SoCalGas-16

Exhibits to Prepared Reply Testimony of Dan Neville (March 20, 2020)

I.19-06-016

ALJs: Hecht/Poirier

Date Served: March 12, 2021

Ex VII-1

From:	Healy, Gregory
To:	Ravi Krishnamurthy
Cc:	kenneth.bruno@cpuc.ca.gov; Randy.Holter@cpuc.ca.gov; ema@cpuc.ca.gov; may.soe@conservation.ca.gov; Shimura, Tom@DOC; Marilu Habel; Randall L Rudolf; Bill Whitney; Nigel Alvares; Ismail Ceyhan; La Fevers, Glenn
Subject:	SoCalGas Response to Blade Data Request Dated December 18, 2018
Date:	Friday, January 11, 2019 6:20:34 PM
Attachments:	Blade-35.pdf AC_BLD_0103348 - AC_BLD_0103367.zip

Attached please find SoCalGas' response to the December 18, 2018 dated data request of Blade.

Please let me know if you have any questions. Thanks.

Gregory Healy
Regulatory Case Manager
Southern California Gas Company
PH: (213) 244-3314
ghealy@semprautilities.com

From: Ravi Krishnamurthy <ravimk@blade-energy.com>
Sent: Tuesday, December 18, 2018 7:43 PM
To: La Fevers, Glenn <GLaFevers@semprautilities.com>; Healy, Gregory <GHealy@semprautilities.com>
Cc: kenneth.bruno@cpuc.ca.gov; Randy.Holter@cpuc.ca.gov; ema@cpuc.ca.gov; may.soe@conservation.ca.gov; Shimura, Tom@DOC <Tom.Shimura@conservation.ca.gov>; Marilu Habel <Marilu.Habel@conservation.ca.gov>; Randall L Rudolf <rrudolf@blade-energy.com>; Bill Whitney <BWhitney@blade-energy.com>; Nigel Alvares <NAlvares@blade-energy.com>; Ismail Ceyhan <ICeyhan@blade-energy.com>
Subject: [EXTERNAL] Data Request

Dear Glenn and Gregory:

We appreciate your patience and support with these data requests. Enclosed are some follow-up data requests; these are based on the information that was provided.

Please let me know if you have any and all questions.

Thank you,

Regards,

Ravi M. Krishnamurthy
281 206 2000 (office)
832 309 6087 (cell)
ravimk@blade-energy.com

SOUTHERN CALIFORNIA GAS COMPANY

BLADE ENERGY PARTNERS
REQUEST FOR INFORMATION DATED DECEMBER 18, 2018

SOCALGAS RESPONSE DATED JANUARY 11, 2019

SoCalGas provides this information in response to the request for information from Blade Energy Partners, dated December 18, 2018. This information is based upon the best available non-privileged information known at this time, and is subject to change and/or supplementation as SoCalGas' investigation continues, and additional information becomes available.

DATA REQUESTS

Question 1:

In the response to Question 6 of the Blade Information Request dated October 26, 2018, SoCalGas provided Aliso Canyon Field Operations Organization Charts in documents AC_BLD_0077056 through AC_BLD_0077072. Document AC_BLD_0077058 does not show the organization under certain departments, i.e., Storage Risk Management, Drilling Department, SIMP, and others.

a. Was there staff in place under the Storage Risk Management position pre-October 2015? If so, what was the role and job description of the staff? How much staff time was dedicated to Aliso Canyon?

b. Was there staff in place under the Drilling Department pre-October 2015? If so, what was the role and job description of the staff? How much staff time was dedicated to Aliso Canyon?

c. Was the SIMP Department along with staff in place pre-October 2015? If so, what was the role and job description of the staff? How much staff time was dedicated to Aliso Canyon?

d. Was there a department along with staff that was responsible for wellbore integrity pre-October 2015? If so, what department? If so, what was the role and job description of the staff? How much staff time was dedicated to Aliso Canyon?

Response 1:

In response to Blade's Information Request (dated October 26, 2018) for a copy of the Aliso Canyon Field Operations Organization Chart that was in place on October 1, 2015, SoCalGas provided a list of employees assigned to the Aliso Canyon Storage Field between October 1, 2015 and April 2016, and copies of the Aliso Canyon organization charts as of April 2016. As noted in the response, SoCalGas does not maintain copies of organization charts at historical points in time. In addition, because SoCalGas is organized by work function, and not by work location, the responsive documents include personnel who are not assigned to the Aliso Canyon Storage Field work location.

a. No. The "Storage Risk Management Department" was created in 2016.

b. Yes. Please see Response 1.d.

c. No. The "SIMP Team" was created in 2016 and is a group within the "Underground Storage Department." However, in 2014 and 2015, engineers within the Reservoir

Engineering Group performed SIMP related work, in particular development of the SIMP program and process and implementation of a SIMP pilot project.
d. Yes, the "Storage Engineering Department," which included the "Reservoir Engineering Group" and "Drilling Group." The "Reservoir Engineering Group" was responsible for monitoring wells for integrity which included, but was not limited to: well pressures, temperature surveys, noise logs and inventory verifications. The "Drilling Group" was responsible for well work which included, but was not limited to: casing inspections, pressure testing, replacing components on wells, abandoning wells, and the drilling and completion of new wells. Within the Reservoir Engineering Group, there were specific Storage Field Engineers dedicated to each field. Typically, there were two Storage Field Engineers dedicated full time to Aliso Canyon and one Storage Field Engineer at each of the other storage fields. The Drilling Group performed work at all of SoCalGas' storage fields. The amount of staff time dedicated to Aliso Canyon was not fixed and was driven by the projects that need to be completed at the various fields.

Question 2:

Refer to documents AC_CPUC_0000064 through AC_CPUC_0000066 and AC_CPUC_0000063 regarding Interoffice Correspondence recommending casing inspections for a list of casing flow wells of 1940s and 1950s vintage to determine the mechanical condition of each well casing. SS-25 was included in the list of wells recommended for casing inspection.

a. Please advise if the recommended casing inspection (Vertilog) was run in SS-25. If so, provide the inspection survey. If not, what was the reason for not running the inspection survey in SS-25?

Response 2:

Consistent with the recommendations set forth in AC_CPUC_0000064 through AC_CPUC_0000066, the casing inspection (Vertilog) was run on the wells identified to be "high priority" on the following dates:

Porter 34	11/2/89
Porter 37	10/11/88
Porter 46	10/19/88
Standard Sesnon 8	1/17/89
Standard Sesnon 9	12/16/88
Frew 4	9/6/88

The Vertilog was not run on SS-25. The Vertilog technology in 1988 that was recommended in this memo, proved to be less effective at identifying casing leaks than the well diagnostic tests that SoCalGas routinely performed on its underground gas storage wells (e.g., annual temperature surveys, noise logs, etc.).

SOUTHERN CALIFORNIA GAS COMPANY

BLADE ENERGY PARTNERS
REQUEST FOR INFORMATION DATED DECEMBER 18, 2018

SOCALGAS RESPONSE DATED JANUARY 11, 2019

Question 3:

Refer to Frew-3 documents AC_BLD_0032691 through AC_BLD_0032692, Page 2, next to the last paragraph that states the following.

"If the cause of the leak is determined to be corrosion from the fresh water, a review program should be established to determine the number of wells that are also exposed to this action. Alternatives should then be considered as to the most effective solution to remedy the corrosion problem."

a. Was the work completed to determine if the cause of the Frew-3 leak was due to fresh water corrosion? Is so, please provide any study results or reports related to corrosion and the cause of corrosion.

Response 3:

Based on the cooling anomaly at +/- 1100', there was a concern that the leak was across the shallow sand and possibly caused by fresh water in the shallow sand. However, at the time of the workover recommendation, the exact type and location of the leak was unknown. It was recommended to run a casing caliper log to determine this information.

In January 1986, SoCalGas performed a workover of Frew 3 to repair the casing leak and ran both a Pengo Multi-Arm Casing Caliper Log and a Welex Casing Inspection Log to determine the type and depth of the leak. Both casing inspection logs identified that the hole in the production casing was at 3240', a depth considerably deeper than the shallow sand location. For the casing inspection logs, please see electronic documents with Bates range AC_BLD_0103355 through AC_BLD_0103367. For the workover history and daily well report, please see electronic documents with Bates range AC_BLD_0103348 through AC_BLD_0103354. Since the leak was not found at the shallow sand location, a review program of other wells was not warranted.

Following the two casing inspection logs, the production casing was squeeze cemented and pressure tested to 1000 psi, and the 2-7/8" tubing was replaced with a 5-1/2" inner string and 2-3/8" tubing.

Ex VII-2

2

FORM 100.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT LOG IN DUPLICATE
FILL THIS BLANK IN WITH TYPEWRITER. WRITE ON ONE SIDE OF PAPER ONLY

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JUN 7 1954
LOS ANGELES, CALIFORNIA

WELL SUMMARY REPORT

Operator TIDE WATER ASSOCIATED OIL COMPANY Field ALISO CANYON

Well No. Standard-Sesnon 1-#25 Sec. 28, T. 3 N, R. 16 W, S.B. B. & M.

Location 820.00' South & 5360.00' West from Station #84 Elevation above sea level 2927.02 feet.

All depth measurements taken from top of derrick floor, which is 6.35 feet above ground.

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

Date May 28, 1954 Signed J. E. Weaver Jr.

J. R. Bowyer (Engineer or Geologist) O. O. Suman (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling October 1, 1953 Completed drilling February 14, 1954 Drilling tools Cable ~~xxxx~~ Rotary

Total depth 4948' Plugged depth 3860' & P.D. 8749'

Junk 893' - 4-1/2" drill pipe and Johnston tester 3967'-4860' (Sidetracked)

GEOLOGICAL MARKERS	DEPTH

Commenced producing February 25, 1954 (date) Flowing/gas lift/pumping (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
On gas lift 3/20/54 Initial production	232	20.3	2.6%	89	100#	700#
4/18/54 Production after 30 days	101	20.8	2.0%	35	250#	900#

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Drilled	Number of Sacks of Cement	Depth of Cementing if through perforations
13-3/4"	990'	0'	42#	New	Seamless	H-40	16"	600 Diamix + 235 Neat Cmt	
7"	8585'	0'	23,26,29#	New	Seamless	J-55,N-80	10-5/8"		
5-1/2"	8748'	8559'	20#	New	Seamless	J-55, F.J.	6"		

