HALLIBURTON

SPECTRAL DENSITY
DUAL SPACED NEUTRON
HIGH RESOLUTION INDUCTION

COMPANY LARAMIE ENERGY II, LLC
WELL LEVERICH 31-16D
FIELD RULISON
COUNTY GARFIELD
STATE CO

COMPANY **LARAMIE ENERGY II, LLC**

WELL **LEVERICH 31-16D**

FIELD **RULISON**

COUNTY **GARFIELD** STATE **CO**

API No. 050451572300

Location SURFACE: 1822' FSL, 696' FEL
BOTTOM: 164' FSL, 658' FEL

Other Services:
NONE

Sect. 31 Twp. 6S Rge. 93W

Permanent Datum	GL	Elev. 7134.0 ft	Elev.: K.B. 7155.0 ft
Log measured from	KB	21.0 ft above perm. Datum	D.F. 7154.0 ft
Drilling measured from	KB		G.L. 7134.0 ft

Date		26-Oct-08					
Run No.		ONE					
Depth - Driller		9728.0 ft					
Depth - Logger		9584.0 ft					
Bottom - Logged Interval		9574.0 ft					
Top - Logged Interval		100.0 ft					
Casing - Driller		8.625 in	@ 1500.0 ft	@		@	
Casing - Logger		1516.0 ft					
Bit Size		7.875 in		@		@	
Type Fluid in Hole		LSND					
Density	Viscosity	9.8 ppg	72.00 s/qt				
PH	Fluid Loss	7.50 pH	8.8 cptm				
Source of Sample		MUD TANK					
Rm @ Meas. Temperature		3.47 ohmm	@ 56.90 degF	@		@	
Rmf @ Meas. Temperature		3.23 ohmm	@ 57.40 degF	@		@	
Rmc @ Meas. Temperature		3.80 ohmm	@ 57.80 degF	@		@	
Source Rmf	Rmc	MEAS.	MEAS.				
Rm @ BHT		1.07 ohmm	@ 199.0 degF	@		@	
Time Since Circulation		17.0 hr					
Time on Bottom		26-Oct-08 08:07					
Max. Rec. Temperature		199.0 degF	@ 9584.0 ft	@		@	
Equipment	Location	10549593	G.J.				
Recorded By		J. GEISER					
Witnessed By		G. STAPLETON					

Fold Here

Service Ticket No.: 6258638 API Serial No.: 050451572300 PGM Version: WL INSITE R2.2 (Build 9)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

RESISTIVITY SCALE CHANGES

	Sample No.				Type Log	Depth	Scale Up Hole	Scale Down Hole
Date								
Depth-Driller								
Type Fluid in Hole								
Density	Viscosity							
Ph	Fluid Loss							
Source of Sample								
Rm @ Meas. Temp		@		@				
Rmf @ Meas. Temp.		@		@				
Rmc @ Meas. Temp.		@		@				
Source Rmf	Rmc	CALC						
Rm @ BHT		@ 199.0 degF		@				
Rmf @ BHT		@ 199.0 degF		@				
Rmc @ BHT		@ 199.0 degF		@				

RESISTIVITY EQUIPMENT DATA

	Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other
Source of Sample					
Rm @ Meas. Temp					
Rmf @ Meas. Temp.	ONE	HRID-I81S0944	N/A	1.5" STANDOFF	N/A
Rmc @ Meas. Temp.					
Source Rmf					
Rm @ BHT					
Rmf @ BHT					
Rmc @ BHT					

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.		Run No.	ONE	Run No.	ONE
Serial No.	108617_2	Serial No.		Serial No.	I709MC136	Serial No.	108734
Model No.	NGRT	Model No.		Model No.	SDL_DC	Model No.	DSN-II
Diameter	3.625"	No. of Cent.		Diameter	4.5"	Diameter	3.625"
Detector Model No.	NGRT	Spacing		Log Type	GAMMA-GAMMA	Log Type	THERMAL
Type	SCINT			Source Type	Cs137	Source Type	Am241Be
Length	4"	LSA (Y/N)		Serial No.	2189GW	Serial No.	DSN-60

Distance to Source	10'	FWDA [Y/N]		Strength	1.5 Ci	Strength	18.5 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	TD	CASING	REC	0 api	200 api				30 %	-10 %	2.68 g/cc	30 %	-10 %	SAND

DIRECTIONAL INFORMATION

Maximum Deviation @	KOP @

Remarks: RWCH-D4TS-NGRT-DSN-SDL-HRI WERE RUN IN COMBINATION.

HOLE RUGOSITY AND TENSION PULLS MAY AFFECT DATA QUALITY.

AHV CALCULATED FOR 4.5" CASING.

CHLORIDES REPORTED AT 950 mg/L.

LATITUDE: 39.48 N // LONGITUDE: 107.81 W

YOUR CREW TODAY IS: E. GREENLEE AND A. LEWIS RIG: SST 5

THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES - GRAND JUNCTION, COLORADO (970) 523-5600

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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	MDWT	Borehole Fluid Weight	9.800	ppg
	SHARED	RMUD	Mud Resistivity	3.470	ohmm
	SHARED	TRM	Temperature of Mud	56.9	degF
	SHARED	OBM	Oil Based Mud System?	No	
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	4.500	in
	SHARED	ST	Surface Temperature	45.0	degF
	SHARED	TD	Total Well Depth	9728.00	ft
	SHARED	BHT	Bottom Hole Temperature	199.0	degF
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	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
	NGRT	GROK	Process Gamma Ray?	Yes	
	NGRT	GRSO	Gamma Tool Standoff	0.000	in
	NGRT	GEOK	Process Gamma Ray EVR?	No	
	DSN_II	DNOK	Process DSN?	Yes	
	DSN_II	DEOK	Process DSN EVR?	No	
	DSN_II	NLIT	Neutron Lithology	Sandstone	
	DSN_II	DNSO	DSNTool Standoff	0.000	in
	DSN_II	DNTP	Temperature Correction Type	None	
	DSN_II	DPRS	DSN Pressure Correction Type	None	
	DSN_II	SHCO	View More Correction Options	No	
	DSN_II	UTVD	Use TVD for Gradient Corrections?	No	
	DSN_II		Logging Horizontal Water Tank?	No	
	SDL_DC	DNOK	Process Density?	Yes	
	SDL_DC	DNOK	Process Density EVR?	No	
	SDL_DC	AD	Is Hole Air Drilled?	No	
	SDL_DC	CB	Use Calibration Blocks?	No	
	SDL_DC	SPVT	SDLT Pad Temperature Valid?	Yes	
	SDL_DC	MDTP	Weighted Mud Correction Type?	Barite	
	SDL_DC	DMA	Formation Density Matrix	2.680	g/cc
	SDL_DC	DFL	Formation Density Fluid	1.000	g/cc
	SDL_DC	CLOK	Process Caliper Outputs?	Yes	
	HRID	HRE	Do HRI Induction Calculation?	Yes	
	HRID	DFLE	Do DFL Calculation?	Yes	
	HRID	PYRI	Pyrite Switch	Off	
	HRID	CSDP	Casing Depth	1506.0	ft
	HRID	HDSP	Spike Reduction Filter Type	DELTA	
	HRID	HRTC	Temperature Correction Source	None	
	HRID	MMRS	Hrimap Minimum Resistivity	0.20	
	HRID	MXRS	Hrimap Maximum Resistivity	200.00	
BOTTOM					

Data: LAR_LEV_31_16D\0001 TRIPLE-DC-NGRT\003.02 26-Oct-08 11:18 Up

Date: 26-Oct-08 11:52:47

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Plot Time: 26-Oct-08 11:54:48
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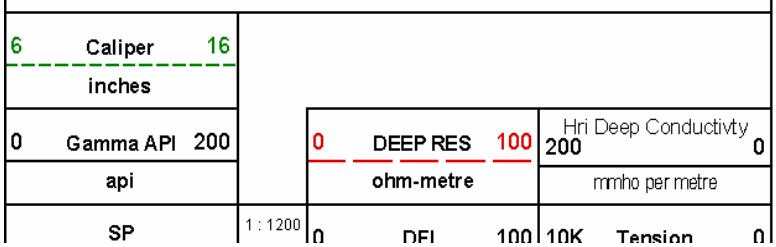
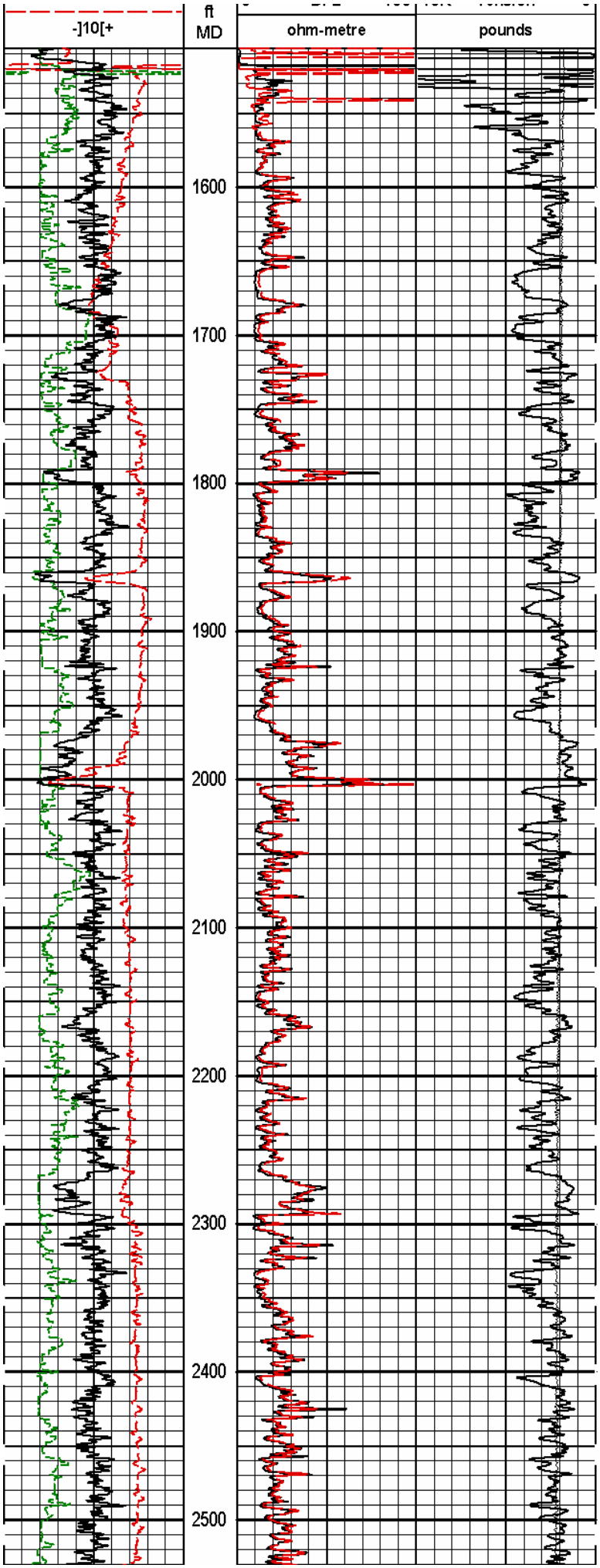
LAR_LEV_31_16D\Well Based\...\...
Plot File: \\...\MAIN_1IN_WILLIAMS

MAIN PASS 1" = 100' (HALF SCALE)

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MD
ohm-metre
pounds
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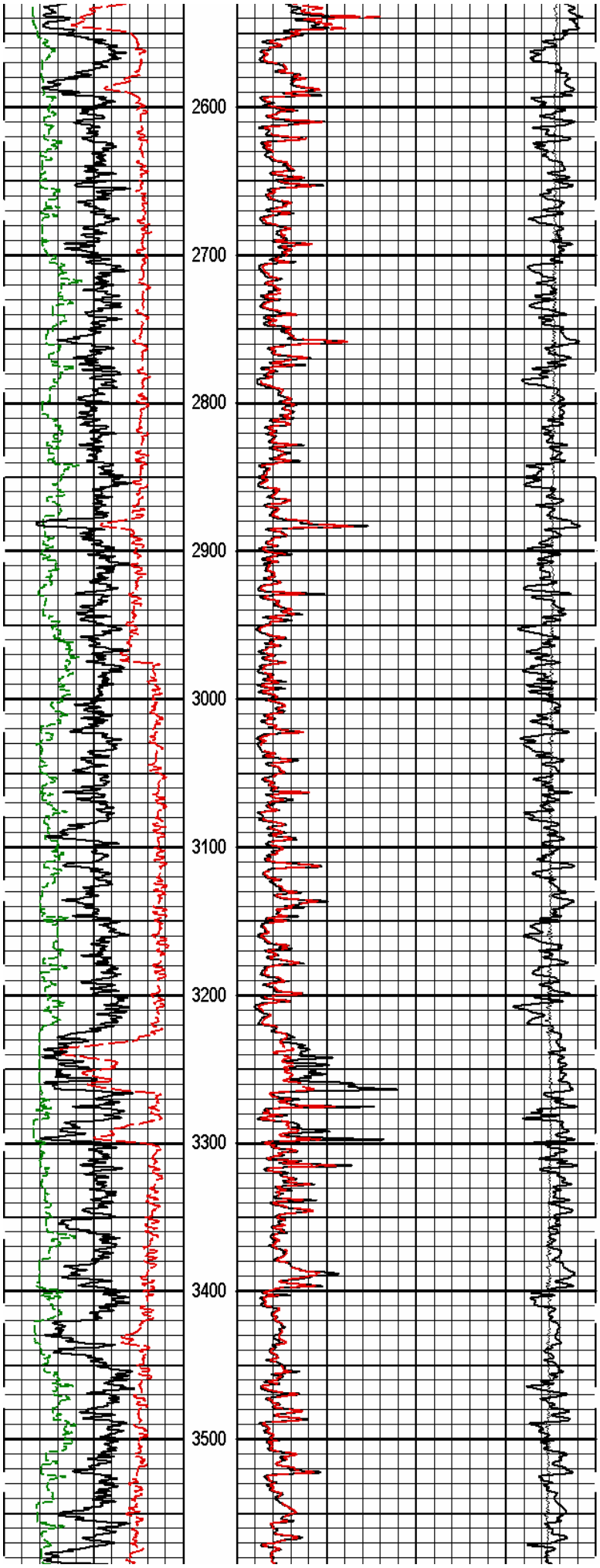
1800
1900
2000
2100
2200
2300
2400
2500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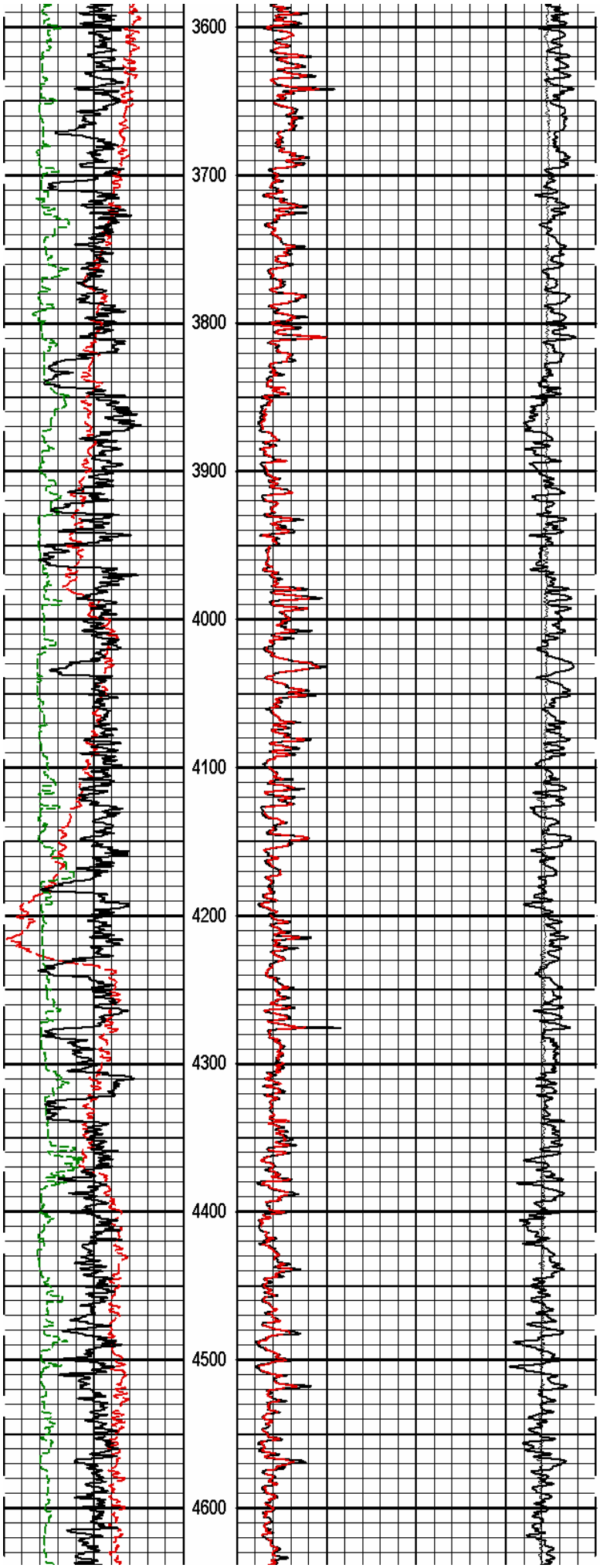
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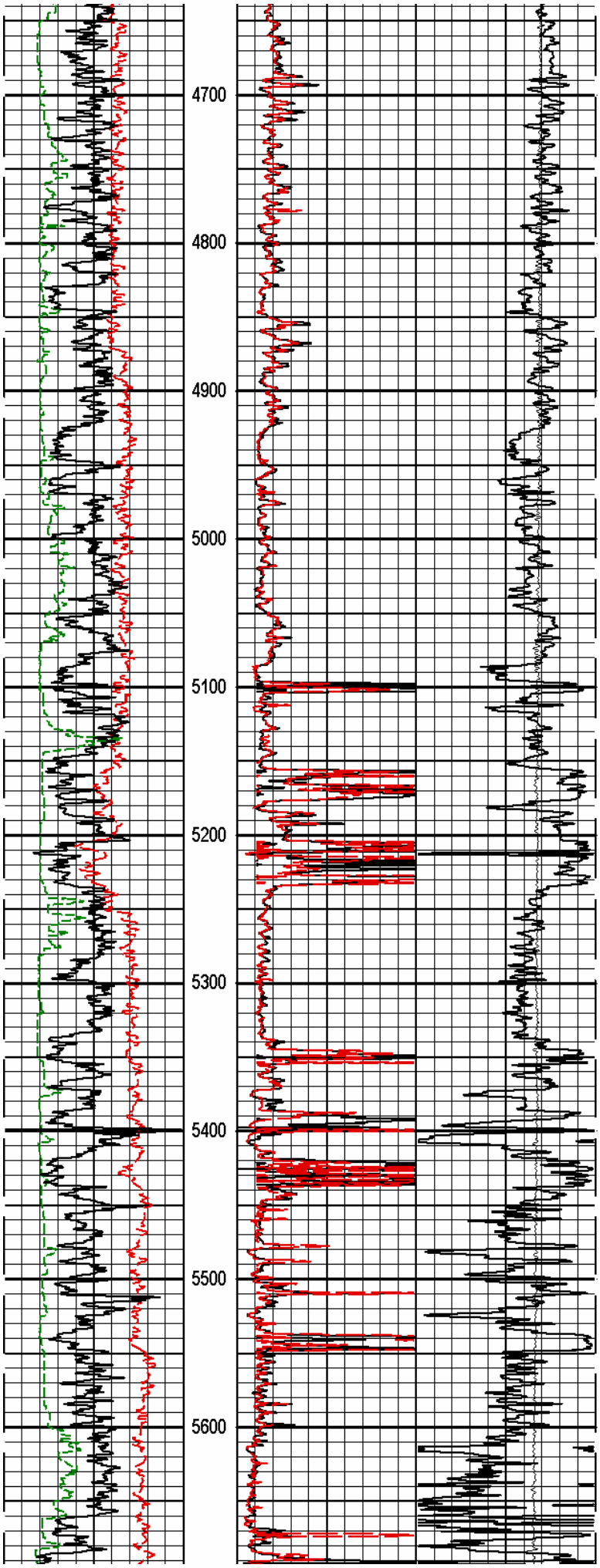
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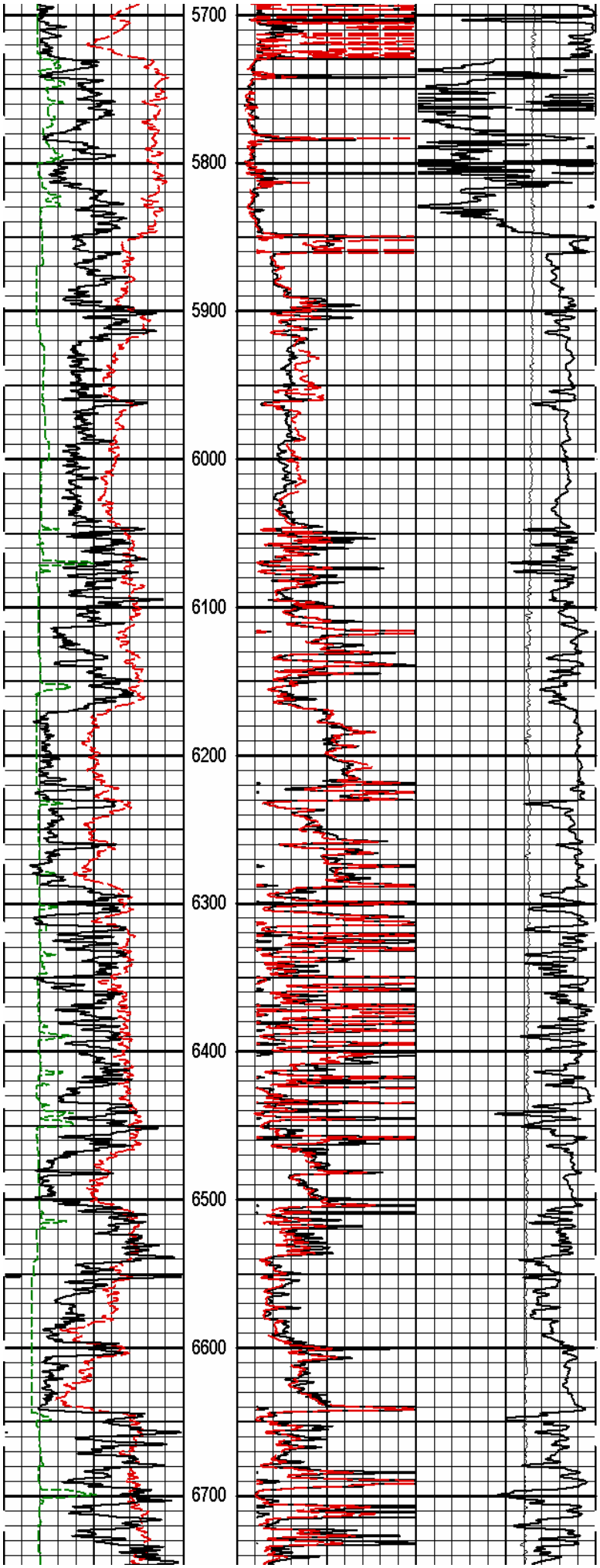
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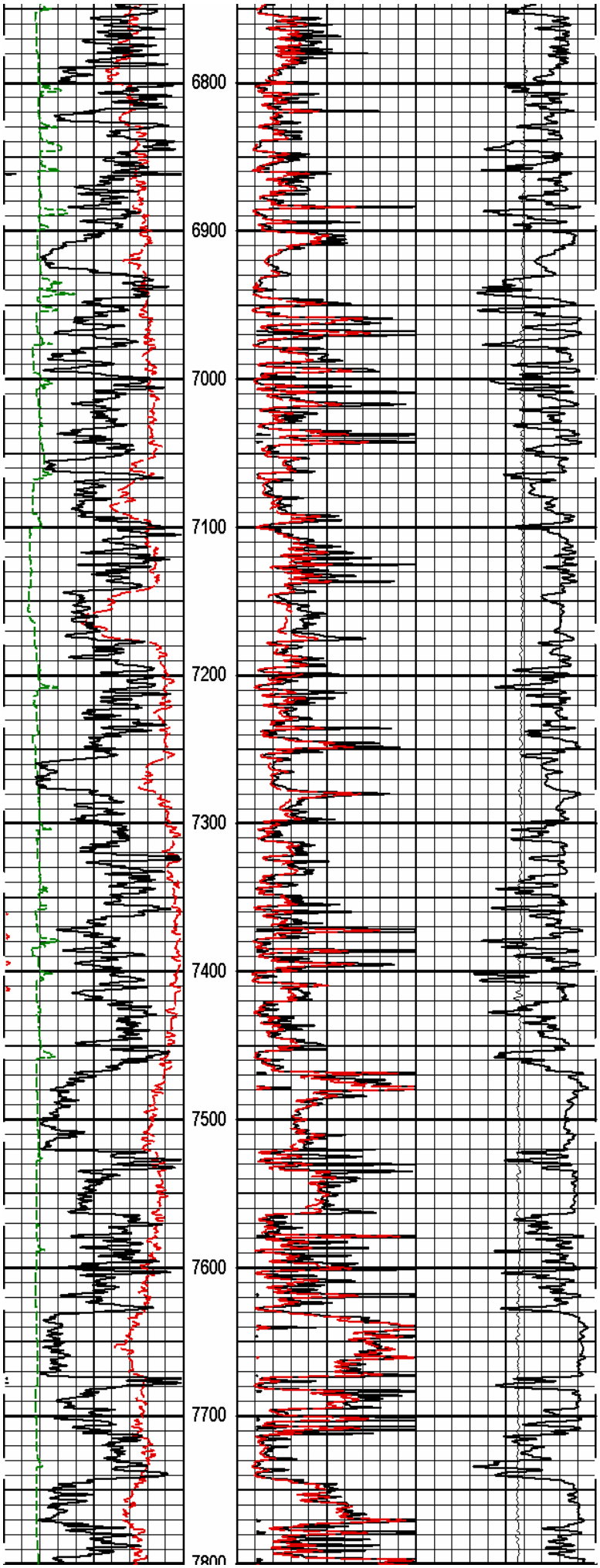
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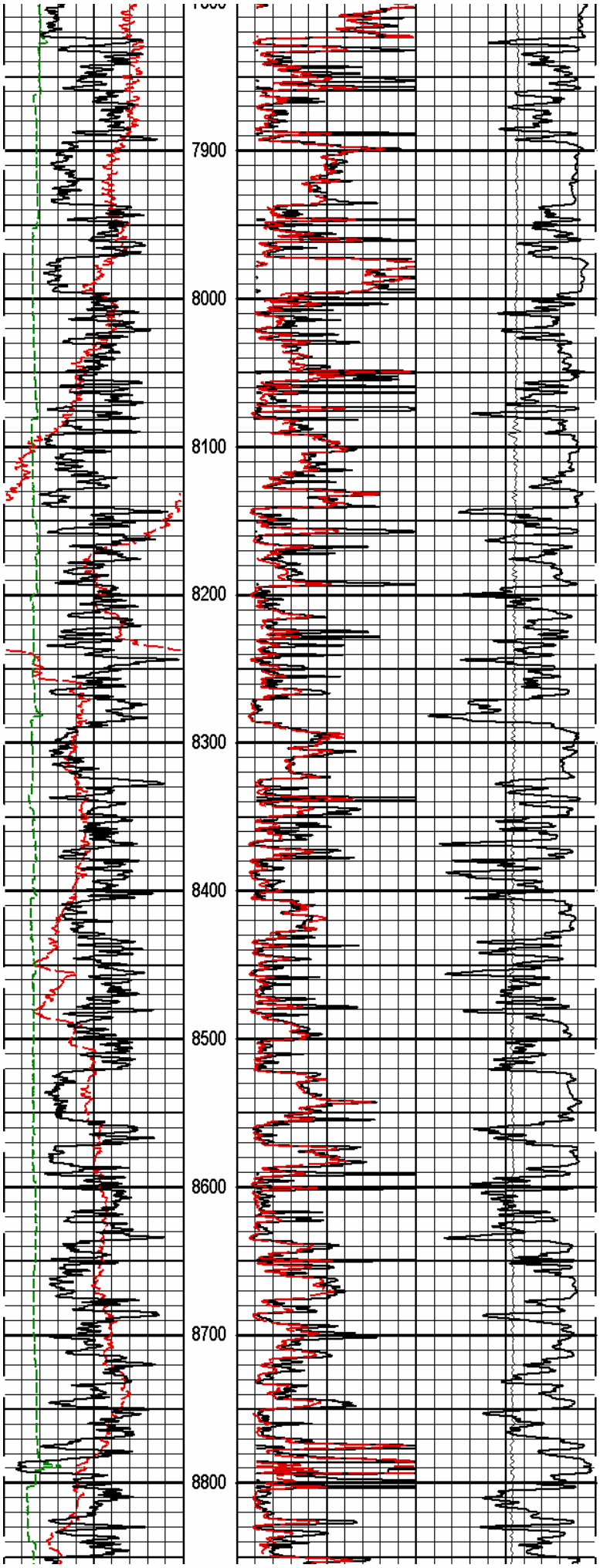
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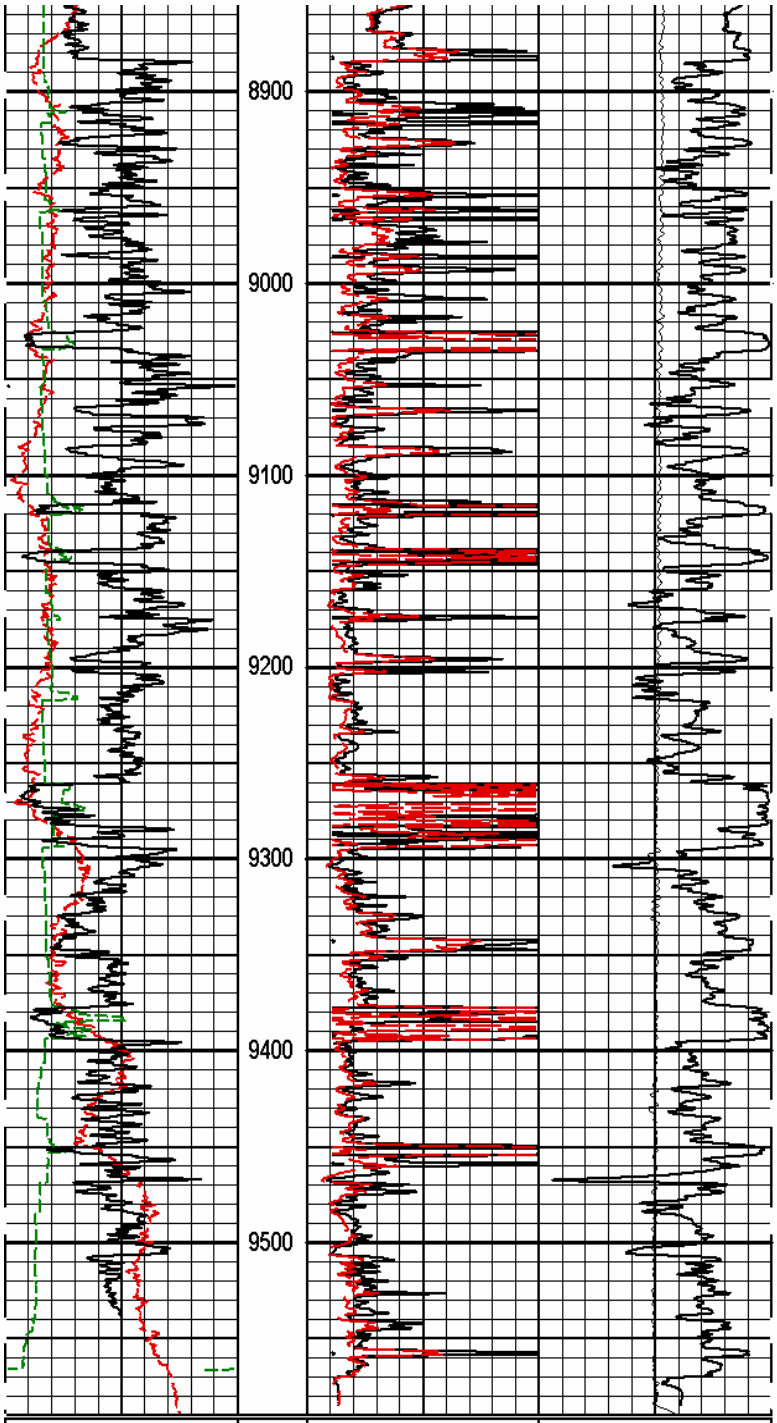

