RELIANCE
OILFIELD SERVICES

Radial Cement Bond
Gamma Ray
Casing Collar Log

Company TEP Rocky Mountain LLC
Well Tri State Trucking PA 442-26
Field Parachute
County Garfield
State Colorado

Company	TEP Rocky Mountain LLC		
Well	Tri State Trucking PA 442-26		
Field	Parachute		
County	Garfield	State	Colorado
Location:	API # : 05-045-23641 2275' FNL & 1842' FWL SENW SEC 25 TWP 6S RGE 95W	Other Services	--
Permanent Datum	Ground Level	Elevation 5224'	Elevation K.B. 5248' D.F. 5247' G.L. 5224'
Log Measured From	Kelly Bushing	24 FT	
Drilling Measured From	Kelly Bushing		

Date	05-DEC-2017
Run Number	One
Depth Driller	8287 FT
Depth Logger	8216 FT
Bottom Logged Interval	8216 FT
Top Log Interval	Surface
Open Hole Size	8.750"
Type Fluid	Fresh Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	242°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	9:15
Equipment Number	HD-0359
Location	Grand Junction, CO
Recorded By	J.Donnelly
Witnessed By	--

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	1132 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	8246 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 4048 FT to 4070 FT
Log ran from 8216 FT to Surface

Thank you for choosing Reliance Oilfield Services, LLC!!

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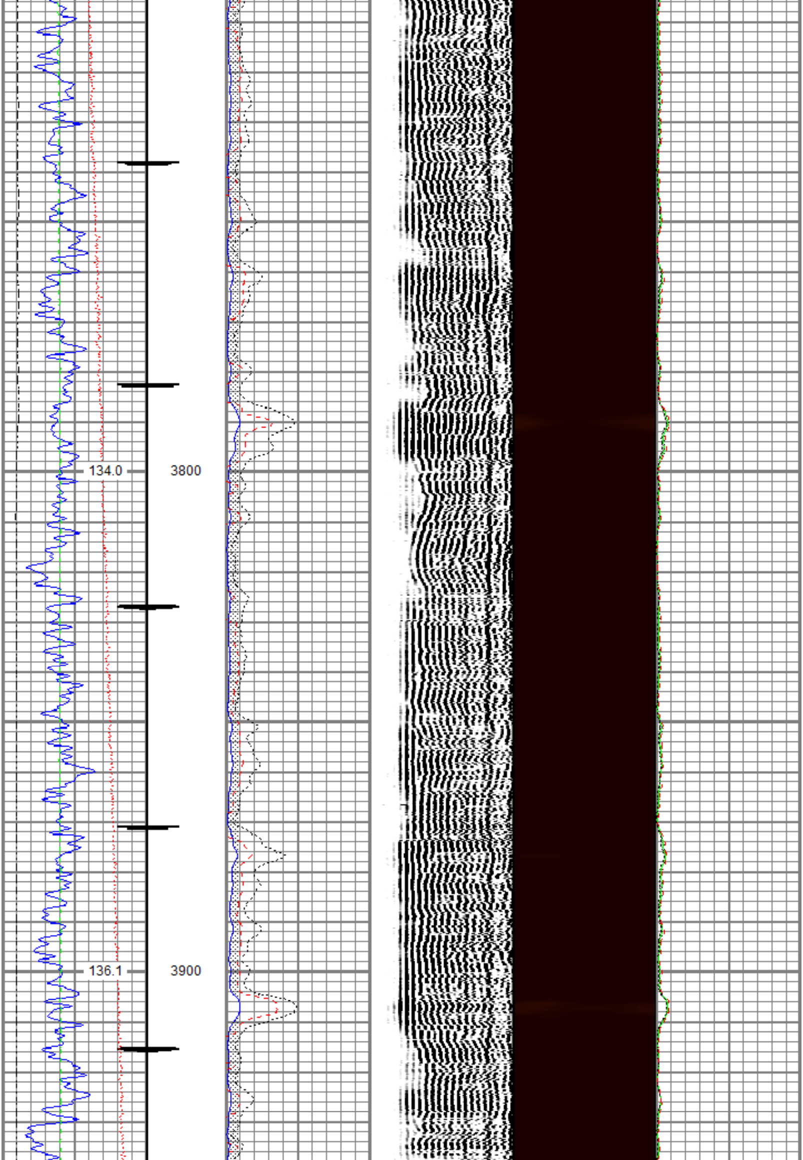
Main Pass

