

STEP

energy services

COMPOSITE LOG

Company MERIT ENERGY COMPANY, LLC Well WENU #403 Field EUBANK NORTH County HASKELL State KANSAS Country USA API No. 15-081-22211-0000		File No : TUL-70418 Company : MERIT ENERGY COMPANY, LLC Well : WENU #403 Field : EUBANK NORTH County : HASKELL State : KANSAS Country : USA API No : 15-081-22211-0000	
Location : 2023 FSL & 873' FEL SE NW NE SE		LSD : Sect : 4 Twp : 28S Rge : 34W	
Permanent Datum:	GL	Elevations:	
Drilling Measured From:	KB	KB 3089.00	Ft
Log Measured From:	KB	DF 3088.00	Ft
Above Permanent Datum:	1200 Ft	GL 3077.00	Ft
Date	12-30-2019		
Run Number	1		
Depth--Driller	5604.0 Ft		
Depth--Logger	5612.0 Ft		
First Reading	5612.0 Ft		
Last Reading	1774.0 Ft		
Casing--Driller	1774.0 Ft		
Casing--Logger	1774.0 Ft		
Bit Size	7.875 In		
Casing Size	8.625 In		
Hole Fluid Type	WBM		
Density	9.2		
Fluid Loss	6.0		
PH/Viscosity	11.0	56.0	
Sample Source	MEASURED		
RM@Measured Temp.	4.000 @ 50 F		
RMF@Measured Temp	3.200 @ 50 F		
RM@Measured Temp.	4.800 @ 50 F		
Source RMF/RMC	CALCULATED/CALCULATED		
RM@BHT	1.600 @ 134 F		
Time Circulation Stopped	12-30-2019 09:15		
Max Recorded Temp.	134 F		
Equipment/Base	1022 HAYS, KS		
Recorded By	SHELDON TYLER		
Witnessed By	MARTIN LANGE RODNEY GONZALES		

The customer is hereby warned that by providing the log data herein, STEP Energy Services does not agree to provide any interpretation of log data, conversion of log data to physical rock parameters or recommendations. STEP Energy Services does not guarantee or warrant either expressly or impliedly, the accuracy of any interpretation of log data, conversion of log data to physical rock parameters or recommendations which may be given by STEP Energy Services personnel. Any interpretation, conversion or recommendation is not part of the consideration for the agreement between the parties and is not part of any part of the charge by STEP Energy Services for its services. Any user of the log data is warned that said user is not entitled to rely on interpretations, conversions or recommendations as aforesaid.

Bitsize Intervals		Casing Strings			
Size (In)	Bottom (Ft)	Size (In)	Weight (Lbs)	Bottom (Ft)	Top (Ft)
7.875	5604.00	8.625	32.00	1774.00	0.00

Run Number	1	
Date	12-30-2019	
Date/Time On Bottom	12-30-2019 13:15	
Depth to Fluid	0.0 Ft	
Salinity	1050.000	
RMF@BHT	1.280 @ 134 F	
RMC@BHT	1.920 @ 134 F	

Run Number 1

Comments

ALL PRESENTATIONS AS PER CUSTOMER REQUEST
GRT, CNT, LDT, CST, MLT AND PIT RUN IN COMBINATION
CALIPERS ORIENTED ON X-Y AXIS
2.71 G/CC USED TO CALCULATE POROSITY
ANNULAR HOLE VOLUME CALCULATED USING 5.5" PRODUCTION CASING
PHIN IS CALIPER CORRECTED
REPEAT PIT, MICRO AN SONIC ONLY ON 2ND RUN
NO REPEAT ON DENSITY, OR NEUTRON DUE TO CALIPER NOT CLOSING, LOGGED OUT
LAT 37.640267 LONG -101.038048
CUSTOMER REQUESTED DETAIL PULLED TO 3900' REPEAT TO 5200'

GRT: GRP, GRX
CST: PORS, CDTF, TTIPF, TT2PF, TT3PF, TT4PF, ITT
CNT: PHIN, CLCNIN, PHXN
LDT: PORL, LCORN, PECLN, LDENN, PORLLS, CLLDIN, PRXL, PECLX, LDENNX, LCORX
MLT: NOR_RF, INV_RF, MSCLPIN
PIT: ILD, ILM, SPU, SFLAEC, CIRD

OPERATORS:
B.BROWN

Well File: MERIT ENERGY WENU 403_DEC30_QUINT	Scale: 1:240	Format: COM-meri
Segment: V1.D5.S1 MAIN FINAL	Acquired: Not Available	
Reference: 0	Processed: Not Available	

CALIPER MICRO INCHES (IN)			
16 6	26 16		
BIT SIZE INCHES (IN)			
6	16		
NEUTRON (Y) CALIPER INCHES (IN)		SONIC POROSITY Percent	
16 6	26 16	30	-10
DENSITY (X) CALIPER INCHES (IN)		NORMAL OHMM	SHALLOW FOCUSED RESISTIVITY OHMM
16 6	26 16	0 40	0.2 2000.0 0
SPONTANEOUS POTENTIAL mV		INVERSE OHMM	DEEP INDUCTION OHMM
→ ← 20		0 40	0.2 2000.0 30
GAMMA RAY API UNITS		TENSION LBS	MEDIUM INDUCTION OHMM
150 0	300 150	4000 2000	0.2 2000.0 30

