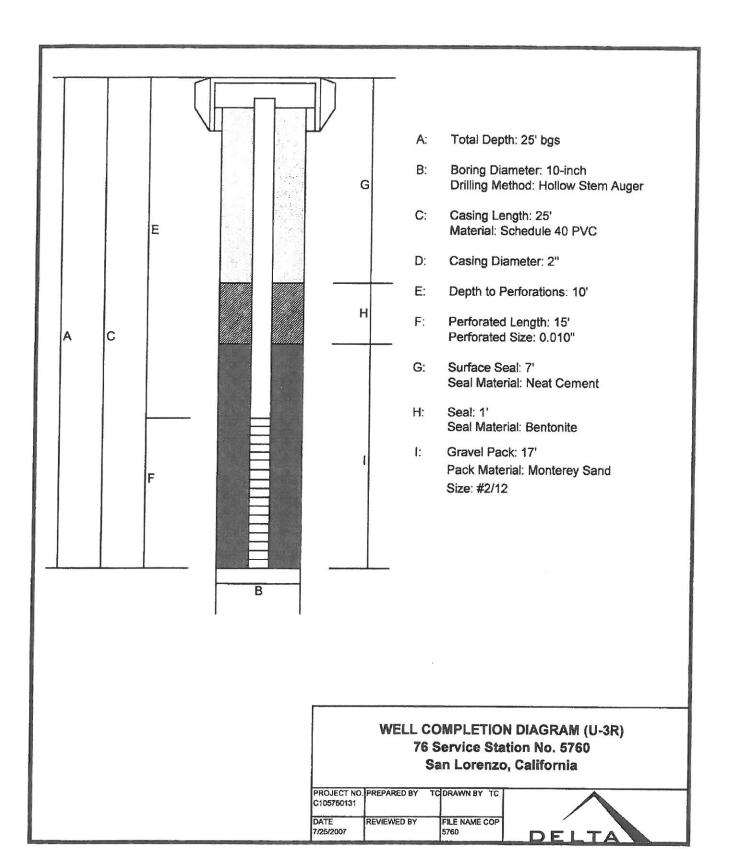
Field lo	cation of	boring:						Project No.:		Date;	08/06/90	Boring No:
		,	Can Dies	- 01				Client: Location:	UNOCAL #			U-2
		(-	See Plate	8 2)				City:		ng Boulevard	}	Chart C
1					ş0			Logged by:	San Lorenzo	Driller:	Dayland	Sheet 2 of 2
								Casing instal		Driller.	Bayland	01 2
Deilling	method:	Hollow	Stem Au	iger				Cooking Install	iauon Gata.			
Hole di		8-Inche		igei				Top of Box E	levation:		Datum:	
Tiole di		OHITCH	7.5	T	Т	T	1 6	Water Level	T	I		Т
	Blows/It. or Pressure (psi)	5 8	9 8	Depth (ft.)	9		288	Time	<u>                                     </u>	ļ	<del> </del>	<del> </del>
Q G	lows	Type of Semple	Semple	Hote	Semple	Well	2 2	Date				
	- £	""	1	0	1		Soil Group Symbol (USCS)			Description		
	0						ПП	SANDY	SILT (ML) -		10YR 3/3), n	nedium stiff.
0	2	S&H	U-2-20	20		Ā		very mo	ist; 70% silt;	30% fine sai	nd; trace clar	/; no
	3			1		]=		chemica				
				21		]						
				]		Ž.	11111					
				22	_	1-						
						1	برا					
			-	23	_	1						
	-				-	4		0.115 (	<u> </u>			
	-			24		-		SAND (	SP) - dark bro	own (10YH 3	/3), loose, sa	aturated;
0	3	S&H	U-2-25	25		-	777	100% 11	ne to coarse	sand; trace s	siit; no cnem	ical odor.
U	3	האפ	U-Z-25	23		{	1//	· · · · · · · · · · · · · · · · · · ·				
	3		-	26		1	1///	CLAY (	CL) - very dar	rk oravich be	0 EV 2/	O) modium
	-		<del> </del>	20		{	1///	etiff moi	st; 55% clay;	AD9/ oit 59/	VON TIPO DE	z), medium
			-	27	-	1		chemica		40 % Sill, 3%	very line Sa	ara, mo
				-	_	1	1//	CHOMICO	0001.			
			<u> </u>	28	_	1		Hard dri	lling at 28.0 f	eet		
							1//		3			
				29			1//	Increasin	ng clay at 29.	0 feet.		
	7						1//	COLOR	CHANGE to	light olive br	own (2.5Y 5/	4), very
0	10	S&H	U-2-30	30				stiff, dan	np; no chemi	cal odor.		
	12											
				31			V/A					
				1			V/A					
	9			32			1//					
0	11	S&H	U-2-33				1//	no chem	ical odor.			
	13			33			1//	D. C.	Contract of	201		
$\longrightarrow$				2			1 +		of sample at 3			
	$\longrightarrow$			34	-		1 +		of boring at 3	J.U teet.		
				35				08/06/90				
				33			F					
				36	$\dashv$		[					
				-	$\dashv$		1 1					
				37	$\neg$		1 1					
<del></del>				-	-							
				38	-		1 +					<del></del>
1				-	$\neg$		F	· · · · · · · · · · · · · · · · · · ·				
				39								
Remarks:												
												1
2007	TYTE.											

GeoStrategies Inc.

Log of Boring

JOB NUMBER 7809

REVIEWED BY RG/CEG CHAPCELIZEZ DATE 08/90



M -> E	WELL CONSTRUCTION DETAIL
	A Total Depth of Boring 29.0 f
	B Diameter of Boring 8 i
	Drilling Method Hollow Stem Auger
	C Top of Box Elevation 40.53 f
	Referenced to Mean Sea Level Referenced to Project Datum
	D Casing Length 28.0 f
	Material Schedule 40 PVC
	E Casing Diameter 3_ in
	F Depth to Top Perforations 15.0 ft
	G Perforated Length 13.0 ft
	Perforated Interval from 15.0 to 28.0 ft
100	G Perforated Length 13.0 ft Perforated Interval from 15.0 to 28.0 ft Perforation Type Machine Slot Perforation Size 0.020 ir
	H Surface Seal from 0.5 to 1.5 ft Seal Material Concrete
	Backfill from 1.5 to 11.0 ft Backfill Material Concrete Grout
	Backfill Material Concrete Grout
	J Seal from 11.0 to 13.0 ft
	J Seal from 11.0 to 13.0 ft Seal Material Bentonite
G	K Gravel Pack from 13.0 to 28.0 ft.
	K Gravel Pack from 13.0 to 28.0 ft. Pack Material #2/12 Graded Sand
	L Bottom Seal 1.0 ft.
	L Bottom Seal 1.0 ft. Seal Material Native Material
	M Waterproof vault with locking well cap and
	lock.
	<del>*</del>
	Î
¥ was at the	<u>\psi</u>
В	
	Note: Depths measured from initial ground surface.
	Well Construction Detail
GeoStrategies Inc.	well Construction Detail