SP -]10[+	1 : 1200 ft MD	0 DFL 100 ohm-metre	10K Tension 0 pounds
0 Gamma API 200 api		0 DEEP RES 100 ohm-metre	Hri Deep Conductivty 200 0 mmho per metre
6 Caliper 16 inches			

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Plot Time: 26-Oct-08 11:54:51
Plot Range: 1506 ft to 9590 ft
LAR_LEV_31_16D\Well Based\...\...
Plot File: \\...\MAIN_1IN_WILLIAMS

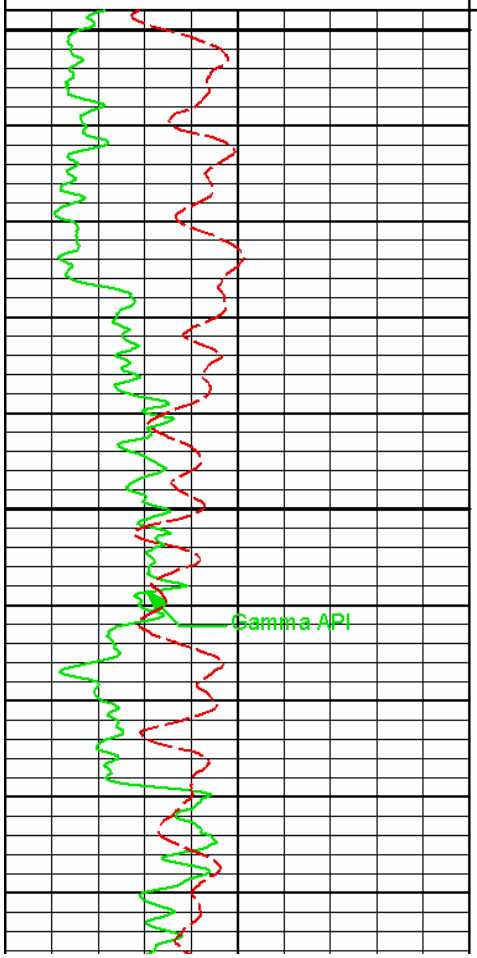
MAIN PASS 1" = 100' (HALF SCALE)

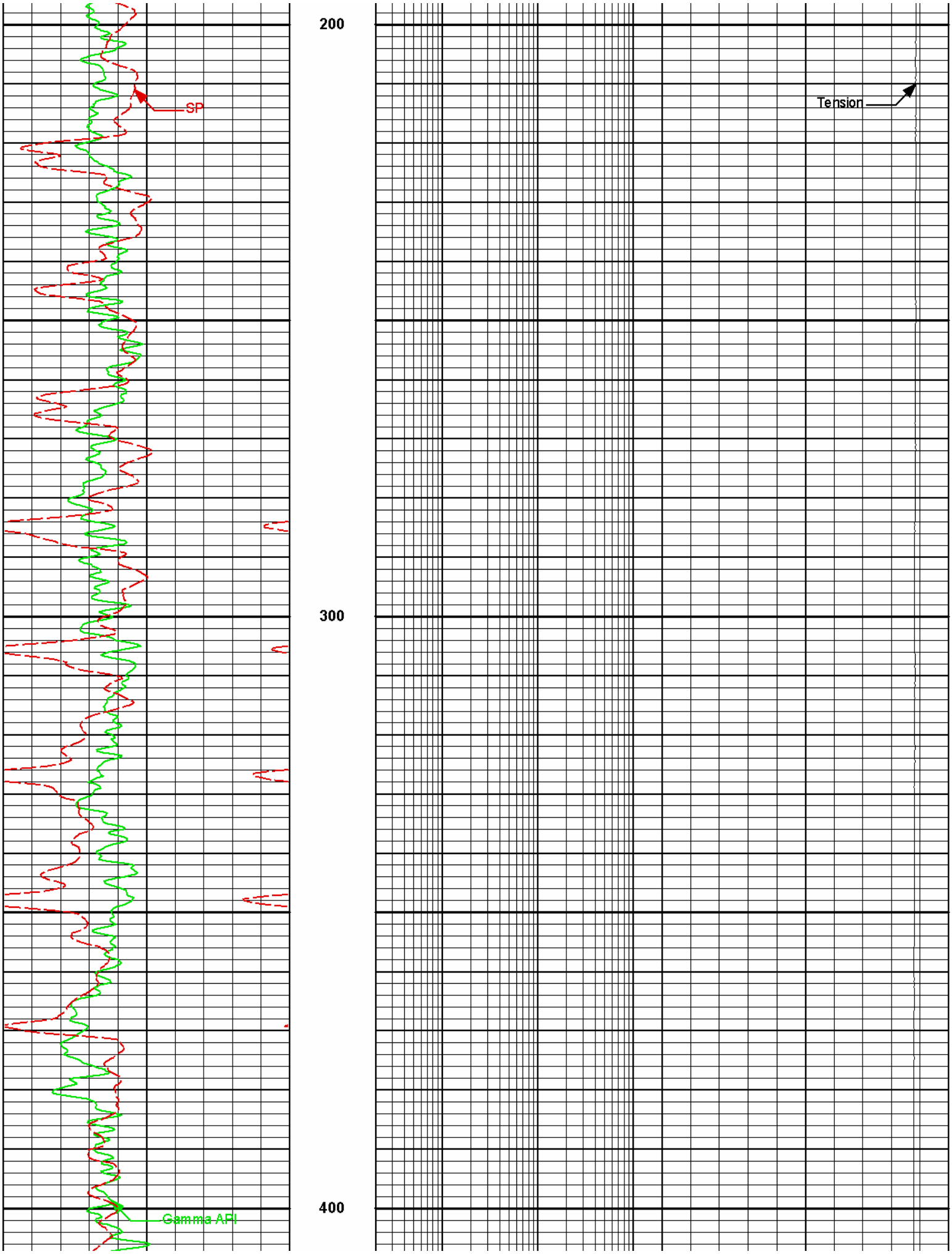
HALLIBURTON

Plot Time: 26-Oct-08 11:54:52
Plot Range: 98 ft to 9590 ft
Data: {ActiveWell}\Well Based*\
Plot File: \\-LOCAL-\LAR_LEV_31_16D\0001 TRIPLE-DC-NGRT\TRIPLE\MAIN PASS

MAIN PASS 5" = 100'

					10000	Tension	0
						lbs	
45	FarQuality	-5			0	Pe	10
-45	NearQuality	5			-0.25	DensityCorr	0.25
						g/cc	
6	Caliper	16	AHV ft3	2	HDRS	2000	30	Neutron Porosity	-10
	inches				ohmm		%		
0	Gamma API	200	BHV ft3	2	HMRS	2000	30	DensityPorosity	-10
	api				ohmm		%		
	SP		1 : 240 ft MD	2	DFL	2000		8% Porosity	
	-]10[+				ohmm				
			100						

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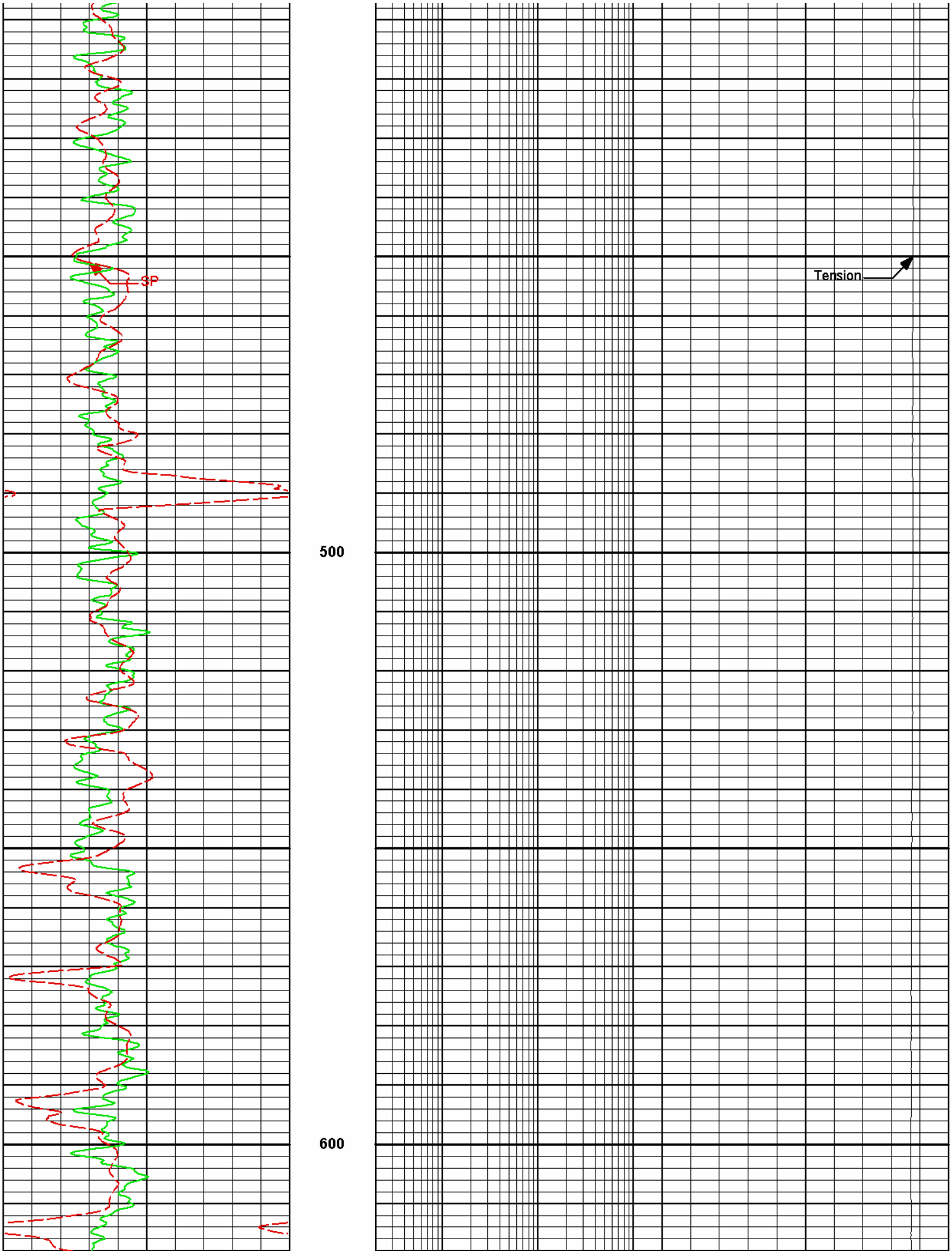
400
SP
Tension
Gamma API


