



DUAL COMP POROSITY LOG

Company: BEREXCO, LLC
 Well: STURGEON A #1-25
 Field: UNNAMED
 County: CHEYENNE
 State: KANSAS

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Location: API #: 15-023-21536-00-00
 830' FNL & 2180' FWL
 SEC 25 TWP 2S RGE 38W
 Permanent Datum: GROUND LEVEL Elevation 3372'
 Log Measured From: KELLY BUSHING
 Drilling Measured From: KELLY BUSHING
 Other Services: DIL/MEL BHCS
 Elevation: 3380'
 K.B.: N/A
 D.F.: N/A
 G.L.: 3372'

Date	5/21/2020						
Run Number	ONE						
Type Log	CNL/CDL						
Depth Driller	4980'						
Depth Logger	4980'						
Bottom Logged Interval	4951'						
Top Logged Interval	3600'						
Type Fluid In Hole	CHEMICAL						
Salinity, PPM CL	600						
Density	9.5						
Level	FULL						
Max. Rec. Temp. F	126						
Operating Rig Time	5 HOURS						
Equipment -- Location	P-24 HAYS						
Recorded By	D. SCHMIDT						
Witnessed By	BRYAN BYNOG						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
ONE	12.25"	0'	327'	8.625"	23#	0'	327'
TWO	7.875"	327'					
Casing Record							

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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.

BIRD CITY,
 7 NORTH TO U RD, 1/2 EAST,
 SOUTH INTO

Log Measured From: KELLY BUSHING 8 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew		This Log Record Was Witnessed By	
Engineer: D. SCHMIDT	Operator:	Primary Witness: BRYAN BYNOG	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	44.50		GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC CNSSC	41.40 40.65		CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	32.35 32.33 31.85		CDL-M&W (817-947)	8.50	4.00	250.00
MCAL MI MN	20.87 20.87 20.87		ML-PSI UDM ML (UDM-01) Stackable Microlog Tools	11.50	4.00	215.00
RLL3F RLL3	15.80 15.80					
CILD	8.00		DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILM	4.70					
SP	0.20					

Dataset: berexco_sturgeon a 1-25.db: field/well/STKML/pass3.1
 Total length: 47.00 ft
 Total weight: 835.00 lb
 O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\berexco_sturgeon a 1-25.db
 Dataset field/well/STKML/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	1050	0	Off	0

