Company	TEP Rocky Mountain LLC
Well	Chevron TR 22-23-597
Field	Trail Ridge
County	Garfield
State	Colorado

RELIANCE
OILFIELD SERVICES

Radial Cement Bond
Gamma Ray
Casing Collar Log

Company	TEP Rocky Mountain LLC		
Well	Chevron TR 22-23-597		
Field	Trail Ridge		
County	Garfield	State	Colorado
Location:	API # : 05-045-23464 2540' FNL & 1446' FEL SWNE		Other Services --
	SEC 23 TWP 5S RGE 97W		
Permanent Datum	Ground Level	Elevation 8545.2'	Elevation
Log Measured From	Kelly Bushing 24 FT		K.B. 8569.2' D.F. 8568.2' G.L. 8545.2'
Drilling Measured From	Kelly Bushing		

Date	04-SEPT-2017
Run Number	One
Depth Driller	10229 FT
Depth Logger	10192 FT
Bottom Logged Interval	10192 FT
Top Log Interval	Surface
Open Hole Size	8.750"
Type Fluid	Fresh Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	264°F
Estimated Cement Top	See Log
Time Well Ready	ROA
Time Logger on Bottom	16:40
Equipment Number	HD-359
Location	Grand Junction, CO
Recorded By	A. Rivera
Witnessed By	J. Skalla

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	32.3	H-40	Surface	3013 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	10191 FT
Intermediate #2					
Liner					

<<< Fold Here >>>

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 as per customer request
Depth referenced to Kelly Bushing at 24 FT
Marker Joint logged at 6005 FT - 6025 FT
Log ran from 10092 to Surface
Recorded with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!!

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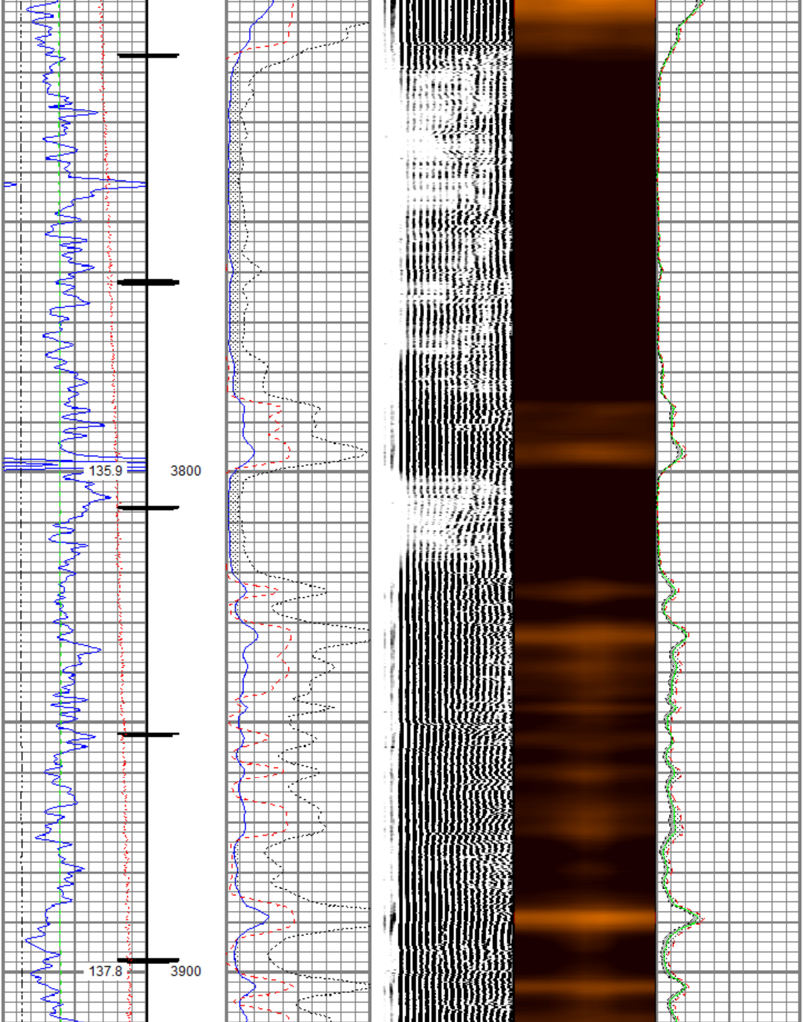
Main Pass

