

HALLIBURTON

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY		BEREXCO INC.	
WELL		WELLINGTON KGS #1-32	
FIELD		WELLINGTON	
COUNTY		SUMNER	
STATE		KANSAS	
Permanent Datum		GROUND LEVEL	
Log measured from		KELLY BUSHING	
Drilling measured from		KELLY BUSHING	
Date		22-Jan-11	
Run No.		ONE	
Depth - Driller		4575.00 ft	
Depth - Logger		4573.0 ft	
Bottom - Logged Interval		4550.0 ft	
Top - Logged Interval		607.0 ft	
Casing - Driller		8.625 in @ 607.0 ft	
Casing - Logger		607.0 ft	
Bit Size		7.875 in @	
Type Fluid in Hole		WATER BASED MUD	
Density		9.0 ppq 45.00 s/qt	
PH		10.00 pH 7.2 cp/m	
Source of Sample		FLOWLINE	
Rm @ Meas. Temperature		0.650 ohmm @ 58.00 degF @	
Rmf @ Meas. Temperature		0.55 ohmm @ 58.00 degF @	
Rmc @ Meas. Temperature		0.750 ohmm @ 58.00 degF @	
Source Rmf		MEASURED MEASURED	
Rm @ BHT		0.37 ohmm @ 115.0 degF @	
Time Since Circulation		14.0 hr	
Time on Bottom		22-Jan-11 13:37	
Max. Rec. Temperature		115.0 degF @ 4573.0 ft @	
Equipment		10782954 LIBERAL	
Recorded By		S. JUNG	
Witnessed By		G. KORALEGEDARA	

Fold here

Service Ticket No.: 7912471				API Serial No.: 15-191-22591				PGM Version: WL INSITE R3.2.0 (Build 7)									
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.		@		@													
Rmc @ Meas. Temp.		@		@													
Source Rmf		Rmc															
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.		10748374		Serial No.				Serial No.		I066_M73803_P90		Serial No.		10755066			
Model No.		GTET		Model No.				Model No.		SDLT		Model No.		DSNT			
Diameter		3.625"		No. of Cent.				Diameter		4.75"		Diameter		3.625"			
Detector Model No.		T-102		Spacing				Log Type		GAM-GAM		Log Type		NEU-NEU			
Type		SCINT						Source Type		CS-137		Source Type		AM241BE			
Length		8"		LSA [Y/N]				Serial No.		5073GW		Serial No.		DSN-436			
Distance to Source		10'		FWDA [Y/N]				Strength		1.5 Ci		Strength		15 Ci			
LOGGING DATA																	
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON	

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	CSG	REC	0	150				30	-10	2.71	30	-10	LIME
DIRECTIONAL INFORMATION														
Maximum Deviation @									KOP @					
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5-INCH CASING														
GPS COORDINATES: LAT: 37.30 N & LONG: 97.43 W														
CHLORIDES REPORTED AT 8000 PPM LCM REPORTED AT 4 PPB														
TODAY'S CREW: F. VILLA, A. HOLGUIN														
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES - LIBERAL, KS (620-624-8123)														
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.														
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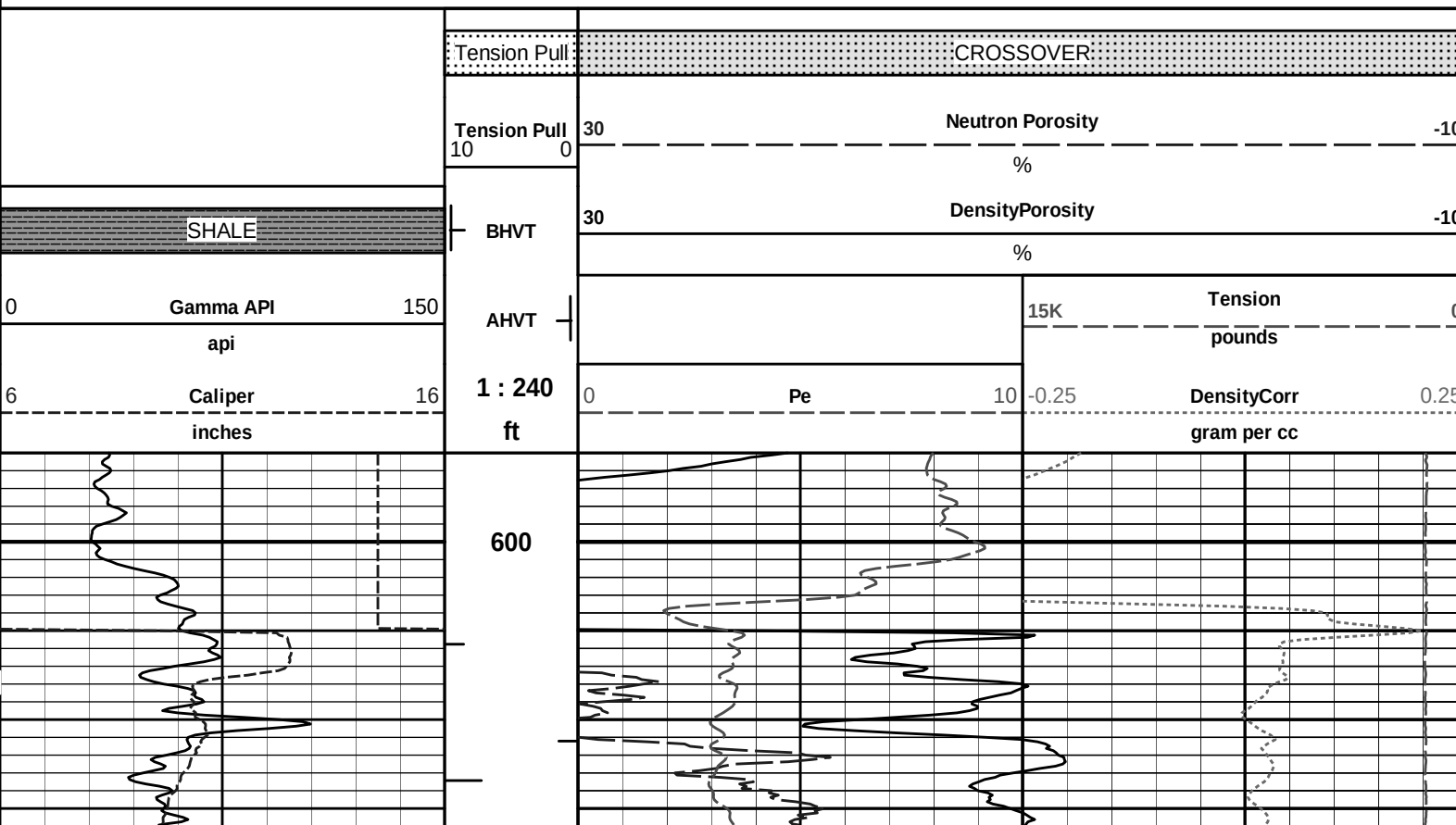
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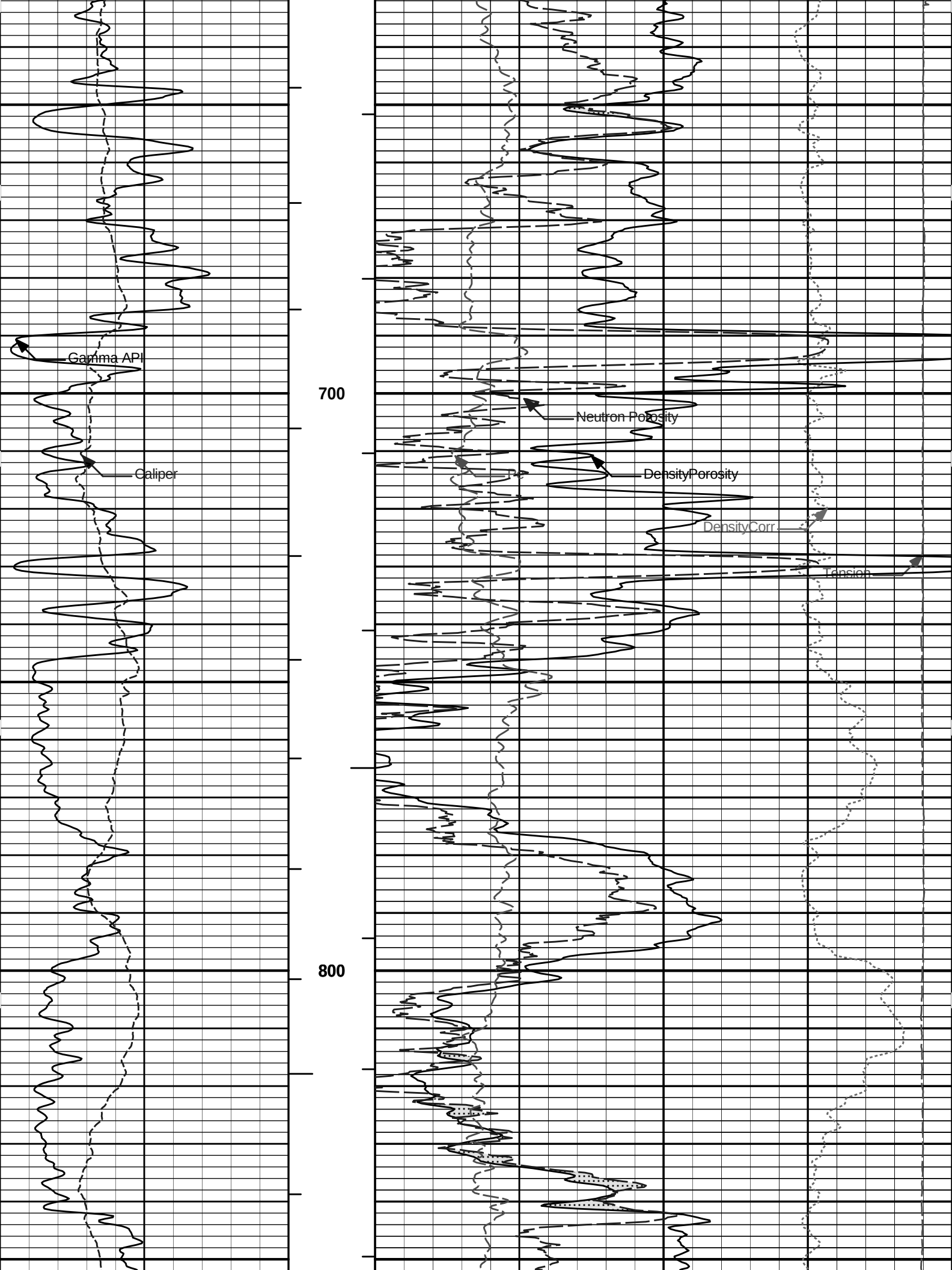
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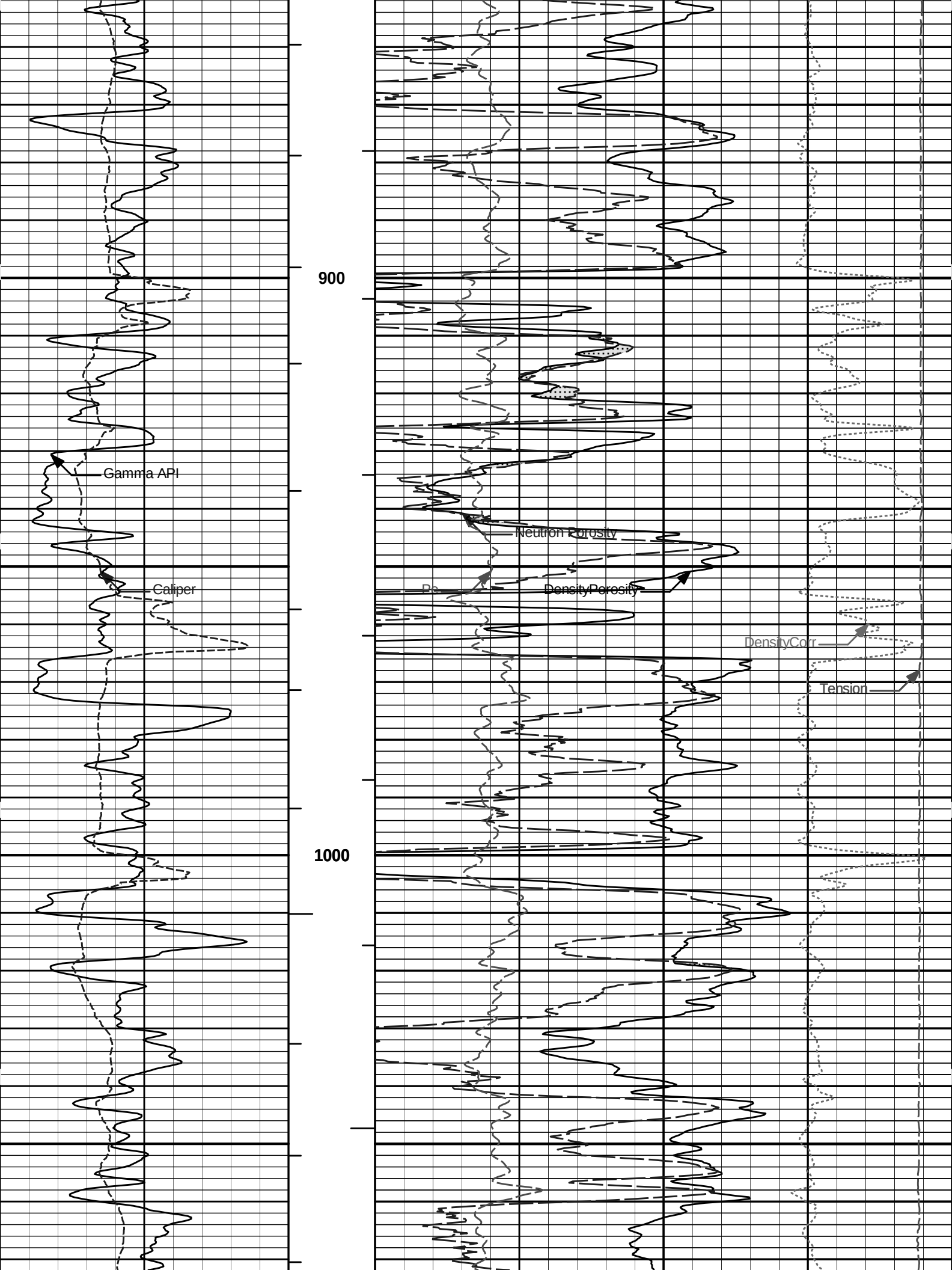
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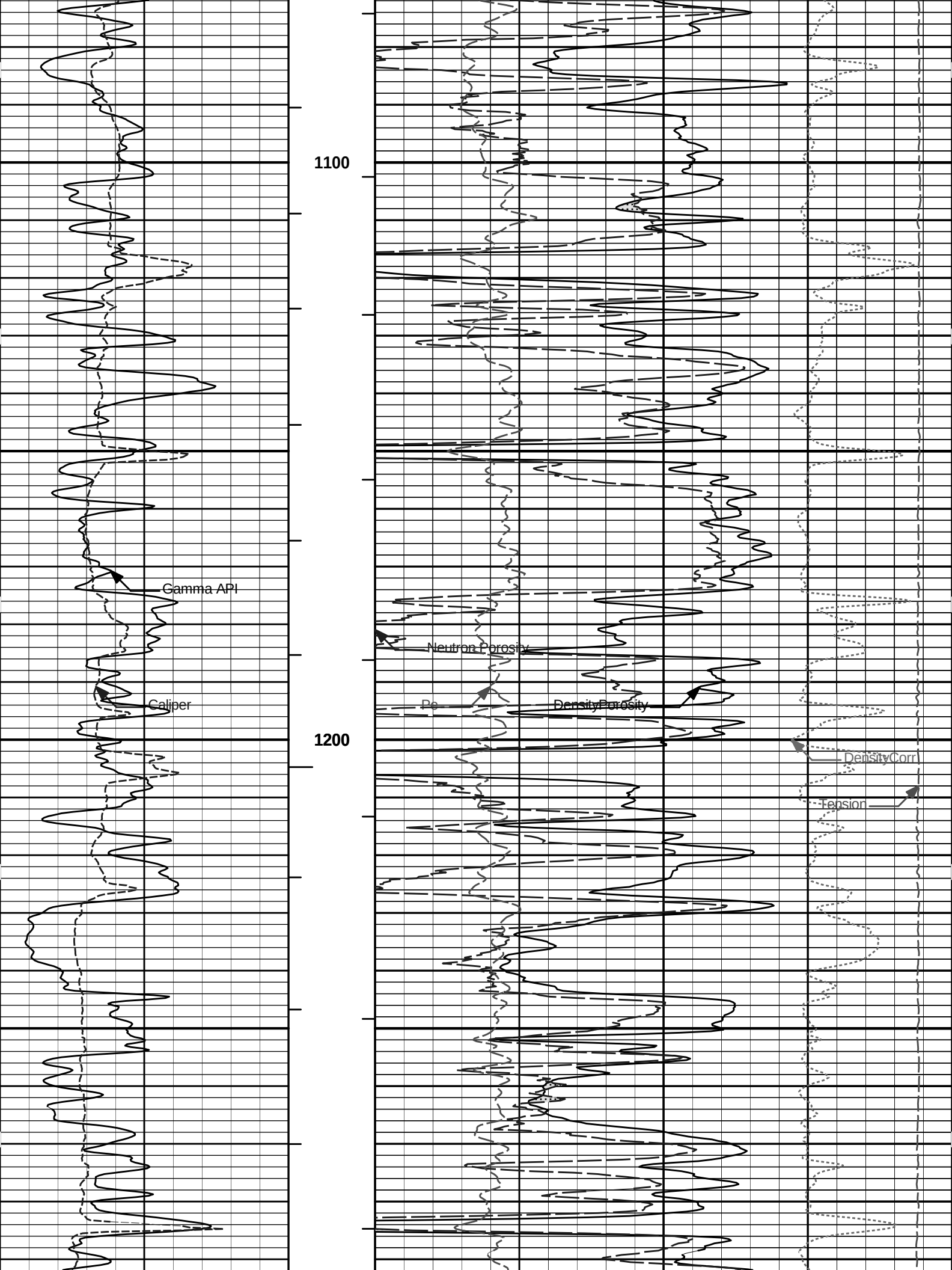
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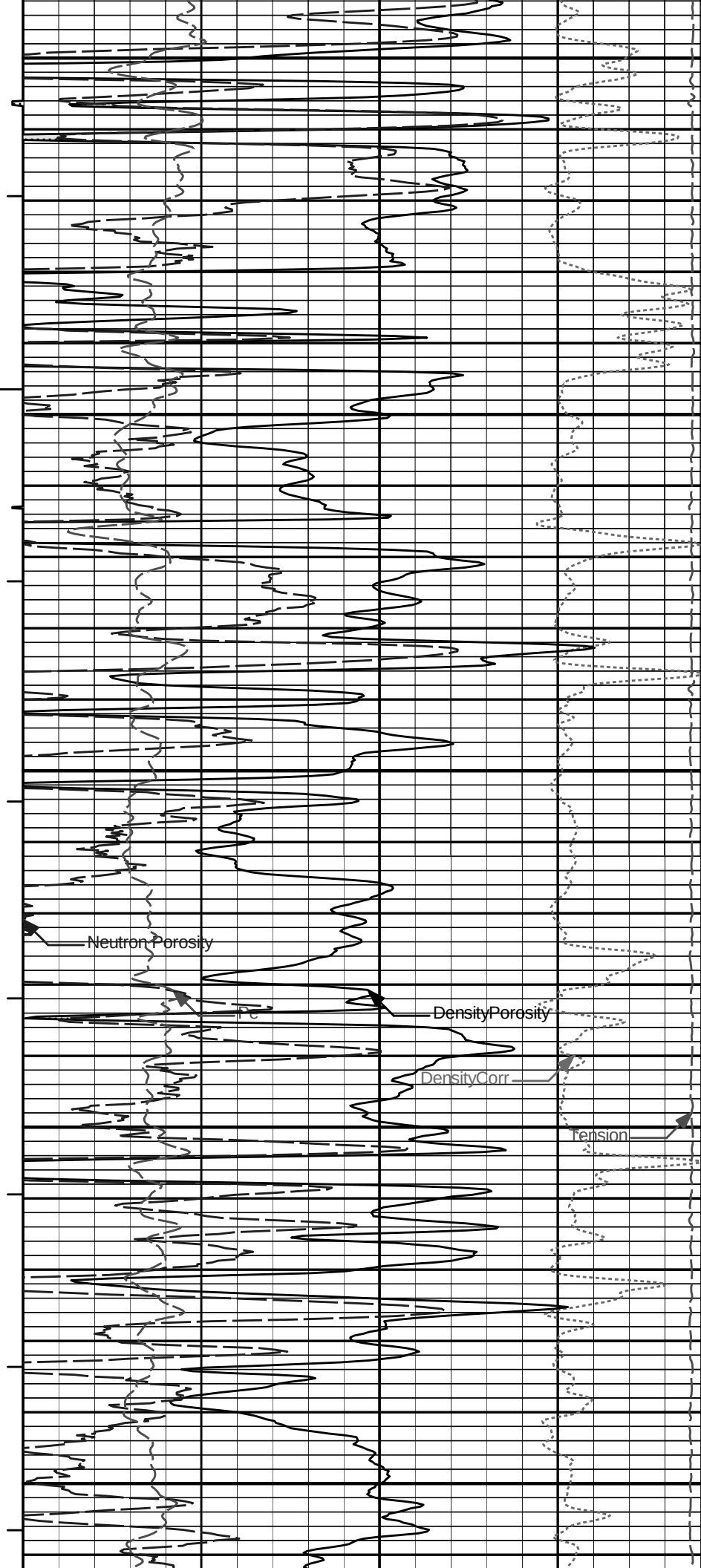
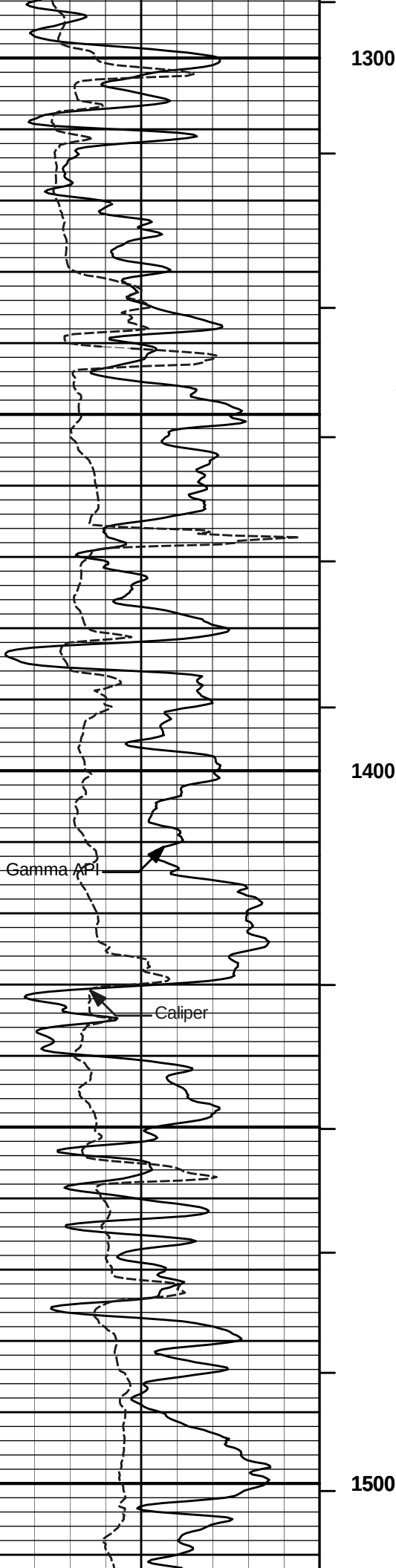
5 INCH MAIN LOG

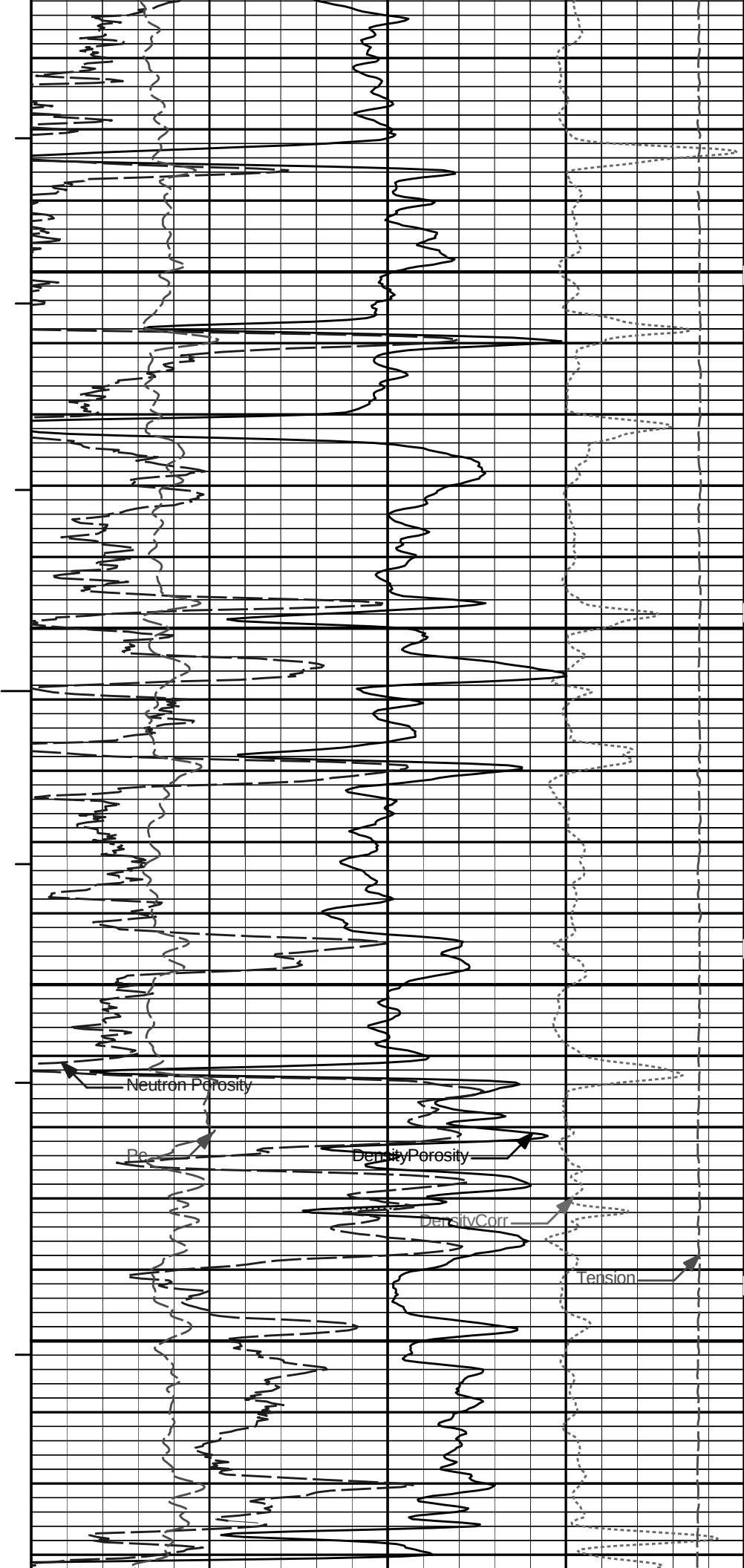
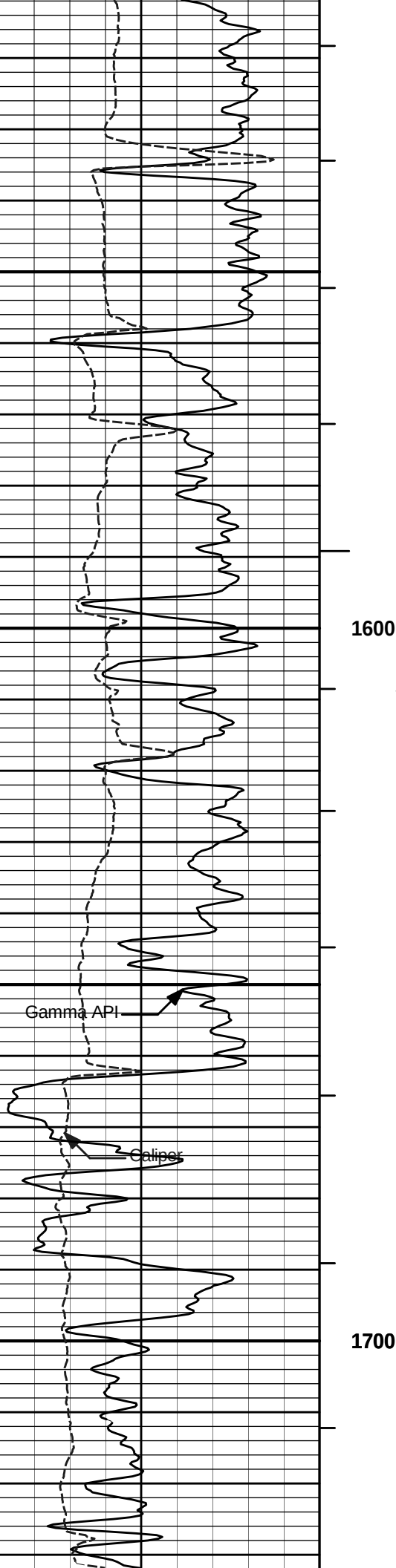


