Company: BLACK RAVEN ENERGY INC
Well: CLAR B-1
Field: ADENA
County: MORGAN
State: COLORADO

Location: API #: 05-087-20336-0000
Permanent Datum: GL Elev.: 4,311
Log Measured From: KB 15 ft. above Perm. Datum
Drilling Measured From: KB

	Elevation	Other Services
KB	4,326	HOWE
DF	4,325	
GL	4,311	

Date: 10/5/2012
Run Number: One
Depth Driller: 4,961
Depth Logger: 4,961
Bottom Logged Interval: 4,961
Top Logged Interval: 4,000
Casing Driller: 4,000 @ 4,961
Casing Logger: 4,000 @ 4,961
Bit Size: 7 7/8
Type Fluid in Hole: WATER
Density / Viscosity: 8.4 / 28
Max Recorded Temp.: 120 F
Resistivity / Temp.: 0.2 @ 70 F
Source of Sample: FLOWLINE
Rm @ Meas. Temp.: 0.2 @ 70 F
Rmf @ Meas. Temp.: 0.2 @ 70 F
Rmc @ Meas. Temp.: 0.2 @ 70 F
Source: Rmf / Rmc: MEASURED / CALC
Rm @ BHT: 0.2 @ 120 F
Time Circ. Stopped: 4:00
Time Logger on Bottom: 6:30
Unit Number: 2307
Witnessed By: ERIC LOPEZ
Recorded By: BILL MAYER

Casing Record
	Size	Wgt/Ft	To
Surface String	9 5/8	36	1,000
Production String	5 1/2	15.5	4,961

Tubing Record
	Size	Wgt/Ft	To
Tubing	2 3/8	4.7	4,951

Bottom Hole Temperature: 120 F

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

JW WIRELINE COMPANY

CEMENT BOND GAMMA RAY VDL COLLAR CORRELATION LOG

Comments

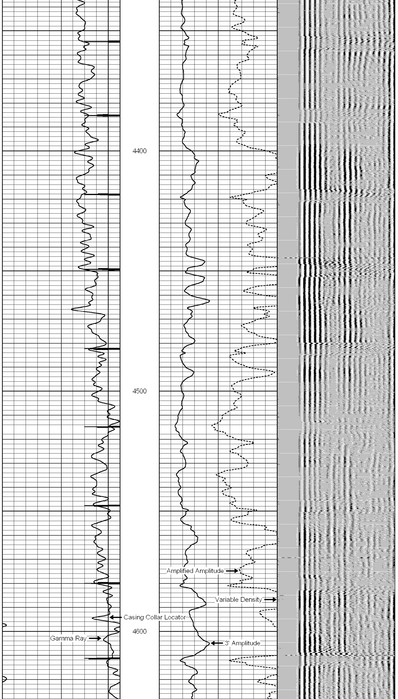
THANK YOU FOR CHOOSING J-W WIRELINE

Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CENT-A (1)	3.00	1.69	10.00
CCL	14.06		CCL-27/tekco (2.75TEKCO) 2 3/4 TEK CCL Earth Mag	1.96	2.75	20.00
GR	11.49		GR-s_t001 (t001)	2.52	1.69	30.00
WVF5	7.34					
WVF3	6.34		CBL-3_5 (001)	7.23	2.44	127.00
			CENT-B (2)	3.00	1.69	10.00

Dataset: clar b-1.db: field/well/run1/pass5
Total Length: 17.71 ft
Total Weight: 197.00 lb
O.D. 2.75 in

Database File: clar b-1.db
Dataset Pathname: pass5
Presentation Format: cbl
Dataset Creation: Wed Dec 05 13:06:33 2012 by Log SCH 111116
Charted by: Depth in Feet scaled 1:240

0 Gamma Ray (GAPI) 180
9 CCL -1
0 3' Amplitude (mV) 100 200 Variable Density 1200
0 Amplified Amplitude (mV) 30



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