

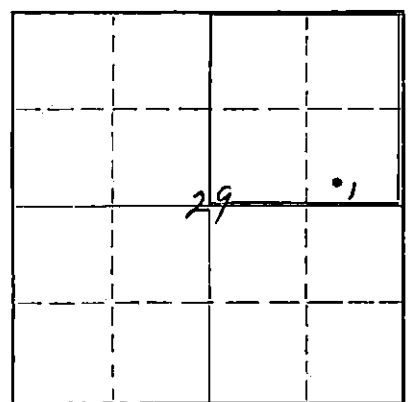
15-185-12822-0000

STATE OF KANSAS  
STATE CORPORATION COMMISSION  
Give All Information Completely  
Make Required Affidavit  
Mail or Deliver Report to:  
Conservation Division  
State Corporation Commission  
211 No. Broadway  
Wichita, Kansas

### WELL PLUGGING RECORD

Stafford County. Sec. 29 Twp. 23S Rge. (E) 12(W)  
Location as "NE/CNWKSWK" or footage from lines SW/4 SE/4 NE/4  
Lease Owner Skelly Oil Company  
Lease Name Zepha E. Riley Well No. 1  
Office Address P.O. Box 391, Hutchinson, Kansas  
Character of Well (completed as Oil, Gas or Dry Hole) Oil  
Date well completed July 15, 1950  
Application for plugging filed January 7, 1957  
Application for plugging approved January 8, 1957  
Plugging commenced February 1, 1957  
Plugging completed February 6, 1957  
Reason for abandonment of well or producing formation Depleted Oil Well

NORTH



Locate well correctly on above Section Plat

If a producing well is abandoned, date of last production December 9, 1956  
Was permission obtained from the Conservation Division or its agents before plugging was commenced? Yes

Name of Conservation Agent who supervised plugging of this well Mr. R. E. Brundage  
Producing formation Arbuckle Lime Depth to top 3851 1/2 Bottom 3855' Total Depth of Well 3855 Feet  
Show depth and thickness of all water, oil and gas formations.

#### OIL, GAS OR WATER RECORDS

#### CASING RECORD

FORMATION	CONTENT	FROM	TO	OD SIZE	PUT IN	PULLED OUT
Arbuckle Lime	Oil	3851 1/2'	3855'	8-5/8"	672'0"	None
				5-1/2"	3882'3"	2645'2"

Describe in detail the manner in which the well was plugged, indicating where the mud fluid was placed and the method or methods used in introducing it into the hole. If cement or other plugs were used, state the character of same and depth placed, from \_\_\_\_\_ feet to \_\_\_\_\_ feet for each plug set.

Bridging plugs at 3835', 3800', 3620', 3592', 3564', 3545', 3528', 3490' and 3469'

1 sack of Cal-Seal	3469' to 3464'
Sand	3464' to 3445'
5 sacks of cement	3445' to 3405'
Mud laden fluid	3405' to 280'
Crushed rock	280' to 270'
20 sacks of cement	270' to 220'
Mud laden fluid	220' to 35'
Crushed rock	35' to 25'
10 sacks of cement	25' to 6'
Surface soil	6' to 0'

3-6-57

RECEIVED  
STATE CORPORATION COMMISSION

MAR 6 - 1957

(If additional description is necessary, use BACK of this sheet)  
Name of Plugging Contractor Ace Pipe Pulling Company  
Address Box 304, Great Bend, Kansas

STATE OF Kansas, COUNTY OF Reno, ss.  
H. E. Wamsley (employee of owner) of the above-described well, being first duly sworn on oath, says: That I have knowledge of the facts, statements, and matters herein contained and the log of the above-described well as filed and that the same are true and correct. So help me God.

(Signature) \_\_\_\_\_  
Box 391, Hutchinson, Kansas  
(Address)

SUBSCRIBED AND SWORN TO before me this 2nd day of March, 19 57

My commission expires April 7, 1959  
Josephine L. Johnson Notary Public.

PLUGGING  
FILE SEC. 29 T 23 R 12W  
BOOK PAGE 132 LINE 3

## TEST UPPER ZONES

15-185-12822-0000

Date Commenced: December 8, 1956  
Date Completed: February 6, 1957

Plugged back from 3855' to 0' Plugged and Abandoned

Production Before: 8 barrels of oil and 152 barrels of water

Pulled Out: 83 jts., 2645' 2", of 5 1/2" OD, 14#, 8R, R-2, H-40, R.L.W. steel casing (C cond.)

