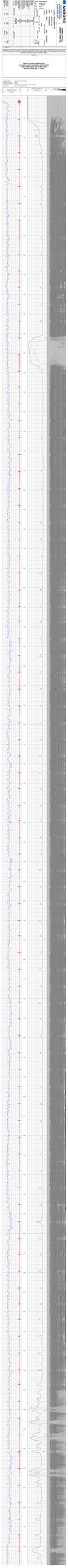

NABORS
COMPLETION & PRODUCTION SERVICES CO.

GAMMA RAY CCL CEMENT BOND VDL

Company	NOBLE ENERGY INC.
Well	MOSIER 23-12F
Field	WATTENBERG
County	WELD
State	COLORADO

Company	NOBLE ENERGY INC.		
Well	MOSIER 23-12F		
Field	WATTENBERG		
County	WELD	State	COLORADO
Location:	API #: 0512316330 NW/SW SEC 23 TWP 4N RGE 66W	Other Services	
Permanent Datum	GL	Elevation 4730	Elevation K.B. 4744 D.F. 4743 G.L. 4730
Log Measured From	KB		
Drilling Measured From	KB		

Date	NOVEMBER 7, 2014
Run Number	ONE
Depth Driller	7332
Depth Logger	5000
Bottom Logged Interval	5000
Top Log Interval	SURFACE
Open Hole Size	7-7/8
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	N/A
Estimated Cement Top	609
Time Well Ready	LEED RIG
Time Logger on Bottom	2-3/4 PROBE
Equipment Number	4838
Location	45
Recorded By	GREG NOLAN
Witnessed By	ALLEN MILLER

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#	SURFACE	522
Prot. String				
Production String	4-1/2	11.6#	SURFACE	TD
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 NCPS!!!!
LOG CORRELATED TO GOODWELL PERFORATORS
SONIC CEMENT BOND LOG DATED 11 06 92
WCR 33 & WCR 42, N.5, E.1, S INTO

Database File:	cbl noble mosier 23-12f.db
Dataset Pathname:	pass6
Presentation Format:	noble en
Dataset Creation:	Fri Nov 07 07:32:18 2014 by Log SCH 120430
Charted by:	Depth in Feet scaled 1:240

50 CCL -5.5
0 Gamma Ray (GAPI) 130
400 TT3 (usec) 0

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

200 Variable Density 1200

Calibration Report

Database File:	cbl noble mosier 23-12f.db
Dataset Pathname:	pass6
Dataset Creation:	Fri Nov 07 07:32:18 2014 by Log SCH 120430

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

	Counts/Sec.	Gain	Offset	Jig	Units
SHOP CALIBRATION	Fri Nov 08 09:38:30 2013				
Background	0.0				cps
Calibrator	1.0				cps
		0.4400			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 07 07:17:25 2014		
Depth:	610.95		ft
Casing Diameter:	4.5		in
	3' Spacing	5' Spacing	
Signal Zero:	0.7	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	-0.00512695	-0.00598145	V
Reading in Free Pipe:	2.49878	2.374	V
Gain:	32.1482	34.1163	
Offset:	0.864822	0.204065	