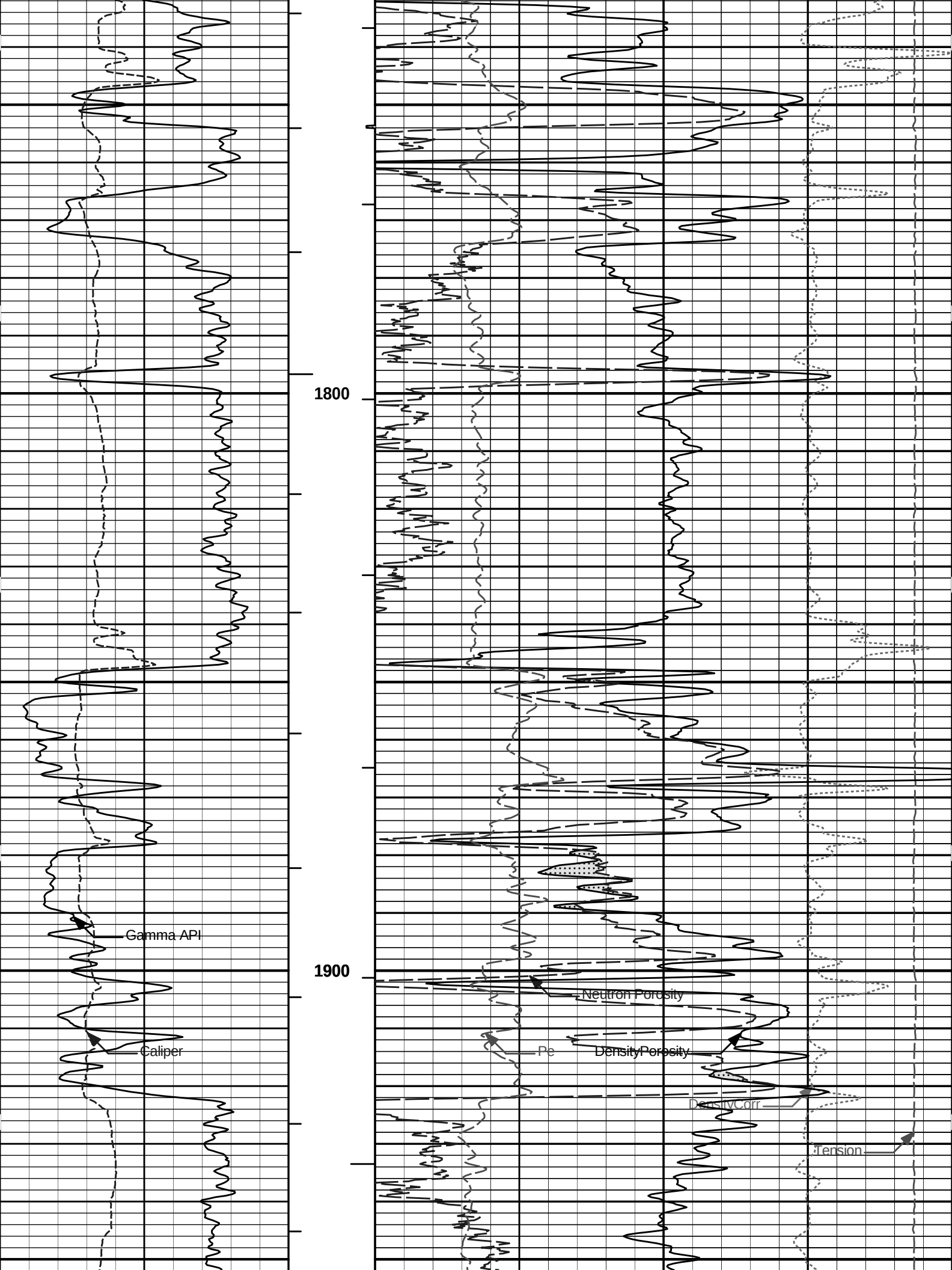


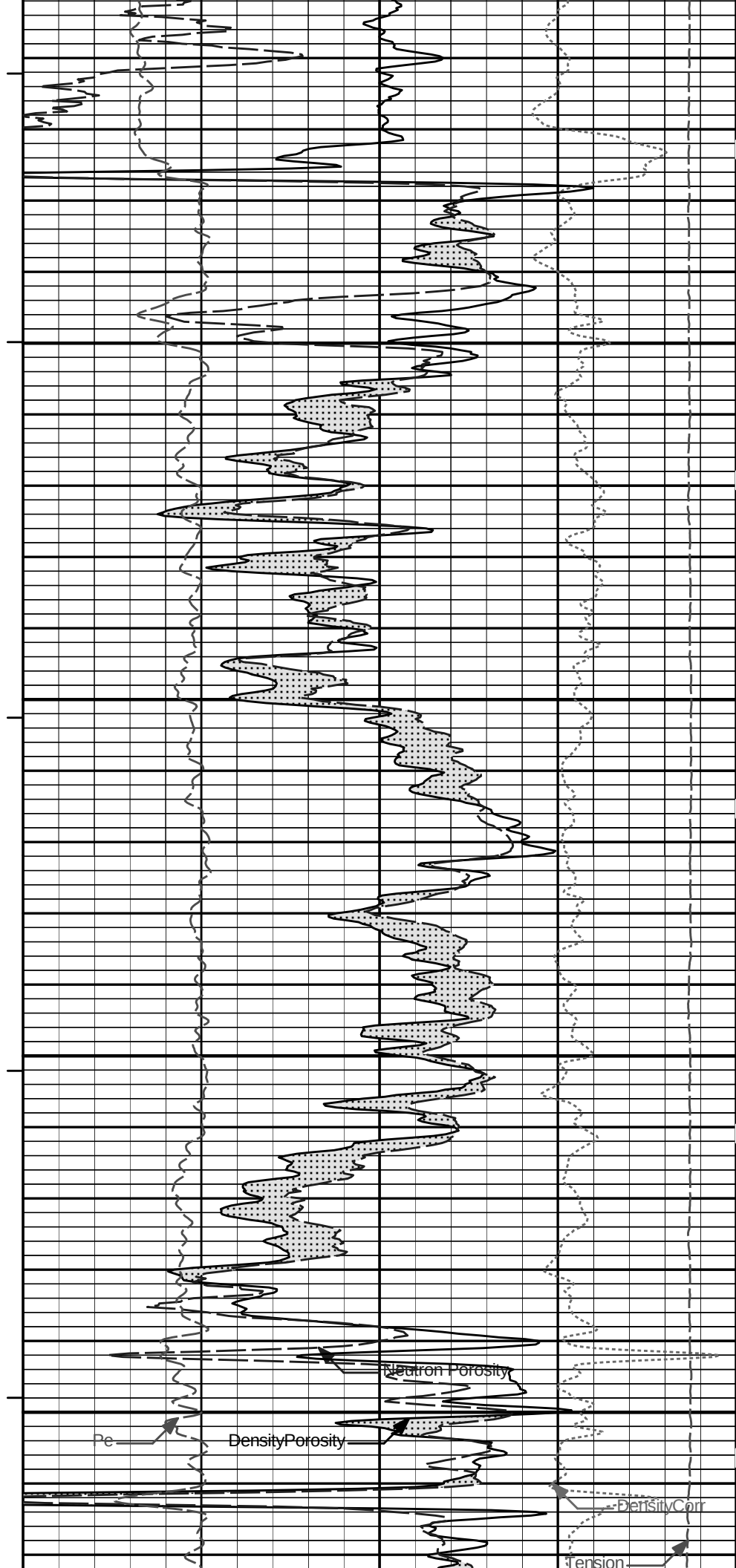
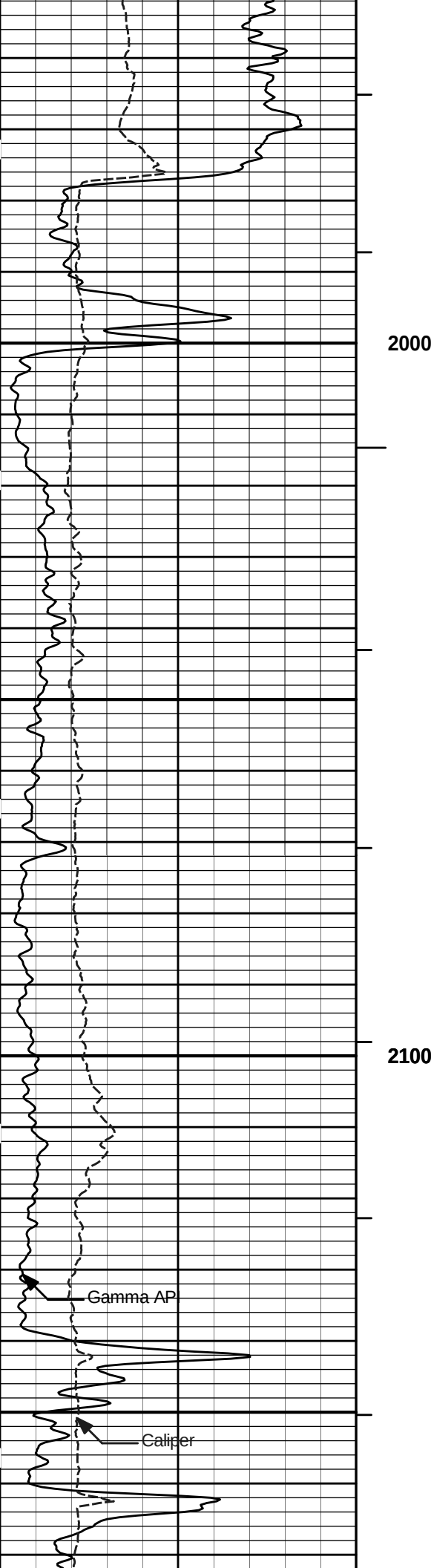


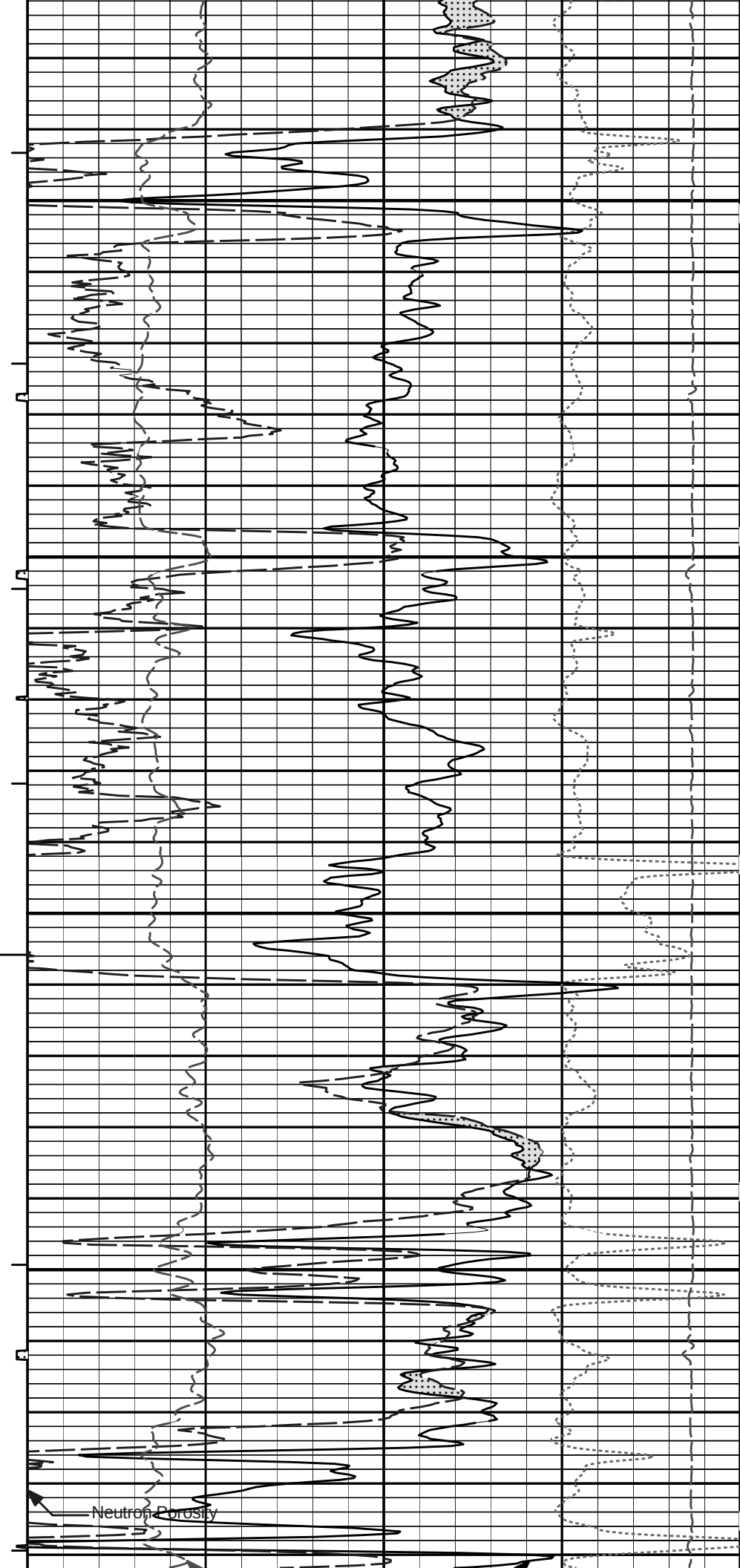
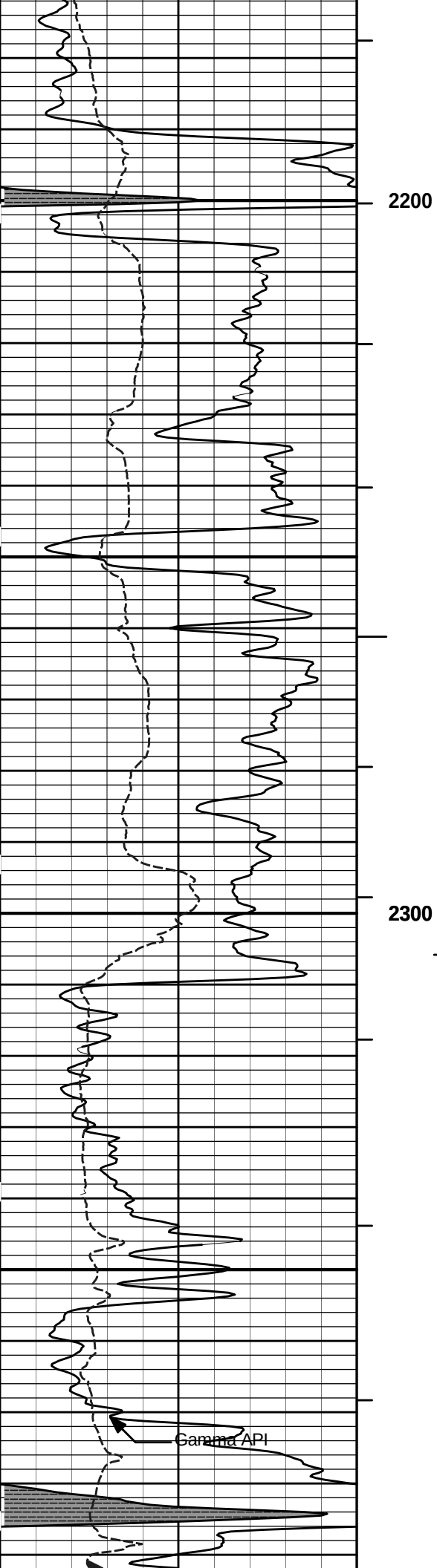


