DIVISION OF OIL, GAS, AND GEOTHERMAL RESOURCES

CHECK LIST-RECORDS RECEIVED AND WELL STATUS

Operator: **Southern California Gas Company** WELL DESIGNATION **"Porter" 42A**

API No. **03721876** SE **28** T: **3N** R.: **16W** , **SB** B. and M.

County: **Los Angeles** FIELD: **Aliso Canyon**

Type of Notice: **Rework** **Date** **7/6/2016** **Report Number:** **P216-0119**

RECORDS RECEIVED (ATTACH PAGES IF REQUIRED)

	Date	OK	NEED	Remarks
Well Summary (OG100)				
History (OG103)				
E-Log				
Mud Log				
Dipmeter				
Directional				
Core and/or SWS				

NEW STATUS

DATE: _____

NOTICE OF RECORDS DUE

DATE: _____

DATE: _____

DATE: _____

DATE: _____

WELL STATUS INQUIRY

DATE: _____

DATE: _____

Well Stat

Change Required: _____

Change Done: _____

ABANDONMENTS/REABANDONMENTS/DRILLS/REDRILLS

CalWims Abandonment Form: _____ SURFACE INSPECTION NEEDED _____ COMPLETED _____
Date and Inspector

FINAL LETTER NEEDED _____ COMPLETED _____ Calwims DRILL/REDRILL Form _____
(Date)

ENGINEER'S CHECK LIST

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

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

CLERICAL CHECK LIST

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

REMARKS

RECORDS SCANNED: _____
(Date)

RECORDS APPROVED: _____
(Date and Engineer)

Modified OGD2

AOR Datbase _____

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

No. P 216-0119

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

PERMIT TO CONDUCT WELL OPERATIONS

Gas Storage
"Sesnon-Frew" - Modelo (Miocene-Eocene) Formation

Ventura, California
July 08, 2016

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

Your proposal to **Rework** well **"Porter" 42A**, A.P.I. No. **037-21876**, Section **28**, T. **03N**, R. **16W**, **SB** B. & M., **Aliso Canyon** field, **Any** area, **Sesnon-Frew** pool, **Los Angeles** County, dated **7/6/2016**, received **7/7/2016** has been examined in conjunction with records filed in this office. (Lat: **34.310147** Long: **-118.554275** 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 **III 5M** on the **8 5/8"** casing.
2. Hole fluid of a quality and in sufficient quantity to control all subsurface conditions in order to prevent blowouts shall be used.
3. Blowout prevention practice drills are conducted at least weekly and recorded on the tour sheet. A practice drill may be required at the time of the test/inspection.
4. A Temperature and Noise log are run on the well from the packer to surface.
5. **A Casing Wall Thickness Inspection, Cement Bond Log, and a Multi-Arm Caliper Inspection** shall be performed to demonstrate that the 8 **5/8"**casing has integrity.
6. Prior to commencing injection, a pressure test is conducted to demonstrate the mechanical integrity of the **8 5/8"** casing.
7. Injection shall be through tubing and packer only. Injection or withdrawal through the casing is not permitted.
8. This office shall be contacted by phone prior to making any program changes and no changes are made without Division approval.
9. **THIS DIVISION SHALL BE NOTIFIED TO:**
   a. Inspect the installed blowout prevention equipment prior to commencing **downhole** operations.
   b. Witness a pressure test of the tubing and **8 5/8"** casing prior to commencing injection.

Continued on Next Page

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

Engineer Kris Gustafson
Office (805) 654-4761

KG/do

Kenneth A. Harris Jr.
State Oil and Gas Supervisor

By _____ 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.

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. A total of eight block tests are proposed for this well.
4. 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.
5. 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.**
6. **A Well Summary Report (Form OG 100)** and **Well History (Form OG 103)** shall to be submitted to the Division within 60 days after the well is drilled, reworked, plugged and abandoned, or if the work is suspended. Any additional well work will require an additional notice to be submitted to this office prior to resuming well operations.

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

ATTACHMENT 1
TO DOGGR ORDER 1109

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

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

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

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

REQUIRED TESTS FOR EACH WELL IN THE FACILITY

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

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

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

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

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

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

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

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

REQUIRED TESTS IF A WELL IS INTENDED TO RESUME OPERATIONS

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

Step 4a: The Operator shall conduct a **Casing Inspection log.**
The Operator shall conduct a Casing Inspection log of the well that measures the thickness of the production casing, from the surface to the bottom of the gas storage reservoir cap rock. If the inspection reveals a reduction in wall thickness, the current minimum strength of the casing will be calculated. If the current minimum strength of the casing has diminished to the point that it cannot withstand authorized operating pressures for the well plus a built-in additional safety factor of pressure, the well has failed this test. *A passing test for a casing inspection log would show no thinning of the casing that diminishes the casing's ability to contain at least 115% of the well's maximum allowable operating pressure as authorized in the current Project Approval Letter.*

Step 5a: The Operator shall conduct a **Cement Bond Log** for the well.
The Operator shall conduct a Cement Bond Log (CBL) that measures the bonding between cement and the production casing of the well, and also the bonding between the annular cement and the formation. Cement should be solidly bonded to both the well's production casing and the geologic formation to ensure a seal that prevents fluids from migrating up or down the outside of the well. *A passing test for a cement bond log shows definitive bond, as demonstrated by sonic waveform,*

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

Step 6a: The Operator shall conduct a **Multi-Arm Caliper Inspection** of the well. The operator shall conduct an inspection that measures any internal degradation or significant changes to the well's geometry from the surface to the top of the gas storage reservoir, using a minimum 32-arm caliper tool. If the inspection reveals a thinning or deformity of the casing, the current strength of the casing will be calculated. If the current strength of the casing has diminished, such that it cannot withstand authorized operating pressures plus a built-in safety factor of additional pressure, the well fails this inspection. *A passing test for a Multi-Arm Caliper Inspection would show no deformation or thinning of the casing that diminishes the casing from being able to properly contain at least 115% of each well's maximum operating pressure.*

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

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

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

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

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

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

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

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

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

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

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

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

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

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

REQUIREMENTS FOR WELLS RESUMING OPERATIONS IN ALISO CANYON

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

Rec'd 07-07-16 DOGGR Ventura.

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

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

P216-0119

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 ☐ (Check one) well Porter 42A, API No. 037-21876,

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

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

See attached wellbore schematic

The total depth is: 7718' feet. The effective depth is: 7713' 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.)

See attached program

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

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

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

Name of Operator: Southern California Gas Company			
Address: P. O. Box 2300		City/State: Chatsworth	Zip Code: 91313-2300
Name of Person Filing Notice: Brian Vlasko	Telephone Number: 818-700-3897	Signature	Date: 07/06/16
Individual to contact for technical questions: Brian Vlasko	Telephone Number: 818-700-3897	E-Mail Address: bvlasko@semprautilities.com	

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

Rec'd 07-07-16 DOGGR Ventura.

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

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

CRITICAL WELL DEFINITION

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

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

WELL OPERATIONS REQUIRING BONDING

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

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

Rec'd 07-07-16 DOGGR Ventura.

SoCal Gas Company

SoCalGas
A Sempra Energy utility

Well Operations Procedure

Porter 42A
Aliso Canyon
Storage Integrity Management Program
7/6/2016 Version 1

Primary Engineer:	Brian Vlasko	818 700-3897 (ofc)/714 655-9506 (mobile)
Alternate Engineer:	Ella Lein	818 700-3676 (ofc)/661 340-4250 (mobile)
Engineering Supervisor:	Jose Iguaz	818 700-3889 (ofc)/661 384-5337 (mobile)
Well Site Supervisor:	John Herrin	805 701-5077 (mobile)
Well Work Superintendent:	Mike Volkmar	562 685-3810 (mobile)

Objective:

The intent of this program is to inspect the well integrity and remediate identified conditions as part of the Storage Integrity Management Program (SIMP). This project will include pulling 3-1/2" completion string, running casing inspection logs, pressure testing casing and well laterals, installing a new completion string, converting well to tubing flow, and installing pressure monitors. Baseline assessment data will be gathered on vertical casing pipe and other well components.

Well Data:

API #:	037-21876		
Datum:	1963'		
KB to GL:	22'		
MD:	7,718"		
TVD:	7,443'		
PBMD:	7,713'	**Nature of Plug Back:**	Bottom of Liner

Geologic Markers:

LP: 5705' MD / 5563' TVD	S1: 7449' MD / 7192' TVD
UDA1: 6109' MD / 5938' TVD	S4: 7522' MD / 7260' TVD
MP: 7250' MD / 7006' TVD	S8: 7615' MD / 7347' TVD

Casing Data:

Surface Casing:	13-3/8", 54.5#, K55 Cem w/ 1030cuft @ 1,021'
Production Casing:	8-5/8", 36#, K55, 0 – 3,411' 36#, N80, 3,411' – 7,531'
Production Liner:	5-1/2", 20#, K55, 0.010" Screen @ 7,447'-7,713'

SoCal Gas Company

SoCalGas
A Sempra Energy utility

Well Operations Procedure

Tubing Data:

175 jts of 3-1/2" J55 EUE 8RD
66 jts of 3-1/2" N80 EUE 8RD
CamCo KBUG Mandrel (OD 5.313", ID 2.875")
1 jts of 3-1/2" N80 EUE 8RD
CamCo DS-1 NoGo Nipple (OD 5.50", ID 2.813")
CamCo SC-1 Safety System (OD 5.50", ID 2.812")
CamCo WP-1 Safety Valve Nipple (OD 5.50", ID 2.813")
CamCo Blast Joint (OD 3.75", ID 2.875")
CamCo D NoGo Nipple (OD 3.75", ID 2.25")
CamCo Blast Joint (OD 3.75", ID 2.875")
*Baker Seal Assembly w/ Locator Shoulder (6 Seals)

**Seal Assembly stabbed into permanent packer @ 7,347' (WL measurements)*

Wellhead:

8" Adapter Flange 5M (3" Master Valve)
10" x 8" Shaffer Tubing Head 5M (75-L-1) / 8" x 3-1/2" EUE Hanger (AJO) 5M
13-5/8" x 10" DSA 5M
13-3/8" x 13-5/8" SOW 5M

Perforations:

Open Hole with Wire Wrap Screen 7,489'-7,703'
Completed in S1, S4, and S8.

Perforated and Cement Squeezed (Nov. 1978) – 7,410', 7,418', 7,419', 7,423', 7,424', 7,425', 7,426'

Current Status: Idle for inspection

Permit Status: Pending

SoCal Gas Company

SoCalGas
A Sempra Energy utility

Well Operations Procedure

PROJECT NOTES

1. BOPE requirements in Gas Company Standard 224.05 shall be fully implemented at all times.

2. The storage reservoir pressures shall be monitored during the workover with a minimum of 300 psig overbalance for well control fluids.

3. Prepare the location by removing all relevant landscaping/lighting fixtures as well as surface piping and electrical components as needed. Locate rig anchors, reinstall if necessary.

4. DOGGR permit must be posted on site. Notify the DOGGR as required for BOPE testing prior to commencing downhole operations as stated on permit. DOGGR Ventura District office (805)-654-4761. If a permit has not been issued contact DOGGR 24 hours prior to rigging up on the well for verbal approval to rig up.

PRE-RIG WORK

1. De-energize and remove all laterals. Install companion flanges for circulating the well.

WELLWORK PROGRAM

1. Move in production rig and rig pump with tank, shaker, and mixer.

2. Spot 500 bbl Baker tanks and load with 8.5 ppg KCl brine.

   - Connect pump to the tubing and vent the casing through the choke manifold to the SoCalGas withdrawal system.
   - Treat all brine with Biocide, 5 gals/100 bbls

3. Circulate well as follows.
   a.) Bull head ~ 82 bbls of 8.5 ppg KCL brine down tubing with casing valve closed. Monitor casing pressure.
   b.) Open casing valve and circulate well ~ 412 bbls through open port in CamCo WP-1 safety valve @ 7,320'. Monitor well for static conditions.

   Note: Use HEC polymer as required to minimize lost circulation.

4. Install BPV in tubing hanger. ND tree.

   NOTE: Send-in wellhead and tree components for inspection.

5. +++Install Class III 5M BOPE per Gas Company Standard 224.05 and in accordance with the DOGGR permit. All connections and valves must be flanged and at least 5000 psig rated. (*Confirm BOPE rating*)

   - All tests are to be charted and witnessed by a DOGGR representative.
   - Perform a 300 psig low pressure test on the annular preventer, blind rams and pipe rams for

20 minutes. Test all lines and connections to 300 psig.

- Pressure test the Class III 5M annular preventer to 3500 psig for 20 minutes. Test blind rams and the pipe rams to 5000 psig for 20 minutes. Test all lines and connections to 5000 psig.
- Remove BPV.

6. POOH with production equipment and LD production tubing. PU ~7,500' of 2-7/8" P110 TKC work string.

   a.) Attempt to release seal assembly from packer. If not successful plan for a cut @ 7,290'.
   b.) Fish remainder of production string.
   c.) Mill Baker "Retrieva-D" production packer @ 7,347'.

7. RIH with 8-5/8", 36# positive ID casing scraper to top of liner @ 7,447'. Circulate well clean. POOH.

8. RIH with ~300' clean out string to PBMD @ 7,713' and clean out if necessary. POOH.

9. MIRU WL unit to run Gyro / Multi-Arm Caliper combo from PBMD to surface. Contact engineer for QC before RDMO WL. Send a copy of the survey file to BVlasko@semprautilities.com.

10. Rig-up wireline unit(s) and run:

    a.) Magnetic flux leakage from top of production liner @7,447' to surface

    Notify engineer prior to logging. Do not RDMO WL without engineer's approval.

11. RIH with RBP to liner top, pressure test to 500 psi for 10 minutes and sand off.

12. Nipple down BOPE, crossover spool, and primary pack-off.

    a.) Send DSA and tubing spool to Vendor for refurbishment.
    b.) Install auxiliary spacer spool and NU BOPE

13. Rig-up wireline unit, install lubricator and run:

    b.) Ultrasonic from RBP to surface
    c.) CBL from RBP to surface

    Notify engineer prior to logging. Do not RDMO WL without engineer's approval.

14. Ensure equipment integrity (tree, spool, tubing hanger, master valve, wing valves) have been refurbished before proceeding to the next step.

15. ND BOPE, install tubing spool, reinstall BOPE and test (*Casing head is rated to 5000 psi*).

16. RIH with test packer(s) on work string and conduct a Pressure Integrity Test ("Block"). Follow test schedule below. POOH with test packer(s).

a.) Pressure test to 115% of the wells maximum allowable operating pressure (3625 psi) as per attached Pressure Test Schedule.
b.) Engineering team to analyze log and pressure test results and recommend any additional remediation.

Test	Packer Depth	BP Depth	Test Pressure
1	500	N/A	3,625 PSI (Casing)
2	1,000	N/A	3,410 PSI (Casing)
3	1,500	N/A	3,200 PSI (Casing)
4	2,000	N/A	3,000 PSI (Casing)
5	2,500	N/A	2,750 PSI (Casing)
6	3,000	N/A	2,575 PSI (Casing)
7	3,411	N/A	2,430 PSI (Casing)
Final	7,400	N/A	2,220 PSI (Casing)

17. RIH with retrieving tool on work string circulating while engaging RBP retrieval neck. Open bypass and allow RBP to equalize for 30 mins. Release RBP and allow elastomers to relax for 1 hr. Circulate as required to control well. POOH slowly to minimize swabbing and lay down work string.

18. If HEC was used to kill well consider pumping bleach treatment to break polymer. RIH with ~300' clean out string to PBMD @ 7,713' and spot bleach treatment. POOH.

19. RIH with new tubing as follows:

RIH with packer assembly (items 1 - 9). RIH with XN plug, set and bundle test packer BHA to 4000psi for 5 mins. Pull XN plug. Continue running 3-1/2" tubing hydro-testing each connection to 4000psi.

