J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY
COLLAR CORRELATION LOG

Company NOBLE ENERGY INC.
Well SHABLE USX AB11-12 P
Field WATTENBERG
County WELD
State COLORADO

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Location: API #: 05-123-31318-00
1980' FSL & 660' FWL
NW SW
SEC. 11 TWP. 7N RGE. 64W
SEC TWP RGE

Other Services
NONE

Permanent Datum GROUND LEVEL Elevation 4822
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 4835
D.F. 4835
G.L. 4822

Date	01-SEPTEMBER-2010
Run Number	ONE
Depth Driller	7231
Depth Logger	7149
Bottom Logged Interval	7148
Top Log Interval	1730
Open Hole Size	7 7/8
Type Fluid	WATER
Density / Viscosity	--
Max. Recorded Temp.	235
Estimated Cement Top	1850
Time Well Ready	--
Time Logger on Bottom	--
Equipment Number	2405/TECKO
Location	BRIGHTON
Recorded By	HAYES
Witnessed By	MR. MITCH TRIMBLE

Borehole Record

Run Number	Bit	From	To

Tubing Record

Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String	8 5/8	24 #	SURFACE	788
Prot. String				
Production String	4.5	11.6 #	SURFACE	7220
Liner				

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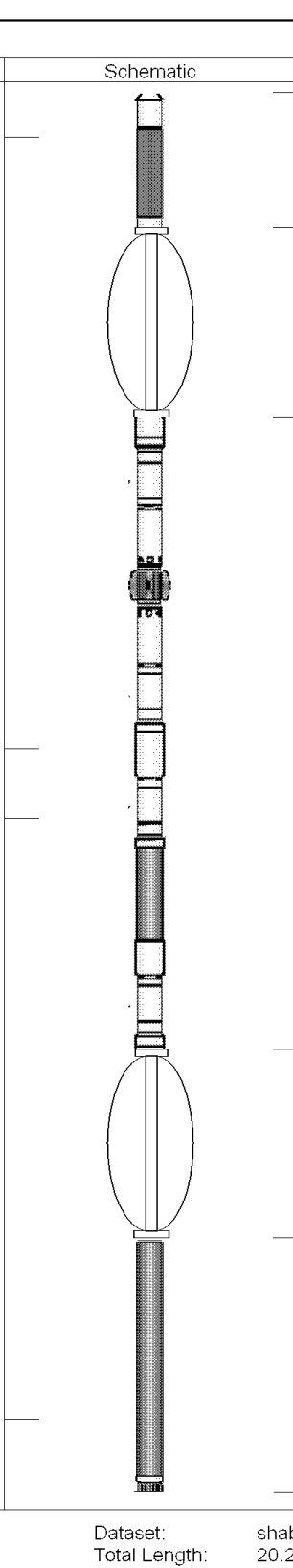
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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

