

MINERAL 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 216-0255

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 13, 2016

Your operations at well "**Standard Sesnon**" 4, A.P.I. No. **037-00757**, Sec. **29**, T. **03N**, R. **16W**, **SB B.&M.**, **Aliso Canyon** field, in **Los Angeles** County, were witnessed on **7/1/2016**, by **Mike Woods**, a representative of the supervisor.

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

DECISION:

DEFERRED PENDING REVIEW BY THE DIVISION'S SAFETY TEAM.

MW/TKC

Kenneth A. Harris Jr.

State Oil and Gas Supervisor

By 

Patricia A. Abel, District Deputy

EB76.

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

216-0255
#16, 3

No. T _____

MECHANICAL INTEGRITY TEST (MIT)

Operator: Southern California Gas Company				Well: "Standard Sesnon" 4	
Sec. 29	T. 3N	R. 16W	SB B.&M.	API No.: 037-00757	Field: Aliso Canyon
County: Los Angeles				<input checked="" type="checkbox"/> Witnessed <input type="checkbox"/> Reviewed on: 7/01/2016	
M. Woods , representative of the supervisor, was present from				0830 ⁰⁸⁴⁵ to 0930 ⁰⁹¹⁵	
Also present were: Mike Giuliani, Consultant				<i>* As Per M. Woods 7-14-16</i>	
Casing record of the well: 2 7/8" x 2 3/8" landed on packer @ 8471', tubing plug @ 8460', sliding sleeve open @ 8436'.					
The MIT was performed for the purpose of demonstrating the mechanical integrity of the 7" casing.					
<input type="checkbox"/> The MIT is approved since the R/A tracer survey indicates that all of the injection fluid is confined to formations below _____ at this time.					
<input checked="" type="checkbox"/> The MIT is approved because the 7" casing held a pressure of 500 psi for 60 minutes.					
<input type="checkbox"/> The MIT is approved since the temperature survey indicates no fluid migration between _____ and the surface.					
<input type="checkbox"/> The MIT is not approved due to the following reasons:					
Comments: Variance given to test @ 500 psi because of squeez holes above packer.					
Deficiencies Corrected:					
Deficiencies to be Corrected:					
Uncorrectable Deficiencies:					
Contractor: Premier Oilfield Service and Oryx Oil Service					

EB76.

Well:		Date:		Time:	
Observed rate:		Meter rate:		Fluid level:	
Injection pressure:		MASP:		Pick-up depth:	
Initial annulus pressure:			Pressure after bleed-off:		
Casing vented during test: Yes <input type="checkbox"/> No <input type="checkbox"/>			Survey Company:		
DEPTH COUNTS RATE		SPINNER COUNTS		COMMENTS:	
		DEPTH COUNTS RATE			
<u>TRACER CASING AND TUBING RATE CHECKS</u>					
Interval	Time	Rate	Background log:	to	
			Background log:	to	
			Background log:	to	
			Temperature/CCL Log:	to	
			Spinner Log:	to	
			Spinner Log:	to	
			Spinner Log:	to	
COMMENTS:					
<u>Casing Shoe Check</u>					
Top perforation depth:		Wait at: for		Beads: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Casing shoe at:		WSO holes at:		Arrival Time: <i>Calculated</i> <i>Actual</i>	
LOG FROM	TO	SLUG @	LOG FROM	TO	SLUG @
					COMMENTS:
<u>Liner Check</u>					
Lap from: to		Wait at: for		Beads: Yes <input type="checkbox"/> No <input type="checkbox"/>	
Packer at:		Tubing size:		Tubing Tail at:	
Liner shoe at:					
LOG FROM	TO	SLUG @	LOG FROM	TO	SLUG @
					COMMENTS:
COMMENTS:					

DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST-RECORDS RECEIVED AND WELL STATUS

Operator: Southern California Gas Company WELL DESIGNATION "Standard Sesnon" 4

API No. 03700757 SE 29 T: 3N R.: 16W , SB B. and M.

County: Los Angeles FIELD: Aliso Canyon

Type of Notice: Rework Date 6/16/2016 Report Number: P216-0091

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>7/1/16</i>	<i>✓</i>	<i>✓</i>	<i>Press Test ready data</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 _____

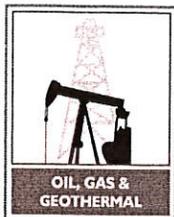
CLERICAL CHECK LIST

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

REMARKS

RECORDS SCANNED: _____
(Date)

RECORDS APPROVED: _____
(Date and Engineer)



URAL 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 216-0091

PERMIT TO CONDUCT WELL OPERATIONS

<u>Old</u>	<u>New</u>
010	010
FIELD CODE	
00	00
AREA CODE	
30	30
POOL CODE	

Corrected Copy

Gas Storage

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

Ventura, California
 June 30, 2016

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

Your proposal to **Rework** well "**Standard Sesnon**" 4, A.P.I. No. **037-00757**, Section **29**, T. **03N**, R. **16W**, **SB B.** & **M.**, **Aliso Canyon** field, **Any** area, **Sesnon-Frew** pool, **Los Angeles** County, dated **6/16/2016**, received **6/17/2016** has been examined in conjunction with records filed in this office. (Lat: **34.315067** Long: **-118.571830** 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:
2. a. **Class I Note: work to be completed without the removal of the injection assembly.**
3. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
4. Prior to commencing downhole operations, a pressure test is conducted to demonstrate the mechanical integrity of the 7" casing.
5. Injection shall be through tubing and packer only. Injection or withdrawal through the casing is not permitted.
6. 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.
7. In all other respects, the provisions of Division Order #1109 shall remain in effect.
8. This office shall be contacted by phone prior to making any program changes and no changes are made without Division approval.
9. **THIS DIVISION SHALL BE NOTIFIED TO:**
 - a. Witness a pressure test on the 7" casing and tubing plug.

Continued on Next Page

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

Engineer David Ortiz
 Office (805) 654-4761

DO/do

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.

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.

Ortiz, David@DOC

From: Michael Giuliani <mike.giuliani@interactprojects.com>
Sent: Friday, June 17, 2016 4:56 PM
To: Ortiz, David@DOC
Cc: Neville, Dan; McMahon, Thomas D.; McGurk, Scott@DOC
Subject: Casing Pressure Test Spreadsheet
Attachments: Test Pressure Safety Check Spreadsheet.xlsx

David,

SCGC submitted NOI's on seven wells today: FF-33, Frew 5, P-38, P-46, SS-04, SS-11 and SS-24. The attached spreadsheet demonstrates bottom-hole pressure based on the proposed 1000 psi test pressure for each well is uniformly below 85% of the burst pressure as taken from the Haliburton Red Book. In fact, pressures at the deepest point of each casing grade range from 669 psi to 3687 psi below the 85% of burst limit.

Although the analysis assumes the pipe is new, at a 1000 psi test pressure, there is a fairly large safety factor even beyond the 85% burst limit assumption in that it is also assumed the pipe is hanging in air (zero formation pressure). As you go deeper into the well, and the external casing pressure increases, so does the "hanging in air" safety factor.

Let me know if you have any questions or concerns.

Regards,

Mike Giuliani
Sr. Petroleum Engineer

We plan. We engineer. We Deliver. *You succeed.*

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

FOR DIVISION USE ONLY		
Bond	Forms	
		OGD114
	CAL WIMS	115

P216-0091

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 Sesnon 04 _____, API No. 037-00757 _____, (Check one)

Sec. 29, 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: 9170 feet.

The effective depth is: 9154 feet.

Present completion zone(s): Sesnon _____ (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 - Theo. TOC at 7112' as per attached wellbore mechanical.

5b - Packers set at 8471 & 9013'. Plug set in No-Go nipple at 8460'.

6b - Well was circulated full with 307 Bbbls. 8.5 ppg kill fluid on 1/31/16.

7b - With tubing valve closed, pressure test annulus to 1000 psi. for 1 hour.

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 6/16/16
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, 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/

Well Standard Sesnon 4

API #: 04-037-00757-00
Sec 29, T3N, R16W

Operator: So. California Gas Co.

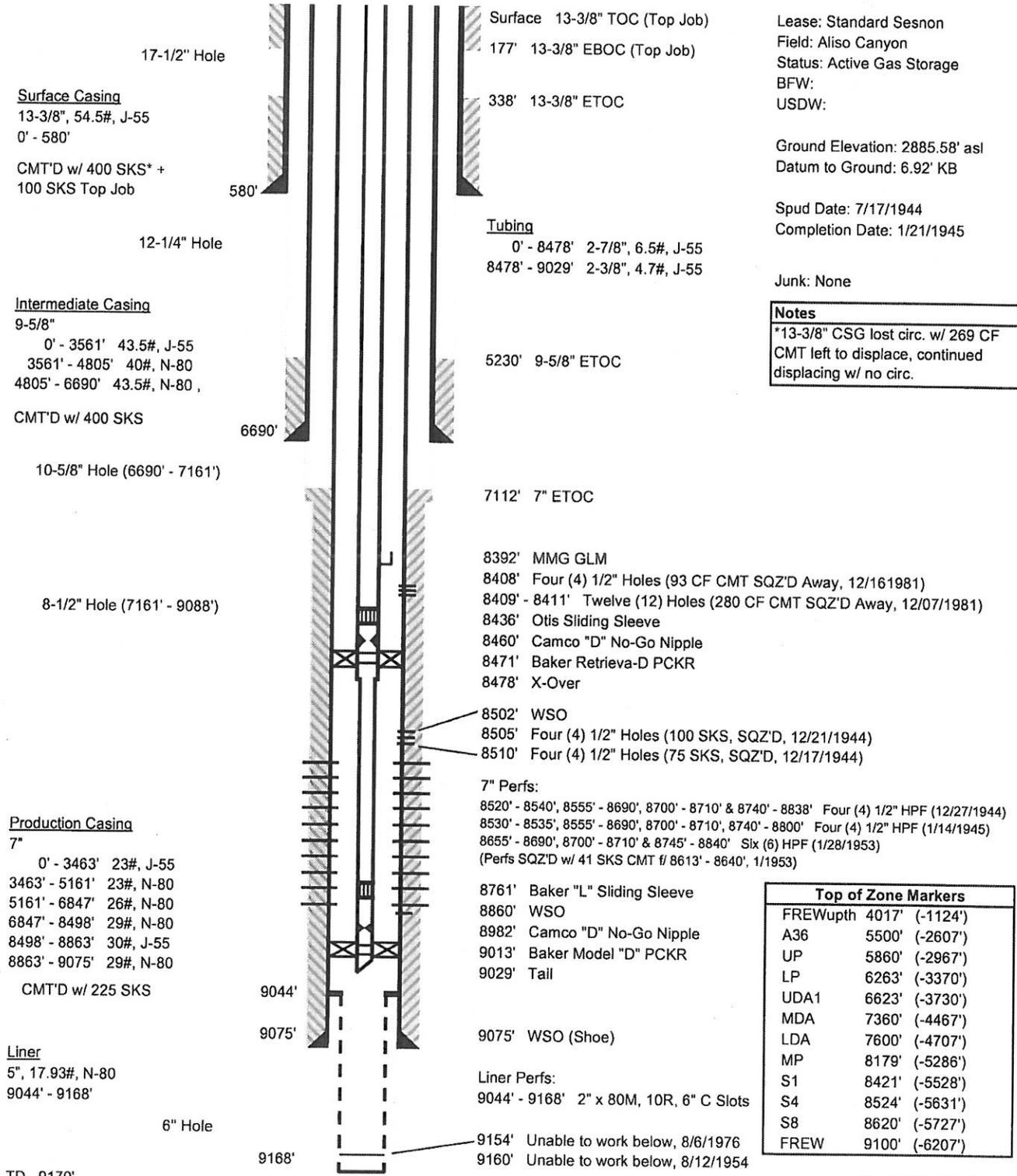
Lease: Standard Sesnon
Field: Aliso Canyon
Status: Active Gas Storage
BFW:
USDW:

Ground Elevation: 2885.58' asl
Datum to Ground: 6.92' KB

Spud Date: 7/17/1944
Completion Date: 1/21/1945

Junk: None

Notes
*13-3/8" CSG lost circ. w/ 269 CF
CMT left to displace, continued
displacing w/ no circ.



Top of Zone Markers	
FREWupth	4017' (-1124')
A36	5500' (-2607')
UP	5860' (-2967')
LP	6263' (-3370')
UDA1	6623' (-3730')
MDA	7360' (-4467')
LDA	7600' (-4707')
MP	8179' (-5286')
S1	8421' (-5528')
S4	8524' (-5631')
S8	8620' (-5727')
FREW	9100' (-6207')

Prepared by: MAM (2/17/2016)

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
Fernando Fee 33	7485'/7484'	7", 23#, J-55	4122	4360	3706	2822	Yes
		7", 23#, N-80	5913	6340	5389	3614	Yes
		7", 26#, N-80	7630	7240	6154	4372	Yes
Frew 5	8270'/8270'	7", 23#, N-80	1589	6340	5389	1702	Yes
		7", 23#, J-55	4609	4360	3706	3037	Yes
		7", 23#, N-80	6676	6340	5389	3951	Yes
Porter 38	8257'/8257'	7", 26#, N-80	8360	7240	6154	4695	Yes
		7", 23#, J-55	3383	4360	3706	2495	Yes
		7", 23#, N-80	5059	6340	5389	3236	Yes
Porter 46	7660'/7660'	7", 26#, N-80	6692	7240	6154	3958	Yes
		7", 29#, N-80	8465	8160	6936	4742	Yes
		7", 23#, J-55	3381	4360	3706	2494	Yes
Standard Sesnon 04	8471'/8470'	7", 23#, N-80	5166	6340	5389	3283	Yes
		7", 26#, N-80	6717	7240	6154	3969	Yes
		7", 29#, N-80	7710	8160	6936	4408	Yes
Standard Sesnon 11	8640'/8639'	7", 23#, J-55	3463	4360	3706	2531	Yes
		7", 23#, N-80	5161	6340	5389	3281	Yes
		7", 26#, N-80	6847	7240	6154	4026	Yes
Standard Sesnon 24	8690'/8690'	7", 29#, N-80	8498	8160	6936	4756	Yes
		7", 23#, J-55	3723	4360	3706	2646	Yes
		7", 23#, N-80	5397	6340	5389	3385	Yes
Standard Sesnon 24	8690'/8690'	7", 26#, N-80	7019	7240	6154	4102	Yes
		7", 29#, N-80	8767	8160	6936	4875	Yes
		7", 23#, N-80	1807	6340	5389	1799	Yes
Standard Sesnon 24	8690'/8690'	7", 23#, J-55	4346	4360	3706	2921	Yes
		7", 23#, N-80	6479	6340	5389	3864	Yes
		7", 26#, N-80	8414	7240	6154	4719	Yes
Standard Sesnon 24	8690'/8690'	7", 29#, N-80	8920	8160	6936	4943	Yes

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Ventura _____, California

November 12, 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. 29, 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:

FROM

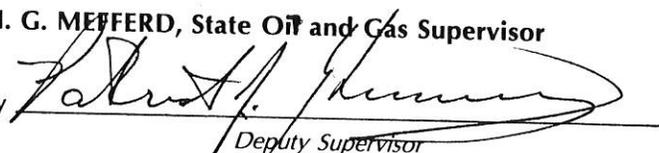
"SFZU" F-2 (037-00665)
"SFZU" F-3 (037-00666)
"SFZU" F-4 (037-00667)
"SFZU" F-5 (037-00668)
"SFZU" F-6 (037-00669)
"SFZU" F-7 (037-00670)
"SFZU" F-8 (037-00671)
"SFZU" F-9 (037-00672)
"SFZU" SS-4 (037-00757)
"SFZU" SS-12 (037-00764)
"SFZU" SS-4-0 (037-22063)
"SFZU" SS-10 (037-00040)

TO

"Frew" 2 (037-00665)
"Frew" 3 (037-00666)
"Frew" 4 (037-00667)
"Frew" 5 (037-00668)
"Frew" 6 (037-00669)
"Frew" 7 (037-00670)
"Frew" 8 (037-00671)
"Frew" 9 (037-00672)
"Standard Sesnon" 4 (037-00757)
"Standard Sesnon" 12 (037-00764)
"Standard Sesnon" 4-0 (037-22063)
"Standard Sesnon" 10 (037-00040)

M. G. MEFFERD, State Oil and Gas Supervisor

By



Deputy Supervisor

PATRICK J. KINNEAR

OPERATOR So. Cal. Gas
 LSE & NO SFZU 55-4
 MAP 254

() () () () () ()

INTENTION	<i>alter csg in N.S.</i>					
NOTICE DATED	<i>11-17-81</i>					
P-REPORT NUMBER	<i>281-430</i>					
CHECKED BY/DATE						
MAP LETTER DATED						
SYMBOL	<i>N/C</i>					

REC'D NEED REC'D NEED REC'D NEED REC'D NEED REC'D NEED REC'D NEED

NOTICE	<i>11-20-81</i>					
HISTORY	<i>2-8-82</i>					
SUMMARY	<i>-</i>					
IES/ELECTRIC LOG	<i>-</i>					
DIRECTIONAL SURV	<i>-</i>					
CORE/SWS DESCRIP	<i>-</i>					
OTHER	<i>BOPE 12-2-81</i>					
RECORDS COMPLETE	<i>RR</i>					

ENGINEERING CHECK

T-REPORTS	_____
OPERATOR'S NAME	_____
WELL DESIGNATION	_____
LOC & ELEV	_____
SIGNATURE	_____
SURFACE INSPECTION	_____
FINAL LETTER OK	_____

CLERICAL CHECK

POSTED TO 121 _____	170 MAILED _____	FINAL LETTER _____
_____	_____	MAILED _____
_____	_____	RELEASED BOND _____
_____	_____	_____
_____	_____	_____

REMARKS: _____

OPERATOR So Cal Gas
 LSE & NO SF24 554
 MAP 250

(6) () () () () ()

INTENTION	REWORK					
NOTICE DATED	—					
P-REPORT NUMBER	276-167					
CHECKED BY/DATE						
MAP LETTER DATED	N/C					
SYMBOL						

REC'D NEED REC'D NEED REC'D NEED REC'D NEED REC'D NEED REC'D NEED

NOTICE	5-24-76					
HISTORY	9-2-76					
SUMMARY						
IES/ELECTRIC LOG						
DIRECTIONAL SURV						
CORE/SWS DESCRIP						
OTHER						
RECORDS COMPLETE	②					

ENGINEERING CHECK

T-REPORTS	_____
OPERATOR'S NAME	_____
WELL DESIGNATION	_____
LOC & ELEV	_____
SIGNATURE	_____
SURFACE INSPECTION	_____
FINAL LETTER OK	_____

CLERICAL CHECK

POSTED TO 121 _____	170 MAILED _____	FINAL LETTER _____
_____	_____	MAILED _____
_____	_____	RELEASED BOND _____
_____	_____	_____
_____	_____	_____

REMARKS: _____

SO CAL GAS CO

OPERATOR Spencer
 LSE & NO. 250
 MAP NO. 250

INTENTION	DRILL	DRILL	DRILL	ALTR CSG	CONVERT TO GAS STORAGE
NOTICE DATED	7-13-44	11-15-44	12-12-44	8-5-54	1-19-73
P-REPORT DATED	1-39837	1-40180	1-40314	154-970	273-60
CHECKED BY/DATE					
MAP LETTER DATED	7-19-44	N/C	N/C	N/C	
SYMBOL					

REC'D NEED REC'D NEED REC'D NEED REC'D NEED REC'D NEED

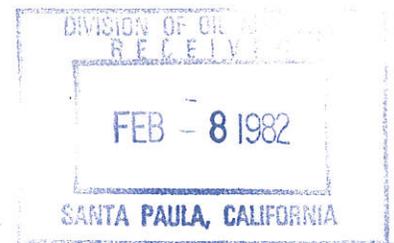
NOTICE	7-14-44	11-16-44	12-28-44	8-6-54	2-2-73
HISTORY		→	3-15-45	1-14-55 5-19-53	7-23-73
SUMMARY		→	3-15-45	1-14-55 5-19-53	
IES/ELECTRIC LOG		→	3-15-45		
DIRECTIONAL SURV.					
CORE/SWS DESCRIP.		→	3-15-45		
DIPMETER RESULTS					
OTHER					
RECORDS COMPLETE					

ENGINEERING CHECK T-REPORTS _____ OPERATOR'S NAME _____ WELL DESIGNATION _____ LOC. & ELEVATION _____ SIGNATURE _____ SURFACE INSPECTION _____ FINAL LETTER OK _____	CLERICAL CHECK POSTED TO 121 _____ 170 MAILED _____ _____ _____ _____ _____ _____ FINAL LETTER MAILED _____ _____ RELEASE _____ BOND _____
--	---

REMARKS

P 10

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 or County Aliso Canyon
Well Standard Sesnon #4, Sec. 28, T 3N, R 16W, SB B. & M.
A.P.I. No. 037-00757 Name J.P. Anand Title Agent
Date January 27, 19 82
(Person submitting report) (President, Secretary or Agent)

Signature J.P. Anand

P.O. Box 3249 Terminal Annex, Los Angeles, CA 90051 (Address) (Telephone Number) (213) 689-3561

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 #99857 was issued to repair a shoe leak at Standard Sesnon #4.

1981

12-01

1st Day. Moved in and rigged up hoist and pump equipment. Hooked up to Baker tank and filled well. Circulated out gas until well was dead. Well took 29 bbls of completion fluid.

12-02

2nd Day. Removed xmas tree and installed BOPE. Tested blind rams, pipe rams and manifold to 4000 psi. Tested Hydril to 3000 psi. Tests approved by Division of Oil and Gas. Unjayed from packer at 8466'.

12-03

3rd Day. Circulated out gas. Pulled out of well. Layed down production equipment and installed pitcher nipple. Made up Baker retrieving tool and ran in well. Jayed in Baker packer at 8466' and worked packer loose. Pulled 3 stands.

12-04

4th Day. Pulled out of well and layed down Baker packer. Made up 6" bit and 7" 29# casing scraper. Ran in to top of packer at 9016'. Circulated well clean.

12-05

5th Day. Ran to top of packer and circulated well clean. Pulled out of well. Layed down bit and casing scraper. Made up Johnston bridge plug, ran in and set at 8480'. Dumped 7 sacks of sand on top of plug.

12-07

6th Day. Located top of sand at 8443'. Pulled out of well. Shot 6 bullet holes per foot from 8411' to 8409', total of 12 holes. Ran 5 stands 2-7/8" tubing tail below Johnston 7" retainer and set at 8102' with tail at 8411'. Circulated hole fluid out with lease salt water. Pressured annulus to 1500 psi. Pumped 15 cu. ft. salt water and obtained breakdown at 2500 psi. Pumped 75 cu. ft. acid at 11 cu. ft. per minute at 2500 psi. Pumped 65 cu. ft. acid in formation and left 10 cu. ft. in casing. Unset retainer and pulled to 2500'.

