CEMENT BOND LOG

Company	Extraction Oil and Gas
Well	VT-LDS 1-16-18
Field	Wattenberg
County	Weld
State	CO

Company Extraction Oil and Gas

Well VT-LDS 1-16-18

Field Wattenberg

County Weld **State** CO

API # : 05-123-44421

Location: 1882' FNL & 650' FWL
Lat: 40.401320
Long: -104.656550

SEC: 15 TWP: 5N RGE: 65W

Other Services

Elevation
K.B. 4676'
D.F. -----
G.L. 4647'

Permanent Datum: Ground Level Elevation: 4647'
Log Measured From: KB , 29 ft. above Permanent Datum.
Drilling Measured From: KB

Date	13 Aug 2018
Run Number	One
Plug Back T.D. Driller	-----
Plug Back T.D. Logger	-----
Bottom Logged Interval	8002'
Top Log Interval	Surface
Type Fluid	-----
Density / Viscosity	-----
Max. Recorded Temp.	242°F
Time Logger on Bottom	12:30
Equipment Number	GD 164
Location	Casper, WY
Recorded By	J. Baker
Witnessed By	L. Siegel

Casing Record				Tubing Record			
Size	Weight	From	To	Size	Weight	From	To
9 5/8"	36#	Surface	1500'				
5 1/2"	20#	Surface	20,550'				

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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 # : RM0818PCBW801