1. *~ 1ft - 3-1/2" 9.3# L80 TCPC Wireline re-entry guide, set at ~* ***7,400'***
2. *~ 2ft - 3-1/2" 9.3# L80 TCPC XN Nipple (2.75" Bore w/ 2.635" NoGo)*
3. *~ 10ft - Pup joint 3-1/2" 9.3# L80 TCPC*
4. *~ 8ft - 3-1/2" 9.3# L80 TCPC x 8-5/8" 36# Mechanical Production Packer*
5. *~ 10ft - Pup joint 3-1/2" 9.3# L80 TCPC*
6. *~ 30ft – 1 Joint 3-1/2" 9.3# L80 TCPC tubing*
7. *~ 2ft - Pup 3-1/2" 9.3# L80 TCPC*
8. *~ 2ft - 3-1/2" 9.3# L80 TCPC (2.813" Open Down) sliding sleeve*
9. *~ 4ft - Pup 3-1/2" 9.3# L80 TCPC*
10. *~ 7349ft - 3-1/2" 9.3# L80 TCPC tubing to surface*
11. *Pup joints 3-1/2" 9.3# L80 TCPC for space-out*
12. *~ 10ft - Pup 3-1/2" 9.3# L80 TCPC*
13. *~ 4ft - 3-1/2" 9.3# L80 TCPC fatigue nipple (pin x pin)*
14. *Tubing hanger with 3-1/2" EUE top box / 3" BPV / 3-1/2" 9.3# TCPC bottom box*

Notes : Prior to sending completion equipment to well site

- Make up items 1) through 5) under the supervision of Quality Tubulars. Pressure test assembly to 4000 psi for 1hr, chart test. Test caps to be installed and removed by

Quality Tubulars.

- Make up items 7) through 9) under the supervision of Quality Tubulars. Pressure test assembly to 4000 psi for 1hr, chart test. Test caps to be installed and removed by Quality Tubulars.
- Shift sliding sleeve and drift with XN plug prior to shipping tools to location.
- Seal lube top sub on ASX-1 packer, to be witnessed by Quality Tubulars.
- Packer vendor to provide Force Analysis / Tube Move Calculations prior to sending equipment to well site.

20. Land tubing as per vendor specifications.

    Note: Amount of compression to set on packer will be determined by Force Analysis / Tube Move Calculations.

21. Rig-up slickline unit and lubricator. Set a plug in the 2.75" XN profile.

22. Notifiy DOGGR to witness tubing tests to 3700 psi, hold for 1 hour. Perform annular test to 1000 psi, hold for 1 hour. Record tests digitally.

23. RIH with WL and recover XN plug. Shift the sliding sleeve open. RDMO WL.

24. Install BPV in tubing hanger. Nipple down BOPE, install production tree and test to 5,000 psig. Remove BPV.

25. RDMO.

UNLOAD WELL

26. Rig-up nitrogen unit. Recover workover fluid by pumping down annulus taking returns up tubing.

27. MIRU WL unit. RIH with slickline and shift sliding sleeve closed. POOH and rig down slickline unit.

WELL LATERAL HYDROTESTING

28. Per Gas Company Standard 182.0170, pressure test the tubing and casing kill laterals from the wellhead to the remote tie in to 3625 psig. Pressure test the tubing and casing withdrawal/injection laterals from wellhead to operating valves to 3625 psig.

21. Reinstall the hydro-tested laterals.

22. Install the well safety systems and instrumentation. Install pressure transmitters on tubing, casing, and surface casing.

23. Release well to operations.

EXTERNAL CORROSION PROTECTION

SoCal Gas Company

SoCalGas
A Sempra Energy utility

Well Operations Procedure

Per Gas Company Standard 167.30, remove any lead based paint and recoat wellhead, production tree, and laterals.

Rec'd 07-07-16 DOGGR Ventura.

		External Casing Backup Pressure			Pressure Test Net Burst Pressure @ Depth								Tubing Leak Net Burst Pressure @ Depth		
Depth (TVD)	85% of Burst Strength	Fluid / Formation Pressure Gradient	External Casing Backup Pressure	Internal Water Hydrostatic	1	2	3	4	5	6	7	Final	Gas-Filled Annulus	Test Pressuree > 85% of Burst	Test Pressure < Tubing Leak - Net Burst (Gas-filled annulus)
				Surface Test Pressure	3625	3410	3200	3000	2750	2575	2430	2220	3625		
				Test Packer Depth	500	1000	1500	2000	2500	3000	3411	7400			
				Test Down Casing or Tubing	Casing	Casing	Casing	Casing	Casing	Casing	Casing	Casing			
				Bridge Plug Depth											
0	3791	0.00	0	0	3625	3410	3200	3000	2750	2575	2430	2220	3625		
500	3791	0.00	0	221	3846	3631	3421	3221	2971	2796	2651	2441	3670	86%	
1000	3791	0.00	0	442	-	3852	3642	3442	3192	3017	2872	2662	3716	86%	
1500	3791	0.00	0	663	-	-	3863	3663	3413	3238	3093	2883	3761	87%	
2000	3791	0.00	0	884	-	-	-	3884	3634	3459	3314	3104	3806	87%	
2500	3791	0.00	0	1105	-	-	-		3855	3680	3535	3325	3852	86%	
3000	3791	0.00	0	1326	-	-	-	-		3901	3756	3546	3897	87%	
3411	3791	0.00	0	1508	-	-	-	-	-		3938	3728	3934	88%	
4000	5517	0.00	0	1768	-	-	-	-	-	-		3988	3988		
4500	5517	0.00	0	1989	-	-	-	-	-	-	-	4209	4033		
4968	5517	0.00	0	2196	-	-	-	-	-	-	-	4416	4075		
5500	5517	0.00	0	2431	-	-	-	-	-	-	-	4651	4123		
6000	5517	0.00	0	2652	-	-	-	-	-	-	-	4872	4169		
6500	5517	0.00	0	2873	-	-	-	-	-	-	-	5093	4214		
7400	5517	0.00	0	3271	-	-	-	-	-	-	-	5491	4296		
				0.442 psi/ft int. grad.									0.091 psi/ft int. grad.		

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

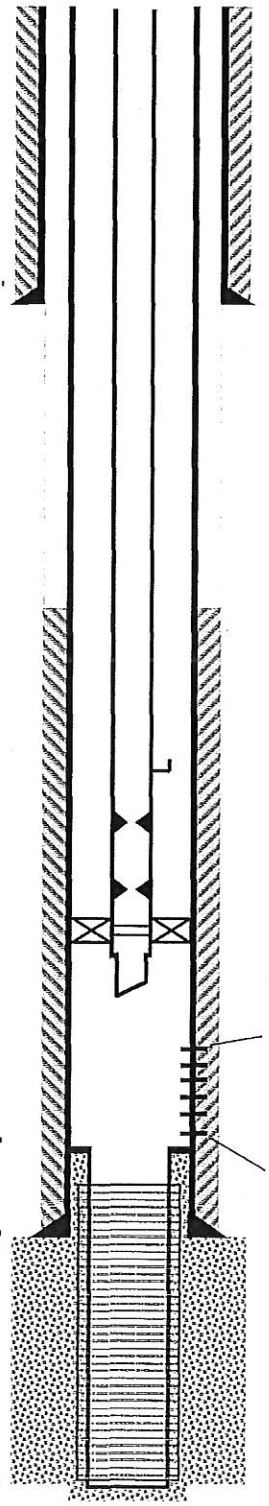
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Surface Casing
13-3/8", 54.5#, K-55
0' - 1021'
CMT'D w/ 1030 CF

Tubing
3-1/2", 9.3#, J-55 & N-80
0' - 7351'
2-7/8"
7351' - 7365'

Production Casing
8-5/8"
0' - 3411' 36#, K-55
3411' - 7531' 36#, N-80
CMT'D w/ 1375 CF

7264' KBUG Mandrel

7305' Camco 3-1/2" PC-4 Safety System

7340' Camco "D" No-Go Nipple

7347' Baker "Retrieva-D" PCKR
7351' 3-1/2" x 2-7/8" X-Over

7365' Tail

7410' Four (4) 1/2" Holes (14 CF CMT SQZ'D Away, 11/10/1978)
7418' Four (4) 1/2" Holes (11/15/1978) WSO
7419' Four (4) 1/2" Holes (46 CF + 32 CF + 17 CF CMT SQZ'D Away, 11/12/1978)
7423' Four (4) 1/2" Holes (4 SKS + 14 CF + 15 CF CMT SQZ'D Away, 11/7/1978)
7424' - 7425' Four (4) 1/2" Holes (45 CF + 6 SKS + 14 SKS CMT SQZ'D Away, 11/4/1978)
7425' - 7426' Four (4) 1/2" Holes (57 CF CMT SQZ'D, 11/2/1978)

Liner
5-1/2", 20#, K-55
7447' - 7713'

Liner Perfs:
7489' - 7703' 0.010" WWS

Gravel Packed w/ 192 CF 20-40

(7704' - 7718') 7-5/8" Hole

Top of Zone Markers	md	(tvd)
LP	5705'	(5563')
UDA1	6109'	(5938')
MP	7250'	(7006')
S1	7449'	(7192')
S4	7522'	(7260')
S8	7615'	(7347')

TD 7718'
TD VSS (7443')
Directionally Drilled: Yes (TD is 966' E, 882' N of Surf)

Prepared by: MAM (5/31/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Production Casing Pressure Test #1 - Program

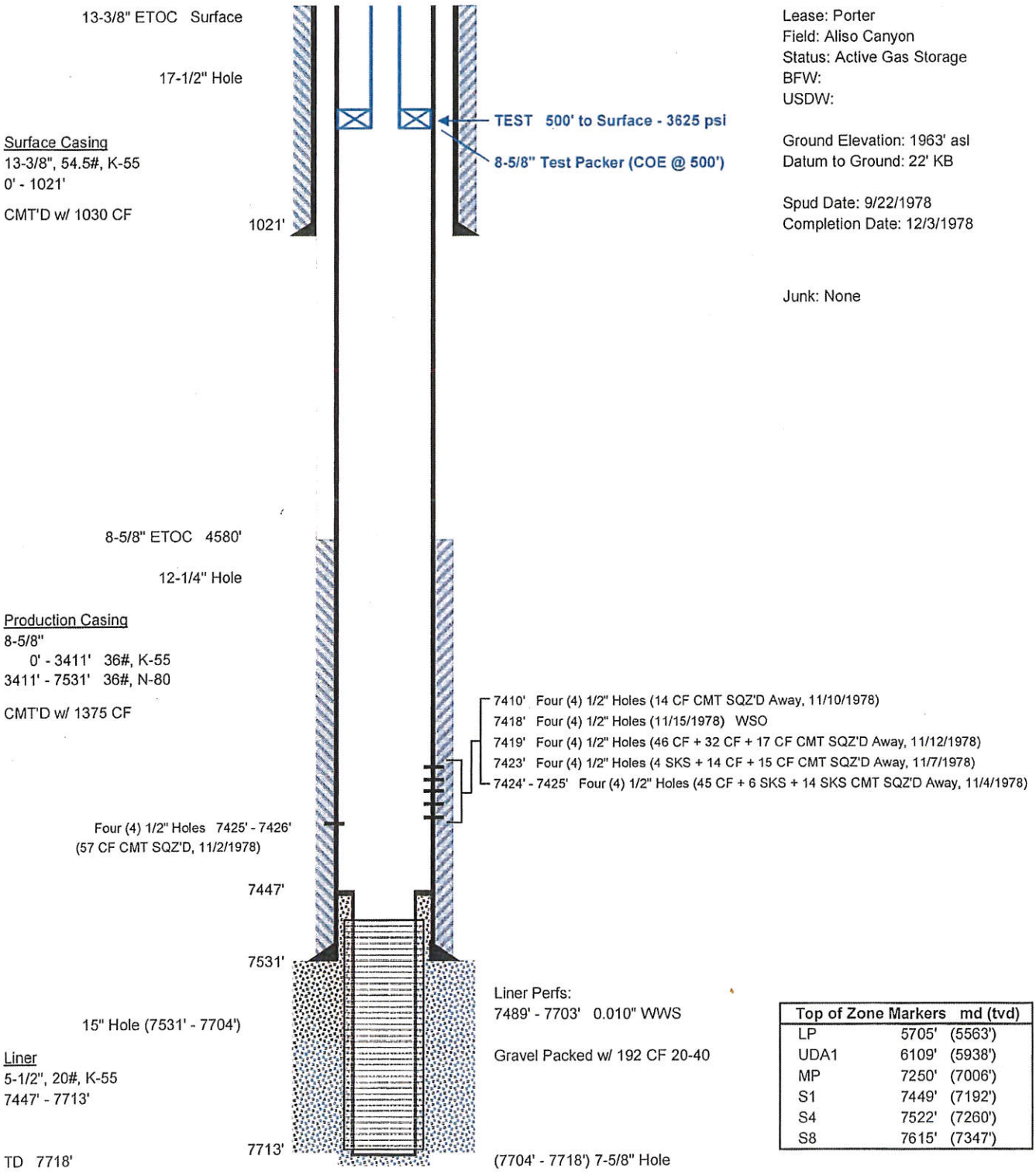
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Top of Zone Markers	md (tvd)
LP	5705' (5563')
UDA1	6109' (5938')
MP	7250' (7006')
S1	7449' (7192')
S4	7522' (7260')
S8	7615' (7347')

TD 7718'
TD VSS (-5458')
Directionally Drilled: Yes (TD is 966' E, 882' N of Surf, 7443' TVD)

Prepared by: MAM (5/2/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Production Casing Pressure Test #2 - Program

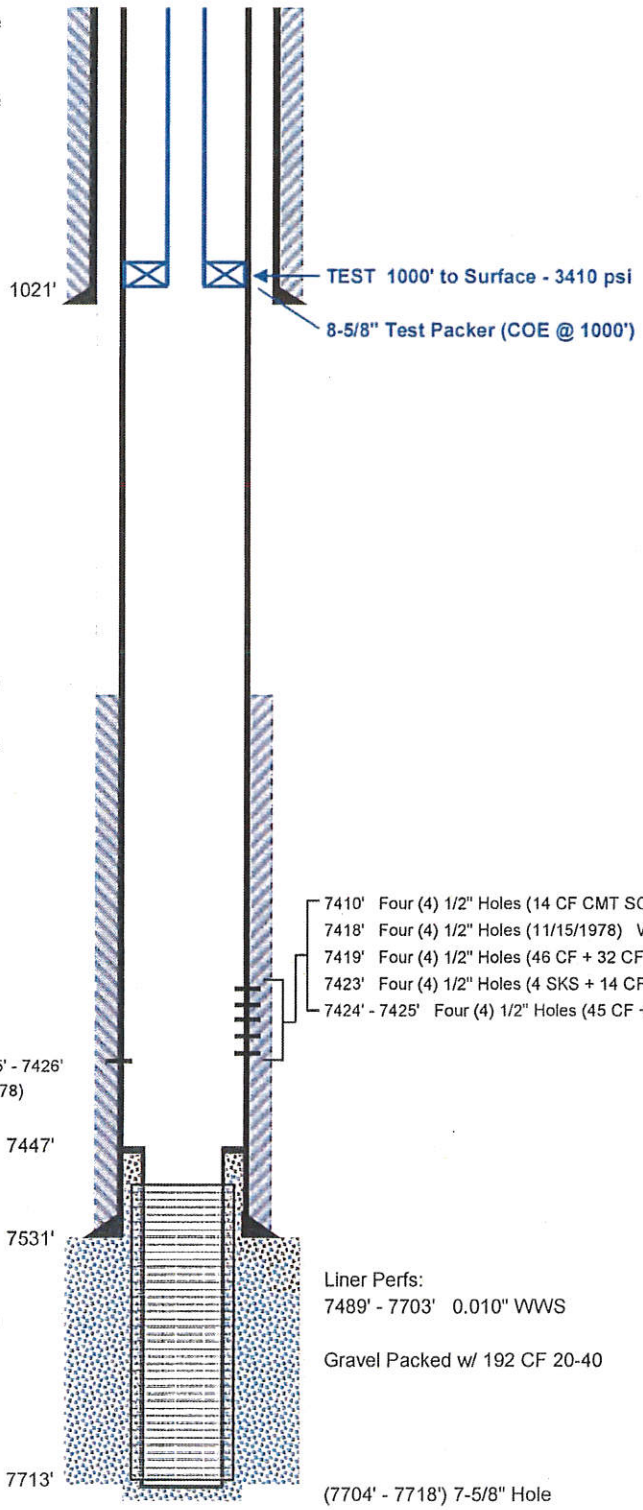
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Directionally Drilled: Yes (TD is 966' E, 882' N of Surf, 7443' TVD)

