



PIONEER

Pioneer Energy Services

**RADIAL BOND LOG
WITH GAMMA RAY**

Company **EXTRACTION OIL & GAS LLC**

Well **MICKEY 6**

Field **WATTENBERG**

County **WELD** State **CO**

Location: API #: 05123438490000 Other Services

SHL: 2420' FNL & 1843' FEL SWNE

LAT: 40.516398
LONG: -104.914471

SEC 5 TWP 6N RGE 67W

CCL
TEMP

Permanent Datum GL Elevation 4880'
Log Measured From GL Above Perm. Datum
Drilling Measured From KB

Elevation
K.B. N/A
D.F. N/A
G.L. 4880'

Comp. EXTRACTION OIL & GAS LLC
Well MICKEY 6
Field WATTENBERG
Co. WELD
State CO

Date of Service DECEMBER 5, 2016

Run Number ONE

Depth Driller or PBTD N/A

Depth Logger 93.1'

Bottom Log Interval 929'

Top Log Interval SURFACE

Open Hole Size 12.25"

Type Fluid WATER

Fluid Level SURFACE

Fluid Density N/A

Max. Recorded Temperature 64 F

Max. Wellhead Pressure 0 PSI

Wellhead Connection OPEN

Estimated Cement Top SEE LOG

Unit Number P129

Wireline Size 9/32"

Location FT MORGAN, CO

Recorded By SCHUMAN

Witnessed By MR S MACINTYRE

Size Wt/Ft Top Bottom

Tubing Record

Surface Casing 9.625" 36# SURFACE N/A

Production Casing

Liner Record

<<< Fold Here >>>

All interpretations are opinions based on inferences from electrical or other measurements and Pioneer Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Pioneer Wireline Services, LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.
LOG CORRELATED TO GROUND LEVEL
SO# 2-280356

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew

Engineer: SCHUMAN
Operator: BOND
Operator: WOODS
Operator:

Tool Data - Services

SCBL
GR

Serial Number

141166
1212-24

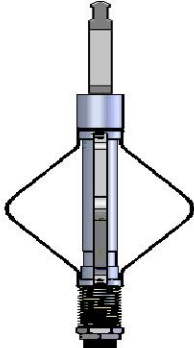
Top - Bottom

| | | | | | | | |
|---------------|-------------|-------------|-------------|----------|-------------|---------|-----------|
| BHTEMP_Src | BOREID | BOTTEMP | CASEOD | CASETHCK | CASEWGHT | MAXAMPL | MINAMPL |
| TEMP | in 12.25 | degF 100 | in 9.625 | in 0 | lb/ft 36 | mV 0 | mV 1.5 |
| MINATTN | PERFS | PPT | SRFTEMP | TDEPTH | | | |
| db/ft 0.08 | 0 | usec 0 | degF 0 | ft 0 | | | |


Variable Description

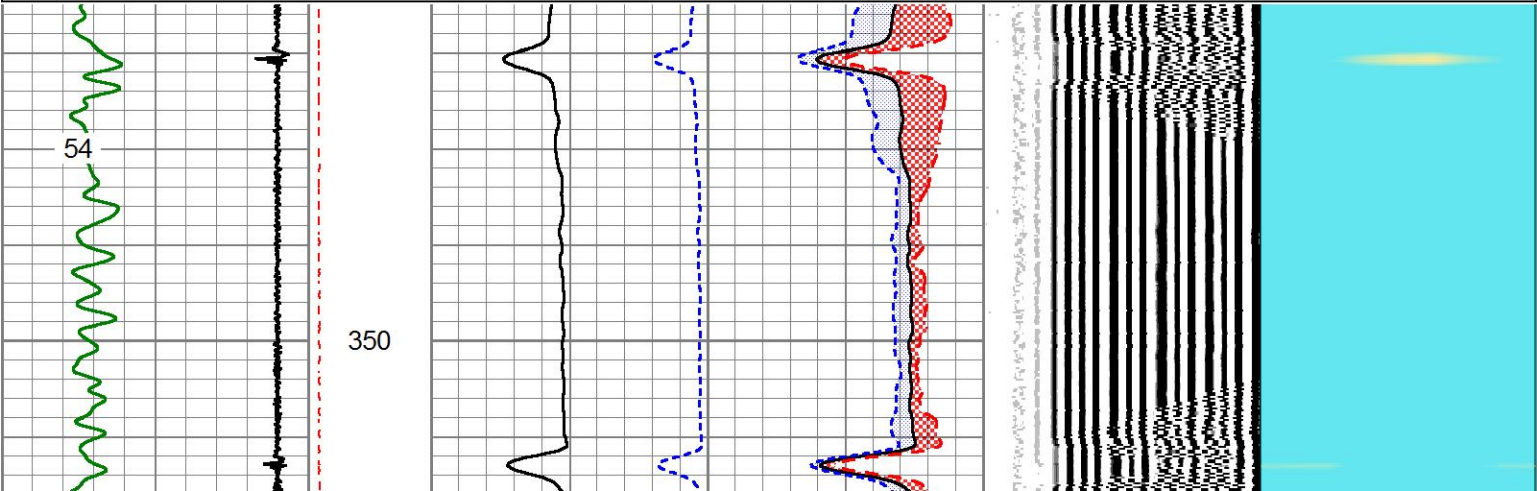
BHTEMP_Src : BHTEMP Input Source Selector
 BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 CASEWGHT : Casing Weight
 MAXAMPL : Maximum Amplitude

