

HALLIBURTON

SPECTRAL DENSITY DUAL SPACED NEUTRON LOG

COMPANY				PIONEER NATURAL RESOURCES			
WELL				EVANS 4-25			
FIELD				GRANT			
COUNTY				KANSAS			
STATE				KANSAS			
Permanent Datum				GROUND LEVEL			
Log measured from				KELLY BUSHING			
Drilling measured from				KELLY BUSHING			
Date				05-Aug-10			
Run No.				ONE			
Depth - Driller				3025.00 ft			
Depth - Logger				2964.0 ft			
Bottom - Logged Interval				2928.0 ft			
Top - Logged Interval				604.0 ft			
Casing - Driller				8.625 in @ 606.0 ft			
Casing - Logger				604.0 ft			
Bit Size				7.875 in @			
Type Fluid in Hole				WATER BASED MUD			
Density				8.9 ppq 38.00 s/qt			
PH				12.00 pH 6.6 cp/m			
Source of Sample				MUD PIT			
Rm @ Meas. Temperature				0.190 ohmm @ 90.00 degF @			
Rmf @ Meas. Temperature				0.17 ohmm @ 90.00 degF @			
Rmc @ Meas. Temperature				0.230 ohmm @ 90.00 degF @			
Source Rmf				MEAS. MEAS.			
Rm @ BHT				0.18 ohmm @ 110.0 degF @			
Time Since Circulation				4.0 hr			
Time on Bottom				05-Aug-10 03:04			
Max. Rec. Temperature				110.0 degF @ 2964.0 ft @			
Equipment				10546696 LIBERAL			
Recorded By				T. BRIDGEMAN			
Witnessed By				D. BERRY			

Fold here

Service Ticket No.: 7480946				API Serial No.: 15-081-21713				PGM Version: WL INSITE R3.0.7 (Build 3)											
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.					
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.		11048627		Serial No.				Serial No.		M469		Serial No.		11019643					
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		CS137		Source Type		AM241BE					
Length		8"		LSA [Y/N]				Serial No.		5168 GW		Serial No.		DSN 424					
Distance to Source		10'		FWDA [Y/N]				Strength		1.5 CI		Strength		15 CI					
LOGGING DATA																			
GENERAL				GAMMA				ACOUSTIC				DENSITY				NEUTRON			

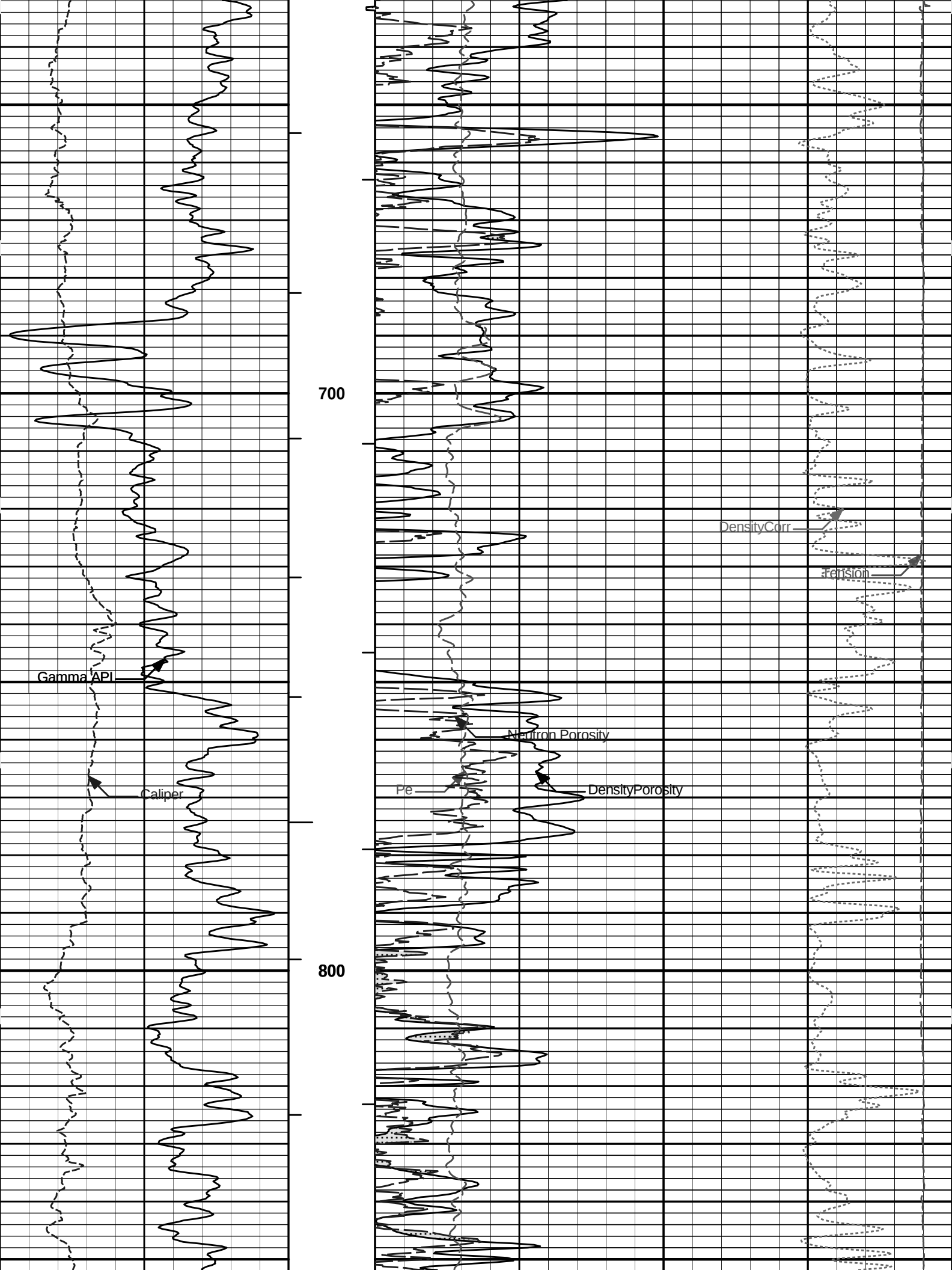
GENERAL			GAMMA		ACOUSTIC		DENSITY		NEUTRON					
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
No.	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	2928'	604'	REC	0	150				30%	-10%	2.71	30%	-10%	LIME
DIRECTIONAL INFORMATION														
Maximum Deviation @								KOP @						
Remarks: AHV CALCULATED FOR 5.5 - INCH CASING														
CHLORIDES: 12000 MG/L														
MAIN PASS STOPPED @ 2950' DUE TO HOLE CONDITIONS														
LAT: 37.24 N & LONG: 101.12 W														
TODAY'S CREW: K. KELLY & T. 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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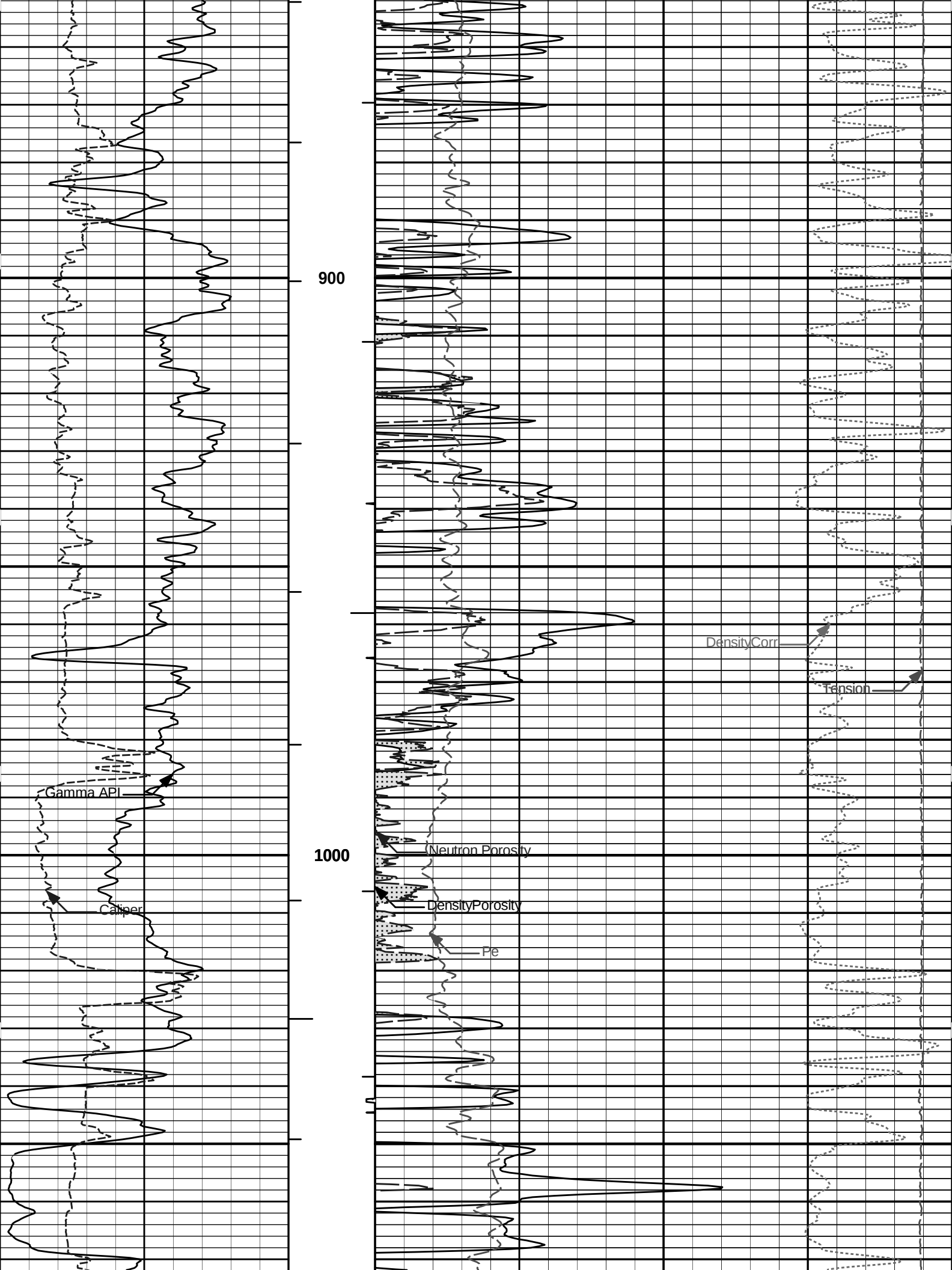
HALLIBURTON

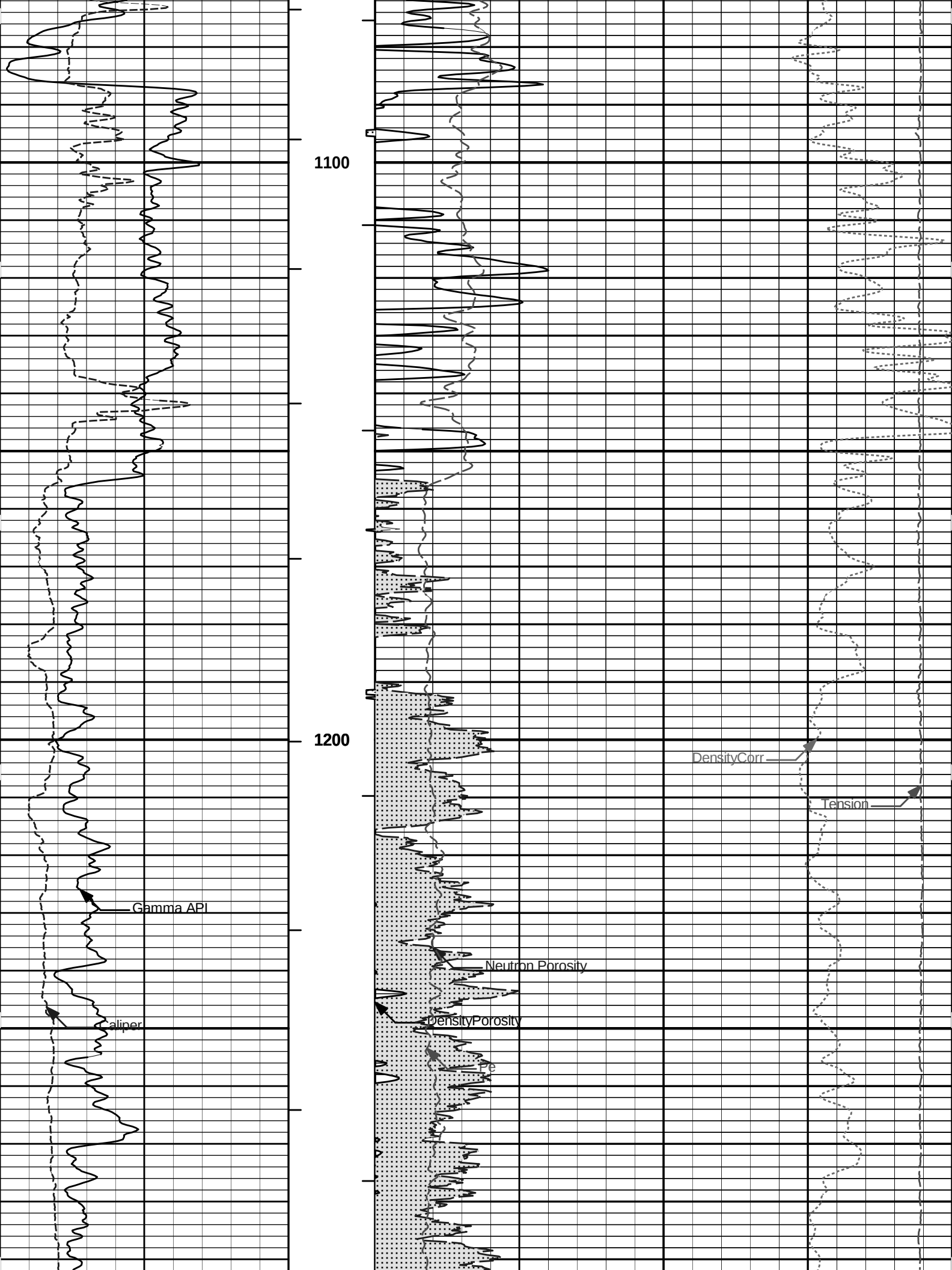
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Plot Range: 590 ft to 2949.83 ft
Data: EVANS_4_25\Well Based\DAQ-0001-003\
Plot File: \\PORO\Porosity_Q_5_MAIN_LIB

