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# DUAL COMP POROSITY LOG

Company CONCORDE RESOURCES CORP
Well MCDANIEL #1-27
Field WILDCAT
County LOGAN
State KANSAS

Location: API #: 15-109-21492-00-00
2360' FSL & 1572' FWL
SEC 27 TWP 15S RGE 34W

Other Services: DIL/MEL

Permanent Datum: GROUND LEVEL Elevation 2996'
Log Measured From: KELLY BUSHING
Drilling Measured From: KELLY BUSHING

Elevation: K.B. 3006' D.F. N/A G.L. 2996'

| Date | 3/18/2017 | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Run Number | ONE | | | | | | | |
| Type Log | CNL/CDL | | | | | | | |
| Depth Driller | 4707' | | | | | | | |
| Depth Logger | 4708' | | | | | | | |
| Bottom Logged Interval | 4679' | | | | | | | |
| Top Logged Interval | 3600' | | | | | | | |
| Type Fluid In Hole | CHEMICAL | | | | | | | |
| Salinity, PPM CL | 3500 | | | | | | | |
| Density | 9.0 | | | | | | | |
| Level | FULL | | | | | | | |
| Max. Rec. Temp. F | 123 | | | | | | | |
| Operating Rig Time | 3 HOURS | | | | | | | |
| Equipment -- Location | 91 COLBY | | | | | | | |
| Recorded By | D. SCHMIDT | | | | | | | |
| Witnessed By | LARRY NICHOLSON | | | | | | | |

Borehole Record

| Run No. | Bit | From | To |
|---|---|---|---|
| ONE | 12.25" | 0' | 307' |
| TWO | 7.875" | 307' | TD |

Casing Record

| Size | Wgt. | From | To |
|---|---|---|---|
| 8.625" | 23# | 0' | 307' |

<<< 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.

OAKLEY,
SOUTH TO GOLD RD, WEST TO 380 RD,
SOUTH TO DAKOTA RD, WEST TO 340, SOUTH TO ELK,
WEST TO 320, SOUTH TO BISON, 1/2 WEST,
NORTH INTO

Log Measured From: KELLY BUSHING 10 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneeres.com 785-625-3858

| Your Pioneer Energy Services Crew | This Log Record Was Witnessed By |
|---|---|
| Engineer: D. SCHMIDT | Primary Witness: LARRY NICHOLSON |
| Operator: | Secondary Witness: |
| Operator: | Secondary Witness: |
| Operator: | Secondary Witness: |

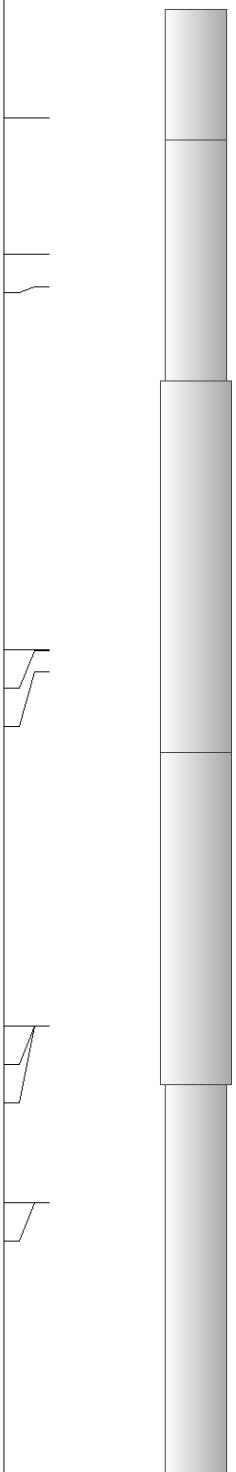
# Log Variables

Database C:\ProgramData\Warrior\Data\concorde_mcdaniel_1-27.db
Dataset field/well/STKML/pass3.7/_vars_

**Top - Bottom**

| M | A | SZCOR | NPORSEL | FLUIDDEN g/cc | MATRXDEN g/cc | SPSHIFT mV | SNDERRM mmho/m |
|---|---|---|---|---|---|---|---|
| 2 | 1 | Off | Limestone | 1 | 2.71 | 455 | 0 |

| SNDERR mmho/m | SRFTEMP degF | CASETHCK in | CASEOD in | PERFS | TDEPTH ft | BOTTEMP degF | BOREID in |
|---|---|---|---|---|---|---|---|
| 0 | 74 | 0 | 5.5 | 0 | 4708 | 123 | 7.875 |

| Sensor | Offset (ft) | Schematic | Description | Length (ft) | O.D. (in) | Weight (lb |
|---|---|---|---|---|---|---|
| GR | 40.58 |  | GR-M&W (89) | 3.00 | 3.50 | 50.00 |
| CNLSC | 37.48 | | CNT-M&W (207-MW) | 5.50 | 3.50 | 100.00 |
| CNSSC | 36.73 | | | | | |
| | | | CDL-M&W (90-1031) | 8.50 | 4.00 | 250.00 |
| LSD | 28.43 | | | | | |
| DCAL | 28.42 | | | | | |
| SSD | 27.93 | | | | | |
| | | | ML-PSIML (PSI-01)<br>GO Micro log tools converted to Simplec electronics | 7.58 | 4.00 | 65.00 |
| MCAL | 19.83 | | | | | |
| MI | 19.83 | | | | | |
| MN | 19.83 | | | | | |
| RLL3F | 15.80 | | | | | |
| RLL3 | 15.80 | | | | | |

| | | | DIL-M&W (PSI 13) | 18.50 | 3.50 | 220.00 |
|---|---|---|---|---|---|---|
| CILD | 8.00 | | | | | |
| CILM | 4.70 | | | | | |
| SP | 0.20 | | | | | |

| | |
|---|---|
| Dataset: | concorde_mcdaniel_1-27.db: field/well/STKML/pass3.7 |
| Total length: | 43.08 ft |
| Total weight: | 685.00 lb |
| O.D.: | 4.00 in |