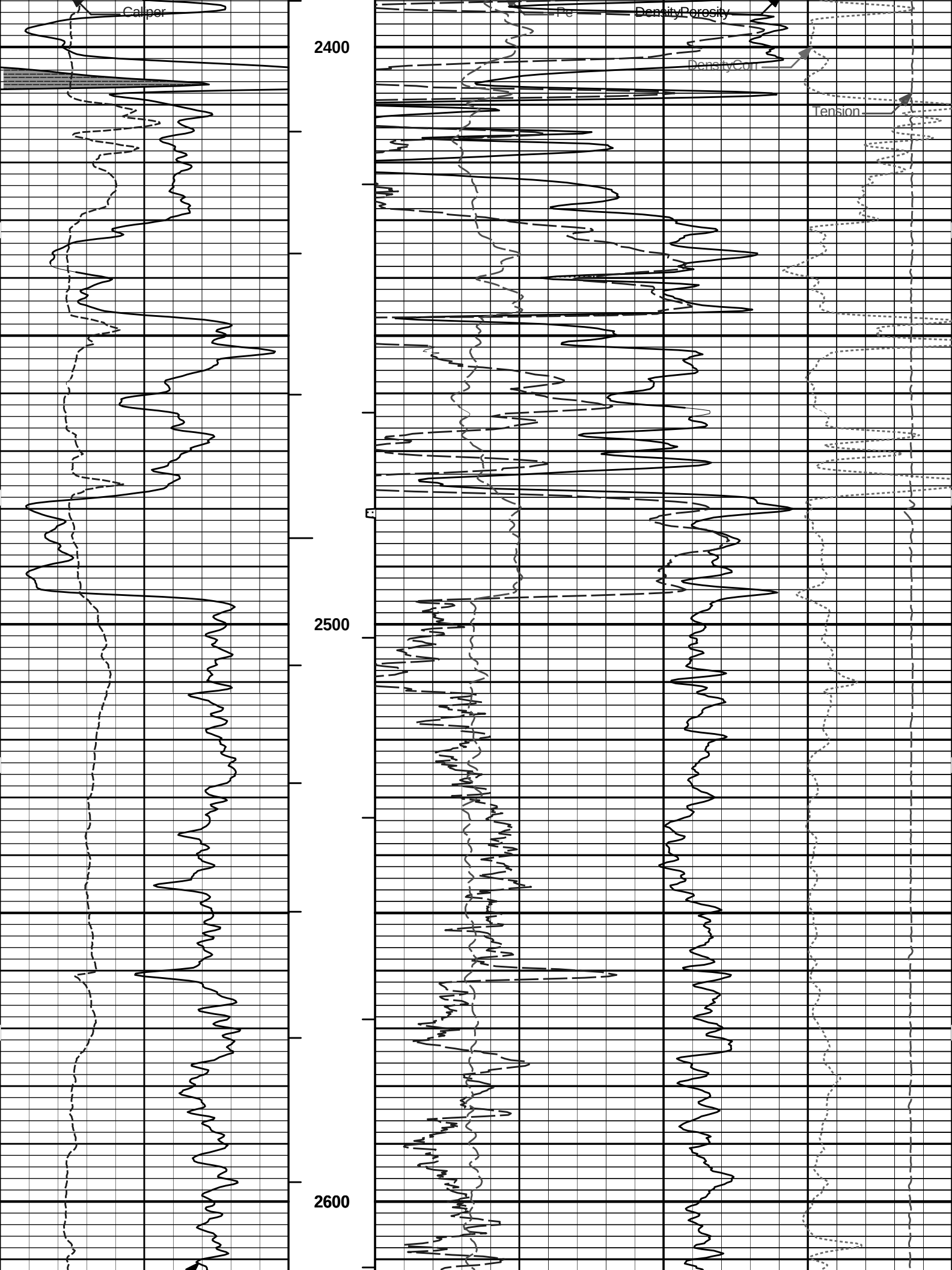


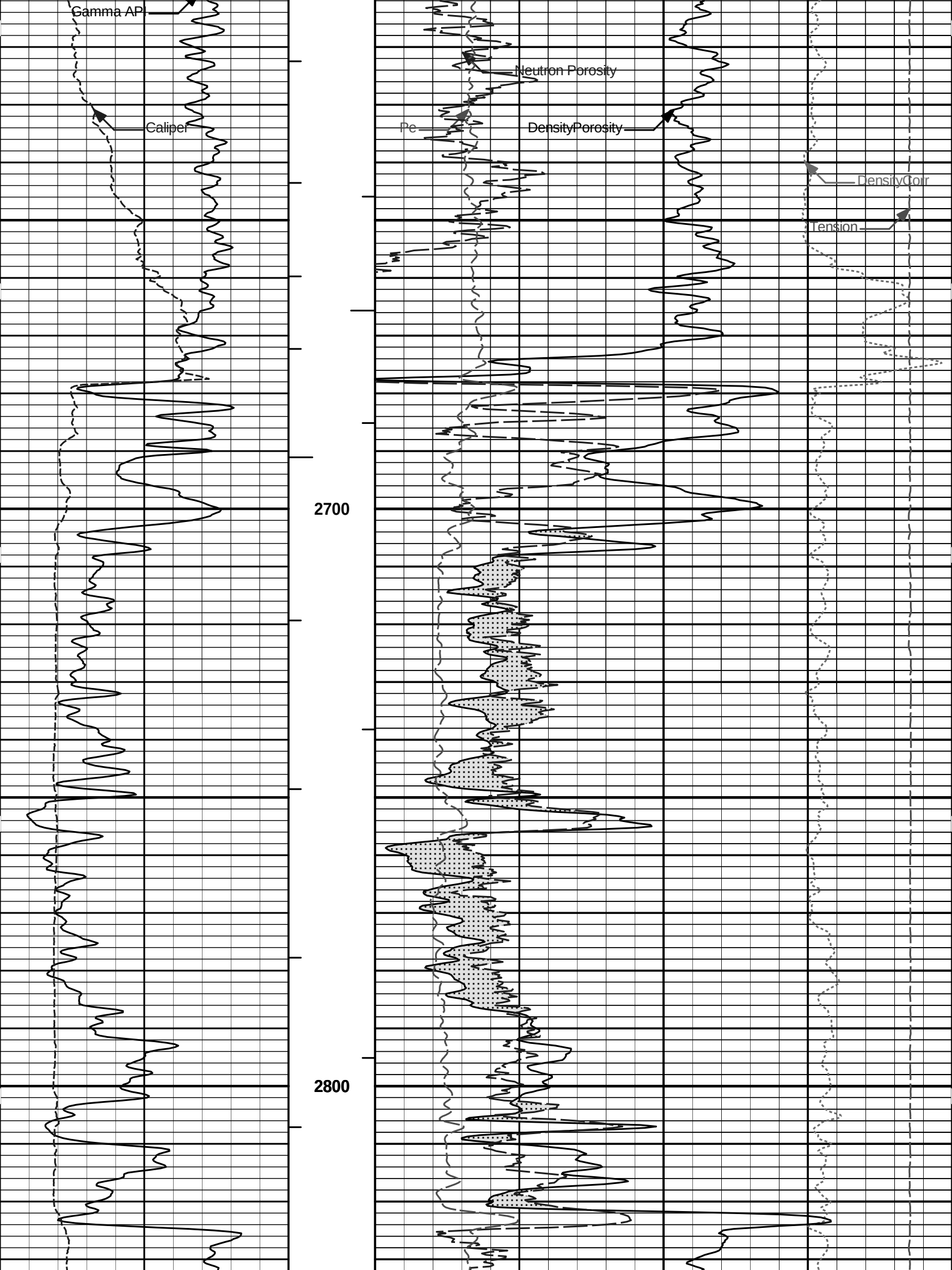


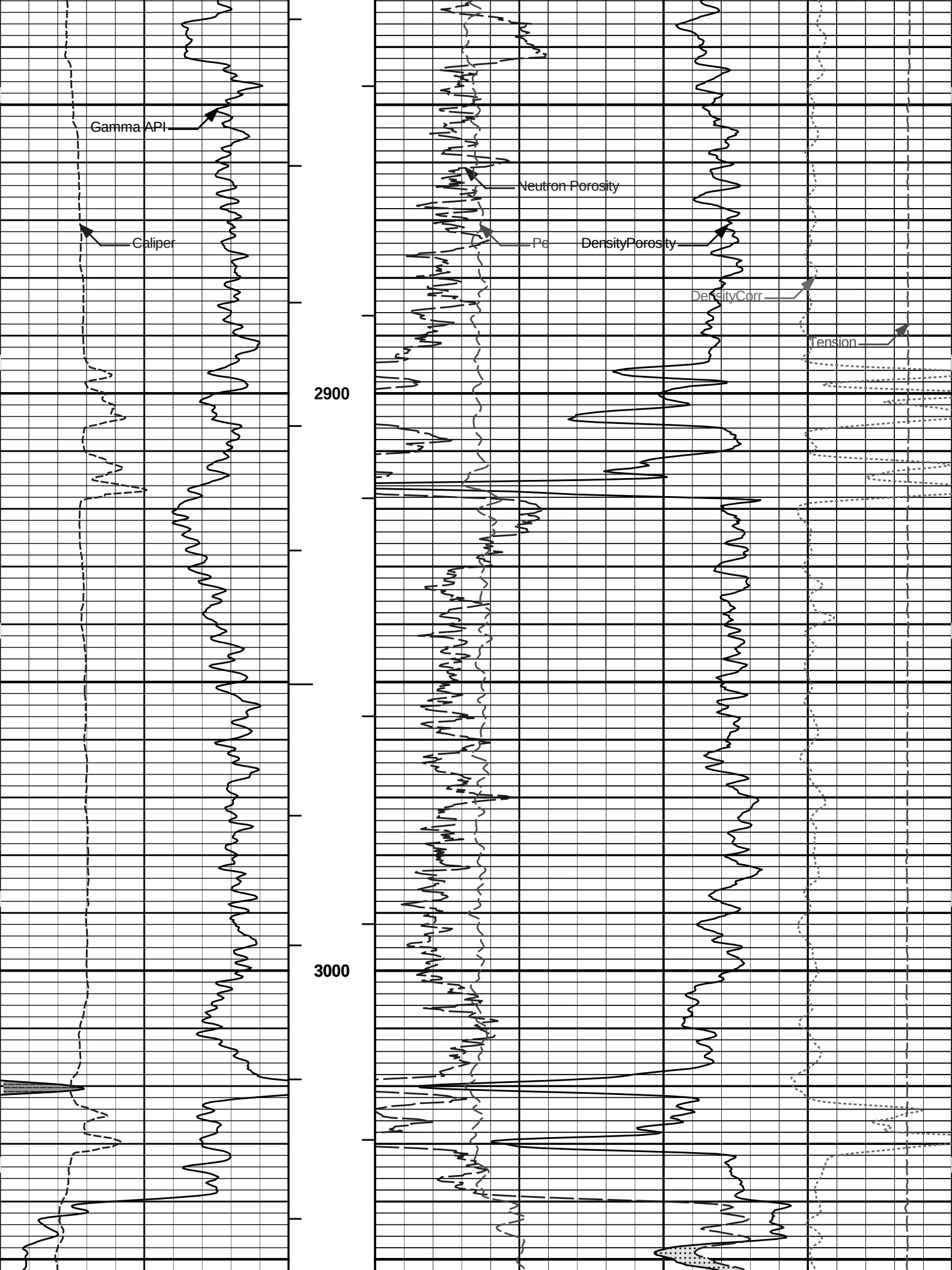


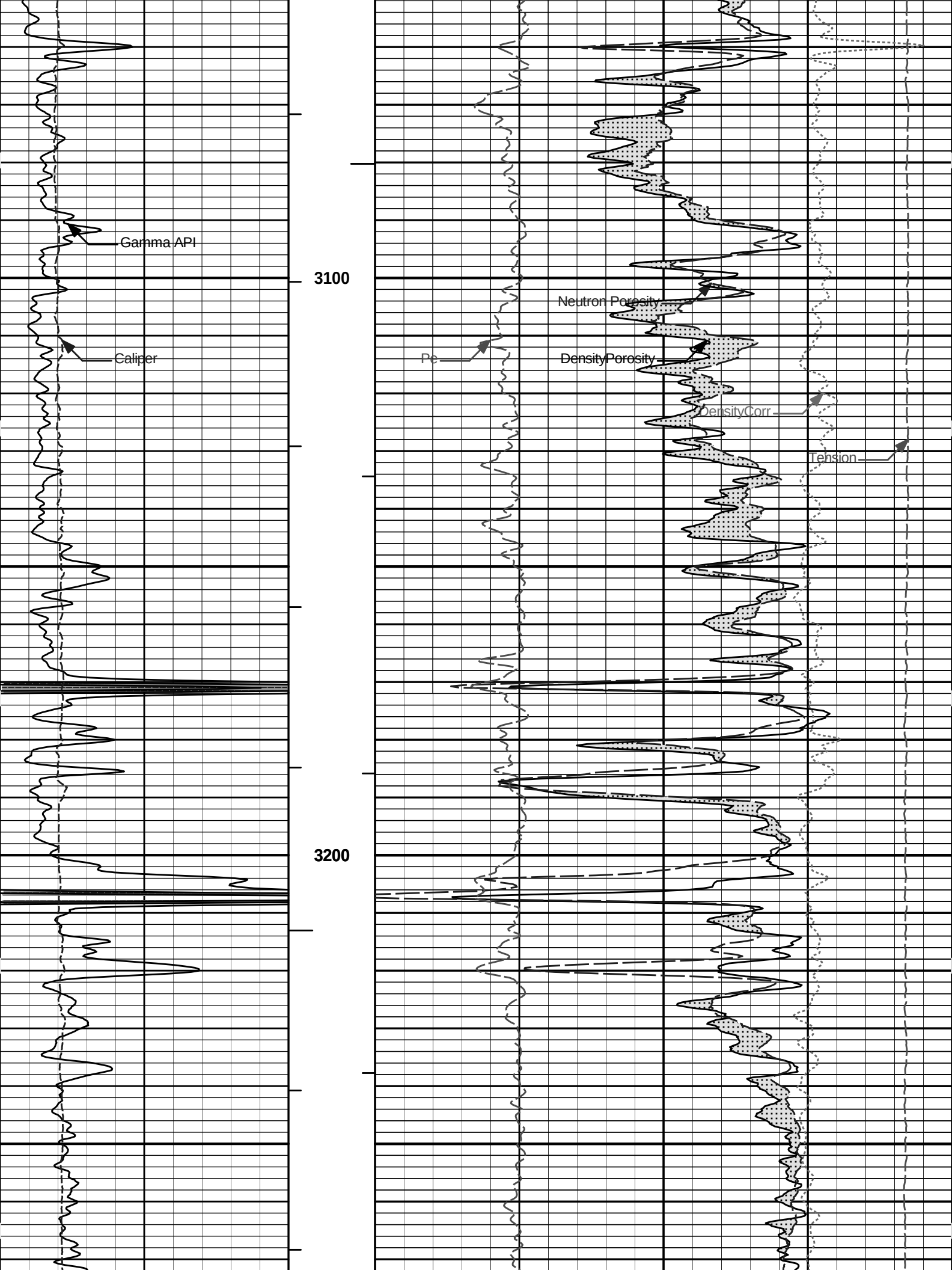


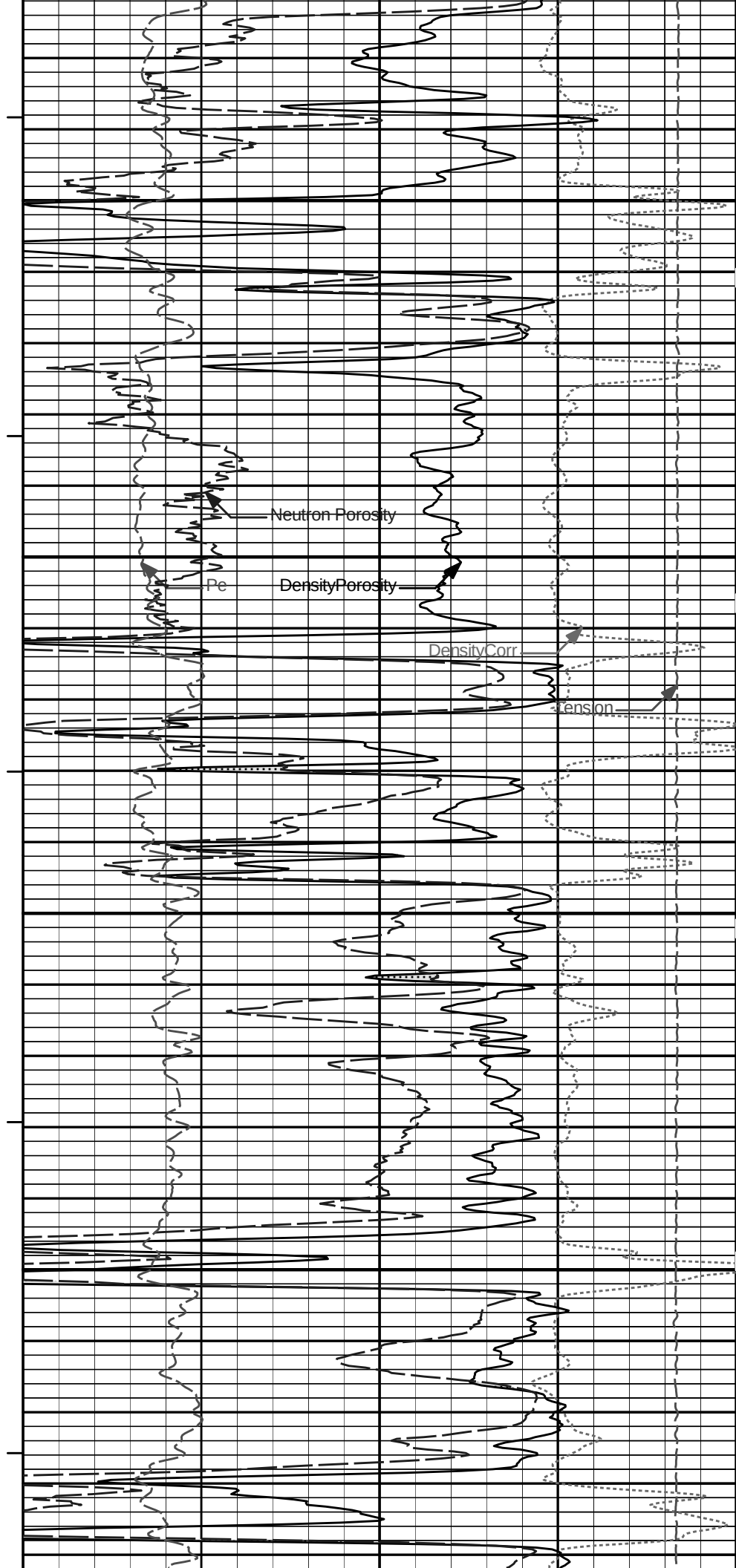
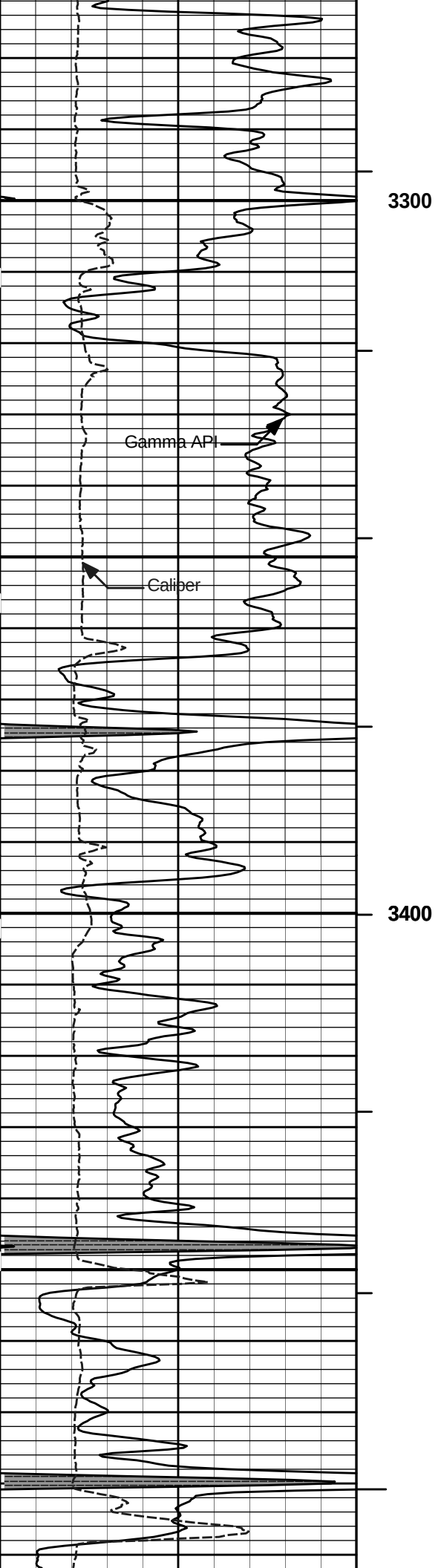