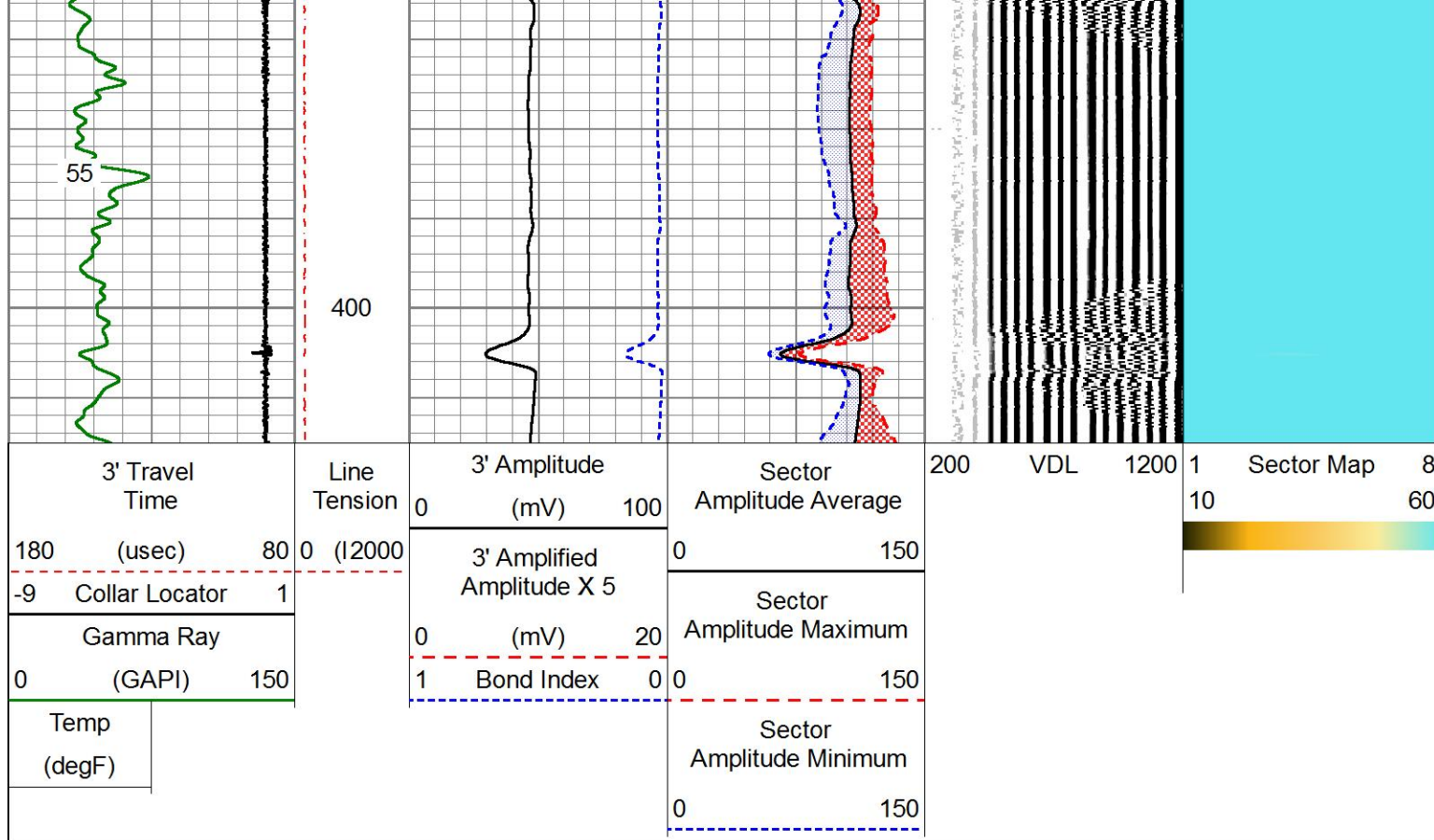
MINAMPL : Minimum Amplitude
 MINATTN : Minimum Attenuation
 PERFS : Perforation Flag
 PPT : Predicted Pipe Time
 SRFTEMP : Surface Temperature
 TDEPTH : Total Depth


| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb) |
|----------|-------------|--|--|-------------|-----------|-------------|
| TEMP | 14.17 |  | Cable Head-Titan 143 1 7/16" Titan Cable Head | 1.03 | 1.43 | 2.00 |
| | | | Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer | 2.88 | 2.75 | 15.00 |
| | | | SCBL-275 Probe w Temp New Mod (141169.17 Probe Radii Bond Tool with Temperature | 1169.17 | 2.75 | 95.00 |
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| | | | | | | |
| WVFS8 | 11.94 | | | | | |
| WVFS7 | 11.94 | | | | | |
| WVFS6 | 11.94 | | | | | |
| WVFS5 | 11.94 | | | | | |
| WVFS4 | 11.94 | | | | | |
| WVFS3 | 11.94 | | | | | |
| WVFS2 | 11.94 | | | | | |
| WVFS1 | 11.94 | | | | | |
| WVFCAL | 11.94 | | | | | |
| WVF3FT | 11.94 | | | | | |
| WVF5FT | 10.94 | | | | | |
| HEADVOLT | 7.69 | | | | | |

| | | | | | | |
|---|------|--|---|------------------|------|-------|
| | | | Centralizer-275 Probe 2 3/4" Probe Adjustable Spring Centralizer | 2.88 | 2.75 | 15.00 |
| CCL | 3.91 | | | | | |
| | | | GR_CCL-275 Probe GR-CCL Corrosion Probe 2 3/4" Gamma Ray / CCL Corrosion Digital | (F4.54:12-242.75 | | 60.00 |
| GR | 1.17 | | | | | |
| | | | Bullnose-Titan GO Pin Pressure Cap | 0.27 | 1.38 | 1.00 |
| Dataset: extraction.db: field/well/run1/pass8 Total length: 20.76 ft Total weight: 188.00 lb O.D.: 2.75 in | | | | | | |

| | | | | | | |
|--|----------------------------|--|--------------------------|-----|-----|-------|
|  | | FREE PIPE SECTION ZERO PSI APPLIED AT SURFACE | | | | |
| Database File | extraction.db | | | | | |
| Dataset Pathname | pass4 | | | | | |
| Presentation Format | pinr_scbl | | | | | |
| Dataset Creation | Mon Dec 05 14:19:58 2016 | | | | | |
| Charted by | Depth in Feet scaled 1:240 | | | | | |
| 3' Travel Time | Line Tension | 3' Amplitude (mV) | Sector Amplitude Average | 200 | VDL | 1200 |
| 180 (usec) | 0 (12000) | 0 100 | 0 150 | | | 1 8 |
| -9 Collar Locator | | 3' Amplified Amplitude X 5 | Sector Amplitude Maximum | | | 10 60 |
| Gamma Ray | | 0 (mV) 20 | 0 150 | | | |
| 0 (GAPI) 150 | | 1 Bond Index 0 | Sector Amplitude Minimum | | | |
| Temp (degF) | | | 0 150 | | | |