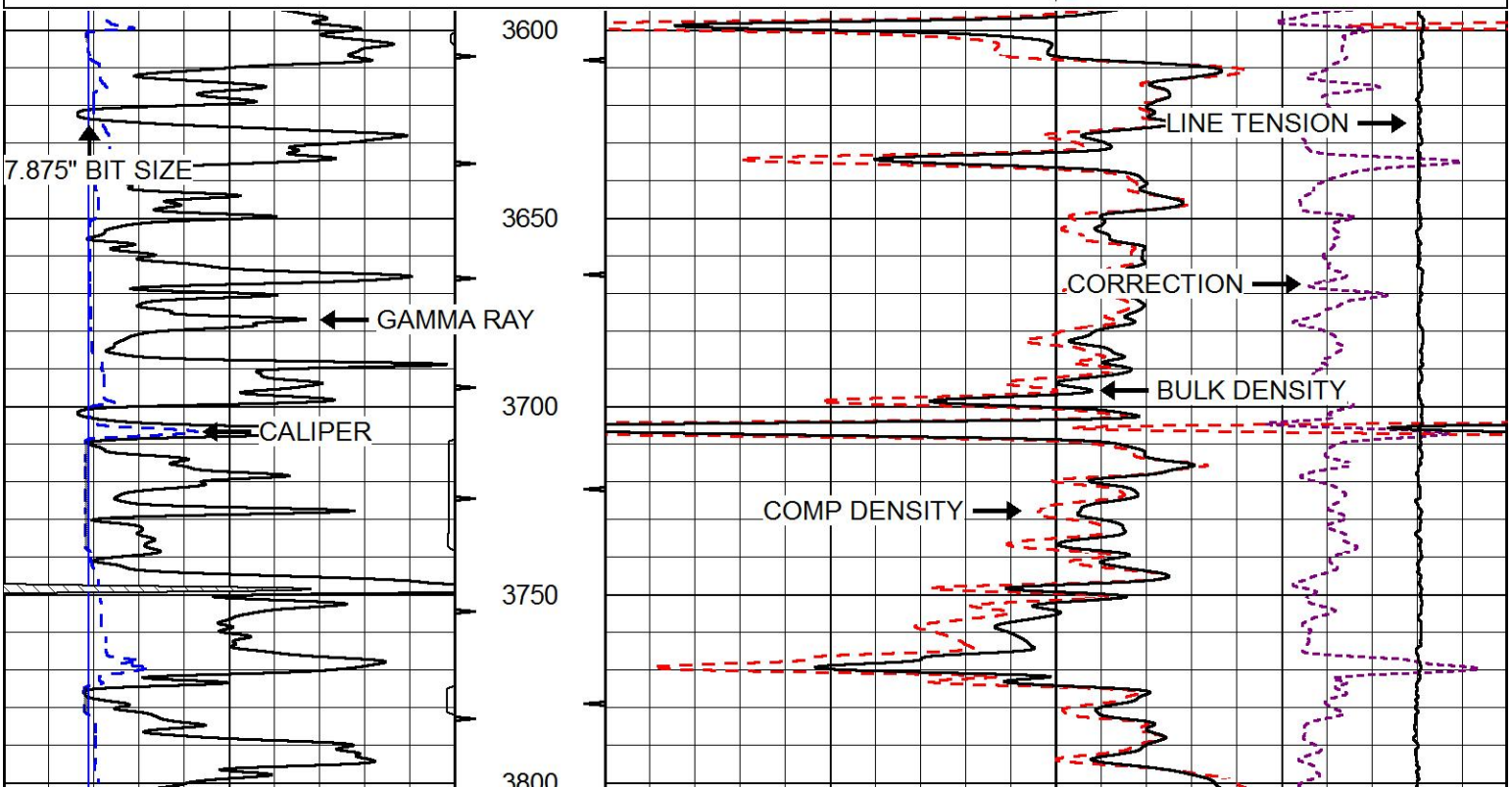
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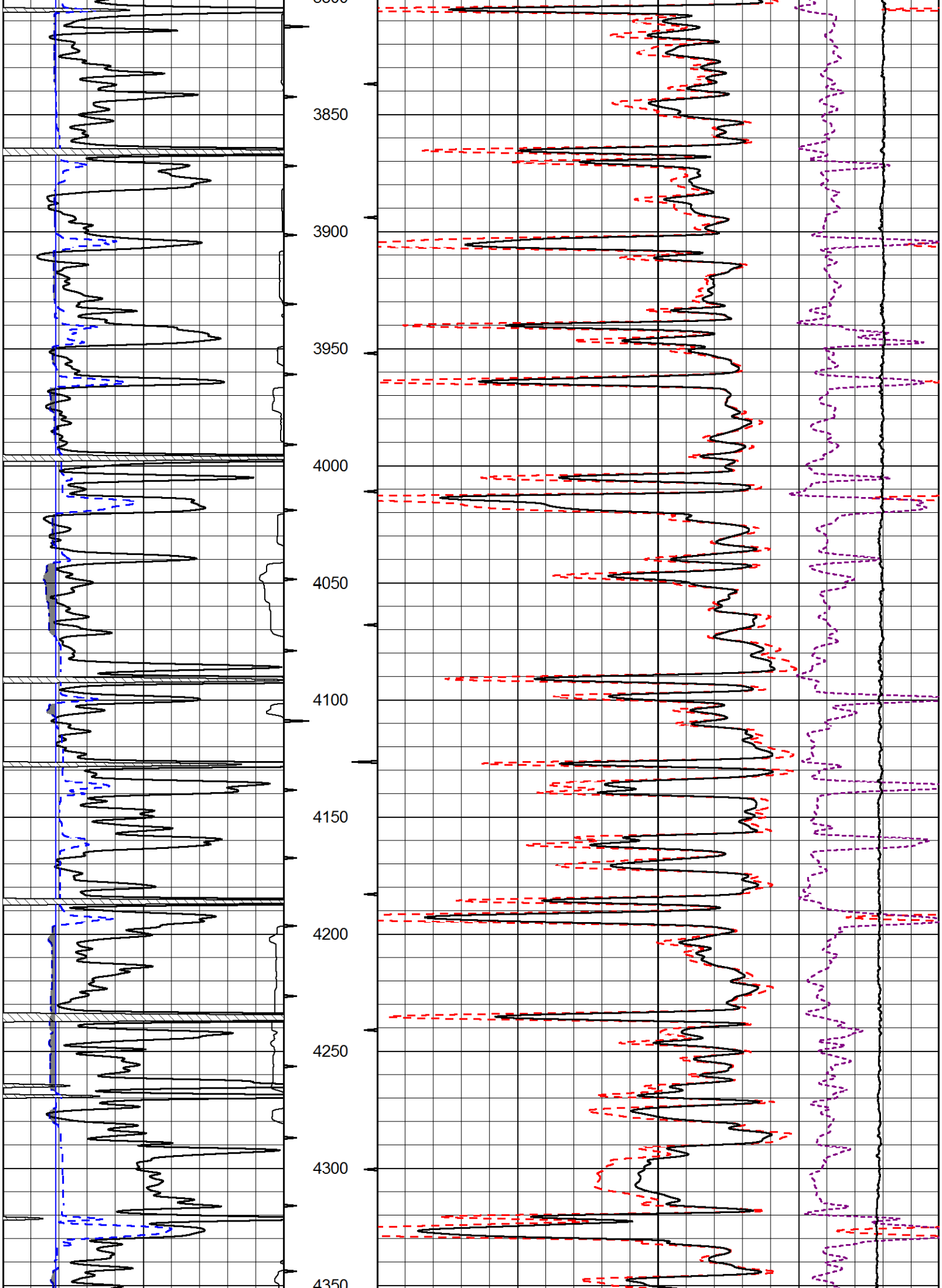
# MAIN PASS

