

HALLIBURTON

SPECTRAL DENSITY  
DUAL SPACED NEUTRON

COMPANY		WINDY HILLS GAS STORAGE	
WELL		WINDY HILL #7-17S	
FIELD		UNNAMED	
COUNTY		MORGAN	
STATE		CO	
Permanent Datum Log measured from		GL KB	Elev. 4499.0 ft
Drilling measured from		KB	18.5 ft above perm. Datum
Date	04-Apr-07 22:12:29		
Run No.	2		
Depth - Driller	5520.0 ft		
Depth - Logger	5517.0 ft		
Bottom - Logged Interval	5482		
Top - Logged Interval	478		
Casing - Driller	20,000 in @ 465.0 ft		@
Casing - Logger	478.0 ft		
Bit Size	12.250 in	17.500 in @ 1741.00 ft	
Type Fluid in Hole	WATER BASED MUD		@
Density	9.2 pp9	50.00 s/qt	
PH	9.00 pH	7 cptn	
Source of Sample	FLOWLINE		
Rm @ Meas. Temperature	0.60 ohmm @ 61.00 degF		@
Rmf @ Meas. Temperature	0.40 ohmm @ 75.00 degF		@
Rmc @ Meas. Temperature	0.49 ohmm @ 75.00 degF		@
Source Rmf	CHART	CHART	
Rm @ BHT	0.29 ohmm @ 132.0 degF		@
Time Since Circulation	6.0 hr		
Time on Bottom	04-Apr-07 20:47:19		
Max. Rec. Temperature	132.0 degF @ 5617.0 ft		@
Equipment Location	10549597 CASPER, WY		@
Recorded By	EDWARD KOON		
Witnessed By	JIM BROWNING		

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Service Ticket No.: 4957392		API Serial No.: 05087081460000		PGM Version: WL INSITE R1.8 (Build 5)				
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.	@	@		TWO	HRID #AB287	N/A	1.5" S.O.	N/A
Rmc @ Meas. Temp.	@	@						
Source Rmf	Rmc							
Rm @ BHT	@	@						
Rmf @ BHT	@	@						
Rmc @ BHT	@	@						
EQUIPMENT DATA								
GAMMA		ACOUSTIC		DENSITY		NEUTRON		
Run No.	TWO	Run No.	TWO	Run No.	TWO	Run No.	TWO	
Serial No.	108646	Serial No.	350	Serial No.	A046	Serial No.	108722	
Model No.	NGRT	Model No.	BCSD	Model No.	SDL-DC	Model No.	DSN-II	
Diameter	3.625	No. of Cent.	2	Diameter	4.5	Diameter	3.625	
Detector Model No.	102A	Spacing	2'	Log Type	GAM-GAM	Log Type	NEU-NEU	
Type	SCINT			Source Type	Cs137	Source Type	Am241Be	
Length	4"	Length	154.14/M1	Serial No.	2370GW	Serial No.	DSN-83	

Distance to Source	N/A		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		
TWO	5517	478	REC	0	150	60	0	55.5	60	0	2.65	60	0	SAND	
DIRECTIONAL INFORMATION															
Maximum Deviation							@	KOP							@
Remarks: PRESENTATION AS PER CUSTOMER REQUEST.															
AHV CALCULATED USING 8 5/8 PRODUCTION CASING.															
LARGE HOLE SIZE AND HOLE RUGOSITY AFFECTS TOOL RESPONSE.															
RWCH/NGRT/DSN/SDL/HRI RUN IN COMBINATION.															
LATITUDE: 40.217 DEGREES NORTH & LONGITUDE: 103.550 DEGREES WEST.															
CHLORIDES: 9000 PPM															
YOUR HES CREW TODAY: BRIAN SHORT, GABE BREED, AND ABRAHAM HENNEMAN RIG: UNIT #134															
***THANK YOU FOR USING HALLIBURTON ENERGY SERVICES. CASPER, WY (307) 473-8200***															
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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PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	17.500	in
1741.00					
	SHARED	BS	Bit Size	12.250	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDWT	Borehole Fluid Weight	9.200	ppg
	SHARED	RMUD	Mud Resistivity	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	OBM	Oil Based Mud System?	No	
	SHARED	ICOD	AHV Casing OD	8.625	in
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	CSOD	Casing OD size	8.625	in
	SHARED	CSWT	Casing Weight	17.00	lbpf
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5600.00	ft
	SHARED	BHT	Bottom Hole Temperature	140.0	degF
	SHARED	CSOD	Outer Casing OD size	20.000	in
	SHARED	CSWT	Outer Casing Weight	17.00	lbpf
	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
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	BHOL	Use DSN Bad Hole Correction?	No	
DSN_II	NLIT	Neutron Lithology	Sandstone	
DSN_II	DNSO	DSNTool Standoff	0.000	in
DSN_II	TMPC	Temperature Correction Type	None	
DSN_II	DPRS	DSN Pressure Correction Type	None	
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?	None	
SDL_DC	DMA	Formation Density Matrix	2.650	g/cc
SDL_DC	DFL	Formation Density Fluid	1.000	g/cc
SDL_DC	CLOK	Process Caliper Outputs?	Yes	
HRID-SP	HRE	Do HRI Induction Calculation?	Yes	
HRID-SP	DFLE	Do DFL Calculation?	Yes	
HRID-SP	PYRI	Pyrite Switch	Off	
HRID-SP	CSDP	Casing Depth	0.0	ft
HRID-SP	HDSP	Spike Reduction Filter Type	DELTA	
HRID-SP	HRTC	Temperature Correction Source	None	
HRID-SP	MMRS	Hrimap Minimum Resistivity	0.20	
HRID-SP	MXRS	Hrimap Maximum Resistivity	200.00	

BOTTOM

Data: WINDY\_7\_17S\_RN210001 TRIPLEIDLE

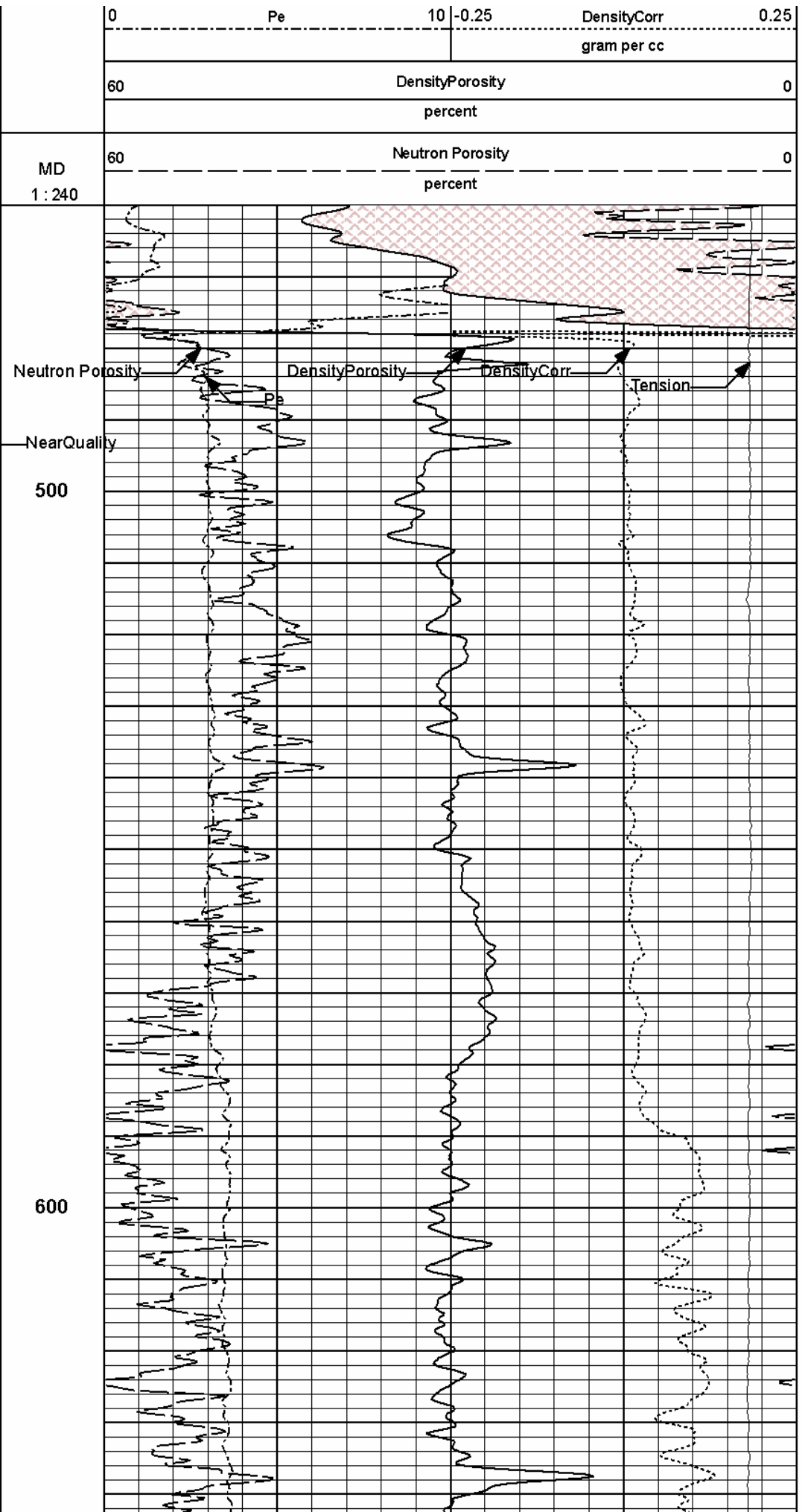
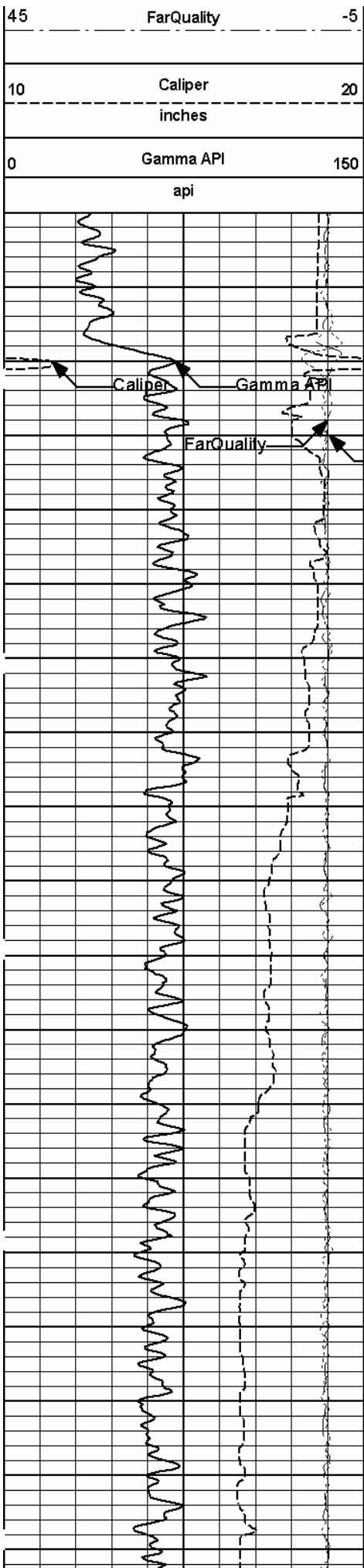
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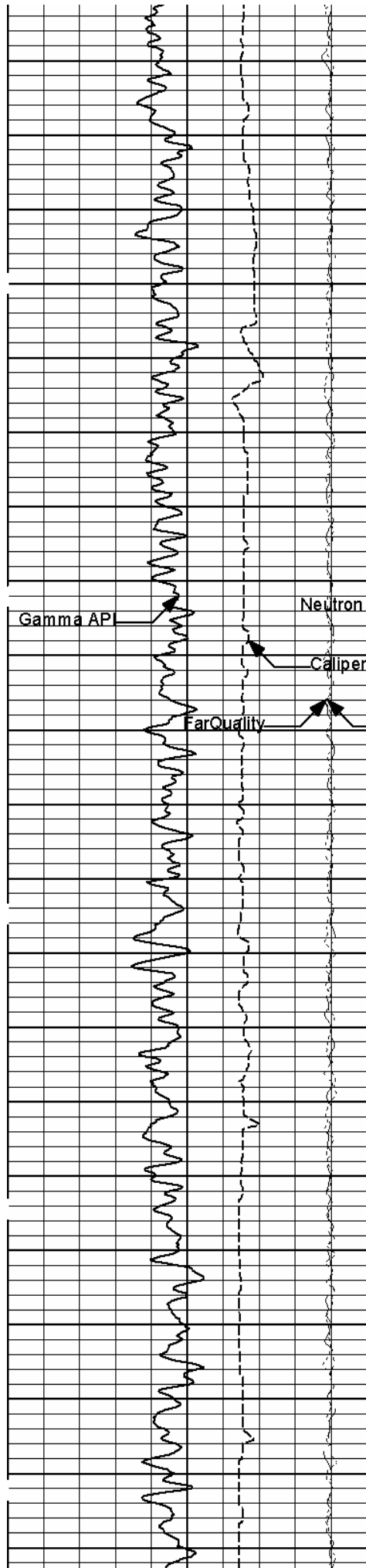
**HALLIBURTON**

Plot Time: 05-Apr-07 02:14:26  
Plot Range: 460 ft to 5528 ft  
Data: {ActiveWell}-Well Based-DAQ Current-  
Plot File: \\\(not saved)\\5IN\_POR

MAIN PASS 5"=100'

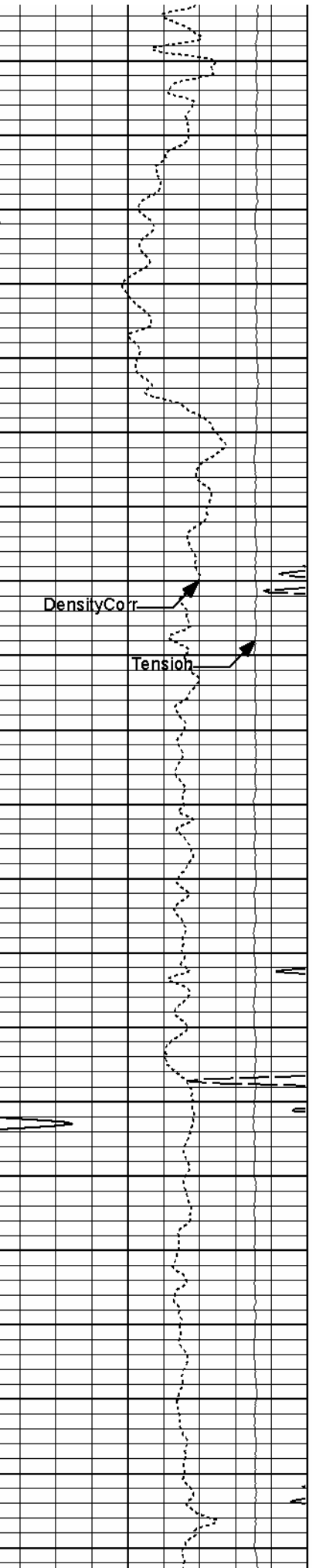
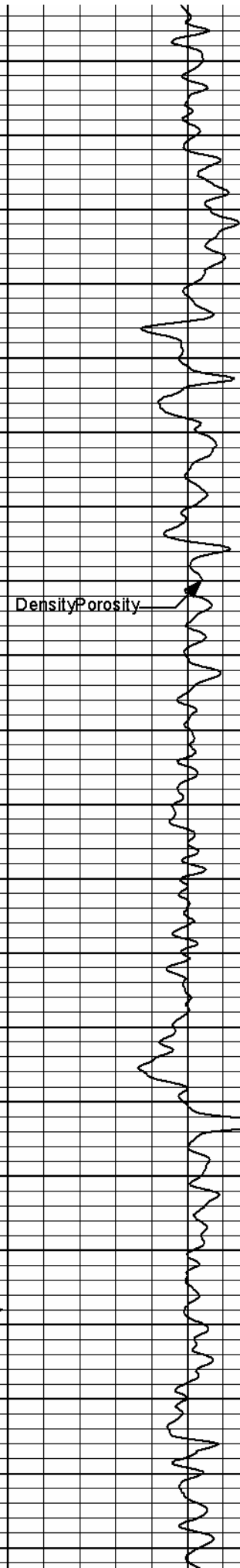
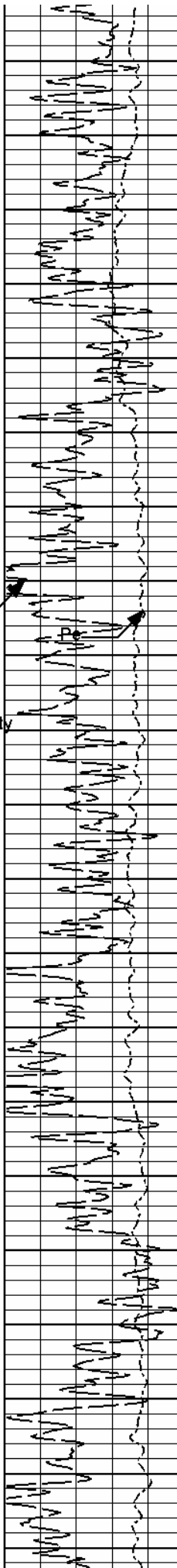
-45	NearQuality	5	10K	Tension	0
				pounds	

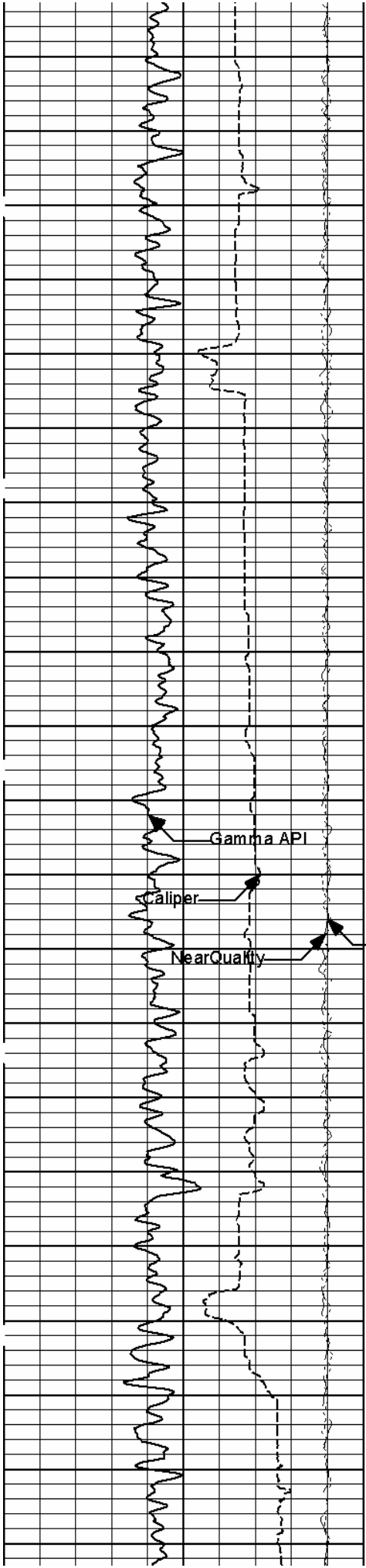




700

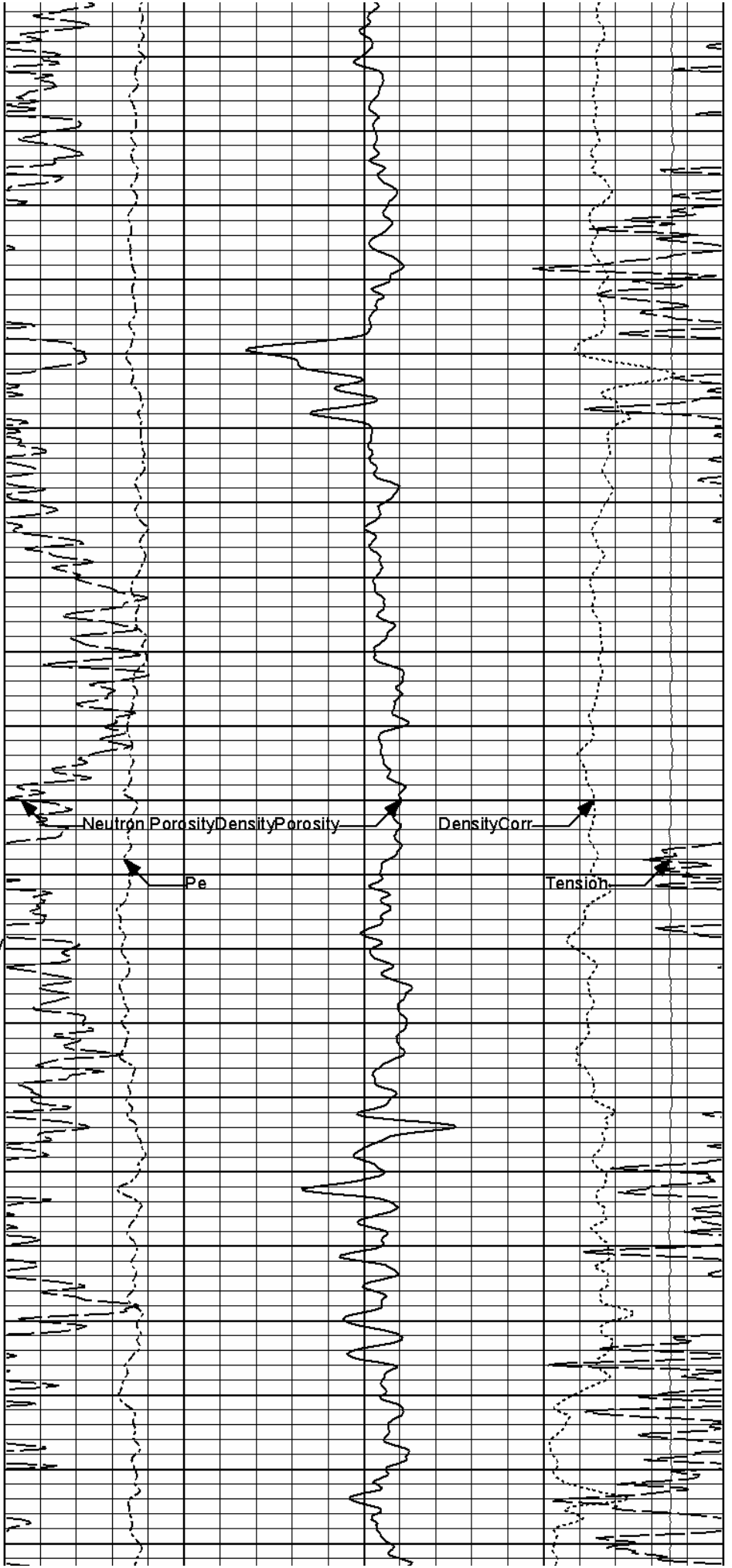
800





900

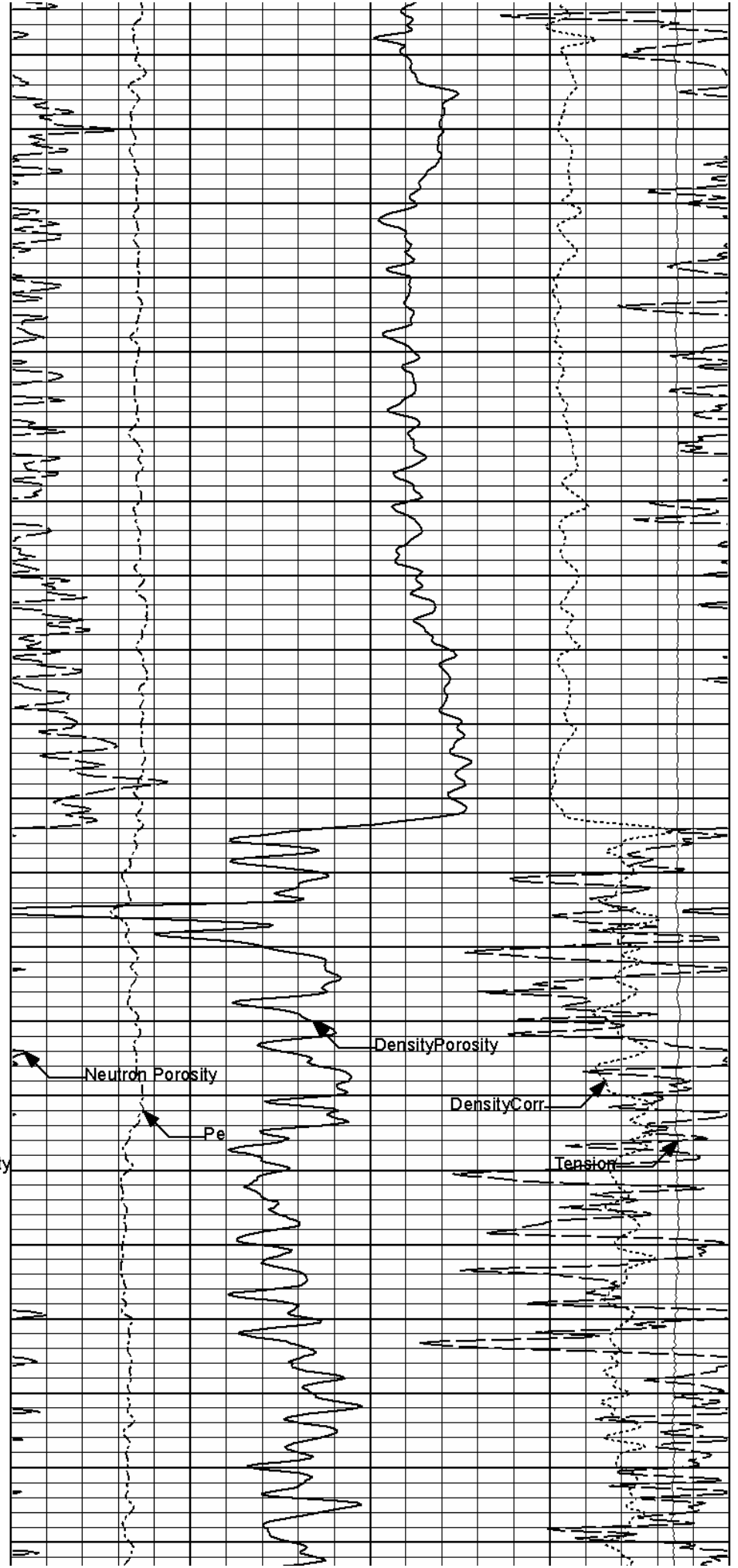
1000





1100

1200



Gamma API

Caliper

NearQuality

FarQuality

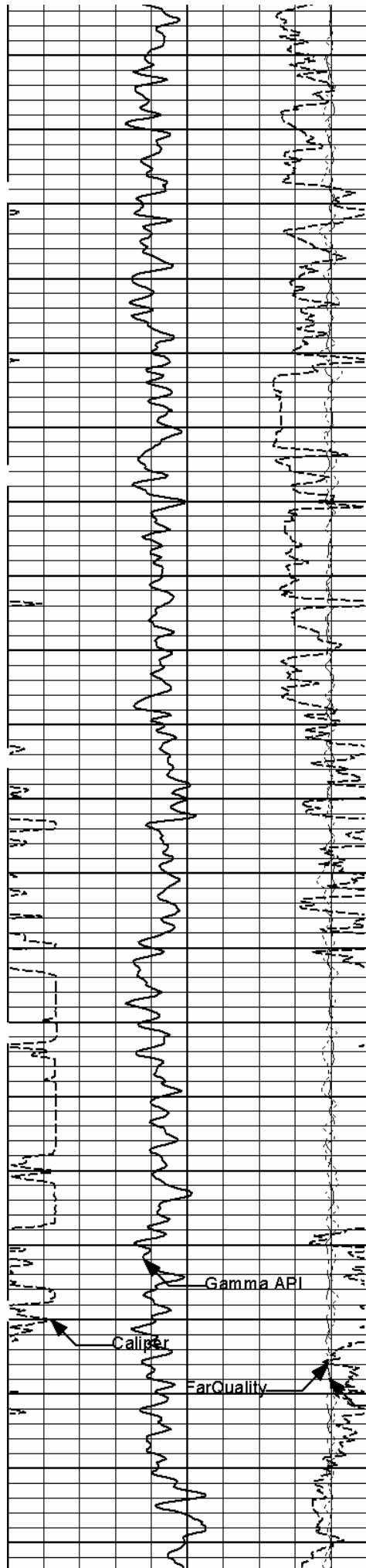
Neutron Porosity

Pe

Density Porosity

Density Corr.

Tension



1300

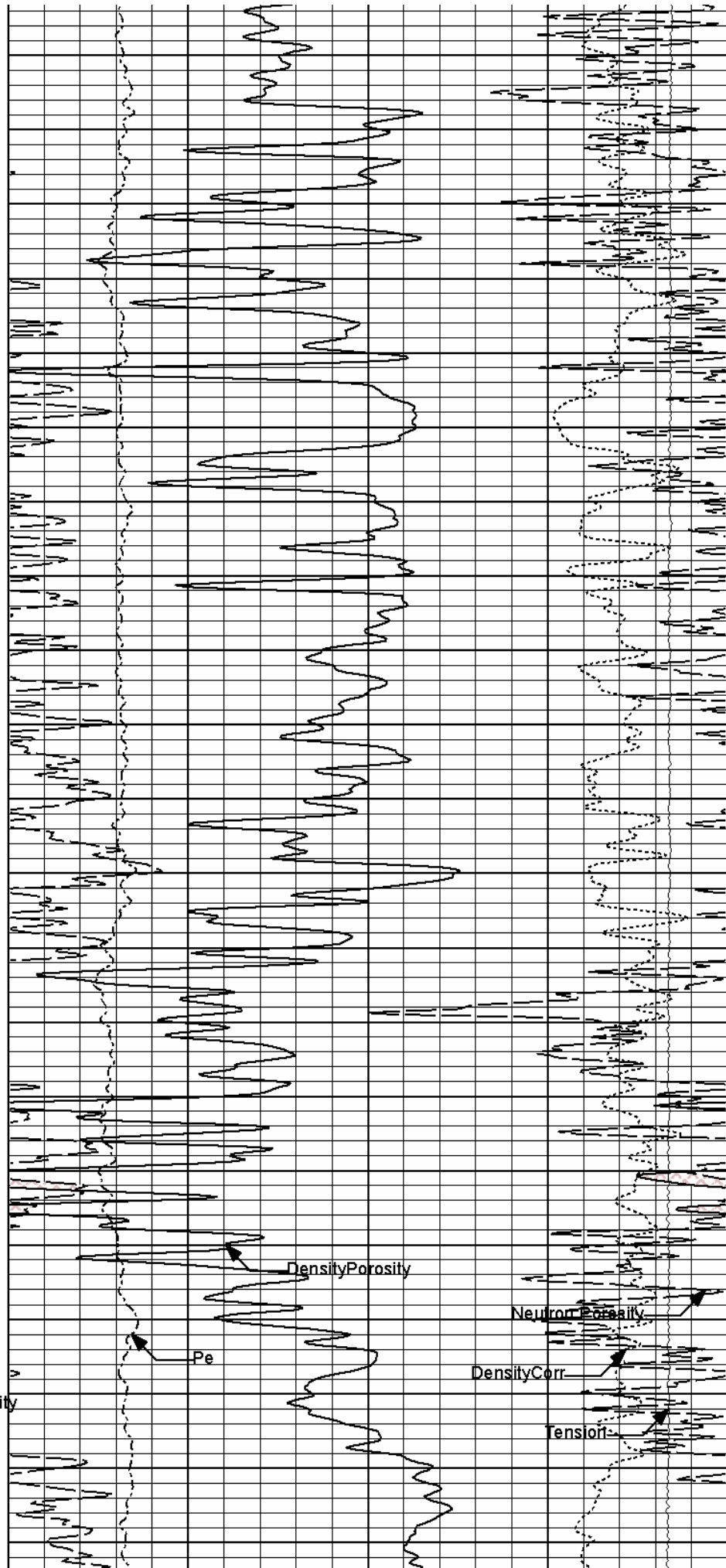
1400

Gamma API

Caliper

FarQuality

NearQuality



DensityPorosity

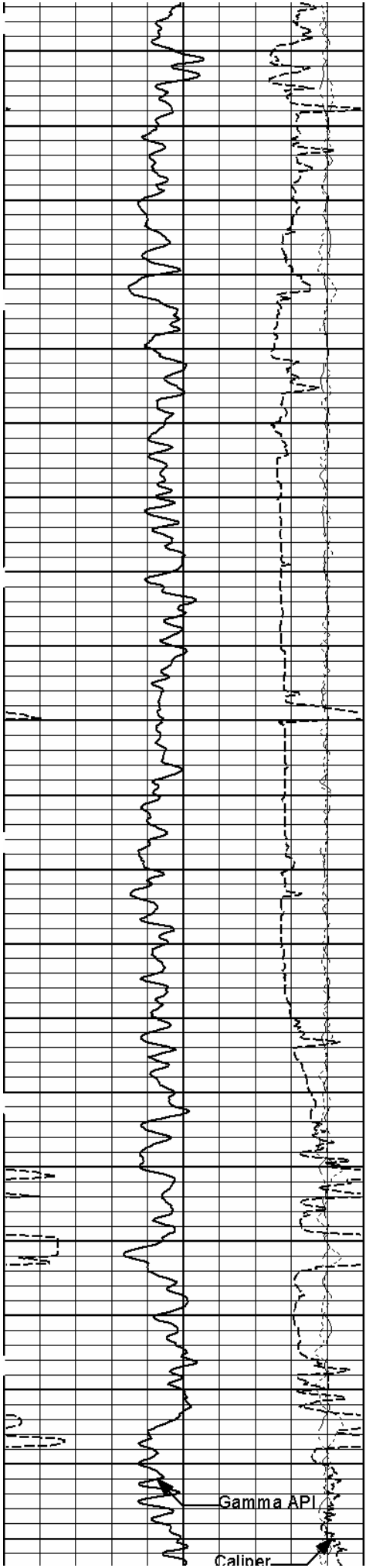
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Neutron Porosity

