Company	TEP Rocky Mountain LLC
Well	Federal RU 414-17
Field	Rulison
County	Garfield
State	Colorado

RELIANCE
OILFIELD SERVICES

Temperature
Gamma Ray
Casing Collar Log

Company	TEP Rocky Mountain LLC		
Well	Federal RU 414-17		
Field	Rulison		
County	Garfield	State	Colorado
Location:	API #: 05-045-23747		Other Services
	SEC 17 TWP 7S RGE 93W		---
Permanent Datum	Ground Level	Elevation 8365.6'	Elevation
Log Measured From	Kelly Bushing	24 FT	K.B. 8389.6' D.F. 8388.6' G.L. 8365.6'
Drilling Measured From	Kelly Bushing		

Date	10-MAY-2018
Run Number	One
Depth Driller	10787 FT
Depth Logger	10751 FT
Bottom Logged Interval	10751 FT
Top Log Interval	Surface
Open Hole Size	8.750"
Type Fluid	Fresh Water
Density / Viscosity	8.34 lb/gal
Max. Recorded Temp.	252°F
Estimated Cement Top	4515 FT
Time Well Ready	ROA
Time Logger on Bottom	01:45
Equipment Number	HD-0359
Location	Grand Junction, CO
Recorded By	A. Ellsworth
Witnessed By	Craig Borgstede

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	1131 FT
Intermediate #1	4 1/2	11.6	P-110	Surface	10746 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 from 6714 FT to 6736 FT
Log ran from 10751 FT to Surface
Log ran with 0 PSI Surface Induced Pressure

Thank you for choosing Reliance Oilfield Services, LLC!!

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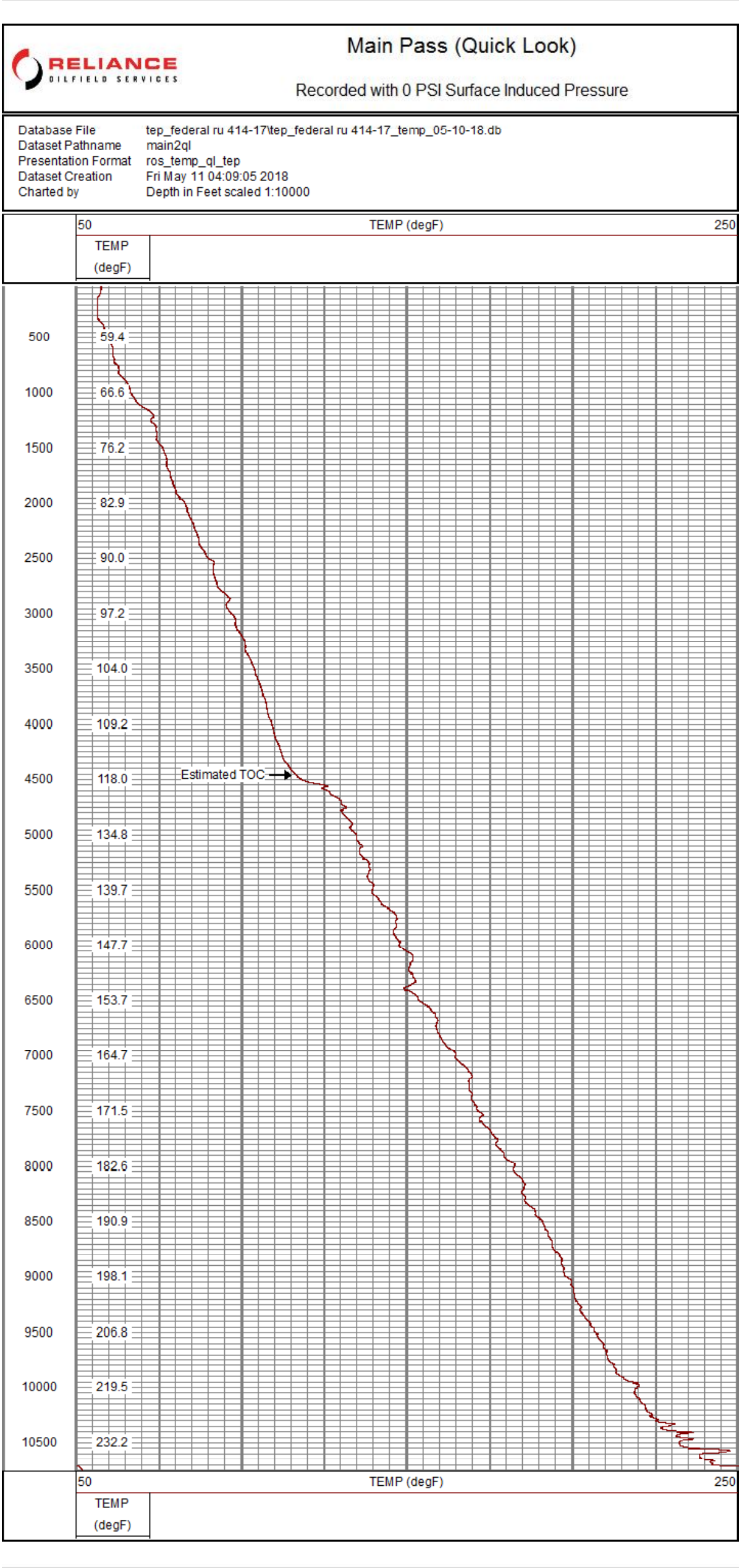
Main Pass (Quick Look)

Recorded with 0 PSI Surface Induced Pressure

Database File	tep_federal ru 414-17\tep_federal ru 414-17_temp_05-10-18.db
Dataset Pathname	main2ql
Presentation Format	ros_temp_ql_tep
Dataset Creation	Fri May 11 04:09:05 2018
Charted by	Depth in Feet scaled 1:10000



RELIANCE
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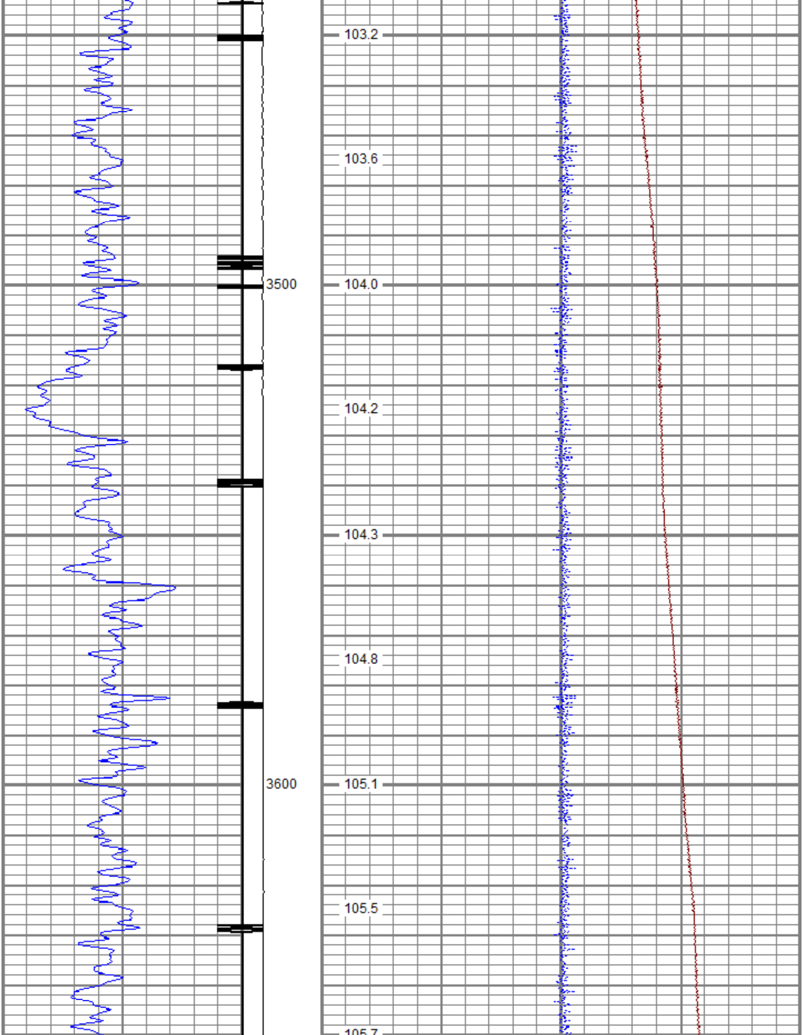
Main Pass

