

5 1/2" Production Casing Set

Contractor: H2 Drilling Co (rig #1)

Commenced: July 1, 2014

Completed: July 10, 2014

Elevation: 3224' K.B., 3222' D.F., 3214' G.L.

Casing program: Surface; 8 5/8" @ 348'
 Production, 5 1/2" @ 5053'

Sample: Samples saved and examined 3800' to the Rotary Total Depth.

Drilling time: One (1) foot drilling time recorded and kept 3800 ft. to the Rotary Total Depth.

Measurements: All depths measured from the Kelly Bushing.

Drill Stem Tests: There was one (1) Drill Stem Tests ran by Tribolite Testing Co.

Electric Log: By Pioneer, Dual Induction, Dual Compensated Porosity Log, Micro-Resistivity, Borehole Compensated Sonic.

Formation	Log Depth	Sub-Sea Datum
Base Anhydrite	2396	-828
Heebner	3991	-767
Toronto	4013	-789
Lansing	4040	-816
Muncie Creek	4236	-1012
Base Kansas City	4496	-1272
Marmaton	4528	-1304
Pawnee	4613	-1389
Fort Scott	4648	-1424
Cherokee	4660	-1436
Morrow	4853	-1629
Morrow Sand	4878	-1654
Basal Sand	4966	-1742
Mississippian	4988	-1764
Rotary Total Depth	5052	-1828
Log Total Depth	5053	-1829

All tops and zones corrected to Electric Log Measurement.

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

TOPEKA SECTION

3800-3991'

There were several zones of well-developed porosity encountered in the drilling of the Topeka Section but no shows of oil and/or gas was encountered (see attached Sample/Geologist report).

TORONTO SECTION

4011-4030'

Limestone, cream, finely crystalline, oolitic/fossiliferous, scattered inter-crystalline porosity; slightly chalky; no visible shows.

LANSING SECTION

4043-4054'

Limestone, white, light gray, finely crystalline, few fossiliferous/oolitic, poor visible porosity, chalky, black stain, no show of free oil and no odor.

4079-4084'

Limestone, white/cream, finely crystalline, oolitic, sub-oomoldic, chalky in part, plus white/cream chert, no shows.

4096-4106'

Limestone, white, light gray, tan, finely oolitic, fossiliferous, sub-oomoldic in part; trace dark brown to black stain, no show of free oil and no odor in fresh samples.

4136-4150'

Limestone, white/cream, finely crystalline, slightly oolitic, poor scattered pinpoint porosity, trace black stain, no free oil and no odor.

4163-4171'

Limestone, cream, tan finely crystalline, chalky, oolitic, sub-oomoldic porosity, trace spotty stain, no show of free oil and no odor.

4100-4190'

Limestone, cream, tan, oolitic, oomoldic, fair oomoldic porosity, chalky, no shows.

4190-4230'

Limestone, cream, tan, finely crystalline, oolitic, dense, plus tan/cream chert.

4253-4268'

Limestone, white, tan, finely crystalline, oolitic, oomoldic, scattered oomoldic porosity, chalky, plus chert; white/tan, boney.

4287-4294'

Limestone, white, finely crystalline, oolitic, fair inter-crystalline porosity, chalky in part; dark brown stain, show of free oil (dead) and faint odor.

4314-4334'

Limestone, tan, cream, finely crystalline, oolitic, oomoldic, chalky, fair to good oomoldic porosity, trace spotty dark brown stain, no free oil and no odor in fresh samples.

4355-4362'

Limestone, white, tan, finely crystalline, oolitic, chalky, spotty dark brown stain, no free oil and no odor.

4367-4398'

Limestone, white, gray, tan, finely crystalline, few oolitic, chalky,

MARMATON SECTION

4403-4414' Limestone, white, light gray, cream, poorly developed pin point type porosity, no shows, plus white/gray boney chert.
 4442-4452' Limestone, cream, tan, finely crystalline, highly oolitic, sub-comolitic, scattered porosity, dark brown to black stain, no show of free oil and trace white/tan chert.
 4463-4488' Limestone, white, cream, finely crystalline, fossiliferous/oolitic, chalky in part, no show.

PAWNEE SECTION

4577-4570' Limestone, cream, tan, finely crystalline, few fossiliferous, poor visible porosity brown spotty stain, no free oil and no odor.
 4577-4584' Limestone, white, cream, finely crystalline, oolitic/fossiliferous, poorly developed porosity, chalky, no shows.

Drill Stem Test #1
 4474-4551

ISIP	1180	psi
FSIP	1187	psi
IIP	50-197	psi
FFP	204-303	psi
HSH	2233-2164	psi

Times: 30-45-45-90
 Blow: Strong
 Recovery: 138' gas in pipe
 231' muddy gassy oil (30% gas; 20% mud; 50% oil)
 93' very heavily oil and gas watery mud (50% gas; 5% mud; 15% water; 30% oil)
 366' oil and gas cut muddy water (20% gas; 10% mud; 35% water; 35% oil)

4613-4623' Limestone, white, cream, finely crystalline, oolitic/fossiliferous, poorly developed porosity, chalky, no shows.

FORT SCOTT SECTION

4650-4660' Limestone, cream, gray, finely crystalline, fossiliferous dense, no shows.

CHEROKEE SECTION

4663-4688' Limestone, cream, light gray, finely crystalline, oolitic, poor porosity; no show plus white, oolitic chert.

MORROW SECTION

4878-4890' Sand, white, greenish, fine grained, sub-rounded, fair sorting, friable, glaucomitic, calcereous in part, no shows.

BASAL MORROW SAND

4966-4976' Sand, clean, frothy white, fine to medium grained, sub-rounded, well cemented, poor to fair inter-granular porosity, no shows.

MISSISSIPPIAN SECTION

4988-5000' Limestone, white, cream, fine and medium crystalline, sandy, chalky, poor visible porosity; no shows.

5000-5020' Limestone, as above, no shows.

5020-5052' Limestone, cream tan, finely crystalline, oolitic/fossiliferous, cherty in part, dense.

Rotary Total Depth
 5052
 5053

Recommendations:
 5 1/2" production casing was set and cemented on the SDOCO, Aguilera #14-12.

Respectfully submitted;



Kurt Talbot
 Petroleum Geologist