DensityCorr

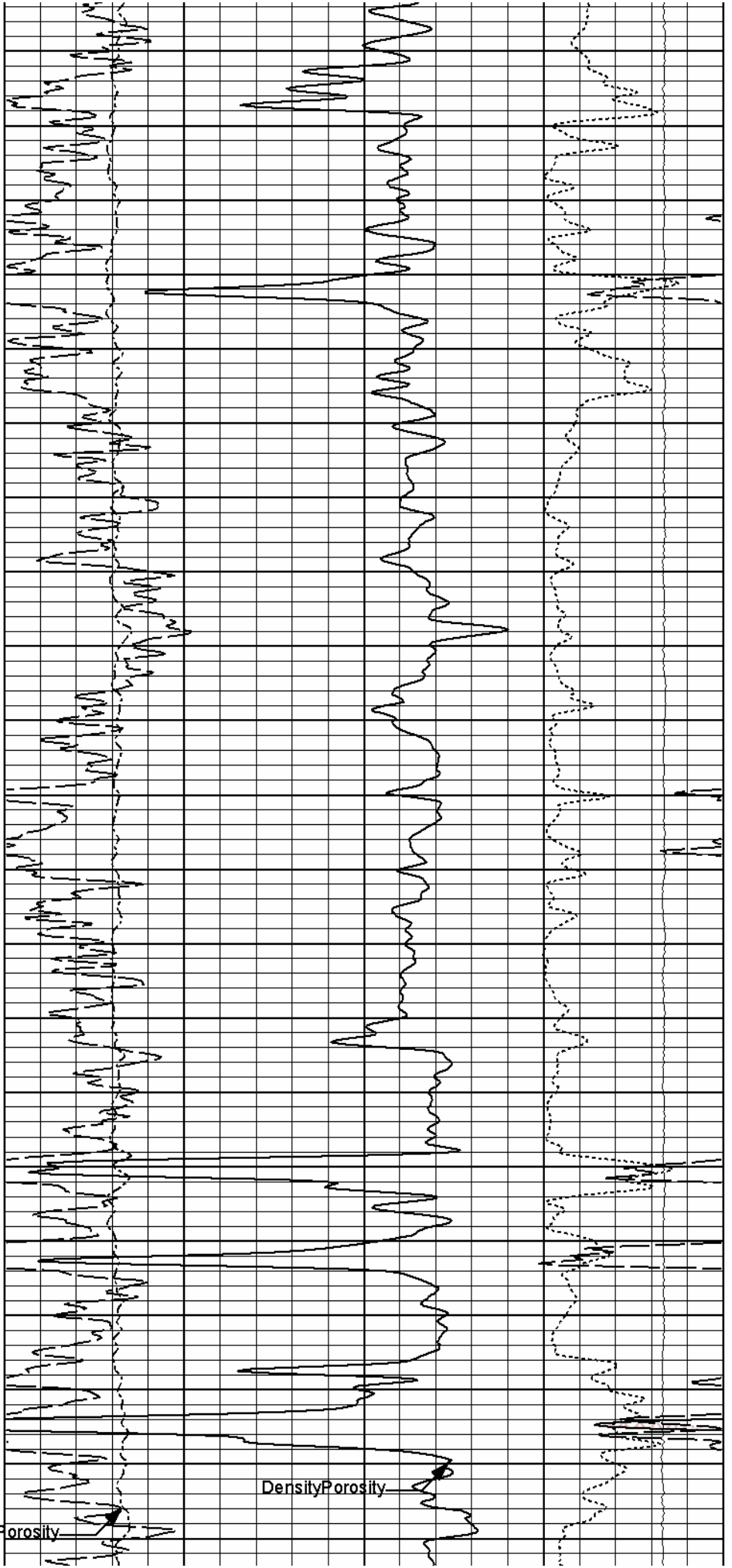
Tension





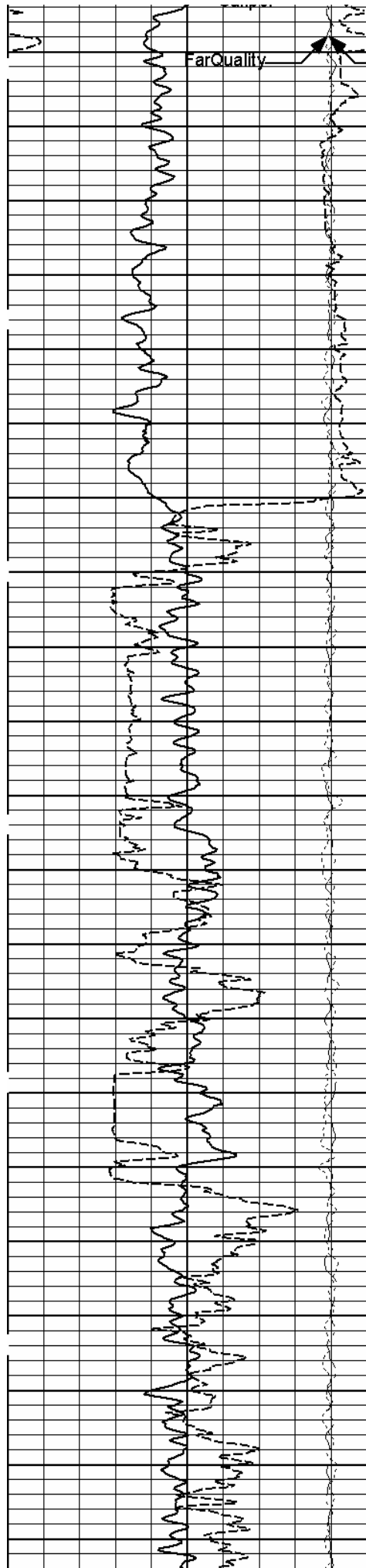
1500

1600



Density Porosity

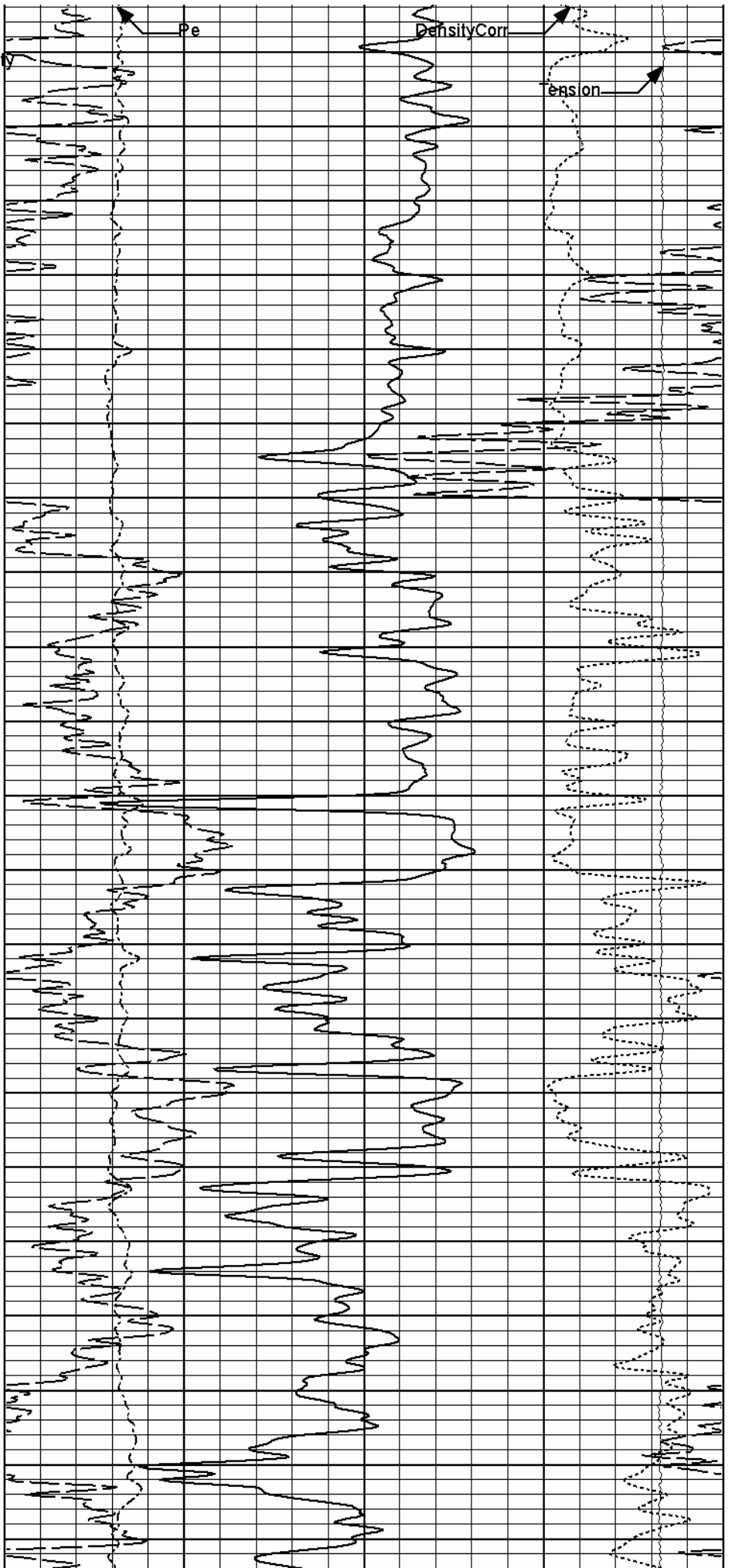
Neutron Porosity



1700

1800

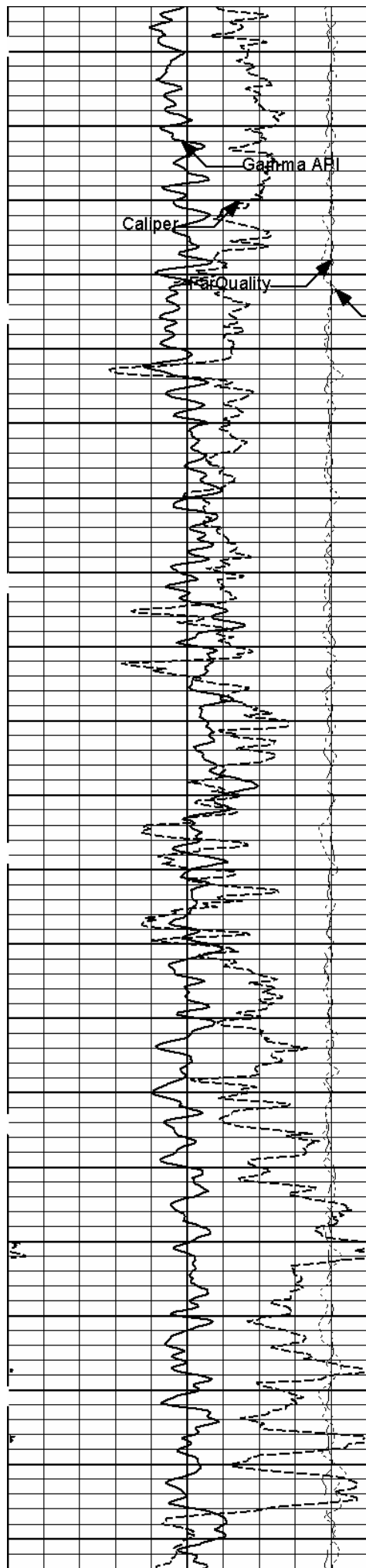
1900



Pe

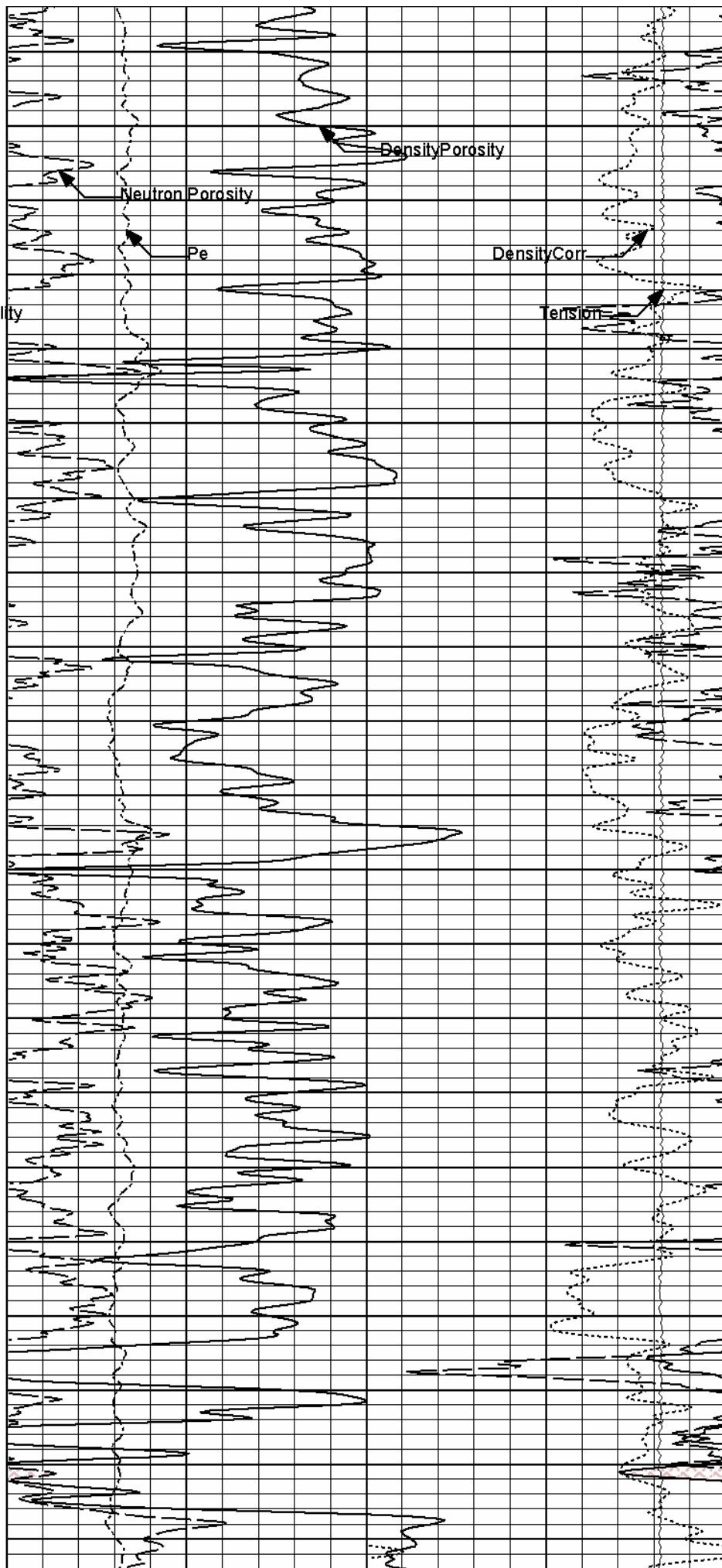
DensityCorr

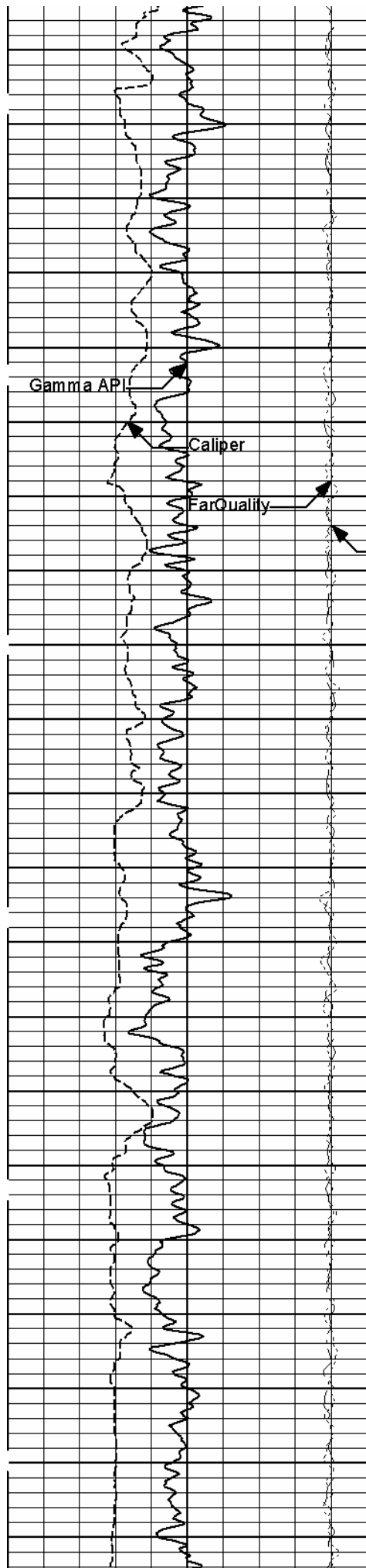
Epsilon



2000

2100





Gamma API

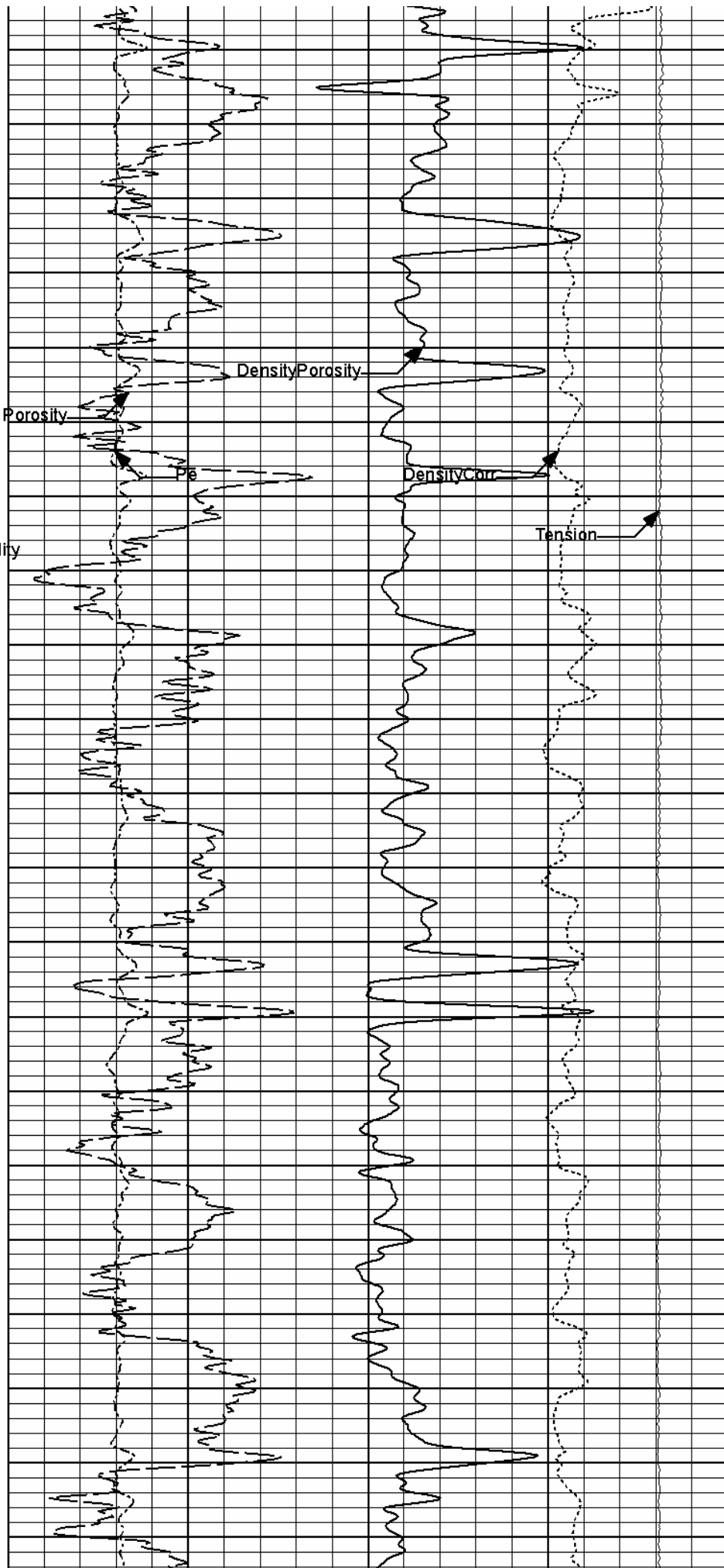
Caliper

FarQuality

NearQuality

2200

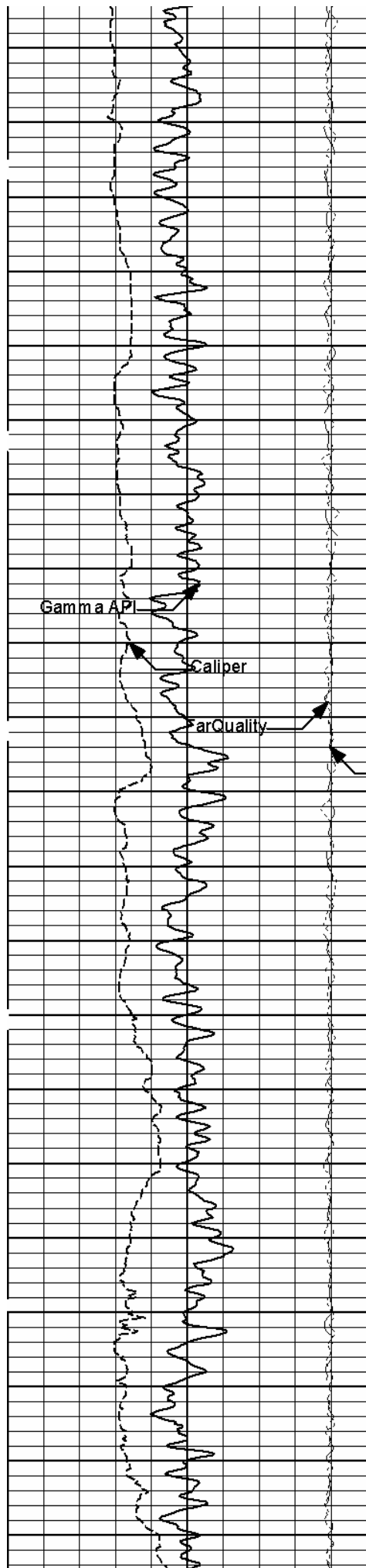
2300



Density Porosity

Density Corr

Tension



2400

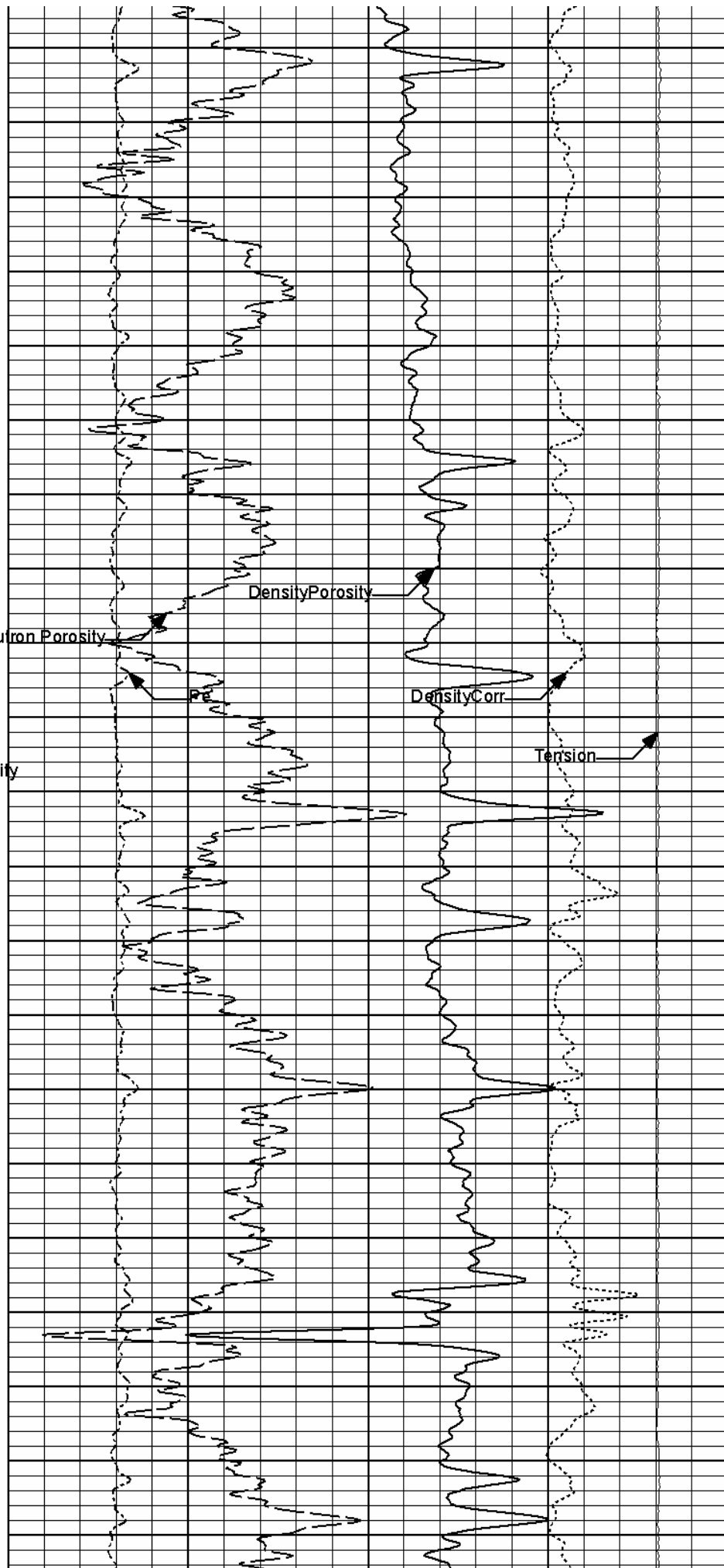
Gamma API

Caliper

NearQuality

NearQuality

2500

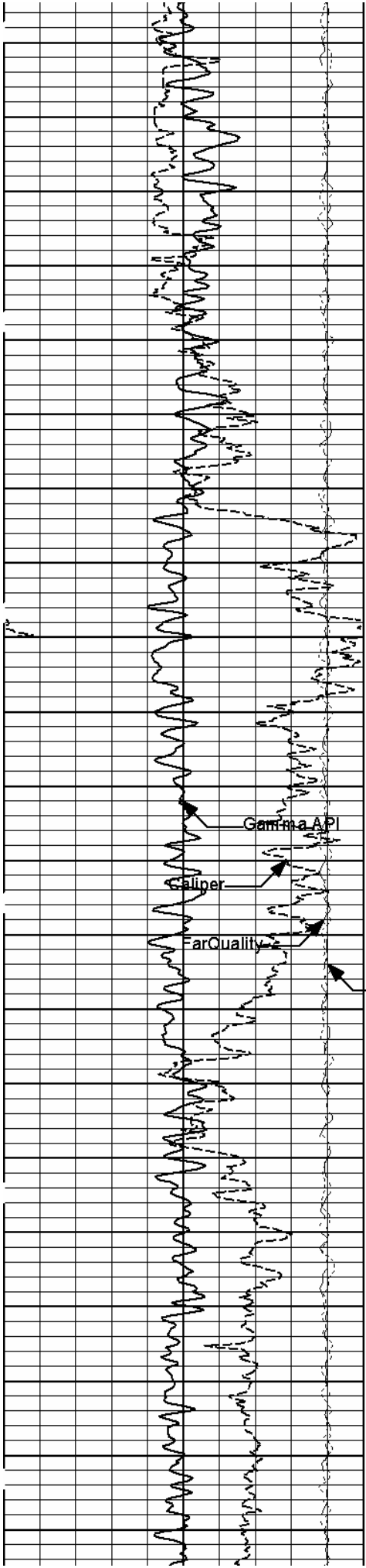


Density Porosity

Neutron Porosity

Density Corr.

