



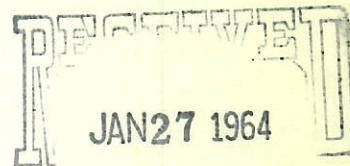
MAVERICK OIL CO., LUBAR OIL CO.

& CARDINAL DRILLING CO.

#2 THORNTON

SE SE 3-7N-54W

LOGAN COUNTY, COLORADO



OIL & GAS  
CONSERVATION COMMISSION

ELEVATION: 4112' Gr. 4119' KB.

COMMENCED DRILLING: 12-38-63.

COMPLETED DRILLING: 1-2-64.

FIELD: Pawnee Creek.

RESULTS: "J" Sand Oil Well.

LOGS: Ind-ES-Minnie-Acoustic

Lane Wells.

CASING: 112' / 8 5/8" / 100sx.

CONTRACTOR: Allison Drilling Co.

PUSHER: Jesse Byrd.

TOTAL DEPTH: 5000' Driller.

5001' Electric Log.

TOPS (EL):

Niobrara	4088	+ 31
Ft. Hays	4326	-207
Carlile	4378	-259
Greenhorn	4554	-435
Bentonite	4713	-594
"D" Sand	4806	-687
"J" Sand	4898	-779
Total Depth	5001	

CORES: #1 4900' to 4939'

20.5' reworked Sand and Shale with few scattered showings of stain.

1.0' grey-white-tan, fine grained Sandstone - fractured even stain and fluorescence - tite.

1.0' reworked Sand and Shale. No show.

1.5' tan, fine-medium grained Sandstone. Fractured with even stain and fluorescence.

7.5' Reworked Sand and Shale. No show.

9.5' white-tan, fine-medium grained Sandstone, soft, stain and fluorescence, top three feet being clay filled, some sulphur odor in top four feet.

## CORING TIME: (One foot)

4900' to 4910' 2-4-7-5-4-6-12-13-13-8  
 4910' to 4920' 9-6-6-6-9-8-5-6-14-9  
 4920' to 4930' 10-8-10-8-10-8-10-12-13-13  
 4930' to 4939' 5-4-6-5-4-3-3-4-8

## CORE ANALYSIS:

Depth	Hor.	Perm.	Vert. Perm.	% Porosity	% Oil & Water
4920.5-21.5	1.7		1.1	7.2	19.5 16.7
2922.5-34.0	36		17.0	10.1	14.9 16.8
4932-33	197		172	22.5	7.1 46.3
4933-34	430		154	21.3	5.2 50.3
4934-35	17		15	30.6	6.8 51.0
4935-36	1.4		1.0	14.4	1.4 66.0
4936-37	139		64	21.6	16.7 42.3
4937-38	21		10	17.3	7.5 52.6
4938-39	38		10	11.5	9.6 34.8
4939-40	46		34	15.7	8.3 46.5
4940-41	949		443	19.8	13.1 40.9

DST's: #1 4937' to 4943' (Straddle test) <sup>2118.3</sup>  
 Open 71 min.  
 Gas to surface 4 min.  
 Oil to surface 62 min.  
 Recovered 25' Oil cut muddy water  
 IFP 317 FFP 882  
 ISIP (30") 1129 FSIP (30") 1094  
 IHyd 2541 FHyd 2481  
 Good test.

## ELECTRIC LOG INTERPRETATION:

Depth	% Porosity	% Water Saturation
4932-4940	22	45
4940-4948	18-19	44-46
4948-4954	22	48
4954-4960	22	56

## BIT RECORD:

No.	Size	Make	Type	Depth	Deviation
1	7 7/8"	HTC	OSC3A	120-2783	1°
2	7 7/8"	HTC	OSC3A	2783-4252	1°
3	7 7/8"	HTC	OSC3A	4252-4813	1°
4	7 7/8"	HTC	OSC1G	4813-4900	
5	7 7/8"	HTC	OWV	4900-5000	

## DAILY DRILLING AND MUD RECORD:

	vis.	wt.	w. l.
12-38-63	Spud	water	
12-39-63	3000'	water	
12-30-63	3760'	48	9.6 4.4

DAILY DRILLING AND MUD RECORD: (Cont'd.)

12-31-63	4650'	52	9.7	4.8
1-1-64	4929'	90	9.9	4.9
1-2-64	5000'	120	9.9	3.8

SAMPLE DESCRIPTION:

4806' to 4834' white, fine grained Sandstone, tite, no show.  
white-tan-grey, fine-medium grained Sandstone, good stain, poor-fair fluorescence, fair P&P.

4900' to 4939' see Core Description.

4939' to 4964' tan-grey, fine-medium grained Sandstone, good P&P, good staining, good fluorescence.

4964' to 5000' grey, fine-medium grained Sandstone, good P&P. No show.

DRILLING TIME: (Two foot)

4800' to 4810' 4-4-5-10-23  
4810' to 4820' 14-13-5-7-7  
4820' to 4830' 6-7-11-15-9  
4830' to 4840' 6-10-8-8-8  
4840' to 4850' 7-5-6-9-8  
4850' to 4860' 5-7-5-4-4  
4860' to 4870' 4-4-3-3-5  
4870' to 4880' 3-2-3-6-10  
4880' to 4890' 9-9-7-8-8  
4890' to 4900' 9-8-8-4-6  
4900' to 4910' 6-13-10-24-21  
4910' to 4920' 15-12-17-11-23  
4920' to 4930' 18-18-18-22-25  
4930' to 4940' 9-11-7-7-8  
4940' to 4950' 11-8-8-13-10  
4950' to 4960' 10-7-6-6-7  
4960' to 4970' 7-6-6-6-7  
4970' to 4980' 7-7-9-8-9  
4980' to 4990' 9-9-6-8-7  
4990' to 5000' 6-7-7-7-7

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