CEMENT BOND LOG

Company	Extraction Oil & Gas
Well	Berthoud Farms 8E-10-7N
Field	Wattenberg
County	Weld
State	Colorado

Company Extraction Oil & Gas
Well Berthoud Farms 8E-10-7N
Field Wattenberg
County Weld **State** Colorado

API # : 05-123-45719
Location: Surface: 1547' FSL & 930' FEL
SEC: 7 TWP: 4N RGE: 68W

Other Services

Elevation
K.B. 5062'
D.F. ---
G.L. 5033'

Permanent Datum: Ground Level Elevation: 5033'
Log Measured From: Kelly Bushing , 29' ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	6/4/2018
Run Number	ONE
Plug Back T.D. Driller	----
Plug Back T.D. Logger	----
Bottom Logged Interval	6143'
Top Log Interval	Surface
Type Fluid	Water
Density / Viscosity	8.4PPG
Max. Recorded Temp.	190° F
Time Logger on Bottom	2145
Equipment Number	GD164
Location	Casper, Wy
Recorded By	Garrett Graham
Witnessed By	Mr. Torres

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8"	36#	Surface	1500'				
5 1/2"	20#	Surface	13221'				

<<< Fold Here >>>

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 # : RM0618PCBW590
Your Crew Today: Eric R. and Daniel H.
Log Correlated to: Well Head

Cement Data

Date Cemented	----
Primary / Squeeze	Primary
Type / Weight	----
Main Pass Press.	0 PSI
Repeat Pass Press.	0 PSI

Bond Index

Index %	Est Top Depth
20 % Bond	67'
40 % Bond	72'
60 % Bond	102'
80 % Bond	880'
100 % Bond	939'

Comments

Estmated Cement Top @ 67'
(20% Bond)

Marker Joint Located @ 5493'

Thank you for using Gyrodata

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

Log Variables

Databasec:\programdata\warrior\data\20180604_extraction_berthoud farms 8e-10-7n_cbl\2018060
Dataset field/well/run1/Main/_vars_

Top - Bottom

BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MaxAPIID
	in	degF	in	in	lb/ft	mV	in
TEMP	8.5	190	5.5	0.415	20	71.9	4.829

MINAMPL	MinAPIID	MINATTN	PPT	TDEPTH
mV	in	db/ft	usec	ft
2.6	4.643	0	245	6145

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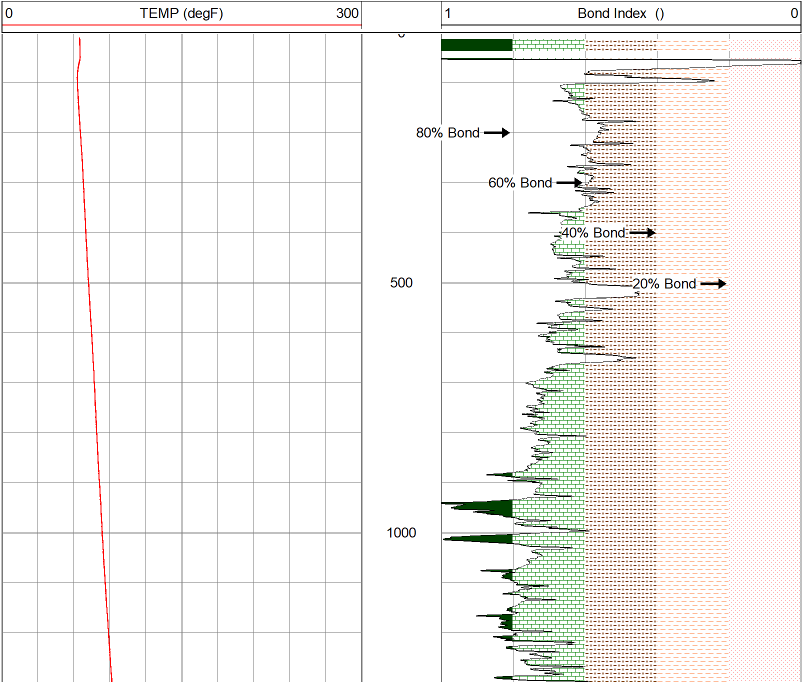
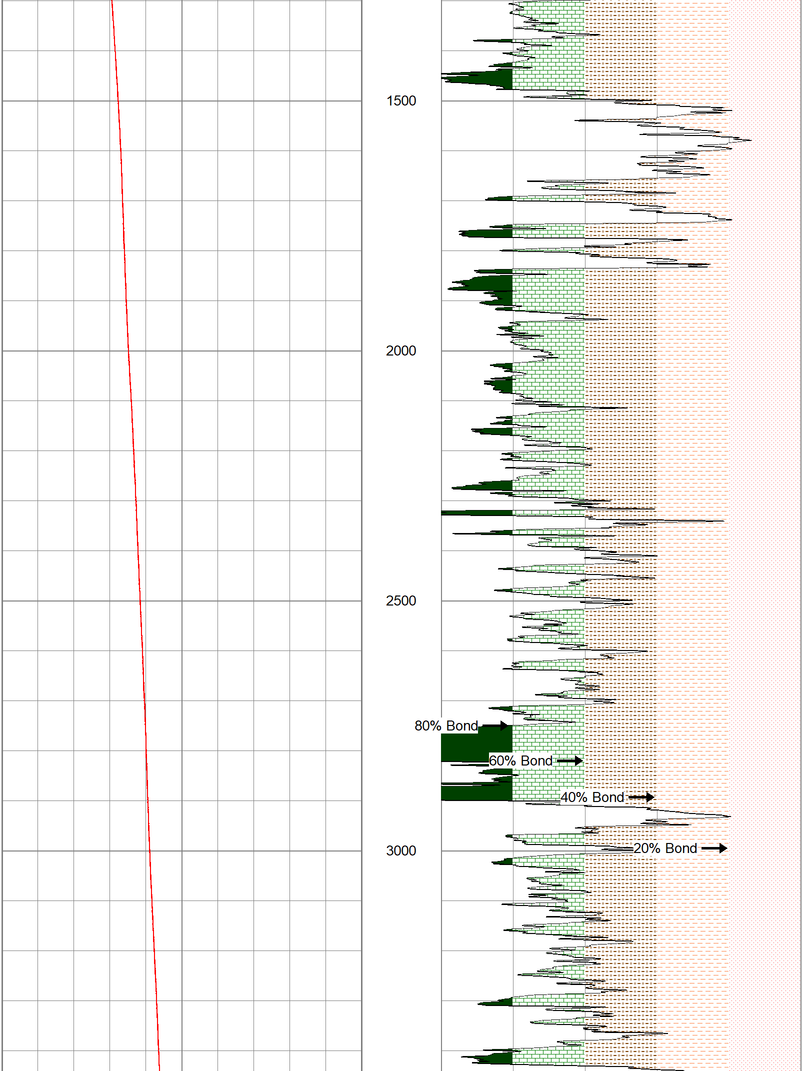
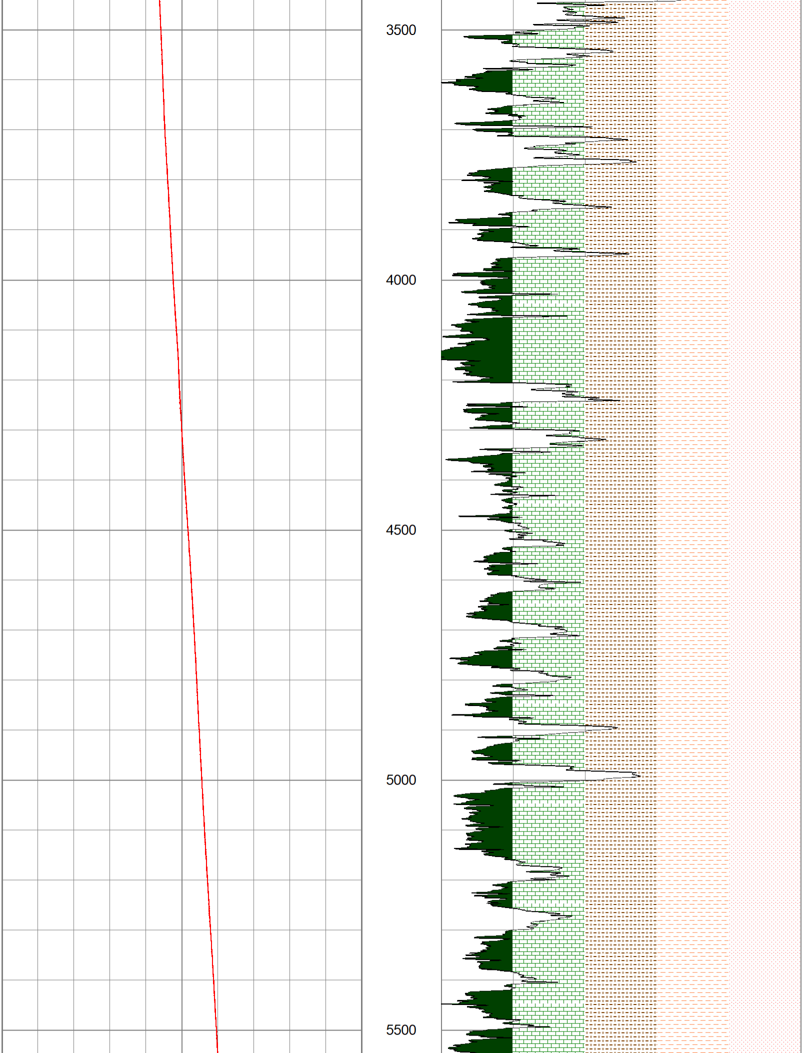
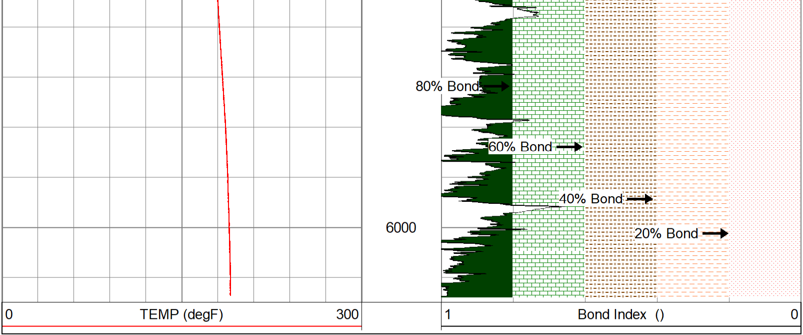
BOND INDEX

Database File	20180604_extraction_berthoud farms 8e-10-7n_cbl\20180604_extraction_berthoud farms 8e-10-7n_cbl.db
Dataset Pathname	Bond
Presentation Format	bondindex
Dataset Creation	Mon Jun 04 23:55:18 2018
Charted by	Depth in Feet scaled 1:2400









BOND INDEX

MAIN PASS - Ran with 0 PSI

5 in / 100 ft

Database File	20180604_extraction_berthoud farms 8e-10-7n_cbl\20180604_extraction_berthoud farms 8e-10-7n_cbl.db
Dataset Pathname	Main
Presentation Format	rcbl_8s
Dataset Creation	Mon Jun 04 23:46:53 2018
Charted by	Depth in Feet scaled 1:240

