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Cement Bond Log

Company	Extraction Oil and Gas
Well	MLD 10
Field	Wattenberg
County	Weld
State	Colorado

Company Extraction Oil and Gas
Well MLD 10
Field Wattenberg
County Weld State Colorado

API # : 05-123-44817
Location: NW/NW
801 FNL
548 FWL

Other Services

SEC: 22 TWP: 4N RGE: 68W

Elevation
K.B. 4900
D.F. 4899
G.L. 4875

Permanent Datum: Ground Level Elevation: 4875
Log Measured From: Kelly Bushing , 25 ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	26 Sept 2017	
Run Number	One	
Plug Back T.D. Driller	----	
Plug Back T.D. Logger	-----	
Bottom Logged Interval	6670	
Top Log Interval	Surface	
Type Fluid	Water	
Density / Viscosity	----	
Max. Recorded Temp.	218	
Time Logger on Bottom	11:30	
Equipment Number	GD114	
Location	Casper	
Recorded By	GS Yarbro	
Witnessed By	Mr. Stephens	

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8	36	0	1500				
5 1/2	20	0	11492				

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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.

Ticket # : RM0917WLOW655
Your Crew Today: Carpenter, Kennicker
Log Correlated to: Surface

Cement Data	
Date Cemented	----
Primary / Squeeze	Primary
Type / Weight	----
Main Pass Press.	Zero
Repeat Pass Press.	Zero

Bond Index

Index %	Est Top Depth
20 % Bond	328
40 % Bond	474
60 % Bond	1238
80 % Bond	3258
100 % Bond	6444

Comments

Estimated Top of Cement
(20% Bond Index) @ 328

Thank you for using Gyrodata

Eric Regnier: Rocky Mountain Wireline Manager EricR@Gyrodata.com

Log Variables

Databased:\warrior\data\2017-09-25_extrac_mld10_cbl\2017-09-25_extrac_mld10_cbl.db
Dataset field/well/run1/pass3.1/_vars_

Top - Bottom

BHTEMP_Src	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	CASEWGHT lb/ft	MAXAMPL mV	MaxAPIID in
TEMP	8.5	100	5.5	0.361	20	71.9	4.923
MaxAPIWall in	**MINAMPL mV**	**MinAPIID in**	**MINATTN db/ft**	**PPT usec**			
0.361	1.9	4.751	0	239			

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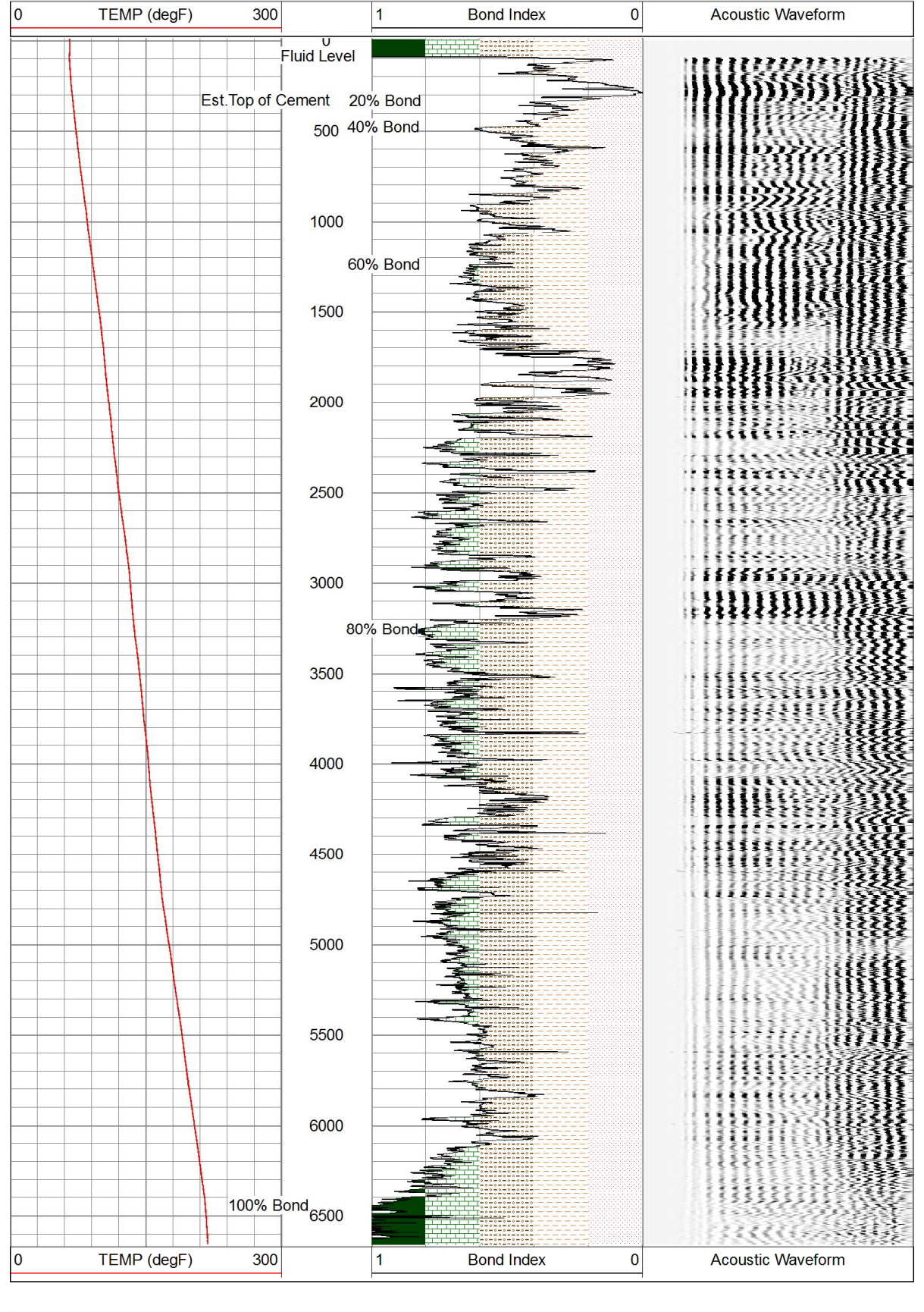
BOND INDEX

Database File 2017-09-25_extrac_mld10_cbl\2017-09-25_extrac_mld10_cbl.db
Dataset Pathname ./././bndindx
Presentation Format BONDIN~3
Dataset Creation Tue Sep 26 12:43:17 2017
Charted by Depth in Feet scaled 1:7500



