

Company: Crestone Peak Resources Operating LLC

Well: Sam 3J-25H-M166

Field: Wattenberg

County: Weld State: Colorado

Cement Bond Log  
Surface Casing

Weld				
Field: Wattenberg				
Location: NWSW 25 1N 66W				
Well: Sam 3J-25H-M166				
Company: Crestone Peak Resources Operating LLC				
Location:	NWSW 25 1N 66W	Elev.: K.B. 5094.00 ft		
	1323' FSL & 310' FWL	G.L. 5081.00 ft		
		D.F. 5094.00 ft		
	Permanent Datum:	Ground Level	Elev.:	5081.00 f
Log Measured From:		Kelly Bushing	13.00 ft	above Perm.Datum
Drilling Measured From:		Kelly Bushing		
API Serial No.	Section:	Township:	Range:	
05-123-46129	25	1N	66W	

Logging Date	25-Jun-2018		
Run Number	One		
Depth Driller	2500.00 ft		
Schlumberger Depth	2240.00 ft		
Bottom Log Interval	2240.00 ft		
Top Log Interval	50.00 ft		
Casing Fluid Type	Water		
Salinity			
Density	8.4 lbm/gal		
Fluid Level	8.00 ft		
BIT/CASING/TUBING STRING			
Bit Size	13.50 in		
From	0.00 ft		
To	2500.00 ft		
Casing/Tubing Size	9.625 in		
Weight	40 lbm/ft		
Grade	N/A		
From	0.00 ft		
To	2500.00 ft		
Max Recorded Temperatures	92 degF		
Logger on Bottom	25-Jun-2018	09:40:00	
Unit Number	2377	Fort Morgan	
Recorded By	Alan Moreno / Rob Stelter		
Witnessed By	Satch Bo		

Disclaimer

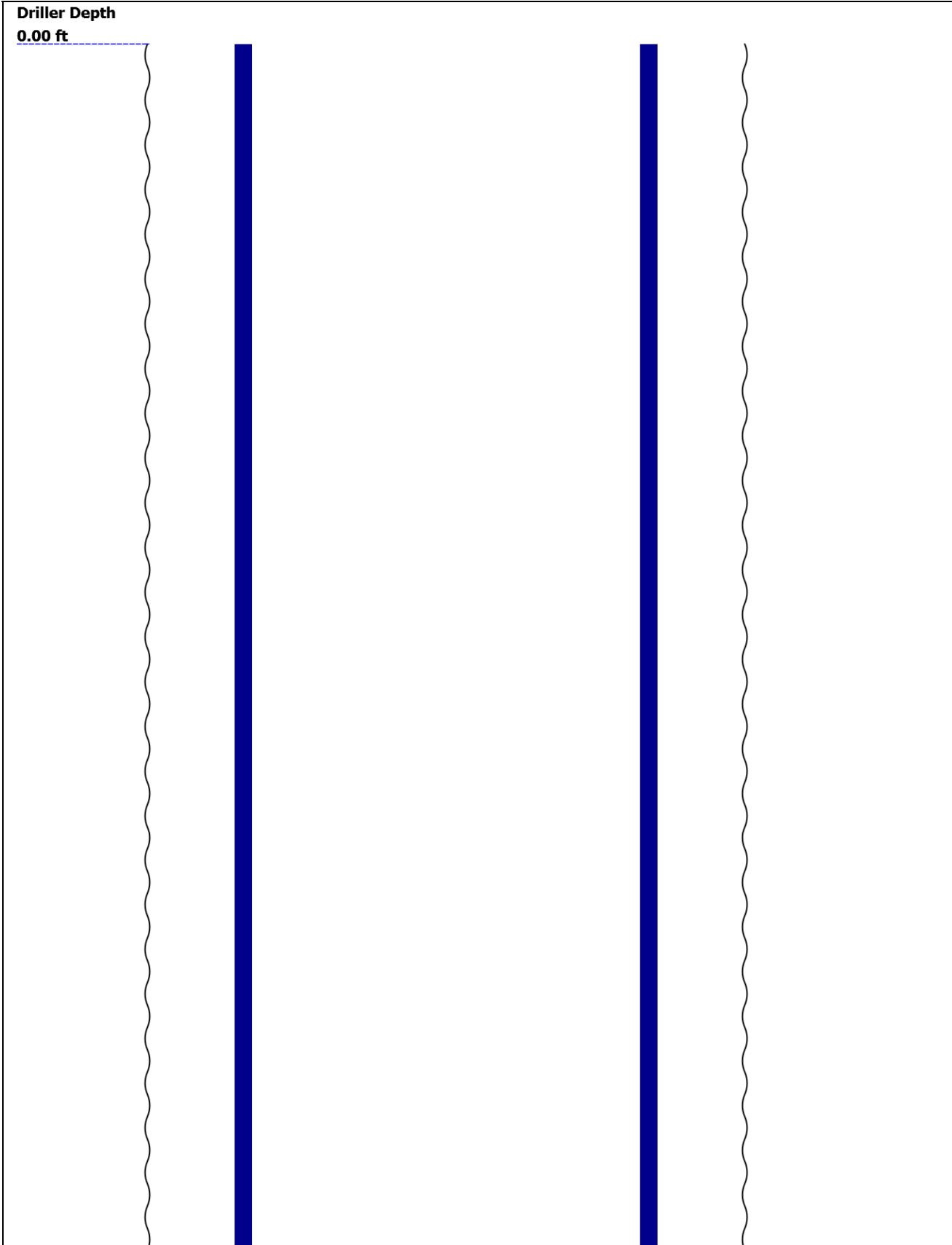
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Well Sketch




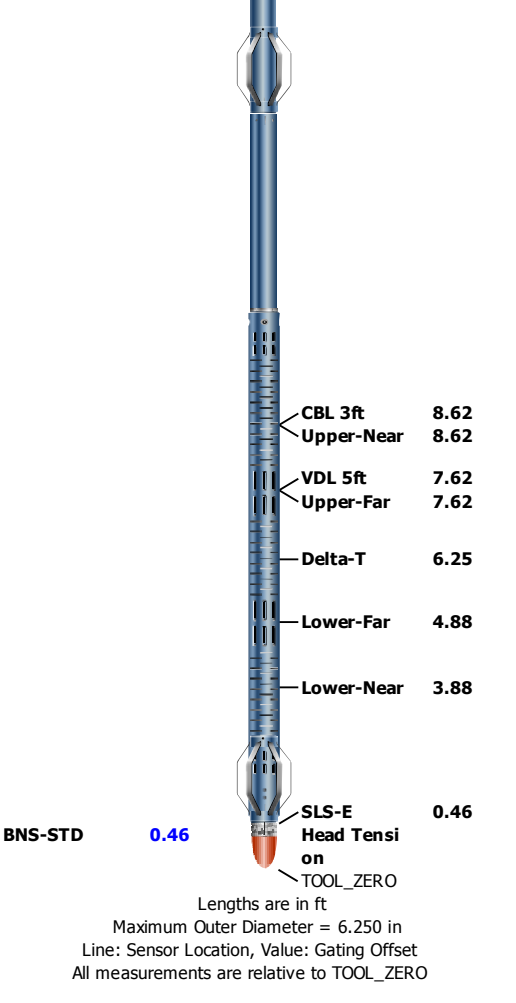


Borehole Size/Casing/Tubing Record

Bit						
Bit Size ( in )	13.5					
Top Driller ( ft )	0					
Top Logger ( ft )	0					
Bottom Driller ( ft )	2500					
Bottom Logger ( ft )	2500					
Casing						
Size ( in )	9.625					
Weight ( lbm/ft )	40					
Inner Diameter ( in )	8.835					
Grade	N/A					
Top Driller ( ft )	0					
Top Logger ( ft )	0					
Bottom Driller ( ft )	2500					
Bottom Logger ( ft )	2500					

Remarks and Equipment Summary

One: Toolstring				One: Remarks	
<div><div><div>Equip name</div><div>LEH-QT</div><div>LEH-QT</div></div><div><div>Length</div><div>35.08</div></div><div><div>MP name</div><div>EDTC-B:9316</div><div>EDTH-B</div><div>EDTG-A</div><div>EDTC-B:9316</div></div><div><div>Offset</div><div></div></div></div> <div><div><div>CTEM</div><div>28.1</div></div><div><div>ACCZ</div><div>0.00</div></div><div><div>HV</div><div>0.00</div></div><div><div>Gamma Ray</div><div>26.23</div></div><div><div>TelStatus</div><div>25.1</div></div></div>	Thank you for choosing Schlumberger				
	Log run for cement evaluation				
	1 pass logged with no pressure applied				
	Tool ran as per tool sketch				
AH-184[2]	25.1				
AH-184[1]	23.1				
DSLT-H:8279	21.1				
ECH-KH					
DSLCH:8279					
SLS-E:1563					