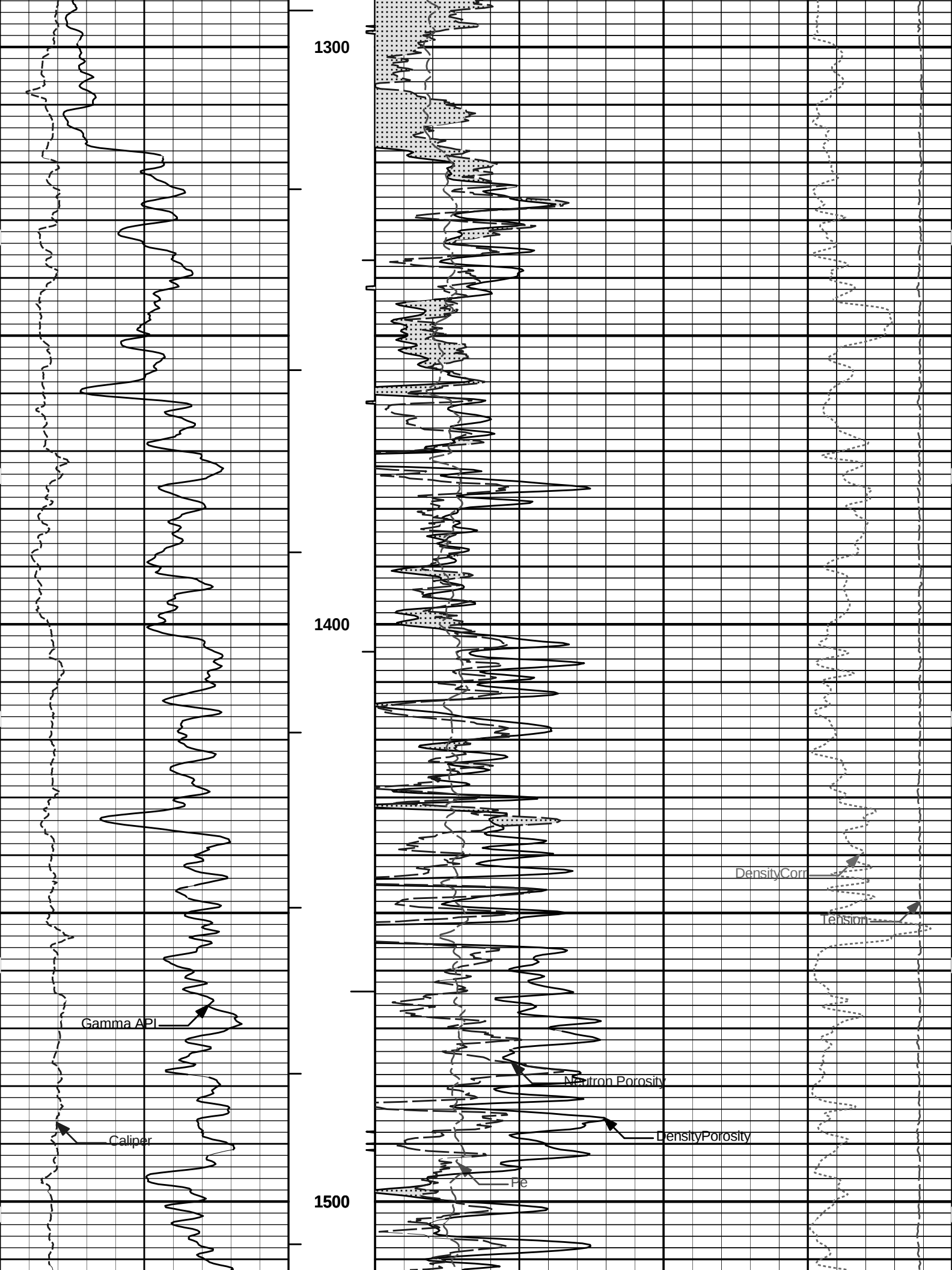
5 INCH MAIN LOG

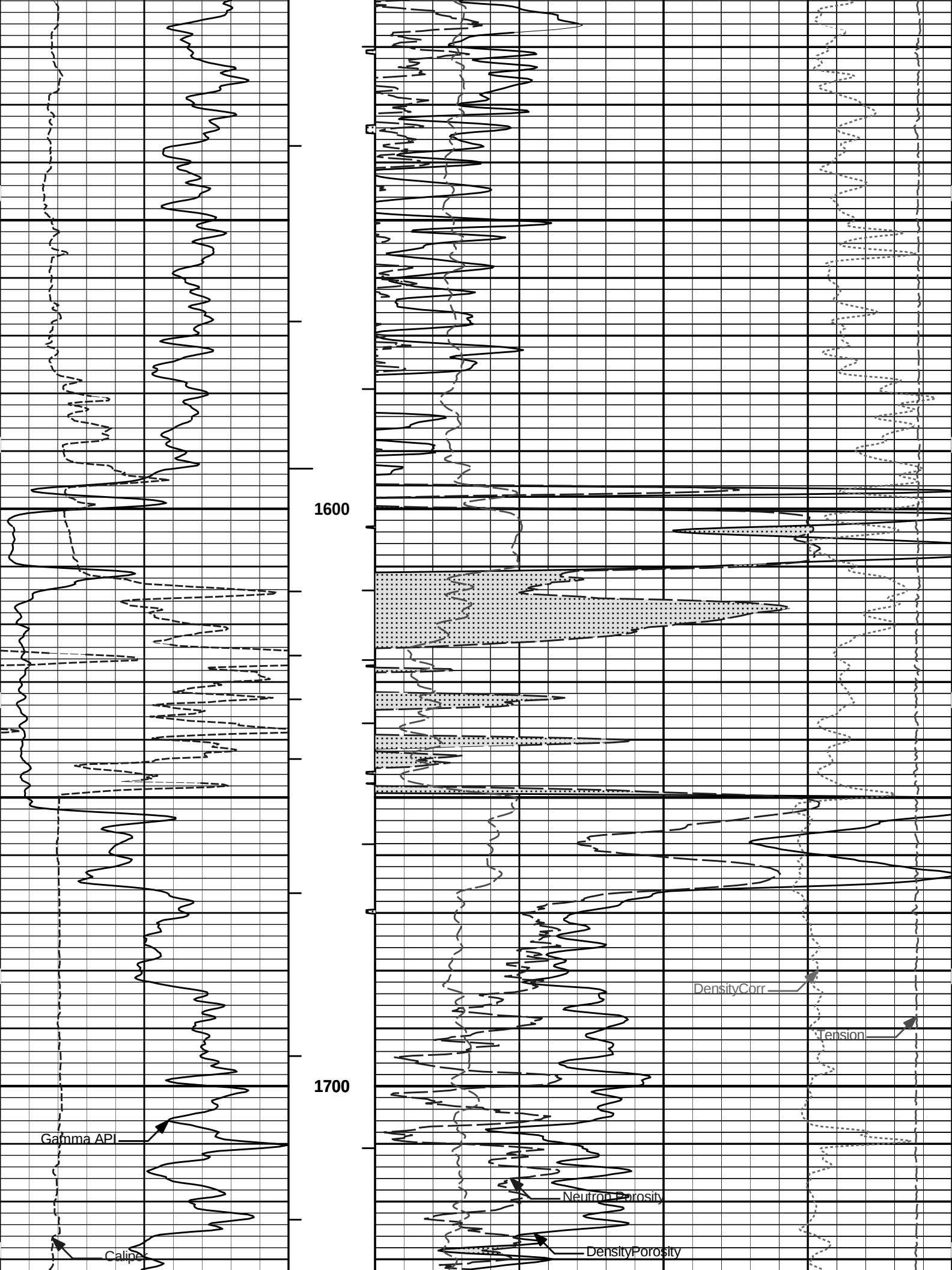
Tension Pull		CROSSOVER	
Tension Pull 10	0	30	Neutron Porosity -10
SHALE 1		Density Porosity -10	
Gamma API 150		Tension 0	
api		pounds	
Caliper 16		Density Corr 0.25	
inches		gram per cc	
600 CSG			

