J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY
COLLAR CORRELATION LOG

Company NOBLE ENERGY INC.
Well LAZY D ZN 3-9
Field WATTENBERG
County WELD
State COLORADO

Company	NOBLE ENERGY INC.		
Well	LAZY D ZN 3-9		
Field	WATTENBERG		
County	WELD	State	COLORADO

Location: API # : 05-123-31832-00
2639' FSL & 1990' FEL
NW SE
SEC. 3 TWP. 11 RGE. 66W
SEC TWP RGE

Other Services
NONE

Permanent Datum	GROUND LEVEL	Elevation	5894
Log Measured From	KELLY BUSHING		
Drilling Measured From	KELLY BUSHING		

Elevation
K.B. 5910
D.F. 5910
G.L. 5894

Date	20-OCTOBER-2010		
Run Number	ONE		
Depth Driller	9679		
Depth Logger	9561		
Bottom Logged Interval	9554		
Top Log Interval	7990		
Open Hole Size	7 7/8		
Type Fluid	WATER		
Density / Viscosity	---		
Max. Recorded Temp.	255		
Estimated Cement Top	8140		
Time Well Ready	---		
Time Logger on Bottom	---		
Equipment Number	2405/YELLOW		
Location	BRIGHTON		
Recorded By	HAYES		
Witnessed By	MR. ARMSTRONG		

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	2325
Prot. String				
Production String	4.5	11.6 #	SURFACE	9615
Liner				

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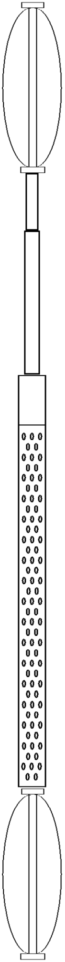
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