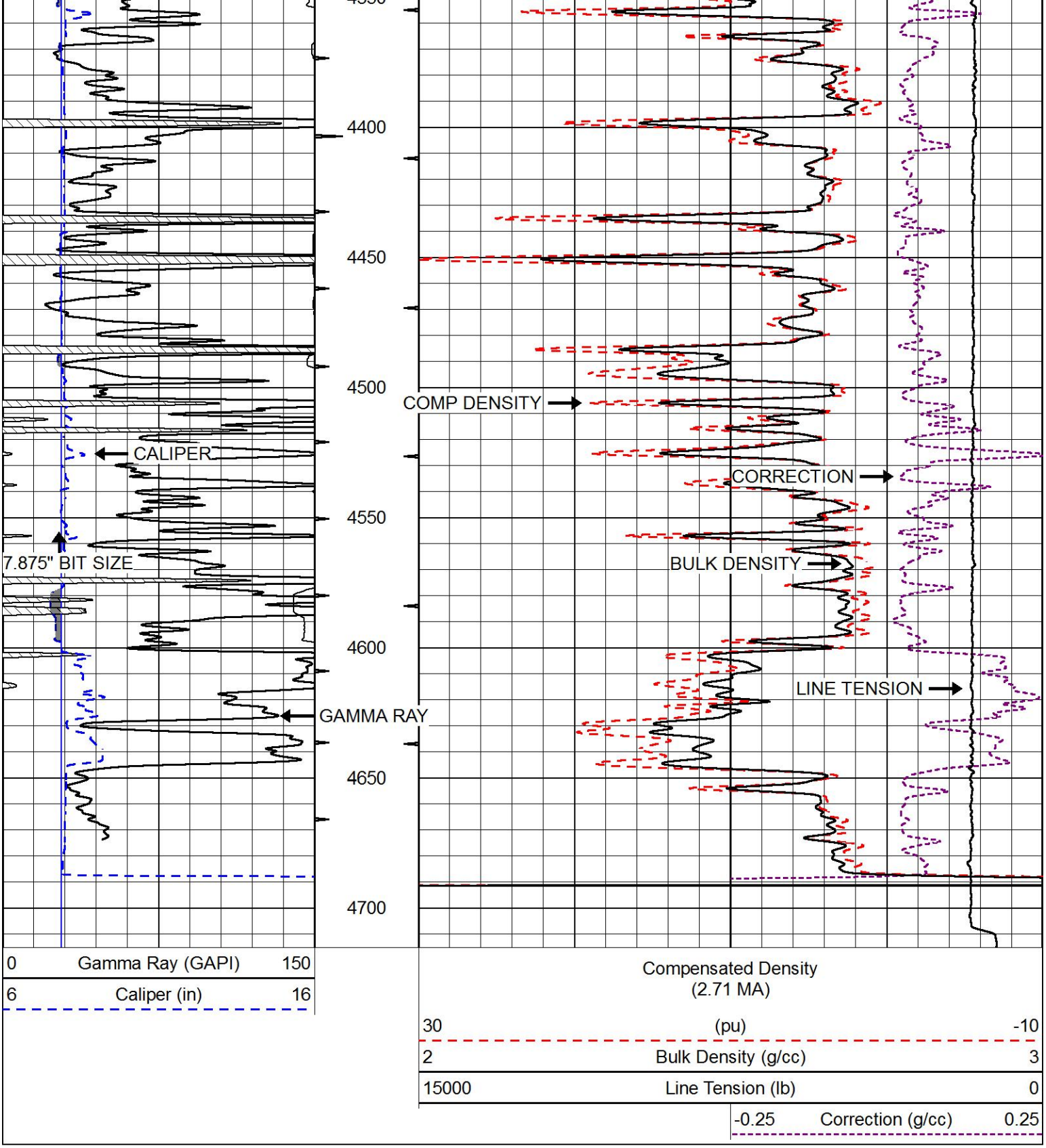
| | |
|---|---|
| Database File | concorde_mcdaniel_1-27.db |
| Dataset Pathname | STKML/pass3.7 |
| Presentation Format | cdl |
| Dataset Creation | Sat Mar 18 22:53:33 2017 |
| Charted by | Depth in Feet scaled 1:600 |

| | | |
|---|---|---|
| 0 | Gamma Ray (GAPI) | 150 |
| 6 | Caliper (in) | 16 |

| | | |
|---|---|---|
| | Compensated Density (2.71 MA) | |
| 30 | (pu) | -10 |
| 2 | Bulk Density (g/cc) | 3 |
| 15000 | Line Tension (lb) | 0 |
| -0.25 | Correction (g/cc) | 0.25 |