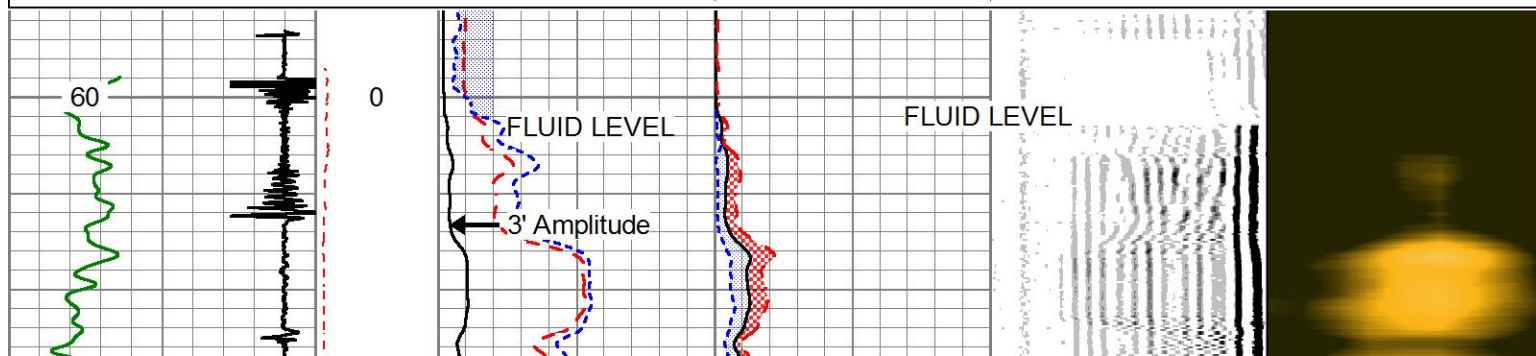
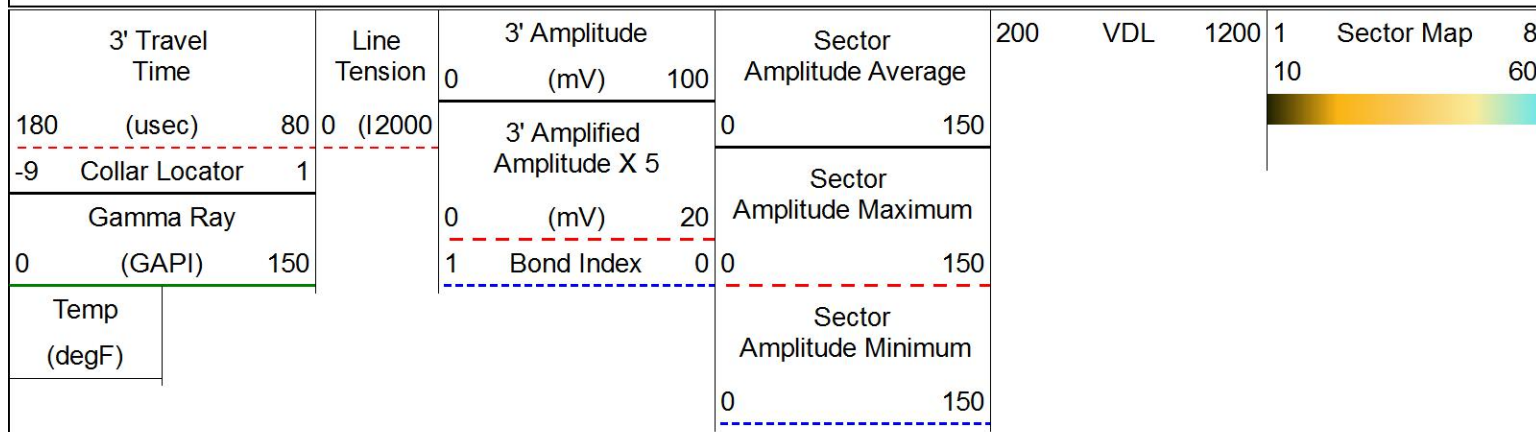