Tension

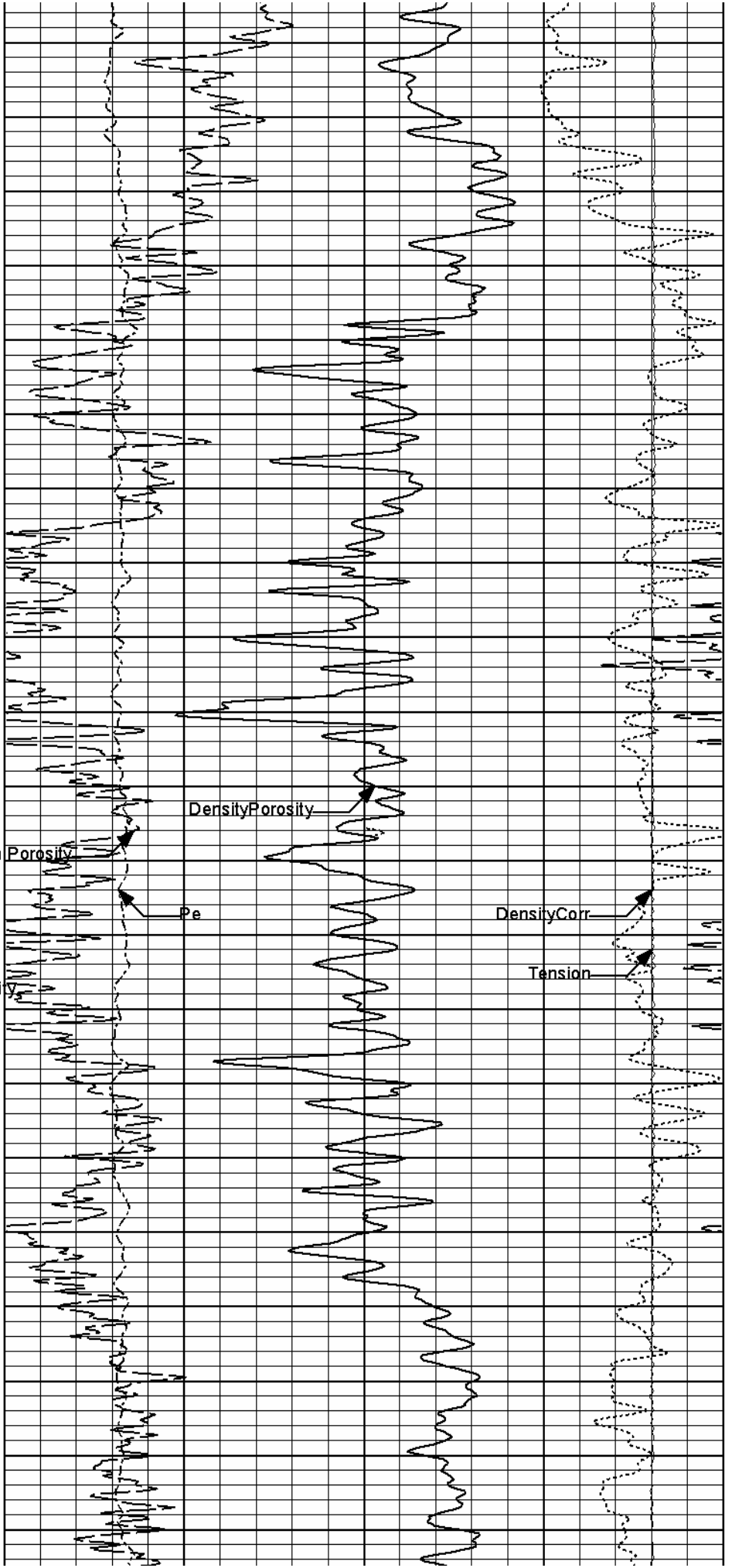


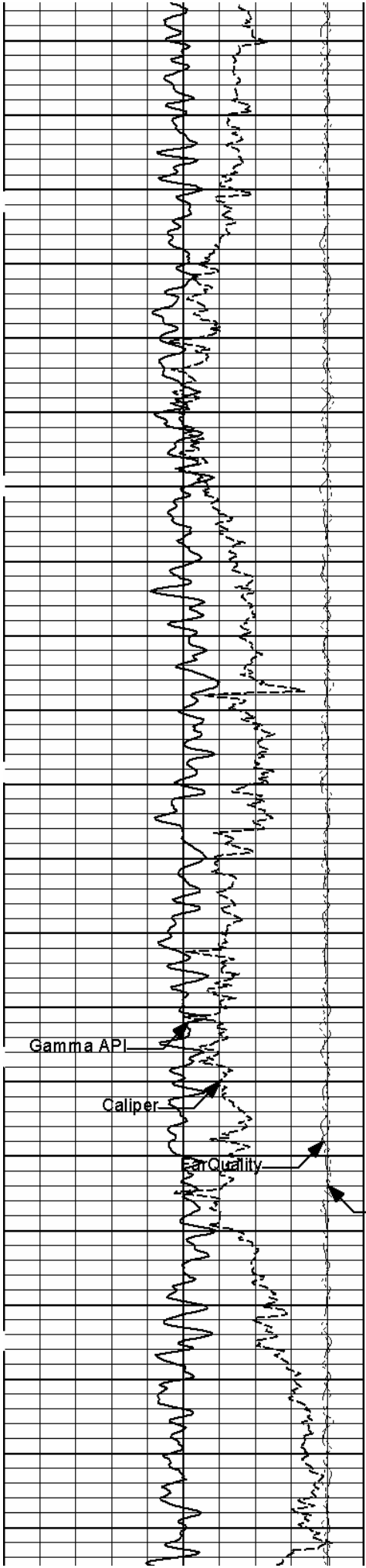
2600

2700

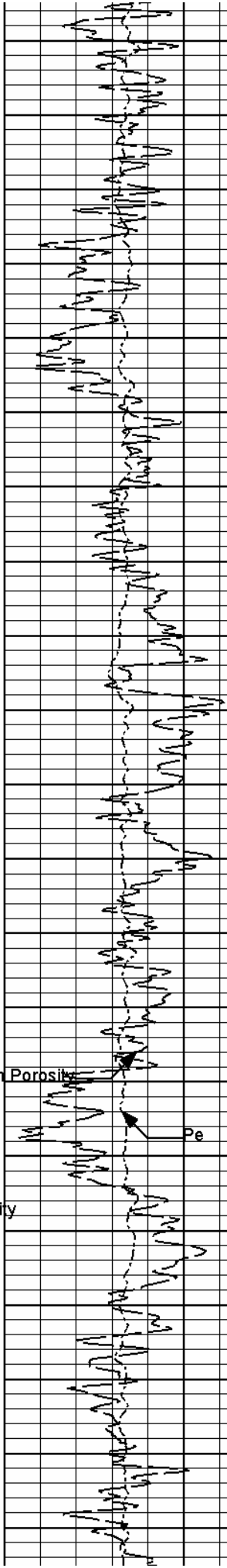
Neutron Porosity

NearQuality

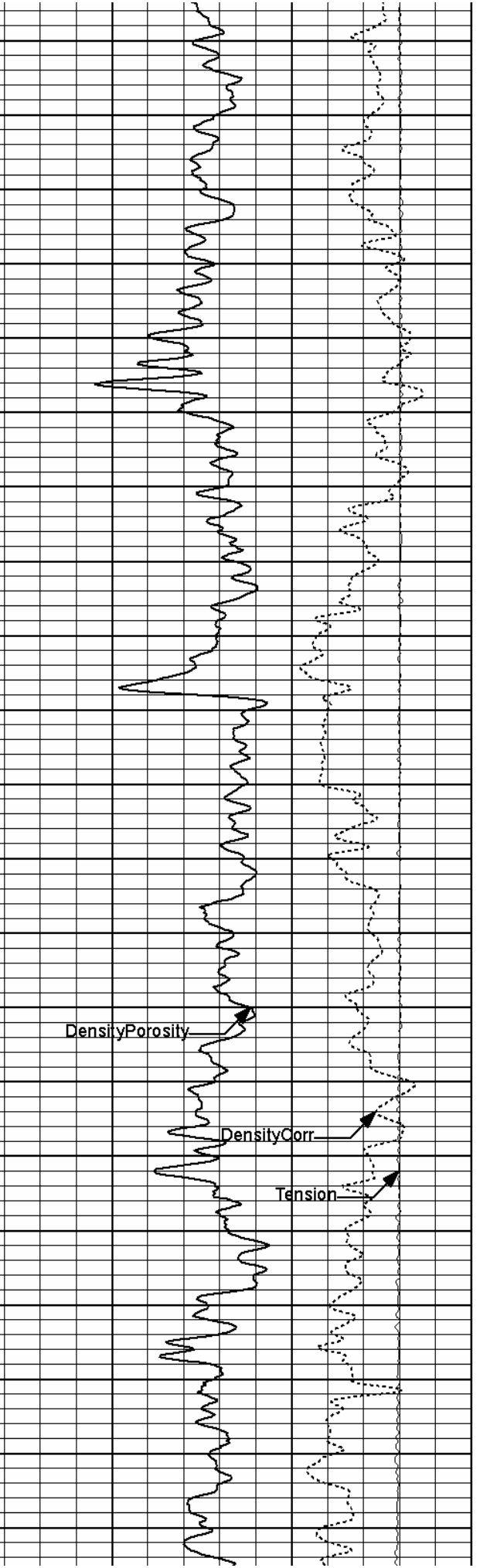


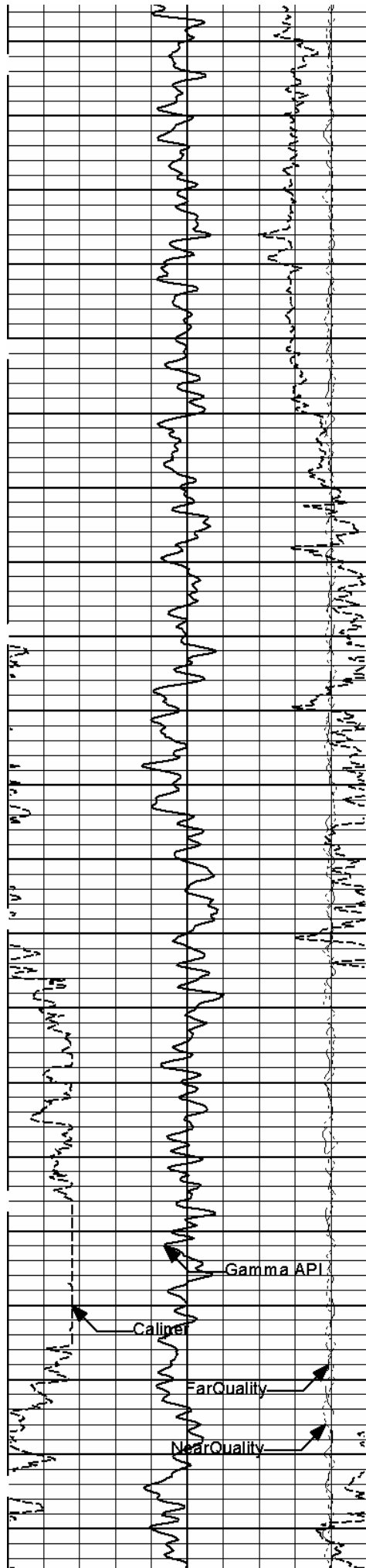


2800



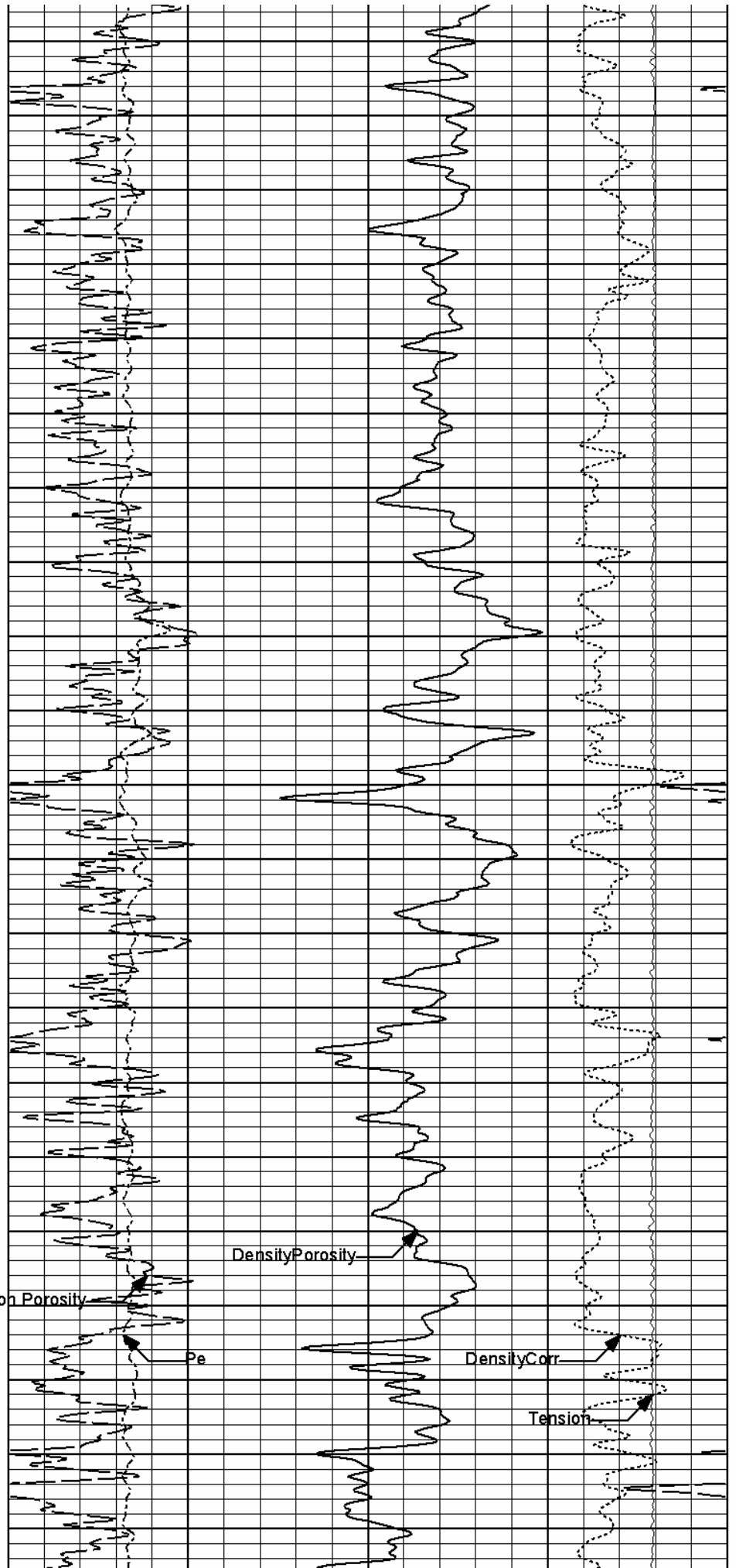
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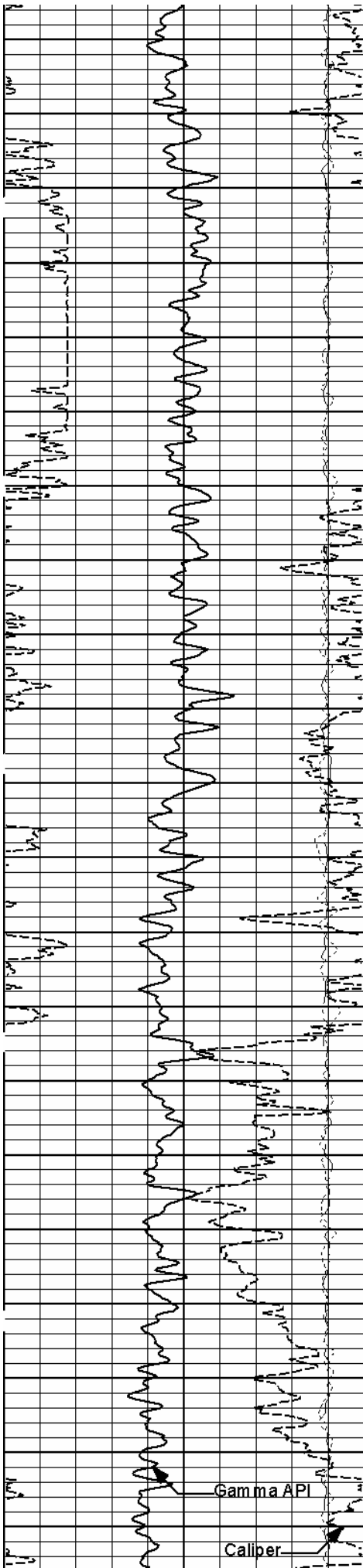


3000

3100

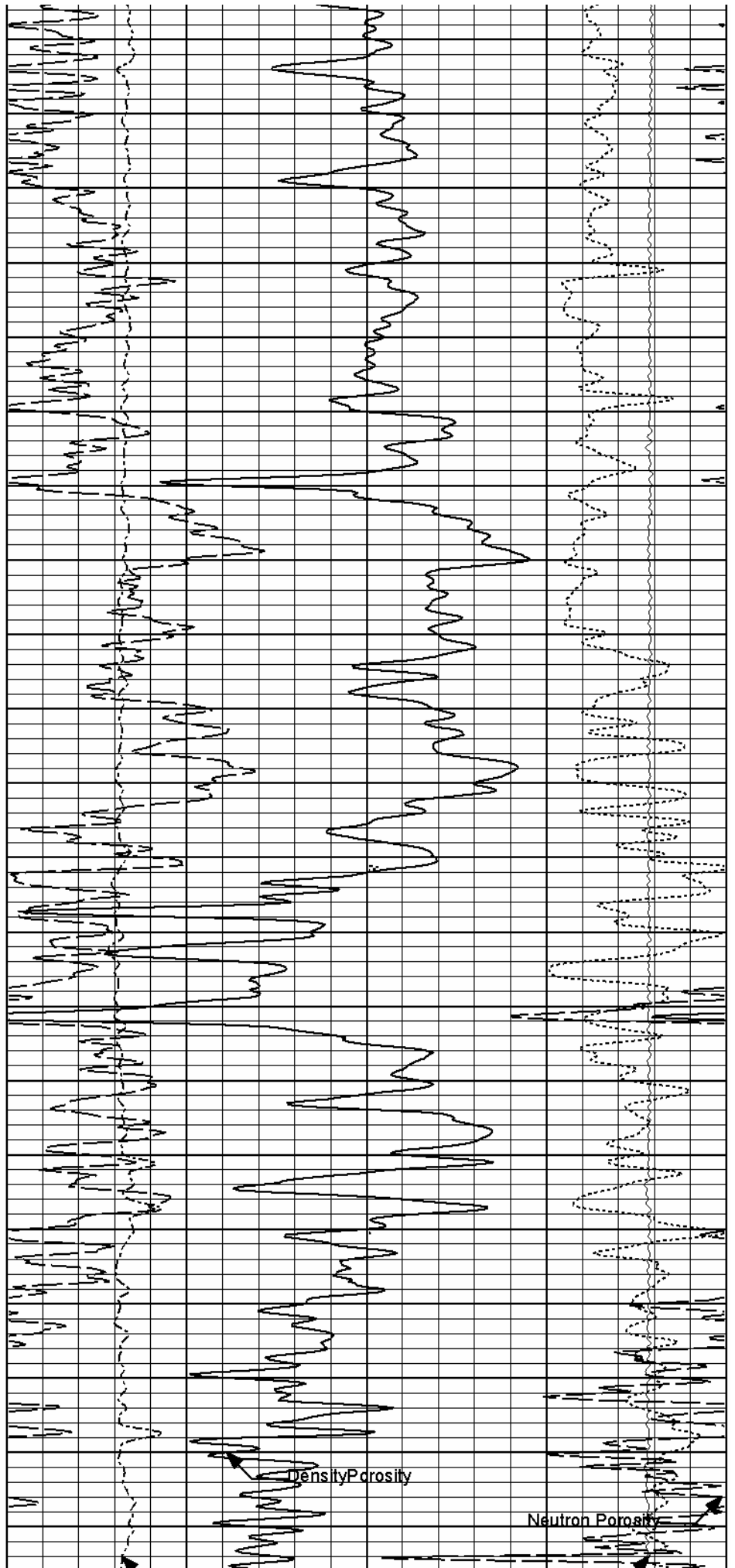


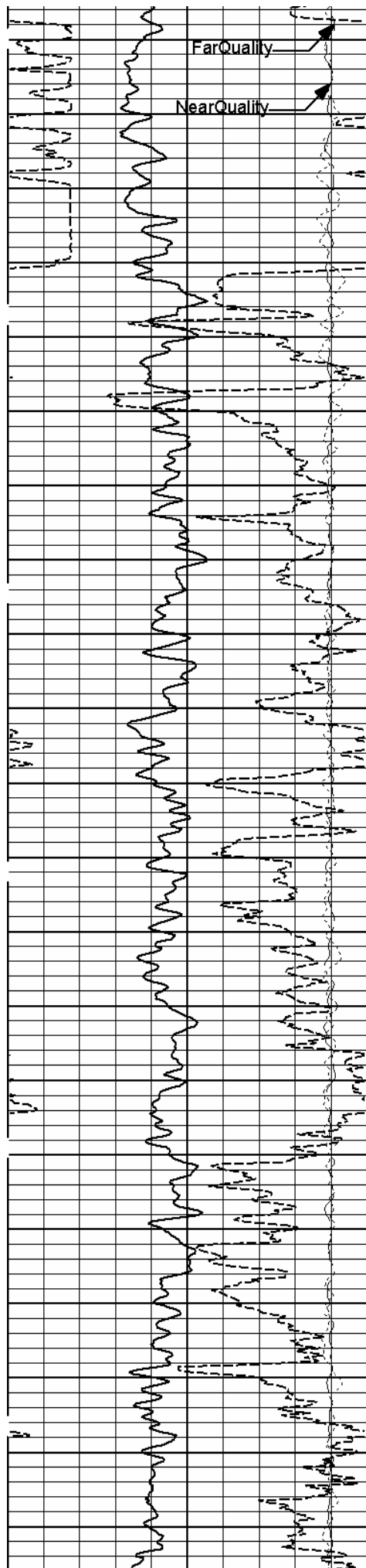




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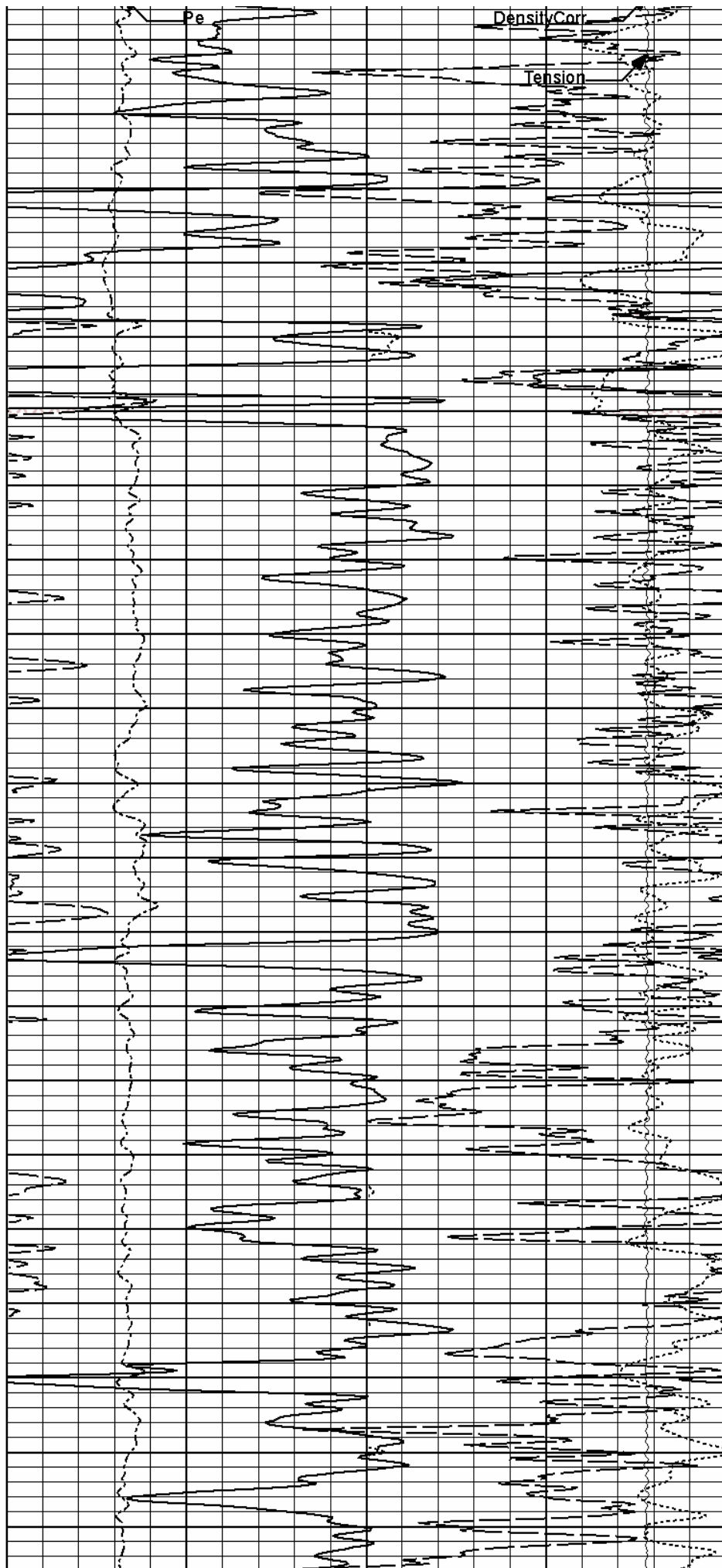
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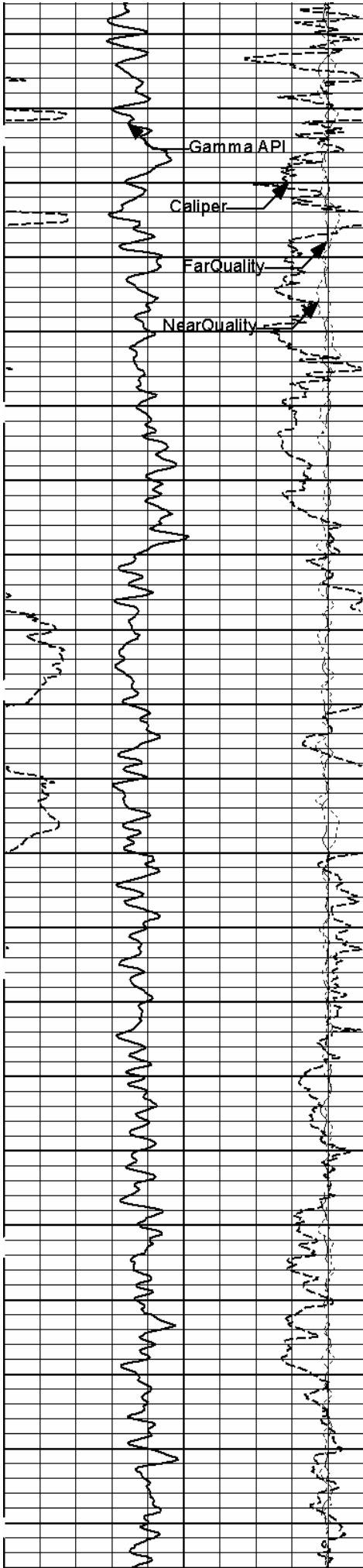




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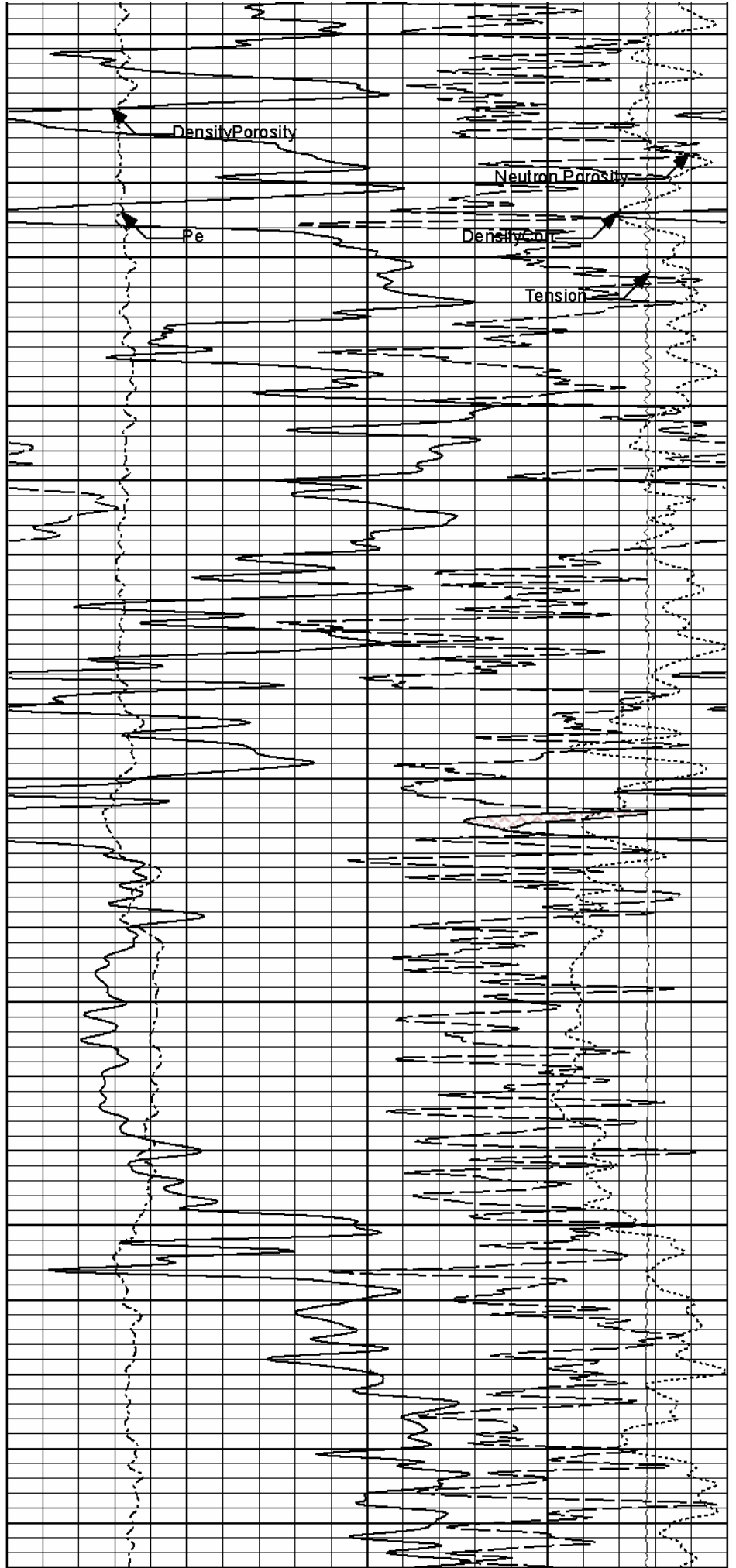
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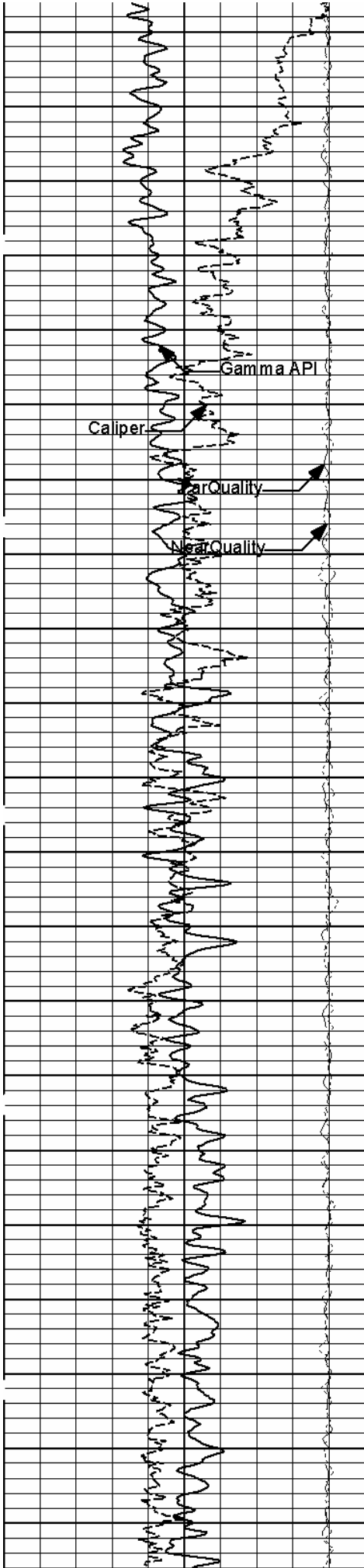




3600

3700

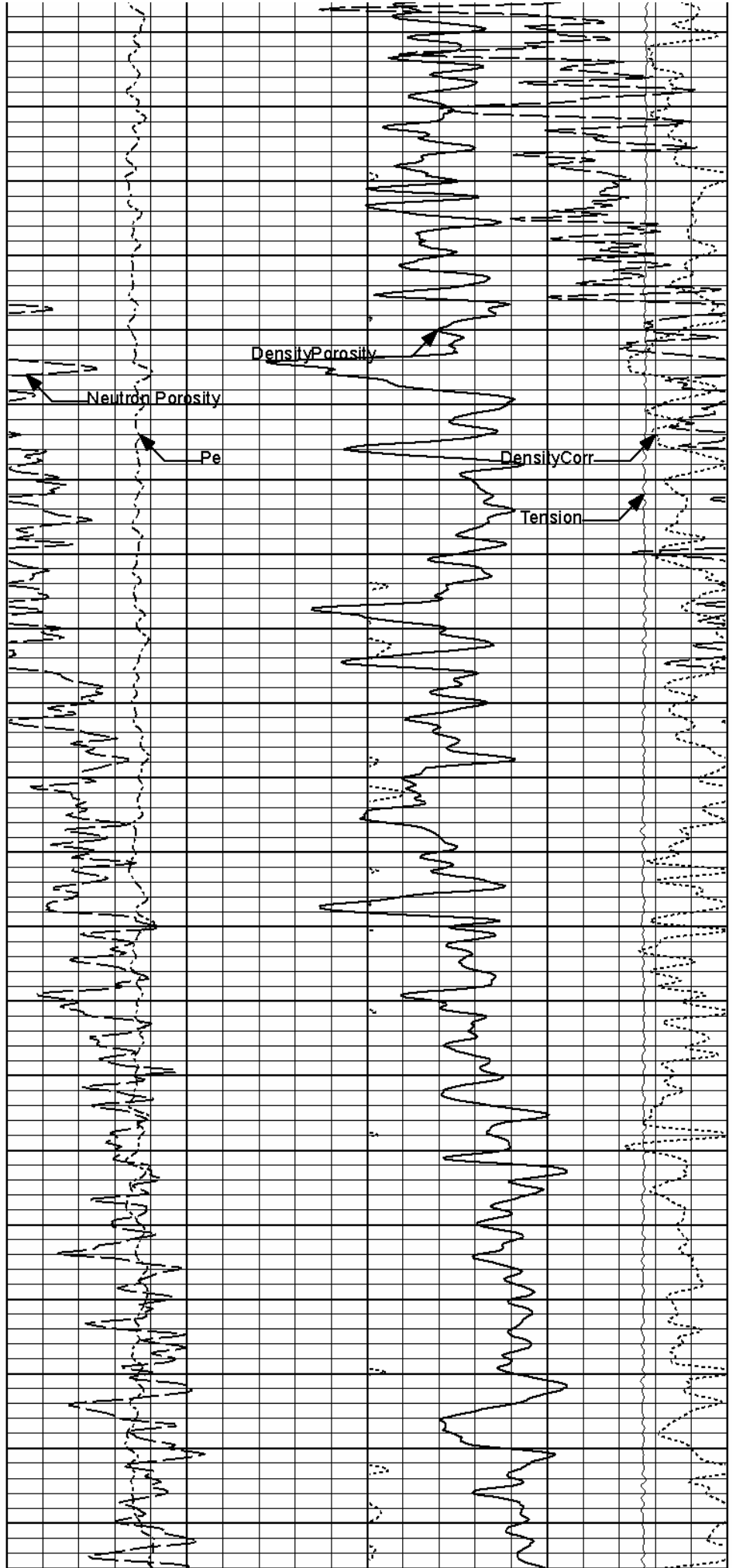


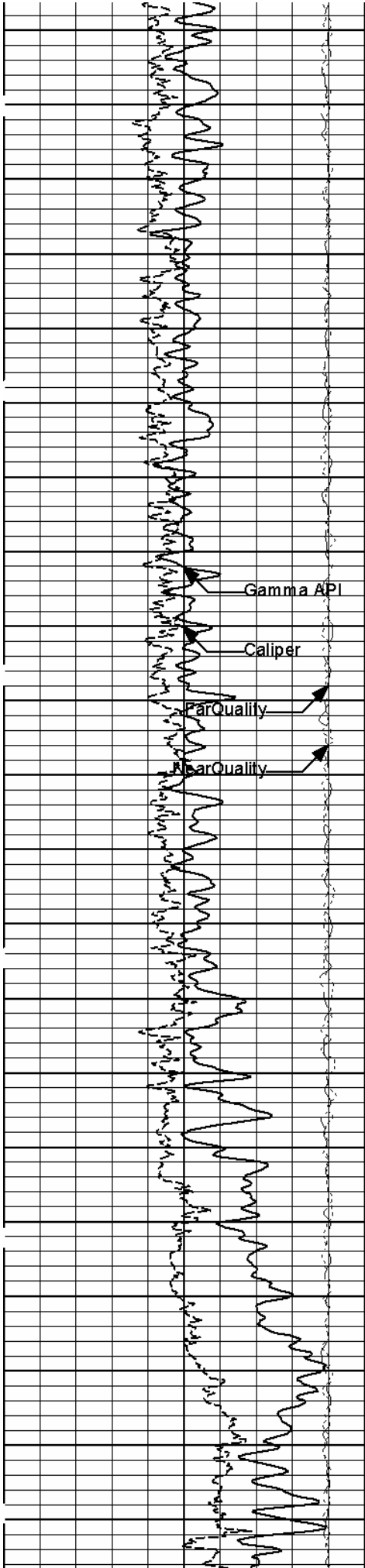


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3900

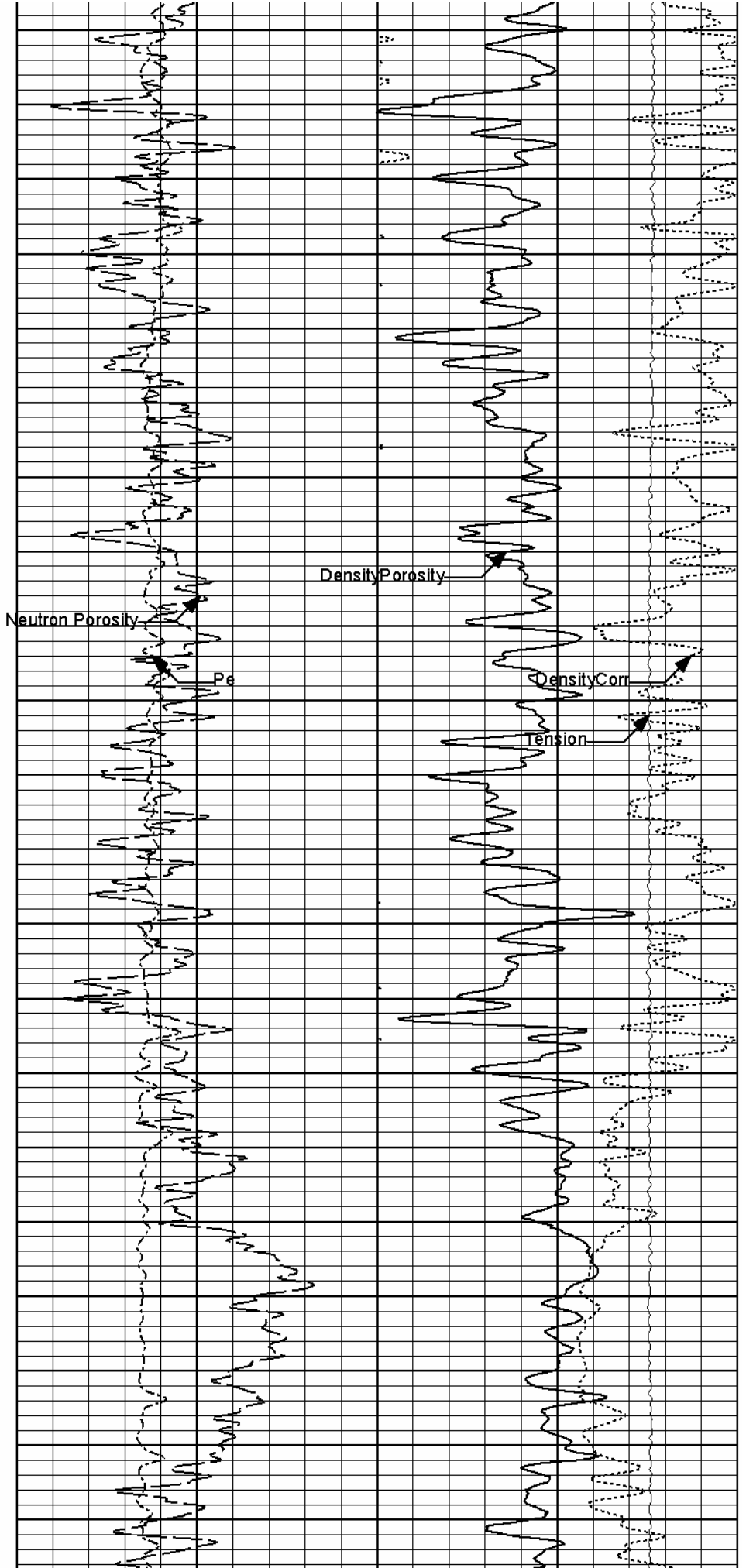
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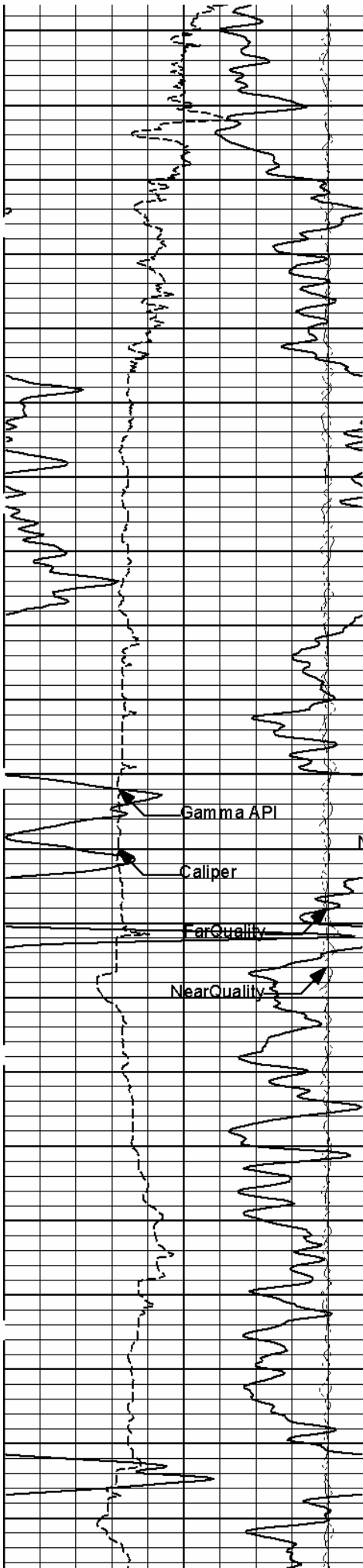