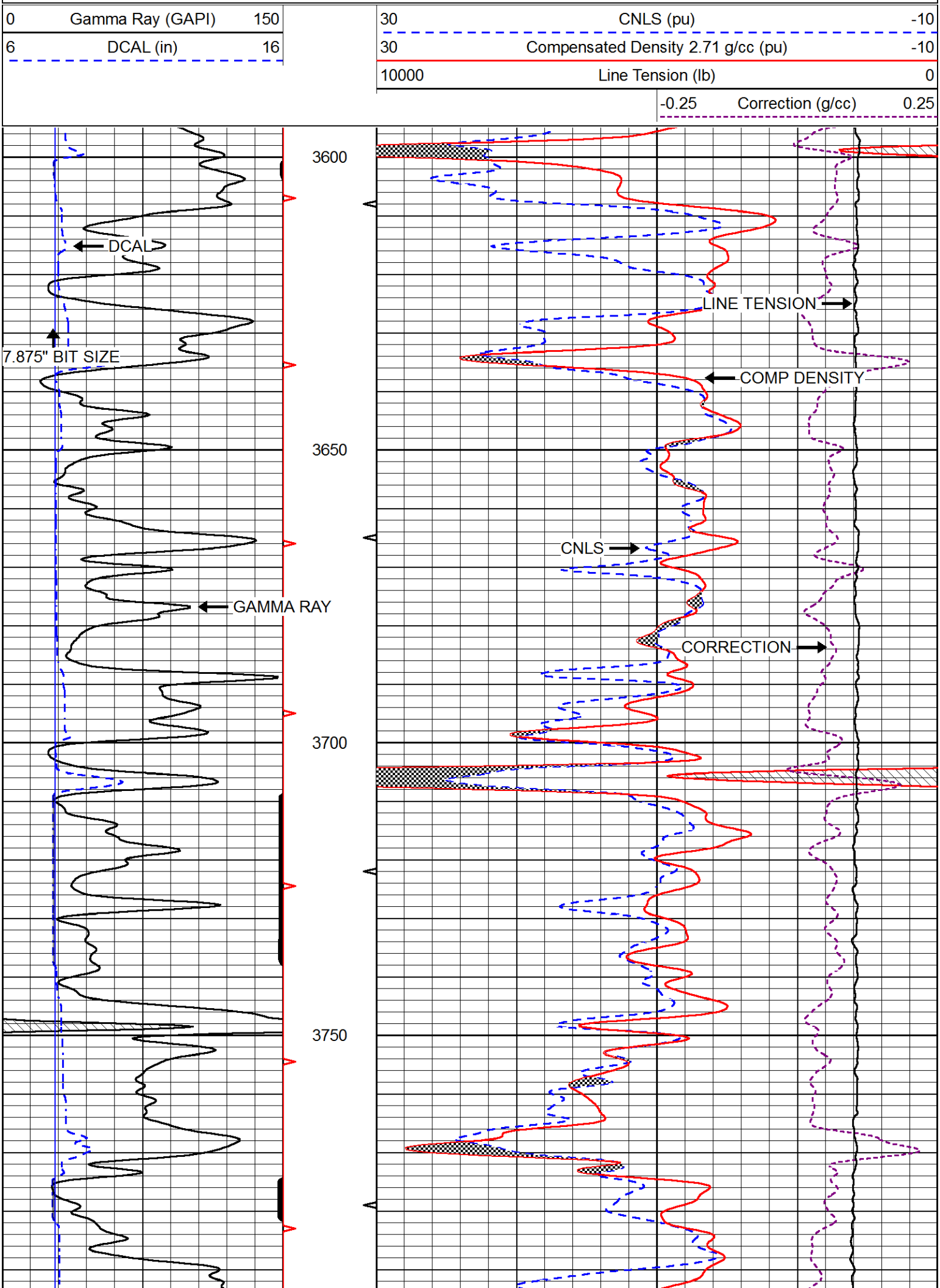

3850
3900
3950
4000
4050
4100
4150
4200
4250
4300
4350

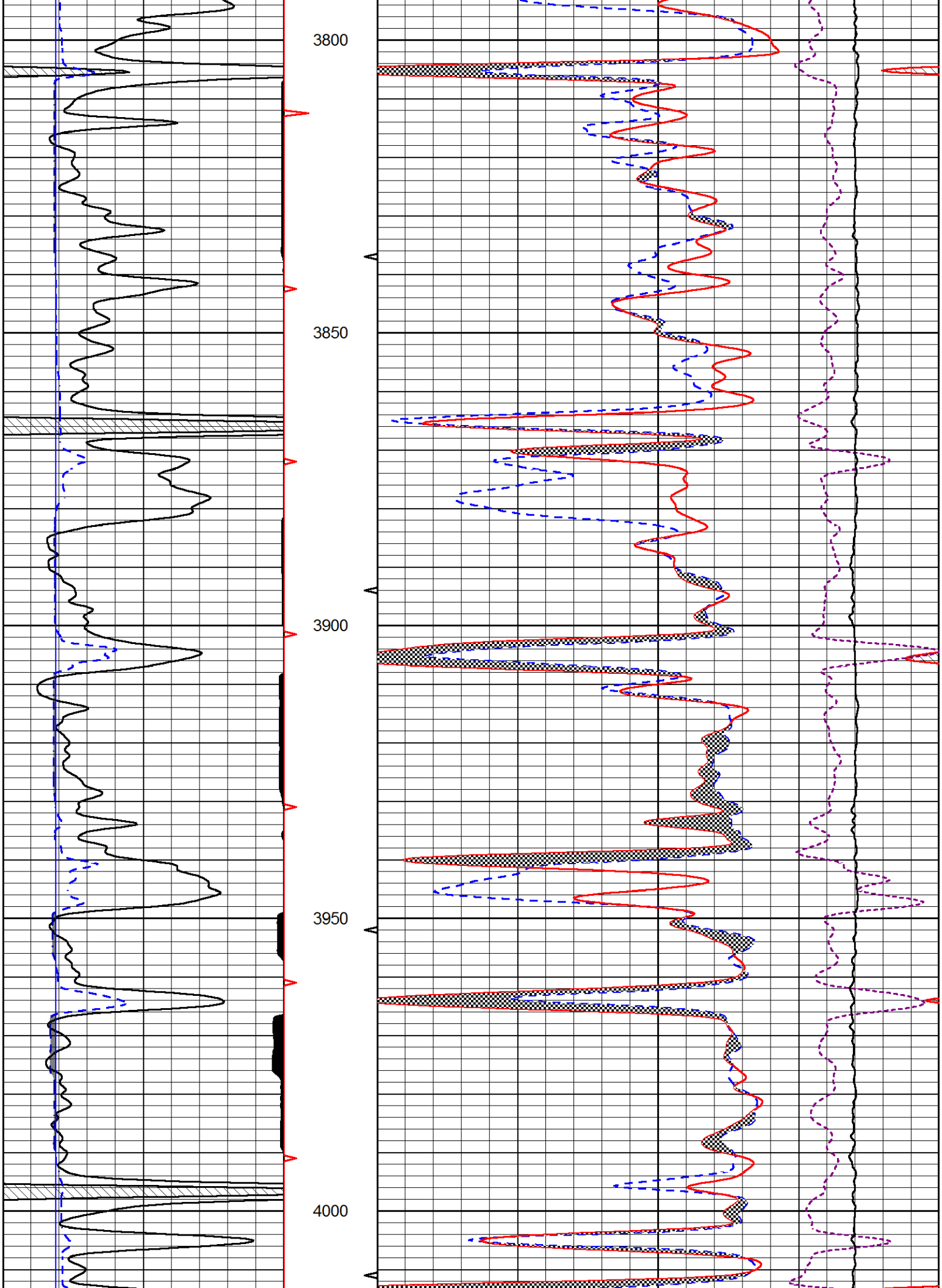