<b>Depth Summary</b>			
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	One		
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<b>Depth Measuring Device</b>			
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Type	IDW-B		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Calibration Cable Type			
Wheel Correction 1	0		
Wheel Correction 2	0		

<b>Tension Device</b>			
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Type	CMTD-B/A		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Number of Calibration Points	0		

<b>Logging Cable</b>			
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Type	7-46NT-XS		
Serial Number			
Length	24000.00 ft		
Conveyance Type	Wireline		
Rig Type			

One:Depth Control Parameters	Depth Control Remarks
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Log Sequence	First Log In the Well	All Schlumberger depth control procedures followed
Rig Up Length At Surface		IDW used as primary depth control device, L-chart used as secondary
Rig Up Length At Bottom		
Rig Up Length Correction		
Stretch Correction	2.50 ft	
Tool Zero Check At Surface		

One

Software Version

Acquisition System	Version
Maxwell 2018 SP1	8.1.99839.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[2]:Up	Up	19.61 ft	2241.53 ft	25-Jun-2018 9:38:06 AM	25-Jun-2018 10:20:47 AM	ON	2.02 ft	No

All depths are referenced to toolstring zero

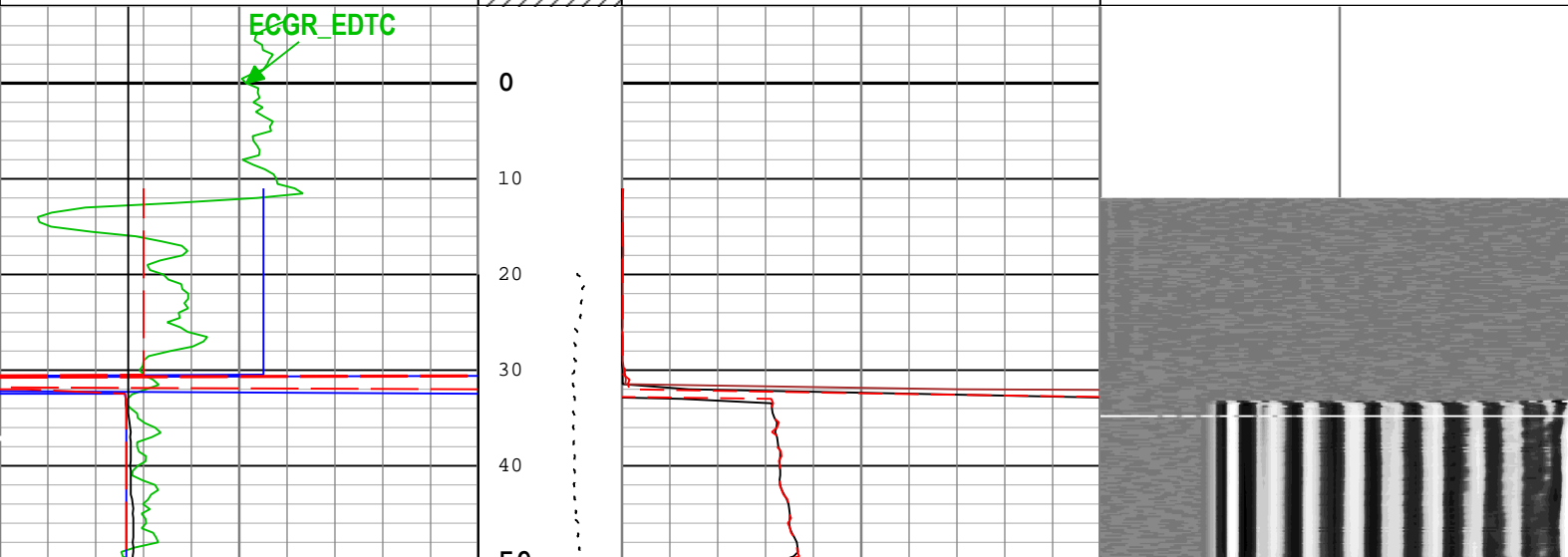
Log	Company:Crestone Peak Resources Operating LLC      Well:Sam 3J-25H-M166 One: Log[2]:Up:S006
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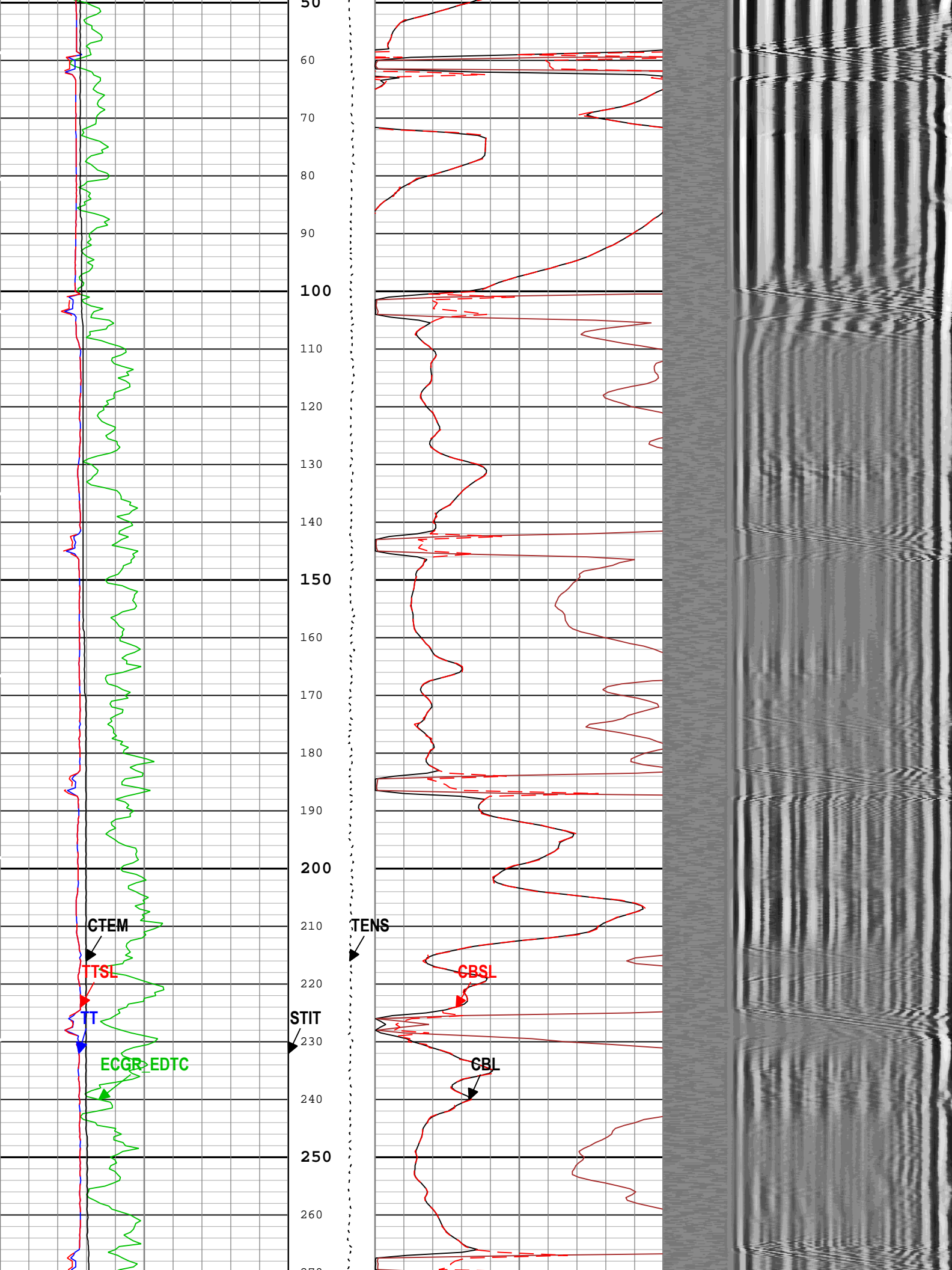
Description: CBL\_VDL   Format: Log ( Sonic CBL with VDL )   Index Scale: 5 in per 100 ft   Index Unit: ft   Index Type: Measured Depth   Creation Date: 25-Jun-2018 11:03:08