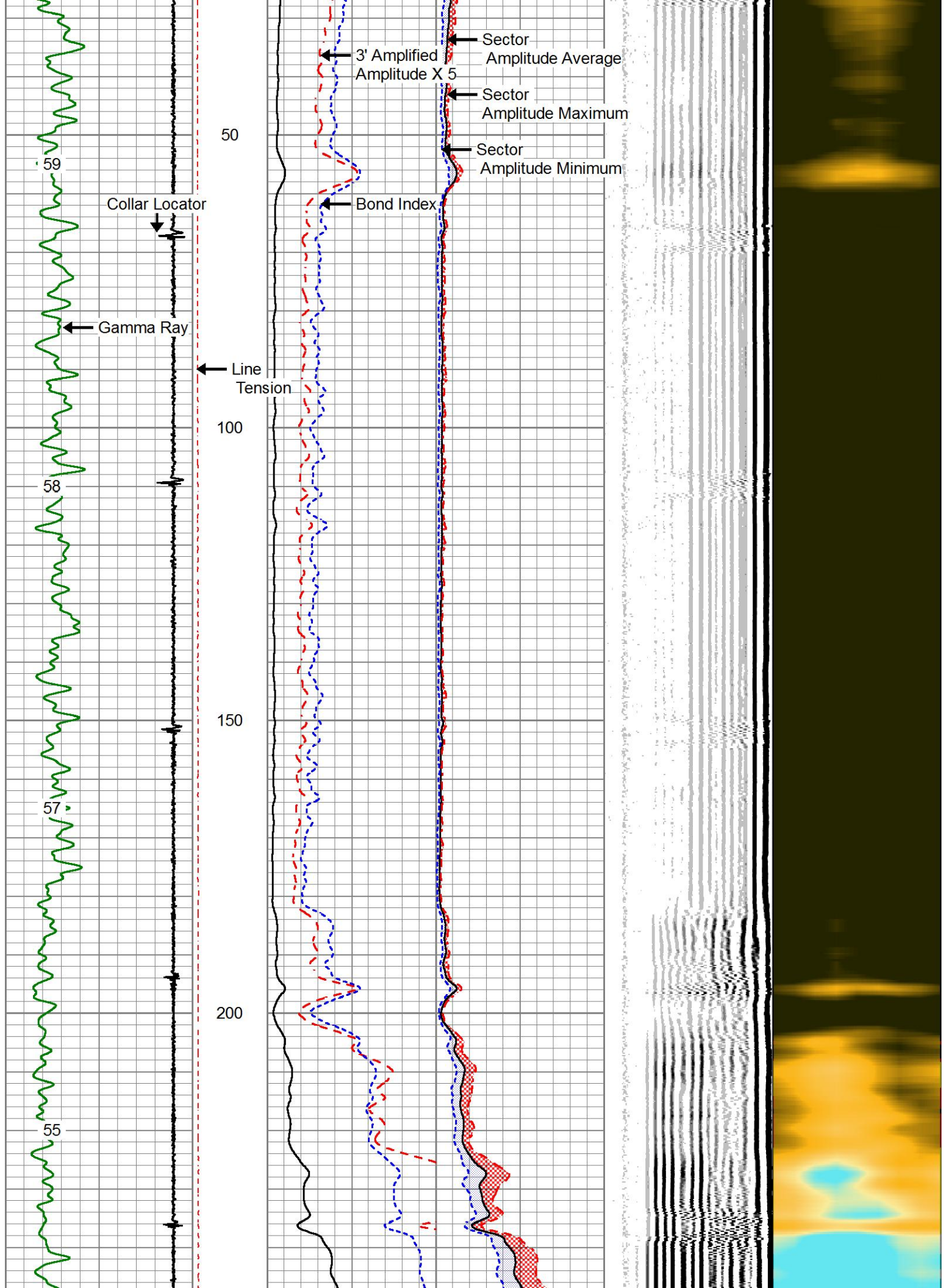
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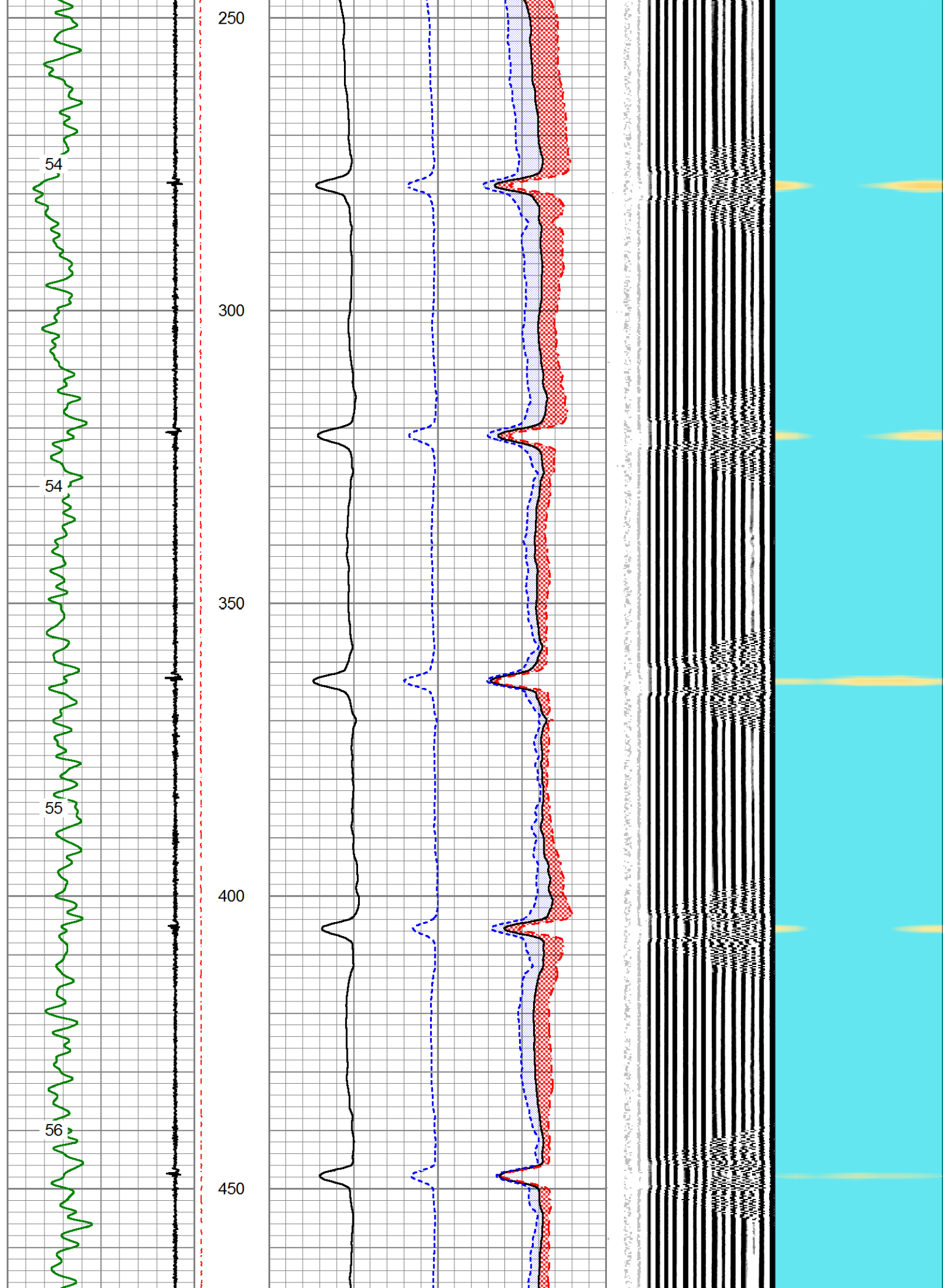
MAIN LOG