Recorded with 0 PSI Surface Induced Pressure

Database File	tep_federal ru 414-17\tep_federal ru 414-17_temp_05-10-18.db
Dataset Pathname	main2
Presentation Format	ros_temp_tep
Dataset Creation	Fri May 11 02:46:54 2018
Charted by	Depth in Feet scaled 1:240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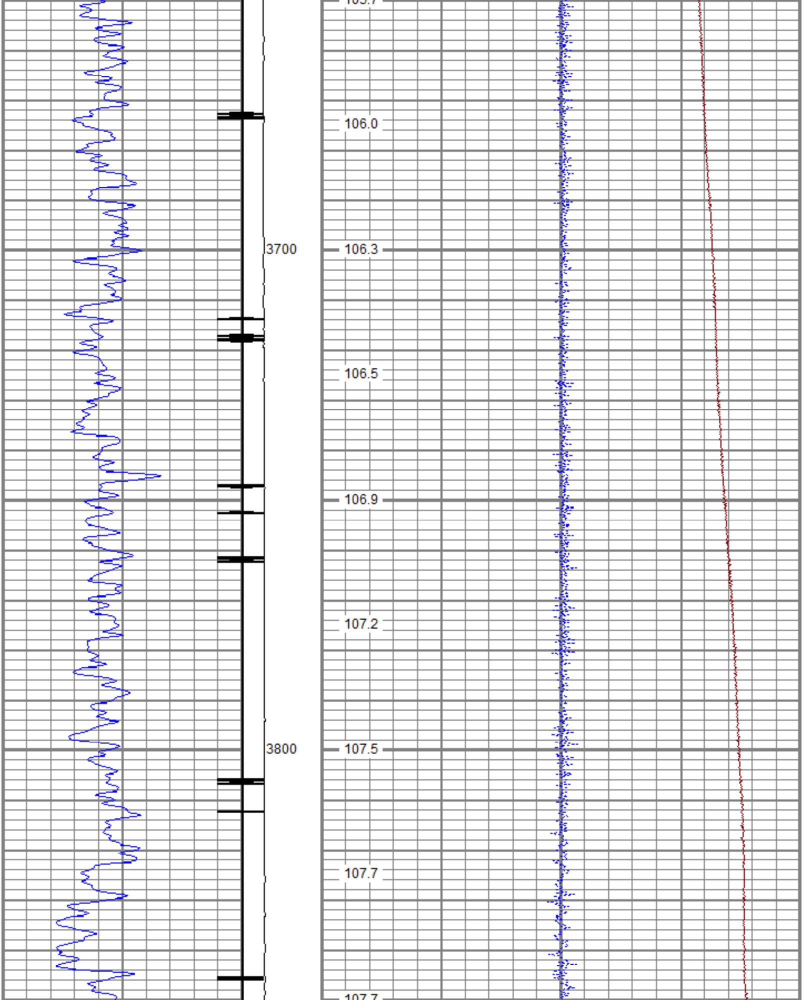