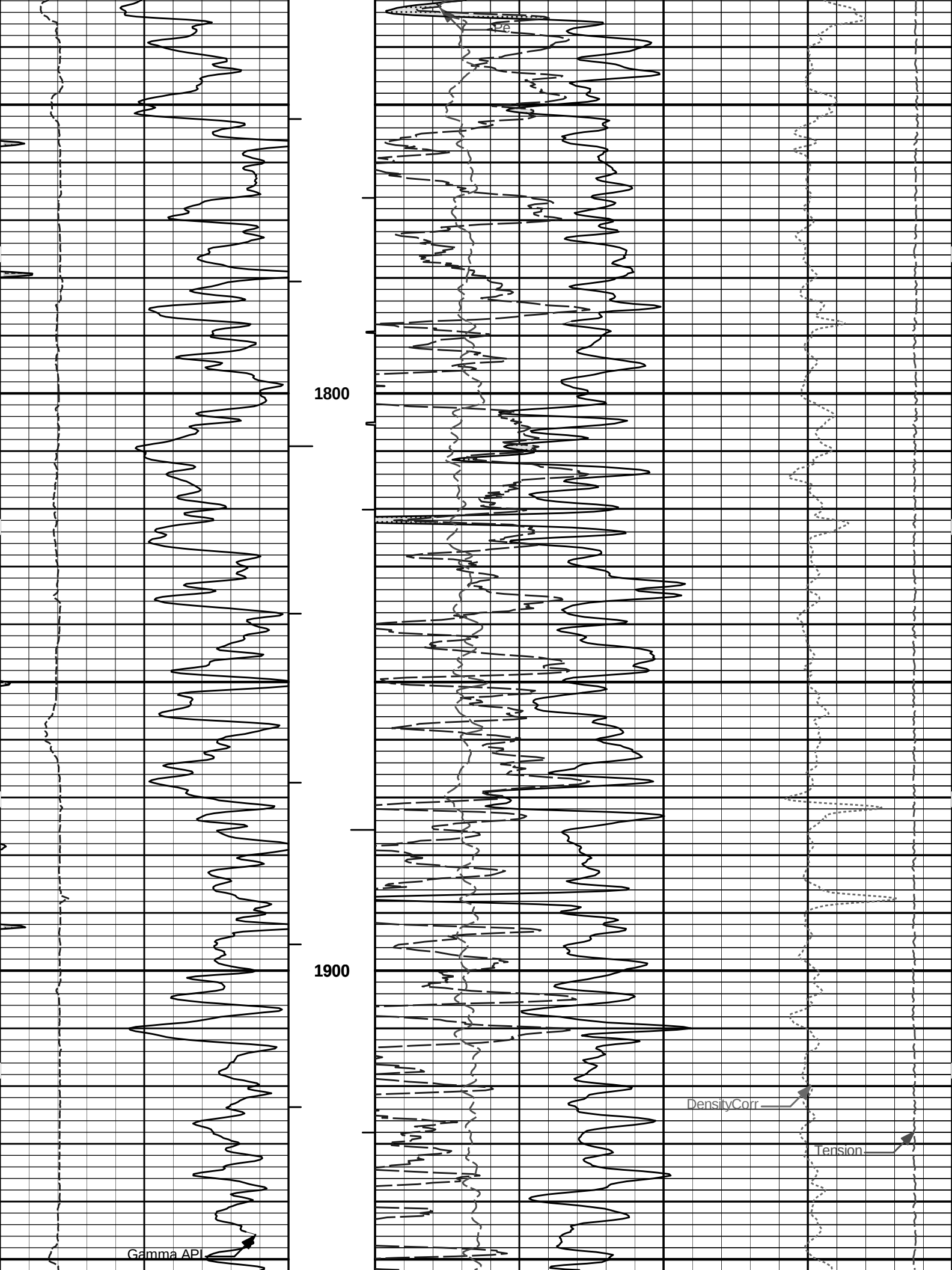


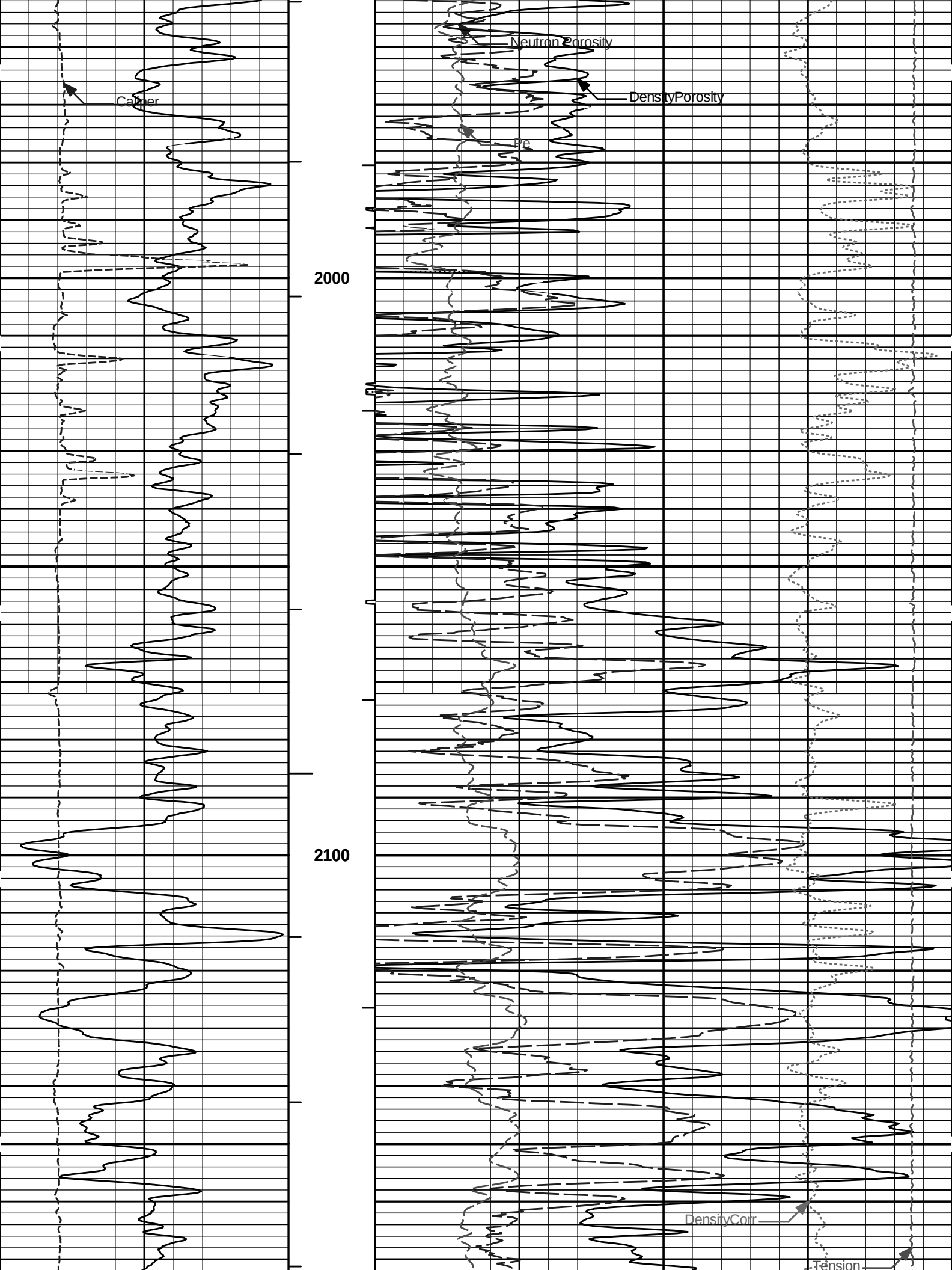


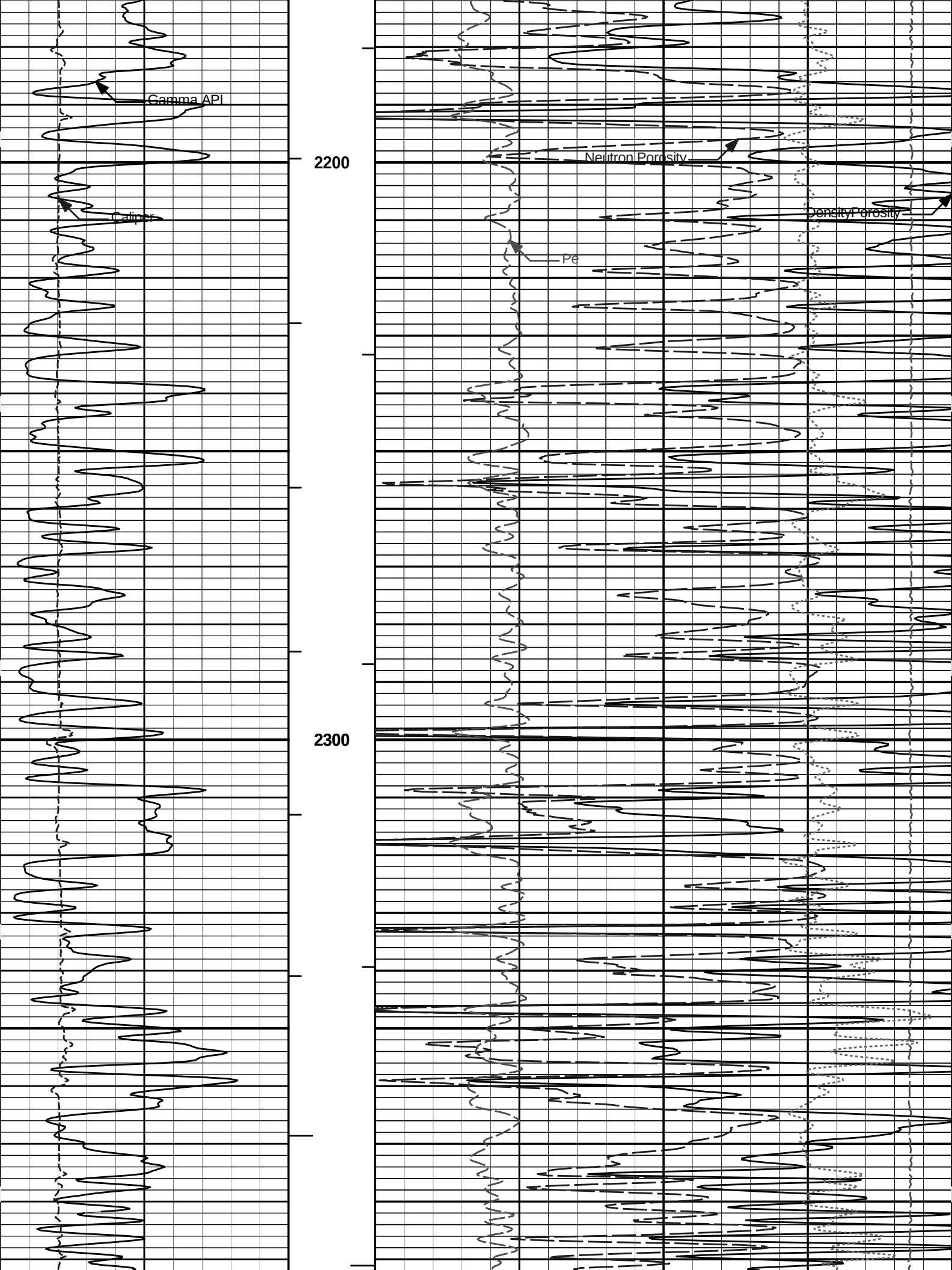


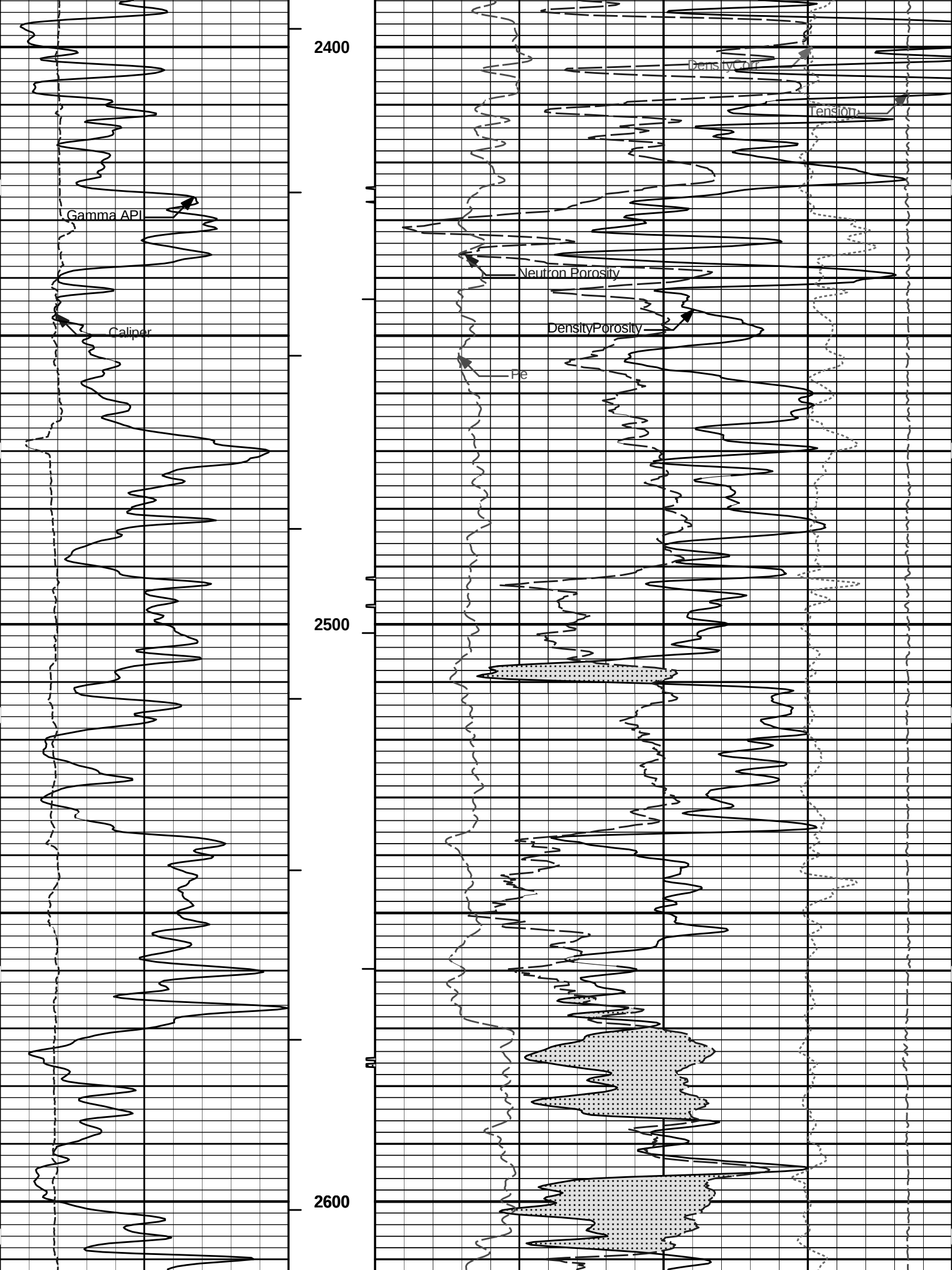


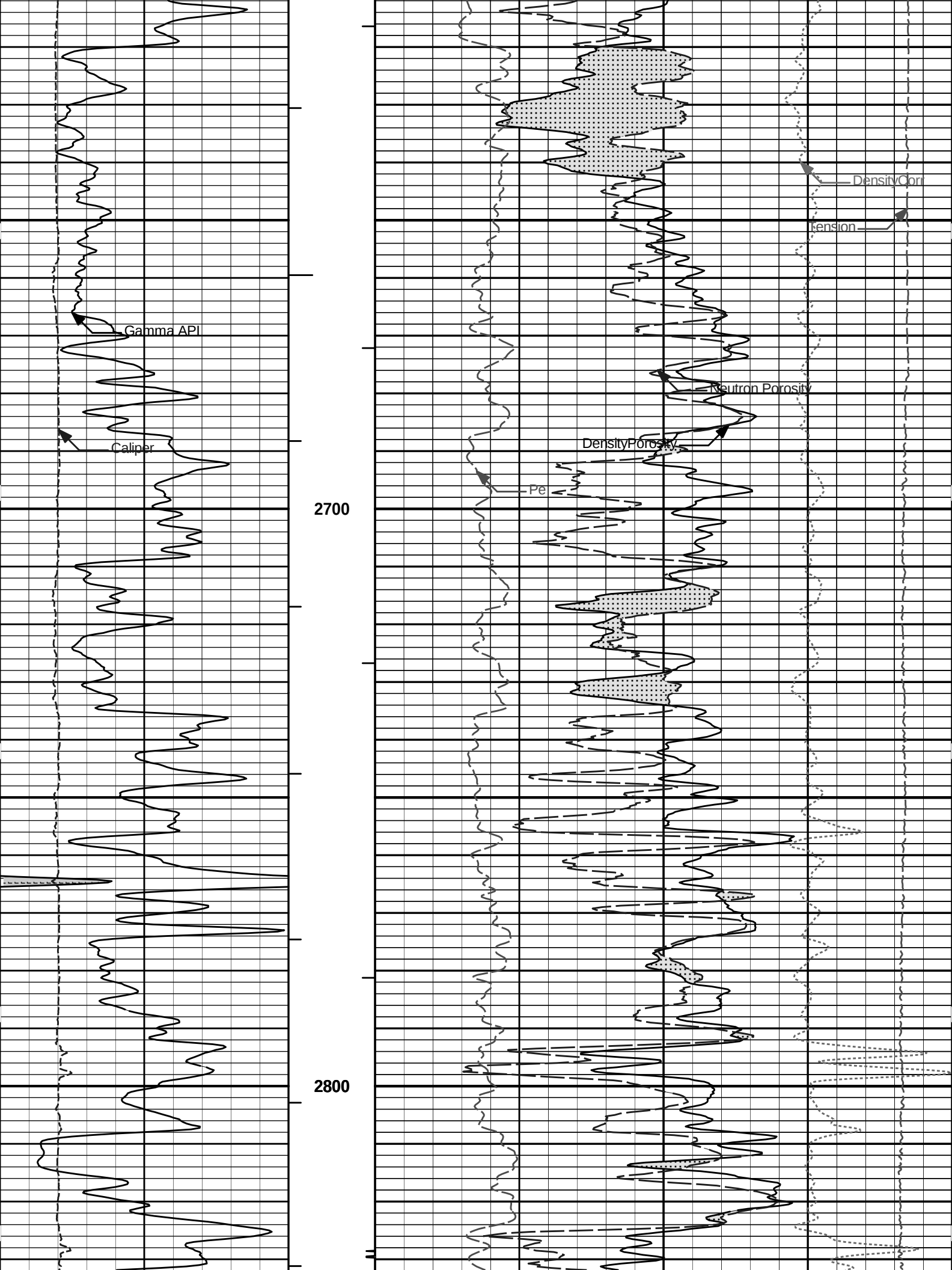


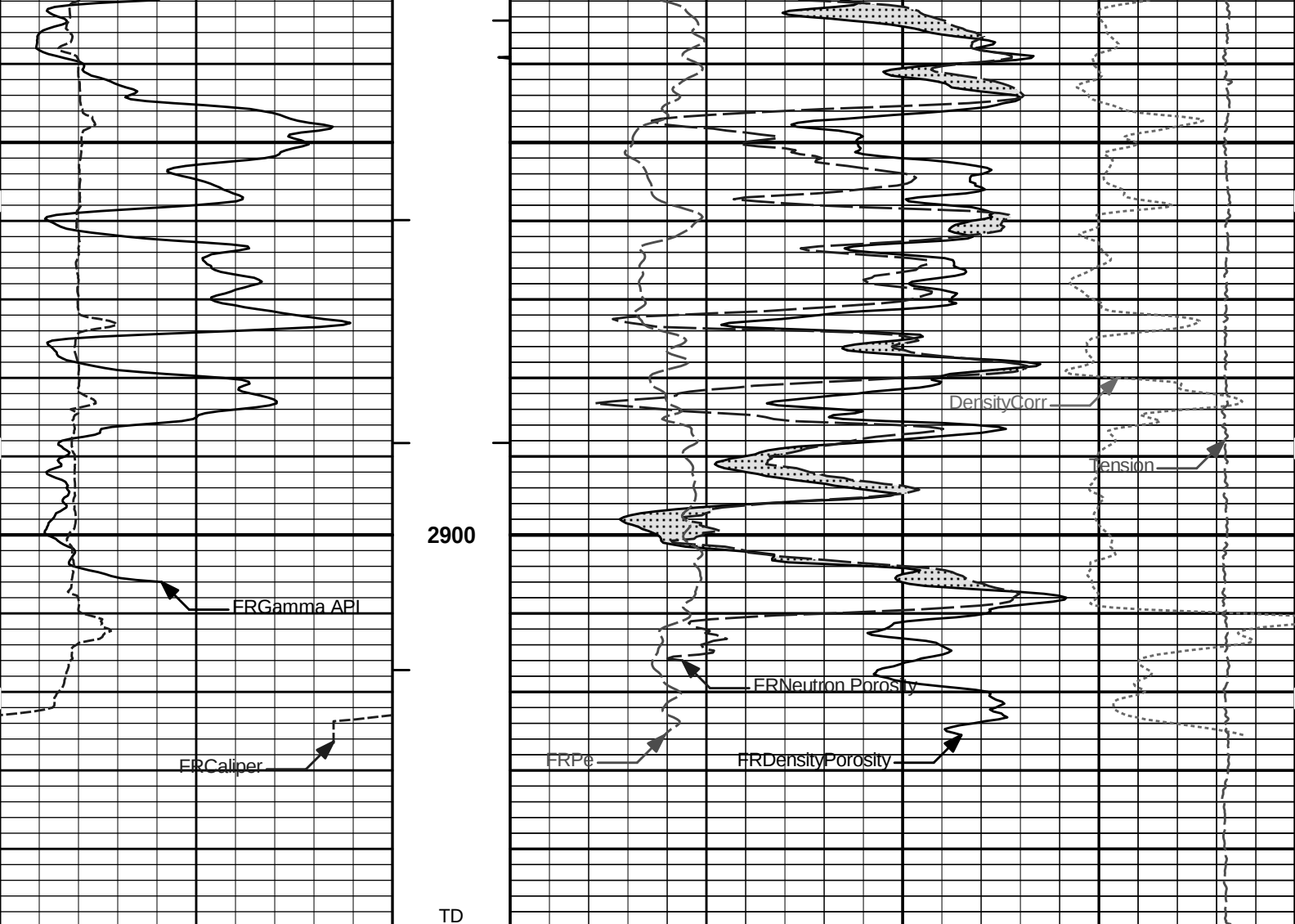












6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					gram per cc	
0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
	SHALE 1		BHVT	30	DensityPorosity				-10
					%				
			Tension Pull	30	Neutron Porosity				-10
			10 0		%				
			Tension Pull		CROSSOVER				

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Plot Time: 05-Aug-10 05:12:36
 Plot Range: 590 ft to 2949.83 ft
 Data: EVANS_4_25\Well Based\DAQ-0001-003\
 Plot File: \\PORO\Poros_IQ_5_MAIN_LIB

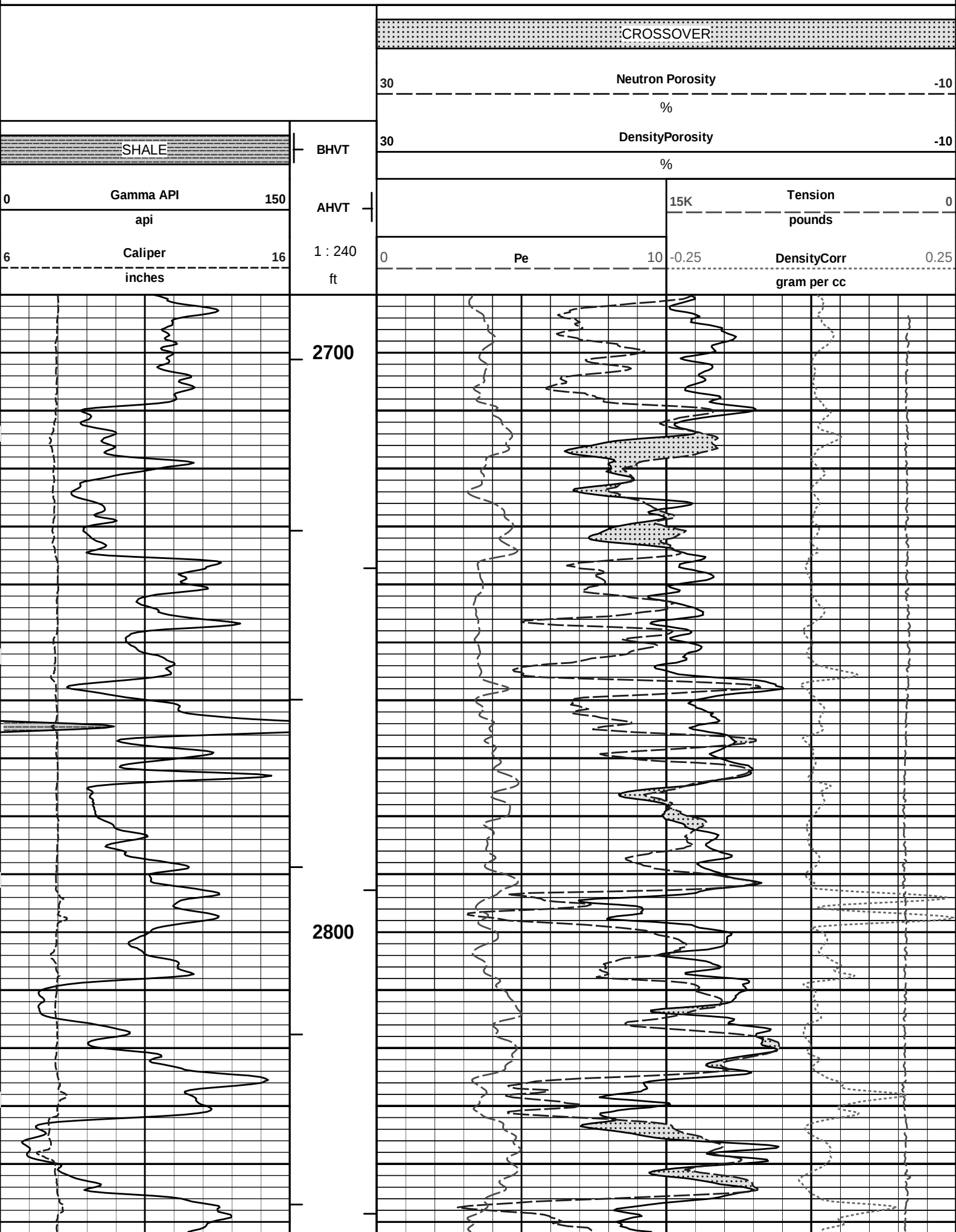
5 INCH MAIN LOG

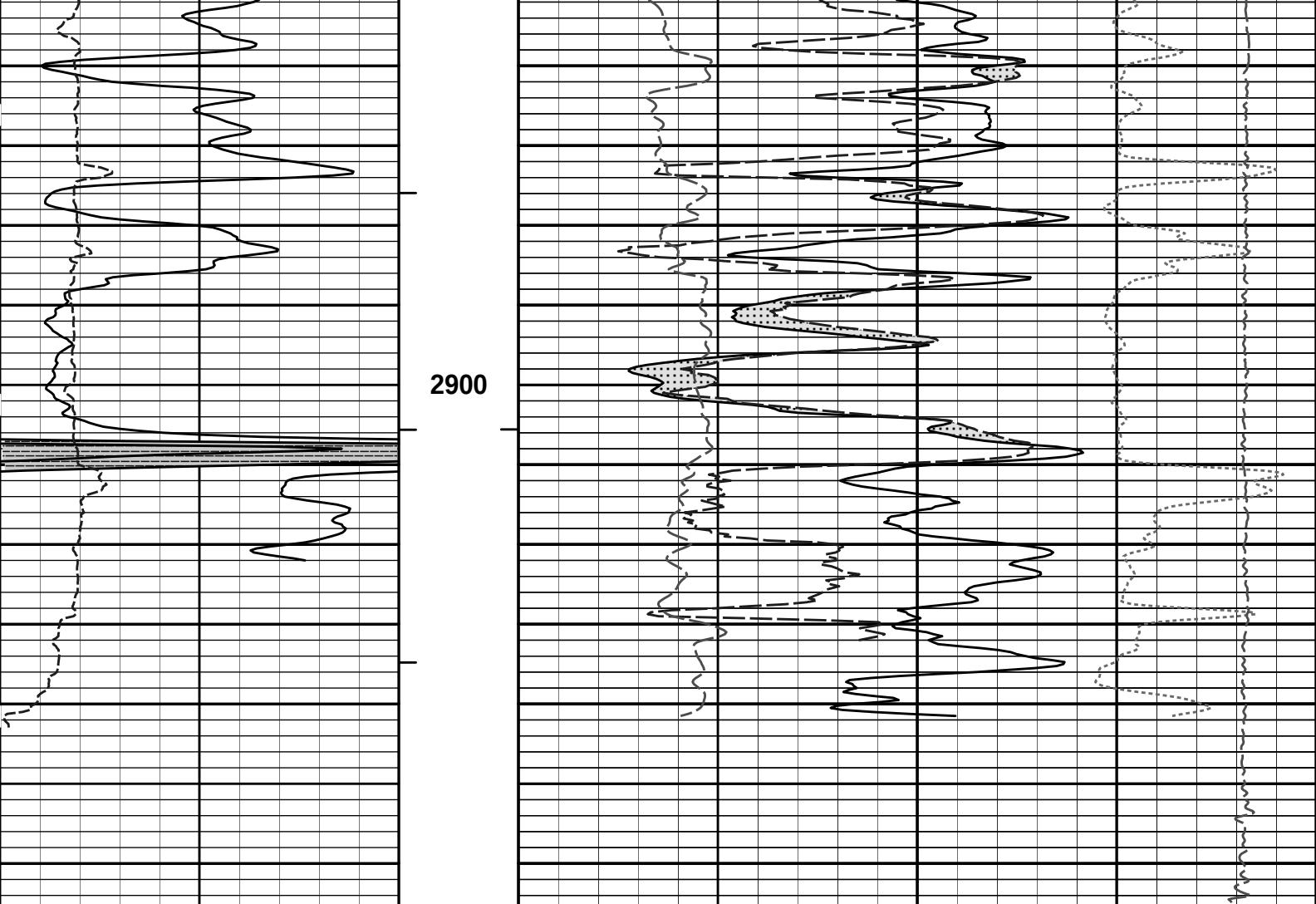
HALLIBURTON

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 Plot Range: 2690 ft to 2965.25 ft
 Data: EVANS_4_25\Well Based\DAQ-0001-002\
 Plot File: \\PORO\Poros_IQ_5_REP_LIB

REPEAT SECTION

REPEAT SECTION





2900

6	Caliper	16	1 : 240	0	Pe	10	-0.25	DensityCorr	0.25
	inches		ft					gram per cc	
0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
	SHALE		BHVT	30	DensityPorosity				-10
					%				
				30	Neutron Porosity				-10
					%				
					CROSSOVER				

HALLIBURTON

Plot Time: 05-Aug-10 05:12:41
Plot Range: 2690 ft to 2965.25 ft
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Plot File: \\PORO\Poros_IQ_5_REP_LIB