LOG CORRELATED TO CD, CN, ML LOG
DATED 11-AUGUST-2010

LOG SPLIT FOR CORRELATIONPURPOSES

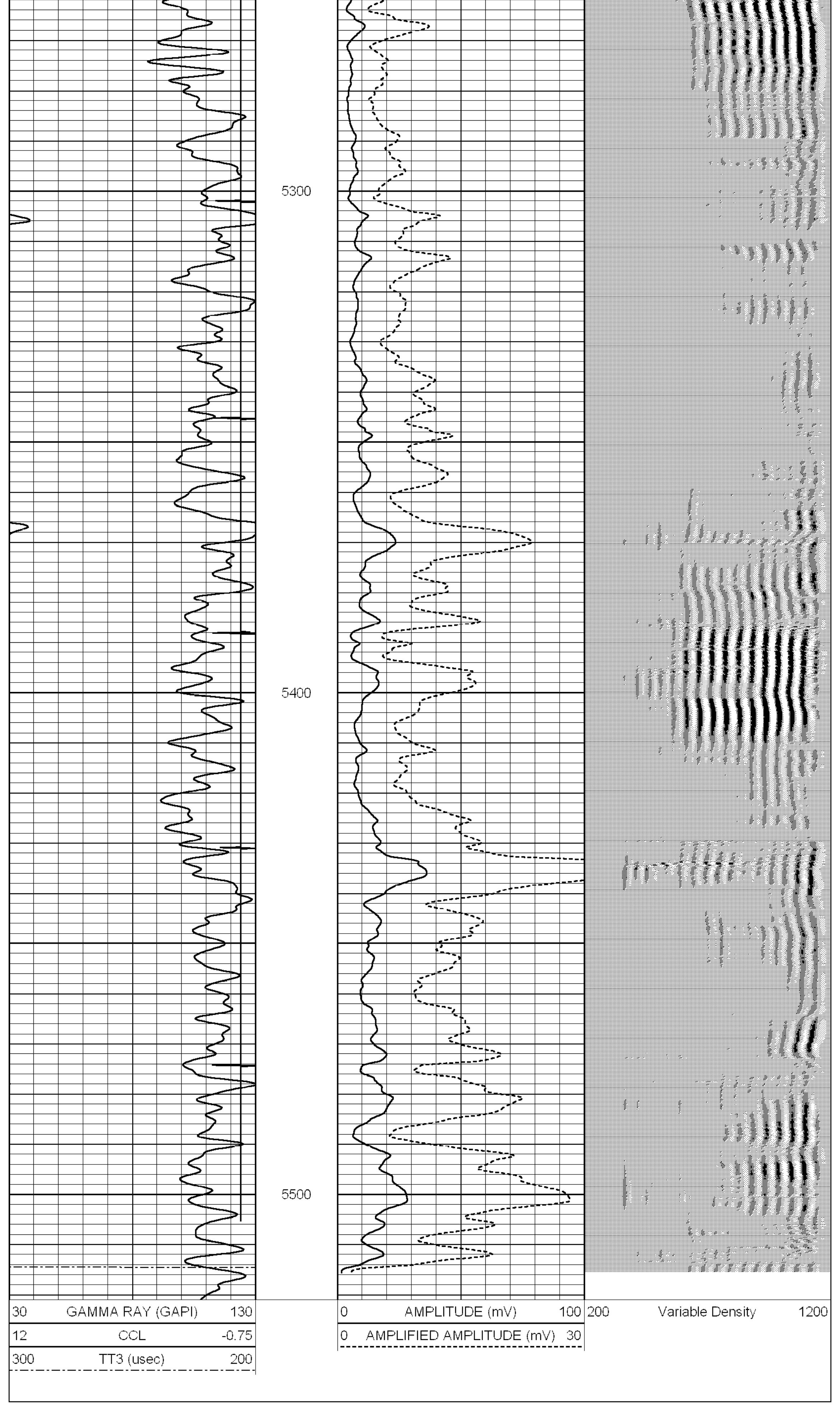


Sensor	Offset (ft)	Description	Len (ft)	OD (in)	Wt (lb)
CCL	19.57	CCL-275tekco (2.75TEKCO) 2 3/4 TEK CCL Earth Mag	1.96	2.75	20.00
		CENT-TEKCO (102)	2.73	2.75	10.00
WVF3	10.74	CBL-3_5tekold (3_5tekold001)	9.13	2.75	127.00
WVF5	9.74				
		CENT-TEKCO (101)	2.73	2.75	10.00
GR	1.06	GR-TEKCO (101SGR)	3.68	2.75	30.00

Dataset: shable usx ab 11-12p.db: field/well/run1/pass2
Total Length: 20.22 ft
Total Weight: 197.00 lb
O.D. 2.75 in

Database File: shable usx ab 11-12p.db
Dataset Pathname: pass2
Presentation Format: cblx
Dataset Creation: Wed Sep 01 09:22:26 2010 by Log Std Casedhole 08121
Charted by: Depth in Feet scaled 1:240

30	GAMMA RAY (GAPI)	130	0	AMPLITUDE (mV)	100
12	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30
300	TT3 (usec)	200	200	Variable Density	1200



Database File: shable usx ab 11-12p.db
Dataset Pathname: pass1
Presentation Format: cblx
Dataset Creation: Wed Sep 01 08:52:30 2010 by Log Std Casedhole 08121
Charted by: Depth in Feet scaled 1:240

Calibration Report

Database File: shable usx ab 11-12p.db
Dataset Pathname: pass2
Dataset Creation: Wed Sep 01 09:22:26 2010 by Log Std Casedhole 08121

Gamma Ray Calibration Report

Serial Number:	101SGR	
Tool Model:	TEKCO	
Performed:	Mon Jun 14 15:52:18 2010	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Cement Bond Log Calibration Report

Serial Number:	3_5tekold001		
Tool Model:	3_5tekold		
Performed:	Wed Sep 01 08:34:11 2010		
Depth:	1372.64	ft	
Casing Diameter:	4.5	in	
	3' Spacing	5' Spacing	
Signal Zero:	3	3	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.04	0	V
Reading in Free Pipe:	2.43081	2.49878	V
Gain:	32.7069	31.2937	
Offset:	1.69172	3	