

HALLIBURTON

QUAD COMBO

COMPANY				MERIT ENERGY COMPANY, LLC			
WELL				McWILLIAMS E-11			
FIELD/BLOCK				COWGILL			
COUNTY				FINNEY			
STATE				KANSAS			
Permanent Datum				GL			
Log measured from				KB			
Drilling measured from				KB			
Date				08-Mar-22			
Run No.				ONE			
Depth - Driller				5100.0 ft			
Depth - Logger				5103.0 ft			
Bottom - Logged Interval				5096.0 ft			
Top - Logged Interval				1830.0 ft			
Casing - Driller				8.625 in			
Casing - Logger				1830.0 ft			
Bit Size				7.875 in			
Type Fluid in Hole				Fresh Water			
Density				9.1 ppg			
PH				10.00 pH			
Source of Sample				MUD PIT			
Rm @ Meas. Temperature				1.29 ohmm			
Rmf @ Meas. Temperature				1.03 ohmm			
Rmc @ Meas. Temperature				1.54 ohmm			
Source Rmf				CALC			
Rm @ BHT				0.82 ohmm			
Time Since Circulation				06:37 hr			
Time on Bottom				08-Mar-22 18:35			
Max. Rec. Temperature				115.00 degF			
Equipment				12156883			
Recorded By				MOHAMED ABUELGASIM			
Witnessed By				MARTIN LANGE			

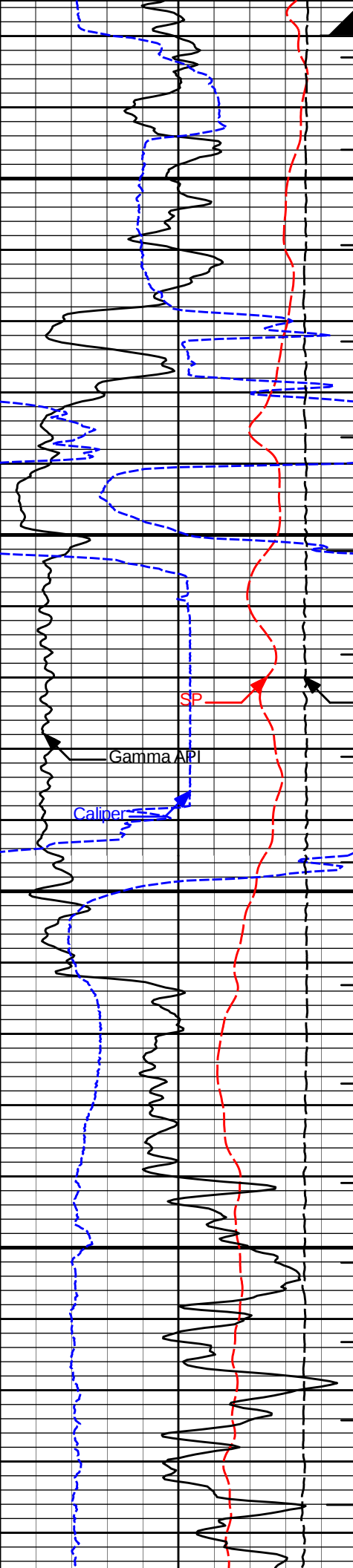
COMPANY				MERIT ENERGY COMPANY, LLC			
WELL				McWILLIAMS E-11			
FIELD/BLOCK				COWGILL			
COUNTY				FINNEY			
STATE				KANSAS			
API No.				15055225470100			
Location				440' FWL & 468' FSL			
Sect.				21			
Twp.				24S			
Rge.				33W			
Elev.				2893.0 ft			
D.F.				2904.0 ft			
G.L.				2893.0 ft			
Other Services:				NONE			

Fold here

Sales Order Number: 907723410				API No.: 15055225470100				PGM Version: WL INSITE R6.4.5 (Build 6)							
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES									
Date		Sample No.				Type Log		Depth		Scale Up Hole		Scale Down Hole			
Depth-Driller															
Type Fluid in Hole															
Density		Viscosity													
Ph		Fluid Loss													
Source of Sample						RESISTIVITY EQUIPMENT DATA									
Rm @ Meas. Temp		@		@		Run No.		Tool Type & No.		Pad Type		Tool Pos.		Other	
Rmf @ Meas. Temp.		@		@		ONE		ACRT		NONE		1.5 in S.O.		N/A	
Rmc @ Meas. Temp.		@		@				S-10988480							
Source Rmf		Rmc													
Rm @ BHT		@		@											
Rmf @ BHT		@		@											
Rmc @ BHT		@		@											
EQUIPMENT DATA															
GAMMA				ACOUSTIC				DENSITY				NEUTRON			
Run No.		ONE		Run No.		ONE		Run No.		ONE		Run No.		ONE	
Serial No.		10965404		Serial No.		10747688		Serial No.		10844781		Serial No.		11020487	
Model No.		GTET		Model No.		BSAT		Model No.		SDLT		Model No.		DSNT	
Diameter		3.625 in		No. of Cent.		TWO		Diameter		4.5 in		Diameter		3.625 in	
Detector Model No.		GTET		Spacing		0.5 ft		Log Type		GAM-GAM		Log Type		NEU-NEU	
Type		SCINT						Source Type		Cs137		Source Type		Am241Be	
Length		8 in		LSA [Y/N]		Y		Serial No.		5440GW		Serial No.		80408B	
Distance to Source		10 ft		FWDA [Y/N]		Y		Strength		1.78 Ci		Strength		15 Ci	
LOGGING DATA															

GENERAL				GAMMA		ACOUSTIC		DENSITY			NEUTRON					
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix		
No.	From	To	ft/min	L	R	L	R		L	R		L	R			
ONE	5103 ft	3400 ft	REC	0 gapi	150 gapi	30%	-10%	47.6 uSec/ft	30%	-10%	2.71 g/cc	30%	-10%	LIME		
ONE	3400 ft	1830 ft	REC	0 gapi	150 gapi	30%	-10%	47.6 uSec/ft								
DIRECTIONAL INFORMATION																
Maximum Deviation								@	KOP							@
Remarks: FIRST LOG ON WELL, POSITIVE DEPTH CONTROL APPLIED																
ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING																
LOGGING INTERVALS AND SERVICES ARE AS PER CUSTOMER REQUEST																
TOOLS RAN IN COMBINATION AS PER TOOLSTRING DIAGRAM																
CHLORIDES REPORTED AT 2,500																
CREW: C. HERRERA, B. EZEKWU																
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES																
HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.																
HALLIBURTON																

 Plot Time: 08-Mar-22 22:06:17 Plot Range: 1825 ft to 5112.92 ft Data: 03_08_MERIT\Well Based\DAQ-0001-004\ Plot File: \\QUAD\ACRT-SDL-DSN-ML-BSAT			5 INCH MAIN LOG											
			5 INCH MAIN LOG											
ITTT 15K Tension pounds 6 Caliper inches 0 Gamma API api SP -J20[+									140 Delta-T microsec per ft 40 PERMEABLE 0.2 30in Resistivity 2ft Res 2000 ohm-metre 0.2 60in Resistivity 2ft Res 2000 ohmm 0.2 10in Resistivity 2ft Res 2000 ohmm 0.2 20in Resistivity 2ft Res 2000 ohmm 0.2 90in Resistivity 2ft Res 2000 ohmm					
SHALE			0 MNOR 20 ohmm 0 MINV 20 ohmm						POROSITY 0.3 DensityPorosity decp 0.3 Neutron Porosity decp 0.3 Acou Porosity decp 0 Pe 10 -0.25 DensityCorr 0.25 gram per cc					