CCL - Analog
Gamma
0 (GAPI) 200
300(Line Tens (lb) 0
Predicted TT
TT
+[10 usec]-

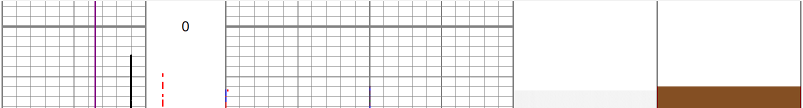
np - Analog C
(degF)
0 300

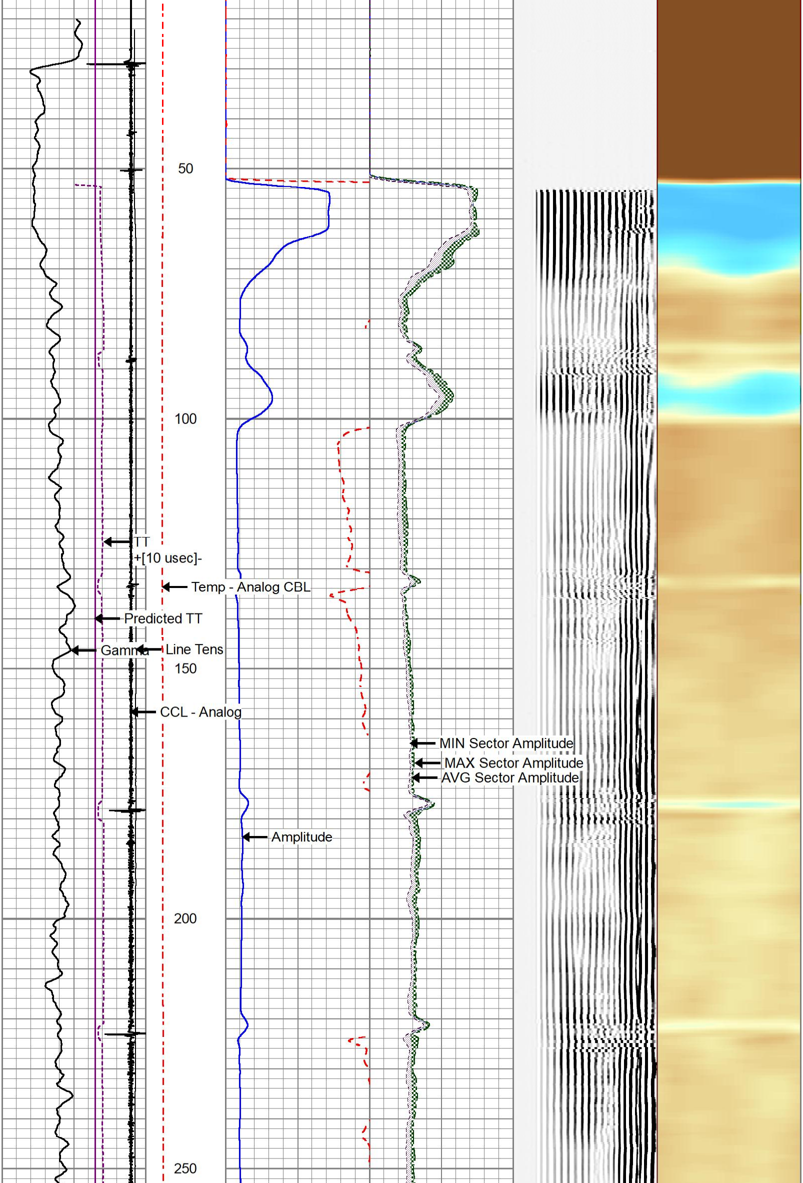
0 Amplitude (mV)100
Amplitude x10
0 (mV) 10

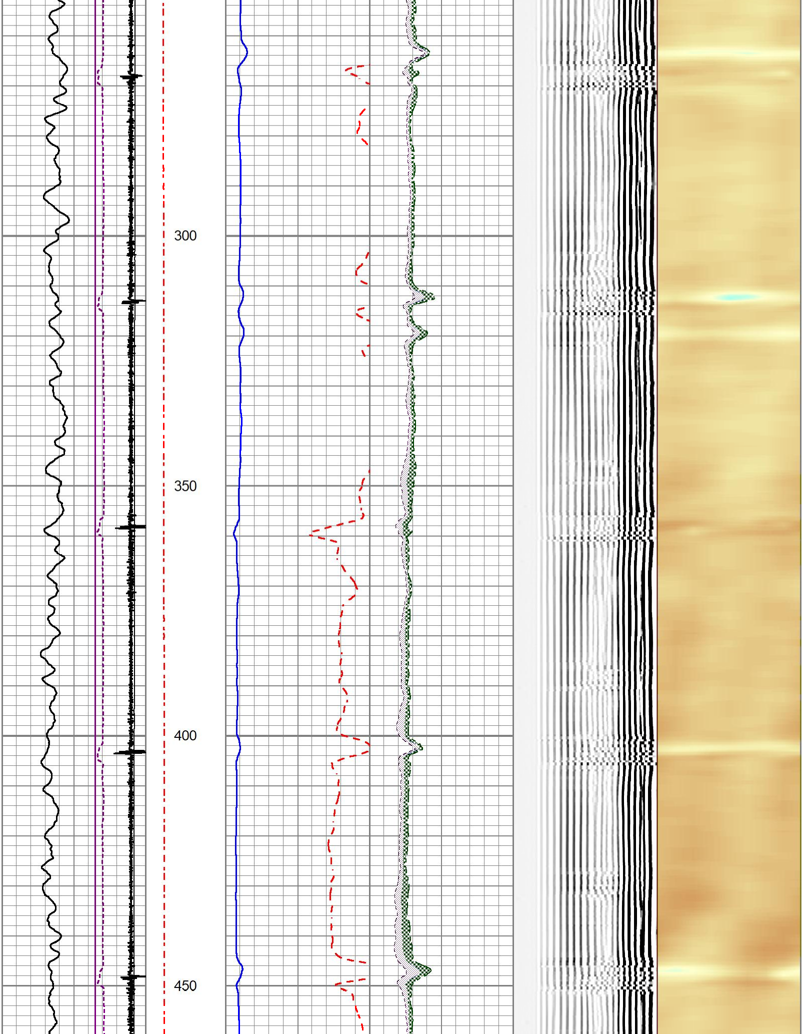
AVG Sector Amplitude
0 100
MAX Sector Amplitude
0 100
MIN Sector Amplitude
0 100