105.7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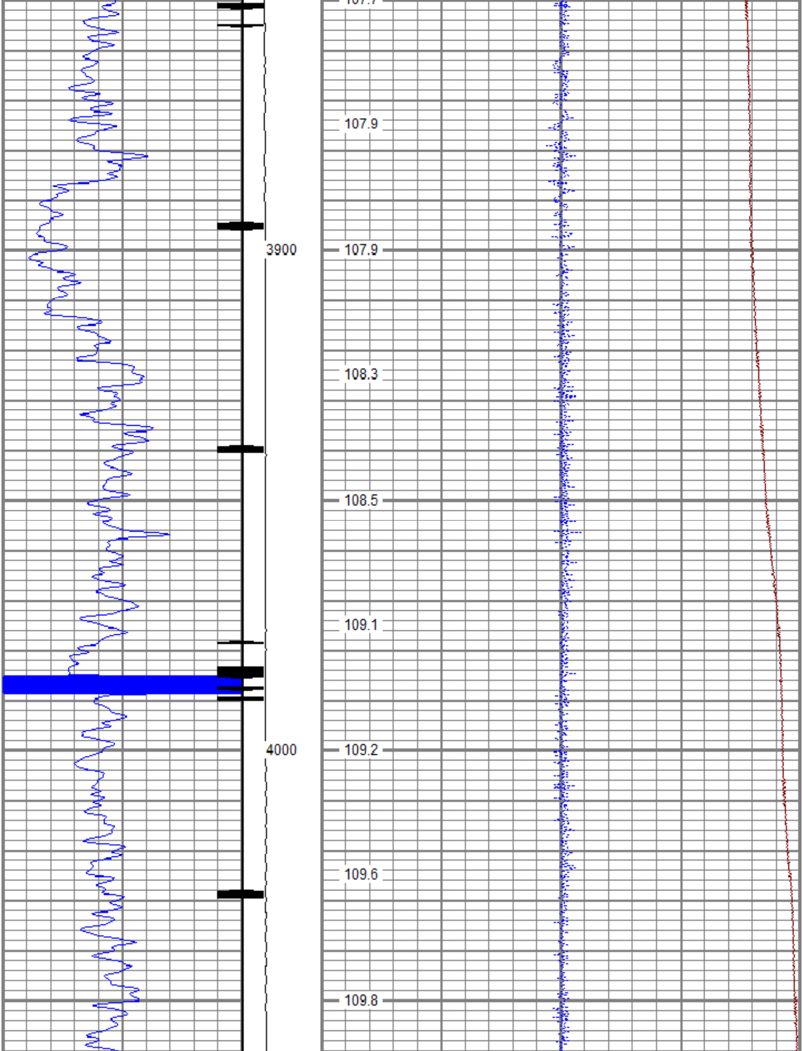
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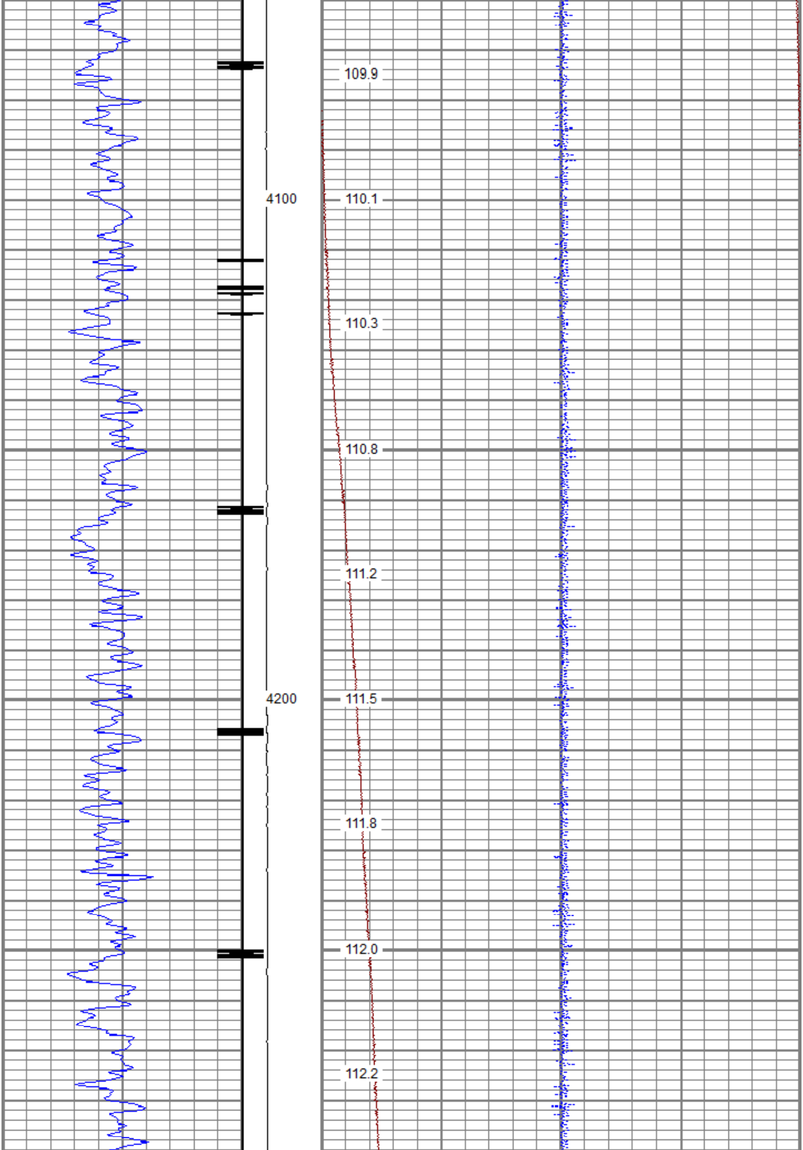
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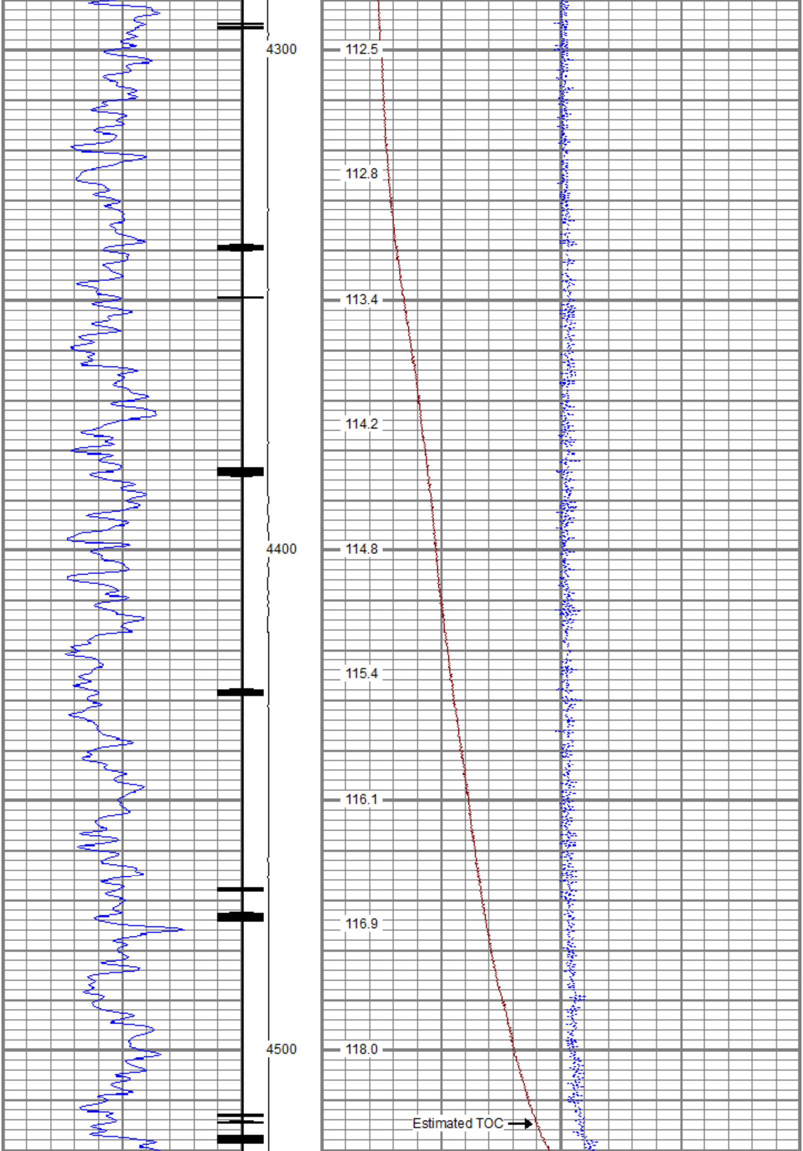
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115.4
