



MIDWEST WIRELINE

**DUAL COMPENSATED
POROSITY W/PE**

Company American Warrior, Inc.
Well Belleau Unit #1-33
Field Kenyon
County Graham
State Kansas

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Field Kenyon
County Graham State Kansas

Location: API #: 15-065-24309-00-00
1683 FSL & 1145 FWL
SEC 33 TWP 7S RGE 21W
Permanent Datum Ground Level Elevation 2090
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing
Other Services
DIL/MEL
K.B. 2098
D.F.
G.L. 2090

Date	2/27/2024						
Run Number	One						
Type Log	CNL/CDL						
Depth Driller	3845						
Depth Logger	3844						
Bottom Logged Interval	3815						
Top Logged Interval	2950						
Type Fluid In Hole	Chemical						
Salinity, PPM CL	1800						
Density	9.1						
Level	Full						
Max. Rec. Temp. F	114						
Operating Rig Time	2 Hours						
Equipment -- Location	110 Hays						
Recorded By	T. Martin						
Witnessed By	Jason Alm						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
One	12.25	00	228	8.625	23	00	228
Two	7.875	228	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.

Bogue, KS, N to 18/24 Junction,
1/8 E, 1 N, 1/4 E, N into

Log Measured From: Kelly Bushing 8 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew		This Log Record Was Witnessed By	
Engineer: T. Martin	Operator:	Primary Witness: Jason Alm	Secondary Witness:
Operator:	Operator:	Secondary Witness:	Secondary Witness:
Operator:		Secondary Witness:	

Case No.	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.23		GR-M&W (105)	3.00	3.50	50.00
CNLSC CNSSC	37.13 36.38		CNT-M&W (210)	5.00	3.50	100.00
LCAL	28.21		MWLith-STEP LITHO Short (701-01)	8.40	5.00	250.00
LLW8N	28.21		ML-PSI STKBL ML (402)	7.58	4.00	65.00
LLW7N	28.21					
LLW6N	28.21					
LLW5N	28.21					
LLW4N	28.21					
LLW3N	28.21					
LLW2N	28.21					
LLW1N	28.21					
LSLOCK	27.96					
LLLOCK	27.96					
PELTMPR	27.96		DIL-M&W (506)	18.25	3.50	220.00
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					
MI	19.58					
MN	19.58					
RLL3F	15.50					
RLL3	15.50					
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: amwar_belleau unit #1-33.db: field/well/StkMI/pass3.1
 Total length: 42.23 ft
 Total weight: 685.00 lb
 O.D.: 5.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\amwar_belleau unit #1-33.db
 Dataset field/well/StkMI/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	114	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	1.5	0	-70	50	Off	3844