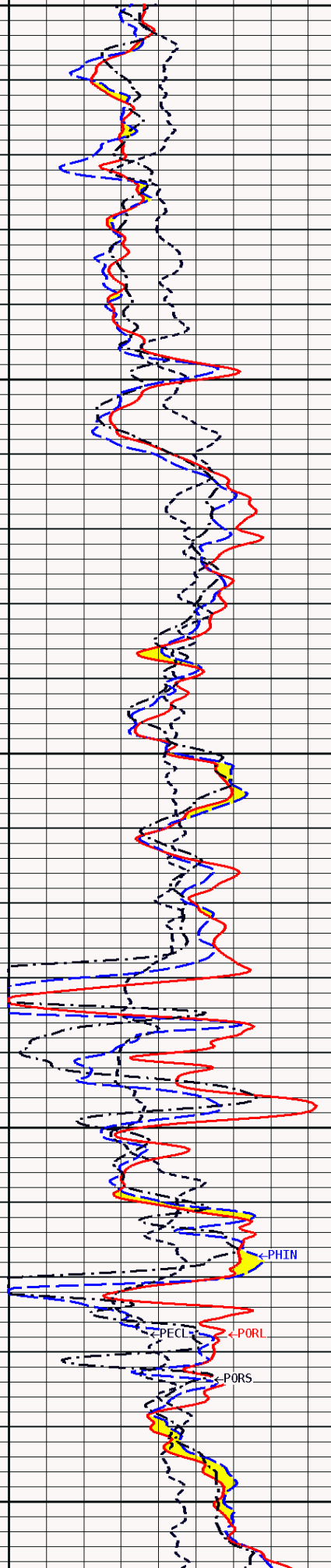
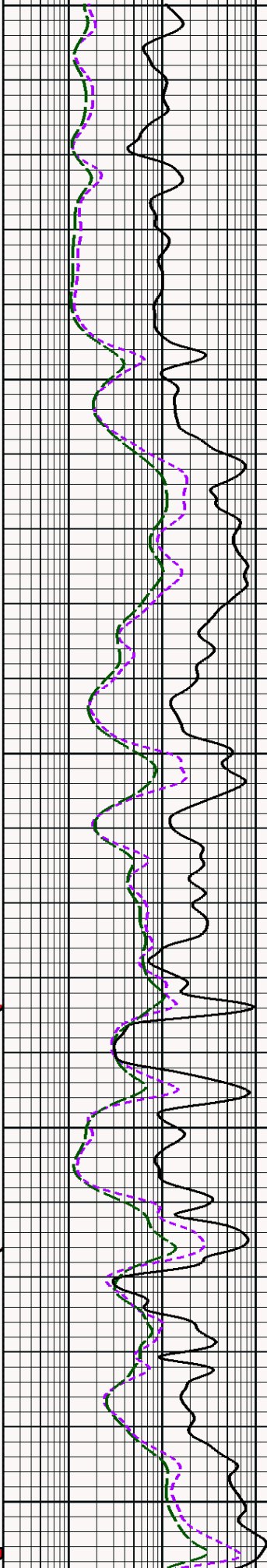
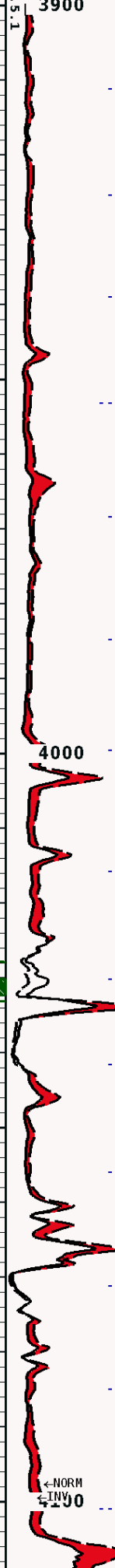
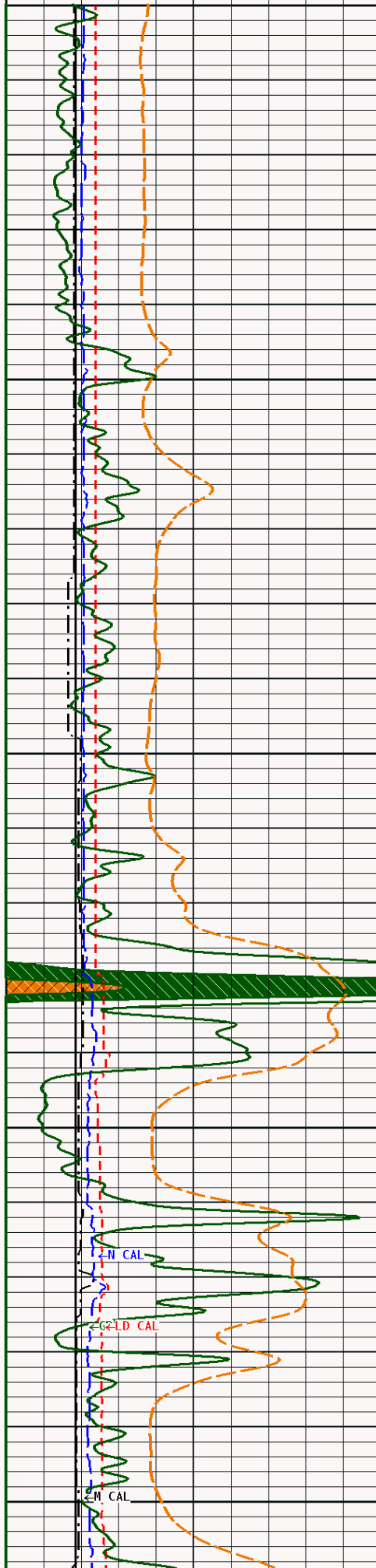
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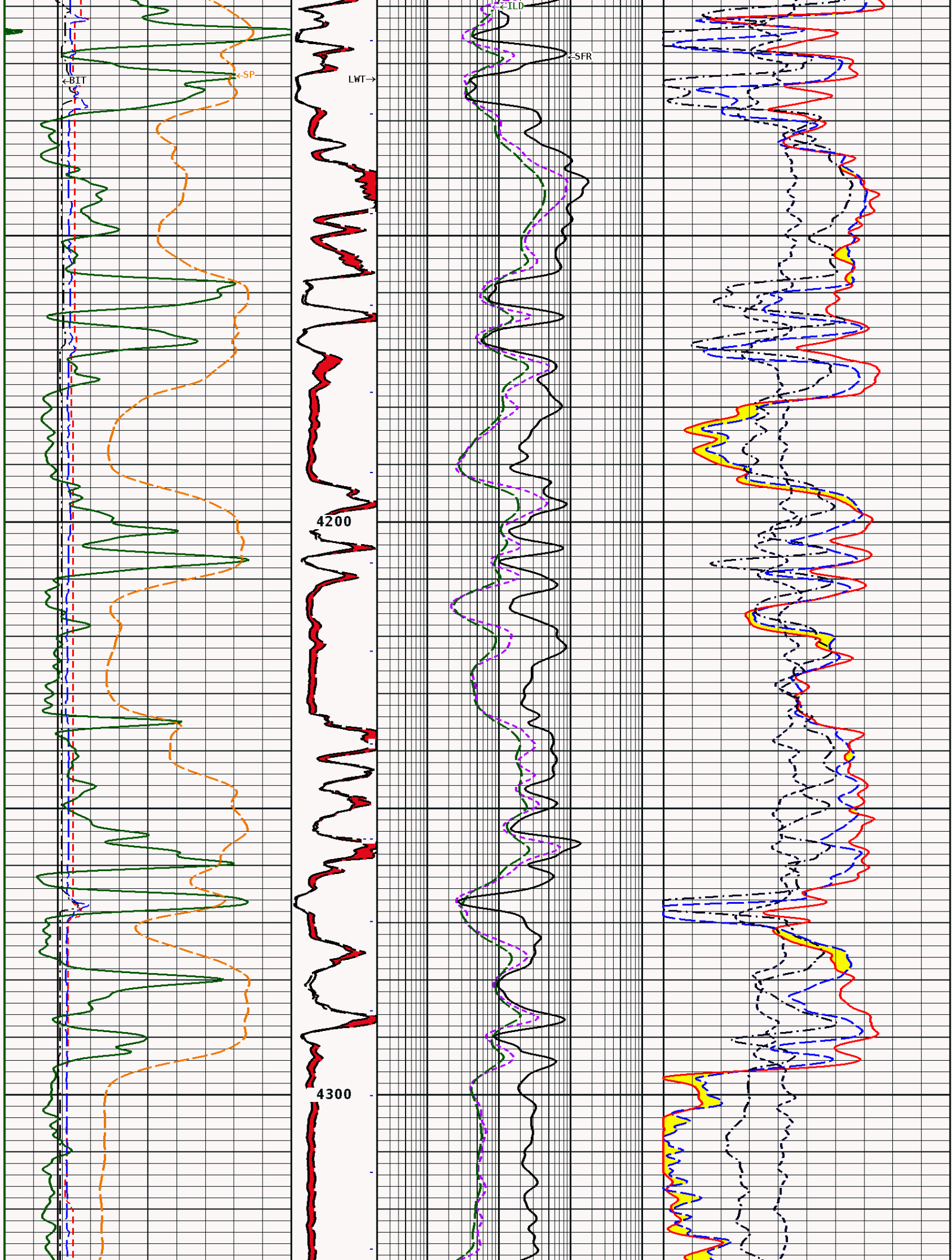