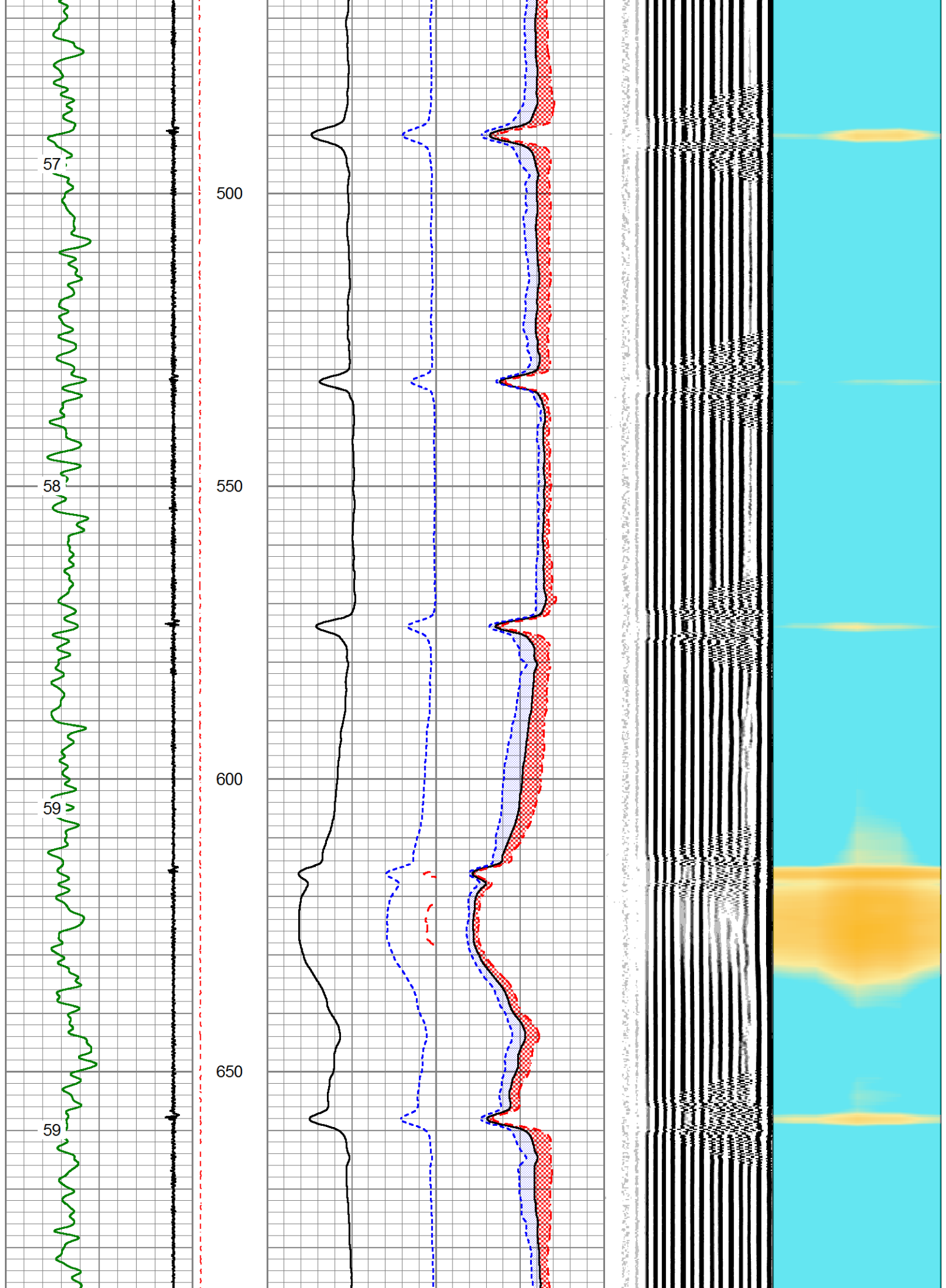
ZERO PSI APPLIED AT SURFACE

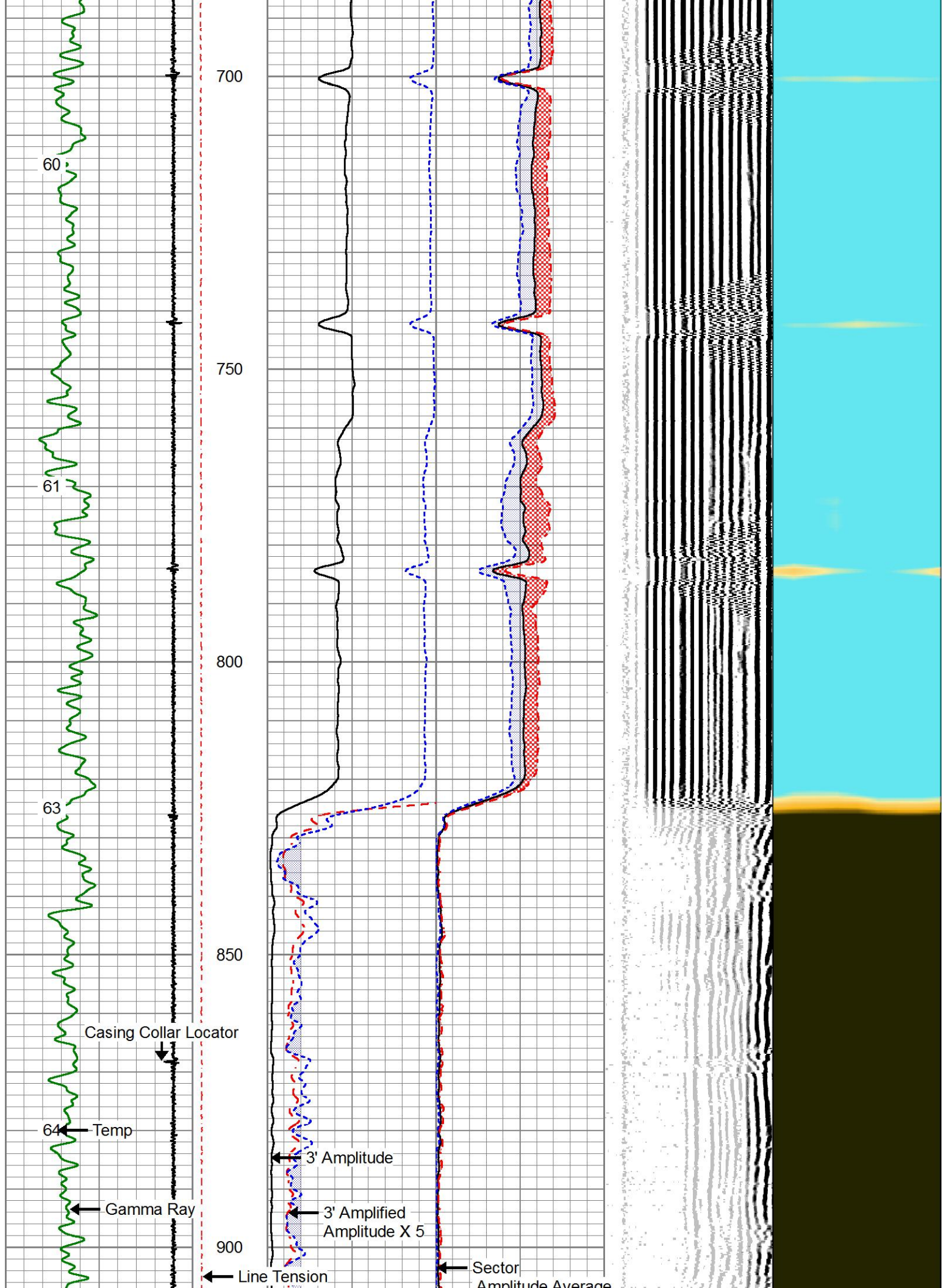
| | |
|---------------------|----------------------------|
| Database File | extraction.db |
| Dataset Pathname | pass7 |
| Presentation Format | pinr_scbl |
| Dataset Creation | Mon Dec 05 14:47:57 2016 |
| Charted by | Depth in Feet scaled 1:240 |

