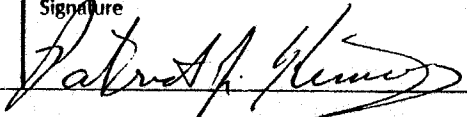


RESOURCES AGENCY OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS

REPORT OF PROPERTY AND WELL TRANSFER

Field or county Newhall-Potrero		District 2
Former owner Sun Exploration and Production Co.		Date Aug. 7, 1989
Name and location of well(s) Sec. 31, T. 4N., R. 16W., (ALL WELLS) Secs. 21, 22, 25, 26, 27, 28, 35, 36, T. 4N., R. 17W. (ALL WELLS)		
Description of the land upon which the well(s) is (are) located		
Date of transfer, sale, assignment, conveyance, or exchange 5-3-89	New owner Oryx Energy Co.	Type of organization Co.
	Address P.O. Box 55060 Valencia, CA 91355	Telephone No. 805-257-6200
Reported by Sun Exploration & Production Co.		
Confirmed by Oryx Energy Co.		
New operator new status (status abbreviation) PA	Request designation of agent	
Old operator new status (status abbreviation) PA	Remarks (NAME CHANGE ONLY)	

OPERATOR STATUS ABBREVIATIONS	Deputy Supervisor Patrick J. Kinnear	Signature 
--------------------------------------	--	---

	FORM AND RECORD CHECK LIST					
	Form or record	Initials	Date	Form or record	Initials	Date
PA - Producing Active						
NPA - No Potential, Active						
PI - Potential Inactive	Form OGD121			Map and book		
NPI - No Potential, Inactive	Form ODG148			Notice to be cancelled		
Ab - Abandoned or No More Wells	New well cards			Bond status		
	Well records			EDP files		
	Electric logs					
	Production reports					

OPERATOR
WELL NO.
MAP

Sun Eple Prod Co
Rancho San Francisco

INTENTION
NOTICE DATED
P-REPORT NUMBER
CHECKED BY/DATE
MAP LETTER DATED
SYMBOL

<i>Suppl aband.</i>					
<i>3/5/84</i>					
<i>284-70</i>					

NOTICE
HISTORY
SUMMARY
E-LOG
MUD LOG
DIPMETER
DIRECTIONAL
CORE/SWS
CBL

	REC'D NEED	REC'D NEED	REC'D NEED	REC'D NEED	REC'D NEED
<i>3-7-84</i>					
<i>9-11-84</i>					
<i>9-11-84</i>					

ENGINEERING CHECK

T-REPORTS
OPERATOR'S NAME
WELL NO.
LOC & ELEV
SIGNATURE
SURFACE INSP.
DRILL CARD
RECORD'S COMPLETE

<i>✓</i>					
<i>✓</i>					
<i>✓</i>					
<i>✓</i>					
<i>✓</i>					

FINAL LETTER OR
MAILED
RELEASED BOND

INJECTION BOOK
IDLE WELL LIST
SURFACE INSP. CARD

REMARKS:

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

REPORT OF WELL ABANDONMENT

Santa Paula, California

Oct. 23, 1984

Stanley W. Blossom, Agent
Sun Exploration & Production Co.
P.O. Box 55060
Valencia, CA 91355

Your report of abandonment of well "Rancho San Francisco" 1
(Name and number)
A.P.I. No. 037-12620, Section 26, T. 4N, R. 17W, S.B. B. & M.,
Newhall-Potrero field, Los Angeles County,
dated 5-2-84, received 9-11-84, has been
examined in conjunction with records filed in this office, and we have determined that all of
the requirements of this Division have been fulfilled.

b

MAP	MAP BOOK	CARDS	BOND	FORMS
253	RH 10-27-84		OK	114 125 ✓ EOP

M. G. MEFFERD

State Oil and Gas Supervisor

By

Michael D. Dosh
Deputy Supervisor

Murray W. Dosch

WELL SUMMARY REPORT

Operator SUN EXPLORATION AND PRODUCTION COMPANY		Well "RANCHO SAN FRANCISCO" # 1			
Field NEWHALL-POTRERO		County LOS ANGELES	Sec. 26	T. 4N	R. 17W
Location (Give surface location from property or section corner, street center line and/or California coordinates) 1000' N & 500' E FROM S.W. CORNER OF SECTION 26					Elevation of ground above sea level 1149'

Commenced drilling (date) P&A 3-28-84	Total depth			Depth measurements taken from top of: <input type="checkbox"/> Derrick Floor <input type="checkbox"/> Rotary Table <input checked="" type="checkbox"/> Kelly Bushing Which is 6' feet above ground					
	(1st hole) 7012'	(2nd)	(3rd)						
Completed drilling (date) P&A 4-17-84	Present effective depth 7012'			<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 70%;">GEOLOGICAL MARKERS</th> <th style="width: 30%;">DEPTH</th> </tr> <tr> <td style="text-align: center;">TOP OF 3RD ZONE</td> <td style="text-align: center;">6820'</td> </tr> </table>		GEOLOGICAL MARKERS	DEPTH	TOP OF 3RD ZONE	6820'
GEOLOGICAL MARKERS	DEPTH								
TOP OF 3RD ZONE	6820'								
Commenced production (date)	Junk NONE			Formation and age at total depth MODELO (MIOCENE)					
P&A <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas lift Name of producing zone(s) 3RD ZONE									

	Clean Oil (bbl per day)	Gravity Clean Oil	Percent Water including emulsion	Gas (Mcf per day)	Tubing Pressure	Casing Pressure
Initial Production	N/A					
Production After 30 days	N/A					

CASING RECORD (Present Hole)								
Size of Casing (API)	Top of Casing	Depth of Shoe	Weight of Casing	Grade and Type of Casing	New or Second Hand	Size of Hole Drilled	Number of Sacks or Cubic Feet of Cement	Depth of Cementing (if through perforations)
18 5/8"	SURFACE	190'	84.5#	SMLS. SLIP	NEW	25"	310 SX	
8 5/8"	SURFACE	6160'	36#	C&D JT.	NEW	12 1/4"	300 SX	
5 1/2"	6001'	6998'	17#	---	NEW	HUNG		
4 1/2"	5978"	6994'	11#	---	NEW	HUNG		

PERFORATED CASING (Size, top, bottom, perforated intervals, size and spacing of perforation and method.)
 100 M x 2" S FROM 6165-6561, 6603-6731, 6752-6795, 6816-6998;
 4-1/2 HPF= 6759-6774, 6777-6787, 6820-6830, 6840-6865, 6872-6897, 6903-6928, 6931-6956, 6962-6971, 6972-6987

Was the well directionally drilled? If yes, show coordinates at total depth
 Yes No

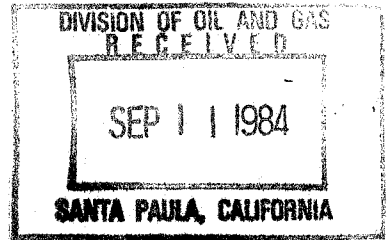
Electrical log depths
 NONE

Other surveys
 NONE

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.

Name STANLEY W. BLOSSOM		Title DISTRICT ENGINEER	
Address BOX 55060		City VALENCIA	Zip Code 91355-0560
Telephone Number (805) 257-6200	Signature <i>Stanley W. Blossom</i> <i>by Max</i>		Date 5-2-84

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



History of Oil or Gas Well

SUN EXPLORATION AND PRODUCTION COMPANY

Operator.....SUN PRODUCTION DIVISION..... Field or County.....Newhall-Potrero.....
 Well.....Rancho San Francisco #1....., Sec.26....., T 4N....., R 17W.....SB.....B. & M.
 A.P.I. No.....037-12620..... Name.....STAN W. BLOSSOM..... Title.....Agent.....
 Date.....5-2-84....., 19..... (Person submitting report) (President, Secretary or Agent)

Signature.....*Stanley W. Blossom*.....

.....Box 55060, Valencia, California.....91355-0560..... (Address)(805) 257-6200..... (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	
1984	
3/28	8-5/8" CSG @ 6160/5½" 17# LNR @ 6001-6998/4½" LNR @ 5978-6994/PERFS 5½" LNR 6165-6998/4½" LNR @ 6759-6987/3RD ZONE/ MIRU CPS/BLEED WELL OFF/REMOV PROD TREE/UNLAND TBG/STRIP OFF FLANGE/STRIP ON BOE/POOH w TBG/RIH w TBG TO 6998/RU BJ HUGHES/ATMPT TO CHG OVR TO PROD WTR/PMP 750 BBLs WTR/MX & PMP 250 SX CL "G" CMT w .5% CFR-2 + .1% HR-7/DISPL w 151 FT³ WTR/POOH w TBG/SIFN/
3/29	RIH TAG CMT @ 5869 w 10,000# WT/MURRAY DOSCH w D.O.G. APROVD/CHG OVR TO 72# MUD (TOT 355 BBLs)/POOH/SIFN/
3/30	RU MC CULLOUGH & MADE CAVITY SHOT IN CSG CLR @ 601'/EST COMM TO SURF THRU 8-5/8 ANNULUS/RIH & SET CMT RET @ 500'/MX & PMP 428 FT³ CL "G" CMT w RETNS TO SURF/RETNS HAD CMT COLOR/ROB HABEL w D.O.G. WOULD NOT APROV/DISPL TBG & CMT RET BY 1 BBL AS PER ORDERS FRM MURRAY DOSCH w D.O.G./POOH w TBG/SIFN/WILL STAB INTO RET TO CK FOR COMM TO SURFACE/
3/31	STAB INTO RET & PRESS UP TO 400 PSI/M. FULCO w D.O.G. APROV/B.J. HUGHES MX & PMP 33 FT³ CL "G" CMT/DISPL w 12 FT³ WTR (100' PLUG ON RET)/POOH/RU MC CULLOUGH & MADE CAVITY SHOT @ 53' IN CSG CLR/RU BJ HUGHES/PMP 47 FT³ DN SURFACE PIPE w RETNS UP CSG/RDMO/DROP FRM REPORT UNTIL SURFACE WRK IS COMPLETE/
4/17	COMPLETED SURFACE WORK ON P&A/APPROVED BY D.O.G. (ROB HABEL)/FINAL REPORT/

DIVISION OF OIL AND GAS

Report on Operations

Stanley W. Blossom, Agent
Sun Exploration & Production Co.
P. O. Box 55060
Valencia, CA 91355

Santa Paula Calif.
April 12, 1984

Your operations at well "Rancho San Francisco" 1, API No. 037-12620,
Sec. 26, T4N, R17W, S.E.B. & M. Newhall-Potrero Field, in Los Angeles County,
were witnessed on 3/29/84 by N. Fulco, representative of
the supervisor, was present from 0900 to 0930. There were also present Dennis Douglas,
C.P.S.

Present condition of well: 18 5/8" cem. 190'; 8 5/8" cem. 6160', WSO; 5 1/2" ld. 6001-
6998', perf. 6165-6998' (at intervals); 4 1/2" ld. 5978-6994', perf. 6759-6987'
(at intervals). T.D. 7012'. Plugged with cem. 6400-5869', cavity shot at 600',
plugged with 428 g.f. cem. below retainer at 500', 499-399' with a cavity shot
at 60', 60-5'.

The operations were performed for the purpose of abandonment

DECISION:

THE PLUGGING/CEMENTING OPERATIONS AS WITNESSED AND REPORTED.

N. G. MEEFERD

State Oil and Gas Supervisor

By Murray W. Dosch

Deputy Supervisor

Murray W. Dosch

REPORT ON PROPOSED OPERATIONS

500
(field code)
00
(area code)
05
(new pool code)
05
(old pool code)

Stanley W. Blossom, Agent
Sun Exploration & Production Co.
P.O. Box 55060
Valencia, CA 91355

Santa Paula, California
March 8, 1984

Your supplementary proposal to abandon well "Rancho San Francisco" 1,
A.P.I. No. 037-12620, Section 26, T 4N, R 17W, SB B. & M.,
Newhall-Potrero field, any area, 1-2-3 pool,
Los Angeles County, dated 3/5/84, received 3/7/84 has been examined in conjunction with records
filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT IN ALL OTHER RESPECTS, THE PROVISIONS SET FORTH
IN OUR REPORT NO. P284-61 DATED FEB. 28, 1984 SHALL APPLY.

*Donnis (CPS) MAR 28 1984
MO*

*1. Location Bottom 5869' put 10000 lbs
plug on plug*

*2. may set waterline
& circulate cement
to surface for BFP
will still have casing
shot O.K. by MO*

Blanket Bond
MS:b

*Surface inspection done 4-16-84 OK
RA*

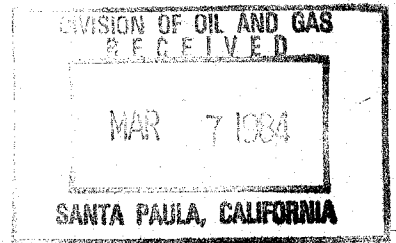
M. G. MEFFERD, State Oil and Gas Supervisor

By Murray W. Dosch
Murray W. Dosch, Deputy Supervisor

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

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

SUPPLEMENTARY NOTICE



FOR DIVISION USE ONLY			
BOND	FORMS		EDP WELL FILE
	OGD114	OGD121	
BB	—	✓	—

DIVISION OF OIL AND GAS

BAKERSFIELD Calif.

A notice to you dated FEBRUARY 28, 19 84, stating the intention to

ABANDON, RANCHO SAN FRANCISCO #1, API No. 037-12620

(Drill, rework, abandon)

(Well name and number)

Sec. 26, T. 4N, R. 17W, S.B. B. & M., NEWHALL-POTRERO Field,

LOS ANGELES County, should be amended because of changed conditions.

The present condition of the well is as follows: TA

Total depth TD 7012'

Complete casing record including plugs and perforations:

SEE ATTACHMENT 'A'

We now propose TO CHANGE PROCEDURE

SEE ATTACHMENT 'B'

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

Address 25322 RYE CYN RD, BOX 55060
(Street)

VALENCIA, CALIFORNIA 91355-0560
(City) (State) (Zip)

Telephone Number (805) 257-6200

SUN EXPLORATION & PRODUCTION CO.

(Name of Operator)

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

By STANLEY W. BLOSSOM

(Name)

(Date)

Signature Stanley W Blossom 3/5/84

WELL COMPLETION SKETCHES
SUN-8041-A

RSF #1

NEWHALL - POTRERO
FIELD

10 FEB 81
DATE

- PRESENT COMPLETION
- SUGGESTED COMPLETION

ORIGINAL COMP.