Your Crew Today: B. Kennicker, M. Vasquez, D. Hamilton
Log Correlated to: Surface

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	118'
40 % Bond	118'
60 % Bond	325'
80 % Bond	794'
100 % Bond	-----

Comments

**Estimated cement top at 118'
(20% Bond)**

Marker Joint located at 7,608'

Thank you for using Gyrodata

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

Log Variables

Databasec:\programdata\warrior\data\extraction\2018_08_13_extraction_vt_lds_1_16_18_cbl\2018_
Dataset field/well/run1/pass3/_vars_

Top - Bottom

BHTEMP_Src	BOREID	BOTTEMP	CASEOD	CASETHCK	CASEWGHT	MAXAMPL	MaxAPIID
	in	degF	in	in	lb/ft	mV	in
TEMP	8.5	100	5.5	0.361	20	71.9	4.923

MINAMPL	MinAPIID	MINATTN	PPT	TDEPTH
mV	in	db/ft	usec	ft
1.9	4.751	0	236	0

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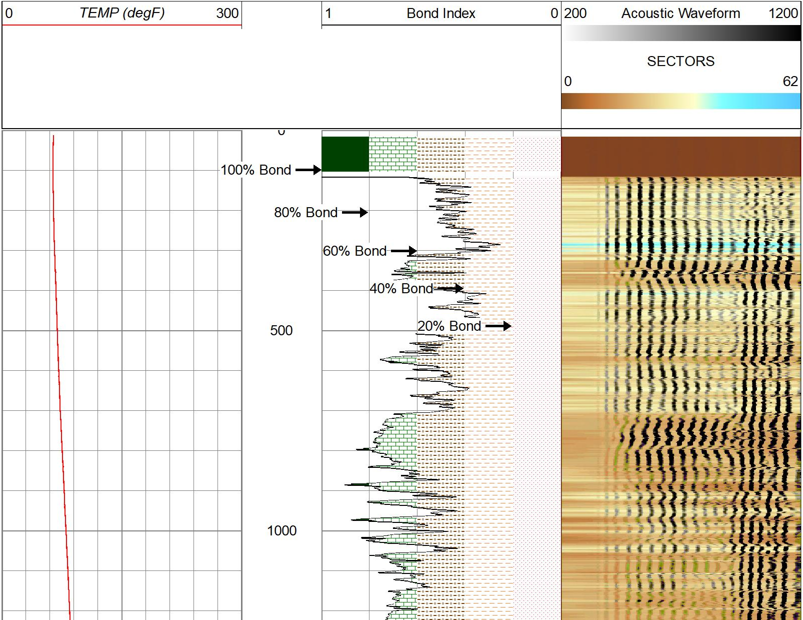
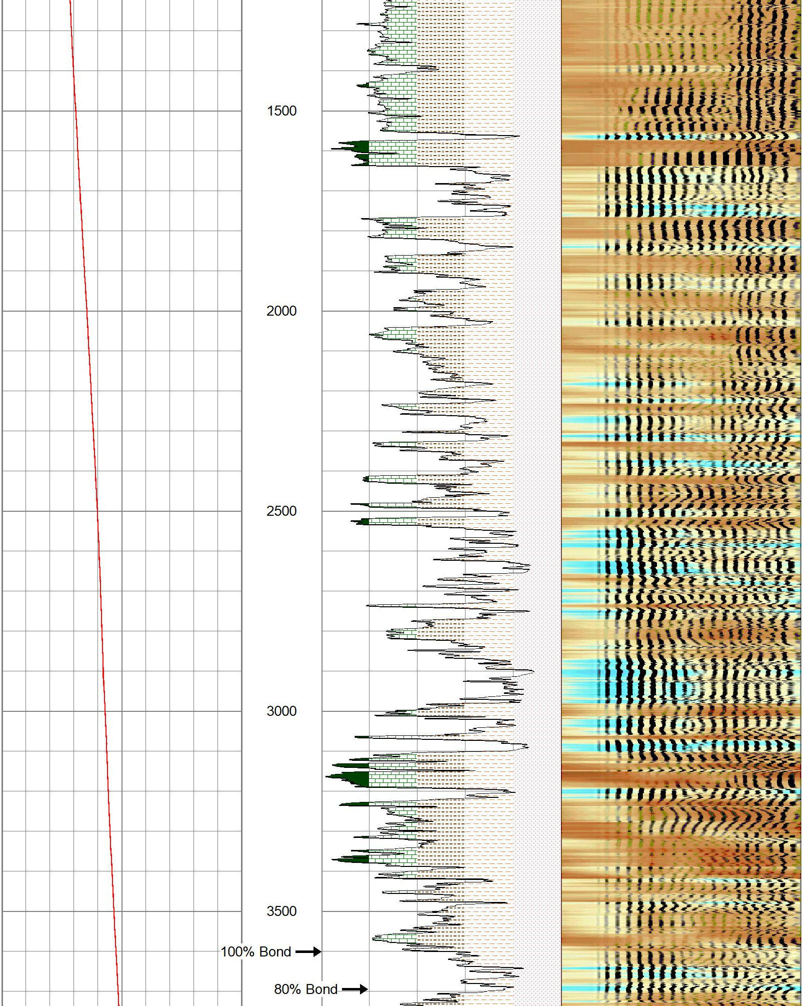
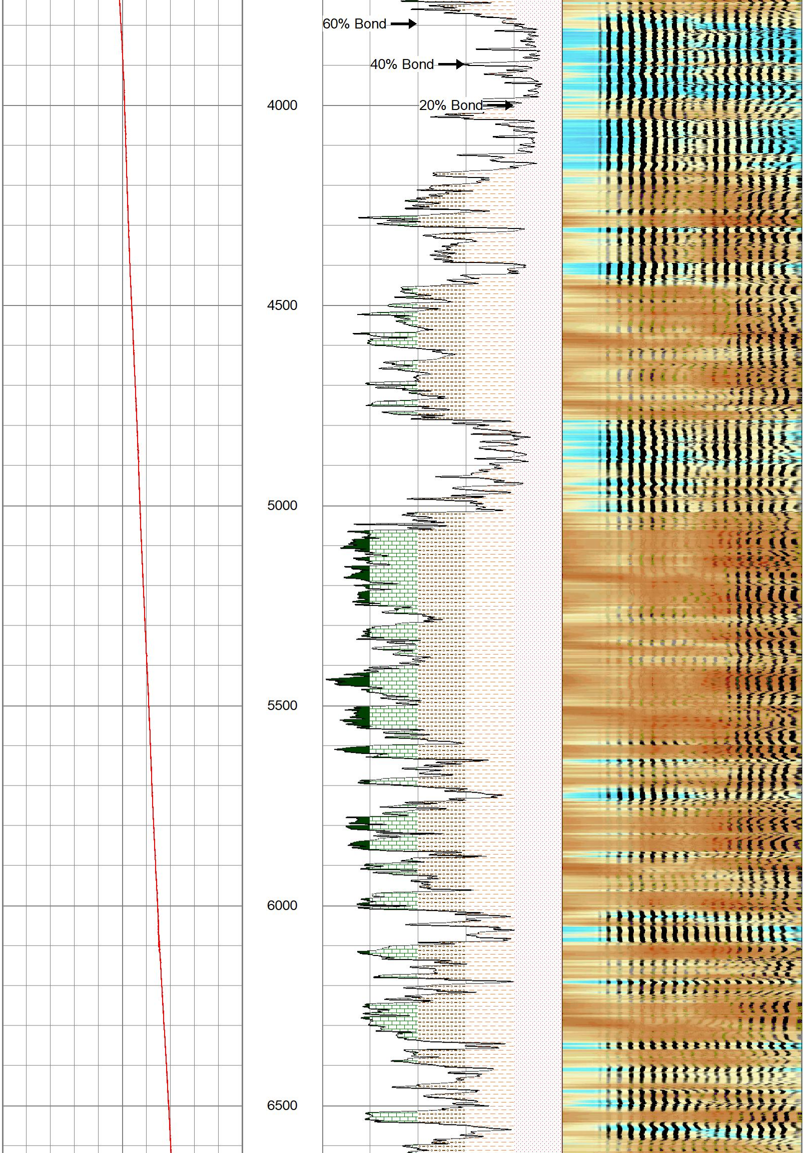
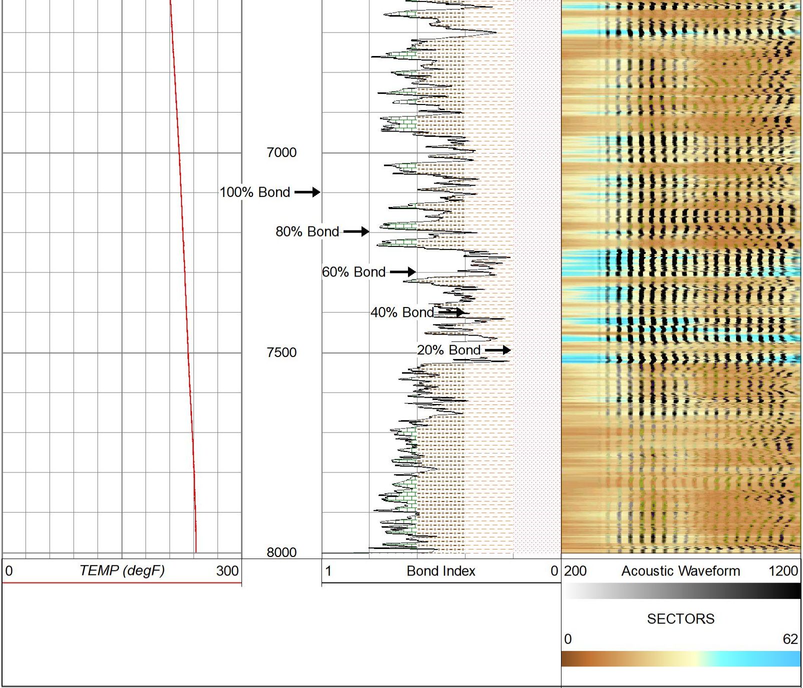
BOND INDEX