SP
Tension
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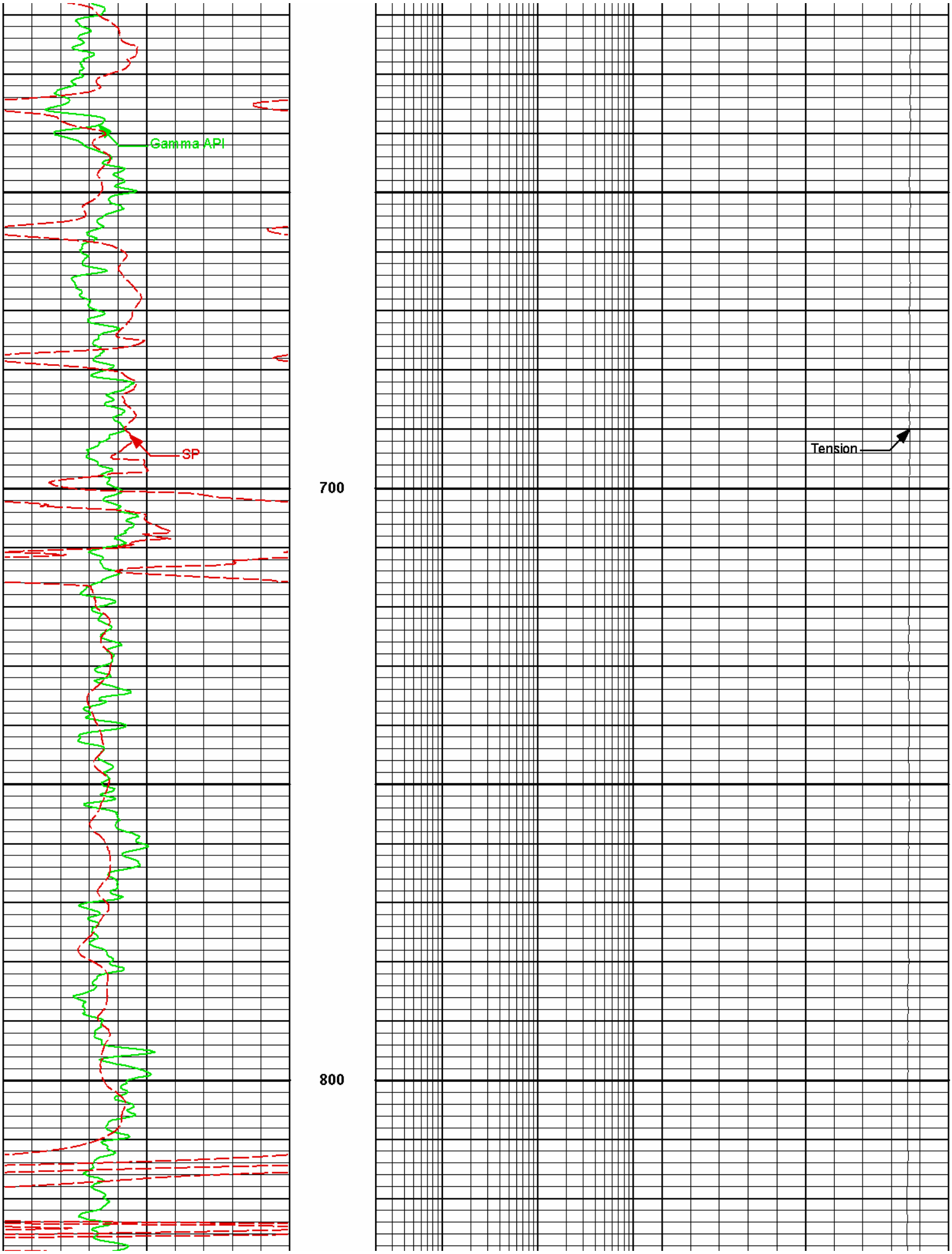
Gamma API
SP
Tension
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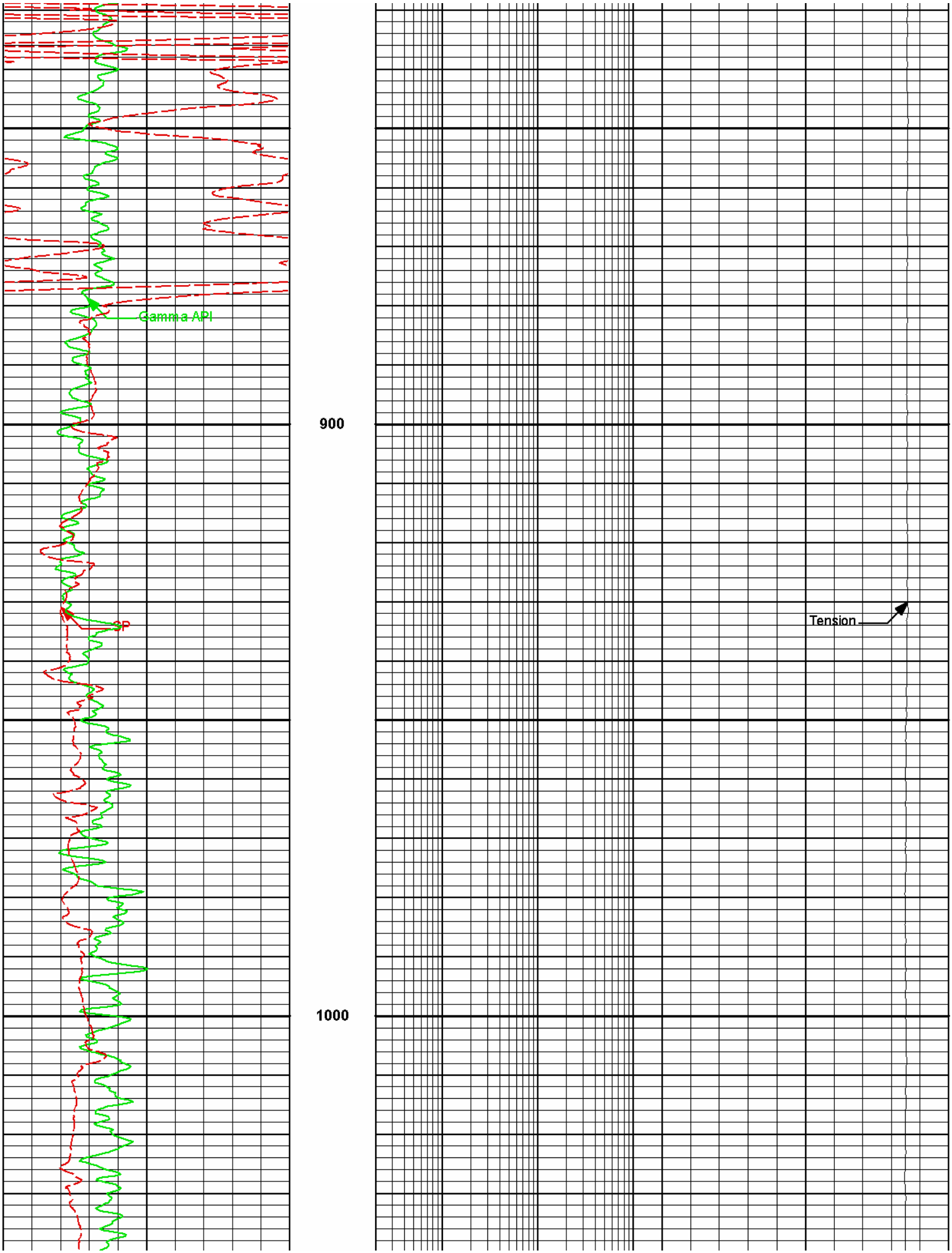
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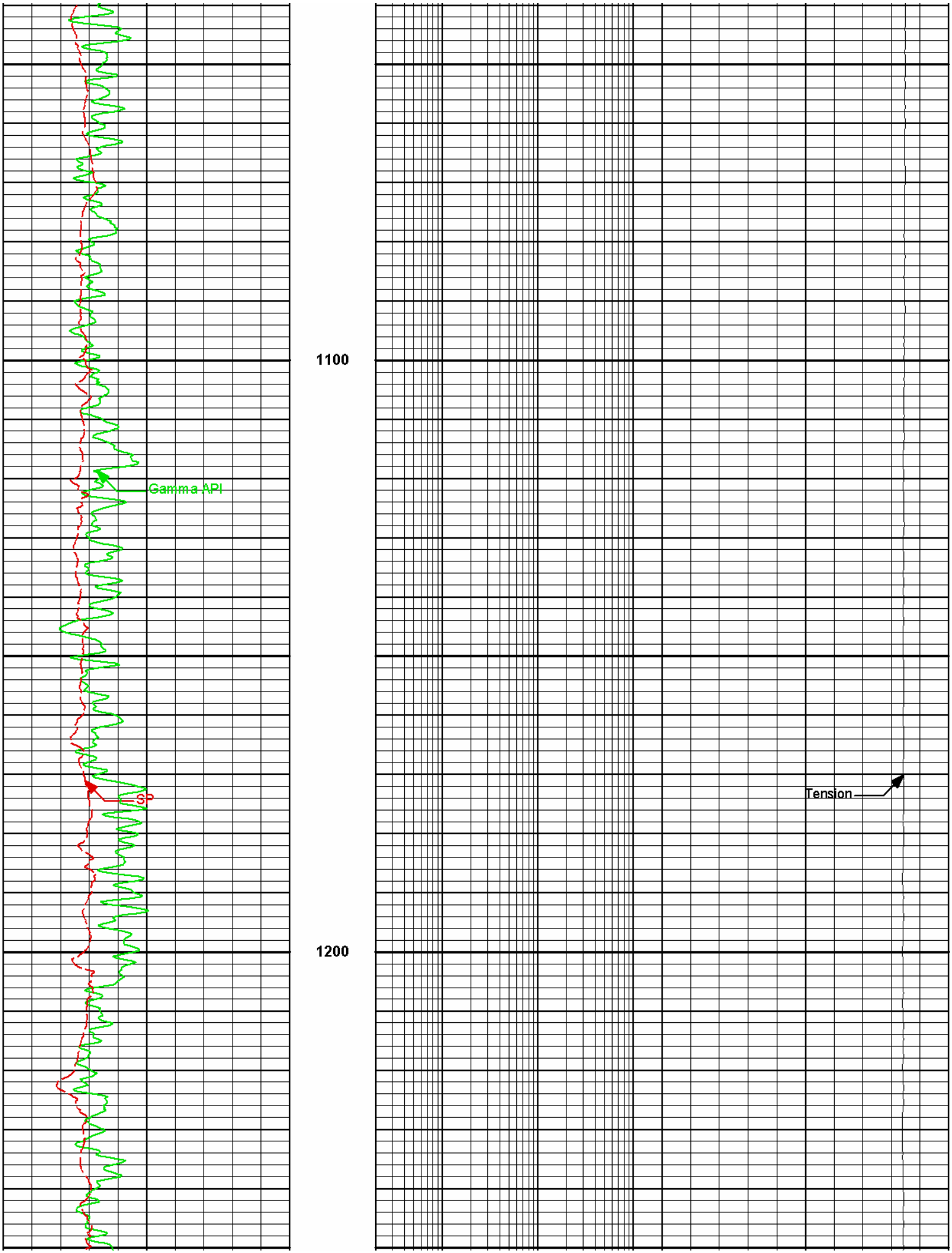
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SP
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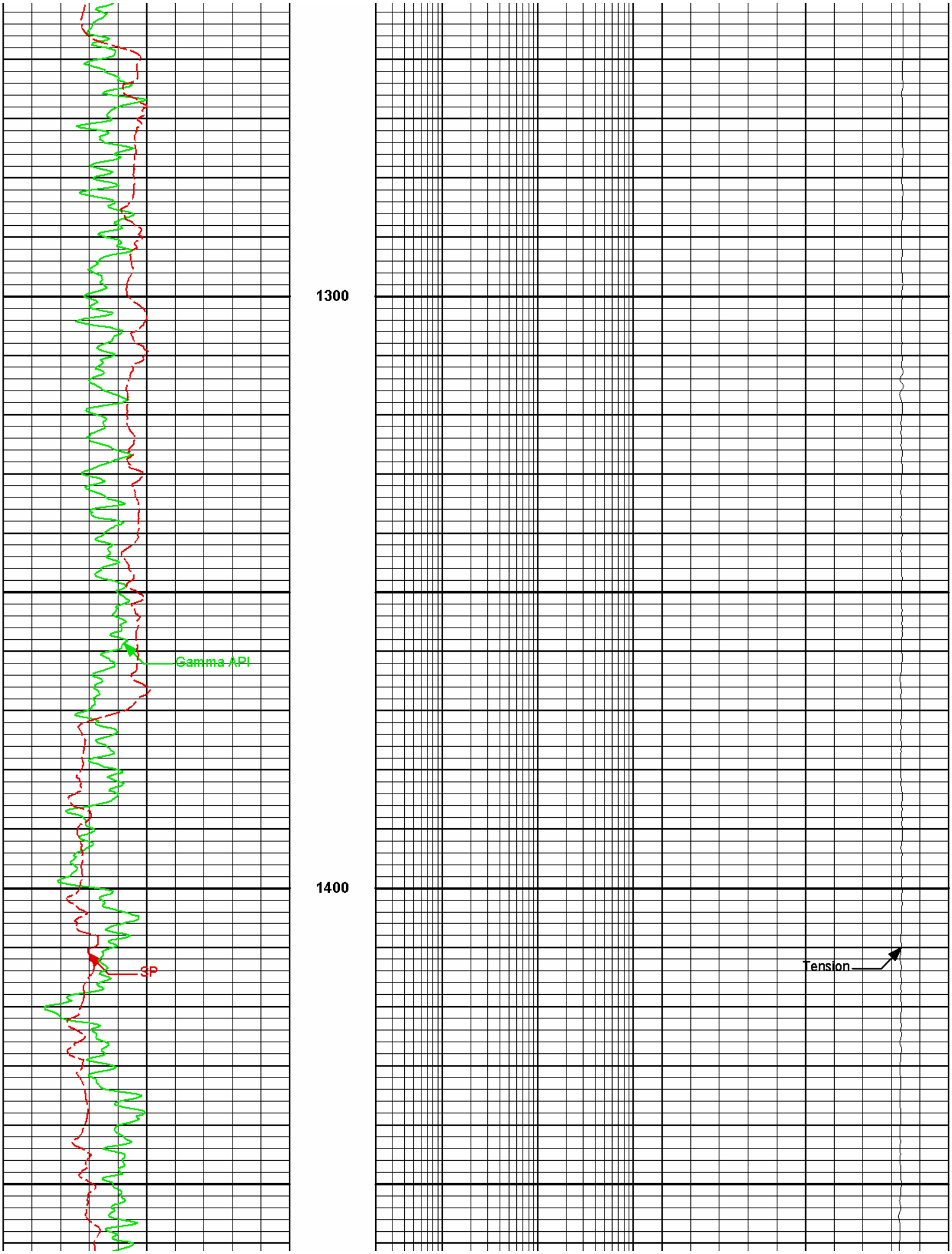
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SP
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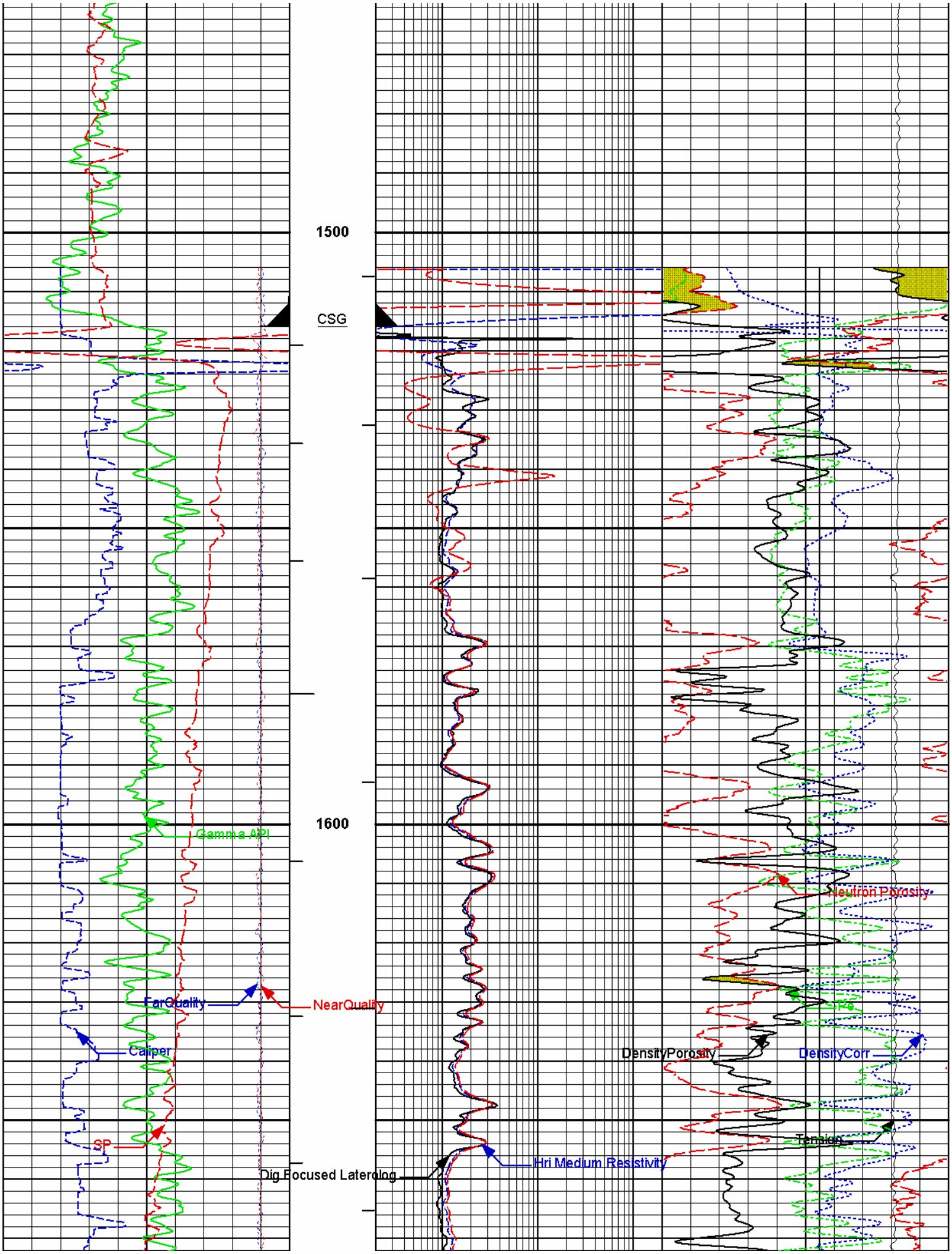
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CSG
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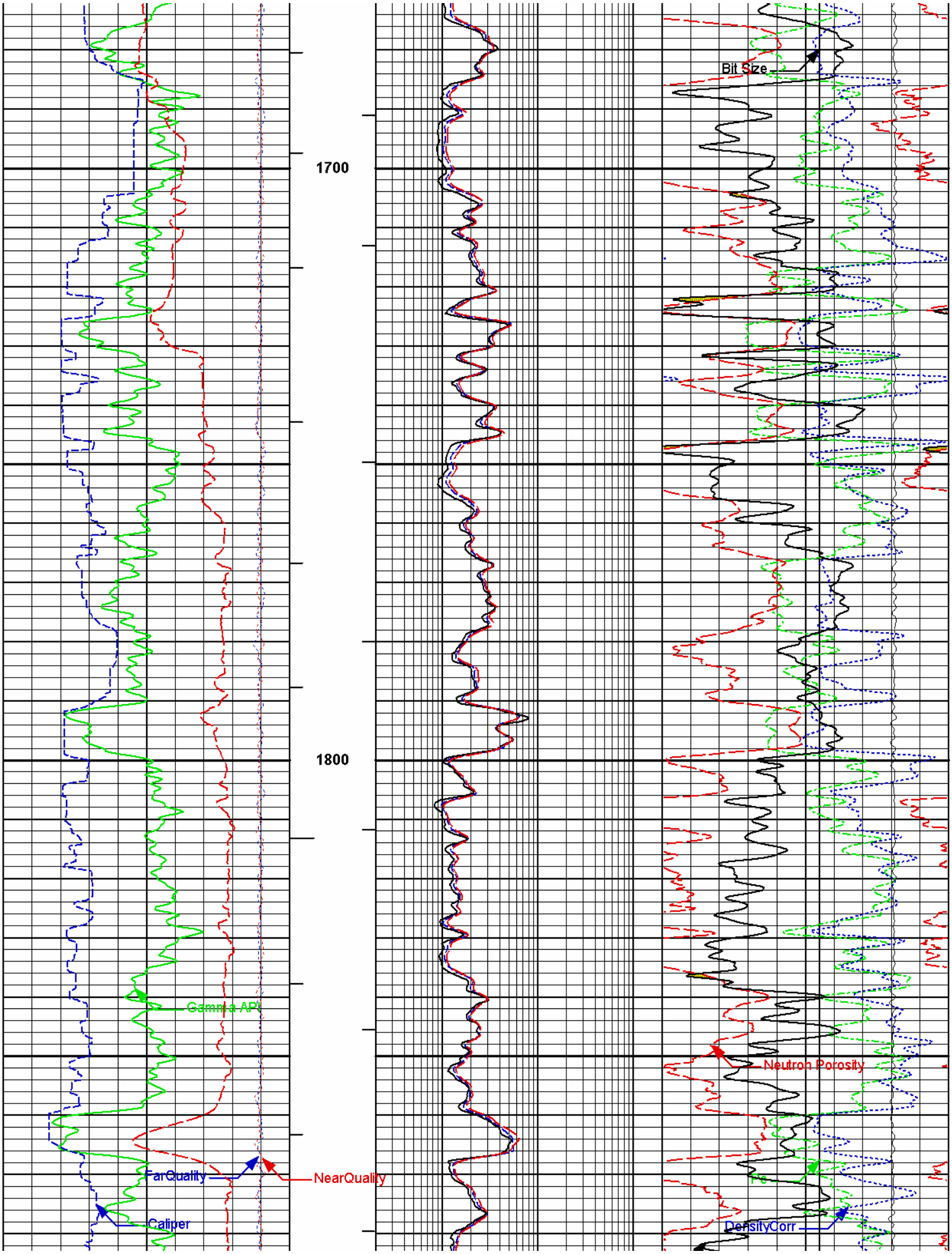
NearQuality
Caliper
SP
Dig Focused Laterolog
Hri Medium Resistivity
Neutron Porosity
DensityPorosity
DensityCorr
Tension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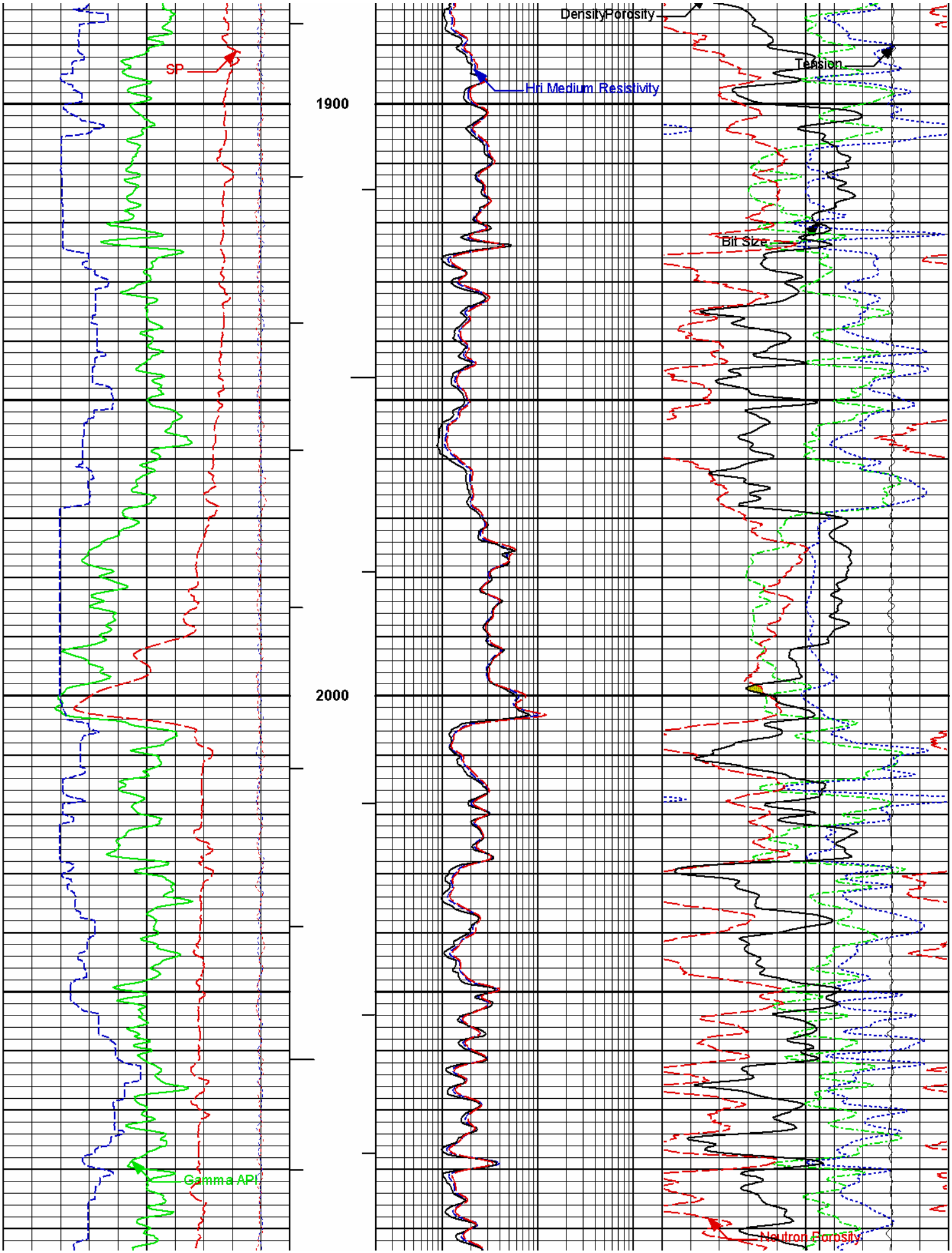
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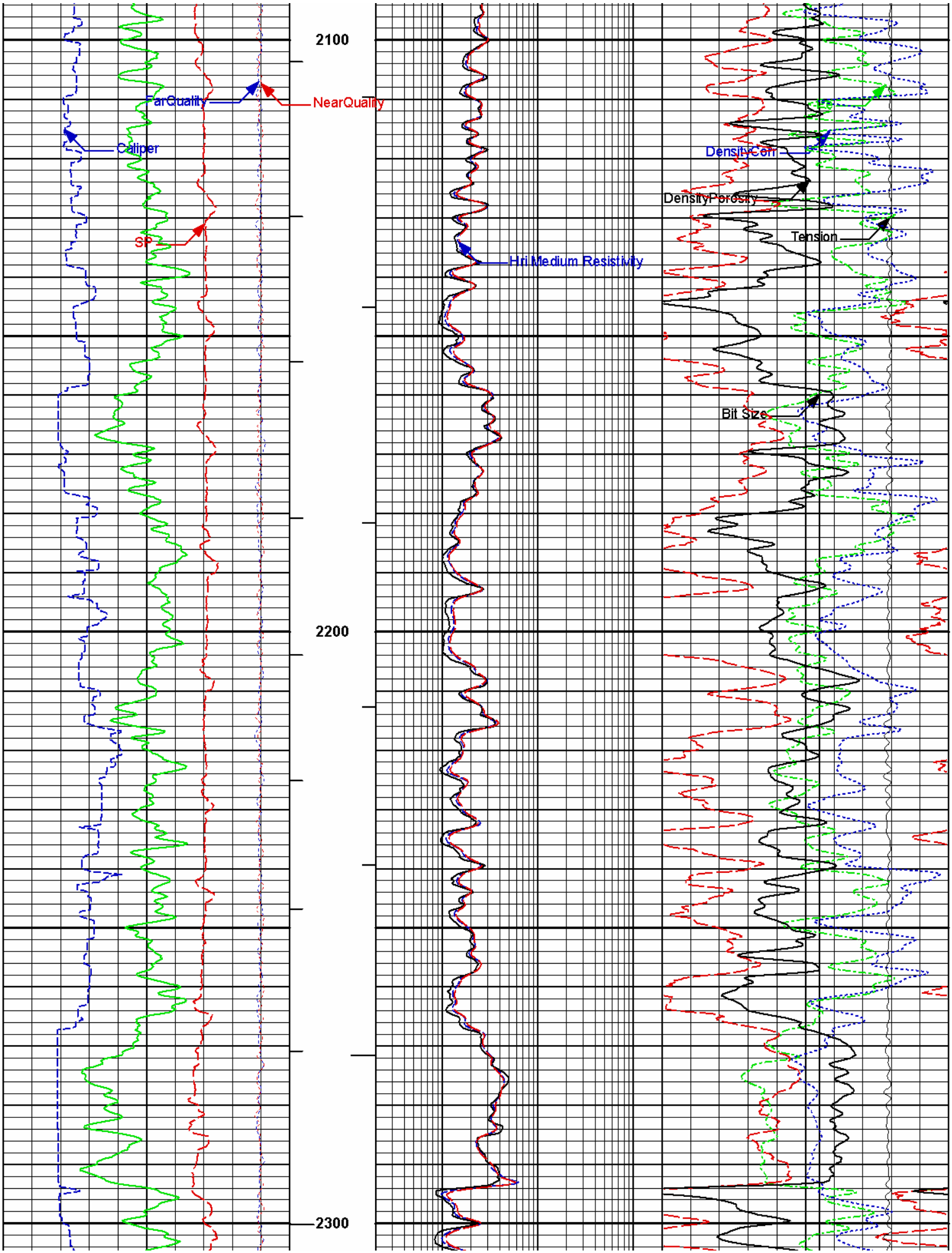
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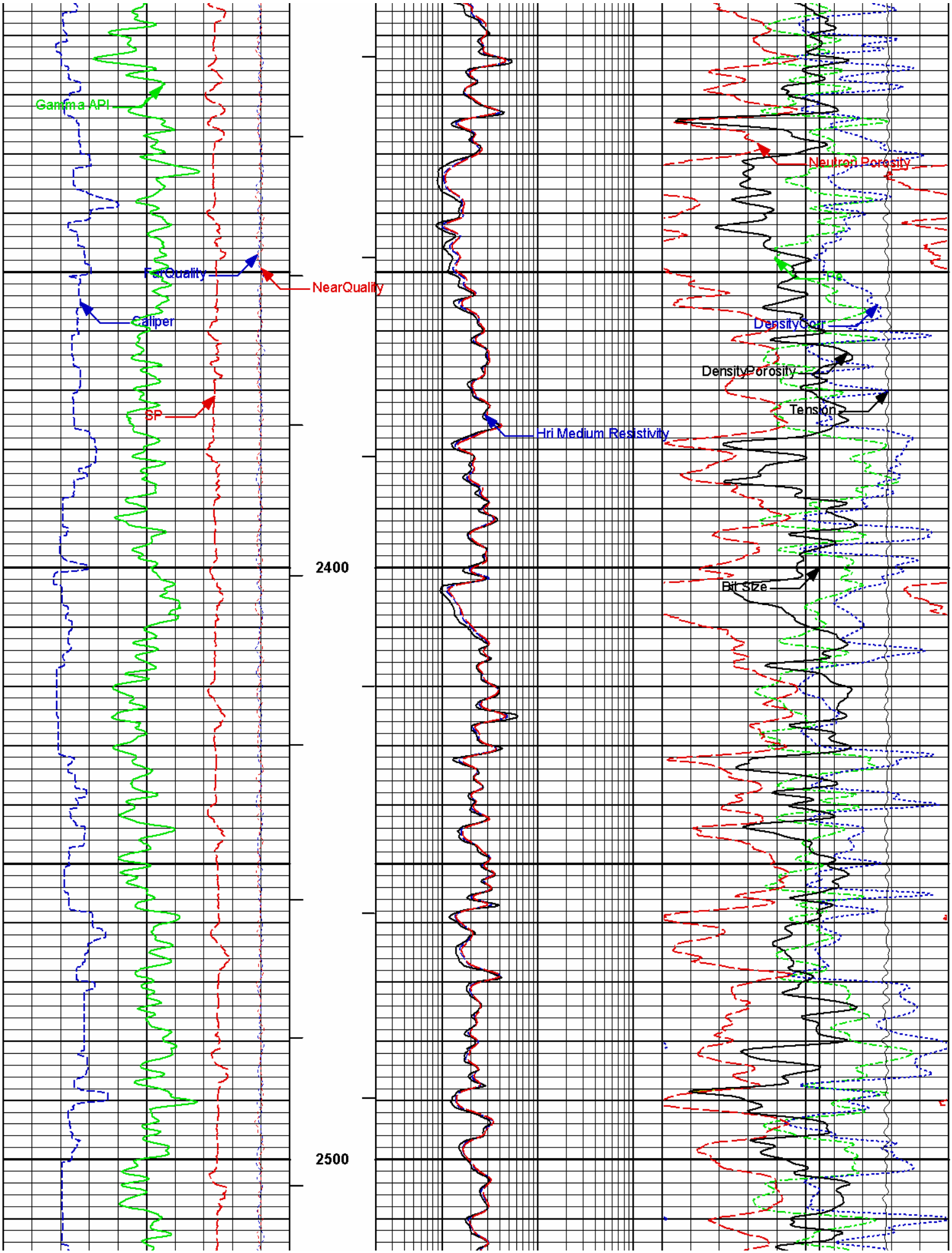
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Tension
Bit Size
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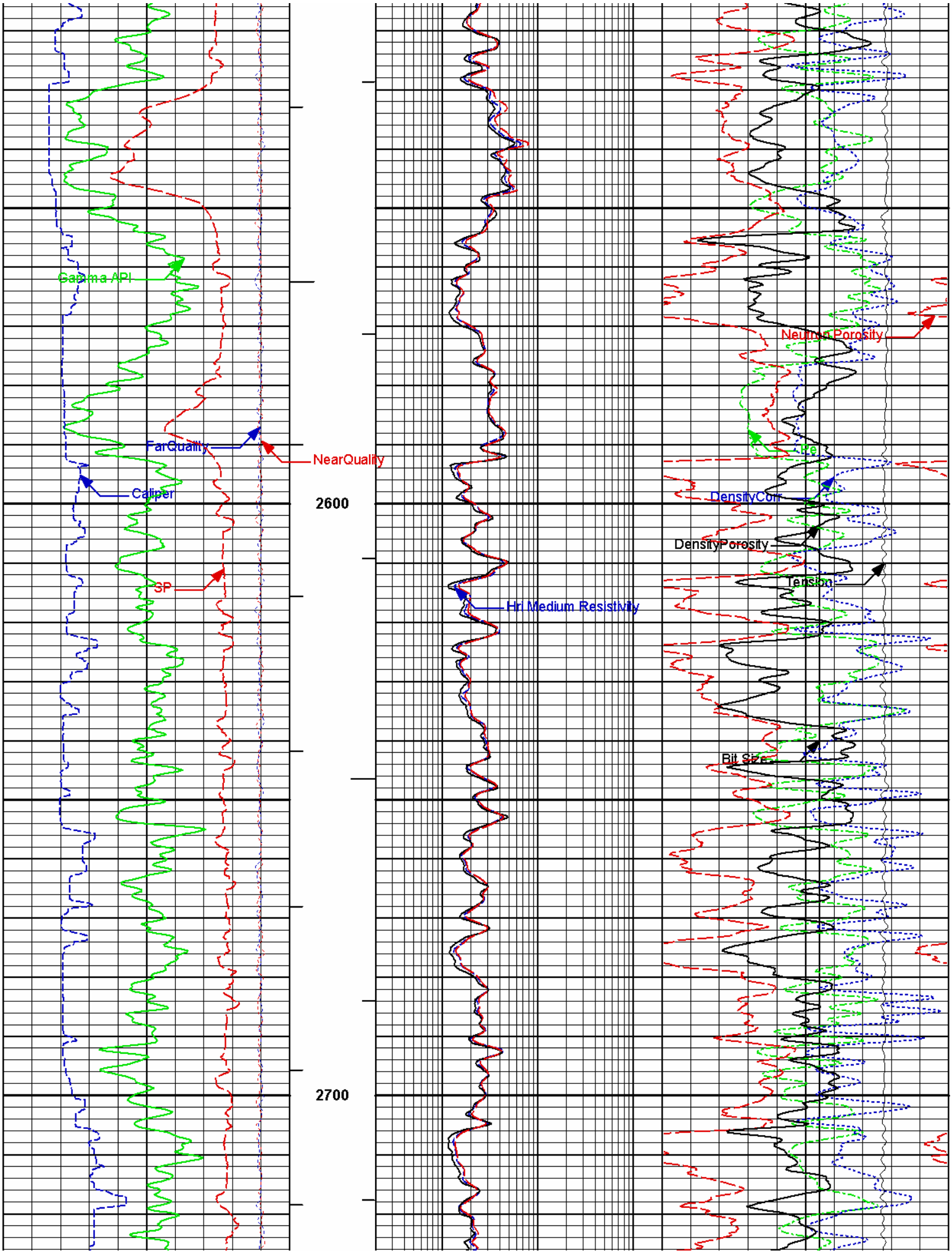
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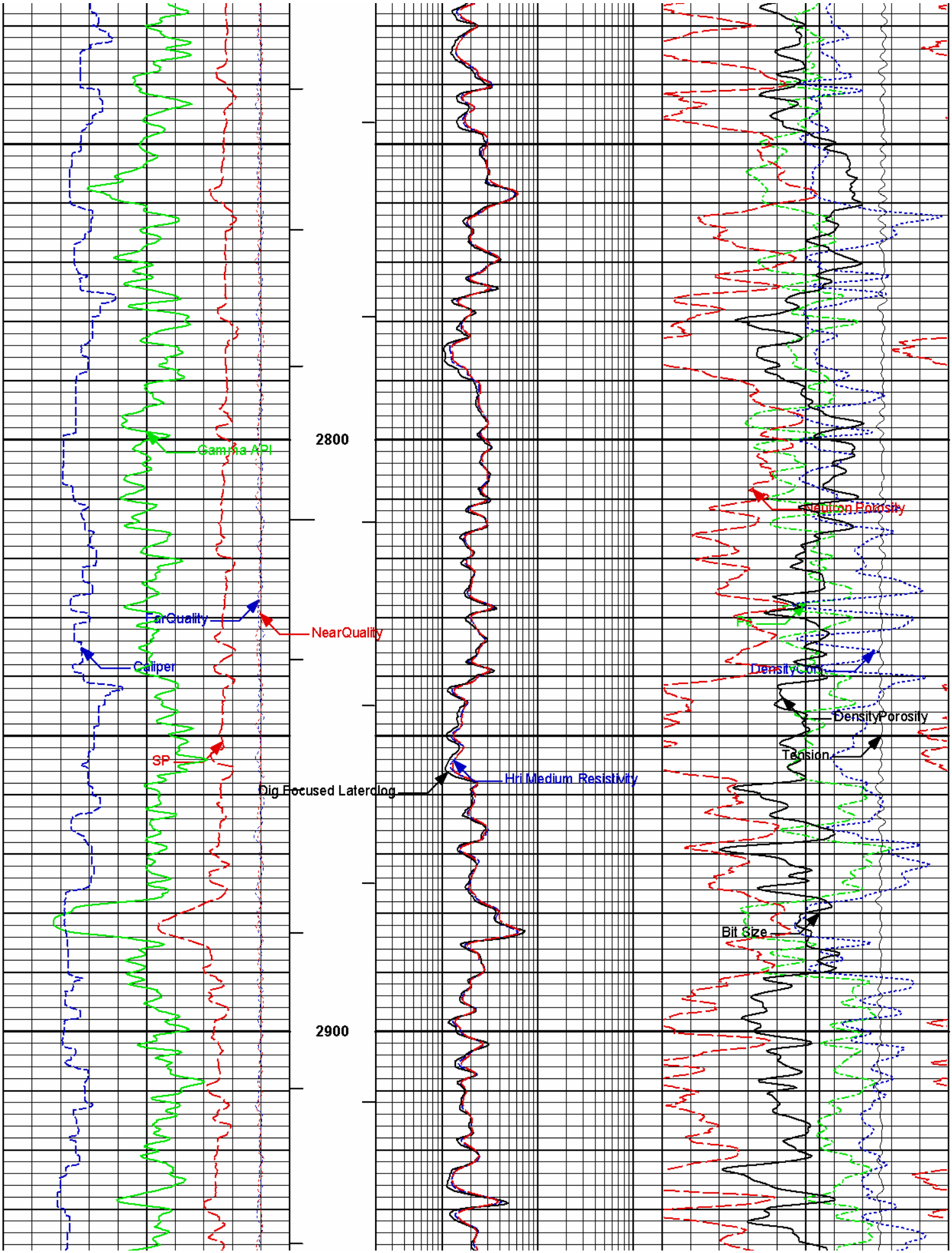
DensityCorr
DensityPorosity
Tension
Bit Size