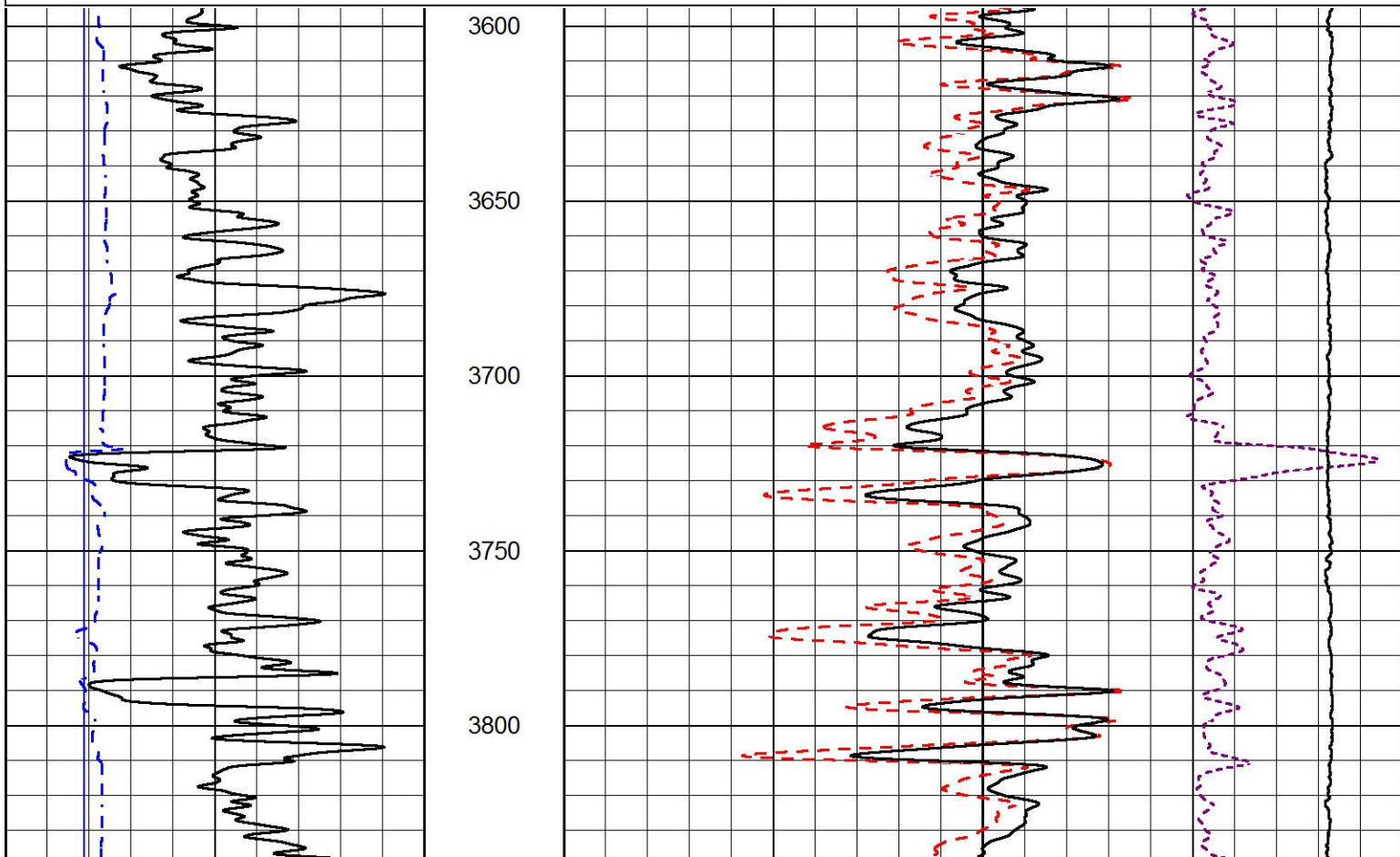


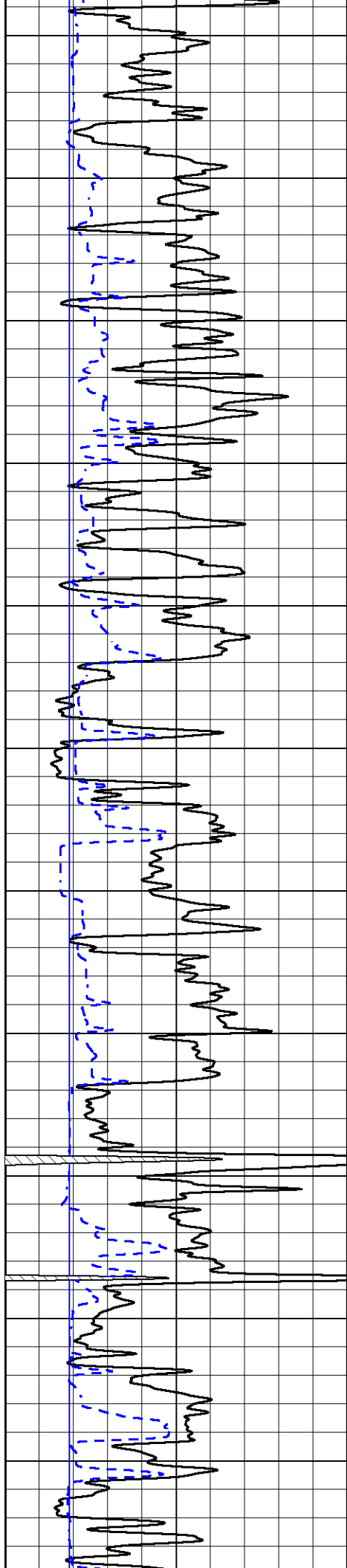
MAIN PASS

Database File berexco_sturgeon a 1-25.db
 Dataset Pathname STKML/pass3.1
 Presentation Format _cdl
 Dataset Creation Thu May 21 02:58:35 2020
 Charted by Depth in Feet scaled 1:600

0	GAMMA RAY (GAPI)	150
6	DCAL (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

