THE WIRELINE GROUP

# Radial Cement Bond
# Gamma Ray
# Casing Collar Log

| | |
|---|---|
| Company | TEP Rocky Mountain LLC |
| Well | Leverich SR 422-13 |
| Field | Rulison |
| County | Garfield |
| State | Colorado |

Company TEP Rocky Mountain LLC
Well Leverich SR 422-13
Field Rulison
County Garfield State Colorado
Location: API #: 05-045-24566
SEC 13 TWP 7S RGE 94W
Other Services

| | | | |
|---|---|---|---|
| Permanent Datum | Ground Level | Elevation 8007' | Elevation<br>K.B. 8037'<br>D.F. 8037'<br>G.L. 8007' |
| Log Measured From | Kelly Bushing | | |
| Drilling Measured From | Kelly Bushing | | |

| | |
|---|---|
| Date | 04-OCT-2023 |
| Run Number | One |
| Depth Driller | 10753' |
| Depth Logger | 10692' |
| Bottom Logged Interval | 10686' |
| Top Log Interval | Surface |
| Open Hole Size | 8.75" |
| Type Fluid | Water |
| Density / Viscosity | 8.34 Lb/Gal |
| Max. Recorded Temp. | 258°F |
| Estimated Cement Top | See Log |
| Time Well Ready | ROA |
| Time Logger on Bottom | 11:00 |
| Equipment Number | 8102 |
| Location | Grand Junction |
| Recorded By | P. Edwards |
| Witnessed By | D. Welsh |

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

| Casing Record | Size | Wgt/Ft | Top | Bottom |
|---|---|---|---|---|
| Surface String | 9.625" | 36 | Surface | 1176' |
| Prot. String | | | | |
| Production String | 4.5" | 11.6 | Surface | 10753 |
| 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 30'
Marker joint logged @ 6450' - 6460'

Thank you for choosing The Wireline Group!

THE WIRELINE GROUP

## Main Pass 5" = 100'

| | |
|---|---|
| Database File | tep_leverich_sr_422-13_rcbl.db |
| Dataset Pathname | main |
| Presentation Format | twgrcbl |
| Dataset Creation | Wed Oct 04 11:05:05 2023 |
| Charted by | Depth in Feet scaled 1:240 |

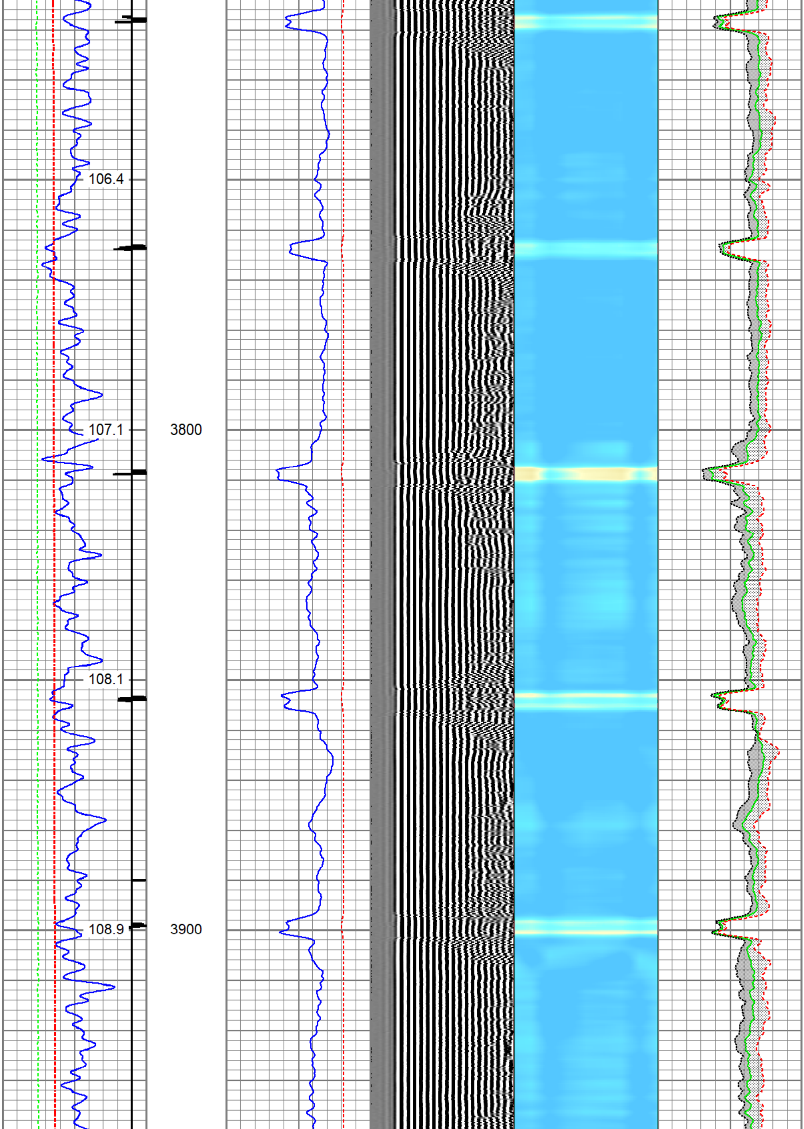
Gamma Ray 0 (GAPI) 150
Line Tension 0 (lb) 4000
-9 CCL$1 1
0 Temp (degF) 300

