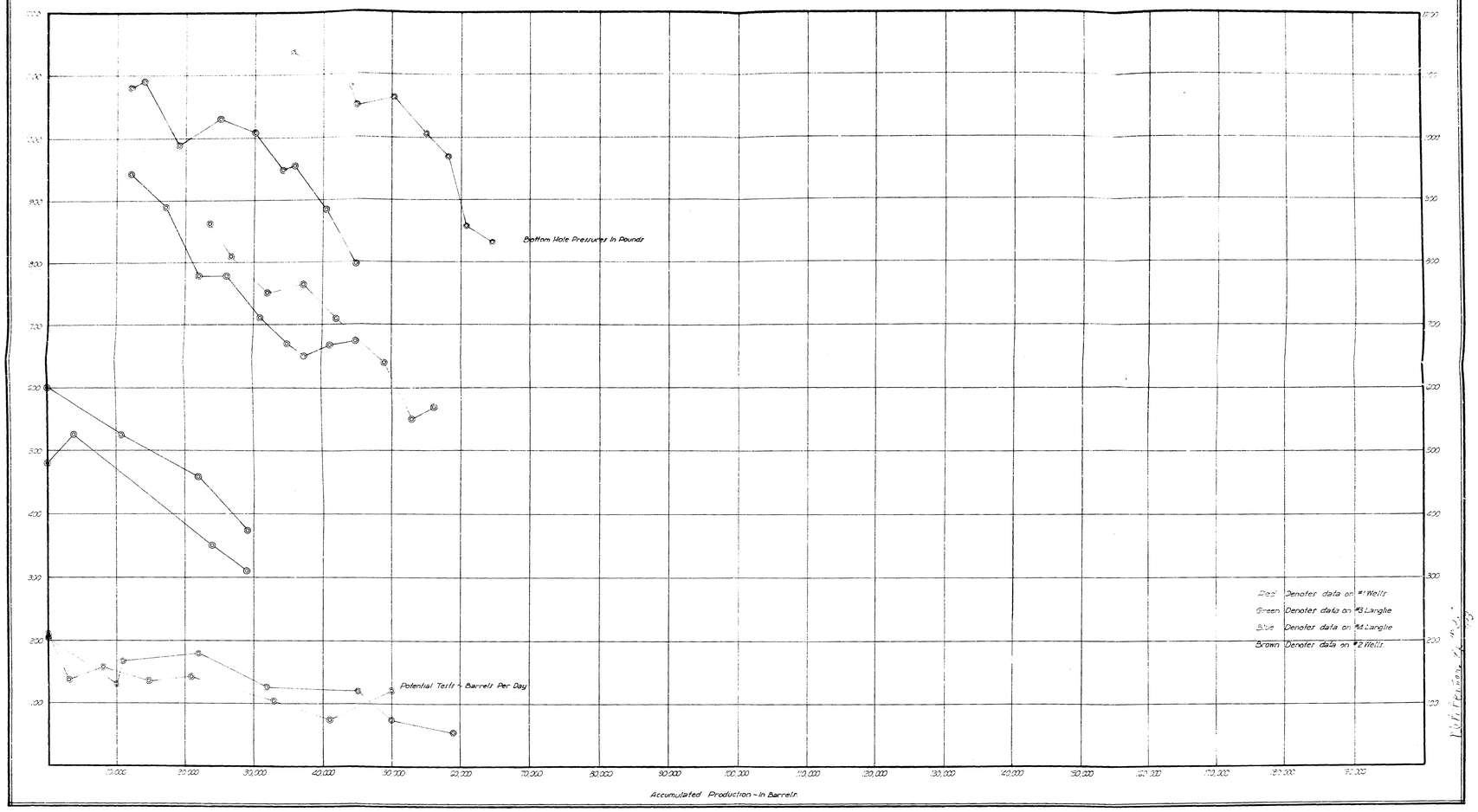
CASE No.

22

Large Exhibits

OCD

PRODUCTION AND PRESSURE DECLINE OF TYPE WELLS IN THE LANGLIE FIELD



37E

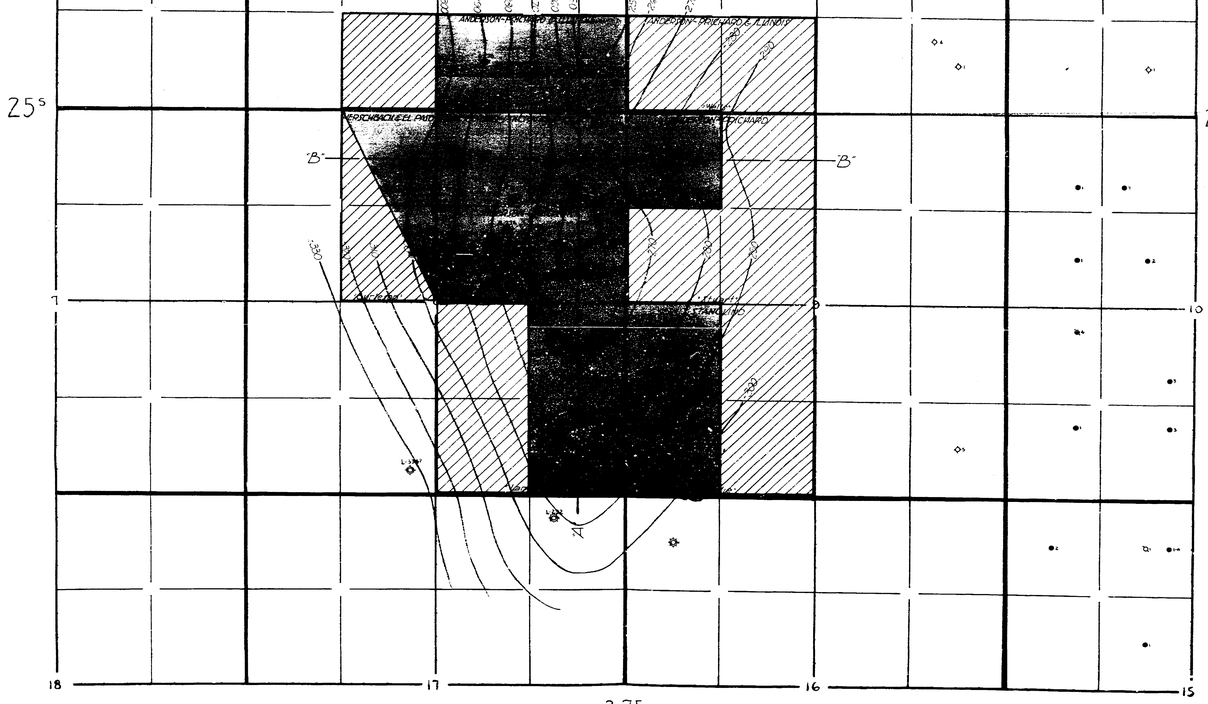
31 32 33 34

6 5 4 3

25S

7 8 9 10

18 17 16 15

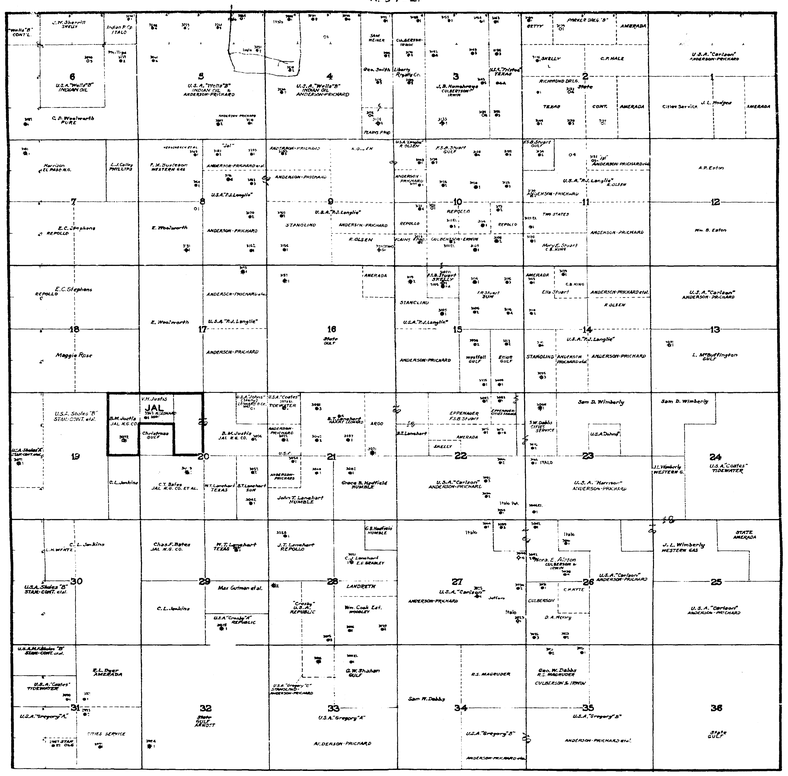


37E

JAL REPRESSURING PROJECT
LEA COUNTY, NEW MEXICO

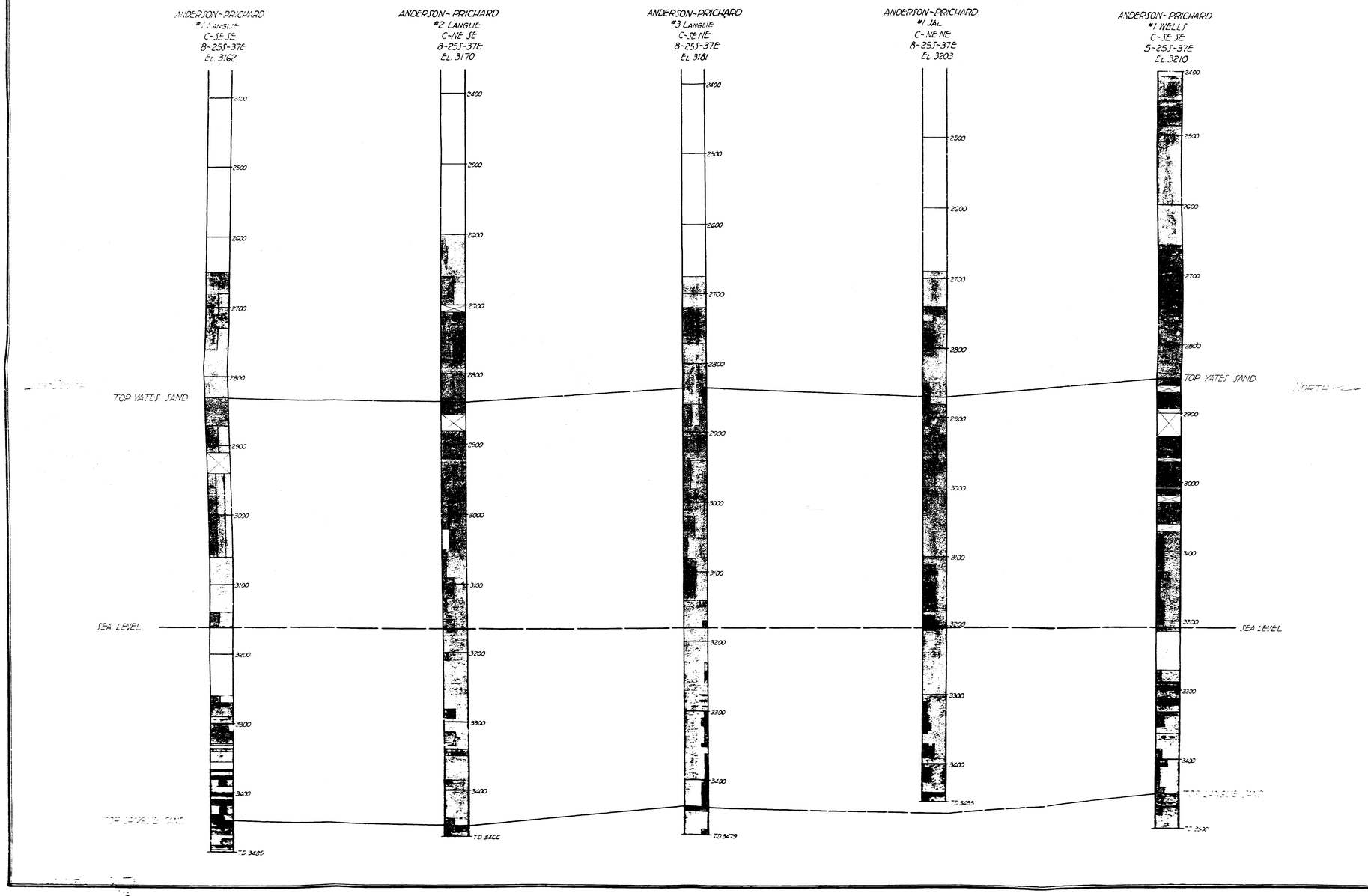
TWP 25S - RGE 37E

R-37-E.

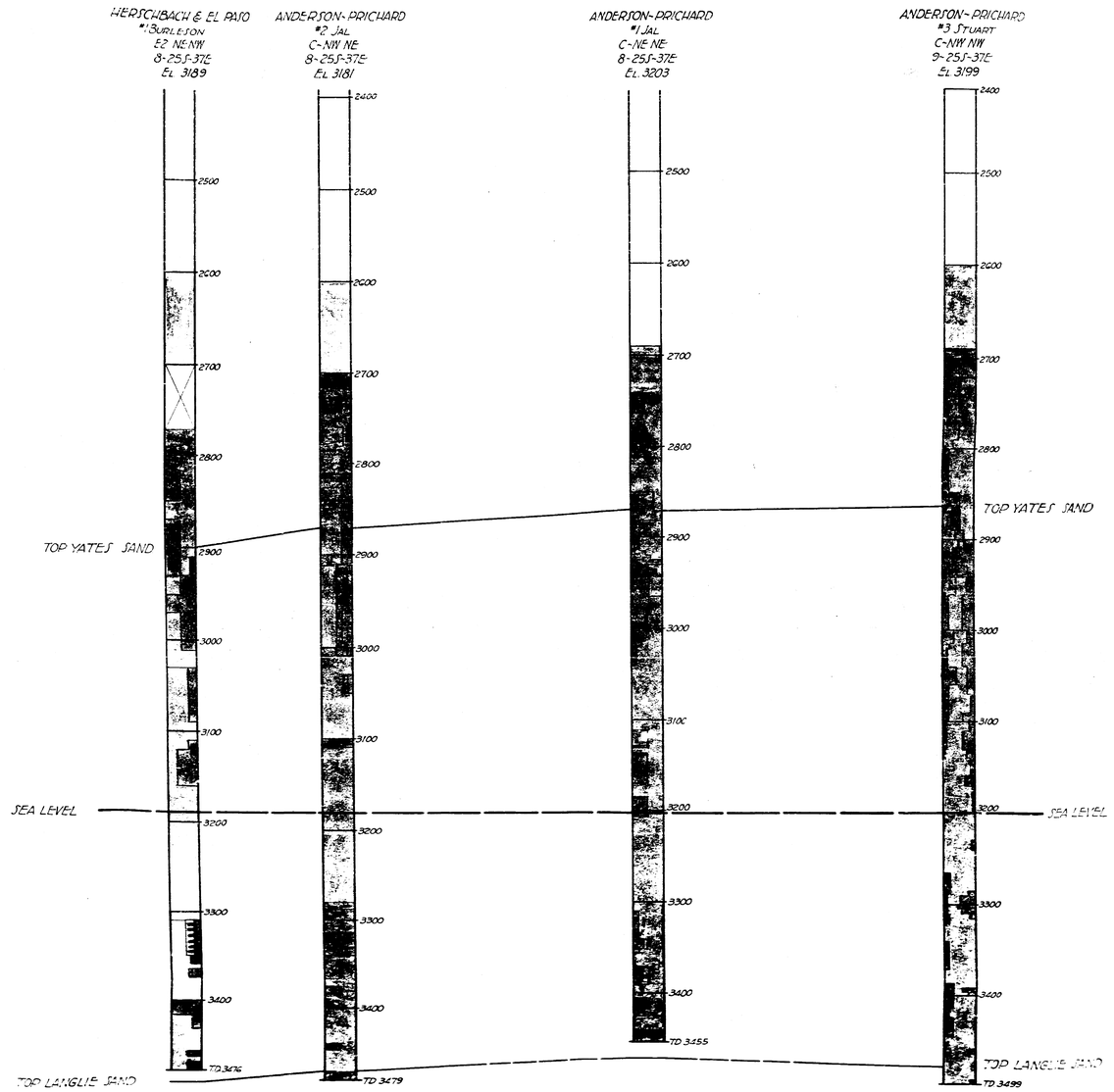


T.
25
S.

CROSS SECTION A~A



CROSS SECTION B~B



ANDERSON - PRICHARD OIL CORP.

