C&J ENERGY SERVICES

GAMMA RAY-C.C.L.
CEMENT BOND-V.D.L.

Company	PDC ENERGY INC
Well	TWO E RANCH
Field	WATTENBERG
County	WELD
State	COLORADO

Company PDC ENERGY INC
Well TWO E RANCH
Field WATTENBERG
County WELD State COLORADO
Location: API #: 05-123-11335-00
SE/SE
SEC 23 TWP 3N RGE 64W
Other Services

Permanent Datum GROUND LEVEL Elevation 4807
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 4818
D.F. 4817
G.L. 4807

Date	MAY-4-2018
Run Number	ONE
Depth Driller	7400
Depth Logger	
Bottom Logged Interval	6500
Top Log Interval	-0-
Casing Size	
Type Fluid	
Max. Recorded Temp.	
Estimated Cement Top	
Time Well Ready	
Time Logger On Bottom	
Unit Number	923827
Tool Size / ID Number	
Location	STERLING
Recorded By	R. GARDNER
Witnessed By	BUD HOLMAN

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size	Wgt/Ft	Top	Bottom
Surface String				
Prot. String				
Production String	4 1/2			
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

Calibration Report

Database File: two e ranch 11-23.db
Dataset Pathname: pass3
Dataset Creation: Fri May 04 08:22:49 2018 by Log 7.0 B1

Gamma Ray Calibration Report

Type / Serial: CCL/GR / FW1406-009

SHOP CALIBRATION Thu Jun 11 13:08:30 2015

	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

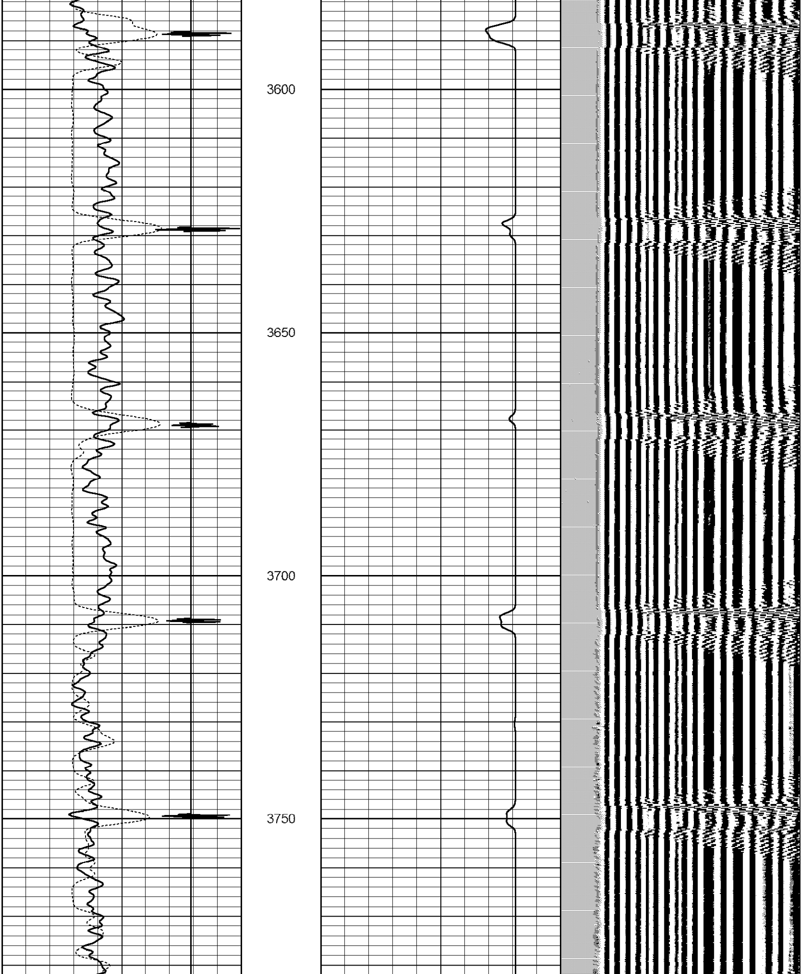
Cement Bond Log Calibration Report

Serial Number: FW1406-029
Tool Model: Probe
Performed: Fri May 04 08:14:50 2018

Depth: 5506.16 ft
Casing Diameter: 4.5 in

	3' Spacing	5' Spacing	
Signal Zero:	1	0	mV
Calibrated Amplitude:	81.1961	81.1961	mV
Reading at Signal Zero:	0.00275879	0.0026123	V
Reading in Free Pipe:	2.49878	2.49004	V
Gain:	32.1296	32.6426	
Offset:	0.911361	-0.0852723	

