

NATURAL 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 216-0163

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

PERMIT TO CONDUCT WELL OPERATIONS

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

Ventura, California
 August 03, 2016

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

Your proposal to **Rework** well "Porter" 32, A.P.I. No. 037-00719, Section 27, T. 03N, R. 16W, SB B. & M., Aliso Canyon field, Any area, Sesnon-Frew pool, Los Angeles County, dated 7/29/2016, received 8/1/2016 has been examined in conjunction with records filed in this office. (Lat: 34.312588 Long: -118.550616 Datum:83)

THE PROPOSAL IS APPROVED PROVIDED:

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

Continued on Next Page

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

Engineer Clifford R. Knight
 Office (805) 654-4761

CRK/do

Kenneth A. Harris Jr.
 State Oil and Gas Supervisor

By Patricia A. Abel for
 Patricia A. Abel, District Deputy

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

Page 2
Well #: "Porter" 32
API #: 037-00719
Permit : P 216-0163
Date: August 03, 2016

NOTE:

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

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

**ATTACHMENT 1
TO DOGGR ORDER 1109**

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

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

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

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

REQUIRED TESTS FOR EACH WELL IN THE FACILITY

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

a. Temperature Log:

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

b. Noise Log:

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

- Step 2:** The results of the Temperature Logs and Noise Logs will be independently reviewed by Division engineers. Any unexplained abnormal findings in this set of tests shall be addressed by the Operator in one of the following ways:
- Conduct further investigation and demonstrate to the Division's satisfaction that the abnormal finding is not an indicator of a lack mechanical integrity;
 - Remediate the well to the Division's satisfaction; or
 - 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:
- 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
 - Remove the well from operation and isolate the well from the underground gas storage reservoir in accordance with Steps 4b through 7b below.

REQUIRED TESTS IF A WELL IS INTENDED TO RESUME OPERATIONS

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

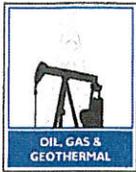
- a. Conduct daily gas monitoring at the surface of the non-operational well, including monitoring the area around the well perimeter and in the annular space between the plugged casing string and the outmost casing;
- b. Conduct noise log, temperature log and positive pressure test every six months;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

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

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

REQUIREMENTS FOR WELLS RESUMING OPERATIONS IN ALISO CANYON

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



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

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

P216-0163

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 Porter 32, API No. 037-00719,
 (Check one)

Sec. 27, 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 and completed work summary.

The total depth is: 7994 feet. The effective depth is: 7849 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.

5b - Set plug set in XN nipple at 7403' and open SSD at 7369'.

6b - Circulate well with 8.5 ppg KCL brine down tbg. through SSD at 7369' and back to surface to completely fill well.

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

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

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

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

Name of Operator Southern California Gas Company			
Address P. O. Box 2300		City/State Chatsworth	Zip Code 91313-2300
Name of Person Filing Notice A.J. Alshammasi	Telephone Number: (818) 700-3887	Signature 	Date 7/29/16
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 Porter 32

API #: 04-037-00719-00
Sec 27, T3N, R16W

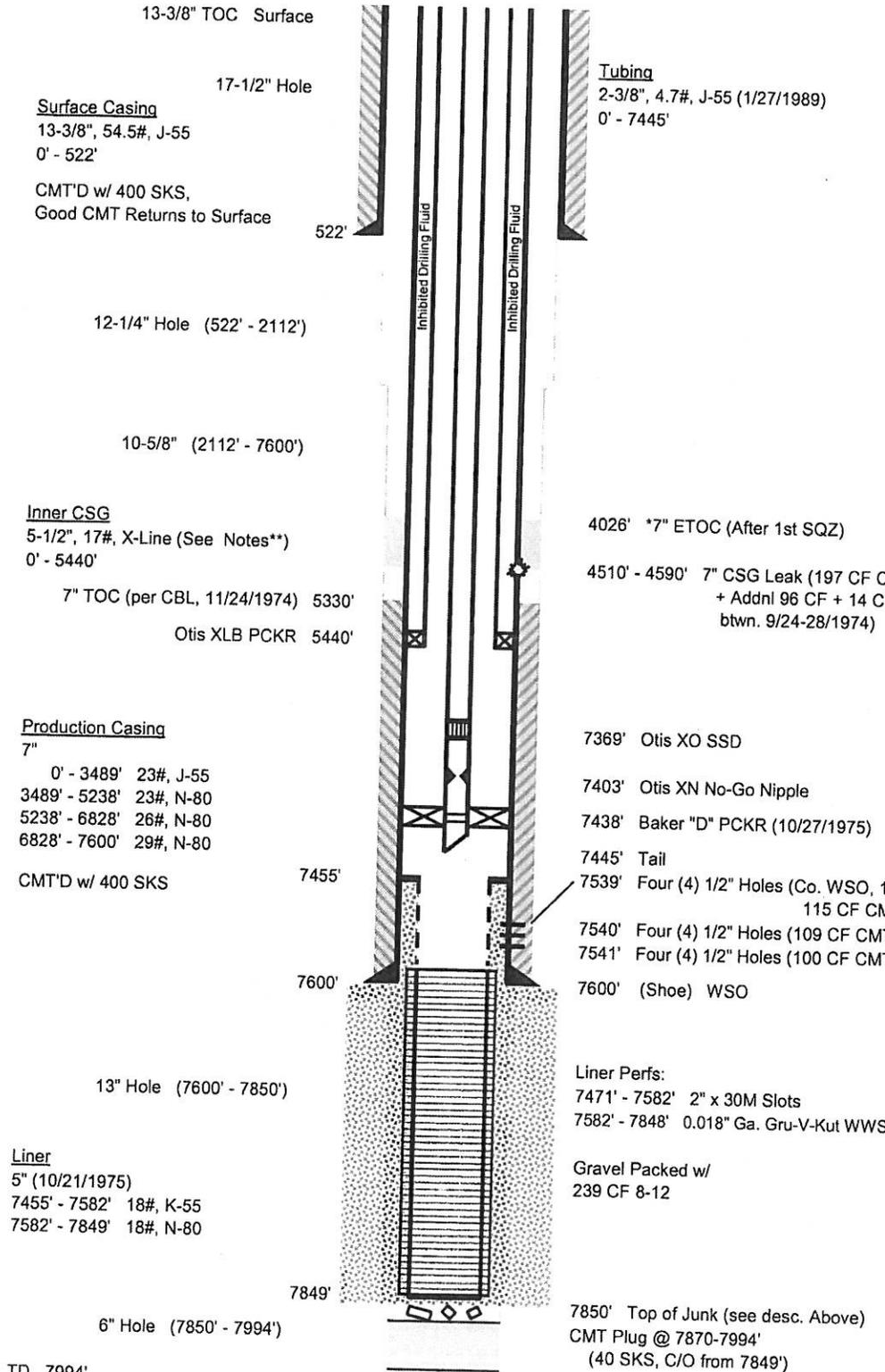
Operator: So. California Gas Co.

Lease: Porter
Field: Aliso Canyon
Status: Active Gas Storage
BFW:
USDW:

Ground Elevation: 2079.1' asl
Datum to Ground: 6.92' DF

Spud Date: 6/1/1944
Completion Date: 9/1/1944
Last Rework Date: 1/27/1989

Junk: Remnants of hole opener bits & milled 5" liner that was removed & replaced; milled down to 7850'



Notes
4723' - 4732' 59.1% Original Wall
Thickness Remaining per Die-Log Caliper
Survey (11/24/1972), 94.7% Original Wall
Thickness Remaining per Electronic
Casing Inspection Log (11/25/1972)
**5-1/2" inner string run 10/3/74, rerun
11/5/75 & 10/30/79

Top of Zone Markers md (tvd)		
A36	4741'	(4740')
UP	5063'	(5059')
LP	5543'	(5531')
UDA1	5971'	(5950')
LDA	6798'	(6760')
MP	7275'	(7228')
S1	7523'	(7473')
S4	7616'	(7565')
S8	7723'	(7672')
K1	7978'	(7925')

Prepared by: MAM/CAM (6/9/2016)
Updated by: CAM (7/29/2016)

InterAct

Rec'd 08-01-16 DOGGR Ventura.

TD 7994'
TVD (7941')
Directionally Drilled: Yes (TD is 304' W, 494' S of Surf)

Completed Work Summary - Porter 32		
Step	Work Completed	Date
4b	TOC at 5330' per CBL. Log shows good bond from 7500'-7523' (top of S1) and between the MP and S1 from 7310'-7380'.	11/24/1974
5b	Packer set at 7438'.	10/27/1975

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
Porter 32	7438'/7390'	7", 23#, J-55	3489	4360	3706	2542	Yes
		7", 23#, N-80	5238	6340	5389	3315	Yes
		7", 26#, N-80	6828	7240	6154	4018	Yes
		7", 29#, N-80	7438	8160	6936	4288	Yes
Porter 32A	7160'/7142'	8-5/8", 36#, K-55	5848	4460	3791	3585	Yes
		8-5/8", 36#, N-80	7160	6490	5517	4165	Yes
Porter 39	8400'/8346'	7", 29#, N-80	60	8160	6936	1027	Yes
		7", 23#, J-55	4070	4360	3706	2799	Yes
		7", 23#, N-80	5775	6340	5389	3553	Yes
		7", 26#, N-80	7268	7240	6154	4212	Yes
		7", 29#, N-80	8400	8160	6936	4713	Yes
Fernando Fee 32B	7350'/6863'	8-5/8", 36#, K-55	5863	4460	3791	3591	Yes
		8-5/8", 36#, N-80	6810	6490	5517	4010	Yes
		6-5/8", 28#, K-55*	7350	6970	5925	4249	Yes
Fernando Fee 32D	7032'/7012'	8-5/8", 36#, K-55	5564	4460	3791	3459	Yes
		8-5/8", 36#, N-80	7032	6490	5517	4108	Yes
Fernando Fee 34BR	7350'/7217'	8-5/8", 36#, K-55	7350	4460	3791	4249	No

* Actual pipe in well is a non-API grade so assumed closest size, weight & grade of API pipe

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Ventura, California

October 30, 1991

R. D. Phillips, Agent

SOUTHERN CALIFORNIA GAS COMPANY

P.O. Drawer 3249m Mail Location 22G0

Los Angeles, CA 90051-1249

Your request, dated July 24, 1991, proposing to change the designation of well(s) in Sec. 27, 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:

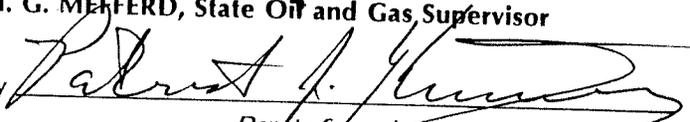
FROM

"SFZU" P-12 (037-00701)
"SFZU" P -14 (037-00703)
"SFZU" P-30 (037-00717)
"SFZU" P-31 (037-00718)
"SFZU" P-32 (037-00719)
"SFZU" P-36 (037-00723)
"SFZU" P-37 (037-00724)
"SFZU" P-45 (037-00732)
"SFZU" FF-32 (037-00686)
"SFZU" P-50A (037-22737)
"SFZU" P-68A (037-22742)
"SFZU" P-37-A (037-22046)
"SFZU" FF-32-A (037-21872)

TO

"Porter" 12 (037-00701)
"Porter" 14 (037-00703)
"Porter" 30 (037-00717)
"Porter" 31 (037-00718)
"Porter" 32 (037-00719)
"Porter" 36 (037-00723)
"Porter" 37 (037-00724)
"Porter" 45 (037-00732)
"Fernando Fee" 32 (037-00686)
"Porter" 50A (037-22737)
"Porter" 68A (037-22742)
"Porter" 37-A (037-22046)
"Fernando Fee" 32-A (037-21872)

M. G. MEFFERD, State Oil and Gas Supervisor

By 

Deputy Supervisor

PATRICK J. KINNEAR

OPERATOR Pacific Lighting Service
 LSE & NO. SF70-1P-32
 MAP NO. 150

INTENTION	Convert to gas injection	Alter casing	Alter log	REWORK	Alter casing in G.S.
NOTICE DATED	9-8-72	9-9-74	7-3-75	4-20-77	10-16-79
P-REPORT DATED	10-10-72	274-341	275-254	277-140	279-315
CHECKED BY/DATE	LB 3-26-73				
MAP LETTER DATED	3-3-73	N/C	N/C	N/C	N/C
SYMBOL	⚡				

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

NOTICE	10-5-72	9-12-74	7-11-75	4-22-77	10-16-79
HISTORY	2-23-73	10-24-74	11-26-75	5-17-77	11-28-79
SUMMARY					
IES/ELECTRIC LOG					
DIRECTIONAL SURV.					
CORE/SWS DESCRIP.					
DIPMETER RESULTS					
OTHER				Copy Caliper log 12-28-79	
RECORDS COMPLETE	LB 2-26-73	JCR 7-11-75	(initials)	(initials)	JR

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

REMARKS ~~HISTORICAL 5-17-77 NO PROPOSAL~~

HISTORY RECEIVED 3-1-89 NEED NO NOTICE, DID NOT ALTER CASING SPM.

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

**DIVISION OF OIL AND GAS
RECEIVED**

MAR 1 1990

VENTURA, CALIFORNIA

History of Oil or Gas Well

Operator Southern California Gas Co. Field Aliso Canyon County Los Angeles
Well Porter #32, Sec. 27, T. 3N., R. 16W, S. BB. & M.
A.P.I. No. #037-00719 Name R. W. Weibel Title Agent
Date February 6, 1989 (Person submitting report) (President, Secretary or Agent)

Signature N.W. Buss 2/21/89
N.W. Buss For R.W. Weibel
P.O. Box 3249 Terminal Annex, L.A. California 90051 (213)689-3925
(Address) (Telephone Number)

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

Date

MWO No. 99033: was issued to repair wellhead seals on 5-1/2" innerstring

1989

- 1-19 Moved in rig. Re-killed well Set back pressure valve in
to donut and removed xmas tree. Installed BOPE. Tested
1-21 blind rams, pipe rams and choke manifold to 3000 psi,
Hydril bag to 2300 psi. Mr. Steve Mulqueen of the DOG
declined to witness BOPE test.
- 1-23 Mesured out of well with 2-3/8" tubing and laid down
production equipment. Made up 5-1/2" 17# bridge plug,
set at 5000' and tested to 700 psi. Set RTTS tool at
100' and tested to 700 psi.
- 1-24 Removed BOPE, tubing head and seal flange. Replaced
primary seals on 5-1/2" innerstring.
- 1-25 Installed and tested seal flange and tubing head to 5000
psi for 20 minutes. Installed BOPE and tested
connections. Recovered RTTS tool from 100'. Released
bridge plug at 5000'.
- 1-26 Pulled out of well with bridge plug. Made up Baker
to seals, joint of 2-3/8" tubing, Otis 1.79" No-Go nipple
1-27 joint of tubing, Otis 2-3/8" XO sliding sleeve, 2
joints 2-3/8", and solid tested to 4000 psi. Drifted
and hydrotested tubing to 4000 psi. Landed on packer
with 10,000#. Pulled out of packer. Changed over from
63#/cu.ft. polymer completion fluid to 2% KCl water.
Installed back pressure valve. Removed BOPE, installed
and tested xmas tree to 5000 psi. Released rig at 4:00
P.M.