Recorded With 0 PSI Surface Induced Pressure

Database File	chevron tr 22-23-597\tep_chevron tr 22-23-597_rbl_09-04-17.db
Dataset Pathname	Main_Pass1
Presentation Format	ros_rbt004_tep
Dataset Creation	Mon Sep 04 16:38:51 2017
Charted by	Depth in Feet scaled 1:240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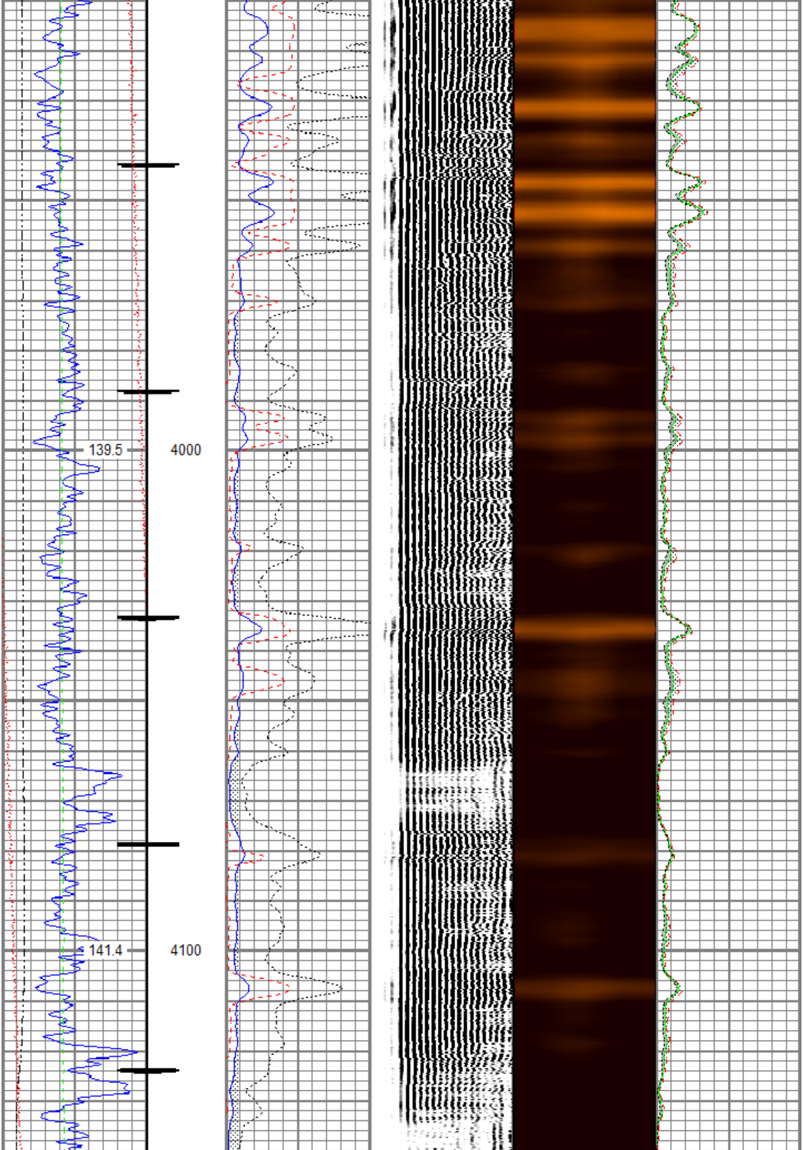
3800
137.8
3900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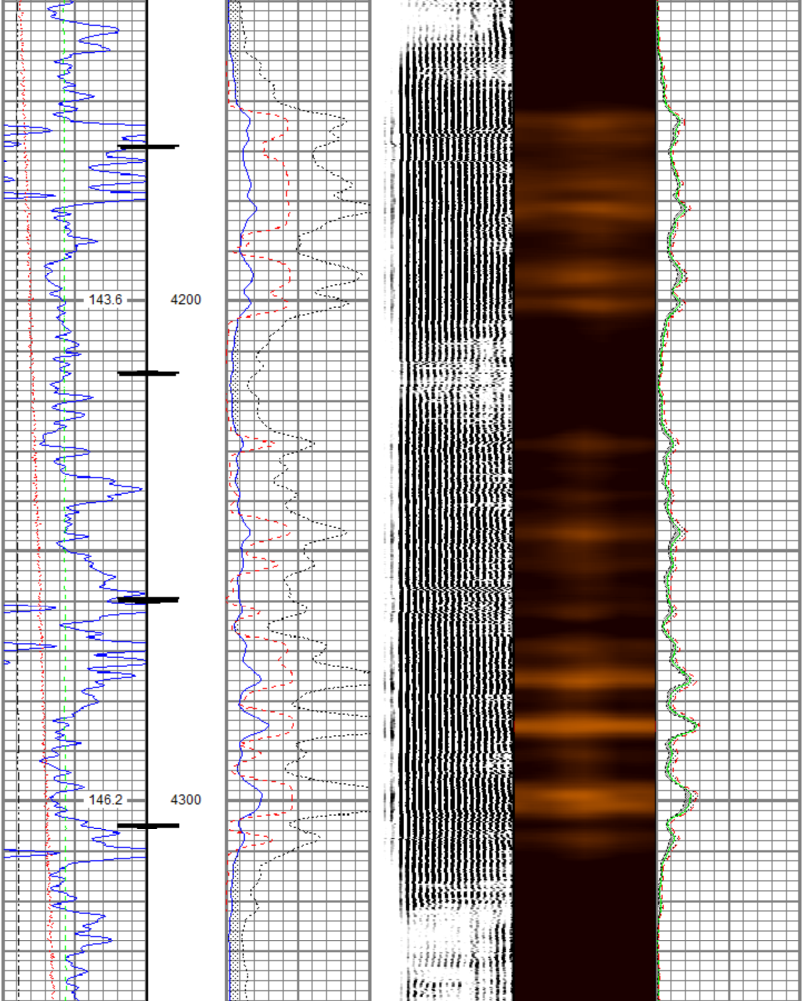
