

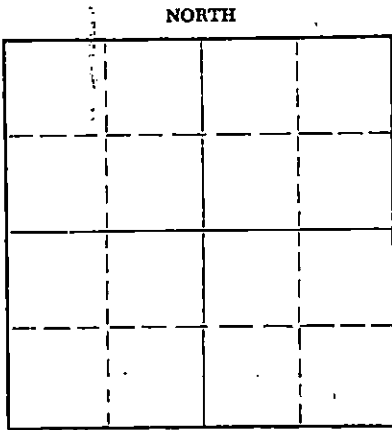
STATE OF KANSAS  
STATE CORPORATION COMMISSION

WELL PLUGGING RECORD

Give All Information Completely  
Make Required Affidavit  
Mail or Deliver Report to:  
Conservation Division  
State Corporation Commission  
212 No. Market  
Wichita, Kansas

Barton County, Sec. 6 Twp. 20 Rge. 14 (E) (W) X

Location as "NE/CNW/SW" or footage from lines NE NE SW  
Lease Owner Drillers Producers Pipe & Supply, Inc.  
Lease Name Dirks Well No. #1  
Office Address Box 368, Great Bend, Kansas  
Character of Well (completed as Oil, Gas or Dry Hole) \_\_\_\_\_  
Date well completed \_\_\_\_\_ 19\_\_\_\_  
Application for plugging filed 7-21-67 19\_\_\_\_  
Application for plugging approved \_\_\_\_\_ 19\_\_\_\_  
Plugging commenced 7-29-67 19\_\_\_\_  
Plugging completed 8-3-67 19\_\_\_\_  
Reason for abandonment of well or producing formation \_\_\_\_\_



Locate well correctly on above  
Section Plat

If a producing well is abandoned, date of last production \_\_\_\_\_ 19\_\_\_\_  
Was permission obtained from the Conservation Division or its agents before plugging was commenced? \_\_\_\_\_

Name of Conservation Agent who supervised plugging of this well Donald Truan  
Producing formation \_\_\_\_\_ Depth to top \_\_\_\_\_ Bottom \_\_\_\_\_ Total Depth of Well 3840' Feet  
Show depth and thickness of all water, oil and gas formations.

OIL, GAS OR WATER RECORDS

CASING RECORD

FORMATION	CONTENT	FROM	TO	SIZE	PUT IN	PULLED OUT
				4 1/2"	3830'	2487.55'
				8 5/8"	850'	

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.

Sanded bottom hole back with sand to 3450', mixed and dumped 4 sacks cement thru dump bailer.  
Mudded hole to 400', set 25' rock bridge, mixed and ran 3 sacks cement thru dump bailer. Filled hole with 5 yards ready mix to base of cellar.

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WICHITA, KANSAS

(If additional description is necessary, use BACK of this sheet)  
Name of Plugging Contractor Southwest Casing Pulling Co., Inc.  
Address Box 364, Great Bend, Kansas

STATE OF Kansas, COUNTY OF Barton, ss.  
Southwest Casing Pulling Co., Inc. (employee of owner) or (owner or operator) 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) W. C. Spencer Sec.  
Box 364, Great Bend, Kansas  
(Address)

SUBSCRIBED AND SWORN TO before me this 3 day of August, 19 67

My commission expires 24 October 1968 Sidney Diller Notary Public.

15 009 19443 0000

**GEOLOGICAL WELL REPORT**

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ON

CONSERVATION DIVISION  
Oklahoma, Kansas

**WOODY'S QUALITY OIL**

**NO. 1 LENA DIRKS**

**NE NE SW, Section 6, Township 20 South, Range 14 West**

**Barton County, Kansas**

**PREPARED FOR**

**Woody Roberts**

**PREPARED BY**

**Consolidated Petroleum Consultants  
914 Cravens Building  
Oklahoma City, Oklahoma**

**May 14, 1963**

Woody's Quality Oil  
No. 1 Lena Dirks  
NE NE SW, Section 6-20S-14 W  
Barton County, Kansas

### INTRODUCTION

This well is located approximately six miles West and one and one-half miles South and one-half mile East of the Townsite of Great Bend, Kansas.

