

JRAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
1000 S. Hill Rd, Suite 116 Ventura, CA 93003-4458
Phone: (805) 654-4761 Fax: (805) 654-4765

No. T 216-0270

REPORT ON OPERATIONS

GAS STORAGE PROJECT
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Amy Kitson
Southern California Gas Company (S4700)
12801 Tampa Ave., SC9382
Northridge, CA 91326

Ventura, California
July 20, 2016

Your operations at well "**Standard Sesnon**" 6, A.P.I. No. **037-00759**, Sec. **28**, T. **03N**, R. **16W**, **SB B.&M.**, **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **7/8/2016**, by **Jay N. Huff**, a representative of the supervisor.

The operations were performed for the purpose of **determining casing integrity**.

DECISION:

APPROVED

JNH/TKC

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By 
Patricia A. Abel, District Deputy

KG711.

State of California
Department of Conservation
Division of Oil, Gas, and Geothermal Resources

No. T 216-0270
#16, 1

**INTERNAL MECHANICAL INTEGRITY TEST (MIT)
(Standard Annulus Pressure Test-SAPT)**

Operator: SoCal Gas				Well: Standard Sesnon 6	
Sec. 28	T. 3N	R. 16W	B.&M. SB	API No.:037-00759	Field: Aliso Canyon
County: Los Angeles				Witnessed/Reviewed on: 7/8/2016	
Jay Huff, representative of the supervisor, was present from 650 to 800.					
Also present were: Mike Giuliani					
Casing record of the well: 13-3/8" 54.5# J55 @ 1000'. Cemented to surface. 9-5/8" 40/43.5# J55/N80/J55. Cemented to 2,747'. 7" 23/26/29# J55/N80 @ 8,444. Cemented to 6,910' 5" 18# J55 Liner 8286' - 9,207'. 2-7/8" tubing with production packer at 8,422' and plug set at 8,199'. Sliding sleeve in open position at 8,164'.					
The Internal MIT was performed for the purpose of pressure testing the 7" casing above Packer at 8,422' (2) (prior to injecting fluid). Tubing was also tested with a tubing plug set at 8,199'.					
<input checked="" type="checkbox"/> The Internal MIT is approved since it indicates that the 7" casing has mechanical integrity above 8,422' at this time.					
<input type="checkbox"/> The Internal MIT is not approved due to the following reasons: (specify)					
INDICATE WHERE PACKER WAS SET AND HOW LONG PRESSURE WAS HELD ALONG WITH ANY BLEEDOFF DATA.					
Pressure testing of Production casing, packer, and tubing plug with 8.5 ppg polymer fluid. Well is to be idled. Pressure Test 1. P1=572 psi @ 6:56. P2=571 psi @ 7:56.					

From: Huff, Jay@DOC
Sent: Monday, July 11, 2016 8:19 AM
To: DOGGR Dist2@DOC
Subject: FW: SAPT Field Forms for Well Files
Attachments: SAPT 037-00759.docx

From: Huff, Jay@DOC
Sent: Friday, July 8, 2016 1:08 PM
To: Huff, Jay@DOC <Jay.N.Huff@conservation.ca.gov>
Subject: SAPT Field Forms for Well Files

SAPT Field Forms for Well Files:
SS13-Sent in other email (037-00765).
SS6

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST-RECORDS RECEIVED AND WELL STATUS

Operator: Southern California Gas Company WELL DESIGNATION "Standard Sesnon" 6

API No. 03700759 SE 28 T: 3N R.: 16W , SB B. and M.

County: Los Angeles FIELD: Aliso Canyon

Type of Notice: Rework Date 7/3/2016 Report Number: P216-0116

RECORDS RECEIVED (ATTACH PAGES IF REQUIRED)

NEW STATUS

	Date	OK	NEED	Remarks
Well Summary (OG100)				
History (OG103)				
E-Log				
Mud Log				
Dipmeter				
Directional				
Core and/or SWS				
<i>Press Test</i>	<i>7/8/16</i>	<i>✓</i>	<i>✓</i>	<i>Need recording of P. test</i>

DATE: _____

NOTICE OF RECORDS DUE

DATE: _____

DATE: _____

DATE: _____

DATE: _____

WELL STATUS INQUIRY

DATE: _____

DATE: _____

Well Stat

Change Required: _____

Change Done: _____

ABANDONMENTS/REABANDONMENTS/DRILLS/REDRILLS

CalWims Abandonment Form: _____ SURFACE INSPECTION NEEDED _____ COMPLETED _____

Date and Inspector

FINAL LETTER NEEDED _____ COMPLETED _____ Calwims DRILL/REDRILL Form _____

(Date)

ENGINEER'S CHECK LIST

T-REPORT(S) ✓ OPERATOR'S NAME ✓ WELL DESIGNATION ✓ SIGNATURE ✓

Calwims Location ✓ Calwims ELEVATION: _____ CONFIDENTIAL RELEASE DATE: _____ PERMIT REQUIREMENTS MET _____

CLERICAL CHECK LIST

LOCATION CHANGE (OG165) _____ ELEVATION CHANGE (OG165) _____ RELEASE OF BOND (OG150) _____

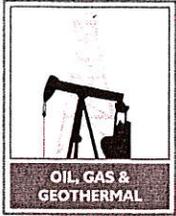
REMARKS

RECORDS SCANNED: _____

(Date)

RECORDS APPROVED: _____

(Date and Engineer)



JRAL RESOURCES AGENCY OF CALIFORNIA
 DEPARTMENT OF CONSERVATION
 DIVISION OF OIL, GAS & GEOTHERMAL RESOURCES
 1000 S. Hill Rd, Suite 116 Ventura, CA 93003 - 4458

No. **P 216-0116**

PERMIT TO CONDUCT WELL OPERATIONS

Old	New
010	010
FIELD CODE	
00	00
AREA CODE	
30	30
POOL CODE	

Gas Storage
 Plugback and Suspend for One Year
 "Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Ventura, California
 July 08, 2016

Amy Kitson, Agent
 Southern California Gas Company (S4700)
 12801 Tampa Ave., SC9382
 Northridge, CA 91326

Your proposal to **Rework** well "**Standard Sesnon**" 6, A.P.I. No. **037-00759**, Section **28**, T. **03N**, R. **16W**, **SB B. & M.**, **Aliso Canyon** field, **Any** area, **Sesnon-Frew** pool, **Los Angeles** County, dated **7/3/2016**, received **7/5/2016** has been examined in conjunction with records filed in this office. (Lat: **34.314057** Long: **-118.570080** Datum:**83**)

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. M07, shall be installed and maintained in operating condition and meet the following minimum requirements:
 - a. **Class I Note: work to be completed without the removal of the injection assembly.**
2. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. A pressure test is conducted to demonstrate the mechanical integrity of the **7"** casing.
4. This well is to be taken out of service and isolated from the storage reservoir. The well shall be re-evaluated or abandoned within 1 year of the completion of the pressure testing pursuant to Order #1109 and its amendments.
5. In all other respects, the provisions of Division Order #1109 and its amendments shall remain in effect.
6. This office shall be contacted by phone prior to making any program changes and no changes are made without Division approval.
7. **THIS DIVISION SHALL BE NOTIFIED TO:**
 - a. Witness a pressure test of the **7"** casing and tubing plug. The minimum pressure shall be 500 psi.

Continued on Next Page

Blanket Bond Dated: 7/6/1999
 UIC Project No. 0100006

Engineer Kris Gustafson
 Office (805) 654-4761

KG/kg

Kenneth A. Harris Jr.
 State Oil and Gas Supervisor

By 
 Patricia A. Abel, District Deputy

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended. Issuance of this permit does not affect the Operator's responsibility to comply with other applicable state, federal, and local laws, regulations, and ordinances.

Page 2

Well #: "Standard Sesnon" 6

API #: 037-00759

Permit : P 216-0116

Date: July 08, 2016

NOTE:

1. The base of the freshwater zone is at 800'±.
2. No operation shall be undertaken or continued that will contaminate or otherwise damage the environment.
3. This permit is being issued as part of Division Order No. 1109 dated March 4, 2016. Any well that fails any of the testing must be taken out of service and isolated from the storage reservoir pursuant to the Safety Review Testing Regime.
4. The required History of Oil or Gas Well (OG103) shall include a complete description of the required pressure testing. **An updated casing and tubing diagram shall be included with the well history.**
5. **A Well Summary Report (Form OG 100)** and **Well History (Form OG 103)** shall to be submitted to the Division within 60 days after the well is drilled, reworked, plugged and abandoned, or if the work is suspended. Any additional well work will require an additional notice to be submitted to this office prior to resuming well operations.

Enclosure: Attachment 1 to DOGGR Order 1109. Safety Review Testing Regime for the Aliso Canyon Natural Gas Storage Facility

**ATTACHMENT 1
TO DOGGR ORDER 1109**

**SAFETY REVIEW TESTING REGIME
FOR THE ALISO CANYON NATURAL GAS STORAGE FACILITY**

This document identifies the requirements of this comprehensive safety review that shall be completed by the Southern California Gas Company (Operator) and verified by the Department of Conservation, Division of Oil, Gas, and Geothermal Resources (Division). The Operator shall use accepted industry practices and procedures.

The Division has consulted with independent technical experts from the Lawrence Berkeley, Lawrence Livermore, and Sandia National Laboratories ("National Laboratories") to develop the requirements of this facility safety review. The National Laboratories experts independently reviewed and concurred with the testing requirements for the safety review detailed below.

This comprehensive safety review requires that each of the active injection wells in the Aliso Canyon Storage facility either pass a thorough battery of tests in order to resume gas injection or be taken out of operation and isolated from the underground gas storage reservoir. Several steps, detailed below, are required in this safety review. Documentation of all testing required under this comprehensive safety review shall be provided electronically to the Division within 72 hours of completion of a test in digital (i.e. LAS) and printed (i.e. pdf) form. All pressure tests required under this comprehensive safety review shall be witnessed by Division staff. A well that is properly plugged and abandoned in accordance with Public Resources Code section 3208 is not subject to testing under this comprehensive safety review. A well that does not pass all tests must be repaired, retested, and pass all tests, or be plug and abandoned.

REQUIRED TESTS FOR EACH WELL IN THE FACILITY

Step 1: The Operator shall perform an initial casing assessment on the well consisting of temperature and noise logs.

a. Temperature Log:

A temperature survey shall be run from the surface to the packer to measure the temperature within the wellbore. A temperature survey that demonstrates no unexplained anomalous temperature changes in the well is one indication of casing integrity.

b. Noise Log:

An acoustic sensor survey capable of detecting the sound of fluid flow will be conducted the length of the well above the packer to the surface. The survey will include stops at least every 250 feet and at the midpoint of any anomaly detected by the temperature survey. The absence of anomalous sound above the packer is an indication of well integrity

Step 2: The results of the Temperature Logs and Noise Logs will be independently reviewed by Division engineers. Any unexplained abnormal findings in this set of tests shall be addressed by the Operator in one of the following ways:

- a. Conduct further investigation and demonstrate to the Division's satisfaction that the abnormal finding is not an indicator of a lack mechanical integrity;
- b. Remediate the well to the Division's satisfaction; or
- c. With Division review and approval, remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

Necessary actions to remediate any abnormalities revealed by these tests will be reviewed by Division engineers. Once repairs or mitigations are completed, the Temperature Log and Noise Log must then be repeated on the well and reviewed by Division engineers to ensure that there are no additional abnormal test results and to confirm the issue was repaired.

Step 3: After these tests are completed on the well, and all required action has been completed, the operator shall either:

- a. Conduct the additional tests and evaluations on the well, outlined in Steps 4a through 7a below, in order to gain approval for injecting gas through that well; or
- b. Remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

REQUIRED TESTS IF A WELL IS INTENDED TO RESUME OPERATIONS

If Temperature and Noise Logs have been completed on a well and they indicate well integrity, and the Operator designates the well to return to injection operations, then the Operator shall perform the additional testing outlined in Steps 4a through 7a. The results of these tests will be independently reviewed by Division engineers and posted publicly. Each of the following tests requires that the production tubing be removed from the well.

Step 4a: The Operator shall conduct a **Casing Inspection log**.

The Operator shall conduct a Casing Inspection log of the well that measures the thickness of the production casing, from the surface to the bottom of the gas storage reservoir cap rock. If the inspection reveals a reduction in wall thickness, the current minimum strength of the casing will be calculated. If the current minimum strength of the casing has diminished to the point that it cannot withstand authorized operating pressures for the well plus a built-in additional safety factor of pressure, the well has failed this test. *A passing test for a casing inspection log would show no thinning of the casing that diminishes the casing's ability to contain at least 115% of the well's maximum allowable operating pressure as authorized in the current Project Approval Letter.*

Step 5a: The Operator shall conduct a **Cement Bond Log** for the well.

The Operator shall conduct a Cement Bond Log (CBL) that measures the bonding between cement and the production casing of the well, and also the bonding between the annular cement and the formation. Cement should be solidly bonded to both the well's production casing and the geologic formation to ensure a seal that prevents fluids from migrating up or down the outside of the well. *A passing test for a cement bond log shows definitive bond, as demonstrated by sonic waveform,*

between cement and casing and between cement and the gas storage formation and/or cap rock for at least 100 feet above the top of the gas storage reservoir.

Step 6a: The Operator shall conduct a **Multi-Arm Caliper Inspection** of the well.

The operator shall conduct an inspection that measures any internal degradation or significant changes to the well's geometry from the surface to the top of the gas storage reservoir, using a minimum 32-arm caliper tool. If the inspection reveals a thinning or deformity of the casing, the current strength of the casing will be calculated. If the current strength of the casing has diminished, such that it cannot withstand authorized operating pressures plus a built-in safety factor of additional pressure, the well fails this inspection. *A passing test for a Multi-Arm Caliper Inspection would show no deformation or thinning of the casing that diminishes the casing from being able to properly contain at least 115% of each well's maximum operating pressure.*

Step 7a: The Operator will conduct a **Pressure Test** of the production casing and of the well once the production tubing has been reinstalled. The Operator may conduct the casing pressure test prior to reinstalling the production tubing. Using a digital recorder, the operator will conduct a liquid-filled positive pressure test within the production tubing of the well, and in the annular space between the production tubing and the casing, to determine the well's ability to withstand normal operating pressures. The production tubing will be isolated and then pressure tested. The annular space between tubing and casing will be pressure tested. This testing also evaluates the integrity of any packers, which seal the annular space between the tubing and casing. The pressure test will be one hour and begin at a pressure of 115% of the maximum operating pressure or the minimum yield strength of the casing and tubing, whichever is less. *A passing pressure test is a pressure loss not exceeding 10% for any 30 minute period during the hour long test.*

After conducting the above tests, the Operator will conduct any indicated remediation so that the well can pass these tests. All remediation will be subject to the review of Division engineers. The well would then be required to undergo the tests once again to demonstrate well integrity.

If the well passes the Casing Wall Thickness Inspection, the Cement Bond Log, the Multi-Arm Caliper inspection and the Pressure Test to the Division's satisfaction, then the Division may clear the well for use for gas injections and withdrawal, once the Division has authorized resumption of injection into the gas storage reservoir. As noted below, wells approved for operation will only be permitted to inject or withdraw gas through the production tubing.

REQUIRED ACTIONS IF THE WELL IS TO BE TAKEN OUT OF OPERATION AND ISOLATED FROM THE GAS STORAGE RESERVOIR:

If the operator elects to take a well out of service, then the following steps shall be taken to isolate the well from the gas storage reservoir:

Step 4b: The Operator shall confirm the presence of cement outside the well's external casing in the section of the well that prevents the movement of gas from the underground gas storage reservoir to shallower geologic zones above the gas storage reservoir. Existing cement bond logs and well construction

records may be used to make this confirmation. This confirmation requires concurrence from Division engineers.

Step 5b: The Operator shall install a mechanical seal or “packer” within the well’s production casing and install a mechanical plug within the well’s production tubing, if applicable. These seals shall be set in place near the bottom of the well, within the portion of the well surrounded by cement. This kind of seal is an industry standard practice for isolating a well from reservoir gases or fluids and will further protect the casing from internal gas pressure.

Step 6b: The Operator shall fill the well with fluid to the well’s surface in order to create appropriate downward hydrostatic pressure in the well that further contributes to the integrity of the well seal.

These measures will isolate a well from the underground gas reservoir, as confirmed by National Laboratory experts. Each of the above actions is subject to review and approval by Division Engineers.

Step 7b: Once the Operator has completed steps 4b, 5b, and 6b, and the seal is in place at the bottom of the well and the well is filled with fluid above the seal, the operator shall:

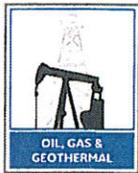
- a. Conduct daily gas monitoring at the surface of the non-operational well, including monitoring the area around the well perimeter and in the annular space between the plugged casing string and the outmost casing;
- b. Conduct noise log, temperature log and positive pressure test every six months;
- c. Conduct weekly monitoring of fluid levels in the well or, install and operate real-time pressure monitors that provide immediate notification to the operator when pressures deviate from normal in the well’s interior tubing and its annular space.

The above monitoring shall be reported to Division engineers and maintained as a part of the well file. Division engineers will review all submitted information for evaluation on a regular basis to ensure that the well taken out of service has maintained safety, and the operator shall take all necessary steps maintain the safety of the well.

Any well taken out of operation cannot be approved to resume operations and gas injection until the successful completion of the battery of tests outlined above in Steps 4a through 7a (Casing Wall Thickness Inspection, the Cement Bond Log, the Multi-Arm Caliper Extension and the Pressure Test) is completed. Those tests must be successfully completed within one year of completing step 6b. If a well cannot successfully complete all necessary steps required in this safety review after one year of completing step 6b, then the well shall be properly plugged and abandoned in accordance with Public Resources Code section 3208.

REQUIREMENTS FOR WELLS RESUMING OPERATIONS IN ALISO CANYON

The Division’s authorization to resume injection in the Aliso Canyon Storage Facility will be contingent on the successful completion of this comprehensive safety review. The State Oil and Gas Supervisor must confirm in writing that all wells in the facility have either completed and passed the full battery of tests required in the safety review, been taken out of service and isolated from the underground gas storage reservoir, or been properly plugged and abandoned in accordance with Public Resources Code Section 3208.



NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY		
Bond	Forms	
	OGD114	OGD121
	CALV WIMS	115V

2016-0416

NOTICE OF INTENTION TO REWORK / REDRILL WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog/

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework / redrill well Standard Seson 6, API No. 037-00759,
(Check one)

Sec. 28, T. 3N, R. 16W, S.B. B.&M., Aliso Canyon Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)

See attached wellbore schematic

The total depth is: 9207 feet. The effective depth is: 9200 feet.
Present completion zone(s): Seson (Name) Anticipated completion zone(s): Same (Name)
Present zone pressure: storage psi. Anticipated/existing new zone pressure: storage psi.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes No

For redrilling or deepening only, is a California Environmental Quality Act (CEQA) document required by a local agency? Yes No If yes, see next page.

The proposed work is as follows: (A complete program is preferred and may be attached.)

The SCGC plans to take this well out of operation and isolate from the gas storage reservoir as per the First Amended Safety Review Testing Regime: Steps 4b-7b.

4b - ETOC at 6910' as per attached wellbore mechanical.

5b - Packer set at 8422'. Plug set in No-Go at 8199' and SSD at 8164' opened on 6/10/16.

6b - Circulated 8.5 ppg kill fluid down tbg. through SSD at 8164' and back to surface to completely fill well on 6/14/2016.

7b - With casing valve closed, pressure-up on tubing to 1000 psi. for 1 hour (will test csg., packer and tubing plug all at same time).

If well is to be redrilled or deepened, show proposed coordinates (from surface location) and true vertical depth

at total depth: _____ feet and _____ feet Estimated true vertical depth: _____
(Direction) (Direction)

Will the Field and/or Area change? Yes No If yes, specify New Field: _____ New Area: _____

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator Southern California Gas Company		
Address P. O. Box 2300	City/State Chatsworth	Zip Code 91313-2300
Name of Person Filing Notice Mike Giuliani	Telephone Number: (805) 290-2074	Signature Date 7/3/16
Individual to contact for technical questions: Mike Giuliani	Telephone Number: (805) 290-2074	E-Mail Address: mike.giuliani@interactprojects.com

This notice and an indemnity or cash bond must be filed, and approval given, before the workover begins. (See the reverse side for bonding information.) If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

INFORMATION FOR COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT OF 1970 (CEQA)

If an environmental document has been prepared by the lead agency, submit a copy of the *Notice of Determination* or *Notice of Exemption* with this notice. Please note that a CEQA determination by a local jurisdiction, if required, must be complete, or the Division may not issue a permit.

CRITICAL WELL DEFINITION

As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

- (1) 300 feet of the following:
 - (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
 - (B) Any airport runway.
- (2) 100 feet of the following:
 - (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
 - (B) Any navigable body of water or watercourse perennially covered by water;
 - (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
 - (D) Any officially recognized wildlife preserve.

WELL OPERATIONS REQUIRING BONDING

1. Drilling, redrilling, or deepening any well.
2. Milling out or removing a casing or liner.
3. Running and cementing casing or tubing.
4. Running and cementing liners and inner liners.
5. Perforating casing in a previously unperforated interval for production, injection, testing, observation, or cementing purposes.
6. Drilling out any type of permanent plug.
7. Reentering an abandoned well having no bond.

This form may be printed from the DOGGR website at www.conservation.ca.gov/dog/

Well Standard Sesnon 6 RD

API #: 04-037-00759-01
Sec 28, T3N, R16W

Operator: So. California Gas Co.

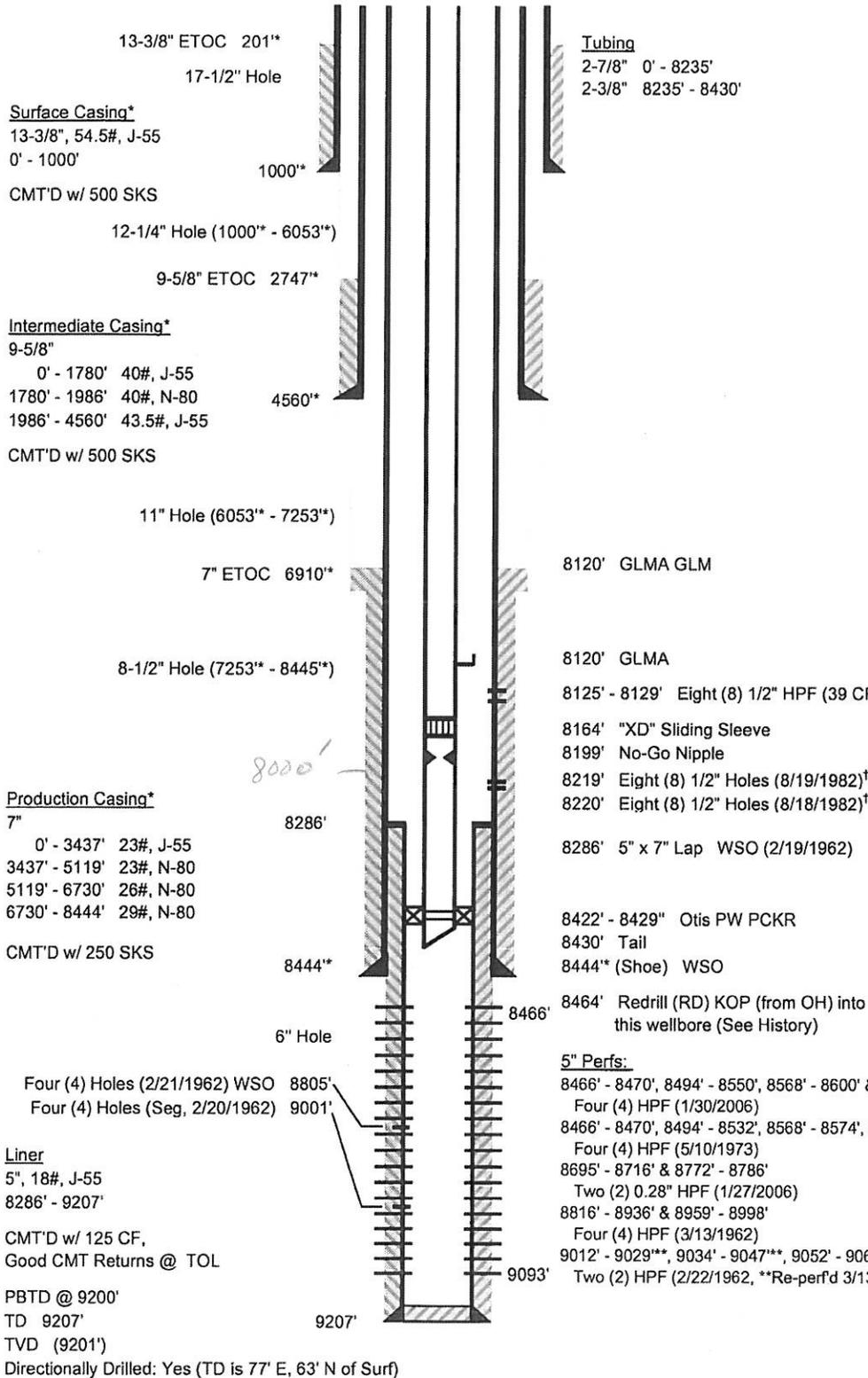
Lease: Standard Sesnon
Field: Aliso Canyon
Status: Active Gas Storage
BFW:
USDW:

Ground Elevation: 2684.22' asl
Datum to Ground: 11.5' KB
*OH Datum to Ground: 6.92' DF
Spud Date: 6/6/1945
Redrill (RD) Kick-off Date: 1/24/1962
Completion Date: 3/15/1962

Junk: None

Wellbore History	
Orig. Hole (OH) TD @ 8720*	
(See Standard Sesnon 6 OH)	
RD KOP @ 8464'	
TD @ 9207'	

Notes	
†50 SKS CMT SQZ'D (8/20/1982)	
13-3/8", 9-5/8", & 7" CSG depths relative to OH datum*	



Top of Zone Markers md (tvd)		
A36	5411'	(5411')
UP	5741'	(5741')
LP	6205'	(6205')
UDA1	6535'	(6535')
MDA	7348'	(7348')
LDA	7600'	(7600')
MP	8146'	(8146')
S1	8376'	(8376')
S4	8451'	(8451')
S8	8564'	(8563')
FREW	8829'	(8826')

Prepared by: MAM (7/3/2016)

InterAct

Rec'd 07-05-16 DOGGR Ventura.