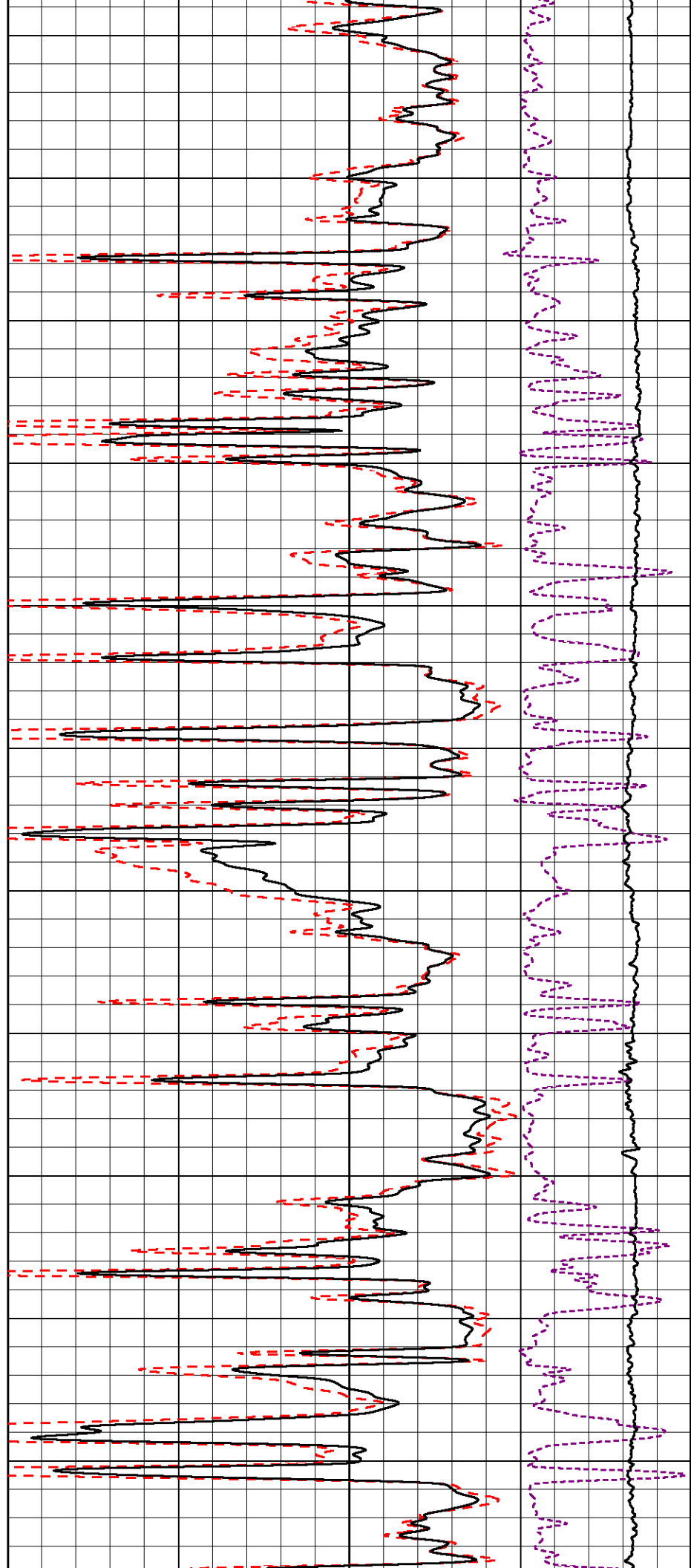
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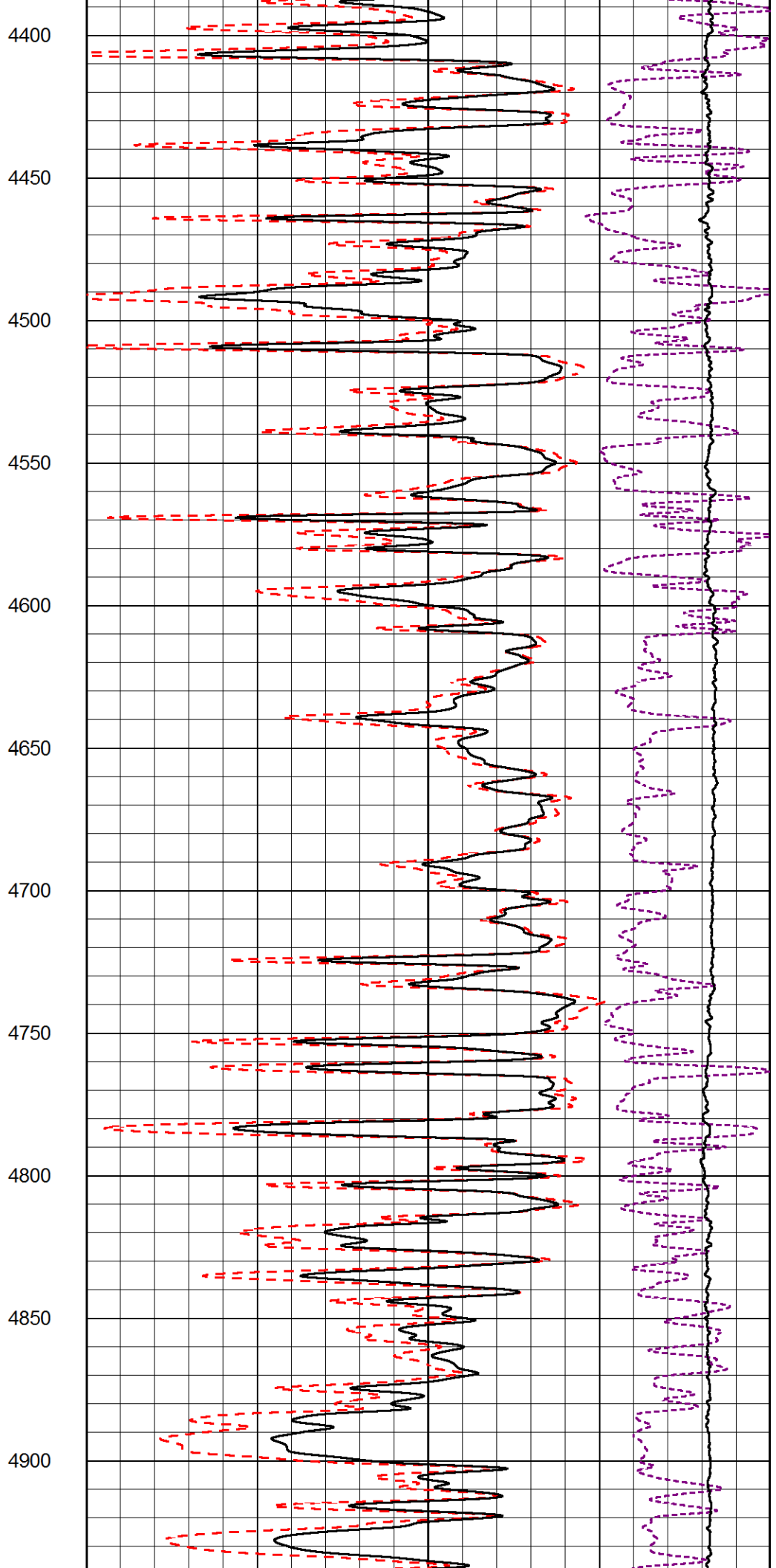
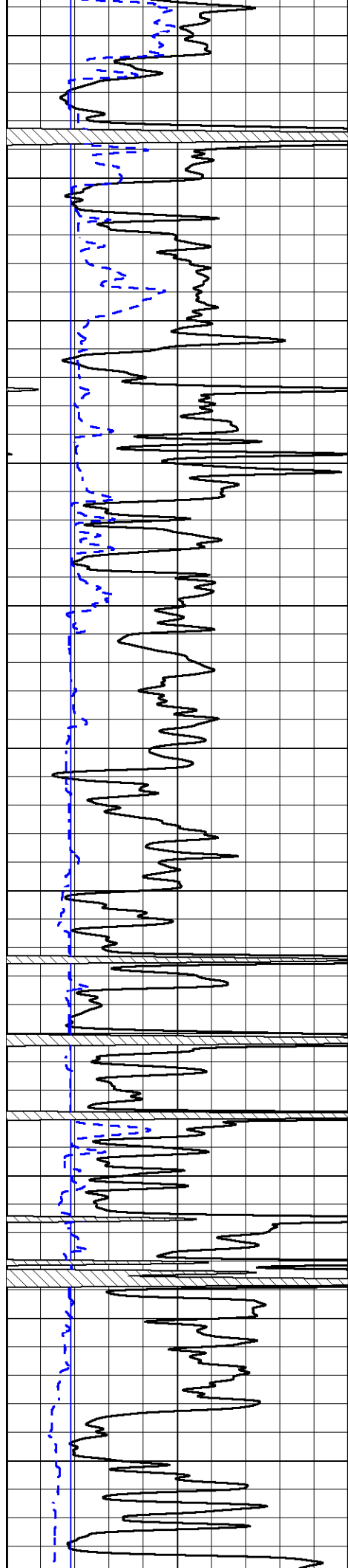
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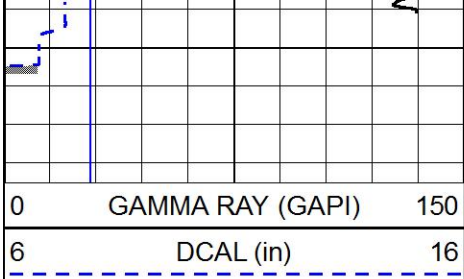
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4300

