

Robert L. Milford

PETROLEUM GEOLOGIST
Wichita, Kansas

GEOLOGIST'S REPORT

DRILLING TIME AND SAMPLE LOG

OPERATOR **Coloalt Energy, LLC**

LEASE **Cruid 'A' #4-27**

LOC SPOT **120'S & 130'E of C N2 SE**

LOC FOOTAGE **1,860' FSL & 1,190' FEL**

SEC. **27** TWP **18S** R **24W**

COUNTY **Ness** STATE **Kansas**

API **15-135-25533-00-00**

CONTRACTOR **Murfin Drilling Co., Inc.** IRI NO. **16**

DRILLING STARTED **2-28-2013** COMPLETED **3-7-2013**

MUD DISPLACED **3,200** MUD TYPE **Chemical**

DRILLING TIME KEPT FROM **3,300'** TO **RTD**

SAMPLES SAVED FROM **3,300'** TO **RTD**

SAMPLES EXAMINED FROM **3,300'** TO **RTD**

GEOLOGICAL SUPERVISION FROM **3,217'** TO **RTD**

FORMATION NAME	TOP DATUM	LOG	TOP DATUM	SAMPLE DATE
Stone Corral	1,553'	+735	1,552'	+736
Topeka	3,368'	-1080	3,368'	-1080
Heebner	3,671'	-1383	3,671'	-1383
Lansing	3,714'	-1426	3,714'	-1426
B/KC	4,009'	-1721	4,008'	-1720
Pawnee	4,132'	-1844	4,132'	-1844
Fort Scott	4,209'	-1921	4,209'	-1921
Cherokee	4,235'	-1947	4,235'	-1947
Mississippi	4,299'	-2011	4,300'	-2012
Total Depth	4,402'	-2114	4,400'	-2112

ELEVATIONS
KB 2,288'
GL 2,283'

CASING RECORD
Surface 8.5/8" @ 220'
w/ 65 sacks cement
Production 5.1/2" @ 4394'
w/ 175 sacks cement

ELECTRICAL SURVEYS
Placer Wireline:
Diagraph
Dual Compensated

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DATE	7:00 AM DEPTH	REMARKS
2-28-13	0'	Spud @ 3:45 pm. Plug down @ 9:00 pm. Drilled out plug @ 5:00 am on 3-1-13
3-1-13	350'	Cut 350' in last 24 hrs. Dev.: 0.5" @ 2255'
3-2-13	2,320'	Cut 1,970' in last 24 hrs; 20.75 hrs drlg. Lost circ @ 2980' (dwn 0.75 hr)
3-3-13	3,150'	Cut 830' in last 24 hrs; 20.25 hrs drlg.
3-4-13	3,840'	Cut 690' in last 24 hrs; 21.75 hrs drlg.
3-5-13	4,234'	Cut 394' in last 24 hrs; 19.25 hrs drlg. DST #1 @ 4234', DST #2 @ 4315'
3-6-13	4,315'	Cut 81' in last 24 hrs; 4.75 hrs drlg. RTD 4400' @ 9:00 pm
3-7-13	4,400'	Cut 85' in last 24 hrs; 1.75 hrs drlg. Ran production casing

