

Duane Stecklein

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GEOLOGICAL REPORT

**Raney Oil Company, LLC
Vance #2 OWWO
NE- SE - SW - NW
2276' FNL 1002' FWL
SEC. 19 TWP 11S RGE 20W
Ellis County, Kansas**

**COMMENCED: _____
COMPLETED: 6-10-23
CONTRACTOR: White Knight Drilling
SURFACE PIPE: 8 5/8" at 220'
PRODUCTION PIPE: 5 1/2" at _____**

June 17, 2023

Formation Data

Elevation: (2184 K.B.) – (2179 G.L.)
All top formations measured from 2184 K.B.
Sample tops from Imperial Drilling Co. Inc.

<u>FORMATION</u>	<u>SAMPLE TOPS</u>	<u>SEA-LEVEL DATUM</u>
Anhydrite	1595	+589
Topeka	3216	-1032
Heebner	3434	-1250
Lansing-K.C.	3471	-1287
Conglomerate	3760	-1576
R.T.D.	3840	-1656

<u>FORMATION</u>	<u>LOG TOPS</u>	<u>SEA-LEVEL DATUM</u>
Anhydrite	1596	+588
Topeka	3218	-1034
Heebner	3435	-1251
Toronto	3460	-1276
Lansing-K.C.	3472	-1288
Base-K.C.	3715	-1531
Marmaton	3756	-1572
R.T.D.	3805	-1621

Sample Description

Following are the pertinent geological formation and all zones of subject well Vance #2 OWWO.

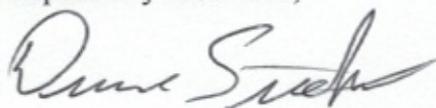
THE FOLLOWING ZONES WERE NOTED:

TOPEKA (Oread Lime)	3378-3382	
LANSING K.C. (C-Zone)	3510-3512	
(E-Zone)	3548-3550	
(F-Zone)	3558-3560	
(H-Zone)	3610-3612	Questionable – (May be fractured)
(I-Zone)	3642-3644	Questionable – (May be fractured)
(J-Zone)	3658-3662	Questionable – (May be fractured)
(K-Zone)	3668-3676	Questionable.- (May be fractured)
MARMATON	3772-3778	

Remarks and Conclusion

Operator of Raney Oil Company LLC, decided to set production casing on the Vance #2 OWWO to further test the well.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Duane Stecklein". The signature is fluid and cursive, with a large initial "D" and a long, sweeping tail.

Duane Stecklein, Geologist

GEOLOGIST'S REPORT

Company: Imperial Drilling Company, Inc. SE SW NW 19 11S 20W
Farm: Vance 2 "A" Ellis County, Kansas
Contractor: Imperial Drilling Company, Inc. Elevation: 2184 R.E.
Pool: Nicholson North Rotary Total Depth: 3840'

Geological Data:

Samples were examined, by writer, from 3150' to total depth of 3840'. All measurements were taken from Rotary Table Bushing.

Formation Tops:

Top Topeka Lime	3216	(-1032)
Top Heebner Shale	3434	(1250)
Top Lansing K.C. Lime	3471	(-1287)
Top Conglomerate	3760	(-1576)
*Top Arbuckle	3809	(1625)
Top Second Conglomerate	3824	(1640)
Rotary Total Depth	3840	(1656)

Top Topeka 3216 (-1032) Porosity and shows of oil. There were no shows of free oil in the Topeka section.

Top Lansing-K C 3471 (-1287) Porosity and shows of oil.

3480-87 White medium crystalline cherty lime, poor porosity. Trace spot stain. No free oil.

3509-13 Tan fine crystalline lime. Trace of fractured porosity. Trace of free oil, no odor.

3544-48 Medium crystalline dense lime. Pinpoint to light vugular porosity. Trace of free oil, no odor.

3550-53 Semi-collitic to fossiliferous lime, good porosity. Show of free oil, no odor. This zone had a small recovery of oil in a drill-stem test on the #1 Vance, but recovered water on completion.

3556-64 Fossiliferous lime, good inter-fossiliferous and vugular porosity. Good show free oil, good odor. D.S.T.

D.S.T. 3555-62 Open one hour, good strong blow to weak blow at end of test. Recovered 2000' salt water. IFP 485# FFP 945# BNP 975# in 15 minutes.

- 3611-13 Tan medium crystalline lime. Light vugular to slightly fossiliferous porosity. Trace free oil, no odor.
- 3629-34 White colitic semi-fossiliferous lime. Fair scattered porosity. Live oil stains, no odor.
- 3650-55 White colitic lime, trace porosity and live stains. No odor.
- 3672-78 Fine crystalline light vugular to slightly fossiliferous lime. Fair spotted porosity, light show free oil, no odor. This is the zone that produces in the offset (#1 Vance), it did not appear well enough developed to make a paying commercial well.
- 3753-57 Grey sandy lime, dark heavy oil stains. Trace free lighter oil, no odor.

Top Conglomerate 3760 (-1576)

*Top Arbuckle 3809 (-1625) = See Notation=

Tan fine to medium crystalline dolomite, fair porosity. Flaky residue with trace of heavy tarry oil. No odor, no free oil.

Top Second Conglomerate 3824 (-1640)

Various colors of fresh translucent and opaque chert colitic and leached chert washed blood red.

Rotary Total Depth 3840 (-1656)

*Notation - In this well, we encountered one of the rare pseudo-Arbuckle tops which can be described as an Arbuckle boulder which has rolled off of a near Arbuckle high during the time of Conglomerate deposition, or more probably, due to the thickness, this could have been an over-hanging lip formed from a washout in the side of the Arbuckle high to the west. Some instances of this type are recorded as caves in the Arbuckle formation that have been filled with Conglomeratic material.

This hole was abandoned as dry on May 12, 1953.

IMPERIAL DRILLING COMPANY, INC.

By: Orlin R. Phelps
Orlin R. Phelps, Geologist