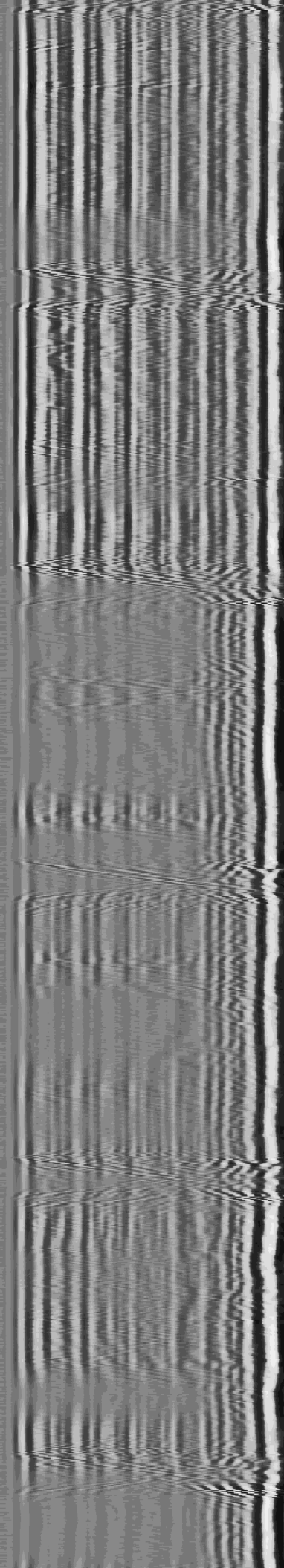
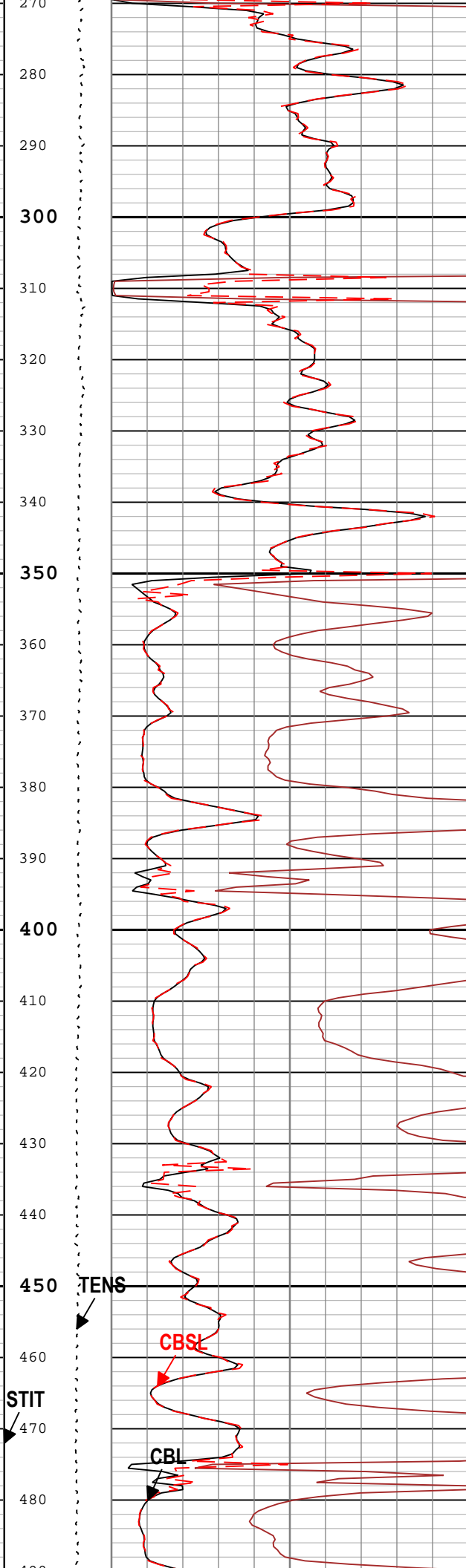
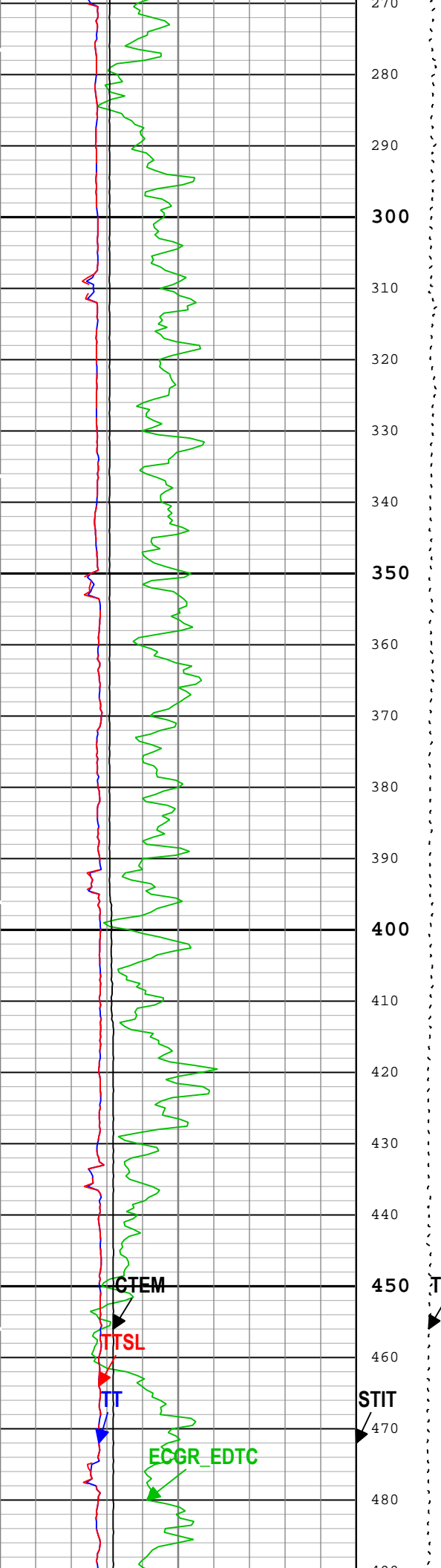
└─ BIEP - Bond Index Event Pips DSLT-H

TIME\_1900 - Time Marked every 60.00 (s)

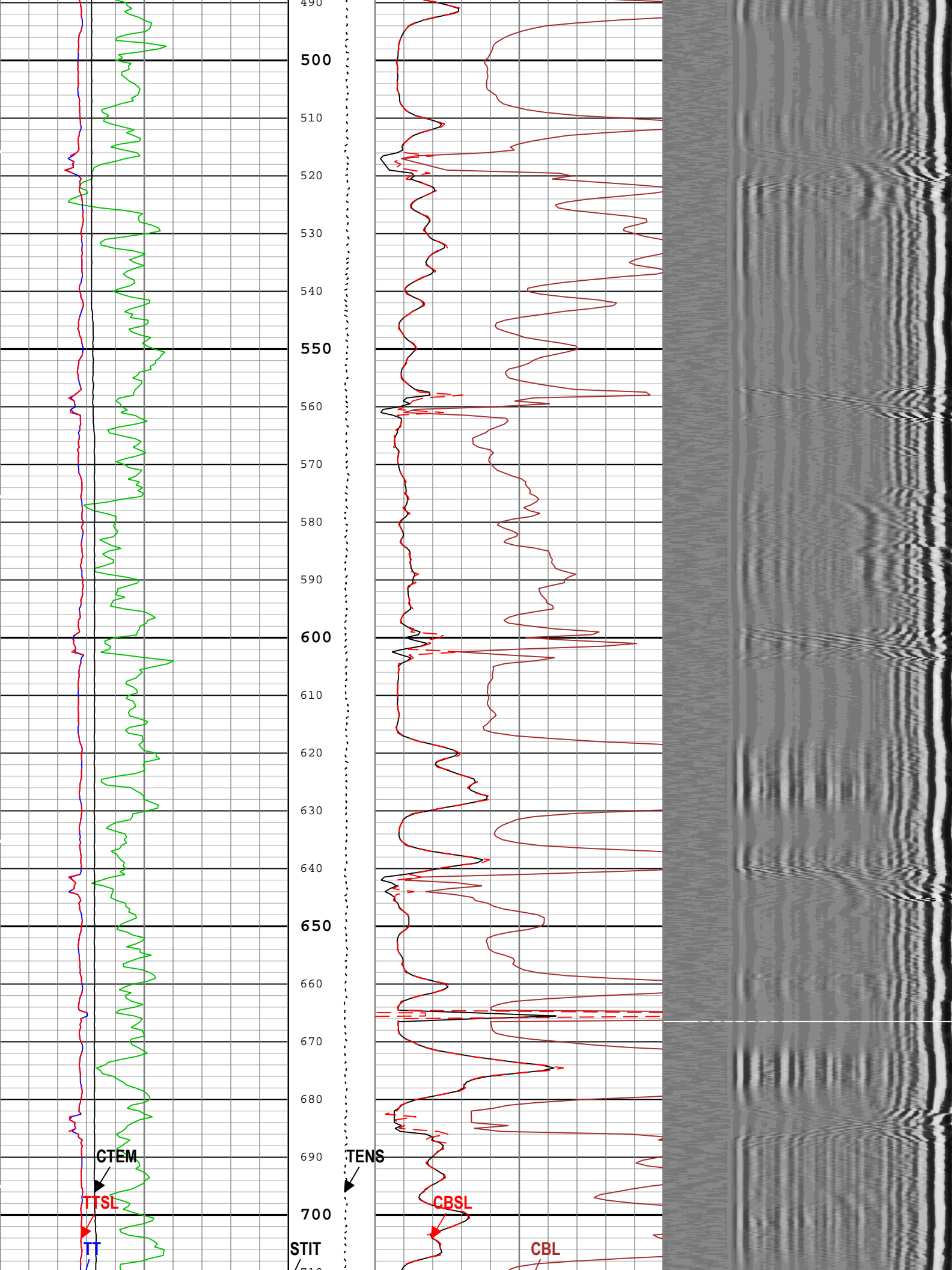
	Stuck Tool Indicator, Total (STIT)		
	0      ft      50		
Gamma Ray (ECGR_EDTC) EDTC-B			
0                                  gAPI                                  150			
Transit Time for CBL (TT) DSLT-H			
400                                  us                                  200			
Transit Time (Sliding Gate) (TTSL) DSLT-H			
400                                  us                                  200			
Cartridge Temperature (CTEM) EDTC-B			
20                                  degF                                  220			



