RELIANCE
OILFIELD SERVICES

Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Chevron TR 534-27-597
Field Trail Ridge
County Garfield
State Colorado

Company	TEP Rocky Mountain LLC		
Well	Chevron TR 534-27-597		
Field	Trail Ridge		
County	Garfield	State	Colorado

Location: API # : 05-045-23331

176 FSL 264 FEL SESE

SEC 27 TWP 6S RGE 97W

Other Services

			Elevation
Permanent Datum	Ground Level	Elevation 8,452'	K.B. 8,476'
Log Measured From	Kelly Bushing	24 FT	D.F. 8,475'
Drilling Measured From	Kelly Bushing		G.L. 8,452'

Date	10-APR-2017		
Run Number	One		
Depth Driller	9,991 FT		
Depth Logger	9,917 FT		
Bottom Logged Interval	9,917 FT		
Top Log Interval	Surface		
Open Hole Size	8.750"		
Type Fluid	Water		
Density / Viscosity	8.34 Lb/Gal		
Max. Recorded Temp.	257° F		
Estimated Cement Top	See log		
Time Well Ready	ROA		
Time Logger on Bottom	N/A		
Equipment Number	HD-0329		
Location	Grand Junction		
Recorded By	J. Donnelly		
Witnessed By	C. Applegate		

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size (in)	Weight (lb/ft)	From	To

Casing Record	Size (in)	Wgt (lb/ft)	Grade	Top	Bottom
Surface Casing	9 5/8	36 & 40	H-40	Surface	2739 FT
Intermediate #1	4 1/2	11.60	P-110	Surface	9991 FT
Intermediate #2					
Liner					

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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.

Comments

Log ran per customer request
Depth referenced to Kelly Bushing at 24 FT
Ground level 1 FT below cut pipe
Log ran from 9,917 FT to surface
Recorded with 0 PSI surface induced pressure

Thank you for choosing Reliance Oilfield Services LLC!!

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Main Pass

Recorded With 0 PSI Surface Induced Pressure

Database File	tep_chevron tr 534-27-597\tep_chevron tr 534-27-597_04-10-17_rbl.db
Dataset Pathname	pass3.3
Presentation Format	ros_rbt004_tep
Dataset Creation	Wed Apr 12 15:51:22 2017
Charted by	Depth in Feet scaled 1:240

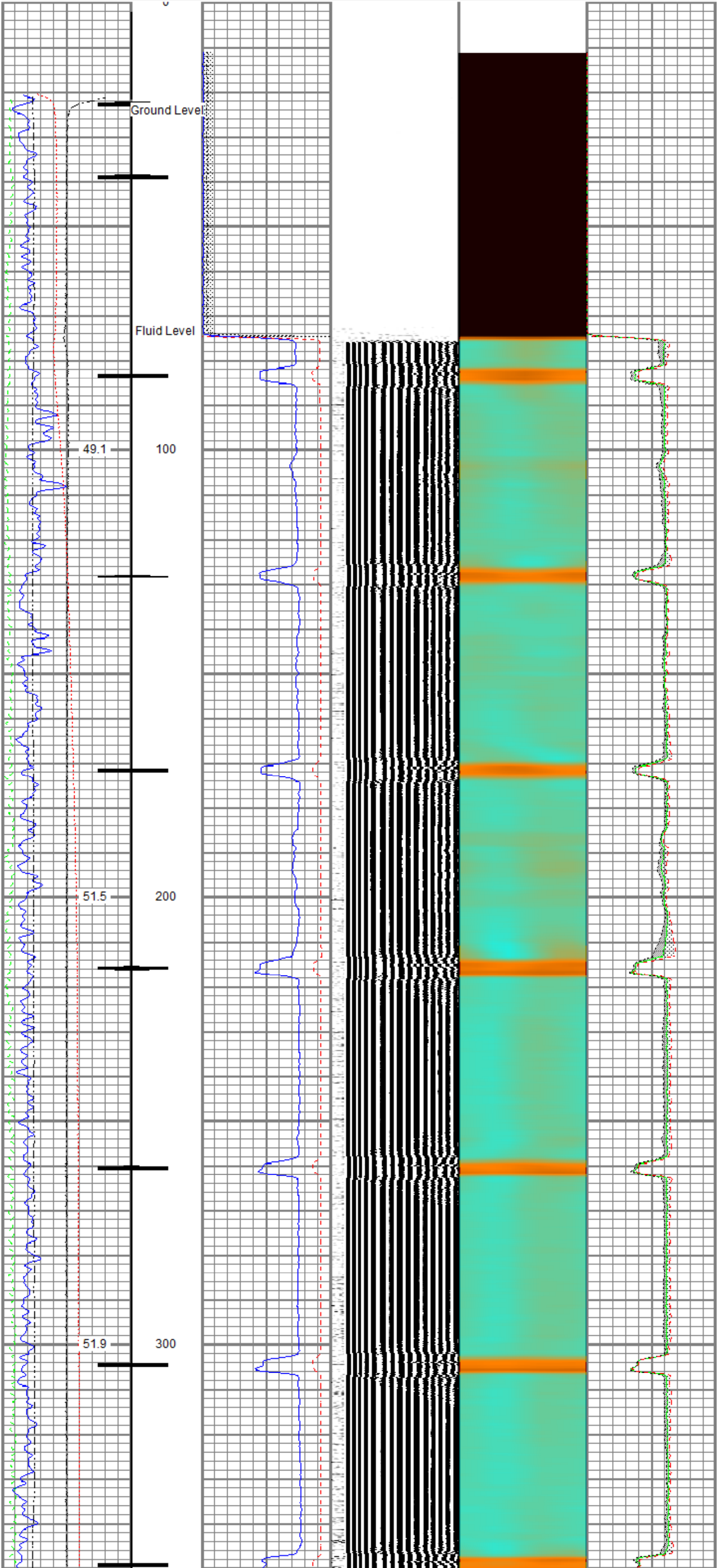
Gamma Ray
0 (GAPI) 200
Casing Collar Locator
Line Speed
-150 (ft/min) 150
Line Tension
0 (lb) 2000
Differential Temperature
-2 (degF) 2
Temperature
0 (degF) 20