LANGLIE #1

WELL INFORMATION

Casing Record	10" - 708' - none 8-5/8" OD - 1800' - 66 sacks 5½" OD - 3194' - 300 sacks
Special Equipment	None
Tubing Record	2" at 3466'

GEOLOGICAL INFORMATION

Elevation	3162 DF 3158 Gd
Top Anhydrite	1340
Base Salt	2640
Top Brown Lime	2680
Top Yates Sand	2830
Gas Shows	2700-90, 2865-75, 2898-2920, 3409-30, 3135-39, 3197-3212.
Total Depth	3485 PB 3469
Oil Zones	3332-39 3440-51
Drilling Time	None - Cable Tools
Special Tests	attached

GENERAL INFORMATION

Royalty Division	Attached
Accumulated Production to January 1, 1940	91,642
Initial Production	60 BO/24 hrs. natural, shot 30 qts. 3400-3450 no change in either gas or oil.

Petitioners Ex #4
4/8

WELL HISTORY

Langlie #1

This well was spudded in 1-21-35 with cable tools and drilled to 2875' at which point a sudden flow of gas blew the tools up to 2869' where they stuck. While fishing for them a blind box ~~lower half of a~~ AND THE LOWER HALF OF A set of drilling jars was lost on top of them and could not be fished out so a whipstock was set at 2447'. The tools went back into the old hole after drilling past the whipstock so another whipstock and 60' of 6" drill pipe was cemented in the hole-top of whipstock was 2350'. A Rotary was then moved in which successfully drilled past the cable tools to a depth of 3194' where 5½" OD casing was cemented. Cable tools were used from that depth to 3485' the total depth.

An estimated 2,000 MCF gas was encountered at 3212' which quickly blew down to an estimated 250 MCF. A slight show of oil was encountered at 3332' and another show of gas from 3409-12'. After drilling sand from 3440' -51 the well sprayed 2.9 BOPH. It was then drilled on down to 3485' and encountered salt water at 3483 (-321) so was plugged back to 3470' with lead wool and from 3470' to 3468' with solid lead plug with iron mandrel which successfully shut off the water. The well was shot 8-25-35 with 1 quart of SNG per foot from 3400' to 3420' and from 3440' to 3450' which did not change the production of either oil or gas.

No further work was done on the well until August 1939 at which time it was cleaned out to bottom.

LANGLIE #1

WELL EQUIPMENT

3199'		5½" OD 17# Youngstown 8-8 Gd C Blk Smls Casing
1214'		8 5/8" OD 32# Blk BW (SM) Casing
700'		10¾" OD 40# Blk BW (SM) Casing
	1 set	8 5/8"-1" x 8" x 45" Anchor Clamps
	1 set	10¾" OD-1½" x 8" x 45" Anchor Clamps
	1	4½" 2000# Type 1079 Duregauge Pressure Gauge
	1	5½" OD 3000# test OCT Type T-16-C Stripper Tubing Head for 2 3/8" OD Tubing
	1	8 5/8" OD x 5½" OD Rector Type HP Braden Head with Std Gland
	1	10¾" x 8 5/8" OD ditto
	1	10¾" OD x 10'10" Std Blk LW Casing Nipple
	1	2 3/8" OD x 4' 4.7# EUE 10 thd API Gd C Blk Smld Tub Nipple
	2	2 3/8" OD x 6' Ditto
	1	2 3/8" OD x 10' Ditto
3462'		2 3/8" OD 4.7# EUE 10 thd API Blk Smls Tubing
	3	2" 3000# test Westcott AS NRS SE Gate Valve
	1	2" 3000# test McClatchie Hydro Seal Plug Valve
	1	5" 3000# test Westcott AS SE NRS Gate Valve
	1	3" 3000# test W&K Gate Valve

Royalty Interest

Langlie #1, #2, #3, #4.

Commissioner General Land Office Roswell, New Mexico	5% of8/8 Government Royalty
P. J. Langlie 10 South 1st. St., Alhambra, California	½% of8/8 Permittee Royalty of Pipe Line Runs
W. H. Klages 1411 So. Catalina Ave. Los Angles, California	½% of 8/8 Premittee Royalty of Pipe Line Runs
F. A. Andrews 233 S. Van Ness Ave. Los Angeles, California	4-15/18% of 8/8 Permittee Royalty of Pipe Line Runs
Marshall & Winston, Inc. 480 L. W. Hellman Bldg., Los Angeles, California	½% of 8/8 Permittee Royalty of Pipe Line Runs
Oil Royalties Corporation 422 I. N. Van Nuys Bldg., Los Angeles, California	½% of 8/8 Permittee Royalty of Pipe Line Runs
L. W. Gregory C/o Washington & Western Branch of Bank of America 2201 West Washington, Los Angeles, California	4/9% of 8/8 Permittee Royalty of Pipe Line Runs
L. W. Gregory SUSPENSE	2/9% of 8/8 Permittee Royalty of Pipe Lines Runs
A. H. Barnes First National Bank Bldg. Denver, Colorado	1/64 of 8/8 Overriding Royalty of Pipe Line Runs
First National Bank Of Chicago Chicago, Illinois	85.9375% of Working Interest

ANDERSON - PRICHARD OIL CORP.

LANGLIE #2

WELL INFORMATION

Casing Record	13" OD - 248 - 250 sacks 9-5/8" OD - 2707' - 500 sacks. 7" OD - 3250' - 200 sacks
Special Equipment	7" OD x 2-7/8" OD Guiberson Type C Control Head Hook Wall Packer set at 3180'.
Tubing Record	2½" at 3420'.

GEOLOGICAL INFORMATION

Elevation	3179 DF 3160 Gd
Top Anhydrite	1102
Base Salt	2660
Top Brown Lime	2710
Top Yates Sand	2835
Gas Shows	2830 3000
Total Depth	3466
Oil Zones	3440-3455
Drilling Time	Attached
Special Tests	Attached

GENERAL INFORMATION

Royalty Division	Attached to Langlie #1 Well Record
Accumulated Production to January 1, 1940.	46,343
Initial Production	162 BOPD natural, shot 80 qts. 3436-3466 then flowed 15 BOPH.

WELL HISTORY, LANGLIE #2

The well was spudded 7/14/37 and drilled with rotary to total depth. Shows of gas were encountered at 2830 and 3000'. After cementing 7" casing at 3250, the well was drilled to 3371 using oil for circulating fluid, and blown dry with gas, and showed no gas or oil.* at 3417 the well showed a small amount of gas; and after unloading at 3428 it flowed 54 barrels oil in 6 hr. thru 7" casing with 3½" OD drill pipe in hole, so tubing was run to 3460 and the well was completed.

After running tubing and completing the well, gas started leaking thru the 13" Braden head, and an investigation showed pressure between the 9-5/8" and 7" casing. To repair this condition a Baker cement retainer was set in the 7" casing at 3140, and circulation was established between the 7" and 9-5/8" casings by gun perforating 10 holes in the 7" at 2800 to 2807. Mud was circulated between the two strings and 60 sax cement pumped in thru perforations. This was allowed to set 72 hrs., and when the cement was drilled out, the 7" casing was blown dry. After setting for about 1 hour the cement around the perforations suddenly gave way, and an estimated 20 million feet gas came thru the perforations. A squeeze cement job was then started, but before pumping in any cement it decided to determine what pressure would be required to pump fluid into the formation. Pressure was built up to 1000" at which point the cement retainer gave way. Tubing was lowered to test to see if the retainer was still in place. The tubing was first lowered to 3170 which showed that the retainer had gone down the hole. When picked up, it stopped at the point where the retainer had been set, pulled loose, and then when lowered again would not go past the spot where the retainer had been set. It was then thought that the retainer had reset itself, so to protect it 10 sax of cement were spotted on top of it. After setting 48 hrs, tubing was lowered to find the top of the cement plug, but went down to the point at which the retainer had been set. It was then found that by turning the tubing it would go down, and was finally worked down to a point below the 7" casing shoe, no cement being found. Another retainer was then set at 3170', and 10 sax of cement was spotted on top of it. This plug was allowed to set 60 hrs. Mud was then circulated out with clear water, and the [illegible] permitted to [illegible] for 6 hrs. The gas was then killed with clear water and the water circulated out with mud. Another retainer was then run in the hole to 2780, the mud circulated out with clear water and the gas allowed to partially unload the hole. When gas showed up on the surface, the retainer was set at 2780, and clear water pumped into the formation thru the perforations. The formation started taking water at 1600' pressure, but after 5 or 6 barrels had been pumped in, dropped to 800'. After pumping in about fifteen barrels of water the cement (54 sax) was pumped in. 1000' pressure was required to pump the cement into the formation. The cement was allowed to set 80 hrs and then the retainer was drilled out, the plug was found at 1780 to 2800', which showed definitely that the formation [illegible] of the perforations had taken cement. After drilling out the [illegible] cement the hole was blown dry and allowed to set [illegible] hrs. This test showed the gas from the perforations completely sealed off. The cement retainer [illegible] perforations was then drilled out and the hole cleaned out to bottom.

* SIMILAR TESTS @ 3354 & 3375

Page 2

Well History

Langlie #2

The well was [illegible] shot with [illegible] quarts of [illegible] from 3436' to 3466'. After cleaning out to bottom tubing was run to 3420' with [illegible] well packer set at 318[illegible]'. The well was completed 9-27-37 flowing 113 BO the 1st 12 hours of a 48 hour test with Gas/Oil ratio of 1920.

Drilling Time In Minutes

Langlie #2

1239	1240	40	1800	1810	30	2370	2380	70
	50	30		20	40		90	50
	60	25		30	30		2400	25
	70	25		40	30	2400	10	20
	80	20		50	30		20	20
	90	23		60	32		30	20
	1300	15		70	50		40	35
1300	10	27		80	45		50	20
	20	26		90	40		60	25
	30	30		1900	50		70	30
	40	20	1900	10	15		80	29
	50	27		20	20		90	55
	60	11		30	12		2500	95
	70	15		40	8	2500	10	62
	80	18		50	5		20	35
	90	13		60	9		30	60
	1400	20		70	10		40	43
1400	10	20		80	8		50	32
	20	25		90	7		60	55
	30	20		2000	40		70	45
	40	15	2000	10	45		80	35
	50	15		20	15		90	40
	60	19		30	20		2600	45
	70	30		40	12	2600	10	50
	80	33		50	43		20	55
	90	20		60	40		30	55
	1500	20		70	19		40	50
1500	10	15		80	14		50	40
	20	30		90	25		60	50
~~30~~	30	25		2100	20		70	45
	40	65	2100	10	21		80	50
	50	45		20	22		90	
	60	80		30	20		2700	
	70	60		40	10	2700	10	85
	80	20		50	40		20	95
	90	20		60	60		30	90
	1600	35		70	35		40	105
1600	10	25		80	25		50	135
	20	50		90	35		60	103
	30	30		2200	45		70	120
	40	30	2200	10			80	130
	50	35		20	25		90	105
	60	65		30	10		2800	15
	70	75		40	20	2800	10	105
	80	65		50	20		20	145
	90	30		60	30		30	125
	1700	20		70	20		40	131
1700	10	17		80	70		50	111
	20	28		90	45		60	168
	30	30		2300	25		70	130
	40	12	2300	10	20		80	165
	50	29		20	20		90	175
	60	44		30	35		2900	90
	70	55		40	90	2900	10	90
	80	130		50	45		20	125
	90	70		60	60		30	197
	1800	40		70	60		40	52

Drilling Time In Minutes

Langlie #2

3345	3346	7	3404	3405	25	3461	3462	5
	47	7		6	[illegible]		63	6
	48	13		7	23		64	5
	49	22		8	27		65	13
	50	23		9	30		66	28
	51	19		10	18			
	52	27		11	[illegible]			
	53	45		12	20			
	54	30		13	3			
	55	25		14	2			
	56	30		15	1			
	57	30		16	10			
	58	23		17	17			
	59	14		18	30			
	60	6		19	33			
	61	22		20	21			
	62	25		21	27			
	63	22		22	32			
	64	27		23	37			
	65	44		24	28			
	66	9		25	30			
	67	6		26	42			
	68	4		27	27			
	69	7		28	15			
	70	7		29	22			
	71	12		30	28			
	72	43		31	6			
	73	21		32	28			
	74	22		33	26			
	75	28		34	29			
	76	8		35				
	77	12		36	21			
	78	20		37	22			
	79	10		38	33			
	80	5		39	25			
	81	5		40	20			
	82	3		41	30			
	83	7		42	20			
	84	15		43	8			
	85	10		44	4			
	86	15		45	3			
	87	20		46	3			
	88	24		47	5			
	89	22		48	8			
	90	27		49	6			
	91	19		50	18			
	92	18		51	24			
	93	29		52	20			
	94	14		53	31			
	95	16		54	21			
	96	19		55	22			
	97	10		56	23			
	98	24		57	34			
	99	18		58	30			
	3400	25		59	33			
3400	1	13		60	31			
	2	22		61	6			
	3	30						
	4	24						

OPEN FLOW TESTS

Langlie #2

October - 1937

1st 12 hrs.	13 BOPH
2nd 12 hrs.	11 "
3rd 12 hrs.	11 "
4th 12 hrs.	10 "

November ~~9~~ - 1937

1st 6 hrs.	80 ~~14 BOPH~~ Bbls.

January - 1938

1 st 12 hrs.	14 BOPH
2 nd 12 hrs.	8 "
3 rd 12 hrs.	8 "
4 th 12 hrs.	8 "

March - 1938

1st 8 hrs.	14 BOPH
Next 12 hrs.	8 "
Next 6 hrs.	8 "
Next 6 hrs.	8 "
Next 3 hrs.	8 "

December - 1938

1st 24 hrs.	130 Bbls.
2nd 24 hrs.	110 "
3rd 24 hrs.	103 "

August - 1939

1st 24 hrs	65 Bbls.

BOTTOM HOLE PRESSURE SURVEYS

LANGLIE # 2

Date of Survey	Pressure	Bbls. Produced Between Surveys
2-5-39	520#	
3-31-39	555#	2937
7-15-39	540#	5408
8-18-39	522#*	
8-19-39	540#*	
8-20-39	550#*	
8-~~20~~39	580#*	
9-28-39	535#	3323
1-1-40	525#	5143

* Not regular survey

Drilling Time In Minutes

Langlie #2

2940	2950	144	3231	3232	32	3287	3288	15
	60	124		33	35		89	10
	70	85		34	25		90	10
	80	105		35	30		91	10
	90	110		36	35		92	15
	3000	155		37	30		93	32
3000	10	140		38	20		94	38
	20	105		39	20		95	38
	30	130		40	12		96	32
	40	140		41	18		97	47
	50	193		42	20		98	30
	60	172		43	25		99	45
	70	80		44	18		3300	22
	80	40		45	14	3300	1	23
	90	60		46	18		2	22
	3100	20		47	17		3	20
3100	10	25		47	29 S. L. M.		4	16
	16	60		48	21		5	30
	20	40		49	14		6	10
	30	160		50	23		7	10
	40	155		51	10		8	7
	50	208		52	10		9	9
	60	237		53	10		10	9
	70	180		54	20		11	12
	80	210		55	20		12	9
	90	215		56	15		13	10
	3200	135		57	10		14	10
3200	1	10		58	10		15	9
	2	5		59	10		16	12
	3	17		60	10		17	13
	4	18		61	5		18	17
	5	17		62	10		19	13
	6	22		63	13		20	17
	7	12		64	10		21	23
	8	16		65	12		22	22
	9	27		66	30		23	19
	10	30		67	25		24	18
	11	24		68	30		25	21
	12	20		69	35		26	27
	13	26		70	40		27	30
	14	27		71	35		28	43
	15	24		72	32		29	45
	16	24		73	32		30	55
	17	18		74	30		31	55
	18	24		75	26		32	45
	19	27		76	32		33	35
	20	24		77	27		34	22
	21	30		78	22		35	16
	22	28		79	18		36	16
	23	28		80	19		37	9
	24	23		81	31		38	8
	25	35		82	45		39	9
	26	30		83	40		40	5
	27	28		84	35		41	6
	28	35		85	37		42	5
	29	35		86	33		43	5
	30	32		87	[illegible]		44	4
	31	~~32~~ 28					45	10

LANGLIE #2

WELL EQUIPMENT

1	3" 6000# test Hughes CS Tee Type Adj. Flow Bean
3256'	7" OD 24# API Gd B Blk Smls Casing
2734'	9 5/8" OD 40# ditto
232'	13" OD 40# Blk SS Casing
1 set	13" OD-1½" x 6" x 43" Anchor Clamps
2	3" x 16" OCT Tie Down Clamps
1	7" OD HOWCO Float Collar
1	9 5/8" OD Baker Bakblue Float Collar
2	4½" 3000# Type 1056 Ash Amer Pressure Gauge
1	9 5/8" OD x 7" OD 3000# test Type H Rector Braden Head
1	13" OD x 9 5/8" OD 3000# test Type H Rector Braden Head
1	7" OD x 12" 24# Blk Smls Csg Nipple
1	2 7/8" OD x 4' 6.50# Blk Smls Tubing Nipple
1	2 7/8" OD x 10' ditto
1	7" OD x 2 7/8" OD Type C Control Head Packer
1	7" OD 3000# test CIW Type ML Tubing Suspender & Blowout Preventor with 2½" Rams
1	7" OD HOWCO Guide Shoe
1	9 5/8" OD Baker Bakblu Guide Shoe
3425'	2 7/8" OD 6.50# API Gd B Blk Smls Tubing
1	2" 3000# test Hammer Plug Valve
3	2" 3000# test AS NRS SE Gate Valves
1	2½" Otis Type C Tubing Closing Valve
1	2" 3000# test WKM Gate Valve

GENERAL - [illegible] OIL CORP.