Top of Zone Markers	md	(tvd)
LP	5705'	(5563')
UDA1	6109'	(5938')
MP	7250'	(7006')
S1	7449'	(7192')
S4	7522'	(7260')
S8	7615'	(7347')

Prepared by: MAM (5/2/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Production Casing Pressure Test #3 - Program

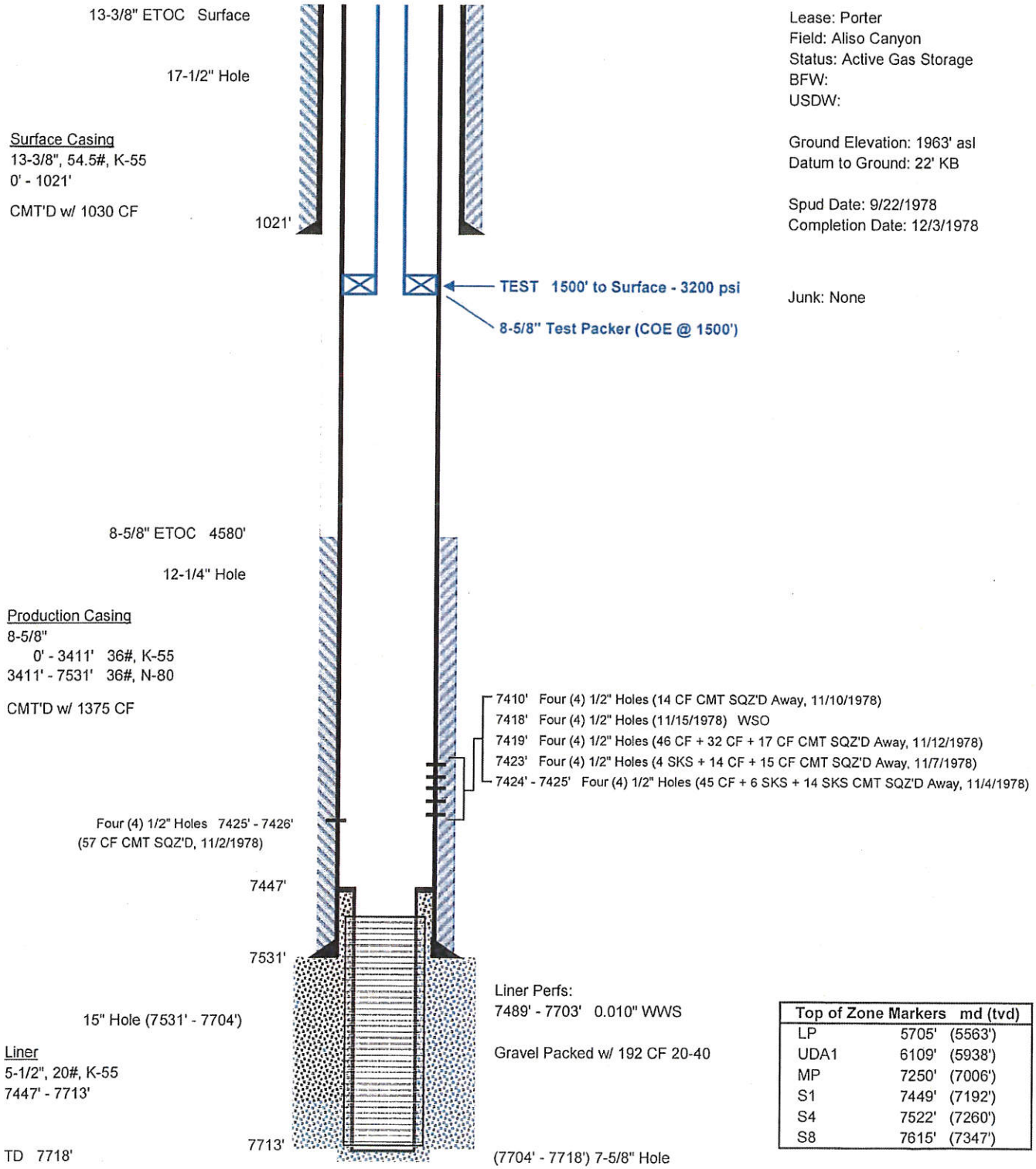
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Top of Zone Markers	md	(tvd)
LP	5705'	(5563')
UDA1	6109'	(5938')
MP	7250'	(7006')
S1	7449'	(7192')
S4	7522'	(7260')
S8	7615'	(7347')

TD 7718'
TD VSS (-5458')
Directionally Drilled: Yes (TD is 966' E, 882' N of Surf, 7443' TVD)

Prepared by: MAM (5/2/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Production Casing Pressure Test #4 - Program

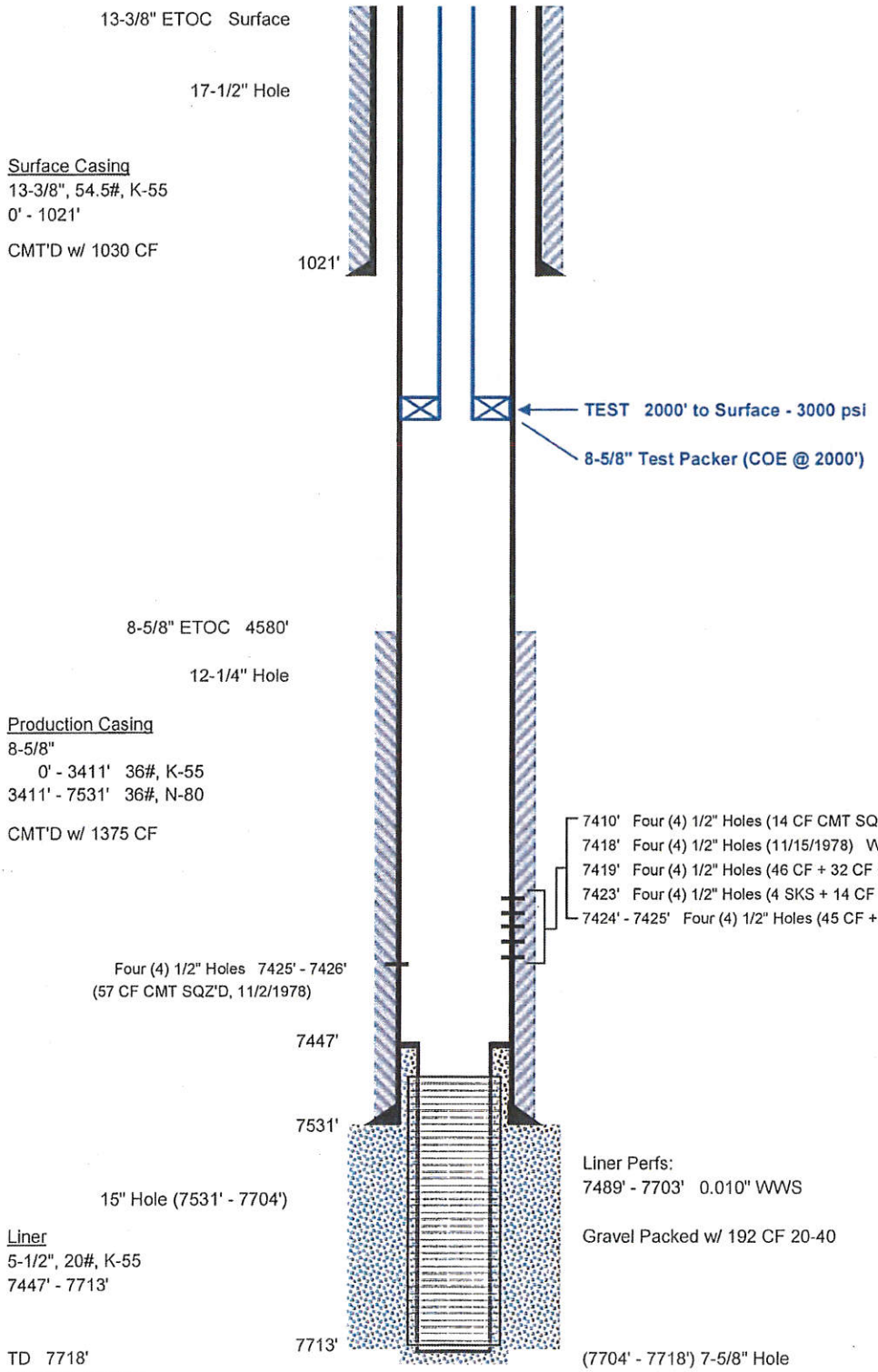
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Top of Zone Markers	md (tvd)
LP	5705' (5563')
UDA1	6109' (5938')
MP	7250' (7006')
S1	7449' (7192')
S4	7522' (7260')
S8	7615' (7347')

TD 7718'
TD VSS (-5458')
Directionally Drilled: Yes (TD is 966' E, 882' N of Surf, 7443' TVD)

Prepared by: MAM (5/2/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Production Casing Pressure Test #5 - Program

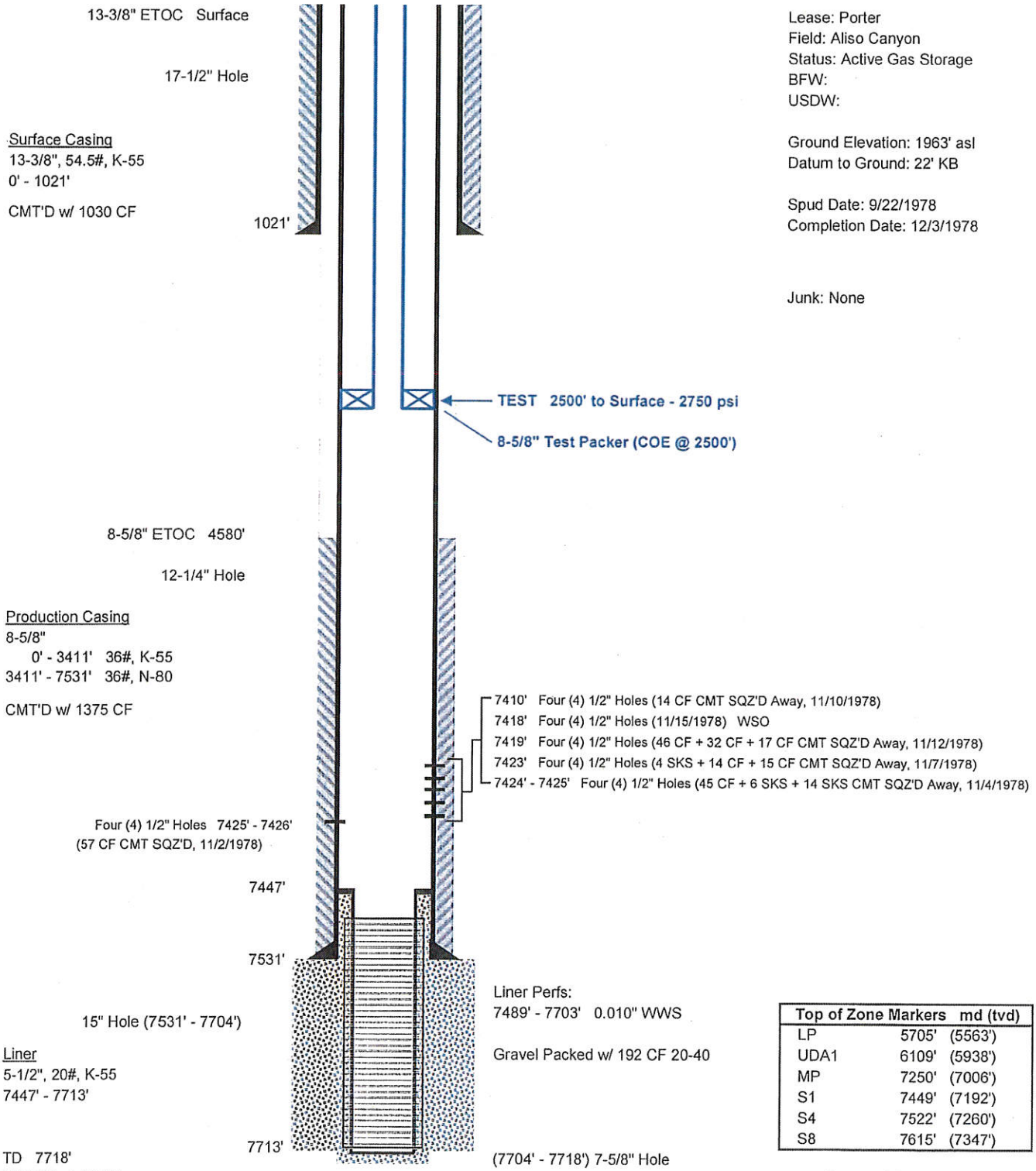
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Top of Zone Markers	md	(tvd)
LP	5705'	(5563')
UDA1	6109'	(5938')
MP	7250'	(7006')
S1	7449'	(7192')
S4	7522'	(7260')
S8	7615'	(7347')

Prepared by: MAM (5/2/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Production Casing Pressure Test #6 - Program