- - - - -

Moved in and rigged up cable tools of W. L. Copeland Drilling Company on December 8, 1956. Pulled rods and 2" tubing and cleaned out to bottom. Ran Lane-Wells Gamma Ray Neutron Survey.

Ran 2" tubing and set DM retainer at 3837' and cemented off open hole from 3851' to 3855' with 100 sacks of common cement, maximum TP-5000#. Pulled 2" tubing and swabbed and bailed the hole dry.

On December 14, drilled retainer and drilled cement plug to 3851'. Perforated 5 1/2" casing from 3847' to 3850' with 19 holes and from 3847 1/2' to 3849 1/2' with 8 holes by Lane-Wells, no shows. Ran 2" tubing and set Halliburton HM packer at 3835'. Pumped 57 1/2 barrels of oil into formation at 5500#-TP; then pumped 18 barrels of oil with 19 gallons of Hyflo into formation, pressure broke to 5000#-TP. Swabbed through 2" tubing 1 hour, 15 barrels of oil used in treating, then swabbed off bottom 6 hours, 4 barrels of oil used in treating.

On December 15, treated through 2" tubing with 250 gallons of Halliburton MCA acid as follows:

ACID TREATMENT NO. 1 - Between 3847' and 3850'

Treatment put in 12/15/56 by Halliburton, using 250 gallons of acid and 16 barrels of oil.

TIME	CP	TP	REMARKS
10:50 am			Start acid
10:57 am		850	Acid on bottom
11:10 am		1750	
11:12 am		1250	
11:15 am		300	
11:20 am		Vac.	Acid in formation, treatment completed

Swabbed through 2" tubing 1000' from top 3 hours, 16 barrels of oil used in treating, 18 barrels oil used to pump into formation, and 65 barrels of water. Pulled 2" tubing and packer and swabbed through 5 1/2" casing 5 hours, 83 barrels of oil used to pump into formation, and 159 barrels of formation water. Then swabbed 2 hours, 50 barrels of water per hour with scum of oil. Set Lane-Wells bridging plug at 3835' and plugged back with 1 sack of Cal-Seal from 3835' to 3826'.

Perforated 5 1/2" casing from 3811' to 3819' with 50 holes by Lane-Wells, no shows. Ran 2" tubing and set Halliburton HM packer at 3800'. Treated through 2" tubing with 250 gallons of Halliburton MCA acid as follows:

ACID TREATMENT NO. 2 - Between 3811' and 3819'

Treatment put in 12/16/56 by Halliburton, using 250 gallons of acid and 15 1/2 barrels of oil.

TIME	CP	TP	REMARKS
8:50 am	500	0	Start acid
8:59 am	500	500	Acid on bottom
9:10 am	500	950	35 gallons of acid in formation
9:30 am	500	1000	70 gallons of acid in formation
9:38 am	500	900	105 gallons of acid in formation
9:50 am	500	950	210 gallons of acid in formation
10:03 am	500	950	250 gallons of acid in formation

Swabbed through 2" tubing 1 hour, 15 1/2 barrels of oil used in treating; then swabbed 1 hour, 2 barrels of acid water. Swabbed 3 hours, 16 gallons of acid water per hour, no oil or gas. On December 17, treated with Halliburton Vis-O-Frac as follows:

VIS-O-FRAC TREATMENT NO. 1 - Between 3811' and 3819'

Used 198 barrels of Vis-O-Frac agent  
136 barrels of regular crude oil  
4000# of sand  
Maximum TP-4100#  
Time 19 minutes

Pulled 2" tubing and packer, swabbed to bottom and off bottom through 5 1/2" casing 24 hours, 200 barrels of oil used in treating and 54 barrels of formation water. On December 19, swabbed off bottom 24 hours, 6 barrels of oil used in treating and 39 barrels of water.



Set Lane-wells bridging plug at 3800' and plugged back with 1 sack of Cal-Seal from 3800' to 3795'. Perforated 5½" casing from 3726' to 3734' with 50 holes and from 3738' to 3752' with 86 holes by Lane-wells; tested 25 gallons of water with scum of oil. Treated through 5½" casing with 500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 3 - 3726'-34' and 3738'-52'

Treatment put in 12/20/56 by Halliburton, using 500 gallons of Halliburton acid and 95 barrels of oil.

TIME	CP	TP	REMARKS
5:30 pm			Start acid
5:58 pm	0		Acid on bottom
6:00 pm	500		250 gallons of acid in formation
6:03 pm	800		500 gallons of acid in formation

Swabbed through 5½" casing 2 hours, 93 barrels of oil used in treating. Then swabbed off bottom 9 hours, 30 barrels of formation water with scum of oil.

