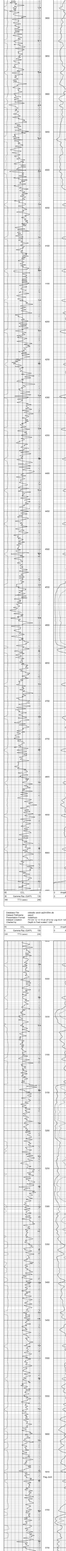

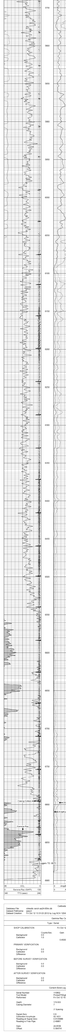

Company NOBLE ENERGY INC.
Well WELLS RANCH AA24-65HN
Field WATTENBERG
County WELD
State COLORADO

NABORS
COMPLETION & PRODUCTION SERVICES CO.

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	NOBLE ENERGY INC.		
Well	WELLS RANCH AA24-65HN		
Field	WATTENBERG		
County	WELD	State	COLORADO

Location: API # : 051233533330000
SW NW
BHL: 2810' FNL & 535' FEL
SEC 24 TWP 6N RGE 63W

Other Services

Permanent Datum	GL	Elevation	4807
Log Measured From	KB 24'		
Drilling Measured From	KB		

Elevation
K.B. 4831
D.F. 4830
G.L. 4807

Date	October 12, 2012		
Run Number	One		
Depth Driller	10,957		
Depth Logger	6875		
Bottom Logged Interval	6874		
Top Log Interval	Surface		
Casing Size	7.00"		
Type Fluid	Water		
Max. Recorded Temp.	217 deg F		
Estimated Cement Top	594 est.		
Time Well Ready	Crane		
Time Logger On Bottom	PM		
Unit Number	4367	4515	
Tool Size / ID Number	2.75 Probe 101010	2.75 Probe 110802	
Location	45	Platteville, CO	
Recorded By	K. Monaghan		
Witnessed By	E. Klem		

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

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	9 5/8"	36 lb/ft J-55	Surface	631
Prot. String				
Production String	7.00"	26 lb/ft P-110	Surface	7051
Liner	4.50"	11.6 lb/ft P-110	6912.5	10,937

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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 Nabors Completion and Production Services CO!!!
API# 05-123-35333-0000
Wireline Zero @ 24' KB
Directions: 67 & 68, E.2, S.25, E2MI, S INTO
(Center/South Well on 4 Well Pad)

Database File: cblwells ranch aa24-65hn.db
Dataset Pathname: pass3
Presentation Format: noblehozo
Dataset Creation: Fri Oct 12 13:31:03 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

95	CCL	-5	0	Amplified Amplitude (mV)	30	200	Variable Density	1200
30	Gamma Ray (GAPI)	130	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

Database File: cblwells ranch aa24-65hn.db
Dataset Pathname: pass2
Presentation Format: noblehozo
Dataset Creation: Fri Oct 12 13:15:22 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

95	CCL	-5	0	Amplified Amplitude (mV)	30	200	Variable Density	1200
0	Gamma Ray (GAPI)	150	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

95	CCL	-5	0	Amplified Amplitude (mV)	30	200	Variable Density	1200
0	Gamma Ray (GAPI)	150	0	Amplitude (mV)	100			
340	TT3 (usec)	240						

Calibration Report

Database File: cblwells ranch aa24-65hn.db
Dataset Pathname: pass3
Dataset Creation: Fri Oct 12 13:31:03 2012 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

SHOP CALIBRATION	Fri Oct 12 14:01:11 2012				
	Counts/Sec.	Gain	Offset	Jig	Units
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 Oct 12 10:25:00 2012		
Depth:	179.933	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:	0.0135986	0.0135742	V
Reading in Free Pipe:	2.49861	2.38945	V
Gain:	24.6539	26.1651	
Offset:	0.564741	-0.355171	