This well was initially contracted as an Arbuckle test or 3700' in depth in either event which ever first occurred. The contractor drilling the well was the Tommy Ward Drilling Company of Oklahoma City, Oklahoma. The drilling contractor commenced operations on 3-14-63 and reached a total depth of 3826' on 3-27-63 and at this depth ran 3685.49' of new 4-1/2" production casing.

There follows herewith a summary operational report covering the drilling of the above captioned well.

This report is respectfully submitted for your approval.

  
H. A. PEARCE, Geologist

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Wichita, Kansas

MISCELLANEOUS DATA

**Operator** Woody Roberts for  
Woody's Quality Oil  
914 Cravens Building  
Oklahoma City, Oklahoma

**Lease Name and Well Number** Lena Dirks No. 1

**Location** NE NE SW, Section 6, Township 20 South, Range 14 West  
Barton County, Kansas

**Elevations** G. L. 1918.5  
K. B. 1927

**Date Operations Commenced** 3-14-63

**Surface Casing** At 834' ran 826' of 8-5/8" eight round thread 20 lb. surface casing, set at 834' and cemented with 400 sacks of pozmix cement. Plug down at 9:30 a. m. --3-15-63.

**Hole Size** For surface casing - 12-1/4"  
Production - 7-7/8"

**Total Depth of Hole** 3826' - Driller  
3819' - Welex

**Drill Stem Tests** DST #1 - Run #1 - 3549' to 3604' packers failed  
DST #1 - Run #2 - 3538' to 3604' CDST record  
DST #2 - 3601' to 3633' CDST record  
DST #3 - 3608' to 3640' CDST record

**Cores Taken** Core #1 - 3561' to 3604' recovered 43'  
Core #2 - 3604' to 3633' recovered 29'  
Core #3 - 3633' to 3683' recovered 50'  
For descriptions see Core descriptions

**Drilling Contractor** Tommy Ward Drilling Company  
Liberty Bank Building  
Oklahoma City, Oklahoma

**Mud Company** Davis Mud Company, Great Bend, Kansas

**Well Logging Company** Welex, a division of Halliburton, Great Bend, Kansas

**Core Analysis** Core Laboratories, Wichita, Kansas

**Core Drilling** Drilling & Service Company, Great Bend, Kansas

**Mud-Gas Analyzer** Analytical Logging Corp., Oklahoma City, Oklahoma

**Geologist** H. A. Pearce  
Consolidated Petroleum Consultants  
914 Cravens Building  
Oklahoma City, Oklahoma

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DAILY PROGRESS WELL HISTORY

- March 14, 1963 Move in and rig up rotary. Cut 12-1/4" hole to 630'.
- March 15, 1963 Drill from 630' to 834'. Cutting 12-1/4" hole at 834' ran 828' of 8-5/8" eight round thread 20 lb. surface casing, cemented with 400 sacks pozmix cement, circulated to surface. Plug down at 9:30 a.m. Drill from out under cement at 6:00 p.m. cement not set up waited till 9:00p.m. drilling a 7-7/8" hole drilled to 920'.
- March 16, 1963 Drill from 920' to 2154'. At 1959' pulled Bit #1, ran Bit #2, at 1900' ran slope test off 1/4 degree from verticle.
- March 17, 1963 Drill from 2154' to 2705'. At 2167' pulled Bit #2, ran Bit #3. At 2350' pulled Bit #3, ran Bit #4. At 2310' ran slope test off 1/2 degree from verticle.
- March 18, 1963 Drill from 2705' to 3060'. At 2935' pull Bit #4, ran Bit #5.
- March 19, 1963 Drill from 3060' to 3330'. At 3135' pull Bit #5, ran Bit #6.
- March 20, 1963 Drill from 3330' to 3561'. At 3358' pull Bit #6, ran Bit #7. At 3561' pull Bit #7, ran Bit #8. At 3561' circulated for samples and prepared to run core barrel.
- March 21, 1963 Cored from 3561' to 3604'.
- March 22, 1963 Pulled core #1, recovered 43'. Made up test tool and prepared to run Drill stem test #1--DST #1 3549' to 3604'--55' of anchor. Packers failed to hold came out of hole at 11' of anchor went back to bottom and ran DST #1 Run #2 from 3538' to 3604'. Total anchor 66'. Tool open 15 minutes. No blow bypass tool, weak blow 15 minutes and died. Closed tool for 30 minutes bottom hole shut in pressure opened again for 5 minutes and closed again for 10 minutes. Pulled tool and recovered 300' of drilling mud. Note: This mud was in pipe when we got on bottom from washing through two bridges. Initial hydrostatic 1873'. Initial bottom hole shut in pressure 347'. Initial flow pressure 220'. Final flow pressure 226'. Final shut in bottom hole pressure 244'. Went back to bottom reamed out core hole, came out of hole, picked up core barrell and prepared to cut Core #2.
- March 23, 1963 Cored from 3604' to 3633' at 3633' core barrell jam came out of hole with Core #2 recovered 29' and then prepared to run Drill Stem Test #2.
- March 24, 1963 3601' to 3633' in the conglomerate, 32' of anchor, good blow of air changing to gas in 3 minutes, tool open for 30 minutes, closed tool for 30 minutes, reopened for 30 minutes, gas immediately, no estimate of amount, closed tool pour bottom hole shut in pressure 120 minutes, pulled tool and recovered 175' of heavily oil and gas cut mud some free oil. Initial hydrostatic 1861'. Initial flow 99'. Initial bottom hole shut in pressure 677', in 45 minutes. Final flow 111'. Final hydrostatic 1861'. Final bottom hole shut in pressure 200' in 120 minutes. After DST reamed core hole and conditioned hole for one hour. Came out of hole picked up core barrell and back to bottom and cored 3633' to 3654'.

March 25, 1963

Cored from 3654' to 3683'. Pulled core barrel and recovered 50', picked up Johnston Test Tool and went back to bottom for DST #3. DST #3 3608' to 40'. Open tool and had weak blow throughout test. Closed tool for 2 hour bottom hole shut in pressure. Pulled tool and recovered 86' of heavily oil and gas cut mud. Initial hydrostatic 1867'. Final hydrostatic 1867'. Initial flow 69'. Final flow 69'. Initial bottom hole shut in pressure 224 lbs. Final bottom hole shut in pressure 206 lbs. after DST went back to bottom and reamed core hole.

March 26, 1963

Finished reaming core hole and drilled from 3683' to 3826'. At 3699' made trip for Bit #9, ran Bit #10. At 3826' circulated for samples and conditioned hole to run electric log.

March 27, 1963

Had total depth 3826' finished running Welex Electric Logs. Came out of hole laid down drill pipe and ran 3685.49' of 4-1/2" new J-55, 9-1/2 lb. eight round thread production casing. All cemented with 175 sacks salt saturated pozmix cement. Plug down 4:30 p.m. 3-27-63 waiting on cement.

#### DRILL STEM TEST RECORD

DST # L RUN # 1

3549' to 3604', 55' of anchor, packers failed.

DST # 1 RUN # 2

3538' to 3604', 66' of anchor, opened 15 minutes, no blow bypass tool, recovered weak blow for 15 minutes and died. Closed for 30 minutes, opened again for 5 minutes and closed for 10 minutes, pulled tool and recovered 300' of drilling mud. No drilling mud was in pipe when we got to bottom from washing through two bridges. Initial hydrostatic pressure 1873'. Initial bottom hole shut in pressure 347'. Initial flow pressure 220'. Final flow pressure 226'. Final shut in bottom hole pressure 244'.

DST # 2

3601' to 3633', 32' of anchor, opened 30 minutes, closed 45 minutes, open 30 minutes, closed 2 hours. Good blow immediately when open, gas to surface in 3 minutes. Closed tool and reopened gas immediately. Pulled tool and recovered 175' of heavily oil and gas cut mud with some free oil. Initial hydrostatic pressure 1861'. Initial flow pressure 99'. Initial bottom hole shut in pressure 677 lbs, in 45 min. Final hydrostatic pressure 1861'. Final flow pressure 111'. Bottom hole shut in pressure (final) 200 lbs. in 2 hrs.

DST #3

3608' to 40', light blow of air throughout test. Pulled tool and recovered 86' of heavily oil and gas mud. Initial hydrostatic 1867'. Final hydrostatic 1867'. Initial flow 69'. Final flow 69'. Initial bottom hole shut in 224 lbs. Final bottom hole shut in pressure 206 lbs.