WELL CLASS _____

PERMANENT WELL BORE DATA

25" HOLE TO 190'
 12 1/4" HOLE TO 6160'
 7 7/8" HOLE TO 7012'
 18 5/8" 84.5' CSG CMTD @ 190'
 8 5/8" 36' CSG CMTD @ 6160' WSO
 W/ 300 SX. FST TOC ~ 5325'
 5 1/2" 17" LINER HUNG @ 6001-6998'
 4 1/2" 11" LINER HUNG @ 5978-6994'

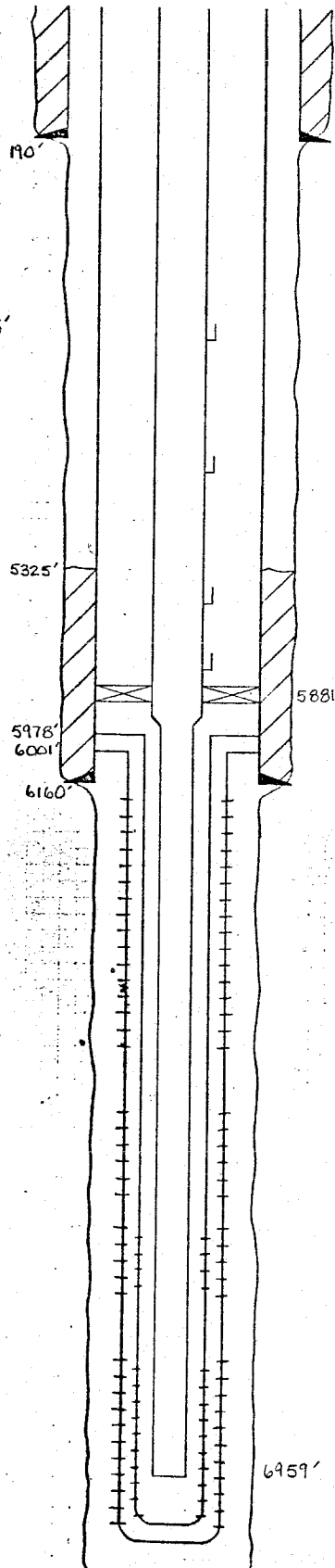
PERFS:

5 1/2" LINER PERFD W/ 100M x 2" S
 6165-6561'
 6603-6731'
 6752-6795'
 6816-6998'

4 1/2" LINER (& 5 1/2" LINER) PERFD
 W/ 4- 1/2" HOLES / FT
 6759-6774'
 6777-6787'
 6820-6830'
 6840-6865'
 6872-6897'
 6903-6928'
 6931-6956'
 6962-6971'
 6972-6987'

DATA ON THIS COMPLETION

KB - 8.5' AGL
 2 7/8" 6.5" TBG
 #1 VALVE @ 2407'
 #2 VALVE @ 4074'
 #3 VALVE @ 5536'
 #4 VALVE @ 5842'
 BAKER MODEL "G" PKR @ 5881'
 STANDING VALVE @ 5885'
 2 3/8" 4.3" TBG
 B.H. SWEDGE @ 6959'



RECOMMENDED WORK PROCEDURE

SUN-5036-3-B

RSF #1

PERMANENT ZERO POINT KB 8.5' AGL		UPPERMOST PLUG ---		RETAINER ---	
CASING	SIZE & WEIGHT PROD 8 5/8" 36#	DEPTH SET 6160'	PACKER DEPTH (TOP) & TYPE	(1) 5881' Baker "G"	(2) (3)
TUBING	SIZE, WEIGHT, GRADE, ETC. 2 7/8" 6.5# J-55	DEPTH SET 5885'	TOP OF CEMENT BEHIND PROD CSG.	CALCULATED 5325'	LOG
	2 3/8" 4.3# J-55	DEPTH SET	PERFS 5 1/2" Inr - 6165'-6998'		
	5 1/2" 17# Inr @ 6001-6998'	5885'-6959'	4 1/2" Inr - 6759'-6987'		
	4 1/2" Inr @ 5978-6994'				
PROCEDURE					RIG TIME

1. RU W/L. RIH w/2 1/2" JDC standing valve retrieving tool and retrieve Harold Brown standing valve @ 5885'. POH.
2. MIRU. Fill hole w/lease water. Install Class II BOE and test @ 1000 psi for 15 minutes. Release Baker Model "G" PKR and POH w/PKR, gas lift valves, 2 7/8" tbg, and 2 3/8" tbg. If both tbg strings are good, use as workstring, adding 2 more jts of 2 3/8" tbg.
3. RIH w/muleshoe collar on bottom of 2 3/8" workstring to TD @ 6998'.
4. RU HOWCO and spot a balanced plug from TD to $\pm 6400'$ w/approximately 70 cu ft class "G" cmt w/.5% CFR-2 + .1% HR-7. PU to 6400' and reverse circulate 60 bbls lease water. Spot another balanced plug from TOC to $\pm 5830'$ w/approximately 110 cu ft cmt w/.5% CFR-2 + .1% HR-7. PU to 5300' and reverse circulate 60 bbls lease water. WOC 4 hours. Contact DOG @ 525-2105. Tag TOC. Fill hole w/72# mud. POH.
5. RU DIA-LOG and RIH w/sinker bar. If mud is too viscous POH w/sinker bar. RIH w/tbg and circulate to condition mud. Thin w/additives if necessary. POH. RBIH w/sinker bar. POH. RU 5" Nitro-gel cavity shot. RIH and shoot w/8-10 sticks @ 600' (base of f/w sands). POH.
6. RIH w/jet cutter and cut 8 5/8" csg @ bottom of 2nd jt. POH w/cutter and csg. RIH w/tbg to 600'. Pump approx 405 cu ft class "G" cmt w/2% CaCl₂ from 600' to top of 8 5/8" csg. PU tbg to top of 8 5/8" csg and pump approx 125 cu ft class "G" cmt w/2% CaCl₂ to 5'. Contact DOG.
7. Cut surface csg 5' below surface, remove cellar and lines, and clear location. Weld on plate and install markers. Contact DOG.

REPORT ON PROPOSED OPERATIONS

500
(field code)
00
(area code)
05
(new pool code)
05
(old pool code)

Stanley W. Blossom, Agent
Sun Exploration & Production Co.
P.O. Box 55060
Valencia, CA 91355

Santa Paula, California
March 5, 1984

Your _____ proposal to abandon well "Rancho San Francisco" 1,
A.P.I. No. 037-12620, Section 26, T. 4N, R. 17W, SB B. & M.,
Newhall-Potrero field, any area, 1-2-3 pool,
Los Angeles County, dated 2/28/84, received 2/29/84 has been examined in conjunction with records
filed in this office.

THE PROPOSAL IS APPROVED PROVIDED THAT:

1. Hole fluid of sufficient quality and quantity shall be maintained in the hole to control any subsurface condition, and a reserve supply shall be on hand for emergencies.
2. All portions of the hole not plugged with cement shall be filled with inert mud fluid having a minimum density of 65-70 lbs/cu.ft. and a minimum gel shear strength (10 min) of 20 lbs/100 sq.ft., (30 sacks of Bentonite per 100 bbls. of water).
3. Blowout prevention equipment of at least DOG Class II 1M shall be installed and maintained in operating condition at all times.
4. This office shall be consulted before initiating any changes or additions to this proposed operation, or if operations are to be suspended.
5. THIS DIVISION SHALL BE NOTIFIED:
 - a. TO WITNESS the location and hardness of the cement plug at 5878' or above.
 - b. TO WITNESS the placing of the cement plug from 600'-5' inside the 8 5/8" casing and in the 8 5/8" x 18 5/8" annulus.
 - c. TO INSPECT the well site after cleanup and restoration operations are completed.

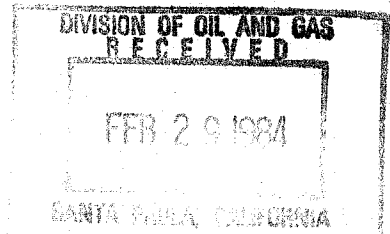
Blanket Bond
MS:b

M. G. MEFFERD, State Oil and Gas Supervisor

By Murray W. Dosch
Murray W. Dosch, Deputy Supervisor

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

STATE OF CALIFORNIA
DEPARTMENT OF CONSERVATION
DIVISION OF OIL AND GAS



Notice of Intention to Abandon Well

This notice must be given at least five days before work is to begin.

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

DIVISION OF OIL AND GAS

In compliance with Section 3229, Division 3, Public Resources Code, notice is hereby given that it is our intention to abandon Well No. RANCHO SAN FRANCISCO #1, API No. 037-12620, Sec. 26, T. 4N, R. 17W, S.B. B. & M., NEWHALL-POTRERO Field, LOS ANGELES County, commencing work on MARCH 10, 19 84.

The present condition of the well is: TA

- Total depth: TD 7012'
- Complete casing record, including plugs and perforations:

SEE ATTACHMENT 'A'

3. Last produced 5/82 0 0 0
(Date) (Oil, B/D) (Gas, Mcf/D) (Water, B/D)

or

4. Last injected N/A
(Date) (Water, B/D) (Gas, Mcf/D) (Surface pressure)

Additional data for dry hole (show depths)

- Oil or gas shows
- Stratigraphic markers:
- Formation and age at total depth:
- Base of fresh water sands:

The proposed work is as follows:

SEE ATTACHMENT 'B'

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

Address 25322 RYE CYN RD, BOX 55060
(Street)
VALENCIA, CALIFORNIA 91355-0560
(City) (State) (Zip)
Telephone Number (805) 257-6200

SUN EXPLORATION & PRODUCTION CO.
(Name of Operator)
By [Signature]
(Name) (Date) 2/28/84
Type of Organization CORPORATION
(Corporation, Partnership, Individual, etc.)

WELL COMPLETION SKETCHES
SUN-6041-A

RSE #1

WELL

NEWHALL - POTRERO
FIELD

10 FEB 81
DATE

- PRESENT COMPLETION
- SUGGESTED COMPLETION

ORIGINAL COMP.

WELL CLASS _____

PERMANENT WELL BORE DATA

25" HOLE TO 190'

12 7/8" HOLE TO 6160'

7 7/8" HOLE TO 7012'

18 5/8" 84.5' CSG CMTD @ 190'

8 7/8" 36' CSG CMTD @ 6160' WSO

w/ 300 SX. EST TOC ~ 5325'

5 1/2" 17" LINER HUNG @ 6001-6998'

4 1/2" 11" LINER HUNG @ 5978-6994'

PERFS:

5 1/2" LINER PERFED W/ 100M x 2" S

6165-6561'

6603-6731'

6752-6795'

6816-6998'

4 1/2" LINER (& 5 1/2" LINER) PERFED

w/ 4 - 1/2" HOLES / FT

6759-6774'

6777-6787'

6820-6830'

6840-6865'

6872-6897'

6903-6928'

6931-6956'

6962-6971'

6972-6987'

DATA ON THIS COMPLETION

KB - 8.5' AGL

2 7/8" 6.5" TBG

#1 VALVE @ 2407'

#2 VALVE @ 4074'

#3 VALVE @ 5536'

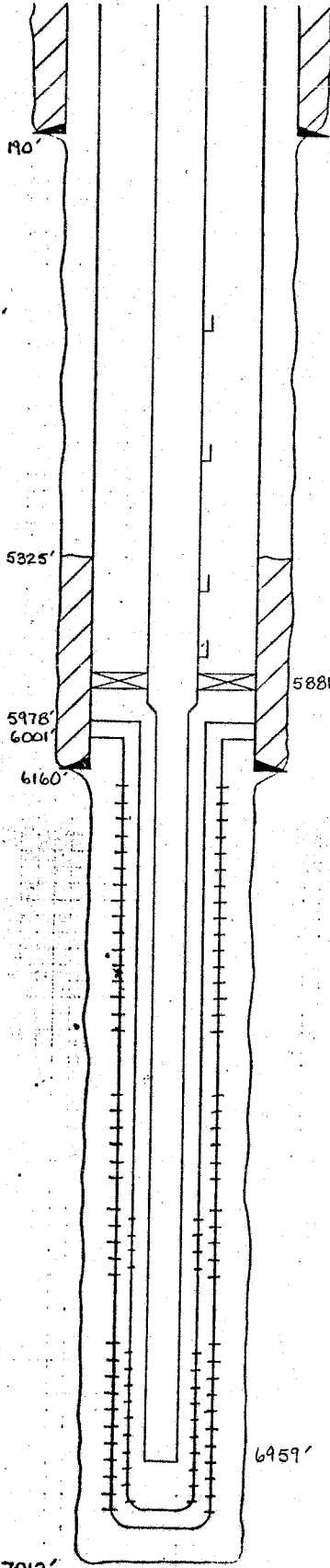
#4 VALVE @ 5842'

BAKER MODEL "G" PKR @ 5881'

STANDING VALVE @ 5885'

2 3/8" 4.3" TBG

B.H. SWEDGE @ 6959'



7012'

RECOMMENDED WORK PROCEDURE

SUN-5036-3-B

RSF #1

PERMANENT ZERO POINT KB 8.5' AGL		UPPERMOST PLUG ---		RETAINER ---	
CASING	SIZE & WEIGHT PROD 8 5/8" 36#	DEPTH SET 6160'	PACKER DEPTH (TOP) & TYPE	(1) 5881' Baker "G"	(2) (3)
TUBING	SIZE, WEIGHT, GRADE, ETC. 2 7/8" 6.5# J-55	DEPTH SET 5885'	TOP OF CEMENT BEHIND PROD CSG.	CALCULATED 5325'	LOG
	2 3/8" 4.3# J-55	DEPTH SET	PERFS 5 1/2" Inr - 6165'-6998'		
	5 1/2" 17# Inr @ 6001-6998'	5885'-6959'	4 1/2" Inr - 6759'-6987'		
	4 1/2" Inr @ 5978-6994'				

PROCEDURE

RIG TIME

1. RU W/L. RIH w/2 1/2" JDC standing valve retrieving tool and retrieve Harold Brown standing valve @ 5885'. POH.
2. MIRU. Fill hole w/lease water. Install Class II BOE and test @ 1000 psi for 15 minutes. Release Baker Model "G" PKR and POH w/PKR, gas lift valves, 2 7/8" tbg, and 2 3/8" tbg. If both tbg strings are good, use as workstring, adding 2 more jts of 2 3/8" tbg.
3. RIH w/muleshoe collar on bottom of 2 3/8" workstring to TD @ 6998'.
4. RU HOWCO and spot a balanced plug from TD to ±6400 w/approximately 70 cu ft class "G" cmt. PU to 6400' and reverse circulate 60 bbls lease water. Spot another balanced plug from TOC to ±5830' w/approximately 110 cu ft cmt. PU to 5300' and reverse circulate 60 bbls lease water. WOC 4 hours. Contact DOG @ 525-2105'. Tag TOC. Fill hole w/72# mud. POH.
5. RU DIA-LOG and RIH w/sinker bar. If mud is too viscous POH w/sinker bar. RIH w/tbg and circulate to condition mud. Thin w/additives if necessary. POH. RBIH w/sinker bar. POH. RU 5" Nitro-gel cavity shot. RIH and shoot w/8-10 sticks @ 600' (base of f/w sands). POH.
6. RIH w/tbg to 600'. Pump 500 cu ft class "G" cmt from 600' to 5'. Contact DOG.
7. Cut csg 5' below surface, remove cellar and lines, and clear location. Weld on plate and install markers. Contact DOG.