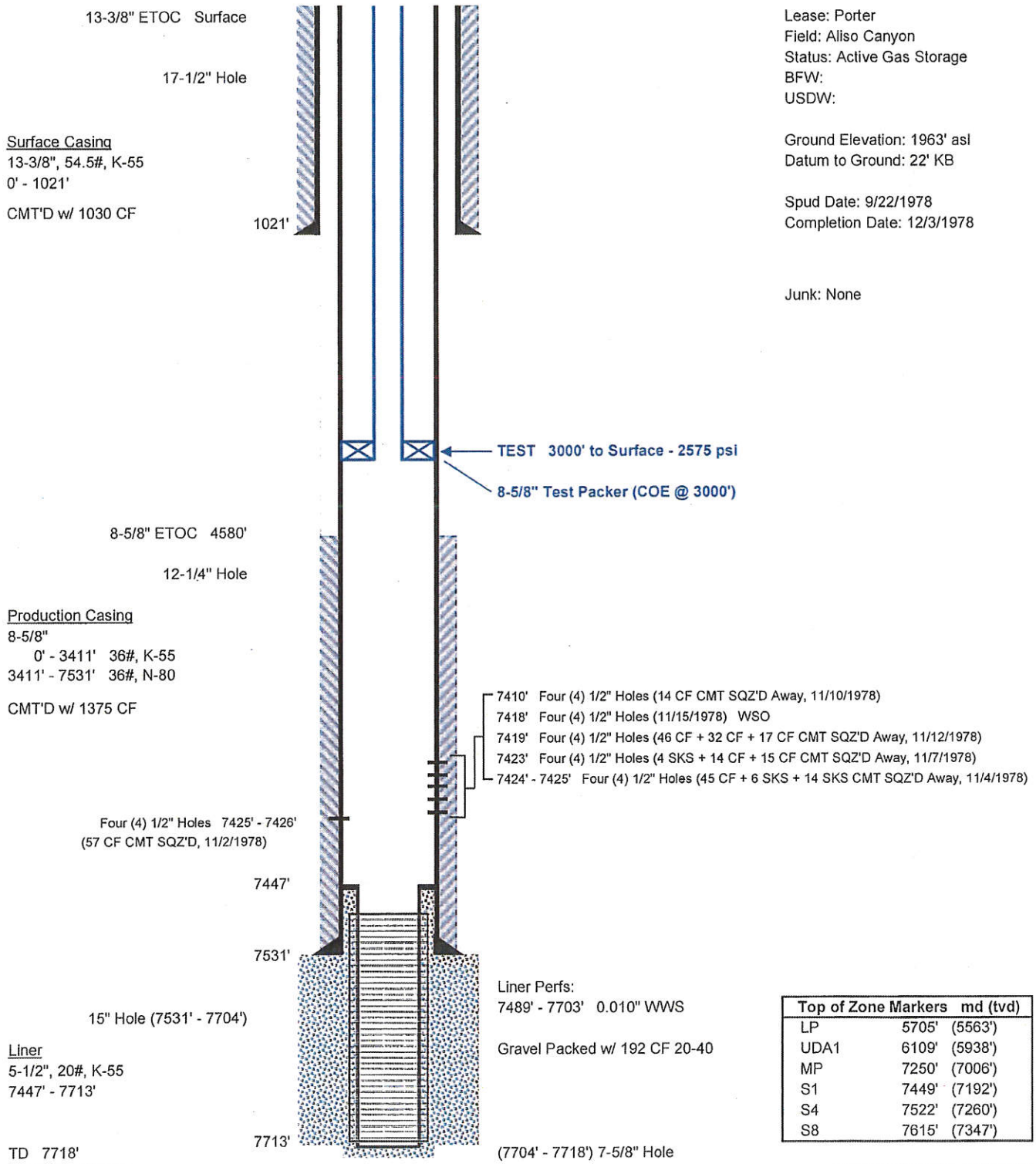
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Top of Zone Markers	md	(tvd)
LP	5705'	(5563')
UDA1	6109'	(5938')
MP	7250'	(7006')
S1	7449'	(7192')
S4	7522'	(7260')
S8	7615'	(7347')

TD 7718'
TD VSS (-5458')
Directionally Drilled: Yes (TD is 966' E, 882' N of Surf, 7443' TVD)

Prepared by: MAM (5/2/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Production Casing Pressure Test #7 - Program

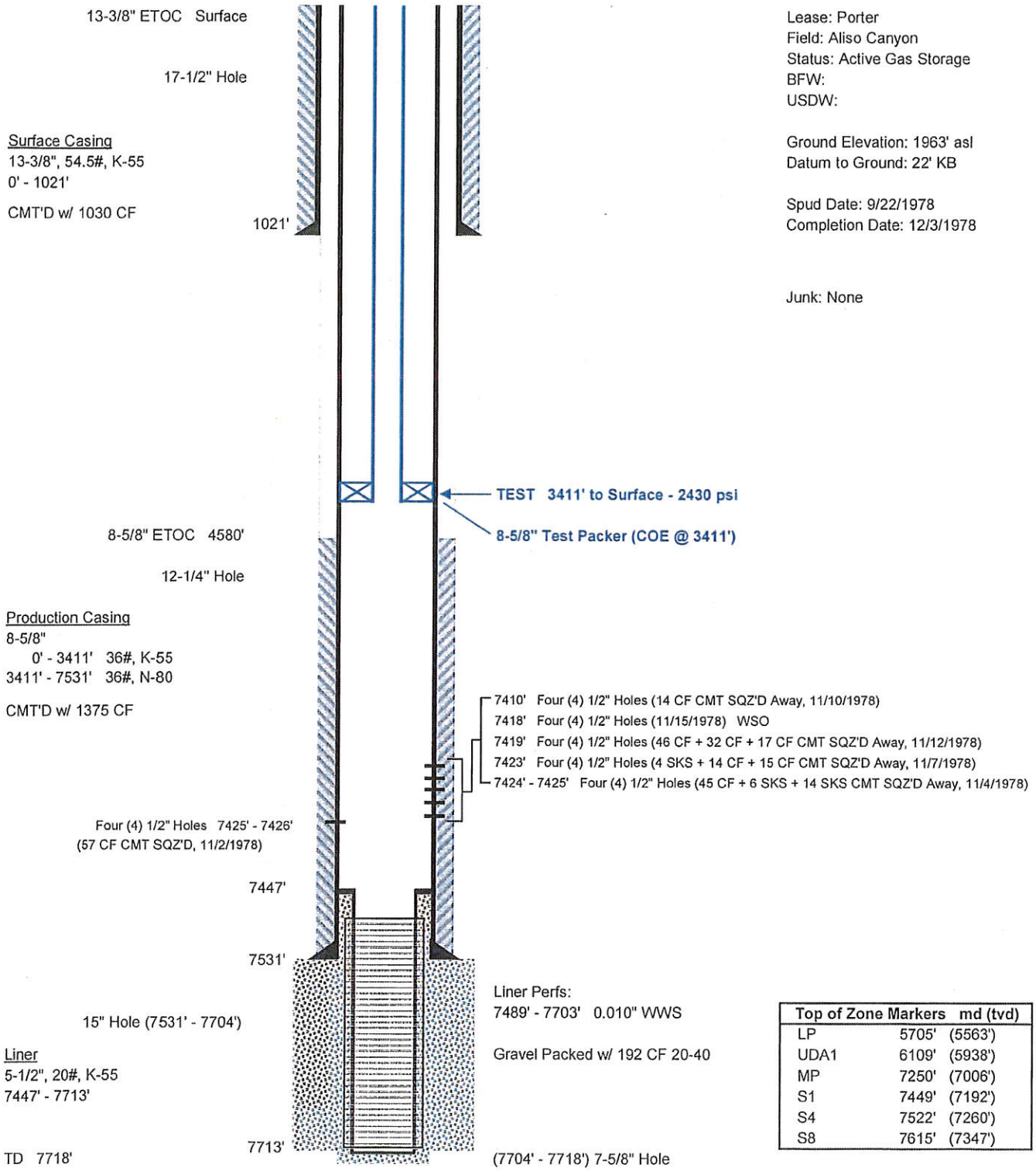
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Top of Zone Markers	md (tvd)
LP	5705' (5563')
UDA1	6109' (5938')
MP	7250' (7006')
S1	7449' (7192')
S4	7522' (7260')
S8	7615' (7347')

TD 7718'
TD VSS (-5458')
Directionally Drilled: Yes (TD is 966' E, 882' N of Surf, 7443' TVD)

Prepared by: MAM (5/2/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Production Casing Pressure Tests #8 - Program

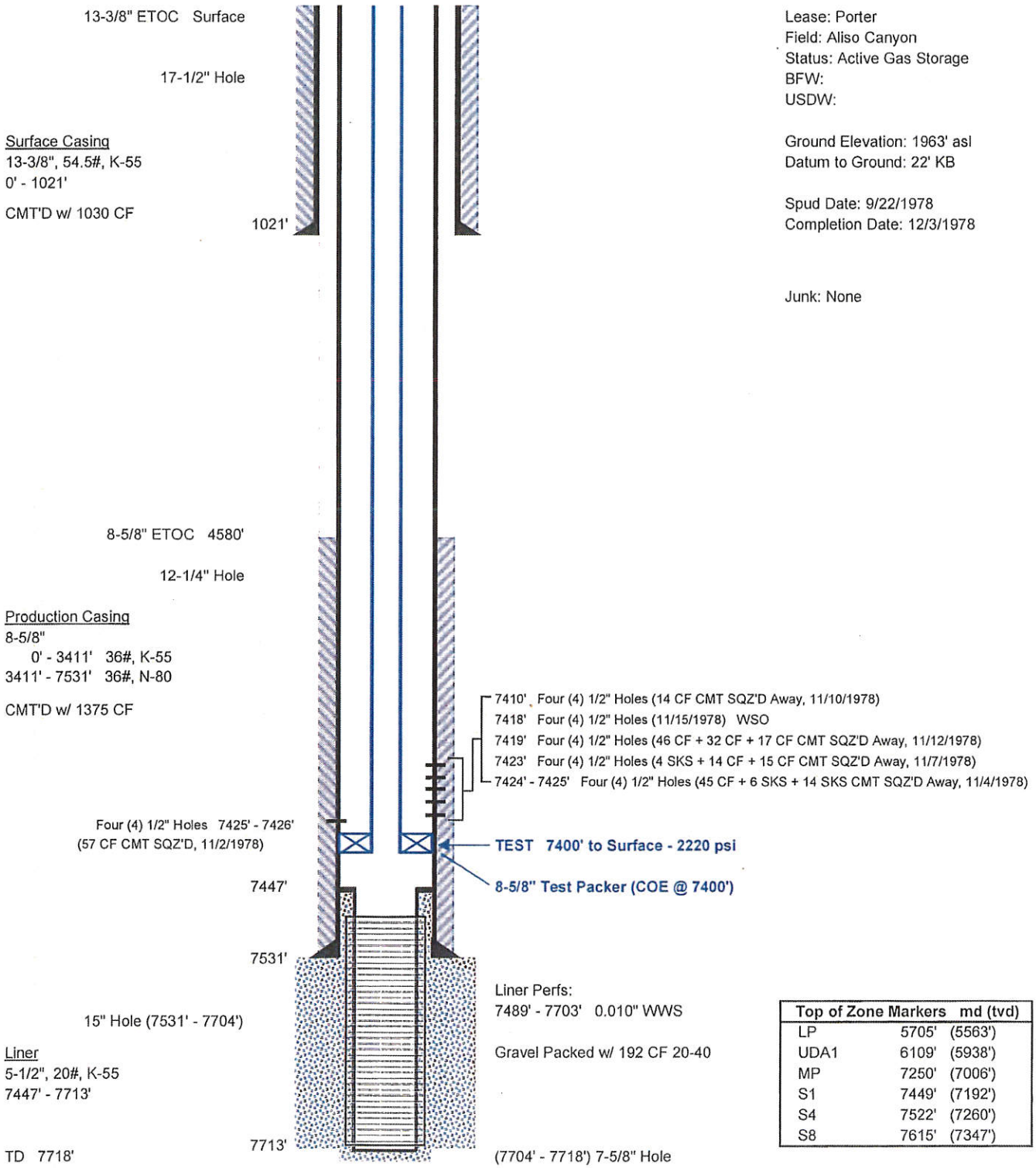
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Top of Zone Markers	md (tvd)
LP	5705' (5563')
UDA1	6109' (5938')
MP	7250' (7006')
S1	7449' (7192')
S4	7522' (7260')
S8	7615' (7347')

TD 7718'
TD VSS (-5458')
Directionally Drilled: Yes (TD is 966' E, 882' N of Surf, 7443' TVD)

Prepared by: MAM (5/2/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

Well
Porter 42A

API #: 04-037-21876-00
Sec 28, T3N, R16W

Proposed

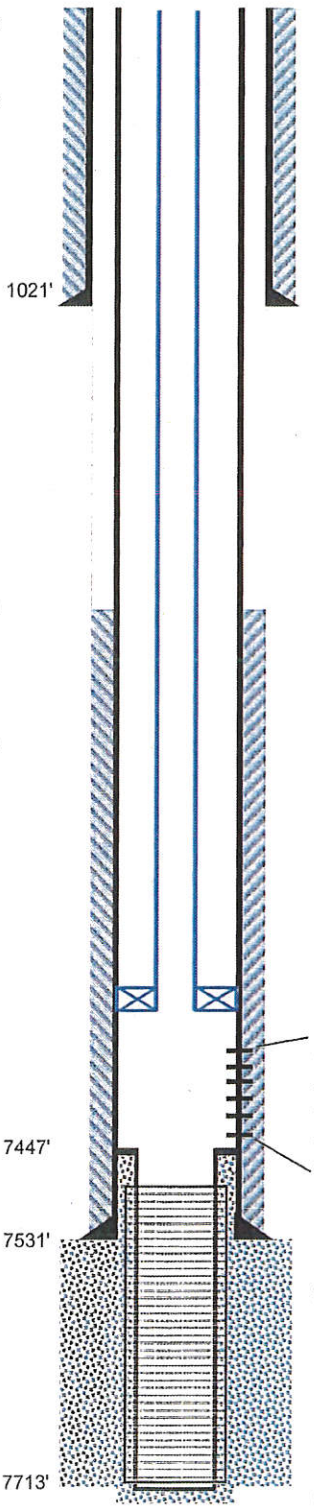
Operator: So. California Gas Co.

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

Ground Elevation: 1963' asl
Datum to Ground: 22' KB

Spud Date: 9/22/1978
Completion Date: 12/3/1978

Junk: None



Tubing
3.5", 9.3#, TCPC
0' - 7390'

Surface Casing
13-3/8", 54.5#, K-55
0' - 1021'

CMT'D w/ 1030 CF

Production Casing
8-5/8"
0' - 3411' 36#, K-55
3411' - 7531' 36#, N-80

CMT'D w/ 1375 CF

7390' 8-5/8" PCKR

7410' Four (4) 1/2" Holes (14 CF CMT SQZ'D Away, 11/10/1978)
7418' Four (4) 1/2" Holes (11/15/1978) WSO
7419' Four (4) 1/2" Holes (46 CF + 32 CF + 17 CF CMT SQZ'D Away, 11/12/1978)
7423' Four (4) 1/2" Holes (4 SKS + 14 CF + 15 CF CMT SQZ'D Away, 11/7/1978)
7424' - 7425' Four (4) 1/2" Holes (45 CF + 6 SKS + 14 SKS CMT SQZ'D Away, 11/4/1978)
7425' - 7426' Four (4) 1/2" Holes (57 CF CMT SQZ'D, 11/2/1978)

Liner Perfs:
7489' - 7703' 0.010" WWS

Gravel Packed w/ 192 CF 20-40

Liner
5-1/2", 20#, K-55
7447' - 7713'

Top of Zone Markers	md (tvd)
LP	5705' (5563')
UDA1	6109' (5938')
MP	7250' (7006')
S1	7449' (7192')
S4	7522' (7260')
S8	7615' (7347')

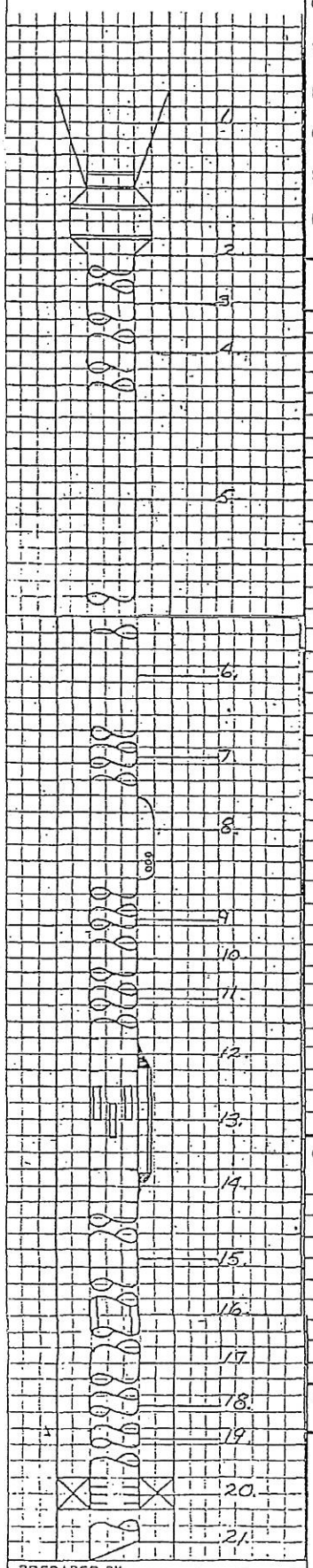
TD 7718'
TD VSS (7443')
Directionally Drilled: Yes (TD is 966' E, 882' N of Surf)

Prepared by: MAM (5/31/2016)
Updated by: LD (7/5/2016)

InterAct

Rec'd 07-07-16 DOGGR Ventura.