CSG

1900

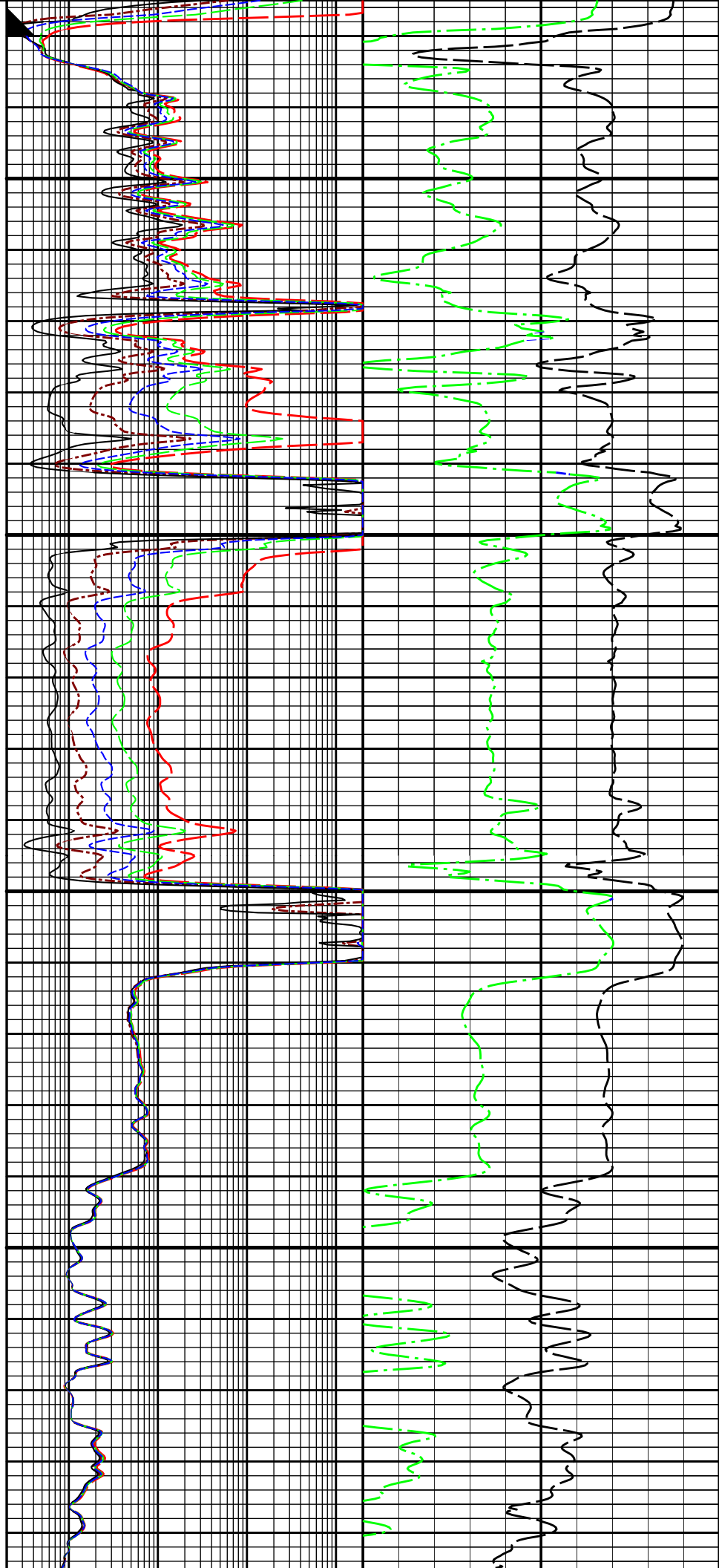
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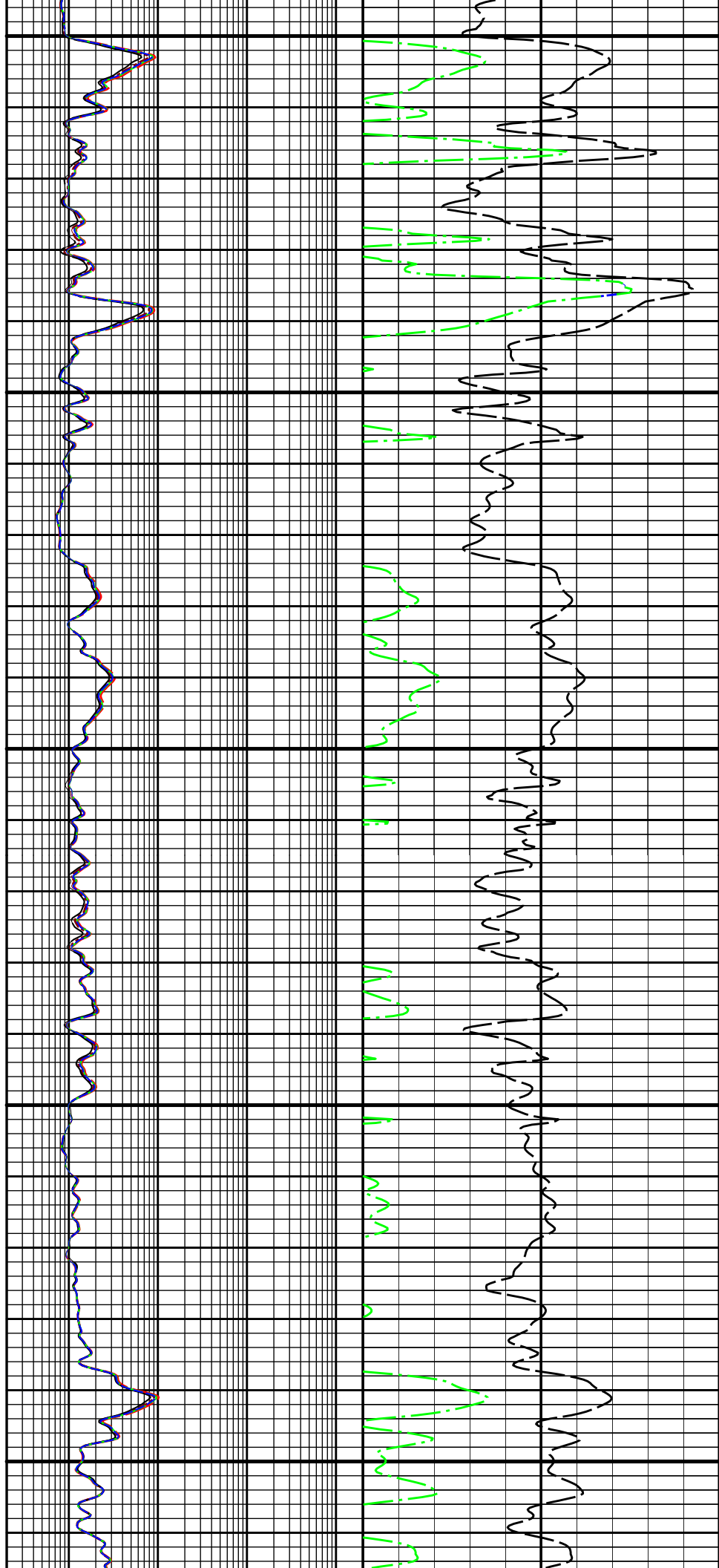
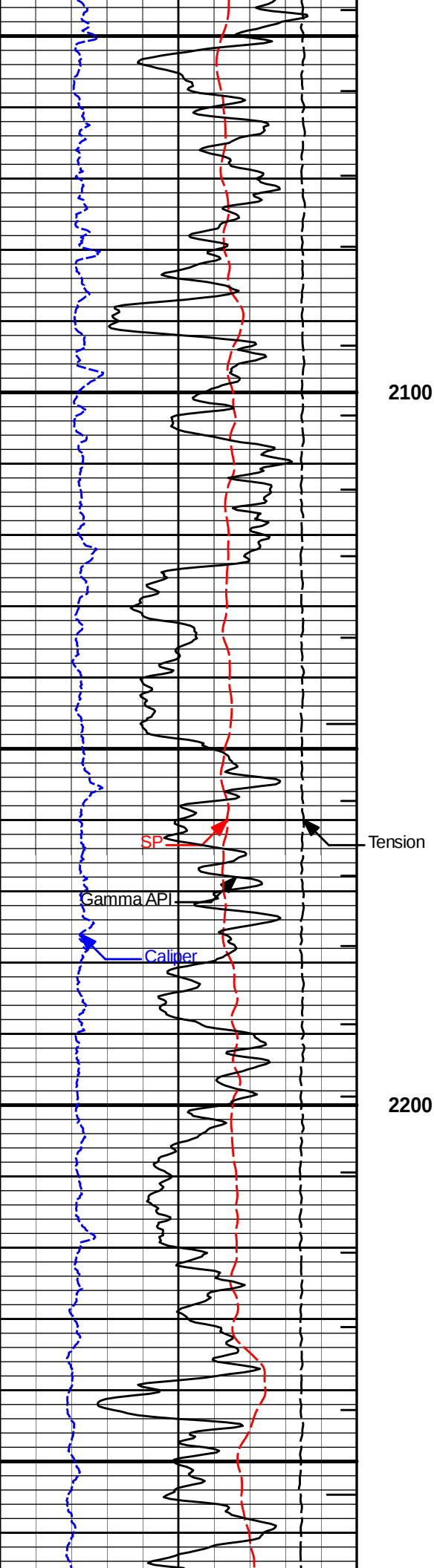
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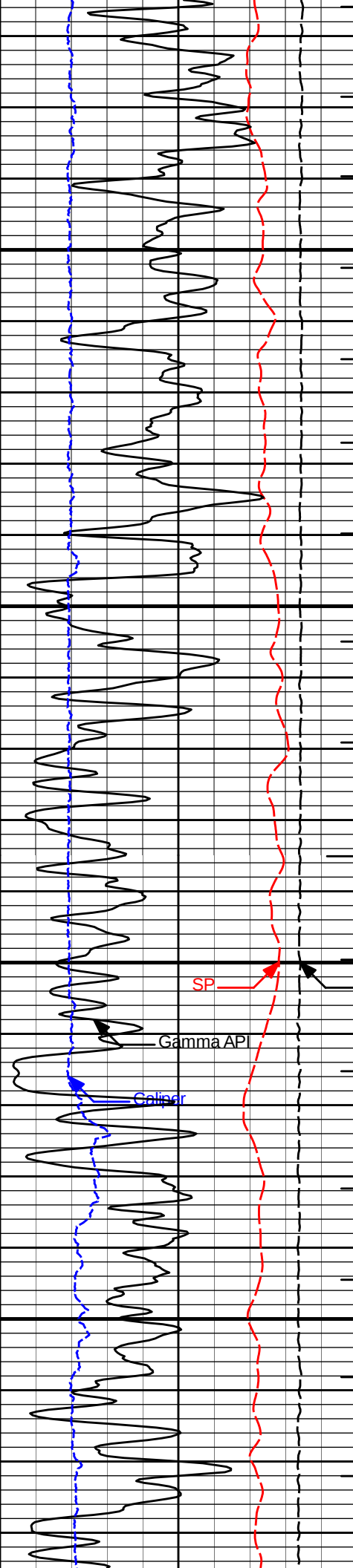
Gamma API

Caliper

SP







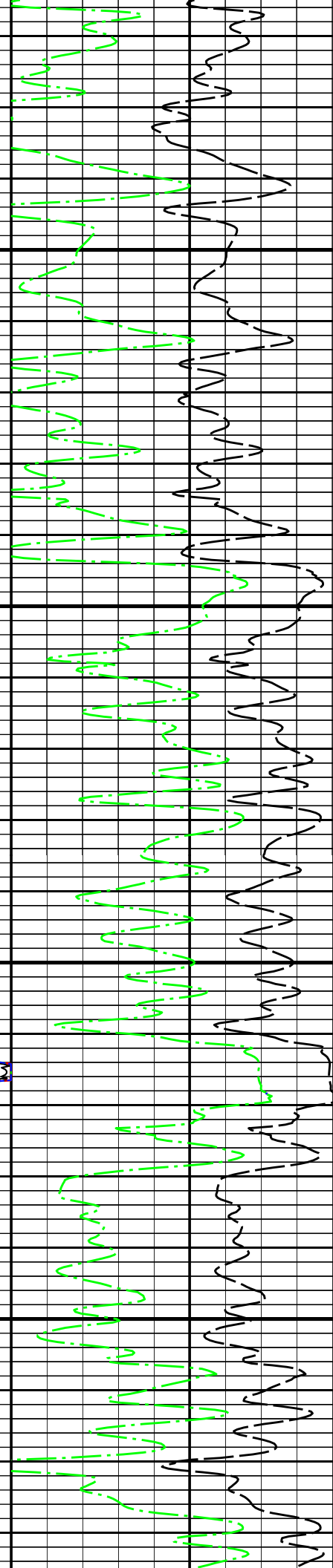
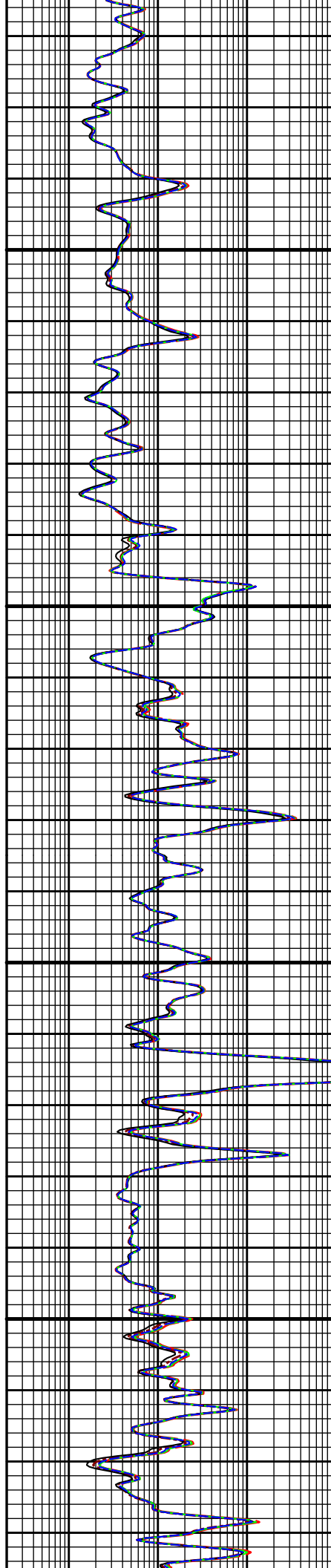
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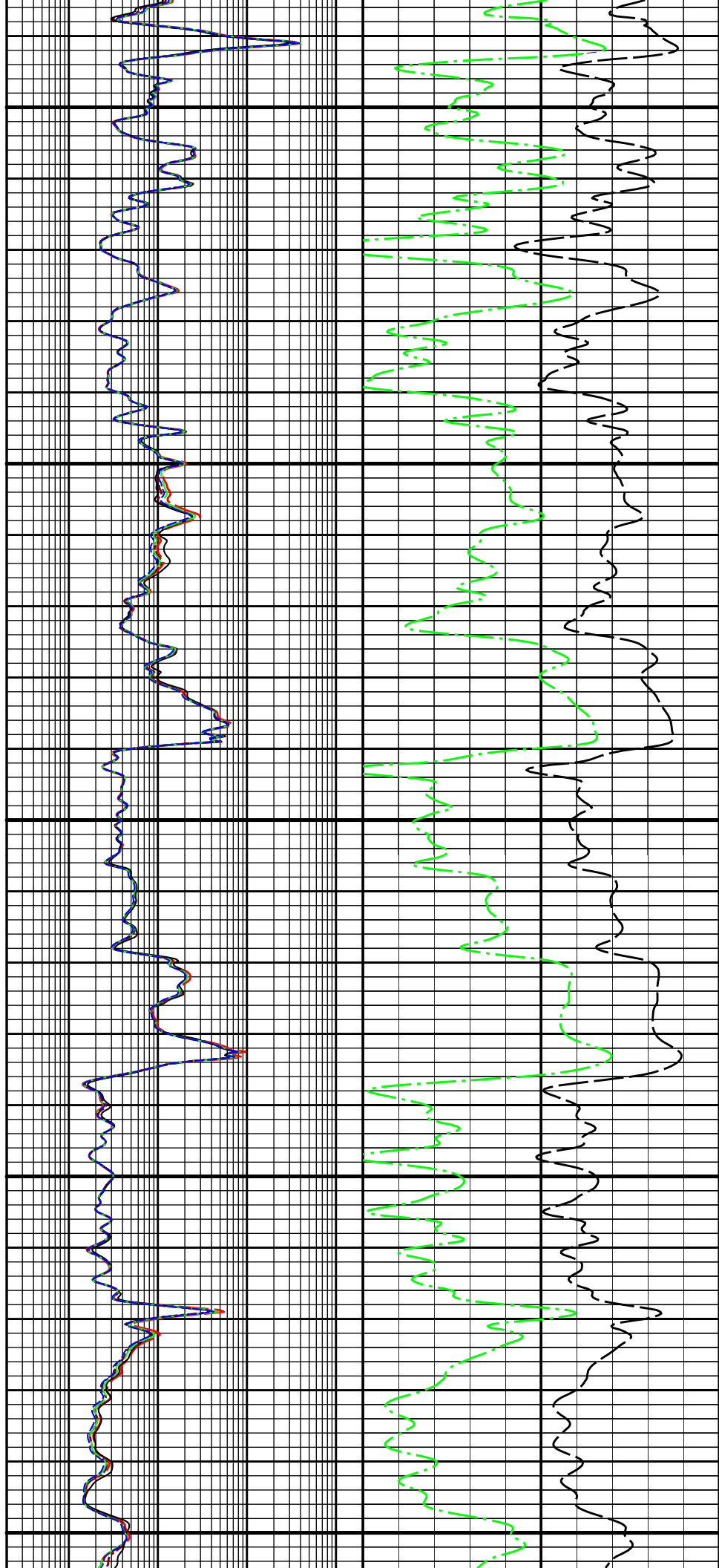
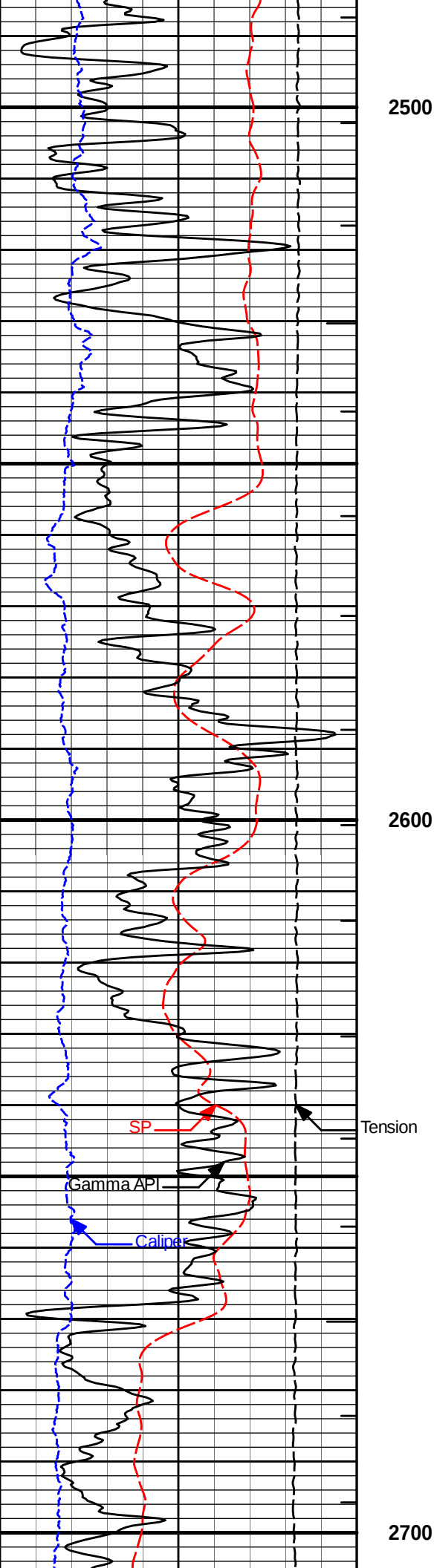
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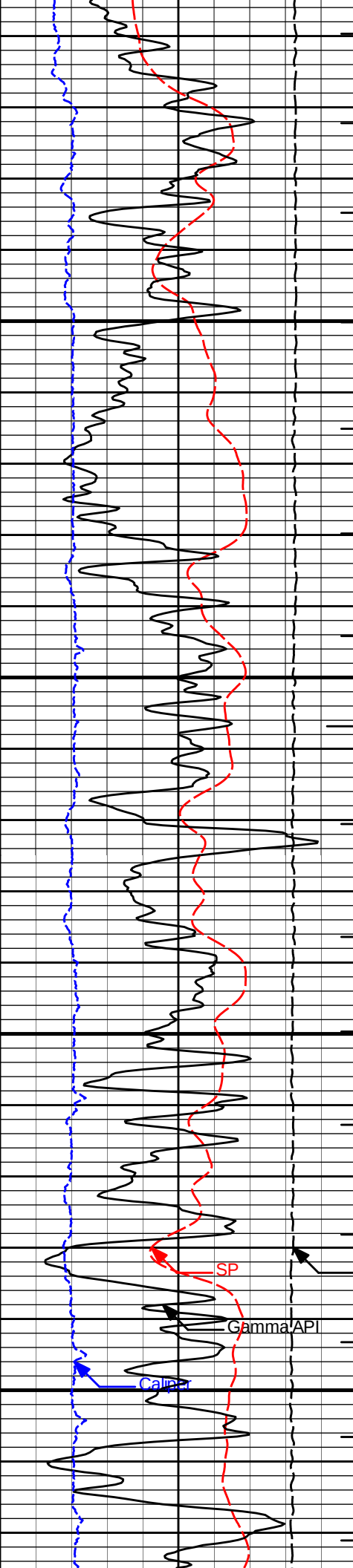
Tension