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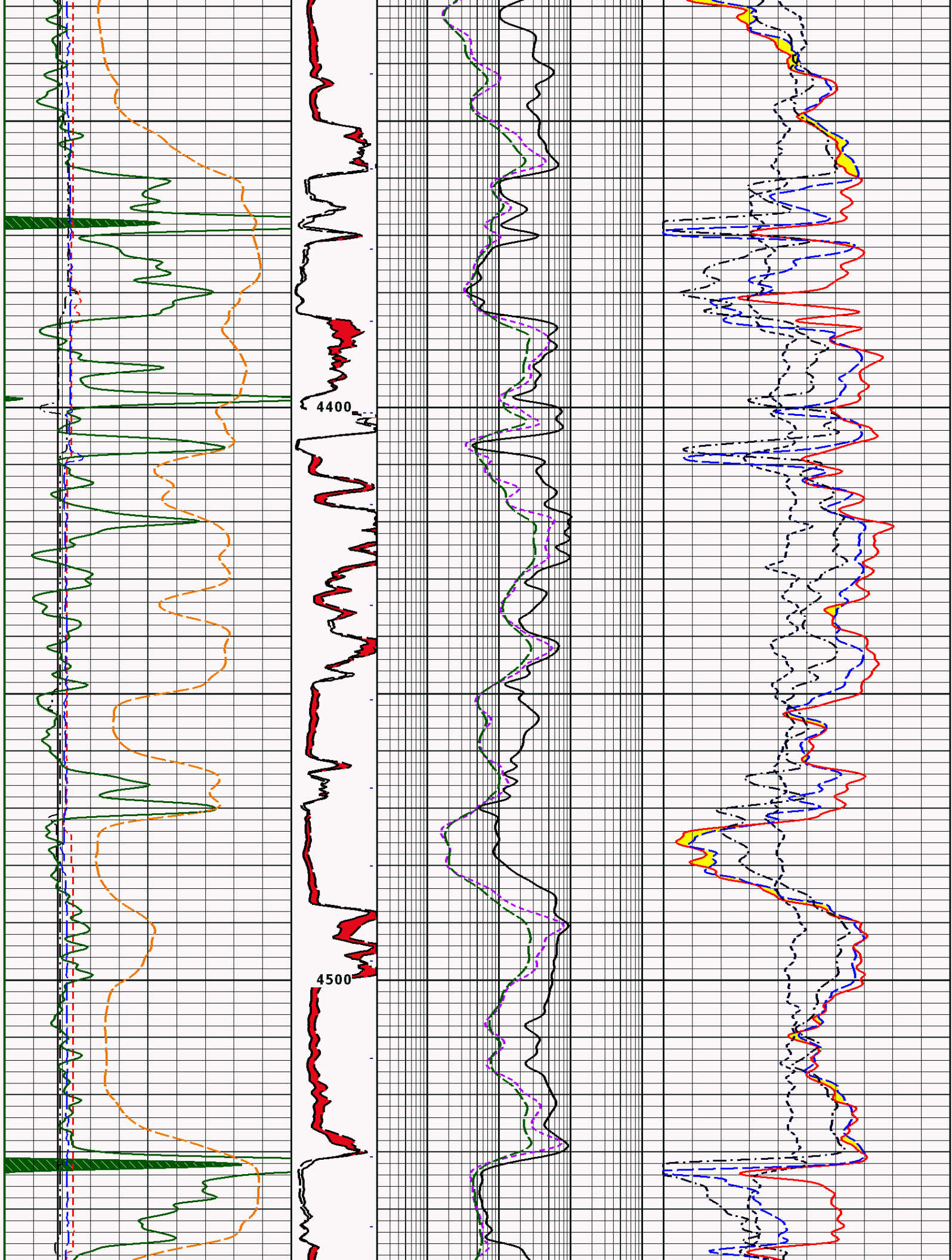
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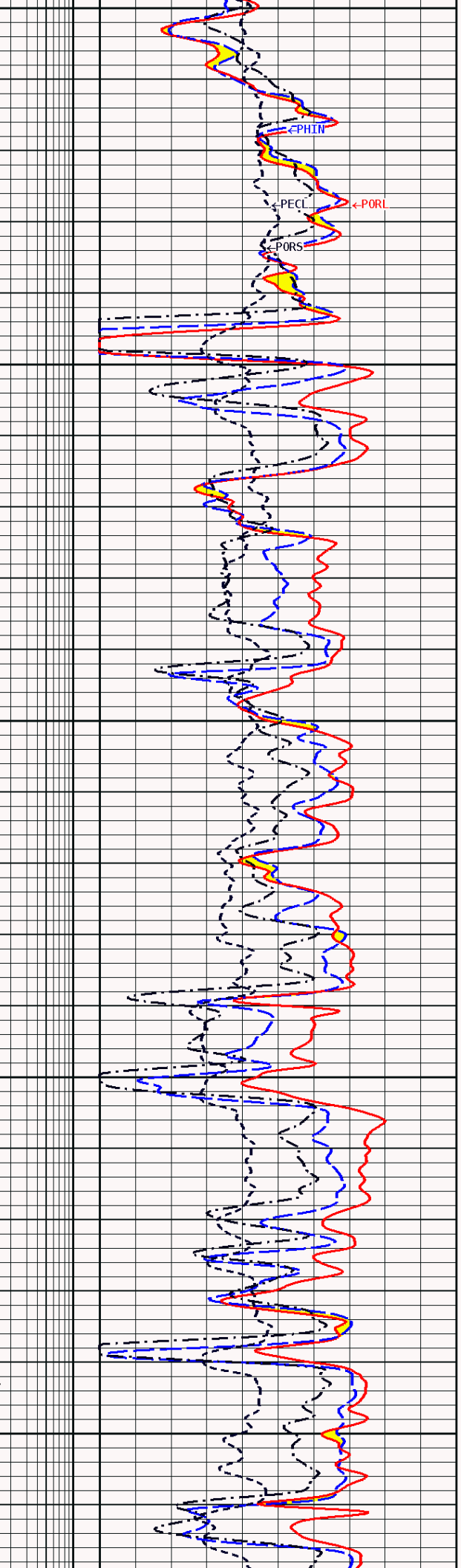
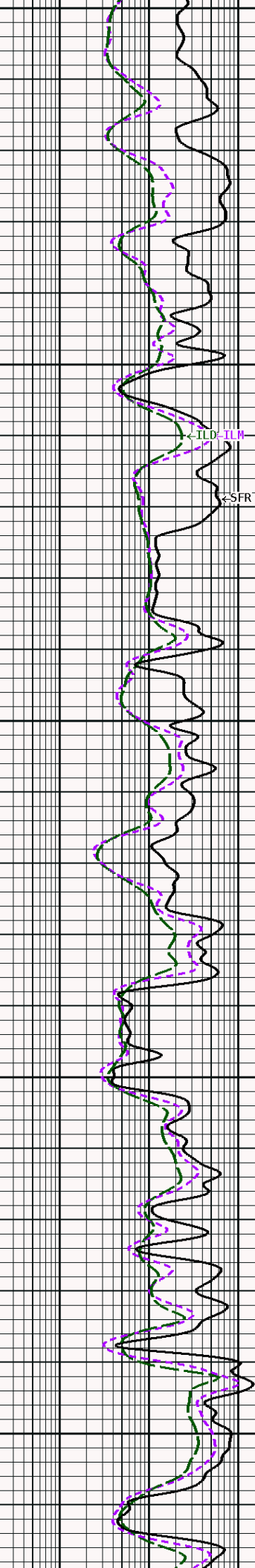
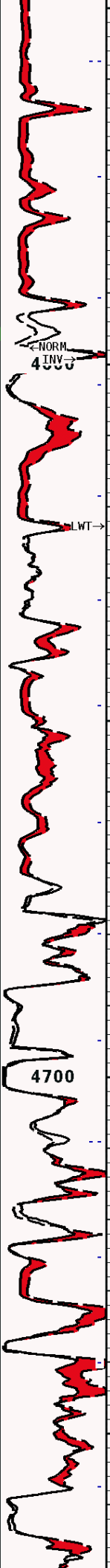
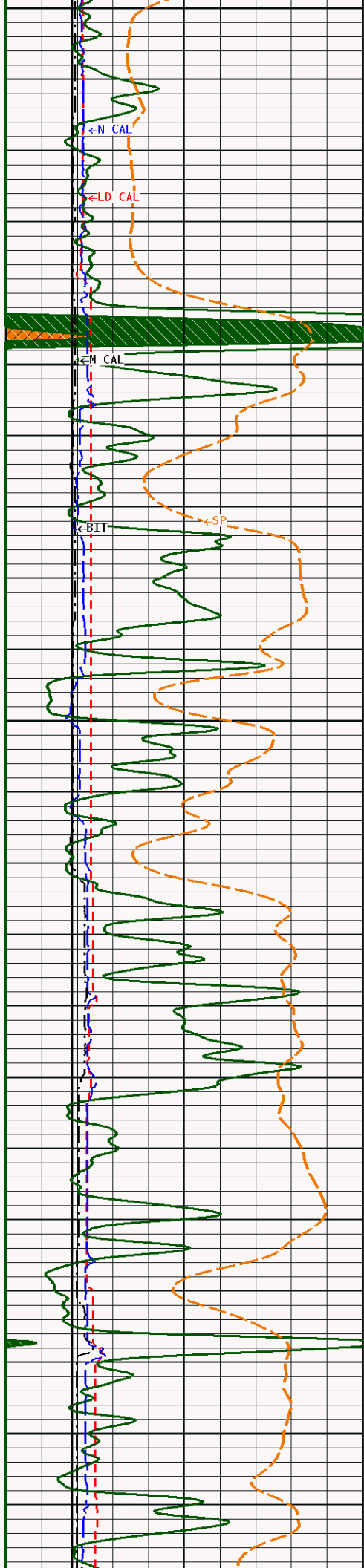
