J-W WIRELINE COMPANY

CEMENT BOND
GAMMA RAY
COLLAR CORRELATION LOG

Company	NOBLE ENERGY INC.
Well	BASHOR PC AA 09-14
Field	WATTENBERG
County	WELD
State	COLORADO

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Well BASHOR PC AA 09-14
Field WATTENBERG
County WELD State COLORADO

Location: API # : 05-123-32508-00
660' FSL & 1980' FWL
SE SW
SEC. 9 TWP. 6N RGE. 63W
SEC TWP RGE

Other Services
NONE

Permanent Datum	GROUND LEVEL	Elevation	4686	Elevation K.B. 4700 D.F. 4699 G.L. 4686
Log Measured From	KELLY BUSHING			
Drilling Measured From	KELLY BUSHING			

Date	28-FEBUARY-2011		
Run Number	ONE		
Depth Driller	6945		
Depth Logger	6843		
Bottom Logged Interval	6836		
Top Log Interval	1210		
Open Hole Size	7 7/8		
Type Fluid	WATER		
Density / Viscosity	--		
Max. Recorded Temp.	235		
Estimated Cement Top	1360		
Time Well Ready	--		
Time Logger on Bottom	--		
Equipment Number	2405/YELLOW		
Location	BRIGHTON		
Recorded By	HAYES		
Witnessed By	MR.MITCH TRIMBLE		

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	562
Prot. String				
Production String	4.5	11.6#	SURFACE	6929
Liner				

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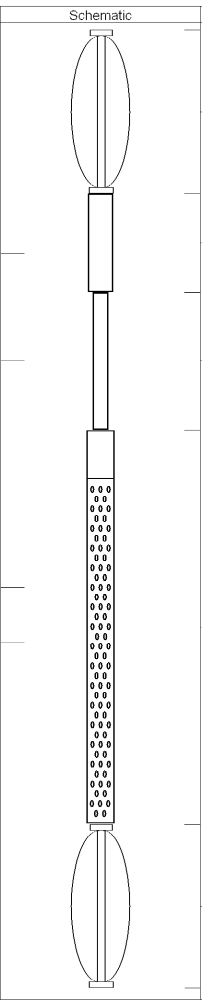
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 DS, NG LOG
DATED 23-FEBUARY-2011