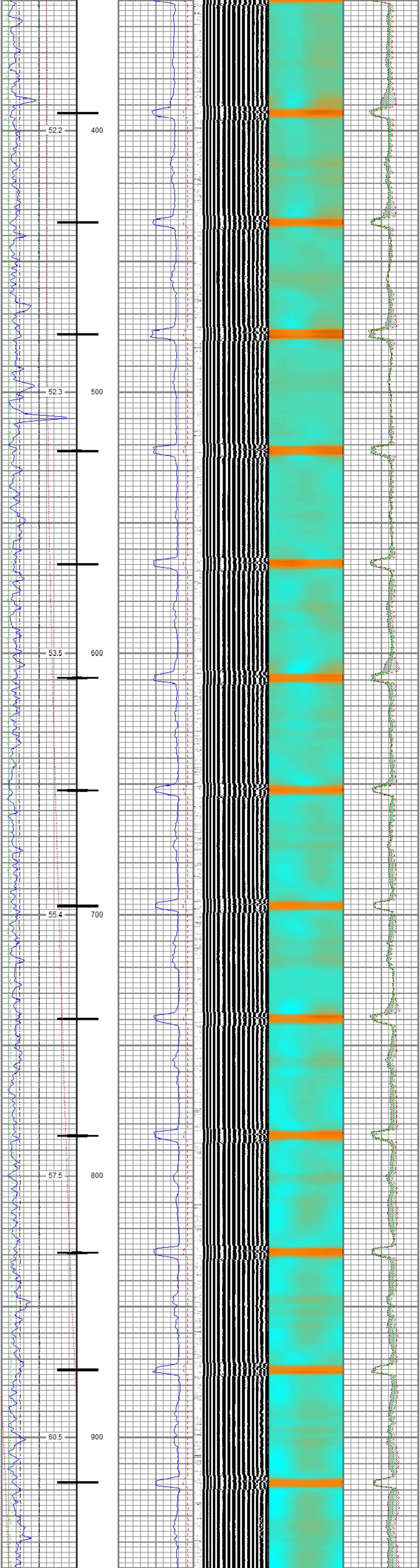
3' Amplitude
0 (mV) 100
3' Amplitude x 5
0 (mV) 20
3' Travel Time
300 (usec) 200

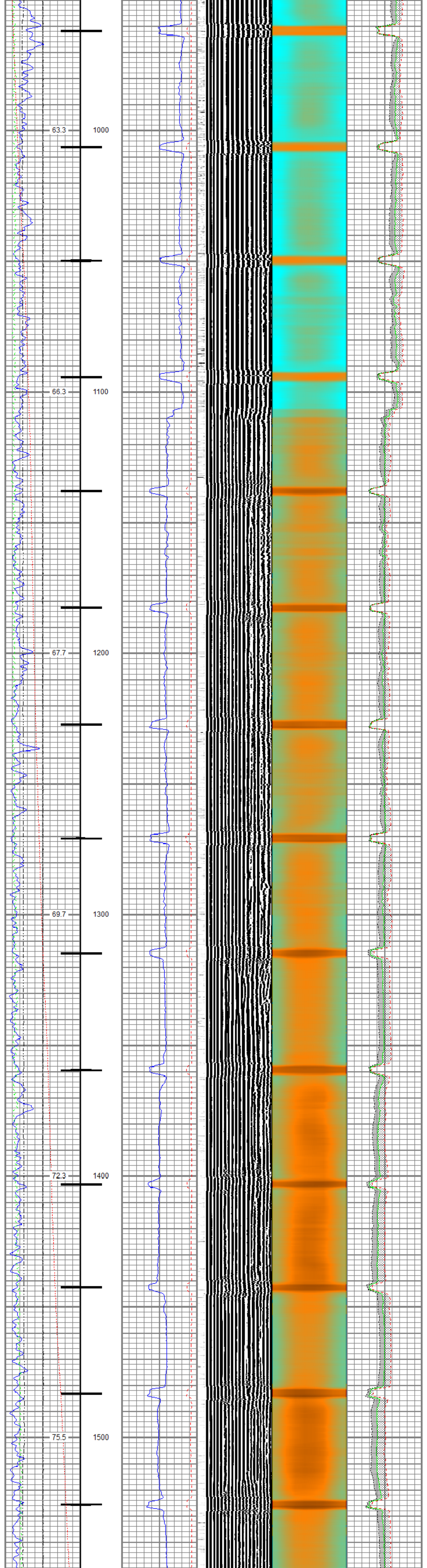
5' Variable Density Log
200 1200

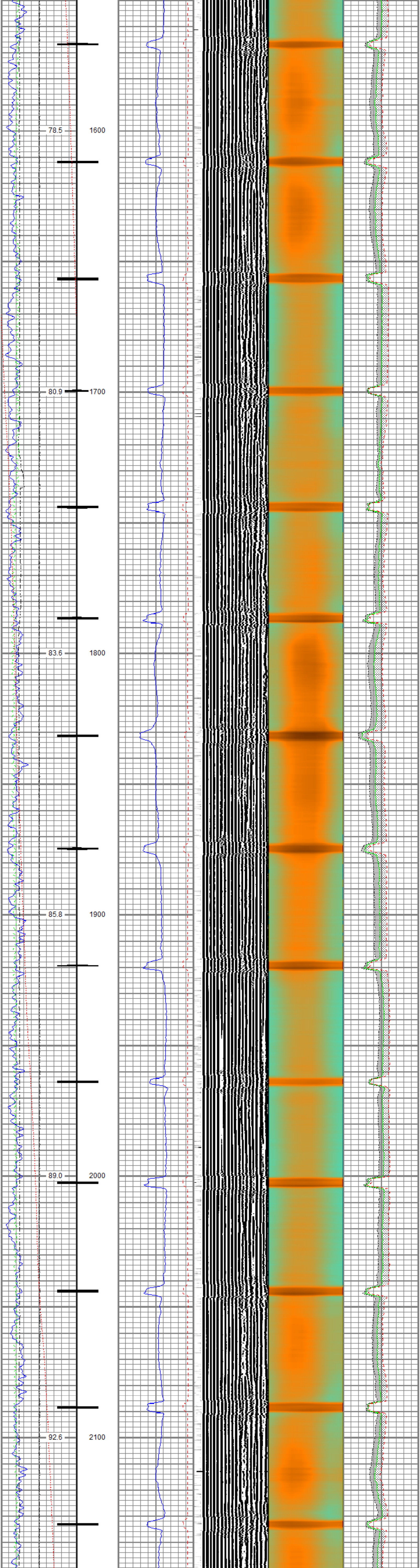
Sector Map
10 110

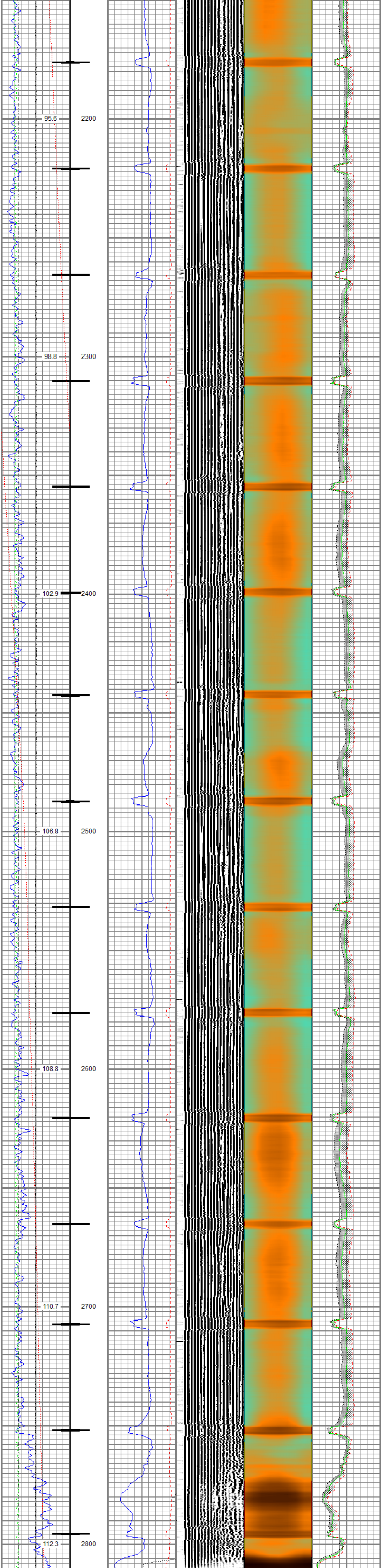
Average Amplitude
0 150
Mimimum Amplitude
0 150
Maximum Amplitude
0 150

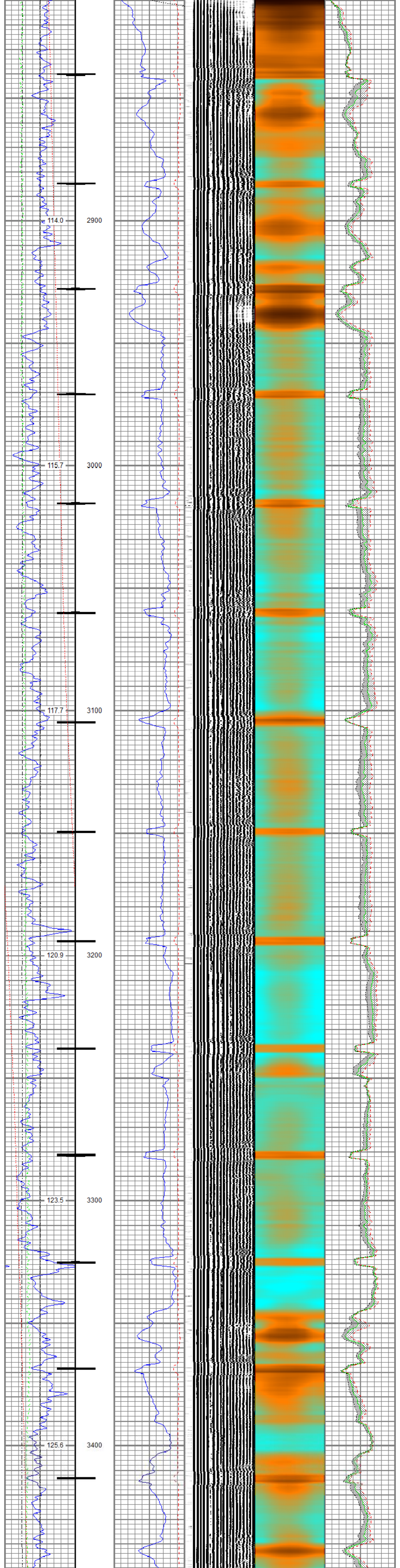


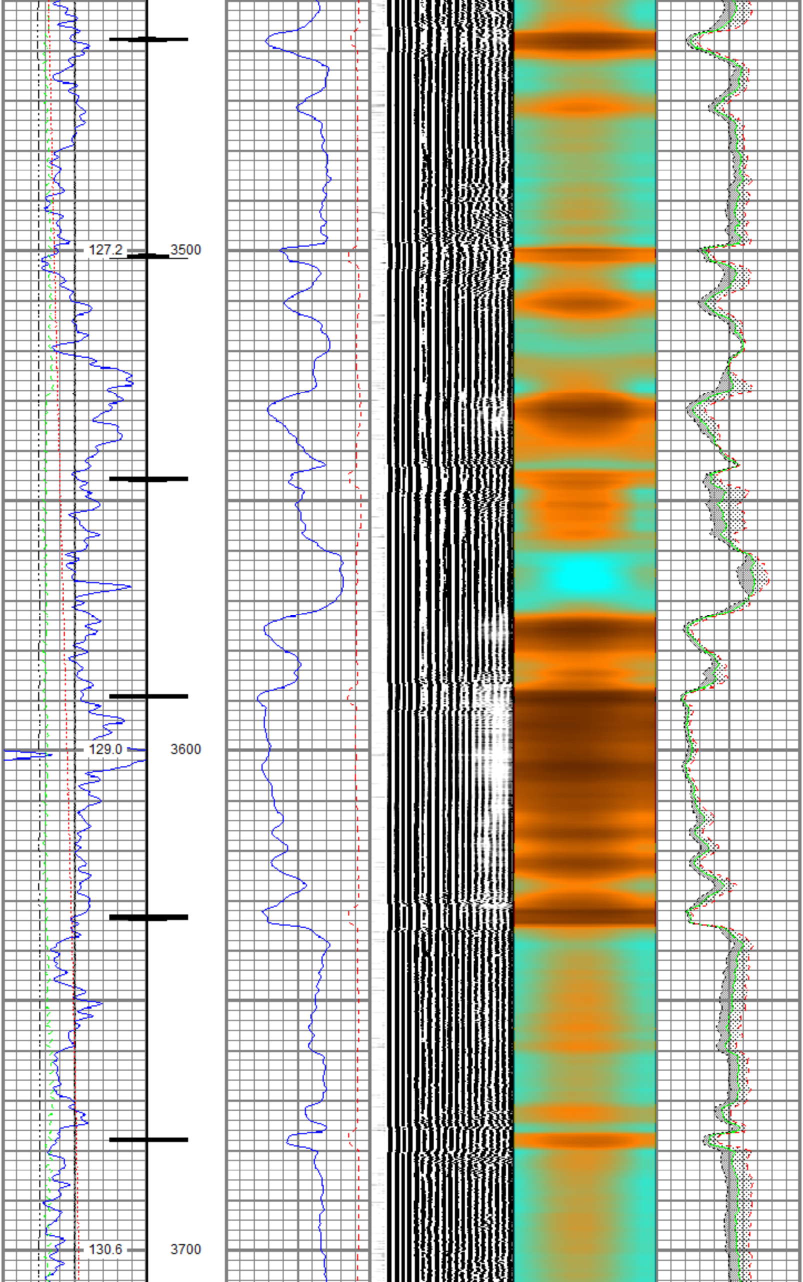


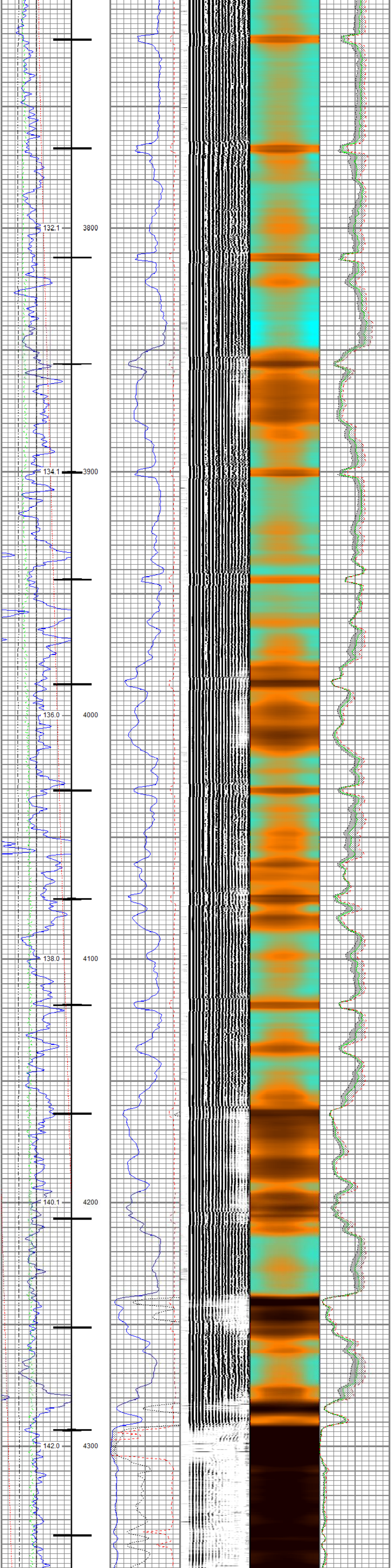








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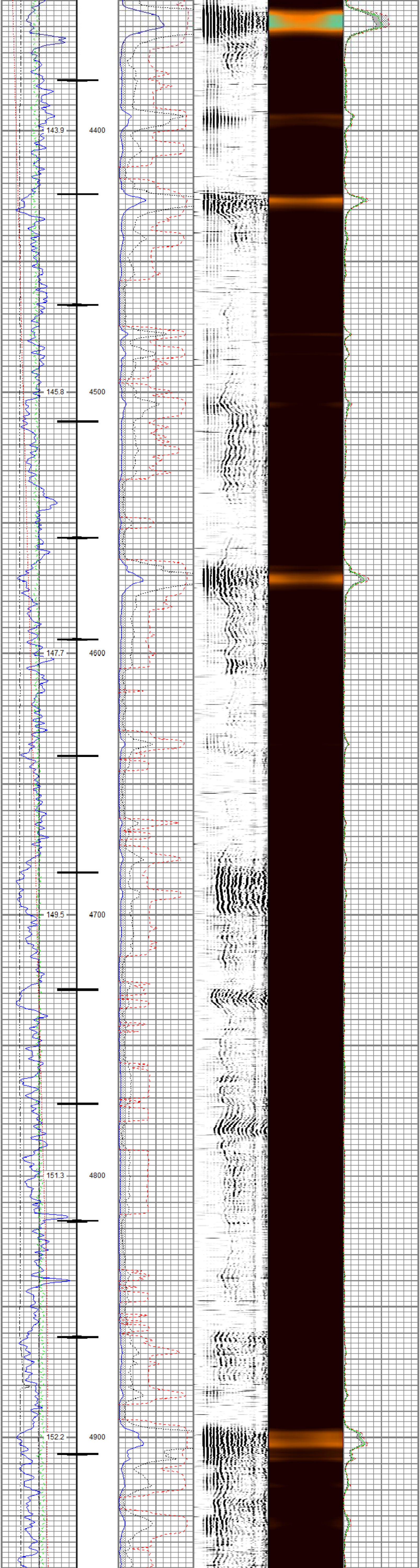
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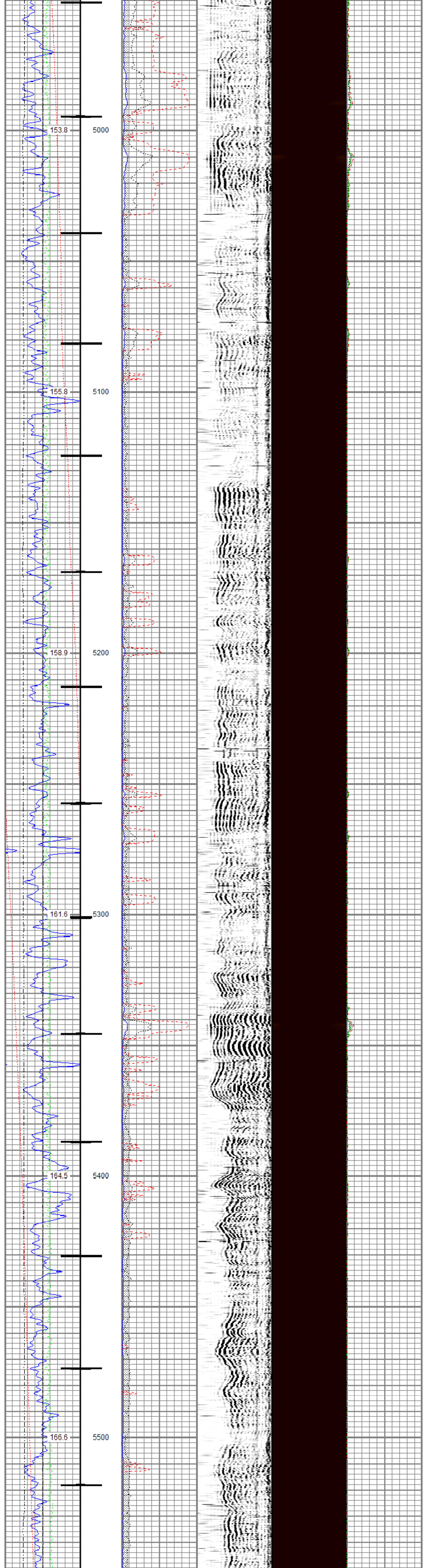
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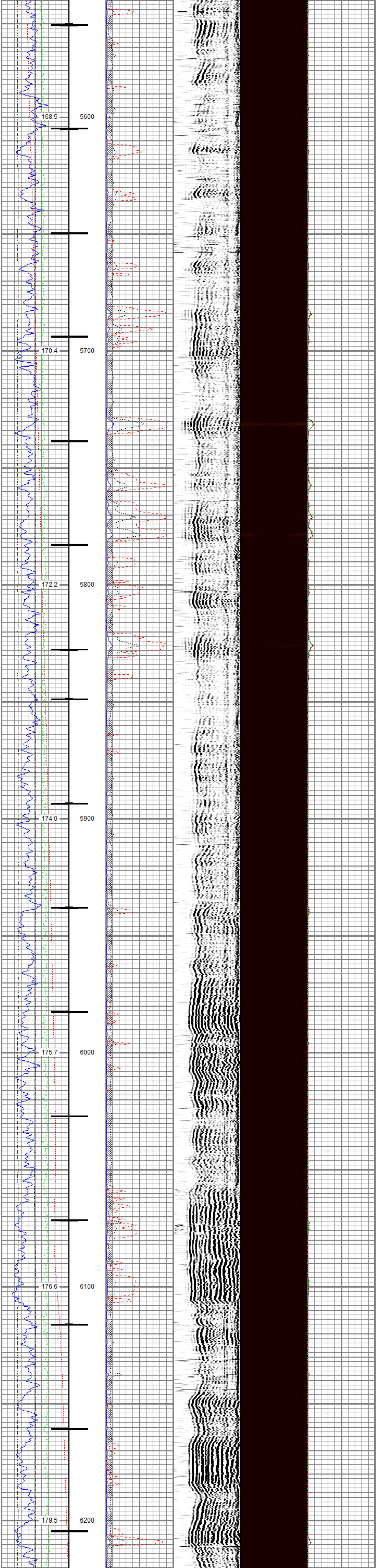
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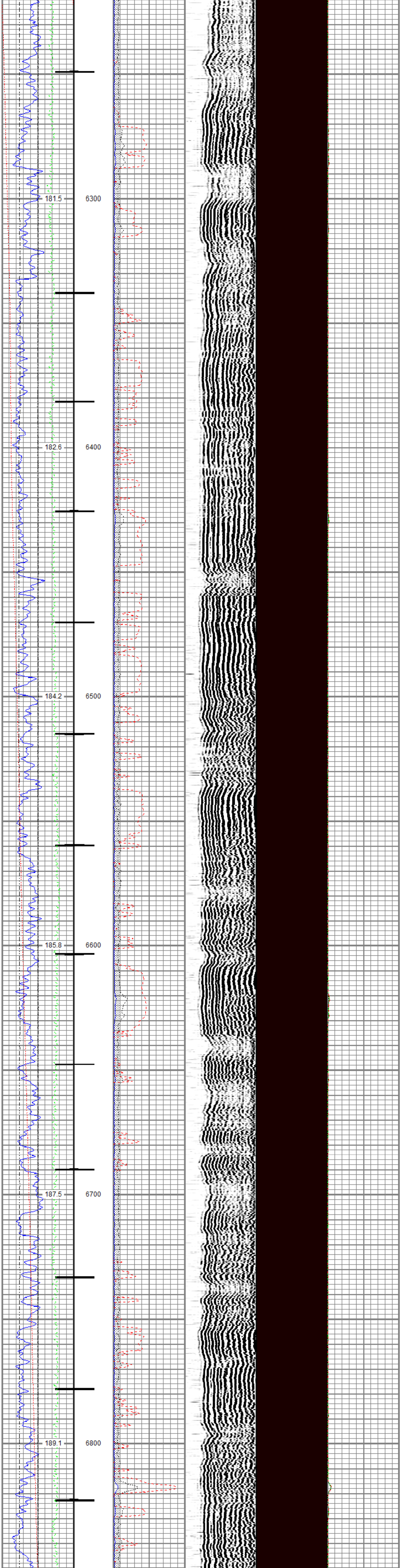
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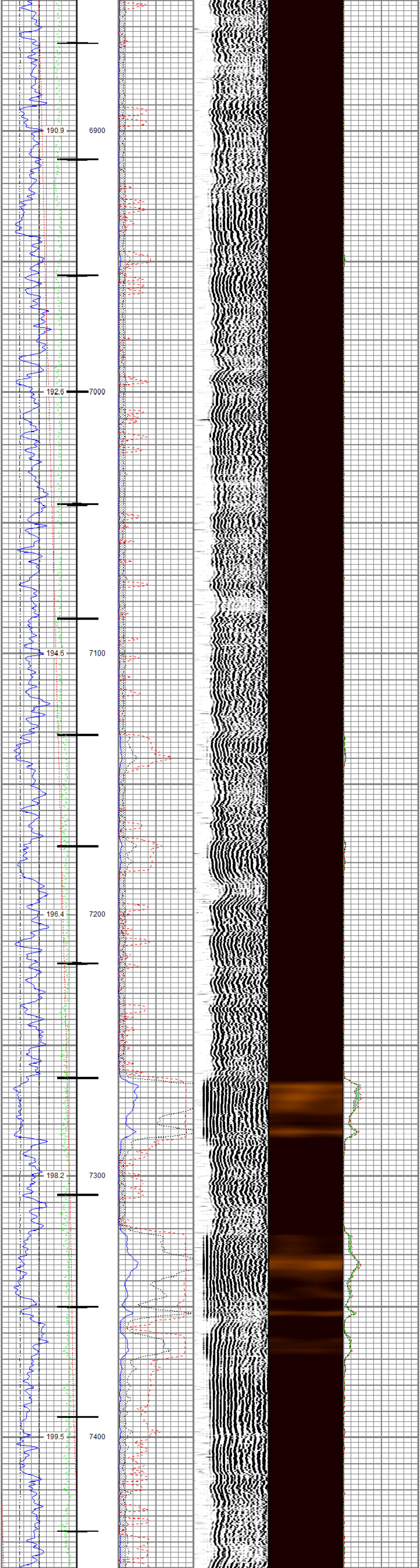
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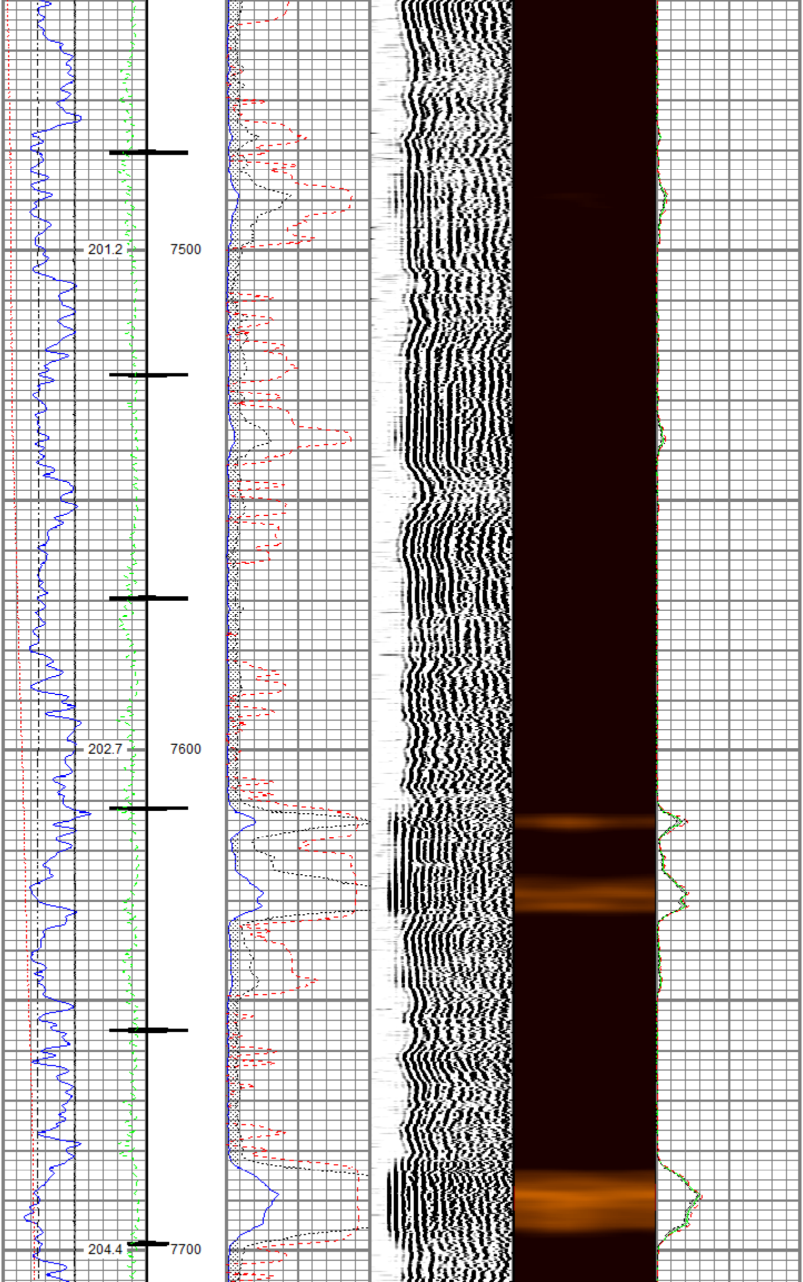
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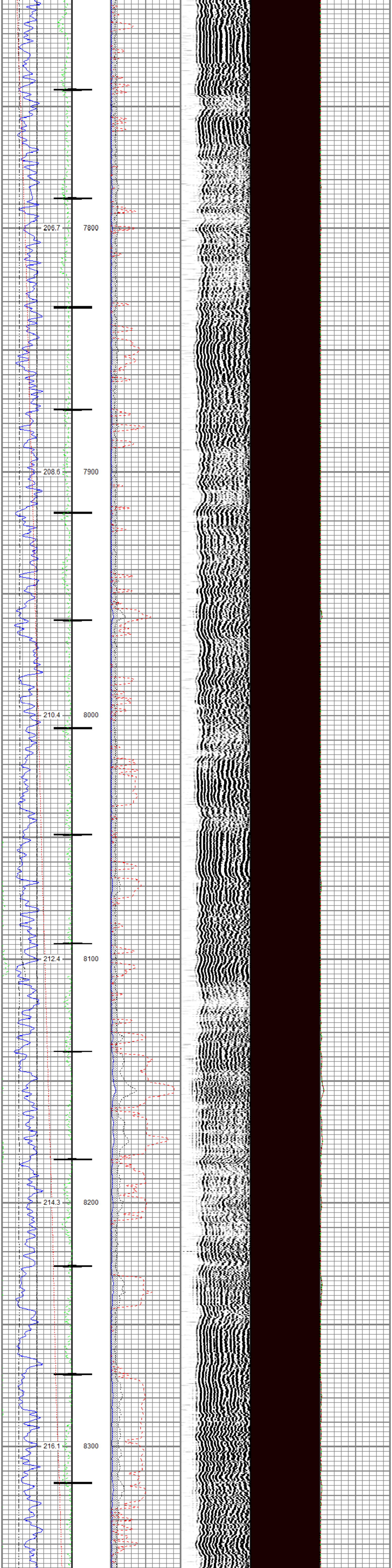

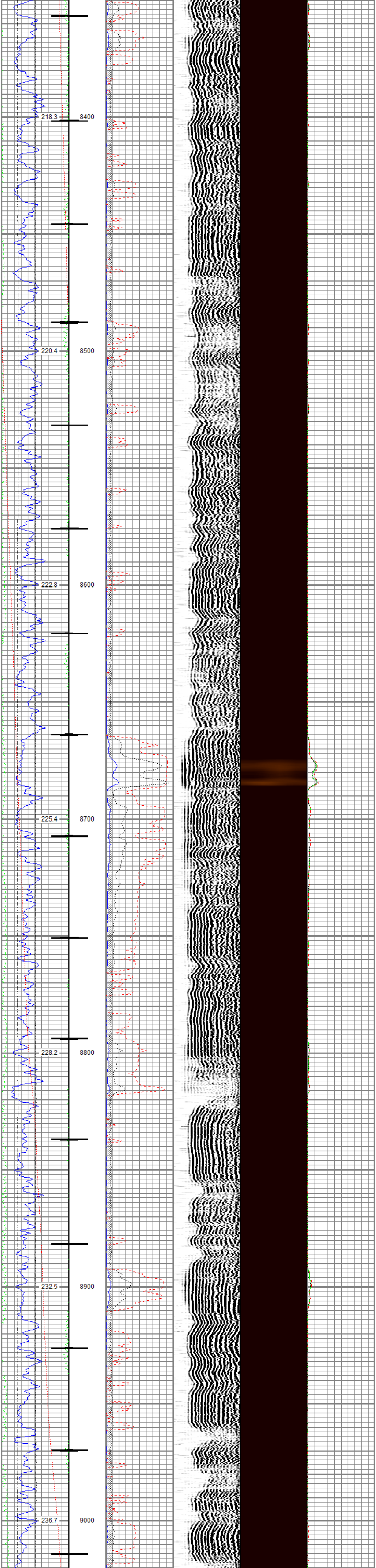

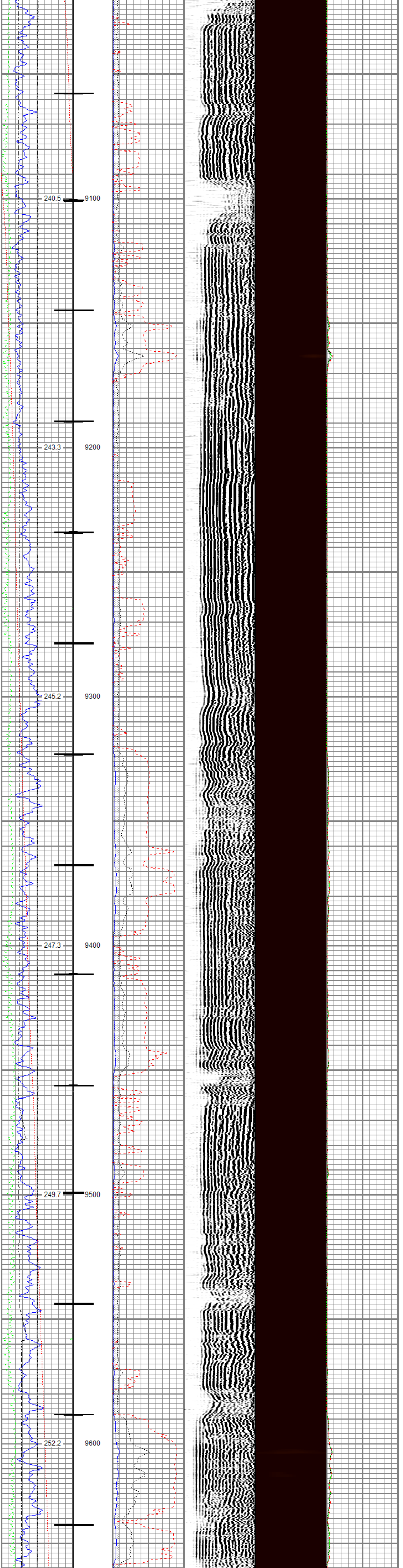

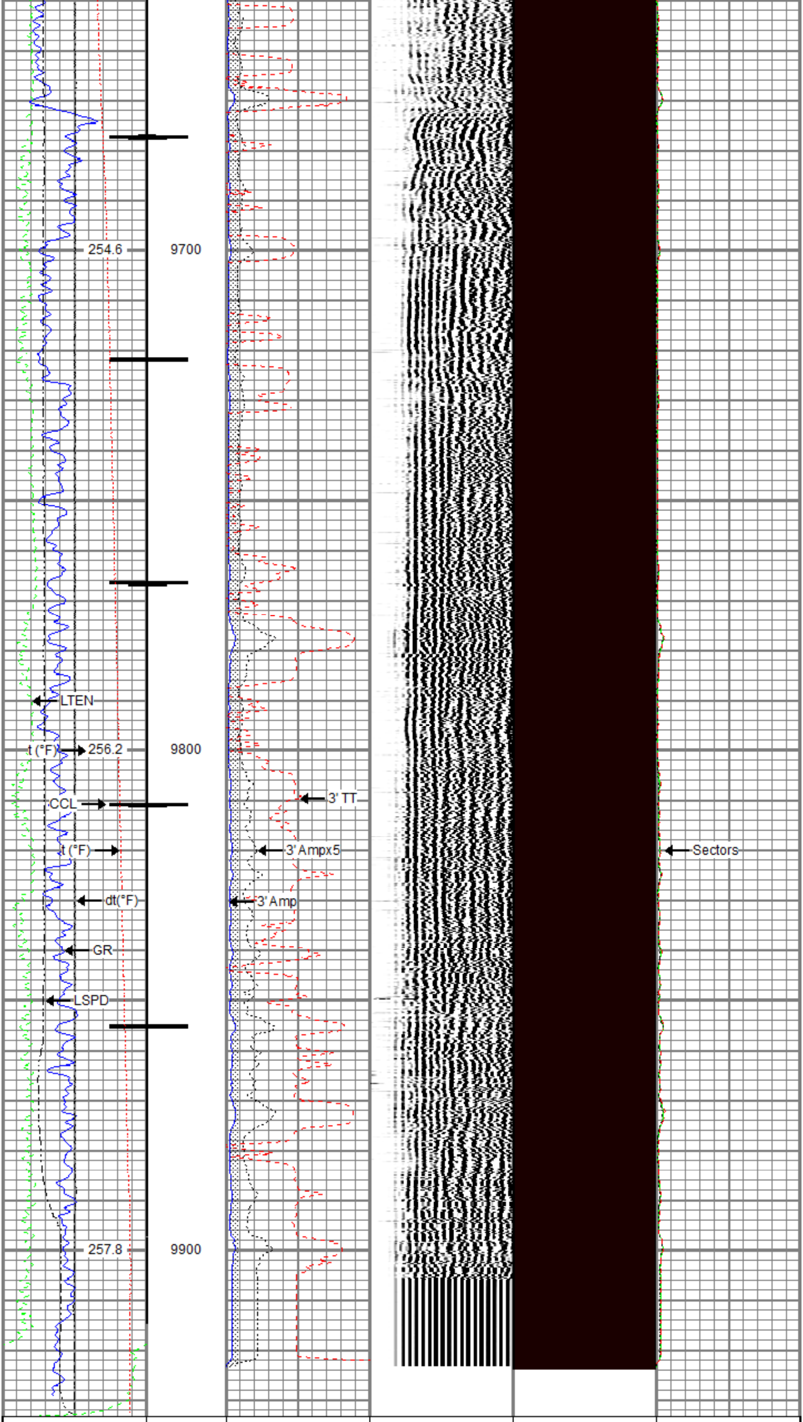

Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map 10 110	Average Amplitude 0 150
Casing Collar Locator	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Line Tension 0 (lb) 2000				
Differential Temperature -2 (degF) 2				
Temperature 0 (degF) 20				

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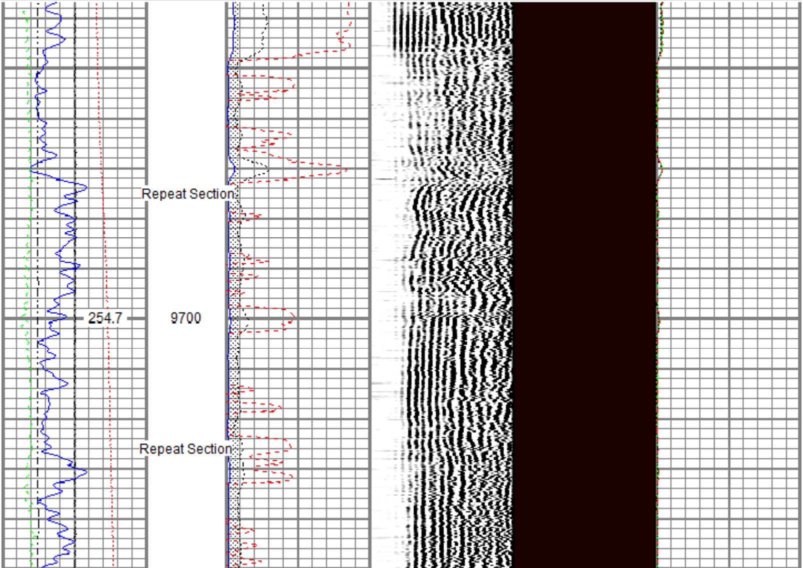
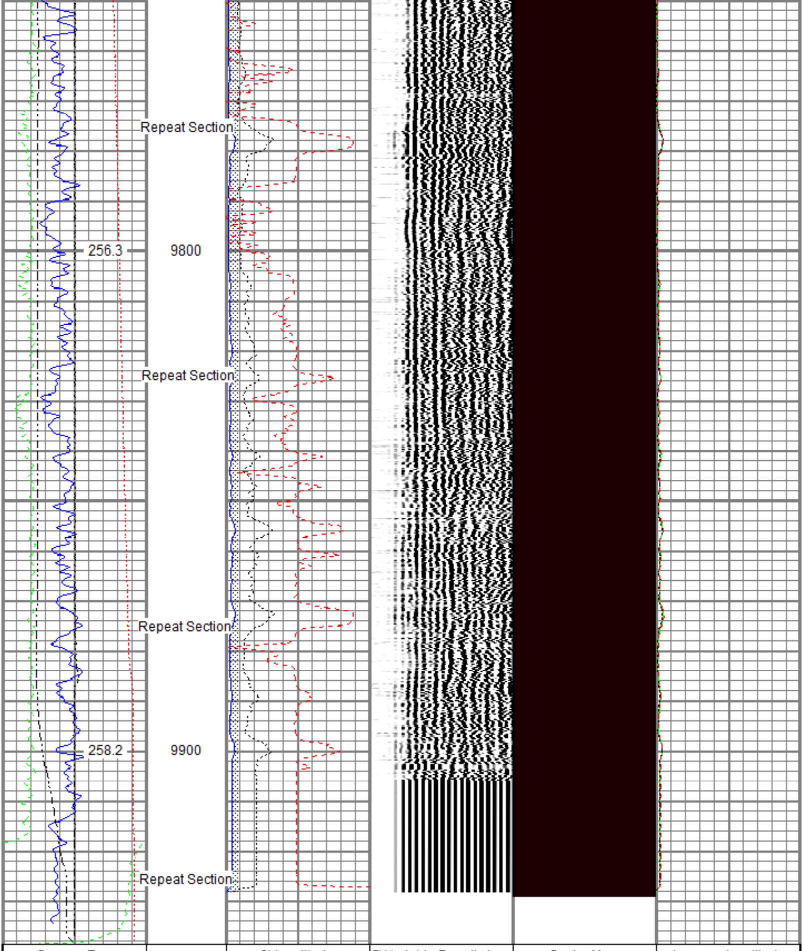
Repeat Pass

Recorded With 0 PSI Surface Induced Pressure

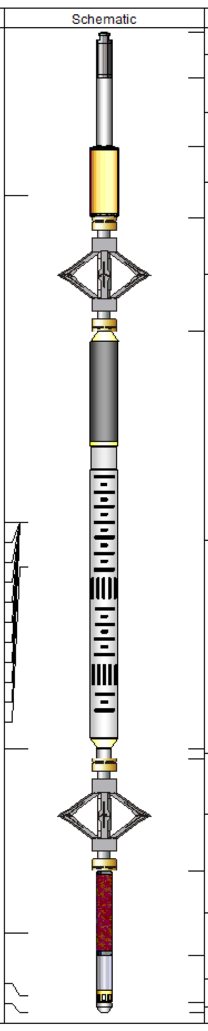
Database File	tep_chevron tr 534-27-597\tep_chevron tr 534-27-597_04-10-17_rbl.db
Dataset Pathname	pass2.1
Presentation Format	ros_rbt004_tep
Dataset Creation	Wed Apr 12 16:09:20 2017
Charted by	Depth in Feet scaled 1:240

Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map 10 110	Average Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Amplitude x 5 0 (mV) 20			Mimimum Amplitude 0 150
Line Tension 0 (lb) 2000	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Differential Temperature -2 (degF) 2				
Temperature 0 (degF) 20				





Gamma Ray 0 (GAPI) 200	3' Amplitude 0 (mV) 100	5' Variable Density Log 200 1200	Sector Map 10 110	Average Amplitude 0 150
Line Speed -150 (ft/min) 150	3' Amplitude x 5 0 (mV) 20			MimimumAmplitude 0 150
Line Tension 0 (lb) 2000	3' Travel Time 300 (usec) 200			MaximumAmplitude 0 150
Differential Temperature -2 (degF) 2				
Temperature 0 (degF) 20				

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan_Electric_Cable_Heads-Titan_1-11/1 Electric Cable Head with 1" Fishing Neck	1.03	1.69	5.40
			UW_XTU-UW_XTU_002 (10012277) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
CCL	18.47		UW_CCL-UW_CCL_028 (10025621) 3-1/8" Ultrawire Casing Collar Locator	1.61	3.13	36.00
			UW_PRC-DSS_RAC 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
CBLROT	11.08					
WVFS8	11.08		UW_RBT-UW_RBT_004 (10012639) Sondex Ultrawire 3-1/8" Radial Bond Tool	9.48	3.13	140.00
WVFS7	11.08					
WVFS6	11.08					
WVFS5	11.08					
WVFS4	11.08					
WVFS3	11.08					
WVFS2	11.08					
WVFS1	11.08					
WVF3FT	11.08					
WVF5FT	10.08					
CBLTEMP	5.94		UW_AGS-UW_AGS_001 (219135) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW_PRC-DSS_RAC 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
			UW_PGR-UW_PGR_020 (10019371) Production Gamma Ray	1.92	1.69	9.50
GR	1.76					
			UW_PRT-PRT_016 (10025098) Platinum Resistance Thermometer	1.04	1.69	5.20
TEMP	0.37		UW_BUL-UW_BUL_006 (10019730) Sondex Ultrawire Bullnose Terminator	0.22	1.69	1.20
TSTAMP	0.00					

Dataset: TEP_Chevron TR 534-27-597_04-10-17_RBL.db: field/well/run1/pass3.1
Total length: 22.19 ft
Total weight: 268.80 lb
O.D.: 3.13 in

Calibration Report

Database File d:\warrior\data\tep_chevron tr 534-27-597\tep_chevron tr 534-27-597_04-10-17_rbl.db
Dataset Pathname pass3.3
Dataset Creation Wed Apr 12 15:51:22 2017

Temperature Calibration Report

Serial Number: 10025098
Tool Model: PRT_016
Performed: Sun Oct 11 12:44:22 2015

Point #	Reading		Reference	
1	12932.00	cps	68.00	degF
2	17966.00	cps	104.00	degF
3	29881.00	cps	176.00	degF
4	41324.00	cps	248.00	degF
5	53091.00	cps	320.00	degF
6	59144.00	cps	356.00	degF
7		cps		degF
8		cps		degF
9		cps		degF
10		cps		degF

Gamma Ray Calibration Report

Serial Number: 10019371
Tool Model: UW_PGR_020
Performed: (Not Performed)

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 1.0000 GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number: 10012639
Tool Model: UW_RBT_004

Calibration Casing Diameter: 4.500 in
Calibration Depth: 259.148 ft

Master Calibration, performed (Derived):

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3FT	0.004	1.187	0.800	81.196	67.952	0.551
5FT	-0.002	0.909	0.800	81.196	88.280	0.952
S1	0.004	1.140	0.000	100.000	88.021	-0.358
S2	0.004	1.101	0.000	100.000	91.145	-0.366
S3	0.002	1.113	0.000	100.000	90.023	-0.180
S4	0.002	1.153	0.000	100.000	86.930	-0.201
S5	0.004	1.181	0.000	100.000	84.990	-0.339
S6	0.004	1.236	0.000	100.000	81.202	-0.365
S7	0.004	1.242	0.000	100.000	80.780	-0.358
S8	0.003	1.194	0.000	100.000	83.980	-0.291

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Company	TEP Rocky Mountain LLC
Well	Chevron TR 534-27-597
Field	Trail Ridge
County	Garfield
State	Colorado