3' Amplitude 0 (mV) 100
3' Amplitude x 5 0 (mV) 20
3' Travel Time 650 (usec) 150

5' Variable Density Log 200 (usec) 1200

Sector Map

Average Amplitude 0 120
Mimimum Amplitude 0 120
Maximum Amplitude 0 120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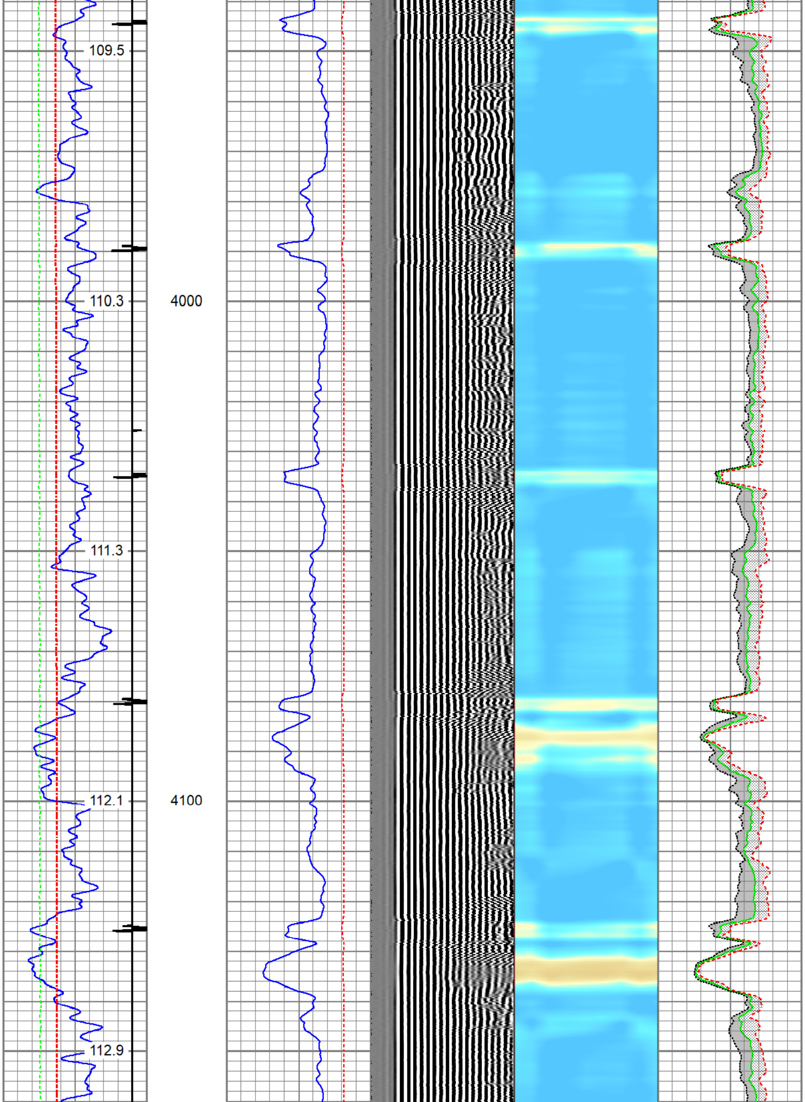
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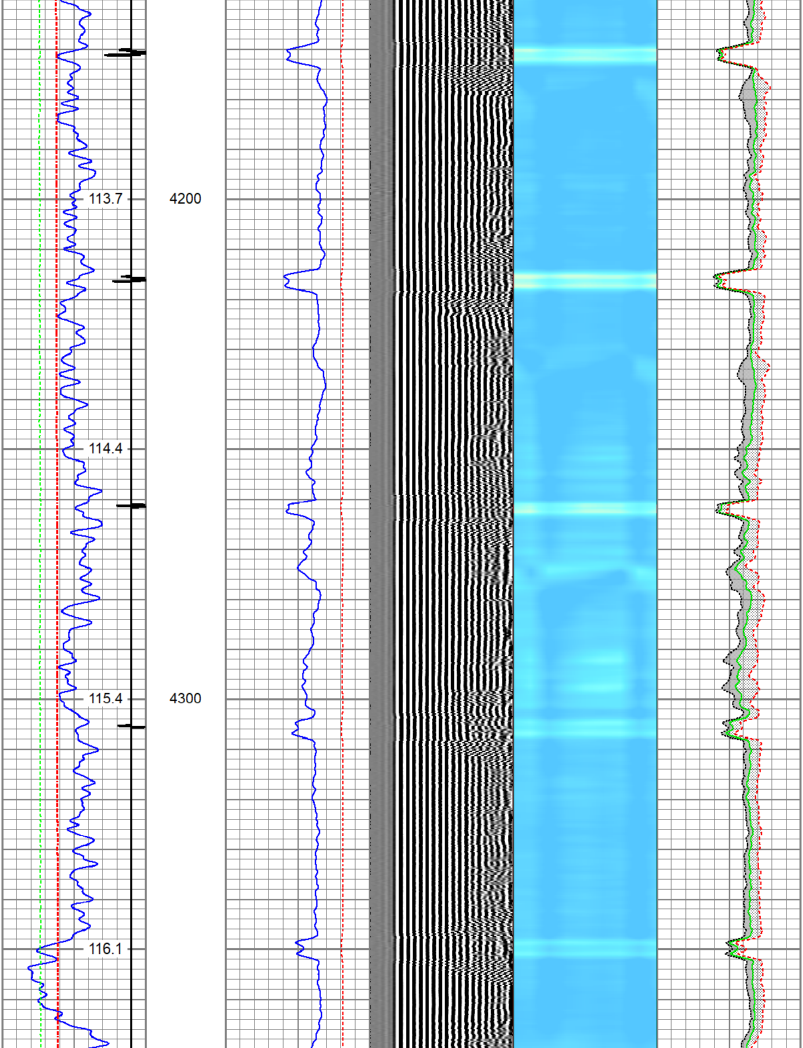
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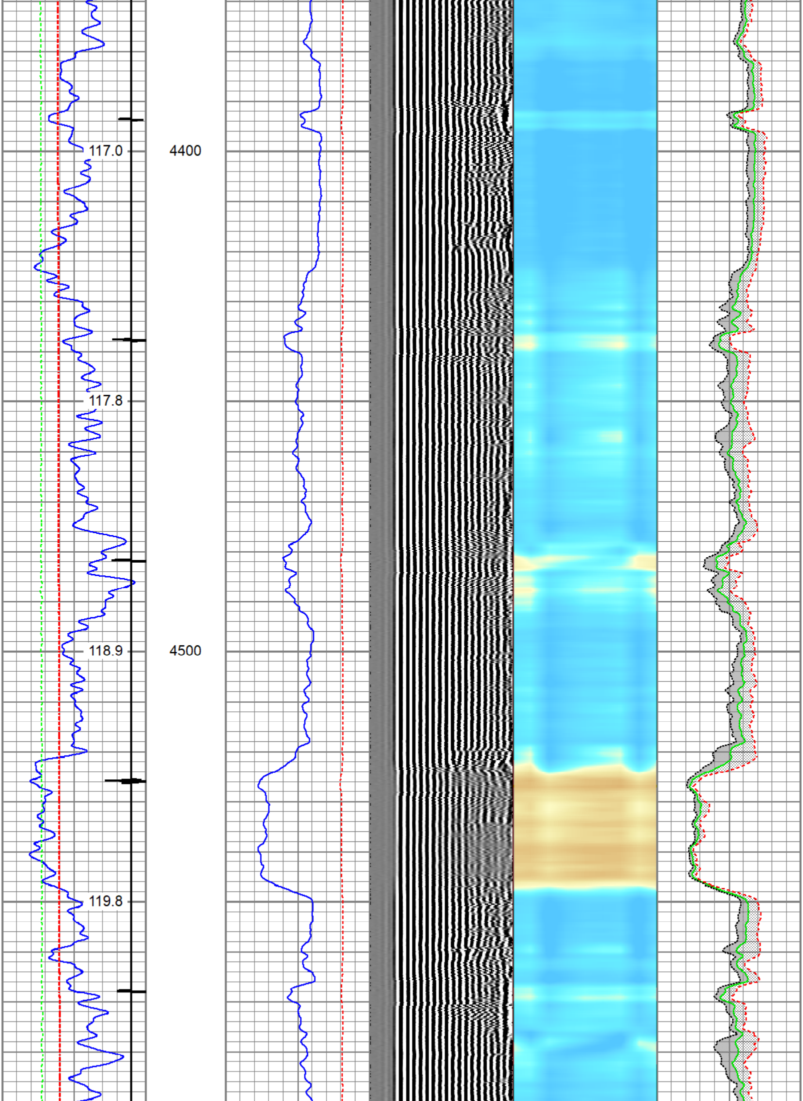