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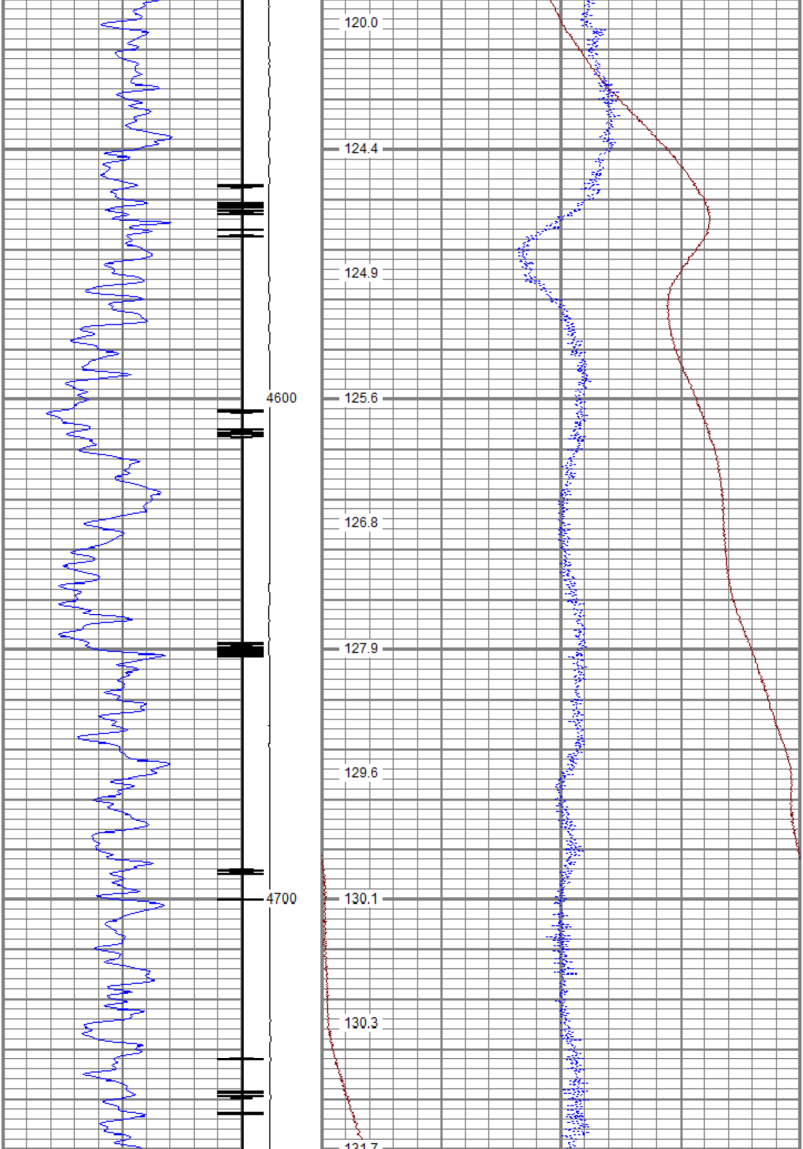
Estimated TOC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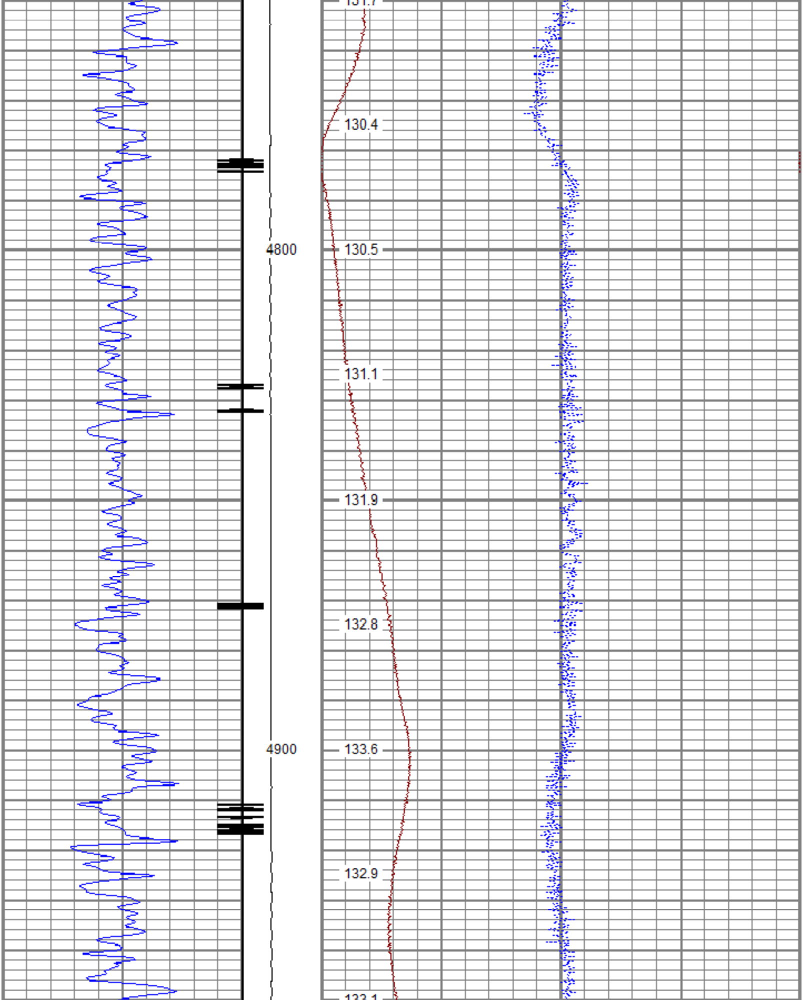
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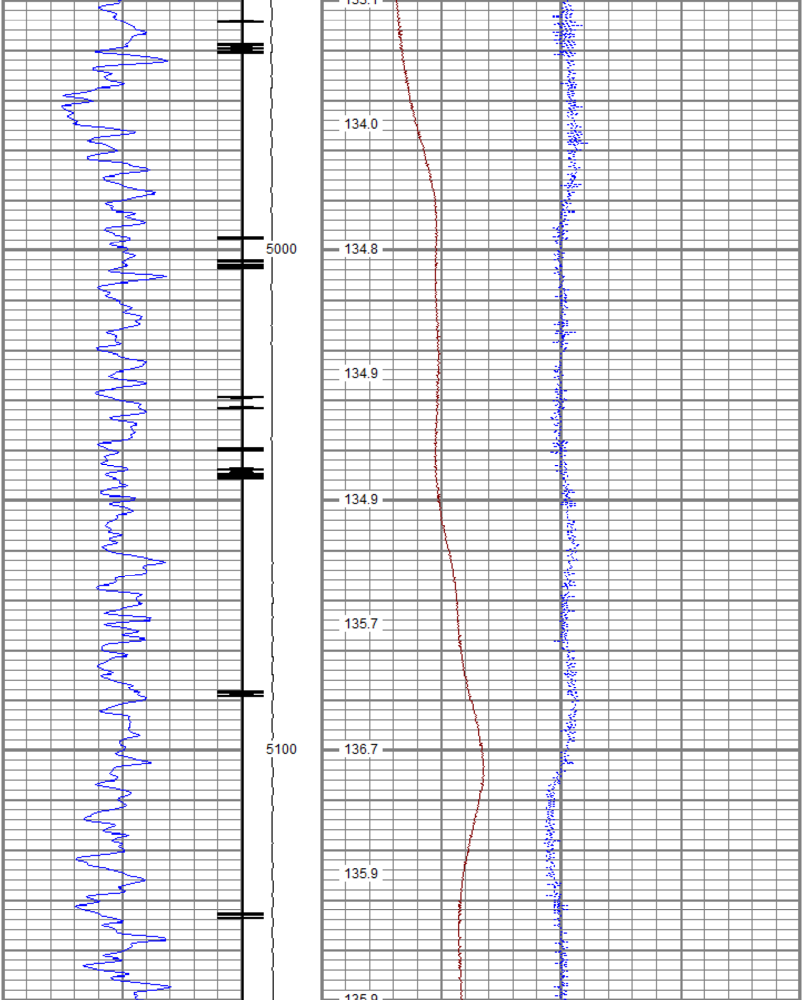
133.1



