GAMMA RAY CCL
CEMENT BOND VDL

Company NOBLE ENERGY INC.
Well RITER C18-16
Field WATTENBERG
County WELD
State COLORADO

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Well RITER C18-16
Field WATTENBERG
County WELD **State** COLORADO

Location: API # : 05-123-17514

SE/SE

SEC TWP N RGE W

Other Services

Permanent Datum	GL	Elevation	4767
Log Measured From	KB		
Drilling Measured From	KB		

Elevation
K.B. 4777
D.F.
G.L. 4767

Date	MARCH 11, 2019		
Run Number	ONE		
Depth Driller	7220		
Depth Logger	4300		
Bottom Logged Interval	4300		
Top Log Interval	SURFACE		
Open Hole Size			
Type Fluid	WATER		
Density / Viscosity	N/A		
Max. Recorded Temp.	N/A		
Estimated Cement Top			
Time Well Ready	ROA		
Time Logger on Bottom	9:15		
Equipment Number	200099		
Location	FORT LUPTON		
Recorded By	GREG NOLAN		
Witnessed By	CHRIS HOHNSTEIN		

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		SURFACE	491
Prot. String				
Production String	4-1/2		SURFACE	TD
Liner				

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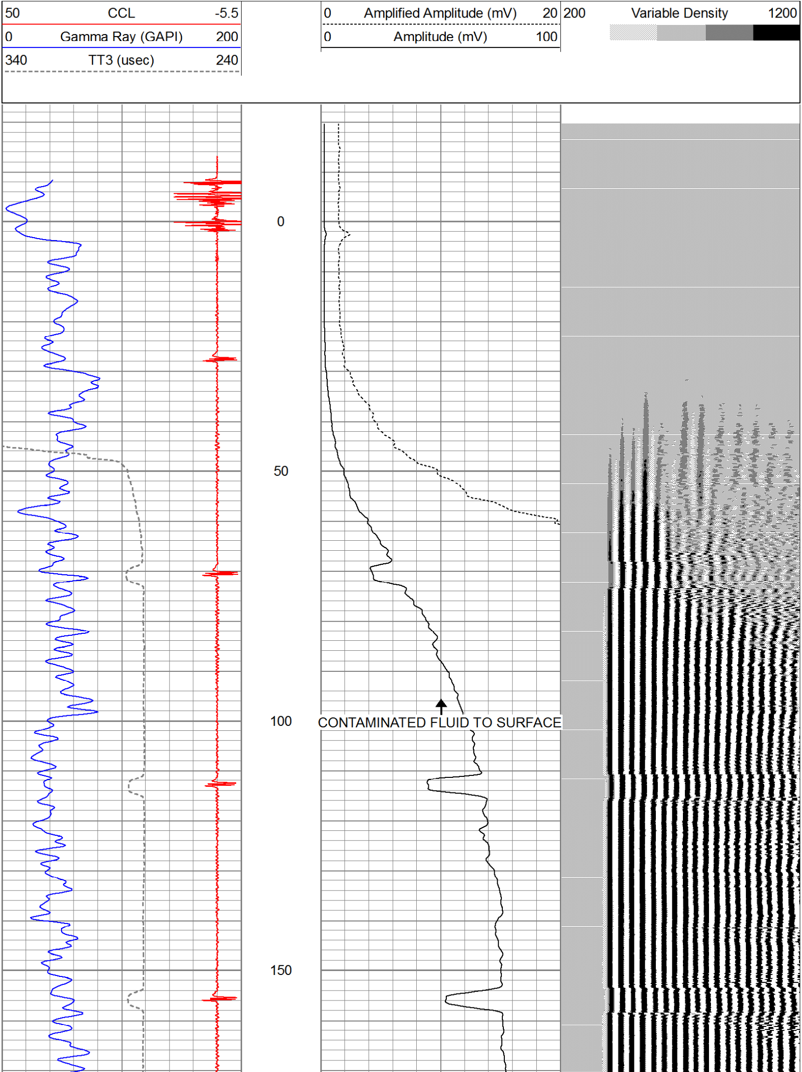
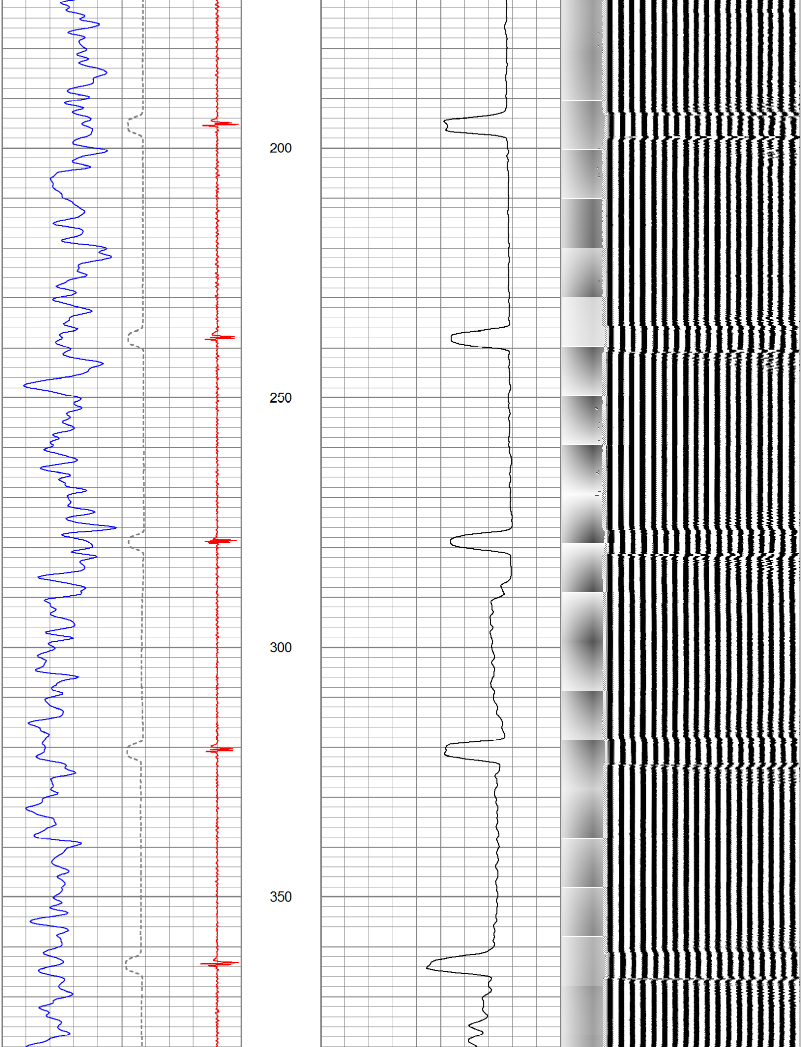
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