'RSF' 1 037 - 12620

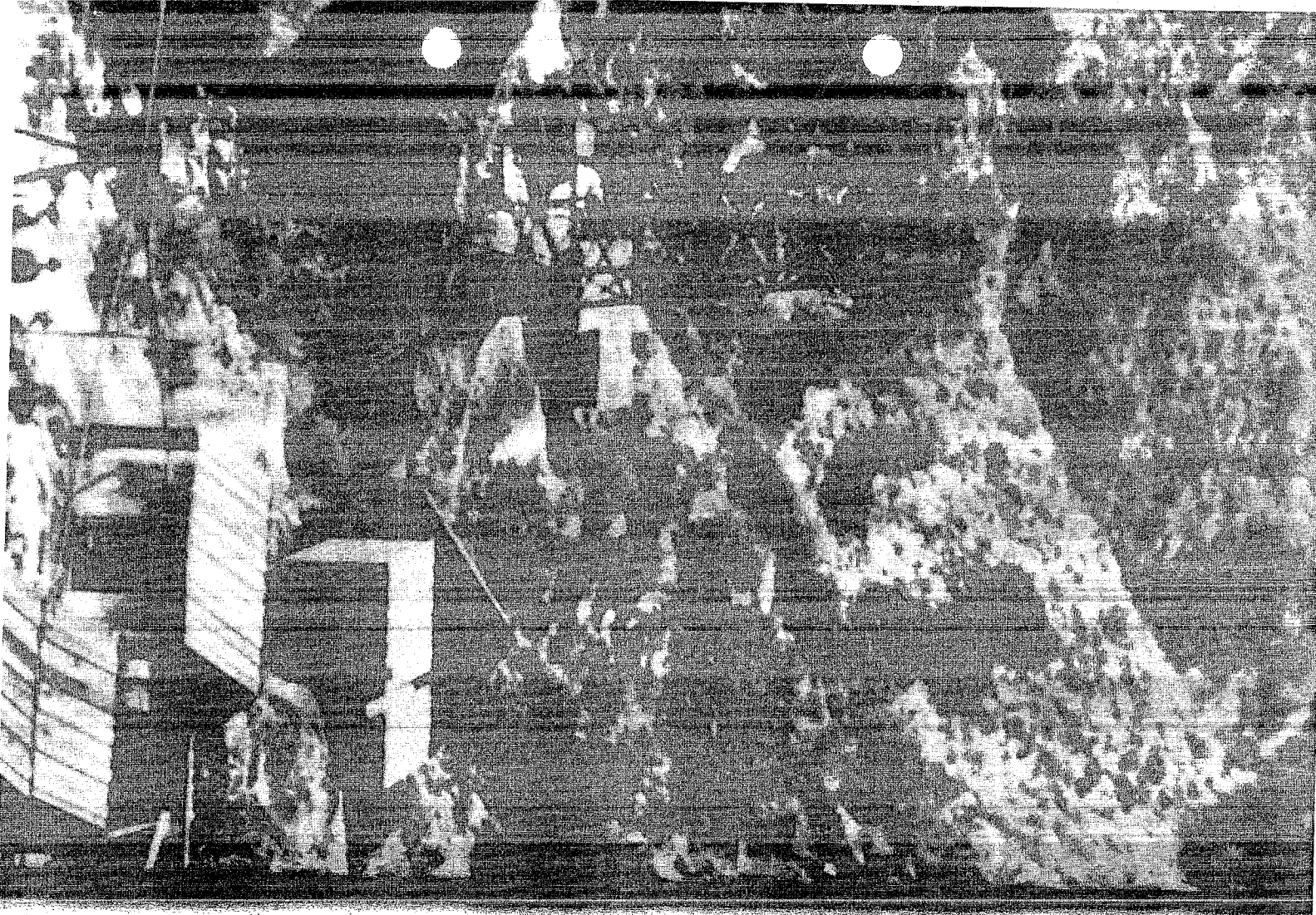
20

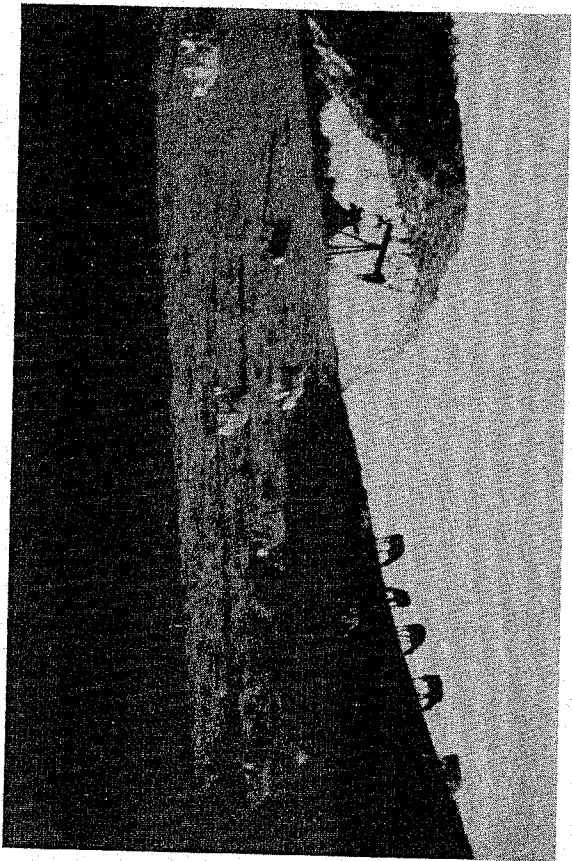
TREASURE TROVE

Atholl McBean had every reason to feel pleased with himself. He had turned the corner to success in his effort to make The Newhall Land and Farming Company a profitable business. The planning and hard work and creative management that McBean had applied to the company had proved themselves. The books that became Jim Finch's province were those of a healthy corporation. In 1935, the year that Finch settled into his office in the orange groves, prospects were brightening.

For McBean, who was not a Newhall stockholder and who had a handsome income of his own, it was not significant to his way of life whether or not the Newhall companies paid dividends. But for various members of the Newhall family, the cessation of dividends in 1933 had meant abandoning a well-cushioned lifestyle and trying to find a way in an unfamiliar world. Homes at the beach or on the shores of Lake Tahoe went on banks' for-sale lists. Teenagers who had assumed they would go to Yale or Stanford found themselves behind sales counters or in ships' engine rooms or greasing machinery or running tractors. They had a chance to see life as they had never seen it.

Opposite: Pico Canyon.





There is a Texas saying: "Nothing fattens a steer so much as standing in the shade of an oil well." These steers on the Newhall Ranch may not have been fattened by the well at left center, but their owners were. Note that well shapes had changed since those drilled sixty years earlier in Pico Canyon (page 138).

McBean was anxious to start the dividends going again, as a badge of success. In June 1935, McBean informed the directors that possibly, if company affairs continued to improve, the following year would see dividends resumed on a modest basis. Seven months later when the annual audit proved that the company had indeed made more than \$100,000, the Newhall family stockholders found dividend checks in the mail.

Then came the unexpected event.

One of the continual minor sources of income over the years had been lease monies paid by various oil companies for rights to drill on the ranches, especially the Rancho San Francisco. The oil companies were aware that the first oil discovery in western America had been made in 1876 in Pico Canyon, less than a mile from the southern border of the Rancho San Francisco. And the tarry asphaltum seepage from the ranch's hillsides, used by the Indians of the region to waterproof their baskets, had led many people to believe that oil lay just under the surface. There had been oil discoveries in Placerita Canyon and other areas not far outside the ranch boundaries. Over the years, some

fifty different companies had leased Newhall land. Most of the leases had expired without any exploration, but both Union Oil and Associated Oil had drilled to 5,000 feet without success. Mayo Newhall, writing a history of the company as its president in 1928, said, "There is no indication that this ranch is an oil property."

In January 1935, McBean was called on by Patrick Calhoun, who had a distant relationship-by-marriage with the Almer Newhall family. Because of this connection, Calhoun, a retired corporation lawyer, had been assigned by the Barnsdall Oil Company to try to negotiate an oil lease for them on the Rancho San Francisco. He was then 80 years old, a striking Southern gentleman with a white mustache and erect bearing, who matched McBean in height and presence. He had come west from his native Louisiana, founded the Market Street Railway Company in San Francisco, had been deeply embroiled in politics, and had made and lost several fortunes. He bemoaned the fact that, at his age, he had nothing to leave his seven children and his many grandchildren. He told McBean that he felt his next fortune lay under the Newhall Ranch in the form of oil, which would bring a marching fortune to the Newhalls.

McBean was reluctant to sign another lease. However, the land that interested the Barnsdall Company was high in the Potrero hills—the grazing land near the Ventura County end of the ranch, far from any proposed agriculture or other development. McBean got the directors' concurrence to the lease in February 1935. It provided for a 12.5 percent royalty for Newhall Land.

News of the lease spread through the petroleum community, and a group of Los Angeles investors approached McBean with the offer to buy half the anticipated royalties—6.25 percent of the oil produced—for \$40,000. That sum sounded handsome at the time, and McBean went to the experts for advice. Geologist Harry Johnson, whose instincts for productive oil land were highly regarded, was hired to look over the terrain and advise as to whether a sure \$40,000 might be better than the chances on still-unseen petroleum. Johnson came back from his investigations with the report that he could assure nothing but that he held high hopes for Potrero Canyon as an oil site. McBean decided to take the risk and keep the whole royalty on the Barnsdall exploration.

It was a year and a half after the lease was signed—August 10, 1936—that the Barnsdall equipment was finally in place, and a drill bit cut into the rough brushy ground in Potrero Canyon. The hole under the drill shaft was christened Rancho San Francisco No. 1, or RSF 1. On December 23, the family got their Christmas present: RSF 1 had hit oil sands at 6,100 feet. Though oil

was not yet flowing, the prospects were excellent. The Newhall Land and Farming Company declared a Christmas dividend. The hard days were over.

Steady production began the following March 22, when RSF1 flowed 118 barrels a day, a good average yield. It later was deepened twice, and each time, production was increased. Within the ensuing months, a second well produced 631 barrels a day. The Potrero was a major field. Petroleum engineers and geologists joined the Newhall staff. In 1944, Barnsdall drilled its forty-fourth well nearly a mile deeper than RSF1 and found a new pool. RSF66 in 1946 went more than three miles into the earth. It became one of the world's deepest producing wells and opened still another pool.

After the Barnsdall discovery, the rush was on for leases on the ranch. One of the new lessees, the Humble Oil Company of Texas, had drilled thirteen dry holes in Southern California, with only one minor strike of less-than-commercial value. Humble took a lease in 1948 just west of Castaic Junction near where the Indians had found their asphaltum. They set their drill into the dry bed of the Santa Clara River. At a depth of 225 feet, they hit a fine artesian spring, which was welcomed for irrigating the ranch. Drilling continued, and in January 1950, the bit struck oil. It was a modest but satisfactory find, and Humble promptly leased more land. Seven other wells were drilled over the next two years. The seventh came in at the rate of 704 barrels a day—the major California discovery of the year.

At every meeting, the company's board of directors was asked to approve new oil and gas leases as producers flocked onto the ranch. McBean regretted the liberal terms he had given Calhoun for the Barnsdall lease, with a majority of the royalties accruing to Calhoun rather than Newhall. McBean, like his predecessors, had believed that oil drilling on the ranch was a futile exercise. His later appointment of Jim Finch, the company's most expert and penny-wise negotiator, to take over the company's petroleum division was assurance that there would be no more giveaways.

McBean was not content simply to strike unexpected riches. He explored every opportunity of making the most of them. At the time, oil technology could extract about 15 percent of the underground deposits. Through his Standard Oil contacts, McBean heard that better systems had been developed. He hired oil engineer Ernest Parks to study the matter and learned that if the gas that comes from an oil well is reapplied under pressure, the well's yield could be increased to around 50 percent or a little more. As soon as the war ended and materials were available, both Barnsdall and Humble built huge repressuring plants in their hilly fields. Petroleum production leaped.

The oil profits multiplied and presently became the major source of Newhall Land and Farming Company income. As family members rejoiced, McBean announced dourly at stockholders' meetings: "That oil money is not for diamonds and mink coats. It is for investment. One day soon the oil will be gone." McBean pointed to federal tax laws which gave owners of oil-producing properties a 26 percent depletion allowance—presumably to replace their depleted properties. He intended to use it for that purpose.

He eagerly looked for land investments. There seemed to be no end to growth of the company fortunes. New directions lay ahead to be explored, and now there was money on hand with which to explore them.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

RECEIVED
NOV 8 1945
LOS ANGELES, CALIFORNIA

Subsequent Work Report

OPERATOR BARNSDALL OIL COMPANY FIELD NEWHALL POTRERO
"Rancho San Francisco"
Well No. (R.S.F.) #1, Sec. 26, T. 4 N, R. 17 W, SEB. & M.

In compliance with the provisions of Chapter 93, Statutes 1939, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated February 7, 1940

, was filed.

SIGNED

R.E. Foss

Date November 6, 1945

Title

Agent

(President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which redrilling operations were started, size of hole redrilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of sacks of cement used in cementing or plugging operations and exact position thereof. 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

All depths are measured from top of Kelly Bushing, 8.5' above concrete mat.

- 1944
- 11-18 Killed well with oil.
- 12-10 Changed from oil to mud.
- 11 Pulled tubing. Reran tubing with Olympic packer. Set packer at 6807'. Circulated around blank section of 5 1/2" liner 6795 to 6816'.
- 12 Set 5 1/2" Securaloy Drillable Packer at 6820', as a bridging plug.
- 13 Cemented around 5 1/2" blank from 6795 to 6816' with 10 sacks of cement thru tubing and Baker Type K cast iron retainer set at 6810'.
- 14 Found top of retainer at 6810'. No cement above retainer. Perforated 4 - 3/8" holes at 6808' with McCullough gun. C.P. with 10 sacks of cement thru tubing and Baker Type R retainer set at 6800'. Final pumping pressure 500#.
- 15 Found top of retainer at 6810'. No cement.
- 16 C.P. with 20 sacks of cement thru tubing and Baker Type R retainer set at 6800'. Final pumping pressure 650#. Found top of cement at 6744'.
- 17 Drilled out cement 6744 to 6810'. C.P. with 10 sacks of cement thru tubing and Baker type R retainer set at 6800'. Final pumping pressure 1250#. Pressure dropped to 500# before bleed back.
- 18 Found top of cement at 6764'. Drilled out cement to 6810'.
- 19 Perforated 2 - 3/8" holes at 6807' with McCullough gun. Set Johnston tester at 6806'. Fluid dropped on outside of tubing when valve was open. C.P. with 10 sacks of cement thru tubing and Baker type R retainer set at 6800'.
- 20 Found top of cement at 6765'. Drilled out to 6810'.
- 21 Perforated 2 - 3/8" holes at 6807' with McCullough gun. C.P. with 10 sacks of cement thru tubing and Baker type R retainer set at 6800'. Final pressure 1400#. Found top of cement at 6741'.