Casing Pressure Test Safety Check (1000 psi)

Well	Packer Depth MD/TVD	Casing Size/Grade/Weight	Depth MD	Burst PSI	85% of Burst PSI	Pressure at Depth w/1000 psi Surface Pressure	Press < 85% of Burst
Ward 3A	7231'/7106'	8-5/8", 36#, N-80	4592	6490	5517	3030	Yes
		8-5/8", 40#, N-80	7231	7300	6205	4196	Yes
Standard Sesnon 9	8544'/8544'	7", 23#, N-80	3777	4360	3706	2669	Yes
		7", 23#, N-80	5463	6340	5389	3415	Yes
		7", 26#, N-80	7093	7240	6154	4135	Yes
		7", 29#, N-80	8544	8160	6936	4776	Yes
Standard Sesnon 13	8880'/8880'	7", 23#, J-55	3834	4360	3706	2695	Yes
		7", 23#, N-80	5707	6340	5389	3522	Yes
		7", 26#, N-80	7439	7240	6154	4288	Yes
		7", 29#, N-80	8880	8160	6936	4925	Yes
Standard Sesnon 6	8422'/8422'	7", 23#, J-55	3437	4360	3706	2519	Yes
		7", 23#, N-80	5119	6340	5389	3263	Yes
		7", 26#, N-80	6730	7240	6154	3975	Yes
		7", 29#, N-80	8422	8160	6936	4723	Yes
Porter 45	7320'/7318'	7", 23#, J-55	4667	4360	3706	3063	Yes
		7", 23#, N-80	6707	6340	5389	3964	Yes
		7", 26#, N-80	7320	7240	6154	4235	Yes
Porter 37	7434'/7434'	7", 23#, J-55	3531	4360	3706	2561	Yes
		7", 23#, N-80	5229	6340	5389	3311	Yes
		7", 26#, N-80	6830	7240	6154	4019	Yes
		7", 29#, N-80	7434	8160	6936	4286	Yes

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company

Field: Aliso Canyon

County: Los Angeles

Well: Standard Sesnon 6

Surface Location: Sec. 28, T3N, R16W

A.P.I. No. 03700759

Todd Van de Putte

Title: Senior Storage Field...

(President, Secretary, or Agent)

Date: 10/30/2012

Signature:

(Person Submitting Report)

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Telephone Number: 818-701-3339

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, and initial production data.

Start Date	Ops. DOGGR Rpt.
7/26/2012	Opened the well with 450 psig surface pressure on the casing 200 psig on the tubing. Bled down the pressure from the well and filled the well with 4 bbl 3% KCl brine. Installed the back pressure plug. Nipped down the production tree (Wellhead bolts were gauged and cut the bolts). Nipped up the Class III 5M BOPE and started the BOPE test. The check valve was bad. Secured the well.
7/27/2012	Continued testing the Class III 5M BOPE. Tested the blind rams to 300 psig (low) and 5000 psig (high) for twenty minutes. Tested the pipe rams to 300 psig (low) and 5000 psig (high) for twenty minutes. Tested Hydril Annular preventer to 300 psig (low) and 3500 psig (high) for twenty minutes. Tested the choke manifold and all the control valves to 300 psig (low) and 5000 psig (high) for twenty minutes (All tests good). Opened the well with 0 psig surface pressure on the tubing and the casing. The well was standing full of brine. Backed out the hold down studs and unlanded the 2-7/8" tubing (The tubing parted at 48,000lb). Pulled out of the well and found the 2-7/8" tubing pulled out of a washed out tubing collar at joint number 54. Ran in the well and layed down 54 joints of 2-7/8" tubing. Secured the well.
7/30/2012	Opened the well with 0 psig surface pressure on the tubing and the casing. The well was standing full of KCl brine. Made up an over shot, measured and picked up (54) jts of 2-7/8" tubing and engaged the fish. Spaced out the tubing and pulled 10,000lb over string weight(65,000lb). Rigged up the Western wire line unit and associated equipment. Made up a 2-1/8" chemical cutter, ran in the well, correlated and cut the 2-7/8" tubing at 8130'. Rigged down the Western wire line unit and associated equipment. Pulled out of the well and laid down the 2-7/8" tubing to 3300'. Secured the well.
7/31/2012	Pulled out of the well and laid down the remaining 2-7/8" tubing string. Laid down the cut off joint of 2-7/8" tubing. Made up a 5-3/4" over shot and a bumper sub. Rigged up pick up line, measured and picked up 2-7/8" tubing to 3900'. The Ensign rig was shut down for repairs.
8/2/2012	Measured and picked up 2-7/8" tubing to 8151', spaced out the tubing and engaged the fish. Rigged up the Western wire line unit and associated equipment. Made up the wireline plug retrieval tools, ran in the well and pulled the prong. Made up a GS pulling tool, ran in the well and attempted to pull the plug. The plug body sheared off and pulled out of the well. Secured the rig and the well.
8/3/2012	Rigged up to the Gas Co. kill line, injected gas and flowed 45 bbl out of the well. Bled down the gas from the well and rigged up the Western wire line unit. Made up a GS pulling tool, ran in the well and pulled plug body. Rigged down and moved out the Western wire line unit. Rigged up and pumped 40 bbls hi vis polymer and circulated the well with 220 bbl. of 3% KCl brine. Released from the packer at 8400' pulling over string weight. Worked out of the liner and pulled to a kill string at 3200'. Secured the well.
8/6/2012	Opened the well with 0 psig surface pressure on the tubing and the casing. Filled the well with 50 bbl of 3% KCl brine. Pulled out of the well and laid down the cut off, Camco safety system, (6) joints of 2-3/8" tubing and packer seals. Made up a 7" casing scraper and bumper sub on 2-7/8" tubing. Ran in the well to the liner top at 8294'. Pulled out of the well and laid down the casing scraper. Made up a 5" casing scraper, (6) joints 2-3/8" tubing and a bumper sub. Ran in the well to 3400'. Secured the well.
8/7/2012	Filled the well with 27 bbl of 3% KCl brine. Ran in the well with a 5" scraper and tagged the packer @ 8429'. Pulled out of the well and laid down the 5" casing scraper. Ran in the well to 3400' and secured the well.
8/8/2012	Filled the well with 37 bbl of 3% KCl brine. Pulled out of the well with the kill string. Rigged up the Schlumberger wire line unit with a full lubricator. Made up the USIT/Neutron tools, ran in the well and logged from 8429' to the surface. Rigged down the Schlumberger wire line unit. Ran in the well with a kill string to 3300' and secured the well.
8/9/2012	Opened the well and filled the well with 34 bbl of 3% KCl brine. Pulled out of the well with the kill string. Made up a 5" retrieveable bridge plug on 2-7/8" tubing, ran in the well to 8414' and set the bridge plug. Released from the 5" bridge plug and tested the tubing/casing annulus to 500 psig surface pressure. Pulled out of the well, rigged down the tubing equipment and the working floor. Secured the well.
8/10/2012	Opened the well with brine to the surface. Nipped down the Class III 5M BOPE and nipped down the tubing head (bolts rusted, obtained fire permit and cut off the bolts). Removed the tubing head and sent the same in for refurbishment/repairs. Nipped up the crossover flange, nipped up the Class III 5M BOPE and secured the well.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

Rec'd 10-31-12 DOGGR D2 Ventura

HISTORY OF OIL OR GAS WELL

Operator: Southern California Gas Company

Field: Aliso Canyon

County: Los Angeles

Well: Standard Sesnon 6

Surface Location: Sec. 28, T3N, R16W

A.P.I. No. 03700759

Todd Van de Putte

Title: Senior Storage Field...

(President, Secretary, or Agent)

Date: 10/30/2012

Signature: 

(Person Submitting Report)

Address: PO Box 2300, SC9365, Chatsworth, CA, 91313-2300

Telephone Number: 818-701-3339

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during re-drilling or altering the casing, plugging, or abandonment, with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, balling tests, and initial production data.

Start Date	Ops. DOGGR Rpt
8/16/2012	Nippled down the Class III 5M BOPE and the crossover flange. Installed new primary seals and nipped up the tubing head. Energized the wellhead seals and tested to 5000 psig for twenty minutes. Nippled up the Class III 5M BOPE and rigged up the working floor and tubing equipment. Made up a bridge plug retrieving tool and (6) joints of 2-3/8" tubing. Ran in the well to 8360', engaged and released the 5" bridge plug. Pulled out of the well to a kill string at 3400' and secured the well.
8/17/2012	Filled the well with 30 bbl of 3% KCl brine. Pulled out of the well laid down the 5" bridge plug. Made up a 7" retrievable bridge plug and ran in the well to 8180'. Set the bridge plug and pressure tested to 1000 psig surface pressure. Dumped 10 cu. ft. sand on top of the bridge plug and pulled out of well. Laid down the 7" bridge plug retrieving head and secured the well.
8/20/2012	Nippled up a shooting flange and rigged up the Tiger wire line unit. Made up a 4" gun with 2 shf. Ran in the well to 8125', correlated and shot (8) 1/2" holes from 8125' to 8129'. Rigged down and moved out the Tiger wireline unit. Made up a 7" squeeze packer and ran in the well to 8034'. Set the squeeze packer and pressure tested the tubing/casing annulus to 1000 psig for twenty minutes. Established a pump rate into the perforations at 1.2 bpm at 2150 psig. Cleaned the location and secured the well.
8/22/2012	Rigged up the HES cementing equipment and held a safety with the crews. Pressure tested the lines to 4000 psig. With holes at 8125' and the packer at 8034' mixed and pump 10 bbls (50 sx) of 14.9 ppg, Class "G" cement with additives and displaced with 36 bbl of brine. Closed the by-pass valve on the packer and squeezed 7 bbls of cement out of the perforations (48 bbls displacement). Final squeeze pressure at 1958 psig. Rigged down the HES cementing equipment and waited on cement for 2 hours. Opened the well with 200 psig surface pressure on the tubing. Released the 7" packer and pulled to 7414' and reversed circulated with no cement returns to the surface. Pulled out of the well to a kill string at 3300' and secured the well.
8/23/2012	Pulled out of the well with the kill string and laid down the 7" squeeze packer. Made up a 6-1/8" bit and bit sub, measured and picked up (4) 4-3/4" drill collars. Ran in the well to 8000' and tagged hard cement. Nippled up the PGSR and picked up the power swivel. Cleaned out the cement from 8000' to 8125' and tagged the sand plug at 8140'. Pressure tested the squeeze perforations and the 7" casing to 2000 psig surface pressure for twenty minutes (good). Laid down the power swivel, pulled to 7850' and secured the well.
8/24/2012	Rigged down the power swivel, pulled out of the well laid down the 6-1/8" bit. Nippled up a shooting flange and rigged up the Schlumberger wire line unit. Made up the 7" USIT tools and ran in the well to the top of the sand at 8134'. Logged to 7134', Rigged down and moved out the Schlumberger equipment and secured the well.
8/27/2012	Made up a WEA 7" test packer and ran in the well to 6700'. Set the 7" packer and tested below the packer to 1500 psig for twenty minutes. Tested annulus to 1500 psig for twenty minutes. Released the packer and pulled to 4000', set the packer. Tested below the packer to 1500 psig for twenty minutes. Tested annulus to 1500 psig for twenty minutes. (all tests good). Pulled out of the well and laid down the 7" test packer. Made up the bridge plug retrieving tool, ran in the well to 4300' and secured the well.
8/28/2012	Ran in the well to the top of the sand plug at 8140'. Nippled up the PGSR and rigged up and circulated out the sand to the top of the 7" bridge plug. Released the bridge plug and filled the well with 10 bbl of 3% KCl brine. Pulled out of the well and laid down the 7" bridge plug. Ran in the well with a kill string to 3300' and secured the well.
8/29/2012	Opened the well with 0 psig surface pressure on the tubing and the casing. Filled the well with 30 bbl of 3% KCl brine. Pulled out of the well with the kill string. Made up a Otis seal assembly, (6) joints of 2-3/8" tubing, crossover, (1) joint of 2-7/8" tubing, 2-7/8" no/go with 2.205" profile, (1) joint of 2-7/8" tubing, an XD sliding sleeve, (1) joint of 2-7/8" tubing, GLMA. Ran in the well and latch into the permanent packer and spaced out the tubing. Landed the completion string in the tubing hanger with 8,000lb compression. Made up the hold down studs and pressure tested the tubing/casing annulus to 700 psig for twenty minutes. Rigged down the working floor, nipped down the BOPE and secured the well.
8/30/2012	Nippled down the Class III 5M BOPE and nipped up the production tree. Rigged down the hoist and loaded the Ensign #321 rig equipment.
9/4/2012	Moved the Ensign rig #321 and associated rig equipment to the SS-10 location. Cleaned the SS-6 location.

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS AND GEOTHERMAL RESOURCES

No. P 212-290

PERMIT TO CONDUCT WELL OPERATIONS

Gas Storage

010 010
(Old) Field Code (New)
00 00
(Old) Area Code (New)
30 30
(Old) Pool Code (New)

James D. Mansdorfer, Agent
Southern California Gas Co.
9400 Oakdale Ave.
Chatsworth CA 91313

Ventura, California
August 21, 2012

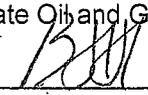
Your proposal to **rework** well "**Standard Sesnon**" 6, A.P.I. No. **037-00759**, Section **28**, T. **3N**, R. **16W, S.B.** B. & M., **Aliso Canyon** Field, **Sesnon-Frew** Pools, **Los Angeles** County, dated **08/15/12**, received **08/15/12** has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED:

1. Blowout prevention equipment, as defined by this Division's publication No. MO7, shall be installed on the 7" casing and maintained in operating condition and meet the following minimum requirements:
Class III 5M and a 3M lubricator for perforating operations.
2. Hole fluid of a quality and in sufficient quantity is used to control all subsurface conditions in order to prevent blowouts.
3. No program changes are made without Division approval.
4. **THIS DIVISION SHALL BE NOTIFIED TO:**
 - a. Inspect the installed blowout prevention equipment prior to commencing downhole operations.

Engineer: Steve Fields

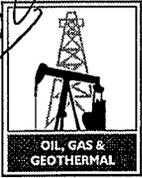
Phone: (805) 654-4761

Tim Kustic
State Oil and Gas Supervisor
By 
Bruce H. Hesson, District Deputy

A copy of this permit and the proposal must be posted at the well site prior to commencing operations. Records for work done under this permit are due within 60 days after the work is completed or the operations have been suspended. Issuance of this permit does not preclude the recipient from the obligation of being in compliance with all applicable Federal, State and Local laws, regulations and ordinances.

NATURAL RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

FOR DIVISION USE ONLY		
	Forms	
Bond	OGD 114 <input checked="" type="checkbox"/>	OGD 121 <input checked="" type="checkbox"/>
1000 600	1111 <input checked="" type="checkbox"/>	1151 <input checked="" type="checkbox"/>



NOTICE OF INTENTION TO REWORK / REDRILL WELL

Detailed instructions can be found at: www.conservation.ca.gov/dog/ **P212-290**

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework / redrill well "Standard Sesnon" 6, API No. 037-00759

Sec. 28, T. 3N, R. 16W, S.B. B.&M., Aliso Canyon Field, Los Angeles County.

The complete casing record of the well (present hole), including plugs and perforations, is as follows: (Attach wellbore schematics diagram also.)

- 13-3/8", 54.5#. Grade C at 1000' (cemented to surface with 500 sxs)
- 9-5/8". 40# and 43.5#, J-55 and N-80 at 4560' (cemented with 500 sxs)
- 7", 23#, 26# and 29#, J-55 and N-80 at 8444' (cemented with 250 sxs) Perfed and squeezed from 8219'-8220' w/50 sxs Class G cement
- 5", 18#, N-80 from 8286'-9207' perfed w/ 4 jspf from 8466'-8470', 8494'-8532', 8568'-8574', 8586'-8591', 8695'-8716', 8772'-8778', 8816'-8936', 8959'-8998', 9012'-9029', 9034'-9047', 9052'-9064', 9067'-9079', 9087'-9093'.

The total depth is: 9207 feet. The effective depth is: 9207 feet.

Present completion zone(s): Sesnon (Storage) Anticipated completion zone(s): same

Present zone pressure: Varies psi. Anticipated/existing new zone pressure: Varies psi.

Is this a critical well as defined in the California Code of Regulations, Title 14, Section 1720(a) (see next page)? Yes No

For redrilling or deepening only, is a California Environmental Quality Act (CEQA) document required by a local agency? Yes No If yes, see next page.

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The proposed work is as follows: (A complete program is preferred and may be attached.)

- (See Attached Program) : Nipple up a Class III 5M BOPE
- Pull the completion string/scrape the 7" production casing
- Run USIT log/Set bridge plug and sand off/pressure test plug
- Perforate the 7" production casing at 8130 (+/-) and squeeze cement
- Clean out the cement and pressure test the 7" casing/remove bridge plug
- Run a new completion string and test
- Ninnle down the Class III 5M BOPE

If well is to be redrilled or deepened, show proposed coordinates (from surface location) and true vertical depth at total depth: _____ feet and _____ feet Estimated true vertical depth: _____

Will the Field and/or Area change? Yes No If yes, specify New Field: _____ New Area: _____

The Division must be notified immediately of changes to the proposed operations. Failure to provide a true and accurate representation of the well and proposed operations may cause rescission of the permit.

Name of Operator: Southern California Gas Company		
Address 9400 Oakdale Ave.	City/State Chatsworth, CA	Zip Code 91313
Name of Person Filing Notice Todd Van de Putte	Telephone Number: 661-305-5387	Signature <i>Todd Van de Putte</i>
Individual to contact for technical questions: Todd Van de Putte	Telephone Number: 661-305-5387	Date 8-15-2012
		E-Mail Address: tvandeputte@semprautilities.com

This notice and an indemnity or cash bond must be filed, and approval given, before the workover begins. (See the reverse side for bonding information.) If operations have not commenced within one year of the Division's receipt of the notice, this notice will be considered cancelled.

INFORMATION FOR COMPLIANCE WITH THE CALIFORNIA ENVIRONMENTAL QUALITY ACT OF 1970 (CEQA)

If an environmental document has been prepared by the lead agency, submit a copy of the *Notice of Determination* or *Notice of Exemption* with this notice. Please note that a CEQA determination by a local jurisdiction, if required, must be complete, or the Division may not issue a permit.

CRITICAL WELL DEFINITION

As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

- (1) 300 feet of the following:
 - (A) Any building intended for human occupancy that is not necessary to the operation of the well; or
 - (B) Any airport runway.
- (2) 100 feet of the following:
 - (A) Any dedicated public street, highway or the nearest rail of an operating railway that is in general use;
 - (B) Any navigable body of water or watercourse perennially covered by water;
 - (C) Any public recreational facility such as a golf course, amusement park, picnic ground, campground or any other area of periodic high-density population; or
 - (D) Any officially recognized wildlife preserve.

WELL OPERATIONS REQUIRING BONDING

1. Drilling, re-drilling, or deepening any well.
2. Milling out or removing a casing or liner.
3. Running and cementing casing or tubing.
4. Running and cementing liners and inner liners.
5. Perforating casing in a previously unperforated interval for production, injection, testing, observation, or cementing purposes.
6. Drilling out any type of permanent plug.
7. Reentering an abandoned well having no bond.

This form may be printed from the DOGGR website at www.conservation.ca.gov/dog/

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Workover Program

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Venture**

DATE: August 14, 2012

OPERATOR: Southern California Gas Company

FIELD: Aliso Canyon

WELL: Standard Sesnon 6

CONTRACTOR: Ensign #321

OBJECTIVE: Remove and replace the expended 2-7/8' x 2-3/8" tubing string, replace the permanent packer seals and squeeze cement @ 8130' (+/-) behind the 7" production casing.

API Number: 037-00759

ELEVATION: Take all measurements from the original KB = 11' above GL (GL@ 2684').

SURFACE LOCATION: Sec 28, T3N, R16W, S.B. B&M

PRESENT WELL CONDITION (See attached wellbore schematic):

0' - 1000'	13-3/8"	54.5#	Grade C	Cemented (surface w/ 500 sxs)
0' - 4560'	9-5/8"	40#, 43.5#	J-55 and N-80	Cemented (w/ 500 sxs)
0'-8444'	7"	23#, 26#, 29#	J-55 and N-80	Cemented (with 250 sxs), Perfed and squeezed from 8219'-8220', w/ 50 sxs Class "G" cement.
8286'- 9207'	5"	18#	N-80	Perforated at 8466'-8470', 8494'-8532', 8568'-8574', 8586'-8591', 8695'-8716', 8772'-8778', 8816'-8639', 8959'-8998', 9012'-9029', 9034'-9047', 9052'-9064', 9067'-9079', 9087'- 9093' TD = 9207' (9198' TVD)

Estimated Wellbore Top of Geologic Markers:

S4: 8451' MD / S8: 8564' MD

Estimated Surface Pressure: 2700 psig (variable)

Estimated Bottomhole Static Temperature: 190 deg F

Pre Rig Notes:

Locate the rig anchors and reinstall if necessary.

There is a hole in the completion string which didn't allow for the unload of the well after a well kill/wellhead valve change out. There were very early returns to surface during the well kill. There is currently a wireline plug in the XN profile and the well is partially full of kill fluid.

The wellbore is slightly deviated.

WELL WORK PROGRAM

1. Move in and rig up the production rig. Spot the pump and the closed top Baker tanks. Prepare to re-kill the well with an HEC polymer pill and brine. Verify the current field surface pressure to confirm the proper kill fluid density prior to killing the well and for well control fluids during the workover operation.
2. Install an 11" Class III 5M BOPE with a cross over to the 9" 5M tubing head flange and per Gas Company instructions. All connections and valves must be flanged and at least 5000 psig rated.
 - a. Pressure test the 11" 5M annular preventer to 3500 psig for 15 minutes. Test Blind Rams and the 3-1/2" Pipe Rams to 5000 psig for 15 minutes. Test all lines and connections to 5000 psig.
 - b. Perform a 300 psig low pressure test on the annular preventer, blind rams and pipe rams.
 - c. All tests are to be charted and witnessed by a DOGGR representative.
3. Rig up a lubricator and run a chemical cutter with a wireline unit and cut the 2-7/8" tubing at approximately 8130' (+/-). Pull out of the hole with the wireline unit and rig down the associated wireline equipment. Pick up a 2-7/8" N-80 joint of tubing with safety valve, unland the 2-7/8" tubing string and pull out of the hole with the completion tubing, and the GLM.
4. Pick up a tubing overshot with seals on 2-7/8" tubing and latch on to the top of the completion string stub at 8130' (+/-). Move in and rig up the wireline unit with a lubricator and pull the tubing plug from the XN profile at 8204'. Rig down the wireline unit and associated equipment.
5. Rig up and re-kill well with a 50 bbl, 100 vis, HEC polymer pill followed by brine per schedule. Verify the field surface pressure to confirm kill fluid weight prior to killing the well.
6. Release from the 5", Otis PW permanent packer, pull out of the well and lay down the remaining 2-7/8", 6.5# and 2-3/8", 4.7# combination tubing string and the associated production equipment.

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7. Pick up a 2-7/8" tubing for a workstring. Pick up a 7" casing scraper and run to the top of the 7" x 5" liner hanger at 8286'. Pull out of the hole and lay down the 7" casing scraper.
8. Make up a cleanout BHA with a 2-1/16" tubing tail and run in the hole, tag fill and make an attempt to clean out the 5", 18# liner to 9207' (+/-) if necessary.
9. Pick up and run a 7" retrievable bridge plug to 8275' (+/-). Set the bridge plug and pressure test to 1500 psig surface pressure.
10. Rig up the wireline unit and run a USIT log in the 7" production casing from the top of the 5" liner at 8286' to the surface. Rig down the wireline unit and the associated equipment.
11. Nipple down the 5M Class III BOPE and replace the pack off and primary wellhead seals. Send in the 5M tubing head and seal flange in for seal replacement refurbishment. Install a 13-5/8" x 11" crossover spool and reinstall the BOPE. Function test the BOPE.
12. Once the tubing head and seal flange are refurbished and returned to the wellsite, remove the BOPE, and reinstall the seal flange, tubing head and test all the seals to 5000 psig. Nipple up the 5M Class III BOPE and function test the BOPE.
13. Move the 7" retrieveable bridge plug to approximately 8200' (+/-). Pressure test the 7" casing and the bridge plug to 1000 psig. Spot sand on top of the bridge plug.
14. Pick up and run a perforating gun and shoot 8, 1/2" holes/per foot in the 7" production casing beginning at a depth of 8130' (+/-). Perform a pump in test to determine the effectiveness of the perforations.
15. Pick up and run a 7" test packer on 2-7/8" tubing with an aluminum tail and squeeze (50 sxs/minimum delivery) Class "G" cement with additives into the perforations at 8130' (+/-). Release the 7" test packer and pull 1500' above the squeeze holes and clear the tubing. Wait on the cement at least 8-12 hrs.
16. Lay down the 7" test packer and pick up and run a 6-1/8" bit and clean out the cement squeeze in the 7" production to the top of the sand plug. Pressure test the 7" production casing to verify the casing integrity and the cemented perforation integrity.
17. Run in the hole and circulate out the sand plug from the top of the 7" retrievable bridge plug and retrieve the 7" bridge plug.
18. Pick up the new 2-7/8", 6.5#, L-80 and 2-3/8", 4.7#, L-80 tubing, the refurbished GLM, new 2-7/8" sliding sleeve, new 2-7/8" XN nipple, and refurbished Otis seal assembly with a guide shoe and land in the 5" Otis PW permanent packer profile as per the vendor recommended setting procedure.
19. Pressure test the 2-7/8" x 2-3/8" completion string x 7" production casing annulus to 1500 psig surface pressure.
20. Nipple down the 11" Class III 5M BOPE and install the production tree and test to 5000 psig.

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21. Release the Ensign Rig #321, rig down and move out the production rig and the associated equipment.