Database File: two e ranch 11-23.db
Dataset Pathname: pass3
Presentation Format: nuexcbl
Dataset Creation: Fri May 04 08:22:49 2018 by Log 7.0 B1
Charted by: Depth in Feet scaled 1:240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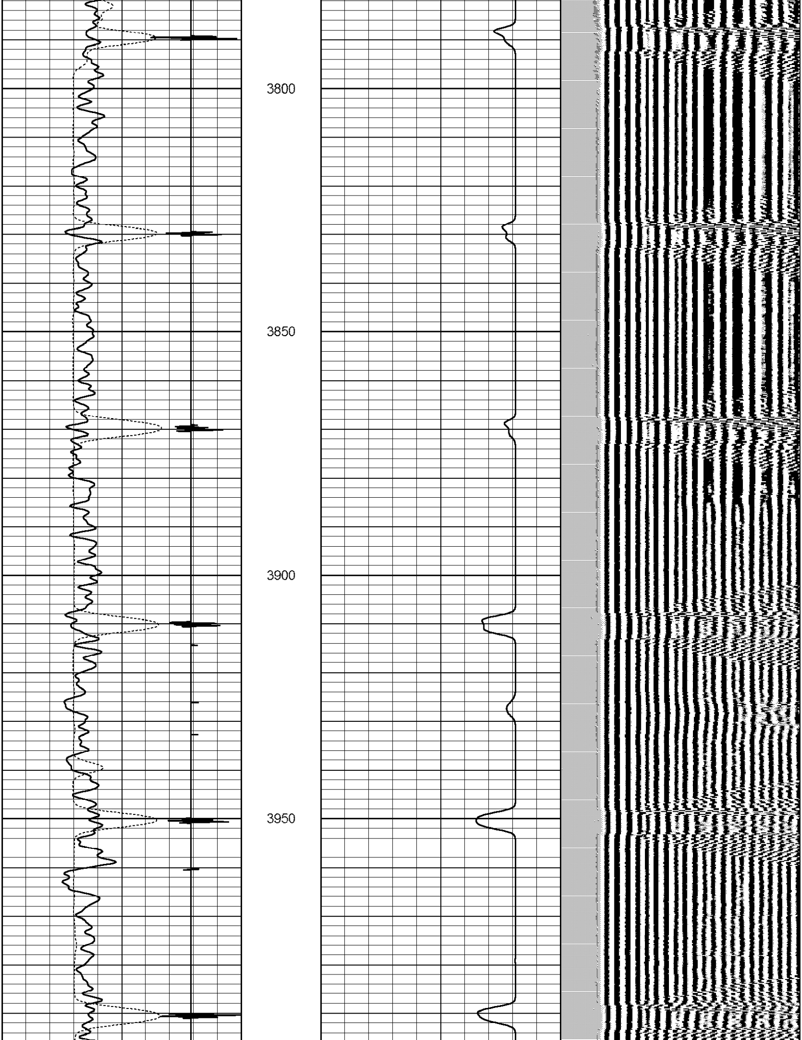
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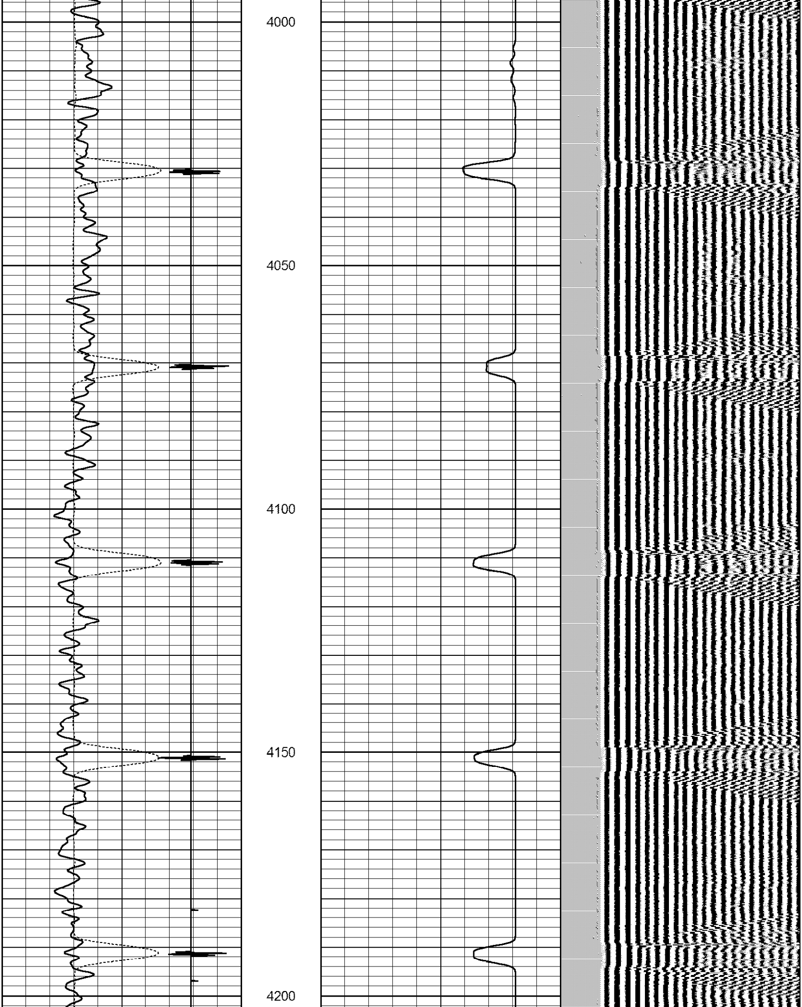
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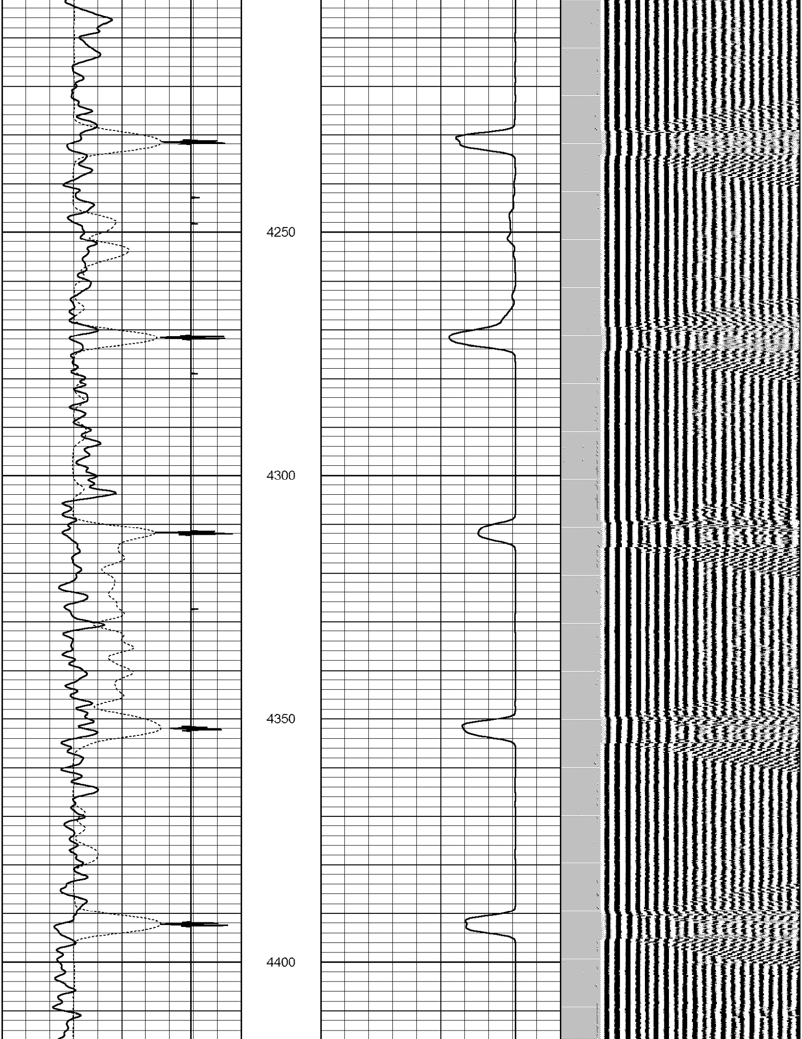