- 12-08 7th Day. Pulled out. Rigged up Mc Cullough and ran Halliburton EZ-drill retainer on wireline and set at 8350'. Ran in well with stab-in seals. Squeeze #1, 50 cu. ft. acid, 100 cu. ft. Class "G" cement with 0.5% CFR-2 and 0.6% Halad 9 but did not get pressure build up. Cleared holes with 50 cu. ft. salt water. Squeeze #2, pumped 10 cu. ft. water, 100 cu. ft. cement and 10 cu. ft. water. Stage pumped cement out perforations but did not get good pressure build up. Cleared holes with 50 cu. ft. salt water. Squeeze #3, pumped 10 cu. ft. water, 100 cu. ft. cement, 10 cu. ft. water, stage in formation final pressure 2800 psi with 80 cu. ft. through holes. Pulled out of retainer.
- 12-09 8th Day. Pulled out of well. Made up 6" bit, junk sub, jars and 4-3/4" drill collars. Ran in to retainer at 8357'. Drilled on retainer at 8357' and pushed down well to 8366'.
- 12-10 9th Day. Pulled out of well. Changed bit. Made up junk sub #2. Ran in to 8366'. Drilled on retainer and drilled out cement from 8366' to 8478' (top of bridge plug). Circulated out sand. Pulled out of well and layed down bit. Made up retrieving tool.
- 12-11 10th Day. Ran in to bridge plug and washed down over fishing neck. Circulated well clean. Pulled out of well and layed down bridge plug. Made up 6" bit and 7" 29# casing scraper. Ran in to 9016'.
- 12-12 11th Day. Circulated well clean. Pulled out of well. Layed down scraper. Made up Johnston tester. Ran in well and set packer at 8500'. Opened tester and blew tubing dry.
- 12-14 12th Day. Rigged up triangle and tested lubricator to 4000 psi. Ran noise log from 8500' to surface. Log showed gas movement. Opened by-pass and circulated gas out of tubing. Unset test packer and pulled out of well. Layed down test tools. Made up and ran bridge plug.
- 12-15 13th Day. Ran in well and set bridge plug at 8480'. Pumped 8 cu. ft. sand on top of plug. Pulled out of well. Rigged up Mc Cullough wireline and shot 4 - 1/2" jet holes at 8408'. Made up Johnston retainer with 300' tubing tail. Ran in to 8406'. Changed hole fluid to lease salt water. Pumped 65 cu. ft. 12-3 acid in formation at 16 cu. ft. per minute at 2900 psi. Unset retainer and pulled 600'.
- 12-16 14th Day. Pulled out of well. Ran Halliburton drillable cement retainer on Welex wireline and set at 8350'. Made up stab-in seal and ran in to retainer. Obtained breakdown at 2500 psi, 11 cu. ft. per minute. Pumped 50 cu. ft. 12% HCL and 3% HF acid, 10 cu. ft. water, 115 cu. ft. Class "G" cement with 0.2% CFR-2, 0.3% Halad 9 and 10 cu. ft. water. Squeezed 98 cu. ft. cement into formation with final pressure of 2800 psi. Back scuttled out 5 cu. ft. cement. Pulled out.

- 12-17 15th Day. Finished pulling out of well. Made up 6" bit. Ran in well and circulated waste salt water out of well with 71#/cu. ft. polymer completion fluid. Drilled out retainer 8350'. Drilled out cement and cleaned out to 8455'. Circulated well clean.
- 12-18 16th Day. Pulled out of well. Made up Johnston retrieving tool and ran in well. Cleaned 20' sand from bridge plug and circulated clean. Pulled bridge plug loose. Pulled out of well with bridge plug. Made up Lynes test tools and ran in well.
- 12-19 17th Day. Set Lynes packer at 8483'. Flowed gas to surface. Ran Mc Cullough audio analyzer log which showed no gas movement. Back scuttled well and pulled packer loose. Pulled out of well. Layed down tools. Ran in well with bit.
- 12-20 18th Day. Ran in to top of packer and circulated bottoms up. Pulled out of well and layed down bit and casing scraper. Made up seal assembly, ran in to packer and stabbed in same. Packer is at 9004' tubing measurements.
- 12-22 19th Day. Pulled out of well. Made up Welex 7" lubricator and tested at 3000 psi. Ran Baker Retrieva-D 7" 29# packer and set at 8466'. Made up Camco and Baker production equipment, hydrotested tubing at 5000 psi. Ran in well and spaced out tubing. Landed tubing on doughnut with 12,000# on packer.
- 12-23 20th Day. Removed BOPE. Installed xmas tree and pressure tested to 5000 psi. Circulated out fluid with lease salt water. Rig released at 8:00 P.M., 12-23-81.

DIVISION OF OIL AND GAS

Report on Operations

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

Santa Paula, Calif.
Jan. 21, 1982

Your operations at well "SFTU" SS-4, API No. 037-00757,
Sec. 29, T. 3N, R. 16W SH B. & M. Aliso Canyon Field, in Los Angeles County,
were witnessed on 12/2/81 by R. Navia, representative of
the supervisor, was present from 1900 to 2000. There were also present Tom Hill, Tool
Pusher, CPS

Present condition of well: No additions to the casing record since proposal dated 11/17/81.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

b

M. G. METTERT
State Oil and Gas Supervisor

By _____
Deputy Supervisor

Murray W. Dosch

910

REPORT ON PROPOSED OPERATIONS

010
(field code)
03
(area code)
30
(new pool code)
30
(old pool code)

Mr. Kern Gupp Agent
So. Calif. Gas Co.
12801 Tampa Avenue
Northridge, CA 91324

Santa Paula, California
Nov. 24, 1981

Your _____ proposal to alter casing in
gas injection well "SFZU" SS-4,
A.P.I. No. 037-00757, Section 29, T. 3N, R. 16W, S.B. B. & M.,
Aliso Canyon field, Main area, Sesnon-Frew pool,
Los Angeles County, dated 11/17/81, received 11/20/81 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 B, 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.

Blanket Bond
MD:b

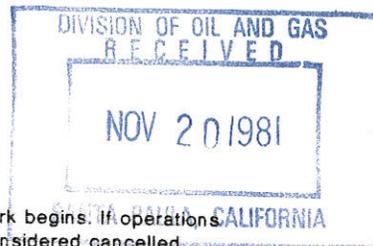
M. G. MEFFERD, State Oil and Gas Supervisor

By John L. Hardoin
John L. Hardoin, Deputy Supervisor *in the*

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.

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
<i>BB</i>	✓	✓

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 #4, API No. 037-00757
(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 9170'
- Complete casing record, including plugs and perforations
13-3/8" cemented 580'
9-5/8" cemented 6690'
7" cemented 9075', squeezed 8505'-8510', WSO 8502'
perforated 8840'-8740', 8710'-8700', 8690'-8555',
8540'-8520'.
124' 5" landed 9168', Top 9044', slotted 9168'-9044'
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, psig)

The proposed work is as follows:

- Move in & rig up. Kill well. Install BOPE & pressure test.
- Recover packer from 8466'. Set bridge plug 8460', shoot 4-1/2" holes at 8410', run retrievable retainer and obtain breakdown. Set drillable retainer and squeeze holes with cement. Drill out cement, recover bridge plug - test and run audio analyzer log.
- Set packer and rerun tubing with down hole safety system.
- Return 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 Co. *JPA*
(Name of Operator)
 By P.S. Magruder, Jr.
(Print Name)

Telephone Number (213) 689-3561

P.S. Magruder 11/17/81
(Signature) (Date)

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

30981-705 2-75 10M (2) OSP
**DIVISION OF OIL AND GAS
RECEIVED**

SEP 2 1976

History of Oil or Gas Well

SANTA PAULA, CALIFORNIA

OPERATOR SOUTHERN CALIFORNIA GAS COMPANY FIELD Aliso Canyon

Well No. STANDARD-SESNON #4, Sec. 29, T. 3N, R. 16W, S.B. B. & M.

Date August 19, 19 76

Signed *P. S. Magruder, Jr.*

P. O. Box 3249, Terminal Annex
Los Angeles, California 90051

Title Agent

(Address) (213) 689-3561

(Telephone Number)

(President, Secretary or Agent)

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

- 7-21-76 Rigged up Halliburton pump truck. Pumped down tubing with annular well pressure at 2690 psi. Pumped 270 barrels and bled gas down to 500 psi. Changed over to Getty line and pumped 34 barrels, with returns, to surface. Circulated gas cut mud into Baker tank. Used 305 barrels of 75% polymer work-over fluid.
- 7-27-76 Moved in - started rigging up.
- 7-28-76 Completed rigging up. Started circulating hole at 6:00 a.m. Circulated hole - no gas. Installed tubing hanger plug. Removed Christmas tree. Installed 10 3/4" 5000 psi, Class III B.O.P.E. Using rig pump, tested as follows:
- Blind rams 1500 psi for 20 minutes - O.K.
 - Pipe rams 1500 psi for 20 minutes - O.K.
 - Shaffer Bag - no good.
- Rigged up H & H Triplex pump, tested with water as follows:
- Pipe rams - no test
 - Blind rams - no test
 - Bag - no test
- Rigged up NOWSCO and tested with nitrogen as follows:
- Blind rams 3900 psi for 20 minutes - O.K.
 - Pipe rams 3900 psi for 20 minutes - O.K.
 - Shaffer Bag 3000 psi for 20 minutes - O.K.
- 7-29-76 Unscrewed keeper lugs on tubing hanger. Pulled 95,000# on tubing and tied down brake. (Hydraulic packer did not unseat.)
- 7-30-76 Rigged up to run sucker rods. Ran 1 1/2" Triple A overshot on hydraulic jars on 93-3/4", 102-7/8", and 87-1" rods. Fished for wire line tools in hole at 8460'.

- 7-31-76 Pulled out of hole - no fish. Ran in hole with 1 1/2" grapple in 1 15/16" body on hydraulic jars on 93-3/4", 102-7/8", 87-1" rods (rod string weight and blocks 18,000#.) Jarred on fish from 21,000# to 28,000# for two hours. Split grapple body and pulled out of hole.
- 8-1-76 Idle.
- 8-2-76 Rigged up McCullough wire line service. Using chemical cutter, cut tubing at 8425' or 35' above packer. Measured out of hole, laying down 2 7/8" tubing. Loaded out rods and off loaded 2 7/8" 10.40# RIF drill pipe.
- 8-3-76 Completed measuring tubing out of hole. Top of fish at 8435' (23' above "F" nipple.) Picked up drill pipe and ran in hole with tubing overshot, Bowen jars, bumper sub, 116' 4 3/4" drill collars, accelerator and 2 7/8", 10.4# RIF drill pipe.
- 8-4-76 Latched on to fish. String weight 92,000#. Jarred at 120,000#, increasing to 130,000# (after each jar pulled up to 160,000#.) Fish came loose in one hour and 15 minutes. Hole took 21 barrels to fill, then circulated hole (through fishing tools.) Pulled out of hole slowly filling hole at 20-stand intervals. Lost a total of 110 barrels of fluid to hole. Laid down fish (two hydrostatic packers, seal assembly, wire line tools, two landing nipples, two sliding sleeves and 16 joints of 2 7/8" tubing.)
- 8-5-76 Ran in hole with 6" bit on 7" Shorty casing scraper. Circulated hole. Lost 289 barrels while circulating and making up pill (polymer - no carbonates.) Spotted pill (50 barrels.) Waited one hour - lost 15 barrels. Waited one hour - lost 8 barrels. Pulled up to 4000'. Lost 45 barrels overnight.
- 8-6-76 Pulled out of hole (45 barrels to fill.) Ran 2000' pipe in hole. Installed flow line. Pulled out of hole. Ran 191' of 2 3/8" Atlas-Bradford tubing (coupling O.D. 2.700) with mule shoe to 9154'. Could not get deeper. Circulated hole. Placed 90 barrel high viscosity pill on bottom. (Total fluid loss = 124 barrels.)
- 8-7-76 Measured out of hole, laying down drill pipe. Established that liner fill or constriction is at 9127'. Measured in hole with 7" Baker fullbore cementing tool and 2 7/8" tubing.
- 8-8-76 Idle.

8-9-76

Using Dowell pump truck, tested casing as follows:

8485' to Surface	3000 psi for 20 minutes)	
1000' to Surface	3500 psi for 20 minutes)	O.K.
500' to Surface	4000 psi for 20 minutes)	

Rigged down Dowell. Ran in to 2000'.

8-10-76

Laid down 20 stands of tubing. Rigged up McCullough Wireline. Ran and set 7" Baker "Retrieva-D" packer at 8466' (550' above Baker Model "D" packer at 9016'.) Rigged down McCullough. Laid down Kelly and drill collars. Rigged up H & H power tongs and Hydrotest. Made up Baker bottom seal assembly and tested to 5000 psi for 3 minutes. Ran 17 joints of 2 3/8", 4.7#, J-55, 8rd EUE tubing. Changing collars, applying Baker seal sparingly to pins only and hydrotesting to 5000 psi for one minute. Ran Baker latch-in top seal assembly, blast joints and 2 7/8" tubing, as above. (Total fluid lost = 40 barrels.)

8-11-76

Continued running tubing as before. Landed tubing on 7" Baker "Retrieva-D" packer at 8466', with 10,000# over weight of tubing after checking latch-in with 20,000# over weight of tubing in tension.) Total fluid loss = 80 barrels.)

8-12-76

Removed rotary table. Installed tubing hanger plug. Removed B.O.P.E. Installed Christmas tree. Using Associated Services, tested tubing hanger and extended neck seals at 5100 psi for 20 minutes - O.K., then tested Christmas tree at 5000 psi for 20 minutes - O.K. Rigged up Archer-Reed piano wire service. Ran and set 2 1/2" Camco A-2 equalizing plug with C-Lock in "D" nipple at 8456'. Using rig pump, tested plug, packer and seals at 1500 psi for 10 minutes - O.K. Changed drilling fluid to lease waste salt water. Using H & H tested plug, packer and seals to 1800 psi for 20 minutes - O.K. Rig released at 10:00 p.m.

WELL PROFILE

8400'

8600'

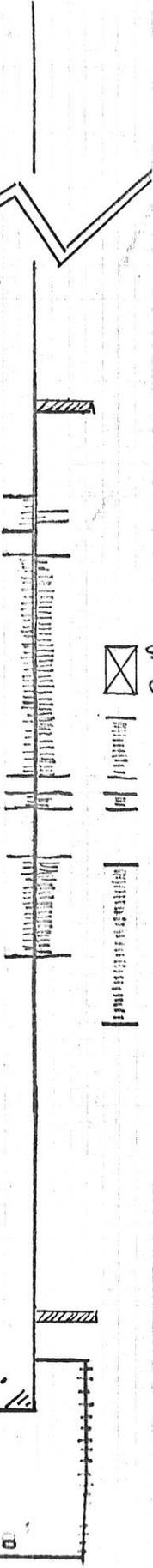
8800'

9000'

7"-9075'

5" H 9168'

9200'



Scab
 CMT

SOUTHERN CALIFORNIA GAS COMPANY

OPERATOR S. S. #4
 WELL # S. S. #4
 FIELD Aliso Canyon
 COUNTY Los Angeles
 STATE California
 DATE August 14, 1976
 NEW COMPLETION WORKOVER

CASING	LINER	TUBING		
		1	2	3
SIZE _____	_____	_____	_____	_____
WEIGHT _____	_____	_____	_____	_____
GRADE _____	_____	_____	_____	_____
THREAD _____	_____	_____	_____	_____
DEPTH _____	_____	_____	_____	_____

CASING DETAIL

All Measurements 6.9' Above Mat - T.D. 9170'

13 3/8", 54.5#, J-55, S T & C Cmt'd. at 580'.

9 5/8" Speedtite

0-3561' 43.5#, J-55

3561-4805' 40#, N-80

4805-6690' 43.5#, N-80

7" Speedtite

0-3463' 23#, J-55

3463-5161' 23#, N-80

5161-6847' 26#, N-80

6847-8498' 29#, N-80

8498-8863' 30#, Hydril Flush Joint

8863-9075' 29#, N-80

5" 18#, J-55

9044-9168' Hung

80M x 2" x 10 Rows x 6" Centers

Restriction or Fill 9127', August 1976

7" Baker Model "D" Packer Top 9016'

7" Baker Retrieval-"D" Packer Top 8466'

Perforations:

GP 4 HPF 8520-8540; 8555-8690'

8700-8710; 8740-8800'

Re-Perf. 4 HPF 8530-8535';

8555-8690; 8700-8710';

8740-8800'.

Scab Cmt'd 8613-8640'

GP 4 HPF 8653-8690; 8700-8710';

8745-8840'.

COMMENTS:

TOTAL ESTIMATE

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

REPORT ON PROPOSED OPERATIONS No. P 276-167

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

Santa Paula, Calif.
May 26, 1976

DEAR SIR:

(037-00767)

Your proposal to rework gas storage Well No. "SFZU" SS-4,
Section 29, T. 3N, R. 16W S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated _____, received 5/24/76, 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 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.

Blanket Bond
MD:b

HAROLD W. BERTHOLF
JOHN F. MATTHEWS, JR., State Oil and Gas Supervisor

By *John F. Matthews, Jr.* Chief, Deputy

DIVISION OF OIL AND GAS
RECEIVED

MAY 24 1976

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.

SANTA PAULA, CALIFORNIA

FOR DIVISION USE ONLY		
BOND	FORMS	
	114	121
<i>B.B.</i>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

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 No. 4, 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. 9170'
- Complete casing record, including plugs and perforations:
 - 13 3/8" cemented 580'.
 - 9 5/8" cemented 6690'.
 - 7" cemented 9075', perforated at intervals 8840' - 8520'
 - 124' 5" landed 9168' slotted 9044' - 9168'

- Present producing zone name Sesnon & Frew Zone in which well is to be recompleted -
- Present zone pressure 2600 pai 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 rig, kill well, install B.O.P.E. and test.
- Pull tubing and packers. Pressure test casing.
- Run packer and tubing with safety valve.
- Install tree and test packer.

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
 (City) (State) (Zip)

Telephone Number _____

By Guy C. Alshamir for P.S. Magruder, Jr.
 (Name) (Date)
P. S. Magruder, Jr.
 Type of Organization _____
 (Corporation, Partnership, Individual, etc.)

SOUTHERN CALIFORNIA GAS CO.
 ALISIO SS#4
 ALISIO CANYON
 LOS ANGELES COUNTY CALIFORNIA
 GYROSCOPIC MULTISHOT

DATE OF SURVEY DECEMBER 7, 1979
 VERTICAL SECTION DIRECTION
 SUI.75-12562

29-3N-16W
 Red 12/12/79

PAGE 1

SPERRY-SUN, INC.
 RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	SUB SEA TVD	COURSE INCLINATION DEG MIN	COURSE DIRECTION DEG	DOG-LEG SEV DEG/100	RECTANGULAR NORTH/SOUTH	COORDINATES EAST/WEST	TOTAL	VERTICAL SECTION
0	0.	0.				0. N	0. E	0.	0.
100	100.00	100.00	0 35	N 32 E	0.58	0.43 N	0.27 E	0.46	0.46
200	199.99	199.99	0 30	N 57 E	0.25	1.10 N	0.91 E	1.19	1.19
300	299.99	299.99	0 30	N 39 E	0.16	1.68 N	1.55 E	1.83	1.83
400	399.99	399.99	0 35	S 58 E	0.72	1.75 N	2.25 E	1.98	1.98
500	499.98	499.98	0 40	S 44 E	0.17	1.06 N	3.09 E	1.38	1.38
600	599.98	599.98	0 30	S 50 E	0.18	0.36 N	3.83 E	0.76	0.76
700	699.97	699.97	0 25	S 37 E	0.13	0.21 S	4.38 E	0.25	0.25
800	799.97	799.97	0 20	N 56 W	0.74	0.34 S	4.36 E	0.12	0.12
900	899.97	899.97	0 15	S 32 W	0.42	0.36 S	4.00 E	0.06	0.06
1000	999.97	999.97	0 25	S 64 W	0.24	0.71 S	3.56 E	-0.33	-0.33
1100	1099.97	1099.97	0 5	N 40 E	0.49	0.81 S	3.28 E	-0.46	-0.46
1200	1199.97	1199.97	0 30	S 75 W	0.57	0.87 S	2.90 E	-0.56	-0.56
1300	1299.96	1299.96	0 25	N 53 W	0.41	0.76 S	2.19 E	-0.52	-0.52
1400	1399.96	1399.96	0 5	S 30 E	0.49	0.60 S	1.94 E	-0.40	-0.40
1500	1499.96	1499.96	0 25	N 88 W	0.47	0.65 S	1.61 E	-0.48	-0.48
1600	1599.96	1599.96	0 25	S 59 W	0.24	0.83 S	0.94 E	-0.73	-0.73
1700	1699.96	1699.96	0 20	S 27 W	0.22	1.28 S	0.49 E	-1.22	-1.22
1800	1799.95	1799.95	0 40	S 68 W	0.47	1.75 S	0.18 W	-1.76	-1.76
1900	1899.95	1899.95	0 35	S 83 W	0.18	2.03 S	1.22 W	-2.15	-2.15
2000	1999.94	1999.94	0 30	S 79 W	0.09	2.18 S	2.16 W	-2.39	-2.39
2100	2099.94	2099.94	0 35	S 90 W	0.13	2.26 S	3.10 W	-2.58	-2.58
2200	2199.93	2199.93	0 30	S 77 W	0.15	2.36 S	4.03 W	-2.77	-2.77
2300	2299.93	2299.93	0 0	N 66 W	0.50	2.46 S	4.45 W	-2.91	-2.91
2400	2399.93	2399.93	0 25	S 48 W	0.42	2.70 S	4.73 W	-3.18	-3.18
2500	2499.93	2499.93	0 25	S 69 W	0.15	3.07 S	5.33 W	-3.62	-3.62
2600	2599.93	2599.93	0 25	S 81 W	0.09	3.26 S	6.03 W	-3.88	-3.88
2700	2699.93	2699.93	0 20	N 78 W	0.16	3.26 S	6.68 W	-3.94	-3.94
2800	2799.92	2799.92	0 25	S 38 W	0.40	3.48 S	7.19 W	-4.22	-4.22
2900	2899.92	2899.92	0 20	S 90 W	0.34	3.77 S	7.70 W	-4.56	-4.56

PW

SOUTHERN CALIFORNIA GAS CO.
 ALISIO SS#4
 ALISIO CANYON
 LOS ANGELES COUNTY CALIFORNIA
 GYROSCOPIC MULTISHOT

DATE OF SURVEY DECEMBER 7, 1979
 VERTICAL SECTION-DIRECTION CLOSURE
 SUI.75-12562

MEASURED DEPTH	TRUE VERTICAL DEPTH	SUB SEA TVD	COURSE INCLINATION DEG MIN	RECORD OF SURVEY			TOTAL		RECTANGULAR COORDINATES EAST/WEST	VERTICAL SECTION	
				COURSE DIRECTION DEG	DOG-LEG DEG/100	SEV	NORTH/SOUTH	COORDINATES EAST/WEST			
3000	2999.92	2999.92	0 25	S 2	W	0.52	4.13	S	8.00	W	-4.96
3100	3099.92	3099.92	0 30	S 55	W	0.42	4.75	S	8.37	W	-5.61
3200	3199.92	3199.92	0 10	N 83	W	0.39	4.98	S	8.88	W	-5.89
3300	3299.91	3299.91	0 25	N 0	E	0.43	4.60	S	9.02	W	-5.53
3400	3399.91	3399.91	0 35	N 19	W	0.23	3.75	S	9.19	W	-4.70
3500	3499.90	3499.90	0 50	N 1	E	0.35	2.55	S	9.34	W	-3.52
3600	3599.90	3599.90	0 30	N 14	E	0.36	1.40	S	9.22	W	-2.36
3700	3699.89	3699.89	0 30	N 44	W	0.48	0.66	S	9.42	W	-1.65
3800	3799.89	3799.89	0 30	S 89	W	0.40	0.35	S	10.16	W	-1.42
3900	3899.89	3899.89	0 30	S 76	W	0.11	0.47	S	11.02	W	-1.62
4000	3999.88	3999.88	0 40	N 63	W	0.44	0.31	S	11.96	W	-1.57
4100	4099.88	4099.88	0 25	N 63	W	0.25	0.12	N	12.80	W	-1.23
4200	4199.87	4199.87	0 45	N 33	W	0.44	0.84	N	13.48	W	-0.59
4300	4299.86	4299.86	0 45	N 8	W	0.32	2.03	N	13.93	W	0.55
4400	4399.85	4399.85	1 0	N 2	E	0.29	3.55	N	13.99	W	2.06
4500	4499.84	4499.84	0 45	N 7	E	0.26	5.08	N	13.88	W	3.58
4600	4599.83	4599.83	0 55	N 23	W	0.46	6.46	N	14.11	W	4.94
4700	4699.82	4699.82	0 40	N 26	W	0.25	7.72	N	14.68	W	6.13
4800	4799.81	4799.81	0 35	N 26	W	0.08	8.70	N	15.16	W	7.05
4900	4899.81	4899.81	0 20	S 78	E	0.83	9.10	N	15.10	W	7.45
5000	4999.81	4999.81	0 35	N 11	E	0.68	9.54	N	14.71	W	7.93
5100	5099.80	5099.80	0 35	N 55	E	0.44	10.33	N	14.20	W	8.77
5200	5199.80	5199.80	0 40	N 60	E	0.10	10.91	N	13.28	W	9.45
5300	5299.79	5299.79	1 10	N 82	E	0.60	11.34	N	11.77	W	10.04
5400	5399.76	5399.76	1 25	N 76	E	0.28	11.79	N	9.56	W	10.71
5500	5499.73	5499.73	1 25	N 29	E	1.13	13.17	N	7.76	W	12.27
5600	5599.70	5599.70	1 35	N 54	E	0.67	15.06	N	6.04	W	14.34
5700	5699.66	5699.66	1 40	N 44	E	0.30	16.92	N	3.92	W	16.41
5800	5799.62	5799.62	1 35	N 51	E	0.21	18.83	N	1.83	W	18.53
5900	5899.60	5899.60	0 50	N 80	E	0.95	19.83	N	0.04	W	19.71