JOB NUMBER

49

7809

REVIEWED BY ROCEG
CLUP LEG 1262

DATE 08/90 REVISED DATE

		G	See Plate	8 21				Location:	376 Lewellir San Lorenzo	o, California		Sheet	1
								Logged by:	M.J.J.	Driller:	Bayland	of	2
								Casing installa	tion data:				
	method:		Stem Au	ıger								***	
Hole dis	-	8-Inche	s	_				Top of Box Ele			Datum: MS	<u>SL</u>	_
	Blows/ft. or Pressure (psi)			2			Soil Group Symbol (USCS)	Water Level	21.0'	20.33'			
P P P P P P P P P P P P P P P P P P P	New Series	Type of Sample	Sample	Depth (ft.)	Sample	Well	85	Time	13:05	16:10	<del> </del>	+	_
- B	Ag Se	E.20	3 ₹	1 8	8	- 0	S &	Date	08/06/90	08/06/90 Description		1	_
			-	+	+-		0			Description			
			<del> </del>	0	H			PAVEME	NT SECTIO	N - 0.5 feet			_
			<del></del>	1	H					310 1000			_
	<b></b>			1	H		1.0	FILL - Gr	avel (GW) -	dark brown	(7.5YR 3/4),	loose.	
· · ·				1			TITT	damp; 10	00% fine to	coarse grave	el; no chemi	cal odor	
				2				SANDYS	SILT (ML) - V	very dark gra	ayish brown	(10YR 3	12)
							11:11:15	medium s	stiff, damp; 6	60% silt; 35%	6 fine sand;	5% clay	; n
				3				chemical					
								SILTY SA	AND (SM) -	olive brown	(2.5Y 4/4), la	ose, da	m
^	100	S&H	11.0-	4				60% fine	sand; 35%	siit; 5% clay	; no chemica	al odor.	
0	100	push	U-4-5	_									_
	100			5									_
			<del> </del>	6	Н								_
				0	H								
	-		<b></b>	7	$\vdash$			<del></del>					_
				1	$\vdash$								
			<del> </del>	8	$\vdash$		11.11.11						
	125	S&H		9			المالمال	SAND (S	P) - dark yel	lowish brow	n (10YR 3/4	), loose,	
0	125	push	U-4-10					damp; 85	% medium t	o coarse sa	nd; 10-15%		
	125			10				trace silt;	no chemica	l odor.			
				11									
				10	-		· · · /						
				12			11						
				13	$\vdash$			·					_
				10	$\dashv$		[]]]]}			~ ~~~			
				14	-								
	3												
0	3	S&H	U-4-15	15	Н		11111	SILT with	SAND (ML)	- very dark l	prown (10YF	2/2).	
	3						11111	medium st	tiff, damp; 8	0% silt; 10%	clay; 10% f	ine sand	j;
				16		l		trace fine	gravel; no c	hemical odd	or.		-
				17									
							11111						
				18	_								
$\rightarrow$				10	$\dashv$	[	1111						
				19	- !								

GSI

GeoStrategies Inc.

**U-4** 

JOB NUMBER 7809 CUPCEY IXUZ

DATE 08/90

REVISED DATE

Field loc	cation of	boring:						Project No.;	7809	Date:	08/06/90	Boring No:
								Client:	UNOCAL #		·	U-4
		(5	See Plate	3 2)				Location:	376 Lewellin			
1								City:	San Lorenzo	o, California		Sheet 2
								Logged by:	M.J.J.	Driller:	Bayland	of 2
			-					Casing install	ation data:			
	method:		Stem Au	ger					lare Mark		10.4	
Hole die	7	8-Inche	S	1				Top of Box E	levation;		Datum:	
	Blows/ft. or Fressure [psl]			2			Soit Group Symbol (USCS)	Water Level	<b></b>		<del></del>	-
D E	au n	Type of Sample	Sample	Depth (ft.)	Sample	Well	8.5	Time				
-8	18 Blo	F 8	83	8	S.	-0	is se	Date				1
				_	1	-	1 6	D. C. C. C.	00.0/	Description		
	0	0011	111 4 00		-	-			20.0 feet.	204	- 't. O=0' -	
0	0	S&H	U-4-20	20		-	11111		ng sand at 20		% SIII; 25% S	and; 5-10%
	4	-	-	2	P	Ā Ā		ciay; no	chemical oc	ior.		
	-		<del> </del>	21		ĪΖ						
<u> </u>	8	S&H	U-4-22	22		}		<b></b>				
0	9	San	0-4-22	22		{		CAND	rith GRAVEL	(CIAA dad	hroup /10V	D 2/2\
	9			23			• : • : •		dense, satur			
	<del> </del>	-	-	20	$\vdash$	{			oarse gravel			
	-			24	-	-		mie to c	daise graver	, trace siit,	no chemical	ouoi.
	<del> </del>		<b></b>	27	-							
	<del></del>	<b></b>		25	-		1//					
					-						<del></del>	<del></del>
	<del> </del>		-	26		}	1//					
	6											
0	8	S&H	U-4-27	27				CLAY (C	CL) - light oliv	e brown (2	5Y 5/4), very	stiff, damo
	12						1//	low to m	edium plastic	ity: 70% cl	av: 25% silt:	5% fine
	4			28			1//	sand; no	chemical o	dor.	,,,	
0	10	S&H	U-4-29				Y//X					
	14			29			1//					
								Bottom	of sample at	29.0 feet.		
				30				Bottom o	of boring at 2	9.0 feet.		
								08/06/90				
				31								
				[			1 [					
		,		32								
					_]							
				33			1 [					
				34			1 1					
				_			1 1		····			
				35			1					
				_	_							
				36								· · · · · · · · · · · · · · · · · · ·
				_}			1 -					
				37			1					
				20			-					
		$\rightarrow$		38	$\dashv$		-					
				20	$\dashv$		-					
Remarks:				39								
·e···ten U3·												
WILLIAM TO												

GSI

GeoStrategies Inc.

Log of Boring

BORING NO.