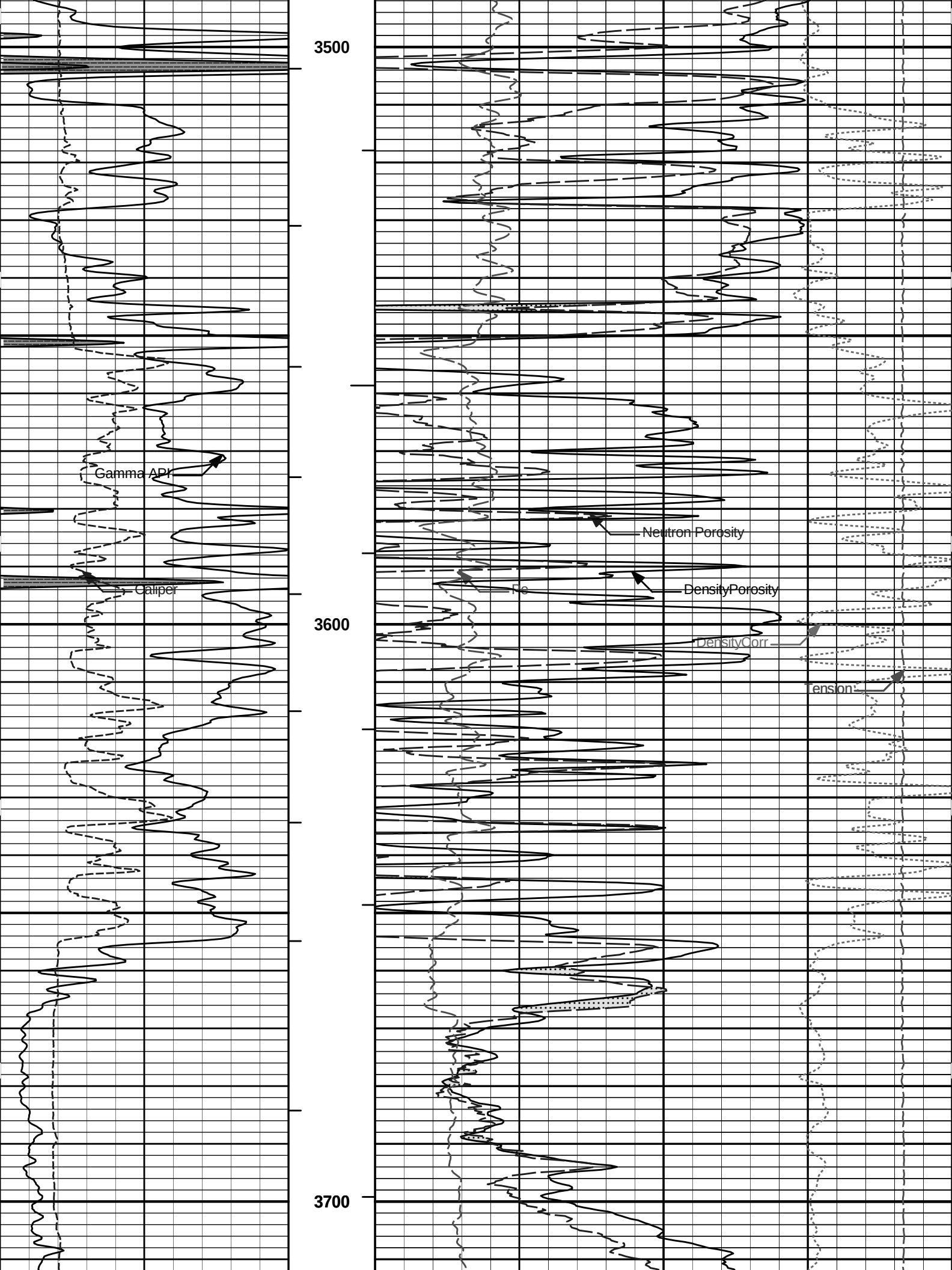


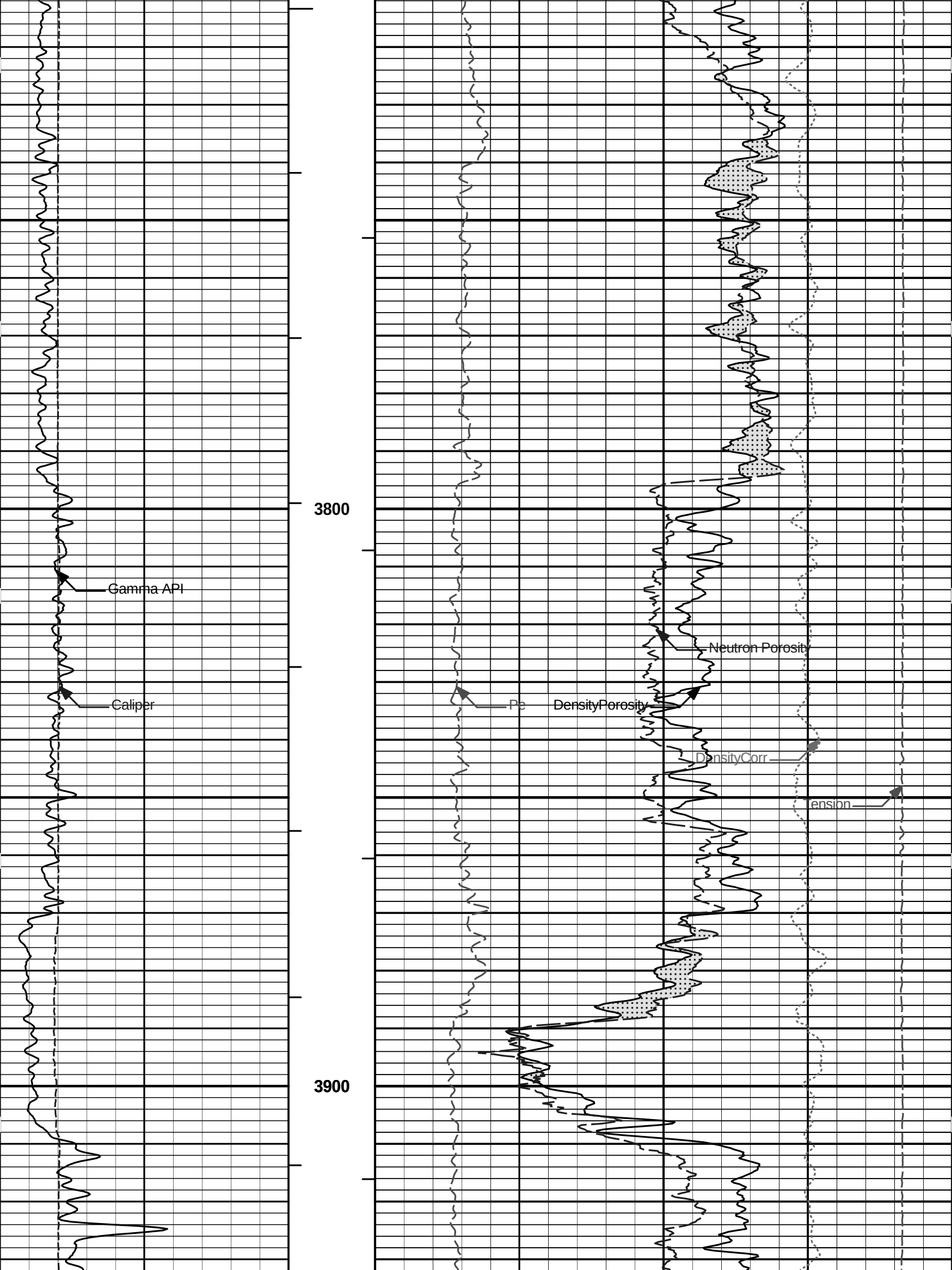


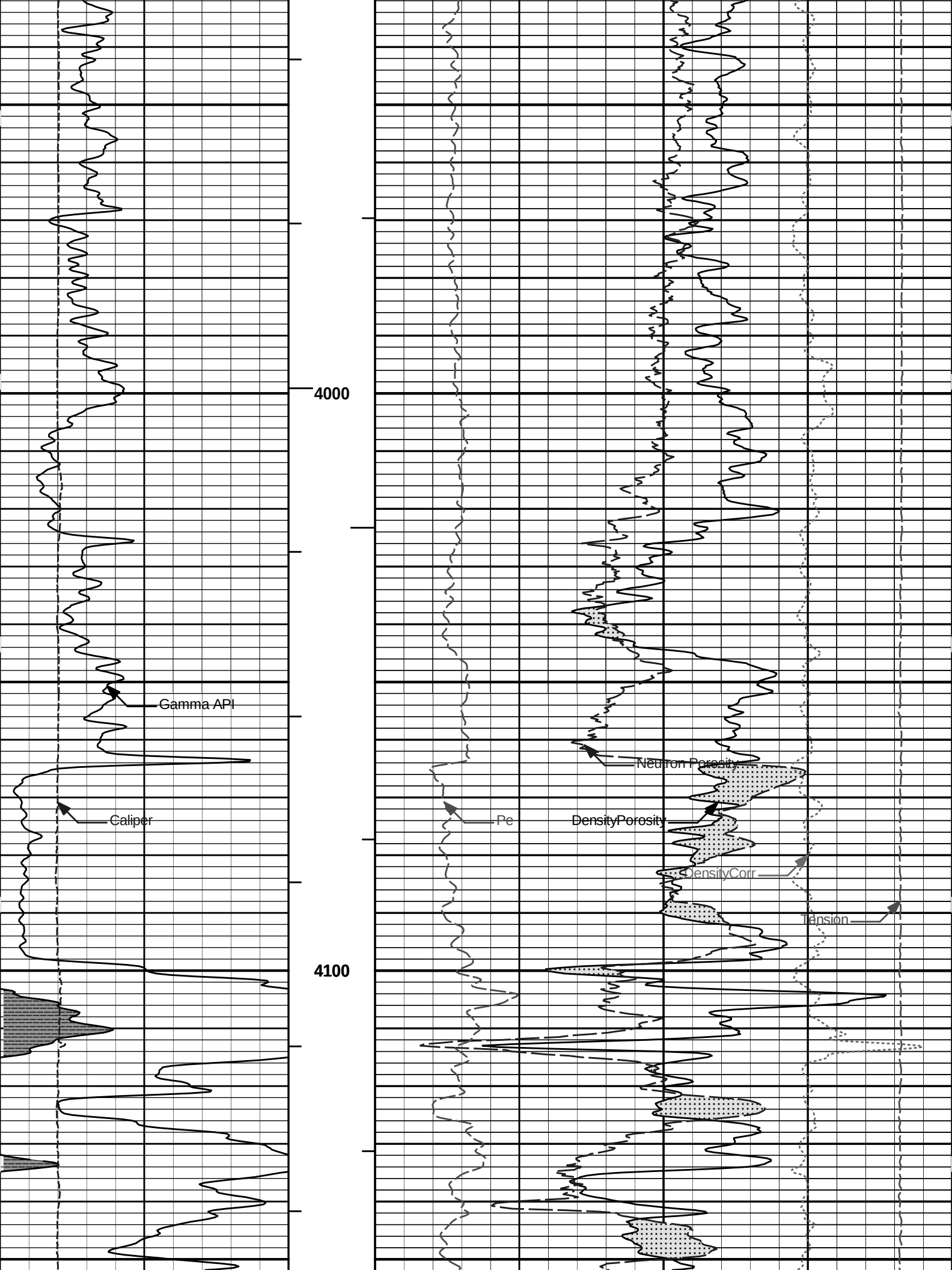


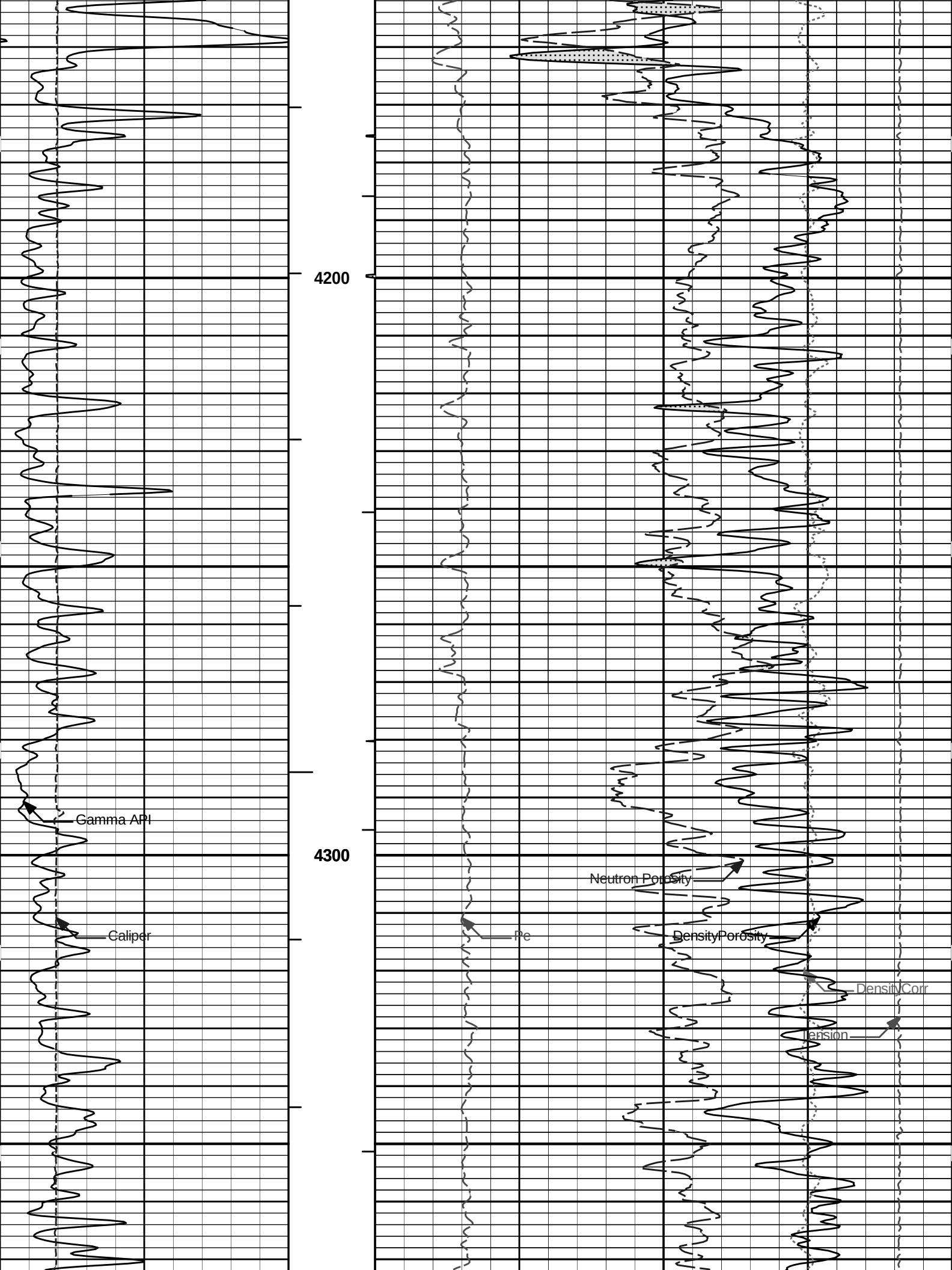


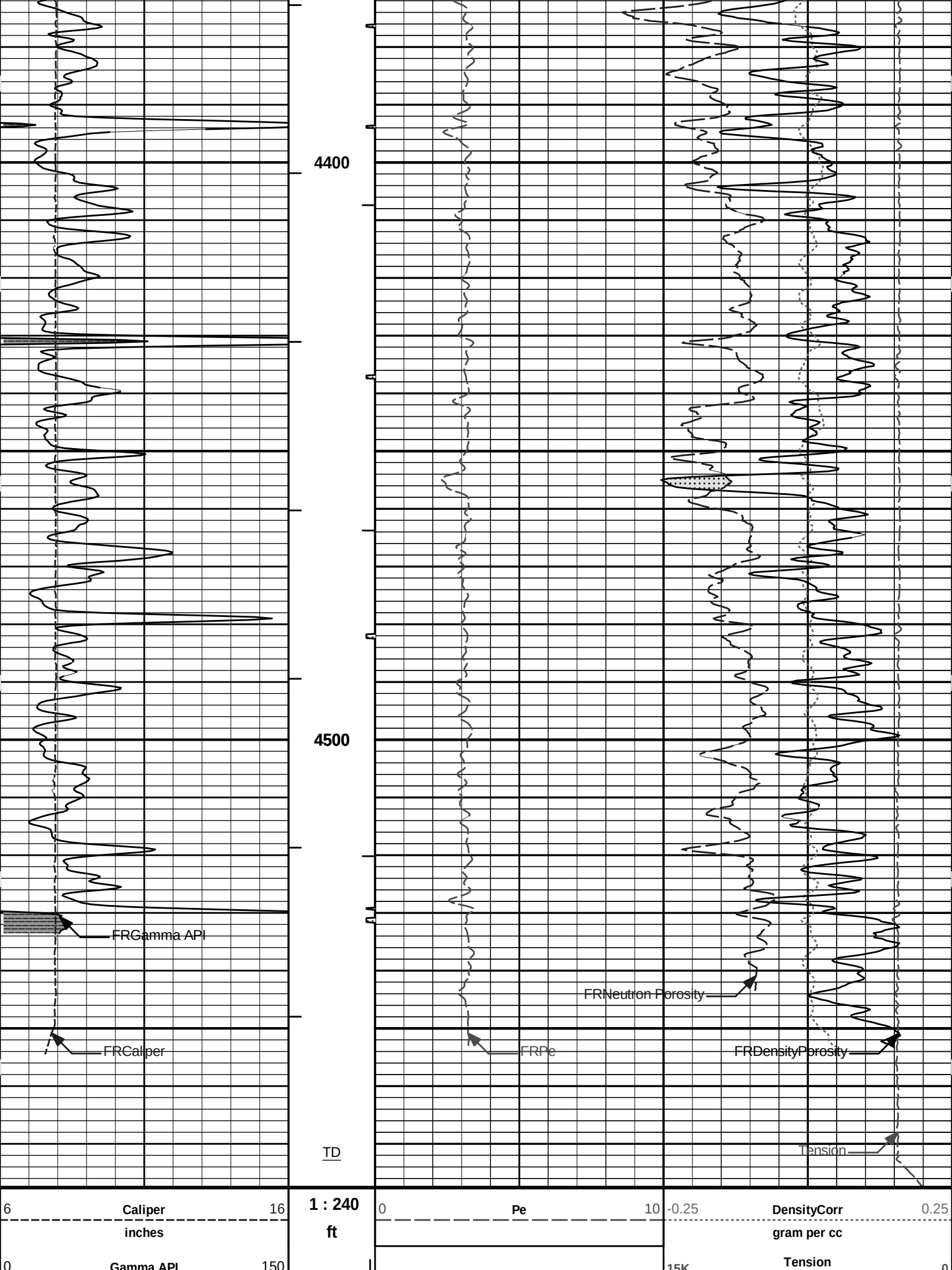


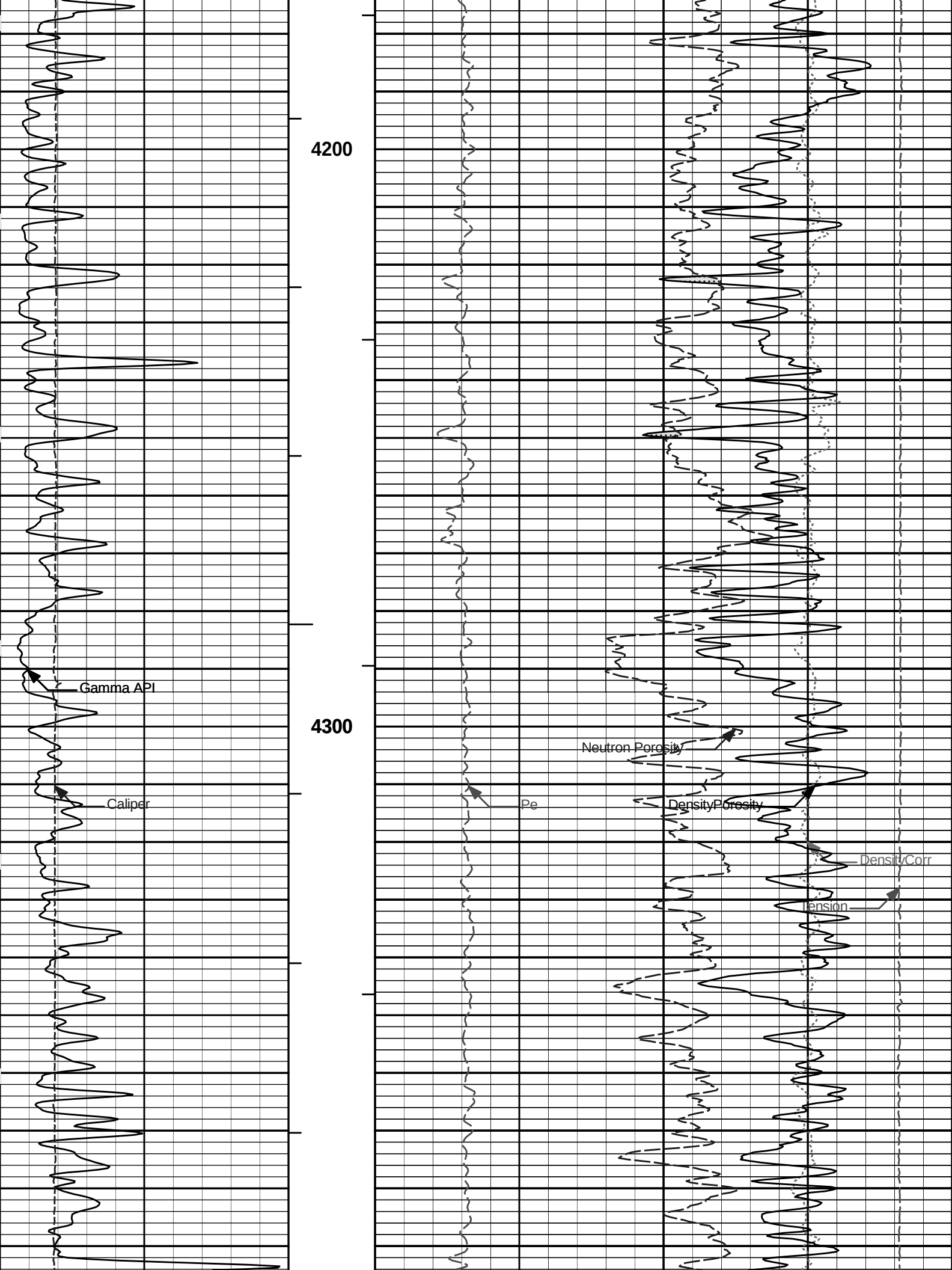


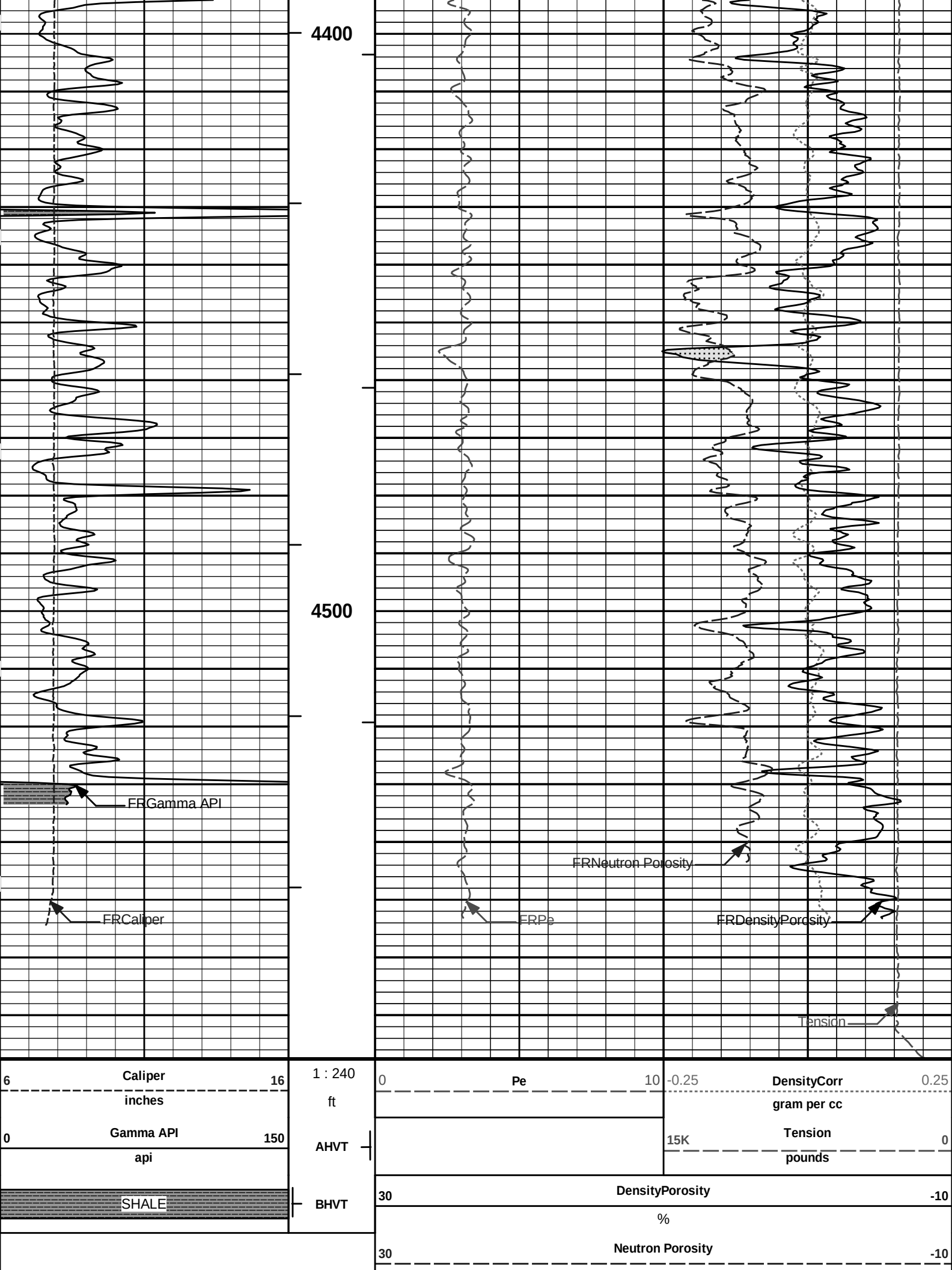












4400

4500

FR Gamma API

FR Caliper

FR Neutron Porosity

FR Pe

FR Density Porosity

Tension

6	Caliper	16
inches		
0	Gamma API	150
api		
SHALE		

1 : 240
ft
AHVT
BHVT

0	Pe	10	-0.25	DensityCorr	0.25
			gram per cc		
			15K	Tension	0
			pounds		
30	DensityPorosity				-10
%					
30	Neutron Porosity				-10

CROSSOVER

HALLIBURTON

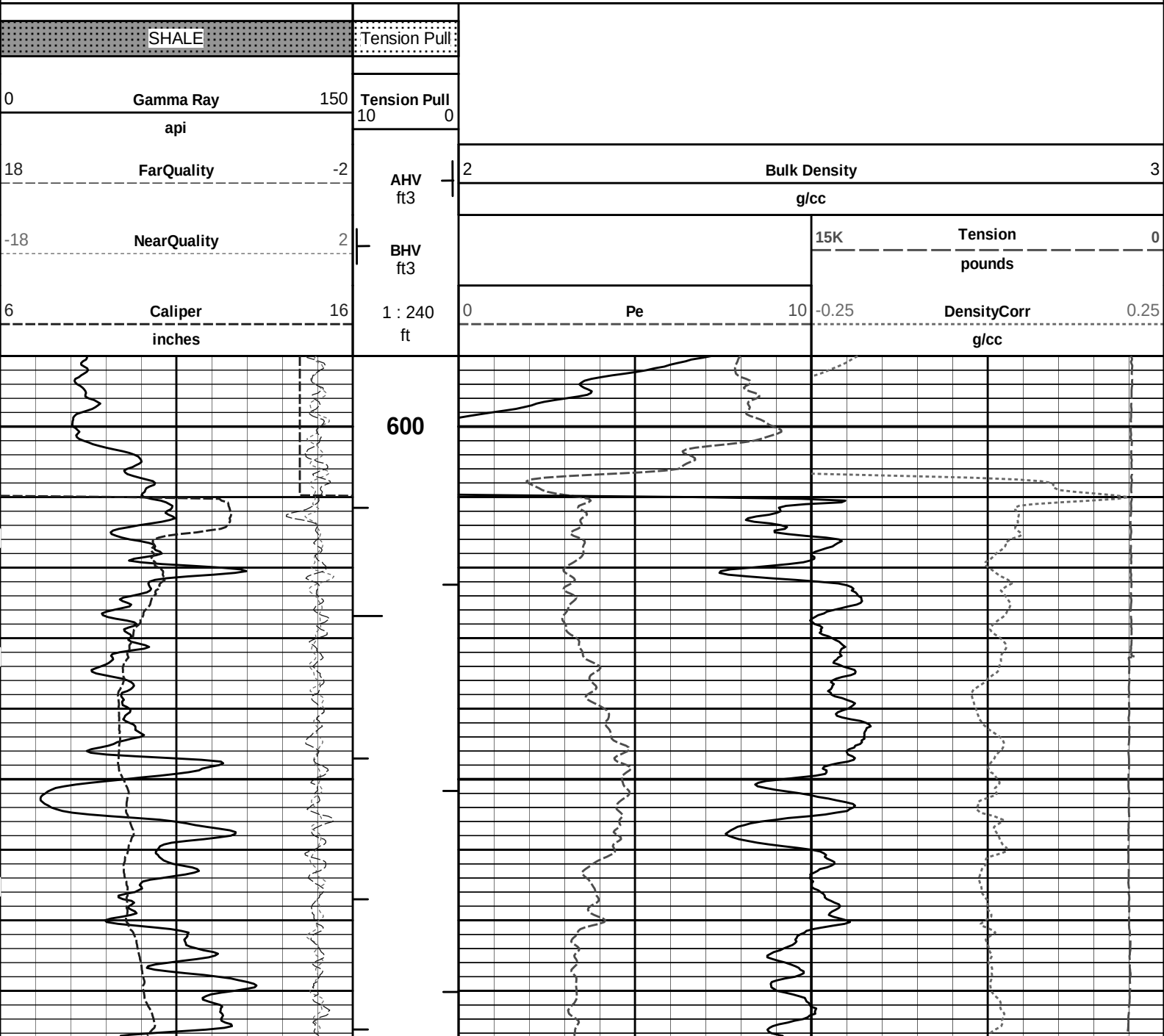
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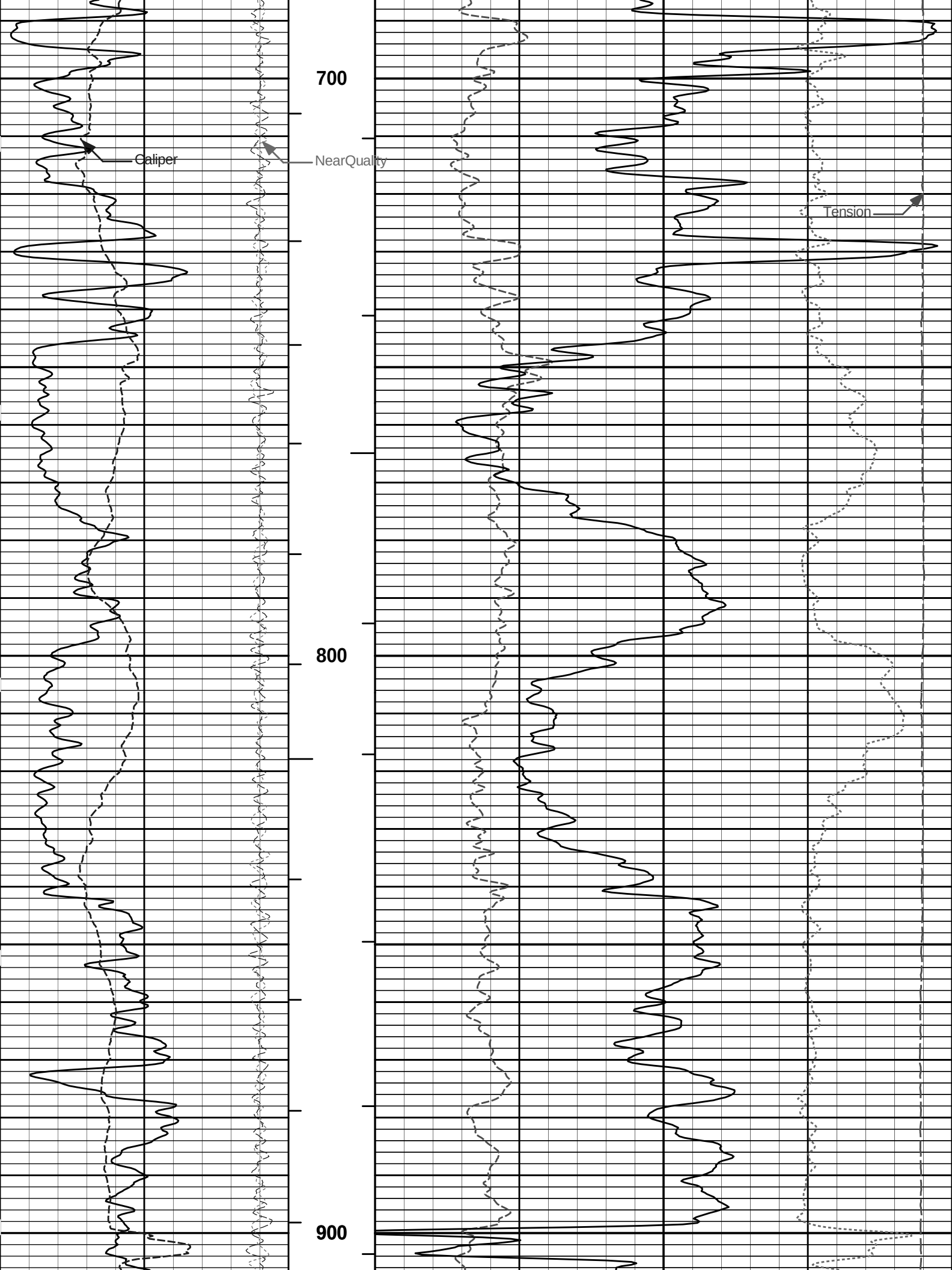
REPEAT SECTION

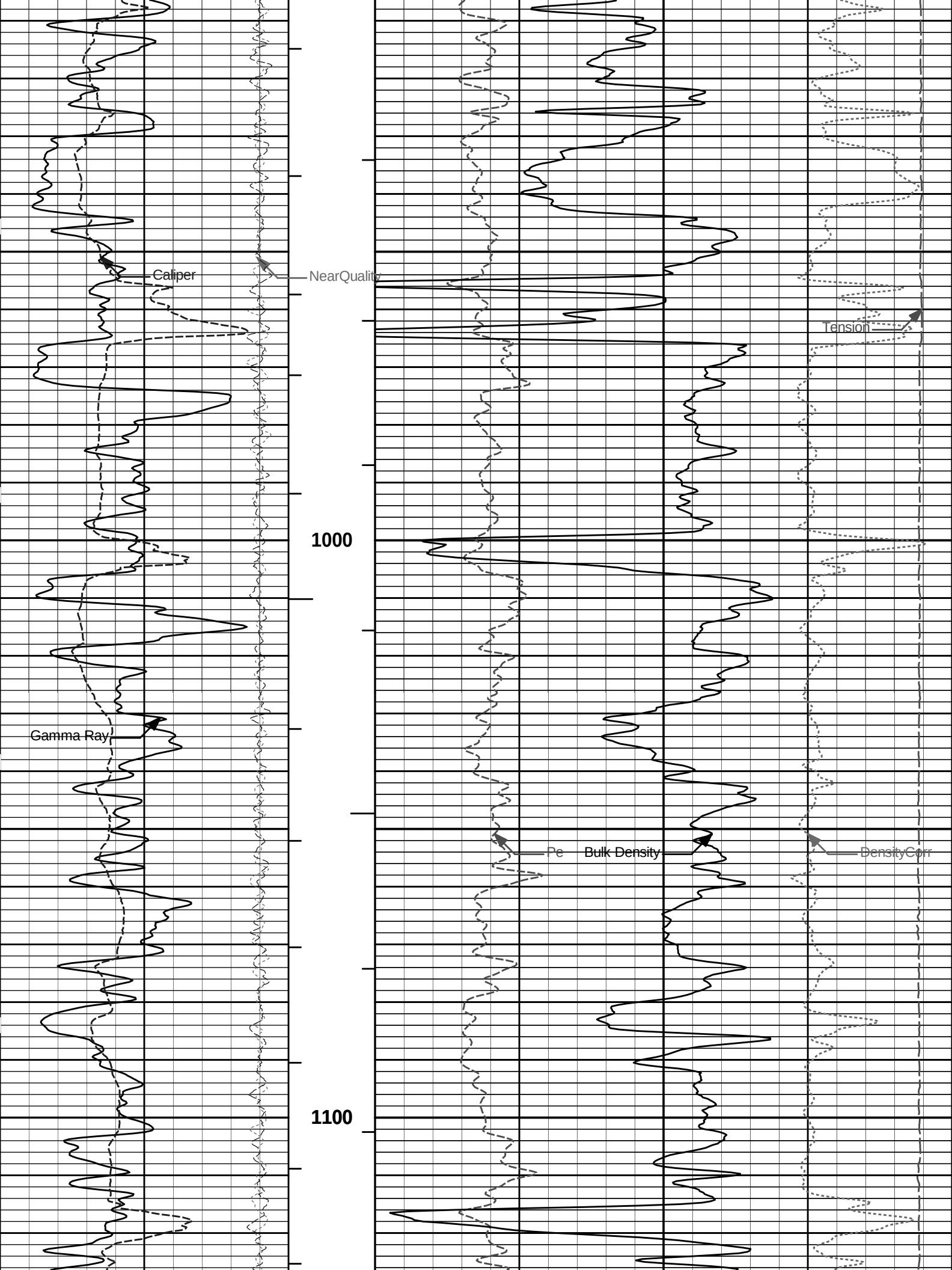
HALLIBURTON

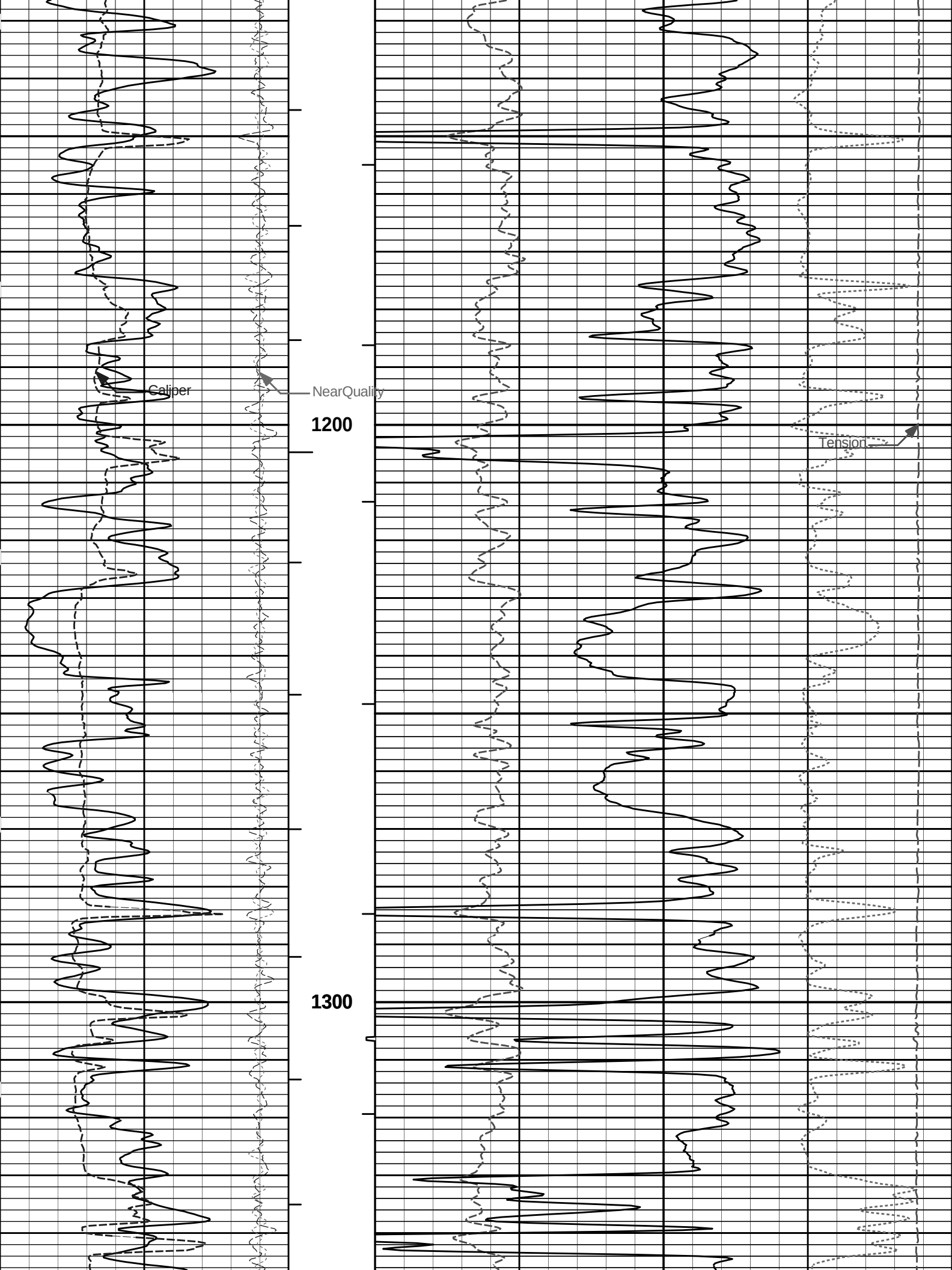
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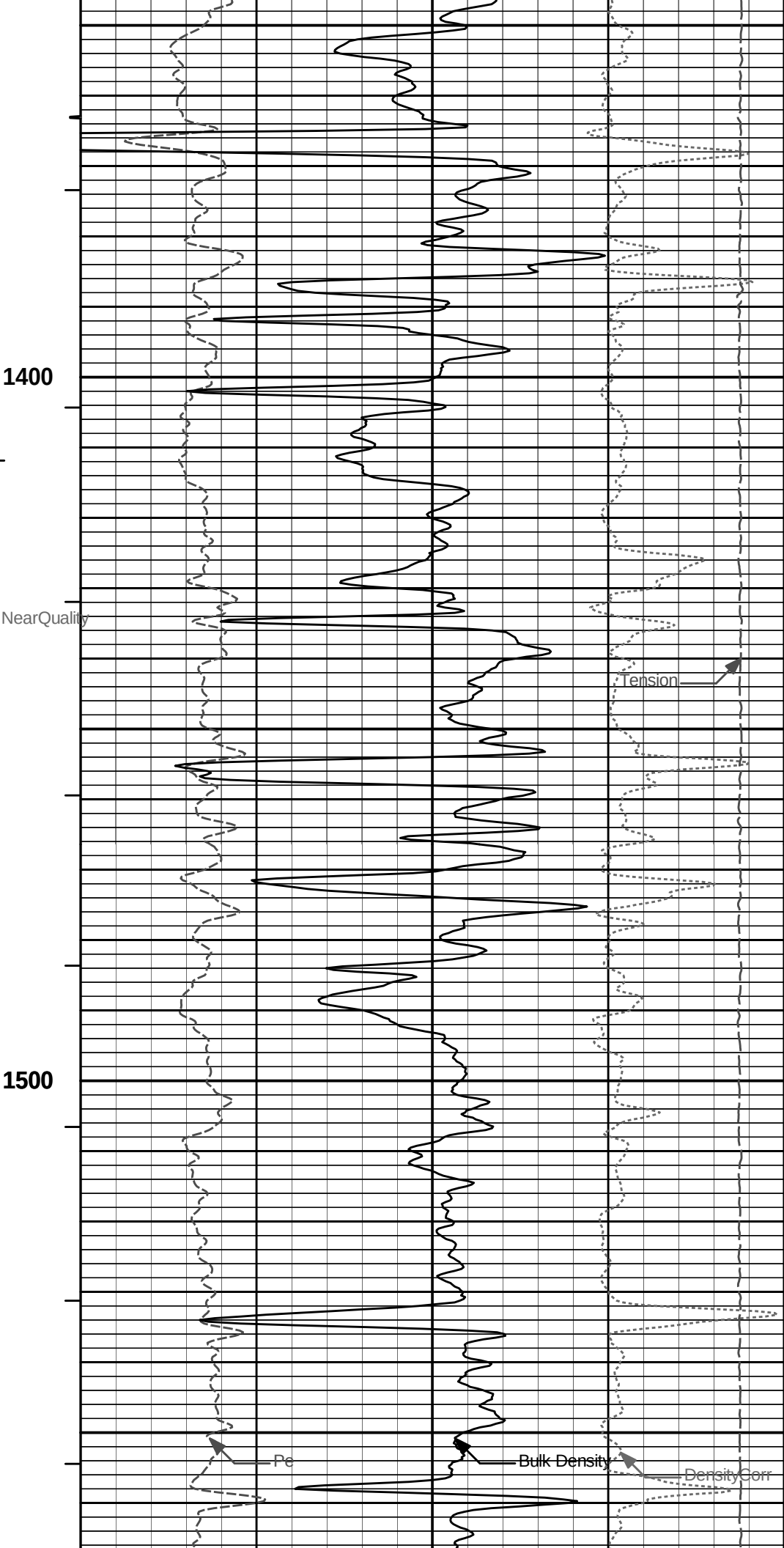
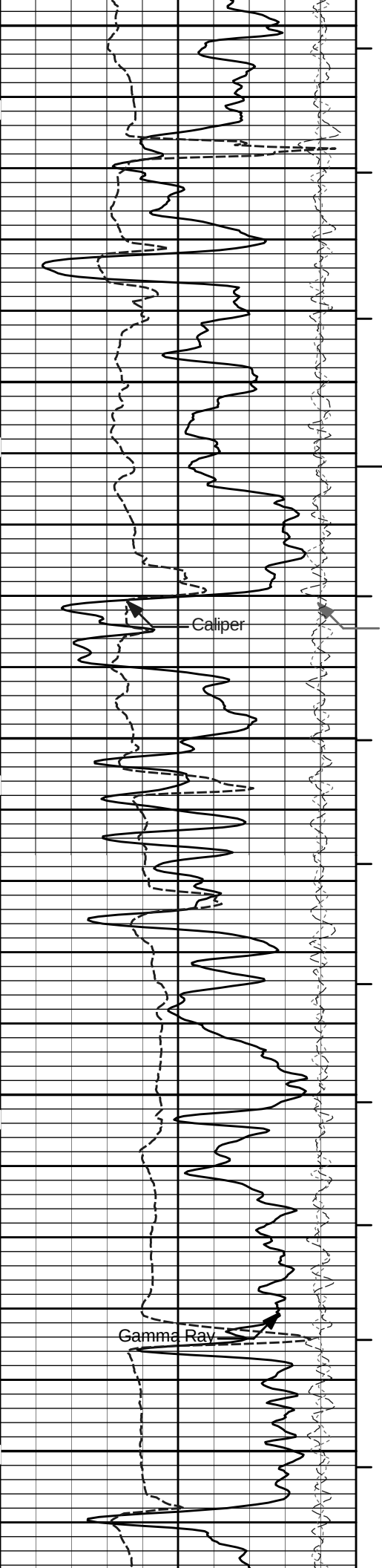
5 INCH MAIN LOG