LOG SPLIT FOR CORRELATION PURPOSES

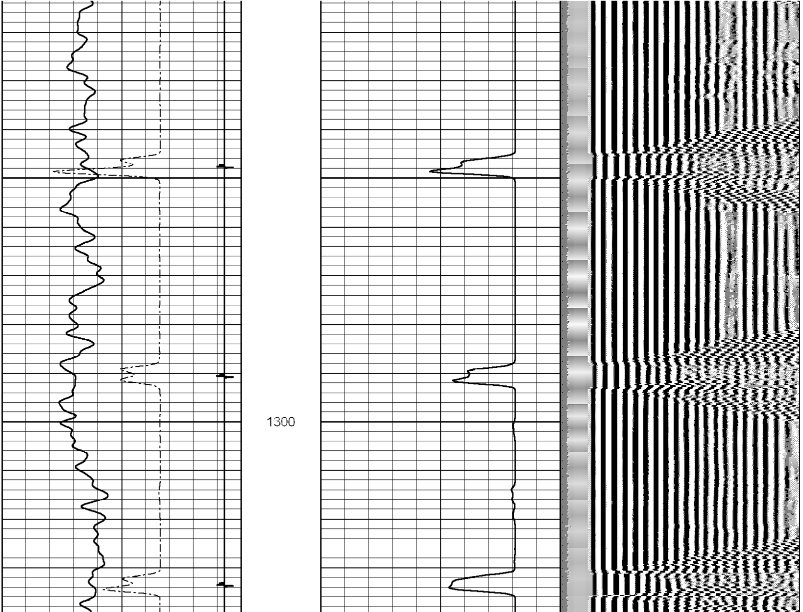


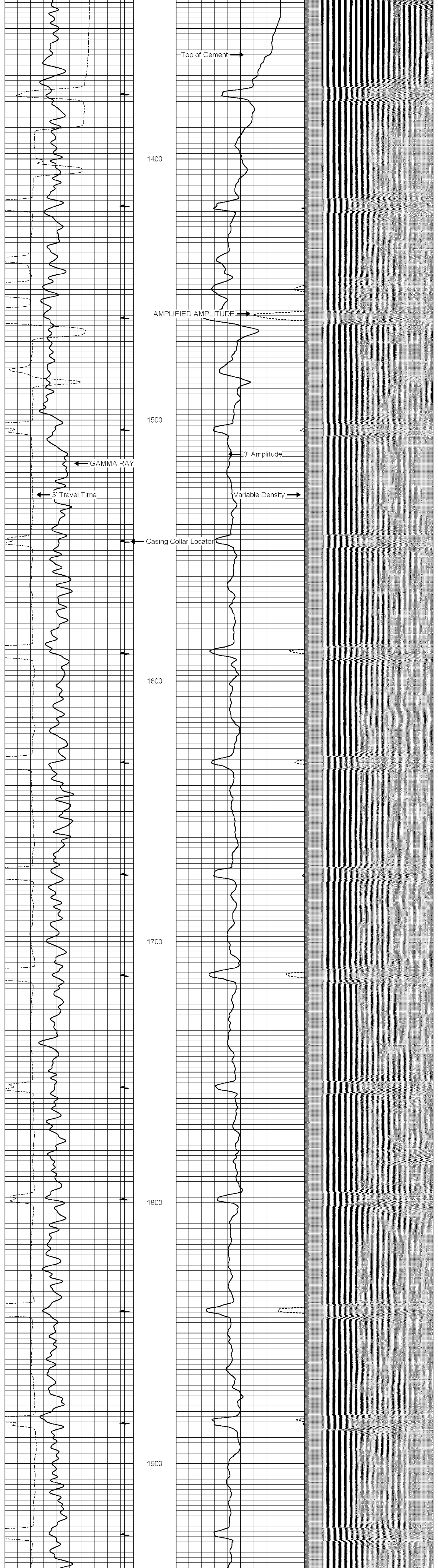
Sensor	Offset (ft)	Schematic	Description	Len (ft)	OD (in)	Wt (lb)
			CENT-A (1)	3.00	1.69	10.00
CCL	13.46		CCL-TEKCO (TEK101)	1.81	2.75	10.00
GR	11.49		GR-s_t001 (t001)	2.52	1.69	30.00
WVF5	7.34					
WVF3	6.34		CBL-3_5 (001)	7.23	2.44	127.00
			CENT-B (2)	3.00	1.69	10.00

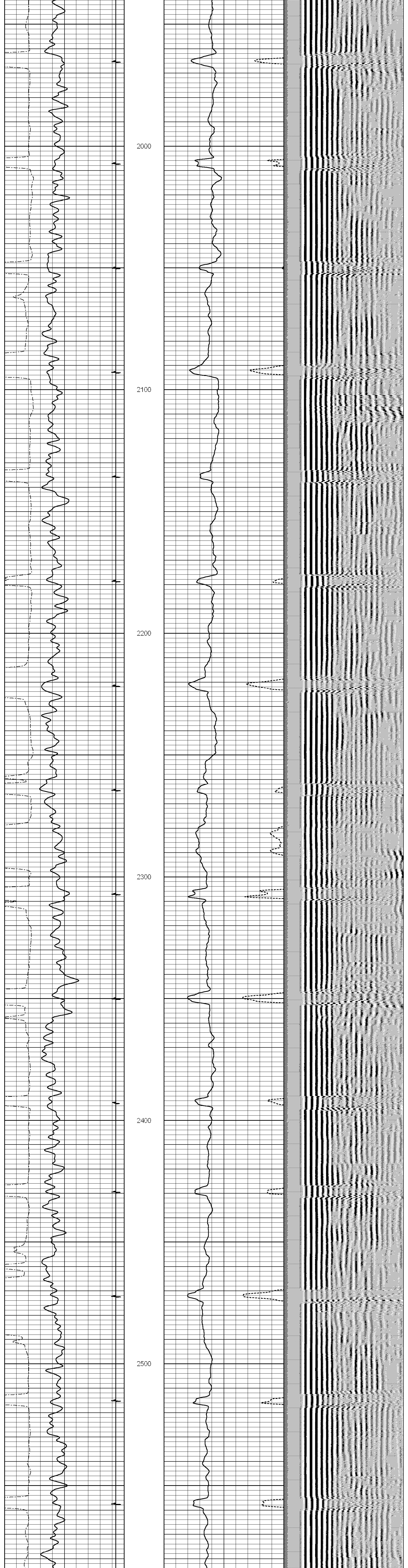
Dataset:	bashor pc aa 09-14.db: field/well/run1/pass3
Total Length:	17.56 ft
Total Weight:	187.00 lb
O.D.	2.75 in