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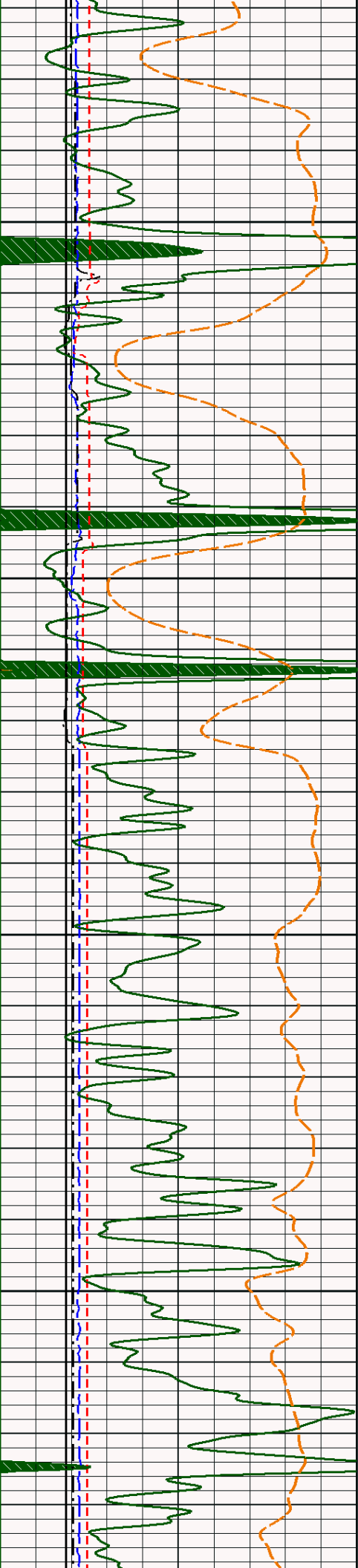
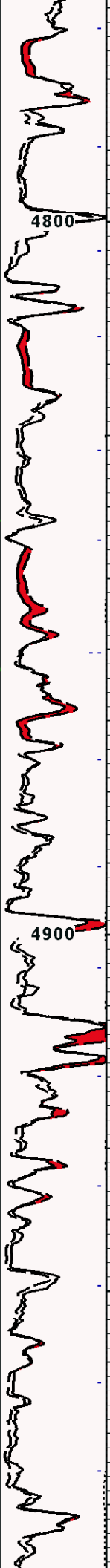
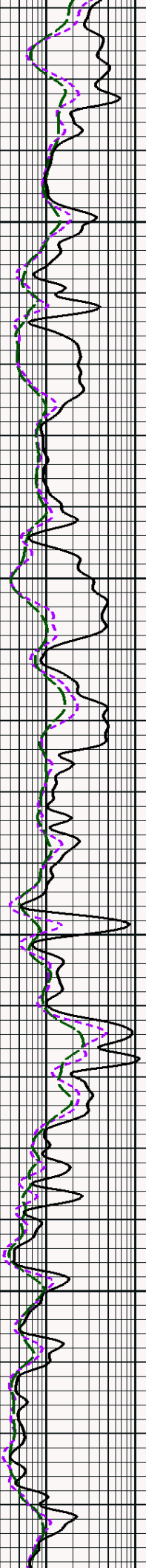
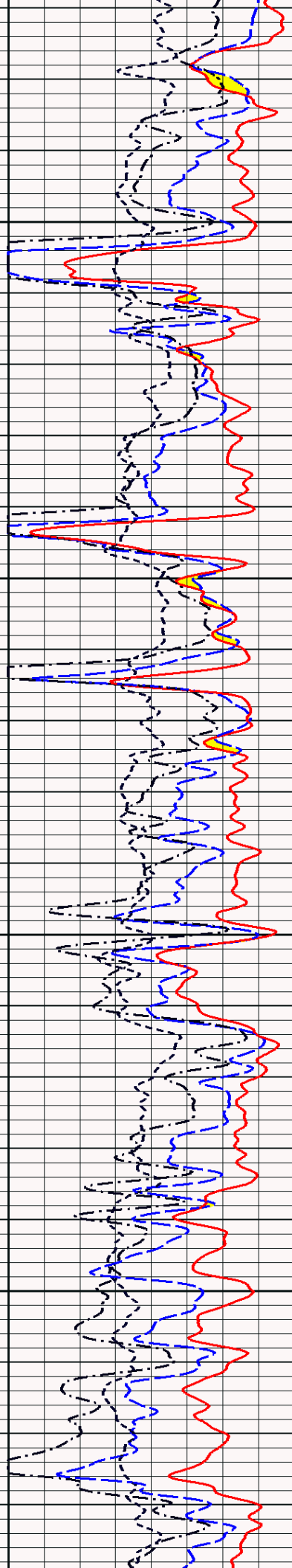
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←INV