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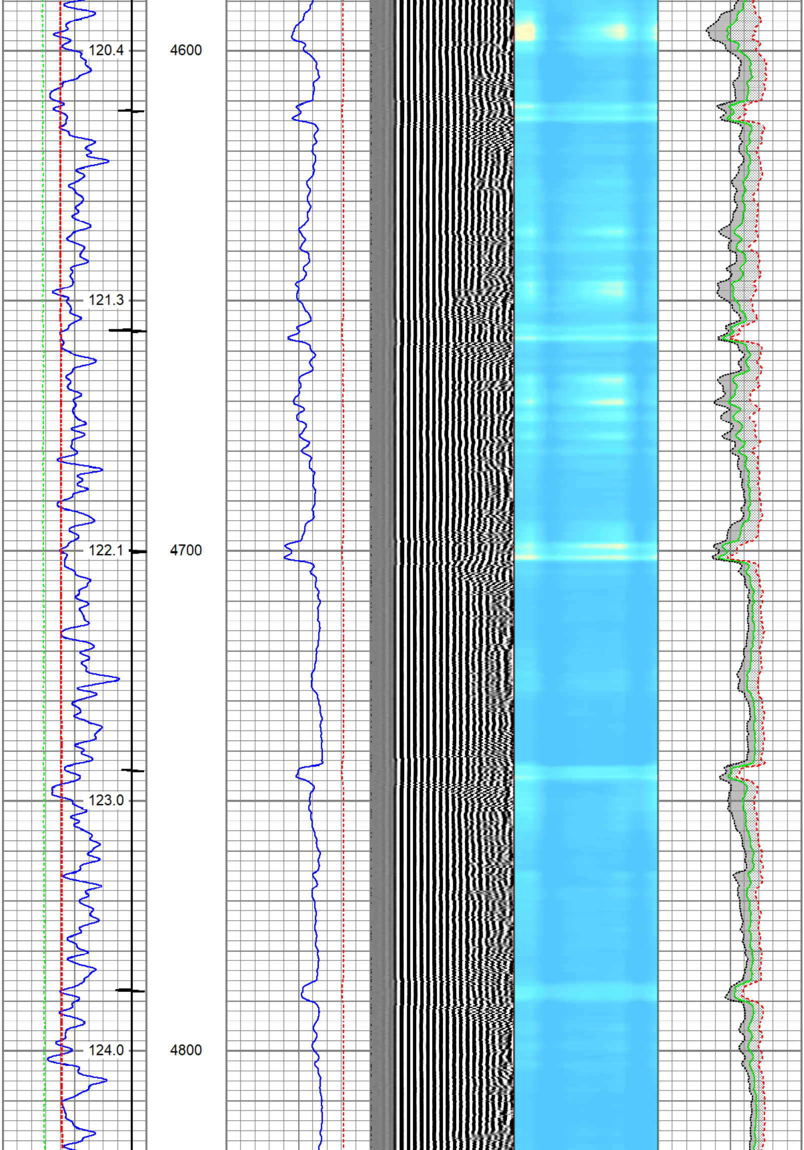
4500
119.8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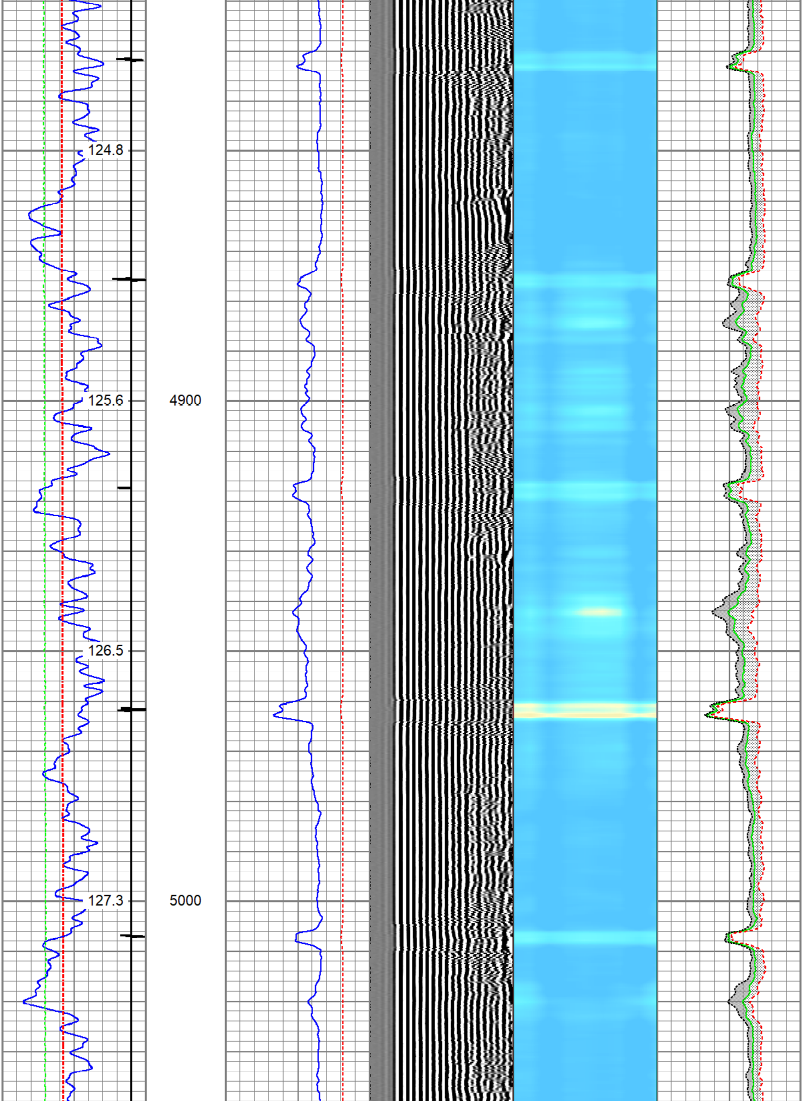
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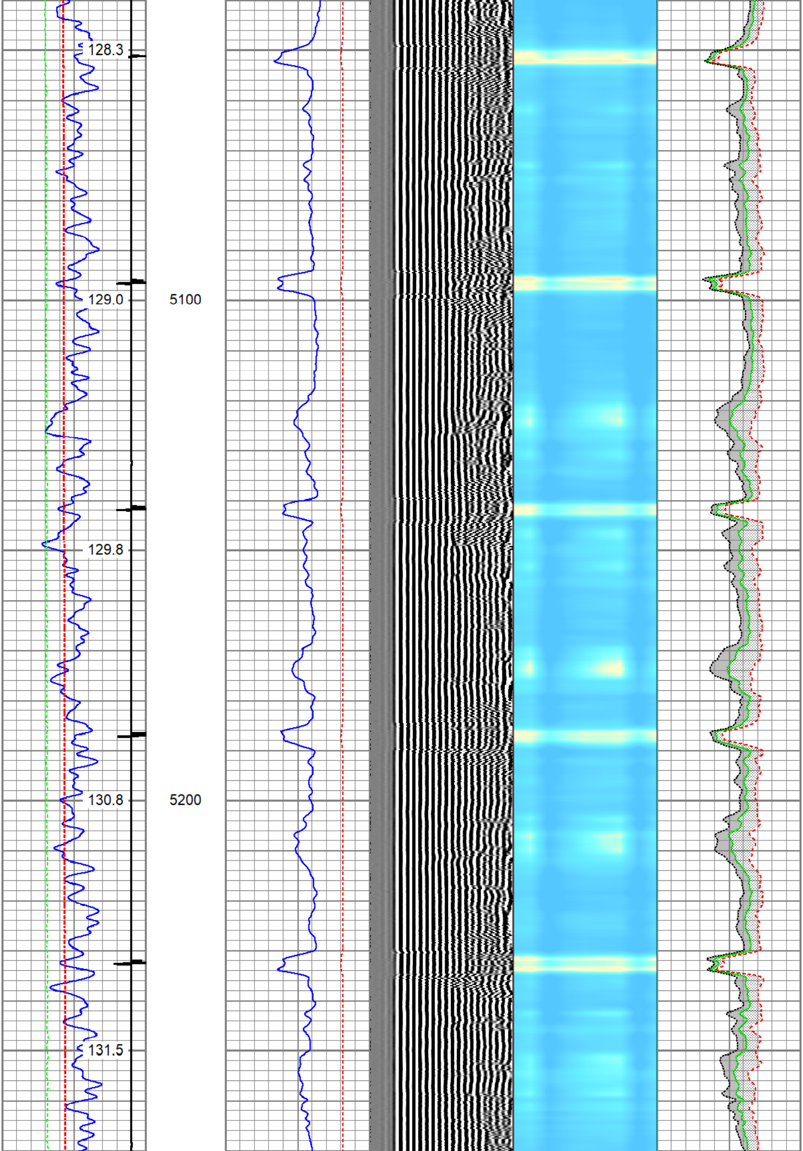
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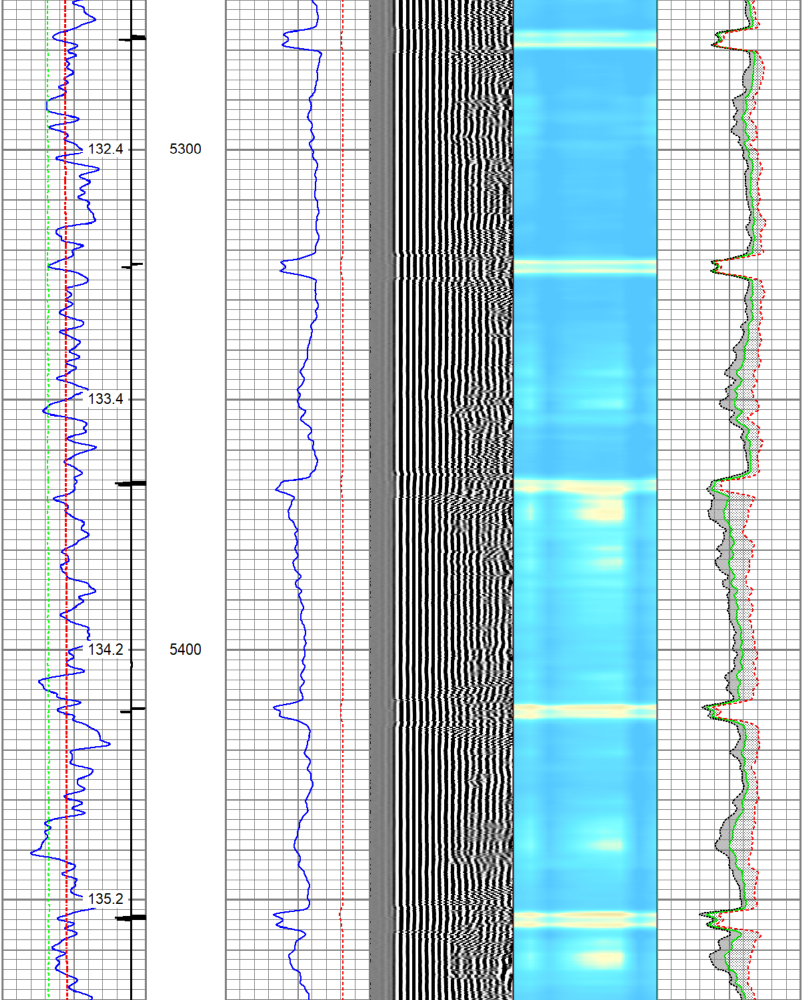
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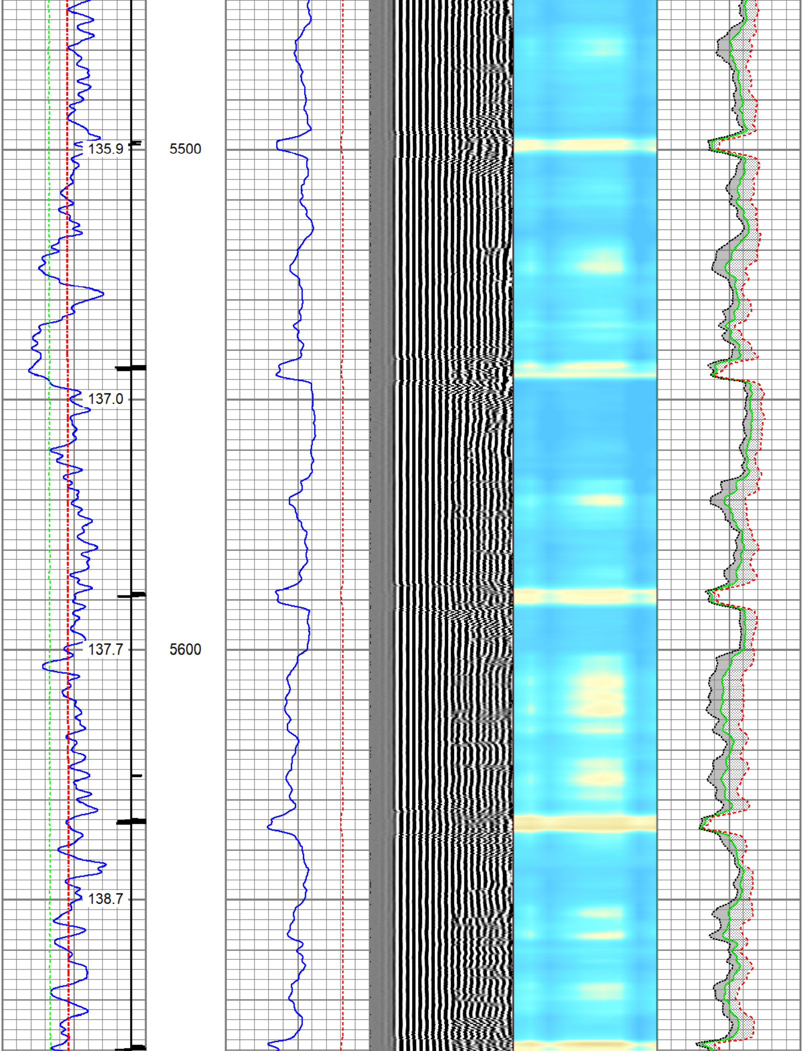