Database File	extraction\2018_08_13_extraction_vt_lds_1_16_18_cbl\2018_08_13_extraction_vt_lds_1_16_18_cbl.db
Dataset Pathname	BOND
Presentation Format	bndindx_msg-sec
Dataset Creation	Mon Aug 13 14:16:32 2018
Charted by	Depth in Feet scaled 1:3000







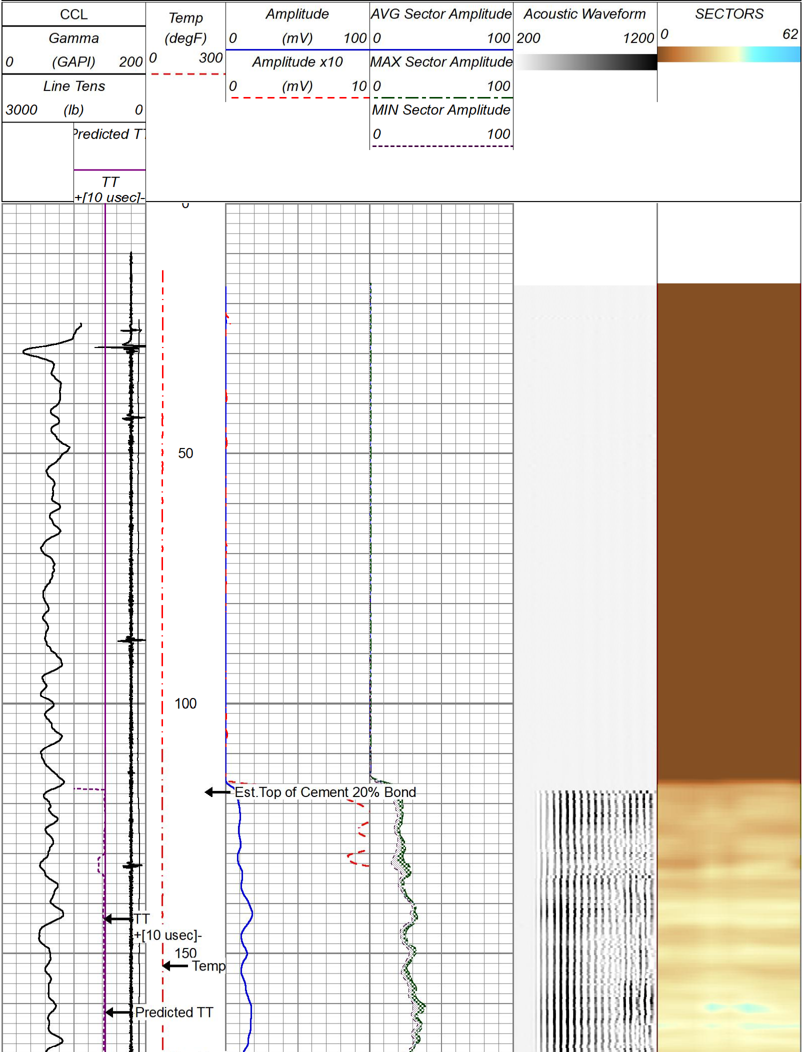


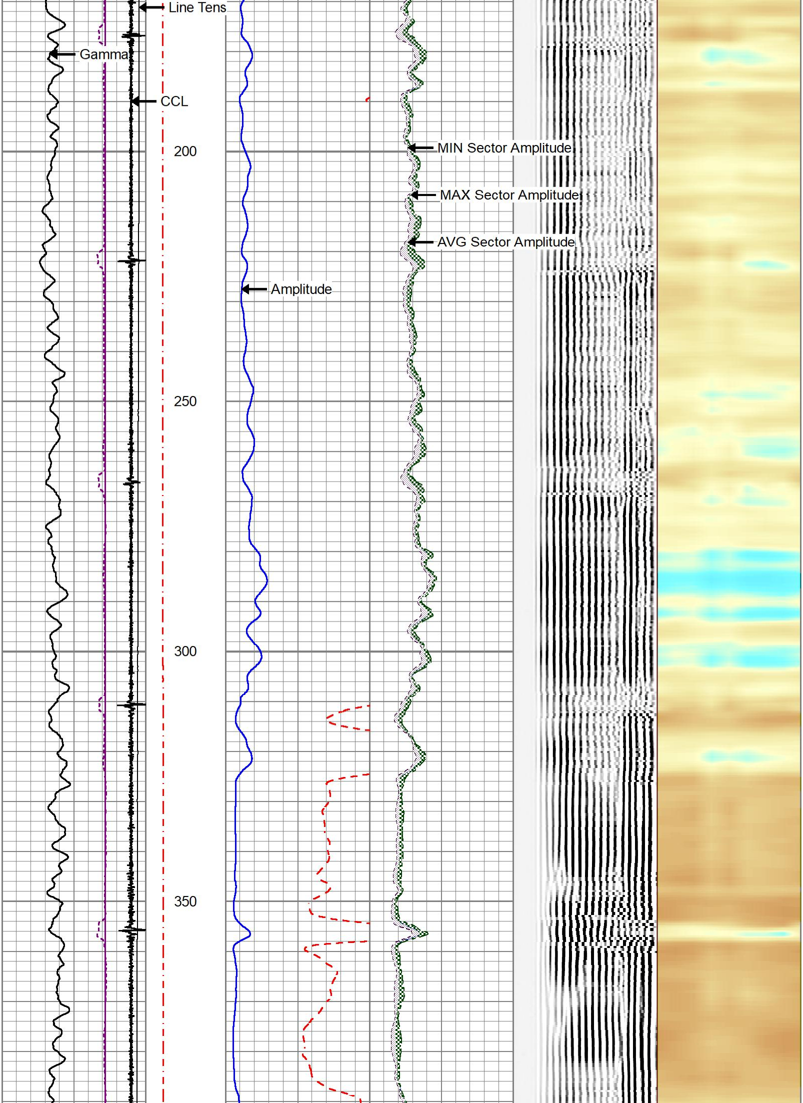
BOND INDEX

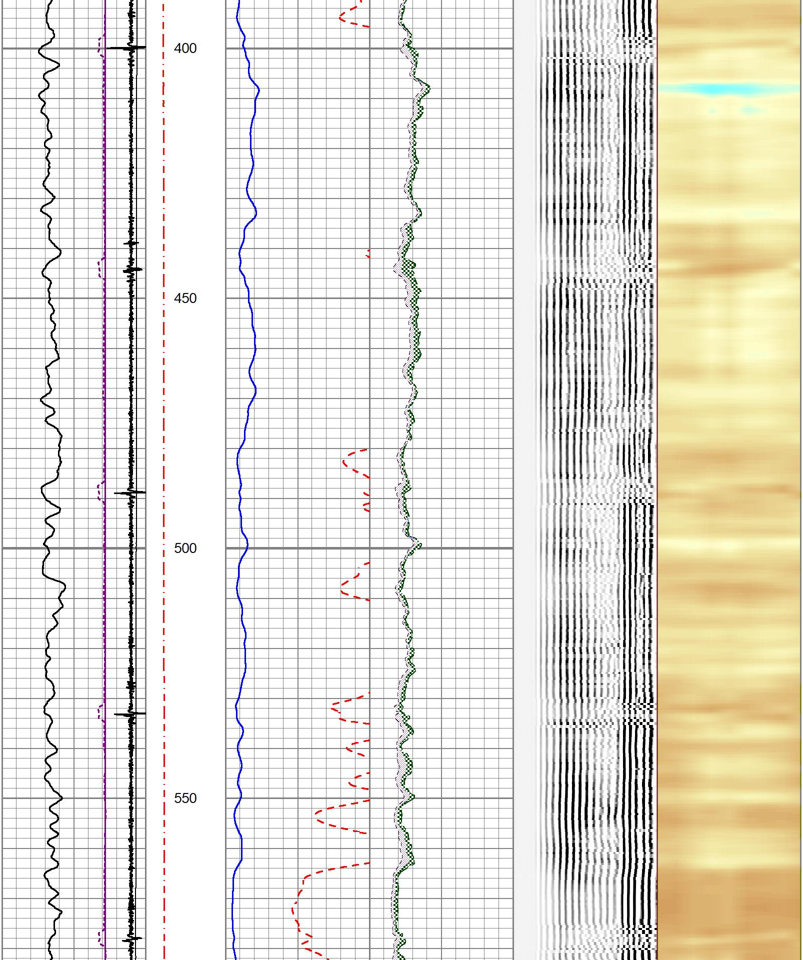