SOUTHERN CALIFORNIA GAS CO.
 ALISIO SS#4
 ALISIO CANYON
 LOS ANGELES COUNTY CALIFORNIA
 GYROSCOPIC MULTISHOT

DATE OF SURVEY DECEMBER 7, 1979
 VERTICAL SECTION DIRECTION CLOSURE
 SU1.75-12562

SPERRY-SUN, INC.
 RECORD OF SURVEY

MEASURED DEPTH	TRUE VERTICAL DEPTH	SUB SEA TVD	COURSE INCLINATION DEG MIN	COURSE DIRECTION DEG	DOG-LEG DEG/100	RECTANGULAR NORTH/SOUTH		COORDINATES EAST/WEST		VERTICAL SECTION
						SEV	TOTAL	SEV	TOTAL	
6000	5999.59	5999.59	0 20	N 32 E	0.66	20.20	N	0.83	E	20.18
6100	6099.58	6099.58	1 30	N 74 E	1.27	20.81	N	2.24	E	20.93
6200	6199.56	6199.56	1 10	N 4 W	1.70	22.18	N	3.43	E	22.42
6300	6299.54	6299.54	0 55	N 38 E	0.78	23.83	N	3.85	E	24.10
6400	6399.53	6399.53	0 55	N 16 W	0.83	25.23	N	4.12	E	25.52
6500	6499.53	6499.53	0 30	S 78 E	1.23	25.91	N	4.33	E	26.22
6600	6599.51	6599.51	1 30	N 90 E	1.02	25.82	N	6.06	E	26.31
6700	6699.50	6699.50	0 35	N 8 E	1.53	26.32	N	7.44	E	26.96
6800	6799.50	6799.50	0 30	S 66 W	0.95	26.65	N	7.11	E	27.25
6900	6899.49	6899.49	0 50	N 77 E	1.33	26.63	N	7.42	E	27.27
7000	6999.49	6999.49	0 40	N 3 W	0.97	27.38	N	8.10	E	28.08
7100	7099.48	7099.48	1 20	S 11 E	2.00	26.82	N	8.29	E	27.54
7200	7199.46	7199.46	1 5	S 5 W	0.42	24.73	N	8.43	E	25.49
7300	7299.45	7299.45	0 45	N 58 W	1.57	24.14	N	7.80	E	24.83
7400	7399.44	7399.44	1 15	N 60 E	1.73	25.03	N	8.19	E	25.76
7500	7499.43	7499.43	0 50	S 60 E	1.10	25.21	N	9.76	E	26.10
7600	7599.42	7599.42	1 15	S 54 W	1.76	24.21	N	9.51	E	25.08
7700	7699.41	7699.41	0 35	N 10 W	1.59	24.07	N	8.54	E	24.83
7800	7799.41	7799.41	0 35	N 12 W	0.02	25.07	N	8.34	E	25.81
7900	7899.40	7899.40	1 10	S 88 W	1.21	25.53	N	7.22	E	26.15
8000	7999.37	7999.37	1 25	N 58 W	0.79	26.15	N	5.15	E	26.55
8100	8099.36	8099.36	1 15	S 13 W	2.17	25.74	N	3.86	E	26.01
8200	8199.35	8199.35	1 15	N 29 W	2.33	25.63	N	3.09	E	25.82
8300	8299.31	8299.31	1 50	N 12 E	1.21	28.15	N	2.89	E	28.30
8400	8399.25	8399.25	2 10	N 4 E	0.43	31.60	N	3.35	E	31.78

** THE CALCULATIONS ARE BASED ON THE MINIMUM RADIUS OF CURVATURE METHOD **

HORIZONTAL DISPLACEMENT = 31.78 FEET AT NORTH 6 DEG. 3 MIN. EAST (TRUE)

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED

JUL 23 1973

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon SANTA PAULA, CALIFORNIA

Well No. SS 4, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date _____, 19____ Signed P. B. 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

3-30 Moved in California Production Service and rigged up. Rigged up Otis wireline and pulled gas lift valves at 8403' and 8585'. Attempted to kill well with workover fluid. Could not establish circulation through gas lift mandrel at 8403'.

3-31 Continued attempts to kill well. Established circulation but formation continued to take fluid. Spotted heavy pill and shut well in. Total of 412 bbls. Lost to 6:00 PM.

4-1 Idle.

4-2 Filled hole with 90 bbls. Backscuttled until returns showed no gas. Removed production head and installed class 3 B.O.P.E. Tested pipe rams with 2175 psi for 15 minutes OK. Tested hydril bag with 2075 psi for 15 minutes OK. Pulled packers loose and measured out of hole.

4-3 Filled hole with 11 bbls. Ran 7" casing scraper and tagged model "D" packer at 9004'. Circulated on bottom 2 hours. Spotted pill and pulled scraper. Rigged up Dresser Atlas. Ran cement bond log 6600'-8995' and neutron lifetime/gamma ray logs 8100'-8994'. No densilog run due to poor cement through zone.

4-4 Filled hole with 11 bbls. Made up and ran 7" Baker model "C" bridge plug and fullbore packer. Set bridge plug at 8491'. Pulled up and set fullbore packer at 8450'. Tested bridge plug with 2050 psi for 15 minutes OK. Reset packer at 2328'. Tested 2328'-8491' with 2050 psi for 15 minutes OK. Tested from surface to 2328' with 2575 psi for 15 minutes OK. Reset packer at 1182' and tested from surface to 1182' with 3075 psi for 15 minutes OK. Removed B.O.P.E. and tubing head.

4-5 Filled 7" x 9-5/8" annulus with 10 bbls. waste rotary mud. Hot tapped into 9-5/8" x 13-3/8" annulus and filled same with 5 bbls. water. Rigged up casing jacks and 7" spear. Unlanded 7" casing and removed casing spool. Welded 19' extension on to 9-5/8" casing.

- 1973
- 4-6 Could not unland 9-5/8" casing. Cut out slips and cut off casing head. Deepened cellar and welded on new A.P.I. 5000 psi casing head.
- 4-7 X-Rayed casing head weld OK. Relanded 9-5/8" casing with 300,000#. Cut off 9-5/8" casing extension. Installed and tested new casing spool. Relanded 7" casing with 225,000#. Installed and tested new tubing head.
- 4-8 Idle.
- 4-9 Installed B.O.P.E. Started in hole with 7" Baker fullbore packer. Closed pipe rams and tested from surface to 8491' with 1010 psi for 15 minutes OK. Continued in hole and released bridge plug at 8491'. Reset bridge plug at 8725'. Tested scab cement job by setting fullbore packer at various depths and attempting to circulate. Isolated scab 8624'-8635' (8620'-31' neutron lifetime measurement). Retrieved bridge plug at 8725' and pulled out with same.
- 4-10 Made up and ran 7" Johnston bridge plug and tester. Set bridge plug at 8630'. Pulled up and set test tool at 8435', tail to 8459'. Opened tester at 8:00 AM and flowed S-4 zone for 3 hours. Daily rates at end of flow period: 966 MCF, 40 bbls. gross, 15.2 bbls. net. Final surface flowing pressure 312 psi with 32/64" bean. Shut well in at tool at 11:00 AM. Blew down tubing and filled same. Calculated fluid rise of 1425'. Dropped bar and backscuttled bottoms up. Recovered slightly oily, gas cut workover fluid. Closed tool and pulled packer loose at 1:15 PM. Retrieved bridge plug and pulled test string. Charts OK. Bottom outside recorder readings: I.H. 3676 psi, I.F. 488 psi, F.F. 683 psi, I.S.I. 1317 psi, F.S.I. 1365 psi, F.H. 3676 psi. Recorder on bottom of bridge plug showed no communication between S-4 and lower zones. Ran in open ended to model "D" packer and circulated clean.
- 4-11 Pulled to 8460' and changed over to lease salt water. Made up production string and started Hydro testing in hole. Hydro testing difficult due to scale buildup in tubing.
- 4-12 Continued Hydro testing in hole. Spaced out to land in model "D" packer. Circulated on top of model "D" for 2-1/2 hours. Landed tubing with 5000# on packer. Rigged up Otis wireline. Set Baker "RZR" bypass blanking plug in "R" nipple at 9002'. Left fish in plug (model "B" prong). Pressured tubing to 1200 psi to set Baker "FH" Hydrostatic packer at 8629' (center of packing elements). Opened sliding sleeve at 8991'. Could not circulate through sleeve. Packer set OK. Closed sleeve and pressured tubing to 2750 psi to set Baker "FH" Hydrostatic packer at 8462' (center of packing elements). Opened sliding sleeve at 8626'. Could not circulate through sleeve. Packer set OK. Tore out Otis. Removed B.O.P.E. Installed and tested new production head.
- 4-13 Tore out California Production Service. Unloaded 238 bbls. salt water with nitrogen. Blew down tubing and casing. Well ready for gas lift and production line hookups.

SS 4 TUBING DETAIL 4-12-73

<u>No. Joints</u>	<u>Item</u>	<u>Length</u>	<u>Depth</u>
	Below K.B.	15.00	
160	2-7/8" EU 8rd. N-80 fatigue nipple	1.10	16.10
	2-7/8" EU 8rd. J-55 tubing	4983.75	4999.85
	2-7/8" EU 8rd. N-80 pup jt.	4.14	5003.99
	2-7/8" Camco KBMG mandrel w/Bk. valve, 1/4" port, 1050#	5.20	5009.19
28	2-7/8" EU 8rd. N-80 pup jt.	2.14	5011.33
	2-7/8" EU 8rd. J-55 tubing	872.19	5883.52
	2-7/8" EU 8rd. N-80 pup jt.	4.13	5887.65
	2-7/8" Camco KBMG mandrel w/Bk. valve, 1/4" port, 1025#	5.20	5892.85
29	2-7/8" EU 8rd. N-80 pup jt.	2.13	5894.98
	2-7/8" EU 8rd. J-55 tubing	905.60	6800.58
	2-7/8" EU 8rd. N-80 pup jt.	4.13	6804.71
	2-7/8" Camco KBMG mandrel w/Bk. valve, 1/4" port, 1000#	5.20	6809.91
25	2-7/8" EU 8rd. N-80 pup jt.	2.12	6812.03
	2-7/8" EU 8rd. J-55 tubing	777.90	7589.93
	2-7/8" EU 8rd. N-80 pup jt.	4.13	7594.06
	2-7/8" Camco KBMG mandrel w/Bk. valve, 1/4" port, 975#	5.20	7599.26
25	2-7/8" EU 8rd. N-80 pup jt.	2.13	7601.39
	2-7/8" EU 8rd. J-55 tubing	781.49	8382.88
	2-7/8" EU 8rd. N-80 pup jt.	4.10	8386.98
	2-7/8" Camco KBMG mandrel w/Bk. valve, 1/4" port, 950#	5.20	8392.18
1	2-7/8" EU 8rd. N-80 pup jt.	2.10	8394.28
	2-7/8" EU 8rd. J-55 tubing	31.37	8425.65
	2-7/8" x 2.31" I.D. Baker model "L" sliding sleeve	2.75	8428.40
1	2-7/8" EU 8rd. J-55 tubing	30.82	8459.22
	2-7/8" x 2.31" I.D. Baker "F" landing nipple	.81	8460.03
	2-7/8" x 7" 29# Baker "FH" hydrostatic packer	6.60	8466.63
5	2-7/8" EU 8rd. J-55 tubing	157.21	8623.84
	2-7/8" x 2.31" I.D. Baker model "L" sliding sleeve	2.75	8626.59
	2-7/8" x 7" 30# Baker "FH" hydrostatic packer	6.60	8633.19
11	2-7/8" EU 8rd. J-55 tubing	349.51	8982.70
	2-7/8" EU 8rd. N-80 pup jt.	8.14	8990.84
	2-7/8" x 2.31" I.D. Baker model "L" sliding sleeve	2.75	8993.59
	2-7/8" EU 8rd. N-80 pup jt.	8.14	9001.73
	2-7/8" x 2.25" I.D. Baker "R" landing nipple	.81	9002.54
	2-7/8" EU 8rd. J-55 pup jt.	2.18	9004.72
	Baker model "D" seal assembly	7.72	9012.44

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

REPORT ON PROPOSED OPERATIONS No. P 273-60

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

Santa Paula Calif.
February 8, 1973

DEAR SIR:

Your proposal to convert to gas storage Well No. (037-00757)
"STZU" SS-4
Section 29, 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 BE ABOVE 8502'.

Blanket Bond
ALL:a
cc: Operator

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

By W. R. Pityius, Deputy

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

Los Angeles, Calif. January 19, 1973

DIVISION OF OIL AND GAS
RECEIVED

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 SS4
(Cross out unnecessary words)

FEB 2 1973
SANTA PAULA, CALIFORNIA

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

The present condition of the well is as follows:

- 1. Total depth. 9170'; Eff. depth 9160'
- 2. Complete casing record, including plugs:

13-3/8" 54.5# C 580'
 9-5/8", 40# & 43.5# C 6690'
 7", 23#, 26#, 29# & 30# C 9075'
 12 1/4"-5", 17.93# L 9168'
 TLH 9044'
 Pf: 4 HPF 8520'-8540'; 8555'-8690'; 8700'-8710'; 8740'-8800'
 Reperf: 4HPF 8530'-8535'; 8555'-8690'; 8700'-8710'; 8740'-8800'
 scab cmtd. 8613'-8640'
 G.P. 4 HPF 8653'-8690'; 8700'-8710'; 8745'-8840'
 slotted liner: 9044'-9168' (80M x 2" slots, 10 rows, 6" c.)

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

The proposed work is as follows:

Jet perforate four 1/2" holes per foot and/or reperforate two 1/2" holes per foot in the Sesnon zone as required to convert well to a gas storage well.

MAP	MAP	MAP	MAP	FORMS
				121
				✓

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

(Address)

(213) 689-3561

(Telephone No.)

Pacific Lighting Service Company

(Name of Operator)

By P.B. Magruder Jr.

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

830 North La Brea Avenue
Inglewood, California

September 23, 1968

Mr. Mr. C. G. Nelson, Agent
Getty Oil Co., Operator
P. O. Box 811
Agent for Ventura, California 93001

DEAR SIR:

Your request dated letter dated August 26, 1968, relative to change in designation of well(s) in Sec. 28, 29, T. 3 N., R. 16 W., S. B. B. & M., Aliso Canyon field, Los Angeles County, District No. 1, has been received; and in accordance with Section 3203, Public Resources Code, reading in part as follows:

“* * * The number or designation by which any well heretofore drilled has been known, and the number or designation specified for any well in a notice filed as required by Section 3203, shall not be changed without first obtaining a written consent of the Supervisor.”

the proposed change in designation is hereby authorized as follows:

See attached list.

ag
cc: F. E. Kasline
Production Dept.
Conservation Committee

F. E. KASLINE
~~E. R. MURRAY AARON~~
State Oil and Gas Supervisor

By *Wm. C. Bailey*
Deputy Supervisor

Proposed Changes in Designation

Sec. 28:

<u>Old Designation</u>		<u>New Designation</u>
"Standard-Sesnon 1"	1	"SFZU" SS-1 (037-00754)
"	2	" SS-2 (037-00755)
"	3	" SS-3 (037-00756)
"	5	" SS-5 (037-00758)
"	6	" SS-6 (037-00759)
"	7	" SS-7 (037-00760)
"	8	" SS-8 (037-00761)
"	9	" SS-9 (037-00762)
"	11	" SS-11 (037-00763)
"	13	" SS-13 (037-00765)
"	14	" SS-14 (037-00766)
"	16	" SS-16 (037-00768)
"	17	" SS-17 (037-00769)
"	24	" SS-24 (037-00770)
"	25	" SS-25 (037-00776)
"	29	" SS-29 (037-00041)
"	30	" SS-30 (037-00780)
"	31	" SS-31 (037-00781)
"	44	" SS-44 (037-00788)

Sec. 29:

<u>Old Designation</u>		<u>New Designation</u>
"Standard-Sesnon 1"	4	"SFZU" SS-4 (037-00757)
"	10	" SS-10 (037-00040)
"	12	" SS-12 (037-00764)

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

26
DIVISION OF OIL AND GAS
RECEIVED
JAN 14 1955
LGS ANGELES, CALIFORNIA

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON
Well No. Standard-Season 1-14 Sec. 20 29, T. 3 N, R. 16 W, S. B. B. & M.
Location 824.29' South and 7708.70' West from Station #84 Elevation of ground above sea level 2885.98' Net feet.
All depth measurements taken from top of Derrick Floor, which is 6.92 feet above ground.

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 January 5, 1955 Signed [Signature]
E. G. Young (Engineer or Geologist) W. D. Gould (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling 8/6/54 Completed drilling 8/11/54 Drilling tools Cable Rotary
Total depth 9170' Plugged depth _____ GEOLOGICAL MARKERS _____ DEPTH _____
Junk Note: 'all recompleted with 7" Perfs. packed off.

Recompleted
Commenced producing August 15, 1954 (date) Flowing/gas lift/pumping (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
Initial production	267/20 hrs.	20.7	1.7 (mud)	95	50'	0'
Production after 30 days	181	21.2	1.5	150	100'	Packer

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 perforations
13-3/8"	580'	0'	54.5#	New	Smle.	J-55	17-1/2"	500	
9-5/8"	6690'	0'	40 & 43.5#	New	Smle.	J-55, N-80	10-5/8"	400	
7"	9075'	0'	23, 26, 29, 30#	New	Smle.	J-55, N-80	8-1/2"	225	
5"	9168'	9044'	18#	New	Smle.	N-80	6"		

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
7"	8520 ft.	8540 ft.	6 - 1/2" holes/ft			Gun Perf.
	8555 ft.	8613 ft.				
	8640 ft.	8690 ft.				
	8700 ft.	8710 ft.				
	8740 ft.	8840 ft.				
5"	9044 ft.	9168 ft.	30 Mesh x 2"	10	6"	Koba

August 26 1954

Mr Thomas E Weaver
Box Y
Los Nietos California

Agent for Tide Water Associated Oil Company

Dear Mr Weaver

We have recently found our map No. 18A to be inaccurate in so far as the sectionization and basic boundaries in the Aliso Canyon field area are concerned. As a result, the numbers of the sections in which many of the wells are located have been incorrectly shown in our records. We are therefore correcting our records of the following of your wells as indicated:

From Sec. 27, T. 3 N., R. 16 W., S.B.B.& M., to Sec. 28

Wells No. "Porter" 4
 "Porter" 16
 "Porter" 34
 "Porter" 52
 "Porter" 61

From Sec. 28, T. 3 N., R. 16 W., S.B.B.& M., to Sec. 29

Wells No. "Standard-Sesnon 1" 4 ✓
 "Standard-Sesnon 1" 10
 "Standard-Sesnon 1" 12
 "Standard-Sesnon 1" 24

Very truly yours



R W WALLING
Deputy Supervisor

FEK:my
cc - Messrs E H Musser
 T L Wark
 J R Bovyer (2)
 R S Curl

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED

JAN 14 1955

History of Oil or Gas Well

LOS ANGELES, CALIFORNIA

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYONWell No. Standard-Sagron 1-4/4, Sec. 29
28, T. 3 N, R. 16, S. B. B. & M.Date January 5, 1955, 19____ Signed _____P. O. Box "Y", Los Nietos, Oxford 91051 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

Date	Description
1954	
8/3	Killed well with salt water, using B.J. Service.
8/4	Idle.
8/5	Hoist crew moving in and rigging up.
8/6	Moving in and rigging up. Pulled on tubing and found packer stuck.
8/7	Ran magnetector and found tubing free to packer at 8636'. Ran McCullough string shot and shot at 8636' to loosen packer. Pulled and worked packer which came free at 11:00 A.M. Ran Baker bit and scraper and found sand bridge at 8823'. Cleaned out to 8828'.
8/8	Cleaned out sand bridges from 8828' to 8850'; 8911' to 8918'. Found cement at 8918' and drilled out to 8960'.
8/9	Cleaned out cement from 8960' to 9025'. Found top of liner at 9034'. Circulated and scraped perforations.
8/10	Measured in and what was reported to be top of liner at 9034' was found to be bridging plug. Drilled on bridging plug at 9034'. Mud weight 70#, 47 viscosity.
8/11	Cleaned out from 9034' to 9055'. Mud weight 70#, 40 viscosity, 5.8 c.c. water loss.
8/12	Cleaned out from 9055' to 9160'. Unable to clean out any deeper. Washed perforations from 9160' to 9075', with M & T circulating washer, using B.J. mud acid.
8/13	Let well stand until 11:30 AM. Backscuttled out mud acid. Ran packer on 2-7/8" tubing to 8892' with pump shoes at 8890'.
8/14	Installed Christmas tree. Swabbed from 4:00 PM to 12:00 Midnight 60 barrels mud and oil, fluid level 4000' to 1600'.
8/15	Well began flowing at 10:00 AM. In 20 hours flowed 271 barrels gross fluid, 267 barrels net oil, 1.7% cut (mud), 20.7 gravity, 32/64" bean, 50# tubing pressure, 0# casing pressure, 95 MCF gas.
8/16	In 24 hours well flowed (heading) 228 barrels gross, 226 net, 0.7% cut, 21.1 gravity, 32/64" bean, 50-75# tubing pressure, packer casing, 93 MCF gas.
8/17	In 24 hours well flowed (heading) 227 barrels gross, 227 net, 0.2% cut, 21.5 gravity, 32/64" bean, 50-75# tubing pressure, packer casing, 83 MCF gas.
8/18	In 24 hours well flowed (heading) 209 barrels gross, 208 barrels net, 0.5% cut, 20.7 gravity, 32/64" bean, 50-75# tubing pressure, packer casing, 86 MCF gas.