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Gas Company Schematic

API 03700759	Field Name Aliso Canyon	Operator Southern California Gas Company	County Los Angeles	State California
Ground Elevation (ft) 2,691.00	KB-Ground Distance (ft) 7.00	Spud Date 6/6/1945 00:00		

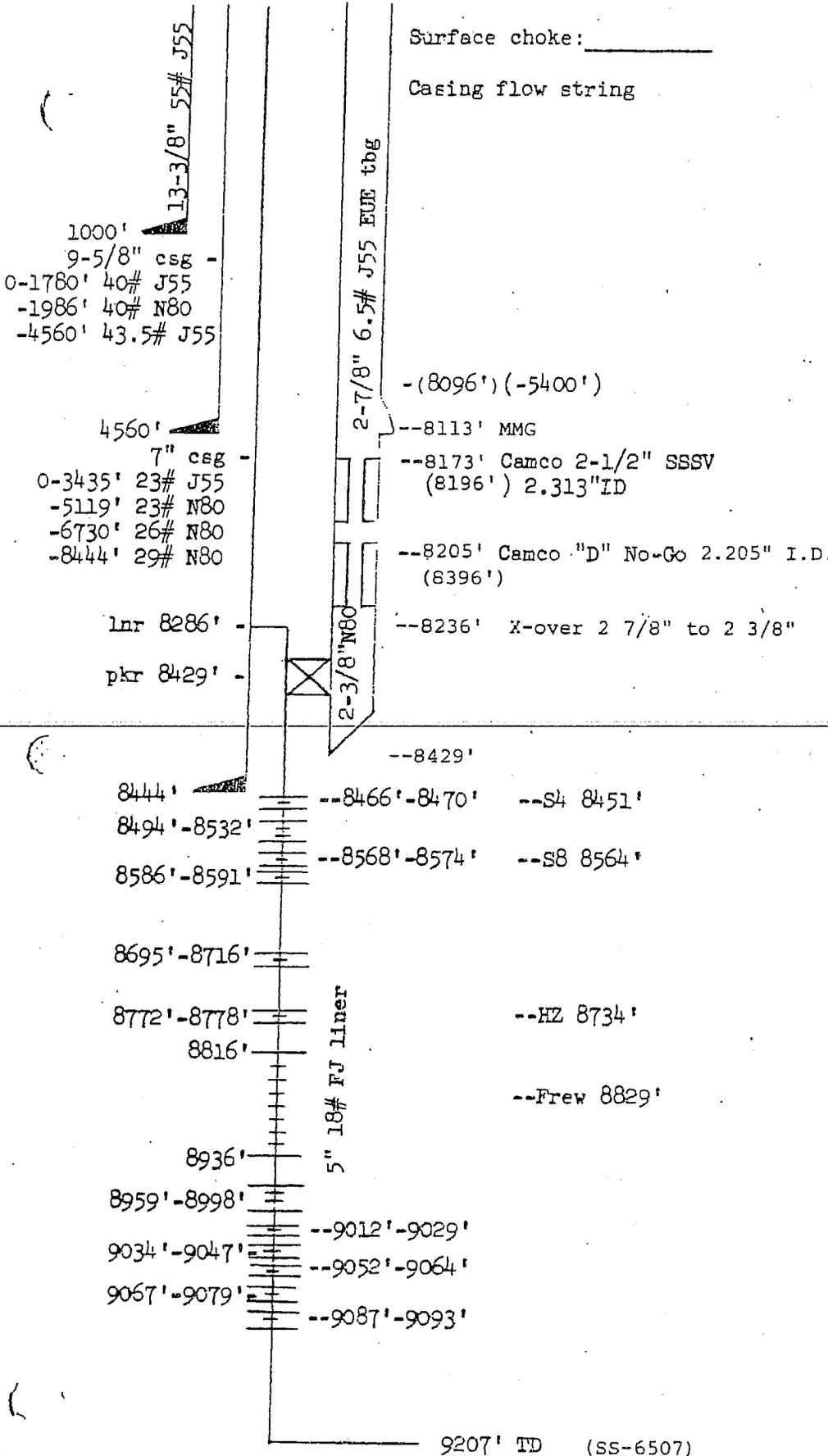
Vertical - Redrill Hole, 7/17/2012 8:24:22 AM

MD (ftKB)	TVD (ftKB)	Incl. (°)	Vertical schematic (actual)
0.0			Surface Casing; 13 3/8; 12.615; 1,000.0; 993.00; 54.50; J-55
6.9			Description:Surface Hole; Sz:17 1/2; Depth (MD):7.0-1,000.0
1,000.0			Intermediate Casing; 9 5/8; 8.755; 1,780.0; 1,773.00; 43.50; J-55
1,779.9			Intermediate 2 Casing; 7; 6.366; 3,435.0; 3,428.00; 23.00; J-55
1,985.9			Intermediate Casing; 9 5/8; 8.755; 1,986.0; 206.00; 43.50; N-80
3,435.0			Description:Intermediate Hole; Sz:12 1/4; Depth (MD):1,000.0-4,560.0
4,560.0			Intermediate Casing; 9 5/8; 8.755; 4,560.0; 2,574.00; 43.50; J-55
5,119.1			Intermediate 2 Casing; 7; 6.366; 5,119.0; 1,684.00; 23.00; N-80
6,730.0			Intermediate 2 Casing; 7; 6.276; 6,730.0; 1,611.00; 26.00; N-80
8,112.9			Description:Intermediate2 Hole; Sz:9 5/8; Depth (MD):4,560.0-8,444.0
8,117.1			Intermediate 2 Casing; 7; 6.184; 8,444.0; 1,714.00; 29.00; N-80
8,149.9			Cement Squeeze @ 8219'; 8,150.0-8,220.0; 8/12/1982
8,158.1			Perforated; 8,219.0-8,220.0; 8/12/1982
8,162.1			Liner Hanger; 5; 4.276; 8,290.0; 4.00
8,204.1			Perforated; 8,466.0-8,470.0; 4/26/1973
8,206.0			Perforated; 8,494.0-8,532.0; 4/26/1973
8,219.2			Perforated; 8,568.0-8,574.0; 4/26/1973
8,220.1			Perforated; 8,586.0-8,591.0; 4/26/1973
8,234.9			Perforated; 8,695.0-8,716.0; 4/26/1973
8,236.9			Production Liner; 5; 4.276; 9,207.0; 917.00; 18.00
8,286.1			Perforated; 8,772.0-8,778.0; 4/26/1973
8,290.0			Description:Production Hole; Sz:6 5/8; Depth (MD):8,444.0-9,207.0
8,429.1			Perforated; 8,816.0-8,936.0; 1/14/1962
8,430.1			Perforated; 8,959.0-8,998.0; 1/14/1962
8,443.9			Perforated; 9,034.0-9,047.0; 1/14/1962
8,465.9			Perforated; 9,052.0-9,069.0; 1/14/1962
8,470.1			Perforated; 9,067.0-9,079.0; 1/14/1962
8,494.1			Perforated; 9,087.0-9,093.0; 1/14/1962
8,532.2			Description:TD - Redrill Hole; Depth (MD):9,207.0
8,567.9			
8,574.1			
8,586.0			
8,590.9			
8,694.9			
8,715.9			
8,772.0			
8,777.9			
8,815.9			
8,936.0			
8,959.0			
8,998.0			
9,034.1			
9,046.9			
9,051.8			
9,066.9			
9,068.9			
9,079.1			
9,086.9			
9,092.8			
9,207.0			

RECEIVED
 AUG 15 2012
 Div. of Oil, Gas & Geothermal Resources

Elevation: 26
KB: 11'

Standard Season 6



6/6/45 - Well spud
 9/27/45 - Well completed
 12/14/55 - 3/24/56 - Scab cemented 8525'-8562'.
 1/14/62 - 3/20/62 - Redrill: milled on liner hanger & liner to 8480', plugged back to 8464' drilled to 9207', ran 5" liner. Perf'd 2 JSPF 9093'-9087', 9079'-9067', 9069'-9052', 9047' 9034', 9029'-9012', perf'd 4 JSPF 8998'-8959' & 8936'-8816'.
 4/26/73 - 5/14/73 - Cleaned out to 9202', perf'd 4 JSPF 8466'-8470', 8494'-8532', 8568'-8574' 8586'-8591', 8695'-8716' & 8772'-8778' for conversion to gas storage.
 8/8/77 - 8/30/77 - Cleaned out to 9200', 30' of sand in bottom pressure tested csg, ran tbg with SSSV.
 8/12/82 - 9/02/82 - To repair shoe leak. Shot 8 1/2" bullet holes at 8219'-8220'. Squeezed holes with 50 sacks of Class "G" cement with final pressure of 2200 psi. Completed well.

RECEIVED

AUG 15 2012

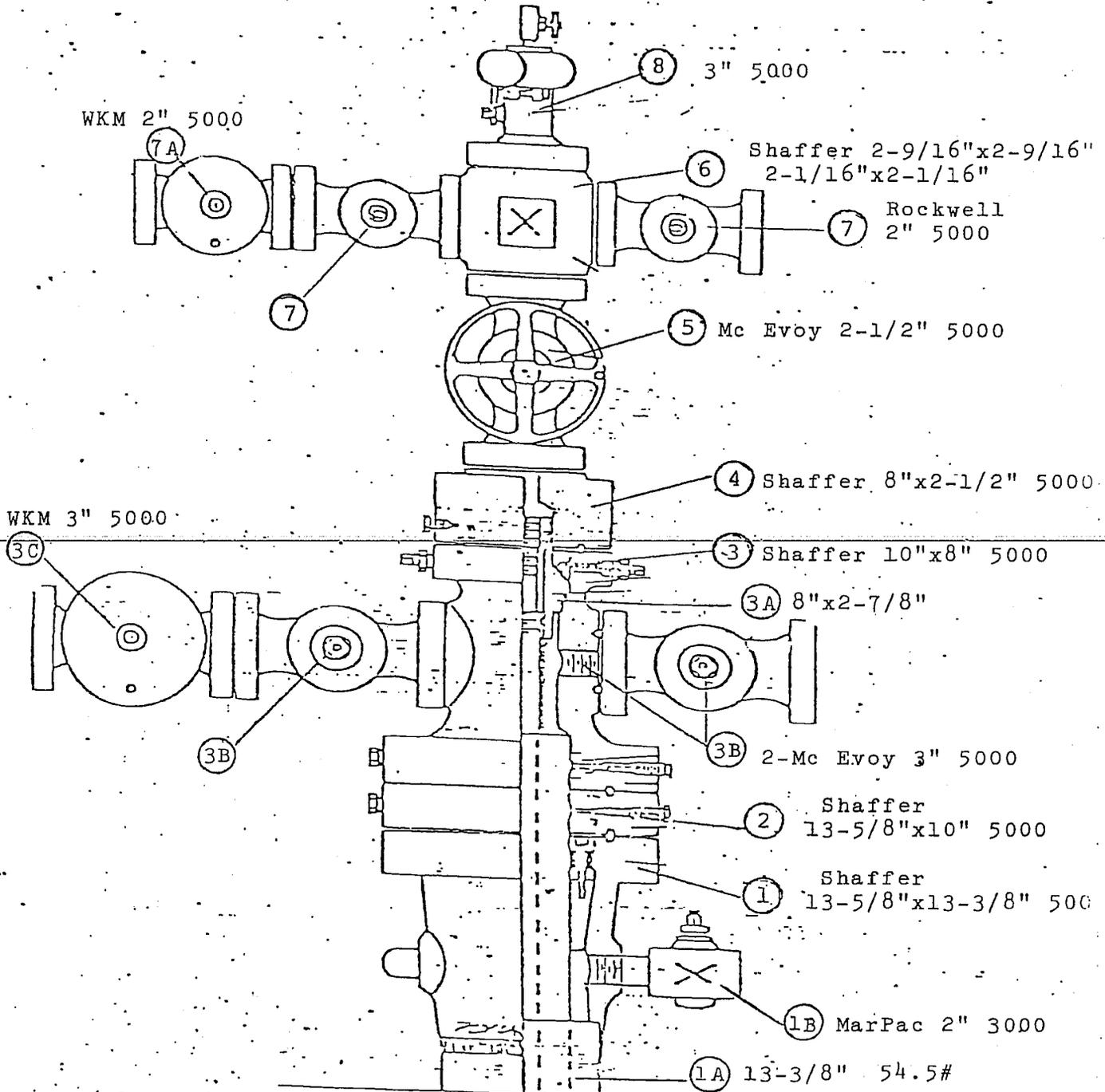
Div. of Oil, Gas & Geothermal Resources
 Ventura

	WELL VOLUME	
	Cu.Ft.	Bbl.
Tubing	272	48
Csg/Lnr.	78	14
Annulus	1371	244

6/12/84

AUG 15 2012

Div. of Oil, Gas & Geothermal Resources
Ventura



Well Name: SS-6 - Aliso Canyon

Mfgr.: Shaffer

Date Prepared: 12-17-82

RECEIVED

Well No. SS - 6

Field. Aliso

Date Prepared. 3-27-81

Wellhead Mfgr. Shaffer

AUG 15 2012

Div. of Oil, Gas & Geothermal Resources
Venture

1. Casing Head. Shaffer Size. 13-5/8" x 13-3/8" 5000 psi KD SOW Type.
 Slips & Pack-off. 13-5/8" x 9-5/8" 5000 psi.....
 A. Surface Csg. Size. 13-3/8" Wt. 54.5# Grade. J-55.....
 B. Casing Head Valve. Marpac Size. 2" 3000psi Fig. No. CSB-790-JN
2. Seal Flange. Shaffer Size. 13-5/8" x 10" 5000 psi.....
 A. Type Seal. Lock screw Ring. BX-160 & R-54.....
3. Tubing Head. Shaffer Size. 10" x 8" 5000 psi Type.....
 Ring. R-54 & Ring. R-50.....
 Outlets. 2-3" Sec. Seal. Lock screw.....
 Valve Removal Thrd. 2-1/2" line pipe.....
 A. Tubing Hanger Shaffer Size. 8" x 2-7/8" Type. AJQ.....
 B.P.V. Size. 2-7/8" Thrd. 4 LH.....
 B. Tubing Head Valves. Mc Evoy Size. 3" 5000 psi Fig. No. 129.....
 C. Automatic Csg. Valve. WKM Size. 3" 5000 psi Fig. No. 458922
4. Adapter Seal Flange. Shaffer Size. 8" x 2-1/2" Type. AJQ.....
 A. Ring Size. R-50 & R-27.....
5. Master Valve. Mc Evoy Size. 2-1/2" 5000 Fig. No. 129.....
6. Xmas Tree Cross. Shaffer Size. 2-1/2" x 2-1/16" Bore Thru 2-1/2" Across 2-1/16"
7. Tubing Wing Valves. Rockwell Size. 2" 5000psi Fig. No. 21055.....
 A. Automatic Tbg. Valve. WKM Size. 2" 5000psi Fig. No. 50218
8. Unibolt Size. 3" 5000 psi Inside Thrds. NA.....
9. Wt. Landed in Csg. Head. 182,000 wt. 40# 9-5/8" Grade. J-55.....
10. Wt. Landed on Doughnut. 34,000 wt. 6.5# 2-7/8" Grade. J-55.....
11. Tubing Head to Ground Level. 2.33 Below.....

PERMIT TO CONDUCT WELL OPERATIONS

010
(field code)
00
(area code)
30
(new pool code)
30
(old pool code)

Gas Storage

James D. Mansdorfer, Agent
Southern California Gas Company
9400 Oakdale Ave
Chatsworth CA 91313

Ventura, California
January 26, 2006

Your _____ proposal to _____ perforate _____ well "Standard Sesnon" 6 _____,
A.P.I. No. 037-00759 _____ Sec. 28, T. 3N, R. 16W, SB B.&M.,
Aliso Canyon field, _____ area, _____ Sesnon-Frew pool
Los Angeles County, dated 01/19/2006 received 01/25/2006 has been examined in conjunction
with records filed in this office.

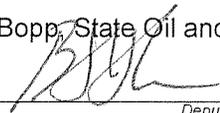
THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Wire line operations are conducted through at least a 5M lubricator.
2. This office shall be consulted before initiating any changes or additions to this proposed operation or if operations are to be suspended.

The Division recommends, as a minimum, that carbon monoxide monitoring equipment and a vent line be installed and maintained operational during all extensive perforating operations.

SAF:sf

Engineer Steven A. Fields
Phone (805) 654-4761

Hal Bopp, State Oil and Gas Supervisor
By 
Deputy Supervisor

A copy of this permit and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

NOTICE OF INTENTION TO REWORK / REDRILL WELL

2006-24

C.E.Q.A. INFORMATION (when redrilling or deepening only)			
Exempt <input type="checkbox"/>	Neg. Dec. <input type="checkbox"/>	E.I.R. <input type="checkbox"/>	Document not required by local jurisdiction <input type="checkbox"/>
Class _____	S.C.H. No. _____	S.C.H. No. _____	
See Reverse Side			

FOR DIVISION USE ONLY			
Bond	Forms		EDP Well
	OGD114 <input checked="" type="checkbox"/>	OGD121 <input checked="" type="checkbox"/>	File
1000 000	111 <input checked="" type="checkbox"/>	115 <input checked="" type="checkbox"/>	

This notice and an indemnity or cash bond must be filed, and approval given, before the rework/redrill begins. (See the reverse side for bonding information.) If operations have not commenced within one year of receipt of the notice, this notice will be considered canceled.

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to

rework/redrill well Standard-Sesnon 06 (Well designation) API No. 03700759

Sec. 28 T. 3N R. 16W S.B.B.&M. Aliso Canyon Gas Storage Field
Los Angeles County.

GS

1. The complete casing record of the well (present hole), including plugs and perforations, is as follows:

- 0-1000' 13-3/8" 55# J55 Surface csg;
- 0-4560' 9-5/8" 40-43.5# J55 & N80 Intermediate csg;
- 0-8444' 7" 23-29# J55 & N80 Prod. csg;
- 8286-9207' 5" 18# FJ Liner;
- 0-8882' 2-7/8" 6.5# N80 EUE 8rd tbg w/ gas-lift mandrels @ 2396', 4343', 5993', 7323', 7773' and 8808'. Tbg landed on HES G-6 pkr @ 8882';
- 5" 18# liner perforated w/ four 1/2" HPF from 8816-8936', 8959-8998', 8466-8470', 8494-8532', 8568-8574', 8586-8591', 8695-8716' and 8772-8778' (299' total). Re-perforated w/ two 1/2" HPF from 9012-9029' and 9034-9047'.

2. The total depth is: 9207 feet. The effective depth is: 9207 feet.

3. Present completion zone (s): Sesnon (Name) Anticipated completion zone (s): Sesnon (Name)

4. Present zone pressure: 2740 psi. Anticipated/existing new zone pressure: 2740 psi.

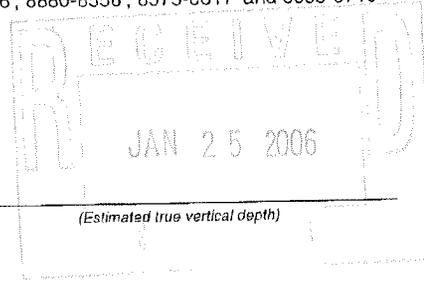
5. Last produced: 11/2005 7 1.6 3,056
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)

(or)
Last injected: - - - -
(Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure, psig)

6. Is this a critical well according to the definition on the reverse side of this form? Yes No

The proposed work is as follows: (A complete program is preferred and may be attached.)

Perforate new-pay interval in the Sesnon w/ 4 SPF (1-11/16" strip gun loaded w/ Enjet-DP 1.69", RDX, -0.28" hole) from 8494-8550', 8568-8600' and 8650-8670'; re-perforate the storage-zone interval (Sesnon) w/ 2 SPF from 8466-8470', 8695-8716', 8772-8786', 8880-8558', 8575-8617' and 8655-8710' (147' total).



For redrilling or deepening: NA (Proposed bottom-hole coordinates) NA (Estimated true vertical depth)

The division must be notified if changes to this plan become necessary.

Name of Operator Southern California Gas Company	Telephone Number 818.700.3810
Address 12801 Tampa Avenue	City Northridge Zip Code 91326
Name of Person Filing Notice Mark T. Kuncir	Signature <i>[Signature]</i> Date 1/19/06

File In Duplicate

C.E.Q.A. INFORMATION

Information for compliance with the California Environmental Quality Act of 1970 (C.E.Q.A.).

If an environmental document has been prepared by the lead agency, please submit a copy of the document with this notice or supply the following information:

Lead Agency: _____

Lead Agency Contact Person: _____

Address: _____

Phone: _____

FOR DIVISION USE ONLY	
District review of environmental document (if applicable)? Yes <input type="checkbox"/> No <input type="checkbox"/>	
Remarks: _____	

CRITICAL WELL DEFINITION

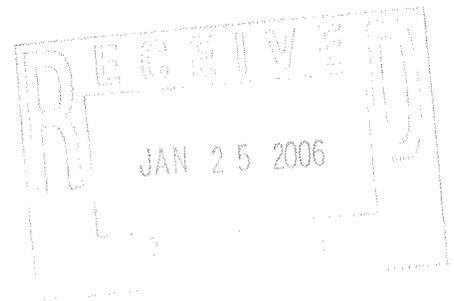
As defined in the California Code of Regulations, Title 14, Section 1720 (a), "Critical well" means a well within:

1. 300 feet of the following:
 - a. Any building intended for human occupancy that is not necessary to the operation of the well; or
 - b. Any airport runway.
2. 100 feet of the following:
 - a. Any dedicated public street, highway, or nearest rail of an operating railway that is in general use;
 - b. Any navigable body of water or watercourse perennially covered by water;
 - c. Any public recreational facility such as a golf course, amusement park, picnic ground, campground, or any other area of periodic high-density population; or
 - d. Any officially recognized wildlife preserve.

Exceptions or additions to this definition may be established by the State Oil and Gas Supervisor upon his or her own judgment or upon written request of an operator. The written request must contain justification for such an exception.

WELL OPERATIONS REQUIRING BONDING

1. Drilling, redrilling, or deepening any well.
2. Milling out or removing a casing or liner.
3. Running and cementing casing or tubing.
4. Running and cementing liners and inner liners.
5. Perforating casing in a previously unperforated interval for production, injection, testing, observation, or cementing purposes.
6. Drilling out any type of permanent plug.
7. Reentering an abandoned well having no bond.



STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Ventura, California

November 6, 1991

R. D. Phillips, Agent
SOUTHERN CALIFORNIA GAS COMPANY
P.O. Drawer 3249 Mail Location 22GO
Los Angeles, CA 90051-1249

Your request, dated July 24, 1991, proposing to change the designation of well(s) in Sec. 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon field, Los Angeles County, District No. 2, has been received.

The proposed change in designation, in accordance with Section 3203, Public Resources Code, is authorized as follows:

<u>FROM</u>	<u>TO</u>
"SFZU" P-42A (037-21876)	"Porter" 42A (037-21876)
"SFZU" P-42B (037-21877)	"Porter" 42B (037-21877)
"SFZU" P-42C (037-21878)	"Porter" 42C (037-21878)
"SFZU" P-69A (037-22051)	"Porter" 69A (037-22051)
"SFZU" PS-42 (037-00753)	"Porter Sesnon" 42 (037-00753)
"SFZU" SS-1 (037-00754)	"Standard Sesnon" 1 (037-00754)
"SFZU" SS-2 (037-00755)	"Standard Sesnon" 2 (037-00755)
"SFZU" SS-3 (037-00756)	"Standard Sesnon" 3 (037-00756)
"SFZU" SS-5 (037-00758)	"Standard Sesnon" 5 (037-00758)
✓ "SFZU" SS-6 (037-00759)	"Standard Sesnon" 6 (037-00759)
"SFZU" SS-7 (037-00760)	"Standard Sesnon" 7 (037-00760)
"SFZU" SS-8 (037-00761)	"Standard Sesnon" 8 (037-00761)
"SFZU" SS-9 (037-00762)	"Standard Sesnon" 9 (037-00762)

M. G. MEFFERD, State Oil and Gas Supervisor

By

Patrick J. Kinneer
Deputy Supervisor

PATRICK J. KINNEAR

RESOURCES AGENCY OF CALIFORNIA
 DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF CORRECTION OR CANCELLATION

Ventura California

May 12, 1987

R. M. Morrow, Agent
Southern Calif. Gas Co.
810 S. Flower St.
Los Angeles, CA 90051

In accordance with Section 3203, Div. 3 of Public Resources Code
 requiring that proposed operations commencing within one year.

the following change pertaining to your well "SFZU" SS-6 (037-00759),
(Well designation)
Aliso Canyon field, Los Angeles County,

Sec. 28, T. 3N, R. 16W, S.B. B. & M., is being made in our records:

The corrected location is _____

The corrected elevation is _____

Report No. _____, dated _____, has been
 corrected as follows: _____

Your notice to alter casing dated 10/12/84 and
(Drill, abandon, etc.) supplement 11/27/85 *,
 and our report No. P. ²⁸⁴⁻³⁷⁸285-406*, issued in answer thereto, are hereby cancelled
 inasmuch as the work will not be done. If you have a drilling bond on file covering
 this notice it will be returned. No request for such return is necessary.

Other: _____

MAP	MAP BOOK	CARDS	BOND	EDP	FORMS	
					114	121

BW:l jg

✓ M. G. Mefferd
 State Oil and Gas Supervisor

By Michael Stathis
 Acting Deputy Supervisor

Box 5887

NWB

The Resources Agency of California
Department of Conservation

DIVISION OF OIL AND GAS
WELL STATUS INQUIRY

Ventura, Calif.

May 5, 1987

To: R. M. Morrow, Agnet
SOUTHERN CALIF. GAS CO.
810 S. Flower St.
Los Angeles, CA 90051

DIVISION OF OIL AND GAS
RECEIVED

MAY 11 1987

VENTURA, CALIFORNIA

In a notice dated 10/12/84 & 11/27 19 85, you propose to alter casing
"SFZU" SS-6
well "SFZU" SS-6
Sec. 28, T. 3N, R. 16W, S.B.B. & M., Aliso Canyon
(Field or County)

Please indicate below conditions or intentions regarding this proposed work and return the completed form to this office within 10 days.

THIS WORK HAS BEEN DONE. If you check this space, please file the required well records on this work in duplicate within 60 days after work was completed.

THIS WORK IS IN PROGRESS AND SHOULD BE COMPLETED ABOUT _____ 19 ____.

THIS WORK HAS NOT BEEN DONE, BUT WE STILL INTEND TO DO THE WORK.*
Please give details. _____

WE DO NOT INTEND TO DO THIS WORK. Please cancel our notice to Rework Well
"SFZU" SS-6, dated 10/12 19 84.

Signature N. W. Buss for R. M. Morrow

(Bonds on file covering canceled notices will be returned.)

OTHER: _____

NOTE: Division 3 of the Public Resources Code states in part:
Section 3215, ...Well records shall be filed 60 days after completion or suspension of proposed work.

*Section 3203, ...If operations have not commenced within one year of receipt of the notice, the notice will be considered canceled. (To prevent cancelation, file a Supplementary Notice with the division.)

mep

M. G. MEFFERD
State Oil and Gas Supervisor

By Michael Stethem
Acting Deputy Supervisor

PERMIT TO CONDUCT WELL OPERATIONS

010
(field code)
00
(area code)
30
(new pool code)
30
(old pool code)

J. W. Gourley, Agent
Southern California Gas Co.
Box 3249 Terminal Annex
Mail Location 511C
Los Angeles, CA 90051

Ventura, California
December 18, 1985

Your supplementary proposal to alter casing well "SFZU" SS-6,
A.P.I. No. 037-00759, Section 28, T. 3N, R. 16W, S.B. B. & M.,
Aliso Canyon field, any area, Sesnon-Frew pool,
Los Angeles County, dated 11/27/85, received 12/10/85 has been examined in conjunction with records
filed in this office.

THE PROPOSAL, COVERING REWORK OPERATIONS, IS APPROVED ACCORDING TO PRIOR AGREEMENT
PROVIDED THAT:

1. The provisions set forth in our report No. P284-378 shall apply.

Blanket Bond
MS:ljpg

Engineer Michael Stettner

Phone (805) 654-4761

M. G. MEFFERD, State Oil and Gas Supervisor

By *Wojmay W. Bond*
Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.

Records for work done under this permit are due within 60 days after the work has been completed or the operations have been suspended.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

SUPPLEMENTARY NOTICE

DIVISION OF OIL AND GAS
RECEIVED
SANTA PAULA, CALIFORNIA

FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL FILE
	OGD114	OGD121	
AB	-	✓	

DIVISION OF OIL AND GAS

Santa Paula Calif.

A notice to you dated October 12, 19 84, stating the intention to

rereork "SFZU" SS-6, API No. 037-00759,
(Drill, rework, abandon) (Well name and number)

Sec. 28, T. 3N, R. 16W, S. B. B. & M., Aliso Canyon Field,

Los Angeles County, should be amended because of changed conditions.

The present condition of the well is as follows:

Total depth

Complete casing record including plugs and perforations:

We now propose

to perform this work during the first quarter of 1986.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address Box 3249, Terminal Annex
(Street)
Los Angeles, CA 90051
(City) (State) (Zip)
Telephone Number (213) 689-3925

Southern California Gas Company
(Name of Operator)
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)
By N.W. Buss for J.W. Gourley 11-27-84
(Name) (Date)
Signature [Signature]

SANTA PAULA, CALIF. 91351

DIVISION OF OIL AND GAS
WELL STATUS INQUIRY

Ventura, Calif.

Nov. 25, 1985

To: J. W. Gourley, Agent
So. Calif. Gas Co.
P.O. Box 3249 Terminal Annex,
Mail location 511C
Los Angeles, CA 90051

In a notice dated 10/12 19 84, you propose to alter casing
well "SFZU" SS-6
Sec. 28, T. 3N, R. 16W, SB B. & M., Aliso Canyon
(Field or County)

Please indicate below conditions or intentions regarding this proposed work and return the completed form to this office within 10 days.

THIS WORK HAS BEEN DONE. If you check this space, please file the required well records on this work in duplicate within 60 days after work was completed.

THIS WORK IS IN PROGRESS AND SHOULD BE COMPLETED ABOUT _____ 19 ____.

THIS WORK HAS NOT BEEN DONE, BUT WE STILL INTEND TO DO THE WORK.*
Please give details. Work has been rescheduled for first quarter of 1986.

WE DO NOT INTEND TO DO THIS WORK. Please cancel our notice to _____
_____, dated _____ 19 ____.

Signature

M. W. Buss 12/02/85
M. W. Buss for J. W. Gourley

(Bonds on file covering canceled notices will be returned.)

OTHER: _____

NOTE: Division 3 of the Public Resources Code states in part:
Section 3215, ...Well records shall be filed 60 days after completion or suspension of proposed work.

*Section 3203, ...If operations have not commenced within one year of receipt of the notice, the notice will be considered canceled. (To prevent cancelation, file a Supplementary Notice with the division.)

M. G. MEFFERD
State Oil and Gas Supervisor

By Pam Ceccarelli for
Murray W. Dosch

The Resources Agency of California
Department of Conservation

DIVISION OF OIL AND GAS
WELL STATUS INQUIRY

Ventura, Calif.

Nov. 25, 1985

To: J. W. Gourley, Agent
So. Calif. Gas Co.
P.O. Box 3249 Terminal Annex,
Mail location 511C
Los Angeles, CA 90051

In a notice dated 10/12 19 84, you propose to alter casing
well "SFZU" SS-6
Sec. 28, T. 3N, R. 16W, SB B. & M., Aliso Canyon
(Field or County)

Please indicate below conditions or intentions regarding this proposed work and return the completed form to this office within 10 days.

THIS WORK HAS BEEN DONE. If you check this space, please file the required well records on this work in duplicate within 60 days after work was completed.

THIS WORK IS IN PROGRESS AND SHOULD BE COMPLETED ABOUT _____ 19 ____.

THIS WORK HAS NOT BEEN DONE, BUT WE STILL INTEND TO DO THE WORK.*
Please give details. _____

WE DO NOT INTEND TO DO THIS WORK. Please cancel our notice to _____
_____, dated _____ 19 ____.

Signature _____

(Bonds on file covering canceled notices will be returned.)

OTHER: _____

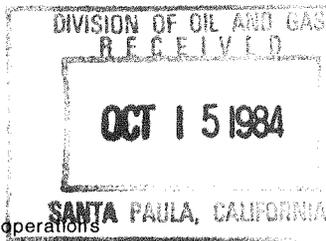
NOTE: Division 3 of the Public Resources Code states in part:
Section 3215, ...Well records shall be filed 60 days after completion or suspension of proposed work.
*Section 3203, ...If operations have not commenced within one year of receipt of the notice, the notice will be considered canceled. (To prevent cancelation, file a Supplementary Notice with the division.)

M. G. MEFFERD
State Oil and Gas Supervisor

By Paul Ceccarelli for
Murray W. Dosch

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well



This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

FOR DIVISION USE ONLY		
BOND	FORMS	
	OGD 114	OGD 121
2/B	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well "SFZU" SS Standard Sesnon #6, API No. 037-00759
 (Well designation)
 Sec. 28 T. 3N, R. 16W WSB B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth 9207'
- Complete casing record, including plugs and perforations (present hole)
 - 13-3/8" cemented 1000'
 - 9-5/8" cemented 4560'
 - 7" cemented 8444', holes 8219' and 8220' squeezed with cement
 - 921' 5" cemented 9207', top 8286', WSO on splice. Perforated at intervals 9093' - 8466'.
- Present producing zone name Sesnon & Frew; Zone in which well is to be recompleted _____
- Present zone pressure 2,800 psi; New zone pressure _____
- Last produced Gas storage well
 (Date) _____ (Oil, B/D) _____ (Water, B/D) _____ (Gas, Mcf/D) _____
 (or)
 Last injected _____
 (Date) _____ (Water, B/D) _____ (Gas, Mcf/D) _____ (Surface pressure, psig) _____
- Is this a critical well according to the definition on the reverse side of this form? (Yes) (No)

The proposed work is as follows:

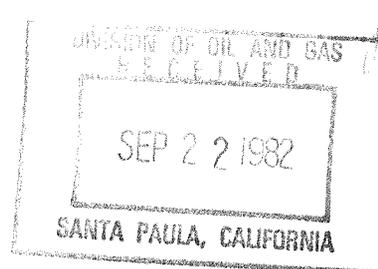
- Move in and rig up. Kill well. Install BOPE and pressure test.
- Pull tubing. Recover packer. Mill 5" liner 8286' - 8400'. Run neutron log.
- Fill liner with sand and cap with cement. Shoot holes 8350' - 8349' and squeeze with cement. Test, inject and run audio analyzer log.
- Set packer, run tubing and return well to gas storage service.

Note: If well is to be redrilled, show proposed new bottom-hole coordinates and true vertical depth.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address P.O. Box 3249 Terminal Annex Southern California Gas Company
 (Street) (Name of Operator)
Los Angeles California 90051 By J. J. Gornley 10/12/84
 (City) (State) (Zip) (Name) (Date)
 Telephone Number (213) 689-3561 Type of Organization Corporation
 (Corporation, Partnership, Individual, etc.)

SUBMIT IN DUPLICATE
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS



History of Oil or Gas Well

Operator Southern California Gas Co. Field Aliso Canyon County Los Angeles
Well "SFZU" SS-6, Sec. 28, T 3N, R16W, SB. B. & M.
A.P.I. No. 037-00759 Name J. P. Anand Title Agent
Date September 10, 1982 (Person submitting report) (President, Secretary or Agent)

Signature J. P. Anand

P.O. Box 3249 Terminal Annex, Los Angeles, CA 90051 (213) 689-3925
(Address) (Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date

MWO #99001 was issued to repair shoe leak.

1982

- 8-12 1st Day. Moved to SS #6. Shut down rig move due to obstructions on location.
- 8-13 2nd Day. Unloaded rig and rigging up. Set back pressure valve in doughnut. Removed xmas tree. Installed 8" 5000 psi spool with choke and kill line check valve. Installing BOPE.
- 8-14 3rd Day. Finished installing BOPE and lines to manifold. Tested blind rams, 2-7/8" pipe rams and manifold to 4000 psi. Tested Hydril bag to 3000 psi. Rob Habel with Division of Oil and Gas in Santa Paula declined to witness tests. Backed out doughnut studs and released "J" latch from packer. Worked 2-3/8" tubing seals and production tube 30'. Circulated bottoms up. Measuring out of hole.
- 8-16 4th Day. Finished measuring out of well. Ran in well with 6" bit and 7" 29# casing scraper, four 4-3/4" drill collars on 2-7/8" tubing to 8286'. Back scuttled and pulled out of well. Ran 4-1/8" bit and 5" casing scraper, 8 joints 2-3/8" tubing with cross-over to 2-7/8" tubing. Located top of packer at 8429'. Back scuttled. Pulling out of well.
- 8-17 5th Day. Finished pulling out of well with 4-1/8" bit and 5" casing scraper. Ran in well with 10 joints of 1.90" 10 thread upset tubing and 8 joints of 2-3/8" tubing on 2-7/8" tubing to 8725'. Pulled out of well. Layed down 1.90" tubing. Made up Otis packer plug on 8 joints 2-3/8" tubing. Running in well.
- 8-18 6th Day. Finished running in well. Set Otis packer plug in packer at 8429'. Circulated 74#/cu. ft. polymer completion fluid out of well with clean salt water. Filled 5" 18# liner and 8' of 7" 29# with sand to 8278'. Set 2-1/2 cu. ft. of cement plug with Hercules wireline. Using Mc Cullough wireline, set Baker Model "S" bridge plug at 8260'. Shot eight 1/2" bullet holes at 8220'. Running in well with Howco RTTS cement retainer.

- 8-19 7th Day. Attempted to break down with water with 2600 psi. Bled off. Equalized 50 cu. ft. of 12% HCL 3% HF acid. Pumped at rate of 1 cu. ft. per minute at 2500 psi through holes at 8220'. Pumped away 40 cu. ft. of acid with no breakdown. Pulled out of well. Using Mc Cullough wireline shot eight 1/2" holes at 8219'. Ran in well. Equalized 12% HCL 3% HF acid. Set tail at 7920' and pumped acid at rate of 1 cu. ft. per minute at 2600 psi. Closed in well with pressure.
- 8-20 8th Day. Equalized 50 cu. ft. of 12% HCL 3% HF acid. Obtained breakdown of 8 cu. ft. per minute at 3000 psi. Pulled out of well. Using Mc Cullough wireline set Baker Model "S" drillable retainer at 8170'. Made up Baker stab-in on 2-7/8" tubing. Ran in well to 8170'. Filled pipe, stabbed in, established breakdown and squeezed holes at 8219'-8220' with 25 cu. ft. 6% HCL 1-1/2% HF acid followed with 50 sacks of Class "G" cement mixed with 0.5% CFR-2 and 0.6% Halad 9. Squeezed at rate of 2-1/2 cu. ft. per minute. Starting pressure 2200 psi and final pressure 2800 psi.
- 8-21 9th Day. Finished running in well with 6" bit to drillable retainer at 8170'. No cement above retainer. Drilled on retainer. Retainer went down casing 4' to cement. Drilled retainer and cement to 8225'. Ran in well to 8260'. Drilled on bridge plug. Measured out of well for new bit.
- 8-23 10th Day. Pulled out of well. Installed new 6" bit on drilling assembly and ran back to 8260'. Displaced 63#/cu. ft. lease salt water from well with 370 bbls of 74#/cu. ft. polymer completion fluid. Drilled up bridge plug at 8260' and 26' of cement to 8286'. Started out of well.
- 8-24 11th Day. Finished pulling out with 6" bit. Made up Cavins 6" surge tool on 2-7/8" tubing. Ran to 8260' and surged 3 times. Pulled out. (Recovered 1 quart of iron and sand). Made up 4-1/8" bit and 5" casing scraper on 2-3/8" tubing tail and cleaned out to 8400'. Circulated well and started out of well.
- 8-25 12th Day. Finished pulling out with 4-1/8" bit and casing scraper. Ran Otis retrieving tool on 2-3/8" tubing tail to 8400' and back scuttled to 8429'. Attempted to attach to Otis plug but could not attach to plug. Pulled out with Otis fishing tool. Made up 4" O.D. x 1-7/8" overshot on 2-3/8" hydraulic jars and bumper sub on 2-3/8" tubing tail and started in well.
- 8-26 13th Day. Attempted to attach overshot to fishing neck of Otis packer plug. Would not attach. Pulled out of well. Dropped overshot in well from surface while disassembling tool. Ran fishing assembly back in well. Screwed into overshot. Attempted to attach to Otis J P plug but would not attach. Pulled out of well (recovered overshot). Made up 4" O.D. overshot with carbide tipped mill control on hydraulic jars and bumper sub. Started in well.

- 8-27 14th Day. Milled over Otis packer plug mandrel at 8429'. Attached overshot to packer plug mandrel and released from Otis permatrieve packer, circulated well for 3 hours. Pulled out of well retrieving packer plug. Made up Lynes 5" 18# test tools on 2-3/8" tail and ran in well. Using test pump, pressure tested flow tree, chicksans and choke manifold to 4000 psi for 20 minutes.
- 8-28 15th Day. Set Lynes packer at 8389' with tail to 8410'. Opened tool at 8 A.M. Gas to surface in 10 minutes. Well reached reservoir pressure at 10:30 A.M. Flowed well until 2:30 P.M. Rigged up Triangle and ran noise log from 8362' to surface. Showed noise on 200 HZ curve at 7100' and 7600'. Reran noise log from 7500' to 6600' showed no gas movement.
- 8-30 16th Day. Flowed well with Lynes test tools for 3 hours. Rigged up Triangle. Ran Audio analyzer log. Waited 3 hours to let well stabilize. Ran Audio analyzer log. Closed in well to relog in the morning.
- 8-31 17th Day. Ran Audio analyzer with Triangle logging truck from 8340' to surface which showed no gas movement. Back scuttled gas from well. Pulled out of well. Loaded out Lynes tools. Layed down drill collars and Kelly. Ran in well with Otis seals and locator sub on 2-3/8" and 2-7/8" tubing. Tested seals and packer to 1500 psi. Pulling out of well.
- 9-01 18th Day. Finished pulling out of well. Rigged up hydrotest and ran 2-3/8" and 2-7/8" tubing applying Baker seal drifting and hydrotesting to 5000 psi. Spaced out and landed tubing on packer with 6000#. Pulled 20,000# over weight of tubing to check latch. Installed back pressure valve in doughnut. Remove BOPE and installed xmas tree. Pressure tested xmas tree to 5000 psi with oil for 20 minutes. Circulated polymer completion fluid out of well with waste salt water.
- 9-02 19th Day. Rigged down and lowered derrick. Rig released at 12:30 P.M., 9-2-82.

REPORT ON PROPOSED OPERATIONS

010
(field code)
00
(area code)
30
(new pool code)
30
(old pool code)

Mr. J. P. Anand, Agent
So. California Gas Company
Box 3249 Terminal Annex
Los Angeles, CA 90051

GAS STORAGE
Santa Paula, California
Aug. 10, 1982

Your _____ proposal to alter casing in well "SFZU" SS-6,
A.P.I. No. 037-00759, Section 28, T. 3N, R. 16W, SB B. & M.,
Aliso Canyon field, any area, Sesnon-Frew pool,
Los Angeles County, dated 8/4/82, received 8/6/82 has been examined in conjunction with records
filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Hole fluid of sufficient quality and quantity shall be maintained in the hole to control any subsurface condition, and a reserve supply shall be on hand for emergencies.
2. Blowout prevention equipment of at least DOG Class III 3M shall be installed and maintained in operating condition at all times.
3. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
4. THIS DIVISION SHALL BE NOTIFIED TO WITNESS A PRESSURE TEST OF THE BLOWOUT PREVENTION EQUIPMENT BEFORE COMMENCING DOWNHOLE OPERATIONS.

Blanket Bond
RLH:b

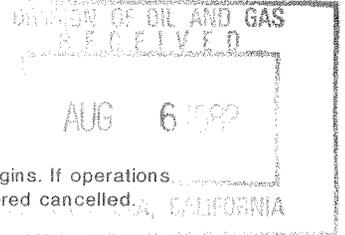
M. G. MEFFERD, State Oil and Gas Supervisor

By *Murray W. Dysch*
Murray W. Dysch, Deputy Supervisor

A copy of this report and the proposal must be posted at the well site prior to commencing operations.
Records for work done under this permit are due within 60 days after the work has been completed

DIVISION OF OIL AND GAS

Notice of Intention to Rework Well



This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

FOR DIVISION USE ONLY		
BOND	FORMS	
	OGD 114	OGD 121
BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well Standard Sesnon #6, API No. 037-00759
(Well designation)
Sec. 28, T. 3N, R. 16W, SB B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth 9207'
- Complete casing record, including plugs and perforations
13-3/8" cemented 1000'
9-5/8" cemented 4560'
7" cemented 8444', WSO on shoe
921' 5" cemented 9207', plug 9200', WSO on lap at 8286'
segregation 9001' and 8805'
perforated at intervals 9093'-8466'
Sesnon &
- Present producing zone name Frew; Zone in which well is to be recompleted -
- Present zone pressure 3500 psi; New zone pressure -
- Last produced Gas storage well
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)
 (or)
 Last injected _____
(Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure, psi)

The proposed work is as follows:

- Move in & rig up. Kill well. Install BOPE & pressure test.
- Pull tubing & lay down production equipment. Clean out to 8286'.
- Set bridge plug at 8240', shoot holes at 8200' and squeeze with cement.
- Drill out retainer, cement and bridge plug. Test & run Audio analyzer log to determine gas leakage has stopped.
- Run 2-3/8" & 2-7/8" tubing. Return well to gas storage service.

It is understood that if changes in this plan become necessary, we are to notify you immediately.

Address P.O. Box 3249 Terminal Annex
(Street)
LA CA 90051
(City) (State) (Zip)

Southern California Gas Company
(Name of Operator)
 By J. P. Anand
(Print Name)
J. P. Anand 8-4-82
(Signature) (Date)

Telephone Number (213) 689-3925

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SUBMIT IN DUPLICATE
RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED

SEP 22 1977

SANTA PAULA, CALIFORNIA

History of Oil or Gas Well

Operator Southern California Gas Company Field or County Aliso Canyon
Well name and No. STANDARD SESNON #6, Sec. 28, T 3N, R 16W, S. B. & M.
A.P.I. well No. 037-00759 Name P. S. Magruder, Jr. Title Agent
Date September 10, 19 77 (Person submitting report) (President, Secretary or Agent)

Signature *P. S. Magruder, Jr.*

P.O. Box 3249 TERMINAL ANNEX, LOS ANGELES, CA 90051

(213) 689-3561

(Address)

(Telephone Number)

History must be complete in all detail. Use this form to report all operations during drilling and testing of the well or during redrilling or altering the casing, plugging, or abandonment with the dates thereof. Include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests and initial production data.

Date	
8-8-77	Killed well with 370 barrels of 72#/cu.ft. brine polymer drilling fluid.
8-9-77	Moved Finley Rig #D-11 on to location and started rigging up.
8-10-77	Pressure tested wellhead seals. Circulated and conditioned brine polymer drilling fluid. Installed B.O.P.E.
8-11-77	Circulate bottoms up. Tested blind rams and pipe rams under 4000 psi with water and nitrogen. Tested Hydril GK under 3000 psi with water and nitrogen. Tested choke manifold with 2000 psi for 20 minutes. All tests O.K. D.O.G. witnessed B.O.P. tests. Pulled 90,000# and both packers came loose. Pulled out of 5" liner with 20,000# drag.
8-12-77	Measured tubing out of well. Found 4 sand blasted holes at 8741'. Bottom single (8760 to 8790) and packer were full of sand. Ran back in with 6" bit and 7" casing scraper to top of 5" liner at 8286'. Circulated and conditioned drilling fluid.
8-13-77	Pulled out of well with 6" bit and 7" casing scraper. Ran in with 4 1/8" bit and 5" casing scraper. Found 30' of sand fill in bottom of 5" casing (9170'-9200'). Circulated fill out. Pulled out bit and casing scraper. Ran in with Baker Lok-Set Model "B" 7" bridge plug. Secured well.
8-14-77	Rig and crew idle.
8-15-77	Pulled out with 7" bridge plug and ran back in with 5" Lok-Set model "B" bridge plug to 8450'. Tested plug with 1500 psi at surface for 15 minutes using rig pump. Changed over to fresh water with surfactant. Pull out and ran in with Baker 7" full-bore packer to 2600'.

8-16-77

Pressure tested casing as follows:

2600'	to	8450'	with	3000	psi	for	60	minutes	-	O.K.
2600'	to	Surface	with	3200	psi	for	60	minutes	-	O.K.
2400'	"	"	"	3400	psi	"	60	"	-	O.K.
1800'	"	"	"	3600	psi	"	60	"	-	O.K.
1300'	"	"	"	3800	psi	"	60	"	-	O.K.
800'	"	"	"	4000	psi	"	60	"	-	O.K.

Pulled full-bore out of well and ran in with retrieving tool for brige plug to 2000'.

8-17-77

Ran in to 8445' and circulated fresh water out with polymer drilling fluid. Pulled brige plug loose from 8450'. Pulled out to 4400' when hydraulic hose on tongs failed. Pulled up to 2000' using chain.

8-18-77

Set Otis Permatrieve packer in 5" liner at 8424' on wireline. Made up Camco safety system and ran in well. Rigged up to pressure test tubing into hole. Started running tubing, changing collars, cleaning pins, applying Baker Seal and hydrotesting to 5000 psi.

8-19-77

Breaking collars, cleaning pins, applying Baker seal and hydrotesting in hole.

8-20-77

While hydrotesting tubing stopped at 8286' or top of 5" liner. Had no problem pulling up but bottom of tubing would not go below this depth. Tried rotating and circulated bottoms up. Worked bottom of tubing 30' below top of liner and stuck same. Pulled 80,000# to free tubing. Pulled out completion string and found deep indentations in shoe up to the "J" latch on locator. Ran 2000' 2 7/8" tubing back in well.

8-21-77

Rig and crew idle.

8-22-77

Spliced 8500' of 9/16" sand line on unit. Ran 3 7/8" impression block to 8340'. Had junk in half circle 3 1/2". Ran 3 7/8" magnet on sand line with no recovery. Ran 3 7/8" impression block - got the same impression. Ran 4 1/8" junk mill and milled from 8316' to 8316.5'. Pulled 4 stands.

8-23-77

Milled from 8316' to 8322'. Started out of well.

8-24-77

Finished pulling mill. Pattern on mill indicated likely milling on Otis permatrieve packer. Ran magnet three times and picked up small parts of packer. On last run - one 2 3/8" slip segment fell in well. Ran magnet three times with no recovery. Going in hole with dumble rotating grab.

8-25-77

Recovered tubing slip. Ran in hole with spear to packer. Packer came free. Started out of hole. Elevators unlatched. Dropped 1915' of tubing. Going in hole with overshot to catch 2 7/8" tubing.

8-26-77

Ran overshot and recovered all fish including 2 7/8" and 2 3/8" tubing and Otis packer. Ran bit and scraper.

- 8-27-77 Ran bit and scraper to 8475'. Circulated drilling fluid for two hours and pulled out of hole. Ran junk basket to 8500' and set packer at 8426'. Started in hole hydrotesting tubing to 5000 psi for one minute.
- 8-28-77 Rig and crew idle.
- 8-29-77 Finished breaking collars, cleaning pins, applying Baker Seal, and hydrotesting tubing. Landed tubing on hanger with 6000 lbs. on packer (hook load of entire string is 52,000 lbs.) and pulled up 25,000 lbs. over weight of tubing to check latch. Installed plug in doughnut, removed B.O.P.E., reinstalled Xmas tree.
- 8-30-77 Tested Christmas tree to 5000 psi - O.K. Changed over to lease salt water. Ran standing valve plug in 1.56" NO-GO nipple to test seals and packer. Tested for 20 minutes at 2000 psi - O.K. Released rig at 2:00 P.M.
8-30-77.

nd.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

Report on Operations

No. T 277-236

Mr. P. S. Magruder, Jr., Agent
So. Calif. Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, Calif. 90054

Santa Paula, Calif.
Sept. 13, 1977

DEAR SIR:

Operations at well No. "SP2U" 88-6, API No. 037-00759, Sec. 28, T. 3N, R. 16W,
S.B., B & M. Aliso Canyon Field, in Los Angeles County, were witnessed
on 8/11/77. Mr. M. T. M. Callaway, representative of the supervisor was
present from 1000 to 1200. There were also present W. Beninger, engr.

Present condition of well: No additions to the casing record since proposal dated
7/28/77.

The operations were performed for the purpose of testing and inspecting the blowout prevention
equipment and installation.

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

b

M. G. MEFFERD

~~JOHN F. MATTHEWS, JR.~~
State Oil and Gas Supervisor

By John L. Gordon Deputy

REPORT ON PROPOSED OPERATIONS

Santa Paula, California

P.S. Magruder, Jr., Agent
Southern Calif. Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, Calif. 90054

August 4, 1977

Your proposal to rework gas storage well "SFZU" SS-6
(Name and number)

, A.P.I. No. 037-00759, Section 28, T. 3N, R. 16W

S.B. B. & M., ALISO CANYON field, LOS ANGELES County,

dated 7-28-77, received 8-2-77, has been examined in conjunction
with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. The drilling fluid used shall be of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts; and a reserve supply of this material shall be kept on hand to meet any emergency.
2. Blowout prevention equipment, at least of the Division of Oil and Gas Class III, 3M rating, shall be installed and maintained in operating condition at all times.
3. THIS DIVISION SHALL BE NOTIFIED TO WITNESS A PRESSURE TEST OF THE BLOWOUT PREVENTION EQUIPMENT BEFORE COMMENCING DOWNHOLE OPERATIONS.

NOTE: A COPY OF THIS APPROVAL SHALL BE POSTED AT THE WELL SITE PRIOR TO COMMENCING OPERATIONS.

Blanket Bond
MD:b

M. G. MEFFERD

State Oil and Gas Supervisor

By

John L. Hardoin
Deputy Supervisor

Deputy Supervisor

AUG 2 1977

DIVISION OF OIL AND GAS Notice of Intention to Rework Well

This notice and indemnity or cash bond shall be filed, and approval given, before rework begins. If operations have not commenced within one year of receipt of the notice, this notice will be considered cancelled.

FOR DIVISION USE ONLY		
BOND	FORMS	
	114	121
BB	✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. STANDARD SESNON #6, API No. _____, Sec. 28, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- Total depth. 9207'
- Complete casing record, including plugs and perforations:
 - 13 3/8" cemented 1000'
 - 9 5/8" cemented 4560'
 - 7" cemented 8444', WSO on shoe
 - 921' 5" cemented 9207', plug 9200', WSO on lap at 8286'
segregation 9001' and 8805'
perforated 9093'-9087', 9079'-9067', 9064'-9052', 9047'-9034',
9029'-9012', 8998'-8959', 8936'-8816', 8778-8772', 8716'-8695',
8591'-8586', 8574'-8568', 8532'-8494', 8470'-8466'
- Present producing zone name SESNON and FREW Zone in which well is to be recompleted -
- Present zone pressure 3550 psi New zone pressure -
- Last produced Gas Storage Well
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)
or
- Last injected _____
(Date) (Water, B/D) (Gas, Mcf) (Surface pressure, psig.)

The proposed work is as follows:

- Move in and rig up. Kill well. Install B.O.P.E. and test.
- Pull tubing and both hydrostatic packers, cut tubing as required.
- Clean out to 9200'.
- Set bridge plug at 8450' and pressure test 5" and 7" casing.
- Perform any remedial work indicated by pressure testing.
- Run packer and tubing with down-hole safety system.
- Return to gas storage operation.

It is understood that if changes in this plan become necessary we are to notify you immediately.

Address P.O. Box 3249, Terminal Annex
(Street)
Los Angeles, California 90051
(City) (State) (Zip)
Telephone Number (213) 689-3561

SOUTHERN CALIFORNIA GAS COMPANY
(Name of Operator)
By P. S. Magruder, Jr.
(Name) (Date) 7-28-77
Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

STANDARD SESNON #6 - ALISO CANYON

Program to install new packer, pressure test 7" casing and install new bottom hole safety valve.

CASING WITHDRAWAL AND INJECTION

Take all measurements from original Kelly bushing 14.0' above ground.

PRESENT CONDITIONS:

13 3/8" cemented 1000' 54.5# J-55
9 5/8" cemented 4560'
7" cemented 8444', WSO on shoe
921' 5" cemented 9207', WSO on lap at 8286'
Segregation 9001' and 8805'
Perforated 9093' - 9087'
 9079' - 9067'
 9064' - 9052'
 9047' - 9034' FREW ZONE
 9029' - 9012'
 8998' - 8959'
 8936' - 8816'

 8778' - 8772'
 8716' - 8695' S₈
 8591' - 8586'
 8574' - 8568'

 8532' - 8494' S₄
 8470' - 8466'
Plug 9200'

CASING DETAIL:

7" 0 - 3435' 23# J-55
 3435' - 5119' 23# N-80
 5119' - 6730' 26# N-80
 6730' - 8444' 29# N-80
5" 8286' - 9207' 18# J-55 Vetco flush joint

<u>100% Safety Factor</u>	
<u>BURST</u>	<u>COLLAPSE</u>
4360	3290
6340	4300
7240	5320
8160	6320
7000	6530

TUBING DETAIL:

2 7/8" and 2 3/8" 8rd EUE J-55
Landed 8796'
Baker "R" nipple (2 3/8") 8796' (plug in place)
Baker hydrostatic packer 8795' (5")
Baker sliding sleeve (2 3/8") 8760' (open)

TUBING DETAIL: (Continued)

Baker hydrostatic packer 8443' (5")
Baker sliding sleeve 8408' - 2 3/8" (OPEN)
Baker "F" nipple 8222' - 2 7/8"
Camco gas lift mandrels (5) with valves
except top 2 with dummies

PROGRAM:

1. Move in and rig up. Pressure test wellhead seals.
2. Kill well with 72#/cu.ft. brine-polymer drilling fluid. Check bottom hole pressure before moving in rig. Volume of well = 370 barrels.
3. Set back-pressure valve in doughnut. Remove Christmas tree. Install Class III 5000 psi B.O.P.E. Pressure test complete shut-off rams and pipe rams to 4000 psi with water and nitrogen. Also, pressure test Hydril bag to 3000 psi with water and nitrogen. Use float valve. Pressure test choke manifold to 2000 psi.
4. Attempt to unseat both packers and pull tubing. Do NOT exceed 90,000# pull. If packers will not come, cut tubing below top packer at 8775' and recover top packer. Wash over and/or cut tubing as required to recover bottom packer.
5. Run 6" bit and casing scraper. Clean out to top of 5" liner at 8286'. Run 4 1/8" bit and casing scraper. Clean out to 9200'.
6. Set bridge plug at 8450'. Pressure test plug with rig pump. Circulate polymer drilling fluid out of well with fresh water treated with surface tension agent. Pressure test casing using cement retainer and cement pump truck equipped with calibrated pressure chart and pressure gauge, as follows:

2600'	to	8450'	with	3000 psi	for	60 minutes
2600'	"	Surface	"	3200 psi	"	60 "
2400'	"	"	"	3400 psi	"	60 "
1800'	"	"	"	3600 psi	"	60 "
1300'	"	"	"	3800 psi	"	60 "
800'	"	"	"	4000 psi	"	60 "
7. Perform any remedial work indicated by pressure testing. Pull bridge plug from 8450'.

Change to polymer drilling fluid.

8. Run Otis 5" Permatrieve packer on wireline and using referen collars, set packer near 8450'. Do NOT set packer in a collar.
9. Run 2 3/8" and 2 7/8" tubing, change collars, clean pins, apply Baker Seal and hydrotest to 5000 psi holding each test for one minute. Tubing to include:
 - Otis Production Tube
 - Otis Seals (4)
 - Otis Latch-in Locator
 - Otis 10' Heavy Wall Tube
 - Otis 1.56" NO-GO Nipple with 2 3/8" threads
 - Otis 20' Heavy Wall Tube
 - Otis Annular Flow Safety System - 2 3/8"
 - 2 3/8" Tubing to 8200'
 - 2 7/8" to Surface, top 500' 2 7/8" N-80 8rd EUE
10. Land tubing on packer with up to a maximum of 10,000# on packer. Pull up 25,000# over weight of tubing to check latch.
11. Set back-pressure valve in doughnut. Remove B.O.P.E. and reinstall Christmas tree. Pressure test Christmas tree to 5000 psi.
12. Circulate drilling fluid out of well with waste salt water. Set tubing plug in NO-GO nipple. Pressure test seals and nipple to 2000 psi. Pull tubing plug and release rig.

G. C. ABRAHAMSON
July 28, 1977

cc: Rig Supervisor
Relief Rig Supervisor
Contract Pusher (2)

Division of Oil and Gas ✓

B. Jones
D. Smiley
J. Melton
D. Justice)
M. Grijalva)

Well File
Book Copy
Spare Copy

TUBING DETAIL SS 6

<u>No. Joints</u>	<u>Item</u>	<u>Length</u>	<u>Depth</u>
	Below K. B.		15.00
1	2-7/8" EU 8rd. landing nipple	1.00	16.00
162	2-7/8" EU 8rd., J-55 tubing	4992.74	5008.74
	2-7/8" EU 8rd., N-80 pup	4.10	5012.84
	Camco KBMG mandrel w/1/4" Bk. valve 1050 psi	7.40	5020.24
28	2-7/8" EU 8rd., J-55 tubing	864.53	5884.77
	2-7/8" EU 8rd., N-80 pup	4.10	5888.87
	Camco KBMG mandrel w/1/4" BK. valve 1025 psi	7.40	5896.27
29	2-7/8" EU 8rd., J-55 tubing	899.51	6795.78
	2-7/8" EU 8rd., N-80 pup	4.10	6799.88
	Camco KBMG mandrel w/1/4" BK. valve 1000 psi	7.40	6807.28
25	2-7/8" EU 8rd., J-55 tubing	773.89	7581.17
	2-7/8" EU 8rd., N-80 pup	4.00	7585.17
	Camco KBMG mandrel w/1/4" Bk. valve 975 psi	7.38	7592.55
19	2-7/8" EU 8rd., J-55 tubing	586.06	8178.61
	2-7/8" EU 8rd. N-80 pup	4.10	8182.71
	Camco KBMG mandrel w/1/4" Bk. valve 950 psi	7.38	8190.09
1	2-7/8" EU 8rd., J-55 tubing	31.33	8221.42
	Baker type F landing nipple	.83	8222.25
1	2-7/8" EU 8rd. tubing	31.56	8253.81
	2-7/8" x 2-3/8" x-over	1.00	8254.81
5	2-3/8" EU 8rd., J-55 tubing	150.56	8405.37
	Baker model L sliding sleeve	2.40	8407.77
1	2-3/8" EU 8rd., J-55 tubing	30.20	8437.97
	5" Baker hydrostatic packer Model FH	5.50	8443.47
10	2-3/8" EU 8rd., J-55 tubing	304.59	8748.06
	10' EU 8rd., N-80 pup	10.00	8758.06
	Baker model L sliding sleeve	2.40	8760.46
1	2-3/8" EU 8rd., J-55 tubing	29.65	8790.11
	5" Baker hydrostatic packer, Model FH	5.50	8795.61
	Baker Model R Nipple	.80	8796.41

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon

Well No. SS 6, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date October 24, 19 73 Signed P.E. Magruder Jr.

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054 (213) 689-3561 Title Agent
(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date	
1973	
4-26	Moved in California Production Service rig with pump and shaker tank at 8:30 PM.
4-27	Killed tubing with 60 bbls. lease salt water. Pulled and layed down 297 sucker rods and rod pump. Attempted to circulate. Pumped in 472 bbls. brine-polymer work-over fluid, first 50 bbls. treated with 30#/bbl. carbonates, next 50 bbls. with 15#/bbl. Got partial oil returns after first 297 bbls. Lost 212 bbls. fluid to Frew Zone.
4-28	Circulated out remaining oil and water with 198 bbls. work-over fluid. Have lost total of 410 bbls. to Frew Zone to date. Installed and tested class III B.O.P.E.
4-29	Idle.
4-30	Filled hole with 21 bbls. Pulled tubing. Ran 5" scraper and 4-1/8" bit and cleaned out to 9202.
5-1	Hole standing full. Ran Dresser-Atlas cement bond log from 9192' to 8010'. Could not run neutron lifetime log as 3-5/8" O.D. tool stopped at 8455' near top of Sesnon Zone. Ran 7" scraper to top of liner at 8286'. Set 5" bridge plug at 8455' and tested plug and casing at 1240 psi for 10 minutes--OK. Filled 7 x 9-5/8 and 9-5/8 x 13-3/8 annulars with mud, 30 bbls. each.
5-2	Removed B.O.P.E. and production head. Refilled annulars with water. Live oil floating out 7" x 9-5/8" annulus. Attempted to remove 7" casing packing without using cutting torch without success. Attempted to float out all oil without success. Attempted to unland 7" casing for better access to 7" x 9-5/8" annulus without success as casing jacks failed.

- 1973
- 5-3 Unlanded 7" and 9-5/8" casing at 210,000 pounds each. Cut off 13-3/8" head. Chipped out 10" of cellar floor.
- 5-4 Installed 5000 psi 13-3/8" casing head by making butt weld at cellar floor. X-Rayed weld--OK.
- 5-5 Relanded 9-5/8" casing at 210,000 pounds. Installed 9-5/8" casing head and tested seals at 2800 psi for 20 minutes--OK.
Relanded 7" casing at 210,000 pounds.
- 5-6 Idle.
- 5-7 Welded extension on 7" casing. The weld failed X-Ray inspection. Cut out 7" weld and rewelded.
- 5-8 X-Rayed 7" weld OK. Installed tubing head and tested seals to 3300 psi for 20 minutes--OK. Re-installed B.O.P.E. and tested at 1000 psi--OK. Set packer at 5503' and pressure tested 7" casing, 7" casing, 7 x 5" lap and 5" casing from 5503' to bridge plug at 8455' at 1500 psi for 20 minutes--OK. Tested 7" casing from 5503' to surface at 2500 psi for 20 minutes--OK and from 2317' to surface at 3000 psi for 20 minutes--OK.
- 5-9 Pulled 5" bridge plug from 8455'.
Ran Schlumberger TDT, CDL and Gamma-Neutron logs.
- 5-10 Using Dresser-Atlas 3-1/8" hollow carrier and 11 gram Golden Jets, shot four holes per foot at 8466'-8470', 8494'-8532', 8568'-8574', 8586'-8591', 8695'-8716' and 8772'-8778'; total 320 holes.
Ran 5" scraper and circulated hole clean from bottom at 9202'.
- 5-11 Set Baker bridge plug at 8550' and squeeze packer at 8543' and tested bridge plug at 2500 psi--OK. Released packer and displaced hole fluid across S-4 zone with 290 cu. ft. KCL water. Set packer at 8424' and injected Claylok treatment into S-4 Zone at 8466'-8470' and 8494'-8532' at 25 cu. ft. per minute at 1500 psi pump pressure as follows: 10 bbls. 3% HCL, 252 bbls. Claylok and 252 bbls. 2% KCL water. Pulled packer and bridge plug.
- 5-12 Ran completion tubing, testing to 5000 psi. (See tubing detail page 3)
Ran wireline and set plug in nipple at 8796' and set packers with rig pumps. Opened sliding sleeve at 8407', leaving sleeve at 8760' closed. Changed over from brine-polymer fluid to lease salt water thru sleeve at 8407'.
- 5-13 Idle.
- 5-14 Removed B.O.P.E. and installed and tested production head at 4000 psi--OK.
Released rig at 3:30 PM.

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	Camco KBMG mandrel w/1/4" Bk. valve 975 psi	7.38	7592.55
19	2-7/8" EU 8rd., J-55 tubing	586.06	8178.61
	2-7/8" EU 8rd. N-80 pup	4.10	8182.71
	Camco KBMG mandrel w/1/4" Bk. valve 950 psi	7.38	8190.09
1	2-7/8" EU 8rd., J-55 tubing	31.33	8221.42
	Baker type F landing nipple	.83	8222.25
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	5" Baker hydrostatic packer, Model FH	5.50	8795.61
	Baker Model R Nipple	.80	8796.41

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 273-66

Mr. P. S. Magruder, Jr. Agent
Pacific Lighting Service Company
P O Box 54790, Terminal Annex
Los Angeles, California 90054

Santa Paula Calif.
February 8, 1973

DEAR SIR:

(037-00759)

Your proposal to convert to gas storage Well No. "SFZU" SS-6
Section 28 T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated 1/19/73, received 2/2/73, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT NONE OF THE PROPOSED PERFORATIONS SHALL BE ABOVE 8807'.

Blanket Bond
ALL:a
cc: Operator

JOHN F. MATTHEWS, JR., State Oil and Gas Supervisor

By *[Signature]*, Deputy

DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

1973

This notice must be given before work begins; one copy only

Los Angeles Calif. January 19, 1973

DIVISION OF OIL AND GAS

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. SFZU SS6

(Cross out unnecessary words)

Sec. 28, T. 3N, R. 16W, SB B. & M. Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

TD 9207

1. Total depth. TD 9207'

2. Complete casing record, including plugs:

- 13-3/8", 54.5#, C 1000'
- 9-5/8", 40 & 43.5#, C 4560'
- 7", 23, 26, & 29# C 8444' WSO on shoe, D.O.G.
- 921'-5" 18# C 9207' WSO lap & 4 holes at 8805', D.O.G.
- TLH 8286'
- Pf: 4 holes per foot 8816'-8936', 8959'-8998'
- 2 HPF 9012'-9029'; 9034'-9047'; 9052'-9064'; 9067'-9079'; 9087'-9093'.
- Reperf: 2 HPF 9012'-9029'; 9034'-9047'.

3. Last produced. (Date) (Oil, B/D) (Water, B/D) (Gas Mcf/D)

The proposed work is as follows:

Jet perforate four holes per foot and/or reperforate two holes per foot in the Sesnon zone as required to convert well to a gas storage well.

MAP MAP C. & V. FORMS

MAP	MAP	C. & V.	FORMS
			111 121

P. O. Box 54790, Terminal Annex
Los Angeles, California 90054
(Address)

Pacific Lighting Service Company
(Name of Operator)

(213) 689-3561
(Telephone No.)

By P.S. Maguire Jr.

DOB Inglewood *mu*

Idewater *Del. Co. of Calif.*

WESTERN DIVISION

SECTION 28 TOWNSHIP 3N RANGE 16W B & M S.B. LOCATION 1183.14' South & 7178.79' West from Station No. 84

DISTRICT Coastal AREA Ventura LEASE & WELL Standard-Sesnon 1-#6 FIELD Aliso Canyon

COUNTY AND STATE Los Angeles California OPERATOR Tidewater Oil Company TOC FILE NO. - TOC WORKING INT. 50%

TYPE OF WELL OIL GAS TYPE OF COMPLETION SINGLE MULTIPLE OTHER PRODUCING WELLS ON LEASE OR UNIT NO YES OIL GAS

DATE OF CHANGE 3-17-62 REASON FOR STATUS CHANGE METHOD OF COMPLETION

OIL COMPLETION (FIRST FORMATION OIL PRODUCED) RESUMPTION OF PRODUCTION PUMP

GAS COMPLETION CESSATION OF PRODUCTION GAS LIFT

RE-COMPLETION IDLE FLOW

INITIAL PRODUCTION PLUGGED & ABANDONED INGLEWOOD, CALIFORNIA INJECTION

WATER _____ GAS _____

WELL DATA				PRODUCTION TEST DATA								
PRODUCING ZONE	PERFS. (ft. sp. lp)	PRODUCTION INTERVAL FROM	TO	BOPD	GAS MCFPD	CHOKE /64"	TP	CP	TRAP PRESSURE	GOR OR CONDENSATE YIELD	CUT	API GRAVITY
Frew	J.P.	8816'	9093'	166	211	20	125	1000	75	1270	2%	20.4

IF CHANGE OF STATUS IS DUE TO CESSATION OF PRODUCTION, WHAT ARE THE PLANS TO RESTORE PRODUCTION, AND ON WHAT DATE IS PRODUCTION EXPECTED TO BE RESTORED?

REASON FOR PLUG & ABANDONMENT

TOTAL DEPTH: 9207' (Rd) PLUGGED DEPTH: -* GROUND ELEVATION: 2691 POINT OF DEPTH MEASUREMENT: 11 FT. ABOVE GROUND

SIZE OF CASING (A.P.I.)	DEPTH OF SHOE	TOP OF CASING	WEIGHT OF CASING	NEW OR SECOND HAND	GRADE	SIZE OF HOLE DRILLED	NUMBER OF SACKS CEMENT	W S O DEPTHS	CASING PACKER DEPTHS (IF ANY)
13 3/8"	1000'	Surface	54.5#	New	No Record	17 1/2"	500		-
9 5/8"	4560'	"	40 & 43.5#	"	J-55, N-80	12 1/4"	500		-
7"	8444'	"	26, 23 & 29#	"	J-55, N-80	8 1/2"	250	8444'	-
5"	9207'	8286'	18#	"	J-55	6"	125	5 x 7" Lap: 8805 & 9001'	-

JUNK: 5" 18# 8480'-8715' (St'd. - RD 1)

REMARKS: * Orig. T.D. 8720': Pg. 8464' Rd. & De. to 9207" Recompleted Frew Zone

SUBMITTED BY *J.M. Cadden* TITLE District Engineer DATE April 11, 1962

DISTRIBUTION: DISTRICT PRODUCTION MANAGER, DIVISION PRODUCTION MANAGER, DIVISION EXPLORATION MANAGER, PRODUCTION ACCOUNTING, LEASE RECORDS-PRODUCING PROPERTIES, DIVISION OF OIL & GAS (COMPLETIONS, RECOMPLETIONS AND ABANDONMENTS ONLY), CONSERVATION COMMITTEE OF CALIFORNIA OIL PRODUCERS (COMPLETIONS AND RE-COMPLETIONS ONLY).

DIVISION OF OIL AND GAS

APR 16 1962

History of Oil or Gas Well

INGLEWOOD, CALIFORNIA

OPERATOR TIDEWATER OIL COMPANY *Operator* FIELD ALISO CANYONWell No. STANDARD-SESNON 1-#6, Sec. 28, T. 3N, R. 16W, S.B. B. & M.Date APRIL 13, 1962Signed J. M. Cadden
J. M. CADDEN

P. O. Box #311, Ventura, Calif. MI 3-2154

Title Agent

(Address)

(Telephone Number)

(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

1962HISTORY

Date	
1/14-19	Contractor moved in, rigged up. Pumped 250 barrels water down tubing 0-600# pressure, no returns. Pumped 200 barrels water down casing 1100-1600#, no returns. Ran tubing punch which stopped at 850' due to wax in tubing. Bleeding casing down to 700#. Dewaxed tubing with hot oil. Ran wire line and punched 1 3/8" hole in tubing with mechanical perforator at 8326'. Circulated water down casing to kill well. Water would not hold. Changed to inverted emulsion mud 64-68#. Removed tree, installed B.O.P.E. Pulled tubing and packer and ran wire line gyro survey 0-8440'.
1/20-23	With tubing hung at 8704' equalized 40 sacks - 120# slurry-Victor Class N cement. Displaced with 344 cu.ft. mud. Pulled to 8438' and attempted to backscuttle. Found fill-up line and backscuttle lines hooked up between 7" and 9 5/8" casing, pulled out. Ran bit and located top of cement at 8414'. Cleaned out cement to 8480'. Plug witnessed and approved by D.O.G. Ran 6" mill; milled on liner hanger and liner to 8480'. Washed milled section 8440' to 8480'. With drill pipe hung at 8478' equalized 50 sacks Victor Class N cement and 20% sand with 340 cu.ft. mud. Located top of cement at 8375'. Cleaned out cement to 8400'. Pressure tested casing to 1500 psi, O.K. Cleaned out cement to 8464'. Oil base mud weight 66; viscosity 190.
1/24-28	Set whipstock #1 at 8464', oriented 92° around to the right, drilled off face with 4 3/4" bit to 8472'. Opened hole to 6", and drilled 6" hole to 8477'. Ran whipstock #2 - hit fill at 8470' - sheared pin while working whipstock. Pulled whipstock #2. Cleaned out to 8477'. Reran and set whipstock #2 at 8477', oriented 100° around to right. Drilled off face with 4 3/4" bit and hit stub of 5" liner at 8480'. Pulled whipstock #2, With open end drill pipe run to 8479' equalized 35 sacks Class A cement, 20% sand. Pulled to 8380', backscuttled, no cement. After 10 hours found no cement to 8480'. Mud weight 65-66; viscosity 160-168. Ran open end drill pipe to 8477', equalized 50 sacks Victor Class A cement, 20% sand - 120# slurry. Top of cement 8270'. After 6 hours cleaned out medium firm cement to 8400'. Cleaned out cement from 8400' to 8447'. After 20 hours cleaned out from 8447' to 8464'. Ran whipstock #3, drilled off face 15" with 4 3/4" bit. Pulled whipstock #3. Mud weight 65-66; viscosity 160-168.
1-29-30	Set whipstock #4 at 8465', oriented 110° to the right, drilled off face with 4 3/4" bit to 8471'. Opened hole to 6" hole and drilled to 8522'. Rig down 6 1/4 hours for repairs. Mud weight 66; viscosity 155.

1962

HISTORY

- 1/31-2/17 Drilled 6" hole from 8522' to 9055'. Had excessive torque. Pulled bit, left 3 cones from bit in hole. Ran Induction log from 9055 to 8444'. Ran junk snatcher - recovered cones. Mud weight 66; visocisty 200 (due to excessive rain water). Reamed 9044' to 9057'. Drilled 6" hole from 9057' to 9207'. Ran Induction and Gamma Ray Sonic logs to 9207'. Conditioned hole to run liner.
- 2/18 Ran 921.20' of 5" 18# Vetco thread F.J. liner. Top 7 joints equipped with 6 centralizing lugs per joint. Liner hung at 9207'. T.L.H. 8286'. Baker insert float 43.62' from bottom. Cemented liner with 125 cu.ft. Sealite and Glass N cement 1:1 and 4% gel. Displaced with 449 cu.ft. mud, 436 cu.ft. calculated. Bumped plugs. Used liner cementing pump down plugs. Located top of cement at 8223'. Cleaned out to 8286', pressure tested to 1800# for 15 minutes O.K. Mud weight 66; viscosity 110.
- 2/19-20 Ran J.C.T. with no cushion, 1/2" bean in tester. Set packer at 8170' with perforated tail to 8188'. Opened tester at 1:12 P.M. Observed faint blow decreasing to dead in 28 minutes, dead for balance of 1 hour test. Pulled loose at 2:12 P.M. Recovered 35' net rise drilling fluid. Test on 5 x 7" lap witnessed and approved by D.O.G. IHS and FHS 3687#. IFP and FFP 12#. Located top of cement 9095', cleaned out to 9200'. Ran neutron log tool which stopped at 8457'. Ran feeler to 9200'. Ran smaller O.D. neutron log tool. Logged 9200-8186'. J.P.'d 4 holes at 9001' (I.E.S. log measurements).
- 2/21 Ran C.C.T. with 2035' water cushion and 1/2" bean in tester. Set packer at 8926' with tail to 8940'. Opened tester at 7:45 A.M., observed faint blow decreasing to dead in 31 minutes, dead for balance of 1 hour test. Pulled loose at 8:45 A.M. Pulled to fluid. Recovered 10' rise (hole fluid). Back-scuttled cushion to sump. Charts indicate no plugging. IHSP and FHSP 4000#. IFP and FFP 900#. J.P.'d 4 holes at 8805'. Ran C.C.T. with 1840' water cushion and 1/2" bean. Set packer at 8744', tail to 8758'. Opened tester at 5:36 P.M., observed faint blow decreasing to dead in 25 minutes. Occasional faint puffs for balance of 1 hour test. Pulled loose at 6:36 P.M. Recovered 30' rise (hole fluid). Backscuttled cushion to sump. Charts indicate no plugging. IHP 3900#, FHP 3950#. IFP and FFP 800#. W.S.O. on holes at 8805' witnessed and approved by D.O.G.
- 2/22 Changed over to lease crude. J.P.'d 2 h/ft 9093-9087'; 9079-9067'; 9064-9052'; 9047-9034'; 9029-9012'. Measured 266 joints of 2 7/8" EU 8 rd. tubing to 8241'. Pump shoe at 8210'.
- 2/23-25 Idle.
- 2/26-27 Contractor moving out.
- 2/28-3/7 Poured pumping unit foundation. Hooked up well head. Ran rods and pump. Set pumping unit, hooked up power, grouted pump unit. On pump 2:00 P.M. 3/7 In 16 hours pumped 146 barrels circulating oil, 204 barrels circ. oil to recover. 10.5 SPM; 86" stroke.
- 3/8-9 In 16 hours pumped 85 barrels circ. oil. Pumped off 10:00 P.M. Dumped 40 barrels circulating oil in annulus. In 5 hours recovered 40 barrels circ. oil plus additional 10 barrels circ. oil.
- 3/10 Pumped 10 barrels circulating oil.
- 3/11 Pumped 5 barrels circulating oil.
- 3/12 Pumped 5 barrels circulating oil. Shut well in at 4:00 P.M. Moved in hoist.

1962

HISTORY

- 3/13-15 Moved in hoist. First one broke down. Found pump stuck. Stripped out tubing and rods. Perforated the Frew Zone as follows: Reperforated J.P.'d 2 h/ft 9047' to 9034' and 9029-9012'. J.P.'d 4 h/ft from 8998-8959'; 8936-8816'. Fluid level at start 7150, finish 6440. Well started to flow after perforating completed. Surface pressure 475#.
- 3/16 Killed well with 85 barrels 88# mud. Ran tubing. Well started flowing. Pumped in 5 barrels mud. Ran rods and pump. Circulated out mud with 65 barrels oil. In 6 hours pumped 85 BO; 30/64"; 125/750# (20 bbls. formation oil).
- 3/17 Pumped 207 BFPD; 0.5%; 206 BOPD; 30/64"; 100/750#; 250 MCF net (est.); 19.6° API gravity.
- 3/18 Pumped 216 BFPD; 0.5%; 215 BOPD; 30/64"; 100/1000#; 285 MCF net.
- 3/19 Pumped 206 BFPD; 2% (baroid), 202 BOPD; 20°; 30/64"; 100/925#; 308 MCF net.
- 3/20 Pumped 5 hours, flowed 19 hours 198 BFPD; 0.4%; 20/64"; 125/1000#; 20.4°; 275 MCF (est.)
- 3/21 Flowed 195 BFPD; 0.1%; 195 BOPD; 20/64"; 150/1000#; 20.4°; 265 MCF net.
- 3/22 Flowed 190 BFPD; 0.2%; 190 BOPD; 20/64"; 140/1000#; 20.4°; 238 MCF net.
- 3/23 Flowed 188 BFPD; 0.4%; 187 BOPD; 246 MCF; 140/1000#; 20/64".
- 3/24 Flowed 198 BFPD; 0.5%; 197 BOPD; 238 MCF; 20/64"; 100/1000#.
- 3/25 Flowed 187 BFPD; 0.6%; 186 BOPD; 227 MCF; 20/64"; 100/1000#.
- 3/26 Flowed 192 BFPD; 3.2%; (2.0% water, 1.2% emulsion); 186 BOPD; 20/64"; 125/1000#; 238 MCF net.