135.2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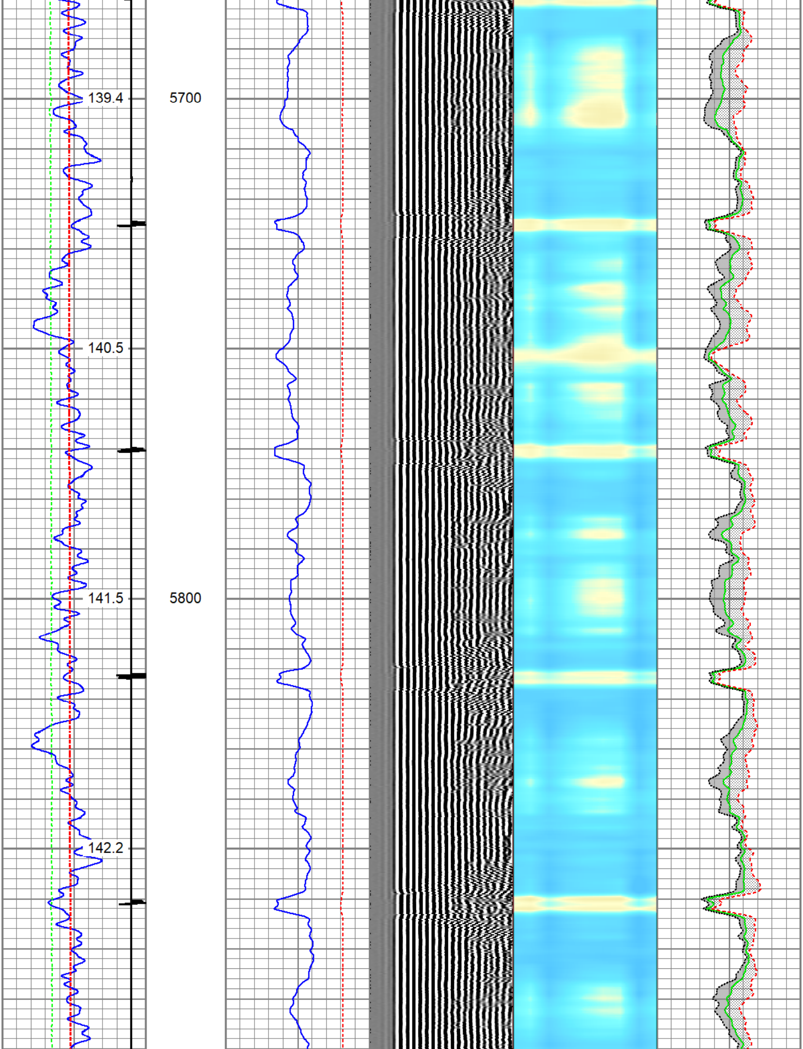
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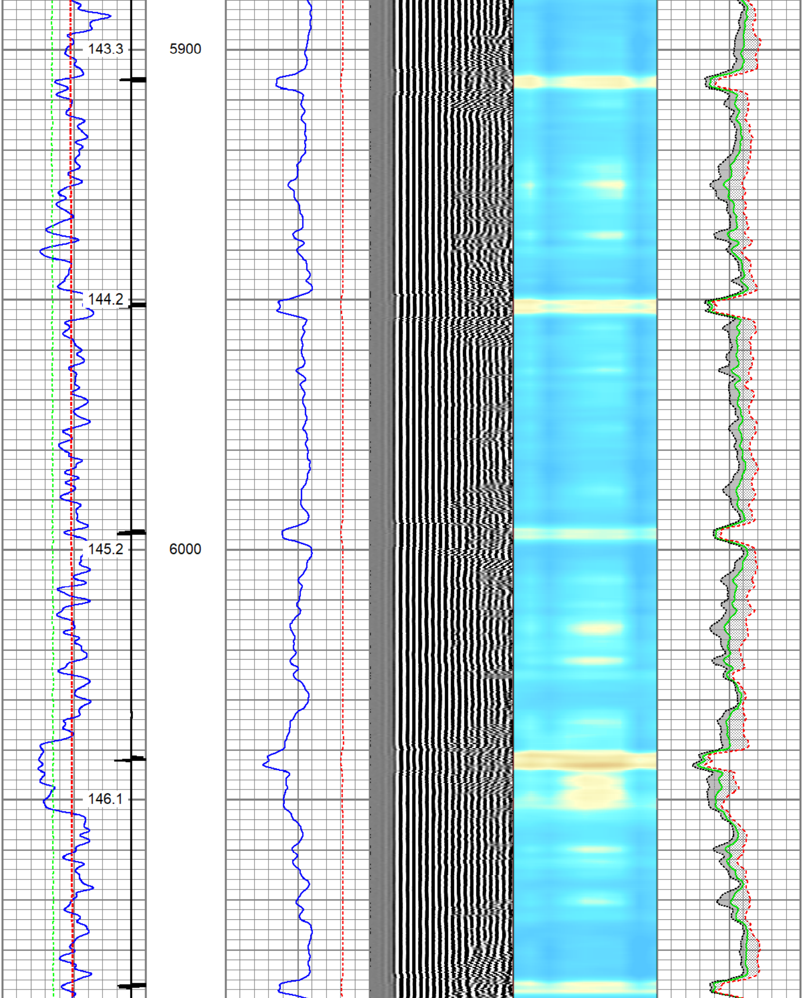
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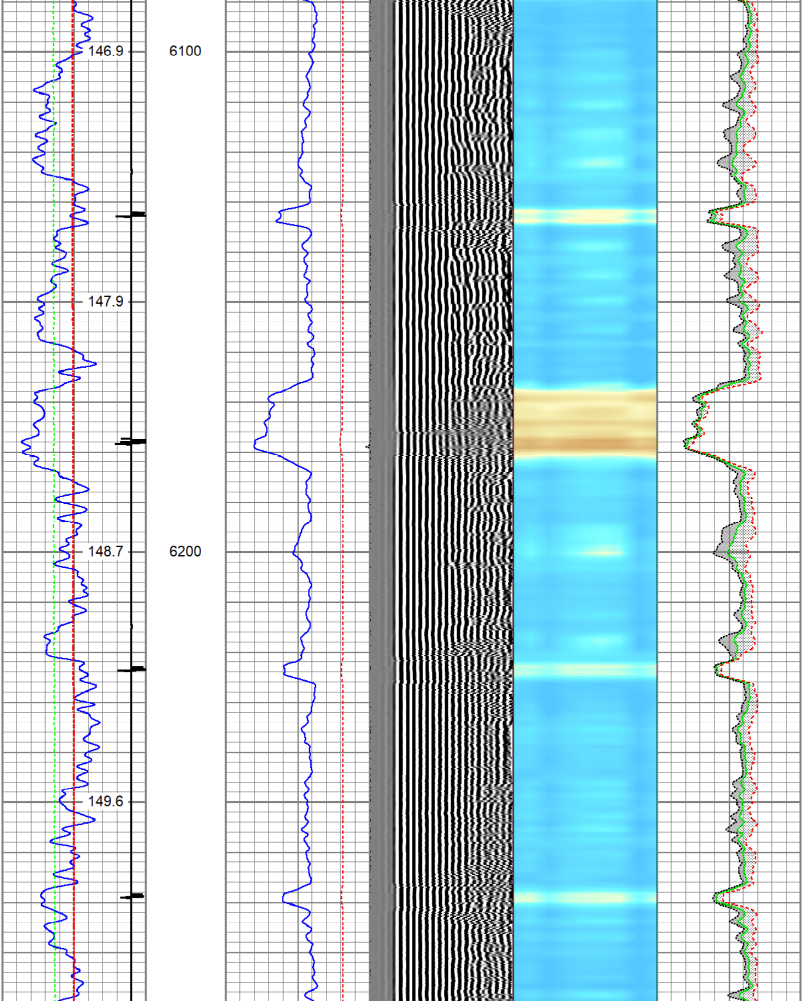
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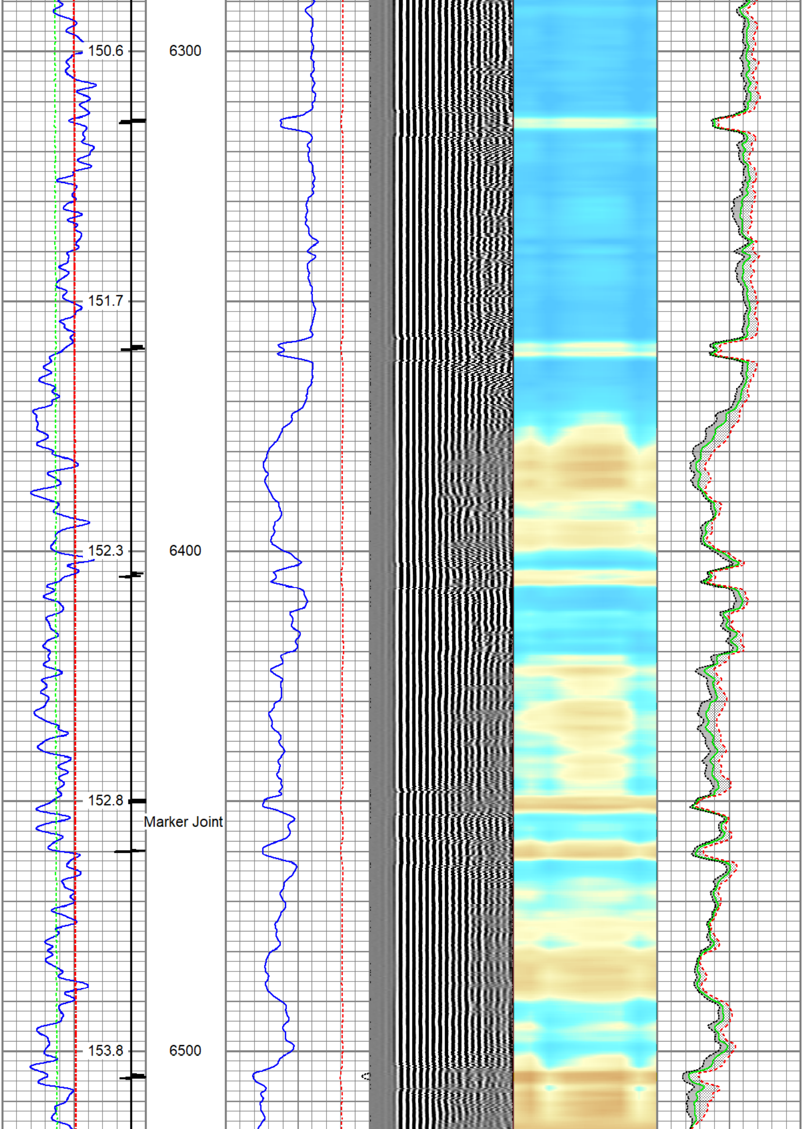
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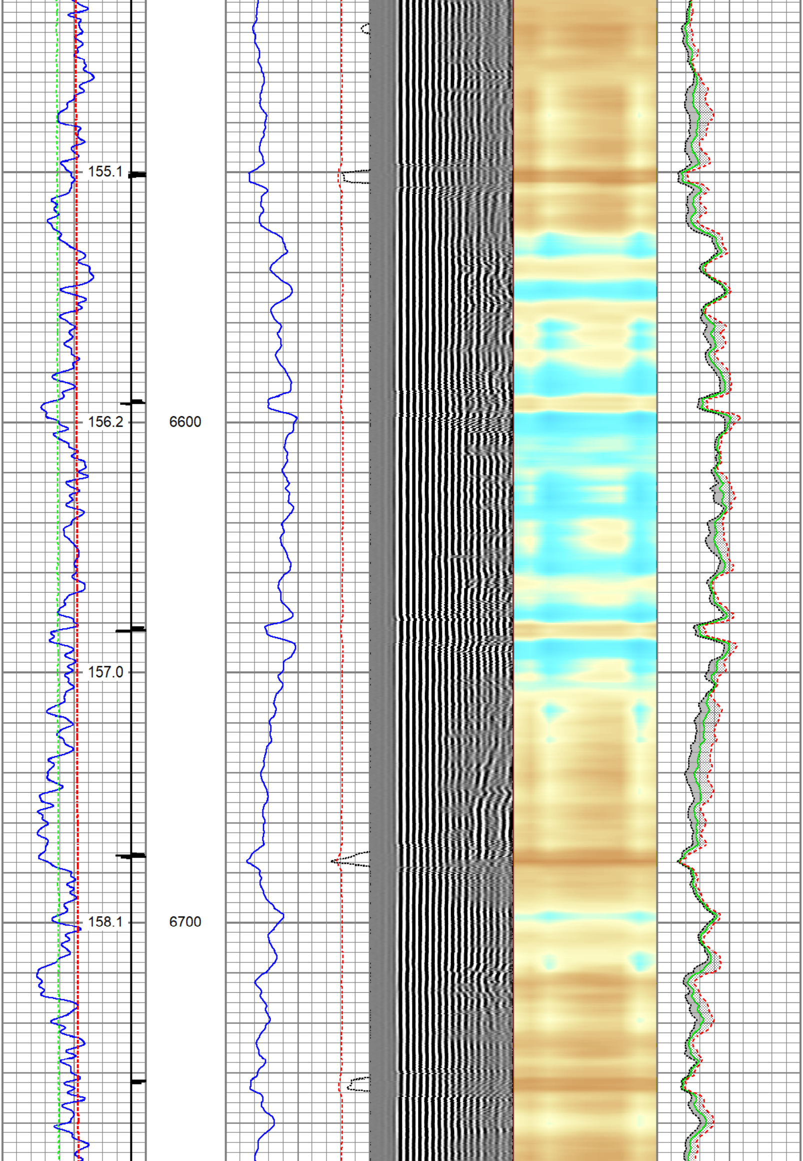
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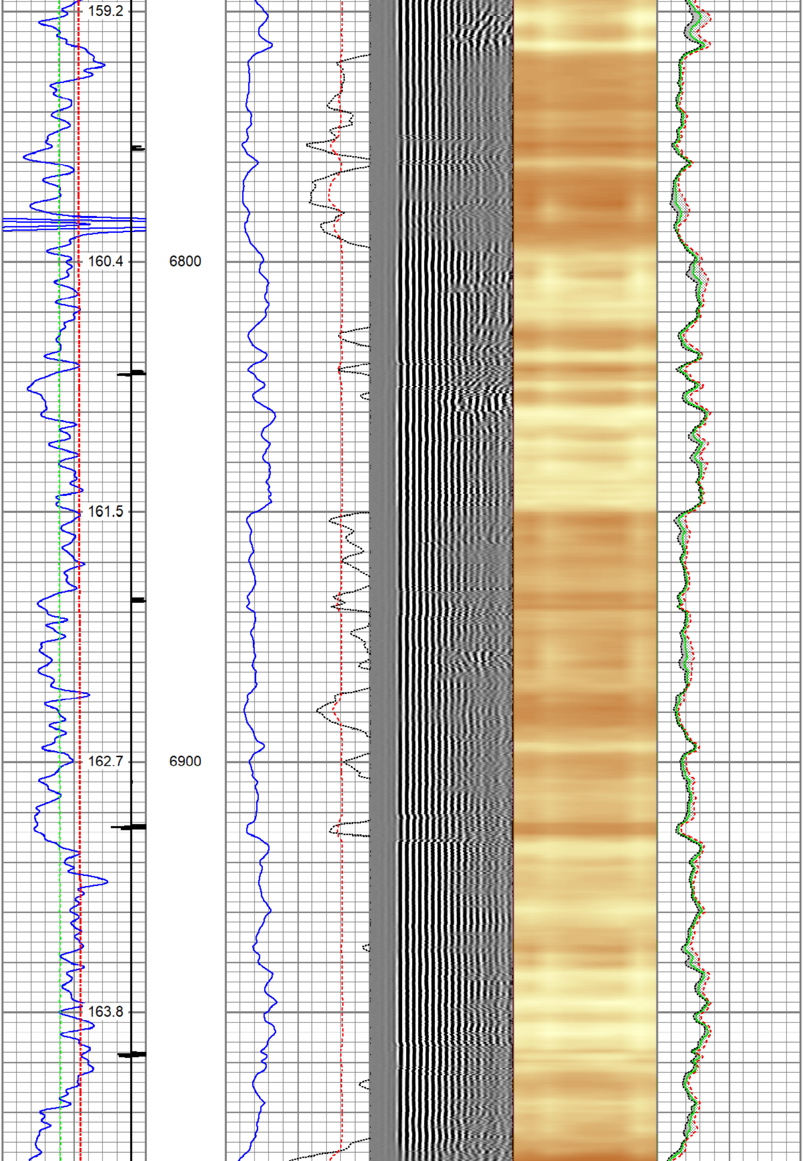