OPERATOR: Tide Water Associated Oil Company

JAN 14 1955

WELL NO.: Standard-Sesnon I-#14

LOS ANGELES, CALIFORNIA

Page 2

<u>1954</u>	<u>Gross</u>	<u>Net</u>	<u>Cut</u>	<u>Gravity</u>	<u>Bean</u>	<u>Tubing Pressure</u>	<u>Casing Pressure</u>	<u>MCF Gas</u>
8/19	201	196	2.6%	20.7	32/64	50-75#	Packer	91
8/20	179	174	2.7%	20.7	32/64	50-75#	"	67
8/21	211	206	2.6%	20.7	32/64	50-75#	"	84
8/22	179	174	2.6%	20.7	32/64	50-75#	"	62
8/23	179	174	2.6%	20.7	32/64	50-75#	"	80
8/24	195	190	2.6%	20.7	32/64	50-75#	"	83
8/25	174	169	2.6%	20.7	32/64	50-75#	"	83
8/26	184	184	0.1%	21.2	18/64	100#	"	83
8/27	211	211	0.1%	21.2	18/64	100#	"	77
8/28	175	175	0.1%	21.4	18/64	100#	"	83
8/29	183	183	0.1%	21.4	18/64	100#	"	87
8/30	178	178	0.1%	21.4	18/64	100#	"	92
8/31	179	179	0.1%	21.4	18/64	100#	"	81
9/1	167	167	0.1%	21.2	18/64	100#	"	66
9/2	167	163	1.5%	21.2	18/64	100#	"	73
9/3	174	169	1.5%	21.2	18/64	100#	"	75
9/4	167	163	1.5%	21.2	18/64	100#	"	81
9/5	178	173	1.5%	21.2	18/64	100#	"	77
9/6	173	169	1.5%	21.2	18/64	100#	"	73
9/7	168	164	1.5%	21.2	18/64	100#	"	77
9/8	174	169	1.5%	21.2	18/64	100#	"	76
9/9	173	169	1.5%	21.2	18/64	100#	"	74
9/10	212	206	1.5%	21.2	18/64	100#	"	74
9/11	184	181	1.5%	21.2	18/64	100#	"	60
9/12	184	181	1.5%	21.2	18/64	100#	"	60
9/13	184	181	1.5%	21.2	18/64	100#	"	74
9/14	184	181	1.5%	21.2	18/64	100#	"	138
9/15	184	181	1.5%	21.2	18/64	100#	"	150

CASING RECORD

13-3/8"	54.5#	C	580'	
9-5/8"	40, 43.5#	C	6690'	
7"	23, 29, 30#	C	9075'	Pf. 8502'; C.P. 8505', 8510'
				Pf. 8520'-8540'; 8555'-8690';
				8700'-8710'; 8740'-8838';
				8860'. Pf. 8919'
				Scab Cmtd. 8640'-8613'; Repf. 8840'-8745';
				8710'-8700'; 8690'-8655'
12 1/4"	5"	L	9168'	All Pf.

TUBING RECORD

2-7/8" L w/pkr. at 8892' & pump shoe at 8890'

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
REPORT ON PROPOSED OPERATIONS

No. P. 154-970

Mr. Thomas E Weaver
Box 1
Los Nietos California
Agent for TIDE WATER ASSOCIATED OIL CO

Los Angeles 15 California
August 9 19 54

DEAR SIR:

Your 29 proposal to alter casing Well No. "Standard-Season 1"
Section 28, T. 3 N, R. 16 W, S. B. S B B. & M., Aliso Canyon Field, Los Angeles County,
dated Aug. 5 19 54, received Aug. 6 19 54, 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 IN ADDITION TO, OR AT VARIANCE WITH, THOSE SHOWN IN THE NOTICE:
Four $\frac{1}{2}$ " holes 8502', W.S.O., and four $\frac{1}{2}$ " holes 8860', W.S.O.

THE NOTICE STATES

"The present condition of the well is as follows:

1. Total depth. 9170'; Pg. 8919'
2. Complete casing record.
 - 13-3/8" 54.5# C 580'
 - 9-5/8" 40, 43.5# C 6690'
 - 7" 23, 29, 30# C 9075' Pt. 8502'; C.P. 8505'; 8510'
 - Pt. 8520'-8540', 8555'-8690', 8700'-8710', 8740'-8838'; 8860'
 - Pg. 8919'; Seab Cmtd. 8640'-8613'; Repl. 8840'-8745'; 8710'-8700'; 8690'-8655'
 - 12 1/4" 5" 17.93# L 9168' (ALL Pt.) Top 9044'

3. Last produced. July, 1954 59 21.1 2.6
(Date) (Net Oil) (Gravity) (Cut)"

PROPOSAL

"The proposed work is as follows:

1. Kill well and drill out cement plug from 8919' to 9011' and bridge plug at 9011'. Clean out to 9168'.
2. Wash well with mud acid.
3. Complete well with packer on tubing (set from 8870'-9030') and swab in well."

DECISION

THE PROPOSAL IS APPROVED.

FK:OH

cc T L Wark
R S Carl
J R Boyer (2)

E. H. MUSSER

State Oil and Gas Supervisor

Blanket bond.

By

R. H. Halling

Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED

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

AUG. 6 - 1954

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

LOS ANGELES, CALIFORNIA

Los Nietos

Calif.

August 5

19 54

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 deepening, ~~redrilling, plugging or altering casing at~~ **to original total depth** Well No. ~~Standard-Sanson 1-41~~

(Cross out unnecessary words)

Sec. ~~28~~ 29

T. 3 N

R. 16 W

S.B.

B. & M.

Aliso Canyon

Field,

Los Angeles

County.

The present condition of the well is as follows:

1. Total depth. 9170'; Pg. 8919'

2. Complete casing record.

13-3/8"	53.5#	C	580'	
9-5/8"	40, 43.5#	C	6690'	
7"	23, 29, 30#	C	9075'	Pf. 8502'; C.P. 8505'; 8510'
				Pf. 8520'-8540'; 8555'-8690'; 8700'-8710'; 8740'-8830'; 8860'
				Pg. 8919'; Scab Cmtd. 8610'-8613'; Repf. 8840'-8745';
				8710'-8700'; 8690'-8655'
12 1/4"	5"	17.93#	L 9168'	(All Pf.) Top 904 1/4'

3. Last produced.

July, 1954

59

21.1

2.6

(Date)

(Net Oil)

(Gravity)

(Cut)

The proposed work is as follows:

1. Kill well and drill out cement plug from 8919' to 9011' and bridge plug at 9011'. Clean out to 9168'.
2. Wash well with mud acid.
3. Complete well with packer on tubing (set from 8870'-9030') and swab in well.

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121
			Blanket	WJ	ES

TIDE WATER ASSOCIATED OIL COMPANY

(Name of Operator)

By

J E Weener

Agent

Res.

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

DIVISION OF OIL AND GAS

MAY 19 1953

LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON
Well No. Standard-Season #3-b Sec. 29, T. 3 N, R. 15 W, S.B. B. & M.
826.25' South and 7708.70' West Elevation above sea level 2892.5 feet.
Location of Station #84. All depth measurements taken from top of surface floor,
which is 6.92 feet above ground.

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 May 18, 1953 Signed J. C. Foster
W. E. Perkes (Engineer or Geologist) R. S. Curl (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling 1-11-53 Completed drilling 2-1-53 Drilling tools Cable Rotary

GEOLOGICAL MARKERS		DEPTH
Total depth	<u>9170'</u>	
Plugged depth	<u>8919'</u>	
Junk		
<u>Note: Seab cemented interval 8613'-8640'</u>		

Commenced producing 2-1-53 (date) Flowing/gas lift/pumping (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
Initial production	<u>179</u>	<u>26.9</u>	<u>3.1</u>	<u>2371</u>	<u>1075#</u>	<u>3100#</u>
Production after 30 days	<u>17</u>	<u>21.5</u>	<u>2.0</u>	<u>45</u>	<u>75#</u>	<u>2200#</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 perforations
<u>13-3/8"</u>	<u>580'</u>	<u>Surface</u>	<u>54.5</u>	<u>New</u>	<u>Seam.</u>	<u>J-55</u>	<u>17-1/2"</u>	<u>500</u>	
<u>9-5/8"</u>	<u>6590'</u>	<u>Surface</u>	<u>40 & 43.5</u>	<u>New</u>	<u>Seam.</u>	<u>J-55, N-80</u>	<u>10-5/8"</u>	<u>100</u>	
<u>7"</u>	<u>9075'</u>	<u>Surface</u>	<u>23, 26, 29, 6, 10</u>	<u>New</u>	<u>Seam.</u>	<u>J-55, N-80</u>	<u>8-1/2"</u>	<u>225</u>	
<u>5"</u>	<u>9168'</u>	<u>9014'</u>	<u>28#</u>	<u>New</u>	<u>Seam.</u>	<u>N-80</u>	<u>6"</u>		

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
<u>5"</u>	<u>9014</u>	<u>ft. 9168</u>	<u>ft. 80 Mesh & 2"</u>	<u>10</u>	<u>6"</u>	<u>Rebo</u>
<u>7"</u>	<u>8520</u>	<u>ft. 8510</u>	<u>ft. 4 - 1/2" holes/ft</u>			<u>Gun Perf.</u>
	<u>8555</u>	<u>ft. 8613</u>	<u>ft. 4 - 1/2" holes/ft</u>			<u>Gun Perf.</u>
	<u>8610</u>	<u>ft. 8690</u>	<u>ft. 4 - 1/2" holes/ft</u>			<u>Gun Perf.</u>
	<u>8700</u>	<u>ft. 8710</u>	<u>ft. 4 - 1/2" holes/ft</u>			<u>Gun Perf.</u>
	<u>8740</u>	<u>ft. 8810</u>	<u>ft. 4 - 1/2" holes/ft</u>			<u>Gun Perf.</u>

Electrical Log Depths 580' - 9170' (Elect. Log submitted previously.) (Attach Copy of Log)

DIVISION OF OIL AND GAS

MAY 19 1953

History of Oil or Gas Well

LOS ANGELES, CALIFORNIA

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON FIELD

Well No. Standard-Session #164, Sec. 29, T. 3 N, R. 16 W, S. 3. B. & M.

Signed J. C. Foster

Date May 1, 1953 Title Agent
(President, Secretary or Agent)

It is of the greatest importance to have a complete history of the well. Use this form in reporting the history of all important operations at the well, together with the dates thereof, prior to the first production. Include in your report such information as size of hole drilled to cementing or landing depth of casings, number of sacks of cement used in the plugging, number of sacks or number of feet of cement drilled out of casing, depth at which cement plugs started, and depth at which hard cement encountered. If the well was dynamited, give date, size, position and number of shots. If plugs or bridges were put in to test for water, state kind of material used, position and results of pumping or bailing.

Date 1950
10/2 Circulated 240 barrels of 68.5# Ken Oil drilling fluid to kill well.
10/3 Circulated mud and killed well. Installed Shaffer control head.
10/4 Pulled tubing.
10/5-10/6 Ran Guiberson circulating type pecker on 2-1/2" upset tubing with 32' 2-1/2" tubing below pecker and set pecker at 3520'.
10/7-10/8 Idle.
10/9 Installed head and circulated out Ken Oil mud with oil in annulus between tubing and casing. Installed christmas tree.
10/10 Installed christmas tree and tested with 2500# pressure. Ripped up to swab. No tubing pressure as of 6:00 AM, October 11, 1950.
10/11 Ripped up and swabbed oil to 800'. Shut in at 1:00 PM. No pressure at 6:00 AM, October 12, 1950.

Date	Gross	Net	Out	Bean	Tubing Pressure	Casing Pressure	SGP Gas	Gravity
10/12	Swabbed well and started flowing at 12:00 Noon.					In 18 hours well flowed:		
	175	174	0.3%	13/64	1500#	740#	210	22.6
10/13	130	130	0.3%	8/64	1600#	1500#	276	
10/14	103	103	0.3%	7/64	2050#	2450#	365	
10/15	38	38	0.3%	7/64	2150#	2525#	461	
10/16	36	36	0.3%	7/64	2150#	2550#	465	22.4
10/17	34	33	1.0%	7/64	2150#	2550#	475	
10/18	25	24	1.0%	5/64	2200#	2560#	410	
10/19	14	13	1.0%	5/64	2225#	2625#	261	
10/20	10	9	1.0%	4/64	2200#	2650#	178	
10/21	11	10	1.0%	4/64	2200#	2650#	175	
10/22	10	9	1.0%	4/64	2200#	2650#	168	
10/23	9	8	1.0%	4/64	2200#	2660#	177	
10/24	11	10	1.0%	4/64	2200#	2650#	172	
10/25	8	7	1.0%	4/64	2175#	2650#	174	
10/26	8	7	1.0%	4/64	2175#	2650#	173	
10/27-12/7/52	Shut in.							

1952
12/8-12/12 Moved in and rigged up rotary.
12/13-1/13/53 Shut in.
1953
1/13-1/14 Ripped up rotary and circulated salt water to kill well.
1/15-1/16 Killed well with mud. Tried to pull tubing but found pecker stuck. Ran McCullough

MAY 19 1953

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon #174, Aliso Canyon Field

LOS ANGELES, CALIFORNIA

Page 2

1953

- 1/15-16 (cont.) magnatector and located free point at top of packer.
- 1/17 Ran string shot and shot just above packer but packer did not come loose. Ran string shot and shot at 8594' and backed off tubing.
- 1/18-1/19 Pulled and recovered 8581' of 2-1/2" tubing. Made up drill pipe and took hold of tubing with socket and jars and recovered collar of 2-1/2" tubing. Rerunning jars.
- 1/20 Took hold of fish with socket and jars and recovered balance of tubing and packer, leaving hole clean. Ran bit and scraper to 8700'.
- 1/21 Set Baker Model "K" bridge plug at 8670'. Dumped two sacks of cement on top of bridge plug with bailer. Located top of plug at 8666'.
- 1/22 Ran McGaffey-Taylor scab cement tool on 2-1/2" tubing and washed interval from 8650' to 8610' with mud. Mixed 35 sacks of Colton Hi-temperature cement preceded by 150 cu. ft. of water and washed above interval three times while displacing water and twice while displacing cement. Final pressure 1100#. Time 8:30 AM. Pulled to 8600' and backscuttled approximately 21 sacks of cement. B.J. Service. Located top of hard cement at 8600'.
- 1/23 Cleaned out hard cement from 8601' to 8650'. Ran McGaffey-Taylor scab tool on 2-1/2" tubing and pressure tested interval from 8650' to 8610'; 8650' to 8636' circulated with 1250-1000# pressure; 8635' to 8631' displaced fluid into formation at 1100#; 8630' to 8610' circulated with 1100-800#. Mixed 35 sacks Colton Hi-temperature cement preceded by 150 cu. ft. of water and washed interval 8650' to 8610' three times while displacing water and twice while displacing cement. Final pressure 1100#. Time 6:00 PM. Backscuttled at 8600' and recovered an estimated 23 sacks of cement.
- 1/24 Cleaned out hard cement from 8605' to 8656'. Pressure tested interval with McGaffey-Taylor scab tool as follows: 8655' - 8640' circulated with 1250-750#; 8639' - 8634' displaced fluid into formation at 1100#; 8633' - 8610' circulated with 1100-750#. Mixed 35 sacks Colton Hi-temperature cement preceded by 150 cu. ft. of water and washed interval 8655' to 8610' three times while displacing water and twice while displacing cement. Final pressure 1500#. Backscuttled at 8600' and recovered an estimated 20 sacks cement. Time 12:00 Midnight.
- 1/25 Located top of cement at 8606' and cleaned out to 8656'.
- 1/26 Ran McGaffey-Taylor scab cement tool and pressure tested from 8654' to 8607' in 1' stages. From 8654' to 8641' circulated to surface with 1500-800#; 8640' to 8613' displaced fluid into formation at 1400#; 8612' to 8607' circulated to surface at 1300#. Ran bit and scraper and cleaned out cement and Baker bridge plug at 8666' and circulated to 8919'.
- 1/27 Laid down drill pipe. Ran 2-1/2" tubing to 8850' and spotted 25 barrels of Ken Oil.
- 1/28 Ran McCullough jet perforator and shot six holes per foot from 8840' - 8745'; 8710' - 8700'; and 8690' - 8655'.
- 1/29 Ran Yowell washer with 12 barrels of KM #4 wash chemical and washed perforations from 8840' to 8655'. Unable to break circulation above 8657' (very tight 8660' - 8657'). Started running tubing.
- 1/30 Ran 2-1/2" tubing with two Guiberson packers on bottom and 2" Otis choke assembly above packers and check valve one joint from bottom and landed with bottom packer at 8636'. Packers are cup type with two cups up and two down. Circulated out mud with oil.
- 1/31-2/1 Swabbed and well started flowing at 10:00 AM. In 21 hours well flowed 501 barrels of gross fluid, of which 365 barrels is circulating fluid and 136 barrels gross formation fluid, 109 barrels approximate net oil, cut 20%, including 16% mud, 18/64" bean, 1050# tubing pressure, 1450# casing pressure, 743 MCF gas.

MAY 19 1953

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon #144

LOS ANGELES, CALIFORNIA Page 3

1953	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas
2/2	195	179	8.1%	26.9	1 1/2/64	1075#	1400#	2371
2/3	173	162	6.6%	26.3	1 1/2/64	1225#	1550#	2694
2/4	102	97	4.8%	27.0	1 1/2/64*	1625#	1625#	1991
1 1/2/64" bean for 5 hours, 10/64" bean for 19 hours								
2/5	51	49	5.0%	36.0	10/64	1900#	2225#	1001
2/6	50	49	1.0%	37.6	10/64	1900#	2250#	1018
2/7	49	48	0.7%	35.6	10/64	1900#	2200#	1254
2/8	41	41	0.6%	36.0	10/64	1900#	2200#	1260
2/9	Ran Otis side door choke at 1:00 PM to segregate Upper and Lower Sesnon Zone production. Well stopped flowing from Lower Zone. 75# tubing pressure; 2400# casing pressure; 251 MCF gas.							
2/10	Well started flowing at 6:00 AM and in 24 hours flowed as follows:							
	65	61	3.2%	21.4	2 1/2/64	125#	2450#	105
2/11	49	47	4.0%	20.1	2 1/2/64	0-300#	2300#	74
2/12	54	53	2.0%	21.0	2 1/2/64	0-300#	2300#	71
2/13	54	53	2.0%	21.2	2 1/2/64	100#	2400#	83
2/14	48	47	2.1%	21.2	2 1/2/64	75#	2400#	73
2/15	44	43	1.7%	21.5	2 1/2/64	100#	2400#	74
2/16	48	47	2.0%	21.5	2 1/2/64	100#	2400#	71
2/17	49	48	2.0%	21.5	2 1/2/64	100#	2400#	71
2/18	48	47	2.0%	21.5	2 1/2/64	100#	2400#	113
2/19	49	48	2.0%	21.5	2 1/2/64	100#	2400#	63
2/20	49	48	2.0%	21.5	2 1/2/64	100#	2300#	62
2/21	49	48	2.0%	21.5	2 1/2/64	75#	2300#	65
2/22	57	56	2.0%	21.5	2 1/2/64	75#	2300#	72
2/23	48	47	2.0%	21.5	2 1/2/64	75#	2300#	72
2/24	48	47	2.0%	21.5	2 1/2/64	75#	2300#	72
2/25	49	48	2.0%	21.5	2 1/2/64	75#	2300#	72
2/26	51	50	2.0%	21.5	2 1/2/64	75#	2200#	80
2/27	41	41	2.0%	21.5	2 1/2/64	75#	2200#	51
2/28	31	30	2.0%	21.5	2 1/2/64	75#	2200#	49
3/1	41	40	2.0%	21.5	2 1/2/64	75#	2200#	37
3/2	52	51	2.0%	21.5	2 1/2/64	75#	2200#	48
3/3	38	37	2.0%	21.5	2 1/2/64	75#	2200#	55
3/4	48	47	2.0%	21.5	2 1/2/64	75#	2200#	45

CASING RECORD

13-3/8" 54.5# C 580'
 9-5/8" 40 & 43.5# C 6690'
 7" 23, 29 & 30# C 9075' Pf. 8502'; C.P. 8505', 8510'
 Pf. 8520'-8540'; 8555'-8690';
 8700'-8710'; 8740'-8838';
 8860'. Pg. 8919'
 Scab Cmtd. 8640'-8613'
 Reperf. 8840'-8745'; 8710'-8700'; 8690'-8695'
 12 1/2" 5" 17.93# L 9168'

TUBING RECORD

2-1/2" L w/pkr at 8636' & Otis Choke at 8627'

MAR 15 1945

SFZU-4

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

Operator TIDE WATER ASSOCIATED OIL COMPANY Field Aliso Canyon (Field)
 Well No. Standard-Sesnon #1-4 Sec. 29, T. 3N, R. 16 W, S. B. B. & M.
824.29' south and 7708.70' west from station #84
 Location _____ Elevation of derrick floor above sea level 2892.5 feet.
 ground _____

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 3/1/45 Signed R. S. Curl
G. C. Pfeffer (Engineer or Geologist) R. S. Curl (Superintendent) Title Agent
 (President, Secretary or Agent)

Commenced drilling July 17, 1944 Completed drilling Nov. 26, 1944 Drilling tools Cable
9170 Total depth Plugged depth 8919 Rotary

Junk	GEOLOGICAL MARKERS	DEPTH
	<u>Sesnon</u>	<u>8522</u>
	<u>Eocene</u>	<u>9095</u>

Commenced producing Jan. 21, 1945 (date) Flowing/gas lift/pumping _____
 (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
Initial production	<u>214</u>	<u>28.4</u>	<u>20</u>	<u>no meas.</u>	<u>0-25</u>	<u>0</u>
Production after 30 days	<u>184</u>	<u>21.0</u>	<u>0.4</u>	<u>74</u>	<u>300</u>	<u>2000</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 Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
<u>13-3/8"</u>	<u>580'</u>	<u>Surface</u>	<u>54.5#</u>	<u>New</u>	<u>Smls.</u>	<u>J-55</u>	<u>17 1/2"</u>	<u>500</u>	
<u>9 1/2"</u>	<u>6690'</u>	<u>"</u>	<u>40# & 43.5#</u>	<u>"</u>	<u>"</u>	<u>J-55 & J-80</u>	<u>10 1/2"</u>	<u>400</u>	
<u>7"</u>	<u>9075'</u>	<u>"</u>	<u>23# & 26#</u> <u>29# & 30#</u>	<u>"</u>	<u>"</u>	<u>J-55 & J-80</u>	<u>8 1/2"</u>	<u>225 also</u>	
<u>5"</u>	<u>9168'</u>	<u>9044'</u>	<u>18#</u>	<u>"</u>	<u>"</u>	<u>C.P. 8510'</u> <u>H-80</u>	<u>with 75' and 8505'</u> <u>6"</u>	<u>with 100#</u>	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
<u>5"</u>	<u>9044'</u> ft.	<u>9168'</u> ft.	<u>80 mesh x 2"</u>	<u>10</u>	<u>6"</u>	<u>Kobe</u>
<u>7"</u>	<u>8502'</u> ft.	<u>8505'</u> ft.	<u>(C.P.); 8510' (C.P.); 8520'-8540'; 8555' - 8690';</u> <u>8700'-8710'; 8740'-8838'; 8860'. All gun perf.</u>			
	ft.	ft.		MAP	MAP BOOK	CARDS
	ft.	ft.			BOND	FORMS
						114 121

Electrical Log Depths 580 - 9170 (Attach Copy of Log)

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

RECEIVED
MAR 15 1945
Sheet

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard-Sesnon #1-4, Sec. (28) 29, T. 3-N, R. 16-W, S. B. B. & M.

Signed [Signature]

Date _____ 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.

Date	Depth	Description
		<u>LOCATION:</u> 824.29' south and 7708.70' west from Station #84.
		<u>ELEVATION:</u> 2892.5'
		<u>A. PREPARING TO DRILL</u>
5/13-6/27		Graded rig site.
5/28		Dug cellar.
5/29		Built forms.
5/30-7/1		Poured concrete.
7/2		Idle.
7/3		Poured concrete.
7/4		Built rig.
7/5		Built pipe racks.
7/6		Installed woodwork.
7/7-7/16		Moved in equipment and rigged up rotary.
		<u>B. DRILLING TO 9170'</u>
7/17-7/19	547'	Spudded 12 1/2" hole at 4:00 A.M. Drilled 12 1/2" hole from surface to 547'. Had trouble maintaining circulation from 296' to 341'.
7/20	601'	Drilled 12 1/2" hole from 547' to 601'. Had trouble maintaining circulation from 547' to 593'. Opened 12 1/2" hole to 17 1/2" from surface to 580'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

MAR 15 1945

Sheet

OPERATOR WIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard Seaman #1-4, Sec. (22) 29, T. 3 N, R. 16 W, S. 8 B. & M.

Signed _____

Date _____ 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.