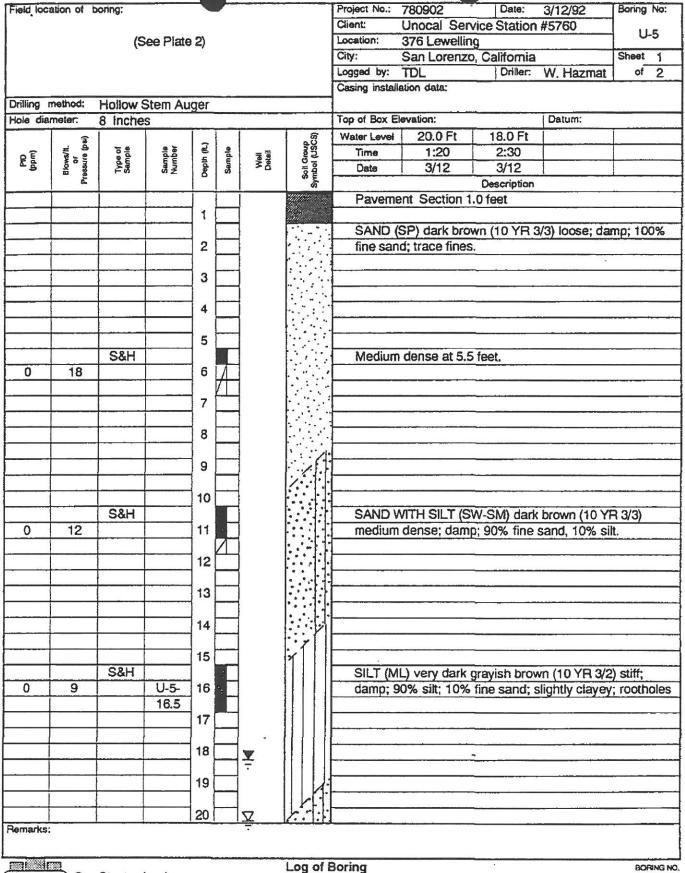
**U-4** 

JOB NUMBER 7809

MENEWED BY ROKEG

DATE 08/90

REVISED DATE



GeoStrategies Inc.

JOB NUMBER 780902

REVIEWED BY RG/CEG

DATE 3/90 REVISED DATE

							Client:	11	Manti.	and the same of the sales.	
	10								rice Station	#5760	U-5
	(S	ee Plate	2)				Location:	376 Lewellin	ng		
							City:	San Lorenzo	o, California		Sheet 2
							Logged by:		Driller:	W. Hazmat	of 2
							Ceaing install	ation data:			
			ger				To d Do 5	1		10-tum	
	8 in thes		_					ievation:		Datum;	
*. To		. =	=			\$ S			-	<del> </del>	
or or	o ad mpla	age.	1	ld H	Well	85			<u> </u>	-	<del> </del>
95 S	i ≥ ∞	αź	å	- S		3 6	Date		Description	1	
	COL		-			- : 1 4	SANDI	NITH SILT IS		dark oray (1	0 VB 3/1)
15	3001		21								
13			-				median	r derise, sata	14100, 0070	ino bana, ro	75 OIR.
			22								
			1								
			23					-			
			24			1 1 1/2					
			]			1:1//					
			25			1///					
	S&H						CLAY (	CL) dark gray	/ (10 YR 4/1)	very stiff; sa	turated;
18			26				95% cla	y, 5% sand;	slightly silty:	; mottling; no	dules.
						///	<b>]</b>				
			27			V//	<b></b>				
			-	ļi		1//	<b>]</b>				
			28								
			20			V//	<b></b>				
			29	-		1//	<b> </b> -	<del></del>			
	-		30			VIII	<u> </u>	·			
	S&H		100				SILTW	ITH SAND (A	AL) brown (1	0 YR 4/3) stif	f: saturated
8	COLIT		31				85% sil	1. 15% fine sa	and: slightly	clavev.	,,
			1 -			1111	0070	, , , , , , , , , , , , , , , , , , , ,	,,		
			32								
		-	1								
			33				Bottom	of boring 31.	.5 feet.		
			34			1	3/12/92				
			35				,				
			36			}					
			-	_							
			37			}					
			20	_							
	<del> </del>		30				<b></b>				
			30								
			79								
			40				<del></del>				
Ouickh	C2111 2 h	ladae 0				1	<u> </u>				
	15	S&H  S&H  S&H  S&H  S&H  S&H  S&H	S&H  S&H  S&H  S&H  S&H  S&H  S&H  S&H	S&H   S&H	S&H   S&H	S&H   S&H	Same   Same	Note   Hotiow Stem Auger   Top of Box E   Water Level   Time   Date	Top of Box Elevation:   Top	Hollow Stem Auger   Top of Box Elevetion:   Water Level   Time   Date   Dete   Dete	Holiow Stern Auger   Top of Box Elevetion:   Datum:

GeoStrategies Inc.

Log of Boring

REVIEWED BY RGICEG JOB NUMBER 780902 DATE 3/92 REVISED DATE

— <b>&gt;</b> E <b>◄</b> —	ELL CONSTRUCTION DETAIL
M C	A Total Depth of Boring 31.5 ft
	B Diameter of Boring 8 in Drilling Method Hollow Stem Auger
	Drilling Method Hollow Stem Auger
	C Top of Box Elevation 39.52 ft X Referenced to Mean Sea Level
	X Referenced to Mean Sea Level
	Referenced to Project Datum
	D Casing Length 30 ft.  Material Schedule 40 PVC
	Material Schedule 40 PVC
	E Casing Diameter 2 in
	The state of the s
	F Depth to Top Perforations 15 ft.
	G Perforated Length 15 #
A STATE OF THE STA	Perforated Interval from 15 to 30 ft.
	G Perforated Length 15 ft. Perforated Interval from 15 to 30 ft. Perforation Type Machine slot
	Perforation Size 0.02 in
D	H Surface Seal from 0 to 1 ft.
	H Surface Seal from 0 to 1 ft. Seal Material Cement
A   The state of t	I Backfill from 1 to 11 ft.
	I Backfill from 1 to 11 ft.  Backfill Material 11-Sack cement
	J Seal from 11 to 13 ft. Seal Material Bentonite
k	
Ġ	K Gravel Pack from 13 to 30 ft. Pack Material Lone Star 2/12
	Pack MaterialLone Star 2/12
	L Bottom Seal None ft.
	Seal Material
	. The Manual Country Institute and the state of the state
	M Traffic-rated vault, locking cap and lock
THE RESERVE A	•
8>	
1	Note: Depths measured from initial ground surface.
	Well Construction Detail
GeoStrategies Inc.	¥ 1
	U

JOB NUMBER 780902 REVIEWED BY RIGICEG

DATE 3/92 REVISED DATE

es dese	ation of t	ooring:							780902	Date:	3/13/92	Boring No:
								Client:	Unocal Serv		#5760	U-6
1		(S	ee Plate	2)				Location:	376 Lewellin	g		
								City:	San Lorenzo	o, California		Sheet 1
									TDL	Driller:	W. Hazmat	of 2
								Casing install	ation data:			
Drilling		Hollow S	Stem Au	ger								
Hole dia	meter:	8 Inch						Top of Box E	levation:		Datum:	
	8						Soil Group Symbol (USCS)	Water Level	20.0 Ft.			
Ord (mdd)	Blows/ft.* or Pressure (psi)	Type of Sample	Sample	Depth (ft.)	Sample	PE SE	200	Time	10:40			
£ &	NO N	Sarr	San	1 m	Sarr	Well	D io	Date	3/13			
	- &			{ -	[]		8			Description		
				Ι			200	Paveme	ent section 1.	0 foot		
				] 1			See Mille					
				]								
				2								
				3								19
				4								
				5								
		S&H		1				SAND (	SP) brown (1	0 YR 4/3) lo	ose; damp; 1	00% fine
0	5			6				sand; tr	ace clay			
				1	И							
				7								
				ĺ								
				8								
				1								
				9			1					
				1			1					
				10			1711					
		S&H			1,			SILT (M	L) dark gray	(10 YR 4/1)	stiff; damp; 9	0% silt,10%
0	11			11				fine san	d, trace clay.			
				12								
				]							was a second	
				13				110000000000000000000000000000000000000				
				14								
				15								
		S&H										
0	8		U-6-	16				Roothol	es, mottling.			
			16.5									
				17								
				]			}					
				18						_		
									<del></del>			
				19								
							II V.		\			
				20		$\nabla$	V					
Remarks	:					-						
	* Conve	erted to e	equivale	nt Si	tanda	ard Pen	etration l	olows/ft.				Ì
			1				Logoff	- MACON - COLUMN - CO				TODING NO

GSI

GeoStrategies Inc.