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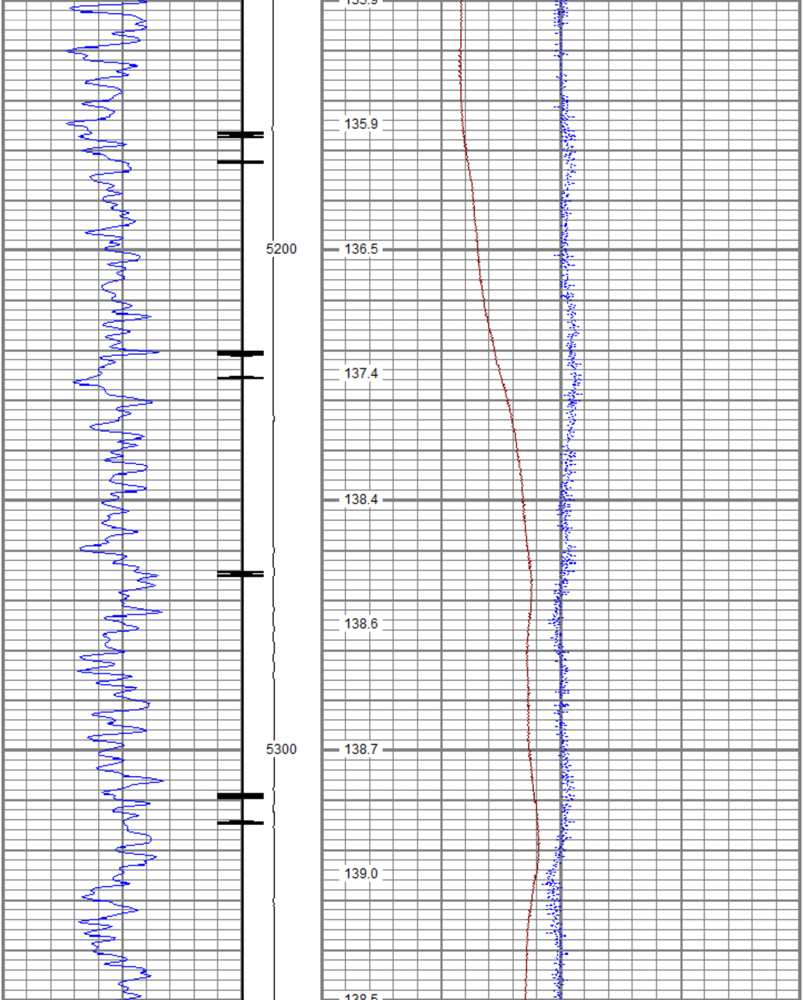
135.9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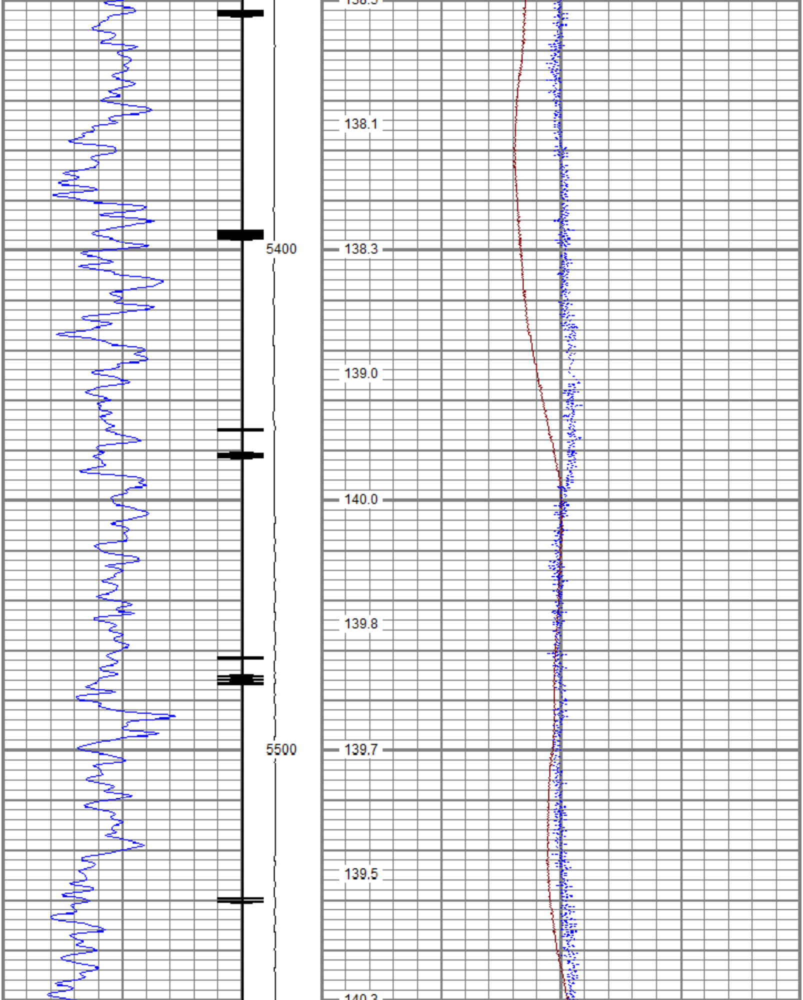
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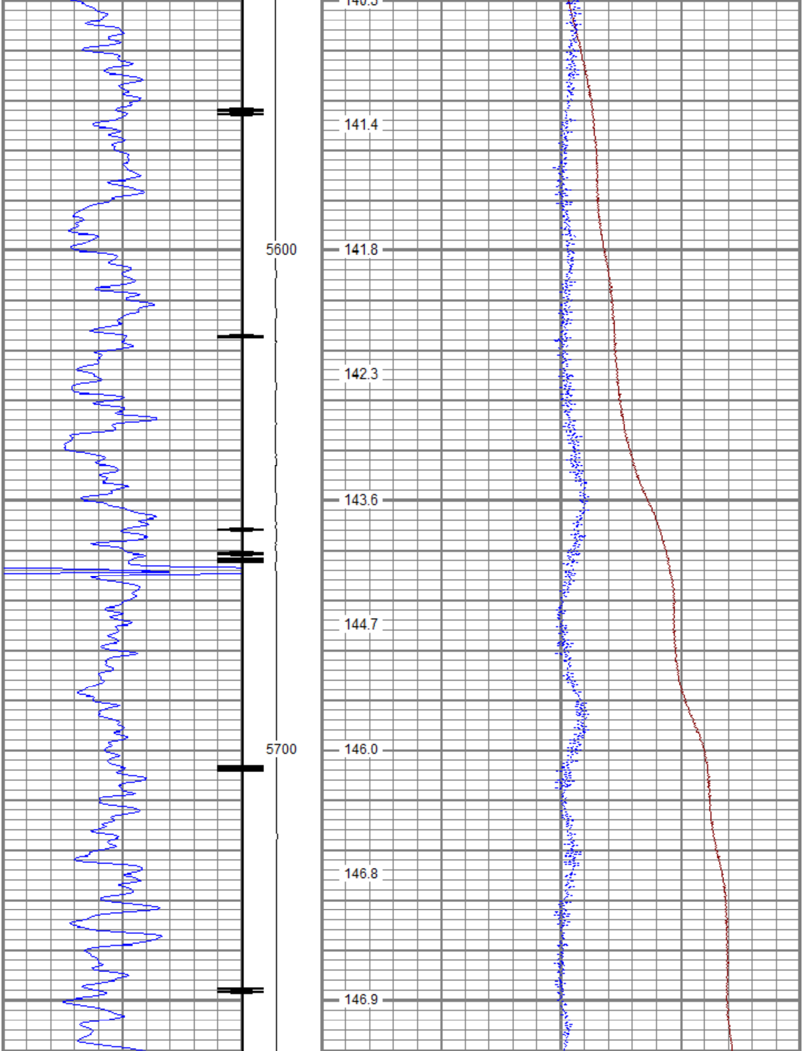
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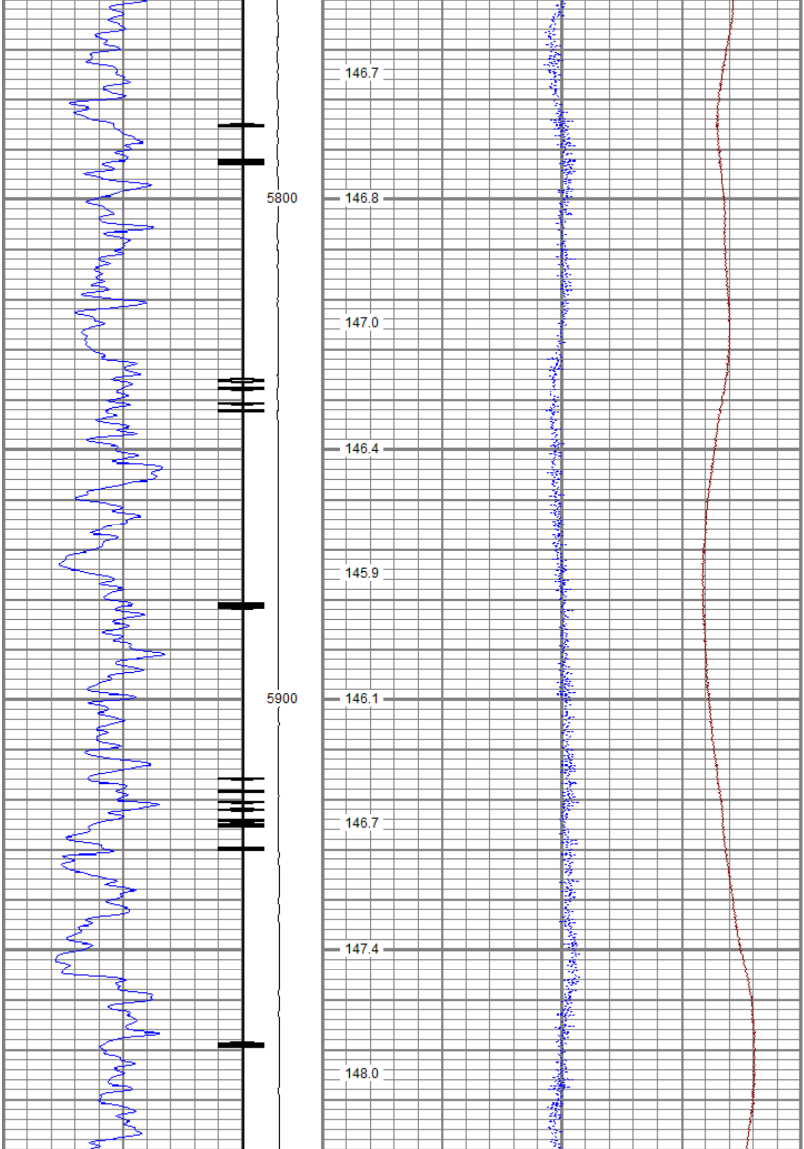
146.9