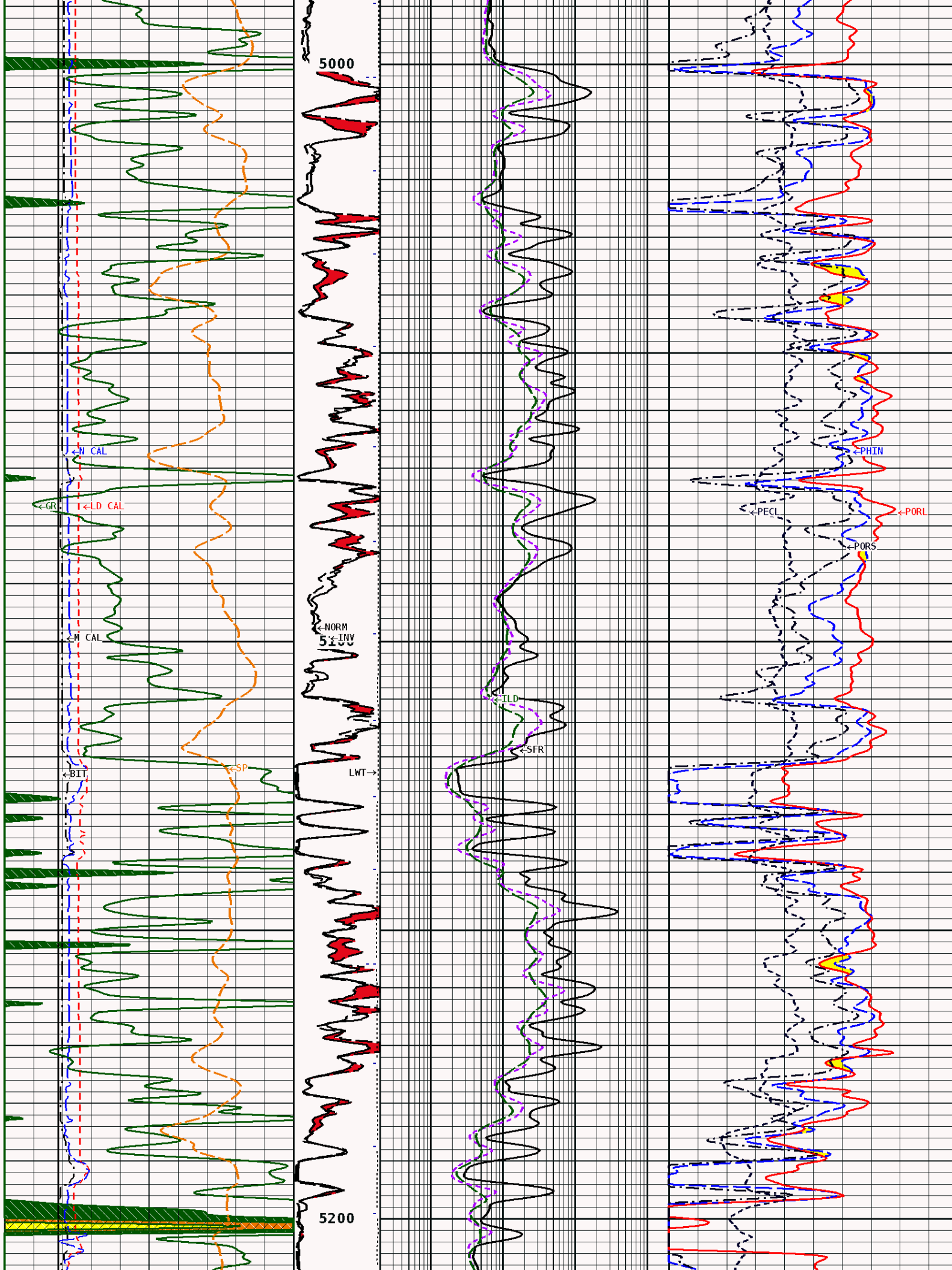


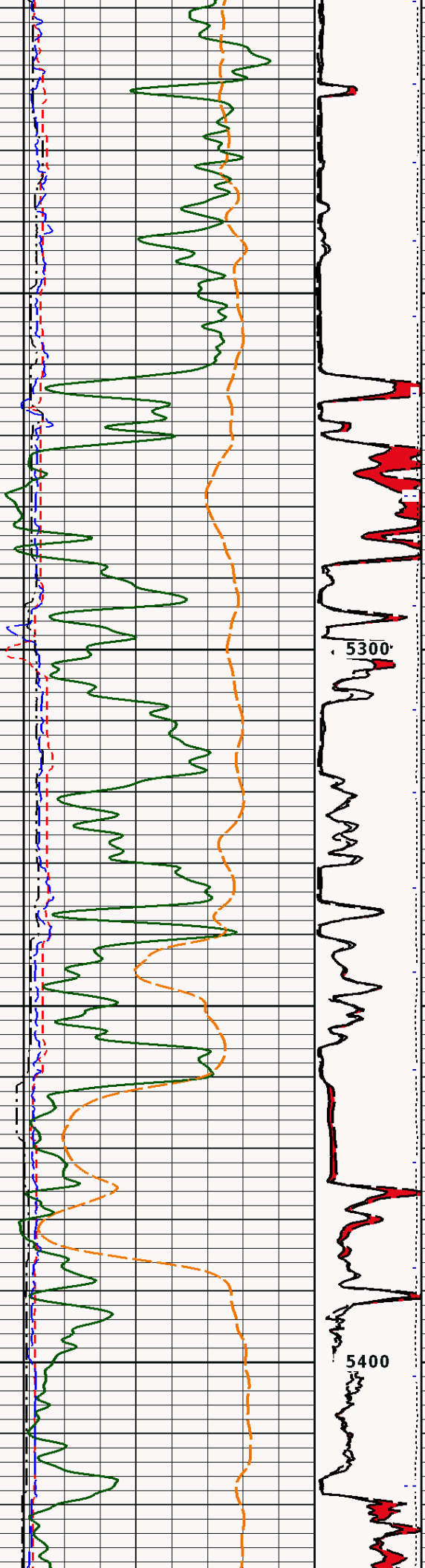
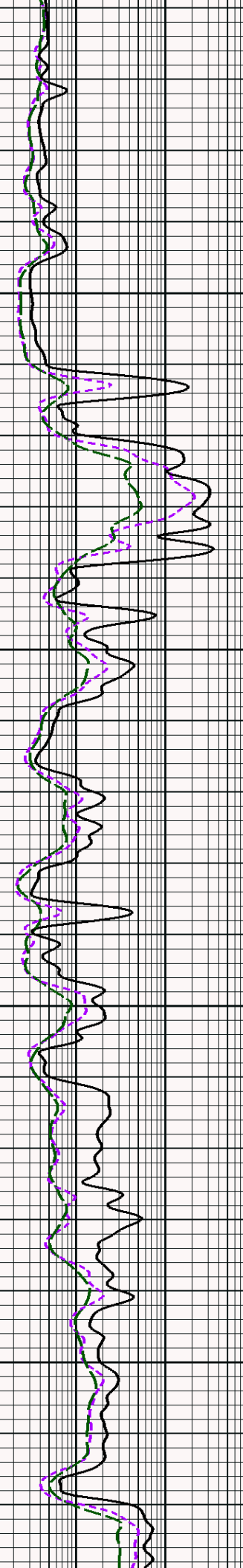
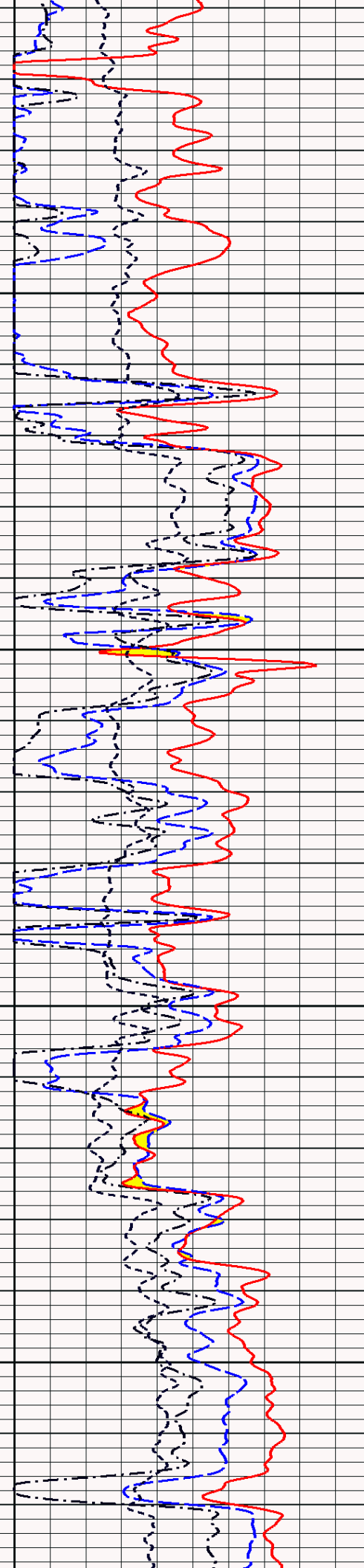