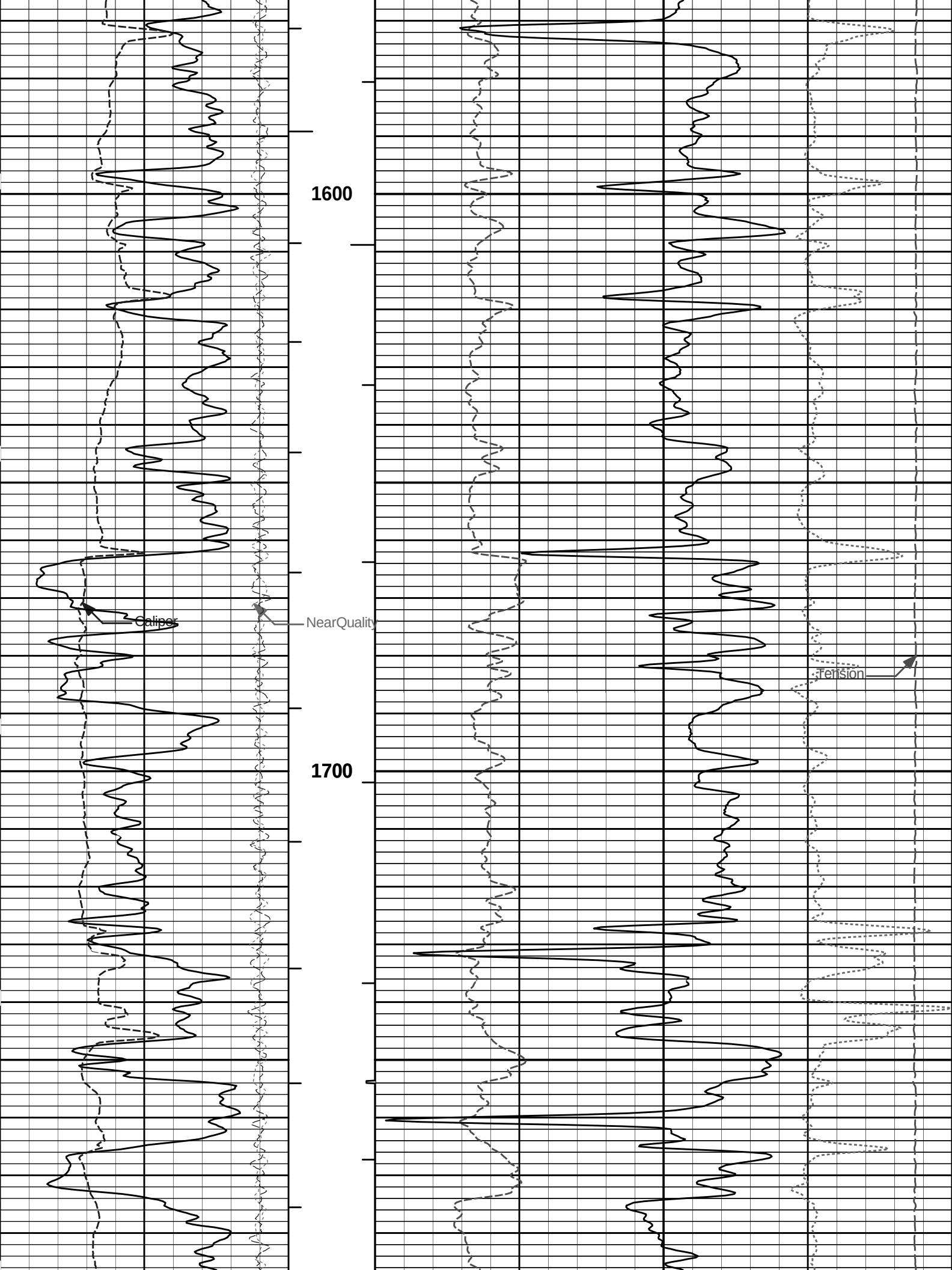


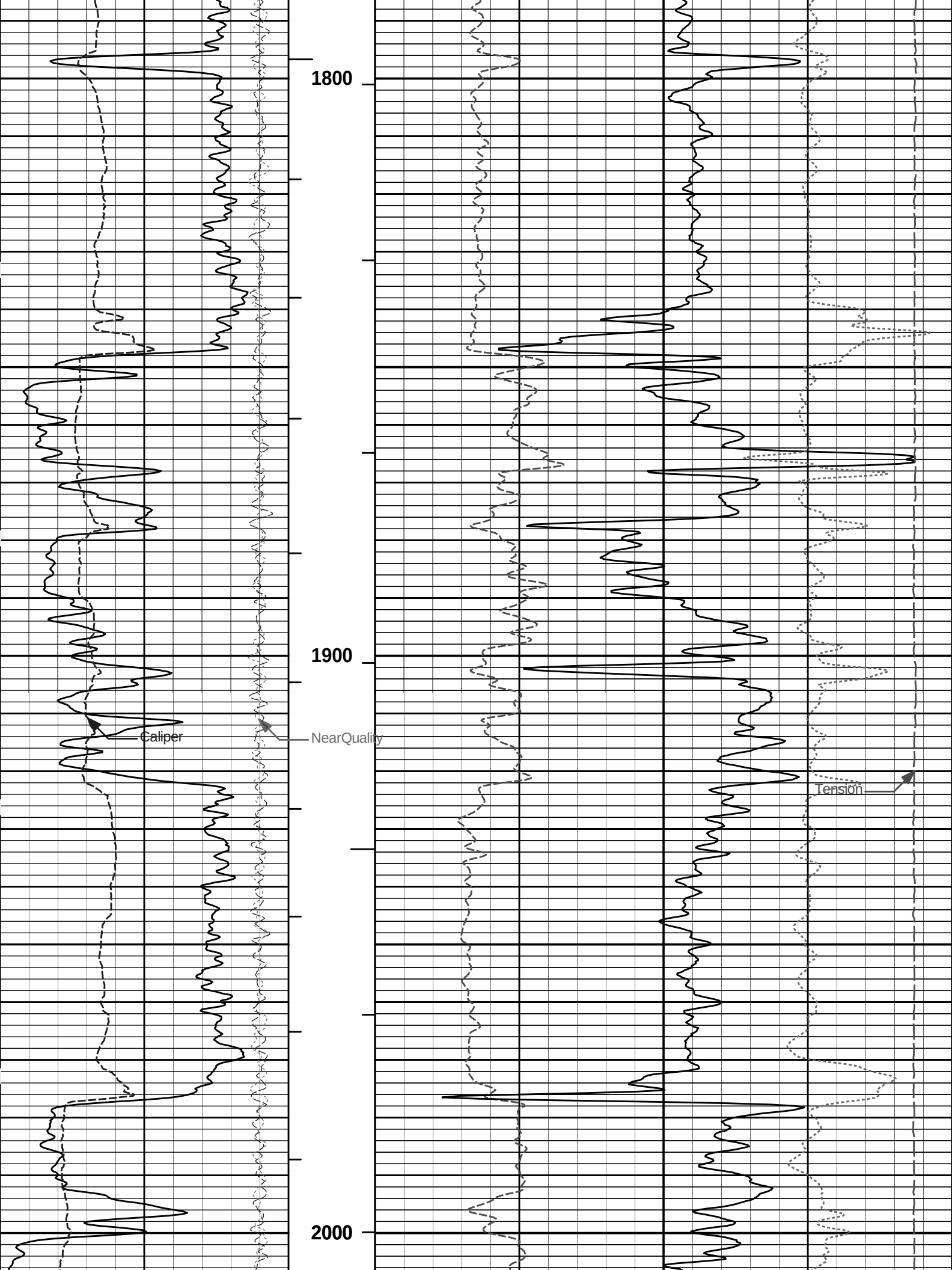


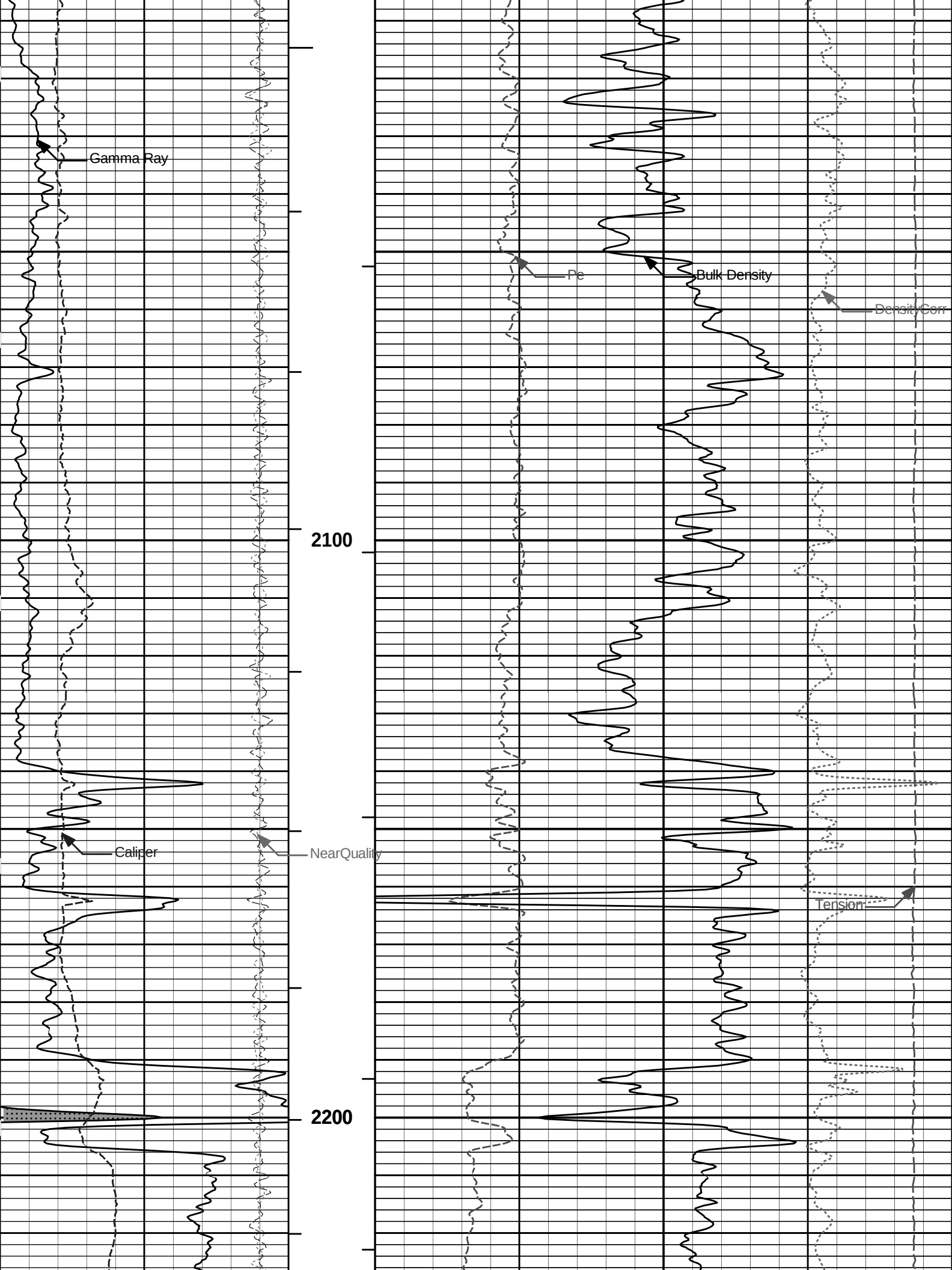


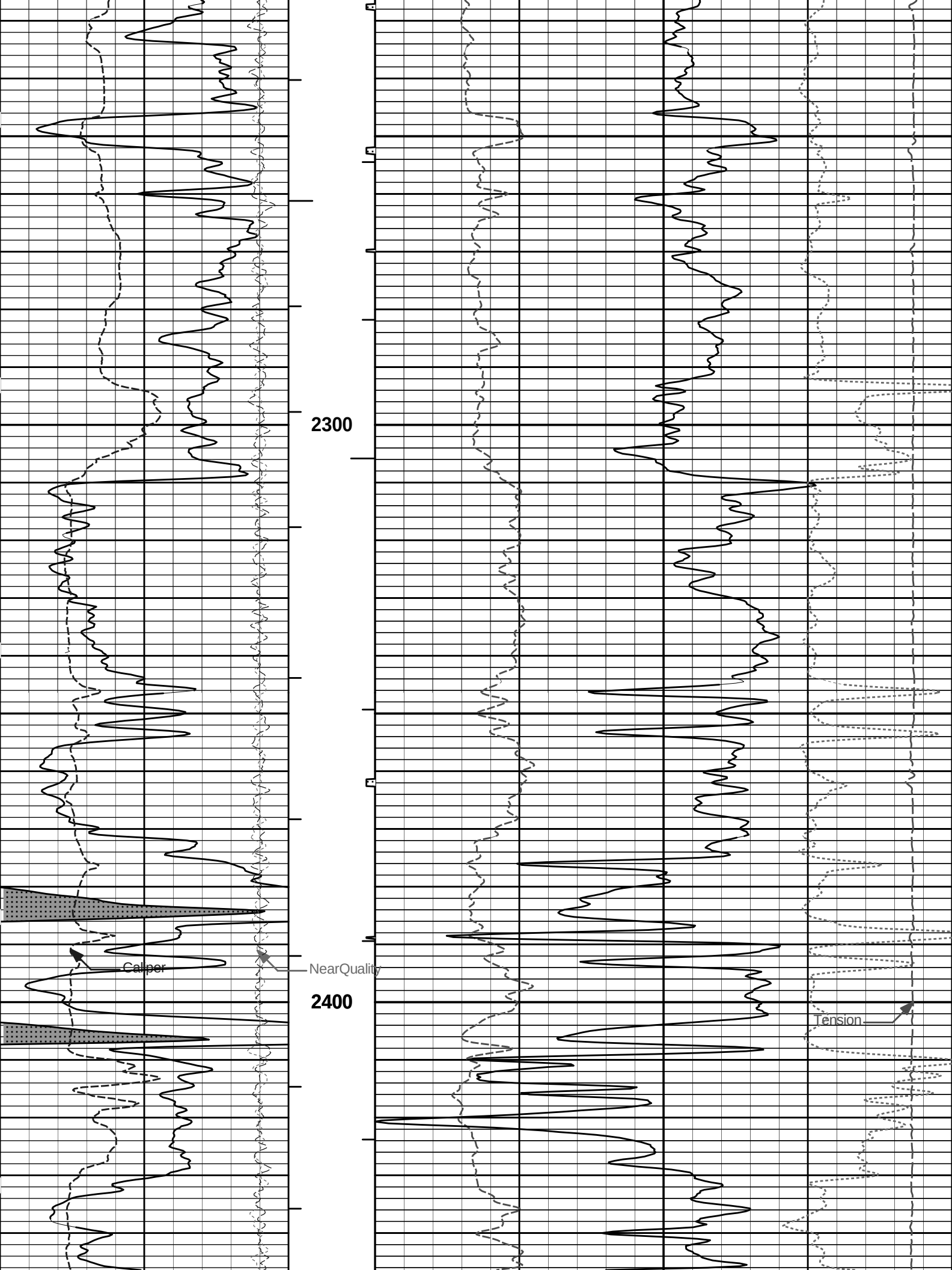


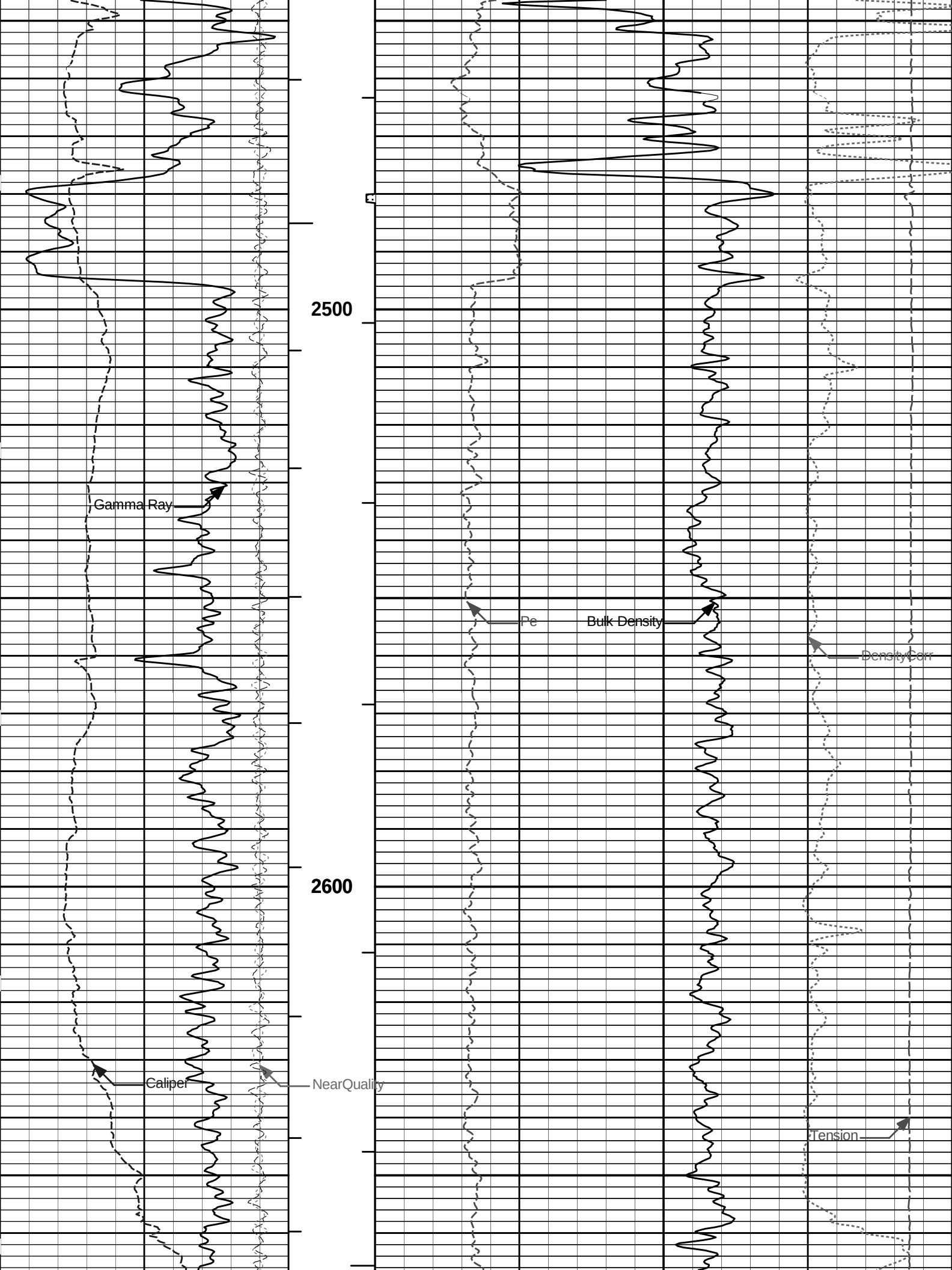


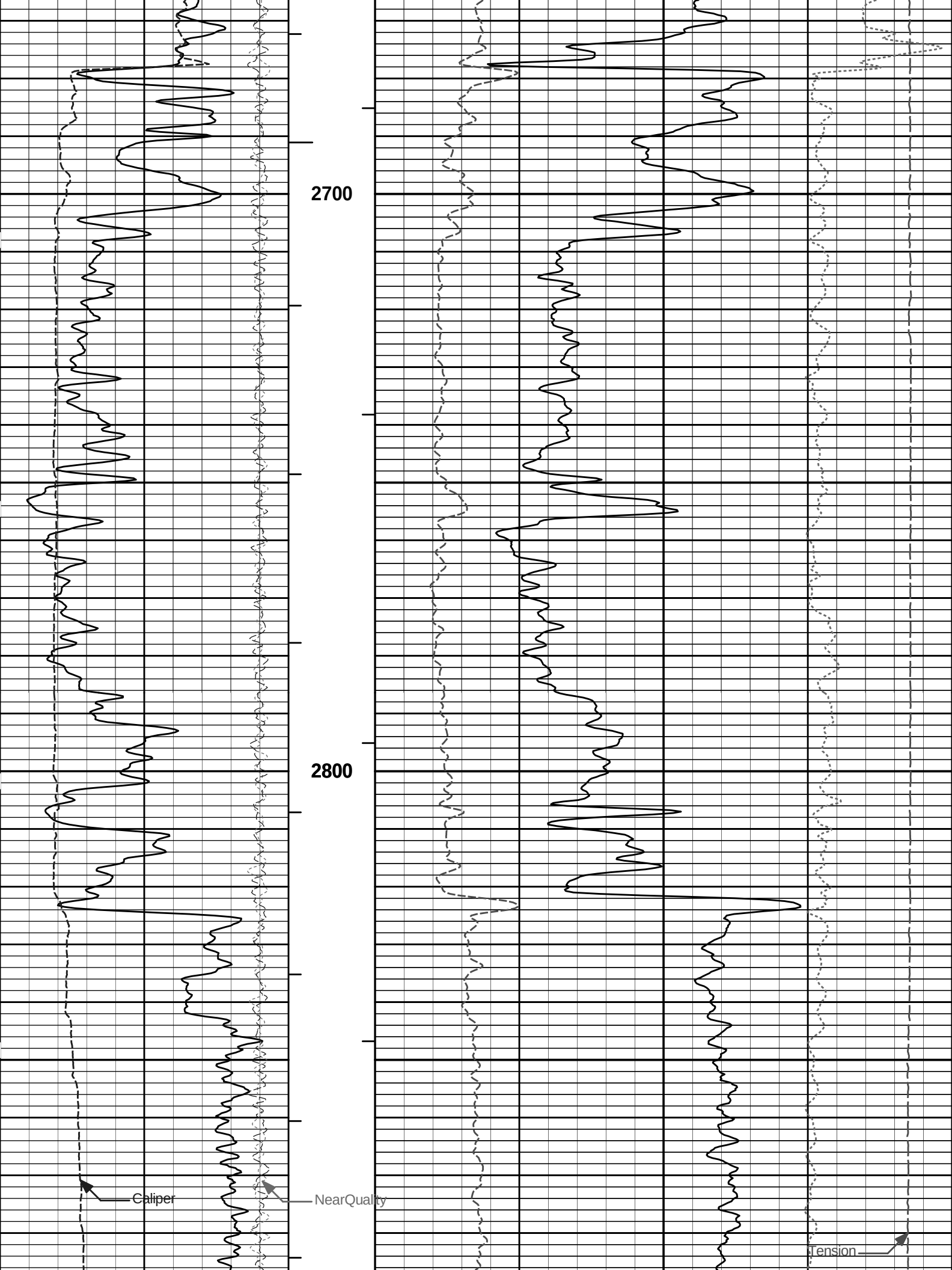


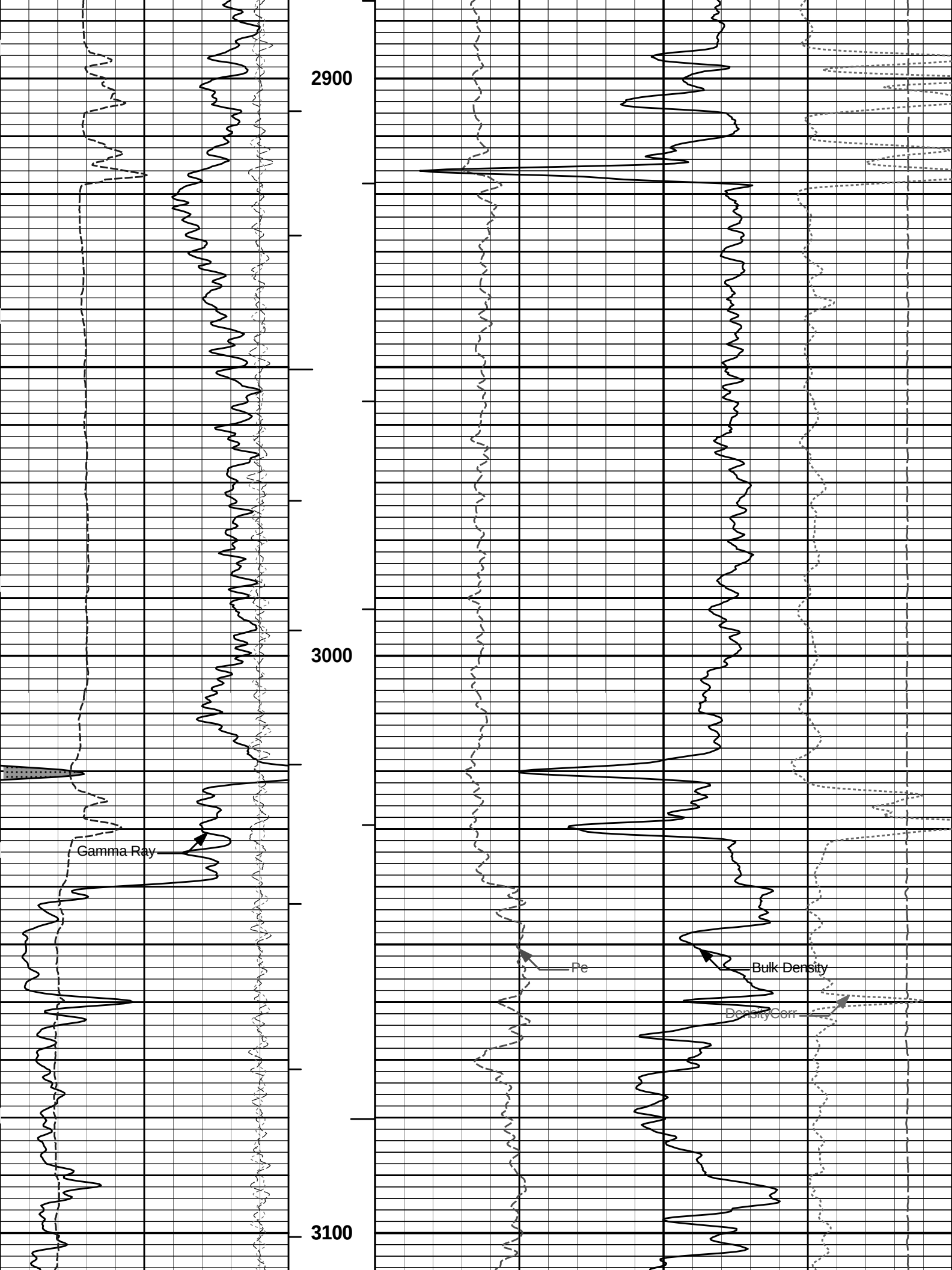


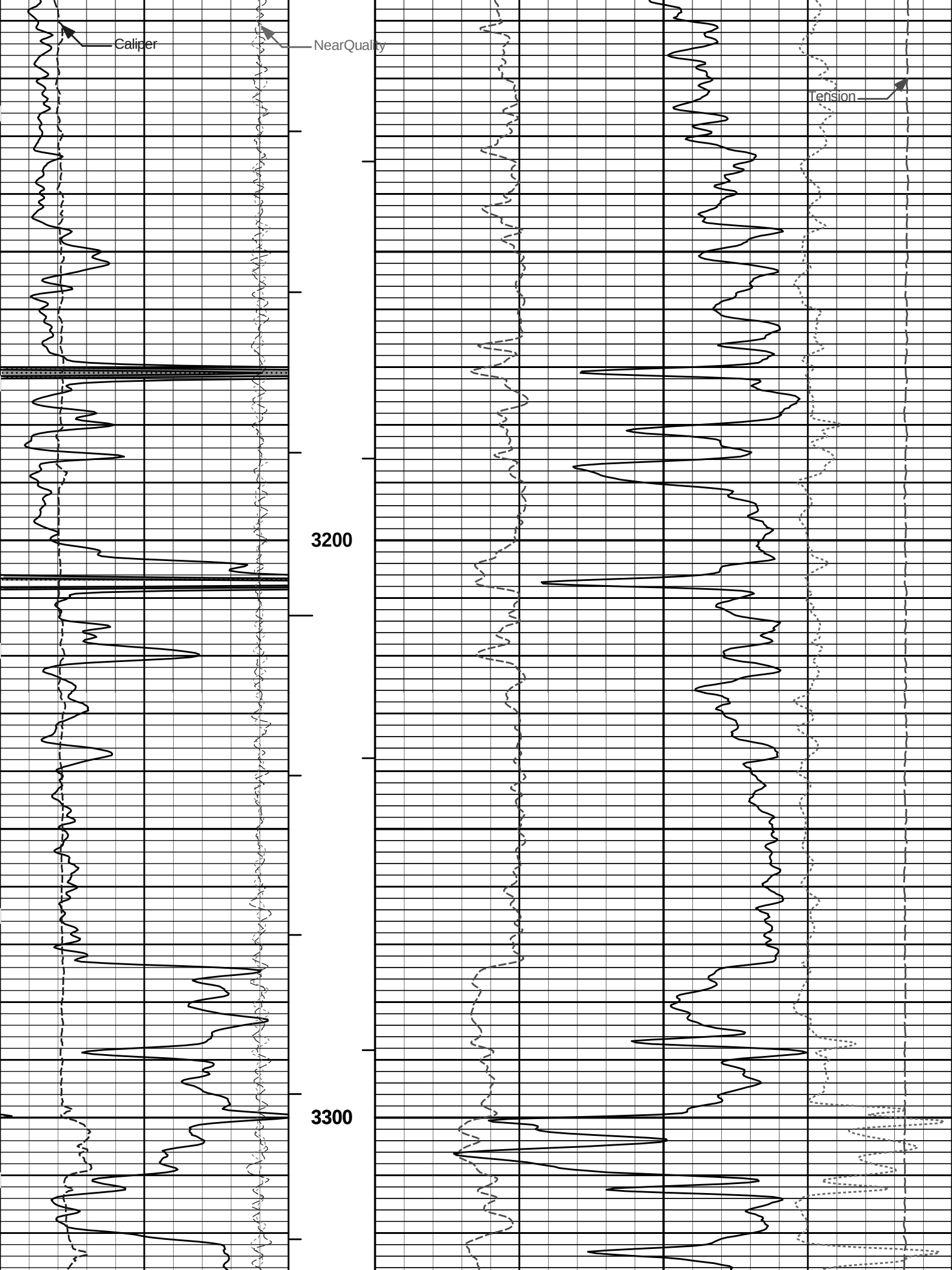


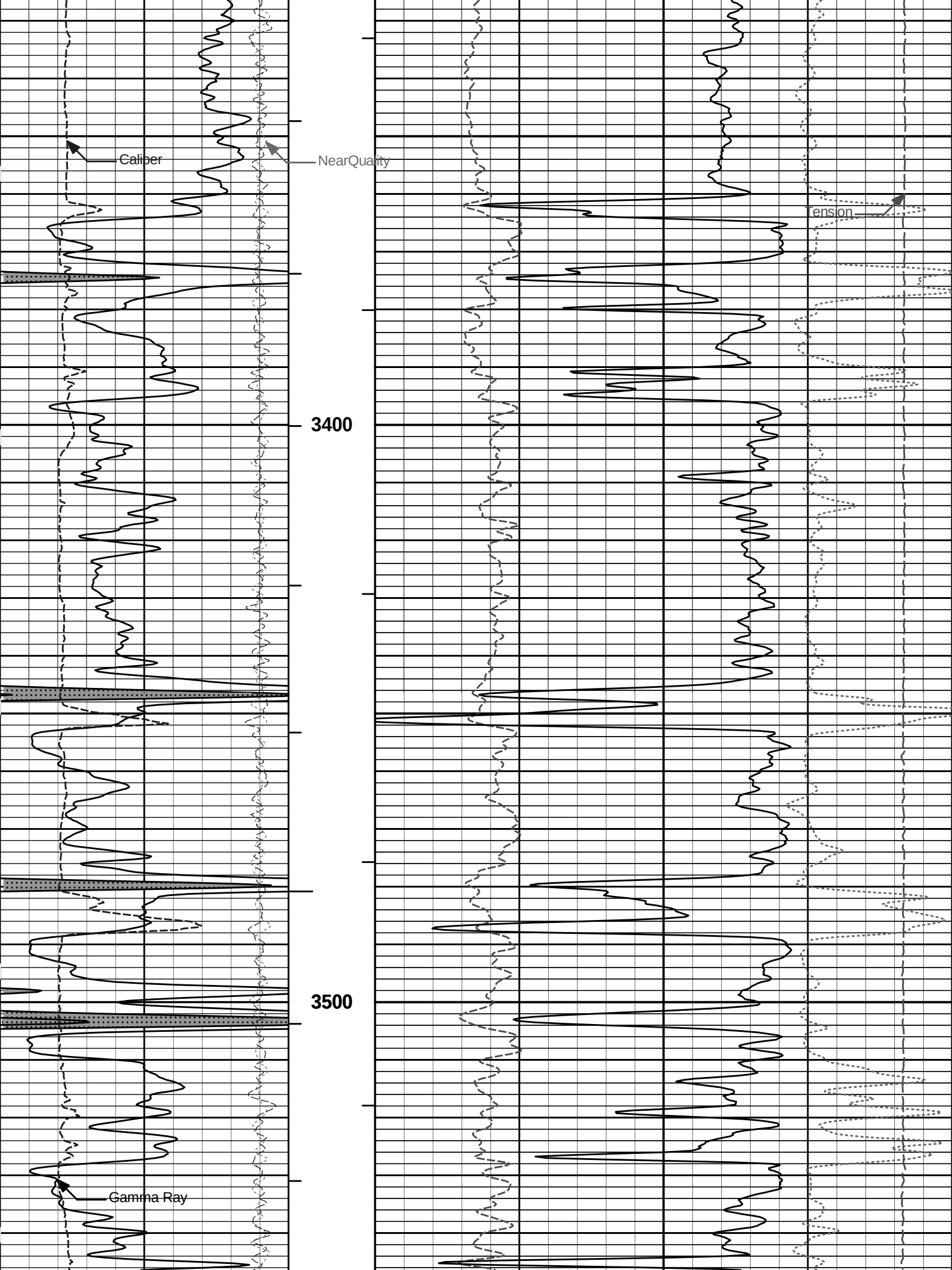


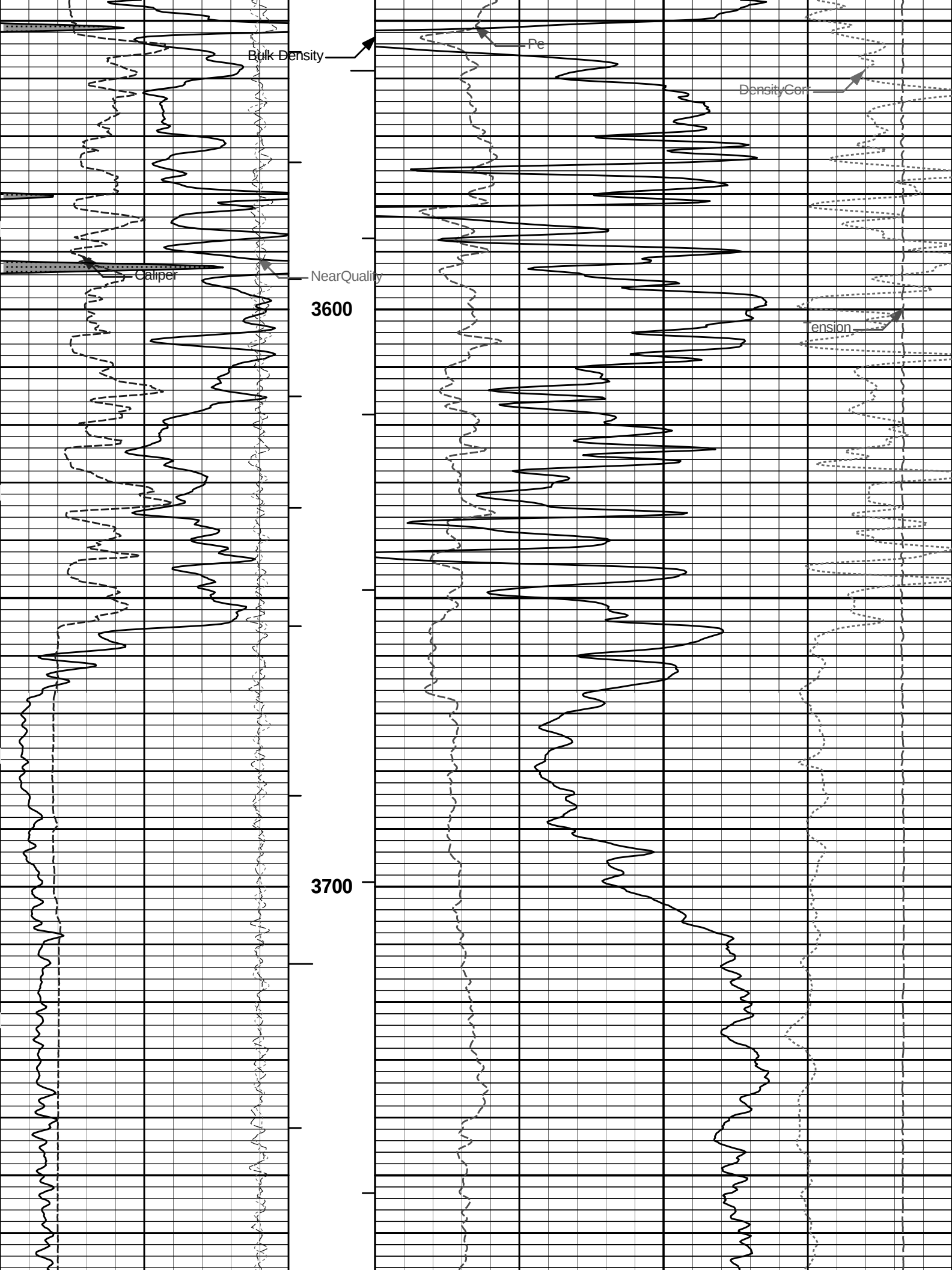


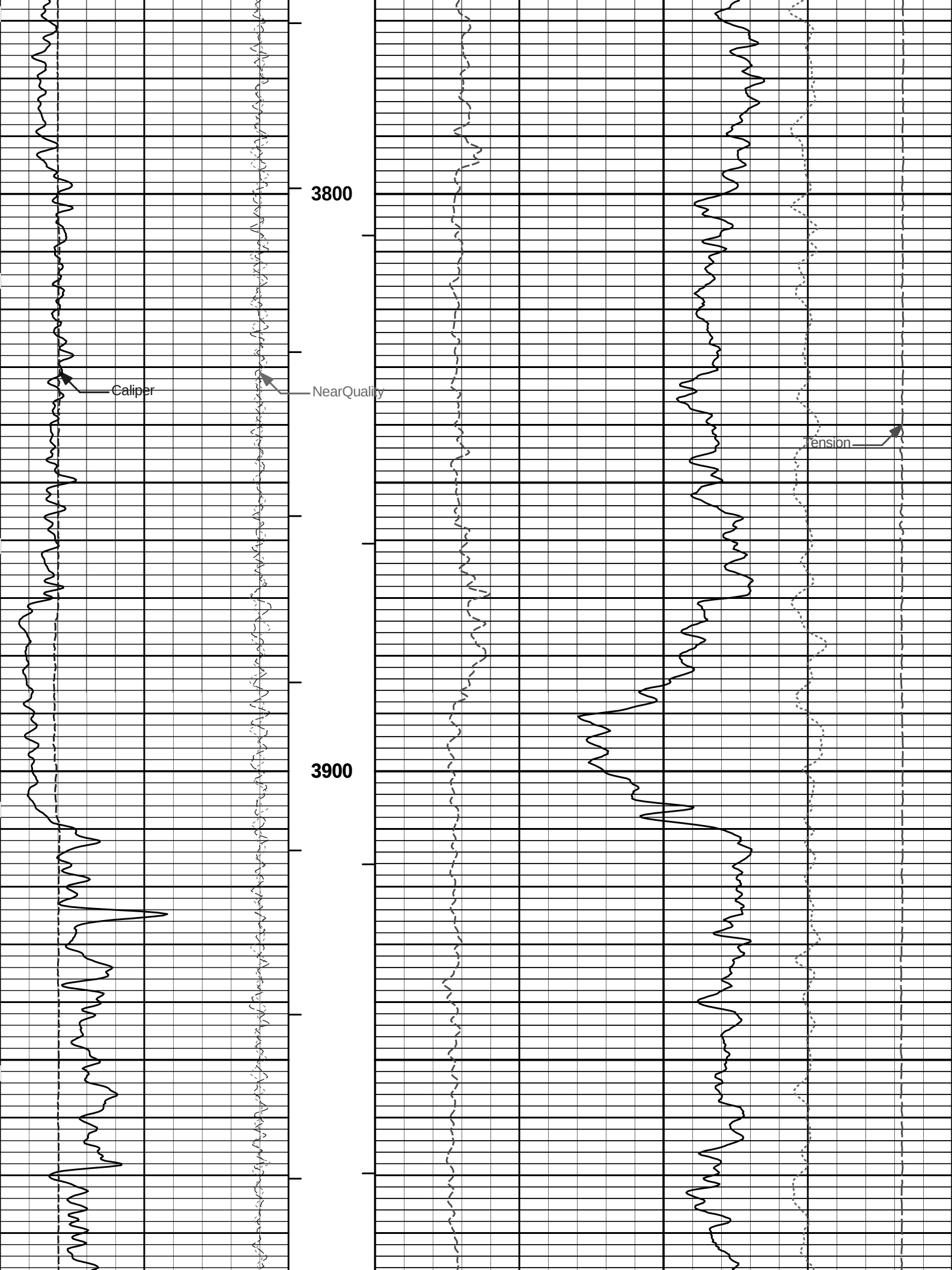