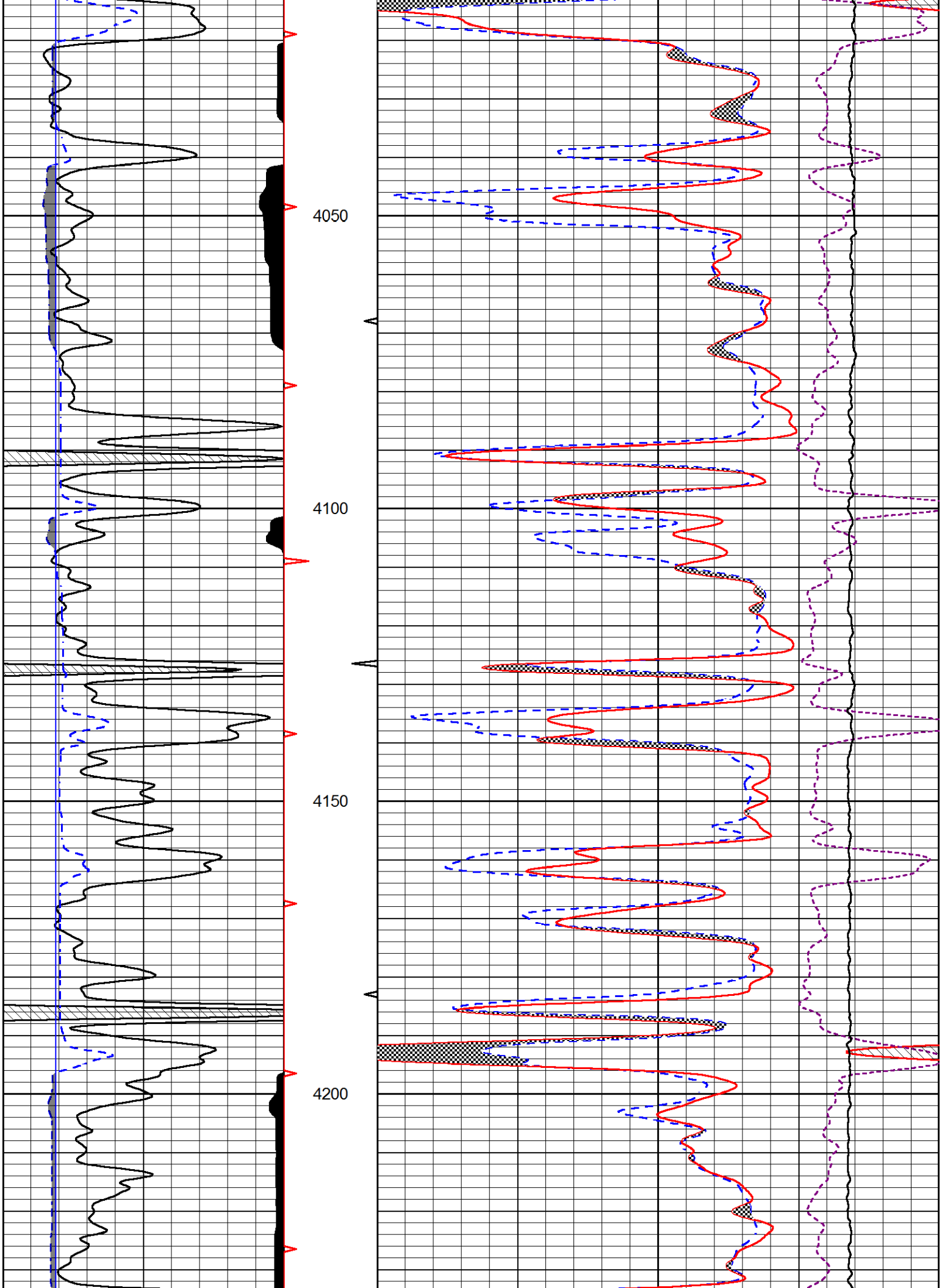

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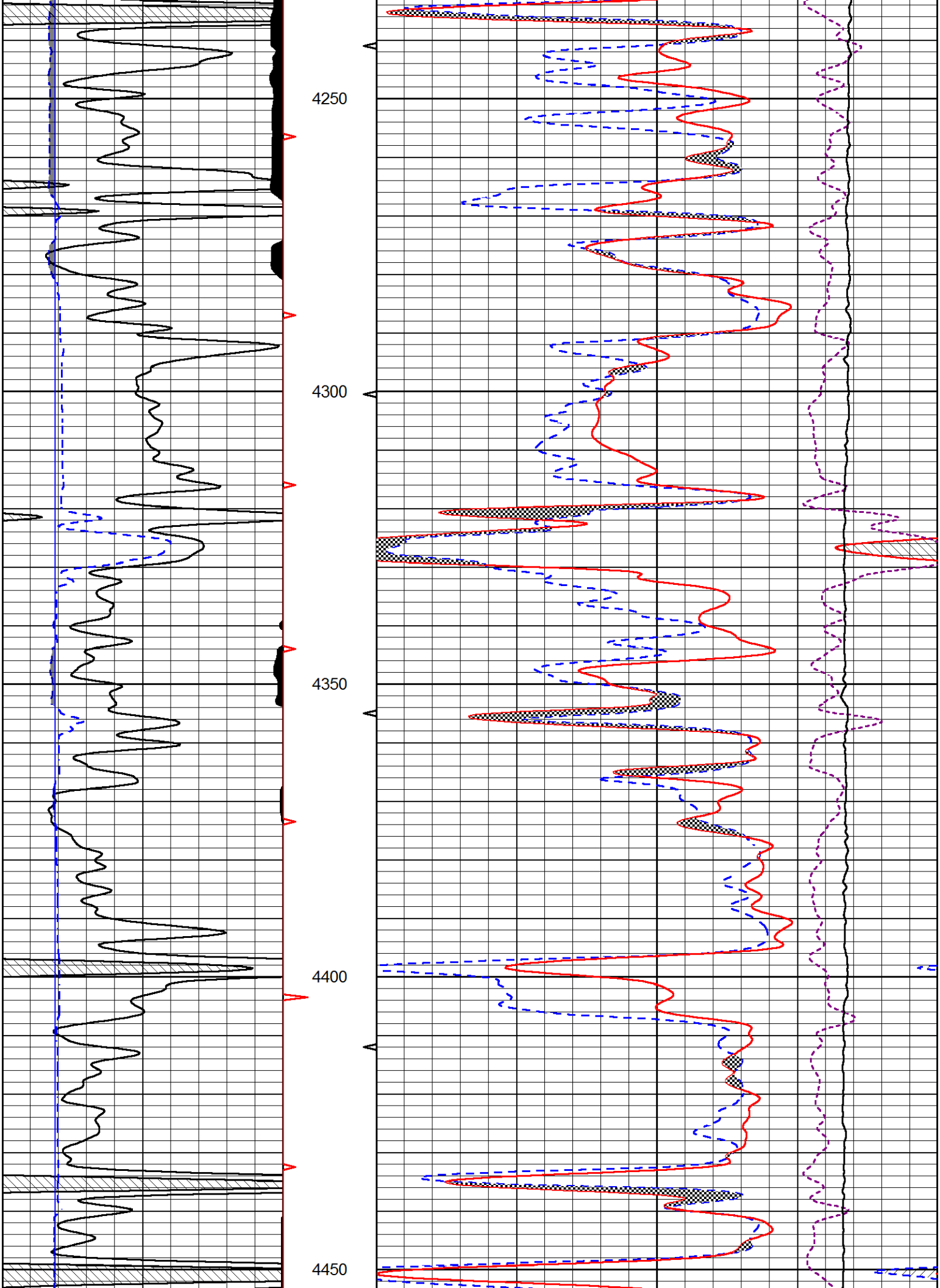
# MAIN PASS