REPEAT SECTION

HALLIBURTON

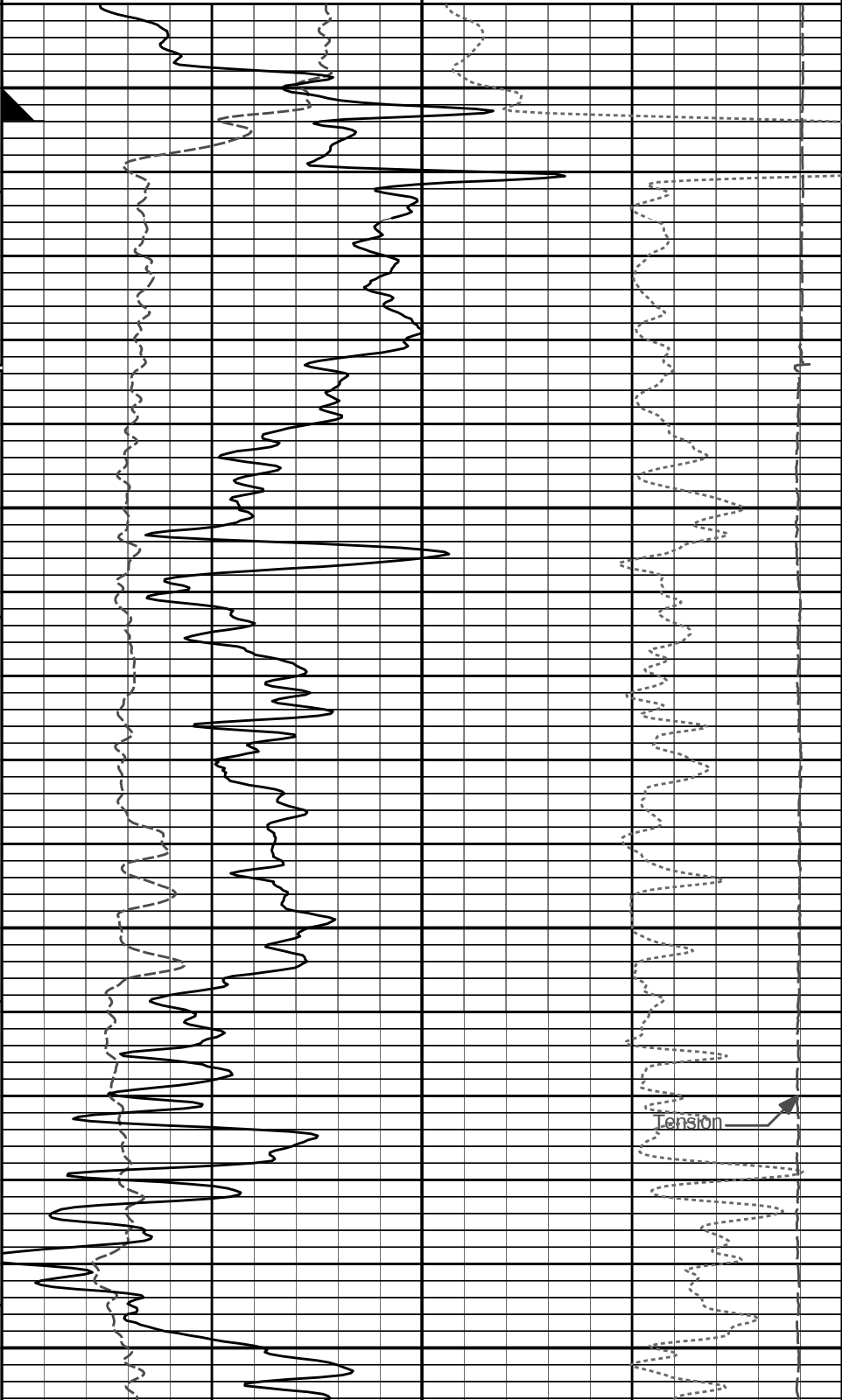
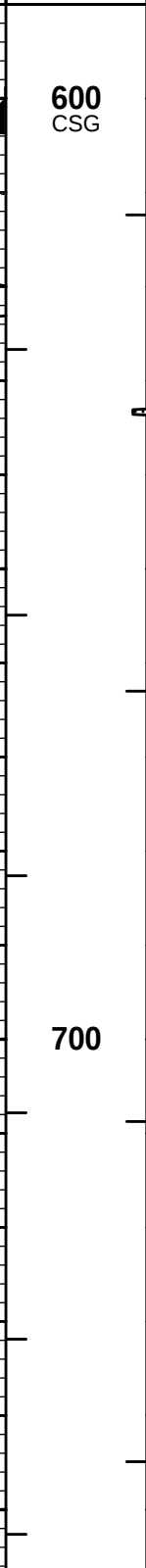
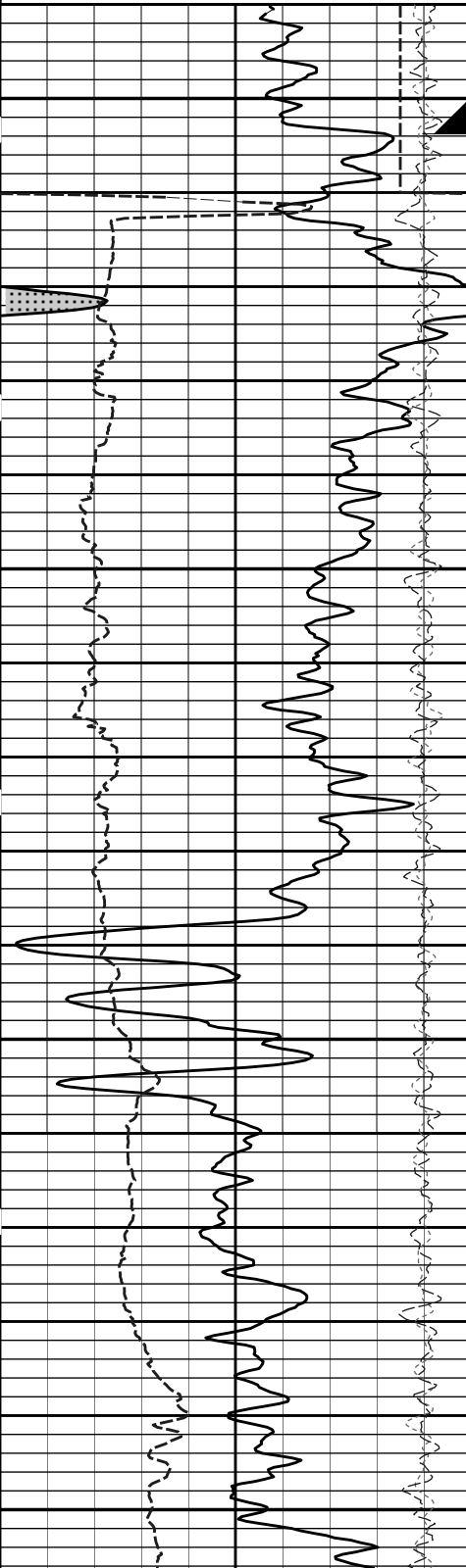
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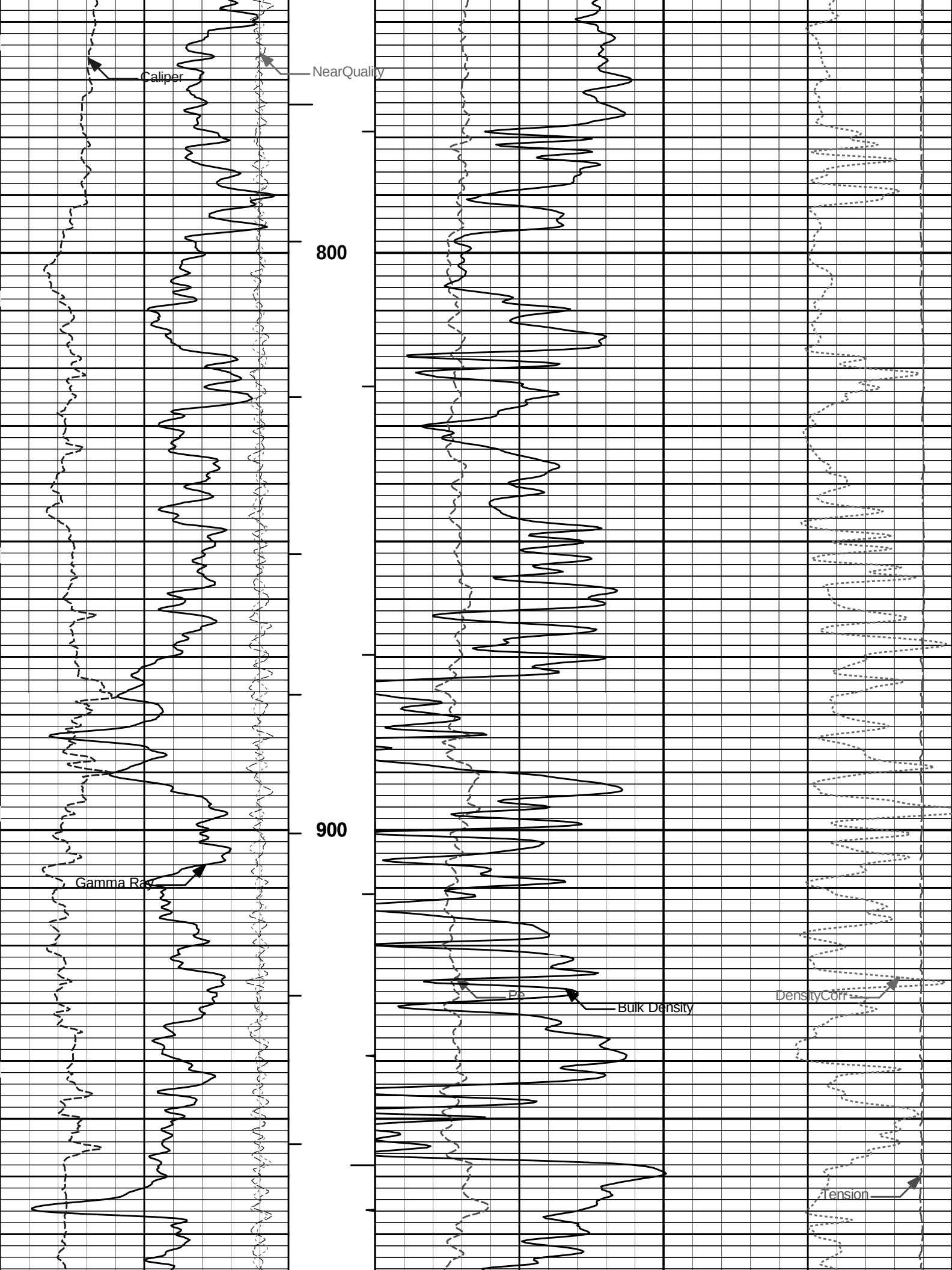
5 INCH MAIN LOG

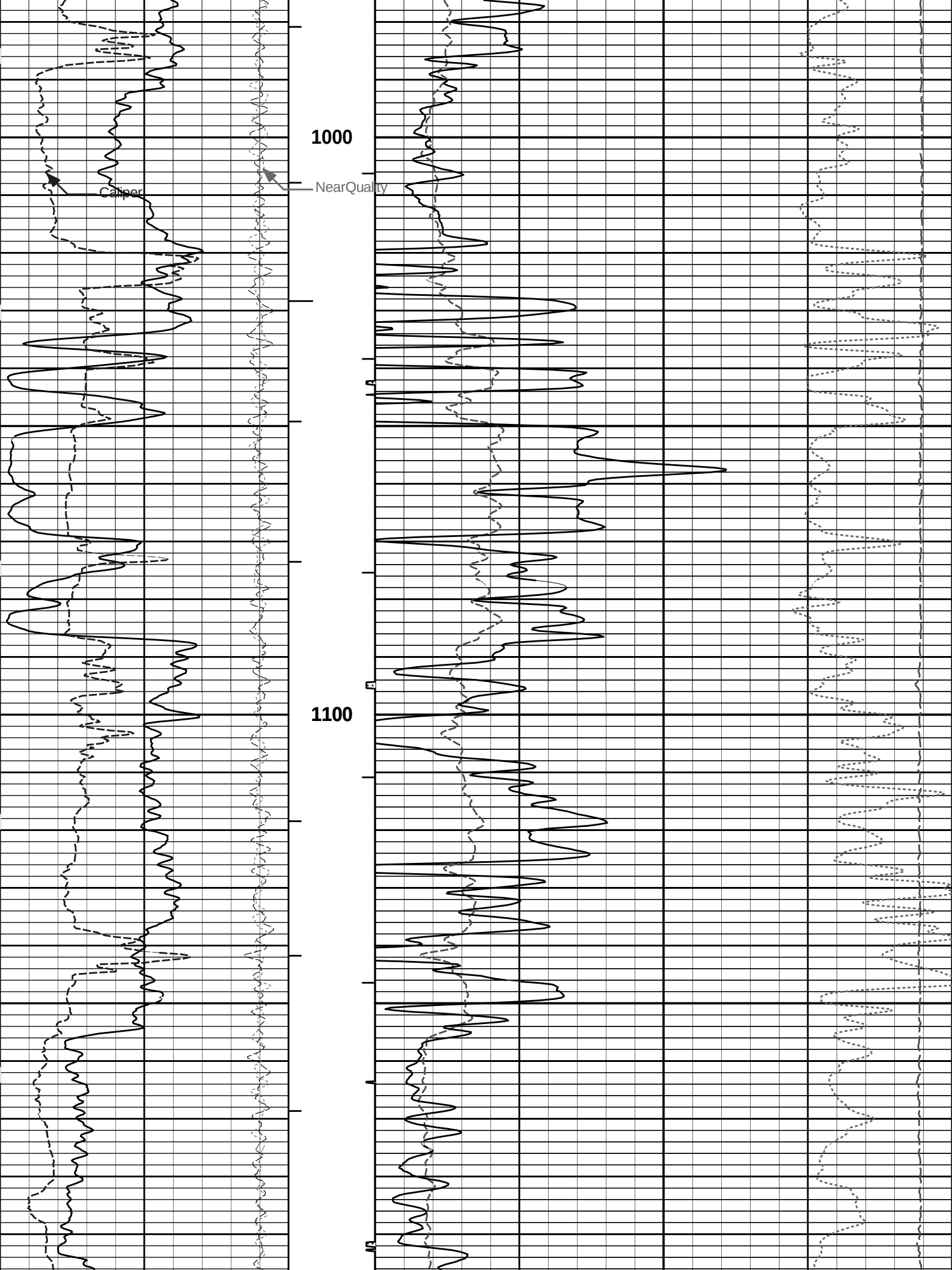
SHALE		
Gamma Ray		
0		150
api		
FarQuality		
18		-2
NearQuality		
-18		2
Caliper		
6		16
inches		

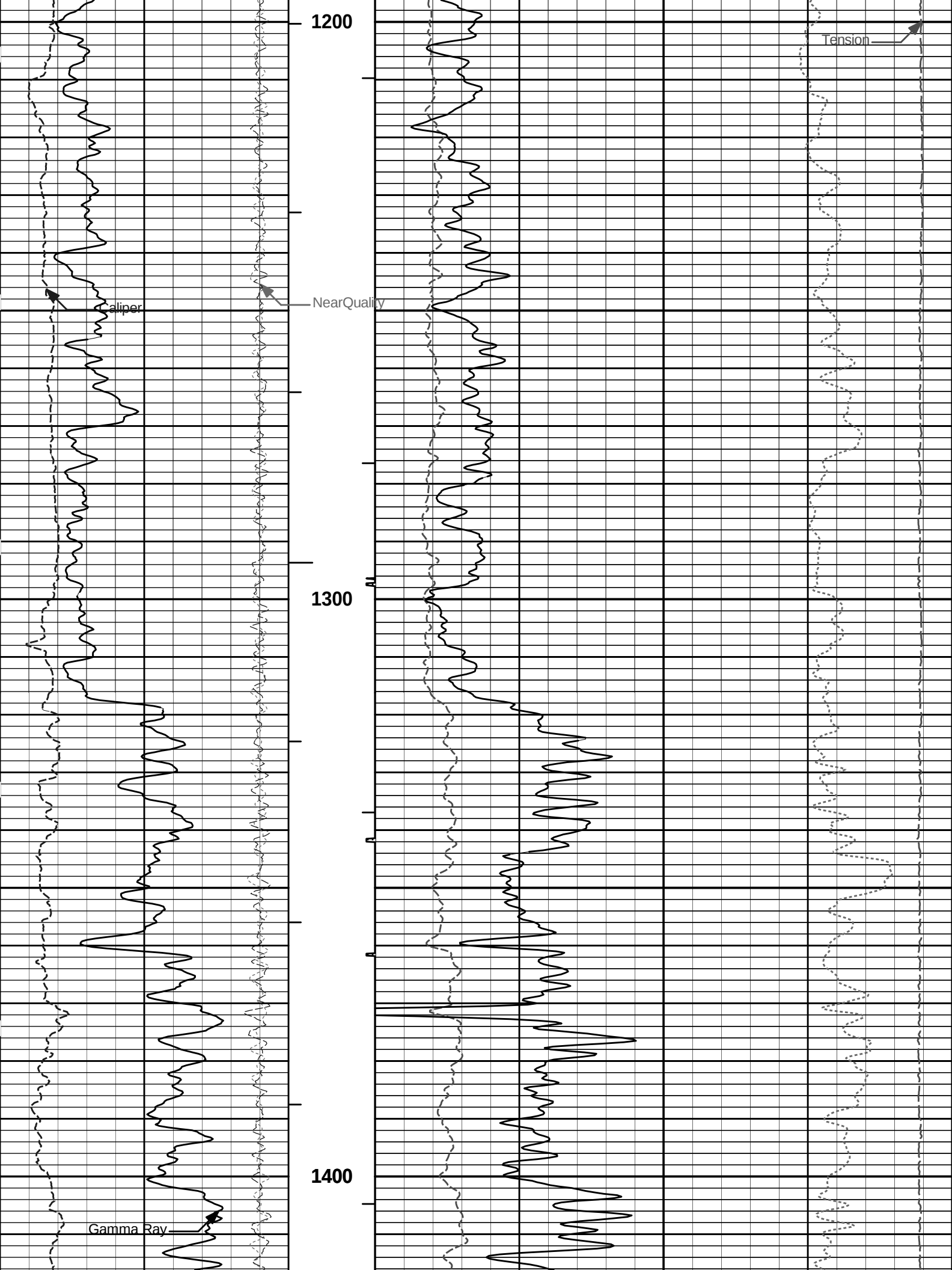
Tension Pull	
Tension Pull	
10	0
AHV	
ft3	
BHV	
ft3	
1 : 240	
ft	