Remarks

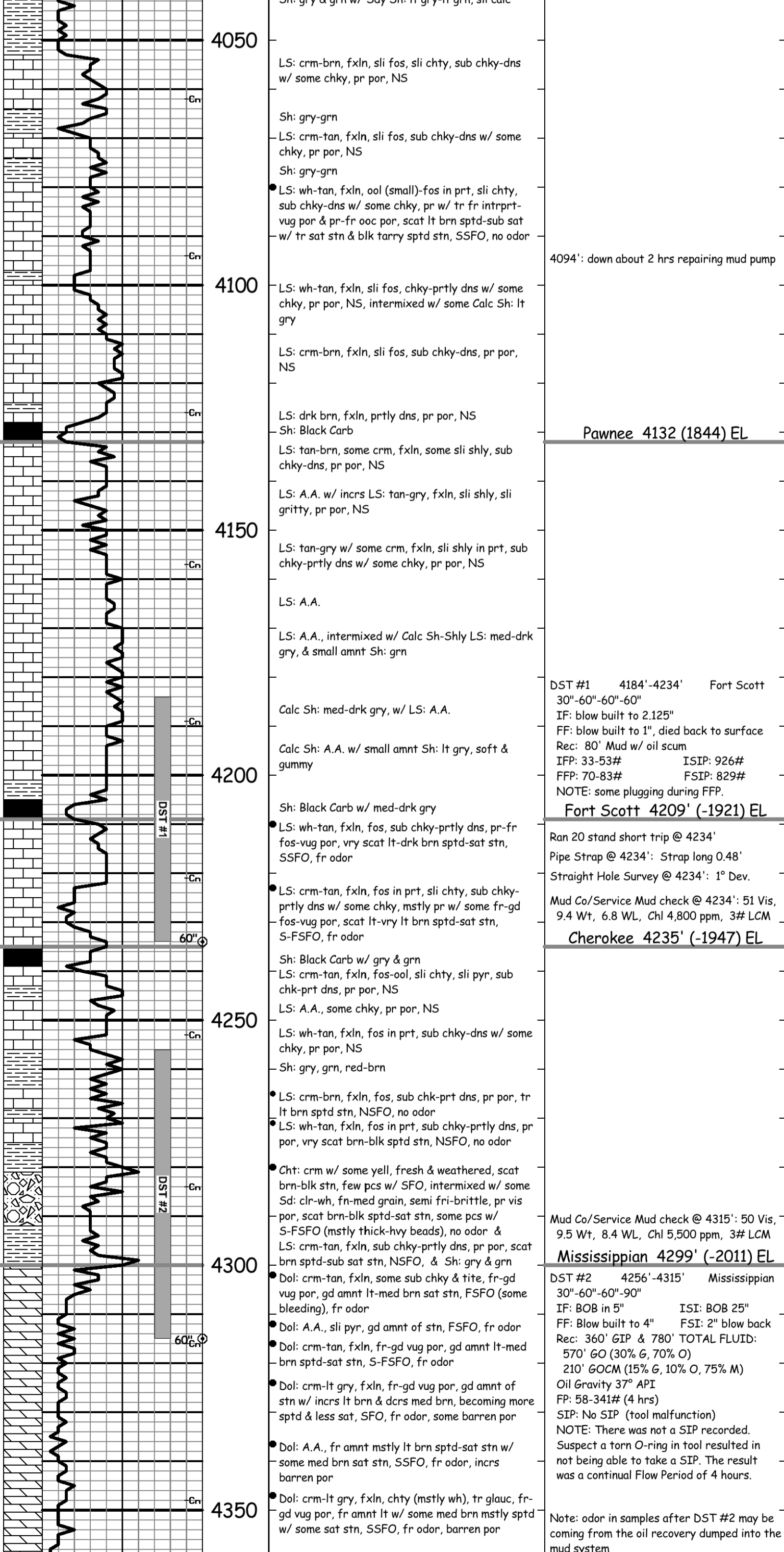
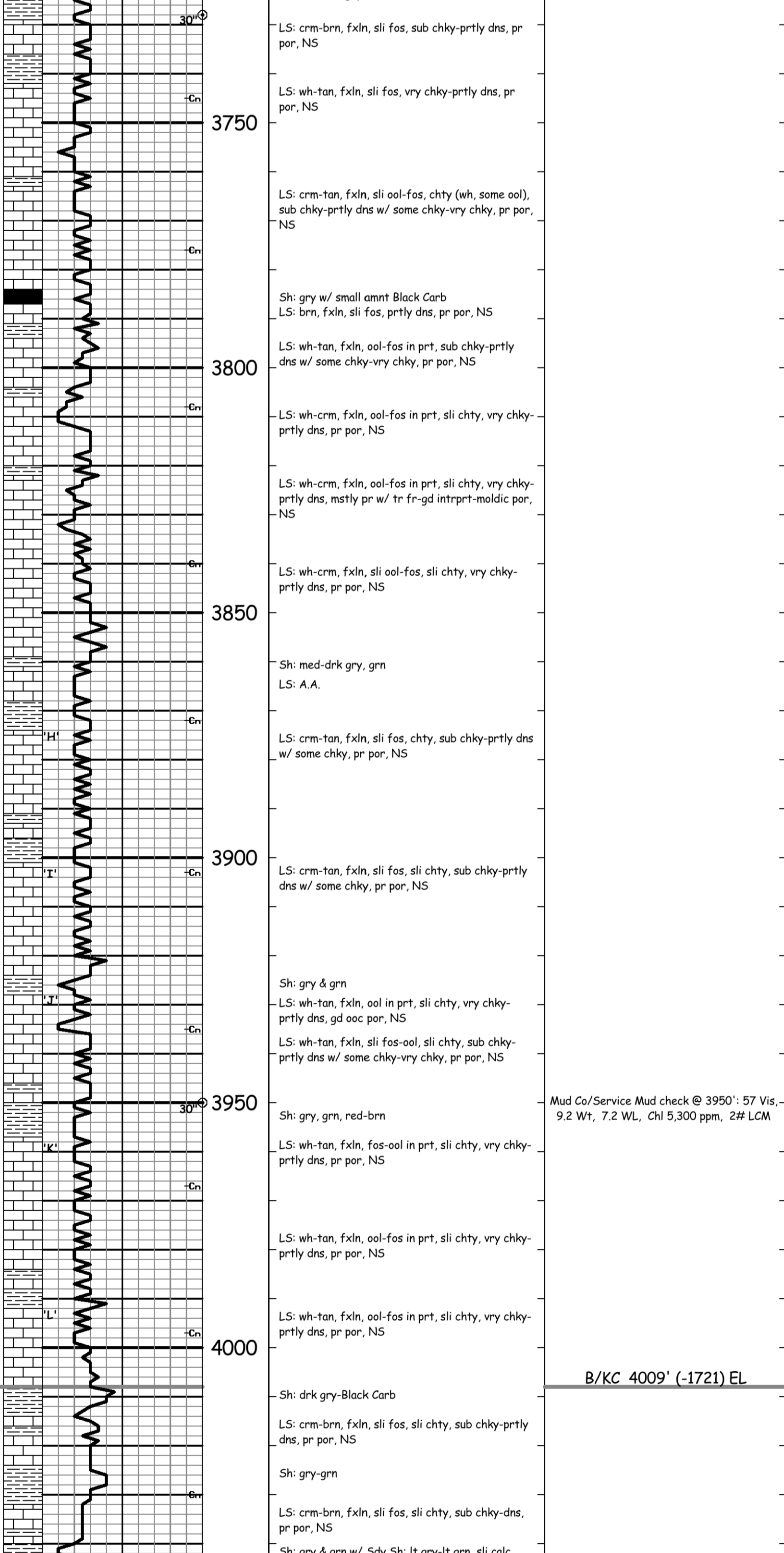
