Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Tri State Trucking PA 341-26
Field Parachute
County Garfield
State Colorado

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Field Parachute
County Garfield State Colorado

Location: API # : 05-045-23650
2285 FNL & 1895 FWL SENW
SEC 25 TWP 6S RGE 95W

Other Services
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Permanent Datum	Ground Level	Elevation	5224'
Log Measured From	Kelly Bushing	24 FT	
Drilling Measured From	Kelly Bushing		

Elevation
K.B. 5248'
D.F. 5247'
G.L. 5224'

Date	15-JAN-2018		
Run Number	One		
Depth Driller	8722 FT		
Depth Logger	8638 FT		
Bottom Logged Interval	8638 FT		
Top Log Interval	Surface		
Open Hole Size	8.75"		
Type Fluid	Fresh Water		
Density / Viscosity	8.34 lb/gal		
Max. Recorded Temp.	237°F		
Estimated Cement Top	See Log		
Time Well Ready	R.O.A.		
Time Logger on Bottom	21:36		
Equipment Number	HD-359		
Location	Grand Junction, CO		
Recorded By	A. Ellsworth		
Witnessed By	D. Welsh		

Borehole Record			Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To

Casing Record	Size (in)	Wgt (lbs/Ft)	Grade	Top	Bottom
Surface Casing	9 5/8	32.3	H-40	Surface	1100 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	8678 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
Marker Joint from 4654 FT to 4676 FT
Log ran from 8638 FT to Surface
Log ran with 0 PSI Surface Induced Pressure

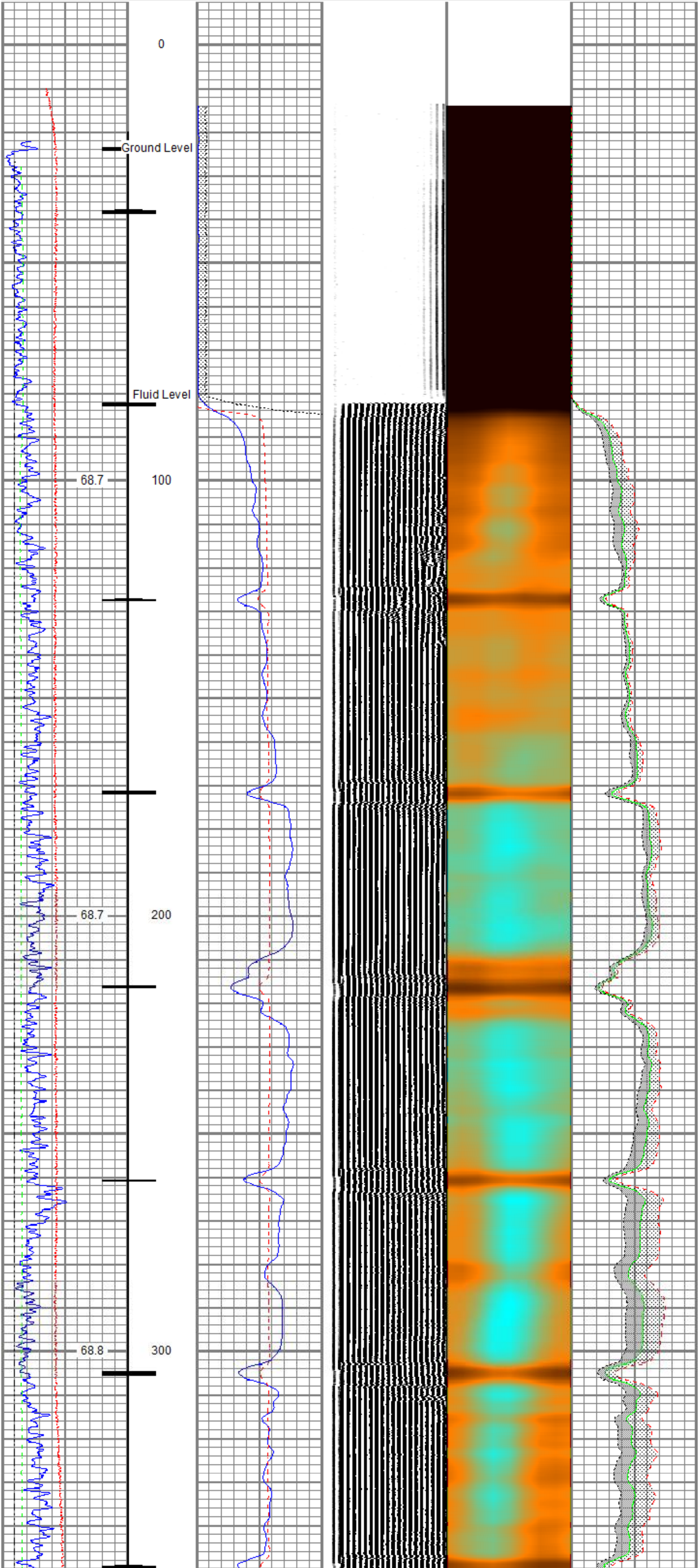
Thank you for choosing Reliance Oilfield Services, LLC!!

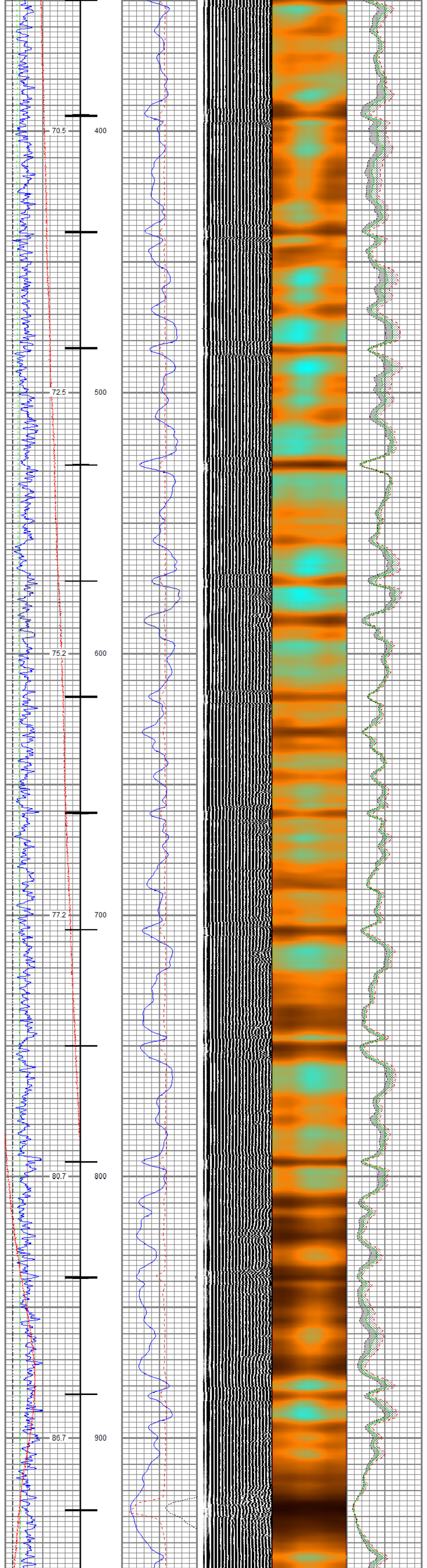
Main Pass

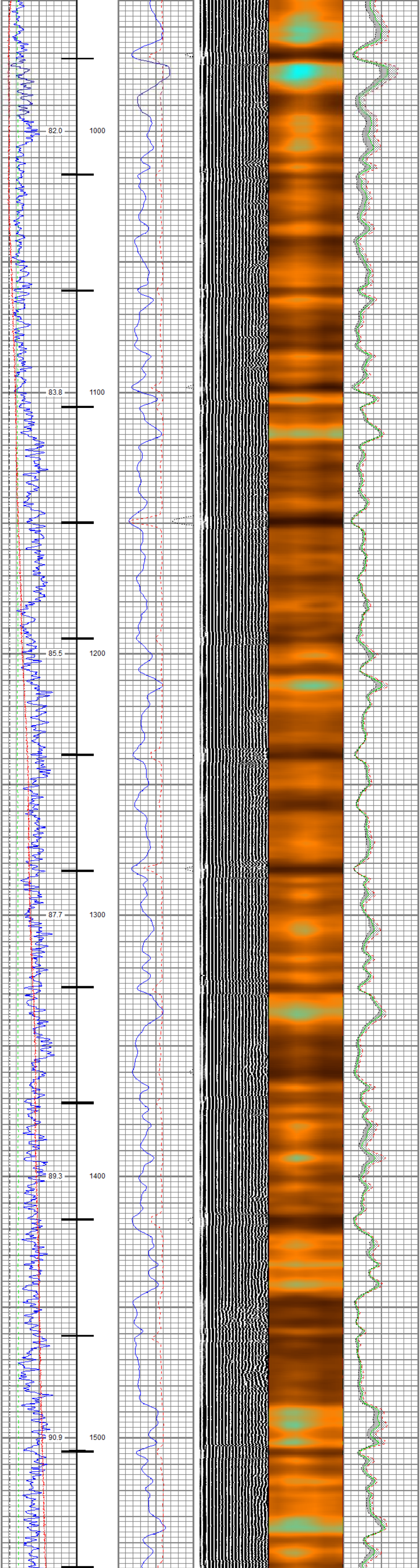
Recorded with 0 PSI Surface Induced Pressure

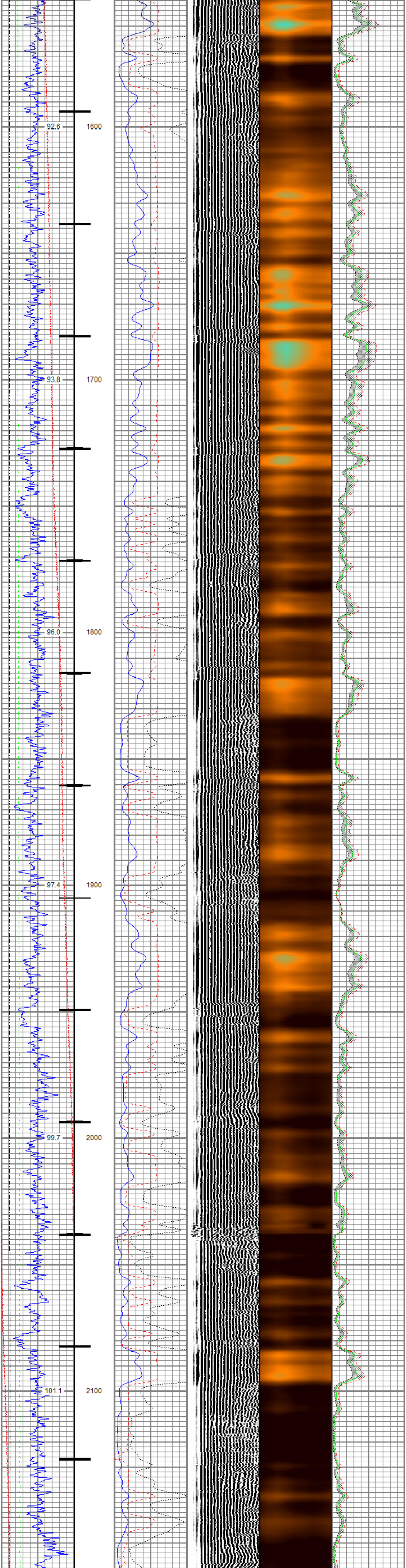
Database File	tep_tri state trucking pa 341-26_rbl_01-15-18\tep_tri state trucking pa 341-26_rbl_01-15-18.db
Dataset Pathname	main
Presentation Format	ros_rbt004_tep
Dataset Creation	Mon Jan 15 21:35:33 2018
Charted by	Depth in Feet scaled 1:240

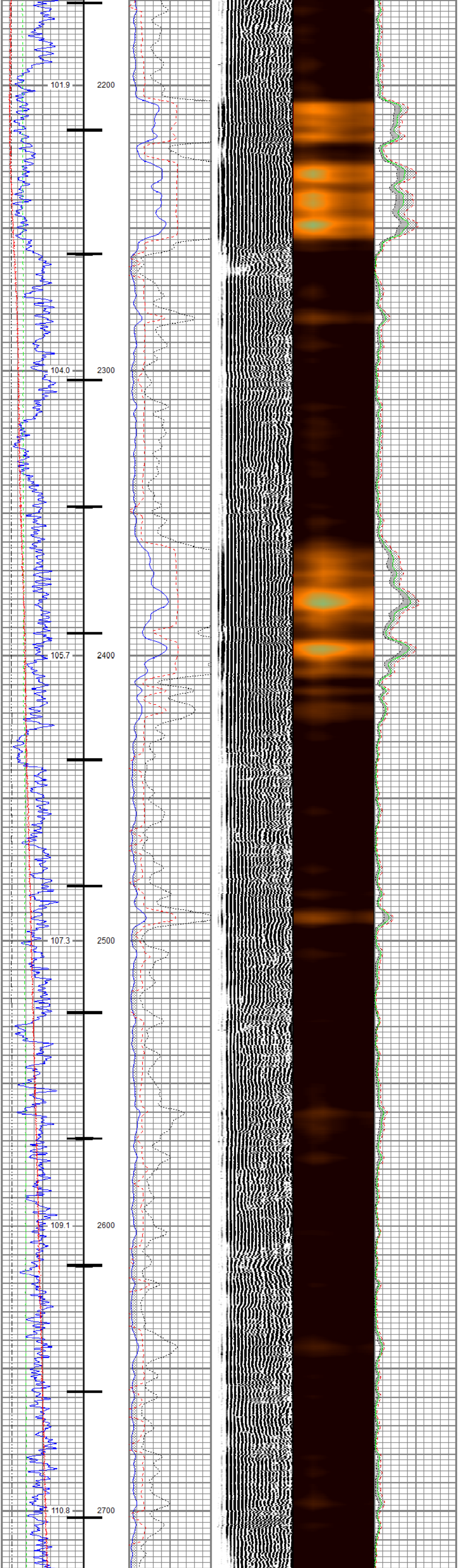
Track	Curve	Left	Units	Right
1	Gamma Ray	0	(GAPI)	200
1	Casing Collar Locator			
1	Line Speed	-150	(ft/min)	150
1	Line Tension	0	(lb)	2000
1	Temperature	0	(degF)	20
2	3' Amplitude	0	(mV)	100
2	3' Amplitude x 5	0	(mV)	20
2	3' Travel Time	300	(usec)	200
3	5' Variable Density Log	200		1200
4	Sector Map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

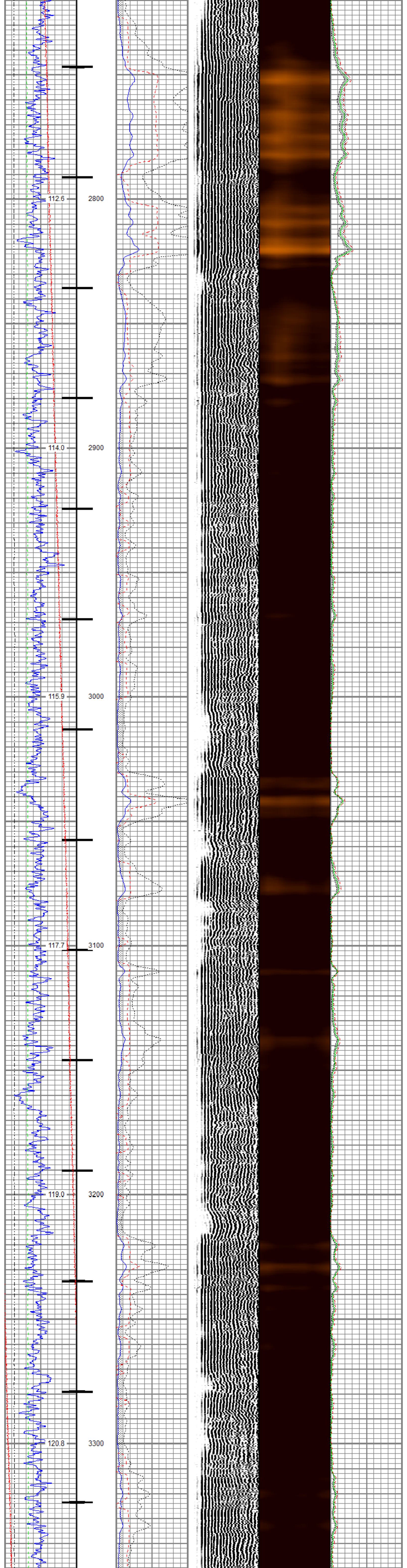


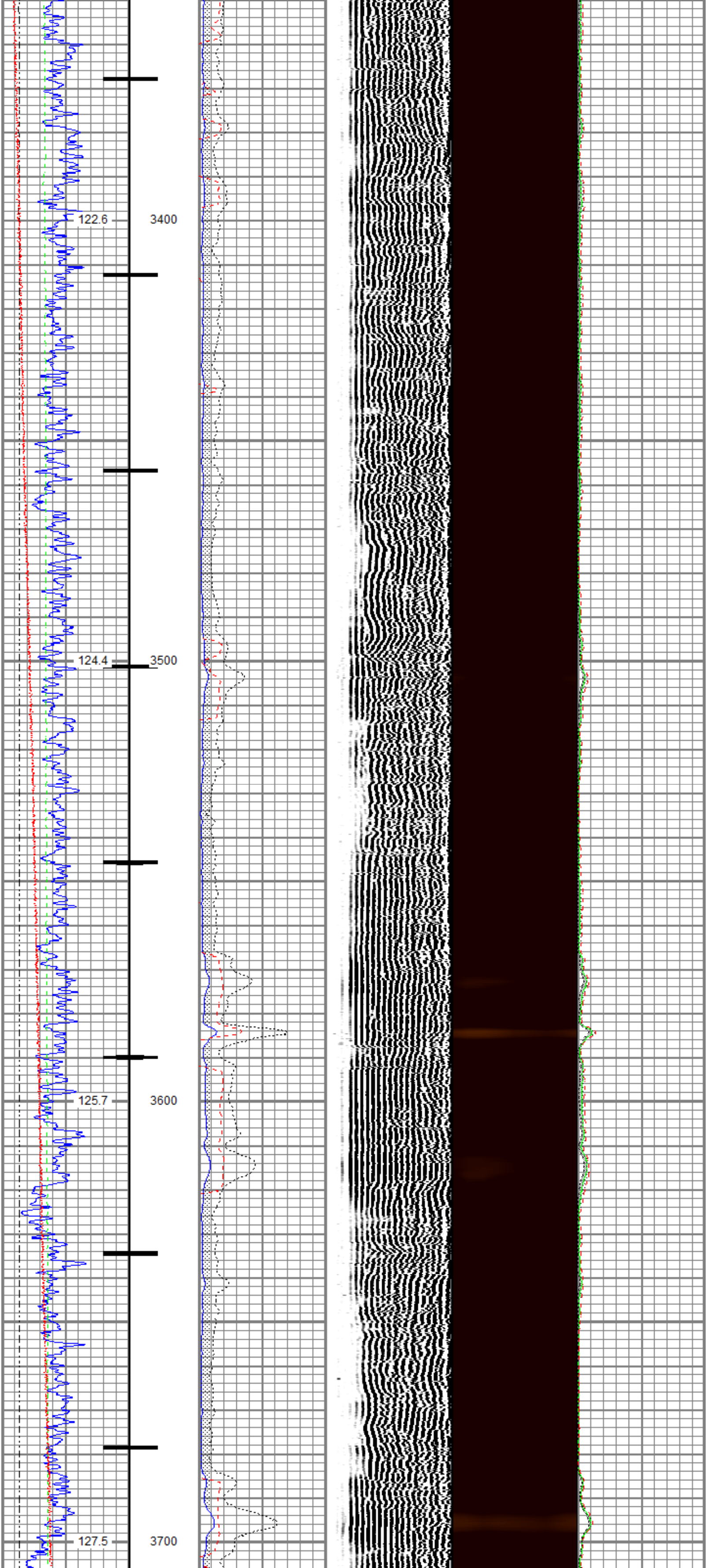


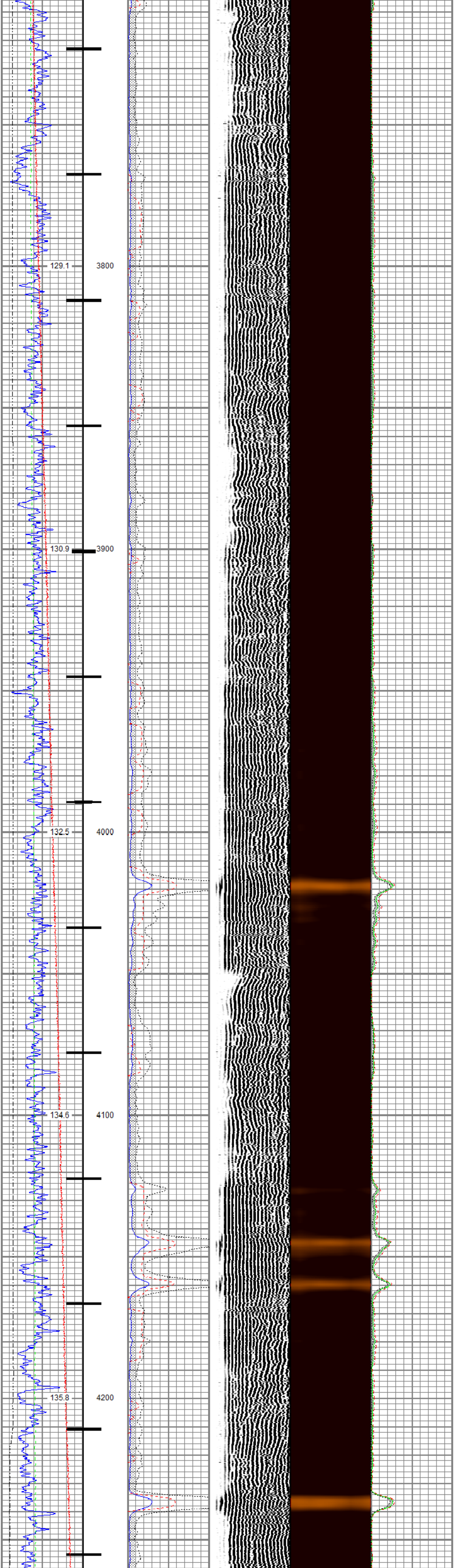








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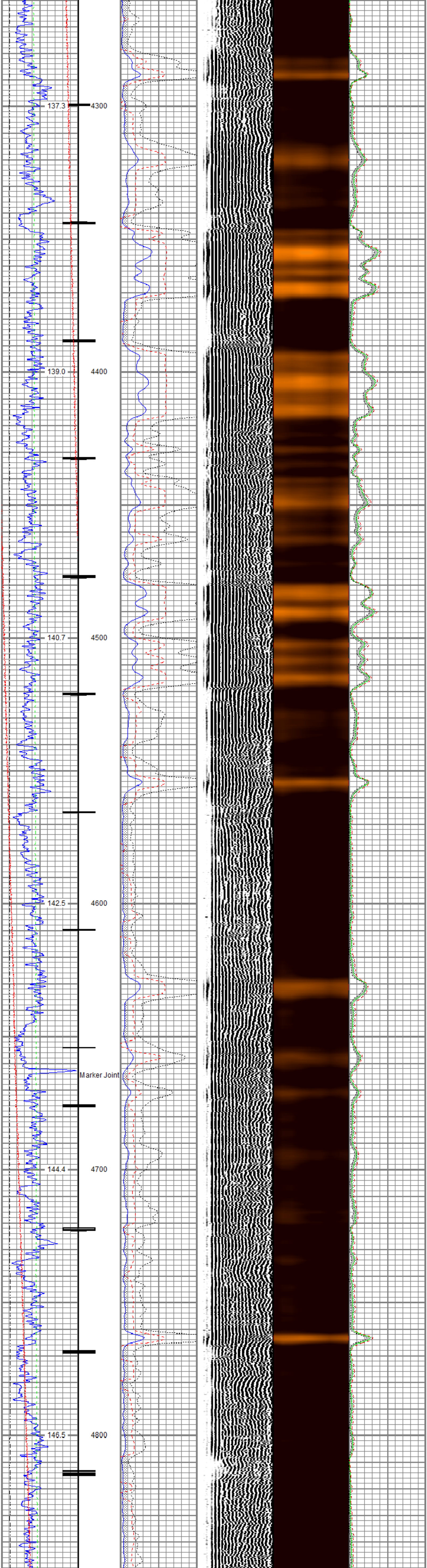
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146.5
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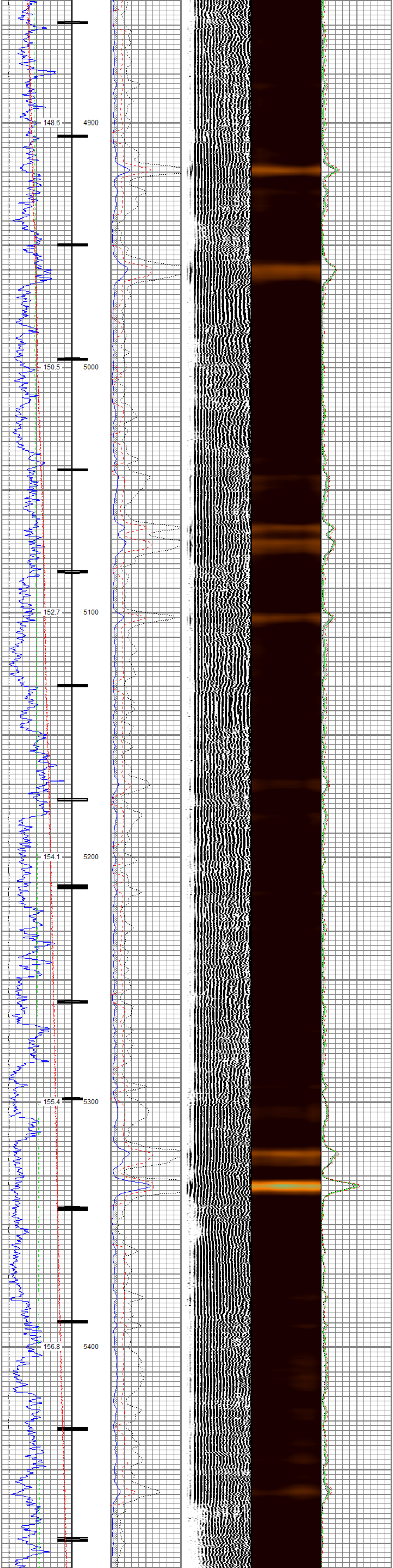
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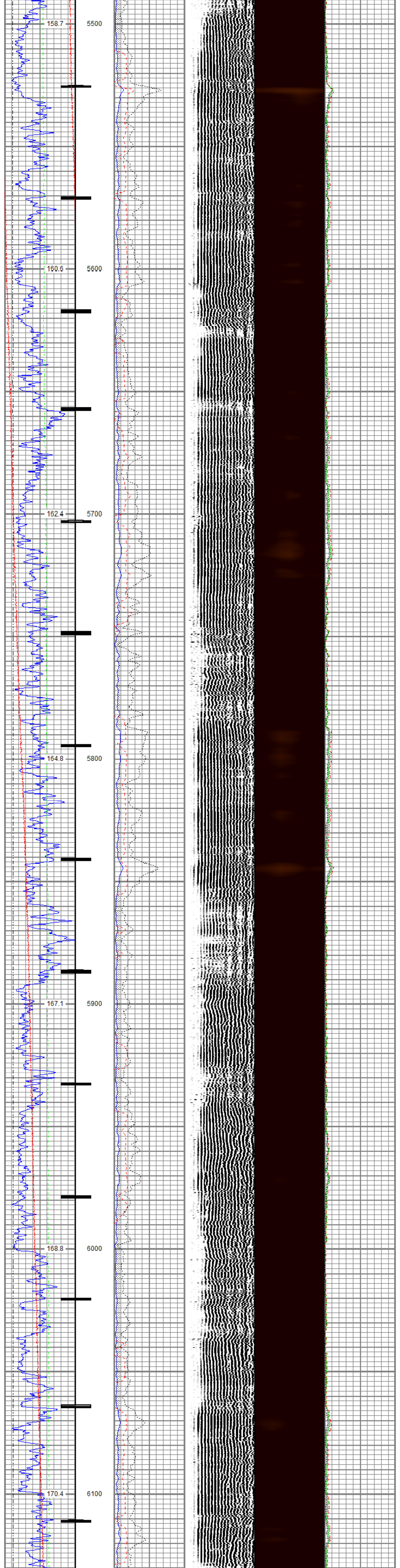
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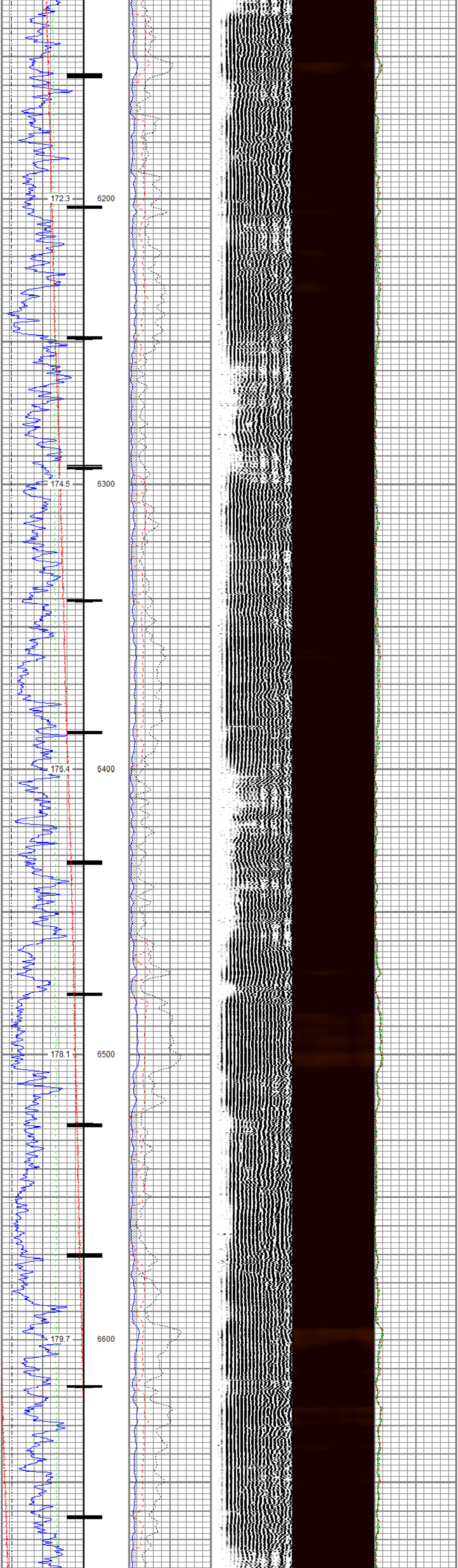
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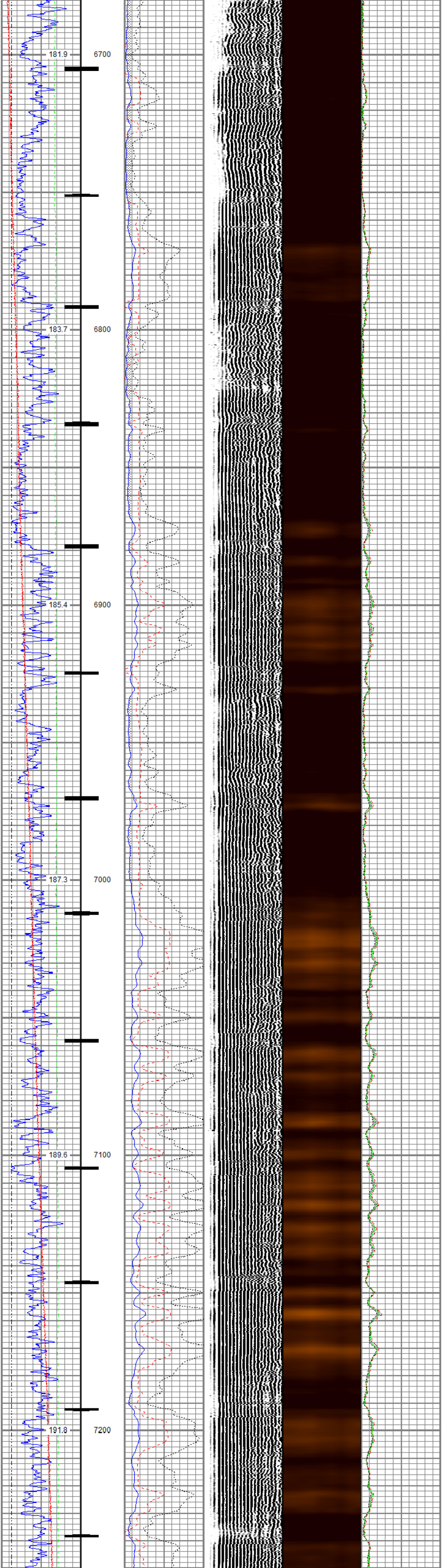
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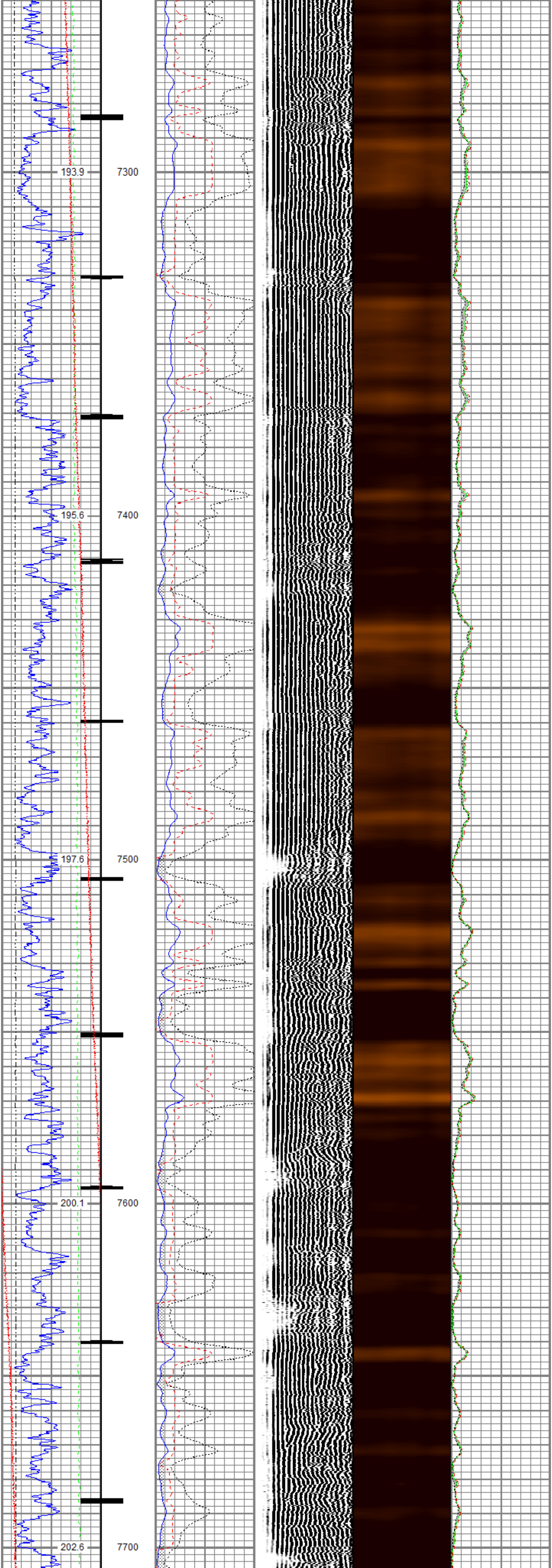
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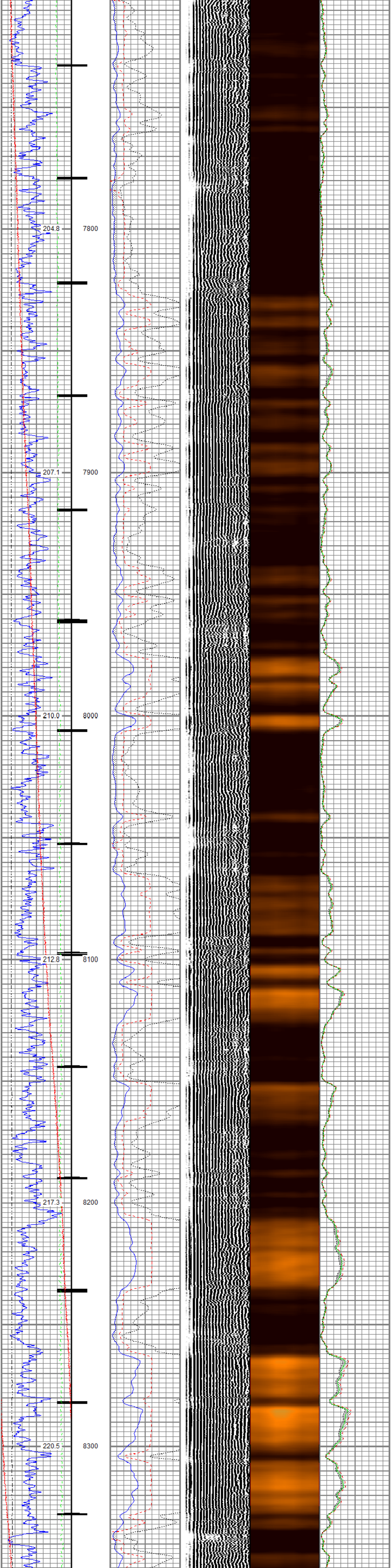
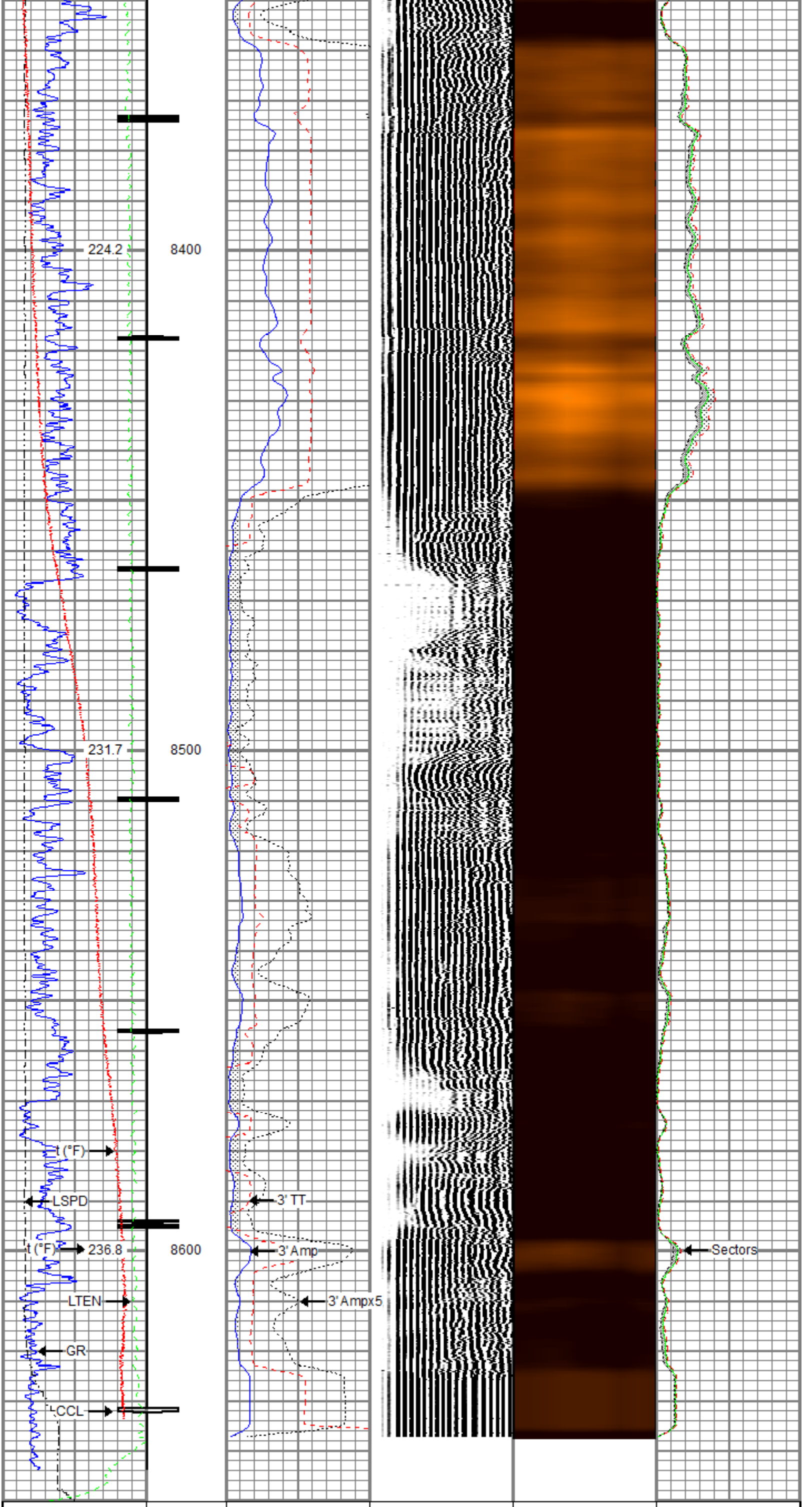




Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200		0 (mV) 100	200 1200	10 110	0 150
Casing Collar Locator					
Line Speed		3' Amplitude x 5			Mimimum Amplitude
-150 (ft/min) 150		0 (mV) 20			0 150
Line Tension		3' Travel Time			Maximum Amplitude
0 (lb) 2000		300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

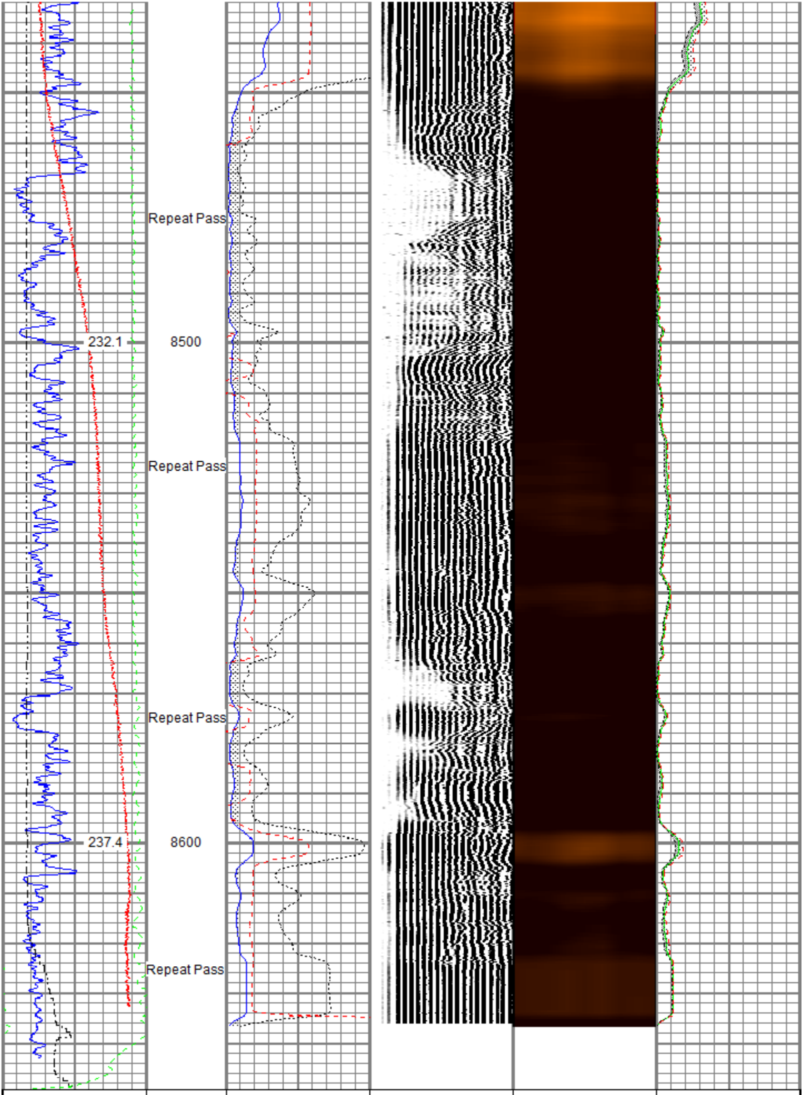
RELIANCE
OILFIELD SERVICES

Repeat Pass

Recorded with 0 PSI Surface Induced Pressure

Database File	tep_tri state trucking pa 341-26_rbl_01-15-18\tep_tri state trucking pa 341-26_rbl_01-15-18.db
Dataset Pathname	repeat
Presentation Format	ros_rbt004_tep
Dataset Creation	Mon Jan 15 21:31:15 2018
Charted by	Depth in Feet scaled 1:240

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

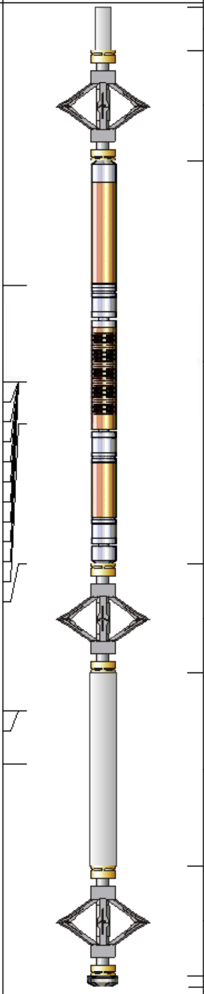


Gamma Ray		3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200		0 (mV) 100	200 1200	10 110	0 150
Line Speed		3' Amplitude x 5			Mimimum Amplitude
-150 (ft/min) 150		0 (mV) 20			0 150
Line Tension		3' Travel Time			Maximum Amplitude
0 (lb) 2000		300 (usec) 200			0 150
Temperature					

0	(degF)	20

Sensor	Offset (ft)
TEMP	16.33
WVFS8	14.10
WVFS7	14.10
WVFS6	14.10
WVFS5	14.10
WVFS4	14.10
WVFS3	14.10
WVFS2	14.10
WVFS1	14.10
WVFCAL	14.10
WVF3FT	14.10
WVF5FT	13.10
HEADVOLT	9.85
CCL$2	6.42
CCL$1	6.42
GR	5.18

Schematic



Description	Length (ft)	O.D. (in)	Weight (lb)
Titan CHD-16875 GO Titan 1-11/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.69	5.40
DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends	2.55	2.75	32.00
Probe Radii-2750 RBT (FW1305-098) Probe 2-3/4" Radial Cement Bond Tool with Integral Temperature Sub	9.39	2.75	105.00
DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends	2.55	2.75	32.00
Probe GR-CCL-2750 GOB (FW1307-038) Probe 2-3/4" rev.2 Digital Scintillation Gamma Ray/CCL Combined	4.51	2.75	55.00
DSS RAC-2750 5A GO DSS 2-3/4" Roller 5 Arm Centralizer w/ GO Ends	2.55	2.75	32.00
GO BN-14375 GO 1 7/16" Bull Nose with Go Box Top	0.25	1.44	1.00

Dataset:	TEP_Tri State Trucking PA 341-26_RBL_01-15-18.db: field/well/run1/main
Total length:	22.82 ft
Total weight:	262.40 lb
O.D.:	2.75 in

Calibration Report

Database File	C:\ProgramData\Warrior\Data\TEP_Tri State Trucking PA 341-26_RBL_01-15-18\TEP_Tri State Trucking PA
Dataset Pathname	main
Dataset Creation	Mon Jan 15 21:35:33 2018

Gamma Ray Calibration Report

Serial Number:	FW1307-038	
Tool Model:	2750 GOB	
Performed:	Sun Nov 12 12:44:12 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	113.2	cps
Calibrator Reading:	1022.4	cps
Sensitivity:	0.7007	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	FW1305-098	
Tool Model:	2750 RBT	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	33.745	ft

Master Calibration, performed Mon Jan 15 15:04:57 2018:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.008	0.721	0.800	81.196	110.273	1.649
CAL	-0.006	0.756				
5'	-0.002	0.715	0.800	81.196	112.092	1.034
SUM						
S1	-0.010	0.719	0.000	100.000	137.236	1.323
S2	-0.005	0.734	0.000	100.000	135.291	0.722
S3	-0.006	0.727	0.000	100.000	136.342	0.837
S4	-0.005	0.724	0.000	100.000	137.210	0.719
S5	-0.005	0.729	0.000	100.000	136.315	0.634
S6	-0.005	0.734	0.000	100.000	135.333	0.658
S7	-0.005	0.739	0.000	100.000	134.414	0.715
S8	-0.005	0.726	0.000	100.000	136.741	0.744

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.006	0.756	1.000	0.000

Air Zero Calibration, performed Mon Jan 15 15:05:17 2018:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	-0.008	0.000	-0.000
5'	-0.003	0.000	0.001
SUM			
S1	-0.010	0.000	0.000
S2	-0.006	0.000	0.001
S3	-0.006	0.000	-0.000
S4	-0.006	0.000	0.000
S5	-0.005	0.000	0.000
S6	-0.005	0.000	0.000
S7	-0.005	0.000	-0.000
S8	-0.005	0.000	-0.000

Temperature Calibration Report

Serial Number:	FW1305-098	
Tool Model:	2750 RBT	
Performed:	Sun Nov 12 13:43:57 2017	
	Reference	Reading
Low Reference:	100.00 degF	109.43 degF
High Reference:	350.00 degF	405.87 degF
Gain:	0.84	
Offset:	7.72	
Delta Spacing	1	

RELIANCE OILFIELD SERVICES

Company	TEP Rocky Mountain LLC
Well	Tri State Trucking PA 341-26
Field	Parachute
County	Garfield
State	Colorado