4000
141.4
4100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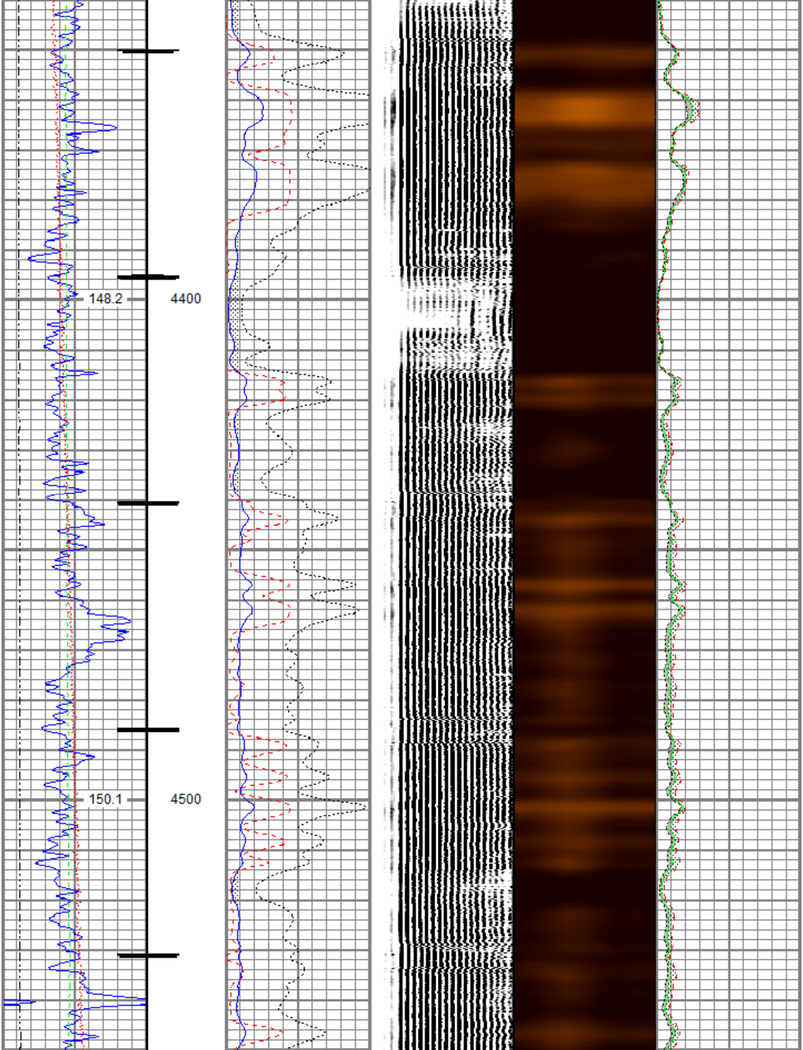
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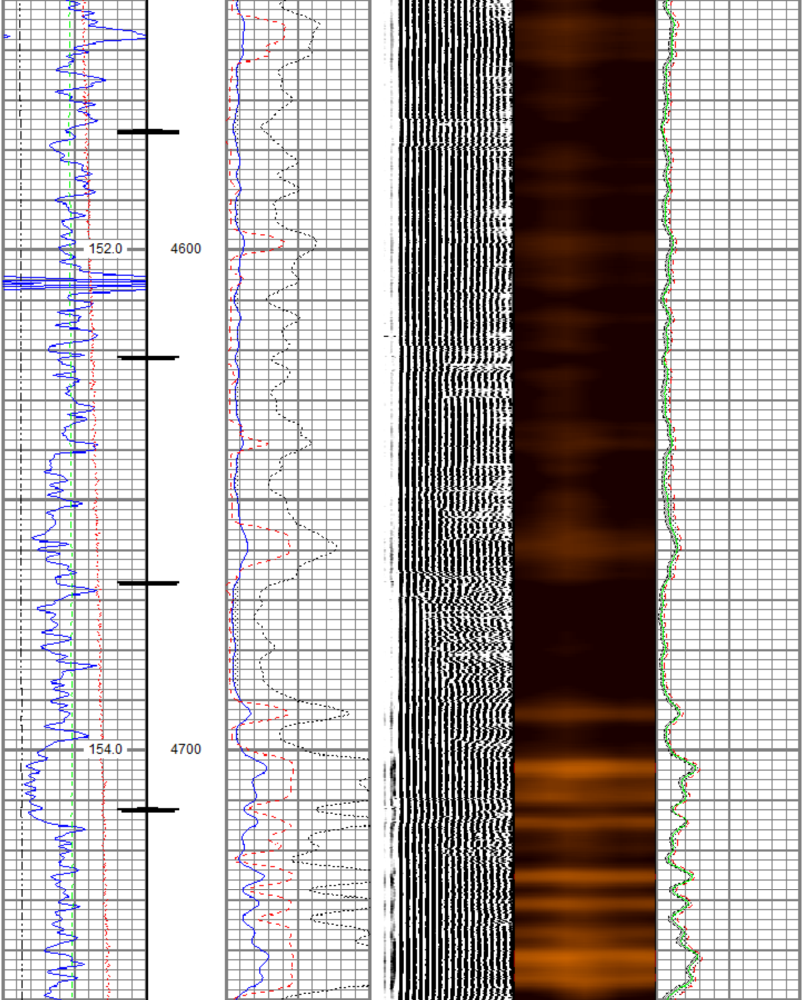
150.1
4500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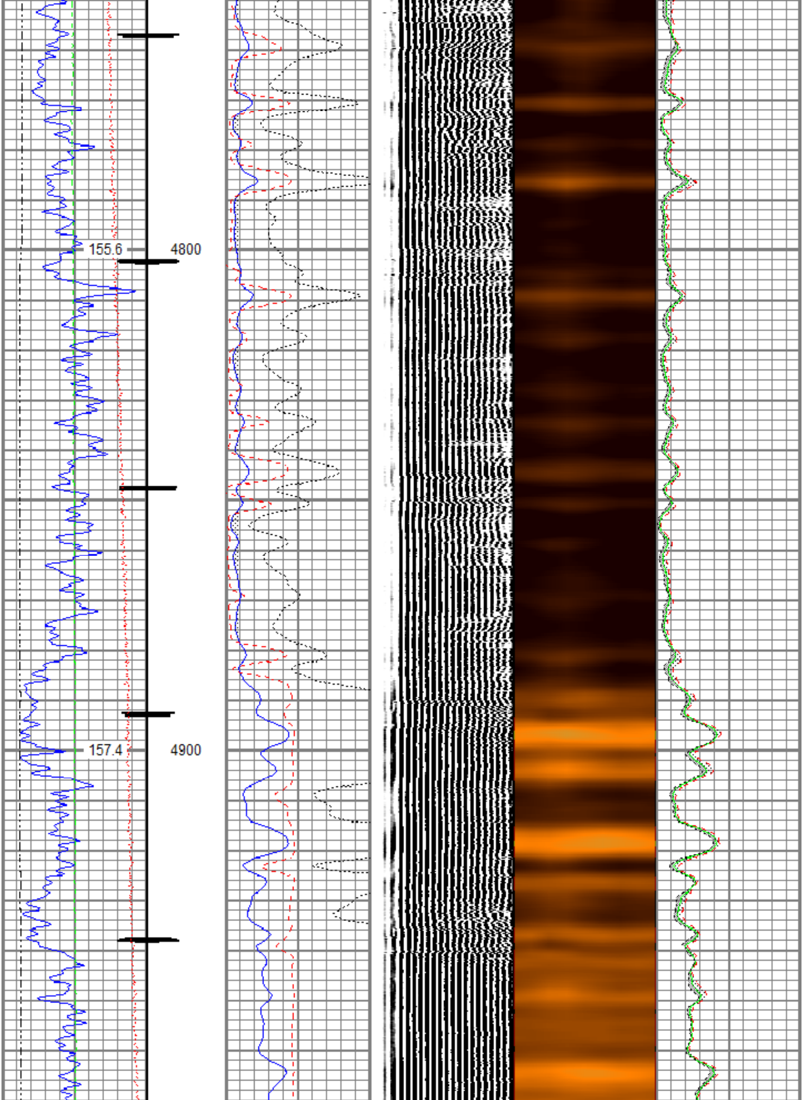
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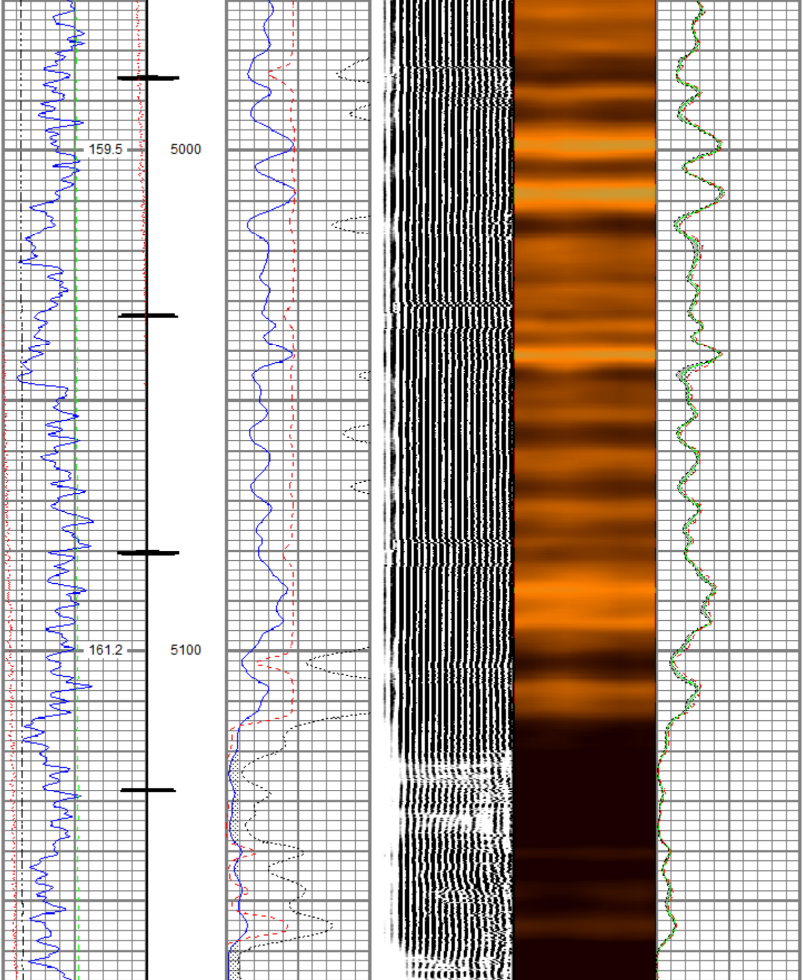
