LITHOLOGY STRIP LOG
WellSight Systems

Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Cobalt Energy, LLC Boulder #1-28
Location: Approx S2 NU NW Section 18-T20S-R21W
License Number: API: 15-135-25497
Spud Date: Sept 17, 2012
Surface Coordinates: 990' FNL & 1334' FWL Section 18-T20S-R21W

Bottom Hole Coordinates:
Ground Elevation (ft): 2284 K.B. Elevation (ft): 2313
Logged Interval (ft): 3600 To: 4278 Total Depth (ft): 4278
Formation: Mississippian, ISTG &Ste (2165), LTD 4278 (-2198)
Type of Drilling Fluid: Chemical

D&A
Region: Ness Co, KS
Drilling Completed: Sept 24, 2012

Printed by WellSight Log Viewer from WellSight Systems 1-866-447-1534 www.WellSight.com

OPERATOR

Company: Cobalt Energy, LLC
Address: PO Box 8207
Wichita, Kansas 67208

GEOLOGIST

Name: Mikael K. Maune
Company: Consulting Petroleum Geologist - Kansas Licensed No. 210
Address: Wichita, Kansas
Office: 316-722-6173

COMMENTS

Surface Casing: 8 5/8" set @ 225' w/135 sx common, 2% cc, 3 % gel. Cement circulated.

Production Casing: D&A

Deviation Surveys: 3/4 @ 225', 3/4 @ 4290',
Pipe Strap @ 4290'. Strap 4293.12'. Board 4290'. Strap 3.12 ft long to Board.

Southwind Drilling, Inc. Rig #2 Bit Record:
#1 12 1/4" in @ 0', out @ 225'
#2 7 7/8" in @ 225', out @ 4278'.

Gas Detector: None
Mud System: Mud-CO/Service Mud
DSTs: Tribidale Testing Inc.
OH Logs: Pioneer Energy Services RAG Log
OH Logging complete 9/25/2012

Note: The Maier "A" #1-18 OH Log was correlated with the rotary drilling time on this report. The OH Log depths are approximately 5 to 6 feet high to the rotary drilling depth measurements. The Gamma Ray curve on this report has been adjusted downhole 5 feet to correlate with the rotary drilling time depths.

OH Log formation tops: Anhydrite 1414 (+799), Base Anhydrite 1448 (+765), Heebner 3719 (-1506), Lansing 3752 (-1548), Stark 4040 (-1835), BKC 4089 (-1884), Pawnee 4187 (-1980), Fort Scott 4267 (-2054), Cherokee 4291 (-2078), Conglomerate 4326 (-2113), Miss Chert 4367 (-2154), LTD 4372 (-2159).

DSTs

DST #1 (Fort Scott) 4276-4290:30-60-60-90. 1st Op: WB 1/8 inch blow, 2nd Op: WB 1/2 inch blow. Recover: 10' Oil spotted Mud. IH 2108#, IFP 15-17#, ISIP 1038#,FFP 19-18#, FSIP 1414#,building, FFP 20#1#, BHT 113 F.

DST #2 (Osage) 4310-4370:30-60-90-90. 1st Op: 7 1/4 inch blow. 2nd Op: 7 1/2 inch blow. Recover: 80' Oil spt SWCM (10% Wtr, 90% Mt, 120' MCW (60% Wtr, 40% Mt, Recovery CH 23,000. RW .27 @ 55 F. System Chl 7,000. IH 2158#, IFP 23-52#, ISIP 1,162# building, FFP 69-117#, FSIP 1,045# building, FH 2065#, BHT 117 F.

ROCK TYPES

Anhy, Dolo, Congl, Lmst, Shale sh, Salt, Sltst, Chert, Shale, Coal, Sdy lmst, Sltst, Sd, Shale, Sh

ACCESSORIES

MINERAL: Anhy, Arg, Bent, Bit, Brecha, Calc, Carb, Chlk, Chrt, Dol, Ferrpat, Glau, Gyp, Hvy, Mart, Nodule, Oolite, Pyr, Sandy, Silt

Chlorite, Dol, Sand, Silty

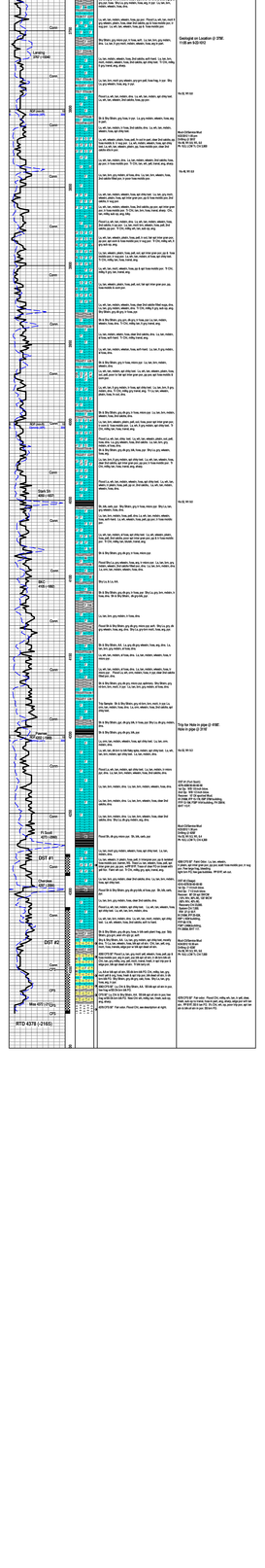
FOSSIL: Algae, Amph, Bryozoan, Brach, Bryozoa, Crinoid, Crystal, Crin, Echin, Fish, Foram, Gastro, Oolite, Ostra

Bioturb, Pelecypod, Pisolite, Plant, Pyrite, Fora, Osmoldic

MINERAL: Anhy, Arg, Bent, Bit, Brecha, Calc, Carb, Chlk, Chrt, Dol, Ferrpat, Glau, Gyp, Hvy, Ls, Mrst, Nodule, Oolitic, Pyr, Sandy, Carbsh, Clyshh, Dol

Glyph, Grysh, Lms, Sandylms, Sltst, Shale

TEXTURE: Bioculst, Chalky, Crstln, Earthy, Fenestral, Grainst, Lithogr, Micrcstln, Mudst, Packst, Wackest


Curve Track 1
ROP (min/ft)
Gamma (API)
Lithology
Depth
Geological Descriptions
Remarks
Lansing
Stark Sh
Stark
Cherk
Cherk
Cherk