LANGLIE # 3

WELL INFORMATION

Casing Record	9-5/8" OD - 1191' - 500 sacks 7" OD - 3265' - 350 sacks
Special Equipment	Nixon Surface Control Gas Lift Installed with Culberson Type C-1 Control Head Hook Wall Packer set at 3222'
Tubing Record	2½" at 3472'.

GEOLOGICAL INFORMATION

Elevation	3181
Top Anhydrite Base Salt	989 2720
Top Brown Lime	2770
Top Yates Sand	2860
Gas Shows	2862-2881
Total Depth	3479
Oil Zones	3445-3455, 3470-3479
Drilling Time	Attached
Special Tests	Attached

GENERAL INFORMATION

Royalty Division — Attached to Langlie #1 Well Record

Accumulated Production to January 1, 1940. 39,254

Initial Production — 116 BOPD, shot 56 qts. 3469-3479, 3445-3469 then flowed 216 BOPD.

Drilling Time In Minutes

Langlie #3

150	160	20	740	750	20	1330	1340	45
160	170	25	750	760	25	1340	1350	30
170	180	40	760	770	35	1350	1360	20
180	190	40	770	780	40	1360	1370	35
190	200	15	780	790	45	1370	1380	25
200	210	20	790	800	55	1380	1390	18
210	220	30	800	810	50	1390	1400	15
220	230	30	810	820	35	1400	1410	24
230	240	22	820	830	50	1410	1420	15
240	250	22 N.B.	830	840	30	1420	1430	22
250	260	13	840	850	30	1430	1440	12
260	270	12	850	860	40	1440	1450	15
270	280	12	860	870	60	1450	1460	18
280	290	13	870	880	60	1460	1470	14
290	300	13	880	890	50	1470	1480	16
300	310	12	890	900	60	1480	1490	16
310	320	12	900	910	50 N. B. at 915	1490	1500	15
320	330	13	910	920	40	1500	1510	17
330	340	15	920	930	40	1510	1520	16
340	350	15	930	940	40	1520	1530	13
350	360	15	940	950	40	1530	1540	16
360	370	15	950	960	40	1540	1550	18
370	380	15	960	970	50	1550	1560	18
380	390	15	970	980	55	1560	1570	16
390	400	15	980	990	60	1570	1580	20
400	410	15	990	1000	55	1580	1590	15
410	420	15	1000	1010	60	1590	1600	24
420	430	15	1010	1020	60	1600	1610	22
430	440	15	1020	1030	60	1610	1620	24
440	450	15	1030	1040	60	1620	1630	30
450	460	30	1040	1050	45	1630	1640	30
460	470	30 N.B.	1050	1060	105	1640	1650	32
470	480	30	1060	1070	105	1650	1660	30
480	490	30	1070	1080	65	1660	1670	50
490	500	30	1080	1090	65	1670	1680	45 N.B.
500	510	30	1090	1100	80	1680	1690	35
510	520	60	1100	1110	100	1690	1700	30
520	530	60	1110	1120	90	1700	1710	25
530	540	60	1120	1130	70	1710	1720	30
540	550	30	1130	1140	75	1720	1730	25
550	560	30	1140	1150	80 N.B.	1730	1740	15
560	570	60	1150	1160	85 at1153	1740	1750	28
570	580	60 N.B.	1160	1170	60	1750	1760	30
580	590	40	1170	1180	140	1760	1770	
590	600	55	1180	1190	140	1770	1780	35
600	610	45	1190	1200	35	1780	1790	30
610	620	45	1200	1210	20	1790	1800	22
620	630	20	1210	1220	10	1800	1810	11
630	640	20	1220	1230	25	1810	1820	15
640	650	20	1230	1240	30	1820	1830	10
650	660	20	1240	1250	20	1830	1840	12
660	670	20	1250	1260	25	1840	1850	20
670	680	20	1260	1270	28	1850	1860	14
680	690	20	1270	1280	34	1860	1870	15
690	700	20	1280	1290	30	1870	1880	22
700	710	20	1290	1300	20	1880	1890	10
710	720	20	1300	1310	22	1890	1900	10
7								

Drilling Time In Minutes

Langlie #3

1900	10	15
10	20	11
1920	1930	16
30	40	15
40	50	16
50	60	10
60	70	7
70	80	25
80	90	50
90	2000	40
2000	10	15
10	20	15
20	30	14
30	40	16
40	50	18
50	60	11
60	70	15
70	80	15
80	90	15
90	2100	14
2100	10	15
10	20	13
20	30	15
30	40	20
40	50	21
50	60	15
60	70	18
70	80	18
80	90	25
90	2200	20
2200	10	13
10	20	15
20	30	12
30	40	16
40	50	16
50	60	20
60	70	21
70	80	14
80	90	15
90	2300	20
2300	10	25
10	20	20
20	30	32
30	40	20
40	50	55
50	60	25
60	70	50
70	80	30
80	90	30
90	2400	31
2400	10	34
10	20	25
20	30	30
30	40	30
40	50	25
50	60	25
60	70	20
70	80	25
80	90	50
90	2500	65
2500	10	45
10	20	20

2520	2530	25
30	40	20
40	50	20
50	60	20
60	70	20
70	80	20
80	90	
2600	2610	10
10	20	15
20	30	15
30	40	20
40	50	15
50	60	20
60	70	20
70	80	40
80	90	60
90	2700	40
2700	10	55 N.B.
10	20	95
20	30	110
30	40	85
40	50	100
50	60	105
60	70	70
70	80	75
80	90	85
90	2800	70
2800	10	105
10	20	105
20	30	95
30	40	90
40	50	75
50	60	75
60	70	35
70	80	35
80	90	110 N.B.
90	2900	45
2900	10	35
10	20	30
20	30	45
30	40	60
40	50	25
50	60	65
60	70	120
70	80	150
80	90	85
90	3000	95
3000	10	85
10	20	120
20	30	60
30	40	55
40	50	85
50	60	125
60	70	80
70	80	35
80	90	30
90	3100	35
3100	10	90
10	20	35
20	30	70

3130	3140	
40	50	110 N.B.
50	60	215
60	70	165
70	80	180
80	90	180
90	3200	
3200	10	170
10	20	120
20	30	270 N.B.at 3236
30	40	180
40	50	195
50	60	240
60	70	240
70	71	20
71	72	85
72	73	15
73	74	10
74	75	10
75	76	10
76	77	10
77	78	10
78	79	10
79	80	10
80	81	15
81	82	15
82	83	20
83	84	30
84	85	25
85	86	20
86	87	35
87	88	25
88	89	35
89	90	35
90	91	15
91	92	5
92	93	5
93	94	6
94	95	5
95	96	6
96	97	8
97	98	15
98	99	15
99	3300	15
3300	1	15
1	2	22
2	3	28
3	4	33
4	5	30
5	6	25
6	7	21
7	8	21
8	9	25
9	10	25
10	11	30
11	12	30
12	13	25
13	14	15

Drilling Time In Minutes

Langlie #3

3314	3315	10
15	16	10
16	17	12
17	18	33
18	19	25
19	3320	30
3320	21	30
21	22	35
22	23	15
23	24	10
24	25	8
25	26	17
26	27	15
27	28	20
28	29	20
29	3330	15
3330	31	20
31	32	15
32	33	10
33	34	15
34	35	15
35	36	10
36	37	10
37	38	15
38	39	10
39	3340	15
3340	41	30
41	42	30
42	43	30
43	44	30
44	45	25 N.B.
45	46	10
46	47	15
47	48	10
48	49	20
49	3350	15
3350	51	15
51	52	20
52	53	15
53	54	15
54	55	15
55	56	15
56	57	10
57	58	5
58	59	5
59	3360	5
3360	61	20
61	62	20
62	63	15
63	64	20
64	65	15
65	66	16
66	67	10
67	68	10
68	69	5
69	3370	5
3370	71	5
71	72	10
72	73	10

3373	3374	20
74	75	20
75	76	20
76	77	20
77	78	20
78	79	20
79	3380	15
3380	81	11
81	82	19
82	83	20
83	84	25
84	85	20
85	86	15
86	87	20
87	88	20
88	89	20
89	3390	10
3390	91	5
91	92	20
92	93	30
93	94	35
94	95	20
95	96	20
96	97	40
97	98	10
98	99	15
99	3400	22
3400	1	5 N.B.
1	2	5
2	3	5
3	4	15
4	5	15
5	6	15
6	7	10
7	8	12
8	9	16
9	3410	20
3410	11	12
11	12	20
12	13	20
13	14	25
14	15	15
15	16	15
16	17	15
17	18	10
18	19	10
19	3420	10
3420	21	10
21	22	10
22	23	10
23	24	10
24	25	15
25	26	15
26	27	15
27	28	15
SLM-3428-3435		
3435	3436	15
36	37	5
37	38	3
38	39	3

3439	3440	3
40	41	4
41	42	5
42	43	6
43	44	8
44	45	9
45	46	21
46	47	13
47	48	21
48	49	19
49	3450	18
3450	51	24
51	52	22
52	53	23
53	54	33
54	55	23
55	56	8
56	57	14
57	58	15
58	59	15
59	3460	20
3460	61	20
61	62	15
62	63	24
63	64	28
64	65	16
65	66	24
66	67	30
67	68	30
68	69	20
69	3470	13
3470	71	8
71	72	10
72	73	4
73	74	3
74	75	5
75	76	7
76	77	5
77	78	7
78	79	30

OPEN FLOW TESTS

LANGLIE #3

January - 1938

1st 12 hrs.	7 BOPH
2nd 6 hrs.	5 "
3rd 6 hrs.	5 "
4th 12hrs.	6 "
5 5th 6 hrs.	4 "
6th 6 hrs.	5 "

March - 1938

1st 8 hrs.	8 BOPH
Next 12hrs.	6 "
Next 6hrs.	6 "
Next 6hrs.	5 "
Next 12hrs.	5 "
Next 6hrs.	5 "

July - 1938

1st 6 hrs	13 BOPH
Next 14 hrs.	6 "
Next 10 hrs.	6 "
Next 14 hrs.	5½ "
Next 4 hours	5½ "

December - 1938

1st 24 hrs.	140 Bbls.
2nd 24 hrs.	126 "
3rd 24 hrs.	96 "

August - 1939

1st 3 hrs.	31 Bbls.
2nd 3 hrs.	12 "
1st 24 hrs.	103 "
2 nd24 hrs.	72 "

3 BOPH last 6 hours

December - 1939

1st 3 hours	23 Bbls.
2nd 3 hours	7 "
1st 24 hours	74 "
2nd 24 hours	58 "

3 BOPH last 6 hours

1910 1919 15
1910 1929 11

BOTTOM HOLE PRESSURE SURVEYS

LANGLIE #3

Date of Surveys	Pressure	Bbls. produced between Surveys
2-5-39	665#	
3-31-39	605#	3723
7-19-39	[illegible]	[illegible]
8-30-39	907#*	
9-28-39	765#	4612
1-1-40	710#	5469

* Not regular surveys- well shut in 15 days

WELL HISTORY

Langlie #3

This well was spudded 10-28-37 and drilled to total depth with rotary drilling equipment. Drillers logged a show of gas from sand 2862'-2881'. After cementing 7" casing at 3235' oil was used for circulation fluid and the well drilled to its total depth without testing. At total depth (3479') 2½" tubing was set at 3422'. Flowing thru open tubing it flowed 116 BO in 24 hrs. with 325 MCF gas per day. It was then shot with 2 quarts NG per foot from 3469' to 3479' and 2½ quarts NG per foot from 3445' to 3469'. The well was filled with oil before running the shot but unloaded a few minutes before the shot exploded so actually was shot dry. After cleaning out to bottom, 2½" tubing was set at 3464'. Flowing thru open tubing it produced 216 BO in 24 hrs. with 1,100 MCF gas per day. Choked to 11/64" it produced 90BO in 24 hrs. with 233 MCF gas per day. Completed 11-30-37.

No other work was done on the well until 1-25-40 at which time it went dead. Tubing was then pulled and the well cleaned out to bottom, approximately 55' of cavings having been found in the hole. Tubing was reset at 3477' with a Guiberson Type G-1 Control ~~Flow-Valve-~~ Head hook Wall Packer set at 3222'. A Nixon Type 103 Surface Control Flow Valve was set at 3211' and a Nixon Type 107 [illegible] Flow Valve set at 2525'. [illegible] was set below the packer at 3466'. The well was then unloaded with outside gas after which it flowed 94 BO in 1 hr thru 25/64" choke on its own gas. The following day, 1-31-40 it flowed 102BO on its own gas.

LANGLIE #5

WELL EQUIPMENT

1	3" 6000# test Hughes CS Tee Type Adj Flow Bean
3277'	7" OD 24# API Gd B Blk Smls Casing
1181	9 5/8" OD 36# ditto
1 set	9 5/8" OD-1½" x 8" x 43" Anchor Clamps
1	7" OD HOWCO Float Collar
1	9 5/8" OD Baker Bakblu Float Collar
1	5" 2000# Style AH Crosby Press Gauges
1	9 5/8" OD x 7" OD Type EF Rector Braden Head
1	A Mast for Nixon Lift
1	7" OD x 30" 24# Blk Smls Csg Nipple
1	2 7/8" OD x 4' 6.50# Blk Smls Tbg Nipple
1	2 7/8" OD x 6' ditto
1	7" OD 3000# test CIW Type NL Tubing Suspender & Blowout Preventor with 2½" Rams
1	7" OD HOWCO Guide Shoe
1	9 5/8" OD Baker Bakblu Guide Shoe
1	3" 3000# test Female Thread Tee
3460'	2 7/8" OD 6.50# API Gd B Blk Smls Tubing
2	2" 3000# test AS NRS SE Gate Valves
1	3" 3000# test Orbit OS & Y SE Gate Valve
1	7" OD x 2½" Guiberson Hook Wall Control Head Packer

The following equipment installed by Wilson Supply Co. and to be purchased when the equipment is put in use.

1	Nixon Intermitter
1-	Nixon Wire Line Hoist & Turbine Motor
3500'	Wire Line
1	2" Wire Line Stuffing Box
1 set	Nixon 1¼" Weight Bars
1	2" Standing Valve
1	2" Upset all Steel Flow Valve with 1 Port
1	2" ditto 3 Ports
1	Nixon Measuring Device

ANDERSON - PRICHARD OIL CORP.

LANGLIE #4

WELL INFORMATION

Casing Record	9-5/8" OD - 1157' - 500 sacks 7" OD - 3280' - 400 sacks
Special Equipment	None
Tubing Record	2½" at 3452'

GEOLOGICAL INFORMATION

Elevation	3176
Top Anhydrite	1120
Base Salt	2620
Top Brown Lime	2720
Top Yates Sand	2860
Gas Shows	2868-73, 2982-99
Total Depth	3477
Oil Zones	3400-3477
Drilling Time	Attached
Special Tests	Attached

GENERAL INFORMATION

Royalty Division	Attached to Langlie #3 Well Record
Accumulated Production to January 1, 1940	30,283
Initial Production	7 BOPH, shot 270 qts. 3392-3477 then flowed 20 BOPH.

WELL HISTORY

LANGLIE #4

This well was spudded 5-11-38 and drilled to total depth 3477' with rotary drilling equipment. Drillers logged gas shows in sands 2868' to 2877' and 2982' to 2999'. 7" OD-22# casing was cemented at 3280' with 300 sacks common cement but when plug was drilled pressure on casing could not be built up past 900# so hole was bailed. After bailing 10 hrs. there was still 600' fluid in the hole and some gas was showing so a Baker Cement Retainer was set at 3260' and 100 sacks cement was squeezed into formation. The last cement went in at 1050# pressure. After setting 72 hrs. the retainer and cement was drilled out and the casing tested with 1000# pressure. There was no decrease in pressure during the 30 minute test.