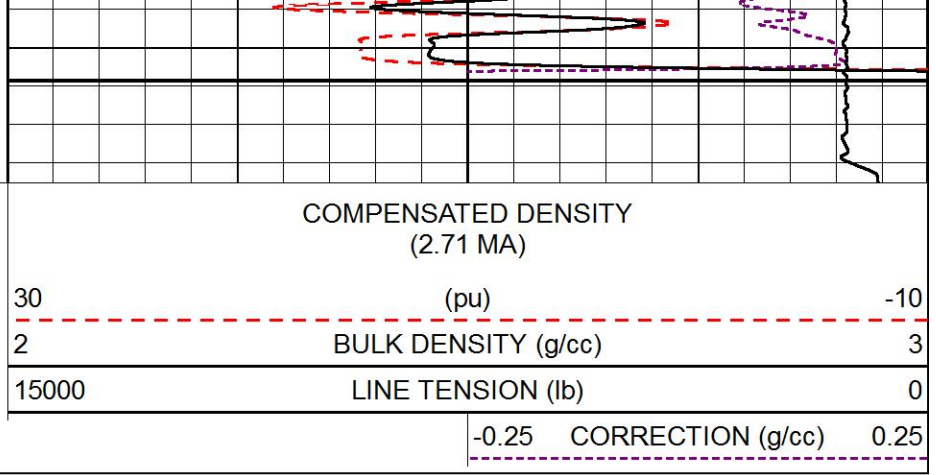
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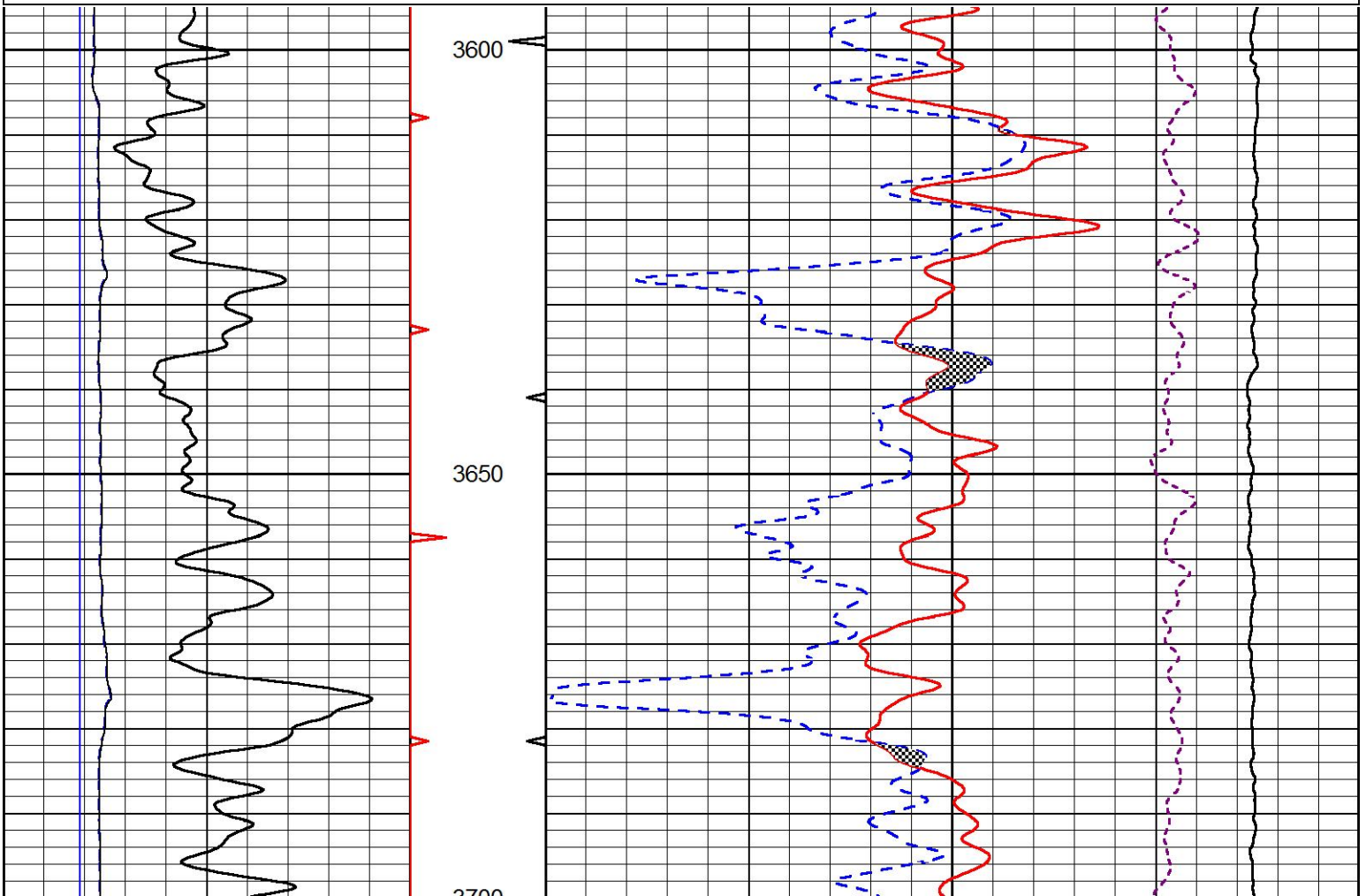
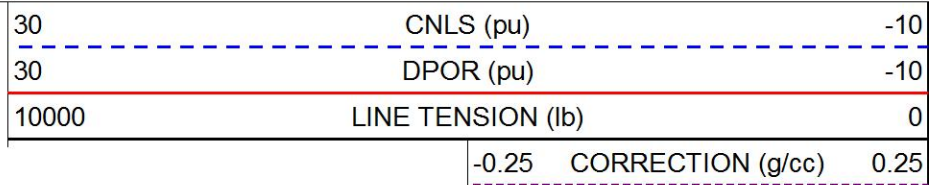
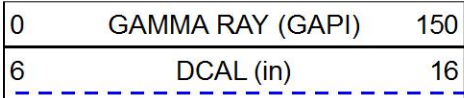