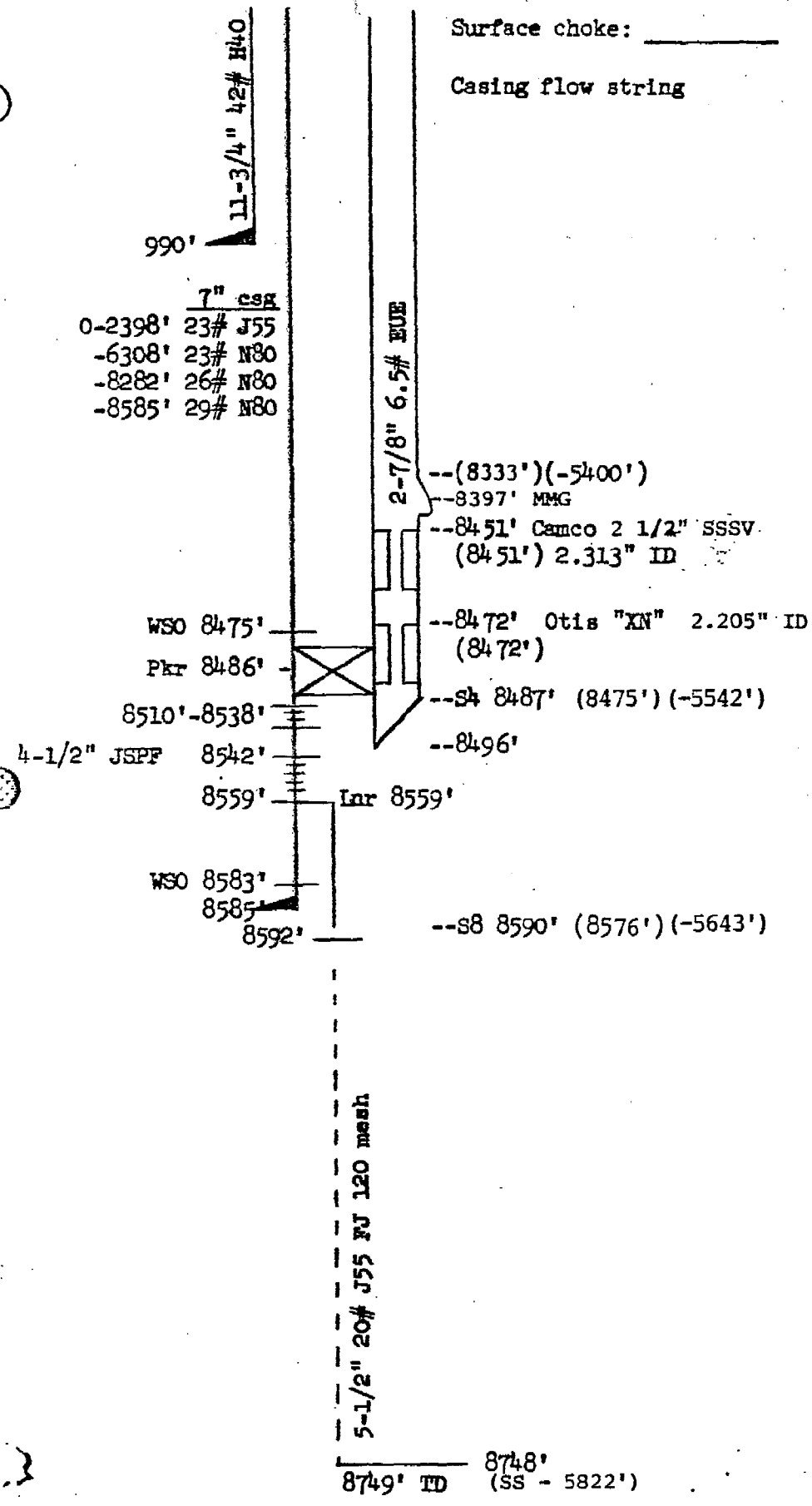
PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
5-1/2"	8592 ft.	8748 ft.	120 Mesh x 2" Slots	12	6"	6° Undercut by Pacific
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				
	ft.	ft.				

Electrical Log Depths 851-4909' & 3860'-8748' (Attach Copy of Log)

Standard Section 25

DF: 6'



Surface choke: _____

Casing flow string

10/1/53 - Well spud
2/25/54 - Well completed 893' of 4-1/2" drill pipe + Johnston tester side tracked - old TD 4948' plugged back 3860
5/24/73 - 6/6/73 Cleaned out to 8748', pressure tested csg, perforated for conversion to gas storage, ran tbg with gas lift valves
6/25/76 - 7/9/76 Cleaned out to 8748', ran tbg with SSSV
2/16/79-2/20/79 Replaced safety system

NOTE: Unable to use lower nipple - use M-lock for SSSV nipple. See wire-line tickets.

WELL VOLUME

	Cu.Ft.	Bbl.
Tubing	276	49
Csg/Lnr.	37	7
Annulus	1469	262

6-16-86

FORM 103.
CALIFORNIA STATE PRINTING OFFICE

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR ~~TIDE WATER ASSOCIATED OIL COMPANY~~ FIELD ~~ALISO CANYON~~

Well No. ~~Standard-Sesnon 1-#25~~, Sec. ~~28~~, T. ~~3 N~~, R. ~~16 W~~, ~~S.B.~~ B. & M.

Signed J E Weaver Jr.

Date ~~May 28, 1954~~ Title ~~Agent~~
(President, Secretary or Agent)

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

Date

LOCATION: 820.00' South and 5360.00' West from Station #84
ELEVATION: 2927.02' Mat
2933.37' Derrick Floor

To be drilled as first well in Aliso Zone Location Etc - Permit 5 Sta

1953

9/8-9/28 Grading, digging rat hole and cellar, poured cellar, moved in equipment.

9/29-9/30 Rigged up rotary.

10/1 Spudded 10-5/8" hole at 1:00 PM and drilled to 169'. Lost circulation for 5 hours.

10/2-10/3 Drilled 10-5/8" hole from 169' to 741'. Lost circulation for 3-3/4 hours.

10/4-10/14 Drilled 10-5/8" hole from 741' to 2567'. Ran Schlumberger electric log at 2567'. Opened 10-5/8" hole to 16" from surface to 212'.

10/15-10/18 Opened 10-5/8" hole to 16" from 212' to 990'. Ran and cemented 11-3/4" 42# Youngstown T & C casing at 970' with 600 sacks 1:1 Diamix followed by 100 sacks Neat cement. Lost circulation with 114 cu. ft. of cement slurry to displace. Pressure built up from 200-500# when plugs bumped. Time 9:45 PM. B.J. Service. Cemented around outside of casing with 75 sacks of Neat cement.

10/19 Cemented around outside of casing with additional 60 sacks Neat cement. Cleaned out and found cement at 984'.

10/20-10/22 Cleaned out to 2567'. Drilled 10-5/8" hole from 2567' to 2925'. Twisted off drill collar in hole. Fishing at 2925'.

10/23 Washing over drill collar at 2908'.

10/24 Washed over and recovered drill collar.

10/25-10/26 Drilled 10-5/8" hole from 2925' to 3073'. Twisted off 28 joints of drill pipe and 2 drill collars at 3073'. Recovered same with McCullough socket.

10/27-11/4 Drilled 10-5/8" hole from 3073' to 4362'. Changed to Carbonox mud at 4350'.

11/5 Drilled 10-5/8" hole from 4362' to 4530'.

11/6 Drilled 8-1/2" hole from 4530' to 4630'. Ran Schlumberger electric log at 4630'. Opened 8-1/2" hole to 10-5/8" from 4530' to 4552'.

11/7 Opened 8-1/2" hole to 10-5/8" from 4552' to 4630'. Reduced hole to 8-1/2" and drilled from 4630' to 4685'.

11/8 Drilled 8-1/2" hole from 4685' to 4765'.

11/9 Drilled 8-1/2" hole from 4765' to 4781'. Ran Schlumberger electric log at 4781'. Ran Johnston formation tester on 4-1/2" drill pipe and set packers at 4652' and 4661' with perforated tailpipe to 4781'. Used 500' water cushion. Opened tester at 4:05 PM. Had medium, steady blow for 8 minutes when gas reached surface. Increased to strong, steady blow for next 5 minutes when cushion reached surface. Well unloaded cushion in 12 minutes. After tester was open a total of 20 minutes,

1953

11/9 (cont.) well was producing gas at maximum rate of 1,591,000 CF/D. After 40 minutes, rate decreased to approximately 360,000 CF/D. After 55 minutes, well died. After 60 minutes, had medium to light heading blow for balance of 75 minute test. Recovered 1620' net rise of gas cut drilling mud. Pressure charts showed 1100# pressure.

11/10 Opened 8-1/2" hole to 10-5/8" to 4761', then drilled 8-1/2" hole from 4781' to 4796'.

11/11-13 Drilled 8-1/2" hole from 4796' to 4910'. Ran Schlumberger electric log to 4910'.

11/14 Ran Johnston formation tester on 4-1/2" drill pipe and set sidewall packers at 4787' and 4795' with perforated tailpipe to 4910'. Opened tester at 7:35 AM. Had fair, diminishing to light blow throughout one hour test. Recovered 2590' net rise; top 755' drilling mud, remainder salt water with average salinity of 373 g/g. Bottom hole pressure 1250#. Reran Schlumberger electric log to 4910'. Opened 8-1/2" hole to 10-5/8" from 4761' to 4788'.

11/15-16 Drilled 8-1/2" hole from 4910' to 4948'. Ran Lane-Wells Neutron Ray, Gamma Ray and sidewall sampler.

11/17 Hung 4-1/2" drill pipe and 97' of 2-7/ 8" tubing equipped with scratchers at 4948'. Pumped in 60 sacks Colton Slow cement preceded by 25 cu. ft. of water. Reciprocated and rotated pipe while displacing water and cement. Equalized cement at approximately 4830'. Time 11:30 AM. B.J. Service. Cleaned out to bottom and found no cement.

11/18 Hung 4-1/2" drill pipe and 97' of 2-7/8" tubing equipped with scratchers at 4948' and pumped in 60 sacks Colton Slow cement. Reciprocated and rotated pipe while displacing cement. Time 10:30 AM. B.J. Service. Found top of cement at 4830' and cleaned out to 4860'. Mud weight 74#, 33 viscosity, 3.3 c.c. water loss.

11/19 Ran Johnston tester on 4-1/2" drill pipe and set sidewall packers at 4715' and 4725' with perforated tailpipe to 4860'. Used 500' water cushion. Opened tester at 11:20 AM. Had light, steady blow for 5 minutes, decreasing to faint, intermittent blow throughout balance of 1 hour test. Could not pull tester loose. Jarred for 3 hours without results. Backed off left hand thread below packers and pipe rotated easily. Attempted to pull tester again but would not come loose. Rotated again and twisted off drill pipe, leaving a single, 7 doubles, drill collar and tools in hole (approximately 893' total fish). Backscuttled and recovered fresh water cushion. Ran in with fishing tool, jarred for 3 hours without results.

11/20 Jarred on fish for 4 hours with no results. Pulled out and laid down fishing tools. McAteer Drilling Contractor released at 10:00 AM. Moving out.

11/21-23 Standing idle.

11/24 Finished moving out rotary.

11/25-12/28 Idle.

12/29-31 Moved in and rigged up rotary.

1954

1/1 Replaced Series 600 casing flange with Series 900. Making up drill pipe.

1/2 Cleaned out to top of fish at 3967'. Hung 4-1/2" drill pipe at 3967' and pumped in 150 sacks Colton Slow cement, 20% sand. Time 12:00 Midnight. B.J. Service.

1/3 Found top of cement at 3770'. Cleaned out to solid cement at 3830'. Standing cemented. Mud weight 74#, 68 viscosity, 4.1 c.c. water loss.

1/4 Drilled out solid cement from 3830' to 3860'. Running Eastman "shoe horn type" whipstock. Mud weight 74#, 58 viscosity, 4.2 c.c. water loss.

1/5 Drilled off Eastman "shoe horn type" whipstock from 3860' to 3878' with 7-7/8" bit. Opened hole to 10-5/8" and drilled ahead to 3929'. Deviation at 3900' equals 3.5 degrees. Mud weight 73#, 65 viscosity, 4.2 c.c. water loss.