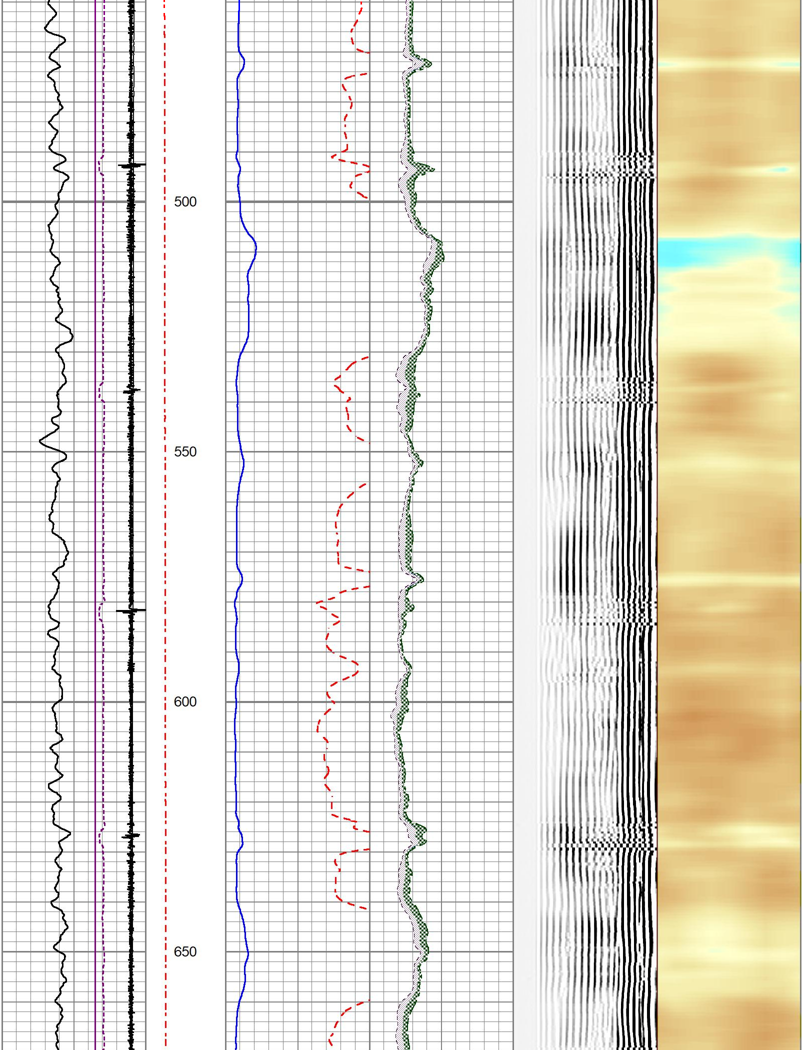
Acoustic Waveform
200 1200

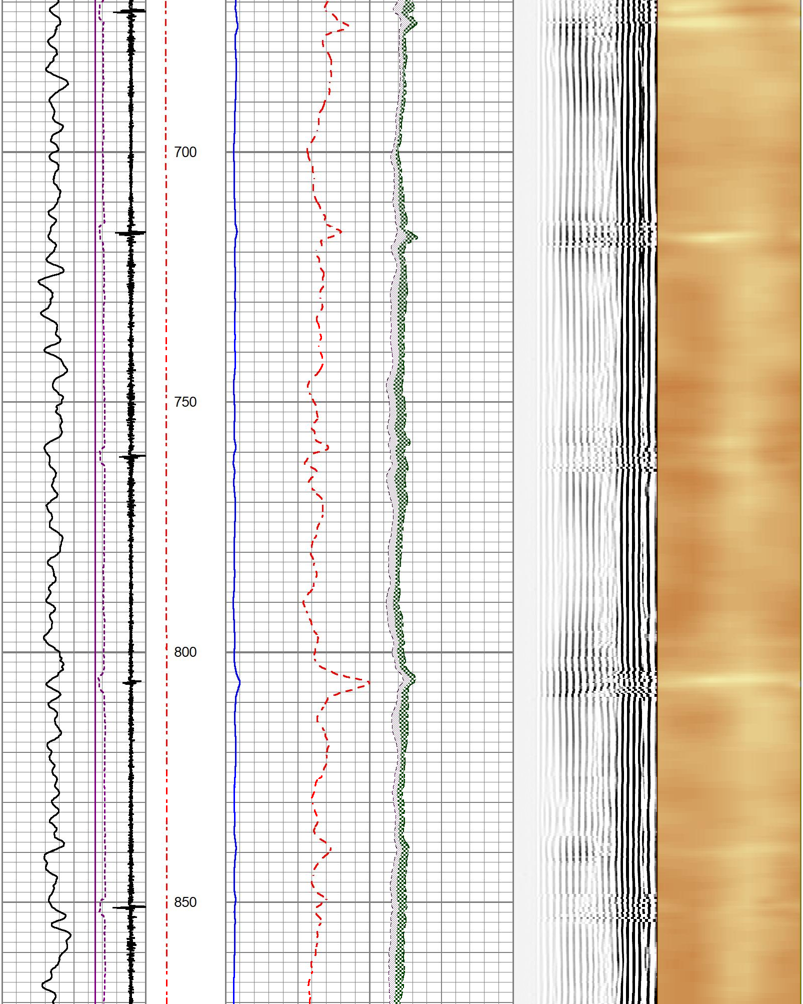
SECTORS
0 72

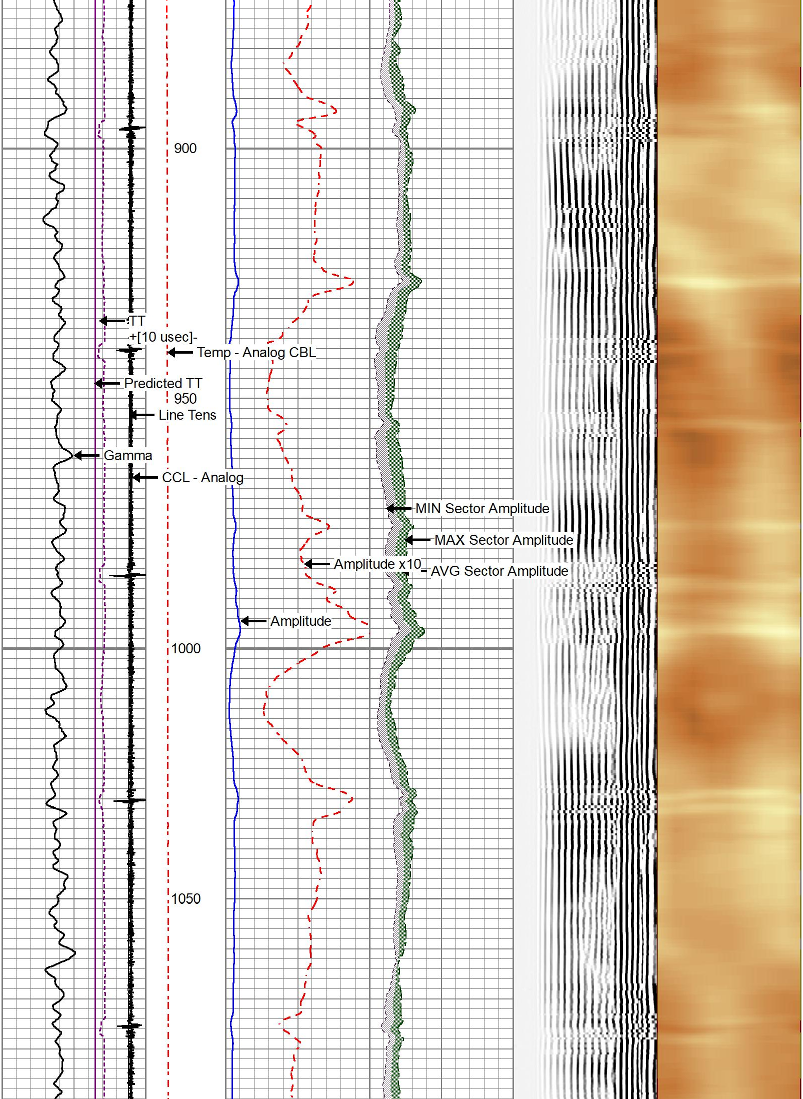


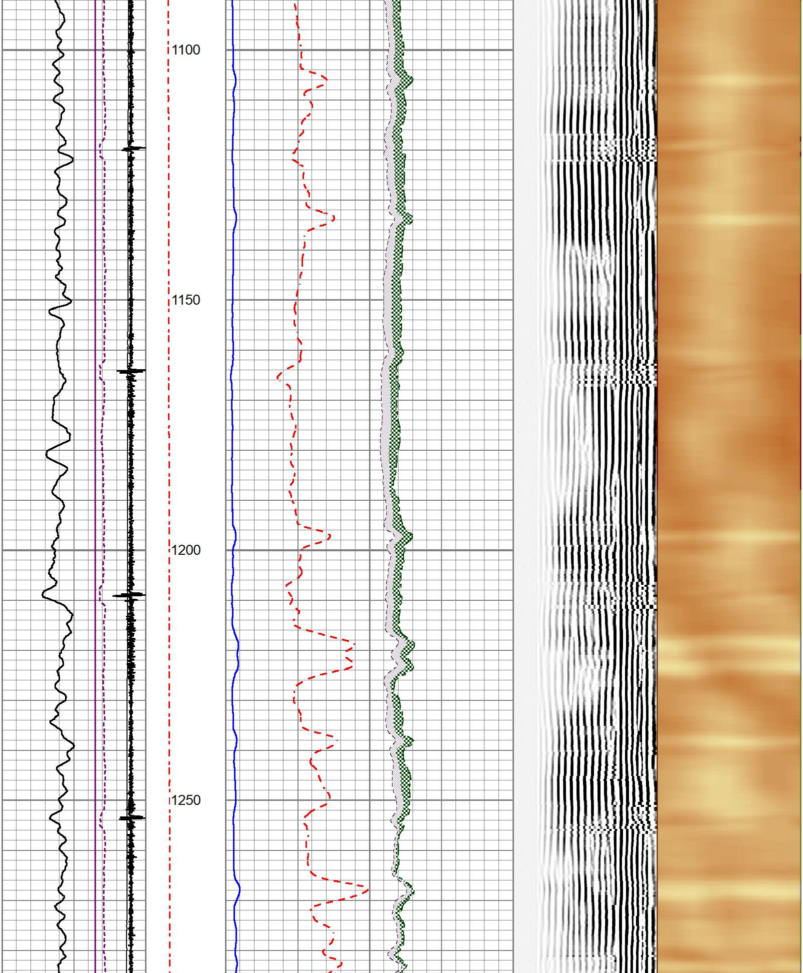


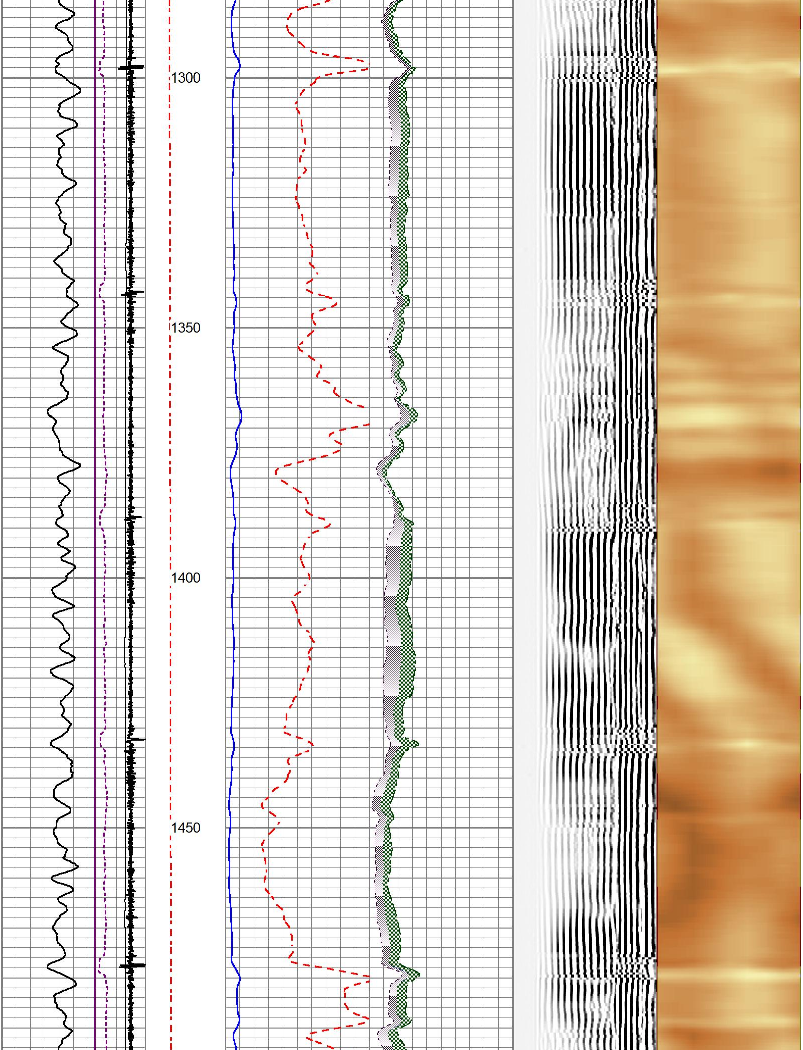


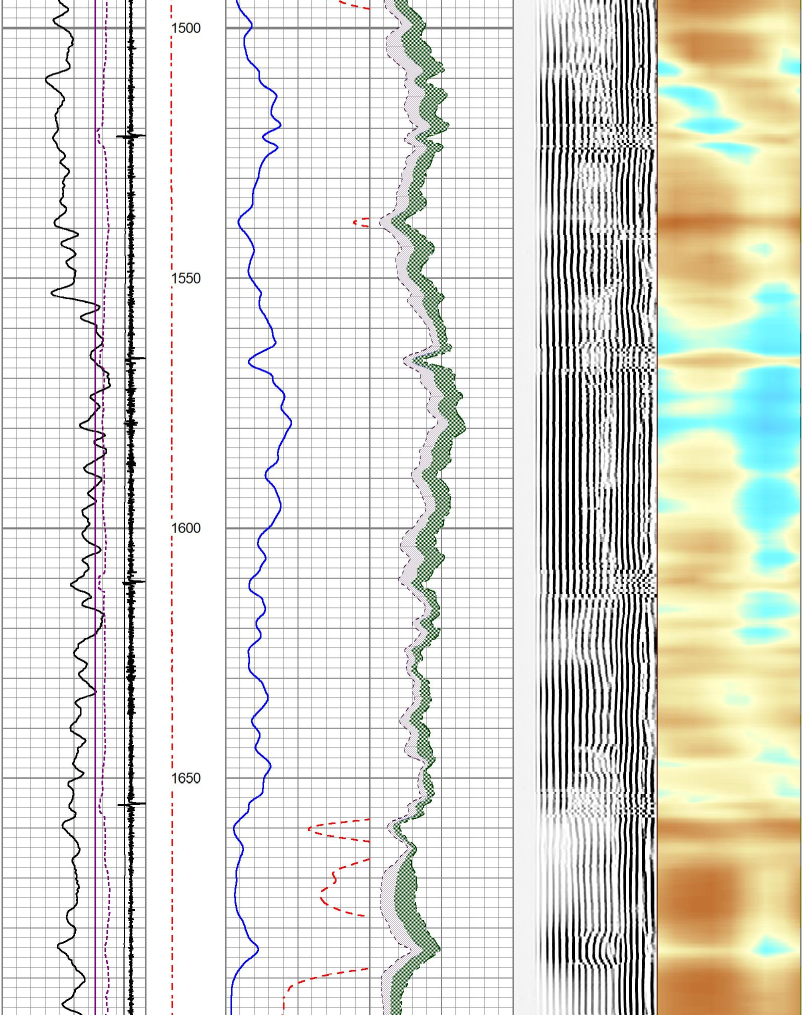


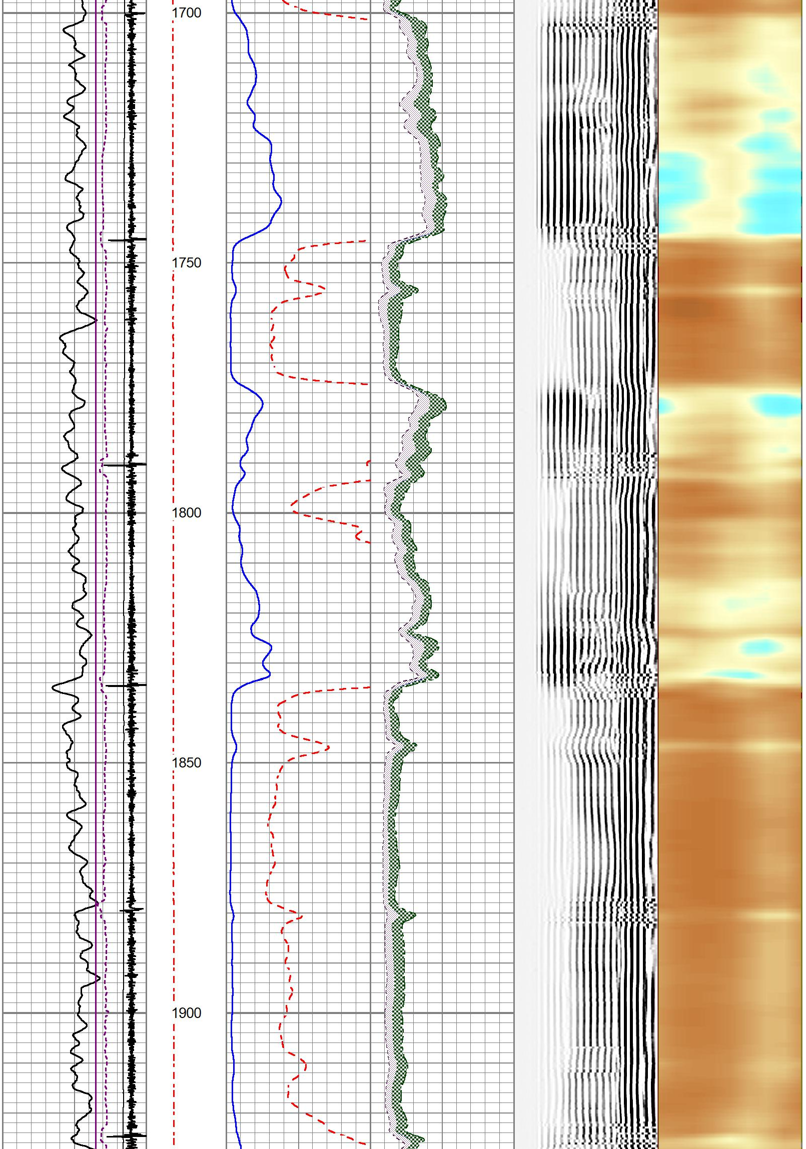


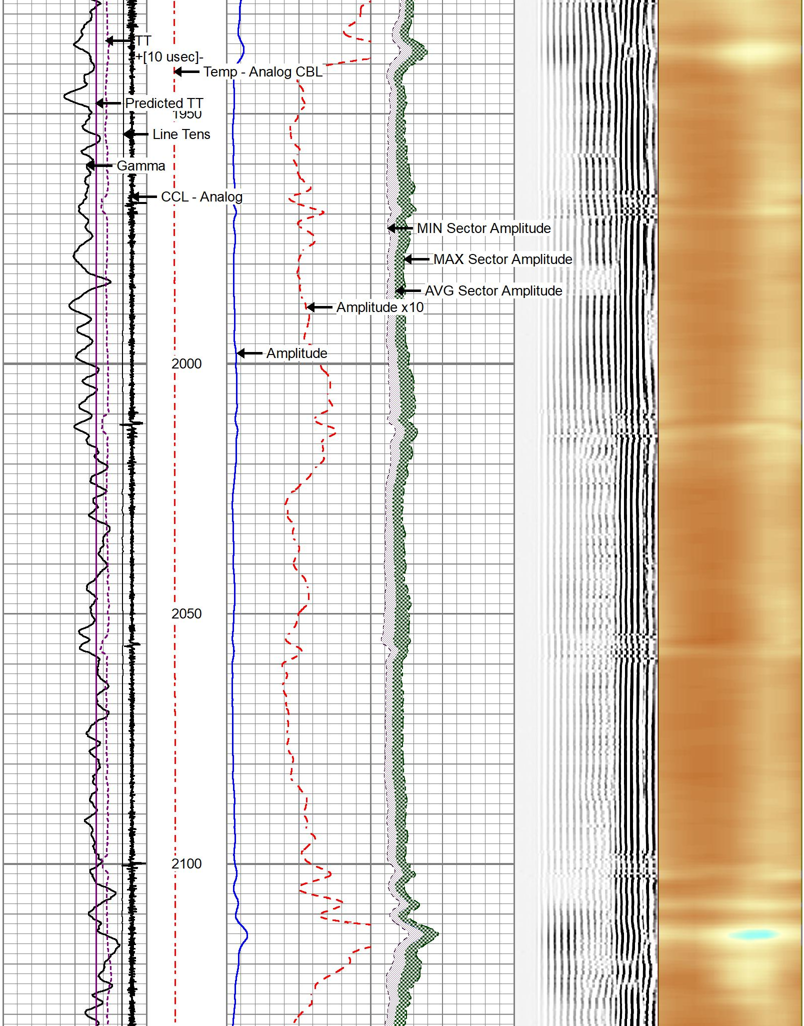


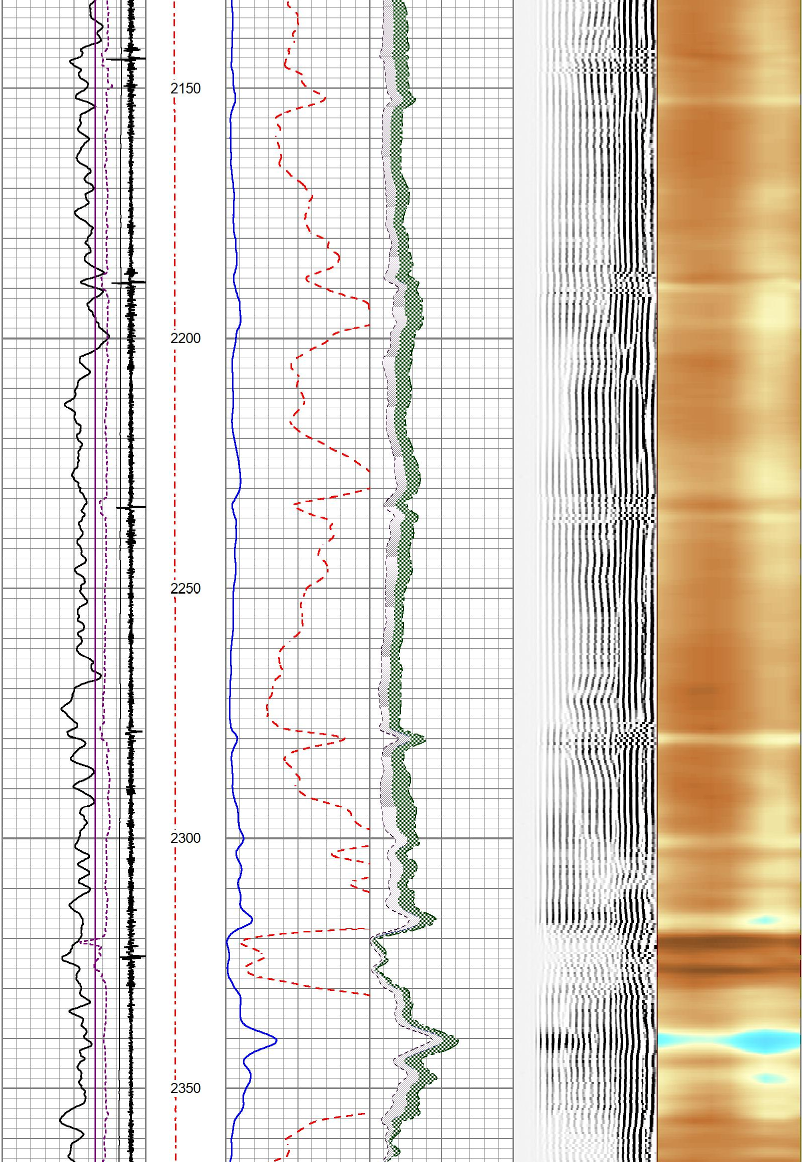


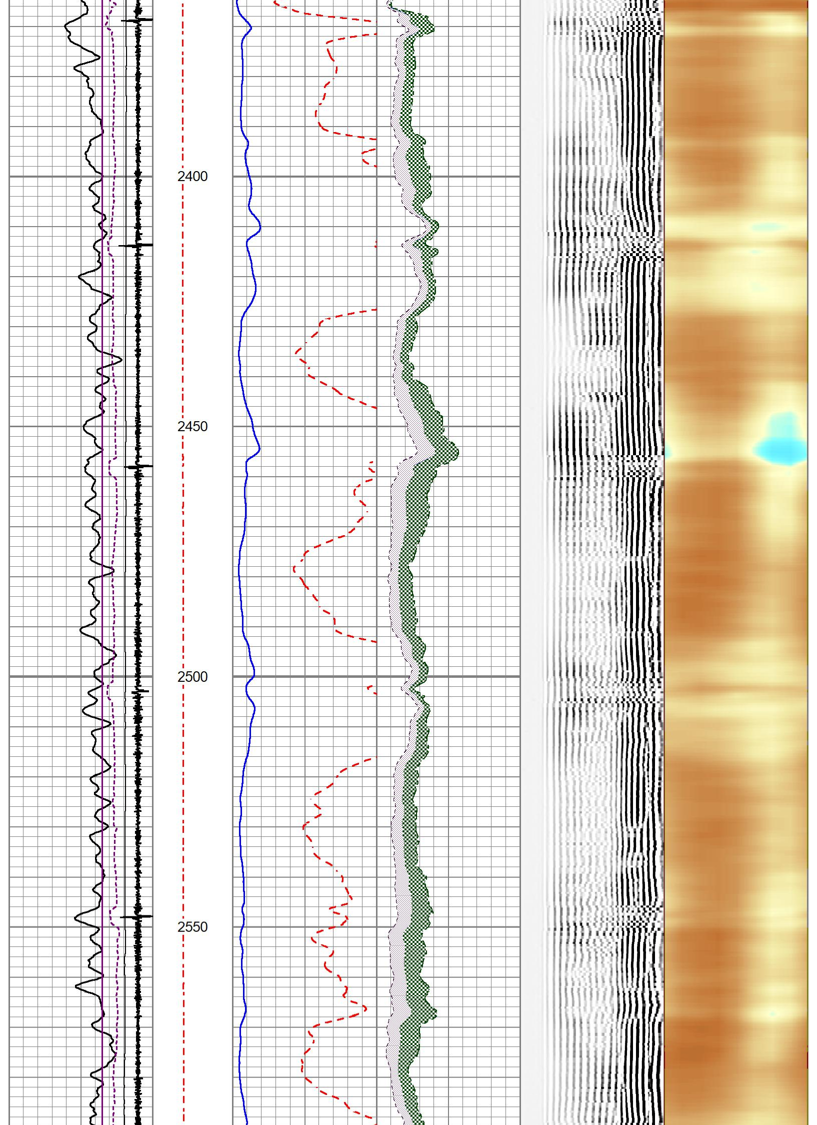


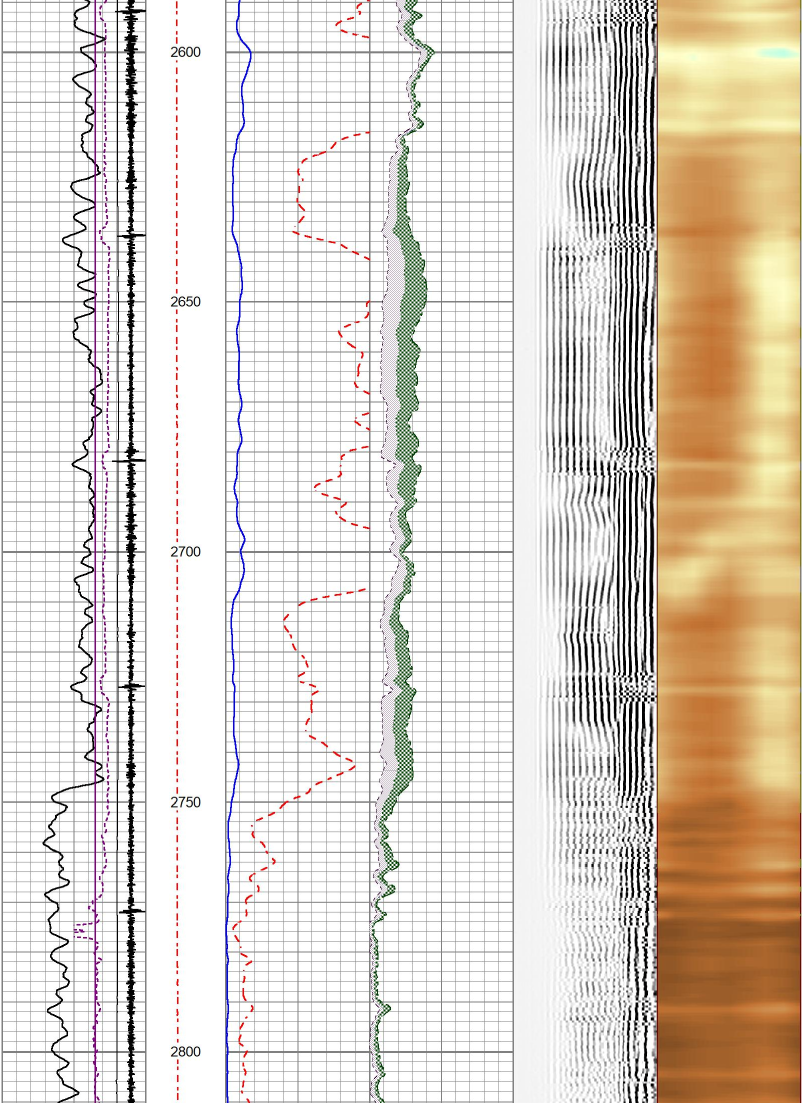


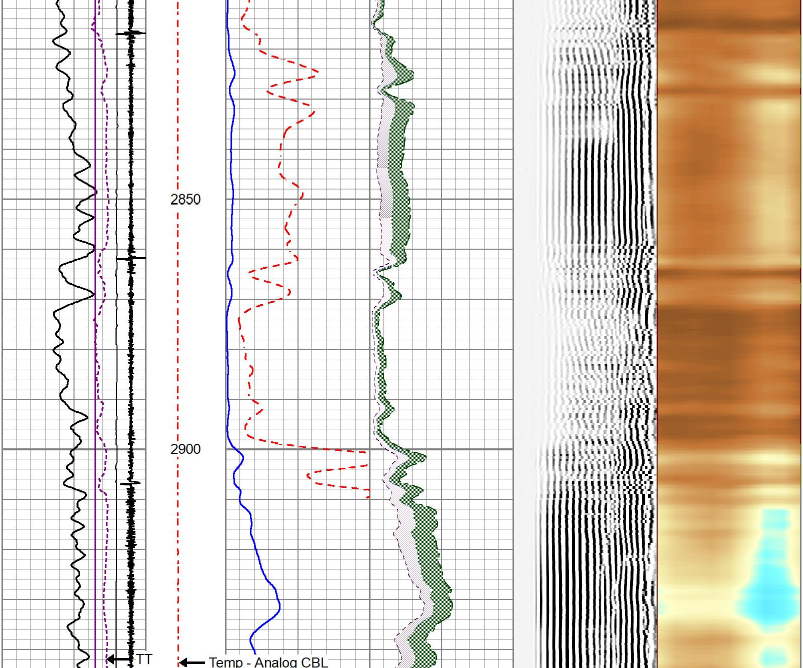


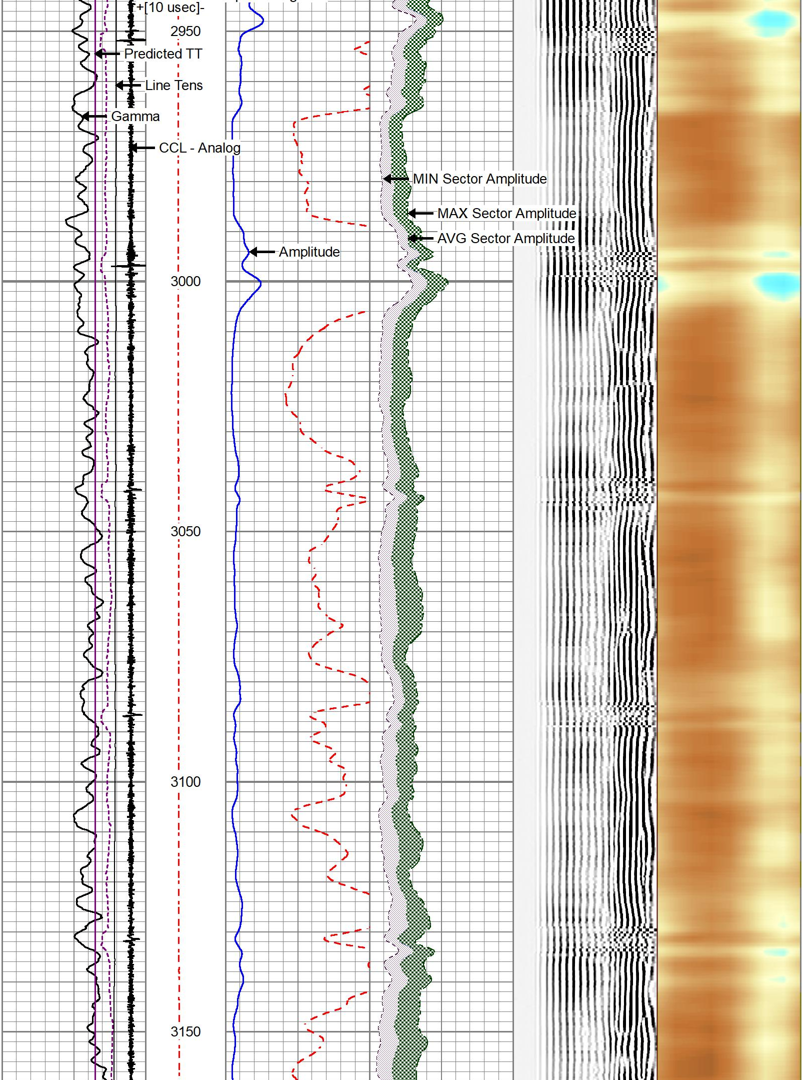


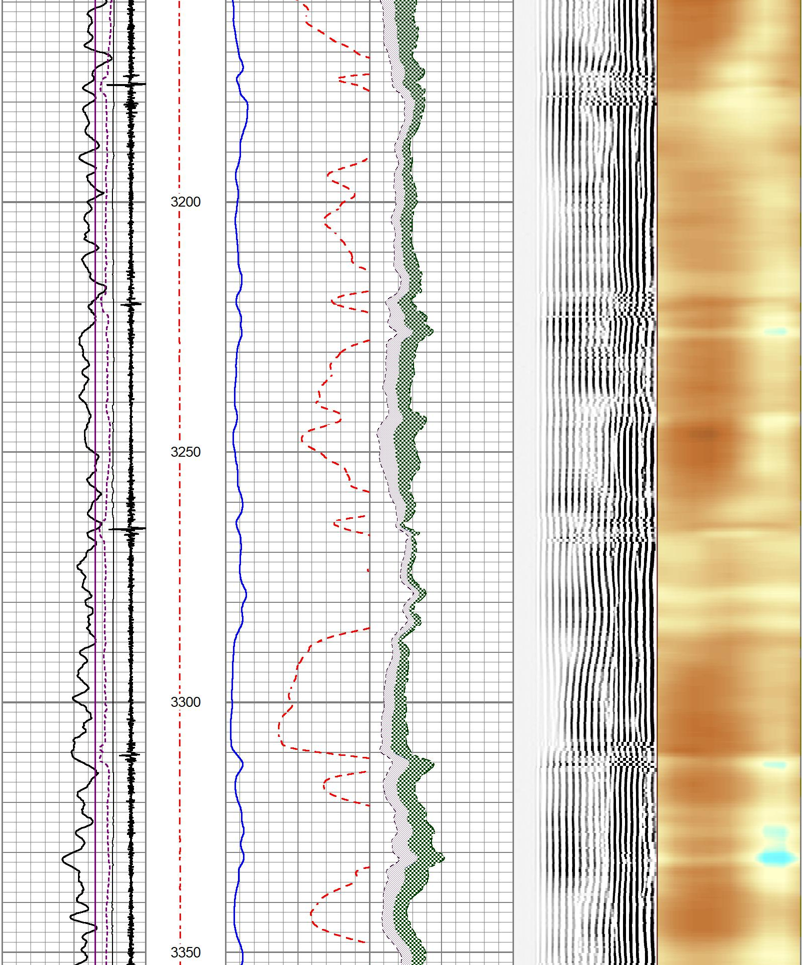


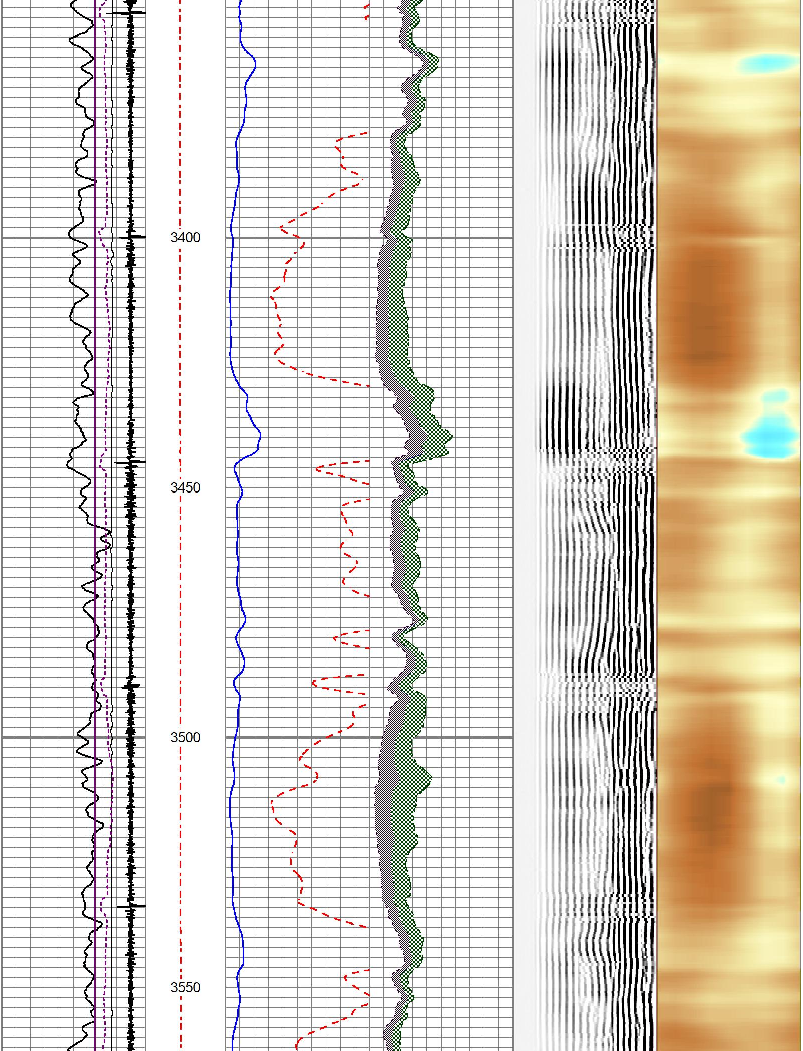


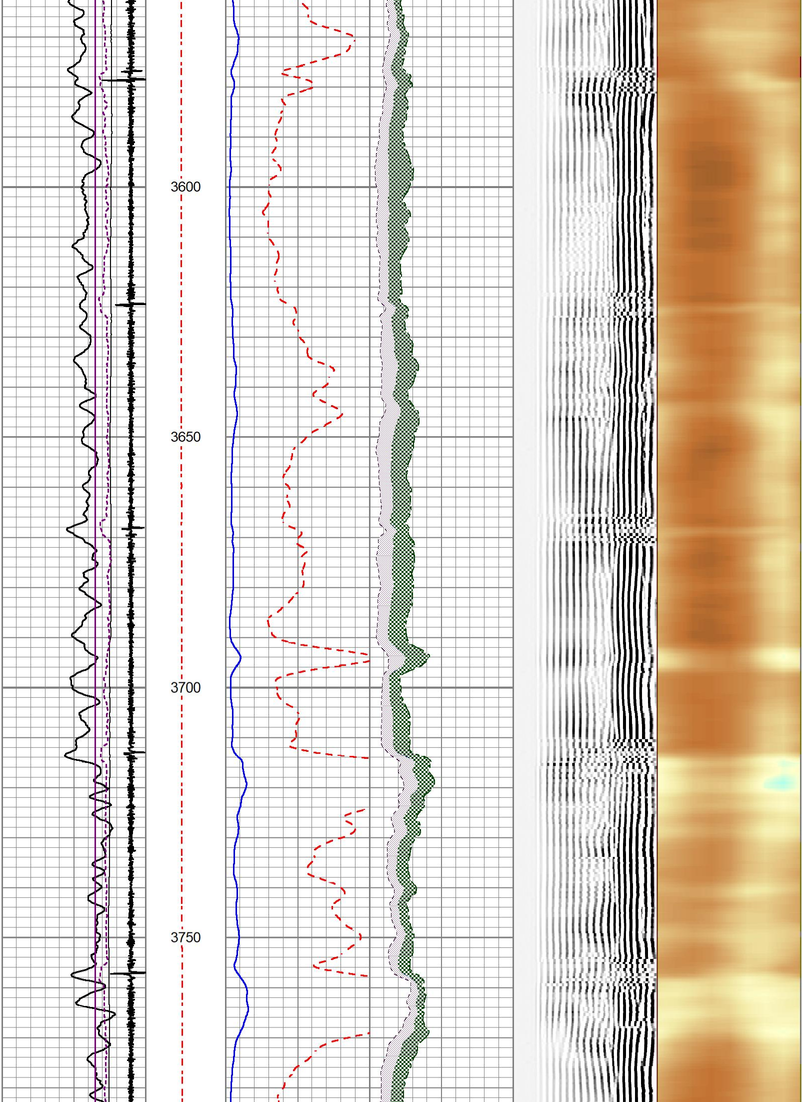


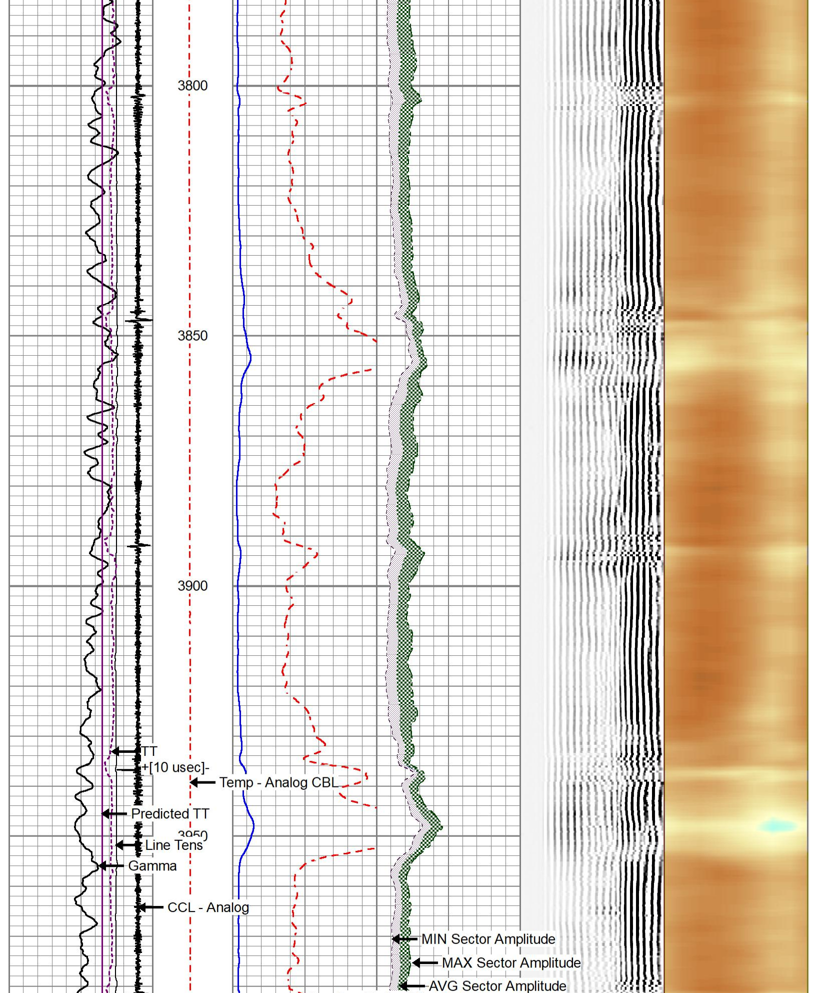