Recorded with 0 PSI Surface Induced Pressure

Database File	tep_pa 442-26_rcbl\tep_tri state trucking pa 442-26_rbl_12-05-17.db
Dataset Pathname	main
Presentation Format	ros_rbt004_tep
Dataset Creation	Tue Dec 05 09:13:25 2017
Charted by	Depth in Feet scaled 1:240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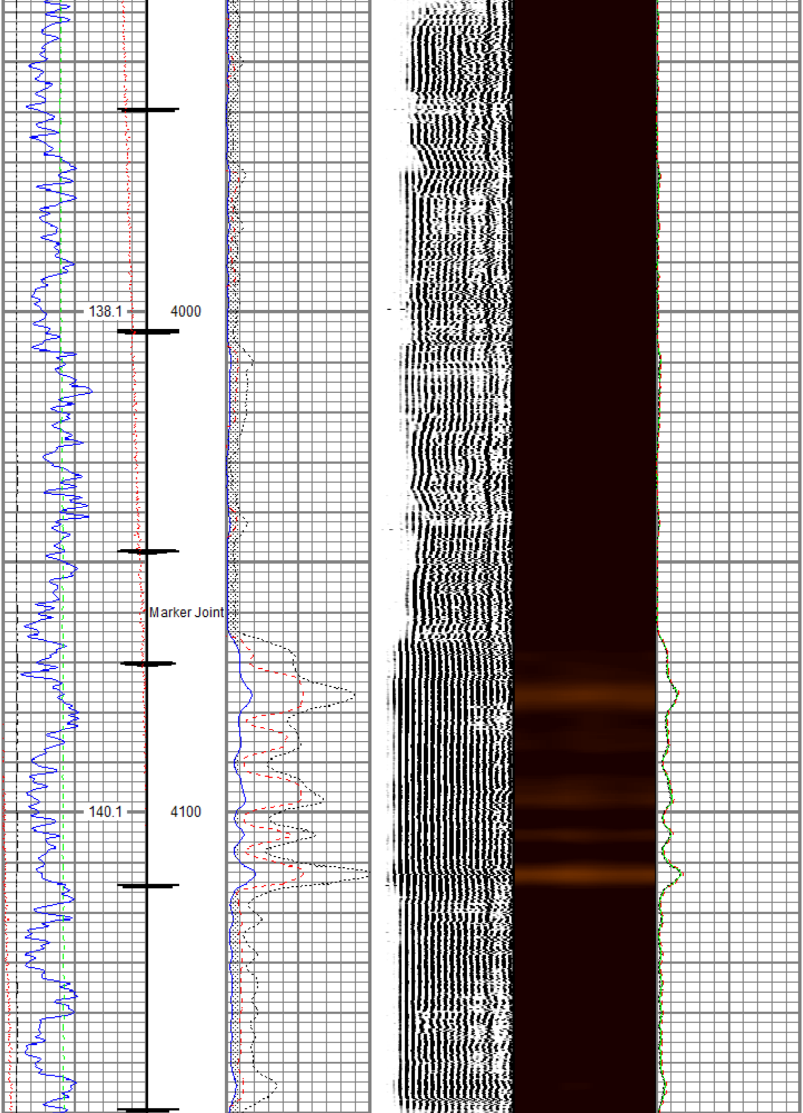