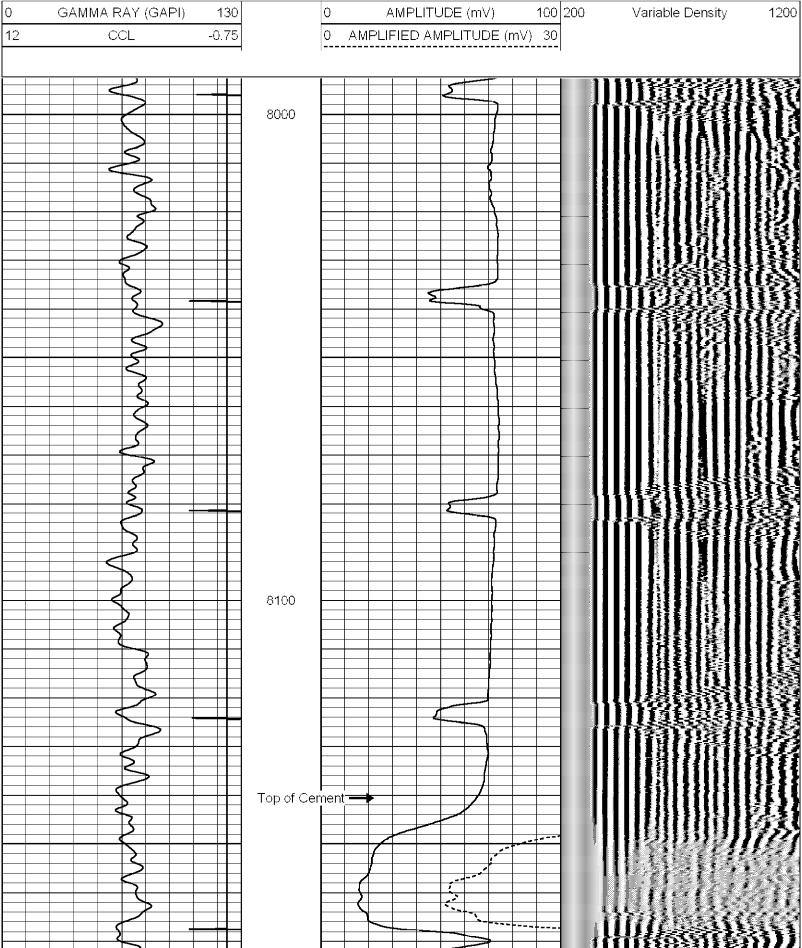
LOG CORRELATED TO SD,DSN,AC,TR LOG
DATED 20-SEPETEMBER-2010

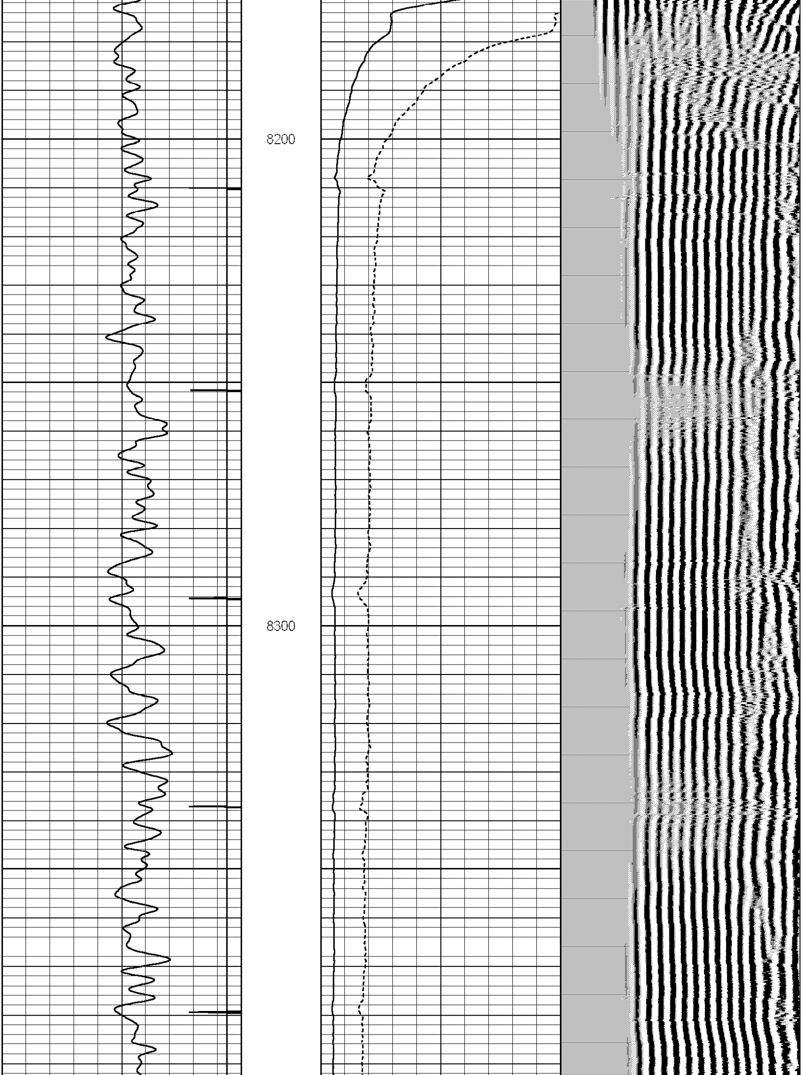
LOG SPLIT FOR CORRELATION PURPOSES

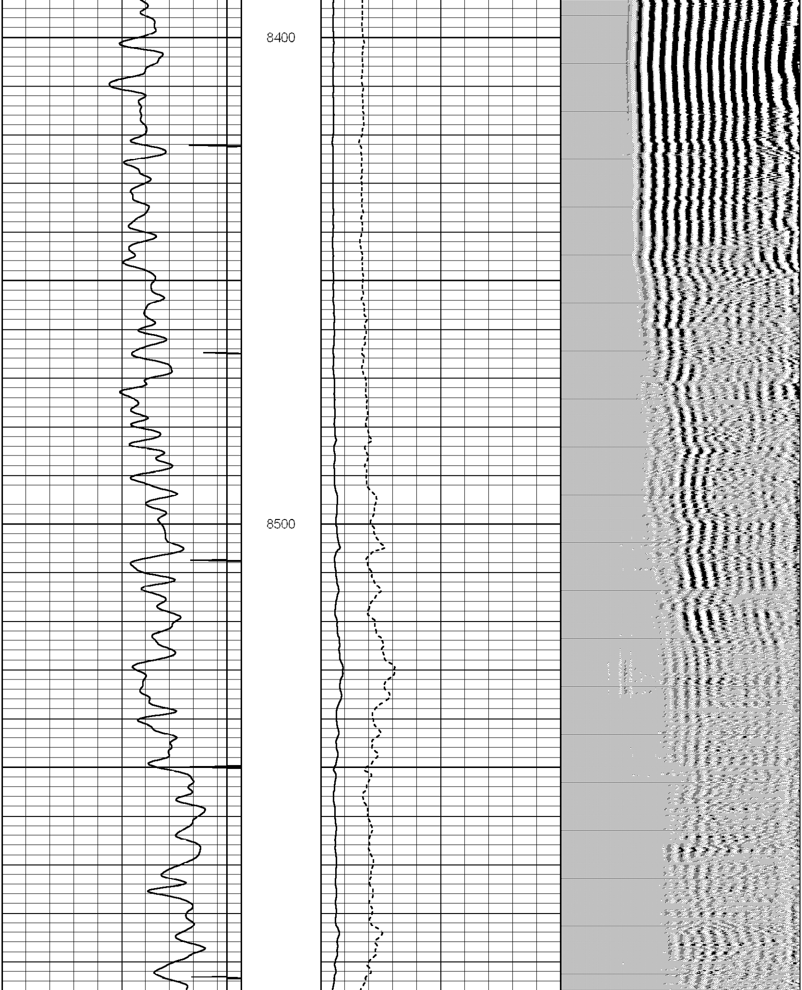
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CENT-A (1)	3.00	1.69	10.00