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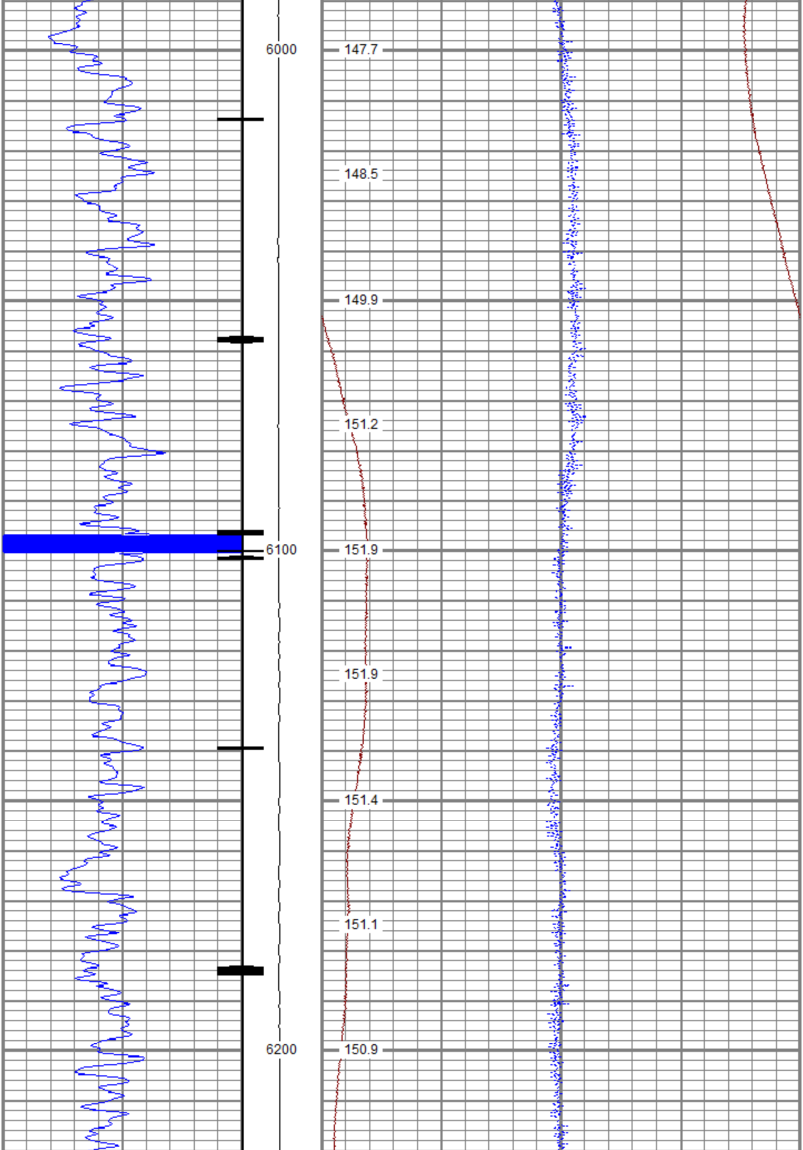