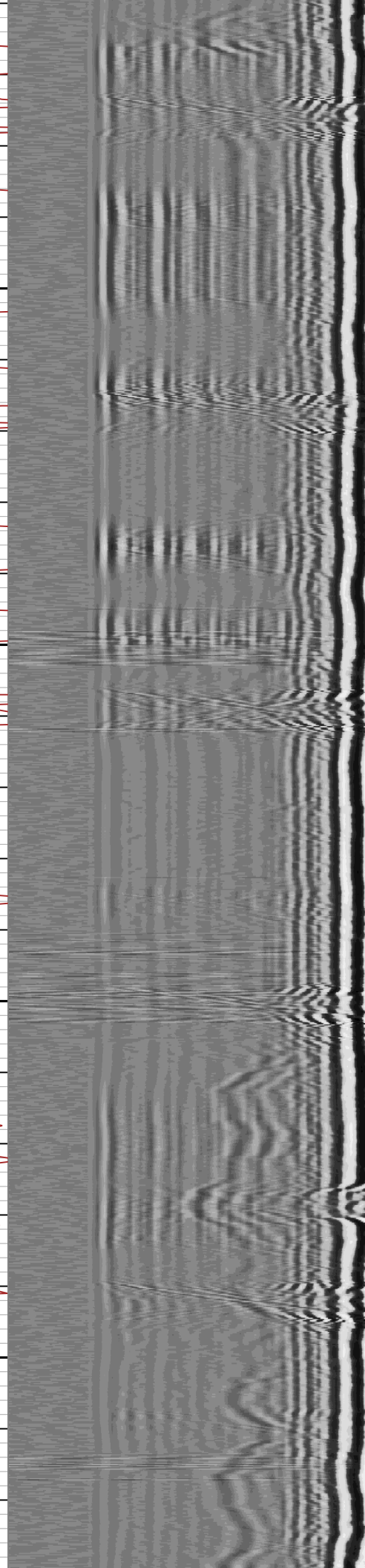
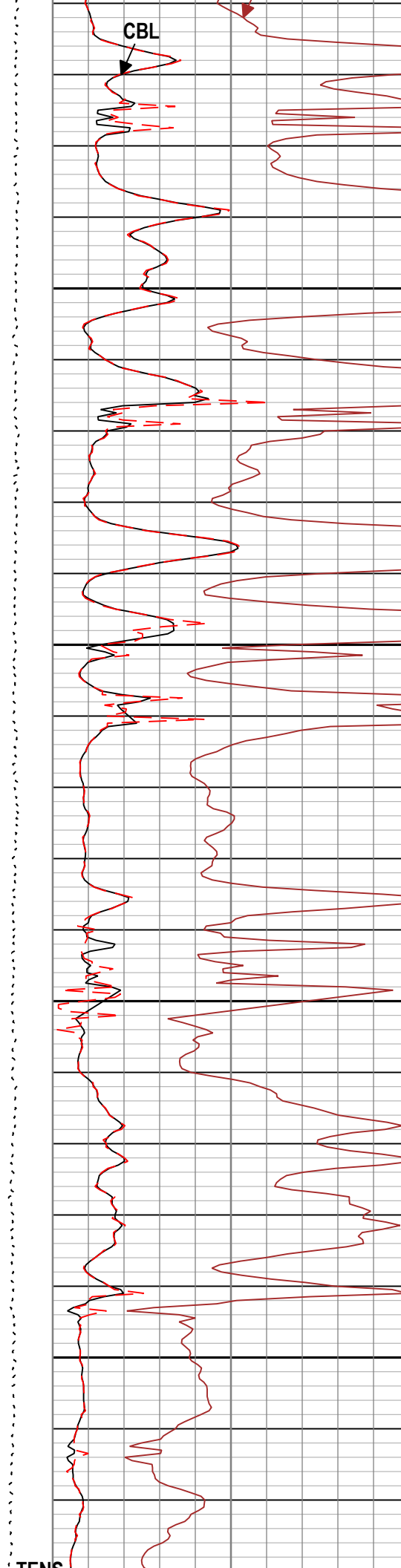
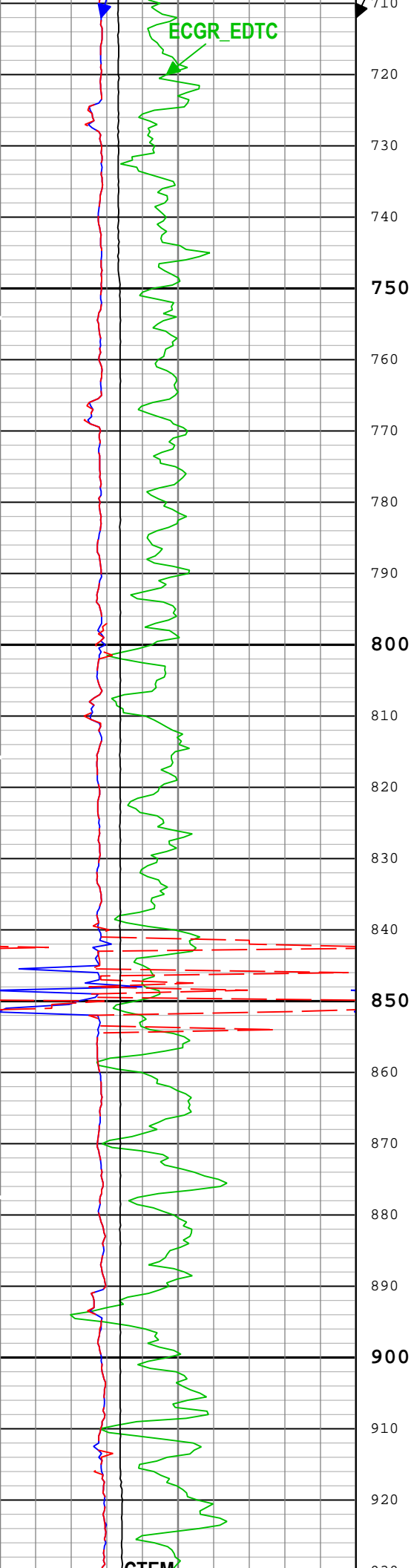