Date	Depth	
9/21		Cemented 13-3/8". 54.5# Youngstown Grade J-55 T&C casing at 580' with 400 sacks Colton construction cement in bulk. Lost circulation with 269 cu.ft. of cement to displace; continued displacing with no circulation. Pressure jumped from 150# to 350# when plugs bumped. Time 4:34 P.M. Calculated displacement mud 507 cu.ft. Actual displacement mud 519 cu.ft. Mixing time 18 minutes. Displacing time 20 minutes. Cemented around outside of 13-3/8" casing with 100 sacks Colton construction cement. International Cementers Inc.
/22	606'	Landed 13-3/8" casing and installed collar connections. Cleaned out plugs and cement and resumed drilling making 12 1/4" hole. Drilled 12 1/4" hole from 601' to 606'. Found no cement below shoe of 13-3/8" casing.
/23	622'	Drilled 12 1/4" hole from 606' to 622'. Lost circulation while drilling at 622'. Conditioned mud with cotton seed hulls and Aquagel. Unable to regain circulation. Hung 6 1/2" drill pipe at 570' and pumped in 30 sacks treated Colton construction cement. Displaced with 108 cu.ft. water. Had partial circulation while cementing. Time 2:30 P.M. Mixing time 2 minutes. Displacing time 3 minutes. Located top of cement at 615'. Cleaned out to 622' and lost circulation. Hung 6 1/2" drill pipe at 570' and pumped in 70 sacks treated Colton construction cement. Displaced with 75 cu.ft. water. Had no circulation while cementing. Time 10:00 P.M. Mixing time 4 minutes. Displacing time 2 minutes.
/24	633'	Located top of cement at 610'. Cleaned out to 622' and resumed drilling. Drilled 12 1/4" hole from 622' to 633' and lost circulation. Hung drill pipe at 570' and pumped in 40 sacks treated Colton construction cement. Displaced with 35 cu.ft. water. Had no circulation while cementing. Time 2:37 P.M. Mixing time 3 minutes. Displacing time 2 minutes. Mixed cotton seed hulls and Aquagel with mud and cleaned out to 633'. Had partial circulation for short time. Hung drill pipe at 570' and pumped in 40 sacks treated Colton construction cement. Displaced with 50 cu.ft. water. Had no circulation while cementing. Time 9:01 P.M. Mixing time 3 minutes. Displacing time 3 minutes. International Cementers Inc.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

MAR 15 1945

History of Oil or Gas Well

Sheet

OPERATOR WIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard Sesnon 414, Sec. 29 (25), T. 3-N, R. 16-W, S. 1/4, B. & M.

Signed _____

Date _____ 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.

Date	Depth	Description
1944		
7/25	811'	Conditioned mud with cotton seed hulls and Aquagel. Cleaned out to 633' and resumed drilling. Drilled 12 1/4" hole from 633' to 811'. Circulation O.K.
7/26	990'	Lost circulation while drilling at 811'. Conditioned mud with cotton seed hulls and Aquagel and regained circulation. Drilled 12 1/4" hole from 811' to 990'.
7/27	1031'	Lost circulation while drilling at 990'. Conditioned mud with cotton seed hulls and Aquagel and regained circulation. Drilled 12 1/4" hole from 990' to 1031'.
7/28	1062'	Lost circulation while drilling at 1031'. Conditioned mud with beet pulp and Aquagel, regained circulation. Drilled 12 1/4" hole from 1031' to 1062' and lost circulation.
7/29		Conditioned mud with beet pulp and Aquagel. Unable to regain circulation. Hung 6 5/8" drill pipe at 700' and pumped in 125 sacks Victor Construction cement. Displaced with 100 cu.ft. water. Time 10:00 P.M. International Cementers Inc.
7/30	1075'	Found no cement in hole. Cleaned out to 1062' and resumed drilling with partial circulation. Drilled 12 1/4" hole from 1062' to 1075' and lost circulation. Hung 6 5/8" drill pipe at 700' and pumped in 50 sacks Colton Construction cement. Displaced with 100 cu.ft. water. Mixed Aquagel and beet pulp with cement as same was displaced. Time 11:30 A.M. After 3 hours found no cement in hole. Hung 6 5/8" drill pipe at 1060' and pumped in 180 sacks Colton Construction cement. Displaced with 125 cu.ft. water. Pulled up to 790' and pumped in 180 sacks Colton Construction cement. Displaced with 80 cu.ft. water. Time 4:00 P.M.
7/31		Located top of cement at 690'. Cleaned out to 738' and lost circulation. Hung 6 5/8" drill pipe at 725' and pumped in 150 sacks Colton Construction cement. Displaced with 93 cu.ft. water. Had partial circulation while cementing. Time 9:06 A.M. International Cementers, Inc. After 6 hours located top of cement at 630'. Cleaned out to 1035' with full circulation. Had cement from 630' to 790'; 906' to 1035'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

MAR 15 1945

History of Oil or Gas Well

Sheet

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field
Well No. Standard-Sesson #1-4, Sec. 29, T. 3-S, R. 16-W, S. S. B. & M.
Signed [Signature]
Date _____ 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.

Date	Depth	Description
1944		
8/1	1111'	Cleaned out 1035' - 1075'. Bottom of cement 1060'. Drilled 12 1/4" hole from 1075' to 1111' and lost circulation. Hung 6 5/8" drill pipe at 1105' and pumped in 50 sacks Colton Construction cement. Displaced with 193 cu.ft. water. Regained circulation while cementing. Time 11:03 A.M. International Cementers Inc. After 4 hours located top of cement at 1051'. Cleaned out cement from 1051' to 1111'.
8/2-8/6	2396'	Drilled 12 1/4" hole from 1111' to 2396'. Lost circulation while drilling at 2396'. Conditioned mud with beet pulp and Aquagel and regained circulation.
8/7	2645'	Drilled 12 1/4" hole from 2396' to 2519'. Lost circulation while drilling at 2519'. Conditioned mud with beet pulp and Aquagel and regained circulation. Drilled 12 1/4" hole from 2519' to 2645'. Twisted off while drilling at 2645', leaving 12 stands of 6 5/8" drill pipe, drill collar and bit in hole.
8/8		Recovered fish. Laid down 6 5/8" drill pipe. Made up 5-9/16" drill pipe.
8/9-8/15	4069'	Drilled 12 1/4" hole from 2645' to 4069'. Lost circulation while drilling at 4069'. Conditioned mud with Aquagel, beet pulp, rice hulls, and bean straw.
8/16		Unable to re-establish satisfactory circulation. Hung 5-9/16" drill pipe at 692' and pumped in 100 sacks treated Colton Construction cement. Displaced with 65 cu.ft. muc. Time 3:41 P.M. International Cementers Inc. After 6 hours located top of cement at 695'. Cleaned out cement from 695' to 740'. Circulation O.K.
8/17-8/21	4629'	Circulated in at 4069' and resumed drilling. Drilled 12 1/4" hole from 4069' to 4629'. Lost circulation while drilling at 4629'.
8/22		Conditioned mud with cotton seed hulls and Aquagel. Unable to recover circulation. Hung 5-9/16" drill pipe at 692' and pumped in 150 sacks treated Colton Construction cement. Displaced with 60 cu.ft. water. Had partial circulation while cementing. Pulled up to 420' and squeezed with 80 cu.ft. mud. Time 5:20 P.M. International Cementers Inc. Located top of cement at 607'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

History of Oil or Gas Well

MAR 15 1945

Sheet

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard-Seacon #1-4, Sec. 29 (28), T. 3-N, R. 16-W, S. B. B. & M.

Signed _____

Date _____ Title Agent
(President, Secretary or Agent)

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Date	Depth	Description
3/23	4777'	Cleaned out to 4629' and resumed drilling. Drilled 12 1/4" hole from 4629' to 4777'. Circulation O.K. Bottom of cement 700'.
8/24-9/1	6422'	Drilled 12 1/4" hole from 4777' to 6417'. CORRECTED MEASUREMENT 6417' - 6422'. Laid down 5-9/16" drill pipe. Made up 4 1/2" drill pipe and reduced size of hole from 12 1/4" to 10 5/8" at 6422'.
9/2-9/4	6890'	Drilled 10 5/8" hole from 6422' to 6890'. Lost circulation while drilling at 6890'. Conditioned mud and tried to regain circulation.
9/5		Ran 4 1/2" drill pipe at 692'. Pumped in 150 sacks treated Colton Construction cement. Displaced with 20 cu.ft. water. Had no circulation while cementing. Time 2:14 P.M. Mixing time 9 minutes. Displacing time 2 minutes. International Cementers, Inc. Cleaned out cement bridge from 694' to 697'. Circulation O.K.
9/6-9/8	7161'	Circulated in to 6890'. Conditioned mud and resumed drilling. Drilled 10 5/8" hole from 6890' to 7161'. Stuck drill pipe at approximately 3900' while coming out of hole. Worked same loose.
9/9-9/10		Reamed 12 1/4" hole from 580' to 6422'. Cleaned out 10 5/8" hole from 6422' to 7161'. Ran Schlumberger electric log at 7161'.
9/11		Opened 10 5/8" hole to 12 1/4" from 6422' to 6690'. Circulated and conditioned mud to run 9" casing.
9/12		Cemented 9 5/8" Youngstown Speedtite casing at 6690' with 400 sacks Slow Colton cement in bulk. Pressure jumped from 1000# to 1250# when plugs bumped. Time 3:27 P.M. Mixing time 41 minutes. Displacing time 1 hour 0 minutes. Calculated displacement mud 2796 cu.ft. Actual displacement mud 2807 cu.ft. International Cementers, Inc. Detail of casing as follows: 0' - 3561.3' is 43.5# J-55 3561.3' - 4805.1' is 40# E-80 4805.1' - 6690.0' is 43.5# E-80

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

MAR 15 1948

History of Oil or Gas Well

Sheet

OPERATOR STANDARD OIL ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field
Well No. Standard-Secnon #1-4, Sec. (28)29, T. 3-N, R. 16-W, S. B. 8. B. B. & M.
Signed _____
Date _____ 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.

Date	Depth	
		Standing cemented. Landed 9 $\frac{5}{8}$ " casing and installed cellar connections.
1/14		Located top of cement at 6655'. Cleaned out to 7161'.
1/15-9/18	7725'	Resumed drilling at 7161' making 8 $\frac{1}{2}$ " hole. Drilled 8 $\frac{1}{2}$ " hole from 7161' to 7725'.
1/19		Twisted off while drilling at 7725' leaving drill collar and bit in hole. Top of fish 7686'. Unable to recover fish with overshot.
1/20		Reamed 8 $\frac{1}{2}$ " hole to top of fish at 7686'.
1/21		Ran mill and cleaned up top of fish. Ran 7" wash pipe and washed over fish to 7724'.
1/22-9/27	8227'	Recovered fish. Drilled 8 $\frac{1}{2}$ " hole from 7725' to 8227'.
1/28-10/2	8650'	Changed mud pump. Drilled 8 $\frac{1}{2}$ " hole from 8227' to 8650'.
10/3		Reamed 8 $\frac{1}{2}$ " hole to 8650'.
10/4-10/5	8781'	Reduced size of hole from 8 $\frac{1}{2}$ " to 6" at 8650' and resumed drilling. Drilled 6" hole from 8650' to 8781'. Lost cutters at 8781'. Conditioned mud.
10/6		Ran Schlumberger electric log. Opened 6" hole to 8 $\frac{1}{2}$ " from 8650' to 8781'. Ran on iron at 8781'.
10/7		Ran 6-1/8" Globe junk basket from 8781' to 8783'. Recovered 1 cutter and part of 1 arm of bit fish. Also recovered 4 small fragments of hard dark brown foraminiferal shale which probably had caved from higher up hole. Ran 8 $\frac{1}{2}$ " bit on iron from 8783' to 8784'.

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

MAR 15 1945

History of Oil or Gas Well

Sheet

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Standard-Seanon #1-4, Sec. (28) 29, T. 3.N, R. 16.W, S. 8, B. & M.

Signed _____

Date _____ Title Agent

(President, Secretary or Agent)

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Date	Depth	Description
1944		
10/8	8788'	Ran two 8 1/2" bits and finished cleaning up iron in hole. Drilled 8 1/2" hole from 8784' to 8788'.
10/9-10/14	8824'	Changed lines. Reduced size of hole from 8 1/2" to 6" at 8788'. Drilled 6" hole from 8788' to 8824'. Reamed 8 1/2" hole from 7161' to 8786'. Cleaned out 6" hole to 8824'.
10/15		Ran Johnston tester and set packer on shoulder at 8788'. Misrun. Packer leaked. Opened 6" hole to 8 1/2" from 8788' to 8791'.
10/16		Cleaned out 6" hole to 8824'. Ran Johnston tester on 4 1/2" drill pipe. Set packer on shoulder at 8791'. Opened 3/8" bean for 32 minutes. Had fair steady blow of air throughout test. No gas to surface. Recovered 100' (1.4 barrels) slightly gas-cut drilling fluid. Pressure recorder indicated valve open throughout test with 0# bottom-hole pressure. Cleaned out to 8824'.
10/17-10/18	8866'	Drilled 6" hole from 8824' to 8829'. Cored 6" hole from 8829' to 8852'. Drilled 6" hole from 8852' to 8866'.
10/19-10/20	8925'	Repaired clutch. Drilled 6" hole from 8866' to 8925'. Lost one cutter off Hughes bit at 8925'. Side-tracked same.
10/21-10/22	8930'	Cored 6" hole from 8925' to 8930'. Opened 6" hole to 8 1/2" from 8791' to 8878'. Reamed 8 1/2" hole from 8838' to 8878'.
10/23	8932'	Opened 6" hole to 8 1/2" from 8878' to 8930'. Drilled 8 1/2" hole from 8930' to 8932'. Tried to side-track or mill up cutters. Reamed 8 1/2" hole to 8932'.
10/24-10/25	9004'	Reamed 8 1/2" Globe Junk Basket from 8932' to 8936'. Recovered cutter from Hughes bit lost at 8925'. Reduced size of hole from 8 1/2" to 6" at 8936'. Drilled 6" hole from 8936' to 9004'.
10/26-10/31	9150'	Cored 6" hole from 9004' to 9150'. Ran Schlumberger electric log at 9150'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

MAR 15 1945

History of Oil or Gas Well

OPERATOR THE HARRIS ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard-Sanson #1-4, Sec. (28) 29, T. 3-N, R. 16-W, B. & M.

Signed _____

Date _____ Title Agent
(President, Secretary or Agent)

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Date

Depth

244

1/25

Ran Johnston Tester on 2-7/8" drill pipe. Set packer at 9045'; tail pipe 9065'. Used 970' (3.8 barrels) water cushion. Opened 3/8" bean at 9:03 A.M. Had weak intermittent blow of air for 35 minutes; mild increasing blow of air for 20 minutes; fairly strong steady blow of gas for 50 minutes when, after one hour 45 minutes, well began flowing gas with a spray of muddy water at estimated 3000 M/D gas rate. Gas volume decreased immediately. Well continued to flow gas with small amount (estimated 1 to 2 barrels per hour) muddy water for balance of test. Gas measured at rates varying between 762 M/D minimum and 1317 M/D maximum. Salinity of water samples as follows:

<u>Time</u>	<u>Salinity</u> (G/G)
12:00 Noon	21
1:00 P.M.	239
2:00 P.M.	629
3:00 P.M.	616
4:00 P.M.	609
5:00 P.M.	609

Closed valve at 5:13 P.M. after being open 8 hours 10 minutes. Recovered 1240 (4.3 barrels) muddy water most of which blew from drill pipe as same was pulled. Salinity of water sample 1200' above tester 622 G/G; 270' above tester 616 G/G. Used two pressure recorders. One indicated initial flow pressure of 475# increasing to maximum of 1400# and declining to 875#. The other indicated an initial flow pressure of 600# increasing to a maximum of 1375# and declining to 925#. W.S.P. approved by D.S.G.

1/26

Cleaned out and reamed 6" hole from 9075' to 9170'; had cement 9080'-9090'; heavy mud 9090' - 9170'. Landed 123.7' of 5" 17.93#. Grade H-80, Hy ril inserted Youngstown casing at 9168'; all 80 mesh Kobe perforated; 10 rows; 2" slots; 6" centers; 6" undercut. Top of Burns liner hanger 9044.3'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

MAR 15 1945

DIVISION OF OIL AND GAS

History of Oil or Gas Well

Sheet

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Standard Sazon #1-A, Sec. (28) 29, T. 3 N, R. 16 W, S. E. B. & M.

Signed _____

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Date	Depth	Description
1944		
11/1		Opened 6" hole to 8 1/2" from 8936' to 9060'. Reamed 8 1/2" hole to 9060'.
11/2		Cleaned out 6" hole from 9060" to 9150". Ran Johnston tester on 4 1/2" drill pipe. Set packer on shoulder at 9060'. No test. Shoulder failed.
11/3		Opened 6" hole to 8 1/2" from 9060' to 9068'. Cleaned out 6" hole to 9150'.
11/4		Changed drilling line. Cleaned out 6" hole to 9150'.
11/5		Ran Johnston tester on 4 1/2" drill pipe. Set packer on shoulder at 9068'. No test. Shoulder failed. Opened 6" hole to 8 3/8" from 9068' to 9088'.
11/6		Cleaned out 6" hole from 9088' to 9150'. Ran Johnston tester on 4 1/2" drill pipe. Set packer on shoulder at 9088'; bottom of tail pipe 9113'. Used 920' (12.9 bbls.) water cushion. Opened 3/8" bean at 6:14 P.M. Had mild steady blow of air throughout test at average rate of 100 M/D and maximum rate of 331 M/D. Closed valve at 6:45 P.M. after being open 31 minutes. Recovered 4700' (66.1 bbls.) gross fluid equivalent to 3780' (53.2 bbls.) net fluid as follows: 1300' (18.2 bbls.) oily, muddy water grading to 3300' (46.5 bbls.) gassy oil grading to 100' (1.4 bbls.) oily muddy water. Most of fluid blew from drill pipe as same was pulled. Fluid samples tested as follows:

Height Above Tester	Out				Salinity	Gravity
	Mud	Water	Emulsion	Total		
4700'	66.0	0.0	2.0	68.0		
4525' (Start of blow)	7.0	74.0	1.0	82.0	21	
4525' (End of blow)	0.6	29.4	-	30.0	14	
1700'	3.0	21.0	-	24.0	48	
1250'	1.6	23.4	-	25.0	41	
500'	0.6	8.4	-	9.0		

At tester (Oily, muddy water) 123
Pressure recorder indicated valve open throughout test with 4300# flow pressure.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

MAR 15 1945

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard Source, Sec 29 (W), T. 3-5, R. 16-0, B. & M.

Signed [Signature]

Date _____ Title Agent
(President, Secretary or Agent)

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Date	Depth	Description
1944		
11/7		Cleaned out to 9150' and resumed coring 6" hole. Cored 6" hole from 9150 to 9155'.
11/8		Cored 6" hole from 9155' to 9164'.
11/9		Cored 6" hole from 9164' to 9166'. Reamed 6" hole from 9135' to 9166'.
11/10		Cored 6" hole from 9166' to 9170'. Ran Schlumberger electric log at 9170'.
11/11		Ran Schlumberger dipmeter. Made up 2-7/8" tubing.
11/12		Hung 2-7/8" tubing at 9162' and pumped in 40 sacks Victor High Temperature Cement in bulk. Displaced with 292 cu.ft. mud. Preceded cement with 20 cu.ft. water. Time 10:25 A.M. Mixing time 8 minutes. Displacing time 20 minutes. International Cementers Inc. Pulled up to 8890' and circulated.
11/13		Strung 10 lines. Circulated and conditioned mud.
11/14		Reamed 8 1/2" hole from 7875' to 9075'.
11/15		Landed 7" Youngstown casing at 9075'. Lost circulation while running casing. Unable to regain circulation. Pump pressure 800# to 1350#. Did not cement. Detail of casing as follows: 0' - 3462.6' is 23# Grade J-55 Speedtite. 3462.6' - 5161.1' is 23# Grade M-80 Speedtite. 5161.1' - 6847.1' is 26# Grade M-80 Speedtite. 6847.1' - 8498.4' is 29# Grade M-80 Speedtite. 8498.4' - 8862.6' is 30# Grade J-55 Hydril flush joint. 8862.6' - 9075.0' is 29# Grade M-80 Speedtite.
11/16		Laid down 4 1/2" drill pipe.
11/17		Hauled in 2-7/8" drill pipe. Repaired pumps.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

MAR 15 1945

OPERATOR FIELD WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard-Canyon #1-4, Sec. 29 (28), T. 3-N, R. 16-W, B. & M.