WELL PROFILE



PREPARED BY Jeff Shepherd

MP F-1

OPERATOR Southern California Gas Co.

WELL # PORTER 42-A

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE January 19,1979

☐ NEW COMPLETION ☐ WORKOVER

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

ITEM NO.	TUBING DETAILS	LENGTH	DEPTH
1	Kelly Bushing or Elevation	22.00	22.00
2	Tubing Hanger	.75	22.75
3	Pup Jt. 3 1/2" 8rd EUE	3.00	25.75
4	Pup Jt. 3 1/2" 8rd EUE	8.00	33.75
5	175 Jts. 3 1/2" 8rd EUE J-55 tubing	5277.93	5311.68
6	66 Jts. 3 1/2" 8rd EUE N-80 tubing	1948.21	7259.89
7	Pup Jt 3 1/2" 8rd EUE	4.11	7264.00
8	Camco KBUG mandrel w/DCK-2T kill valve in place OD. 5.313" I.D. 2.875"	6.45	7270.45
9	Pup Jt. 3 1/2" 8rd EUE	1.87	7272.32
10	1 Jt. 3 1/2" 8rd EUE N-80 tubing	28.62	7300.94
11	Pup Jt. 3 1/2" 8rd EUE	4.15	7305.09
12	Camco DS-1 no go nipple (empty) O.D. 5.500" I.D. 2.813"		
13	Camco SC-1 Safety system (run empty) O.D.5.500" I.D. 2.812"	15.58	7320.67
14	Camco WP-1 safety valve nipple (empty) O.D. 5.500" I.D. 2.813"		
15	Camco 20' blast Jt. 3 1/2" 8rd EUE O.D. 3.750" I.D. 2.875"	19.57	7340.24
16	Camco "D" no go nipple O.D. 3.750" I.D. 2.250"	1.24	7341.48
17	Camco 10' blast jt. 3 1/2" 8rd EUE O.D. 3.750" I.D. 2.875"	9.81	7351.29
18	X-over 3 1/2" 8rd EUE x 2 7/8" 8rd EUE	.50	7351.79
19	Baker Locator Sub	1.07	7352.86
20	Baker seal assembly (6 seals)	6.70	7359.56
21	Baker production tube	5.28	7364.84

- NOTES -

Backer packer set at 7,347'+ - wireline measurment.
Stabbed seals into packer with 20,000# on packer.
Camco KBUG mandrel has DCK-2T kill valve in side pocket.
Kill valve shears at 4,000# differential pressure.
Camco SC-1 safety system was run with both nipples empty.
Camco SC-1 is to recieve 1 3 1/2" 6S packoff and 1 3 1/2" PS-4 safety valve

COMMENTS:

PREPARED BY	OFFICE	PHONE

Worksheet No. 523

SAVE TIME AND MONEY WITH
COMPLETIONS BY BAKER
BAKER DIVISION
BAKER OIL TOOLS, INC.
HOUSTON • LOS ANGELES • NEW YORK

PRINTED IN U.S.A.

Rec'd 07-07-16 DOGGR Ventura.

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET		DOG LEG SEVERITY DEG/100FT
0.	0 0	0	0.00	0.00	0.00	0.00	0.0
236.	1 0	S 57 W	235.99	-2.03	1.12 S	1.73 W	0.4
388.	2 0	S 62 W	387.94	-5.91	3.14 S	5.16 W	0.7
480.	2 30	S 57 W	479.87	-9.44	4.97 S	8.27 W	0.6
631.	2 45	S 50 W	630.71	-16.31	9.09 S	13.83 W	0.3
903.	2 30	S 51 W	902.42	-28.74	17.01 S	23.44 W	0.1
1021.	2 0	S 70 W	1020.33	-33.25	19.29 S	27.47 W	0.8
1105.	2 30	S 60 W	1104.27	-36.39	20.69 S	30.46 W	0.8
1200.	2 15	S 60 W	1199.19	-40.22	22.66 S	33.87 W	0.3
1324.	2 15	S 43 W	1323.09	-45.07	25.69 S	37.68 W	0.5
1448.	2 15	S 27 W	1447.00	-49.84	29.67 S	40.47 W	0.5
1573.	2 15	S 36 W	1571.90	-54.57	33.86 S	43.04 W	0.3
1723.	2 15	S 41 W	1721.78	-60.39	38.47 S	46.70 W	0.1
1943.	2 45	S 45 W	1941.57	-69.96	45.48 S	53.25 W	0.2
2100.	2 45	S 43 W	2098.39	-77.48	50.90 S	58.48 W	0.1
2286.	2 45	S 58 W	2284.18	-86.39	56.58 S	65.36 W	0.4
2504.	2 45	S 44 W	2501.93	-96.83	63.16 S	73.49 W	0.3
2660.	3 0	S 46 W	2657.73	-104.65	68.69 S	79.03 W	0.2
2910.	3 15	S 48 W	2907.36	-118.27	77.99 S	88.99 W	0.1
3128.	3 15	S 52 W	3125.01	-130.62	85.93 S	98.46 W	0.1
3240.	3 30	S 36 W	3236.82	-137.20	90.88 S	103.04 W	0.9
3270.	3 15	S 15 W	3266.76	-138.84	92.27 S	103.80 W	4.2
3309.	3 0	S 6 E	3305.71	-140.41	94.39 S	103.97 W	3.0
3340.	3 15	S 26 E	3336.66	-141.18	96.01 S	103.50 W	3.6
3372.	3 30	S 43 E	3368.60	-141.46	97.57 S	102.44 W	3.2
3403.	4 0	S 64 E	3399.54	-141.09	98.77 S	100.81 W	4.7
3465.	3 30	N 84 E	3461.40	-138.65	99.48 S	96.81 W	3.4
3497.	3 0	N 69 E	3493.35	-137.07	99.05 S	95.05 W	3.1
3528.	3 45	N 53 E	3524.30	-135.30	98.17 S	93.45 W	3.9
3560.	4 45	N 56 E	3556.21	-132.95	96.79 S	91.52 W	3.2

Rec'd 07-07-16 DOGGR Ventura.

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET		DOG LEG SEVERITY DEG/100FT
3591.	5 30	N 45 E	3587.09	-130.18	95.03 S	89.38 W	4.0
3621.	6 15	N 51 E	3616.93	-127.11	92.98 S	87.10 W	3.2
3652.	7 30	N 53 E	3647.71	-123.42	90.69 S	84.18 W	4.1
3683.	8 45	N 53 E	3678.40	-119.06	88.05 S	80.68 W	4.0
3713.	10 0	N 51 E	3708.00	-114.19	85.05 S	76.83 W	4.3
3837.	11 15	N 52 E	3829.87	-91.40	70.81 S	58.94 W	1.0
3932.	14 45	N 54 E	3922.43	-70.14	57.95 S	41.87 W	3.7
4023.	17 30	N 55 E	4009.85	-45.09	43.28 S	21.29 W	3.0
4116.	21 0	N 55 E	4097.65	-14.72	25.69 S	3.82 E	3.8
4145.	21 30	N 55 E	4124.68	-4.31	19.66 S	12.43 E	1.7
4175.	22 15	N 55 E	4152.52	6.75	13.25 S	21.59 E	2.5
4213.	23 0	N 55 E	4187.60	21.23	4.86 S	33.56 E	2.0
4335.	23 0	N 55 E	4299.90	68.44	22.48 N	72.61 E	0.0
4492.	23 0	N 55 E	4444.42	129.18	57.66 N	122.86 E	0.0
4618.	22 15	N 54 E	4560.72	177.24	85.81 N	162.33 E	0.7
4741.	22 30	N 54 E	4674.46	223.71	113.33 N	200.20 E	0.2
4899.	22 30	N 54 E	4820.44	283.73	148.87 N	249.12 E	0.0
5053.	23 0	N 53 E	4962.45	342.90	184.30 N	296.99 E	0.4
5213.	23 0	N 53 E	5109.73	405.07	221.92 N	346.92 E	0.0
5401.	23 0	N 53 E	5282.79	478.13	266.13 N	405.59 E	0.0
5587.	23 0	N 55 E	5454.00	550.26	308.85 N	464.38 E	0.4
5786.	22 0	N 50 E	5637.86	626.06	355.21 N	524.80 E	1.1
5838.	22 15	N 46 E	5686.03	645.65	368.31 N	539.36 E	2.9
5931.	22 15	N 45 E	5772.10	680.85	392.99 N	564.47 E	0.4
6055.	21 0	N 37 E	5887.37	726.30	427.48 N	594.45 E	2.6
6210.	20 45	N 39 E	6032.20	780.85	471.00 N	628.46 E	0.5
6299.	20 30	N 39 E	6115.50	811.89	495.37 N	648.19 E	0.3
6434.	20 45	N 38 E	6241.84	858.92	532.58 N	677.79 E	0.3
6591.	21 0	N 38 E	6388.54	914.18	576.67 N	712.23 E	0.2
6745.	20 45	N 38 E	6532.43	968.38	619.91 N	746.02 E	0.2

Rec'd 07-07-16 DOGGR Ventura.

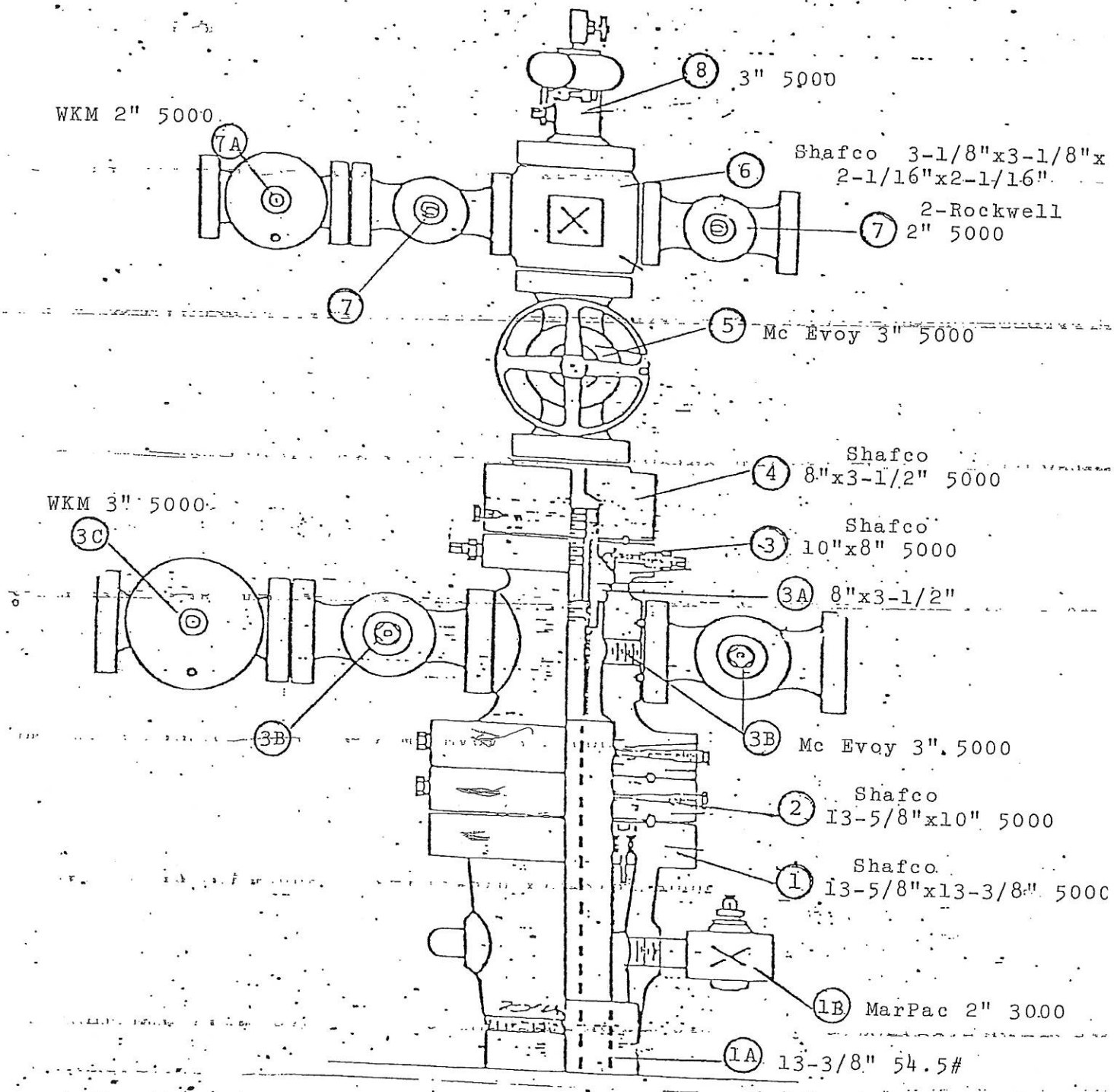
MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET	DOG LEG SEVERITY DEG/100FT
6927.	20 30	N 40 E	6702.76	1031.86	669.73 N 786.36 E	0.4
7177.	20 15	N 41 E	6937.12	1118.35	735.92 N 842.89 E	0.2
7257.	20 0	N 41 E	7012.24	1145.72	756.69 N 860.95 E	0.3
7433.	21 0	N 39 E	7177.09	1206.90	803.91 N 900.57 E	0.7
7560.	21 15	N 40 E	7295.56	1252.28	839.23 N 929.68 E	0.3
7718.	20 15	N 40 E	7443.31	1307.84	882.11 N 965.66 E	0.6

FINAL CLOSURE - DIRECTION: N 47 DEGS 35 MINS 21 SECS E
DISTANCE: 1307.91 FEET

Rec'd 07-07-16 DOGGR Ventura.

TYPE IV

Rec'd 07-07-16 DOGGR Ventura.



Well Name: P-42A - Aliso Canyon

Mfgr.: Shafco

Date Prepared: 12-10-82

WELLHEAD DESCRIPTION

Well No. P-42-A.....

Rec'd 07-07-16 DOGGR Ventura.

Field... Aliso.....

Date Prepared. 4-2-81.....

Wellhead Mfgr.. Shafco.....

1. Casing Head. Shafco... Size. 13-5/8"x13-3/8" 5000 psi Type.. SD.... SOW

Slips & Pack-off.. 13-5/8" x 8-5/8".....

A. Surface Csg. Size 13-3/8"... Wt.. 54.5.. Grade... K-55.....

B. Casing Head Valve. Marpac... Size 2". 5000psi Fig. No. CBS-790-JN

2. Seal Flange... Shafco..... Size.. 13-5/8". x 10". 5000 psi...

A. Type Seal... PS..... Ring. BX-160.... & .. RX-54.....

3. Tubing Head. Shafco..... Size 10"x8" 5000 psi..... Type. 75-L-1

Ring... RX-54..... & Ring.... RX-50.....

Outlets. 2-3-1/8". 5000 psi Sec. Seal. PS.....

Valve Removal Thrd... 2-1/2". line pipe.....

A. Tubing Hanger Shafco... Size. 8". x 3-1/2".... Type.. AJO.....

B.P.V. Size. 3-1/2"..... Thrd. 4 Left hand.....