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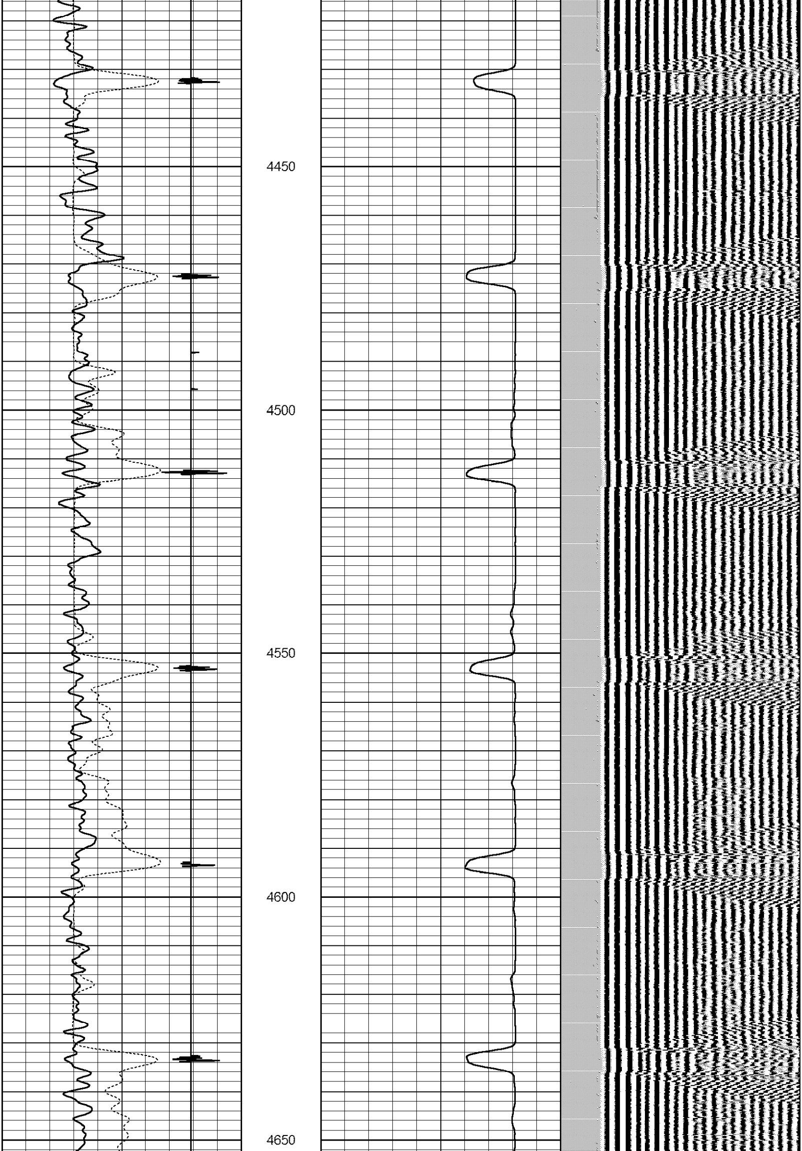
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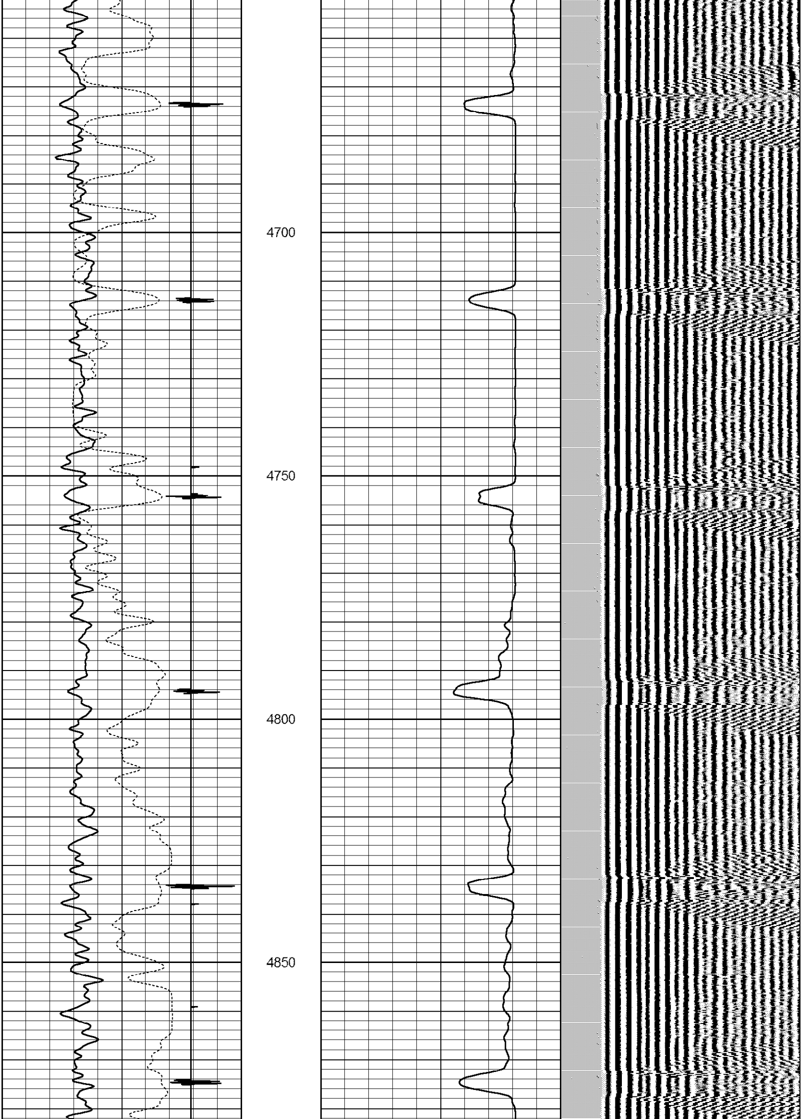