2800
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Gamma API
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Caliper
SP
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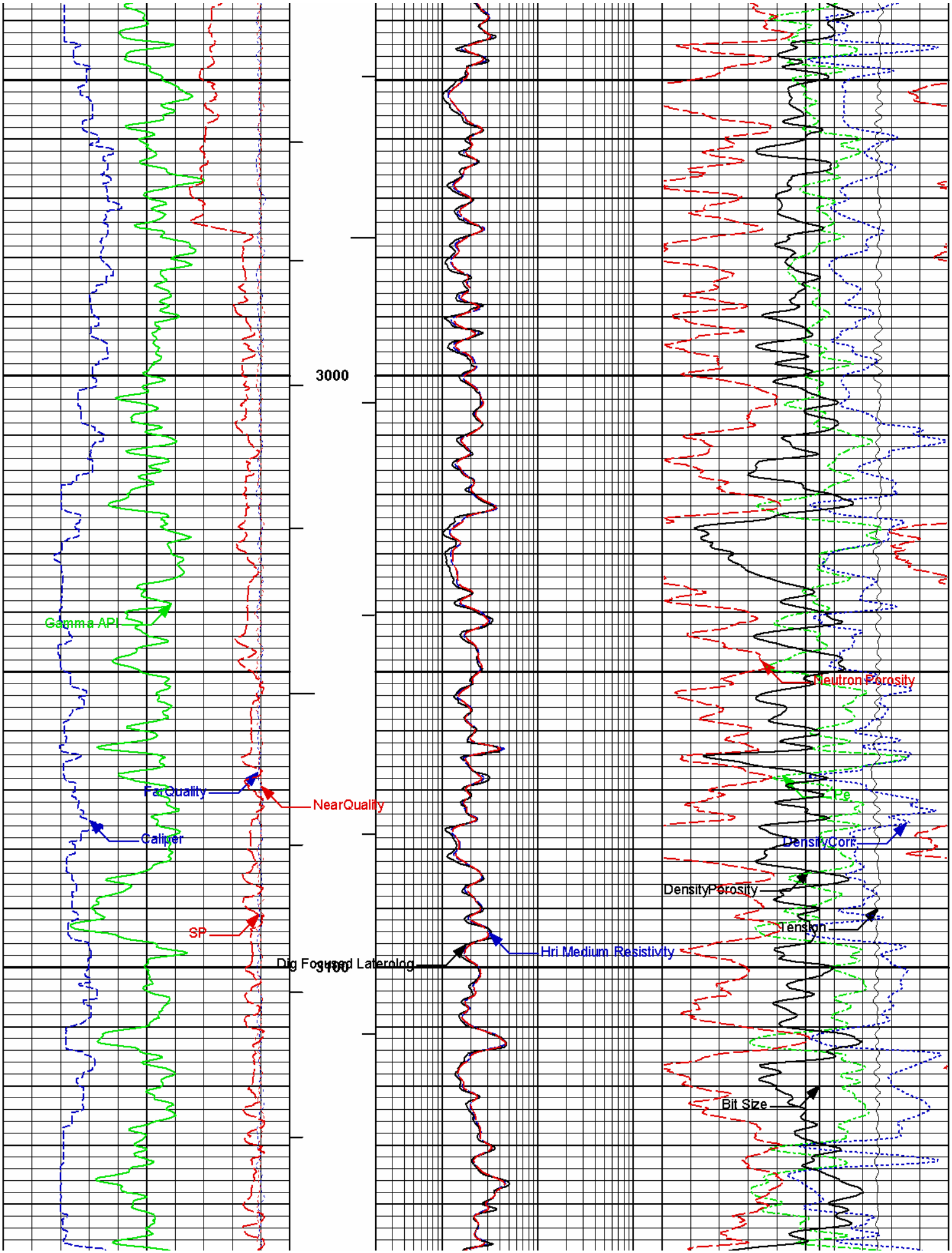
Neutron Porosity
DensityCorr
DensityPorosity
Tension
Bit Size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Gamma API
FarQuality
NearQuality
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SP
Dig Focused Laterolog
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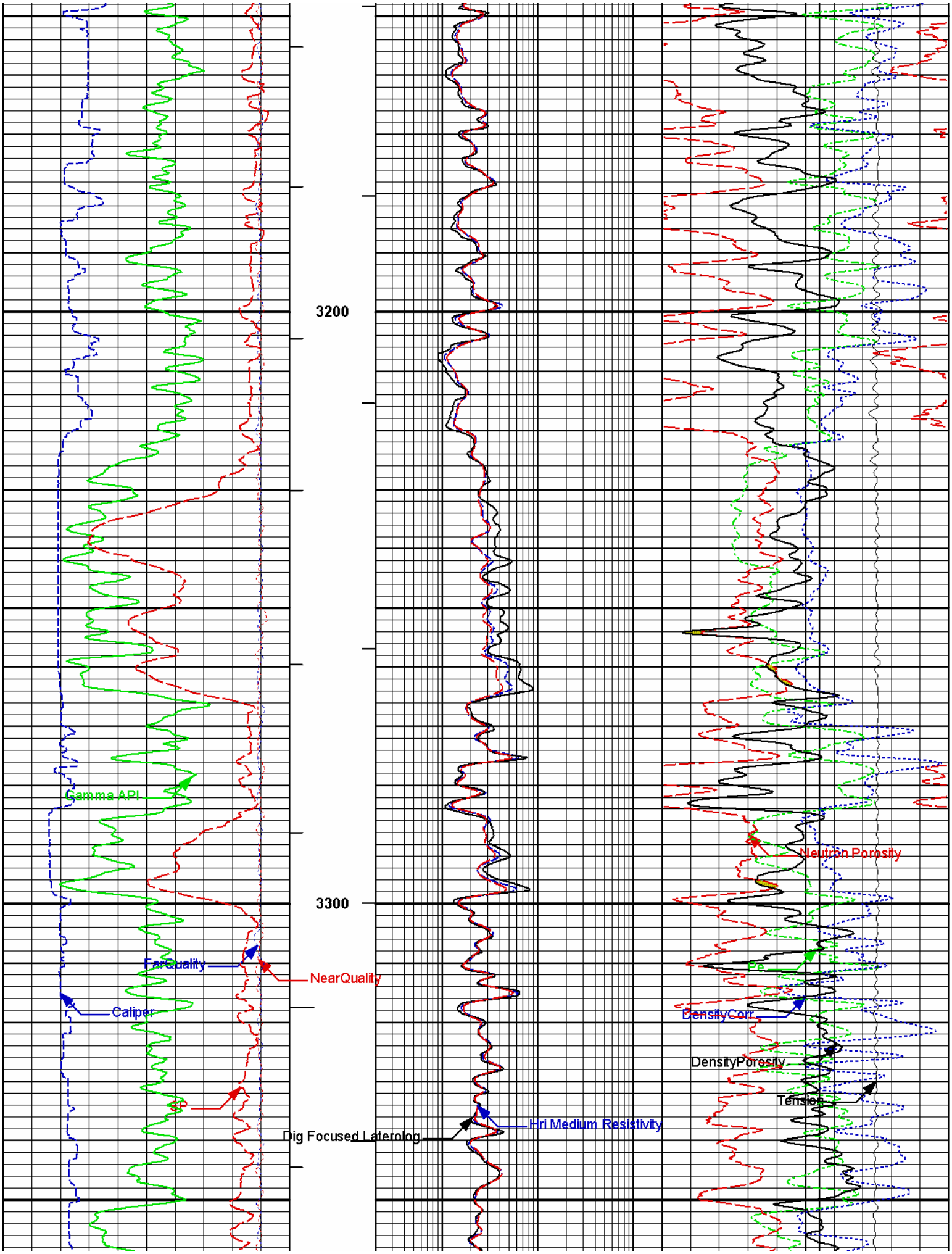
Neutron Porosity
Pe
DensityCorr
DensityPorosity
Tension
Bit Size


3200
3300
Gamma API
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Caliper
SP
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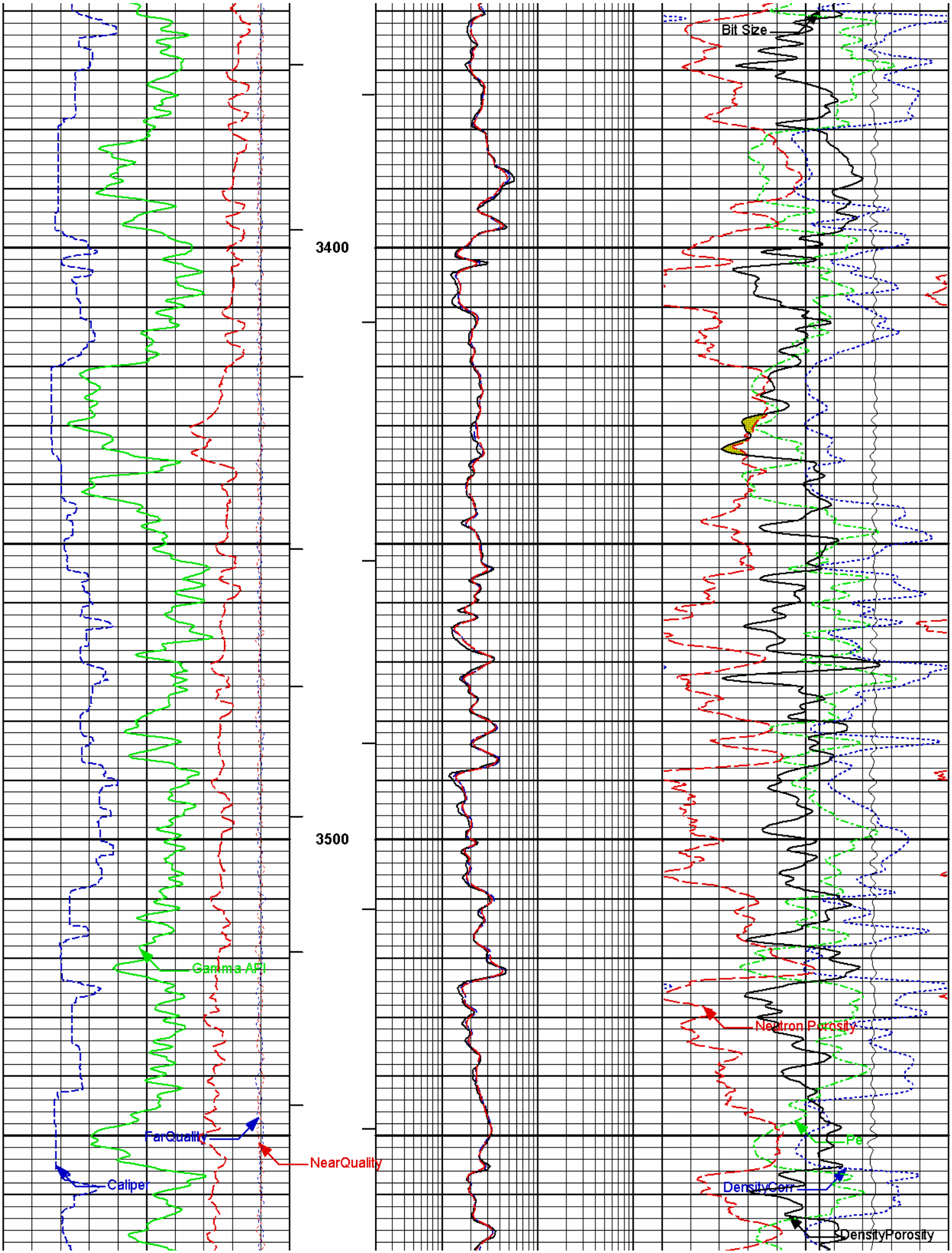
Hri Medium Resistivity
Neutron Porosity
Pe
DensityCorr
DensityPorosity
Tension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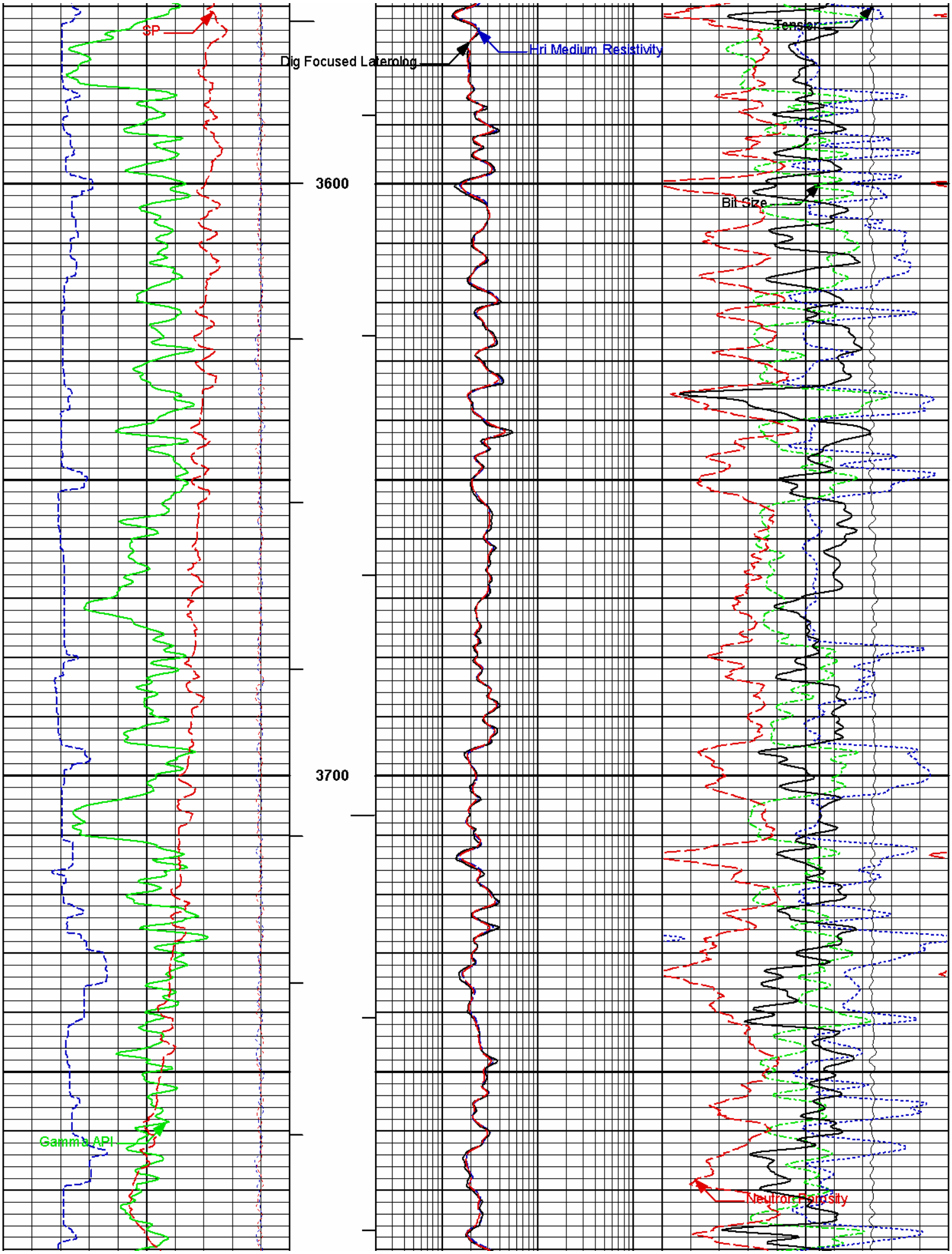
NearQuality
Caliper
Neutron Porosity
Pe
DensityCorr
DensityPorosity