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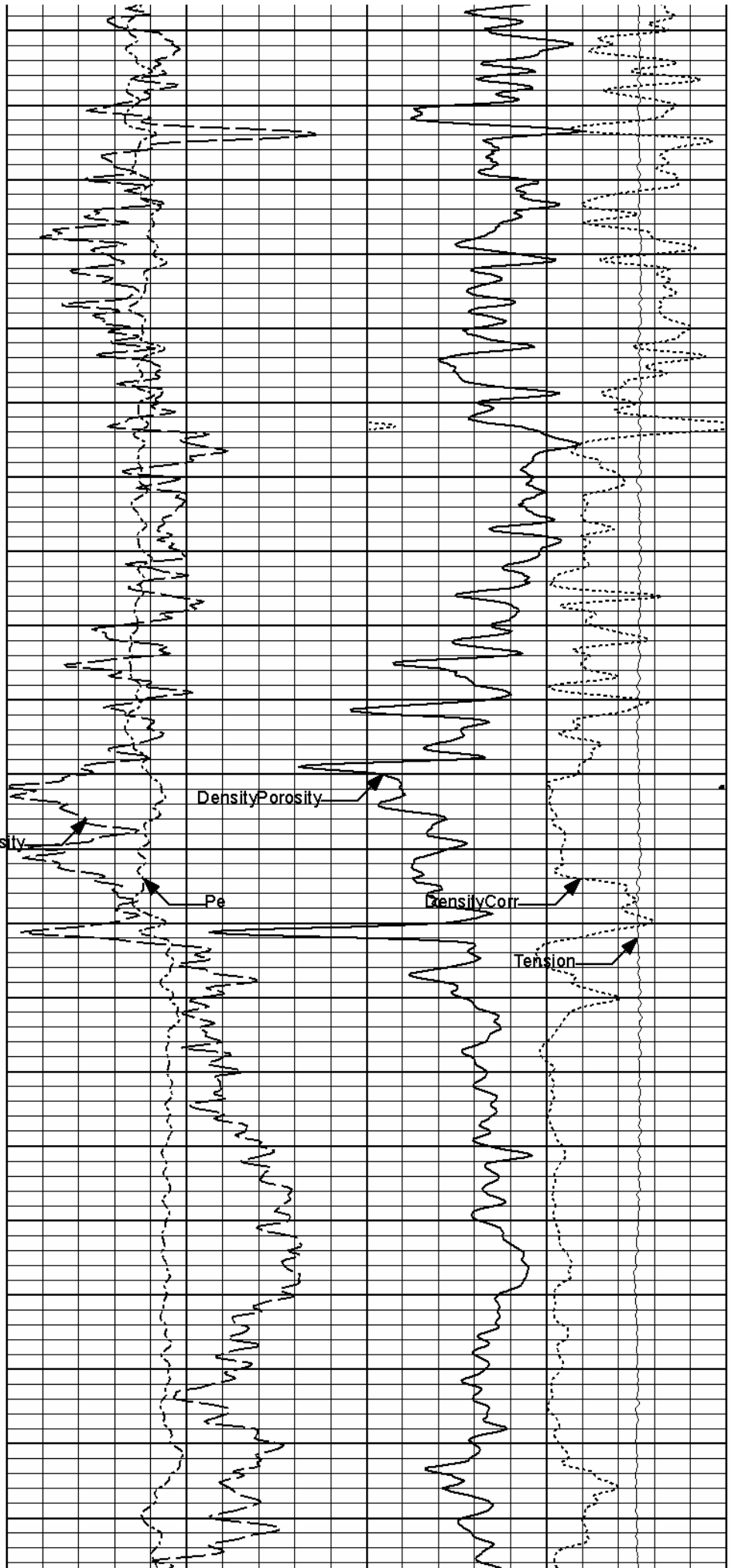
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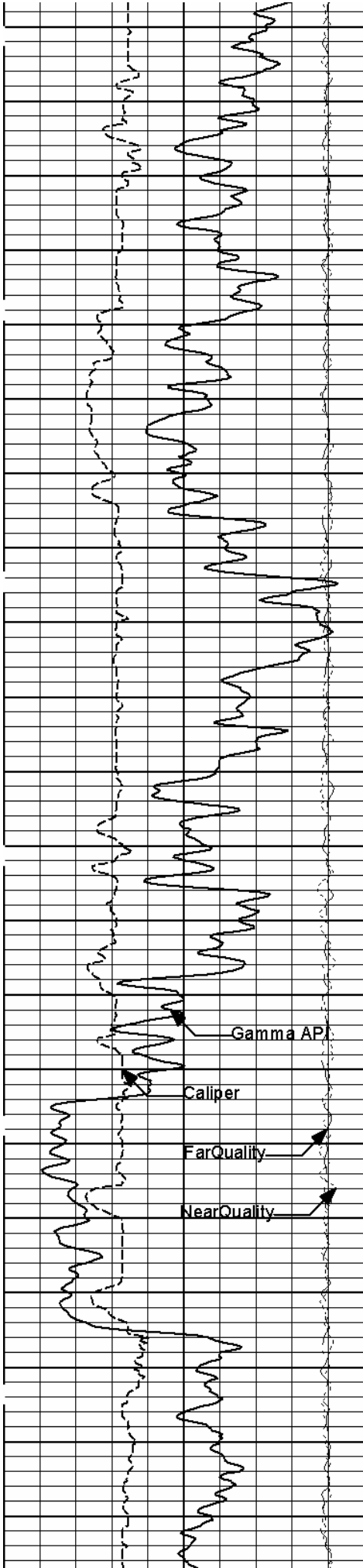




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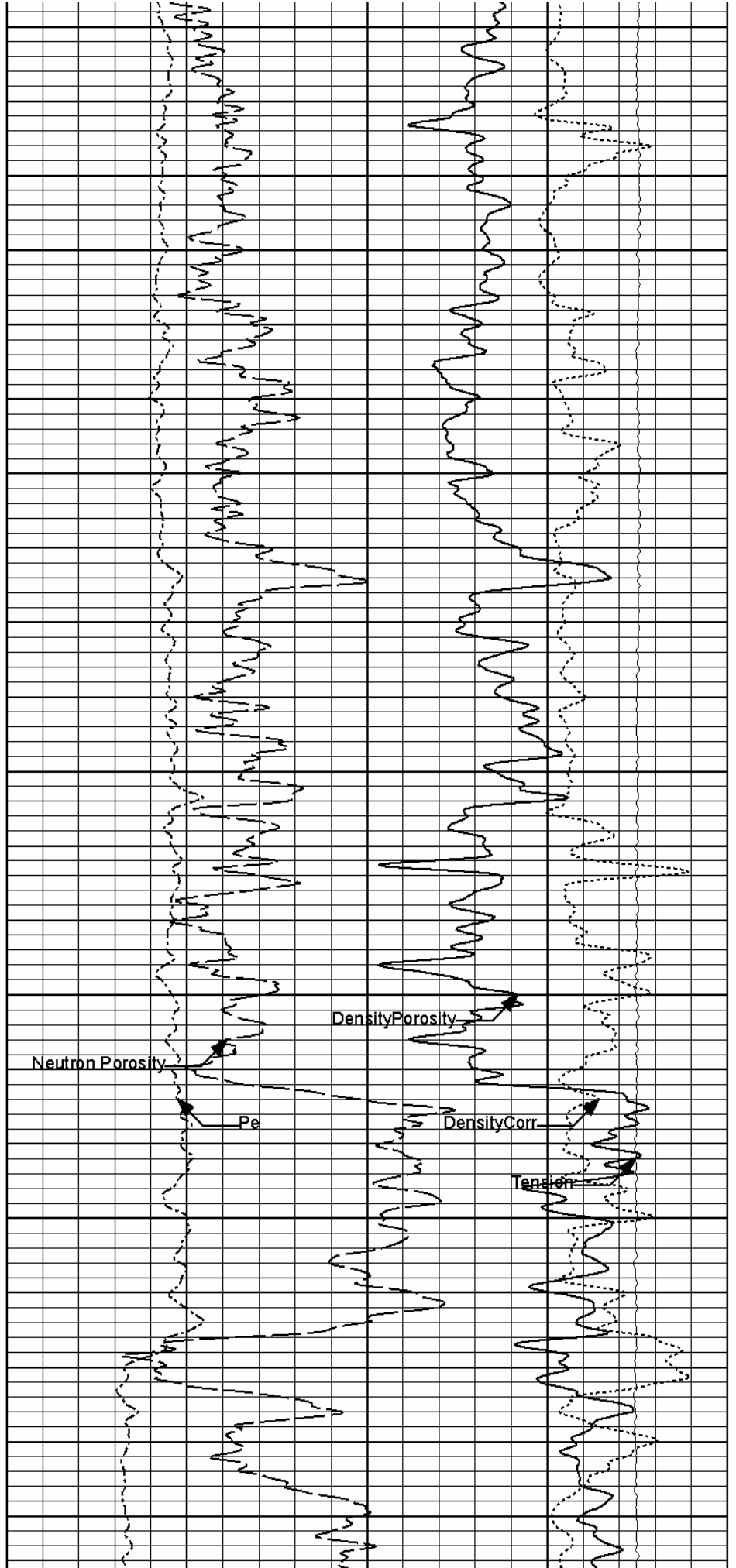
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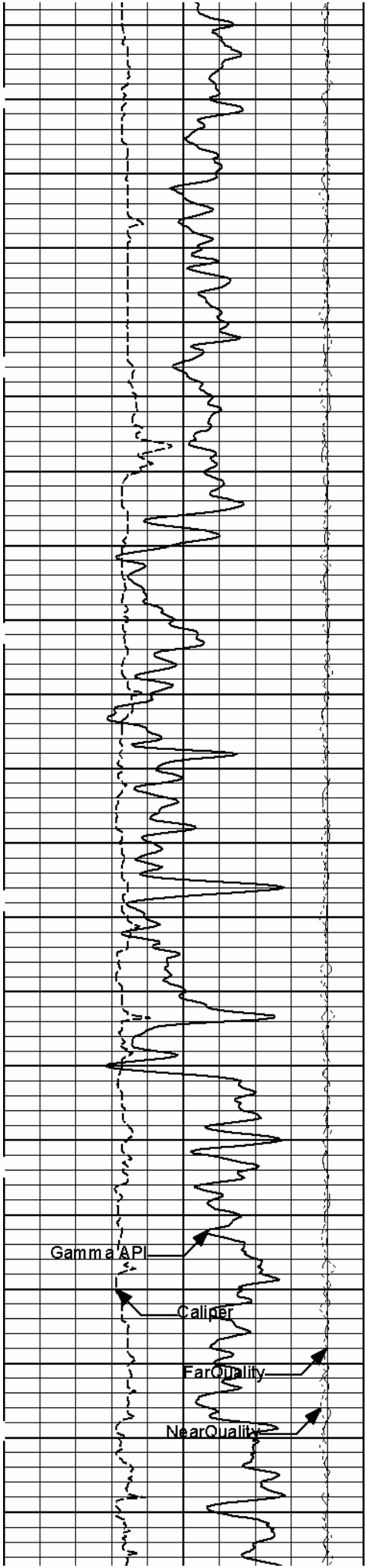




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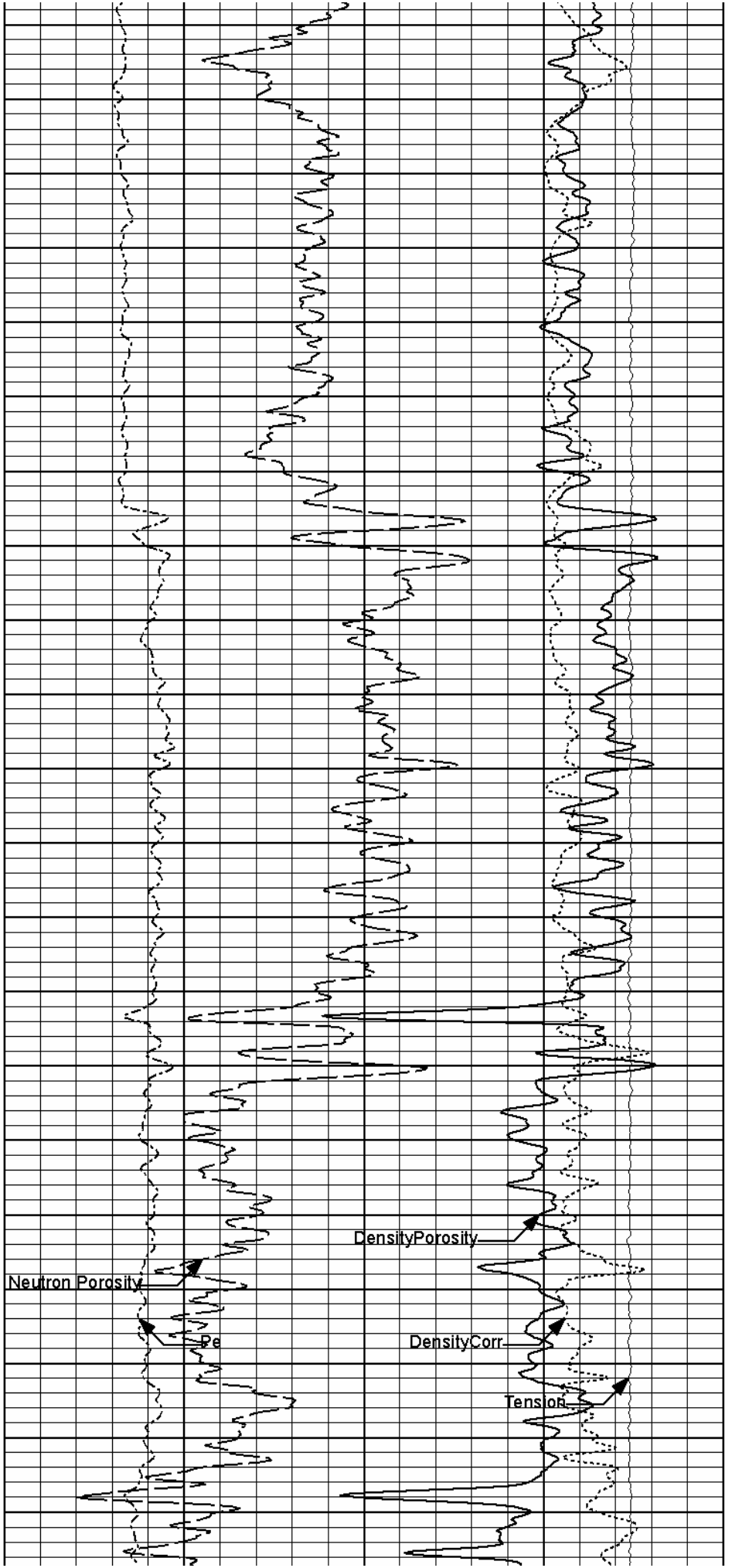
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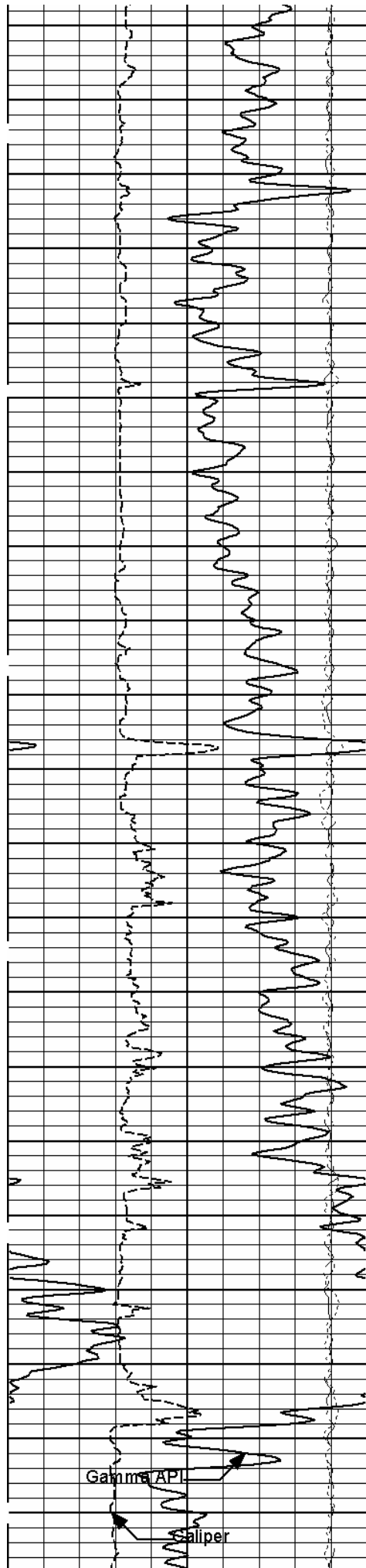


4700

4800

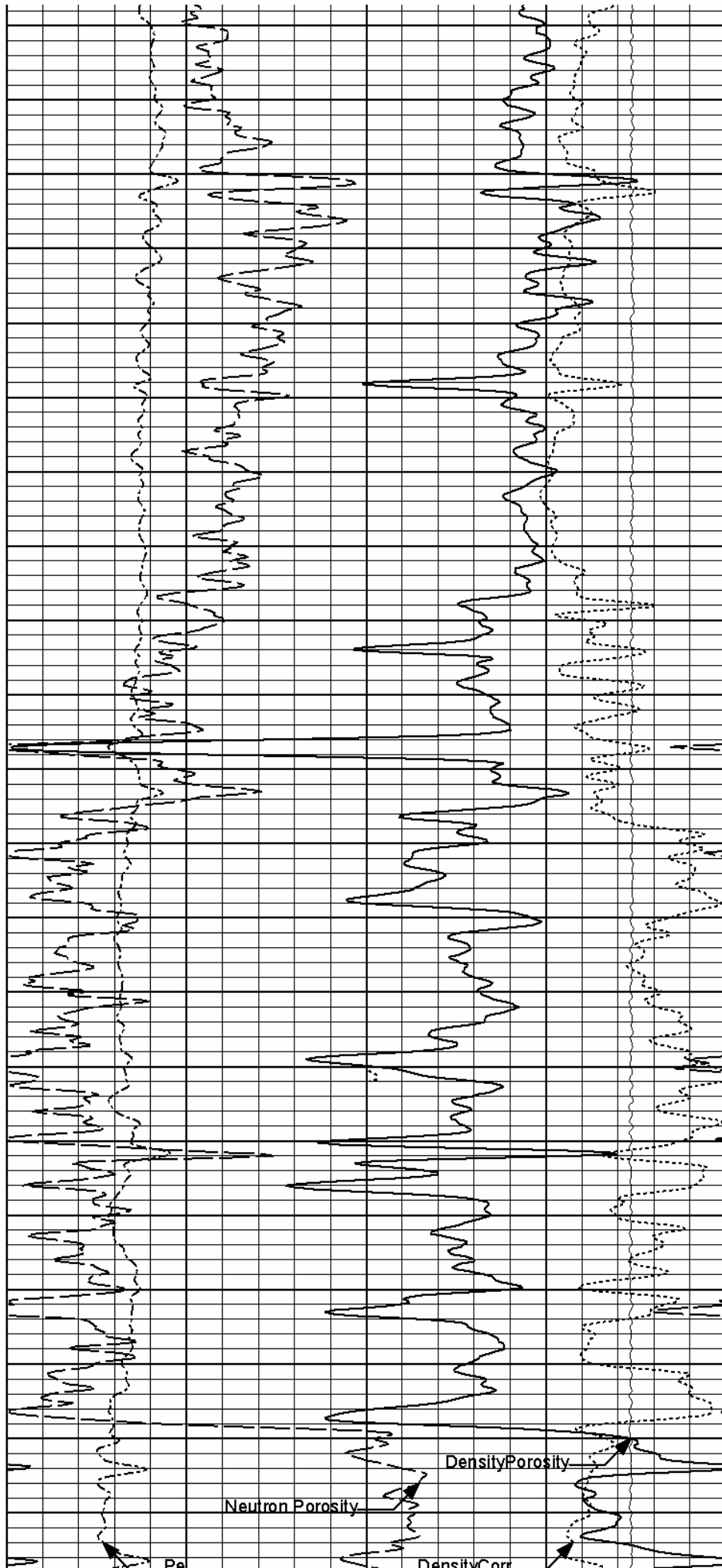


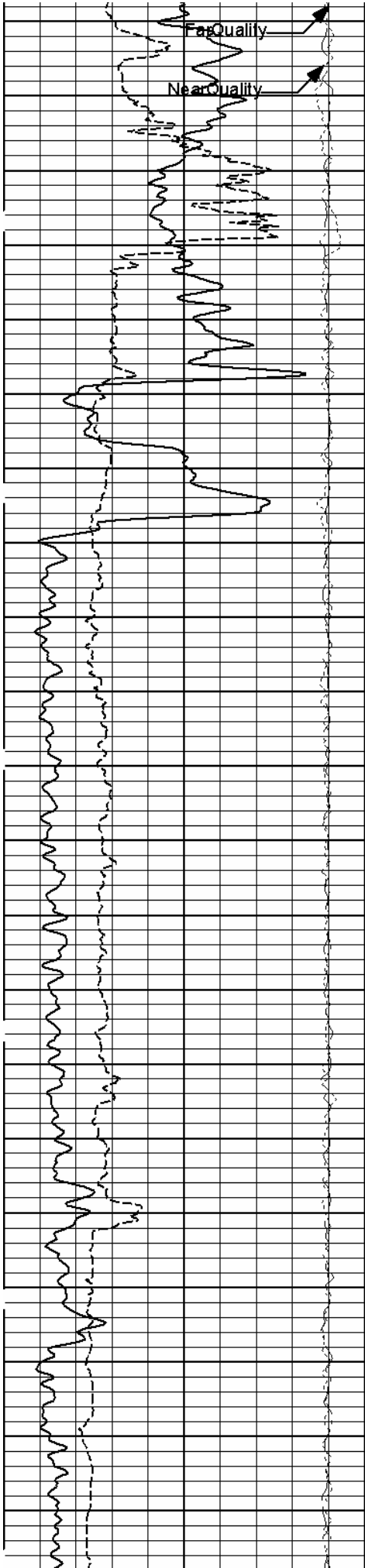




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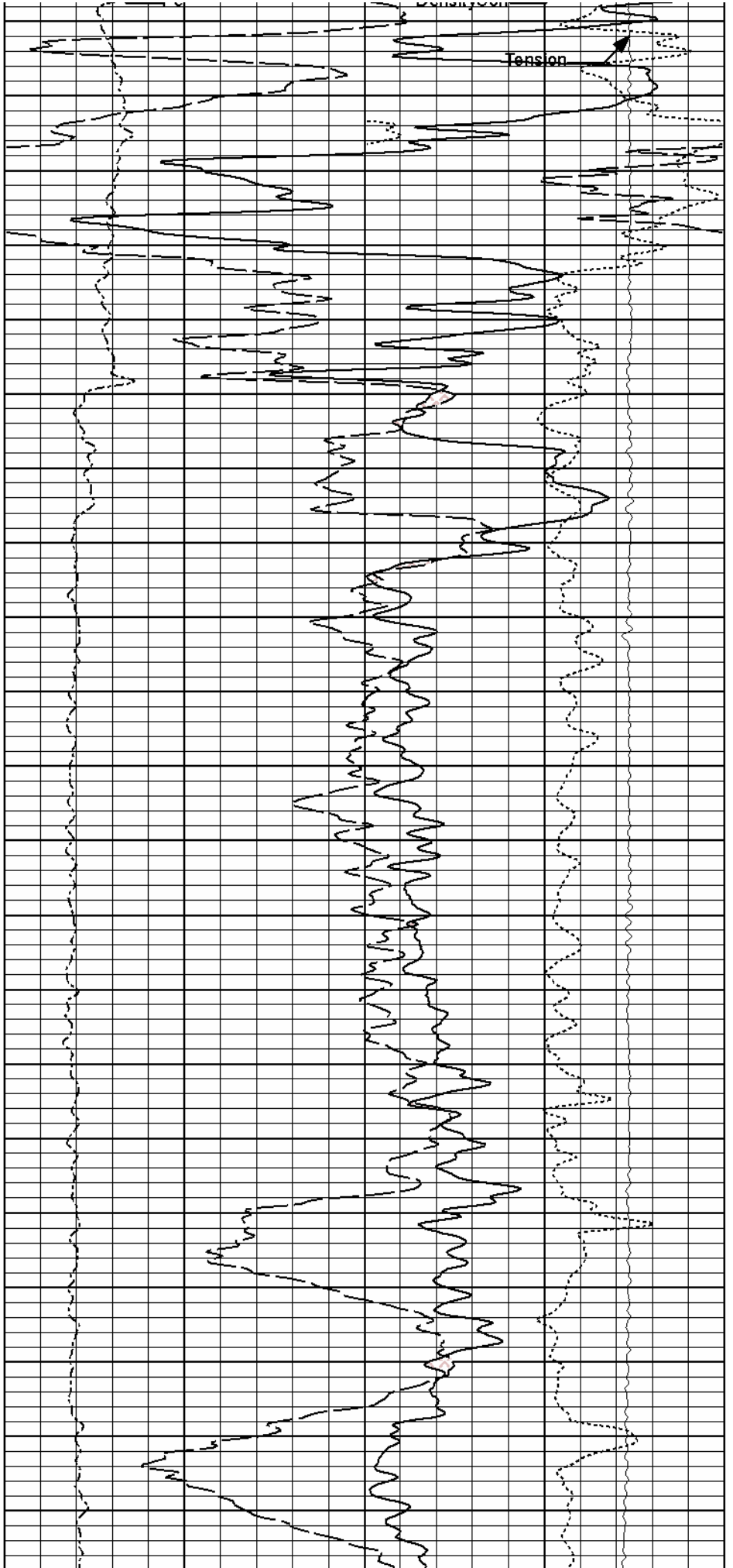
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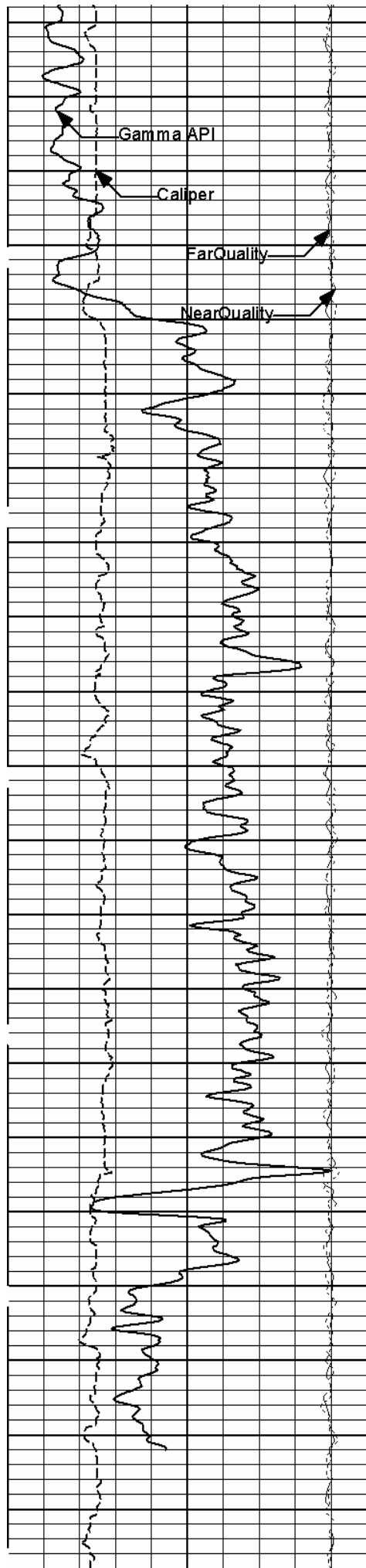