Log of Boring

BORING NO

**U-6** 

JOB NUMBER REVIEWED BY RG/CEG DATE REVISED DATE REVISED DATE
780902 JANA 3/92

(See Plate 2)  Client: Unocal Service Station #5760  Location: 376 Lewelling  City: San Lorenzo, California  Logged by: TDL   Driller: W. Hazma  Casing installation data:  Drilling method: Hollow Stem Auger  Hole diameter: 8 Inches  Top of Box Elevation:   Datum:  Water Level   Time   Date   Date   Description	U-6 Sheet 2 t of 2
City: San Lorenzo, California Logged by: TDL Driller: W. Hazma Casing installation data:  Drilling method: Hollow Stem Auger Hole diameter: 8 Inches Top of Box Elevation: Datum:	Sheet 2
Logged by: TDL Driller: W. Hazma Casing installation data:  Drilling method: Hollow Stem Auger  Hole diameter: 8 Inches Top of Box Elevation: Datum:	
Drilling method: Hollow Stem Auger Hole diameter: 8 Inches Top of Box Elevation: Datum:	t of 2
Drilling method: Hollow Stem Auger  Hole diameter: 8 Inches Top of Box Elevation: Datum:	
Hole diameter: 8 Inches Top of Box Elevation: Datum:	
Gmdd Sample of Type of Sample of Sample of Type of Sample of Sampl	
Composer of Sample of Manual Sample of Manual Sample of Manual Ma	
Description	
Description	
S&H SAND (SP) dark gray (5 YR 4/1) medium d	nse;
0 12 21 saturated; 100% fine sand.	
22 CLAY (CL) very dark gray (5 YR 3/1) stiff; s	iturated; 909
clay, 10% sand, trace silt.	
23	
24	
Color change to olive (5 YR 5/3), very stiff;	mottling at
0 26 S&H 25 feet.	
26	
27	
28	
29	
30 1111	
S&H SILT (ML) brown (10 YR 5/3) very stiff; satu	atod: 80%
	ateu, ou /s
	4000 1000V
	iteu; 100%
32 fine sand, slightly clayey.	
33	
34	
Bottom of boring 31.5 feet.	
35 .	
3/13/92	
36	
37	
38	
39	
40	
Remarks:	
Log of Boring	ROBING

GeoStrategies Inc.

JOB NUMBER 780902

REVIEWED BY PGICEG

DATE 3/92

REVISED DATE

-> E	WELL	CONSTRUCTION DETA	<b>UL</b>
M	C		
	A	Total Depth of Boring 31.5	ft.
	<b>Т</b> В	Diameter of Boring 8	in.
	<del>}</del>	Diameter of Boring 8 Drilling Method Hollow Stem Auger	_
	C	Top of Box Elevation 37.80	) ft.
		Top of Box Elevation 37.80  X Referenced to Mean Sea Level	
		Referenced to Project Datum	
	ם ו	Casing Length 28 Material Schedule 40 PVC	ft.
		Material Schedule 40 PVC	_
	E	Casing Diameter2	in.
	_		
	F	Depth to Top Perforations 13	ft.
	G	Perforated Length 15	ft.
	<b>3</b>	Perforated Interval from 13 to 28	_ ft.
	Ĭ	Perforated Length 15 Perforated Interval from 13 to 28 Perforation Type Factory Slot Perforation Size 0.02	in.
	A		
	Н	Surface Seal from 0 to 1 Seal Material Cement	_ ft.
		Backfill from 1 to 9 Backfill Material 11-Sack cement	_ ft.
		Backfill Material 11-Sack cement	-
	J	Seal from 9 to 11 Seal Material Bentonite	_ ft.
	l K	Seal Material Bentonite	
G G	K	Gravel Pack from         11 to         28           Pack Material         Lonestar 2/12	ft.
		Pack Material Lonestar 2/12	_
	L	Bottom Seal 2	ft.
		Seal Material Bentonite	-
	M	Traffic-rated vault, locking cap and lock	e
			<u>`</u>
	_		
	Ĺ	•	
<b>Y</b>	<u> </u>		
B			
	No	ete: Depths measured from initial ground surfa	ace.
GeoStrategies Inc.	Well C	onstruction Detail	WE

**U-6** 

Field loc	ation of b	oring:			-			Project No.:		Date:	3/13/92	Boring No:
		4000		12300				Client;	Unocal Serv		#5760	U-7
		(S	See Plate	e 2)				Location:	376 Lewellin	ıg		
								City:	San Lorenzo	o, California		Sheet 1
								Logged by:	TDL	Driller:	W. Hazmat	of 2
-								Casing install	ation data:			
Drilling	-	Hollow !	Stem Au	iger								
Hole dia		8-inch			-		· · · · · · · · · · · · · · · · · · ·	Top of Box E		,	Datum:	
	, îs			-			a SS	Water Level	20.0 Ft.			
Po (mud)	Blows/ft.* or Pressure (psi)	Type of Sample	Sample	Depth (ft.)	Sample	Welt	Soil Group Symbol (USCS)	Time	1:40			
<u>. 5</u>	08 8	E.8	8 2	8	S.	> 4	S de	Date	3/13			
	-	<u> </u>					Ó			Description		
				١.			100	Paveme	ent section 1.	0 foot		
				1	_		Comment of the second	011157			<del></del>	
				1						0 YH 4/3) 10	ose; damp; 1	00% fine
	-			2				sand; ro	oots			
		-		-								
		-	-	3	-							
		-		١.	-							
				4	-		1					
	ļ									<u> </u>		
		0011		5				Medium	dense at 5 f	eet.		
0	19	S&H		1.	<b>_</b>							
				6	14							
					$\angle$ L							
				7								
W.N. W W. T.												
				8								
				↓ _			: : - ' '					
-				9	_							
				١.,	_							
		0011		10								
		S&H		١				Color ch	nange to olive	gray (5 YR	4/2); roots.	
0	22			11								
				١	$\Delta \Gamma$							
				12								
		<u> </u>		١					***			
				13								
				4	Ш							
				14	Ш		1/					
		1		١	$\square$		1:///					
		05::	- 14 =	15			1//					
		S&H	U-7-	1			1//			grayish brow	wn (10 YR 3/	2) stiff;
0	11		16.0	16				moist; tr	ace sand.			
				4.	$\Delta$							
				17	$\Box$		1//					
				1								
				18	$\square$		1//			•		
							1//					
				19			///					
				]			// '					
				20		又	1	Saturate	ed at 20 feet.			
Remarks						•						
	* Conve	erted to e	equivale	nt Si	tanda	ard Pen	etration t	olows/ft.				
										***************************************		

GeoStrategies inc.