Gamma API

Caliper





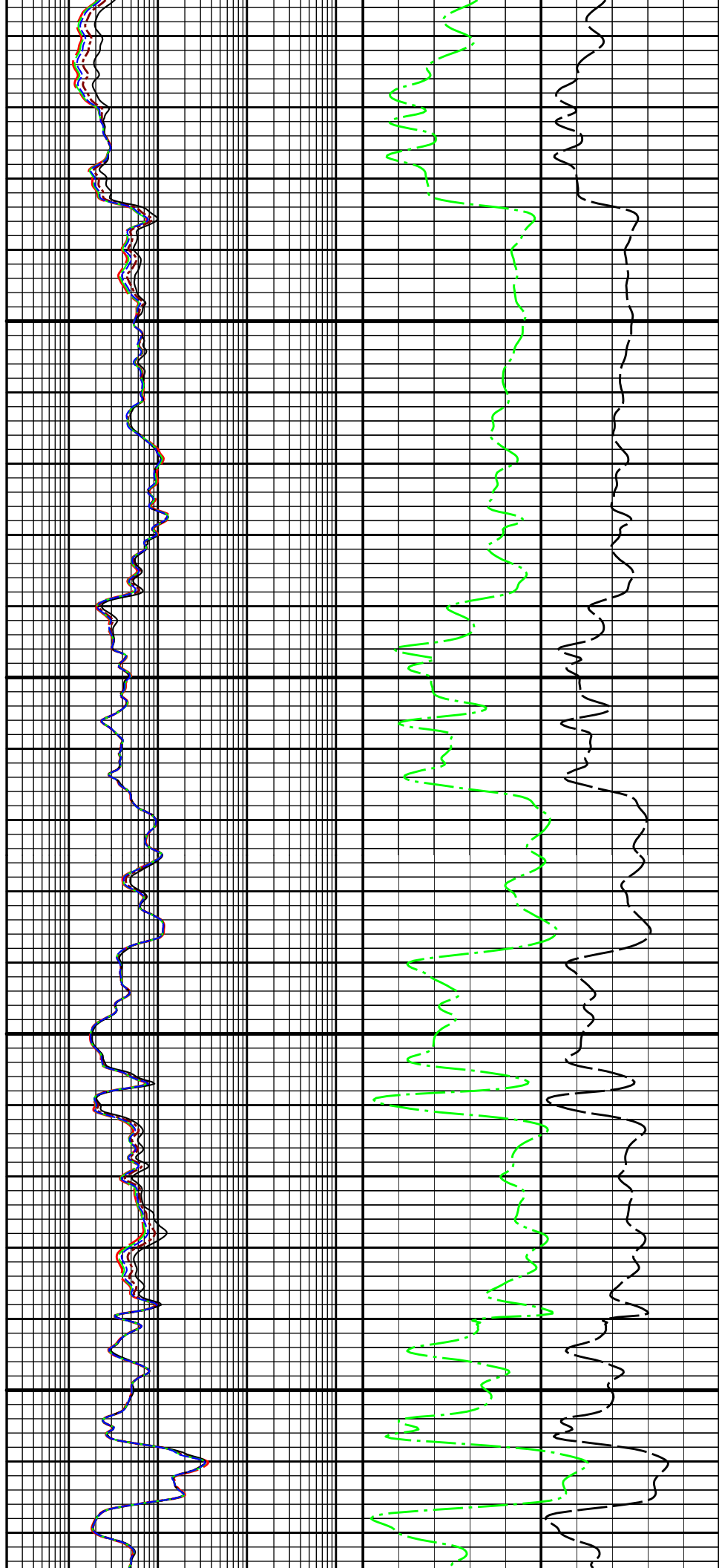


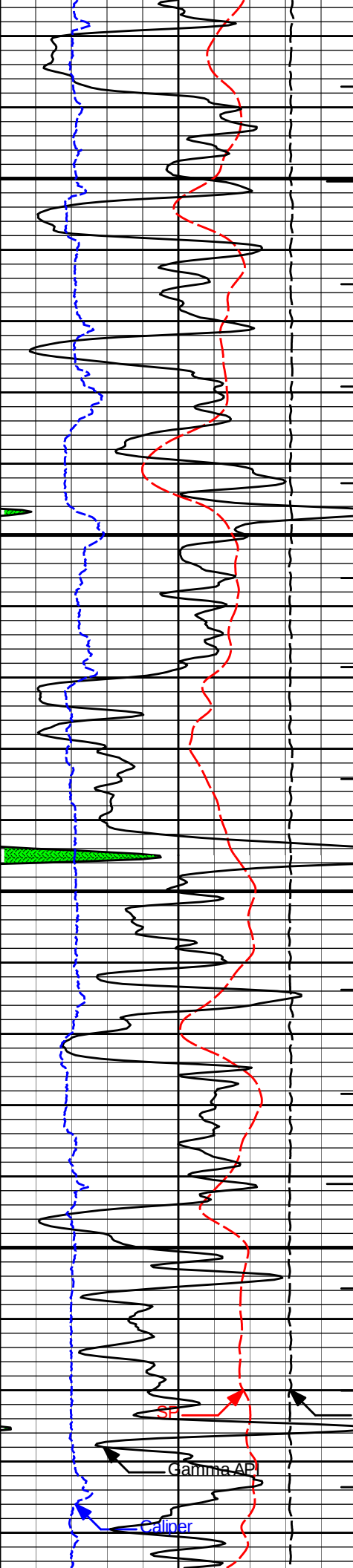
2800

2900

SP
Gamma API
Caliper

Tension





3000

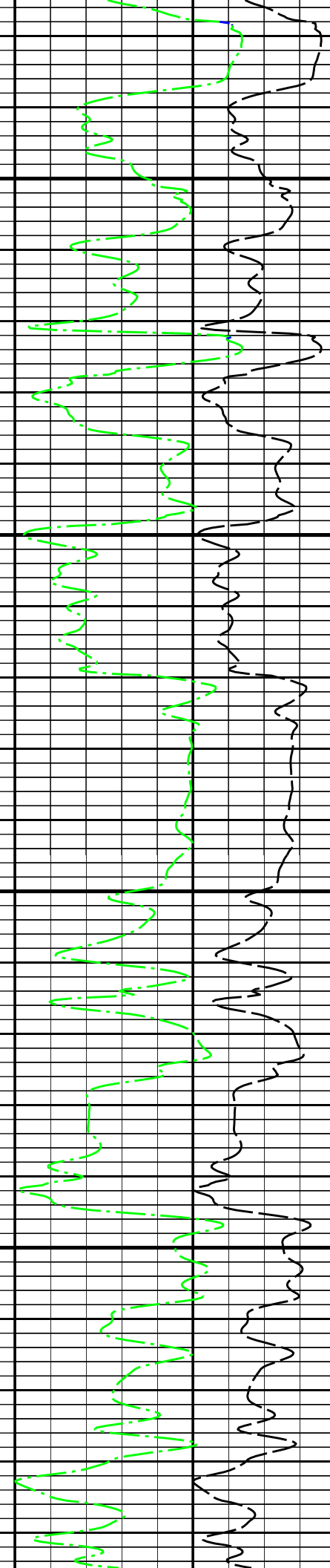
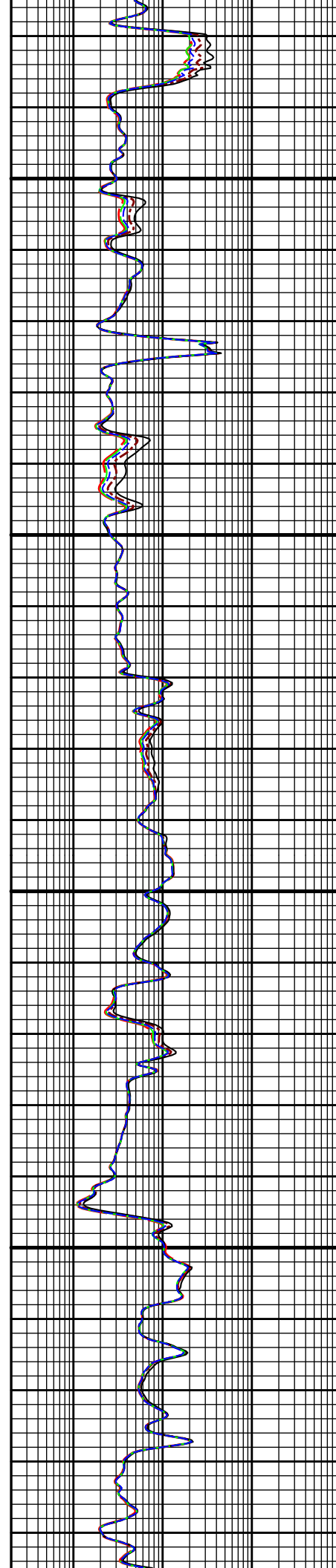
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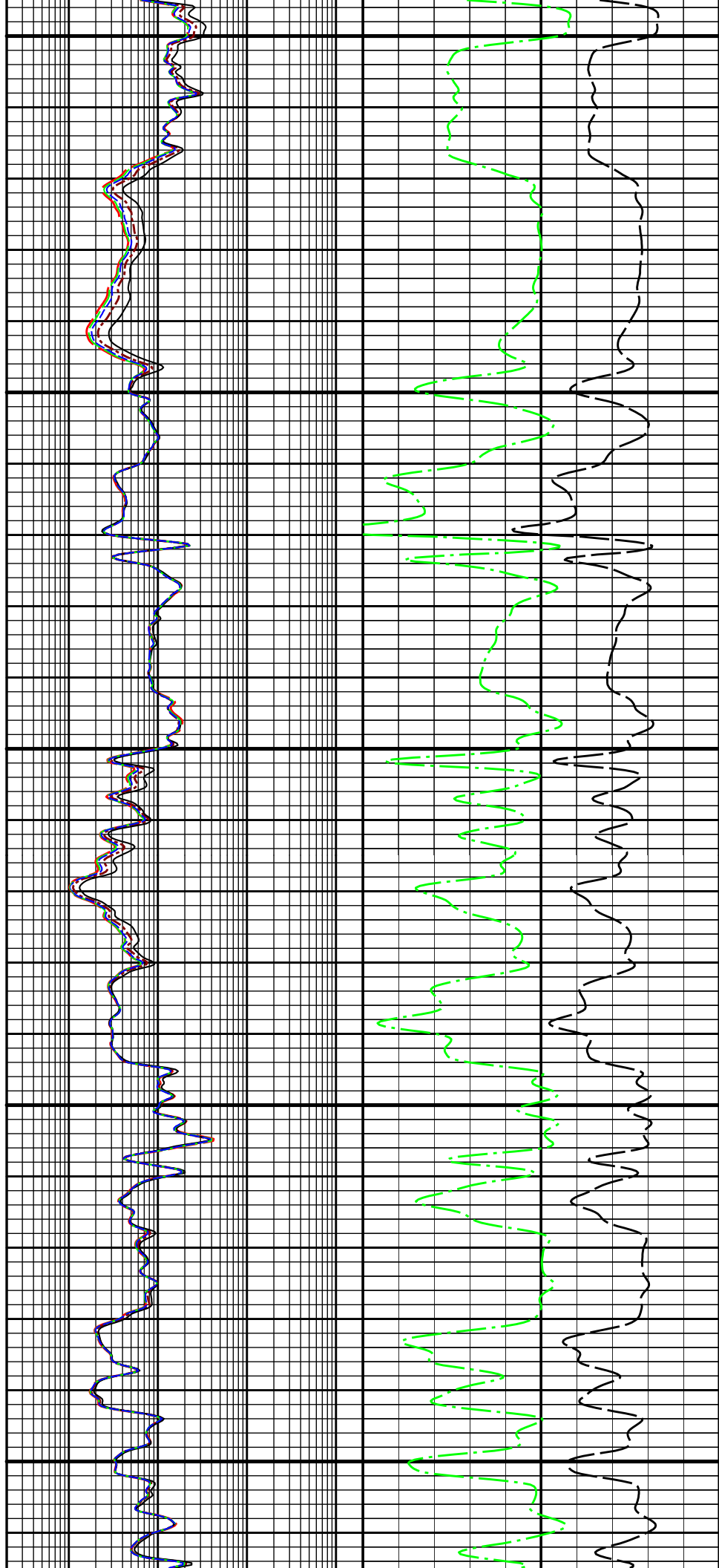
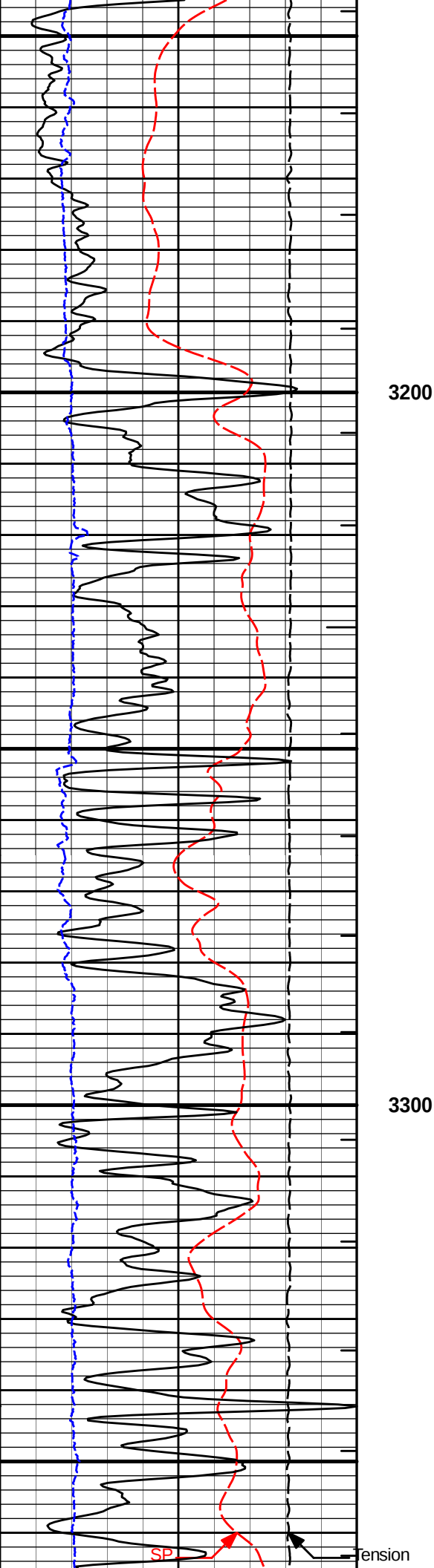
SP

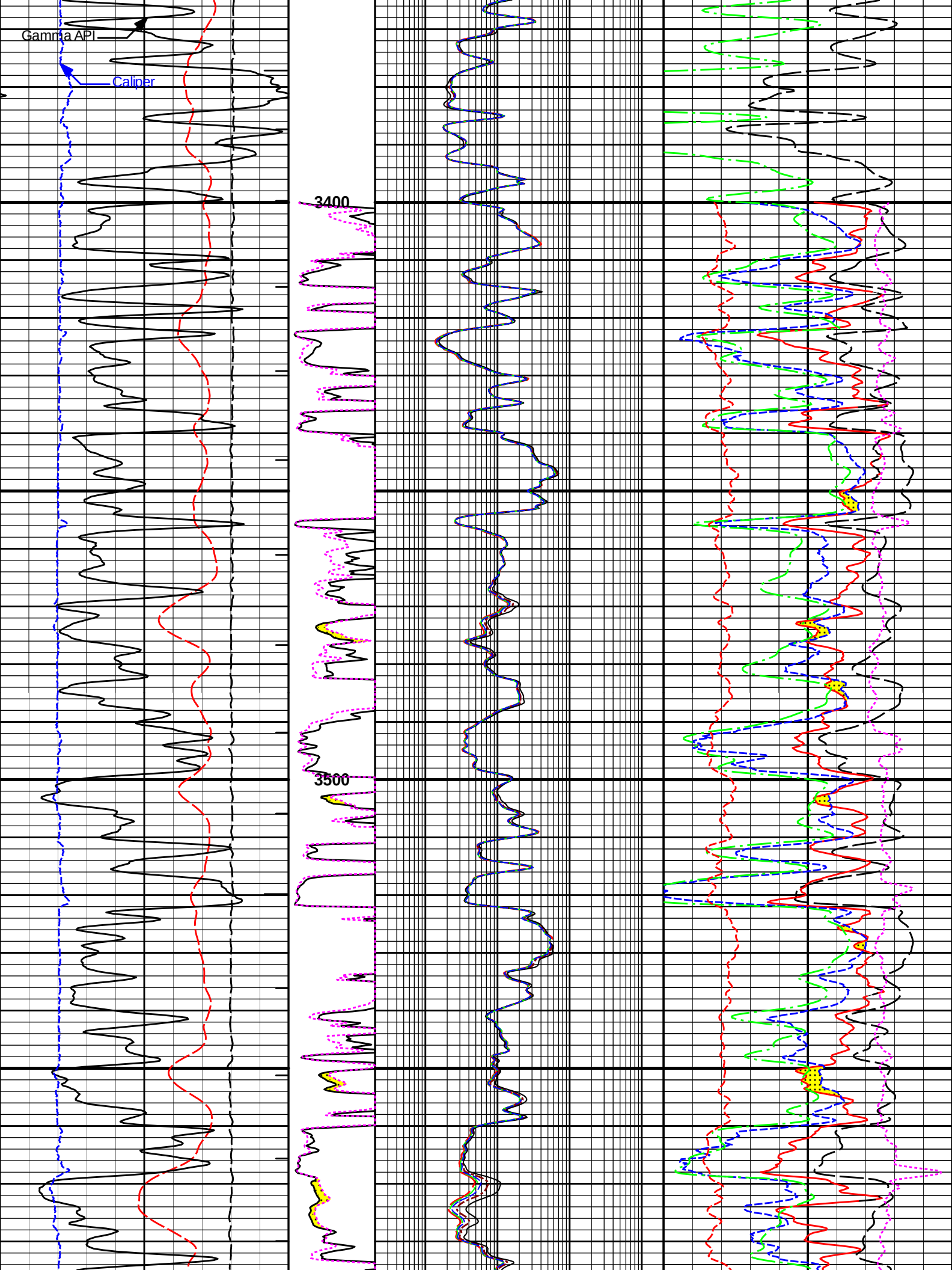
Gamma API

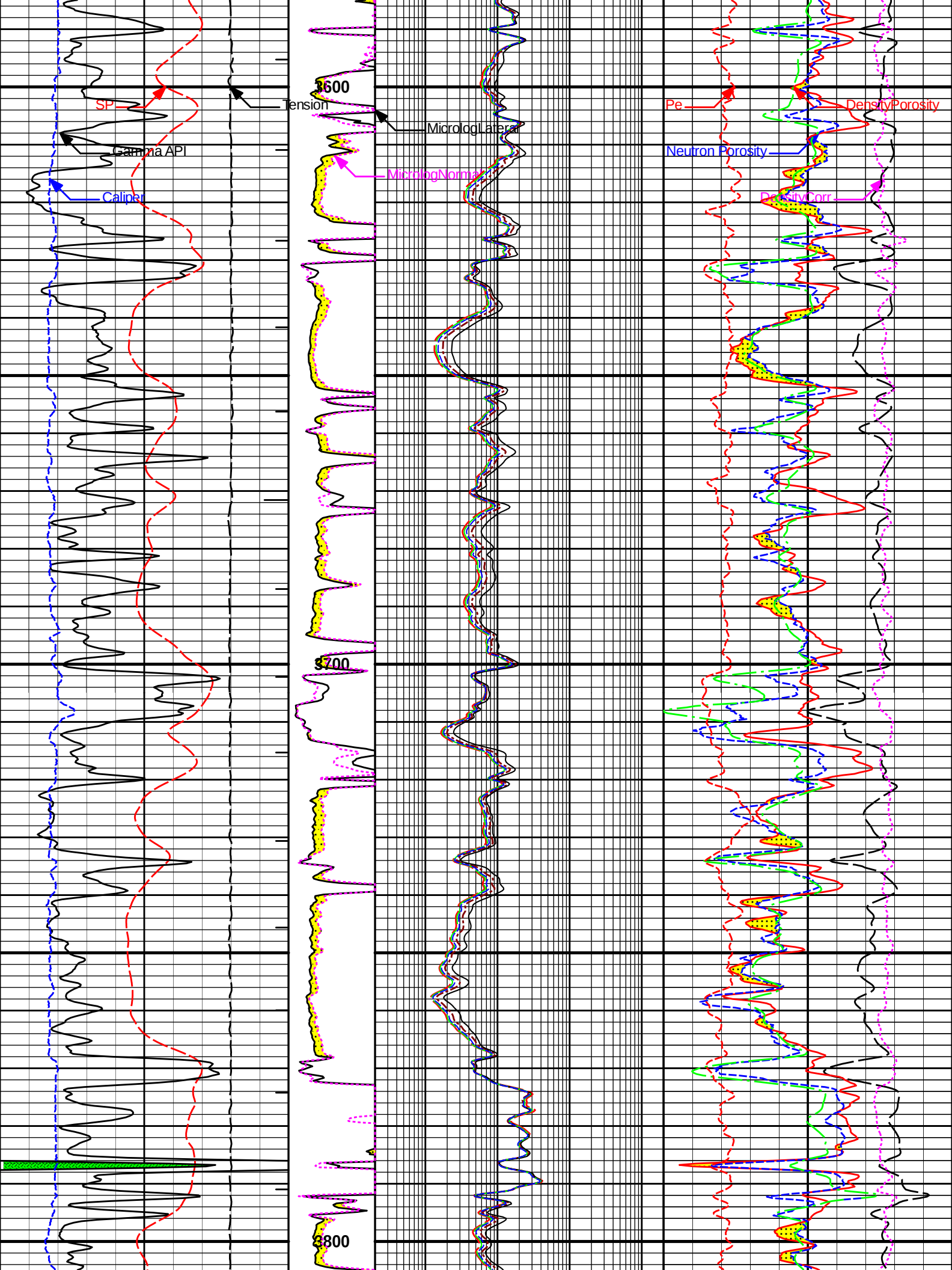
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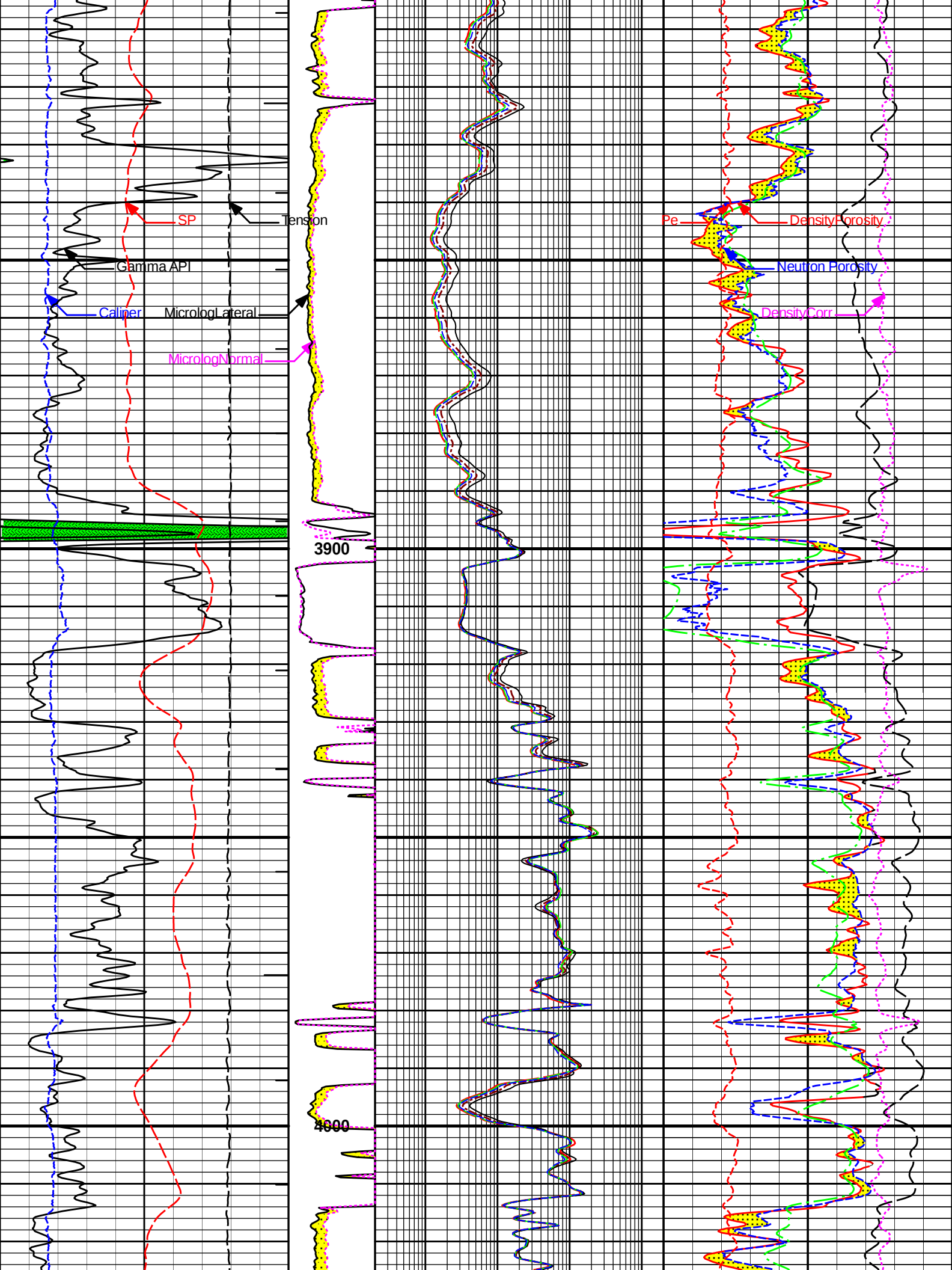
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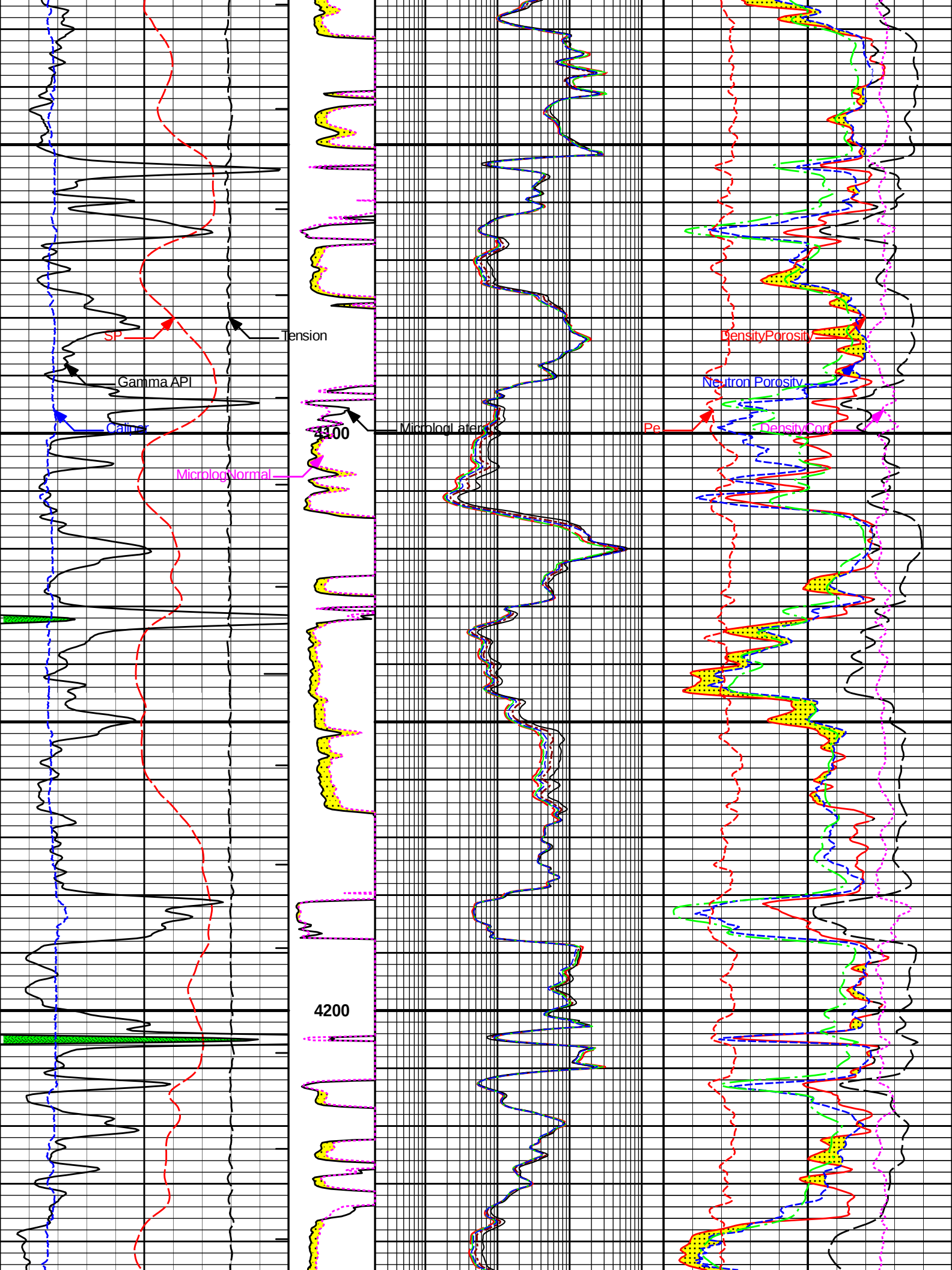


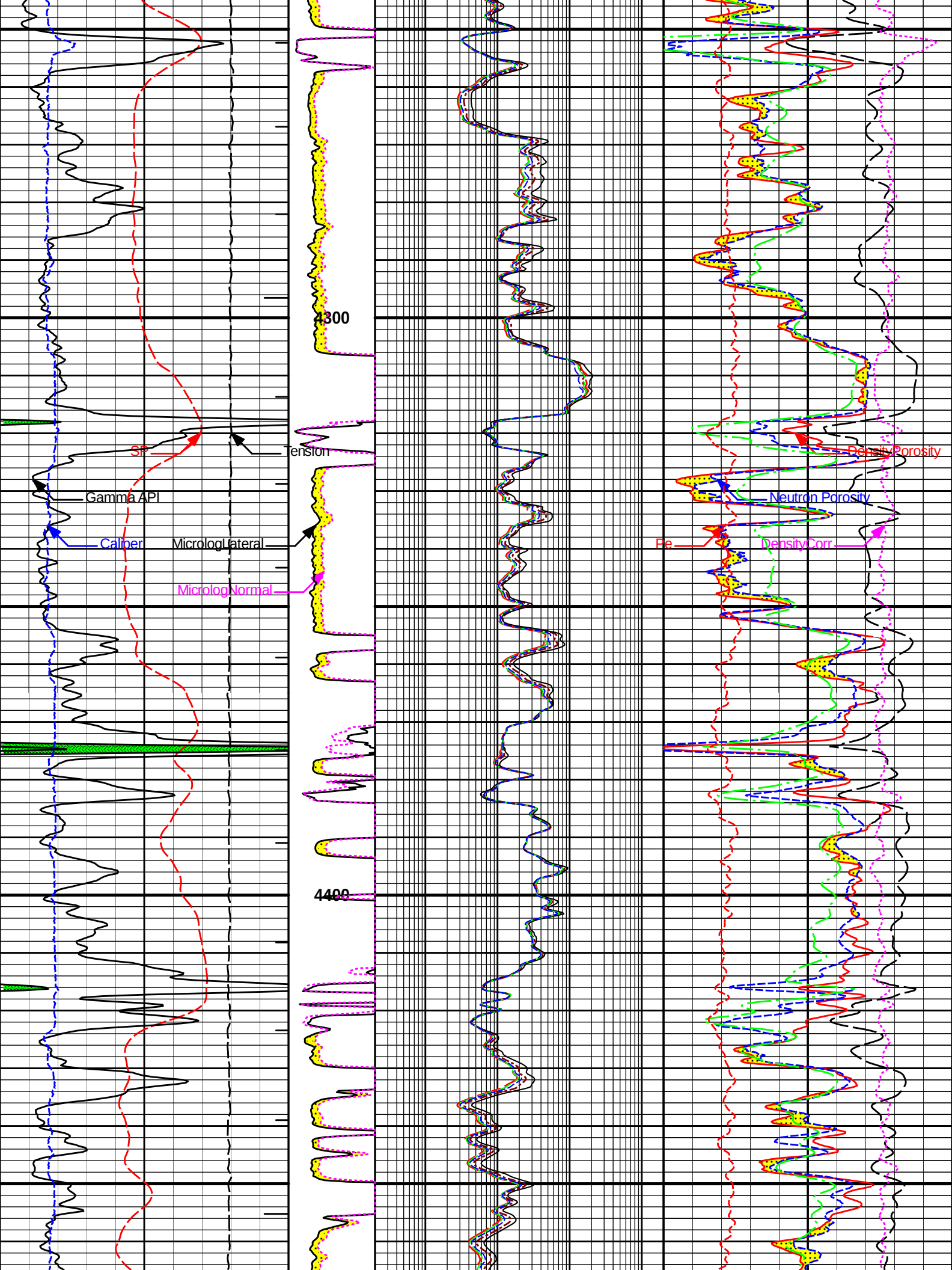


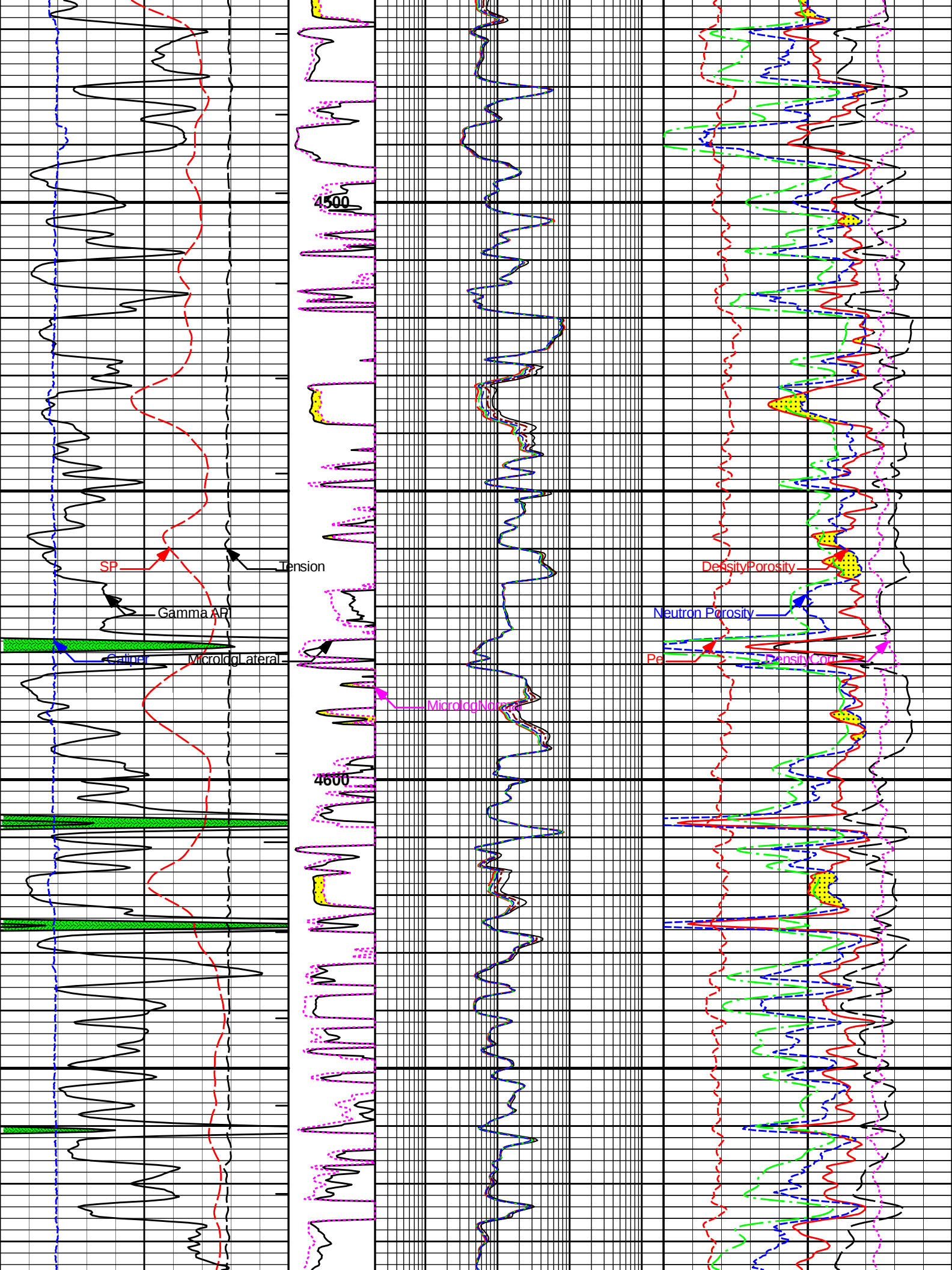


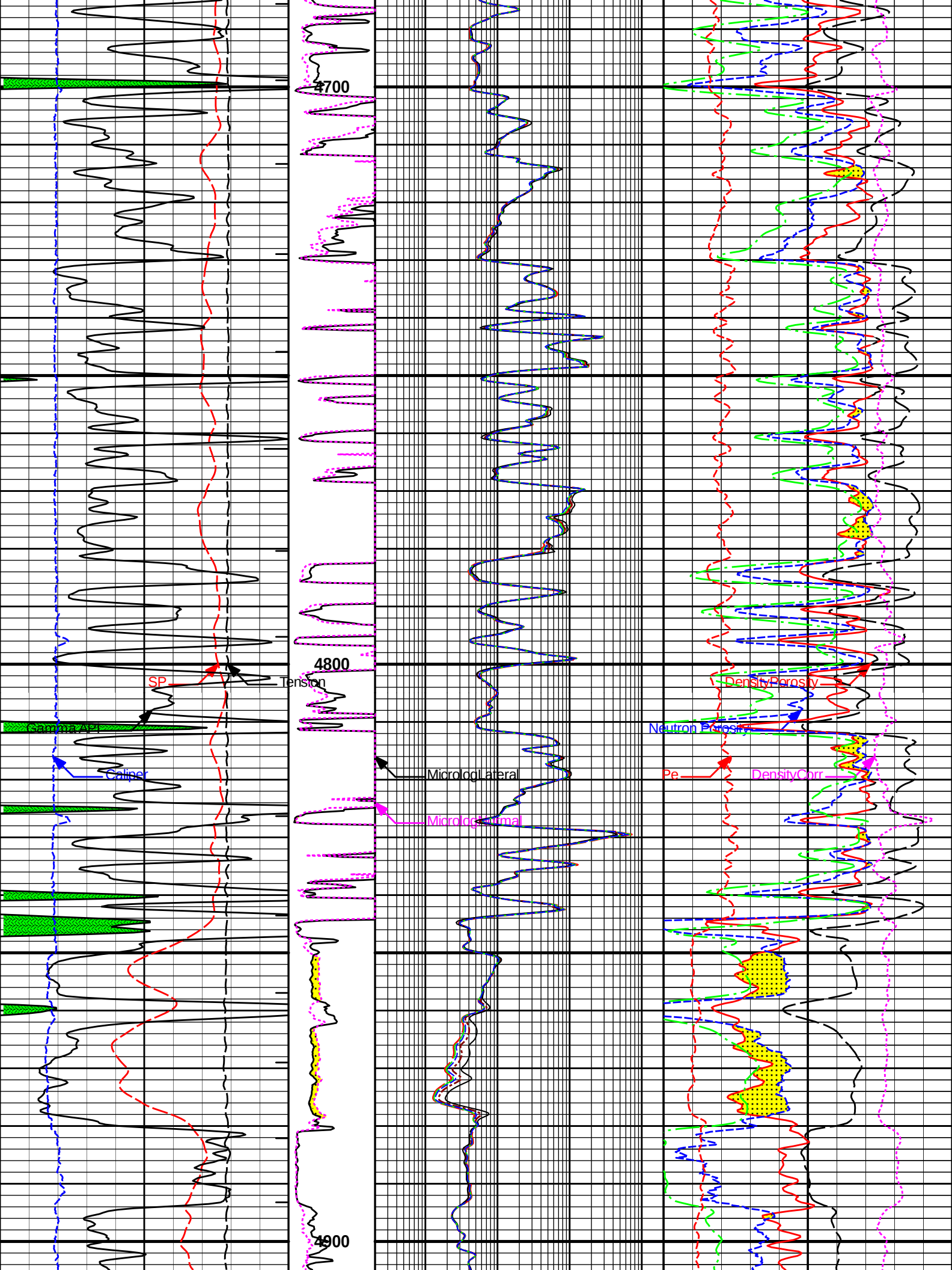


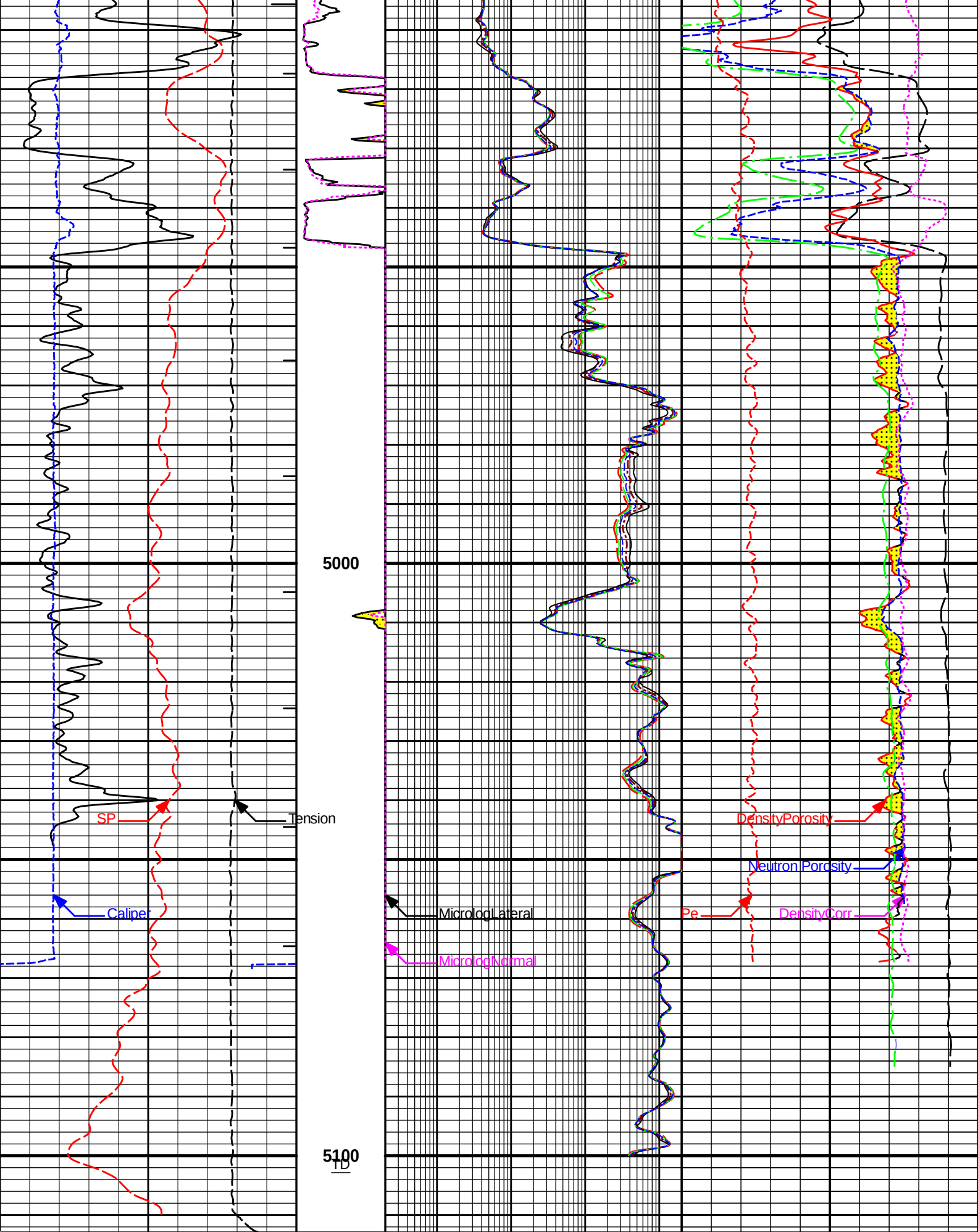












SP	1 : 240	0.2	90in Resistivity 2ft Res	2000 0	Pe	10	-0.25 DensityCorr 0.25
-120[+	ft		ohmm		barns/electron		gram per cc

0	Gamma API	150			0.2	20in Resistivity 2ft Res	2000	0.3	Acou Porosity	-0.1
	api					ohmm			decp	
6	Caliper	16	0	MINV 20	0.2	10in Resistivity 2ft Res	2000	0.3	Neutron Porosity	-0.1
	inches					ohmm			decp	
	SHALE		0	MNOR 20	0.2	60in Resistivity 2ft Res	2000	0.3	DensityPorosity	-0.1
						ohmm			decp	
15K	Tension	0			0.2	30in Resistivity 2ft Res	2000			
	pounds					ohm-metre				
	ITTT							140	Delta-T	40
									microsec per ft	

HALLIBURTON

Plot Time: 08-Mar-22 22:06:21
Plot Range: 1825 ft to 5112.92 ft
Data: 03_08_MERIT\Well Based\DAQ-0001-004\
Plot File: \\QUAD\ACRT-SDL-DSN-ML-BSAT

5 INCH MAIN LOG

5 INCH MAIN LOG										
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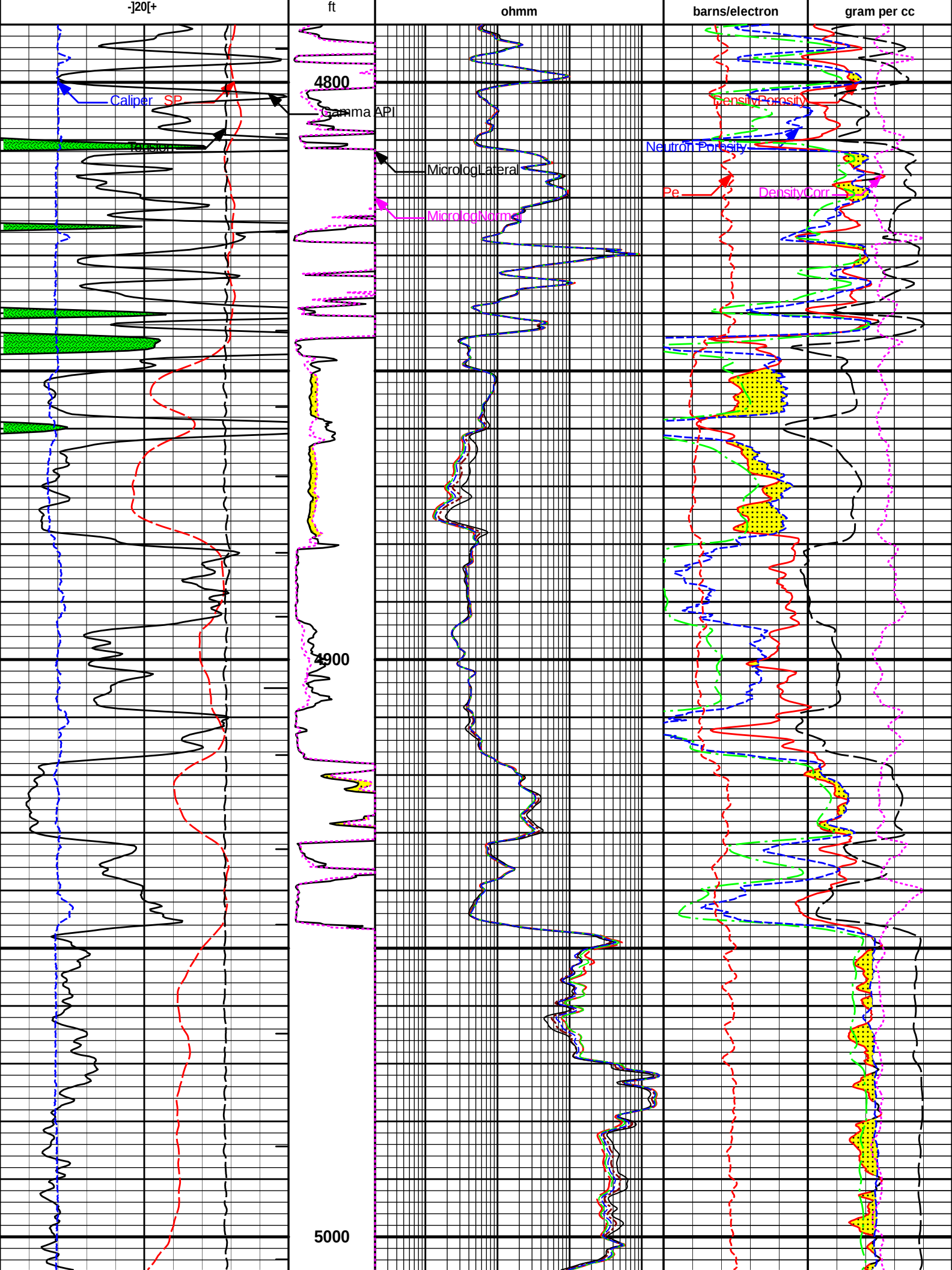
HALLIBURTON