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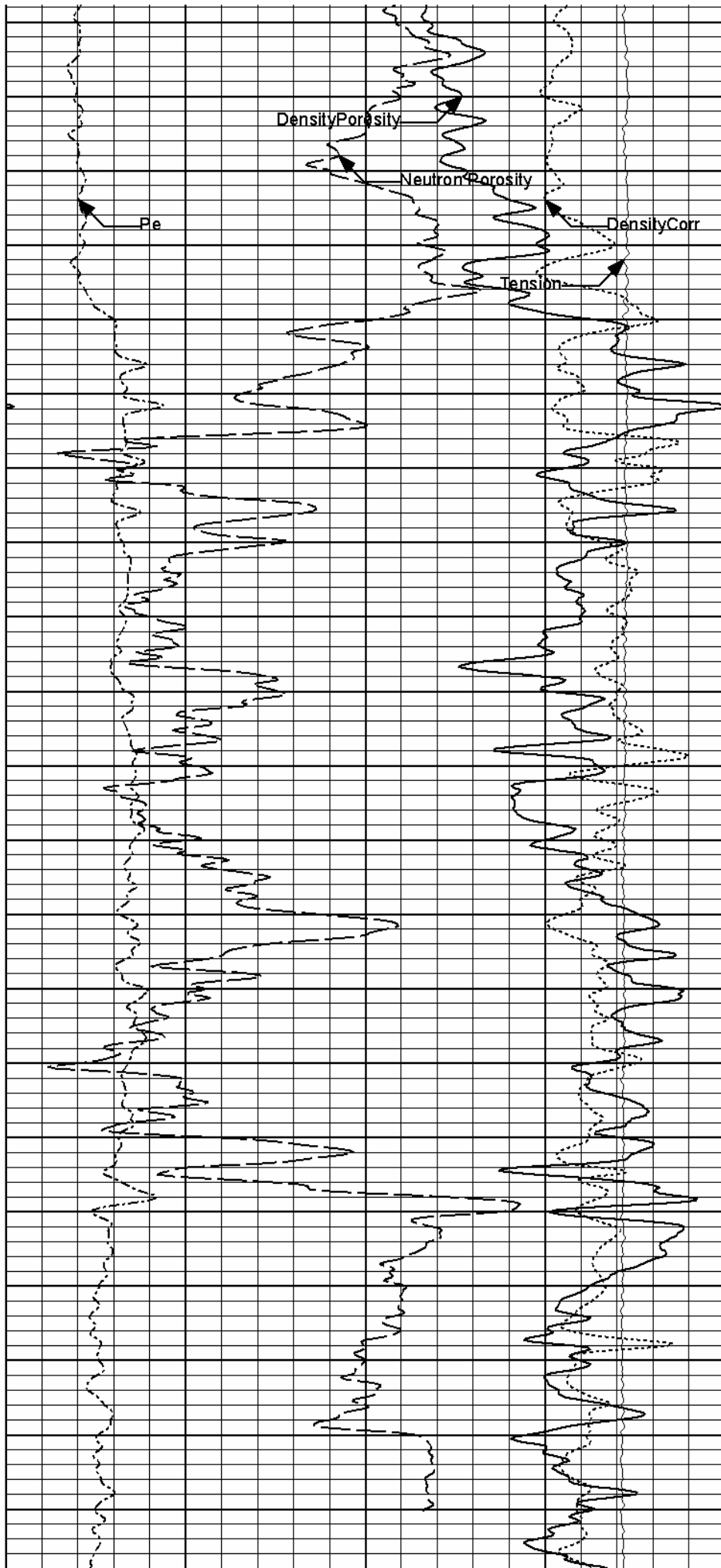
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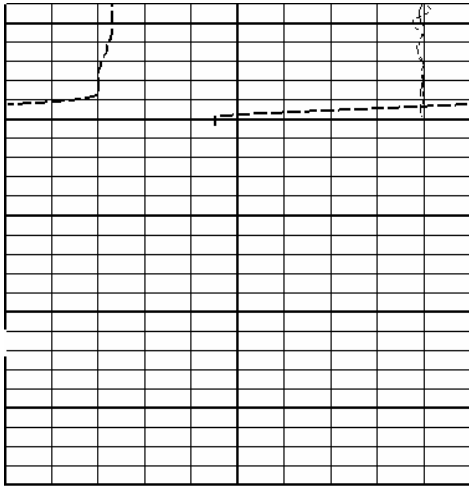




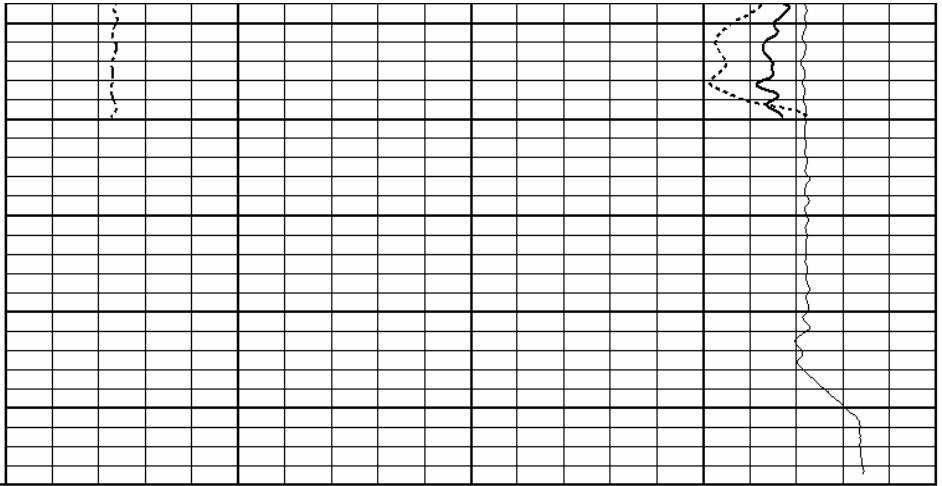
5300

5400





5500



0	Gamma API	150	MD 1 : 240	60Neutron Porosity0			
api				percent			
10	Caliper	20		60DensityPorosity0			
inches				percent			
45	FarQuality	-5		0Pe10		-0.25DensityCorr0.25	
						gram per cc	
-45	NearQuality	5				10KTension0	
						pounds	

**HALLIBURTON**

Plot Time: 05-Apr-07 02:14:45  
Plot Range: 460 ft to 5528 ft  
Data: {ActiveWell}-Well Based-DAQ Current-  
Plot File: \\(not saved)\\5IN\_POR

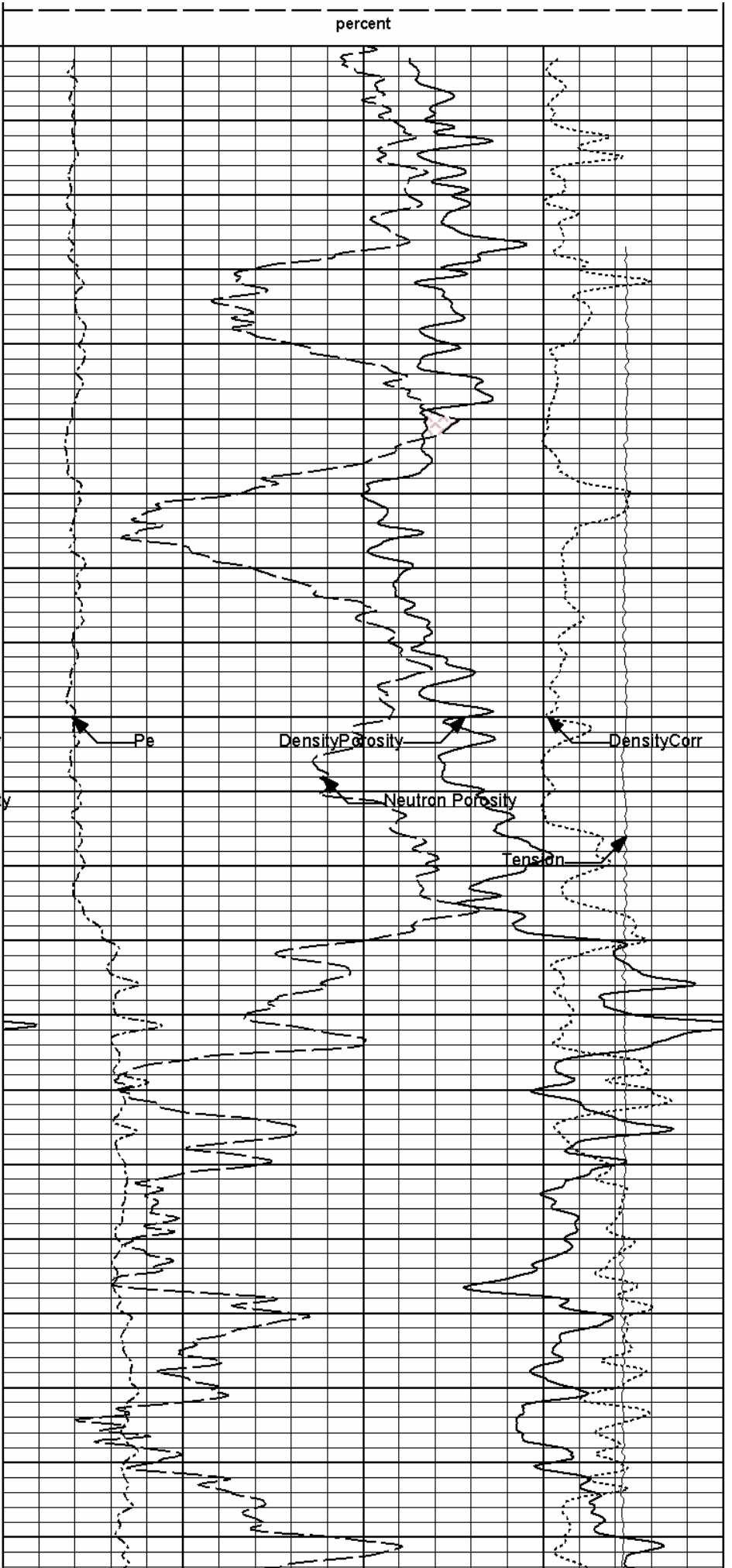
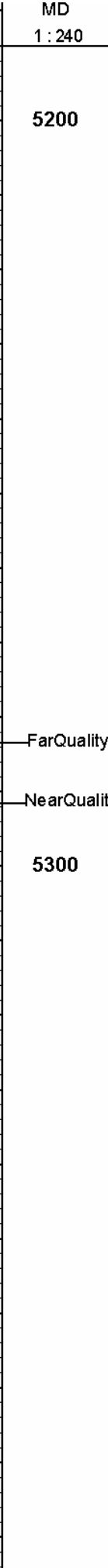
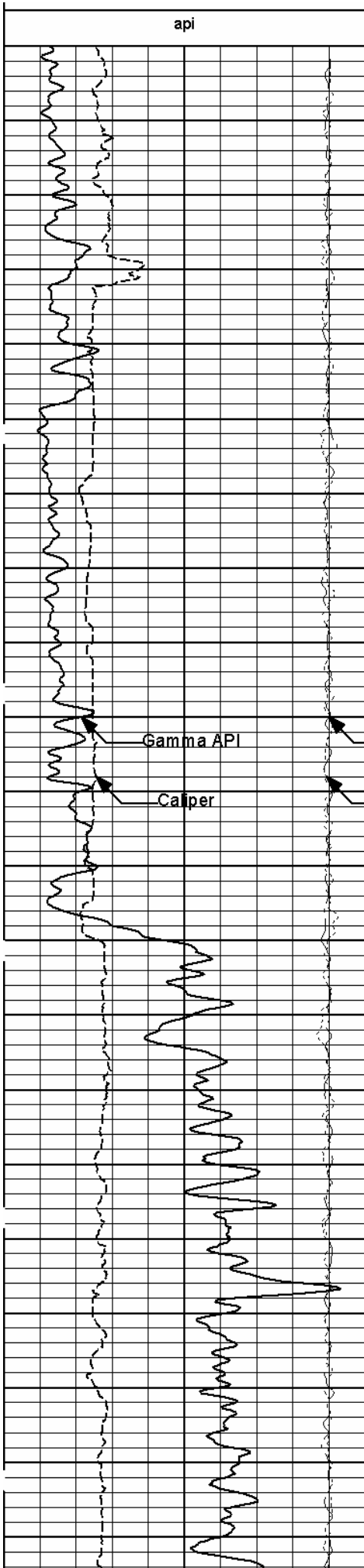
MAIN PASS 5"=100'

**HALLIBURTON**

Plot Time: 05-Apr-07 02:14:45  
Plot Range: 5190 ft to 5526 ft  
Data: {ActiveWell}-Well Based-DAQ-0001-003-  
Plot File: \\(not saved)\\5IN\_POR\_REPEAT

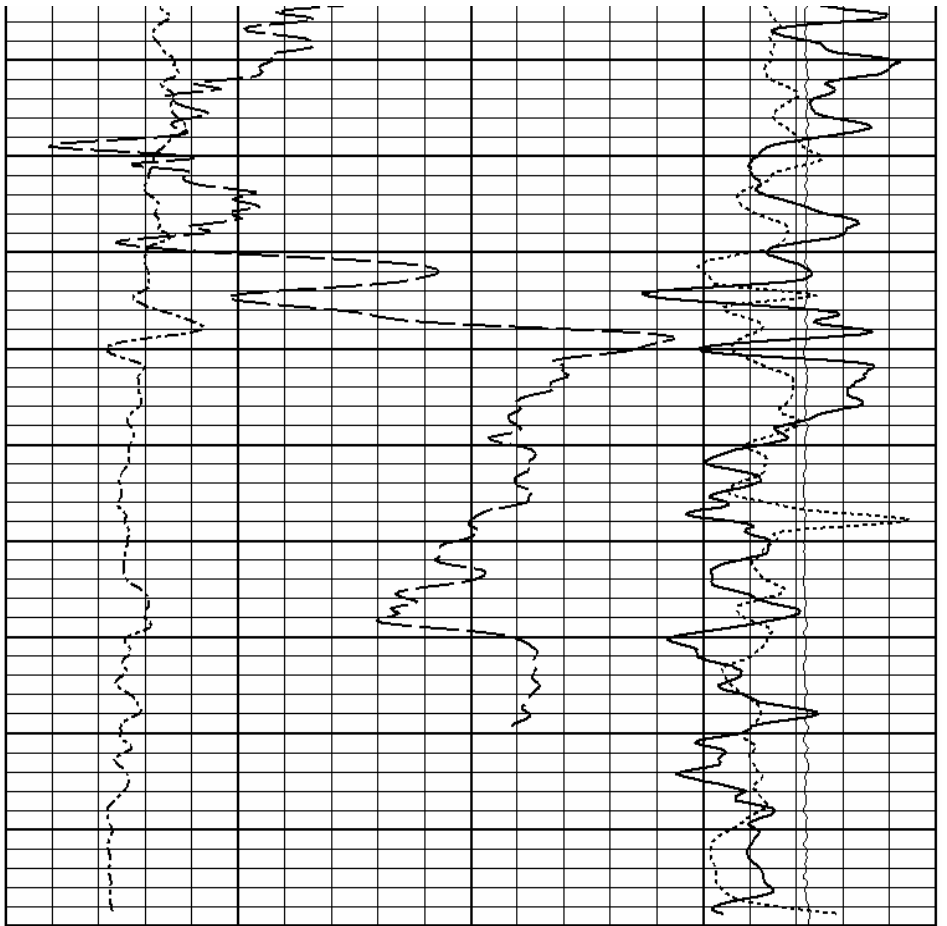
REPEAT PASS 5"=100'

-45	NearQuality	5			10K	Tension	0		
						pounds			
45	FarQuality	-5		0	Pe	10	-0.25	DensityCorr	0.25
								gram per cc	
10	Caliper	20		60	DensityPorosity				0
	inches				percent				
0	Gamma API	150		60	Neutron Porosity				0





5400



5500

0	Gamma API	150
	api	
10	Caliper	20
	inches	
45	FarQuality	-5
-45	NearQuality	5

MD  
1 : 240

60	Neutron Porosity		0
	percent		
60	Density Porosity		0
	percent		
0	Pe	10	-0.25
			DensityCorr
			gram per cc
		10K	Tension
			pounds
			0

**HALLIBURTON**

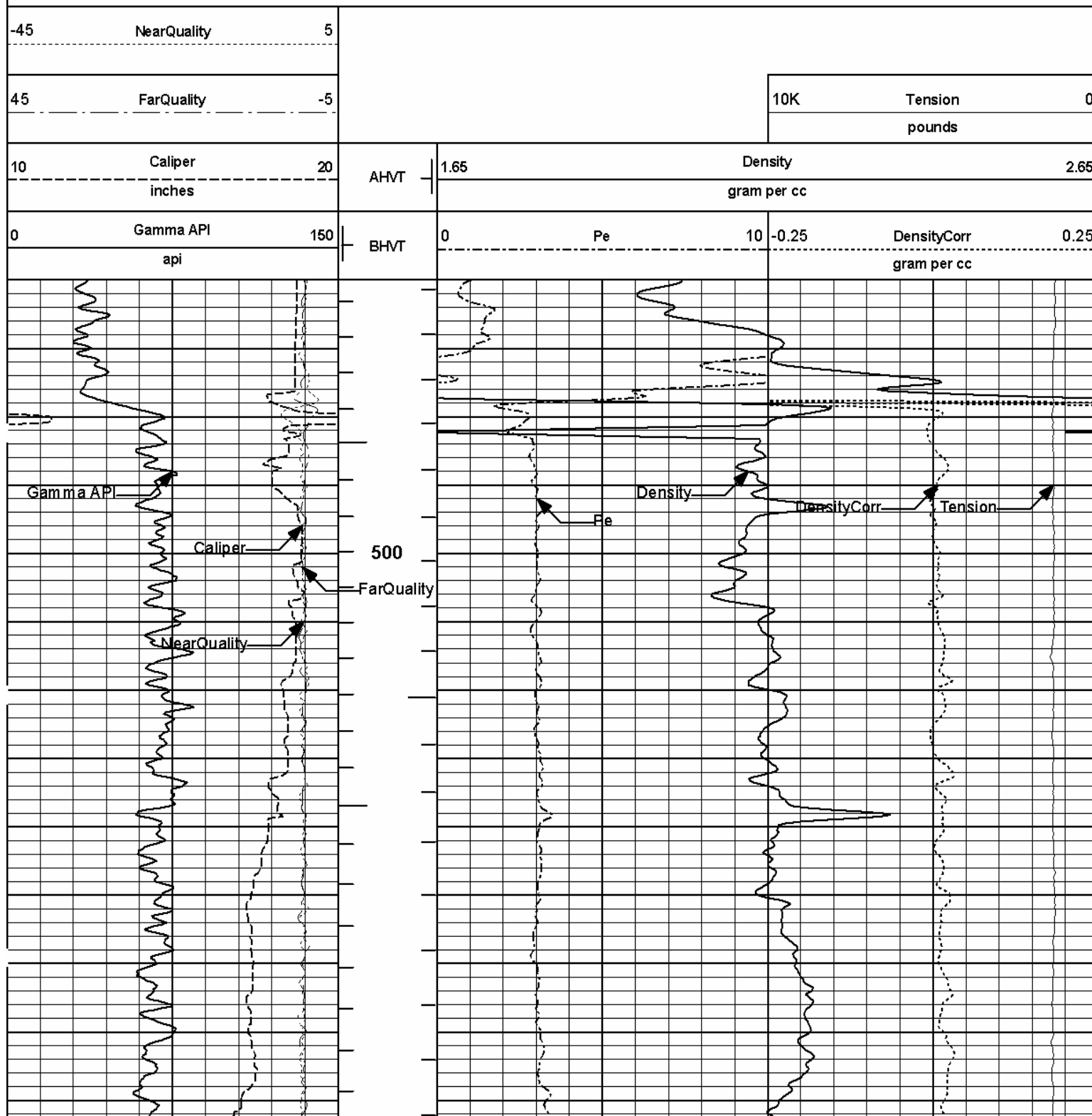
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 Plot Range: 5190 ft to 5526 ft  
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 Plot File: \\(not saved)\\5IN\_POR\_REPEAT

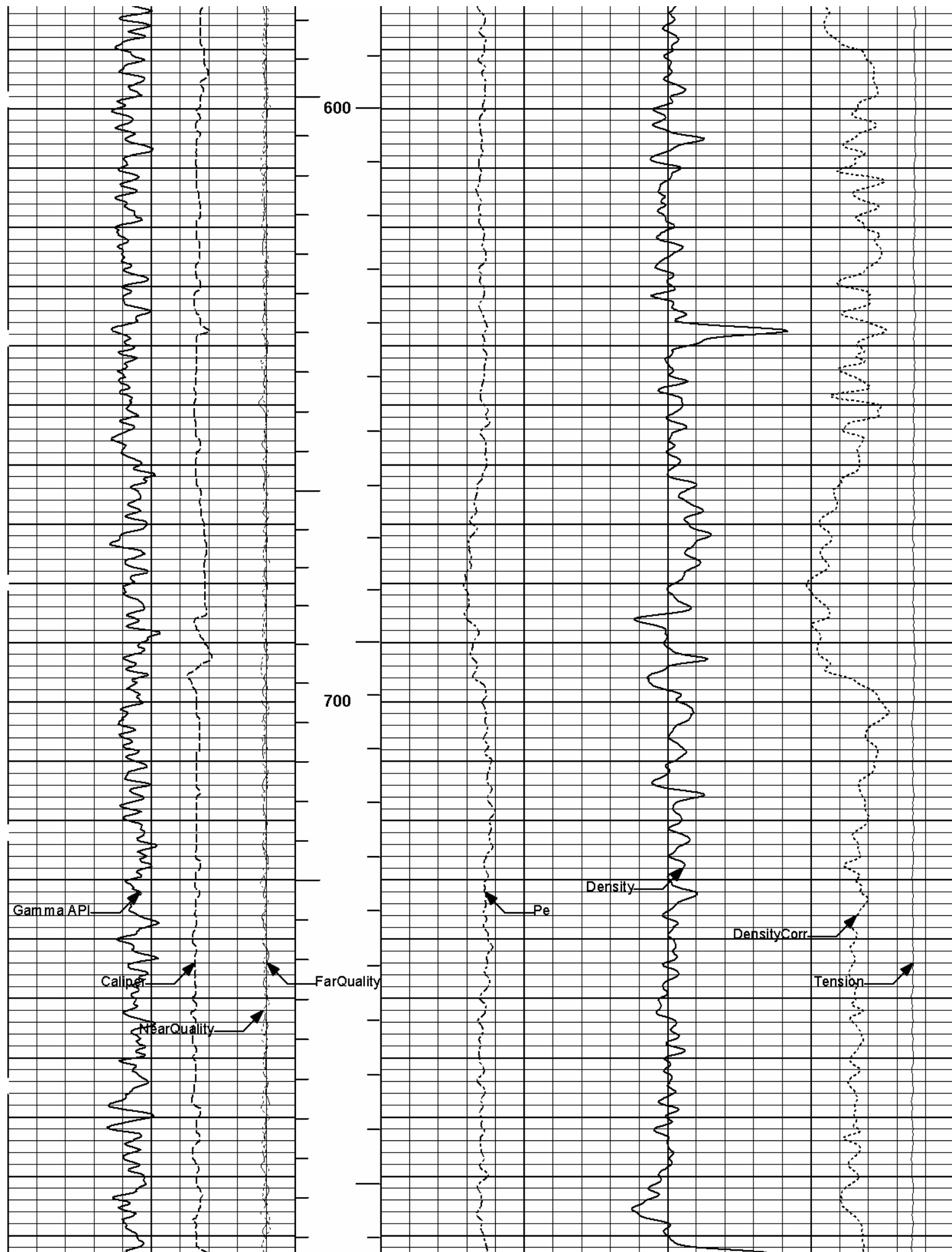
REPEAT PASS 5"=100'

**HALLIBURTON**

Plot Time: 05-Apr-07 02:14:47  
Plot Range: 460 ft to 5528 ft  
Data: {ActiveWell}-Well Based-DAQ Current-  
Plot File: \\(not saved)\\5IN\_RHOB

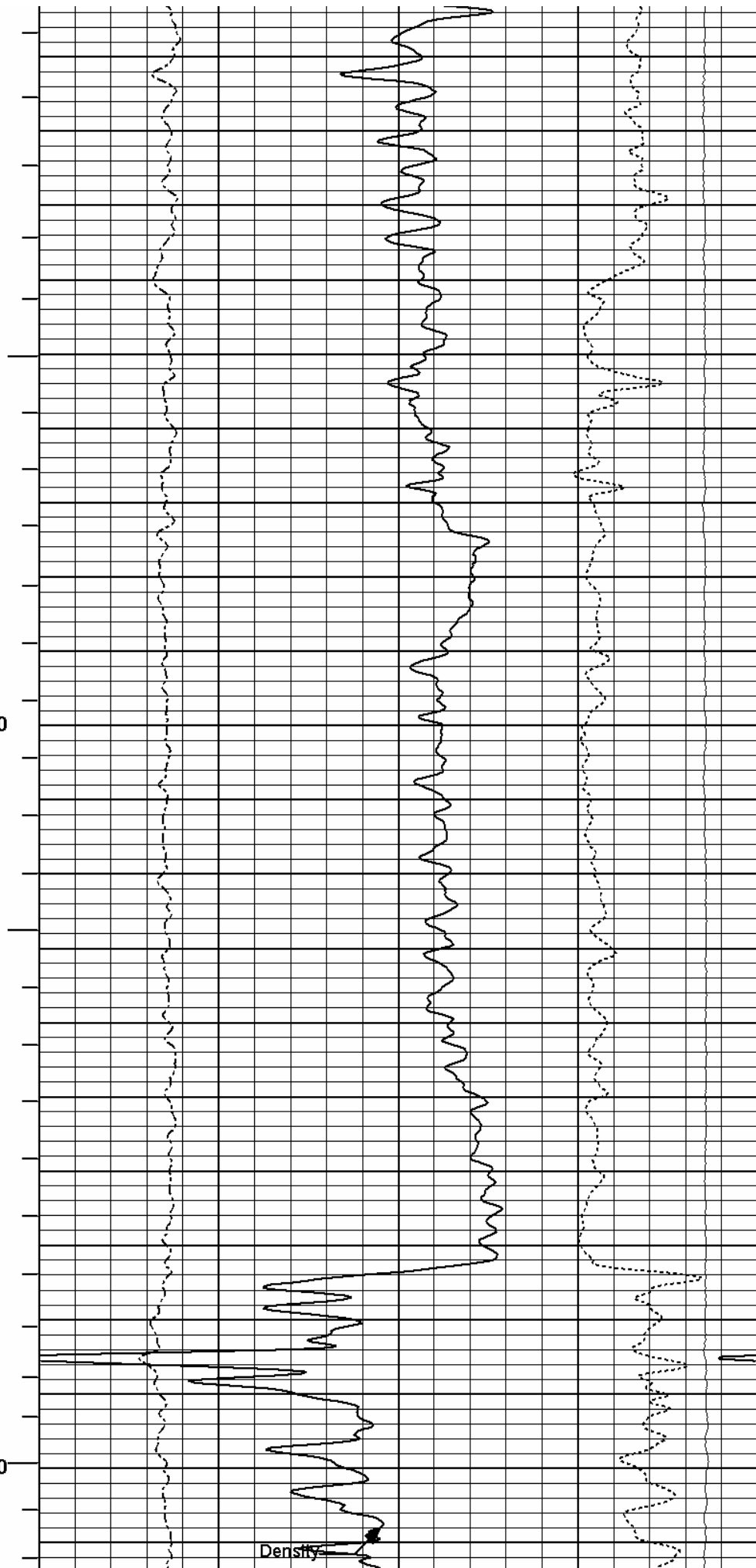
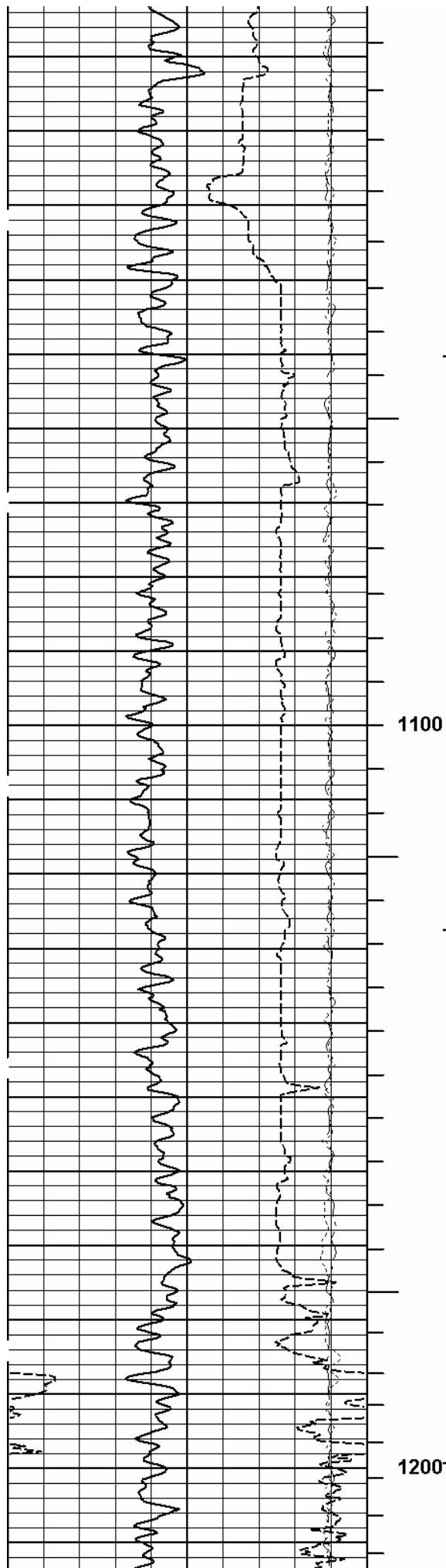
RHOB MAIN PASS 5"=100'