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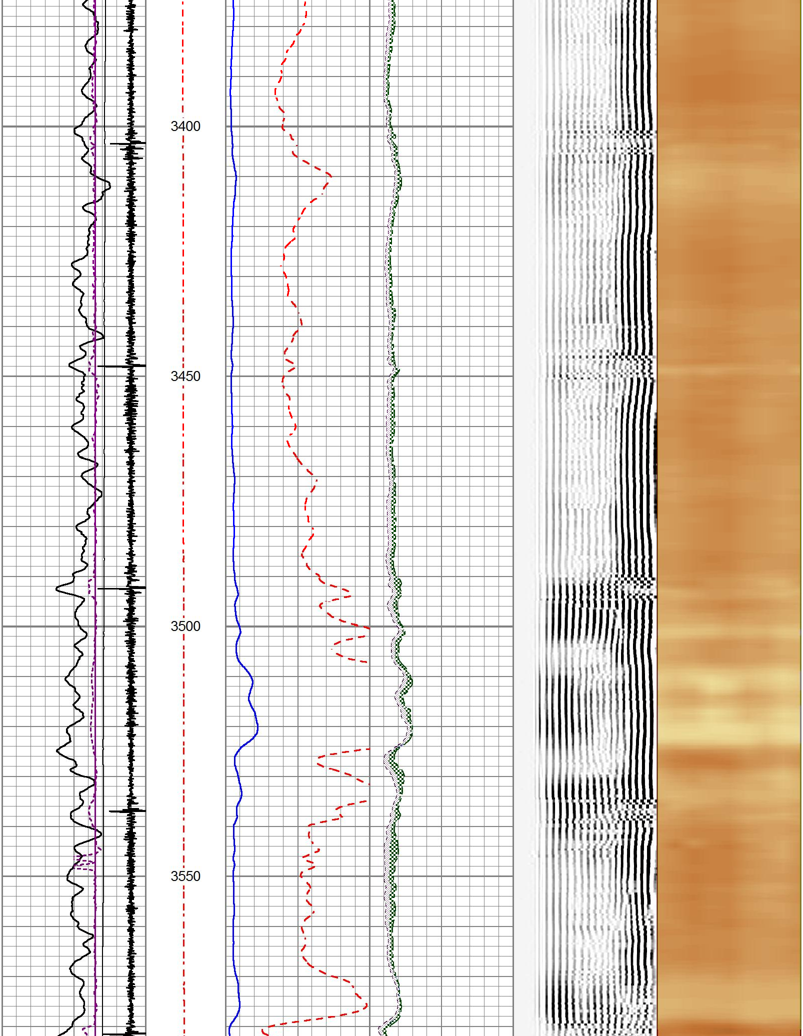
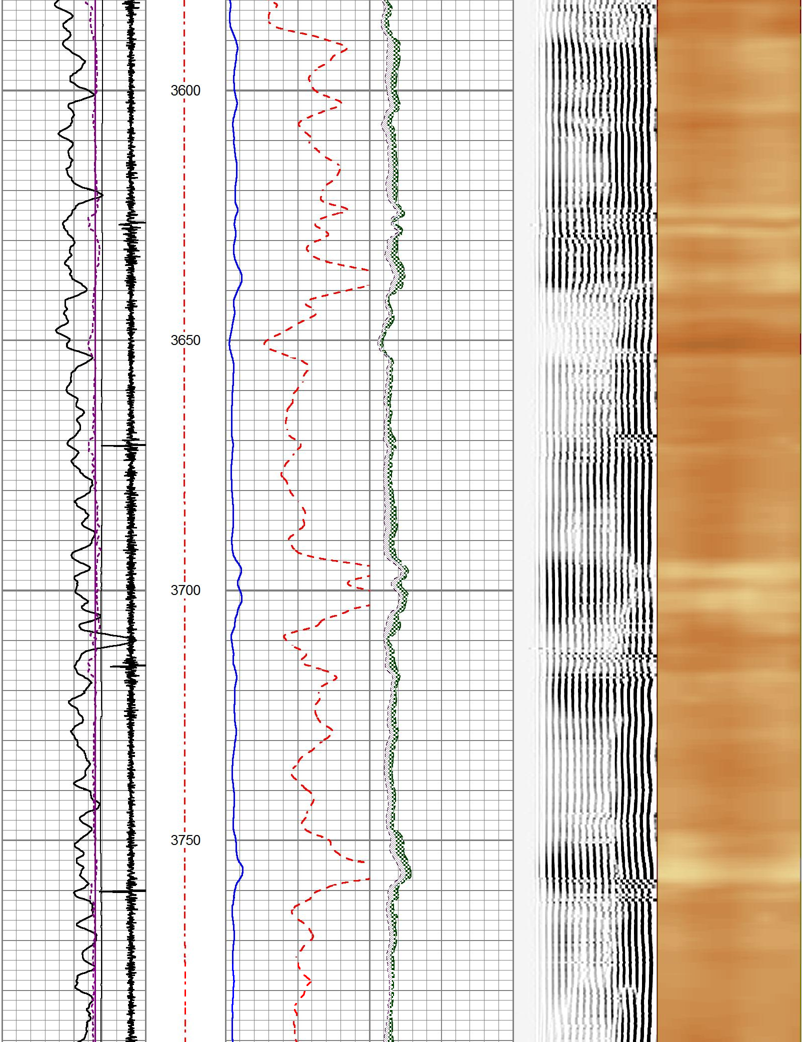
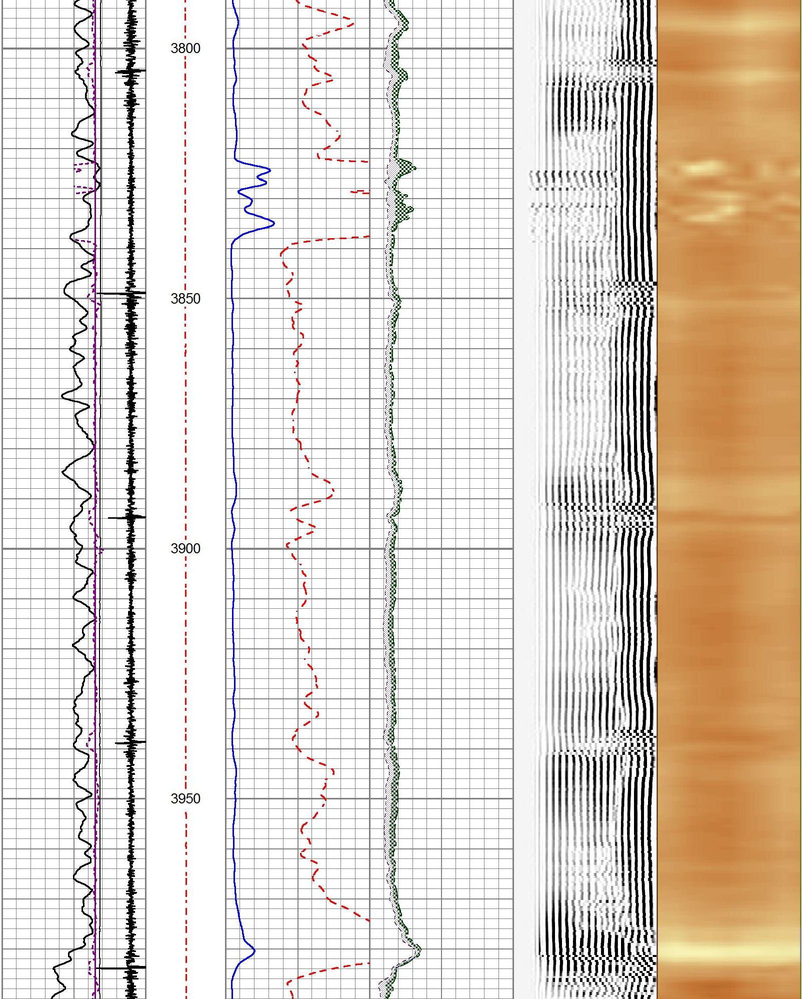
MAIN PASS - Ran with 0 PSI