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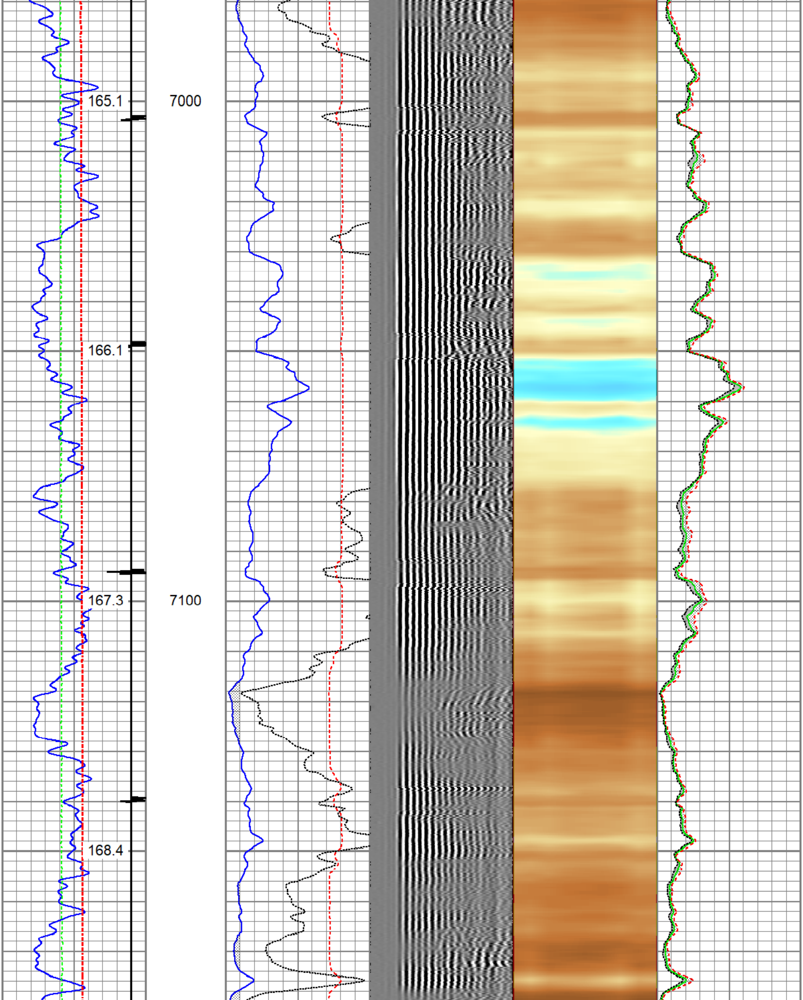
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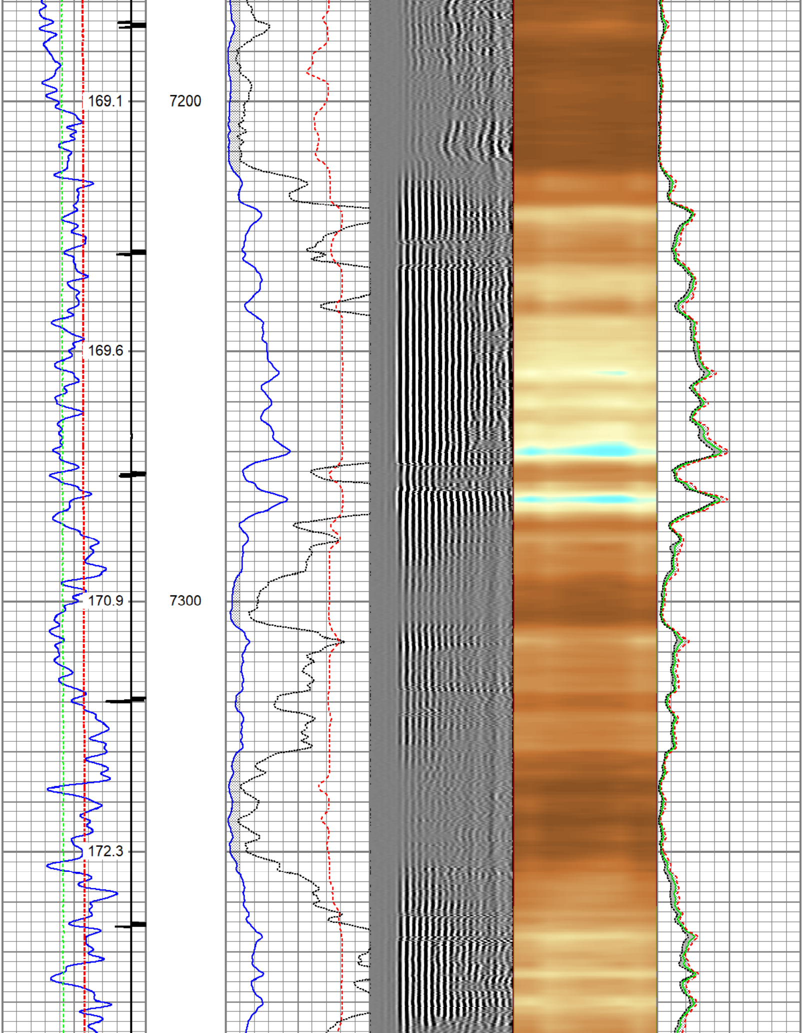
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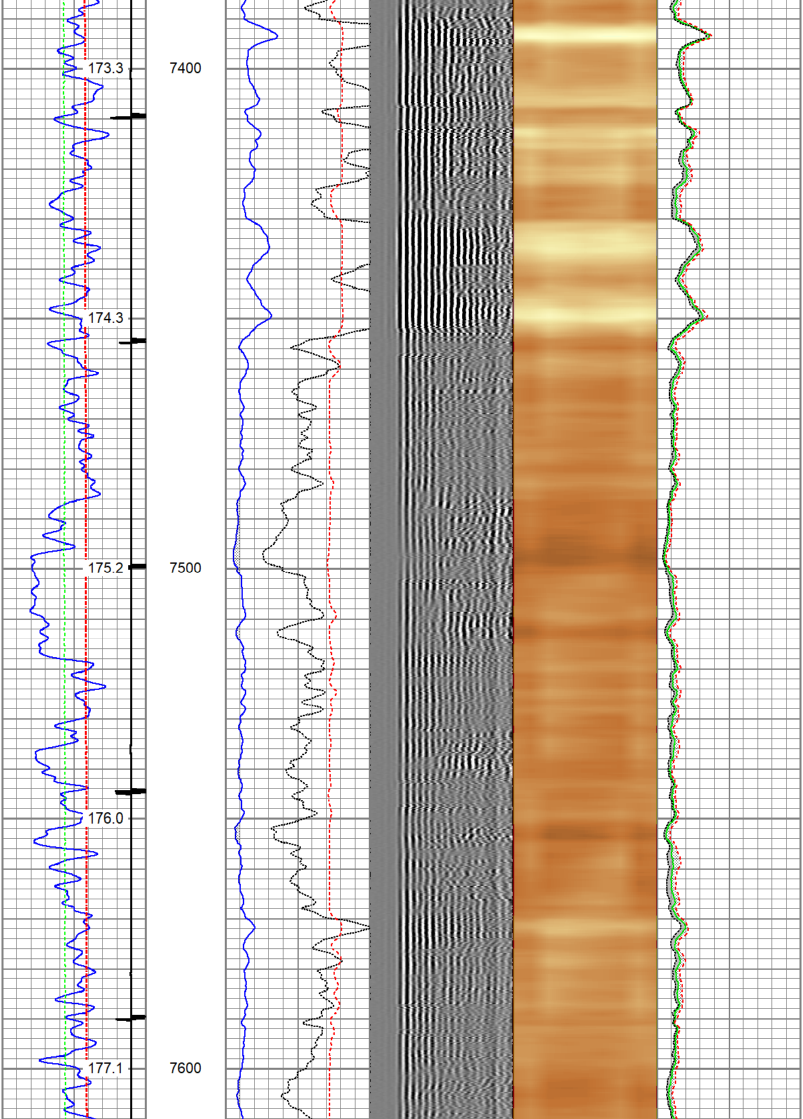
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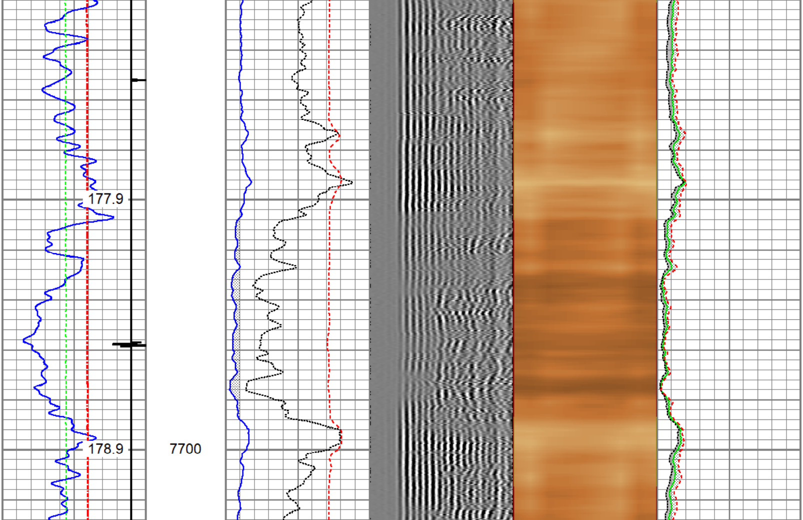
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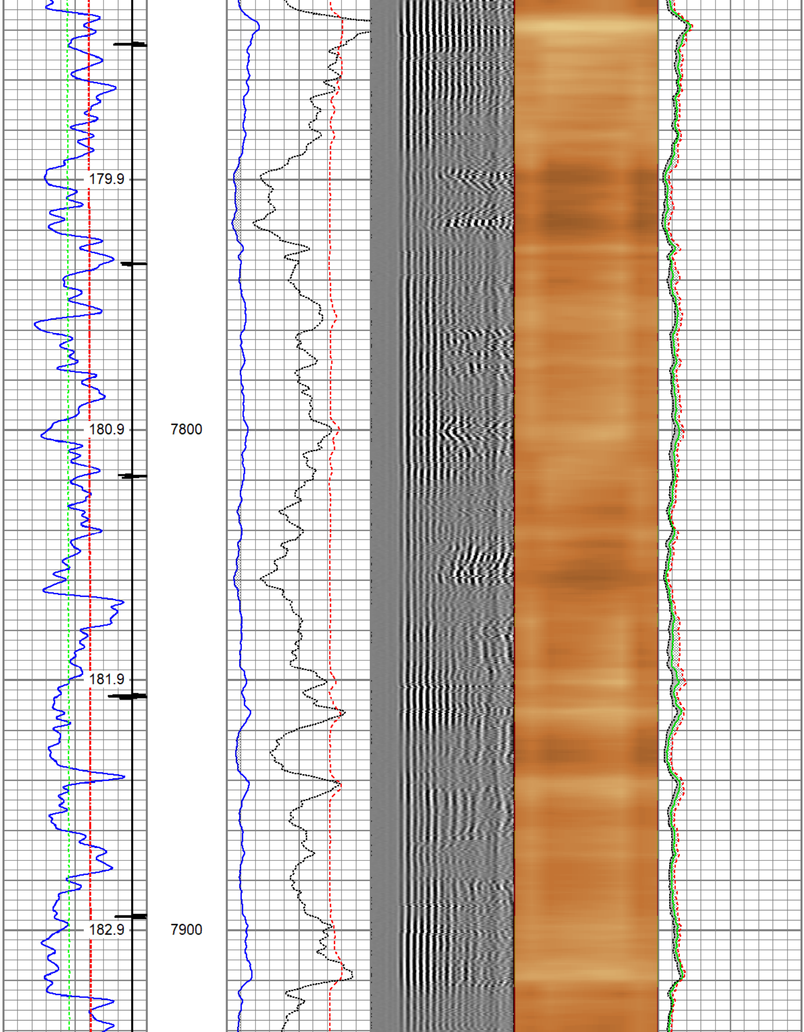