Signed P. J. [Signature]

Date _____ Title Agent (President, Secretary or Agent)

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Date	Depth	Description
1944		
11/18		Landed 7" casing and installed cellar connections.
11/19		Made up 2-7/8" drill pipe. Drilled out float collar and shoe and cleaned out to 9078'. Unable to establish circulation outside 7" casing. Hole takes fluid at rate of 2 1/2 barrels per minute with 1000#.
11/20		Mixed and conditioned mud. Started running Baker cement retainer.
11/21		Ran Baker cement retainer on 2-7/8" tubing and set same at 9041'. Pumped in 225 sacks Victor High Temperature cement. Displaced with 294 cu.ft. fluid. Final pressure 1000#. Time 9:13 A.M. With 20 cu.ft. cement to displace, pressure dropped from 1650# to 1000#. Mixing time 21 minutes. Displacing time 26 minutes. International Cementers, Inc. Changed lines.
11/22		Stood cemented.
11/23		Cleaned out cement retainer and cement from 9043' to 9080'. Made casing test O.K. with 1500# for 30 minutes.
11/24		Ran Johnston Tester on 2-7/8" drill pipe. Set packer at 9045'; bottom of tail pipe 9058'. Used 970' water cushion. Opened 3/8" bean at 12:23 P.M. Packer leaked approximately one barrel. Reset at 12:35 P.M. Had mild steady blow of air for 3 minutes; occasional puffs of air for 17 minutes; dead for balance of test. Closed valve at 1:58 P.M. after being open 1 hour 23 minutes. Recovered 1450' gross fluid; 480' (1.9 barrels) net fluid. Of net fluid 257' (1.0 barrels) entered drill pipe when packer leaked. New fluid muddy water grading downward to approximately 40' drilling mud. Pressure recorder failed to function. Openings in tail pipe partially sealed by heavy mud. D.O.G. ruled test inconclusive. Cleaned out to 9080'. Conditioned mud.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

MAR 15 1945

History of Oil or Gas Well

OPERATOR Standard Oil Company FIELD Aliso Canyon Field
 Well No. 29, Sec. (28), T. 3-B, R. 16-N, B. & M.
 Signed _____
 Date _____ Title _____
 (President, Secretary or Agent)

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Date	Depth	Operations
11/27		Rung 2-3/8", 4.7" and 2-7/8", 6.5". Grade J-55, Youngstown round thread upset tubing at 9141'; bottom 147' is 2-3/8". Installed Xmas tree and flow connections.
11/28		Circulated and thinned mud to water. Swabbed to 1500'. Well began flowing to sump at 2:00 A.M. 11/29. Turned to tanks at 4:00 A.M. In 2 hours well flowed 45 barrels gross fluid; 28 barrels approximate net oil; 16.7 wet gravity (estimated 20.6 dry gravity); 37.0 cut, including 0.3 mud and 36.7 water; 6 1/4" bean; no tubing or casing pressures.
11/29		Well flowed by heads 550 barrels gross fluid; 330 barrels approximate net oil; 15.5 wet gravity (estimated 19.3 dry gravity); 40% average cut, including 0.2 mud and 39.8 water; 48/64" bean; 0" tubing pressure; 0" casing pressure; no gas measurement. Salinity of water sample taken at 1:00 P.M. 69 grains. At 3:00 P.M. 41 grains.
11/30		Well flowed 471 barrels gross fluid; 392 barrels approximate net oil; 20.1 dry gravity; 16.7 average cut; two 48/64" beans; 25" tubing pressure; 550" casing pressure; no gas measurement. Salinity of water samples taken at 9:00 A.M., Noon and 3:00 P.M. all 21 G/G. Since 5:00 P.M. cuts have all been under 5%. Since 9:00 P.M. well has flowed at average rate of 25 barrels per hour.
12/1		Well flowed 524 barrels gross fluid; 508 barrels approximate net oil; 20.1 dry gravity; 3.0 average cut; two 48/64" beans; 0" tubing pressure; 1050" casing pressure; no gas measurement.
12/2		Well flowed 412 barrels gross fluid; 400 barrels approximate net oil; 20.0 dry gravity; 3.0 average cut; 48/64" bean; 25" tubing pressure; 1450" casing pressure; no gas measurement.
12/3		Well flowed 343 barrels gross fluid; 336 barrels approximate net oil; 20.1 dry gravity; 2.0 average cut; 32/64" bean; 125" tubing pressure; 1550" casing pressure; no gas measurement.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

MAR 15 1945

OPERATOR ELI WARD ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field
Well No. Standard Section 41-43, Sec. (29), T. 3-N, R. 16-W, B. & M.
Signed _____
Date _____ Title Agent
(President, Secretary or Agent)

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Date	Depth	Description
1944		
12/4		Well flowed 316 barrels gross fluid; 313 barrels approximate net oil; 20.5 dry gravity; 1.0% cut; 48/64" bean; 120# tubing pressure; 1775# casing pressure; 150 M/D gas rate.
12/5		Well flowed 255 barrels gross fluid; 253 barrels approximate net oil; 21.4 dry gravity; 0.7 cut; 48/64" bean; 180# tubing pressure; 1750# casing pressure; 105 MCF gas.
12/6		Well flowed 271 barrels gross fluid; 269 barrels approximate net oil; 20.9 dry gravity; 0.8 cut; 48/64" bean; 150 # tubing pressure; 1800# casing pressure; 117 MCF gas.
12/7		Well flowed 260 barrels gross fluid; 258 barrels approximate net oil; 21.0 dry gravity; 0.7 cut; 48/64" bean to two 48/64" beans; 65# to 180# tubing pressure; 1450# to 1800# casing pressure; 131 MCF gas.
12/8		In 10 hours well flowed 242 barrels gross fluid; 240 barrels approximate net oil; 20.6 dry gravity; 0.7 cut; two 48/64" beans; 75# tubing pressure; 1450# casing pressure; no gas measurement.
12/9		Shut-in. 650# tubing pressure; 1700# casing pressure.
12/10		Shut-in. 750# tubing pressure; 1850 # casing pressure.
12/11		Shut-in. 740# tubing pressure; 1850# casing pressure.
12/12		Killed well.
12/13		Finished killing well. Removed Xmas tree. Pulled tubing. Installed cellar connections. Began running Baker Bridging Plug.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

MAR 15 1945

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field
Well No. Standard-Sesnon #1-4, Sec. (28) 29, T. 3-N, R. 16-W, B. & M.
Signed R. S. Cough
Date _____ Title Agent
(President, Secretary or Agent)

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- Date 12/14 Set Baker Bridging Plug at 9011'. Hung 2-7/8" tubing at 9009'. Pumped in 25 sacks Victor High Temperature Cement. Displaced with 289 cu.ft. mud. Time 9:47 A.M. Mixing time 3 minutes. Displacing time 12 minutes. Located top of cement at 8909'. Cleaned out to 8919'.
- 12/15 Gun perforated 7" casing at 8510' with four 1/2" shots--McCullough. Ran Johnston Tester. Unable to set packer. Running Baker Casing Scraper.
- 12/16 Scraped 7" casing from 8438' to 8656' with Baker Casing Scraper. Ran Johnston Tester on 2-7/8" drill pipe. Set packer at 8480'; bottom of tail pipe 8498'. Opened 3/8" bean at 12:23 P.M. Had mild diminishing blow of air for 60 minutes. Dead except for occasional weak puff of air for balance of test. Closed valve at 2:08 P.M. after being open 1 hour 45 minutes. Recovered 5280' (20.6 barrels) fluid as follows: Top 2200' (8.9 barrels) heavy gas; out rotary mud grading to 3080'. (11.7 barrels) thin slightly gas out watery mud. Salinity of filtrate as follows:
- | Height Above
Tester
(Feet) | Salinity
(G/G) |
|----------------------------------|-------------------|
| 2500 | 38 |
| 1670 | 48 |
| .760 | 68 |
| At Tester | 75 |
- 12/17 Pressure recorders indicated tool partially plugged for 13 minutes after which pressure increased from 1700# to 2500#. D.O.G. ruled W.N.S.O.
- Ran Baker Cement Retainer on 2-7/8" tubing. Set retainer at 8474'. Formation took fluid at rate of 10 cu.ft. per minute at 1300#. Pumped in 75 sacks Victor High Temperature Cement. Displaced with 278 cu.ft. mud. Final pressure 1350#. Time 3:59 P.M. Estimated all cement below retainer. Mixing time 8 minutes. Displacing time 26 minutes. International Cementers, Inc.
- 12/18 Located cement retainer at 8475'. Cleaned out to 8919'. Bottom of cement 8515'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL AND GAS

RECEIVED
MAR 15 1945
LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Alice Canyon Field

Well No. Standard-Sasson #1-4, Sec. 29 (28), T. 3-N, R. 16-W B. & M.

Signed *D. A. [Signature]*

Date _____ Title Agent
(President, Secretary or Agent)

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Date

1944

12/19

Gun perforated 7" casing at 8505' with four 1/2" shots--McCullough. Ran Johnston Tester. Unable to get to bottom because of heavy mud. Cleaned out to 8919'.

12/20

Ran Johnston tester on 2-7/8" drill pipe. Set packer at 8472'; tail pipe 8486'. Opened 3/8" bean at 9:26 A.M. Had mild decreasing blow of air for 25 minutes; fair blow of air for 58 minutes; dead except for occasional weak head of air for balance of test. Closed valve at 11:36 A.M. after being open 2 hours 10 minutes. Recovered 6400' (24.8 bbls.) fluid as follows: Top 1500' (5.8 bbls.) heavy gas out drilling mud grading to 2000' (7.6 bbls.) thin watery drilling mud grading to 2900' (11.2 bbls.) muddy water. Salinity of filtrate as follows:

Height Above Tester (Feet)	Salinity (G/G)
4320'	144
3410'	157
2500'	205
1590'	260
680'	287
At Tester	287

Pressure recorder failed to function properly. D.O.G. ruled W.N.S.O.

12/21

Ran Baker cement retainer on 2-7/8" tubing. Set retainer at 8475'. Formation took mud at rate of 2 cu.ft. per minute at 1250#-3900#; water at rate of 3 cu.ft. per minute at 1500#-2500#. Pumped in 100 sacks Victor High Temperature cement. Preceded cement with approximately 250 cu.ft. water and displaced with 278 cu.ft. fluid including 13 cu.ft. water and 265 cu.ft. mud. Final pressure 2650#. Time 7:04 P.M. Estimated all cement below retainer. Mixing time 10 minutes. Displacing time 1 hour 24 minutes. International Cementers, Inc.

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MAR 15 1945

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard-Sesnon #1-4, Sec. 29 (25), T. 3-N, R. 16-Y B. & M.

Signed *R. A. [Signature]*

Date _____ Title Agent
 (President, Secretary or Agent)

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Date	
1944	
2/22	Stood cemented.
12/23	Cleaned out to 8919'; cement retainer and cement 8475'-8521'.
12/24	Gun perforated 7" casing at 8502' with four 1/2" shots--McCullough. Ran Johnston Tester. Unable to set packer.
12/25	Ran Johnston Tester on 2-7/8" drill pipe. Set packer at 8470'; bottom of tail pipe 8484'. Used 3/8" bean. Opened valve for one hour 36 minutes. Had mild increasing to very weak blow of air for 59 minutes. Dead for balance of test. Recovered 150' (0.6 barrels) fairly heavy oily drilling mud. Pressure recorder failed to function properly. W.S.O. approved by D.O.G.
12/26	Gun perforated 7" casing at 8860' with four 1/2" shots--McCullough. Ran Johnston tester on 2-7/8" drill pipe. Set packer at 8820'; bottom of tail pipe 8839'. Used 3/8" bean. Opened valve for 2 hours. Had fair steady blow of air for 12 minutes; occasional puff of air for 18 minutes; occasional puff gas for 6 minutes; weak steady blow of gas for 15 minutes; occasional weak puff of gas for balance of test. Recovered 1225' (4.8 barrels) heavy very gassy drilling mud all of which blew from drill pipe as same was pulled. Unable to filter any water from mud for salinity determination. Pressure recorder indicated valve open throughout test with flow pressure increasing from 300# to 1450#. W.S.O. approved by D.O.G.
12/27-12/28	Gun perforated 7" casing 8520'-8540'; 8555'-8690'; 8700-8710'; 8740'-8838'. Four 1/2" shots per foot --McCullough.
12/29	Scraped 7" casing from 8500' to 8900' with Baker casing scraper.
12/30	Hung 2-7/8" tubing at 8778'. Installed Xmas tree. Circulated out mud with water.

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History of Oil or Gas Well

MAR 15 1945

OPERATOR TIDE WATER ASSOCIATED OIL FIELD Aliso Canyon Field
Well No. Standard-Sesson #1-4, Sec. (28) 29, T. 3-N, R. 16-W, B. & M.
Signed R. A. King
Date _____ Title Agent (President, Secretary or Agent)

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- Date
- 1944
 - 12/31 Swabbed to 1700' when well began showing oil and fluid level began rising. Continued swabbing oil and water. Fluid level 1000'.
 - 1945
 - 1/1 Swabbed mud, water and oil, mostly water. Fluid level 200' - 500'. Casing pressure 450#.
 - 1/2 Swabbed to 500'. Well began flowing to mud tanks at 12:00 noon. Died at 6:30 P.M. Resumed flowing at 12:00 midnight. During 18 hour period from 12:00 noon 1/2 to 6:00 A.M. 1/3 well flowed 260 barrels gross fluid; 247 barrels approximate net oil; 21.3 dry gravity; 5.0 average cut; two 48/64" beans to one 48/64" bean; 25#-50# tubing pressure; 500#-700# casing pressure; no gas measurement. At 6:00 P.M. 1/3 gross rate 384 B/D, cut 3.0%.
 - 1/3 Well flowed by heads to mud tanks 350 barrels gross fluid; 326 barrels approximate net oil; 21.4 dry gravity; 7.0 average cut; two 48/64" beans; 25# tubing pressure; 500# to 900# casing pressure; no gas measurement. Cut at 6:00 A.M. 1/4 0.5%.
 - 1/4 Well flowed to mud tanks 504 barrels gross fluid; 474 barrels approximate net oil; 21.4 dry gravity; 6.0 average cut; 48/64" bean; 50# tubing pressure; 900# casing pressure; no gas measurement. Since 11:30 A.M. 1/4 well has been flowing steadily at about 500 B/D rate.
 - 1/5 Well flowed to mud tanks 364 barrels gross fluid; 352 barrels approximate net oil; 21.4 dry gravity; 3.2 average cut, including 3.0 water, and 0.2 mud; 48/64" bean; 50#-75# tubing pressure; 900#-1150# casing pressure; no gas measurement.

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DIVISION OF OIL AND GAS

History of Oil or Gas Well

MAR 15 1945

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon FieldWell No. Standard-Sesson #1-4, Sec. (28) 29, T. 3-3, R. 16-11, B. & M.Signed R. H. KingDate _____ Title Agent
(President, Secretary or Agent)

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Date

19451/6

During 3 hour period from 6:00 A.M. to 9:00 A.M. well flowed 62 barrels gross fluid; 60 barrels approximate net oil; 21.4 dry gravity; 3.0% average cut; 48/64" bean; 25"-50# tubing pressure; 1150# casing pressure. Tubing was shut-in at 9:00 A.M. and casing opened up. Casing pressure dropped from 1150# to 0# in 30 minutes. Casing was left open for 5 hours. Well did not flow. Casing was closed in at 2:00 P.M. and tubing opened up. Tubing pressure dropped from 200# to 0#. Well did not flow. Shut-in at 6:00 P.M.

1/7

Opened well up at 5:00 A.M. at which time tubing pressure was 200 # and casing pressure 520#. Well flowed approximately 20 barrels of mud and water then went to oil. In 22 hours well flowed 425 barrels gross fluid; 365 barrels approximate net oil; 21.4 dry gravity; 14% average cut; 48/64" bean; 25"-50# tubing pressure. 350# casing pressure

1/8

In 12 hours well flowed 248 barrels gross fluid; 239 barrels approximate net oil; 21.4 dry gravity; 3.5 cut; 48/64" bean; 0"-50# tubing pressure; 350#-700# casing pressure; no gas measurement. Killed well with water. Circulate out water with mud.

1/9

Tried to wash perforations with 10 barrels Hobbs Chemical #818 and 2 barrels L.T.D. using McGaffey-Taylor washer. Washer plugged. Unable to displace any acid from tubing. Pulling tubing wet.

1/10

Pulled tubing. Found washer and bottom three stands of tubing plugged with scale. Reran washer with 1300 gallons acid in tubing. Began washing perforations

1/11

Finished washing perforations. Pulled tubing and found that no acid had been displaced from tubing and that washer had failed to function properly. Ran in with bit and conditioned mud.

DIVISION OF OIL AND GAS

History of Oil or Gas Well

MAR 15 1945

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard-Geeson #1-4, Sec. (28) 29, T. 3-N, R. 16-W, B. & M.

Signed R. A. Sneyd

Date _____ Title Agent
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Date

1945

1/12

Spotted 1300 gallons acid opposite perforations. Washed perforations with McGaffey-Taylor washer with following results:

- 8838' - 8797' - partially open. Washed with 1200#
- 8797' - 8740' - Closed. Could not wash with 3000#
- 8710' - 8700' - Closed. Could not wash with 3000#
- 8690' - 8680' - Partially open. Washed with 1200#
- 8680' - 8655' - Closed. Could not wash with 3000#
- 8655' - 8645' - Partially open. Washed with 1000#
- 8645' - 8612' - Closed. Could not wash with 3000#
- 8612' - 8602' - Partially open. Washed with 1500#
- 8602' - 8581' - Closed. Could not wash with 3000#
- 8581' - 8555' - Partially open. Washed with 1400#
- 8540' - 8535' - Open. Washed with 800#
- 8535' - 8530' - Closed. Could not wash with 3000#
- 8530' - 8520' - Open. Washed with 400#

Ran back down to bottom and re-washed perforations with same results as above.

1/13

Conditioned mud.

1/14

Reperforated 7" casing 8530'-8535'; 8555'-8690'; 8700'-8710'; 8740'-8800'; with four $\frac{1}{8}$ " shots per foot --McGullough.

1/15

Scraped casing opposite perforated intervals with Baker casing scraper. Ran McGaffey-Taylor washer. Slips would not hold.

1/16

Washed perforations with McGaffey-Taylor washer with results as follows:

- 8838' - 8750' - Open. Washed with 750#
- 8750' - 8740' - Partially open. Washed with 1200#
- 8710' - 8700' - Open. Washed with 800#
- 8690' - 8555' - Open. Washed with 800# to 1000#
- 8540' - 8520' - Open. Washed with 400# to 600#.

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MAR 15 1945

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Alliso Canyon Field

Well No. Standard-Sesson #1-4, Sec. (25) 29, T. 3-N, R. 16-W, B. & M.

Signed [Signature]

Date _____ Title Agent
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- Date
- 1945
 - 1/17 Changed cellar connections. Hung 2-7/8" tubing at 8590'. Installed Xmas tree. Circulated out mud with oil.
 - 1/18 Swabbed to 1500'. Well began flowing by heads to mud tanks at 10:30 A.M. In 19 1/2 hours swabbed and flowed by heads 232 bbls. gross fluid; 206 bbls approximate net oil; 21.5 dry gravity. 11.0% cut including 8.5% water and 2.5% mud; two 48/64" beans; 0#-25# tubing pressure; 0# casing pressure; 0# casing pressure; no gas measurement. Lost swab in hole at 1:30 A.M. 1/19. At 6:00 A.M. 1/19 well flowed steadily at 336 B/D gross rate.
 - 1/19 In 12 hours well flowed 292 bbls gross fluid; 257 bbls approximate net oil; 21.8 dry gravity; 12.0% cut; two 48/64" beans. 0#-25# tubing pressure; 0# casing pressure; no gas measurement. Killed well at 6:00 P.M. to recover swab. Found swab stuck to Xmas tree.
 - 1/20 Recovered swab. Circulated out mud with oil. Swabbed to 1500'.
 - 1/21 Swabbed with well flowing by heads 267 bbls gross fluid; 214 bbls approximate net oil; 18.4% wet gravity; 20% cut; 0#-25# tubing pressure; 0# casing pressure; no gas measurement. Fluid level 500' to 1500'.
 - 1/22 Well flowed by heads 337 bbls gross fluid; 319 bbls approximate net oil; 20% dry gravity; 5.4% cut; two 48/64" beans; 25# tubing pressure; 0# casing pressure; no gas measurement. During twenty-four hour period well was dead nine hours. At 6:00 A.M. 1/23 well had been flowing continuously, but weakly, since midnight.
 - 1/23 Well flowed by heads 194 bbls. gross fluid; 186 bbls. approximate net oil; 21.3 dry gravity; 4.2 cut; two 48/64" beans; 0#-25# tubing pressure; 0# casing pressure; no gas measurement. During twenty-four hour period well flowed nine hours in periods of lesser duration. Began moving out rotary equipment.

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MAR 15 1945

OPERATOR WIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard Section #1-4, Sec. (23) 29, T. 3-N, R. 16-W, B. & M.

Signed R. J. Smith

Date _____ Title Agent

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Date

1945

C. PRODUCTION DATA

Date	Gross Fluid	Approximate Net Oil	Dry Gravity	Cut	Bean	Tubing Pressure	Casing Pressure	Gas ^m MCF	Hours On
1/24	Shut-in					100#	700#		
1/25	462	446	21.0	3.5	96/64"	25#	450	208	24
1/26	346	338	21.0	2.0	48/64"	100#	700#	152	18
1/27	335	328	21.0	2.0	48/64"	25#	900#	148	24
1/28	334	329	21.0	1.4	44/64"	25#	1050#	148	24
1/29	386	381	21.0	1.2	40/64"	80#	1300#	171	24
1/30	376	367	21.0	2.4	40/64"	100#	1300#	165	24
1/31	246	245	21.0	1.2	36/64"	50#	1200#	110	17
2/1	384	376	21.0	2.0	32/74"	100#	1200#	169	24
2/2	315	301	21.0	4.5	28/64"	120#	1200#	135	24
2/3	266	261	21.0	2.0	8/64"	240#	1200#	117	24
2/4	90	89	21.0	0.5	8/64"	260#	1200#	40	24
2/5	33	32	21.0	1.5	12/64"	260#	1550#	14	5
2/6	Shut-in					760#	1850#		
2/7	Shut-in					800#	1850#		
2/8	Shut-in					820#	1800#		

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History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Stanard-Sesnon #1-4, Sec. (28) 29, T. 3-N, R. 16-W, B. & M.

Signed *R. A. [Signature]*

Date _____ Title Agent
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Date	Gross Fluid	Approximate Net Oil	Dry Gravity	D Cut	Bean	Tubing Pressure	Casing Pressure	Gas MCF	Hours On
<u>1945</u>									
2/9	Shut-in					825#	1900#		
2/10	153	152	21.0	0.1	6/64"	480#	1750#	69	24
2/11	138	137	21.0	0.2	6/64"	410#	1700#	70	24
2/12	169	168	21.0	0.3	6/64"	380#	1700#	74	24
2/13	134	133	21.0	0.2	6/64"	420#	1750#	63	24
2/14	77	76	21.0	1.1	6/64"	420#	1750#	29	24
2/15	114	113	21.0	1.0	6/64"	450#	1825#	52	24
2/16	164	163	21.0	0.6	6/64"	380#	1825#	73	24
2/17	154	153	21.0	0.5	6/64"	380#	1825#	68	24
2/18	170	169	21.0	0.5	6/64"	310#	1900#	76	24
2/19	170	169	21.0	0.4	6/64"	300#	2000#	72	24
2/20	185	184	21.0	0.4	6/64"	300#	2000#	74	24

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

MAR 15 1945

LOG AND CORE RECORD OF OIL OR GAS WELL

Sheet #1

Operator THE WATER ASSOCIATED OIL COMPANY Field Alice Canyon Field
Well No. Standard Secon #1 Sec. (25) 29, T. 3 N, R. 16 W, S. B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
0'	601'		Drilled		Shale
601'	606'		"		Sand
606'	682'		"		Shale
682'	805'		"		Shale and sand
805'	811'		"		Shale
811'	875'		"		Shale and sand
875'	1062'		"		Sand and shale
1062'	1071'		"		Shale
1071'	1075'		"		Sand
1075'	1185'		"		Sand and shale
1185'	1231'		"		Sand
1231'	1444'		"		Sand and shale
1444'	1542'		"		Sand; streaks shale
1542'	1765'		"		Sand and shale
1765'	1820'		"		Sand
1820'	4015'		"		Sand and shale
4015'	4069'		"		Shale
4069'	4136'		"		Shale; streaks sand
4136'	4170'		"		Shale and hard sand
4170'	4308'		"		Sand and shale
4308'	4347'		"		Sand
4347'	4382'		"		Shale
4382'	4422'		"		Shale; streaks sand
4422'	4496'		"		Sand and shale
4496'	4575'		"		Shale
4575'	4620'		"		Sand and shale
4620'	4629'		"		Shale
4629'	4777'		"		Sand and shale
4777'	4827'		"		Shale
4827'	4947'		"		Shale; silty sand
4947'	5066'		"		Sand and shale
5066'	5116'		"		Sandy shale and shale
5116'	5239'		"		Sandy shale
5239'	5329'		"		Sand and shale
5329'	5390'		"		Sandy shale and sand
5390'	5992'		"		Sand and shale
5992'	6021'		"		Hard shale
6021'	6417'		"		Sand and shale
6417'	6422'		"		CORRECTED MEASUREMENT
6422'	6497'		"		Sand and shale
6497'	6520'		"		Shale
6520'	7003'		"		Sand and shale
7003'	7114'		"		Sandy shale and sand

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History of Oil or Gas Well

MAR 15 1945

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon Field

Well No. Standard-Sesnon #1-4, Sec. (28) 29, T. 3-N, R. 16-W, B. & M.

Signed R. A. [Signature]

Date _____ Title Agent
(President, Secretary or Agent)

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Date

CASING RECORD

T.D. 9170'. Pg. 8919'

13-3/8", 54.5#	C	580'	
9-5/8", 40# & 43.5#	C	6690'	0 - 3561' is 43.5#; 3561' - 4805' is 40#;
7", 23#, 29# & 30	C	9075'	4805' - 6690' is 43.5#
			Pf. 8502', C.P. 8505'; 8510', Pf. 8520' - 40#;
			8555' - 8690'; 8700' - 8710'; 8740' - 8838'; 8860' - 8863';
			Pg. 8919', 0' - 5161' is 23#; 5161' - 6847' is 26#
			6847' - 8498' is 29#; 8498' - 8863' is 30#; 8863' -
12 1/2", 17.93#	L	9168'	9075' is 29#.
			Top 9044'. All perf.

TUBING RECORD

2-7/8", 6.5#. Grade J-55, Youngstown round thread upset tubing hung at 8590'.

