SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.
Well	NOPENS H24-08
Field	Wattenberg
County	Weld
State	Colorado

Company Noble Energy INC.
Well NOPENS H24-08
Field Wattenberg
County Weld State Colorado

Location: API #: 05123305010O
2060' FNL & 740' FEL
SE NE
SEC 24 TWP 3N RGE 65W

Other Services

			Elevation
Permanent Datum	GL	Elevation 4802	K.B. 4817
Log Measured From	KB 15'		D.F. 4816
Drilling Measured From	KB		G.L. 4802

Date	June 23, 2010
Run Number	One
Depth Driller	7285
Depth Logger	7220
Bottom Logged Interval	7219
Top Log Interval	1360
Casing Size	4 1/2"
Type Fluid	Water
Density / Viscosity	Not Recorded
Max. Recorded Temp.	250 deg F
Estimated Cement Top	2054
Time Well Ready	Mast Truck
Time Logger on Bottom	8:13am
Equipment Number	T5 (3344) 1 11/16 Tool 1 RED
Location	Platteville, CO
Recorded By	K. Monaghan
Witnessed By	J. Schneider

Borehole Record			Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8 5/8"	24 lb/ft J-55	Surface	692
Prot. String				
Production String	4 1/2"	11.6 lb/ft M-80	Surface	7273
Liner				

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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.

Comments

Thank You For Choosing Superior Well Services!!!
API# 05-123-30501-00
Correlated to Phoenix Survey INC's
Compensated Density / Compensated Neutron / Gamma Ray Microlog
Dated: June 12, 2010
Directions: 49 & 30, N 7/10, W 800', S Into

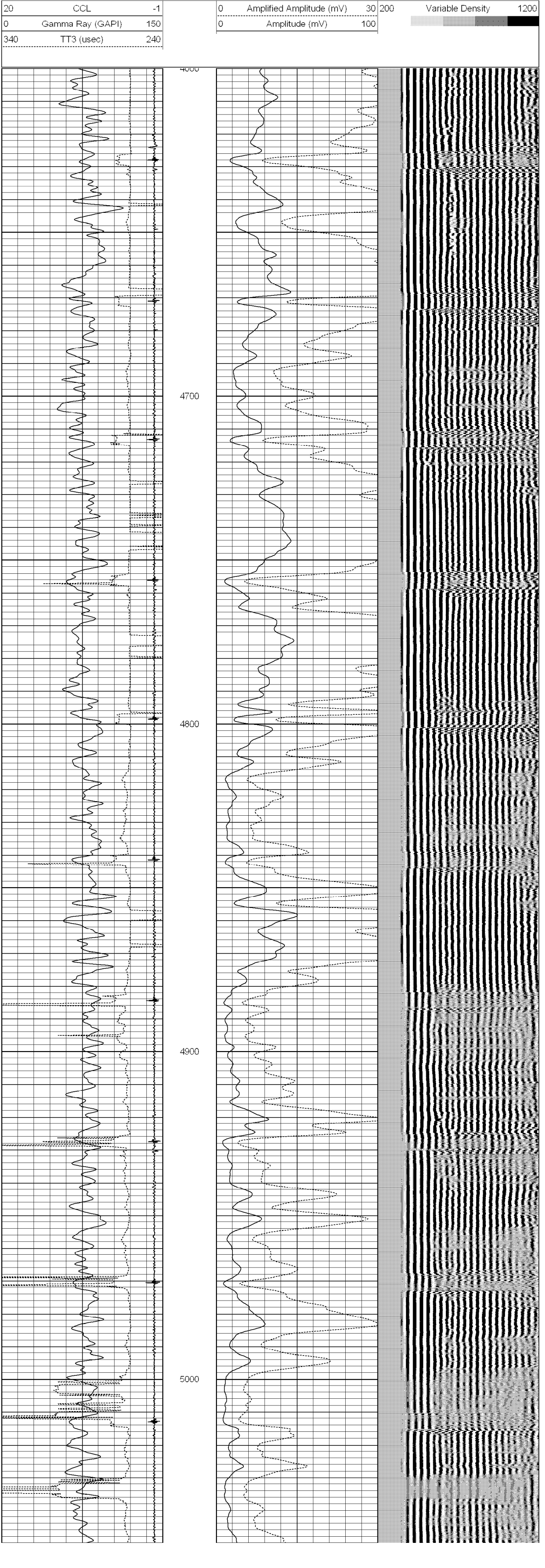
Database File: cblnopens h24-08.db
Dataset Pathname: pass3
Presentation Format: nuexcbl
Dataset Creation: Wed Jun 23 08:39:37 2010 by Log Std Casedhole 09061
Charted by: Depth in Feet scaled 1:240

20	CCL	-1	0	Amplified Amplitude (mV)	30	200	Variable Density	1200
30	Gamma Ray (GAPI)	130	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

20	CCL	-1	0	Amplified Amplitude (mV)	30	200	Variable Density	1200
30	Gamma Ray (GAPI)	130	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

Database File: cblnopens h24-08.db
Dataset Pathname: pass2
Presentation Format: nuexcbl
Dataset Creation: Wed Jun 23 08:14:05 2010 by Log Std Casedhole 09061
Charted by: Depth in Feet scaled 1:240

20	CCL	-1	0	Amplified Amplitude (mV)	30	200	Variable Density	1200
30	Gamma Ray (GAPI)	130	0	Amplitude (mV)	100			
340	TT3 (usec)	240						



Calibration Report

Database File: cblnopens h24-08.db
Dataset Pathname: pass2
Dataset Creation: Wed Jun 23 08:14:55 2010 by Log Std Casedhole 09061

Gamma Ray Calibration Report

Serial Number:	tit/temp	
Tool Model:	temp/tit	
Performed:	Wed Dec 16 07:15:29 2009	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.8000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	TEKCO-01		
Tool Model:	TEKCO-1x2		
Performed:	Wed Jun 23 07:55:54 2010		
Depth:	97.175	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	0	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.0510986	-0.00222168	V
Reading in Free Pipe:	2.4937	2.5	V
Gain:	33.2416	32.4496	
Offset:	-1.6986	0.0720926	