SP
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Tension
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Bit Size
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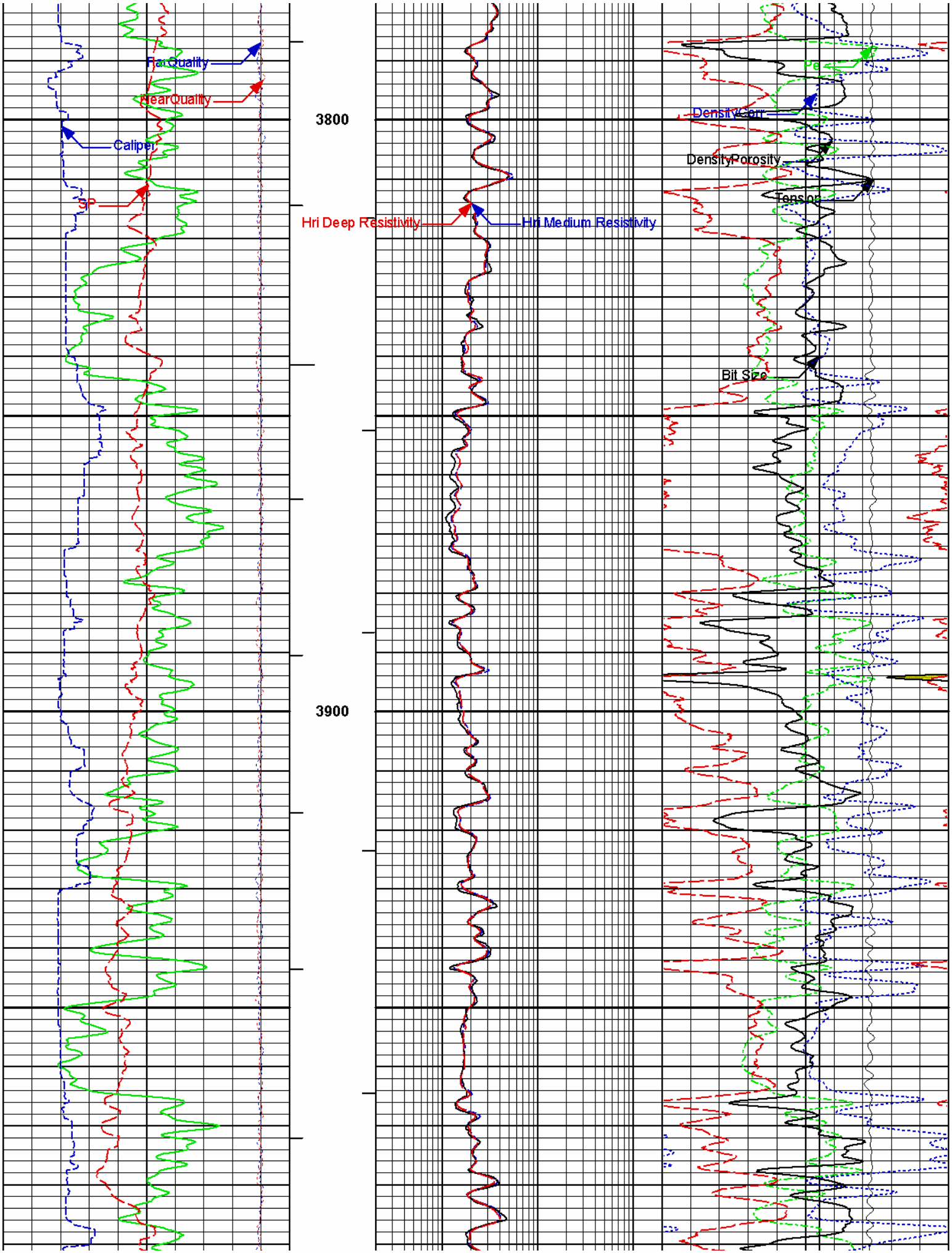
Gamma API
Neutron Porosity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Caliper
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Hri Deep Resistivity
Hri Medium Resistivity
Pe
DensityCorr
DensityPorosity
Tension
Bit Size
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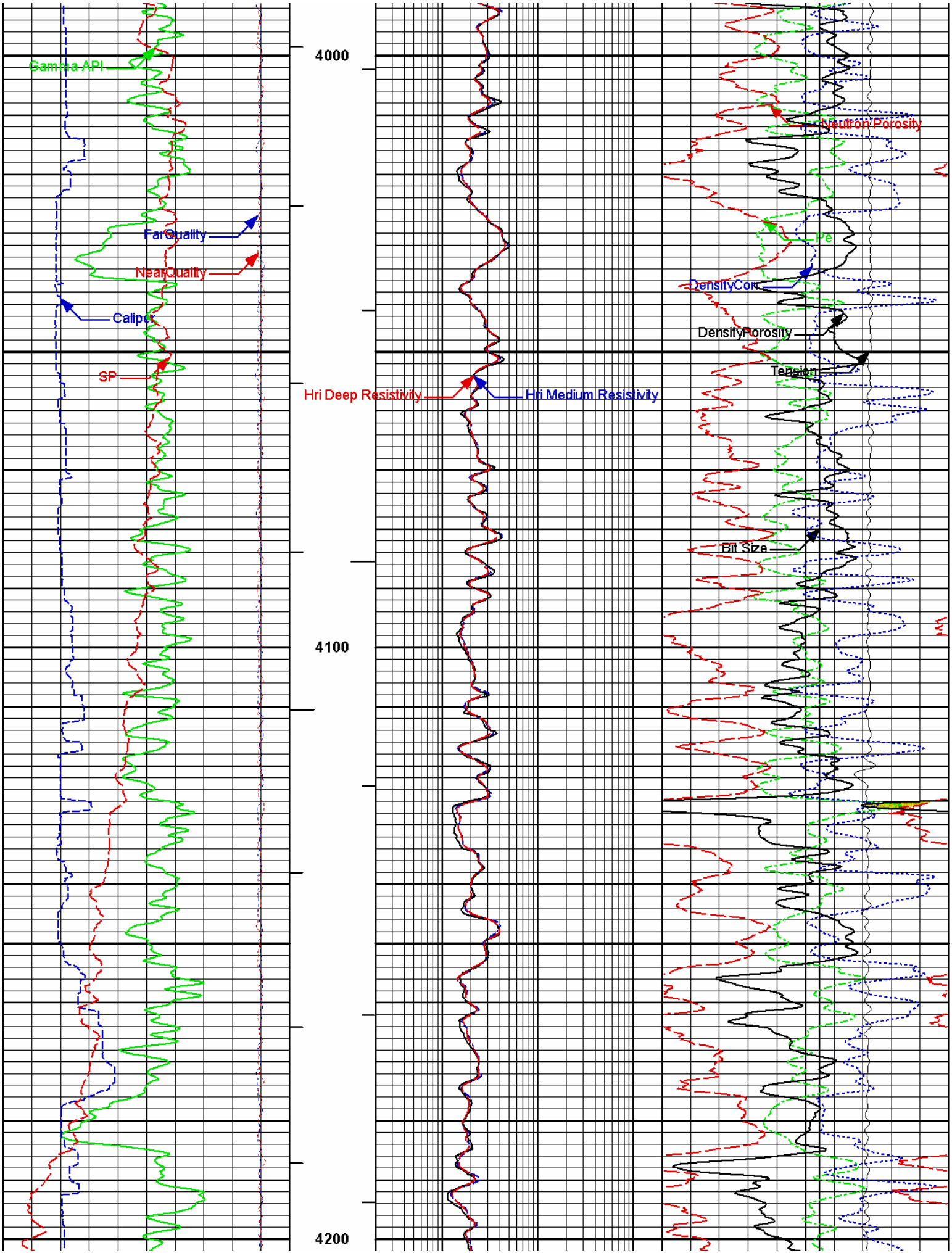
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Caliper
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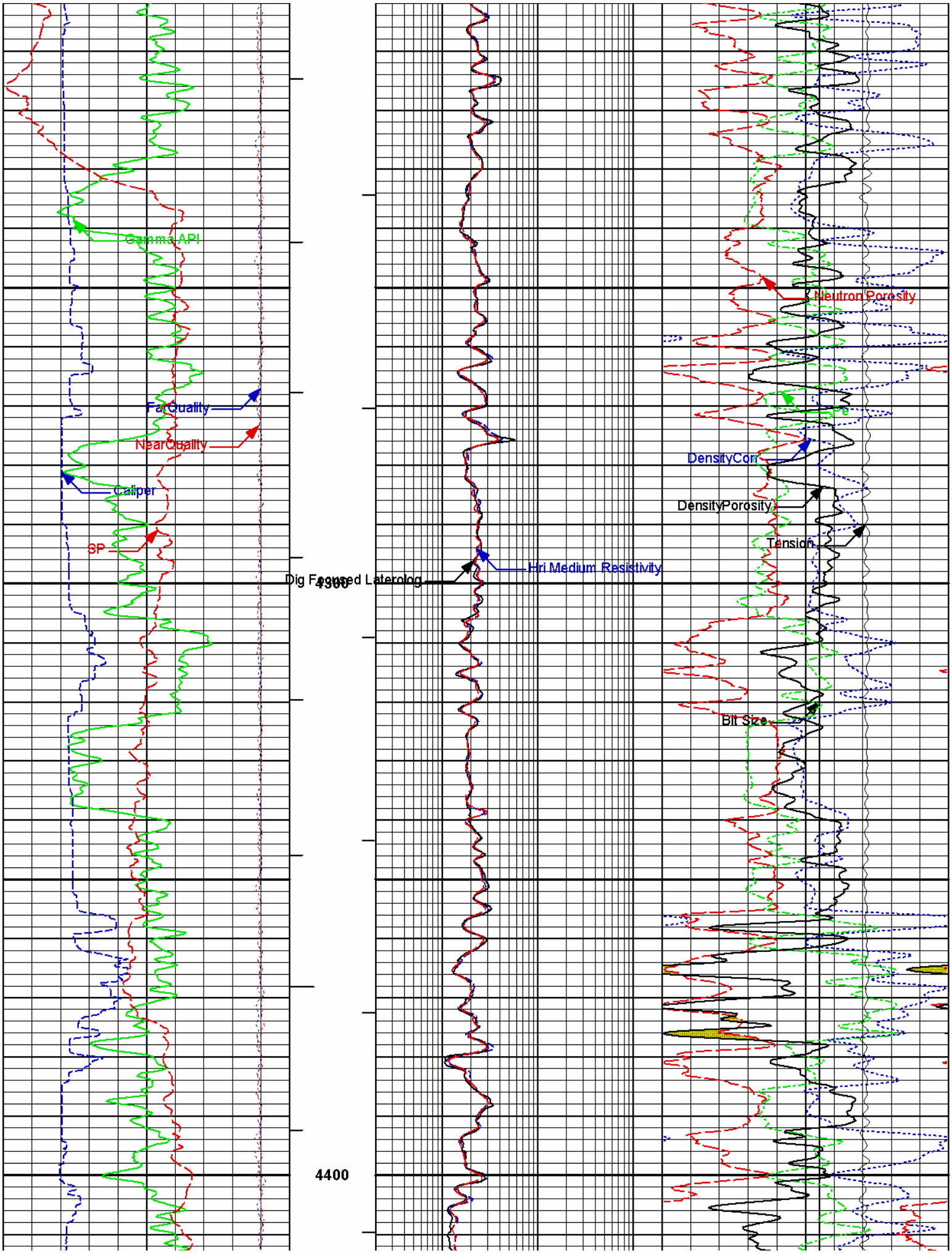
Hri Deep Resistivity
Hri Medium Resistivity
Neutron Porosity
Pe
DensityCorr
DensityPorosity
Tension
Bit Size
4100
4200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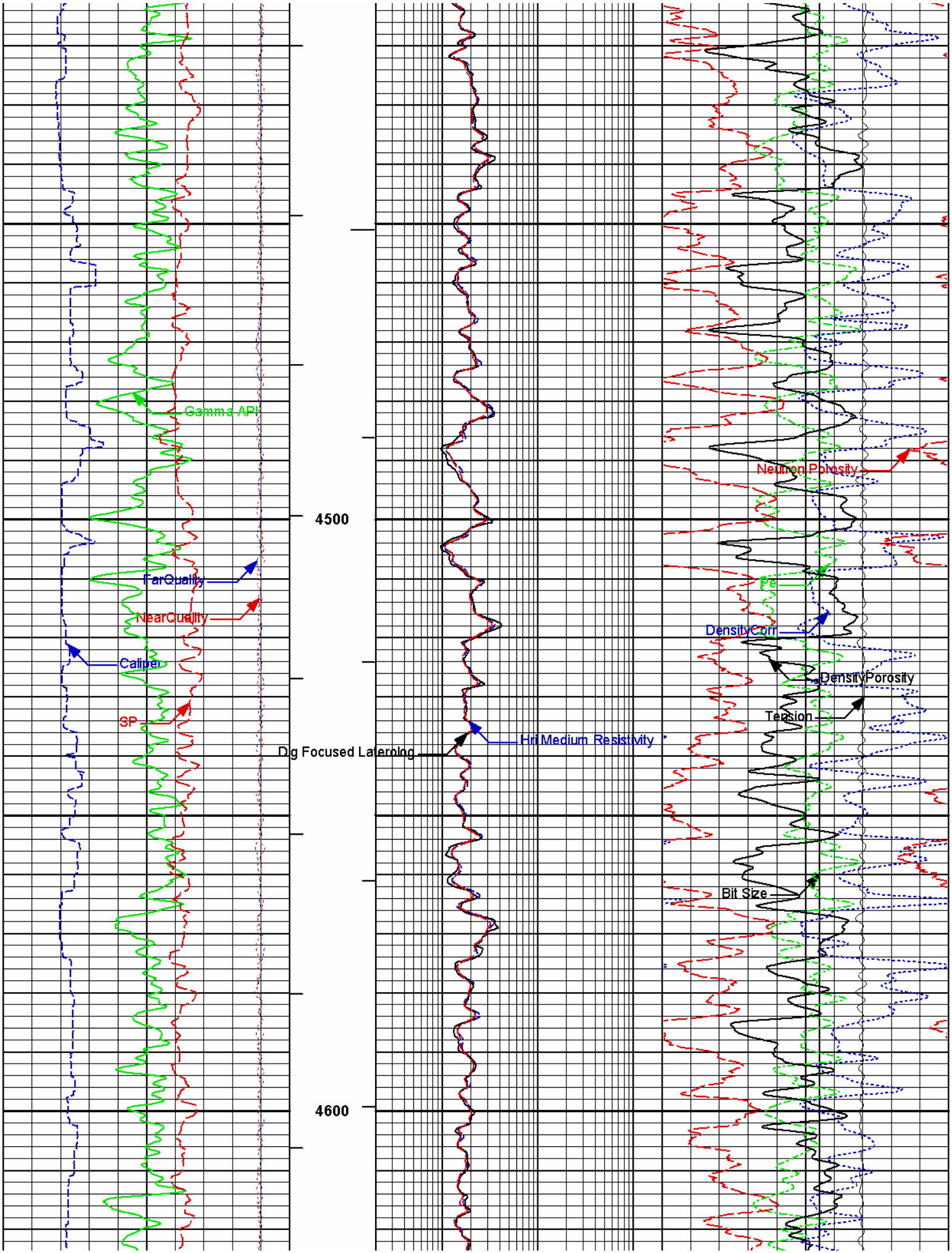
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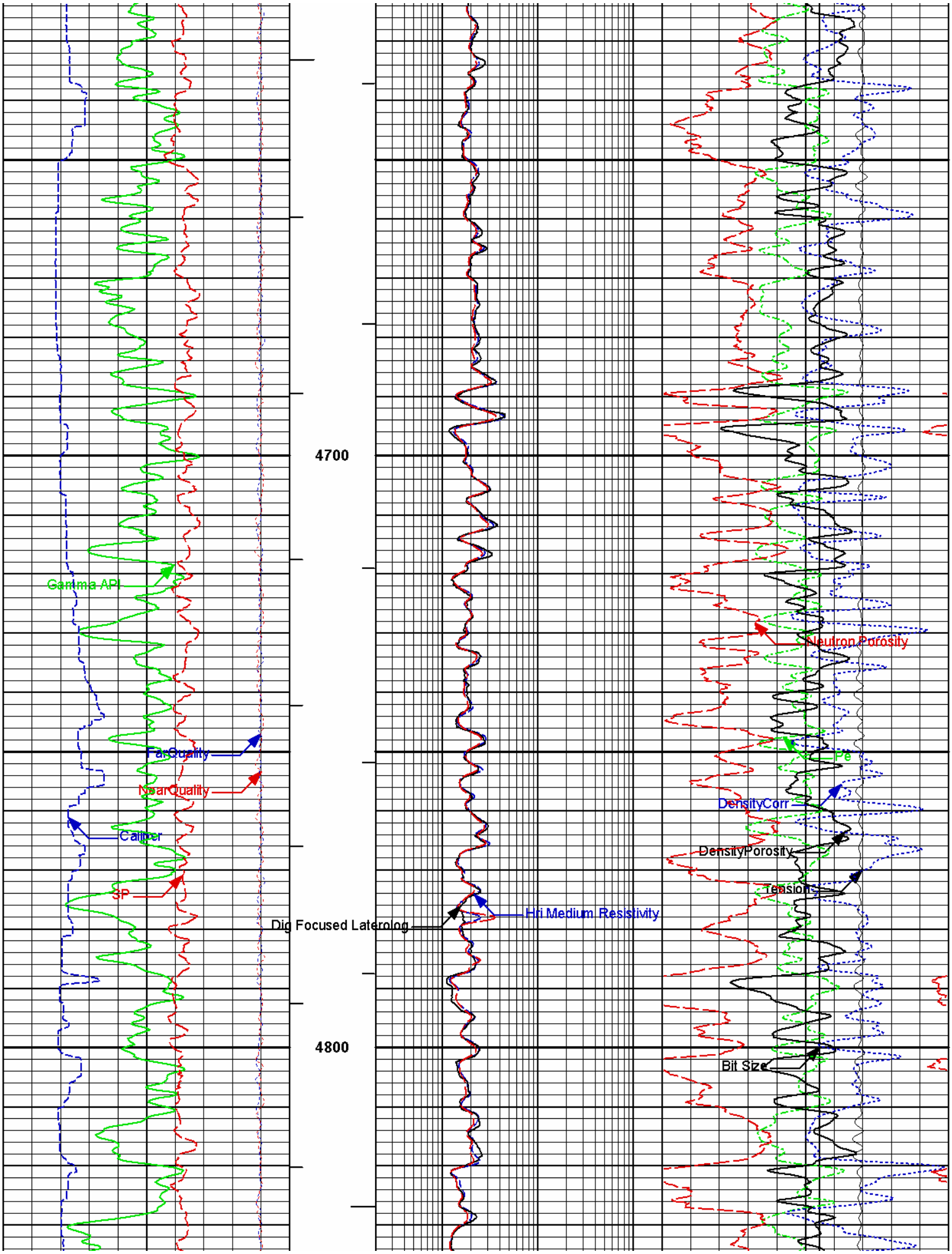
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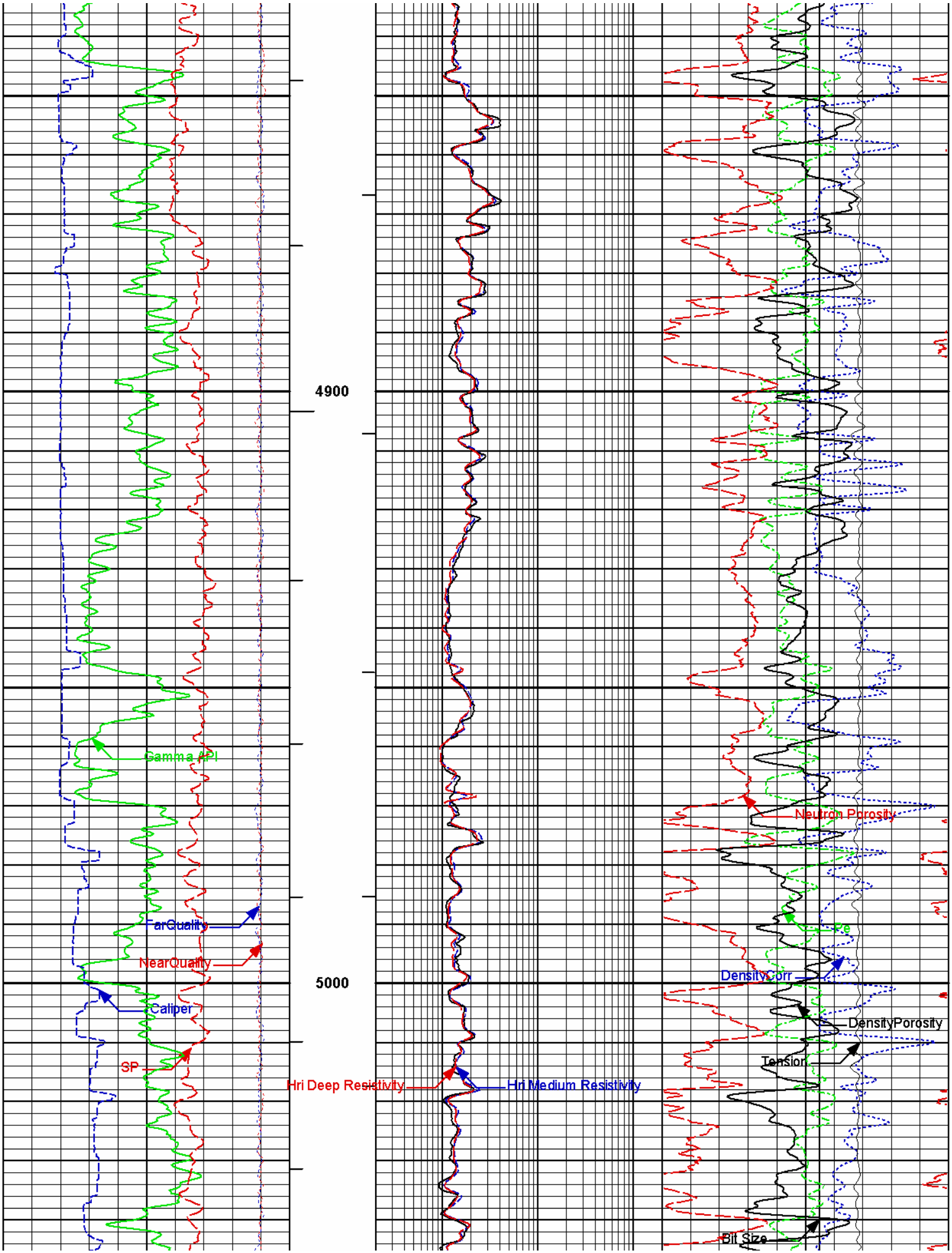
