GEOLOGICAL REPORT
Larry A. Nicholson

COMPANY	Cobalt Energy LLC
API #	15-025-21231
LEASE	Rifler "A" #2-32
SURFACE LOCATION	330 FNL 1980 FWL
SURVEY	330 FNL 1980 FWL
SECTION	32 TWP 35 RGE 26W
COUNTY	Decatur STATE Kansas
CONTRACTOR	Bucks Drilling Company, Inc Rig # 2
SPUD DATE	2/6/2012 TD DATE 2/12/2012
MUD UP DATE	2/8/2012 RELEASED DATE 2/12/2012
MUD UP DATA	Chemical Mud Co. Gary Schmidt

WELL NO. 2
API NO. 15-025-21231
Cobalt Energy LLC
Rifler "A" #2-32
330 FNL 1980 FWL
Sec. 32 Twp. 35 Rge. 26W
Decatur County, Kansas

32

ELEVATIONS
KB 2589
GL 2584
KB to Ground Level Feet 5

CASING RECORD
Surface Size 8 5/8 Inch Set at 225.00 Feet
Production Size 5 1/2 Inch Set at 3800 Feet

SAMPLE INFORMATION
SAMPLE BOXES: From 2400 To 4050
DRILLING TIME: From 2400 To 4050
DRILLING MUD: From 2400 To 4050
GEOLOGICAL SUPERVISION: From 2400 To 4050
WELLSITE GEOLOGIST: LARRY A. NICHOLSON

ELECTRICAL SURVEY: Log-Tech - Dual Induction, Density, Neutron, Sonic

FORMATION TOPS & STRUCTURAL POSITION

FORMATION	Cobalt Rifler "A" #2-32				Offset Well #1 Cobalt Rifler "A" #1-32	
	Log	Datum	Log	Datum		
Stone C.	2707	-118	2708	-121		
Topeka	3346	-757	3346	-759		
Heebner	3595	-1006	3595	-1008		
Toronto	3624	-1035	3624	-1037		
Lansing A	3640	-1051	3640	-1053		
LANS C	3685	-1096	3685	-1098		
LANS D	3699	-1110	3699	-1112		
LANS E	3723	-1134	3723	-1136		
Base 'B'	3748	-1159	3748	-1161		
LANS F	3758	-1169	3758	-1171		
LANS G	3781	-1192	3781	-1194		
Arb	3871	-1282	3871	-1284		
LKC J	3900	-1311	3900	-1313		
Total	4050	-1461	4050	-1463		

DISTINCTIVE WELLS

REMARKS & RECOMMENDATIONS

Based on good sample shows and flat spot results this well was P&A.

LEGEND

Limestone | Dolomite | Sandstone | Shale | Chert | Oolite | Fossiliferous | Shale | Salt | Gypsum | Anhydrite

GAMMA RAY + SP
Gas Units
DRILLING TIME IN MINUTES
PER FOOT
CALIPER

DEPTH | STRUCTURE | SAMPLE DESCRIPTIONS

Start 02-06-2012 07-00-2012
Finish 02-06-2012 07-00-2012

BIT RECORD
Bit #1 7 7/8 Reed Y13 Tooth Bit, Jets 16/16/16, Out at 225, 225 Feet in 1 Hours, Rotary 225 Feet in 1 Hours, 225 Feet on Bottom, 225 Hours on Bit

DEVIATION SURVEY:
0.25 Degrees @ 225 Feet
0.50 Degrees @ 3800 Feet

DAILY REPORT:
07-00-2012 8:30 AM
Drlg @ 1,000' in 23 Hr
Set new 8 5/8" X 24 J-55 w/ 4 sx gel, 210 sx Class "A" 2% CaCl, 2% gel
Plug down 02-06-2012 at 7:00 PM
Plug down 02-06-2012 at 07:15 PM
07-00-2012 - 7:00 AM
Drlg @ 2,580'
07-00-2012 - 7:00 AM
Drlg @ 3,500'
07-00-2012 - 7:00 AM
Drlg @ 3,800'
07-00-2012 - 7:00 AM
Circulate for Log
07-00-2012 - 7:00 AM
Log Well
07-00-2012 - 7:00 AM
Ran 90 jts 5 1/2 J-55 15.5# Casing
07-00-2012 - 8:00 AM
RTD @ 4,050'
07-00-2012 - 8:30 AM
Circulate for Log
LTD @ 3,800

DST #1 2362-2400
Lansing A
00-00-00 00
Time Open 30 Minutes
Time Closed 30 Minutes
Initial Open Weak blow, built to 2 inches
Initial Closed No blow
Final Open Weak blow, built to 2 inches
Final Closed No blow
Recovery 5 feet of mud
Sample Chamber 2 cc gas
Pressures
IFP 10 PSI FFP 10 PSI
ISIP 1 PSI FSIP 1 PSI
IHP 1,180 PSI FHP 1,180 PSI
BHT 90 °F

DST #2 3362-3400
Lansing C
00-00-00 00
Time Open 30 Minutes
Time Closed 30 Minutes
Initial Open Weak blow, built to 2 inches
Initial Closed No blow
Final Open Weak blow, built to 2 inches
Final Closed No blow
Recovery 5 feet of mud
Sample Chamber 2 cc gas
Pressures
IFP 10 PSI FFP 10 PSI
ISIP 1 PSI FSIP 1 PSI
IHP 1,180 PSI FHP 1,180 PSI
BHT 90 °F

DST #3 3579-3600
Lansing E
00-00-00 00
Time Open 30 Minutes
Time Closed 30 Minutes
Initial Open Weak blow, built to 2 inches
Initial Closed No blow
Final Open Weak blow, built to 2 inches
Final Closed No blow
Recovery 5 feet of mud
Sample Chamber 2 cc gas
Pressures
IFP 10 PSI FFP 10 PSI
ISIP 1 PSI FSIP 1 PSI
IHP 1,180 PSI FHP 1,180 PSI
BHT 90 °F

DST #4 3610-3668
Lansing H
00-00-00 00
Time Open 30 Minutes
Time Closed 30 Minutes
Initial Open Weak blow, built to 2 inches
Initial Closed No blow
Final Open Weak blow, built to 2 inches
Final Closed No blow
Recovery 5 feet of mud
Sample Chamber 2 cc gas
Pressures
IFP 10 PSI FFP 10 PSI
ISIP 1 PSI FSIP 1 PSI
IHP 1,180 PSI FHP 1,180 PSI
BHT 90 °F

DST #5 3693-3742
Lansing J,K L
00-00-00 00
Time Open 30 Minutes
Time Closed 30 Minutes
Initial Open Weak blow, built to 2 inches
Initial Closed No blow
Final Open Weak blow, built to 2 inches
Final Closed No blow
Recovery 5 feet of mud
Sample Chamber 2 cc gas
Pressures
IFP 10 PSI FFP 10 PSI
ISIP 1 PSI FSIP 1 PSI
IHP 1,180 PSI FHP 1,180 PSI
BHT 90 °F

GAMMA RAY + SP
Gas Units
DRILLING TIME IN MINUTES
PER FOOT
CALIPER

DEPTH | STRUCTURE | SAMPLE DESCRIPTIONS | REMARKS

COMPANY Cobalt Energy LLC
LEASE Rifler "A" #2-32 SE NW NE NW
LOCATION 330 FNL 1980 FWL — 32 TWP 35 RGE 26W
COUNTY Decatur STATE Kansas

ELEVATIONS
KB 2589
GL 2584
KB to Ground Level Feet 5

32