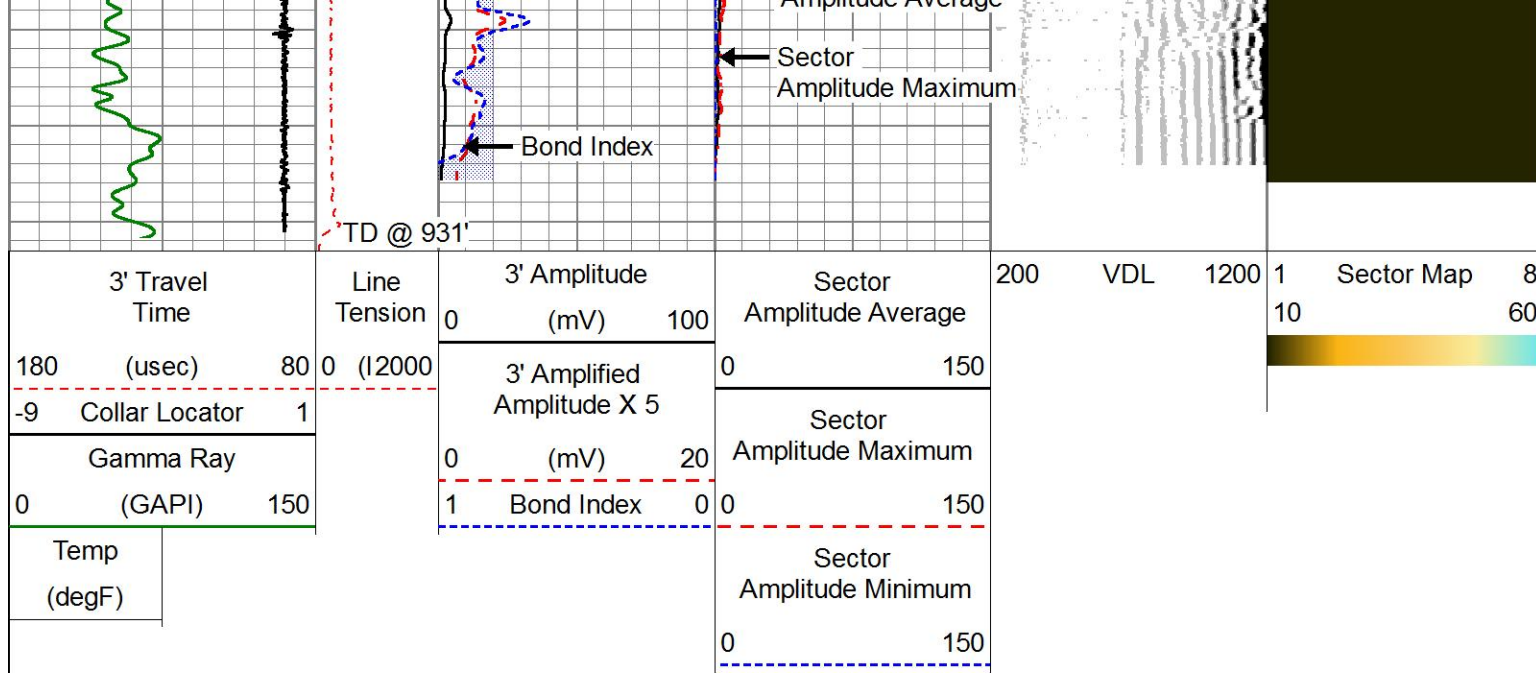













