

DUAL COMP POROSITY LOG

Company Cobalt Energy, LLC

Well McDaniel Trust #1-18

Field N/A

County Logan State Kansas

Location: API #: 15-109-21608-00-00

SW SE NW NE
1191' FNL & 1726' FEL

SEC 18 TWP 15S RGE 33W

DIL/MEL

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Company	Cobalt Energy, LLC
Well	McDaniel Trust #1-18
Field	N/A
County	Logan
State	Kansas

Date	12/23/2020
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Run Number	One
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Type Log	CNL/CDL
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Depth Driller	4600'
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Depth Logger	4603'
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Bottom Logged Interval	4574'
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Top Logged Interval	3500'
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Type Fluid in Hole	Chemical
Oil	Oil
Water	Water
Acid	Acid
Surfactant	Surfactant
Emulsion	Emulsion
Slurry	Slurry
Other	Other

Salinity, PPM CL	5000
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Density	9.2
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Level	F-III
Max. Dis. Temp. L	100

Max. Rec. Temp. F	122
Operating Time	3 Hours

Equipment	Location	Hours
Drilling Rig	1 mile	3 hours

Equipment -- Location	F-24	HA
Recorded By	D Schmidt	

Witnessed By	I amy Nichole
Recorded by	D. Scilla

Witnessed by	LARRY NICHOIS
Barehole Record	

Differential Records		
Bit	From	To
Pin No		

One	12 25"	0'	351'
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010	12.20	0	351
Twp	7 875"	351'	TD

	0	0	-
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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline Services, LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest 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, 4 1/2 West, 2 South, 4 West,
South and East into

Log Measured From: Kelly Bushing 11 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Larry Nicholson
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\cobalt_mcdanieltrust 1-18.db
Dataset field/well/stkml/pass4.4/_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	420	0	Off	0

Variable Description

A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth



MIDWEST WIRELINE

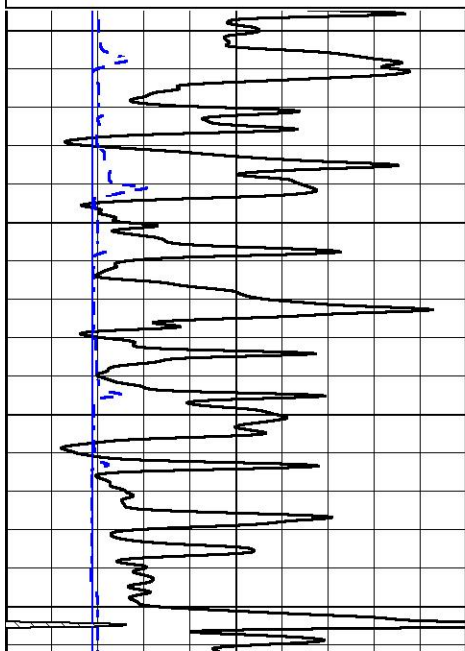
MAIN PASS

Database File cobalt_mcdanieltrust 1-18.db
Dataset Pathname stkml/pass4.1
Presentation Format _cdl
Dataset Creation Wed Dec 23 09:10:21 2020
Charted by Depth in Feet scaled 1:600

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

COMPENSATED DENSITY
(2.65 MA)