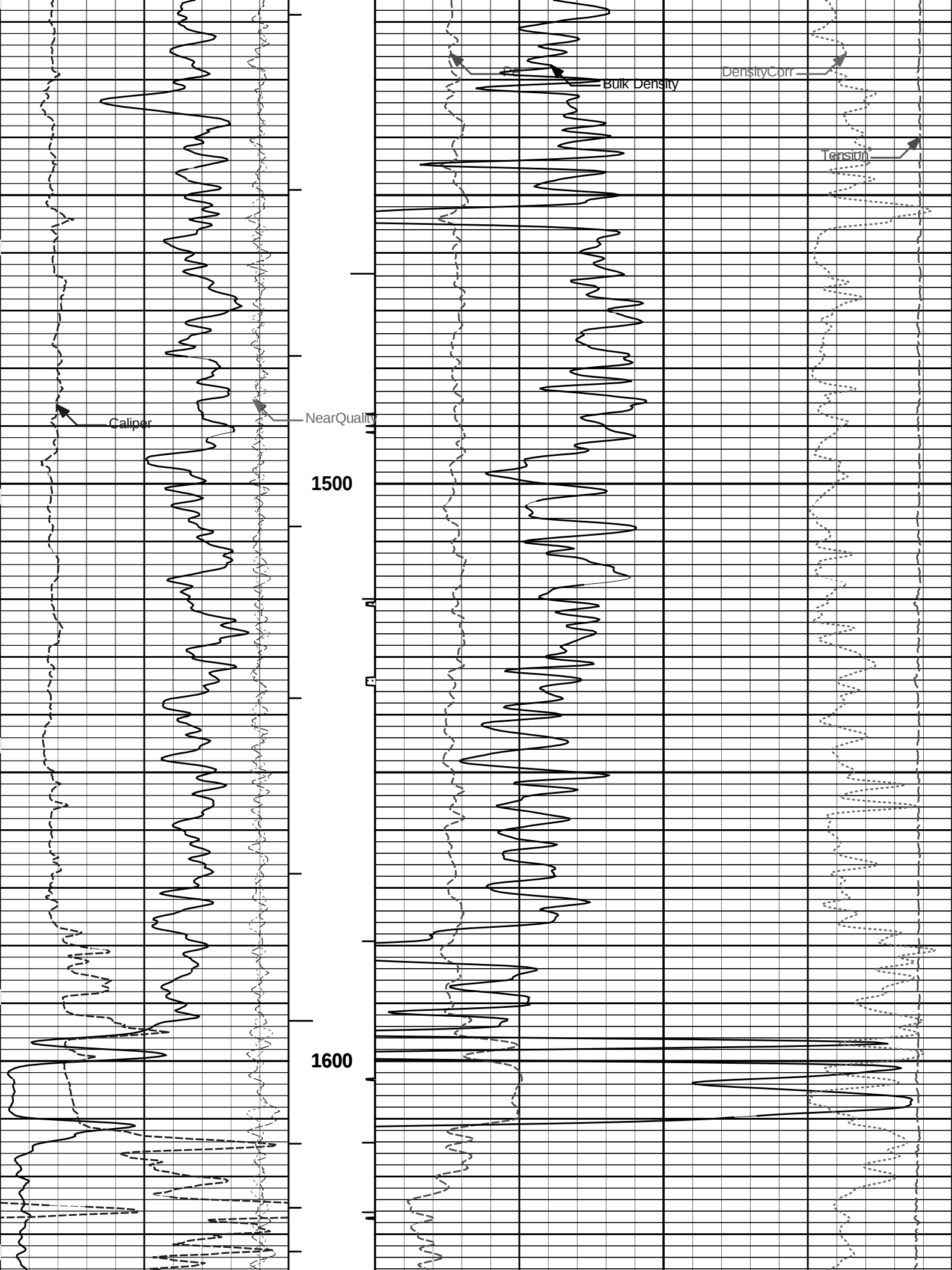
Bulk Density		
		3
g/cc		
15K		Tension
		0
		pounds
0		DensityCorr
Pe	10	-0.25
		0.25
		g/cc