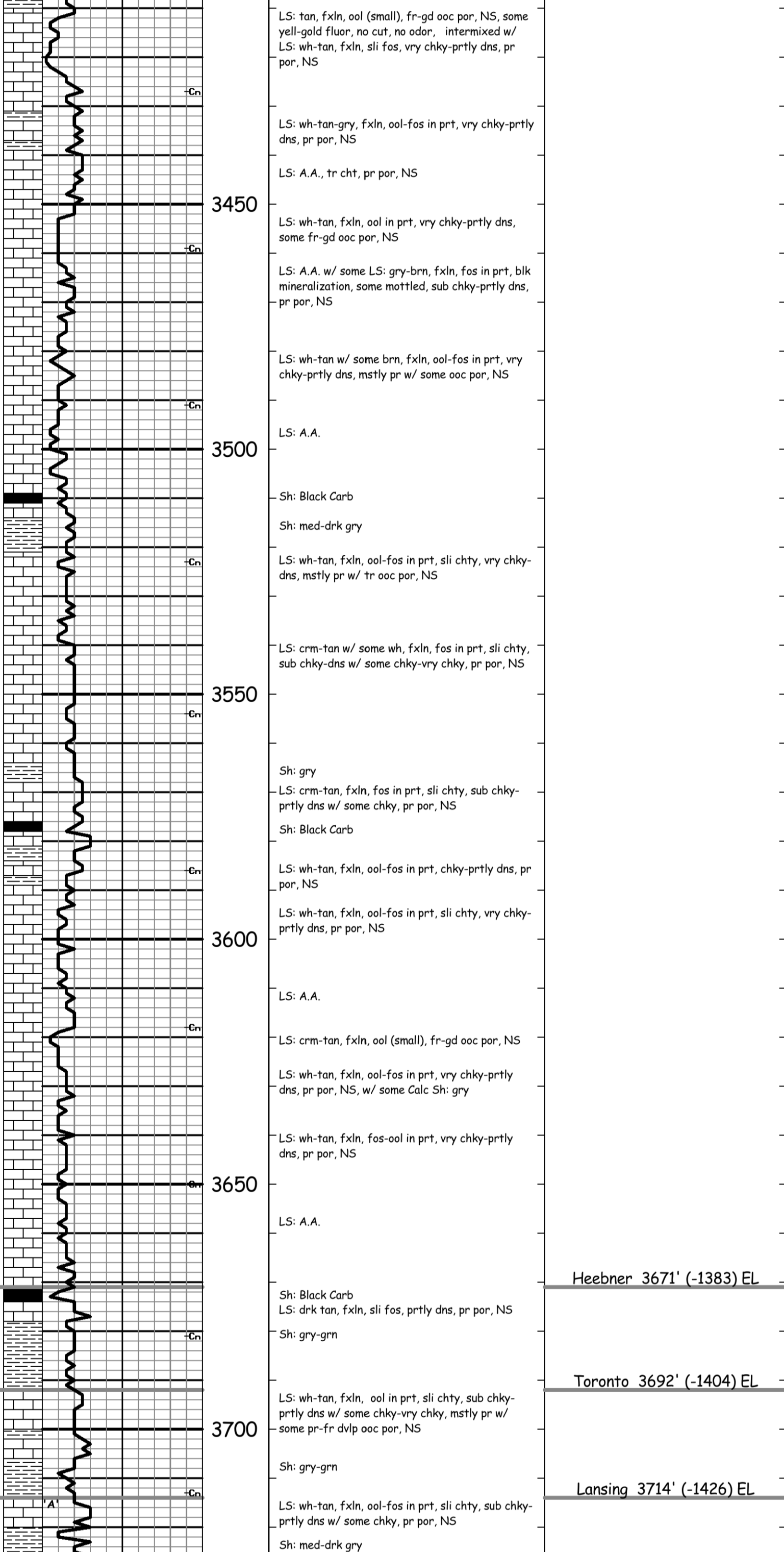
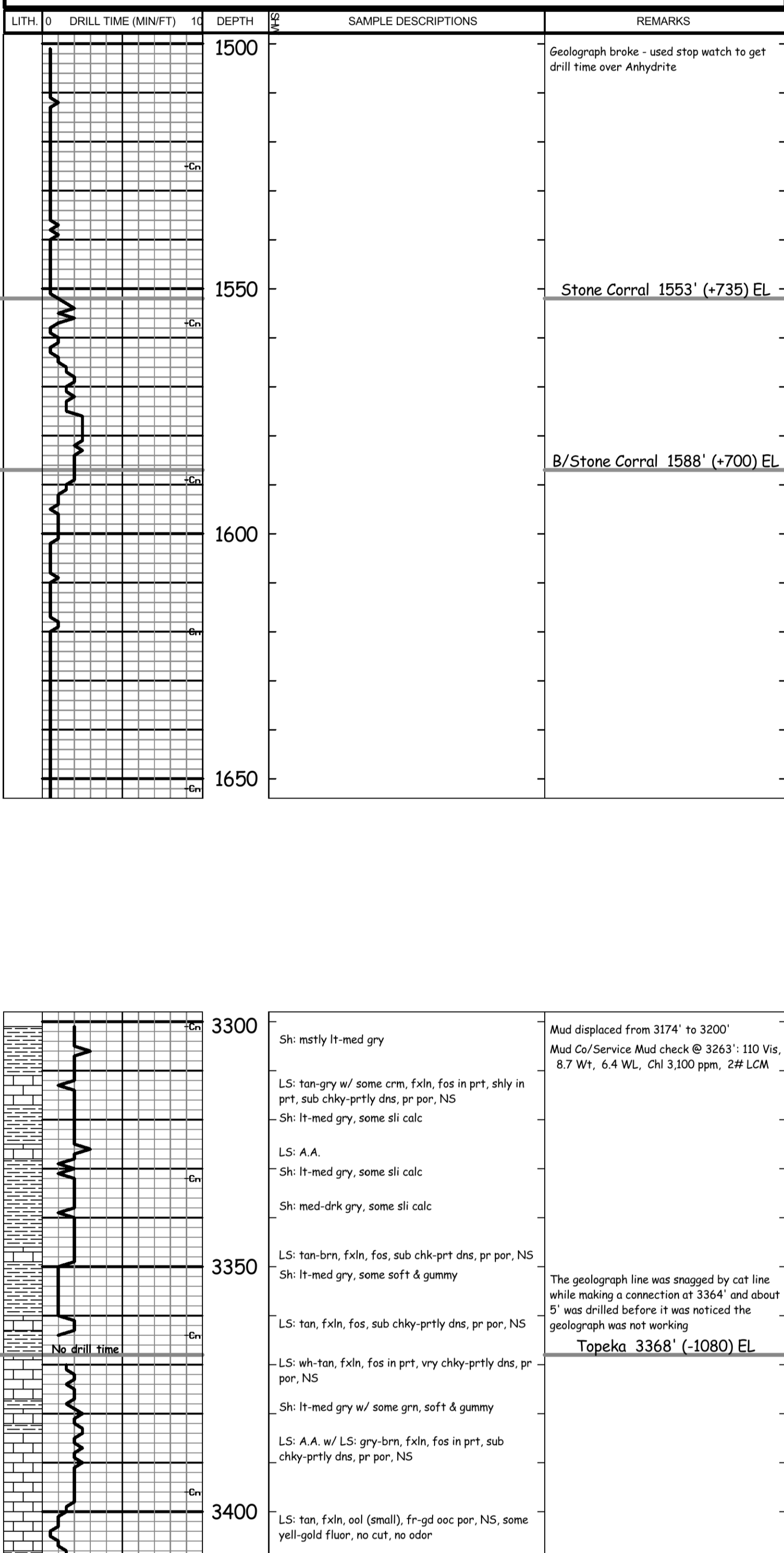
The electric log measurements correlate from 1' higher to 1' lower to the drilling measurements.