1954

1/6 Drilled 10-5/8" hole from 3929' to 4139'. Mud weight 72#, 45 viscosity, 5.1 c.c. water loss.

1/7 Redrilled 10-5/8" hole from 4139' to 4333'. Mud weight 73#, 45 viscosity, 6.0 c.c. water loss.

1/8 Redrilled 10-5/8" hole from 4333' to 4594'. Mud weight 75#, 55 viscosity, 5.5 c.c. water loss.

1/9 Redrilled 10-5/8" hole from 4594' to 4661', then reduced size of hole to 8-1/2" and drilled to 4770'.

1/10-1/11 Redrilled 8-1/2" hole from 4770' to 4806'. Repaired drilling equipment.

1/12 Redrilled 8-1/2" hole from 4806' to 4840'. Ran Schlumberger electric log at 4840'. Mud weight 75#, 52 viscosity, 3.3 c.c. water loss.

1/13 Opened 8-1/2" hole to 10-5/8" from 4661' to 4680'. Ran Johnston tester on 4-1/2" drill pipe and set packers at ~~4665'~~ 4704' and 4716' with perforated tailpipe to 4840'. Used 500' water cushion. Opened 3/8" bean at 6:45 AM. Had medium blow for 3 minutes, strong, steady blow for 25 minutes, decreasing to dead in 45 minutes. Pulled packers loose after 50 minute test. Gas to surface in 3 minutes. Maximum rate 247 MCF after being open 15 minutes. Recovered net rise of 360' gas-cut drilling fluid. Pressure bomb charts confirmed details of test. Opened 8-1/2" hole to 10-5/8" from 4680' to 4840'. Mud weight 75#, 48 viscosity, 4.4 c.c. water loss.

Test of Aliso Zone Sands

1/14 Redrilled 10-5/8" hole from 4840' to 4948'. Deepened from 4948' to 4967' with 10-5/8" bit. Mud weight 76#, 50 viscosity, 3.0 c.c. water loss.

1/15 Drilled 10-5/8" hole from 4967' to 5053'. Mud weight 76#, 45 viscosity, 3.2 c.c. water loss.

1/16 Drilled 10-5/8" hole from 5053' to 5160'. Mud weight 78#, 45 viscosity, 3.6 c.c. water loss.

1/17 Drilled 10-5/8" hole from 5160' to 5450'. Mud weight 77#, 48 viscosity, 3.1 c.c. water loss.

1/18 Reduced size of hole to 8-1/2" and drilled from 5450' to 5630'. Ran Schlumberger electric log at 5630'. Opened 8-1/2" hole to 10-5/8" from 5450' to 5520'. Mud weight 78#, 50 viscosity, 3.0 c.c. water loss.

1/19 Drilled 8-1/2" hole from 5630' to 5645'. Ran Johnston formation tester on 4-1/2" drill pipe and set sidewall packers at 5522' and 5527' with bottom of perforated tailpipe to 5645'. Used 500' water cushion. Opened 3/8" bean at 6:50 PM. Had moderate, steady blow for duration of 1 hour test with gas to surface in 10 minutes. Maximum gas rate after 22 minutes, 38 MCF per day. Recovered 570' net rise gassy emulsified heavy oil. No free water. Charts checked details of test. Final maximum pressure 620#. Cleaned out rat hole to 5645' with 8-1/2" bit. Mud weight 78#, 53 viscosity, 3.2 c.c. water loss.

Test of Upper Aliso Pinter Zone

1/20 Drilled 8-1/2" hole from 5645' to 5790'. Ran Schlumberger electric log at 5770'. Mud weight 78#, 50 viscosity, 3.5 c.c. water loss.

1/21 Drilled 8-1/2" hole from 5790' to 5945'. Ran Schlumberger electric log at 5945' and took sidewall samples at 5537', 5567', 5627', 5646', 5668', 5722', 5725', 5734', 5757', 5804', 5819', 5858', 5878' and 5938'. Opened hole to 10-5/8" from 5522' to 5945'. Mud weight 77#, 53 viscosity, 3.6 c.c. water loss.

Test of Pinter Zone

1/22 Cored 8-1/2" hole from 5945' to 6005' with Mercury conventional core barrel. Opened hole to 10-5/8" from 5945' to 6005'. Mud weight 77#, 44 viscosity, 6.6 c.c. water loss.

1/23 Drilled 10-5/8" hole from 6005' to 6372'. Mud weight 78#, 48 viscosity, 3.6 c.c. water loss.

1/24 Drilled 10-5/8" hole from 6372' to 6706'. Mud weight 77#, 45 viscosity, 5.4 c.c. water loss.

1954

1/25 Drilled 10-5/8" hole from 6706' to 7111'. Mud weight 78#, 45 viscosity, 6.3 c.c. water loss.

1/26 Drilled 10-5/8" hole from 7111' to 7227'. Ran Schlumberger Magnetic survey at 7227'.
Mud weight 78#, 48 viscosity, 6.8 c.c. water loss.

1/27 Drilled 10-5/8" hole from 7227' to 7526'. Mud weight 78#, 50 viscosity, 7.2 c.c. water loss.

1/28 Drilled 10-5/8" hole from 7526' to 7594'. Stuck drill pipe 138' off bottom (7594'). Spotted 80 barrels of oil and came loose. Mud weight 78#, 55 viscosity, 8.0 c.c. water loss.

1/29 Drilled 10-5/8" hole from 7594' to 7780'. Attempted to run shoe horn type bit at 7778', facing S 25 Deg. E, but failed to function. Mud weight 76#, 45 viscosity, 6.1 c.c. water loss.

1/30 Drilled 10-5/8" hole from 7780' to 7897'. Mud weight 78#, 50 viscosity, 5.8 c.c. water loss.

1/31 Drilled 10-5/8" hole from 7897' to 7917'. Set conventional whipstock at 7917', facing South 55 Deg. East. Drilled off whipstock with 7-1/2" bit to 7928', then opened hole to 10-5/8" and drilled ahead to 7936'. Mud weight 78#, 45 viscosity, 6.0 c.c. water loss.

2/1 Drilled 10-5/8" hole from 7936' to 8030'. Mud weight 78#, 58 viscosity, 6.6 c.c. water loss.

2/2 Drilled 10-5/8" hole from 8030' to 8093'. Mud weight 74#, 46 viscosity, 5.6 c.c. water loss.

2/3 Reamed off key seat from approximately 3800' to 3900', then reamed remainder of hole. Mud weight 76#, 58 viscosity, 5.2 c.c. water loss.

2/4 Drilled 10-5/8" hole from 8093' to 8177'. Mud weight 79#, 48 viscosity, 4.8 c.c. water loss.

2/5 Drilled 10-5/8" hole from 8177' to 8240'. Mud weight 79#, 45 viscosity, 4.3 c.c. water loss.

2/6 Drilled 10-5/8" hole from 8240' to 8373'. Mud weight 79#, 47 viscosity, 4.2 c.c. water loss.

2/7 Drilled 10-5/8" hole from 8373' to 8544'. Mud weight 80#, 52 viscosity, 3.8 c.c. water loss.

2/8 Drilled 10-5/8" hole from 8544' to 8580'. Ran Schlumberger electric log at 8550'. Drilled ahead to 8580' and ran Schlumberger electric log and Neutron - Self-potential log. Circulated with double three point reamer. Mud weight 80#, 50 viscosity, 4.0 c.c. water loss.

2/9 Drilled 10-5/8" hole from 8580' to 8585'. Mud weight 78#, 44 viscosity, 3.3 c.c. water loss. Running 7" casing.

2/10 Cemented 7" Youngstown, Speedtite casing at 8585' with 600 sacks Colton Hi-temperature cement. Detail of casing is as follows: Surface to 2398' - 23#, J-55; 2398' to 6308' - 23#, N-80; 6308' to 8282' - 26#, N-80; 8282' to 8585' - 29#, N-80. Pressure rose from 1000-1500# when plugs bumped. Time 3:10 AM. B.J. Service (two pump trucks). Used two centralizers and three scratchers on each of bottom three joints. Tested casing 1200# O.K. for 15 minutes. Making up 3-1/2" drill pipe.

2/11 Found top of hard cement at 8537'. Drilled out cement to 8584'. Ran Schlumberger Neutron and collar locator to 8584'. Ran Schlumberger jet gun and shot four holes at 8583'.

2/12 Ran Johnston tester on 3-1/2" drill pipe and set packer at 8522' with perforated tailpipe to 8539' to test jet holes at 8583'. Used 1000' water cushion. Opened tester at 11:05 AM. Had light, steady blow for 5 minutes, then dead for 1 hour test. Recovered 30' net rise of water drilling fluid. Charts checked details

1954

2/12 (cont) of test. Obtained segregation at 8583'. Ran Schlumberger jet perforator and shot four holes at 8475'. Ran Johnston tester on 3-1/2" drill pipe and set packer at 8434' with perforated tailpipe to 8451'. Used 1000' water cushion. Opened tester at 9:40 PM. Had light blow for 1 minute, then dead for balance of 1 hour test. Recovered 30' net rise drilling fluid. Charts confirmed results of test. Water shutoff on holes at 8475' witnessed and approved by Division of Oil and Gas. Mud weight 76#, 46 viscosity, 2.4 c.c. water loss.

2/13 Cleaned out from 8584' to 8585'. Drilled 6" hole from 8585' to 8634'. Mud weight 80#, 59 viscosity, 4.8 c.c. water loss.

2/14 Ran Schlumberger electric log at 8749'. Reamed 6" hole from 8585' to 8749'. Mud weight 79#, 47 viscosity, 4.2 c.c. water loss.

2/15 Landed 189' of 5-1/2" 20# J-55 Youngstown flush joint liner at 8748'. Top of hanger 8559'. Perforations 8592' - 8748'. Details of perforations: 120 Mesh, 12 rows, 2" slots, 6" centers, 6° undercut, by Pacific. Laid down drill pipe and made up tubing.

2/16 Installed Christmas tree and landed 2-7/8" tubing at 8540'. Displaced mud with oil.

2/17 Swabbed 12 hours. Fluid level 3200'. Lost swab. Fishing.

2/18 Circulated out swab with oil. Resumed swabbing. Fluid level 1500'. Swabbed out approximately 125 barrels.

2/19 Swabbed 150 barrels gross fluid, all circulating oil. Fluid level 2500'.

2/20 In 12 hours swabbed 107 barrels gross fluid, all formation oil. 94 barrels net oil, 12.0% cut, 18.3 gravity. Swabbed at 6000'. Fluid level 3500'. Released Pike Drilling Contractor at 6:00 PM.

2/21-22 Contractor moving out.

2/23 Shut in. 160# tubing pressure; 325# casing pressure.

2/24 Shut in. 200# tubing pressure; 300# casing pressure.

2/25 Well began flowing at 1:30 PM and in 8-1/2 hours produced 105 barrels gross fluid, 99 barrels net oil, cut 6.0% water, 24/64" bean, 100# tubing pressure, 1600# casing pressure. Well died at 10:00 PM. 6:00 AM tubing pressure 100#; casing pressure 1600#.

2/26 In 3 hours well flowed by heads 39 barrels gross fluid, no cut or gravity, 64/64" bean, 300# tubing pressure, 1475# casing pressure.