30	(pu)	-10
2	BULK DENSITY (g/cc)	3
-0.25	CORRECTION (g/cc)	0.25

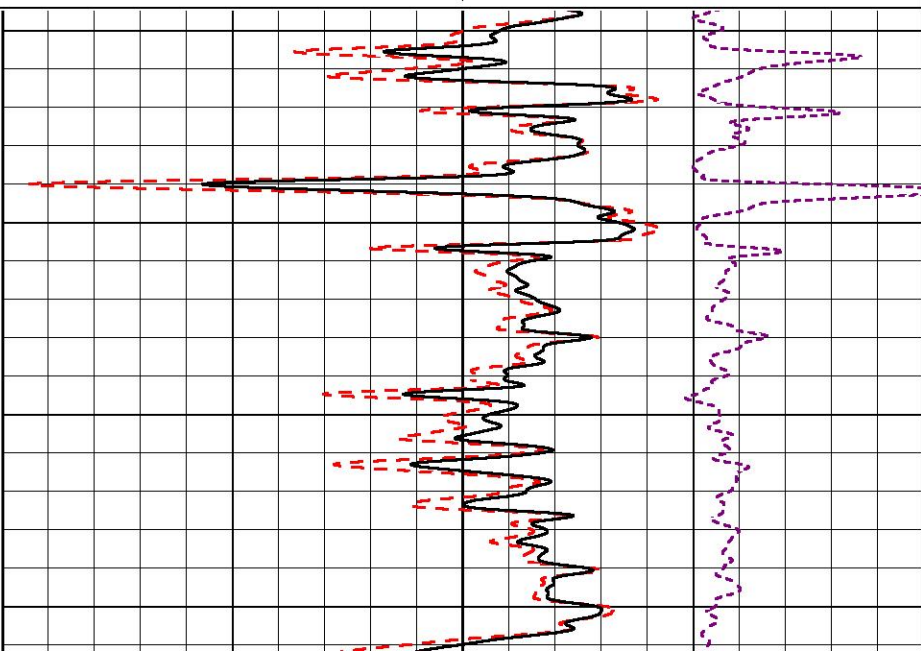


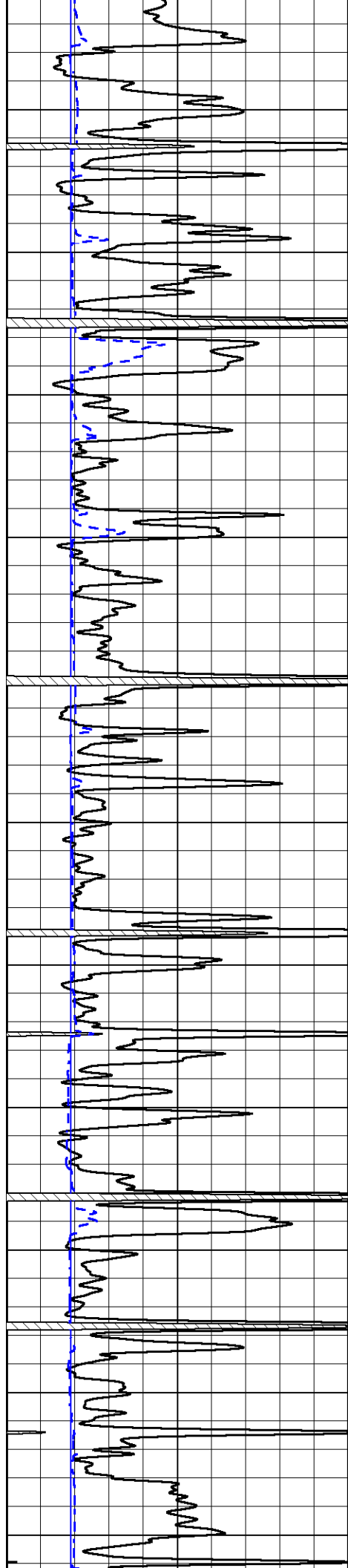
3500

3550

3600

3650