MAIN PASS - Ran with 0 PSI

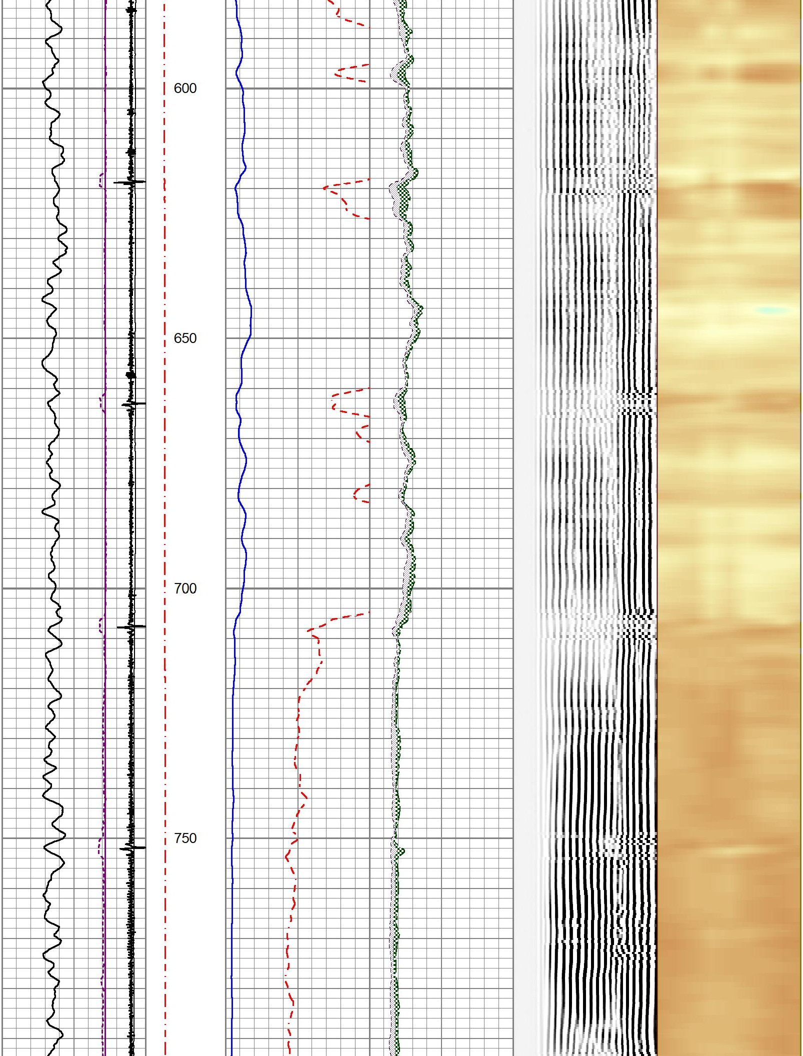
5 in / 100 ft

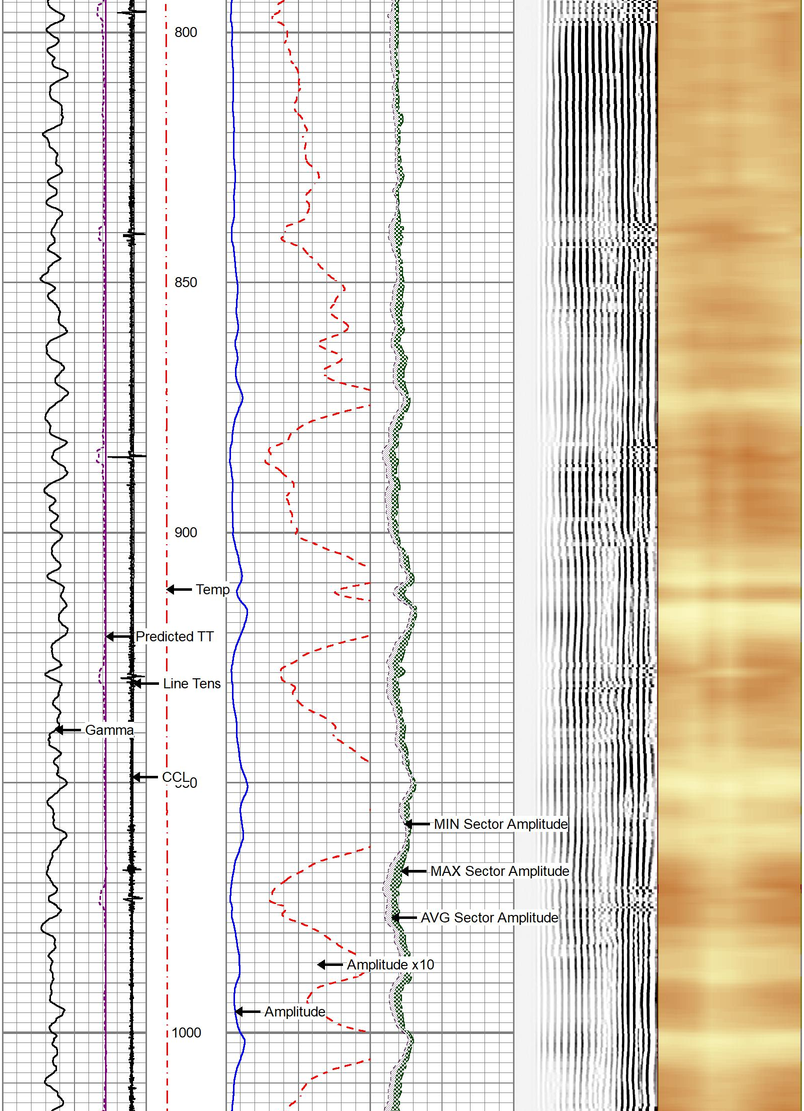
Database File	extraction\2018_08_13_extraction_vt_lds_1_16_18_cbl\2018_08_13_extraction_vt_lds_1_16_18_cbl.db
Dataset Pathname	pass3
Presentation Format	rcbl_8s
Dataset Creation	Mon Aug 13 12:33:23 2018
Charted by	Depth in Feet scaled 1:240

