Cement Bond Log

Company	Extraction Oil and Gas
Well	CS Sherwood 2-1-13
Field	Wattenberg
County	Weld
State	Colorado

Company Extraction Oil and Gas

Well CS Sherwood 2-1-13

Field Wattenberg

County Weld **State** Colorado

API # : 05-123-42909
Location: SE/SW
340 FSL
1952 FEL

Other Services

Elevation
K.B. 4680
D.F. 4679
G.L. 4665

SEC: 36 TWP: 6N RGE: 66W

Permanent Datum: Ground Level Elevation: 4665
Log Measured From: Kelly Bushing , 25 ft. above Permanent Datum.
Drilling Measured From: Kelly Bushing

Date	22 Sept 2017
Run Number	One
Plug Back T.D. Driller	----
Plug Back T.D. Logger	-----
Bottom Logged Interval	7180'
Top Log Interval	Surface
Type Fluid	Water
Density / Viscosity	----
Max. Recorded Temp.	244°F
Time Logger on Bottom	14:30
Equipment Number	GD114
Location	Casper, WY
Recorded By	J. Baker
Witnessed By	Mr. Siegel

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8	36	0	1,500'				
5 1/2	20	0	18,493'				

<<< 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 # : RM0917WLOW638
Your Crew Today: Yarbro, Graham
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	430'
40 % Bond	990'
60 % Bond	2040'
80 % Bond	6845'
100 % Bond	6927'

Comments

Estimated Top of Cement
(20% Bond Index) @ 430'

Marker joint located @ 6,466'

Thank you for using Gyrodata

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

Log Variables

Databasec:\warrior\2017-09-22_extraction_cssherwood 2-1-13_cbl\2017-09-22_extraction_cssherw
Dataset field/well/run1/pass3.2/_vars_

Top - Bottom

BHTEMP_Src TEMP	BOREID in 8.5	BOTTEMP degF 244	CASEOD in 5.5	CASETHCK in 0.361	CASEWGHT lb/ft 20	MAXAMPL mV 71.9	MaxAPIID in 4.923
MaxAPIWall in 0.361	MINAMPL mV 1.9	MinAPIID in 4.751	MINATTN db/ft 0	PPT usec 239			

gyrodata

MAIN PASS - Ran with 0 PSI

5 in / 100 ft

Database File	c:\warrior\2017-09-22_extraction_cssherwood 2-1-13_cbl\2017-09-22_extraction_cssherwood 2-1-13_cbl.c
Dataset Pathname	pass3.2
Presentation Format	rcbl_8s
Dataset Creation	Fri Sep 22 17:04:04 2017
Charted by	Depth in Feet scaled 1:240