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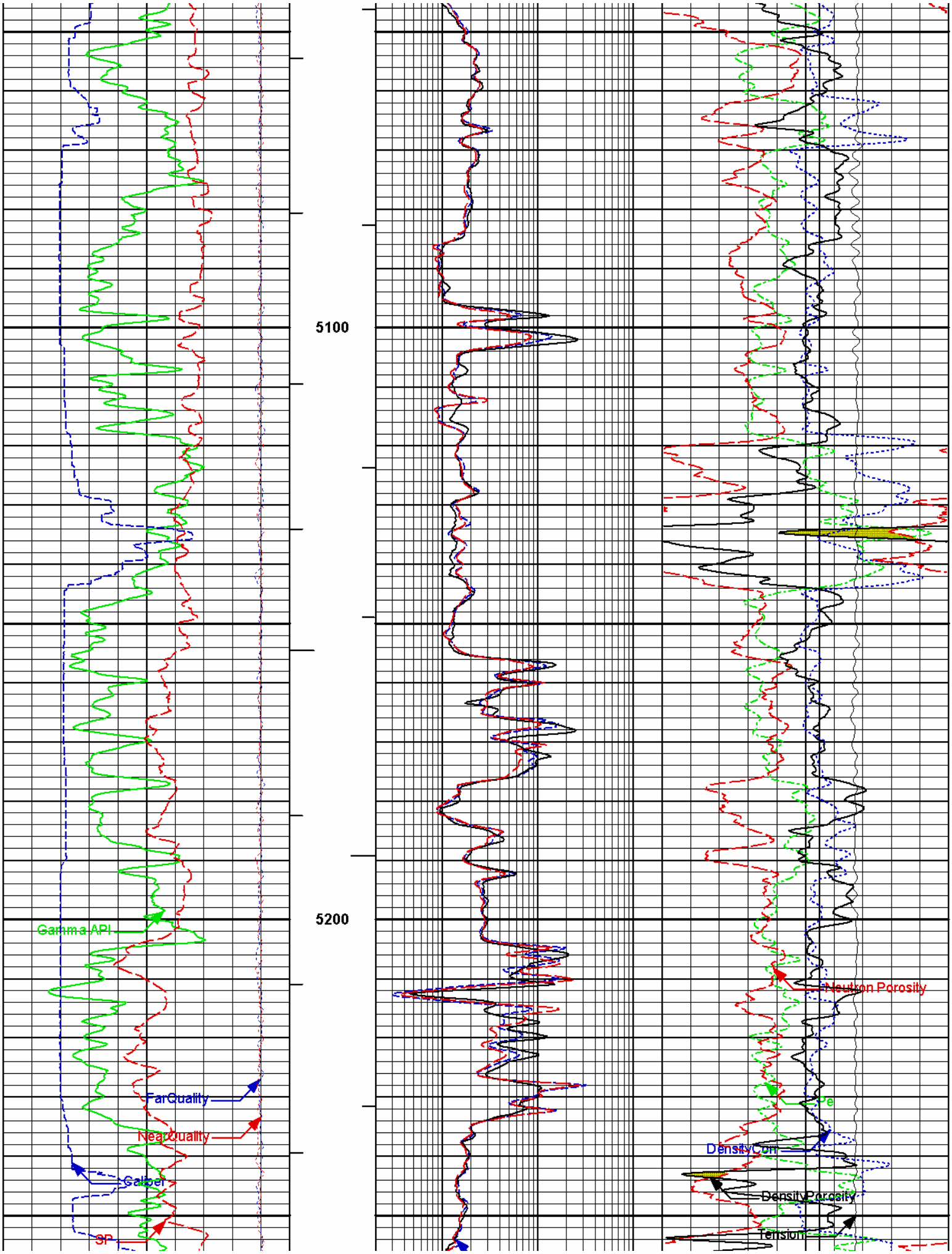
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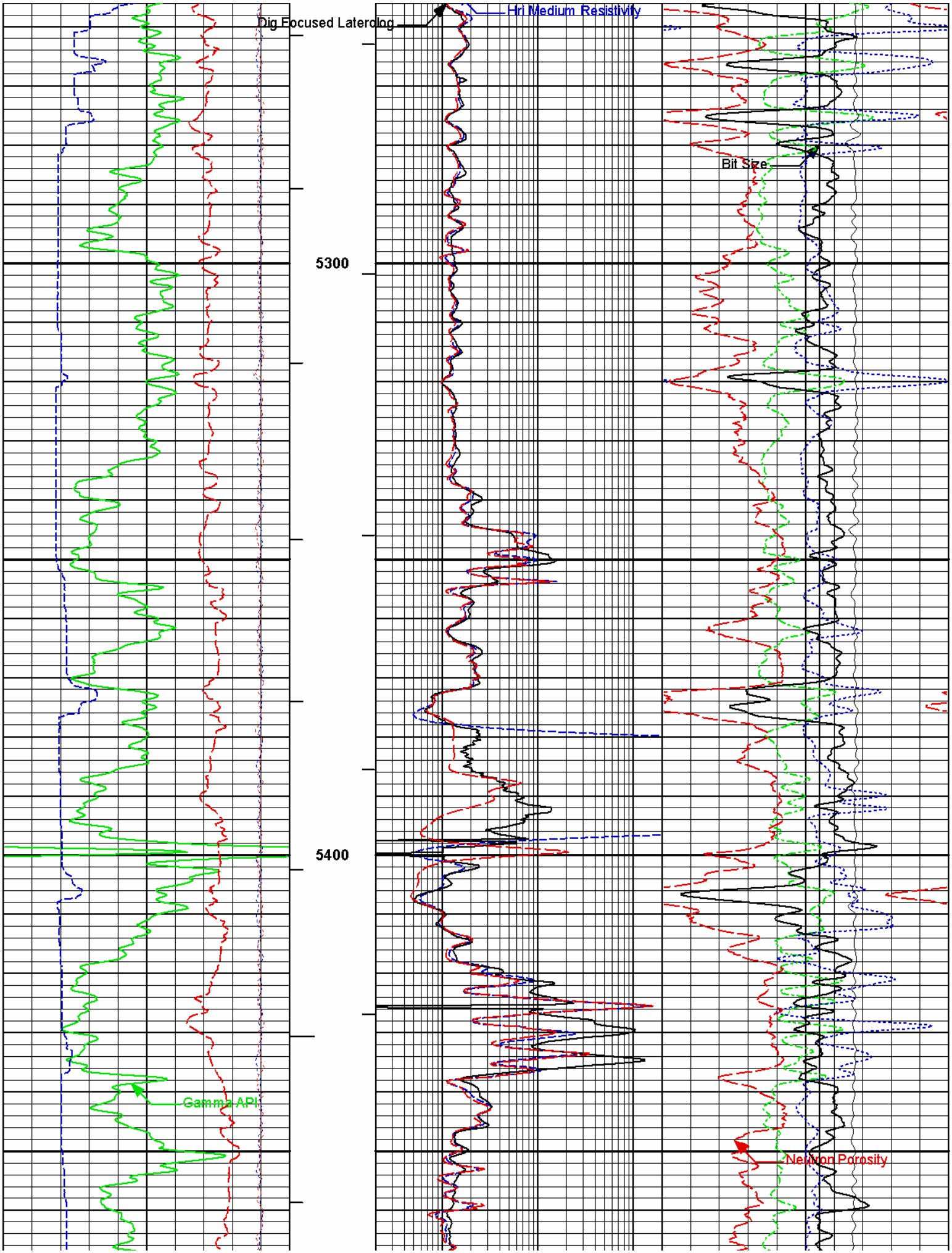
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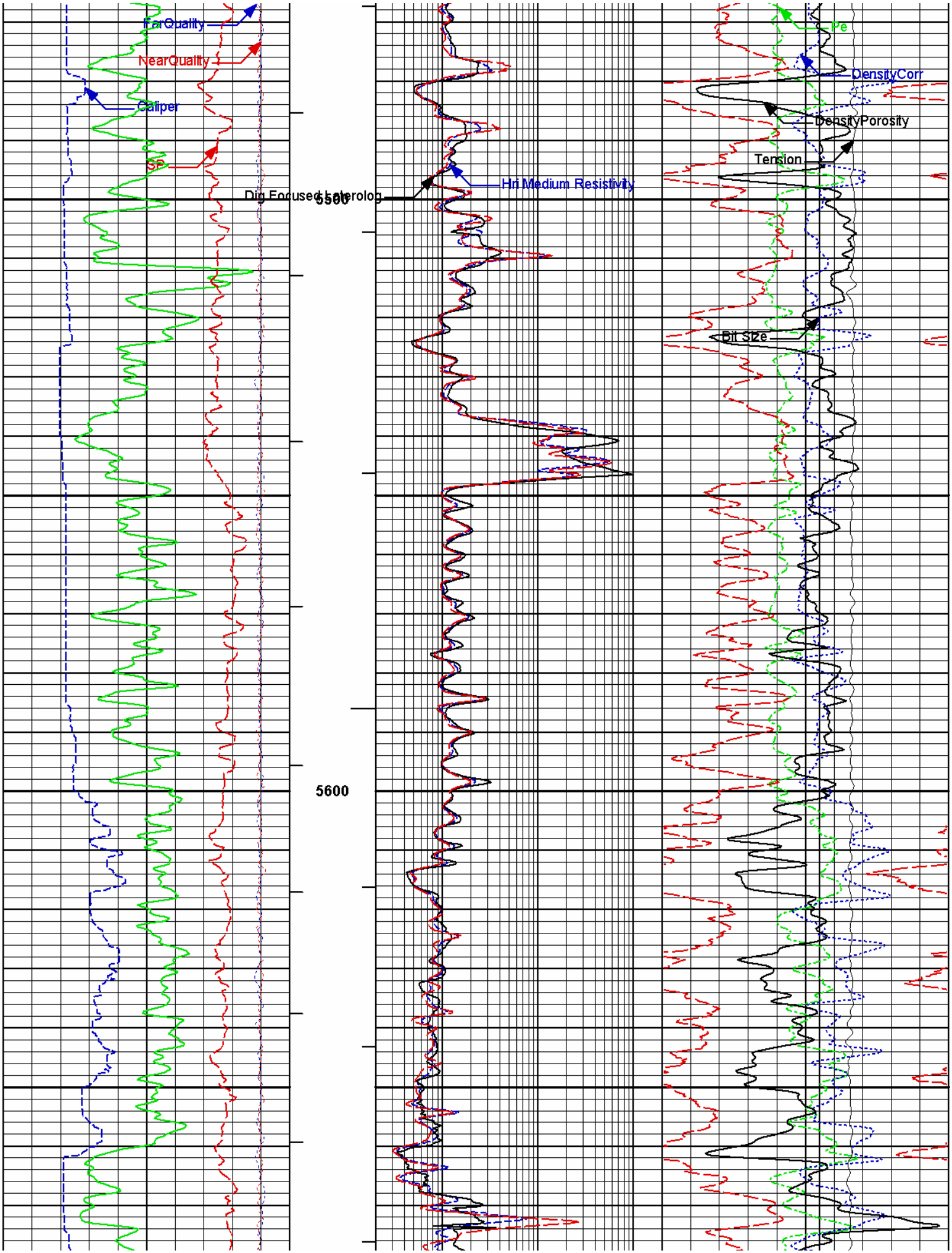
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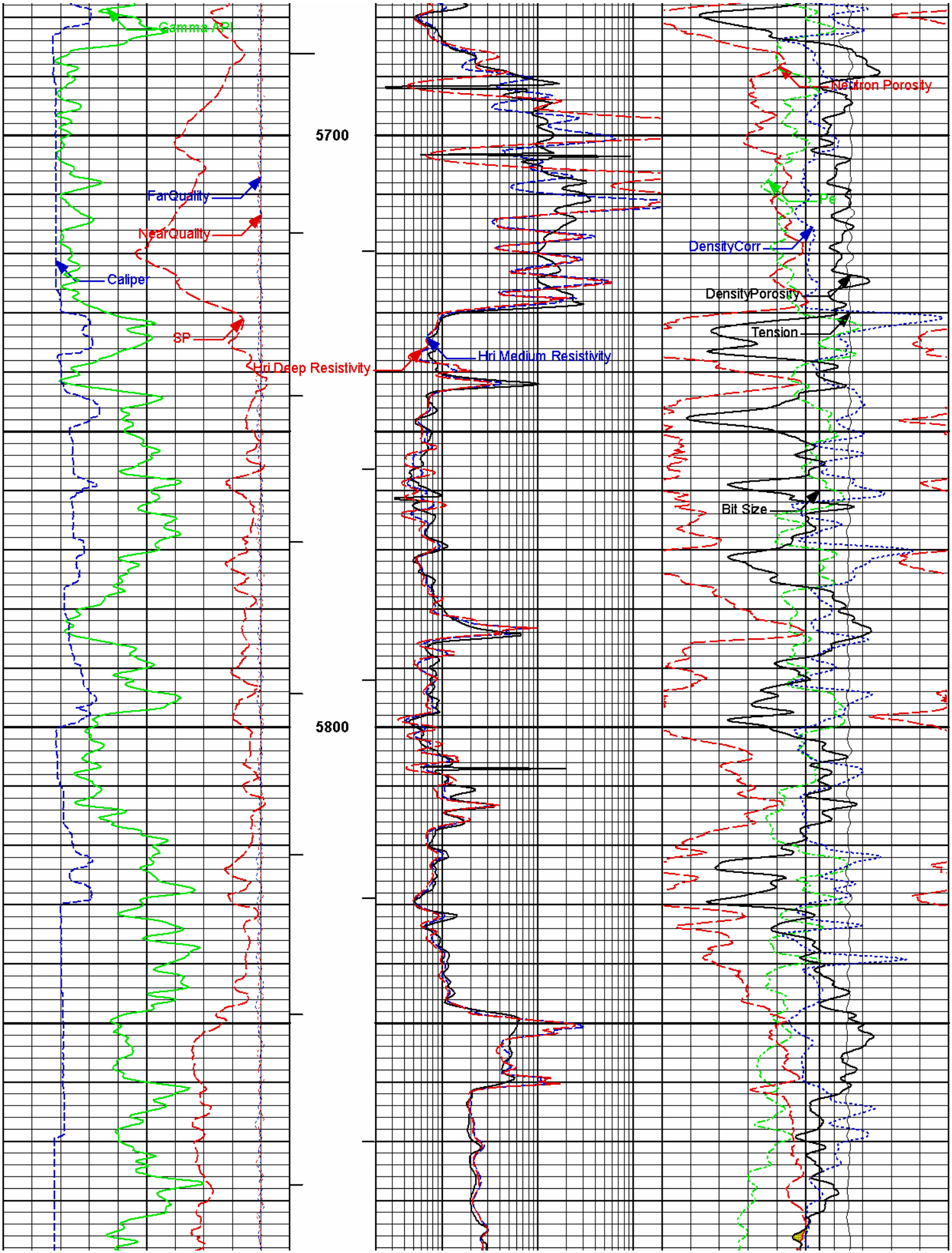
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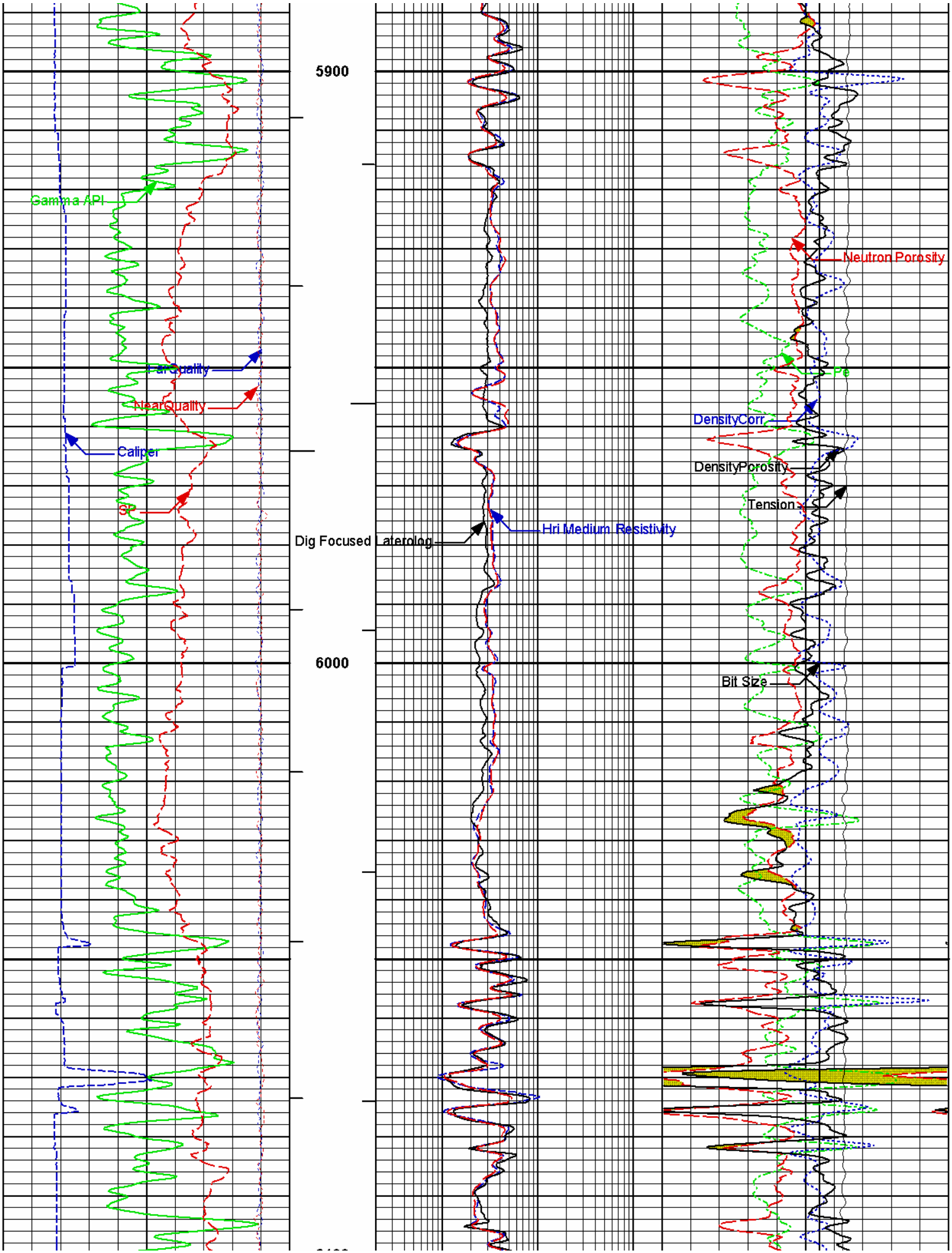
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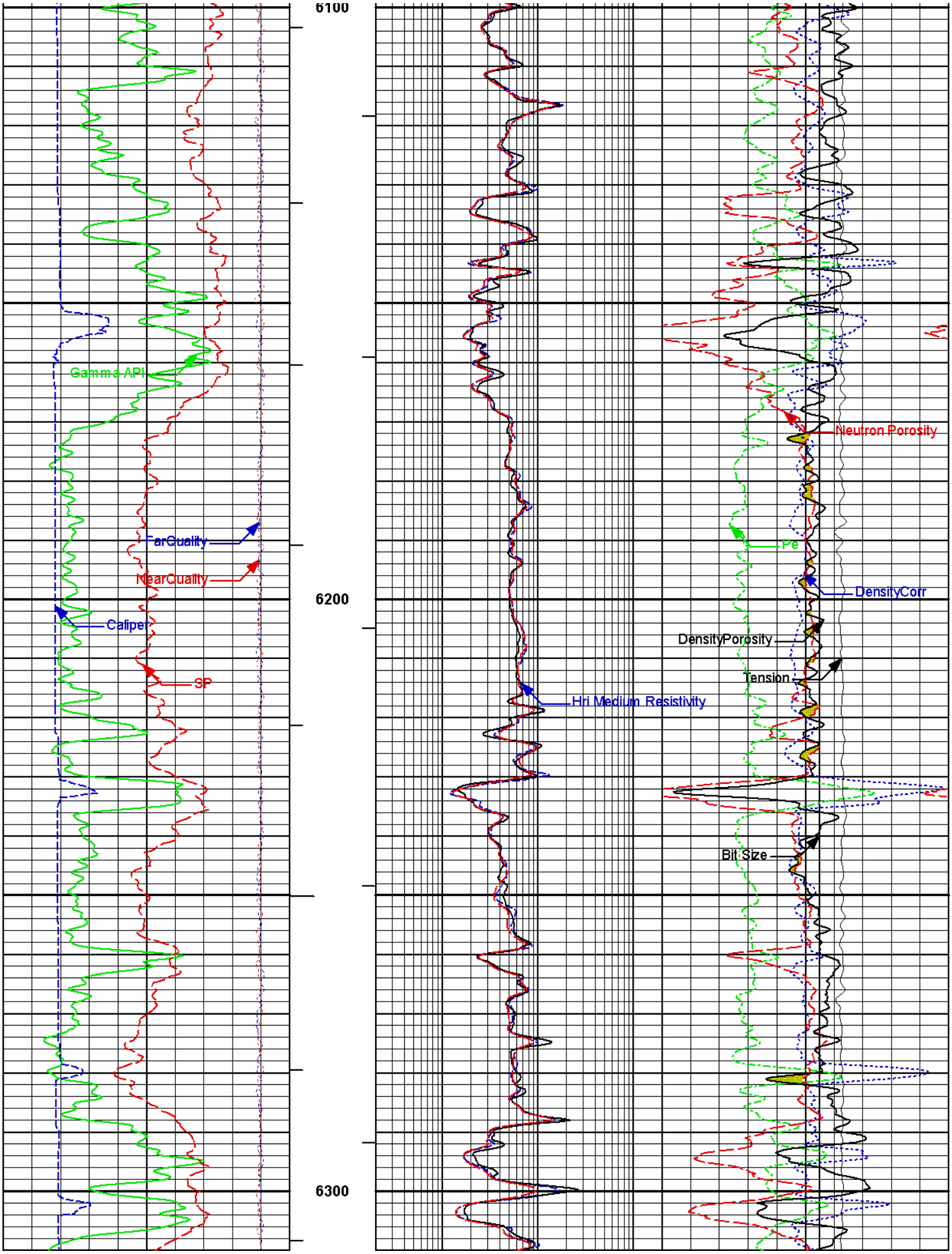
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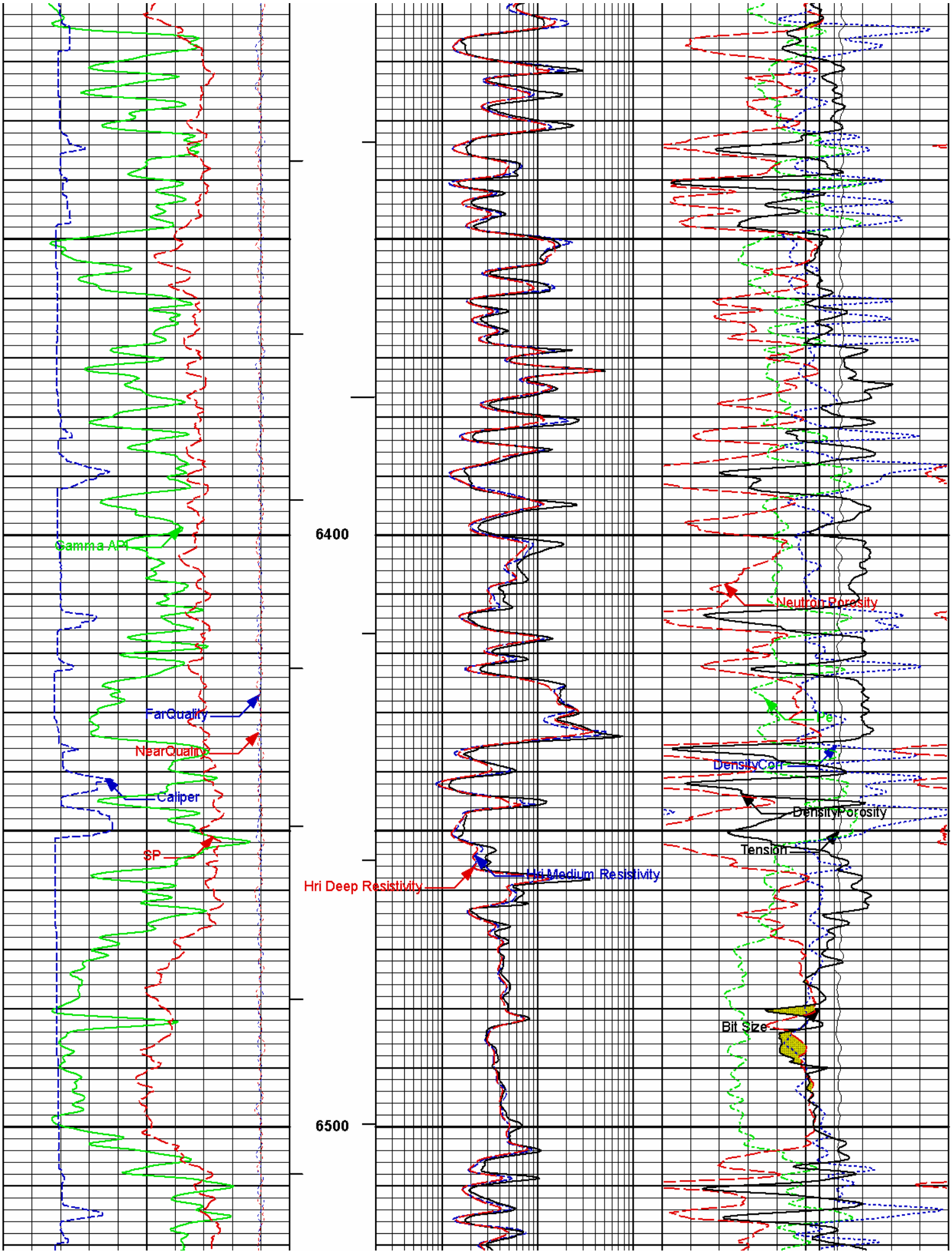
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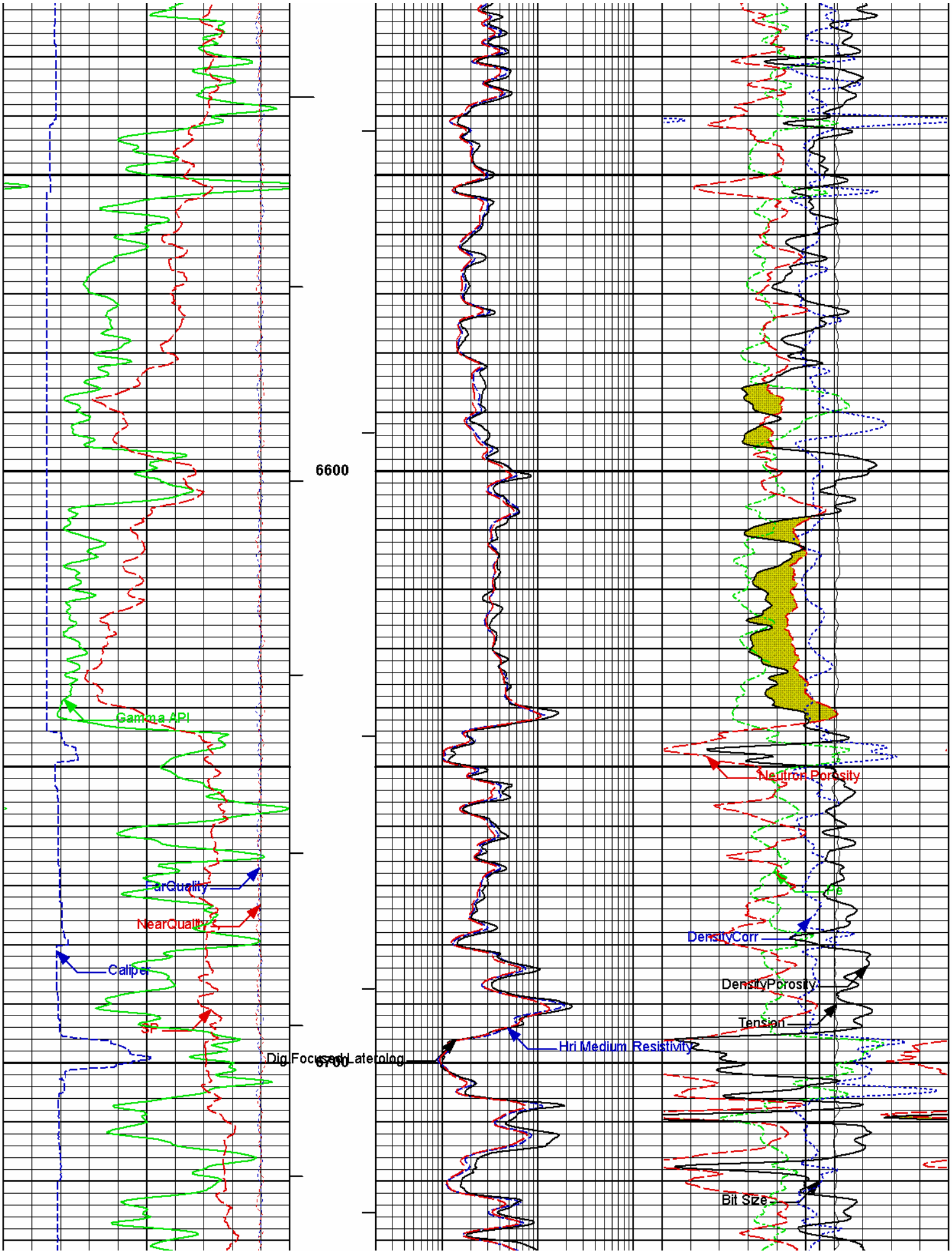
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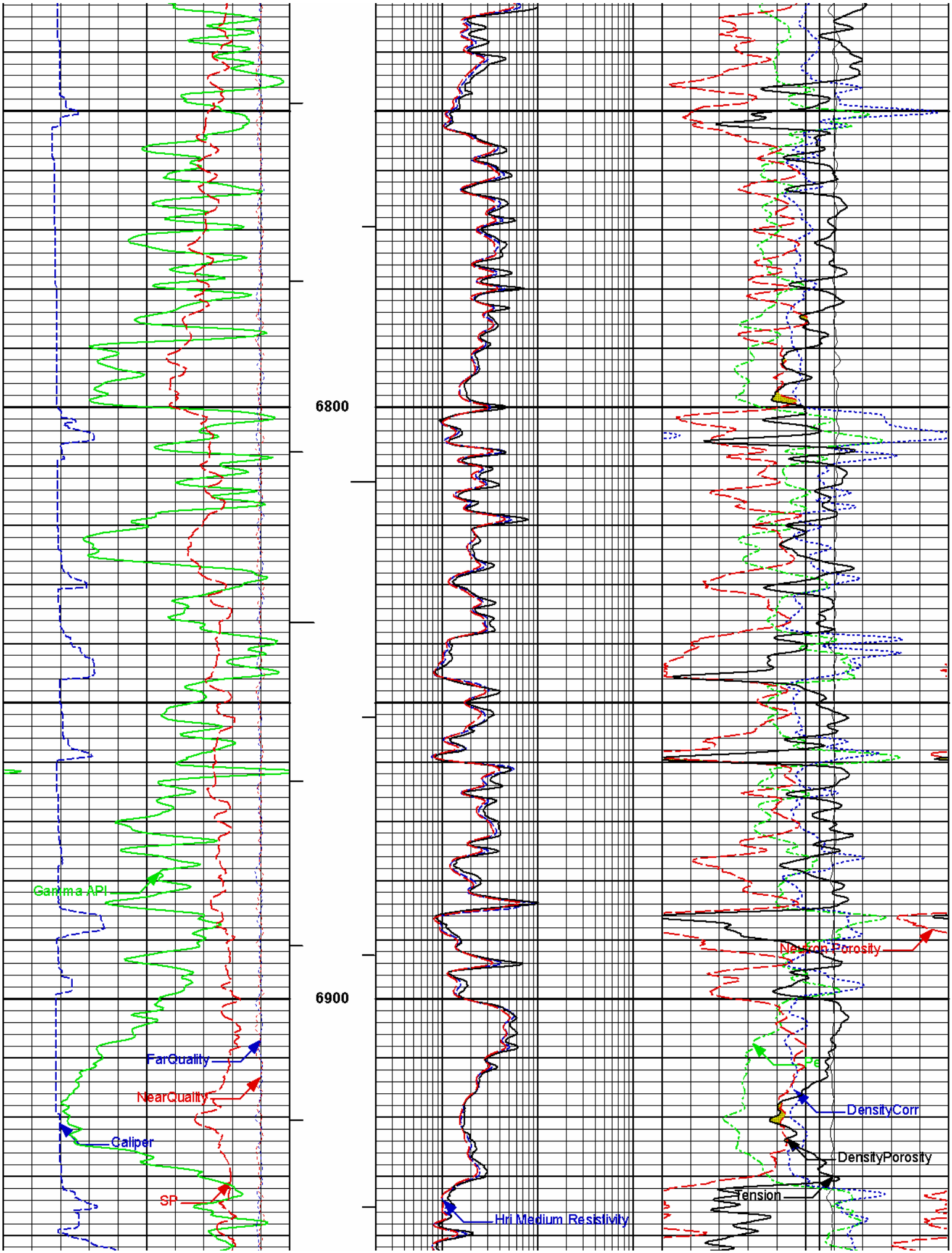
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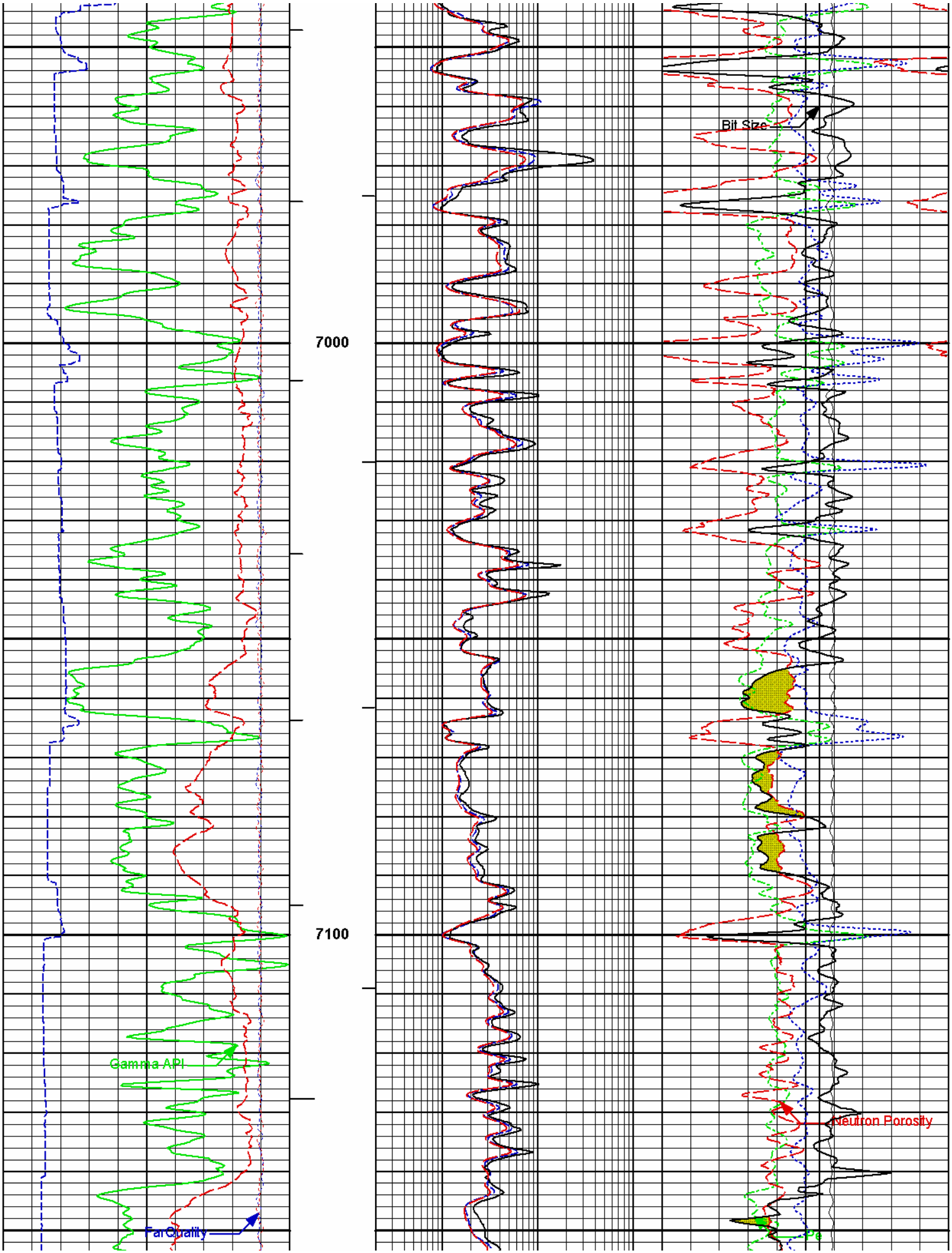
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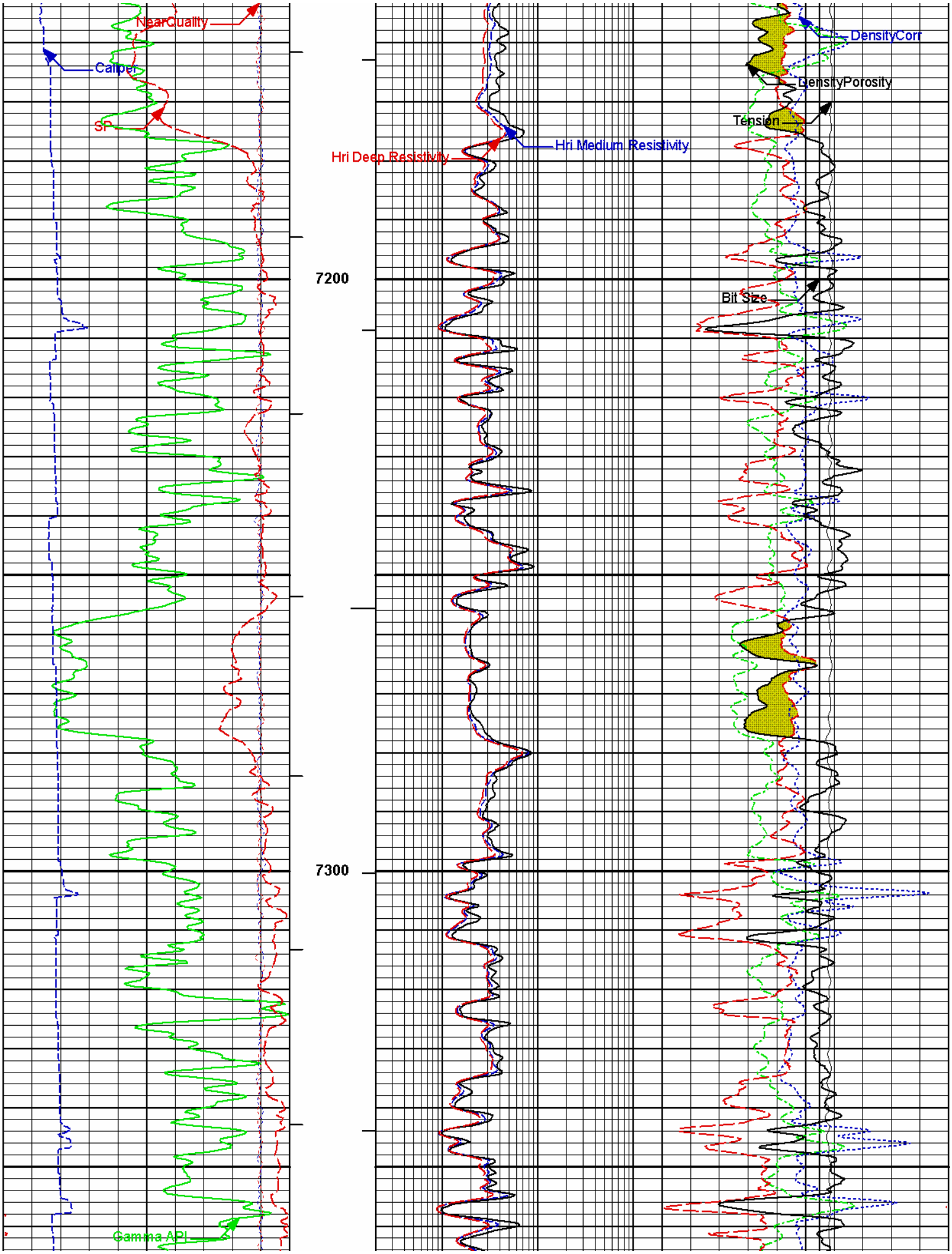