3700

3750

3800

3850

3900

3950

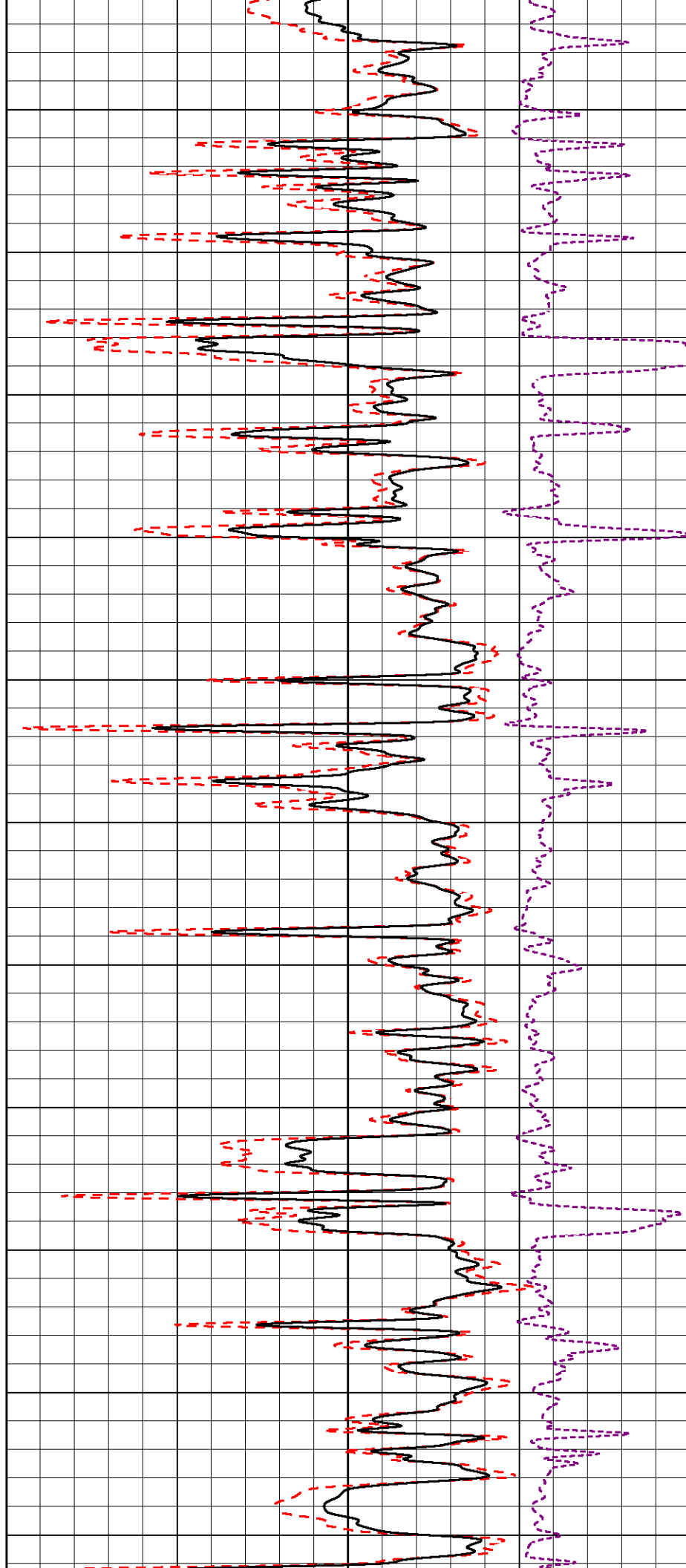
4000

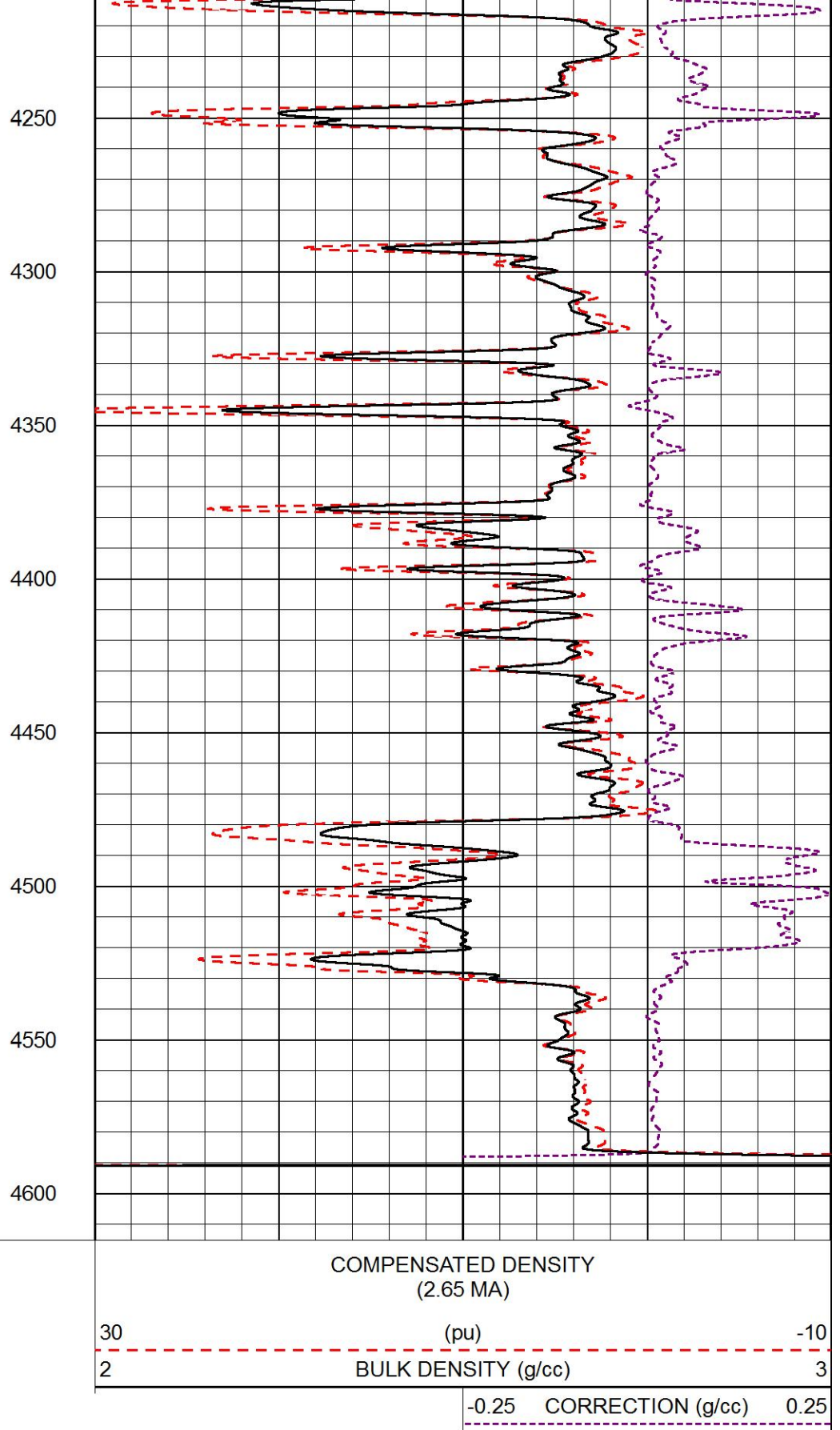
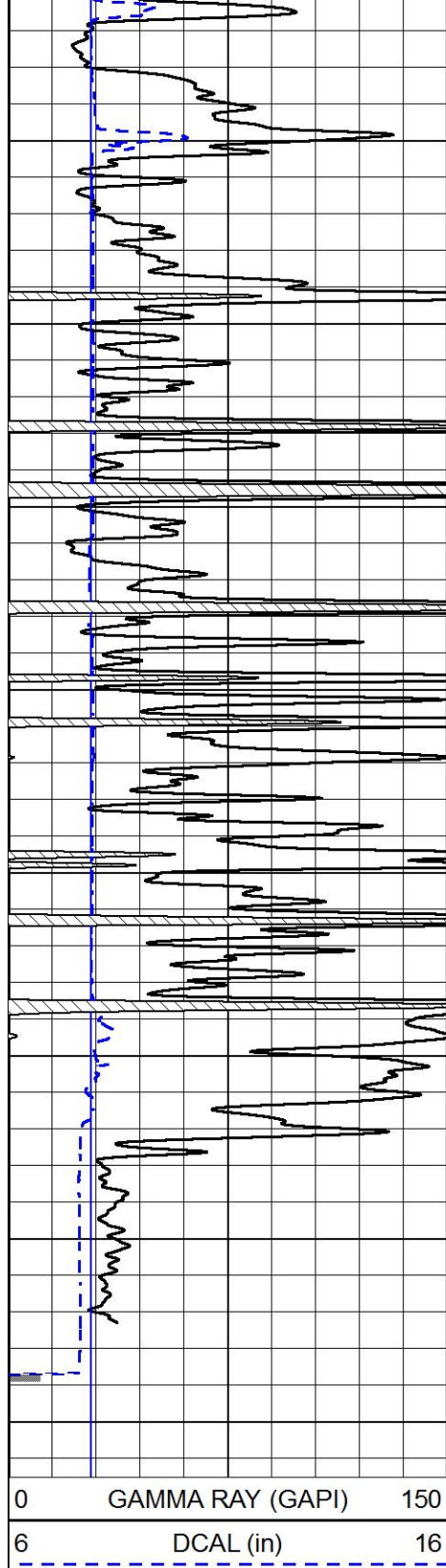
4050