2/27 Well dead. 100# tubing pressure, 1400# casing pressure.

2/28 Well dead. Bleeding down casing pressure.

3/1 Rigged up California Production Service hoist and in 16 hours swabbed 82 barrels gross fluid, 78 barrels net oil, 4.8% cut, 19.7 gravity, fluid level remaining from 2500-3000'.

3/2 In 16 hours swabbed 129 barrels gross fluid, 128 barrels net oil, 1.0% cut, 20.6 gravity, 0# tubing pressure, 0# casing pressure. Fluid level 4000'. Released crew 12:00 Midnight.

3/3 Shut in. 350# tubing pressure; 350# casing pressure.

3/4 Shut in. 450# tubing pressure; 300# casing pressure.

3/5 Shut in. 560# tubing pressure; 500# casing pressure.

3/6 Shut in. 560# tubing pressure; 500# casing pressure.

3/7 Shut in. 500# tubing pressure; 560# casing pressure.

3/8 In 17 hours well flowed on gas lift 101 barrels gross fluid, 101 barrels approximate net oil, 0.1% cut, 21.2 gravity, 16/64" bean, 100# tubing pressure, 1350# casing pressure, 0 MCF gas.

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#25, Aliso Canyon Field

1954

3/9 In 8 hours well flowed on gas lift 29 barrels gross fluid, 29 barrels approximate net oil, 0.1% cut, 21.2 gravity, 16/64" bean, 680# tubing pressure, 1250# casing pressure, 0 MCF gas.

3/10 Shut in. 1300# tubing pressure; 1300# casing pressure.

3/11 Shut in. Let off tubing pressure but well would not flow. 100# tubing pressure; 1400# casing pressure.

3/12 In 8 hours well flowed 76 barrels gross fluid, approximately 74 barrels net oil, 3.0% cut, 21.0 gravity, 16/64" bean, 200# tubing pressure, 1400# casing pressure. Bleeding off pressures. Preparing to install gas flow valves.

3/13 Bleeding off pressure. 200# tubing pressure; 1400# casing pressure.

3/14 Bleeding off pressure. 150# tubing pressure; 700# casing pressure.

3/15 Bleeding off pressure. 200# tubing pressure; 0# casing pressure.

3/16 Bled off pressure and filled hole with dead oil. Will move in mast if weather permits.

3/17 California Production Service moving in with mast.

3/18 Pulled tubing. Ran 7" Guiberson KV-30 wall packer and set at 8525' with 14,000#; included arefive Guiberson gas lift flow valves as follows: 1000# valve - 1965'; 975# valve - 3835'; 950# valve - 5504'; 925# valve - 6973'; 900# valve - 8271' (no ball and check on this valve). Above depths are from tubing head.

3/19 Hooked up tree and began injecting gas. In 15 hours well flowed on gas lift as follows:

	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas Inj	MCF Gas Net
	211 gross fluid, of which 171 barrels is formation oil, 166 barrels net oil, cut 3.0%, 50# tubing pressure, 300# casing pressure, 20.3 gravity, 153 MCF injected gas, 47 MCF net.								
3/20	238	232	2.6%	20.3	32/64	100#	700#	217	89
3/21	103	103	0.3%	20.7	32/64	200#	750#	49	88
	Off 13 hours - gas injection line froze.								
3/22	Injection line frozen 3-1/2 hours.								
	190	190	0.2%	21.0	32/64	360#	750#	220	79
3/23	146	143	2.0%	20.6	32/64	140#	750#	211	109
3/24	152	151	0.4%	20.5	32/64	100#	940#	207	109
3/25	130	130	0.2%	20.5	32/64	250#	900#	232	68
	Off 4-1/2 hours - gas injection line frozen.								
3/26	166	166	0.2%	20.5	32/64	250#	900#	232	68
3/27	130	130	0.2%	20.5	32/64	250#	900#	220	118
3/28	119	119	0.2%	20.5	32/64	250#	900#	187	56
	Off 4 hours - gas injection line frozen.								
3/29	70	70	0.3%	20.8	14/64	250#	900#	61	65
	Off 11 hours - gas injection line frozen.								
3/30	95	95	0.3%	20.8	14/64	250#	900#	92	78
3/31	74	74	0.3%	20.8	14/64	250#	900#	145	97
4/1	71	70	0.8%	20.8	14/64	250#	900#	87	53
4/2	97	97	0.8%	20.8	14/64	250#	900#	92	78
4/3	38	38	0.8%	20.8	14/64	250#	900#	150	73

OPERATOR: TIDE WATER ASSOCIATED OIL COMPANY

WELL NO.: Standard-Sesnon 1-#25, Aliso Canyon Field

1954	Gross	Net	Cut	Gravity	Bean	Tubing Pressure	Casing Pressure	MCF Gas Inj	MCF Gas Net
4/4	184	183	0.8%	20.8	14/64	250#	900#	220	87
4/5	103	102	0.8%	20.8	14/64	250#	900#	89	56
4/6	97	96	0.8%	20.8	14/64	250#	900#	49	89
4/7	141	140	0.8%	20.8	14/64	250#	900#	95	87
4/8	124	123	0.8%	20.8	14/64	250#	900#	119	110
4/9	107	106	0.8%	20.8	14/64	250#	900#	120	102
4/10	114	113	0.8%	20.8	14/64	250#	900#	122	124
4/11	92	91	0.8%	20.8	14/64	250#	900#	64	86
4/12	103	102	0.8%	20.8	14/64	250#	900#	44	96
4/13	103	102	0.8%	20.8	14/64	250#	900#	134	84
4/14	62	61	2.0%	20.8	14/64	250#	900#	55	43
	Off 13 hours.								
4/15	103	101	2.0%	20.8	14/64	250#	900#	122	72
4/16	113	111	2.0%	20.8	14/64	250#	900#	128	52
4/17	92	91	2.0%	20.8	14/64	250#	900#	168	40
4/18	103	101	2.0%	20.8	14/64	250#	900#	154	35
4/19-21	Shut in for pressure survey.								

Grant 6-Bonds

Thru 9-30-57

CASING RECORD

	11-3/4"	42#	C	990'	
	7"	23, 26, 29#	C	8585'	4 H 8583', 8475'
189'	5-1/2"	20#	L	8748'	Top 8559' Pf. 8592'-8748'

JUNK

893' 4-1/2" drill pipe and Johnston tester 3967'-4860'

TUBING RECORD

2-7/8" L 8540'

4948. Pg. 3860

8749 T.D.

FORM 103 SUBMIT IN DUPLICATE Δ OSP

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Pacific Lighting Service Company FIELD Aliso Canyon

Well No. SFZU SS-25, Sec. 28, T. 3N, R. 16W, S.B. B. & M.

Date September 5, 19 73 Signed W S Magruder Jr

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

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

Date 1973	
5-24	Before moving in California Production Service rig, pumped 50 bbls. of oil heated to 250° into tubing to dewax the well. Rigged up and using McCullough, shot four 3/8" holes in tubing at 8485' with deflecting bullets. Pumped in one 60 bbl. batch of high gel polymer drilling fluid and obtained circulation with 400 bbls. of drilling fluid.
5-25	Circulated out gas and oil from well and bled off trap pressure. Removed X-mas tree and installed B.O.P., including hydril, complete shut-off and tubing rams. Pulled tubing and packer. Ran in hole with 4-5/8" bit and casing scraper.
5-26	Ran 4-5/8" bit and casing scraper and cleaned out bridges 8723'-8748', circulated hole clean recovering carbonate material from drilling fluid. Pulled out of hole and ran Dresser Atlas cement bond log and recorded 8737'-6950'. Ran neutron life-time log and recorded 8742'-8000'.
5-27	Idle.
5-28	Ran Dresser Atlas acoustilog and recorded 8560'-8000'. Ran densilog and recorded 8560'-8000'. Ran 6" bit and casing scraper and cleaned out to 8559'.
5-29	Ran Baker retrievable retainer and using Halliburton cementing truck pressure tested 7" casing as follows:

8525'-surface	1500 psi for 23 minutes
6000'-surface	2000 psi for 25 minutes
4500'-surface	2400 psi for 25 minutes
3000'-surface	2800 psi for 27 minutes
2000'-surface	3100 psi for 25 minutes
1000'-surface	3400 psi for 33 minutes

Using Dresser Atlas 4" Golden Jet gun, shot four 1/2" jet holes from 8542'-8538'. Ran Baker bridge plug and set at 8550'.

1973

5-30 Ran Halliburton tester and set packer at 8471' with tail to 8487'. Opened tool at 11:45 A.M. with strong blow and gas to surface in 3 minutes, shut in and turned to trap at 11:53 A.M. Flowed gas at approximate rate of 4 MM cu. ft. per day for 33 minutes. Shut in for 65 minutes to take initial shut in pressure. Re-opened tool at 1:30 P.M. and flowed for 60 minutes through 1/4" surface choke and 5/8" choke in tester at rate of 1.7 MM cu. ft. per day with surface pressure of 1150 psi. Flowed from 2:30 P.M. until 4:00 P.M. through 1/2" surface choke at rate of 4.2 MM cu. ft. per day with surface pressure of 750 psi. Flowed 4:00 P.M. to 7:00 P.M. through 1" surface choke at rate of 4.5 MM cu. ft. per day with surface pressure of 575 psi. Shut in tester at 7:00 P.M. for final static pressure.

5-31 Bled pressure down to 225 psi (trap back pressure). Pulled tester at 8:45 A.M. for final shut in of 11 hours and 45 minutes. Opened backscuttle valve and circulated drilling fluid to pump gas to trap. Pulled out of hole and recovered drilling fluid in bottom 120' of 2-7/8" tubing below backscuttle valve. Recovered no sand in tubing or in tester.

PRESSURE RECORDER DATA:

Hydrostatic	3722 psi
Initial Flow	1338 psi
Initial Shut-in	1461 psi
Initial Flow 1/4"	1442 psi
Flow 1/2" Choke	1386 psi
Flow 1" Choke	1373 psi
Final Shut-in	1459 psi

Ran in with latching tool and found no sand on Baker bridge plug at 8550'. Backscuttled and recovered no sand. Pulled bridge plug to 4975' and reset same.

6-1 Removed casing spool. Removed rings and rubber packing from casing head. Filled 7" x 11-3/4" annulus with 50 bbls. of mud. Using jack hammers, dug concrete out of cellar for 20". Rigged up casing jack and spear and unlanded 7" casing with 196,000 lb. pull. Removed slips. Welder cut off conductor and 11-3/4" surface casing. Leveled and tack welded new casing head on 11-3/4" casing.

6-2 Completed welding casing head and checked weld with Gamma ray. Rigged up casing jacks and spear. Pulled 196,000 lbs. on 7" casing and landed on slips in casing head and installed packing. Cut off 4-1/2" of 7" casing and rebeveled top of casing. Tested casing head packing and secondary flange pack-off, both to 2800 psi for 30 minutes. Reinstalled B.O.P. Started in well with tool to retrieve bridge plug.

6-3 Idle.

6-4 Recovered bridge plug from 4975' and found no sand on bridge plug. Using Dresser Atlas 4" Golden Jet gun, shot four 1/2" holes per foot 8559'-8542' and 8538'-8510'. Ran wire brush perforation cleaner and found 13' of fill circulated and worked brush from 8736'-8592'. Pulled out of well.