CORE RECORD

## Core #1

3561' to 3604' recovered 43'. Core time in min. per ft.  
 52 - 23 - 20 - 25 - 23 - 24 - 20 - 26 - 32 - 28 - 26 - 23  
 20 - 20 - 21 - 20 - 20 - 18 - 17 - 16 - 15 - 16 - 17 - 24 - 20  
 14 - 16 - 26 - 31 - 16 - 15 - 13 - 14 - 18 - 22 - 21 - 15 - 17 -  
 16 - 17 - 22 - 26 - 64

Description for the interval cored is as follows:

3561' to 64', sand-fine to medium grain with fair porosity and permeability bubbling gas.

3564' to 80', shales modded red to green with occasional inclusions in conglomerate material.

3580' to 3602' arcose section of vari-colored cherts interbedded with red shales. Bubbling gas throughout.

3602' to 3605' Arbuckle Dolomite, brown sucrosic slightly porous to porous. Bubbling gas.

## Core #2

3605' to 3633', total recovery 29'. Core time in min. per ft.  
 11 - 26 - 36 - 24 - 26 - 23 - 24 - 27 - 29 - 27 - 32 - 26 - 26  
 21 - 31 - 34 - 27 - 28 - 21 - 19 - 24 - 22 - 21 - 23 - 21 - 17 - 22  
 21 - 46

Core description is as follows:

3605' to 3611' Andolomitic lime with conglomerate pebbles of lime and chert. Medium porosity. Bubbling gas. Occasional spots of oil, slightly sandy in lower portion.

3611' to 3614' brown Dolomite tight bleeding oil fractured vertically and horizontally.

3614' to 3617'. Brown sucrosic soft porous and permeable Dolomite consisting of crystals of rhombohedrons bleeding oil and gas very heavily.

3617' to 3633'. Tan buff to brown Dolomite medium crystalline occasionally sucrosic. Badly fractured vertically and horizontally bleeding both oil and gas.

## Core #3

3633' to 3683'. Total recovered 50'. Core time in min. per ft.  
 10 - 20 - 42 - 26 - 29 - 23 - 20 - 18 - 20 - 20 - 23 - 17 - 21 -  
 18 - 19 - 22 - 20 - 21 - 19 - 20 - 21 - 23 - 21 - 22 - 19 - 13 - 16  
 20 - 28 - 24 - 22 - 24 - 26 - 24 - 19 - 24 - 17 - 16 - 21 - 13 - 15  
 18 - 17 - 17 - 13 - 13 - 12 - 15 - 20 - 14

Core description:

3633' to 3642'. Buff tan to brown Dolomite, fractured vertically and horizontally. Bleeding oil and gas from fracture zones.

Fair porosity.

3642' to 3677'. Buff tan to brown Dolomite as above. Fractured vertically and horizontally. Occasional spots, bleeding heavily oil and gas.

3677' to 3683'. Oil water contact, white medium crystalline Dolomite, porous to tight, vertically fractured, no shows.

Note: From core laboratory engineering report on analysis of cores examined they quote, "Average permeability in Meladarses 65, productive capacity in Meladarses ft. 842, average porosity 9.6% average residual oil saturation % of pore space 30.5 average total water saturation % of pore space 33, average connate water saturation % of pore space 30, gravity of oil 35 degrees API, original solution gas-oil ratio in cubic ft. per barrell 300, original formation volume factor barrells of saturated oil per barrells stock tank oil 1.20. Calculated original stocked tank oil in place barrells per acre ft. 434. Calculated maximum solution gas drive recovery is 103 barrells per acre ft., assuming production could be continued until

reservoir pressure declined to 0 PSIG. calculated maximum water drive recovery is 207 barrells per acre ft, assuming full maintenance of original reservoir pressure, 100% areal and vertical coverage, in continuation of production to 100% water cut".