B. Tubing Head Valves 2 Mc Evoy.... Size 3". 5000 psi Fig. No. 129...

C. Automatic Csg. Valve... WKM..... Size 3". 5000 psi Fig. No.....

4. Adapter Seal Flange.. Shafco.... Size. 8". x 3-1/8".... Type. AJO...

A. Ring Size..... RX-50..... & .... RX-35.....

5. Master Valve Mc Evoy. Size 3". 5000 psi..... Fig. No..... 129.....

6. Xmas Tree Cross. Shafco..... Size 3-1/8"x3-1/8"x 2-1/16"x2-1/16" Bore Thru. 3-1/8" Across. 2-1/16"

7. Tubing Wing Valves.. 2 Rockwell.... Size 2". 5000psi Fig. No. 21055..

A. Automatic Tbg. Valve.. WKM..... Size 2". 5000psi Fig. No. 110261

8. Unibolt Size. 3"x3-1/8". 5000 psi Inside Thrds. NA.....

9. Wt. Landed in Csg. Head 230,000. Wt. 8-5/8". 36#. Grade. K-55.....

10. Wt. Landed on Doughnut. 49,000.. Wt 3-1/2 8Rd 9.3.. Grade. J-55.....

11. Tubing Head to Ground Level.. 2.12 Above.....

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT ON PROPOSED CHANGE OF WELL DESIGNATION

Ventura, California

November 6, 1991

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

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

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

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

M. G. MEFFERD, State Oil and Gas Supervisor

By Patrick J. Kinnear
Deputy Supervisor
PATRICK J. KINNEAR

OGD157 (10/85/DWRR/1M)

OPERATOR So. Cal. Gas
LSE & NO SFZ U P-42A
MAP 254

	(1)	( )	( )	( )	( )	( )
INTENTION	Drill					
NOTICE DATED	9-1-78					
P-REPORT NUMBER	278-244					
CHECKED BY/DATE						
MAP LETTER DATED	9-15-78					
SYMBOL	✱					

	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED	REC'D	NEED
NOTICE	9-5-78											
HISTORY	12-14-79											
SUMMARY	12-14-79											
IES/ELECTRIC LOG (IEL)	1-25-79											
DIRECTIONAL SURV	12-14-79											
CORE/SWS DESCRIP												
OTHER micro-lat LCH	12-4-78											
Borehole Hom	12-28-78											
Photon Caliper	1-25-79											
RECORDS COMPLETE	JC											

ENGINEERING CHECK

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

CLERICAL CHECK

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

RELEASED BOND _____

REMARKS: _____

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
DEC 14 1979
SANTA PAULA, CALIFORNIA

WELL SUMMARY REPORT

SUBMIT IN DUPLICATE

Operator Southern Calif. Gas Co., Well No. Porter 42-A, API No. 037-21876,

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

Location 2614.68' south and 2403.60' west from station 84
(Give surface location from property or section corner, or street center line and/or lambert coordinates)

. Elevation of ground above sea level 1963 feet.

All depth measurements taken from top of Kelly Bushing which is 22 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

In compliance with Sec. 3215, Division 3 of the Public Resources Code, the information given herewith is a complete and correct record of the present condition of the well and all work done thereon, so far as can be determined from all available records.

Date February 1, 1979

Signed PSM/ D. S. Smiley
P. S. Magruder, Jr.

D. S. Smiley DSS
(Engineer or Geologist)

Title Agent

Commenced drilling 9/22/78

Completed drilling 12/3/78

Total depth (1st hole) 7718' (2nd) - (3rd) -

Present effective depth 7718'

Junk None

GEOLOGICAL MARKERS	DEPTH
Sesnon (S-4)	7525'

Formation and age at total depth Miocene

Commenced producing - (Date) Flowing/gas lift/pumping (Cross out unnecessary words)

Name of producing zone Sesnon

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production		Gas Storage Well				
Production after 30 days						

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Numbers of Sacks or Cubic Feet of Cement	Depth of Cementing if through perforations
13-3/8"	1021'	Surf	54.5	K-55 Butt	New	17-1/2"	1030 CF	-
8-5/8"	7531'	Surf	36	N-80 Butt & K-55 LT&C	New	12-1/4"	1375 CF	-
5-1/2"	7713'	7447'	20	K-55 LT&C Screen Liner	New	7-5/8" Opened to 15"	Gravel Packed	-

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

8-5/8" - Jet perforated four 1/2" HPF 7423'-26' cp'd, 7419' cp'd, 7410' cp'd, 7418' WSO

5-1/2" - .010" wire wrapped screen 7489'-7703'

Was the well directionally drilled? Yes If yes, show coordinates at total depth 882' north and 966' east

Electrical log depths 7560' and 7718' Other surveys Compensated Neutron-Density

ATTACH ONE COPY OF EACH LOG AND SURVEY

FORM 103 SUBMIT IN DUPLICATE △ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR SOUTHERN CALIFORNIA GAS COMPANY FIELD ALISO CANYON

Well No. PORTER #42-A, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date December 14, 1978 Signed PSM/ O. S. Magruder, Jr.
P.S. Magruder, Jr.

P.O.B. 3249, Terminal Annex, LA, CA 90051 Title Agent
(Address) (Telephone Number) (President, Secretary or Agent)

(213) 689-3561

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	
1978	
9-14 thru 9-22	Moved Kenai-Camrich rig #23 onto wellsite and rigged up.
9-22	0 Day. Completed rig-up. Spud at 12:30 P.M., September 22, 1978. Drilled 17-1/2" hole from 50' to 257' with bit #RR1.
9-23	1st Day. Drilled 17-1/2" hole from 257' to 540' with bit #RR1.
9-24	2nd Day. Drilled 17-1/2" hole from 540' to 560' with bit #RR1 and to 834' with bit #2.
9-25	3rd Day. Drilled 17-1/2" hole from 834' to 903' with bit #2 and to 1021' with bit #3. Rigged up and ran 1,021' of 13-3/8" 54.5# K-55 casing. Mud weight 69#/cu.ft., visc. 42 sec., w.l. 12 cc., solids 4%.
9-26	4th Day. Cemented 13-3/8" casing with 800 cu.ft. class "G" cement premixed with 8% gel, 2% calcium chloride, followed with 230 cu.ft. class "G" cement with 2% calcium chloride. Used top rubber plug. Bumped plug with 1,000 psi. Cement in place at 3:35 A.M. Landed 13-3/8" casing. Welded on 13-5/8" 5,000 psi casing head (X-ray weld - O.K.).
9-27	5th Day. Installed B.O.P.E. Hooked up lines. Tested blind rams, pipe rams and Hydril bag with water to 2,700 psi. Tested blind rams, pipe rams and Hydril bag with nitrogen to 2,700 psi. Approved by the Division of Oil and Gas (E.D. Hickey).
9-28	6th Day. Drilled out cement from 961' to shoe at 1021'. Drilled out shoe at 1021'. Drilled 12-1/4" hole from 1021' to 1448' with bit #4. Mud weight 68#/cu.ft., visc. 42 sec., w.l. 9 cc., solids 6%.

1978 Daily Well Report for PORTER #42-A - Aliso Canyon

9-29 7th Day. Drilled 12-1/4" hole from 1448' to 1603' with bit #4 and to 1820' with bit #5.

Mud weight 69#, visc. 38 sec., w.l. 10 cc., solids 6%.

9-30 8th Day. Drilled 12-1/4" hole from 1820' to 2130' with bit #5 and to 2286' with bit #6.

Mud weight 69#, visc. 40 sec., w.l. 10 cc., solids 6%.

10-1 9th Day. Drilled 12-1/4" hole from 2286' to 2660' with bit #6 and to 2910' with bit #7.

Mud weight 70#, visc. 45 sec., w.l. 9.8 cc., solids 6%.

10-2 10th Day. Drilled 12-1/4" hole from 2910' to 3227' with bit #7. Dyna drilled 12-1/4" hole from 3227' to 3270' with bit #8.

Mud weight 68#, visc. 39 sec., w.l. 10 cc., solids 6%.

10-3 11th Day. Dyna Drilled 12-1/4" hole from 3,270' to 3,329' with bit #8, to 3,449' with bit #9 and to 3,510' with bit #10.

Mud weight 67#, visc. 38 sec., w.l. 7 cc., solids 4%.

10-4 12th Day. Directionally drilled 12-1/4" hole from 3,510' to 3,663' with bit #11.

Mud weight 68#, visc. 37 sec, w.l. 8 cc., solids 4%.

10-5 13th Day. Dyna drilled 12-1/4" hole from 3,663' to 3,758' with bit #12 on Dyna-Drill #2. Pulled out of hole. Made up drilling set up. Ran in. Reamed Dyna-Drill run from 3,218' to 3,426'.

Mud weight 69#, visc. 37 sec., w.l. 8 cc., solids 6%.

10-6 14th Day. Reamed Dyna-Drill run from 3,426' to 3,758'. Directionally drilled 12-1/4" hole from 3,758' to 4,175' with bit #13 and to 4,233' with bit #14.

Mud weight 70#, visc. 38 sec., w.l. 8 cc., solids 8%.

10-7 15th Day. Directionally drilled 12-1/4" hole from 4,233 to 4,618' with bit #14.

Mud weight 70#, visc. 38 sec., w.l. 8 cc., solids 8%.

10-8 16th Day. Directionally drilled 12-1/4" hole from 4,618' to 5,053' with bit #15. Stuck pipe while surveying with bit at 5044'. Spotted 34 barrels of lease crude oil around drill collars - moving oil 1 barrel an hour working pipe every 10 minutes.

Mud weight 70#, visc. 38 sec., w.l. 9.5 cc., solids 8%.

History for Well Report PORTER #42-A, Aliso Canyon

1978

10-9 17th Day. Worked stuck pipe until 11:00 a.m. Displaced oil from drill string. Ran Dia-Log string shot and free point. Pipe stuck at 4,914'. Unable to back off at 4,884'. Ran string shot #2. Backed off at 4,789'. Pulled out and recovered three 7" drill collars, one stabilizer and the bumper sub.

10-10 18th Day. Ran Midway fishing tools. Screwed into fish. Jarred on fish 3 1/2 hours. Pulled out, recovered total fish in good condition. Broke down and loaded out fishing tools. Ran in hole with drilling set up,reamed from 4,600' to 5,053'. Directionally drilled 12 1/4" hole from 5,053' to 5,110' with bit #16.

Mud wt. 68#, Vis. 42 seconds, Filtrate 7.6cc., solids 4%.

10-11 19th Day. Directionally drilled 12 1/4" hole from 5,110' to 5,775' with bit #16.

Mud wt. 70#, Vis 42 seconds, Filtrate 7.4cc., solids 5%.

10-12 20th Day. Dyna drilled 12 1/4" hole from 5,775' to 5,793' with bit#17 on Dyna drill #3.

Mud wt. 69#, Vis. 40 seconds, Filtrate7.2cc., solids 5%.

10-13 21st Day. Dyna drilled 12 1/4" hole from 5,793' to 5,831' with bit #18 on Dyna drill #3. Directionally drilled 12 1/4" hole from 5,831' to 5,923' with bit #RR17.

Mud wt. 70#, Vis 40 seconds, Filtrate 7.4cc., solids 5%.

10-14 22nd Day. Directionally drilled 12 1/4" hole from 5,923' to 5,931' with bit #RR17. Pulled out of hole. Made up Dyna Drill. Ran in hole. Dyna Drilled 12 1/4" hole from 5,931' to 5,971' with bit #19 on Dyna drill #4.

Mud wt. 68#, Vis. 41 seconds, Filtrate 7.4cc., solids 5%.

10-15 23rd Day. Directionally drilled 12 1/4" hole from 5,971' to 6,299' with bit #20.

Mud wt. 70#, Vis 43 seconds, Filtrate 7.2cc., solids 5%

10-16 24th Day. Directionally drilled 12 1/4" hole from 6,299' to 6,761' with bit #21.

Mud Wt. 76#, Vis. 42 seconds

10-17 25th Day. Directionally Drilled 12 1/4" hole from 6,761' to 7,013' with bit #22.

Mud wt. 83# Vis 44 seconds, Filtrate 5.9cc., sand 1/2%.

10-18 26th Day. Directionally drilled 12 1/4" hole from 7,013' to 7,022' with bit #22 and to 7,040' with bit #23. Drill string became stuck. Worked stuck pipe and spotted oil. Worked free. Directionally drilled to 7132'.

Mud wt. 83#, Vis. 46 seconds, solids 14%, Oil 6%.

History of Well Report for PORTER #42-A, Aliso Canyon

1978

10-19 27th Day. Directionally drilled 12 1/4" hole from 7,132' to 7,140' with bit #23. Trip for bit #24. Ran 12 1/4" bit #24. Drill string became stuck at 6,866'. Worked pipe. Spotted 60 barrels of oil. Worked pipe and bumped down to 6,900'. Worked pipe until well attempted to pack off.

Mud wt. 83#, Vis. 43 seconds, Filtrate 6.2cc., solids 14%, oil 5%, sand 1/2%.

10-20 28th Day. Worked stuck pipe at 6,900'. Ran free-point and shot off at 6,583', top of fish at 6,583'. Ran in with fishing tools and screwed into drill collars at 6,583'. Jarred on fish for four hours.

Mud wt. 83#, Vis 47 seconds, solids 14%, Oil 6%.

10-21 29th Day. Spotted 60 barrels of oil around fish. Ran free-point and backed off fish at 6,612'. Ran in with new jars and twelve 7" drill collars and screwed into fish at 6,612'. Jarred on fish.

10-22 30th Day. Jarred fish free. Recovered entire fish. Laid down fishing tools. Ran 12 1/4" bit #RR14 to 1,000' on one steel drill collar, two underguage stabilizers and jars. Circulated and conditioned mud. Ran in to 4,000'. Circulated and conditioned mud. Ran in to 6,500'. Circulated and conditioned mud.

10-23 31st Day. Reamed and cleaned out from 4,090' to 7,134'. Pulled out of hole.

Mud wt. 83#, Vis 44 seconds, Filtrate 5.6cc., solids 18%.

10-24 32nd Day. Ran 12 1/4" bit #25. Reamed from 5,805' to 6,240'. Ran in to 6,825' and reamed from 6,825' to 7,134'. Directionally drilled 12 1/4" from 7,134' to 7,177'. Wiped hole up to 1,020'. - hole in good shape.

Mud wt. 83#, Vis 45 seconds, Filtrate 5.4cc., solids 18%.

10-25 33rd Day. Directionally drilled 12 1/4" hole from 7,177' to 7,257' with bit #25 and to 7,362' with bit #26.

Mud wt. 84#, Vis 43 seconds, Filtrate 5.6cc., solids 16%.

10-26 34th Day. Directionally drilled 12 1/4" hole from 7,362' to 7,560' with bit #27. Wiped hole to shoe at 1,020'.

Mud wt. 85#, Vis 46 seconds, Filtrate 4.7cc., solids 18%.

10-27 35th Day. Ran back in hole and reamed from 7,506' to 7,560'. Circulated hole clean. Pulled out of hole. Ran Welex Induction and caliper logs from 7,556' to 1,024'. Ran in hole with drilling set up.

Mud wt. 84#, Vis 44 seconds, Filtrate 5.8cc., solids 17%, sand 1-1/4%.

10-28 36th Day. Circulated for 2 hours. Wiped hole 10 stands. Circulated 2 hours and pulled out of hole. Changed rams in BOPE to 8 5/8". Rigged up and ran 183 joints of 8 5/8" 36# N-80 Buttress and K-55 LT&C casing.

History of Well Report for PORTER #42-A, Aliso canyon

1978

10-29 37th Day. Inhibited drilling fluid with Baroid "Surflo B-33". Rigged up Halliburton. Cemented 8 5/8" casing with 800 cu.ft. class "G" cement mixed 1-1 Perlite 4% Gel 0.8% "Halad 9" followed with 500 sacks of class "G" cement mixed 0.5% "Halad 22-A" 0.75% "CFR-2", top and bottom rubber plug. Displaced with 2,469cu.ft. mud. Did not bump plug. Cement in Place at 3:25 a.m. Landed 8 5/8" casing with 230,000# on slips. Installed 13 5/8" 5,000psi x 10" 5,000 psi seal flange. Installed 10" 5,000 psi x 8" 5,000 psi tubing head. Tested with 4,000 psi. Reinstalled BOPE.