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NOV 28 1945
LOS ANGELES, CALIFORNIA

1944
12-26

Perforated 2 - 3/8" holes at 6806' with McCullough gun. Set Baker type R retainer at 6801. Perforations at 6806' held 1500# pressure for 5 min. Cemented around blank section of 5 1/2" liner from 6731 to 6752' with 10 sacks of cement thru tubing and Baker type R retainer set at 6736'. Final pumping pressure 1400#.

12-27
28

Found top of cement at 6745'. Drilled out to 6756'. Set Baker type R retainer at 6736'. Built pressure to 1500#. Pressure dropped to 1275# in 16 minutes. Laid cement plug in 5 1/2" liner with 7 sacks of cement thru tubing hung at 6755'.

29
30

Found top of cement at 6728'. Changed from mud to oil. Hung 2 1/2" tubing at 6712'. Kicked well over with gas lift, until well flowed naturally.

1944

	Gross Bbls.	% Cut	Net Bbls.	Grav.	Bean, 64ths	T.P.	GHP	Net Gas MCF	G/O Ratio
12-31	230	5.0	219		19	350	Pkr.	659	3009
1945									
1-1	211	10.0	190	33.5	12	680	"	670	3526
1-2	215	12.0	189		12	680	"	668	3534
1-3	230	6.0	216		12	620	"	766	3546
1-4	230	5.0	218		11	620	"	848	3890
1-5	224	4.0	216		11	600	"	901	4171
1-14	156	0.1	156		15	725	"	702	4500

3-19

Killed well with oil.

20

Changed from oil to mud.

21

Found top of cement at 6753'. Drilled out to 6759'.

22

Set inverted swab assembly at 6736'. Built pressure on inside to 1500. No pressure drop.

23

Perforated 4 - 3/8" holes at 6757' with McCullough gun. Set Baker type R retainer at 6738'. Built pressure to 2000#. Formation took mud. Pressure dropped to 500# with no returns.

24-26

Drilled out cement 6759 to 6810'. Cast iron retainer 6810 to 6813'. Cement to 6820. Drillable packer to 6824'. Cleaned out to 6996'. Set Johnston tester at 6742' with 2288' of water cushion. Fluid dropped on outside of tubing when tester was open.

27-28

Scraped 5 1/2" liner from 6006 to 6996' with Baker casing scraper. Cemented 1016' of 4 1/2" 11# blank liner at 6994' with 75 sacks of cement. Top of hanger at 5978'.

30

4- 1

Located top of 4 1/2" liner at 5979'. No cement above liner.

2

Found top of cement at 6825'. Drilled out hard cement to 6830'. C.P. thru 3 - 1/2" holes at 5988 to 5989' with 50 sacks of cement. Maximum squeeze pressure 2000#.

3

Found top of cement at 5926'. Drilled out to 5994'. Casing held 1800# pressure for 6 min. Set Johnston tester at 5946 with T.P. to 5959'. No fluid cushion was used. Tester open 1/2 hour thru 3/8" bean. Recovered 10' of drilling fluid.

RECEIVED
NOV 8 1945
LOS ANGELES, CALIFORNIA

1945

4-5

6

Drilled out cement 5994 to 6004' and 6830 to 6989'. Perforated 4 - 3/8" holes at 6725 with McCullough gun. Set Johnston tester at 6700' with tail piece to 6713'. Tester open one hour thru 3/8" bean. Recovered 45' of drilling fluid and 20' of unset cement. Pressure chart showed tester plugged. Cleaned out to 6770'.

7

C.P. thru 4 - 3/8" holes at 6725 with 60 sacks of cement thru tubing and Baker model R retainer set at 6664'. Maximum squeeze pressure 2350'.

8

Drilled out cement 6647 to 6740'. Hole open to 6989'.

9

Perforated 4 - 3/8" holes at 6726' with McCullough gun. Set Johnston tester on 2 1/2" tubing at 6701', with t.p. to 6713'. No fluid cushion used. Tester open one hour thru 3/8" bean. Recovered 125' of gassy drilling fluid with slight color of oil. Mud rise was due to having opened equalizing valve.

4/9-11

Perforated 4 1/2" and 5 1/2" liners with McCullough gun 4 - 1/2" holes per foot as follows:

- 6987 to 6972 - 60 holes
- 6971 to 6962 - 35 "
- 6956 to 6931 -100 "
- 6928 to 6903 -100 "
- 6897 to 6872 -100 "
- 6865 to 6840 -100 "
- 6830 to 6820 - 40 "
- 6787 to 6777 - 40 "
- 6774 to 6759 - 60. "
- Total-635

4-12

Wall scraped 4 1/2" liner from 6710 to 6989' with Baker casing scraper. Hung 2 1/2" tubing at 6986'. Changed from mud to oil. Kicked well over with gas.

Flowing.

1945	Gross Bbls.	% Cut	Net Bbls.	Grav. Bean, 64ths	T.P.	CHP
4-14	103	8.6	94	34	980	980
15	179	5.0	170		1000	1020
16	175	3.6	169	39.9	1030	1030
17	202	1.5	199	41.4	1100	1200
18	163	1.8	160	39.4	1150	1175
19	151	1.7	148	39.9	1050	1175
22	153	0.5	152	43.2	1120	1180

MAP	MAP BOOK	CARDS	BOND	FORMS	
				114	121

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

Report on Proposed Operations

No. P 1-40187

Los Angeles 14, Calif. November 22, 1944

Mr. R. H. Foss
Los Angeles 15, Calif.

Agent for BARNSDALE OIL COMPANY

DEAR SIR:

Your proposal to plug & alter casing Well No. "Rancho San Francisco" 1, Section 26, T. 4 N., R. 17 W., S.B. B. & M., Newhall-Petrero Field, Los Angeles County, dated Nov. 13, 1944, received Nov. 20, 1944, has been examined in conjunction with records filed in this office.

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

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

THE NOTICE STATES:

"The present condition of the well is as follows:

- 1. Complete casing record.

18 5/8" 84.5# C. 190'

8 5/8" 36 # C. 6160'

5 1/2" 17 # 11.6998'; perforated 100 mesh slots as follows: 6165-6561'
6603-6731
6752-6795
6816-6998

Total depth 7012'.

2. Last produced	5-26-44	30 bbls.	36.7	0.3%
	(Date)	(Net Oil)	(Gravity)	(Cut)"

PROPOSAL:

"The proposed work is as follows:

- 1. Kill well with oil.
- 2. Set cement retainer at 6821, as a bridging plug
- 3. Set cement retainer at 6811'
- 4. Cement back of blank section of 5-1/2" liner from 6795-6816'.
- 5. Recomplete in 1st and 2nd zones."

DECISION:

THE PROPOSAL IS APPROVED.

FCH:OK

cc- P. A. W.
Company

R. D. BUSH
State Oil and Gas Supervisor

By E. H. Musser Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

RECEIVED
NOV 23 1944
LOS ANGELES DIVISION

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

This notice must be given fifteen days before work begins when possible

Los Angeles Calif. November 15 19 44

DIVISION OF OIL AND GAS

E. H. Musser
Los Angeles, Calif.

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

, Sec. 26, T. 4 N, R. 17 W., S3 B. & M.
Newhall-Petrere Field, Los Angeles County.

The present condition of the well is as follows:

1. Complete casing record.

18 5/8" 84.5# C. 190'
8 5/8" 36 # C. 6160'
5 1/2" 17 # H. 6998'; perforated 100 mesh slots as follows:

6165-6561'
6603-6731
6752-6795
6816-6998

Total depth 7012'.

2. Last produced 5-26-44 30 bbls. 36.7 0.3%
(Date) (Net Oil) (Gravity) (Cut)

The proposed work is as follows:

1. Fill well with oil.
2. Set cement retainer at 6821, as a bridging plug
3. Set cement retainer at 6811'
4. Cement back of blank section of 5 1/2" liner from 6795-6816'.
5. Recomplete in 1st and 2nd zones.

MAP	MAP BOOK	CARDS	BOND	FORMS	
			Blank 8-25-41	114	121
				enc	enc

Plug & alter casing

Barnsdall Oil Company
(Name of Operator)

By R. C. Jones

Agent

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

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG OF OIL OR GAS WELL

Operator Marshall Oil Company Field Marshall (Peterson)
Well No. Rancho San Francisco #1 Sec. 35, T. 4 N., R. 17 W., S. & M. 1148.81
Location 5214.18' S. and 6168.80' E. from Corner "J" (Correction letter 3-3-42) Elevation 1148.81

In compliance with the provisions of Chapter 718, Statutes of 1915, as amended, 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 7, 1940 Signed J. C. Schaub
J. E. Dume (Engineer or Geologist) T. J. Prohaska (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling January 10, 1940 Completed drilling January 25, 1940 Drilling tools Rotary
Total depth 7010 Plugged depth _____
Junk _____

GEOLOGICAL MARKERS		DEPTH

Commenced producing January 27, 1940 (date) Flowing/~~gas lift/pumping~~ (cross out unnecessary words)

	Clean Oil bbl. per day	Gravity Clean Oil	Per Cent Water including emulsion	Gas Mcf. per day	Tubing Pressure	Casing Pressure
Initial production	207	2.4	25.3	643	755	75
Production after 30 days						

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
10-5/8	100	Surface	34.5	New	Seamless	11 1/2	9 1/2	310	
8-5/8	6160	"	32 1/2	"	"	8 1/2	10 1/2	300	
8-1/2	6000	6001	17 1/2	"	"	8-50	7-5/8	0	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
8-1/2	6160 ft.	6001 ft.	10mm ² slots	12	6"	Pacific
8-1/2	6005 ft.	6751 ft.	" * *	"	"	"
8-1/2	6752 ft.	6755 ft.	" * *	"	"	"
8-1/2	6815 ft.	6935 ft.	" * *	"	"	"

Electrical Log Depths _____ (Attach Copy of Log)

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR Marshall Oil Company FIELD Marshall-Petrera

Well No. Rancho San Francisco #1, Sec. 20, T. 4 N, R. 17 W, S.B. & M.

In compliance with the provisions of Chapter 718, Statutes 1915, as amended, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated June 8, 1937, was filed.

SIGNED J. C. Liebert

Date February 7, 1940

Title Agent (President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which re-drilling operations were started, size of hole re-drilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of sacks of cement used in cementing or plugging operations and exact position thereof. 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

All depths are from the top of the Kelly Bushing, 2.5' above the Derrick floor, which is 4.0' above the concrete mat.

HISTORY OF DEEPENING FROM 6478' to 7012'

1940

- 1-8 Filled well with water.
- 1-9 Changed from water to mud. Palled tubing.
- 1-10 Making up drill pipe.
- 1-11 Recovered all of 4-3/4" liner.
- to
- 1-15
- 1-20 Total depth 7012'. Hung 897.15' of 2-1/2" O.D., 17#. Jones and Laughlin, flush joint, hydriil, H-80, liner at 6000'. Inc. 725.00' of 100# perforations.
- 1-27 Hung 2-1/2" E.V.S. tubing at 6000'. Changed mud to water. Changed water to oil. Well started flowing at 6:00 P.M. Turned to tanks at 9:00 P.M.

6998
998
6000

SUBMIT IN DUPLICATE
 STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Subsequent Work Report

OPERATOR Harwood Oil Company FIELD Reshall-Jobrano

Well No. Sancho San Francisco #1, Sec. 20, T. 4 N., R. 17 W., S.B. & M.

In compliance with the provisions of Chapter 718, Statutes 1915, as amended, the information given herewith is a complete and correct record of all work done on the well since the previous record, dated June 9, 1937, was filed.

SIGNED _____

Date February 8, 1940

Title Agent
 (President, Secretary or Agent)

Outline in the order of performance, together with the dates thereof, all important operations which alter the condition of the well. Include such information as depth at which re-drilling operations were started, size of hole re-drilled or deepened; size of pipe, amount of perforations in casing, weight and length of casing landed or cemented or removed; number of sacks of cement used in cementing or plugging operations and exact position thereof. 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

Date	Net Oil	Gas	Draw	Beam	T.P.	S.P.	Net Gas
1-27	550	2.0	33.3	30-30/34	500	50	425
1-28	507	2.4	33.3	30-35/34	710	15	500
1-29	507	2.6	33.3	35/34	755	75	545
1-30	550	0.1	33.7	3/34	550	455	321
1-31	182	0.2	33.7	3/34	550	470	75
2-1	150	0.1	33.7	3/34	550	500	100
2-2	175	0.1	33.7	3/34	550	500	97
2-3	161	0.1	33.7	3/34	550	755	54
2-4	164	0.1	33.7	3/34	550	775	102

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P1-34691

Los Angeles,

Calif.

January 10,

19 40.

Mr. James G. Gilbert,

Los Angeles,

Calif.

Agent for BARNSDALL OIL COMPANY

DEAR SIR:

"RANCHO SAN FRANCISCO"

Your _____ proposal to deepen Well No. 1

Section 26, T4 N., R17 W., S.B. B. & M., Newhall Field, Los Angeles County,

dated Jan. 8, 1940, received Jan. 9, 1940, has been examined in conjunction with records filed in this office.

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

Records in addition to, or at variance with those shown in the notice:

The 8-5/8" shut-off was approved.

4-3/4" liner 6036'-6423', perf. 6103'-6423'.

THE NOTICE STATES:

"The present condition of the well is as follows:

18-5/8"	84-1/2#	Casing	C.	190'
8-5/8"	36#	Casing	C.	6160'
4-3/4"	16#	Liner	H.	6423-6035
		perforated		6423-6124 (60 & 100#)

Total depth 6472

Present production: 40 B/D net .2%."

PROPOSAL:

"The proposed work is as follows:

Recover 4-3/4" casing from 6423'

Deepen to approximately 7025'

Hang 5-1/2" 17# perf. liner at approx. 7025'."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT THIS DIVISION SHALL BE NOTIFIED TO WITNESS a production test within 10 days after the well has been placed on production.

cc- Company

GLE:CH

R/c. J.

R. D. BUSH

State Oil and Gas Supervisor

By

E. J. McGuire

Deputy

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

RECEIVED
JAN 9 1940

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

This notice must be given fifteen days before work begins when possible

Los Angeles Cal. January 8, 1940

Mr. E. Huguenin

Deputy State Oil and Gas Supervisor

Los Angeles, Cal.

DEAR SIR:

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of deepening, ~~redrilling, plugging or altering casing in~~ well No. Rancho San Francisco
(Cross out unnecessary words) CO #1

, Sec. 26, T. 4 N., R. 17 W., S. B. B. & M.
Newhall-Potrero Oil Field, Los Angeles County.

The present condition of the well is as follows:

18-5/8"	84-1/2#	Casing	C.	190'
8-5/8"	36#	Casing	C.	6160'
4-3/4"	16#	Liner	H.	6423-6035
		perforated		6423-6124 (60 & 100M)
Total depth				6472
Present production:				40 B/D net .2%

The proposed work is as follows:

Recover 4-3/4" casing from 6423'
Deepen to approximately 7025'
Hang 5-1/2" 17# perf. liner at approx. 7025'

deep.

