SUPERIOR
WELL SERVICES

GAMMA RAY CCL
CEMENT BOND VDL

Company	NOBLE ENERGY INC.
Well	FOSS 06-31
Field	WATTENBERG
County	WELD
State	COLORADO

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Well FOSS 06-31
Field WATTENBERG
County WELD State COLORADO

Location: API #: 0512324290
2187' FSL & 1886' FWL
NE/SW
SEC 6 TWP 6N RGE 63W

Other Services

Permanent Datum	GL	Elevation 4707	Elevation K.B. 4720 D.F. 4719 G.L. 4707
Log Measured From	KB		
Drilling Measured From	KB		

Date	FEBRUARY 9, 2012
Run Number	ONE
Depth Driller	7061
Depth Logger	6965
Bottom Logged Interval	6964
Top Log Interval	1890
Open Hole Size	7-7/8
Type Fluid	WATER
Density / Viscosity	N/A
Max. Recorded Temp.	236 DEG. F
Estimated Cement Top	2343
Time Well Ready	PORTABLE MAST
Time Logger on Bottom	2-3/4 PROBE 101024
Equipment Number	3342
Location	45
Recorded By	GREG NOLAN
Witnessed By	JOE BRNAK

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# J-55	13	530
Prot. String				
Production String	4-1/2	11.6# M-80	13	7044
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!!!!
LOG CORRELATED TO PSI COMP. DENSITY/NEUTRON MICROLOG DATED JANUARY 30, 2012
WCR 74 & WCR 63, S.4 TO FENCE LINE, W.3 TOWARDS FEEDLOT, N INTO

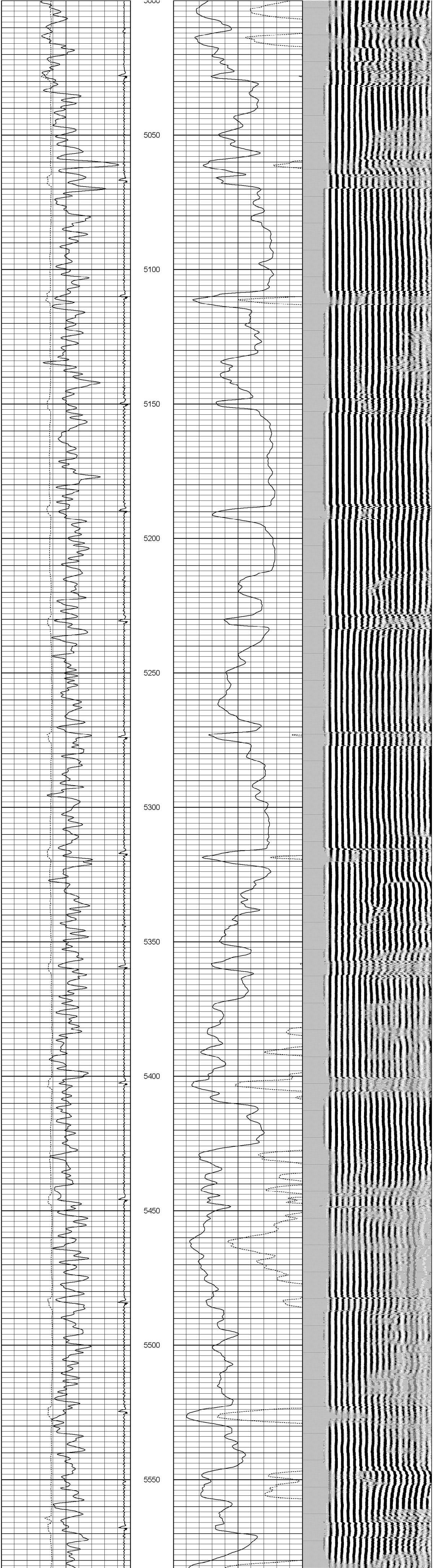
Database File: cbl noble foss 6-31.db
Dataset Pathname: pass2
Presentation Format: nuexbond
Dataset Creation: Thu Feb 09 12:44:37 2012 by Log Std Casedhole 10081
Charted by: Depth in Feet scaled 1:240

30	Gamma Ray (GAPI)	130	0	Amplified Amplitude (mV)	30	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
400	TT3 (usec)	100						

30	Gamma Ray (GAPI)	130	0	Amplified Amplitude (mV)	30	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
400	TT3 (usec)	100						

Database File: cbl noble foss 6-31.db
Dataset Pathname: pass1
Presentation Format: nuexbond
Dataset Creation: Thu Feb 09 12:31:16 2012 by Log Std Casedhole 10081
Charted by: Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	200	0	Amplified Amplitude (mV)	30	200	VDL	1200
30	CCL	-1.5	0	Amplitude (mV)	100			
400	TT3 (usec)	100						



Calibration Report

Database File: cbl noble foss 6-31.db
Dataset Pathname: pass2
Dataset Creation: Thu Feb 09 12:44:37 2012 by Log Std Casedhole 10081

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 101011

SHOP CALIBRATION Thu Feb 09 10:38:41 2012

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.7000			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

Segmented Cement Bond Log Calibration Report

Serial Number: 101024
Tool Model: Probe

Calibration Casing Diameter: 4.500 in
Calibration Depth: 599.650 ft

Master Calibration, performed Thu Feb 09 12:02:45 2012:

	Raw (v)		Calibrated (mV)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.010	2.498	0.800	81.196	32.307	0.480
CAL	0.010	1.670				
5'	0.010	2.493	0.800	81.196	32.380	0.478
SUM						
S1	0.010	2.499	0.000	81.196	32.625	-0.326
S2	0.010	2.499	0.000	81.196	32.626	-0.329
S3	0.010	2.499	0.000	81.196	32.624	-0.325
S4	0.010	2.458	0.000	81.196	33.164	-0.330
S5	0.010	2.272	0.000	81.196	35.896	-0.354
S6	0.010	2.243	0.000	81.196	36.354	-0.355
S7	0.010	2.450	0.000	81.196	33.280	-0.328
S8	0.010	2.499	0.000	81.196	32.624	-0.323

Internal Reference Calibration, performed Wed Dec 31 17:00:00 1969:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.010	1.670	1.000	0.000

Air Zero Calibration, performed Thu Feb 09 11:59:39 2012:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000