Set Lane-wells bridging plug at 3620' and plugged back with 1 sack of Cal-Seal from 3620' to 3609'. Perforated 5½" casing from 3598' to 3608' with 62 holes by Lane-wells, no shows. Treated through 5½" casing with 500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 4 - Between 3598' and 3608'

Treatment put in 12/21/56 by Halliburton, using 500 gallons of acid and 91½ barrels of oil.

TIME	CP	TP	REMARKS
3:00 pm			Start acid
3:25 pm	1500		Acid on bottom
4:22 pm	700		50 gallons of acid in formation
4:28 pm	700		250 gallons of acid in formation
4:32 pm	700		500 gallons of acid in formation
4:33 pm	750		Flushed with 13 barrels of oil

Swabbed through 5½" casing 2 hours to bottom, 85 barrels of oil used in treating. Then swabbed off bottom 4 hours, 8 barrels of acid water and no oil. Bailed and tested 4 hours, 8 gallons of oil used in treating and 2½ barrels of water. Ran 2" tubing open end to 3608' and cemented off perforations from 3598' to 3608' with 35 sacks of Pozmix cement, maximum TP-1000. Pulled 2" tubing and shut down for cement to set.

On December 26, swabbed the hole dry and drilled cement plug to 3615'. Bailed the hole dry and perforated 5½" casing from 3598' to 3608' with 60 holes by Lane-wells, no shows. Treated through 5½" casing with 500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 5 - Between 3598' and 3608'

Treatment put in 12/28/56 by Halliburton, using 500 gallons of acid and 92 barrels of oil.

TIME	CP	TP	REMARKS
11:33 am	500		Acid on bottom
11:50 am	950		25 gallons of acid in formation
11:52 am	750		50 gallons of acid in formation
12:09 pm	800		380 gallons of acid in formation
12:15 pm	800		500 gallons of acid in formation

Swabbed through 5½" casing 1 hour, 70 barrels of oil used in treating; then swabbed 9 hours, 15 barrels of oil used in treating and 16 barrels of acid water. Bailed off bottom 6 hours, 3½ barrels of acid water, no oil.

Set Lane-wells bridging plug at 3592' and plugged back with 1 sack of Cal-Seal from 3592' to 3585'. Perforated 5½" casing from 3572' to 3582' with 60 holes by Lane-wells, no shows. Treated through 5½" casing with 500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 6 - Between 3592' and 3585'

Treatment put in 12/29/56 by Halliburton, using 500 gallons of acid and 88 barrels of oil.

TIME	CP	TP	REMARKS
2:45 pm			Start acid
3:17 pm	600		Acid on bottom
3:58 pm	750		150 gallons of acid in formation
4:36 pm	750		350 gallons of acid in formation
4:48 pm	900		500 gallons of acid in formation

Swabbed through 5½" casing 2 hours, 88 barrels of oil used in treating; then swabbed 10 hours, 67 barrels of formation water, no oil. On December 30, swabbed through 5½" casing 6 hours, 21 barrels of formation water, no oil.

Set Lane-wells bridging plug at 3564' and plugged back with 1 sack of Cal-Seal from 3564' to 3559'. Perforated 5½" casing from 3551' to 3554' with 19 holes by Lane-wells, no shows. Treated through 5½" casing with 500 gallons of Halliburton 15% acid as follows:



ACID TREATMENT NO. 7 - Between 3551' and 3554'

Treatment put in 12/30/56 by Halliburton, using 500 gallons of 15% acid and 90 barrels of oil.

TIME	CP	TP	REMARKS
7:35 pm	500		Acid on bottom
8:15 pm	1250		20 gallons of acid in formation
8:26 pm	1450		70 gallons of acid in formation
8:33 pm	900		150 gallons of acid in formation
8:45 pm	950		380 gallons of acid in formation
8:52 pm	950		500 gallons of acid in formation

Swabbed through 5 1/2" casing 2 hours, 88 barrels of oil used in treating and 7 barrels of acid water. Swabbed 5 hours, 1 barrel of oil used in treating and 6 barrels of acid water. Bailed and tested off bottom 1 hour, 10 gallons of oil used in treating and 33 gallons of acid water.

