

Colt Energy, Inc.

Geological and Well Report

Well: **Palmer #A13-i**

Draft: 5/5/15

115 FSL, 80 FWL

Section 13-T25S-R19E

Allen Co., KS

API #: 15-001-31345

Elevation: 1076 GL (surveyed)

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

Spud: 5/01/2015

Surface Casing: 11.75" bore hole, 8 5/8" set at 20.2', cmtd w/ 8 sx of Portland

Under Surface: 5/03/15

Drilling fluid: water "native mud"

Production bore hole: 6.75"

Rotary Total Depth (RTD): 921' (5/04/15)

Geophysical E-Log(s): CDL & IES by Osage Wireline (5/04/15)

Production Casing: 883' of 10.5#/ft., includes 4' cmt pup jt., cmtd w/ 110 sx, (5/04/15)

Production Casing: Ran in hole by: BAR Drilling

Formation/Member	DL/Sample Tops	Log Tops (Rdd off)	Datum (1076)
Stark Sh	----	203	873
Hushpuckney Sh	----	228	848
Base Ks City	----	248	828
"Old Drillers Log" B. KC	----	261	815
"Knobtown" Ss	----	273	803
South Mound Sh	----	438	638
"Upper" "Weiser" Ss	----	489	587
"Lower" "Weiser" Ss	----	517	559
Myrick Station Ls	----	576	500
Anna (Lexington Coal Zone) Sh	----	582	494
Ft. Scott ("Oswego") Ls	----	618	458
Little Osage (Summit Coal Zone) Sh	----	638	438
Excello (Mulky Coal Zone) Sh	----	649	427
Squirrel Sand	----	688	388
Bevier Coal Zone	718 (drlg time)	718	358
Verdigris (Ardmore) Ls	735	734	342
Croweburg ("V") Sh	737	737	339
Croweburg Coal	739	738	338
Fleming Coal	----	----	----
Mineral Coal	766	767	309
Cattleman ("Upper") Ss	----	----	----
Scammon Coal Zone	778	781	295
Cattleman ("Lower") Ss	782	783	294

Formation/Member	DL/Spl Tops	Log Tops (Rdd off)	Datum (1076)
Un-named Carb. Zone (Tebo)	818	818	258
Bartlesville Ss Zone	826	833	243
Bartlesville Ss	See Report	----	----
Un-named Coal (Dry Wood?)	867	868	208
Un-named Coal (Rowe/Neutral?)	881	884	192
“Lower” Bartlesville Ss	Not drlg	----	----
Rotary Total Depth	821	----	255
Open Hole Log(s) TD	----	921	255

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

Note: No drill cuttings were collected, “bagged”, and microscopically examined prior to 760’.

Major Zones of Interest:

Anna Shale (Lexington Coal Zone), 582-584+. No indications to the presence of coal.

Little Osage Shale (Summit Coal Zone), 638-641. As above

Excello Shale (Mulky Coal Zone), 649-653+. Log shows black shale from 649 to 651.5+/- and about a foot of coal below the black shale that has a bulk density of 2.05

Squirrel Sand Zone:

Log shows a very silty, slightly shaley, “broken”, sand from 688-712, the induction log indicates the sand to be “watery”, not enough “clean” sand to make a water supply well.

Bevier Coal, 718-719.5+/-. Log shows a “clean” coal with a bulk density of 1.93

Croweburg Coal, 739-739+. Coal, 20%+/- were “floaters”, fairly pyritic, abundant black shale from the “V” shale in sample bag, no visible shows of free gas, coal is close to a foot thick and has a bulk density of 2.04

Mineral Coal Zone, 767-768.5+/-. Coal, 30-40% of coal in sample were “floaters”, no secondary fracturing, pyritic, trace black shale in sample, no apparent shows of free gas, coal is a little under 2 feet thick and has a bulk density of 1.77.

Scammon Coal Zone. 781-783+/-. Shale, very dark grays to black, scattered macro and micro carbonaceous fragments, trace conglomeritic material, no shows of gas.

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Major Zones of interest continued:

“Lower” Cattleman Sand, 783-784 (782-783+/- Driller depths). Silt/sandstone, pale green, silt size to fine grain, moderately sorted, well to very well consolidated, semi-firm to firm, poor with trace fair porosity, abundant micro pale green shale platelets (gives the pale green color to the sand), scattered tan, silt/sandstone lamina with very weak to weak speckled to spotty shows of free oil, exhibits very-very dull fluorescence, sample had fair oily odor.

Note: Cored the “Lower” Cattleman Sand from 783-803 (Driller’s depths or apx. 784- 804+/- e-log depths, please see the Core Report.

Un-named Carbonaceous Zone (Tebo?), 818-828. Shale, black, very dark grays, trace light green-gray, 6”+/- layer of coal at 819, no visible shows of gas, coal has a peak bulk density of 2.16.

Bartlesville Sand Zone:

833-839. Shale, light to very light green-grays and gray-greens, silty, sandy with depth, scattered light tan to tan, silt/sandstone lamina with hydrocarbon staining, no shows of free oil or gas.

839-857+/-. Shale, pale greens, light gray-greens, silty to sandy, abundant lamina and thin lens of tan to light brown, silt size to fine grain, angular to very angular, moderately sorted, well consolidated, friable to semi-firm, very poor to fair, trace good porosity, silt/sandstone. Samples had good to very good oily odor, very-very dull fluorescence, good to very good shows of free oil, no visible shows of gas.

857-862+/-. Silt/sandstone as above, but is dark tans and browns, very dull fluorescence, strong oily odor, good to very good shows of free oil, few scattered gas bubbles.

862-864+/-. Shale, gray, gray-green, silty to slightly sandy, no shows.

864-868. Sandstone, browns, gray-browns (color varied due to oil content), silt size to medium grain, trace coarse grain, sub-angular to very angular, poor to very poorly sorted, poor to well consolidated, loose grains to semi-firm clusters, mostly poor porosity, little shaley, trace – what looked to be conglomeratic material, sample had fair to good odor, no to very-very dull questionable fluorescence, weak to fair shows of very-very dark brown to black free oil, weak to fair shows of “tarry” to “dead oil” hydrocarbon residue, no shows of gas.

Un-named Coal (Dry Wood?), 868-869. Coal, 10-20% were “floaters”, fairly pyritic, no secondary fracturing, no shows of free gas, coal is about 6 inches +/- and has a bulk density of 2.29.

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Major Zones of Interest continued:

Un-named Carbonaceous (Rowe or one of the Neutrals?) Zone, 885-886 (probably where the Rowe or one of the Neutrals would be found). Not very apparent on log, but sample contained black shale and coal fragments, less than 5% were floaters, both were pyritic, no shows of gas were observed, bulk density is around 2.50, noted for the record only.

Summary:

Due to the shows of oil found in/and well developed "Lower" Cattleman Sand, the decision was made to make the subject test into a water input well,

End Report

Rex R. Ashlock
For: Colt Energy, Inc.