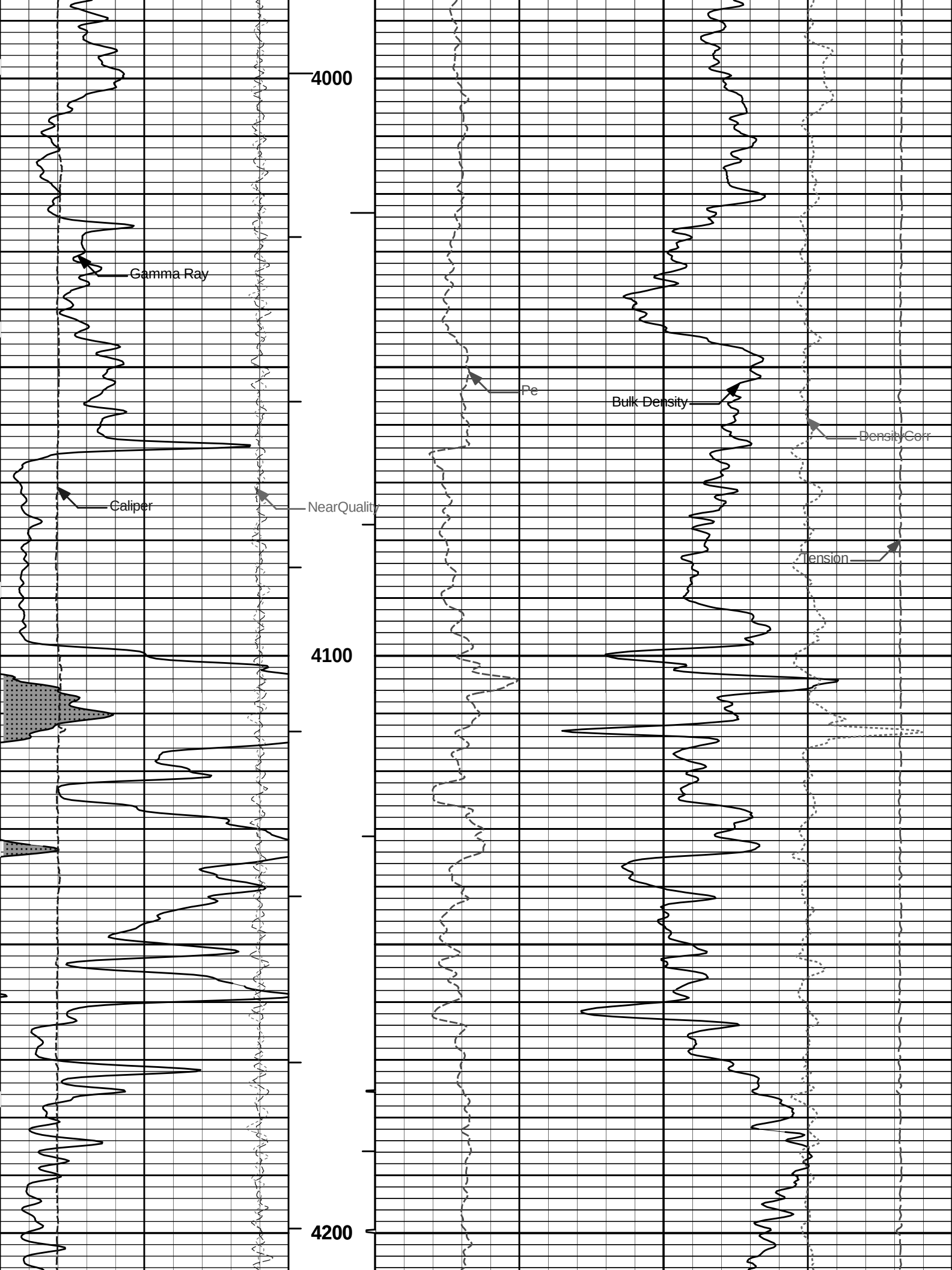


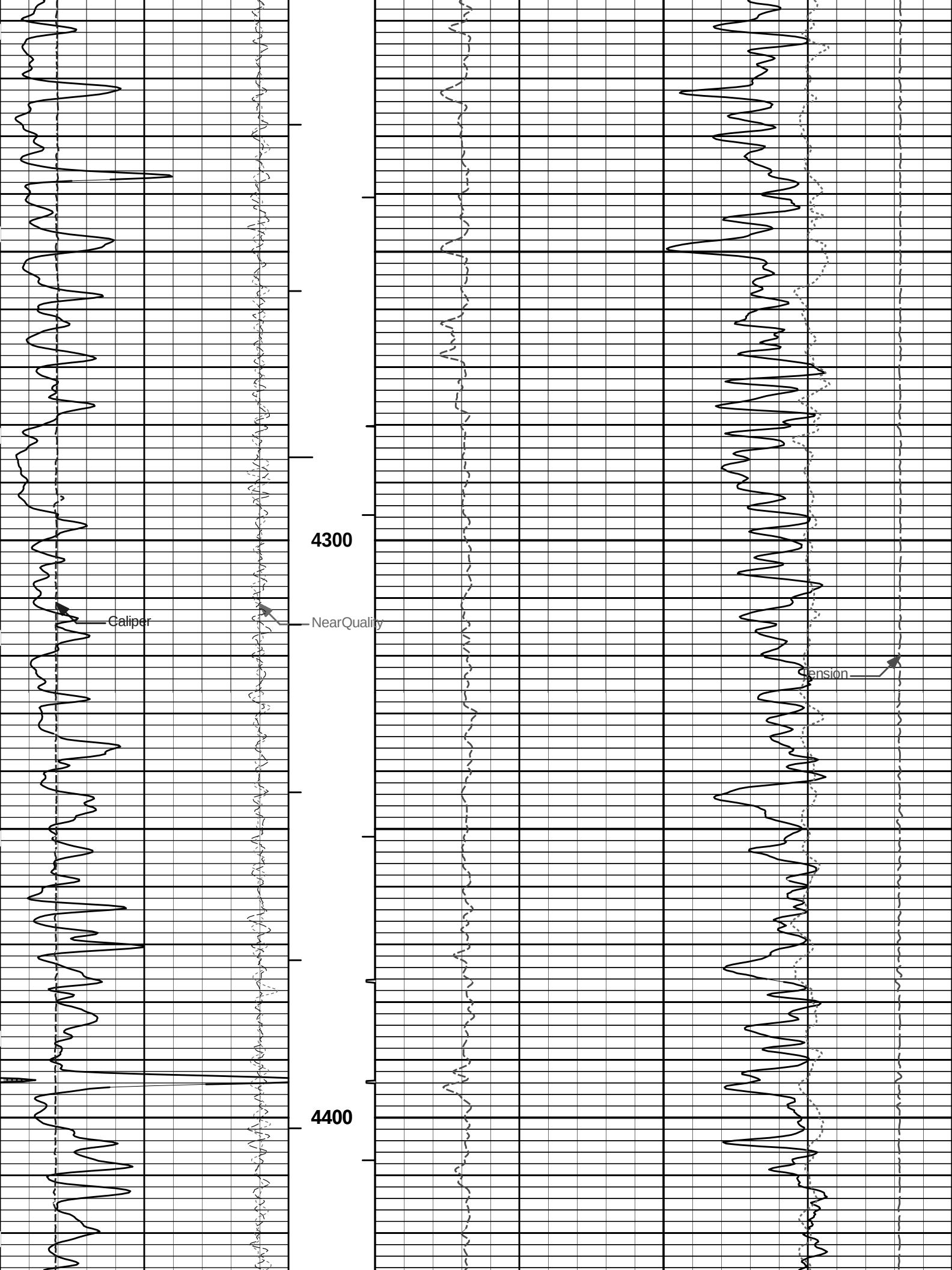


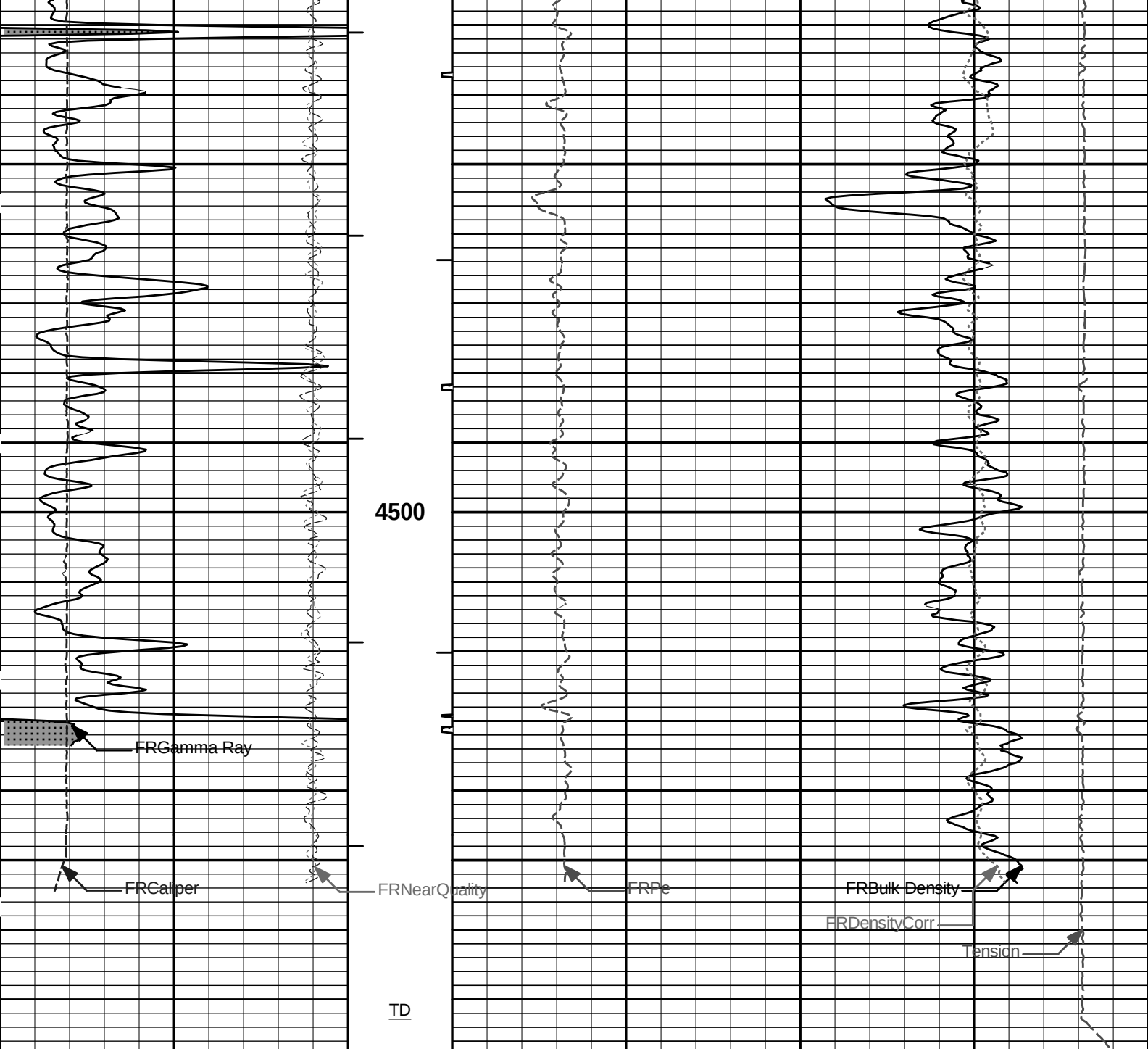












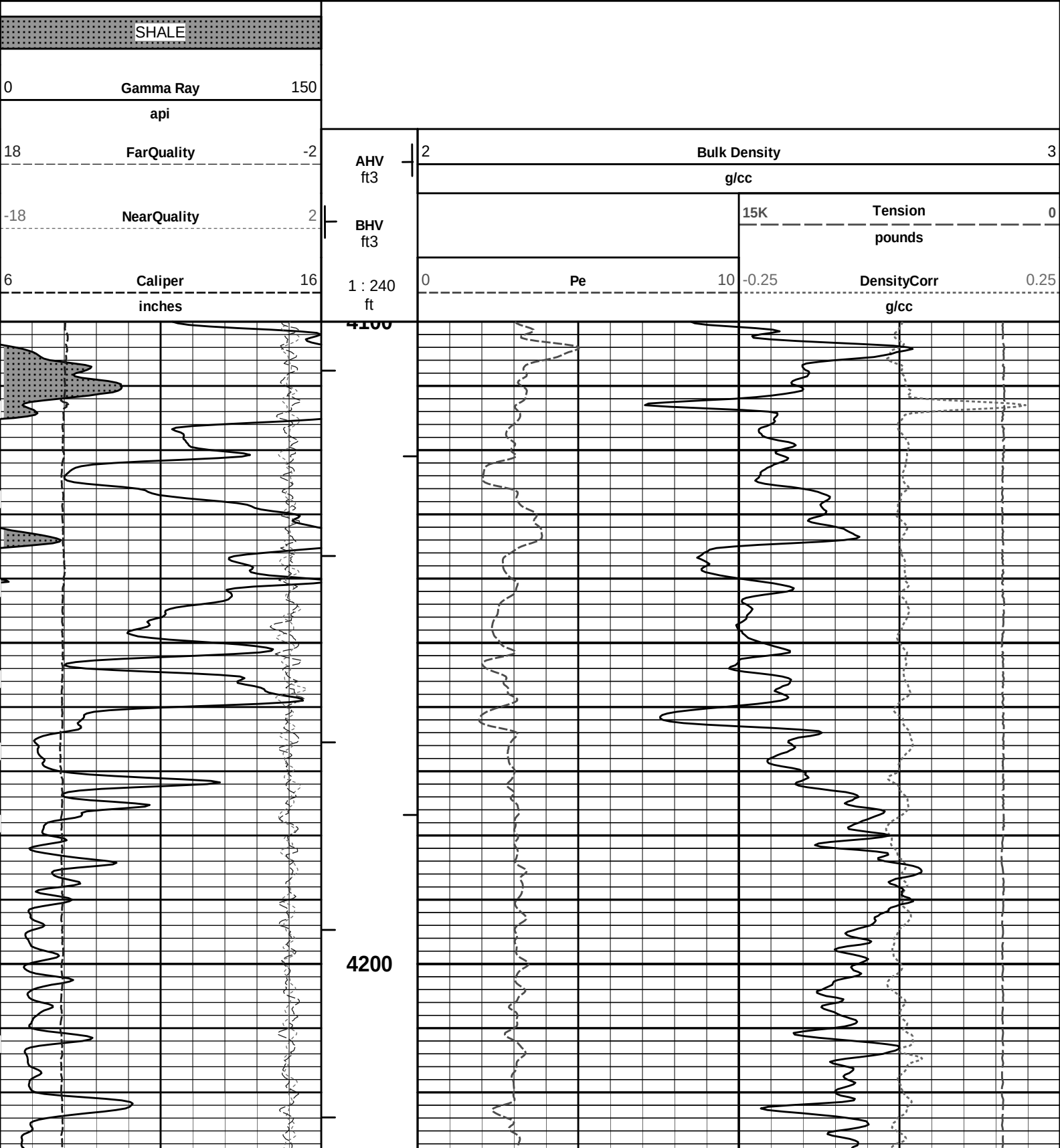
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	inches		ft					g/cc	
-18	NearQuality	2	BHV				15K	Tension	0
			ft3					pounds	
18	FarQuality	-2	AHV	2	Bulk Density				
			ft3		g/cc				
0	Gamma Ray	150	Tension Pull						
	api		10	0					
	SHALE		Tension Pull						