Set Lane-Wells bridging plug at 3545', then plugged back with 1/2 sack of Cal-Seal from 3545' to 3540'. Perforated 5 1/2" casing from 3535' to 3538' with 19 holes by Lane-Wells, no shows. Treated through 5 1/2" casing with 500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 8 - Between 3535' and 3538'

Treatment put in 12/31/56 by Halliburton, using 500 gallons of acid and 90 barrels of oil.

TIME	CP	TP	REMARKS
1:15 pm			Start acid
1:43 pm	250		Acid on bottom
1:46 pm	200		126 gallons of acid in formation
1:47 pm	450		210 gallons of acid in formation
1:48 pm	850		290 gallons of acid in formation
1:53 pm	750		500 gallons of acid in formation

Swabbed through 5 1/2" casing 2 hours, 70 barrels of oil used in treating and 23 barrels of acid water. Then swabbed 14 hours, 6 barrels of oil used in treating and 37 barrels of formation water. On January 1, swabbed through 5 1/2" casing 5 hours, 9 barrels of formation water and no oil.

Set Lane-Wells bridging plug at 3528' and plugged back with 1 sack of Cal-Seal from 3528' to 3517'. Perforated 5 1/2" casing from 3496' to 3502' with 36 holes by Lane-Wells, no shows. Treated through 5 1/2" casing with 500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 9 - Between 3496' and 3502'

Treatment put in 1/1/57 by Halliburton, using 500 gallons of acid and 90 barrels of oil.

TIME	CP	TP	REMARKS
6:10 pm			Start acid
6:33 pm	1200		Acid on bottom
6:42 pm	700		50 gallons of acid in
6:48 pm	750		250 gallons of acid in
6:53 pm	700		500 gallons of acid in

Swabbed through 5 1/2" casing to bottom 2 hours, 88 barrels of oil used in treating and 12 barrels of acid water. Then swabbed 8 hours, 1 barrel of oil used in treating and 44 barrels of formation water.

Set Lane-Wells bridging plug at 3490' and plugged back with 1 sack of Cal-Seal from 3490' to 3487'. Perforated 5 1/2" casing from 3476' to 3480' with 25 holes by Lane-Wells, show of water; bailed and tested 5 hours, 3 1/2 barrels of water and no oil per hour.

Set Lane-Wells bridging plug at 3469' and plugged back with 1 sack of Cal-Seal from 3469' to 3464'. Perforated 5 1/2" casing from 3456' to 3459' with 18 holes by Lane-Wells, no shows. Treated through 5 1/2" casing with 500 gallons of Halliburton 15% acid as follows:

ACID TREATMENT NO. 10 - Between 3456' and 3459'

Treatment put in 1/2/57 by Halliburton, using 500 gallons of acid and 88 barrels of oil.

TIME	CP	TP	REMARKS
11:30 pm			Start acid
11:56 pm	100		Acid on bottom
11:59 pm	550		330 gallons of acid in
12:02 am	650		500 gallons of acid in formation

Swabbed through 5 1/2" casing 1 hour, 87 barrels of oil used in treating, 12 barrels of acid water and 4 barrels of formation water. Then swabbed 4 hours, 46 barrels of water with slight show of gas.

BOOK DATE TIME  
 LIFE SEC W L X S  
 110000



Since all probable zones of production had been tested in this well, finding none of commercial quality, regular authority was granted to plug and abandon the well.

On February 1, moved in and rigged up machine, and plugged the well as follows:

Sand	3464'	to	3445'
5 sacks of cement	3445'	to	3405'

Shot off and pulled 83 joints, 2645' 2", of 5 1/2" OD, 14#, 8R thd., R-2, H-40, H.E.W. steel casing (C cond.).

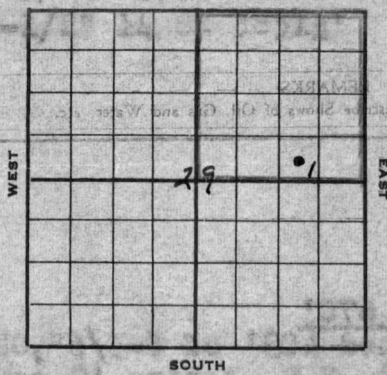
Mud laden fluid	3405'	to	280'
Crushed rock	280'	to	270'
20 sacks of cement	270'	to	220'
Mud laden fluid	220'	to	35'
Crushed rock	35'	to	25'
10 sacks of cement	25'	to	6'
Surface soil	6'	to	0'

Plugged and abandoned February 6, 1957.