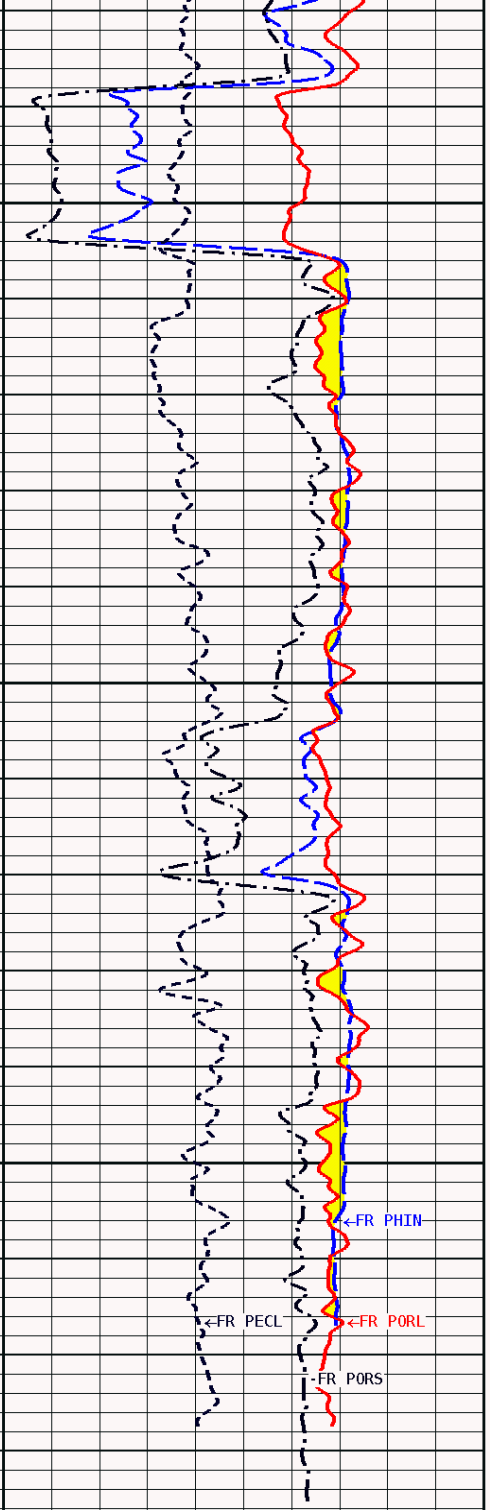
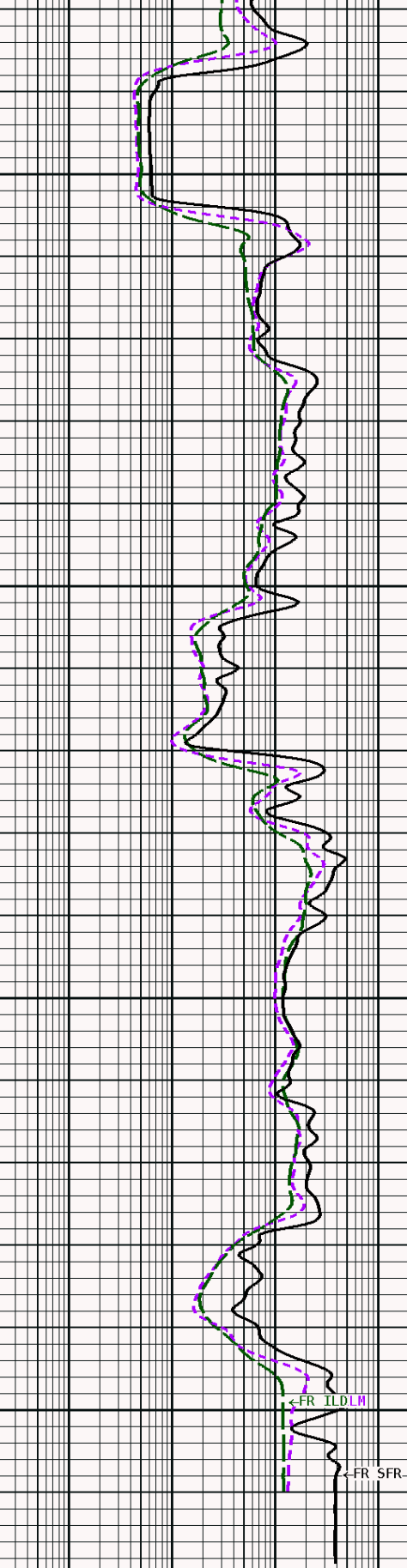
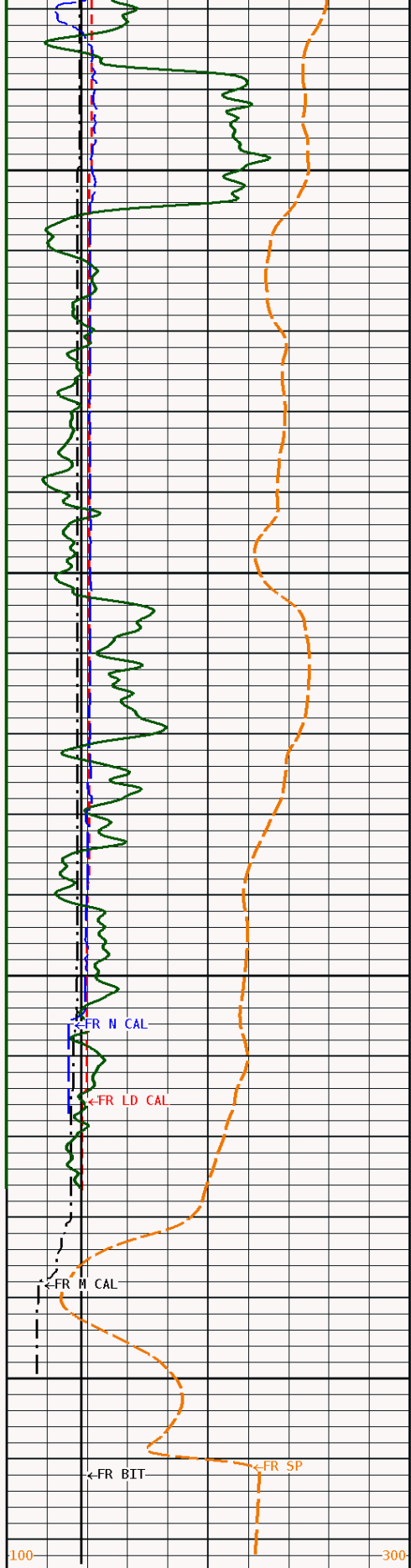