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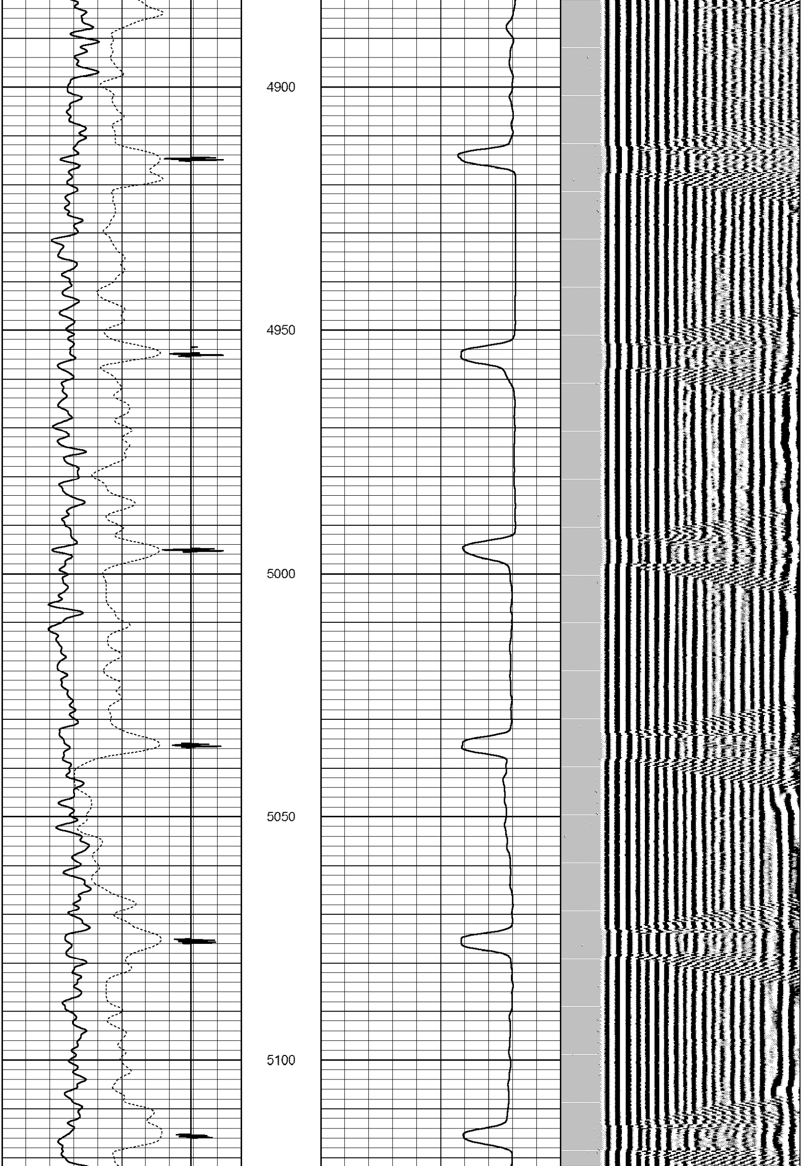
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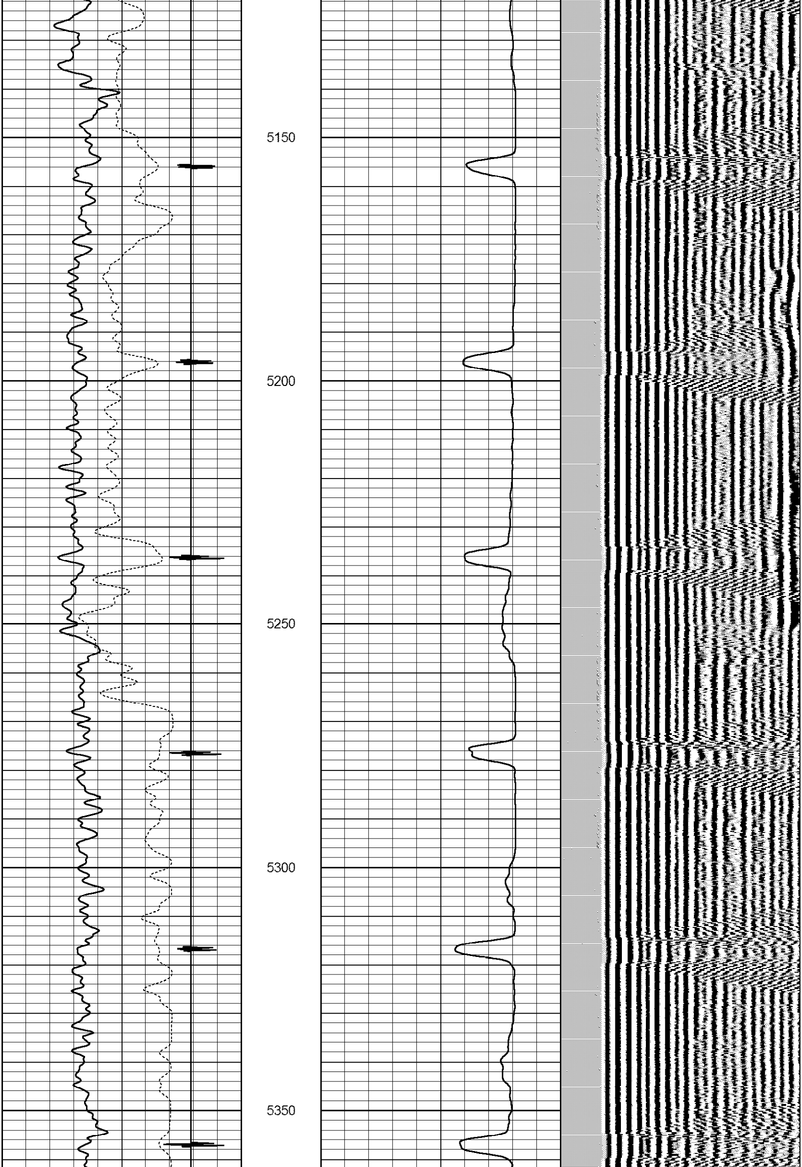
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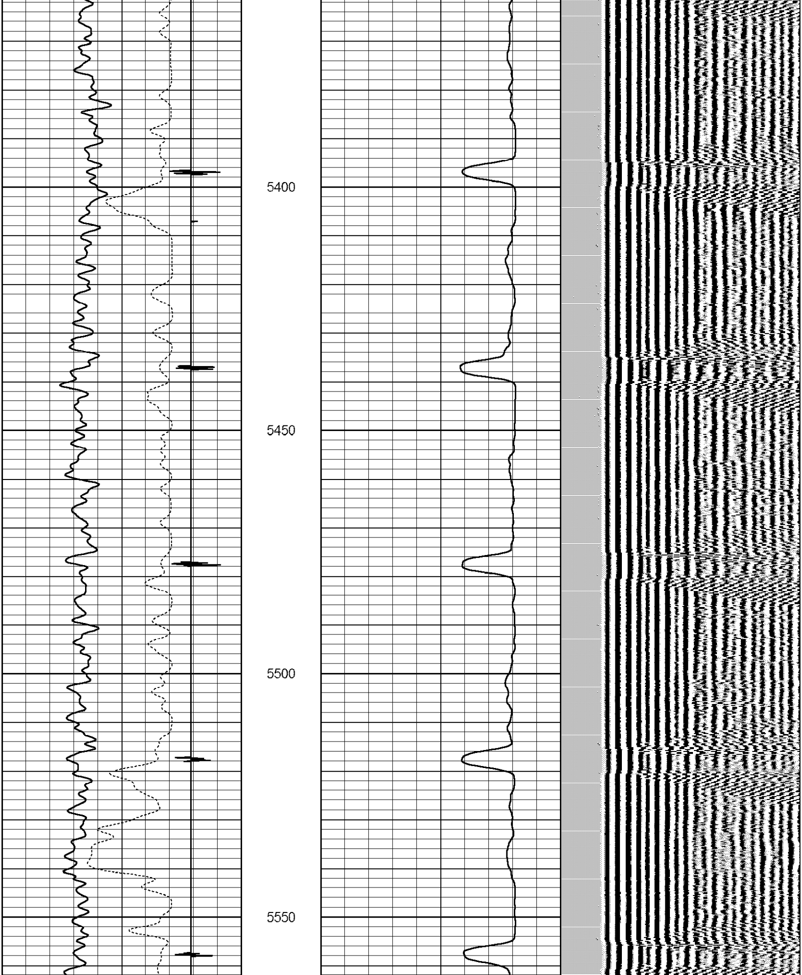