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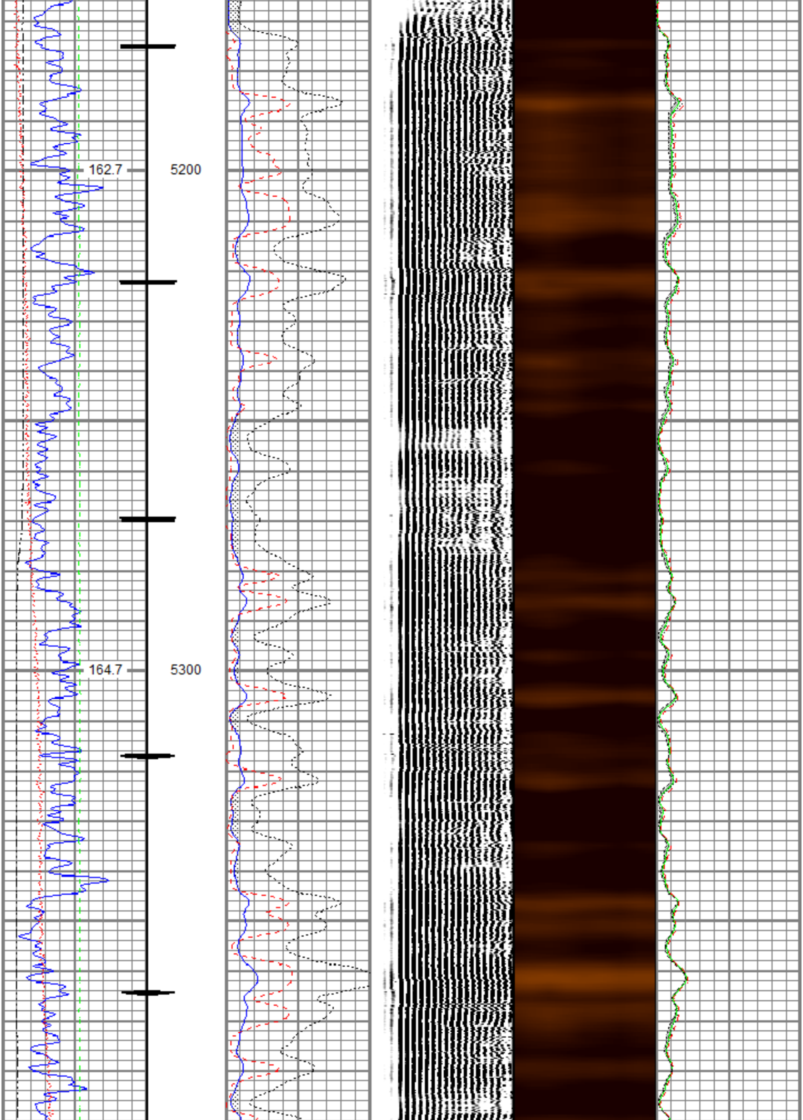
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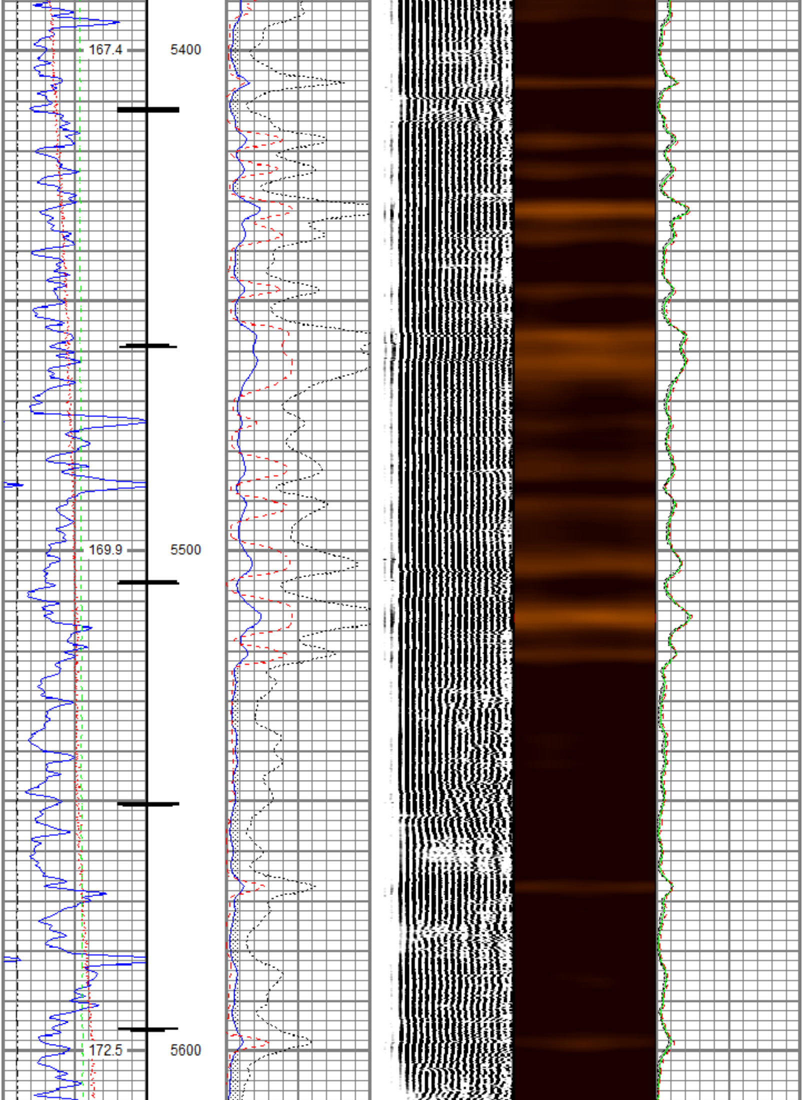
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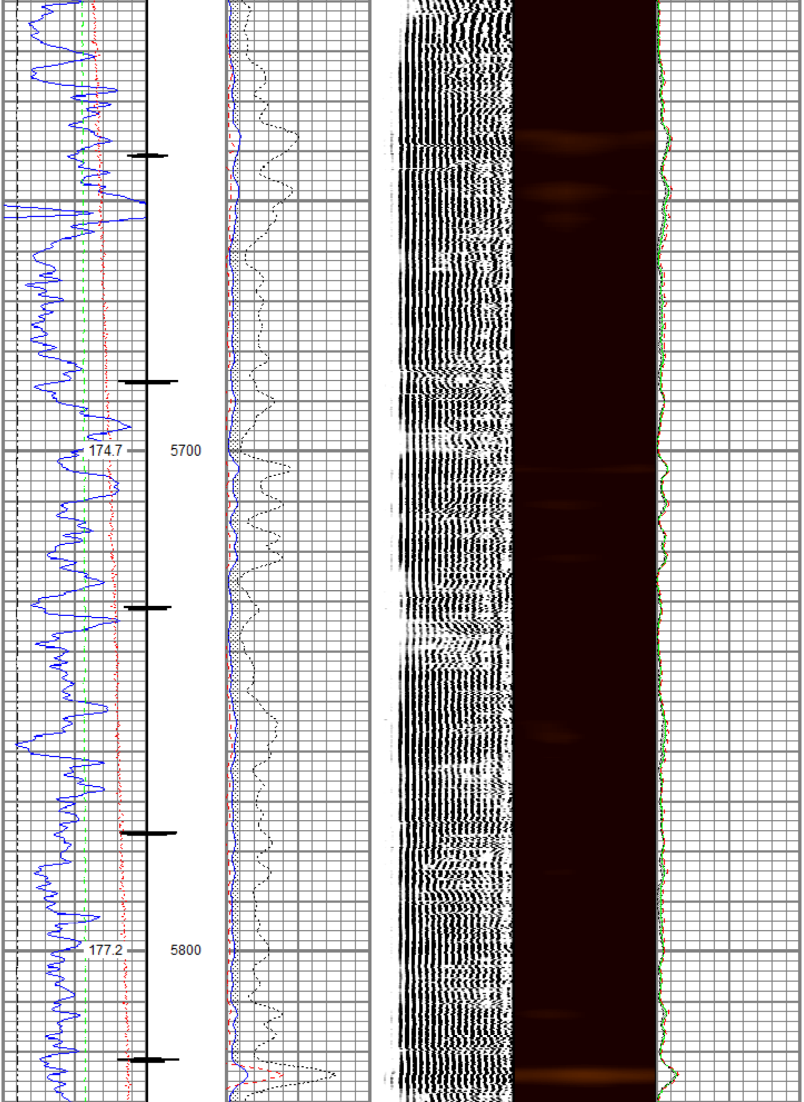
5400
169.9
5500
172.5
5600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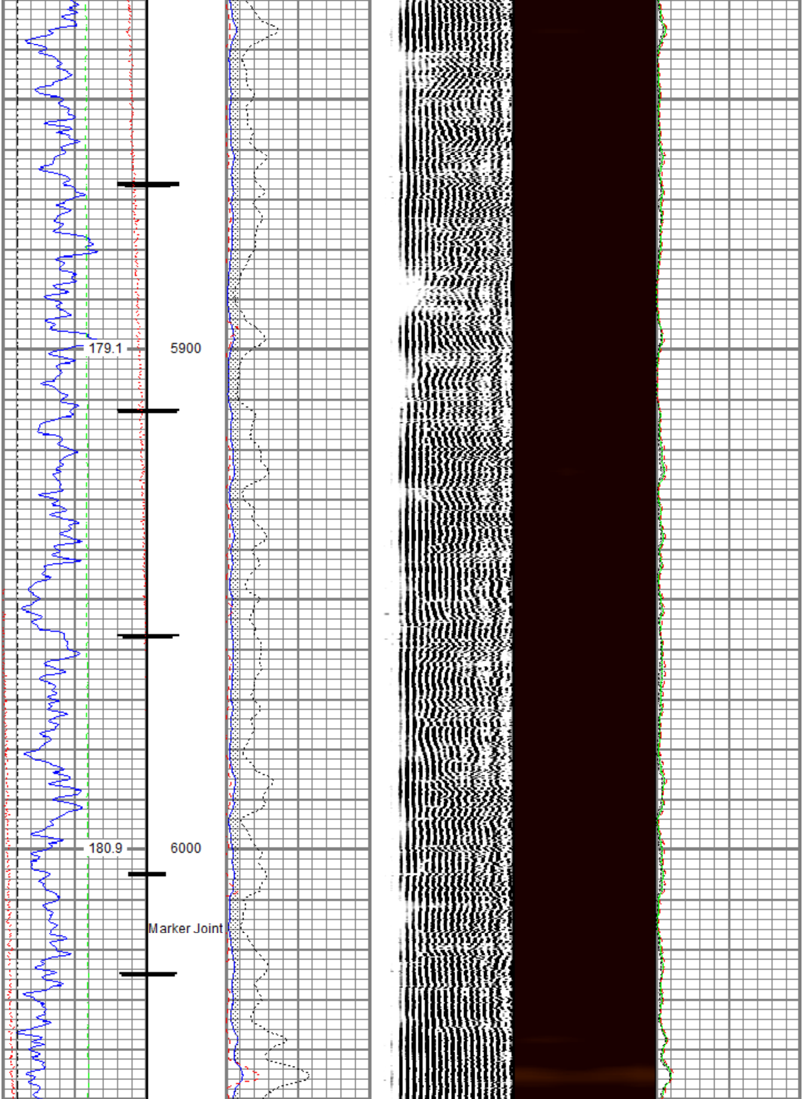