Log of Boring

JOB NUMBER 780902

REVIEWED BY AG/CEG park

0ATE 3/92

REVISED DATE

Field loc	ation of I	poring:					,	Project No.:	780902	Date:	3/13/92	Boring No:
				24				Client:		vice Station	#5760	U-7
		(S	ee Plate	2)				Location:	376 Lewelli			
								City:		o, California		Sheet 2
								Logged by:	TDL	Driller:	W. Hazmat	of 2
Dellina	ma ada a da	Lielle . C	N A					Casing instal	lation data:			
Drilling Hole dis		Hollow S		iger				Top of Box E	lountions		Datum	
HOIS GIS	· · · · · · · · · · · · · · · · · · ·	8 Inches		T					The second secon	1	Datum:	
_	l sa	2.0	9 5	12		_	85°	Water Level	20.0 Ft. 12:10	-	ļ <u> </u>	
Obdo)	or or sure	Type of Sample	Sample	Depth (ft.)	Semple	Well	25.5	Date	3/13		1	
	Blows/ft.* or Pressure (psi)	F 55	o ž	8	S	_	Soil Group Symbol (USCS)	Date	0/13	Description	.1	
				i			- W	No sam	nle recoven	(heaving sa	inds)	
	<b> </b>		-	21				110 00	pioriotori	mouning oc	1100/	•
			<del></del>	1-								
	Í			22							<del></del>	
				1								
				23		1						
				24								
				1							ACCURATE OF THE PARTY OF THE PA	
	ļ			25			1.					
		S&H						SAND (	SP) dark gra	ay (10 YR 4/1	) medium de	nse;
0	23			26	-			saturate	ed; 100% me	edium to coa	rse subround	ed sand.
				-								
	ļ	-		27	-	46						
	-			28	-						<del></del>	
		-		120	-						<del></del>	
		S&H		29			:					
0	18	0011		1-0								
	1.5			30	,							
-,	i i i			1								
				31								<del></del>
				1								
				32								
,							1 : : :					
				33								
				34			::://			V		
		<b></b>					11/					
	10	0011		35			1//	CLAY (	JL) brown (1	0 YR 5/3) ve	ry stiff; satura	ited; 100%
0	19	S&H		20			V//	tines, si	ightly silty.			
		$\vdash$		36	H		1//	Pattern	of harine ac	E fact		
		<del>                                     </del>		37			14	bottom	of boring 36	.5 reet.		
		<del>  </del>		3	$\vdash \vdash$			3/13/92				
		<del>                                     </del>	POP - T	38				910132				
				1	$\vdash$					*		
	l	<del>                                     </del>		39	$\vdash\vdash\vdash$		1			***		
		i i			$\vdash$							
				40								
Remarks	:											
Remarks							Log of F	Poring				901

GeoStrategies Inc.

JOB NUMBER 780902

REVIEWED BY RG/CEG

DATE 3/92

REVISED DATE

		A	Total Depth of Boring	36.5	_ f
	H	В	Diameter of Boring Drilling Method Hollow Stem A	8 uger	_ i
		С	Top of Box Elevation  X Referenced to Mean Sea Level Referenced to Project Datum		
	<u> </u>	D	Casing Length Schedule 40 PV	35	_ f
F -		E	Casing Diameter		
		F	Depth to Top Perforations		
	<b>J</b>	G	Perforated Length Perforated Interval from 15 to Perforation Type Machine slo Perforation Size 0.02		
			Surface Seal from 0 to Seal Material Cement		
		1	Backfill from 1 to Backfill Material 11-Sack ceme	11 ent	_ f
	K	J	Seal from 11 to Seal Material Bentonite	13	- fi
- G	Ì	К	Gravel Pack from 13 to Pack Material Lonestar 2/12	35	ff
		L	Bottom Seal Seal Material	none	ft.
		M	Traffic-rated vault, locking cap and	d lock.	
	¥ 4 L ¥		-		
<b>←</b> B →		Not	:e: Depths measured from initial ground	surfac	ce.

JOS NUMBER 780902

REVIEWED BY REVCEG

3/92

REVISED DATE

Field loc	ation of i	ponng:						Project No.:		Date:	3/12/92	Boring No:
1								Client:		vice Station	#5760	U-8
		(5	See Plate	e 2)				Location:	376 Lewellin			L
								City:	San Lorenz		144 51	Sheet 1
								Logged by: Casing instal	TDL	Driller:	W. Hazmat	of 2
Drilling	mathod:	Hollow S	Ctom A	1001				Casing Instal	lation data:			
Hole dia	F	8 inch	Stem At	iger				Top of Box E	lovetina:		I Datum	
11010 010		O IIICIT	ī	1	ī	1	1 6		Adjustical distance of the latest section of	1755	Datum:	
_	Blows/ft.* or Pressure (psi)	20	2 5	3			Soil Group Symbol (USCS)	Water Level	10:30	17.5 Ft.		
PiO (mdd)	Sure	Type of Sample	Sample	Depth (ft.)	Sample	Well	200	Date	3/12	2:30 3/12	<del> </del>	
	Pres 9	- w	ωz.	٥	\ °	_	8 8	Cale	3/12	Description		<u> </u>
	<del>}</del>	1		1	1	1		Pavem	ent section 1.			
			-	1		1		raveiti	EIR SECUOIT 1.	.0 1001		
		<del>                                     </del>		1'	$\vdash$	1		SANDY	CLAY (CL)	very dark are	yish brown (*	10 VD 3/3)
		1		2		1			mp; 60% clay			10 11 3/2)
				1 -		1		3011, 00	p, 00 70 01G	7, 4070 11110 3	and,	
			1	3		1	V//	<del></del>				
		-		1		1		1				
				4		1	1//	1				
				1		1	1//					
				5		1	1/6					
		S&H		7		1		SAND	MITH SILT (S	W-SM) dark	brown (10 Yi	R 3/3) loose:
0	7			6		1		damp; 9	0% fine sand	1; 10% silt.		
				1		1						
				7			1:::1					
				1			· · · · · · · · · · · · · · · · · · ·					
				8		]	1:: 1:					
				]		}	:::					
				9			1: //					
						[	11/					
				10		1	1//					
		S&H				}	1//	SANDY	CLAY (CL)	dark gray (10	YR 4/1) stiff;	damp;
0	7			11				70% cla	y, 30% fine s	sand; mottled	d; rootholes.	
				١.,			1//					
				12		Į	1//					***
				١								
				13								
				١								
				14								
				1			V//					
		COLL		15			1//			^/		
0	12	S&H	U-8-	16	-		1//	Decreas	se sand to 10	%		
U	12			10								
			16.5	17			1//					
				1''	_	_						
	-			18		Ţ.	V//					
				1 '		·	1//			•		
				19			1//					
				1 "								
	-			20		$\nabla$						
Remarks:						-						
	* Conve	erted to e	eguivale	nt St	and	ard Pen	etration b	olows/ft				
entro to a soul e			Morraio	01	- IV		- COLONION L	TOTTO/IL.				