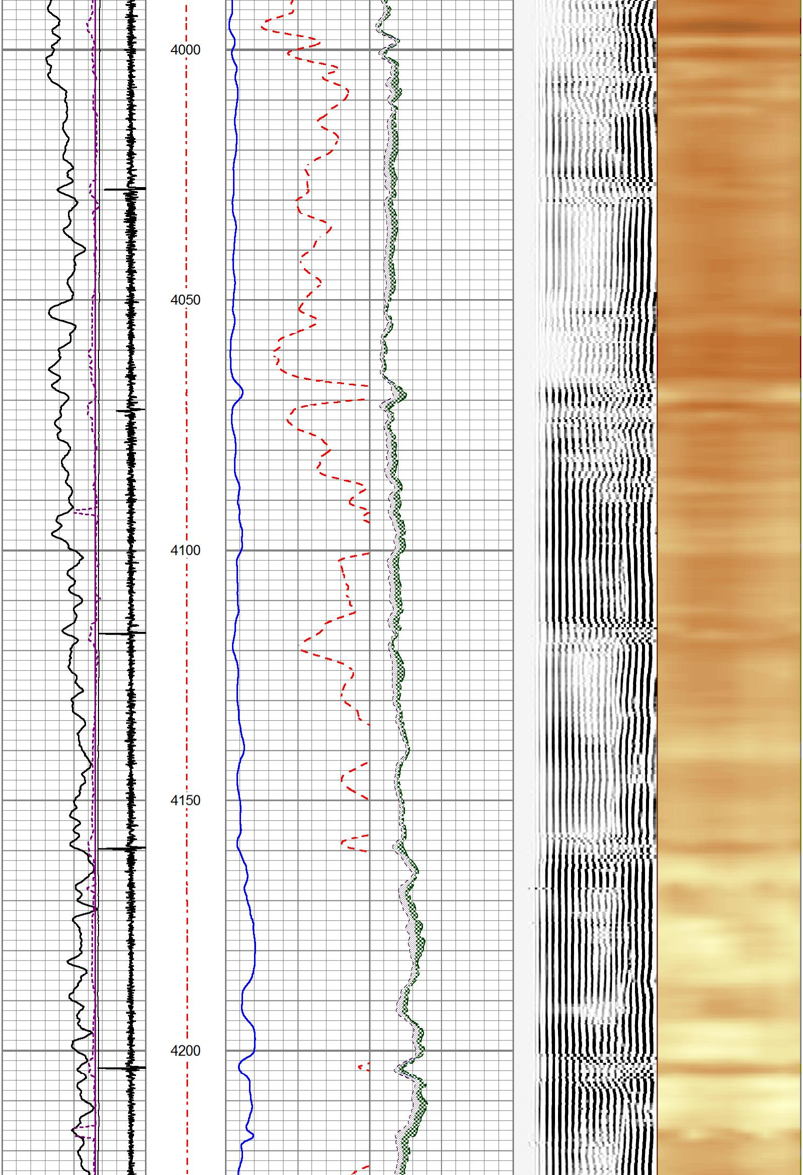
5 in / 100 ft

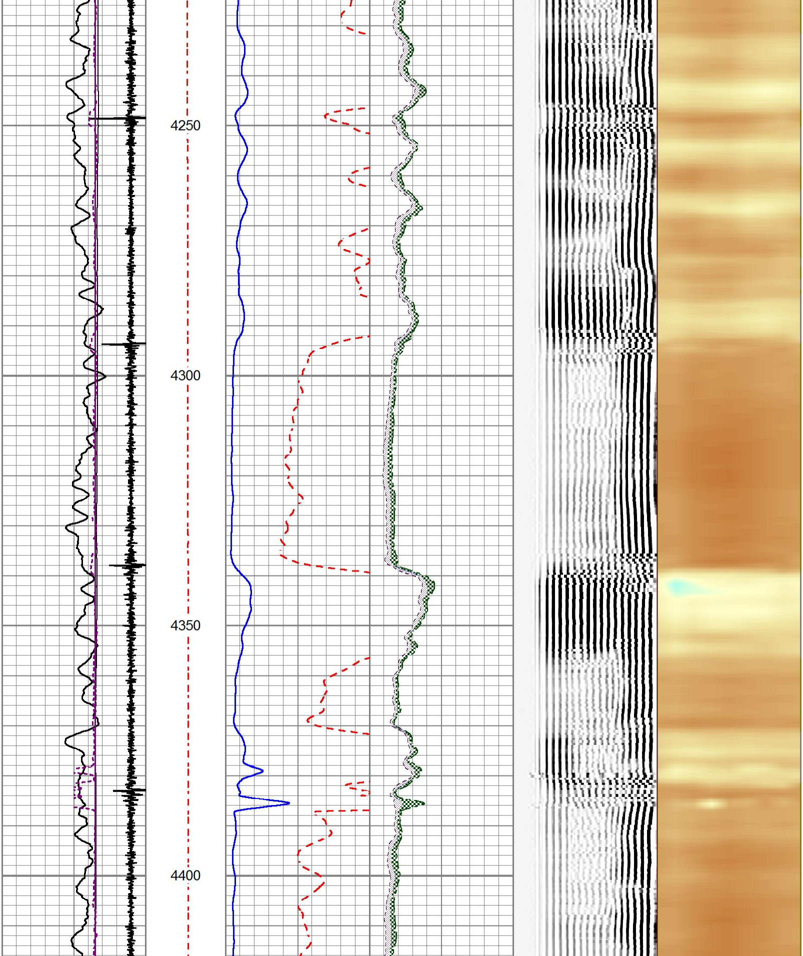
Database File 2017-09-25_extrac_mld10_cbl\2017-09-25_extrac_mld10_cbl.db
Dataset Pathname pass3.1
Presentation Format rcbl_8s
Dataset Creation Tue Sep 26 12:40:21 2017
Charted by Depth in Feet scaled 1:240