4100

4150

4200

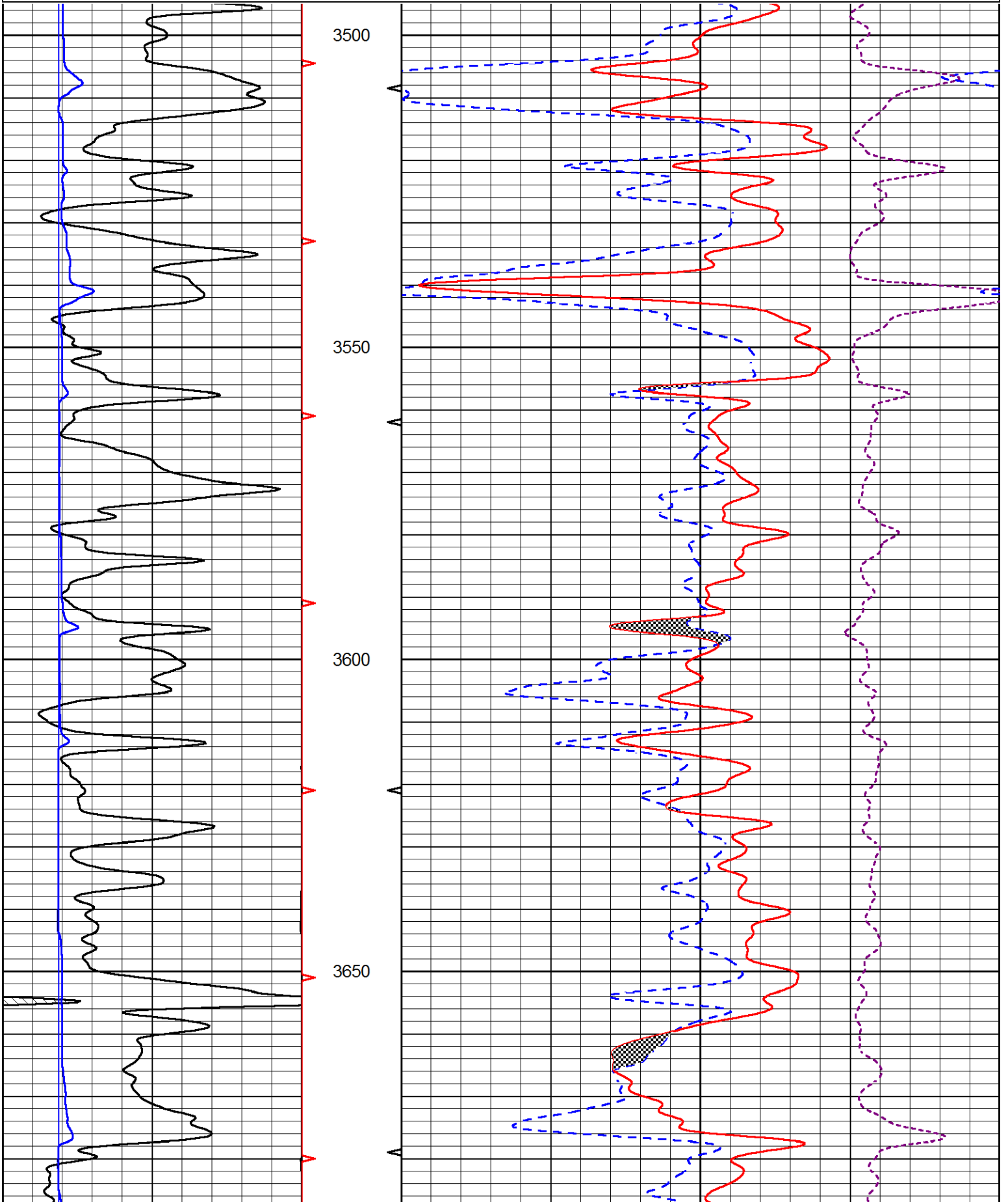


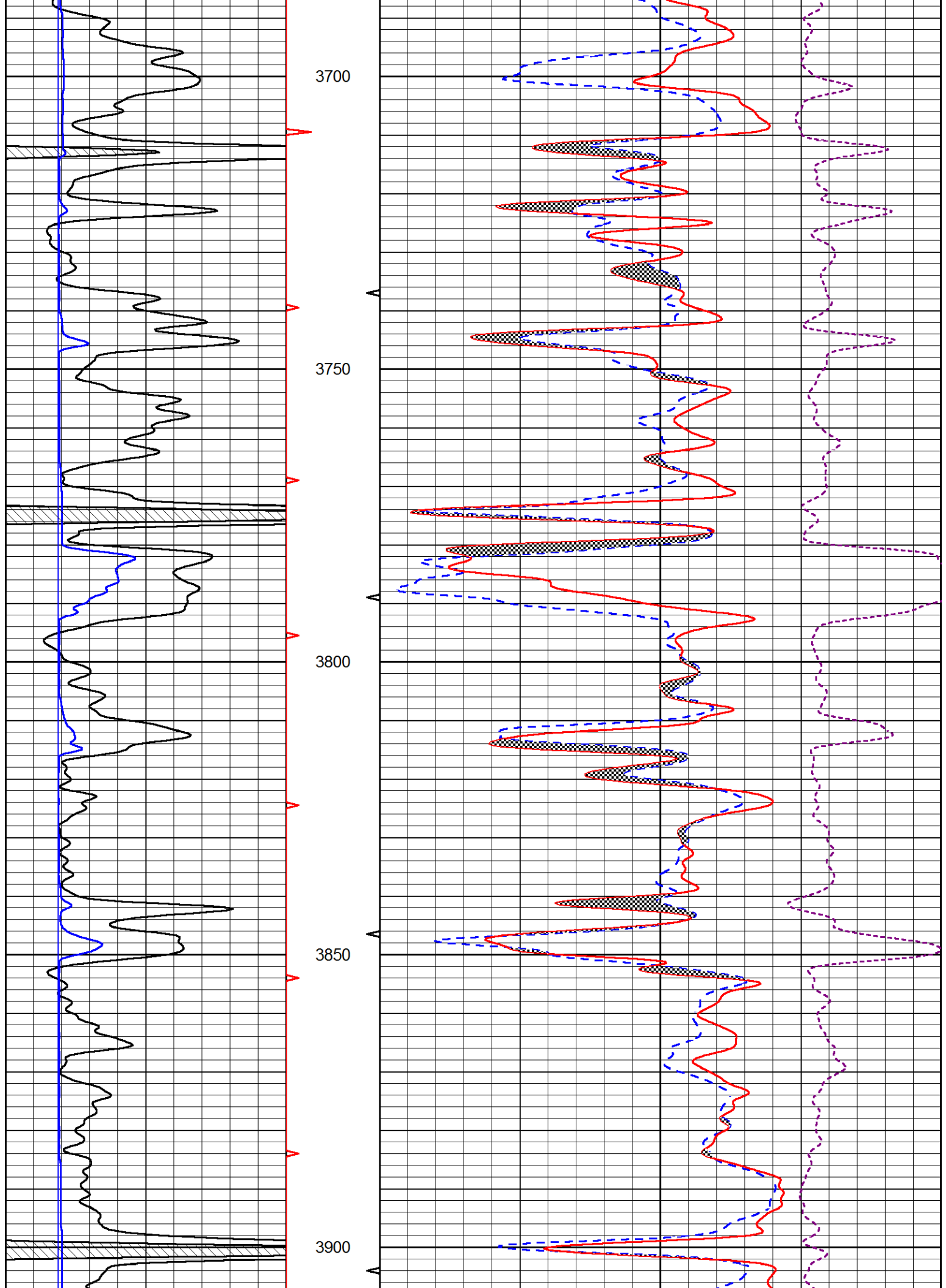