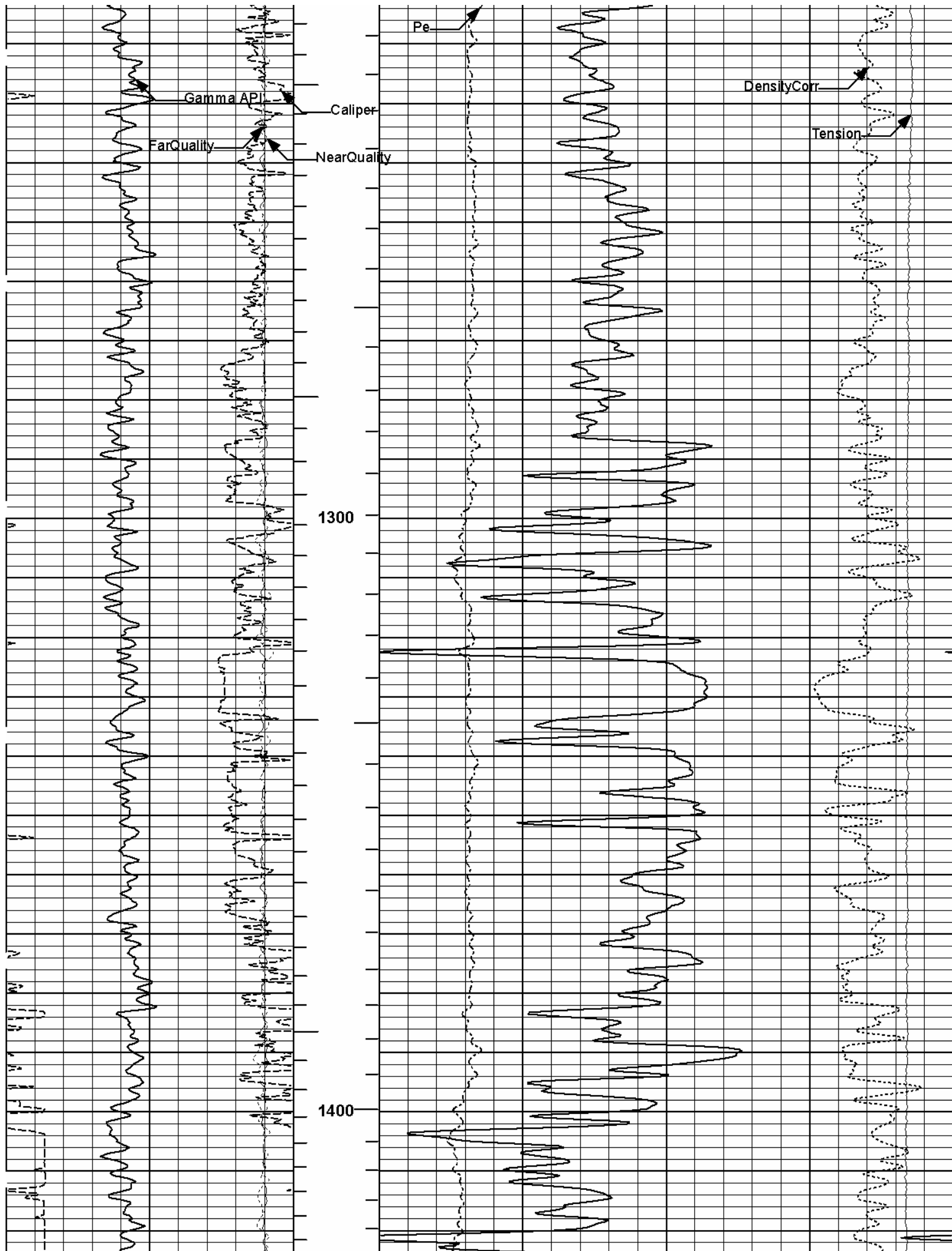


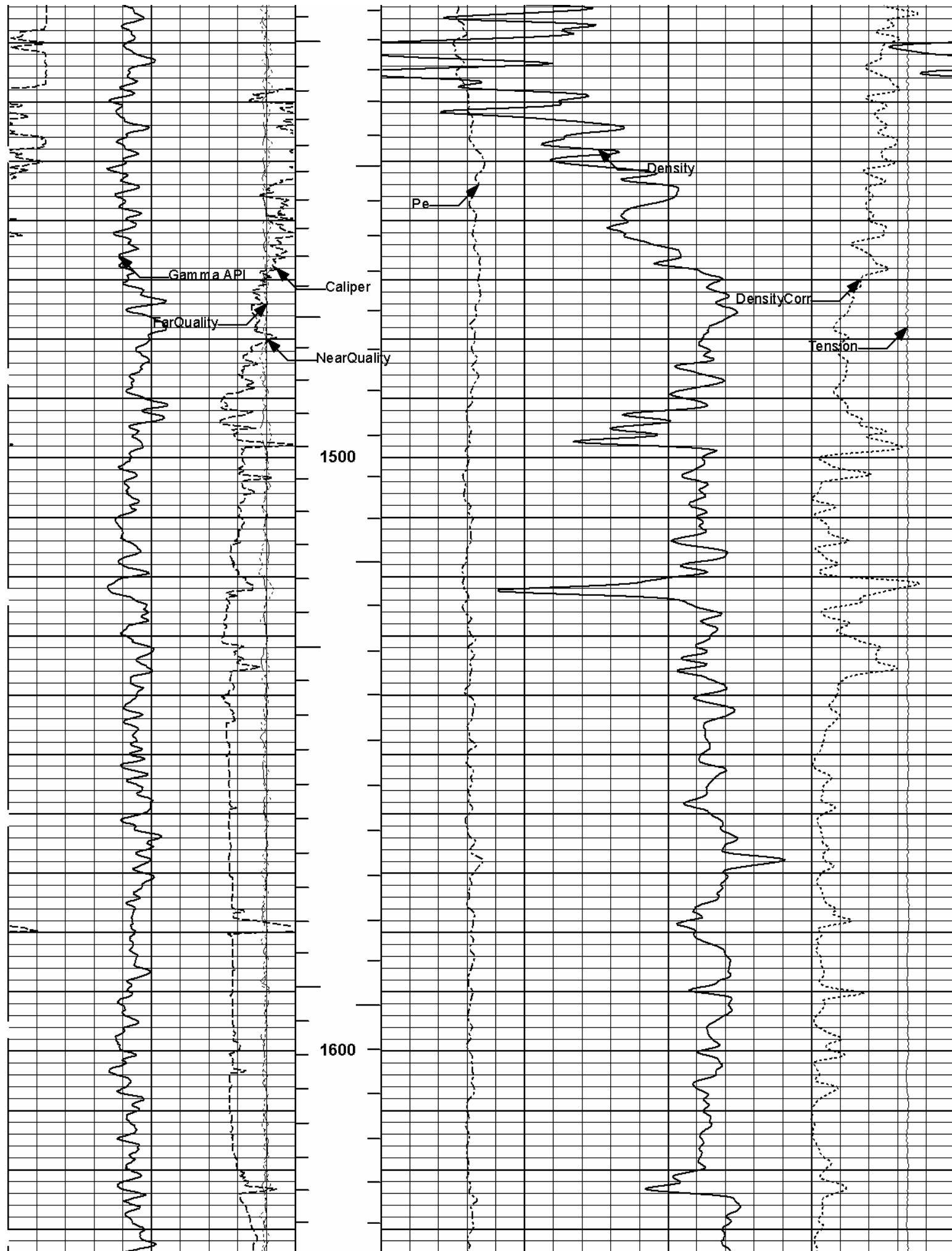


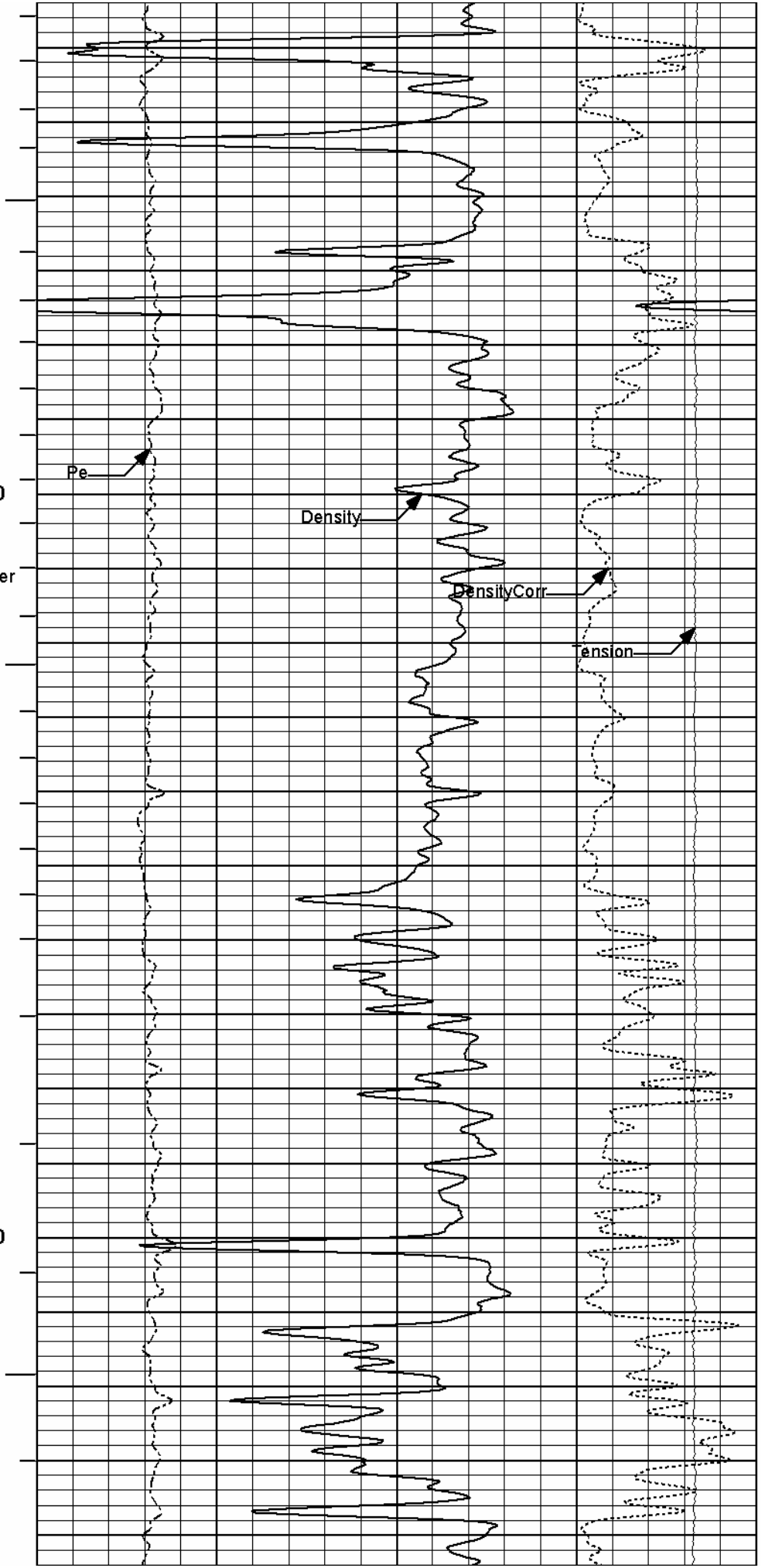
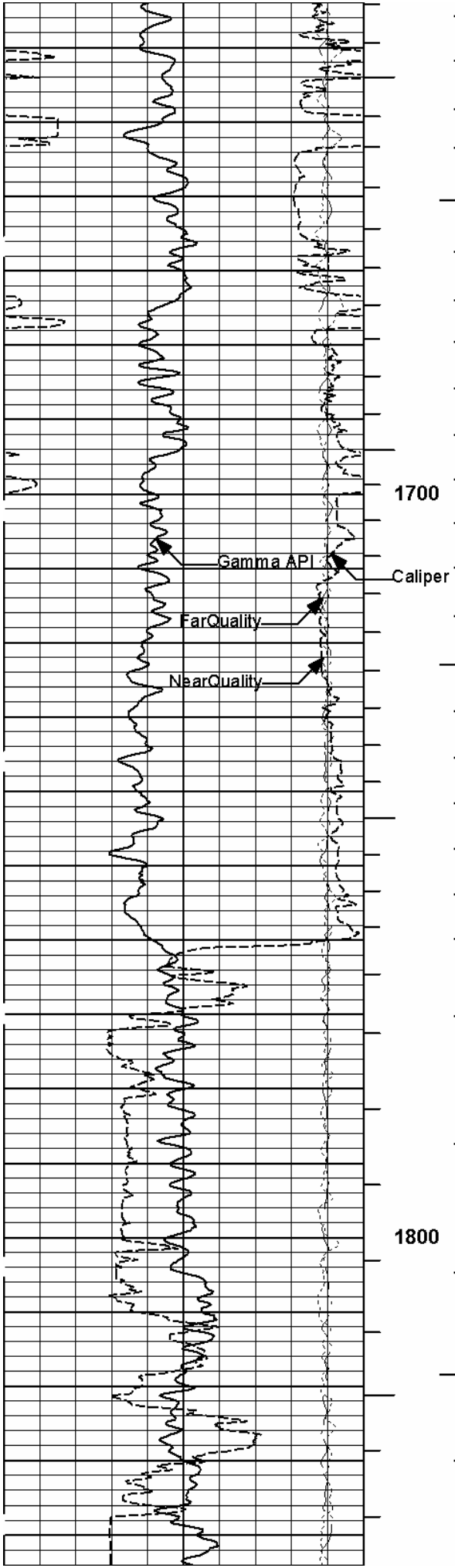


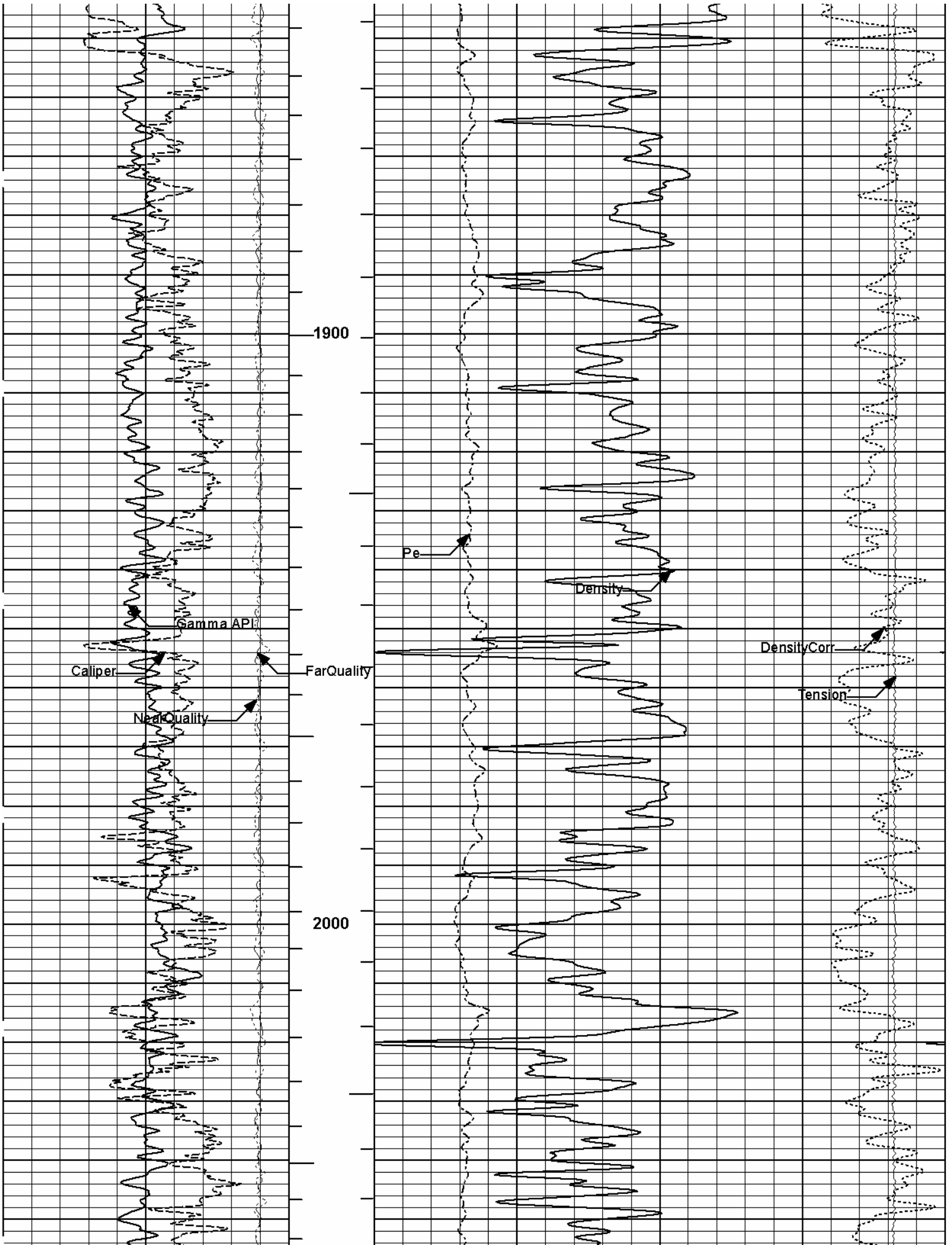


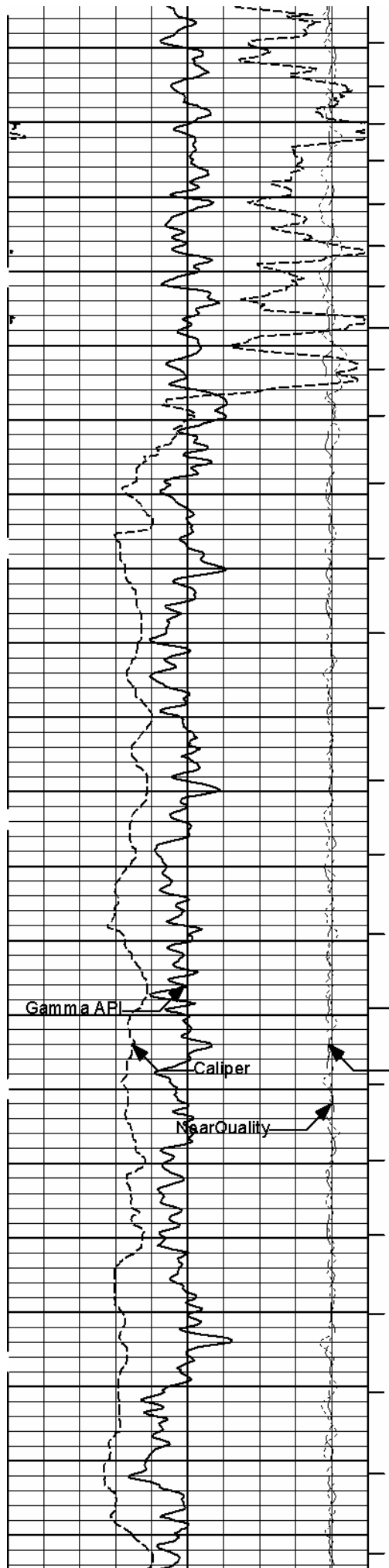






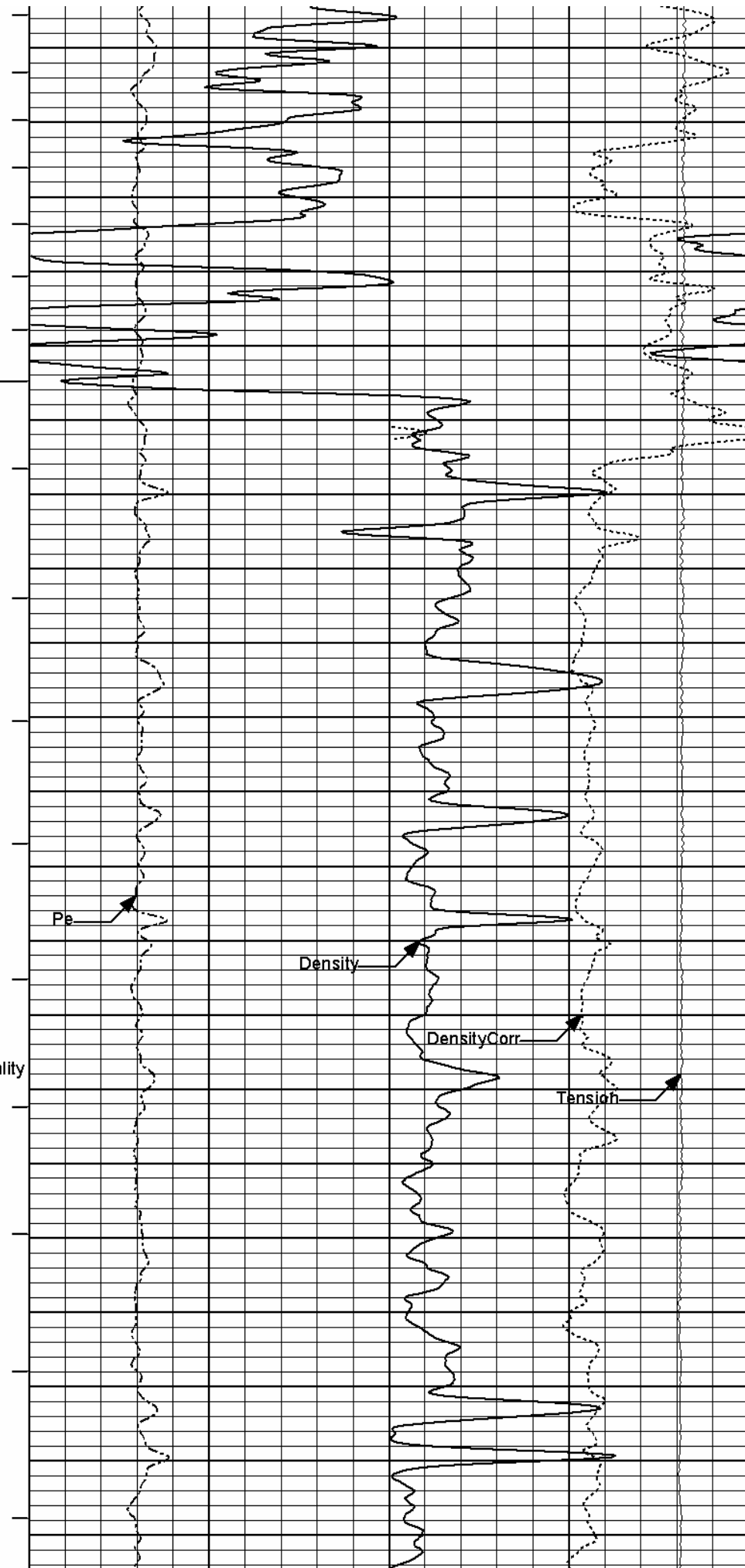


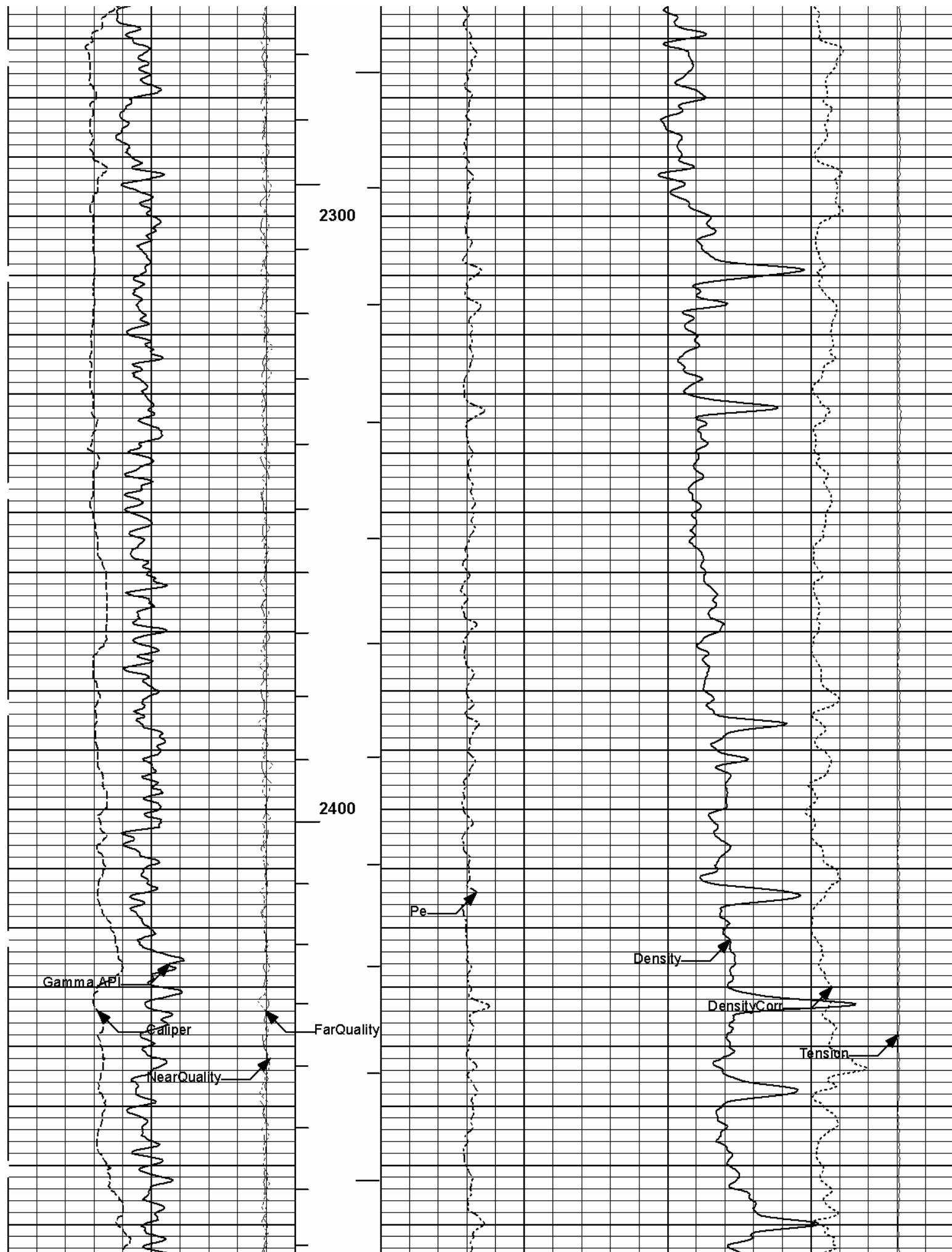




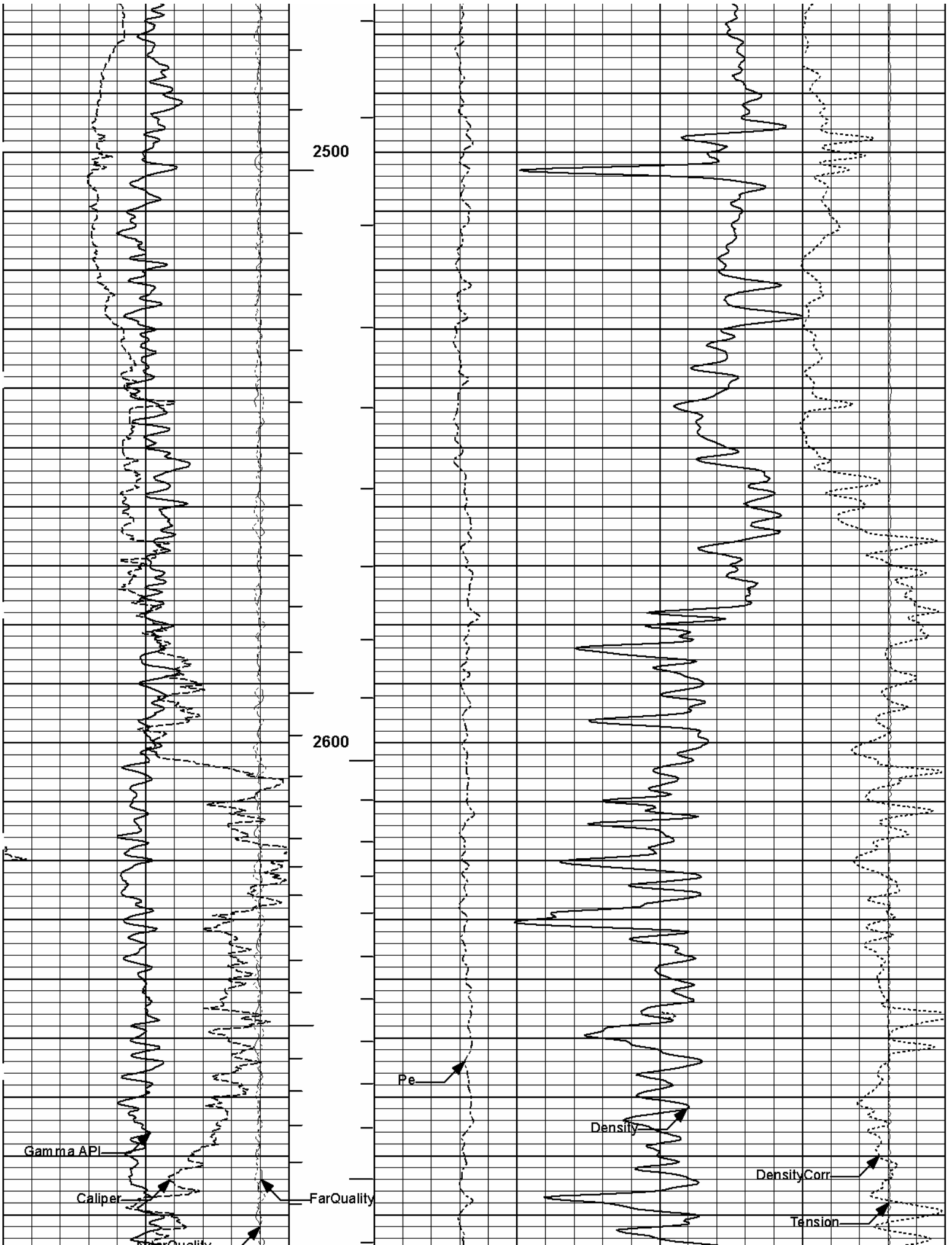
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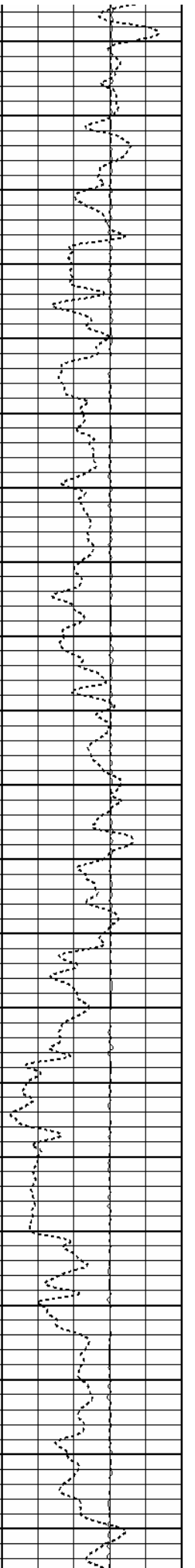
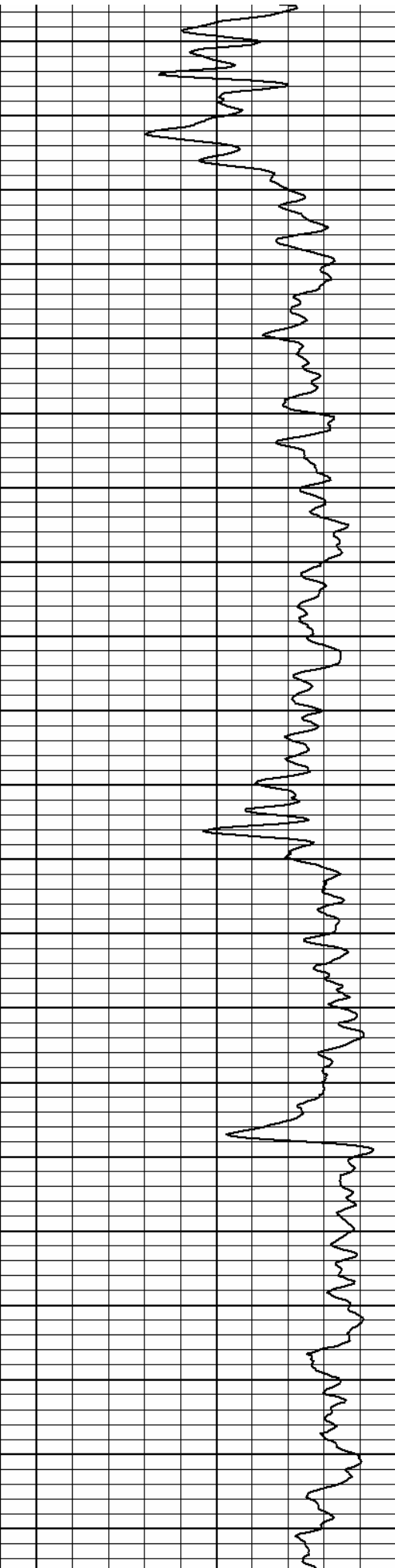
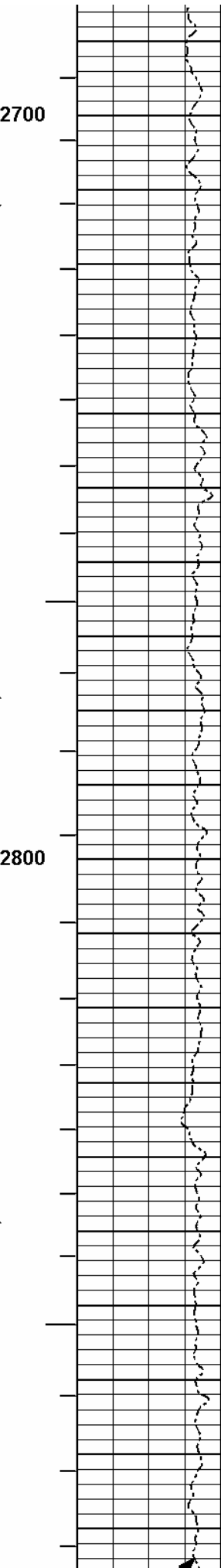
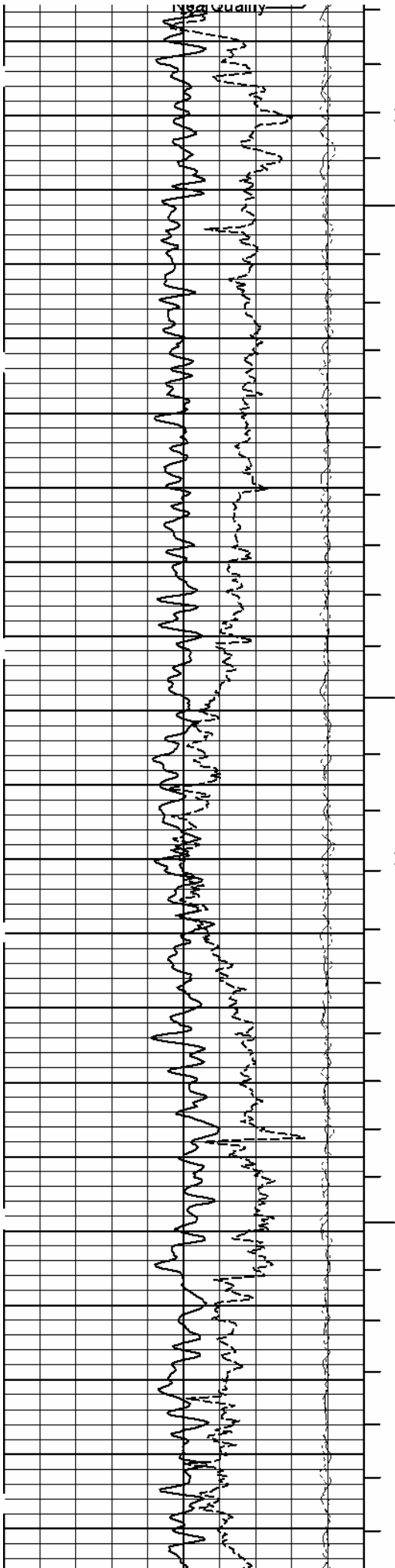
FarQuality  
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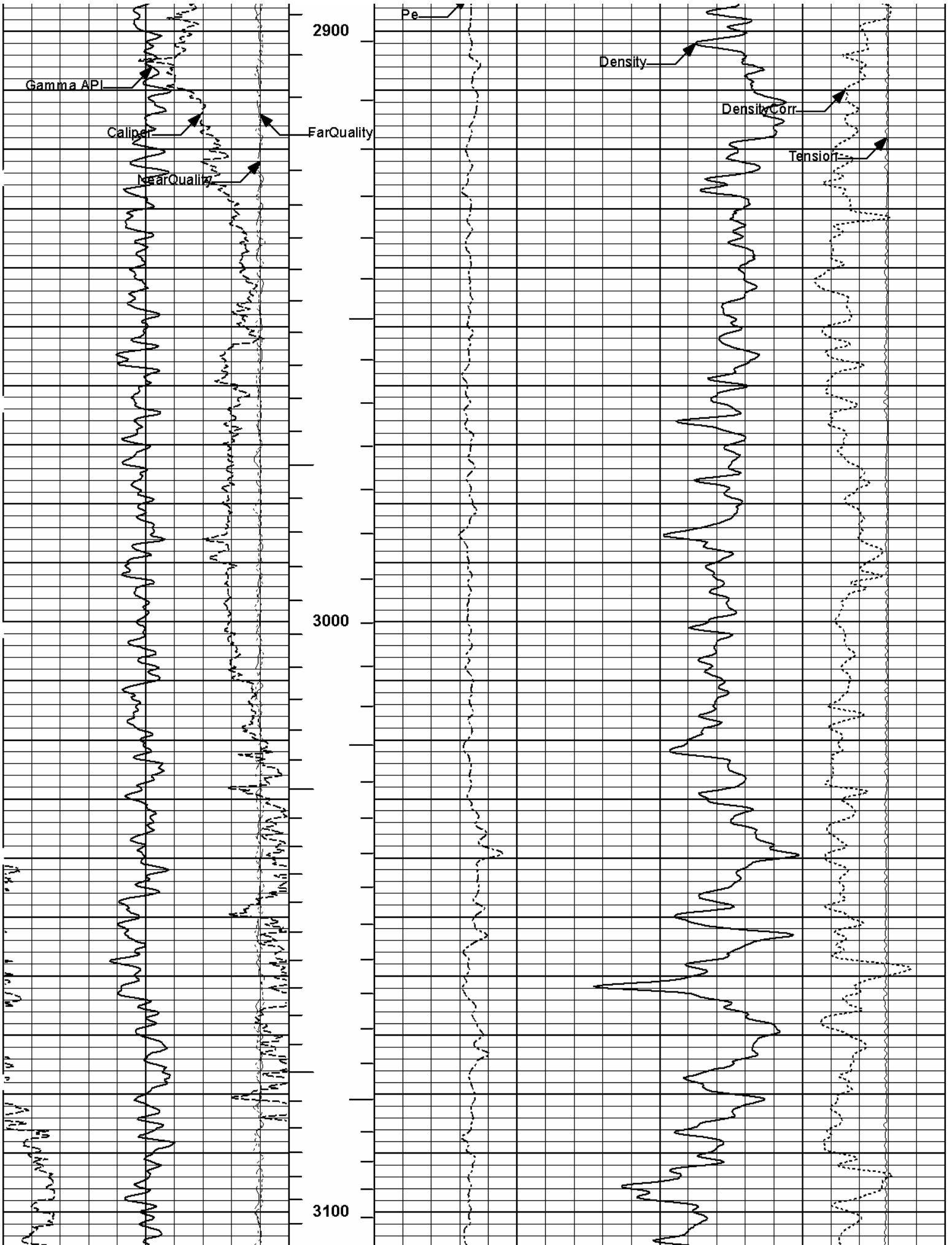


