

22-165-07w

JAMES C. MUSGROVE

Petroleum Geologist
P.O. Box 1162
Great Bend, KS 67530

Office (620) 792-7716

Res. Claflin (620) 587-3444

Rupe Oil Co. Inc.
Kanapolis Federal #1-22
1810' FSL & 520' FWL; Section 22-165-07w
Ellsworth County, Kansas
Page No. 1
15-053-21140-00-00

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4 1/2" Production Casing Set

- Contractor:** Summitt Drilling Company
- Commenced:** June 7, 2005
- Completed:** June 11, 2005
- Elevation:** 1559' K.B.; 1557' D.F.; 1549' G.L.
- Casing Program:** Surface; 8 5/8" @ 237'
Production; 4 1/2" @ 1852'
- Samples:** Samples saved and examined 800' to the Rotary Total Depth.
- Drilling Time:** One (1) foot drilling time recorded and kept 800' to the Rotary Total Depth.
- Measurements:** All depths measured from the Kelly Bushing.
- Formation Testing:** There were two (2) Drill Stem Tests ran by Trilobite Testing Co.
- Electric Log:** By Eli Wireline Services; Dual Induction and Compensated Density/Neutron Log.
- Gas Detector:** By MBC Well Logging.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Herington	948	+661
Winfield	995	+564
Towanda	1066	+493
Ft. Riley	1104	+455
Wreford	1250	+339
Funston	1282	+277
Neva	1450	+109
Red Eagle	1536	+23
Aspinwall	1673	-114
Brownsville	1703	-144
Grand Haven	1744	-185
1 st Tarkio Sand	1760	-201
Dover	1776	-217
Tarkio Lime	1834	-275
Rotary Total Depth	1850	-291
Log Total Depth	1853	-294

(All tops and zones are corrected to Electric Log measurements).

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SAMPLE ANALYSIS, SHOWS OF OIL, TESTING DATA, ETC.

HERINGTON SECTION

- 948-960' Dolomite; gray, tan, finely crystalline, sucrosic, fair to good pinpoint and intercrystalline porosity.
- 960-980' Dolomite; as above, plus gray, dark gray opaque chert, (22 unit gas kick).

WINFIELD SECTION

- 995-1000' Dolomite; tan, cream, sucrosic, fair pinpoint type porosity, trace gray opaque chert, trace gas bubbles.
- 1000-1020' Dolomite; tan, buff, gray, finely crystalline, sucrosic, fair to good intercrystalline to finely vuggy type porosity, show of gas bubbles, (100 unit gas kick).
- 1020-1040' Dolomite; as above.

TOWANDA SECTION

- 1066-1084' Dolomite; tan, gray, sucrosic, finely crystalline, scattered pinpoint and intercrystalline porosity, plus trace limestone, white, dolomitic, fossiliferous, fair porosity, trace gas bubbles, no stain, no odor in fresh samples (265 unit gas kick).

Drill Stem Test #1 1000-1096'

Times: 30-45-45-60

Blow: Weak to good

Recovery: 35' slightly gas cut mud (oil spots in tool??)

Pressures: ISIP 258 psi
FSIP 252 psi
IFP 62-121 psi
FFP 94-146 psi
HSH 514-478 psi

(plugging action on flow periods)

FT RILEY SECTION

- 1104-1120' Limestone; gray, tan, highly dolomitic, mottled, fossiliferous, fair vuggy type porosity, no shows.

NEVA SECTION

- 1450-1458' Limestone; tan, few fossiliferous, finely crystalline, chalky, poor visible porosity (barren).

RED EAGLE SECTION

- 1536-1549' Limestone; cream, gray, chalky, dense).

ASPINWALL SECTION

- 1673-1676' Limestone; tan, gray, fossiliferous, chalky, dense, trace tan, fossiliferous, chert.

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INDIAN CAVE SECTION

1688-1698' Sand; gray, very fine grained, highly shaley, poorly developed, (no gas kick).

GRAND HAVEN SECTION

1744-1747' Limestone; tan, gray, dense.

1ST TARKIO SAND SECTION

1760-1766' Sand; light gray, very fine grained, sub rounded, few sub angular, good sorting, friable, fair to good intergranular porosity, slightly micaceous, trace gas bubbles, (25 unit gas kick).

Drill Stem Test #2 1743-1780'

Times: 30-45-45-60
Blow: Strong, gas to surface in 3 minutes, gas gauged as follows:
 Initial Flow
 5 minutes 137,612 cfgpd
 10 minutes 178,086 cfgpd
 15 minutes 198,323 cfgpd
 20 minutes 211,815 cfgpd
 25 minutes 215,188 cfgpd
 30 minutes 218,560 cfgpd
 Final Flow
 5 minutes 259,035 cfgpd
 10 – 45 minutes stabilized @ 265,780 cfgpd
Recovery: 90' mud
Pressures: ISIP 463 psi
 FSIP 456 psi
 IFP 64-87 psi
 FFP 81-75 psi
 HSH 862-826 psi

TARKIO LIME SECTION

1833-1853 Limestone; white, cream, fine to medium crystalline, chalky, trace white chalk, no shows.

Rotary Total Depth 1850 (-291)
Log Total Depth 1853 (-294)

Recommendations:

On the basis of the favorable structural position and the positive results of the Drill Stem Tests it was recommended by all parties involved to set and cement 4 1/2" production casing at 1852 (one foot off bottom, log measurements) and the following zones be tested in the Kanapolis Federal #1-22:

1. 1st Tarkio Sand (Grand Haven Sand) 1762-1766 perforate
2. Towanda 1077-1081 perforate

Respectfully submitted;

James C. Musgrove
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 Petroleum Geologist

