SUPERIOR WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.
Well	STROHAUER F 32-21D
Field	Wattenberg
County	Weld
State	Colorado

Company Noble Energy INC.
Well STROHAUER F 32-21D
Field Wattenberg
County Weld State Colorado

Location: API #: 05123153100
SHL: 1345' FSL & 2480' FEL NW NE
BHL: 2575' FSL & 2330' FEL NW SE
SEC 32 TWP 5N RGE 65W

Other Services

Elevation
K.B. 4684
D.F. 4683
G.L. 4669

Permanent Datum GL Elevation 4669
Log Measured From KB 15'
Drilling Measured From KN

Date	December 30, 2010
Run Number	ONE
Depth Driller	7424
Depth Logger	7325
Bottom Logged Interval	7324
Top Log Interval	Surface
Casing Size	4 1/2"
Type Fluid	Water
Max. Recorded Temp.	246 deg F
Estimated Cement Top	1700
Time Well Ready	Mast Truck
Time Logger On Bottom	AM
Unit Number	3344
Tool Size / ID Number	1 11/16 Tool 1 RED
Location	Platteville, CO
Recorded By	K. Monaghan
Witnessed By	M. Trimble

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	563.1
Prot. String				
Production String	4 1/2"	11.6 lb/ft M-80	Surface	7408.6
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

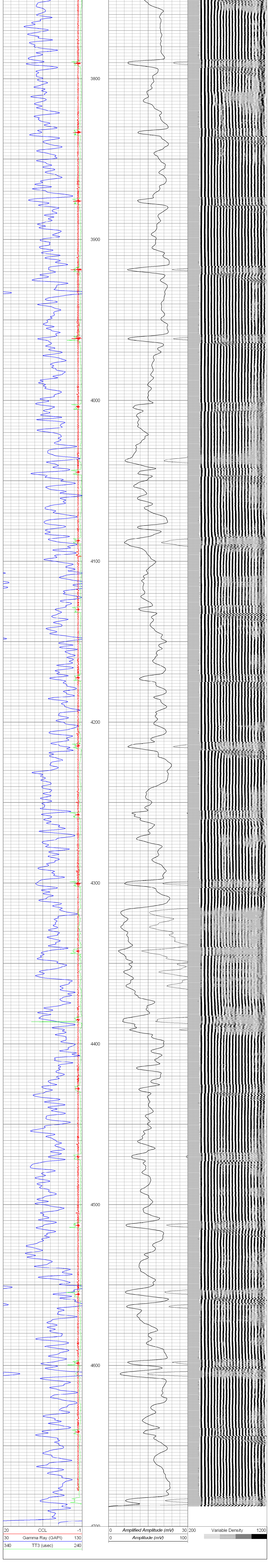
Thank You For Choosing Superior Well Services!!!
05-123-31531-00
Correlated to PSI's
Compensated Density / Compensated Neutron / Gamma Ray Microlog
Dated: December 14, 2010
Directions: 50 & 41, N 2/10, W 1/10, N, 1/10, W 3/10, S INTO
Northern Most Well of 2 Well Pad (N. of STROHAUER F 32-24)

Database File:	cblstrohauer f32-21d.db
Dataset Pathname:	pass3
Presentation Format:	nuexcbl
Dataset Creation:	Thu Dec 30 07:38:17 2010 by Log Std Casedhole 10081
Charted by:	Depth in Feet scaled 1:240

20	CCL	-1
30	Gamma Ray (GAPI)	130
340	TT3 (usec)	240

0	Amplified Amplitude (mV)	30
0	Amplitude (mV)	100

200	Variable Density	1200



Database File: cblstrohauer f32-21d.db
Dataset Pathname: pass2
Presentation Format: nuexcbl
Dataset Creation: Thu Dec 30 07:13:32 2010 by Log Std Casedhole 10081
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: cblstrohauer f32-21d.db
Dataset Pathname: pass1
Dataset Creation: Thu Dec 30 06:54:05 2010 by Log Std Casedhole 10081

Gamma Ray Calibration Report

Serial Number:	tit/temp	
Tool Model:	temp/tit	
Performed:	Thu Dec 23 11:06:20 2010	
Calibrator Value:	2.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	TEKCO-01		
Tool Model:	TEKCO-1x2		
Performed:	Thu Dec 30 06:53:49 2010		
Depth:	296.95	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	0.5	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.0408691	0.0146973	V
Reading in Free Pipe:	2.31113	2.49878	V
Gain:	35.5448	32.6866	
Offset:	-0.952686	-0.480403	