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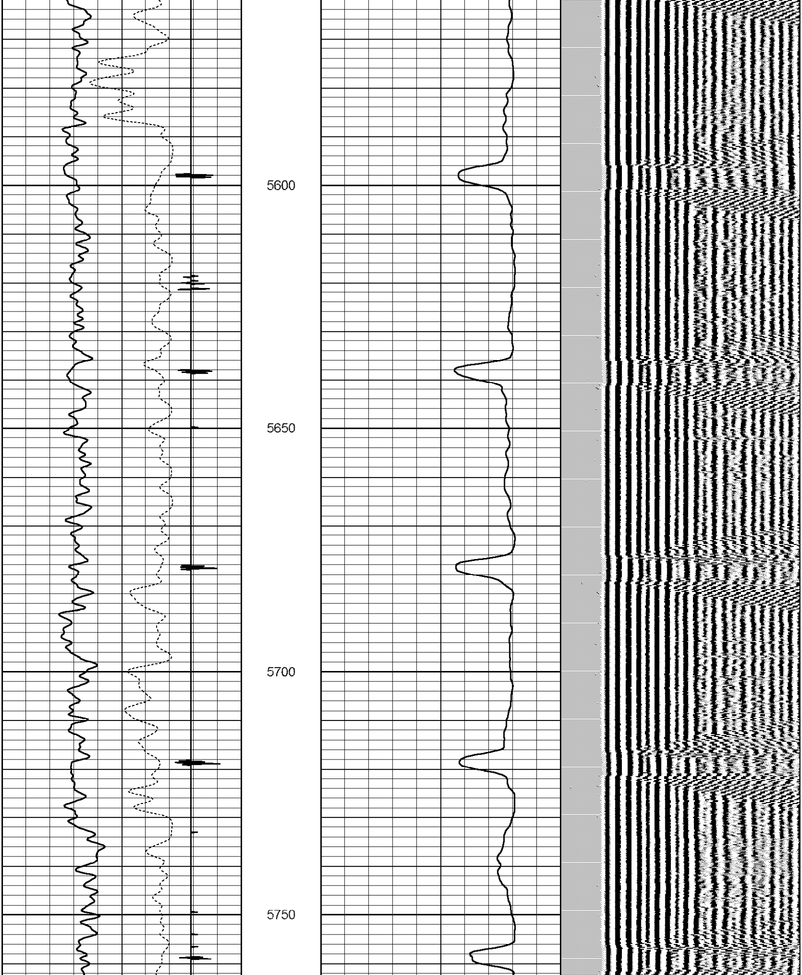
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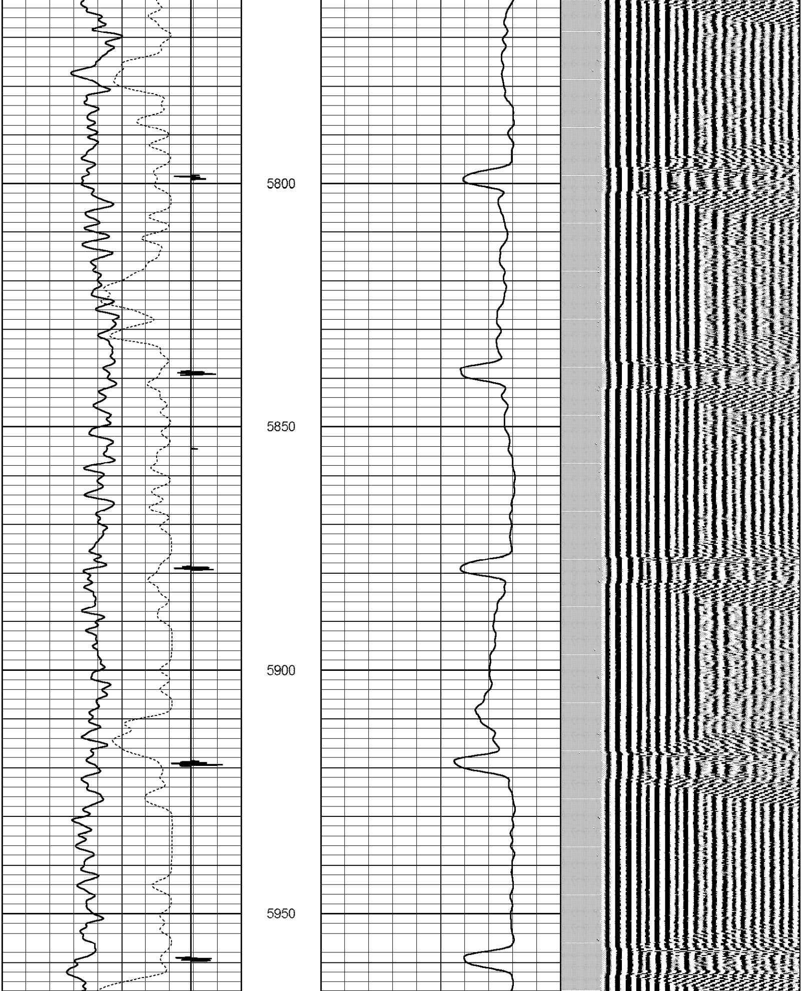