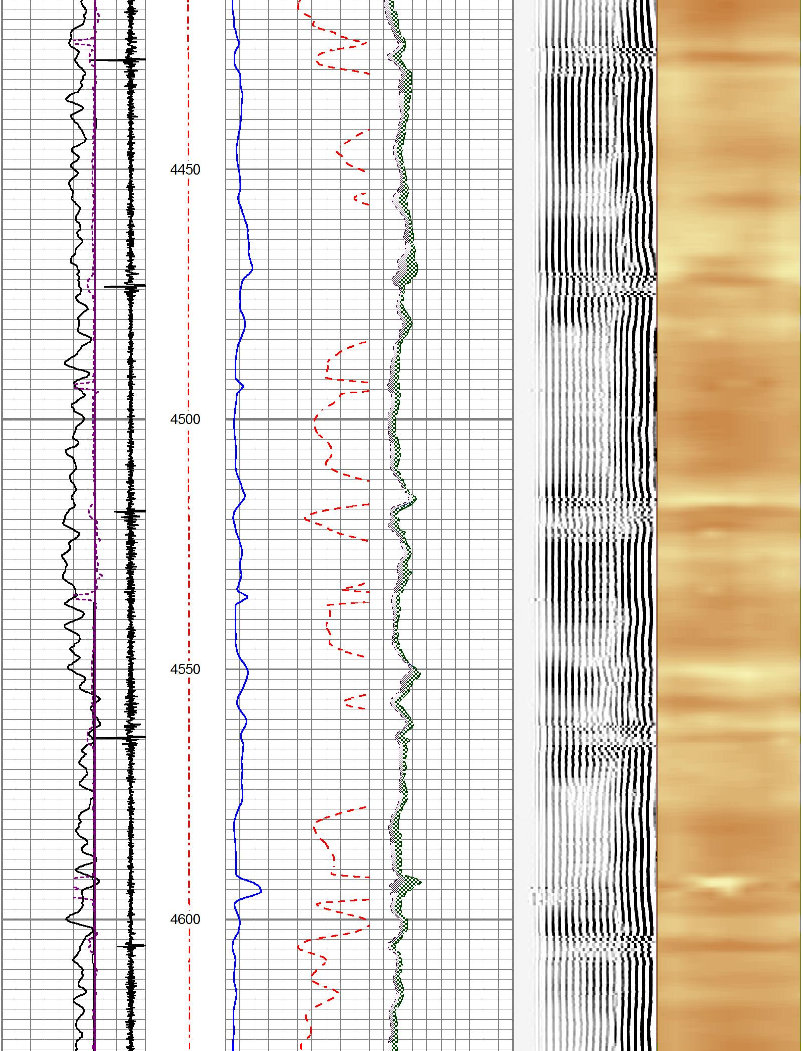


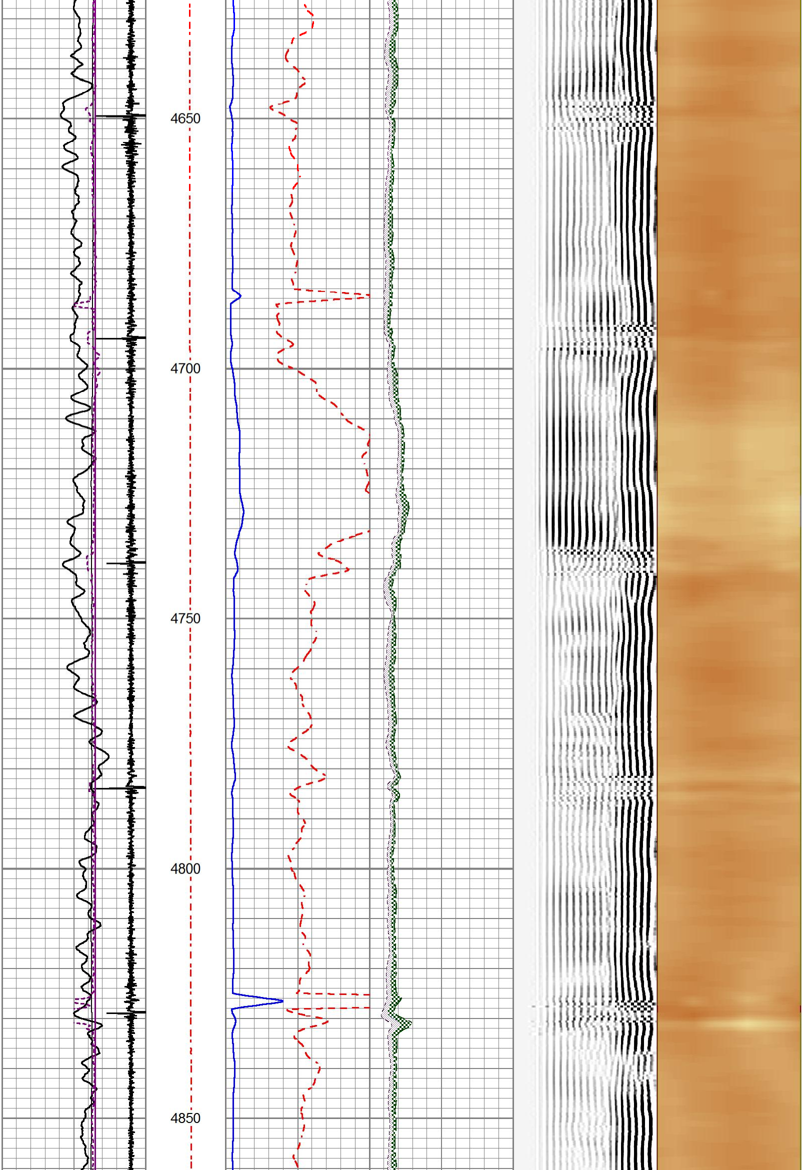


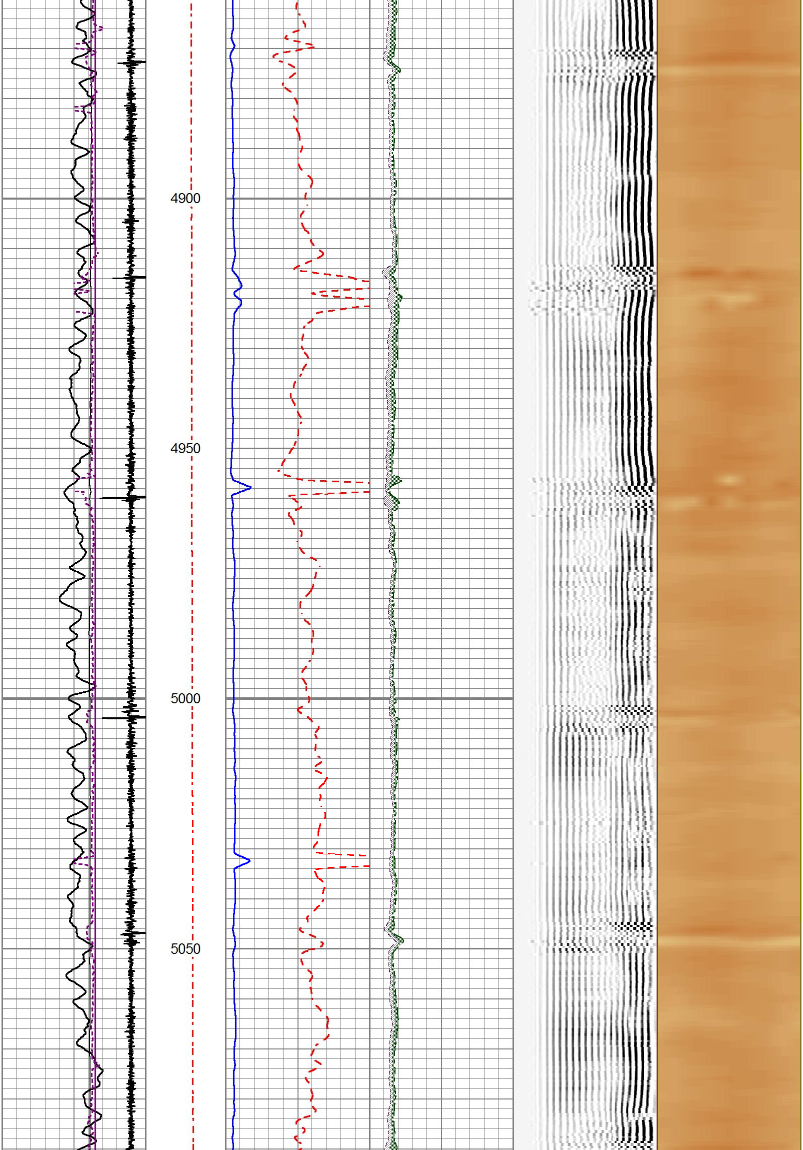


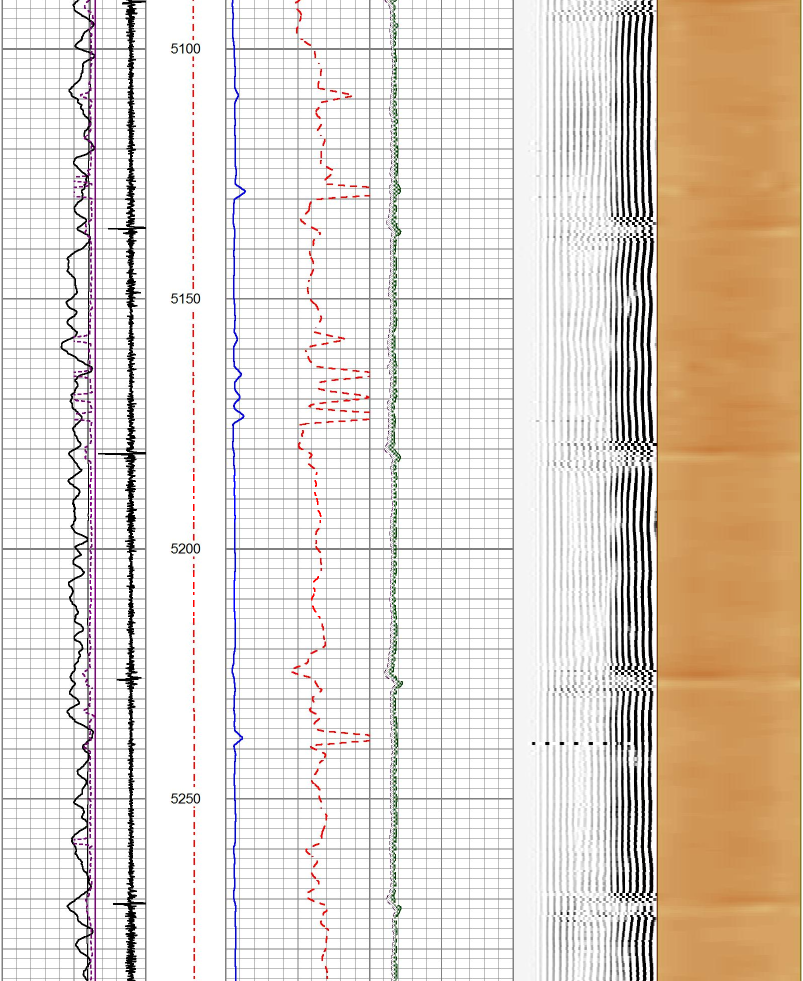


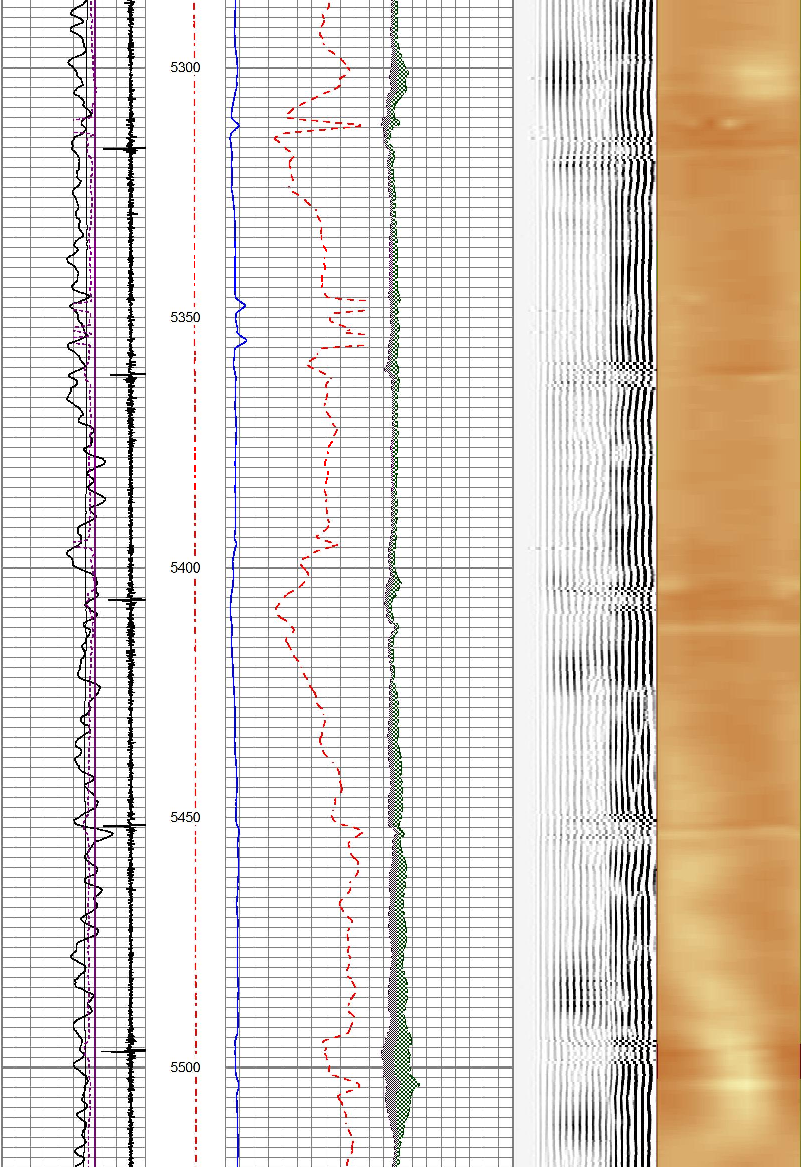