CCL	13.25		CCL-GR_1_3/8 (001) 1 3/8 titan ccl	1.00	1.38	11.00
GR	11.49		GR-s_t001 (t001)	2.52	1.69	30.00
WVF5 WVF3	7.34 6.34		CBL-3_5 (001)	7.23	2.44	127.00
			CENT-B (2)	3.00	1.69	10.00

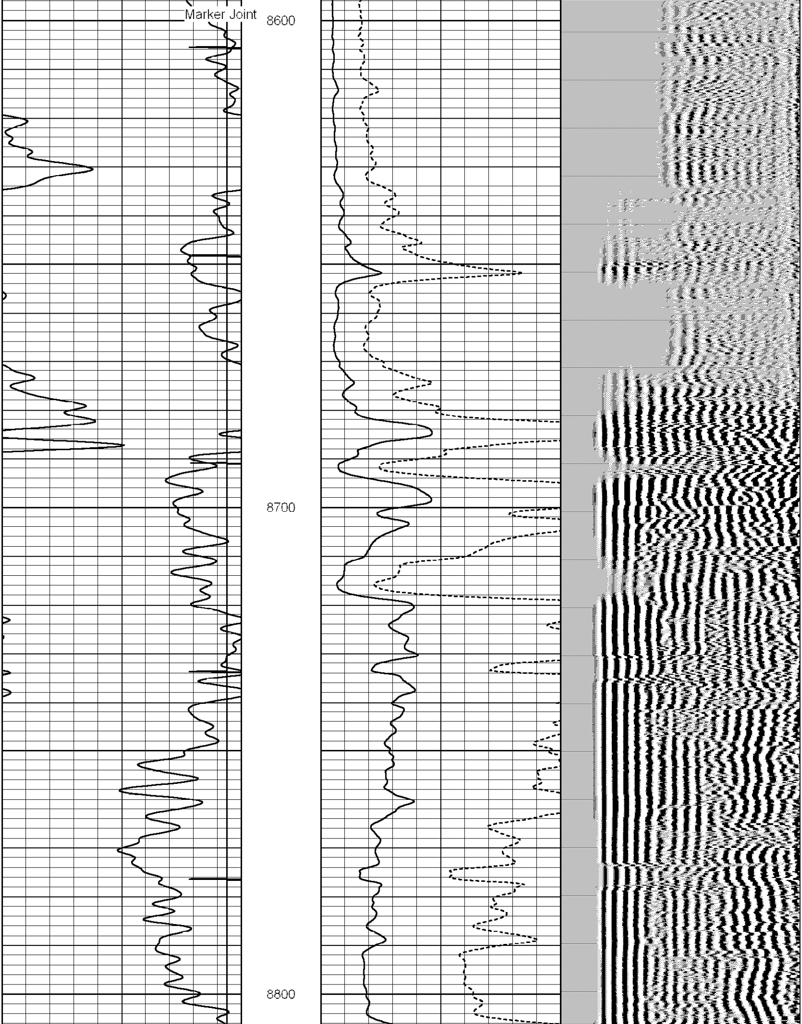
Dataset:	lazy d zn 3-9.db: field/well/run1/pass1
Total Length:	16.75 ft
Total Weight:	188.00 lb
O.D.	2.44 in