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

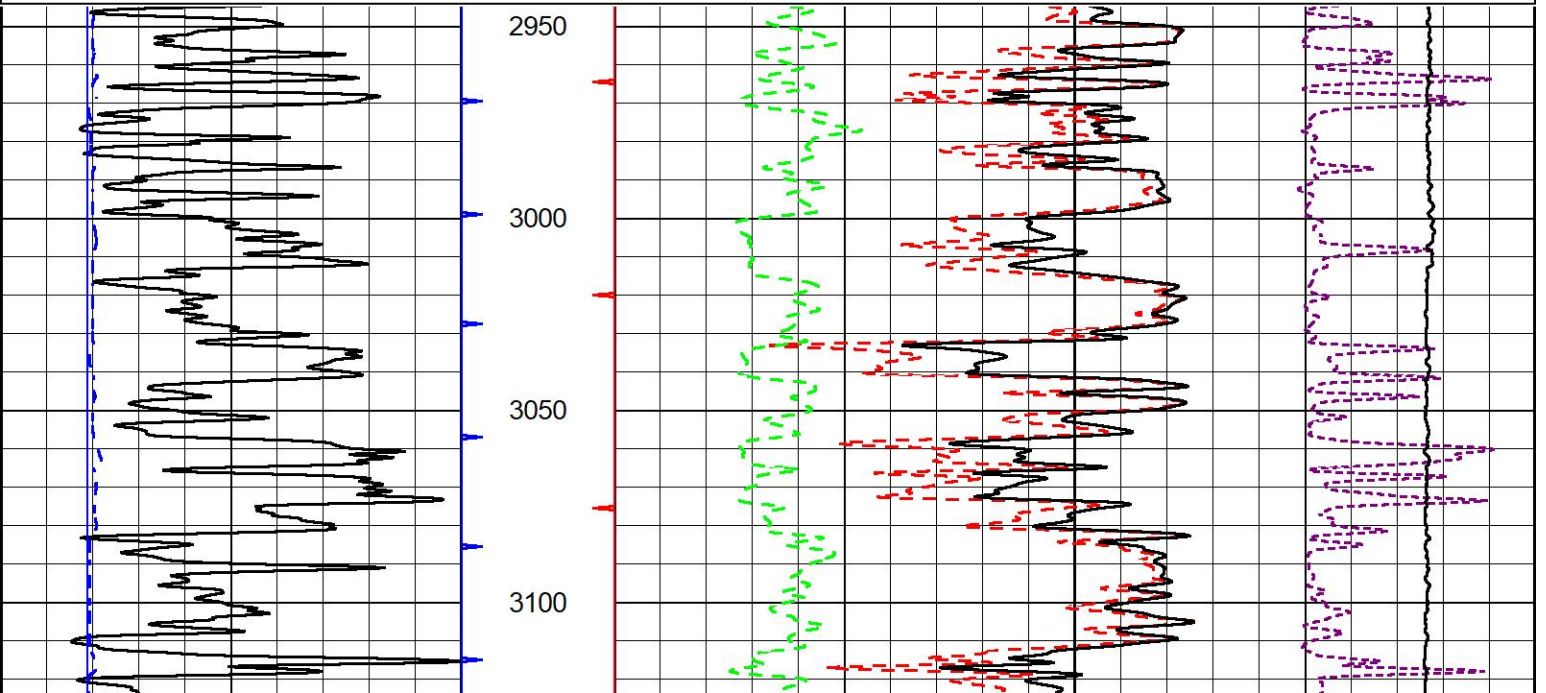


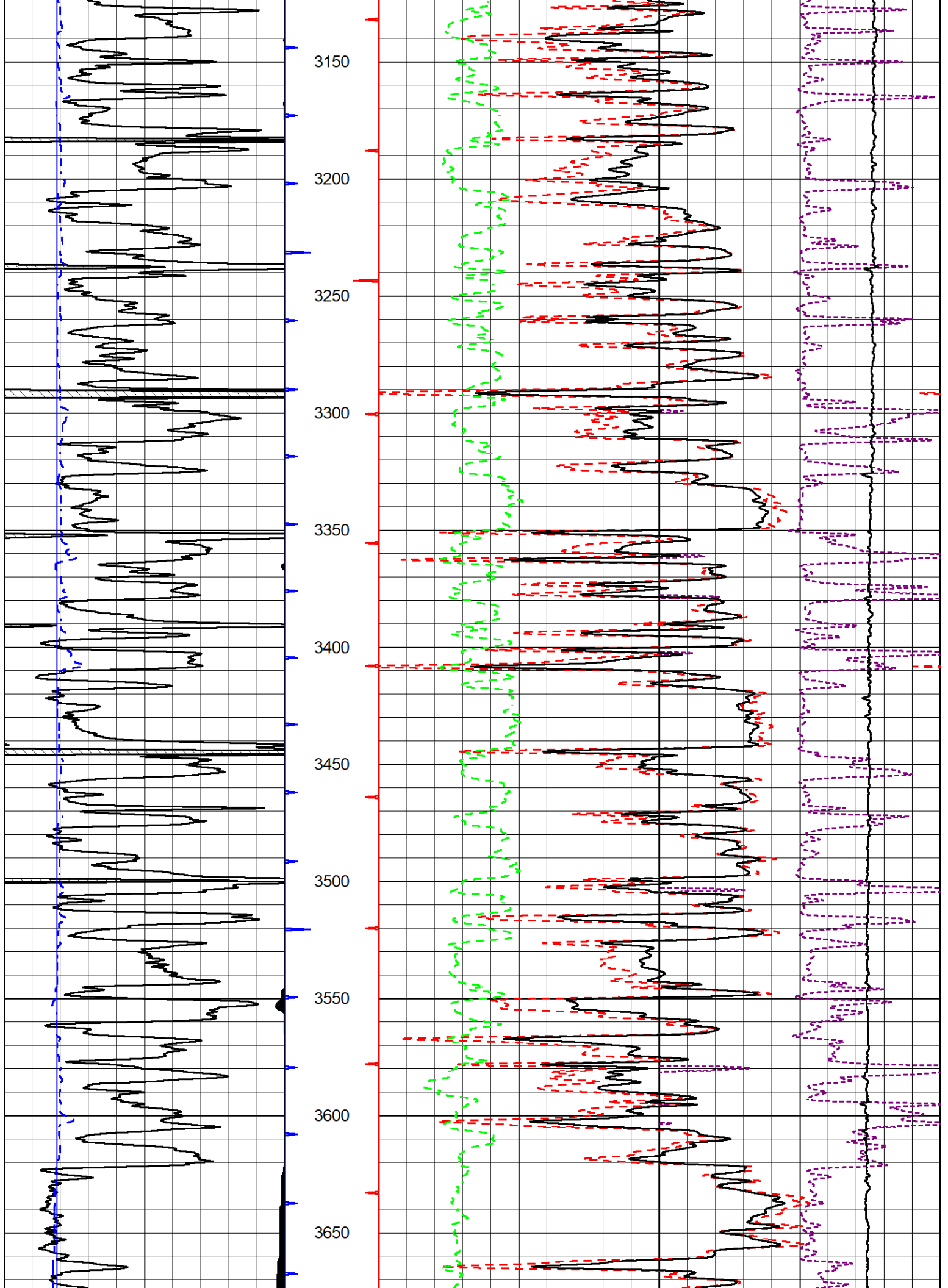
2" SCALE BULK DENSITY

