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Globe Operating
Elaine #1
40' South & 40' West, E/2-W/2-SE; Section 16-31s-11w
Barber County, Kansas
Page No. 1
15-007-22980-00-00

4 1/2" Production Casing Set

Contractor: Southwind Drilling Company (Rig #2)

Commenced: February 24, 2006

Completed: March 10, 2006

Elevation: 1803' K.B.; 1801' D.F.; 1793' G.L.

Casing Program: Surface; 8 5/8" @ 375'
Production; 4 1/2" @ 5029'

Samples: Samples saved and examined 1900' to the Rotary Total Depth.

Drilling Time: One (1) foot drilling time recorded and kept 1900' to the Rotary Total Depth.

Measurements: All depths measured from the Kelly Bushing.

Formation Testing: There were seven (7) Drill Stem Tests ran by Superior Testers Enterprises Inc.

Electric Log: By Log Tech; Dual Induction, Compensated Density/Neutron, Sonic and Micro Log.

Gas Detector: By MBC Well Logging.

Formation	Log Depth	Sub-Sea Datum
Elgin Sand	3620	-1817
Heebner	3752	-1949
Douglas Sand	3797	-1994
Lower Douglas Sand	3876	-2073
Brown Lime	3937	-2134
Lansing	3949	-2146
Base Kansas City	4398	-2595
Mississippian	4512	-2709
Kinderhook Shale	4687	-2884
Viola	4781	-2978
Simpson Sand	4873	-3070
Lower Simpson Sand	4894	-3091
Arbuckle	4997	-3194
Rotary Total Depth	5025	-3222
Log Total Depth	5030	-3227

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

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

HERINGTON THROUGH TOPEKA SECTION

1990-3400' There were several zones of well developed porosity encountered in the drilling of the shallow beds, but no shows of oil and/or gas was noted.

ELGIN SECTION

3621-3641' Sand; gray, grayish green, very fine grained, sub rounded, few sub angular, friable, calcareous, micaceous, no shows.

DOUGLAS SECTION

3797-3801' Sand; gray, white, friable, micaceous in part, friable porosity, trace gas bubbles, (20 unit kick).

Drill Stem Test #1 **3722-3796' (log measurements 3727-3801)**

Times: 30-30-30-30

Blow: Weak

Recovery: 65' mud

Pressures: ISIP 258 psi
FSIP 106 psi
IFP 45-51 psi
FFP 55-61 psi
HSH 1807-1799 psi

3801-3821' Sand; gray, white, medium grained, sub rounded, friable, good intergranular porosity, trace gas bubbles, (110 unit gas kick).

Drill Stem Test #2 **3725-3815' (log measurements 3730-3816)**

Times: 30-45-60-60

Blow: Strong, gas to surface 13 minutes, gas gauged as follows;

Initial Flow

13 minutes 163,000 cfgpd
20 minutes 155,000 cfgpd
30 minutes 146,000 cfgpd

Final Flow

10 minutes 137,000 cfgpd
20 minutes 73,100 cfgpd
30 minutes 126,000 cfgpd
40 minutes 121,000 cfgpd
50 minutes 110,000 cfgpd
60 minutes 89,800 cfgpd

Recovery: 555' gassy mud
540' water

Pressures: ISIP 974 psi
FSIP 952 psi
IFP 183-330 psi

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FFP 380-592 psi
HSH 1839-1735 psi

LOWER DOUGLAS SECTION

3876-3904' Sand; gray, very fine grained, friable, shaley in part, micaceous, no shows.

LANSING SECTION

3949-3956' Limestone; tan, cream, finely crystalline, fossiliferous in part, slightly cherty, no shows.

3980-3986' Limestone; cream, tan, finely crystalline, fossiliferous, poor visible porosity.

4010-4030' Limestone; tan, fossiliferous/oolitic, chalky, fair porosity, no shows.

4080-4085' Limestone; buff, tan, finely crystalline, fossiliferous, slightly oolitic, chalky, no shows.

4144-4156' Limestone; tan to cream, fine to medium crystalline, fair intercrystalline porosity (barren).

4170-4182' Limestone; cream, tan, finely crystalline, oolitic, oomoldic chalky, no shows.

4234-4266' Limestone; tan, beige, fine to medium crystalline, fossiliferous in part, plus tan to brown opaque chert.