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,

Robert L. Milford



4094': down about 2 hrs repairing mud pump

Mud Co/Service Mud check @ 4315': 50 Vis, 9.5 Wt, 8.4 WL, Chl 5,500 ppm, 3# LCM

Mississippi 4299' (-2011) EL

DST #1 4184'-4234' Fort Scott
30"-60"-60"-60"
IF: blow built to 2.125"
FF: blow built to 1", died back to surface
Rec: 80' Mud w/ oil scum
FP: 33-53# ISIP: 926#
FFP: 70-83# FSI: 829#
NOTE: some plugging during FFP.

Fort Scott 4209' (-1921) EL

Ran 20 stand short trip @ 4234'
Pipe Strap @ 4234': Strap long 0.48'
Straight Hole Survey @ 4234': 1" Dev.

Mud Co/Service Mud check @ 4234': 51 Vis, 9.4 Wt, 6.8 WL, Chl 4,800 ppm, 3# LCM

Cherokee 4235' (-1947) EL

Mud Co/Service Mud check @ 4315': 50 Vis, 9.5 Wt, 8.4 WL, Chl 5,500 ppm, 3# LCM

DST #2 4256'-4315' Mississippi
30"-60"-60"-90"
IF: BOB in 5"
FF: Blow built to 4" FSI: 2" blow back
Rec: 360' 63P & 780' TOTAL FLUID:
570' GO (30% G, 70% O)
210' GOCM (15% G, 10% O, 75% M)
Oil Gravity 37° API
FP: 58-341# (4 hrs)
SIP: No SIP (tool malfunction)
NOTE: There was not a SIP recorded.
Suspect a torn O-ring in tool resulted in not being able to flow a SIP. The result was a continual Flow Period of 4 hours.

Note: odor in samples after DST #2 may be coming from the oil recovery dumped into the mud system

R.T.D. 4400' (-2112)
L.T.D. 4402' (-2114)

Straight Hole Survey @ 4400': 1.25" Dev.