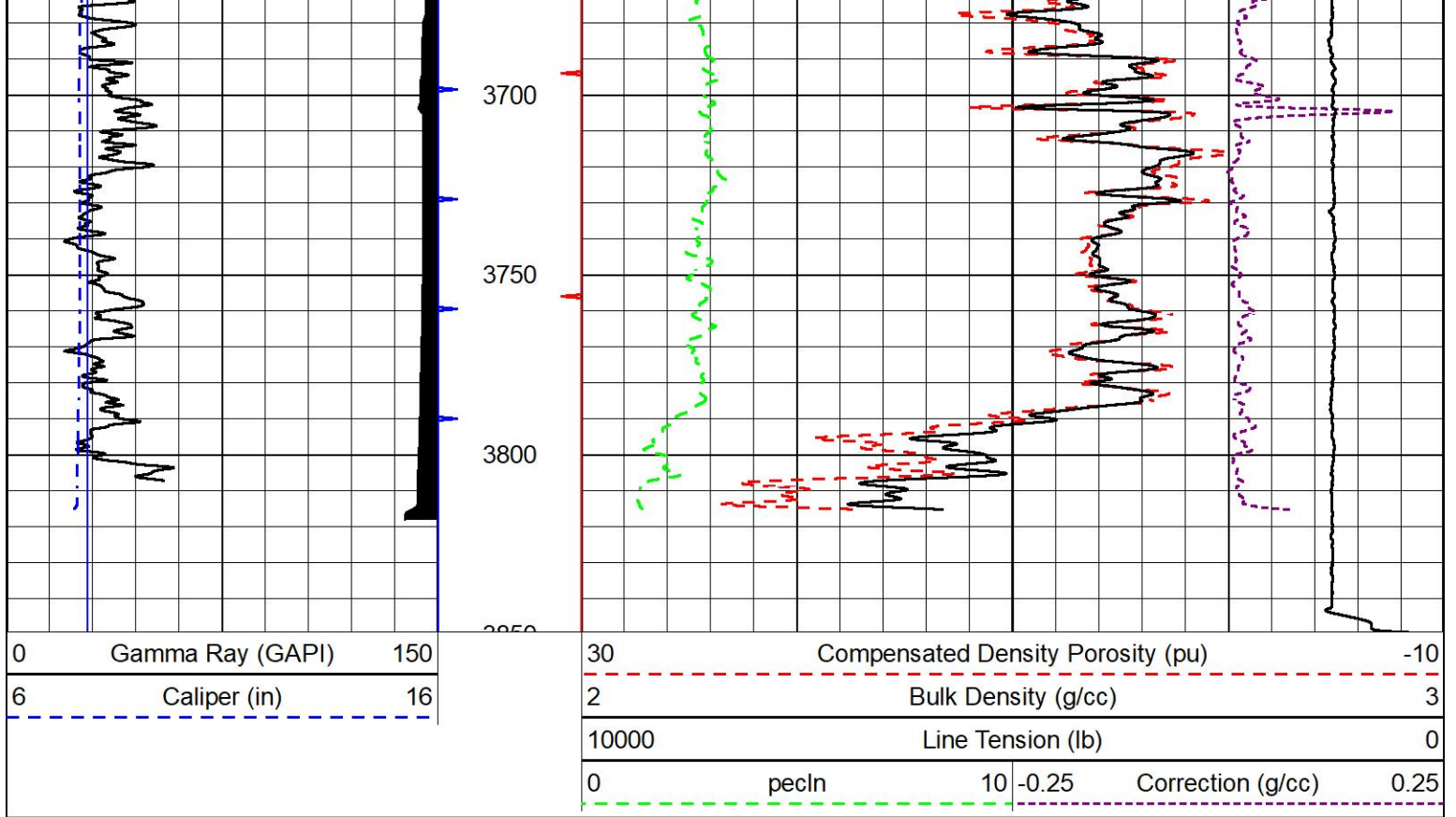
MAIN PASS

Database File amwar_belleau unit #1-33.db
 Dataset Pathname StkMI/pass3.3
 Presentation Format _cdlpe