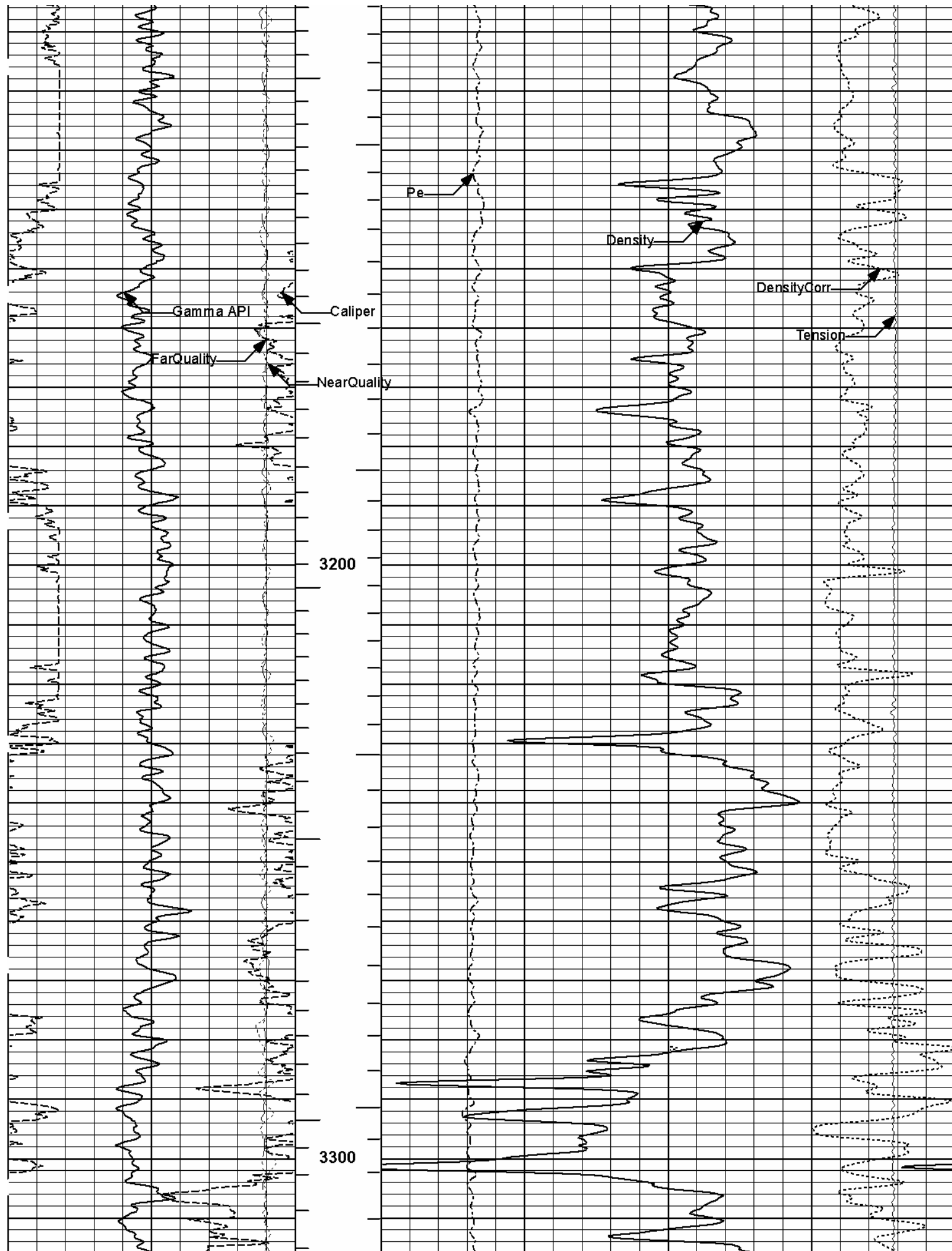


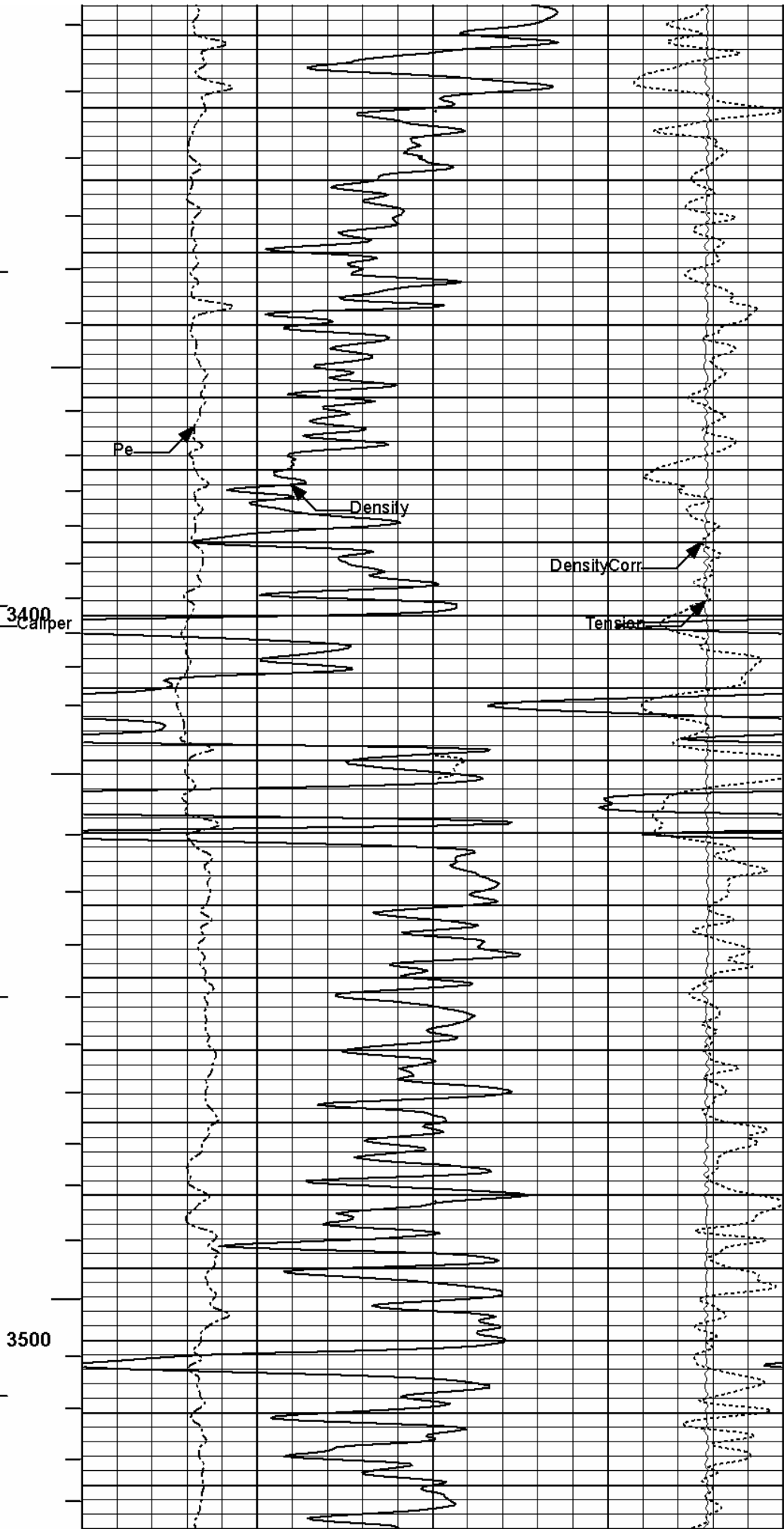
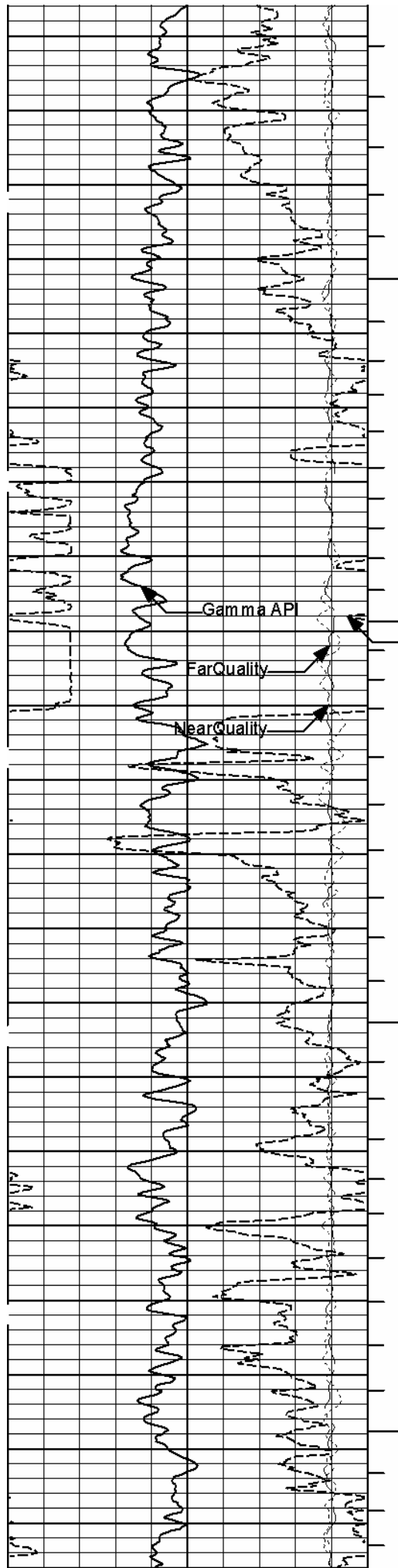


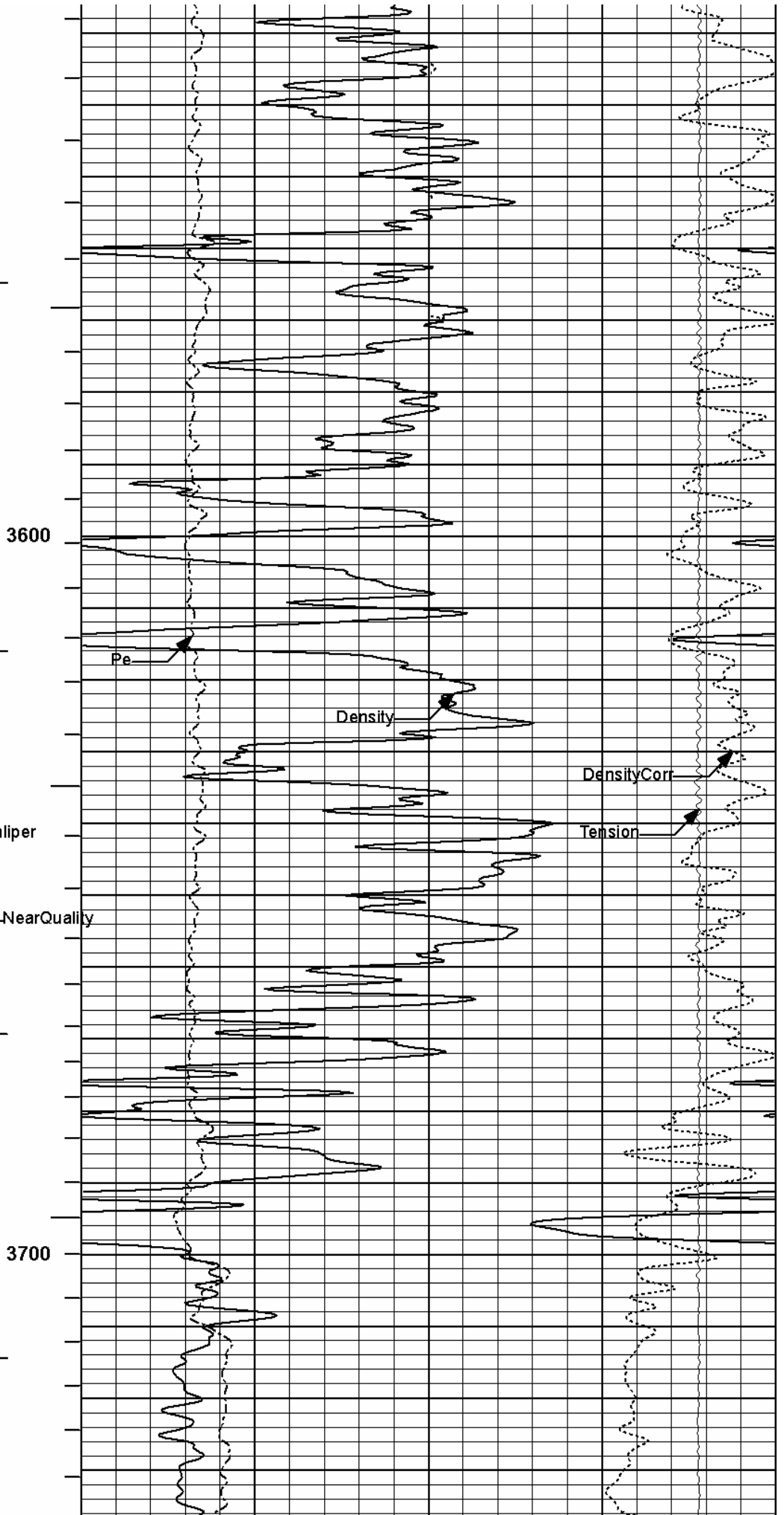
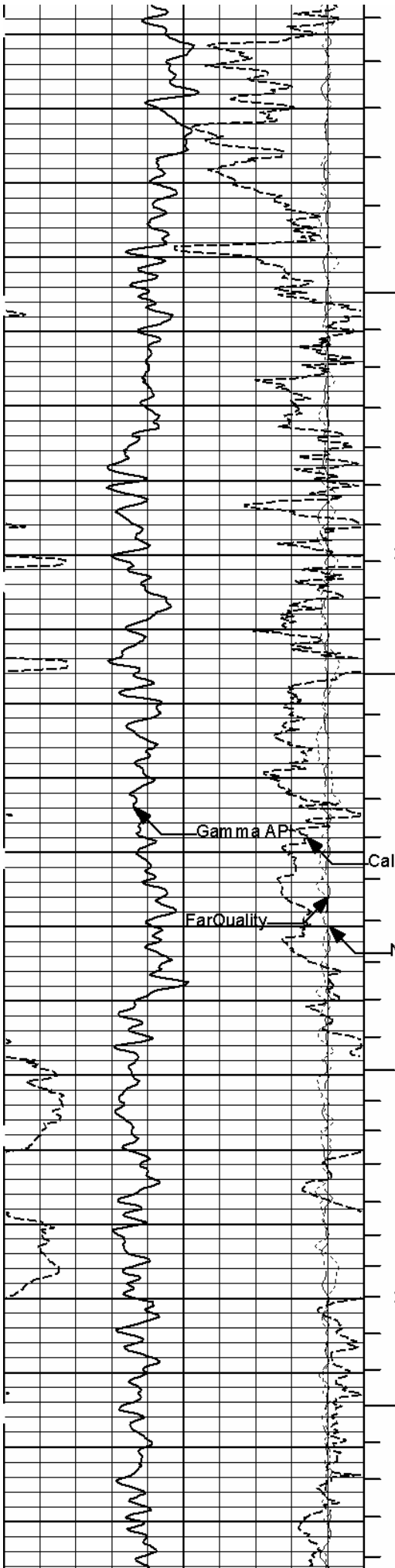


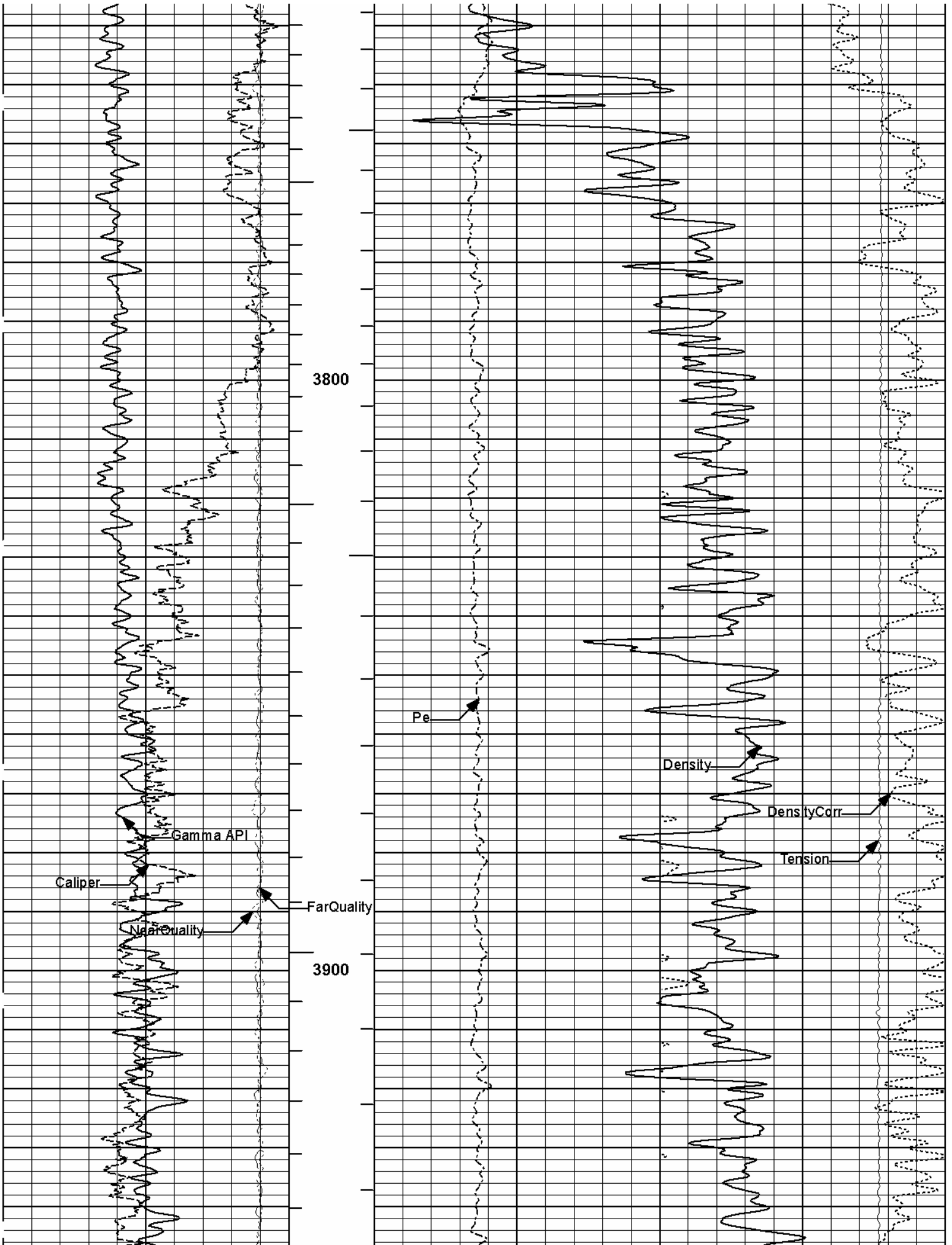


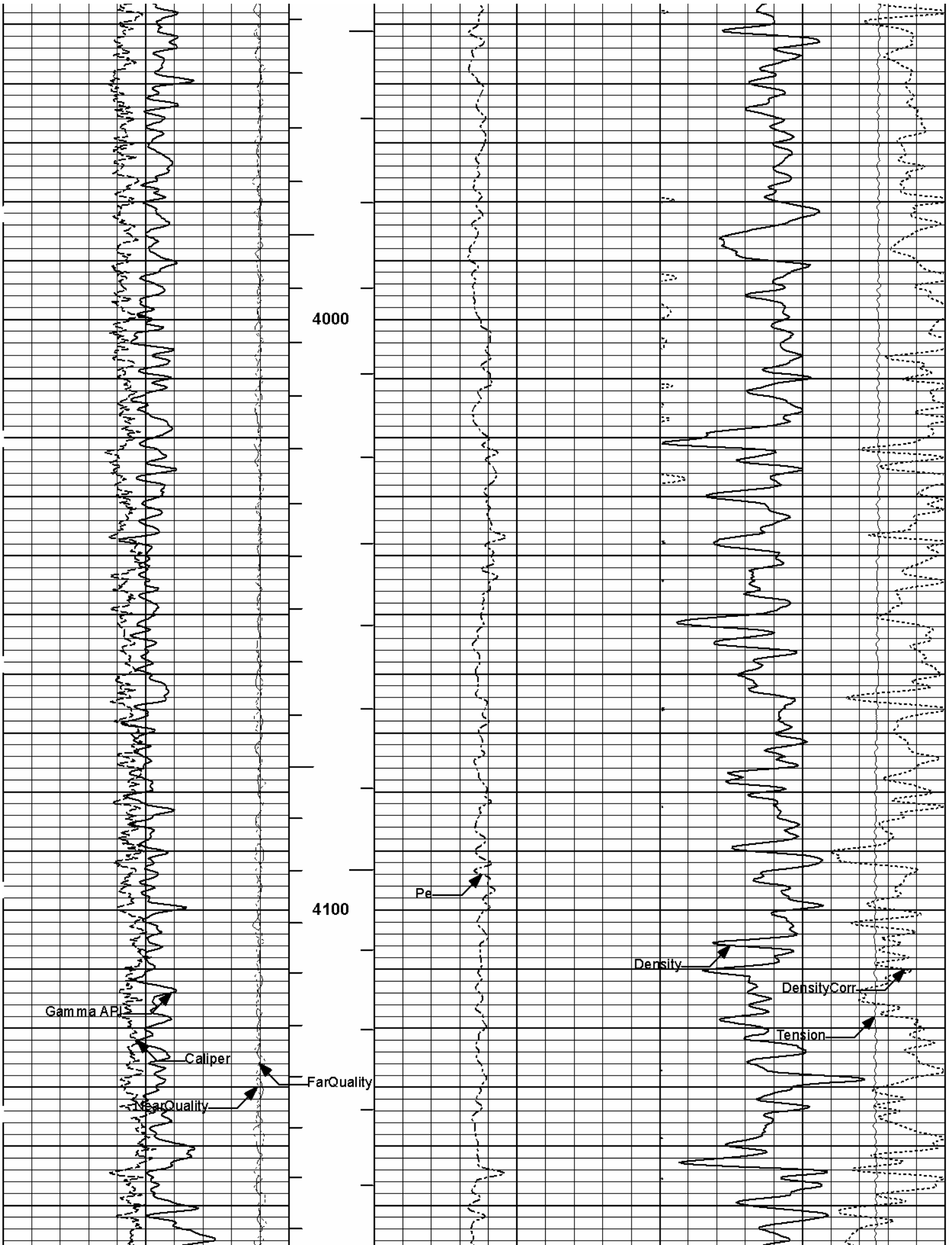




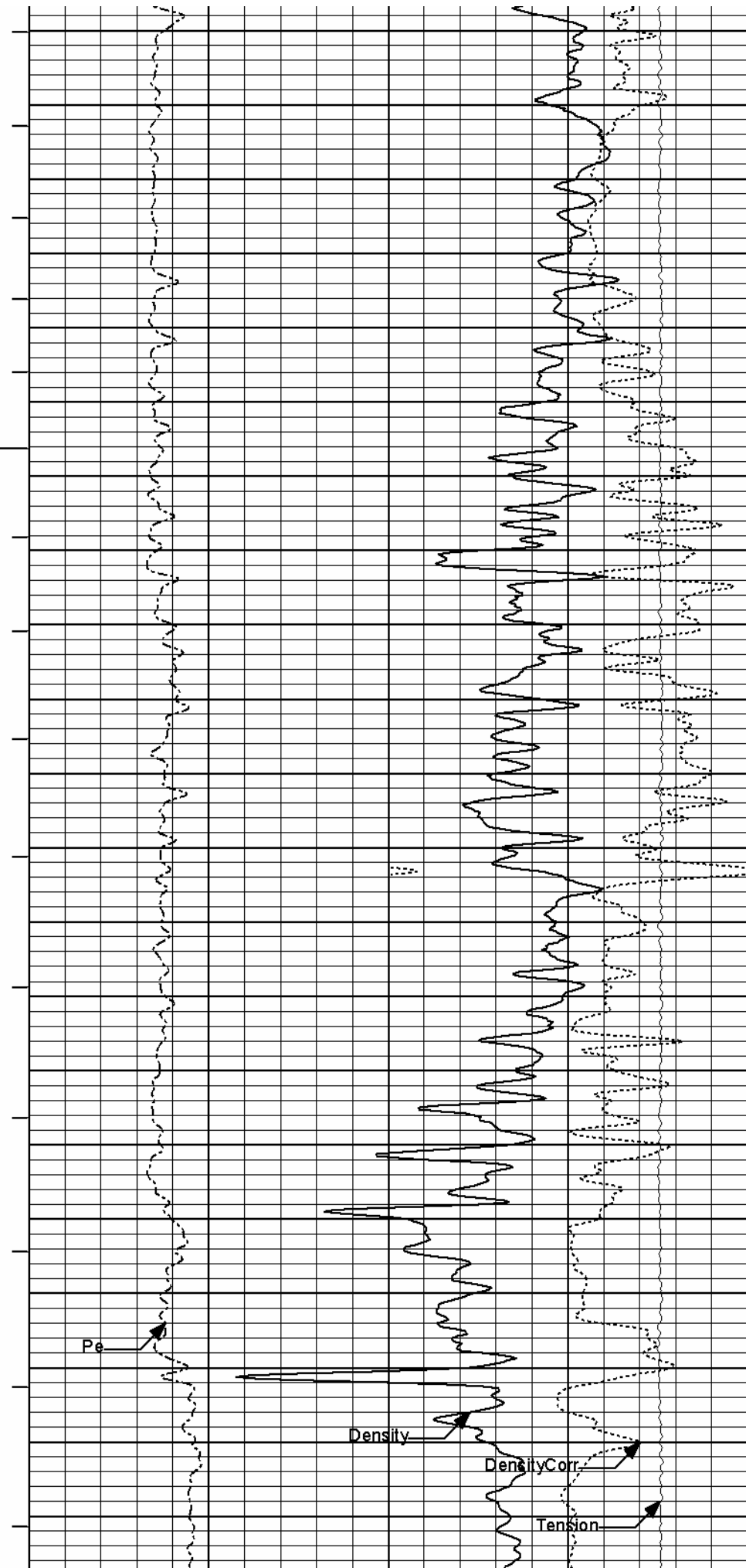
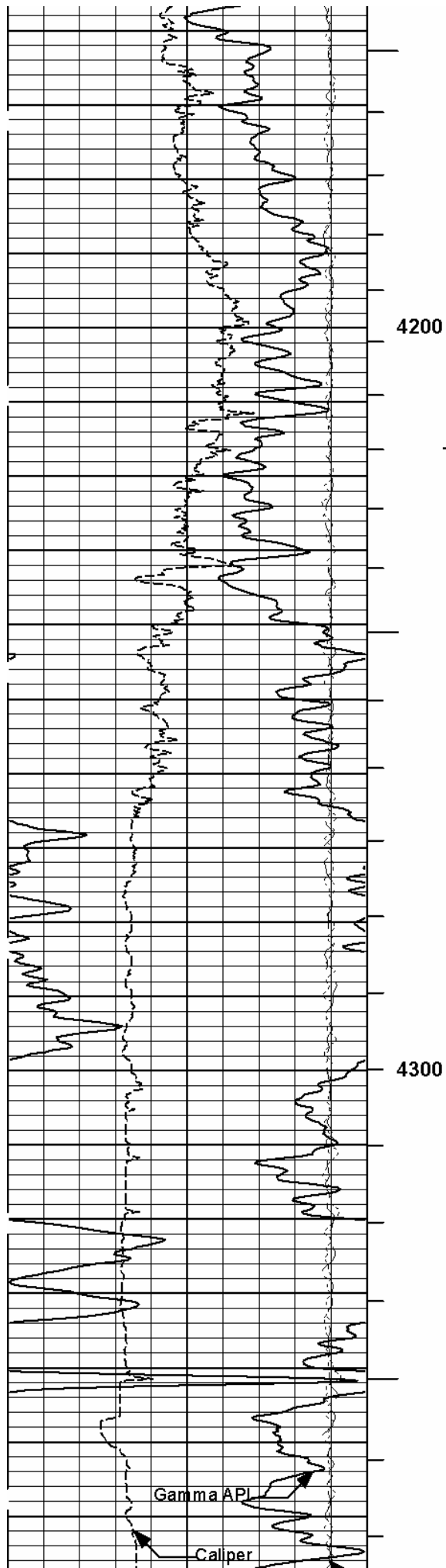


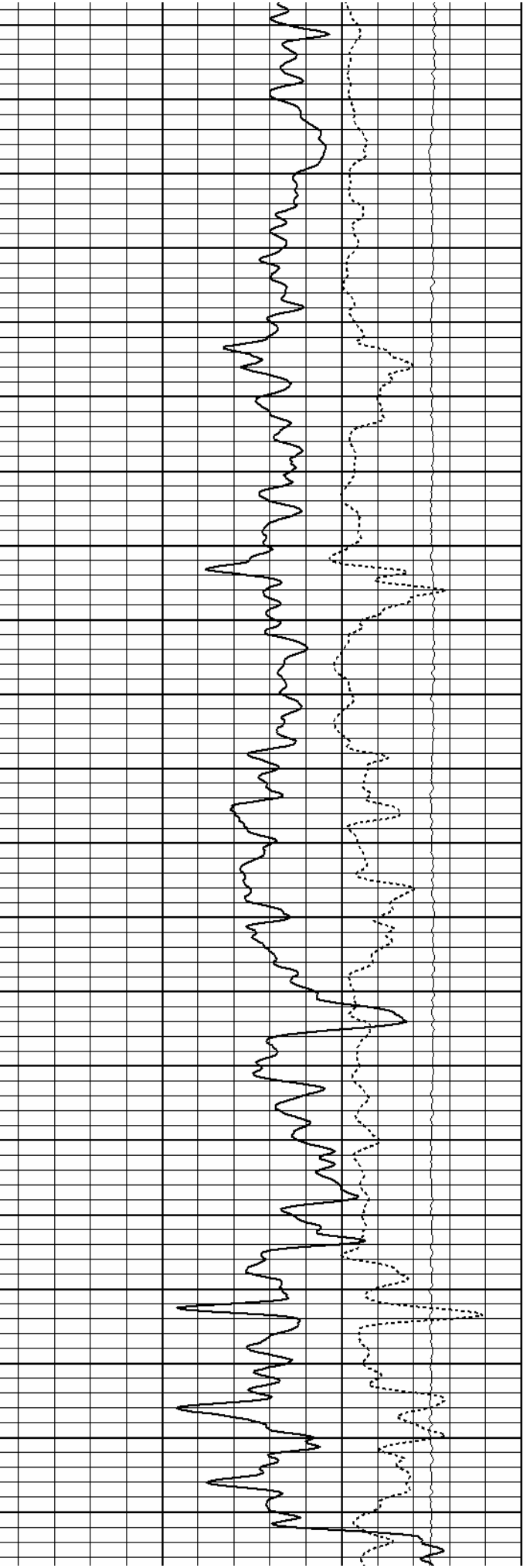
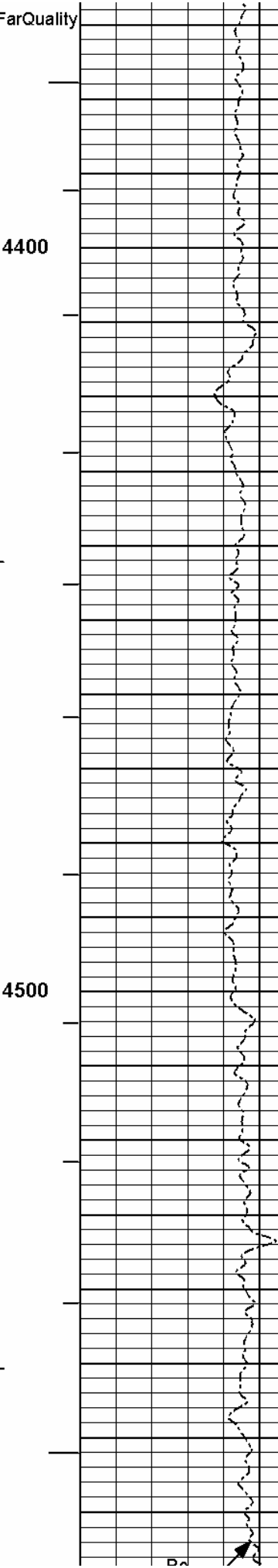
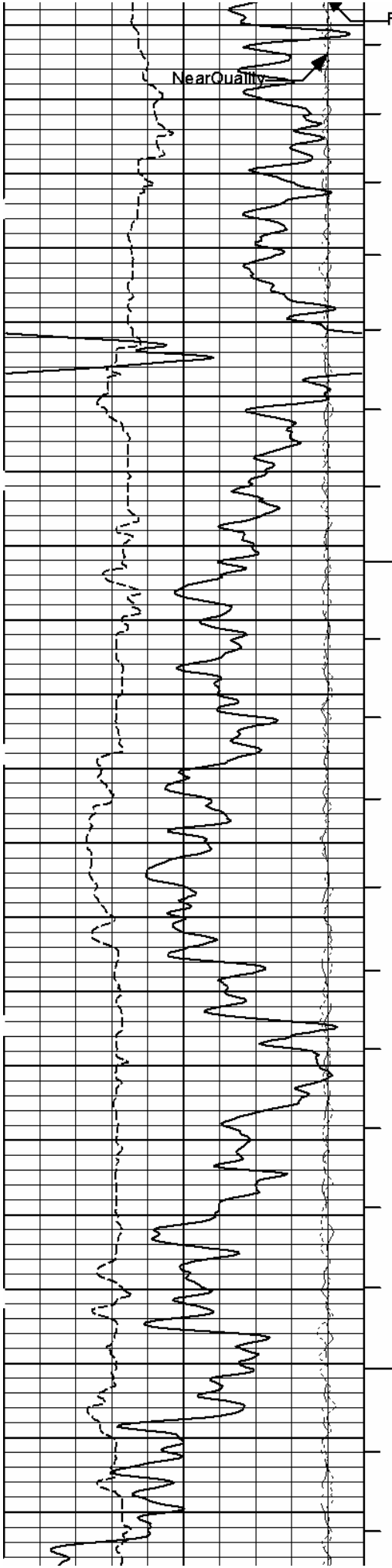