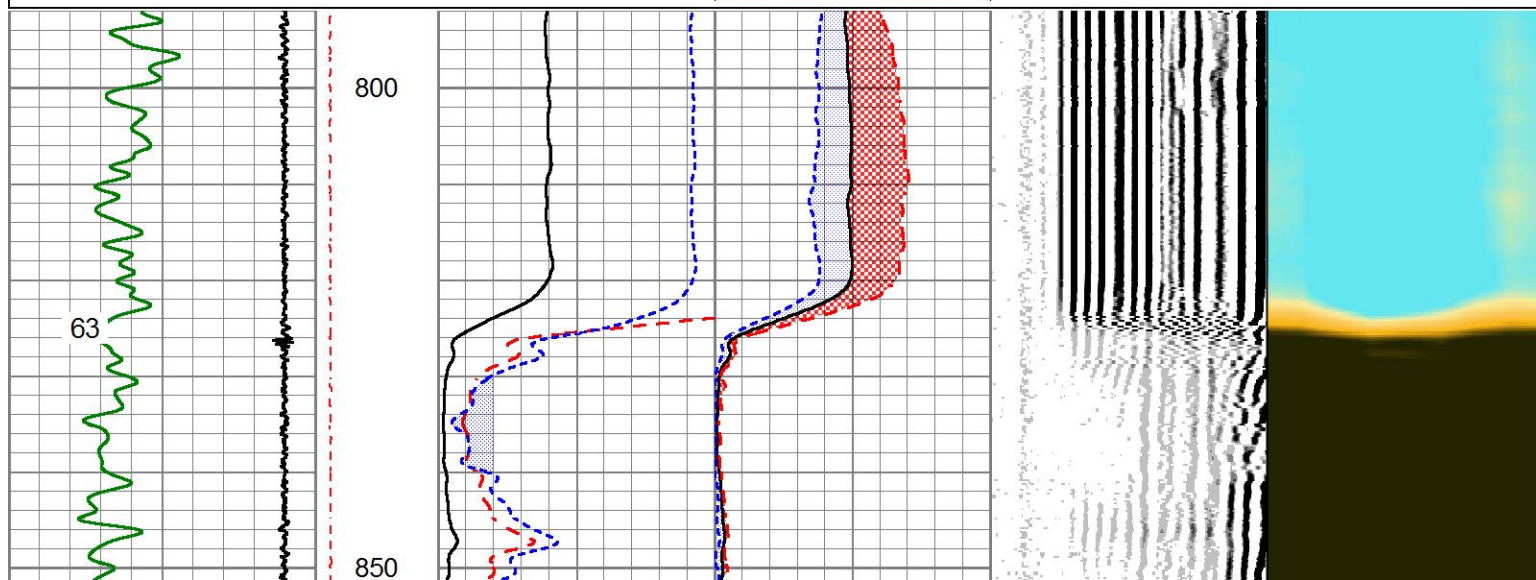
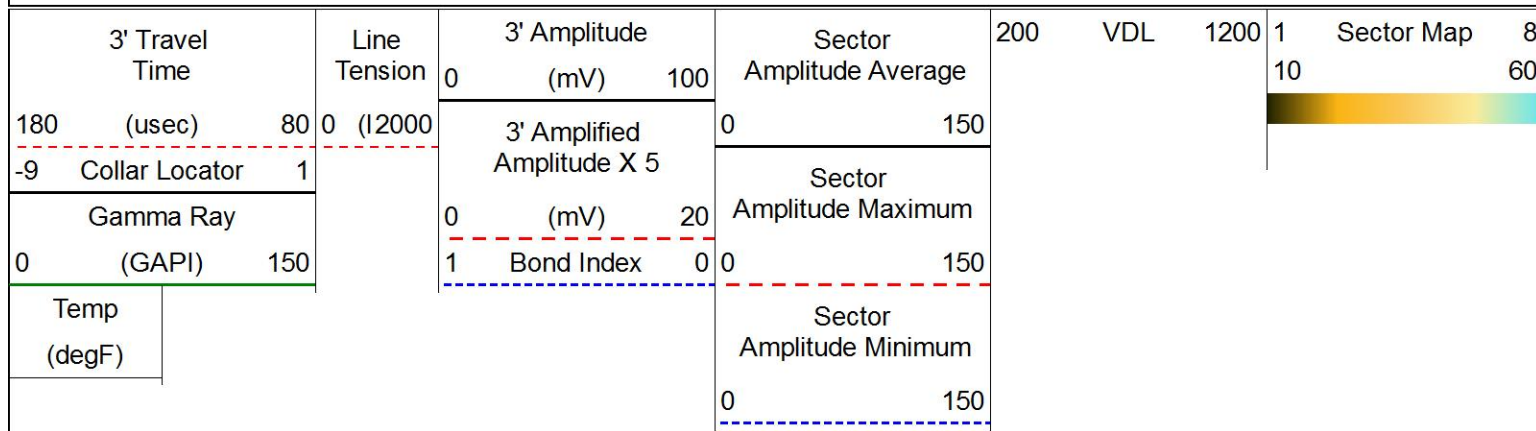


