

GEOLOGICAL REPORT

Hawkins Oil, LLC
J.W. Smith #2-B

NW NW SW Section 20-T28S-R4E

Butler County, Kansas

COMMENCED: 07-17-14
COMPLETED: 07-23-14
CONTRACTOR: Summit Drilling Company
SIZE OF HOLE: 77/8"
SURFACE PIPE: 8 5/8"
CEMENTED WITH: N/A
LONG STRING: 5 1/2"
CEMENTED WITH: N/A
R.T.D.: 2499'

William M. Stout
Geologist

STATUS: Oil
A.P.I. #: 15-015-24014
OPERATOR LIC.: 32693
FIELD: Augusta
ELEVATION: 1287 K.B.
LOGS: None
MUD SYSTEM: Chemical
OTHER:

FORMATION TOPS

| Formation | Depth |
|------------------|------------|
| Kansas City | 2054 -767 |
| Base Kansas City | 2269 -982 |
| Marmaton | 2298 -1011 |
| Hepler Sand | Absent |
| Cherokee | 2426 -1139 |
| Ardmore | 2476 -1189 |
| Arbuckle | 2495 -1208 |
| Total Depth | 2499 -1212 |

SAMPLE SHOW DESCRIPTIONS

Kansas City 2054 (-767)
2056' - 2100'
Limestone - light brown, light gray, fine crystalline, dense, fossiliferous, oolitic in part, faint to fair odor, scattered light stain, no show free oil, scattered intercrystalline porosity, spotty fluorescence.

Arbuckle 2495' (-1212)
2490' - 2498'
Dolomite - light brown, fine to medium crystalline, some dense, good odor, scattered intercrystalline and vugular porosity with brown stain and fluorescence, show free oil with gas bubbles, some chert gray, translucent, fresh. Covered by Drill Stem Test #1.

DST #1 2484' - 2499'
Open tool 15 min. had strong blow building to bottom of the bucket in 4 min. Close tool 30 min. Open tool 30 min. had strong blow building to bottom of the bucket in 1.5 min. Recovered 63' gas in pipe, 189' clean gassy oil (41 degree gravity), 31' mud cut oil (10% mud, 90% oil), 31' mud cut oil (20% mud, 80% oil), 189' oil cut mud (10% oil, 90% mud), 189' oil cut mud (5% oil, 95% mud), 630' total fluid.
IFP 60 -186# FFP 225 - 324#
ISIP 1000# FSIP 1096#
HP 1241 - 1198#
Temp. - 107 degrees

CONCLUSIONS

The decision to run casing was made to further evaluate the Arbuckle through perforations.