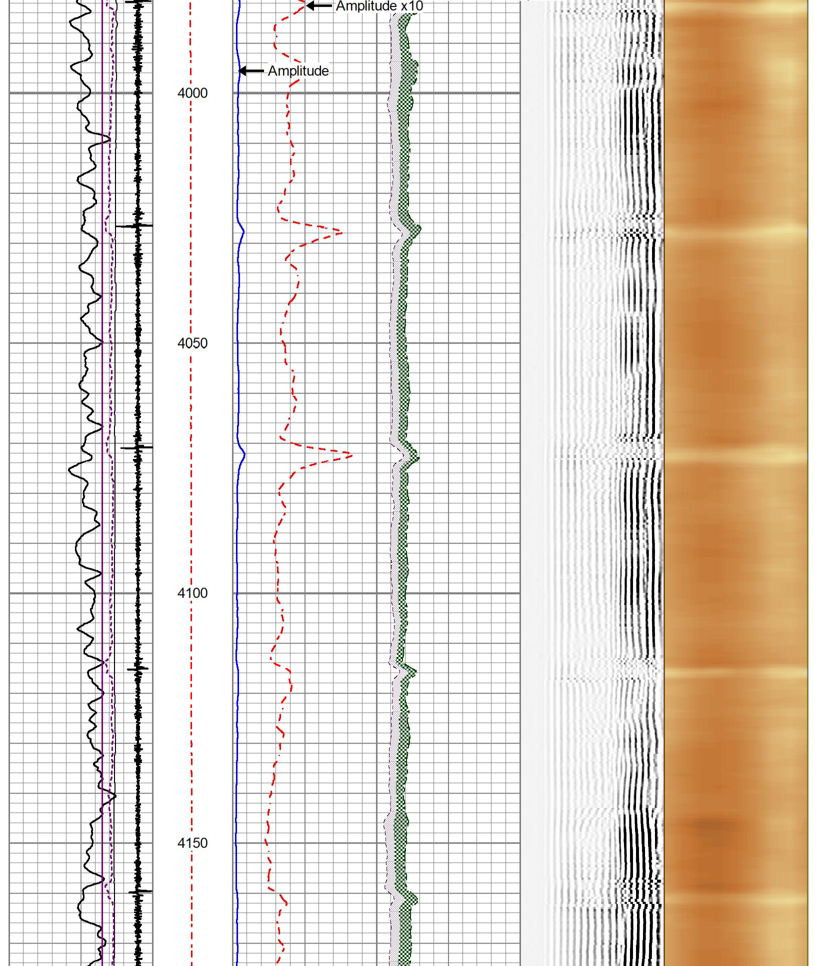


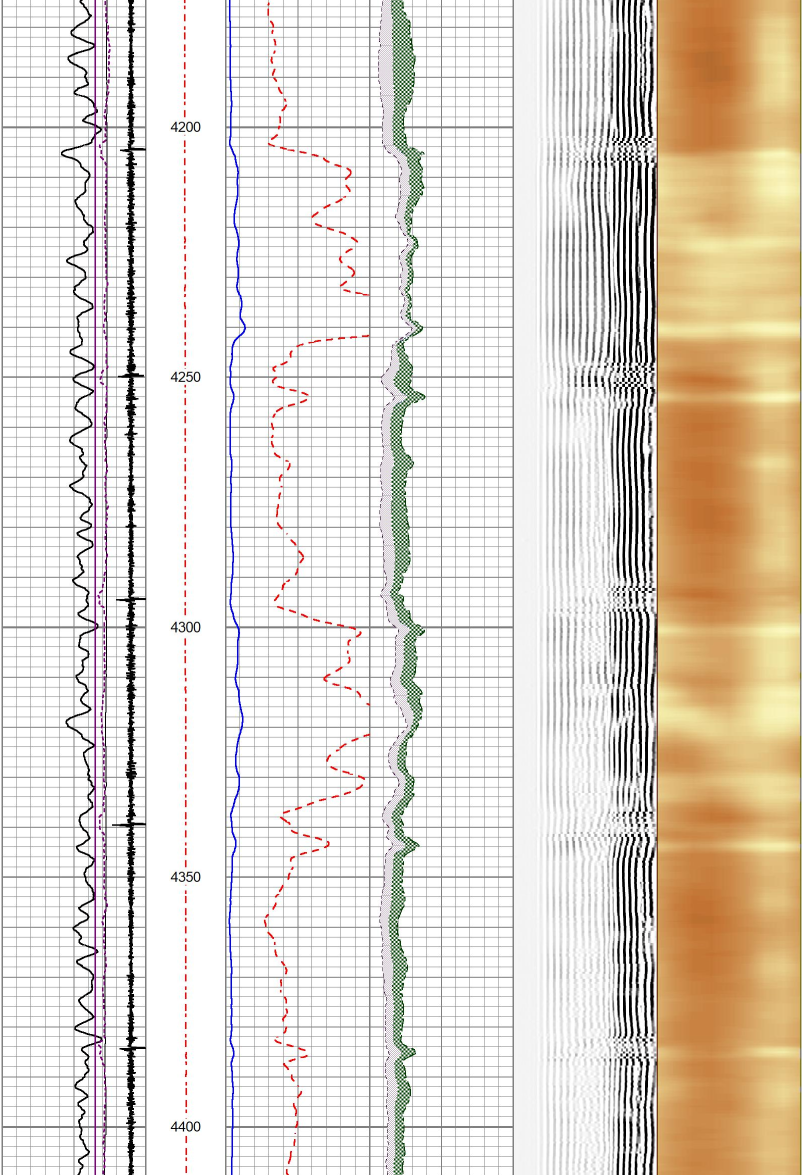


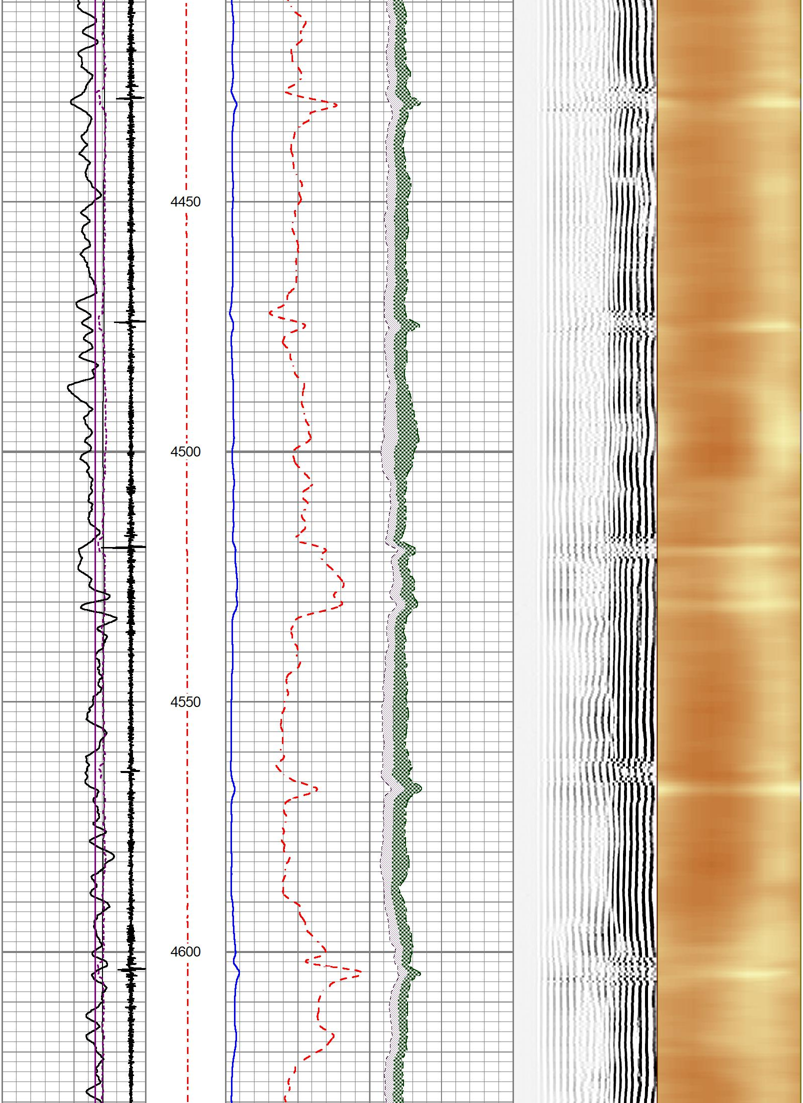


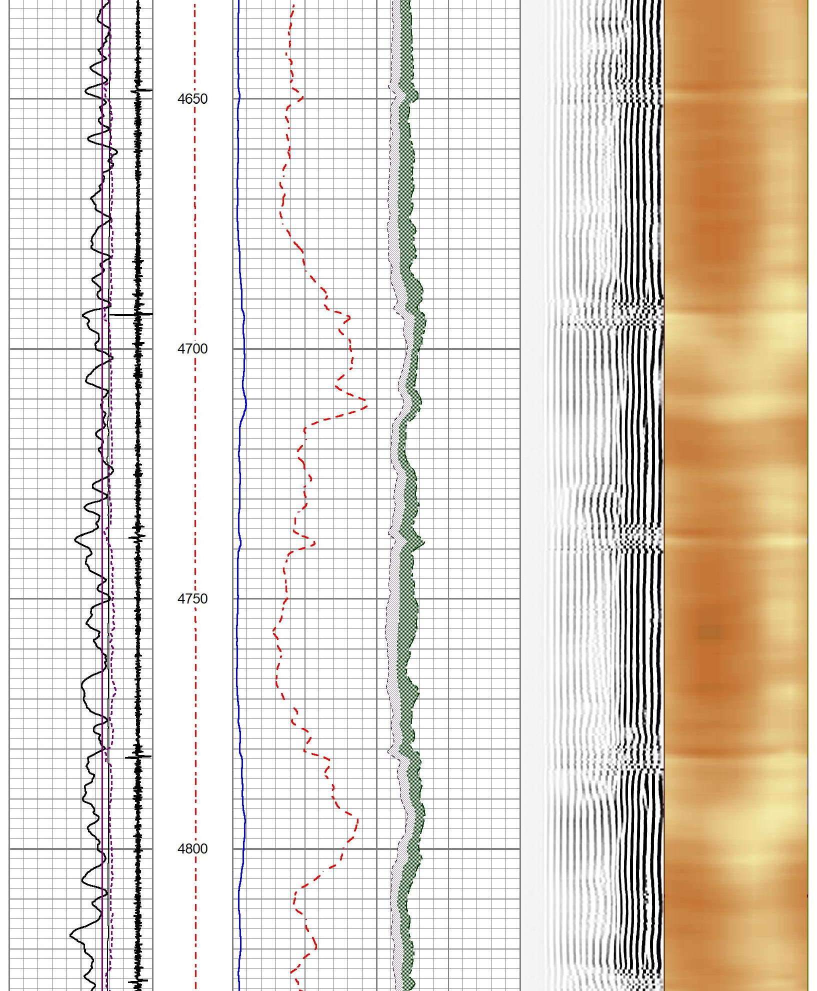


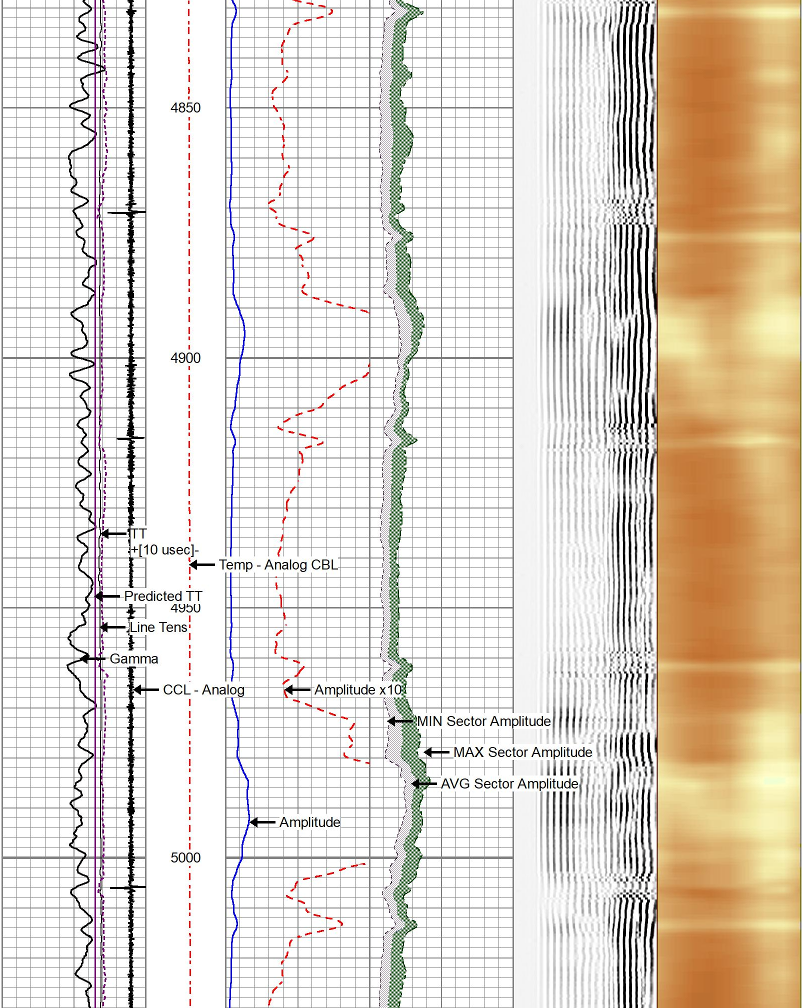


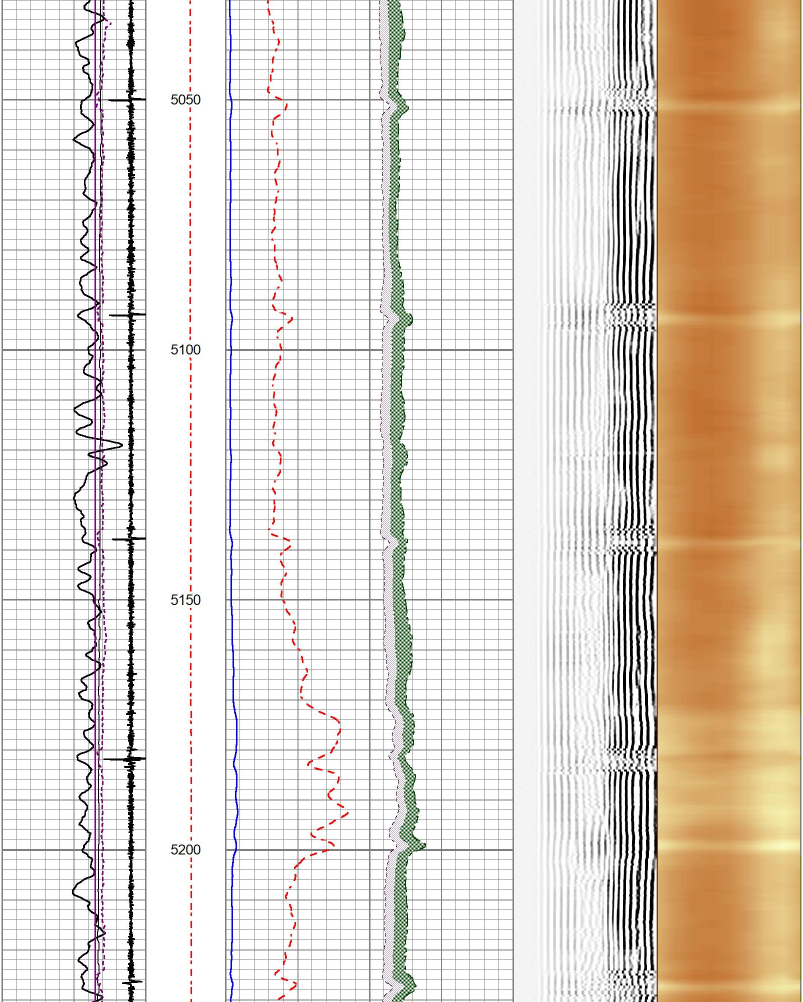


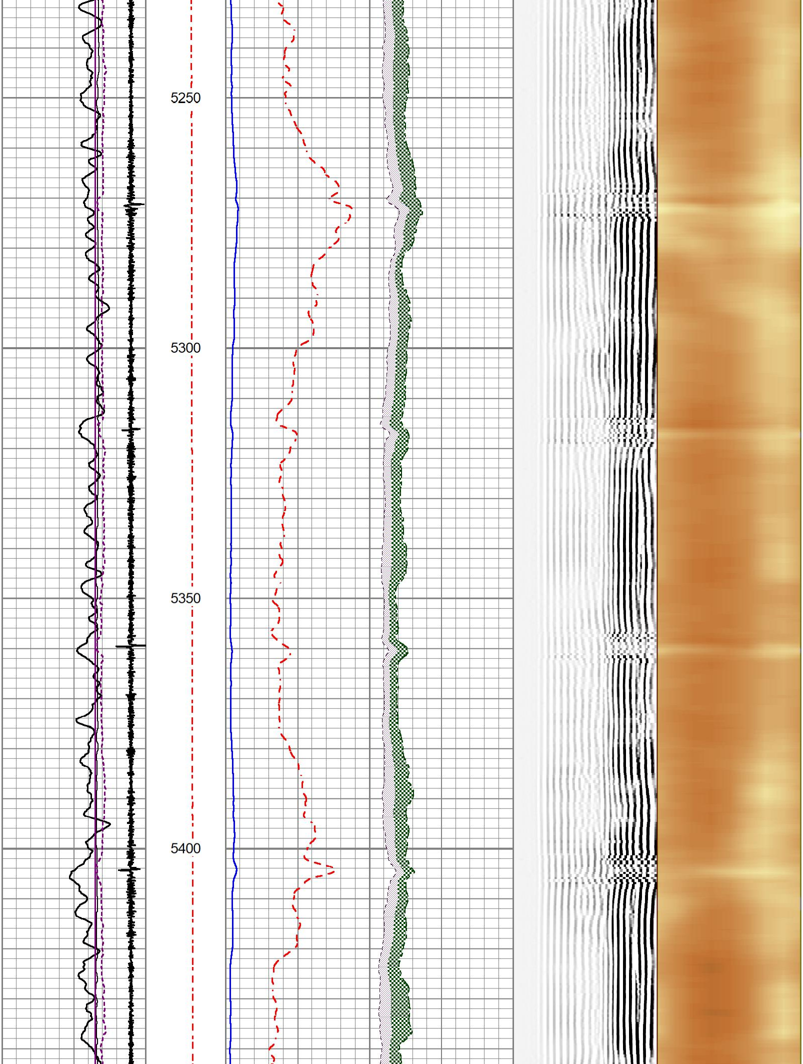


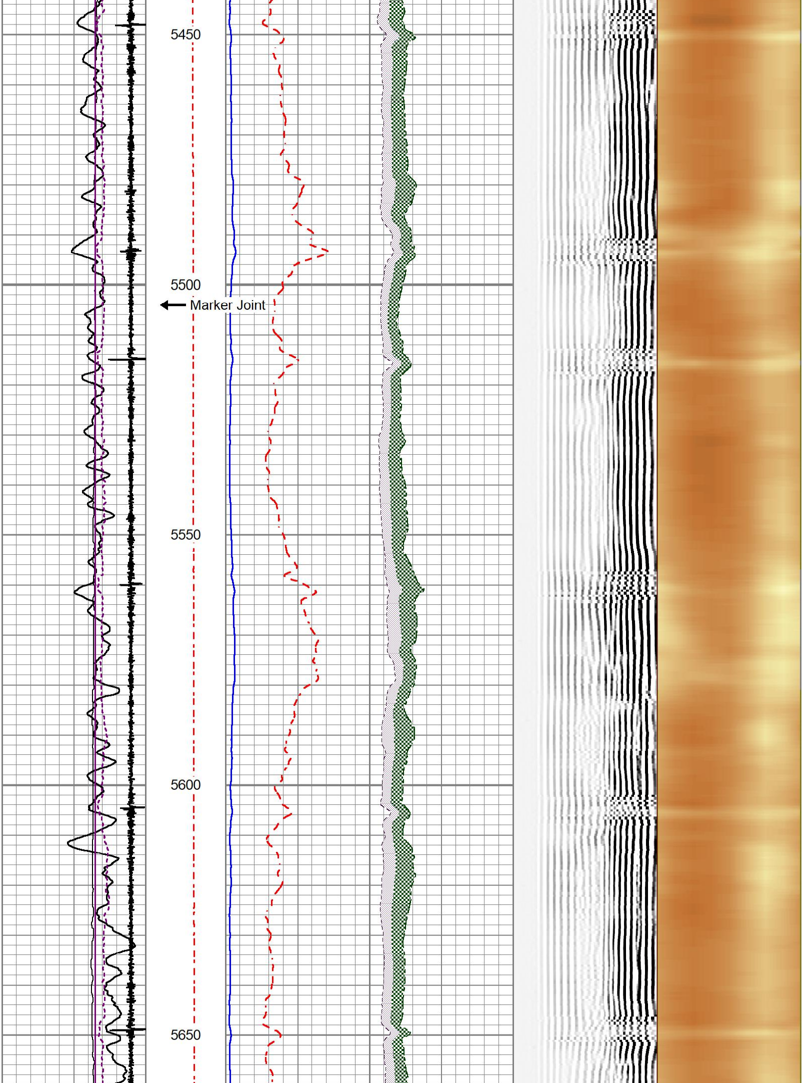


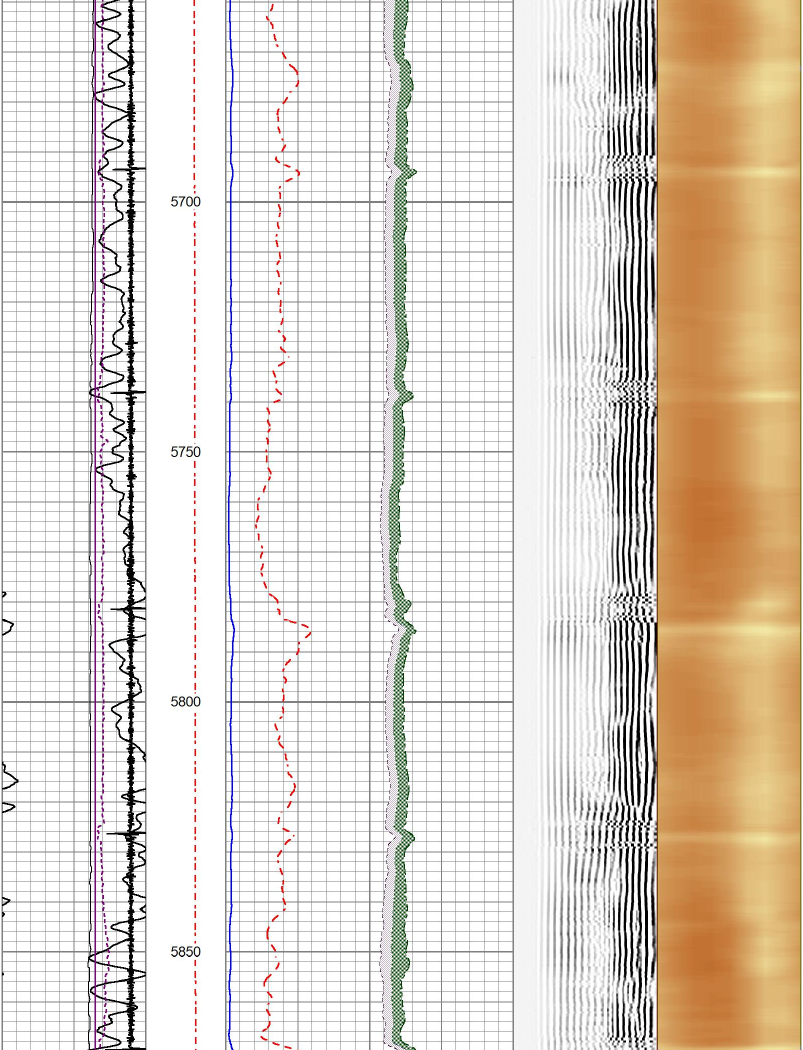


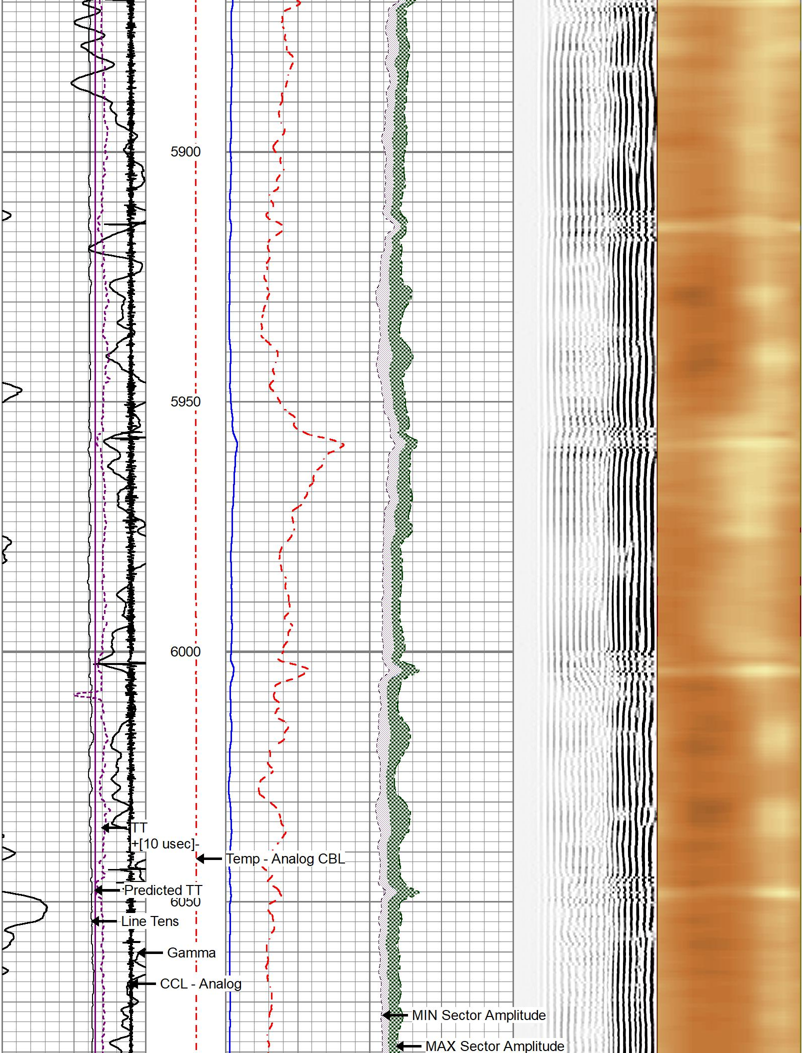


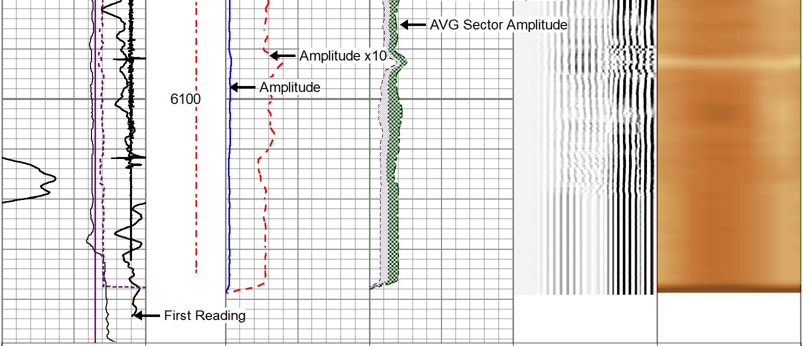












CCL - Analog	np - Analog C	0 Amplitude (mV)100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma	(degF)	Amplitude x10	0 100	200 1200	0 72
0 (GAPI) 200	0 300	0 (mV) 10	MAX Sector Amplitude		
300(Line Tens (lb) 0			0 100		
Predicted TT			MIN Sector Amplitude		
TT +[10 usec]-			0 100		