1973

6-5 Ran 2-7/8" tubing, including packer, nipple, sliding sleeve and five gas lift mandrels (details attached). Hydrotested tubing to 5000 psi and found no leaks. Landed tubing on doughnut with bottom of tubing at 8492'. Using Hydrotest, pumped down tubing but obtained circulation. Pulled and reran bottom gas lift valve with piano wire unit. Using rig pump, set packer but apparently could not shear ball seat.

6-6 Pumped water down tubing with hot oil truck and found seat had been sheared with rig pump. Using piano wire unit, shifted sleeve at 8390' to open position. Removed B.O.P., installed new X-mas tree and tested doughnut and tree to 3500 psi, each for 20 minutes. Circulated drilling fluid out of hole with lease water. Displaced water to top gas lift valve with nitrogen. Blew well down to zero pressure and shut-in. Moved out rig.

TUBING DETAILS

Derrick floor to top of tubing	0'-8.35'
160 jts. 2-7/8" 8rd., EUE, J-55	8.35'-4983'
KBMG mandrel w/BK valve 1050 psi	4983'-4995'
30 jts. 2-7/8" tubing	4995'-5914'
KBMG mandrel w/BK valve 1025 psi	5914'-5925'
28 jts. 2-7/8" tubing	5925'-6784'
KBMG mandrel w/BK valve 1000 psi	6784'-6795'
26 jts. 2-7/8" tubing	6795'-7589'
KBMG mandrel w/BK valve 975 psi	7589'-7600'
23 jts. 2-7/8" tubing	7600'-8314'
KBMG mandrel w/BK valve 950 psi	8314'-8325'
2 jts. 2-7/8" tubing	8325'-8387'
Baker model "L" sliding sleeve (open)	8387'-8390'
1 jt. 2-7/8" tubing	8390'-8421'
Baker "F" nipple	8421'-8422'
1 jt. 2-7/8" tubing	8422'-8453'
Baker FH hydrostatic packer	8453'-8460'
1 jt. 2-7/8" tubing	8460'-8491'
Baker ball seat & chamfered collar	8491'-8492'

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. Standard-Sesnon #25, Sec. 28, T. 3N, R. 16W, S. B. B. & M.

Date July 29, 1976 Signed P. S. MAGRUDER, Jr.

P. O. Box 3249, Terminal Annex
Los Angeles, California 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	
6-25-76	Killed well with 350 barrels of 72#/cu. ft. IMC brine-polymer drilling fluid.
6-28-76	Moved in rig and equipment from WEZU #30 to Standard Sesnon #25. CPS #D-1 installed back pressure valve in doughnut.
6-29-76	Installed 8" 5000 psi B.O.P.E. - Tested complete shut off rams to 4000 psi for 20 minutes with water. Also tested 2 7/8" pipe rams. Hydril bag tested at 3000 psi for 20 minutes. Tested Hydril to 3000 psi with nitrogen.
6-30-76	Tested complete shut-off rams to 4000 psi with nitrogen for 20 minutes. Pressure tested 2 7/8" tubing rams to 4000 psi for 20 minutes. Pressure tested manifold to 4000 psi for 20 minutes.
7-1-76	Laid down hydrostatic packer, five gas lift valves, No-Go nipple, and Baker valve. Tripped in hole with 4 5/8" bit and 5 1/2" 17# casing scraper. Measured tubing in hole. Cleaned out 5 1/2" liner from 8559' to 8748'. Circulated hole clean.
7-2-76	Ran in with Baker Retrieva-"D" packer on wireline which stopped at 8333'. Ran in hole with 6" mill and 7" 29# casing scraper. Circulated hole clean.
7-3-76	Re-ran Baker packer which stopped at 8338'. Ran in with 6" mill and cleaned out to top of liner at 8359'. Circulated hole clean.
7-4-76	Rig idle.
7-5-76 (Holiday)	Rig idle.
7-6-76	Set Baker Retrieva-"D" packer on wireline at 8480'.

7-7-76 Ran in with 2 7/8" tubing. Removed collars, cleaned pins applying Baker seal and hydrotested tubing to 5000 psi for one minute test.

7-8-76 Landed tubing on packer with 10,000# - Pulled up 15,000# over weight of tubing to check latch. Installed back pressure valve in doughnut. Removed B.O.P.E. and installed Christmas tree. Pressure tested to 5,000 psi - O.K. Circulated drilling fluid out of well with waste lease salt water.

7-9-76 Set plug in No-Go nipple and pressure tested seals and packer to 2500 psi for 20 minutes - O.K. Released rig at 2:00 p.m.

SUBMIT IN DUPLICATE

RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION

DIVISION OF OIL AND GAS

Note: Filing of "Notice" and well history not required by D.O.G.

History of Oil or Gas Well

Operator Southern CaliforniaGas Company Field or County Aliso Canyon
Well S. S. #25, Sec. 28, T 3N, R 16W, sb B. & M.
A.P.I. No. Name P. S. Magruder, Jr. (Person submitting report) Title Agent (President, Secretary or Agent)
Date February 21, 1979 19

Signature P S Magruder Jr

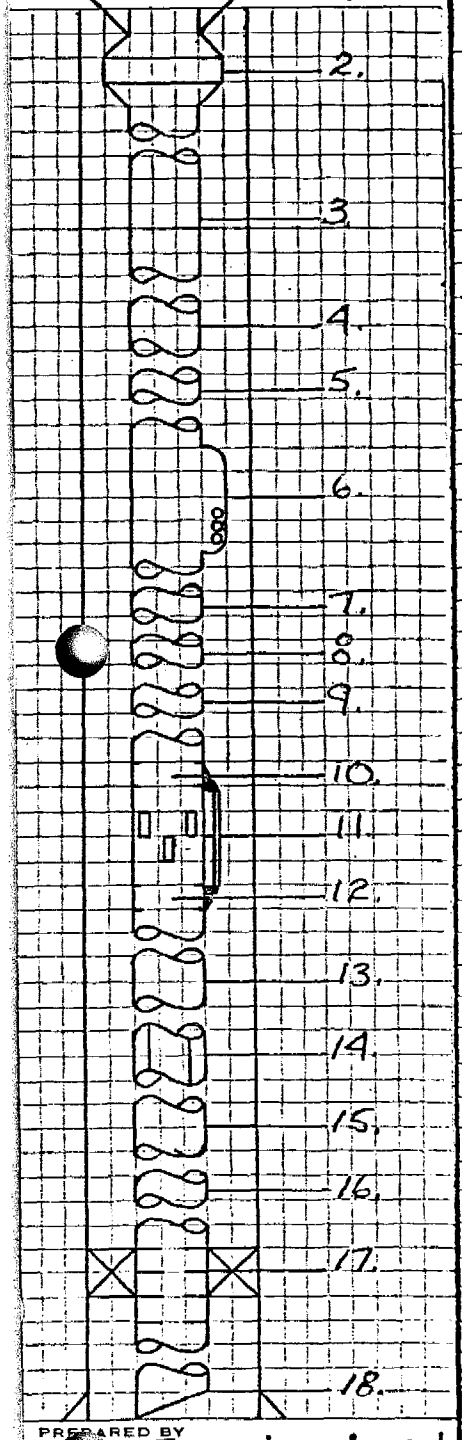
P.O. Box 3249 Terminal Annex, Los Angeles, Ca. 90051 (Address) (213) 689-3561 (Telephone Number)

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

Date	
	MWO 99574
	Program: to remove and repair or replace and reinstall annular flow safety system
1979	
2-16	1st Day. Killed well with 350 barrels of 63# brine-polymer completion fluid. Moved California Production Service Co. rig #D-4 onto wellsite and rigged up. Removed xmas tree, installed BOPE.
2-17	2nd Day. Tested BOPE, blind rams, and 2 7/8" pipe rams to 3,000 psi, Hydril to 2,000 psi with water and nitrogen. Unlanded tubing pulled up 25,000# over weight of string to check packer. Released from 7" Baker "Retrieva-D" packer at 8,485'. Circulated sand from top of packer. Pulled out of well. Ran in with dummy seals changing collars.
2-18	Rig and crew idle.
2-19	3rd Day. Continued running in well to 8,485' with 2 7/8" tubing and seals, changing collars. Stabbed into 7" Baker "Retrieva-D" packer at 8,485'. Pressured up annulus to 1,500 psi for 20 minutes. Pulled out of well. Ran in with Baker production tube, seals, and latch-in locator Otis 2.205" XN nipple, Camco Annular flow safety system and Camco gas lift mandrel. Hydrotesting to 5,000 psi.
2-20	4th Day. Stabbed into 7" Baker "Retrieva-D" packer at 8,486'. Pulled up 25,000# over weight of string to check latch. Tubing weight on hook 49,000#. Landed with 10,000# on packer. Removed BOPE, installed xmas tree, tested to 5,000 psi. Displaced brine-polymer completion fluid from well with 350 barrels of waste lease salt water. Released rig at 2:00 p.m.

OG103 (6-78-GSRI-10M)

WELL PROFILE



☐ POSAL ☒ INSTALLATION
☐ QUOTATION

RAN BY
☒ CAMCO ☐ CUSTOMER SPECIALIST

Southern California Gas Co.
OPERATOR

S. S. #25
WELL #

FIELD Aliso Canyon

COUNTY Los Angeles

STATE California

DATE February 21, 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	6.35	6.35
2	Tubing Hanger	.50	6.85
3	6 Jts. 2 7/8" 8rd EUE N-80 tubing	183.68	190.53
4	265 Jts. 2 7/8" 8rd EUE J-55 tubing	8202.59	8393.12
5	Pup Jt. 2 7/8" 8rd EUE N-80	4.00	8397.12
6	Camco MMG mandrel with DCRT valve	8.43	8405.55
7	Pup Jt. 2 7/8" 8rd EUE N-80	.67	8406.22
8	1 Jt. 2 7/8" 8rd EUE tubing	31.40	8437.62
9	Pup Jt, 2 7/8" 8rd EUE N-80	2.15	8439.77
10	Camco "DS-1" nipple (empty)		
11	Camco "SC-1" safety system	15.27	8455.04
12	Camco "WP-1" nipple (empty)		
13	Camco 20' blast jt.	19.77	8474.81
14	Camco "D" no go nipple 3.000" O.D., 2.205" I.D.	1.17	8475.98
15	Camco 10' blast Jt.	9.67	8485.65
16	Baker Latch-in locator	1.10	8486.75
17	Bkaer Seal Assembly	4.20	8490.95
18	Baker Production tube	5.26	8496.21

- NOTES -

Baker packer set at 8,486+ wireline measurment
Tubing weight 49,000# landed with 10,000# on packer.
Pulled 20,000# over tubing weight to check latch

PREPARED BY Jeff Shepherd

COMMENTS:

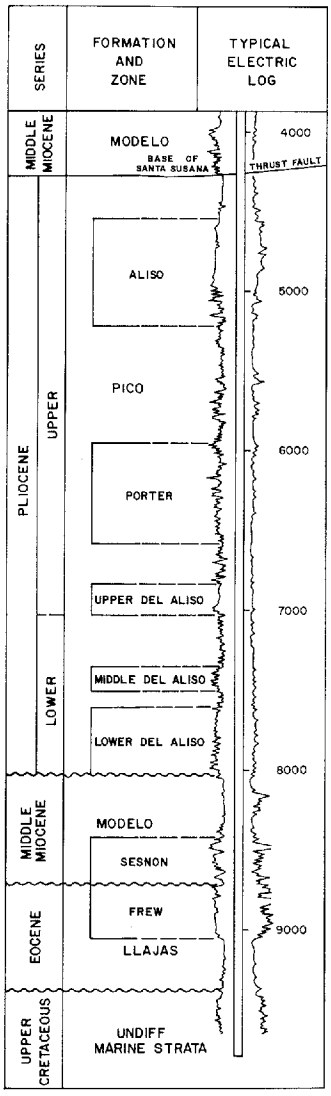
MPF-1

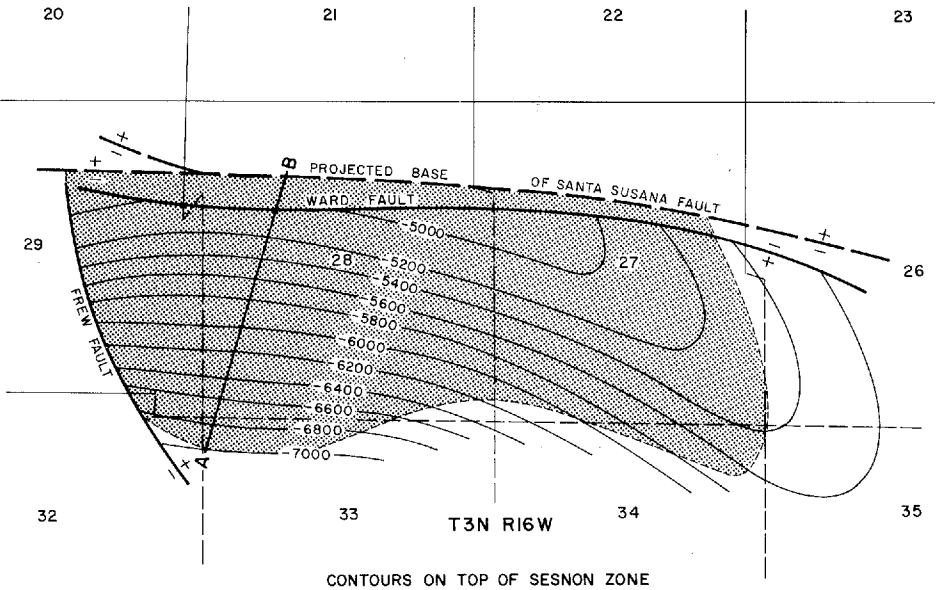
AC_CPUC_0000084

SoCalGas-16.0023

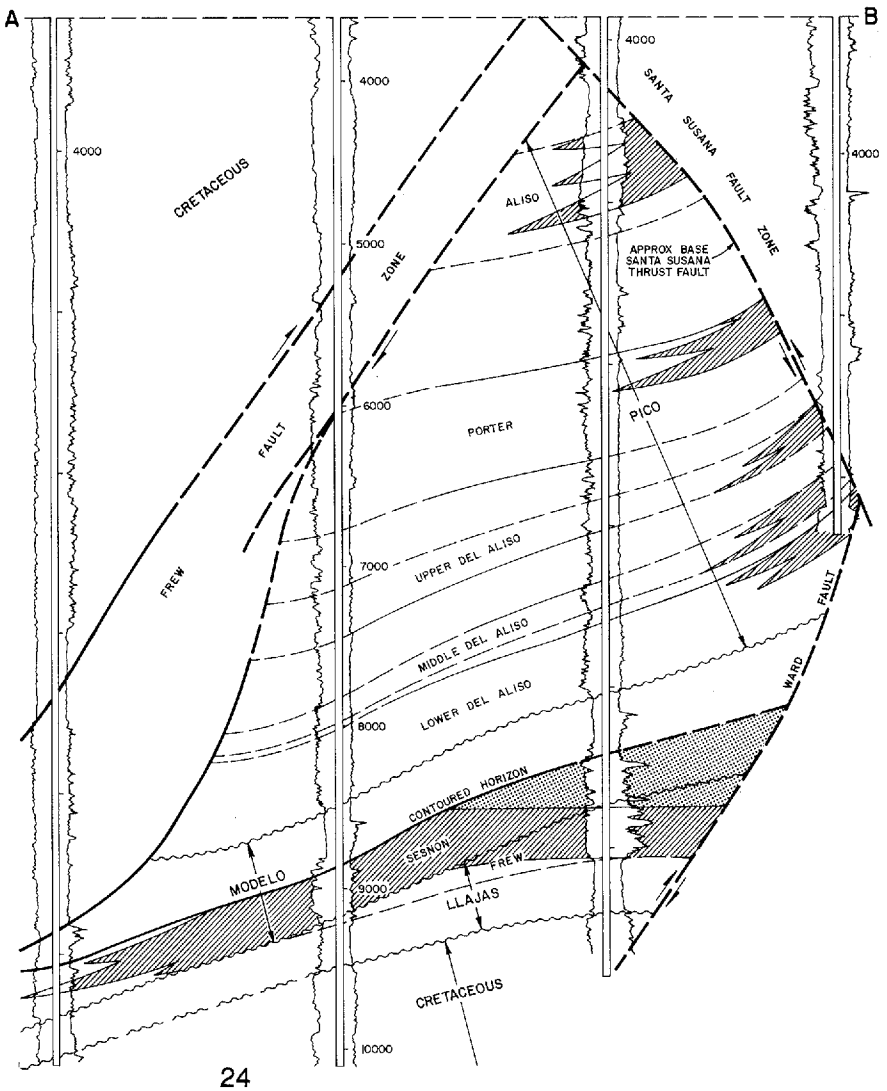
Ex VII-3

ALISO CANYON OIL FIELD





CONTOURS ON TOP OF SESNON ZONE
SCALE: 1" = 4000'



COUNTY: LOS ANGELES

ALISO CANYON OIL FIELD

DISCOVERY WELL AND DEEPEST WELL

	Present operator and well designation	Original operator and well designation	Sec. T. & R.	B.&M.	Total depth (feet)	Pool (zone)	Strata & age at total depth
Discovery well	Texaco Producing Inc. "Porter" 1	Tidewater Associated Oil Co. "Porter" 1	27 3N 16W	SB	5,393	Porter Sesnon	
Deepest well	Southern California Gas Co. "SFZU" SS-17	Tidewater Associated Oil Co. "Standard Sesnon" 1-17	28 3N 16W	SB	12,417		undiff. Marine Cretaceous

POOL DATA

ITEM	ALISO	ALISO, WEST	PORTER-DEL ALISO A-36	PORTER, WEST	MISSION-ADRIAN	FIELD OR AREA DATA
Discovery date	April 1950	November 1950	October 1938	1938	Prior to 1950	
Initial production rates						
Oil (bbl/day)	510	-	700	-	-	
Gas (Mcf/day)	154	-	200	-	-	
Flow pressure (psi)						
Bean size (in.)						
Initial reservoir pressure (psi)	1,260	-	1,795	1,780	-	
Reservoir temperature (°F)	130	-	144	145	-	
Initial oil content (STB/ac.-ft.)	1,206	-	1,160	-	-	
Initial gas content (MSCF/ac.-ft.)	664	-	1,040	-	-	
Formation	Pico	Pico	Pico	Pico	Pico	
Geologic age	Pliocene	Pliocene	Pliocene	Pliocene	Pliocene	
Average depth (ft.)	4,150	5,179	5,050	5,673	7,100	
Average net thickness (ft.)	89	-	160	150	400	
Maximum productive area (acres)						
RESERVOIR ROCK PROPERTIES						
Porosity (%)	21.3-29.0	-	21.3-22.7	26.4	-	
So_i (%)	-	-	51	-	-	
Sw_i (%)	36	-	22	27	-	
Sg_i (%)	-	-	27	-	-	
Permeability to air (md)	765	-	67-89	485	-	
RESERVOIR FLUID PROPERTIES						
Oil:						
Oil gravity (°API)	14.5	11.0	23.5	23.9	29.0	
Sulfur content (% by wt.)	0.94	-	-	-	-	
Initial solution GOR (SCF/STB)	550	-	900**	-	-	
Initial oil FVF (RB/STB)	1.07	-	1.14	1.13	-	
Bubble point press. (psia)	2,230	-	1,640	1,644	-	
Viscosity (cp) @ °F	69.0 @ 130	-	4.5 @ 144	4.5 @ 144	-	
Gas:						
Specific gravity (air = 1.0)	0.60	-	0.70	0.70	-	
Heating value (Btu/cu. ft.)	1,027	-	1,050	-	-	
Water:						
Salinity, NaCl (ppm)	8,900	-	14,000	-	-	
T.D.S. (ppm)	9,670	17,000	15,000	-	-	
R_w (ohm/m) (77°F)						
ENHANCED RECOVERY PROJECTS						
Enhanced recovery projects			waterflood			
Date started			1976			
Date discontinued			active			
Peak oil production (bbl)						2,845,485
Year						1955
Peak gas production, net (Mcf)						9,162,055
Year						1971

Base of fresh water (ft.): 100 - 800

Remarks: Storage of gas in the Sesnon-Frew zones began in 1973.

Selected References:

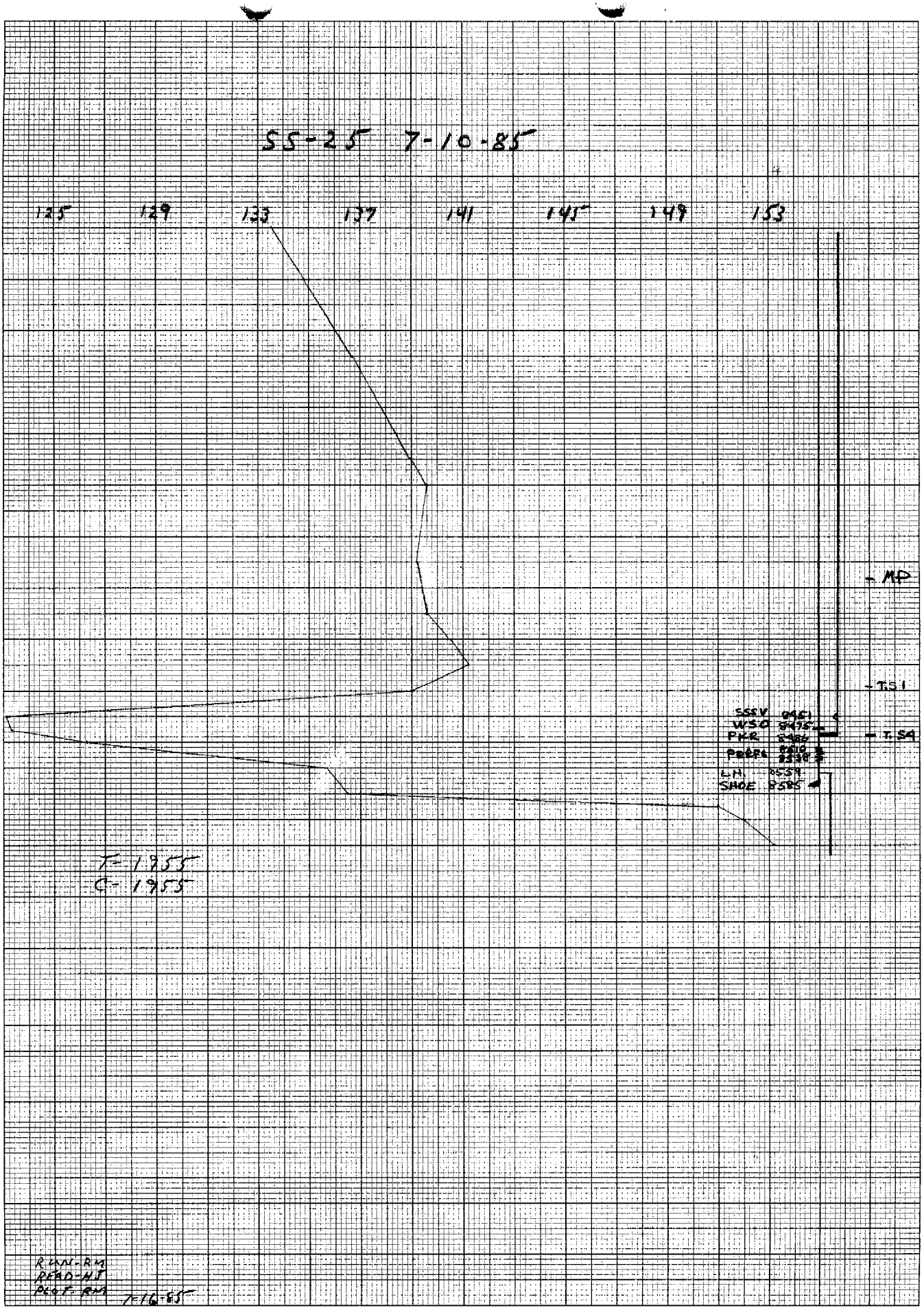
Hodges, F.C., and E.R. Murray-Aaron, 1943, Newhall-Potrero, Aliso Canyon, Del Valle, and Oak Canyon Oil Fields: Calif. Div. of Oil and Gas, Summary of Operations -- Calif. Oil Fields, Vol. 29, No. 1.

Ingram, W.L., 1959, Aliso Canyon Oil Field: Calif. Div. of Oil and Gas, Summary of Operations -- Calif. Oil Fields, Vol. 45, No. 1.

DATE: May 1983 **Estimated value

CALIFORNIA DIVISION OF OIL AND GAS

Ex VII-4



46 1512

10 X 10 TO THE CENTIMETER 18 X 25 CM.
KEUFFEL & ESSER CO. MADE IN U.S.A.

Southern California Gas Company
Aliso Canyon

Well SS-25 Date 7-10-85 Element No. 39138 Clock Hours _____

Tubing Press. 1955 Status S/IN Time Clock Started _____ Time Clock Off _____

Casing Press. 1955 Pick-Up _____ Operator RM 50 ' per Minute

Time Press. on _____ Time Start Down _____ Zero Point 6 ' @ MN

Depth	Elapse Time	Deflection	Temp.	Depth	Elapse Time	Deflection	Temp.
0	5			5000	55.0		
250	7.5			5250	57.5		
500	10.0			5500	60.0		
750	12.5			5750	62.5		
1000	15.0			6000	65.0		
1250	17.5			6250	67.5		
1500	20.0			6500	70.0		
1750	22.5			6750	72.5		
2000	25.0			7000	75.0		
2250	27.5			7250			
2500	30.0			7500	STOP 99.0 START 105.0	.517 .518	133.5
2750	32.5			7750	110.0	.546	136.7
3000	35.0			7950 8000	114.0 115.0	.566 OVER .571	139.0 139.6
3250	37.5			8250	120.0	.571 OVER	139.6
3500	40.0			8500	125.0	.455 OVER	126.3
3750	42.5			8700	129.0	.695	153.2
4000	45.0						
4250	47.5			4P	132.0		
4500	50.0						
4750	52.5						

8150	118.0	.568 — 139.2
8300	121.0	.579 — 140.5
8350	122.0	.585 — 141.2
8400	123.0	.566 — 139.0
8450	124.0	.431 — 123.1
8475	124.5	.432 — 123.3
8550	126.0	.537 — 135.7
8600	127.0	.644 — 136.5
8625	127.5	.672 — 151.0
8650	128.0	.683 — 152.0

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
2/23/83	A noise log was run to check the anomaly at the csg shoe. All four frequencies were quiet above the WSO. No further action recommended.
6/2/83	Ran temperature survey, no anomalies
10/28/83	Ran temperature survey, no anomalies
3/23/84	Ran temperature survey shows anomaly at shoe
4/2/84	Detail temperature shows large cooling at WSO @ 8475'
4/11/84	Noise log ran showed a small amount of gas movement above WSO @ 8475'. Rerun noise log at high inventory
7/18/84	Ran temperature survey which showed cooling at shoe from 8585' up to 8100'. A noise log will follow.
7/27/84	FLo-log ran temperature survey which showed cooling from top of perfs at 8510'-8100'. Noise showed possible gas movement from 8500'-8220'. A R/A survey will follow. Flo-log #285, #3,228.15
7/29/84	Flo-log ran capacitance log which showed fluid level at 8652'. A R/A tracer survey was then run by downhole injecting 100 mc of tracer at 8530' with the well shut-in. Small amount of gas movement was detected from 8510'-8190'. A recommendation is forthcoming. Flo-log #287, $4,707.64
1/31/85	Sand test: SC 1.30, SIWHP 1300 psi, Q 30 MMcf/d, ER 1.21%
2/26/85	Sand test: SC open, SIWHP 1340, ER 2.29%, Q 38 MMcf/d
4/2/85	Ran bottom-hole pressure survey
4/17/85	Ran bottom-hole pressure survey, pressure at datum (8333' TVD) 1546 psi, FL 8525' TVD
4/24/85	Ran temperature survey cooling above shoe less severe than previous survey. July 1984 noise log and tracer indicated small shoe leak. Will monitor at high inventory
7/16/85	Ran temperature survey, anomaly above shoe similar to, but breaks slightly higher than, surveys of past several years. Noise logs 7/84, 4/84, 2/83 and R/A 7/84 indicated no leakage above S-1, will monitor.
12/11/85	Sand testing: SC 1.25, SIWHP 1660, ER 2.1%, Q 38 MMcf/d
12/27/85	Changed choke to 1.35
1/2/86	Sand testing: SC 1.35, SIWHP 1920, ER 2.0%, Q 54 MMcf/d
1/14/86	Sand testing: SC 1.50, SIWHP 1780, ER 1.4%, Q 53 MMcf/d
3/5/86	Ran temperature survey, anomaly above shoe same as temp ran w/quiet noise log 7/27/84.
5/6/86	Ran BHP survey: FL 8460', Datum P 2259 psi, surface pressure not consistent w/deadweight.
8/13/86	Ran temperature survey, anomaly above shoe same as temp ran w/quiet noise log 7/27/84.

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
4/2/81	Fred ran temperature surveys
9/18/81	Pruett pulled BHC. Cost $367.00
9/21/81	Harry ran temperature survey
9/24/81	Pruett ran BHC. Cost $199.00
10/15/81	Pulled BHC and set plug for IW69's rig. Cost $259.00
11/3/81	Pruett pulled plug. Cost $337.50. Tried to set BHC, unable to set
11/4/81	Pruett unable to set BHC
11/5/81	Pruett ran IB, rigged down to get broach for SSSV nipple
11/6/81	Pruett ran broach, still unable to see BHC. Cost $519.00
11/24/81	Triangle ran noise log. Cost $3614.40
11/30/81	Pruett ran BHC
1/8/82	Pruett pulled BHC
1/13/82	Sand testing
1/29/82	Sand testing
2/5/82	Sand testing
2/8/82	Sand testing
3/3/82	Sand testing
3/17/82	Sand testing
10/18/82	Temperature survey. Gradient shift at shoe. Run A/A

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
1/9/80	Camco attempted to fish for tools. Rope swelled up with rain water and would not go thru pulleys. Shut down for day.
1/10/80	Camco fished all tools out of well OK. Set pack-off. Tested SSSV. S/I T 2500; C 2600. Bled tubing to 2000, held OK Bled tubing to 1020, held OK. Bled casing to 2000, valve closed and held OK. Pressure casing to 2500. Pressure tubing to 2460, valve opened OK. Requested instrument department install recording gauge on tubing. Will put well on withdrawal when gauge installed.
1/14/80	Inst. Dept. installed pressure recorder on tubing. Will have well put on withdrawal.
1/22/80	Camco attempted to pull SSSV. Could not latch. Ran in with spear. Slips on spear broke. Ran in with shear and latched onto valve. Unable to pull. Shut down for the night.
1/23/80	Camco pulled SSSV. Fishing neck was flaired out and cracked along side. It had come out of nipple and hit pack-off. Set another SSSV and pack-off. Tested valve. Test no good. Tubing pressure built up 50# in 30 seconds.
1/24/80	Camco pulled pack-off and SSSV. Ran another SSSV and pack-off Tested valve. Bled tubing from 2100 to 1750, pressure rose 50# in one minute. Will test again in morning.
1/25/80	Tested SSSV. Blew tubing pressure to atmosphere, pressure did not get below 350#. Not enough to close valve. Pulled pack-off and SSSV.
1/28/80	Camco ran SSSV and pack-off. Tested valve. Blew tubing down to 550. Open 2" stack, pressure would not go below 280. Bled casing from 2160 to 1900. Pressure rose 50#/min. Valve did not close. Pulled valve and pack-off. System apparently bad.
1/29/80	Archer-Reed ran 1.0 BHC.
2/5/80	Archer-Reed attempted to pull DCRT valve but could not stay latched onto valve. Will try again tomorrow with new pulling tool
2/6/80	Archer-Reed attempted to pull DCRT. Inner core of pulling tool was too long. Could not stay latched on valve. Re-built pulling tool. Will try tomorrow
2/7/80	Archer-Reed pulled DCRT valve. Valve was sheared. Ran another valve
2/11/80	Archer-Reed pulled 1.0 BHC, was not set. Re-ran choke but could not get through SSSV nipple. Pulled out. Re-ran choke and set OK. Tested well. Test no good. Pulled choke, ran scratcher, decided to replace BHC with surface choke.
2/22/80	Gurevich ran temperature survey
7/29/80	Gurevich ran temperature survey
10/20/80	Shut-in BHP survey
10/27/80	Pruett BHP survey
10/29/80	Archer-Reed attempted to set BHC 1.0 no results. Cost $214.00
10/30/80	Archer-Reed continued efforts to set choke, could not get Otis lock through Camco SSSV nipple. Ran broach, still no results. Suspended job. Cost $519.00
10/31/80	Archer-Reed set 1.0 BHC. Cost $196.50
11/3/80	Pruett BHP survey

WELL ACTIVITY REPORTS FOR SS 25

DATE	ACTIVITY/REMARKS
1/15/79	(Inst.) Replaced plug & seat in reg. in safety system
1/24/79	Flow test: 32.1 MM, SIWHP - 2050 psi
2/20/79	Rig removed safety system from well. The control line was gone, exchanged systems with Camco.
3/1/79	Unloaded well. Left S/I. S/I clean-up flow
	WKM valve repaired. Put well on tbg. clean-up flow thru .500 S/C
3/14/79	Ran BHP & temperature survey
3/22/79	Foster shot fluid level. FL 8652 SIWHP 1333
3/26/79	Foster shot fluid level. FL 8652 SIWHP 1370
3/28/79	Foster shot fluid level. FL 8637 SIWHP 1387
4/2/79	Foster shot fluid level. FL 8637 SIWHP 1401
4/4/79	Revised tubing detail; Foser shot fluid level. FL 8637 SIWHP 1415
4/11/79	Foster shot fluid level. FL 8637 SIWHP 1438
4/16/79	Foster shot fluid level. FL 8637 SIWHP 1454
8/3/79	Ran temperature survey, possible shoe leak. (Note: Talked to Bob Hazel today. Both IW 83 and SS 25 had noise logs after these temperature surveys. SS 25 did not show noise. MM 8/14/79)
8/8/79	Ran noise log. No shoe leak
9/18/79	Camco ran gauge ring to DS-1 nipple. Ran into some tight spots. Will run swedge before running valve
10/23/79	Pruett ran BHP survey
11/5/79	Hanson attempted to set BHC. Could not get choke to go through packoff nipple. Left choke in packoff nipple.
11/6/79	Ran BHP survey. Hanson pulled BHC from well. Discovered that backup ring on packing was too large to go through nipple. Changed ring. Set BHC.
11/13/79	Gurevich ran BHP survey. Found that BHC had been set in the safety valve nipple. Pulled loose OK.
11/14/79	Hanson located BHC in safety valve nipple. Pulled choke. Re-dressed choke and attempted to run in but could not get past safety valve nipple. Moved off of well.
11/15/79	Hanson ran in to set BHC but could not get past safety valve nipple.
11/16/79	Hanson again attempted to set BHC. No luck.
11/19/79	Hanson set 1.0 BHC.
11/26/79	Gurevich ran BHP survey
1/4/80	Archer-Reed set CA-2 plug in pack-off nipple. Tested tubing. Pressure held tight. Pulled plug.
1/7/80	Camco pulled 1.0 BHC. Ran in to set SSSV. Could not get valve to stay in nipple. Checked running tool, prong was damaged. Shut down till Monday.
	Camco ran in with broach. Found tight spot at 1356. Beat through. Cleared out tight spot at 3590 and 3608. Continued broaching tight spot at 1346 for remainder of day.
1/8/80	Camco finished broaching tight spot at 1346. Ran and set SSSV. Could not get setting tool to release from valve. Wire broke at counter sheave. Dropped a cutter bar and retreived wire from well. Will change wire and fish for tools tomorrow.

Ex VII-5

WORK ORDER #: **4268318** PMNUM: **AC-OPSC2**
PARENT WO #:
DESCRIPTION: MONTHLY WELL INSPECTIONS - CREW TWO

REMARKS: COMPLETED PRIOR BUT NOT RECORDED

TARGET START DATE: 7/1/2011
TARGET COMP DATE: 7/31/2011
SCHEDULE START:
SCHEDULE FINISH:

ROUTE NUMBER:
STATUS: COMP
REQUESTED BY: BAGATES
REPORT DATE: 5/6/2011
PM ACTIVITY CLASS: SURVEY

ASSET #:
ASSET DESCRIPTION:
LOCATION ID: AC-WEST FIELD
LOC. DESCRIPTION: WEST FIELD
PHYSICAL LOCATION:

RESPONSIBLE SUPERVISOR / OWNER	WORK TYPE	PRIORITY	ACCOUNT INFO
OPERTNS /	PM	3	832.020 C7

DATE STARTED: 11/06/2013 DATE COMPLETED: 11/06/2013

EST. Labor HRS: 0.00
ACT. Labor HRS: 1.00

Labor Code/ Craft	Quantity	Planned Hours
OPERATN	1	0.00

ACTUALS POSTED:	LABORCODE	CRAFT	REG. HRS	OVERTIME	WORKDATE
	CAWARNER	MGMT	1.00	0.00	11/06/2013

JOB PLAN NUMBER: AC-OPS
JOB PLAN DESCRIPTION: MONTHLY WELL INSPECTIONS

JOB OPERATIONS:

10 WELL CELLARS SHALL BE COVERED AND KEPT DRAINED...
CELLARS SHOULD BE PROTECTED FROM AS MUCH RUNOFF WATER AS PRATICAL.

20 GRATING OR FLOORING SHALL BE INSTALLED AND MAINTAINED IN...
GOOD CONDITION SO AS TO EXCLUDE PEOPLE AND ANIMALS.

30 CHECK RAILINGS

40 CHECK PLATFORM

50 REMOVE WEEDS

60 CHECK FOR LEAKS

70 MAKE SURE WELL HAS PROPER SIGNAGE

COMMENTS:

WORK ORDER #: **4268318** PMNUM: **AC-OPSC2**

PARENT WO #:

DESCRIPTION: MONTHLY WELL INSPECTIONS - CREW TWO

AC-OPS Operations 10-20 on the following equipment:

P-26

P-26A

P-26B

P-26C

P-26D

P-26E

P-25R

P-47

P-39

P-38

PS-42

P-40

SS-9

WORK ORDER #: **4268318** PMNUM: **AC-OPSC2**

PARENT WO #:

DESCRIPTION: MONTHLY WELL INSPECTIONS - CREW TWO

SS-29

SS-25

SS-25A

22-25B

SS-1

SS-1-0

SS-6

SS-8

SS-5

SS-31

SS-44

SS-44A

WORK ORDER #: **4268318** PMNUM: **AC-OPSC2**

PARENT WO #:

DESCRIPTION: MONTHLY WELL INSPECTIONS - CREW TWO

SS-44B

SS-3

LOG:

Ex VII-6

WORK ORDER #: **186337** PMNUM: **AC-1111**
PARENT WO #:
DESCRIPTION: STORAGE WELL SAFETY SYSTEM INSP - SESNON 25

REMARKS: INSPECTION COMPLETE, NO SUBSTANDARD CONDITIONS -

TARGET START DATE: 10/17/2000
TARGET COMP DATE: 10/17/2000
SCHEDULE START:
SCHEDULE FINISH:
ROUTE NUMBER:
STATUS: CLOSE
REQUESTED BY: TP2SSS
REPORT DATE: 9/20/2000
PM ACTIVITY CLASS:

ASSET #:
ASSET DESCRIPTION:
LOCATION ID: AC-GROUP 6 WELLS
LOC. DESCRIPTION: SS-4 SITE, 25 SITE, 29, 44 SITE, SS-1 SITE
PHYSICAL LOCATION: STANDARD SESNON 6

RESPONSIBLE SUPERVISOR / OWNER	WORK TYPE	PRIORITY	ACCOUNT INFO
INSTRNT /	PM	3	

DATE STARTED: 10/03/2000 DATE COMPLETED: 05/03/2000

EST. Labor HRS: 5.00
ACT. Labor HRS: 0.50

Labor Code/ Craft	Quantity	Planned Hours
INSTRMNT	1	5.00

ACTUALS POSTED:	LABORCODE	CRAFT	REG. HRS	OVERTIME	WORKDATE
	TP1KGF	MEASPEC	0.50	0.00	05/03/2000

JOB PLAN NUMBER: AC-1111-SA
JOB PLAN DESCRIPTION: STORAGE WELL SAFETY SYSTEM INSPECTION - SESNON 25

WORK ORDER #: **186337** PMNUM: **AC-1111**

PARENT WO #:

DESCRIPTION: STORAGE WELL SAFETY SYSTEM INSP - SESNON 25

JOB OPERATIONS:

5	SESNON 25 SITE
10	VISUAL INSPECTION OF SAFETY SYSTEM
15	VERIFY OPERATION OF ESD SHUTDOWN
20	VERIFY OPERATION OF SAFETY VALVE(S)
25	VERIFY OPERATION OF SAFETY VALVE(S) LOCK UP
30	VERIFY SETPOINT OF HGIH PRESSURE PILOT @700#
35	VERIFY SETPOINT/OPERATION OF 100# REGULATOR
40	VERIFY SETPOINT/OPERATION OF 40# REGULATOR
45	VERIFY SETPOINT/OPERATION OF GREASE GUN SUPPLY REGULATORS
50	(1) @ 150# (INTERNAL INSPECTION - "97")
55	(2) @ 100# (INTERNAL INSPECTION - "97")
60	VERIFY SETPOINT/OPERATION OF QUICKBLEED REGULATOR @32#
65	VERIFY OPERATION OF VELOCITY CHECKVALVE
70	CHECK SUPPLY LINE FILTERS
75	OVERALL CONDITION OF SYSTEM
80	SESNON 25
85	VERIFY ESD SHUTDOWN
90	VERIFY SETPOINT OF LOW PRESSURE PILOT @300#
95	SESNON 25-A
100	VERIFY ESD SHUTDOWN
105	VERIFY SETPOINT OF LOW PRESSURE PILOT @300#
110	SESNON 25-B
115	VERIFY ESD SHUTDOWN
120	VERIFY SETPOINT OF LOW PRESSURE PILOT @300#

COMMENTS:

LOG:

Ex VII-7

Sorrys

JOB TICKET NO. 26251

P.O. Box 20008
Bakersfield, CA 93390-0008

WELL ANALYSIS CORPORATION Wireline

CUSTOMER: SoCal Gas DATE: 10-5-09

WELL NO(S): S.S. 25, S.S. 25B, S.S. 9

FIELD LOCATION: Aliso CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY: Ed

DESCRIPTION OF WORK PERFORMED

S.S. 25 Ran a PT Traverse Survey until Pickup at 8470'

S.S. 25B Ran a PT Traverse Survey until Pickup at 8675'

S.S. 9 Ran a PT Traverse Survey until Pickup at 8842'

EOT:

PB:

RIG UP CHARGE:

HOURLY CHARGE:

LINE TRUCK MILEAGE: (RT).....MILES X $ ..... /PER MILE:

CHASE VEHICLE MILEAGE: (RT).....MILES X $ ..... /PER MILE:

EQUIPMENT CHARGES:

SAFETY EQUIPMENT:

FUEL SURCHARGE:

TOTAL AMOUNT DUE:

ENGINEER: WAC Wireline APPROVAL: CUSTOMER

KERN BUSINESS FORMS MFG. (661) 325-5818 - K-2760-1

JOB TICKET NO: 23508

WELL ANALYSIS CORPORATION Wireline

P.O. Box 20008
Bakersfield, CA 93390-0008

CUSTOMER: S. Cal. Gas DATE: 7/23/08

WELL NO(S): 5.5.25; 5.5.25B; 5.5.9

FIELD LOCATION: Aliso Canyon CUSTOMER ORDER NO:

CONTRACT NO: ORDERED BY: ED

DESCRIPTION OF WORK PERFORMED

5.5.25;
Ran a P/U Tractor survey down to pick up at 8470.

5.5.25B;
Ran a P/U Tractor survey down to pick up at 8698.

5.5.9;
Ran a P/U Tractor survey down to pick up at 8842.

MINIMUM RATE:
ADDITIONAL HOURLY CHARGE (EXCESS OF MINIMUM):
MILEAGE:.....MILES X $ ..... /PER MILE:
.....MILES X $ ..... /PER MILE:
EQUIPMENT CHARGES:

TOTAL AMOUNT DUE:

ENGINEER: WAC Wireline APPROVAL: Customer