CCL - Analog

Gamma

0 (GAPI) 200

Line Tens

3000 (lb) 0

redicted T

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

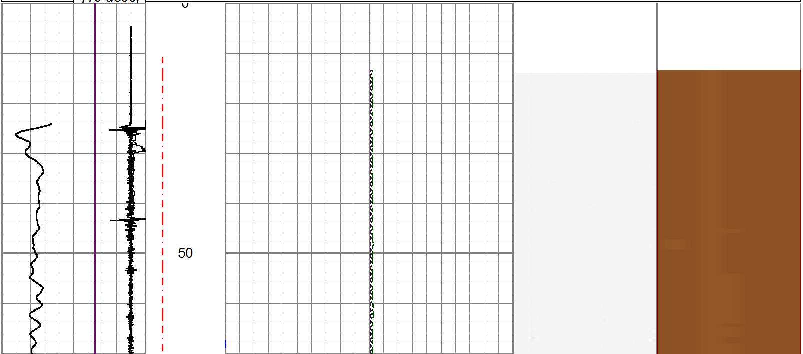
0 100

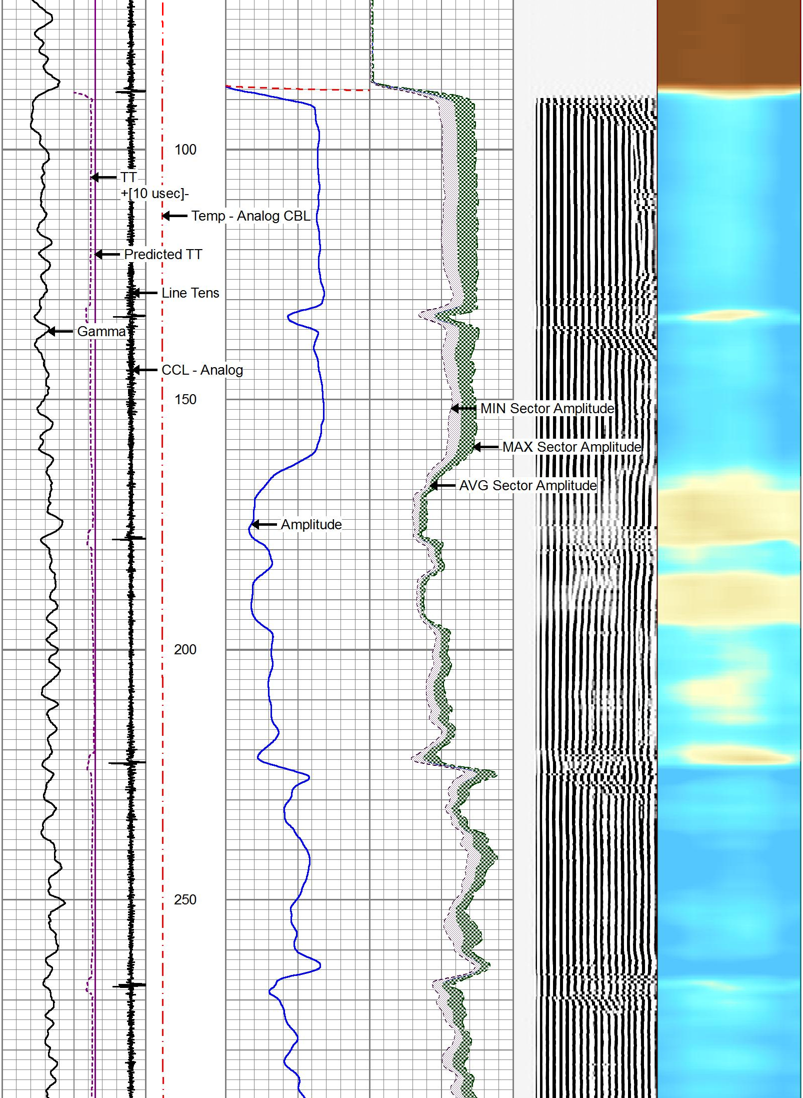
Acoustic Waveform

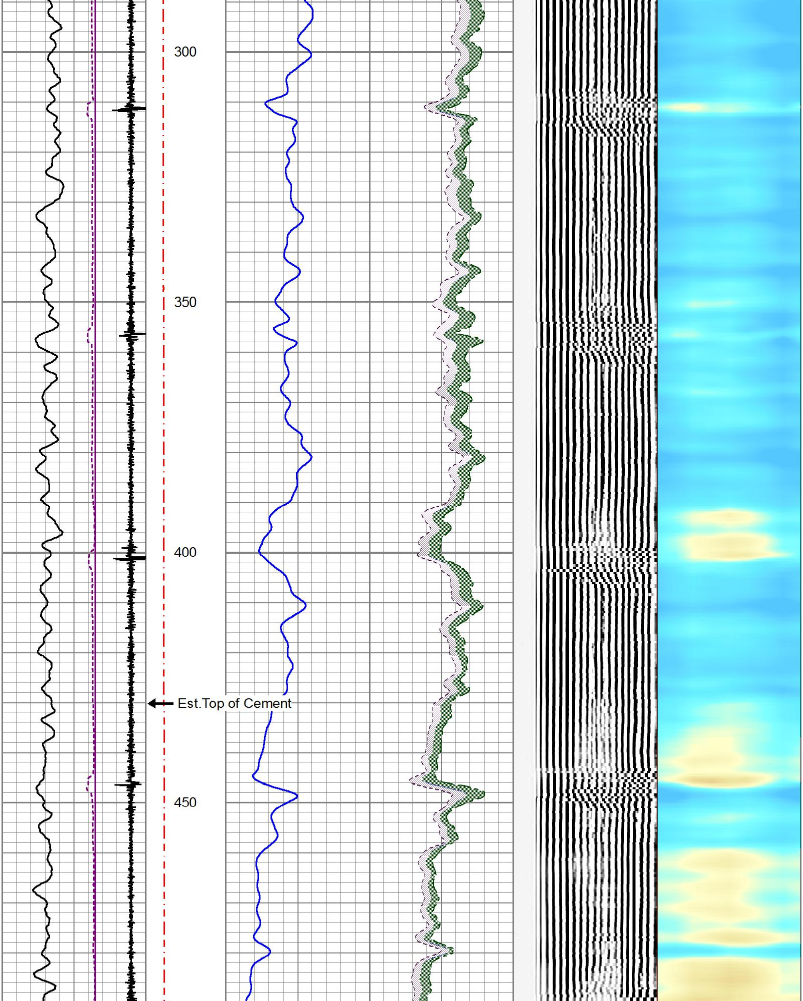
200 1200

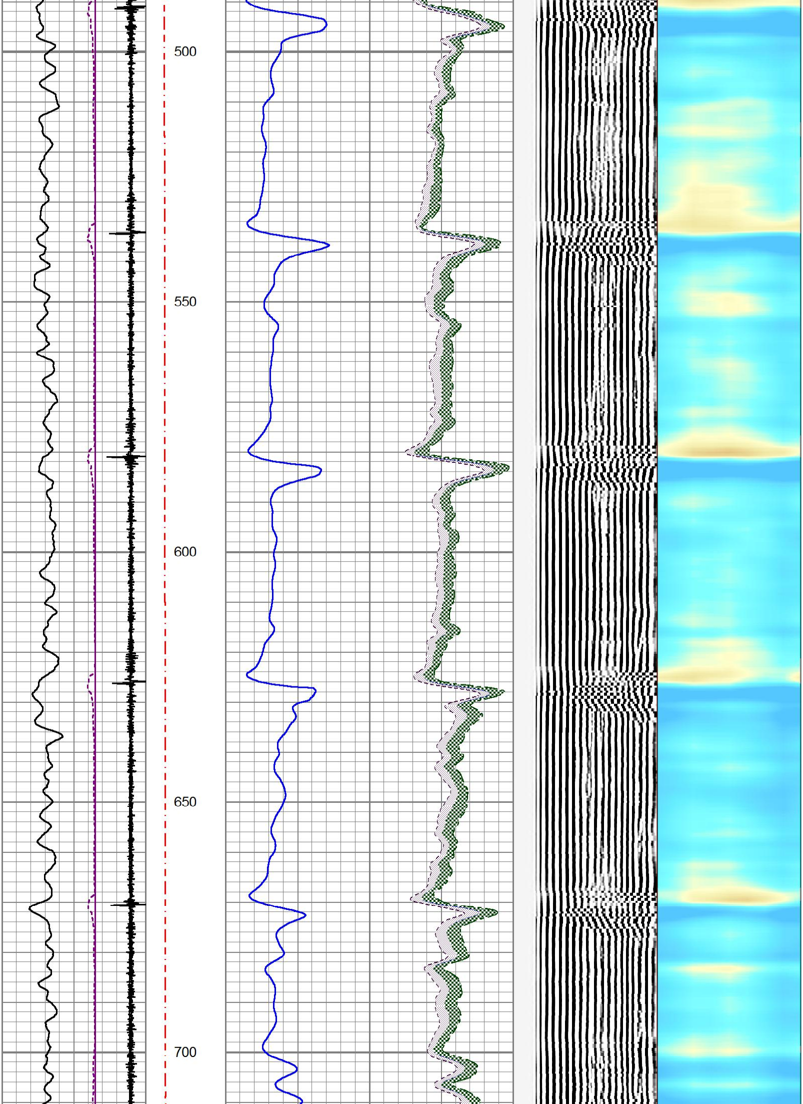
SECTORS

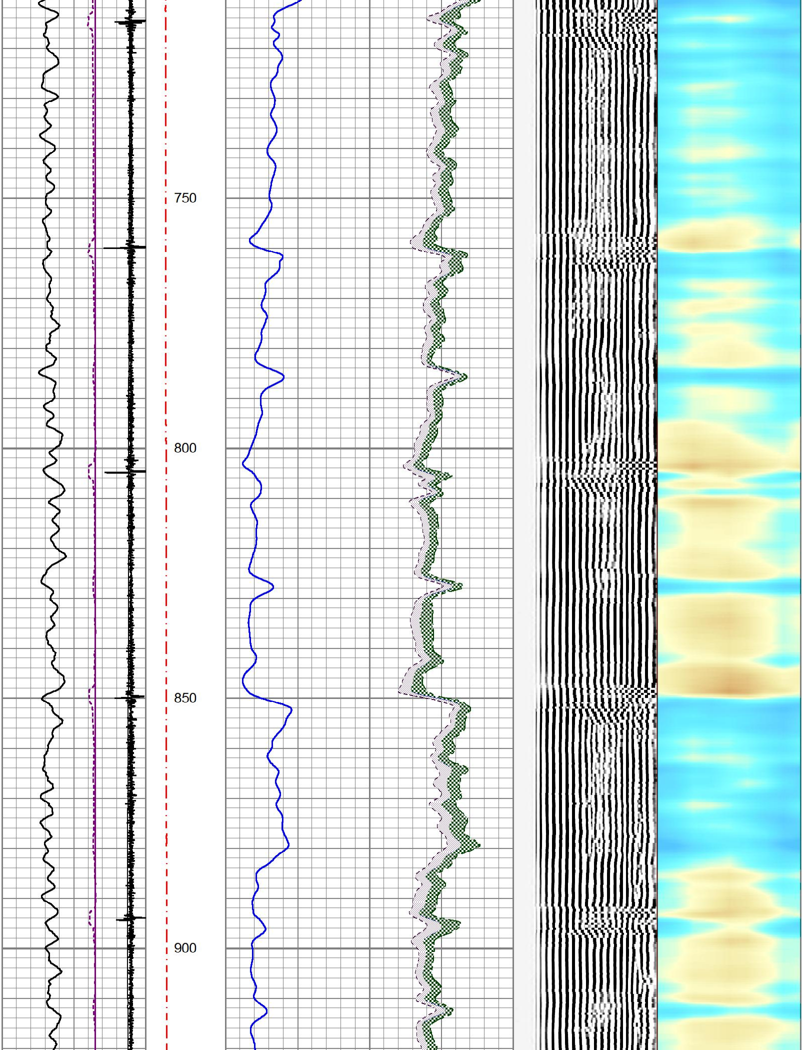
0 72

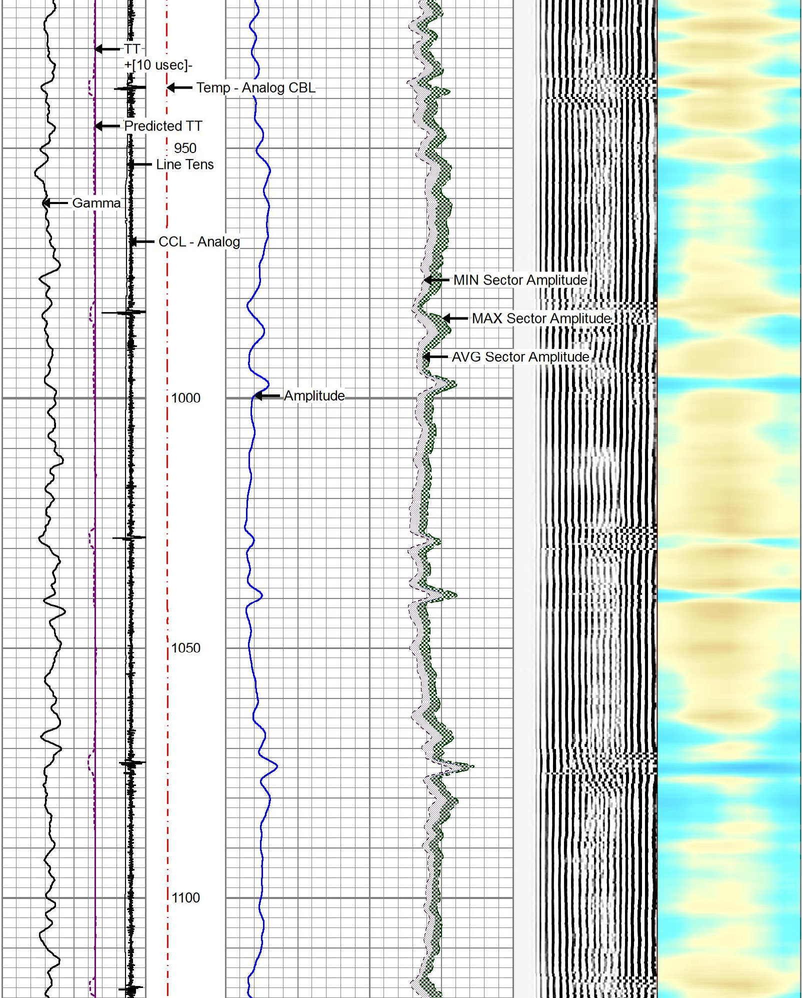


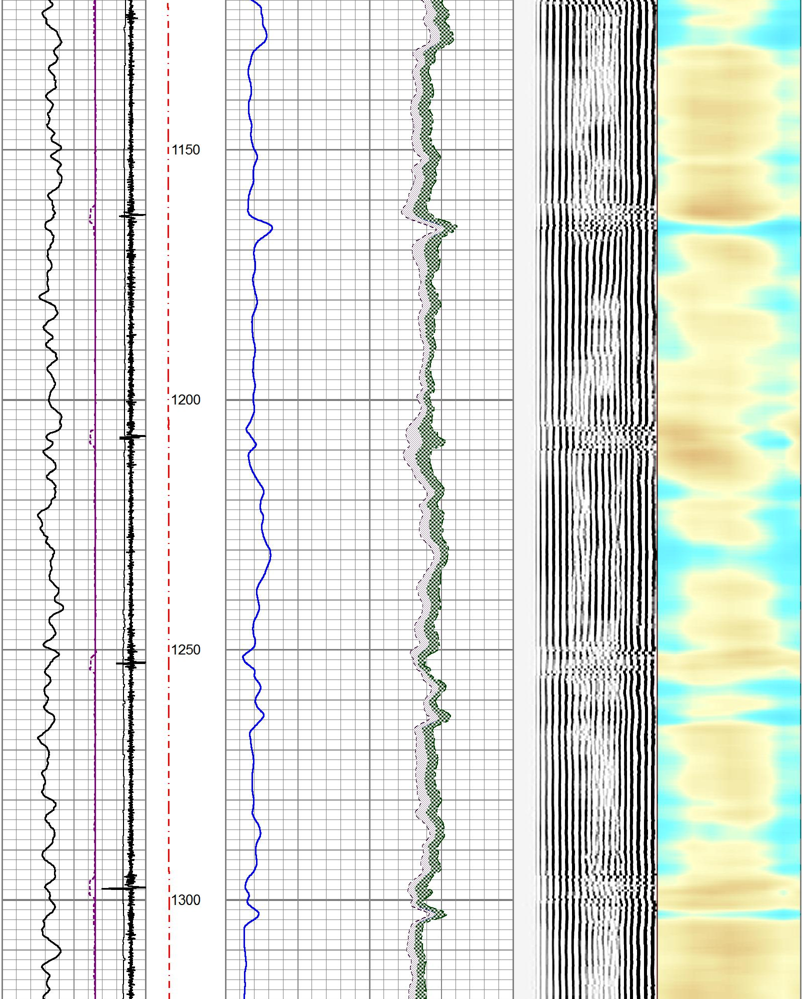


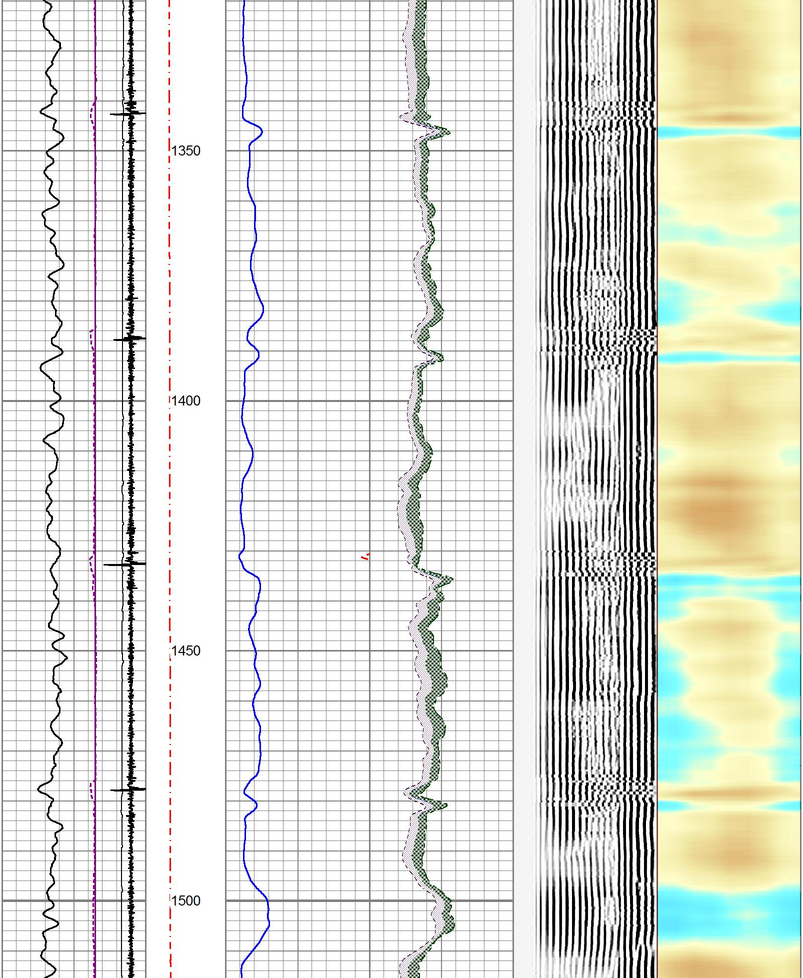


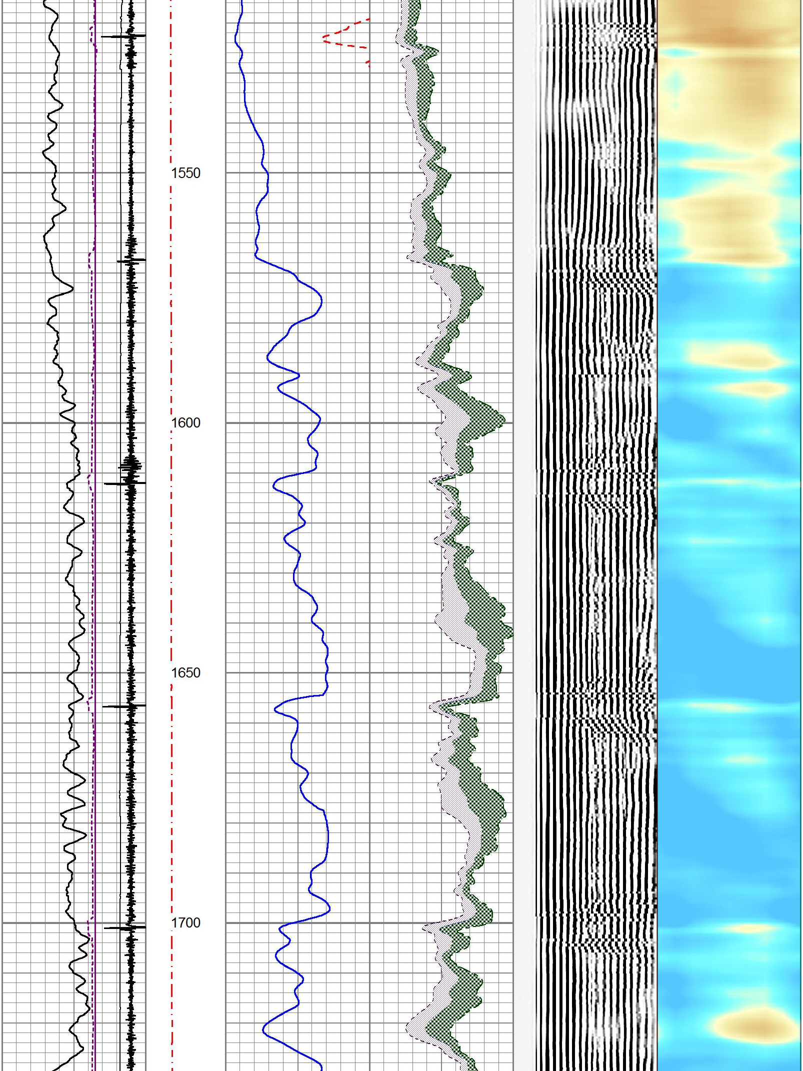


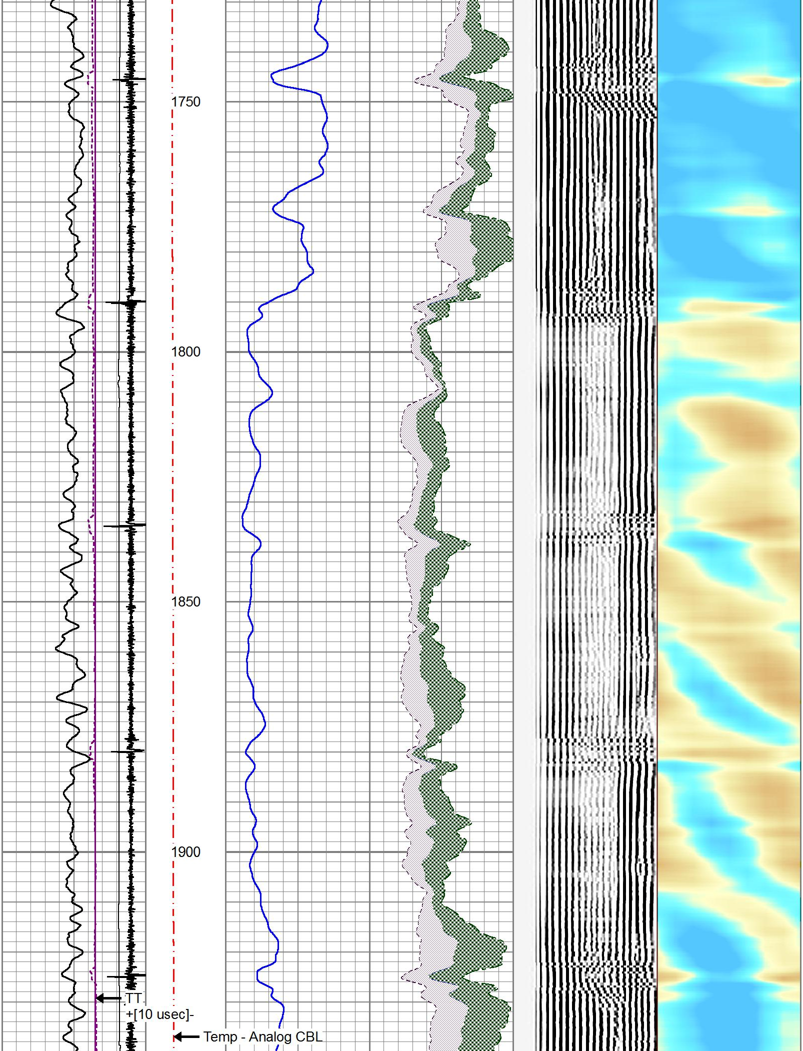


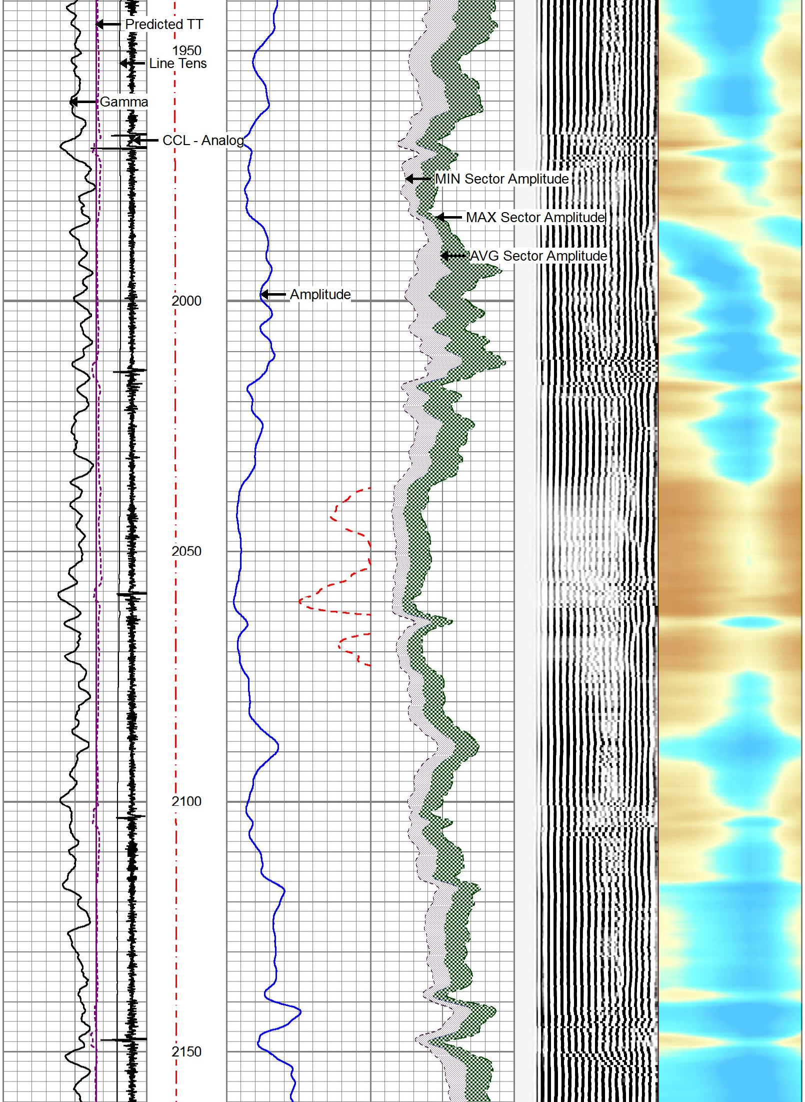


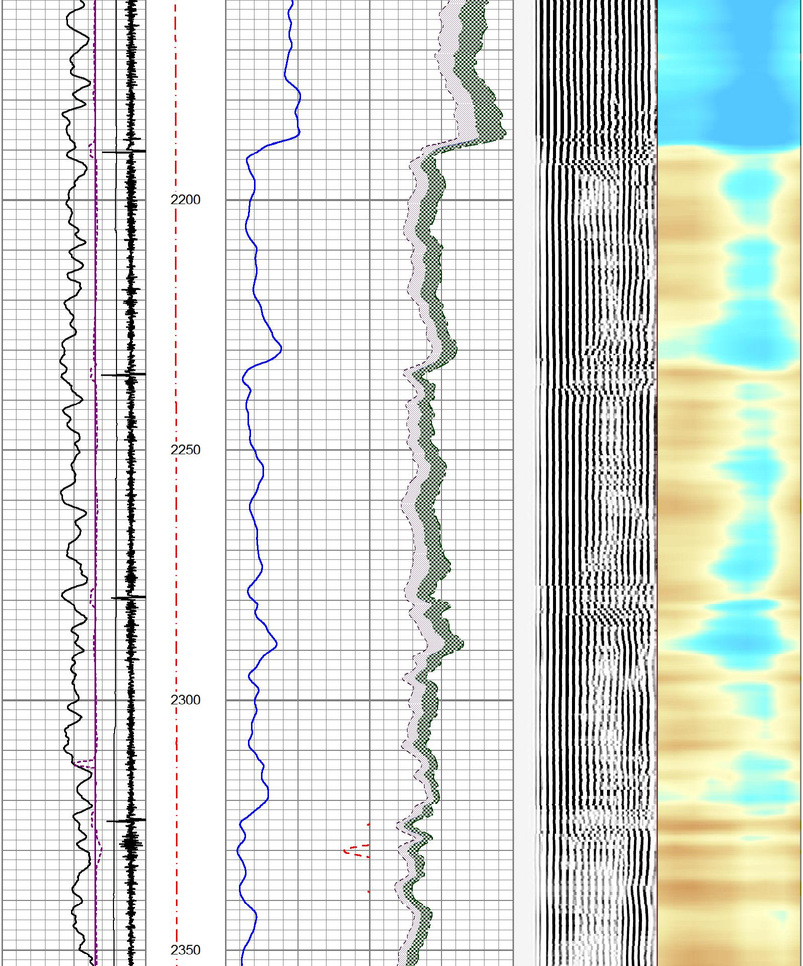


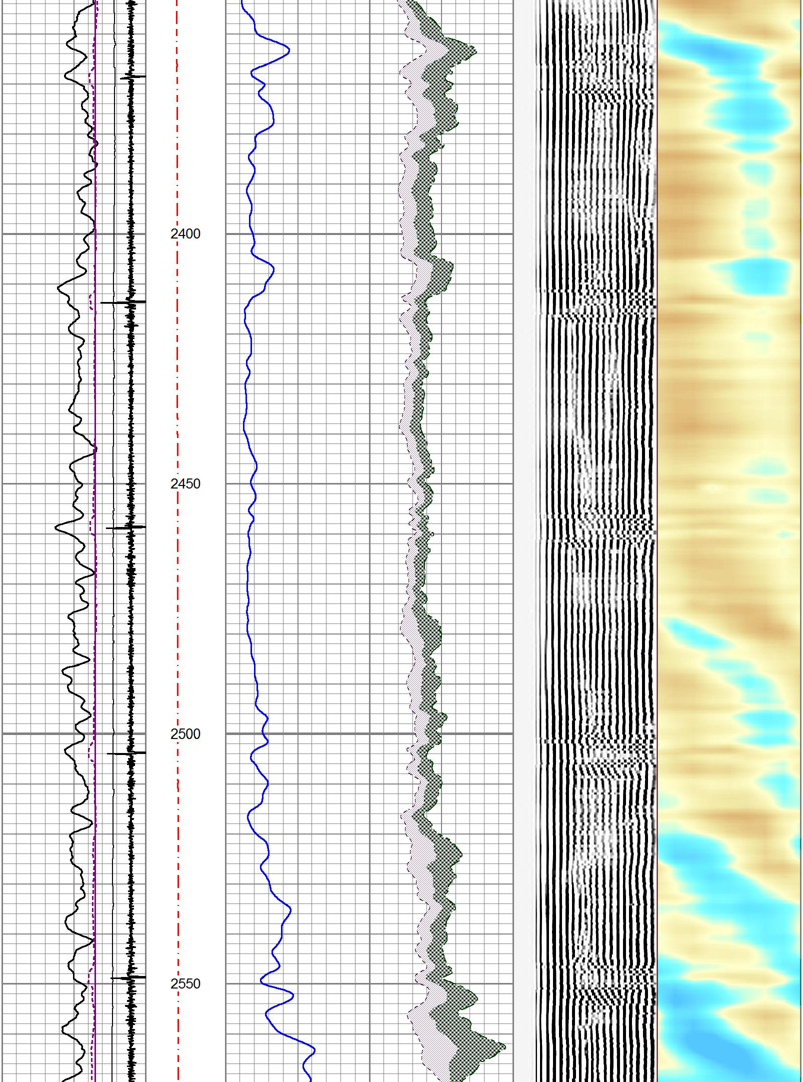