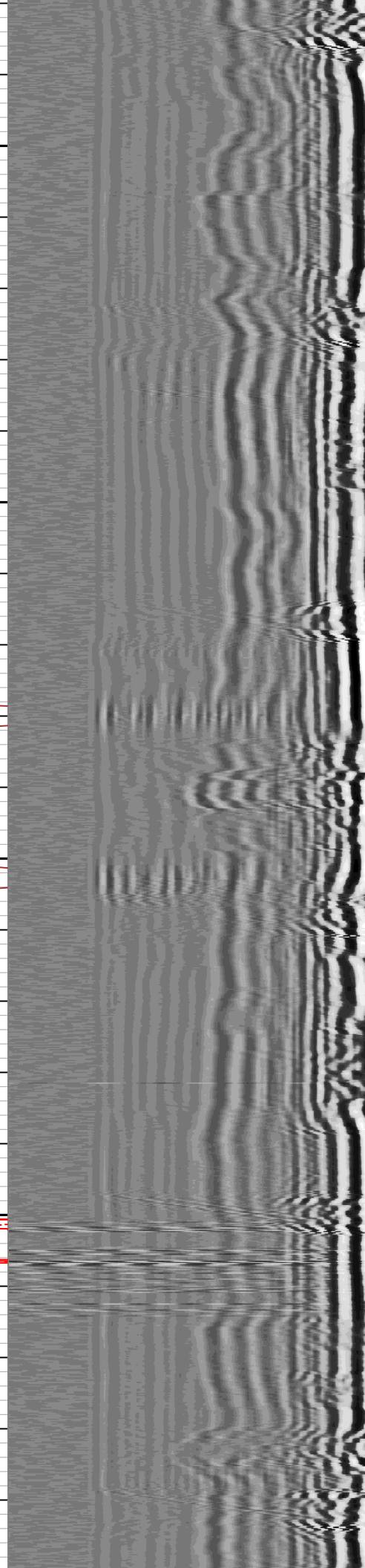
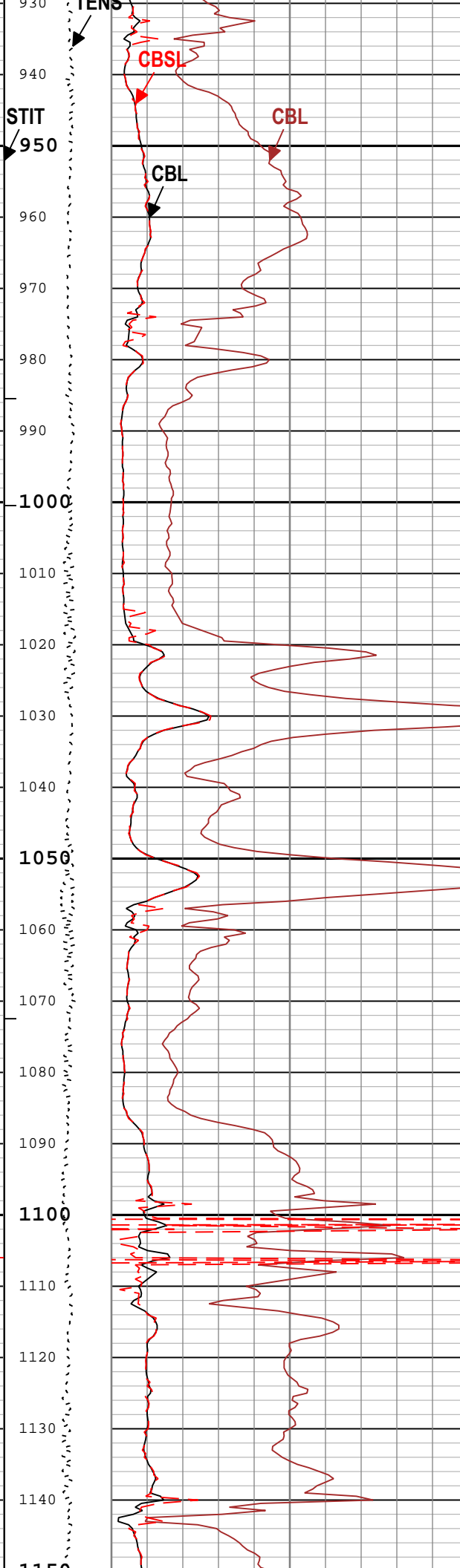
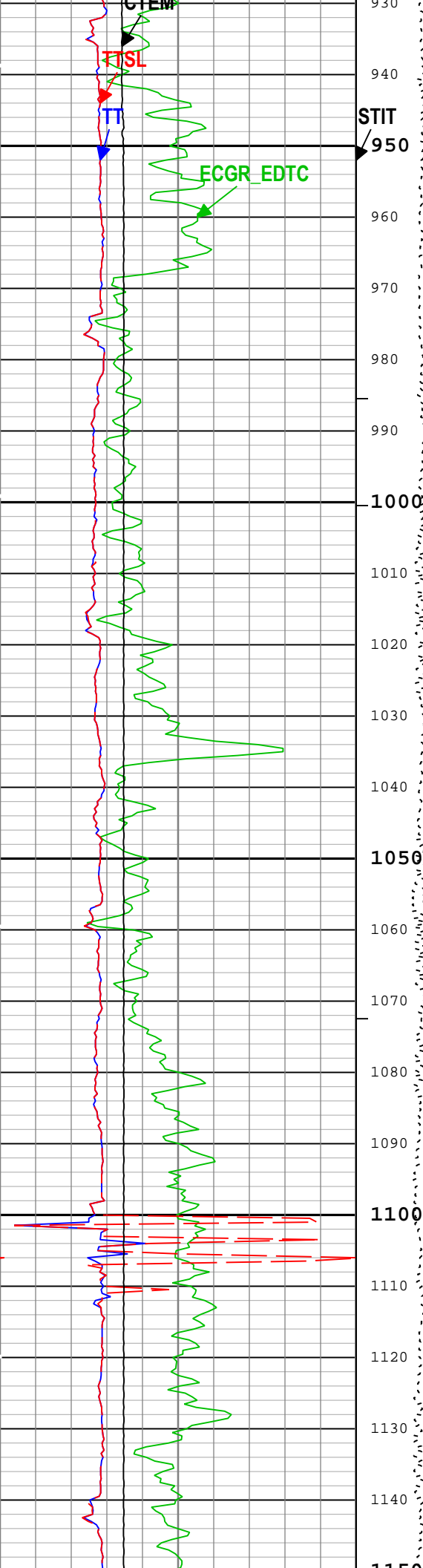