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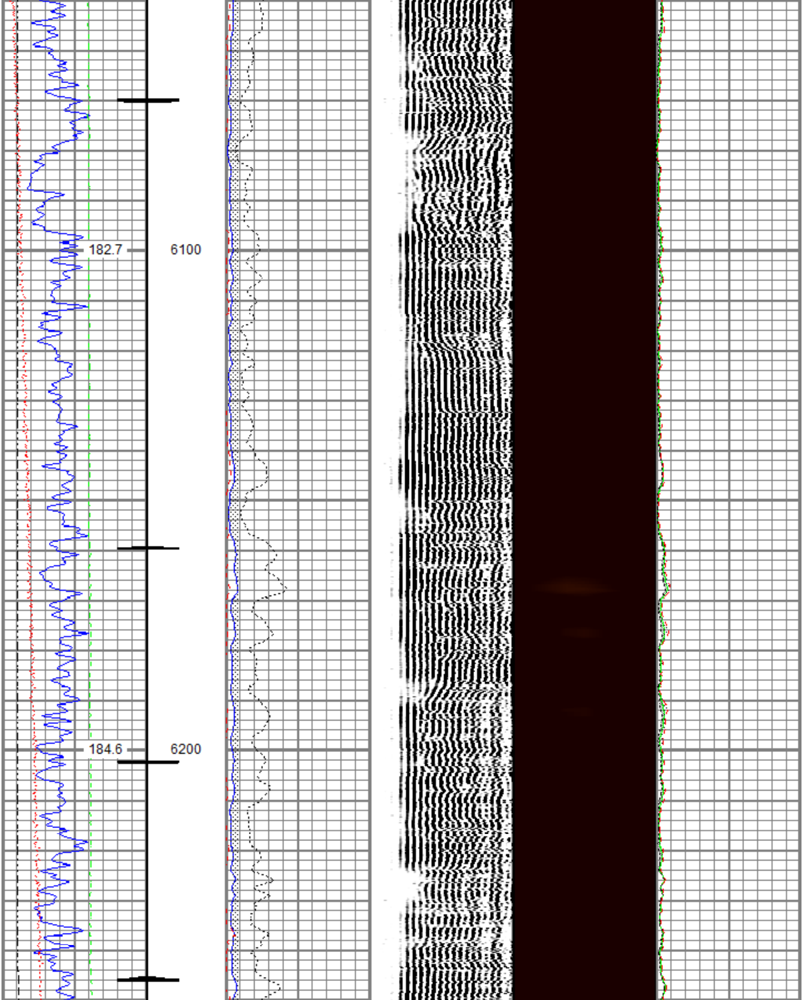
6000
Marker Joint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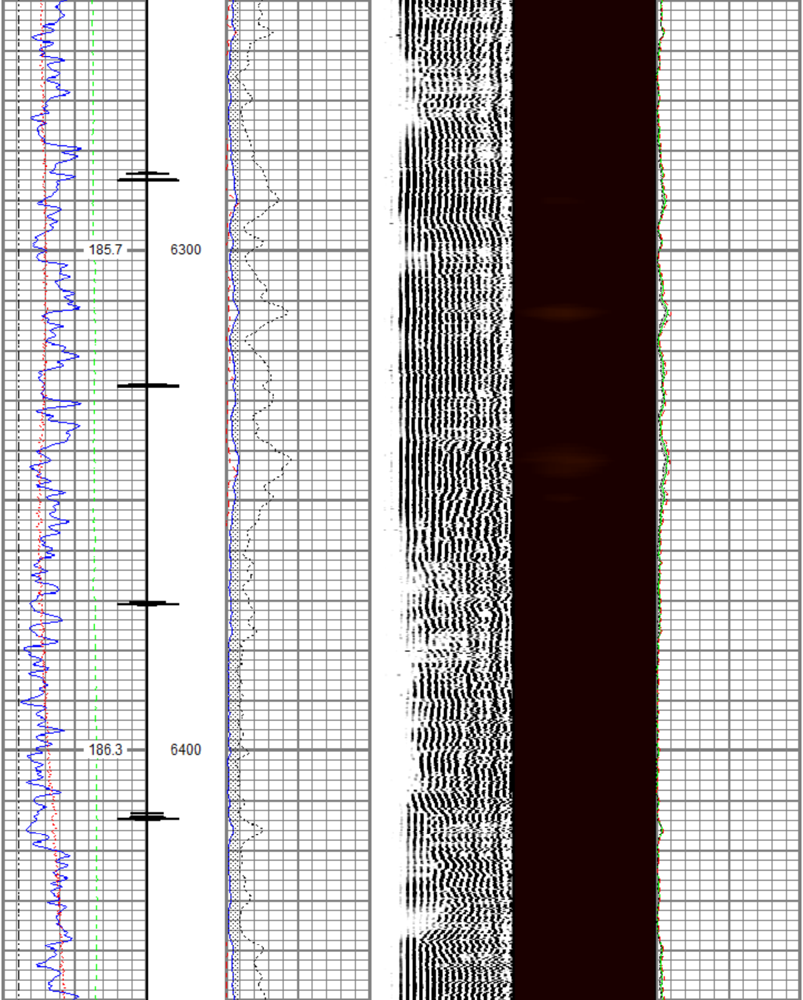
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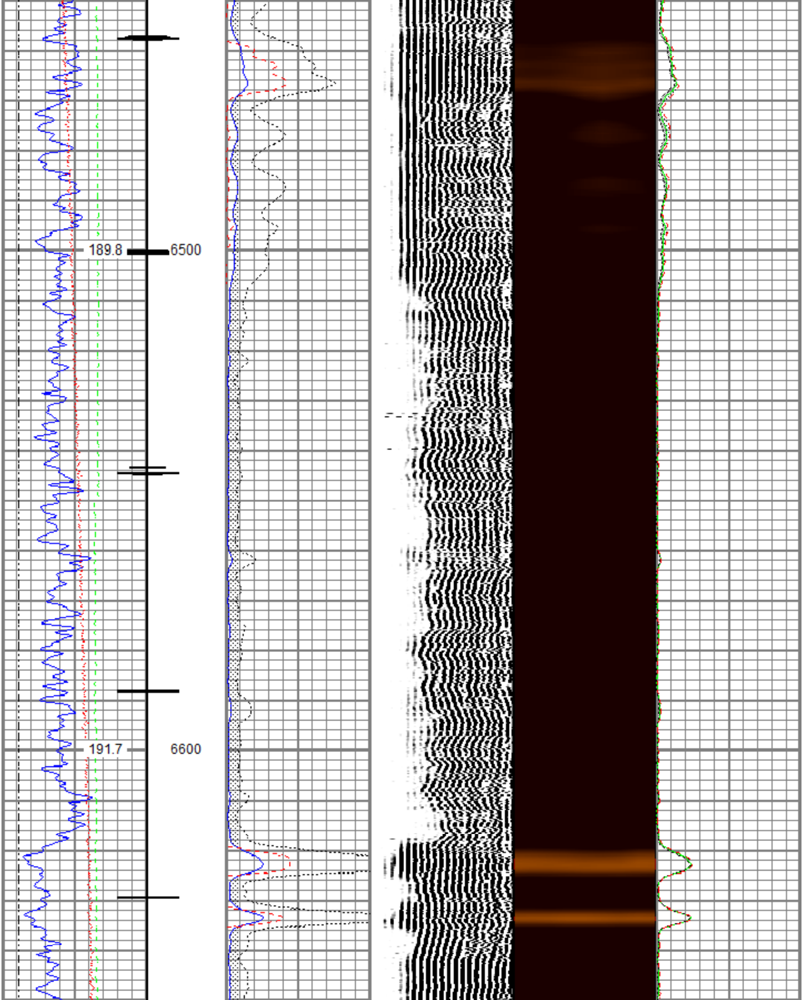
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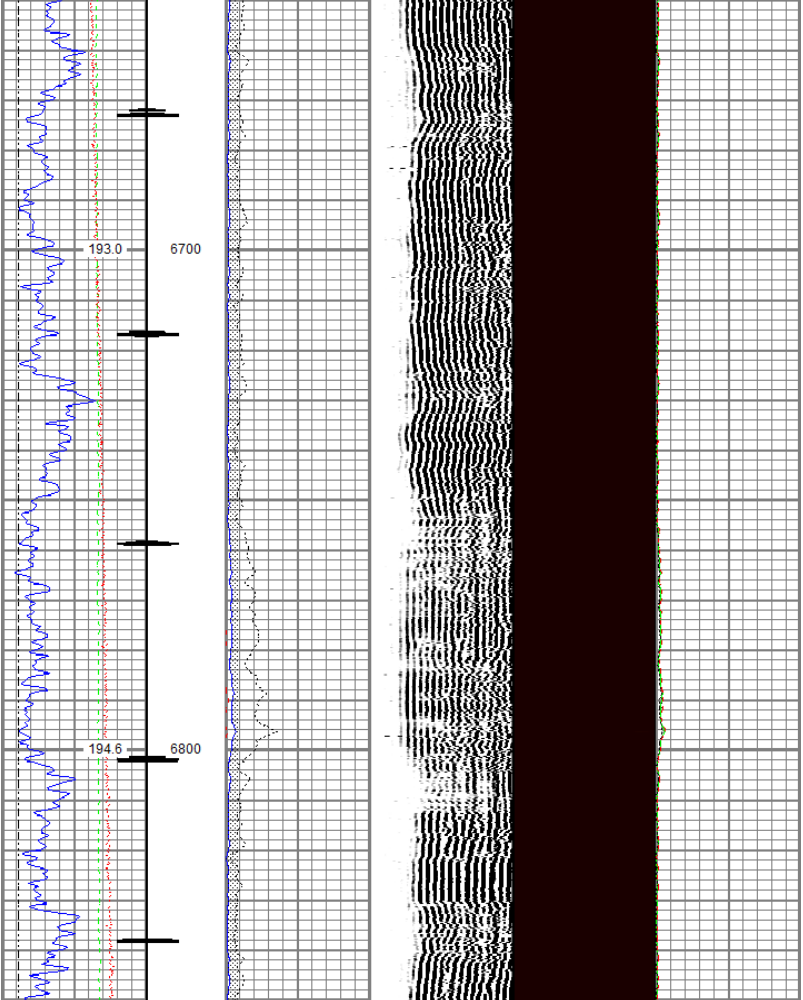