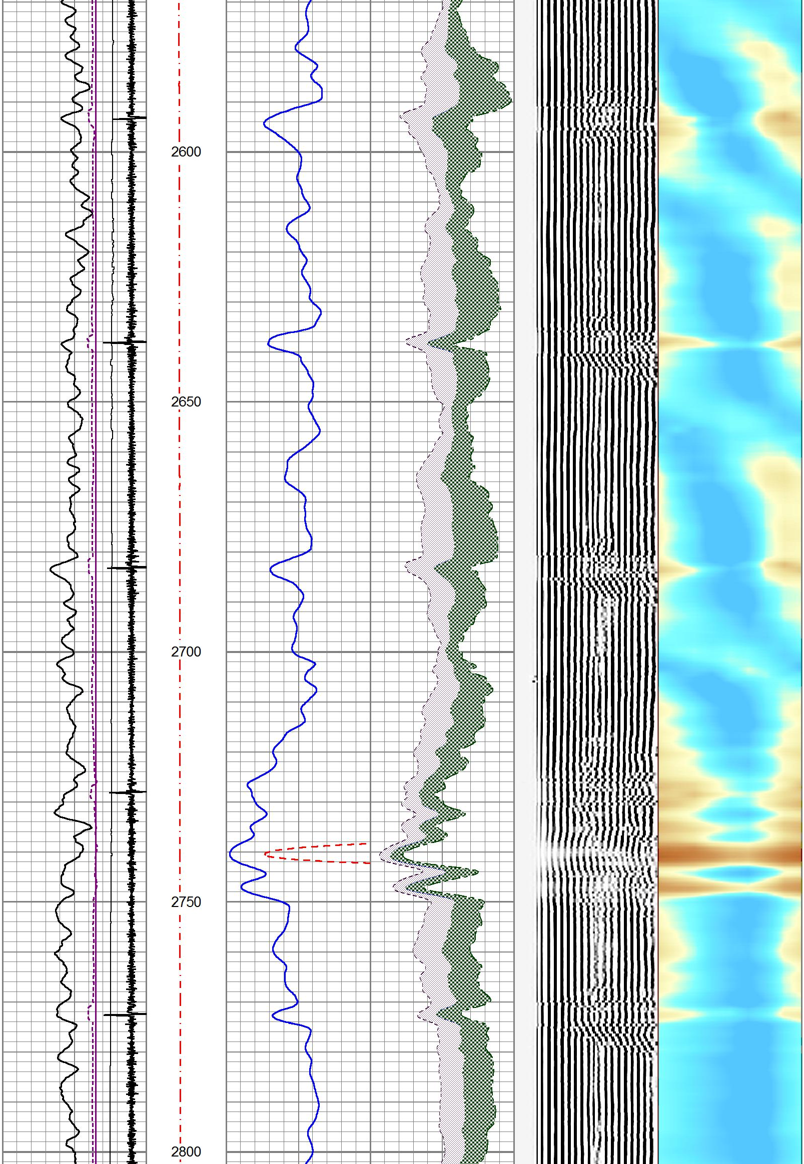


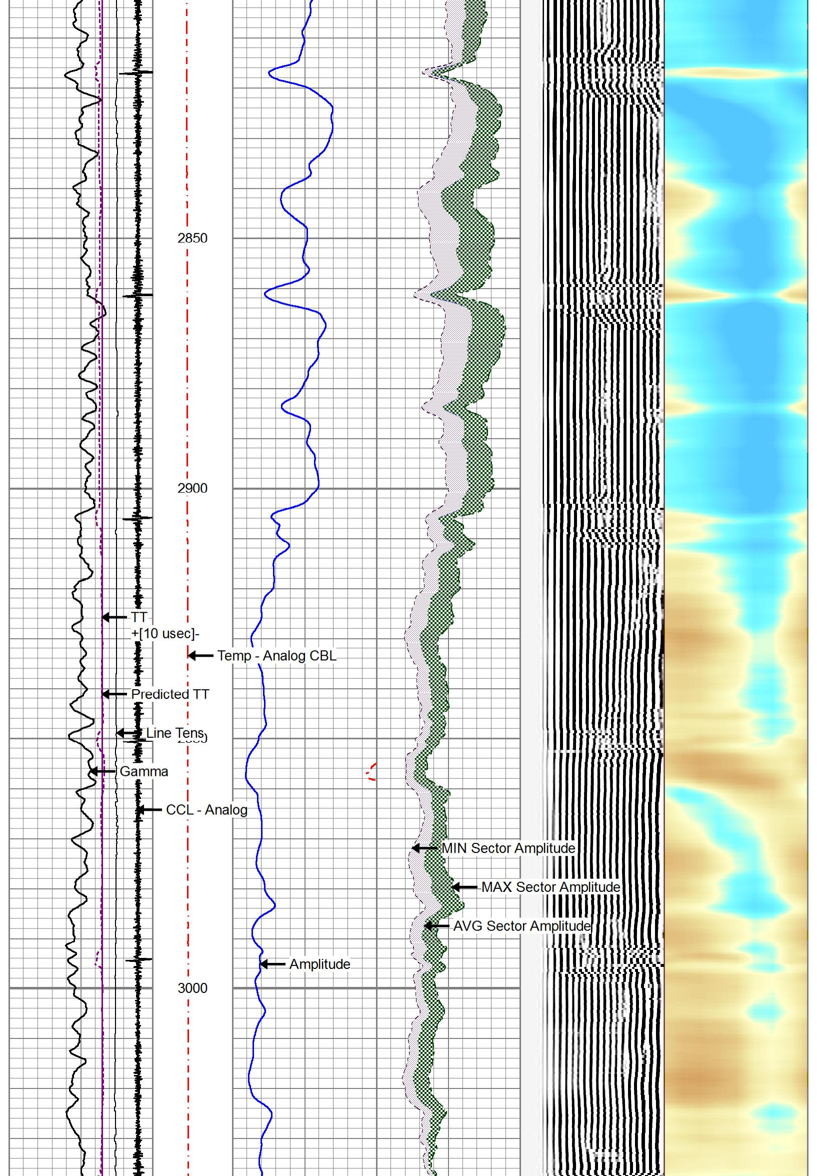


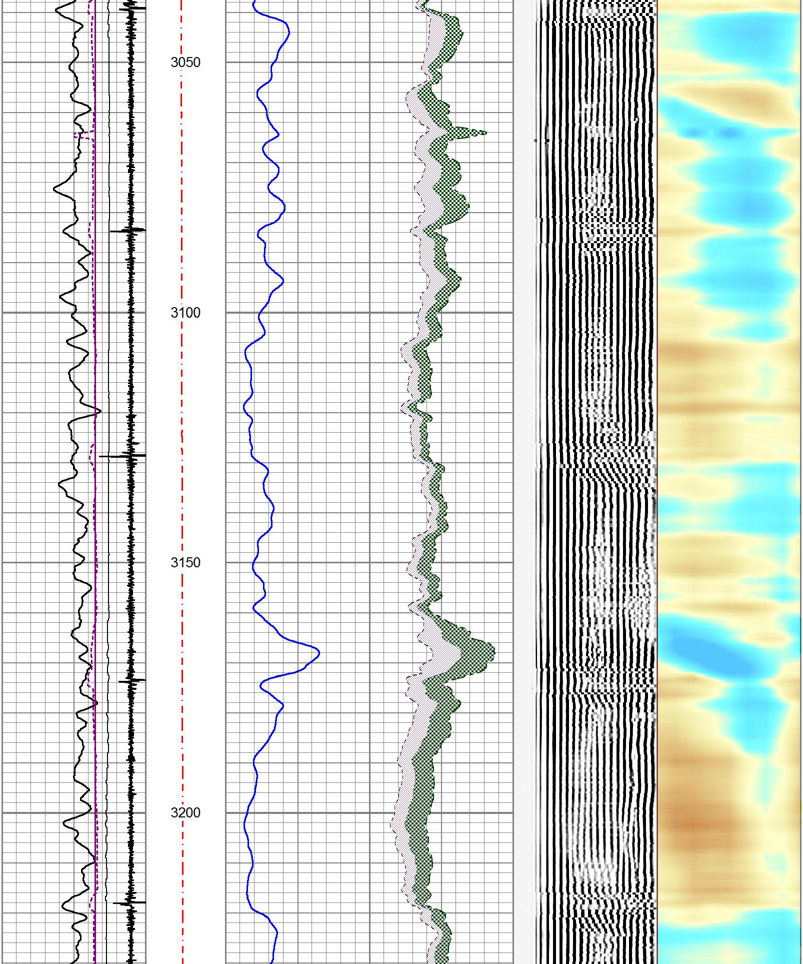


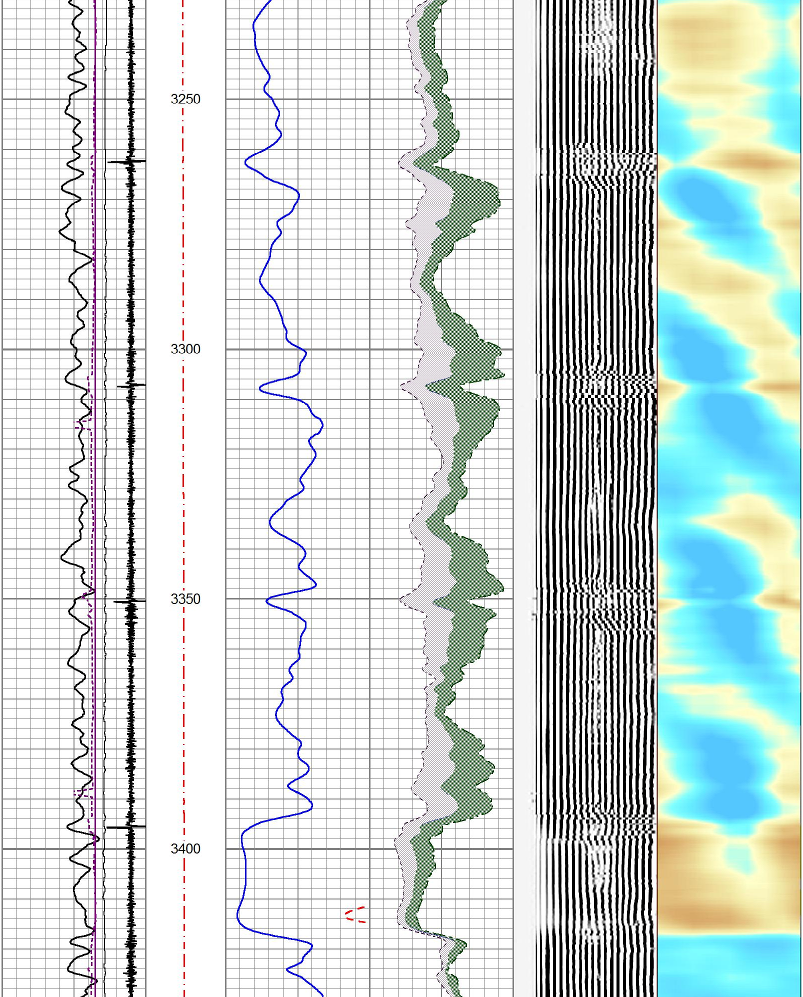


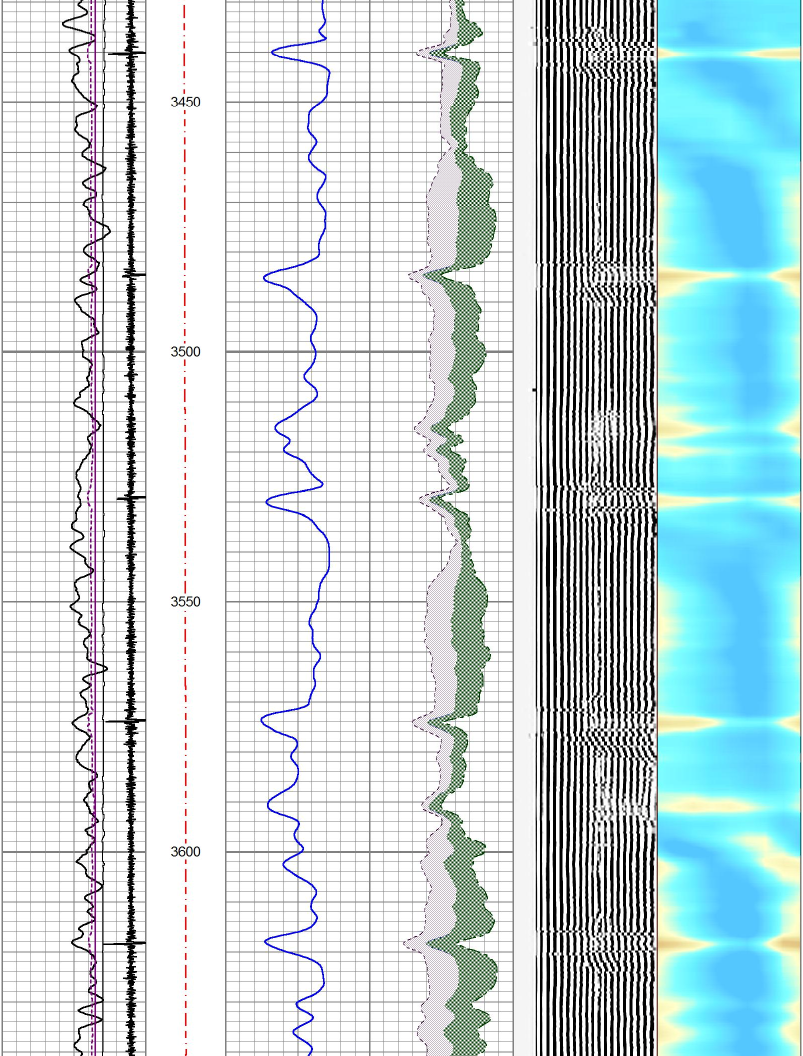


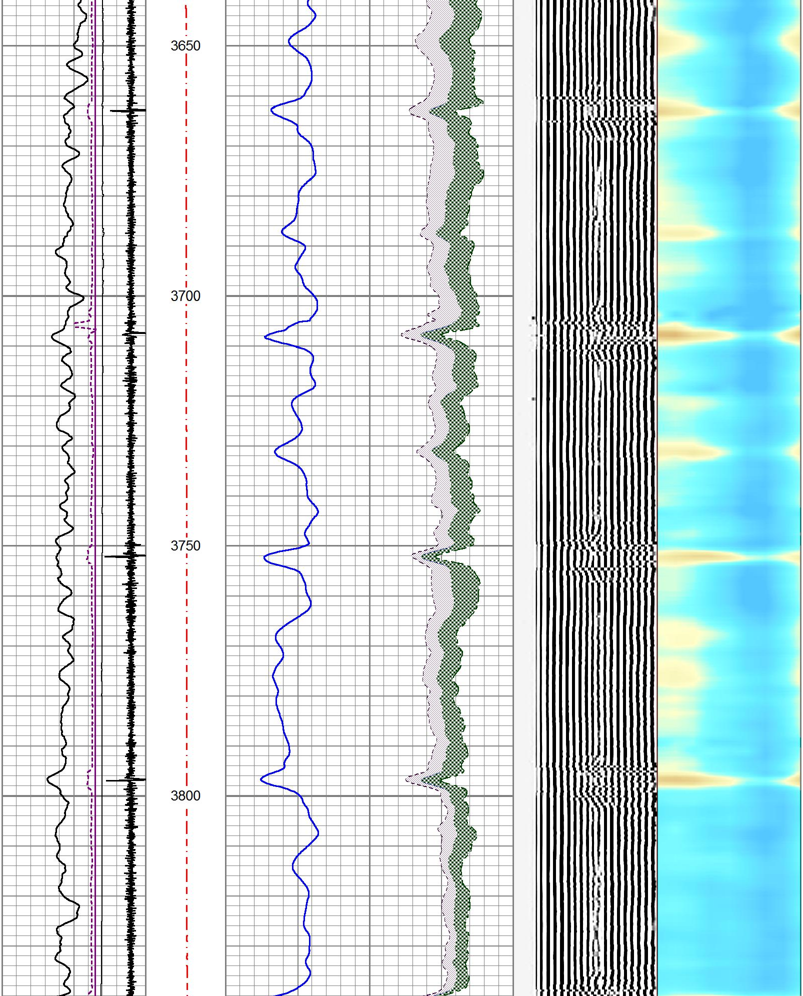


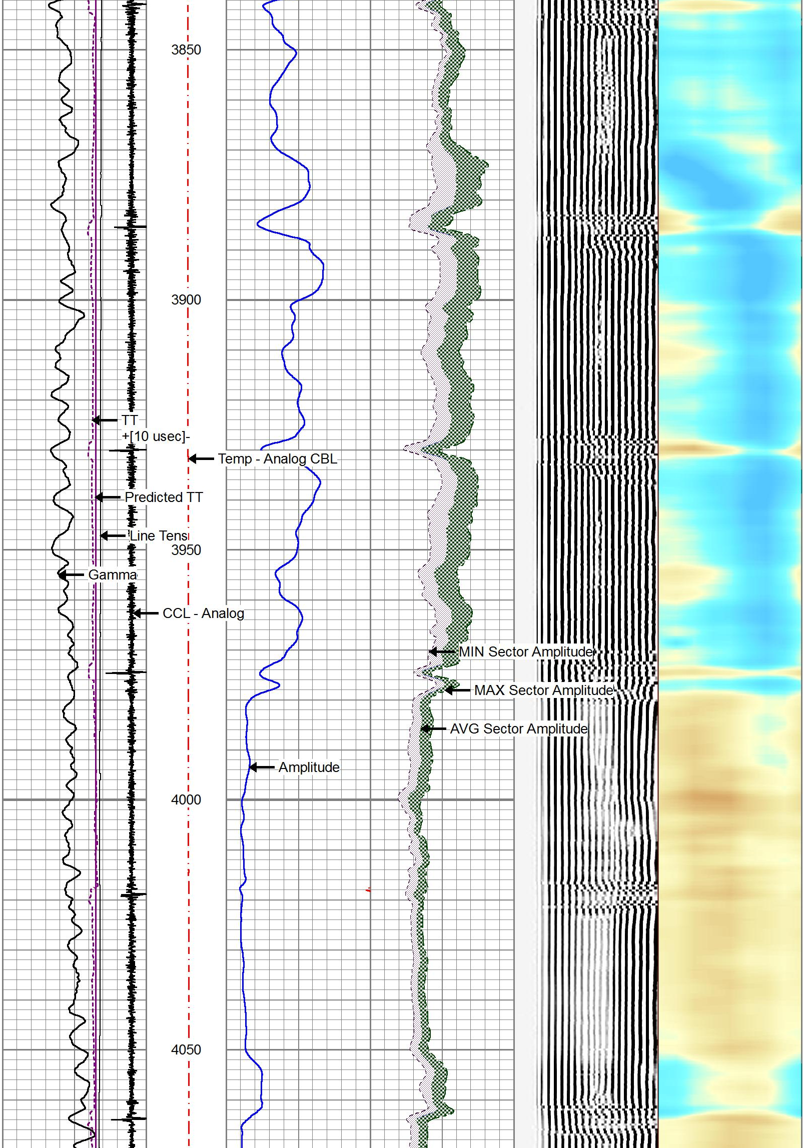


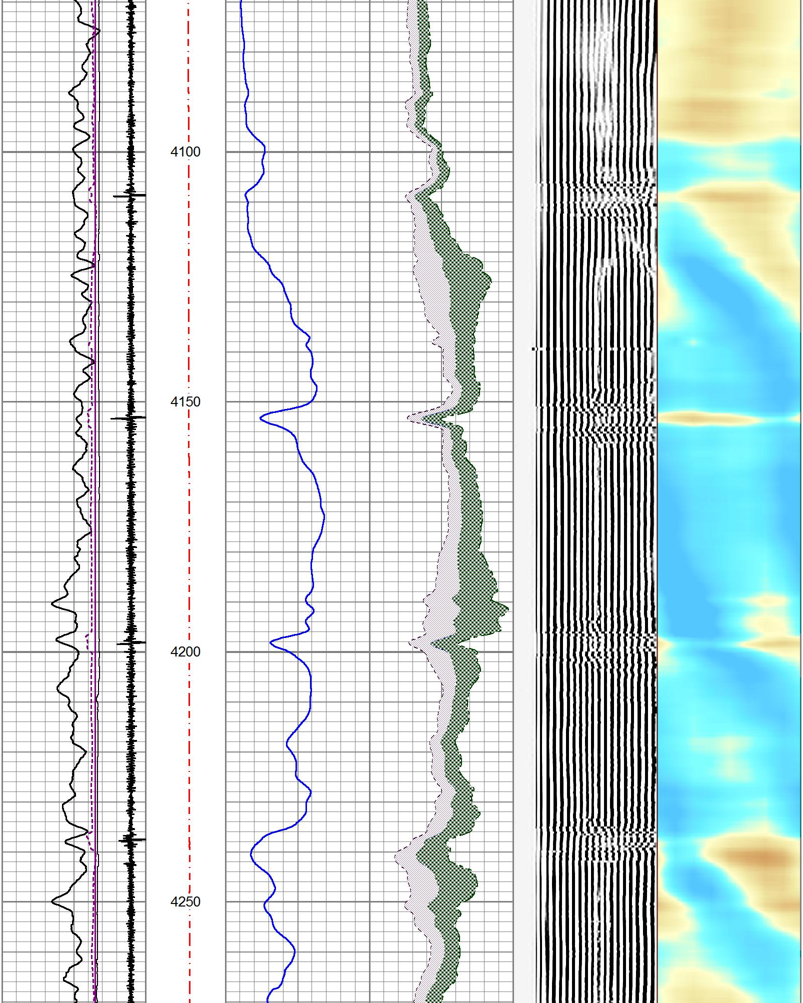


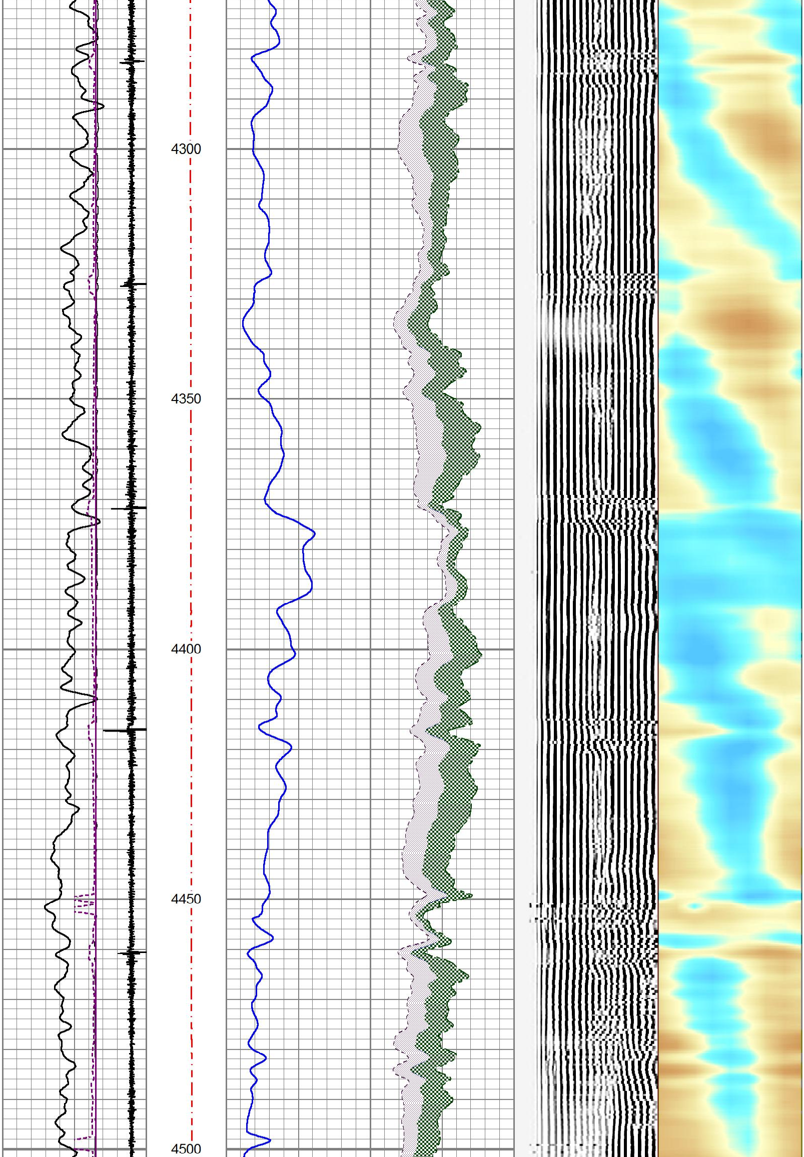


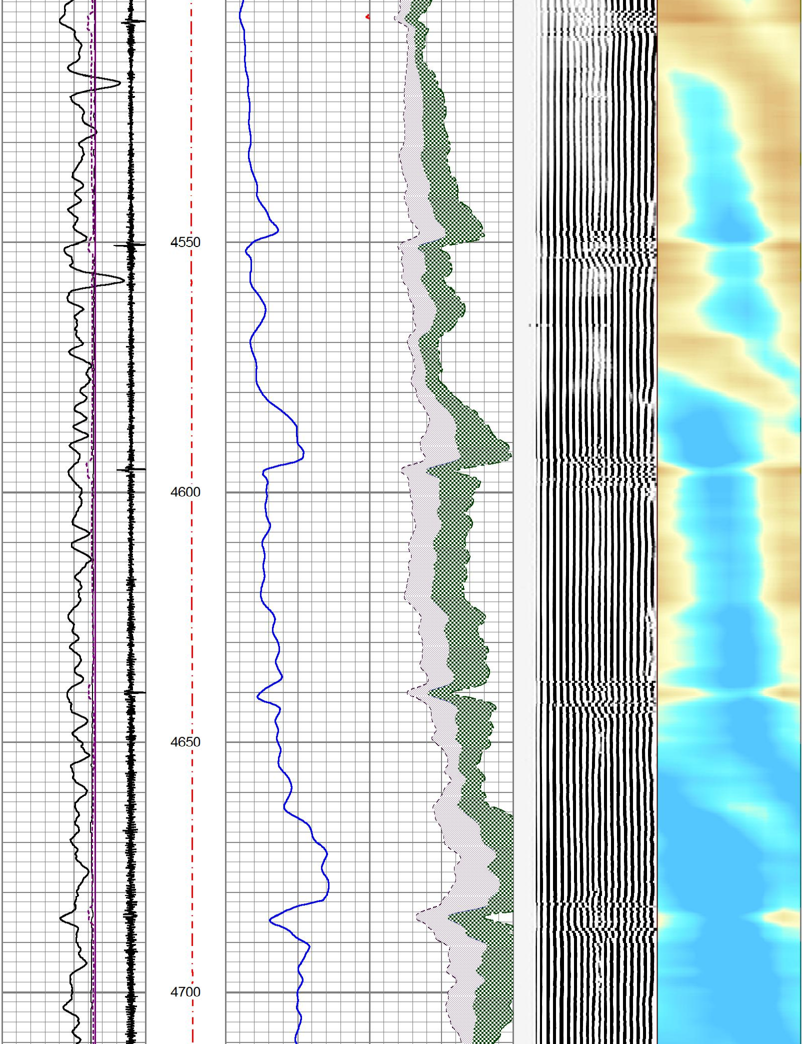


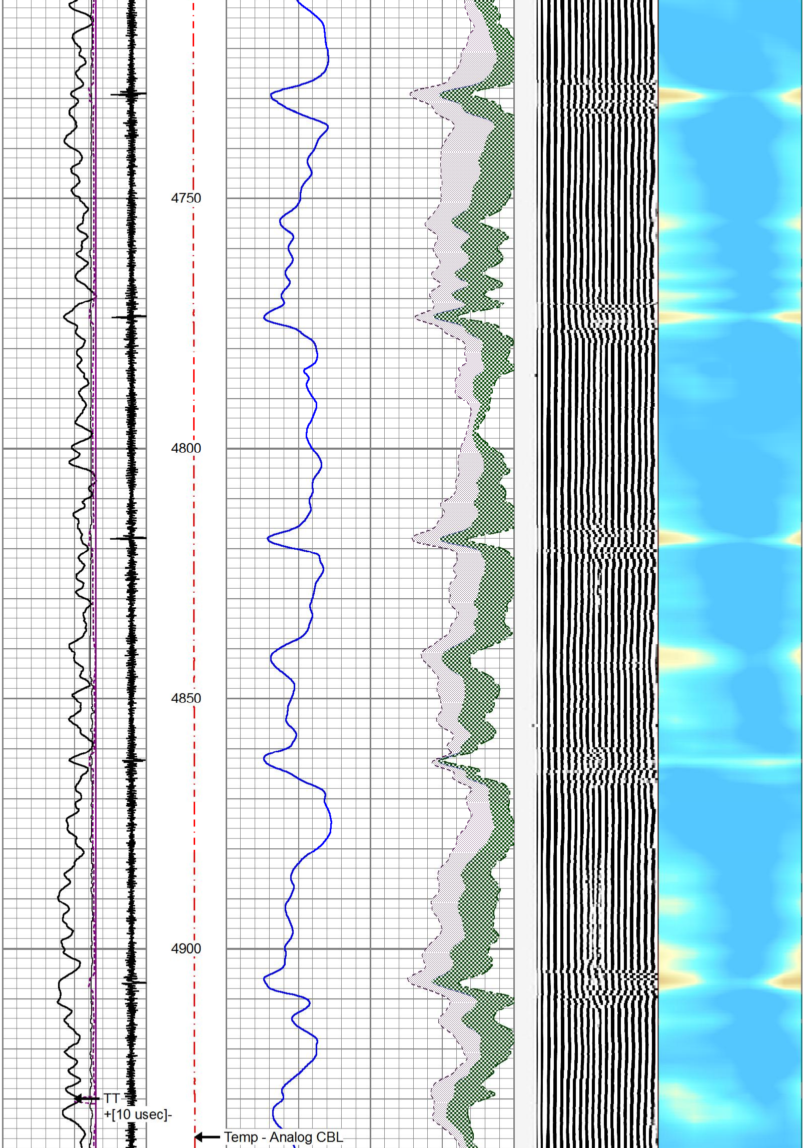


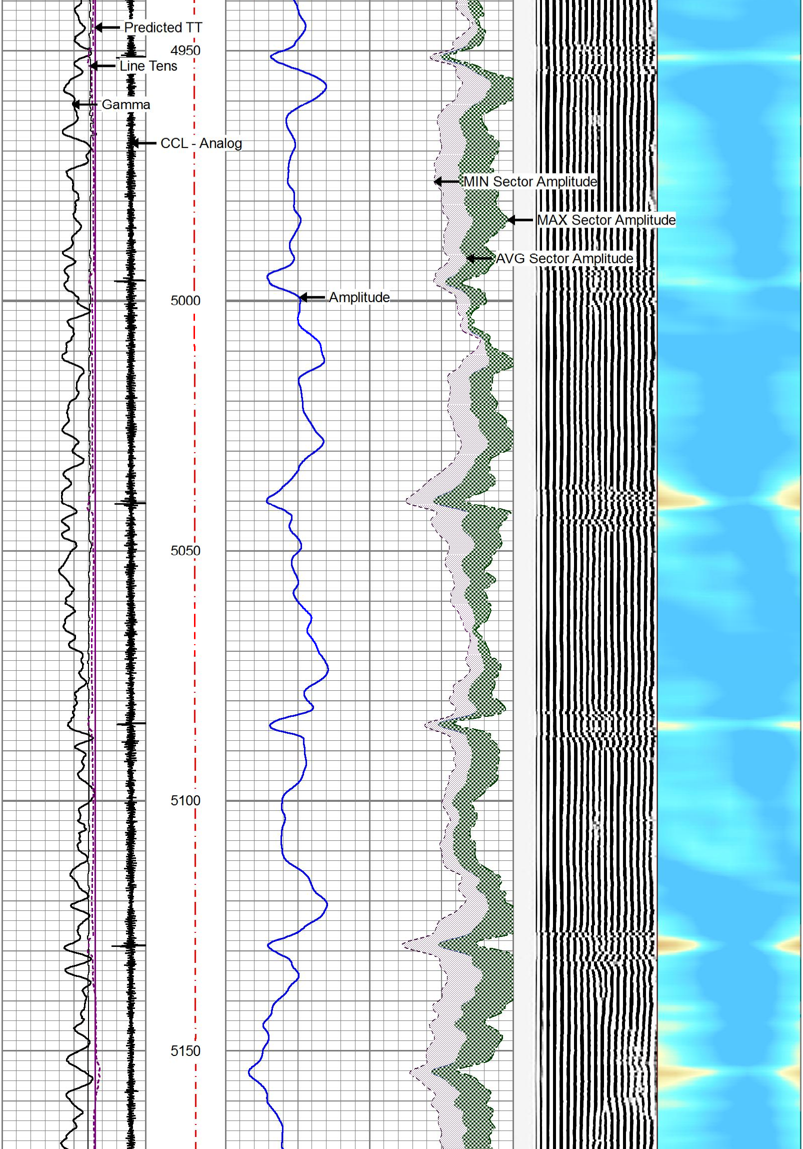


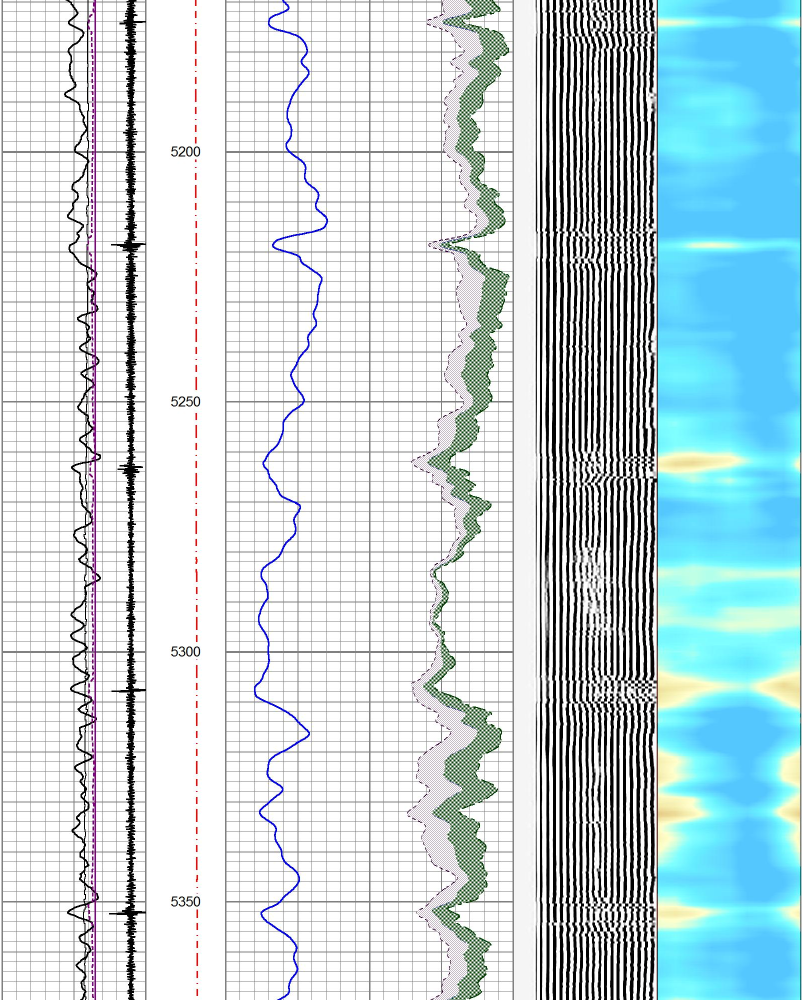


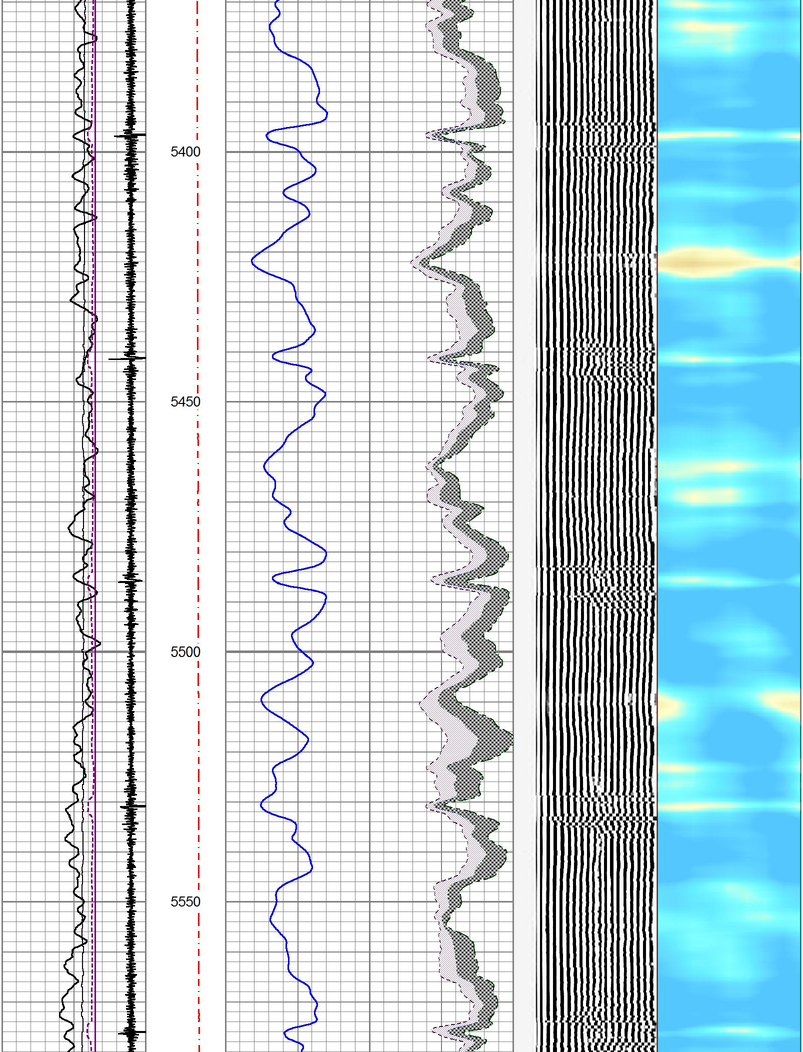


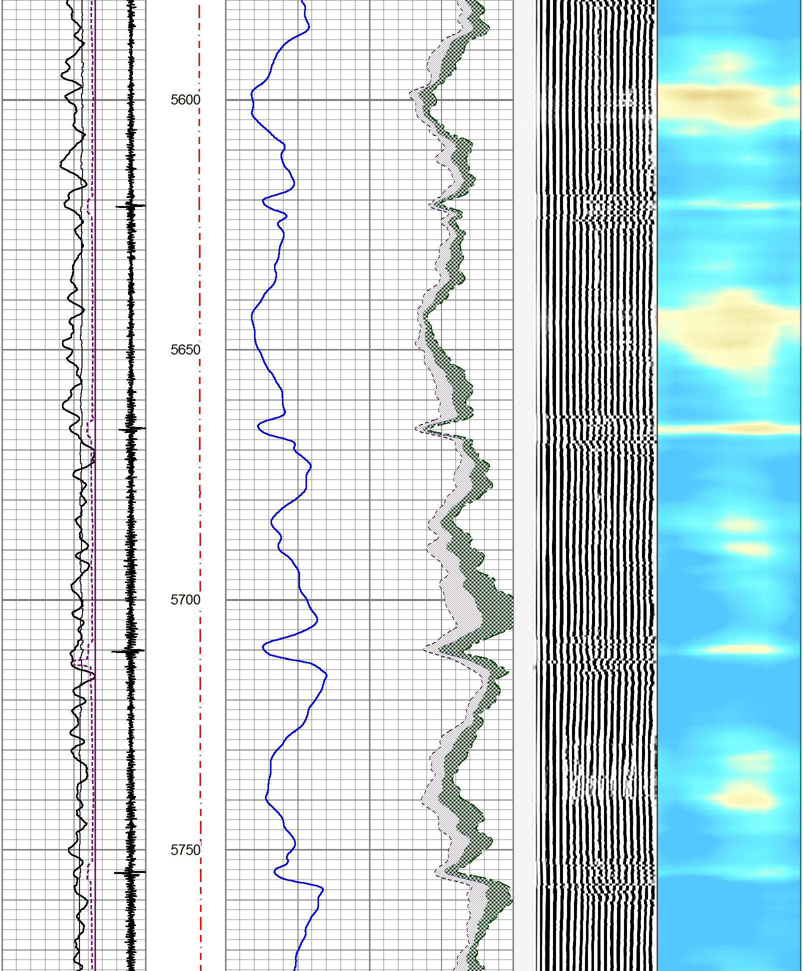


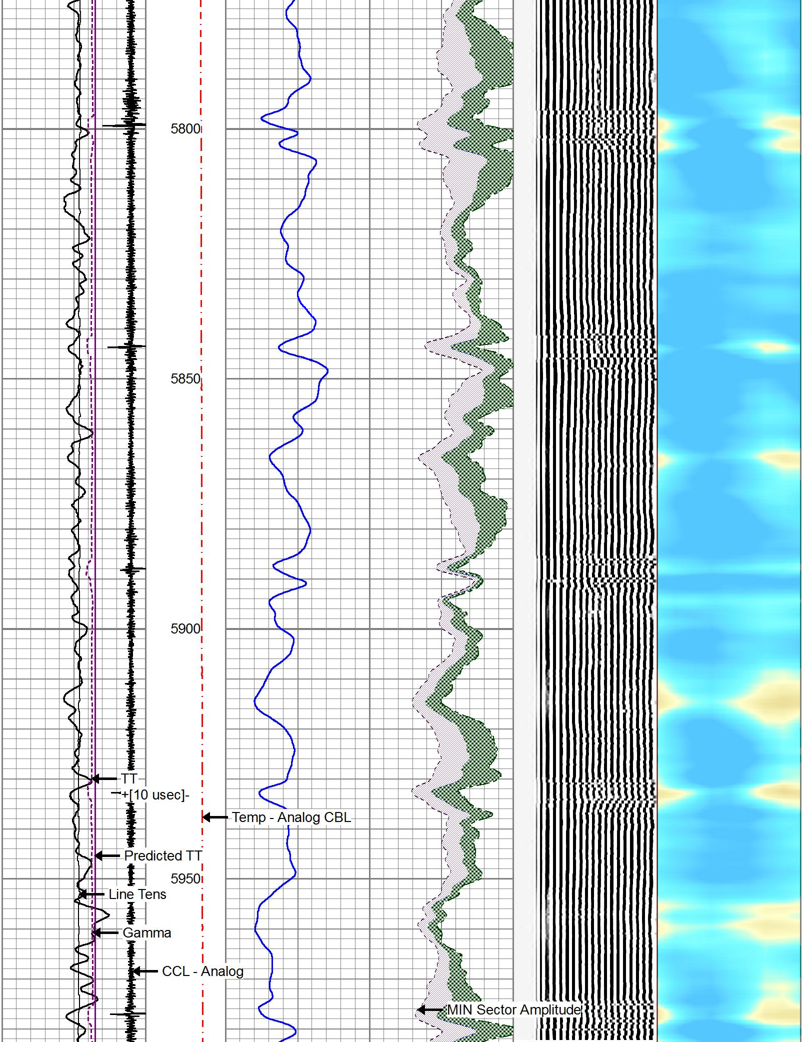


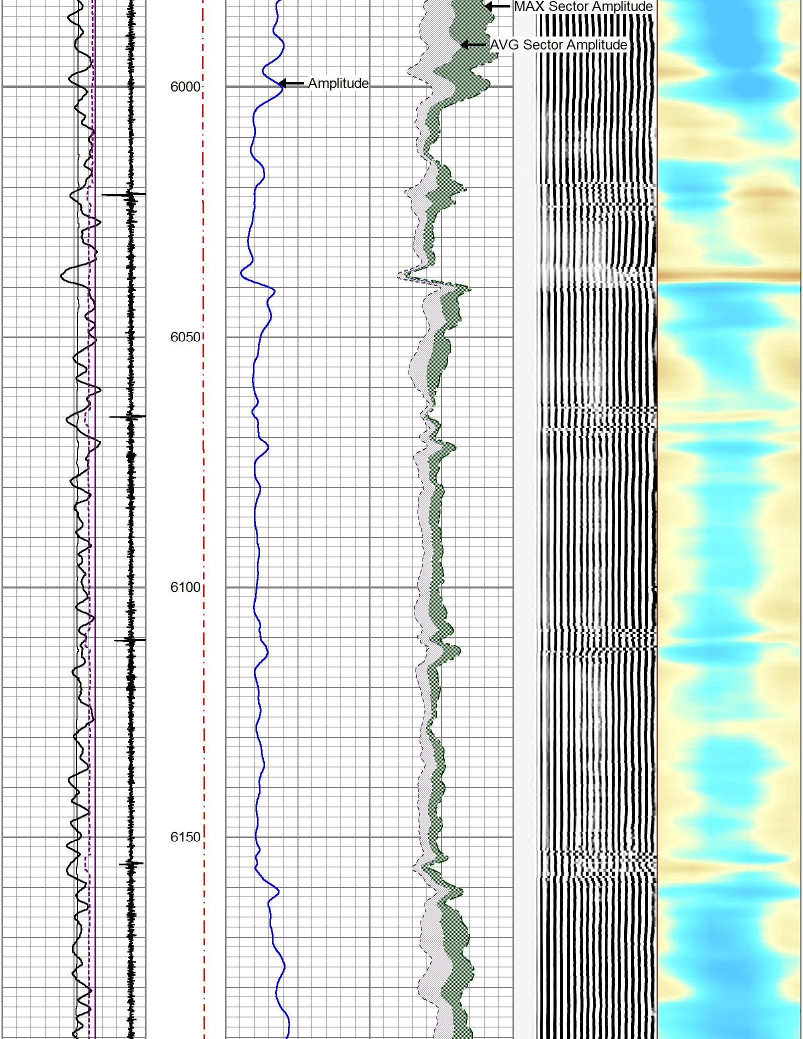


