

Robert L. Milford

PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGISTS' REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR **Cobalt Energy, LLC**

LEASE **Critchfield 'A' #1-32**

LOC. SPOT **5'W of C E2 NE SE**

LOC. FOOTAGE **1,980' FSL 335' FEL**

SEC. **32** TWPSP **9S** R1NG **24W**

COUNTY **Graham** STATE **Kansas**

API **15-065-23888-00-00**

CONTRACTOR **Murfin Drilling Co., Inc.** RIG NO. **8**

DRILLING STARTED **1-21-2013** COMPLETED **1-28-2013**

MUD DISPLACED **3,292'** MUD TYPE **Chemical**

DRILLING TIME KEPT FROM **3,550'** TO RTD

SAMPLES SAVED FROM **3,550'** TO RTD

SAMPLES EXAMINED FROM **3,550'** TO RTD

GEOLOGICAL SUPERVISION FROM **3,521'** TO RTD

FORMATION NAME

LOG DATUM

SAMPLE DATUM

Stone Corral

Base Stone Corral

Topeka

Heebner

Toronto

MEASUREMENTS FROM KB

ELEVATIONS

KB **2,531'**

GL **2,526'**

CASING RECORD

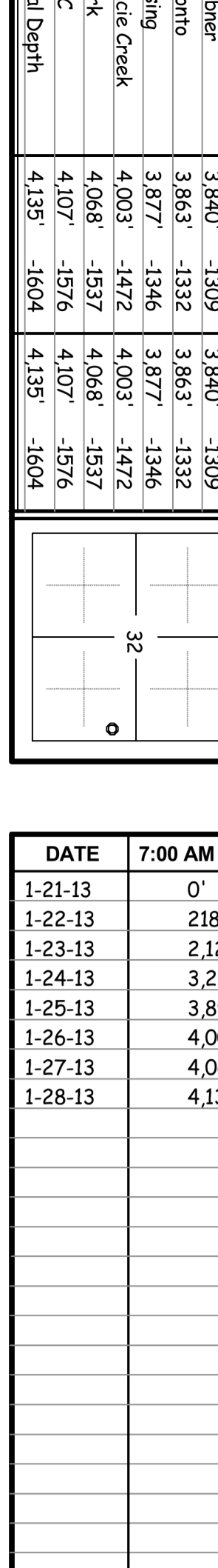
Conductor

Surface **8.5/8" @ 218'**
w/ 175 socks cement
Production none

ELECTRICAL SURVEYS:

Pioneer Wireline:
Radiation Guard Log

FORMATION NAME	TOP	DATUM	TOP	SAMPLE DATUM
Stone Corral	2,196'	+335	2,193'	+338
Base Stone Corral	2,231'	+300	2,228'	+303
Topeka	3,622'	-1091	3,623'	-1092
Heebner	3,840'	-1309	3,840'	-1309
Toronto	3,863'	-1332	3,863'	-1332
Lansing	3,877'	-1346	3,877'	-1346
Muncie Creek	4,003'	-1472	4,003'	-1472
Stark	4,068'	-1537	4,068'	-1537
B/KC	4,107'	-1576	4,107'	-1576
Total Depth	4,135'	-1604	4,135'	-1604



DATE	7:00 AM DEPTH	REMARKS
1-21-13	0'	Spud @ 5:45 pm. Plug down @ 10:30 pm. Dev.: 0.5° @ 218'
1-22-13	218'	Cut 218' in last 24 hrs. Started drilling out plug @ 8:00 am
1-23-13	2,120'	Cut 1,902' in last 24 hrs; 22 hrs drlg.
1-24-13	3,210'	Cut 1,090' in last 24 hrs; 22 hrs drlg.
1-25-13	3,890'	Cut 680' in last 24 hrs; 22.75 hrs drlg. DST #1 @ 3935'
1-26-13	4,000'	Cut 110' in last 24 hrs; 5.5 hrs drlg. DST #2 @ 4030', DST #3 @ 4067'
1-27-13	4,067'	Cut 67' in last 24 hrs; 3.25 hrs drlg. RTD 4135' @ 4: 26 pm
1-28-13	4,135'	Cut 68' in last 24 hrs; 3.75 hrs drlg. P&A

Remarks

The electric log measurements correlate from 1' higher to 3' lower to the drilling measurements.

Formation tops and lithology on this report have been corrected to the electric log.

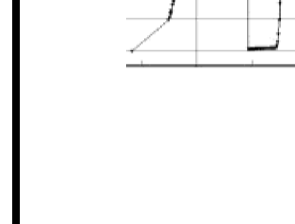
The drilling samples were deposited at the Kansas Geological Survey office in Wichita.

Respectfully submitted,

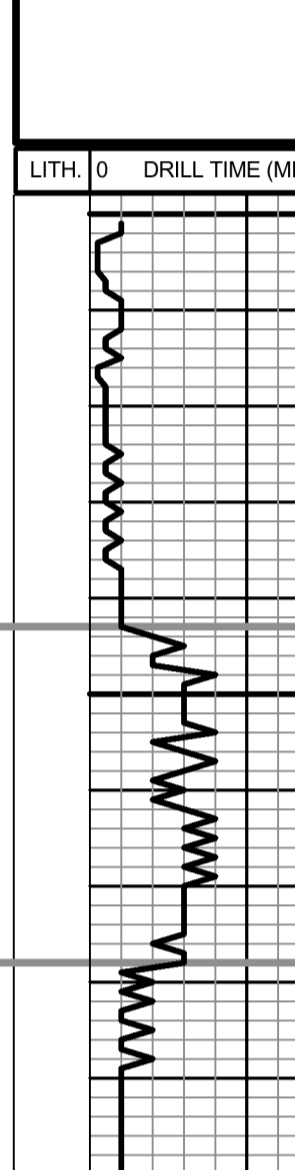
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Drill Stem Test Charts