10-30 38th Day. Hooked up lines to BOPE. Changed valve in choke manifold. Tested blind rams and pipe rams with water to 4,000 psi for 20 minutes.

10-31 39th Day. Tested "GK" hydril with water to 3,000 psi - OK. Tested "GK" hydril to 3,000 psi with nitrogen - OK. Tested blind rams and pipe rams to 4,000 psi with nitrogen, OK. All above tests for 20 minutes. Ran in well with 7 5/8" bit #28. Circulated and drilled out cement from 7,061' to 7,480'. Circulated well clean. Pulled out of well. Ran Welex cement bond and neutron log.

Mud wt. 78#, Vis 41 seconds, Filtrate 10.8cc.

11-1 40th Day. Ran Welex Cement bond log from 7,480' to 3,000'. Ran 7 5/8" bit and casing scraper to 7,480' and circulated bottoms up. Changed over to 83#/cu.ft. calcium chloride HEC polymer completion fluid. Cleaned mud tanks.

Mud wt. 83#, Vis 41 seconds, Filtrate 11.4cc., solids 9%.

11-2 41st Day. Cleaned and filled mud pits with polymer mud. Circulated and pulled out of well. Shot four 1/2" holes from 7,425' to 7,426'. Broke down with 1,700 - 2,000psi. Ran 300' of 2 3/8" tubing on bottom of 4 1/2" drill pipe to 7,414'. Equalized 57 cu.ft. class "G" cement with 0.75% "CFR-2". Backscuttled out and attempted squeeze with 2,500 psi but no cement displaced. Circulated and conditioned mud.

11-3 42nd Day. Ran in well with bit and casing scraper. Drilled out cement from 7,240' to 7,417'. Circulated out cement. Pulled out of well and tested casing to 2,500 psi for 20 minutes. Shot four 1/2" holes from 7,424' to 7,425'.

Mud wt. 82#, Vis. 40 seconds, Filtrate 11.4cc.,

11-4 43rd Day. Ran in well with 10 joints of 2 7/8" tubing on bottom of 4 1/2" drill pipe to 7,413' and Braden head squeezed 50 sacks of class "G" cement with .02% "HR-7" and .75% "CFR-2". Final squeeze pressure 2,000 psi. Put away 45 cu.ft. of cement and left 12 cu.ft. of cement inside casing. Pulled out of well and picked up 7 5/8" bit and scraper. Cleaned out cement from 7,315' to 7,426'. Circulated well clean and pulled out of well. Pressure tested casing and had leak off at 2,250 psi. Ran in well with 10 joints of 2 7/8" tubing on bottom of 4 1/2" drill pipe to 7,413'and Braden head squeezed with 50 sacks of class "G" cement with .02% "HR-7" and .75% "CFR-2". Squeezed out approximately 6 sacks of cement and left 44 sacks inside casing. Final squeeze pressre 2,500 psi.

History of Well Report for Porter 42-A Aliso Canyon

1978

11-5 44th Day. Held 2,500 psi for three hours. Bled off pressure and pulled out of well with 2 7/8" tubing stinger. Ran 7 5/8" bit and scraper. Drilled out cement from 7,277' to 7,425'. Pressure tested casing. Had a leak-off at 1,850 psi and a breakdown of 12 cu.ft. per minute at 2,250 psi. Circulated and pulled out of well. Picked up 2 7/8" stinger and 4 1/2" drill pipe and hung stinger at 7,276'. Braden head squeeze #4. Pumped 100 cu.ft. of water ahead of 40 sacks of class "G" cement with .75% "CFR-2". Displaced cement with 10 cu.ft. of water and 530 cu.ft. of drilling fluid. Squeezed away 14 sacks of cement. Final squeeze pressure 2,500 psi.

11-6 45th Day. Waited on cement holding 2,500 psi for 4 hours. Pulled out of well with tubing stinger. Ran 7 5/8" bit and casing scraper. Drilled out cement from 7,314' to 7,432'. Held pressure test on casing at 2,500 psi for 22 minutes. Circulated and conditioned drilling fluid. Shot four 1/2" holes at 7,423'. Tested holes at 7,423' to 2,450 psi and test leaked off. Had a breakdown of 7 cu.ft. per minute at 2,250 psi. Ran in well with 2 7/8" tubing stinger to 7,426'.

Mud fluid wt. 82#, Vis. 40 seconds, Filtrate 11.2cc., solids 4%.

11-7 46th Day. Braden head squeeze #5 with 2 7/8" tubing stinger on 4 1/2" drill pipe at 7,426', pumped 100 cu.ft. of water ahead of 40 sacks of class "G" cement with .75% "CFR-2". Displaced cement with 10 cu.ft. of water and 530 cu.ft. of drilling fluid. Pulled 4 stands of 4 1/2" drill pipe and reverse circulated 600 cu.ft. of drilling fluid. Squeezed away 4 sacks of cement. Final squeeze pressure 2,500 psi. Ran in well with 7 5/8" bit and drilled out cement. Tested casing and had a leak-off at 2,250 psi of 7 cu.ft. per minute. Pulled out of well with 7 5/8" bit and ran in well with 2 7/8" tubing stinger to 7,426'. Braden head squeeze #6. Pumped 100 cu.ft. of water ahead of 40 sacks "self-stress" cement with 0.02% of "LAC" and .75% "D-65". Displaced cement with 13 cu.ft. of water and 540 cu.ft. of drilling fluid. Reverse circulated 600 cu.ft. of drilling fluid. Squeezed away 14 cu.ft. at 2,500 psi final aqueeze pressure.

Mud wt. 82#, Vis 40 seconds, Filtrate 11.0cc., solids 4%.

11-8 47th Day. Waited on cement for 2 1/2 hours and pulled out of well with 2 7/8" tubing stinger. Ran in well and drilled out cement. Pressure tested shot holes and had a braakdown at 2,450 psi of 6 cu.ft. per minute. Pulled out of well with 7 5/8" bit and ran in well with 2 7/8" tubing stinger to 7,446'. Pumped 50 cu.ft. of water ahead of 40 cu.ft. of HCL acid followed by 50 cu.ft. of water. Equalized acid with 243 cu.ft. of drilling fluid. Pulled 2 stands of drill pipe and closed pipe rams. Obtained a breakdown of 8 cu.ft. per minute at 2,450 psi. Pumped 50 cu.ft. of water and 40 cu.ft. of acid away - final pressure was 1,700 psi. Ran 2 stands of 4 1/2" drill pipe back in well and reverse circulated with 650 cu.ft. of drilling fluid at 7,446'.

11-9 48th Day. Braden head squeeze #7 with 2 7/8" tubing stinger on 4 1/2" drill pipe at 7,446'. Pumped 80 cu.ft. of water mixed with 10 gallons of "CW-7" followed by 20 cu.ft. of water ahead of 40 sacks of "self-stress" cement with 0.75% "D-108". Displaced cement with 13 cu.ft. of water and 540 cu.ft. of drilling fluid. Squeezed away 15 cu.ft. of cement. Cement in place at 2:45 p.m. Final squeeze pressure was 2,500 psi. Ran in well with 7 5/8" bit and drilled out cement from 7,262' to 7,480'. Tested shot holes with 2,500 psi for 22 minutes.

Mud wt. 80#, Vis 36 seconds, Filtrate 20 cc., solids 4%.

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1978

11-10 | 49th Day. Pulled out of well. Shot four 1/2" holes at 7,410'. Pressure tested casing, had breakdown of 12 cu.ft. per minute at 2,400 psi. Ran in well with 2 7/8" tubing stinger on 4 1/2" drill pipe to 7,412'. Pumped 50 cu.ft. of water ahead of 64 cu.ft. of "self-stress" cement with .75% "D-65" and .02% "D-108". Displaced cement with 5 cu.ft. of water and 550 cu.ft. of drilling fluid. Pulled up 4 stands of drill pipe and reverse circulated 650 cu.ft. of drilling fluid. Squeezed 14 cu.ft. away at 2,500 psi final pressure. Pulled out of well.

11-11 | 50th Day. Ran in well with 7 5/8" bit and drilled out firm cement from 7,277' to 7,417'. Circulated 1/2 hour and pressure tested casing to 2,500 psi for 22 minutes. Pulled out of well with 7 5/8" bit. Shot four 1/2" holes at 7,419'. Tested holes. Had a breakdown of 12 cu.ft. per minute at 2,4oo psi. Ran in well with 7 5/8" bit to 7,436' and spotted 50 cu.ft. of water. Pulled out of well and picked up Haliburton 8 5/8" "E-Z Drill" retainer and ran in well with retainer on Haliburton squeeze tool.

11-12 | 51st Day. Set Haliburton 8 5/8" "E-Z Drill" tool at 7,360'. Pumped 58 cu.ft. of water ahead of 40 cu.ft. of HCL acid, and followed with 50 cu.ft. of water. At 432 cu.ft. of displacement stabbed stinger into "SV" tool and squeezed acid at 2,400 psi and 12 cu.ft. per minute. Pulled out of "SV". Pumped 50 cu.ft. of water ahead of 46 cu.ft. of class "G" cement with .75%"tic". Displaced cement with 426 cu.ft. of drilling fluid and stabbed into "SV" tool. Started squeezing with 1,500 psi and 12 cu.ft. per minute at 3:00 a.m . Pumped 2 cu.ft. of cement every 10 to 15 minutes and cleared shot holes with a build up of 1,900 psi. Pulled out of "SV" and reverse circulated with 600 cu.ft. of drilling fluid. Pumped 50 cu.ft. of water ahead of 57 cu.ft. of class "G" cement with .75% "tic". Displaced cement with 415 cu.ft. of drilling fluid. Stabbed into "SV" and squeezed 32 cu.ft. of cement away. Left 25 cu.ft. of cement inside casing. Pulled out of "SV" and reverse circulated 600 cu.ft. of fluid. Pulled out of hole. Ran in hole with bit #29. Circulated and conditioned drilling fluid. Drilled out "E-Z Drill SV". Final squeeze pressure was 2,500 psi.

11-13 | 52nd Day. Drilled out "E-Z drill" packer and hard cement from 7,363' to 7,422'. Circulated well clean and pressure tested shot holes to 2,500 psi and had a breakdown of 2 cu.ft. per minute. Equalized 50 cu.ft. of water from 7,446' to 7,300' and pulled out of well. Picked up "E-Z drill SV" squeeze tool and ran in well to 7,360'. Set "E-Z drill" packer and attempted to set stinger in "SV" tool. Packer failed and pushed same to 7,480'. Pulled out of well and picked up another "E-Z drill SV" squeeze packer and ran in hole.

11-14 | 53rd Day. Continued running in hole with "E-Z drill" retainer and set at 7,356'. Pumped 50 cu.ft. of water ahead of 40 cu.ft. of HCL acid and at 432 cu.ft. displacement stabbed into "E-Z-SV" tool and squeezed away acid. Starting at 1 cu.ft. per minute at 2,500 psi, final 20 cu.ft. per minute at 2,250 psi. Pulled out of "SV" tool. Pumped 50 cu.ft. of water ahead of 86 cu.ft. of class "G" cement with .75% "tic", followed by 50 cu.ft. of water and 386 cu.ft. of drilling fluid. Stabbed into "SV" tool and squeezed away 17 cu.ft. of cement. Had a build up of 2,500 psi and held for 5 minutes. Pulled out of "SV" and reverse circulated 650 cu.ft. of drilling fluid for squeeze #10. Pulled out of well and picked up a 7 5/8" bit. Ran in hole and drilled out "E-Z" drill retainer and hard cement from 7,358' to 7,478'. Circulated and pressure tested casing to 2,500 psi for 22 minutes.

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11-15 54th Day. Pressure tested shot holes at 7,419' with 2,500 psi for 22 minutes. Pulled out of well. Shot four 1/2" holes at 7,418'. Pressure tested holes to 2,500 psi for 20 minutes. Picked up Lynes test tools and ran in well. Set packer at 7,372'. Opened test tool at 11:21 a.m. Closed tool at 1:21 p.m. Had a faint puff then dead for 10 minutes. After lo minutes had a light blow for duration of test. Pulled out of well. Ran 7 5/8" bit #31, junk sub and casing scraper. Drilled out "E-Z drill" retainer. at 7,475' - 7,480'. WSO was witnessed by D.O.G. Ed Hickey.

11-16 55th Day. Drilled out "E-Z drill" packer and hard cement from 7,480' to 7,490'. Pulled out of hole and ran in with a Cavins "Junk snatcher". Worked junk into catcher and pulled out of well. Ran 7 5/8" bit to 7,490'.

11-17 56th Day. Circulated and increased polymer completion fluid weight from 78#/cu.ft. to 83#/cu.ft. Drilled out cement and cement guide shoe at 7,531'. Cleaned out to 7,560' and circulated out clay-base mud. Pulled out of well. Picked up core barrel and core head.

Mud wt. 83#, Vis. 40 seconds, Filtrate 12.4cc., solids 9%.

11-18 57th Day. Ran in well to 7,560' and circulated for 1/2 hour. Cored from 7,560' to 7,588' and pulled out of well with Core #1. Had 2' of core recovery. Ran in well and cored from 7,588' to 7,610'. Had 20' of core recovery on Core #2.

Mud wt. 83# Filtrate 13.0cc., solids 9%.

11-19 58th Day. Cut core #3. Had full recovery of 28', 7,613' - 7,641'. Core #4 7,641' - 7,670' had 25' of recovery.

Mud wt. 82#, Filtrate 13.2cc., solids 9%.

11-20 59th Day. Cored with 5 3/4" x 7 5/8" core barrel from 7,670' to 7,690' for Core #5. Recovered 9'. Core #6 from 7,690' to 7,708'. Recovered 5'.

Mud wt. 82# Vis. 39 seconds, W.L. 13.9 sand 1/4% solids 9%

11-21 60th Day. Cored from 7,708' to 7,718' with Core #7 - recovered 1'. Ran in with RR bit #32 and cleaned out to 7,718'.

Mud wt. 83# Vis. 39 seconds, sand 1/4%, solids 9%.

11-22 61st Day. Ran Schlumberger Dual Induction Laterolog and recorded from 7,520' to 7,714'. Ran in with hole opener #1 and opened 7 5/8" hole to 15" from 7,525' to 7,550' and to 7,560' with hole opener #2.

Mud wt. 82#, Vis. 42 seconds, W.L. 11.5cc., sand 1/4%, solids 11%.

11-23 62nd Day. Opened 7 5/8" hole to 15" from 7,560' to 7,570' with hole opener #2, and to 7,615' with hole opener #3 and to 7,646' with hole opener #4.

Mud wt. 82#, vis 40 seconds, W.L. 14.5cc., sand 1/2%, solids 12%.

History of well Report for PORTER #42-A Aliso Canyon

1978

11-24 63rd Day. Opened 7 5/8" hole to 15" from 7,617' to 7,646' with hole opener #4 and to 7,672' with hole opener #5 and to 7,675' with hole opener #6.

Mud wt. 82#, Vis 42 seconds, W.L. 14.2cc., sand 1/2%, solids 12%.

11-25 64th Day. Opened 7 5/8" hole to 15" from 7,675' to 7,686' with hole opener #6. Ran in with RR bit #32 and cleaned out fill from 7,685' to 7,718'. Circulated for four hours and pulled out of hole. Picked up hole opener #7 and ran in hole.

Mud wt. 82#, Vis 41 seconds, W.L. 13.7cc., solids 12%, sand 1/2%.

11-26 65th Day. Opened 7 5/8" hole to 15" from 7,686' to 7,696' with hole opener #7. Circulated for 1 hour and pulled out of well. Ran in with hole opener #8 and opened 7 5/8" hole to 15" from 7,696' to 7,704'. Circulated for 1 hour and pulled out of well.