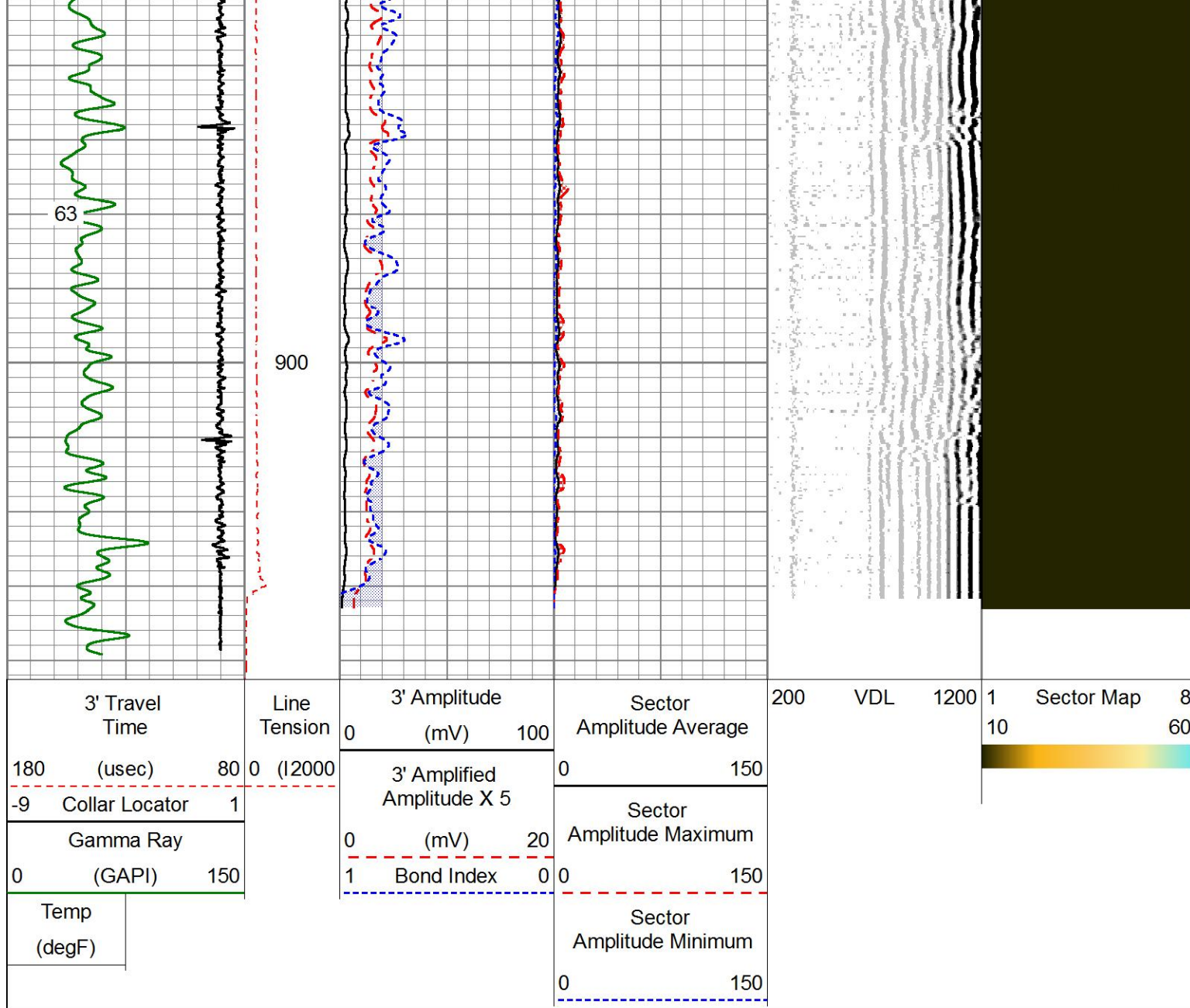
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REPEAT SECTION

ZERO PSI APPLIED AT SURFACE

| | |
|---------------------|----------------------------|
| Database File | extraction.db |
| Dataset Pathname | pass6.2 |
| Presentation Format | pinr_scbl |
| Dataset Creation | Mon Dec 05 14:46:36 2016 |
| Charted by | Depth in Feet scaled 1:240 |





| | | | |
|--|----------------------------|--------------------------|--|
| Database File | | extraction.db | |
| Dataset Pathname | | pass1 | |
| Dataset Creation | | Mon Dec 05 13:49:40 2016 | |
| Gamma Ray Calibration Report | | | |
| Serial Number: | FW1212-24 | | |
| Tool Model: | 275 Probe GR-CCL Corrosion | | |
| Performed: | Thu Nov 10 07:20:23 2016 | | |
| Calibrator Value: | 320.0 | GAPI | |
| Background Reading: | 14.0 | cps | |
| Calibrator Reading: | 1153.0 | cps | |
| Sensitivity: | 1.3000 | GAPI/cps | |
| Segmented Cement Bond Log Calibration Report | | | |
| Serial Number: | 141166 | | |
| Tool Model: | 275 Probe w Temp New Mod | | |
| Calibration Casing Diameter: | 9.625 | in | |

Calibration Depth:

1790.883

ft

Master Calibration, performed Thu Nov 17 11:48:55 2016:

| | Raw (v) | | Calibrated (mv) | | Results | |
|-----|---------|-------|-----------------|---------|---------|--------|
| | Zero | Cal | Zero | Cal | Gain | Offset |
| 3' | 0.019 | 1.913 | 0.700 | 51.196 | 42.496 | -0.094 |
| CAL | 0.012 | 1.744 | | | | |
| 5' | 0.016 | 1.473 | 0.700 | 51.196 | 55.272 | -0.209 |
| SUM | | | | | | |
| S1 | 0.011 | 1.972 | 0.000 | 100.000 | 50.998 | -0.570 |
| S2 | 0.014 | 1.922 | 0.000 | 100.000 | 52.419 | -0.745 |
| S3 | 0.007 | 1.902 | 0.000 | 100.000 | 52.772 | -0.360 |
| S4 | 0.009 | 1.896 | 0.000 | 100.000 | 52.980 | -0.464 |
| S5 | 0.005 | 1.976 | 0.000 | 100.000 | 50.724 | -0.238 |
| S6 | 0.003 | 2.044 | 0.000 | 100.000 | 48.980 | -0.130 |
| S7 | 0.010 | 2.090 | 0.000 | 100.000 | 48.089 | -0.504 |
| S8 | 0.009 | 2.078 | 0.000 | 100.000 | 48.339 | -0.427 |

Temperature Calibration Report

| | | |
|-----------------|--------------------------|-----------|
| Serial Number: | 141166 | |
| Tool Model: | 275 Probe w Temp New Mod | |
| Performed: | Fri Nov 11 13:47:50 2016 | |
| | | |
| | Reference | Reading |
| Low Reference: | 35.00 degF | 0.25 degF |
| High Reference: | 210.00 degF | 1.31 degF |
| | | |
| Gain: | 0.76 | |
| Offset: | 6.00 | |
| Delta Spacing | 1 | |



| | |
|---------|--------------------------|
| Company | EXTRACTION OIL & GAS LLC |
| Well | MICKEY 6 |
| Field | WATTENBERG |
| County | WELD |
| State | CO |