

JAMES C. MUSGROVE

Petroleum Geologist, LLC
212 Main Street
P.O. Box 215
Claflin, KS 67525

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations
Sellens #4
2310' FSL & 1650' FWL
Section 33-15s-13w
Russell County, Kansas

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5 1/2" Production Casing Set

Contractor: Southwind Drilling Co. (rig #3)
Commenced: September 25, 2014
Completed: September 30, 2014
Elevation: 1911' K.B., 1909' D.F., 1903' G.L.
Casing program: Surface; 8 5/8" @ 514'
Production, 5 1/2" @ 3401'
Sample: Samples saved and examined 2300' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 2300' ft. to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were three (3) Drill Stem Tests ran by Diamond Testing Co.
Electric Log: By Nabors, Dual Induction, Compensated Density Neutron/Density Log and Micro Log.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	879	+1032
Base Anhydrite	908	+1003
Tarkio Lime	2506	-595
Elmont	2570	-659
Howard	2709	-798
Topeka	2781	-870
Heebner	3013	-1102
Toronto	3028	-1117
Lansing	3084	-1173
Base Kansas City (Mai)	3293	-1382
Arbuckle	3344	-1433
Rotary Total Depth	3400	-1489
Log Total Depth	3402	-1491

All tops and zones corrected to Electric Log Measurement.

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

TARKIO SECTION

No shows of oil and/or gas was noted in the drilling of the Tarkio Sand(s)
(see attached sample log/geologist report)

TOPEKA SECTION

- 2802-2810' Limestone, tan, buff finely crystalline, fossiliferous, chalky, poor developed inter-crystalline porosity, trace light brown stain, no free oil and no odor in fresh samples.
- 2950-2970' Limestone, tan, fine and medium crystalline oomoldic, poorly developed oomoldic porosity, no shows.
- 2971-2984' Limestone, cream, tan, finely crystalline, oolitic, oomoldic, poor visible porosity, light brown stain, no free oil and no odor in fresh samples.

TORONTO SECTION

- 3028-3040' Limestone, tan, brown, finely crystalline chalky, poorly developed inter-crystalline porosity, brown spotty stain, no free oil and no odor in fresh samples.

LANSING SECTION

- 3084-3090' Limestone, brown, finely crystalline, cherty (dense).
- 3097-3104' Limestone, cream, tan, finely crystalline, poor scattered porosity, no shows.
- 3112-3122' Limestone, white, tan, fine to medium crystalline, oomoldic; fair oomoldic/inter-crystalline, oomoldic, fair oomoldic/inter-crystalline porosity, brown stain, show of free oil and fair odor in fresh samples.
- 3122-3136' Limestone, tan, oomoldic, fair oomoldic porosity, light brown stain, show of free oil and faint odor in fresh samples.

Drill Stem Test #1 **3095-3145**

Times: 30-30-30-30

Blow: Strong

**Recovery: 335' gassy oil
10' very slightly oil and gas cut mud
(25% gas; 25% oil; 25% water; 25% mud)**

**Pressures: ISIP 702 psi
FSIP 686 psi
IFP 69-96 psi
FFP 118-157 psi
HSH 1550-1460 psi**

- 3154-3166' Limestone, tan, brown, finely crystalline, poor porosity, no shows.
- 3178-3200' Limestone, tan, oomoldic, fair oomoldic porosity, no shows.
- 3238-3250' Limestone, white, cream, oolitic, poor scattered porosity, light brown stain, show of free oil and faint odor in fresh samples.
- 3254-3266' Limestone, tan, brown, oolitic, poor porosity, no shows.
- 3275-3284' Limestone, tan, brown, oolitic, poorly developed porosity, no shows.

Drill Stem Test #2 **3210-3290**

Times: 30-30-30-30

Blow: Weak

Recovery: 10' mud

**Pressures: ISIP 276 psi
FSIP 106 psi
IFP 60-60 psi
FFP 62-62 psi
HSH 1647-1558 psi**

- 3310-3324' Limestone, cream, tan, finely crystalline, dense.

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ARBUCKLE SECTION

3344-3352' Dolomite, tan, white, finely crystalline, fair inter-crystalline porosity, light brown stain, show of free oil and strong odor in fresh samples.

Drill Stem Test #3

3322-3352

Times: 15-15-30-30

Blow: Strong

**Recovery: 10' clean oil
315' oil cut muddy water
(10% oil; 70% water; 20% mud)
441' slightly oil cut muddy water
(5% oil; 55% water; 40% mud)
441' slightly oil and gas cut muddy water
(5% gas; 5% oil; 87.5% water, 2.5% mud)
252' slightly oil cut water
(2.5% oil; 97.5% water)
935' water**

**Pressures: ISIP 1110 psi
FSIP 1113 psi
IFP 410-807 psi
FFP 866-1112 psi
HSH 1659-1638 psi**

3352-3360' Dolomite, tan, white, sucrosic, fair pinpoint porosity, fair black and golden brown stain, show of free oil and strong odor in fresh samples.

3360-3380' Dolomite, gray, white, finely crystalline, sucrosic, fair porosity, no shows trace iron pyrite.

3380-3400' Dolomite, white, tan, finely crystalline, poor visible porosity, dense, no shows.

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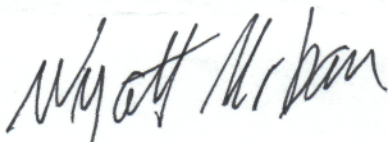
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Rotary Total Depth	3400
Log Total Depth	3402

Recommendations:

The 5 ½" production casing set and cemented on the Mai Oil Operations Inc., Sellens #4.

Respectfully yours,



Wyatt Urban
Petroleum Geologist