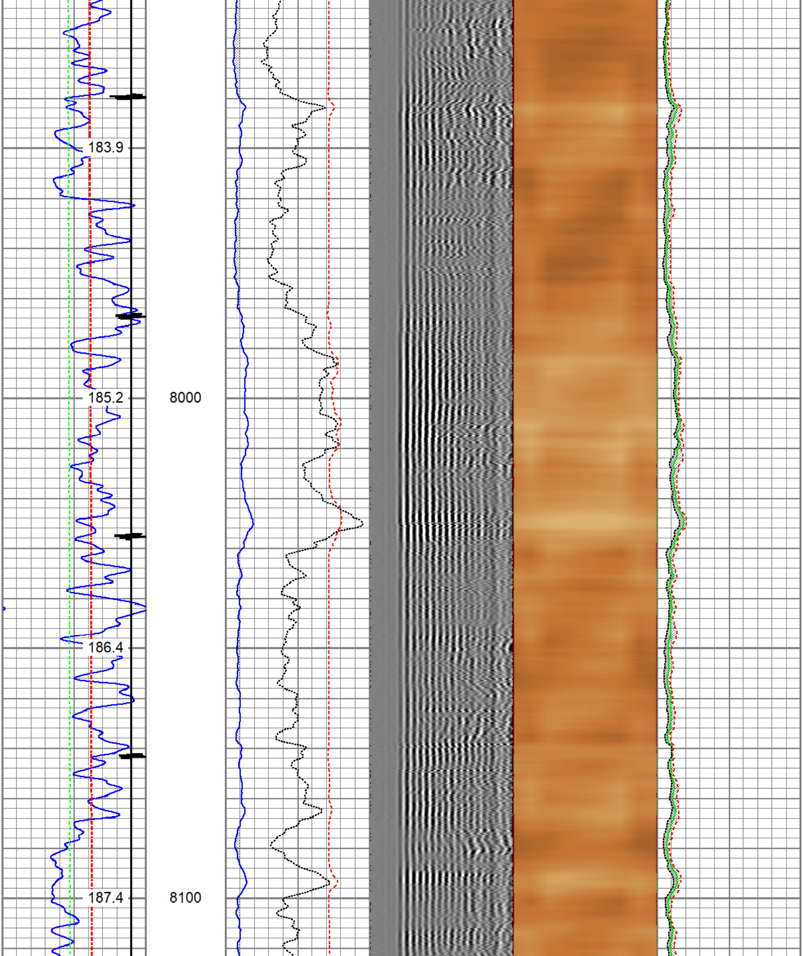

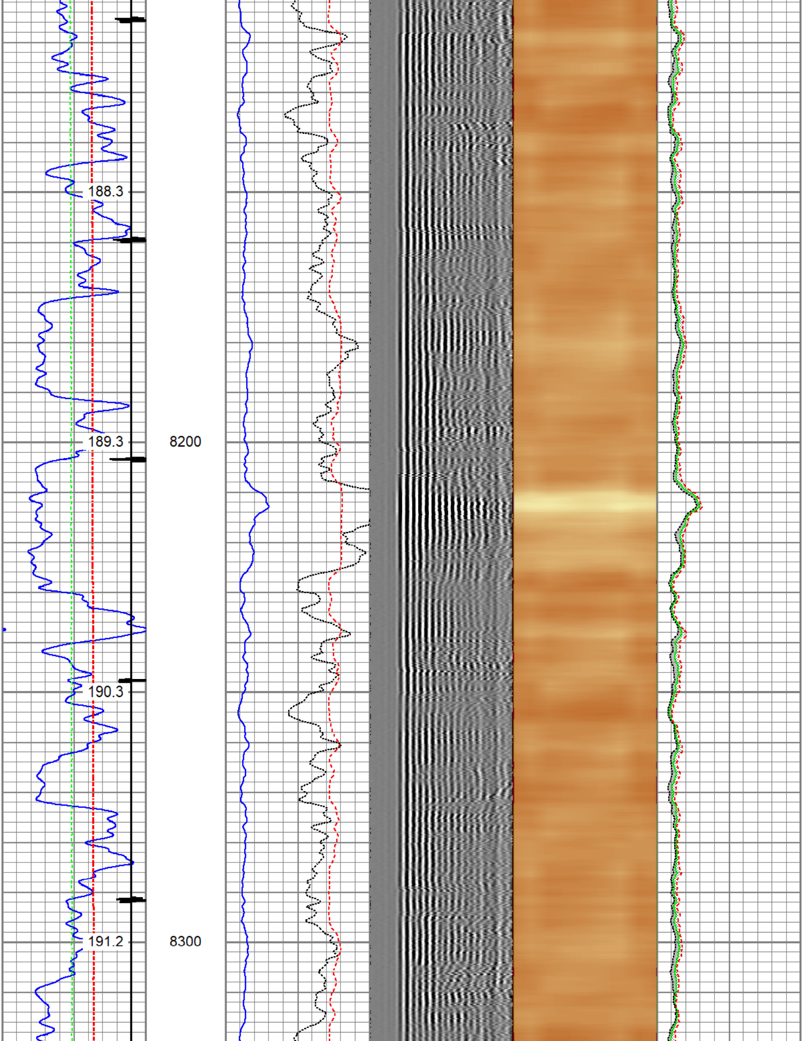

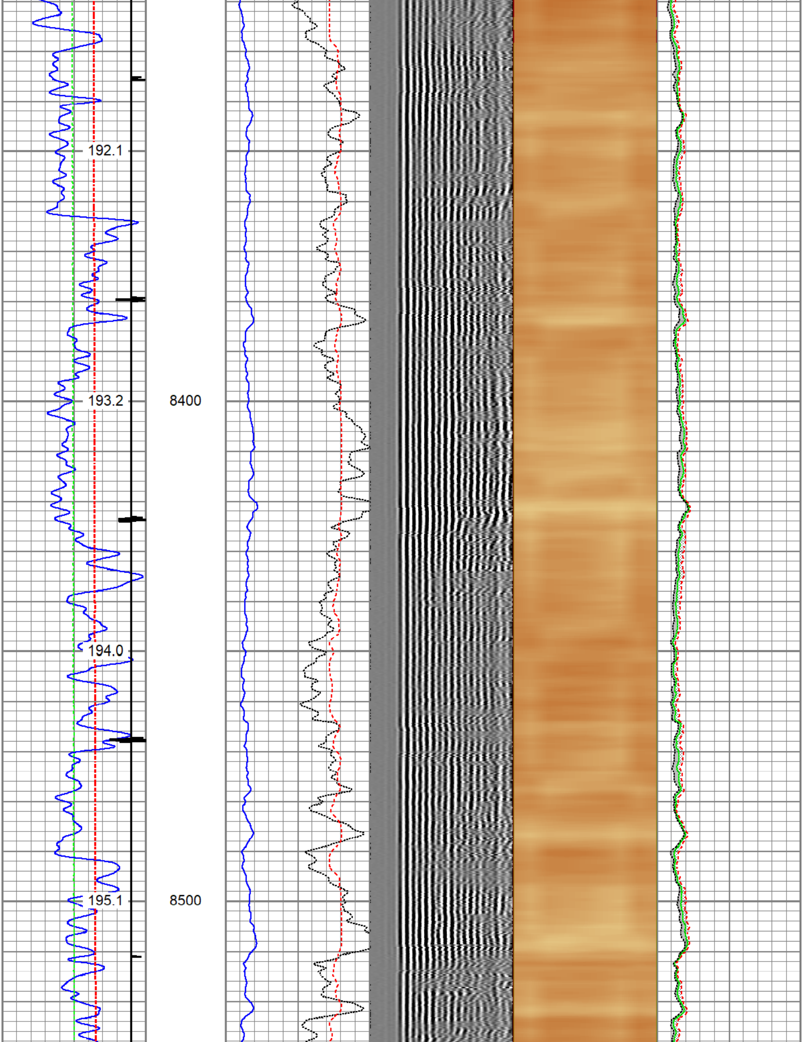

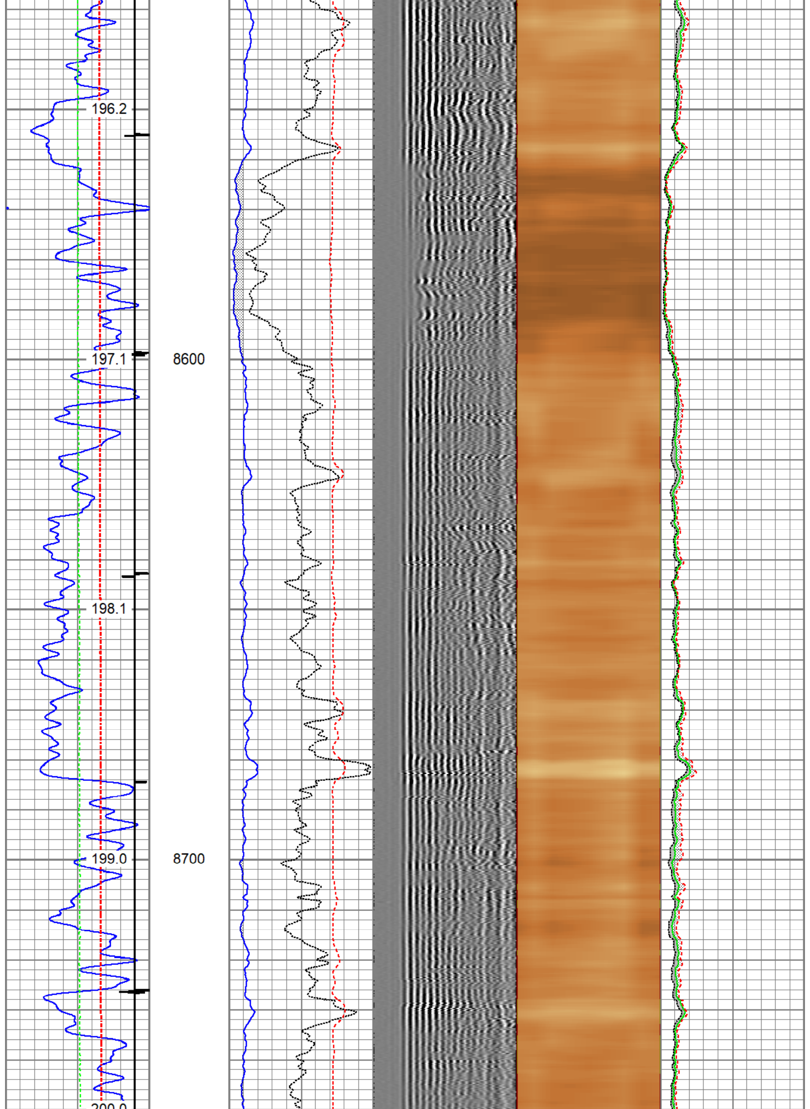

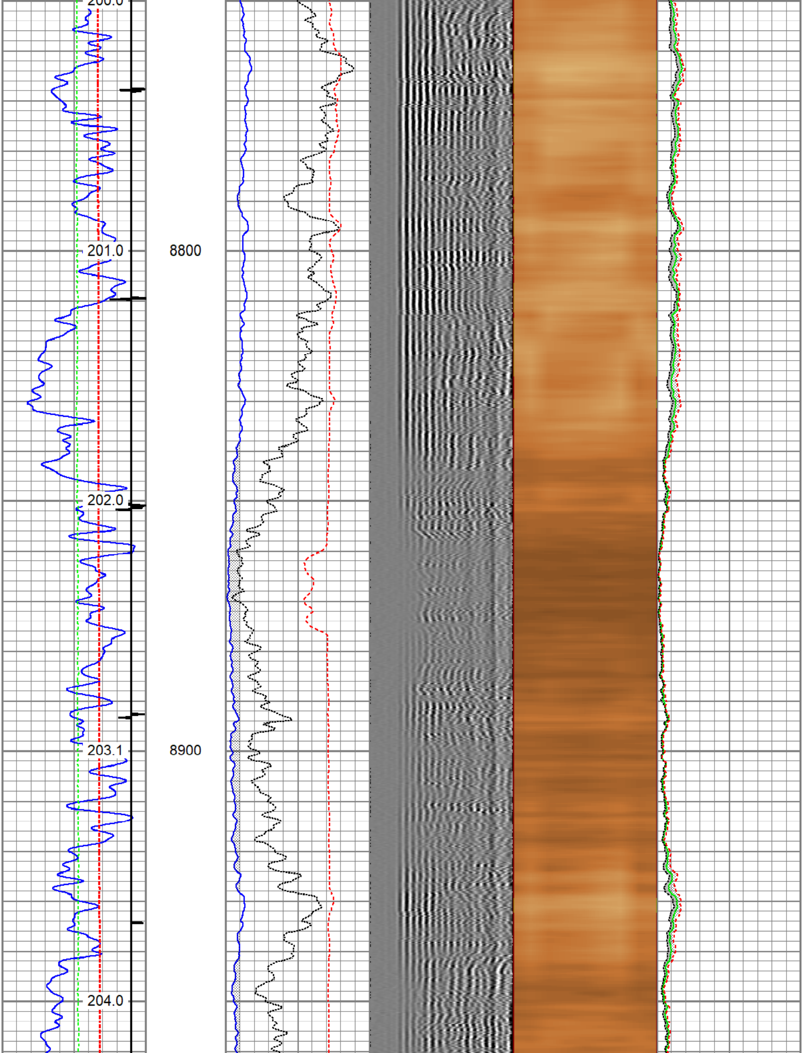

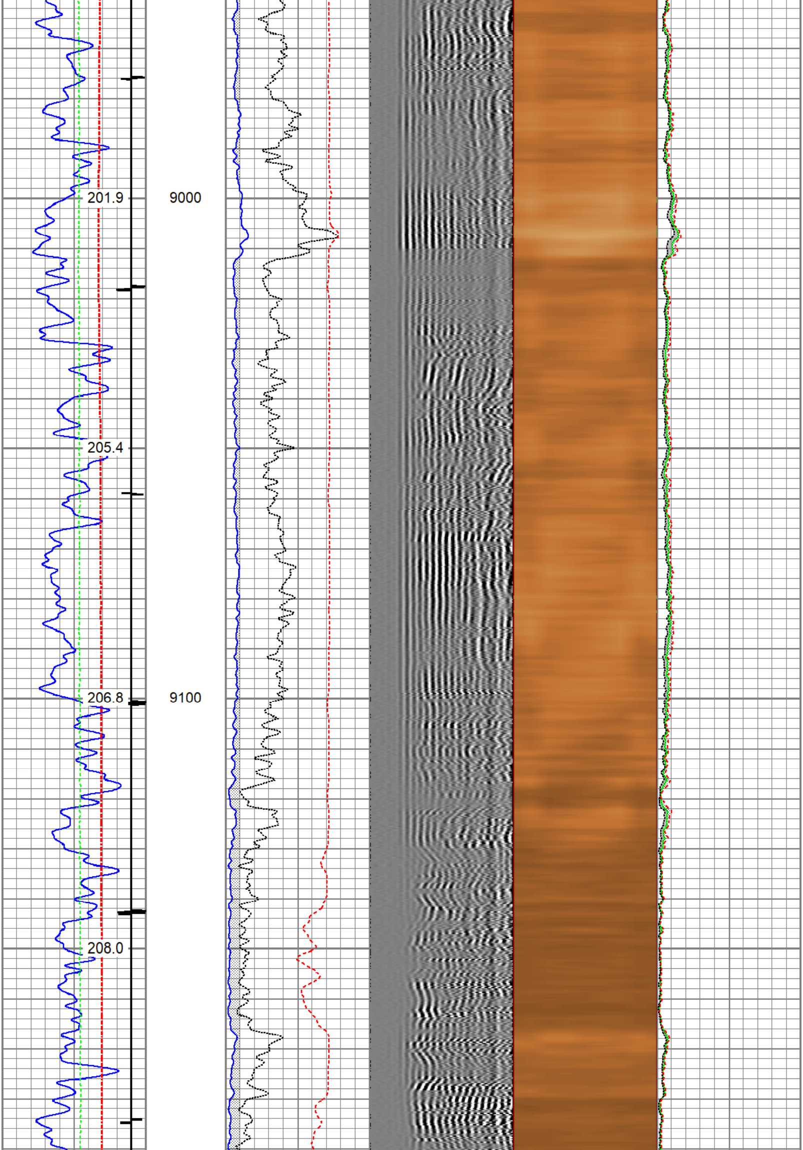

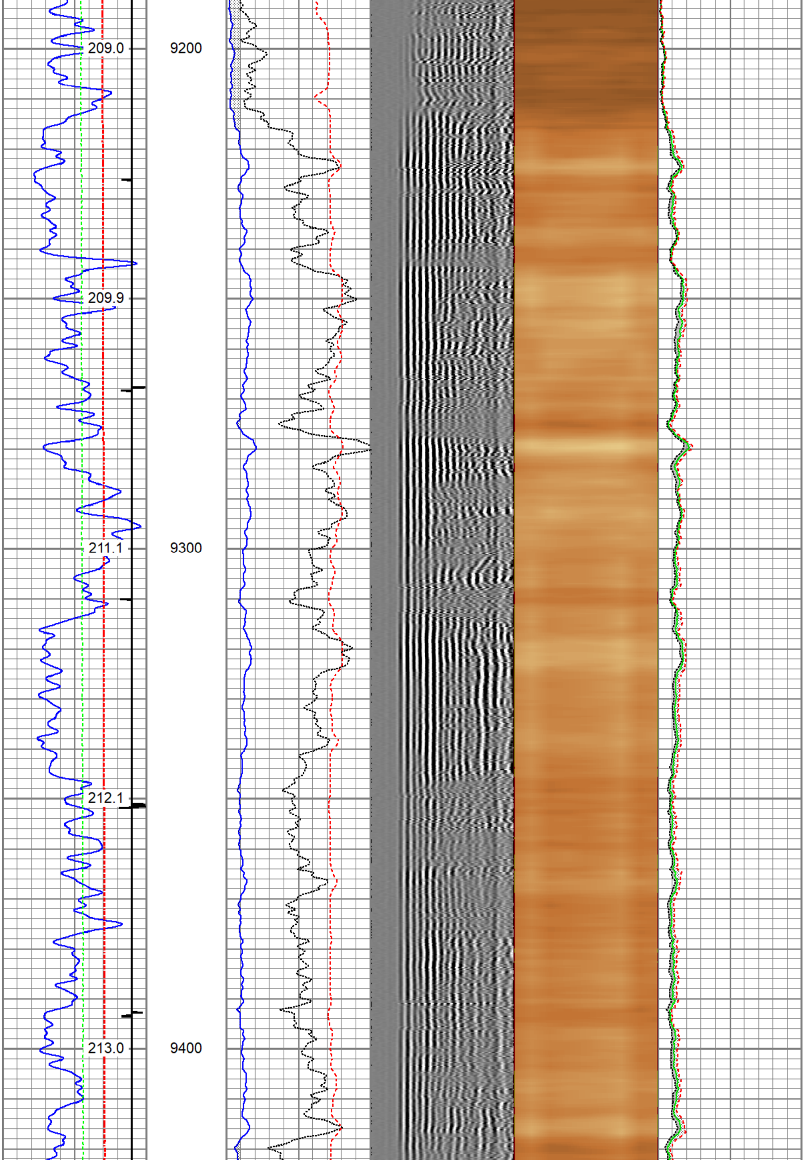

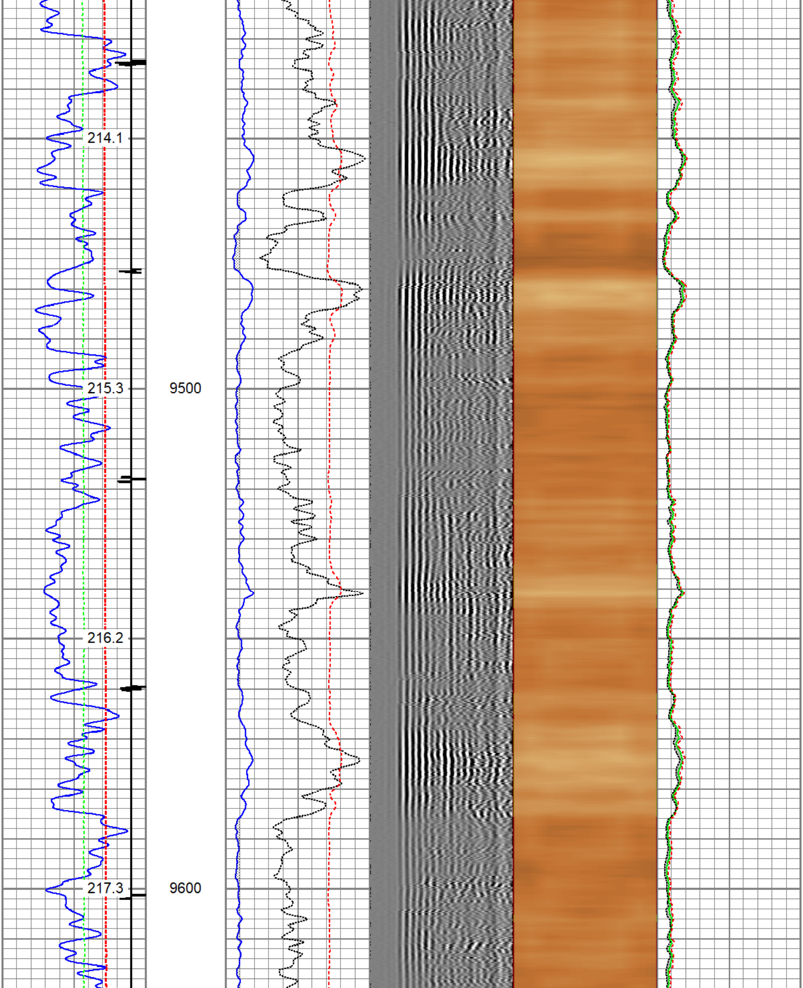

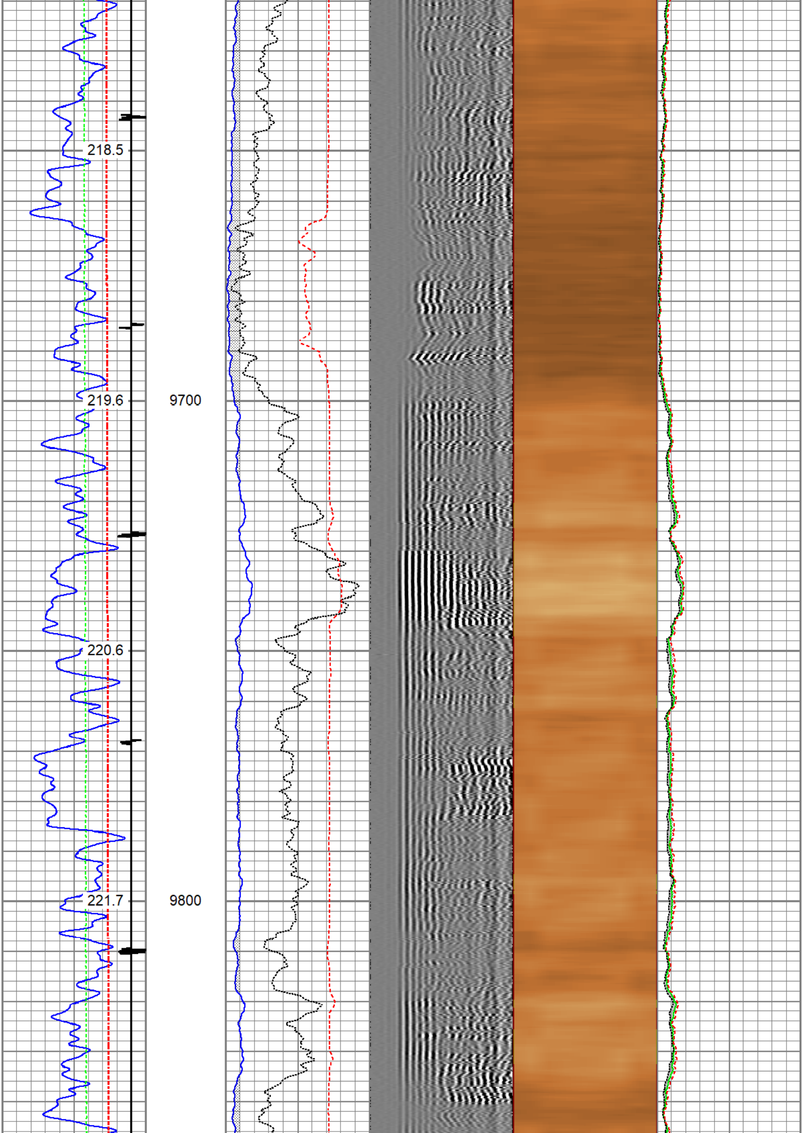

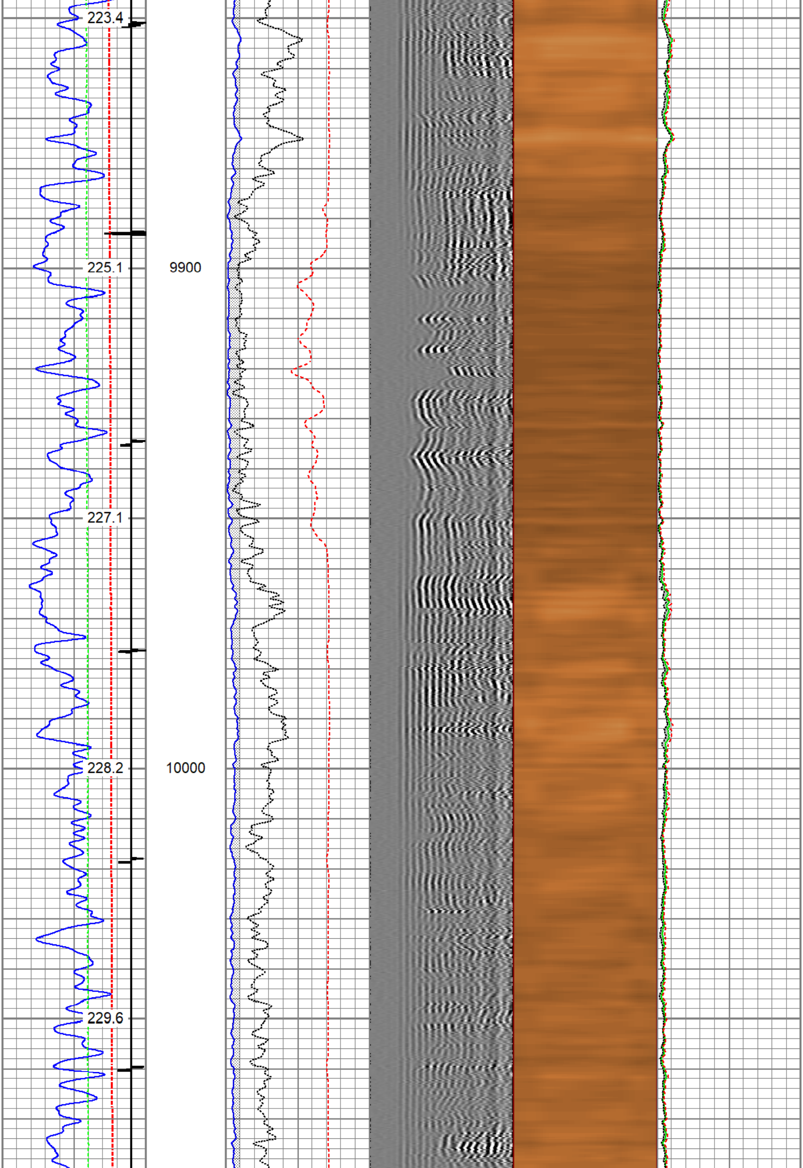

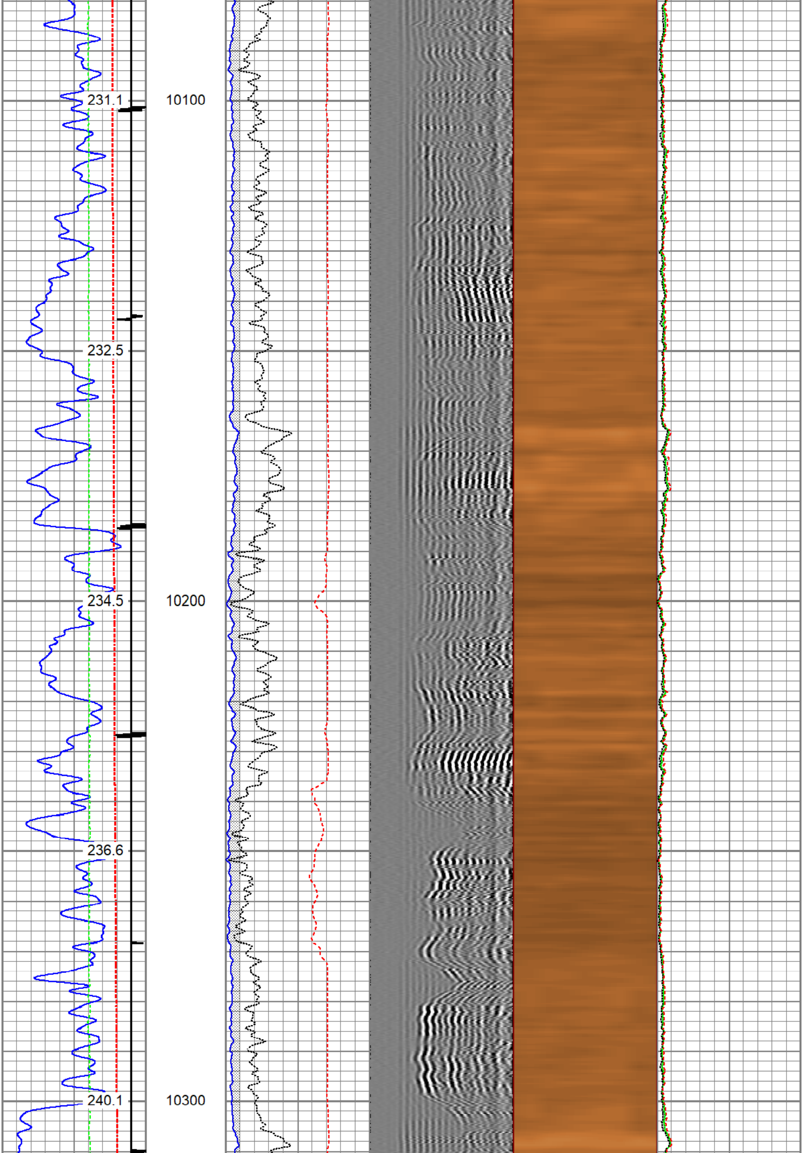