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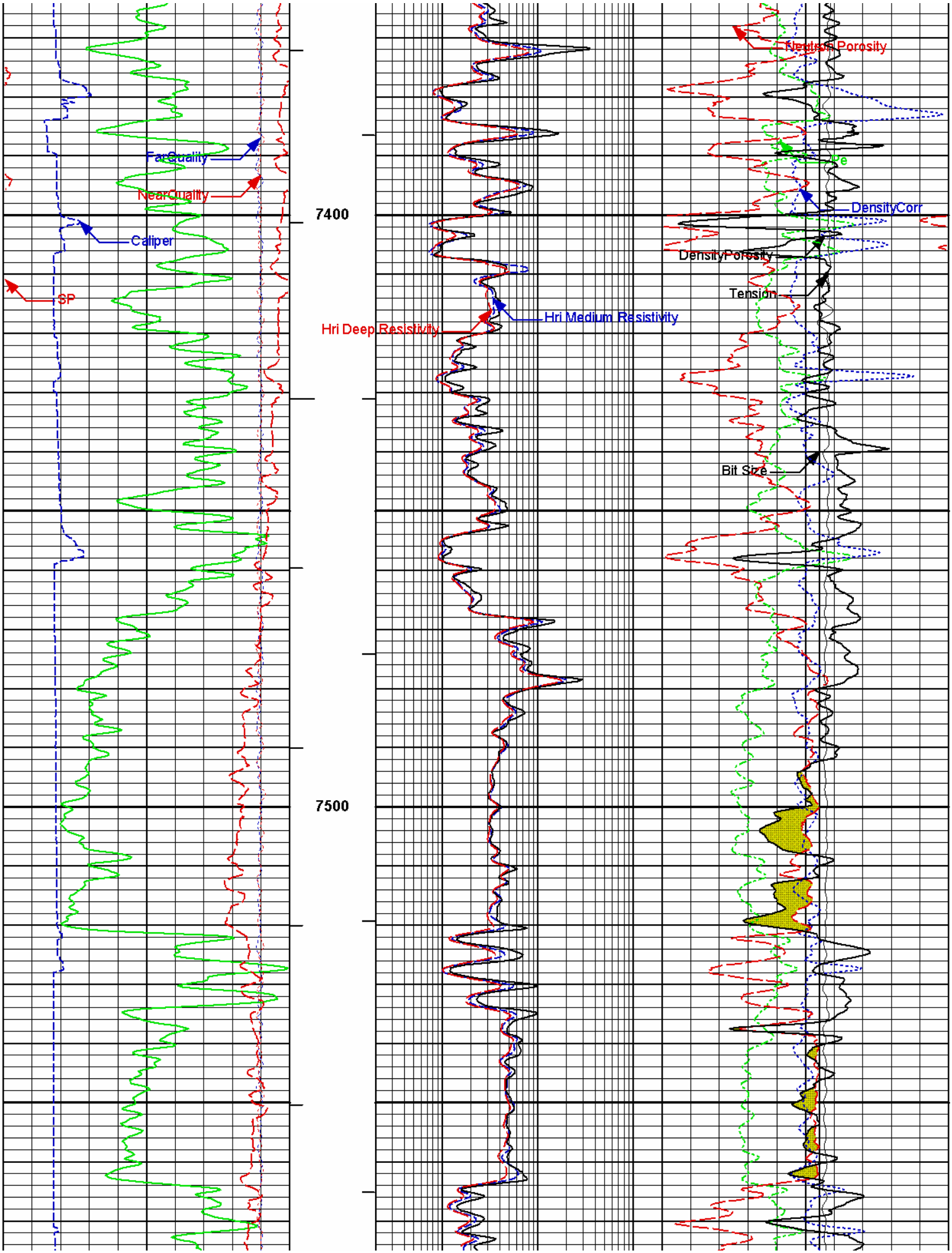
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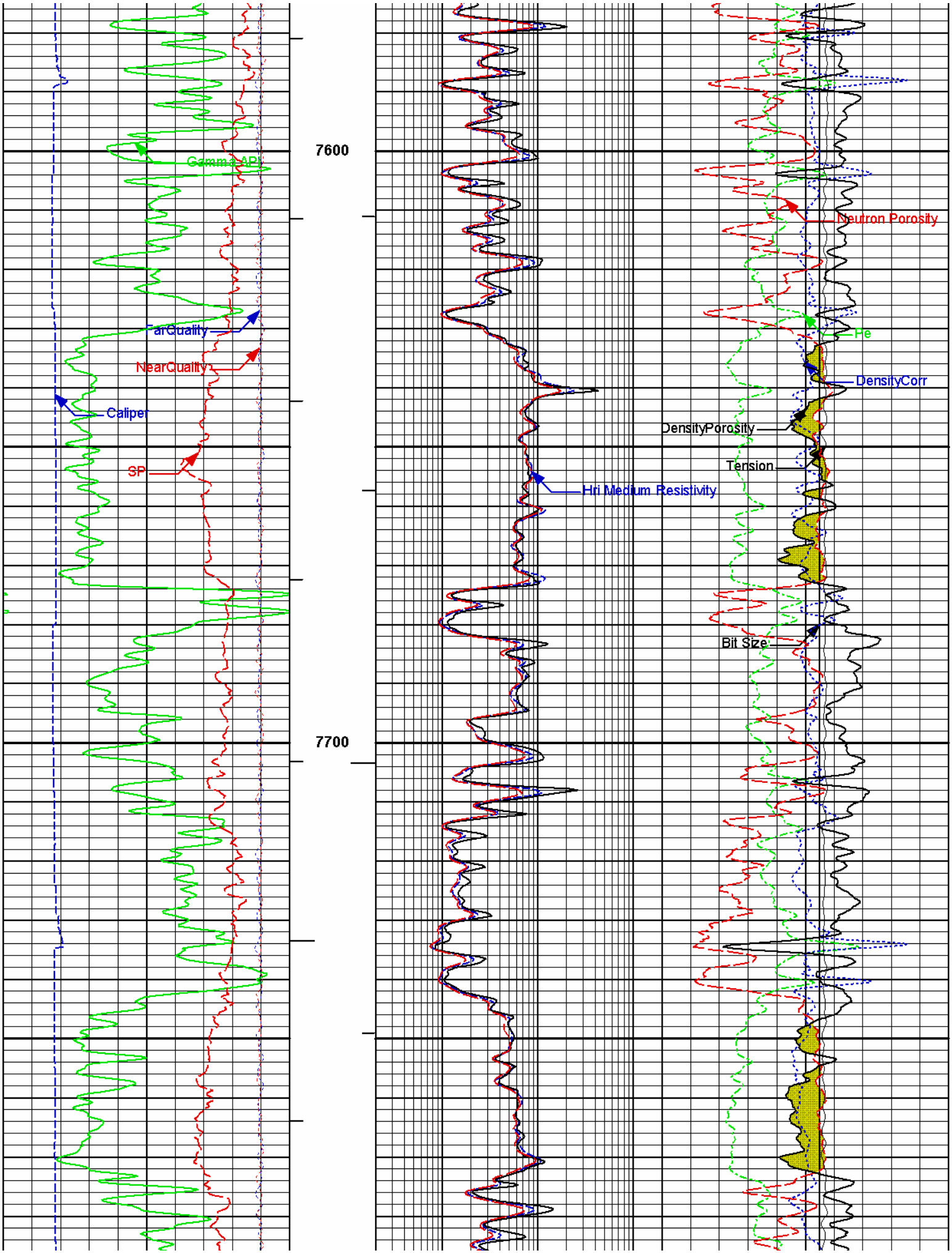
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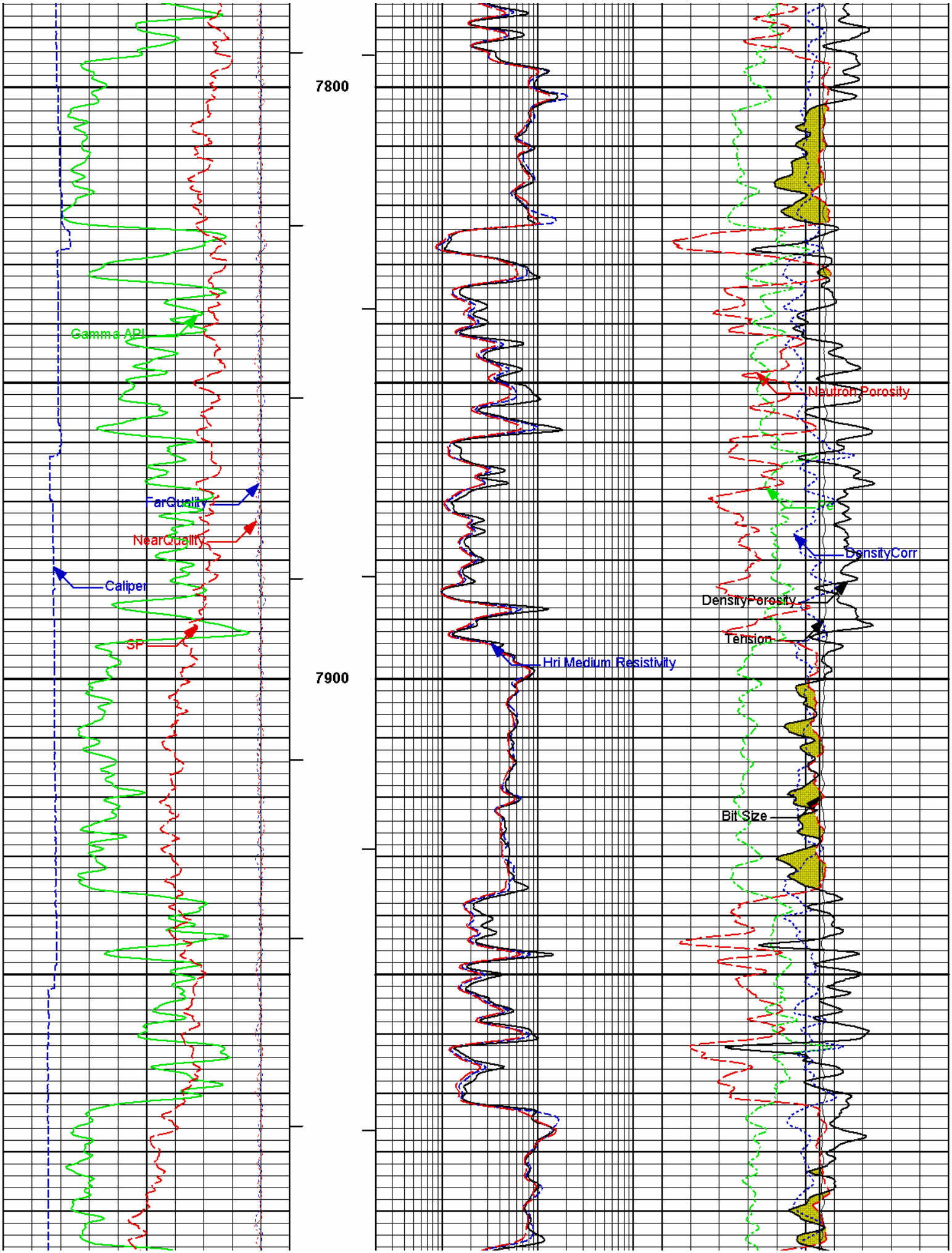
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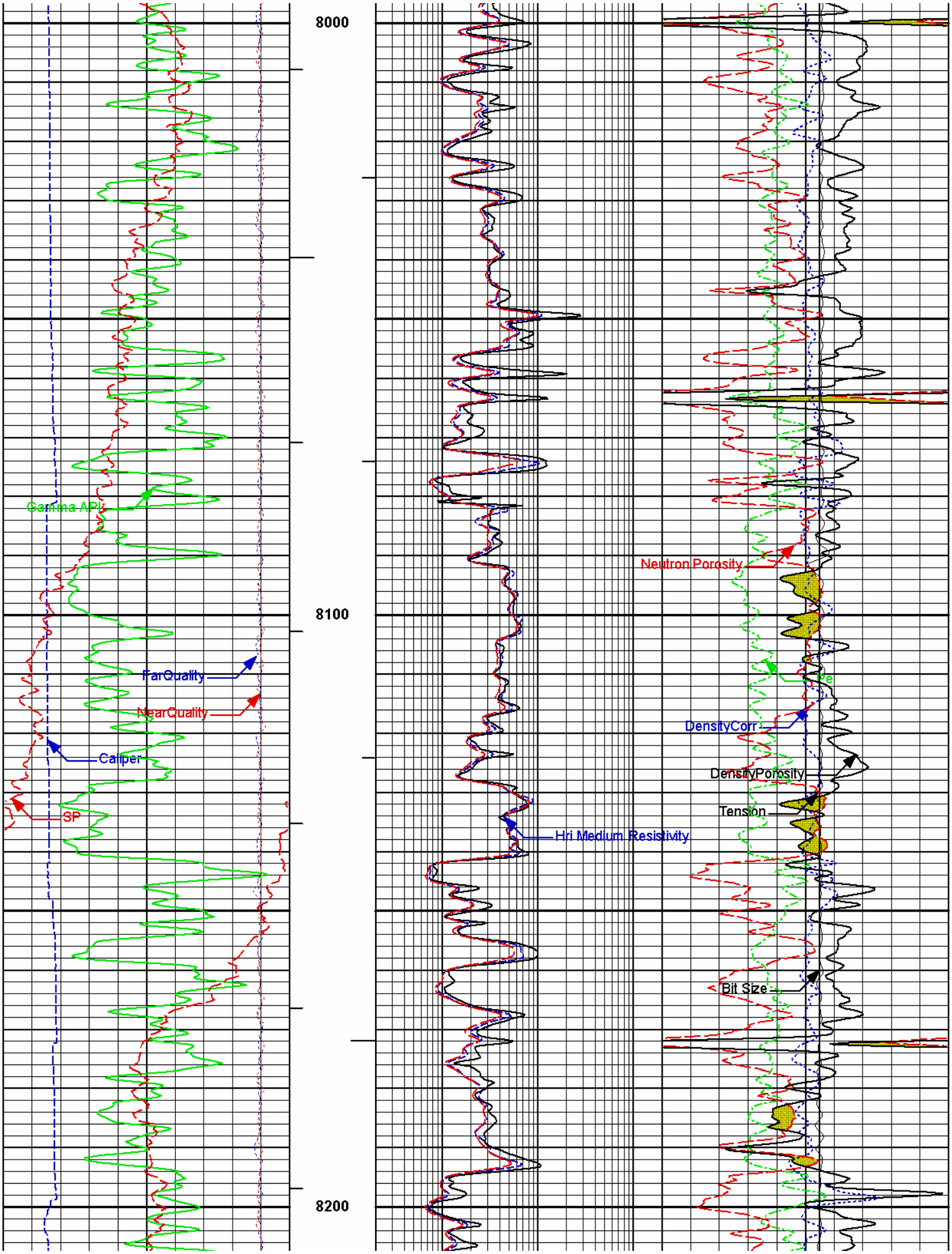
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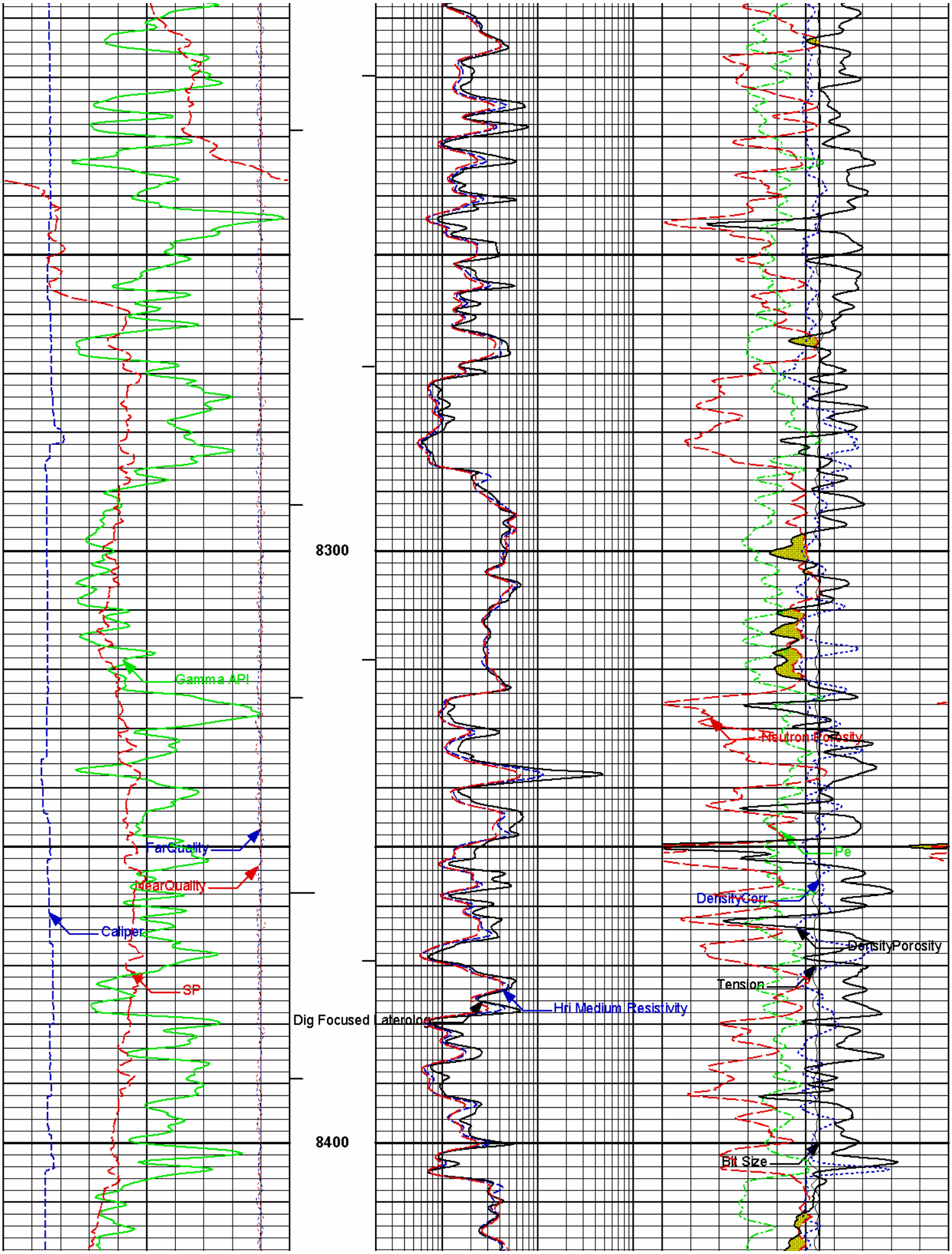
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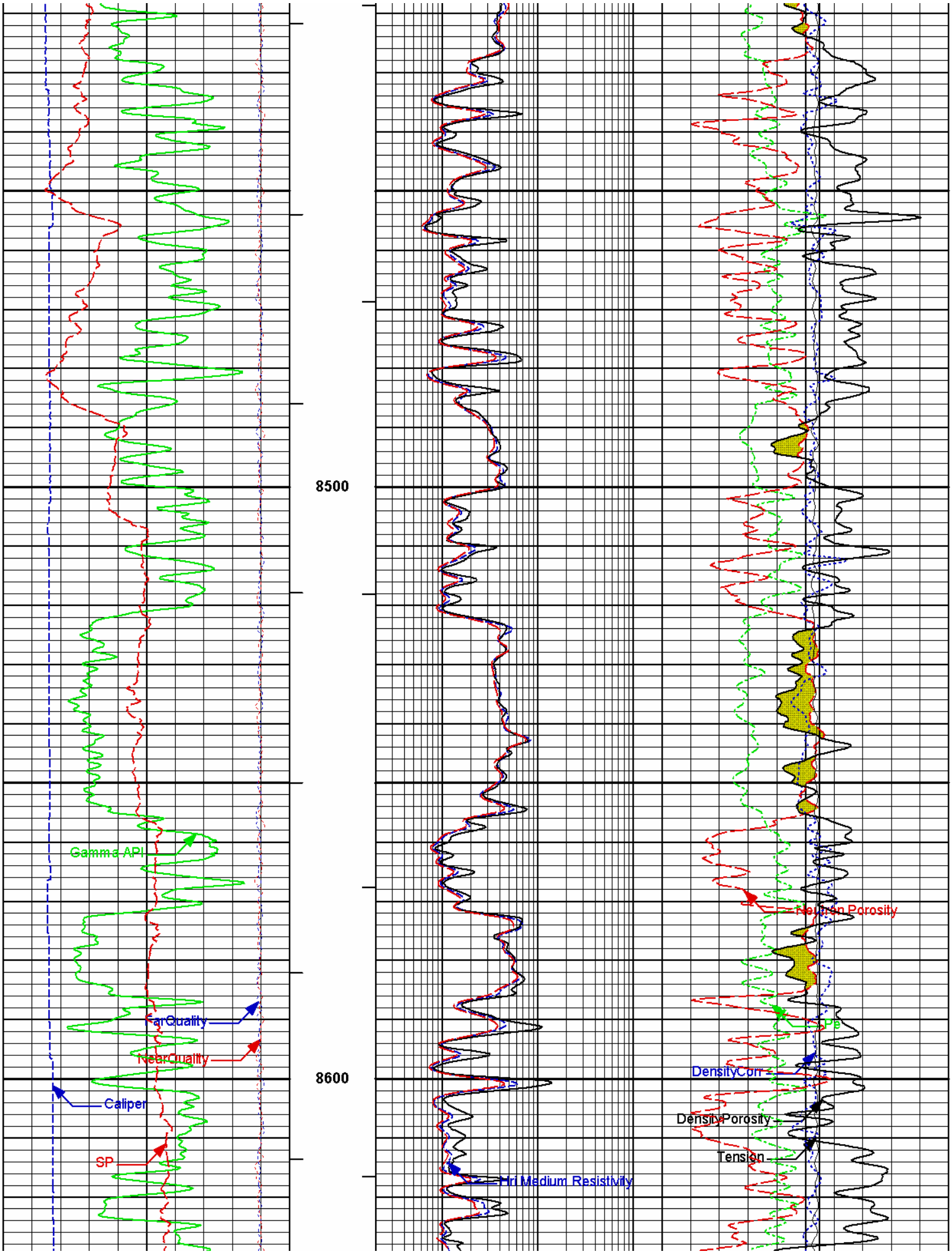
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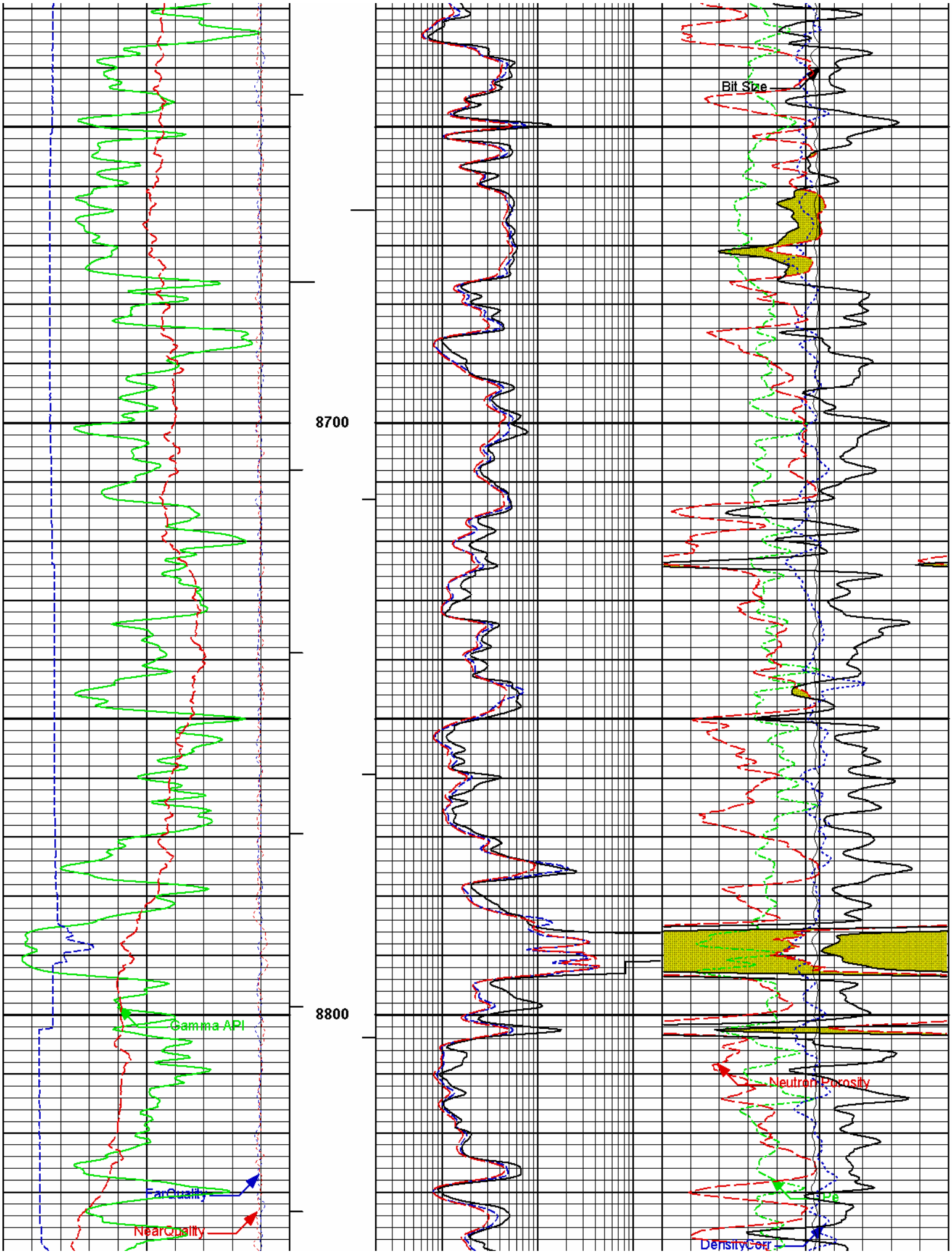
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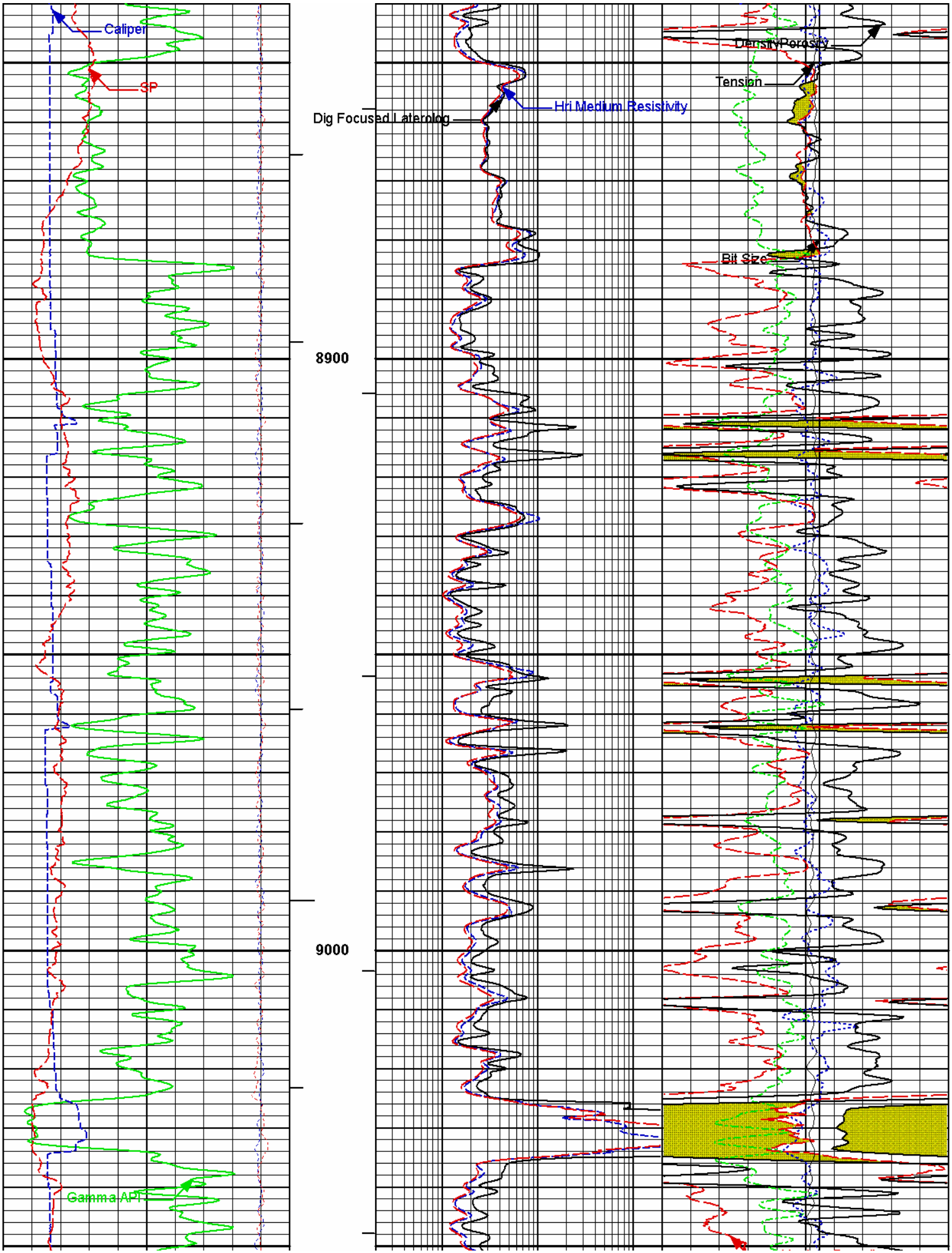
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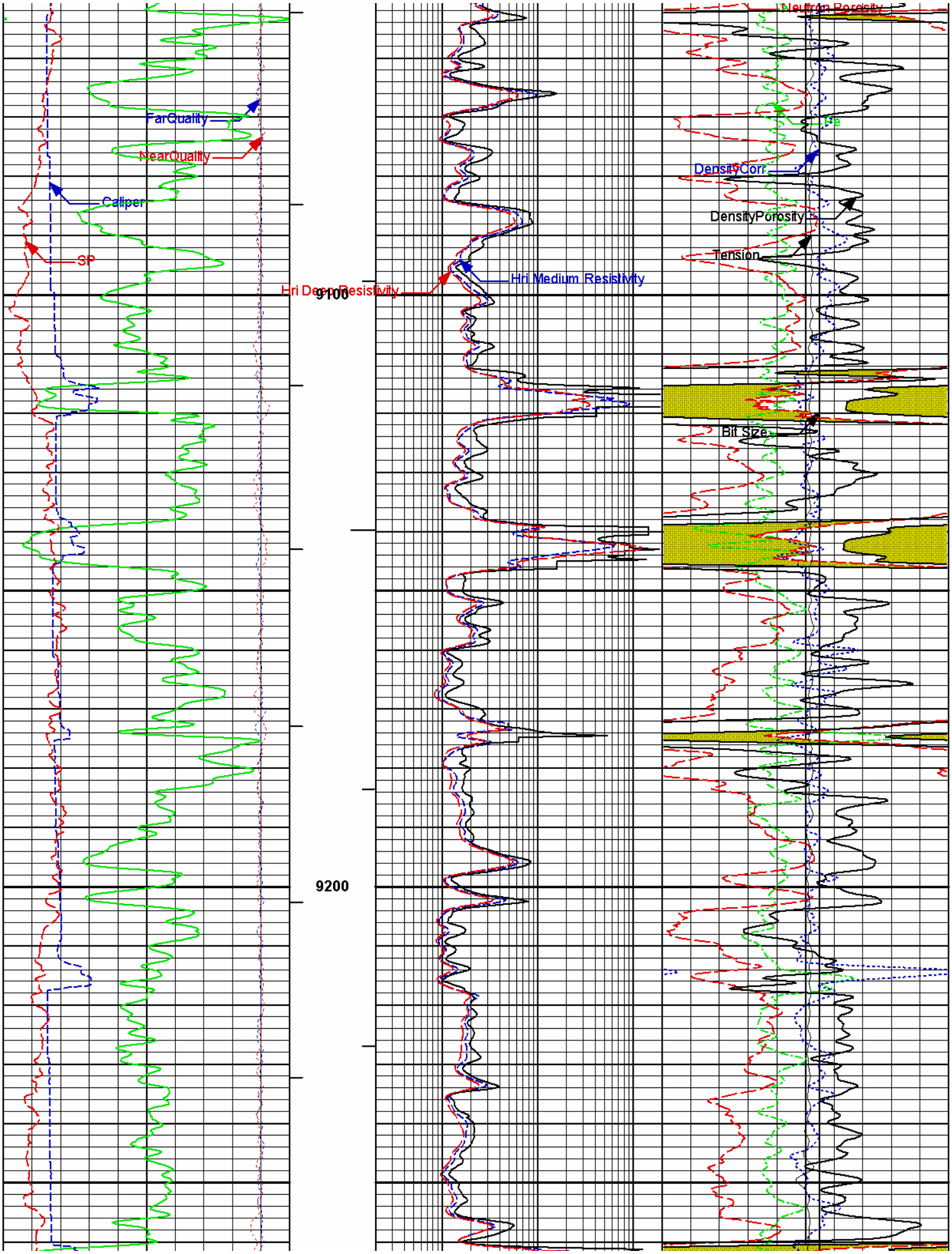
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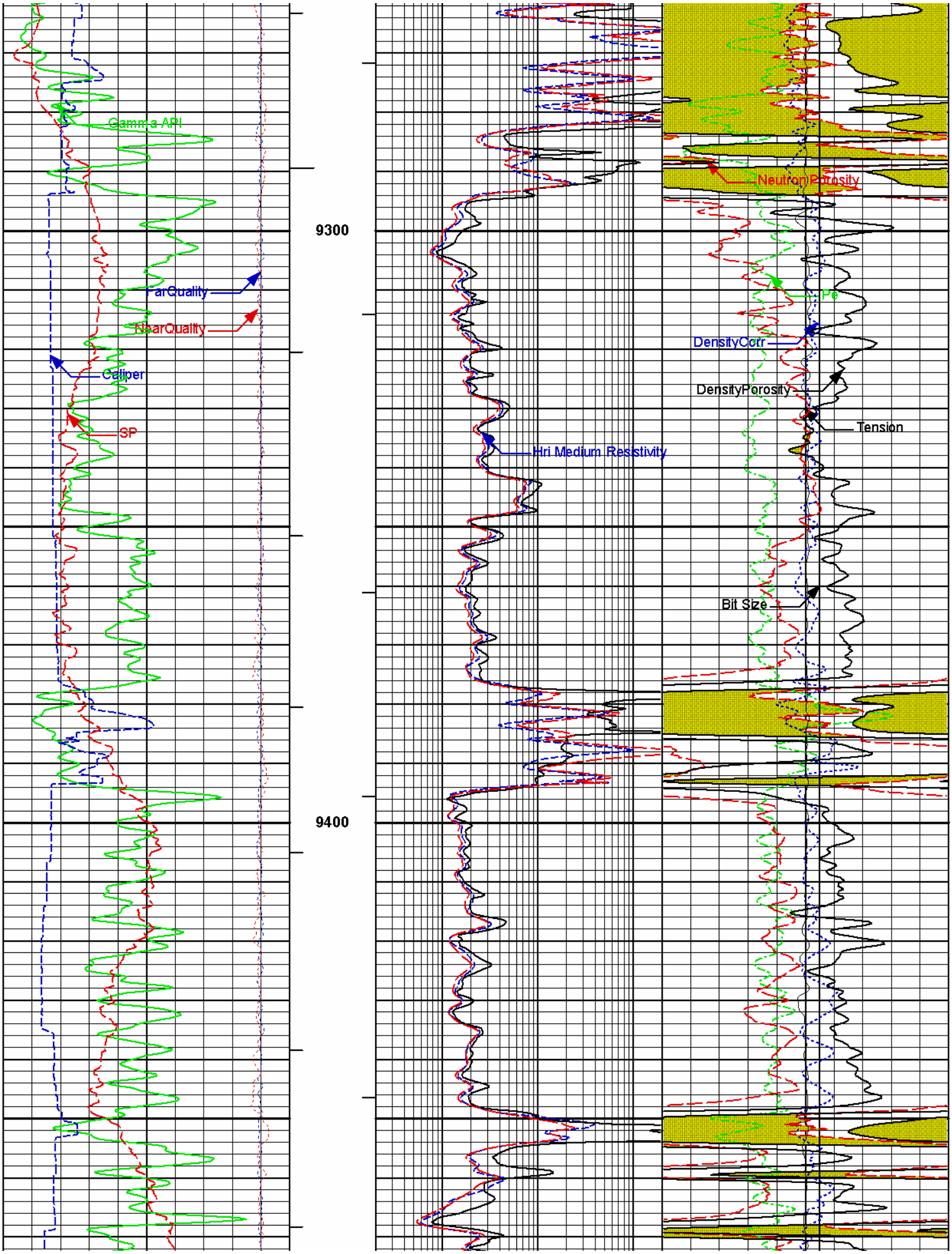
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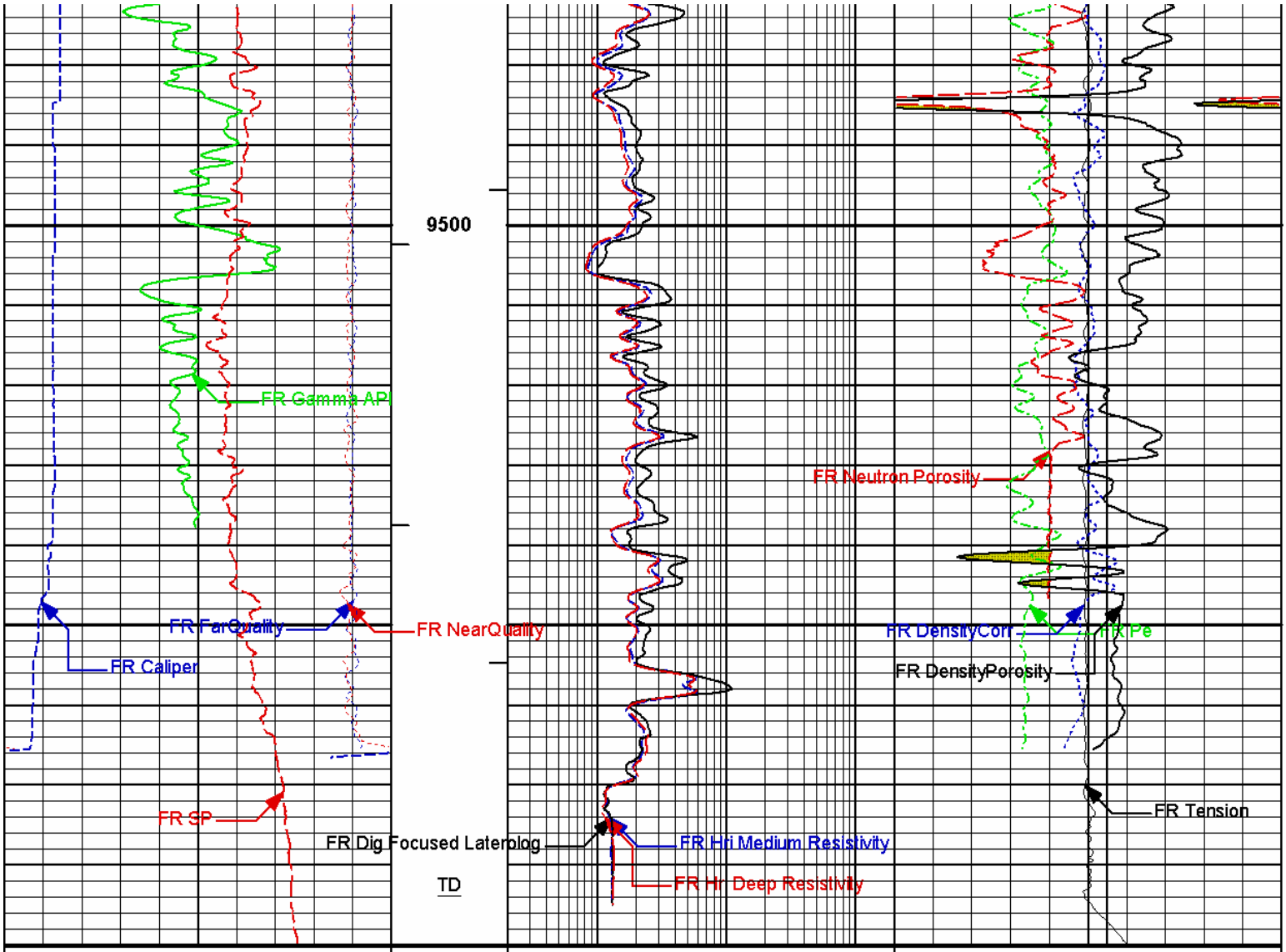