1:240 MAIN SECTION

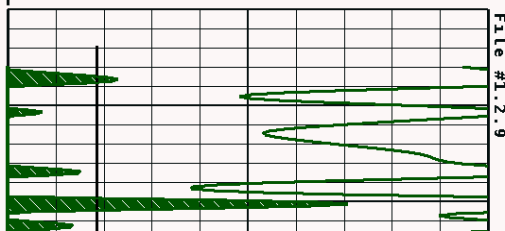
GAMMA RAY API UNITS 	TENSION LBS 4000 2000	MEDIUM INDUCTION OHMM 0.2 2000.0	NEUTRON POROSITY (LIMESTONE) PERCENT 30 -10
SPONTANEOUS POTENTIAL mV → ← 20	INVERSE OHMM 0 40	DEEP INDUCTION OHMM 0.2 2000.0	DENSITY POROSITY (2.71g/cc) PERCENT 30 -10
DENSITY (X) CALIPER INCHES (IN) 16 26 6 16	NORMAL OHMM 0 40	SHALLOW FOCUSED RESISTIVITY OHMM 0.2 2000.0	PE CROSS-SECTION BARNs/ELECTRON 0 10
NEUTRON (Y) CALIPER INCHES (IN) 16 26 6 16			SONIC POROSITY Percent 30 -10
BIT SIZE INCHES (IN) 6 16			
CALIPER MICRO INCHES (IN) 16 26 6 16			

Well File: MERIT ENERGY WENU_403 DEC30_QUINT
Segment: V1.D2.S9 REPEAT FINAL
Reference: 0

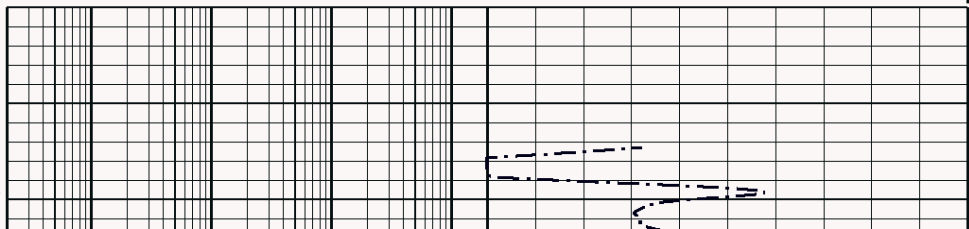
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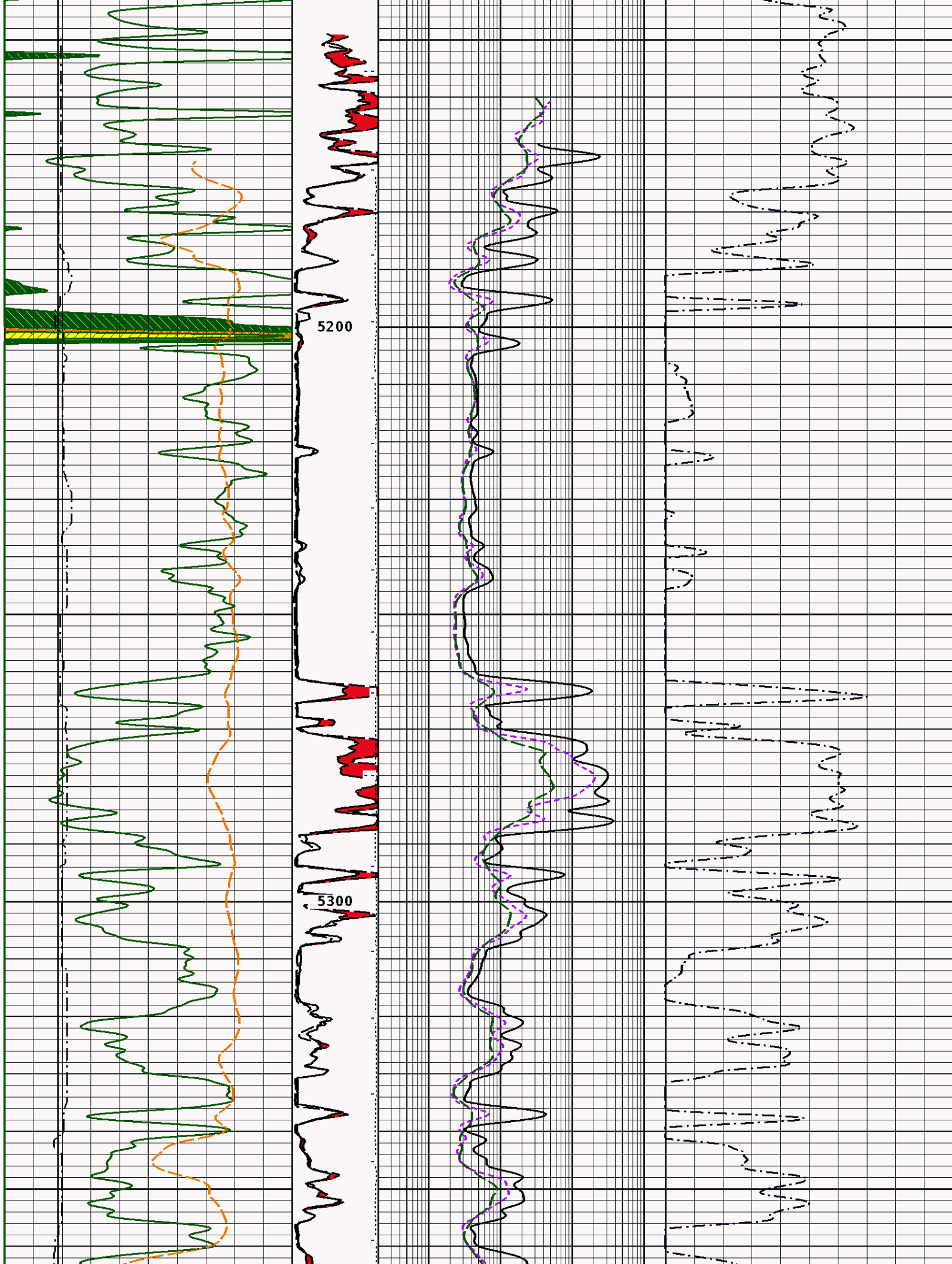
CALIPER MICRO INCHES (IN) 16 26 6 16			
BIT SIZE INCHES (IN) 6 16	NORMAL OHMM 0 40	SHALLOW FOCUSED RESISTIVITY OHMM 0.2 2000.0	
SPONTANEOUS POTENTIAL mV → ← 20	INVERSE OHMM 0 40	DEEP INDUCTION OHMM 0.2 2000.0	
GAMMA RAY API UNITS 	TENSION LBS 4000 2000	MEDIUM INDUCTION OHMM 0.2 2000.0	SONIC POROSITY Percent 30 -10