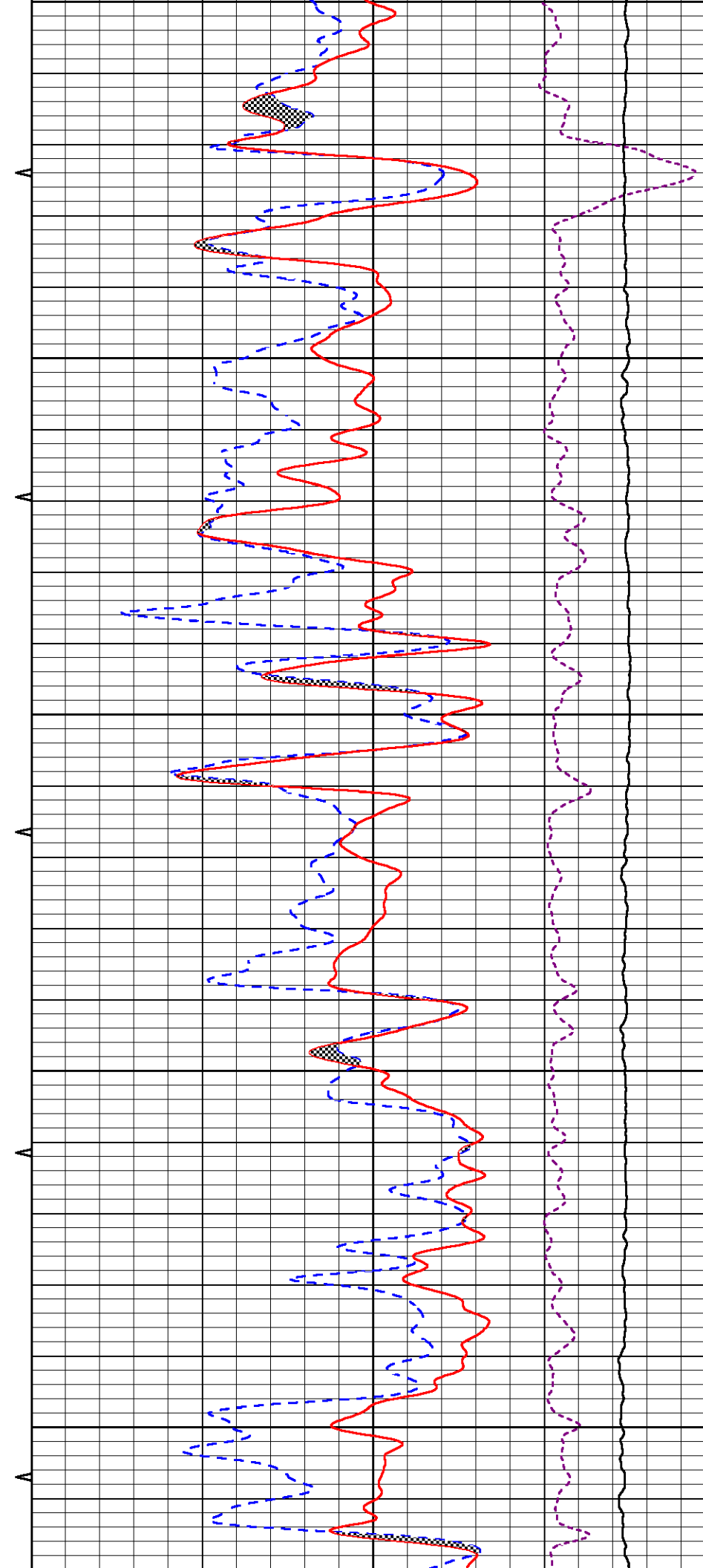
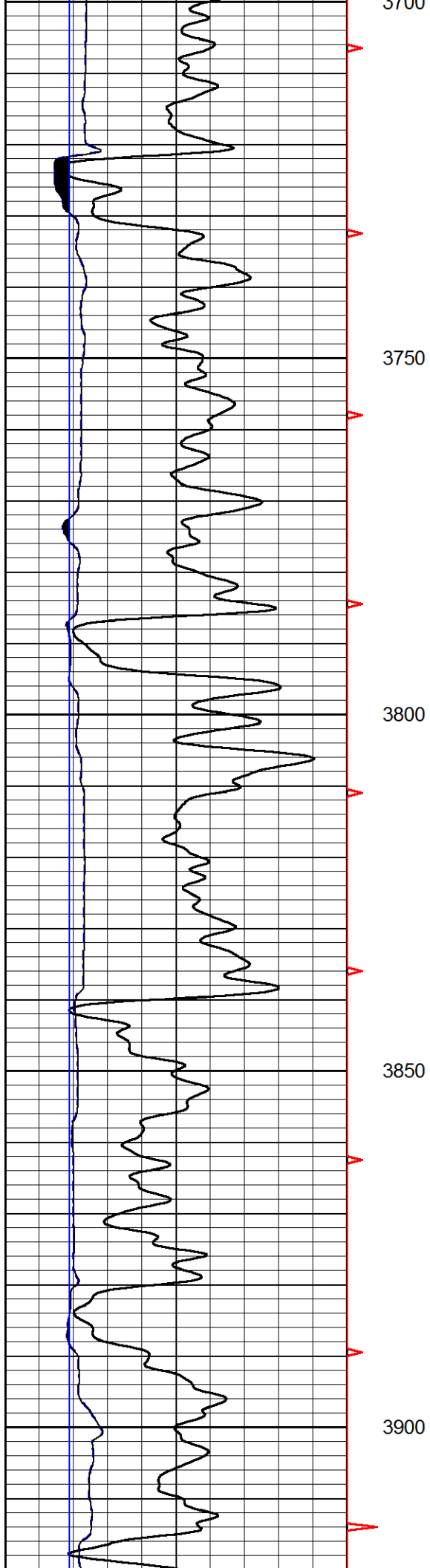
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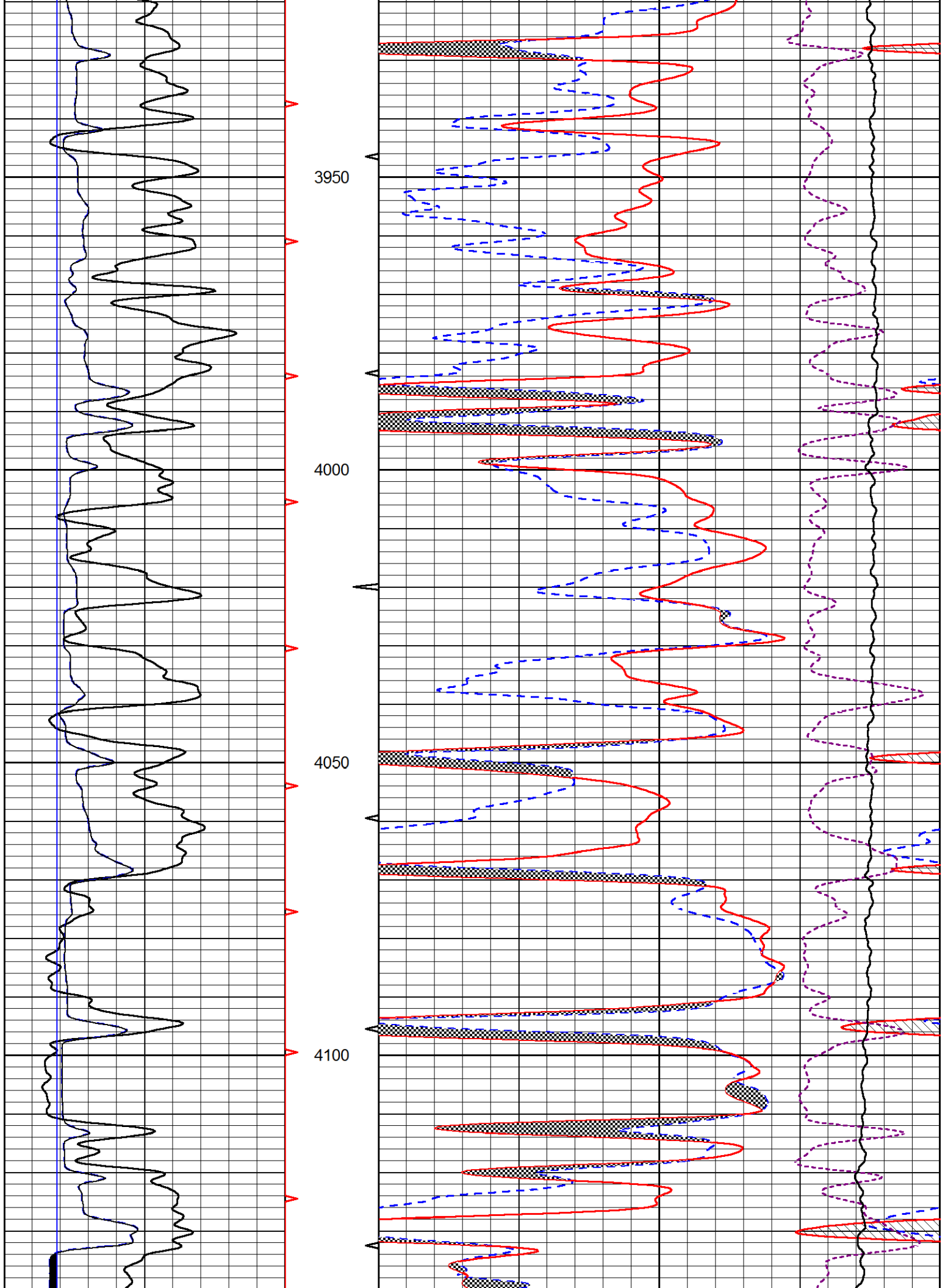