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

DIVISION OF OIL AND GAS
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NOV 20 1979

History of Oil or Gas Well

SANTA PAULA, CALIFORNIA

Operator Southern California Gas Company Field or County Aliso Canyon
Well Porter #32 Sec. 27, T. 3N, R. 16W, SB. B. & M.
A.P.I. No. 037-00719 Name P. S. Magruder Jr. Title Agent
Date November 20, 1979 (Person submitting report) (President, Secretary or Agent)

Signature *P. S. Magruder Jr.*
P. S. Magruder, Jr.

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

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

Date	
	MWO # 99613
1979	Program Pull 2 3/8" production tubing and related equipment from well. Pull and inspect 5 1/2" casing innerstring. Clean out to top of Baker model "D" packer at 7,438'. Run casing caliper log from 7,438' to surface. Set an Otis "XLB" packer near 5,420' and pressure test same. Rerun 5 1/2" casing innerstring and 2 3/8" production tubing with sliding sleeve. Return well to Gas storage service.
10-15	-0- Day. Killed well with 230 barrels of 80# brine-polymer completion fluid.
10-19	1st Day. Moved California Production Service Co. rig #D-4 onto wellsite and began rigging up.
10-20	2nd Day. Finished rigging up. Circulated well for 3 hours adding 200 barrels of 82# polymer fluid. Installed back pressure valve and removed xmas tree. Installed 8" class III BOPE.
10-21	Rig and crew idle.
10-22	3rd Day. Unable to test BOPE. Found washed out place in tubing head flange. Pulled 2 3/8" tubing from well. Ran Baker "DR" plug on 2 3/8" tubing to 2,200'. Secured well.
10-23	4th Day. Set Baker "DR" plug in packer at 7,438'. Pressure tested plug to 500 psi. Circulated for two hours. Pulled out of well. Ran and set Baker 5 1/2" model "C" bridge plug at 120'. Removed BOPE, tubing head and secondary seal flange. Reinstalled BOPE and 5 1/2" pipe rams. Secured well.
10-24	5th Day. Removed BOPE. Ran spear and assembly. Removed 5 1/2" casing slips. Reinstalled BOPE. Pulled model "C" bridge plug. Unlanded 5 1/2" casing with 180,000# pull. Pulled and laid down 50 joints of casing.

- 10-25 6th Day. Finished pulling and laying down 5 1/2" casing. Changed 5 1/2" pipe rams to 2 3/8". Set bridge plug at 120' and pressure tested pipe and blind rams to 4,000 psi with water for 20 minutes, o.k.. Pressure tested Hydril to 3,000 psi for 20 minutes, o.k.. Recovered 7" model "C" bridge plug from 120'. Made up and ran 6" bit and 7" casing scraper to 7,434'. Tagged top of "DR" plug at 7,434'. No fill. Secured well.
- 10-26 7th Day. Circulated well for one hour. Pulled out of well. Ran McCullough Casing Caliper log from 7,434' to surface. Ran Baker retrieving tool to 7,230'. Secured well.
- 10-27 8th Day. Recovered Baker "DR" plug. Ran McCullough 7" Casing Caliper log from 7,434' to surface. Ran 5.80" O.D. gauge ring to 5,600'. Ran Otis 7" 26# "XLB" packer and set top at 5,440'. Ran Otis seals on 2 3/8" tubing to 7,440', tested seals and packer to 1,000 psi for 20 minutes. Pulled up to 2,340'. Secured well.
- 10-28 Rig and crew idle.
- 10-29 9th Day. Continued out of well from 2,340'. Ran 123' joints (4,920') of 5 1/2" 17# casing innerstring, hydrotesting for one minute to 4,000 psi each test.
- 10-30 10th Day. Finished running 5 1/2" casing innerstring. Latched into packer at 5,440'. Pulled 10,000# over string weight and checked latch. Set 40,000# on packer and pressure tested with Dowell to 1,000 psi, no returns. Picked up BOPE and found tool joint at top of tubing head. Changed out top joint for shorter one. Secured well for night.
- 10-31 11th Day. Inhibited drilling fluid between 5 1/2" and 7" casings. Landed 5 1/2" casing on packer at 5,440' with 40,000#. Removed BOPE. Installed casing hanger and cut casing. Set 5 1/2" bridge plug at 100'. Installed seal flange and tubing head. Tested tubing head and seal flange to 4,500 psi. Reinstalled BOPE with 2 3/8" pipe rams and pressure tested with water to 2,000 psi. Ran Baker production tube, seals, blast joint, and 2 3/8" tubing to 3,120'. Hydrotested tubing to 5,000 psi holding each test for one minute. Secured well.
- 11-1 12th Day. Finished running 2 3/8" tubing and landed on packer at 7,438'. Pressure tested seals and packer to 1,500 psi. Spaced out and landed tubing with 12,000# on packer. Removed BOPE and installed xmas tree. Pressure tested xmas tree to 5,000 psi for 20 minutes. Using Otis piano wire equipment, opened sliding sleeve. Circulated polymer completion fluid out of well with lease salt water. Installed blind flanges and released rig at 10:00 p.m., 11-1-79.

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

No. P 279-315

REPORT ON PROPOSED OPERATIONS

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

Mr. J. W. Tenfelder, Agent
Southern Calif. Gas Co.
12801 Tampa Avenue
Northridge, CA 91324

Santa Paula, California
Oct. 16, 1979

Your proposal to alter casing in gas storage well "SFZU" P-32,
A.P.I. No. 037-00719, Section 27, T. 3N, R. 16W, S.B. B. & M.,
Aliso Canyon field, Main area, Sesnon-Frew pool,
Los Angeles County, dated 10/16/79, received 10/16/79 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.

*Bopa 10/25/79
TEST WANTED
NEA MD*

Blanket Bond
MD:b

M. G. MEFFERD, State Oil and Gas Supervisor

By John L. Hardoin
John L. Hardoin, Deputy Supervisor

OCT 16 1979

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	OGD114	OGD121
	BB	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. Porter #32 "SFZU" P-32, API No. 037-00719, Sec. 27, T. 3N, R. 16W, S.B.B. & M., Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 7,994', plug 7,870'

2. Complete casing record, including plugs and perforations:

13 3/8" cemented 522'
7" cemented 7,600', cp'd 7,540', 7,541', WSO 7,539'
394' 5" landed 7,848', 30 mesh slots 7,470' - 7,581'
18 mesh W.W. 7,581' - 7,848' - gravel flow packed
5,428' 5 1/2" landed 5,428' with hook wall lead seal packer

3. Present producing zone name Sesnon Zone in which well is to be recompleted -

4. Present zone pressure 3,600 psi New zone pressure -

5. Last produced Gas Storage Well
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)
or

6. Last injected
(Date) (Water, B/D) (Gas, Mcf) (Surface pressure, psig.)

The proposed work is as follows:

1. Move in and rig up. Kill well. Install BOPE and pressure test.
2. Pull 2 3/8" tubing. Pull 5 1/2" casing. Clean out to 7,438'.
3. Run McCullough Dual Casing Inspection and Caliper log.
4. Run 5 1/2" 17# extremeline. Land on packer at 5,430'.
5. Run 2 3/8" tubing and land on packer at 7,438'.
6. Return well to gas storage operation

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

Address P.O. Box 3249 Terminal Annex
(Street)
Los Angeles, California 90051
(City) (State) (Zip)

Telephone Number (213) 689-3561

Southern California Gas Company
(Name of Operator)

By P. S. Magruder Jr. GCA 10/16/79
(Name) P. S. Magruder Jr. (Date)

Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

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

DIVISION OF OIL AND GAS
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MAY 17 1977

History of Oil or Gas Well

OPERATOR SOUTHERN CALIFORNIA GAS CO. FIELD ALISO CANYON SANTA PAULA, CALIFORNIA

Well No. "SFZU" PORTER #32, Sec. 27, T. 3N, R. 16W, S.B. B. & M.

Date MAY 11, 1977

Signed P. S. Magruder, Jr.

P.O. Box 3249, Terminal Annex

Los Angeles, CA 90051 (213) 689-3561

Title Agent

(Address)

(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

- 4-28-77 Moved in and rigged up California Service Rig #M-30.
- 4-29-77 Installed back flow valve. Made up and tested B.O.P.E. with water and nitrogen. Blind and pipe ram to 4000 psi and Hydril bag to 3000 psi.
- 4-30-77 Circulated gas out of drilling fluid. Released latch-in from Baker Model "D" packer. Pulled wire line fishing tools and piano wire. Laid down Baker packer latch-in and Otis "XN" No-Go. Measured and made up 482' of Hydril 2 3/8" tubing and ran on 2 3/8" tubing.
- 5- 1-77 Rig and crew idle.
- 5- 2-77 Finished running in hole with sawtooth collar on 2 3/8" Hydril CS tubing to 7848' and found no fill. Circulated hole clean. Pulled tubing above Baker packer at 7440'. Circulated bottoms up. Pulled out and laid down 19 joints 2 3/8" Hydril CS tubing. Made up Baker seal assembly and Camco safety system and tested to 5000 psi. Changed collars and hydrotested tubing while running in well.
- 5- 3-77 Made up and hydrotested in hole with 2 3/8" EUE tubing. Changed collars on tubing. Unable to stab into packer because 3/8" control line was in packer.
- 5- 4-77 Finished pulling out of hole. Made up Midway Fishing tools - ran in hole. Attempted to recover 3/8" control line (20'). Pulled out with no fish. Made up 607' of Hydril 2 3/8" tubing with sawtooth collar.

- 5- 5-77 Finished running in hole with sawtooth collar on 2 3/8" Hydril tubing and cleaned out to 7500' to clear packer. Pulled out of hole and laid down Hydril tubing. Rigged up Hydrotest. Ran Camco safety system, inspected same and hydrotested tubing while running in well. 15' ± of 3/8" control line tubing left in bottom of hole.
- 5- 6-77 Finished Hydrotesting in hole. Spaced out tubing and landed tubing with 9000# on Baker packer rig down B.O.P.E. Made up Christmas tree and tested to 5000 psi.
- 5- 7-77 Changed over from 66# drilling fluid to lease water. Rigged up Archer-Reed and set test plug in No-Go nipple. Tested packer and seals to 2500 psi for 20 minutes - O.K. Pulled test plug.

DIVISION OF OIL AND GAS
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MAY 17 1977

SANTA PAULA, CALIFORNIA

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

Report on Operations

No. T 277-123

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

Santa Paula, Calif.
June 27, 1977

DEAR SIR:

Operations at well No. "SFZU" P-32, API No. 037-00719, Sec. 27, T. 3N, R. 16W,
S.B., B & M. Aliso Canyon Field, in Los Angeles County, were witnessed
on 4/30/77. Mr. P.R. Wygle, representative of the supervisor was
present from 1400 to 1500. There were also present B. Martin, foreman

Present condition of well: No additions to the casing record since proposal dated 4/20/77.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

b

M. G. MEFFERD
~~JOHN P. MATTHEWS, JR.~~
Acting State Oil and Gas Supervisor

By

John L. Harbin Deputy

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

REPORT ON PROPOSED OPERATIONS No. P 277-140

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

Santa Paula, Calif.
May 5, 1977

DEAR SIR:

Your proposal to rework gas storage Well No. HSFZU P-32
Section 27, T. 3N, R. 16W, S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated 4/20/77, received 4/22/77, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

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

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

Blanket Bond
MD:b

M. G. MEFFERD (acting)
JOHN F. MATTHEWS, JR., State Oil and Gas Supervisor
By John L. Herdson, Deputy

DIVISION OF OIL AND GAS

APR 22 1977

Notice of Intention to Rework Well

SANTA PAULA, CALIFORNIA

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	OGD114	OGD121
	BB ✓	✓

DIVISION OF OIL AND GAS

In compliance with Section 3203, Division 3, Public Resources Code, notice is hereby given that it is our intention to rework well No. PORTER #32, API No. -, Sec. 27, 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. 8863'
- Complete casing record, including plugs and perforations:
 - 13 3/8" cemented 522'
 - 7" cemented 7600'
 - 5428' 5 1/2" landed 5428', lead seal hook wall packer
 - 394' 5 1/2" landed 7848', slotted 7581'-7848' and gravel flow packed

- Present producing zone name SESNON Zone in which well is to be recompleted -
- Present zone pressure 2600 psi New zone pressure -
- Last produced Gas Storage Well
(Date) (Oil, B/D) (Water, B/D) (Gas, Mcf/D)
 or
- Last injected _____
(Date) (Water, B/D) (Gas, Mcf) (Surface pressure, psig.)

The proposed work is as follows:

- Move in rig, kill well and install B.O.P.E.
- Pull tubing and clean out to 7848'.
- Re-run tubing with new down hole safety system.
- Return well to gas storage.

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

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

SOUTHERN CALIFORNIA GAS COMPANY
(Name of Operator)
 By P. S. Magruder, Jr.
(Name) (Date) 4-20-77
 Type of Organization Corporation
(Corporation, Partnership, Individual, etc.)

DIVISION OF OIL AND GAS

NOV 26 1975

History of Oil or Gas Well

SANTA PAULA, CALIFORNIA

OPERATOR Southern California Gas Co. FIELD Aliso Canyon

Well No. "SFZU" Porter 32, Sec. 27, T. 3N, R. 16W, S.B. B. & M.

Date 11-21, 19 75 Signed P. S. Magruder, Jr.

P. O. Box 3249, Terminal Annex
Los Angeles, California 90051P. S. Magruder, Jr.
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	
8/6/75	Moved in Baker tank, 400 barrels of 80 lb./ft. ³ brine-polymer mud, and Halliburton pump truck. Killed well with 200 barrels of mud. Bled down 5-1/2" x 7" annulus from 1350 psi to "0" psi.
8/7/75	Filled hole with 2 barrels of mud. Well dead.
8/26/75) 8/27/75)	Moving in and rigging up California Production Service rig No. D-4.
8/28/75	Finished rigging up. Filled hole and circulated until mud was gas free.
8/29/75	Installed back pressure valve in doughnut. Removed Xmas tree. Installed B.O.P.E. and tested to 2500 psi. Witnessed and approved by D.O.G. Installed pitcher nipple and flowlines.
8/30/75	Removed back pressure valve from doughnut. Pulled 2-7/8" tubing and measured out of hole. Laid down tubing jewelry. Picked up Baker model "D" latch-in packer plug. Ran plug and set in Baker model "D" packer at 7562'. Attempted to pressure test casing and plug unsuccessfully.
8/31/75) 9/ 1/75)	Rig idle.
9/2/75	Isolated leak to packer or plug at 7562, or WSO holes at 7539'. Pulled model "D" packer plug. Ran and set a new model "D" packer plug at 7562'. Well still would not hold pressure. Rigged up Byron-Jackson pump truck. With tubing at 7476', pumped a total of 23 sacks of silica sand on top of packer and plug at 7562'.
9/3/75	Tagged top of sand plug at 7455'. Pressure tested casing to 1150 psi for 10 minutes without loss. With tubing at 7445', equalized 25 ft. ³ of class "G" neat cement on top of sand plug. Circulated well for three hours while waiting on cement. Tagged top of cement at 7399'. Pulled out of hole, laying down 2-7/8" tubing.