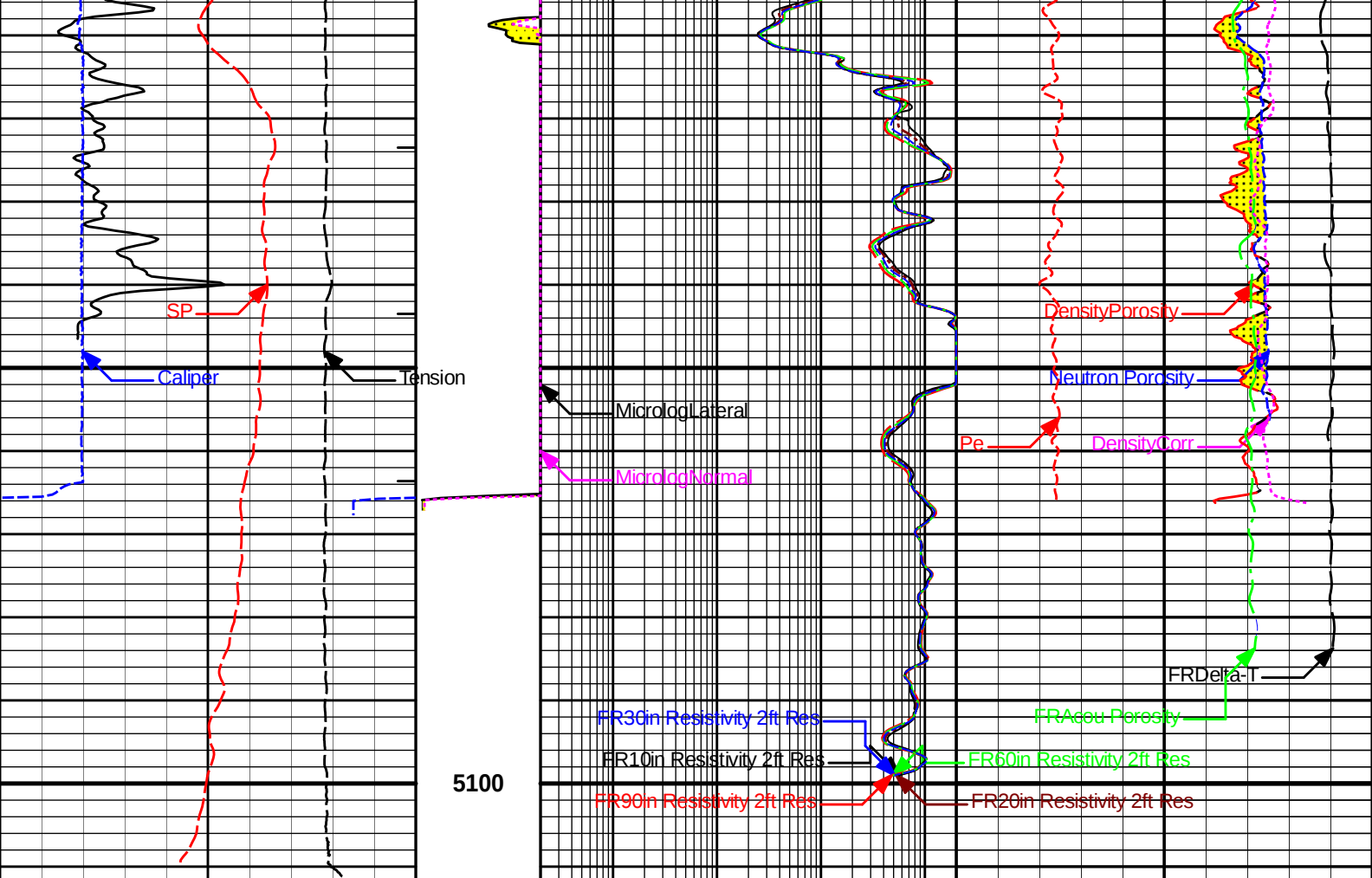
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Plot Range: 4790 ft to 5111.92 ft
Data: 03_08_MERIT\Well Based\DAQ-0001-003\
Plot File: \\QUAD\ACRT-SDL-DSN-ML-BSAT

REPEAT SECTION

REPEAT SECTION										
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	ITTT							140	Delta-T	40
									microsec per ft	
15K	Tension	0				30in Resistivity 2ft Res	2000			
	pounds					ohm-metre				
	SHALE		0	MNOR 20	0.2	60in Resistivity 2ft Res	2000	0.3	DensityPorosity	-0.1
						ohmm			decp	
6	Caliper	16	0	MINV 20	0.2	10in Resistivity 2ft Res	2000	0.3	Neutron Porosity	-0.1
	inches					ohmm			decp	
0	Gamma API	150			0.2	20in Resistivity 2ft Res	2000	0.3	Acou Porosity	-0.1
	api					ohmm			decp	
	SP			1 : 240	0.2	90in Resistivity 2ft Res	2000	0	Pe	10
									-0.25 DensityCorr	0.25





SP -120[+]	1 : 240 ft	0.2	90in Resistivity 2ft Res	2000	0	Pe	10	-0.25	DensityCorr	0.25
Gamma API			ohmm			barns/electron			gram per cc	
api	150	0.2	20in Resistivity 2ft Res	2000	0.3	Acou Porosity		-0.1		
Caliper	16	0	ohmm		0.3	Neutron Porosity		-0.1		
inches	MINV 20	0.2	10in Resistivity 2ft Res	2000	0.3	DensityPorosity		-0.1		
SHALE	0 MNOR 20	0.2	60in Resistivity 2ft Res	2000	0.3	decp				
Tension	0	0.2	30in Resistivity 2ft Res	2000		POROSITY				
pounds	PERMEABLE	0.2	ohm-metre			Delta-T		140		
ITTT						microsec per ft		40		

HALLIBURTON

Plot Time: 08-Mar-22 22:06:23
Plot Range: 4790 ft to 5111.92 ft
Data: 03_08_MERITWell Based\DAQ-0001-003\
Plot File: \\QUAD\ACRT-SDL-DSN-ML-BSAT

REPEAT SECTION

REPEAT SECTION

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 10965404

Reference Calibration Date: 11-Dec-21 14:01:46

Engineer: MOHAMED ABUELGASIM

Calibration Date: 27-Feb-22 16:32:44

Software Version: WL INSITE R6.4.5 (Build 6)

Calibration Version: 1

Calibrator Source S/N: TB-768
Calibrator API Reference:203.00 api
Equivalent Calibrator API Reference:206.6 api

Measurement	Measured	Calibrated	Units
Background	18.2	18.7	api
Background + Calibrator	218.7	225.3	api
Calibrator	200.5	206.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 10965404

Reference Calibration Date: 27-Feb-22 16:32:44

Engineer: MOHAMED ABUELGASIM

Calibration Date: 27-Feb-22 16:35:03

Software Version: WL INSITE R6.4.5 (Build 6)

Calibration Version: 1

Calibrator Source S/N: TB-768
Calibrator API Reference:203.00 api
Equivalent Calibrator API Reference:206.6 api

Field Verification	Shop	Field	Units
Background	18.7	18.5	api
Background + Calibrator	225.3	228.5	api
Calibrator	206.6	210.0	api

Shop	Field	Difference	Tolerance
206.6	210.0	-3.4	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 11020487

Reference Calibration Date: 27-Feb-22 15:10:58

Engineer: K. BJERGA

Calibration Date: 27-Feb-22 15:25:58

Software Version: WL INSITE R6.6.1 (Build 2)

Calibration Version: 1

Logging Source S/N: 80408B
Tank Serial Number: 10585331
Reference value assigned to Tank: 54.090
Snow Block S/N: 7665
Calibration Tank Water Temperature: 55 degF
Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	1.00182	1.00388	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Porosity (decp):	0.2238	0.2244	0.0006	+/- 0.0020

Calibrated Ratio:

10.1601

10.1809

0.021

+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0706	0.02000 - 0.09000
PASS/FAIL SUMMARY		
Background Check:		Passed
Gain-Range Check:		Passed
Snow-Block Check:		Passed

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name:

DSNT - 11020487

Reference Calibration Date:

27-Feb-22 15:25:58

Engineer:

K. BJERGA

Calibration Date:

27-Feb-22 15:27:12

Software Version:

WL INSITE R6.6.1 (Build 2)

Calibration Version:

1

Logging Source S/N: 80408B
Snow Block S/N: 7665

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0706	0.0708	0.0002	+/- 0.0150
PASS/FAIL SUMMARY				
Block Change Check:				Passed
Snow Block Stat Check:				Passed
Temperature Check:				Passed

DENSITY CALIPER SHOP CALIBRATION

Tool Name:

SDLT - 12153520

Reference Calibration Date:

10-Dec-21 16:22:31

Engineer:

K. BJERGA

Calibration Date:

27-Feb-22 16:03:38

Software Version:

WL INSITE R6.6.1 (Build 2)

Calibration Version:

1

Host Tool Name:

DSNT - 11020487

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-4767.85	-5031.42	-7000.00 - -1000.00
Pad Gain	0.0003734	0.0003705	0.0002000 - 0.0006000
Arm Offset	-4898.38	-4754.64	-5000.00 - 3000.00
Arm Gain	0.0004695	0.0005126	0.000300 - 0.000700
Arm Power	-0.000001717	-0.000004623	-0.000010000 - 0.000010000

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER
Tool Diameter: 4.50 in

CALIBRATION RINGS				
Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value
PAD EXTENSION:				
Small Ring (in)	2.11	2.00	-0.11	+/- 0.20
Medium Ring (in)	3.88	3.75	-0.13	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.41	6.50	0.09	+/- 0.20
Medium Ring (in)	8.08	8.25	0.17	+/- 0.20
Large Ring (in)	14.83	15.00	0.17	+/- 0.20

PASS/FAIL SUMMARY				
Calibration-Coefficients Range Check:			Passed	
Ring-Measurement Check:			Passed	
PASS/FAIL SUMMARY				
Calibration-Coefficients Range Check:			Passed	

SDLT CALIPER FIELD CALIBRATION				
Tool Name:	SDLT - 12153520		Reference Calibration Date:	27-Feb-22 16:03:38
Engineer:	K. BJERGA		Calibration Date:	27-Feb-22 16:05:17
Software Version:	WL INSITE R6.6.1 (Build 2)		Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.70	-0.05	+/- 0.10
Ring Diameter	8.25	8.25	0.00	+/- 0.15

PASS/FAIL SUMMARY		
Pad Extension Check:		Passed
Diameter Check:		Passed

SPECTRAL DENSITY SHOP CALIBRATION				
Tool Name:	SDLT Pad - 10844781		Reference Calibration Date:	10-Dec-21 15:31:17
Engineer:	K. BJERGA		Calibration Date:	27-Feb-22 13:27:05
Software Version:	WL INSITE R6.6.1 (Build 2)		Calibration Version:	1

Logging Source S/N: 5440GW

Aluminum Block S/N: 10585329

Magnesium Block S/N: 10585330

Density: 2.595g/cc

Density: 1.679g/cc

Pe: 3.270

Pe: 2.580

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0140	1.0094	0.90 - 1.10
Near Dens Gain	1.0084	0.9970	0.90 - 1.10
Near Peak Gain	1.0130	0.9960	0.90 - 1.10
Near Lith Gain	1.0079	0.9866	0.90 - 1.10
Far Bar Gain	1.0064	1.0015	0.90 - 1.10
Far Dens Gain	0.9953	0.9929	0.90 - 1.10
Far Peak Gain	0.9919	0.9890	0.90 - 1.10
Far Lith Gain	0.9610	0.9611	0.90 - 1.10
Near Bar Offset	0.1028	0.1389	NONE
Near Dens Offset	0.1230	0.2182	NONE
Near Peak Offset	0.0626	0.1971	NONE
Near Lith Offset	0.0869	0.2688	NONE
Far Bar Offset	0.1123	0.1522	NONE
Far Dens Offset	0.1848	0.2040	NONE
Far Peak Offset	0.1628	0.1903	NONE
Far Lith Offset	0.3337	0.3489	NONE
Near Bar Background	790.62	787.11	700 - 1450
Near Dens Background	259.66	257.82	230 - 480
Near Peak Background	112.96	112.40	100 - 210
Near Lith Background	138.97	139.12	125 - 260
Far Bar Background	630.54	630.40	450 - 900

