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## GEOLOGIC REPORT

### McNeish Oil Operations #2 Thowe "A"

25' NW of W/2 NE SE 2-13S-10E

Wabaunsee County, Kansas

#### Daily Progress:

7/09 Finished moving on location. Surface casing was set ahead. 300' of 8 5/8" set at 305' KB depth with 125 sacks. Drilled out beneath surface casing at 12:45 a.m.

7/10 505', drilling

7/11 1480', drilling

7/12 2185', drilling

7/13 2447', drilling

7/14 2755', drilling

7/15 3010', drilling; RTD of 3130' reached at 4:30 p.m.; Ran E-Logs.

7/16 Set 5 1/2" production casing 8 feet off bottom with 175 sacks cement, plug down at 9:00 a.m.

#### Service Companies:

Drilling Contractor: White & Ellis, Rig 4

Drilling Mud: Fud Mud

Cement: Halliburton

E-Logs: Log Tech

#### Formation Tops (E-Log Depths):

<u>Formation</u>	<u>#2 Thowe "A"</u> <u>KB 1100</u>	<u>Structural Relation to</u> <u>#1 Thowe "A" (660' North)</u>
Lansing	1221(- 121)	+3
Mississippi	2196(-1096)	-5
Kinderhook	2479(-1379)	-8
Hunton	2673(-1573)	-1
Maquoketa	2845(-1745)	-5
Viola	2925(-1825)	-4
Simpson Shale	3015(-1915)	-9
Simpson Sand	3049(-1949)	-10
Arbuckle	3120(-2020)	-11
Total Depth	3129(-2029)	

Note: This well was drilled on a Farmout from Frank Small Oil. McNeish Oil Operations has rights to all zones beneath the Simpson Shale.

**Oil Shows:**

**Viola**

2928-44 Dolomite, white with dark brown and black asphaltic stain, medium to coarse crystalline, euhedral rhombs lining vugs, good vuggy and intercrystalline porosity, fair odor, good show of heavy oil in top 8 feet, less show in lower 8 feet. E-Logs confirm this as a pay zone in offset wells. (Rights owned by Frank Small Oil).

**Simpson Sandstone**

3050-61 Sandstone, tan oil stain, mostly fine to medium grained with some coarse grained, subrounded, moderately sorted, much is loose grains, good porosity, uniform light gold florescence and even brown stain on all clusters, fair odor, fair show of free oil with some tarry oil in lower part. E-Logs indicate this interval is pay zone.

3061-66 Sandstone, white with black asphaltic stain, medium to coarse grained, mostly loose grains, good porosity, faint odor, most clusters saturated with tar, no free oil. E-Logs calculate pay zone but samples indicate only immovable tar is present.

**Recommendations/Summary:**

It is recommended that the Simpson Sandstone be perforated from 3050 to 3055 feet with 4 shots per foot. It is anticipated that the formation will yield sufficient fluid without stimulation.

The Simpson Sandstone was found 10 feet lower in the #2 Thowe "A" than it was in the #1 Thowe "A" but there still appeared to be sufficient oil column to be commercially productive. The base of the produceable oil column appears to be at a datum of -1961 with tar saturation (non-produceable) to a datum of -1966. The eleven feet of pay 3050 to 3061 is about half the oil column found in the #1 Thowe "A".

Respectfully submitted,



Martin K. Dubois

MKD:sj