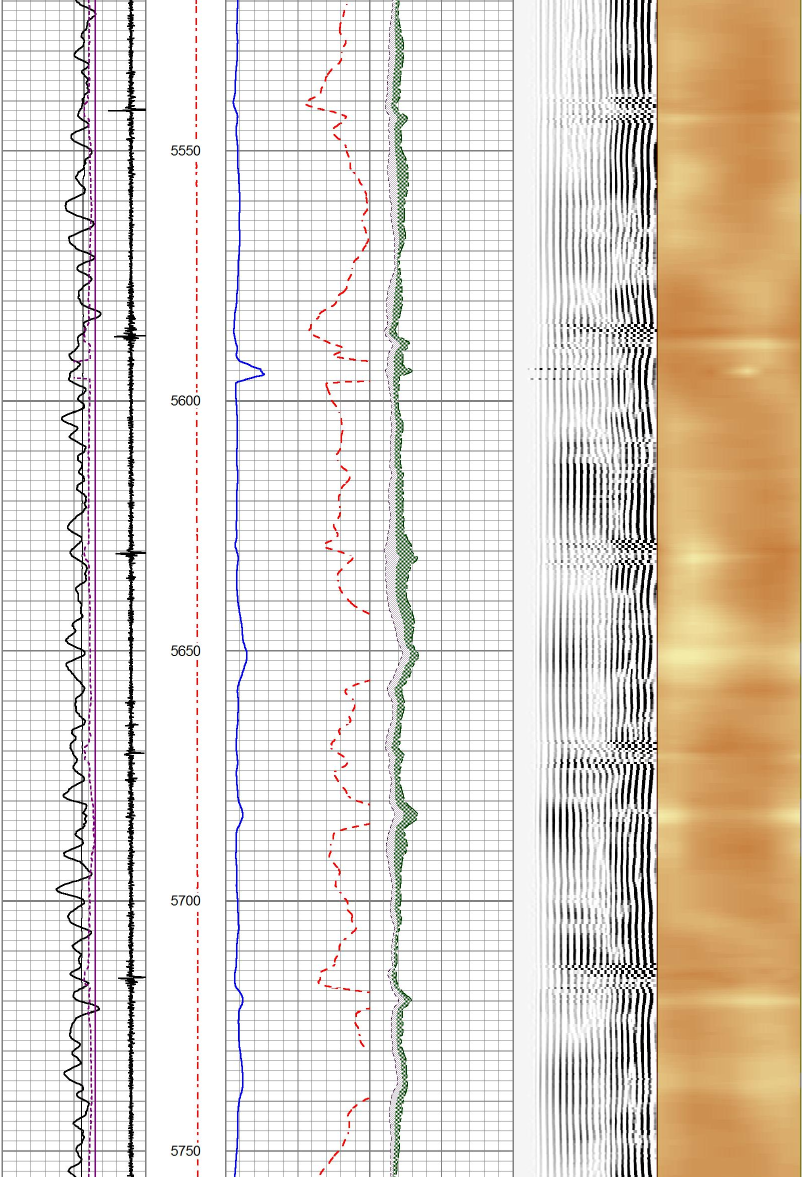


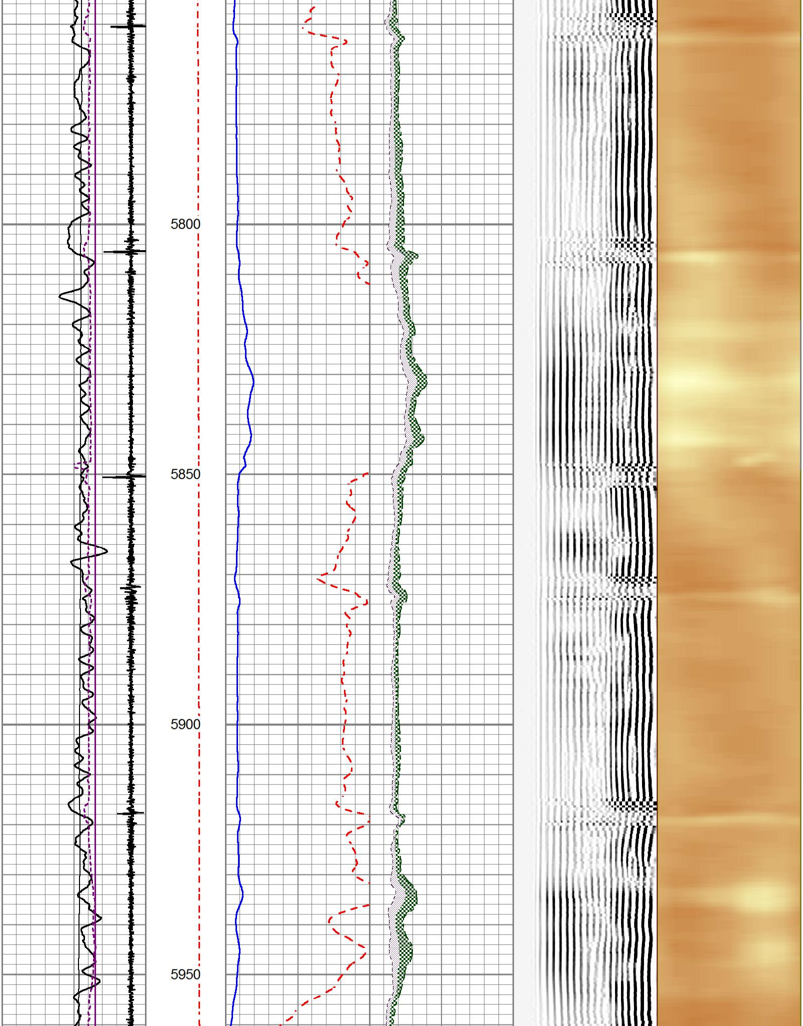


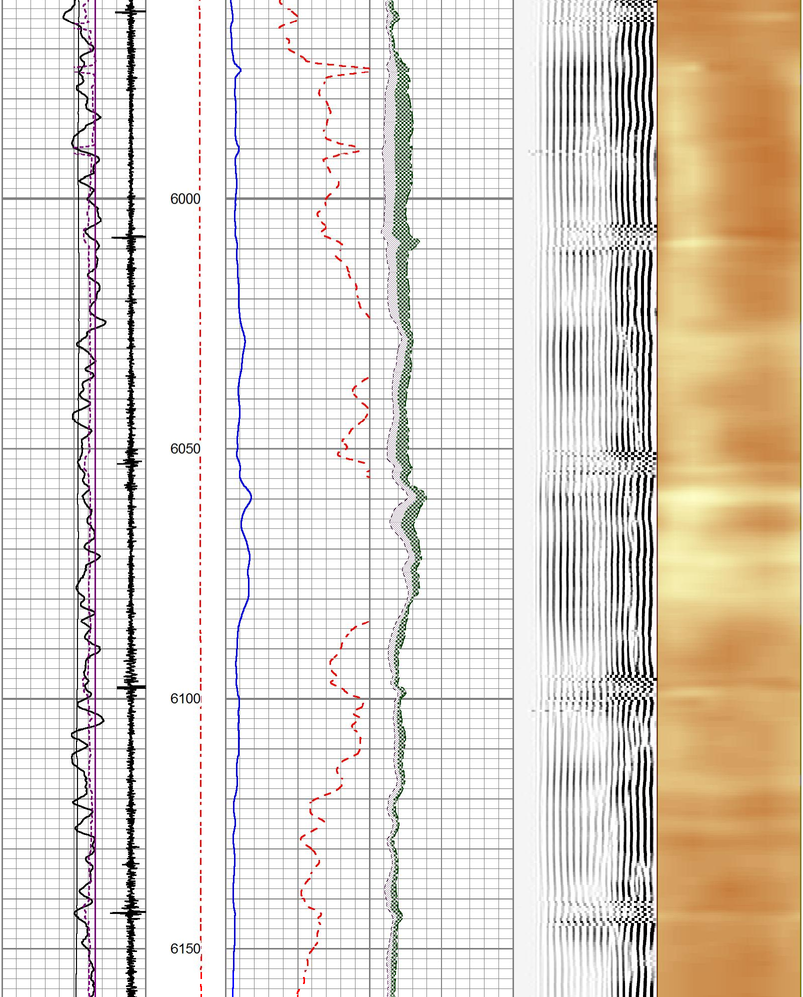


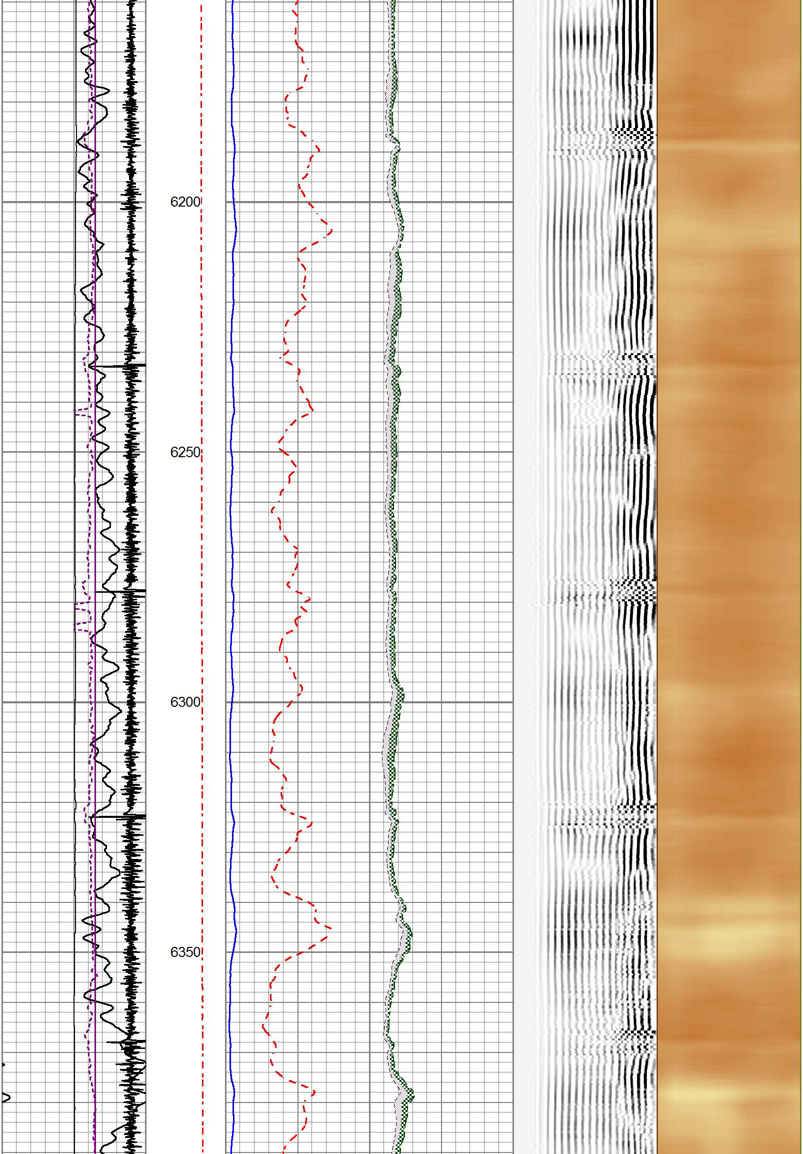


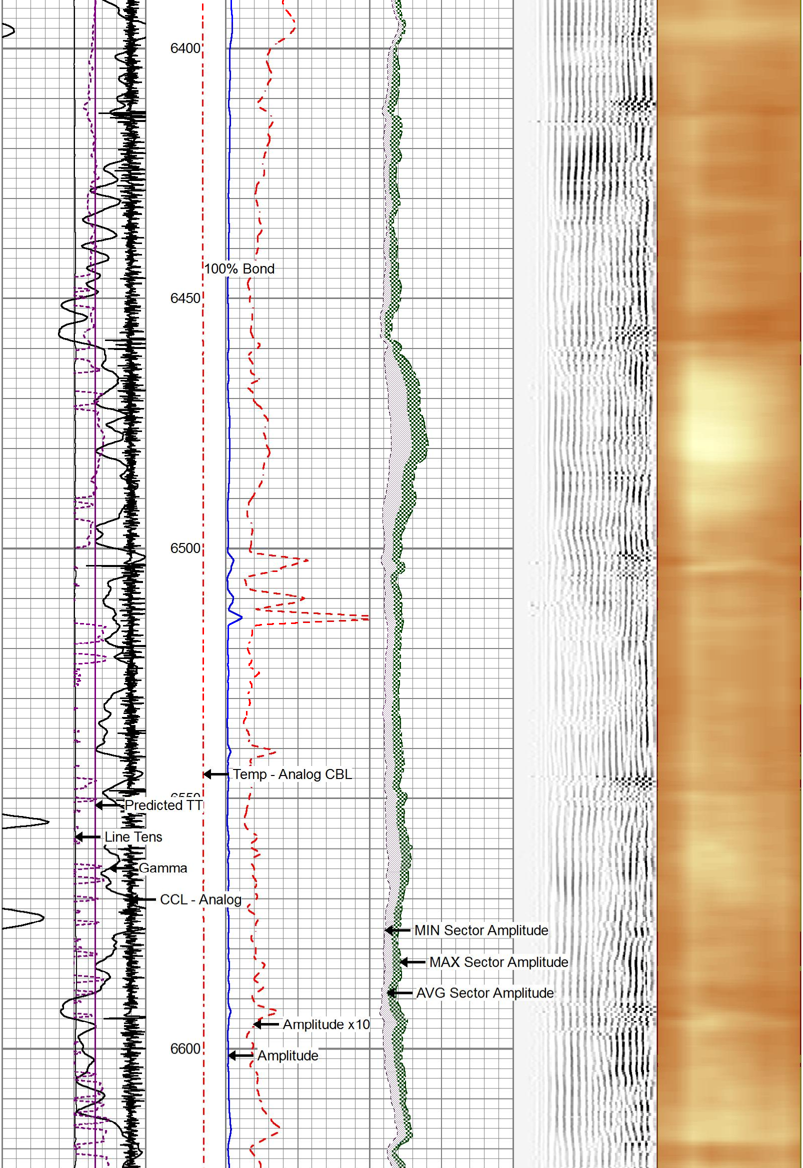


