Colt Energy, Inc. Geological Report

Well: **Pendley #23-i** Draft: 5/15/2015

1709 FSL, 392 FEL Section 22-T26S-R14E Woodson Co., KS API #: 15-207-29228

Elevation: 936 GL (est. from the surveyed locations of Pendley #'s 11 and 12) Drilling Contractor: Andrew King (Op. Lic. #34953), dba BAR Drilling, LLC

Spud: 5/11/2015

Surface Casing: 11.75" bore hole, 8 5/8" set at 42.8', cmtd w/ 12 sx of Portland

Under Surface: 5/12/15

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

Production bore hole: 6.75"

Rotary Total Depth (RTD): 1408' (5/13/15)

Geophysical E-Log(s): CDL and IES by Osage Wireline (5/13/15)

Production Casing: 1392.80' of 4 ½", 10.5#/ft., includes 4' cmt pup jt., cmtd w/ 150 sx, (5/13/15)

Production Casing: Ran in hole by: BAR Drilling, LLC (5/13/15)

Formation/Member	DL/Spl Tops	Log Tops (Rdd off)	Datum (936)
Lansing Ls		211	725
Base Lansing		474	462
Kansas City Ls		549	387
Stark Sh		641	295
Hushpuckney Sh	aww.	682	254
Base Ks City	A CONTRACTOR OF THE CONTRACTOR	711	225
"Old Drillers Log" B. KC	and the	728	208
South Mound Sh	жеен	820	116
"Weiser" Ss		910	26
Mulberry Coal	343043:	862	74
Myrick Station Ls	####	983	-47
Anna (Lexington Coal Zone) Sh		987	-51
Ft. Scott ("Oswego") Ls	1013 (Drlg tin	ne) 1012	-76
Little Osage (Summit Coal Zone) Sh	1032	1032	-96
Excello Sh	1047	1046	-110
Mulky Coal	1051	1050	-114
Squirrel Sand	1057 (Spl)	1060	-124
Bevier Coal	1114 (Drlg tin	ne) 1114	-178
Verdigris (Ardmore) Ls	1126	1127	-191
"V" (Croweburg) Sh	1129	1129	-193
Croweburg Coal	No call	1131	-195
Fleming Coal	1168 (Spl)	1169	-233
Mineral Coal	1183	1186	-250
Scammon Coal	1199	1201	-265
"Lower" Cattleman Ss Zone	1204	1204	-268

Formation/Member	Spl Tops	Log Tops (Rdd off)	Datum (936)
Un-named Carb. Zone	1227	1230	-294
Un-Named Coal (Tebo?)	1234	1235	-299
Bartlesville "Zone 1"	1236	1237	-301
Bv "clean" Ss "Zone 1"	1244.6 (core depth)	1245+/-	-309
Base By "Zone 1"	1264.1 (core depth)	1262	-326
Bv "Zone 2"	1265	1267	-331
Base By "Zone 2"	1290	1288	-352
Bv "Zone 3"	Not dev.	####U	
Bv "Zone 4"	1350	1349	-413
Base "Zone 4"	1362	1364	-428
Un-Named Coal		####	
Riverton Coal	1381	1381	-445
Mississippian ("Cgl.")	*1406	####U	*-470
Rotary Total Depth	1408		-472
E-log TD		1405	-469

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.

<u>Note:</u> Drill cuttings were collected, "bagged", and microscopically examined from 1080'-1110' and 1190' to 1408' RTD.

Major Zones of Interest:

Mulberry Coal, 862-863+. Log shows a little over a bout 1.5' of coal with a bulk density of 1.92

Anna Shale (Lexington Coal Zone), 987-990. No indications to the presence of coal.

Little Osage Shale (Summit Coal Zone), 1032-1034. No signs to the presence of coal.

Excello Shale, 1046-1049. Log shows black shale as was with the Anna and Little Osage Shale.

Mulky Coal, 1050-1051+. Log shows about a 1+/- foot coal seam with a bulk density of 1.89.

<u>Squirrel Sand, 1060-1072.</u> Sandstone, mix of; light tan, tan, gray-tan, light brown, light gray-brown, and a few scattered clusters of off white (color varies due to oil content), silt size to fine grain, angular to very angular, poor to very poorly sorted, moderately well to well consolidated, friable to semi-friable clusters with a fair amount of loose grains, poor fair porosity, pale green shale platelets in most clusters, very-very dull to no fluorescence, fair to good odor, weak to fair shows of very-very dark brown to black free oil, few clusters exhibiting good shows of free oil, fair shows of hydrocarbon residue, no shows of gas, did circulated a fair show of free oil to the drilling pit, the Induction log indicates this sand to be "watery".

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Squirrel Sand Zone continued:

<u>1072-1080.</u> Sandstone, as above, fairly silty to shaley, very weak to weak shows of free oil, fair show of thick, tarry residue and "dead" oil, no show of gas.

Note: As of report date, cannot recommend further testing the Squirrel Sand.