 Dataset Creation Tue Feb 27 00:44:44 2024
 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



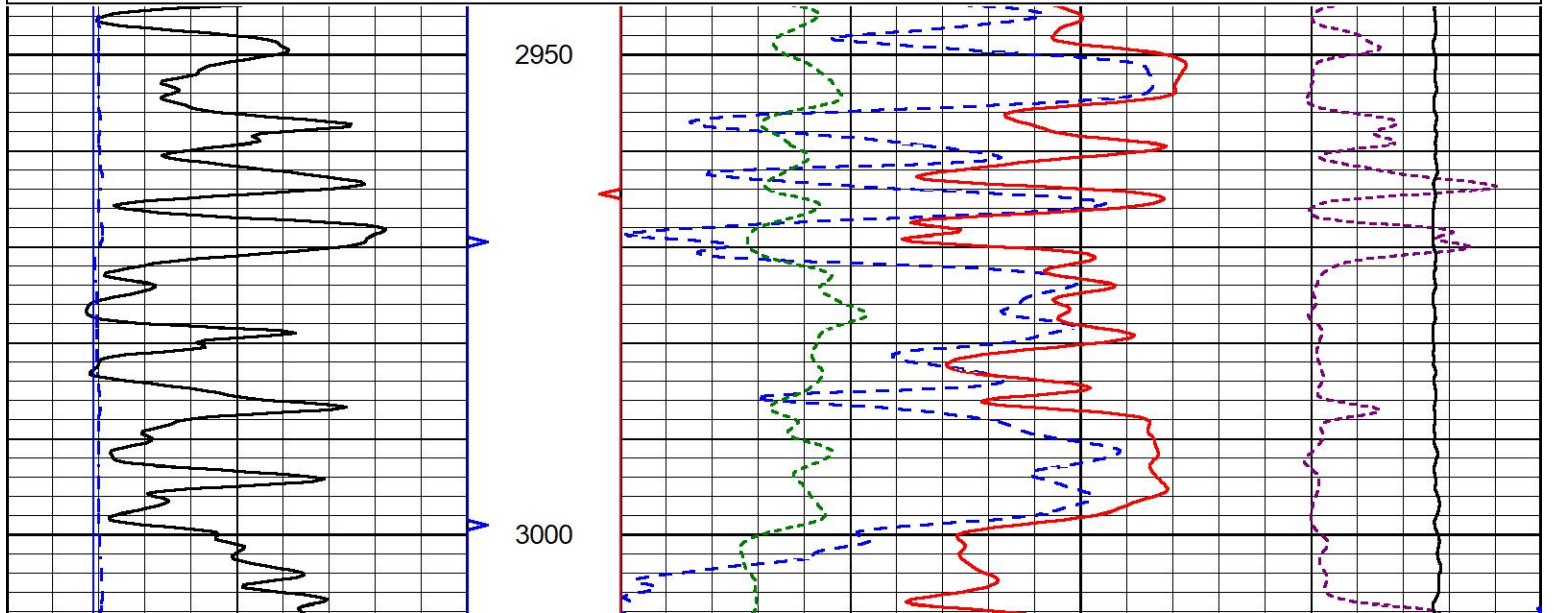
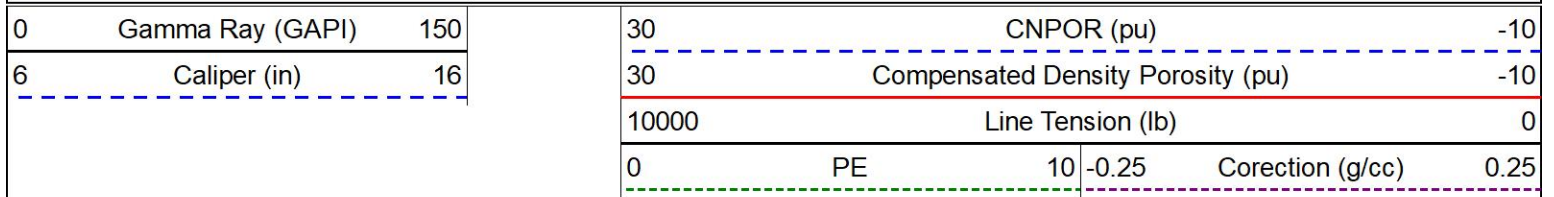