- 9/4/75 Removed B.O.P.E., tubing, seal flange and packing. Picked up Midway spear, engaged in 5-1/2" casing and removed casing slips. Released spear. Reinstalled B.O.P.E.
- 9/5/75 Laid down a total of 134 joints of 5-1/2", 17#, J-55 extreme line casing and recovered Burns' 7", 26# hookwall packer.
- 9/6/75 Ran 7", 23# Baker model B Loc-Set retrievable bridge plug and set at 642'. Tested B.O.P.E. to 2500 psi using water and nitrogen. D.O.G. declined to witness. Pulled Baker bridge plug. Picked up 6" bit and casing scraper. Measured in hole with 3-1/2", 13.30# grade G drill pipe.
- 9/7/75 Rig idle.
- 9/8/75 Tagged top of cement plug at 7397'. Conditioned mud to 81#/ft³ and 53 seconds. Pressure tested 7" casing to 1000 psi for 10 minutes. Held o.k. Cleaned out cement and sand to 7544', 5' below WSO holes, and applied 1000 psi to casing. Pressure bled to 650 psi in 3 minutes. Circulated well.
- 9/9/75 Pulled out of hole with 6" bit and scraper. Picked up Baker Fullbore and ran back in hole to 7450'. Rigged up Halliburton pump truck. Obtained breakdown of WSO holes at 7539' with 12 ft³/min. and 3100 psi. Pumped 25 ft³ of water, followed by 115 ft³ of class "G" neat cement, followed by 10 ft³ water and displaced with 319 ft³ of workover fluid. Encountered maximum pressure of 2250 psi with no buildup. Pumped cement past holes with 25 ft³ of fluid.
- 9/10/75 Broke down holes at 7539' with 18 ft³/min. and 3000 psi. Pumped 25 ft³ water, followed by 115 ft³ of class "G" neat cement, followed by 10 ft³ water and 169 ft³ workover fluid which put cement at the tool. Closed tool and pressure went immediately to 4000 psi. Bled off and pressured again with same result. Opened tool and reversed out cement (full returns) Closed tool and pressured holes at 7539' to 4000 psi. Pressure bled off 100± psi in 5 minutes. Pulled out of hole with Fullbore. Ran in hole with 6" bit and scraper. Hit fill at 7516' (28' above holes). Cleaned out sand and cement to 7544'. Circulated hole.
- 9/11/75 Pulled bit and scraper out of hole. Ran in hole with Fullbore and set at 7419'. Broke down holes at 7539 with 8 ft³/min. and 2000 psi. Pumped 25 ft³ water, followed by 115 ft³ class "G" neat cement, followed by 10 ft³ water and displaced with 307 ft³ workover fluid (4 ft³ past tool). Waited 10 minutes and squeezed to 4000 psi. Bled off pressure and got 4 ft³ returns. Opened tool and backscuttled. No cement returns. Pulled out of hole with Fullbore.

- 9/12/75 Ran in hole with 6" bit and scraper. Tagged top of cement at 7421'. Cleaned out cement to 7544'. Tested 7" casing and holes at 7539' to 1680 psi for 10 minutes. Held okay. Cleaned out cement and sand to 7551'. Pulled out of hole with bit and scraper.
- 9/13/75 Ran in hole with Baker retrieving tool. Washed out sand 7551' to 7560'. Pulled Baker latch-in plug out of packer at 7560'. Circulated and pulled out of hole with plug. Ran back in hole with Baker C-J packer mill.
- 9/14/75 Rig idle.
- 9/15/75 Milled packer loose. Pulled out of hole with packer. Made up 4" Economill and 5" scraper.
- 9/16/75 Ran in hole to junk at 7727'. Milled on junk to 7755'. Rubber and metal returns. Mill would go no deeper. Had difficulty pulling out of liner. Mill and scraper pulled very tight and hung up several times. Pulled out of hole. Recovered a 6" cylinder of metal on top of scraper segments that looked like the bottom of a model "D" packer. Lost two scraper segments. Laid down scraper. Ran in hole with Economill.
- 9/17/75 Milled junk 7755' to 7767'. Would not go deeper. Pulled out of hole (mill was tight in liner again). Laid down Economill. Picked up a Servco 4-1/8" junk mill. Ran in hole.
- 9/18/75 Had to rotate tools through top of liner. Milled out junk from 7767' to 7871'. Circulated hole clean. Pulled out of hole. Laid down mill and tools. Ran back in hole with Midway casing cutter.
- 9/19/75 Cut 5" liner at 7585'. Pulled out of hole with cutter. Ran back in hole with Midway spear and jars.
- 9/20/75 Stabbed spear into 5" liner and started jarring. Hanger came free after 45 minutes. Pulled out of hole with spear. Recovered Burns lead seal hanger and 25' of 5" liner. Ran back in hole with Servco 4-1/8" x 5-3/4" pilot mill #1.
- 9/21/75 Rig idle.
- 9/22/75 Conditioned to 81#/ft³, 48 seconds. Milled 5" liner 7585' to 7620'. Made 35' in 6 hours when mill started sticking. Circulated and pulled out of hole.
- 9/23/75 Picked up Servco pilot mill #2 and ran back into hole to 7620'. Milled 5" liner from 7620' to 7674'. Made 54' in 9 hours. Circulated hole.

- 9/24/75 Continued milling liner to 7690'. Made 16' in 4 hours. Circulated and pulled out of hole. Made up Servco pilot mill #3. Ran back in hole. Weight: 81#/ft³; viscosity: 48-49 sec.
- 9/25/75 Milled on 5" liner from 7690' to 7767'. Circulated hole.
- 9/26/75 Pulled out of hole. Picked up Servco pilot mill #4. Ran back in hole to 7767'. Continued milling liner to 7804'. Circulated hole.
- 9/27/75 Continued milling. Mill stuck at 7809'. Pulled mill free. Circulated and pulled out of the hole. Mill showed complete wear. Six joints showed complete wear at the collar and one joint showed a perforation on the body of the pipe. Picked up Servco mill #5 and ran back in the hole.
- 9/28/75 Rig idle.
- 9/29/75 Reamed hole to 7809'. Milled 5" liner from 7809' to 7843'. Pump lost efficiency and mill started torquing up. Replaced valves and heads in mud pump, and circulated hole.
- 9/30/75 Milled 5" liner from 7843' to 7867', bottom of hole. Circulated and pulled out of hole. Broke off Servco pilot mill. Picked up Tri-State 6" x 13" hole opener. Ran in hole.
- 10/1/75 Opened 6" hole to 13" from 7600' to 7681' (81' in 6 hours). Pulled out of hole. Cones showed very little wear and were frozen. Broke off opener and made up Tri-State opener #2. Ran in hole.
- 10/2/75 Reopened 6" hole to 13" hole from 7600' to 7656'. Circulated and pulled out of hole. Broke off opener #2. Made up hole opener #3 and ran in hole. Mud characteristics: 8#/ft³, 45 seconds.
- 10/3/75 Opened 6" hole to 13" hole from 7656' to 7688'. Circulated and pulled out of hole. Lost all three cones. Made up hole opener #4. Ran in hole.
- 10/4/75 Opened 6" hole to 13" hole from 7688' to 7695' when the bearings on the rotary table gave out. Rig shut down at 12:00 noon to repair rotary table.
- 10/5/75 Rig idle.
- 10/6/75 Opened 6" hole to 13" hole from 7695' to 7710'. Circulated hole.
- 10/7/75 Pulled out of hole. Broke off opener. Made up 6-1/8" bit. Ran in hole and cleaned out fill from 7710' to 7858'. Bit would go no deeper. Circulated hole.

- 10/8/75 Pulled out of hole. Broke off bit. Made up hole opener #5. Ran in hole. Opened 6-1/8" hole to 13" from 7710' to 7741'. Circulated hole.
- 10/9/75 Pulled out of hole. Made up hole opener #6. Ran in hole. Opened 6-1/8" hole to 13" hole from 7741' to 7774'. Made 34' in 4 hours. Circulated and pulled out of hole.
- 10/10/75 Made up hole opener #7. Opened 6-1/8" to 13" hole from 7774' to 7802'. Circulated and pulled out of hole. Made up hole opener #8.
- 10/11/75 Ran in hole. Made no footage for two hours. Hole opener would bind completely at 7803'. Circulated and pulled out of hole. Pilot nose of hole opener #8 was twisted off, apparently stuck at 7803'. Decided to run a 6" junk mill but none was available this day.
- 10/12/75 Rig idle.
- 10/13/75 Made up Servco 6" junk mill. Ran in hole to 7807'. Milled down to 7865'. Circulated and pulled out of hole. Broke off junk mill. Made up Tri-State 6" x 13" hole opener #9.
- 10/14/75 Ran in hole. Opened 6-1/8" hole to 13" hole from 7807' to 7833'. Made 26' in 5 hours. Circulated and pulled out of hole. Made up hole opener #10. Ran in hole.
- 10/15/75 Opened 6-1/8" hole to 13" hole from 7833' to 7837'. Opener began to torque up. Pulled out of hole. Broke off opener. Made up a new Servco 6" junk mill. Ran in hole.
- 10/16/75 Milled on junk from 7837' to 7866'. Circulated and pulled out of hole. Broke off Servo mill. Made up Tri-State 6" x 13" hole opener #11. Ran in hole. Opened 6-1/8" hole to 13" hole from 7837' to 7847'. Made 10' in 2-3/4 hours. Circulated hole.
- 10/17/75 Pulled out of hole. Pilot nose was twisted off. Broke off opener and made up Servco 6" junk mill. Ran in hole.
- 10/18/75 Milled for 1-1/2 hours and made one foot to 7855'. Circulated and pulled out of hole. Broke off mill. Made up 6" x 13" Tri-State hole opener #12. Ran back in hole. Gauged 13" hole from 7600' to 7847'. Opened 6-1/8" hole to 13" hole from 7847' to 7850'. Circulated hole.
- 10/19/75 Rig idle.
- 10/20/75 Pulled out of hole. Broke off hole opener. Rigged up Welex wireline unit. Ran caliper log from 7850' to 7600. Broke out Welex equipment. Made up used Servco 6" junk mill. Ran in hole to 7850', no fill. Circulated hole and changed fluid to a new 81#/ft³, 38 sec. system. Pulled out of hole.

10/21/75 Broke off mill. Measured and made up 394' of 5" liner as follows:

Top of liner		7454.55
Burns 5", 18# x 7", 29# lead seal hanger with hold down slips	3.57	7458.12
Burns port collar	2.40	7460.52
4 joints, 5", 18#, K-55 security flush joint slotted 2" x 30 mesh with top 10' blank, equipped with 5 centralizing fins, 6" O.D., welded	33.58	7494.10
	17.12	7511.22
	33.70	7544.92
	36.91	7581.83
9 joints 5", 18#, N-80, 8 rd T & C 0.018 gauge "Gru-V-Kut" wire/weld screen equipped with 8 B&W 5" x 13" centralizers at each joint	32.10	7613.93
	26.41	7640.34
	28.90	7669.24
	30.87	7700.11
	30.31	7730.42
	25.98	7756.40
	30.40	7786.80
	30.72	7817.52
	30.58	7848.10
5" bull plug	0.45	7848.55

Total liner length 394.00'

Also made up Burns liner hanger, Burns port collar and gravel packing tools. Landed liner at 7849' with top at 7455. Set Burns 7", 29# x 5", 18# lead seal hanger with hold down slips at 7455' and tested same to 1100 psi. Held okay. Rigged up Halliburton pump truck, Burns equipment, and began gravel packing.

10/22/75 Circulated in a total of 229 ft³ of 8-12 gravel. Reversed out 4 ft³. Total pack behind liner is 225 ft³. Pulled out of hole. Broke off Burns gravel packing tools. Made up Burns wash tools. Ran back in hole.

10/23/75 Tagged fill at 7758 (92'). Washed perforations from that point to 7470' using Halliburton pump truck. Pulled to top of liner and circulated hole. Chained out of hole. Broke off Burns wash tools. Made up Burns gravel packing tools and ran back in hole. Circulated in 12 ft³ when gravel packed off. Backscuttled 4 ft³ of gravel, leaving a total of 233 ft³ of 8-12 gravel behind liner.

- 10/24/75 Pulled out of hole. Broke off Burns gravel packing tools. Made up sawtooth collar. Ran back in hole to 7849'. No sign of fill. Circulated and pulled out of hole. Made up Burns wash tools with thimbles turned down to 3-7/8". Ran back in hole.
- 10/25/75 Washed 5" liner from 7848' to 7470'. Pulled out of hole. Broke off Burns wash tools. Made up Burns gravel packing tools. Ran back in hole.
- 10/26/75 Rig idle.
- 10/27/75 Circulated hole. Pumped in 11 ft³ of 8-12 gravel when liner packed off. Backscuttled 5 ft³, leaving 6 ft³ in place, making a total of 239 ft³ of gravel packed behind liner. Closed Burns port collar and tested to 750 psi for 10 minutes. Held okay. Pulled out of hole. Broke out Burns gravel packing tools and equipment. Rigged up McCullough wireline unit. Made up casing inspection log tools. Logged down at 200 ft/sec. Logged casing up at 40 ft/sec. from 7450' to 4350' when tools shorted out. Pulled out of hole. Casing inspection tools could not be repaired in the field. Made up Baker model "D", 7", 29# packer. Ran and set packer at 7438'. Pulled out of hole and rigged down McCullough. Made up Baker model "D" latch-in plug.
- 10/28/75 Ran in hole. Set Baker latch-in plug in model "D" packer at 7438'. Tested plug and casing to 1100 psi for 10 minutes. Held okay. Conditioned hole fluid with inhibitors. Pulled out of hole laying down drill pipe. Mud: 80#/ft³ (inhibited); 38 seconds.
- 10/29/75 Rigged up McCullough wireline unit. Ran casing inspection log from 7400' to surface. Broke out McCullough.
- 10/30/75 Rigged up Schlumberger wireline unit. Ran PAL log from 7400' to surface. Attempted to run ETT log. Tool failed.
- 10/31/75 Changed 3-1/2" pipe rams to 2-3/8" rams. Made up Baker latch-in plug retrieving tool. Measured in hole.
- 11/1/75 Pulled Baker latch-in plug from model "D" packer. Circulated and pulled out of hole. Laid down latch-in plug. Picked up a modified Baker latch-in plug which is turned down to 4.000 maximum I.D. Ran in hole and set latch-in plug in model "D" packer at 7438'. Tested plug by pumping down casing to 1000 psi for 10 minutes. Held okay. Circulated and pulled out of hole.
- 11/2/75 Rig idle.