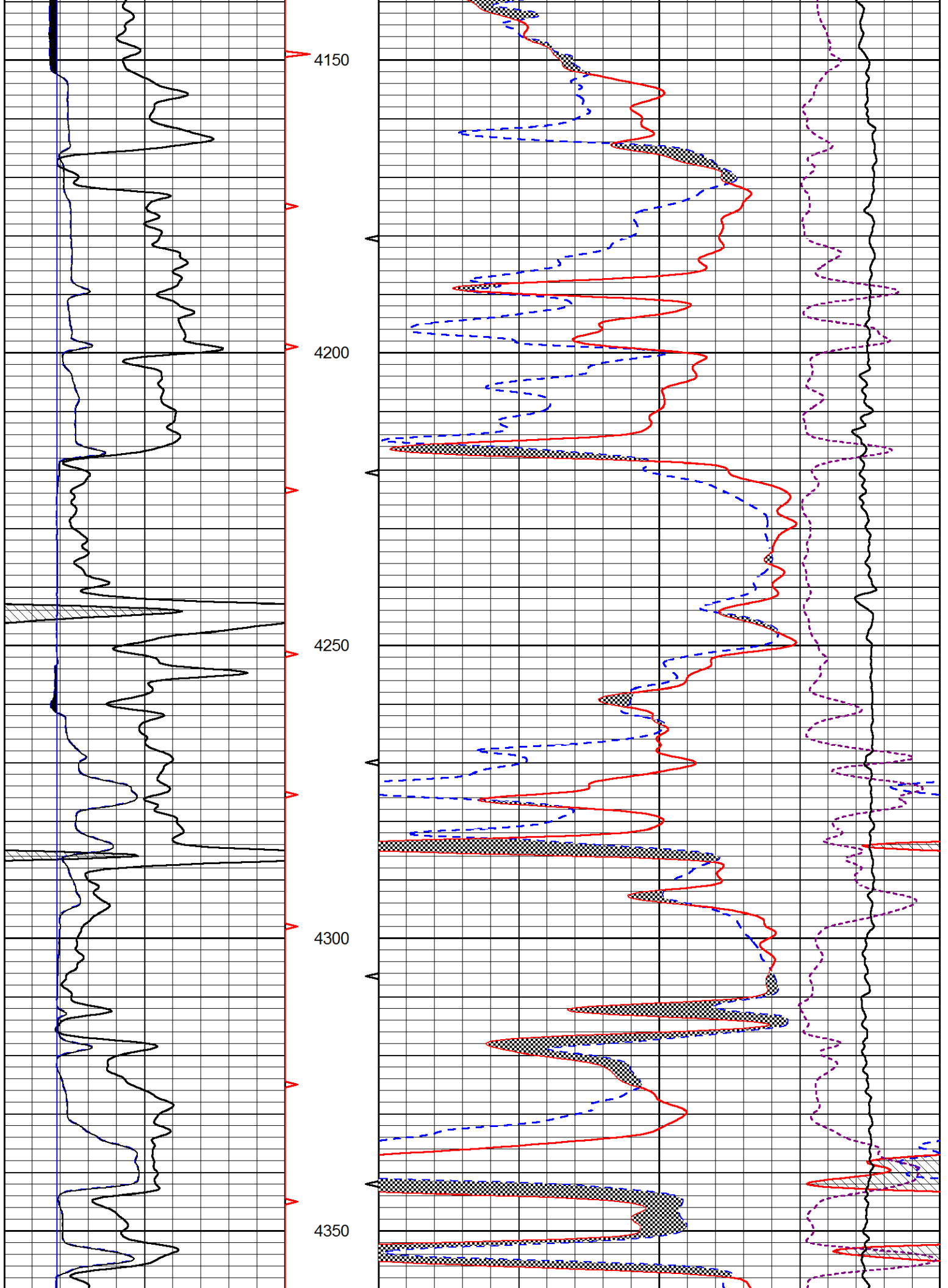
MAIN PASS

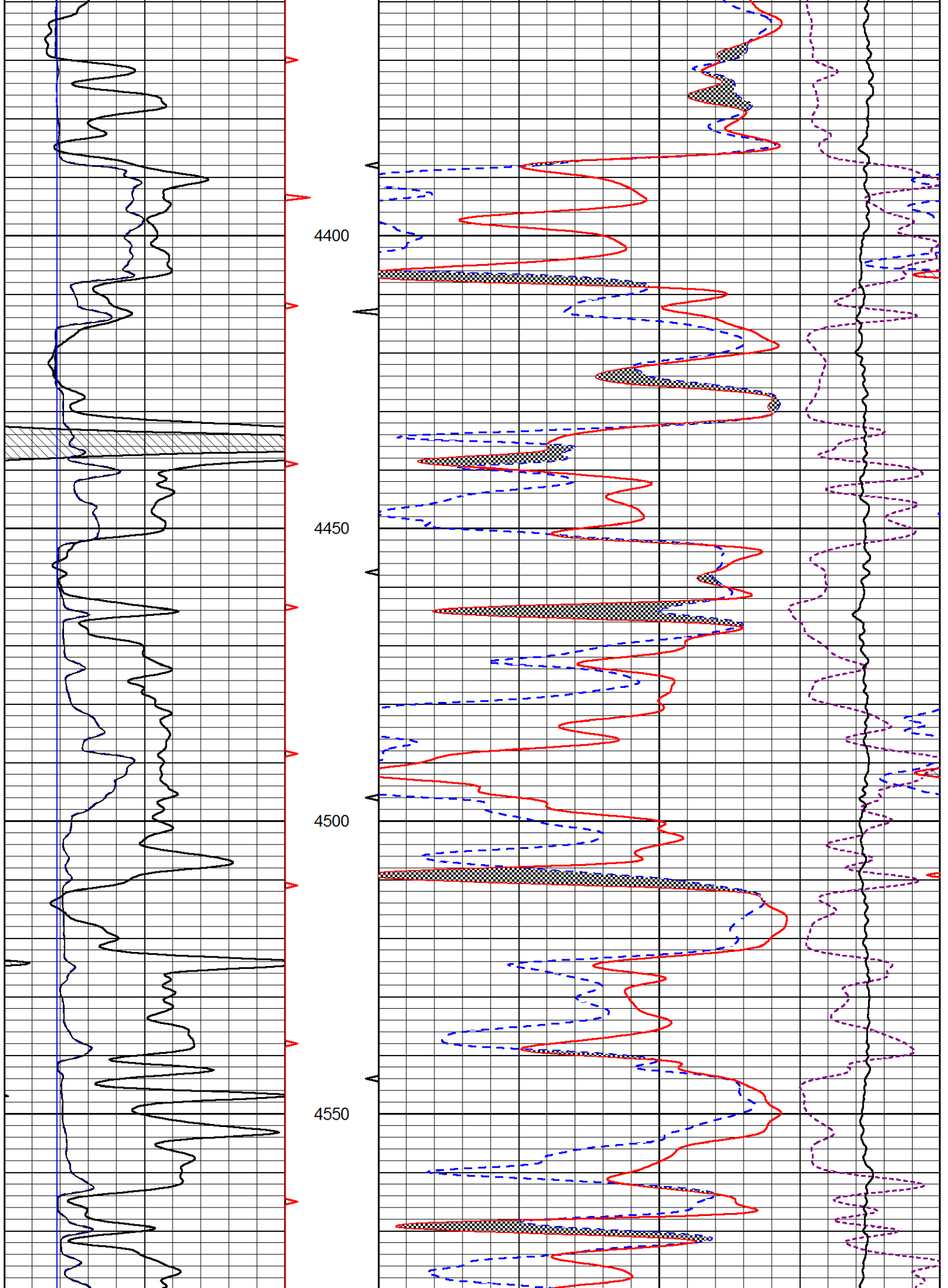
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 Dataset Pathname STKML/pass3.1
 Presentation Format _CNDLS~1
 Dataset Creation Thu May 21 02:58:35 2020
 Charted by Depth in Feet scaled 1:240