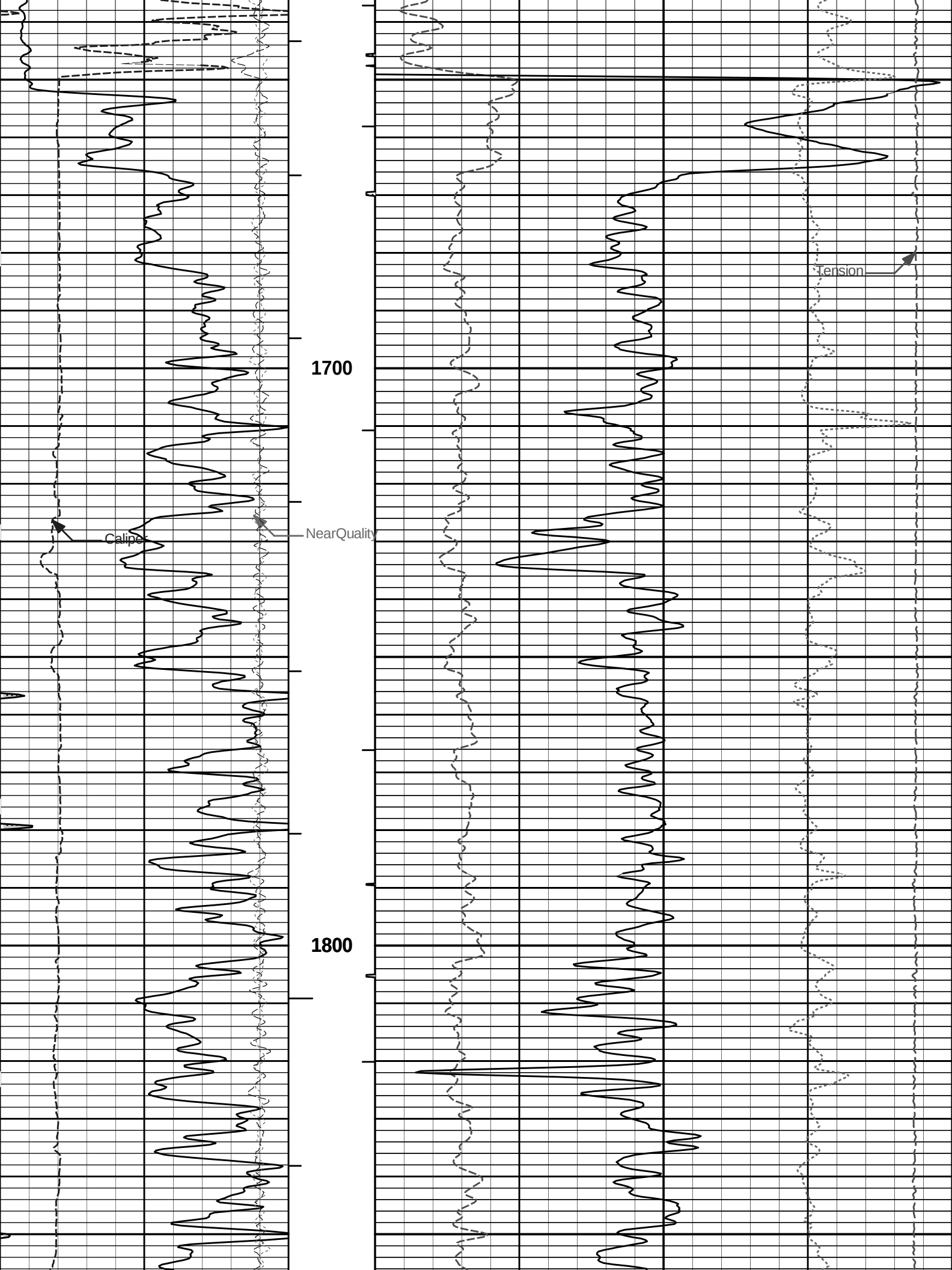


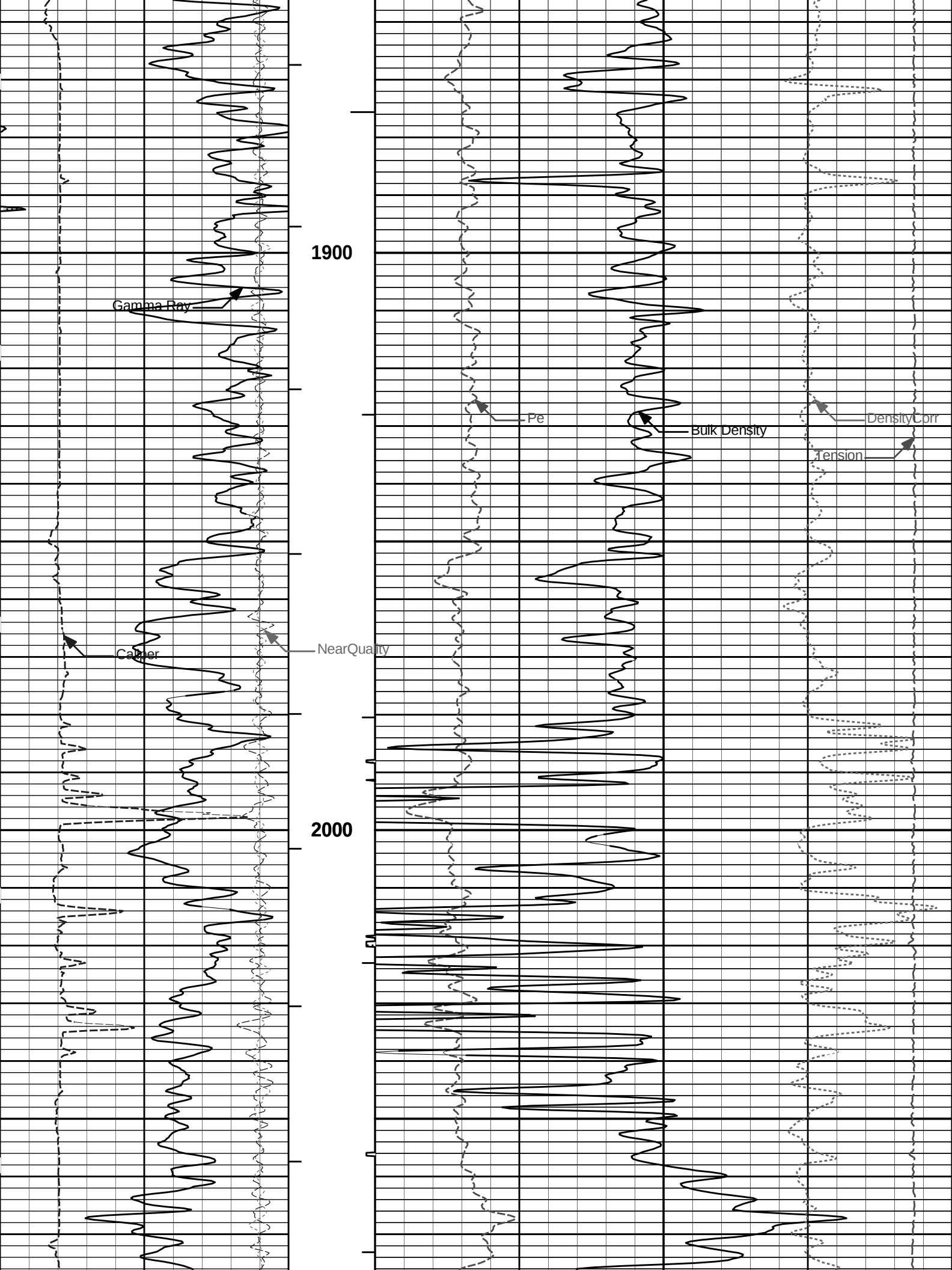


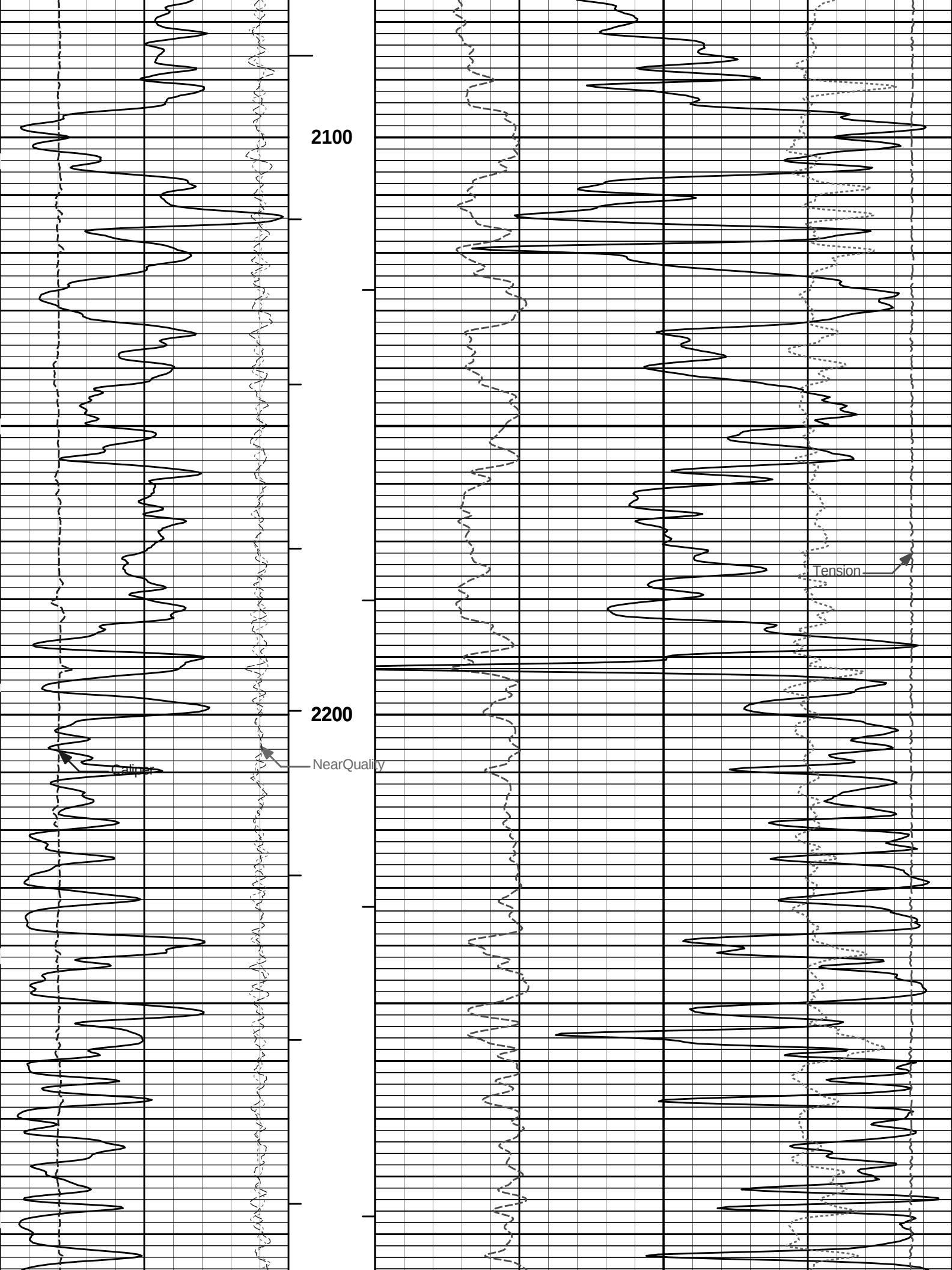


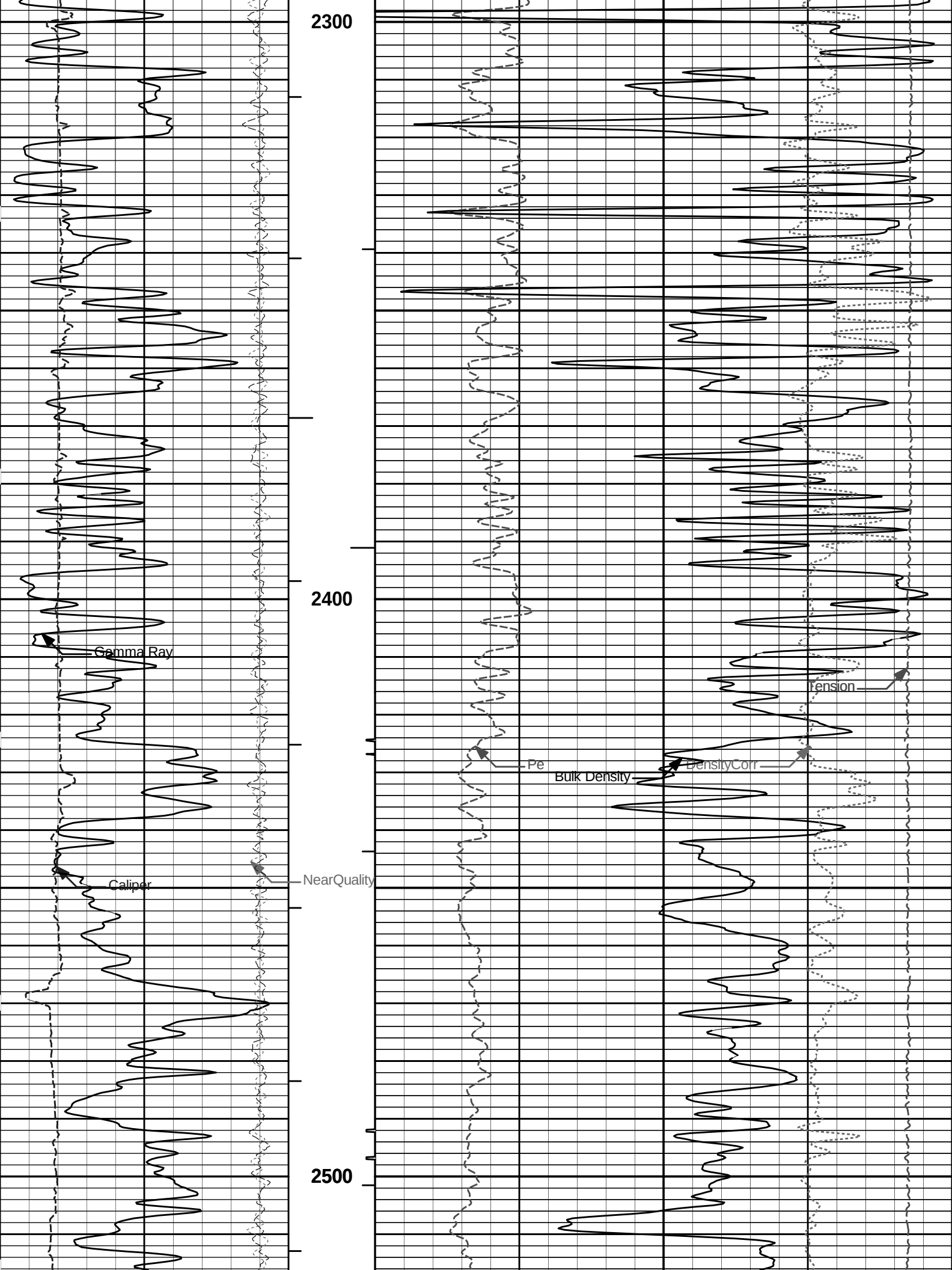


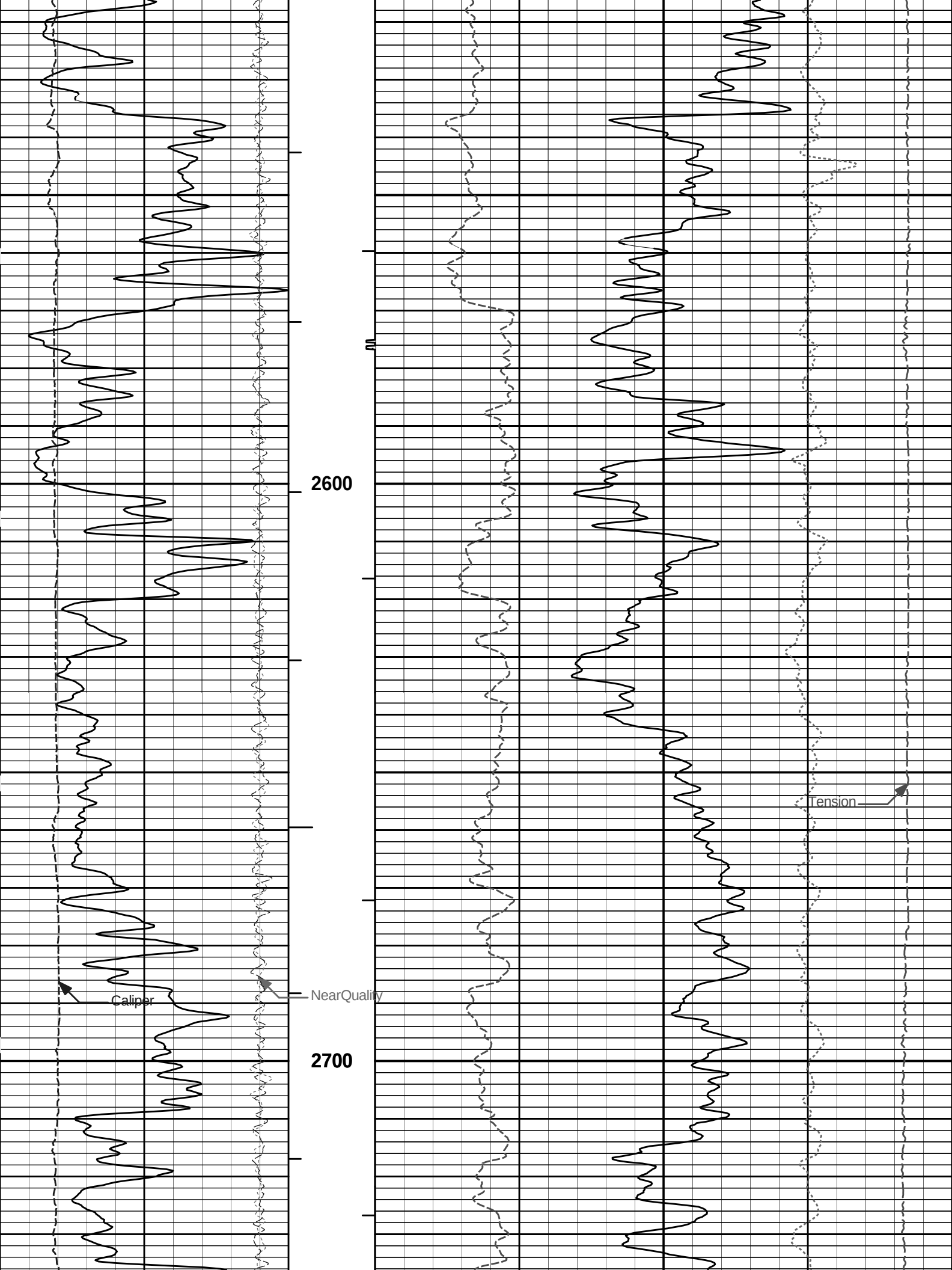


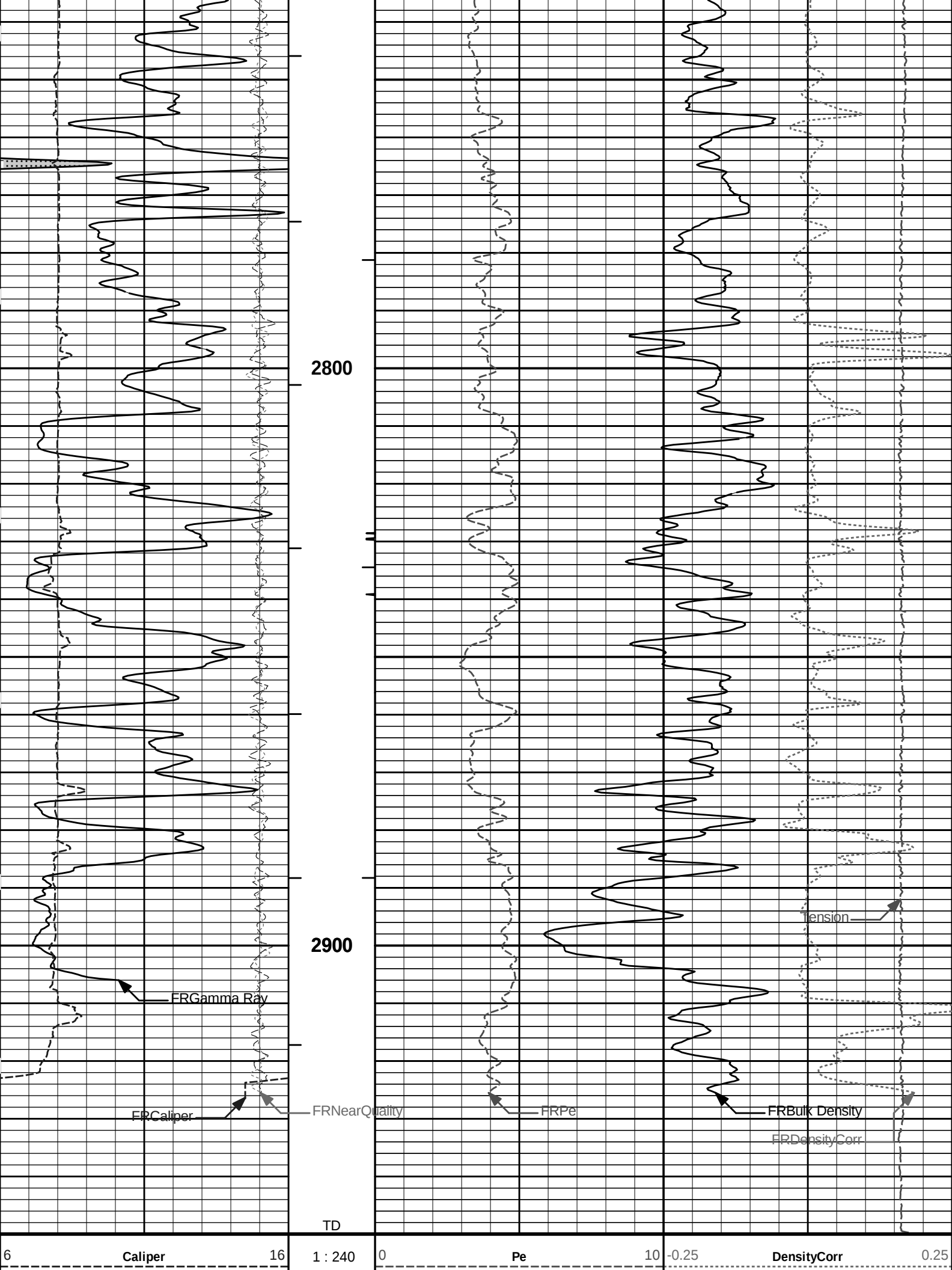












inches		ft		g/cc	
-18	NearQuality	2	BHV ft3	15K	Tension
					0
				pounds	
18	FarQuality	-2	AHV ft3	2	Bulk Density
					3
				g/cc	
0	Gamma Ray	150	Tension Pull		
	api	10	0		
SHALE			Tension Pull		

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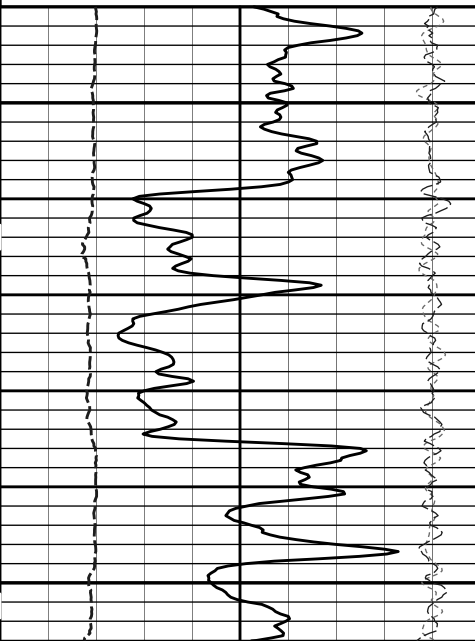
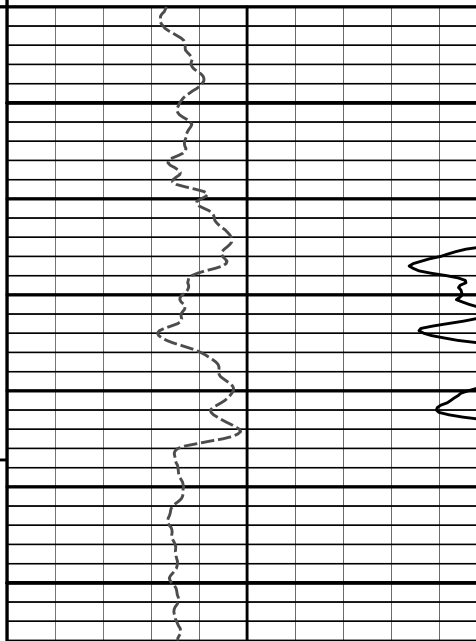
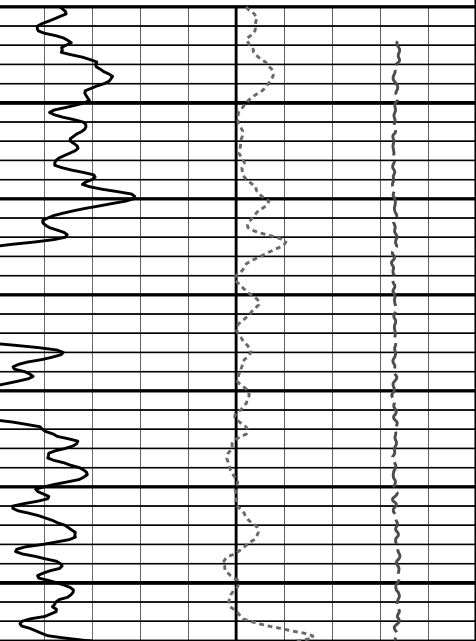
Plot Time: 05-Aug-10 05:12:49
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Plot File: \\LOCAL-EVANS_4_25\0001 SP-GTET-DSNT-SDLT-ACRT-CHIPORO\BULKD_5_MAIN_LIB

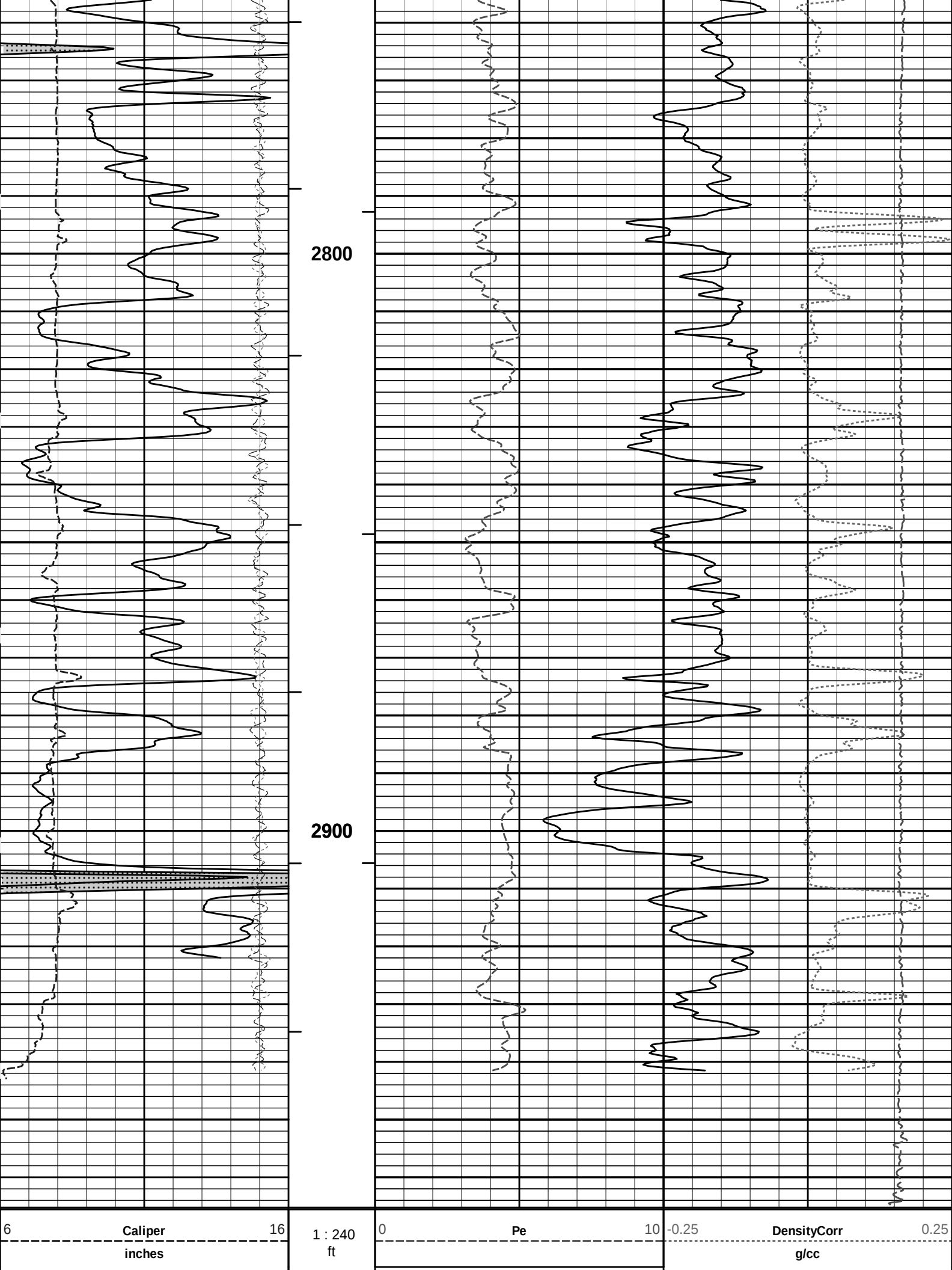
5 INCH MAIN LOG

HALLIBURTON

Plot Time: 05-Aug-10 05:12:49
Plot Range: 2690 ft to 2965.25 ft
Data: EVANS_4_25\Well Based\DAQ-0001-002\
Plot File: \\-LOCAL-\\EVANS_4_25\0001 SP-GTET-DSNT-SDLT-ACRT-CHIPORO\BULKD_5_REP_LIB

REPEAT SECTION

SHALE									
0	Gamma Ray	150							
api									
18	FarQuality	-2	AHV ft3	Bulk Density				3	
			g/cc						
-18	NearQuality	2	BHV ft3	15K	Tension			0	
						pounds			
6	Caliper	16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr	0.25
inches						g/cc			
			2700						



-18	NearQuality	2	BHV ft3	15K	Tension	0
					pounds	0
18	FarQuality	-2	AHV ft3	2	Bulk Density	3
					g/cc	
0	Gamma Ray	150				
	api					
	SHALE					

HALLIBURTON

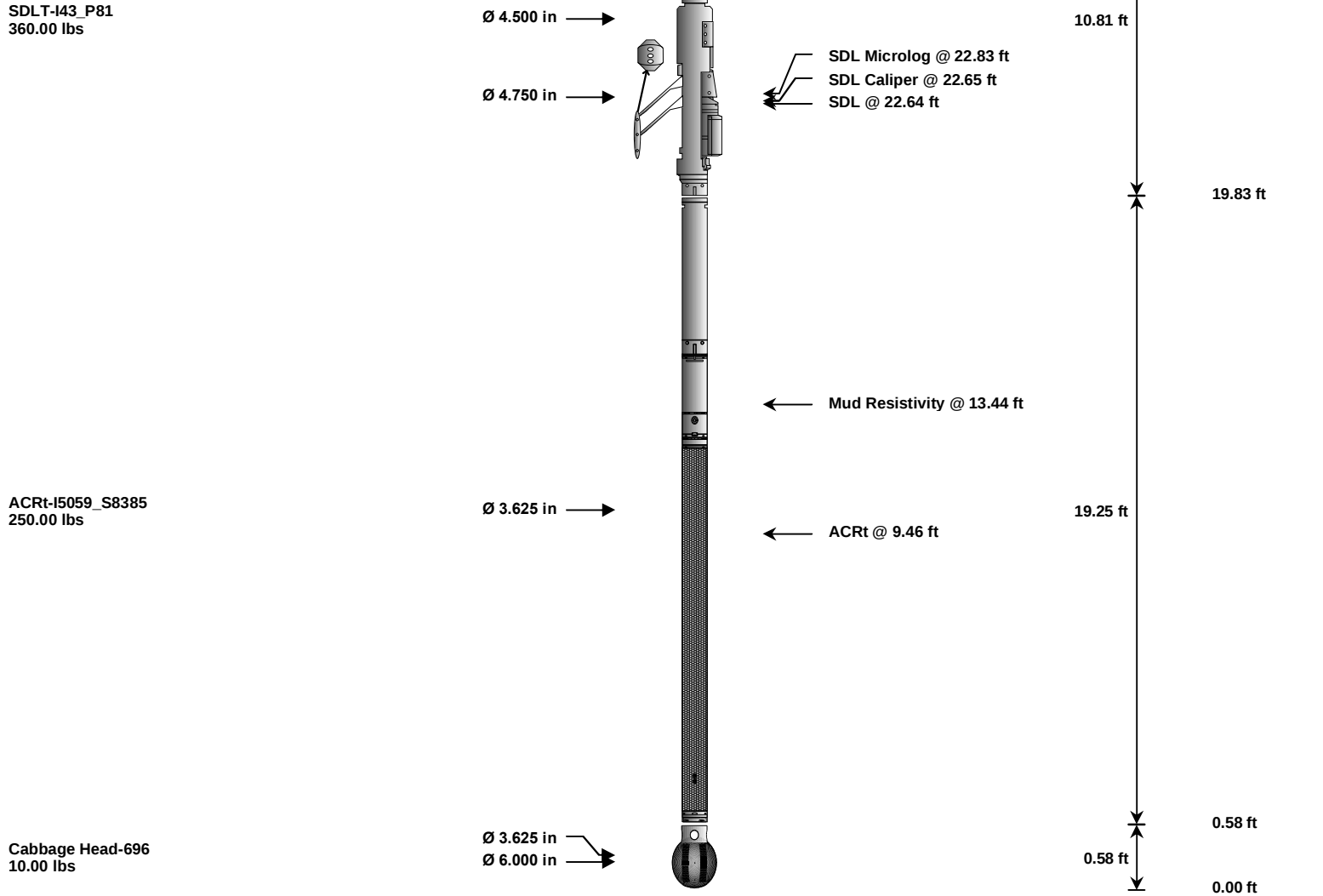
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Plot File: \\-LOCAL-\\EVANS_4_25\0001 SP-GTET-DSNT-SDLT-ACRT-CHIPORO\BULKD_5_REP_LIB

REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-CH_696 37.50 lbs		Ø 2.750 in →		← Temperature @ 55.47 ft	3.03 ft	56.50 ft
XOHD-696 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	53.47 ft
SP Digital-10979140 60.00 lbs		Ø 3.625 in →		← SP @ 50.81 ft	3.67 ft	52.52 ft
						48.85 ft
GTET-11048627 165.00 lbs		Ø 3.625 in →		← GammaRay @ 42.79 ft	8.52 ft	
						40.33 ft
DSN Decentralizer-11055304 6.60 lbs		Ø 3.625 in* →				
DSNT-11019643 174.00 lbs		Ø 3.625 in →		← DSN Far @ 33.39 ft ← DSN Near @ 32.64 ft	9.69 ft	
						30.64 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	CH_696		37.50	3.03	53.47	300.00
XOHD	Hostile to Dits Cross Over	696		20.00	0.95	52.52	300.00
SP	Digital Downhole Measured SP	10979140		60.00	3.67	48.85	300.00
GTET	Gamma Telemetry Tool	11048627		165.00	8.52	40.33	60.00
DSNT	Dual Spaced Neutron	11019643		174.00	9.69	30.64	60.00
DCNT	DSN Decentralizer	11055304		6.60	5.13	*	33.97
SDLT	Spectral Density Tool	I43_P81		360.00	10.81	19.83	60.00
ACRt	Array Compensated True Resistivity	I5059_S8385		250.00	19.25	0.58	300.00
CBHD	Cabbage Head	696		10.00	0.58	0.00	300.00
Total				1,083.10	56.50		
* Not included in Total Length and Length Accumulation.							
Data: EVANS_4_25\0001 SP-GTET-DSNT-SDLT-ACRT-CHIDLE							
Date: 05-Aug-10 02:10:24							

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 11048627	Reference Calibration Date:	06-Jul-10 14:11:16
Engineer:	W. MILLER	Calibration Date:	12-Jul-10 11:46:47
Software Version:	WL INSITE R3.0.4 (Build 6)	Calibration Version:	1

Calibrator Source S/N: TB 146

Calibrator API Reference:265.00 api

Measurement	Measured	Calibrated	Units
Background	94.7	93.6	api
Background + Calibrator	367.6	363.3	api
Calibrator	268.5	269.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 11048627	Reference Calibration Date:	12-Jul-10 11:46:47
Engineer:	T. BRIDGEMAN	Calibration Date:	04-Aug-10 23:35:28
Software Version:	WL INSITE R3.0.7 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB 146
Calibrator API Reference:265.00 api

Field Verification	Shop	Field	Units
Background	93.6	84.7	api
Background + Calibrator	363.3	355.4	api
Calibrator	269.6	270.7	api
Shop	Field	Difference	Tolerance
269.6	270.7	-1.1	+/- 9.00

NATURAL GAMMA RAY TOOL POST CALIBRATION

Tool Name:	GTET - 11048627	Reference Calibration Date:	04-Aug-10 23:35:28
Engineer:	T. BRIDGEMAN	Calibration Date:	05-Aug-10 04:56:40
Software Version:	WL INSITE R3.0.7 (Build 3)	Calibration Version:	1

Calibrator Source S/N: TB 146
Calibrator API Reference:265.00 api

Post Verification		Field	Post	Units
Background		84.7	41.4	api
Background + Calibrator		355.4	318.9	api
Calibrator		270.7	277.5	api
Shop	Field	Post	Difference	Tolerance
269.6	270.7	277.5	-6.8	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	DSNT - 11019643	Reference Calibration Date:	04-Jun-10 11:30:21
Engineer:	W.MILLER	Calibration Date:	06-Jul-10 10:54:10
Software Version:	WL INSITE R3.0.4 (Build 6)	Calibration Version:	1

Logging Source S/N: DSN-424
Tank Serial Number: LIB-105060
Reference value assigned to Tank: 51.680
Snow Block S/N: 696 BLOCK
Calibration Tank Water Temperature: 82 degF
Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.955	0.959	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	Current Reading (Previous Coef.)	Calibrated (New Coef.)	Change	Control Limit On Change
Penetration (inches)	0.0000	0.0110	0.0014	+/- 0.0000

Porosity (decg):	0.2096	0.2110	0.0014	+/- 0.0020
Calibrated Ratio:	9.68	9.73	0.046	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decg):	0.0631	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 - 11019643	Reference Calibration Date:	06-Jul-10 10:54:10
Engineer:	T. BRIDGEMAN	Calibration Date:	04-Aug-10 23:38:31
Software Version:	WL INSITE R3.0.7 (Build 3)	Calibration Version:	1

Logging Source S/N: DSN-424
Snow Block S/N: 696 BLOCK

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decg):	0.0631	0.0735	0.0103	+/- 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 - 11019643	Reference Calibration Date:	04-Aug-10 23:38:31
Engineer:	T. BRIDGEMAN	Calibration Date:	05-Aug-10 05:04:09
Software Version:	WL INSITE R3.0.7 (Build 3)	Calibration Version:	1

Logging Source S/N: DSN-424
Snow Block S/N: 696 BLOCK

NEUTRON POST-CHECK SUMMARY				
	Field Value	Post Value	Difference	Control Limit On Change
Snow-Block Porosity (decg):	0.0735	0.0697	-0.0038	+/- 0.0150

PASS/FAIL SUMMARY	
Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name:	SDLT - I43_P81	Reference Calibration Date:	22-Jul-10 14:06:12
Engineer:	W.MILLER	Calibration Date:	22-Jul-10 14:25:20
Software Version:	WL INSITE R3.0.4 (Build 6)	Calibration Version:	1

Logging Source S/N: 5168GW
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	
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DENSITY CALIBRATION SUMMARY			
Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0337	1.0419	0.90 - 1.10
Near Dens Gain	1.0242	1.0084	0.90 - 1.10
Near Peak Gain	1.0229	1.0019	0.90 - 1.10
Near Lith Gain	0.9991	0.9747	0.90 - 1.10
Far Bar Gain	1.0112	1.0126	0.90 - 1.10
Far Dens Gain	0.9987	0.9998	0.90 - 1.10
Far Peak Gain	0.9923	0.9938	0.90 - 1.10
Far Lith Gain	0.9692	0.9710	0.90 - 1.10
Near Bar Offset	-0.2013	-0.2802	NONE
Near Dens Offset	-0.1318	0.0076	NONE
Near Peak Offset	-0.1235	0.0479	NONE
Near Lith Offset	0.0622	0.2622	NONE
Far Bar Offset	-0.0544	-0.0666	NONE
Far Dens Offset	0.0449	0.0334	NONE
Far Peak Offset	0.0599	0.0441	NONE
Far Lith Offset	0.2075	0.1891	NONE
Near Bar Background	858.44	857.13	700 - 1450
Near Dens Background	278.68	281.17	230 - 480
Near Peak Background	122.20	122.90	100 - 210
Near Lith Background	150.81	149.24	125 - 260
Far Bar Background	556.89	559.05	450 - 900
Far Dens Background	219.23	218.80	175 - 345
Far Peak Background	87.61	87.36	70 - 140
Far Lith Background	90.50	90.12	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.688	1.684	-0.004	+/- 0.015
Pe	2.561	2.602	0.041	+/- 0.150
ALUMINUM				
Density (g/cc)	2.597	2.598	0.001	+/- 0.01500
Pe	3.194	3.179	-0.015	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0002	+/- 0.0110	-0.0010	+/- 0.0140
Magnesium Block	-0.0006	+/- 0.0110	-0.0001	+/- 0.0140
Aluminum Block	0.0017	+/- 0.0110	0.0005	+/- 0.0140
Resolution	9.39	6.00 - 11.50	8.86	6.00 - 11.50
Internal Verifier(B+D+P+L)	1410	1200 - 2700	955	800 - 1700

PASS/FAIL SUMMARY	
Background Quality Check:	Passed
Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed

Background Quality Checks:				
Magnesium Quality Check:		Passed		
Aluminum Quality Check:		Passed		
Gains Check:		Passed		
Changes in Calibration Blocks:		Passed		
SPECTRAL DENSITY FIELD CHECK				
Tool Name:	SDLT - I43_P81		Reference Calibration Date:	22-Jul-10 14:25:20
Engineer:	T. BRIDGEMAN		Calibration Date:	04-Aug-10 23:35:06
Software Version:	WL INSITE R3.0.7 (Build 3)		Calibration Version:	1
Pad Temperature: 84.3 degF				
DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1410.443	1409.812	-0.631	15.163
Far (B+D+P+L) cps	955.331	955.453	0.122	16.656
Near Resolution	9.39	9.45	0.060	0.50
Far Resolution	8.86	8.97	0.110	1.00
PASS/FAIL SUMMARY				
Bkg Quality Check:		Passed		
Bkg Resolution Check:		Passed		
Bkg Verification Check:		Passed		
SPECTRAL DENSITY POST CHECK				
Tool Name:	SDLT - I43_P81		Reference Calibration Date:	04-Aug-10 23:35:06
Engineer:	T. BRIDGEMAN		Calibration Date:	05-Aug-10 04:57:14
Software Version:	WL INSITE R3.0.7 (Build 3)		Calibration Version:	1
Pad Temperature: 82.3 degF				
DENSITY POST CALIBRATION SUMMARY				
Measurement	Field	Post	Change	Control Limit +/-
Near (B+D+P+L) cps	1409.812	1411.376	1.564	15.163
Far (B+D+P+L) cps	955.453	956.266	0.813	16.656
Near Resolution	9.45	9.45	0.000	0.50
Far Resolution	8.97	9.11	0.140	1.00
PASS/FAIL SUMMARY				
Bkg Quality Check:		Passed		
Bkg Resolution Check:		Passed		
Bkg Verification Check:		Passed		
DENSITY CALIPER SHOP CALIBRATION				
Tool Name:	SDLT - I43_P81		Reference Calibration Date:	10-Jul-10 11:34:11
Engineer:	T. BRIDGEMAN		Calibration Date:	10-Jul-10 11:39:38
Software Version:	WL INSITE R3.0.4 (Build 6)		Calibration Version:	1
CALIBRATION COEFFICIENTS				
Measurement	Previous Value	New Value	Control Limit On New Value	
Pad Offset	-1914.14	-1793.73	-7000.00 - -1000.00	
Pad Gain	0.0003786	0.0003757	0.000200 - 0.000600	
Arm Offset	954.97	-278.94	-5000.00 - 3000.00	
Arm Gain	0.0004563	0.0005627	0.000300 - 0.000700	
Arm Power	0.000001525	0.000007006	0.000010 - 0.000010	

Arm Power -0.000001535 -0.000007996 -0.0000010 - 0.0000010

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)	1.97	2.00	0.03	+/- 0.20	
Medium Ring (in)	3.73	3.75	0.02	+/- 0.20	
RING DIAMETER:					
Small Ring (in)	6.67	6.50	-0.17	+/- 0.20	
Medium Ring (in)	8.19	8.25	0.06	+/- 0.20	
Large Ring (in)	15.00	15.00	0.00	+/- 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 - I43_P81			Reference Calibration Date:	10-Jul-10 11:39:38
Engineer:	T. BRIDGEMAN			Calibration Date:	04-Aug-10 23:46:53
Software Version:	WL INSITE R3.0.7 (Build 3)			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	8.20	-0.05	+/- 0.15

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

SDLT CALIPER POST CALIBRATION					
Tool Name:	SDLT - I43_P81			Reference Calibration Date:	04-Aug-10 23:46:53
Engineer:	T. BRIDGEMAN			Calibration Date:	05-Aug-10 05:08:55
Software Version:	WL INSITE R3.0.7 (Build 3)			Calibration Version:	1

MEASURED CALIPER VALUES				
Measurement	Field	Post	Change	Control Limit On New Value
Pad Extension	3.70	3.73	0.03	+/- 0.10
Ring Diameter	8.20	8.16	-0.03	+/- 0.15

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

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11048627						
Gamma Ray Calibrator	269.6	270.7	277.5	-6.8	+/- 9.00	api

DSNT-11019643						
Snow-Block Porosity	0.0631	0.0735	0.0697	0.0038	+/- 0.0150	decip
SDLT-I43_P81						
Near(B+D+P+L)	1410.443	1409.812	1411.376	-1.564	+/-15.163	cps
Far(B+D+P+L)	955.331	955.453	956.266	-0.813	+/-16.656	cps
Pad Extension	3.75	3.70	3.73	-0.03	+/-0.10	in
Ring Diameter	8.25	8.20	8.16	0.040	+/-0.15	in
Data: EVANS_4_25I0001 SP-GTET-DSNT-SDLT-ACRT-CHNIDLE					Date: 05-Aug-10 05:09:17	

HALLIBURTON

PARAMETERS REPORT

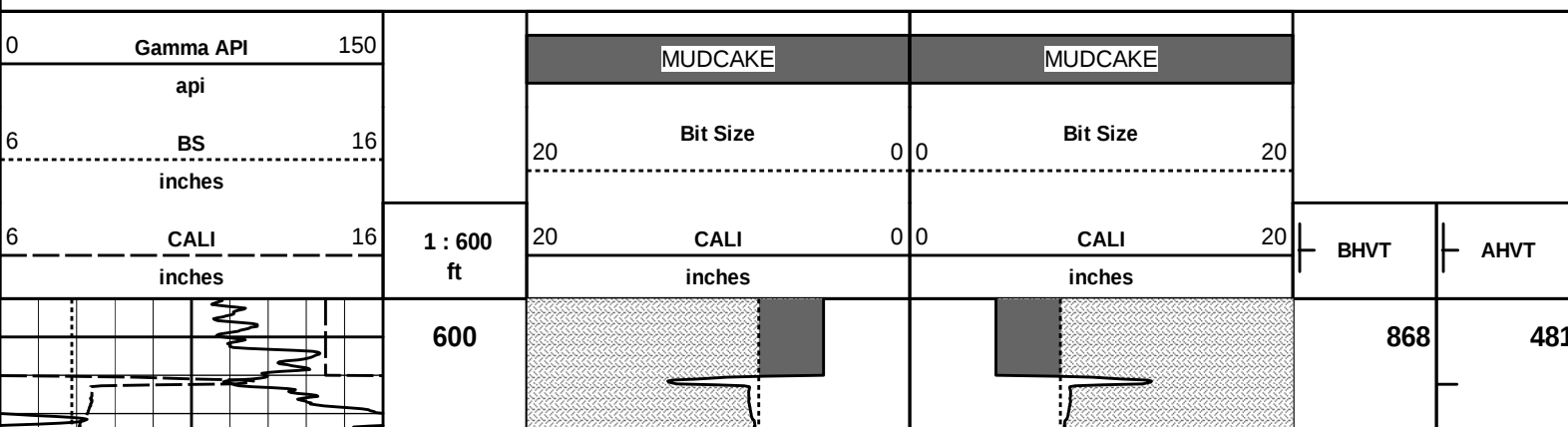
Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDWT	Borehole Fluid Weight	8.900	ppg
	SHARED	OBM	Oil Based Mud System?	No	
	SHARED	RMUD	Mud Resistivity	0.190	ohmm
	SHARED	TRM	Temperature of Mud	90.0	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	3025.00	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	0.17	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	90.00	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	POTA	Potassium	0.00	%
	GTET	MDTP	Mud Type	Natural	
	GTET	TPOS	Tool Position	Standoff	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DSNO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.300	in
	DSNT	DNTP	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	

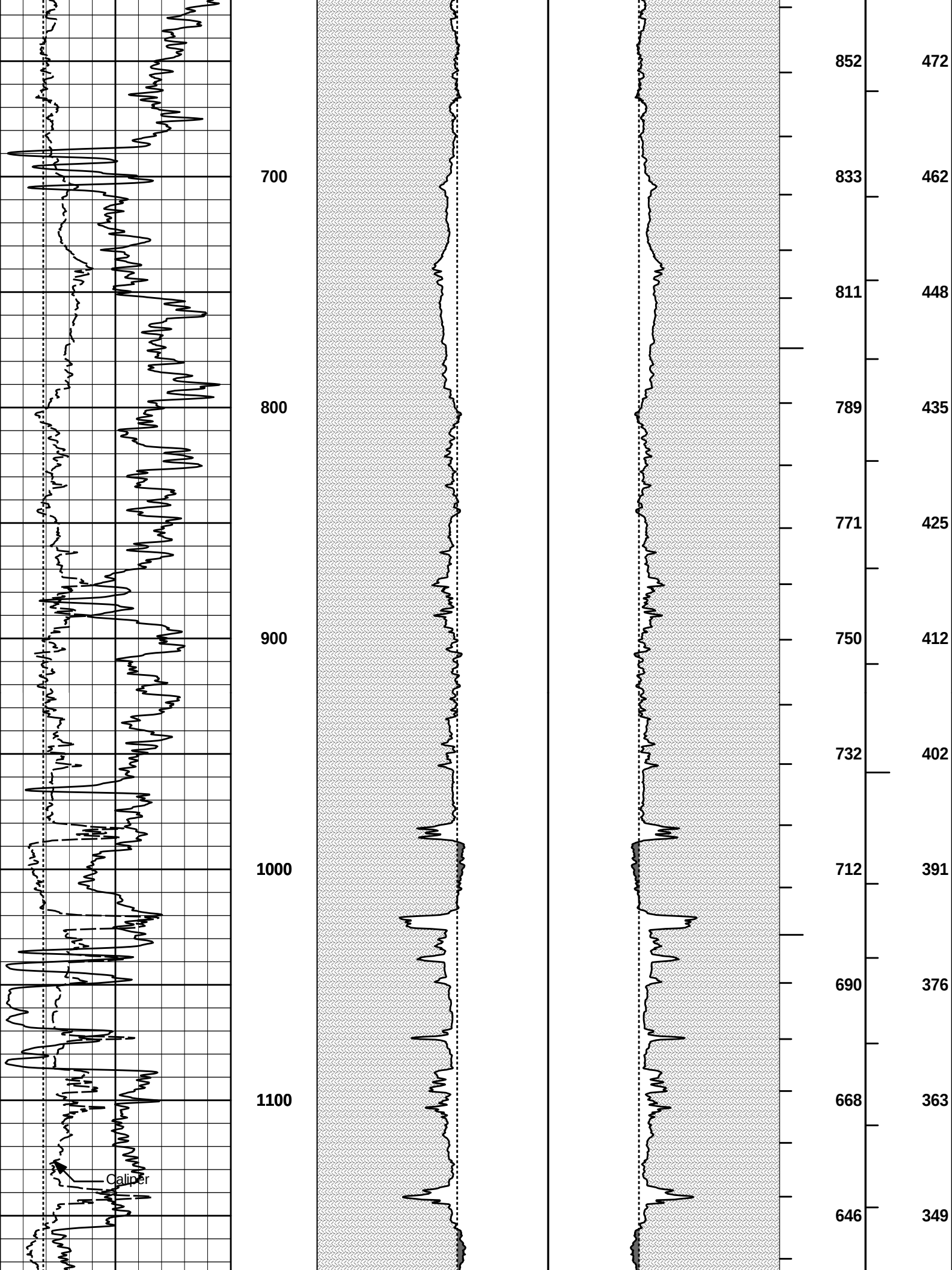
DSNT	SHCO	View More Correction Options	No	
DSNT	UTVD	Use TVD for Gradient Corrections?	No	
DSNT	LHWT	Logging Horizontal Water Tank?	No	
SDLT	DNOK	Process Density?	Yes	
SDLT	DNOK	Process Density EVR?	No	
SDLT	AD	Is Hole Air Drilled?	No	
SDLT	CB	Logging Calibration Blocks?	No	
SDLT	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT	DTWN	Disable temperature warning	No	
SDLT	MDTP	Weighted Mud Correction Type?	None	
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 Upr	
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: EVANS_4_25I0001 SP-GTET-DSNT-SDLT-ACRT-CHIDLE			Date: 05-Aug-10 03:35:49	