- 11/3/75 Rigged up Schlumberger wireline unit. Ran ETT tools and logged hole from 7410' to surface. Rigged down Schlumberger. Replaced 2-3/8" pipe rams with 5-1/2" rams. Made up Burns 5-1/2", 17# x 7", 26# hookwall packer with a lead seal on bottom joint of 5-1/2", 17#, J-55 extreme line casing
- 11/4/75 Hydrotested in a total of 135 joints of 5-1/2" casing and set Burns hookwall packer at 5428'. Tested lead seal to 2500 psi for 10 minutes. Held okay.
- 11/5/75 Landed 5-1/2" casing with 60,000# on slips and 25,000# on hookwall packer. Installed packing, secondary seal flange, and 6" tubing head. Pressure tested packing and seal flange to 3500 psi for 20 minutes with no loss. Reinstalled B.O.P.E. Tested blind rams, 2-3/8" pipe rams and Hydril at 2500 psi for 15 minutes with no loss. D.O.G. declined to witness. Made up Baker latch-in plug retrieving tool on 2-3/8" tubing. Ran in hole.
- 11/6/75 Pulled model "D" latch-in plug from 7438'. Circulated hole clean. Pulled out of hole. Broke off plug and retrieving tool. Made up 2-3/8" tubing string as follows:

	<u>Length</u>	<u>Depth</u>
K.B.	9.00	9.00
Doughnut	0.60	9.60
3 pup joints 2-3/8"	8.80	18.40
237 joints, 2-3/8", 4.7#, J-55, 8 rd EUE tubing	7321.11	7339.51
Camco type "C" sliding sleeve (closed), 3.063 O.D., 1.938 I.D. (jar down to open) (closed)	2.79	7342.30
1 joint 2-3/8", 4.7#, J-55 tubing	31.10	7373.40
Camco safety system (empty)*, 4.531 max. O.D., 1.875 min. I.D.	23.33	7396.73
1 joint 2-3/8", 4.7#, J-55 tubing	31.12	7427.85
Baker blast joint, 3.062 O.D., 1.995 I.D.	10.05	7437.90
Otis type "XN" No-go ripple, 2.375 O.D., 1.791 I.D.	1.25	7439.15
Baker latch-in sub and 2 seal units, 3.25 max. O.D., 2.406 min. I.D.	3.00	7442.15

* See next page for detail

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Report on Operations

No. T 275-315

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

Santa Paula, Calif.
Sept. 30, 1975

DEAR SIR:

Operations at well No. "SP2U" P-32, API No. 037-00719, Sec. 27, T. 3N, R. 16W,
S.B. B & M, Aliso Canyon Field, in Los Angeles County, were witnessed
on 8/29/75. Mr. P.R. Wygle, representative of the supervisor was
present from 1800 to 1900. There were also present I. Giallonardo, engineer

Present condition of well: No additions to casing record since proposal dated 7/3/75.

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

DECISION:

THE BLOWOUT PREVENTION EQUIPMENT AND INSTALLATION ARE APPROVED.

B

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

By [Signature] Deputy

RECEIVED
JUL 11 1975
SANTA PAULA, CALIFORNIA

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. July 3 1975

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. PORTER #32 "SFZU" P-32

(Cross out unnecessary words)

Sec. 27, T. 3N, R. 16W, S.B. B. & M.
Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

1. Total depth. 7994'

2. Complete casing record, including plugs:
13 3/8" cemented 522'

7" cemented 7600', leak 4510'-4590'
sealed with cement and pressure tested to 1550 psi
5 1/2" 17# J-55 extreme line landed 5426' with
lead seal on bottom. Pressure tested to 2500 psi.

307' 5" landed 7867', top 7560', slotted 7591'-7867'
scabbed with cement 7730'-7700' and 7670'-7640'
two 1/2" jet holes per foot 7762'-7742' and four
1/2" jet holes per foot 7700'-7668' and 7652'-7620'.
Plugged with cement 7990'-7870'.

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

The proposed work is as follows:

1. Move in rig and crew. Kill well. Install and test B.O.P.E.
2. Pull 5 1/2" inner string.
3. Mill up packer. Cut and recover - mill as required to remove 5" liner.
4. Open 6" hole to 13" 7600'-7870'.
5. Land approximately 400' of wire wrapped and slotted liner at 7865'. Gravel flow pack with 8-12 gravel.
6. Set packer. Re-run 5 1/2" inner string.
7. Run tubing and complete as gas storage well.

P. O. Box 3249, Terminal Annex
Los Angeles, (Address) California 90051
(213) 689-3561
(Telephone No.)

SOUTHERN CALIFORNIA GAS COMPANY
(Name of Operator)
By P. S. Magruder, Jr.

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED

OCT 24 1974

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Co. FIELD Aliso Canyon SANTA PAULA, CALIFORNIAWell No. Porter #32, Sec. 27, T. 3N, R. 16W S.B.B. & M.Date October 16, 19 74 Signed P. S. MagruderP. O. Box 54790, Terminal AnnexLos Angeles, Calif. 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	
1974	
9-9	Moved in California Production service rig and mud pump. Rigging up.
9-10	Rigging up. Unloading casing and drill pipe.
9-11	Tried to establish circulation down tubing under 2000 psi with no success. Mixed and pumped 90 bbls. of calcium chloride-polymer drilling fluid - 75#/cu. ft. with 50 sacks of Kwik Seal and pumped down annulus. Displaced with 50 bbls. brine-polymer drilling fluid to leak in 7" casing.
9-12	Hole was standing full. Pumped 10 bbls. brine-polymer drilling fluid down annulus with partial returns. Attempted to pump down tubing with no success. Ran McCullough 2-1/8" deflecting bullet gun which stopped at 5040'. Ran 1-1/4" x 11" sinker bar on piano wire and same went freely to 7524'. Ran 2-1/2" torpedo on 1-1/2" sinker bar and same went freely to 7477'. Installed B.O.P.E.
9-13	Tested B.O.P.E. to 1050 psi Ok. Pulled tubing, dragging for 1st three joints and then pulled freely. Layed down tubing. Removed 1/4" line and clamps, leaving 15 clamps in well. Ran in well to 1000' with 6" bit, casing scraper, two 4-3/4" drill collars while making up 2-7/8" drill pipe.
9-14	Ran in well with 6" bit and casing scraper making 2-7/8" drill pipe. Installed one drill pipe rubber protector per joint.
9-15	Idle.

- 9-16 Continued picking up drill pipe and installing rubber protectors. Located top of junk and fill at 7503'. Rotated and circulated to top of Baker permanent packer at 7557' (original depth 7554'). Circulated clean, removing lost circulation material from drilling fluid. Pulled part way out of hole.
- 9-17 Finished pulling out of well with 6" bit and casing scraper. Ran in well with reverse circulating junk basket. Cleaned out fill 7536'-7557'. Dropped ball and circulated for 30 minutes. Pulled part way out of well.
- 9-18 Pulled out of well with reverse circulating junk basket with no recovery of junk. Ran 6" magnet of sand line twice with no recovery. Picked up 11' joints of 2-3/8" tubing and ran same on bottom of 2-7/8" drill pipe to 7554'.
- 9-19 Ran 2-3/8" tubing through Baker permanent packer and stopped on fill at 7560'. Rotated and circulated, cleaning out to bottom of 5" liner at 7867'. Pulled out of well - sawtooth collar was worn smooth. Ran in well with Baker retrievable plug for Baker permanent packer.
- 9-20 Ran Baker plug for Baker permanent packer and set in same at 7554' (latch-in type). Using Dowell power equipment, pumped 20 cu. ft. of fresh water followed with 10 sacks of sand mixed with 30 cu. ft. of fresh water. Displaced sand slurry with 152 cu. ft. of drilling fluid. Flowed back through drill pipe. Pumped additional drilling fluid down drill pipe but still flowed back. Pulled drill pipe to 7050' and circulated for 2 hours. Located top of sand at 7538'. Pulled out of well and ran Baker fullbore retainer to 4600'.
- 9-21 Using Baker fullbore retainer and Dowell power equipment, located leak in 7" casing 4510'-4590'. Set Baker retainer at 4378'. Obtained breakdown under 1700 psi at 20 cu. ft./minute. Using Dowell power and bulk equipment, pumped 20 cu. ft. fresh water, 115 cu. ft. of Class "G" cement mixed with 2% calcium chloride to an average slurry of 116#/cu. ft. and displaced with 10 cu. ft. of fresh water and 142 cu. ft. of drilling fluid. Calculated displacement to bottom of leak at 4590'. Final pressure was 1700 psi, which bled off to 1250 psi in 5 minutes. Waited 2-1/2 hours. Obtained breakdown under 2200 psi at 12 cu. ft. per minute rate.

- 9-21 Pumped 20 cu. ft. of water, 115 cu. ft. of Class "G" cement mixed with 2% calcium chloride to an average slurry of 116#/cu. ft. and displaced with 10 cu. ft. of water and 117 cu. ft. of drilling fluid to displace top of cement to 4445'. Required 23 minutes to mix and displace cement, finished at 2:43 PM. Final pressure, 2000 psi which dropped to 1500 psi when stopped pumping. Pulled out of well with fullbore retainer.
- 9-22 Idle.
- 9-23 Pressure tested cement plug to 1500 psi Ok. Removed B.O.P.E., spool and tubing head (sent same to machine shop for boring to land 5-1/2" casing). Installed spools and B.O.P.E. Tested blind rams and pipe rams to 2500 psi, using clear water. Tested Hydril bag with 1500 psi, using clear water. Ran 6" bit and casing scraper to 1750'.
- 9-24 Ran in well with 6" bit and casing scraper. Drilled out cement 4432'-4583'. Pulled out of well. Ran Baker fullbore retainer and set at 4378'. Using Dowell power equipment, obtained breakdown under 2000 psi at 12 cu. ft. per minute. Using Dowell power and bulk equipment, pumped 20 cu. ft. of fresh water and 132 cu. ft. of Dowell expanding cement mixed to average 111#/cu. ft. slurry. Displaced with 10 cu. ft. of fresh water and 118 cu. ft. of drilling fluid to displace top of cement to 4450'. Thirty-two minutes mixing and pumping to place - finished at 7:07 PM. Final pressure, 2500 psi which fell to 1900 psi in 5 minutes. Pulled Baker retainer to 2000'.
- 9-25 Finished pulling out of well with Baker fullbore retainer. Ran 6" bit and casing scraper and drilled out cement 4420'-4585'. Using Dowell power equipment, pressure tested leak in casing which bled off from 1600 psi to 1450 psi in 30 minutes. Pulled bit to 2000'.
- 9-26 Pulled out of well with bit. Ran Baker fullbore retainer and set at 4378'. Using Dowell power equipment, obtained breakdown at 2500 psi at one cu. ft. per minute. Set retainer at 4498', displace water to tool, breakdown same as with drilling fluid. Set retainer at 4620', applied 2500 psi from 4620' to sand plug at 7530' with no decline in pressure. Pulled retainer out of well and ran back to 4600' with open end drill pipe. Using Dowell power and bulk equipment, pumped 10 cu. ft. of fresh water, 66 cu. ft. of Dowell expanding cement and displaced with 109 cu.

Porter 32 History (Cont'd)

Page 4

1974

- 9-26 ft. of drilling fluid. Pulled drill pipe to 4120', closed pipe rams, squeezed away 10 cu. ft. of cement under a final pressure of 2500 psi. Total of 45 minutes mixing, pumping and squeezing. Finished at 5:05 PM. Pulled out of well, removing rubber drill pipe protectors.
- 9-27 Pulled out of well. Removed B.O.P.E. Reinstalled tubing head bored to land 5-1/2" casing. Reinstalled B.O.P.E. and tested flanging to 2500 psi Ok. Ran 6" bit and casing scraper. Drilled out cement 4375'-4609' and circulated clean.
- 9-28 Pressure tested 7" casing leak 4510'-4590' under 1500 psi which bled off to 1200 psi in 30 minutes. Pulled out of well with bit and scraper. Ran open end 2-7/8" drill pipe to 4600'. Using Dowell power and bulk equipment, pumped 10 cu. ft. fresh water and 66 cu. ft. Dowell expanding cement mixed to an average 111#/cu. ft. slurry. Displaced with 108 cu. ft. of drilling fluid. Pulled drill pipe to 4120', closed B.O.P.E. and squeezed away 10 cu. ft. of cement under final pressure of 2600 psi. Bled off to 2550 psi in 15 minutes. A total of 35 minutes mixing, displacing and squeezing. Finished at 2:45 PM. Pulled out of well and ran 6" bit and casing scraper to 2000'.
- 9-29 Idle.
- 9-30 Ran in well with 6" bit and casing scraper. Drilled out cement 4345'-4600' and circulated well clean. Pulled out of well and ran back to 4600' with open end drill pipe.
- 10-1 Using Dowell power equipment, pressure tested leak in 7" casing (4510'-4590') under 1550 psi for 42 minutes with no decline in pressure. Pulled out of well. Ran 6" bit and casing scraper and cleaned out fill and sand 7305'-7547'. Circulated well clean. Displaced brine-polymer drilling fluid with 75#/cu. ft. inhibited calcium chloride water. Pulled bit to 1200'.
- 10-2 Pulled drill pipe out of well. Installed 5-1/2" casing rams. Tested 5-1/2" rams to 2250 psi. Ran 5-1/2", 17# J-55 extreme line casing with Burns lead seal hook wall packer on bottom to 4160'. Measured and hydrottested casing to 3000 psi while picking up and running.

1974

- 10-3 Continued running 5-1/2" 17# J-55 extremeline casing. Landed casing at 5426' and set lead seal in Burns hook wall packer. Applied 2500 psi down 5-1/2" casing and tested lead seal for 30 minutes with no pressure decline. Unflanged B.O.P.E. Set slips in rebored tubing head and landed 5-1/2" casing with 25,000# on lead seal and 60,000# on slips. Welder cut off 5-1/2" casing 8" above tubing head. Installed packing on 5-1/2" casing. Reflanged B.O.P.E. and ran drill pipe to 1200'. (Casing details attached)
- 10-4 Pulled drill pipe. Removed B.O.P.E. Installed 8" x 6" secondary seal flange, 6" tubing head, cross-over flange and B.O.P.E. Injected plastic in seal flange and in seal in bottom of tubing head under 4000 psi. Tested seals to 3500 psi. Installed 2" valves in tubing head, reconnected blowdown and circulating lines. Pressure tested B.O.P.E. and flanges to 2500 psi Ok. Ran Baker retrieving tool on 2-7/8". Removed balance of drill pipe rubber protectors.
- 10-5 Mixed polymers with 75#/cu. ft. calcium chloride water to viscosity of 39 seconds. Circulated out sand 7547'-7557' and latched onto plug. Pulled out of well, laying down 2-7/8" drill pipe. Pulled pipe to 1200' and secured well.
- 10-6 Idle.
- 10-7 Finished laying down 2-7/8" drill pipe. Recovered Baker plug. Made up production tube, 5 seals, locator sub, (XN) No Go nipple, two (X) nipples and open sliding sleeve. Ran 2-7/8" EUE 8rd. tubing - drifting and hydrotesting to 4500 psi. Stabbed into Baker Model "D" packer at 7556'. Landed tubing at 7567' with 8000# on packer and balance of weight on doughnut. (Tubing details attached)
- 10-8 Installed back pressure valve in doughnut. Removed B.O.P.E. Installed Xmas tree. Tested tree and doughnut to 3700 psi Ok. Circulated brine-polymer drilling fluid out of well with lease salt water. Moved out.

