

Colt Energy, Inc. Geological Report

Well: **Lauber #34**

Draft: 6/19/2015

291 FNL, 2496 FEL

Section 23-T26S-R14E

Woodson Co., KS

API #15-207-29245

Elevation: 935 (936.28 surveyed elevation, removed some overburden to level location)

Drilling Contractor: Andrew King (Op. Lic. #34953), dba BAR Drilling, LLC

Spud: 6/15/2015

Surface Casing: 11.75" bore hole, 8 5/8" set at 40.5', cmted w/ 14 sx of Portland

Under Surface: 6/16/15

Drilling fluid: water "native mud" and a little polymer

Production bore hole: 6.75"

Rotary Total Depth (RTD): 1392' (6/17/15)

Geophysical E-Log(s): CDL and IES by Osage Wireline (6/17/15)

Production Casing: 1252.10' of 4 1/2", 10.5#/ft., includes 4' cmt pup jt., cmted w/ 135 sx, (6/18/15)

Production Casing: Ran in hole by: BAR Drilling, LLC (6/18/15)

Formation/Member	DL/Spl Tops	Log Tops (Rdd off)	Datum (935)
Lansing Ls	196 (DL)	195	740
Base Lansing	459	458	477
Kansas City Ls	535	534	401
Stark Sh	624	625	310
Hushpuckney Sh	----	663	272
Base Ks City	----	681	254
"Old Drillers Log" B. KC	706	707	228
South Mound Sh	----	811	124
"Weiser" Ss	----	908	27
Mulberry Coal	----	952	-17
Myrick Station Ls	976 (drlg time)	976	-41
Anna (Lexington Coal Zone) Sh	981	981	-46
Ft. Scott ("Oswego") Ls	1005 (spl top)	1005	-70
Little Osage (Summit Coal Zone) Sh	1024	1024	-89
Excello Sh	1039	1039	-104
Mulky Coal	1041	1043	-108
Squirrel Sand	1050	1050	-115
Bevier Coal	1106 (drlg time)	1106	-171
Verdigris (Ardmore) Ls	1118	1119	-184
"V" (Croweburg) Sh	1120	1121	-186
Croweburg Coal	1123	1123	-188
Fleming Coal	1162	1162	-227
Mineral Coal	1179 (spl)	1179	-244
Scammon Coal	1195	1195	-260
"Lower" Cattleman Ss	1197	1197	-262

Formation/Member	Spl Tops	Log Tops (Rdd off)	Datum (935)
Un-named Carb. Zone	1228	1227	-292
Un-named Coal (Tebo?)	----	----	----
Bartlesville Ss	1256	1256	-321
"Clean" Bartlesville Ss	1259	1260	-325
Un-Named Coal	1333	1326	-391
Riverton Coal	1350	1350	-415
Mississippian	*1390	----	*-455
Rotary Total Depth	1392	----	-457
E-log TD	----	1389	-454

The following report is based on microscopic examination of rotary drill cuttings collected on location while drilling, a core taken from the Bartlesville Sand Zone, and a series of open hole logs; depths have been corrected back to the open hole log measurements unless noted.

Note: Drill cuttings were collected, "bagged", and microscopically examined from 10__ to 1110 and 1220 to 1392 (RTD).

Major Zones of Interest:

"Weiser" Sandstone. The open hole logs – "log", show well developed sand from 908 to 950 with a couple of minor silty to shaley "breaks", sand calculates to be "watery", could make a good source for a water supply if needed in the future.

Mulberry Coal, 952-953. Log shows about a foot of coal with a bulk density of 1.97.

Anna Shale (Lexington Coal Zone), 981-983. No indications to the presence of coal.

Little Osage Shale (Summit Coal Zone), 1024-1026. Shale, black, trace green-gray, gray-green, and grays with depth (1026-1031), mix of angular, blocky, and platy cuttings, pyritic in part, no shows of free gas or coal and the log shows no signs of coal.

Excello Shale, 1039-1043. Shale, black, angular to platy cuttings, gritty textured in part, scattered micro pyritic fragments, and no shows of gas.

Mulky Coal, 1043-44+. Coal, 40% were "floaters", no visible shows of free gas, log shows a little over 1.5 feet of coal with a bulk density of 1.67, there is a washout below the coal, but do not believe has affected the bulk density reading.

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Major Zones of Interest continued:

Squirrel Sand, 1050-1059. Sandstone, off white with very-very light/pale grayish-green tint, grays, trace medium tans, silt size to fine grain, s-angular to very angular, poorly sorted, poor to moderately consolidated, friable clusters, abundant loose grains, very poor with trace fair porosity, scattered micro silt and shale laminations, scattered micro shale platelets in most clusters and part of the loose grains, no to very-very dull fluorescence, very weak pungent petroliferous odor, very weak to weak shows of very dark brown free oil and hydrocarbon residue – “dead oil”, no visible shows of gas.