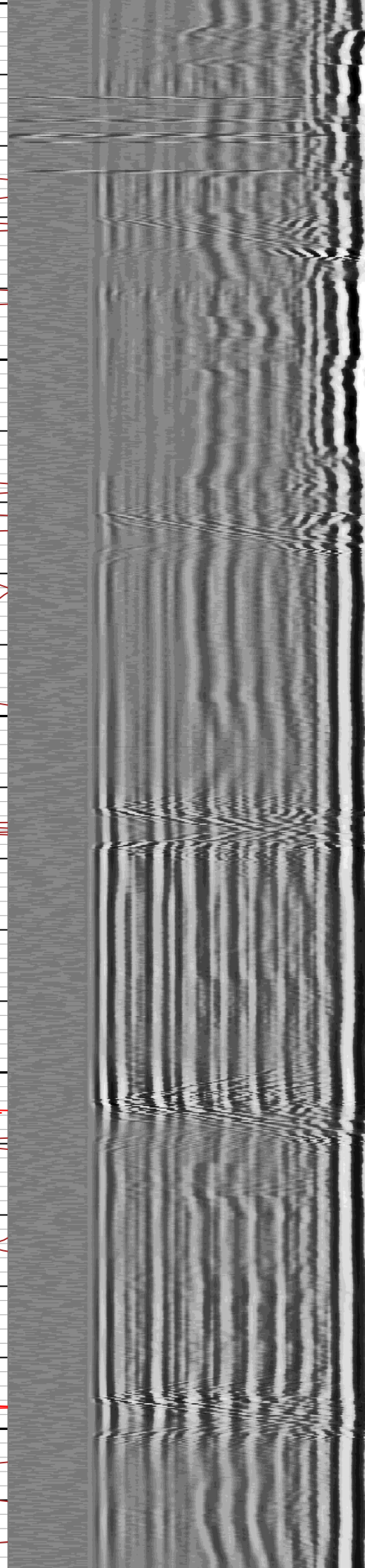
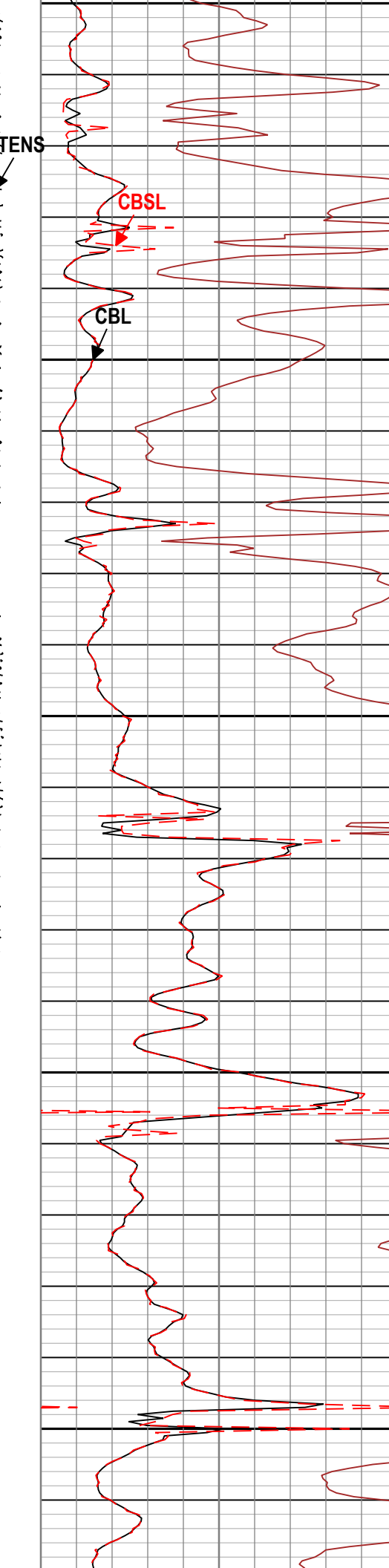
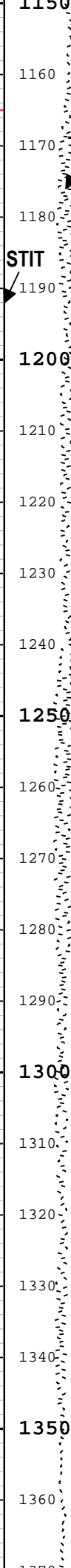
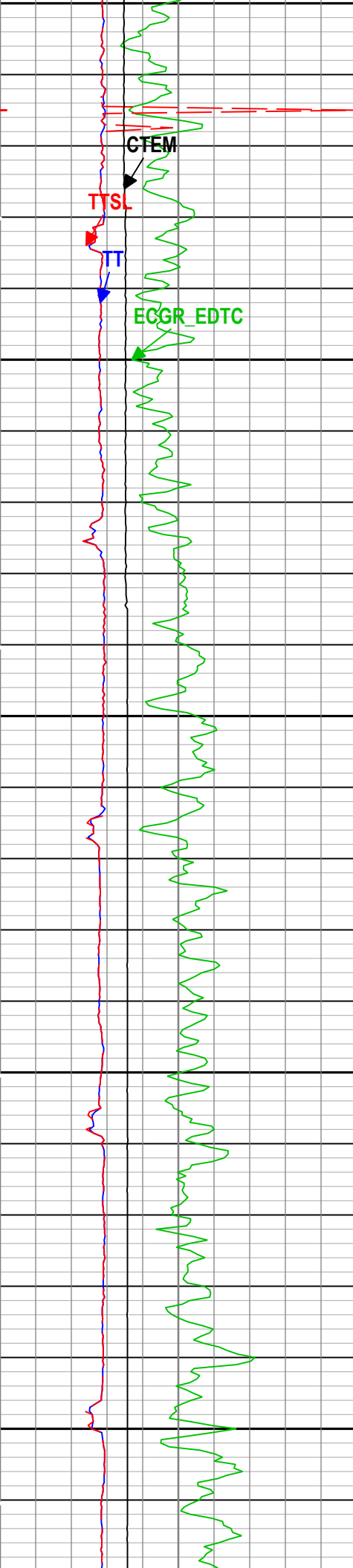




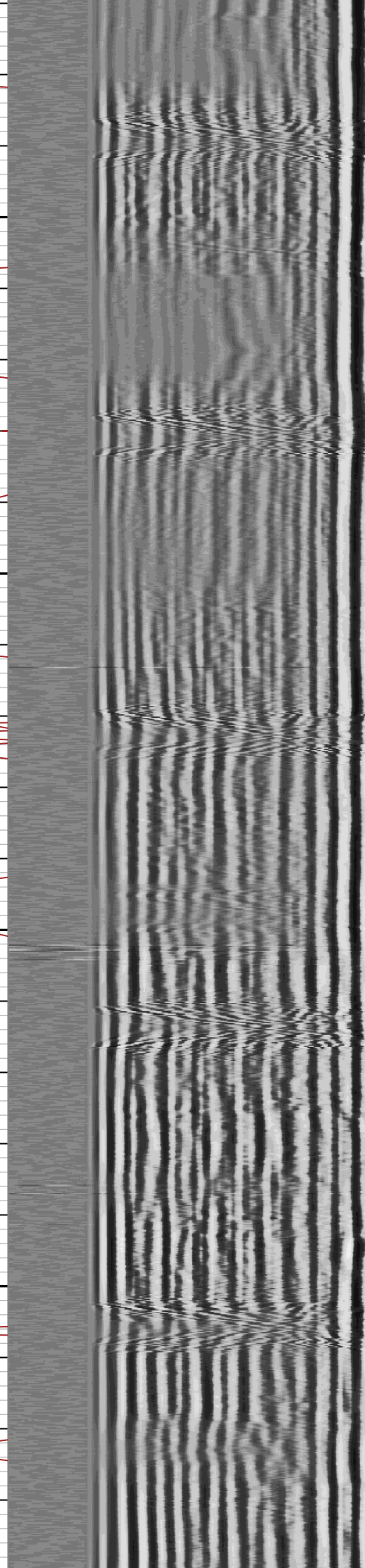
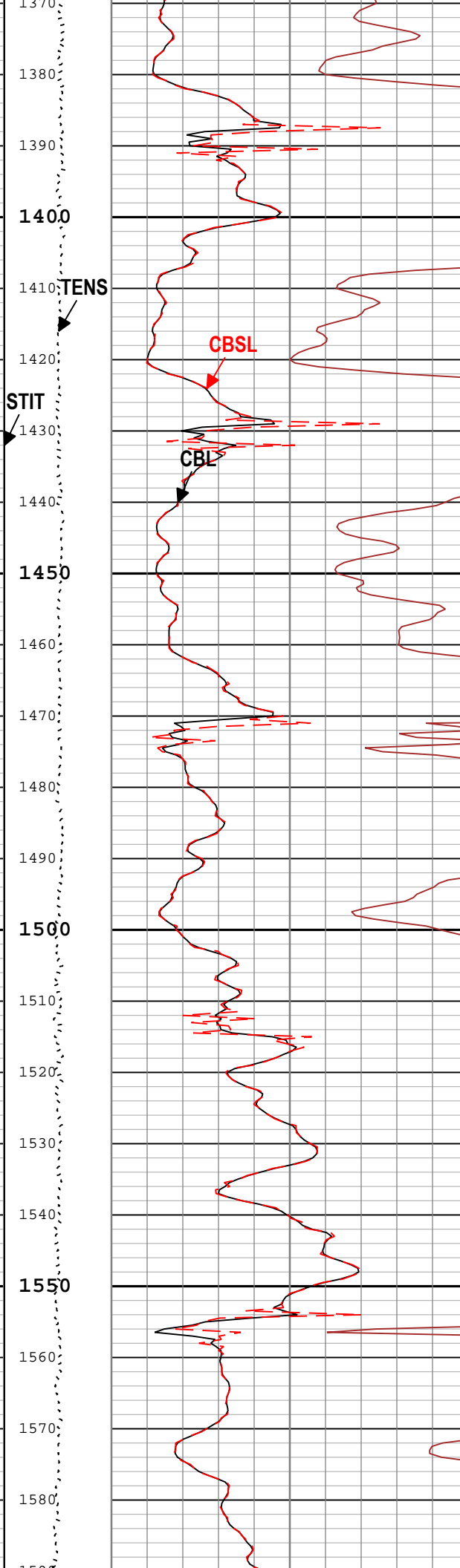
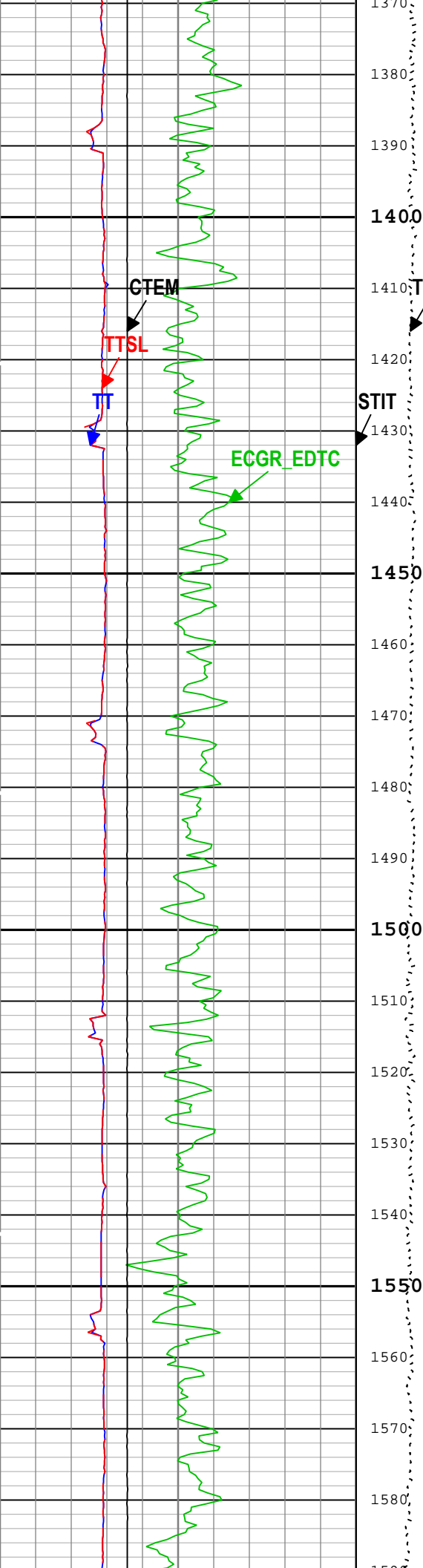