GSI

GeoStrategies Inc.

Log of Boring

ORING NO

**U-8** 

JOB NUMBER 780902 REVIEWED BY RG/CEG

DATE 3/92

REVISED DATE

Field loc	ation of t	oring:						Project No.:		Date:	3/12/92	Boring No:
		-	T 2200 MM					Client:	Unocal Sen		#5760	U-8
		(S	ee Plate	€ 2)				Location:	376 Lewellin			
								City:	San Lorenze			Sheet 2
								Logged by:	TDL	Driller:	W. Hazmat	of 2
D-10"		11-11 -						Casing install	ation data:			
Drilling I		Hollow S		iger				T- 15 =			75	
Hole dia		8 Inches						Top of Box E	evation:	<del>,</del>	Datum:	
	Blows/ft.* of Pressure (psi)	- 0		12		_	Soil Group Symbol (USCS)	Water Level		-	<del> </del>	
Op dig	or Sure	Type of Sample	Sample Number	Dapth (ft.)	Sample	Welf	85	Time	<del> </del>	-	-	
,	Press	F-33	Øž	8	N	- 3	SE	Date	<u> </u>	Description	}	<u> </u>
		S&H		+-			· · · · · ·	SAND /	SD) brown /		edium dense	· coturatod:
0	26	Jan		21	H				e sand, 20%			, saturateu,
		-		1				0070 1117	0 34114, 2070	mediam san		
		<del>                                     </del>		22								
				1			1: 1:					
				23	$\vdash$		1: ":					
				1	$\vdash$		[·····					
				24	$\vdash \vdash$		1. 1/					
				1			1//					
				25			11//					
		S&H		1			1///	CLAY (	CL) very dark	gray (10 YI	R 3/1) very st	iff;
0	24			26			Y///				ce firm sand.	
				1			Y///					
				27			Y///					
				]			1///					
				28			Y///					
							Y///					
				29			//1					
		0011		30			11					
		S&H		-				SILTWI	TH SAND (N	IL) dark gray	ish brown (10	) YR 4/2)
0	23	_		31					f; saturated;	75% silt; 25%	% tine sand,	
		_		-			HHH	modera	tely clay.			
				32								
				22	$\vdash$							
	-			33	$\vdash \vdash \vdash$			Dottom	of horing 24	E foot		
				34	$\vdash$			DOLLOW	of boring 31.	<u> अस्ति.</u>		
				1	$\vdash \dashv$			3/12/92				
				35	$\vdash \dashv$			91434				
		-		1 -	$\vdash$			· · · · · ·				
				36	$\vdash$							
				1 - 1	$\neg$							
				37								
				1	$\vdash$							
				38								
				1 1								
				39	$\neg$							
	1			1								
				40								
Remarks:												
CTC-1 (000000)				The second		-			MALE TOWN			

GSI

GeoStrategies inc.

Log of Boring

BORING NO

**U-8** 

780902

REVIEWED BY RIGICEG

DATE 3/92

REVISED DATE

M -> E	<u>c</u>	
	A Total Depth of Boring	31.5 ft
	H L B Diameter of Boring	8 ir
77770	B Diameter of Boring Drilling Method Hollow Stem A	uger "
	C Top of Box Elevation  X Referenced to Mean Sea Level	36.61
	Referenced to Project Datum	
	D. Casina Langth	20 4
	D Casing Length Schedule 40 PV	<u>~~</u> "
F	-	
	E Casing Diameter	i
	F Depth to Top Perforations	15 f
	G Perforated Length	15 ff
	G Perforated Length Perforated Interval from 15 to	30 f
	Perforation Type Machine slo	t
	Perforation Size 0.02	
	H Surface Seal from 0 to Seal Material Cement	
<b>Y</b>	Seal Material Cement	
<b>A</b>	I Backfill from 1 to	11 ft
	I Backfill from 1 to Backfill Material 11-Sack ceme	ent
	J Seal from 11 to	13 f
	J Seal from 11 to Seal Material Bentonite	
G		
ĭ	K Gravel Pack from 13 to Pack Material Lone Star, 2/12	2
	L Bottom Seal Seal Material	None ft
	M Traffic-rate vault, locking cap and	lock
	_	
	<u></u>	
<b>←</b> B →		
1	Note: Depths measured from initial ground	surface.
oStrategies Inc.	Well Construction Detail	,

JOB NUMBER 780902

REVIEWED BY RG/CEG

DATE 3/92

REVISED DATE

=	E	WELL	CONSTRUC	CTION D	ETAIL
İ	M	C			
		Α Α	Total Depth of Bori	ng	31.0 ft.
		T B	Diameter of Boring		8 in.
	2000	<del>\</del>	Diameter of Boring Drilling Method	Hollow Stem	Auger
		C	Top of Box Elevation  X Referenced to	n_ Mean Sea Level	37.88 ft.
			Referenced to	Project Datum	
-		1 0	Casing Length		28 ft
			Casing Length Material	Schedule 40 F	PVC
		E	Casing Diameter		
		F	Depth to Top Perfor	rations	13.0 ft.
-		G	Perforated Length		15.0 ft,
		<b>A</b>	Perforated Interval f	rom 13.0 to	28.0 ft.
	V-1 2-1	<u>.</u>	Perforated Length Perforated Interval f Perforation Type Perforation Size	Machine Sio	in
		A			
		Т	Surface Seal from_ Seal Material	0 to	1.5 ft.
			Seal Material	Concrete	
	A A MARIE TO A STATE OF THE STA	1	Backfill from	1.5 to	9.0 ft.
			Backfill from	Cement	
		J	Seal from Seal Material	9.0 to	11.0 π.
		Ķ			
	G G G G G G G G G G G G G G G G G G G	K	Gravel Pack from Pack Material	11.0 to	28.0 ft.
			Pack Material	Lonestar 2/12	2
		L	Bottom Seal	Sluff	31.0-29.0 ft
			Bottom SealSeal Material	Bentonite 29.0-28	3.0 ft.
		M	Water-resistant va	cap and lock.	raterproof
				oup uno took.	The state of the s
		  /			
		L			
-					
	<b>▼</b> B →				
		No	te: Depths measured	from initial ground	d surface.
		Well Co	nstruction Detail		WELL NO
GS	GeoStrategies Inc.				U-9
JOB NUMBER	REVIEWED BY ROJCES		DATE E/O2	REVISED DATE	REVISED DATE
780907	GR. 86 5577		5/93		