Respectfully yours

BARNSDALL OIL COMPANY

Name of Company or Operator

By J. C. Schubert
Agent.

Reference to file of well

Maps	Model	Cross-section	Cards	Notes
				121
				✓

RECEIVED
 AUG 19 1937
 DIVISION OF OIL AND GAS

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG OF OIL OR GAS WELL

Operator INDIVIDUAL OIL CO. Field INDIVIDUAL (CORNER)

Well No. 5214.18' S. and 6168.80' E. from Corner "J" (Correction letter 3-3-42) Sec. 10, T. 42, R. 17, S. & M. 1148.81

Location INDIVIDUAL OIL CO. CORNER "J" (CORRECTION LETTER 3-3-42) Elevation 1148.81

In compliance with the provisions of Chapter 718, Statutes of 1915, as amended, 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 8/10/37 Signed J. C. Heibert
W. E. Powell (Engineer or Geologist) R. J. Irwin (Superintendent) Title Agent (President, Secretary or Agent)

Commenced drilling AUGUST 10, 1937 Completed drilling AUGUST 12, 1937 Drilling tools Cable Rotary

Total depth 6470' Plugged depth _____

Junk _____

GEOLOGICAL MARKERS				DEPTH
ACCORDING TO FILE AT _____				
Interval	Character	Color	Remarks	Depth

Commenced producing 8/21/37 (date) recompleted 8/24/37 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
<u>137</u>	<u>34.0</u>	<u>0.6</u>	<u>320</u>	<u>97</u>	<u>112</u>
<u>148</u>	<u>34.0</u>	<u>1.2</u>	<u>320</u>	<u>97</u>	<u>112</u>

Initial production
 Production after 30 days

CASING RECORD (Present Hole)

Size of Casing (A. P. I.)	Depth of Shoe	Top of Casing	Weight of Casing	New or Second Hand	Seamless or Lapweld	Grade of Casing	Size of Hole Casing landed in	Number of Sacks of Cement	Depth of Cementing if through perforations
<u>10 5/8</u>	<u>100</u>	<u>Surface</u>	<u>34.3</u>	<u>New</u>	<u>Seamless</u>	<u>API</u>	<u>25</u>	<u>510</u>	
<u>8 5/8</u>	<u>2100</u>	<u>W.S.O. "</u>	<u>30</u>	<u>"</u>	<u>"</u>	<u>API</u>	<u>12 1/2</u>	<u>300</u>	
<u>4 3/4</u>	<u>2420</u>	<u>2020</u>	<u>15</u>	<u>"</u>	<u>"</u>	<u>"</u>	<u>7 1/2</u>	<u>0</u>	

PERFORATIONS

Size of Casing	From	To	Size of Perforations	Number of Rows	Distance Between Centers	Method of Perforations
<u>4 3/4</u>	<u>2420</u> ft.	<u>2100</u> ft.	<u>100 # 1 1/2" #10</u>	<u>12</u>	<u>0</u>	<u>Reamer</u>
	<u>2300</u> ft.	<u>2110</u> ft.	<u>80 # 2" "</u>	<u>7</u>	<u>"</u>	<u>"</u>
	<u>2110</u> ft.	<u>2100</u> ft.	<u>100 # 1 1/2" "</u>	<u>0</u>	<u>"</u>	<u>"</u>

Electrical Log Depths none mentioned in history (Attach Copy of Log)

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS
RECEIVED
AUG 19 1937
LOS ANGELES, CALIFORNIA

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR Barnsdall Oil Co. FIELD Hosball (Cottone)
Well No. Rancho San Francisco #1, Sec. 26, T. 4N, R. 17E, S. & M. B. & M.
Signed J. C. Liebert
Date June 8, 1937. 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
1936

All depths below top of Kelly Bushing (2.25' above casing floor)

Condition of Holes:

10-5/8" C. 190'

8-5/8" C. 6160'

4-3/8", 100' Elmer King @ 6425'. 307' long; incl. 51251' of 60 & 100 H. Kobe.

Total Depth: 6472'

6423
320
6103

- 5/10 Spudded in 25" hole
- 6/13 Depth 190'. Cemented 10-5/8", 31 1/2 National seamless slip joint casing at 190' with 510 sax. Volo cement.
- 6/14 Found top of cement at 168'. Drilled 10-5/8" hole.
- to
- 12/23 Depth 6215', 10-5/8" hole.
- 12/24 Reamed 10-5/8" hole to 12 1/2" from 190' to 6166'.
- to
- 1/23/37 Cemented 8-5/8", 30 1/2 Jones and Laughlin Grade "c" & "d" seamless casing at 6166' with 500 sax. Monolith High Temp. Oilwell cement. Laid cement bridge 6166' to 6160'.
- 1/24 Stood cement. Found top of cement at 6116' and casing shoe at 6130'.
- 1/26 Cleaned out cement to 6143' for U.S.G. test. Ran Johnston Formation Tester on 4" D.P. with bottom 1000' filled with mud. Set packer in casing at 6141'. Bottom of tail piece @ 6154'. Tester stood open 50 min. Very little blow. Filled D. P. & found 23' of mud had entered D.P. Bottom hole pressure recorder showed 400' or equivalent to press. Shorted by 1000' of mud in D.P. Test witnessed and approved by Deputy E. S. Murray-Aaron of the Division of Oil and Gas.
- 1/30 Cleaned out 6165-6215 with 7-5/8" diamond point.
- Tested zone 6160'-6215' with Johnston Formation Tester on 4" D.P. Set packer in casing at 6160. Perforated tail piece to 6164'. 6/16" bean in tester. Tester stood open 4 hours. Recovered 412' in 4 D.P. of gassy mud. Salt content 70 grains per gal.
- Cleaned out 6163 to 6215 with 7-5/8" dia. pt. bit. bridge @ 6162'.

SUBMIT IN DUPLICATE
STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Page 2

History of Oil or Gas Well

OPERATOR Hornetall Oil Co. FIELD Hornetall-Peterson

Well No. Rancho San Francisco #1, Sec. 20, T. 45, R. 17, S. 11 B. & M.

Signed _____

Date June 4, 1937 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
1937

1/31

Tested zone 6100-6215 (2nd test). Set packer of Johnston Function tester in casing at 6145'. Bottom of tailpiece at 6201'. Tailpiece part. 6167-6197'. Opened valve in tester at 7:00 A.M. Gas increased to 2500 MCF and oil increased to about 1 bbl. per hr. gravity of oil 45.2° to 45.9°, 0.1 to 0.4% water.

2/1

Pulled out tester at 10:00 A.M. Stood open 17 hours

2/5

Depth 6075. Ranmed 7-3/8" hole to 10-3/4" from 6105 to 6215.

2/6

Run 145.00 of 6-3/8", 10' liner @ 6075; incl. 115.00 of 100 mesh hole part. on bottom.

2/7

Made up knee tree

2/8

Run 3 1/2", 4.75' upset tubing with 105' of 2", 4.75' upset on bottom at 6205. Started snubbing at 10:45 P.M.

2/10

Well started flowing at 8:30 A.M. through 20/64

	Gross Fluid Rate b/c	% Water	Seen	Wtg. Press.	Dep. Press.	Gas MCF Est. Rate
	12 b/c	0.0	04/04	200	200	2,000
2/11	30 b/c	1.0	"	110	350	2,000
2/12	60 b/c	"	05/04	100	500	2,000
2/13	"	"	05/04	100	500	2000
2/14	"	"	"	"	"	"
2/15	"	"	25/04	200	200	2,000
2/16	25 b/c	"	30/04	"	"	"

Killed well w/ water

2/17

Raised tubing to 6040. Swabbed well in at 1:00 P.M.

	Gross Fluid Rate b/c	% Water	Seen	Wtg. Press.	Dep. Press.	Gas Est. Rate
	80	Clean	04/04	100	200	2,000 MCF
2/18	80	"	"	100	"	2,000

2/18

Killed well with mud to deepen

2/19

Pulled tubing

2/20

2/21

DIVISION OF OIL AND GAS

Page 3

History of Oil or Gas Well

OPERATOR Bernalillo Oil Co. FIELD Hemlock-Potrero

Well No. Bernal San Francisco #1, Sec. 30, T. 10N, R. 17E, S. 3, B. & M.

Signed _____

Date June 9, 1937 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
 1937

2/21
 to

2/24

2/27

2/28

3/1

Discovered 4-3/4" liner

Depth 6526. Deopened with 2-3/8" hole.

Ran Johnston Formation tester and set packer at 6676. Seat would not hold.

Replaced at 6601. Stand open 20 min. before packer started to leak.

Very blow of gas. Recov. 142' of oil and.

Deopened with 7-5/8" hole.

3/2
 to

3/12

Depth 6676. Tested with Johnston Formation tester 6526-6472. Stand open 14 minutes. Good blow of gas. Recov. 1/2 stands of gas and trace of oil.

3/13

Ran 415.00 of 4-3/4", 10/7 grade "p" liner at 6472. Incl. 317.49 of 50 & 100 mesh Kobe part. on bottom.

3/15

Treated well with 2-3 Dub-Sal chemical.

317
 6154

3/16

Ran 2 1/2" up. tbg. with 145' of 2" up. on bottom at 6526.

3/19

Swabbed well in at 6:48 P.M. Well flowed by leaks to 3:30 P.M. Killie with water.

3/21

Pulled tbg. Ran 2 1/2" up. tbg. with 3-5/8" P.S.T. packer on bottom to 6666. Swabbed well in. Turned to tank at 10 P.M.

	Net Oil	Gas	S.F.	S.P.F.	Days	Prod
	115 1/2	0.06	0-727	0-2227	02/04	200 207
3/22	110	"	"	200	"	200
3/23	172	"	75	200	03/04	200
3/24	170	"	100	"	"	"
3/25	165	5.5	100	200	"	"
3/26	172	"	"	"	"	"
3/27	172	"	"	"	"	"
3/28	200	5.0	120	300	"	1877
3/29	125	"	100	200	04/04	1787
3/30	130	1.0	90	200	"	1787
3/31	167	5.4	90	200	"	1787
4/1	170	2.5	"	"	"	1580
4/2	165	5.0	100	340	"	1880
4/3	170	"	"	340	"	"
4/4	22	"	"	"	"	"

S.I.S 2:50 P.M.

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

Page 6

History of Oil or Gas Well

OPERATOR Marshall Oil Co. FIELD Marshall-Fabrera

Well No. Rancho San Francisco #1, Sec. 20, T. 4N, R. 17E, S. 4 B. & M.

Signed _____

Date June 6, 1937 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
 1937
 4/6
 4/7
 4/8
 4/9
 4/10
 4/11
 4/12
 4/13
 4/14
 4/15
 4/16
 4/17

Fuller log. Washed perforations
 Log 1/2" up. Log. of 2001 with packer at 1701. Started flowing @ 10:30 A.M.

Date	Det Oil	Det	Y.P.	S.P.P.	Depth	Notes
4/6	207 1/2	1.05	1000	2000	64/64"	2001 200' 21.0' GRAY.
4/8	180	2.0	100	1700		
4/9	171	*	*			2000
4/10	171	*	*			2070
4/11	160	2.0	*			2000
4/12	160	2.0	*			1767
4/13	160	1.0	*			1800
4/14	150	*	200		60/64"	1870
4/15	150	*	200			
4/16	147	*	0		2"	1700
4/17	140	*	0		2" & 1"	1600

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR WATERBURY OIL CO. FIELD WATERBURY

Well No. WATERBURY SAN FRANCISCO #1, Sec. 36, T. 41, R. 17N, S. 4E B. & M.

Signed _____

Date June 6, 1937

Title _____

(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

1937

6/10

Well started flowing at 10:00 A.M.

Well No.	Size	Depth	Date	Material	Remarks
170	0.25	34.0'	04/34'	OP	OP
103	"	"	"	"	140
171	0.2	"	"	"	150
140	1.0	"	"	"	150
135	1.0	"	"	"	150
149	1.0	"	"	"	150
104	1.0	31.0'	"	"	150
150	"	"	"	"	150

SUBMIT IN DUPLICATE

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

History of Oil or Gas Well

OPERATOR BRIDGEMAN OIL CO. FIELD BRIDGEMAN

Well No. BRIDGEMAN SAN FRANCISCO #1, Sec. 30, T. 41, R. 17N, S. 14E B. & M.

Signed _____

Date June 8, 1937 Title _____

(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

Date	Well No.	Size	Rate	Depth	Remarks	Time
4/10	147	1.0	0	Str.	5' x 1"	1870
4/19	149	"	75	"	"	1888
4/20	149	"	"	"	"	1899
4/21	147	"	50-70	"	"	1814
4/22	147	"	"	"	"	
4/23	141	"	"	"	"	
4/24	Filled well with oil.					
4/25	Pulled tubing.					
4/26	Ran and pulled 4-3/4" liner under pressure. Recov. all of liner. Cleaned out to 4670'.					
4/30	to					
5/1	Ran 2 1/2" upset tbg. with packer on bottom at 4688'. Well flowed at rate of 512 1/2 bbl. D.P. 2885.					
5/2	240 1/2 rate, 0.25 out. of D.P. 64/64" beam.					
5/3	130 " clean.					
5/4	Pulled packer loose and filled well cleaned out to bottom.					
5/5	" " "					
5/6	" " "					
5/7	Ran 315'-4685' with 50 quarts of nitro-glycerin. 0/c to bottom.					
5/8	Ran 2 1/2" upset tubing with packer on bottom at 4684'.					
5/9	Well started flowing to tanks at 1:00 A.M. Final rate 120 1/2, clean, 0' T.P., 64/64" beam.					
5/10	Pulled tubing, 0/c to bottom. Landed 308.17' of 4-3/4", 10' liner at 4670'. Then pulled out found that 2" wash pipe had twisted off inside liner.					
5/12	Fished for 2" wash pipe. Pulled out 4-3/4" liner.					
5/13	to					
5/15	Cleaned out to bottom.					
5/17	Ran 207.05' of 4-3/4", 10' liner at 4655'. Incl. 219.51' of 00 & 100 mesh koto perforated.					
5/18	Ran 2 1/2" upset tubing at 4655.19' with packer at 5082'.					

4170

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Barnsdall Oil Company Field Wichell-Potrero
Well No. Rancho San Francisco #1 Sec. 22, T. 4 N., R. 17 W., S. 3. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
6472	6488		Drilled		Shale
6488	6500				Shale and sand
6500	6517				Shale
6517	6535				Shale and sand
6535	6552				Shale and streaks of sand
6552	6515				Hard shale
6515	6525				Sand and shale
6525	6525				Sand
6525	6752				Sand and shale
6752	6820				Shale
6820	6855				Sand
6855	6862				Sand and shale
6862	6884				Sand
6884	6900				Shale
6900	6900				Sand
6900	7012				Shale

Note: Descriptions are as logged by drillers.

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
RECEIVED
AUG 18 1927
U.S. GEOLOGICAL SURVEY

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Barnes Oil Co. Field Novall (Rodrigo)

Well No. Trucha San Francisco #1 Sec. 24, T. 45, R. 170, S. 24 B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
0	57	57	Drilled		Yellow clay
57	57	10	"		Clay
57	58	29	"		Gravel
58	108	12	"		Sand and gravel
108	158	57	"		Sand and gravel, strata of shale
158	180	24	"		Sand and gravel
180	278	116	"		Sand and shale
278	305	27	"		Shale
305	342	38	"		Sand and shale
342	350	187	"		Shale
350	353	20	Cored		See core record
353	345	28	Drilled		Shale
345	353	20	Cored		See core record
353	379	454	Drilled		Shale
379	1019	20	Cored		See core record
1019	1000	36	Drilled		Shale
1050	1005	10	Cored		See core record
1055	1100	57	Drilled		Shale
1102	1153	21	Cored		See core record
1155	1200	77	Drilled		Shale
1200	1220	20	Cored		See core record
1220	1206	24	Drilled		Shale
1206	1226	20	Cored		See core record
1226	1242	57	Drilled		Shale
1242	1262	20	Cored		See core record
1262	1424	45	Drilled		Shale
1424	1420	24	Cored		See core record
1420	1710	222	Drilled		Shale
1710	1730	20	Cored		See core record
1730	1979	249	Drilled		Shale
1979	2022	25	Cored		See core record
2022	2100	156	Drilled		Shale
2100	2210	20	Cored		See core record
2210	2602	254	Drilled		Shale
2602	2612	10	Cored		See core record
2612	2606	41	Drilled		Sandy shale and shale
2606	2575	17	"		Shale, strata of sand
2575	2533	20	Cored		See core record
2533	2600	7	Drilled		Sandy shale
2600	2624	24	"		Shale
2624	2625	20	"		Shale and sandy shale
2625	2674	11	"		Shale
2674	2655	10	Cored		See core record
2655	2726	25	Drilled		Shale and sandy shale
2726	2800	74	"		Shale

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Page 2

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Barnes Oil Co. Field Humboldt (Peterson)

Well No. Sanato San Francisco #1 Sec. 20, T. 45, R. 170, S. 2. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
2800	2827	27	Cored		See core record
2827	2828	01	Drilled		Shale
2828	2828	12	Cored		See core record
2828	2845	17	Drilled		Shale
2845	2841	04	Cored		See core record
2841	3011	70	Drilled		Shale
3011	3012	1	"		Sand and shale
3012	3046	34	Cored		See core record
3046	3084	38	Drilled		Shale
3084	3104	20	Cored		See core record
3104	3120	16	Drilled		Sandy shale
3120	3137	17	"		Shale
3137	3180	43	"		Hard shale
3180	3177	07	Cored		See core record
3177	3222	45	Drilled		Shale
3222	3222	00	Cored		See core record
3222	3225	03	Drilled		Shale
3225	3301	76	Cored		See core record
3301	3321	20	Drilled		Sandy shale
3321	3325	04	Cored		See core record
3325	3326	01	Drilled		Sand
3326	3326	00	Cored		See core record
3326	3422	96	Drilled		Sandy shale
3422	3422	0	"		Sand
3422	3421	1	Cored		See core record
3421	3422	01	Drilled		Sandy shale
3422	3411	11	"		Shale
3411	3421	10	Cored		See core record
3421	3424	03	Drilled		Shale
3424	3475	51	"		Shale and sandy strata.
3475	3525	50	"		Sandy shale
3525	3521	04	"		Shale and sand
3521	3520	01	Cored		See core record
3520	3524	04	Drilled		Sandy shale
3524	3526	02	"		Shale and sand
3526	3526	0	Cored		See core record
3526	3570	44	Drilled		Sandy shale
3570	3520	50	"		Shale
3520	3522	02	"		Hard shale
3522	3525	03	"		Shale
3525	3710	185	"		Sandy shale
3710	3724	14	"		Shale and sand, hard strata.
3724	3724	00	"		Shale with strata of sand
3724	3771	47	"		Shale

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Barnesall Oil Co. Field Newhall-Petroco
Well No. Hancke San Francisco #1 Sec. 28, T. 42, R. 170, S. 3. B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
3771	3800	29	Cored		See core record
3800	3813	13	Drilled		Hard shale
3813	3818	5	"		Shale
3818	3832	14	"		Hard shale
3832	3852	20	"		Shale
3852	3869	17	"		Hard shale
3869	3894	25	"		Shale
3894	3898	4	Cored		See core record
3898	3907	9	Drilled		Shale
3907	3939	32	Cored		See core record
3939	3971	32	Drilled		Hard shale
3971	4000	29	"		Shale
4000	4007	7	Cored		See core record
4007	4100	100	Drilled		Hard shale
4100	4119	19	Cored		See core record
4119	4200	81	Drilled		Hard shale
4200	4212	12	Cored		See core record
4212	4272	60	Drilled		Hard shale
4272	4280	8	Cored		See core record
4280	4303	23	Drilled		Hard shale
4303	4305	2	Cored		See core record
4305	4328	23	Drilled		Hard shale
4328	4345	17	Cored		See core record
4345	4440	95	Drilled		Sand
4440	4453	13	"		Shale with hard strcs. of sand
4453	4474	21	"		Sandy shale
4474	4511	37	Drilled		Hard shale
4511	4518	7	Cored		See core record
4518	4549	31	Drilled		Hard shale
4549	4585	36	"		Shale, strcs. of sand
4585	4617	32	"		Shale
4617	4630	13	Cored		See core record
4630	4641	11	Drilled		Sand with hard strcs.
4641	4670	29	"		Shale, hard strcs. of sand
4670	4687	17	"		Sandy shale
4687	4706	19	"		Hard shale
4706	4731	25	"		Sandy shale
4731	4737	6	"		Hard shale
4737	4741	4	"		Sand
4741	4745	4	"		Shale and sand
4745	4755	10	Cored		See core record
4755	4762	7	Drilled		Sand
4762	4776	14	"		Sand and shale
4776	4842	66	"		Hard shale

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Page 4

LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Barnsdall Oil Company Field Neuhall-Fotrero

Well No. Rancho San Francisco #1 Sec. 20, T. 42, R. 170, S. 22 B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION
Top of Formation	Bottom of Formation				
4042	4050	8	Cored		See core record
4050	4061	11	Drilled		Shale
4061	4085	24	"		Shale, strata. of sand
4085	4075	10	"		Shale
4075	4068	7	"		Hard shale
4068	4035	33	"		Shale
4035	4020	15	Cored		See core record
4020	4061	59	Drilled		Hard and strata of shale
4061	4038	23	Cored		See core record
4038	4143	105	Drilled		Hard and shale
4143	4122	21	Drilled		Sand
4122	4122	0	"		Hard shale
4122	4122	0	"		Sand and shale
4122	4122	0	Cored		See core record
4122	4200	78	Drilled		Sand and shale
4200	4204	4	"		Sand
4204	4222	18	"		Sand and shale
4222	4271	49	"		Hard sand
4271	4281	10	"		Sand and shale
4281	4312	31	"		See core record
4312	4324	12	Cored		See core record
4324	4325	1	Drilled		Sand
4325	4342	17	"		Sand and shale
4342	4344	2	"		Shale
4344	4408	64	"		Sand and shale
4408	4414	6	Cored		See core record
4414	4416	2	Drilled		Sand
4416	4415	1	"		Sand and shale
4415	4420	5	Cored		See core record
4420	4426	6	Drilled		Sand
4426	4428	2	"		Sand and strata of shale
4428	4428	0	"		Sand and shale
4428	4428	0	Cored		See core record
4428	4421	7	Drilled		Hard sand
4421	4420	1	"		Sand and shale
4420	4421	1	"		Sand
4421	4425	4	Cored		See core record
4425	4755	330	Drilled		Sand and shale
4755	4755	0	Cored		See core record
4755	4812	57	Drilled		Sand and shale
4812	4848	36	Drilled		Hard shale and sand
4848	4875	27	"		Hard shale, strata. of sand
4875	4887	12	"		Sand and shale
4887	4140	253	Cored		See core record
4140	4171	31	Drilled		Hard shale
4171	4473	302	Cored		See core record

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
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LOG AND CORE RECORD OF OIL OR GAS WELL

Operator Barnsdall Oil Company Field Newhall (Potrero)
Well No. Rancho San Francisco #1 Sec. 26, T. 4N, R. 17W, SB B. & M.

FORMATIONS PENETRATED BY WELL

DEPTH TO		Thickness	Drilled or Cored	Recovery	DESCRIPTION															
Top of Formation	Bottom of Formation																			
					<p>All measurements below top of kelly bushing, 2.25' above derrick floor.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <tr> <td colspan="5" style="text-align: center;">APPROXIMATE TO BE IN PLACE</td> </tr> <tr> <td>Model</td> <td>CORE SAVED</td> <td>CORE</td> <td>11</td> <td>12</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td style="text-align: center;">✓</td> </tr> </table>	APPROXIMATE TO BE IN PLACE					Model	CORE SAVED	CORE	11	12					✓
APPROXIMATE TO BE IN PLACE																				
Model	CORE SAVED	CORE	11	12																
				✓																

10001X-500 E. SW corner of

Projected 26 4N 17E

Well	Depth	Interval	Pressure	Temperature	Specific Gravity	Notes
8-29	1110710-5/8	500	580	20	20	Gr. Fine Silty M.S. shale. Generally massive but considerably broken and sheared. No distinct bedding but apparent dip of breaks 10° to 15°. Few fish scales & a very small bl-valves. Full roc, but core bbl. had to be split to get core out. Same but unbroken. Few forams. Gr. M. Massive, fine silty m.s. shale, few forams. Brown pyritized streaks and black spots - carbonaceous matter (break dip 15°).
8-23	"	999	1019	15	15	Same.
8-19	"	545	565	20	20	Same, but more forams and few joint planes. Break dip 15°. Same but broken and jointed thru out. Break dip 10°-15°. Necessary to cut bbl. to remove core. Same, but only few breaks and joints & becoming sq. & soft in places. Several pyrite-like bl-valves. Some irregular bedding laminae.
8-25	"	1306	1326	20	20	Same. No gas in this core burned when 141° - Foster.
8-26	1110710-5/8	1305	1325	20	20	Gr. M. Massive unbroken silty to sq. shale w/forams & bl-valves. Break dips 10°-20°. Better bedding. Sinks of core sand in shale at 1442'.
8-26	"	1426	1446	15	15	Gr. M. Massive silty-sandy shale. No massive silty-sandy shale. Gr. coarse. Probably friable sand. Gr. M. Shale fairly well bedded. (11000 of limestone in block on top of core - from preceding core) Gr. M. Massive unbroken silty, sq. shale w/forams and bl-valves.
8-27	"	1468	1488	20	20	Gr. M. Silty fine sand. No cut, no flesh. Break dip 10°. Gr. M. Generally massive but somewhat broken (perhaps from coring) sandy shale. Conc. matter fine, black charcoal ash. Forams & fossils. Dip 10°. Sweetish odor when freshly broken. No flesh. Gr. M. Massive solid sandy shale w/forams & bl-valves. Sand content increasing. Occurs in irregular pieces & seems in shale shearing at 50° at 1701'. Break dip 10°.
8-27	1110710-5/8	1448	1468	20	19.5	
8-27	"	1468	1488	20	20	
8-29	"	1710	1730	20	20	

R. W. Sherman

1938
1938
0-51
10-5/8 1079 2006 27

Description

Core No.	Depth	Interval	Dip	Angle	Notes
0-51	10-5/8	1079 2006 27	26	0.5	GRBz H-VH Massive, sdy. shale. D Gr Frl Fine, silty sand.
0-1	"	2006 2032 26	26	0.5	Hard shale w/thin silty fine gray sand. 1' good bedding Dip 10°. Forams & bi-valves, inc. oysters. GrBz H-VH Massive sandy shale w/thin layers & seams of fine sand. Forams. Good dip 10°.
0-4	"	2198 2218 20	20	2.0	DkGr VH Massive sandy shale w/occasional thin seams of silty gray sand. Few forams. Dip in one sand seam 15°. break dip 10°. Numerous joint breaks. Gr VH F Shaley siltstone w/bedding laminae. 0.1" layer of shale in middle in definite bedding plane. Dip 15°. Mega fossils.
0-9	"	2502 2505 31	31	11.0	Gr Firm V fine silty mic. sand finely laminated. Dip 9° to D 15°. Inclusions of shale pieces at top up to 1" diam. Fossils inc. echinoid frag. No flash, outg. or odor. Gr VH F- Mic. laminated fossiliferous SS shell F Camb. matter.
0-9	"	2505 2515 7	7	2.0	DkGr E F Mic. shaley siltstone. Gr VH F SS
0-10	"	10-5/8 2573 2595 31	31	0.5	DkGr siltstone as above 4'. Dip 9° to 15°. (Top of balance of core found at 2576 with bit on next run)
0-12	"	2674 2678 11	11	3.0	Gr F F Massive siltstone. No bedding.
0-13	"	2678 2695 10	10	1.0	DkGr F Mic. silty shale pieces & mud
0-15	"	2800 2827 17	17	17'	DkGr H Mic. shaley siltstone w/stks soft sticky. F Core telescoped - actual recovery probably over 10'. Dip 10° to 15°. (Bal. left in hole and drilled up with following bit.) DkGr H E Shaley massive siltstone w/few seams & patches fine sand. Dip 10°. Fossils & forams. (Good ss show - burned.) Gr/Drownish spots & stks. V Hd, massive. E fine sdy. F siltstone. Few low angle shear planes. Small mega fossils, forams, & fish scales. Dip 7°. No flash, mud running out of bbl. when pulled out. Inc. 3°.
0-17	"	2895 2908 13	13	13'	

R. W. Sherman

Core Bbl. Page 3.
 Date 1936 Make Size From To Ft % Shales 80.8, Color

Description

Date	Make	Size	From	To	Ft	% Shales	Color	Description
9-18	Elliott	10-54	2948	2961	10'			Gr w/brownish spots, & irregular VY thin patches fine gray sand, V Hd, massive fine sdy siltstone. Few forams & fish scales. Dip 10° to 15°+. D
9-21	"	"	3018	3046	27'			Irregular pieces of brown shale and carb. matter. Grooved faces indicate probable movement along bedding planes (might be caused by foreing into core bbl.?) Same, but Hd to V Hd and more silty. D
9-22	Elliott	"	3084	3104	20'			Gr and irregular pieces hard shale. Forams, small Mega fossils and borings. Good flash. Dip 10°+. D
9-23	Elliott	"	3150	3157	25'			creasing. Might be termed silty sandstone. Forams, small Mega fossils, borings and worms. Good dip 10° in bottom 2" which is distinctly bedded with thin sand layers. No flash. Practically no mud left in inner bbl. D
9-25	Elliott	"	3222	3240	14'			Gr & patches of fine silty gray sand. Good flash; core burned all along w/blue flame. No but. Dip 10°+. Grooved bedding planes indicate movement. Carb. matter. D
9-26	Elliott	"	3240	3243	0'			patches hd. sd. & one 3' SS shell, and one 1' layer bedded silty firm sand. One patch of sd. ore & pebbly. D
9-26	Elliott	"	3243	3252	7.5'			Gr w/ H-VH VP H Bent. ? Prob, Impervious. Ditto 12.2 above. Dip 10°. D
9-26	Elliott	"	3240	3243	0'			No recovery. D
9-26	Elliott	"	3243	3252	7.5'			ltGr VH Sandstone shell D
								Gr F-H G Sdy siltstone w/thin layers mic. D
								finely bedded, silty gray sand. D
								DkGr VP H Mic. finely bedded silty gray sd. D
								Low porosity but might be wet. D
								Gr H Siltstone D
								Ditto 0.5 above. D
								Ditto 3.0 above. D
								Dip 8° (good) No flash. No out. D