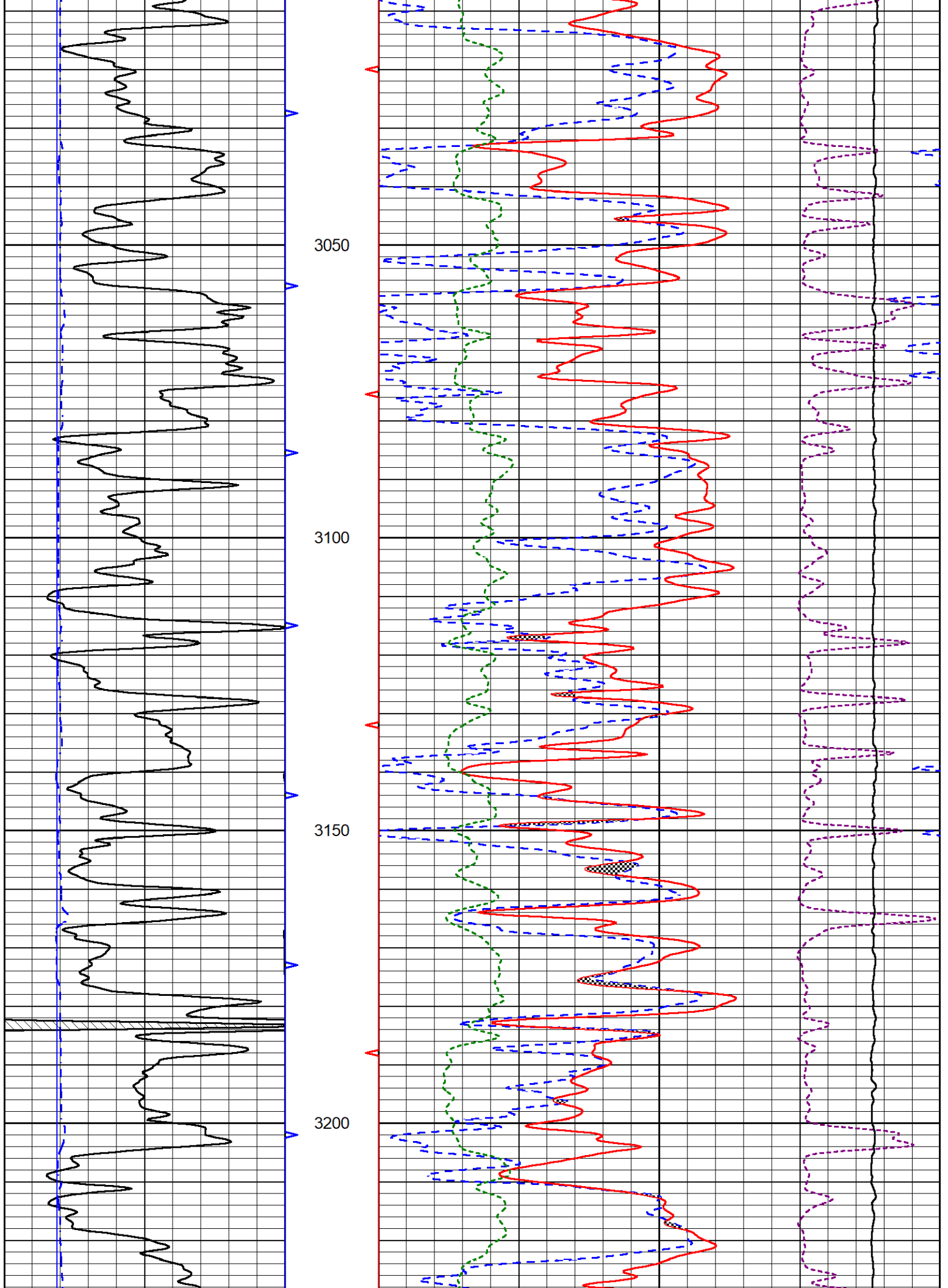


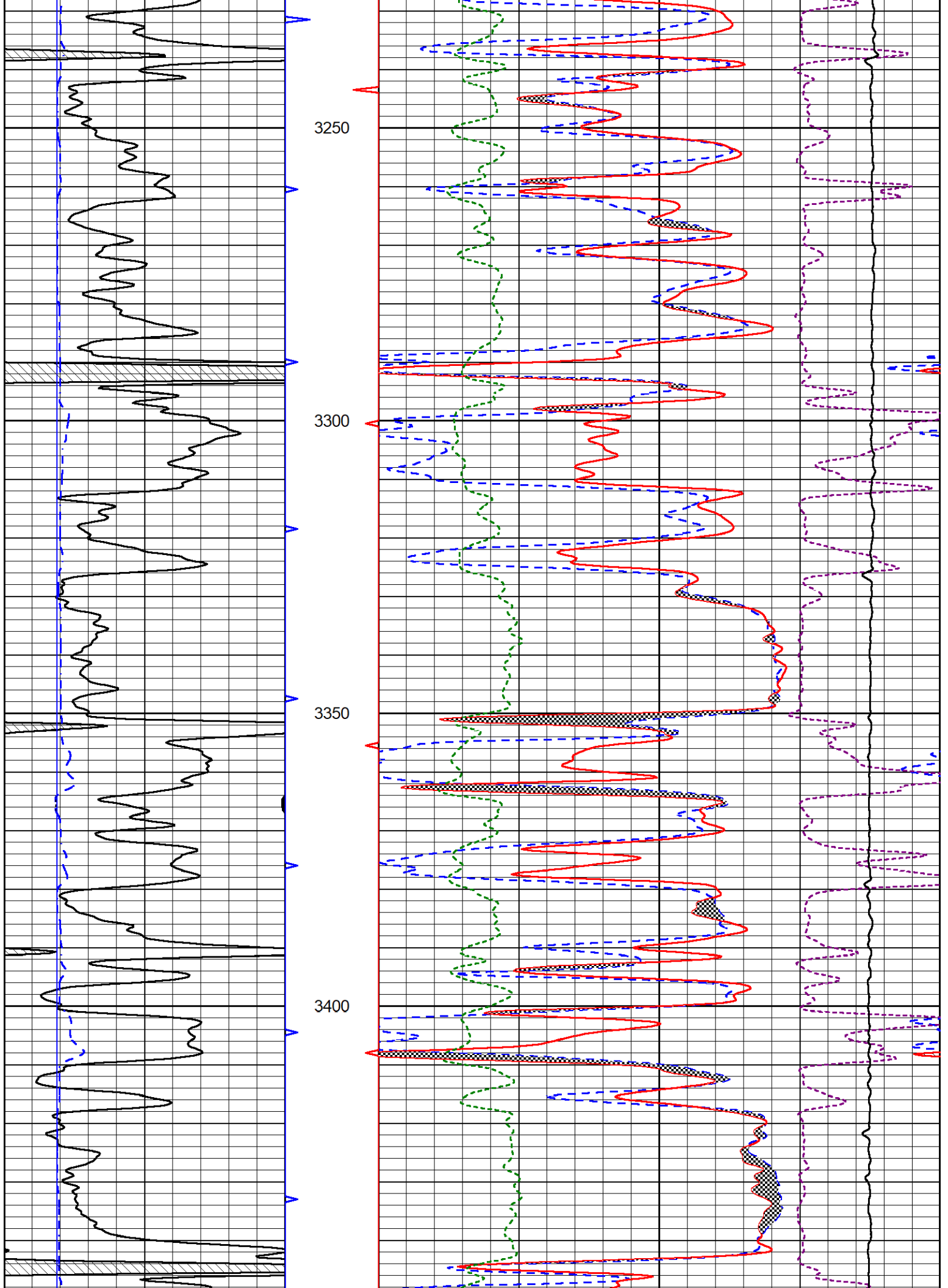