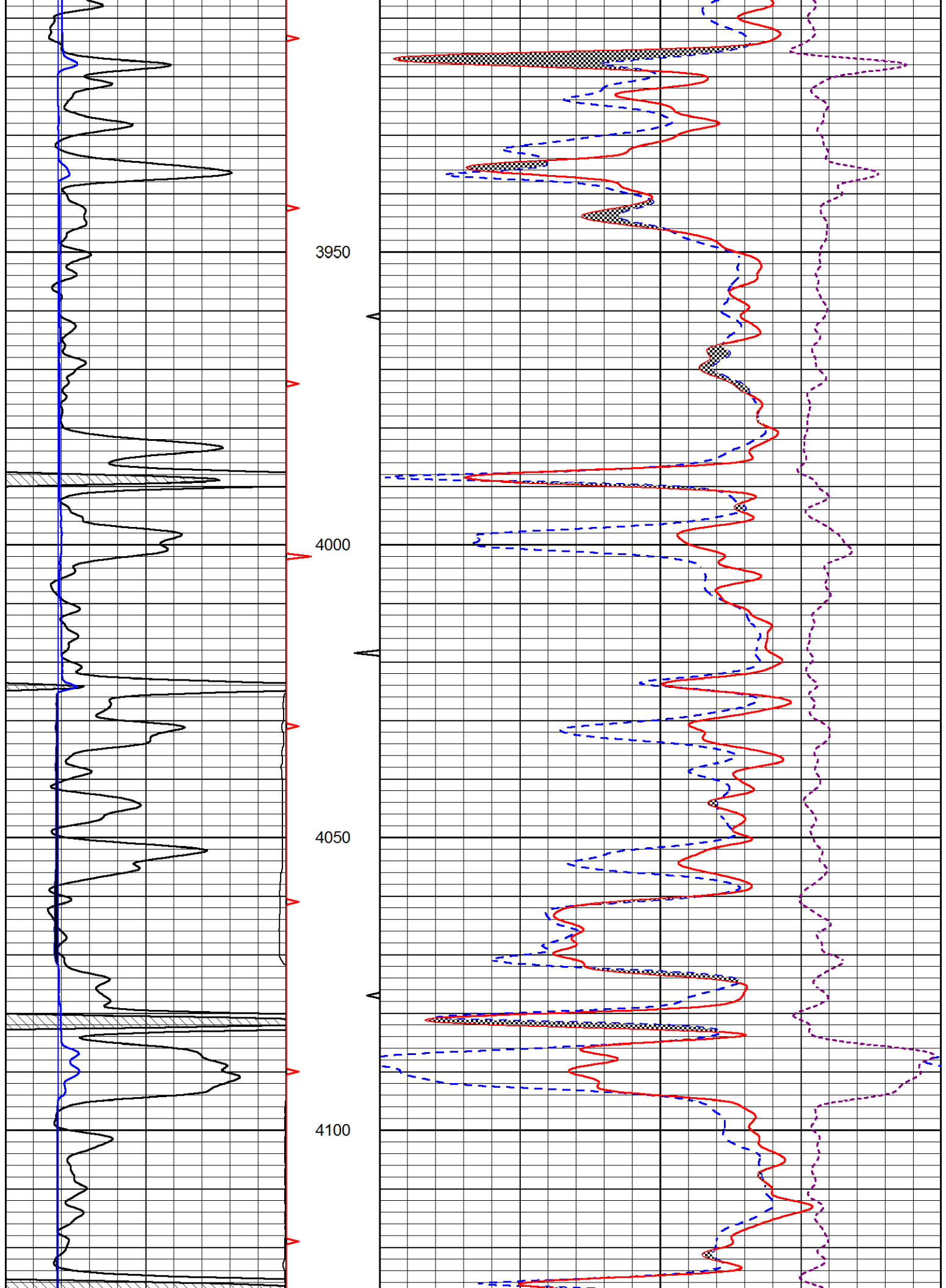
MAIN PASS

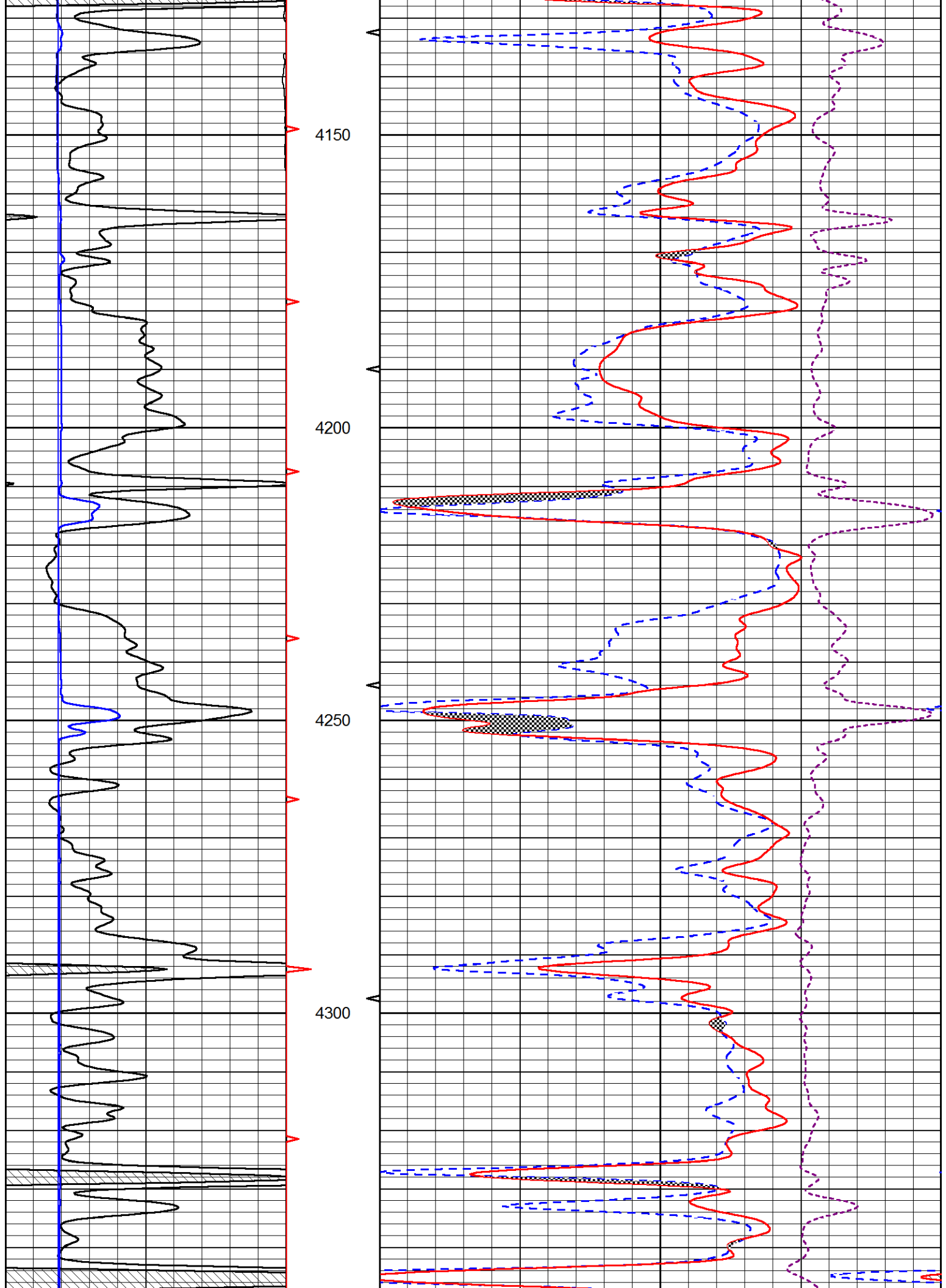
0	GAMMA RAY (GAPI)	150
6	DCAL (in)	16