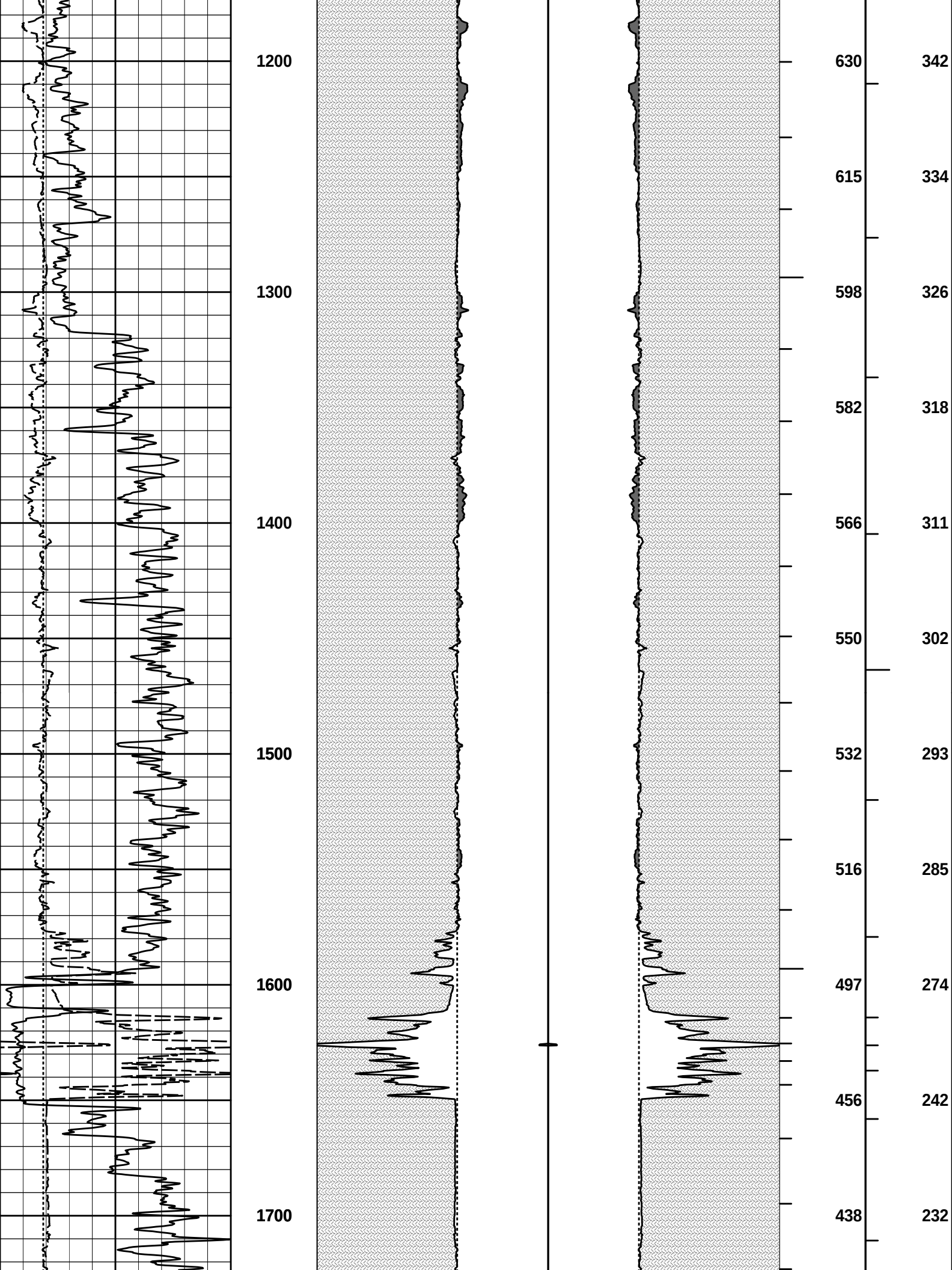
HALLIBURTON				
INPUTS, DELAYS AND FILTERS TABLE				
Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Digital				
PLTC	Plot Control Mask	50.81	NO	
SP	Spontaneous Potential	50.81	BLK	1.250
SPR	Raw 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
REDS	Far Detector Telemetry Counts	32.82	TRI	0.583

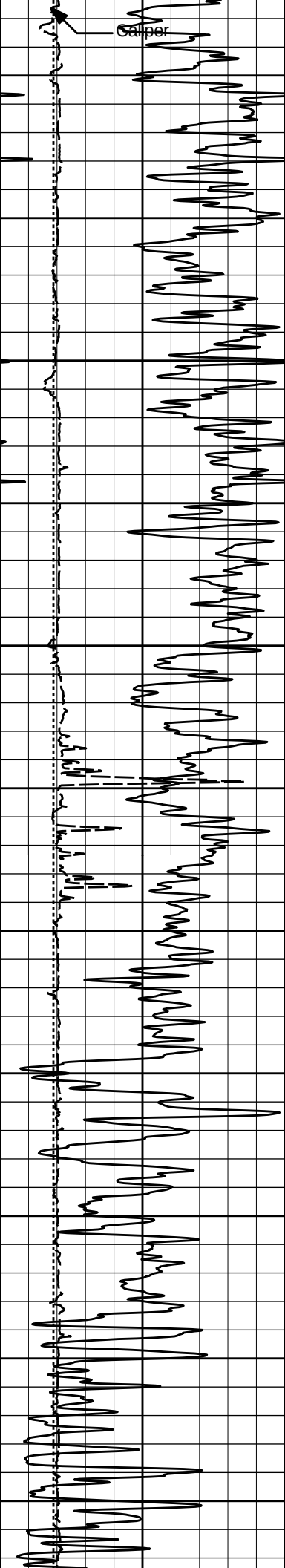
RFDS	Far Detector Telemetry Counts	33.39	TRI	0.583
DNTT	DSN Tool Temperature	32.64	NO	
DSNS	DSN Tool Status	32.54	NO	
ERND	Near Detector Telemetry Counts EVR	32.64	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	33.39	BLK	0.000
ENTM	DSN Tool Temperature EVR	32.64	NO	
SDLT				
TPUL	Tension Pull	22.64	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
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	
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

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
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	2.97	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.97	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.97	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.97	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.97	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.97	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.97	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.97	BLK	0.000
ITMP	Instrument Temperature	2.97	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.97	NO	
TIDV	Instrument Temperature Derivative	2.97	NO	
TUDV	Upper Temperature Derivative	2.97	NO	
TLDV	Lower Temperature Derivative	2.97	NO	
TRBD	Receiver Board Temperature	2.97	NO	

HALLIBURTON







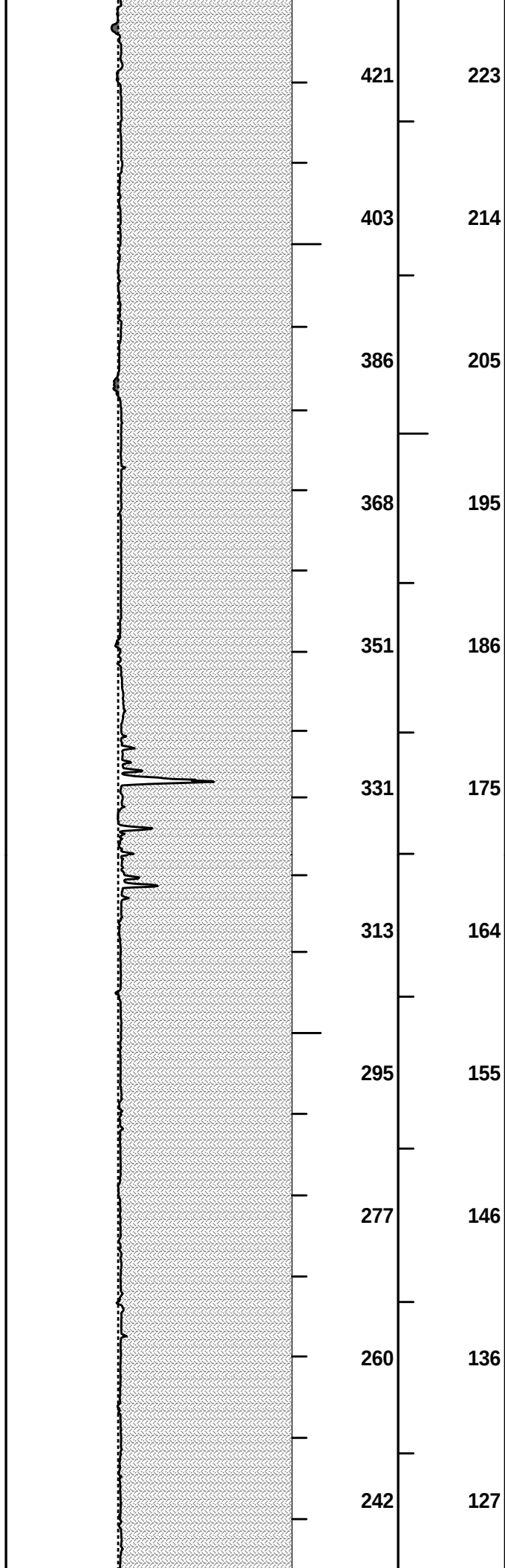
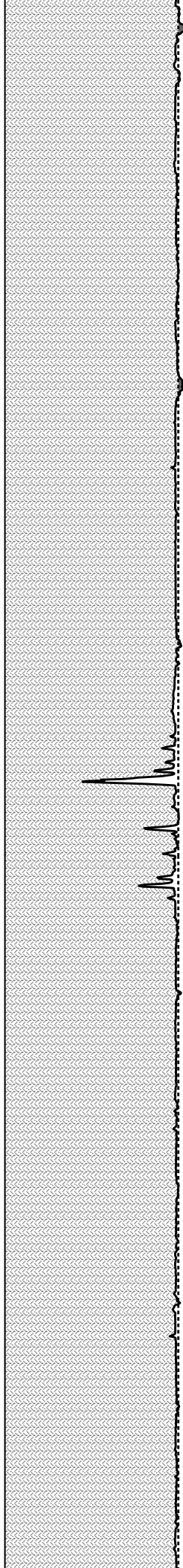
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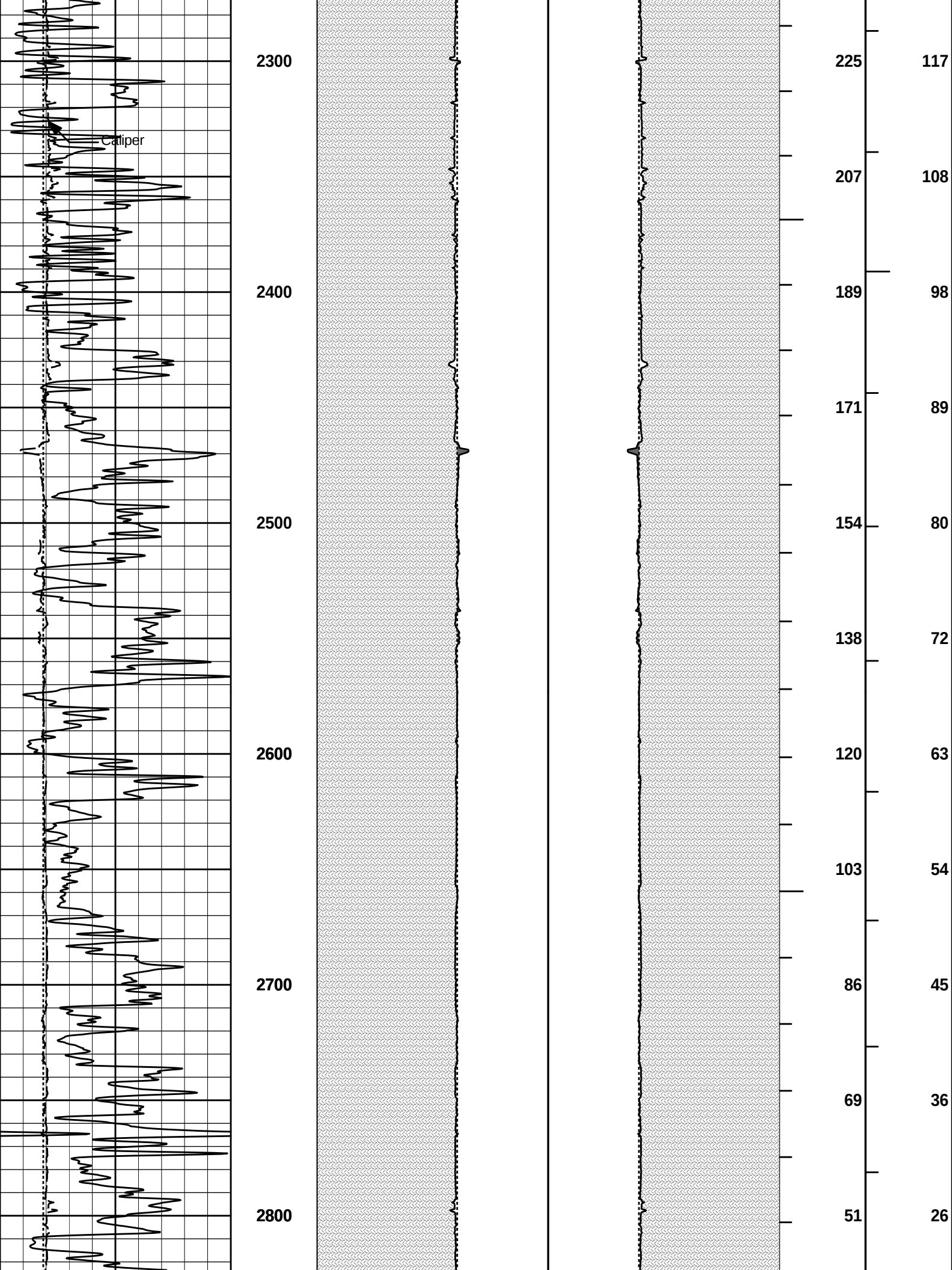
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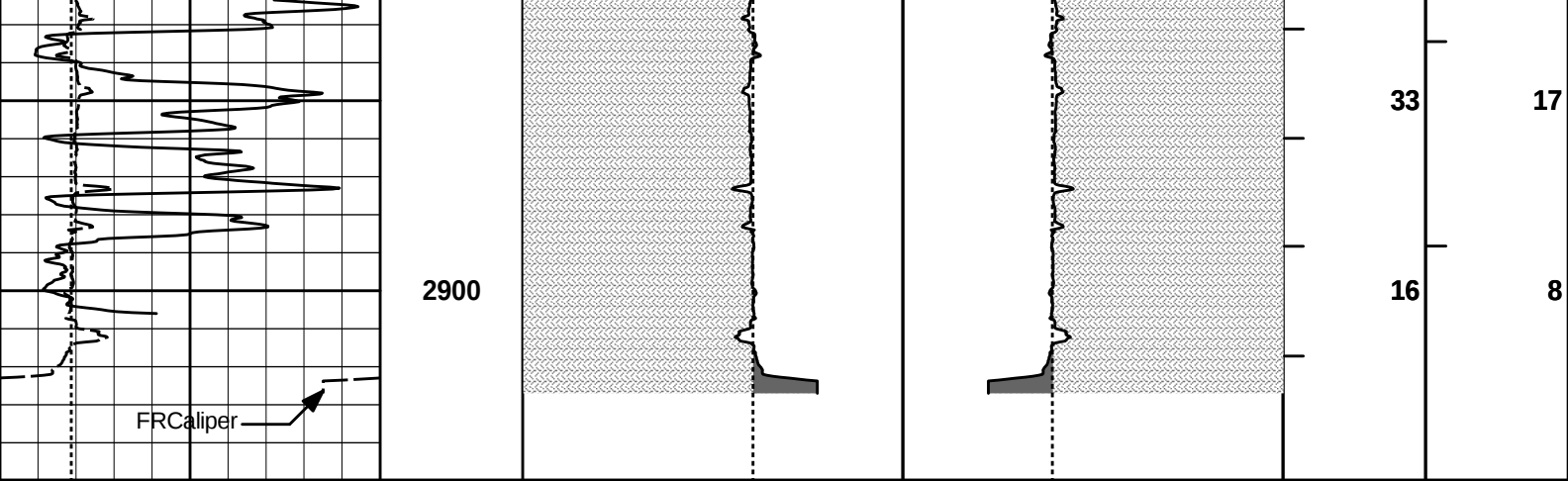
2000

2100

2200







6	CALI	16	1 : 600 ft	20	CALI	0 0	20	BHVT	AHVT
	inches				inches				
6	BS	16		20	Bit Size	0 0	20		
	inches								
0	Gamma API	150			MUDCAKE		MUDCAKE		
	api								

HALLIBURTON

Plot Time: 05-Aug-10 05:13:02
Plot Range: 590 ft to 2949.83 ft
Data: EVANS_4_25\Well Based\DAQ-0001-003\
Plot File: \\LOCAL\EVANS_4_25\0001 SP-GTET-DSNT-SDLT-ACRT-CHIPORO\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT

COMPANY	PIONEER NATURAL RESOURCES		
WELL	EVANS 4-25		
FIELD			
COUNTY	GRANT	STATE	KANSAS
HALLIBURTON		SPECTRAL DENSITY DUAL SPACED NEUTRON LOG	