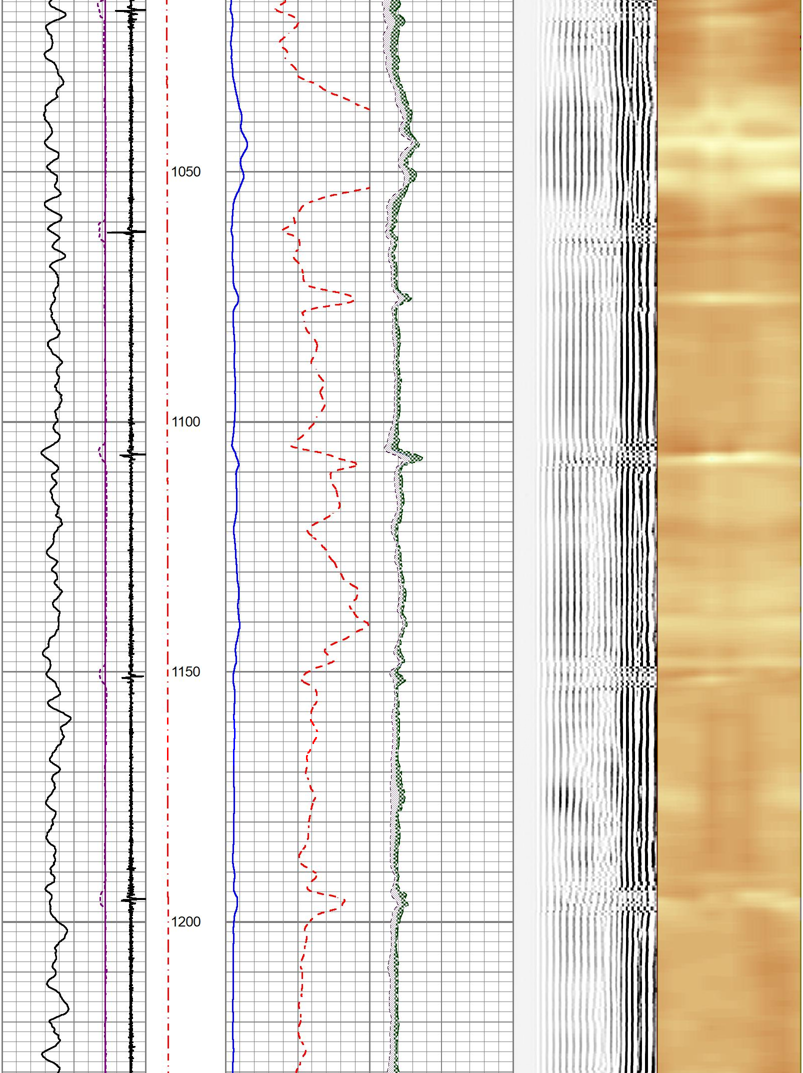


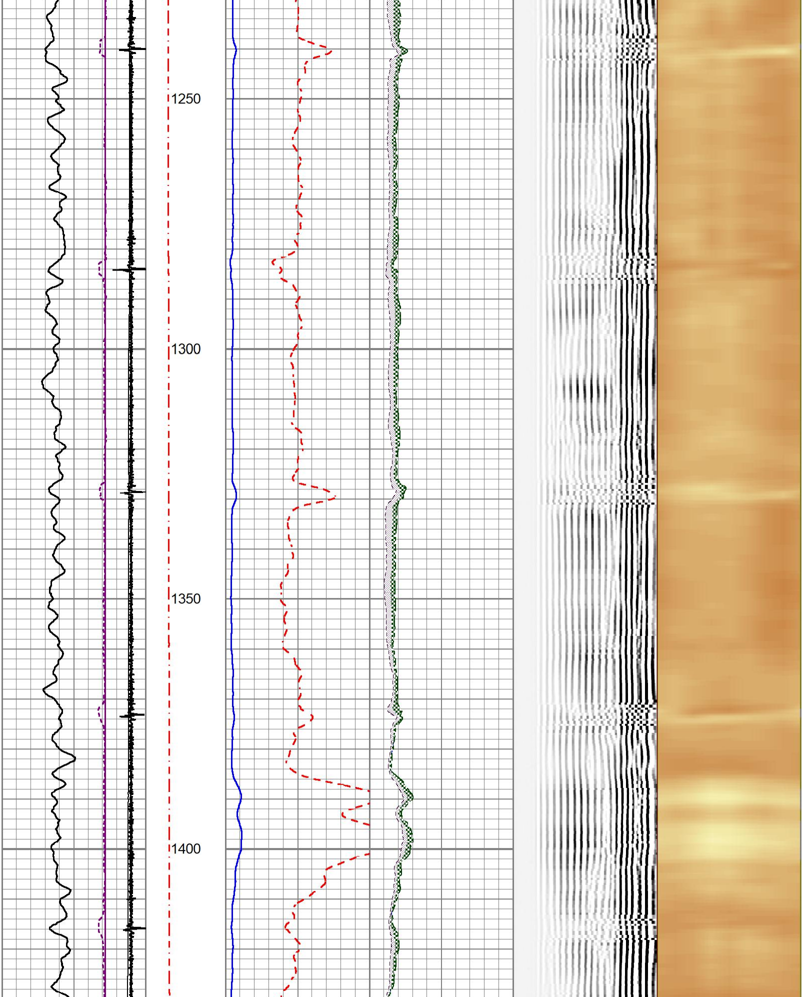


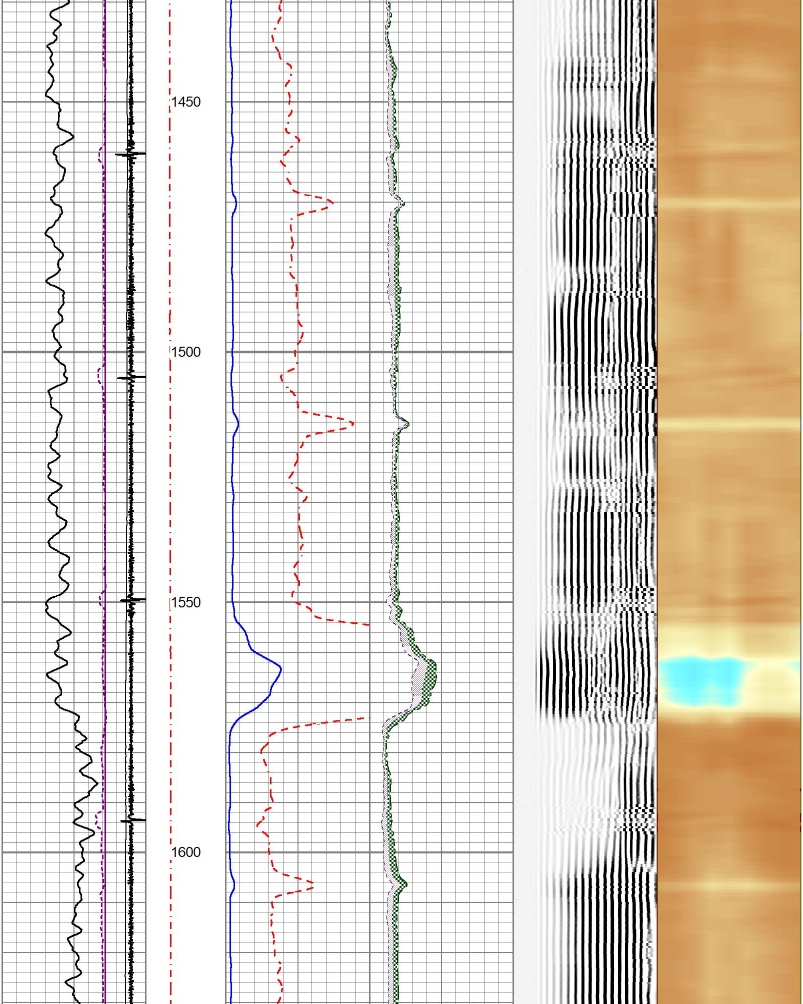


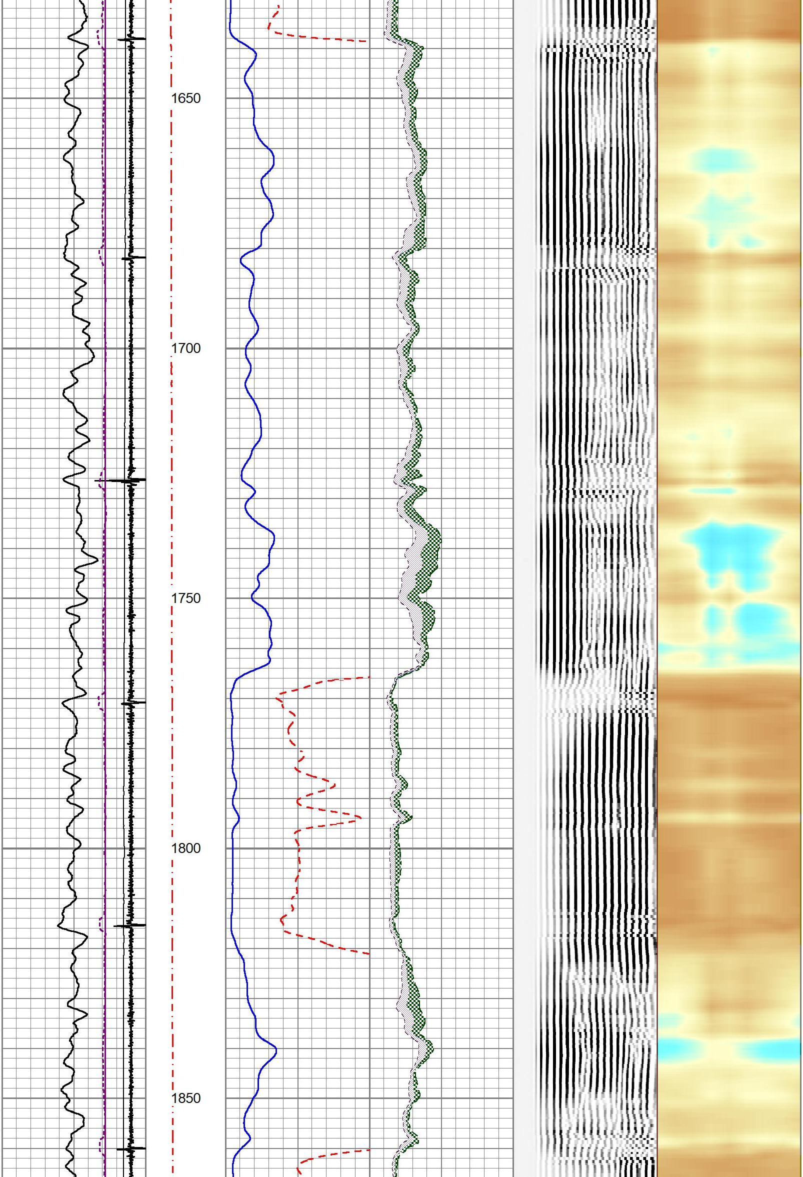


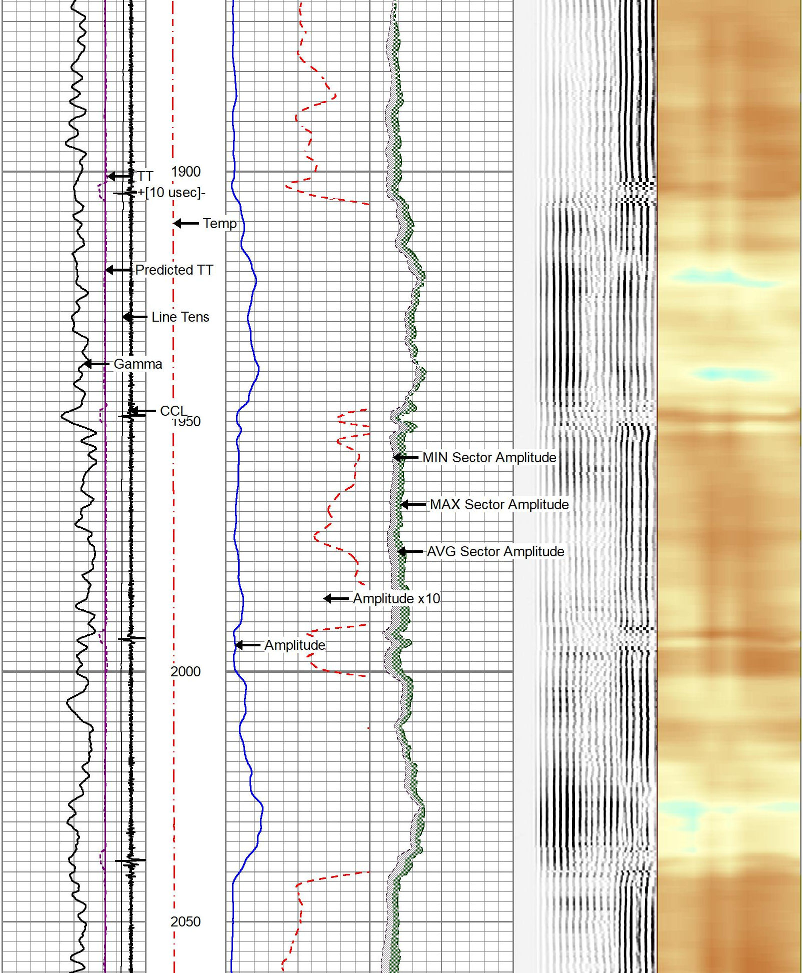


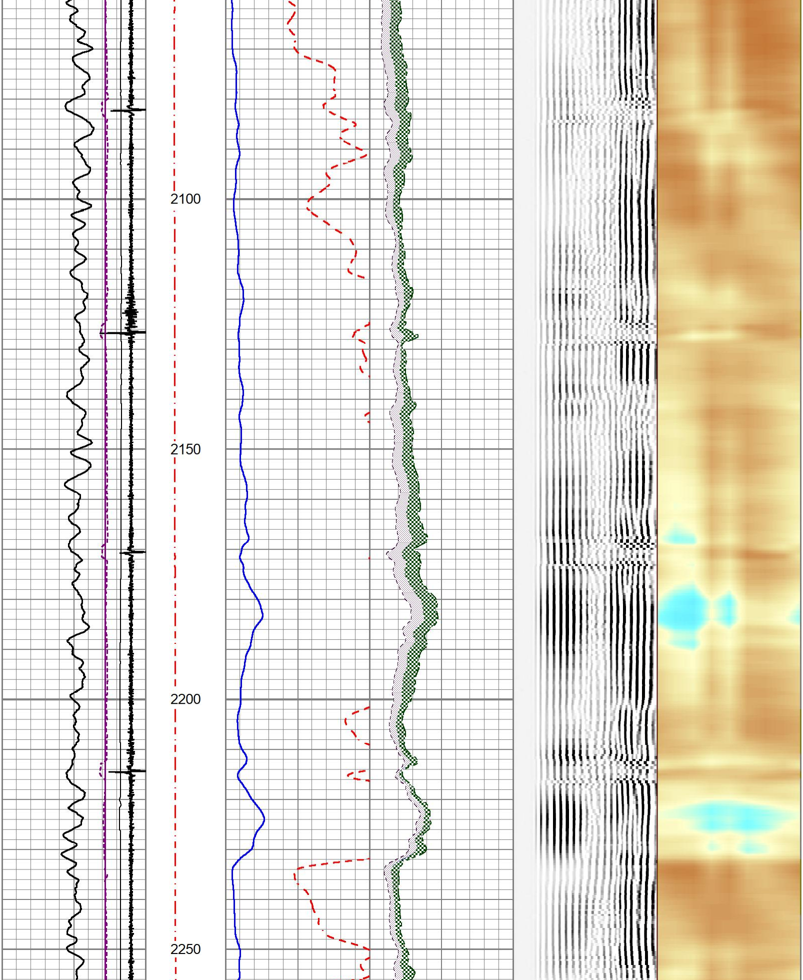


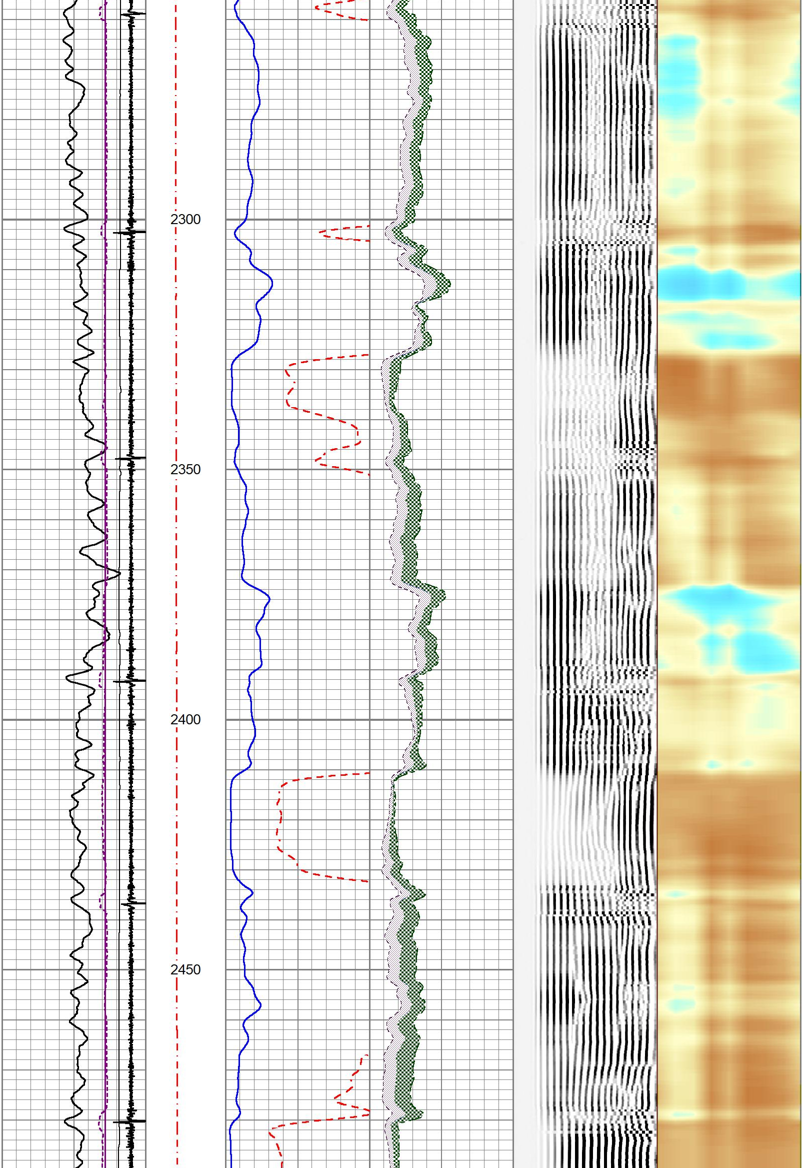


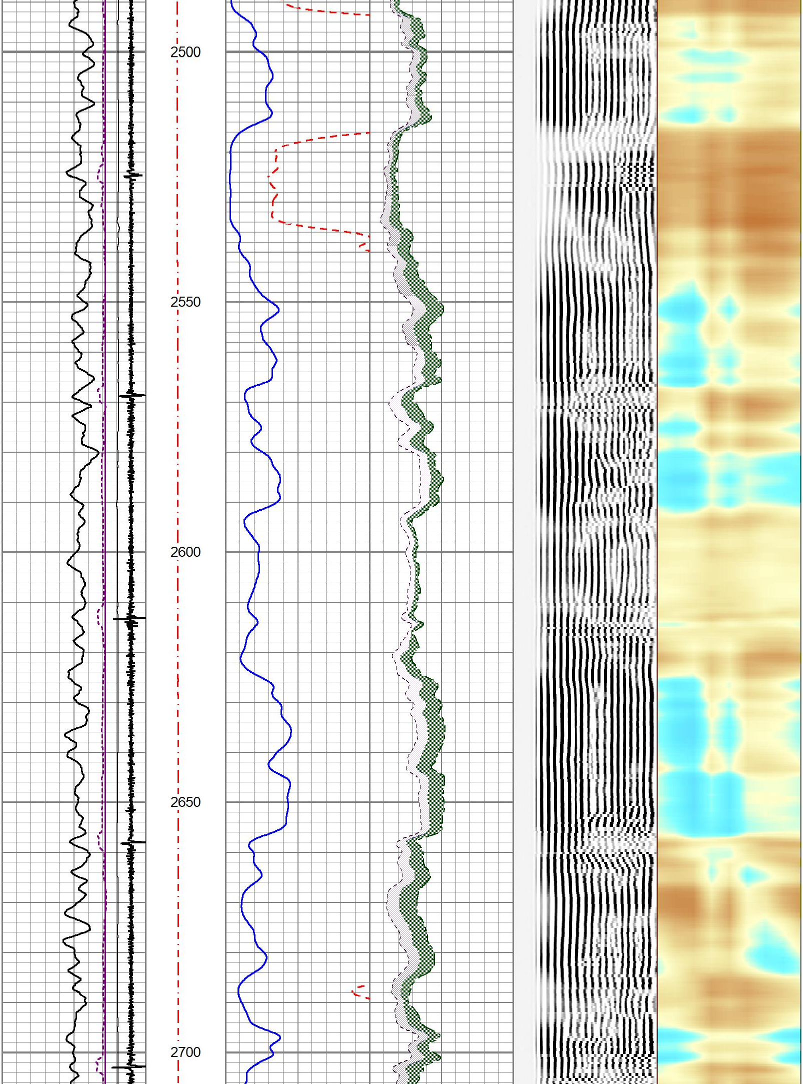


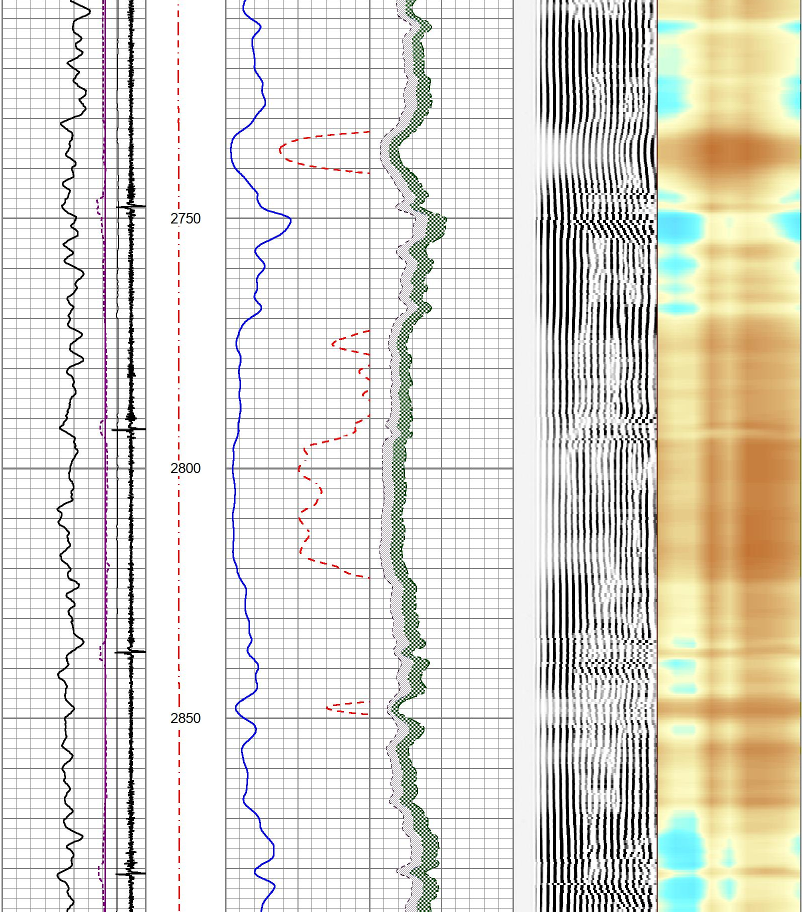












2900
Temp
Predicted TT
Line Tens
Gamma
CCL
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude
Amplitude x10
Amplitude
2950
3000
3050
3100
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3200
3250
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TT
+[10 usec]-
3900
Temp
Predicted TT
Line Tens
Gamma
CCL
MIN Sector Amplitude
MAX Sector Amplitude
AVG Sector Amplitude
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Predicted TT
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Temp
Predicted TT
Line Tens
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CCL
MIN Sector Amplitude
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AVG Sector Amplitude
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6800
6850