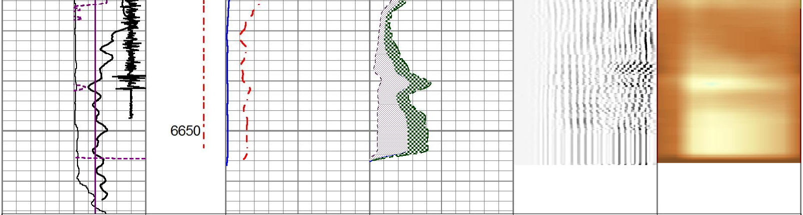












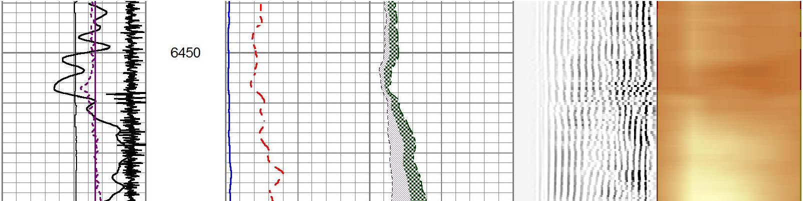
CCL - Analog	np - Analog C	0 Amplitude (mV)100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma	(degF)	Amplitude x10	0 100	200 (usec) 1200	
0 (GAPI) 200	0 300	0 (mV) 10	MAX Sector Amplitude		
300(Line Tens (lb) 0			0 100		
Predicted TT			MIN Sector Amplitude		
			0 100		
TT +[10 usec]-					