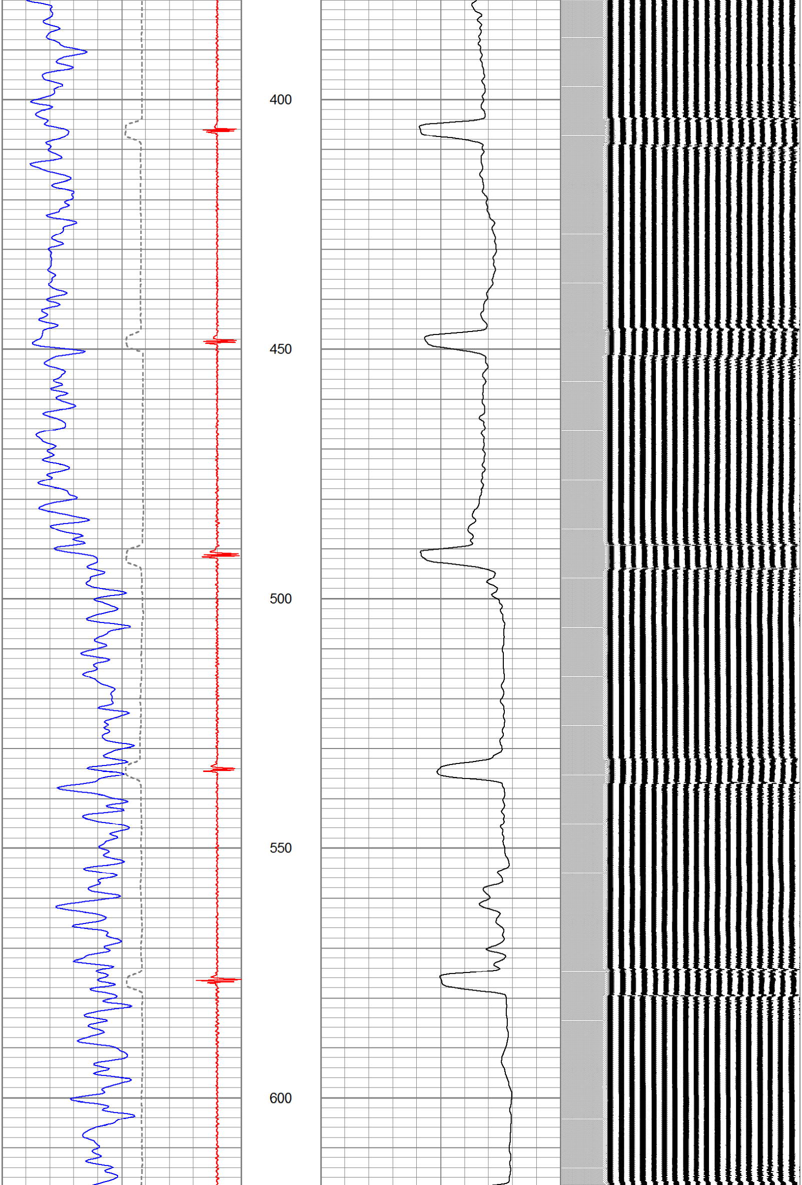
Comments

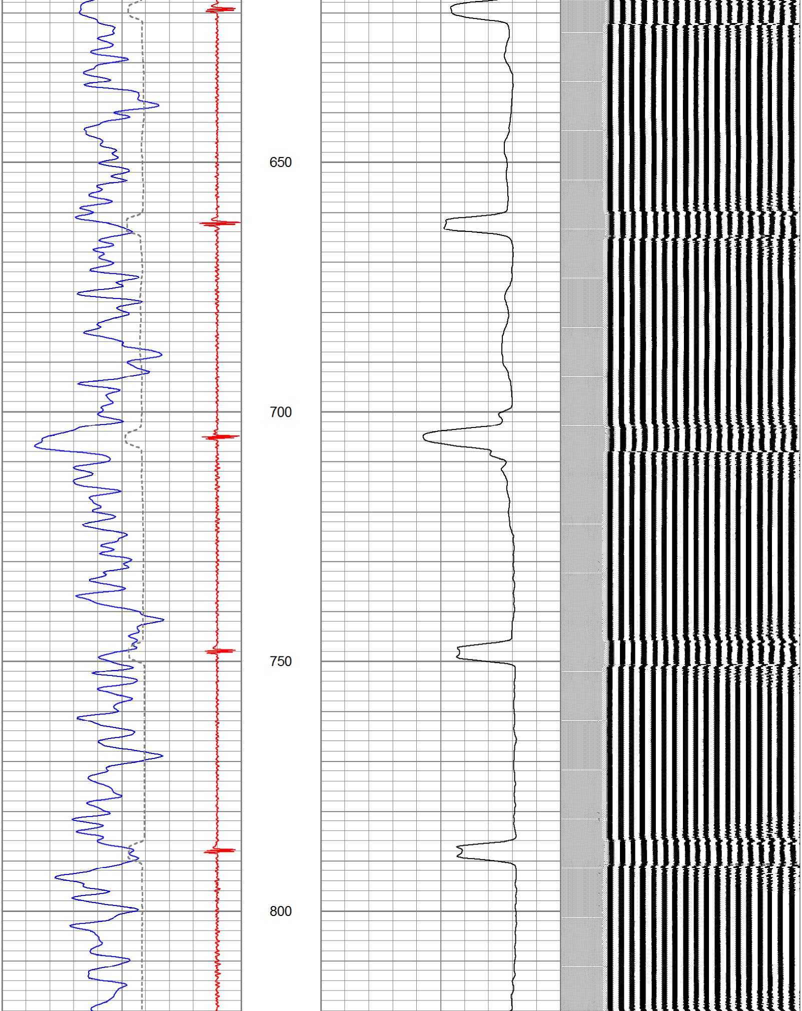
THANK YOU FOR CHOOSING CHS!!!!
LOG CORRELATED TO ADI CEMENT BOND LOG DATED 11-JAN-94

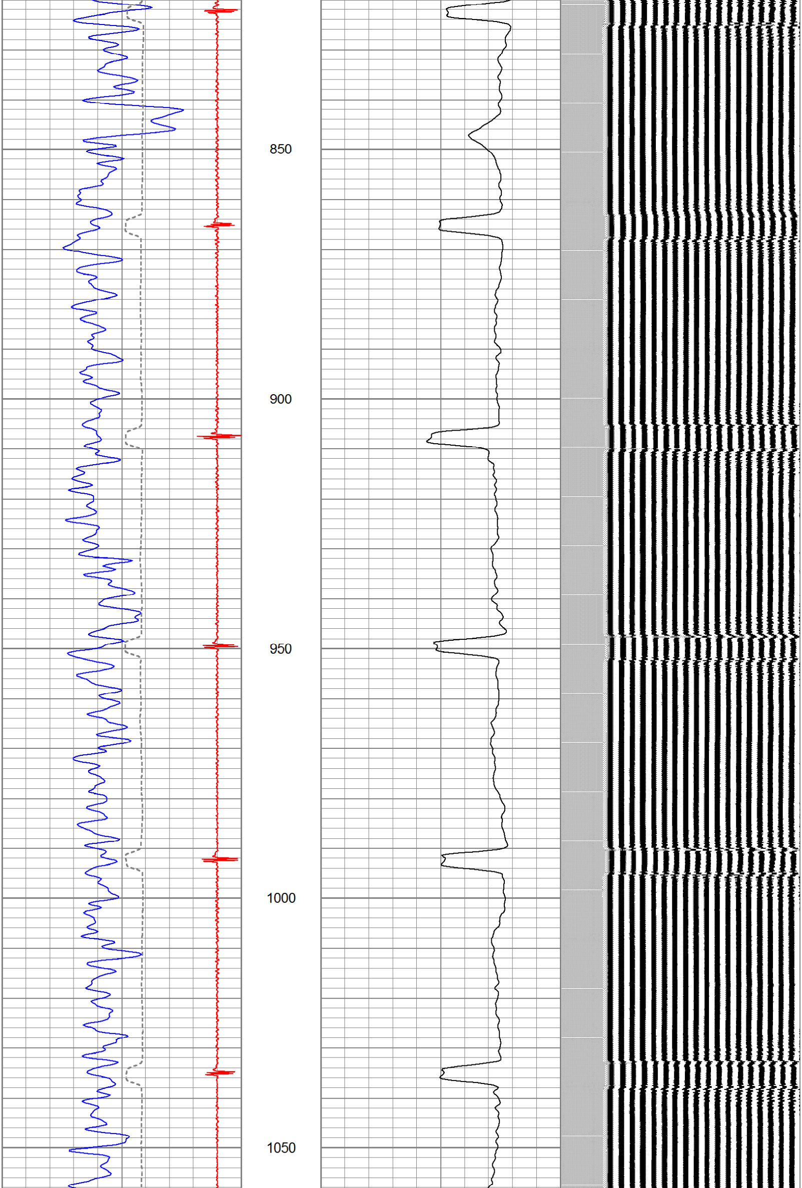
Database File:	cbl noble riter c18-16.db
Dataset Pathname:	pass3
Presentation Format:	sec 3-5
Dataset Creation:	Mon Mar 11 09:30:43 2019 by Log 7.0 B1
Charted by:	Depth in Feet scaled 1:240