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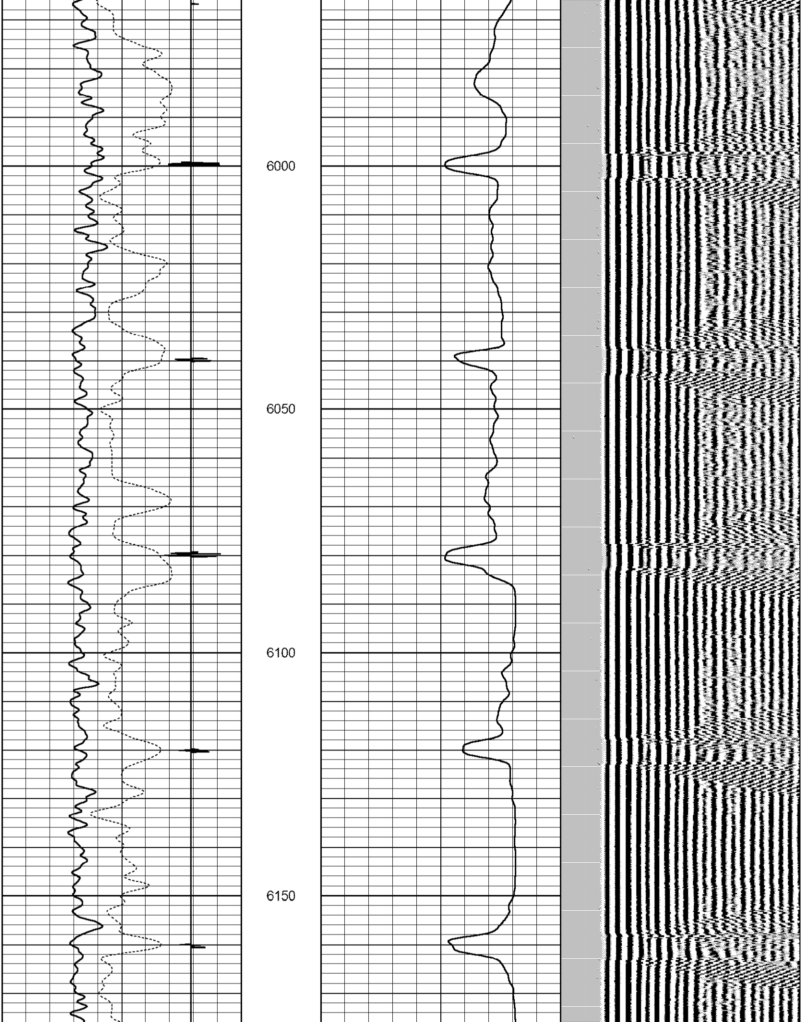
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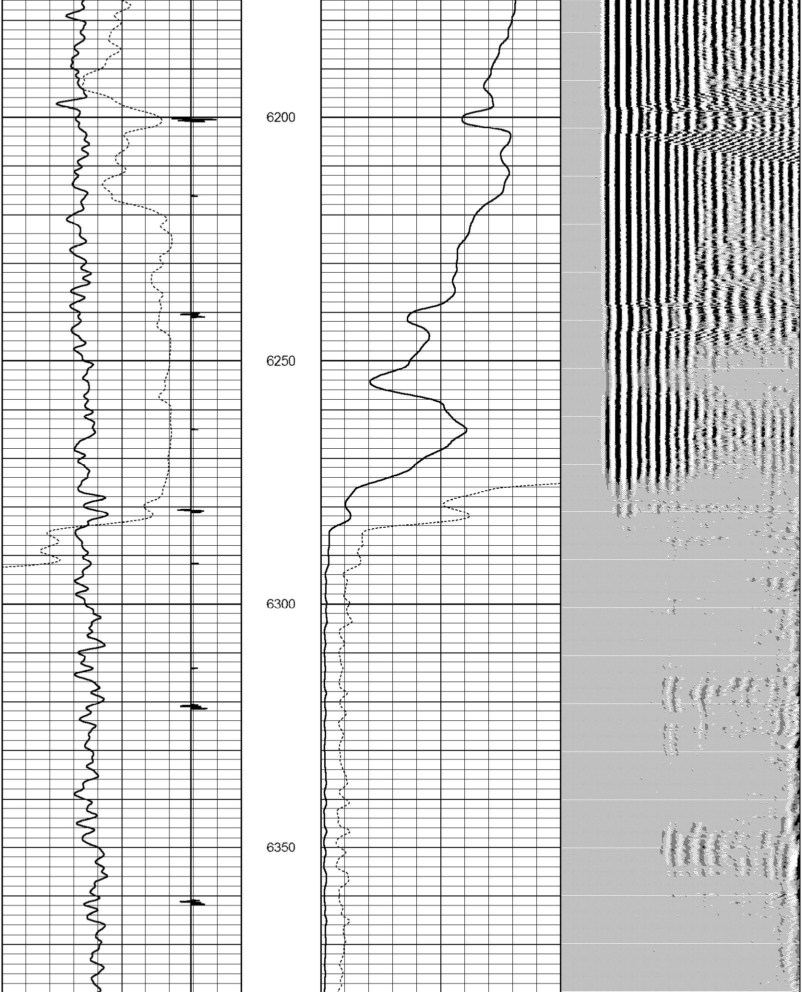
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