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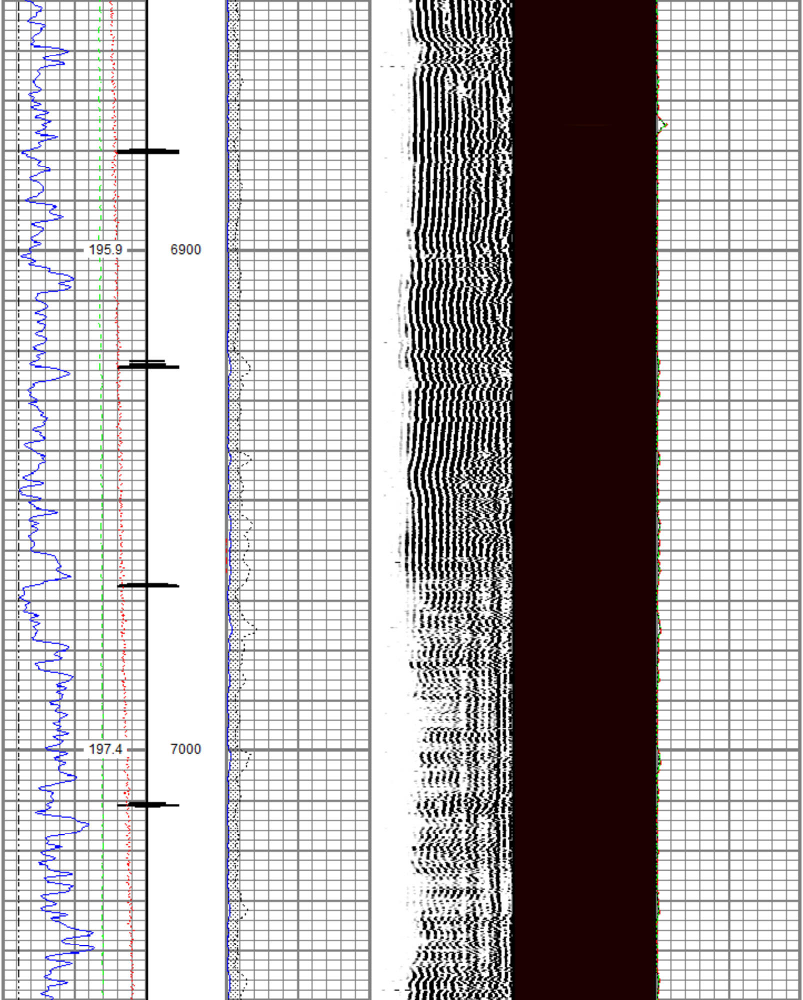
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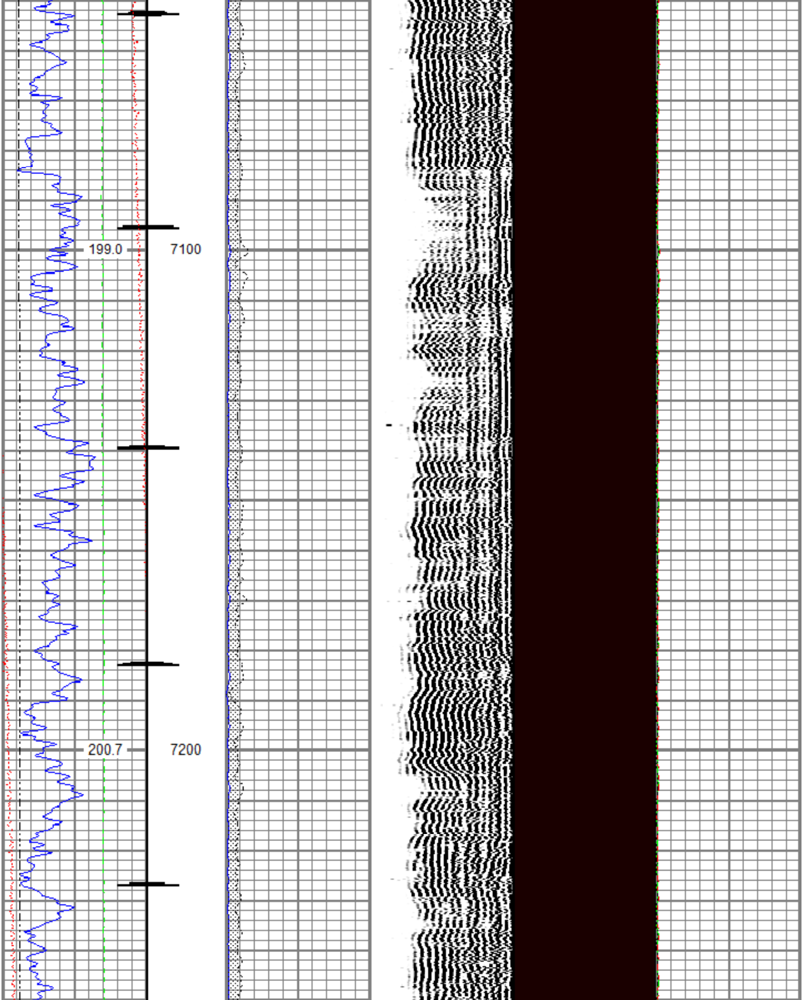
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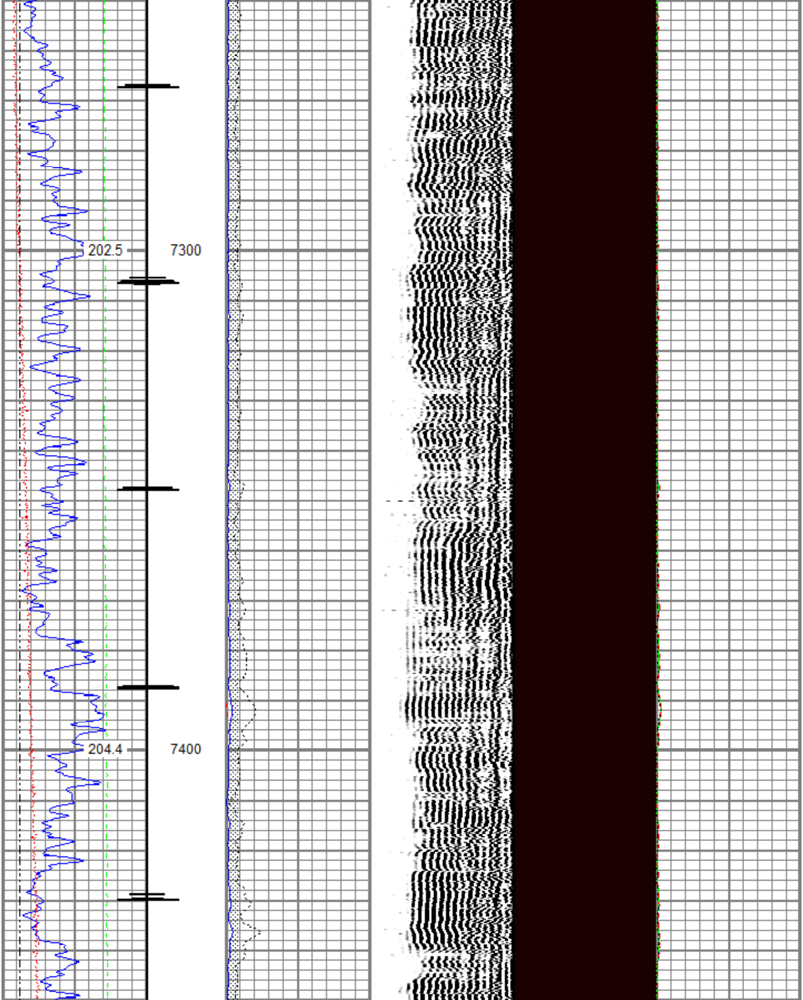
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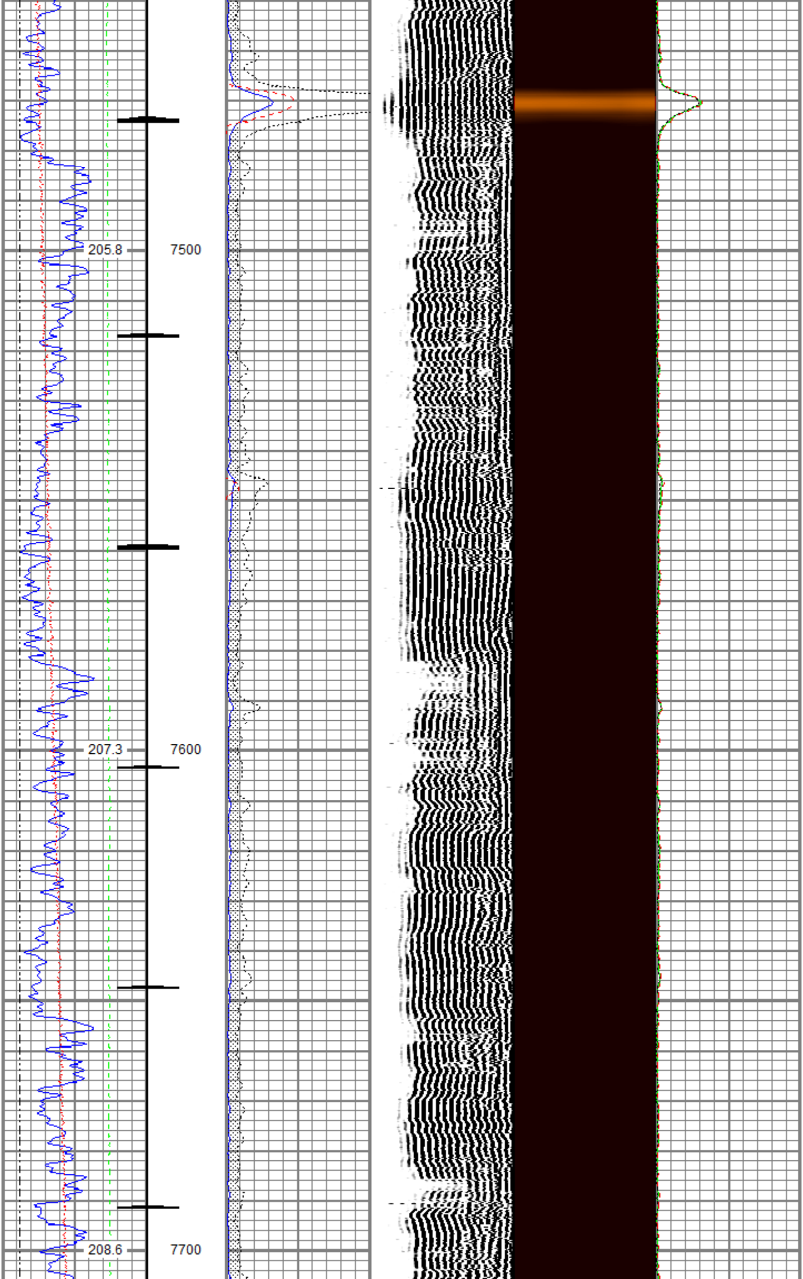
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207.3
7600
208.6
7700