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MAIN PASS - Ran with 0 PSI

5 in / 100 ft

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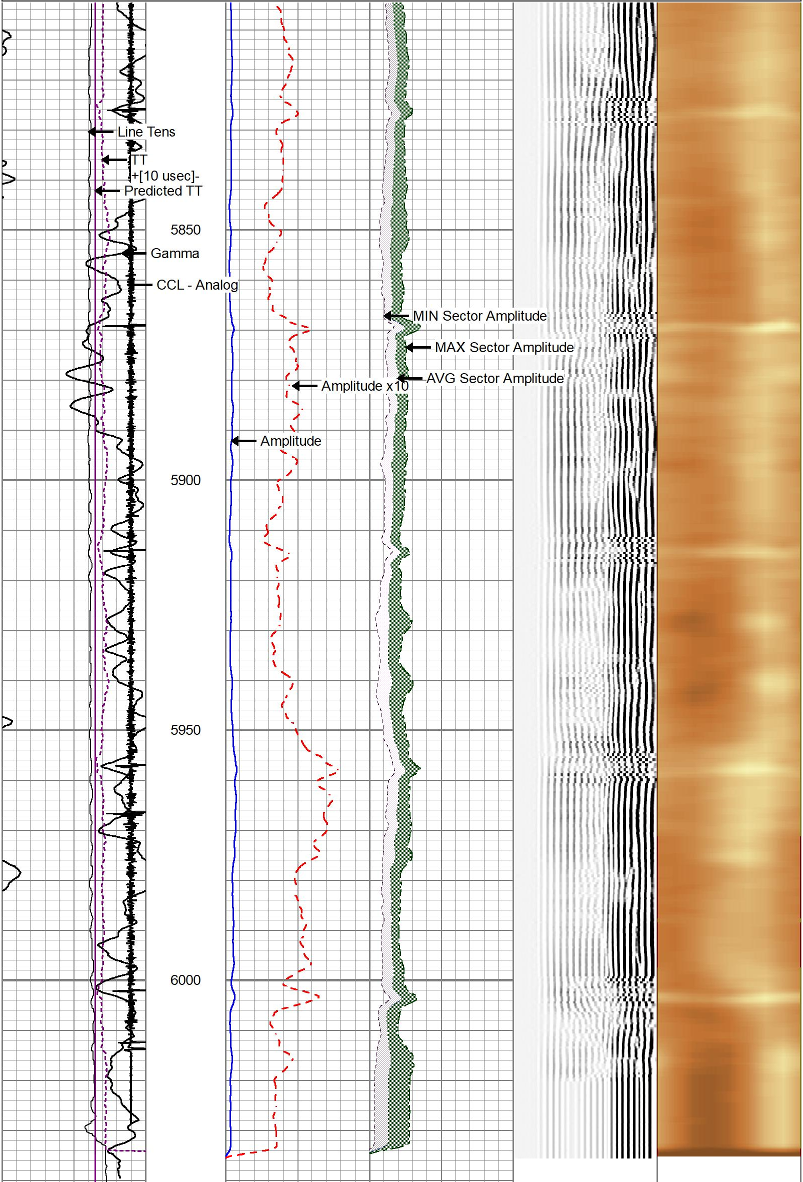
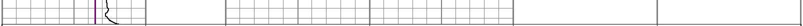
REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	20180604_extraction_berthoud farms 8e-10-7n_cbl\20180604_extraction_berthoud farms 8e-10-7n_cbl.db
Dataset Pathname	pass2.1
Presentation Format	rcbl_8s
Dataset Creation	Tue Jun 05 00:03:13 2018
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 1200	0 72
0 (GAPI) 200	0 300	0 (mV) 10	MAX Sector Amplitude		
300(Line Tens (lb) 0			0 100		
Predicted TT			MIN Sector Amplitude		
TT +[10 usec]-			0 100		