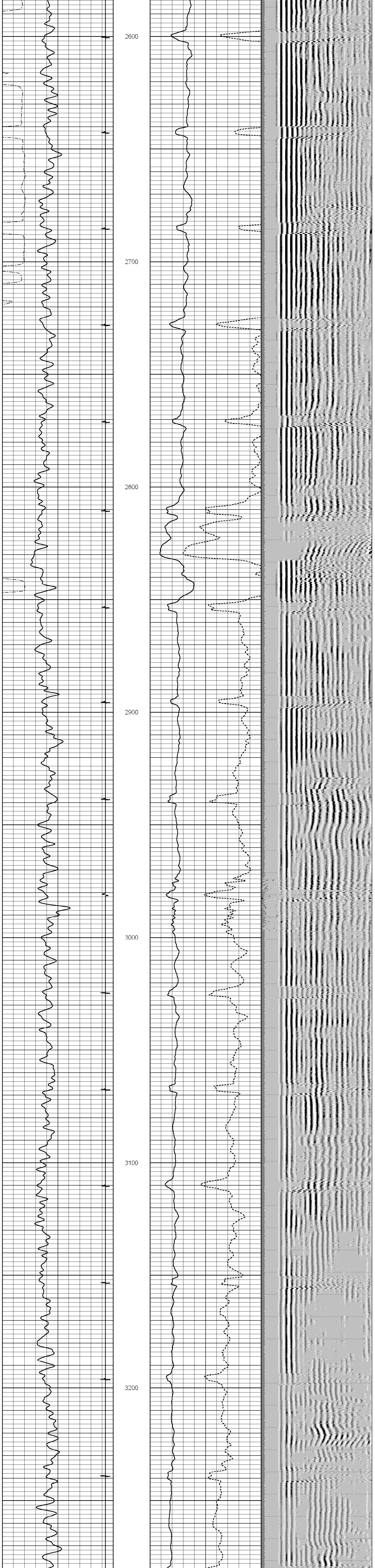
Database File:	bashor pc aa 09-14.db
Dataset Pathname:	pass3
Presentation Format:	cblx
Dataset Creation:	Mon Feb 28 10:37:29 2011 by Log Std Casedhole 10121
Charted by:	Depth in Feet scaled 1:240

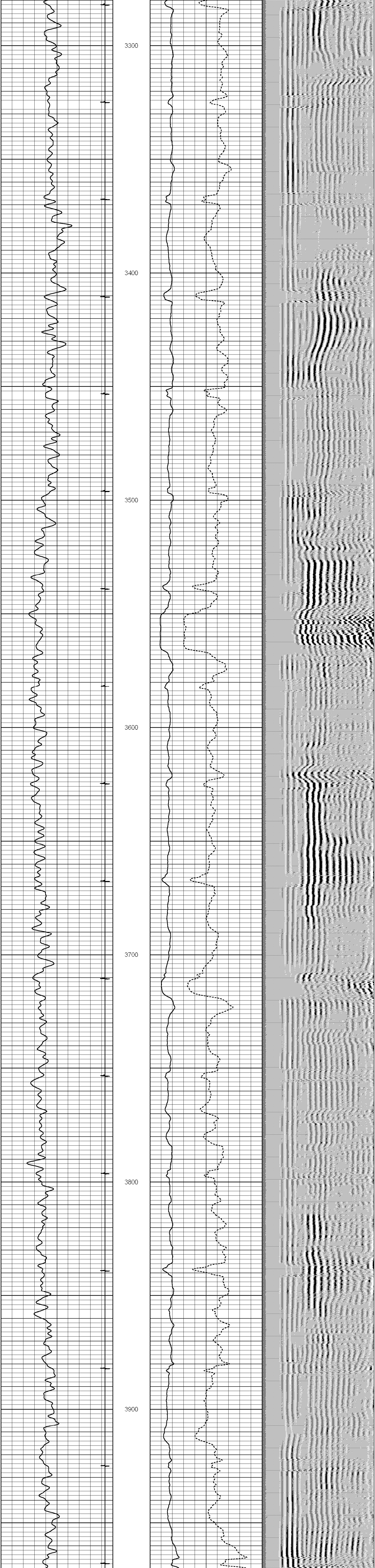
0	GAMMA RAY (GAPI)	200	0	AMPLITUDE (mV)	100	200 Variable Density 1200
10	CCL	-0.75	0	AMPLIFIED AMPLITUDE (mV)	30	
300	TT3 (usec)	200				