1062-1071. Silt/sandstone, gray to medium gray, samples were fairly silty to shaley, but the log shows a little “cleaner” sand, had weak shows of dead oil.

Note: Based on the drill cuttings examined collected through the Squirrel Sand Zone and the results obtained from the open hole, cannot recommend further testing of this sand.

Bevier Coal, 1106-1107. The log indicates about ½ a foot of coal with a bulk density of 2.11.

Croweburg Coal, 1123-1124. Log shows a foot of coal with a bulk density of 1.98.

Fleming Coal, 1162-1164. Log illustrates the coal to be about 1.75 feet thick with a bulk density of 1.85.

Mineral Coal, 1178+ - 1180+. Coal and trace “coaly-shale”, no “floaters”, trace pyritic, some with gritty texture, no apparent shows of gas, coal is around 1.75+/- feet thick with a bulk density of 1.72, would of thought there would have been abundant “floaters” with this much coal.

Scammon Coal, 1195-1197. Coal, 10-15% were “floaters”, pyritic in part, no shows of gas, log shows about 1.75+/- feet of coal with a bulk density of 1.75.

“Lower” Cattleman Sand, 1197-1204+/-. Silt/sandstone, off white, tans and grays, silt size to fine grain, angular to very angular, poor to very poorly sorted, moderately well consolidated, friable clusters, scattered loose grains, poor to very poor porosity, silty to shaley, micaceous, no fluorescence,

Bartlesville Sand Zone:

1256-1259+/-. Siltstone, sandstone, and clay/mudstone; had clusters that consisted of a mix of all three, sand grains were clear, frosted, semi-translucent, and opaque, silt size to medium grain – mostly fine grain, sub-angular to very angular, trace sub-rounded, very poor to moderately well consolidated, friable clusters and abundant loose grains, mostly poor porosity, silty to shaley in part, sand became “cleaner” with depth, fair to good odor, dull fluorescence, scattered weak to fair, trace good shows of free oil were sand clusters were “cleaner”, no shows of gas.

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Bartlesville Sand Zone continued:

1259-1260+/-. Sandstone, browns (color varied due to oil content), mostly fine grain, sub-angular to very angular, moderately well sorted, poorly consolidated, abundant loose grains, very friable clusters, few micro shale platelets, good to very good inter-granular porosity, very strong oily odor, fair to good fluorescence (for the area), good to very good with trace excellent shows of very dark brown free oil, questionable gas bubbles from some clusters.

Note: Cored the Bartlesville Sand Zone from 1260 to 1287.25+/- (Driller's depths or 1261+/- to 1288+/- log measurements, the two depths are very close, depending on what "top" you line the drilling time up to the neutron side of the log, please see the Core Report.

Bartlesville Sand Zone Drill cuttings continued:

1287+/- - 1288. Sandstone, grays (color varied to oil content), silt size to fine grain, trace medium grain, sub-angular to very angular, poor to moderately well sorted, poor to very poorly consolidated, abundant loose grains and fine clusters, good to very good porosity, no fluorescence, weak to fair pungent petroliferous – "dead oil" odor, trace tarry to tacky black oil, but mostly fair to good shows of hydrocarbon residue – "dead oil".

Note: Based on the results from the core obtained from the Bartlesville Sand, the "dead oil" transition zone appears to be at 1280+/- (-345).

Un-named Coal (one of the Neutrals / "AW" or "BW"), 1326-1328. Coal, 10+/-% were "floaters", no visible shows of gas, not much coal in sample, log shows over 1.5 feet of coal with a bulk density of 1.98.

Riverton Coal, 1350-1352+. Coal, 20% plus were "floaters", no apparent shows of gas, log shows over 2 feet of coal, but again not much coal in sample, possibly the "drag" bit pulverizes the coal, the sample bucket wash water turned very dark gray to black when rinsing off the drill cutting, possible same thing happen with the coal above, no shows of gas were observed and this coal a bulk density of 1.53.

Mississippi(an), 1390-1392 (sample footage, not logged). Mix or conglomerate of; chert, off white, cream, light tans, trace semi-translucent, tripolitic in part, scattered fragments of very light tan to cream, very fine to coarse crystalline, glauconitic limestone, few pieces of dolomite which were sucrosic in part and had questionable hydrocarbon staining, no shows of free oil or gas.

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Summary:

Due to the shows of oil found in the Bartlesville Sand, the decision was made to run production casing for further testing of this sand for commercial production.

End Report

Rex R. Ashlock
For: Colt Energy, Inc.