CCL - Analog Gamma 0 (GAPI) 200 300(Line Tens (lb) 0 Predicted TT TT +[10 usec]-	np - Analog C (degF) 0 300	0 Amplitude (mV)100 Amplitude x10 0 (mV) 10	AVG Sector Amplitude 0 100 MAX Sector Amplitude 0 100 MIN Sector Amplitude 0 100	Acoustic Waveform 200 1200	SECTORS 0 72

gyrodata

REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Calibration Report

Database File c:\programdata\warrior\data\20180604_extraction_berthoud farms 8e-10-7n_cbl\20180604_extraction_berth
Dataset Pathname Main
Dataset Creation Mon Jun 04 23:46:53 2018

Gamma Ray Calibration Report

Serial Number:	ISHV2-02	
Tool Model:	2 3/4" TekCo	
Performed:	Tue Dec 13 00:15:13 2016	
Calibrator Value:	194.0	GAPI
Background Reading:	59.8	cps
Calibrator Reading:	287.6	cps
Sensitivity:	0.8516	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	IT4B1-01	
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'	0.005	1.089	0.000	72.000	66.420	-0.332
CAL	0.000	0.290				
5'	0.007	1.133	0.000	72.000	63.926	-0.428
SUM						
S1	0.040	0.893	0.000	72.000	84.356	-3.351
S2	0.040	0.891	0.000	72.000	84.599	-3.382
S3	0.044	0.943	0.000	72.000	80.120	-3.541
S4	0.044	1.020	0.000	72.000	73.746	-3.250
S5	0.052	1.125	0.000	72.000	67.087	-3.461
S6	0.052	1.080	0.000	72.000	70.091	-3.663
S7	0.052	1.101	0.000	72.000	68.667	-3.589
S8	0.044	0.971	0.000	72.000	77.692	-3.433

Internal Reference Calibration, performed Fri Aug 25 16:20:58 2017:

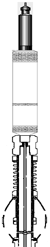
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.290	0.000	0.290	1.000	0.000

Air Zero Calibration, performed Fri Aug 25 16:20:58 2017:

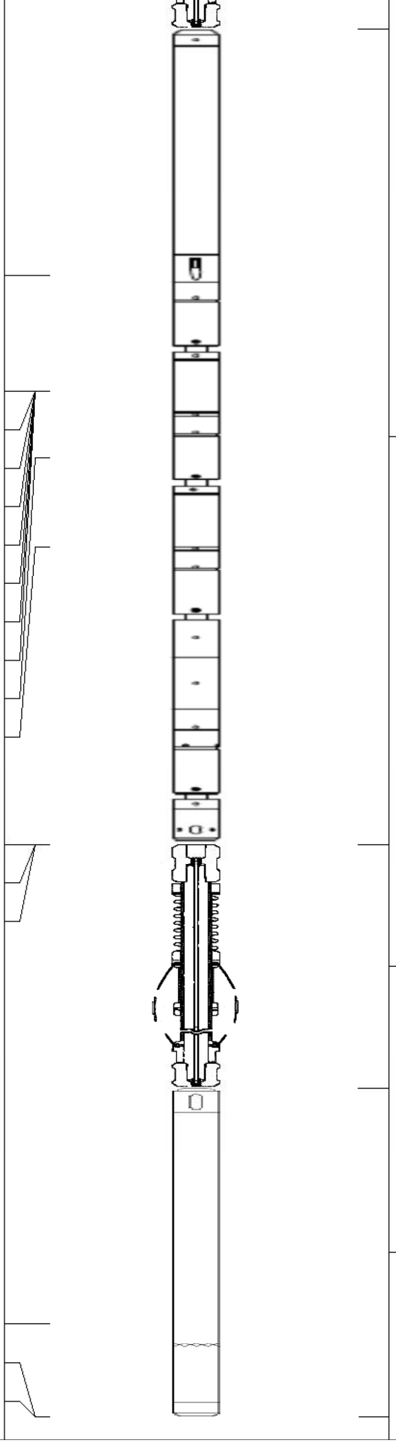
	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

Temperature Calibration Report

Serial Number:	IT4B1-01			
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)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			CableHead-TitanConeType2	1.03	1.44	3.60
CCL	18.96		CCL_Log-2 3/4" TekCo (IS2T1-09)	1.83	2.75	33.00
			TekCo-2 3/4"	2.73	2.75	25.00

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



RBTA-2 3/4" RIB Analog (IT4B1-01)	9.13	2.75	102.00
TekCo-2 3/4"	2.73	2.75	25.00
GR_Log-2 3/4" TekCo (ISHV2-02)	3.68	2.75	47.00

Dataset: 20180604_extraction_berthoud farms 8e-10-7n_cbl.db: field/well/run1/Main
Total length: 21.13 ft
Total weight: 235.60 lb
O.D.: 2.75 in

gyrodata

Company Extraction Oil & Gas
Well Berthoud Farms 8E-10-7N
Field Wattenberg
County Weld
State Colorado **Country** U.S.A.