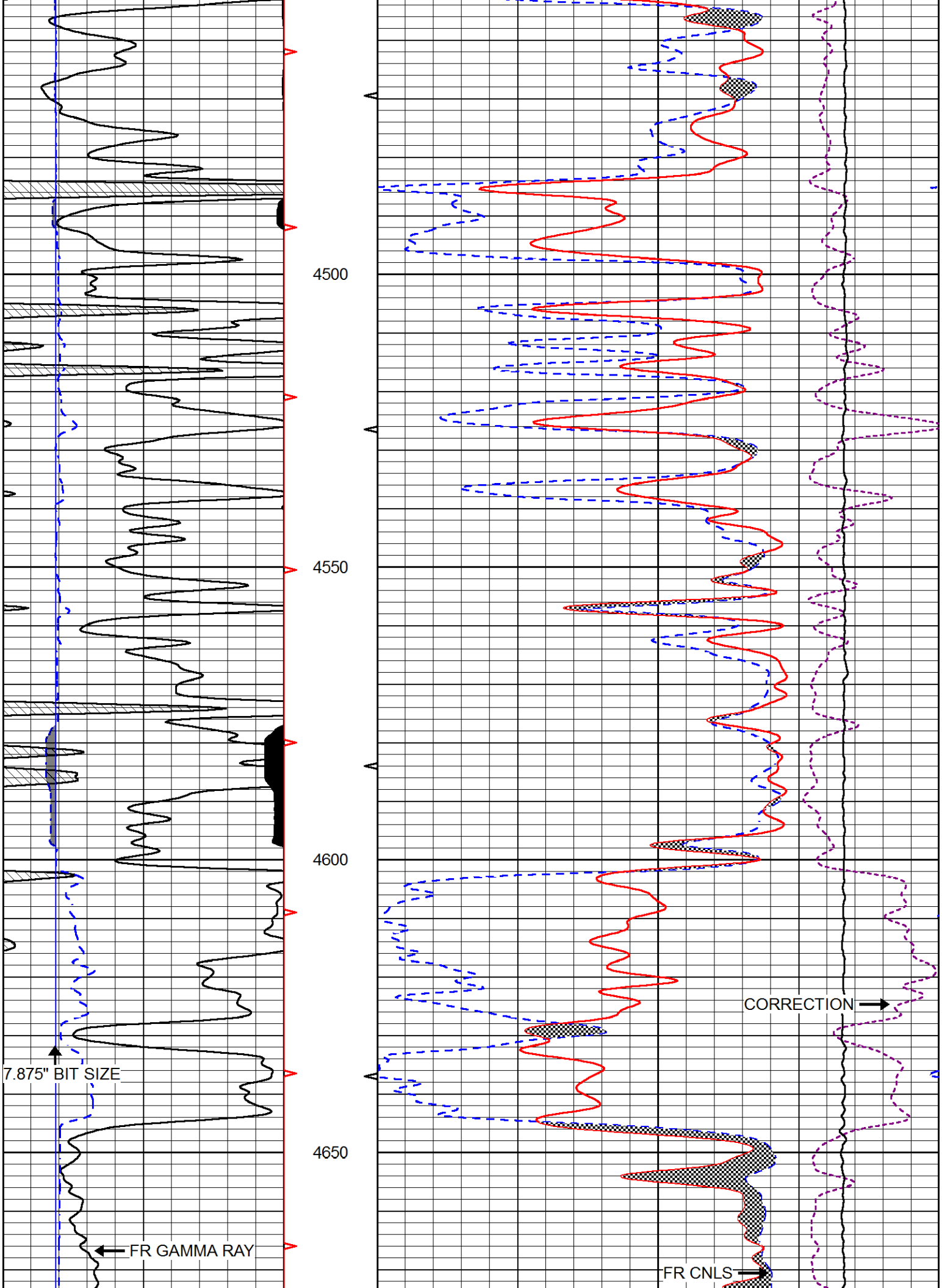
| | |
|---|---|
| Database File | concorde_mcdaniel_1-27.db |
| Dataset Pathname | STKML/pass3.7 |
| Presentation Format | cndlspec |
| Dataset Creation | Sat Mar 18 22:53:33 2017 |
| Charted by | Depth in Feet scaled 1:240 |