1974

TUBING DETAIL

<u>Item</u>	<u>Length</u>	<u>Depth</u>
Below K. B.	9.15	9.15
Donut	.80	9.95
247 jts. 2-7/8" 8rd. J-55 tubing	7444.15	7458.10
Otis 2-7/8 x 121 x 8 sliding sleeve (Open)	3.16	7461.26
1 jt. 2-7/8" 8rd. J-55 tubing	31.30	7492.56
Otis 2-7/8 x 2.313 X landing nipple	1.04	7493.60
1 jt. 2-7/8" 8rd. J-55 tubing	31.80	7525.40
Otis 2-7/8" x 2.313 X landing nipple	1.03	7526.43
1 jt. 2-7/8" 8rd. J-55 tubing	27.74	7554.17
Otis 2-7/8" x 2.205 X-N nipple	1.19	7555.36
Baker packer locator sub	1.05	7556.41
Baker seals Model "D" packer (5 units)	5.25	7561.66
Production tubing	5.27	7566.93

DIVISION OF OIL AND GAS
RECEIVED

DIVISION OF OIL AND GAS

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

SEP 12 1974

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

Los Angeles Calif. September 9, 1974

SANTA PAULA, CALIFORNIA

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. Porter #32

SFZU P-32

(Cross out unnecessary words)

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

Aliso Canyon Field, Los Angeles County.

The present condition of the well is as follows:

DIVISION OF OIL AND GAS
RECEIVED

SEP 12 1974

SANTA PAULA, CALIFORNIA

1. Total depth. 7994' Plug 7870'

2. Complete casing record, including plugs:

- 13-3/8" 54.5# cmt'd. 522'
- 7" 23, 26 & 29# cmt'd. 7600'
- 307' 5" 18# landed 7867', perf'd. 7591'-7867' 2" x 80 mesh, 10 rows, 6" centers, 6° undercut. Top liner 7560'. Liner scabbed with cement 7640'-7670' & 7700'-7730'. Perf'd. with four 1/2" holes per foot 7652'-7620' & 7700'-7668'.
- WSO on shoe of 7" at 7600'.
- Hole or holes in 7" casing near 4700'.

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

The proposed work is as follows:

- 1. Pull tubing and determine condition of 7" casing.
- 2. Seal leak in 7" casing with cement.
- 3. Land approximately 5400' of 5½" extremeline 17# casing with lead seal and rubber pack-off on bottom.
- 4. Recomplete as gas storage well.

Map	MAP OK	GAS	WATER	FORMS	
				134	121
			BB	✓	✓

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. S. Magruder, Jr.
P. S. 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 26, 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. 27, 28, 34, 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: (formerly owned by Getty Oil Co.)

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. Backy*
Deputy Supervisor

Proposed Changes of Well Designation

<u>Old Designation:</u>	<u>New Designation:</u>
Sec. 27:	
"Fernando Fee" 32	"SFZU" FF-32 (037-00686)
"Porter" 12	" P-12 (037-00701)
" 30	" P-30 (037-00717)
" 31	" P-31 (037-00718)
" 32	" P-32 (037-00719)
" 36	" P-36 (037-00723)
" 37	" P-37 (037-00724)
" 45	" P-45 (037-00732)
Sec. 28:	
"Porter" 4	"SFZU" P-4 (037-00699)
" 25	" P-25 (037-00712)
" 26	" P-26 (037-00713)
" 34	" P-34 (037-00721)
" 35	" P-35 (037-00722)
" 38	" P-38 (037-00725)
" 39	" P-39 (037-00726)
" 40	" P-40 (037-00727)
" 41	" P-41 (037-00728)
" 42	" P-42 (037-00729)
" 43	" P-43 (037-00730)
" 44	" P-44 (037-00731)
" 46	" P-46 (037-00733)
" 47	" P-47 (037-00734)
"Porter-Sesnon" 42	" PS-42 (037-00753)
Sec. 34:	
"Fernando Fee" 31	"SFZU" FF-31 (037-00685)
" 33	" FF-33 (037-00687)
" 34	" FF-34 (037-00688)
" 35	" FF-35 (037-00689)
"Mission-Adrian Fee" 3	" MA-3 (037-00693)
" 4	" MA-4 (037-00694)
" 5	" MA-5 (037-00695)

DIVISION OF OIL AND GAS

FEB 23 1973

History of Oil or Gas Well

LONG BEACH, CALIFORNIA

OPERATOR Pacific Lighting Service Co. FIELD SANTA ANITA Aliso Canyon

Well No. SFZU P-32, Sec. 27, T. 3N, R. 16W, SB B. & M.

Date 2-21-73, 19 Signed P. B. Maguire

P.O. Box 54790, Terminal Annex
Los Angeles, CA (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.

1972

Date

- 11-14 Moved in CPS "D" type rig. Pulled Otis D-plug at 4543' from 2-7/8" tubing and Camco gas lift valve from 7442'.
- 11-15 Killed well with lease salt water. Found tubing landed on flange.
- 11-16 Ran Otis type XX plug and plugged tubing at 7588'.
Removed tree and stripped on Class III BOPE and tested to 1000 psi.
Retrieved XX plug.
Found tubing stuck deep. Worked two hours without freeing.
- 11-17 Ran McCullough free point tool which stopped at 7650' but tubing free to that depth. Cut 2-3/8" tubing at 7630'.
Fish is 83' 2-3/8" tubing and 2' Guiberson GW-2 cup packer. Pulled tubing and KV-30 packer.
- 11-18 Ran 4-1/8" socket which stopped at 7566', 6' inside 5" liner.
Ran 3-5/8" socket and jars and jarred on fish three hours without moving.
- 11-19 Idle
- 11-20 Jarred on fish one hour without moving. Pulled socket. Ran 124' of 3-1/4" x 3-3/4" wash pipe and shoe with jars and bumper sub. Washed over fish from 7634' (re-measured) to top cup on packer at 7730', cleaning out fine sand last 35'.
- 11-21 Pulled wash pipe. Ran fishing tools and recovered all of fish. Ran 7" scraper in 7" casing to top of liner at 7560'.
- 11-22 Ran 5" scraper and 3-7/8" bit and circulated out fill from 7716' to bottom at 7867'.
- 11-23 Idle

SFZU P-32 History (cont'd)

Page 2

1972

- 11-24 Ran Dia-Log Caliper survey in 7" casing from 7560' to surface indicating only 59.1% original wall thickness remaining at 4723' to 4732'. Ran Dresser-Atlas Neutron Lifetime log from 7859' to 7500'. Ran Cement Bond log 7855' to 4700'.
- 11-25 Ran Schlumberger Electronic Casing Inspection log in 7" casing from 7560' to 500' indicating some thinning at 4723' to 4732' but 94.7% original wall thickness remaining. Set bridge plug in 7" casing at 7558' and tested to 1000 psi, OK.
- 11-26 Idle
- 11-27 Removed BOPE and tubing head. Unlanded 7" casing with 200,000 pounds. Removed 13-3/8" casing head and welded 12" extension on 7" casing.
- 11-28 X-rayed 7" weld, no good. Repaired 7" weld then discovered extension was out-of-line. Cut out 7" weld and re-welded.
- 11-29 X-rayed 7" weld, no good. Repaired and X-rayed 7" weld, OK. Welded on new 13-3/8" 5000 psi casing head by making butt weld in 13-3/8" surface pipe 8" above cellar floor. X-rayed 13-3/8" weld, OK. Relanded 7" casing with 200,000 pounds.
- 11-30 Installed new 5000 psi tubing head and seal flange and tested seals to 3280 psi for 15 minutes, OK. Installed and tested BOPE to 2000 psi, OK. Ran Lynes shoot and test tool. Shot four 1/2" holes at 7540'. Pulled up and set packer at 7450' with tail to 7475'. Had medium blow throughout one hour test. Gas to surface in twenty-seven minutes. Had 200' rise kill fluid. I.F.P. 30 psi, F.F.P. 35 psi. Charts, OK.
- 12-1 Set Baker full bore squeeze packer at 7500' on 2-7/8" tubing and broke down holes at 7540' with 8 cu ft/min at 2100 psi. Dropped into 7531' and displaced two sacks sand on bridge plug at 7558' filling 7" to 7548'. Set squeeze tool at 7437'. Using Dowell, pumped in 20 cu ft of water and 100 sacks Class "G" cement with 0.1% D-13 retarder and 1% Flac fluid loss additive. Squeezed out 109 cu ft cement through holes at 7540' with final pressure of 2100 psi. CIP 11:00 am. Shut-in with 2000 psi until 1:30 pm. Ran in with 6" bit and 7" casing scraper.
- 12-2 Found top of cement at 7459' and drilled out hard cement to 7541' and ran in to 7545'. Using Dowell pump truck, tested 7" from surface to bridge plug at 7558' and holes at 7540' with 2200 psi. Bled off 200 psi in three minutes. Pulled Bit. Ran Baker packer and tested 7" casing from 3700' to surface with 2500 psi for 15 minutes OK and from 7497' to surface with 2200 psi for 20 minutes, OK. With packer at 7497', pumped four cu ft/min at 3200 psi through holes at 7540'.

1972

- 12-3 Ran Go-International through-tubing ceramic 24 gram jet and shot four 1/2" holes at 7541'. Re-set squeezed tool at 7374'. Broke down holes at 7541' with 12 cu ft/min at 3200 psi. Using Dowell, mixed and pumped in 100 sacks Class "G" cement with 0.1% D-13 retarder and 0.5% D-60 Flac fluid loss additive. Preceded cement with 20 cu ft fresh water. Squeezed out 90 cu ft cement at 4000 psi, slowed pump and squeezed out additional 8 cu ft cement at 3000 psi. Stopped five minutes then pumped 2 cu ft building pressure to 4000 psi. Calculated 100 cu ft cement out holes at 7541'. Calculated top 7463'. CIP 2:00 pm.
- 12-4 Pulled packer from 7374' and set at 2227'. Using Dowell pump truck, pressure tested 7" casing from 2227' to surface at 3000 psi for 20 minutes OK. Ran 6" bit and 7" casing scraper. Found top of cement at 7470' and drilled out firm cement to 7543' and cleaned out to 7545'. Using Dowell pump truck, pressure tested holes at 7541' with 2200 psi for 15 minutes OK.
- 12-5 Ran Johnston shoot and test on 2-7/8" tubing. Shot four 1/2" holes at 7539'. Set packer at 7476' with tail to 7502'. Test tool open one hour. Had very weak diminishing blow throughout one hour test. Recovered 80' rise kill fluid in 2-7/8" tubing. Charts OK. I.F.P. 48 psi, F.F.P. 48 psi. WSO and GSO, not witnessed by DOG. Left in hole two 2" x 1" steel shot covers from Johnston gun. Ran 6" magnet on sand line, no recovery.
- 12-6 Ran Cavins surge tool and recovered the two Johnston shot covers. Pulled bridge plug from 7558'. Ran 3-7/8" bit and 5" casing scraper and drilled out bridge at 7807' to 7809' and cleaned out to bottom at 7867'.
- 12-7 Using Dresser-Atlas 3-1/2" hollow gun and NCF III 11 gram Golden Jet, re-perforated two 0.31" holes per foot from 7762' to 7742' and four 0.31" holes per foot from 7700' to 7668' and 7652' to 7620'. Attempted to re-perforate from 7850' to 7812' but 3-1/2" x 10' gun and 3-1/8" x 10' guns stopped at 7784'. Ran 2-5/8" bailer, worked through tight hole at 7784' and ran to bottom at 7867' finding no fill. Re-ran 3-1/8" x 10' gun which still stopped at 7784'. Ran wire line set Baker Model "D" production packer and set at 7554'.

1972

12-8 & Ran 2-7/8" EUE J-55 8R R-2 tubing with 1/4" control line, 5 Baker
12-9 seal units, Page RTL tubing removable safety valve, Otis XO
sliding side door nipple and 4 Camco gas lift valves and landed
tubing with 16,000 pounds on Packer at 7554: pressure tested
2-7/8" tubing to 4500 psi and 1/4" control line to 5000 psi.
Removed B.O.P.E. and installed production head. Tested flange
and donut to 4500 psi OK and head to 3500 psi OK. Unloaded 180
bbls of kill fluid with nitrogen. Released rig.

**DIVISION OF OIL AND GAS
RECEIVED**

FEB 23 1973

LONG BEACH, CALIFORNIA

TUBING DETAIL

<u>No. Joints</u>	<u>Item</u>	<u>Length</u>	<u>Depth</u>
	Below KB	6.90	
	2-7/8" EU 8 rd thd pup jt	.80	
	J-55 donut		
	2-7/8" EU 8 rd thd pup jt J-55	4.10	
	2-7/8" EU 8 rd thd pup jt J-55	4.0	
	2-7/8" EU 8 rd thrd pup jt J-55	10.02	
139	2-7/8" EU 8 rd thd J-55 tubing	4241.00	
	2-7/8" EU 8 rd thd pup jt	4.0	4270.82
	2-1/2" Camco mandrel w/1-4"	7.30	4278.12
	BK 1050# valve		
40	2-7/8" EU 8 rd thd J-55 tubing	1166.63	
	2-7/8" EU 8rd thd pup jt	4.10	5448.85
	2-1/2" Camco mandrel w/1-4"	7.33	5456.18
	BK 1025# valve		
36	2-7/8" EU 8rd thd J-55 tubing	1038.67	
	2-7/8" EU 8 rd thd pup jt	4.10	6498.95
	2-1/2" Camco mandrel w/1-4"	7.32	6506.27
	BK 1000# valve		
33	2-7/8" EU 8 rd thd J-55 tubing	984.03	
	2-7/8" EU 8 rd thd pup jt	4.10	7494.40
	2-1/2" Camco mandrel w/1-4"	7.35	7501.75
	BK 975# valve		
1	2-7/8" EU 8rd thd J-55 tubing	31.06	7532.81
	2-1/2" Otis sliding sleeve - open	3.30	7536.11
	2-7/8" EU 8 rd thd pup jt	10.00	7546.11
	Page RTL safety valve without ported nipple	5.42	7551.53
	3-1/2" x 2-1/2" Crossover	1.15	
	Locator sub Baker	1.05	7553.73
	5-sets of seals	5.00	7558.73
249	Total		

DIVISION OF OIL AND GAS
RECEIVED

FEB 23 1973

LONG BEACH, CALIFORNIA

DIVISION OF OIL AND GAS

REPORT ON PROPOSED OPERATIONS No. P 172-1139

Mr. P.S. Magruder, Jr., Agent
PACIFIC LIGHTING SERVICE CO.
P.O. Box 54790, Terminal Annex
Los Angeles, CA 90054

Inglewood, Calif.
October 10, 1972

DEAR SIR:

Your proposal to alter casing & convert Well No. "SFZU" P-32 (037-00719) to gas storage
Section 27, T. 3N, R. 16W, S.B.B. & M., Aliso Canyon Field, Los Angeles County,
dated 9/8/72, received 10/5/72, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED BLOWOUT PREVENTION EQUIPMENT WITH A MINIMUM 3000
PSI WORKING PRESSURE SHALL BE INSTALLED AND MAINTAINED IN OPERATING CONDITION DURING
ALL STAGES OF PERFORATING.