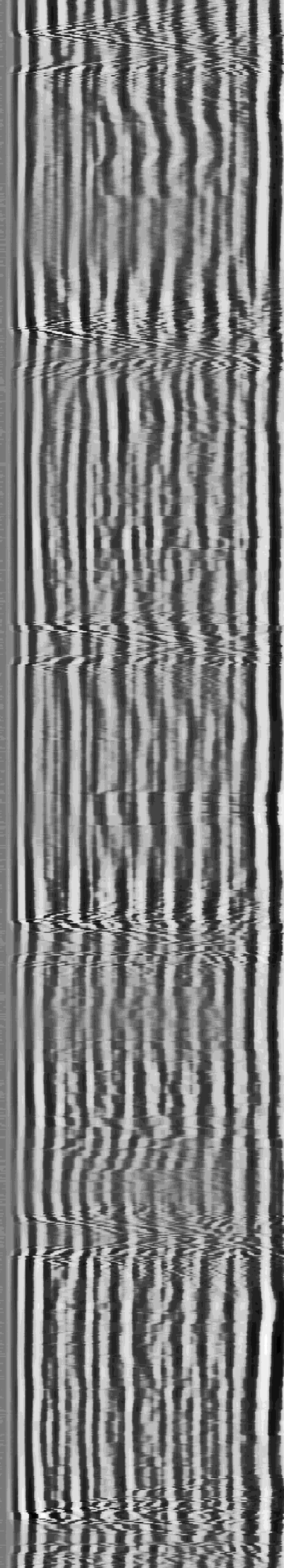
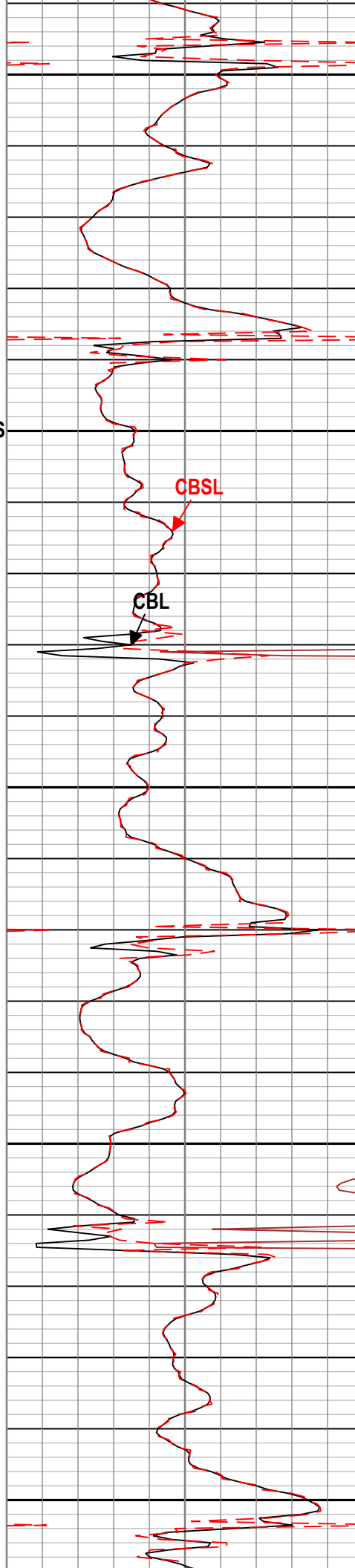
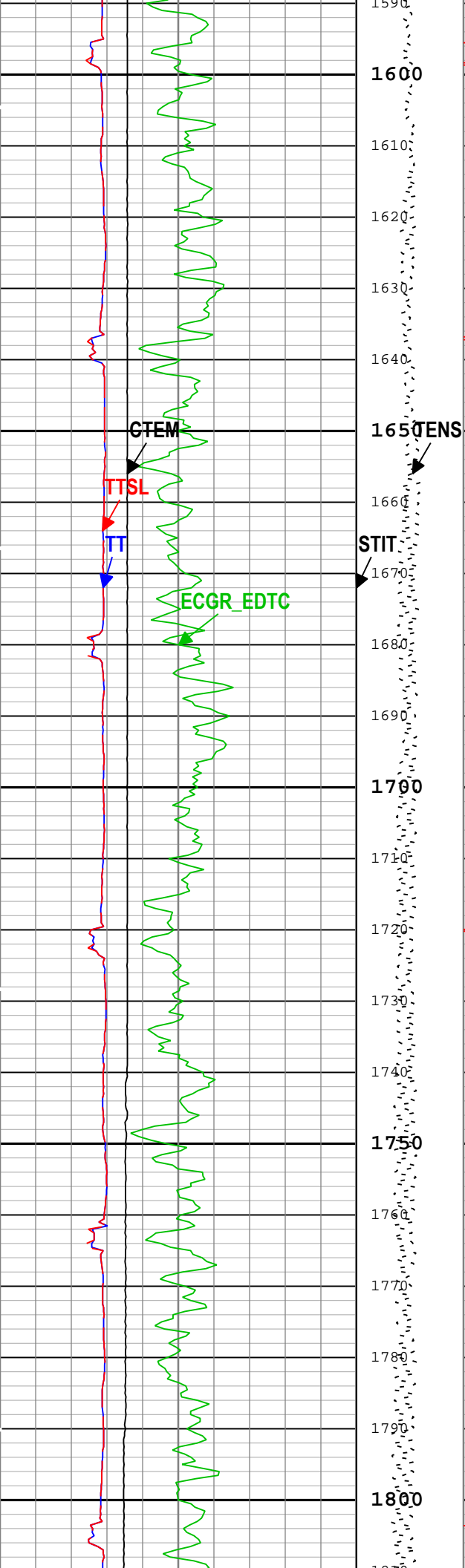