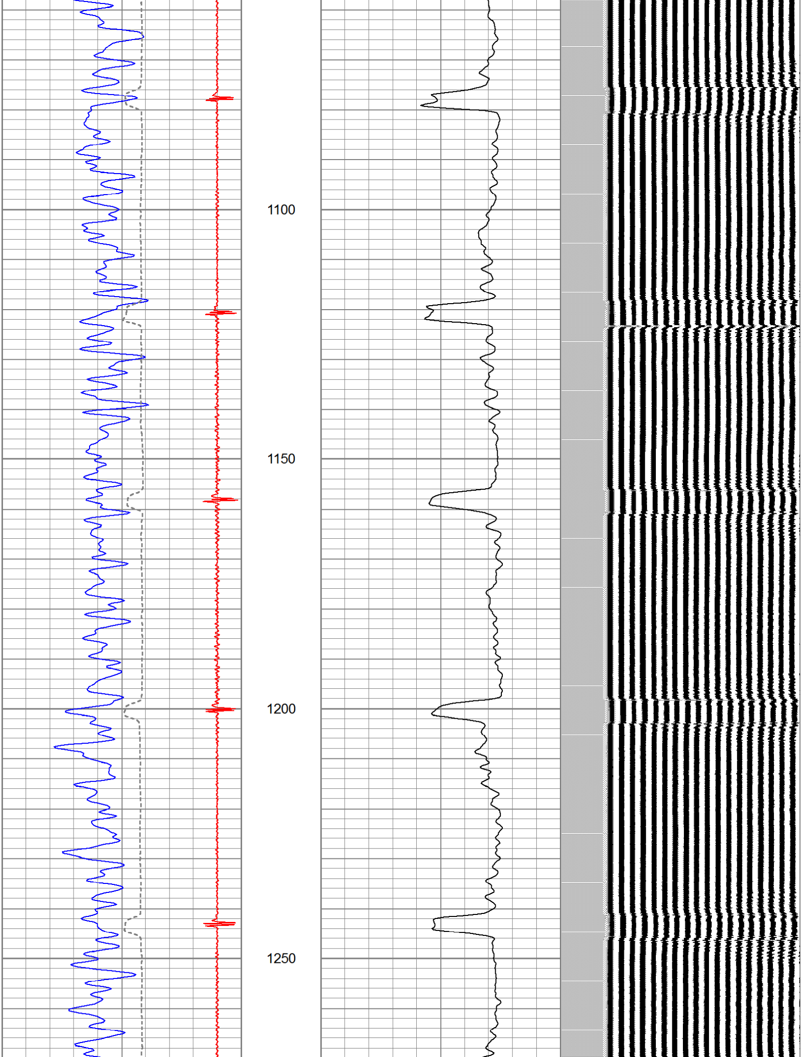


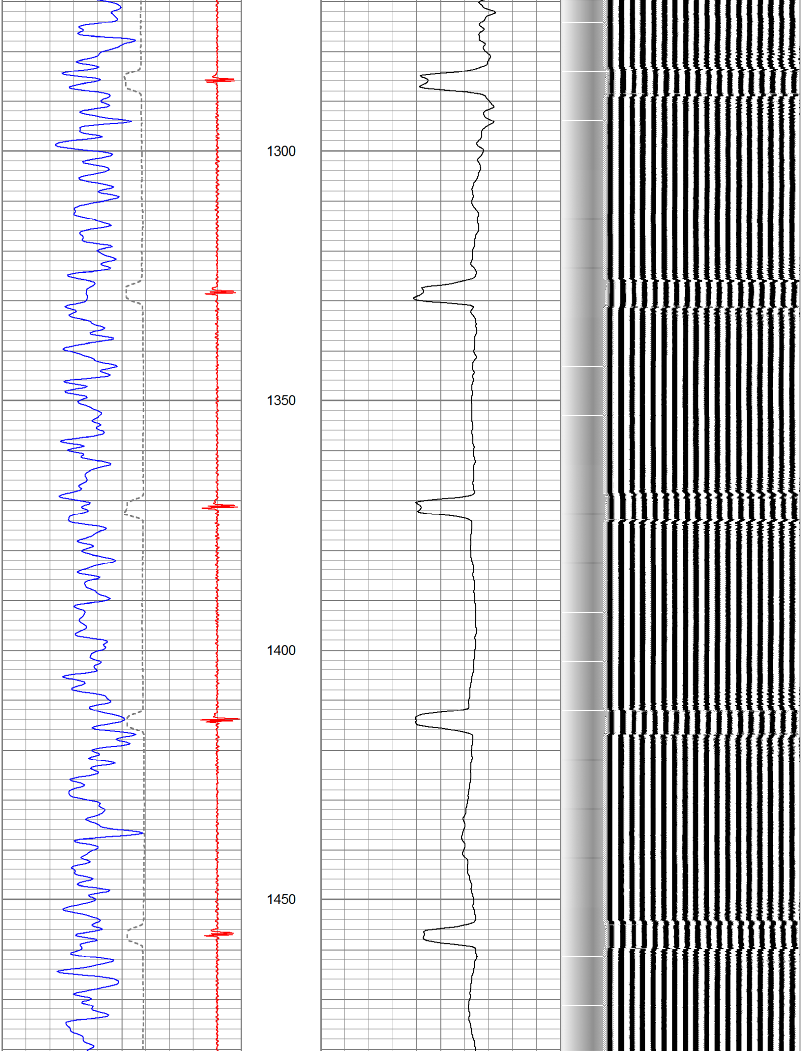


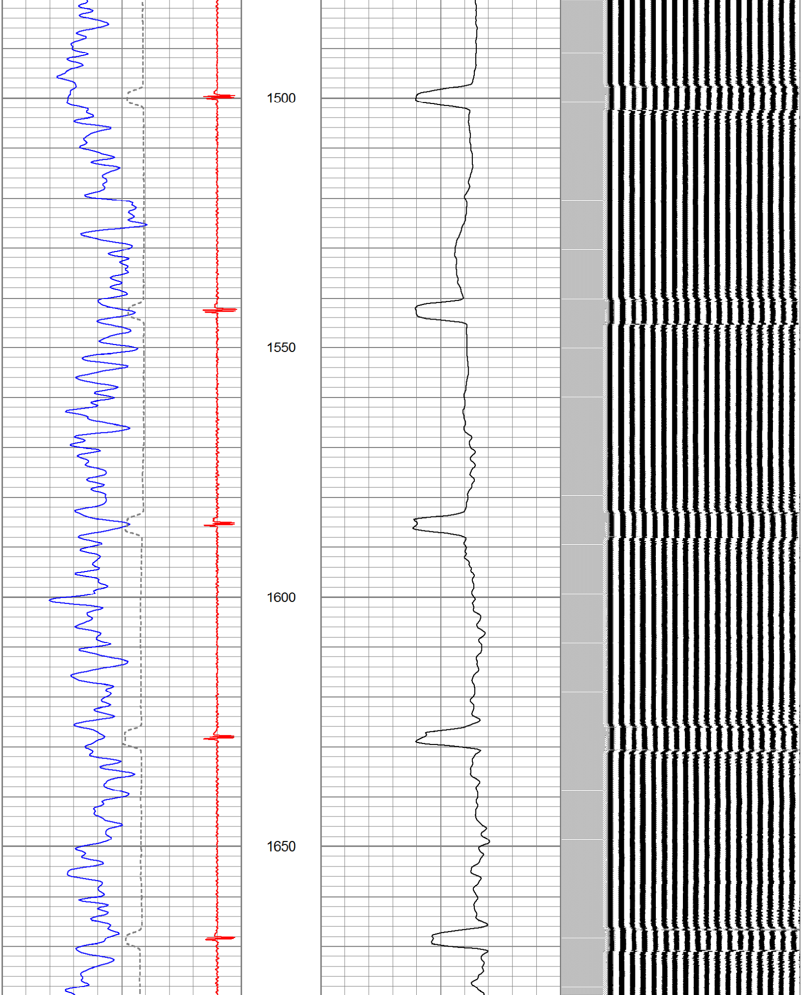


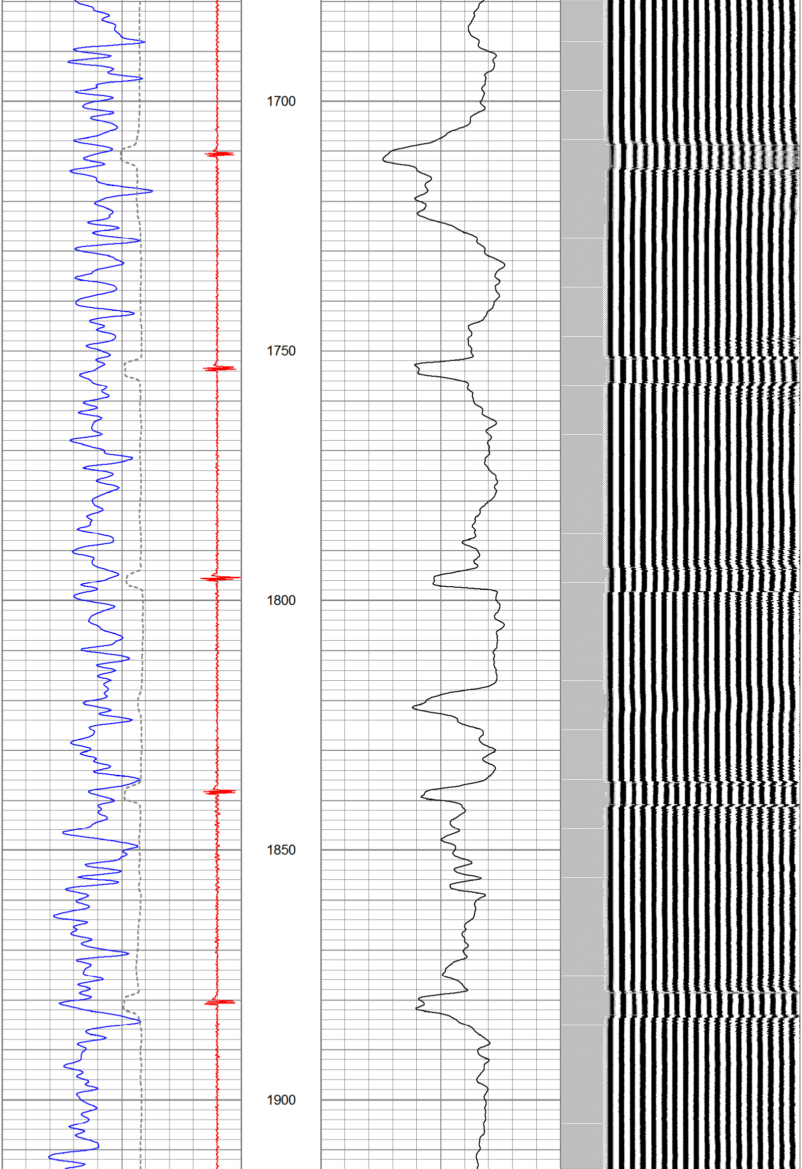


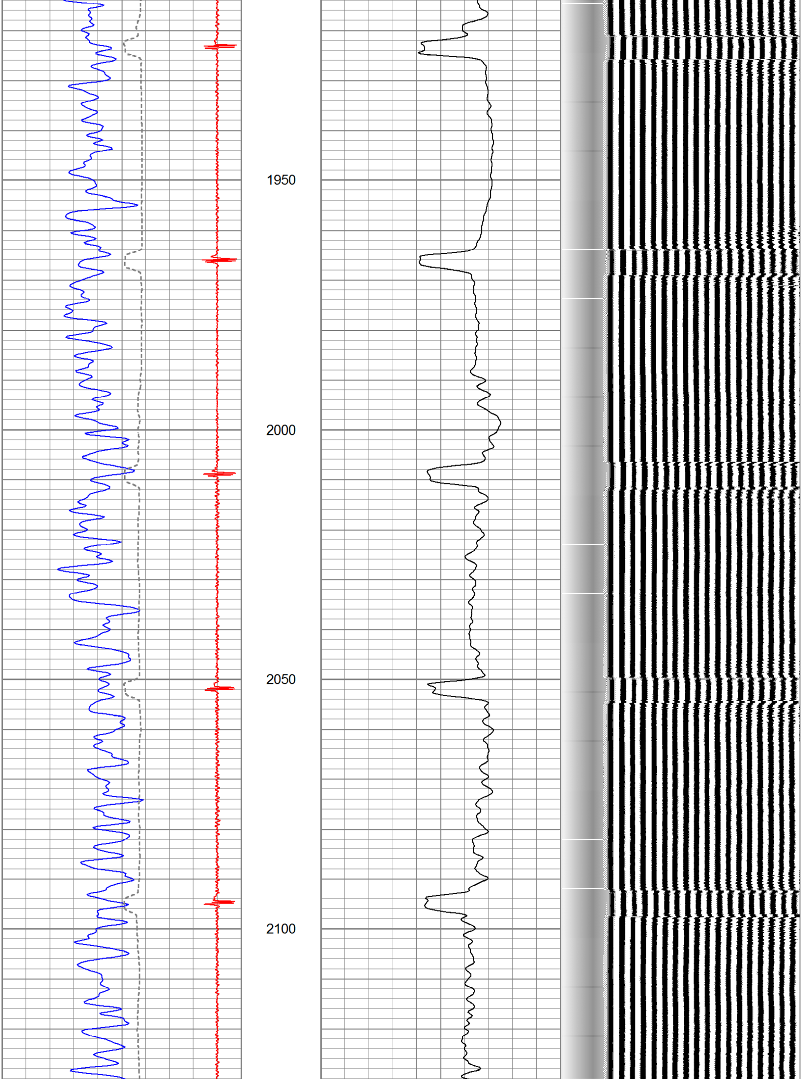


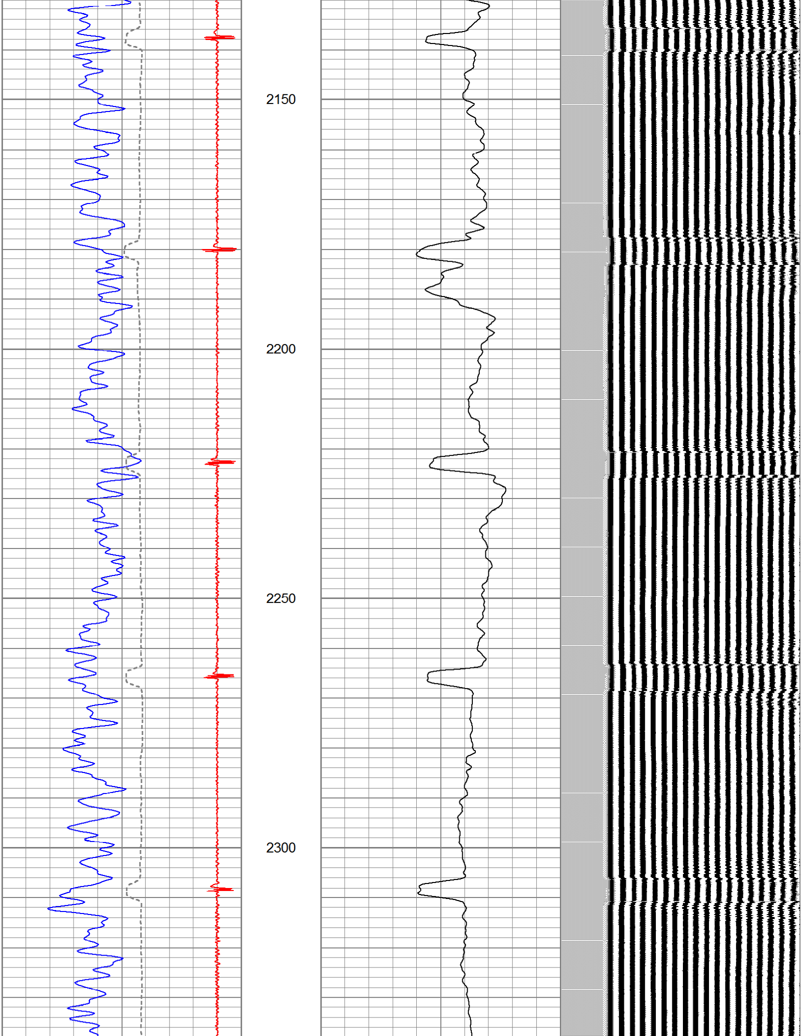


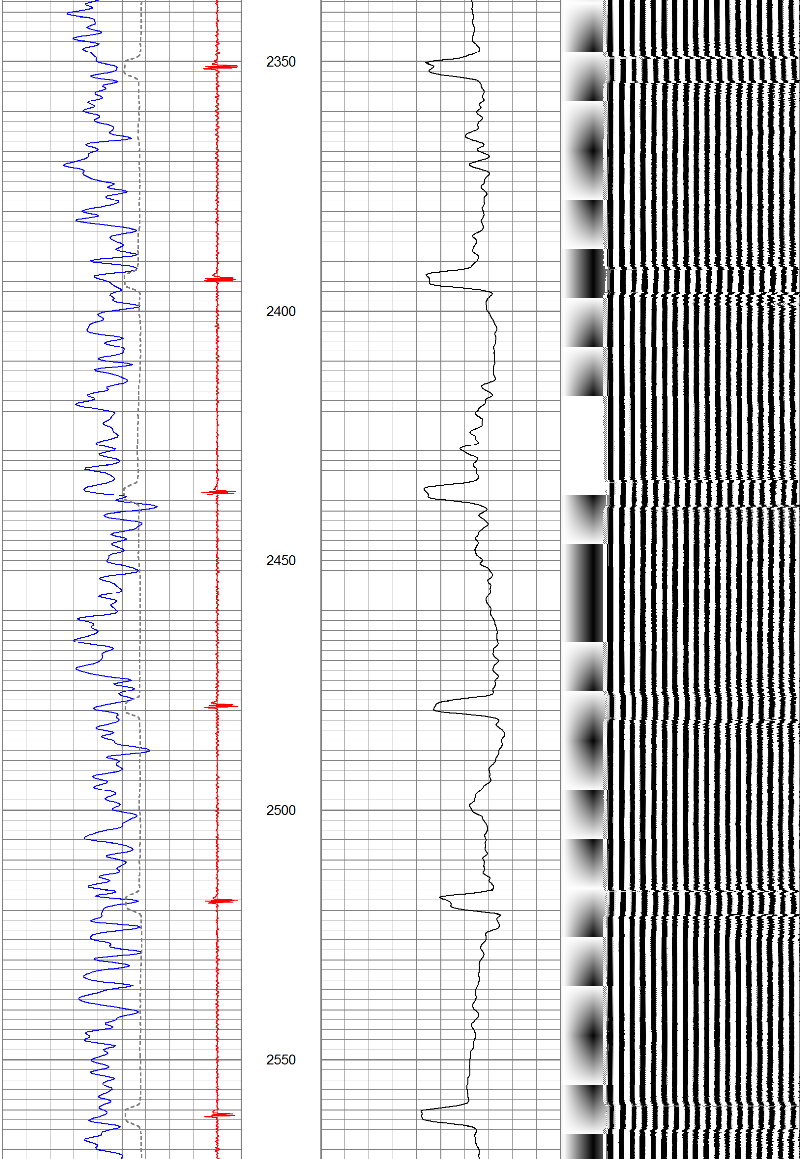


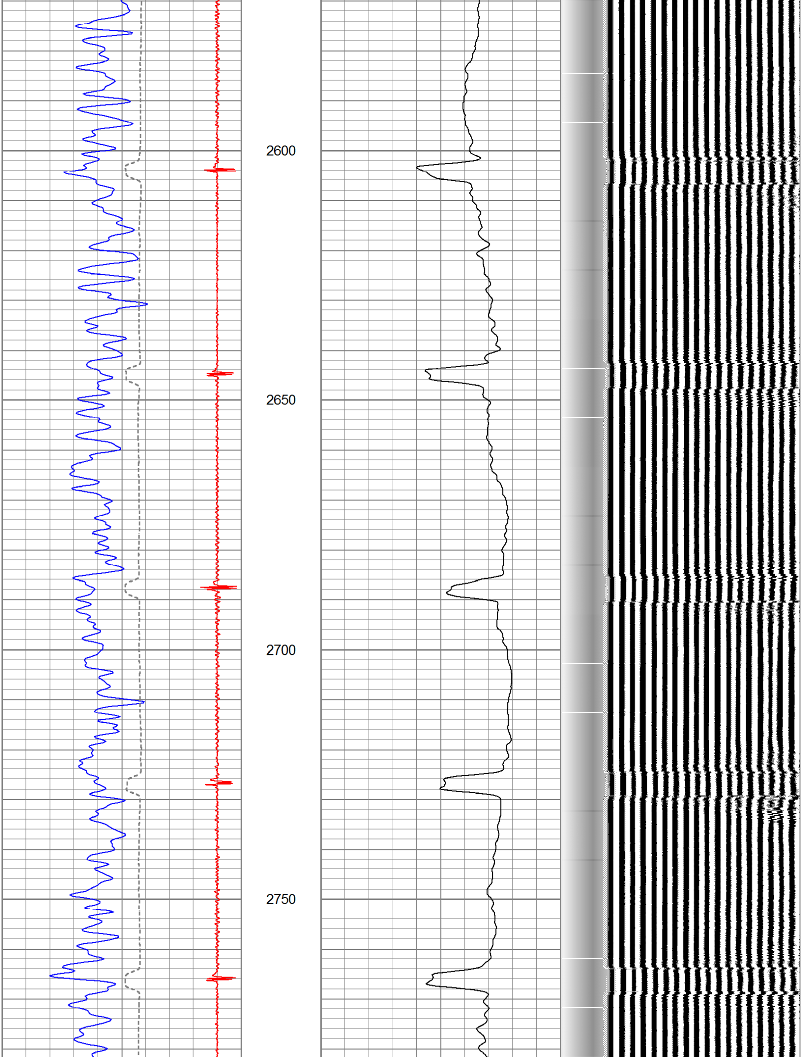