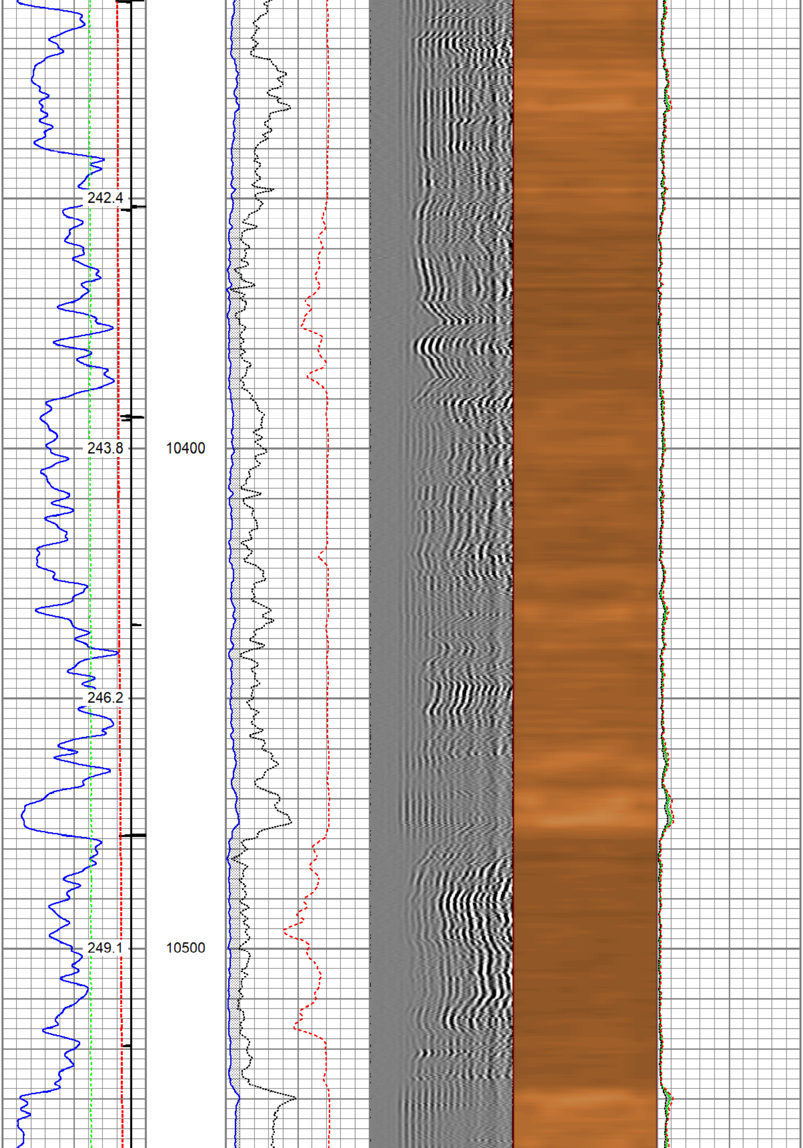

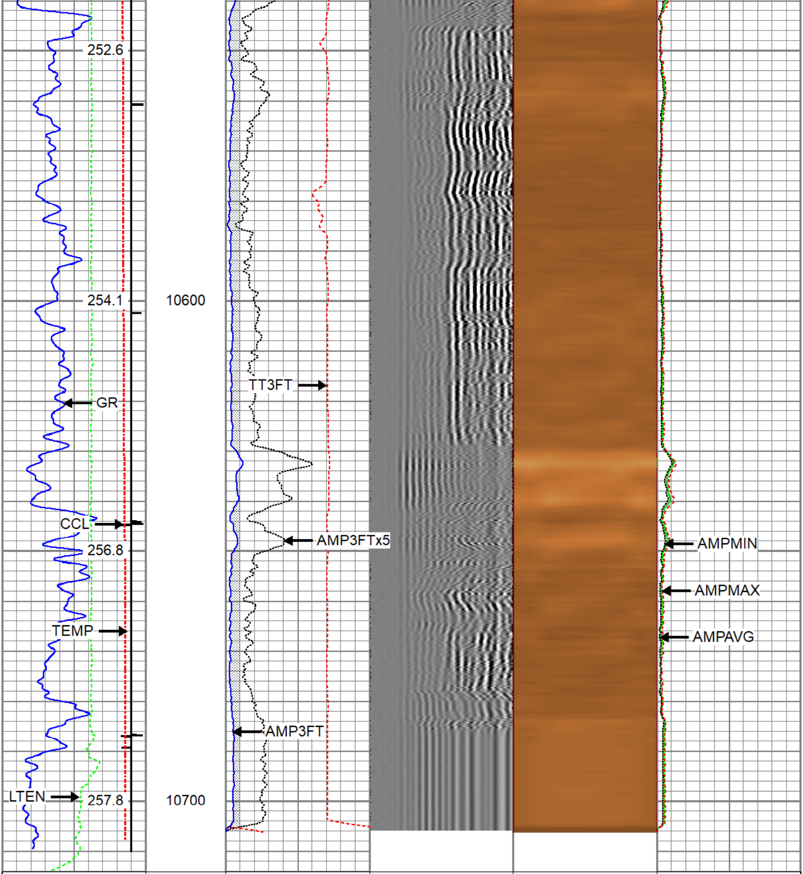

| Gamma Ray | 3' Amplitude | 5' Variable Density Log | Sector Map | Average Amplitude |
|---|---|---|---|---|
| 0 (GAPI) 150 | 0 (mV) 100 | 200 (usec) 1200 | | 0 120 |
| Line Tension | 3' Amplitude x 5 | | | Mimimum Amplitude |
| 0 (lb) 4000 | 0 (mV) 20 | | | 0 120 |
| -9 *CCL$1* 1 | 3' Travel Time | | | Maximum Amplitude |
| 0 Temp (degF) 300 | 650 (usec) 150 | | | 0 120 |