Mud wt. 82#, Vis 43 seconds, W.L. 14.8cc., solids 12%.

11-27 66th Day. Ran Computer caliper log from 7,718' to 7,536'. Ran in well to 7,718' and circulated hole clean. Displaced circulating system with filtered fluid for gravel pack.

Mud wt. 83# vis 55 seconds, W.L. 16.4cc., Solids 4%.

11-28 67th Day. Ran 6 joints 5 1/2" 20# K-55 liner and one 10' pup joint on bottom. Five joints wire wrapped and one joint blank. A 5-1/2" x 15" centralizer over each collar. Picked up 7 joints 2 3/8" tubing for stinger and made up lead seal liner hanger on burns port collar and ran in well and hung liner. Bottom of liner at 7,713' and top of liner at 7,447'. Screen liner from 7,703' to 7,489'. Rig to gravel pack.

11-29 68th Day. Opened port collar and tested liner lap to 900 psi for 15 minutes. Circulated and gravel packed liner with 192 cu.ft. of 20-40 gravel. Reverse circulated gravel, and pulled out of well to pick liner washing tool. Washed liner, no fill inside of liner. Picked up gravel packer and ran in well.

11-30 69th Day. Opened port collar and attempted to re-gravel pack. Had pack off immediately. Ran Dresser Atlas Photon Log which shows excellent gravel pack. Ran Baker "Retrieva-D" packer and set at 7,347'. Unloaded and measured 3 1/2" tubing. Ran 4 1/2" drill pipe in well.

12-1 70th Day. Layed down 4 1/2" drill pipe and 6" drill collars, picked up 3 1/2" tubing.

12-2 71st Day. Finished picking up 3 1/2" tubing. Pressure tested packer to 2,000 psi for 20 minutes, OK. Pulled out of well and picked up a Baker production tube and six seals plus Baker locator sub, Camco 10' heavy wall tube and 3 1/2" tubing threads, Camco 2.25" "D" nipple, Camco 20' heavy wall tube, Camco 3 1/2" annular flow safety system, one joint of 3 1/2" tubing, Camco gas lift mandrel with pump out plug in place, followed by 65 joints of 3 1/2" N-80 tubing and J-55 tubing. Hydrotested each 90' and held for 1 minute

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12-3 72nd Day. Hydrotested 3 1/2" tubing. Spaced out and landed 3 1/2" tubing with 20,000# on packer. Installed back pressure valve in doughnut and removed BOPE. Installed xmas tree and pressure tested to 5,000 psi for 20 minutes. Re-tightened all well head bolts. Circulated completion fluid out of well with waste salt water. Released rig at 11:59 p.m., December 3, 1978.

SOUTHERN CALIF. GAS CO.-- PORTER 42-A --EASTMAN SINGLE SHOT
ALISO CANYON FIELD, CA

SEC BEARING: N 47 00 E
DECL: 16 0 E
DATE: SEPT-OCT 1978
JOB NO: P-0978-D0057
SURVEY BY: EASTMAN WHIPSTOCK INC.
FILE: F132-8
HANDLY

DIVISION OF OIL AND GAS
RECEIVED
DEC 14 1979
SANTA PAULA, CALIFORNIA

PLANE OF PROPOSED DIRECTION IS N 47 DEG. 0 MIN. E

RECORD OF SURVEY

ANGLE AVERAGING METHOD

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET		DOG LEG SEVERITY DEG/100FT
0.	0 0	0	0.00	0.00	0.00	0.00	0.0
236.	1 0	S 57 W	235.99	-2.03	1.12 S	1.73 W	0.4
388.	2 0	S 62 W	387.94	-5.91	3.14 S	5.16 W	0.7
480.	2 30	S 57 W	479.87	-9.44	4.97 S	8.27 W	0.6
631.	2 45	S 50 W	630.71	-16.31	9.09 S	13.83 W	0.3
903.	2 30	S 51 W	902.42	-28.74	17.01 S	23.44 W	0.1
1021.	2 0	S 70 W	1020.33	-33.25	19.29 S	27.47 W	0.8
1105.	2 30	S 60 W	1104.27	-36.39	20.69 S	30.46 W	0.8
1200.	2 15	S 60 W	1199.19	-40.22	22.66 S	33.87 W	0.3
1324.	2 15	S 43 W	1323.09	-45.07	25.69 S	37.68 W	0.5
1448.	2 15	S 27 W	1447.00	-49.84	29.67 S	40.47 W	0.5
1573.	2 15	S 36 W	1571.90	-54.57	33.86 S	43.04 W	0.3
1723.	2 15	S 41 W	1721.78	-60.39	38.47 S	46.70 W	0.1
1943.	2 45	S 45 W	1941.57	-69.96	45.48 S	53.25 W	0.2
2100.	2 45	S 43 W	2098.39	-77.48	50.90 S	58.48 W	0.1
2286.	2 45	S 58 W	2284.18	-86.39	56.58 S	65.36 W	0.4
2504.	2 45	S 44 W	2501.93	-96.83	63.16 S	73.49 W	0.3
2660.	3 0	S 46 W	2657.73	-104.65	68.69 S	79.03 W	0.2
2910.	3 15	S 48 W	2907.36	-118.27	77.99 S	88.99 W	0.1
3128.	3 15	S 52 W	3125.01	-130.62	85.93 S	98.46 W	0.1
3240.	3 30	S 36 W	3236.82	-137.20	90.68 S	103.04 W	0.9
3270.	3 15	S 15 W	3266.76	-138.84	92.27 S	103.80 W	4.2
3309.	3 0	S 6 E	3305.71	-140.41	94.39 S	103.97 W	3.0
3340.	3 15	S 26 E	3336.66	-141.18	96.01 S	103.50 W	3.6
3372.	3 30	S 43 E	3368.60	-141.46	97.57 S	102.44 W	3.2
3403.	4 0	S 64 E	3399.54	-141.09	98.77 S	100.81 W	4.7
3465.	3 30	N 84 E	3461.40	-138.65	99.48 S	96.81 W	3.4
3497.	3 0	N 69 E	3493.35	-137.07	99.05 S	95.05 W	3.1
3528.	3 45	N 53 E	3524.30	-135.30	98.17 S	93.45 W	3.9
3560.	4 45	N 56 E	3556.21	-132.95	96.79 S	91.52 W	3.2

MEASURED DEPTH FEET	DRIFT ANGLE D	M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET		DOG LEG SEVERITY DEG/100FT
3591.	5	30	N 45 E	3587.09	-130.18	95.03 S	89.38 W	4.0
3621.	6	15	N 51 E	3616.93	-127.11	92.98 S	87.10 W	3.2
3652.	7	30	N 53 E	3647.71	-123.42	90.69 S	84.18 W	4.1
3683.	8	45	N 53 E	3678.40	-119.06	88.05 S	80.68 W	4.0
3713.	10	0	N 51 E	3708.00	-114.19	85.05 S	76.83 W	4.3
3837.	11	15	N 52 E	3829.87	-91.40	70.81 S	58.94 W	1.0
3932.	14	45	N 54 E	3922.43	-70.14	57.95 S	41.87 W	3.7
4023.	17	30	N 55 E	4009.85	-45.09	43.28 S	21.29 W	3.0
4116.	21	0	N 55 E	4097.65	-14.72	25.69 S	3.82 E	3.8
4145.	21	30	N 55 E	4124.68	-4.31	19.66 S	12.43 E	1.7
4175.	22	15	N 55 E	4152.52	6.75	13.25 S	21.59 E	2.5
4213.	23	0	N 55 E	4187.60	21.23	4.86 S	33.56 E	2.0
4335.	23	0	N 55 E	4299.90	68.44	22.48 N	72.61 E	0.0
4492.	23	0	N 55 E	4444.42	129.18	57.66 N	122.86 E	0.0
4618.	22	15	N 54 E	4560.72	177.24	85.81 N	162.33 E	0.7
4741.	22	30	N 54 E	4674.46	223.71	113.33 N	200.20 E	0.2
4899.	22	30	N 54 E	4820.44	283.73	148.87 N	249.12 E	0.0
5053.	23	0	N 53 E	4962.45	342.90	184.30 N	296.99 E	0.4
5213.	23	0	N 53 E	5109.73	405.07	221.92 N	346.92 E	0.0
5401.	23	0	N 53 E	5282.79	478.13	266.13 N	405.59 E	0.0
5587.	23	0	N 55 E	5454.00	550.26	308.85 N	464.38 E	0.4
5786.	22	0	N 50 E	5637.86	626.06	355.21 N	524.80 E	1.1
5838.	22	15	N 46 E	5686.03	645.65	368.31 N	539.36 E	2.9
5931.	22	15	N 45 E	5772.10	680.85	392.99 N	564.47 E	0.4
6055.	21	0	N 37 E	5887.37	726.30	427.48 N	594.45 E	2.6
6210.	20	45	N 39 E	6032.20	780.85	471.00 N	628.46 E	0.5
6299.	20	30	N 39 E	6115.50	811.89	495.37 N	648.19 E	0.3
6434.	20	45	N 38 E	6241.84	858.92	532.58 N	677.79 E	0.3
6591.	21	0	N 38 E	6388.54	914.18	576.67 N	712.23 E	0.2
6745.	20	45	N 38 E	6532.43	968.38	619.91 N	746.02 E	0.2

MEASURED DEPTH FEET	DRIFT ANGLE D M	DRIFT DIRECTION D	TRUE VERTICAL DEPTH FEET	VERTICAL SECTION FEET	RECTANGULAR COORDINATES FEET		DOG LEG SEVERITY DEG/100FT
6927.	20 30	N 40 E	6702.76	1031.86	669.73 N	786.36 E	0.4
7177.	20 15	N 41 E	6937.12	1118.35	735.92 N	842.89 E	0.2
7257.	20 0	N 41 E	7012.24	1145.72	756.69 N	860.95 E	0.3
7433.	21 0	N 39 E	7177.09	1206.90	803.91 N	900.57 E	0.7
7560.	21 15	N 40 E	7295.56	1252.28	839.23 N	929.68 E	0.3
7718.	20 15	N 40 E	7443.31	1307.84	882.11 N	965.66 E	0.6

FINAL CLOSURE - DIRECTION: N 47 DEGS 35 MINS 21 SECS E
DISTANCE: 1307.91 FEET

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 278-364

DIVISION OF OIL AND GAS

Report on Operations

Mr. P. S. Magruder, Jr., Agent
Southern Calif. Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, CA 90024

Santa Paula, Calif.
Nov. 21, 1978

Your operations at well "SFZU" P-42A, API No. 037-21876, Sec. 28, T. 3N, R. 16W S.B. B.& M. Aliso Canyon Field, in Los Angeles County, were witnessed on 11/15/78. Ed Hickey, representative of the supervisor, was present from 1600 to 1800. There were also present Mr. Dick Horr, tool pusher

Present condition of well: 8 5/8" cem. 7531'; WSO 7418', T.D. 7560'.

The operations were performed for the purpose of demonstrating a water shut-off on the 8 5/8" casing by means of a formation tester.

DECISION:

THE 8 5/8" SHUT-OFF AT 7418' IS APPROVED.

b

M. G. MEFFERD
State Oil and Gas Supervisor

By _____
Deputy Supervisor
John L. Hardoin

OG109 (6-77-GSRI-15M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

No. T 278-291

DIVISION OF OIL AND GAS

Report on Operations

Mr. P. S. Magruder, Jr., Agent
Southern Calif. Gas Co.
P.O. Box 54790 Terminal Annex
Los Angeles, CA 90024

Santa Paula, Calif.
Sept. 28, 1978

Your operations at well "SFZU" P-42A, API No. 037-21876, Sec. 28, T. 3N, R. 16W, S.B., B.& M. Aliso Canyon Field, in Los Angeles County, were witnessed on 9/27/78. Ed Hickey, representative of the supervisor, was present from 1600 to 2000. There were also present Dick Horr, pusher

Present condition of well: 20" cem. 28'; 13 5/8" cem. 1021'; T.D. 1025'.

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
State Oil and Gas Supervisor

By [signature]
Deputy Supervisor

John L. Hardoin

06108 (6-77 GSPL 15M)

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

No. P 278-244

REPORT ON PROPOSED OPERATIONS

Santa Paula, California

Sept. 6, 1978

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

Your proposal to drill well "SFZU" P-42A
(Name and number)
, A.P.I. No. 037-21876, Section 28, T. 3N, R. 16W,
S.B. B. & M., Aliso Canyon field, Los Angeles County,
dated 9-1-78, received 9-5-78, has been examined in conjunction with records filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Sufficient cement shall be pumped back of the 13 3/8" casing to fill to the surface.
2. 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.
3. Unlined sumps, if they contain harmful waters, shall not be located over fresh water bearing aquifers.
4. Any sump used during these operations shall be thoroughly cleaned and filled with earth as soon as operations are completed.
5. Blowout prevention equipment of at least DOG Class III B-5M shall be installed on the 13 3/8" casing and maintained in operating condition at all times.
6. Blowout prevention practice drills shall be conducted at least weekly for each crew, and recorded in the log book.
7. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
8. The spacing provisions of Section 3606 shall be followed, and a directional survey shall be made.
9. THIS DIVISION SHALL BE NOTIFIED:
   a. TO INSPECT the installed blowout prevention equipment before drilling below 1000'.
   b. TO WITNESS a test of the 8 5/8" shut-off above the Sesnon zone.

NOTE: A COPY OF THIS APPROVAL SHALL BE AVAILABLE AT THE WELL SITE DURING THE PROPOSED OPERATIONS.

Blanket Bond
JLH:b

M. G. MEFFERD
State Oil and Gas Supervisor

By
Deputy Supervisor

John L. Hardoin

OG111 (11-76—GSR1—30M)

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS RECEIVED
SEP 5 1978
SANTA PAULA, CALIFORNIA

DIVISION OF OIL AND GAS
Notice of Intention to Drill New Well

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

FOR DIVISION USE ONLY					
MAP	MAP BOOK	CARDS	BOND	FORMS 114	FORMS 121
24		✓	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 commence drilling well No. "SFZU" P-42A Porter 42-A, API No. 037-21876 (Assigned by Division),

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

Legal description of mineral-right lease, consisting of _____ acres, is as follows: _____ (Attach map or plat to scale)

Previously submitted

Do mineral and surface leases coincide? Yes _____ No _____ If answer is no, attach legal description of both surface and mineral leases, and map or plat to scale.

Location of well _____ feet (Direction) along property section line and _____ feet (Direction)

at right angles to said line from the _____ corner of property section _____ or

2623' south and 2404' west from station 84

1042' east & 938' north

If well is to be directionally drilled, show proposed coordinates at total depth from surface location

Elevation of ground above sea level 1963 feet.

All depth measurements taken from top of Kelly Bushing which is 21 feet above ground.
(Derrick Floor, Rotary Table or Kelly Bushing)

GAS STORAGE WELL

PROPOSED CASING PROGRAM

SIZE OF CASING INCHES A.P.I.	WEIGHT	GRADE AND TYPE	TOP	BOTTOM	CEMENTING DEPTHS	CALCULATED FILL BEHIND CASING
13-3/8"	54.5	K-55, Butt.	Surf.	1000'	1000'	Surf.
8-5/8"	36	K-55, LT&C N-80, Butt.	Surf.	7475'	7475'	1000'
5-1/2"	20	K-55, LT&C	7350'	7675'	Gravel pack screen liner	-

(A complete drilling program is preferred and may be submitted in lieu of the above program)

Intended zone(s) of completion Sesnon (S-4 and S-8) 3120 psi Estimated total depth 7675'
(Name, depth and expected pressure)

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

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

Southern California Gas Company (Name of Operator)
By P S Magruder Jr 9/1/78
P. S. Magruder, Jr. (Name) 9/1/78
Type of Organization Corporation (Corporation, Partnership, Individual, etc.)

OG105 (12-73-GSR1-15M)