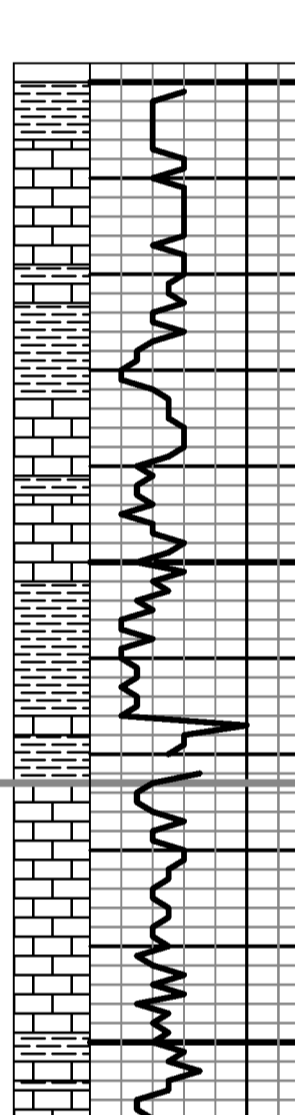
Drill Stem Test by **Trilobite Testing, Inc.**



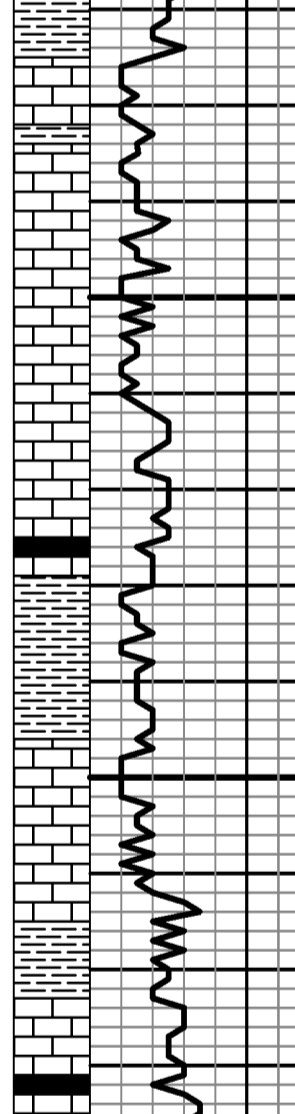
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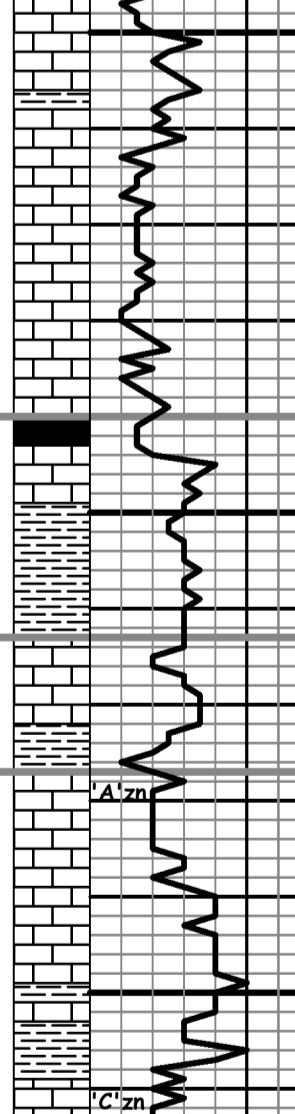
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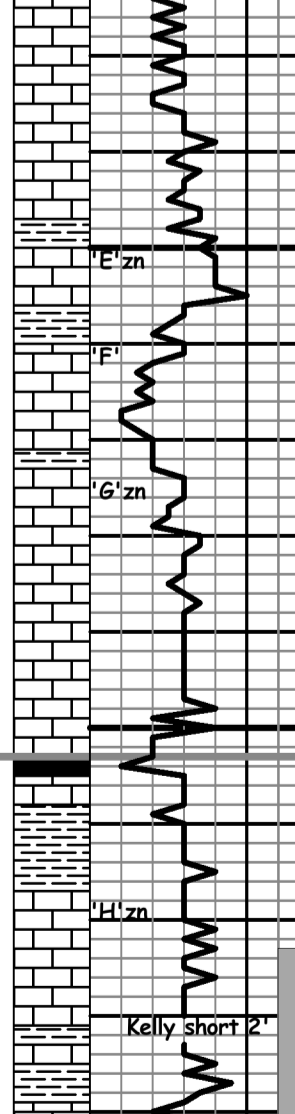
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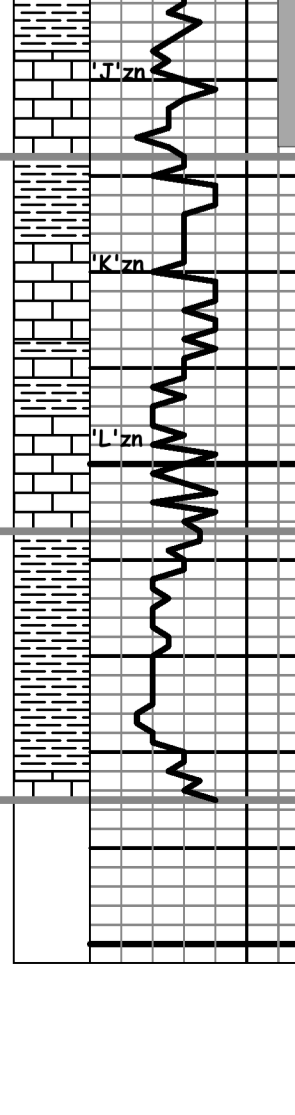
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