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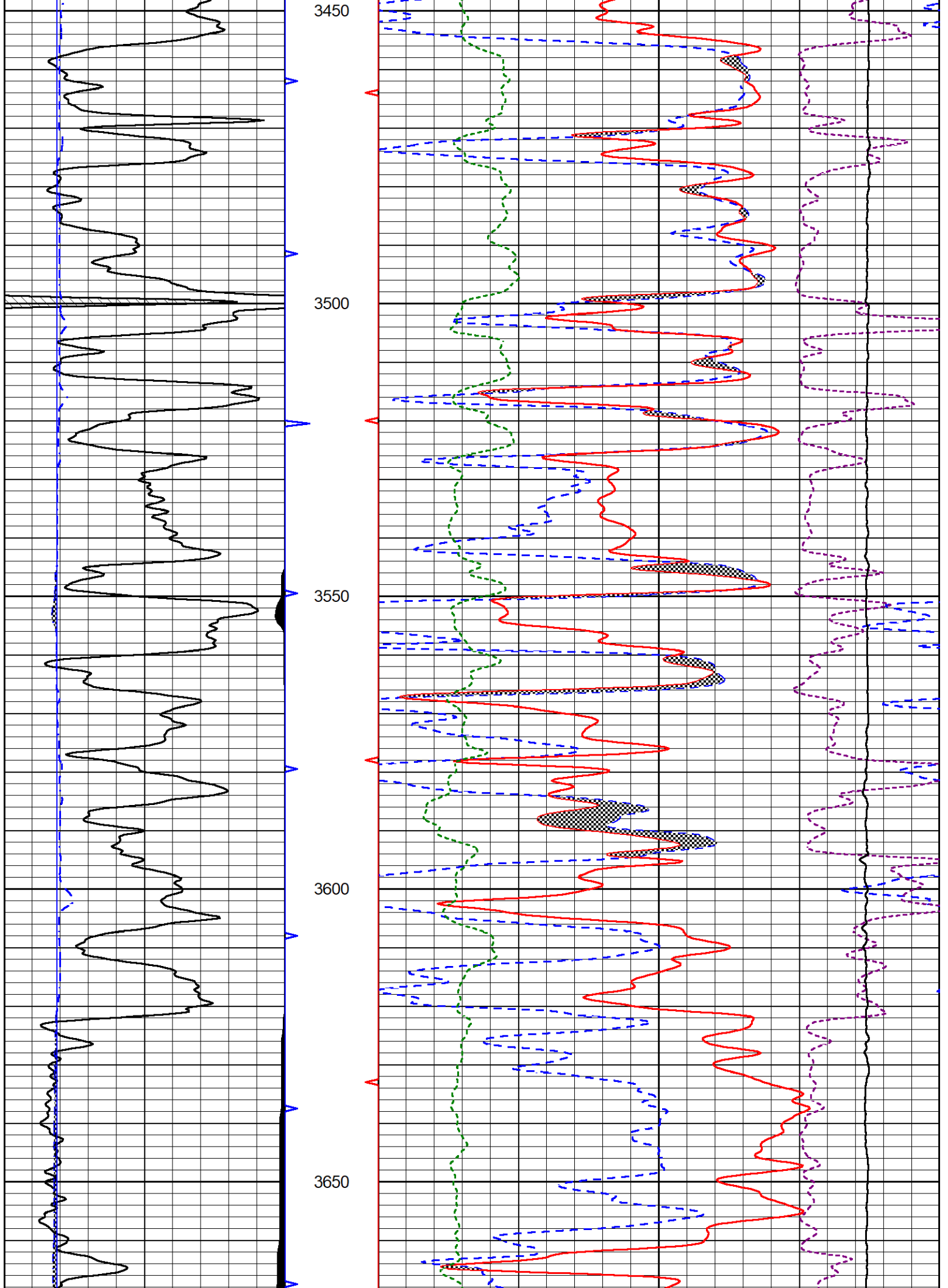
MAIN PASS