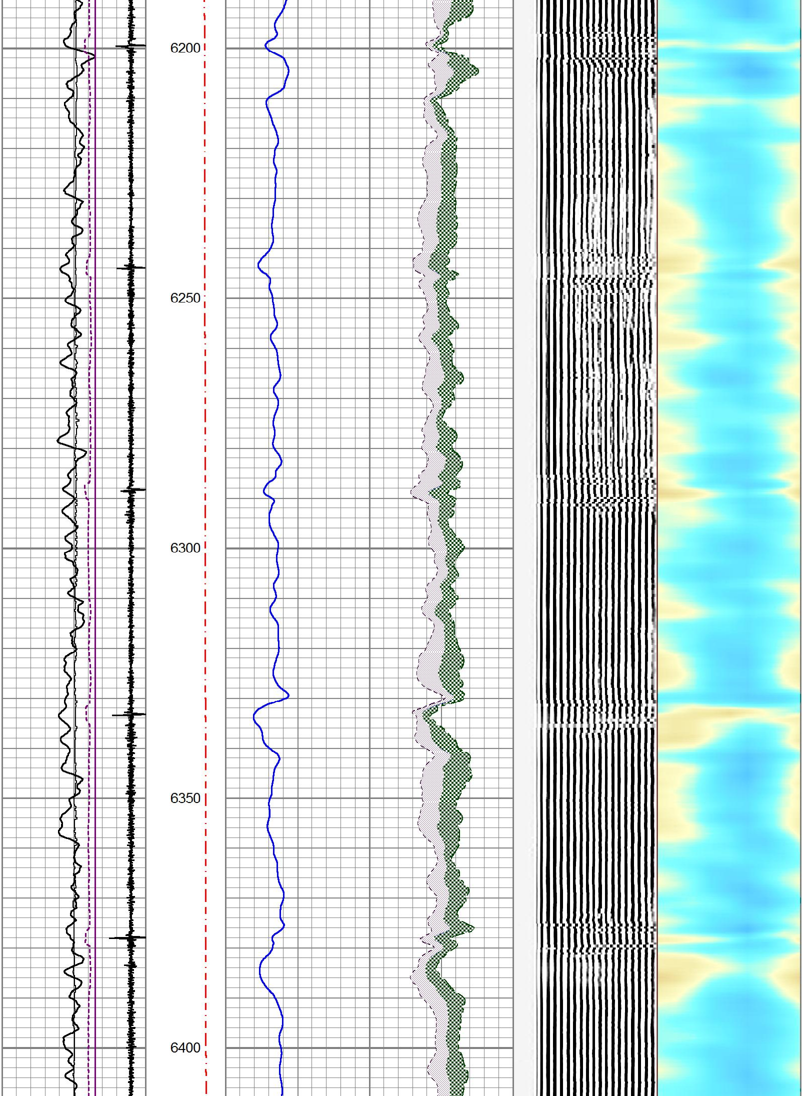


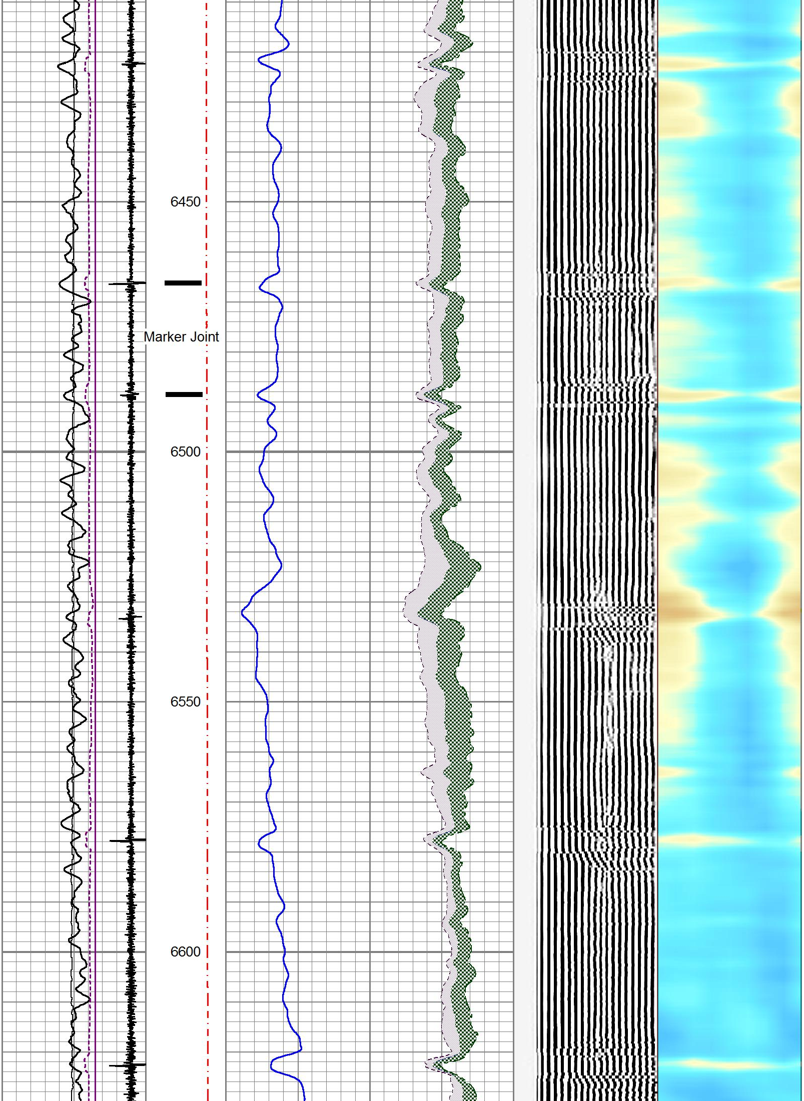


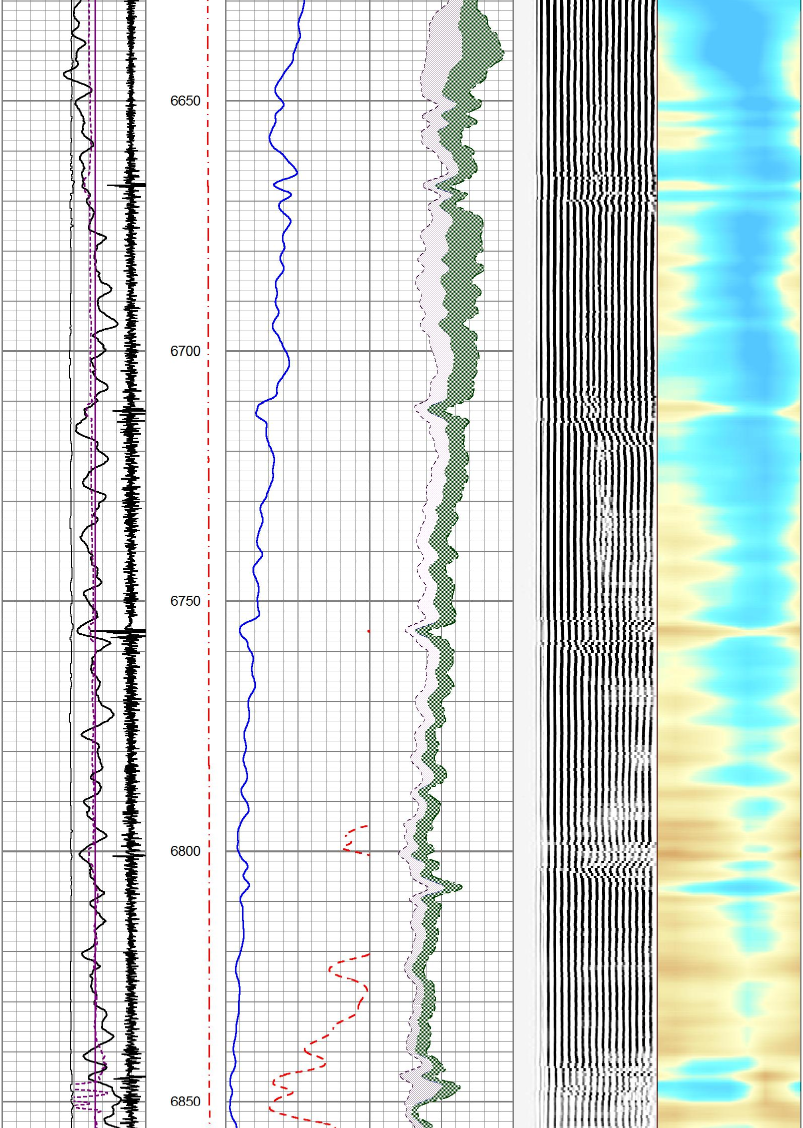


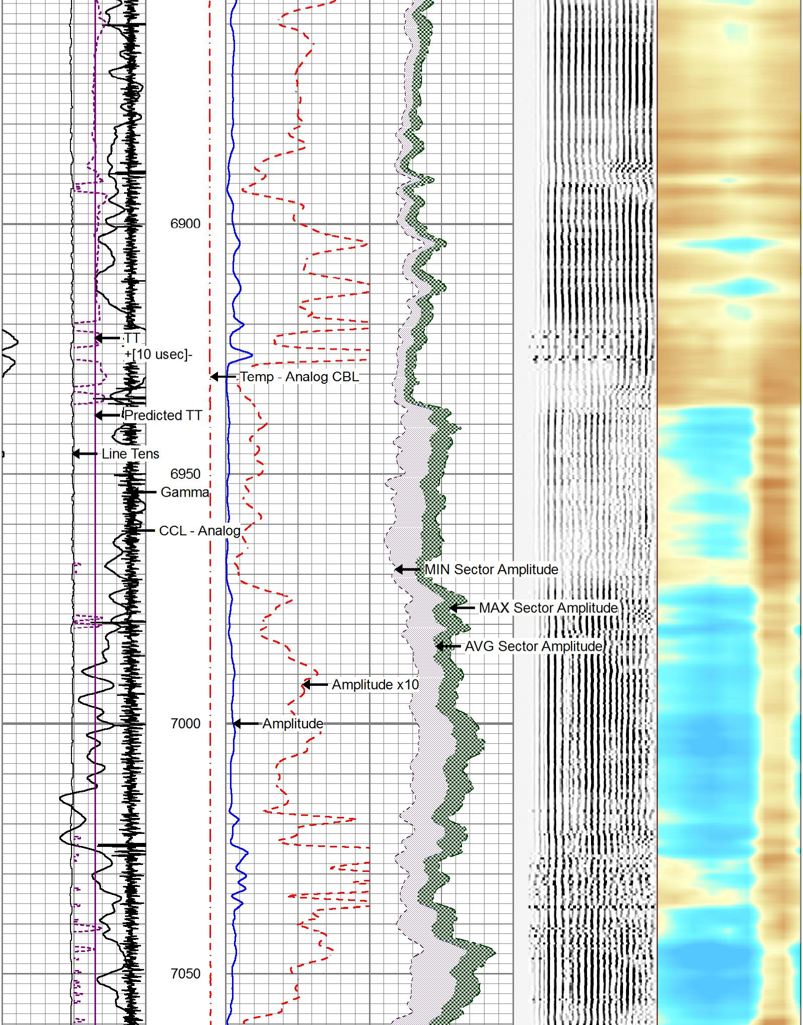


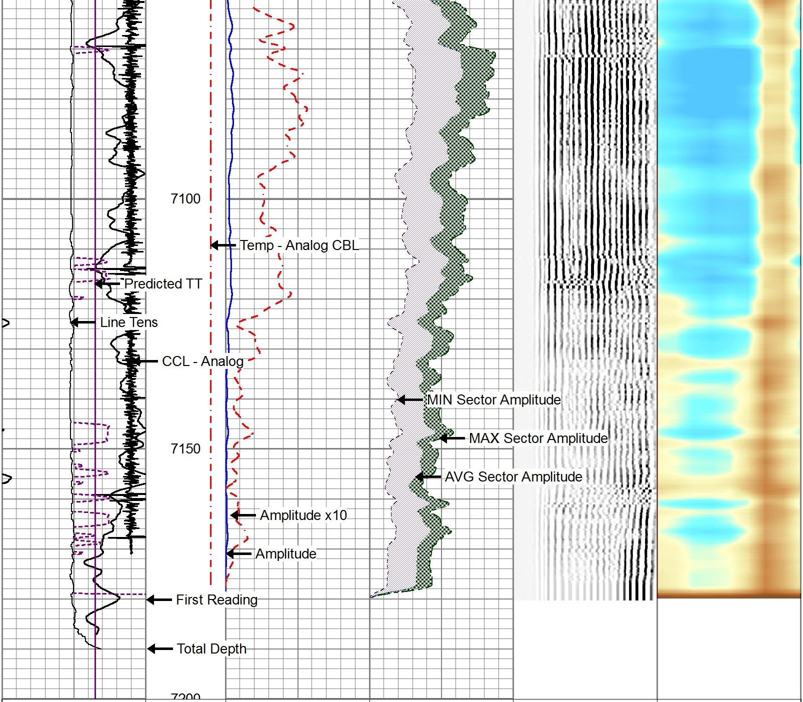












CCL - Analog	np - Analog C	0 *Amplitude (mV)* 100	AVG Sector Amplitude	Acoustic Waveform	SECTORS
Gamma 0 (GAPI) 200	(degF) 0 300	*Amplitude x10* *0 (mV) 10*	0 100	200 1200	0 72
Line Tens *3000 (lb) 0*			*MAX Sector Amplitude* *0 100*		
redicted T *TT* *+[10 usec]-*			*MIN Sector Amplitude* *0 100*		

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MAIN PASS - Ran with 0 PSI

5 in / 100 ft

gyrodata

REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	c:\warrior\2017-09-22_extraction_cssherwood 2-1-13_cbl\2017-09-22_extraction_cssherwood 2-1-13_cbl.c
Dataset Pathname	pass2.1
Presentation Format	rcbl_8s
Dataset Creation	Fri Sep 22 17:13:02 2017
Charted by	Depth in Feet scaled 1:240

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

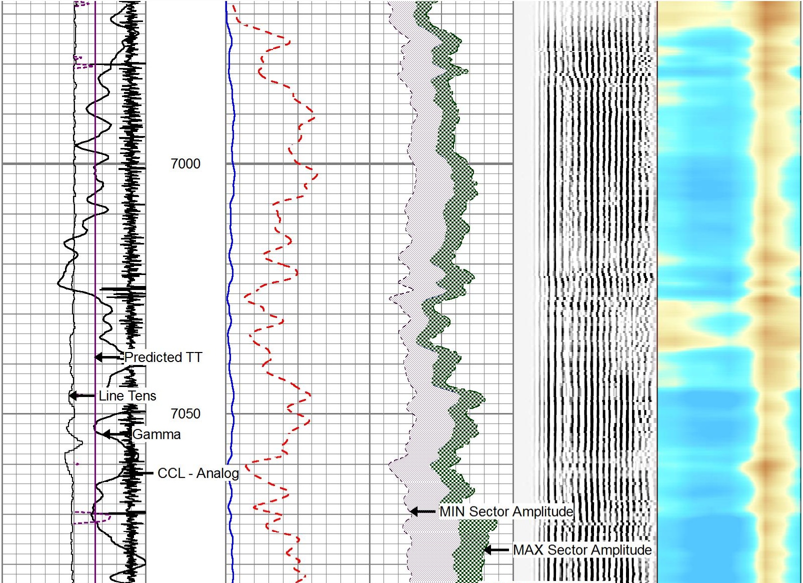
np - Analog C
(degF)
0 300

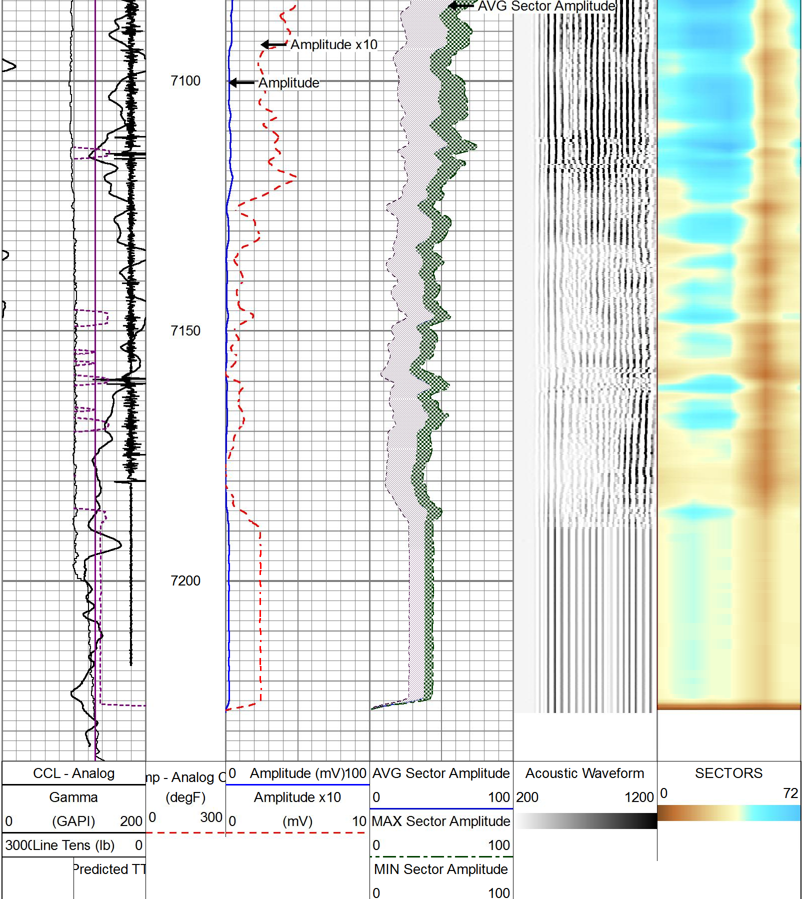
0 Amplitude (mV)100
Amplitude x10
0 (mV) 10

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

Acoustic Waveform
200 1200

SECTORS
0 72





TT
+[10 usec]-

REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

BOND INDEX

Database File	c:\warrior\2017-09-22_extraction_cssherwood 2-1-13_cbl\2017-09-22_extraction_cssherwood 2-1-13_cbl.c
