

MIDWEST WIRELINE

DUAL COMP POROSITY LOG

Company The Bill Bowman Oil Company
Well Clark B #1
Field Hoxie East
County Sheridan State Kansas

Location: API #: 15-179-21468-00-00

Other Services

157' FNL & 77' FEL
SEC 31 TWP 8S RGE 28W

DIL
MEL

Permanent Datum Ground Level Elevation 2763'
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

K.B. 2768'
D.F. N/A
G.L. 2763'

Date 8/16/2020

Run Number One

Type Log CNL/CDL

Depth Driller 4125'

Depth Logger 4126'

Bottom Logged Interval 4097'

Top Logged Interval 3300'

Type Fluid In Hole Chemical

Salinity, PPM CL 700

Density 9.0

Level Full

Max. Rec. Temp. F 117 Deg/F

Operating Rig Time 2 Hours

Equipment -- Location P-108 HAYS

Recorded By J. Henrickson

Witnessed By Jerry Green

Bill Bowman

Borehole Record

Casing Record

Run No. Bit From To Size Wgt. From To

One 12.25" 0 261' 8.625" 23# 0 261'

Two 7.875" 261' TD

<<< Fold Here >>>

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

Hoxie Kansas
2 1/2 South, 2 West, South Into

Log Measured From: Kelly Bushing 5 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

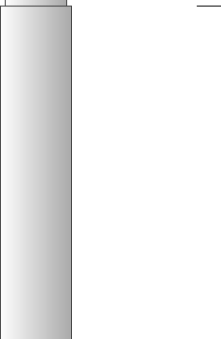
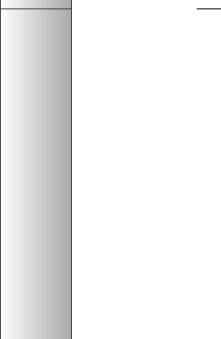
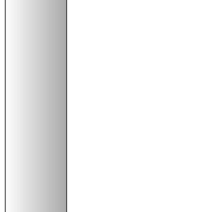
Engineer: J. Henrickson
Operator: T. Martin
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Jerry Green
Secondary Witness: Bill Bowman
Secondary Witness:
Secondary Witness:

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 117	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	0	mmho/m 0	mmho/m 5	mV 185	degF 74	Off	ft 4126

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	44.50			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC	41.40			CNT-M&W (tk10-MW)	5.50	3.50	100.00
CNSSC	40.65						
LSD	32.35			CDL-M&W (915-956)	8.50	4.00	250.00
DCAL	32.33			ML-PSI UDM ML (UDM-01)	11.50	4.00	215.00
SSD	31.85			Stackable Microlog Tools			
MCAL	20.87						
MI	20.87						
MN	20.87						
RLL3	15.80						
RLL3F	15.79						
CILD	8.00			DIL-M&W (55-222)	18.50	3.50	220.00

CILM 4.70

SP 0.20

Dataset: bowman_clark_b_1.db: field/well/stackml/pass3.1
Total length: 47.00 ft
Total weight: 835.00 lb
O.D.: 4.00 in



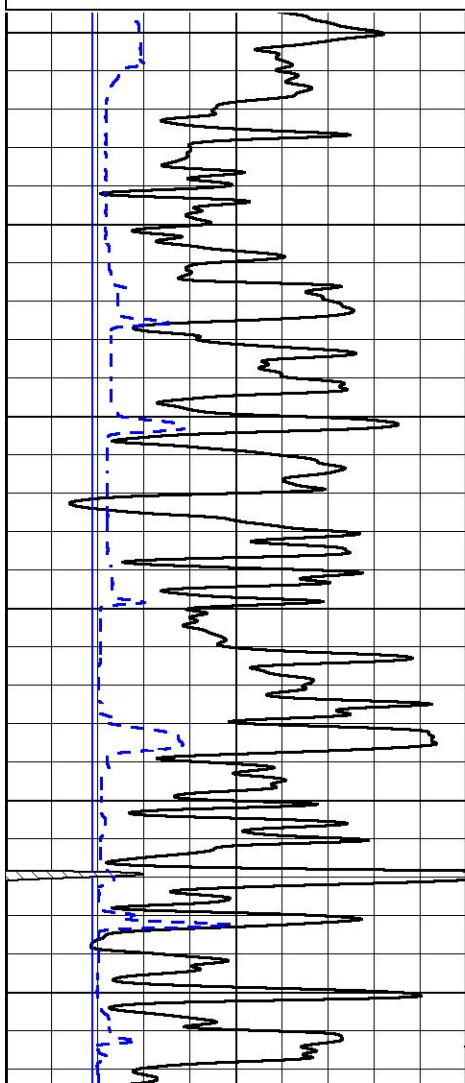
MIDWEST WIRELINE

MAIN PASS

Database File bowman_clark_b_1.db
Dataset Pathname stackml/pass3.1
Presentation Format cdl
Dataset Creation Sun Aug 16 07:12:02 2020
Charted by Depth in Feet scaled 1:600

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

30 COMPENSATED DENSITY (pu) -10
2 BULK DENSITY (g/cc) 3
15000 LINE TENSION (lb) 0



3300

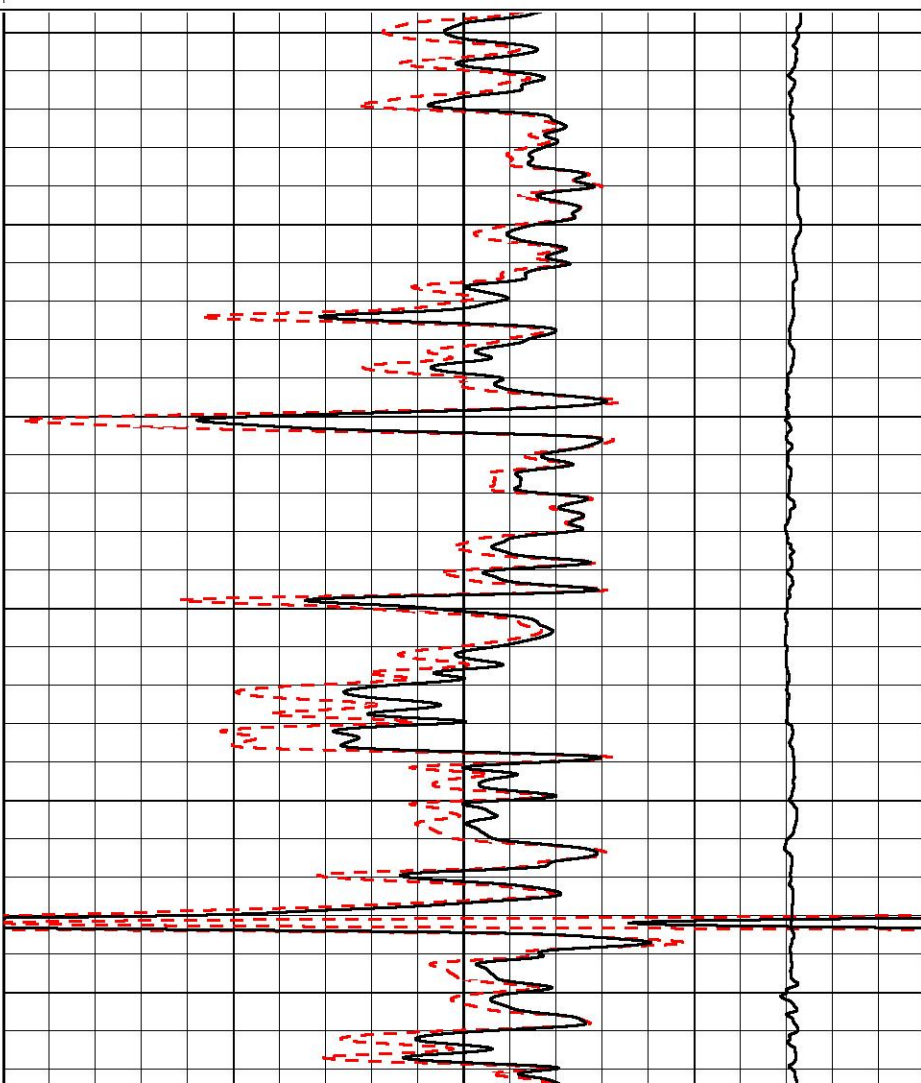
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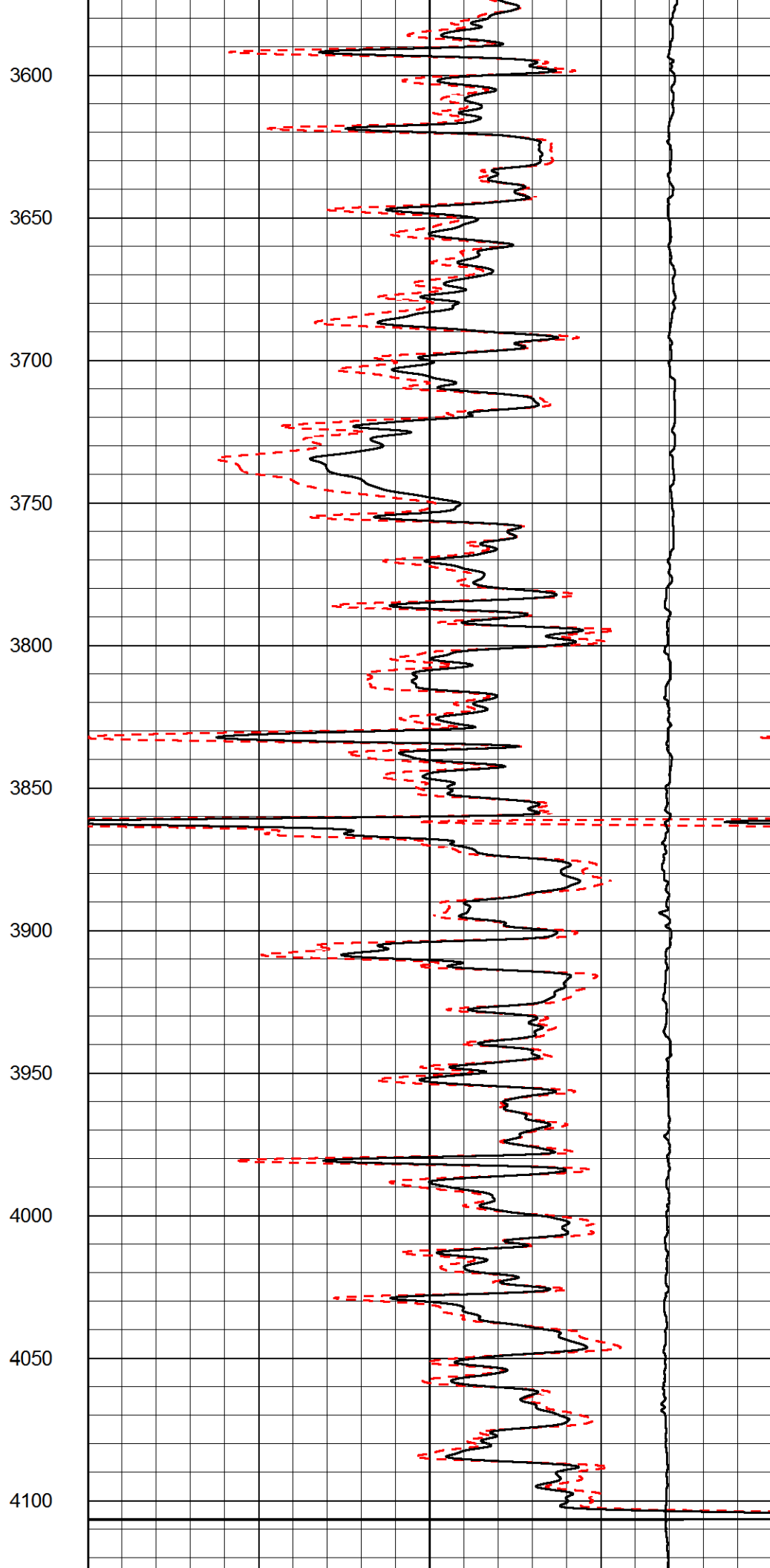
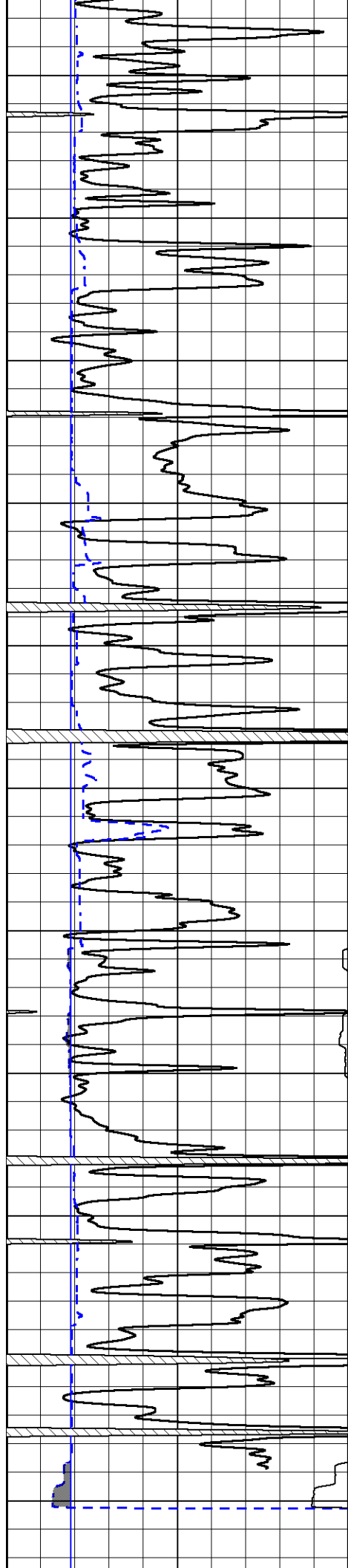
3400

3450

3500

3550





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

30	COMPENSATED DENSITY (pu)	-10
2	BULK DENSITY (g/cc)	3
15000	LINE TENSION (lb)	0



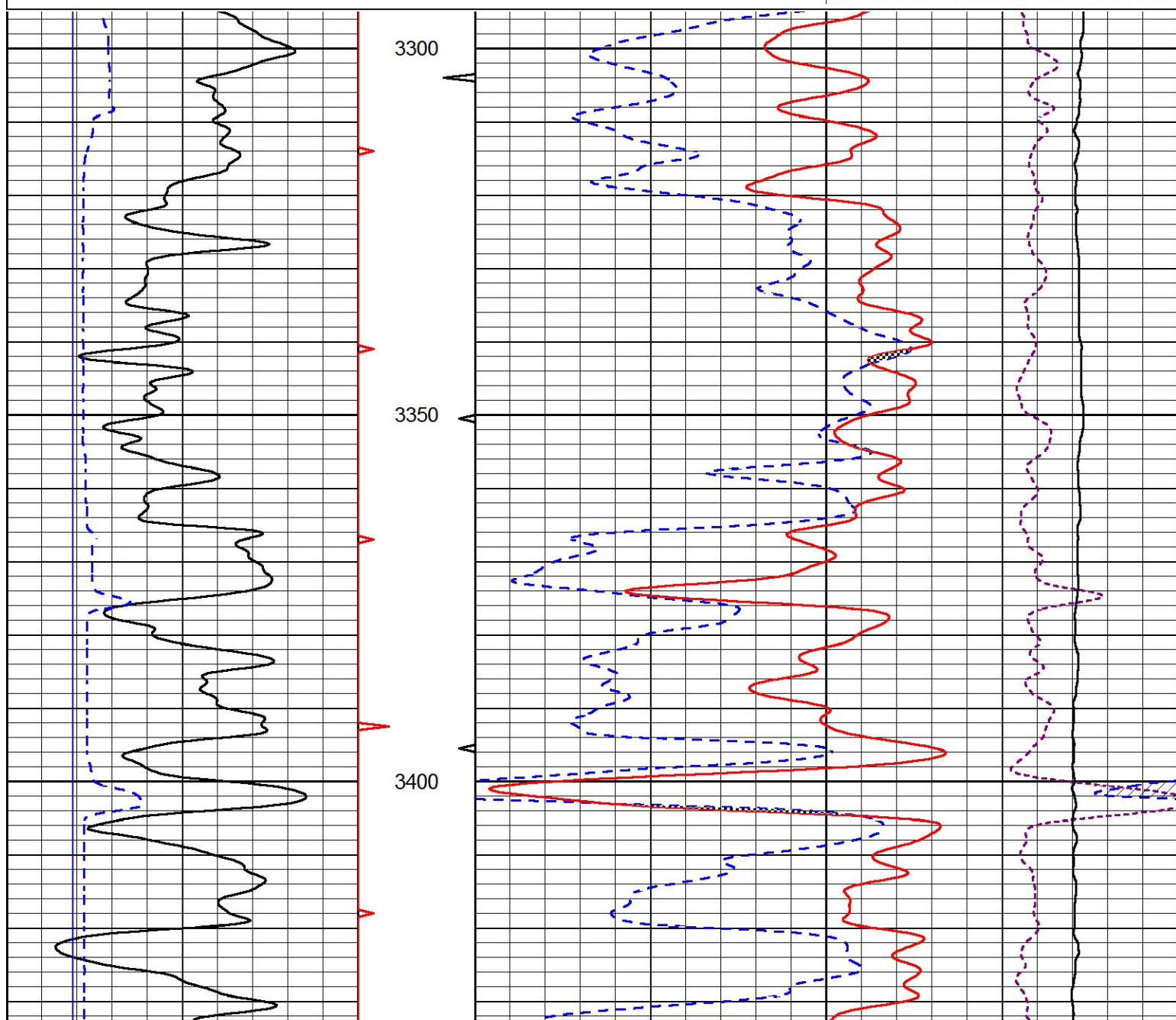
MIDWEST WIRELINE

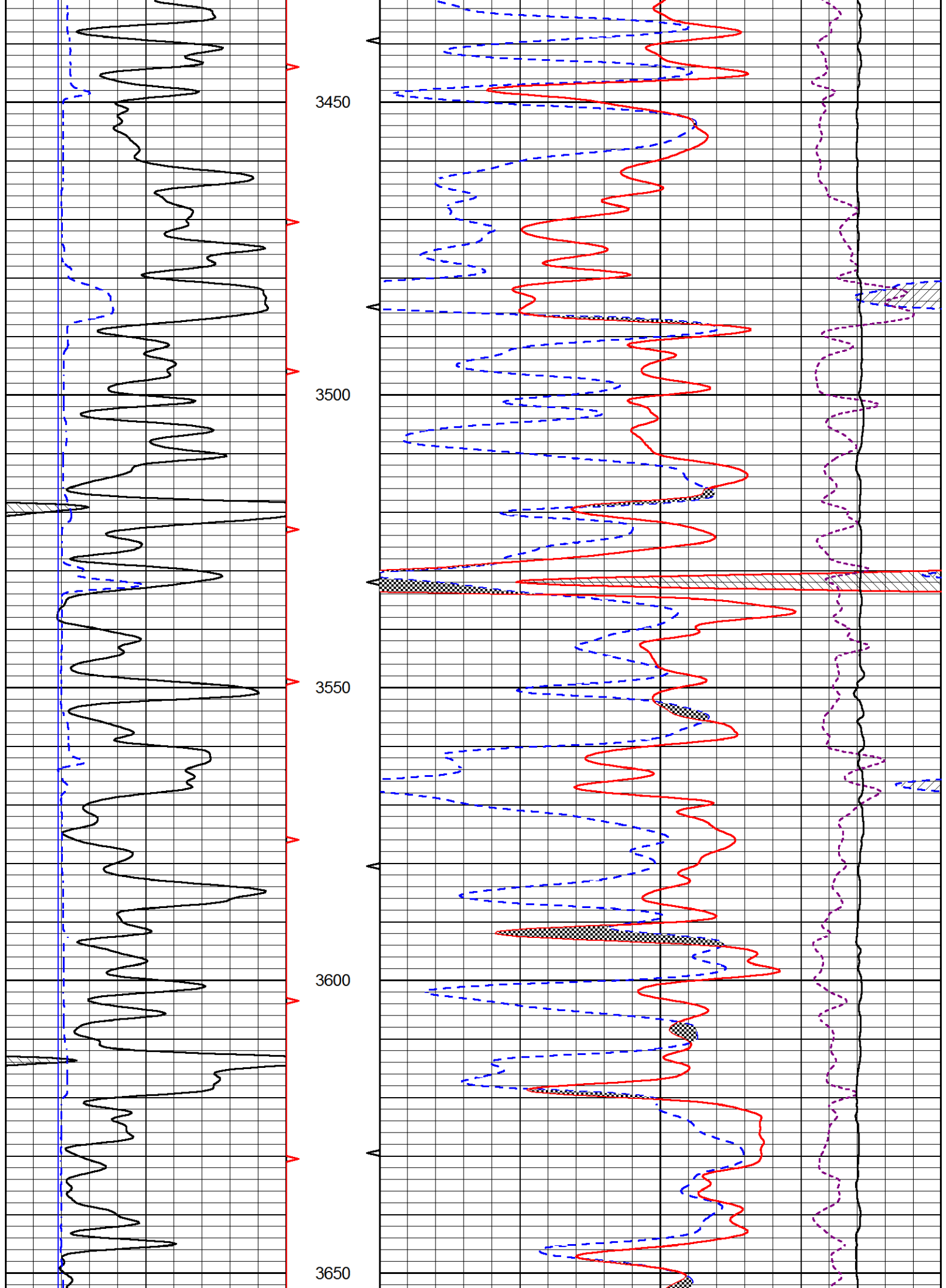
MAIN PASS

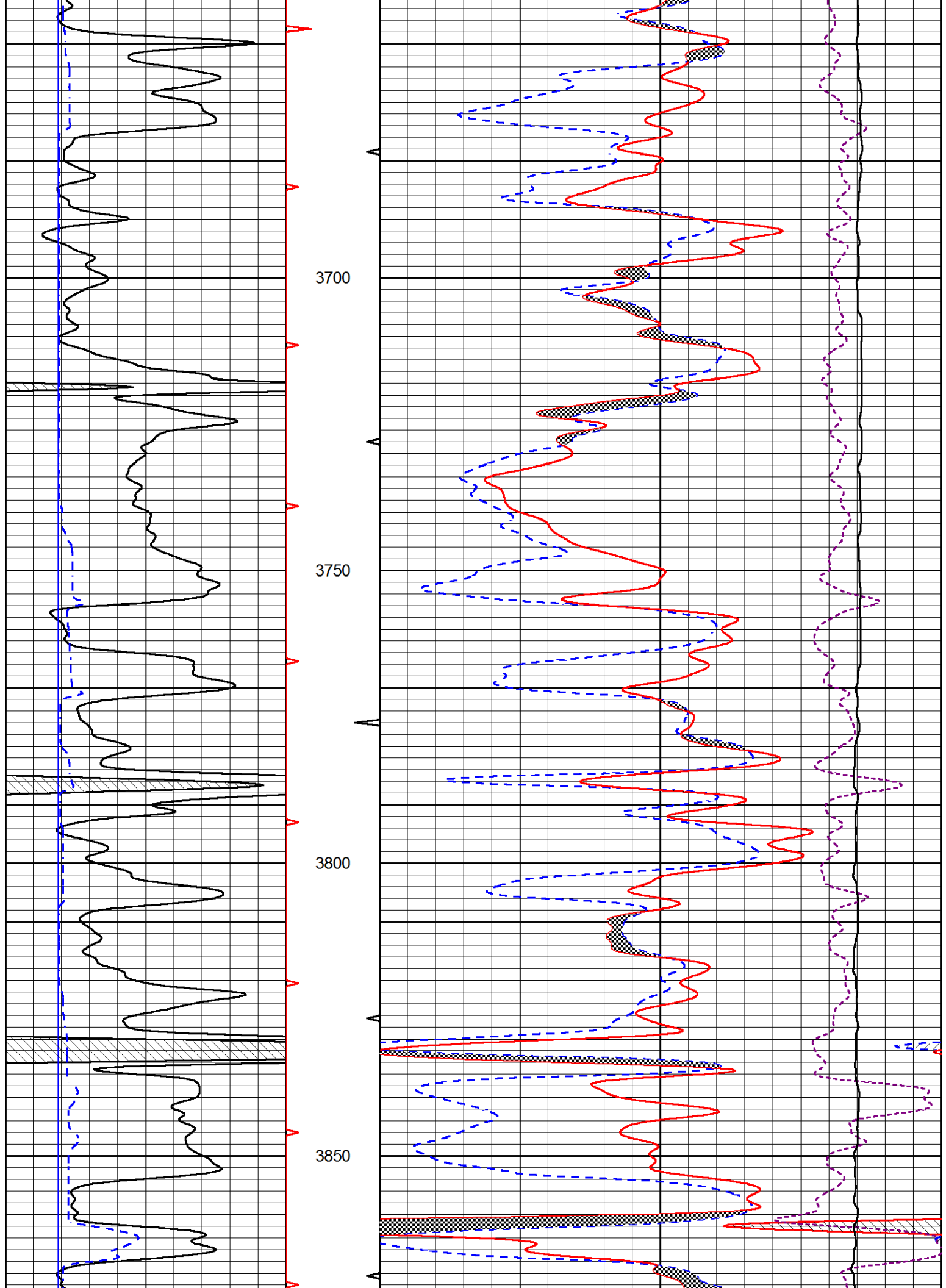
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Dataset Pathname stackml/pass3.1
Presentation Format cndlspec
Dataset Creation Sun Aug 16 07:12:02 2020
Charted by Depth in Feet scaled 1:240

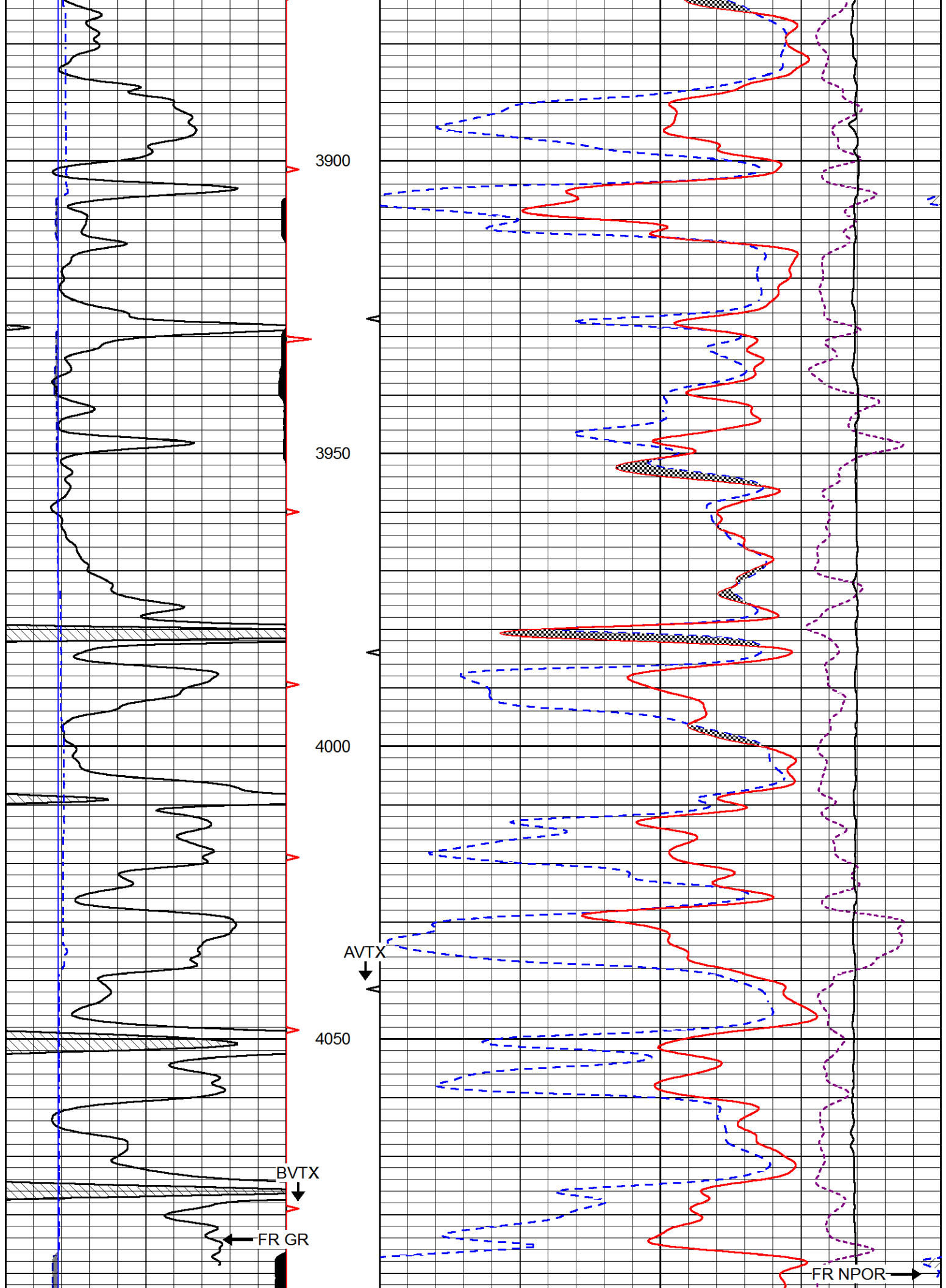
0	GAMMA RAY (GAPI)	150
6	dcal (in)	16
6	BIT SIZE (in)	16

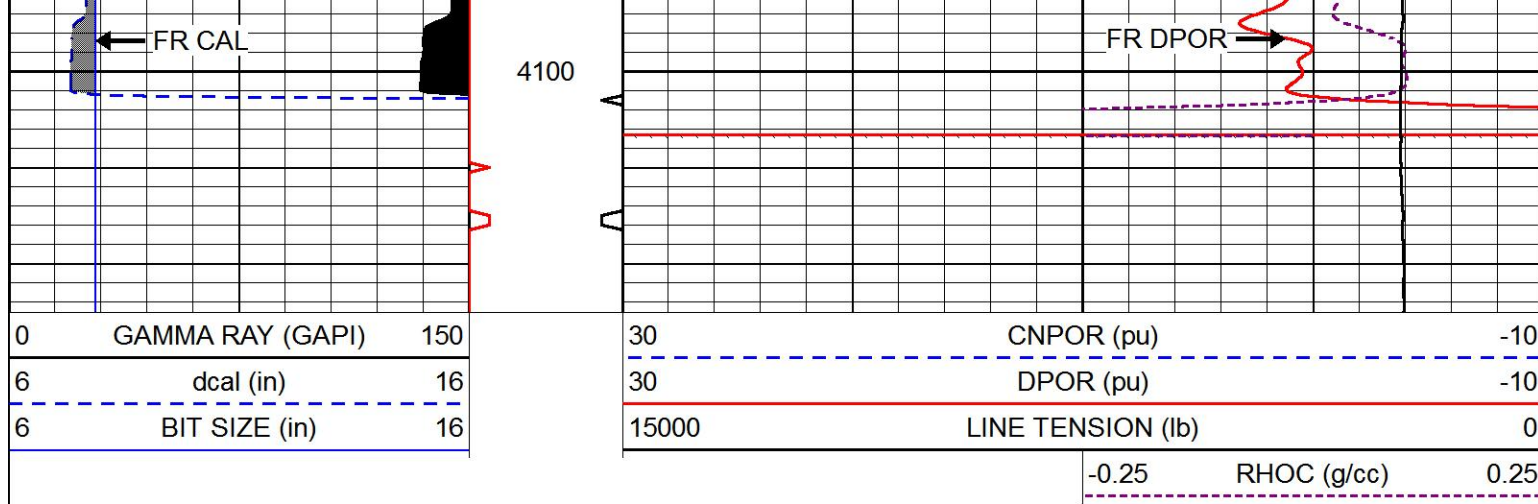
30	CNPOR (pu)	-10
30	DPOR (pu)	-10
15000	LINE TENSION (lb)	0
	-0.25 RHOC (g/cc) 0.25	







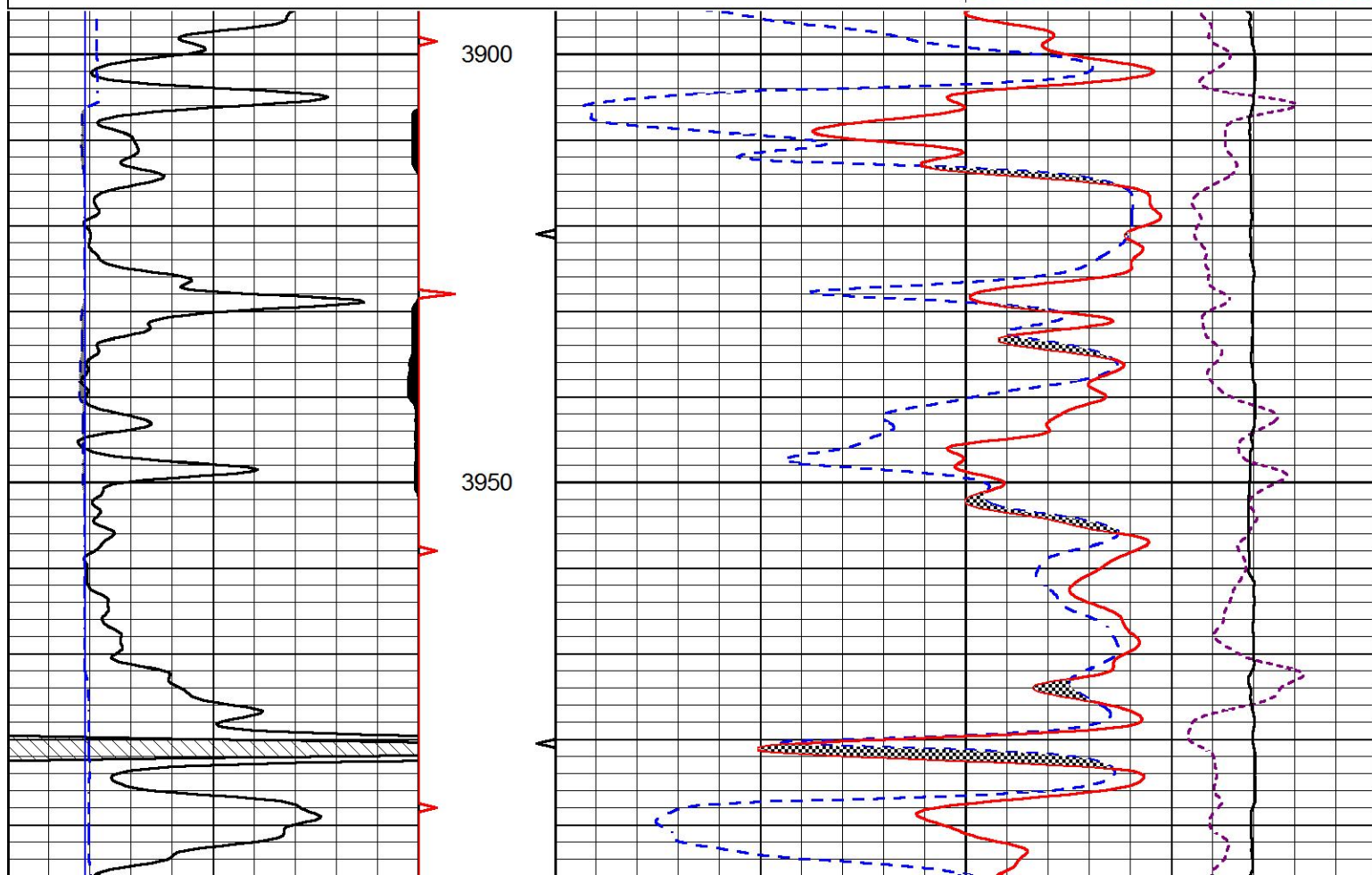
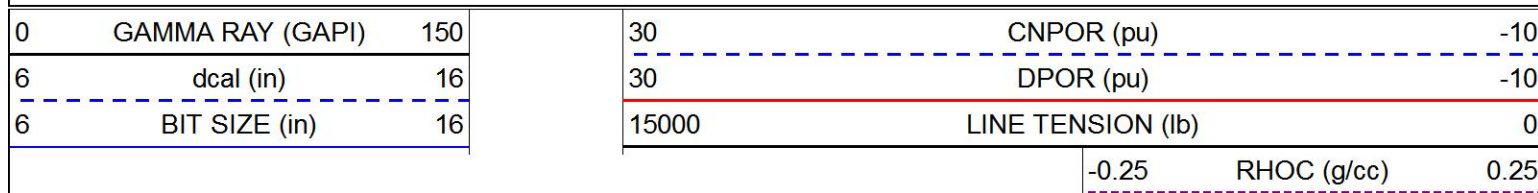


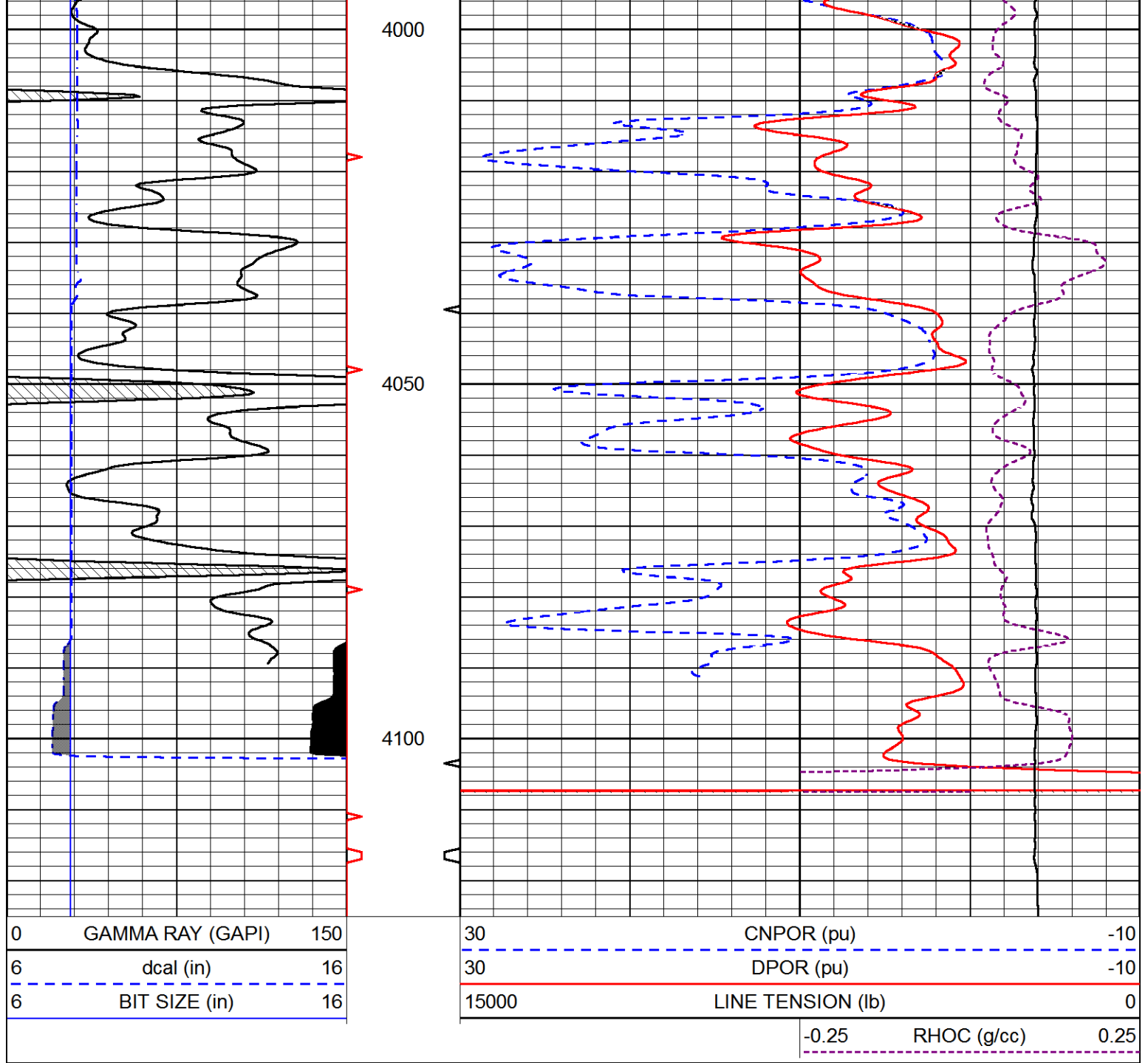


MIDWEST WIRELINE

REPEAT SECTION

Database File bowman_clark_b_1.db
 Dataset Pathname stackml/pass2.1
 Presentation Format cndlspec
 Dataset Creation Sun Aug 16 07:13:43 2020
 Charted by Depth in Feet scaled 1:240





Calibration Report							
Database File	bowman_clark_b_1.db						
Dataset Pathname	stackml/pass3.1						
Dataset Creation	Sun Aug 16 07:12:02 2020						
Dual Induction Calibration Report							
Serial-Model:		55-222-M&W					
Calibration Performed:		Tue Dec 10 05:11:10 2019					
		Readings		References		Results	
Loop:	Air	Loop	Air	Loop		Gain	Offset
Deep	167.000	835.000	0.000	255.800	mmho/m	0.500	-41.000
Medium	0.000	1348.000	142.000	255.800	mmho/m	0.390	-15.000

Serial-Model:
Performed:UDM-01-PSI UDM ML
Fri May 31 06:10:42 2019

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	20000.0000	0.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	20000.0000	0.0000
Caliper	1.3766	1.0818	8.0000	22.0000	in	-47.4839	69.6000

Compensated Density Calibration Report

Serial-Model:
Source / Verifier:
Master Calibration Performed:915-956-M&W
/
Thu Mar 19 09:21:34 2020

Master Calibration

	Density			Far Detector		Near Detector	
Magnesium	1.755	g/cc		3668.53		4669.61	cps
Aluminum	2.675	g/cc		710.88		3056.05	cps
Spine Angle = 75.51				Density/Spine Ratio = 0.543			
	Size			Reading			
Small Ring	4.00	in		1.17			
Large Ring	14.00	in		1.05			

Compensated Neutron Calibration Report

Serial Number: tk10-MW
Tool Model: M&W
Calibration Performed: Wed Nov 16 11:21:36 2016

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-M&W
Tool Model: M&W
Calibration Performed: Tue Dec 10 05:11:34 2019

Calibrator Value: 1000.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 6.2 cps

Sensitivity: 0.5200 GAPI/cps



Company The Bill Bowman Oil Company
Well Clark B #1
Field Hoxie East



County	Sheridan
State	Kansas