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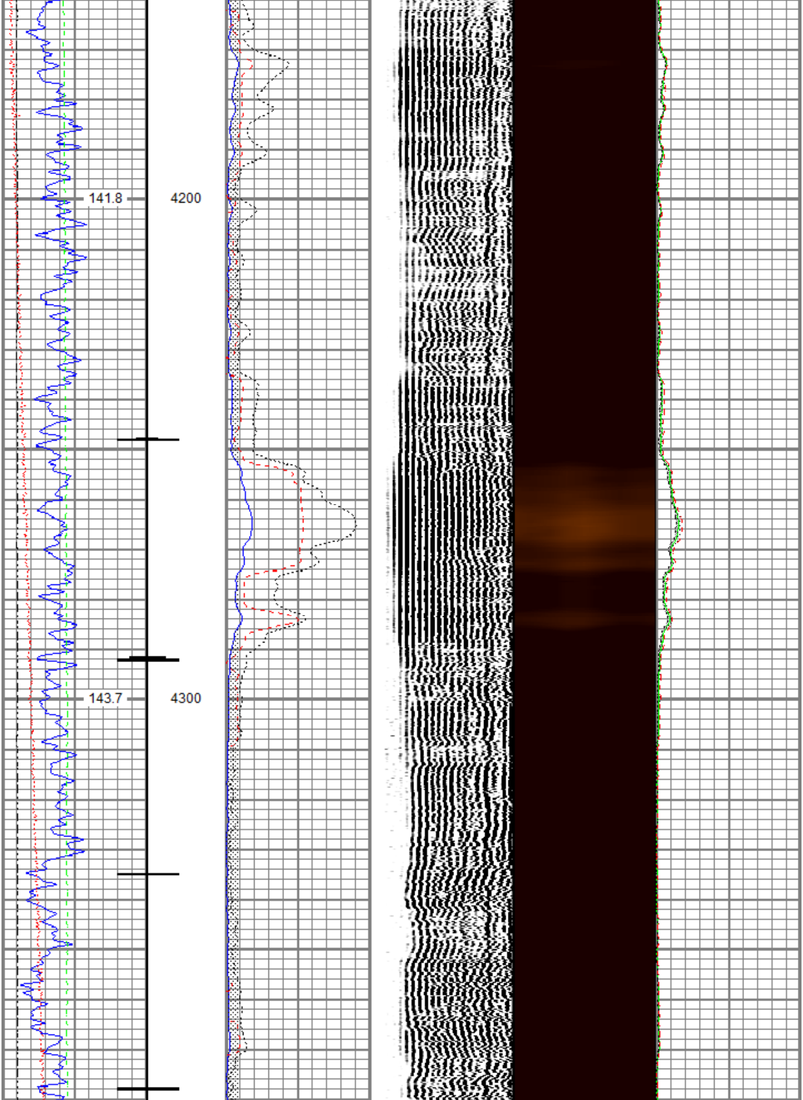
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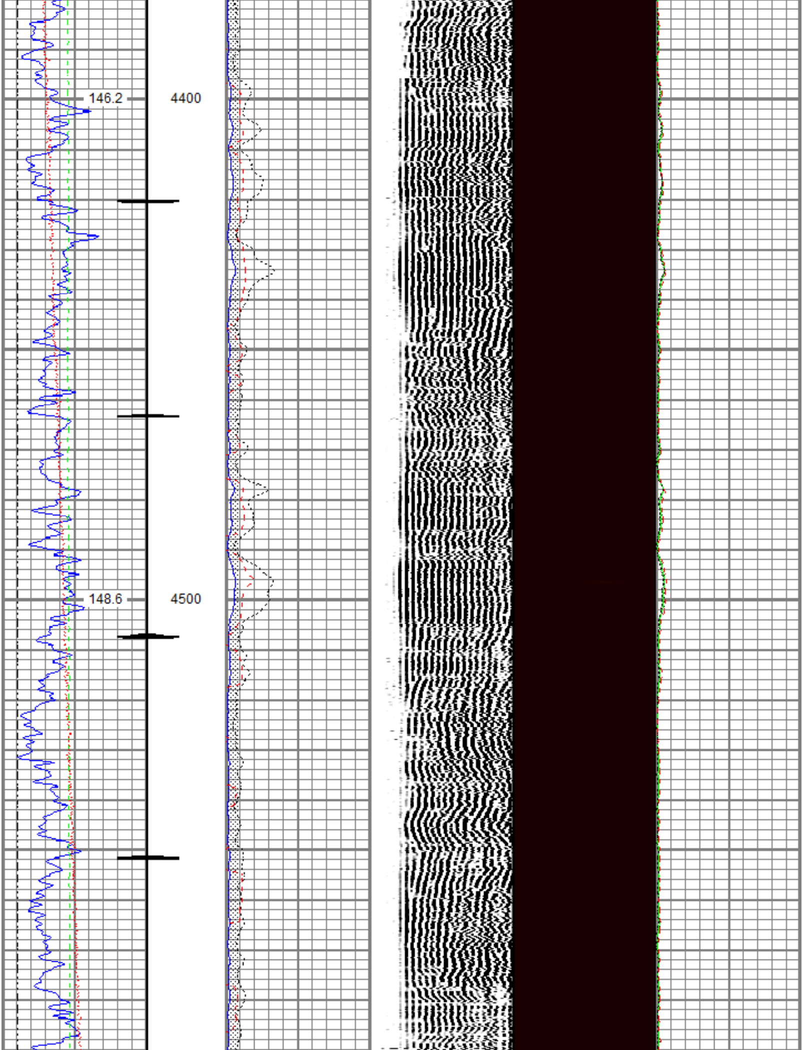
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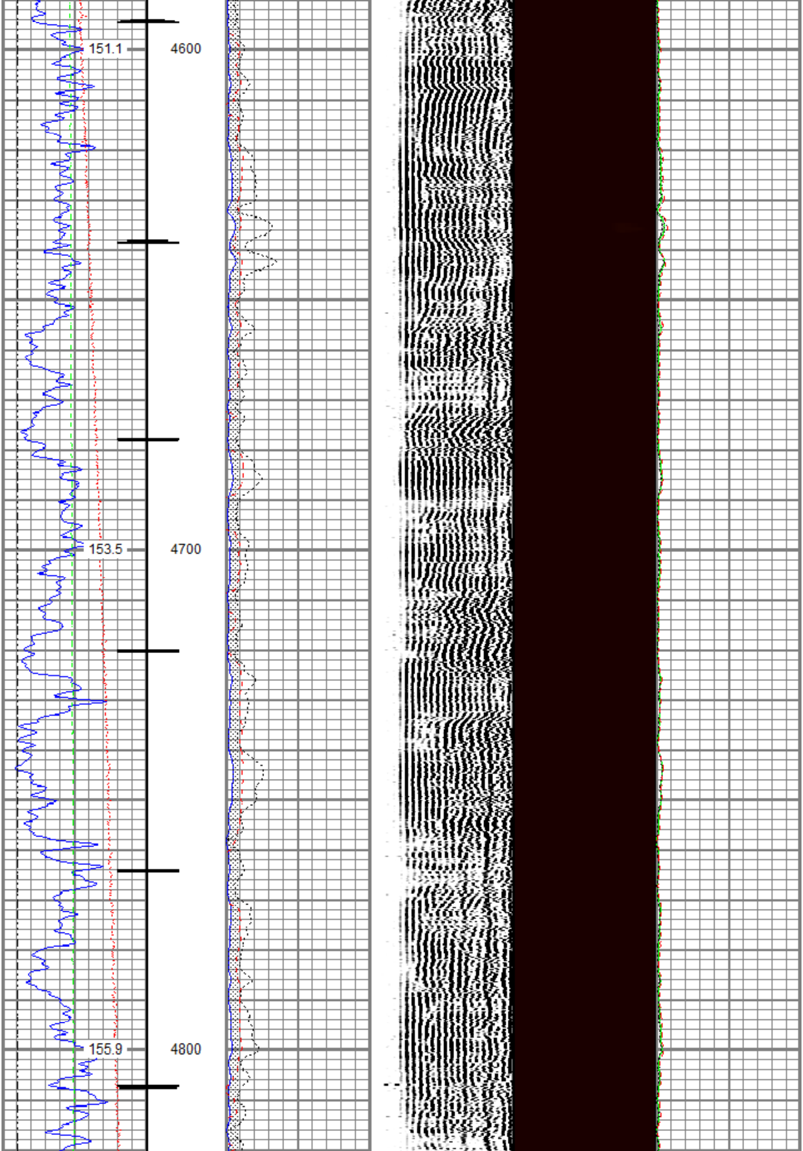
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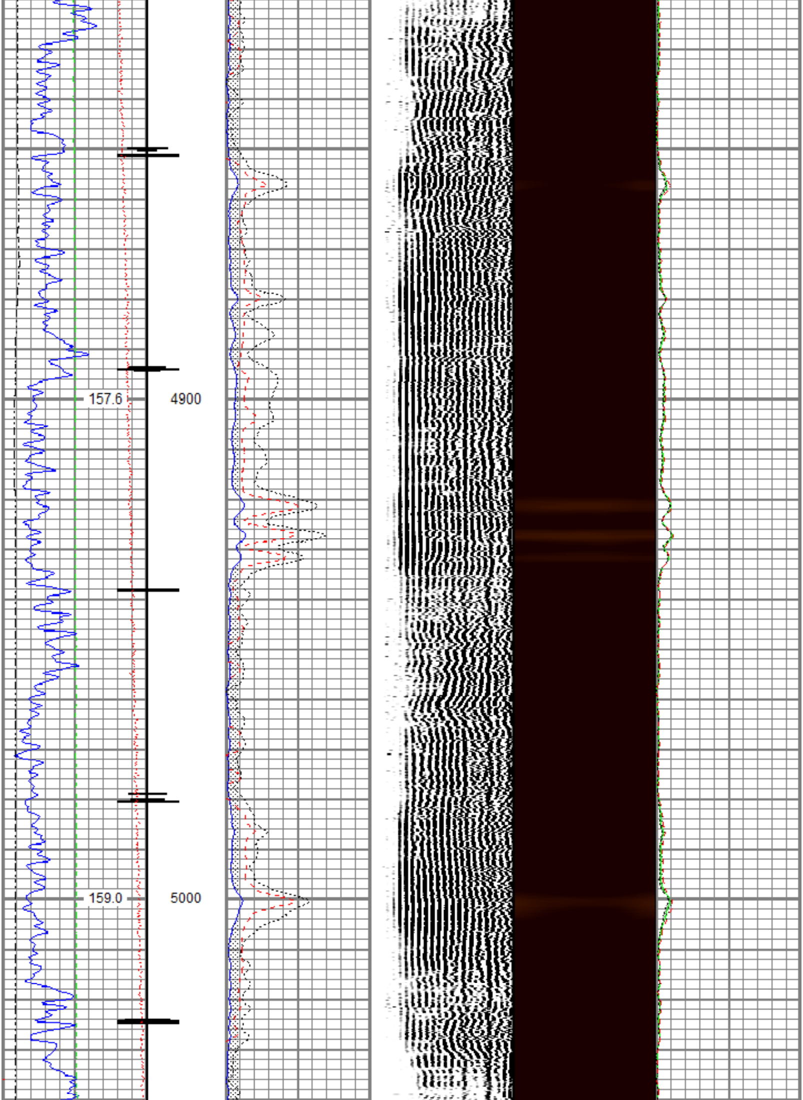
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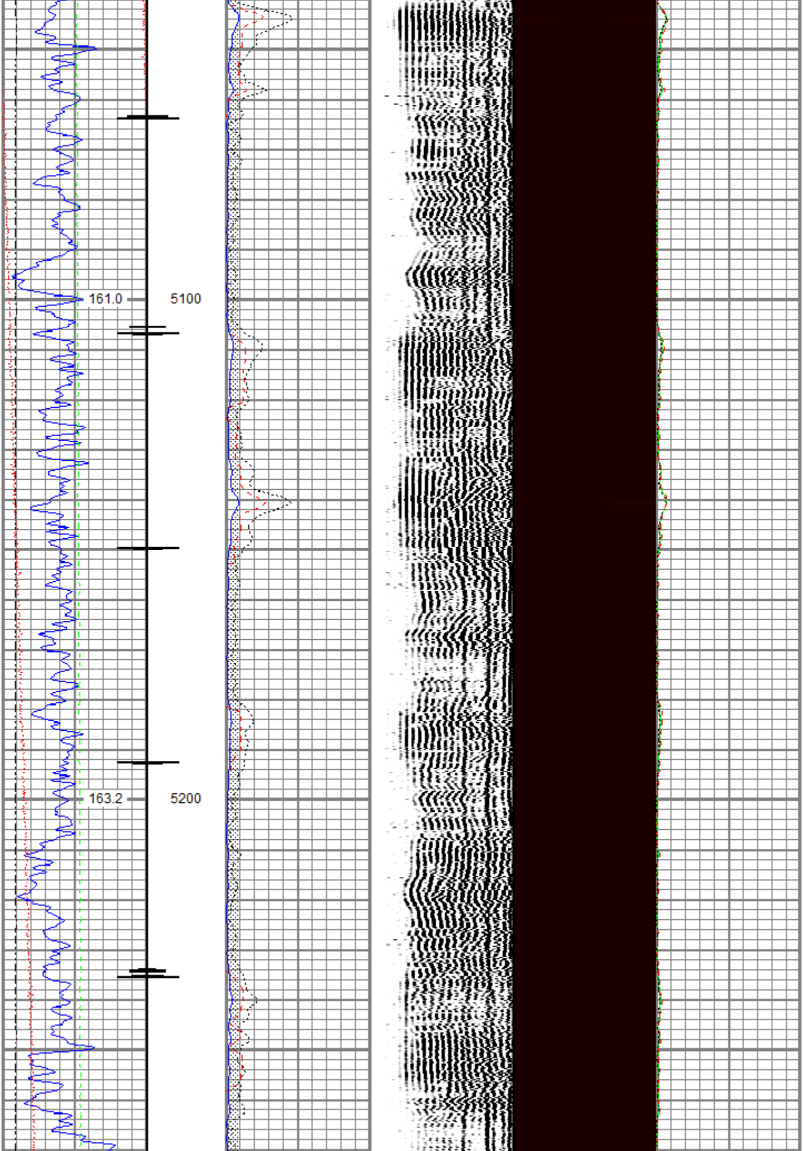