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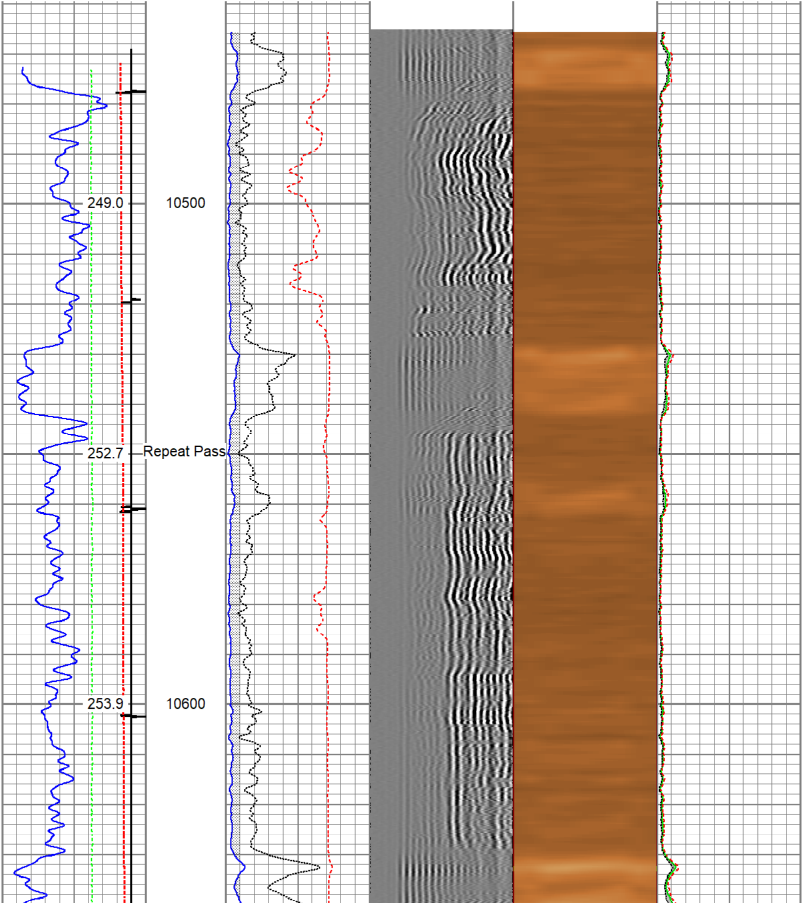
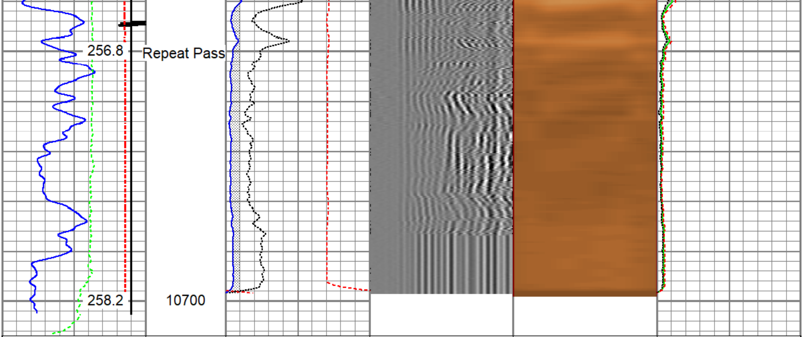
Repeat Pass 5" = 100'

Database File tep_leverich_sr_422-13_rcbl.db
Dataset Pathname repeat
Presentation Format twgrcbl
Dataset Creation Wed Oct 04 11:01:11 2023
Charted by Depth in Feet scaled 1:240

| Gamma Ray | 3' Amplitude | 5' Variable Density Log | Sector Map | Average Amplitude |
|---|---|---|---|---|
| 0 (GAPI) 150 | 0 (mV) 100 | 200 (usec) 1200 | | 0 120 |
| Line Tension | 3' Amplitude x 5 | | | Mimimum Amplitude |
| 0 (lb) 4000 | 0 (mV) 20 | | | 0 120 |
| -9 CCL$1 1 | 3' Travel Time | | | Maximum Amplitude |
| 0 Temp (degF) 300 | 650 (usec) 150 | | | 0 120 |





| | | | | | |
|---|---|---|---|---|---|
| Gamma Ray | | 3' Amplitude | 5' Variable Density Log | Sector Map | Average Amplitude |
| 0 (GAPI) 150 | | 0 (mV) 100 | 200 (usec) 1200 | | 0 120 |
| Line Tension | | 3' Amplitude x 5 | | | Mimimum Amplitude |
| 0 (lb) 4000 | | 0 (mV) 20 | | | 0 120 |
| -9 CCL$1 1 | | 3' Travel Time | | | Maximum Amplitude |
| 0 Temp (degF) 300 | | 650 (usec) 150 | | | 0 120 |

## Calibration Report

| | |
|---|---|
| Database File | tep_leverich_sr_422-13_rcbl.db |
| Dataset Pathname | main |
| Dataset Creation | Wed Oct 04 11:05:05 2023 |

## Gamma Ray Calibration Report

| | | |
|---|---|---|
| Serial Number: | FW1311-93 | |
| Tool Model: | 50-GCT275-0000 | |
| Performed: | Wed Aug 9 11:12:55 2023 | |
| Calibrator Value: | 145.2 | GAPI |
| Background Reading: | 73.8 | cps |
| Calibrator Reading: | 294.4 | cps |
| Sensitivity: | 0.6579 | GAPI/cps |

## Inclinometer Calibration Report

Performed: Thu Jan 26 15:51:24 2023

| | Low Read. | High Read. | Low Ref. | High Ref. | |
|---|---|---|---|---|---|
| X Accelerometer | -941.00 | 997.00 | -1.00 | 1.00 | gee |
| Y Accelerometer | -924.00 | 915.00 | -1.00 | 1.00 | gee |
| Z Accelerometer | 15.07 | -898.87 | 0.00 | 1.00 | gee |

# Segmented Cement Bond Log Calibration Report

Serial Number: FW1312-30
Tool Model: Probe275acc

Calibration Casing Diameter: 4.500 in
Calibration Depth: 42.000 ft

Master Calibration, performed Wed Oct 4 08:04:53 2023:

| | Raw (v) | | Calibrated (mv) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3' | 0.001 | 0.747 | 0.300 | 81.196 | 108.533 | 0.141 |
| CAL | 0.000 | 0.754 | | | | |
| 5' | 0.006 | 0.626 | 0.300 | 81.196 | 130.386 | -0.461 |
| SUM | | | | | | |
| S1 | 0.000 | 0.749 | 0.000 | 100.000 | 113.475 | -0.037 |
| S2 | 0.001 | 0.773 | 0.000 | 100.000 | 119.409 | -0.090 |
| S3 | 0.002 | 0.764 | 0.000 | 100.000 | 131.261 | -0.288 |
| S4 | 0.002 | 0.742 | 0.000 | 100.000 | 135.014 | -0.208 |
| S5 | 0.002 | 0.749 | 0.000 | 100.000 | 133.758 | -0.209 |
| S6 | 0.001 | 0.740 | 0.000 | 100.000 | 135.255 | -0.097 |
| S7 | 0.001 | 0.746 | 0.000 | 100.000 | 134.220 | -0.175 |
| S8 | 0.002 | 0.744 | 0.000 | 100.000 | 124.819 | -0.249 |

Internal Reference Calibration, performed (Not Performed):

| | Raw (v) | | Calibrated (v) | | Results | |
|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| CAL | 0.000 | 0.000 | 0.000 | 0.754 | 1.000 | 0.000 |

Air Zero Calibration, performed Wed Oct 4 08:05:16 2023:

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

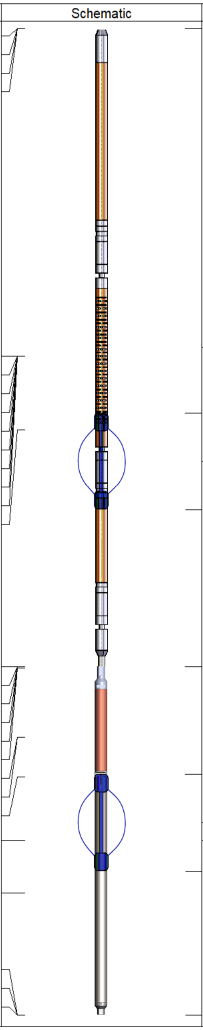
# Inclinometer Calibration Report

Performed: Thu Jul 28 15:46:49 2022

| | Low Read. | High Read. | Low Ref. | High Ref. | |
|---|---|---|---|---|---|
| X Accelerometer | -931.00 | 904.00 | -1.00 | 1.00 | gee |
| Y Accelerometer | -899.00 | 884.00 | -1.00 | 1.00 | gee |
| Z Accelerometer | 1.47 | 886.18 | 0.00 | 1.00 | gee |

| Sensor | Offset (ft) |
|---|---|
| GCT_FMWR | 13.52 |
| mSec_Count | 13.52 |
| RBT_Status | 13.52 |
| Error_Ct | 13.52 |
| WVFS8 | 9.02 |
| WVFS7 | 9.02 |
| WVFS6 | 9.02 |
| WVFS5 | 9.02 |
| WVFS4 | 9.02 |
| WVFS3 | 9.02 |
| WVFS2 | 9.02 |
| WVFS1 | 9.02 |
| WVF3FT | 9.02 |
| WVF5FT | 8.02 |
| RBT_ACCZ | 4.77 |
| RBT_ACCY | 4.77 |
| RBT_ACCX | 4.77 |
| WVFSYNC | 4.77 |
| WVFCAL | 4.77 |
| GCT_HV | 4.76 |
| CCL$2 | 3.81 |
| CCL$1 | 3.81 |
| GCT_Temp | 3.26 |
| GR | 2.39 |
| GCT_IntTemp | 1.67 |
| GCT_ACCZ | 0.00 |
| GCT_ACCY | 0.00 |
| GCT_ACCX | 0.00 |

Schematic



| Description | Length (ft) | O.D. (in) | Weight (lb) |
|---|---|---|---|
| RBT8acc-Probe275acc (FW1312-30)<br>2.75" Radial Corrosion with accelerometer | 8.75 | 2.75 | 110.00 |
| SO BS CENT-2750-4500<br>Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer | 1.33 | 3.25 | 10.00 |
| SO BS CENT-2750-4500<br>Slip Over 2-3/4" I.D. for 4-1/2" O.D. Casing Bow Spring Centralizer | 1.33 | 3.25 | 10.00 |
| GCT_acc-50-GCT275-0000 (FW1311-93)<br>Probe 2.75" Gamma Ray - CCL w/Temp (Single Pin) | 4.77 | 2.75 | 55.00 |

| | |
|---|---|
| Dataset: | tep_leverich_sr_422-13_rcbl.db: field/well/run1/main |
| Total length: | 13.52 ft |
| Total weight: | 195.00 lb |
| O.D.: | 3.25 in |

| | |
|---|---|
| Company | TEP Rocky Mountain LLC |
| Well | Leverich SR 422-13 |
| Field | Rulison |

| | | | |
|---|---|---|---|
| County | Garfield | State | Colorado |
| TWG<br>THE WIRELINE<br>GROUP | Radial Cement Bond<br>Gamma Ray<br>Casing Collar Log | | |