Oil was used for circulating fluid from 3280' to bottom. No tests were made until the well had been drilled to its total depth. At TD 3477', 2½" tubing was set at 3441' and the well swabbed in. It flowed 42 BO in 6 hours with 290 MCF gas. It was then shot with 270 quarts NG from 3392' to 3477'. After cleaning out to bottom 2½" tubing was set at 3451'. The well was then tested for 27 hours thru 1" choke on tubing. During the last 13 hours of the test it flowed steadily at the rate of 20 BOPH with 950 MCF gas per day. Choked to 85 BOPD, gas/oil ratio decreased to 700. Well was completed 5-15-38.

Drilling Time In Minutes

Langlie #4

300	310	30		2270	2280	20		2860	2870	165	
310	320	30		2280	2290	20		2870	2880	60	
20	30	40		90	2300	20		80	90	90	
30	40	95		2300	10	60		90	2900	65	
40	50	45		10	20	40		2900	10	180	N.B.
50	60	40		20	30	20		10	20	45	
60	70	50		30	40	15		20	30	35	
70	80	48		40	50	15		30	40	80	
80	90	42		50	60	20		40	50	45	
90	400	35		60	70	45		50	60	135	
400	10	37		70	80	15		60	70	210	
10	20	38		80	90	15		70	80	230	
20	30	35		90	2400	30		80	90	60	N.B.
30	40	30		2400	10	15		90	3000	45	
40	50	20		10	20	30		3000	10	95	
50	60	15		20	30	30		10	20	70	
60	70	20		30	40	20		20	30	163	
70	80	30		40	50	40		30	40	200	
80	90	30		50	60	65		40	50	190	
90	500	125	N.B.	60	70	25		50	60	55	
500	10	50		70	80	60		60	70	45	
10	20	20		80	90	90		70	80	45	
20	30	25		90	2500	70		80	90	30	
30	40	45		2500	10	25		90	3100	95	N.B.
40	50	30		10	20	15		3100	10	230	
50	60	40		20	30			10	20	205	
60	70	30		30	40	80		20	30	245	
70	80	30		40	50	30		30	40	180	
80	90	25		50	60	35		40	50	90	
90	600	95		60	70	35		50	60	135	
				70	80	35		60	70	120	
2000	2010		N.B.	80	90	30		70	80	165	
10	20	30		90	2600	35		80	90	210	
20	30	20		2600	10	50		90	3200	185	
30	40	25		10	20		N.B.	3200	10	190	N.B.
40	50	25		20	30	35		10	20	225	
50	60	20		30	40			20	30	155	N.B.
60	70	25		40	50	50		30	40	220	
70	80	20		50	60	50		40	50	335	
80	90	20		60	70	45		50	60	285	
90	2100	25		70	80	100		60	70	220	
2100	10	20		80	90	65		70	80	200	
10	20	25		90	2700	160		80	~~90~~ 85	200	
20	30	90		2700	10	100		85	86	15	
30	40	20		10	20	80		86	87	17	
40	50	25		20	30	110		87	88	23	
50	60	30		30	40	115		88	89	22	
60	70	15		40	50	105		89	90	21	
70	80	50		50	60	135		90	91	17	
80	90	15		60	70	130		91	92	18	
90	2200	10		70	80	120		92	93	22	
2200	10	10		80	90	120		93	94	25	
10	20	10		90	2800	125		94	95	25	
20	30	45		2800	10	120		95	96	25	
30	40	35		10	20	135		96	97	15	
40	50	35		20	30	165		97	98	15	
50	60	85		30	40	30	N.B.	98	99	15	
60	70	80		40	50	120		99	3300	20	
				50	60	180					

Drilling Time In Minutes

Langlie #4

3300	3301	15	
1	2	10	
2	3	15	
3	4	10	
4	5	8	
5	6	7	
6	7	7	
7	8	6	
8	9	10	
9	3310	17	
3310	11	23	
11	12	22	
12	13	18	
13	14	12	
14	15	10	
15	16	10	
16	17	10	
17	18	7	
18	19	3	
19	3320	3	
3320	21	6	
21	22	6	
22	23	7	
23	24	9	
24	25	9	
25	26	9	
26	27	9	
27	28	6	
28	29	4	
29	3330	6	
3330	31	11	
31	32	23	
32	33	26	
33	34	16	
34	35	22	
35	36	26	
36	37	22	
37	38	29	
38	39	31	
39	3340	30	
3340	41	30	
41	42	30	
42	43	26	
43	44	14	
44	45	35	
45	46	38	
46	47	47	
47	48	45	
48	49	20	N.B.
49	3350	15	
3350	51	5	
51	52	7	
52	53	16	
53	54	17	
54	55	18	
55	56	17	
56	57	17	

3357	3358	15	
58	59	21	
59	3360	12	
3360	61	10	
61	62	7	
62	63	9	
63	64	14	
64	65	15	
65	66	18	
66	67	25	
67	68	30	
68	69	25	
69	3370	20	
3370	71	20	
71	72	20	
72	73	27	
73	74	18	
74	75	20	
75	76	20	
76	77	20	
77	78	23	
78	79	20	
79	3380	32	
3380	81	25	
81	82	15	
82	83	15	
83	84	25	
84	85	30	
85	86	30	
86	87	35	
87	88	20	
88	89	18	
89	3390	50	
3390	91	9	
91	92	3	
92	93	5	
93	94	10	
94	95	28	
95	96	36	N.B.
96	97	15	
97	98	9	
98	99	5	
99	3400	12	
3400	1	12	
1	2	11	
2	3	16	
3	4	15	
4	5	16	
5	6	14	
6	7	4	
7	8	4	
8	9	16	
9	3410	10	
3410	11	12	
11	12	10	
12	13	6	
13	14	12	
14	15	18	

3415	3416	27	
16	17	13	
17	18	17	
18	19	19	
19	3420	16	
3420	21	10	
21	22	4	
22	23	2	
23	24	2	
24	25	17	
25	26	6	
26	27	22	
27	28	25	
28	29	40	
29	3430	45	
3430	31	45	
31	32	45	
32	33	45	
33	34	22	
34	35	32	
35	36	33	
36	37	24	
37	38	13	
38	39	7	
39	3440	8	
3440	41	5	
~~44~~ 41	42	27	
42	43	33	
43	44	18	N.B.
44	45	7	
45	46	10	
46	47	8	
47	48	10	
48	49	10	
49	3450	20	
3450	51	19	
51	52	21	
52	53	7	
53	54	7	
54	55	11	
55	56	5	
56	57	3	
57	58	5	
58	59	5	
59	3460	4	
3460	61	5	
61	62	6	
62	63	22	
63	64	12	
64	65	17	
65	66	11	
66	67	16	
67	68	13	
68	69	6	
69	3470	10	
		SLM	
72	73	10	
73	74	7	

Drilling Time In Minutes

Langlie #4

3474	3475	8
3475	3476	9
3476	3477	6
3477	3477½	4

OPEN FLOW TESTS

LANGLIE #4

August - 1938

1st 2 hrs.	30 BOPH
Next 2 hrs.	25 "
Next 2 hrs.	24 "
Next 4 hrs.	23 "
Next 8 hrs.	21 "
Next 2 hrs.	18 "
Next 3 hrs.	18 "
Next 6 hrs.	17 "
Next 4 hrs.	16 "
Next 11 hrs.	16 "
Next 4 hrs.	18 "

August - 1939

1st 3 hrs.	78 Bbls.
2nd 3 hrs.	45 "
Next 18 hrs.	225 "
1st 24 hrs.	348 "

9 BOPH last 6 hours.

December - 1939

1st 3 hrs.	71 Bbls.
2nd 3 hrs.	45 "
1st 24 hrs.	316 "

BOTTOM HOLE PRESSURE SURVEYS

LANGLIE # 4

Date of Surveys	Pressure	Bbls. Produced Between Surv.
1-21-39	936#	
3-31-39	891#	3949
6-29-39	780#	4880
8-18-39	780 *	
8-20-39	809#*	
8-30-39	850#*	
9-28-39	780#	3766
1-1-40	710#	5356

* Not regular surveys

LANGLIE #1-2-3-4

SURFACE EQUIPMENT

1	3" IBBM Essex Pat. Lock Stop Cock
1	4" IBBM Essex Pat. Lock Stop Cock
154'	2" 3.75# Std Blk LW Line Pipe
3211'	3" 7.7# ditto
793'	4" 11# ditto
56	6' T Iron Line Posts
3	Corner Posts
3	Gate Posts
4	IF 3' x 11' Nat'l Oil & Gas Separator Complete
4	10' x 15' 210 bbl. Nat'l Type 2 welded Steel Tanks
4	250 bbl. 1 Ring 12 ga. Bolted Steel Tanks
4 sets	Walkway Brackets for 10' x 15' Tanks
4 sets	ditto 250 bbl. tanks
1	16' Steel Stairway
1	8' ditto
105'	26" Steel Walkway
8	2" Class 125 CI SE Lub Plug Valves
6	3" Std IBBM NRS SE Gate Valves
9	3" Class 125 CI FF Lub Plug Valves with CFBO
6	3" Class 125 CI SE Lub Plug Valves
4	4" Std IBBM NRS SE Gate Valves
8	4" Class 125 CI SE Lub Plug Valves
1	4" 1 oz. Press-2oz. Vac Statite Vent Valve
1	4" 14 oz. National Stack Valve

LANGLIE 76

WELL EQUIPMENT

1	3" 6000# test Hughes OS Tee Type Adj Flow Bean
3385'	7" OD 24# API Gd B Blk Smls Casing
1144'	9 5/8" OD 36# ditto
1 set	9 5/8" OD - 1¼" x 8" x 43" Anchor Clamps
2	5" 3000# Type 1C56 Ash Amer Press Gauges
1	9 5/8" OD x 7" OD 6000# test Type HF Reeter Braden Head
1	7" OD HOWCO Float Collar
1	9 5/8" OD Baker Bakblu Float Collar
1	7" OD x 24" 24# Blk Smls Csg Nipple
1	2 7/8" OD x 4' 6.50# Blk Smls Tbg Nipple
1	7" OD 5000# test CI# Type ML Tubing Suspender & Blowout Preventor with 6¾" Rams
1	7" OD HOWCO Guide Shoe
1	9 5/8" OD Baker Bakblu Guide Shoe
3433'	2 7/8" OD 6.50# API Gd B Blk Smls Tubing
1	3" 3000# test Aerotest FS RJ Flg Union
2	2" 3000# test McClitchie Lub Plug Valves
1	3" 3000# test Orbit OS & Y SB Gate Valve

ANDERSON - PRICHARD OIL CORP.

JAL # 1

WELL INFORMATION

Casing Record	9-5/8" OD - 1208' - 900 sacks 7" OD - 3284' - 350 sacks
Special Equipment	None
Tubing Record	2½" at 3395'

GEOLOGICAL INFORMATION

Elevation	3203
Top Anhydrite	1050
Base Salt	2740
Top Brown Lime	2750
Top Yates Sand	2870
Gas Shows	2500-2993, 3004-3290, (well unloaded at 3290 & flowed 4000 MCF gas with no oil.
Total Depth	3455
Oil Zones	3370-3390, & 3440-3445
Drilling Time	Attached
Special Tests	Attached

GENERAL INFORMATION

Royalty Division	Attached
Accumulated Production to January 1, 1968	42,249
Initial Production	330 BOPN natural (Day)

WELL HISTORY

JAL # 1

This well was spudded 10-29-37 and drilled to TD 3455' with rotary drilling equipment. Drillers logged shows of gas from lime and sand 2800' to 2993' and 3004' to 3290'. At 2993' a Drill Stem Test was made from 2800' to 2993'. The testing tool was open 15 minutes and showed a very small show of gas. Another Drill Stem Test was made from 3004' to 3290'. The tester was open 35 minutes and showed 244 MCF gas per day. At 3290' the well was unloaded by gas lift and at the end of a 5 hour test was making 4000 MCF gas per day with no oil.

After cementing 7" casing at 3284' the well was drilled to a total depth with oil. At 3300' the drilling fluid was unloaded with outside gas. A 3 hour test showed no gas or oil at that depth. At total depth of 3455' it flowed 78 BO in 3 hours thru casing with 3½" OD drill pipe in the hole. On 10-28-37 2½" tubing was set at 3395'. Flowing thru open tubing it produced 86 BO the last 6 hours of a 30 hour test with gas at the rate of 541 MCF gas per day. Completed 10-30-37.

Drilling Time In Minutes
Jal #1

250	260	30	840	850	18	1477	1487	55
260	270	20	850	860	48	1487	1497	55
270	280	15	860	870	30	1497	1507	25
280	290	15	870	880	45	1507	1517	19
290	300	30	880	890	65	1517	1527	6
300	310	18	890	900	45	1527	1537	17
310	320	22	900	910	33	1537	1547	23
320	330	20	910	920	37	1547	1557	15
330	340	22	920	930	33	1557	1567	50
340	350	23	930	940	40	1567	1577	45
350	360	23	940	950	45	1577	1587	30
360	370	20	950	960	33	1587	1597	30
370	380	25	960	970	40	1597	1607	30
380	390	22	970	980	47	1607	1617	20
390	400	27	980	990	41	1617	1627	40
400	410	30	990	1000	50	1627	1637	35
410	420	32	1000	1010	55	1637	1647	22
420	430	30	1010	1020	54	1647	1657	26
430	440	45	1020	1030	50	1657	1667	32
440	450	30	1030	1040	57	1667	1677	35
450	460	30	1040	1050	55	1677	1687	37
460	470	20	1050	1060	36	1687	1697	17
470	480	26	1060	1070	73	1697	1707	13
480	490	30	1070	1080	62	1707	1717	16
490	500	21	1080	1090	100	1717	1727	15
500	510	27	1090	1100	85	1727	1737	14
510	520	34	1100	1110	84	1737	1747	12
520	530	48	1110	1120	90	1747	1757	13
530	540	27	1120	1130	50	1757	1767	18
540	550	36	1130	1140	35	1767	1777	21
550	560	32	1140	1150	55	1777	1787	38
560	570	38	1150	1160	48	1787	1797	18
570	580	31	1160	1170	64	1797	1807	15
580	590	37	1170	1180	64	1807	1817	15
590	600	26	1180	1190	82	1817	1827	10
600	610	21	1190	1200	55	1827	1838 [overtyped; reads as 1838 or 1837]	12
610	620	12	1200	1210	25	1837	1847	13
620	630	18	1210	1215 [overtyped]	10	1847	1857	12
630	640	22	1215 [overtyped]	1217 [overtyped]	5	1857	1867	13
640	650	58	1217	1219	4	1867	1877	19
650	660	60	1219	1221	5	1877	1887	10
660	670	40	1221	1223	4	1887	1897	~~7~~ 10
670	680	47	1223	1225	5	1897	1907	7
680	690	43	1225	1227	4	1907	1917	7
690	700	40	1227	1229	3	1917	1927	6
700	710	42	1229	1231	4	1927	1937	6
710	720	33	1231	1233	3	1937	1947	16
720	730	57	1233	1235	4	1947	1957	9
730	740	26	1235	1237	5	1957	1967	8
740	750	39	1237	1239	6	1967	1977	8
750	760	35	1239	1241	5	1977	1987	7
760	770	32	1241	1243	3	1987	1997	10
770	780	31	1243	1245	3	1997	2007	22
780	790	34	1245	1247	2	2007	2017	15
790	800	18	1247	1249	2	2017	2027	18
800	810	20	1249	1251	3	2027	2037	23
810	820	33	1251	1252	2	2037	2047	58
820	830	40	1467	1477	40	2047	2057	11
830	840	60						