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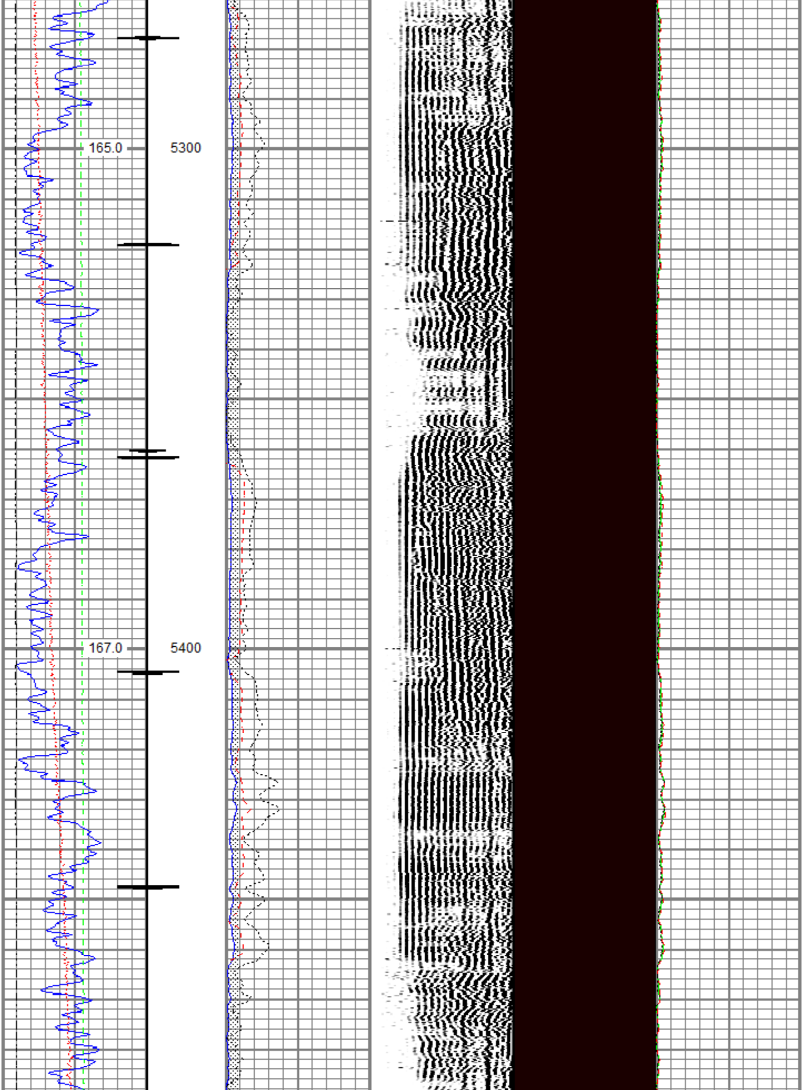
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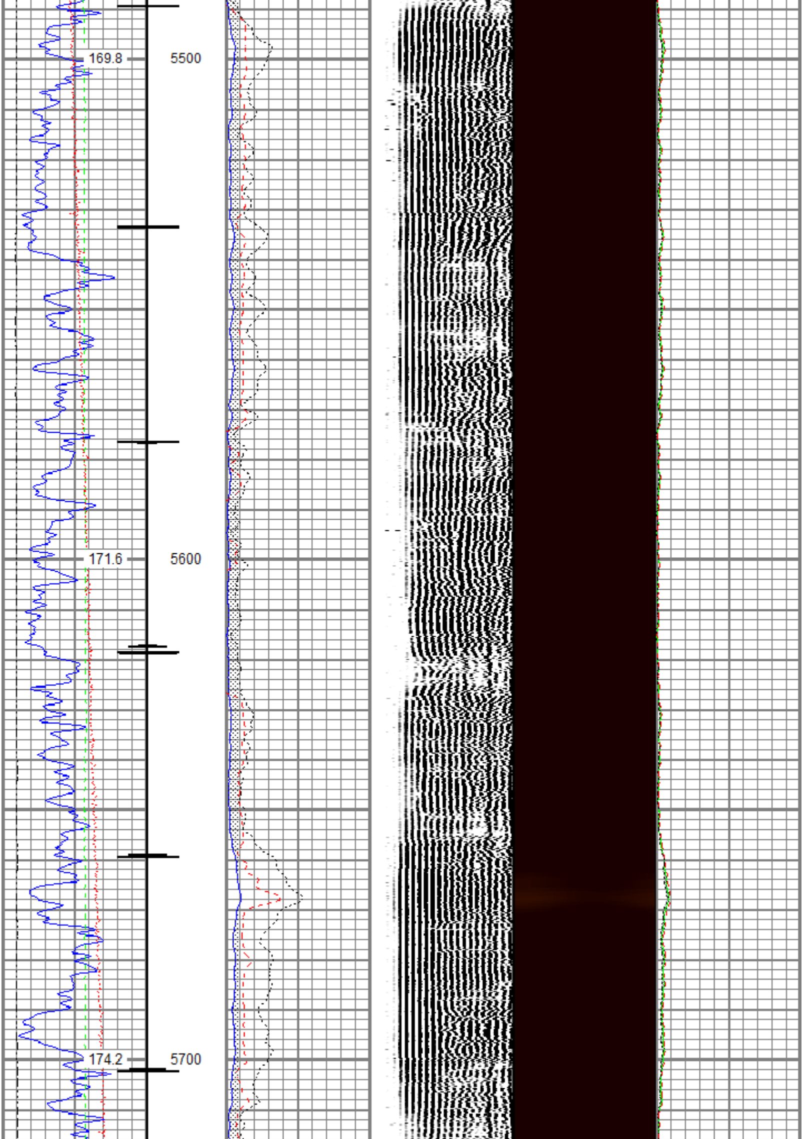
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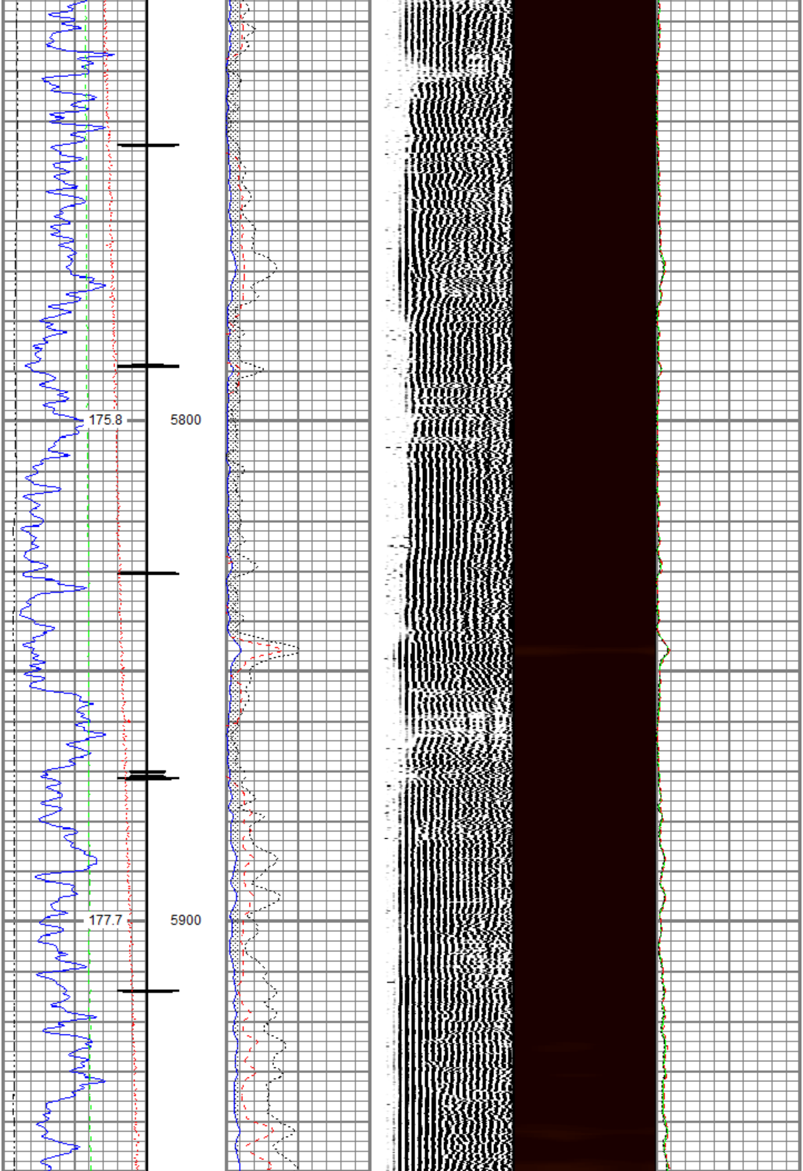
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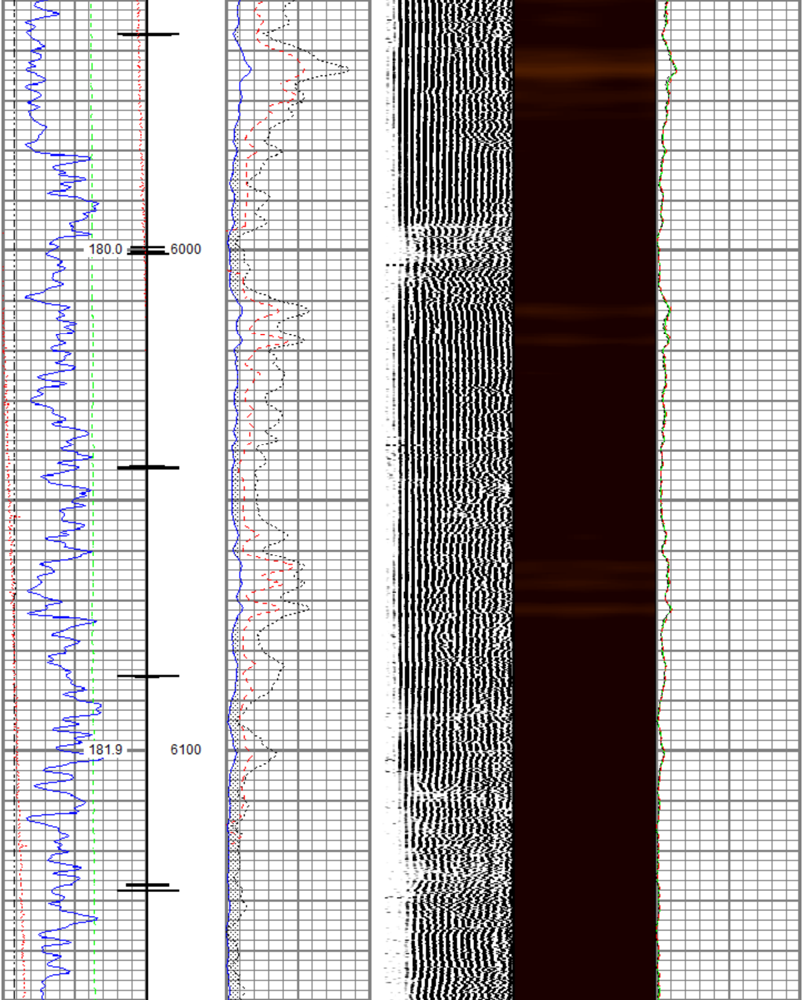