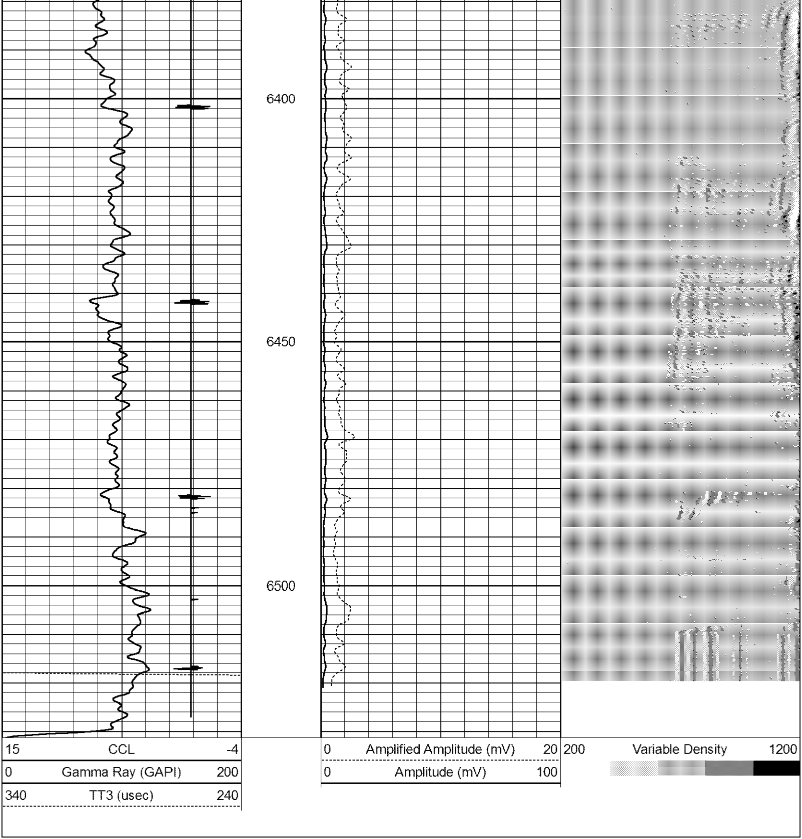
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6500
15 CCL -4
0 Gamma Ray (GAPI) 200
340 TT3 (usec) 240
0 Amplified Amplitude (mV) 20
0 Amplitude (mV) 100
200 Variable Density 1200