Far Dens Background	248.36	248.66	175 - 345
Far Peak Background	98.46	98.11	70 - 140
Far Lith Background	101.27	102.22	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.683	1.679	-0.004	+/- 0.015
Pe	2.566	2.535	-0.031	+/- 0.150
ALUMINUM				
Density (g/cc)	2.599	2.595	-0.004	+/- 0.01500
Pe	3.292	3.210	-0.082	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0006	+/- 0.0110	-0.0018	+/- 0.0140
Magnesium Block	-0.0014	+/- 0.0110	-0.0022	+/- 0.0140
Aluminum Block	-0.0015	+/- 0.0110	-0.0003	+/- 0.0140
Resolution	9.64	6.00 - 11.50	8.84	6.00 - 11.50
Internal Verifier(B+D+P+L)	1296	1200 - 2700	1079	800 - 1700

PASS/FAIL SUMMARY	
Background Quality Check:	Passed
Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed
Magnesium Quality Check:	Passed
Aluminum Quality Check:	Passed
Gains Check:	Passed
Changes in Calibration Blocks:	Passed

MICRO LOG SHOP CALIBRATION			
Tool Name:	Microlog Pad - 12153520	Reference Calibration Date:	22-Jan-22 10:41:51
Engineer:	K. BJERGA	Calibration Date:	27-Feb-22 16:07:34
Software Version:	WL INSITE R6.6.1 (Build 2)	Calibration Version:	1
Host Tool Name:	DSNT - 11020487		

CALIBRATION COEFFICIENT SUMMARY					
Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	0.13	0.14	0.20	0.20	ohmm
Calibration Point #1	0.19	0.20	0.20	0.20	ohmm
Calibration Point #2	20.03	20.00	20.05	20.00	ohmm
Internal Reference	19.96	19.93	20.05	20.00	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	1.82	-0.24	V
Calibration Point #1	18.19	0.75	V
Calibration Point #2	5878.85	6888.65	V

Calibration Point #2		5272.26	6898.65	V
Internal Reference		5253.79	6899.93	V

MICRO LOG FIELD CHECK					
Tool Name:	Microlog Pad - 12153520		Reference Calibration Date:	27-Feb-22 16:07:34	
Engineer:	K. BJERGA		Calibration Date:	27-Feb-22 16:08:17	
Software Version:	WL INSITE R6.6.1 (Build 2)		Calibration Version:	1	

	Measurement	Micro Log Normal		Micro Log Lateral		Units
		Shop	Field	Shop	Field	
	Tool Zero	0.14	0.14	0.20	0.20	ohmm
	Internal Reference	19.93	19.93	20.00	20.01	ohmm
Summary						
	Signal	Shop	Field	Difference	Tolerance	
	Microlog Normal	19.93	19.93	0.00	+/- 0.80	
	Microlog Lateral	20.00	20.01	-0.01	+/- 0.80	

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION					
Tool Name:	ACRt Sonde - 10988480		Reference Calibration Date:	09-Dec-21 11:41:44	
Engineer:	MOHAMED ABUELGASIM		Calibration Date:	09-Dec-21 11:51:35	
Software Version:	WL INSITE R6.4.10 (Build 2)		Calibration Version:	1	
Host Tool Name:	ACRt Instrument - 10988483				

TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0133	1.05	0.95	1.0131	1.05	0.95	1.0116	1.05
A2 (50")	0.95	1.0121	1.05	0.95	1.0101	1.05	0.95	1.0030	1.05
A3 (29")	0.95	1.0064	1.05	0.95	1.0050	1.05	0.95	1.0025	1.05
A4 (17")	0.95	1.0036	1.05	0.95	0.9972	1.05	0.95	0.9951	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.9880	1.05	0.95	0.9850	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9800	1.05	0.95	0.9796	1.05

SONDE OFFSET									
Subarray	R12KHz			R36KHz			R72KHz		
	(mmho/m)			(mmho/m)			(mmho/m)		
A1 (80")	-1.162			-4.242			-5.133		
A2 (50")	-1.248			-3.111			-4.266		
A3 (29")	-11.707			-4.977			-6.189		
A4 (17")	-103.564			-32.685			-27.479		
A5 (10")	N/A			-101.599			-46.672		
A6 (6")	N/A			316.313			152.736		

TRANSMITTER CURRENT GAIN					R-MUD VERIFICATION			
Signal	Lower	R	Upper		Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
12K	0.6	0.90	1.3		Mud Cell	0.95	1.00	1.05
36K	1.0	1.28	2.0					
72K	1.0	1.43	2.0					

PASS/FAIL SUMMARY				
GAIN RANGE CHK			PASS	
SONDE OFFSET CHK			PASS	

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10965404						
Gamma Ray Calibrator	206.6	210.0	-----	-3.4	+/- 9.00	api
DSNT-11020487						
Snow-Block Porosity	0.0706	0.0708	-----	-0.0002	+/- 0.0150	decp
SDLT-12153520						
Pad Extension	3.75	3.70	-----	0.05	+/-0.10	in
Ring Diameter	8.25	8.25	-----	0.00	+/-0.15	in
SDLT Pad-10844781						
Near(B+D+P+L)	1296.448	-----	-----	0.000	+/-12.760	cps
Far(B+D+P+L)	1079.385	-----	-----	0.000	+/-15.730	cps
Microlog Pad-12153520						
MicroLog Normal	19.93	19.93	-----	0.00	+/-0.80	ohmm
MicroLog Lateral	20.00	20.01	-----	-0.01	+/-0.80	ohmm
ACRt Sonde-10988480						
Mud Cell	1.00	-----	-----	0	-----	ohm-m

Data: 03_08_MERIT\0001 QUAD_ML_BSAT\IDLE

Date: 08-Mar-22 19:14:07



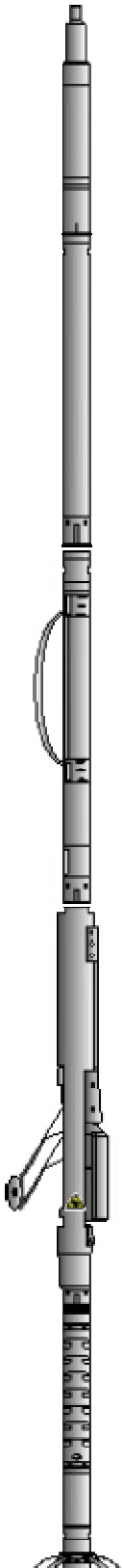
PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP-----					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.100	ppg
	SHARED	WAGT	Weighting Agent	Barite	
	SHARED	BSAL	Borehole salinity	0.00	ppm
	SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
	SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
	SHARED	RMUD	Mud Resistivity	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	in
	SHARED	CSTR	Compressive Strength	1000.00	psia
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	10000.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	CBM Temperature Master Tool	GTET	
	SHARED	MSAL	Water-base mud filtrate salinity	0.00	ppm
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Density	
	Rwa /	CTE	Temperature Coefficient	0.0000	

Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
Rwa / CrossPlot	BHSM	Borehole Size Source Tool	SDLT	
Rwa / CrossPlot	ROIN	Input for RO Calculation	Rwa	
GTET	ACOK	Do ACCZ Calculations?	Yes	
GTET	GROK	Process Gamma Ray?	Yes	
GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
GTET	BHSM	Borehole Size Source Tool	SDLT	
DSNT	DNOK	Process DSN?	Yes	
DSNT	DEOK	Process DSN EVR?	No	
DSNT	NLIT	Neutron Lithology	Limestone	
DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
DSNT	DNTT	Temperature Correction Type	None	
DSNT	DPRS	DSN Pressure Correction Type	None	
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
DSNT	UCLA	Classic Neutron Parameter utilized?	No	
DSNT	BHSM	Borehole Size Source Tool	SDLT	
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Pore Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	Limestone 47.6	
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Up	
ACRt Sonde	TPOS	Tool Position	Centered	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMAX	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
ACRt Sonde	MBEI	Apply Corkscrew Effect?	No	

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
						76.60 ft
RWCH-12027542 135.00 lbs	Weak Point 12000 lbs- 00000001 0.01 lbs	Ø 2.310 in → Ø 3.625 in → Ø 0.010 in* →		← Fishing Neck @ 75.72 ft ← Load Cell @ 72.91 ft ← BH Temperature @ 72.35 ft ← Z-Accelerometer @ 69.90 ft	6.25 ft	70.35 ft
GTET-10965404 165.00 lbs		Ø 3.625 in →		← GammaRay @ 64.29 ft	8.52 ft	61.83 ft
DSNT-11020487 174.00 lbs	DSN Decentralizer- 11111111 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 54.89 ft ← DSN Near @ 54.14 ft	9.69 ft	52.14 ft
SDLT-12153520 360.00 lbs	SDLT Pad-10844781 65.00 lbs Microlog Pad-12153520 8.00 lbs RAM-Cs137-11206141 1.00 lbs	Ø 4.500 in → Ø 4.500 in* → Ø 4.750 in* → Ø 0.800 in* →		← Microlog @ 44.33 ft ← SDL Caliper @ 44.14 ft ← SDL @ 44.13 ft	10.81 ft	41.33 ft
Flex Joint - Pressure Comp- 10968478 140.00 lbs		Ø 3.625 in →			5.97 ft	35.36 ft
Centralizer 25-22222222						

8.00 lbs

Ø 4.000 in*

BSAT-10747688
300.00 lbs

Ø 3.625 in

Receiver Array @ 26.84 ft
Sonic Receivers @ 26.84 ft

15.77 ft

ACRt Instrument-
10988483
50.00 lbsCentralizer 25-33333333
8.00 lbsØ 4.000 in*
Ø 3.625 in

19.58 ft

5.03 ft

ALAT Standoff OD 6-
55555555
11.60 lbs

Ø 5.500 in*

Mud Resistivity @ 13.19 ft

14.55 ft

ACRt Sonde-
10988480
200.00 lbs

Ø 3.625 in

ACRt @ 9.21 ft

14.22 ft

SP Ring-00000006
0.00 lbs

Ø 3.625 in*

SP @ 1.61 ft

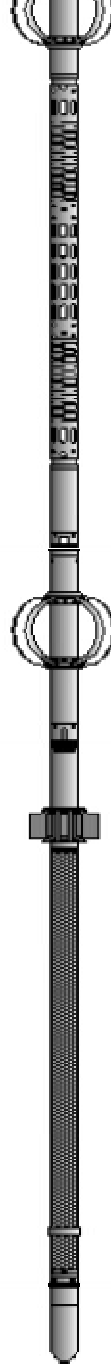
0.33 ft

Bull Nose-22222222
5.00 lbs

Ø 2.750 in

0.33 ft

0.00 ft



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
RWCH	Releasable Wireline Cable Head	12027542	135.00	6.25	70.35	300.00
WP12K	Weak Point 12000 lbs	00000001	0.01	0.01	* 71.15	300.00
GTET	Gamma Telemetry Tool	10965404	165.00	8.52	61.83	60.00
DSNT	Dual Spaced Neutron	11020487	174.00	9.69	52.14	60.00
DCNT	DSN Decentralizer	11111111	6.60	5.13	* 55.47	300.00
SDLT	Spectral Density Tool	12153520	360.00	10.81	41.33	60.00
SDLP	Density Insite Pad	10844781	65.00	2.55	* 43.54	60.00
Cs137	Logging Source, SDLT-I, 1.78 Ci - Cs137	11206141	1.00	0.80	* 43.77	300.00
MICP	Microlog Pad	12153520	8.00	1.00	* 43.83	60.00
FLEX	Flex Joint - Pressure Compensated	10968478	140.00	5.97	35.36	300.00
BSAT	Borehole Sonic Array Tool	10747688	300.00	15.77	19.58	60.00
OBCEN	Centralizer - 25 in. Overbody	22222222	8.00	2.08	* 32.62	300.00
ACRt	Array Compensated True Resistivity Instrument Section	10988483	50.00	5.03	14.55	120.00
OBCEN	Centralizer - 25 in. Overbody	33333333	8.00	2.08	* 16.39	300.00
ACRt	Array Compensated True Resistivity Sonde Section	10988480	200.00	14.22	0.33	120.00
SP	SP Ring	00000006	0.00	0.25	* 1.61	300.00
ALATS	Array Laterolog Tool OD 6 Standoff	55555555	11.60	1.00	* 11.89	60.00
BLNS	Bull Nose	22222222	5.00	0.33	0.00	300.00
Total			1,637.21	76.60		

COMPANY	MERIT ENERGY COMPANY, LLC		
WELL	McWILLIAMS E-11		
FIELD	COWGILL		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		QUAD COMBO	