Bevier Coal, 1114+-1116. Log shows about a foot of coal with a bulk density of 1.93.

<u>Croweburg Coal, 1131-1132.</u> The log indicates a little over a foot of coal with a bulk density of 1.87.

<u>Fleming Coal, 1169-1171.</u> Coal, 20-30% of coal in sample were "floaters", gritty textured in part, pyritic, no apparent shows of gas, coal is close to 2 feet thick with a bulk density of 1.75.

Mineral Coal, 1186-1187. Coal and "coaly-shale", 30%+ were "floaters" (possible some percentage left over from the Fleming), pyritic, gritty textured in part, coal is less than a foot thick, no show, and has a bulk density of 2.02 – lot of "floaters" for so high of bulk density.

Scammon Coal, 1201-1203. Coal, abundant "floaters", sooty/smutty - turned sample wash bucket black, no visible shows of gas, but examined sample about 30-45 minutes after collected, coal is 1+/- feet thick and has a bulk density of 1.82.

<u>"Lower" Cattleman Sand Zone, 1204-1210+/-.</u> Silt/sandstone, grays, mostly very fine grain, shaley, dense, no show.

<u>Un-named Carbonaceous Zone (Tebo?), 1230-1233.</u> Shale, black, carbonaceous and pyritic in part, no show.

<u>"Tebo" Coal, 1235-1237.</u> Coal, did not write down % of "floaters", pyritic in most, no visible shows of gas, coal is around 1.5 feet thick – based on the log, and has a bulk density of 1.78.

Bartlesville Sand Zone:

<u>1237-1240.</u> Shale, pale green, very-very silty to sandy, sand content increases with depth, scattered tan to light brown clusters of sandstone, (probably from thin lamina within the shale), with fair oily stain and weak to fair shows of free oil, circulating samples had weak to fair odor, dull fluorescence, weak to fair shows of free oil, no shows of gas.

Note: Cored the Bartlesville from 1240-1265.4+/- (Driller's depths, about 1'+/- to the log measurements), cored footage is part of "Zone 1" and the very top few inches of "Zone 2", please see the Core Report.

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Bartlesville Drill Cuttings continued:

<u>1265.4+/- -1278.</u> Sandstone, tan to brown with trace dark brown, silt size to fine grain, trace medium grain, angular to very angular, mostly very poorly sorted, moderately well consolidated, fair trace good inter-granular porosity, scattered pale green-gray and gray-green shale (possible laminated in part), good oily odor, very dull to dull fluorescence, fair to good with trace very good shows of free oil, no visible shows of gas.

<u>1278-1285+/-.</u> Sandstone, very silty to shaley, looked to be laminated to possible thick sand lenses within this very silty to shaley "sand". There was a fair amount of light gray-green and green-gray shale in samples. The "clean" sand was same as noted above, had very-very dull fluorescence, but had very good shows of free oil and samples had a strong oily odor.

<u>1285-1288</u>. Sandstone, various shades of brown to black (color varied due to oil content of the sand clusters), silt size to medium grain, angular to very angular with trace sub-angular, poor to very poorly sorted, moderately well to very poorly consolidated, abundant loose grains in sample, good to very good porosity, scattered shale platelets in most sand clusters, mostly no to a few clusters exhibiting very-very dull fluorescence, very good to strong oily odor, good to excellent shows of very-very dark brown to black, "heavy"-"thick", free oil, no shows of gas.

"Lower" Bartlesville (Part of Zone "4")

<u>1349-1357.</u> Sandstone; clusters were/are gray-browns to black (color dependent on oil content), but the grains were clear, frosted, semi-translucent, to opaque and were silt size to fine grain with trace medium grain, angular to very angular, with a few sub-angular to sub-rounded, poor to very poorly sorted, very poorly consolidated – mostly loose grains to very-very small clusters, trace dark gray to very dark gray shale in sample, sand has good to very good porosity, very-very weak "pungent" petroliferous odor, no fluorescence, weak to fair show of hydrocarbon residue – "dead oil".

1357-1364. Shale, dark to very dark gray, black, trace sandstone as above, trace off white to light tan, and "salt & pepper", sand had poor porosity and was in the form of thin lenses within the shale, found no shows except for some scattered "dead oil". Log shows a 1.5 feet lens at 1359 and a 2.0 feet lens at 1362.

Note: the "Lower" Bartlesville does not merit further testing.

<u>Riverton Coal, 1381-1383.</u> Coal, 30%+ were "floaters", fairly pyritic, no visible shows of gas, coal is a little over a foot thick and has a bulk density of 1.92.

Mississippi (an), 1406-1406 (Driller's depths, not logged): Only a few fragments of chert and conglomeratic material was found in the "bottoms up" circulated samples.

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Summary:

Due to the shows of oil found in the Bartlesville Sand and the results of the open hole logs, the decision was made to run production casing for further testing of the Bartlesville, after a given time the subject well will be converted into a water injection well.

End Report

Rex R. Ashlock

For: Colt Energy, Inc.