ADS:dr

cc Company

Blanket Bond

D. J. ...

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

By *W. L. Ingram*, Deputy

DIVISION OF OIL AND GAS
RECEIVED

OCT 5 1972

INGLEWOOD, CALIFORNIA

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

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. September 8, 1972

DIVISION OF OIL AND GAS

Inglewood Calif.

In compliance with Section 3203, Chapter 93, Statutes of 1939, notice is hereby given that it is our intention to commence the work of deepening, redrilling, plugging or altering casing at Well No. "SFZU" P-32 (037-00719)
(Cross out unnecessary words)

, Sec. 27, 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. 7994 Plug 7870'

2. Complete casing record.

13-3/8" 54.5# Cmt'd 522'
7" 23,26 & 29# Cmt'd 7600'
307' 5" 17.93# Landed 7867'
Perforations 7591' - 7867'. 2" x 80M slots 10 Rows on 6" Centers
Scab Cemented 7636'-7670' and 7691'-7719'
Top of Liner Hanger 7560'
WSO shoe of 7" at 7600' ✓

3. Last produced. July 1970 (Date) 4 Bbls. (Net Oil) 32+ (Gravity) 0.0% (Cut)

The proposed work is as follows:

Jet Perforate 2 - 1/2" holes per foot in gas productive intervals from 7618' to 7860' as required to convert well to a gas storage well.

Alter casing & convert to Gas Storage

MAP	MAP BOOK	CARDS	BOND	FORMS
		ARC	B	114 121
		ARC		ARC

PACIFIC LIGHTING SERVICE COMPANY

(Name of Operator)

By *P.S. Magruder Jr.*

MAR 28 1955

LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON
Well No. Porter #32 (Rework) Sec. 27, T. 3 N, R. 16 W, S.B. B. & M.
1724.57' South & 1300.57' West Elevation above sea level 2079.10 feet.
Location from Station #84 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 March 21, 1955 Signed T. E. Weaver
E. G. Young W. D. Gould T. E. Weaver, Agent
(Engineer or Geologist) (Superintendent) (President, Secretary or Agent)

Commenced ~~drilling~~ Reworking 12/30/54 Completed ~~drilling~~ Reworking 1/26/55 Drilling tools ~~Cable~~
7994' Plugged depth 7870' Rotary

Junk _____

Commenced producing January 28, 1955 Flowing/~~gas lift/pumping~~
(date) (cross out unnecessary words)

2/3/55 Initial production
Production after 30 days

Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
177	20.0	8.0%	86	250#	2300#
111	20.0	12.0%	61	250#	2300#

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"	522'	0'	54.5#	New	Seamless	J-55	17-1/2"	400	
7"	7600'	0'	23, 26, 29#	New	Seamless	J-55, N-80	12-1/4"	400	
5"	7867'	7560'	17.93#	New	Seamless	N-80	6"		Scab Cmtd. 7719'-7691'; 7670'- 7636'. Used 125 Sx.

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5"	7591 ft.	7636 ft.	80 Mesh I 2"	10	6"	Kobe (Scabbed off intermediate perfs.)
5"	7670 ft.	7691 ft.	" "	10	6"	
5"	7719 ft.	7867 ft.	" "	10	6"	

DIVISION OF OIL AND GAS
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MAR 28 1955

LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD ALISO CANYON

Well No. "Porter" 32, Sec. 27, T. 3 N, R. 16 W S.B. B. & M.

Date March 21, 1955, 19 Signed T. E. Weaver

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

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

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

Date

1955

12/24 Killed well with salt water, using Halliburton Cementing Service.

12/25-26 Idle.

12/27-28 C.P.S. rigging up.

12/29 Finished rigging up 4:00 PM 12-29-54. Built up circulating water with salt to 70.5. Removed Christmas tree and installed B.O.P.

12/30 Lowered 2-7/8" and 2-3/8" tubing to 7866'. Pumped in 10 barrels Ken Pak and equalized with 245 cu. ft. salt water. Pulled tubing to 7740' and backscuttled. Ran Baker drillable wire line bridge plug and set at 7740'.

12/31 Ran M & T straddle tool with 1' spacing between opposed rubbers on 2-7/8" and 2-3/8" tubing. Checked top of bridge plug at 7740'. Washed intervals 7735' to 7695' and 7680' to 7635' with salt water for 1-1/2 hours each. Made trial scabbing run across intervals 7730' - 7700' with above tool. Hung above tool at 7730'. Mixed and displaced 25 sacks Colton Hi-temperature cement. Pumped 5 sacks out at 7730' and 20 sacks across interval 7730' - 7700'. Raised tool to 7690' and backscuttled estimated 5 sacks cement. With above straddle tool hung at 7670', mixed and displaced 25 sacks Colton Hi-temperature cement. Pumped 5 sacks out at 7670' and 20 sacks across interval 7670' - 7640'. Pulled tool to 7630' and backscuttled estimated 3 sacks cement. B.J. Service. Cement in place at 5:30 PM.

1955
1/1 Pulled straddle tool. Standing cemented.

Ran bit and scraper and found top of cement at 7660'. Cleaned out cement to 7740'. Standing cemented.

1/2/ Ran M & T straddle tool with 1' spacing between opposed cups on 2-7/8" and 2-3/8" tubing. Pressure tested interval 7730' - 7695' in 10" stages. Interval 7702' - 7695' held 1500# tubing pressure for 3 minutes in 1' stages without loss. Washed above interval once with salt water. Lowered tool to 7730'. Mixed and displaced 25 sacks Colton Hi-temperature cement and pumped 5 cu. ft. cement out at 7730'. Pumped 20 sacks across interval 7730' - 7700'. Cementing pressures 800-1500#. Total displacement 253 cu. ft. Cement in place at 5:10 PM. Pulled tool to 7688' and backscuttled estimated 12 sacks of cement. Pressure tested interval 7670' - 7640' in 1' stages. Interval would not hold 500# tubing pressure. Washed above interval once with salt water. Mixed and displaced 25 sacks C.H.T.C. Pumped 5 sacks out at 7670' and 20 sacks across interval 7670' - 7640'. Total displacement 251 cu. ft. Cementing pressures 500-1000#. Cement in place 6:35 PM. Pulled tool to 7628' and backscuttled estimated 15 sacks cement.

1/3 Found top of cement at 7632'. Cleaned out to 7740'. Standing cemented.

MAR 28 1955

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

LOS ANGELES, CALIFORNIA

WELL NO.: Porter #32, Aliso Canyon Field

Page 2

1955

- 1/4 Ran M & T straddle tool with 15" spacing between opposed cups and tested interval 7730' - 7691' in 1' stages. Interval 7719' - 7691' held 1500# without loss during 3 minute tests. Pressure tested interval 7670' - 7640' in 1' stages with above tool. Intervals 7666' - 7662'; 7660' - 7654'; 7653' - 7647' held 1500# without loss. Washed interval 7670' - 7640' with salt water. With above straddle tool hung at 7670', mixed and displaced 25 sacks C.H.T.C. and displaced 8 sacks cement out with tool at 7670'. Displaced 17 sacks out while moving across interval 7670' - 7640'. Total displacement 251 cu. ft. Cement in place 2:30 PM. B.J. Service. Pulled tool to 7628' and backscuttled estimated 22 sacks cement. Standing cemented.
- 1/5 Found top of cement at 7628'. Cleaned out to 7740'. Standing cemented.
- 1/6 Found top of cement at 7642' and cleaned out to 7680'. Pressure tested interval 7671' - 7634' in 1' stages with M & T scabbing tool, using opposed cups with 15" spacing. 7671' leaked. 7670' - 7636' held 1500# for 3 minutes without loss. Lowered tool to test lower scab interval. Found cement stringers below 7680'. Pulled tool. Ran bit and scraper to 7740'.
- 1/7 Drilled up Baker bridge plug at 7740', and cleaned out to bottom at 7867'. No cement or Ken Pak below bridge plug at 7740'. Running M & T scabbing tool.
- 1/8 Ran M & T scabbing tool with 1.8' spacing between opposed swab cups and washed interval 7867' - 7732'. Interval open. Found no plugging. Interval 7732' - 7726' is tight. Tool blanked off. Interval 7726' - 7719' is partially open. Interval 7719' - 7690' - tool blanked off. Interval 7690' - 7670' is tight but could circulate at 1200#. Interval 7680' - 7684' blanked off. Pulled M & T scab tool and measured out. Found 4' make up in tubing due to drilling out of bridge plug. Ran Guiberson hook wall packer with blank Otis choke and set packer at 7655'. Closed rams pressured annulus with 1500#. Held 7 minutes without loss. Stripped out B.O.P.
- 1/9 Landed Guiberson hook wall packer at 7655' with 8000#. Installed Christmas tree. Pulled blank Otis choke. Circulated out salt water with oil.
- 1/10 Swabbed 85 barrels. Well flowed 125 barrels, all circulating fluid, 1/64" bean, 2500 MCF gas rate. Prep. to run Otis choke. Released C.P.S. contractor at 7:00 PM 1-10-55.
- 1/11 Ran Otis blank choke. Flowed 125 barrels gross, 125 net, 0.1% cut, 2300# tubing pressure, 2300# casing pressure, 1,196 MCF gas.
- 1/12 Flowed 8 barrels net, 2170# tubing pressure, 2300# casing pressure, 1500 MCF gas rate, in 3-1/2 hours. Shut in 9:00 AM to inject dye in annulus.
- 1/13 Mixed and pumped 13 barrels dyed salt water in 7" casing. Opened well at 10:30 AM. Had dye returns to trap in 3-1/2 hours. Shut well in at 2:30 PM. 2170# tubing pressure, 2300# casing pressure.
- 1/14 Rigging up hoist - preparing to kill well. Pulled and inspected Otis choke. Choke O.K. Reran choke. Shut in.
- 1/15 Killed well with salt water. Lowered packer 7' with 12,000# setting weight. Applied pressure to annulus circulating through tubing without pressure. Shut in.
- 1/16 Raised packer 13'. Reset packer. Attempted to pressure annulus. Fluid circulated through tubing without pressure. Preparing to pull packer.
- 1/17 Pulled tubing.
- 1/18 Found hole in tubing in 1st joint above packer. Reran 2-7/8" tubing and set packer at 7659'.
- 1/19 Swabbed 48 barrels. Turned well to trap at 4:00 PM. In 13 hours to 5:00 AM flowed 52 barrels gross, 42 net, 20% cut, 7/64" bean, 1500# tubing pressure, 174 MCF gas.

MAR 28 1955

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

LOS ANGELES, CALIFORNIA

WELL NO.: Porter #32, Aliso Canyon Field

Page 3

1955

- 1/20 Well flowed 57 barrels gross fluid, 37 net, 35.0% cut, 7/64" bean, 1600# tubing pressure, 0# casing pressure, 355 MCF gas.
- 1/21 Well flowed 58 barrels gross, 47 net, total water cut 20%, including 10% water and 20% emulsion, 9/64" bean, 1650# tubing pressure, 0# casing pressure, 510 MCF gas.
- 1/22 Well flowed 67 barrels gross, 50 net, total water cut 25%, including 14% water, 20% emulsion, 9/64" bean, 1750# tubing pressure, 0# casing pressure, 676 MCF gas.
- 1/23 Well flowed 25 barrels gross fluid, 17 net, 34.0% cut, 9/64" bean, 1800# tubing pressure, 0# casing pressure, 269 MCF gas.
- 1/24 Well flowed 25 barrels gross, 17 net, 30.0% cut, 5/64" bean, 1800# tubing pressure, 0# casing pressure. Found vacuum on 7" casing. Filled 7" casing to surface with 36 barrels salt water. 225 MCF gas.
- 1/25 Lowered packer to 7708'. Tested packer with 1000# pressure on 7" casing. Held O.K. for 10 minutes. Attempted to pull Otis choke but would not release. Parted wire line jarring choke. Preparing to pull tubing.
- 1/26 Pulled two stands tubing. Recovered wire line and Otis Choke. Reset packer at 7708'. Swabbed 50 barrels salt water. Turned well to trap at 10:00 PM. Flowed 25 barrels salt water, then died. Casing pressure 1500#.
- 1/27 Swabbed well. Flowed 133 barrels salt water. Well cleaned up - preparing to install Otis choke.

	<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>
1/28	76	60	21.0%	21.0	32/64"	50#	2300#	100
1/29	116	102	12.0%	21.0	32-9/64"	50#	2300#	32
	Changed from 32/64" to 9/64" bean at 10:45 AM.							
1/30	84	76	9.0%	21.0	9-12/64"	50#	2350#	23
1/31	108	99	8.0%	21.0	13/64"	50#	2350#	32
2/1	117	110	6.0%	21.0	13/64"	50#	2350#	45
2/2	192	173	10.0%	21.0	13-20-17/64"	50#	2350#	100
2/3	192	177	8.0%	20.0	17-15/64"	250#	2300#	86
2/4	141	124	12.0%	20.0	15-13/64"	200#	2300#	60
2/5	116	102	12.0%	20.0	13/64"	200#	2300#	54
2/6	133	117	12.0%	20.0	13/64"	200#	2300#	56
2/7	125	110	12.0%	20.0	13/64"	200#	2300#	62
2/8	150	132	12.0%	20.0	13/64"	200#	2300#	69
2/9	116	102	12.0%	20.0	13/64"	200#	2300#	55
2/10	117	103	12.0%	20.0	12/64"	215#	2300#	60
2/11	117	103	12.0%	20.0	12/64"	215#	2300#	60
2/12	116	102	12.0%	20.0	12/64"	215#	2300#	60
2/13	125	110	12.0%	20.0	12/64"	215#	2300#	64
2/14	117	101	11.0%	20.0	12/64"	250#	2300#	63
2/15	125	109	13.0%	20.0	12/64"	250#	2300#	67
2/16	125	115	8.0%	20.0	12/64"	250#	2300#	62
2/17	130	114	12.0%	20.0	12/64"	250#	2300#	59
2/18	125	110	12.0%	20.0	12/64"	250#	2300#	58
2/19	142	125	12.0%	20.0	12/64"	250#	2300#	60
2/20	125	110	12.0%	20.0	12/64"	250#	2300#	58
2/21	116	102	12.0%	20.0	12/64"	250#	2300#	60
2/22	125	110	12.0%	20.0	12/64"	250#	2300#	66
2/23	126	111	12.0%	20.0	12/64"	250#	2300#	61

MAR 28 1955

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

LOS ANGELES, CALIFORNIA

WELL NO.: "Porter" #32, Aliso Canyon Field

Page 4

CASING RECORD

13-3/8"	54.5#	C	522'	
7"	23, 26, 29#	C	7600'	
5"	17.93#	L	7867'	Top 7560' Pf. 7951' = 7867'
			Scab cemented	7719'-7691'; 7670'-7636'

TUBING RECORD

2-7/8" L w/pkr @ 7708'

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
REPORT ON PROPOSED OPERATIONS

No. P 154-1596

Mr. Thomas E Weaver
 Box "Y" Los Angeles 15 California
 Los Nietos Calif December 29 19 54
 Agent for TIDE WATER ASSOCIATED OIL COMPANY 121

DEAR SIR:

Your _____ proposal to alter casing Well No. "Porter" 32,
 Section 27, T. 3 N., R. 16 W., S.B. B. & M., Aliso Canyon Field, Los Angeles County,
 dated Dec. 27, 19 54, received Dec. 28, 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:
 The 7" shut-off was approved.