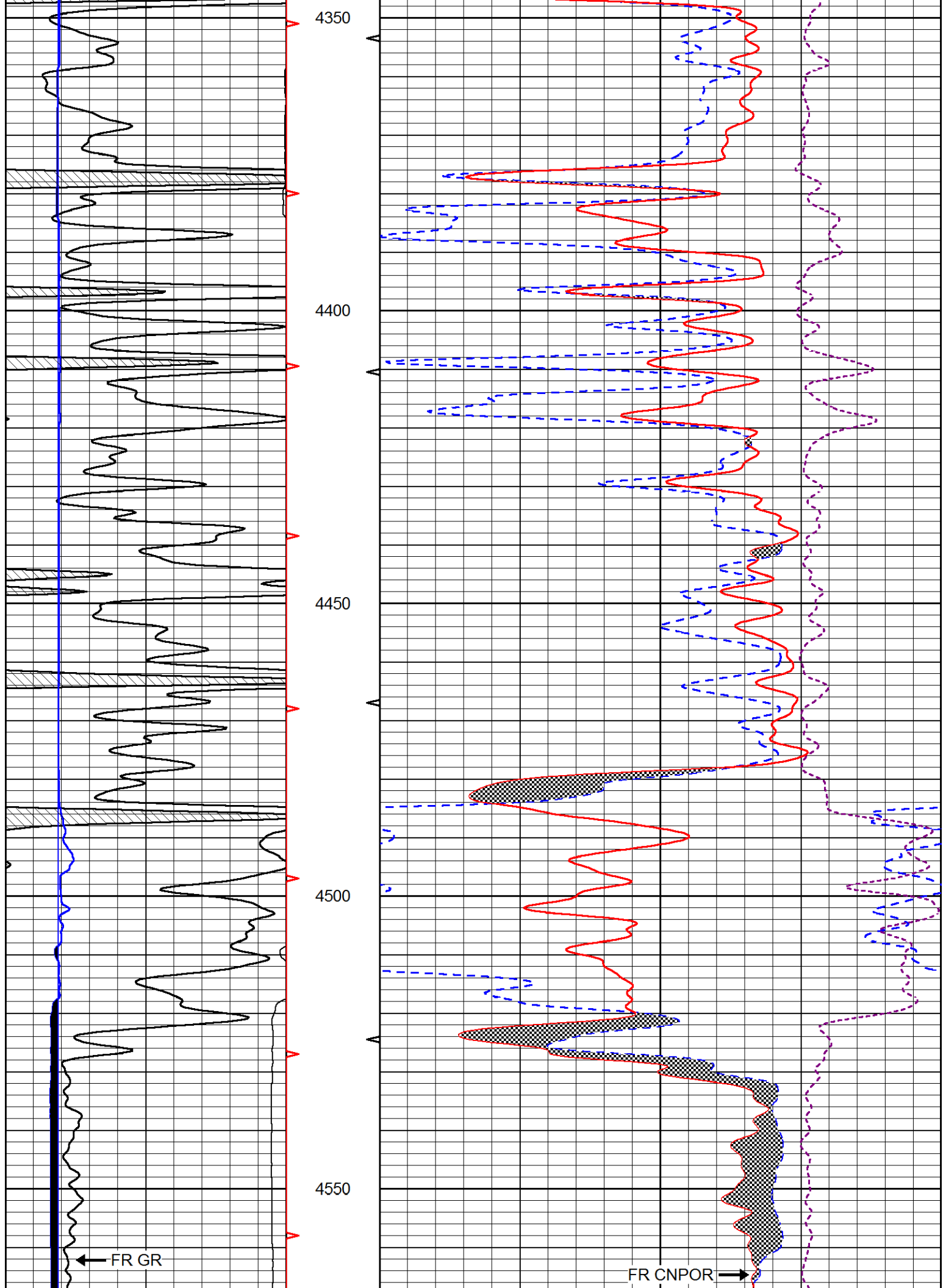
30	CNPOR (pu)	-10
30	DPOR (pu)	-10
-0.25 CORRECTION (g/cc) 0.25		