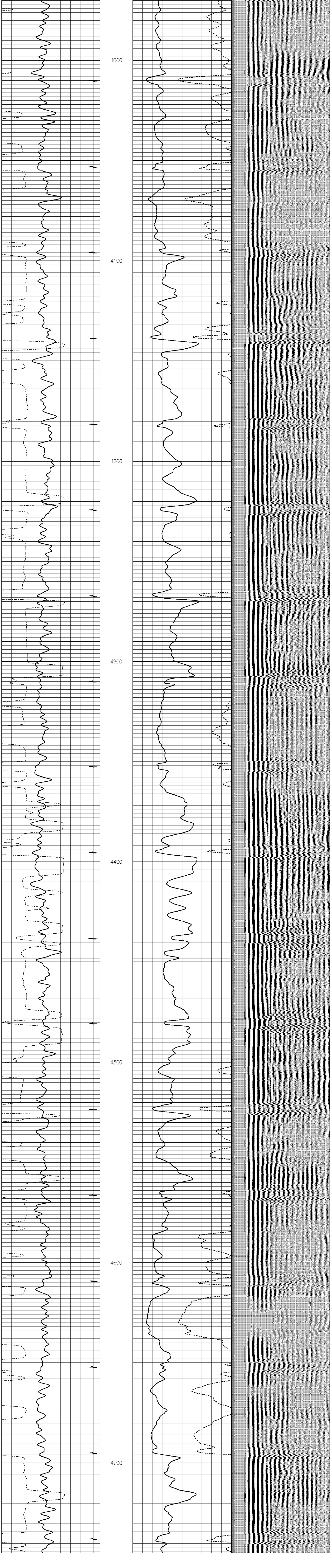


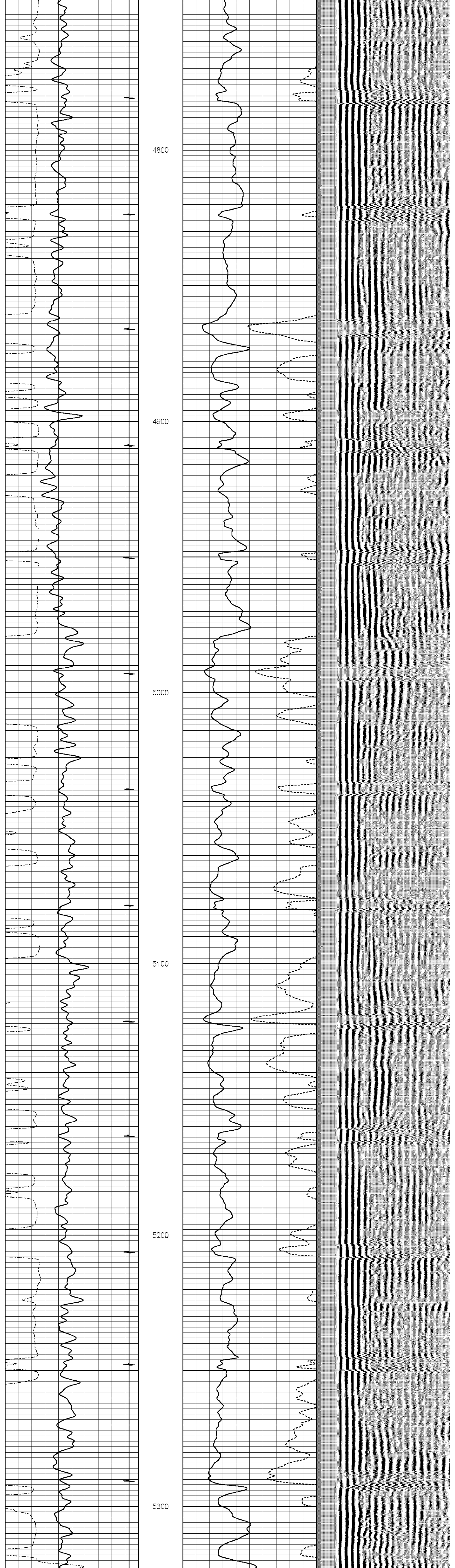


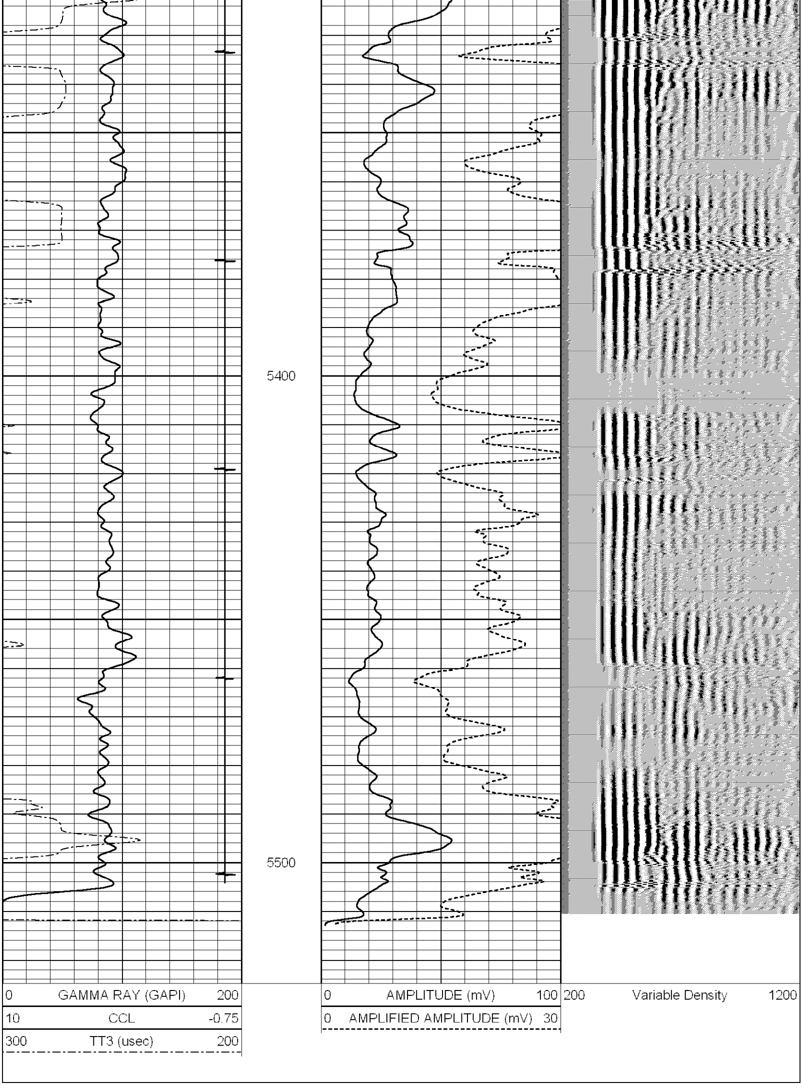




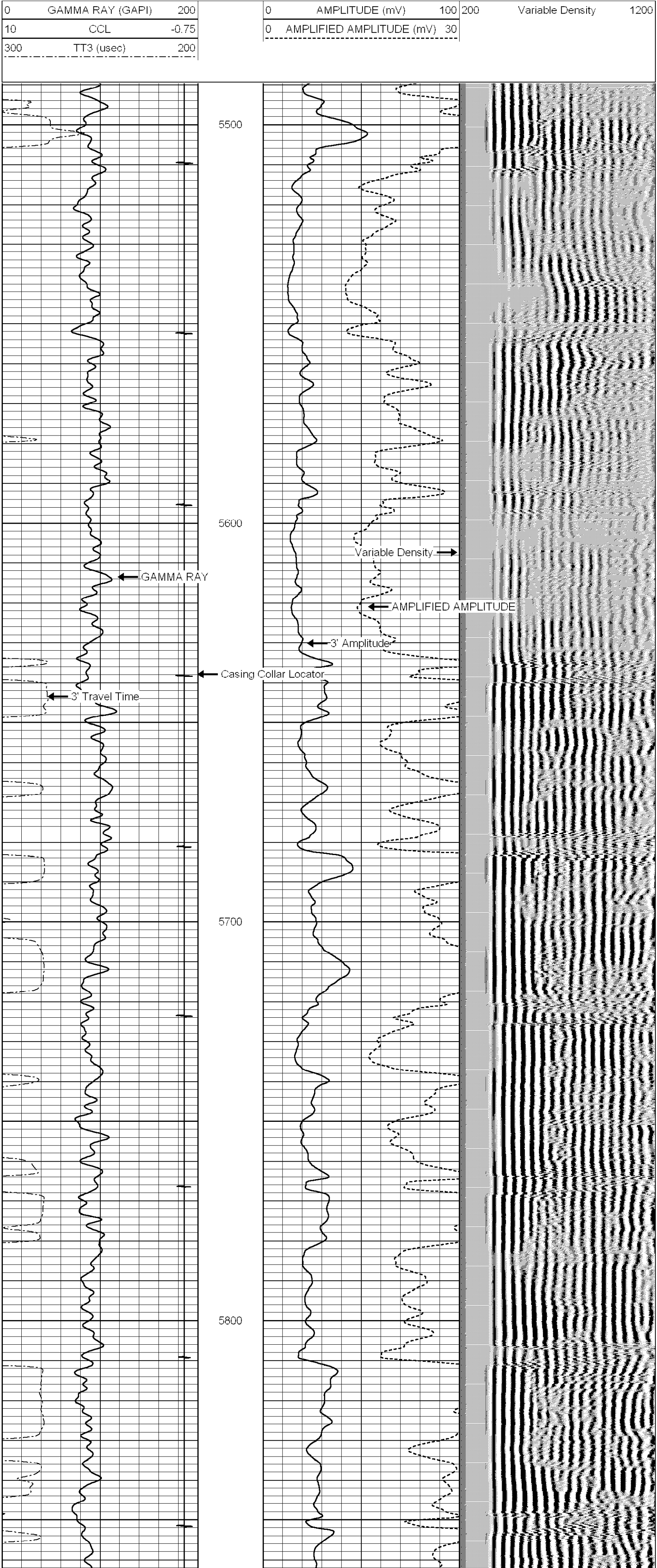


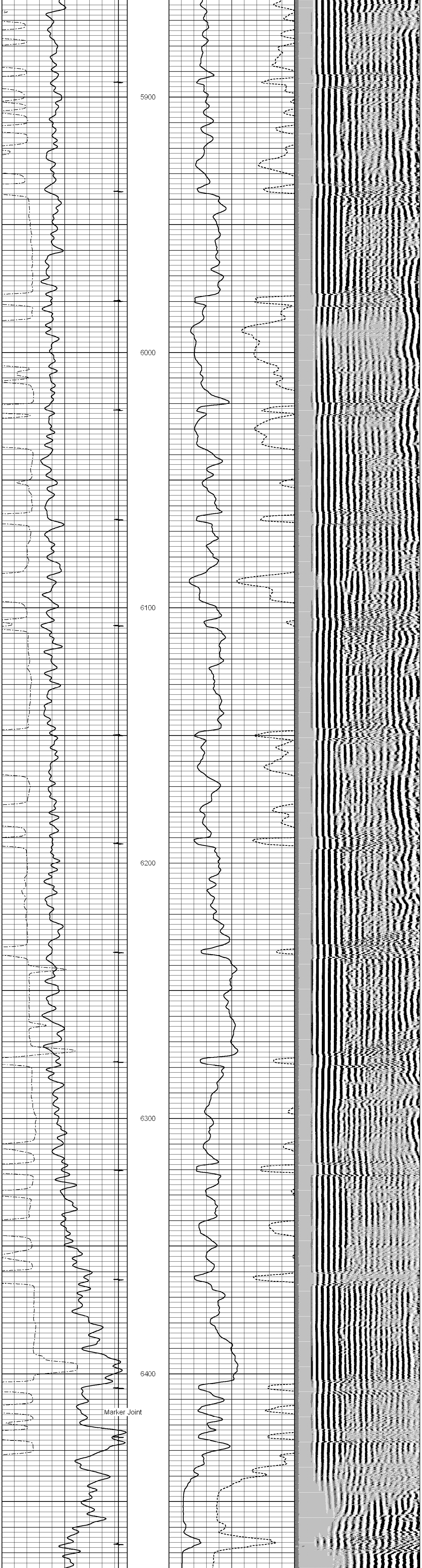