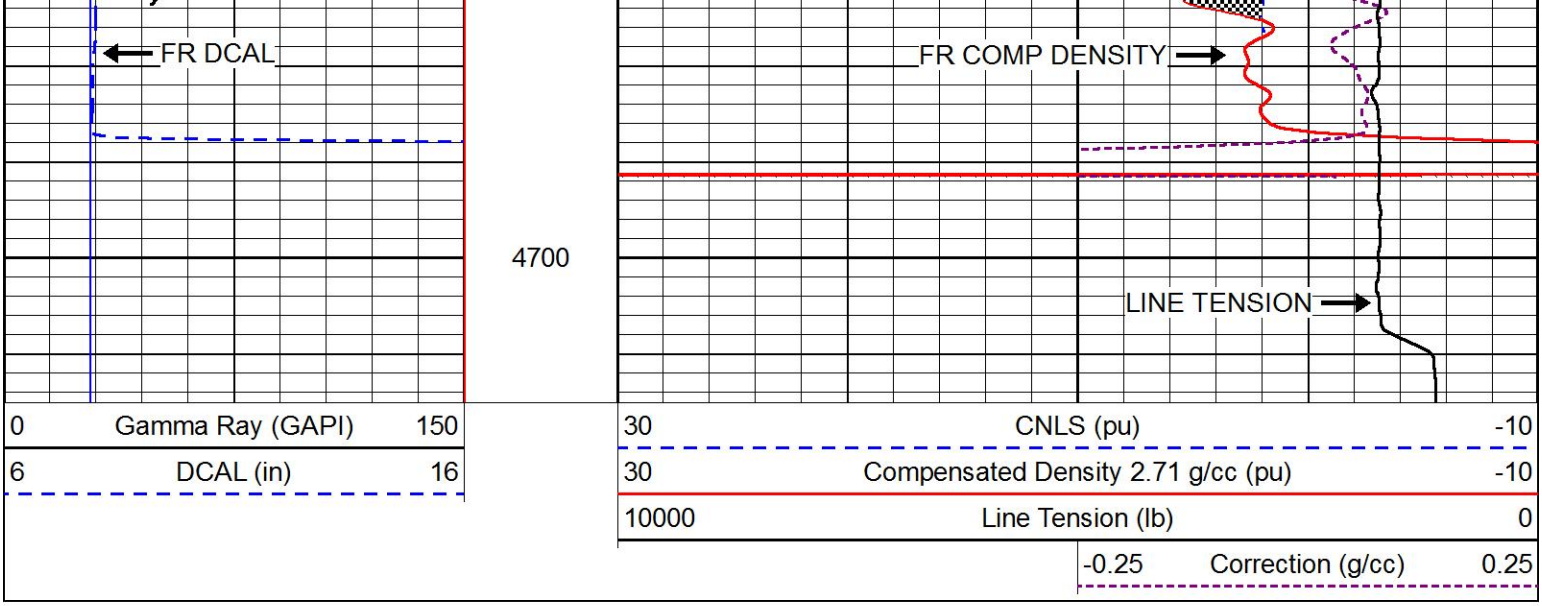

0 Gamma Ray (GAPI) 150
6 DCAL (in) 16
30 CNLS (pu) -10
30 Compensated Density 2.71 g/cc (pu) -10
10000 Line Tension (lb) 0
-0.25 Correction (g/cc) 0.25
3600
3650
3700
3750
DCAL
7.875" BIT SIZE
GAMMA RAY
LINE TENSION
COMP DENSITY
CNLS
CORRECTION