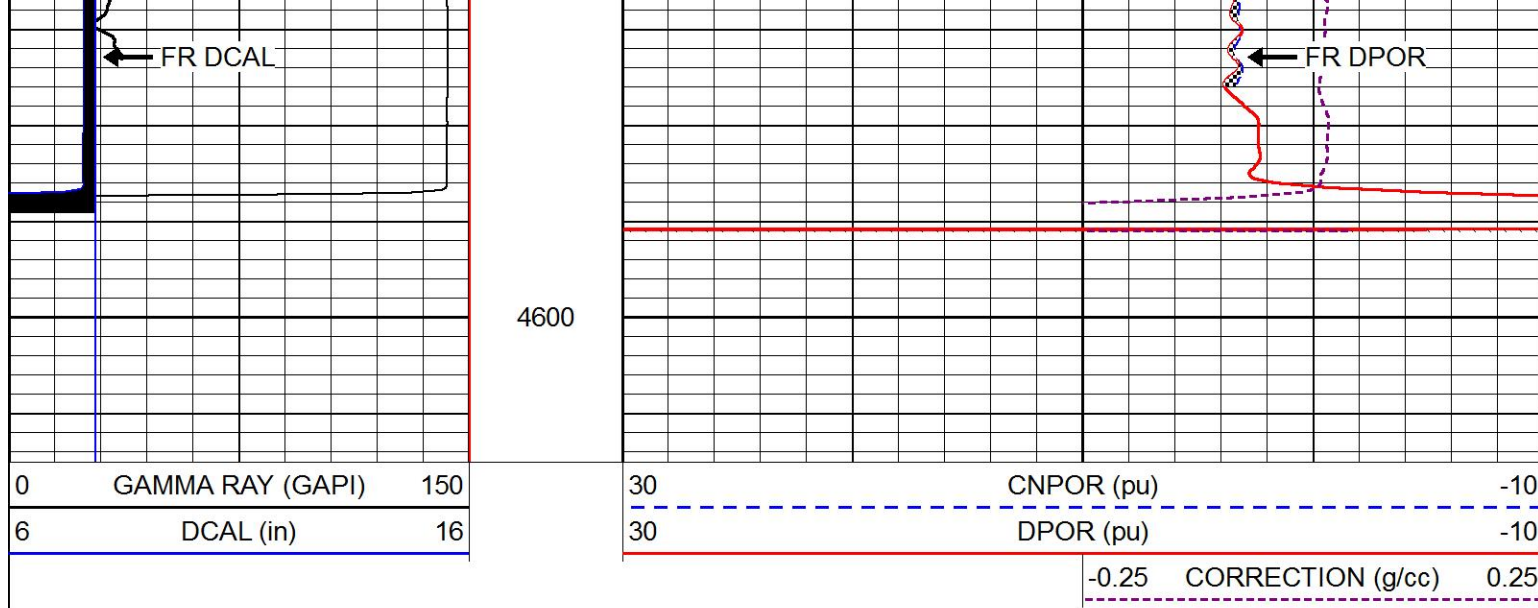








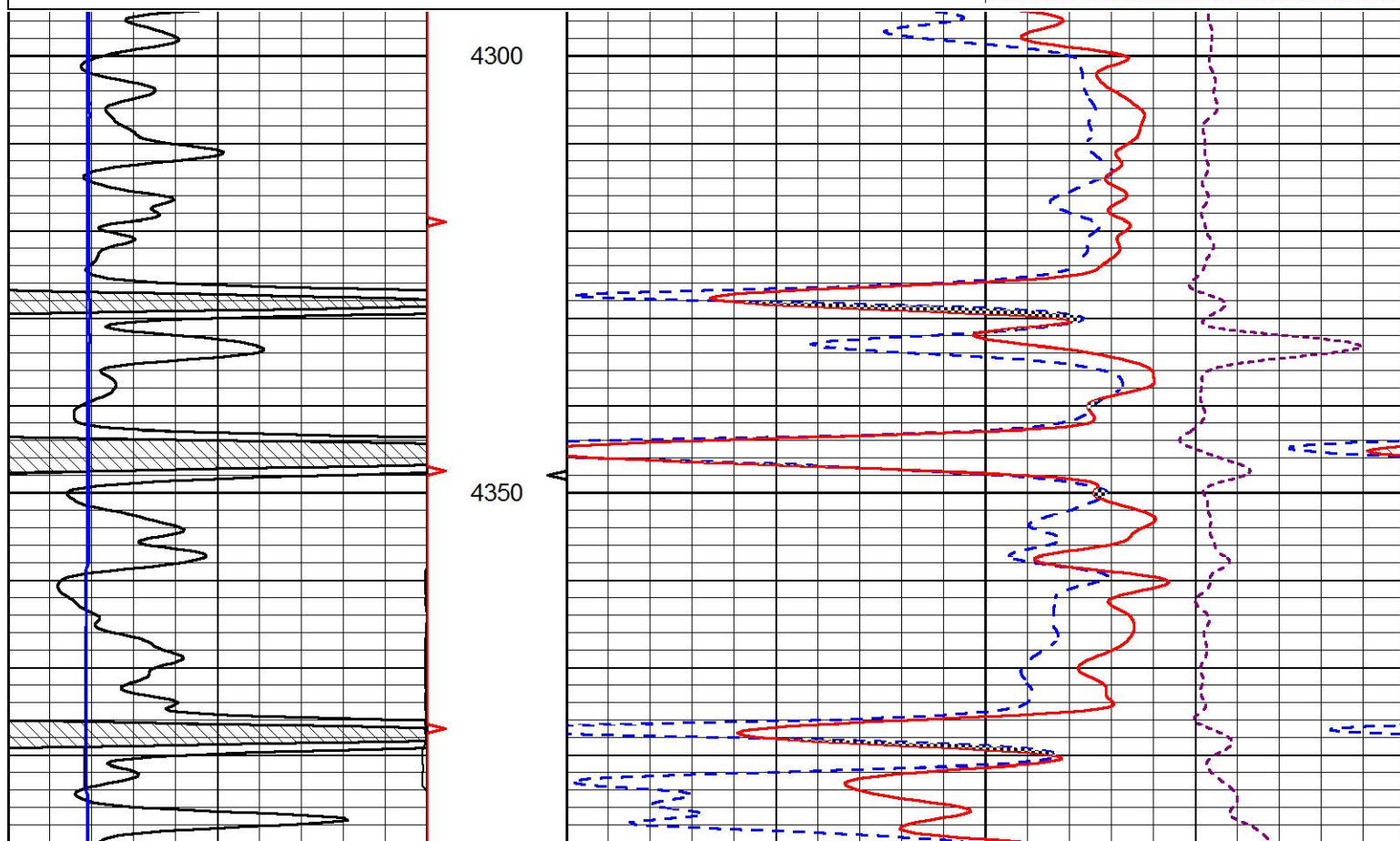
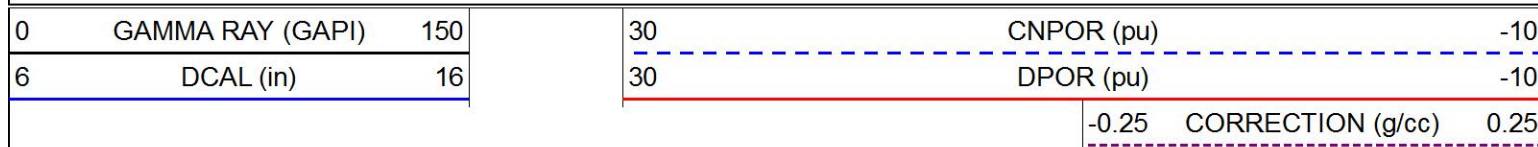