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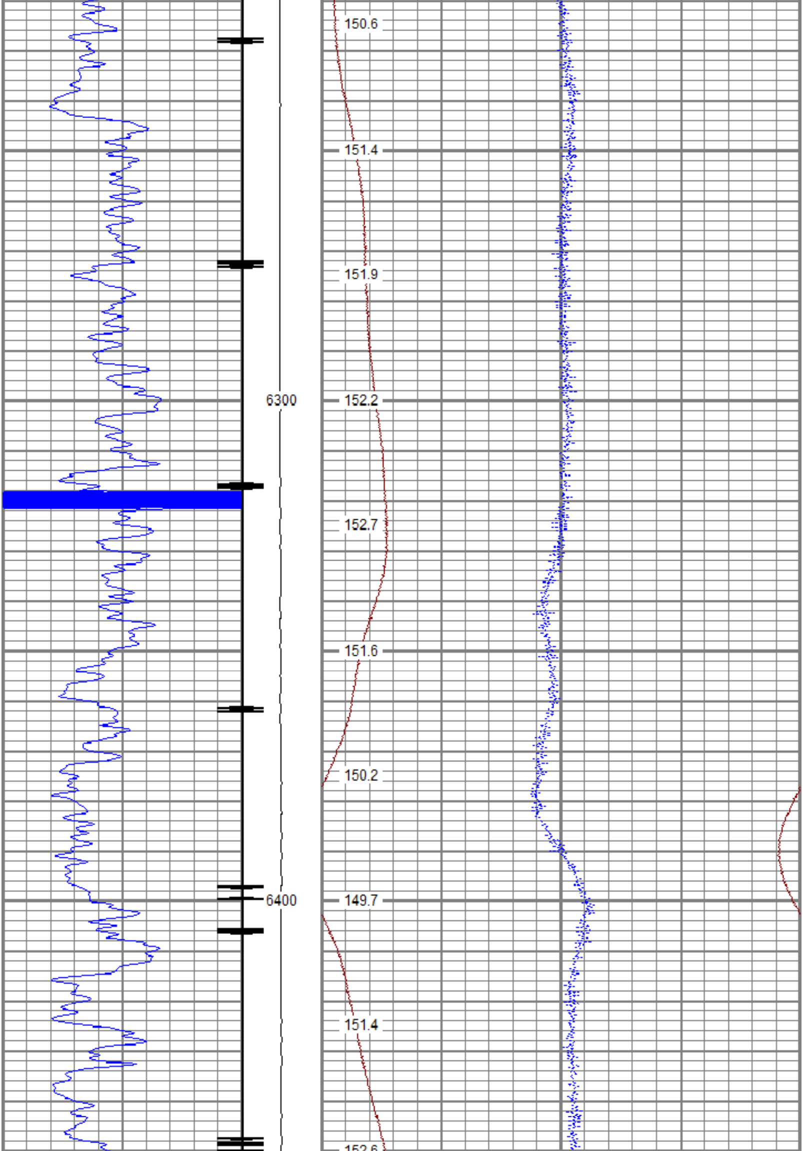
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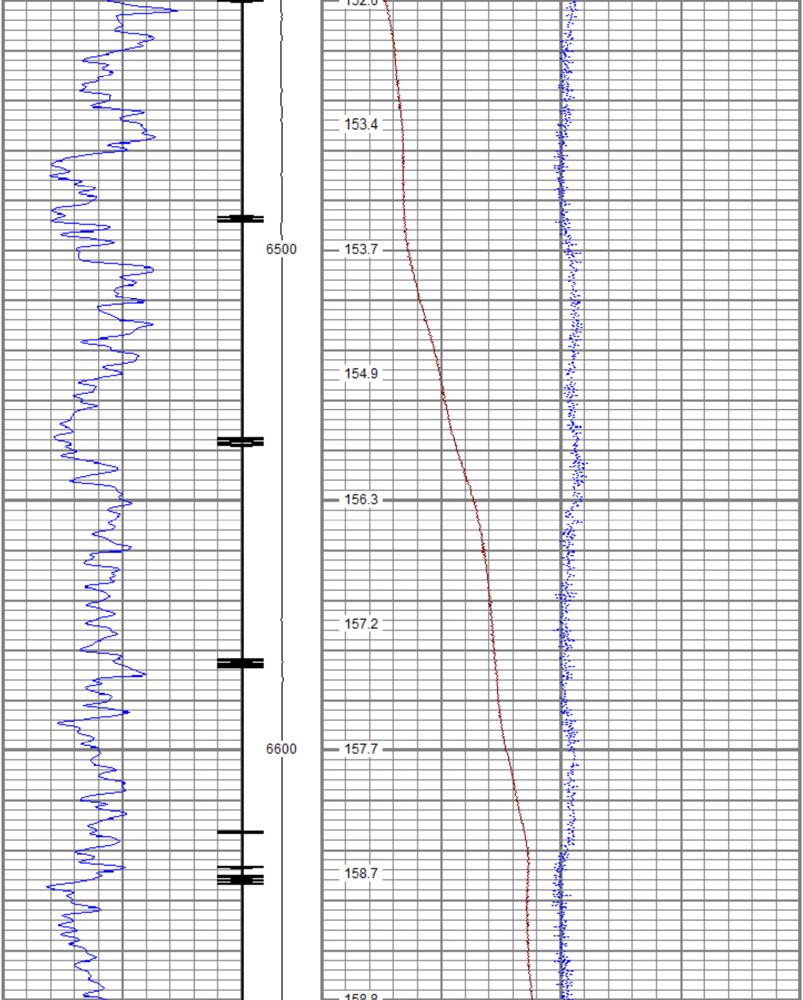
149.7
151.4
152.6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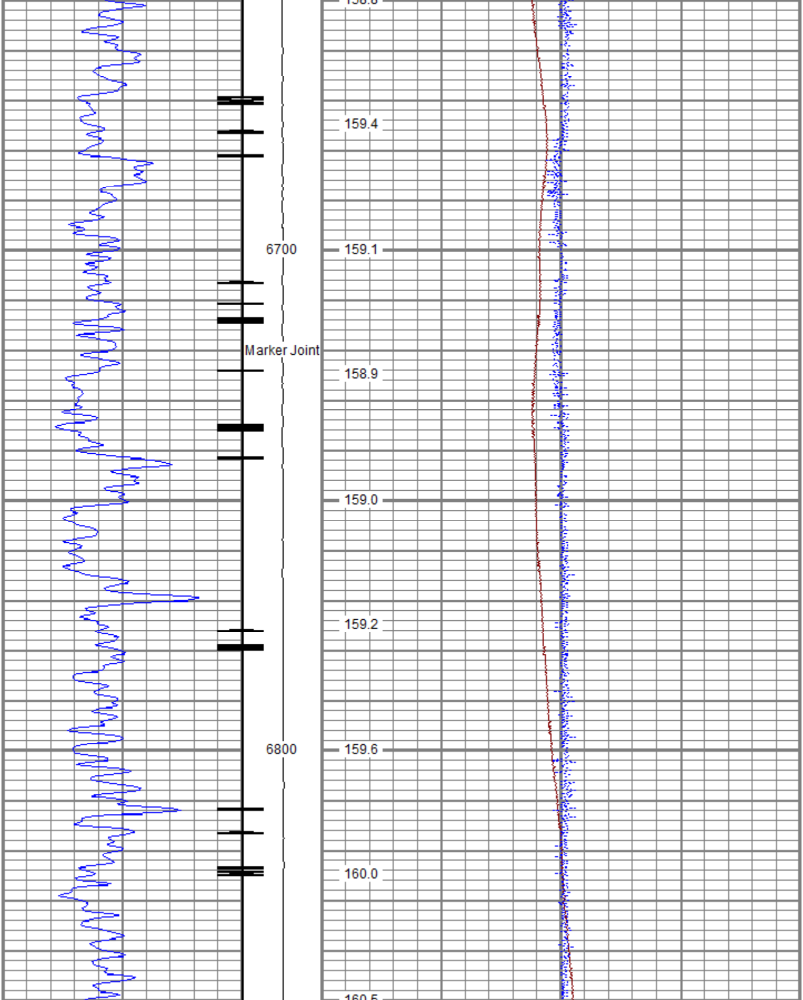
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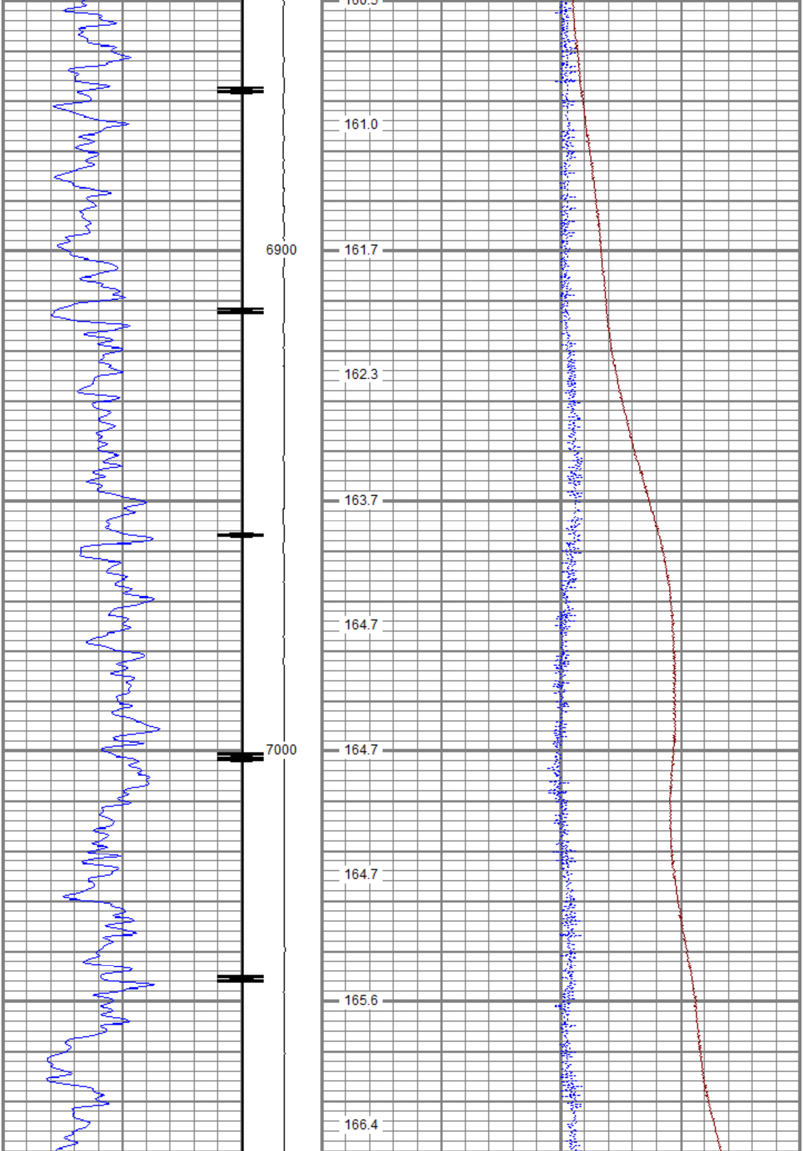
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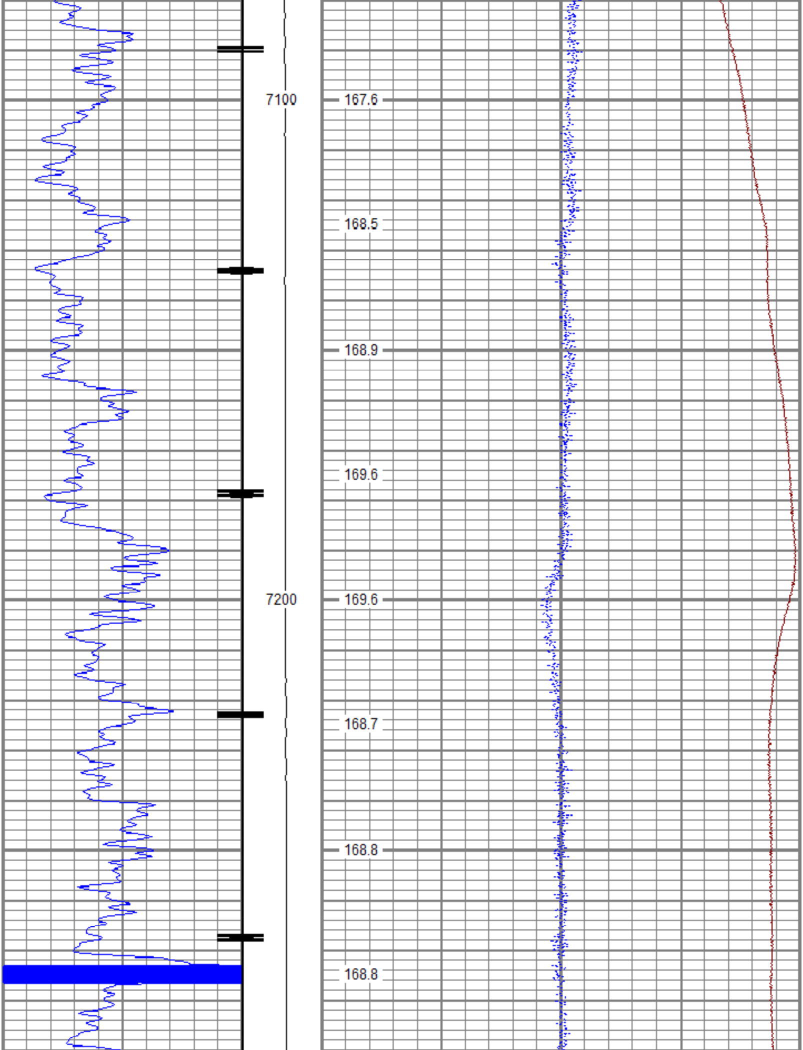
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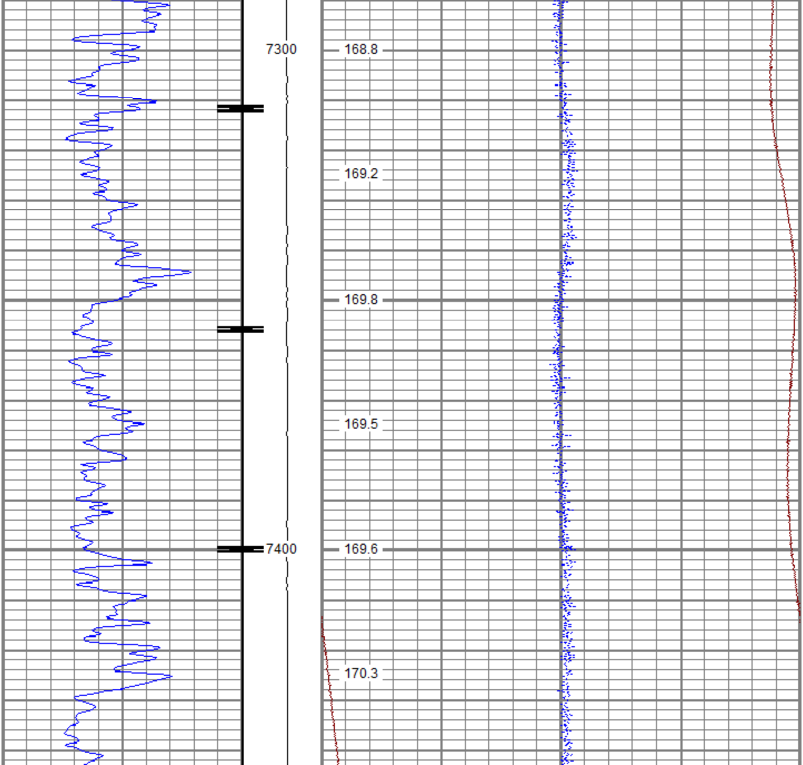
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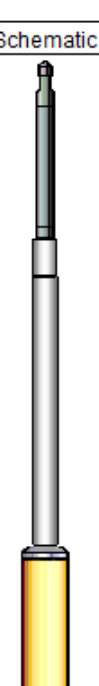
Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			Titan CHD-14375 GO Titan 1-7/16" Assembled Electric Cable Head w/ 1" Fishing Neck	1.03	1.44	3.60
			UW AGS-001 (211461) Sondex Adapter - GO Box to Sondex Pin	0.21	1.69	1.00
			UW XTU-002 (10017430) Crossover Ultrawire Toolbus to Ultralink	1.58	1.69	6.50
CCL	3.70		UW CCL-028 (10024821) 3-1/8" Ultrawire Casing Collar Locator	1.61	3.13	36.00
GR	1.76		UW PGR-020 (10019371) Production Gamma Ray	1.92	1.69	9.50