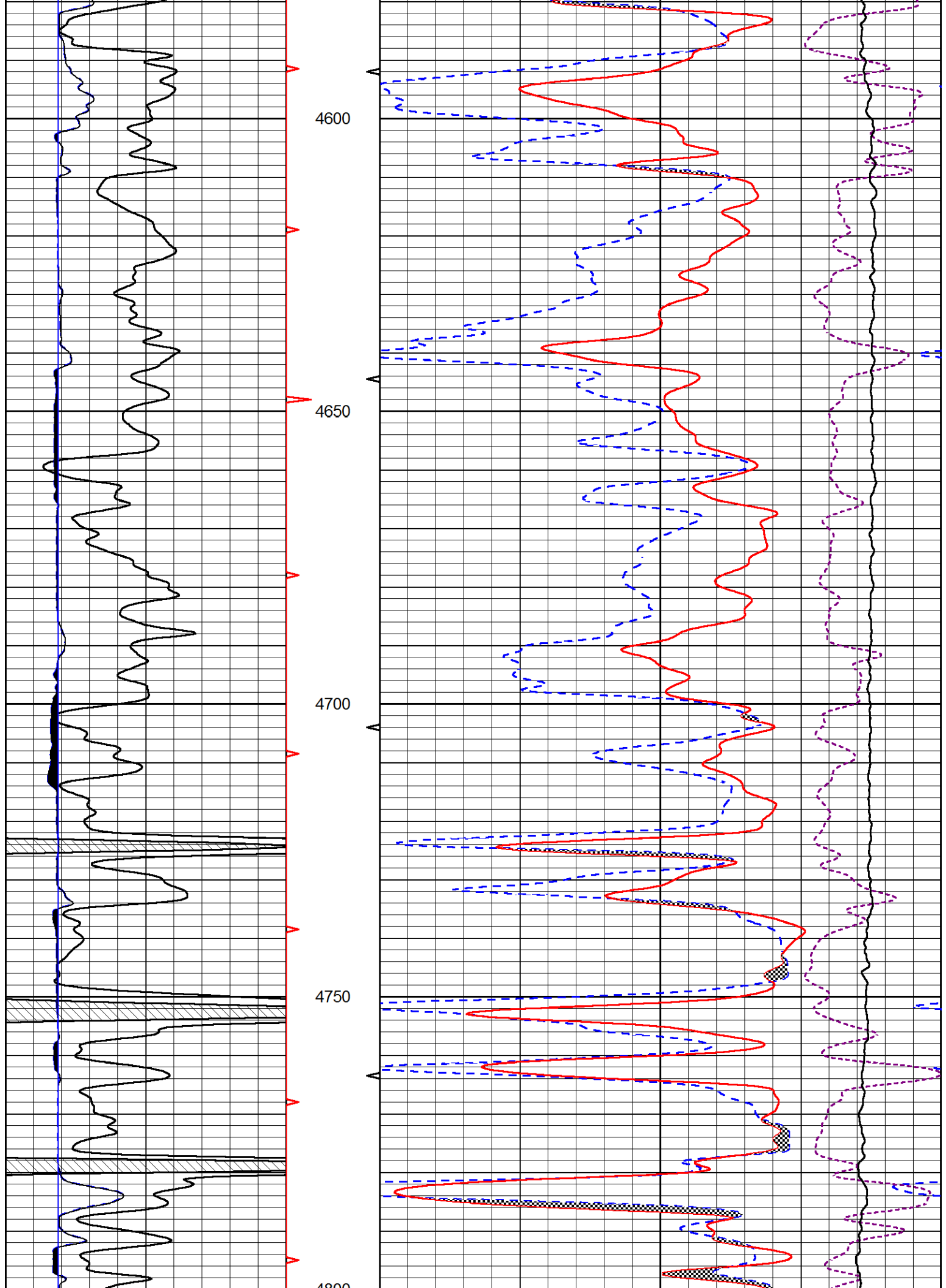


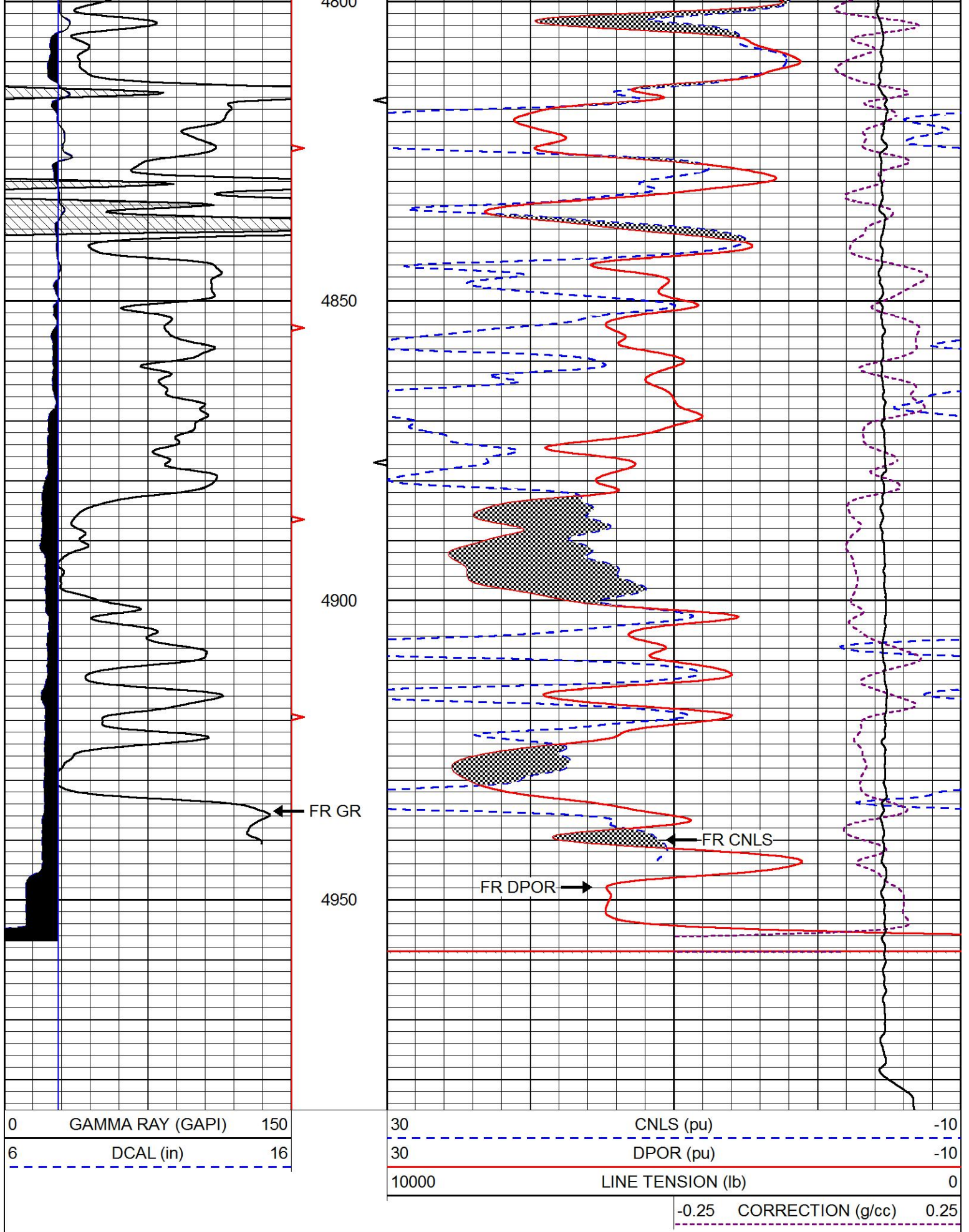










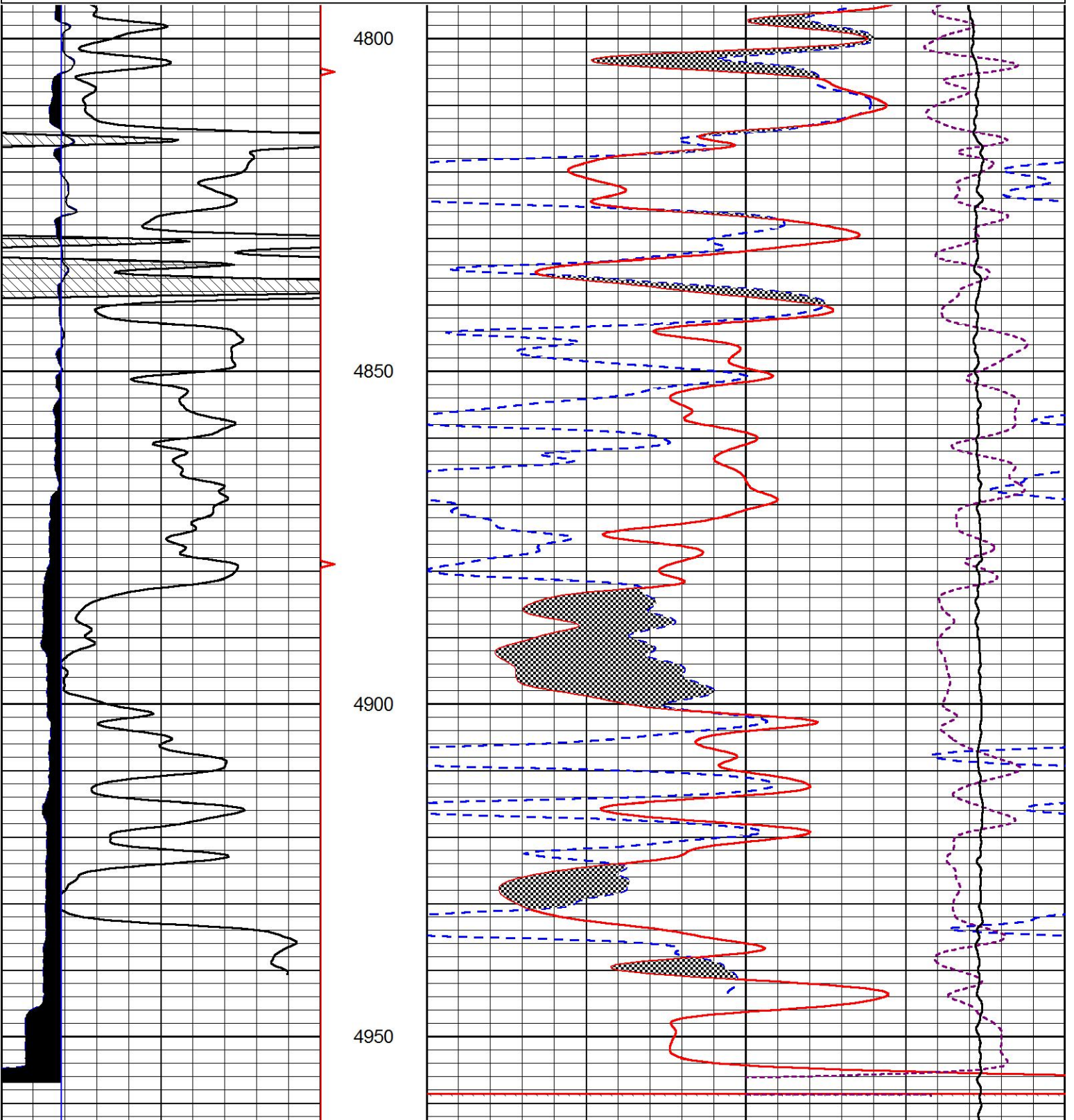


REPEAT SECTION

Database File berexco_sturgeon a 1-25.db
Dataset Pathname STKML/pass2.1
Presentation Format _CNDLS~1
Dataset Creation Thu May 21 02:49:38 2020
Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

30	CNLS (pu)	-10
30	DPOR (pu)	-10
10000	LINE TENSION (lb)	0
-0.25	CORRECTION (g/cc)	0.25



0	GAMMA RAY (GAPI)	150	30	CNLS (pu)	-10
6	DCAL (in)	16	30	DPOR (pu)	-10
			10000	LINE TENSION (lb)	0
				-0.25 CORRECTION (g/cc)	0.25

Calibration Report

Database File berexco_sturgeon a 1-25.db
 Dataset Pathname STKML/pass3.1
 Dataset Creation Thu May 21 02:58:35 2020

Dual Induction Calibration Report

Serial-Model: 952-828-PSI HIGH TEMP
 Calibration Performed: Sun Mar 01 09:43:59 2020

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.470	-33.000
Medium	0.000	1348.000	142.000	255.000	mmho/m	0.320	-31.000

Microlog Calibration Report

Serial-Model: UDM-01-PSI UDM ML
 Performed: Sun Jan 05 15:35:23 2020

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	29000.0000	-0.1000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	25000.0000	0.0000
Caliper	1.0020	1.2631	6.5000	21.0000	in	55.5374	-70.0000

Compensated Density Calibration Report

Serial-Model: 817-947-M&W
 Source / Verifier: 16955B / 2ci
 Master Calibration Performed: Tue Sep 24 21:18:50 2019

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	6127.15	5922.31	cps
Aluminum	2.670	g/cc	1141.85	3762.09	cps

Spine Angle = 74.89

Density/Spine Ratio = 0.526

	Size		Reading
Small Ring	4.50	in	1.02

Compensated Neutron Calibration Report

Serial Number: 207-MW
 Tool Model: M&W
 Calibration Performed: WED FEB 13 10:30:30 2019

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: 233-M&W
 Tool Model: M&W
 Calibration Performed: Fri Feb 07 01:42:40 2014

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps
 Calibrator Reading: 1.0 cps

Sensitivity: 0.5500 GAPI/cps



Company BEREXCO, LLC
 Well STURGEON A #1-25
 Field UNNAMED
 County CHEYENNE
 State KANSAS