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MAIN PASS - Ran with 0 PSI

5 in / 100 ft

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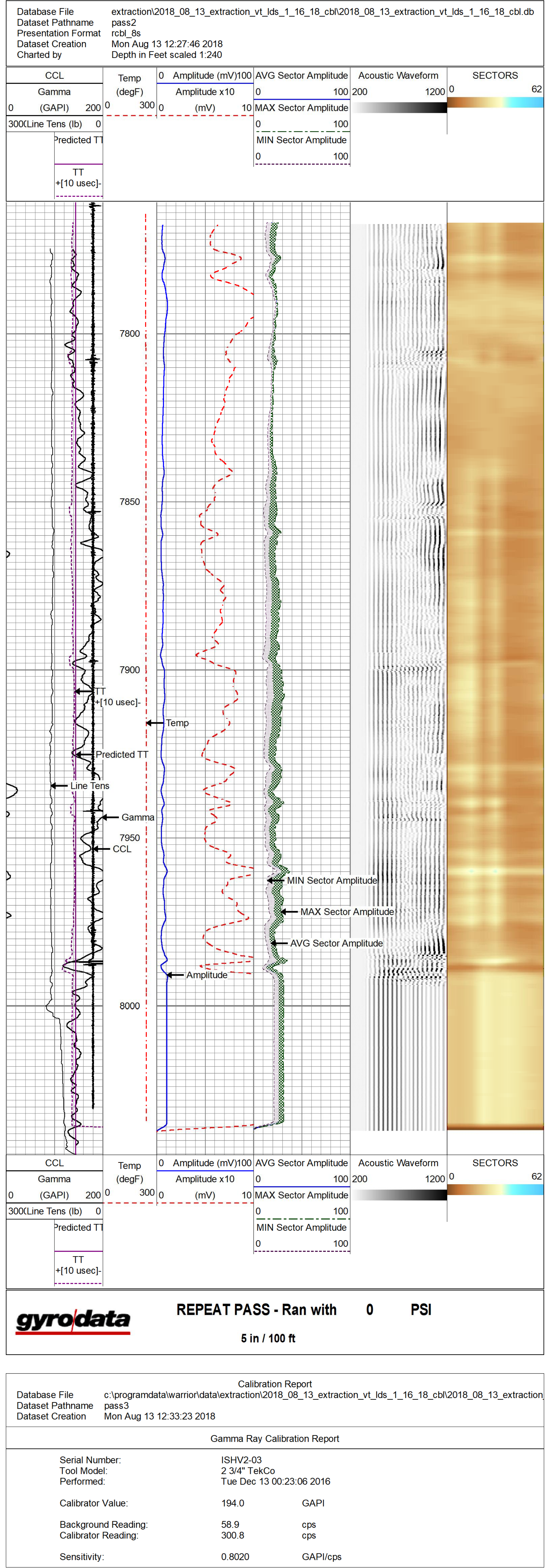
REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Database File	extraction\2018_08_13_extraction_vt_lds_1_16_18_cbl\2018_08_13_extraction_vt_lds_1_16_18_cbl.db
Dataset Pathname	pass2
Presentation Format	rcbl_8s
Dataset Creation	Mon Aug 13 12:27:46 2018
Charted by	Depth in Feet scaled 1:240



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REPEAT PASS - Ran with 0 PSI

5 in / 100 ft

Calibration Report

Database File	c:\programdata\warrior\data\extraction\2018_08_13_extraction_vt_lds_1_16_18_cbl\2018_08_13_extraction
Dataset Pathname	pass3
Dataset Creation	Mon Aug 13 12:33:23 2018

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:	344.560	ft

Master Calibration, performed Sun Aug 12 11:27:33 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.008	0.908	0.000	71.921	79.912	-0.602
CAL	-0.000	0.503				
5'	0.010	1.188	0.000	71.921	61.037	-0.594
SUM						
S1	0.017	0.905	0.000	72.000	81.059	-1.357
S2	0.015	0.925	0.000	72.000	79.154	-1.187
S3	0.015	0.967	0.000	72.000	75.580	-1.104
S4	0.017	0.992	0.000	72.000	73.893	-1.279
S5	0.015	1.005	0.000	72.000	72.755	-1.102
S6	0.017	0.944	0.000	72.000	77.701	-1.346
S7	0.018	0.873	0.000	72.000	84.266	-1.525
S8	0.018	0.844	0.000	72.000	87.115	-1.550

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

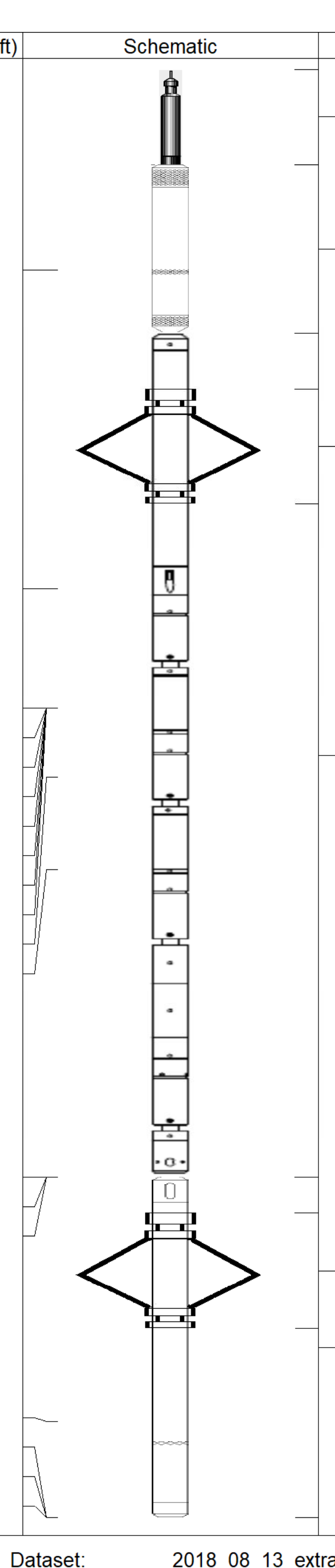
	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.000	0.503	1.000	0.000

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)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			CableHead-TitanConeType2	1.03	1.44	3.60
CCL	13.50		CCL_Log-2 3/4" TekCo (IPSN7-03)	1.83	2.75	33.00
			Antelope-Overbody	1.25	2.75	
TEMP	10.05					
WVFS8	8.76					
WVFS7	8.76					
WVFS6	8.76					
WVFS5	8.76		RBTA-2 3/4" RIB Analog (IPPO2-01)	9.13	2.75	102.00
WVFS4	8.76					
WVFS3	8.76					
WVFS2	8.76					
WVFS1	8.76					
WVF3FT	8.01					
WVF5FT	7.01					
WVFSYNC	3.68					
WVFTEMP	3.68					
WVFCAL	3.68					
			Antelope-Overbody	1.25	2.75	
			GR_Log-2 3/4" TekCo (ISHV2-03)	3.68	2.75	47.00
GR	1.04					
LOCTIM	0.00					
UTCTIM	0.00					
PMON	0.00					

Dataset:	2018_08_13_extraction_vt_lds_1_16_18_cbl.db: field/well/run1/pass3
Total length:	15.67 ft
Total weight:	185.60 lb
O.D.:	2.75 in

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Company	Extraction Oil and Gas
Well	VT-LDS 1-16-18
Field	Wattenberg
County	Weld
State	CO
Country	U.S.A.