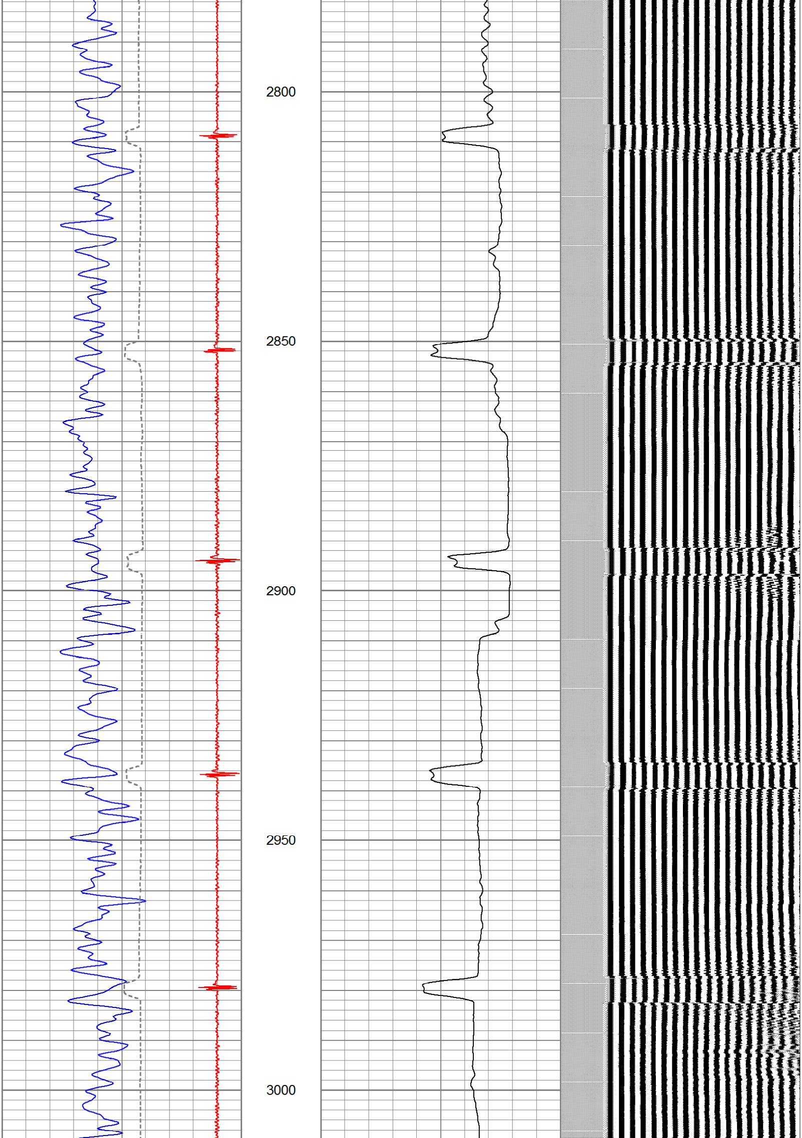


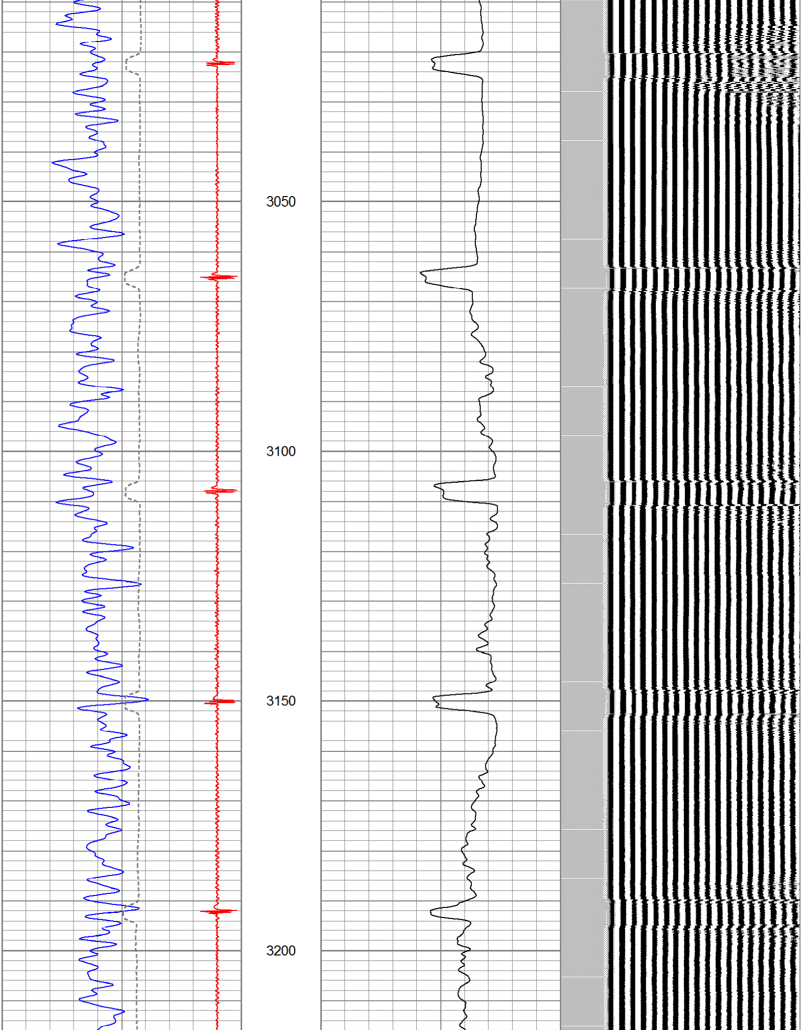


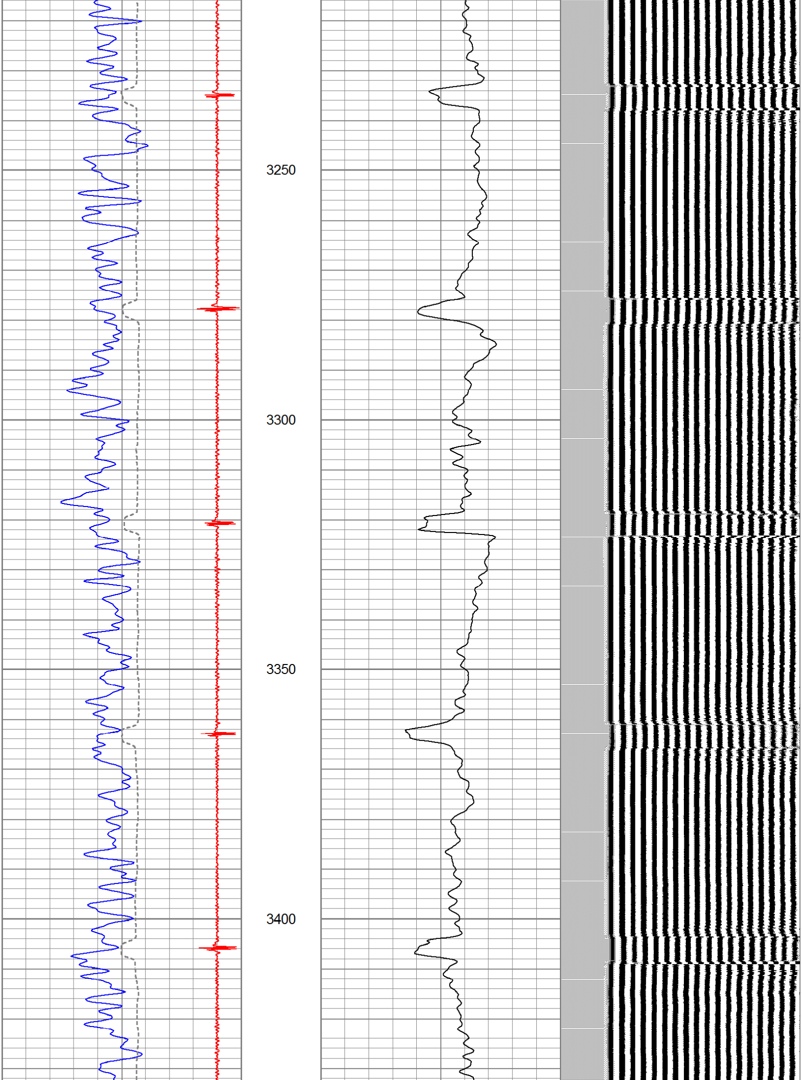


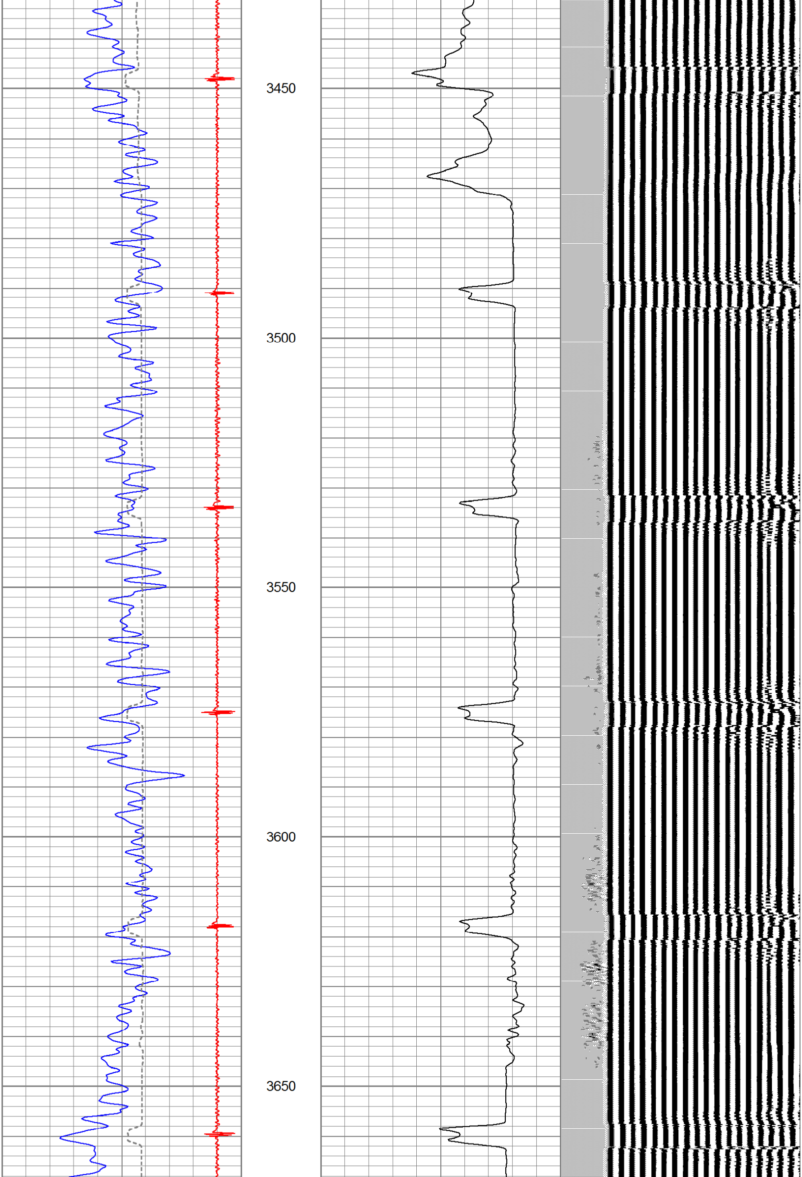


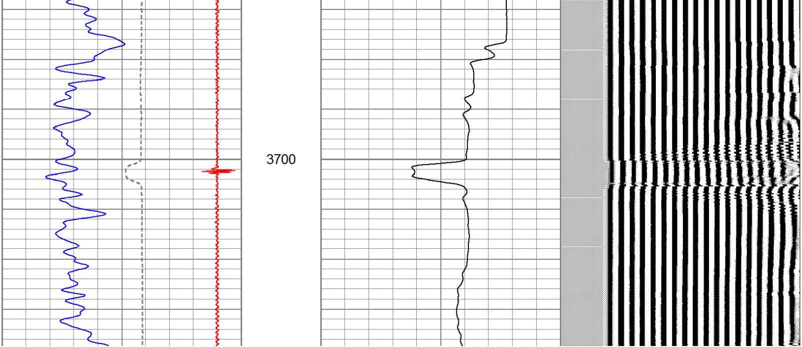


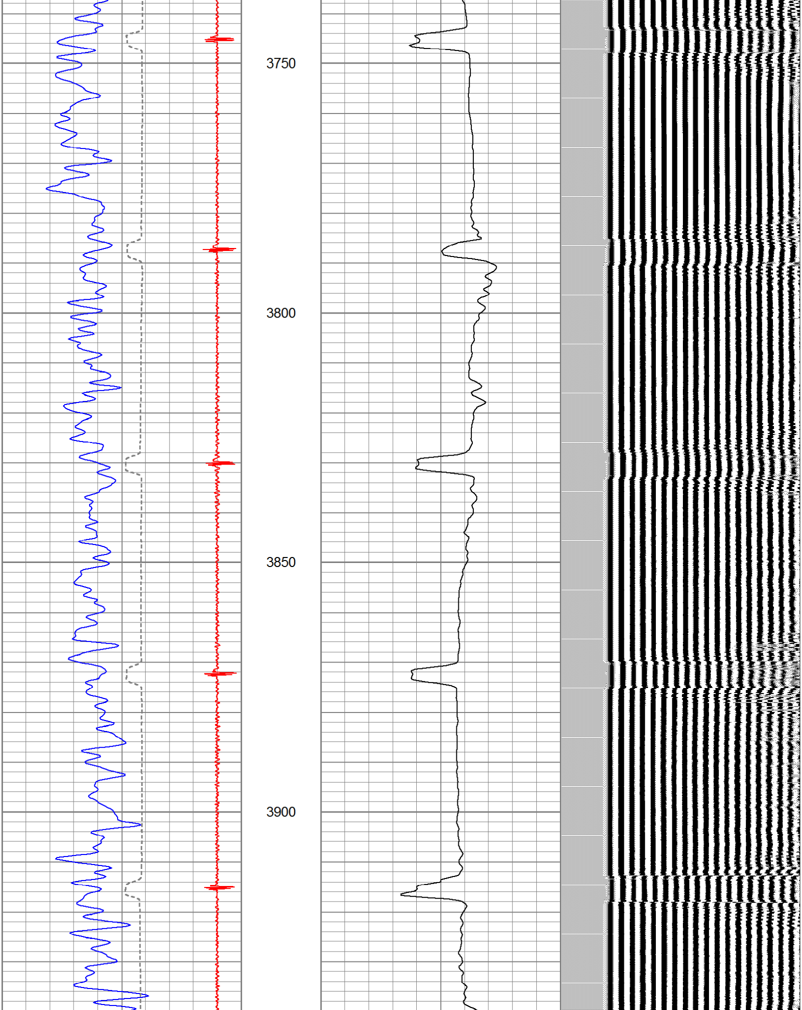


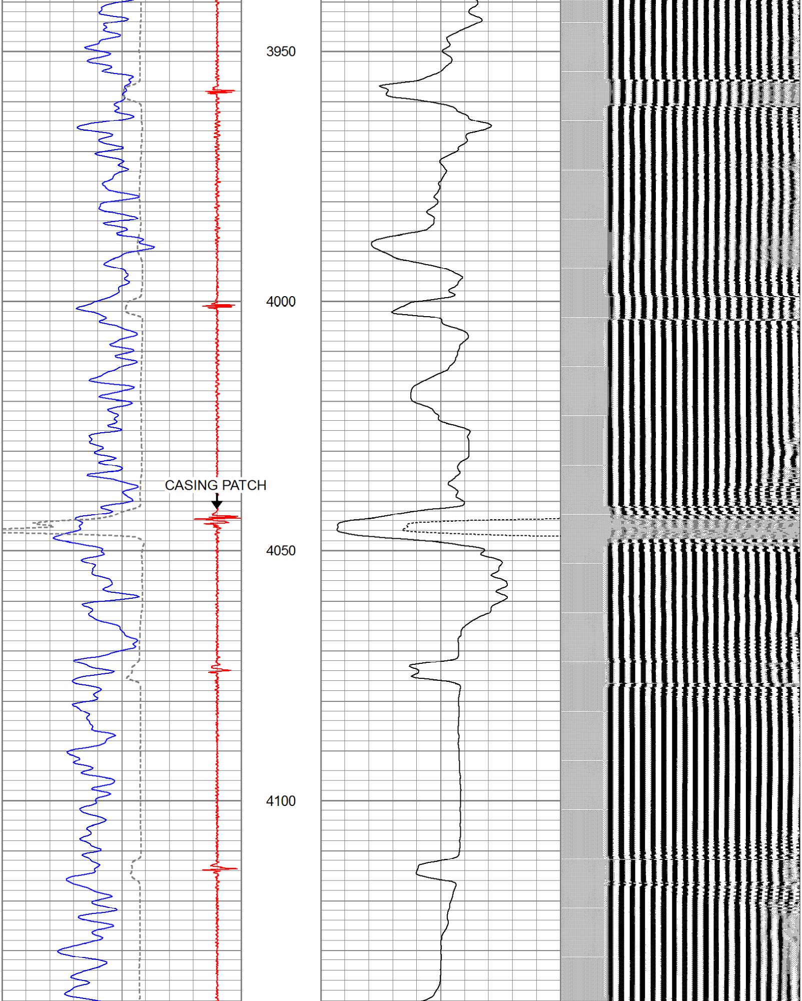


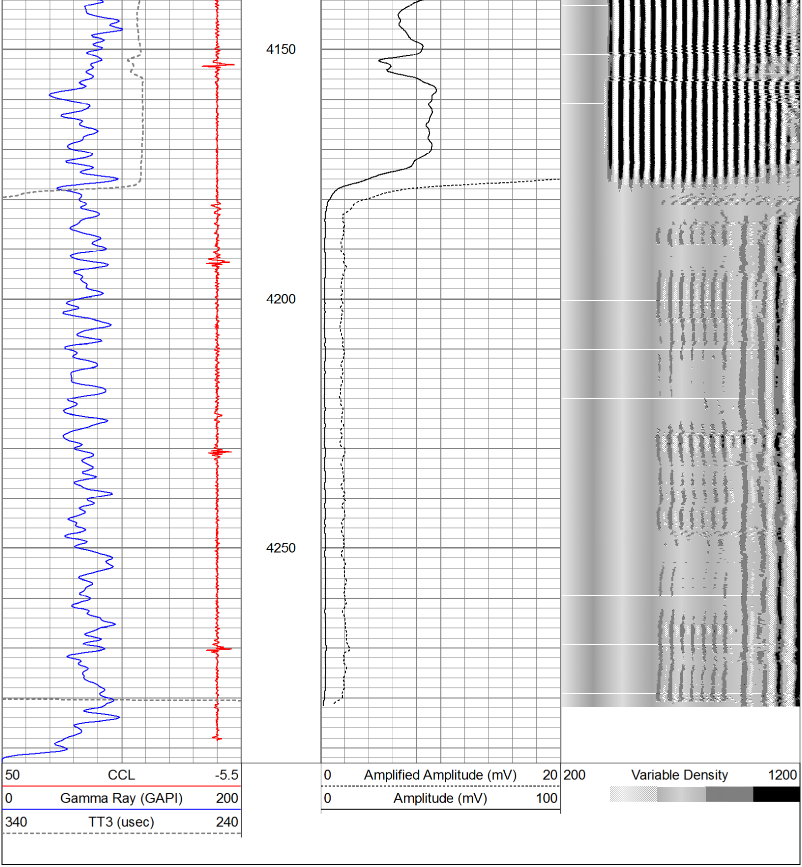












Calibration Report