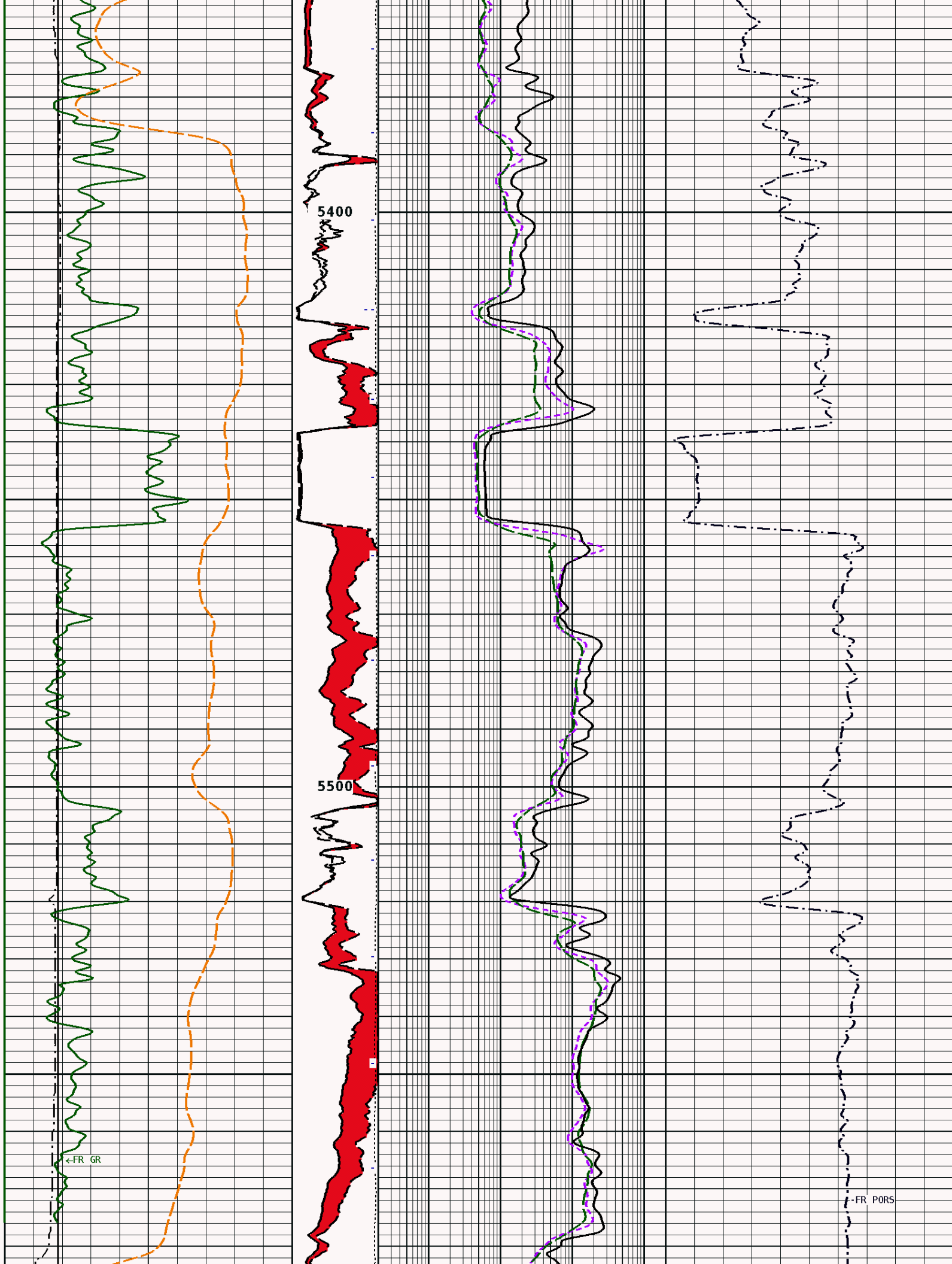
1:240 REPEAT SECTION

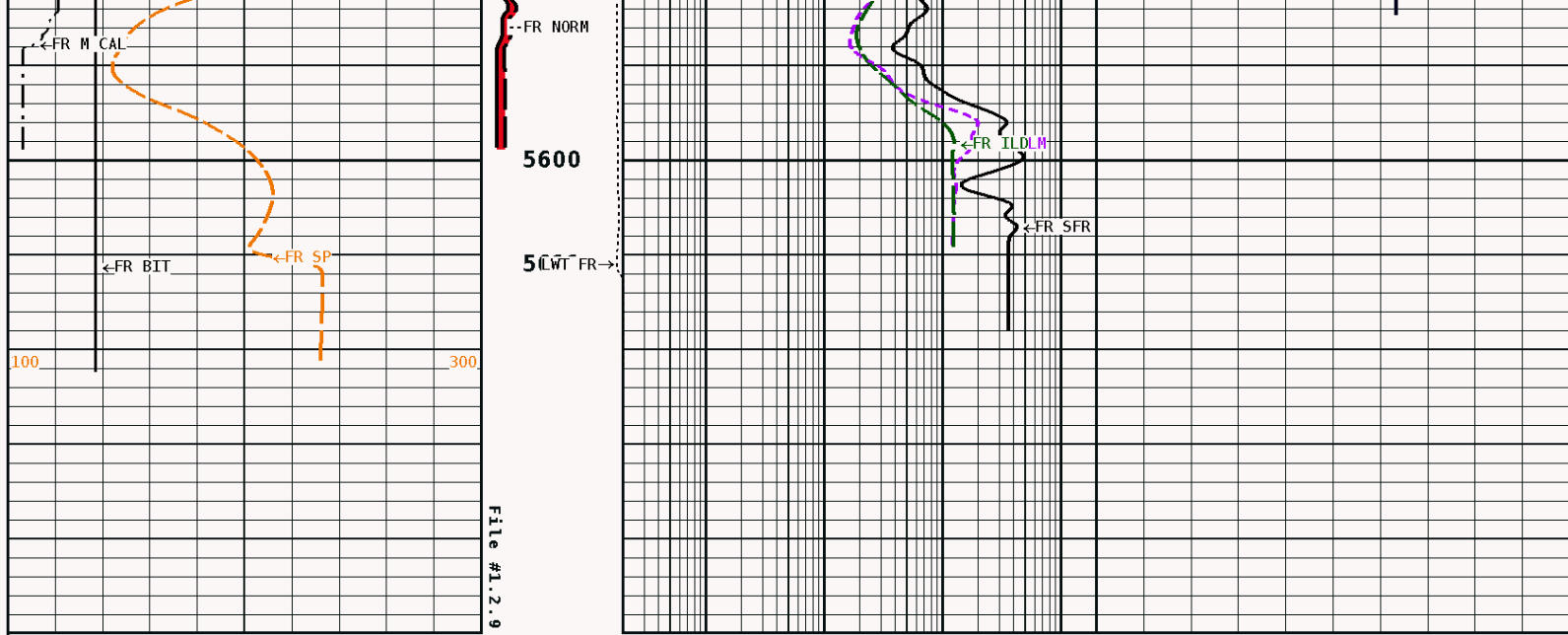


File #1.2.9









1:240 REPEAT SECTION

GAMMA RAY API UNITS 150 0 300 150	TENSION LBS 4000 2000	MEDIUM INDUCTION OHMM 0.2 2000.0	SONIC POROSITY Percent 30 -10
SPONTANEOUS POTENTIAL mV → ←20	INVERSE OHMM 0 40	DEEP INDUCTION OHMM 0.2 2000.0	
BIT SIZE INCHES (IN) 6 16	NORMAL OHMM 0 40	SHALLOW FOCUSED RESISTIVITY OHMM 0.2 2000.0	
CALIPER MICRO INCHES (IN) 16 6 26 16			

* Borehole Zone Factors *

Zone 1 99999.0 to 0.0 Feet		
Cementation Exponent	2.00	
A	1.00	
Matrix Transit Time	47.5	us/ft
Fluid Transit Time	189.0	us/ft
Drill Bit Size	7.875	in
Casing Diameter	4.500	in
BHT Depth	5604.000	ft
Borehole Temperature	134.0	degF
Temperature Gradient	1.00	DFHF
Resistivity Of Mud	4.000	ohmm
Resistivity Of Mud Temperature	50.00	degF
MSTNG Normal Correction	0.00	ohmm
MSTNG Inverse Correction	1.00	ohmm