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				
Temperature 0 (degF) 20				

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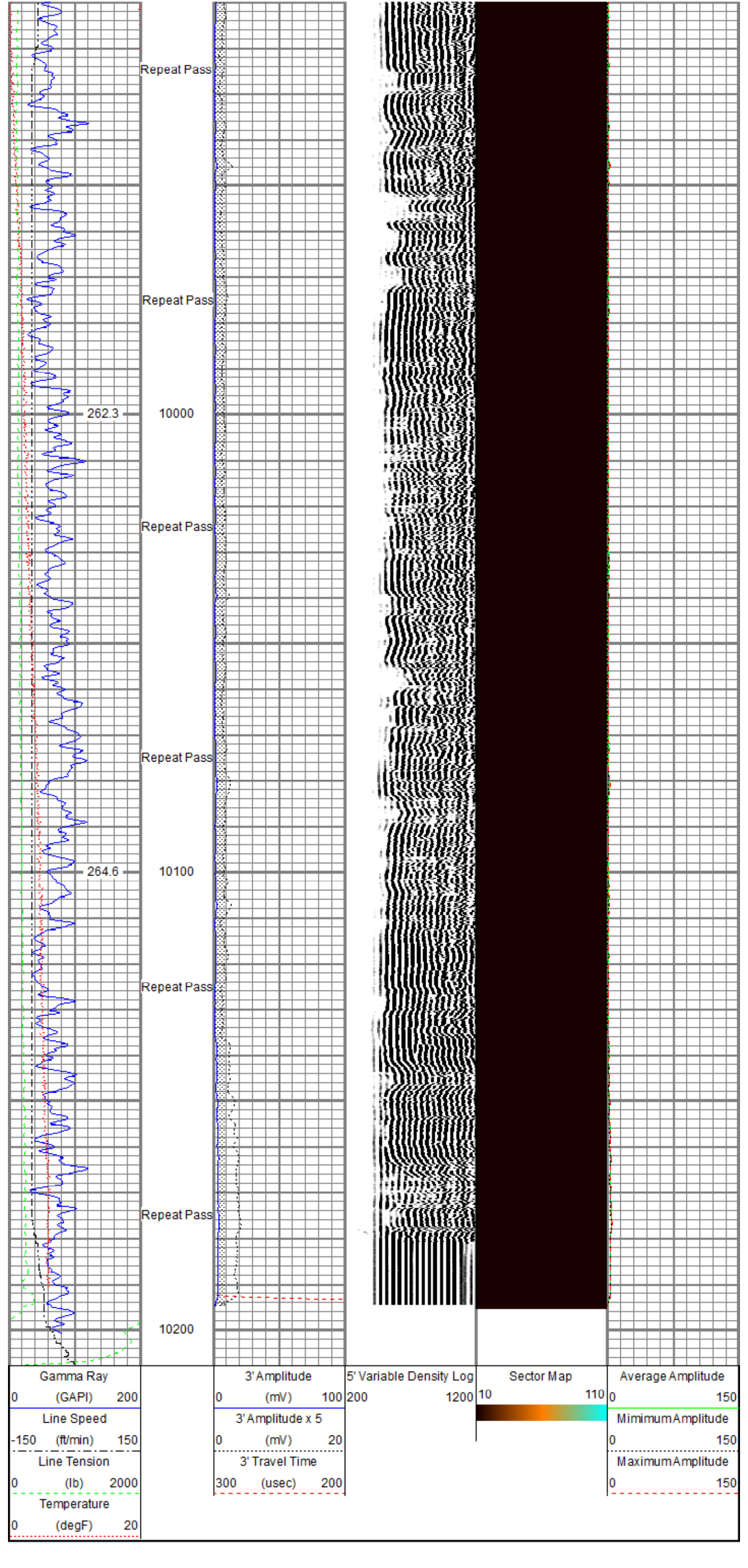
Repeat Pass