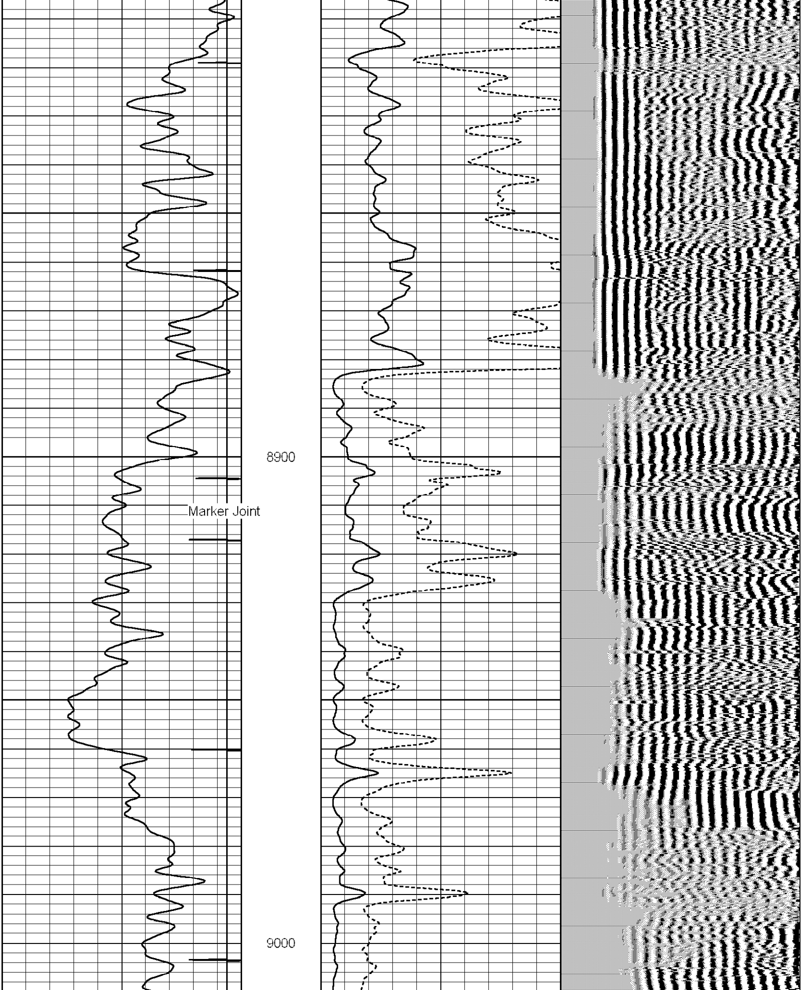
Database File:	lazy d zn 3-9.db
Dataset Pathname:	pass1
Presentation Format:	cblx
Dataset Creation:	Wed Oct 20 14:50:02 2010 by Log Std Casedhole 08121
Charted by:	Depth in Feet scaled 1:240