SIZE OF HOLE

0'	-	580'	is	17 1/2"
580'	-	6422'	is	12 1/2"
6422'	-	7161'	is	10 1/2"
7161'	-	9088'	is	8 1/2"
9088'	-	9170'	is	6"

MAP	MAP BOOK	CARDS	BOND	FORMS	
				121	

MAR 15 1945

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Sheet #2

Operator ULDE WATER ASSOCIATED OIL COMPANY Field Aliso Canyon

Well No. Stanford 8302 #1 Sec. (28) 29, 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				
7117'	8022'		Drilled		Sand and shale
8022'	8050'		"		Hard shale
8050'	8144'		"		Shale
8144'	8781'		"		Sand and shale
8781'	8784'		"		Shell
8784'	8790'		"		Conglomerate
8790'	8794'		"		Hard sand
8794'	8799'		"		Conglomerate
8799'	8800'		"		Hard sand
8800'	8804'		"		Conglomerate
8804'	8829'		"		Sand
<u>6" Dunlap Wire Line Cores</u>					
8829'	8837'		Cored	0' 9"	Shell. Essentially reworked siltstone and shale. Hard. Gray to green. Sometimes liney.
8837'	8847'		"	3' 0"	Shale. Hard. Dark gray to bluish gray. Contains considerable reworked material. Core badly broken and showing fracturing and slickensiding.
8847'	8852'		"	3' 0"	Shale. As above.
8852'	8898'		Drilled		Shale.
8898'	8925'		"		Shale; streaks sand.
<u>6" Dunlap Wire Line Cores</u>					
8925'	8930'		Cored	2' 6"	Siltstone. Hard. Dark gray. Massive.
8930'	8932'		Drilled		Shale.
<u>3 1/2" Globe Junk Bow Cores</u>					
8932'	8936'		Cored	0' 3"	Shale. Hard. Bluish-gray.
8936'	8957'		Drilled		Shale; thin streaks sand.
8957'	8971'		"		Hard shale.
8971'	8981'		"		Shale.
8981'	9004'		"		Shale and silt.

MAR 15 1945

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Sheet

Operator SLIDE WATER ASSOCIATED OIL COMPANY Field Aliso Canyon

Well No. Standard-Sonoma #14 Sec. 29 (28), T. 5-N, R. 16-W, S. S. B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
9004 ⁰	9014 ⁰		Cored	7 ⁰ 0"	<u>6" Duplap Wire Line Cores</u> Sandy siltstone with streaks to 0'-3" shale and shell. Good dips 8° to 15°. Siltstone is firm to fairly hard; bluish-gray; numerous laminae to 0'-1/4" fine silty gray sand. Portions of siltstone approach a very fine silty gray sand. Shale is hard; bluish gray; shows minor fracturing and slickensiding. Shell is fine to medium sandstone and limy siltstone.
9014 ⁰	9024 ⁰		"	7 ⁰ 6"	Sandy siltstone with streaks to 1'-0" shale and streaks to 0'-2" shell. As above. Good dips 5° to 12°.
9024 ⁰	9031 ⁰		"	6 ⁰ 0"	Shale. Hard. Dark gray to bluish gray. Numerous laminae to 1/8" fine silty gray sand. Abundant carbonaceous material. Good dips 5° to 18°.
9031 ⁰	9041 ⁰		"	5 ⁰ 0"	Shale grading locally to 0'-6" streaks sandy siltstone. Shale as above. Shows minor fracturing and slickensiding. Siltstone is firm to fairly hard; gray to bluish-gray. Striated. Occasional streak to 0'-2" limy siltstone shell. Good dips 8° to 17°.
9041 ⁰	9051 ⁰		"	4 ⁰ 5"	Shale. As above. Top 1'-6" shows fracturing and slickensiding with maximum dip 31°. Good dips at bottom of core 10° to 14°.
9051 ⁰	9057 ⁰		"	5 ⁰ 6"	Streaks to 1'-0" shale and sandy siltstone. Shale as above. Siltstone is firm to fairly hard. Gray to bluish-gray. Sometimes approaches a very fine silty gray sand. One 0'-1/4" streak shale at 9052 ⁰ highly fractured and slickensided. One 0'-1" streak chert at 9054 ⁰ . Dips 10° to 24°.

DIVISION OF OIL AND GAS

MAR 15 1945

LOG AND CORE RECORD OF OIL OR GAS WELL

Sheet #4

Operator WATER ASSOCIATED OIL COMPANY Field Alice Canyon

Well No. Standard-Sanson #14 Sec. (23) 29, T. 3 N, R. 16 W, S. B. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
					<u>6" Dunlap Wire Line Cores</u> <u>Cont'd</u>
057'	0067'		Cored	3' 0"	Siltstone with streaks to 0'-4" shale. Siltstone is firm to fairly hard, gray to bluish-gray, sometimes sandy. Abundant carbonaceous material. Shale as above. Minor fracturing and slickensiding throughout core. Good dips 8° to 15°.
067'	0077'		"	7' 6"	Siltstone with streaks to 0'-4" shale. As above. Good dips 8° to 15°.
077'	0087'		"	6' 0"	Shale with streaks to 0'-6" siltstone and limey siltstone shell. As above. Minor fracturing and slickensiding. Good dips 8° to 15°.
087'	0097'		"	7' 0"	4'-0" Shale with streaks to 0'-6" siltstone. As above. Grades to 5'-0" Siltstone. As above. Sandier phases approach a very fine silty gray sand. One 0'-3" streak sandstone shell 1'-0" from bottom of core. Minor fracturing and slickensiding. Good dips 8° to 15°.
097'	0107'		"	6'-0"	Siltstone with streaks to 0'-9" shale. As above. Sandier phases of siltstone are oil stained. One 0'-3" streak 2'-0" from top of core approaches a very fine silty oil sand. Good dips 8° to 15°.
107'	0112'		"	3' 0"	1'-0" Sandy siltstone. Fairly hard. Bluish-gray. Grades to 1'-6" Oil sand. Firm to fairly hard. Fine to medium. Generally well sorted but with some silt. Individual grains are multicolored; very angular. Occasional shale parting to 0'-1/4". Good cut, fair to good odor. Grades to 0'-6" Shell. Sandstone.

DIVISION OF OIL AND GAS

MAR 15 1945

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator TIDE WATER ASSOCIATED OIL COMPANY Field Alice Canyon

Well No. Standard-Sesnon #1-4 Sec. 29(28), T. 3-N, R. 16-W B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
					<u>6" Dunlap Wire Line Cores</u> (Cont'd)
9112'	9122'		Cored	7'0"	Oil sand with streaks to 0'-6" sandy siltstone and sandstone shell. As above. Oil sand has good cut, fair to good odor.
9122'	9132'		"	4'6"	Oil sand with streaks to 0'-6" sandy siltstone and sandstone shell. As above. Oil sand has good cut, fair to good odor.
9132'	9135'		"	0'3"	Fragments shale. Hard. Bluish-gray. Somewhat limy.
9135'	9142'		"	1'0"	Loose igneous pebbles with fragments oil sand and sandstone shell. Pebbles are round and are 0'-1/4" to 0'-1" in diameter. Oil sand is as above.
9142'	9144'		"	0'1"	Two fragments of rounded multicolored igneous pebbles.
9144'	9147'		"	0'0"	No recovery.
9147'	9150'		"	0'0"	No recovery.
9150'	9155'		"	0'2"	Two rounded fragments of igneous pebbles. Very hard. Multicolored.
9155'	9158'		"	0'2"	Two rounded fragments of igneous pebbles as above. One pebble has small amount of oil sand matrix adhering to side.
9158'	9163'		"	0'4"	0'-2" Two rounded fragments of igneous pebbles as above. 0'-2" Igneous rock (granite?)
9163'	9165'		"	0'1"	Fragment of limy siltstone shell. Hard. Gray. Pyritic.
9165'	9166'		"	0'0"	No core recovery.
9166'	9170'		"	2'0"	0'-2" Three rounded fragments of igneous pebbles. 1'-10" Shell. Limy siltstone and very

FORMS 114 121
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MAP

TO _____

194

FROM _____

SUBJECT: TWA Standard Section #1-A

FILE: Sample description

- 9077-87 Rather hd gy silty sl w/ occ sandy str w/ c. red grains
One pec hd & limy.
- 9087-97 As Above - some ptgs quite carbonaceous. Part of
Shale has faint maroon tint.
- 9097-9107 Dip 10° As Above w/ one very fine sd ptgs which
are lightly oil-stained - faint odor.
- 9107-12 Med to dk gy clay sl & lighter gy silt. - Also
several pec fine to med. grained firm sd - partially
oil-stained.
- 9112-22 As Above w/ some coarse grained - vari-colored grained
s.s. - Hd.
- 9122-32 Shale & oil-stained sand as above
- 9135-42 Few small nubbins of Med grained oil-sd - firm but
friable w/ vari-colored grains AND vari-colored pebbles -
rounded - up to 1" in diameter.
- 9158-63 One 1/2" section Hd, dense, limy sandstone. Qtz, orthoclase
etc. grains - completely lime filled.
- 9166-70 Hd dk gy silty shale & limy fine grained very hd s.s.
No Organisms noted.

TO

194

FROM

SUBJECT:

T.W.A.

FILE:

Standard Sesnon #1-4

Sec 29, 3N-16W E1 2870

Ditch

- 1055-1215 (20' intervals) Predom. med to coarse white Qtz and feldspar grains with rare frags med. angular white biotite arkose ss with pyrite specks. R frags pink Qtzite & gray siliceous pebbles. R frags basalt. S frags cherty calcaren sh. "Topanga"
- 1215-1435 Loose med. grained poorly sorted gy sd w/ scattered Qtzite pebbles. - Samples have slight greenish cast.
- 1435-55 50% light colored laminated siliceous Miocene shale & limestone. Rem. frags Hd gy sd, rounded dk Qtzite pebbles & ooc frags DK Basalt.
- 1455-95 Essentially pure greenish gy silty mud w/ RC = 1/4" rounded light Qtz pebbles.
- 1495-1875 Principally loose med to coarse grained light brown-gy to Buff colored sd. Some samples w/ RC small frags. Miocene siliceous shale - Several minute Mollusc Frags noted from 1835 to 1875

TO _____

194

FROM _____

SUBJECT: Standard Section #1-4

FILE: _____

Ditch

1855-2015 Coarse sand & gravel @ 1875 pebble frags to
 1/2 inch @ 1995 gray pebbles ± 1/4" diam. Sand is largely
 subangular coarse white Qtz grains, pebbles predom. light med
 gray Qtzite.

2015-55 All beet pulp used for lost circulation

2055-75 Essent. gray brown soft siltst with scattered sd grains - 5
 indet. forams. x frag olivine basalt.

2075-2315 Essent mud colored dark brn (from silt?) with occasional
 light gray fine sdy patches. Few chips of ^{very soft} gray brn irreg
 sdy siltst with 5 Palv 101 @ 2115 & @ 2275 & @ 2295

2335-2395 As above

2395-2435 Ess. med Qtz sd grains.

2435-2595 Cuttings of light gray soft fine silty sd & dark gray soft
 sdy silt w/ forams.

2595-2635 Ess med sd grains x Quin of 70 to silty sd frag.

2635-3275 Essentially mass. qy Pliocene siltstone w/ very occ
 frags hd s.s. & Brn sh - probably Miocene coverings.

Occ. samples w/ scattered rounded Qtz pebbles of pea gravel

TP

Te (or 2635)

Several minute mollusc frags indet in silt. of 3315 sample

3275-3335 As Above w/ few pea dense qy clay sh w/ faint
Maroon tint

3335-3435 Similar to above - Mud carries faint Maroon tint
 few pea Gray Glauconitic siltstone

TO _____

194

FROM _____

SUBJECT: STANDARD SECTION #1-4

FILE: _____

Ditch

3435-75 Essentially light greenish-gy mud mixed w/ sd & sh frags

3475-4055 Dense gy clay sh cuttings - most w/ faint Maroon tint
Some w/ "worm track" impressions - Occ sdy pcs very
Glaucousitic - particularly from 3535 to 3615 - Occ
cuttings very fine pinkish gray sd w/ vari-colored
minute grains.

4055-4155 Princip. cuttings angular gravel size frags^{f crs sd} pink & gray igneous
rock prob from Eocene aq. + few pcs. gray to gray maroon "worm-
Track" shale

4155-4215 Maroonish gray "worm track" shale w/ numerous frags green very
glaucousitic silt, + R ang. frags varicolored igneous - grays & reds.
@ 4175-95 5 frags Eocene shale show shears & stickens.

4215-35 Varicolored sand and gravel + pebble frags

4235-4635 Largely Eocene "worm track" shale and siltst in upper part
with Pliocene gray silt becoming predominant toward bott.
Shickensided shale prominent between 4355 and 4495 - mostly
Eocene shale. @ 4435 ± top of Pliocene silt thought to be
in place.

4635-5155 Predom. gray Pliocene siltstone w/ R mollusk frags +
few frags Eocene shale in upper portion showing shickensided

5155-5695 Gray Pliocene siltstone w/ few frags Eocene shale.
Coarse gray sd and gravel ± 5175-5315

5695-5995 Ess gray Plio siltst. w/ med to ers sd show 5750-5800
x frg oil stained @ 5855. R frags Eocene shale from
above - shickensided.

TO

194

FROM

SUBJECT:

Standard Section #1-4 T.W.A

FILE:

Ditch

5995-6875 Cuttings gray Pliocene siltst with few showings of coarse sd. @ 6235-6315, 6555-6615, R chips mollusc shell.

6875-6915 Essentially cuttings of qy cement - S. small frags qy siltstone

6915-7155 Bulk of sample rounded cuttings soft qy Pliocene siltstone - w/ varying minor amts cement & very ooc frags dk qy Eocene shale.

7215-75 Cuttings qy Pliocene siltstone as above w/ $\pm 40\%$ light colored gravel.

7275-7715 Essentially Pliocene siltstone - minus the gravel.

7715-8135 * As Above.

~~8100-8215 Siltstone as above + 8100-835 w/ S frags dk brn Mohman shale - Below 8135 the slickensided dk brn phosphatic shale becomes more predominant~~

8215-8415 Largely cuttings dark brn dense Mohman shale

8415-8715 Predom. as above at top + few frags very fine oil sand increase in quantity to about 50% at bott. @ 8695-8715 R frags gray sand or only partially oil stained are present.

8135-55 Essentially qy siltstone - x frag dk brn glauconitic siltstone

8155-75 Similar to above plus few angular flakey chips qy limestone

8175-95 $\pm 5\%$ calc. s.s., $\pm 40\%$ qy ls. - part sparitic - Rem. qy to dk brn siltstr

8195-9215 $\pm 5\%$ dk brn phosphatic shale - some spec of crushed forams -

Rem. essentially Pliocene siltstone

TO _____

194

FROM _____

SUBJECT: TWA Standard Section #1-4

FILE: Sample Description

Dtd

8715-95 ±10% DK brn Miocene shale cuttings - Remainder essentially very fine grained sd & siltstone - part oil-stained & part gray - part of gray siltstone apparently Pliocene.

8824 Mostly Rotary mud & med to csc grained loose sd.

Note: Drillers report interval ±8773 to 8800 very hd drilling (cgl.) With Bottom 20' apparently made in this sd represented in sample 8824.

Core Miocene/Eocene unconformable contact. 8806

8829-37 ±40° Dip Green argill^m silty shale with stringers very fine white sand + included angular frags up to 1/2" of dark gray shale & very fine white to greenish sand. Bedding very irreg. showing twisting & shattering. One frag shows contact with ±40° dip of green silty shale & dense dark gray hard shale. In same core was one 1/2" diam igneous pebble. Green argill silty sh = Lajas form ??

8837-45 Dense dark gray silty shale including jumble of very very thinly banded lighter gray extremely fine sd & dark shale frags up to about 1/4" size. Frags are angular. Appears to be mtl reworked from same formation as matrix with little new mtl added and almost no transportation of reworked frags. Few red flecks in finely sdy portions. Several frags show slickens & shears at ±45°. No dip certain but looks likely to be about 40° as in core above Santa Susana formation lithology

TO _____

194

FROM _____

SUBJECT: TWA Standard Section #1-A

FILE: Sample Description

Core

- 8847-52 Fairly hd, dense grey shale & gy argill. siltstone -
Core appears to be somewhat squeezed & broken although
lithologically the mat is fairly homogeneous. No forams noted
- 8852-8925 Drilled (fairly hd mat.)

Core

- 8925-30 Dense dk gy shale - PC "worm tracks" - x *Rob?* sp.
S. flattened *Aren* "tubes" - PC minute reddish grains & "flecks"
- 9004-14 Compact dk gy silty clay shale w/ C minute red grains
& thin irregular sdy stringers - vari-colored sd grains.
Part of shale fairly well laminated - Dip $\approx 10^\circ$
- 9014-24 Bedded to somewhat laminated dk gy shale as
above - One sK very hd - limy.
- 9024-31 Bedded to laminated light gy siltstone & dk gy micaceous
silty shale - S. Mollusc frags. Au. Dip 15°
- 9031-41 About as above - Part very hd - limy. Some of the
sandier ptgs & ptgs showing minute Red grains
- 9041-51 As Above.
- 9051-57 Similar to above. x Small *Aurantia?*, S. Mollusc frags.
including one probable small leached *Territella* -
- 9057-67 Interbedded Gy silt & dk gy silty shale as above
sandier ptgs w/ve small red grains - some green
- 9067-77 As Above -

TO _____

194

FROM _____

SUBJECT: TWA Standard Section #1-A

FILE: Sample description

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several pec fine to med. grained firm sd - partially
oil-stained.
- 9112-22 As Above w/ some coarse grained - vari-colored grained
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- 9122-32 Shale & oil-stained sand as above
- 9135-42 Few small rubbings of Med grained oil-sd - firm but
friable w/ vari-colored grains AND vari-colored pebbles -
rounded - up to 1" in diameter.
- 9158-63 One 1/2" section. Hd, dense, limy sandstone. Qtz, orthoclase
etc. grains - completely lime filled.
- 9166-70 Hd dk gy silty shale & limy fine grained very hd s.s.
No Organisms noted.

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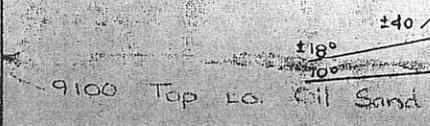
85' 66'

9015'

Perf. 8530-35; 8521-8602;
8612-45; 8655-89;
8700-10; 8740-97.

Report: 8530-8535; 8555-8670
8700-10; 8740-8800

8835 Base Sensor



895 Miocene directly
Miocene

8871 Miocene
Eocene

8879 Eocene

8879 Eocene

91' C TD

Well Standard - Section 1-4

Elevation 2010

Company T.W.A. 16

Date Spudded

Sec 29 T. 3N R. 17W

Date Finished

District Aliso Canyon

Date of Report

Casing	Log	Oil Zones	Depth 100 0	Faunal Zones	Remarks
		Ran Schlumberger to 9150'	1	Lower Mohanian at surface	
			2		
			3		
			4		
			5		
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			7		
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			10		
			11	"Topanga" sand	
			12	1250 TP	Information from ditch samples adjusted by electric log
		±1250 Upper Santa Susana Fault	13	Lower Mohanian fault smear	
			14		
			15		
			16		
			17	Pico sands & gravel	
			18		
			19		
			20	2060 Pico siltstone	
			21	188.1' 15.2'	
			22		
			23	237.7'	
			24		
			25		
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			27		
			28		
			29	290 TP Fault	2904
		±2900 Lower Santa Susana Fault	30	Te Santa Susana fm.	2870
			31		312
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STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

No. T1-43577

Mr. R. S. Curl Los Angeles 14. Calif. January 16. 19 45.
Los Nietos, Calif. 121
 Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

Your well No. "Standard-Sesnon 1" 4, Sec. 28-29, T. 3 N., R. 16 W., S.B. B. & M.
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off
 on December 26, 19 44. Mr. G. V. LaPeira, Inspector, designated by the supervisor,
 was present as prescribed in Sec. 3222 and 3223, Ch. 93, Stat. 1939; there were also present
J. T. Sinclair, Engineer, and Leon Windle, Driller.

Shut-off data: 7 in. 23.26 lb. casing was cemented at 9075 ft. on November 21., 19 44
 in 8-1/2" hole with 225 sacks of cement of which xxx sacks was left in casing.
 Casing record of well: 13-3/8" cem. 580'; 9-5/8" cem. 6690', N.T.; 7" cem. 9075', W.S.O..
perf. four, 1/2" holes 8510' and 8505' (all cem. off). four, 1/2" holes 8502', W.S.O.,
and four, 1/2" holes 8860', W.S.O.

Reported total depth 9170 ft. Bridged with cement from 9025 ft. to 8919 ft. Cleaned out to 8919 ft. for this test.
 A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft.
 A Johnston tester was run into the hole on 2-7/8 in. drill pipe, with xxx ft. of water cushion,
 and packer set at 8820 ft. with tailpiece to 8839 ft. Tester valve, with 3/8" bean, was opened at 1:10 p.m.
 and remained open for 2 hr. and xxx min. During this interval there was a mild steady blow for
20 minutes, and occasional heads for the balance of the test. Gas reached the surface
in 30 minutes.

THE INSPECTOR ARRIVED AT THE WELL AT 5:30 P.M. AND MR. SINCLAIR REPORTED THAT on December
 26, 1944, the 7" casing was perforated with four, 1/2" holes at 8860'.

THE INSPECTOR NOTED:

1. When the drill pipe was removed 1225' of very gassy, thick drilling fluid was found in the drill pipe above the tester, equivalent to 4.8 bbl. (The gas blew all the fluid out of the drill pipe after the top stand containing fluid was disconnected).
2. The fluid sample taken from the bottom of the drill pipe tasted fresh.
3. The recording pressure bomb chart showed that the tester valve was open 2 hr.

The test was completed at 7:30 p.m.

THE SHUT-OFF ABOVE THE PERFORATIONS AT 8860' IS APPROVED.

GWL:OH

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

2/304

R. D. BUSH, State Oil and Gas Supervisor

By E. H. Musser, Deputy
 JCA

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)No. T 1-43573

Mr. R. S. Curl, Los Angeles 14, Calif. January 16 1945
Los Nietos, Calif.
Agent for TIDE WATER ASSOCIATED OIL COMPANY 121

DEAR SIR:

Your well No. "Standard-Sesnon 1" 4, Sec. 25-29, T. 3 N., R. 16 W., S. R. B. & M.
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off
on December 25, 1944. Mr. Don Rowe * designated by the supervisor
was present as prescribed in Sec. 3222 and 3223, Ch. 93, Stat. 1939; there were also present
J. T. Sinclair, Engineer

Shut-off data: 7 in 23, 26, 29 lb. casing was cemented at 9075 ft. on November 21, 1944
in 8-1/2" hole with 225 sacks of cement of which xxx sacks was left in casing.
Casing record of well: 13-3/8" cem. 580'; 9-5/8" cem. 6690' N.T.; 7" cem. 9075', W.S.O., perf.
four, 1/2" holes 8510' and 8505' (all cem. off) and four, 1/2" holes 8502', W.S.O.

Reported total depth 9170 ft. Bridged with cement from 9025 ft. to 8919 ft. Cleaned out to 8919 ft. for this test.
A pressure of xxx lb. was applied to the inside of casing for xxx min. without loss after cleaning out to xxx ft.
A Johnston tester was run into the hole on 2-7/8 in. drill pipe, with xxxx ft. of water cushion,
and packer set at 8470 ft. with tailpiece to 8484 ft. Tester valve, with 3/8" bean, was opened at 10:34 a.m.
and remained open for 1 hr. and 36 min. During this interval there was a mild decreasing to
very weak blow for 59 minutes and dead for the balance of the test.

INSPECTOR G. V. LAFBIRE VISITED THE WELL FROM 4:25 TO 6:25 P.M., DECEMBER 16, 1944, AND
MR. SINCLAIR REPORTED:

1. A Baker Bridging plug was set in the 7" casing at 9011' and 25 sacks of cement was pumped into the hole above the plug.
2. The top of the cement was found at 8919'.
3. On December 15, 1944, the 7" casing was perforated with four, 1/2" holes at 8510'.
4. A Johnston tester was run into the hole on 2-7/8" Hydrill drill pipe.
5. The wall packer was set at 8480'.
6. The tester valve was opened at 12:23 p.m. and remained open 1 hr. and 45 minutes. During this interval there was a mild decreasing blow for 43 minutes, dead with occasional puffs for 10 minutes, a mild, steady blow for 7 minutes, and no blow for the balance of the test.

THE INSPECTOR NOTED:

1. When the drill pipe was removed 5280' of fluid that graded gradually from very thick drilling mud to muddy water, was found in the drill pipe above the tester, equivalent to 20.6 bbl.
2. Water filtered from fluid samples taken from 2580' and 0' above the bottom of the drill pipe tested 38 and 75 grains of salt per gallon, respectively.
3. The recording pressure bomb chart showed that the tester valve was open 1 hr. and 45 minutes.

The test was completed at 6:25 p.m.
THE OPERATORS DECIDED TO RE-CEMENT.

INSPECTOR J. L. WHITE VISITED THE WELL FROM 2:00 TO 3:05 P.M., DECEMBER 20, 1944, AND
MR. SINCLAIR REPORTED:

1. On December 17, 1944, with a Baker cement retainer set at 8474', 75 sacks of cement was squeezed away through the perforations at 8510'. The final pressure was 1350 lb. Cement was drilled out of the 7" casing from 8485' to 8515'.

R. D. BUSH, State Oil and Gas Supervisor

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
OR
Special Report on Operations Witnessed

No. T 1-43573

Page 2

TIDE WATER ASSOCIATED OIL COMPANY

Well No. "Standard-Sesnon 1" 4, Sec. ~~28~~ 29, T. 3 N., R. 16 W., S.B. B. & M.,

2. The 7" casing was shot with four, 1/2" holes at 8505'.
3. The Johnston tester was run into the hole on 2-7/8" drill pipe and the wall packer was set at 8472'.
4. The tester valve was opened at 9:26 a.m. and remained open 2 hr. and 10 minutes. During this interval there was a mild to weak blow for 28 minutes, a fair blow for 58 minutes, and only occasional heads for the balance of the test.

THE INSPECTOR NOTED:

1. When the drill pipe was removed 6400' of fluid was found in the drill pipe above the tester, equivalent to 24.8 bbl. The first 1500' was heavy, gas-cut drilling fluid, the next 2000' was thin watery, drilling fluid, and the last 2900' was muddy water.
2. Water filtered from fluid samples taken from 4320', 3410', 2500', and 1590' above the bottom of the drill pipe tested 144, 157, 205, and 260 grains of salt per gallon, respectively.

THE OPERATOR DECIDED TO RECHMENT.

MR. R. S. CURL, AGENT FOR TIDEWATER ASSOCIATED OIL COMPANY REPORTED BY LETTER DATED DECEMBER 27, 1944, AS FOLLOWS:

1. A cement retainer was set at 8475' and 100 sacks of cement was squeezed away through perforations at 8505' at a final pressure of 2650 lb.
2. On December 23, 1944, the cement retainer and cement was drilled out of the 7" casing from 8475' to 8581' (equivalent to 19 sacks), and the hole was cleaned out to 8919'.
3. On December 24, 1944, the 7" casing was perforated with four, 1/2" holes at 8502'.
4. On December 25, 1944, a Johnston tester was run into the hole as noted above.
5. When the drill pipe was removed 150' of fairly heavy, oily, and slightly gas-cut drilling fluid was found in the drill pipe above the tester, equivalent to 0.6 bbl.
6. The recording pressure bomb failed to function properly, but the inside of the tester was free of sand and showed no evidence of having been plugged.

THE SHUT-OFF ABOVE THE PERFORATIONS AT 8502' IS APPROVED.

*NOTE: This test was not witnessed by a member of this division because no Inspector was available, but was witnessed as noted above, and the above information was furnished by Mr. R. S. Curl, Agent for Tide Water Associated Oil Company who also enclosed a written report of the test signed by Mr. Rowe, Test Engineer for the M. O. Johnston Oil Field Service Corporation.

GWL:OH

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

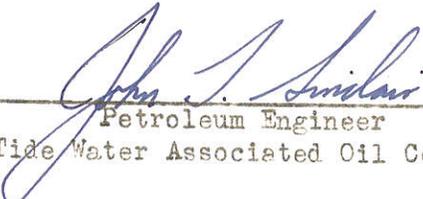
R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy
EHM

L / gott

Report of Test of Water Shut-off
Standard-Sesnon #1-4 - Aliso Canyon Field
December 25, 1944

Ran Johnston Tester on 2-7/8" drill pipe. Set packer at 8470'; bottom of tail pipe 8484'. Used 3/8" bean. Opened valve for 1 hour 36 minutes. Had mild decreasing to very weak blow of air for 59 minutes. Dead for balance of test. Recovered 150' (0.6 barrels) fairly heavy oily drilling mud. Pressure recorder failed to function properly.



Petroleum Engineer
Tide Water Associated Oil Company



Test Engineer
M. O. Johnston Oil Field Service Corp.

TIDE WATER ASSOCIATED OIL COMPANY

ASSOCIATED

DIVISION

Box "Y"
Los Nietos, California

December 27, 1944

Division of Oil and Gas
629 South Hill Street
Los Angeles 14, California

Attention: Mr. Hodges

Gentlemen:

Please be advised that a test of water shut-off was made at Standard-Sesnon well #1-4, Aliso Canyon Field, on December 25, 1944. Mr. Pfeffer secured prior permission from Mr. Hodges for this test to be witnessed by a representative of the M. O. Johnston Oil Field Service Corp. in lieu of having the test witnessed by an inspector from the Division of Oil and Gas.

On December 20, 1944, a test of water shut-off which was witnessed by an inspector of the Division of Oil and Gas was made at Standard-Sesnon #1-4 and the water shut-off was found to be ineffective.

On December 21 a Baker cement retainer was set at 8475' and 100 sacks Victor High Temperature cement displaced below the retainer under a final pressure of 2650#.

On December 23, 1944, the cement retainer and cement were drilled out from 8475' to 8581' and the well cleaned out to 8919'. On December 24 the 7" casing was gun perforated at 8502' with four $\frac{1}{2}$ " shots.

On December 25 the test of water shut-off previously referred to was made. After the test had been completed Mr. Pfeffer telephoned test data to Mr. Hodges and received Mr. Hodges approval of the water shut-off as being effective.

There is attached hereto report of the test of water shut-off signed by Mr. J. T. Sinclair, Petroleum Engineer, Tide Water Associated Oil Co., and Mr. Don Rowe, Test Engineer, M. O. Johnston Oil Field Service Corp.

TIDE WATER ASSOCIATED OIL COMPANY

R. A. Carl
Agent

GCP:d

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-40314

Los Angeles 14, Calif. January 3, 1945

Mr. R. S. Curl
Los Nietos, Calif.

Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

Your supplementary proposal to drill Well No. 4 "Standard-Sesnon 1"
Section 29, T. 3 N., R. 16 W., S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated Dec. 12, 1944, received Dec. 28, 1944, 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 in addition to or at variance with those shown in the notice:
9-5/8" com. 6690', not tested.
7" com. 9075', W.S.O.

THE NOTICE STATES:

"The new conditions are as follows:

The well was drilled to a total depth of 9170', 7" casing cemented at 9075' (see Supplementary Notice dated November 15, 1944), a 5" liner run and a production test made of an oil sand lying below the Sesnon zone. The production test indicated the zone open to have a maximum settled flowing production rate of 300 - 350 B/D. The mechanical condition of the well is now as follows:

		T.D. 9170'
13-3/8", 54.5#	C	850 850
9-5/8", 40# & 43.5#	C	6690'. 0'-3561' is 43.5#; 3561'-4805' is 40#; 4805'-6690' is 43.5#
7", 23#, 26#, 29# & 30#	C	9075'. 0'-5161' is 23#; 5161'-6747' is 26#; 6747'-8498' is 29#; 8498'-8863' is 30#; 8863'-9075' is 29#.
12 1/4" - 5", 17.93#	L	9168'. Top 9044'. All perf."

PROPOSAL:

We now propose

1. Kill well.
2. Set bridging plug in 7" casing at approximately 9025' and cap same with 50'-100' of cement.
3. Gun perforate 7" casing at 8510' with four 1/2" shots.
4. Make test of W.S.O. If wet squeeze and retest shooting four additional holes about 5' from original holes. Continue until W.S.O. is secured.
5. After securing W.S.O. under (4) gun perforate 7" casing at 8860' with four 1/2" shots.
6. Make test of W.S.O. If wet squeeze and retest shooting four additional holes about 5' from original holes. Continue until W.S.O. is secured.
7. After securing W.S.O. under (6) gun perforate 7" casing with four 1/2" shots per foot as follows: 8522'-8537'; 8556'-8610'; 8620'-8636'; 8643'-8687'; 8700'-8710'; 8743'-8820'; 8826'-8838'.
8. Hang 2-7/8" tubing at approximately 8790' and complete well.

R. D. BUSH
State Oil and Gas Supervisor

By (CONTINUED ON PAGE 2) Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-40314

Page 2

TIDE WATER ASSOCIATED OIL COMPANY

Well No. "Standard-Sesnon 1" 4, Section ~~28~~²⁹, T. 3 N., R. 16 W., S. 2. B. & M.,

- 9. Flow well through tubing and establish flow characteristics then reverse flow and establish annular flow characteristics.
- 10. If flow characteristics of Sesnon zone permit kill well, pull tubing, clean out cement bridge and bridging plug, re-run tubing landing same on a packer below 8538' and recomplate well flowing Sesnon zone through annulus between tubing and casing and lower zone through tubing. If flow characteristics of Sesnon zone as determined under (9) do not permit of a dual completion continue producing Sesnon zone with lower zone bridged off."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS a test of the effectiveness of the 7" shut-off through the four, 1/2-inch holes at 8510'.

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

FCH:OH

4/22

R. D. BUSH

State Oil and Gas Supervisor

By E. H. Messer Deputy

Blanket bond No. 43486

DIVISION OF OIL AND GAS

DEC 28 1944

Supplementary Notice

Los Nietos Calif. December 12, 1944

DIVISION OF OIL AND GAS

Los Angeles, Calif.

Our notice to you dated July 13, 1944, stating our intention to

drill well No. Standard-Sesnon #1-4
(Drill, deepen, redrill, abandon)

Sec. 29, 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 was drilled to a total depth of 9170', 7" casing cemented at 9075' (see Supplementary Notice dated November 15, 1944), a 5" liner run and a production test made of an oil sand lying below the Sesnon zone. The production test indicated the zone open to have a maximum settled flowing production rate of 300 - 350 B/D. The mechanical condition of the well is now as follows:

	T.D. 9170'
13-3/8", 54.5#	C 580'
9 5/8", 40# & 43.5#	C 6690'. 0'-3561' is 43.5#; 3561'-4805' is 40#; 4805'-6690' is 43.5#.
7", 23#, 26#, 29# & 30#	C 9075'. 0'-5161' is 23#; 5161'-6847' is 26#; 6847'-8498' is 29#; 8498'-8863' is 30#; 8863'-9075' is 29#.
124' - 5", 17.93#	L 9168'. Top 9044'. All perf.

We now propose

1. Kill well.
2. Set bridging plug in 7" casing at approximately 9025' and cap same with 50'-100' of cement.
3. Gun perforate 7" casing at 8510' with four 1/2" shots.
4. Make test of W.S.O. If wet squeeze and retest shooting four additional holes about 5' from original holes. Continue until W.S.O. is secured.
5. After securing W.S.O. under (4) gun perforate 7" casing at 8860' with four 1/2" shots.
6. Make test of W.S.O. If wet squeeze and retest shooting four additional holes about 5' from original holes. Continue until W.S.O. is secured.
7. After securing W.S.O. under (6) gun perforate 7" casing with four 1/2" shots per foot as follows: 8522'-8537'; 8556'-8610'; 8620'-8636'; 8643'-8687'; 8700'-8710'; 8743'-8820'; 8826'-8838'.

Sup. drilled

MAP	MAP BOOK	CARDS	BOND	FORMS	(Name of Operator)
				114 121	
		Blanket #43486		<i>end end</i>	By _____

DIVISION OF OIL AND GAS

Supplementary Notice

.....Calif. 19.....

DIVISION OF OIL AND GAS

.....Calif.

Our notice to you dated, 19, stating our intention to

..... well No.
(Drill, deepen, redrill, abandon)

Sec., T., R., B. & M. Field,

..... County, must be amended on account of changed or recently
discovered conditions.

The new conditions are as follows:

We now propose

8. Hang 2-7/8" tubing at approximately 8790' and complete well.
9. Flow well through tubing and establish flow characteristics then reverse flow and establish annular flow characteristics.
10. If flow characteristics of Sesnon zone permit, kill well, pull tubing, clean out cement bridge and bridging plug, re-run tubing landing same on a packer below 8838' and recomplete well flowing Sesnon zone through annulus between tubing and casing and lower zone through tubing. If flow characteristics of Sesnon zone as determined under (9) do not permit of a dual completion continue producing Sesnon zone with lower zone bridged off.

TIDE WATER ASSOCIATED OIL COMPANY

(Name of Operator)

By

Agent

R. S. Bayl

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

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

No. T 1-43430

Mr. R. S. Curl
Los Nietos, Calif. December 1, 19 44
Los Angeles 14, Calif.
Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

Your well No. "Standard-Sesnon 1" 4, Sec. ~~28~~ 29, T. 3 N., R. 16 W., S.B. B. & M.
Aliso Canyon Field, in Los Angeles County, was tested for water shut-off
on November 25, 19 44. 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
John T. Sinclair, Engineer, and A. C. Clark, Drilling Foreman.

& 29
Shut-off data: 7 in. 23.26 lb. casing was cemented at 9075 ft. on November 21, 19 44
in 8-1/2" hole with 225 sacks of cement of which xxx sacks were left in casing.
Casing record of well: 13-3/8" cem. 580'; 9-5/8" cem. 6690', N.T.; 7" cem. 9075', W.S.O.

Reported total depth 9175 ft. Bridged with cement from 9175 ft. to 9080 ft. Cleaned out to 9080 ft. for this test.
A pressure of 1500 lb. was applied to the inside of casing for 30 min. without loss after cleaning out to 9074 ft.
A Johnston tester was run into the hole on 2-7/8 in. drill pipe, with 970 ft. of water cushion,
and packer set at 9045 ft. with tailpiece to 9065 ft. Tester valve, with 3/8" bean, was opened at 9:03 a.m.
and remained open for 8 hr. and 10 min. During this interval there was a weak intermittent blow
for 35 minutes, a mild increasing blow for 20 minutes changing to gas. There was a fairly
strong to strong steady blow of gas for the balance of the test at a rate estimated to vary
between 760 and 3,000 Mcf. per day. After blowing for 1 hour and 45 minutes, the well
blew a spray of fluid estimated at from 1 to 2 bbl. per hour rate. The salt content of this
fluid varied from 21 to 629 grains of salt per gallon.

INSPECTOR WHITE VISITED THE WELL FROM 4:00 TO 6:15 P.M., NOVEMBER 24, 1944, AND
MR. SINCLAIR REPORTED:

1. A 12-1/4" rotary hole was drilled from 580' to 6422'; a 10-3/4" rotary hole, from 6422' to 7161'; an 8-1/2" rotary hole, from 7161' to 9088'; a 6" rotary hole, from 9088' to 9175'.
2. Electrical core readings showed the top of oil zone 9095'.
3. A cement plug was placed from 9175'-9080'.
4. The 7" casing was cemented through a Baker cement retainer because of lost circulation when cementing the shoe. The final pressure was 1000 lb.
5. The Johnston tester was run into the hole on 2-7/8" drill pipe and the wall packer was set at 9045'.
6. The tester valve was opened at 12:35 p.m. and remained open 1 hr. and 23 minutes. During this interval there was a mild, steady blow for 3 minutes, and occasional puffs of air for 17 minutes, and no blow thereafter.

THE INSPECTOR NOTED:

1. When the drill pipe was removed 1450' of fluid including 970' of water cushion was found in the drill pipe above the tester leaving a net rise of 480' of heavy drilling fluid, some of which entered the drill pipe when the packer slipped.
 2. The pressure bomb chart was unintelligible, but it appeared that the tool was plugged.
- THE OPERATOR DECIDED TO RETEST.

THE INSPECTOR ARRIVED AT THE WELL AT 8:40 P.M. AND MR. SINCLAIR REPORTED THAT the Johnston tester was run as noted above.

R. D. BUSH, State Oil and Gas Supervisor

By (CONTINUED ON PAGE 2), Deputy

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off OR

Special Report on Operations Witnessed

No. T 1-43430

Page 2

TIDE WATER ASSOCIATED OIL COMPANY

Well No. "Standard-Sanson 1" 4, Sec. ~~25~~ 29, T. 3 N., R. 16 W., S.B. B. & M.,

THE INSPECTOR NOTED:

1. When the drill pipe was removed 1240' of gassy, muddy water was found in the drill pipe above the tester, 910' of which blew out when the fluid was reached, equivalent to 6.2 bbl. (The water cushion blew out during the blow).
2. Water filtered from fluid samples taken from 1200' and 270' above the bottom of the drill pipe tested 622 and 616 grains of salt per gallon, respectively.
3. The recording pressure bomb chart showed that the tester valve was open throughout the test.

The test was completed at 9:45 p.m.

THE SHUT-OFF IS APPROVED.

JLW:OH

cc- I. C. Decius
 Jos. Jensen
 G. O. Pfeffer (2)



R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Special Report on Operations Witnessed

No. T 1-43090

Los Angeles 14, Calif. August 4, 19 44

Mr. R. S. Curl
Los Nietos,

Agent for TIDE WATER ASSOCIATED OIL COMPANY Calif.

121

DEAR SIR:

Operations at your well No. "Standard-Sesnon 1" / Sec. 29, T. 3 N., R. 16 W. S.B. B. & M.,
Aliso Canyon Field, in Los Angeles County, were witnessed by
J. L. White, Inspector representative of the supervisor,

on July 26, 1944. There was also present H. M. Frantz, Driller, and
W. B. Sweringen, Helper.

Casing Record 13-3/8" cem. 580'. T.D. 800'.

Junk ~~XXX~~

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

~~The inspector arrived at the well at _____ and Mr. _____ reported.~~

THE INSPECTOR ARRIVED AT THE WELL AT 10:10 A.M. AND 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 Hughes master gate for closing around the 6" drill pipe.
3. A 3" mud fill-up line, with a 3" high pressure stopcock into the 13-3/8" casing below the above equipment.
4. A Hosmer type blowout preventer with packer to fit the 6" drill pipe.
5. An 8" shut-off gate on the mud discharge line.

The inspection was completed at 10:25 a.m.

Note: Mr. John T. Sinclair, Petroleum Engineer for the Tide Water Associated Oil Company reported on August 1, 1944, that the remote control handles for the blowout prevention gates had been installed.

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

11/15/44

Top sesnon zone ~~and~~ 8522
Base " " 8838
Top new zone cased 9100
T.D. 9170

cc- L. C. Decius
Jos. Jensen
G. C. Pfeffer
JLW:OH

9/12/44 G.C. Pfeffer-ERma

T.D. 7161' Circulation losses necessitate running 9 5/8" protection string to 6690' (will cement w/400^{5ax})
No test. ERma

10-15-44 G.C.P-JLW

will set 7" at 9075' over Eocene and test WSD at shoe. Then set liner through Eocene sand. Will file new proposal

R. D. BUSH
State Oil and Gas Supervisor

By C. H. Mearns Deputy

11/17/44
Pfeffer/Hodges
9 5/8" protection string
cem. @ 6690'

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

Report on Proposed Operations

No. P.1-40180

Los Angeles 14, Calif. November 20, 1944

MR. R. S. Curl

Los Nietos, Calif.

121

Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

Your supplementary proposal to drill Well No. "Standard-Sesnon 1" 1/4

Section 2429, T. 3 N., R. 16 W., S. B. B. & M., Aliso Canyon Field, Los Angeles County,

dated Nov. 15, 1944, received Nov. 16, 1944, 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 in addition to or at variance with those shown in the notice:

- 13-3/8" cem. 580'
- 9-5/8" cem. 6690', not tested.

THE NOTICE STATES:

"The new conditions are as follows:

An oil sand lying below the Sesnon zone was cored and a formation test made thereof indicated the probability that the sand will yield commercial production. The top of the Sesnon zone was encountered at a drilled depth of 8522'; the base at 8838'; and the top of the lower sand at 9100'. The drilled depth of the well is 9170'."

PROPOSAL:

"We now propose

1. To cement 7" casing on a cement bridge at 9075'.
2. To land a 5" perforated liner and make a production test."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS a test of the effectiveness of the 7" shut-off.

ERMA:OH

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

W/L

R. D. BUSH

State Oil and Gas Supervisor

By E. H. Misser Deputy

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED
 NOV 16 1944
 LOS ANGELES, CALIFORNIA

Supplementary Notice

Los Nietos Calif. November 15, 1944

DIVISION OF OIL AND GAS

Los Angeles Calif.

Our notice to you dated July 13, 1944, stating our intention to

drill well No. Standard-Sesnon #1-4

(Drill, deepen, redrill, abandon)

Sec. 29, 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:

An oil sand lying below the Sesnon zone was cored and a formation test made thereof indicated the probability that the sand will yield commercial production. The top of the Sesnon zone was encountered at a drilled depth of 8522'; the base at 8838'; and the top of the lower sand at 9100'. The drilled depth of the well is 9170'.

We now propose

1. To cement 7" casing on a cement bridge at 9075'.
2. To land a 5" perforated liner and make a production test.

Sup. drill

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121
			<i>Blanket</i> 43486	<i>ems</i>	<i>ems</i>

TIDE WATER ASSOCIATED OIL COMPANY

(Name of Operator)
 By *R. S. [Signature]*
 Agent

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-39837

Los Angeles 14, Calif. July 19, 19 44

Mr. R. S. Carl

Los Nietos, Calif.

Agent for TIDE WATER ASSOCIATED OIL COMPANY

121

DEAR SIR:

Your proposal to drill Well No. "Standard-Sisson 1" 4
Section ~~22~~ 29, T. 3 N., R. 16 W., S. B. B. & M., Aliso Canyon Field, Los Angeles County,
dated July 13, 19 44, received July 14, 19 44, 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 824.29 feet S. and 7708.70 feet W. from Station #84
The elevation of the derrick floor above sea level is 2870 feet (approx)
We estimate that the first productive oil or gas sand should be encountered at a depth of
about 8450 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

Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
13-3/8"	54	J-55 TAC	500	Cemented
7"	23, 26, & 29	J-55 & N-80	8450	Cemented
5" (Pf. lnr.)	18	Speedtite	8750	Cemented
		N-80 F J	8750	Landed

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:

1. 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.
2. Blowout prevention equipment, sufficient to provide a complete close-in of the well under pressure at any time, shall be installed.
3. Any hole to be sidetracked in any oil zone shall be filled with cement, if possible.
4. This division shall be consulted before running the 7" casing.

THIS DIVISION SHALL BE NOTIFIED AS FOLLOWS:

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

MA:OH

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

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

DIVISION OF OIL & GAS
RECEIVED

JUL 14 1944

LOS ANGELES, CALIFORNIA

037-00757

Notice of Intention to Drill New Well
This notice must be given and surety bond filed before drilling begins.

PL

Los Nietos Calif. July 15, 1944

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-Semon #1, Sec. 29-28, T. 3-N, R. 16-W, S. B. B. & M., Aliso Canyon Field, Los Angeles County.

SLW

Lease consists of Standard-Semon #1 Lease

The well is 824.20 feet N. or S., and 7708.70 feet E. or W. from Station #04
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the derrick floor above sea level is 2970 feet. (approx)

We estimate that the first productive oil or gas sand should be encountered at a depth of about 8450 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
18-5/8"	54	J-55 S&C	500	Cemented
7"	23, 26, & 29	J-55 & N-80 Speedrite	8450	Cemented
5" (Pl. lnr.)	18	N-80 P J	8750	Landed

Well is to be drilled with rotary tools.
~~blank~~

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

Address Box 173, Los Nietos, Calif.

TIDE WATER ASSOCIATED OIL COMPANY
(Name of Operator)

Telephone number Whittier 42-043

By R. J. [Signature]
Agent

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

*Correction letter 8-26-54. my

18a 7-14-44
SLW SLW Blanket bond #43486