		(5	See Plat	e 2)				Client: Location:	UNOCAL Se 376 Lewellin	g Boulevard		U.							
								City:	San Lorenzo	, California		Sheet	_						
								Logged by: Casing install	ECF	Driller:	W. Hazmat	of	2						
Drilling	method:	Hollow	Stem A	uger	_														
lole dia	ameter:	8 inche				•		Top of Box E	levation:		Datum:		and the later						
	1. (180	1		1 -	Ι.	Ī	Sail Group Bymbol (USCS)	Water Level		14.5									
Old (wodd)	Blows/fl." or Pressure (psi)	Type of Semple	Semple	Depth (ft.)	Semple	Well	85	Time	09:30	17:45			_						
- 5	OF See	15.00	82	ő	S.	-0	S E	Date	5/25/93	5/25/93									
			-	+	<del> </del>	1	0.000	PAVEM	ENT SECTIO	Description			-						
		1	1	1		1			AND (SM) -			oose.							
									5% fine sand										
				2		]													
							1111												
		1		3	_	]	17.74												
	>200	Push	U-9	4			1	Donor d	ohrio ot 404				_						
	>200	Fusii	4.5	4	-	1			ebris at 4.0 ft. VITH SILT (S		t olive brown	12 5V F	5//						
			7.0	5		1		medium	dense, moist	: 90% med	ium sand. 10	% silt.	1						
			İ	1		İ	E (1)	medium dense, moist; 90% medium sand, 10% silt, trace gravel.											
				6															
				]			14.14												
				7		Į	[:::-	-											
				_			-	-	-	-	-		1						
				8			17												
				9					-										
-				3									-						
				10			1				SILT WIT	yish brown (1	10YR 4/	2)					
		S&H						stiff, moi	st; 80% silt, 2	0% fine san	d, trace coar	se sand	d;						
			U-9	11					plasticity.				_						
0	10		11.5				11   1   1												
				12					1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1										
				40															
				13		ı	[			****		·							
				14															
				17		-													
1				15		∇ ÷		Saturate	d at 15.0 ft.				_						
		S&H	U-9			Δ̈́-							_						
0.2	10		16.0	16															
				17	_		11 [ ] ]						_						
					_		$\ \cdot\ \cdot\ $												
-				18			[[]]扑												
				19			1												
-+		<del></del>		13	$\dashv$		<b> </b> ^					-	-						
-				20															
narks:			<u>'</u>																
	Comin	tod to o	o divalor	+ C+	nde	ard Don	etration b	aa lta											

GeoStrategies Inc.

Log of Boring

JOB NUMBER 780907	REVIEWED BY ROCCEG  CAR. PL 5514	DATE 5/93	REVISED DATE	REVISED DATE
760907	CAC RGSIPF	5/30		

1	Field lo	cation of	bonng:						Project No.:		, Date:	5/25/93	Boring	No:
1				C DI-	- 0)				Client:		ervice Static		ļυ	-9
٠			(3	See Plat	e 2)				Location:		ng Boulevar			
-									City: Logged by:	ECF ECF	o, California Driller:		Sheet	
Ì									Casing instal		Uniter:	W. Hazmat	of	5
+	Drilling	method:	Hollow	Stem A	LIGER				- Casing mistan	ation cata.				
		ameler:	8 Inche		ogu.				Top of Box E	levation:		Datum:	-	
t		_	1	Ī	T	ī	T	5	Water Level	1	1	T	i	
1	o ₽	Blows/ft.* or Pressure (psi)	5 8	9 %	Depth (ft.)	8	= 72	D S S	Time	1	1	+	<u> </u>	
1	Po (Frag	lows or	Type of Sample	Sample	T de	Sample	Well	D jog	Date		1			
1		n &			6			Soil Group Symbol (USCS)			Description	·		
Γ			S&H						SAND (	SP) - light oli	ve brown (2	.5Y 5/4); loos	е,	
				U-9	21				saturate	d; 80% coar.	se sand, 109	% fine sand, 5	% grav	rel.
	2.1	9		21.5									-	
			<u> </u>											
-			-	ļ	١			1, ,						
$\perp$			-		23	$\square$						<u>-</u>		
1		-	1		04									
-		<del> </del>		1	24	$\vdash \vdash$			CLAY	N \ limbs	loveigh harries	0 EV 0/4		
$\vdash$			<del> </del>		25	$\vdash\vdash\vdash$			CLATIC	d: OF Staley	E9/ ACCTOO	n (2.5Y 6/4); I sand ; mediui	naro,	Taria .
H		1	S&H	U-9	23			-ر-ر-ر:	Samale	u, 33 % ciay,	3% CUAISE	sano, mediui	n piasi	eny.
1	0.5	36	- Our -	26.0	26			1///						
1	0.0	-		20.0	-									
H		ļ			27			1//						•——
r					1			V//						
L					28			1//						
								Y///					-	
					29									
										ncy decreas	ing to very s	tiff at 30.0 ft.;	trace	
L	-		0011	-110	30				gravel.		·			
H	0	OC.	S&H	U-9	24	H						·		
H	-	26		31.0	31			///						
$\vdash$					32	$\dashv$		1						
-					32	$\dashv$		l 1	Bottom o	f boring at 3	104			
H					33	$\dashv$			5/25/93	i builing at 3	1,011.			
-	$\dashv$				00		8	l t	0/20/30					
_			-		34	$\overline{}$		F						_
_		i			35									-
					Ī					A				$\neg$
	Ī				36									
												***************************************		
					37									
					38									
_					39	_								
		1			40		1							
Da	marks;				40									
. 10	THEN NO.													- 1
P	. (25/0/25)								•					
28		200						Log of B	oring				BORIN	C NO

GSI

GeoStrategies Inc.

U-9

JOB NUMBER 780907 HEVIEWED BY ROUCEG

DATE 5/93

REVISED DATE

### Attachment C Well Destruction Permits



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/12/2015 By jamesy Permit Numbers: W2015-0201 to W2015-0207 Permits Valid from 03/30/2015 to 03/30/2015

Application Id: 1425670000266 City of Project Site:San Lorenzo

Site Location: 376 Lewelling Blvd, San Lorenzo, CA
Project Start Date: 03/30/2015

Completion Date:03/30/2015

Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

Applicant: Stantec - Sean Coyle Phone: 916-384-0740

3017 Kilgore Rd, Kancho Cordova, CA 95670

Property Owner: Ramash & Pramila Sood Trust Phone: 510-481-9260

7193 Fawn Hills Ln, Pleasanton, CA 94566

Client: Chevron Environmental Mgmt Co. Phone: 925-790-6912

6101 Bollinger Canyon Rd, San Ramon, CA 94583

Total Due: \$2779.00
Receipt Number: WR2015-0107 Total Amount Paid: \$2779.00

Payer Name : Stantec Paid By: CHECK PAID IN FULL

**Works Requesting Permits:** 

Well Destruction-Monitoring - 7 Wells

Driller: National Exploration & Wells - Lic #: 953646 - Method: other Work Total: \$2779.00

#### **Specifications**

Permit #	Issued Date	Expire Date	Owner Well Id	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2015- 0201	03/12/2015	06/28/2015	U-1R	8.00 in.	25.00 in.	7.00 ft	25.00 ft	3S/2W7F	W2007- 0634	749531
W2015- 0202	03/12/2015	06/28/2015	U-3R	8.00 in.	25.00 in.	7.00 ft	25.00 ft	3S/2W7F	W2007- 0635	749532
W2015- 0203	03/12/2015	06/28/2015	U-4	8.00 in.	25.00 in.	7.00 ft	25.00 ft	3S/2W7F	No Records	No Records
W2015- 0204	03/12/2015	06/28/2015	U-5	8.00 in.	25.00 in.	7.00 ft	25.00 ft	3S/2W7F	No Records	No Records
W2015- 0205	03/12/2015	06/28/2015	U-6	8.00 in.	25.00 in.	7.00 ft	25.00 ft	3S/2W7F	No Records	No Records
W2015- 0206	03/12/2015	06/28/2015	U-7	8.00 in.	25.00 in.	7.00 ft	25.00 ft	3S/2W7F	No Records	No Records
W2015- 0207	03/12/2015	06/28/2015	U2	8.00 in.	25.00 in.	7.00 ft	25.00 ft	3S/2W7F	No Records	No Records

#### **Specific Work Permit Conditions**

- 1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
- 2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.