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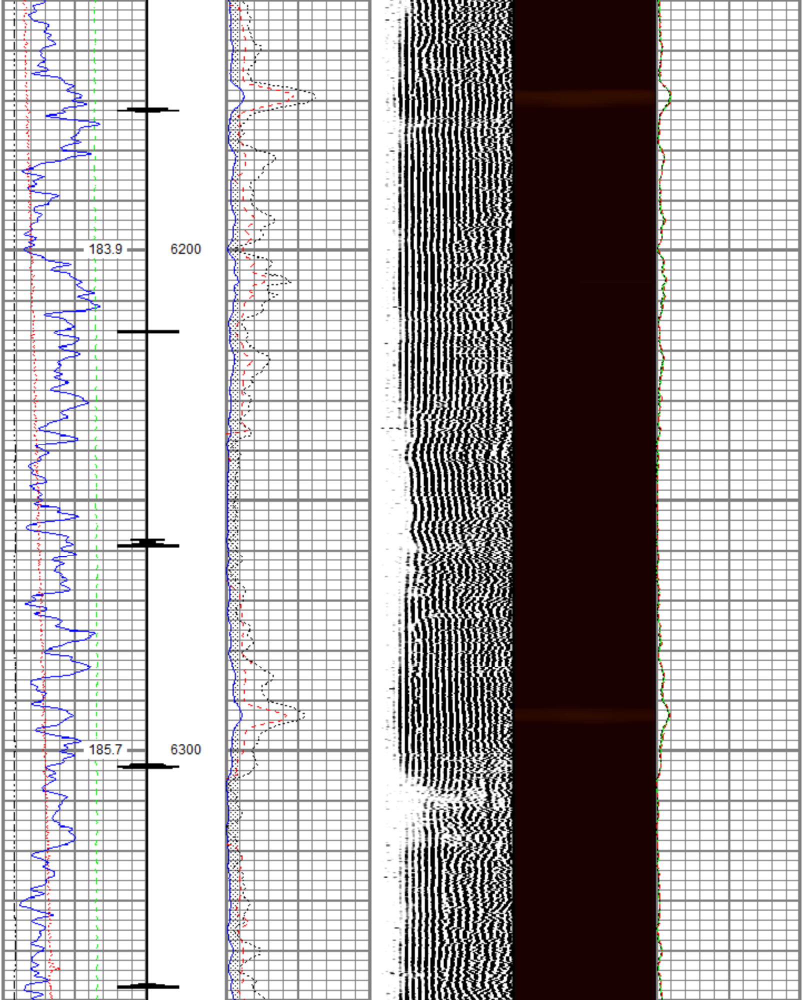
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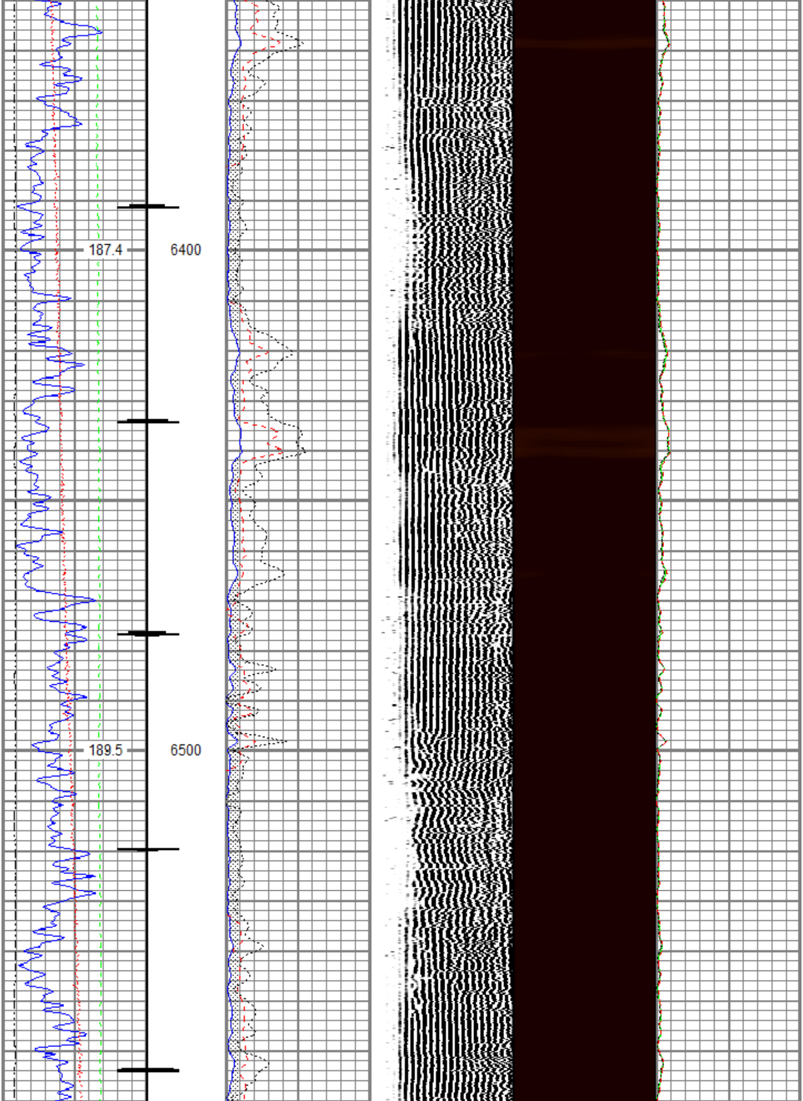
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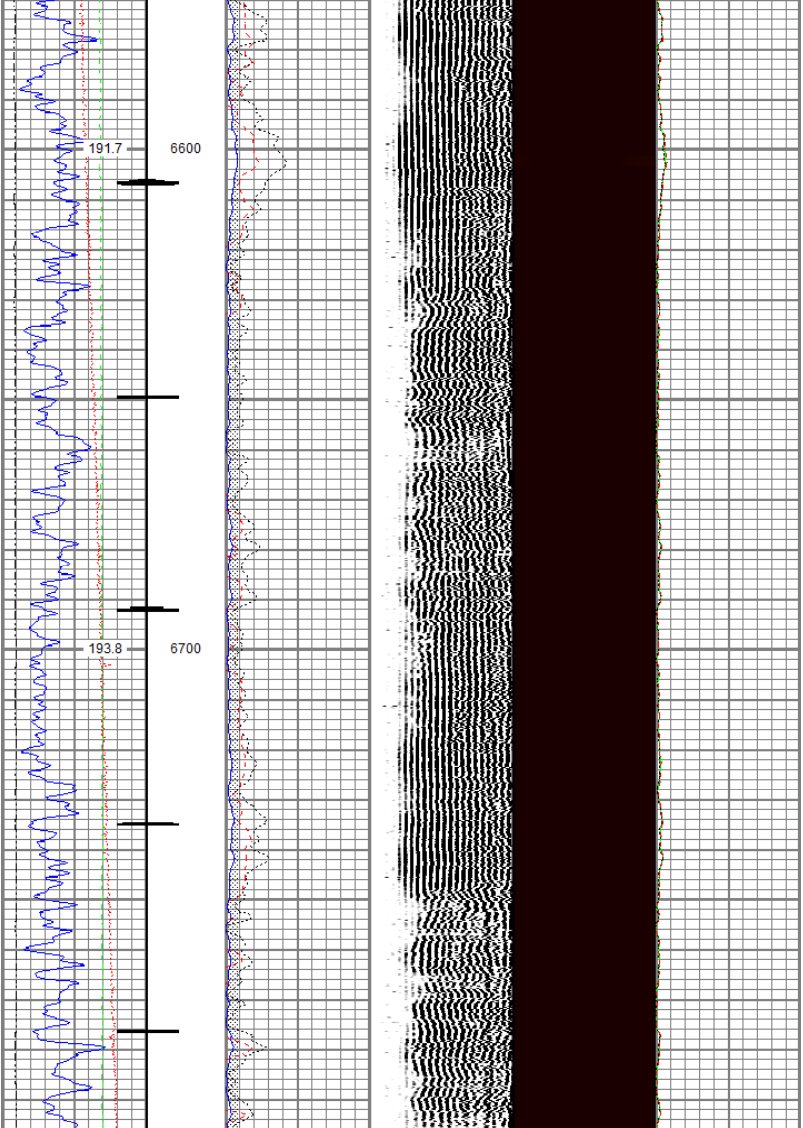
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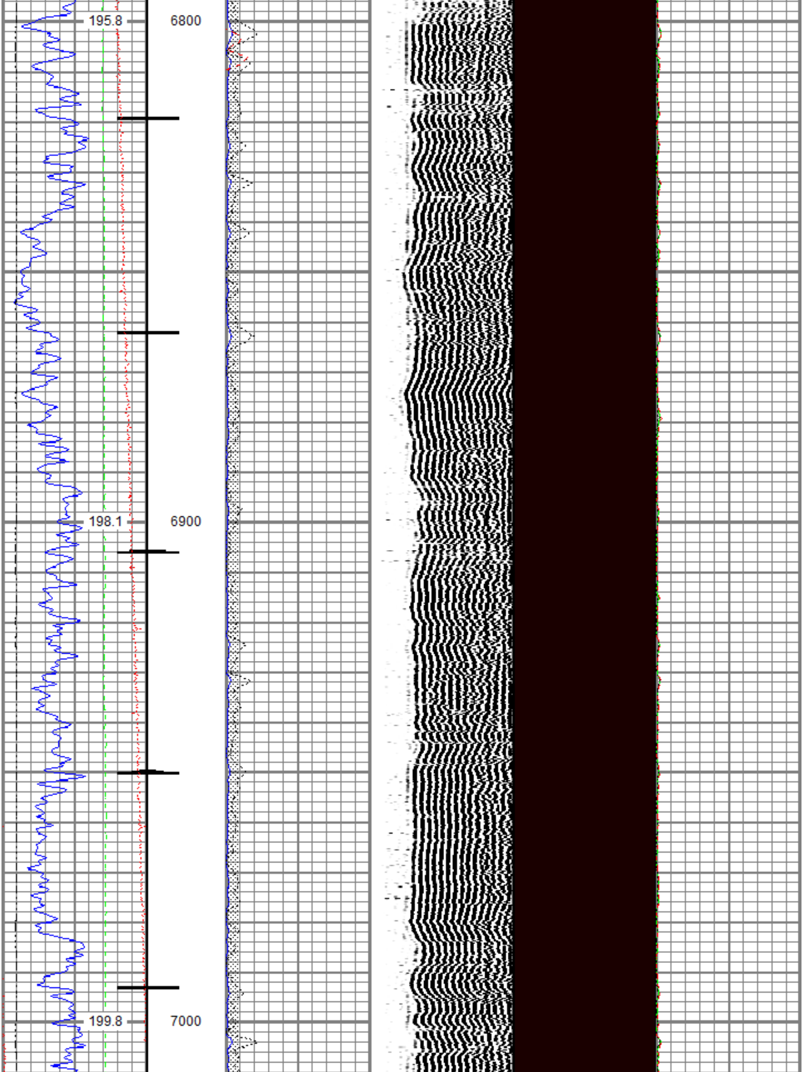
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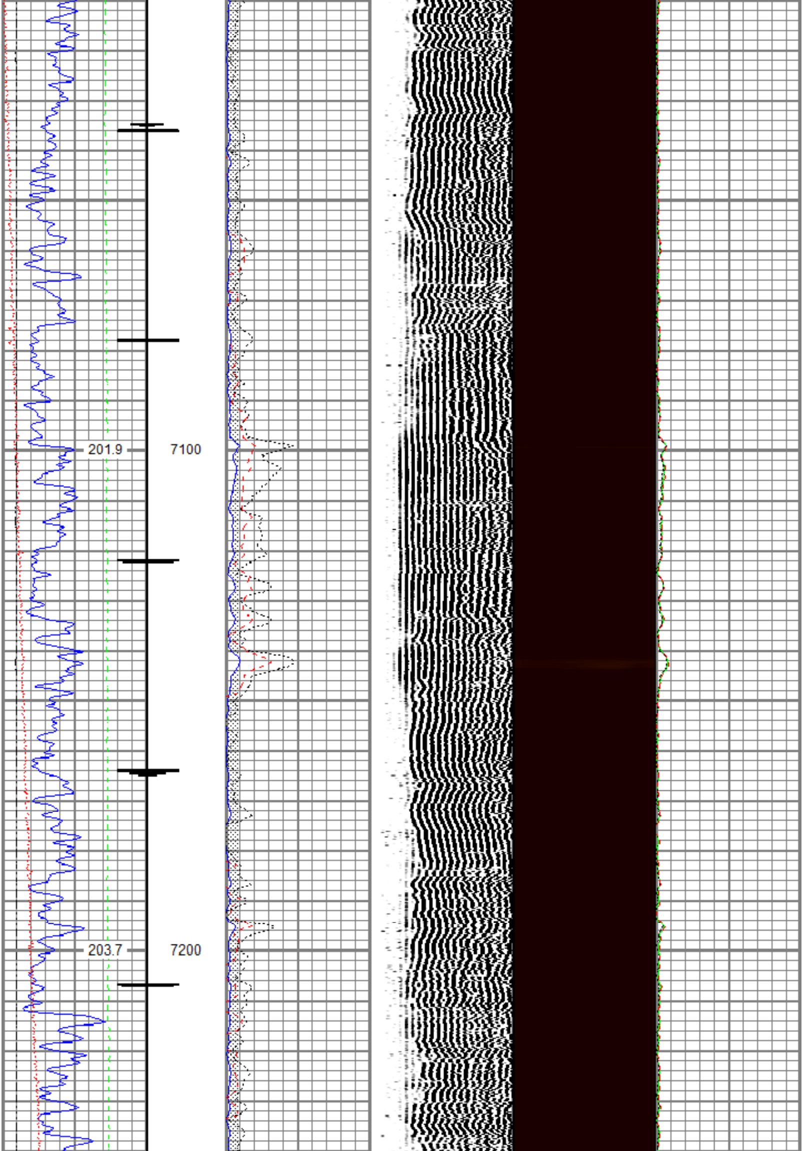
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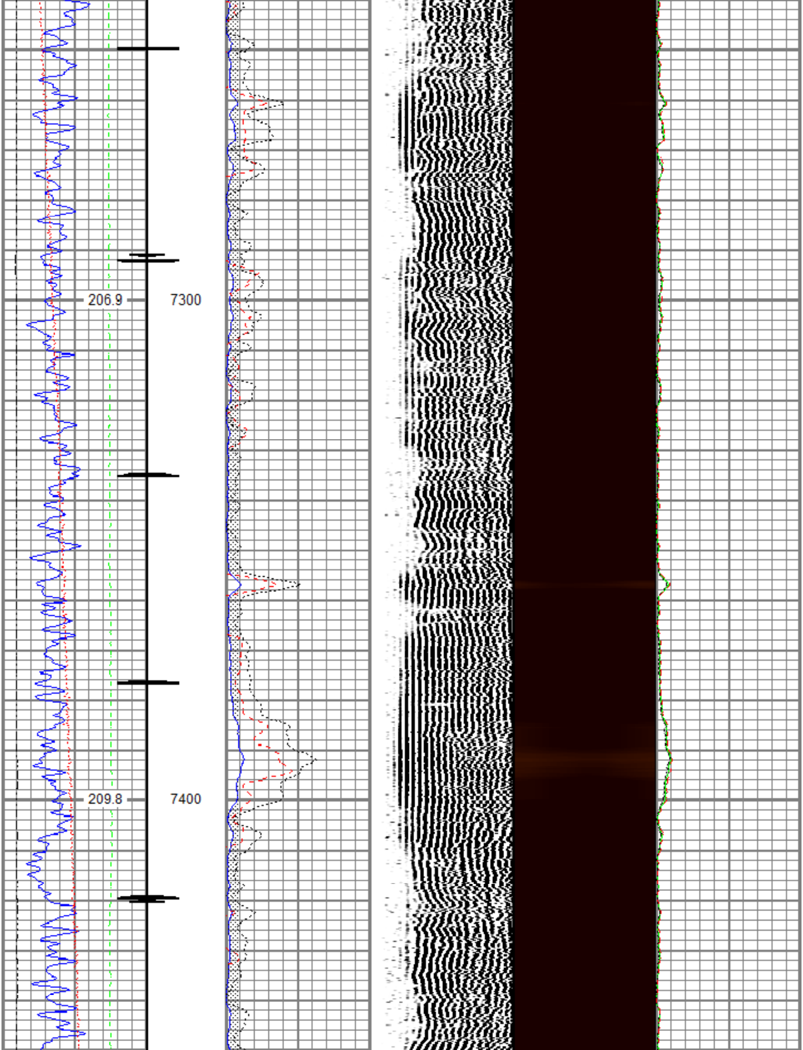
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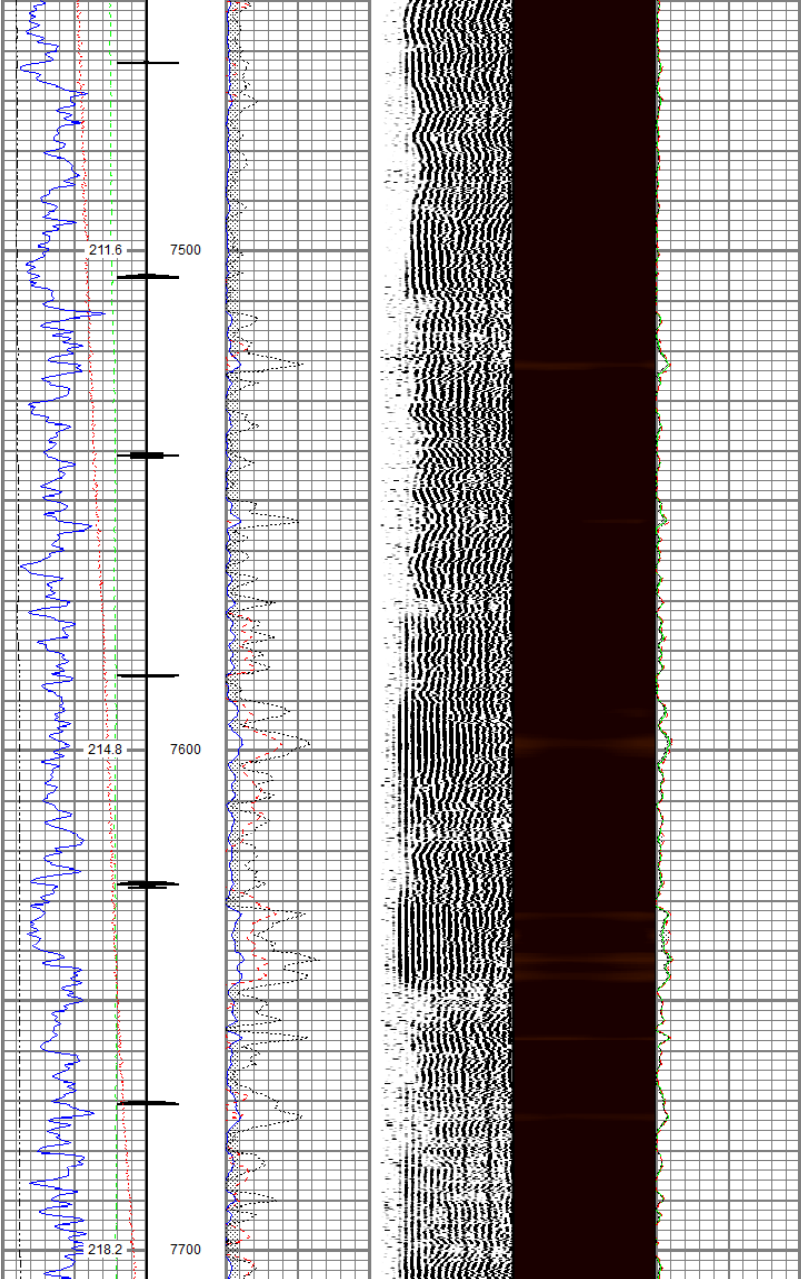
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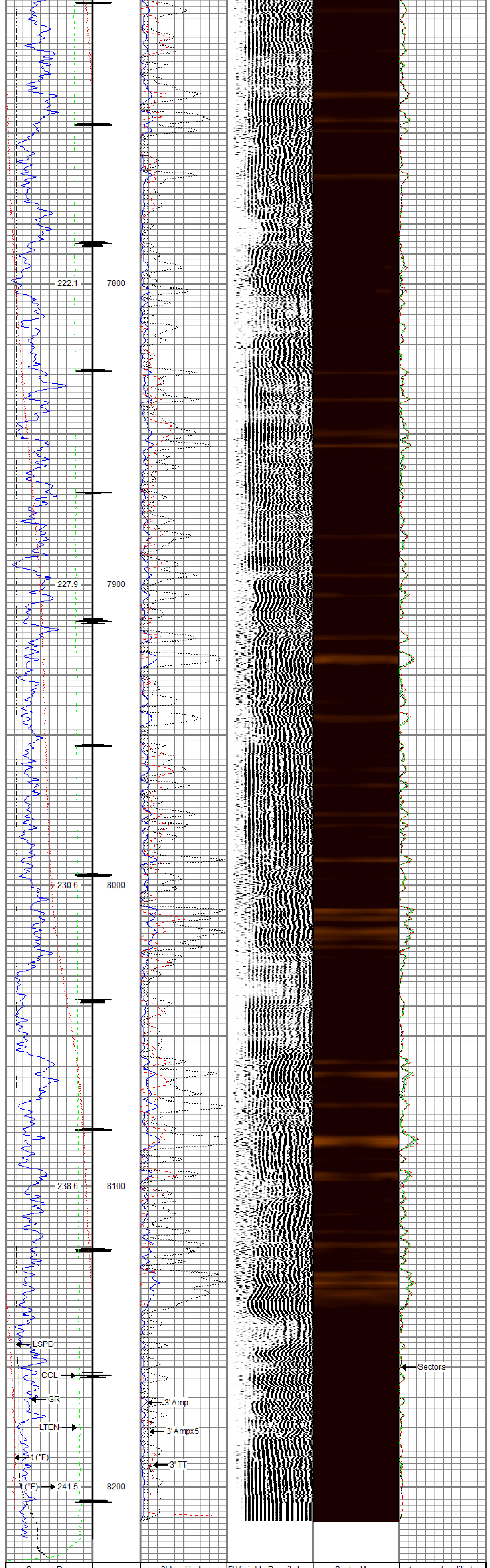

Gamma Ray	3' Amplitude	5' Variable Density Log	Sector Map	Average Amplitude
0 (GAPI) 200	0 (mV) 100	200 1200	10 110	0 150
Casing Collar Locator	3' Amplitude x 5			Mimimum Amplitude
Line Speed	0 (mV) 20			0 150
-150 (ft/min) 150	3' Travel Time			Maximum Amplitude
Line Tension	300 (usec) 200			0 150
0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

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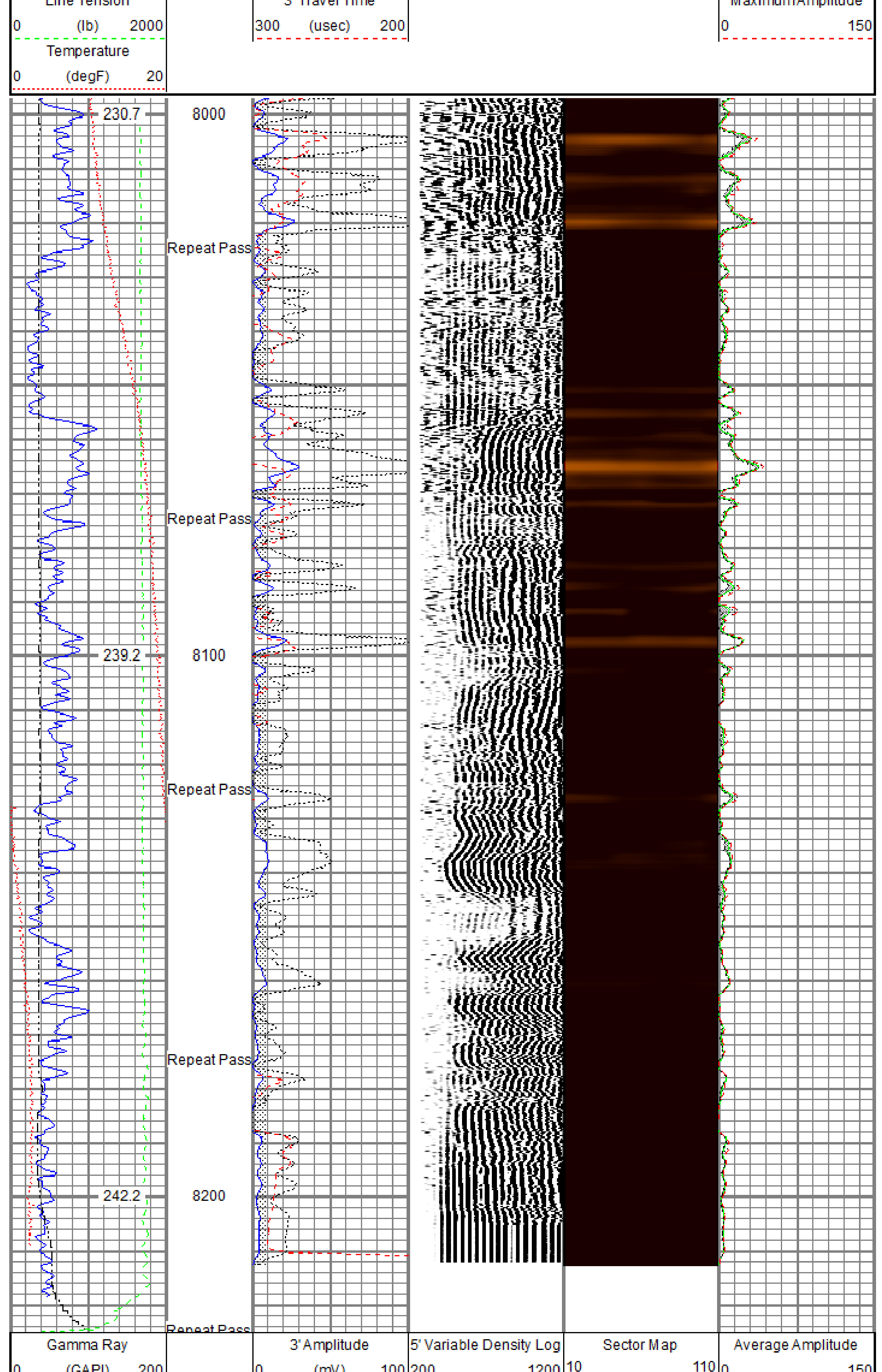
Repeat Pass

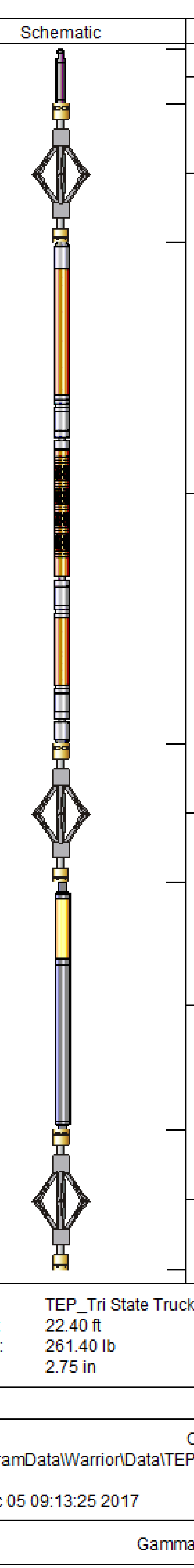
Recorded with 0 PSI Surface Induced Pressure

Database File	tep_pa 442-26_rcbl\tep_tri state trucking pa 442-26_rbl_12-05-17.db
Dataset Pathname	repeat
Presentation Format	ros_rbt004_tep
Dataset Creation	Tue Dec 05 09:09:01 2017
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)
HeadVolt	18.84
Temp	16.05
WVFS8	13.88
WVFS7	13.88
WVFS6	13.88
WVFS5	13.88
WVFS4	13.88
WVFS3	13.88
WVFS2	13.88
WVFS1	13.88
WVFCAL	13.88
WVF3FT	13.88
WVF5FT	12.88
HEADVOLT	9.63
DCCL	6.18
CCL	6.18
GR	4.96

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
DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
Probe_RADII-C-P_RBT_2750 (101013) Probe 2-3/4" Sector Cement Bond Tool with Temperature Probe	9.19	2.75	105.00
DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00
Probe_GR_CCL-P_CGR_2750_S (FW1304.54 Probe 2-3/4" Digital CCL / Gamma Ray Combined	8)	2.75	55.00
DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00

Dataset:	TEP_Tri State Trucking PA 442-26_RBL_12-05-17.db: field/well/run1/main
Total length:	22.40 ft
Total weight:	261.40 lb
O.D.:	2.75 in

Calibration Report

Database File	C:\ProgramData\Warrior\Data\TEP_PA 442-26_RCBL\TEP_Tri State Trucking PA 442-26_RBL_12-05-17.db
Dataset Pathname	main
Dataset Creation	Tue Dec 05 09:13:25 2017

Gamma Ray Calibration Report

Serial Number:	FW1307-038	
Tool Model:	P_CGR_2750_S	
Performed:	Sat Feb 06 11:43:09 2016	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.6	cps
Sensitivity:	0.6061	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	101013	
Tool Model:	P_RBT_2750	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	33.300	ft

Master Calibration, performed Tue Dec 05 08:39:59 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	-0.005	0.763	0.000	81.196	105.757	0.476
CAL	-0.006	0.748				
5'	-0.002	0.687	0.000	81.196	117.767	0.285
SUM						
S1	-0.004	0.752	0.000	100.000	132.325	0.520
S2	-0.004	0.755	0.000	100.000	131.838	0.505
S3	-0.005	0.742	0.000	100.000	133.843	0.667
S4	-0.003	0.759	0.000	100.000	131.150	0.450
S5	-0.004	0.752	0.000	100.000	132.293	0.491
S6	-0.004	0.758	0.000	100.000	131.200	0.509
S7	-0.005	0.750	0.000	100.000	132.531	0.642
S8	-0.003	0.767	0.000	100.000	129.737	0.447

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	-0.006	0.748	1.000	0.000

Air Zero Calibration, performed Tue Dec 05 08:40:24 2017:

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	-0.005	0.000	0.000
5'	-0.002	0.000	-0.000
SUM			
S1	-0.004	0.000	0.000
S2	-0.004	0.000	0.001
S3	-0.005	0.000	0.000
S4	-0.004	0.000	0.001
S5	-0.004	0.000	0.000
S6	-0.004	0.000	0.000
S7	-0.005	0.000	0.000
S8	-0.004	0.000	0.000

RELIANCE OILFIELD SERVICES

Company	TEP Rocky Mountain LLC
Well	Tri State Trucking PA 442-26
Field	Parachute
County	Garfield
State	Colorado