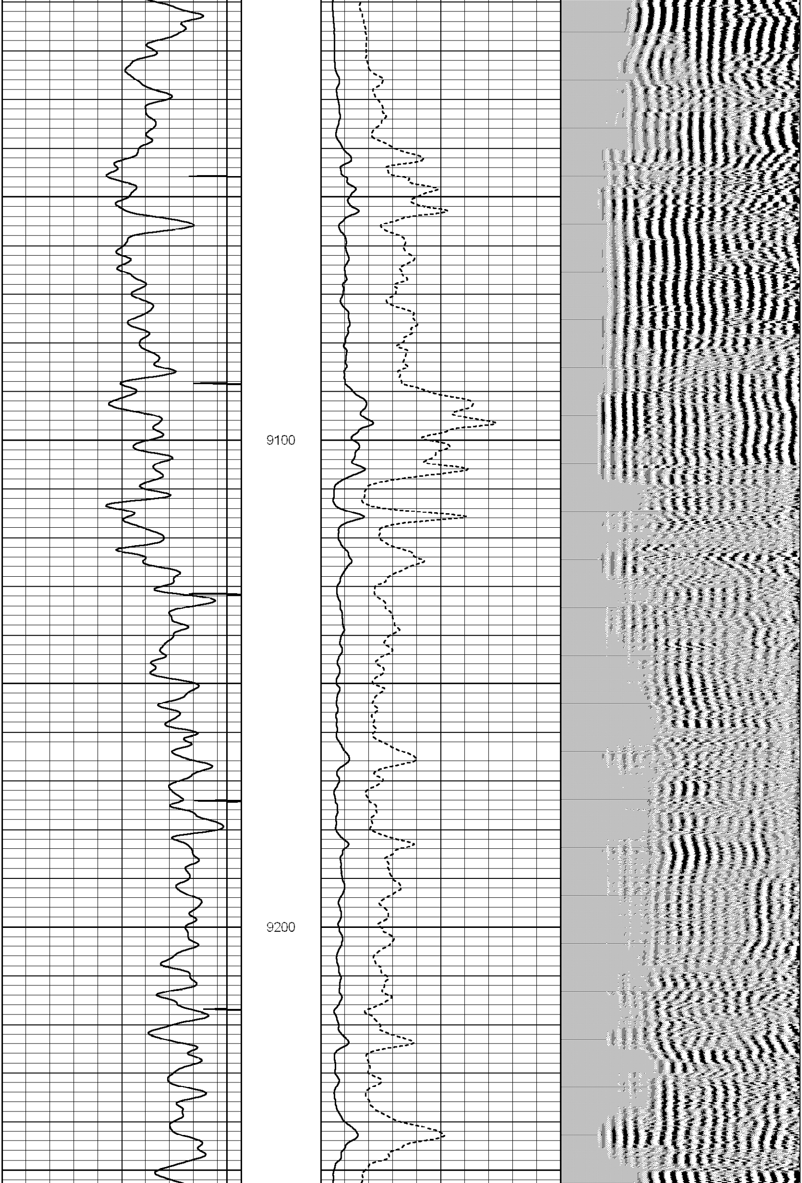


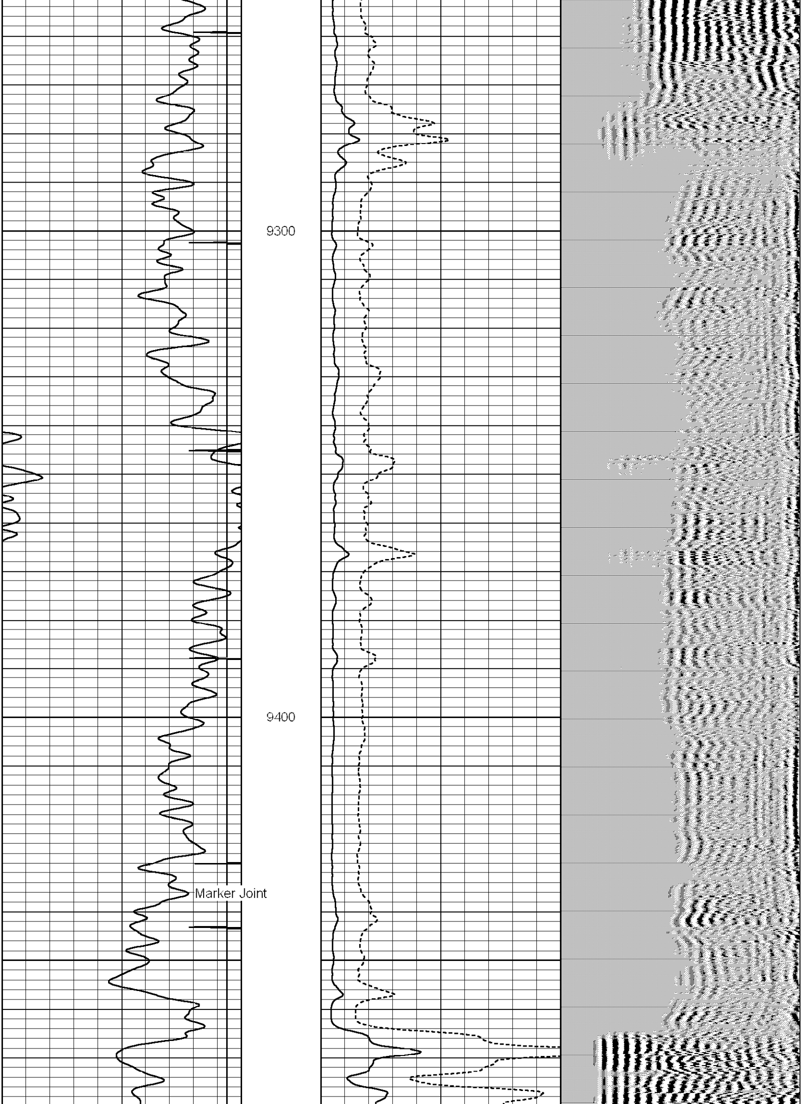


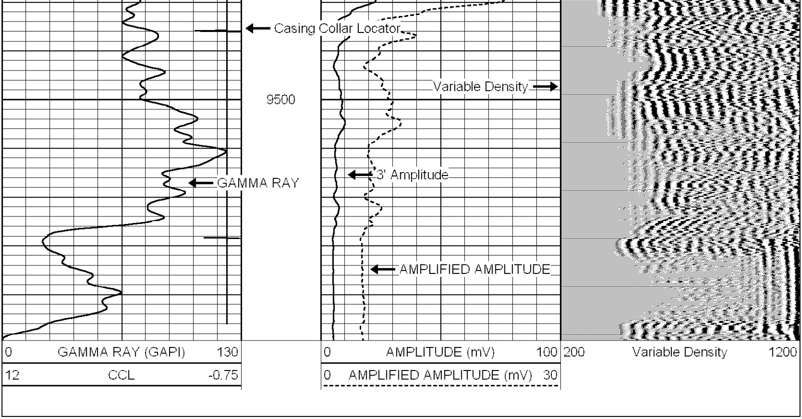












Calibration Report

Database File: lazy d zn 3-9.db
Dataset Pathname: pass1
Dataset Creation: Wed Oct 20 14:50:02 2010 by Log Std Casedhole 08121

Cement Bond Log Calibration Report

Serial Number: 001
Tool Model: 3_5
Performed: Wed Oct 20 14:37:59 2010

Depth: 6739.29 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	0	V
Reading in Free Pipe:	2.5	2.25298	V
Gain:	31.2784	34.7079	
Offset:	3	3	

Gamma Ray Calibration Report

Serial Number: t001
Tool Model: s_t001
Performed: Sun Jun 13 13:33:21 1993

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps