



MIDWEST WIRELINE

**DUAL COMPENSATED
POROSITY W/PE**

Company Satchell Creek Petroleum LLC
 Well Hobbs A #2-28 (Deepened)
 Field Ambrose South
 County Graham
 State Kansas

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Location: API #: 15-065-24276-00-00
 NE SE NW/NE
 726 FNL & 1526 FEL
 SEC 28 TWP 10S RGE 25W
 Permanent Datum Ground Level Elevation 2528
 Log Measured From Kelly Bushing
 Drilling Measured From Kelly Bushing
 Other Services
 DIL
 MEL/BHCS
 Elevation
 K.B. 2535
 D.F.
 G.L. 2528

Date	8/24/2023		8/26/2023				
Run Number	One		One				
Type Log	CNL/CDL						
Depth Driller	4090		4478				
Depth Logger	4085		4471				
Bottom Logged Interval	4056		4442				
Top Logged Interval	3300		3300				
Type Fluid In Hole	Chemical						
Salinity, PPM CL	2700						
Density	9.3						
Level	Full						
Max. Rec. Temp. F	117						
Operating Rig Time	4 Hours						
Equipment -- Location	P-108 Hays						
Recorded By	T. Martin		D. Schmidt				
Witnessed By	Sean Deenihan		Sean Deenihan				
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	220	8.625	23	00	220
Two	7.875	220	TD				
Casing Record							

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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.

Collyer, KS, N on 140 to Rd C(Graham Co),
 1.25 W, S into

Log Measured From: Kelly Bushing 7 Ft. Above Permanent Datum

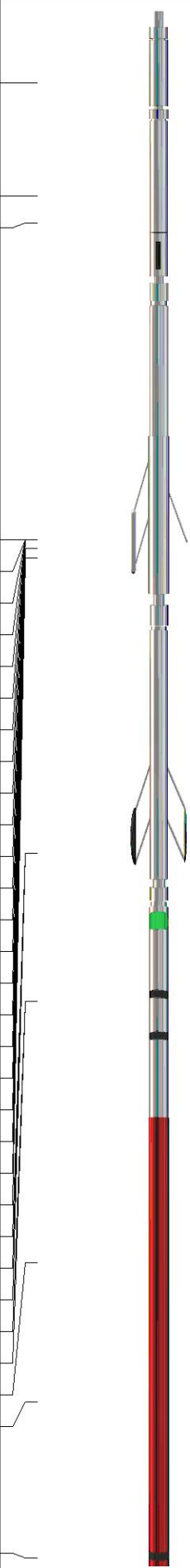
THANK YOU FOR USING MIDWEST WIRELINE LLC
 785-625-3858

Your Midwest Wireline Crew

Engineer: T. Martin
 Operator: D. Schmidt
 Operator:
 Operator:

This Log Record Was Witnessed By

Primary Witness: Sean Deenihan
 Secondary Witness: Sean Deenihan
 Secondary Witness:
 Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)	
GR	40.75		GR-M&W (106)	3.00	3.50	50.00	
CNLSC CNSSC	37.65 36.90		CNT-M&W (207)	5.00	3.50	100.00	
				MWLith-STEP LITHO (704-10) Long Litho Mandrel	8.92	5.00	250.00
LCAL	28.21						
LLW8N	28.21						
LLW7N	28.21						
LLW6N	28.21						
LLW5N	28.21						
LLW4N	28.21						
LLW3N	28.21						
LLW2N	28.21			ML-PSIML (401)	7.58	4.00	65.00
LLW1N	28.21						
LSLOCK	27.96						
LLLOCK	27.96						
PELTMPR	27.96						
LSHVNG	27.96						
LLHVNG	27.96						
LSW8N	27.71						
LSW7N	27.71						
LSW6N	27.71						
LSW5N	27.71						
LSW4N	27.71						
LSW3N	27.71						
LSW2N	27.71						
LSW1N	27.71						
MCAL	19.58		DIL-M&W (507)	18.25	3.50	220.00	
MI	19.58						
MN	19.58						
RLL3F	15.50						
RLL3	15.50						
CILD	8.33						
CILM	4.50						
SP	0.20						

Dataset: satchell_hobbs a #2-28.db: field/well/StkMI/pass3.1
 Total length: 42.75 ft
 Total weight: 685.00 lb
 O.D.: 5.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\satchell_hobbs a #2-28.db
 Dataset field/well/StkMI/pass3.1/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 117	CASEOD in 5.5	CASETHCK in 0	FLUIDDEN g/cc 1	MATRXDEN g/cc 2.71	NPORSEL Limestone	PERFS No
SNDERR mmho/m 1.5	SNDERRM mmho/m -5	SPSHIFT mV 200	SRFTEMP degF 100	SZCOR Off	TDEPTH ft 4085		

Variable Description

BOREID : Borehole I.D.
 BOTTEMP : Bottom Hole Temperature
 CASEOD : Casing O.D.
 CASETHCK : Casing Thickness
 FLUIDDEN : Fluid Density
 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

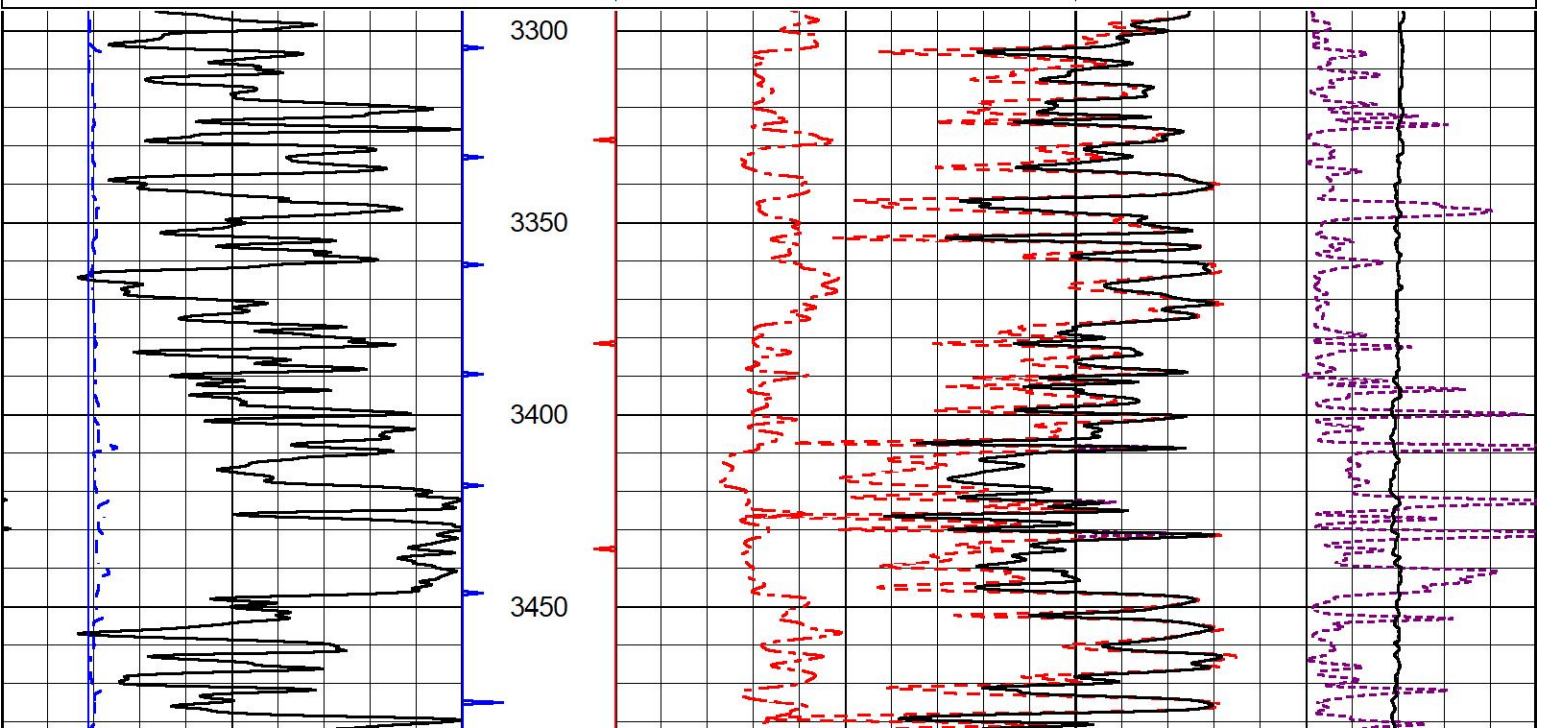


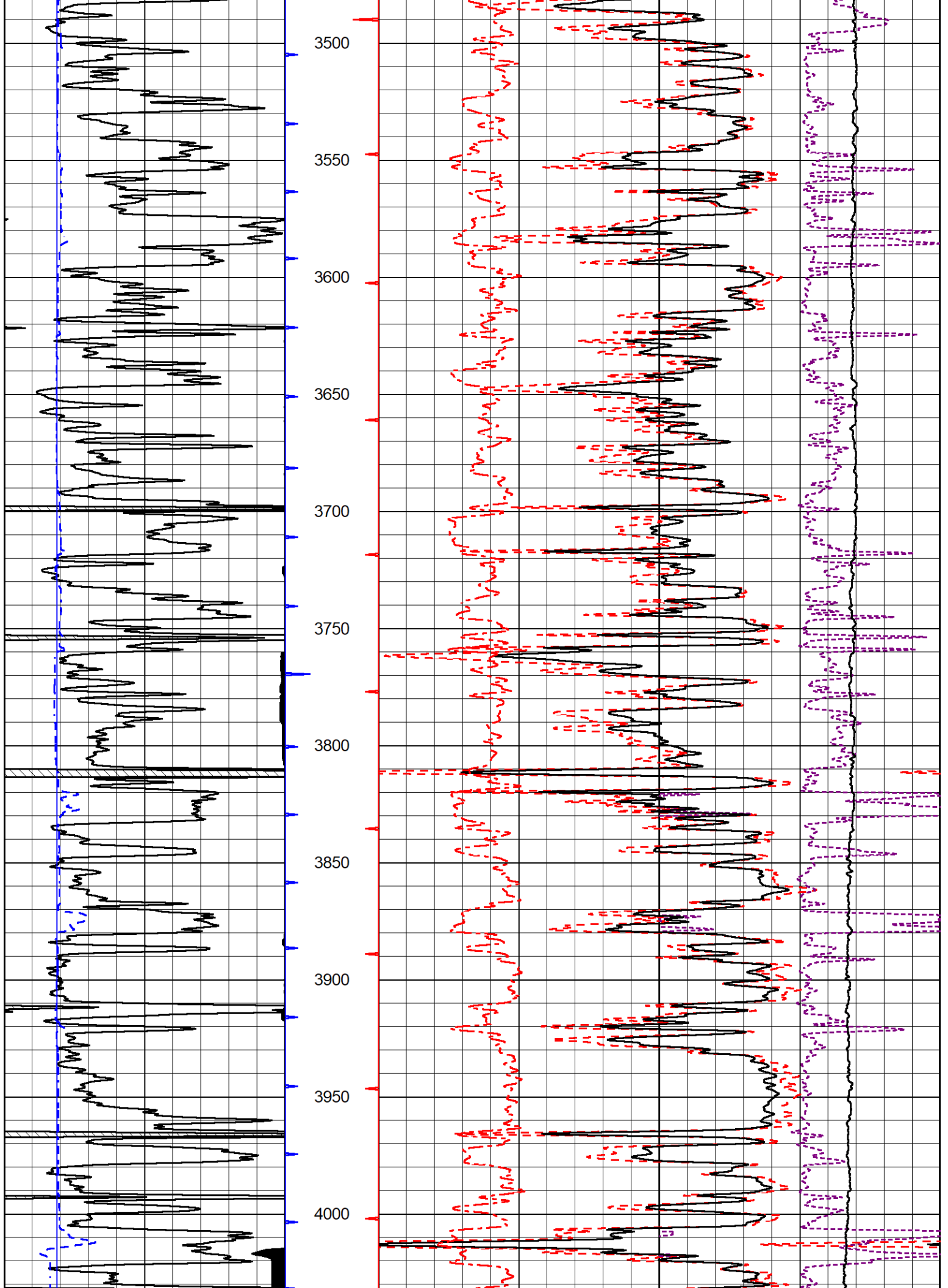
2" SCALE BULK DENSITY

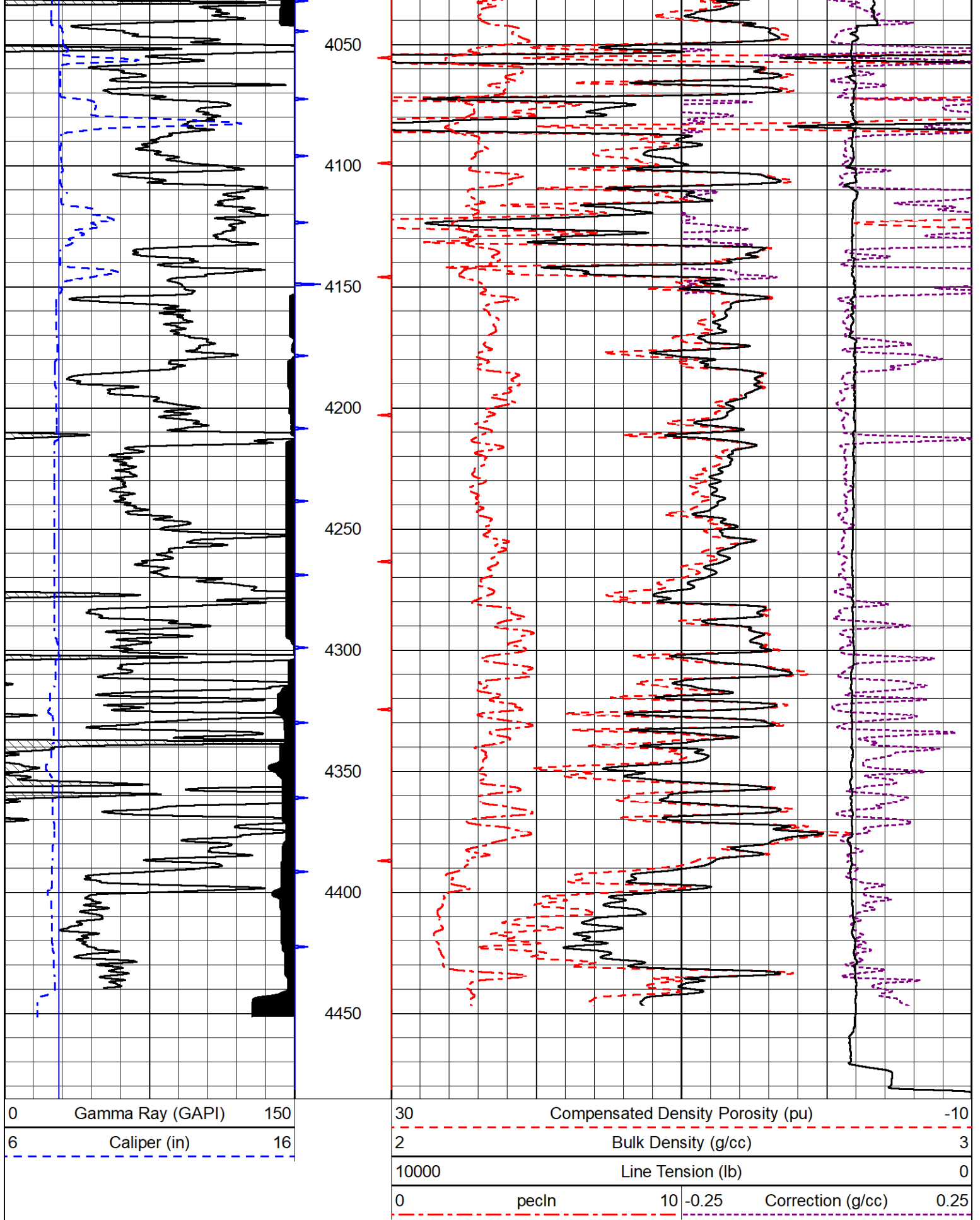
MAIN PASS

Database File satchell_hobbs a #2-28.db
 Dataset Pathname StkMI/pass8.2
 Presentation Format _cdlpe
 Dataset Creation Sat Aug 26 18:14:07 2023
 Charted by Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150	30	Compensated Density Porosity (pu)	-10
6	Caliper (in)	16	2	Bulk Density (g/cc)	3
			10000	Line Tension (lb)	0
			0	pecln	10 -0.25
				Correction (g/cc)	0.25





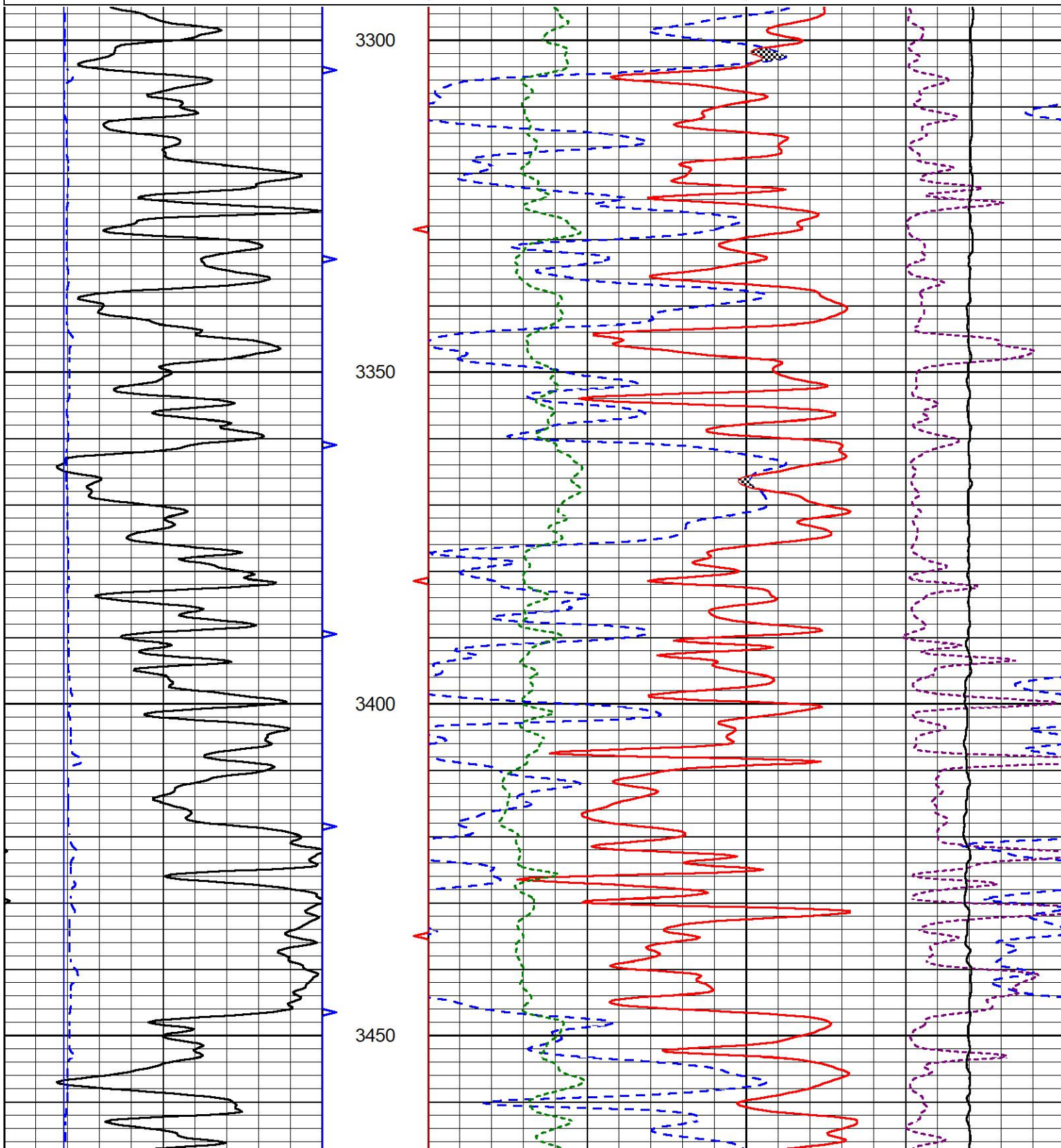


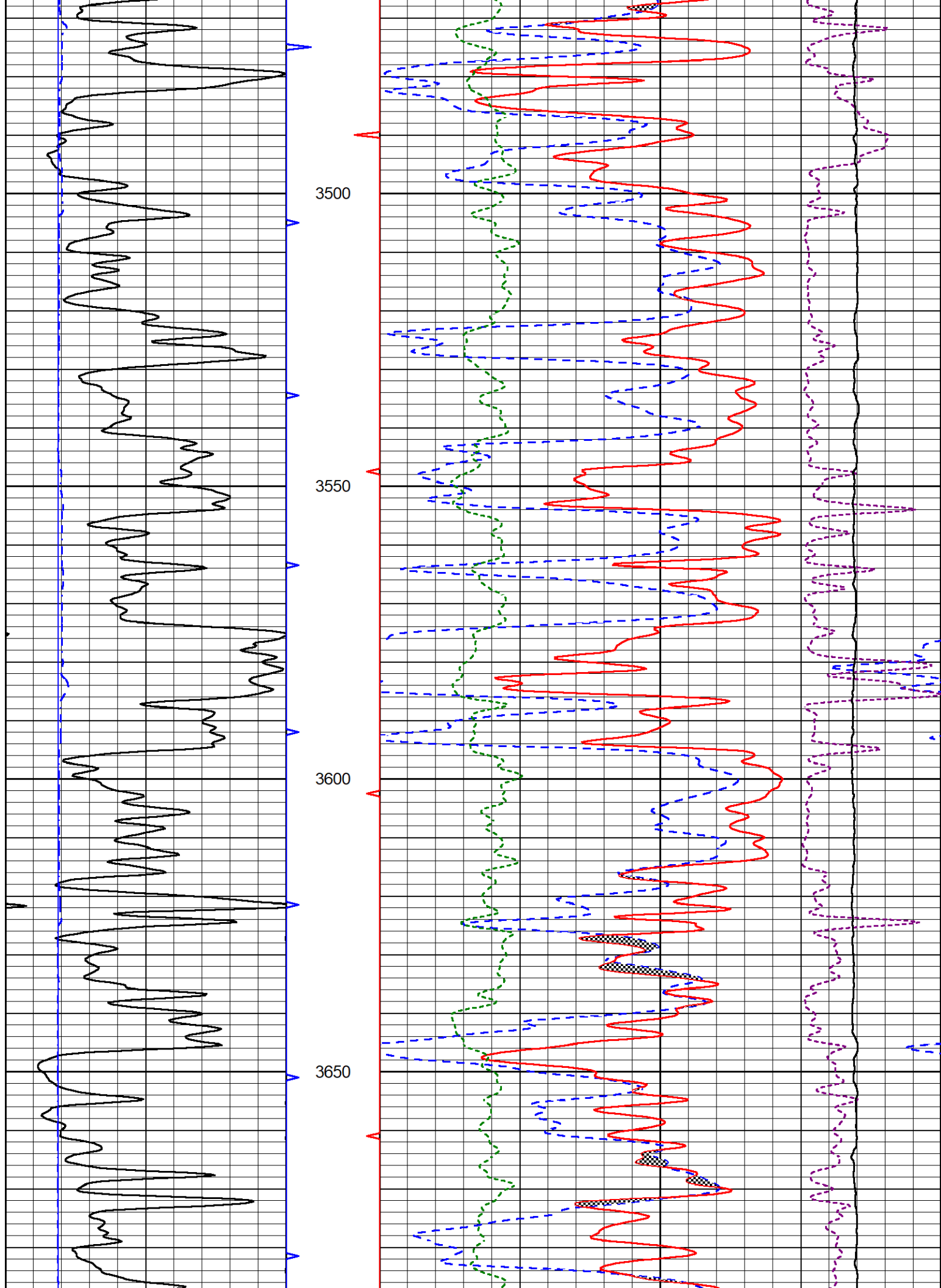
DETAIL SECTION

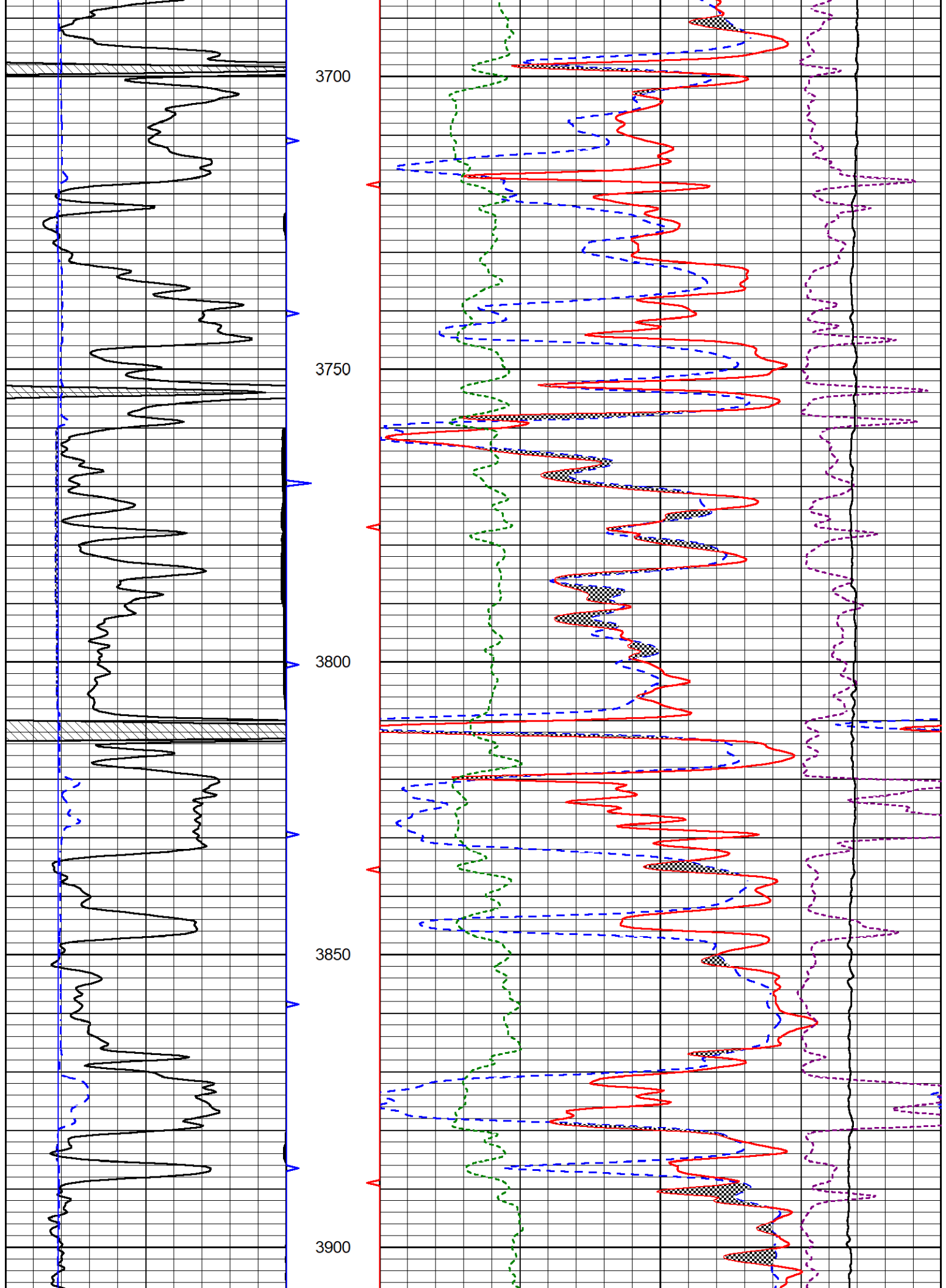
Database File satchell_hobbs a #2-28.db
 Dataset Pathname StkMI/pass8.1
 Presentation Format _CNDLS~4
 Dataset Creation Sat Aug 26 18:13:56 2023
 Charted by Depth in Feet scaled 1:240

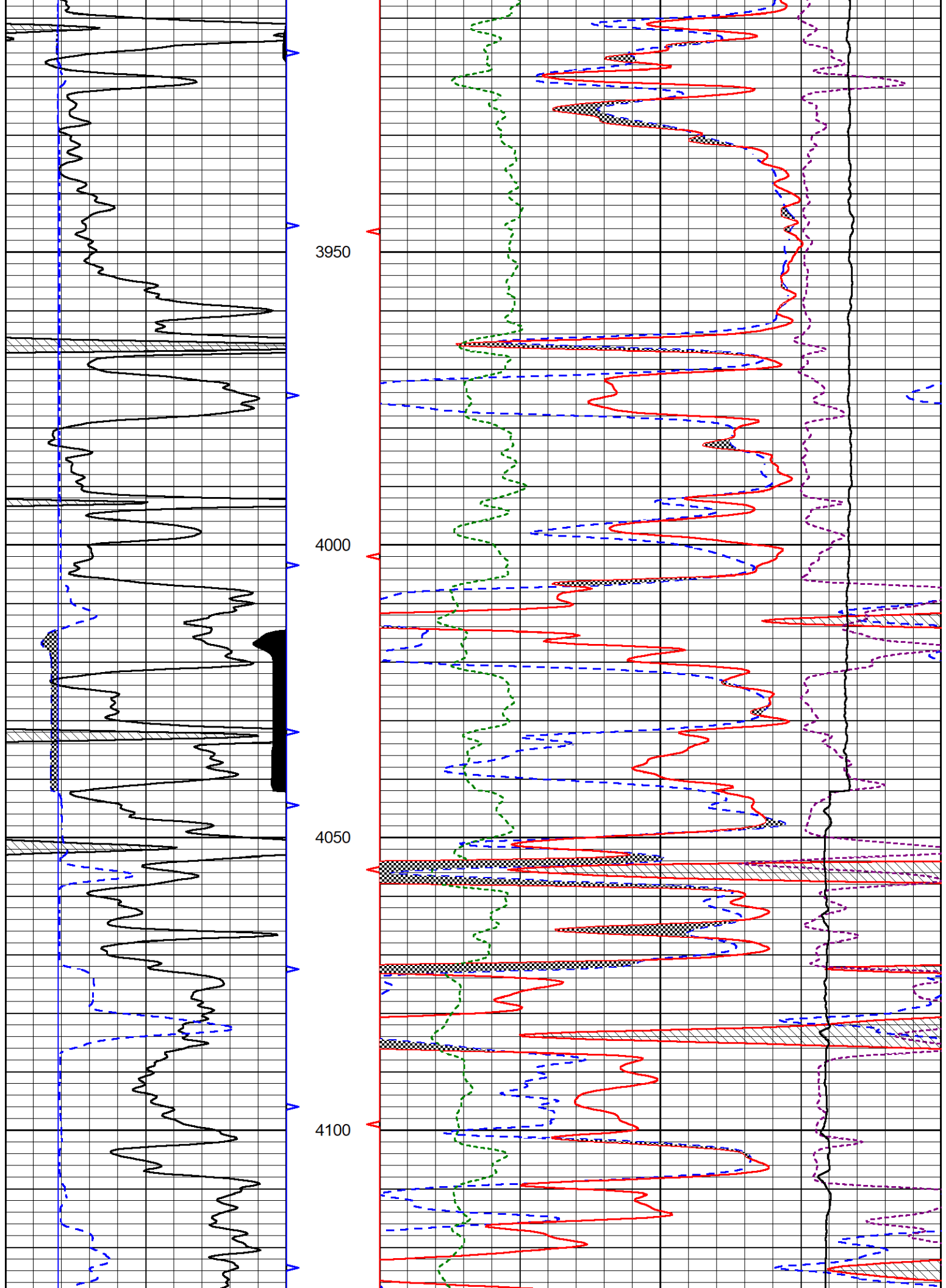
0 Gamma Ray (GAPI) 150
 6 Caliper (in) 16

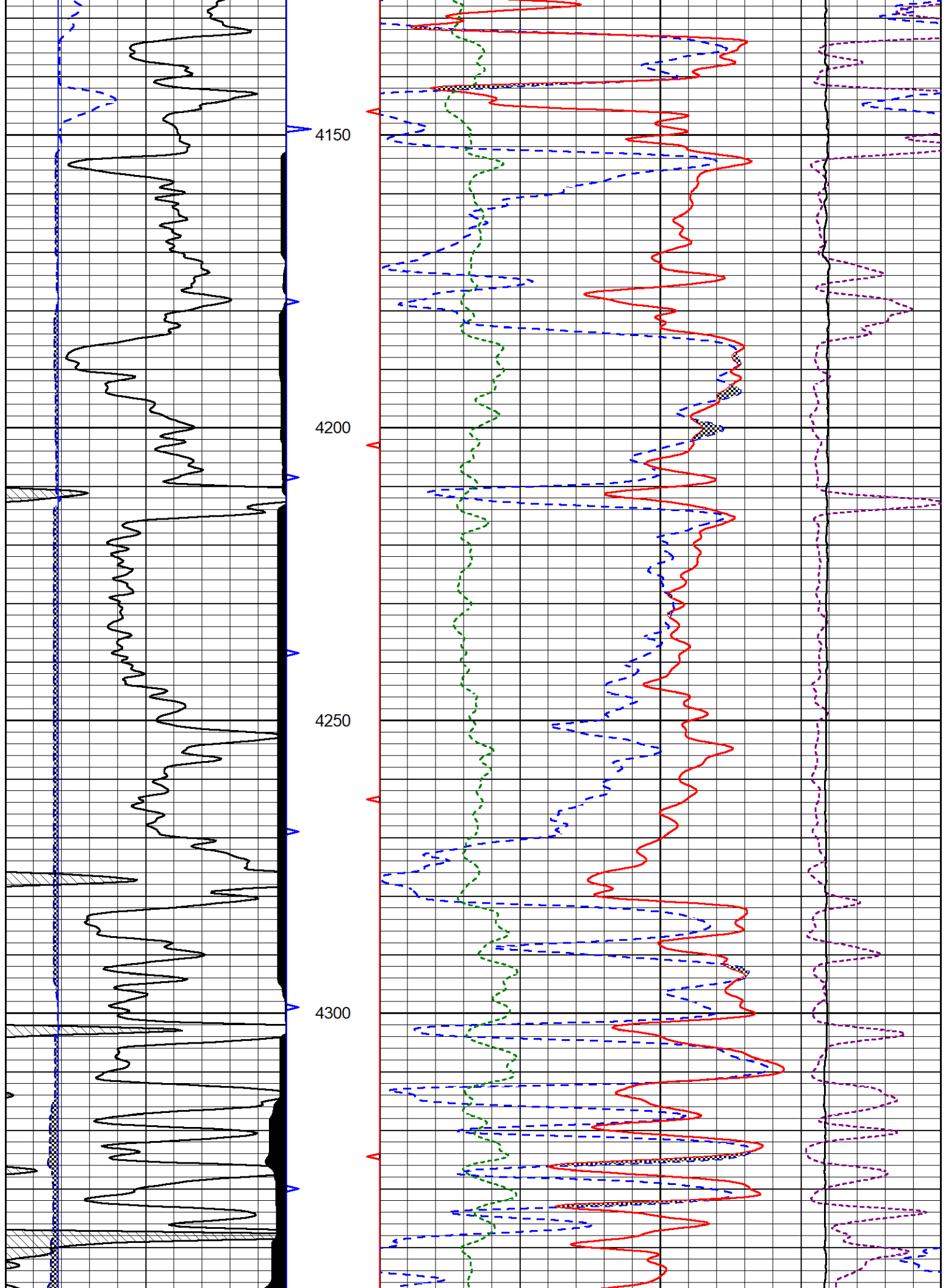
30 CNPOR (pu) -10
 30 Compensated Density Porosity (pu) -10
 10000 Line Tension (lb) 0
 0 PE 10 -0.25 Corection (g/cc) 0.25

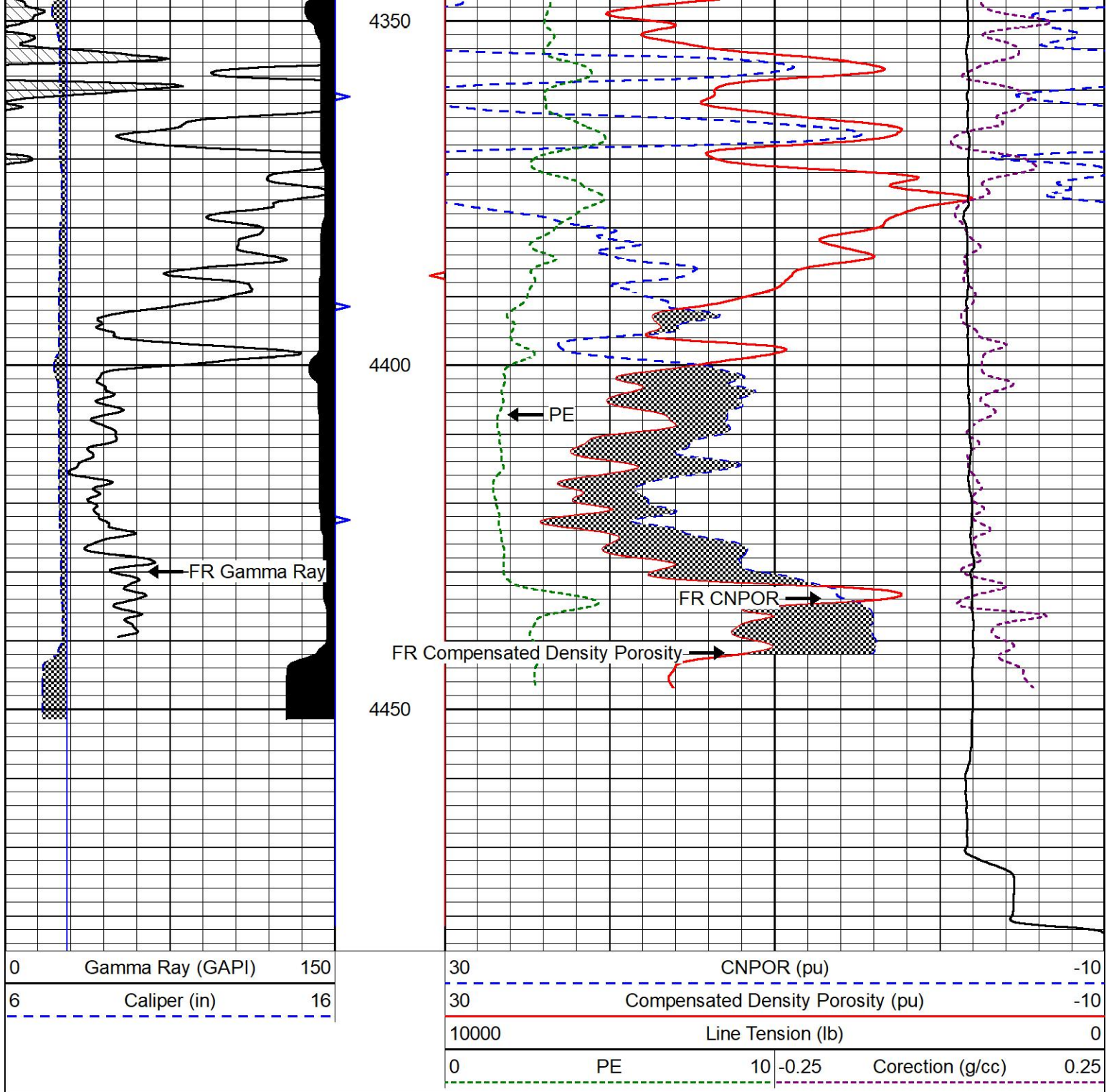










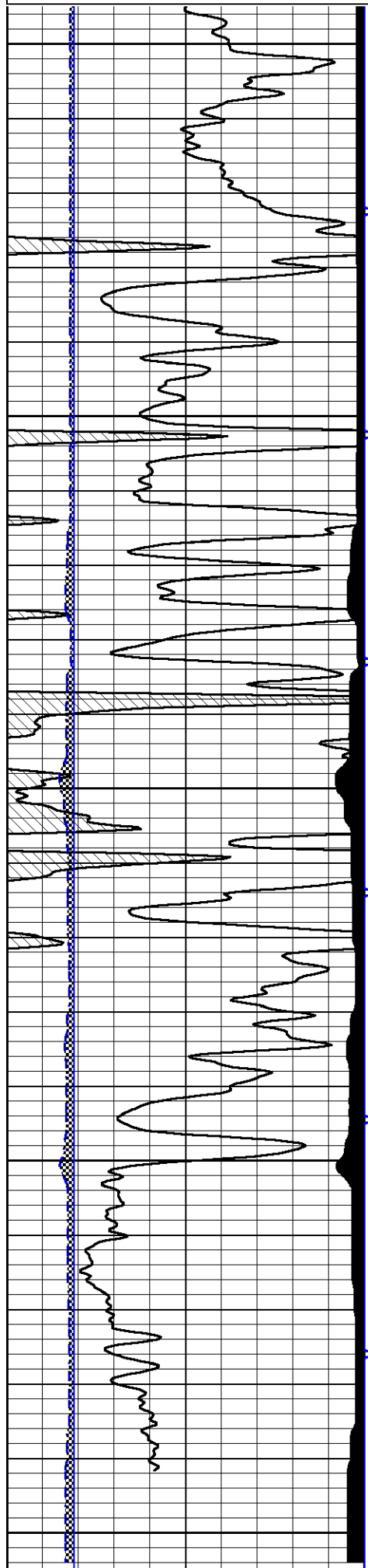


REPEAT SECTION

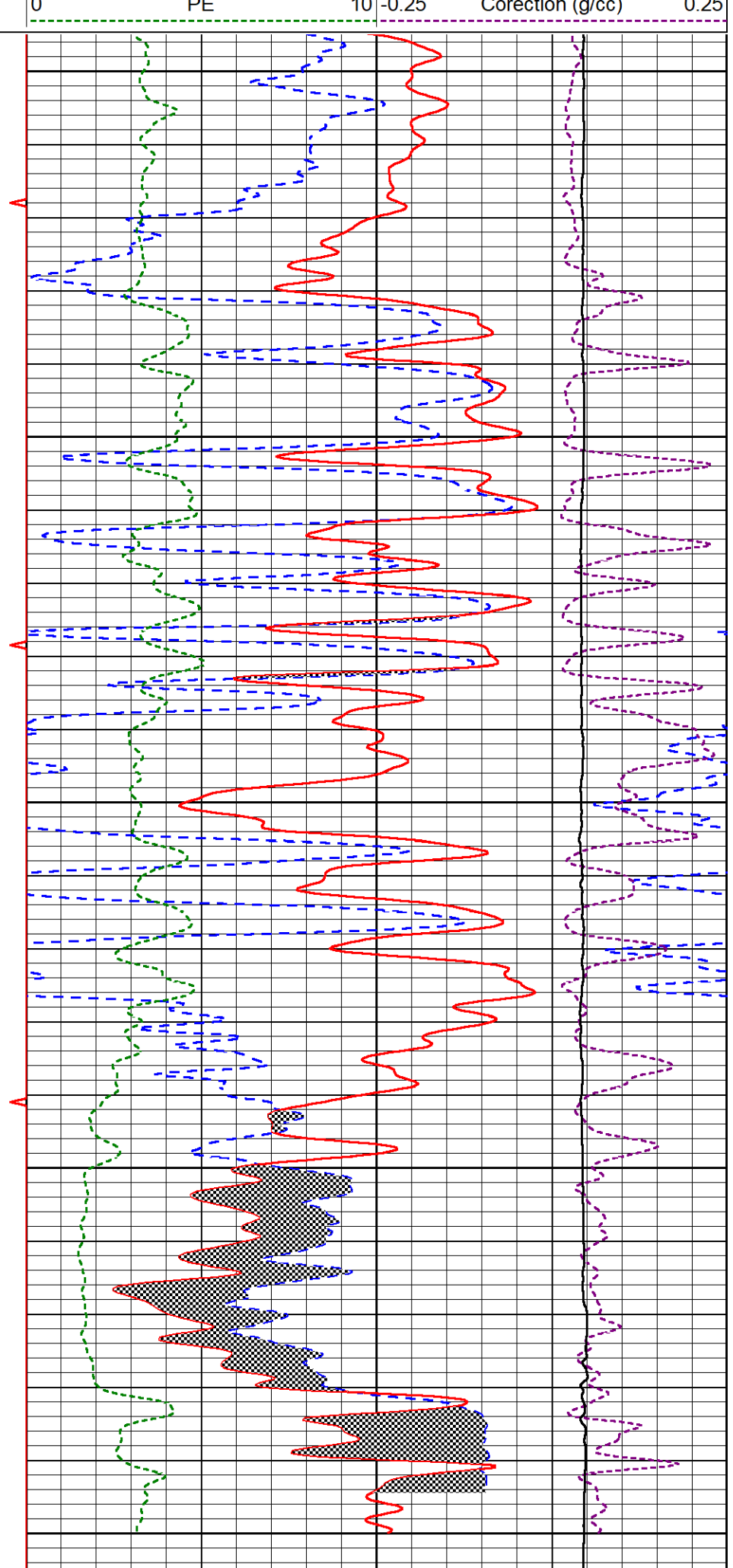
REPEAT PASS

Database File satchell_hobbs a #2-28.db
 Dataset Pathname StkMI/pass6.10
 Presentation Format _CNDLS~4
 Dataset Creation Sat Aug 26 18:06:45 2023
 Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	30	CNPOR (pu)	-10		
6	Caliper (in)	16	30	Compensated Density Porosity (pu)	-10		
			10000	Line Tension (lb)	0		
			0	PE	10	-0.25	Corection (g/cc) 0.25



4250
4300
4350
4400
4450



0	Gamma Ray (GAPI)	150	30	CNPOR (pu)		-10		
6	Caliper (in)	16	30	Compensated Density Porosity (pu)		-10		
			10000	Line Tension (lb)		0		
			0	PE	10	-0.25	Corection (g/cc)	0.25

Calibration Report

Database File satchell_hobbs a #2-28.db
 Dataset Pathname StkMI/pass3.1
 Dataset Creation Thu Aug 24 21:15:14 2023

Dual Induction Calibration Report

Serial-Model: 507-M&W
 Surface Cal Performed: Fri Jul 14 14:17:56 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop	mmho/m	m	b
Deep	68.570	638.100	0.000	255.800	mmho/m	0.500	-37.000
Medium	184.288	716.191	0.000	255.800	mmho/m	0.430	-75.000

Microlog Calibration Report

Serial-Model: 401-PSIML
 Performed: Mon Jun 5 16:37:07 2023

	Readings		References			Results	
	Zero	Cal	Zero	Cal	Ohm-m	m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	22000.0000	-1.0000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	22000.0000	-0.7500
Caliper	1.0052	1.0858	5.0000	16.5000	in	142.7190	-138.8000

LITHODENSITY Calibration Report

Serial Number: 704-10
 Tool Model: STEP LITHO
 Performed: Fri Jun 23 15:26:01 2023

Source:

	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	51	54	202	252	21	70	42	1	cps
LS:	85	96	363	462	53	147	97	3	cps
Aluminum:									
SS:	870	1018	2321	2004	37	71	43	2	cps
LS:	1057	1828	3315	1570	61	147	91	5	cps
Magnesium:									
SS:	1459	1669	3829	2914	42	70	46	3	cps
LS:	4526	7550	13047	4982	98	135	93	13	cps

Aluminum+Iron:									
SS:	553	719	1939	1750	37	72	45	2	cps
LS:	613	1297	2812	1404	60	146	96	4	cps
		Density			PE				
		Actual	Calibrated		Actual	Calibrated	Quality		
Background:									
SS:							0.245		
LS:							0.205		
Aluminum:									
SS:	2.6000	2.6000	g/cc				0.240		
LS:	2.6000	2.6000	g/cc				0.236		
Magnesium:									
SS:	1.6800	1.6800	g/cc	2.5700	2.5700		0.210		
LS:	1.6800	1.6800	g/cc	2.5700	2.5700		0.184		
Aluminum+Iron:									
SS:						6.1800	0.228		
LS:						6.1800	0.206		

Caliper:	Reference:	Reading:
Small Ring:	6.0 in	0.2
Large Ring:	15.0 in	0.8
Gain:	16.161	
Offset:	1.070	

Compensated Neutron Calibration Report

Serial Number: 207
Tool Model: M&W

CALIBRATION

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: 106
Tool Model: M&W
Performed: Tue Aug 22 07:35:27 2023

Calibrator Value: 500.0 GAPI

Background Reading: 24.0 cps
Calibrator Reading: 637.0 cps

Sensitivity: 0.6000 GAPI/cps



Company Satchell Creek Petroleum LLC
Well Hobbs A #2-28
Field Ambrose South
County Graham
State Kansas