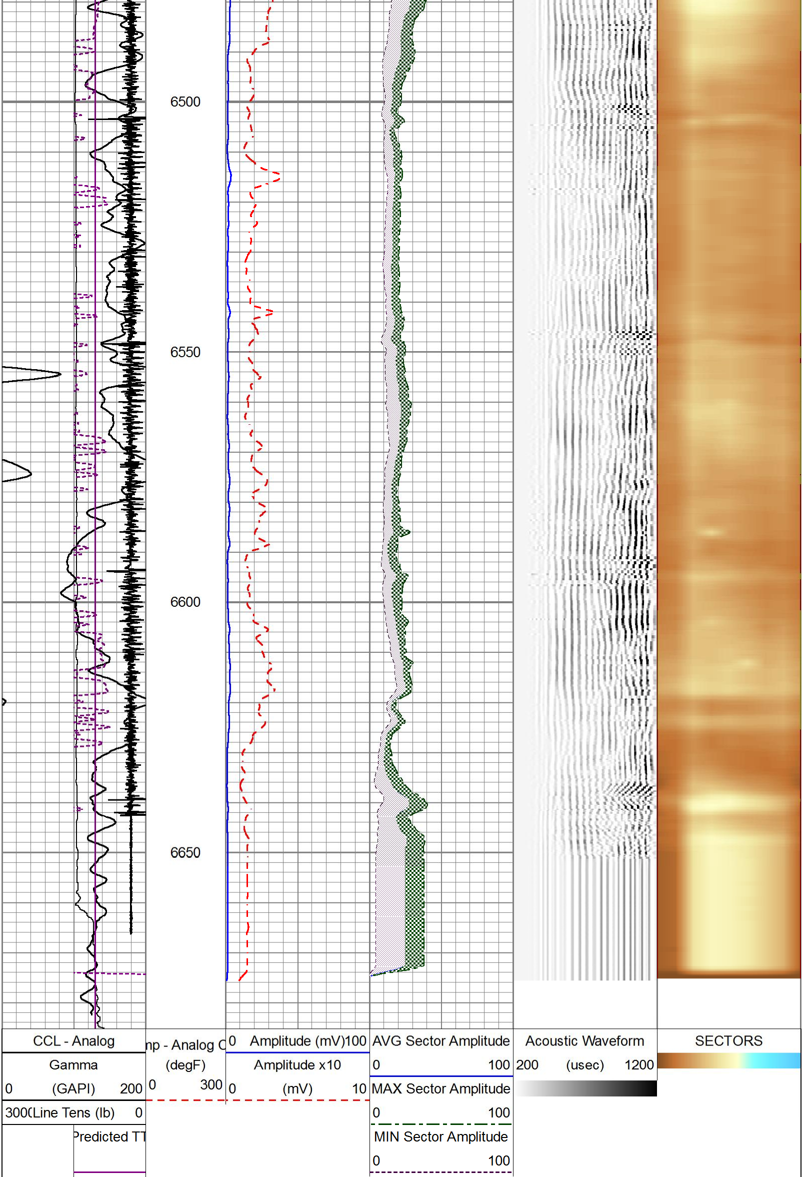
REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	2017-09-25_extrac_mld10_cbl\2017-09-25_extrac_mld10_cbl.db
Dataset Pathname	pass2.1
Presentation Format	rcbl_8s
Dataset Creation	Tue Sep 26 12:41:51 2017
Charted by	Depth in Feet scaled 1:240

CCL - Analog	np - Analog C	0 Amplitude (mV)100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma	(degF)	Amplitude x10	0 100	200 (usec) 1200	
0 (GAPI) 200	0 300	0 (mV) 10	MAX Sector Amplitude		
300(Line Tens (lb) 0			0 100		
Predicted TT			MIN Sector Amplitude		
			0 100		
TT +[10 usec]-					





TT
+[10 usec]-

Calibration Report

Database File	d:\warrior\data\2017-09-25_extrac_mld10_cbl\2017-09-25_extrac_mld10_cbl.db
Dataset Pathname	pass3.1
Dataset Creation	Tue Sep 26 12:40:21 2017

Gamma Ray Calibration Report

Serial Number:	ISHV2-03	
Tool Model:	2 3/4" TekCo	
Performed:	Tue Dec 13 00:23:06 2016	
Calibrator Value:	194.0	GAPI
Background Reading:	58.9	cps
Calibrator Reading:	300.8	cps
Sensitivity:	0.8020	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	IPPO2-01	
Tool Model:	2 3/4" RIB Analog	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	0.000	ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.001	1.436	1.000	72.000	49.489	0.951
CAL	0.000	0.750				
5'	-0.004	1.814	1.000	72.000	39.041	1.175
SUM						
S1	0.022	1.929	0.000	72.000	37.770	-0.846
S2	0.026	1.595	0.000	72.000	45.882	-1.197
S3	0.034	1.419	0.000	72.000	51.982	-1.757
S4	0.031	1.209	0.000	72.000	61.132	-1.918
S5	0.031	1.237	0.000	72.000	59.671	-1.827
S6	0.024	1.373	0.000	72.000	53.364	-1.267
S7	0.022	1.724	0.000	72.000	42.310	-0.951
S8	0.026	1.937	0.000	72.000	37.686	-0.985

Internal Reference Calibration, performed Fri Aug 25 16:15:12 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.750	0.000	0.750	1.000	0.000

Air Zero Calibration, performed Fri Aug 25 16:15:12 2017:

	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

Temperature Calibration Report

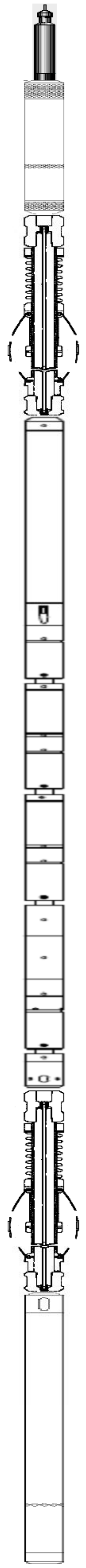
Serial Number: IPPO2-01
Tool Model: 2 3/4" RIB Analog
Performed: Fri Aug 26 11:07:15 2016

	Reference		Reading	
Low Reference:	0.00	degF	0.00	usec
High Reference:	1.00	degF	1.00	usec

Gain: 0.33
Offset: 0.00
Delta Spacing 1

Sensor	Offset (ft)
CCL	18.96
TEMP	12.78
WVFS8	11.49
WVFS7	11.49
WVFS6	11.49
WVFS5	11.49
WVFS4	11.49
WVFS3	11.49
WVFS2	11.49
WVFS1	11.49
WVF3FT	10.74
WVF5FT	9.74
WVFSYNC	6.41
WVFTEMP	6.41
WVFCAL	6.41
GR	1.04
LOCTIM	0.00
UTCTIM	0.00

Schematic



Description	Length (ft)	O.D. (in)	Weight (lb
CableHead-TitanConeType2	1.03	1.44	3.60
CCL_Log-2 3/4" TekCo (IPSN7-03) 450 Deg. CCL	1.83	2.75	33.00
TekCo-275_Tekco 2 3/4" Tekco Adjustable SPRING Centralizer	2.73	2.75	25.00
RBTA-2 3/4" RIB Analog (IPPO2-01) Radial Incremented Bond Tool with Temp	9.13	2.75	102.00
TekCo-275_Tekco 2 3/4" Tekco Adjustable SPRING Centralizer	2.73	2.75	25.00
GR_Log-2 3/4" TekCo (ISHV2-03) 400 Deg. Gamma Ray	3.68	2.75	47.00

Dataset:	2017-09-25_extrac_mld10_cbl.db: field/well/run1/pass3.1
Total length:	21.13 ft
Total weight:	235.60 lb
O.D.:	2.75 in

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Company	Extraction Oil and Gas
Well	MLD 10
Field	Wattenberg
County	Weld
State	Colorado
Country	U.S.A.