4310-4326' Limestone; cream, tan, fine to medium crystalline, chalky, spotty brown stain, trace of free oil and faint odor in fresh samples.

Drill Stem Test #3 4298-4330' (log measurements 4303-4335)

Times: 30-30-30-30

Blow: Weak

Recovery: 60' mud

Pressures: ISIP 1533 psi
FSIP 1496 psi
IFP 22-38 psi
FFP 42-48 psi
HSH 2155-2151 psi

4374-4390' Limestone; cream, gray, finely crystalline, slightly fossiliferous, chalky, dense.

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MISSISSIPPIAN SECTION

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4512-4530' Chert; white, tan, cream, few fossiliferous, boney, slightly weathered, scattered pinpoint to finely vuggy porosity, black to golden brown stain, show of free oil and no odor in fresh samples (190 unit gas kick).

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4530-4550' Chert; as above, semi-tripolitic, trace gray and black stain.

Drill Stem Test #4 **4452-4545' (log measurements 4457-4580)**

Times: **30-45-60-75**

Blow: **Weak building to strong, gas to surface 5 minutes into final flow, gas gauged as follows;**

Final Flow

10 minutes	3,170 cfgpd
20 minutes	15,000 cfgpd
30 minutes	28,000 cfgpd
40 minutes	23,700 cfgpd
50 minutes	21,900 cfgpd
55 minutes	17,200 cfgpd

Recovery: **285' gassy mud**

Pressures: **ISIP 951 psi**
FSIP 856 psi
IFP 87-268 psi
FFP 140-159 psi
HSH 2302-2196 psi

(plugging action on both flow periods)

4624-4636' Chert; white, clear, boney, fresh, black "dead" spotty stain, no free oil and no odor in fresh samples.

Drill Stem Test #5 **4618-4633' (log measurements 4623-4638)**

Times: **30-15-15-15**

Blow: **Weak**

Recovery: **2' mud**

Pressures: **ISIP 22 psi**
FSIP 29 psi
IFP 19-21 psi
FFP 21-22 psi
HSH 2331-2306 psi

VIOLA SECTION

4781-4872' Limestone; cream, tan, gray, finely crystalline, slightly dolomitic, cherty, no shows.

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SIMPSON SECTION

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4873-4879' Sand; clear, sub rounded, sub angular, fair sorting, good intergranular porosity, friable, light brown spotty stain, trace of free, good fluorescence and fair odor in fresh samples.

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Drill Stem Test #6 **4852-4874' (log measurements 4857-4879)**

Times: **15-30-15-30**

Blow: **Weak**

Recovery: **55' mud**

Pressures: **ISIP 1688 psi**
 FSIP 1654 psi
 IFP 20-34 psi
 FFP 40-42 psi
 HSH 2380-2346 psi

4879-4885' Sand; as above, plus loose quartz grains.

Drill Stem Test #7 **4853-4880' (log measurements 4858-4885')**

Times: **45-30-45-60**

Blow: **Weak**

Recovery: **50' oil, trace water
(95% oil, 5% water)
60' heavy oil cut water
(45% oil, 55% water)**

Pressures: **ISIP 1378 psi**
 FSIP 1603 psi
 IFP 26-52 psi
 FFP 59-72 psi
 HSH 2389-2353 psi

4894-4906' Sand; white, clear, sub rounded, good sorting, friable, good intergranular porosity, no shows.

ARBUCKLE SECTION

4997-5015' Dolomite; tan, buff, fine to medium crystalline, cherty in part, scattered vuggy porosity, no shows.

5015-5030' Dolomite; tan, cream, gray, finely crystalline, few oolitic, cherty, dense.

Rotary Total Depth **5025 (-3222)**
Log Total Depth **5030 (-3227)**

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Recommendations:

On the basis of the favorable structural position and the positive Drill Stem Tests, it was recommended by all parties involved to set and cement 4 1/2" production casing at 5029' (one foot off bottom, log measurements) and the following zones be perforated in the Elaine #1:

1) Simpson Sand	4873-4878	perforate
2) Mississippian	4514-4525	perforate

Respectfully submitted;

James C. Musgrave
James C. Musgrave and
Josh Austin LICE
Petroleum Geologists
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Josh Austin

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