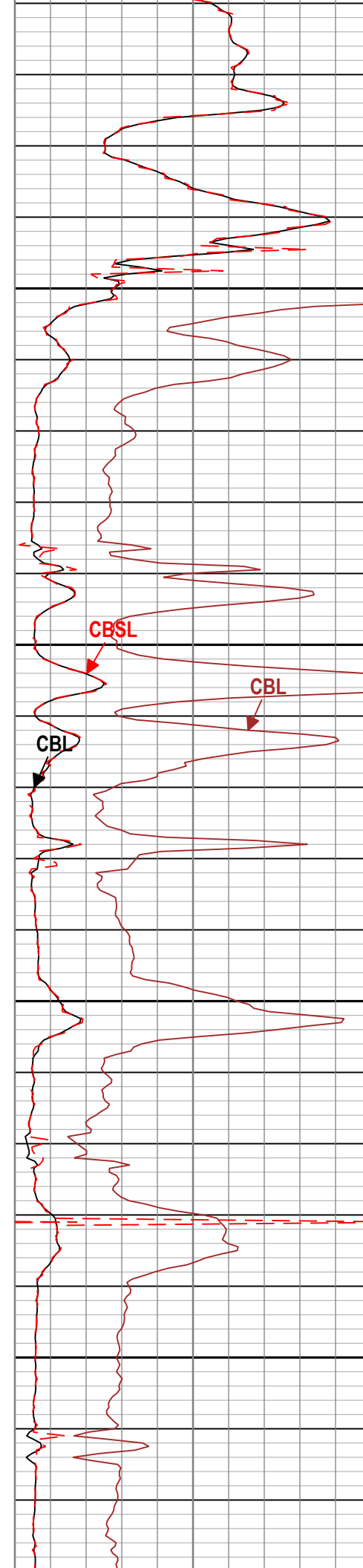
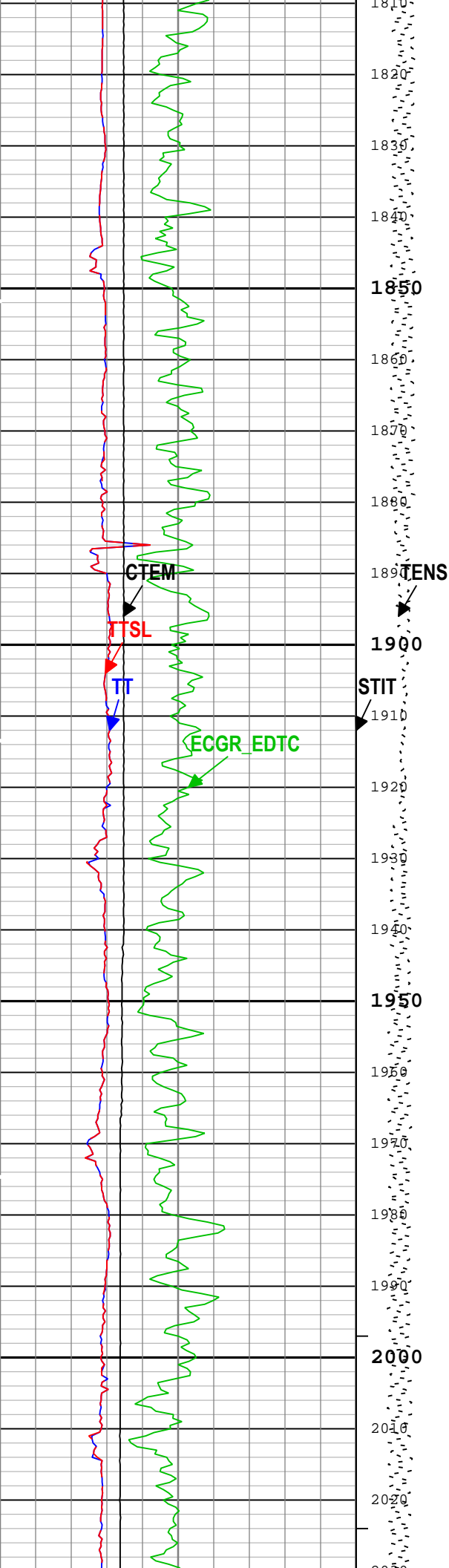


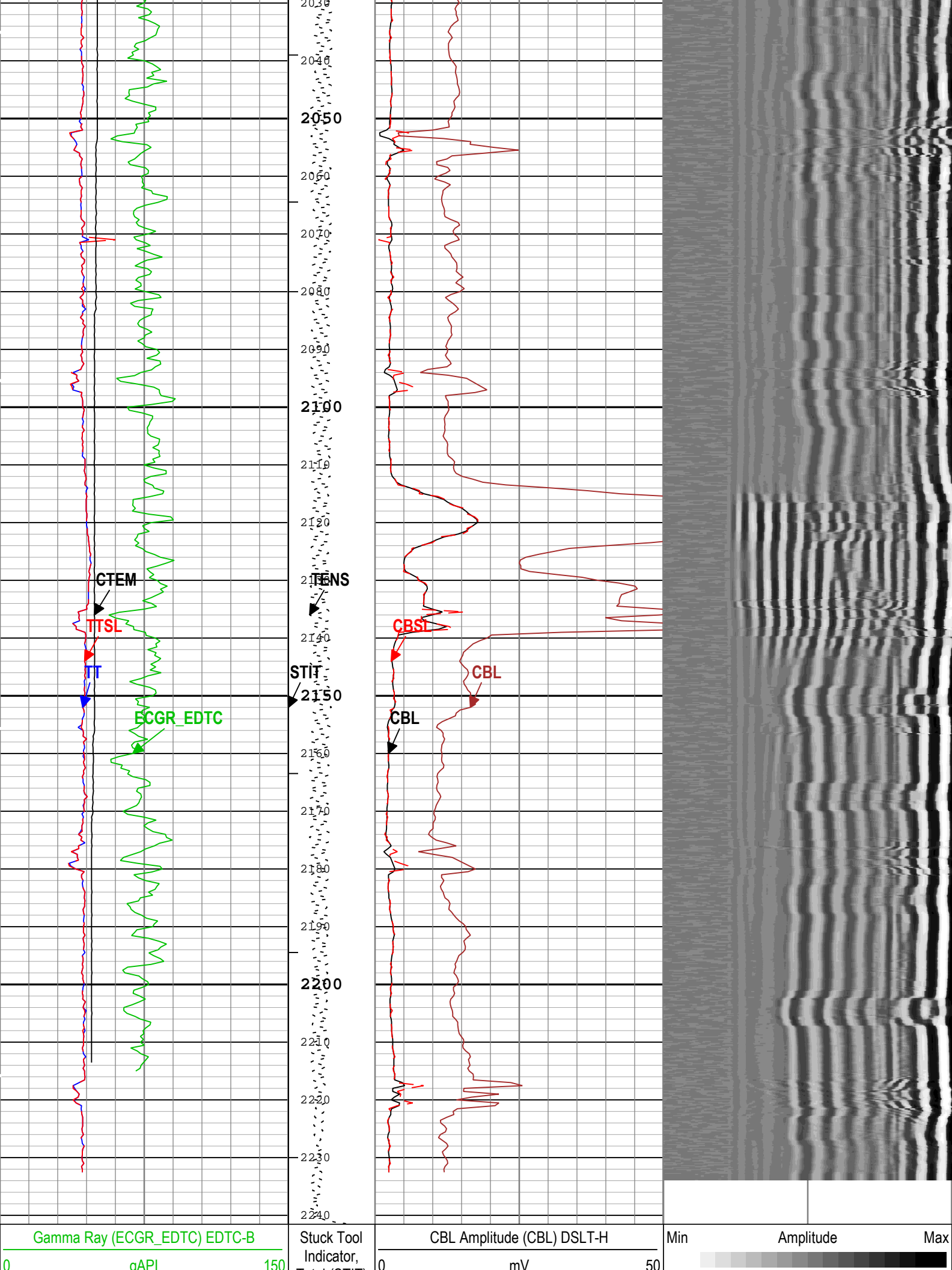














TIME_1900 - Time Marked every 60.00 (s)					
└─ BIEP - Bond Index Event Pips DSLT-H					
Description: CBL_VDL    Format: Log ( Sonic CBL with VDL )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 25-Jun-2018 11:03:08					

Tool Control Parameters				
One: Parameters				
Parameter	Description	Tool	Value	Unit
MODE	DSLTT Acquisition Mode	DSLTT-H	CBL	
RATE	DSLTT Firing Rate	DSLTT-H	15 Hz	
DTFS	DSLTT Telemetry Frame Size	DSLTT-H	536	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	5000	ft/h
SGAI	Selectable Acquisition Gain	DSLTT-H	x1	

# Calibration Report

## DSLT-H (Digitizing Sonic Logging Tool - H) Calibration - Run One

Primary Equipment :	Sonic Logging Sonde E supports 3'-5'BHC DT and CBL/VDL	SLS-E	1563
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## CBL Normalization - CBL Accumulations

Master (Manual Entry):	12:37:57 23-Jun-2018						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Upper Far Amplitude - 0		Master	----	----	----	----	
Upper Near Raw Amplitude - 0	mV	Master	----	----	----	----	
Lower Far Amplitude - 0		Master	----	----	----	----	
Lower Near Raw Amplitude - 0	mV	Master	----	----	----	----	

## CBL Normalization - CBL/VDL Coefficients

Master (Manual Entry):	12:37:57 23-Jun-2018						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
CBL Correction Factor for UT		Master	3.500	2.700	3.431	4.300	
CBL Correction Factor for LT		Master	2.500	1.700	2.712	4.300	
VDL Ratio between UT and LT for CBLB Mode		Master	1.000		1.350		

## CBL Free Pipe Adjustment - Free Pipe Measurement

Before (Manual Entry):	12:45:28 24-Jun-2018						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
CBL Amplitude - 0	mV	Before	----	----	----	----	
CBL Reference Amplitude (CBRA) - 0	mV	Before	----	----	----	----	
Measurement Depth - 0	ft	Before	----	----	----	----	

## CBL Free Pipe Adjustment - CBL Amplitude Coefficient

Before (Manual Entry):	12:45:28 24-Jun-2018						
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
CBL Adjustment Factor		Before	1.000	0.200	0.980	5.000	
Depth of Before Calibration	ft	Before			50.72		

Company:	Crestone Peak Resources Operating LLC	Schlumberger
Well:	Sam 3J-25H-M166	
Field:	Wattenberg	
County:	Weld	
State:	Colorado	

Cement Bond Log  
Surface Casing