Database File:	cbl noble riter c18-16.db
Dataset Pathname:	pass3
Dataset Creation:	Mon Mar 11 09:30:43 2019 by Log 7.0 B1

Gamma Ray Calibration Report

Type / Serial: Probe275dig / 110785

SHOP CALIBRATION

Fri Oct 26 07:37:47 2018

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		0.6800			GAPI/cps

PRIMARY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

BEFORE SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

AFTER SURVEY VERIFICATION

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Segmented Cement Bond Log Calibration Report

Serial Number:	101020	
Tool Model:	Probe	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	268.617	ft

Master Calibration, performed Mon Mar 11 09:20:07 2019:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	1.500	1.500	81.196	53.410	1.090
CAL	0.008	0.465				
5'	0.007	1.439	1.500	81.196	55.686	1.085
SUM						
S1	0.007	1.485	0.000	81.196	54.940	-0.411
S2	0.008	1.503	0.000	81.196	54.307	-0.414
S3	0.008	1.508	0.000	81.196	54.129	-0.408
S4	0.007	1.512	0.000	81.196	53.962	-0.404
S5	0.008	1.513	0.000	81.196	53.937	-0.405
S6	0.007	1.492	0.000	81.196	54.688	-0.406
S7	0.008	1.491	0.000	81.196	54.736	-0.417
S8	0.007	1.487	0.000	81.196	54.858	-0.403

Internal Reference Calibration, performed Fri Jan 13 14:30:16 2012:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.008	0.465	1.000	0.000

Air Zero Calibration, performed Mon Mar 11 09:14:03 2019:

	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