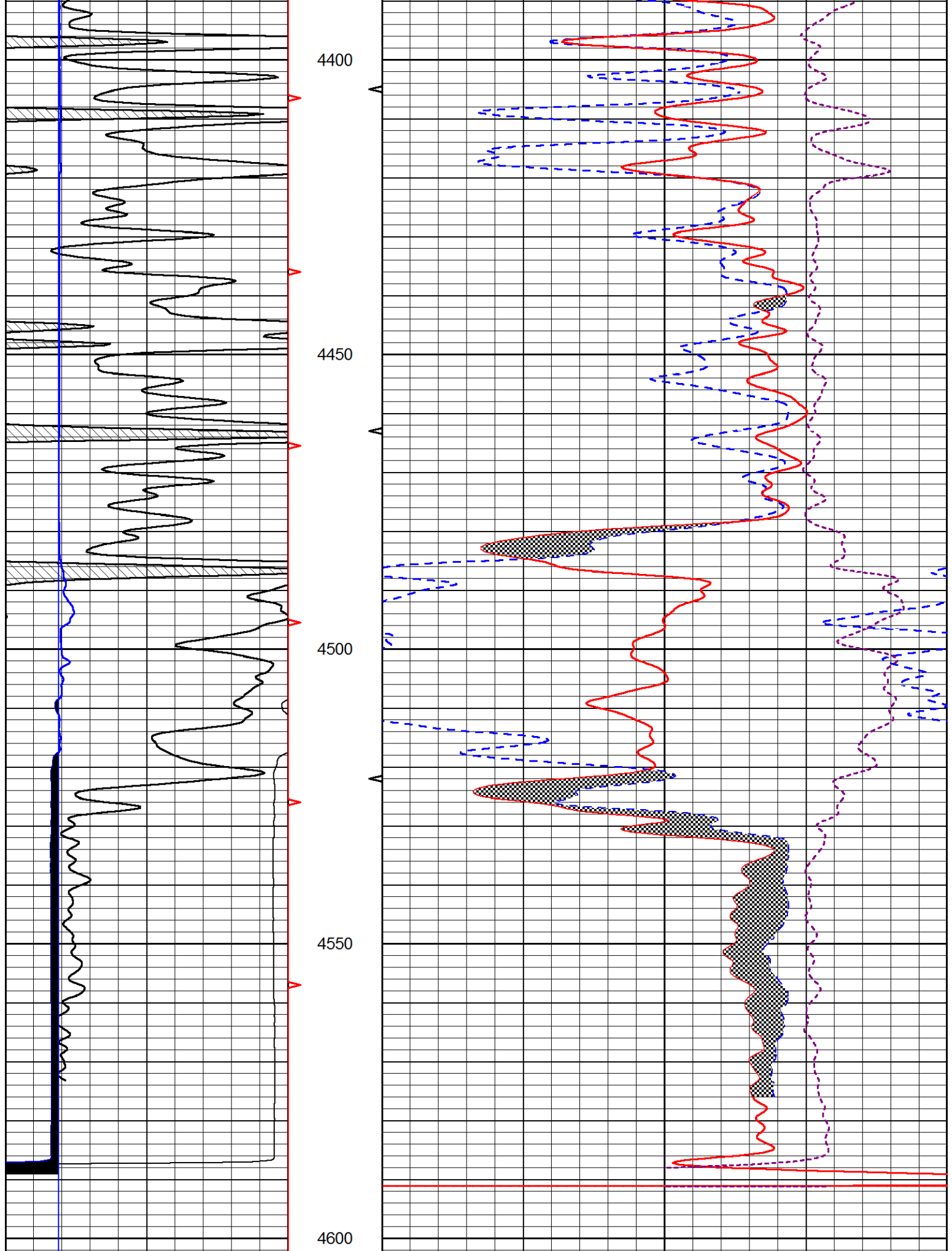


MIDWEST WIRELINE

REPEAT SECTION

Database File cobalt_mcdanieltrust 1-18.db
 Dataset Pathname stkml/pass3.1
 Presentation Format _CNDLS~1
 Dataset Creation Wed Dec 23 08:59:35 2020
 Charted by Depth in Feet scaled 1:240





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

30	CNPOR (pu)	-10
30	DPOR (pu)	-10

Database File	cobalt_mcdanieltrust 1-18.db
Dataset Pathname	stkml/pass4.4
Dataset Creation	Wed Dec 23 08:57:30 2020

Serial-Model: 952-828-PSI HIGH TEMP
Calibration Performed: Sun Jun 28 08:39:24 2020

		Readings		References		Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.000	mmho/m	0.455	-30.000
Medium	0.000	1348.000	142.000	255.000	mmho/m	0.325	-28.000

Serial-Model: PSI-01-PSIML
Performed: Tue Sep 29 10:01:17 2020

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	23000.0000	-2.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	21000.0000	-1.3000
Caliper	1.0033	1.0841	5.0000	16.5000	in	142.3500	-138.5500

Serial-Model: 817-947-M&W
Source / Verifier: 16955B / 2ci
Master Calibration Performed: Sun Sep 20 22:09:47 2020

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	6127.15	5922.31	cps
Aluminum	2.680	g/cc	1141.85	3762.09	cps
Spine Angle = 74.89			Density/Spine Ratio = 0.532		
	Size		Reading		
Small Ring	4.50	in	1.02		
Large Ring	14.50	in	1.23		

Serial Number: 207-MW
Tool Model: M&W

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:	Sun Sep 20 22:10:24 2020
Calibrator Value:	1.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	1.0 cps
Sensitivity:	0.5500 GAPI/cps