Dataset Pathname	merge1
Presentation Format	BONDIN~1
Dataset Creation	Fri Sep 22 17:15:15 2017
Charted by	Depth in Feet scaled 1:3000

BOND INDEX

Calibration Report

Database File	c:\warrior\2017-09-22_extraction_cssherwood 2-1-13_cbl\2017-09-22_extraction_cssherwood 2-1-13_cbl.db
Dataset Pathname	pass3.2
Dataset Creation	Fri Sep 22 17:04:04 2017

Gamma Ray Calibration Report

Serial Number:	ISHV2-03	
Tool Model:	2 3/4" TekCo	
Performed:	Tue Dec 13 01:23:06 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 Fri Aug 25 17:15:12 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	1.334	0.000	72.000	53.721	-0.599
CAL	0.000	0.750				
5'	0.000	1.973	0.000	72.000	35.412	-0.215
SUM						
S1	0.000	1.449	0.000	72.000	50.000	0.000
S2	0.000	1.244	0.000	72.000	58.000	0.000
S3	0.000	1.191	0.000	72.000	60.000	0.000
S4	0.000	1.065	0.000	72.000	68.000	0.000
S5	0.000	1.100	0.000	72.000	65.000	0.000
S6	0.000	1.188	0.000	72.000	61.000	0.000
S7	0.000	1.402	0.000	72.000	51.000	0.000
S8	0.000	1.472	0.000	72.000	49.000	0.000

Internal Reference Calibration, performed Fri Aug 25 17:15:12 2017:

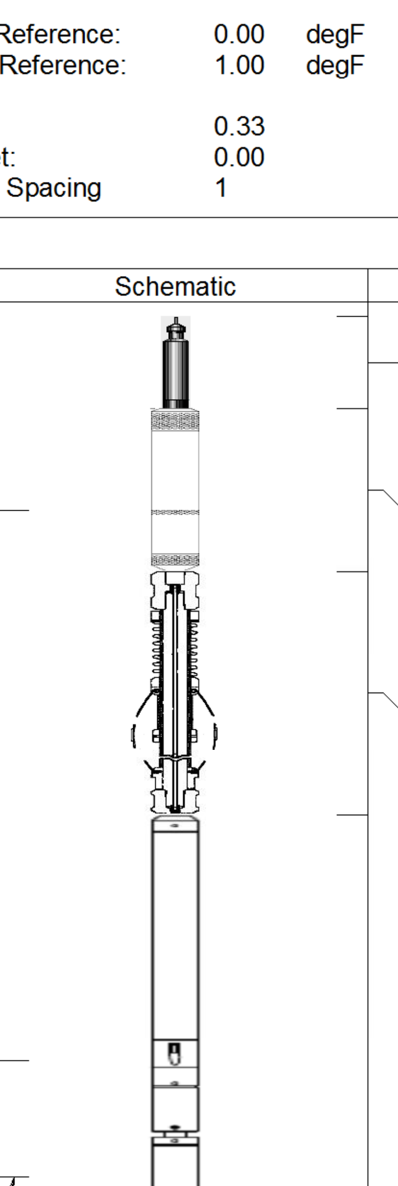
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.750	0.000	0.750	1.000	0.000

Air Zero Calibration, performed Fri Aug 25 17:15:12 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 12:07:15 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 (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
TEMP WVFS8 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVF3FT WVF5FT	12.78 11.49 11.49 11.49 11.49 11.49 11.49 11.49 11.49 10.74 9.74		RBTA-2 3/4" RIB Analog (IPPO2-01) Radial Incremented Bond Tool with Temp	9.13	2.75	102.00
WVFSYNC WVFTEMP WVFCAL	6.41 6.41 6.41		TekCo-275_Tekco 2 3/4" Tekco Adjustable SPRING Centralizer	2.73	2.75	25.00
GR LOCTIM UTCTIM	1.04 0.00 0.00		GR_Log-2 3/4" TekCo (ISHV2-03) 400 Deg. Gamma Ray	3.68	2.75	47.00

Dataset:	2017-09-22_extraction_cssherwood 2-1-13_cbl.db: field/well/run1/pass3.2
Total length:	21.13 ft
Total weight:	235.60 lb
O.D.:	2.75 in

Company	Extraction Oil and Gas		
Well	CS Sherwood 2-1-13		
Field	Wattenberg		
County	Weld		
State	Colorado	**Country**	U.S.A.