SUPERIOR
WELL SERVICES

CEMENT BOND LOG
GAMMA RAY C C L
V D L

Company	Noble Energy INC.			
Well	ASPEN STATE V16-75HN			
Field	Wattenberg			
County	Weld	State	Colorado	

Company Noble Energy INC.
Well ASPEN STATE V16-75HN
Field Wattenberg
County Weld
State Colorado

Location: API # :

SEC 16 TWP 2N RGE 67W

Other Services

Permanent Datum	GL	Elevation	Elevation
Log Measured From	KB		K.B.
Drilling Measured From	KB		D.F.
			G.L.

Date	September 24, 2012		
Run Number	One		
Depth Driller			
Depth Logger	6748		
Bottom Logged Interval	6747		
Top Log Interval	Surface		
Casing Size	7.00"		
Type Fluid	Water		
Max. Recorded Temp.	204 deg F		
Estimated Cement Top	1632 est.		
Time Well Ready	Leed Rig		
Time Logger On Bottom	AM		
Unit Number	4367		
Tool Size / ID Number	2.75 Probe 101010	2.75 Probe 110802	
Location	45		
Recorded By	K. Monaghan		
Witnessed By	M. Gibson		

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"			
Prot. String				
Production String	7.00"			
Liner	4.50"			

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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!!!
Wireline Zero @ 24' KB
Directions: 19 & 20, W 6/10, N Into
(East Well of 2 Well Pad)

Database File: cblaspen state v16-75hn.db
Dataset Pathname: pass3
Presentation Format: noblehozo
Dataset Creation: Mon Sep 24 10:51:28 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

Database File: cblaspen state v16-75hn.db
Dataset Pathname: pass2
Presentation Format: noblehozo
Dataset Creation: Mon Sep 24 10:36:12 2012 by Log SCH 120430
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: cblaspen state v16-75hn.db
Dataset Pathname: pass3
Dataset Creation: Mon Sep 24 10:51:28 2012 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101010

	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION		Mon Sep 24 11:25:52 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: Mon Sep 24 10:16:44 2012

Depth: 167.692 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:	0.013501	0.0135498	V
Reading in Free Pipe:	2.49878	2.49575	V
Gain:	24.6512	25.0443	
Offset:	0.567185	-0.339346	