TEMP	0.37		UW PRT-016 (10025100) Platinum Resistance Thermometer	1.04	1.69	5.20
TSTAMP	0.00		UW BUL-006 (10019616) Sondex Ultrawire Bullnose Terminator Sub	0.22	1.69	1.20

Dataset: TEP_Federal RU 414-17_TEMP_05-10-18.db: field/well/run1/main2
Total length: 7.62 ft
Total weight: 63.00 lb
O.D.: 3.13 in

Calibration Report

Database File C:\ProgramData\Warrior\Data\TEP_Federal RU 414-17\TEP_Federal RU 414-17_TEMP_05-10-18.db
Dataset Pathname main
Dataset Creation Fri May 11 01:07:34 2018

Temperature Calibration Report

Serial Number: 10025100
Tool Model: 016
Performed: Sun Nov 12 13:30:03 2017

Point #	Reading		Reference	
1	13249.00	cps	68.00	degF
2	18454.00	cps	104.00	degF
3	29735.00	cps	176.00	degF
4	41457.00	cps	248.00	degF
5	52851.00	cps	320.00	degF
6	59128.00	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:	020	
Performed:	Sun Nov 12 05:37:04 2017	
Calibrator Value:	637.0	GAPI
Background Reading:	78.8	cps
Calibrator Reading:	1069.9	cps
Sensitivity:	0.6427	GAPI/cps

RELIANCE
OILFIELD SERVICES

Company	TEP Rocky Mountain LLC
Well	Federal RU 414-17
Field	Rulison
County	Garfield
State	Colorado