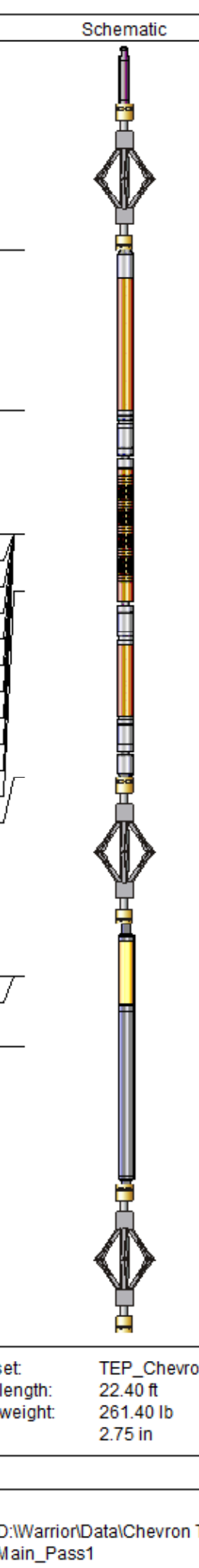
Recorded With 0 PSI Surface Induced Pressure

Database File chevron tr 22-23-597\tep_chevron tr 22-23-597_rbl_09-04-17.db
Dataset Pathname Main_Pass
Presentation Format ros_rbt004_tep
Dataset Creation Mon Sep 04 16:31:53 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
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			Mimimum Amplitude 0 150
Line Tension 0 (lb) 2000	3' Travel Time 300 (usec) 200			Maximum Amplitude 0 150
Temperature 0 (degF) 20				



Sensor	Offset (ft)	Description	Length (ft)	O.D. (in)	Weight (lb)
		Titan_Electric_Cable_Heads-Titan_1-11/ 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
HeadVolt	18.84				
Temp	16.05				
WVFS8 WVFS7 WVFS6 WVFS5 WVFS4 WVFS3 WVFS2 WVFS1 WVFCAL WVF3FT WVF5FT HEADVOLT	13.88 13.88 13.88 13.88 13.88 13.88 13.88 13.88 13.88 13.88 12.88 9.63	Probe_RADII-C-P_RBT_2750 (FW1305-0 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
DCCL CCL GR	6.18 6.18 4.96	Probe_GR_CCL-P_CGR_2750_S (FW1 Probe 2-3/4" Digital CCL / Gamma Ray Combined	214.541)	2.75	55.00
		DSS_RAC-RAC_5-Arm 5 Arm 2-3/4" Roller Centralizer	2.55	2.75	32.00

Dataset: TEP_Chevron TR 22-23-597_RBL_09-04-17.db: field/well/run1/Main_Pass1
Total length: 22.40 ft
Total weight: 261.40 lb
O.D.: 2.75 in

Calibration Report

Database File D:\Warrior\Data\Chevron TR 22-23-597\TEP_Chevron TR 22-23-597_RBL_09-04-17.db
Dataset Pathname Main_Pass1
Dataset Creation Mon Sep 04 16:38:51 2017

Gamma Ray Calibration Report

Serial Number:	FW1211-081	
Tool Model:	P_CGR_2750_S	
Performed:	Sat Feb 06 11:31:52 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:	FW1305-098	
Tool Model:	P_RBT_2750	
Calibration Casing Diameter:	4.500	in
Calibration Depth:	193.874	ft

Master Calibration, performed Mon Sep 04 09:57:05 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.000	0.673	0.800	81.196	119.488	0.800
CAL	0.000	0.612				
5'	0.000	0.474	0.800	81.196	169.621	0.800
SUM						
S1	0.000	0.660	0.000	100.000	151.524	0.000
S2	0.000	0.684	0.000	100.000	146.275	0.000
S3	0.000	0.700	0.000	100.000	142.927	0.000
S4	0.000	0.694	0.000	100.000	144.093	0.000
S5	0.000	0.687	0.000	100.000	145.457	0.000
S6	0.000	0.666	0.000	100.000	150.237	0.000
S7	0.000	0.651	0.000	100.000	153.604	0.000
S8	0.000	0.646	0.000	100.000	154.788	0.000

Internal Reference Calibration, performed Fri May 05 10:29:14 2017:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.000	0.612	1.000	0.000

Air Zero Calibration, performed Mon Sep 04 09:51:32 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

RELIANCE OILFIELD SERVICES

Company	TEP Rocky Mountain LLC
Well	Chevron TR 22-23-597
Field	Trail Ridge
County	Garfield
State	Colorado