

Geological Report

Hammond E. #49-18
1810' FNL; 1800' FEL
Sec. 8, T24S, R16E
Woodson County, Kansas
7/6/2018

Operator: Petroleum Resource Management Company
733 Highgrove Park
Houston, Texas 77024

Drilling Contractor: Leis Oil Services, Matt Leis, driller

Well-site Geologist: Julie Shaffer
480 Fox Rd
Toronto, Kansas 66777

Dates Drilled: July 2, 2018

Size Hole: 5 7/8"

Total Depth: 1102'

Elevation: 1056' (est.)

Drilling Fluid: Mud

Surface Casing: 42' of 7"

Electric Logs Run: CDL-CNL-DIL-TEMP.

Formation Tops: Formation tops were picked in the field and taken from sample bags

Rock Color Desc.: GSA rock color chart (dry cuttings)

Status: **OIL WELL**

Gas Shows: N/A

Oil Shows:

Upper Squirrel Sandstone	1002-1006'	Poor
Upper Squirrel Sandstone	1006-1008'	Good
Upper Squirrel Sandstone	1008-1010'	Fair
Lower Squirrel Sandstone	1042-1050'	Poor to Fair

Notes: Well cuttings were collected and bagged at the drill rig by the drillers. Samples of the select zones of interest were saved and reviewed in the laboratory under the black light and microscope.

- 0-994' Samples not examined
- 994-1002' Siltstone, white to very light gray, well cemented, tight, ~998' siltstone has very faint uniform pale yellow oil staining, mottled to uniform moderately-bright pale yellowish-green hydrocarbon fluorescence, minor loose chips of limestone

Top of the Upper Squirrel Sandstone @ 1002' (+54')

- 1002-1006' Sandstone, moderately-dark yellowish-brown oil stained cuttings some with water washed appearance, good saturation some mottling, very fine grain, sub-rounded to round grains, well sorted, hi sphericity quartz, silty, minor mica, 14-16% porosity, friable, good petroliferous odor, uniform bright yellow hydrocarbon fluorescence, weak acid reaction
- 1006-1010' Sandstone, dark yellowish-brown oil stained cuttings, excellent saturation 1006-1008 then saturation becomes good but mottled, very fine grain, sub-rounded to round grains, well sorted, hi sphericity quartz, minor silt, minor mica, 18-20% porosity, highly friable, strong petroliferous odor, mottled pale to moderate brownish-yellow hydrocarbon fluorescence, no acid reaction
- 1010-1014' Sandstone, light gray, very fine grain, sub-rounded to round grains, abundant siltstone, friable, shaley, abundant mica, no petroliferous odor, no oil show, no fluorescence
- 1014-1042' Samples not examined

Top of the Lower Squirrel Sandstone @ 1042' (+14')

- 1042-1050' Sandstone, mottled dark brown to black oil stained cuttings, good saturation with some mottling, fine grain, sub-angular to sub-rounded grains, moderately sorted, medium sphericity quartz, silty, micaceous, 16-18% porosity, friable, strong petroliferous odor, heavily mottled to uniform bright yellowish-green with speckled yellowish-white hydrocarbon fluorescence, fair acid reaction (minor calcitic cementation)
- 1050-1064' Sandstone, light gray, very fine grain, sub-rounded to round grains, silty, shaley, micaceous, friable, minor mottled very pale yellowish-brown and lightly speckled black oil staining, speckled bright yellow hydrocarbon fluorescence, no acid reaction
- 1064-1066' Sandstone, medium gray, silty, micaceous, well cemented, slight hydrocarbon odor, no oil show, no fluorescence
- 1066-1102' Samples not examined

T.D. = 1102'

Julie Shaffer
Geologist