NABORS
COMPLETION & PRODUCTION SERVICES CO.

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	NOBLE ENERGY INC.
Well	WELLS RANCH AA24-64-1HN
Field	WATTENBERG
County	WELD
State	COLORADO

Company NOBLE ENERGY INC.
Well WELLS RANCH AA24-64-1HN
Field WATTENBERG
County WELD State COLORADO

Location: API # : 05123353290000
SW SW
BHL: 1650' FSL & 535' FEL
SEC 24 TWP 6N RGE 63W

Other Services

Permanent Datum GL Elevation 4831
Log Measured From KB 24'
Drilling Measured From KB

Elevation
K.B. 4855
D.F. 4854
G.L. 4831

Date	November 23, 2012		
Run Number	One		
Depth Driller	11,167		
Depth Logger	6841		
Bottom Logged Interval	6840		
Top Log Interval	Surface		
Casing Size	7.00"		
Type Fluid	Water		
Max. Recorded Temp.	201 deg F		
Estimated Cement Top	580 est.		
Time Well Ready	Crane		
Time Logger On Bottom	AM		
Unit Number	4367	4515	
Tool Size / ID Number	2.75 Probe 110802	2.75 Probe 101010	
Location	45	Platteville, CO	
Recorded By	K. Monaghan		
Witnessed By	B. Mansfield		

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9.625"	36 lb/ft J-55	Surface	628
Prot. String				
Production String	7.00"	26 lb/ft P-110	Surface	7151
Liner	4.50"	11.6 lb/ft P-110	7035.7	11,157

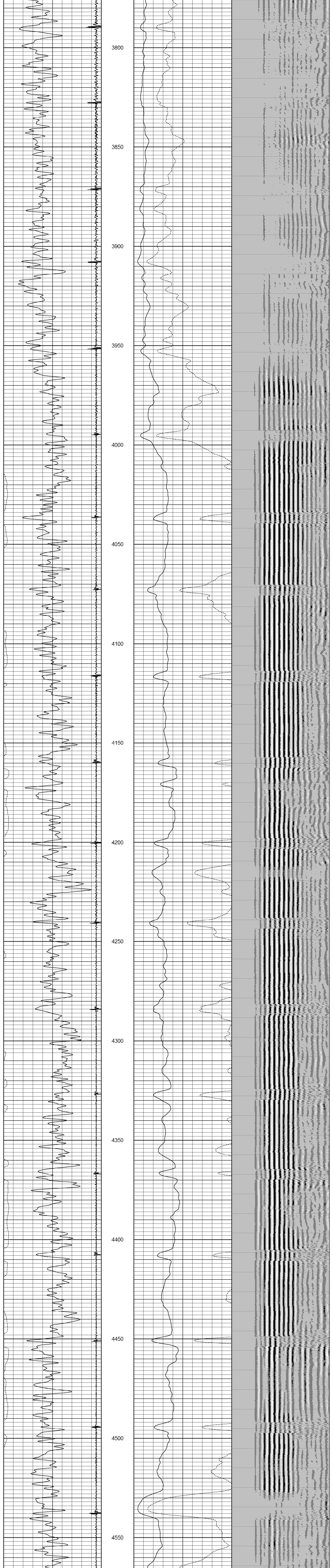
<<< Fold Here >>>

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 Nabors Completion and Production Services CO!!!!
API# 05-123-35329-0000
Wireline Zero @ 24' KB
Directions: 67 &68, E .2, S.25, E 1.75, S 1/2, E .25, S INTO
(Second Well from North on 6 Well Pad)

Database File: cblwells ranch aa24-64-1hn.db
Dataset Pathname: pass3
Presentation Format: noblehozo
Dataset Creation: Fri Nov 23 09:12:25 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240



Database File: cblwells ranch aa24-64-1hn.db
Dataset Pathname: pass2
Presentation Format: noblehozo
Dataset Creation: Fri Nov 23 08:53:46 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: cblwells ranch aa24-64-1hn.db
Dataset Pathname: pass3
Dataset Creation: Fri Nov 23 09:12:25 2012 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION	Fri Nov 23 09:47:51 2012				
Background	0.0				cps
Calibrator	1.0				cps
		0.8500			GAPI/cps
PRIMARY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Cement Bond Log Calibration Report

Serial Number: 110802
Tool Model: Probe275Digital
Performed: Fri Nov 23 07:01:33 2012

Depth: 415.083 ft
Casing Diameter: 7 in

	3' Spacing	5' Spacing	
Signal Zero:	0.9	0	mV
Calibrated Amplitude:	62.1651	62.1651	mV
Reading at Signal Zero:	0.0138916	0.0137451	V
Reading in Free Pipe:	2.49868	2.39456	V
Gain:	24.656	26.1109	
Offset:	0.557488	-0.358897	