PLUGGING  
FILE SEC 24 T 23 R 12W  
BOOK PAGE 132 LINE 3



# SKELLY OIL COMPANY



## Well Record

Lease Name and No. Zephe E. Riley Well No. 1 Elev. 1864' BH  
 Lease Description NE/4 Section 29-23S-12W,  
Stafford County, Kansas (160 Acres)  
 Location made June 21, 1950 by Keith E. Fuller  
 feet from North line 990 feet from East line NE/4  
330 feet from South line feet from West line of Sec. 29

Work com'd 6/22 1950 Rig comp'd 6/23 1950 Drlg. com'd 6/23 1950 Drlg. comp'd 7/6 1950  
 Rig Contractor Claude Wentworth Drilling Co., Inc.  
 Drilling Contractor Claude Wentworth Drilling Co., Inc., Tulsa, Oklahoma  
 Rotary Drilling from 0' to 3855' Cable Tool Drilling from To complete to   
 Commenced Producing July 15, 1950 Initial Prod. before shot or acid 2150' OIH in 4 hrs. Bbls.  
 Initial Prod. after shot or acid POB 15 hrs. w/ Deptho- Bbls.  
graph, 105 to 50 BW for ind. prod. of 602 BU  
 and 201 bbls. water Cu. ft.  
 Dry Gas Well Press. Volume Cu. ft.  
 Casing Head Gas Pressure Volume Cu. ft.  
 Braden Head (8-5/8" 55" OD) Gas Pressure Volume Cu. ft.  
 Braden Head () Gas Pressure Volume Cu. ft.

PRODUCING FORMATION Arbuckle Lime (Name) Top 3851 1/2' Bottom 3855' TOTAL DEPTH 3855'

### CASING RECORD

OD Size	Wt.	Thds.	Where Set	PULLED OUT			LEFT IN			KIND	Cond'n	CEMENTING	
				Jts.	Feet	In.	Jts.	Feet	In.			Sacks Used	Method Employed
8-5/8"	19	PE					10	403	0	R3 BB C			
8-5/8"	24	PE	678'				7	269	0	R3 BB C	400	Halliburton	
5-1/2"	14	ER	3851 1/2'				123	3882	3	H40 RBW R2 A	125	Halliburton	
(8-5/8" casing set 6' in cellar and 5 1/2" cased to derrick floor)													
Used 1 - 5 1/2" OD Howco Formation Packer Shoe													

Liner Set at \_\_\_\_\_ Length \_\_\_\_\_ Perforated at \_\_\_\_\_  
 Liner Set at \_\_\_\_\_ Length \_\_\_\_\_ Perforated at \_\_\_\_\_  
 Packer Set at \_\_\_\_\_ Size and Kind \_\_\_\_\_  
 Packer Set at \_\_\_\_\_ Size and Kind \_\_\_\_\_

### SHOT OR ACID TREATMENT RECORD

Date	FIRST		SECOND		THIRD		FOURTH	
	Ft. and	Ft.	Ft. and	Ft.	Ft. and	Ft.	Ft. and	Ft.
Acid Used	Gals. Qts.		Gals. Qts.		Gals. Qts.		Gals. Qts.	
Size Shot								
Shot Between								
Size of Shell								
Put in by (Co.)								
Length anchor								
Distance below Cas'g								
Damage to Casing or Casing Shoulder								

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 STATE CORPORATION COMMISSION  
 MAR 6 - 1957

### SIGNIFICANT GEOLOGICAL FORMATIONS

NAME	Top	Bottom	GAS		OIL		REMARKS
			From	To	From	To	
Heebner Shale	3242'						
Toronto Linc	3262'						
Douglas Sand	3280'						
Brown Linc	3382'						
Lansing Linc	3410'				3566'	3609'	Spotted oil sat. w/ trace good saturation
Conglomerate	3687'						
Viola Linc	3723'						
Simpson Series	3782'						
Arbuckle Linc	3851'				3851'	3855'	Good oil saturation

CONSERVATION DIVISION  
 WICHITA, KANSAS

### CLEANING OUT RECORDS

	DATE COMMENCED	DATE COMPLETED	PROD. BEFORE	PROD. AFTER	REMARKS
1st					See Reverse for other details.
2nd					" " " " "
3rd					" " " " "
4th					" " " " "

### PLUGGING BACK AND DEEPENING RECORDS

	Date Commenced	Date Completed	No. Feet Plugged Back or Deepened	Prod. Before	Prod. After	REMARKS
1st						See Reverse for other details.
2nd						" " " " "
3rd						" " " " "
4th						" " " " "

(See Reverse for Record of Formation)