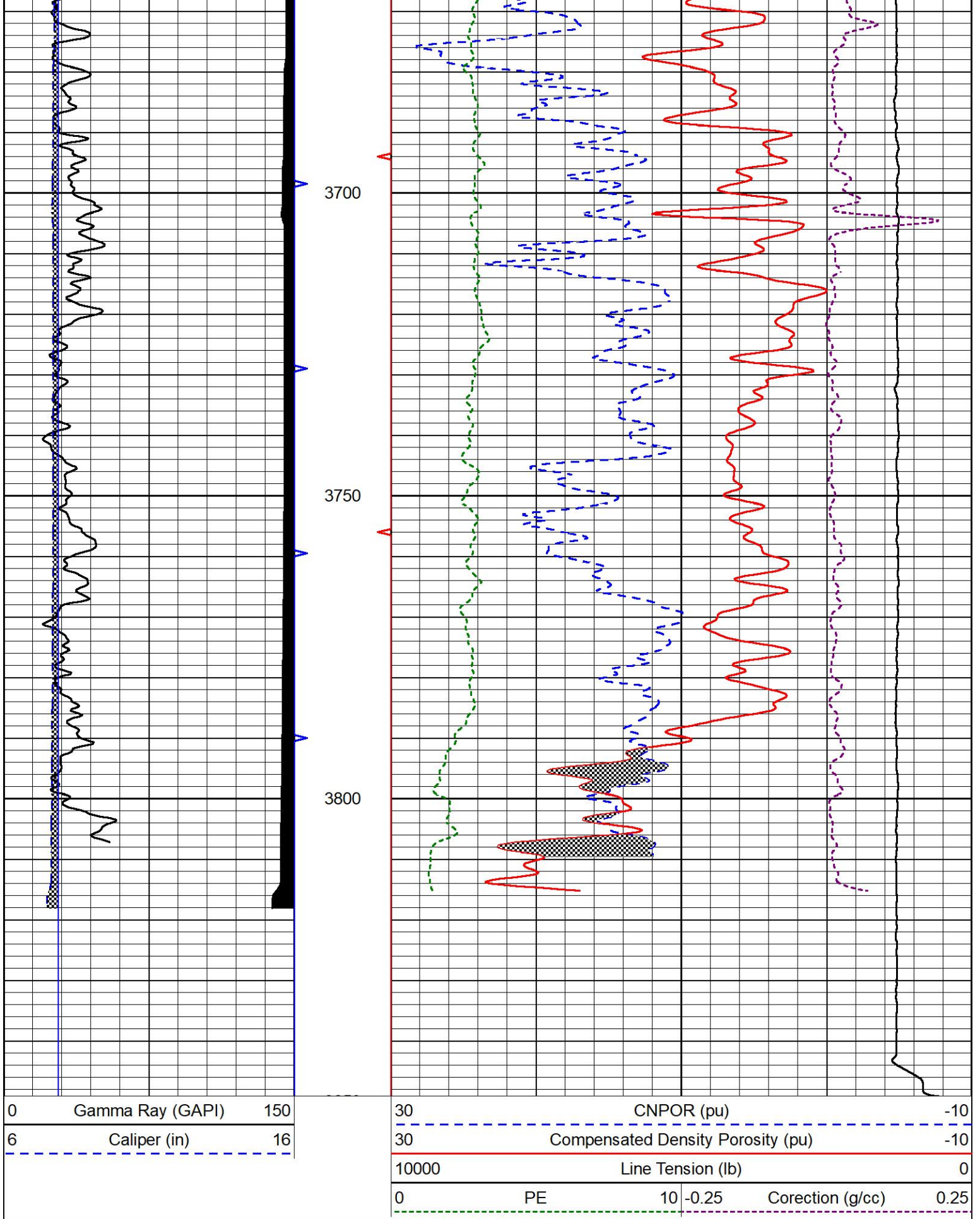
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 Dataset Pathname StkMI/pass3.1
 Presentation Format _CNDLS~2
 Dataset Creation Tue Feb 27 01:20:43 2024
 Charted by Depth in Feet scaled 1:240