THE NOTICE STATES

"The present condition of the well is as follows:

1. Total depth. 7994'; Pg. 7870'
2. Complete casing record.
13-3/4" C 522'
7" C 7600' see history
5" L 7827' Pf. 7591'-7867', 80 M, 10 Rows,
6" centers, 2" slots, 6" Undercut,
Top Hanger 7560'

3. Last produced. 12/21/54 9 23.5 1.0% GOR 1052
 (Date) (Net Oil) (Gravity) (Cut)"

PROPOSAL

"The proposed work is as follows:

1. Kill well with concentrated salt water.
2. Wash perforations 7735' - 7695' and 7680' - 7635'.
3. Seab perforated liner in intervals 7730' - 7700' and 7670' - 7640' until 20' section in each interval holds 1500 $\frac{1}{2}$ psi pressure.
4. Clean out to bottom and wash perforations with oil.
5. Return to production by setting packer in upper scabbed interval."

DECISION

THE PROPOSAL IS APPROVED.

61P ABH:mn

cc Mr F W Hertel
 Mr R S Curl
 Mr J R Boyer (2)

E. H. MUSSER

State Oil and Gas Supervisor

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DEC 28 1954

DIVISION OF OIL AND GAS

LOS ANGELES, CALIFORNIA

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

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

Los Nietos Calif. December 27 1954

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 Well No. Porter #32

(Cross out unnecessary words)

, Sec. 27, 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. 7994'; Pg. 7870'

2. Complete casing record.

13-3/8" C 522'
7" C 7600'
5" L 7817'

Pf. 7591'-7867', 80 M, 10 Rows,
6" centers, 2" slots, 6" Undercut,
Top Hanger 7560'

3. Last produced. 12/21/54 (Date) 9 (Net Oil) 23.5 (Gravity) 1.0% (Cut) 1052

The proposed work is as follows:

1. Kill well with concentrated salt water.
2. Wash perforations 7735' - 7695' and 7680' - 7635'.
3. Scab perforated liner in intervals 7730' - 7700' and 7670' - 7640' until 20' section in each interval holds 1500# psi pressure.
4. Clean out to bottom and wash perforations with oil.
5. Return to production by setting packer in upper scabbed interval.

MAP	CARDS	BCND	FORMS	
			114	121
			EB	EB

TIDE WATER ASSOCIATED OIL COMPANY
(Name of Operator)

By *[Signature]*

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

WELL SUMMARY REPORT

DIVISION OF OIL & GAS
RECEIVED
OCT 20 1944
LOS ANGELES, CALIFORNIA

Operator SEASIDE WATER ASSOCIATED OIL COMPANY Field Aliso Canyon (Field)

Well No. Porter #32 Sec. 27, T. 3-N, R. 16-W, S. B. B. & M.

Location 1724.57' south and 1300.57' west from Station #84 Elevation of derrick floor above sea level 2086.02 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 October 17, 1944 Signed R. S. Gurl

O. C. Pfeffer (Engineer or Geologist) R. S. Gurl (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling 6/2/44 Completed drilling 8/31/44 Drilling tools Cable Rotary

Total depth 7994' Plugged depth 7870' GEOLOGICAL MARKERS DEPTH

Junk _____

Commenced producing 9/2/44 (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	1205	23.4	5.0	612	1025#	1150#
Production after 30 days	467	23.7	0.4	225	1100#	1250#

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
13-3/8"	522'	0'	54.5#	New	Seamless	J-55	17 1/2"	400	
7"	7600'	0'	23# & 28#	New	Seamless	J-55 N-80	12 1/2"	400	
5"	7867'	7560'	17.93#	New	Seamless	N-80	6"		

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5"	7591 ft.	7867 ft.	80 Mesh x 2"	10	6"	Kobe
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 520' - 7994' (Attach Copy of Log)

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 STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS
RECEIVED
 OCT 20 1944
 SHEET #3
 LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Porter #32, Sec. 27, T. 3-S, R. 16-W, S. B. B. & M.

Signed R. A. Cuyler

Date October 17, 1944 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, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, 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.

LOCATION: 1924.57' south and 1300.57' west from Station #84.

ELEVATION: 2036.02'.

1944

A. PREPARING TO DRILL

2/25-2/26	Graded road.
2/27	Idle.
2/28-3/4	Graded road and rig site.
3/5	Idle.
3/6-3/9	Graded road and rig site.
3/10-3/12	Idle.
3/13-3/18	Graded road and rig site.
3/19	Idle.
3/20-3/24	Graded road and rig site.
3/25-3/27	Idle.
3/28	Ciled road.
3/28-3/30	Dug cellar.
3/31	Idle.
4/1	Built forms
4/2	Idle.
4/3-4/4	Poured concrete for foundations.

DIVISION OF OIL & GAS
RECEIVED
OCT 20 1944

DIVISION OF OIL AND GAS

LOS ANGELES, CALIFORNIA

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Traylor 32, Sec. 27, T. 2-N, R. 16-S, S. B. B. & M.

Signed [Signature]

Date October 17 1944 Title Agent
(President, Secretary or Agent)

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Date	Depth	Description
1944		
4/5-4/10		Idle.
4/11-4/14		Built rig.
4/15		Built pipe racks.
4/16		Idle.
4/17-4/18		Installed woodwork.
4/19-5/25		Idle.
5/26-5/31		Rigged up rotary. Dug rat hole.
		<u>2. DRILLING TO 700ft</u>
6/1-6/8	522'	Spudded 12-1/4" hole at 4:00 A.M. Drilled 12-1/4" hole from 0' to 522'. Spudded 12-1/4" hole to 17-1/2" from surface to 522'.
6/9		Cemented 15-3/8", 54.5#, Youngstown Grade J-56 T & C casing at 522' with 400 sacks Colton Construction cement in bulk -- last 200 sacks treated. Pressure jumped from 150# to 275# when plugs bumped. Time 3:21 P.M. Calculated displacing mud 457 cu.ft. Actual displacing mud 457 cu.ft. Mixing time 14 minutes. Displacing time 41 minutes. Had good cement returns to surface while displacing final 100 sacks cement. International Cementers, Inc.
6/10-6/21	5112'	Landed 15-3/8" casing and installed collar connections. Located top of cement at 517'. Cleaned out to 522' and resumed drilling making 12-1/4" hole. Drilled 12-1/4" hole from 522' to 5112'.

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS
 RECEIVED
 OCT 2 0 1944
 LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Porter 432, Sec. 27, T. 3-N, R. 16-W, S. B. B. & M.

Signed [Signature]

Date October 17, 1944 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, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, 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 6/22-7/10	4403'	Laid down 6 5/8" drill pipe. Made up 5-9/16" drill pipe. Reduced size of hole from 12 1/2" to 10 1/2" and resumed drilling. Drilled 10 1/2" hole from 2112' to 4403'.
7/11		Reamed 10 3/8" hole from 2112' to 4403'. Changed sand line. Conditioned mud.
7/12-7/13	4598'	Ran Eastman Directional Survey. Oriented in Eastman Removable whipstock and set same at 4403'. Drilled 7 1/2" hole by whipstock from 4403' to 4415'. Opened 7 1/2" hole to 12 1/2" hole from 4403' to 4415' and continued drilling 10 1/2" hole. Drilled 10 1/2" hole from 4415' to 4598'.
7/14-7/21	5540'	Oriented in Eastman Removable whipstock and set same at 4598'. Drilled by whipstock from 4598' to 4610' with 7 1/2" hole. Opened 7 1/2" hole to 10 1/2" from 4598' to 4610' and continued drilling 10 1/2" hole. Drilled 10 1/2" hole from 4610' to 5540'.
7/22-7/24	5740'	Changed rotary clutch. Drilled 10 1/2" hole from 5540' to 5740'.
7/25-8/2	6606'	Reamed 10 1/2" hole from 2112' to 5740'. Resumed drilling. Drilled 10 1/2" hole from 5740' to 6606'. Reamed 10 1/2" hole from 5740' to 6606'.
8/3-8/15	7595'	Laid down 5-9/16" drill pipe. Made up 4 1/2" drill pipe. Drilled 10 1/2" hole from 6606' to 7114'. Reamed 10 1/2" hole from 6728' to 7114'. Drilled 10 1/2" hole from 7114' to 7555'. Ran Schlumberger electric log at 7555'. Drilled 10 1/2" hole from 7555' to 7595'.
8/16	7600'	Ran Schlumberger electric log at 7595'. Drilled 10 1/2" hole from 7595' to 7600'. Reamed 10 1/2" hole from 522' to 7600'.

DIVISION OF OIL & GAS
RECEIVED
OCT 20 1944
LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR WIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon

Well No. Porter #12, Sec. 27, T. 2N, R. 16W, S. B. B. & M.

Signed [Signature]

Date October 17, 1944 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, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, 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

1944 Depth

8/17

Cemented 7". Youngstown Speedtite casing at 7600' with 400 sacks Colton High Temperature cement in bulk. Pressure jumped from 350# to 500# when plugs bumped. Time 6:44 P.M. Mixing time 27 minutes. Displacing time 43 minutes. Calculated displacement was 1654 cu. ft. Actual displacement was 1657 cu. ft. International Cementers, Inc. Detail of casing as follows:

0' - 3489.4' is 23# Grade J-55
3489.4' - 5238.1' is 23# Grade H-80
5238.1' - 6828.0' is 26# Grade H-80
6828.0' - 7600.0' is 29# Grade H-80

8/18-8/19

Standing cemented. Laid down and moved out 4 1/2" drill pipe. Landed casing and installed cellar connections.

8/20 P.M. 7558' Made up 2-7/8" drill pipe. Located top of cement at 7558'.

8/21

Cleaned out plugs and cement from 7558' to 7600'. Made casing test O.K. with 1500# for 30 minutes. Repaired pumps.

8/22

7605'

Drilled 6" hole from 7600' to 7605'. Ran Johnston tester on 2-7/8" drill pipe. Set packer at 7579'; bottom of tail pipe 7600'. Opened 3/8" bean at 1:30 P.M. Had mild decreasing blow of air for 15 minutes; weak heads of air of 1/2 to 3 minutes duration for 25 minutes; medium blow of air changing to gas for 25 minutes; dead for balance of test except for 4 medium heads of gas of 2 minutes duration. Had gas to surface after 53 minutes. Closed valve at 3:35 P.M. after being open 2 hours 5 minutes. Recovered 2550' (3.9 barrels) fluid as follows: Top 700' (2.7 barrels) thick, heavily gas cut, slightly oil-stained drilling mud grading to 1850' (7.2 barrels) thin, oily, gassy drilling mud. Top 4 stands of fluid blew from drill pipe as same was pulled. Salinity of filtrate as follows:

Height Above Tester	Salinity -- B/G
1250'	89
350'	55
170'	55

From tester

Too thick to filter

Ran two pressure recorders. One indicated flow pressure of 550# increasing to 1125#. The other indicated flow pressure of 500# increasing to 950#. W.S.O. approved by D.O.G. Cleaned out to 7605'.

DIVISION OF OIL & GAS
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OCT 20 1944
SANTA ANITA, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR WIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon (Field)

Well No. Porter #12, Sec. 27, T. 3-N, R. 16-W, S. E. B. & M.

Signed _____

Date October 17, 1944 Title Agent
(President, Secretary or Agent)

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Date
1944
Depth

Date	Depth	Description										
8/23		Ran Johnston Tester on 2-7/8" drill pipe. Set packer at 7579'; bottom of tail pipe 7596'. Opened 3/8" bean at 11:03 A.M. Had mild to weak blow by heads of from 1/2 to 5 minutes duration throughout test. Gas to surface in 1 hour 27 minutes. Closed valve at 4:23 P.M. after being open 5 hours 20 minutes. Recovered 2000' (7.8 barrels) fluid as follows: 40' (0.2 barrels) thin, heavily gas cut drilling mud; 1960' (7.6 barrels) thin, oily, gassy drilling mud becoming increasingly oily downward and sometimes grading locally to muddy oil. Salinity of filtrate as follows: <table border="1" style="margin-left: 40px;"> <thead> <tr> <th>Interval Above Tester</th> <th>Salinity (G/G)</th> </tr> </thead> <tbody> <tr> <td>1590'</td> <td>123</td> </tr> <tr> <td>1140'</td> <td>137</td> </tr> <tr> <td>690'</td> <td>69</td> </tr> <tr> <td>50'</td> <td>55</td> </tr> </tbody> </table> Pressure recorder failed to function.	Interval Above Tester	Salinity (G/G)	1590'	123	1140'	137	690'	69	50'	55
Interval Above Tester	Salinity (G/G)											
1590'	123											
1140'	137											
690'	69											
50'	55											
8/24-8/27	7974'	Drilled 6" hole from 7605' to 7974'. Reamed 6" hole from 7600' to 7974'.										
8/28	7994'	Cored 6" hole from 7974' to 7994'. Made up tubing to plug bottom.										
8/29		Hung 2-7/8" tubing at 7990' and pumped in 40 sacks Victor High Temperature cement. Displaced with 352 cu.ft. fluid. Preceded cement with 50 cu.ft. water and followed cement with 11 cu.ft. water. Time 3:44 A.M. Mixing time 9 minutes. Displacing time 15 minutes. International Cementers Inc. Pulled up to 7845' and circulated out cement. Conditioned mud and pulled tubing.										
8/30		Cleaned out cement from 7849' to 7870'. Conditioned mud. Made up liner.										

DIVISION OF OIL AND GAS

History of Oil or Gas Well

TIDE WATER ASSOCIATED OIL COMPANY

Aliso Canyon (Field)

OPERATOR _____ FIELD _____
Porter #32 27 3-N 16-W S. B.
Well No. _____, Sec. _____, T. _____, R. _____, B. & M. _____

Signed *R. A. Cuyler*
Agent

Date October 17, 1944

Title _____
(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, redrilling, deepening, plugging, or altering casing as by perforating, shooting, or pulling. Include in your report size of hole drilled, redrilled, 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.

1944

Depth

8/31

Landed 307' of 5", 17.93#, Grade N-80, Hydril inserted, Youngstown casing at 7867' including 276' 80 mesh Kobe perforated 10 rows; 2" slots; 6" centers; 6" undercut. Top of Burns liner hanger 7560'. Perforated 7591'-7867'. Hung 2-7/8", 6.5# and 2-3/8", 4.7#, Range 2, Grade J-55, round thread, upset Youngstown tubing at 7814'; bottom 308' is 2-3/8". Installed Xmas tree. Circulated and thinned mud with water. Well began flowing at 3:15 A.M. 9/17/44. Turned to tanks at 4:15 A.M. In 2 hours well flowed 212 barrels gross fluid; 201 barrels approximate net oil (2412 B/D net rate); 23.8 dry gravity; 5.25 total cut, including 4.8 water, 0.3 mud; 32/64" bean; 800# tubing pressure; 0# casing pressure; 1180 M/D gas rate.

G. PRODUCTION DATA

Date	Gross Fluid	Approximate Net Oil	Dry Gravity	Cut	Bean	Tubing Pressure	Casing Pressure	Gas MCF	Hours On
9/1	1268	1205	23.4	5.0	32-17/64	1025	1150	612	24
9/2	1164	1159	23.2	0.4	17/64	1050	1175	607	24
9/3	1078	1044	23.1	0.4	15/64	1075	1200	565	24
9/4	1074	1071	23.3	0.3	15/64	1075	1200	533	24
9/5	943	941	23.3	0.2	13/64	1100	1200	491	24
9/6	876	874	23.3	0.2	13/64	1100	1725	500	24
9/7	661	660	23.3	0.2	9/64	1100	1200	404	24
9/8	557	555	23.3	0.3	8/64	1100	1225	295	24
9/9	492	491	23.3	0.3	8/64	1100	1225	261	24
9/10	378	377	23.7	0.2	8/64	1100	1225	204	24
9/11	136	135	23.7	0.3	8/64	1225	1250	63	9
9/12 - 9/17	Shut-in								
9/18	295	293	23.7	16.0	6/64	1100	1200	156	24
9/19	145	144	23.7	3.0	6/64	1050	1200	63	17
9/20	175	174	23.7	0.2	6/64	1100	1200	95	24
9/21	178	177	23.7	0.5	6/64	1050	1200	98	24
9/22	166	164	24.3	0.3	6/64	1050	2825	96	24
9/23	168	167	24.3	0.2	6/64	1050	1250	98	24
9/24	168	167	23.7	0.3	6/64	1050	1250	96	24
9/25	182	181	23.7	0.3	6/64	1060	1225	100	24
9/26	553	551	23.7	0.4	9/64	1100	1250	322	24

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STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL & GAS
RECEIVED
OCT 20 1944
Sheet #9
LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR TIDE WATER ASSOCIATED OIL COMPANY FIELD Aliso Canyon (Field)

Well No. Porter #32, Sec. 27, T. 3-N, R. 16-W, S. E. B. & M.

Signed R. A. Cough

Date October 17, 1944 Title Agent
(President, Secretary or Agent)

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Date

<u>Date</u> <u>1944</u>	<u>Gross</u> <u>Fluid</u>	<u>Approximate</u> <u>Net Oil</u>	<u>Dry</u> <u>Gravity</u>	<u>Cut</u>	<u>Depth</u>	<u>Tubing</u> <u>Pressure</u>	<u>Casing</u> <u>Pressure</u>	<u>Gas</u> <u>MCF</u>	<u>Hours</u> <u>On</u>
9/27	617	615	23.7	0.4	9/64	1100	1250	320	24
9/28	761	759	23.7	0.3	12/64	1100	1225	372	24
9/29	928	925	23.7	0.3	14/64	1100	1250	463	24
9/30	946	942	23.7	0.4	12/64	1100	1250	437	24
10/1	469	467	23.7	0.4	5/64	1100	1250	228	24
10/2	410	409	23.7	0.2	5/64	1100	1250	190	24
10/3	36	35	23.7	0.3	5/64	1225	1260	—	2

* No gas figures available.

CASING RECORD

13-3/8". 54.5# 0 522'
7". 23#. 26#. 29# 0 7600'. 0'-5238' is 23#; 5238'-6828' is 26#;
6828'-7600' is 29#.
307' - 5". 17.93# L 7867'. Top 7560'. Perf. 7591'-7867'.

TUBING RECORD

2-7/8". 6.5# and 2-3/8". 4.7# round thread tubing hung at 7814'. Bottom 308' is 2-3/8".

WELL SIZE

0' - 522' is 17"
522' - 2112' is 12"
2112' - 7600' is 10"
7600' - 7994' is 6"

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121

OCT 20 1944

DIVISION OF OIL AND GAS

LOS ANGELES, CALIFORNIA

LOG AND CORE RECORD OF OIL OR GAS WELL

Sheet 1

Operator Tide Water Associated Oil Company Field Aliso Canyon

Well No. Porter #32 Sec. 27, T. S-N, R. 16-W, S. E. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
0'	49'		Drilled		Surface sand and shale.
49'	65'		"		Sand.
65'	78'		"		Hard sand.
78'	94'		"		Sand and shale.
94'	114'		"		Sand and shale with boulders.
114'	124'		"		Hard sand and boulders.
124'	142'		"		Hard sand and shale.
142'	158'		"		Hard sand and boulders.
158'	206'		"		Sand and shale.
206'	225'		"		Sand.
225'	2680'		"		Sand and shale.
2680'	2720'		"		Sandy shale.
2720'	3295'		"		Sand and shale.
3295'	3322'		"		Hard sand.
3322'	3502'		"		Sand and shale.
3502'	3530'		"		Sand and shale; hard streaks.
3530'	4121'		"		Sand and shale.
4121'	4147'		"		Hard sand and shale.
4147'	4189'		"		Sand and shale.
4189'	4231'		"		Sand and hard shale.
4231'	4323'		"		Sand and shale.
4323'	4340'		"		Hard sand.
4340'	5233'		"		Sand and shale.
5233'	5279'		"		Hard shale.
5279'	5435'		"		Sand and shale.
5435'	5456'		"		Sand and shale with hard streaks.
5456'	5509'		"		Sand and shale.
5509'	5540'		"		Sand and shale; with hard streaks.
5540'	5638'		"		Sand and shale.
5638'	5659'		"		Hard shale.
5659'	5683'		"		Sand and shale.
5683'	5709'		"		Hard shale.
5709'	5740'		"		Hard shale; streaks sand.
5740'	5768'		"		Sand and shale.
5768'	5780'		"		Hard sand and shale.
5780'	5810'		"		Sand and shale.
5810'	5823'		"		Hard sand and shale.
5823'	5971'		"		Sand and shale.
5971'	5976'		"		Shale.
5976'	6150'		"		Sand and shale.
6150'	6161'		"		Hard shale.
6161'	6606'		"		Sand and shale.
6606'	6652'		"		Hard shale and sand.

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Sheet #2

Operator TIDE WATER ASSOCIATED OIL COMPANY Field Aliso Canyon

Well No. Porter #32 Sec. 27, T. 3-S, 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																
6652'	6749'		Drilled		Sand and shale.												
6749'	6767'		"		Shale.												
6767'	7281'		"		Sand and shale.												
7281'	7286'		"		Hard sand and shale.												
7286'	7368'		"		Sand and shale.												
7368'	7481'		"		Hard shale.												
7481'	7494'		"		Shale.												
7494'	7595'		"		Sand and shale.												
7595'	7600'		"		Shale.												
7600'	7842'		"		Sand and shale.												
7842'	7860'		"		Hard sand.												
7860'	7871'		"		Sand.												
7871'	7974'		"		Sand and shale.												
			<u>6" Reed Conventional Cores</u>														
7974'	7994'		Cored	1' 0"	0'-10" Oil sand with mottlings of gray sand. Firm to fairly hard. Fine to coarse but generally fine. Silty. Muskeletitic. Gray mottlings have bluish cast. No to black cut. Good odor.												
					0'-2" Sandstone shell. Hard, fine, mica. Gray to bluish gray. Good dips 16-19°.												
					<table border="1"> <tr> <td>MAP</td> <td>MAP BOOK</td> <td>CARBS</td> <td>BOND</td> <td colspan="2">FORMS</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>114</td> <td>121</td> </tr> </table>	MAP	MAP BOOK	CARBS	BOND	FORMS						114	121
MAP	MAP BOOK	CARBS	BOND	FORMS													
				114	121												

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off
(FORMATION TESTER)No. T 1-43170Los Angeles 14, Calif. August 31, 1944Mr. R. S. CurlLos Nietos, Calif.Agent for TIDE WATER ASSOCIATED OIL COMPANY

DEAR SIR:

Your well No. "Porter" 32, Sec. 27, T. 3N, R. 16 W., S. B. B. & M. Aliso Canyon Field, in Los Angeles County, was tested for water shut-off on August 23, 1944. 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, Petroleum Engineer, and A. C. Clark, Drilling Foreman.

Shut-off data: 7 in. 23, 26, 29b. casing was cemented at 7600 ft. on August 17, 1944 in. 10-5/8" hole with 400 sacks of cement of which 8 sacks was left in casing. Casing record of well: 13-3/8" cem. 522'; 7" cem. 7600', W.S.O.

Reported total depth 7605 ft. Bridged with cement from xxx ft. to xxx ft. Cleaned out to 7605 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 7599 ft. A Johnston tester was run into the hole on 2-7/8 Hydril pipe, with xxx ft. of water cushion, and packer set at 7579 ft. with tailpiece to 7596 ft. Tester valve, with 3/8" bean, was opened at 11:03 a.m. and remained open for 5 hr. and 20 min. During this interval there were mild to weak heads throughout the test.

INSPECTOR WHITE VISITED THE WELL FROM 6:15 TO 8:25 P.M., AUGUST 22, 1944, AND MR. SINCLAIR REPORTED:

1. The hole was directionally drilled.
2. A 17-1/2" rotary hole was drilled from the surface to 522', a 12-1/4" rotary hole, from 522' to 2112', a 10-5/8" rotary hole, from 2112' to 7600', and a 6" rotary hole, from 7600' to 7605'.
3. The Johnston tester was run into the hole on 2-7/8" Hydril and the well packer was set at 7579'.
4. The tester valve was opened at 1:30 p.m. and remained open 2 hr. and 5 minutes. During this interval there was a medium decreasing blow for 15 minutes, weak heads of from 1/2 to 3 minutes duration for 25 minutes, a medium blow for 25 minutes, and 4 medium heads of 2 minutes duration during the balance of the test. Gas reached the surface in 53 minutes.

THE INSPECTOR NOTED:

1. When the drill pipe was removed 2550' of thick heavy gas-cut, oil stained, drilling fluid grading to light oily, gassy, drilling fluid, was found in the drill pipe above the tester, equivalent to 9.9 bbl.
2. Water filtered from fluid samples taken from 1250', 350' and 170' above the bottom of the drill pipe tested 89, 55, and 55 grains of salt per gallon, respectively.
3. The recording pressure bomb chart showed that the tester valve was open throughout the test.

The operator decided to retest.

THE INSPECTOR ARRIVED AT THE WELL AT 6:30 P.M. AND MR. SINCLAIR REPORTED THAT the Johnston tester was run as noted above.

THE INSPECTOR NOTED:

1. When the drill pipe was removed 2000' of fluid was found in the drill pipe above the tester, equivalent to 7.8 bbl. The top 40' was thick, heavy, gas-cut mud, equivalent to 0.2 bbl., and then 1960' of thin, oily, gassy drilling fluid becoming increasingly

R. D. BUSH, State Oil and Gas Supervisor

DIVISION OF OIL AND GAS

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

No. T 1-43170
Page 2

TIDE WATER ASSOCIATED OIL COMPANY

Well No. "Porter" 32, Sec. 27, T. 3 N., R. 16 W., S.B. B. & M.,

oily, downward. The fluid some times graded locally to muddy oil, equivalent to 7.6 bbl.

2. Water filtered from fluid samples taken from 1590', 1140', 690' and 50' above the bottom of the drill pipe tested 123, 137, 69, and 55 grains of salt per gallon, respectively.
3. The recording pressure bomb failed to operate.

The test was completed at 8:45 p.m.

THE SHUT-OFF IS APPROVED.

JLW:OH

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

W

R. D. BUSH

State Oil and Gas Supervisor

By E. H. Musser Deputy
ETD

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P 1-39737

Los Angeles 14,

Calif.

June 22,

19 44

Mr. R. S. Curl

Los Nietos,

Calif.

Agent for TIDE WATER ASSOCIATED OIL COMPANY

121

DEAR SIR:

Your proposal to drill Well No. "Porter" 32
Section 27, T. 3 N., R. 16 W., S.B. B. & M., Aliso Canyon Field, Los Angeles County,
dated June 16, 1944, received June 19, 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:

THE NOTICE STATES:

"The well is 1725 feet S. and 1301 feet W. from Station #84 /
The elevation of the derrick floor above sea level is 2086 feet.
We estimate that the first productive oil or gas sand should be encountered at a depth of
about _____ feet."

PROPOSAL:

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

indicated:	Size of Casing	Weight	Grade and Type	Depth	Landed or Cemented
	13-5/8"	54	J-55 T&C J-55 & N-80	500	Cemented
	7"	25, 26, & 29	Speedtite	7650	Cemented
	5" (Pf.lnr.)	18	N-80 P.J.	7930	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.
5. THIS DIVISION SHALL BE NOTIFIED TO WITNESS a test of the effectiveness of the 7" shut-off.

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

ERMA:OH

R. D. BUSH

State Oil and Gas Supervisor

By *E. H. Musser* Deputy
Edma

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL & GAS
RECEIVED

037-00719

Notice of Intention to Drill New Well

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

JUN 19 1944

LOS ANGELES, CALIFORNIA

Los Nietos, Calif. June 18 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. Porter 0 SFZU-P32, Sec. 27, T. 3-N,

R. 16-W, S. E. B. & M., Aliso Canyon Field, Los Angeles County.

Lease consists of Porter Lease

The well is 1725 feet N. or S., and 1201 feet E. or W. from Station #84
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the derrick floor above sea level is 258 feet.

We estimate that the first productive oil or gas sand should be encountered at a depth of about _____ 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
11 3/8"	34	J-55 750	500	Cemented
7"	23, 26, & 29	J-55 & H-80 Speedrite	7650	Cemented
5" (20' Int.)	18	H-80 F. J.	7950	Landed

Well is to be drilled with rotary cable tools.

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

Address Box 77, Los Nietos, California

TIDE WATER ASSOCIATED OIL COMPANY

(Name of Operator)

Telephone number Whittier 42-043

By [Signature]

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

MAP	MAP BOOK	CARDS	BOND	FORMS
<u>18A</u>	<u>6-19-44</u>		<u>Blankset</u>	<u>114</u> <u>12</u>
<u>[Signature]</u>	<u>[Signature]</u>		<u>43486</u>	<u>Emd</u> <u>Emd</u>