R. W. Sherman

1936	Date	Depth	From	To	SS	Gr	Sl	Stk	Notes
10-28	Elliot	10-75	3285	3501	15			12020	Gr H P Siltstone w/layers fine to coarse gray sd. from 1" to 1' thick. Wavy bedded laminae. Carb. mat. & Dip 10°. Bedding plane movement. Salt waste in sand, & coating of white salt on drying out. Probably wet. Small amt. gas, m.c.
9-28	Elliot	"	3351	3356	4			36	Gr H-VH VP-Cse G w/.5' pebbly cong. at top; pebbles up to 1" diam. m.c.
9-29	Elliot	"	3366	3393	14			0.4	DK Gr VP S&V Siltstone. Dip 10°. No fish. No out.
9-29	Soft	"						1.070	Gr VP-VP1 P-Cse G Gray sd. w/few layers hd. ady.
9-29	Elliot	"						4.005	Siltstone. Sand looks wet.
9-29	Soft	"						1.5	DK Gr H Siltstone w/layers hd. sd. & 1-.5' stk rotten br. sh.
9-29	Elliot	"	3393	3398	0				Gr S-P R-VP G Floury & silty sd. This part of core packed & telescoped in dbl. Small amount gas in bottom part of dbl. Dip 10°.
9-30	Hughes	"	3430	3431	0				No recovery. Drilled hard & rough. (R. W. Sherman)
10-2	Elliot	"	3511	3521	8			80	3' burned mud & silt cuttings
10-4	Elliot	"	3601	3608	6			2.0	DK Gr HD V. silty Biotite. Few nodules. F. gr sd
10-5	Elliot	"	3636	3638	02				DK Gr HD V. silty Badly fract. ckenisides. Stks 1t gr D
10-7	Hughes	"	3771	3788	10			05	DK Gr HD V. silty sd somewhat limy.
10-8	Elliot	"	3788	3800	10			0.5	DK Gr HD V. silty Massive shell frag. 0.5' fract stk.
10-11	Hughes	"	3907	3909	2				Lt. Gr P P-C P 0.5' below top.
10-15	Elliot	"	4000	4007	7				1/4" blk & white pebbles & many coarse grtz grains. Several granite blades 1" to 2" on bottom

W.E. Powell

Cone Sample
 Date Make Size From To Ft 1/2 Sh 5/16 SD OR Color

Description

Date	Make	Size	From	To	Ft	1/2	Sh	5/16	SD	OR	Color	Description
10-19	Elliot	10 5/8	4109	4119	9		9				DKGRBr	Hd Brittle Sdy Few shell frag.
10-22	Dean	"	4200	4212	13		13				Dk Br	" " "
10-24	Dean	"	4272	4280	7		6.5		.5		"	" " "
10-28	Dean	"	4398	4418	2						Gr	H-VH M P
10/27	Hughes	"	4418	4445	3		.5				Br.	Hd. Sdy. Brkn
											Gr.	F F E
											Dk. Gr.	Hd Sdy Fract
10-31	Hughes	"	4511	4518	6		1		3		Dk. Gr.	Hd Shly silt & silty sh. Forams & fish scales. Stk D
											DKGRBr	Hd V. Sdy Forams & fish scales. Shell frag. rare
11-2	Elliot	"	4617	4632	8						Gr.	H-F MF E
											Gr. Br.	VH " "
											Gr.	F " E
											"	" " "
11-6	Hughes (Hard)	"	4752	4759	5						"	" " "
11-6	Elliot	"	4842	4850	6		2.5				V. DKBRGr	Hd Sdy O.S. Hd. shell 2' below top Few grtz pebbles. Wet Upper 1' Vert. fract. Lower 1' brkn silksds.
											Blk-Gr	Hd Carb. Silt
											DKBRGr	" Sdy Carb

W. E. Powell

Date Core Barrel Name Size From To Ft. & SN. Size of Core Color Description

11-16 Hughes 10 5/8 Rock 5023 5038 1 .5 Wh-Gry Fr-I VH F-C Poor Ashy? K.O. SS shell (Also recovered 1 ft. of mixture of mud & siltstone pcs., latter cont'd forams.)

11-18 " " 5061 5068 7 25 3.5 Lt. Gry F-H M-C G Massive siltstone shale-forams Carb. matter. No cut or odor. Dip 80 showing horizontal flow angle movement.

11-29 " " 5512 5524 6 6 Wh-Gry F-H F-C G Cmtd conglomerate/igneous schist pebbles up to 2" diam. No cut or odor. Cross bed'd Dips vary fr. 50 to 40° @ bottom. D

12-1 " " 5405 5414 6 5 DkBr & VP-VH F M-C G Borings & carb. matter abundant. Carb. matter D

12/4 " " 5515 5529 10 10 Wh-Gry VF-VH M-C Falt. Lt. Gry fine silt & sd scattered thru dk br siltstone. Borings & seaworms replaced by the silt & sd. Dip 80. Bottom 4" had SS shell. A streak of water-worn sh or siltstone pcs. 2' fr. top. Dip 100 No cut. Looked wet when fresh. D

Next core 5588 to 5590 (see other sheets)

R. W. S.
1/29/37

Date 1936
 Name of well
 No. of logs
 No. of sections
 No. of samples
 No. of tests

Depth of well

Date	Name of well	No. of logs	No. of sections	No. of samples	No. of tests	Depth of well	Stratigraphic	Remarks
12-5	Hughes	10 1/8	5588	5590	2	2	Stone	DkBrgr VH F E-P Compressed Pecten peckhami? D Well to unevenly, thinly banded. Dip 5°
12-6	Hughes	"	5631	5645	2	1.8-2		DkBrgr H F-M Un-E Boreers & Carb. mat. One 0.2' layer D Fine to med. fr. wh-gry sd., & irregular stks & patches fine gry sd. Core in pcs. not over 4" thick. Unevenly banded. Dip 10°.
12-9	Hughes	"	5756	5765	5	2		DkBrgr VH F/C G Fish scales Carbonaceous matter, D sd. grs scattered. Massive White H-VH Cse-Cong. 1/2" pebbles up to 1/2" dia.; some schistose.
12-17	Dean	"	6087	6108	7	2		Same as 1st 2'. Dip 10°
						6.5-5	S	Dk Gry VH F-M Good Sandy siltstone &/or shale, with D patches & layers of fine hd. sd. & 1-6" layer SS. Many slickensided fractures. Dips 20° to 35°. Is this dip pseudo-structural due to contortion between rigid SS layers as in exposed section bet. here & Pico Canyon? 3" of hd, light oil sd. at top. Good amber cut. Considerable gas in bbl.; good flash. Ft. cut in shale.
12/18	Elliot	"	6108	6115	4	2		Dk Gry VH F-M Un-E Sdy siltstone &/or silty sandstn, D with patches & layers of hd fine sd. Dip 30° to 40°. Numerous slickensided fractures.
						2		Dk Gry VH Massive sdy siltstone &/or silty SS/2 shear planes.
12-9	Hughes	"	6115	6131	135	105		Dk. Gry VH F-M P Sdy siltstone, &/or silty sandstone, with irregular patches D & seams of hd fine sd, some as replacements of boreers' casts. several Grooved, striated shear planes evidencing both horizontal & vertical movement.

3

Same except banded with layers of sand mostly fine fr.
 1/16" to 1" thick. Bottom 4" contains forams, small crushed
 bi-valves, & small sharks teeth. Dips 25°

R.W.S. 2/4/37

Core Number 5128 From 7 1/2' x 5 1/2' x 5 1/2' OS 05 05 05
 1936

Description

12-20 Hughes 10 5/8 6131 6140 8 8 DKGRBR VH Silty G Forams (Sh. or siltstone)
 Apparent dip 30° but may be pseudo. Fine lensy layers 1/8" to 1/4" of fine white, contd. sd. Several slickensided shear planes end/or bedding planes Gas & lgt. oil thruout. F&D

12-21 Hughes " 6171 6186 11 11 Gry F-VH F-Crse F Good amber cuts. Apparent dip 5° to 10°. Apparent porosity good. Oil content largely evaporated in less hd. portions by 12/25/36.

12-22 Hughes Rock " 6186 6201 7 .2 Gry VF F-M G Scattered fine pebblets. S(1oose)F-VF F
 .5 " " VF " " " All good amber cuts, & gaso-kero aroma. Few striated shear planes, some of which cupped.
 1. " " VH " " " 1-4" layer VH & fine
 1. " " F " " " All good odor & good
 3. " " VH M-VFpeb F amber cuts. Apparent
 4. Gry F-M F-VFpeb G dip 10°. Core in biscuits 5/8" to 1" with evaporation of oil content in 6 hrs.

12-23 Hughes " 6205 6215 7 78 .5 Gry F H-VH Fine E Grooved shear plane @ 50° dip
 1. " " H-VH Fine E Striations on same 5°
 2. " " H-VH Fine E
 3.5 " " Pri-VFF-Fpeb G All of core impregnated with light oil, with free lgt-br oil on some of surfaces. Strong gaso line odor. Much gas in bbl. Burned with strong flame. VH strks would normally be called ss shells; oil impreg. suggests high pressure Core was consid. washed in removing fr. bbl. Good amber outs. Apparent dip 5° to 10°
 R.W.S.
 12/23/36

12-22 Elliott Soft " 6201 6205 4 4. Gry F-M F-VFpeb G

12-23 Hughes " 6205 6215 7 78 .5 Gry F H-VH Fine E Grooved shear plane @ 50° dip
 1. " " H-VH Fine E Striations on same 5°
 2. " " H-VH Fine E
 3.5 " " Pri-VFF-Fpeb G All of core impregnated with light oil, with free lgt-br oil on some of surfaces. Strong gaso line odor. Much gas in bbl. Burned with strong flame. VH strks would normally be called ss shells; oil impreg. suggests high pressure Core was consid. washed in removing fr. bbl. Good amber outs. Apparent dip 5° to 10°
 R.W.S.
 12/23/36

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 R.W.S.
 12/23/36

Core Report

Page 9

1937

Core No. 1120 from No. 76. 4 3/4 in dia. 58.50 color

Description

No.	Name	Depth	Grain	Color	Notes
2-3	Hughes Rock	7-5/8 6213 6223 2	6	F-Gr F-H M-VC F	Describe pebbles as in 6228-38 F Cleavage & arrangement of mica flakes indicate gentle dip Not tested for gas. Strong gaso. odor. Dk amber cuts, turn Dk brn on stdg. 3 Hrs. to core.
2-4	Hughes Rock	6228 6238 10	10	F-Gr F M-C F	Many igneous pebbles up to 1/4" dia. F including white quartz & many black ones. Good flash; strong gasoline odor, dk. amber cuts. Turning to dk-brn on stdg. Definite dip at bottom 10". 1 1/2 hrs. to core. 1" F
2	Hughes Rock	6238 6248 4	1 1 2	F-Gr M-Fri-VF F VF F-M F F-H M-Crse Granular F	1/2" of this portion breaks into 1/4" layers.
2-4	Hughes Rock	6248 6258 5	.5	F-Gr F-VH M-C	Good flash. Gasc odor. Good amber cut. Free lt br oil 2 hrs. to core. Cleavage indicates gentle dip. F
2/5	Hughes Rock	6258 6266 2.	2.	T-Gr F-VH N	Pieces of oil sand fractured & slicken-sided. Good amber cut. Large pc of rubber cementing plug lodged in bbl. No gas
2/5	Elliot Drag	6266 6276 9.	9.	T-Gr S&Fri VF-M F but P	fine sd mixed with med. small inc-F fusion of dk. br. shale @ 6267. Many thin slicken-sided shear planelets, with free oil. Dip 10° Good dk amber cuts, turning dk br upon standing. Gas thruout. 2 hrs. to core.

R.W.S.

From Dr. Dr. W SN 516 SA OS C10P

100310101

1537

2-25 Killott 5/8 6276 6208 1.5

1.5 I-Gz 321P1 W-VF P-P

DK amber to br cuts, good odor. Free oil.

0.1 ft of hd calc ss shell at bottom.

DK amber-br cut. Good odor. Gas light. Free oil in bedding surfaces.

Turner bbl found cut apart at base.

2/26 Killott # 6200 6299 1.

1. I-Gr F-P1 P-M G-P

DK amber brn cuts, good P. odor, gas, free oil. Several sh. shear planelets. Apparent dip less than 10°.

2/27 Killott # 6296 6208 0

I-Gr F-P1 P-M P-P

2/27 Killott # 6309 6318 1

I-Gr F-P1 P-M P-P

2-27 Killott # 6318 6328 0

I-Gr F-P1-VF G

3-2 Killott 7/8 6338 6338 4

I-Gr F-P1-VF G

3/2 Killott # 6338 6346 6

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

3-3 Smith 5/8 6343 6350 1

I-Gr F-P1-VF G

DK amber brn cuts, good P. odor, gas, free oil. Several sh. shear planelets. Apparent dip less than 10°.

R.W.S.

Date	Core Barrel	From To Ft.	Sh. Silt. Sd. Co. Color	Description
1927	Make 518			
3-3	Hughes B-5/8	6350 63561.8		
	Rock			
			1.8	T-Gr F F-M-C F-M-C P Cong. SS shell very calc.
			SS	
3-4	Elliott 7/8	6356 6363 1	.1	F-BP H F-M-C P Dk Br. Cut
	Drag		.2	Gr VH F Calc. sandstone shell
			.8	F-Gr S-F F-VF F Dk amber cut. Condition of core poor. Sd. probably washed. Carb. mat. Banded with numerous seams carb. mat., mica, dk br shale; later varies fr. paper thin to 1/2" th. Dips 50 to 100.
3-5	Elliott "	6363 6371 5.	4.	T-Gr F VF-F- M P Free oil, much gas; core burned thruout entire length. Dk amber to dk br cuts.
	Drag		.9	T-Gr F-M-F-M-C to Granular P
3-6	Elliott "	6371 6376 3	.1	Gr H F-M-C P Fine conglomerate. Very calc. Me-out. Calc. SS shell
	Drag		.4	T-It. Br H Pebbly P
			.3	" F-Pr1 M-C P Banded with mica & carb. matter
			.5	" F F-VF F Pebbles up to 1/2" dia. rounded to sub-angular, mainly qtz & blk chert. With blk-br shale inclusions.
			1.	" S-Pr1 F-M-C P Dk br cuts thruout.
			.8	" Loose & Pr1 W-Pr1 F-M-C P
3-6	Elliott "	6376 6384 4	.5	T-Gr S F-M-C P F.W.S.
	Drag		.5	" F Granular P
			.5	" H VF G Dk br cuts. Good flasin
			1.5	" H P G Dk br cuts with imbedded rd'd small pebbles, mostly blk. chert.
			1.8	" F-Pr1 M-C P Dk br cuts with imbedded rd'd small pebbles, mostly blk. chert.
			.3	Gr VH Calc SS Dk br cuts with imbedded rd'd small pebbles, mostly blk. chert.