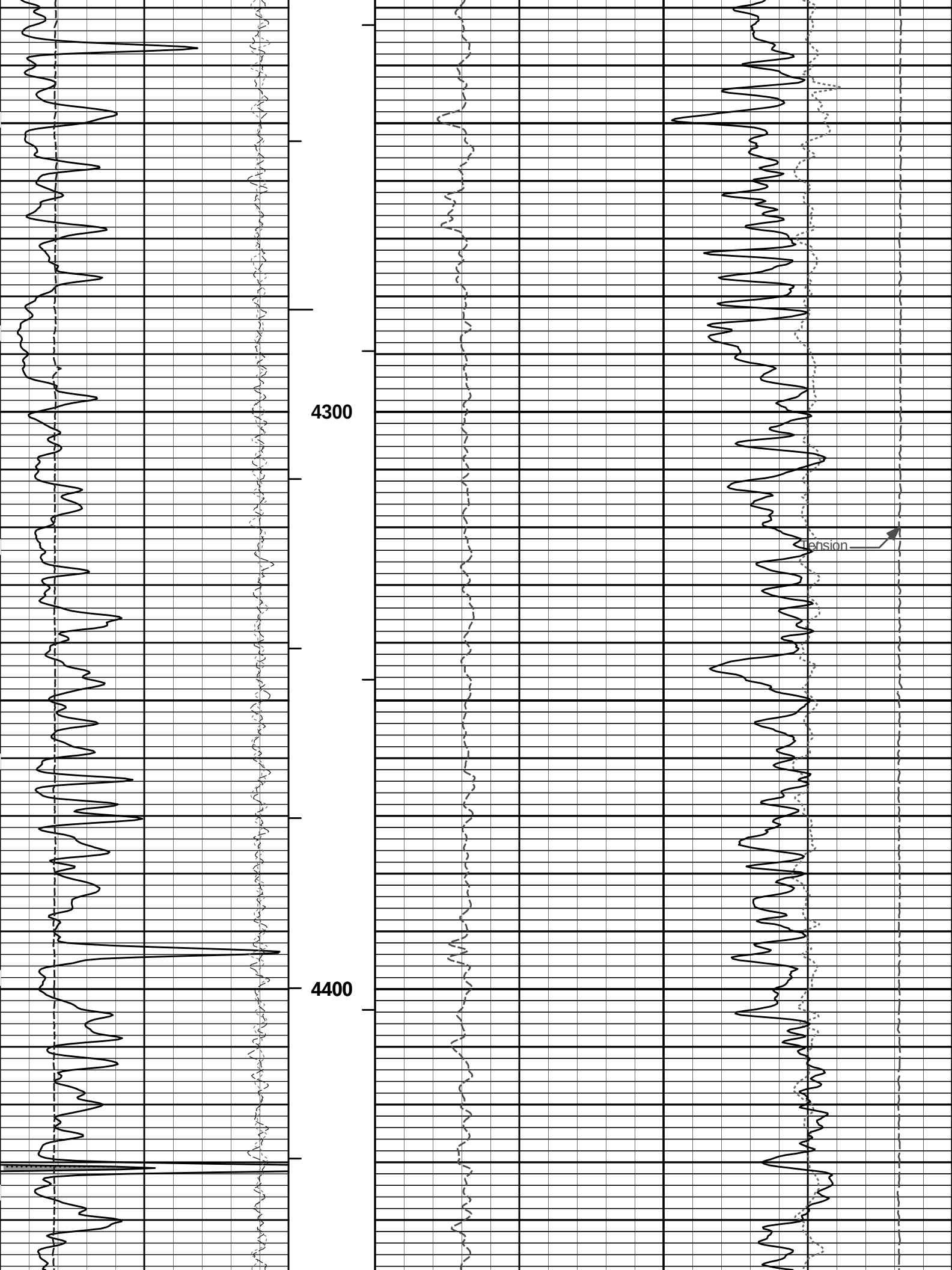
5 INCH MAIN LOG

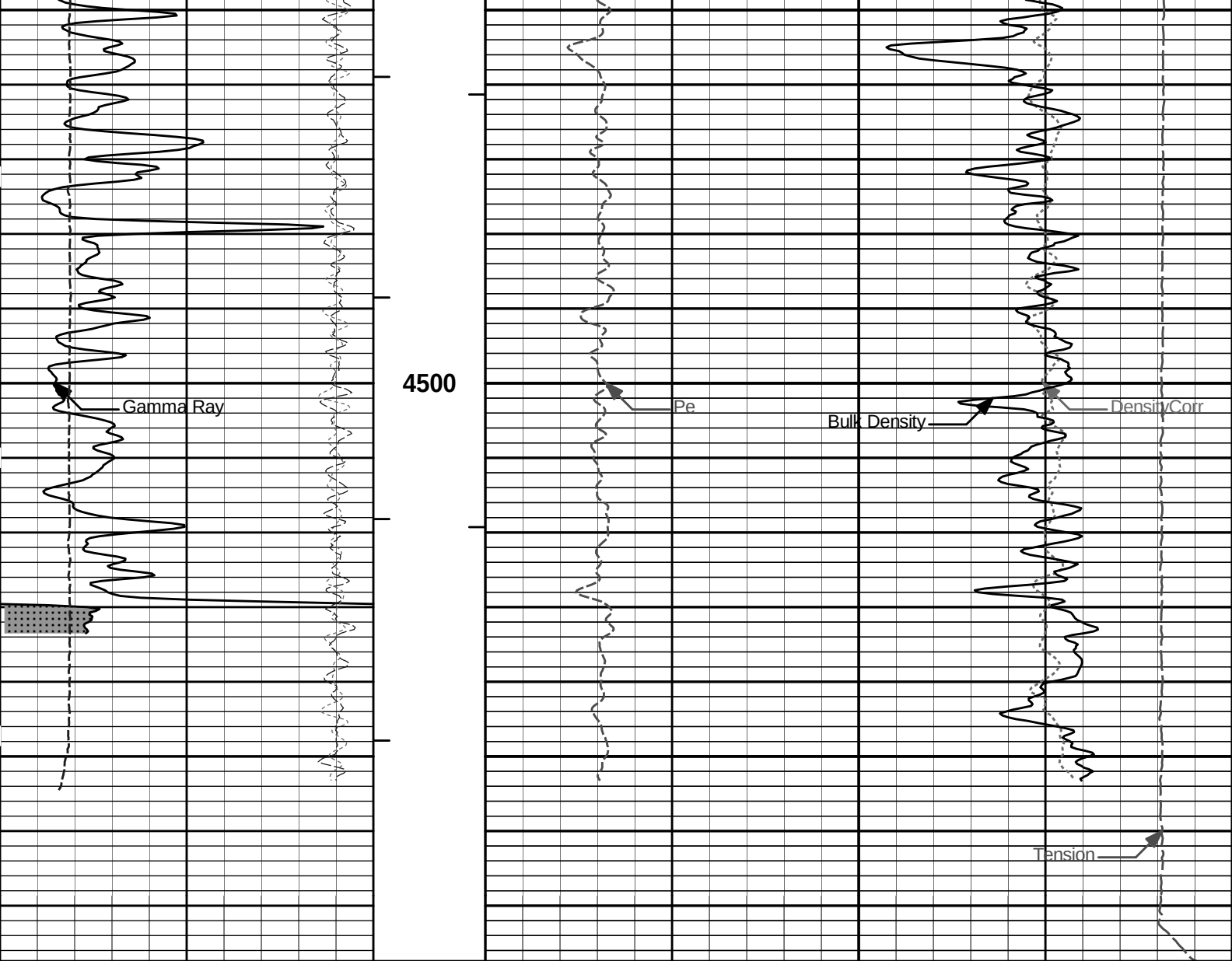
HALLIBURTON

Plot Time: 22-Jan-11 17:01:29
Plot Range: 4100 ft to 4577.42 ft
Data: WELLINGTON_KGS\Well Based\DAQ-0001-REPEAT\
Plot File: \\-LOCAL-WELLINGTON_KGS\0001 SP-GTET-DSN-SDL-ACRT-CH\PORO\BULKD_5_REP_LIB

REPEAT SECTION







6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					g/cc	
-18	NearQuality	2	BHV				15K	Tension	0
			ft3					pounds	
18	FarQuality	-2	AHV	2	Bulk Density				
			ft3		g/cc				
0	Gamma Ray	150							
	api								
	SHALE								

HALLIBURTON

Plot Time: 22-Jan-11 17:01:32

Plot Range: 4100 ft to 4577.42 ft

Data: WELLINGTON_KGS\Well Based\DAQ-0001-REPEAT\

Plot File: \\-LOCAL-\\WELLINGTON_KGS\0001 SP-GTET-DSN-SDL-ACRT-CH\PORO\BULKD_5_REP_LIB

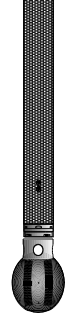
REPEAT SECTION

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-954 37.50 lbs		Ø 2.750 in →		← Temperature @ 55.54 ft	3.03 ft	56.57 ft
XOHD-954 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	53.54 ft
SP Sub-PROT01 60.00 lbs		Ø 3.625 in →		← SP @ 50.81 ft	3.74 ft	52.59 ft
						48.85 ft
GTET-10748374 165.00 lbs		Ø 3.625 in →		← GammaRay @ 42.79 ft	8.52 ft	
						40.33 ft
DSNT-10755066 174.00 lbs	DSN Decentralizer- 10755066 6.60 lbs	Ø 3.625 in* → Ø 3.625 in →		← DSN Far @ 33.39 ft ← DSN Near @ 32.64 ft	9.69 ft	
						30.64 ft
SDLT- I066_M73803_P90 360.00 lbs		Ø 4.500 in → Ø 4.750 in →		SDL Microlog @ 22.83 ft SDL Caliper @ 22.65 ft SDL @ 22.64 ft	10.81 ft	
						19.83 ft
				← Mud Resistivity @ 13.44 ft		
ACRt-I776_S775 250.00 lbs		Ø 3.625 in →		← ACRt @ 9.46 ft	19.25 ft	

Cabbage Head-954
10.00 lbs

Ø 3.625 in
Ø 6.000 in



0.58 ft
0.58 ft
0.00 ft

Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH_HOS	Hostile Cable Head with Load Cell	954	37.50	3.03	53.54	300.00
XOHD	Hostile to Dits Cross Over	954	20.00	0.95	52.59	300.00
SP	SP Sub	PROT01	60.00	3.74	48.85	300.00
GTET	Gamma Telemetry Tool	10748374	165.00	8.52	40.33	60.00
DSNT	Dual Spaced Neutron	10755066	174.00	9.69	30.64	60.00
DCNT	DSN Decentralizer	10755066	6.60	5.13	*	33.97
SDLT	Spectral Density Tool	I066 M73803 P90	360.00	10.81	19.83	60.00
ACRt	Array Compensated True Resistivity	I776_S775	250.00	19.25	0.58	300.00
CBHD	Cabbage Head	954	10.00	0.58	0.00	300.00
Total			1,083.10	56.57		
						* Not included in Total Length and Length Accumulation.
Data: WELLINGTON_KGS\0001 SP-GTET-DSN-SDL-ACRT-CH\IDLE					Date: 22-Jan-11 12:19:40	

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 10748374	Reference Calibration Date:	25-Dec-10 12:11:39
Engineer:	S.JUNG	Calibration Date:	21-Jan-11 12:21:50
Software Version:	WL INSITE R3.2.0 (Build 7)	Calibration Version:	1
Calibrator Source S/N: 185			
Calibrator API Reference:228.00 api			
Equivalent Calibrator API Reference:232.0 api			
Measurement	Measured	Calibrated	Units
Background	66.2	67.6	api
Background + Calibrator	293.4	299.6	api
Calibrator	233.4	232.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 10748374	Reference Calibration Date:	21-Jan-11 12:21:50
Engineer:	S.JUNG	Calibration Date:	21-Jan-11 12:25:09
Software Version:	WL INSITE R3.2.0 (Build 7)	Calibration Version:	1
Calibrator Source S/N: 185			
Calibrator API Reference:228.00 api			
Equivalent Calibrator API Reference:232.0 api			
Field Verification	Shop	Field	Units
Background	67.6	68.7	api
Background + Calibrator	299.6	301.0	api
Calibrator	232.0	232.4	api
Shop	Field	Difference	Tolerance

232.0		232.4		-0.4		+/- 9.00	
NATURAL GAMMA RAY TOOL POST CALIBRATION							
Tool Name:		GTET - 10748374			Reference Calibration Date:		21-Jan-11 12:25:09
Engineer:		S. JUNG			Calibration Date:		22-Jan-11 16:00:40
Software Version:		WL INSITE R3.2.0 (Build 7)			Calibration Version:		1
Calibrator Source S/N: 185							
Calibrator API Reference:228.00 api							
Calibrator API Reference:232.0 api							
		Post Verification		Field	Post	Units	
		Background		68.7	24.9	api	
		Background + Calibrator		301.0	265.4	api	
		Calibrator		232.4	240.5	api	
		Shop	Field	Post	Difference	Tolerance	
		232.0	232.4	240.5	-8.1	+/- 9.00	
DUAL SPACED NEUTRON SHOP CALIBRATION							
Tool Name:		DSNT - 10755066			Reference Calibration Date:		21-Jan-11 10:46:52
Engineer:		S.JUNG			Calibration Date:		21-Jan-11 11:00:35
Software Version:		WL INSITE R3.2.0 (Build 7)			Calibration Version:		1
Logging Source S/N: DSN 436							
Tank Serial Number: LIB-105060							
Reference value assigned to Tank: 51.680							
Snow Block S/N: LIBERAL							
Calibration Tank Water Temperature: 64 degF							
Min. Tool Housing Outside Diameter: 3.615 in							
CALIBRATION CONSTANTS							
Measurement		Prev. Value		New Value		Control Limit On New Value	
Gain:		0.958		0.958		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):		0.2103		0.2103		0.0000	+/- 0.0020
Calibrated Ratio:		9.71		9.70		0.001	+/- 0.050
VERIFIER							
Measurement		Value		Control Limit			
Snow-Block Porosity (decp):		0.0581		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 - 10755066			Reference Calibration Date:		21-Jan-11 11:00:35
Engineer:		S.JUNG			Calibration Date:		21-Jan-11 11:01:50
Software Version:		WL INSITE R3.2.0 (Build 7)			Calibration Version:		1

Logging Source S/N: DSN 436
Snow Block S/N: LIBERAL

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0581	0.0578	-0.0003	+/- 0.0150
PASS/FAIL SUMMARY				
Block Change Check:			Passed	
Snow Block Stat Check:			Passed	
Temperature Check:			Passed	

DUAL SPACED NEUTRON POST CALIBRATION				
Tool Name:	DSNT - 10755066		Reference Calibration Date:	21-Jan-11 11:01:50
Engineer:	S. JUNG		Calibration Date:	22-Jan-11 16:03:47
Software Version:	WL INSITE R3.2.0 (Build 7)		Calibration Version:	1

Logging Source S/N: DSN 436
Snow Block S/N: LIBERAL

NEUTRON POST-CHECK SUMMARY				
	Field Value	Post Value	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0578	0.0445	-0.0133	+/- 0.0150
PASS/FAIL SUMMARY				
Block Change Check:			Passed	
Snow Block Stat Check:			Passed	
Temperature Check:			Passed	

SPECTRAL DENSITY SHOP CALIBRATION				
Tool Name:	SDLT - I066_M73803_P90		Reference Calibration Date:	21-Jan-11 11:57:21
Engineer:	S.JUNG		Calibration Date:	21-Jan-11 12:16:09
Software Version:	WL INSITE R3.2.0 (Build 7)		Calibration Version:	1

Logging Source S/N: 5073GW
Aluminum Block S/N: LIBERAL Density: 2.598g/cc Pe: 3.170
Magnesium Block S/N: LIBERAL Density: 1.684g/cc Pe: 2.594

DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0026	0.9878	0.90 - 1.10
Near Dens Gain	1.0021	0.9889	0.90 - 1.10
Near Peak Gain	1.0155	0.9937	0.90 - 1.10
Near Lith Gain	0.9882	0.9749	0.90 - 1.10
Far Bar Gain	1.0076	1.0037	0.90 - 1.10
Far Dens Gain	0.9963	0.9957	0.90 - 1.10
Far Peak Gain	0.9921	0.9871	0.90 - 1.10
Far Lith Gain	0.9624	0.9592	0.90 - 1.10
Near Bar Offset	0.1283	0.2651	NONE
Near Dens Offset	0.1187	0.2375	NONE
Near Peak Offset	-0.0051	0.1792	NONE
Near Lith Offset	0.2048	0.3184	NONE
Far Bar Offset	0.0155	0.0549	NONE
Far Dens Offset	0.1019	0.1085	NONE
Far Peak Offset	0.0000	0.1000	NONE
Far Lith Offset	0.0000	0.0000	NONE

Far Peak Offset	0.0922	0.1360	NONE
Far Lith Offset	0.2449	0.2701	NONE
Near Bar Background	905.18	910.63	700 - 1450
Near Dens Background	300.25	299.92	230 - 480
Near Peak Background	131.93	131.73	100 - 210
Near Lith Background	161.28	162.42	125 - 260
Far Bar Background	612.36	614.47	450 - 900
Far Dens Background	240.50	239.65	175 - 345
Far Peak Background	95.79	95.45	70 - 140
Far Lith Background	100.09	99.24	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.685	1.684	-0.001	+/- 0.015
Pe	2.557	2.552	-0.005	+/- 0.150
ALUMINUM				
Density (g/cc)	2.598	2.598	-0.000	+/- 0.01500
Pe	3.127	3.124	-0.003	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0006	+/- 0.0110	0.0007	+/- 0.0140
Magnesium Block	0.0007	+/- 0.0110	-0.0002	+/- 0.0140
Aluminum Block	0.0002	+/- 0.0110	0.0006	+/- 0.0140
Resolution	8.96	6.00 - 11.50	8.98	6.00 - 11.50
Internal Verifier(B+D+P+L)	1505	1200 - 2700	1049	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

SPECTRAL DENSITY FIELD CHECK			
Tool Name:	SDLT - I066_M73803_P90	Reference Calibration Date:	21-Jan-11 12:16:09
Engineer:	S.JUNG	Calibration Date:	21-Jan-11 12:21:44
Software Version:	WL INSITE R3.2.0 (Build 7)	Calibration Version:	1

Pad Temperature: 68.2 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1504.705	1508.402	3.697	15.629
Far (B+D+P+L) cps	1048.818	1040.866	-7.952	17.213
Near Resolution	8.96	9.01	0.050	0.50

Near Resolution	8.90	9.01	0.050	0.50
Far Resolution	8.98	9.12	0.140	1.00

PASS/FAIL SUMMARY	
Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

SPECTRAL DENSITY POST CHECK			
Tool Name:	SDLT - I066_M73803_P90	Reference Calibration Date:	21-Jan-11 12:21:44
Engineer:	S. JUNG	Calibration Date:	22-Jan-11 15:55:28
Software Version:	WL INSITE R3.2.0 (Build 7)	Calibration Version:	1

Pad Temperature: 57.6 degF

DENSITY POST CALIBRATION SUMMARY				
Measurement	Field	Post	Change	Control Limit +/-
Near (B+D+P+L) cps	1508.402	1502.655	-5.747	15.629
Far (B+D+P+L) cps	1040.866	1042.581	1.715	17.213
Near Resolution	9.01	9.01	0.000	0.50
Far Resolution	9.12	9.28	0.160	1.00

PASS/FAIL SUMMARY	
Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - I066_M73803_P90	Reference Calibration Date:	26-Aug-10 13:53:58
Engineer:	S.JUNG	Calibration Date:	21-Jan-11 12:36:32
Software Version:	WL INSITE R3.2.0 (Build 7)	Calibration Version:	1

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2879.34	-2331.82	-7000.00 - -1000.00
Pad Gain	0.0003998	0.0003909	0.000200 - 0.000600
Arm Offset	-1455.83	-1604.30	-5000.00 - 3000.00
Arm Gain	0.0005220	0.0005282	0.000300 - 0.000700
Arm Power	-0.000005179	-0.000005722	-0.000010 - 0.000010

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)	1.83	2.00	0.17	+/- 0.20
Medium Ring (in)	3.62	3.75	0.13	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.34	6.50	0.16	+/- 0.20
Medium Ring (in)	8.08	8.25	0.17	+/- 0.20
Large Ring (in)	14.87	15.00	0.13	+/- 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 - I066_M73803_P90		Reference Calibration Date:		21-Jan-11 12:36:32
Engineer:		S.JUNG		Calibration Date:		21-Jan-11 12:38:09
Software Version:		WL INSITE R3.2.0 (Build 7)		Calibration Version:		1

MEASURED CALIPER VALUES				
Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.72	-0.03	+/- 0.10
Ring Diameter	8.25	8.28	0.03	+/- 0.15

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

SDLT CALIPER POST CALIBRATION						
Tool Name:		SDLT - I066_M73803_P90		Reference Calibration Date:		21-Jan-11 12:38:09
Engineer:		S. JUNG		Calibration Date:		22-Jan-11 16:06:35
Software Version:		WL INSITE R3.2.0 (Build 7)		Calibration Version:		1

MEASURED CALIPER VALUES				
Measurement	Field	Post	Change	Control Limit On New Value
Pad Extension	3.72	3.78	0.06	+/- 0.10
Ring Diameter	8.28	8.36	0.08	+/- 0.15

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

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10748374						
Gamma Ray Calibrator	232.0	232.4	240.5	-8.1	+/- 9.00	api
DSNT-10755066						
Snow-Block Porosity	0.0581	0.0578	0.0445	0.0133	+/- 0.0150	decp
SDLT-I066_M73803_P90						
Near(B+D+P+L)	1504.705	1508.402	1502.655	5.747	+/-15.629	cps
Far(B+D+P+L)	1048.818	1040.866	1042.581	-1.715	+/-17.213	cps
Pad Extension	3.75	3.72	3.78	-0.06	+/-0.10	in
Ring Diameter	8.25	8.28	8.36	-0.080	+/-0.15	in

Data: WELLINGTON_KGS\0001 SP-GTET-DSN-SDL-ACRT-CHIDLE				Date: 22-Jan-11 16:07:48		
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HALLIBURTON						
PARAMETERS REPORT						

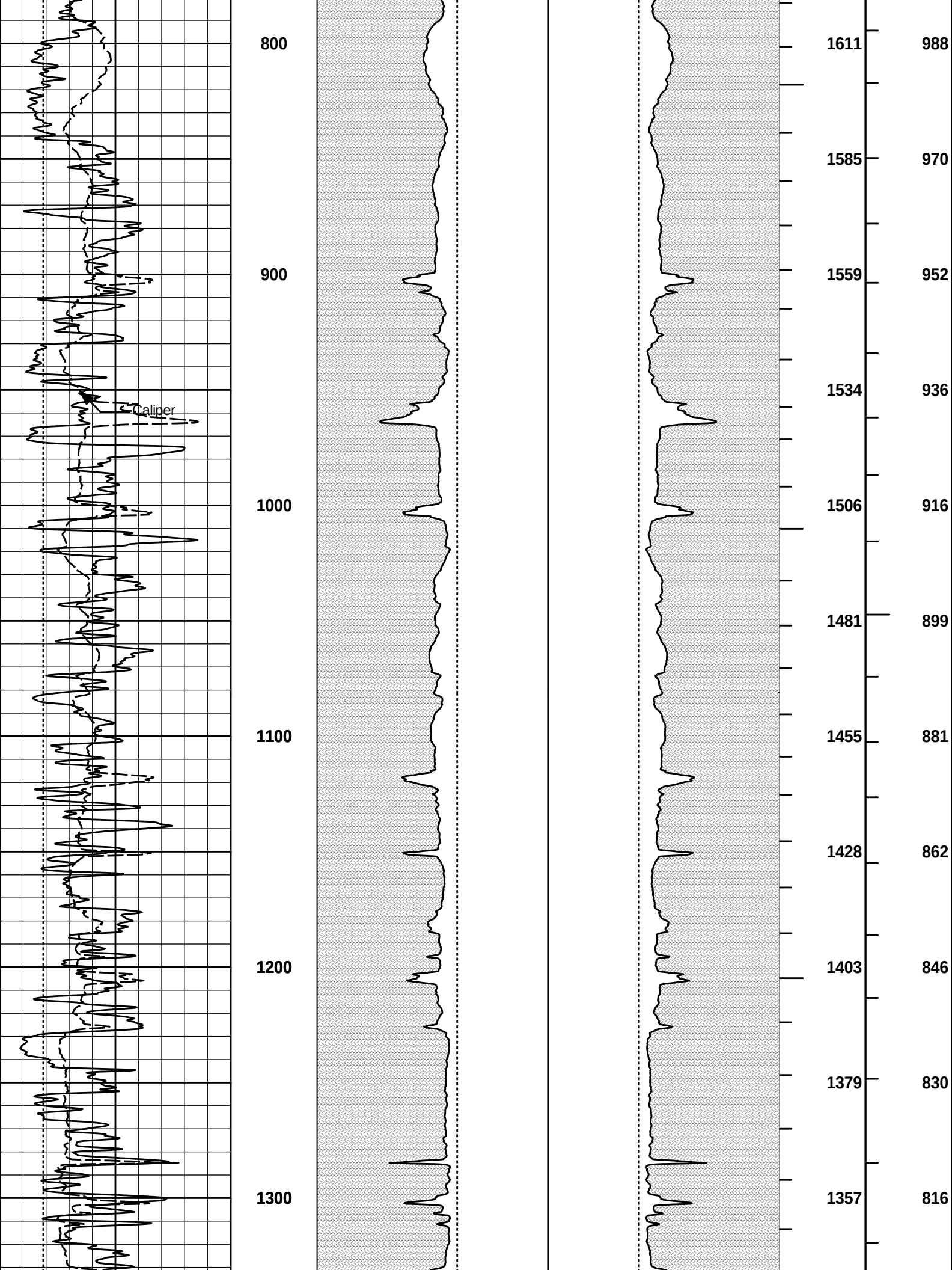
Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP_____					