3800
3850
3900
3950
4000


4050
4100
4150
4200


4250
4300
4350
4400
4450

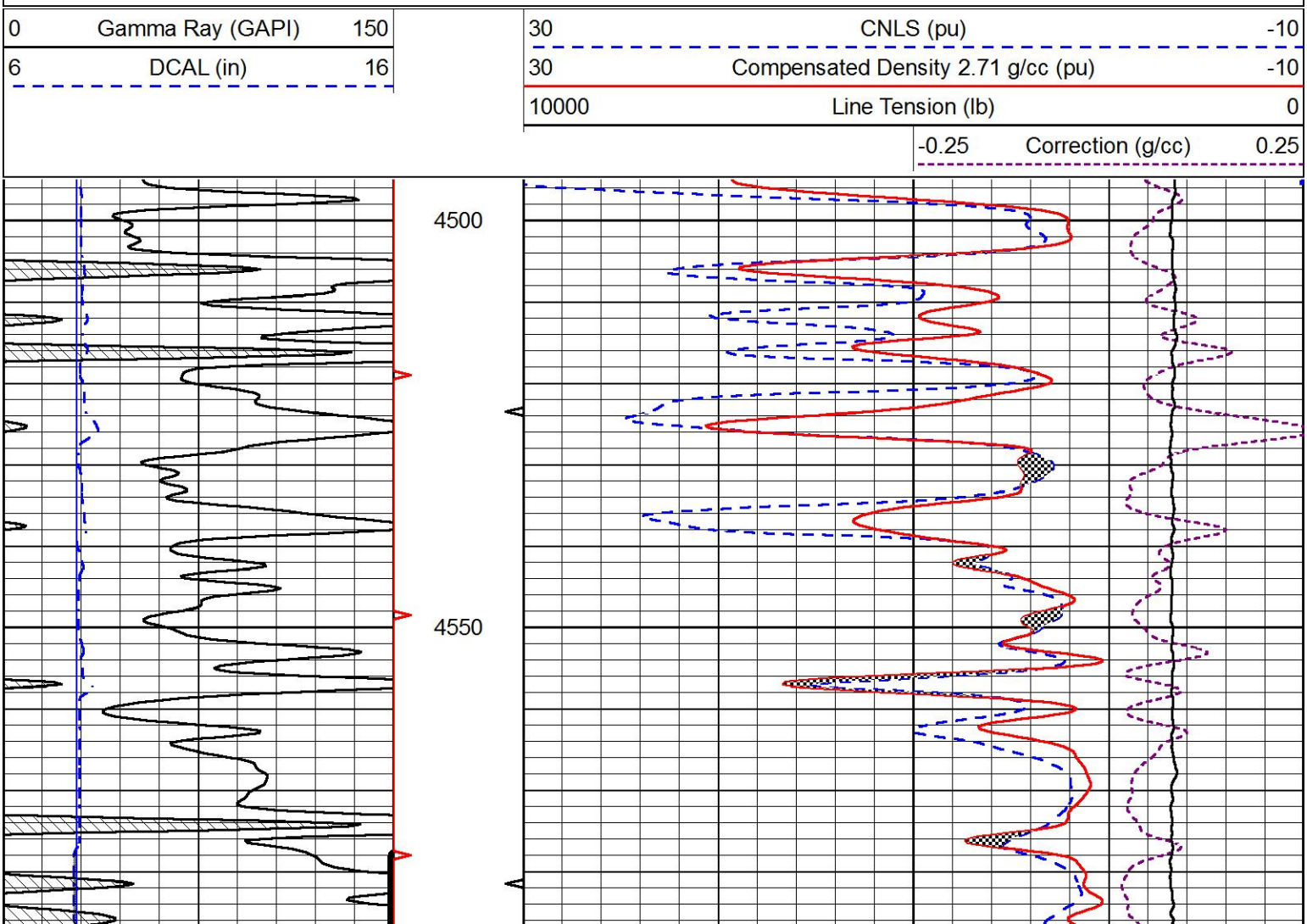

4500
4550
4600
4650
7.875" BIT SIZE
FR GAMMA RAY
CORRECTION
FR CNLS

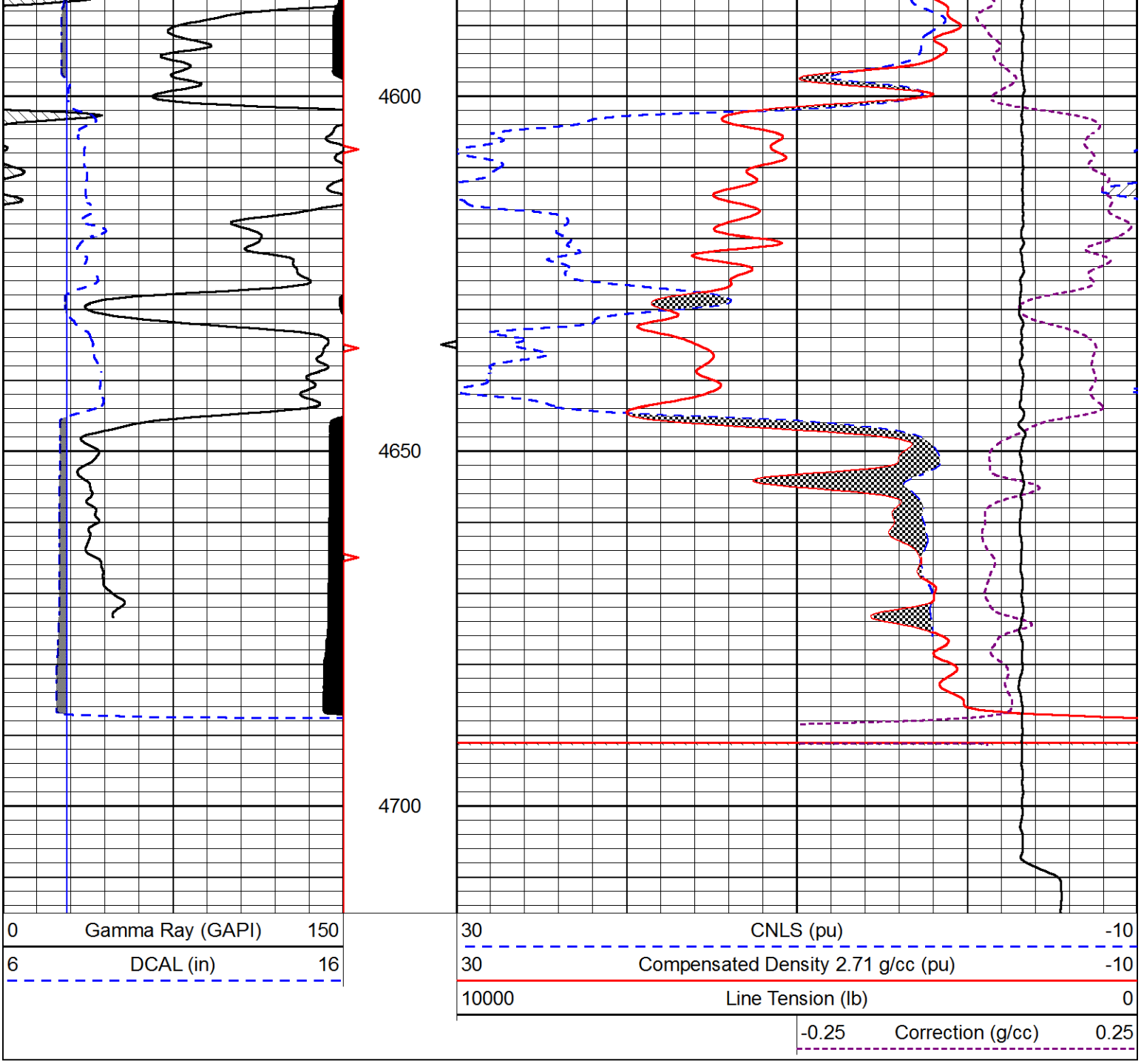



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# REPEAT SECTION

| | |
|---|---|
| Database File | concorde_mcdaniel_1-27.db |
| Dataset Pathname | STKML/pass2.1 |
| Presentation Format | cndlspec |
| Dataset Creation | Sat Mar 18 22:59:20 2017 |
| Charted by | Depth in Feet scaled 1:240 |






## Calibration Report

| | |
|---|---|
| Database File | concorde_mcdaniel_1-27.db |
| Dataset Pathname | STKML/pass3.7 |
| Dataset Creation | Sat Mar 18 22:53:33 2017 |

## Dual Induction Calibration Report

| | |
|---|---|
| Serial-Model: | PSI 13-M&W |
| Calibration Performed: | Wed Mar 01 02:22:22 2017 |

| | Readings | | References | | | Results | |
|---|---|---|---|---|---|---|---|
| Loop: | Air | Loop | Air | Loop | | Gain | Offset |
| Deep | 166.796 | 835.089 | 0.000 | 255.800 | mmho/m | 0.950 | -34.000 |
| Medium | 142.009 | 1348.560 | 0.000 | 255.800 | mmho/m | 0.800 | -30.500 |

## Microlog Calibration Report

Serial-Model: PSI-01-PSIML
Performed: Mon Mar 13 21:58:07 2017

| | Readings | | References | | | Results | |
|---|---|---|---|---|---|---|---|
| | Zero | Cal | Zero | Cal | | m | b |
| Normal | 0.0000 | 1.0000 | 0.0000 | 1.0000 | Ohm-m | 36000.0000 | -1.3000 |
| Inverse | 0.0000 | 1.0000 | 0.0000 | 1.0000 | Ohm-m | 42000.0000 | -0.8000 |
| Caliper | 1.0001 | 1.1397 | 6.5000 | 18.5000 | in | 70.0000 | -65.7500 |

## Compensated Density Calibration Report

Serial-Model: 90-1031-M&W
Source / Verifier: 16955B / 2ci
Master Calibration Performed: Mon Mar 13 21:58:19 2017

### Master Calibration

| | Density | | Far Detector | Near Detector | |
|---|---|---|---|---|---|
| Magnesium | 1.755 | g/cc | 5174.18 | 6425.27 | cps |
| Aluminum | 2.665 | g/cc | 963.17 | 4037.42 | cps |

Spine Angle = 74.55 Density/Spine Ratio = 0.522

| | Size | | Reading |
|---|---|---|---|
| Small Ring | 6.00 | in | 1.83 |
| Large Ring | 16.00 | in | 1.48 |

## Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: Thu Mar 2 10:30:30 2017

| Detector | Readings | | Target | | Normalization |
|---|---|---|---|---|---|
| Short Space | 6240.00 | cps | 1000.00 | cps | 1.6025 |
| Long Space | 460.00 | cps | 1000.00 | cps | 1.9500 |

## Gamma Ray Calibration Report

Serial Number: 89
Tool Model: M&W
Calibration Performed: Thu Mar 02 20:45:00 2017

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 1.0 cps

Sensitivity: 0.6000 GAPI/cps

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Company CONCORDE RESOURCES CORP
Well MCDANIEL #1-27
Field WILDCAT

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| | |
|---|---|
| County | LOGAN |
| State | KANSAS |