Date Name Size From To Ft. % Sh Sit Sd of Color

Page 12.

Description

1937

Date	Name	Size	From	To	Ft.	% Sh	Sit	Sd	of Color	Description
3-6	Elliot	7 5/8	6384	6391	2	.1				Dk Br H Loose F-VC P Granite Cong. sd. pebbles angular - F ar & sharp & up to 1/2" dia.
	Drag					.8				Dk Br H Silty with 0.1 stky blk. at bottom. Cong. sd. pebbles sub-angular & rounded & up to 1/2" dia. This pt. of core coated with blk-stky shale. Amber to Dk br cuts in oil sd. Free oil
3-7	Elliot	"	6398	6403	2.	.1				Dk Br H Siltstone With 0.1' sh. inc. at bot. F
	Drag					.2				Dk Br H Siltstone Granules qtz & blk chert mainly. Dk br cuts thruout sd Much free oil. F
3-8	"	"	6403	6404	.2	.2				Wh-Gr VH F-M-C P Calc. SS Shell F
	Hughes	"	6404	6412	3.	1				Wh-Gr VH F-M F Calc. SS Shell F
	Rock					1				Dk.Br. H Siltstone Forams? F
						2				Wh-Gr VH F-M Calc. SS Shell F
						2				1.7 T-Br F-H F-M-C G-P to pebb- bly F

Core mixed up in removing fr. bbl. so exact position of members not known. Drilled like alternating 6" layers sd & sh. Some of oil sand dk. br; darker than any yet recovered. Good dips, 10°.

R.W.S.

LOS ANGELES
OIL RECORD

Date: 11/12 1937 Page 13.

PROPERTY: HARSHBILT OIL COMPANY

W.S.S. 21

1937

DEPOSIT NO. 1140

Well	Depth	Interval	Thickness	Notes
3-9 HUGHES DREG	7 1/2 6419 6421 3.5	1	0.2	DR DR II Siltstone
		5	0.7	Alternating shls dr br siltstone & limy br fine well sorted 1. R-WR R-VI P & G & P pendol blk hornblende shls (0.5. DR BR cuts. Good dips 5° to 10°.
3-9 HILLIOTT DREG	6421 6428 4.5	2	0.3	Alternating layers dr br siltstone & tan, limy, fine, well sorted 0.5.
		3	1.5	DR BR VII P-M P-DK br cut
		5	0.5	R-OR loose P-M-C P Pebbles rounded, heavy chert. pebbly DR amber cut.
3-9 HILLIOTT DREG	6428 6438 6	6	1.5	Med & shale cuttings mixed with 2-graf, fine soft 0.5.
		5	1.5	R-OR P-VI G Some carb. mat; 1-2" dr br sh. shlf P/1" sh. inclusion at bottom.
		2	0.2	BLK DR VP MASSIVE G Inc. 0.2' pebbly & 0.1' calc. SS shel Several high angle to vertical shear planes. Dip 10° DR br cuts abundant. Free oil.
3-9 HUGHES ROCK	6439 6449 8	4	1.7	P-OR P-N-C P-M G LI sc/1 0.5' layer calc. ss shell D granular (1 small pc sh) DR br cuts
		2	0.1	P-OR G P-M VP G Ashy? 2.0. 1.5 shls calc. ss shell D DR br cuts
3-9 HILLIOTT DREG	6449 6455 2	2	0.2	BLK-DR II Shy Siltstone

M.W.S.

Core Parcel	Date	Make	Size	Depth	To	FF.	Sht	Site	SA	OS	Color	Description
-------------	------	------	------	-------	----	-----	-----	------	----	----	-------	-------------

3-11 Elliott DRAG	"	6465	6472	7	.3	.8	.3	F-Gp Blk-Br	H	F-H	F-M-O Massive P	Porems	D						
														.8	1	F-Gp	H	F-H	F-M-O F-P
															.3	Blk-Br	H	F-H	Siltstone/few sdy str & forams.
																.3	F-Gp	H	F-H
.9	.2	Blk-Br	H	F-H	Excellent 70 dips. Dk br cuts. One slickensided fracture or shear plane.														
						Siltstone/irregular patches firm O.S.													
3-11 Elliott DRAG	"	6465	6472	7	.3	.8	.5	F-Gp Blk-Br	H	F-H	Siltstone VP	Forems	D						
														.8	DK Br	H	F-H	Sdy siltstone/carb. mat. & many white specks	
																			3.5
															1.6	Blk-Br	H	F-H	Massive G
.3	F-Gp	S	VP																

Much of oil sd. mixed with mud. White coating on top of mud.astes salty; prob N.OI. Cuts lt. amber to dk. brown.

Cores fr. 6439 to 6472 described by R.W.S. 5/24/37.

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Test of Water Shut-off

No. T-31635

Los Angeles, Calif. February 17, 1937

Mr. James G. Gilbert,
Los Angeles, Calif.

Agent for BARNSDALL OIL COMPANY

DEAR SIR:

"RANCHO SAN FRANCISCO"

Your well No. 1, Sec. 26, T. 4N., R. 17W., S. E. B. & M.,

Newhall Field, in Los Angeles County, was tested for

shut-off of water on January 29, 1937. Mr. H. E. Murray-Aaron,

designated by the supervisor, was present as prescribed in Section 19, Chapter 718, Statutes 1915, as amended, and there

were also present J. G. Gilbert, Agent,

and L. E. Fosler, Drilling Foreman.

Location of water tested above 6160' and normal fluid level not reported

Depth and manner of water shut-off: 6160 ft. of 8-5/8 in. 36 lb. casing was cemented in shale formation

at 6160 ft. with 300 sacks Monolith oilwell cement by casing method.

Water string was landed in 12 1/2" rotary hole.

Casing record of well 18-5/8" cen. 190'; 8-5/8" as above.

Reported total depth of hole 6215 ft. Hole bridged from 6168 ft. to 6163 ft. Hole cleaned out to 6163 ft. for this test.

At time of test depth of hole measured --- ft. and bailer brought up sample of see below

At see below oil bailed to --- ft., drilling fluid bailed to --- ft.

At " top of oil found at --- ft., top of fluid found at --- ft.

MR. GILBERT REPORTED THE FOLLOWING:

1. A 12 1/2" rotary hole was drilled from 190'-6215'.
2. The top of the first oil sand was located at 6168'.
3. No casing test was made.
4. 42' of set cement was drilled out of the 8-5/8" casing (equivalent to 12 sacks.)
5. The Johnston tester was run into the hole on 4 1/2" drill pipe, containing 1000' of mud fluid, as a cushion.
6. The wall packer was set at 6141'.

THE INSPECTOR NOTED THE FOLLOWING:

1. The tester valve was opened at 9:30 a. m., and remained open for 30 minutes. During this interval there was a moderate, steady blow of air for the first 5 minutes; a slight, steady blow of air for the next 7 minutes; and weak, intermittent puffs of air for the remainder of the test.

(CONTINUED ON PAGE 2.)

R. D. BUSH
State Oil and Gas Supervisor

By _____ Deputy

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

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

No. T. 1-31635

Page 2

BARNSDALL OIL COMPANY

Well No. "RANCHO SAN FRANCISCO" 1, Sec. 26, T. 4N., R. 17W. S. B. B. & M.,

2. The fluid between the drill pipe and the 8-5/8" casing remained stationary during the time that the valve was open.
3. When the drill pipe was removed 22' of medium mud fluid, equivalent to 0.3 bbl., was found in the drill pipe, in addition to the 1000' of fluid, used as a cushion.
4. Water filtered from fluid taken from bottom tested 56 grains of salt per gallon.

The test was completed at 2:00 p. m.

THE SHUT-OFF IS APPROVED.

cc- Company
ERMA:G

Handwritten initials

R. D. BUSH

State Oil and Gas Supervisor

By *Handwritten signature* Deputy

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

Report on Proposed Operations

No. P 1-30291

Los Angeles, Calif. January 15 1937

Mr. James C. Gilbert,

Los Angeles, Calif.

Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Your supplementary proposal to drill Well No. "RANCHO SAN FRANCISCO" 1
Section 26, T. 4N., R. 17W. S. 2. B. & M., Newhall Field, Los Angeles County,
(Correction letter 2-10-37)
dated Jan. 14, 1937, received Jan. 15 1937, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES:

"The new conditions are as follows:
18-5/8" 84.5# casing cemented at 190'
Depth 6215'
Oil Sand 6168-6215"

PROPOSAL:

"We now propose
Cement 8-5/8" 36# casing at 6160' leaving a cement plug or bridge from 6168-6160'.
Drill out to 6163'
Test water shut-off."

DECISION:

THE PROPOSAL IS APPROVED PROVIDED THAT this division shall be notified to witness a
test of the effectiveness of the 8-5/8" shut-off.

cc- Company
RPP:G

R. D. BUSH

State Oil and Gas Supervisor

By

Deputy

CALIFORNIA STATE MINING BUREAU
DEPARTMENT OF PETROLEUM AND GAS

DIVISION OF OIL AND GAS
RECEIVED
JAN 15 1937
LOS ANGELES, CALIFORNIA

SUPPLEMENTARY NOTICE

Los Angeles Cal. January 14 1937

Mr. E. Huguenin

Deputy State Oil and Gas Supervisor

Los Angeles, Cal.

DEAR SIR:

Please be advised that our notice to you dated August 12, 1936

stating our intention to drill well number Rancho San Francisco No. 1
(Drill, deepen, redrill, abandon)

Sec. 26, T. 4 N., R. 17 W., SB B. & M. Newhall Oil Field,
(Correction letter 2-10-37) xxx

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

The new conditions are as follows:

18-5/8" 84.5# casing cemented at 190'
Depth 6215'
Oil Sand 6168-6215

We now propose

Cement 8-5/8" 36# casing at 6160' leaving a cement plug or
bridge from 6168-6160'.
Drill out to 6163'.
Test water shut-off

Respectfully yours,

BARNSDALL OIL COMPANY

(Name of Company)

By: J. C. Liebert
Agent

Agent

STATE OF CALIFORNIA
DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

Report on Proposed Operations

No. P. 1-29788

Los Angeles, Cal. August 12, 1936.

Mr. James C. Gilbert,

Los Angeles, Cal.

Agent for BARNSDALL OIL COMPANY

DEAR SIR:

Your proposal to drill Well No. 1
Section 26, T. 4 N., R. 17 W., S. E. B. & M., Newhall Oil Field, Los Angeles County,
dated Aug. 8, 1936, received Aug. 11, 1936, has been examined in conjunction with records filed in this office.

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

THE NOTICE STATES: 5214.18' S. and 6168.80' E. from Corner "J" (Correction letter 3-3-42)

~~"The well is 1000 feet N. and 500 feet E. from S.W. Cor. Sec. 26, 4 N. R 17 W.~~

The elevation of the derrick floor above sea level is 1100 feet. 1148.31

We estimate that the first productive oil or gas sand should be encountered at a depth of about ----- feet, more or less."

PROPOSAL:

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

Size of Casing	Weight	New or Second Hand	Depth	Landed or Cemented
18-5/8"	84.5	New	200'	Cemented

Additional casing will depend upon formations encountered.

Well is to be drilled with rotary tools.

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

DECISION:

This division has not sufficient data available upon which to base an estimate of the depth at which oil or gas-bearing formations should be encountered in this vicinity, or the depth at which a water shut-off should be effected.

THE PROPOSED DRILLING PROGRAM IS APPROVED, HOWEVER, PROVIDED THAT:

1. (a) Mud fluid of not less than 70 lb. per cubic foot shall be used in the drilling of the well and the column of mud fluid shall be maintained at all times to the surface, particularly while pulling the drill pipe.
(b) Adequate blow-out prevention equipment shall be provided and ready for operation at all times.
2. *The 18-5/8" surface casing shall be cemented in a substantial shale body at or below 500'.
3. Any hole to be sidetracked at any time during the drilling of this well shall be completely filled with cement.
4. **THIS DIVISION MUST BE NOTIFIED AS FOLLOWS:**
 - (a) Before landing or cementing any casing. Other requirements may be outlined at that time.
 - (b) To witness the cementing of the 18-5/8" surface casing.
 - (c) To witness a test of the effectiveness of each possible water shut-off.

cc-Company
RDP:OH

* Requirement waived by C.H. letter Aug 18 '36. to Co. A.B.

R. D. BUSH

State Oil and Gas Supervisor

By E. J. [Signature] Deputy

STATE OF CALIFORNIA
 DEPARTMENT OF NATURAL RESOURCES

DIVISION OF OIL AND GAS

DIVISION OF OIL AND GAS
 RECEIVED
 AUG 11 1936
 LOS ANGELES, CALIFORNIA

037-12620

Notice of Intention to Drill New Well
 This notice must be given before drilling begins

13

Los Angeles, Cal. August 8, 1936

Mr. E. Huguenin

Deputy State Oil and Gas Supervisor

Los Angeles, Cal.

DEAR SIR:

In compliance with Section 17, Chapter 718, Statutes of 1915, as amended, notice is hereby given that it is our intention to commence the work of drilling well No. Rancho San Francisco #1, Sec. 26, T. 4N, R. 17W, S.B. B. & M. Newhall Oil Field Los Angeles County.

Lease consists of Sections 26, 27, 28, 33, 34, 35, & W. 1/2 of sec. 36 in Rancho San Francisco 5214.18' S. and 6168.80' E. from Corner "J" (Correction letter 2-10-37) (Correction letter 3-3-42)

The well is 1000 feet N. or S., and 500 feet E. or W. from S.W. Cor. Sec. 26, 4 N. R. 17 W.
(Give location in distance from section corners or other corners of legal subdivision)

The elevation of the derrick floor above sea level is 11001148.81 feet. (Correction letter 9-8-38. See letter from company, filed with "O'Dea" 2, Rosecrans

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

Size of Casing, Inches	Weight, Lb. Per Foot	New or Second Hand	Depth	Landed or Cemented
18-5/8"	84.5	New	200'	Cemented
Additional casing will depend upon formations encountered.				

Well is to be drilled with ~~rotary~~ ^{cable} tools.

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

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

Respectfully yours

Address Petroleum Securities Bldg.

BARNSDALL OIL COMPANY

(Name of Company or Operator)

Telephone number Richmond 5171

James C. Liebert
 Agent

ADDRESS NOTICE TO DEPUTY STATE OIL AND GAS SUPERVISOR IN CHARGE OF DISTRICT WHERE WELL IS LOCATED

18
 Btw off

Br. 8/11/36 Btw.