# RECORD OF FORMATIONS

FORMATION	TOP	BOTTOM	REMARKS
			Indicate Casing Points, Describe Shows of Oil, Gas and Water, etc.
Surface soil, clay, and sand	0	105	
Shale and shells	105	125	
Shale, shells and gravel	125	170	
Red bed and shells	170	673	
Anhydrite	673	678	<b>TOP ANHYDRITE 670'</b>
			Set and cemented 5 1/2" OD, 14 1/2" ID, R-2, H-40, R.R.W. steel casing (C cond.) and 269' of 8-5/8" OD, 2 1/2" ID, P.E.E., S.S. (C cond.) casing at 678' with 100 sacks of cement.
Anhydrite	678	699	
Red bed and shale	699	980	
Shale and salt	980	1120	
Shale and shells	1120	1400	
Broken lime and shale	1400	1635	
Lime	1635	2040	
Lime and shale	2040	2935	
Lime	2935	3488	
			<b>TOP HARBOR SHALE 2935'</b>
			<b>TOP TORONTO LIME 3262'</b>
			<b>TOP DOUGLAS SAND 3081'</b>
			<b>TOP BROWN LIME 2833'</b>
			<b>TOP LANSING LIME 3410'</b>
Granular lime	3488	3488	Fair porosity, very light oil stain
Lime	3488	3499	
Slightly porous lime	3499	3505	Spotted oil stain
Lime	3505	3535	
Slightly porous lime	3535	3540	Spotted oil stain
Lime	3540	3552	
Oolitic lime	3552	3556	Spotted oil stain
Lime	3556	3566	
Porous lime	3566	3573	Spotted oil saturation with trace of good saturation
Lime	3573	3577	
Porous lime	3577	3585	Spotted oil saturation and trace of good saturation
Lime	3585	3600	
Porous lime	3600	3604	Spotted to fair oil saturation, good odor
Lime	3604	3606	
Porous oolitic lime	3606	3609	Spotted to fair oil saturation, good odor
Lime	3609	3663	
			<b>TOP STURGEON LIME 3663'</b>
			<b>TOP VIOLA LIME 3723'</b>
			<b>TOP BROWN LIME 3771'</b>

Sandy shale and chert	3771	3817	
Porous sandy dolomite	3817	3821	Fair oil saturation
Sandy shale and chert	3821	3846	
Porous sand	3846	3849	Fair oil saturation, slight odor
Lime	3849	3851	<b>TOP ARBUCKLE LIME 3851'</b>
Fine crystalline dolomite	3851	3855	Fair porosity and fair to good oil saturation, slight odor.

**TOTAL DEPTH 3855'**

Set and cemented 5 1/2" OD, 14 1/2" ID, R-2, H-40, R.R.W. steel casing at 3851' with 125 sacks of cement. Finished cementing at 11:00 p.m. 7/6/50.

Moved in and rigged up cable tools, bailed hole dry, and 5 1/2" casing tested dry on July 11. Dumped 1000' of water in hole, drilled cement plug and cleaned out to bottom. Hole filled 2150' with oil on top of water in 4 hours while bailing hole clean.

Swabbed through 5 1/2" casing down 3100' from top in 4 hours, 156 barrels of oil and 24 barrels of water (used in loading hole). Bailed hole clean and on July 14, ran 2" tubing and rods. POB 7 hours, 70 barrels of oil and 8 barrels of water. On July 15, POB 15 hours with Depthograph, 105 barrels of oil and 50 barrels of water for an indicated productivity of 602 barrels of oil and 201 barrels of water. On July 16, POB 9 hours, 58 1/2 barrels of oil and 24 barrels of water (total for 24 hours, 163 1/2 barrels of oil and 74 barrels of water).

**SLOPE TEST DATA:** Tests were taken at 250' intervals from 250' to 3250' inclusive, with no deviation from vertical noted.

DATE COMPLETED	DATE COMMENCED	PROD. BEFORE	PROD. AFTER	REMARKS
				See Reverse for other details

**WATER ANALYSIS**  
Halliburton Oil Well Cementing Company  
Report #50407  
7/15/50

DATE COMPLETED	DATE COMMENCED	PROD. BEFORE	PROD. AFTER	REMARKS
				See Reverse for other details
				Hydrogen sulfide . . . . .
				Specific gravity . . . . .
				Total Solids . . . . .
				Chlorides . . . . .
				Sulfates . . . . .
				pH . . . . .
				This data compares with that of Arbuckle water.

(See Reverse for Record of Formation)