Drilling Time In Minutes

2057 to 2067	6	2640 to 2650	20	3065 to 3070	55
77	11	60	22	75	100
87	9	70	25	80	75
97	11	80	30	85	110
2107	9	90	28	90	85
17	29	2700	30	95	55
27	26	10	41	3100	22
37	16	20	55	5	41
47	29	30	56	10	24
57	18	40	73	15	22
67	17	50	64	20	60
77	17	60	65	25	120
87	16	70	95	30	22
97	18	80	96	35	16
2207	19	90	73	40	17
17	32	2800	105	45	73
27	18	10	132	50	107
37	15	20	86	55	115
47	45	30	82	60	120
57	20	40	80	65	130
67		50	87	70	150
80	105	60	91	75	130
90	28	70	79	80	90
2300	25	80	53	90	75
10	15	90	20	95	97
20	22	2900	120	3200	75
30	63	10	25	5	73
40	50	20	60	10	77
50	25	25	52	15	86
60	20	30	23	20	124
70	25	35	20	25	125
80	45	40	20	30	115
90	45	45	67	35	130
2400	15	50	77	40	130
10	10	55	25	45	148
20	7	60	8	50	127
30	19	65	7	55	89
40	14	70	8	60	115
50	46	75	40	65	150
60	15	80	45	70	142
70	13	85	25	75	142
80	10	90	28	80	135
90	20	95	25	85	135
2500	30	3000	40	90	120
10	30	5	51	91	12
20	72	10	55	92	20
30	13	15	52	93	18
40	14	20	48	94	18
50	15	25	32	95	20
60	12	30	43	96	19
70	12	35	65	97	14
80	16	40	92	98	24
90	11	45	48	99	21
2600	10	50	25	3300	26
10	13	55	40	1	23
20	10	60	62	2	35
30	11	65	83	3	30
40	14			4	25

Drilling Time In Minutes

3304 to 3305	15	3361 to 3362	20	3418 to 3419	57
6	15	63	30	20	6
7	20	64	20	21	42
8	22	65	30	22	40
9	20	66	25	23	30
3310	28	67	12	24	30
11	22	68	14	25	35
12	13	69	10	26	23
13	22	3370	5	27	14
14	37	71	5	28	8
15	41	72	5	29	19
16	41	73	7	3430	18
17	26	74	6	31	23
18	34	75	7	32	16
19	40	76	7	33	10
3320	26	77	10	34	22
21	41	78	10	35	19
22	39	79	11	36	22
23	20	3380	15	37	30
24	22	81	7	38	29
25	23	82	10	3440	15
26	20	83	10	41	4
27	18	84	20	42	2
28	19	85	54	43	1
29	24	86	48	44	1
3330	19	87	48	45	2
31	20	88	28	46	18
32	22	89	37	47	31
33	45	3390	47	48	23
34	48	91	20	49	11
35	45	92	22	3450	25
36	27	93	14	51	25
37	18	94	21	52	15
38	15	95	28	53	13
39	15	96	27	54	22
3340	32	97	27	55	22
41	36	98	27		
42	36	99	23		
43	41	3400	29		
44	27	1	12		
45	36	2	6		
46	33	3	5		
47	17	4	8		
48	20	5	23		
49	25	6	30		
3350	22	7	33		
51	8	8	40		
52	6	9	25		
53	36	10	23		
54	18	11	27		
55	11	12	12		
56	9	13	13		
57	11	14	13		
58	14	15	37		
59	13	16	33		
60	13	17	57		
61	20	18	55		

PAUL #1

Fal #1

December - 1937

1st 6 hrs.	31.15	Wtr.
2nd 6 hrs.	12.68	"
3rd 6 hrs.	14.51	"
4th 6 hrs.	11.62	"
5th 6 hrs.	11.63	"
6th 6 hrs.	12.30	"

January - 1938

1st 12 hrs.	14	Wtr.
2nd 6 hrs.	6	"
3rd 6 hrs.	6	"
4th 12 hrs.	7	"
5th 6 hrs.	6	"
6th 6 hrs.	7	"

March - 1938

1st 6 hrs.	6	Wtr.
Next 12 hrs.	5	"
Next 6 hrs.	5	"
Next 6 hrs.	4	"
Next 12 hrs.	5	"
Next 6 hrs.	5	"

December 1938

1st 24 hrs.	64	Wtr.
2nd 24 hrs.	70	"
3rd 24 hrs.	53	"

March - 1939

1st 3 hrs.	36	Wtr.
2nd 3 hrs.	23	"
1st 24 hrs.	8	"
2nd 24 hrs.	100	"

Plugged & Water Back to Surf.

December - 1939

1st 3 hrs.	32	Wtr.
Next 3 hrs.	22	"
1st 24 hrs.	102	"
2nd 24 hrs.	77	"

3 Month Test - Same.

Bottom Hole Pressure Surveys

Fal #1

Date of Survey	Pressure	Wtr. reduced between surveys
2-3-39	770#	
3-31-39	730#	3416
6-29-39	595#	4783
8-30-39	680#*	
9-28-39	710#	3739
12-29-39	595#	5733

* Not regular survey - well shut in 15 days.

PAUL #1

WELL EQUIPMENT

1		8" 6000# test Hughes OS Iso Type -dj Flow Bean
3362'		7" OD 24# API 8R 8d C Blk Male Casing
1190'		9 5/8" OD 36# API 8R 8d C Blk Male Casing
2		8" x 18" OCT Tbg Swage Clamps
1	set	9 5/8" OD 36" x 8" x 48" Anchor Clamps
1		4½" 3000# Type 1079 A Ash Amer Press Tester
1		8" 3000# Pressure Gauge
1		9 5/8" OD x 7" OD 3000# test Type K Hecker Braden Head
1		7" OD 3000# Plant Collar
1		9 5/8" OD Baker Rubble Float Collar
1		2½"/8" OD x 4' 4.50 Blk male Tbg Nipple
1		7" OD 3000# test OIW Type W/ Tubing Suspender & Blowout Preventer with 2½" same
1		7" OD 3000# Guide Shoe
1		9 5/8" OD Baker Rubble Guide Shoe
3400'		2 7/8" OD 6.50# 10 8rd API 6d 3 Blk Male Tubing
4		8" 3000# test RKN 8A Gate Valves
1		8" Otis Tubing Closing Valve
1		8" 3000# test RW RKN 8X Gate Valve

ROYALTY INTEREST

Fal #1 & #2

Commissioner General Land Office Roswell, New Mexico	Sliding Scale Government Royalty
Standard Oil & Gas Company (Until $500,000.00 has been paid from this and other properties per contract 7/15/35 & 11/14/38) Philcade Building Tulsa, Oklahoma	1/16 of 8/8 of Pipe Line Runs
A. J. Barnes First National Bank Bldg. Denver, Colorado	1/64 of 8/8 Overriding Royalty of Pipe Line Runs
W. Glenn Oil Company 2811 Massey Terr Oklahoma City, Oklahoma	5% of Working Interest
First National Bank of Chicago Chicago, Illinois	50% of Working Interest.

WELL HISTORY

Fal #2

This well was spudded 3-17-38 and drilled to TD 3479' with rotary drilling equipment. Shows of gas were logged in sand 2893' to 2897' and 2900' to 2903'. Four consecutive 7" casing at 3181' oil was used for circulating fluid down to total depth. No tests were made until the well had been drilled to its total depth. At 3479' 2" tubing was run to 3429'. The well would not flow after swabbing but drilled in fluid and fluid stood within 500' of top of hole. 30 BO was swabbed in 5 hours. 15 BW then shot with 240 qts. SNG from 3402' to 3479'. After cleaning out to bottom tubing was set at 3447' with Guiberson Hook Wall Packer set at 3200'. The well was then swabbed in and tested for 15 hours 50% open tubing after recovering drilling fluid. At the end of the test it was flowing at the rate of 22 BOPH with 600 MCF gas per day.

ANDERSON - PRICHARD OIL CORP.

Fal #2

WELL INFORMATION

Casing Record	9-5/8" OD - 1150' - 500 sacks 7" OD - 3381' - 250 sacks
Special Equipment	Guiberson Hook Wall Packer set at 3200'
Tubing Record	2⅛" at 3447'.

GEOLOGICAL INFORMATION

Elevation	3181
Top Anhydrite	1080
Base Salt	2700
Top Brown Lime	2720
Top Yates Sand	2870
Gas Shows	2893-97, 2900-03.
Total Depth	3479
Oil Zones	3430-35, 3470-75.
Drilling Time	Attached
Special Tests	Attached

GENERAL INFORMATION

Royalty Division	Attached to Fal #1 Well Record
Accumulated Production to January 1, 1940	35,878
Initial Production	105 BO/16 hrs. shot 240 qts. 3400-3479 then flowed 24 BOPH.

[illegible] JAL #2

Depth	Time
800 to 810	35
20	25
30	30
40	27
50	28
60	35
70	34
80	28
90	38
900	35
10	30
20	35
30	40
40	30
50	35
60	45
70	55
80	50
90	60
1000	45
10	40
20	10
30	10
40	70
50	15
60	15
70	30
80	45
90	25
1100	
10	40
20	40
30	40
40	65
50	62
60	85
70	15
80	18
90	12
1200	20
10	10
20	10
30	15
40	15
50	10
60	10
70	10
80	10
90	10
1300	10
10	10
20	10
30	20
40	10
50	10
60	10
70	10
80	15
90	15

Depth	Time
1390 to 1400	10
10	
2000 to 2010	40
20	15
30	10
40	15
50	15
60	15
70	15
80	15
90	20
2100	15
10	20
20	25
30	10
40	10
50	15
60	15
70	15
80	10
90	15
2200	10
10	10
20	10
30	29
40	34
50	30
60	82
70	73
80	30
90	30
2300	18
10	47
20	30
30	90
40	45
50	15
60	20
70	80
80	40
90	45
2400	20
10	15
20	25
30	35
40	30
50	45
60	45
70	65
80	45
90	10
2500	60
10	60
20	75
30	60
40	60
50	60
60	60

Depth	Time	
[illegible] to 2570	65	
80	65	
90	60	
2600	90	
10	30	
20	20	
30	20	
40	15	
50	35	
60	25	
70	45	
80	30	
90	40	
2700	160	N.B.
10	195	
20	240	
30	265	
40	95	
50	80	
60	120	
70	135	
80	95	
90	130	
2800	120	
10	135	
20	135	
30	130	
40		
50	100	
60	70	
70	35	
80	125	
90	135	
2900	105	
10	80	
20	205	
30	60	N.B.
40	95	
50	45	
60	50	
70	85	
80	140	
90	90	
3000	60	
10	85	
20	100	
30	155	
40	95	N.B.
50	105	
60		N.B.
70	180	
80	65	
90	100	
3100	35	
10	105	
20	85	
30	180	
40	255	N.B.

DRILLING TIME IN MINUTES JAL #2

Depth	Time	
3140 to 3150	120	
60	130	
70	140	
80		N.B.
3282 to 3285	25	
90	75	
95	60	
3300	80	
5	105	
6	25	
7	40	
8	45	
9	20	
10	15	
11	10	
12	12	
13	15	
14	20	
15	11	
16	12	
17	12	
18	10	
19	9	
3320	7	
21	7	
22	9	
23	17	
24	27	
25	26	
26	30	
27	23	
28	20	
29	20	
3330	25	
31	17	
32	16	
33	16	
34	20	
35	22	
36	18	
37	[illegible]	
38	10	
39	18	
3340	34	
41	15	N.B.
42	10	
43	15	
44	15	
45	15	
46	15	
47	16	
48	15	
49	19	
3350	20	
51	15	
52	10	
53	10	
54	15	

Depth	Time	
3354 to 3355	18	
56	19	
57	19	
58	14	
59	8	
3360	8	
61	4	
62	5	
63	12	
64	12	
65	24	
66	16	
67	14	
68	24	
69	12	
3370	16	
71	9	
72	9	
73	5	
74	3	
75	9	
76	12	
77	10	
78	15	
79	15	
3380	16	
81	19	
82	30	
83	30	
84	35	N.B.
85	17	
86	20	
87	20	
88	20	
89	9	
3390	19	
91	19	
92	20	
93	9	
94	15	
95	17	
96	23	
97	15	
98	15	
99	15	
3400	15	
1	13	
2	12	
3	15	
4	5	
5	4	
6	2	
7	2	
8	12	
9	20	
3410	15	
11	10	

Depth	Time
3411 to 3412	15
13	23
14	12
15	20
16	4
17	22
18	25
19	23
3420	10
21	12
22	13
23	12
24	13
25	8
26	12
27	10
28	10
29	20
3430	10
31	10
32	21
33	13
34	6
35	2
36	# 1
37	1
38	4
39	11
3440	7
41	27
42	18
43	21
44	23
45	18
46	17
47	14
48	24

OPEN FLOW TESTS JAL # 2

August - 1938

1st 24 hrs.	336 Bbls.

December - 1938

1st 24 hrs.	384 Bbls.
2nd 24 hrs.	305 "

August - 1939

1st 3 hrs.	90 Bbls.
2nd 3 hrs.	40 "
1st 24 hrs.	333 "
Next 8 hrs.	87 "

December - 1939

1st 3 hrs.	73 Bbls.
2nd 3 hrs.	37 "
1st 24 hrs.	281 "
2nd 24 hrs.	228 "
Last 6 hrs.	7 BOPH

BOTTOM HOLE PRESSURE SURVEYS

Jal #2

Date Of Survey	Pressure	Bbls. Produced Between Surveys
1-21-39	814#	
3-31-39	847#	4255
6-29-39	745#	4590
8-30-39	835#*	
9-28-39	780#	3833
12-29-39	695#	5286

* Not regular survey - well shut in 15 days.

JAL #2

WELL EQUIPMENT

1	3" 6000# test Hughes CS Tee Type Adj Flow Bean
3282'	7" OD 22# API Gd B Blk Smls Casing
1140'	9 5/8" OD 36# ditto
1 set	9 5/8" OD-1¼" x 8" x 43" Anchor Clamps
1	4½" 3000# Type 1079 D Ash Amer Press Gauge
1	9 5/8" OD 6000 # test Type H Hector Braden Head
1	7" HOWCO Float Collar
1	9 5/8" Baker Bakblu Float Collar
1	7" OD x 24" 24# Blk Smls Csg Nipple
1	2 7/8" OD x 4' 6.50# Blk Smls Tubing Nipple
1	7" OD x 2 7/8" OD Guiberson Type G-1 Hook Wall Control Seal Packer
1	7" OD 3000# test CIW Type ML Tubing Suspender & Blowout Preventor with 2½" Rams
1	7" HOWCO Guide Shoe
1	9 5/8" Baker Bakbln Guide Shoe
3444'	2 7/8" OD 6.50# API Gd B Blk Smls Tubing
1	2" 3000# test Hammer Lub Plug Valve
1-	2½" 3000# test WKM NRS SE Lub Conduit Gate Valve
1	3" 3000# Test Orbit OS & Y SE Gate Valve

JAL #1-2

SURFACE EQUIPMENT

1	9' x 16' Cattle Guard
1103'	2" 3.75# Std Blk LW Line Pipe
2381'	3" 7.7# ditto
355'	4" 11# ditto
22	6' Iron Line Posts
2	Corner Posts
1	Gate Post
2	#5 IF 3' x 11' Nat'l Oil & Gas Separator Complete
4	10' x 15' 210 bbl Type 2 Nat'l Welded Steel Tanks
4	Steel Walkway Brackets
1	16' Steel Stairway
44'	26" Steel Walkway
3	2" Class 125 CI SE Lub Plug Valves
1	2" 3000# test Hughes CS NRS SE Gate Valve
2	3" Std IBBM NRS SE Gate Valve
4	3" Class 125CI SE Lub Plug Valves
5	3" Class 125 CI FE Lub Plug Valves with CFBO
2	4" Std IBBM NRS SE Gate Valves
4	4" Class 125 CI SE Lub Plug Valves
1	4" 14 oz. National Stack Valve

[illegible] OIL CO.

[illegible] 1

[illegible]

Casing Record	15" OD - 99' - 30 sacks 8-5/8" OD - 1170' - 100 sacks 5½" OD - 3270' - 300 sacks
Special Equipment	Packer at 3201
Tubing record	2" at 3441

GEOLOGICAL INFORMATION

Elevation	3210
Top Anhydrite	1000
Base Salt	2660
Top Brown Lime	2690
Top Yates Sand	2850
Gas Shows	2790-2931 & 2965
Total Depth	3500
Oil Zones	3458-3478 & 3482-86
Drilling Time	Attached
Special Tests	Attached

GENERAL INFORMATION

Royalty Division	Attached
Accumulated Production to January 1, 1940	49,399
Initial Production	39 BOPD natural, shot 90 qts. 3454-3500 then flowed 66 BO/5 hrs.

WELL HISTORY

Bells #1

This well was spudded 7-27-37 and drilled with cable tools to 2970. Shows of gas were logged at 2790, 2931 and 2965 with hole loaded with water. At 2931 the hole was bailed dry and showed estimated 250 MCF gas per day. The hole was not unloaded below that depth but sufficient gas was encountered at 2965 to blow the tools up the hole. Rotary equipment was used from 2970 to total depth and after cementing 5½" casing at 3270 oil was used for circulating fluid. Tests made by blowing the hole dry with gas at 3315, 3359, and 3444 showed no oil or gas. At 3474 the well produced 2½ BOPH on 2 hour test thru casing with drill pipe in hole. Flowing naturally at 3500' it produced 39 BO in 24 hours by heads every 3 or 4 hours.

The well was then shot with 1½ qts. SNG per foot from 3454-75; 2 qts. per foot from 3475-84; and 2½ qts. per foot from 3484-3500. After cleaning out to bottom 2½" tubing was run to 3427. Flowing thru open tubing it produced 66 BO in 5 hours by heads. Flowing thru 1/2" choke on tubing it produced 143 BO in 17½ hours. Producing at rate of 120 BOPD gas gauged 186 MCF per day.

On 9-19-37 the 2½" tubing was pulled and 2" run back to 3441 with Guiberson Type G-1 Control Head Hook Wall Packer set at 3202. After making this change the well flowed continuously thru 3/4" choke on tubing.

Drilling Time In Minutes

Bells #1

	Depth	Min.
3090	3100	275
	10	75
	20	180
	30	340
	40	
	50	540
	60	
	70	285
	80	255
	90	540
	3200	470
3200	1	40
	2	70
	3	60
	4	80
	5	80
	6	40
	7	50
	8	25
	9	35
	10	130
	11	50
	12	60
	13	60
	14	35
	15	15
	16	20
	17	30
	18	25
	19	70
	20	50
	21	45
	22	45
	23	60
	24	55
	25	60
	26	50
	27	75
	28	50
	29	70
	30	95
	31	65
	32	65
	33	65
	34	55
	35	65
	36	60
	37	60
	38	60
	39	50
	40	95
	41	80

	Depth	Min.
3274	3275	35
	76	30
	77	10
	78	10
	79	10
	80	
	81	32
	82	25
	83	25
	84	25
	85	20
	86	35
	87	30
	88	30
	89	35
	90	50
	91	40
	92	105
	93	45
	94	50
	95	60
	96	40
	97	45
	98	30
	99	
	3300	25
3300	1	20
	2	25
	3	15
	4	30
	5	20
	6	25
	7	30
	8	25
	9	30
	10	25
	11	30
	12	10
	13	15
	14	60
	15	35
	16	25
	17	30
	18	50
	19	25
	20	35
	21	20
	22	25
	23	25
	24	35
	25	25
	25	20

	Depth	Min.
3333	3334	60
	35	30
	36	35
	37	35
	38	30
	39	30
	40	20
	41	30
	42	30
	43	30
	44	50
	45	20
	46	30
	47	30
	48	50
	49	40
	50	
	51	
	52	20
	53	5
	54	15
	55	10
	56	10
	57	5
	58	10
	59	5
	60	5
	61	5
	62	5
	63	10
	64	5
	65	10
	66	20
	67	15
	68	10
	69	15
	70	10
	71	15
	72	2.
	73	15
	74	5
	75	15
	76	20
	77	9
	78	31
	79	11
	80	9
	81	12
	82	13
	83	17
	84	11
	85	13

Drilling Time In Minutes

Bells #1

	Depth	Min.
3385	3386	10
	87	11
	88	9
	89	11
	90	7
	91	10
	92	7
	93	10
	94	8
	95	15
	96	15
	97	13
	98	10
	99	15
	3400	10
3400	1	5
	2	5
	3	5
	4	5
	5	10
	6	10
	7	10
	8	16
	9	13
	10	12
	11	15
	12	14
	13	14
	14	11
	15	14
	16	16
	17	8
	18	10
	19	15
	20	13
	21	15
	22	10
	23	9
	24	12
	25	16
	26	13

Depth	Min.
3427	17
28	16
29	14
30	13
31	13
32	18
33	11
34	9
35	13
36	4
37	2
38	2
39	2
40	9
41	16
42	16
43	14
44	20
45	18
46	30
47	11
48	9
49	23
50	22
51	24
52	27
53	23
54	32
55	36
56	34
57	30
58	30
59	5
60	5
61	4
62	5
63	5
64	4
65	3
65	1
67	1
68	1

Depth	Min.
3469	1
70	1
71	2
72	3
73	2
74	6
75	12
76	7
77	9
78	7
79	10
80	12
81	15
82	11
83	5
84	4
85	4
86	4
87	12
88	17
89	31
90	13
91	25
92	22
93	18
94	15
95	22
96	30
97	25
98	20
99	35
3500	35

OPEN FLOW TESTS

BELLS #1

October - 1937

1st 12 hrs	11	BOPH
2nd 12 hrs	6	"
3rd 12 hrs	6	"
4th 12 hrs	6	"

November - 1937

1st 6 hrs	5.87	BOPH
2nd 6 hrs	5.40	"
3rd 6 hrs	5.40	"
4th 6 hrs	5.42	"
5th 6 hrs	5.40	"
6th 6 hrs	5.42	"
7th 6 hrs	5.40	"
8th 6 hrs	5.42	"
9th 6 hrs	5.42	"
10th 6 hrs	5.42	"
11th 6 hrs	5.42	"
12th 6 hrs	5.42	"
13th 6 hrs	5.40	"
14th 6 hrs	5.40	"

January - 1938

1st 12 hrs	8	BOPH
2nd 6 hrs	6	"
3rd 6 hrs	6	"
4th 12 hrs	5	"
5th 6 hrs	5	"
6th 6 hrs	5	"

July - 1938

1st 6 hrs	10	BOPH
Next 14 hrs	7	"
Next 10 hrs	5½	"
Next 14 hrs	5	"
Next 4 hrs	5	"

September - 1939

1st 3 hrs	37	Bbls.
2nd 3 hrs	16	"
Next 18 hrs	66	"
1st 24 hrs	119	"
2nd 24 hrs	69	"

2½ BOPH last 6 hrs

December - 1939

1st 3 hrs	6	Bbls.
2nd 3 hrs	11	"
1st 24 hrs	75	"
2nd 24 hrs	72	"

3 BOPH last 6 hrs.

BOTTOM HOLE PRESSURE SURVEYS

BELLS #1

Date of Survey	Pressure	Bbls. Produced Between Surveys
2-30-39	1136#	
8-18-39	1080#*	
8-19-39	1093#*	
8-20-39	1105#*	
8-30-39	1120#*	
9-27-39	1050#	9476
12-28-39	1035#	5191

* Not Regular Survey.

WELLS #1

WELL EQUIPMENT

1	2" 6000# test Hughes Type T Adj Flow Bean
3287'	5½" OD 17# Ygstn API Gd C Blk Smls Casing
1152'	8 5/8" OD 32# 8 thd Ygstn API Gd C Blk Smls Casing
88'	16" OD 70# 8 thd Std Blk Lw Casing
1 set	8 5/8"OD 1" x 6" x 43" Anchor Clamps
1	5" 5000# test Duregauge Press Gauge
1	5½" OD x 2" Hinderliter Type HZ Comp Tubing Head less slips and BO Preventor
1	8 5/8" OD Type L Hector Head
1	5½" HOWCO Float Collar
1	8 5/8" OD Baker Bakblu Float Collar
1	5½" OD x 8" Gd C Blk Smls Csg Nipple
1	5½" OD x 30" Gd C Blk Smls Csg Nipple
1	8 5/8" OD x 8" 32 # Gd C Blk Smls Csg Nipple
1	5½" OD x 2 3/8" OD EUE Guiberson Type G-1 Control Head Packer
1	2" Hinderliter Head Csg Blowout Preventor
1	5½" OD HOWCO Guide Shoe
1	8 5/8" OD Baker Bakblu Guide Shoe
3450'	2 3/8" OD 4.50# Ygstn API Gd C Blk Smls Tubing
1	2" 3000# test WKM Gate Valve
1	2" 3000# test Hughes CS SE NmS Gate Valve
1	5½" OD 3000# test Hughes CS SE NmS Comb D & Fl Gate Valve
1 set	2" Wedges for 5 " x 2" Hinderliter Tubing Head

ROYALTY INTEREST

WELLS #1 & #2

Commissioner General Land Office Roswell, New Mexico	Sliding Scale Government Royalty
E. J. Wells 7823 12th Street N.W. Washington, D. C.	.0053923 of 8/8 Permittee Royalty of Pipe Line Runs
Indian Petroleum Corp. 391 Sutter Street San Francisco, California	.0357051 of 8/8 Permittee Royalty of Pipe Line Runs
Red Feather Oil Co. 701 Sykes Bldg. Denver, Colorado	.0031250 of 8/8 Permitte Royalty of Pipe Line Runs
Ella F. Givens San Clemente, California	.0006928 of 8/8 Permittee Royalty of Pipe Line Runs
L. A. Armstrong Rawlins, Wyoming	.0013189 of 8/8 Permittee of Pipe Line Runs
C. A. Bowen Rawlins, Wyoming	.0013189 of 8/8 Permittee Roy of Pipe Line Runs
Bessie Shenstein 3400 E. 1st Street Long Beach, California	.0013189 of 8/8 Permittee Royalty of Pipe Line Runs
J. W. Pauson 391 Sutter Street San Francisco, California	.0004464 of 8/8 Permittee Royalty of Pipe Line Runs
W. L. McLaine Higgins Building Los Angeles, California	.0004464 of 8/8 Permitte Royalty of Pipe Line Runs
Martin J. Weil, Mary A. Behrendt & Elizabeth Ann Weil C/o A. L. Weil Higgins, Building Los Angeles, California	.0004464 of 8/8 Permittee Royalty of Pipe Line Runs
Alice G. Henry, Executrix of Estate of Fred A. Henry, Deceased 602 Midland Savings Bank Bldg. Denver, Colorado	.0005584 of 8/8 Permittee Royalty of Pipe Line Runs

ROYALTY INTEREST

WELLS #1 & #2

The Illinois Oil Company C/o First National Bank of Chicago Chicago, Illinois (210 Guardian Life Bldg., Dallas, Texas)	50% of Working Interest
First National Bank of Chicago Chicago, Illinois	50% of Working Interest

ANDERSON-PRICHARD OIL CORP.

WELLS #2

WELL INFORMATION

Casing Record	9-5/8" OD - 1163' - 500 sacks 7" OD - 3303' - 300 sacks
Special Equipment	None
Tubing Record	2½" at 3488

GEOLOGICAL INFORMATION

Elevation	3207
Top Anhydrite	1095
Base Salt	2710
Top Brown Lime	2730
Top Yates Sand	2900
Gas Shows	2788-3099 (1½ million)
Total Depth	3506
Oil Zones	3403-20 & 3470-80
Drilling Time	Attached
Special Tests	Attached

GENERAL INFORMATION

Royalty Division	Attached to Wells #1 Well Record
Accumulated Production to January 1, 1940	27,109
Initial Production	120 BOPD natural, shot 340 qts. 3398-3506 then flowed 480 BOPD

WELL HISTORY

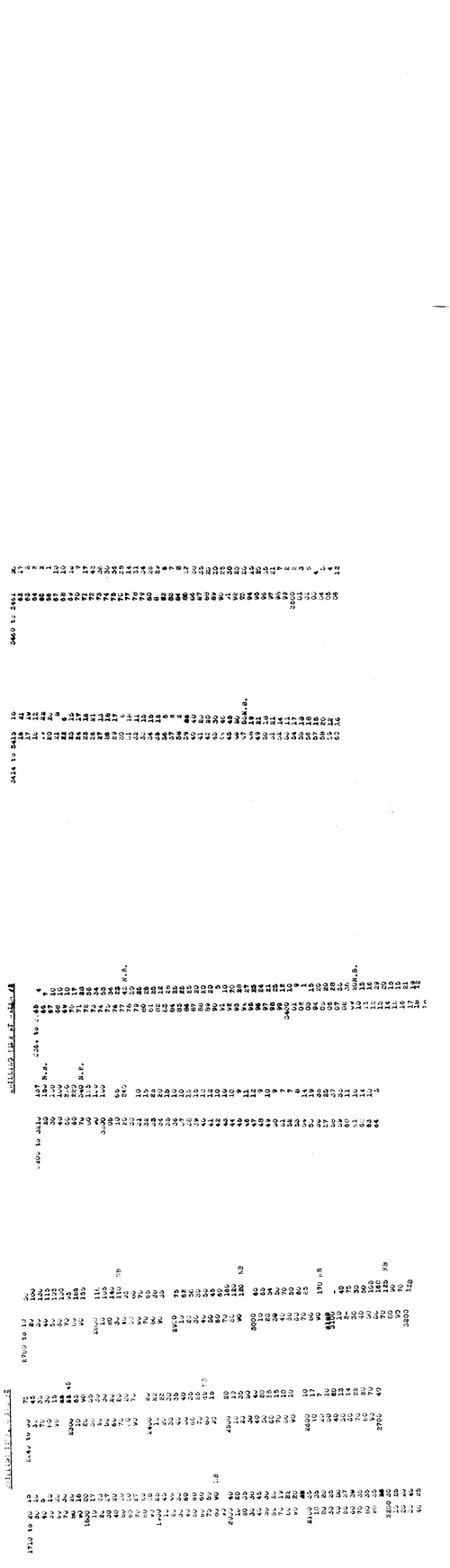
Wells #2

This well was spudded 6-6-38 and drilled with rotary equipment to total depth, 3506'. A show of gas was logged in sand 2909-2925. A drill stem test was made from 2708' to 3099'. The tester was open 21 minutes and showed 1 million gas and 270' drilling fluid with no oil. After cementing 7" casing at 3303' oil was used for circulating fluid. No tests were made until the well had been drilled to its total depth of 3506'. Flowing thru 7" casing with 3½" OD drill pipe in the hole it produced 5 BOPH (by heads every 2½ hours) with 100 MCF gas per day. It was then shot from 3398' to 3506' with 340 quarts SNG. After cleaning out to bottom 2½" tubing was set at 3489'. Flowing thru open tubing it produced 340 BO in 13½ hours, the gauge during last hour of test being 20 bbl. Gas/Oil ratio 1350. Production settled to 12 BOPH the last 14 hours of 30 hour test. Completed 7-5-38.

WELLS #2

DRILLING TIME

250 to 60	12	880 to 760	40	1230 to 40	24	
70	18	70	45	50	25	
80	20	80	30	60	25	
90	20	90	35	70	26	
300	17	800	55	80	21	
10	20	10	50	90	20	
20	20	20	90	1300	19	
30	23	30	40	10	20	
40	20	40	40	20	20	
50	22	50	50	30	25	
60	20	60	40	40	40	
70	20	70	45	50	35	
80	25	80	45	60	25	
90	35	90	34	70	65	
4 00	30	900	30	80	90	
10	35	10	31	90	19	
20	40	20	36	1400	50	
30	35	30	30	10	25	
40	30	40	35	20	14	
50	30	50	30	30	20	
60	30	60	36	40	20	
70	25	70	30	50	15	
80	30	80	34	60	35	
90	25	90	46	70	45	
500	30	1000	42	80	60	
10	45	10	43	90	30	NB
20	60	20	55	1500	30	
30	70	30	60	10	27	
40	40	40	45	20	41	
50	40	50	35	30	30	
60	35	60	40	40	32	
70	45	70	45	50	40	
80	30	80	50	60	53	
90	40	1 90	35	70	90	
600	25	1100	80	80	15	
10	20	10	130 NB	90	20	
20	12	20	30	1600	7	
30	23	30	55	10	11	
40	20	40	75	20	12	
50	35	50	70	30	15	
60	30	60	66	4 0	15	
70	30	70	114	50	10	
80	25	80	30	60	20	
90	25	90	35	70	15	
700	23	1200	20	80	30	
10	30	10	19	90	45	
20	40	20	16	1700	12	
30	55	30	22	10	12	
40	25					
50	40					



[illegible] SURVEYS

[illegible]

Date of Survey	Pressure	Bbls. Produced Between Surveys
1-21-[illegible]	1082#	
[illegible]	1092#	[illegible]645
[illegible]	[illegible]22#	[illegible]597
[illegible]-27-[illegible]	10[illegible]#	[illegible]576
12-[illegible]	[illegible]00#	5191

WELL HISTORY

[illegible] #3

This well was spudded 10-7-38 and drilled to total depth of 3499' with rotary drilling equipment. Shows of gas were logged 2900' to 2982' and from 3048' to 3085'. After cementing 5½" casing at 3281' oil was used for circulating fluid. No tests were made until the well had been drilled to 3499'. 2" tubing was then run to 3499' and the well swabbed dry. After setting 2 hours 2½ BO was swabbed out. After this test the tubing was left open and after standing 48 hours the well flowed 60 BO and died. It was then shot from 3389' to 3499' with 270 qts. SNG. After cleaning out to bottom 2" tubing was set at 3470' and the well swabbed in. Flowing thru open tubing it produced 104 BO in 11 hrs. Flowing thru ½" choke on tubing it produced 95 BOPD with 100 MCF gas per day. Completed 11-10-38.

On 9-3-39 this well was put on gas lift because it would no longer flow on its own gas. A surface intermitter was installed and operated until 1-1-40. With this installation the well produced from 35 to 50 BOPD with an input gas/oil ratio of approximately 2500. On 1-8-40 the well was cleaned to bottom. On 1-2-40 tubing was pulled and operations to clean the well were started. Tubing was run back to 3471' with a standing valve at 3444' and a Guiberson Type G-1 Control Hand Hook Wall Packer set at 3225'. A Nixon Type 103 flow valve was set at 3186' and a Type 107 Nixon Valve was set at 2895'. At the present time the well is operating on 300# input pressure, the flow valves being open 2 minutes out of each hour. Production averages 40 BOPD and the input gas/oil ratio is approximately 450.

ANDERSON - [illegible] OIL CORP.

[illegible] #3

WELL INFORMATION

Casing Record	7-5/8" OD - 1165' - 350 sacks 5½" OD - 3281' - 300 sacks
Special Equipment	Nixon Surface Control Gas Lift Installation with packer set at 3235'.
Tubing Record	2" at 3484'.

GEOLOGICAL INFORMATION

Elevation	3199
Top Anhydrite	1108
Base Salt	2690
Top Brown Lime	2720
Top Yates Sand	2850
Gas Shows	2980-3000
Total Depth	3499
Oil Zones	3420-28, 3480-99.
Drilling Time	Attached
Special Tests	None

GENERAL INFORMATION

Royalty Division	Attached
Accumulated Production to January 1, 1940	15,096
Initial Production	60 BO/48 hrs. natural by heads, shot 270 qts. 33[illegible]4-3499 then flowed 104 BO/11 hrs.

STANOLIND OIL & GAS COMPANY - LANGLIE A-1

WELL INFORMATION

Casing Record - 8-5/8" 28# - 1174' - 400sacks. 5½" 17# - 3244'- 400 sax

Special Equipment - Special long Guiberson Okum packer set at 3449'.

Tubing Record - 2½" EUE - 3467' TD.

GEOLOGICAL INFORMATION

Elevation	3156'
Top Anhydrite	1090'
Base Salt	2670'
Top Brown Lime	2690'
Top Yates Sand	2840'

Shows
- 2900' -20 Dead oil stain
- 3040' -50 Porous slightly stained
- 3200' -10 Slightly Stained
- 3220' -30 Grey sand slightly stained
- 3290' Top Pay
- 3452' -62 Main Pay
- 3467' Total Depth

Drilling time attached

Special Tests - none

GENERAL INFORMATION

Royalty Division - attached

Accumulated production to January 1, 1940------- 39,400

Bottom Hole Pressure data

Test taken 4-19-39 BHP 297# at -274' flowed 46.57 barrels of oil 48 hrs. with BHP of 235#. Initial production 37 barrels oil per hour through 1" choke w/ natural.

Well History

Langlie A-1 was completed [illegible] 27 1937, at a total depth of 3467' (-31[illegible]'). On production test it flowed at the rate of 37 barrels oil per hr through a 1" choke w/1,763 [illegible]. This well has never been shot.

The first appearance of water was noticed [illegible] 10, 1937. The water gradually increased until it was taking 40[illegible] as of October, 1938.

In order to shut off the water a Guiberson formation packer was set at 3449' on October 17th, '38. Since that time it has produced by flowing. It has however been necessary to swab it a number of times due to it dying from water accumulating or paraffin. Recent 24 hour test show it to be making from 25 to 30 barrels of oil per day and 3 to 7[illegible] water with a gas-oil ratio of 740 to 1.

STANOLIND OIL AND GAS COMPANY

P.J.Langlie A-1

Drilling Time

Depth	Time Min
3280	
82	40
84	38
86	31
88	31
90	20
92	43
94	43
96	31
98	78
3300	21
02	20
04	32
06	42
08	52
10	41
12	32
14	33
16	40
18	32
20	21
22	12
24	18
26	22
28	16
30	16
32	39
34	72
New bit 3335	
36	51
38	15
40	14
42	15
44	15
46	15
48	15
50	12
52	11
54	9
56	9
58	21
60	58
62	47
64	40
66	40
68	40
New bit 3570	
70	40

Depth	Time Min
72	23
74	12
7[illegible]	9
78	15
80	20
82	11
84	10
86	12
88	22
90	38
92	40
94	40
96	59
98	39
3400	30
02	30
04	41
06	30
08	22
10	37
12	42
14	19
16	28
18	19
20	19
22	3
24	4
26	40
28	32
30	32
32	23
34	28
36	30
38	30
40	38
42	21
44	25
46	27
48	38
50	32
52	21
54	9
56	3
58	10
60	11
62	27
64	41
66	64
SLM 3467	

BOTTOM HOLE PRESSURE SURVEYS

LANGLIE #1

Date	Pressure
9-29-39	810#

[illegible] OIL [illegible] COMPANY
[illegible] EQUIPMENT [illegible]

Langlie A Lease

Field: [illegible] County: Lea Location: Langlie [illegible] Lease No: 44
Date: 1-15-1940 Operator: [illegible] Co. Interest: 100%

Unit	Size	Description	Quantity
		WELL #1 - FLOWING	
		DERRICK INSTALLATION	
Derrick	84	Amer size #12 API painted angle steel with 24' base, 5'6" top, steel crown platform, 6"x6"x1/2" starting legs, 330000# cap - on concrete corners.	1
Mud Sill	7" x 24'	Casing	2
		WELL HEAD INSTALLATION	
Tbg Head	5½" x 2½"	[illegible] type [illegible]	1
Casing Hd	8-5/8" x 5½"	Sector type [illegible] w/std [illegible] 2 - 2" outlets	1
Casing Nip	8-5/8" x 10"	32# 10-thd SS	1
do	5½" x 42"	17# 10-thd SS	1
Casing Clamps	8-5/8"	1"x8"x46" anchor	1 set
Sucker Rod Hanger		[illegible] Pitts type, 10-strand	1
[illegible]tolizer	5-gal	[illegible] Tretolizer, comp	1
Flow bean	2"	6000# T Hughes adj	1
		SUB-SURFACE EQUIPMENT	
Casing	8-5/8"	32# 8-thd LW	1175
do	5½"	17# 10-thd C-C SS	3270
Tubing	2½"	6.5# 10-thd EUE C-C SS	3457
Guide Shoe	8-5/8"	Larkin 32#	1
Float Collar	8-5/8"	do	1
Guide Shoe	5½"	Larkin 17# 10-thd	1
Float Collar	5½"	do	1
Perforated Nipple	2½"x36"	Reg	1
Packer	5" x 4-3/4"	10-thd upset x actual OD Guib spiral oakum wrapped	1
Tubing anchor	2"	4.7# 10-thd EUE CC SS, one end plain	13'
		WELL FENCING	
Corner Posts	7'	Angle iron galv steel w/braces	8
Line Posts	7'	ditto	12
Gate	3' x 42"	Style F univ walk, w/2½" angle iron post ftgs	1
		WELL #2 - PUMPING	
		DERRICK INSTALLATION	
Derrick	94'	Amer size 12 API painted angle steel w/24' base, 5'6" top, stl crown platform, 6"x6"x1/2" starting legs, 6"x6"x3/8" running legs, I-beam girts, cap 330000# on concrete corners.	1
Mud Sill	7" x 24'	Casing	2
Crown block	3-bar	Amer Stl w/7 - 10" x 7' beams, 4 CI sheaves & 6 - 2-15/16" S.S. bearings	1
Casing Pulleys	24"x 2-15/16"	CI	3
		RIG FRONT	
Pumping Unit	80 HP	OCS Buck type mounted on 5'3" x 17'5" fabricated stl base section, comp w/twin crank, dbl reduction gear, ratio 16.6 to 1; twin 6" CIS spec cranks; 6'1/2" Steel Samson post; 16" x 8½" x 12'10" - 58# stl walking beam; horsehead type beam hanger;	

Unit	Size	Description	Quantity
		3" O.D. Center bearings; crosshead bearings, 2½" x 6'6" twin tubular pitmans and wrist pins & welded sheet metal belt guard, serial P-1426	1
Unit Sheave	30.0"	1B-4 "C" sec V type	1
do	136-C	"C" sec V-type	4
		ENGINE INSTALLATION	
Engine		McCormick-Deering Model P-30 comp w/weather hood, serial PE 3160; with 1 Int Model #70 air cleaner, 1 Ensign gas-gasoline carburetor, 1 Marvel Oiler, 1 21" starting wheel	1
Engine sheave	15.5"	1D-4 "C" sec V-type	1
Slide rails		Univ Engine	1 set
Regulator	1"	Reliance house gas	1
Volume tank	5' x 13"	S-H gas scrubber, on 3 - 2'6" legs made of 1½" angle iron	1
		WELL HEAD INSTALLATION	
Flow bean	2"	Hughes adj 6000# T T-type	1
Tee	8½" x 2½"	81# FX-66	1
Csg Hd	8-5/8" x 5½"	BIG East Tex Spec w/1 - 3" & 1-2" outlet	1
Csg Nip	5½" x 44"	17# 10-thd	1
Csg Clamps	13"	1" x 8" x 43"	1 set
Csg Hd	13" x 8-5/8"	BIG East Tex Spec w/2 - 3" outlets	1
		SUB SURFACE EQUIPMENT	
Casing	13"	40# 8-thd lapweld	150
Casing (Line Pipe)	8"	29.35# 8-thd LW	1183
Casing	5½"	17# 10-thd CC SS	3222
Tubing	2½"	6.5# 10-thd EUE CC SS	3431
Sucker Rods	3/4" x 25'	Axelson #59 AIT	3325
Guide Shoe	8-5/8"	Baker Bak Blu	1
Float Collar	8-5/8"	Baker Bak Blu w/male & female thds	1
Guide Shoe	5½"	Baker Bak Blu 17# 10-thd	1
Float Collar	5½"	Baker Bak Blu 17# 10-thd	1
Perforated nip	2½" x 36"	10-thd EUE	1
[illegible] catcher	5½" x 2½"	Guib type X less anchor	1
Plunger Pump	2½" x 9'	B&W [illegible]	1

Unit	Size	Description	Quantity
		AT BATTERY	
		Serving wells #1&2	
Separator	3'x11'	Nat'l #B-IV, 200# T 125# [illegible] ser #5498, Co #309, w/ 1 - 4" flanged end IB oil valve, 1 - inside float assembly, 1 - 4" 200# IP IR pressure gauge, 1 - 4" SE IB [illegible] relief valve	1
Tank	500 bbl	Amer LP BS w/top 30AG #133	1
do	do	ditto 30AG #1[illegible]5	1
Tank stairway	24" x [illegible]'	Amer painted stl w/railing & supports	1
[illegible] walkway	24"	Amer painted stl w/railing & 2 sets ground brackets	[illegible]
Separator	3' x 11'	200# T 125# [illegible] Serial 5354 #5-IV Nat'l [illegible] Separator with Inside float assembly, 1 - 4" FE IB Oil valve, 1 - 4" 200# IP IR pressure gauge, 1 - 4" SE IB [illegible] relief valve	1
Heater	6' x 7'	#2 Nat'l Emulsion Heater	1
Coupling	6"	std LP	1
Heating Coil	[illegible]" x 3' x 20'		1
Steam Pump	6" x 4" x 6"	Wilwell duplex #T-1616	1
Swage nipple	6" x 4"	8-thd reg SS	2
		MISC LEASE EQUIPMENT	
Chemical Feeder		BS&B automatic comp w/2" 30# pressure gauge	1
		AT BATTERY	
Fence Gate	2'10" x 4'	SLP gate	1
Corner Posts	7'	Angle iron galv stl	8
Line Posts	7'	do	12
		AT WELL #2	
Regulator	1"	C&F LP gas	1
Clamp		#2 hvy T-handle Hatigan polished rod	1
Flange	4"	Fig F-5 Orifice	1
		LEASE FLOW LINES	
SLP	2"	Well #2 to sepr	258
do	2"	Scrubber tank to engine	16
do	2"	Scrubber tank to gas line	16
do	3"	Riser at well	7
do	4"	Well #1 to sepr	16
do	3"	do	797
do	4"	Riser at sepr	8
do	3"	Well #2 to sepr	841
do	3"	Riser at sepr	8
		BATTERY [illegible]	
do	2"	Heating lines at heater	362
do	4"	Sepr vent line	362
do	4"	Sepr vent line riser at sepr	13
	4"	Sepr vent line riser to air	22
do	2"	Sepr vent line guy stakes	14
do	2"	Sepr vent line to rolling line at tanks (gas)	492
do	2"	Bleeder from stock tanks to burn pit	262
do	2"	Fence posts at burn pit	84

Unit	Size	Description	Quantity
SLP	3"	Battery vent line	49
do	3"	Battery vent line riser	18
do	2"	Battery vent line supports	30
do	3"	Battery vent line supports	10
do	2"	Fence posts	126
do	4"	Fence posts (Battery)	42
do	2"	Fence posts (Battery)	4
do	4"	Battery header	20
do	4"	Battery header riser	9
do	4"	Gravity from sepr to header	37
do	3"	Gravity from sepr to header	130
do	4"	Meter setting	20
do	3"	Sepr Drain	3

Final Transfer 6A-517

STANOLIND OIL AND GAS COMPANY - LANGLIE A-1 & A-2

United States of America c/o Supervisor, Oil & Gas Operations, U.S.Geological Survey, P.O.Box 997, Roswell, New Mexico	5% Royalty Interest
P.J.Langlie 10 S. 1st Street, Alhambra, California.	1/2% Royalty Interest
W.M.Klares 1411 S. Catalina Street Los Angeles, California.	1/2% Royalty Interest
L.M. Gregory 1319 S. Ridgeley Drive Los Angeles, California	1/2% Royalty Interest
Lottie Gregory* 1328 - 4th Avenue, Los Angeles, California.	1/6% Royalty Interest
F.A.Andrews 233 South Van Ness Avenue, Los Angeles, California	4-5/6% Royalty Interest
Oil Royalties Corporation 623 Van Nuys Building, Los Angeles, California.	1/2% Royalty Interest
Marshall Ainston, Inc. 490 I.W.Hellman Building, Los Angeles, California	1/2% Royalty Interest
Stanolind Oil and Gas Company Philcade Building, Tulsa, Oklahoma.	87-1/2% Working Interest

*The royalty to this participant is at present being withheld until legal difficulties between L.M.Gregory and Lottie Gregory are settled.

STANOLIND OIL & GAS COMPANY - LANGLIE A-2

Well Information

Casing Record

13" OD - 40# - 162' - 100 sacks
8-5/8" - 28# - 1185' - 360 sacks
5½" OD - 17# - 3221' - 400 sacks

Special Equipment

This well is equipped with an OCS "Buck" unit and a P-30 McCormick Deering engine and 3325' of 3/4" sucker rods.

Tubing Record

2½" EUE - 3335'
2½" x 9' B&W [illegible] Ansore liner barrel 3335' to 3344'.

Geological Information

Elevation 3160'
Top Anhydrite 1100'
Base Salt 2660'
Top Brown Lime 2570'
Top Yates Sand 2810'
Gas Shows - None logged
Total Depth 3463'
Oil Zones - (Drilling time & samples)
3210'-20 - 240 minutes
3220'-30 - 235 minutes
From 3230' to TD drilled with cable tools.
3415' to 3424' show oil & gas, 3424'-30 inc. oil.
3452' to 3463' hole filling with oil.

Special Tests - None

General Information

Royalty Division - Attached
Accumulated Production to January 1, 1940 - 24, 726.
Initial Production - Swabbed 47.5 B.O. in 7 hrs. shot with 140 qts. SNG 3416' to 3459', after shot flowed IP 121 BOPD thru 1/16" choke w/gas-oil ratio of 512.

Well History

Rotary drilling operations were started on this well September 21, 1937, and drilled to a depth of 3230' where cable tools were moved in and the well completed on Nov. 7, 1937, at a total depth of 3463' (-303'). Well was tested at 3456' and swabbed 27.5 B.O. in 6 hrs. Deepened to TD 3463' and swabbed 47.5 B. O. in 7 hrs. On November 23, 1937, it was shot with 140 qts. of SNG and was then cleaned out by Beckman. After cleaning out it flowed 121 Bbls oil in 24 hrs thru a 1/16" choke. The gas-oil ratio on this test was 512 cu. ft. per. bbl. It continued to flow at the allowabel rate of 63 BOPD until January 1938. With the production amounting to 40 Bbls. per day, a string of 1¼" tubing was run February 12, 1938. This was run inside the 2½" tubing. Although some trouble was encountered keeping the well flowing it was produced by flow until June 1[illegible], 1938. At this time a pumping unit was installed. In recent tests over a 24 hr. period the oil production varied from 17 to 20 barrels. The maximum water production has been 2% and was first noticed November 19, 1939. Since the last test the well has been pulled to inspect the pump as it is believed it should pump more than the recent tests have shown.

[illegible] #1

WELL INFORMATION

Casing Record	13" -266'-200 sax 8-5/8"-2767'-900 sax 5½" -3242'-25 sax
Special Equipment	None
Tubing Record	2" - 3429'

GEOLOGICAL INFORMATION

Elevation	3189
Top Anhydrite	1070
Base Salt	2650
Top Brown Lime	2780
Top Yates Sand	2920
Gas Shows	2938'-52' 2990') 1,100 MCF
Total Depth	3476'
Oil Zones (Drilling time & Samples	3342-57 3364-70 3388-3409 3434-52 3458-65
Drilling Time	Attached
Special Tests	None

PRODUCTION INFORMATION

Royalty Division	Attached
Accumulated Production to January 1, 1940	33,647 bbls.
Initial Production	2.2 BO/hr. Gas Lift Csg and DP, Shot 300 qts. 3325'-3476' After Shot Fl, IP 6.4 BO/hr.

WELL HISTORY BURLESON #1

The well was spudded on November 17th, 1937, and at total depth 270' the same day, 247' fo 13" OD casing was run 266'. Plug was drilled, and drilling was resumed on November 20th. Top of the Anhydrite was encountered at 1070' on November 22nd.

On November 25th, 2749' of 8-5/8" OD casing was run to 2767', 3 feet off bottom, and cemented with 900 sax of cement mixed with 4 tons of salt.

Yates sand was picked up at 2920' and began showing gas at a drilling depth of 2938'. The well unloaded itself at 2952', and another increase was found at 2990. The well was unloaded at TD 2992, and tested between drill pipe and casing. The gas gauged 1,140 MCF gas.

At total depth 3250, 3226' of 5½" 17# seamless casing was run to 3242' and cemented with 25 sax of cement. The plug was drilled on December 15th, 1937 and the well was drilled in while circulating oil.

At TD 3476, the well tested 22 barrels of oil in 10 hours by gas lift between casing and drill pipe. The hole was then shot with 300 qts. nitroglycerine at 3325 to 3476 shooting with 2 qts. per foot, the hole having been loaded with oil.

After cleaning the well out to the bottom, tubing was run, 3439'1" of 2", tallied overall, set at 3429'9", 47' off bottom. The well then flowed an initial production of 155 barrels of oil with 260 MCF gas flowing through 30/64" choke on the tubing. Completed December 26,1937

[illegible]

Elevation....................3189

Top of Anhydrite.............1070

Base Salt....................2650

Top of Brown Limestone.......2780

Top of Yates Sandstone.......2920

Total Depth..................3476

CASING RECORD

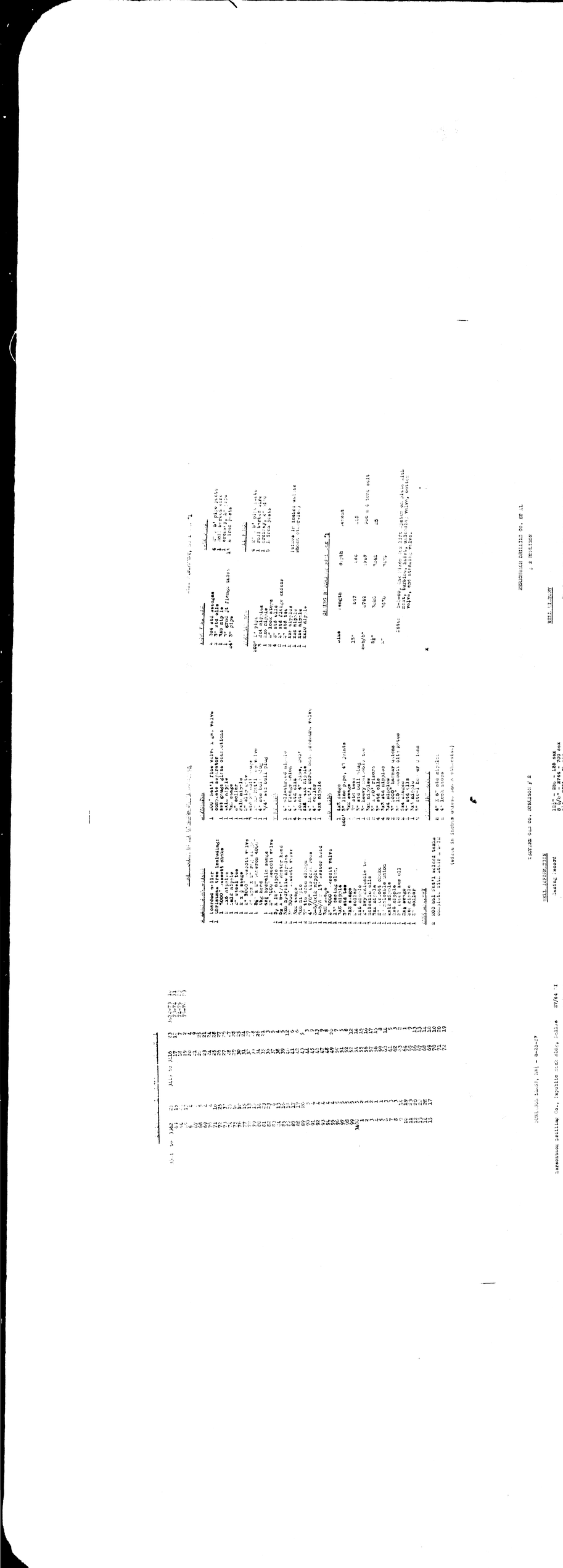
SIZE	AMOUNT	DEPTH	CEMENT
13"	247'	266	200
8-5/8"	2749'	2767'	900 ≠ 4 tons salt.
5-1/2"	3226'	3242'	25
2"	3439'1"	3429'9"	

SPECIAL TESTS

TYPE	DEPTH	RESULTS
Drill pipe & casing	2767-2992	1,140 MCF gas
Gas lift between drill pipe & casing	3242-3476	22 barrels oil in 10 hrs.
Initial flow thru tubing, no packer after shot.	3242-3476	155 barrels oil with 260 MCF gas thru 30/64" Choke.

DRILLING TIME IN MINUTES BURLESON # 1

3252 to 3253	8	3306 to 3307	15
54	11	8	15
55	7	9	15
56	3	10	10
57	4	11	15
58	11	12	13
59	11	13	14
60	11	14	17
61	13	15	15
62	17	16	17
63	13	17	13
64	20	18	8
65	15	19	13
66	18	20	18
67	17	21	20
68	17	22	20
69	18	23	17
70	17	24	20
71	13	25	8
72	18	26	4
73	19	27	8
74	15	28	10
75	15	29	20
76	20	30	20
77	17	31	20
78	17	32	12
79	17	33	11
80	17	34	22
81	17	35	5
82	17	36	14
83	23	37	26
84	22	38	28
85	28	39	24
86	27	40	25
87	25	41	11
88	18	42	14
89	22	43	11
90	16	44	7
91	19	45	5
92	25	46	8
93	14	47	5
94	21	48	8
95	22	49	5
96	15	50	6
97	20	51	4
98	23	52	4
99	18	53	6
3300	15	54	5
1	9	55	6
2	14	56	7
3	20	57	7
4	15	58	18
5	15	59	25
6	15	60	26
		61	30



On July 31st, 2" tubing was run to total depth [illegible]' with a packer at [illegible]' and perforations below the packer. The well was then swabbed dry and showed a small amount of gas with no oil.

At total depth 3226', 3212' of 5½" casing was set at 3226' and cemented with 20 sax. The plug was tested on August 1st and drilled out with a 4¾" bit, using oil to displace the salt water as drilling fluid.

On August 10th, the well was tested through the casing with drill-pipe in the hole by injected gas, this test showed ½ BO/hr.

The well was then deepened to 3467' and on the 14th the well was kicked off by input gas and flowed 1½ BO/hr. natural.

The well was loaded with oil and on the 15th was shot with 220 quarts of nitroglycerine from 3[illegible]37 to 3467, with a 15' gravel tamp above the shot. The well unloaded after the shot and then bridged at 3467'. The bridge was drilled out and the hole cleaned to 3467' total depth of the well. 2" tubing was then run to [illegible]'.

After the well unloaded through the tubing it was allowed to flow three hours, and then was gauged flowing 3.4 BO/hr on August 16, 193[illegible].

[illegible]

Elevation	3156' [illegible]
Top Anhydrite	10[illegible]0
Base Salt	
Top Gr. Lime	2700
Top Yates	2600

OIL PAYS: 3371-3390   3[illegible]-3467

GAS PAYS: 2910-46 (Yates) 3,000 MCF, 3052-56 (L. Yates) 1,000 MCF (est.), 3070-93 (Queen), 16,000 MCF B/250# B. Pr.

TESTS

(1). 2910-46, 3,000 MCF gas no oil.

(2). T.D. 3023', 3,000 MCF gas no oil.

(3). T.D. 3066', 4,000 MCF gas no oil.

(4). T.D. 3071', 16,000 MCF gas, spray of oil, Back-Pressure 250#, shut in Pr. 1250#

(5). T.D. 3121', 2" tubing with packer 3097 perforations below, small gas no oil.

(6). T.D. 3224', 2" tubing with packer 3125, perforations below, small gas no oil.

(7). 3226-3401, small gas, 1/2 BO/hr.

(8). T.D. 3467, Natural small gas 1½ BO/hr.

(9). T.D. 3467', After shot, Fl. I.P. 3.4 BO/hr fourth hour of four hour test, no estimate on gas.

CASING & TUBING RECORD

SIZE	AMOUNT	DEPTH	CEMENT
12½"	237'10"	255'10"	100
8 5/8"	2728'11"	2744'11"	700
5½"	3212'0"	3226'0"	20
2" Tubing	3454'0"	3456'0"	--

DRILLING TIME, BURLISON #2

DEPTH	MIN.	DEPTH	MIN.	DEPTH	MIN.	DEPTH	MIN.
3216		3261	10	3308		3356	
17	13	62	13	09	10	57	25
18	13	63	12	10	13	58	25
19	18	64	18	11	15	59	20
20	20	65	12	12	10	60	35
21	21	66	14	13	9	61	40
22	20	67	8	14	17	62	17
23	13	68	6	15	19	63	13
24	19	69	4	16	17	64	17
25	16	70	4	17	15	65	18
26	20	71	8	18	22	66	20
27	19	72	11	19	20	67	19
28	21	73	13	20	13	68	16
29	28	74	16	21	10	69	18
30	10	75	18	22	9	70	18
31	5	76	15	24	5	71	21
32	8	77	15	25	7	72	12
33	22	78	15	26	7	73	9
34	19	79	17	27	7	74	8
35	15	80	15	28	7	75	9
36	10	81	13	29	10	76	8
37	10	82	20	30	13	77	6
38	20	83	17	31	7	78	6
39	17	84	30	32	6	79	8
40	18	85	28	33	6	80	6
41	15	86	27	34	6	81	9
42	20	87	13	35	5	82	7
43	15	88	13	36	6	83	7
44	11	89	13	37	6	84	5
45	14	90	22	38	8	85	4
46	15	91	14	39	25	86	6
47	15	92	28	40	15	87	67
48	17	93	26	41	13	88	5
49	15	94	29	42	12	89	9
50	13	95	36	43	13	90	11
51	12	96	36	44	5	91	26
52	18	97	42	45	4	92	30
53	24	98	16	46	4	93	30
54	19	99	6	47	13	94	28
55	23	3300	3	48	10	95	40
56	18	01	7	49	7	96	22
57	22	02	13	50	5	97	14
58	20	03	47	51	8	98	11
59	20	04	60	52	11	99	7
60	17	05	60	53	12	3400	14
		06	12	54	8	01	21
		07	18	55	12	02	25
		08	12	56	25 15	03	14

DRILLING TIME BURLISON # 2

DEPTH	MIN.	DEPTH	MIN.
3403		3449	
04	30	50	7
05	27	51	8
06	25	52	15
07	20	53	13
08	12	54	9
09	11	55	9
10	17	56	10
11	15	57	12
12	15	58	11
13	15	59	11
14	15	60	4
15	15	61	3
16	9	62	4
17	15	63	25
18	16	64	2
19	25	65	2
20	13	66	3
21	9	67	2
22	17	68	2
23	23	69	4
24	18	70	6
25	15		
26	20		
27	15		
28	10		
29	14		
30	25		
31	10		
32	8		
33	17		
34	14		
35	19		
36	10		
37	10		
38	13		
39	17		
40	20		
41	19		
42	14		
43	19		
44	16		
45	16		
46	13		
47	11		
48	20		
49	21		
50			

Total Depth, Steel line correction 3470 equals 3467

[illegible] EQUIPMENT OF BURLISON #2

WELL CONNECTIONS

1 13x13 nipple
1 13x 7-5/8 Hector head
1 3" x heavy bull plug
1 3x2 x heavy swage nipple
1 2" 3000# Hughes gate
1 7-5/8 x 8 nipple
1 7-5/8 x 5½ Hector head
2 3x6 hydralic nipple
2 3x6 x heavy nipple
2 3" 8th 3000# [illegible] gate
2 sets 3" clamps, 7/8x4x26
2 1¼ x 56 [illegible] bolts for clamps
1 5½ x 7 swage nipple
1 5½x10 nipple
1 5½ 3000# Hughes gate
1 7" Type F 168 2000# [illegible] tubinghead complete.
2 4x2 hydralic swage nipple
3 2" 3000# [illegible] gate
2 2x½ hydralic swage nipple
3 ½" 8lwth all-steel needle valves.
1 2" 8th x 2" 10th seamless nipples
1 2x10 x heavy nipple
1 2x8 x heavy nipple
1 2" 3000# [illegible] series T 108 all-steel tee
1 set 2" tubing hold-down clamps with Stacy booster & chain
1 2" Hughes choke

TEST LINE CONNECTIONS

1 2x10 regular nipple
1 2x21 reg nipple
1 2" heavy malebble ell
1 jt 2" pipe, 22'10", 1500# test
24 jts 3" line, 857'5"
1 3x2 x heavy swage nipple

[illegible]

4 2" 15' pipe posts
4 L iron posts

SEPARATOR CONNECTIONS

4 3" Hvy malleable ells
1 3x4 nipple
2 4x3 swage nipples
1 4" Ser. 70 Venstone bolt type flange unions
1 3x24 nipple
1 Separator, built complete by [illegible]
1 2" 250# pop valve
1 2" std collar
1 2x4 std nipple
1 2" Lunk gate valve
1 4x4 nipple
1 4" collar
1 3" collar
1 3x12 nipple
2 3" std ells
1 3x6 nipple
1 4" 300# [illegible] oil valve [illegible]
1 3x6 nipple
5 jts 3" vent line, 112'3"
3 4x3 regular swages
1 4" malleable tee
1 4" bull plug
1 4" X 12' riser pipe
1 4x6 nipple
1 4x3 welded swage (home-made)
2 3" ells
1 3x3 nipple
2 3" close nipple
1 3" OJC check valve
1 4" back-pressure valve
3 2" ells
2 2" tees
2 2" unions
2 2x6 nipples
1 2x10 nipple
1 2x8 nipple

(Sizes in inches unless otherwise specified)

WELL EQUIPMENT AT [illegible] #2

TANK CONNECTIONS:

2 500 bbl Nat'l bolted tanks
107'5" of 3" pipe
4 3" common tees
4 3" hdl bar unions
2 3" bull plugs
2 3" ells
1 3x12 nipple
1 3x6 nipple
1 2" Wescott gate valve
2 4" Walworth stops
2 4x12 nipples
2 3x6 nipples for bleeder lines
2 3" collars
2 3" ells
2 3x2 swages
2 2" Crane stops
40' 2" line pipe, bleeders
2 2" Maleable ells
1 2" maleable tees
1 2" common lip union
1 2x8 nipple
4 3" Ells
5 3x3 nipples
2 3" Walworth stops
3 2" hdl bar unions
2 4x3 swage nipples
2 3" common tees
2 3" bull pligs
2 3x6 nipples
35' 3" pipe on top of tanks
1 2x3 swage
1 2x3 nipple
1 2" lip union

CASING RECORD AT [illegible] #2

Size	Amount	Depth		Sax Cement
13"	237'10"	255		175
8-5/8"	2728'11"	2744		700
5½"	~~3454'~~ 3212'	~~3456~~	3226'	20
2" Tbg.	3454	3458	loss threads	

k