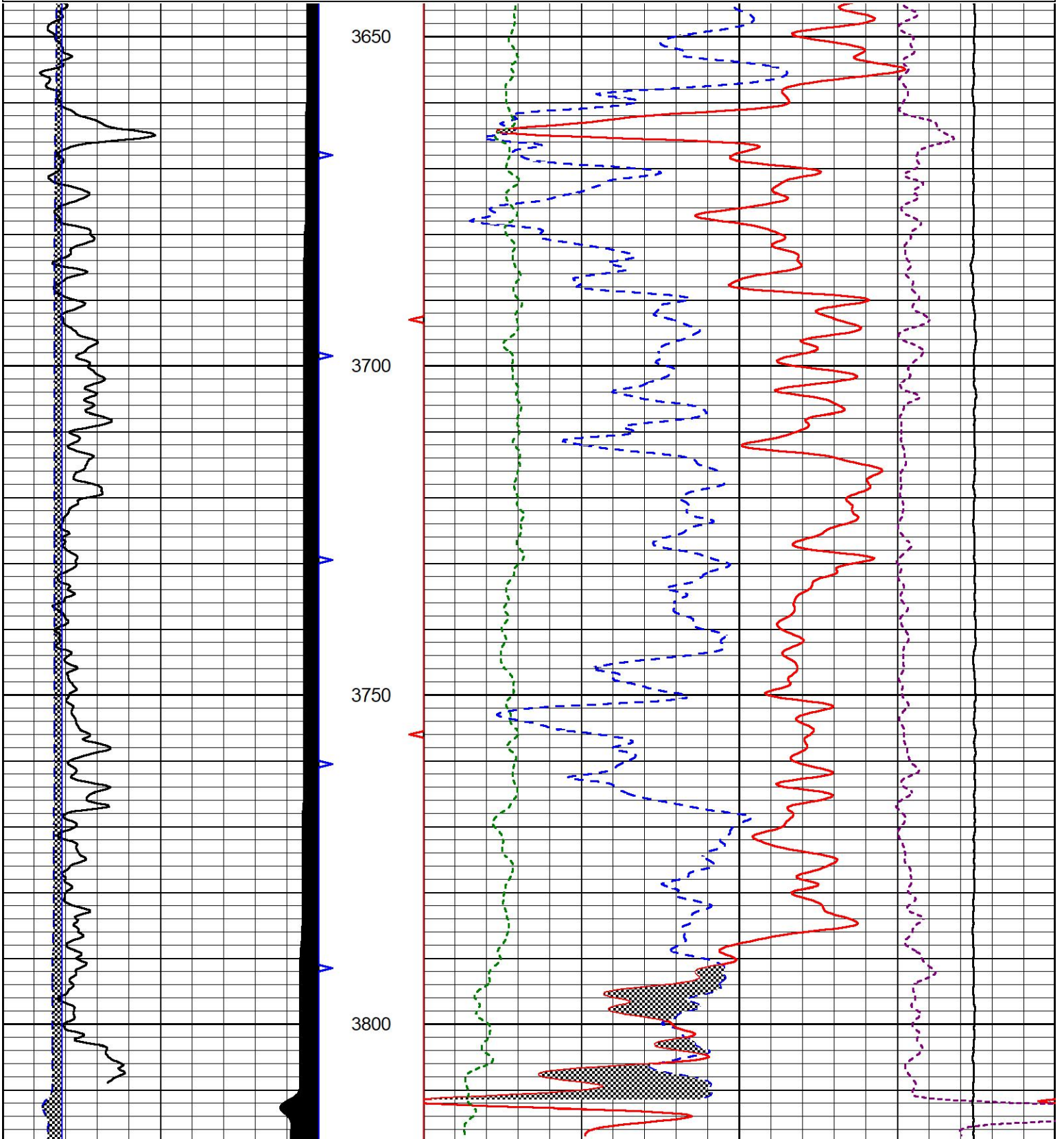
REPEAT SECTION

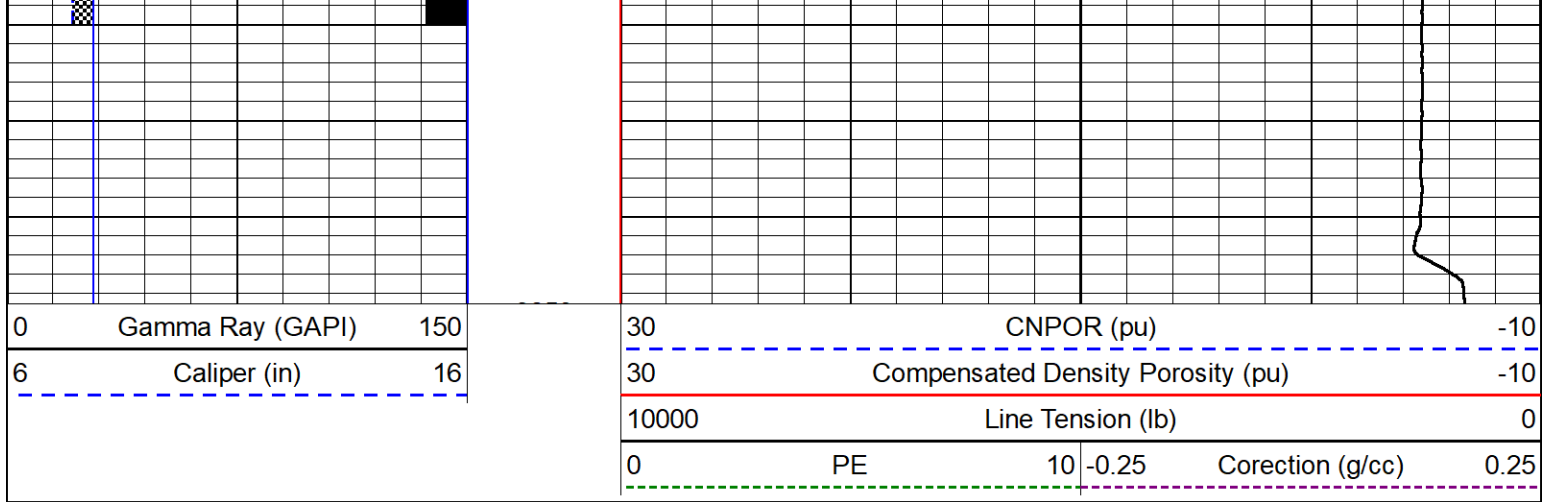


Database File amwar_belleau unit #1-33.db
 Dataset Pathname StkMI/pass2.1
 Presentation Format _CNDLS~2
 Dataset Creation Tue Feb 27 00:50:29 2024
 Charted by Depth in Feet scaled 1:240

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





Calibration Report

Database File amwar_belleau unit #1-33.db
 Dataset Pathname StkMI/pass3.1
 Dataset Creation Tue Feb 27 01:20:43 2024

Dual Induction Calibration Report

Serial-Model: 506-M&W
 Surface Cal Performed: Wed Feb 21 00:04:51 2024

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	84.211	428.152	0.000	255.800	mmho/m	0.485	-34.500
Medium	141.000	670.654	0.000	255.800	mmho/m	0.435	-21.500

Microlog Calibration Report

Serial-Model: 402-PSI STKBL ML
 Performed: Wed Feb 21 00:05:43 2024

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0037	0.0043	0.0000	10.0000	Ohm-m	14000.0000	-0.6000
Inverse	0.1208	0.0013	0.0000	10.0000	Ohm-m	14000.0000	-0.2500
Caliper	1.0046	1.1419	5.5000	20.0000	in	50.0000	-44.5700

LITHODENSITY Calibration Report

Serial Number: 701-01
 Tool Model: STEP LITHO Short
 Performed: Fri Dec 15 13:02:54 2023

Source:

	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	50	53	200	252	23	67	44	1	cps
LS:	78	88	332	424	48	131	87	3	cps

Aluminum:

SS:	1069	1323	3068	2763	51	72	47	3	cps
LS:	1171	2261	4196	1923	57	133	82	6	cps

Magnesium:

SS:	1756	2109	4999	4049	59	72	48	5	cps
LS:	4803	8914	16228	6562	125	123	85	17	cps

Aluminum+Iron:

SS:	682	909	2535	2363	47	72	47	3	cps
LS:	682	1582	3537	1707	57	132	82	5	cps

Density				PE					
Actual	Calibrated			Actual	Calibrated	Quality			

Background:

SS:						0.201			
LS:						0.203			

Aluminum:

SS:	2.6000	2.6000	g/cc			0.208			
LS:	2.6000	2.6000	g/cc			0.236			

Magnesium:

SS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.205			
LS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.183			

Aluminum+Iron:

SS:						6.1800	0.210		
LS:						6.1800	0.234		

Caliper:	Reference:	Reading:
Small Ring:	6.0 in	0.2
Large Ring:	14.0 in	0.8
Gain:	12.765	
Offset:	2.525	

Compensated Neutron Calibration Report

Serial Number:	210
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:	105
Tool Model:	M&W
Performed:	Sat Oct 21 23:48:19 2023
Calibrator Value:	500.0 GAPI
Background Reading:	24.0 cps
Calibrator Reading:	637.0 cps
Sensitivity:	0.6000 GAPI/cps



Company	American Warrior, Inc.
Well	Belleau Unit #1-33
Field	Kenyon
County	Graham
State	Kansas