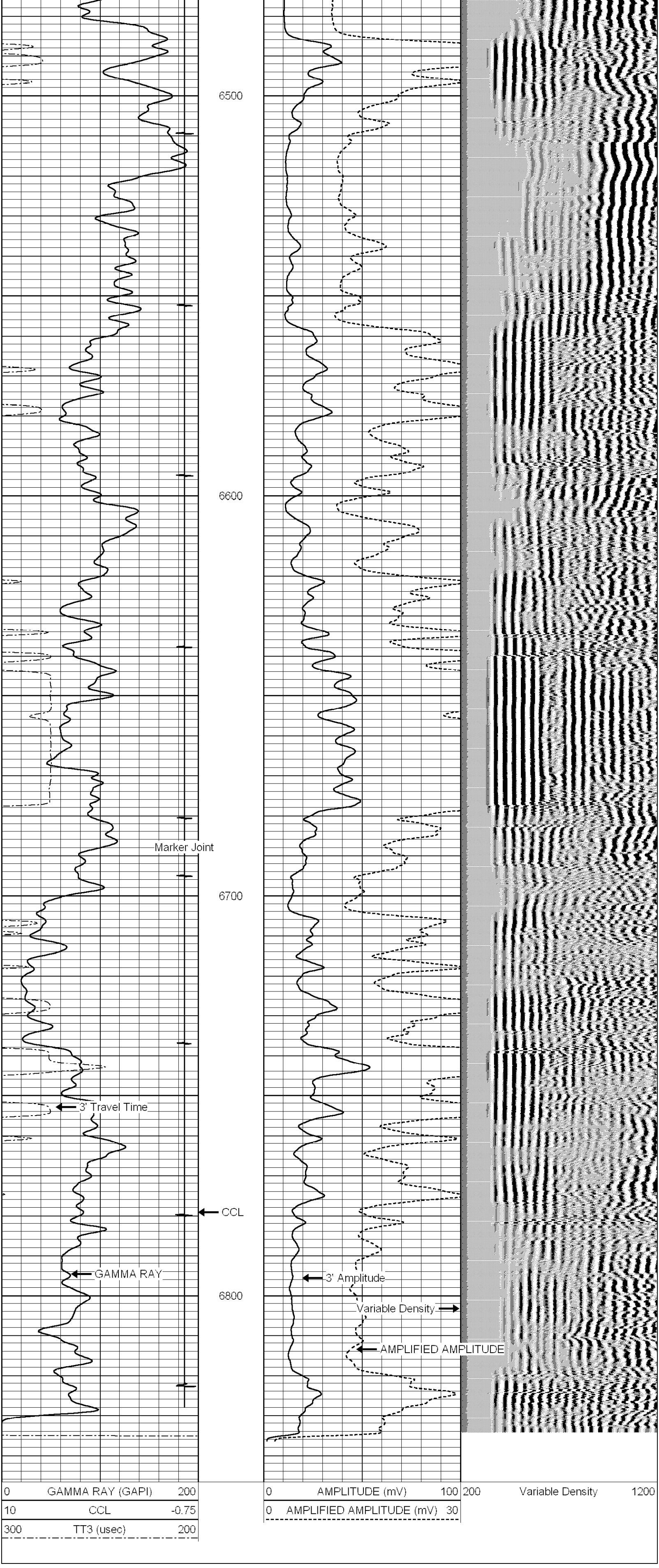




Database File: bashor pc aa 09-14.db
Dataset Pathname: pass2
Presentation Format: cblx
Dataset Creation: Mon Feb 28 10:17:57 2011 by Log Std Casedhole 10121
Charted by: Depth in Feet scaled 1:240







Calibration Report

Database File: bashor pc aa 09-14.db
Dataset Pathname: pass3
Dataset Creation: Mon Feb 28 10:37:29 2011 by Log Std Casedhole 10121

Cement Bond Log Calibration Report

Serial Number:	001		
Tool Model:	3_5		
Performed:	Mon Feb 28 10:03:46 2011		
Depth:	1157.93	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:	2.5	2.04138	V
Gain:	31.787	38.3055	
Offset:	1.72852	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