Tubing Record

8241' - 2 7/8" 8 rd. EU tubing
Pump shoe at 8210'

T.D. 8720'; Pg. 8464'; Rd. 9207'

Log: Submitted

Zone: Frew

Casing Record

13 3/8" 54.5# c 1000'
9 5/8" 40, 43.5# c 4560'
7" 23, 26 & 29# c 8444'

921' -5" 18# Vetco H 9207'

WSO 5" x 7" lap *

WSO 4 h's 8805'; 9001' *

J.P. 4 h/ft 8816-8936'; 8959-8998';

J.P. 2 h/ft 9012-9029'; 9034-9047';

9052-9064'; 9067-9079'; 9087-9093';

Reperf. 2 h/ft 9012-9029'; 9034-9047'

T.L.H. 8286'

Abandoned Casing

235' -5" 18# L 8715'

Pf: 8480-8715'

Top of stub 8480'

* Witnessed & approved by D.O.G.

brm

03700-59

February 22, 1962

28-3N-16W

~~SESNON OIL COMPANY~~

~~SESNON OIL COMPANY~~ --Tidewater Oil Co. SESNON No. 1-6

Aliso Canyon Field

- 9115¹ D Hard, light and dark grey, and pink quartzite, no shale noted.
 No fossils.

 - 9135¹ Similar to above with some grey shale and siltstone, a little igneous material.
 No fossils.

 - 9155¹ Quartzite, shale, siltstone and igneous material.
 No fossils.

 - 9175¹ Similar to above.
 No fossils.

 - 9195¹ Quartzite as above with some grey shale, siltstone and a very little igneous material. An increase in the amount of shale and siltstone.
 Globobulimina sp. 1 fragment.

 - 9207¹ TD Grey shale and siltstone with a little quartzite and igneous material. An increase in shale and siltstone.
 No fossils.
- No diagnostic fossils were found in these samples.

CMC:rg

Carlton M. Carson
Consulting paleontologist

CMC

TO _____

FROM S. O. Co. and

SUBJECT: Tidelwater Assoc. Oil Co. FILE: _____

Standard-Sesnon #1-6

Sec. 28, T3N, R16W.

Elev. 2691

Ditch sample record 10/8/45

Ditch samples procured by G. T. Bowen. ^{from TWA} 99% of samples overwashed leaving hd. residue only - not representative.

100' Dk br and lt. gy. thinly bedded hd. Modelo (Mohnian) sh.

200 " mass. to lam. hd. Modelo sh.

500 Dk gy. basalt

600 Matl. as above + lt. gy. ^{non-marine} calc. biotitic ss. (Topanga fm.)

700 Ditto

800 White calc. biotitic ss.

900 ditto

gap

1200 Dull greenish gy muddy p. s. sd. - easily friable. Sanguis

x gap

2800 Imru muddy sample. Med. gy mud + few pcs.

greenish gy. Eocene sh.

2900 abt. 90% greenish-^{and lt. gy.} gy. Eocene sh.

10% large pcs. lower Mohnian nodular sh.

3000 ditto a large pc. Eocene ls + large calc. algae

3100-3400 " few pcs. br. gy. Valv. col. siltstone 100-ft. interval

3500-4000 " " " " " " "

4100-4400 = 30% Eocene as above

= 50% br. gy. soft Pliocene? siltstone **IBM**

* = 10% = 2 mm. to 4 mm. ^{granules} loose sd. and pebbles up to 1/2" many dk bluish gy. " " Pliocene

10/8/55

TO

FROM

Standard-5
SUBJECT: Section 1-6 Ditch contd

FILE:

4500 and 4700 largely qy. and br. qy soft argill. siltstone
few pcs. valv. cal. br. qy siltstone TP?

" " qy. Eocene varicolored grain fine ss.
4900-5200 ±25% each: - " " ss. and greenish
1. qy. and purplish qy. sh.
2. br. qy. fine argill. siltstone - 290? Part + Valv. cal.
3. qy. fine ss.

±10% dk br. nodular sh. ±15% cc. sd. to ± 1/2" dk. pebbles
5300-5500 Ditto - poor sample (5350 electric log break Frew fault
5600 ditto but increase nodular sh. to ± 25% X

5700 ditto " " granules and qvl. to ± 50% Eocene + older beds present over TL
reduce - nodular sh ± 15%
" Eocene " ± 20%
" tough br. qy. siltstone ± 15%

5800 ditto but increase br. qy. sdy. tough " to ± 30%
reduce Eocene shale to ± 10%

5900 ± 80% granules + qvl up to ± 1/2" dk. pebbles mostly.
± 10% br. qy. siltstone - few pcs qy. siltstone
± 10% nodular sh.

gap

6100-6300 ±50% br. qy. siltstone and qy. argill. fine
sdy. siltstone part + valv. calif., valv. micc.
± 40% granules + qvl. ditto

gap

6800 [as labeled] all nodular sh. and granules sd. IBK
brackets lab.

TO

FROM

SUBJECT: Std. - Section 1-6 Corrid

FILE:

6900-7200 Samples each 100'

30% br. qz. siltstone - part + Volv. cal.

40% granular grade sd. + qv.

20% Eocene sh.

10% nodular sh.

7400-7700 each 100' interval

± 90% br. qz. and minor qz. argill. siltstone -
part equiv. lithologic Volv. cal.

± 10% mixed matl. from above

few pcs. qz. fine to med. crumbly ss.

toward bottom of interval

7900-8200 (last sample) ditto, but increase amk. of ss.

100' intervals

argill. siltstone becomes darker and braconer
and becomes very tdy. toward bottom. TP9155 Electric log break = top lower Mohnian. ✓

TO: MR. _____

19

FROM: MR. _____

SUBJECT: _____

OUR FILE: _____

YOUR FILE: _____

- 4) TWO - Std Section 6 (28, 3N, 16W) 1st sample Ditch 2800' contains Plio, Luisian forams from "up-hole" & Santa Susana forams, presumably in situ. 2900' D & above in 2800' contain much calc algae. 3500' D Santa Susana forams & RC glauconite, suggesting proximity to Monterey (Frew zone). 3700' D RC glauconite & some yori-colored grains - possibly within Frew zone. Base of Frew zone? presumably a fault contact w/ Pliocene between 4000' & 4500'. 4500' D contains bluish-grey grains & Pliocene forams.

Explor. File

TO: MR.

RTN

Feb 19 62

FROM: MR.

RCE

SUBJECT:

Fossil Report Station - Section 1-6 TWO

OUR FILE:

28-3N-11W

Deepening

YOUR FILE:

Ditch samples received & examined from 8947 to 9207' —
 all samples barren of any fossil content.

lithology:

8947 D contains much red Jasper like xk & other multi-colored grains similar to Martinsburg - Free zone lithology

Ditto thru 9207 D. however there is an apparent increase in igneous constituents in 9195 & 9207 samples

Conclusion: within Martinsburg Free zone at 9207' T.D. instead of Carbonaceous on negative evidence.

IBM

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

(FORMATION TESTER)

No. T 162-158

Mr. Mike Bealesio
P. O. Box 811
Ventura, California
Agent for TIDEWATER OIL COMPANY

Inglewood Calif.
February 27, 1962

DEAR SIR:

Your well No. "Standard-Sesnon 1" 6, Sec. 28, T. 3 N, R. 16 W, S B B & M.
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off
on February 21, 1962. Mr. R. Tudor, Engineer, designated by the supervisor was present
from 9:40 p.m. to 10:30 p.m. as prescribed by law; there were also present P. Gundelfinger, Engineer

Shut-off data: 5 in. 18 lb. casing was ~~xx~~ cemented ~~xxxxxx~~ at 9207 ft.
on February 18, 1962 in 6 in. hole with 135 cu. ft. ~~xx~~ of cement

calculated to fill behind casing to 8223 ft. below surface.
Casing record of well: 13-3/8" cem. 1000'; 9-5/8" cem. 4560'; 7" cem. 8444', W.S.O.; 5" cem.
8286'-9207', perf. 9004', perf. 8807', W.S.O. T.D. (present hole) 9207'. T.D. (1st hole)
8720'

Present depth 9207 ft. cmt. bridge 9207 ft. to 9200 ft. Cleaned out cmt. 9095 ft. to 9200 ft. for test.
A Cook tester was run into the hole on 3-1/2 in. drill pipe tubing
with 1840 ft. of water-mud cushion, and packer ~~xx~~ set at 8744 ft. with tailpiece to 8758 ft.
Tester valve, with 1/2 in. bean, was open for one hr. and ~~xxxx~~ min. During this interval there was a
light 25 minute blow and no blow thereafter.

Mr. Gundelfinger reported:

- The 5" casing was jet-perforated with four 1/2" holes at 9004' and the well tested dry.
- The 5" casing was jet-perforated with four 1/2" holes at 8807'.

THE ENGINEER NOTED:

- When the drill pipe was removed, 30' of drilling fluid was found above the tester.
- The pressure bomb chart indicated that the tester tool functioned properly.

THE 5" SHUT-OFF AT 8807' IS APPROVED.

RT:omh

cc Mike Bealesio
Prod. Dept. - Tidewater Oil Co.

E. R. MURRAY-AARON
~~E. H. MOSS~~
State Oil and Gas Supervisor

By *[Signature]* Deputy

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 162-144Mr. Mike Beallessio
P. O. Box 811
Ventura, California
Agent for TIDEWATER OIL COMPANY, OPERATORInglewood Calif.
February 23, 1962

DEAR SIR:

Operations at well No. "Standard-Sesnon 1" 6, Sec. 28, T. 3 N, R. 16 W, S B B & M.
Aliso Canyon Field, in Los Angeles County, were witnessed
on February 19, 1962. Mr. S. Cordova, Engineer, representative of the supervisor was present
from 5:30 p.m. to 6:15 p.m. There were also present P. Gundelfinger, Engineer and W. Been,
Drilling ForemanPresent condition of well: 13-3/8" cem. 1000'; 9-5/8" cem. 4560'; 7" cem. 8444', W.S.O.; 5"
cem. 8286'-9207'. T.D. (present hole) 9207', plugged with cement 9207'-9164'±.
T.D. (1st hole) 8720'.The operations were performed for the purpose of demonstrating the effectiveness of the seal between
the 7" and 5" casings.Mr. Gundelfinger reported:

1. The 5" casing was milled out to 8480'.
2. On January 23, 1962, 40 sacks of cement was pumped in the hole through 3-1/2" drill pipe hanging at 8478', filling to 8375'.
3. The cement was drilled out of the hole from 8375' to 8465', and a removable whipstock was set at 8465'.
4. A 6" hole was redrilled from 8465' to 8480'.
5. On January 27, 1962, 50 sacks of cement was pumped in the hole through 3-1/2" drill pipe hanging at 8477', filling to 8400'.
6. The cement was drilled out of the hole from 8400' to 8465', and a removable whipstock was set at 8465'.
7. A 6" hole was redrilled from 8465' to 9207'.
8. On February 18, 1962, 921' of 5", 18 lb. casing was cemented at 9207' (top at 8286'), with 135 cubic feet of cement, filling behind the 5" casing to 8286', and inside the 7" casing to 8223'.
9. Cement was drilled out of the 7" casing from 8223' to 8286'. No cement was found inside the 5" casing.
10. A Johnston tester was run into the hole on 3-1/2" drill pipe and the packer set at 8170' with tailpiece to 8188'. The tester valve, with 1/2" bean, was open for one hour. During this interval there was a faint blow for 23 minutes, and no blow thereafter.

THE ENGINEER NOTED:

1. When the drill pipe was removed, 35' of drilling fluid was found above the tester.
2. The pressure bomb chart indicated that the tester tool functioned properly.

THE OPERATIONS AS WITNESSED AND REPORTED ARE APPROVED as indicating that no fluid has access to the well from between the 7" and 5" casings.

SC:omh

cc Mike Beallessio
Prod. Dept. - TidewaterE. R. MURRAY-AARON
State Oil and Gas SupervisorBy Wm C Bailey Deputy
WCB

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 162-66

Mr. Mike Bealesio
 P. O. Box 811
 Ventura, California
 Agent for TIDEWATER OIL COMPANY, OPERATOR

Inglewood Calif.
January 23, 1962

DEAR SIR:

Operations at well No. "Standard-Sesnon 1" 6, Sec. 28, T. 3 N, R. 16 W, S B B & M.
Aliso Canyon Field, in Los Angeles County, were witnessed
 on January 21, 1962. Mr. M. Mefferd, Engineer, representative of the supervisor was present
 from 2:00 a.m. to 3:00 a.m.. There were also present W. Been, Drilling Foreman

Present condition of well: 13-3/8" cem. 1000'; 9-5/8" cem. 4560'; 7" cem. 8444', W.S.O.; 5"
ld. 8408'-8715', perf. 8440'-8715', cem. off. 8525'-8562'; T.D. 8720', plugged with
cement 8704'-8514'. * 8414

The operations were performed for the purpose of testing the location and hardness of a cement
plug placed from 8704' to 8514' in the process of plugging back to redrill.

Mr. Been ^{* 8414} reported: THAT on January 20, 1962, 40 sacks of cement
was pumped in the hole through 2-3/8" tubing hanging at 8704', filling to 8514'. ^{* 8414 Paul Gundelfinger / R. Tzius}

THE ENGINEER NOTED THAT the cement plug at the reported depth of 8514' supported 1/10th
of the weight of the tubing. ^{* 8414}

THE LOCATION AND HARDNESS OF THE CEMENT PLUG AT 8514' ARE APPROVED.

MM:omh

cc Mike Bealesio
Prod. Dept. - Tidewater Oil Co.

** Paul Gundelfinger / R. Tzius 2/1/62*

E. R. MURRAY-AARON,

E. H. MUSSEN

State Oil and Gas Supervisor

By *Alvin C. Bach*

Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS
REPORT ON PROPOSED OPERATIONS

No. P 161-1225

Mr. Mike Bealesio
P. O. Box 811
Ventura, California
Agent for TIDEWATER OIL COMPANY, OPERATOR

Inglewood Calif.
December 21, 1961

DEAR SIR:

Your supplementary proposal to redrill and deepen Well No. "Standard-Sesnon 1" 6,
Section 28, T. 3 N., R. 16 W., S. B B. & M., Aliso Canyon Field, Los Angeles County,
dated Dec. 19, 1961, received Dec. 20, 1961, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES

"The present condition of the well is as follows:

Total depth	}	No Change "
Complete casing record including plugs.		

PROPOSAL

"We now propose (1) to mill 5" liner to 8474'+; set cement plug (8464'+) and redrill to a T.D. of 9100'+. Cement 5" liner at 9100'.

- (2) Establish W.S.O. at 5" x 7" lap and at 8730'+.
(3) J.P. and G.P. 2 h/ft 8730-9100'.
(4) Return well to production. "

DECISION

THE PROPOSAL IS APPROVED PROVIDED:

1. The well shall be plugged with cement from 8715' to 8464'+.
2. THIS DIVISION SHALL BE NOTIFIED TO WITNESS:
 - a. The location and hardness of the cement plug at 8464'+.
 - b. A test after cleaning out below the top of the liner to demonstrate that no fluid has access to the well from between the 5" and 7" casings.
 - c. The test of shut-off at 8730'+.

DER:omh

cc Mike Bealesio
Prod. Dept. - Tidewater Oil Co.

E. H. MUSSER, State Oil and Gas Supervisor

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

006
DIVISION OF OIL AND GAS
INGLEWOOD
RECEIVED
DEC 20 1961
INGLEWOOD, CALIFORNIA

Supplementary Notice

Ventura Calif. December 19, 19 61

DIVISION OF OIL AND GAS

Inglewood Calif.

A notice to you dated December 15, 19 61, stating the intention to

redrill + Deepen well No. Standard Sesnon 1-#6
(Drill, deepen, redrill, abandon)

Sec. 28, T. 3N, R. 16W, S.B. B & M Aliso Canyon Field,

Los Angeles County, should be amended because of changed conditions.

The present condition of the well is as follows:

Total depth)
Complete casing record including plugs.) No Change

- We now propose
- (1) to mill 5" liner to 8474'±; set cement plug (8464'±) and redrill to a T.D. of 9100'±. Cement 5" liner at 9100'.
 - (2) Establish W.S.O. at 5" x 7" lap and at 8730'±.
 - (3) J.P. and G.P. 2 h/ft 8730-9100'.
 - (4) Return well to production.

So ppl redrill + deepen

MAP	WELL	STATUS	DATE	INITIALS

Lawyer [Signature]

P. O. Box #811, Ventura, Calif.

(Address)

MI 3-2154

(Telephone No.)

TIDEWATER OIL COMPANY

(Name of Operator)

By *M. Bealesio*
M. Bealesio, Agent

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
REPORT ON PROPOSED OPERATIONS

No. P 161-1223

Mr. Mike Bealesio
P. O. Box 811
Ventura, California
Agent for TIDEWATER OIL COMPANY, OPERATOR

Inglewood Calif.
December 20, 1961

DEAR SIR:

Your _____ proposal to redrill and deepen Well No. "Standard-Sesnon 1" 6
Section 28, T. 3 N., R. 16 W., S B.B. & M., Aliso Canyon Field, Los Angeles County,
dated Dec. 15, 1961 received Dec. 18, 1961 has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES

"The present condition of the well is as follows:

1. Total depth. 8720'
2. Complete casing record.
 - 13 3/8" 54.5# c 1000'
 - 9 5/8" 40 & 43.5# c 4560'
 - 7" 23, 26 & 29# c 8444'
 - 307' -5" 18# L 8715'
 - PF: 8440-8715' (80 M, 2" slots, 12 rows, 6" centers)
 - Scabbed: 8525-8562'
 - T.L.H. 8408'

3. Last produced. Well Shut In August, 1961

	(Date)	(Net Oil)	(Gravity)	(Cut) "
--	--------	-----------	-----------	---------

PROPOSAL

"The proposed work is as follows: REDRILL & DEEPEN TO INCLUDE FREW ZONE

1. Mill section 8270' - 8300'. Plug back with cement. D.O.C. to witness and approve.
2. Redrill and deepen to 9200'+.
3. Land 5" Blank liner at 9200'. Establish W.S.O. at lap and at 8730'.
J.P. & G.P. 2 h/ft 8730-9150'.
4. Return well to production. "

DECISION

THE PROPOSAL IS APPROVED PROVIDED:

1. The well shall be plugged with cement from 8715' to 8350', or above.
2. **THIS DIVISION SHALL BE NOTIFIED TO WITNESS:**
 - a. The location and hardness of the cement plug at 8350', or above.
 - b. A test after cleaning out below the top of the liner to demonstrate that no fluid has access to the well from between the 5" and 7" casings.
 - c. The test of shut-off at 8730'.

DER:omh

cc Mike Bealesio
Prod. Dept. - Tidewater Oil Co.

E. H. MUSSER, State Oil and Gas Supervisor

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
RECEIVED
DEC 18 1961

DIVISION OF OIL AND GAS

Notice of Intention to Deepen, Redrill, Plug or Alter Casing in Well

This notice must be given before work begins; one copy only

Ventura, Calif. December 15, 1961

DIVISION OF OIL AND GAS

Inglewood, Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, ~~redrilling, plugging or altering casing at~~ Well No. Standard-Sesnon 1 No. 6
(Cross out unnecessary words)

, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

- 1. Total depth. 8720'
- 2. Complete casing record.
 - 13 3/8" 54.5# c 1000'
 - 9 5/8" 40 & 43.5# c 4560'
 - 7" 23, 26 & 29# c 8444'
 - 307' -5" 18# L 8715'
 - Pf: 8440-8715' (80 M, 2" slots, 12 rows, 6" centers)
 - Scabbed: 8525-8562'
 - T.L.H. 8408'

3. Last produced. Well Shut In August, 1961
(Date) (Net Oil) (Gravity) (Cut)

The proposed work is as follows: REDRILL & DEEPEN TO INCLUDE FREW ZONE

- 1. Mill section 8270' - 8300'. Plug back with cement. D.O.G. to witness and approve.
- 2. Redrill and deepen to 9200'±.
- 3. Land 5" Blank liner at 9200'. Establish W.S.O. at lap and at 8730'. J.P. & G.P. 2 h/ft 8730-9150'.
- 4. Return well to production.

MAP	MAP BOOK	CARDS	BOND	FORMS	
			Blank	114	121

TIDEWATER OIL COMPANY

(Name of Operator)

By M. Bealesio/ek
M. Bealesio, Agent

JUL 16 1956

DIVISION OF OIL AND GAS
WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

LOS ANGELES, CALIFORNIA

Operator Tidewater Oil Company Well No. "Standard-Session 1-6"
Sec. 28, T. 3N, R. 16 W, S.B. B. & M. Aliso Canyon Field Los Angeles County.

Location 1183.14'S, 7178.79'W From Standard-Session #84
(Give location from property or section corner, or street center lines)

Elevation of ground above sea level 2684 feet

All depth measurements taken from top of Derrick Floor which is 6.92 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

In compliance with Sec. 3215, of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date June 1, 1956 Signed J. E. Weaver
R. M. Burns V. D. Gould Title T. E. Weaver, Agent
(Engineer or Geologist) (Superintendent) (President, Secretary or Agent)

Commenced drilling	Completed drilling	Geological Markers	DEPTH
<u>Scabbing 12/11/55</u>	<u>Scabbing 3/24/56</u>		
Total depth <u>8720</u>	Plugged depth		
Junk <u>(2-7/8" Dr. tubing fish - all recovered)</u>			

Commenced producing 3/27/56 Flowing gas lift/pumping Name of producing zone U. Session
(Date) (Cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
<u>3/28/56</u> Initial production	<u>347</u>	<u>20.7</u>	<u>5.0%</u>	<u>171</u>	<u>500#</u>	<u>2150#</u>
Production after 30 days	<u>70</u>	<u>20.9</u>	<u>1.2%</u>	<u>67</u>	<u>500#</u>	<u>2100#</u>

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Drilled	Number of Sacks of Cement	Depth of Cementing if through perforation
<u>3-3/8"</u>	<u>1000</u>	<u>0</u>	<u>54.5</u>	<u>New</u>	<u>Seamless</u>	<u>T & C</u>	<u>17-1/2"</u>	<u>500</u>	<u>---</u>
<u>2-5/8"</u>	<u>1560</u>	<u>0</u>	<u>40, 19.5#</u>	<u>New</u>	<u>Seamless</u>	<u>N-80</u>	<u>12-1/4"</u>	<u>500</u>	<u>---</u>
<u>7"</u>	<u>8114</u>	<u>0</u>	<u>23, 26.29#</u>	<u>New</u>	<u>Seamless</u>	<u>N-80</u>	<u>5-1/2"</u>	<u>250</u>	<u>---</u>
<u>5"</u>	<u>8715</u>	<u>8108</u>	<u>18#</u>	<u>New</u>	<u>Seamless</u>	<u>N-80</u>	<u>6"</u>	<u>---</u>	<u>---</u>

PERFORATED CASING

(Size, top, bottom, perforated intervals, size and spacing of perforation and method.)

<u>5"</u>	<u>8110-8524'</u>	<u>804 x 2"</u>	<u>12 Rows x 6" cts. by Kobe</u>						
<u>7"</u>	<u>(8525-8563) Inst. (.)</u>								
<u>7"</u>	<u>8564-8715</u>								

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
JUL 16 1956

History of Oil or Gas Well

LOS ANGELES, CALIFORNIA

OPERATOR TIDEWATER OIL COMPANY FIELD ALISO CANYON

Well No. Standard-Session 1-46, Sec. 28, T. 3W, R. 16W, S.B. S.B. B. & M.

Date June 4, 1956, 19____ Signed S. E. Weaver

Los Nietos, Calif. Oxford 91051 Title T. E. Weaver, Agent

(Address) (Telephone Number) (President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form to report a full account of all important operations during the drilling and testing of the well or during re-drilling, altering of casing, plugging, or abandonment with the dates thereof. Be sure to include such items as hole size, formation test details, amounts of cement used, top and bottom of plugs, perforation details, sidetracked junk, bailing tests, shooting and initial production data.

Date

1955

12/9 Moving in mud tanks

12/10 Idle.

12/11 Killed well with 330 barrels salt water.

12/12 Contractor moving in (Terminal Drilling & Production).

12/13 Contractor rigging up.

12/14 Finished rigging up. Circulated salt water. Tore out Christmas tree. Installed and tested blowout preventor. Cleaned out and circulated to 8715'. Spotted 6 barrels Ken Pak on bottom (8715'). Pulled tubing to 8560' and backscuttled excess. Ran M & T bridge plug and set at 8566'. Measured tubing in and out of hole while running bridge plug.

12/15 Made up 2-7/8" drill tubing with M & T scabbing tool and washed interval 8555'-8525' with salt water. Seab cemented interval 8555'-8525' with 35 sacks Victor Hi-temp. cement. Time 10:40 PM. Pulled tool to 8515' and backscuttled an estimated 25 sacks. O.W.C.

12/17 Found top of cement at 8525'. Drilled out solid cement from 8525'-8560'. Circulated hole clean.

12/18 Ran M & T scabbing tool on 2-7/8" tubing and pressure tested interval 8555'-8525'. Would not hold 1500#; however, tight in spots. Rescabbbed interval 8555'-8525' with 35 sacks Victor Hi-temp. cement. Time 11:55 PM. Backscuttled estimated 25 sacks. O.W.C.

12/19 Found top of cement at 8525'. Drilled out solid cement from 8525'-8560'. Circulated four hours on bottom.

12/20 Ran M & T scabbing tool with 15" spacing between opposed cups and pressure tested interval 8555'-8525' with following results:

8555'-8542'	Would not hold 1500#
8542'-8541'	Held 1500#
8541'-8532'	Would not hold 1500#
8532'-8526'	Held 1500#
8526'-8525'	Would not hold 1500#

Pulled scabbing tool and reran tool with 2 swab cups facing down. Washed interval 8555'-8525' with salt water and seab cemented interval with 35 sacks Victor Hi-temp. cement. Pulled tool to 8520' and changed lines to backscuttle. Unable to backscuttle, circulate or pull tool. Time 9:05 PM.

JUL 16 1956

Page #3

OPERATOR: TIDEWATER OIL COMPANY

WELL NO.: Standard-Sasnon 1-#6, Aliso Canyon Field

LOS ANGELES, CALIFORNIA

1956

- 3/9 Washed over 2-3/8" tubing with diamond shoe from 8465'-8479'.
- 3/10 Washed over 2-3/8" tubing with diamond shoe from 8479'-8481'. Pulled washover pipe and recovered 21' of fish. Top 8481. Ran flat bottom diamond mill and milled up fish from 8481'-8490'.
- 3/11 Milled fish from 8490'-8494' with flat bottom diamond mill. Washed over fish from 8494'-8510' with diamond washover shoe.
- 3/12 Washed over fish from 8510'-8519' with diamond washover shoe. Pulled and recovered 20' fish from 8514'.
- 3/13 Ran socket to 8519' and recovered pieces of tubing fish. Ran washover shoe and washed over to 8519'.
- 3/14 Pulled washover shoe. Shut down operations at 4:00 PM. Waiting on washover shoe.
- 3/15 Idle.
- 3/16 Resumed work at 4:00 PM. Ran diamond washover shoe and washed over from 8514'-8520'.
- 3/17 Washed over fish from 8520'-8523'. Ran socket.
- 3/18 Pulled socket and recovered approximately 9' of tubing fish in pieces. Ran washover shoe to 8523' and backscuttled small amount of scrap. Pulled and found bottom wires unbroken. Top of fish at 8523'.
- 3/19 Ran 3-5/8" concave diamond mill and milled from 8523'-8524' with rubber and steel cuttings in returns.
- 3/20 Milled fish from 8523'-8525' (bottom of tool) and cement to 8543'. All fish removed from hole.
- 3/21 Drilled out cement from 8543'-8566' with 4-1/8" bit and scraper. Circulated out mud with salt water. Ran M & T scabbing tool and tool failed after testing interval 8563'-8553' and in blank 5" (would not blank off). Reran tool and interval 8565'-8530' held 1500-1800# for 3 minutes.
- 3/22 Pressure tested with scab tool and interval 8566'-8564' broke down. Interval 8563'-8525' held 1500# for 3 minutes. Interval 8524'-8455' broke down. Gleaned out bridge plug at 8568' with 4-1/8" bit and scraper. Circulated out salt water with oil and cleaned out KenPak to bottom.
- 3/23 Pulled bit to top of liner and circulated out oil with salt water and pulled bit. Ran washer to top of liner and circulated out salt water with oil. Washed interval 8563'-8715' with oil in 1' stages. Backscuttled on bottom. Pulled up and tested tool in blank liner. Pulled out of liner and changed to salt water.
- 3/24 Pulled out and laid down drill pipe. Ran Guiberson packer on 2-7/8" and 2-3/8" tubing with 2" Otis choke nipple at top of 2-3/8" tubing (157' of 2-3/8" on bottom) and landed at 8540'. Set packer at 8540' with 11,000#. Pressure tested annulus with 1500# with no circulation but formation took fluid slowly. Tore out B.O.P. Installed Christmas tree and pulled choke.
- 3/25 Riggd up to swab. Swabbed and flowed 180 barrels salt water. Well died. 1400# tubing pressure; 1900# casing pressure; 6/64" bean.
- 3/26 Well began flowing at 4:00 AM. Flowed 21 barrels salt water in 8 hours. Well equalized and went to gas. Shut in at 2:00 PM. 5/64" bean, 950/2100#. Released contractor (O.P.S.) at 10:00 AM.
- 3/27 Ran 3/64" choke. Well began flowing at 4:00 PM. In 16 hours produced 108 barrels gross, 101 barrels net, 6.0% cut, 20.8 gravity, 24/64" bean, 101 MCF, 1620 GOR. 200/2000#.
- 3/28 In 24 hours well flowed 155 barrels gross, 147 barrels net, 5.0% cut, 20.7 gravity, 12/64" bean, 500/2150#, 171 MCF, 1163 GOR. Changed from 24/64" to 12/64" bean at 8:00 AM.

OPERATOR: TIDEWATER OIL COMPANY

JUL 16 1956 Page #4

WELL NO.: Standard-Sesnon 1-#6, Aliso Canyon Field

LOS ANGELES, CALIFORNIA

1956	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas	GOR
3/29	82	80	3.0%	20.4	8/64"	1000#	2150#	131	1638
3/20	52	50	4.0%	20.4	8/64"	1000#	2150#	132	2640
3/31	72	70	2.0%	20.5	8/64"	1000#	2150#	122	1745
4/1	72	70	2.5%	20.5	8/64"	1000#	2150#	75	1715
4/2	72	71	1.5%	20.6	8/64"	750#	2150#	60	833
4/3	72	70	2.0%	20.7	8/64"	850#	2150#	70	972
4/4	62	60	2.5%	20.7	8/64"	400#	2150#	17	274
4/5	82	80	2.0%	20.6	10/64"	425#	2150#	47	575
Changed from 8/64" to 10/64" bean at 12:00 Noon.									
4/6	73	72	2.0%	20.6	10/64"	425#	2150#	49	671
4/7	72	71	2.0%	20.6	10/64"	450#	2150#	46	639
4/8	82	81	2.0%	20.6	10/64"	450#	2150#	39	476
4/9	72	71	2.0%	20.6	10/64"	450#	2150#	38	527
4/10	72	71	2.0%	20.4	10/64"	450#	2150#	22	
4/11	72	71	2.0%	20.4	10/64"	450#	2150#	15	
4/12	72	71	0.9%	20.8	9/64"	425#	2150#	23	319
4/13	82	81	1.2%	20.9	8/64"	500#	2150#	55	625
4/14	61	60	1.2%	20.9	8/64"	500#	2150#	41	683
4/15	72	71	1.2%	20.9	8/64"	500#	2100#	53	746
4/16	62	61	1.2%	20.9	9/64"	500#	2100#	57	935
4/17	75	74	1.2%	20.9	9/64"	500#	2100#	58	784
4/18	67	66	1.2%	20.9	9/64"	500#	2100#		
4/19	67	66	1.2%	20.9	9/64"	500#	2100#	74	1121
4/20	67	66	1.2%	20.9	9/64"	500#	2100#	72	1091
4/21	67	66	1.2%	20.9	9/64"	500#	2100#	72	1091
4/22	77	76	1.2%	20.9	9/64"	500#	2100#	55	786
4/23	71	70	1.2%	20.9	9/64"	500#	2100#	67	957
4/24	71	70	1.2%	20.9	9/64"	500#	2100#		
4/25	71	70	1.2%	20.9	9/64"	500#	2100#		

CASING RECORD

13-3/8" 34.5# C 1000'
 9-5/8" 40, 43.5# C 4560'
 7" 23, 26, 29# C 8444'
 307' 5" 18# L 8715' Top 8408' Pf. 8440'-8715'
 (8525'-8563' Ineff.)

TUBING RECORD

2-3/8" & 2-7/8" L w/pkr. @ 8540' (157' of 2-3/8" on bottom)
 Otis choke at 8383'

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

DIVISION OF OIL AND GAS
RECEIVED
NOV 13 1945
LOS ANGELES, CALIFORNIA

Operator FIDE WATER ASSOCIATED OIL COMPANY Field Aliso Canyon

Well No. Standard-Season 71-6 Sec. 28, T. 3 N, R. 16 W, S. & M.

Location 1183.14' S & 7178.79' W from Station 184 Elevation of derrick floor 2691.14 feet above sea level

In compliance with the provisions of Chapter 93, Statutes of 1939, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date November 1, 1945

Signed R. S. Carl

G. C. Pfoffer
(Engineer or Geologist)

R. S. Carl
(Superintendent)

Title Agent
(President, Secretary or Agent)

Commenced drilling 6/6/45 Completed drilling 9/27/45 Drilling tools Cable Rotary

Total depth 8720' Plugged depth _____ GEOLOGICAL MARKERS _____ DEPTH _____

Junk _____

Commenced producing 9/29/45 (date) Flowing/gas lift/pumping (cross out unnecessary words)

Initial production (8 hrs)
Production after 30 days

Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
397	23.4	16.0	516	400#	370#
216	22.5	0.2	104	700#	1650#

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforation
13-3/8"	1000	0'	54.5#	New	Seamless	24C	17 1/2"	500	---
9-5/8"	4560	0'	40#, 43.5#	New	Seamless	N-20	12 1/2"	500	---
7"	8144	0'	23, 26, 29#	New	Seamless	N-20	8 1/2"	250	---
5"	8715	8408'	18#	New	Seamless	N-80	6"		

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5"	8440 ft.	8715 ft.	80 Mesh x 2	12	6	Kobe
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

MAP | MAP | CARDS | BOND | FORMS
Book | | | | 112 | 121

Electrical Log Depths 1000' - 8720 (Attach Copy of Log)

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STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

DIVISION OF OIL AND GAS
RECEIVED
NOV 13 1945
LOS ANGELES, CALIFORNIA

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Standard-Semon#1-6, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed R. J. Gyl

Date November 1, 1945 Title Agent

(President, Secretary or Agent)

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Date

LOCATION: 1183.14' South and 7178.79' West from Station #84.

ELEVATION: 2691.14

A. PREPARING TO DRILL

1945

- 4/12-13 Graded road and rig site.
- 4/14-18 Idle.
- 4/19-21 Graded rig site.
- 4/22 Idle.
- 4/23-24 Graded rig site.
- 4/25-28 Graded road and rig site.
- 4/29 Idle.
- 4/30-5/2 Graded rig site.
- 5/3-4 Dug cellar.
- 5/5 Built forms.
- 5/6 Idle.
- 5/7-8 Poured concrete.
- 5/9-11 Built rig.

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 STATE OF CALIFORNIA
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DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
 RECEIVED
 NOV 13 1945
 LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Standard-Season #1-6, Sec. 28, T. 3 N, R. 16 W, S. B. B. & M.

Signed F. A. Curl

Date November 1, 1945 Title Agent
 (President, Secretary or Agent)

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Date
1945

Date	Operations
5/12-30	Idle.
5/31-6/5	Mugged up rotary.
B. DRILLING TO 8720'	
<u>Depth</u>	
6/6	Spudded 12 $\frac{1}{4}$ " hole at 10:00 AM. Drilled 12 $\frac{1}{2}$ " hole from 0' to 48'.
6/7	Drilled 12 $\frac{1}{4}$ " hole from 48' to 85'. Opened hole from 12 $\frac{1}{2}$ " to 17 $\frac{1}{2}$ " from surface to 69'.
6/8-18	Drilled 12 $\frac{1}{4}$ " hole from 85' to 2567'. Opened 12 $\frac{1}{4}$ " hole to 17 $\frac{1}{2}$ " from 69' to 407'.
6/19	Opened 12 $\frac{1}{4}$ " hole to 17 $\frac{1}{2}$ " from 407' to 860'.
6/20	Opened 12 $\frac{1}{4}$ " to 17 $\frac{1}{2}$ " hole from 860' to 995'. Reamed 17 $\frac{1}{2}$ " hole from surface to 995'. Ran 13-3/8" casing to 995'.
6/21	Cemented 13-3/8", 54.5# Youngstown T & C casing at 995' with 500 sacks Colton construction cement in bulk. Last 150 sacks treated. Pressure jumped from 300# to 375# when plugs bumped. Time 3:12 AM. Mixing time 25 minutes. Displacing time 22 minutes. Calculated displacing fluid 871 cu.ft. Actual displacing fluid 880 cu.ft. International Cementers, Inc.
6/22	Cleaned out plugs and cement. Found shoe of 13-3/8" casing at 1000'. Drilled 12 $\frac{1}{4}$ " hole from 2567' to 2639'.
6/23-7/8	Drilled 12 $\frac{1}{4}$ " hole from 2639' to 4654'.

SUBMIT IN DUPLICATE
 STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
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 NOV 13 1945
 LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon
 Well No. Standard-Season #1-6, Sec. 25, T. 3 N, R. 16 W, S. S.D. B. & M.
 Signed *R. S. [Signature]*
 Date November 1, 1945 Title Agent
 (President, Secretary or Agent)

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Date	Depth	Description
1945		
7/9	4654'	While coming out of hole stuck drill pipe at 3455'. Spotted 200 bbls. oil. Unable to loosen pipe.
7/10		Spotted 150 bbls. of oil. Pipe still stuck. Prepared to cut.
7/11		Cut drill pipe at and pulled same from 3364' leaving one single of drill pipe, drill collar, and bit in hole. Top 3364'; bottom 3460'.
7/12		Fished. Top of fish 3364'; bottom 3460'.
7/13		Ran Bowen socket and recovered fish.
7/14		Reamed 12 1/2" hole from 1000' to 4654'.
7/15-19	5034'	Drilled 12 1/2" hole from 4654' to 5034'.
7/20		While coming out of hole stuck drill pipe at 3460'. Spotted 80 bbls. of oil. Still stuck. Cut and recovered drill pipe to 3306'.
7/21		Ran socket and jars and jarred on fish. Unable to jar fish loose. Top of fish 3305'; bottom 3460'. Washed over fish to 3454'.
7/22		Washed over fish to 3465' - 5' past bit. Ran wall hook and took hold of top of fish. Ran socket and jars and jarred on fish. Unable to jar fish loose.
7/23		Washed over fish. Ran in socket and jars. Found fish had fallen down hole to 4824'. Recovered fish leaving hole clean.
7/24		Reamed 12 1/2" hole to 5055'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
RECEIVED
NOV 13 1945
LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well
TIDE WATER ASSOCIATED OIL FIELD, 28 Canyon

OPERATOR Standard-Sanson #1-6 28 FIELD 3 N 16 W S.B.

Well No. _____, Sec. _____, T. R. 1, R. 1, S. 1 B. & M.

Date November 1, 1945

Signed _____ Agent

Date _____ Title _____
(President, Secretary or Agent)

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Date	Depth	Description
7/25	5034'	Reamed 12 1/2" hole from 3390' to 3545'. Ran 12-1/3 stands drill pipe, drill collar, and bit below reamer.
7/26-27	5902'	Drilled 12 1/2" hole from 5034' to 5902'.
8/6	5921'	While coming out of hole from 5902' stuck drill pipe at 3632'. Worked pipe loose. Reamed 8 1/2" hole to 4650'. Drilled 12 1/2" hole from 5902' to 5921'.
8/7-8	6053'	Drilled 12 1/2" hole from 5921' to 6053'. Laid down 5-9/16" drill pipe.
9/9	6111'	Made up 4 1/2" drill pipe. Drilled 11" hole from 6053' to 6111'.
9/10-14	6455'	Drilled 11" hole from 6111' to 6455'. While coming out of hole from 6411' had to work pipe thru bad hole at 4225'.
8/15	6544'	Drilled 11" hole from 6455' to 6544'. Repaired air compressor.
8/16	6605'	Drilled 11" hole from 6544' to 6605'. Worked and circulated drill pipe out of hole while coming out from 6544'.
8/17-18	6751'	Drilled 11" hole from 6605' to 6751'.
8/19	6826'	Circulated out of hole. Drilled 11" hole from 6751' to 6826'.
8/20-21	6961'	Drilled 11" hole from 6826' to 6961'. Circulated out of hole.
8/22	7020'	Drilled 11" hole from 6961' to 7020'. Circulated and worked pipe through bad hole at approximately 3800'.
8/23-24	7146'	Drilled 11" hole from 7020' to 7146'. While coming out of hole from 7106' stuck drill pipe at 3878'. Circulated and worked drill pipe loose.

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STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS

RECEIVED

NOV 13 1945

LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso CanyonWell No. Standard-Senson #1-6, Sec. 28, T. 3 N, R. 16 W, S. B. B. & M.Signed *R. A. Curf*Date November 1, 1945 Title Agent

(President, Secretary or Agent)

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Date	Depth	Description
1945 8/25-26	7253'	Drilled 11" hole from 7146' to 7253'. Runned and circulated out of hole. Runned bad hole at 3800'.
8/27-28		Runned 12 1/2" hole to 4200'. Runned on key seat from 3910' to 3960'. Using 15 stands below runner.
8/29		Runned on 4225' using 15 stands below runner.
8/30		Runned on key seats to 4475'. Ran Schlumberger electric log at 5830'.
8/31		Runned 12 1/2" hole to 4610'. Ran 9-5/8" casing to 4500'. Started to cement same at 4:00 PM when crank shaft in cement wagon failed. Circulated for 6 hours. Cemented 9-5/8", 40# and 43.5# Youngstown Speedtite casing at 4560' with 500 sacks Victor Modified cement in bulk. Pressure jumped from 500# to 900# when plugs bumped. Time 11:31 PM. Mixing time 29 minutes; displacing time 54 minutes; calculated displacing mud 1903 cu.ft.; actual displacing mud 1897 cu.ft. International Cementers, Inc. Detail of casing: 0' to 1780.4' is 40# J-55 1780.4' to 1985.7' is 40# N-80 1985.7' to 4560.10' is 43.5# J-55
9/1		Standing cemented. Landed 9-5/8" casing.
9/2		Standing cemented.
9/3	7297'	Located top of plugs and cement at 4515'. Cleaned out to 7253'. Drilled 8 1/2" hole from 7153' to 7297'. Bottom of cement 4568'.
9/4-12	8082'	Drilled 8 1/2" hole from 7297' to 8082'. Repaired pump shaft.

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon
Well No. Standard-Sesson #1-6, Sec. 35, T. 3 N, R. 16 W, S. S. 8. B. & M.
Signed R. F. Carl
Date November 1, 1945 Title Agent
(President, Secretary or Agent)

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Date	Depth	
1945		
9/13-18	8445'	Drilled 8 1/2" hole from 8082' to 8445'.
9/19		Ran Schlumberger electric log at 8445'. Strung 10 lines. Beamed 8 1/2" hole to 8196'.
9/29		Cemented 7" Youngstown Speedtite casing at 8444' with 250 sacks Colton High Temperature cement in bulk. Pressure jumped from 900# to 1100# when plugs bumped. Time 7:46 PM. Mixing time 20 minutes; displacing time 1 hour 6 minutes; calculated displacing fluid; 1825 cu.ft.; actual displacing fluid 1828 cu.ft. International Cementers, Inc. Detail of casing as follows: 0' - 3436.9' is 23# J-55 3436.9' - 5118.6' is 21# H-80 5118.6' - 6729.5' is 26# H-80 6729.5' - 8444.0' is 29# H-80
9/21		Standing cemented. Landed 7" casing.
9/22		Standing cemented. Installed cellar connections.
9/23	8448'	Made up 3/8" drill pipe. Located top of cement at 8400'. Cleaned out to 8445'. Drilled 6" hole from 8445' to 8448'.
9/24		Ran Johnston tester on 3/8" drill pipe. Set packer at 8407'; bottom of tail pipe 8426'. Opened 3/8" bean for 1 hour. Had one weak puff of air then dead for balance of test. Recovered 20' (9.1 bbls.) drilling fluid. Two pressure recorders indicated valve open throughout test with 0# flow pressure. W.S.O. approved by D.O.G. Cleaned out to 8448'. Conditioned mud.
9/25-27	8720'	Drilled 6" hole from 8448' to 8720'. Ran Schlumberger electric log at 8720'. Beamed 6" hole to 8720'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

DIVISION OF OIL AND GAS
RECEIVED
NOV 13 1945
LOS ANGELES, CALIFORNIA

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Standard-Senson #1-6, Sec. 28, T. 3 N, R. 16 W, S. B. B. & M.

Signed R. A. [Signature]

Date November 1, 1945 Title Agent

(President, Secretary or Agent)

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Date

Depth

Date	Depth	Description
1945 9/28	P.D. 8720'	Landed 307' of 5", 18# Grade N-80 Security thread inserted casing at 8715' including 275' 80 mesh Kobe perforated; 12 rows, 2" slots, 6" center. Top 1.3' Burns liner hanger 8408'. Perforated 8440'-8715'. Laid down drill pipe. Hung 2-3/8", 4.7# and 2-7/8", 6.5# Range 2 Grade J-55 round thread upset Youngstown tubing at 8542'; bottom of 319' is 2-3/8".
9/29		Installed Christmas tree. Circulated out mud with water. Swabbed to 1500'. Well began flowing to sump at 8:30 PM. Turned to tanks at 11:00 PM. In 8 hours well flowed 473 bbls. gross fluid; 397 bbls. approximate net oil; (1190 B/D net rate); 23.4 dry gravity; 16.0% cut; 30/64" bean; 400# tubing pressure; 370# casing pressure; 516 M/D gas rate.
9/30		Well flowed 826 bbls. gross fluid; 749 bbls. approximate net oil; 23.4 dry gravity; 9.5% cut; 20/64" bean; 500# tubing pressure; 500# casing pressure; 339 MCF gas.
10/1		In 2. hours well flowed 479 bbls. gross fluid; 467 bbls. approximate net oil; 22.9 dry gravity; 2.5% cut; 16/64" bean; 675# tubing pressure; 800# casing pressure; 192 MCF gas. Flowed well thru casing for 3 hours to clean annulus. Flowed 153 bbls. of mud and water.
10/2		Well flowed 592 bbls. gross fluid; 581 bbls. approximate net oil; 22.5 dry gravity; 1.5% cut; 16/64" bean; 650# tubing pressure; 850# casing pressure; 265 MCF gas.

SUBMIT IN DUPLICATE
 STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
 NOV 13 1945
 LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR WIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Standard-Season #1-6, Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Signed R. D. Cuff

Date November 1, 1945 Title Agent
 (President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, re-drilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, re-drilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

C. PRODUCTION

<u>Date</u>	<u>Gross Fluid</u>	<u>Approximate Net Oil</u>	<u>Dry Gravity</u>	<u>Cut</u>	<u>Beam</u>	<u>Tubing Pressure</u>	<u>Casing Pressure</u>	<u>GAS MC³</u>	<u>Hours On</u>
1945									
10/3	582	575	22.5	1.2	16/64"	650#	900#	274	24
10/4	689	682	"	1.0	16/64"	650#	1100#	262	24
10/5	535	531	"	0.8	10/64"	650#	1100#	191	24
10/6	538	535	"	0.5	10/64"	650#	1250#	208	24
10/7	535	533	"	0.4	10/64"	650#	1300#	209	24
10/8	551	550	"	0.2	16/64"	650#	1300#	225	24
10/9	252	251	"	0.2	16/64"	650#	1450#	92	12
10/10-15	Shut-in					650#	1450#		
10/16	152	151	"	0.2	8/64"	0#	1200#	96	12
10/17	273	272	"	0.2	9/64"	750#	1500#	132	24
10/18	298	297	"	0.3	12/64"	700#	1350#	40	24
10/19	216	215	"	0.4	12/64"	780#	1500#	112	24
10/20	247	246	"	0.1	14/64"	725#	1500#	124	24
10/21	139	138	"	0.1	14/64"	750#	1500#	89	24
10/22	247	246	"	0.2	14/64"	750#	1500#	139	24
10/23	284	283	"	0.3	14/64"	700#	1500#	133	24
10/24	155	154	"	0.2	14/64"	750#	1500#	78	24
10/25	221	220	"	0.2	14/64"	750#	1500#	134	24
10/26	283	282	"	0.3	14/64"	700#	1600#	145	24
10/27	298	297	"	0.	14/64"	740#	1000#	154	24
10/28	273	272	"	0.2	14/64"	700#	1650#	135	24
10/29	241	240	"	0.3	14/64"	700#	1650#	129	24
10/30	216	215	"	0.2	14/64"	700#	1650#	104	24

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
RECEIVED
NOV 13 1945
LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Standard-Session #1-6, Sec. 23, T. 3 N, R. 16 W, S. 1/4, B. & M.

Signed *R. B. Cuff*

Date November 1, 1945 Title Agent
(President, Secretary or Agent)

Use this form in reporting all important operations at the well, together with the dates thereof, in the order of their performance. Such operations include drilling, re-drilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, re-drilled, or deepened; size, weight and length of casing landed, cemented, or removed, amount and location of perforations; number of sacks of cement used in cementing or plugging operations, number of feet of cement drilled out of casing, location of top and bottom of cement plugs. If the well was dynamited, give date, dimensions and weight of all shots. If tests were made give interval tested and results of tests, such as, amount and nature of fluids recovered.

CASING RECORD

T.D. 8720'

13-3/8", 54.5#	C 1000	
9-5/8", 40#, 43.5#	C 4560'	0' - 1986' is 40#; 1986' - 4560' is 43.5#
7", 23#, 26#, 29#	C 8444'	0' - 5219' is 23#; 5219' - 6730' is 26#; 6730' - 8444' is 29#
307' - 5", 18#	L 8715'	Top 8408' Perf. 8440-8715

TUBING RECORD

2-8/8", 4.7# & 2-7/8", 6.5# H 8542 Bottom 319' is 2-3/8"

SIZE OF HOLE

0' - 1000'	is 17 1/2"
1000' - 6053'	is 12 1/2"
6053' - 8445'	is 8 1/2"
8445' - 8720'	is 6"

JP

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121
					<i>[Signature]</i>

037-00759

FORM 101.
CALIFORNIA STATE PRINTING OFFICESTATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 13 1945

LOG AND CORE RECORD OF OIL OR GAS WELL LOS ANGELES, CALIFORNIA

Operator FIDE WATER ASSOCIATED OIL COMPANY Field Aliso CanyonWell No. Standard-Session#1-6 Sec. 28, T. 3 N, R. 16 W, S. 3 B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
0	155'		Drilled		Shale
155'	197'		"		Sand and shale
197'	276'		"		Shale
276'	320'		"		Sand and shale
320'	347'		"		Shale
347'	2342'		"		Sand and shale
2342'	2575'		"		Shale
2575'	2639'		"		Sand and shale
2639'	2674'		"		Shale and sand
2674'	2774'		"		Sand and shale
2774'	2805'		"		Shale
2805'	3435'		"		Sand and shale
3435'	3725'		"		Sandy shale
3725'	3834'		"		Shale
3834'	3861'		"		Shale and sand
3861'	4130'		"		Sand and shale
4130'	4149'		"		Shale and sand
4149'	4611'		"		Sand and shale
4611'	4621'		"		Hard sand and shale
4621'	4654'		"		Sand and shale
4654'	4668'		"		Sand
4668'	4984'		"		Sand and shale
4984'	5010'		"		Shale
5010'	5034'		"		Sand and shale
5034'	5049'		"		Sandy shale
5049'	5117'		"		Sand and shale
5117'	5119'		"		Shale
5119'	5209'		"		Sand and shale
5209'	5217'		"		Shale
5217'	5252'		"		Sand and shale
5252'	5268'		"		Hard shale
5268'	5338'		"		Sand and shale
5338'	5372'		"		Hard sand and shale
5372'	5440'		"		Sand and shale
5440'	5476'		"		Sandy shale
5476'	5548'		"		Sand and shale
5548'	5598'		"		Sandy shale
5598'	5863'		"		Sand and shale
5863'	5878'		"		Shale
5878'	5902'		"		Shale and sand
5902'	5921'		"		Sand and shale

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
NOV 13 1945
LOS ANGELES, CALIFORNIA

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field Aliso Canyon
Well No. Standard-Sennon-1-# Sec. 28, T. 3 N, R. 16 W, S. 4, B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
5921'	5967'		Drilled		Shale
5967'	5993'		"		Sandy shale
5993'	6151'		"		Sand and shale
6151'	6170'		"		Hard sand and shale
6170'	6187'		"		Shale
6187'	6213'		"		Sand and shale
6213'	6233'		"		Sand
6233'	6243'		"		Sand and shale
6243'	6287'		"		Sand and sandy shale
6287'	6299'		"		Hard sand
6299'	6324'		"		Sand and shale
6324'	6359'		"		Sand and sandy shale
6359'	6510'		"		Sand and shale
6510'	6566'		"		Sandy shale
6566'	6644'		"		Sand and shale
6644'	6651'		"		Shale
6651'	6688'		"		Sand and shale
6688'	6703'		"		Hard shale
6703'	6736'		"		Shale and sandy shale
6736'	6826'		"		Sand and shale
6826'	6841'		"		Hard shale
6841'	6911'		"		Shale
6911'	6962'		"		Sand and shale
6962'	6978'		"		Sandy shale
6978'	7010'		"		Sand and shale
7010'	7020'		"		Hard shale
7020'	7035'		"		Hard sandy shale
7035'	7086'		"		Sand and shale
7086'	7106'		"		Shale and sandy shale
7106'	7297'		"		Sand and shale
7297'	7311'		"		Shale
7311'	7371'		"		Sandy shale
7371'	7434'		"		Sand and shale
7434'	7486'		"		Shale and sandy shale
7486'	7550'		"		Sand and shale
7550'	7594'		"		Shale and sandstone
7594'	7809'		"		Sand and shale
7809'	7833'		"		Sandstone and shale
7833'	7852'		"		Shale
7852'	7862'		"		Sandstone and shale
7862'	7879'		"		Hard sand
7879'	7895'		"		Siltstone

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator WIDE WATER ASSOCIATED OIL COMPANY Field Aliso Canyon

Well No. Standard-Sanon #1-6 Sec. 28, T. 3 N, R. 16 W, S. 3 B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
7895'	8059'		Drilled		Sand and shale
8059'	8104'		"		Shale
8104'	8165'		"		Sand and shale
8165'	8383'		"		Shale
8383'	8445'		"		Siltstone
8445'	8448'		"		Sand
8448'	8556'		"		Sand and shale
8556'	8613'		"		Sand streaks shale
8613'	8716'		"		Sand and shale
8716'	8720'		"		Conglomerate

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121

[Signature]

GETTY OIL CO., Operator
 COMPANY *California Oil Co.*
 WELL *Stearns #146*

SPERRY-SUN WELL SURVEYING CO.
 SURWEL TABULATION SHEET

SHEET NO. 153
 JOB NO. Sub 6713
 DATE 1-19-62

CORRECTED TIME	COURSE LENGTH	TOTAL MEASURED LENGTH	ANGLE OF INCLIN.	VERTICAL DEPTH		COURSE DEVIATION	OBSERVED DIRECTION OF DEVIATION	LE CORR.	LE	CORRECTED DIRECTION OF DEVIATION	COURSE		TOTAL	
				COURSE	TOTAL						LATITUDE NORTH	LATITUDE SOUTH	DEPARTURE EAST	DEPARTURE WEST
06-52	100	100	1/4	100.00	100.00		N 74 W	4	N	70 W	.15	.04	.15	.41
20-07	200	300	1/2	100.00	200.00		S 88 W	3	S	85 W	.04	.43	.11	.84
07-23	300	600	1/2	100.00	300.00		N 87 W	4	N	83 W	.11	.87	.22	1.71
07	400	1000	1/2	100.00	400.00		N 89 W	3	S	88 W	.03	.87	.19	2.58
00-11	500	1500	1/4	100.00	500.00		S 78 W	4	S	82 W	.06	.43	.13	3.01
22-41	600	2100	1/4	100.00	600.00		S 53 W	3	S	50 W	.28	.33	.15	3.34
04-10	700	2800	1/4	100.00	700.00		S 57 W	3	S	62 W	.20	.38	.35	3.72
25-25	800	3600	1/4	100.00	800.00		S 68 W	3	S	65 W	.18	.40	.53	4.12
03-12	900	4500	1/4	100.00	900.00		S 75 W	3	S	78 W	.09	.43	.62	4.55
26-36	1000	5500	1/4	100.00	1000.00		S 83 W	3	S	80 W	.08	.43	.70	4.98
01-22	1100	6600	1/4	100.00	1100.00		S 73 W	3	S	76 W	.11	.42	.81	5.40
28-47	1200	7800	1/4	100.00	1200.00		S 71 W	3	S	68 W	.16	.40	.97	5.80
59-36	1300	9100	1/4	100.00	1300.00		S 87 W	3	S	71 W	.44	.44	.97	6.24
34-21	1400	10500	1/4	100.00	1400.00		S 85 W	3	S	82 W	.06	.43	1.03	6.67
58-12	1500	12000	0	100.00	1500.00		-	3	-	-	.08	.43	1.03	6.67
36-01	1600	13600	1/4	100.00	1600.00		N 76 W	3	N	79 W	.08	.43	.95	7.10
57-00	1700	15300	1/4	100.00	1700.00		N 67 W	3	N	64 W	.19	.39	.76	7.49
37-37	1800	17100	0	100.00	1800.00		-	3	-	-	.39	.39	.76	7.49
32	1900	19000	0	100.00	1900.00		-	3	-	-	.39	.39	.76	7.49
57-19	2000	21000	0	100.00	2000.00		-	3	-	-	.39	.39	.76	7.49
50-12	2100	23100	0	100.00	2100.00		-	2	-	-	.39	.39	.76	7.49
40-35	2200	25300	0	100.00	2200.00		-	3	-	-	.39	.39	.76	7.49
58-42	2300	27600	0	100.00	2300.00		-	2	-	-	.39	.39	.76	7.49
42-18	2400	29000	0	100.00	2400.00		-	3	-	-	.39	.39	.76	7.49
45-26	2500	30500	0	100.00	2500.00		-	2	-	-	.39	.39	.76	7.49
43-44	2600	32100	0	100.00	2600.00		-	3	-	-	.39	.39	.76	7.49
43-52	2700	33800	0	100.00	2700.00		-	2	-	-	.39	.39	.76	7.49
45-26	2800	35600	1/4	100.00	2800.00		N 8 E	3	N	5 E	.43	.04	.33	7.49
42-31	2900	37500	1/4	100.00	2900.00		N 14 W	2	N	12 W	.43	.09	.10	7.54
47-06	3000	39500	1/4	100.00	3000.00		N 26 W	3	N	29 W	.38	.21	.48	7.75
40-45	3100	41600	1/4	100.00	3100.00		N 33 W	2	N	31 W	.37	.22	.85	7.97
48-20	3200	43800	1/4	100.00	3200.00		N 51 W	3	N	50 W	.26	.35	1.11	8.32

COMPANY Richardson Oil Co.
 WELL Summit #116

SPERRY-SUN WELL SURVEYING CO.
 SURWEL TABULATION SHEET

SHEET NO. 3 of 3
 JOB NO. Sub 6713
 DATE 1-15-62

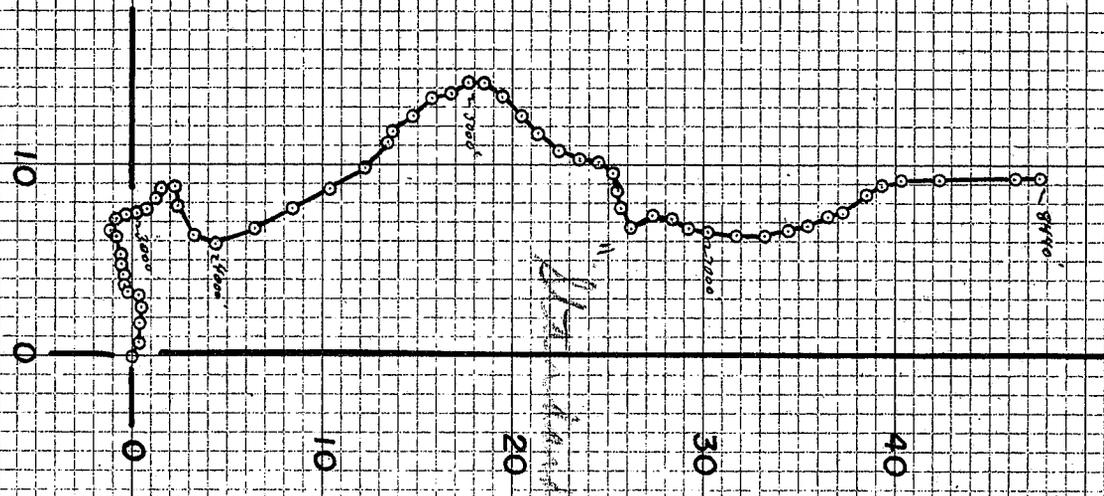
CORRECTED TIME	COURSE LENGTH	TOTAL MEASURED LENGTH	ANGLE OF INCLIN.	VERTICAL DEPTH		COURSE DEVIATION	OBSERVED DIRECTION OF DEVIATION	I. E. CORR.	DRIFT	CORRECTED DIRECTION OF DEVIATION	COURSE				TOTAL			
				COURSE	TOTAL						LATITUDE NORTH	LATITUDE SOUTH	DEPARTURE EAST	DEPARTURE WEST	LATITUDE NORTH	LATITUDE SOUTH	DEPARTURE EAST	DEPARTURE WEST
02-10	100	6500	1/4	100.00	6199.82		N 17 E	1	N 18 E	.41	.13			26.89				7.49
20-41		6600	1/4	100.00	6544.82		N 8 E	3	N 5 E	.43	.04			21.32				7.13
00-25		6700	1/4	100.00	6699.82		N 12 E	1	N 13 E	.42	.10			27.24				7.33
06		6800	1/2	100.00	6799.82		N 24 E	3	N 21 E	.82	.31			28.56				7.02
48-59		6900	1/2	100.00	6899.82		N 18 E	1	N 19 E	.83	.28			29.39				6.74
23-31		7000	3/4	99.99	6949.81		N 9 E	2	N 7 E	.80	.16			30.69				6.58
52-30		7100	3/4	99.99	7099.80		N 5 E	1	N 6 E	.30	.14			31.99				6.44
25-06		7200	3/4	99.99	7199.79		N 6 E	2	N 4 E	.31	.09			33.30				6.35
52-12		7300	3/4	99.99	7299.78		N 13 W	1	N 12 W	.28	.27			34.58				6.62
22-05		7400	1/2	100.00	7399.78		N 17 W	2	N 19 W	.83	.28			35.41				6.90
54-26		7500	1/2	100.00	7499.78		N 25 W	1	N 24 W	.80	.36			36.21				7.26
28-05		7600	1/2	100.00	7599.78		N 19 W	1	N 20 W	.82	.30			37.07				7.56
49-12		7700	1/2	100.00	7699.78		N 29 W	1	N 28 W	.77	.41			37.80				7.97
33-37		7800	1/2	100.00	7799.78		N 31 W	0	N 31 W	.75	.45			38.55				8.42
45-29		7900	1/2	100.00	7899.78		N 38 W	1	N 39 W	.70	.53			39.25				8.95
35-11		8000	1/2	100.00	7999.78		N 65 E	0	N 65 E	.18	.40			39.43				8.55
48-06		8100	1/4	100.00	8049.78		N 53 W	1	N 52 W	.27	.34			39.70				8.89
32-02		8200	1/2	100.00	8199.78		N 24 W	0	N 24 W	.80	.36			40.05				9.15
12		8300	1-1/4	99.98	8249.76		N 24 W	0	N 24 W	.18	.36			42.68				9.25
38-36	100	8400	2	99.91	8349.70		N 2 W	0	N 2 W	.09	.12			46.17				9.37
40-40	100	8440	2	39.98	8439.68		N 2 W	0	N 2 W	.40	.04			47.57				9.41

CALCULATED BY _____ CHECKED BY _____

APR 16 1962
 SURVEYING CO. OF OKLAHOMA



Scale 1" = 10'



SUBSURFACE SURVEY

Of

SESSION NO. 1-6 WELL

For

TIDEWATER OIL COMPANY

By

SPERRY - SUN WELL SURVEYING COMPANY

1-19-62

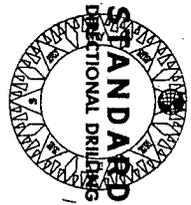
SUR 6713

INDEPENDENT, GALETTOWN

APR 6 1962

SPERRY-SUN WELL SURVEYING COMPANY

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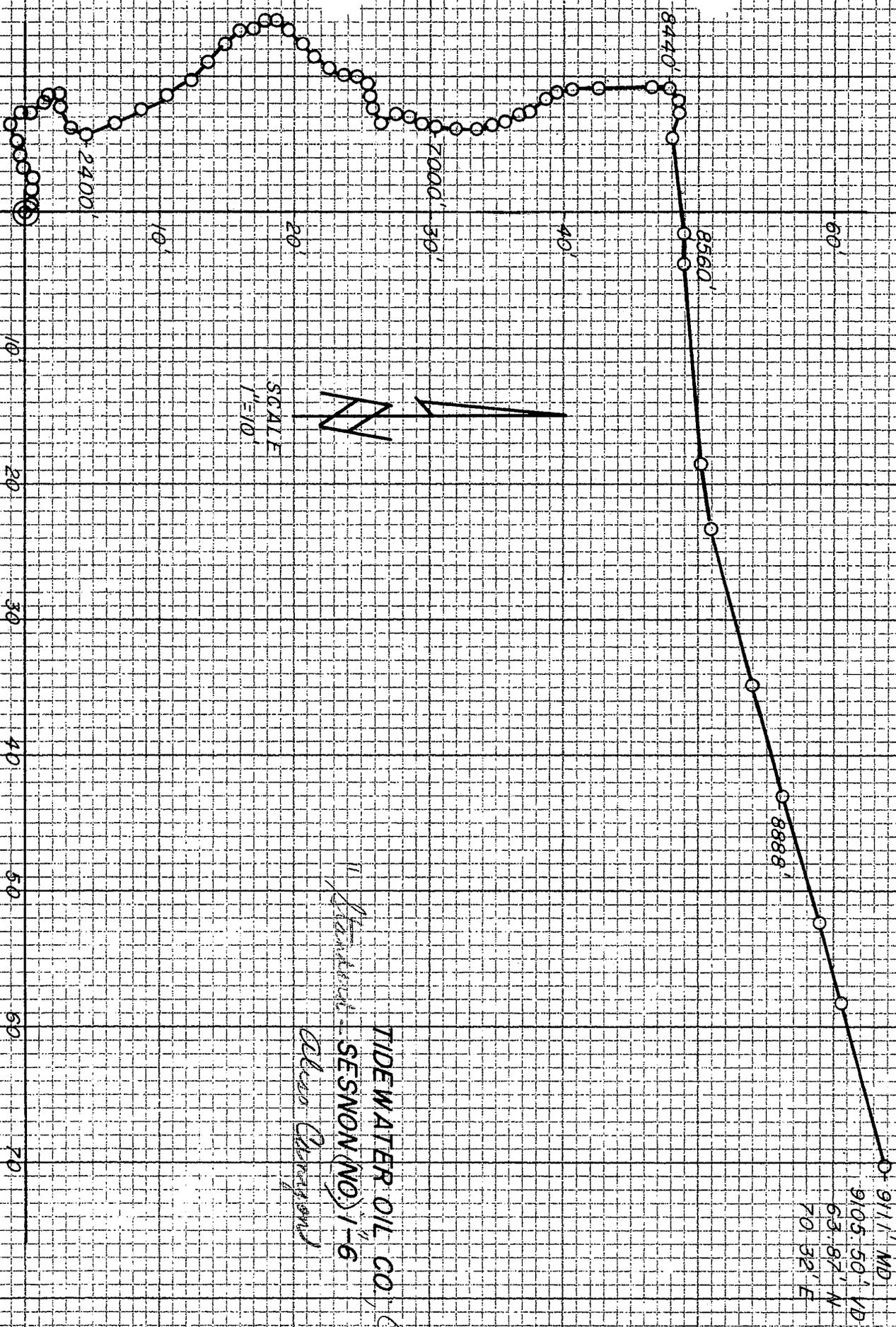
REDRILLED PORTION

COMPANY TIDEWATER OIL CO. Operator
 WELL SEASNOW (NO) 146 LOCATION ALLISON CANYON
Alison

DATE JAN - FEB 62

Measured Depth	Drift Angle	Vertical Depth	Drift Feet	Drift Direction	COORDINATES				REMARKS
					North	South	East	West	
8440		8439 68			47 57			0 41	
8472	2°30'	8470 65	1 40	N 49°E	48 49			8 36	
8474	3°00'	8473 65	0 10	N 73°E	48 52			8 26	
8483	5°30'	8482 61	0 86	N 87°E	48 57			7 40	
8500	6°45'	8499 49	2 00	S 71°E	47 92			5 51	
8560	6°45'	8559 07	7 05	N 83°E	48 78		1 49		
8579	6°45'	8577 94	2 23	N 85°E	48 97		3 71		
8696	7°15'	8694 00	14 77	N 85°E	50 26		18 43		
8734	7°30'	8731 67	4 96	N 81°E	51 04		23 33		
8825	7°30'	8821 89	11 88	N 76°E	53 91		34 85		
8888	7°45'	8884 31	8 50	N 74°E	56 26		43 02		
8965	7°15'	8960 69	9 72	N 74°E	58 94		52 36		
9012	7°30'	9007 29	6 13	N 74°E	60 63		58 26		
9111	7°15'	9105 50	12 49	N 75°E	63 87		70 32		TD

pu



SCALE
1" = 30'

TIDEWATER OIL CO., Inc. (Sons of)
Session (NO) 1-6
(Also Originals)

911.1' ND
910.50' VB
63.87' N
70.32' E

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)

No. T 1-44446

Mr. R. S. Curl, Los Angeles 14, Calif. September 28, 1945

Los Nietos, Calif.

Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR: "Standard-Sesnon 1"
Your well No. 6, Sec. 28, T. 3 N., R. 16 W., S.B. B. & M.
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off
on September 24, 1945. Mr. J. L. White, Inspector, designated by the supervisor,
was present as prescribed in Sec. 3222 and 3223, Ch. 93, Stat. 1939; there were also present
W. B. Thomas, Engineer, and A. Isenor, Drilling Foreman.

Shut-off data: 7 in. 29 lb. casing was cemented at 8444 ft. on September 20, 1945
in 8-1/2" hole with 250 sacks of cement of which 8 sacks were left in casing.
Casing record of well: 13-3/8" cem. 1000'; 9-5/8" cem. 4560', not tested; 7" cem. 8444', W.S.O.

Reported total depth 8448 ft. Bridged with cement from ~~xxx~~ ft. to ~~xxx~~ ft. Cleaned out to 8448 ft. for this test.
A pressure of 1000 lb. was applied to the inside of casing for 15 min. without loss after cleaning out to 8440 ft.
A Johnston tester was run into the hole on 3-1/2 in. drill pipe, with ~~xxx~~ ft. of water cushion,
and packer set at 8407 ft. with tailpiece to 8426 ft. Tester valve, with 3/8" bean, was opened at 10:05 a.m.
and remained open for 1 hr. and ~~xxx~~ min. During this interval there was one weak puff and no
blow thereafter.

THE INSPECTOR ARRIVED AT THE WELL AT 1:15 P.M. AND MR. THOMAS REPORTED:

1. A 12-1/4" rotary hole was drilled from 1000' to 6053' and an 11" rotary hole, from 6053' to 7253'.
2. On August 31, 1945, 9-5/8", 40 and 43-1/2 lb. casing was cemented at 4560' with 500 sacks of cement.
3. An 8-1/2" rotary hole was drilled from 7253' to 8445'.
4. The 7" casing was cemented as noted above.
5. Cement was drilled out of the 7" casing from 8400' to 8444' (equivalent to 8 sacks), and a 6-1/4" rotary hole was drilled from 8445' to 8448'.
6. A Johnston tester was run as noted above.

THE INSPECTOR NOTED:

1. When the drill pipe was removed 20' of heavy drilling fluid was found in the drill pipe above the tester, equivalent to 0.1 bbl.
2. The recording pressure bomb chart showed that the tester valve was open 1 hr.

The test was completed at 3:00 p.m.

THE SHUT-OFF IS APPROVED.

JLW:OH

cc- T. L. Wark
Jos. Jensen
G. C. Pfeffer

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Murrell, Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-41102

Los Angeles 14, Calif. September 4, 19 45

Mr. R. S. Curl

Los Nietos, Calif.

Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

Your supplementary proposal to drill Well No. "Standard-Sesnon 1" 6
28 3 N. 16 W. S.B. B. & M. Aliso Canyon Field, Los Angeles County,
Section T. R. dated Aug. 30, 19 45, received Aug. 31, 19 45, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

RECORDS: The condition of the well is as stated in the notice.

THE NOTICE STATES:

"The new conditions are as follows:
The well has been drilled to a depth of 7253' with 13-3/8" casing cemented at 1000'. The hole is bad at approximately 3800'."

PROPOSAL:

"We now propose
1. To cement a protective string of 9-5/8" casing at approximately 4500'."

DECISION:

THE PROPOSAL IS APPROVED.

cc - P. A. W.
T. L. Wark
Jos. Jensen
G. C. Pfeffer (2)

CLB:ES

u/air

R. D. BUSH
State Oil and Gas Supervisor

By *[Signature]* Deputy

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

AUG 31 1945

Supplementary Notice

Los Nietos, Calif. August 30 19 45

DIVISION OF OIL AND GAS

Los Angeles Calif.

Our notice to you dated May 30, 19 45, stating our intention to

drill well No. Standard-Sesnon #1 3/8
(Drill, deepen, redrill, abandon)

Sec. 28, T. 3 N, R. 16 W, S.B. B. & M. Aliso Canyon Field,

Los Angeles County, must be amended on account of changed or recently

discovered conditions.

The new conditions are as follows:

The well has been drilled to a depth of 7253' with 13-3/8" casing cemented at 1000'. The hole is bad at approximately 3800'.

We now propose

1. To cement a protective string of 9-5/8" casing at approximately 4500'.

Supplemental

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121
			Blanket 43486	emb	emb

TIDE WATER ASSOCIATED OIL COMPANY

(Name of Operator)

By

R. A. Auf
 Agent

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-44127

Los Angeles 14, Calif. June 28, 19 45

Mr. R. S. Curl
Los Nietos, Calif.
Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

"Standard-Sesnon 1"
Operations at your well No. 6 Sec. 28, T. 3 N., R. 16 W., S.E. B. & M.,
Aliso Canyon Field, in Los Angeles County, were witnessed by
J. L. White, Inspector, representative of the supervisor,
on June 24, 19 45. There was also present R. F. Franz, Driller, and
G. C. Friddle, Derrickman.

Casing Record <u>13-3/8" cem. 1000'. T.D. 2950'.</u>	Junk <u>None</u>

The operations were performed for the purpose of inspecting blowout prevention equipment and installation.

The inspector arrived at the well at 12:50 p.m. and Mr. Frantz reported:

On June 21, 1945, 13-3/8", 54.5 lb. casing was cemented at 1000' with 500 sacks of cement.

THE INSPECTOR NOTED THAT THE WELL WAS EQUIPPED WITH THE FOLLOWING BLOWOUT PREVENTION EQUIPMENT:

1. A Shaffer ram-type gate for closing in the well with the drill pipe out of the hole.
2. A Shaffer ram-type gate for closing around the 5" drill pipe.
3. The controls for the above equipment were located outside the derrick.
4. A 3" mud fill-up line with a 3" high pressure stopcock and 3" gate into the 13-3/8" casing below the above equipment.
5. A Hosmer type blowout preventer with packer to fit the 5" drill pipe.
6. An 8" shut-off gate on the mud discharge line.

The inspection was completed at 1:05 p.m.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

JLW:OH

cc- L. C. Decius
Jos. Jensen
G. C. Pfeiffer (2)

*W/for
Hole had at 1000'
with 500 sacks of cement
No test
E.P.M.*

R. D. BUSH
State Oil and Gas Supervisor
By E. H. Messer Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. PI-40712

Los Angeles 14,

Calif.

May 16,

19 45

Mr. R. S. Gurl

Los Nietos,

Calif.

Agent for: TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

Your proposal to drill Well No. "Standard-Sesson 1"
Section 28, T. 3 N., R. 16 W., S. B. B & M., Aliso Canyon Field, Los Angeles County,
dated May 10, 1945, received May 14, 1945, has been examined in conjunction with records filed in this office.

Present conditions as shown by the records and the proposal are as follows:

THE NOTICE STATES:

"The well is 1183 feet S. and 7179 feet W. from Station #84.
The elevation of the derrick floor above sea level is 2685 feet. (Approx.)
We estimate that the first productive oil or gas sand should be encountered at a depth of about 8475 feet."

PROPOSAL:

"We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13-3/8	54.5	J-55 T & C	2000'	Cemented
7"	23, 26, & 29	J-55 & N-80 Speedlite	8475	Cemented
5" (Pflar)	17.93	N-80 F J	8750	Landed

*Will be set higher if no circulation difficulties are encountered in drilling.
Well is to be drilled with rotary tools.
It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT

- Mud fluid consistent with good drilling practice shall be used and the column of mud fluid maintained at all times to the surface, particularly while pulling the drill pipe.
- Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
- Any hole to be sidetracked in any oil or gas zone shall be filled with cement, if possible.
- THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:**

- To inspect the installed blowout prevention equipment before drilling below 1500'.
- To witness a test of the effectiveness of the 7" shut-off.

FCH:OH

cc- P. A. W.
L. C. Decius
Jos. Jensen
G. G. Pfeffer (2)

W/ma

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Mussen Deputy

Records Filed	
100	11-2-45
101	11-3-45
103	11-3-45
E. Log	

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

MAY 14 1945

12

FZ 55-6

Notice of Intention to Drill New Well

This notice must be given and surety bond filed before drilling begins.

037-00759

Los Nietos, Calif., May 10, 1945

DIVISION OF OIL AND GAS

Los Angeles Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of drilling well No. "Standard-Sesnon #166", Sec. 28, T. 3N, R. 16W, SB B. & M., Aliso Canyon Field, Los Angeles County. Lease consists of Standard-Sesnon #1 Lease

The well is 1183 feet ~~NE~~ S., and 7179 feet ~~East~~ W. from Station #84
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the derrick floor above sea level is 2685 feet. (Approx.)

We estimate that the first productive oil or gas sand should be encountered at a depth of about 8475 feet.

We propose to use the following strings of casing, either cementing or landing them as herein indicated:

Size of Casing, Inches	Weight, Lb. Per Foot	Grade and Type	Depth	Landed or Cemented
13-3/8	54.5	J-55 T & C	2000*	Cemented
7"	23, 26, & 29	J-55 & N-80 Speedtite	8475	Cemented
5" (Pflnr)	17.93	N-80 F J	8750	Landed

* Will be set higher if no circulation difficulties are encountered in drilling.

Well is to be drilled with rotary tools.

It is understood that if changes in this plan become necessary we are to notify you before cementing or landing casing.

Address Box "Y" Los Nietos, Calif.

TIDE WATER ASSOCIATED OIL COMPANY
(Name of Operator)

Telephone number Whittier 42-043

By *R. A. Cuff*
Agent

ADDRESS NOTICE TO DIVISION OF OIL AND GAS IN DISTRICT WHERE WELL IS LOCATED

MAP	MAP BOOK	CARD	BOND	FORMS
				114 121
18A 5-14-45			Blanket 43486	