BIT RECORD

No.	Size	Make	Type	Jet		Depth		Feet	Hours
				Size	Serial	From	To		
1	7-7/8	HTC 3A	OSC 3A	11/16	47608	834	1959	1125	14-1/2
2	7-7/8	HT	OSC 3A	11/16	RT	1959	2167	208	6-3/4
3	7-7/8	HT	OSC	11/16	RT	2167	2350	183	5-1/4
4	7-7/8	HT	CSC	11/16	36839	2350	2935	585	23-1/2
5	7-7/8	HT	OSC 1G	11/16	92069	2935	3135	200	11-1/4
6	7-7/8	SEC	M4N	11/16	68023	3134	3358	224	15-1/2
7	7-7/8	SEC	M4N	11/16	679111	3358	3561	203	17
8	7-7/8	SEC	M4N	11/16	679115	3561	3633	72	2-1/2
9	7-7/8	SEC	M4N	11/16	679120	3633	3699	66	8-1/2
10	7-7/8	HT	W7	11/16	53505	3699	3826	127	11-1/4

GEOLOGICAL AND ELECTRIC LOG TOPS

<u>FORMATION</u>	<u>GEOLOGICAL</u>	<u>ELECTRIC LOG</u>
Tarkio Sant	2660'	2659'
Willard Shale	2690'	2684'
Elmont- Reading Limestone	2720'	2719'
Howard Lime	2800'	2794'
Topeka Lime	2860'	2858'
Heebner Shale	3198'	3198'
Toronto Lime	3216'	3216'
Douglas Shale	3232'	3232'
Brown Lime	3290'	3290'
Lansing Limestone	3310'	3303'
Kansas City Limestone	3470'	3464'
Base of Kansas City Lime and top of the Soeey Conglomerate	3530'	3530'
Simpson Sand Zone	3540'	3542'
Arkosic Zone	3580'	3580'
Arbuckle Dolomite	3604'	3604'
	Drillers T. D.	3826'
	Log. T. D.	3819'

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LITHOLOGY

<u>DEPTH</u>		<u>DESCRIPTION</u>
<u>From</u>	<u>To</u>	
2659'	2684'	Tarkio Sand. White to gray to green very fine grain shaley micaceous with green chloride inclusions becoming gray very fine grain calcareous and tight.
2684'	2719'	Willard Shale. Gray to dark gray shales.
2719'	2794'	Elmont - Reading Limestone. Tan dark gray fine crystalline limes becoming cream tan to buff and fine crystalline limes interspersed with gray shales.
2794'	2858'	Gray to dark gray fine to medium crystalline limes occasionally buff to tan, fine to medium crystalline interspersed with dark gray to black shales at basal portion.
2858'	3198'	Topeka Limestone. Gray to dark gray fine crystalline lime becoming white to tan occasionally cream to gray. Occasionally cream tan gray fine crystalline to chalky lime with some white opaque chert becoming cream to tan fine crystalline to dense lime with opaque chert. Often oolitic.
3198'	3216'	Heebner Shale. Black carbonaceous radio-active shales.
3216'	3232'	Toronto Limestone. White to cream fine crystalline lime
3232'	3290'	Douglas Shales. Gray dark gray to black carbonaceous shales.
3290'	3303'	Brown limestone. Brown to dark gray to dark brown fine crystalline to dense limestone.
3303'	3464'	Lansing limestone. Gray to tan to white to gray, hard dense limes with occasional tan opaque chert inclusions becoming white to gray, fine crystalline to sucrosic lime, occasionally oolitic, possible shows of dark asphaltic oil having fair stain medium porosity good ether cut and flurescence. No odor at 3332' to 34', 3345' to 50', 3435' to 40', <del>3440' to 3530'</del>
3464'	3530'	Kansas City Limestone. Tan to cream occasionally buff, occasionally oolitic. Often porous. Traces of heavy asphaltic oil at 3465' to 70', 3480' to 90'. These shows have good fluroescense and good cut.
3530'	3604'	Soeey Conglomerate. A detrital section with a sand lense from 3540' to 54' and 60' to 64'. Sands fine to medium grain. Loose fryable. Few clusters. Slight stain no odor. Those pieces with clusters good fluroescense and good cut.
3604'		Top of Arbuckle Dolomite. See core description down to 3683'.
3683'	3826'	White medium crystalline fractured Dolomite. No shows.
		Total depth driller 3826'
		Total depth Welex 3819'

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