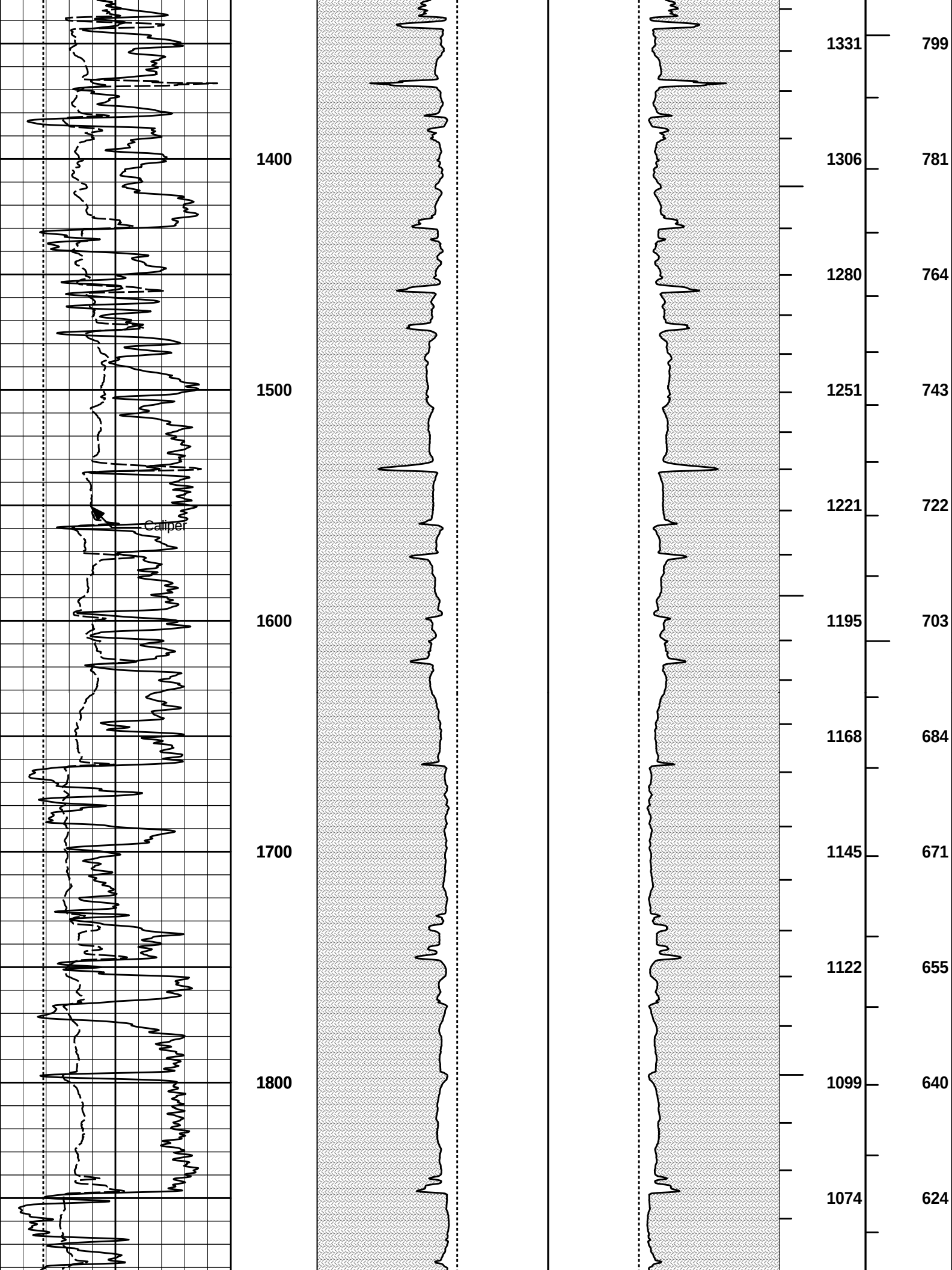
SHARED	BS	Bit Size	7.875	in
SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
SHARED	MDBS	Mud Base	Water	
SHARED	MDWT	Borehole Fluid Weight	9.000	ppg
SHARED	WAGT	Weighting Agent	Natural	
SHARED	BSAL	Borehole salinity	0.00	ppm
SHARED	FSAL	Formation Salinity NaCl	0.00	ppm
SHARED	KPCT	Percent K in Mud by Weight?	0.00	%
SHARED	RMUD	Mud Resistivity	0.650	ohmm
SHARED	TRM	Temperature of Mud	58.0	degF
SHARED	CSD	Logging Interval is Cased?	No	
SHARED	ICOD	AHV Casing OD	5.500	in
SHARED	ST	Surface Temperature	75.0	degF
SHARED	TD	Total Well Depth	4575.00	ft
SHARED	BHT	Bottom Hole Temperature	115.0	degF
SHARED	SVTM	Navigation and Survey Master Tool	NONE	
SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
SHARED	TEMM	Temperature Master Tool	NONE	
SHARED	BHSM	Borehole Size Master Tool	NONE	
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	0.55	ohmm
Rwa / CrossPlot	TMFR	Rmf Ref Temp	58.00	degF
Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
GTET	GROK	Process Gamma Ray?	Yes	
GTET	GRSO	Gamma Tool Standoff	0.000	in
GTET	GEOK	Process Gamma Ray EVR?	No	
GTET	TPOS	Tool Position	Centered	
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	DNTP	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	
SDLT	DNOK	Process Density?	Yes	
SDLT	DNOK	Process Density EVR?	No	
SDLT	CB	Logging Calibration Blocks?	No	
SDLT	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT	DTWN	Disable temperature warning	No	
SDLT	DMA	Formation Density Matrix	2.710	g/cc
SDLT	DFL	Formation Density Fluid	1.000	g/cc
SDLT	CLOK	Process Caliper Outputs?	Yes	
SDLT	MLOK	Process MicroLog Outputs?	Yes	
ACRt	RTOK	Process ACRT?	Yes	
ACRt	MNSO	Minimum Tool Standoff	1.50	in
ACRt	TCS1	Temperature Correction Source	FP Lwr & FP Up	

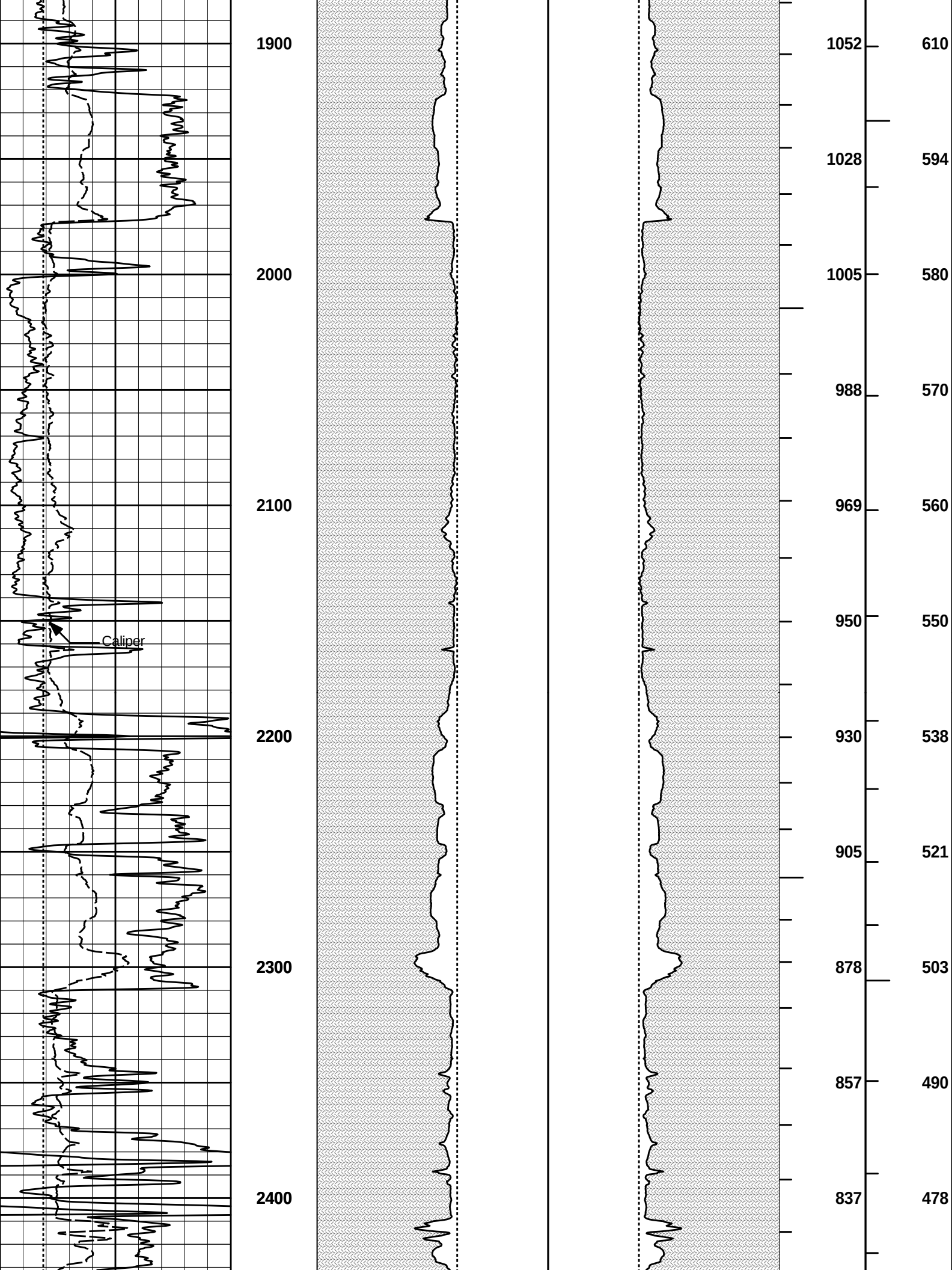
	ACRt	TPOS	Tool Position	Free Hanging	
	ACRt	RMOP	Rmud Source	Mud Cell	
	ACRt	RMIN	Minimum Resistivity for MAP	0.20	ohmm
	ACRt	RMIN	Maximum Resistivity for MAP	200.00	ohmm
	ACRt	THQY	Threshold Quality	0.50	
BOTTOM_____					
Data: WELLINGTON_KGSI0001 SP-GTET-DSN-SDL-ACRT-CHIDLE				Date: 22-Jan-11 15:13:20	

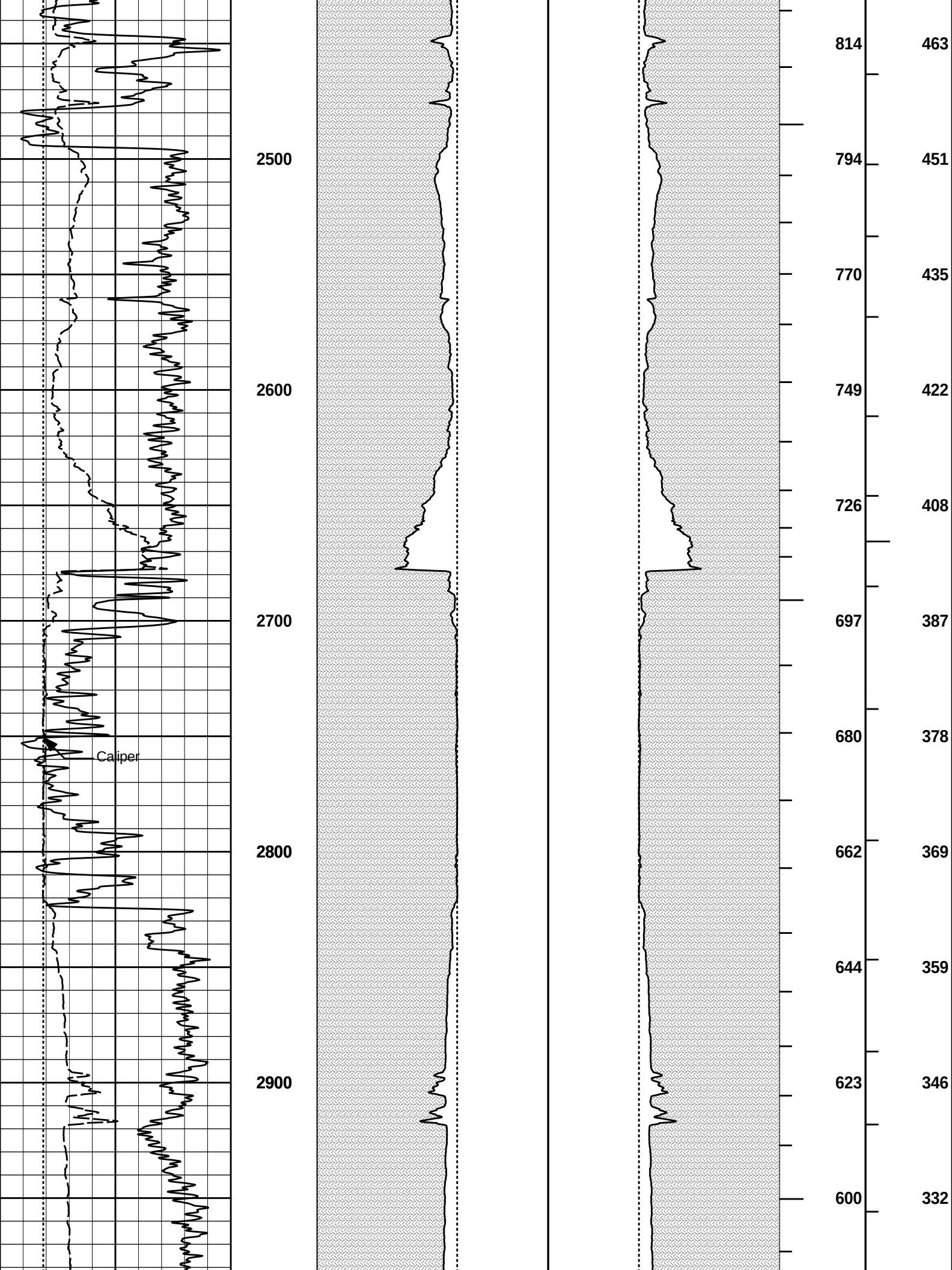
HALLIBURTON					
INPUTS, DELAYS AND FILTERS TABLE					
Mnemonic		Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel					
TENS	Tension		0.00	NO	
CH_HOS					
DHTN	DownholeTension		0.00	BLK	0.000
SP Sub					
PLTC	Plot Control Mask		50.81	NO	
SP	Spontaneous Potential		50.81	BLK	1.250
SPR	Raw Spontaneous Potential		50.81	NO	
SPO	Spontaneous Potential Offset		50.81	NO	
GTET					
TPUL	Tension Pull		42.79	NO	
GR	Natural Gamma Ray API		42.79	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API		42.79	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution		42.79	W	1.416 , 0.750
ACCZ	Accelerometer Z		0.00	BLK	0.083
DEVI	Inclination		0.00	NO	
DSNT					
TPUL	Tension Pull		32.54	NO	
RNDS	Near Detector Telemetry Counts		32.64	BLK	1.417
RFDS	Far Detector Telemetry Counts		33.39	TRI	0.583
DNTT	DSN Tool Temperature		32.64	NO	
DSNS	DSN Tool Status		32.54	NO	
ERND	Near Detector Telemetry Counts EVR		32.64	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR		33.39	BLK	0.000
ENTM	DSN Tool Temperature EVR		32.64	NO	
SDLT					
TPUL	Tension Pull		22.64	NO	
NAB	Near Above		22.46	BLK	0.920
NHI	Near Cesium High		22.46	BLK	0.920
NLO	Near Cesium Low		22.46	BLK	0.920
NVA	Near Valley		22.46	BLK	0.920
NBA	Near Barite		22.46	BLK	0.920
NDE	Near Density		22.46	BLK	0.920
NPK	Near Peak		22.46	BLK	0.920
NLI	Near Lithology		22.46	BLK	0.920
NBAU	Near Barite Unfiltered		22.46	BLK	0.250

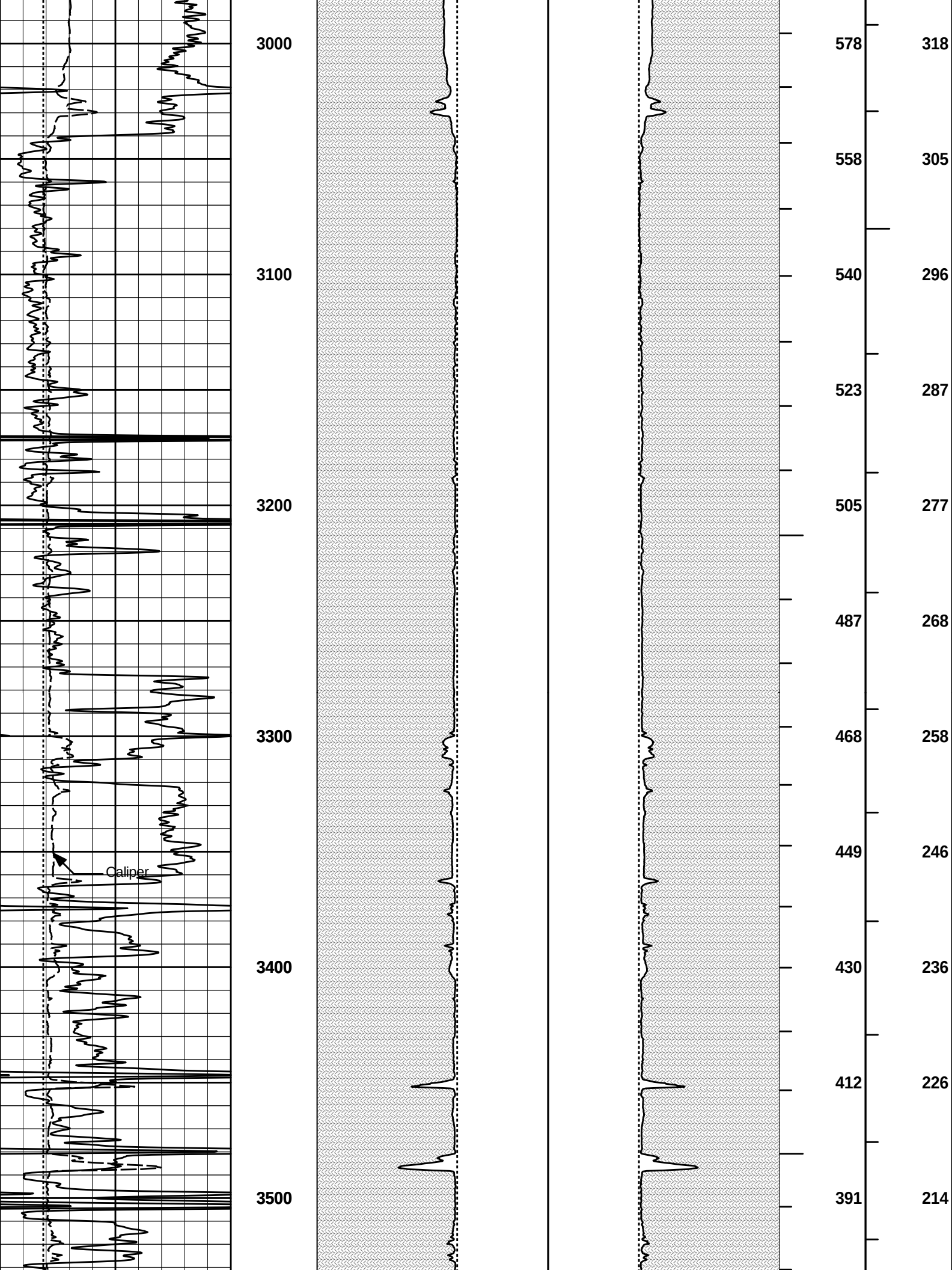
NDAU	Near Dante Unfiltered	22.46	BLK	0.250
NLIU	Near Lithology Unfiltered	22.46	BLK	0.250
FAB	Far Above	22.81	BLK	0.250
FHI	Far Cesium High	22.81	BLK	0.250
FLO	Far Cesium Low	22.81	BLK	0.250
FVA	Far Valley	22.81	BLK	0.250
FBA	Far Barite	22.81	BLK	0.250
FDE	Far Density	22.81	BLK	0.250
FPK	Far Peak	22.81	BLK	0.250
FLI	Far Lithology	22.81	BLK	0.250
PTMP	Pad Temperature	22.65	BLK	0.920
NHV	Near Detector High Voltage	19.83	NO	
FHV	Far Detector High Voltage	19.83	NO	
ITMP	Instrument Temperature	19.83	NO	
DDHV	Detector High Voltage	19.83	NO	
TPUL	Tension Pull	22.65	NO	
PCAL	Pad Caliper	22.65	TRI	0.250
ACAL	Arm Caliper	22.65	TRI	0.250
TPUL	Tension Pull	22.83	NO	
MINV	Microlog Lateral	22.83	BLK	0.750
MNOR	Microlog Normal	22.83	BLK	0.750
ACRt				
TPUL	Tension Pull	2.97	NO	
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	4.22	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	4.22	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.72	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.72	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.47	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.47	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	9.22	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	9.22	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.72	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.72	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	5.22	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	5.22	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000

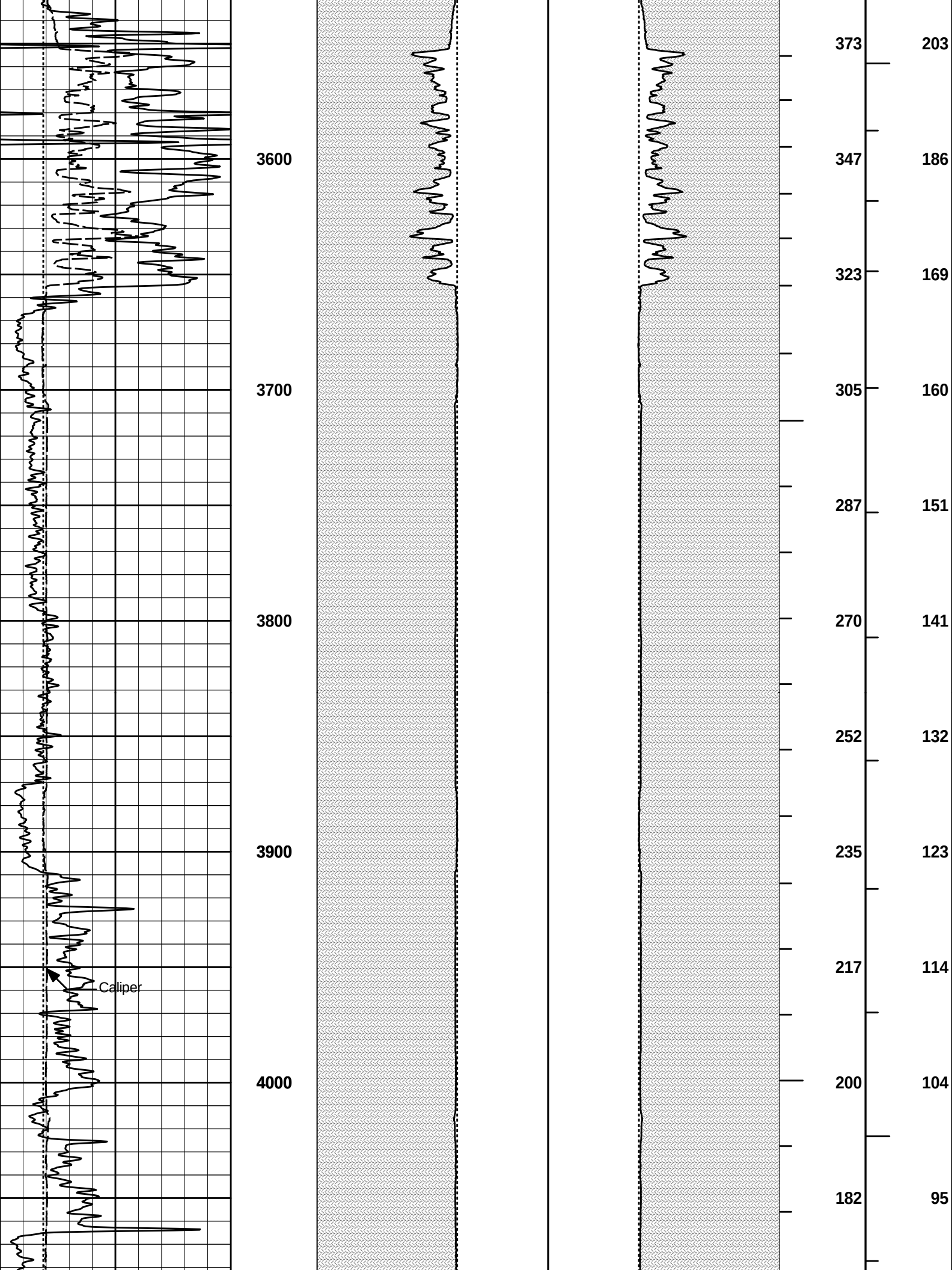


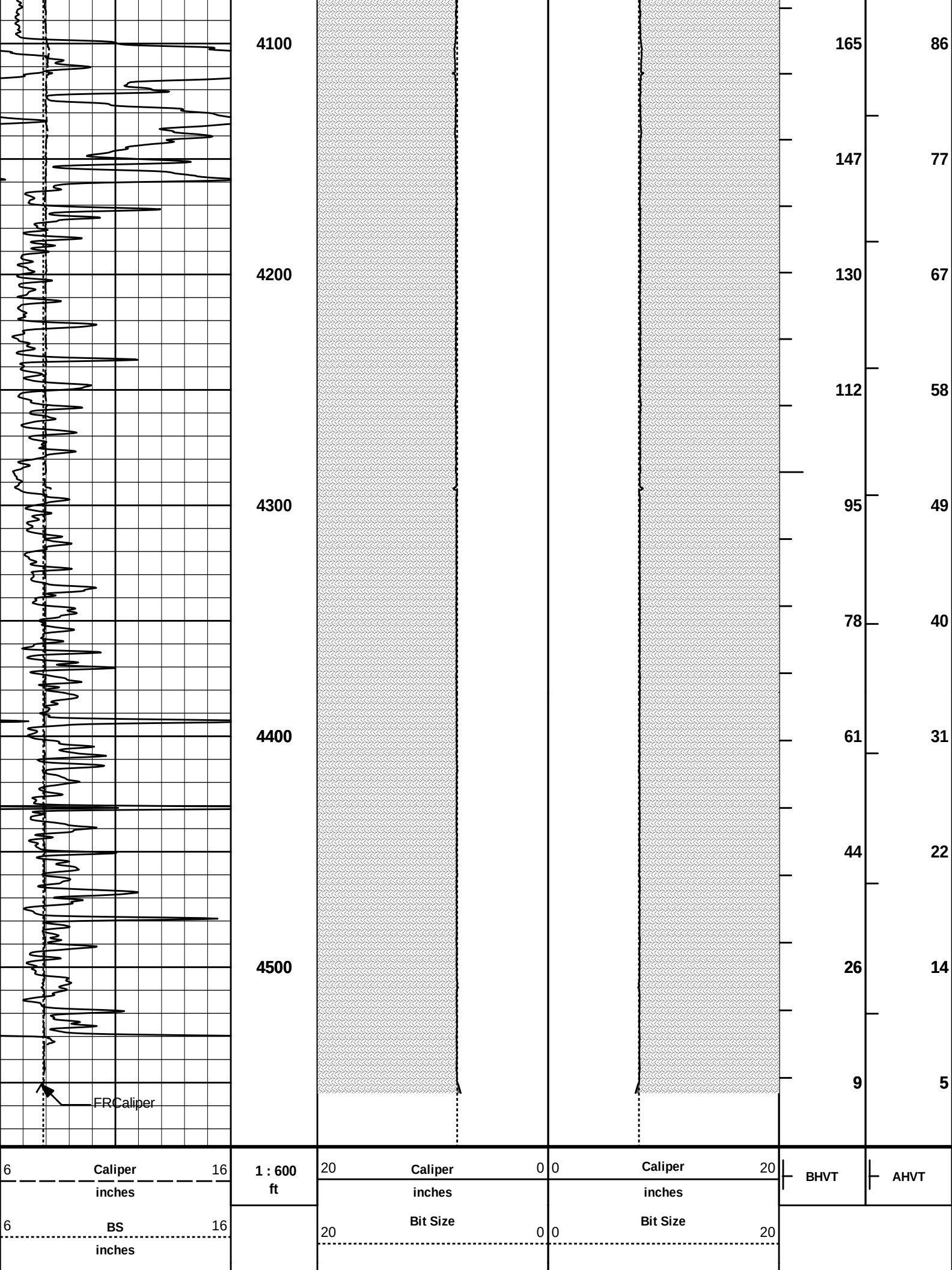












0	Gamma API	150		MUDCAKE	MUDCAKE	
	api					
HALLIBURTON Plot Time: 22-Jan-11 17:01:45 Plot Range: 590 ft to 4577.42 ft Data: WELLINGTON_KGS\Well Based\DAQ-0001-MAIN Plot File: \\-LOCAL-(WELLINGTON_KGS\0001 SP-GTET-DSN-SDL-ACRT-CH\PORO\AHV_5_5_INCH_2_IQ_LIB						
ANNULAR HOLE VOLUME PLOT (5.5 INCH)						
COMPANY BEREXCO INC. WELL WELLINGTON KGS #1-32 FIELD WELLINGTON COUNTY SUMNER STATE KANSAS						
HALLIBURTON			SPECTRAL DENSITY DUAL SPACED NEUTRON LOG			