	SP		1 : 240 ft MD	2	DFL	2000	8% Porosity	
	-]10[+				ohmm			
0	Gamma API	200	BHV ft3	2	HMRS	2000	30 DensityPorosity	-10
	api				ohmm		%	
6	Caliper	16	AHV ft3	2	HDRS	2000	30 Neutron Porosity	-10
	inches				ohmm		%	
-45	NearQuality	5					-0.25 DensityCorr	0.25
							g/cc	
45	FarQuality	-5					0 Pe	10
							10000 Tension	0
							lbs	

HALLIBURTON

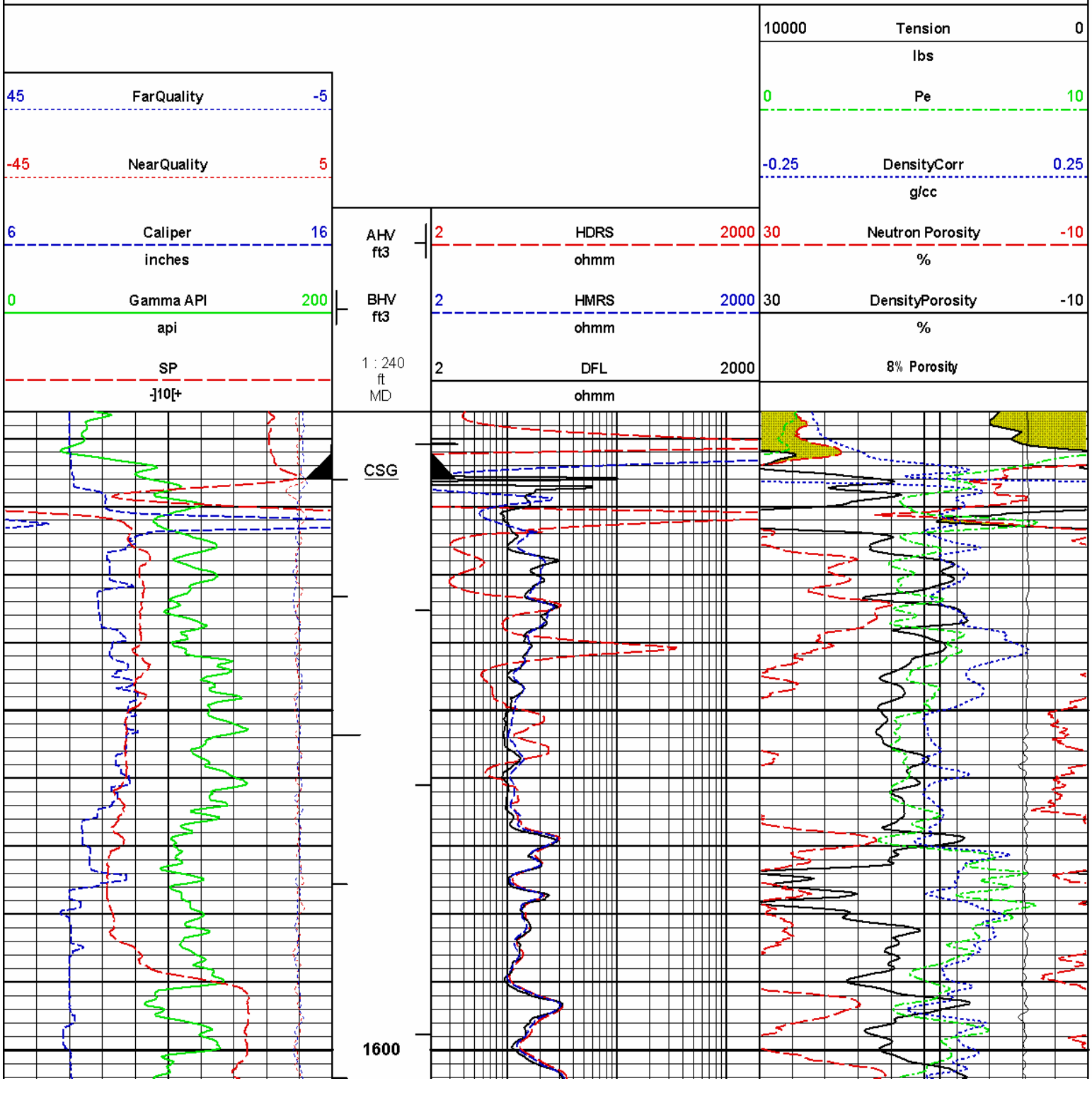
Plot Time: 26-Oct-08 11:55:04
Plot Range: 98 ft to 9590 ft
Data: {ActiveWell}\Well Based*\
Plot File: \\-LOCAL-\LAR_LEV_31_16D\0001 TRIPLE-DC-NGRT\TRIPLE\MAIN PASS

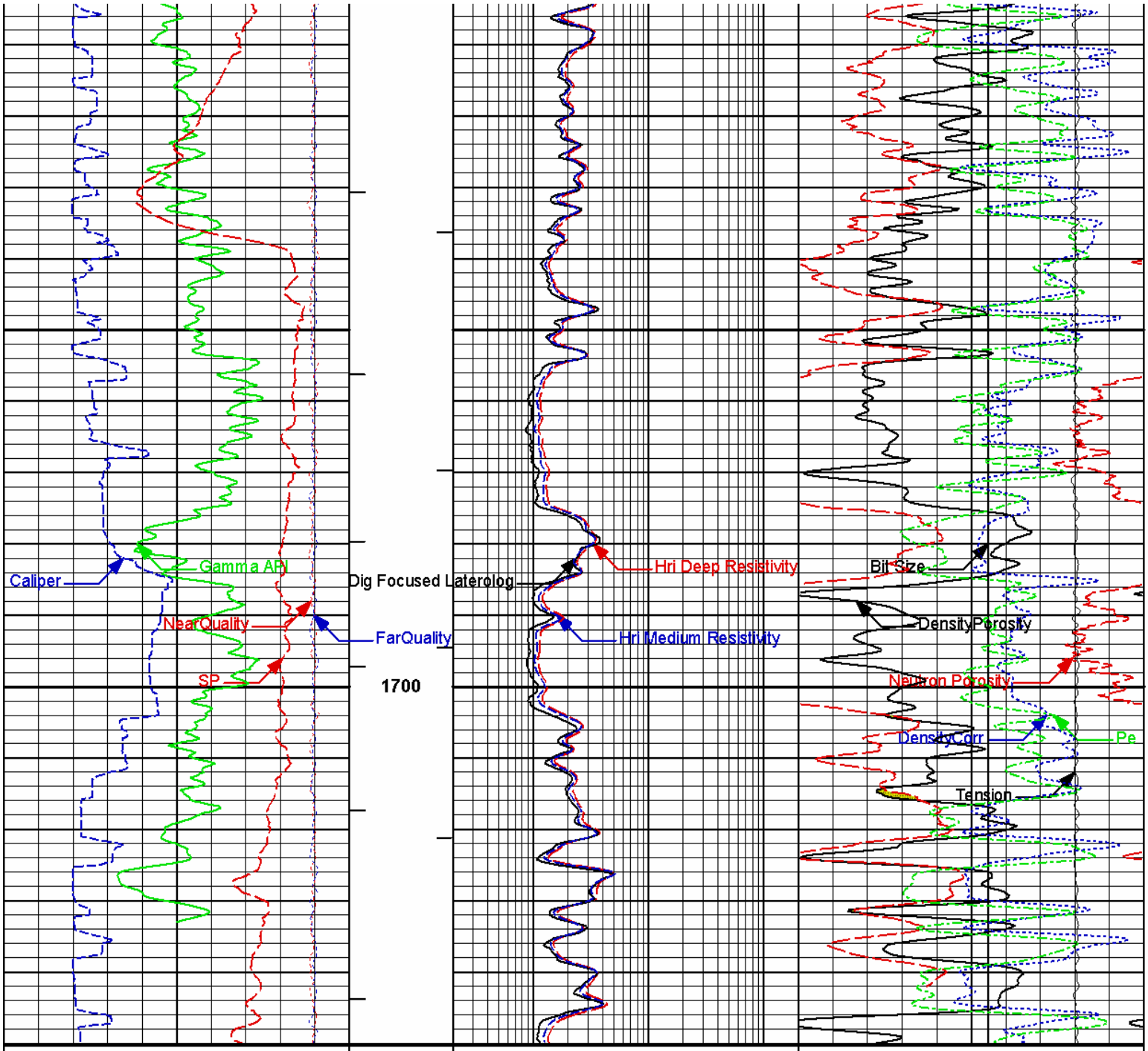
MAIN PASS 5" = 100'

HALLIBURTON

Plot Time: 26-Oct-08 11:55:05
Plot Range: 1506 ft to 1750 ft
Data: LAR_LEV_31_16D\Well Based\REPEAT\
Plot File: \\-LOCAL-\LAR_LEV_31_16D\0001 TRIPLE-DC-NGRT\TRIPLE\REPEAT

MAIN PASS 5" = 100'





SP	1 : 240 ft MD	2 DFL 2000 ohmm; BHV ft3 2 HMRS 2000 ohmm; AHV ft3 2 HDRS 2000 ohmm
-]10[+		
0 Gamma API 200		
api		
6 Caliper 16		
inches		
-45 NearQuality 5		
45 FarQuality -5		

8% Porosity	
30 DensityPorosity -10	
%	
30 Neutron Porosity -10	
%	
-0.25 DensityCorr 0.25	
g/cc	
0 Pe 10	
10000 Tension 0	
lbs	

HALLIBURTON

Plot Time: 26-Oct-08 11:55:06

Plot Range: 1506 ft to 1750 ft
Data: LAR_LEV_31_16D\Well Based\REPEAT\
Plot File: \\-LOCAL-\LAR_LEV_31_16D\0001 TRIPLE-DC-NGRT\TRIPLE\REPEAT

MAIN PASS 5" = 100'

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	**NGRT - 108617_2**	**Reference Calibration Date:**	**17-Jul-08 18:58:32**
Engineer:	**J. GEISER**	**Calibration Date:**	**25-Oct-08 22:27:15**
Software Version:	**WL INSITE R2.2 (Build 9)**	**Calibration Version:**	**1**

Calibrator Source S/N: TB-255
Calibrator API Reference:253.00 api

Measurement	Measured	Calibrated	Units
Background	77.5	77.8	api
Background + Calibrator	329.7	330.8	api
Calibrator	253.2	253.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	**NGRT - 108617_2**	**Reference Calibration Date:**	**25-Oct-08 22:27:15**
Engineer:	**J. GEISER**	**Calibration Date:**	**25-Oct-08 22:31:41**
Software Version:	**WL INSITE R2.2 (Build 9)**	**Calibration Version:**	**1**

Calibrator Source S/N: TB-255
Calibrator API Reference:253.00 api

Field Verification	Shop	Field	Units
Background	77.8	79.8	api
Background + Calibrator	330.8	340.2	api
Calibrator	253.0	260.4	api

Shop	Field	Difference	Tolerance
253.0	260.4	-7.4	+/- 9.00

NATURAL GAMMA RAY TOOL POST CALIBRATION

Tool Name:	**NGRT - 108617_2**	**Reference Calibration Date:**	**25-Oct-08 22:31:41**
Engineer:	**J. GEISER**	**Calibration Date:**	**26-Oct-08 11:43:42**
Software Version:	**WL INSITE R2.2 (Build 9)**	**Calibration Version:**	**1**

Calibrator Source S/N: TB-255
Calibrator API Reference:253.00 api

Post Verification	Field	Post	Units
Background	79.8	46.2	api
Background + Calibrator	340.2	305.1	api
Calibrator	260.4	258.9	api

Shop	Field	Post	Difference	Tolerance
253.0	260.4	258.9	1.5	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSN_II - 108734 **Reference Calibration Date:** 06-Oct-08 16:12:09

Engineer: J. GEISER **Calibration Date:** 06-Oct-08 16:38:05

Software Version: WL INSITE R2.2 (Build 9) **Calibration Version:** 1

Logging Source S/N: DSN-60

Calibrator Source S/N: CAL-131

Water Tank S/N: GJ_TANK

Water Tank Value: 52.750

Snow Block S/N: OH477-(10549593)

Calibration Tank Water Temperature: 66 degF

Min. Tool Housing Outside Diameter: 3.434 in

WATER TANK SUMMARY (Horizontal Water Tank)

Measurement	Measured	Calibrated	Units
Ratio	6.459	6.450	
Porosity	0.11774	0.11749	decp

SNOW BLOCK SUMMARY

Measurement	Measured	Calibrated	Units
Ratio	6.009	6.031	
Porosity	0.11643	0.11600	decp

DSN Sensitivity: 1.063

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name: DSN_II - 108734 **Reference Calibration Date:** 06-Oct-08 16:38:05

Engineer: J. GEISER **Calibration Date:** 25-Oct-08 22:37:35

Software Version: WL INSITE R2.2 (Build 9) **Calibration Version:** 1

Logging Source S/N: DSN-60

Calibrator Source S/N: CAL-131

Snow Block S/N: OH477-(10549593)

SNOW BLOCK SUMMARY

Measurement	Shop	Field	Units
Ratio	6.031	6.036	
Porosity	0.11600	0.11653	decp

DSN Sensitivity: 1.063

DUAL SPACED NEUTRON POST CALIBRATION

Tool Name: DSN_II - 108734 **Reference Calibration Date:** 25-Oct-08 22:37:35

Engineer: J. GEISER **Calibration Date:** 26-Oct-08 11:50:10

Software Version: WL INSITE R2.2 (Build 9) **Calibration Version:** 1

Logging Source S/N: DSN-60

Calibrator Source S/N: CAL-131

Snow Block S/N: OH477-(10549593)

SNOW BLOCK SUMMARY

Measurement	Field	Post	Units
Ratio	6.036	5.948	
Porosity	0.11653	0.11398	decp

DSN Sensitivity: 1.063

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name:	**SDL_DC - I709MC136**	**Reference Calibration Date:**	**10-Oct-08 10:02:25**
Engineer:	**K. WOOD**	**Calibration Date:**	**21-Oct-08 23:38:07**
Software Version:	**WL INSITE R2.2 (Build 9)**	**Calibration Version:**	**1**

Logging Source S/N: 2189GW

Aluminum Block S/N: 63094 Density: 2.610g/cc

Magnesium Block S/N: 63387 Density: 1.685g/cc

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0379	0.9934	0.85 - 1.15
Near Dens Gain	1.0217	0.9991	0.85 - 1.15
Near Peak Gain	1.0274	1.0005	0.85 - 1.15
Near Lith Gain	1.0350	1.0210	0.85 - 1.15
Far Bar Gain	1.0309	1.0253	0.85 - 1.15
Far Dens Gain	1.0119	1.0054	0.85 - 1.15
Far Peak Gain	1.0049	0.9964	0.85 - 1.15
Far Lith Gain	1.0044	0.9934	0.85 - 1.15
Near Bar Offset	0.0196	0.4438	NONE
Near Dens Offset	0.0955	0.3061	NONE
Near Peak Offset	0.0020	0.2416	NONE
Near Lith Offset	-0.0627	0.0638	NONE
Far Bar Offset	0.1448	0.1955	NONE
Far Dens Offset	0.2846	0.3446	NONE
Far Peak Offset	0.3905	0.4632	NONE
Far Lith Offset	0.5339	0.6219	NONE
Near Bar Background	965.21	963.13	700 - 1500
Near Dens Background	394.35	393.30	290 - 600
Near Peak Background	174.28	173.45	130 - 280
Near Lith Background	168.66	166.74	125 - 270
Far Bar Background	487.07	485.07	350 - 750
Far Dens Background	183.60	184.26	140 - 300
Far Peak Background	73.64	74.12	50 - 130
Far Lith Background	76.39	76.63	50 - 130

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.683	1.685	0.002	+/- 0.015
Pe	2.528	2.520	-0.008	+/- 0.150
ALUMINUM				

Density (g/cc)	2.605	2.610	0.005	+/- 0.01500
Pe	3.195	3.210	0.015	+/- 0.150

TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0063	+/- 0.0110	-0.0069	+/- 0.0140
Magnesium Block	-0.0026	+/- 0.0110	-0.0082	+/- 0.0140
Aluminum Block	-0.0032	+/- 0.0110	-0.0040	+/- 0.0140
Resolution	8.96	6.00 - 11.00	10.15	6.00 - 11.00
Internal Verifier(B+D+P+L)	1697	1250 - 2700	820	600 - 1300

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

SPECTRAL DENSITY FIELD CHECK

Tool Name: SDL_DC - I709MC136 **Reference Calibration Date:** 21-Oct-08 23:38:07

Engineer: J. GEISER **Calibration Date:** 25-Oct-08 22:26:22

Software Version: WL INSITE R2.2 (Build 9) **Calibration Version:** 1

Aluminum Block S/N: 63094 Density: 2.610g/cc

Magnesium Block S/N: 63387 Density: 1.685g/cc

Pad Temperature: 56.8 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1696.624	1698.018	1.394	16.534
Far (B+D+P+L) cps	820.083	820.547	0.464	15.800
Near Resolution	8.96	8.93	-0.030	0.50
Far Resolution	10.13	10.15	-0.020	1.00

PASS/FAIL SUMMARY

Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

SPECTRAL DENSITY POST CHECK

Tool Name: SDL_DC - I709MC136 **Reference Calibration Date:** 25-Oct-08 22:26:22

Engineer: J. GEISER **Calibration Date:** 26-Oct-08 11:43:47

Software Version: WL INSITE R2.2 (Build 9) **Calibration Version:** 1

Aluminum Block S/N: 63094 Density: 2.610g/cc

Magnesium Block S/N: 63387 Density: 1.685g/cc

Pad Temperature: 57.5 degF

DENSITY POST CALIBRATION SUMMARY

Measurement	Field	Post	Change	Control Limit +/-
Near (B+D+P+L) cps	1698.018	1699.029	1.011	18.367
Far (B+D+P+L) cps	820.547	817.980	-2.567	17.074
Near Resolution	8.93	9.00	0.070	0.50
Far Resolution	10.12	10.13	-0.010	1.00

PASS/FAIL SUMMARY

Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

CALIPER SHOP CALIBRATION

Tool Name: SDL_DC - I709MC136 **Reference Calibration Date:** 23-Oct-08 20:02:26

Engineer: J. GEISER **Calibration Date:** 23-Oct-08 20:05:22

Software Version: WL INSITE R2.2 (Build 9) **Calibration Version:** 1

MEASURED CALIPER RINGS

Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change
RING DIAMETER:			
Ring #1 (in)	6.00	6.00	0.00
Ring #2 (in)	14.37	13.88	0.49

CALIPER FIELD CALIBRATION

Tool Name: SDL_DC - I709MC136 **Reference Calibration Date:** 23-Oct-08 20:05:22

Engineer: J. GEISER **Calibration Date:** 25-Oct-08 22:24:03

Software Version: WL INSITE R2.2 (Build 9) **Calibration Version:** 1

MEASURED CALIPER RINGS

Measurement	Shop	Field	Change	Control Limit On New Value
Ring #1 (in)	6.00	6.13	0.13	+/- 0.50

PASS/FAIL SUMMARY

Ring #1 Check:	Passed

CALIPER POST CALIBRATION

Tool Name: SDL_DC - I709MC136 **Reference Calibration Date:** 25-Oct-08 22:24:03

Engineer: J. GEISER **Calibration Date:** 26-Oct-08 11:40:37

Software Version: WL INSITE R2.2 (Build 9) **Calibration Version:** 1

MEASURED CALIPER RING

Measurement	Field	Post	Change	Control Limit On New Value
Ring #1 (in)	6.13	6.09	-0.04	+/- 0.50

PASS/FAIL SUMMARY

Ring #1 Check:	Passed

HIGH RESOLUTION INDUCTION SHOP CALIBRATION

Tool Name: HRID - I81S0944 **Reference Calibration Date:** 25-Jul-08 14:06:02

Engineer:	**J. GEISER**	**Calibration Date:**	**17-Sep-08 10:59:41**
Software Version:	**WL INSITE R2.2 (Build 9)**	**Calibration Version:**	**1**

HIGH RESOLUTION INDUCTION SHOP CALIBRATION SUMMARY

TEST LOOP RESPONSE

1 - Test Loop Closed	Measured Signal		Nominal		Units
	R	X	R	X	
HRD	1976	1972	1976	1972	MMHOS
HRM	2838	2832	2838	2832	MMHOS
2 - Test Loop Off(Sonde Error)	**Measured Signal**		**Nominal**		**Units**
	R	X	R	X	
HRD	-4	-94	+/- 15	+/- 100	MMHOS
HRM	-11	-112	+/- 15	+50/-150	MMHOS

ELECTRONICS RELATIVE GAIN

	Set		Nominal	
	Magnitude	Phase	Magnitude	Phase
HRD	1.00	-1.38	1. +/- .1	0. +/- 5
HRM	1.00	-1.29	1. +/- .1	0. +/- 5

Temperature at time of calibration: 83.23 degF

**** NOTICE ****

THE HIGH RESOLUTION INDUCTION TOOL (HRID) IS A CONTINUAL SELF-CALIBRATING TOOL. DURING LOGGING, THE TOOL CONSTANTLY SELF-UPDATES ITS COEFFICIENTS, THE SHOP CALIBRATION IS PERFORMED UNDER VERY STRINGENT CONDITIONS. SINCE THE TOOL IS SELF-CALIBRATING DURING LOGGING, FIELD AND POST CALIBRATIONS ARE NOT AVAILABLE OR NECESSARY FOR THE HRID TOOL.

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
NGRT-108617_2						
Gamma Ray Calibrator	253.0	260.4	258.9	1.5	+/- 9.00	api
DSN_II-108734						
Snow Block Porosity	0.11600	0.11653	0.11398	0.00255	+/- 0.00900	decp
SDL_DC-I709MC136						
Near(B+D+P+L)	1696.624	1698.018	1699.029	-1.011	+/-18.367	cps
Far(B+D+P+L)	820.083	820.547	817.980	2.567	+/-17.074	cps
Field Block Density	2.130	0.000	0.000	0.000	+/-0.01500	g/cc
Ring #1	6.00	6.13	6.09	0.04	+/-0.500	in

Data: LAR_LEV_31_16D\0001 TRIPLE-DC-NGRT\IDLE Date: 26-Oct-08 11:52:23

HALLIBURTON

CUSTOMER EVENT LOG

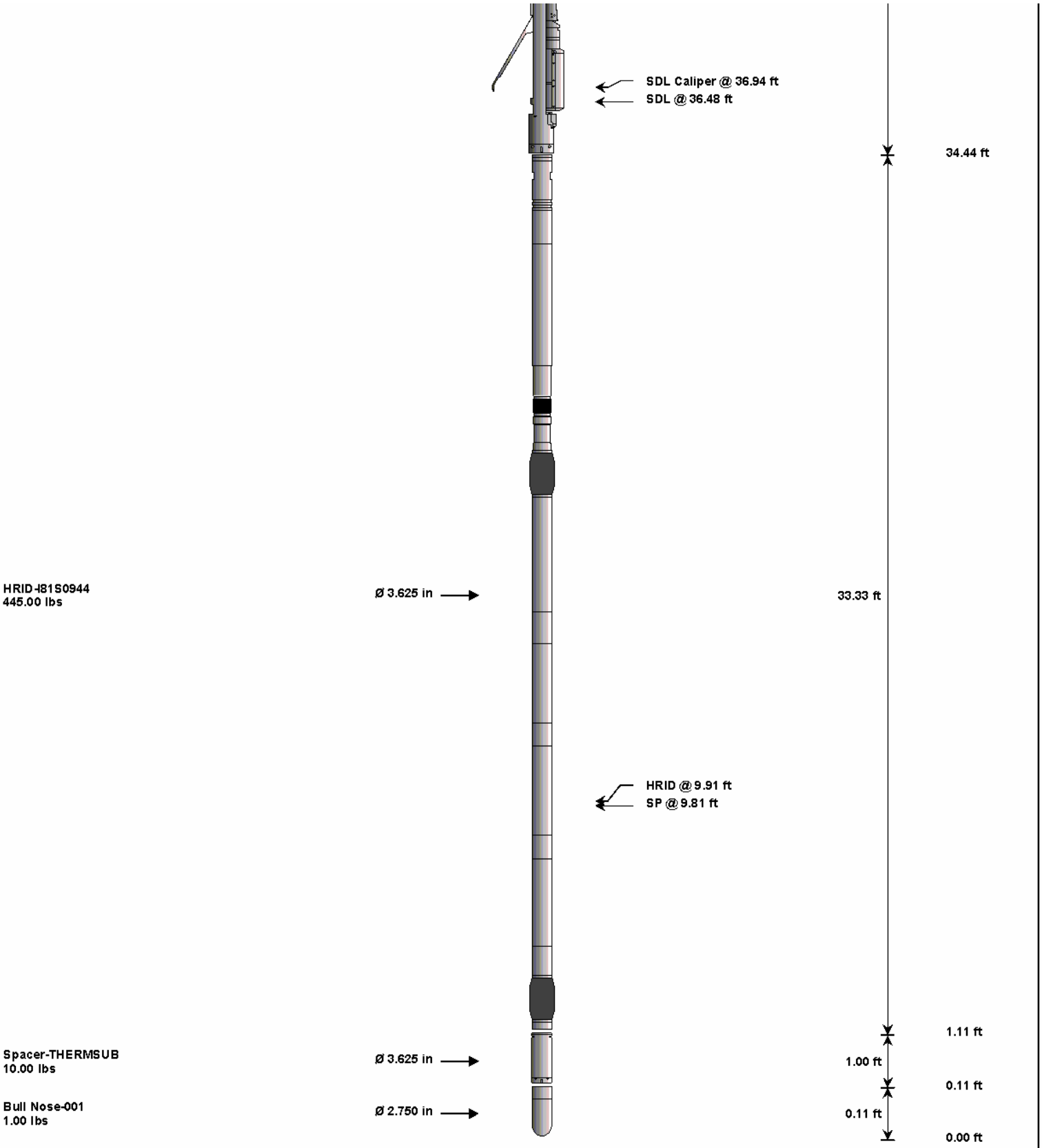
Event Type	Time & Date	Depth (ft)	Event Description
	26-Oct-08 07:05:55	1800.25	Logging 001 26-Oct-08 07:05 Up @1800.0f
	26-Oct-08 07:13:39	1425.15	Halting 001 26-Oct-08 07:05 Up @1800.0f
	26-Oct-08 07:17:11	1488.00	Logging 002 26-Oct-08 07:17 Dn @1489.5f
	26-Oct-08 08:06:22	9595.43	Halting 002 26-Oct-08 07:17 Dn @1489.5f
	26-Oct-08 08:06:56	9605.00	Logging 003 26-Oct-08 08:06 Up @9604.8f
	26-Oct-08 10:56:12	94.40	Halting 003 26-Oct-08 08:06 Up @9604.8f

Data: LAR_LEV_31_16D\0001 TRIPLE-DC-NGRT\HWI0782 Date: 26-Oct-08 10:58:22

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
					84.87 ft
RWCH-A032 135.00 lbs	Ø 3.625 in		Load Cell @ 81.19 ft BH Temperature @ 80.62 ft	6.25 ft	
					78.62 ft
D4TS-109040GJ 100.00 lbs	Ø 3.625 in			6.50 ft	
					72.12 ft
NGRT-108617_2 176.00 lbs	Ø 3.625 in			8.00 ft	
			GammaRay @ 65.45 ft		
					64.12 ft
DSN_II-108734 195.80 lbs	Ø 3.625 in			10.25 ft	
			Neutron Porosity @ 55.77 ft		
					53.87 ft
SDL_DC-I709MC136 420.00 lbs	Ø 4.500 in			19.43 ft	



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)		Accumulated Length (ft)	Max.Log. Speed (fpm)
RWCH	Releasable Wireline Cable Head	A032	135.00	6.25		78.62	300.00
D4TS	DITS 4 Telemetry Sub	109040GJ	100.00	6.50		72.12	300.00
NGRT	Natural Gamma Ray Tool	108617_2	176.00	8.00		64.12	60.00
DSN_II	Dual Spaced Neutron-II Tool	108734	195.80	10.25		53.87	60.00
SDLD	SDL (D) with (C) Mandrel w/ EVR	I709MC136	420.00	19.43		34.44	60.00
HRID	High Resolution Induction Tool Dits	I81S0944	445.00	33.33		1.11	100.00
SP	SP Ring	PROTO1	0.00	0.00	*	9.81	300.00
SPC	Test	THERMSUB	10.00	1.00		0.11	100.00
BLNS	Bull Nose	001	1.00	0.11		0.00	300.00

Total		**1,482.80**	**84.87**

* Not included in Total Length and Length Accumulation.

Data: LAR_LEV_31_16D\0001 TRIPLE-DC-NGRT\IDLE **Date: 26-Oct-08 06:18:21**

COMPANY	**LARAMIE ENERGY II, LLC**		
WELL	**LEVERICH 31-16D**		
FIELD	**RULISON**		
COUNTY	**GARFIELD**	STATE	**CO**

HALLIBURTON

SPECTRAL DENSITY
DUAL SPACED NEUTRON
HIGH RESOLUTION INDUCTION