- 3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or 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. Include permit number and site map.
- 4. Applicant shall submit the copies of the approved encroachment permit to this office within 10 days.
- 5. 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 and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.
- 6. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 7. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
- 8. Remove the Christy box or similar structure. Destroy wells U-5, U-6 and U-7 by overdrilling the upper 5ft. bgs & Tremie Grouting with Cement. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing.
- 9. Remove the Christy box or similar structure. Destroy all other wells by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) 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. After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.
- 10. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/12/2015 By jamesy

Permit Numbers: W2015-0208

Permits Valid from 03/16/2015 to 03/16/2015

City of Project Site:San Lorenzo Application Id: 1425580480838 Site Location:

369 Albion Avenue, San Lorenzo, CA **Project Start Date:** 03/16/2015 Completion Date: 03/16/2015

Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

**Applicant:** Stantec - Sean Coyle Phone: 916-384-0740

3017 Kilgore Rd, Rancho Cordova, CA 95670

**Property Owner:** Castagnetta Trust Phone: --22470 Foothill Bl, Hayward, CA 94541

Phone: 925-790-6912 Client: Chevron Envrtl Mamt Co.

6101 Bollinger Canyon Rd, San Ramon, CA 94583

\$397.00 **Total Due:** 

Receipt Number: WR2015-0108 Total Amount Paid: \$397.00 Payer Name: Stantec Consulting Services, Paid By: CHECK PAID IN FULL

#### **Works Requesting Permits:**

Well Destruction-Monitoring - 1 Wells

Driller: Nastional Exploration and Wells' - Lic #: 953646 - Method: other Work Total: \$397.00

#### **Specifications**

Permit #	Issued Date	Expire Date	Owner Well	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2015- 0208	03/12/2015	06/14/2015	U8	8.00 in.	2.00 in.	1.00 ft	31.50 ft	3S/2W7F	No Records	No Records

#### **Specific Work Permit Conditions**

- 1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
- 2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
- 3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or 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. Include permit number and site map.
- 4. 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 and liability in connection with or resulting from the exercise of this Permit including, but not limited to, property damage, personal injury and wrongful death.

- 5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
- 7. Remove the Christy box or similar structure.

Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) 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.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.



399 Elmhurst Street Hayward, CA 94544-1395 Telephone: (510)670-6633 Fax:(510)782-1939

Application Approved on: 03/12/2015 By jamesy

Permit Numbers: W2015-0209

Permits Valid from 03/16/2015 to 03/16/2015

City of Project Site:San Lorenzo Application Id: 1425581422255

Site Location: 439-467 Albion Avenue, San Lorenzo, CA **Project Start Date:** 03/16/2015 Completion Date: 03/16/2015

Assigned Inspector: Contact Steve Miller at (510) 670-5517 or stevem@acpwa.org

**Applicant:** Stantec - Sean Coyle Phone: 916-384-0740

3017 Kilgore Rd, Rancho Cordova, CA 95670

**Property Owner:** David Reimen Phone: --41 Kensington Ct, Kensington, CA 94707

Client: Chevron Envrtl Mamt Co. Phone: 925-790-6912

6101 Bolinger Canyon Rd, San Ramon, CA 94583

Total Due: \$397.00

Receipt Number: WR2015-0109 Total Amount Paid: **\$**397 በበ

**PAID IN FULL** Payer Name: Stantec Paid By: CHECK

#### **Works Requesting Permits:**

Well Destruction-Monitoring - 1 Wells

Driller: National Exploration and Wells - Lic #: 953646 - Method: other Work Total: \$397.00

#### Specifications

Permit #		Expire Date	Owner Well	Hole Diam.	Casing Diam.	Seal Depth	Max. Depth	State Well #	Orig. Permit #	DWR #
W2015-	03/12/2015	06/14/2015	U9	8.00 in.	2.00 in.	1.50 ft	31.00 ft	3S/2W7F17	93254	579444

#### **Specific Work Permit Conditions**

- 1. Drilling Permit(s) can be voided/ cancelled only in writing. It is the applicant's responsibility to notify Alameda County Public Works Agency, Water Resources Section in writing for an extension or to cancel the drilling permit application. No drilling permit application(s) shall be extended beyond ninety (90) days from the original start date. Applicants may not cancel a drilling permit application after the completion date of the permit issued has passed.
- 2. Prior to any drilling activities, it shall be the applicant's responsibility to contact and coordinate an Underground Service Alert (USA), obtain encroachment permit(s), excavation permit(s) or any other permits or agreements required for that Federal, State, County or City, and follow all City or County Ordinances. No work shall begin until all the permits and requirements have been approved or obtained. It shall also be the applicants responsibilities to provide to the Cities or to Alameda County an Traffic Safety Plan for any lane closures or detours planned. No work shall begin until all the permits and requirements have been approved or obtained.
- 3. Compliance with the well-sealing specifications shall not exempt the well-sealing contractor from complying with appropriate State reporting-requirements related to well construction or 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. Include permit number and site map.
- 4. 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 and liability in connection with or resulting from the exercise of this Permit including, but not limited to,

property damage, personal injury and wrongful death.

- 5. Applicant shall contact assigned inspector listed on the top of the permit at least five (5) working days prior to starting, once the permit has been approved. Confirm the scheduled date(s) at least 24 hours prior to drilling.
- 6. Permittee, permittee's contractors, consultants or agents shall be responsible to assure that all material or waters generated during drilling, boring destruction, and/or other activities associated with this Permit will be safely handled, properly managed, and disposed of according to all applicable federal, state, and local statutes regulating such. In no case shall these materials and/or waters be allowed to enter, or potentially enter, on or off-site storm sewers, dry wells, or waterways or be allowed to move off the property where work is being completed.
- 7. Remove the Christy box or similar structure.

Destroy well by grouting neat cement with a tremie pipe or pressure grouting (25 psi for 5min.) to the bottom of the well and by filling with neat cement to three (3-5) 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.

After the seal has set, backfill the remaining hole with concrete or compacted material to match existing conditions.

8. Copy of approved drilling permit must be on site at all times. Failure to present or show proof of the approved permit application on site shall result in a fine of \$500.00.