

JAMES C. MUSGROVE

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

Office (620) 588-4250

Res. Claflin (620) 587-3444

Mai Oil Operations Inc.
Vine #10
SW-NE-NE-NW (485' FNL & 2000' FWL)
Section 27-11s-19w
Ellis County, KS
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5 1/2" Production Casing Set

Contractor: Southwind Drilling Company (Rig #3)
Commenced: October 7, 2013
Completed: October 13, 2013
Elevation: 2134' K.B; 2132' D.F; 2126' G.L.
Casing program: Surface; 8 5/8" @ 210'
Production 5 1/2" @ 3691'
Sample: Samples saved and examined 3000' to the Rotary Total Depth.
Drilling time: One (1) foot drilling time recorded and kept 3000 ft to the Rotary Total Depth.
Measurements: All depths measured from the Kelly Bushing.
Drill Stem Tests: There were two (2) Drill Stem Tests ran by Trilobite Testing Co.
Electric Log: By Nabors Completion and Production Services Co.

<u>Formation</u>	<u>Log Depth</u>	<u>Sub-Sea Datum</u>
Anhydrite	1411	+723
Base Anhydrite	1459	+675
Topeka	3083	-949
Heebner	3311	-1177
Toronto	3328	-1194
Lansing	3351	-1217
Base Kansas City	3573	-1439
Conglomerate	3583	-1449
Simpson Shale	3623	-1489
Arbuckle	3637	-1503
Rotary Total Depth	3690	-1556
Log Total Depth	3692	-1558

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

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

TOPEKA SECTION

3113-3120' Limestone; cream, very fine grained, highly chalky, light brown stain, trace of free oil and no odor in fresh samples.
3200-3226' Limestone; cream to tan, fine to medium crystalline, poor scattered porosity, trace black stain, no show of free oil.
3300-3306' Limestone; cream to tan, finely crystalline, fossiliferous, chalky, light brown stain, poor show of free oil and no odor.

TORONTO SECTION

3328-3340' Limestone; tan, finely crystalline, fossiliferous, slightly chalky, trace black stain, no show of free oil and no odor in fresh samples.

LANSING SECTION

3351-3360' Limestone; tan, cream, finely crystalline, slightly chalky, few fossiliferous, fair porosity, black spotty stain, no free oil and no odor.

3363-3372' Limestone; cream, white, finely crystalline, poorly developed porosity, no shows.

3383-3394' Limestone; cream, buff, chalky, poor porosity, trace brown stain, no free oil and no odor in fresh samples.

3402-3414' Limestone; cream, finely crystalline, oolitic, poorly developed porosity, chalky in part, trace stain, show of free oil and faint odor in fresh samples.

3426-3436' Limestone; cream, finely crystalline, few fossiliferous, chalky increasingly cherty, no shows.

3441-3450' Limestone; as above, no shows.

3482-3490' Limestone; gray, cream, finely crystalline, dense, trace white and gray chert.

3503-3520' Limestone; tan, finely crystalline, fossiliferous in part, slightly chalky, light brown stain, no free oil and no odor in fresh samples.

3536-3556' Limestone; cream, finely crystalline, poor scattered porosity, light brown stain, trace of free oil and faint odor in fresh samples.

CONGLOMERATE SECTION

3584-3606' Varied colored chert in matrix of varied colored shale, trace black stain in chert, no visible porosity.

3607-3612' Sand; clear, very fine grained, sub rounded, black stain and saturation, show of free oil and faint odor in fresh samples.

SIMPSON SECTION

3623-3631' Sand; clear, fine grained, sub rounded, golden brown stain, good show of free oil and no odor in fresh samples.

Drill Stem Test #1 3554-3636'

Times: 30-30-45-45

Blow: Weak

Recovery: 5' clean oil
 20' oil cut mud
 (20% oil, 80% mud)
 5' very slightly oil cut mud
 (5% oil, 95% mud)

Pressures: ISIP 976 psi
 FSIP 982 psi
 IFP 29-33 psi
 FFP 45-40 psi
 HSH 1716-1616 psi

ARBUCKLE SECTION

3637-3643' Dolomite; white, sucrosic, poor to fair pinpoint to finely intercrystalline porosity, light brown stain, show of free oil and faint odor in fresh samples.

Drill Stem Test #2 3354-3643'

Times: 30-30-15-30

Blow: Strong

Recovery: 200' oil and gas cut muddy water
 (10% gas, 20% oil, 40% water, 30% mud)
 310' oil and gas cut muddy water
 (5% gas, 20% oil, 20% water, 55% mud)
 245' oil and gas cut muddy water
 (5% gas, 20% oil, 55% water, 20% mud)
 620' oil and gas cut muddy water
 (5% gas, 20% oil, 70% water, 5% mud)
 245' slightly oil cut muddy water
 (10% oil, 85% water, 5% mud)

Pressures: ISIP 996 psi
 FSIP 1000 psi
 IFP 120-544 psi
 FFP 574-703 psi
 HSH 1728-1611 psi

3643-3650' Dolomite; white to cream, sucrosic, fair porosity, fair stain and saturation, show of free oil and good odor in fresh samples.

3650-3670' Dolomite; white, cream, sucrosic, fair pinpoint and finely crystalline porosity, fair stain, show of free oil and good odor.

3670-3680' Dolomite; tan, finely crystalline, poorly developed intercrystalline porosity, trace stain, show of free oil and fair odor in fresh samples.

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3680-3690' Dolomite; tan, finely crystalline, few sandy, dense, no show.

Rotary Total Depth	3690
Log Total Depth	3692

Recommendations:

5 1/2" production casing was set and cemented on the Vine #10.

Respectfully submitted;



Wyatt Urban,
Petroleum Geologist