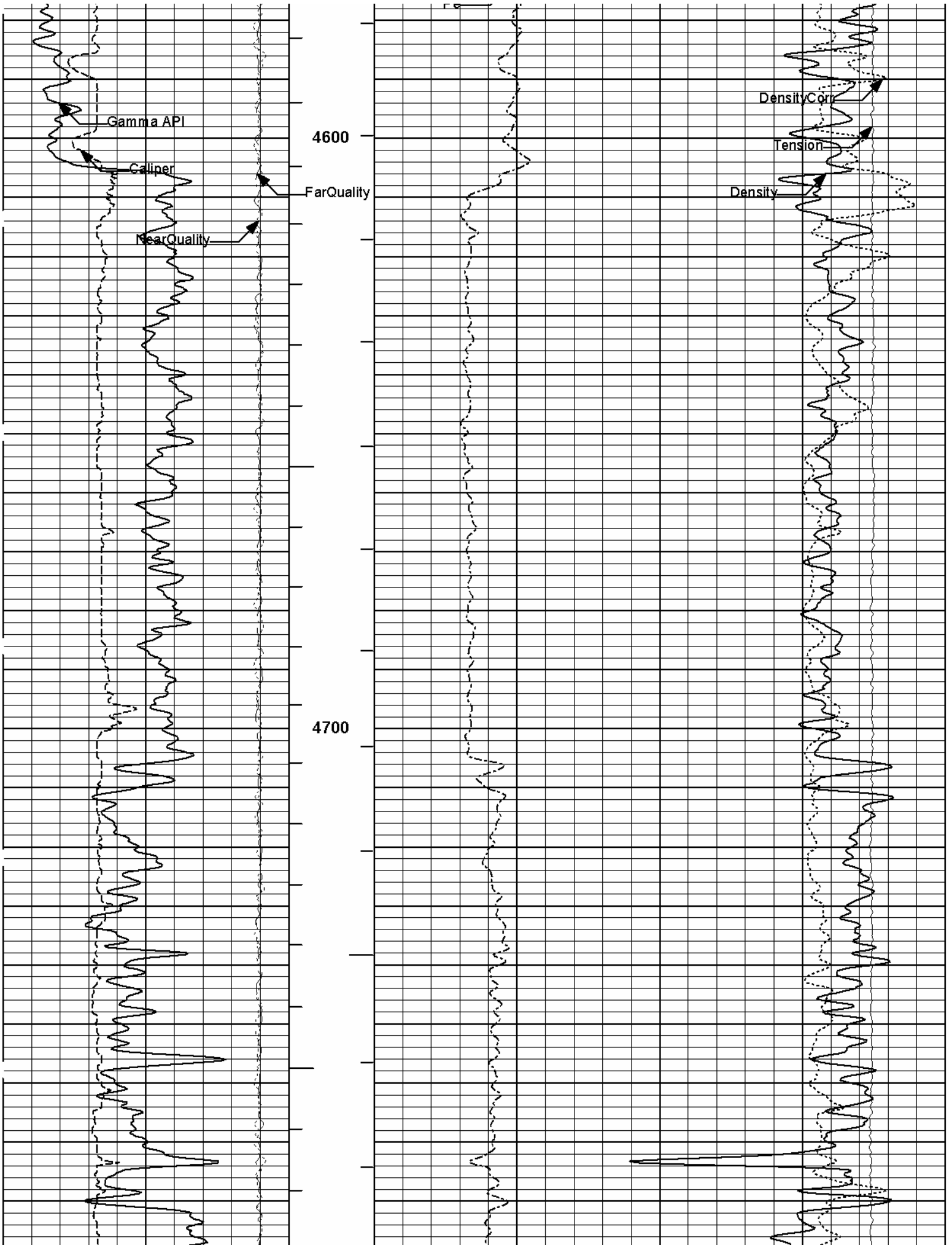


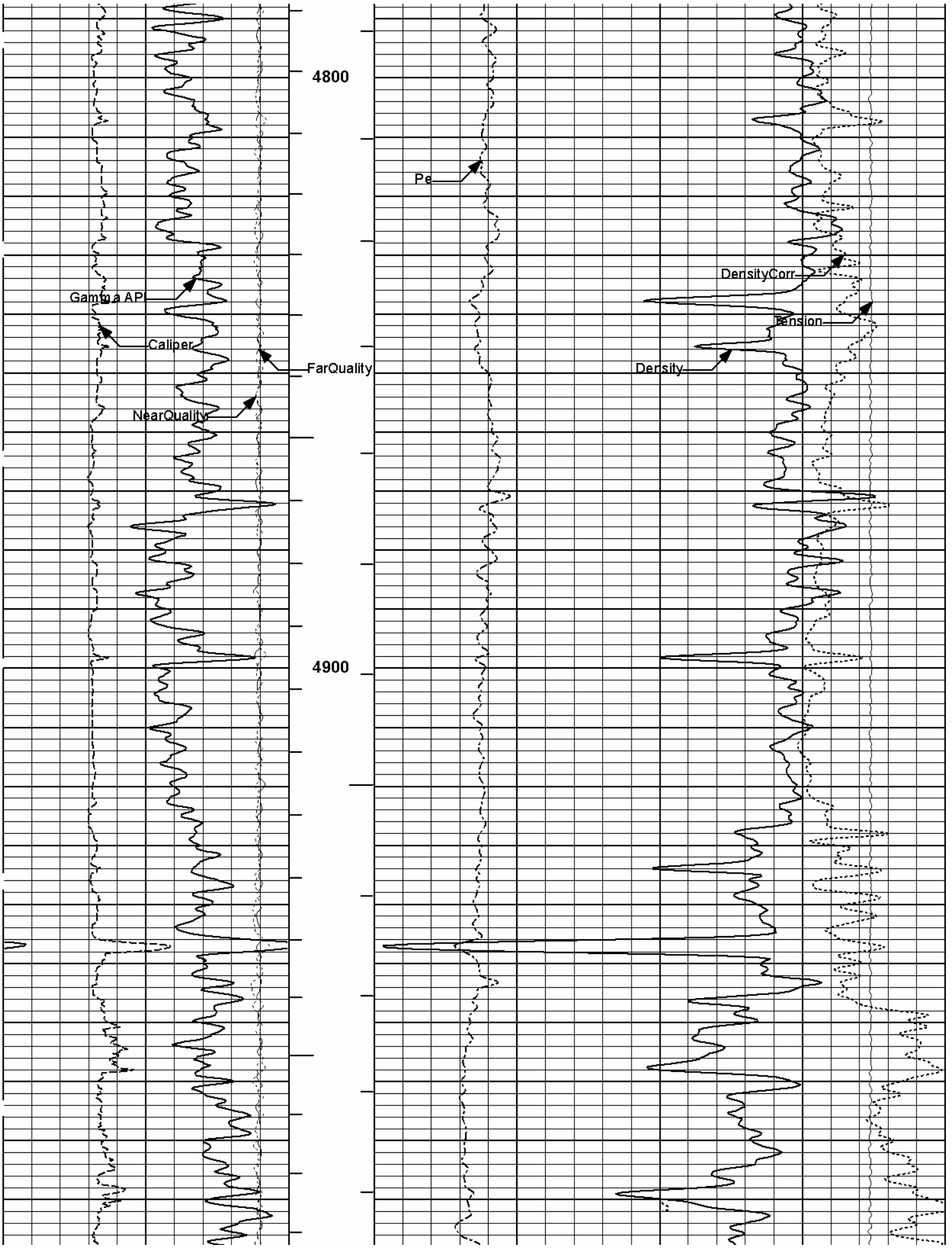


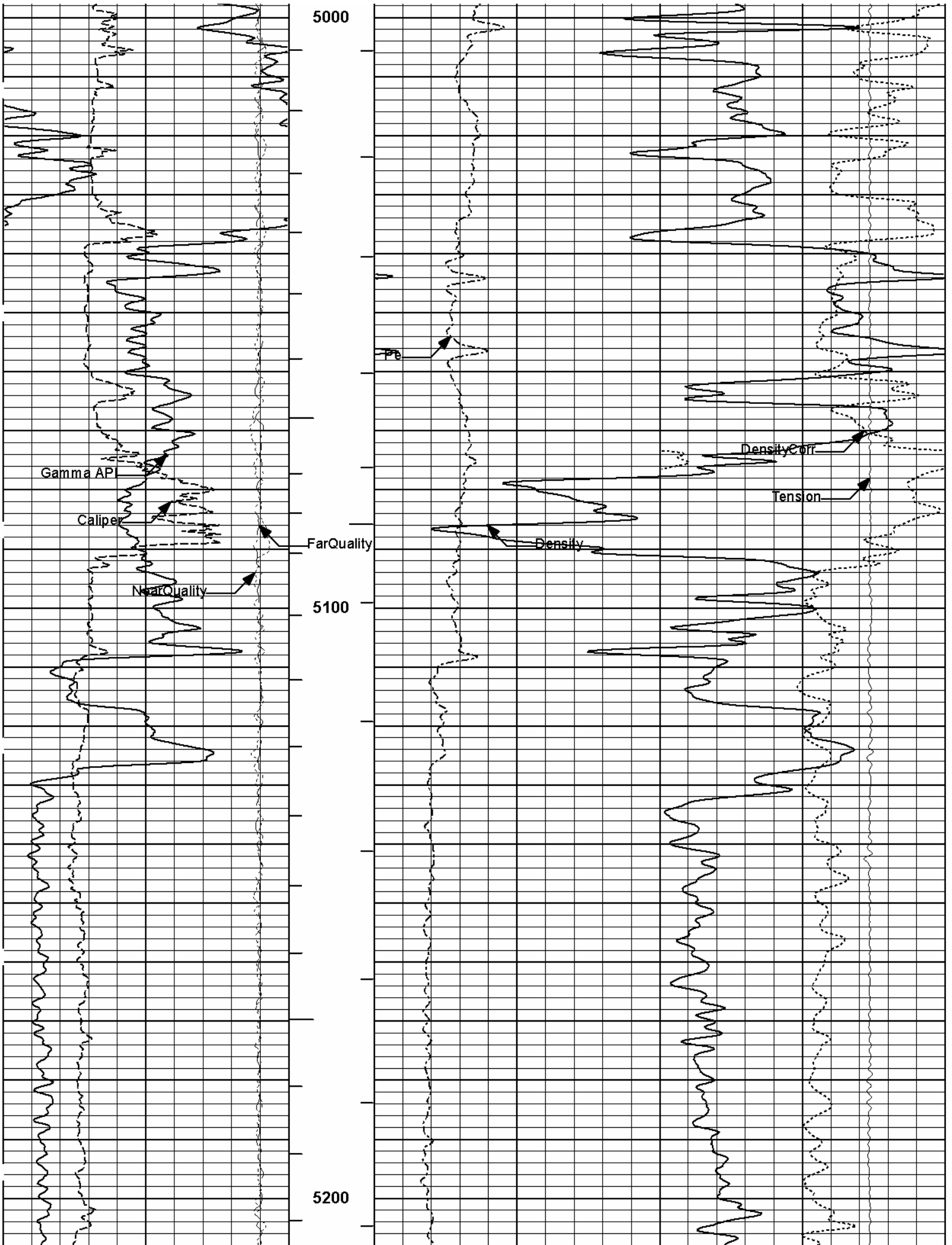


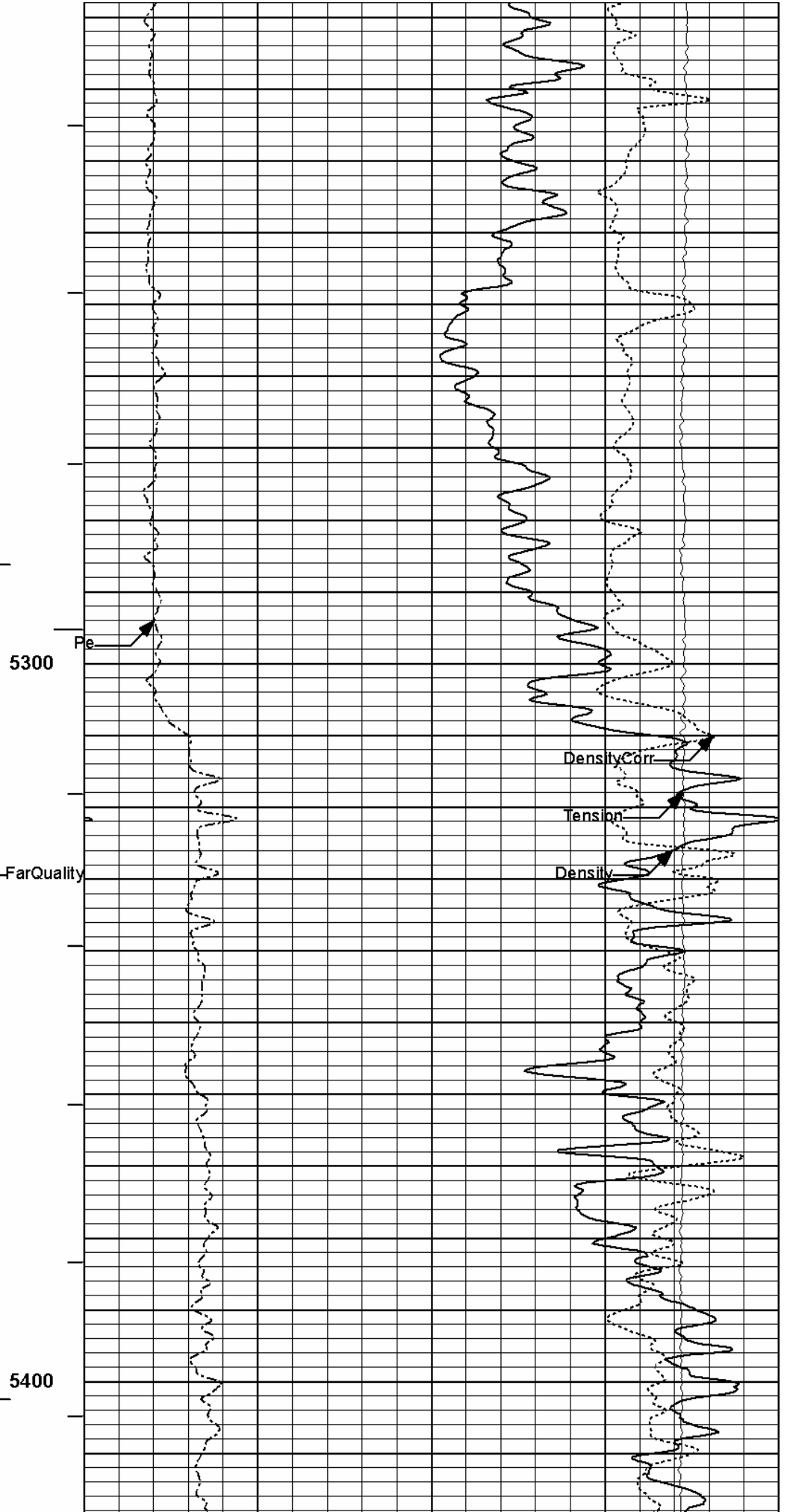
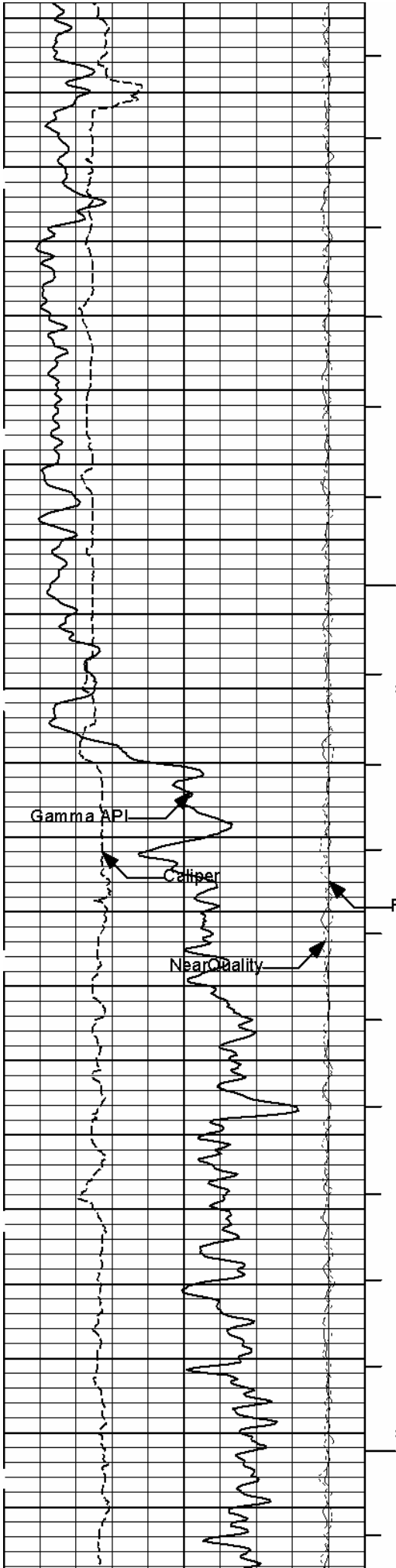


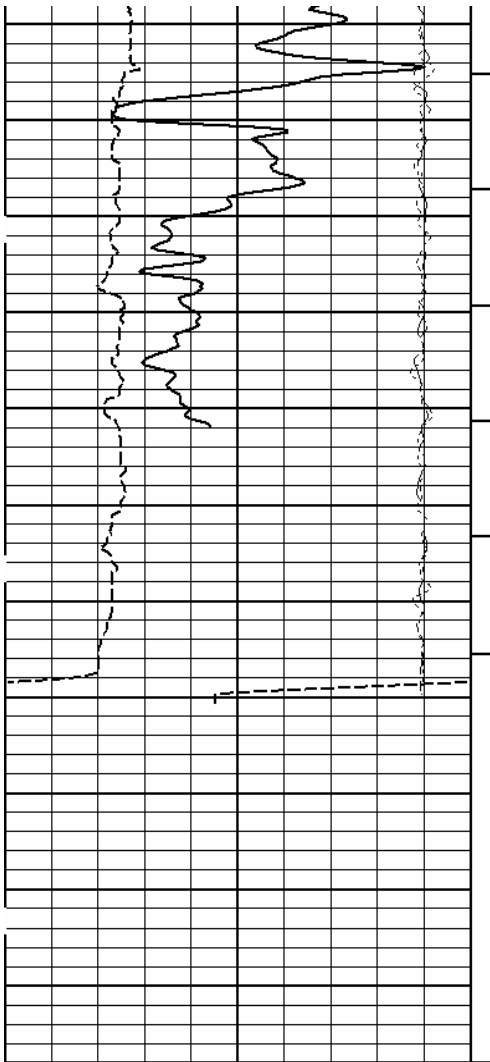




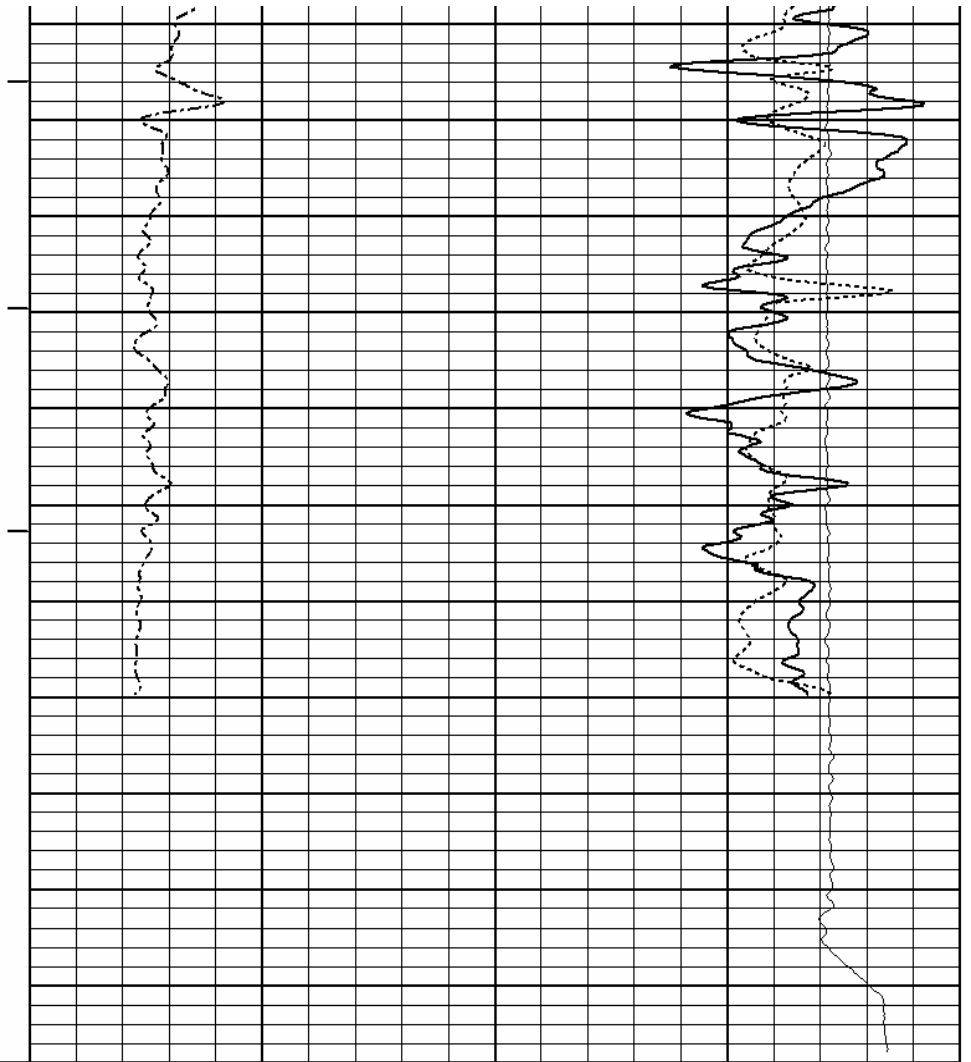








5500



0	Gamma API	150	BHVT	0	Pe	10	-0.25	DensityCorr	0.25
	api							gram per cc	
10	Caliper	20	AHVT	1.65	Density			2.65	
	inches				gram per cc				
45	FarQuality	-5					10K	Tension	0
								pounds	
-45	NearQuality	5							

**HALLIBURTON**

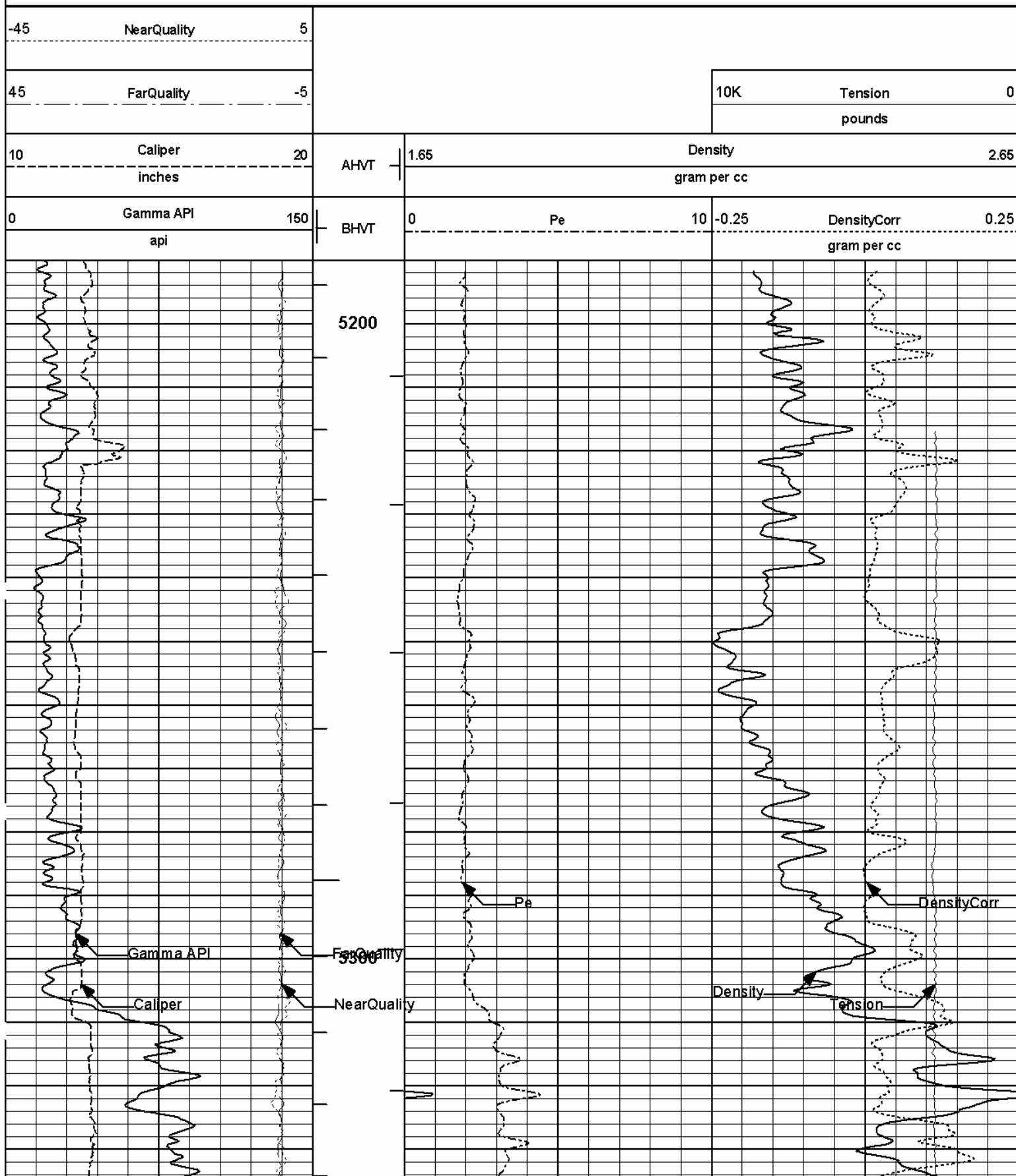
Plot Time: 05-Apr-07 02:14:51  
Plot Range: 460 ft to 5528 ft  
Data: {ActiveWell}-Well Based-DAQ Current-  
Plot File: \\(not saved)\\5IN\_RHOB

RHOB MAIN PASS 5"=100'

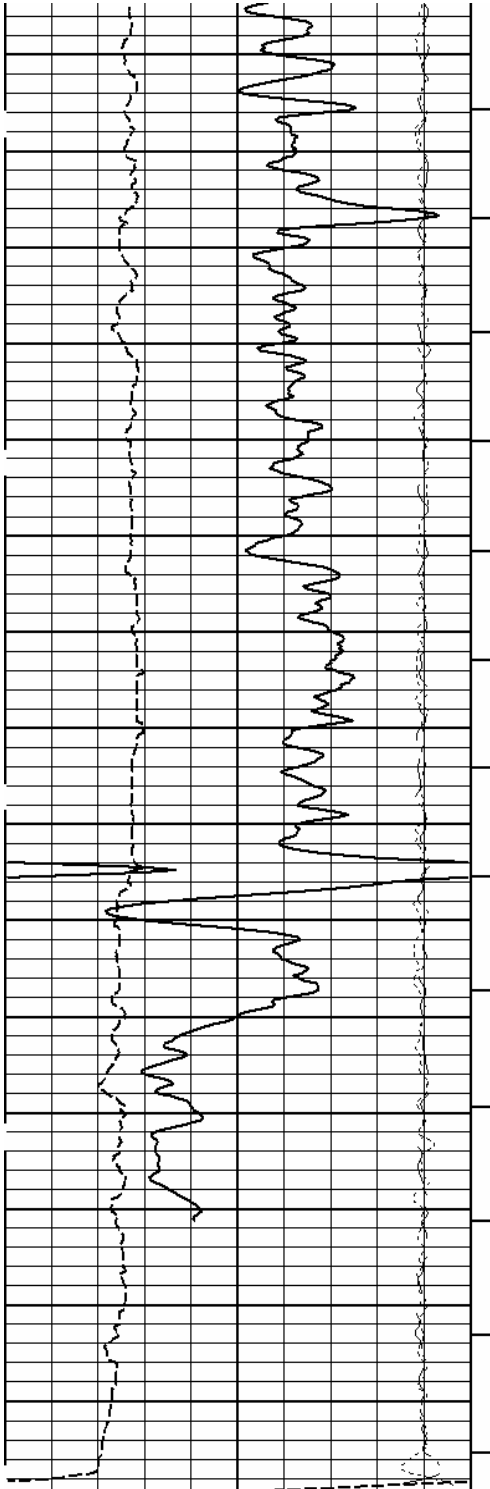
**HALLIBURTON**

Plot Time: 05-Apr-07 02:14:51  
Plot Range: 5190 ft to 5526 ft  
Data: {ActiveWell}-Well Based-DAQ-0001-003-  
Plot File: \\(not saved)\\5IN\_RHOB\_REPEAT

RHOB REPEAT PASS 5"=100'

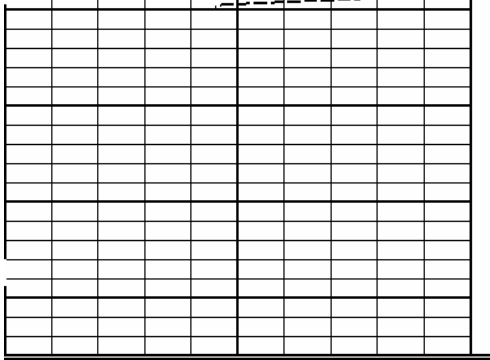






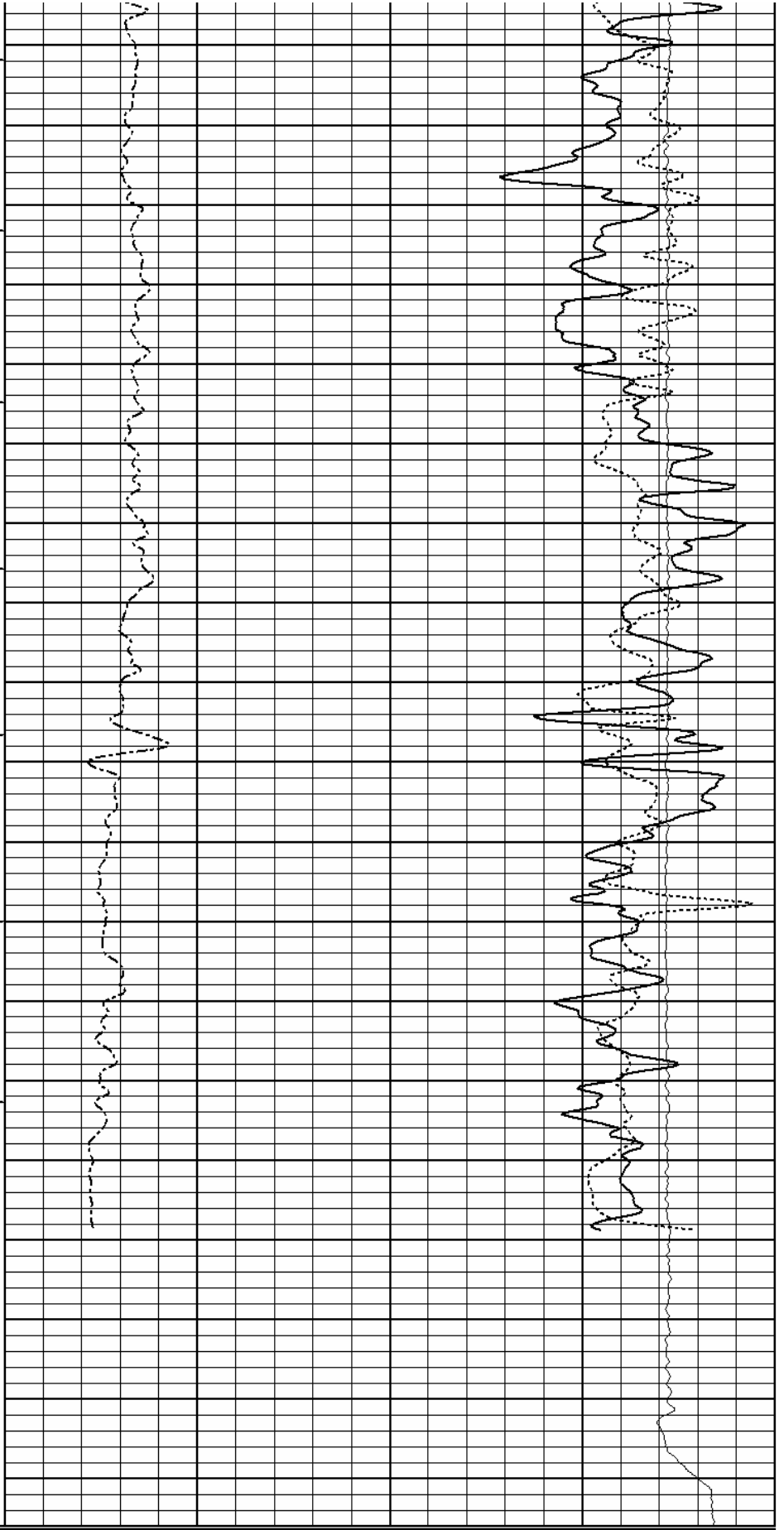
5400

5500



BHVT

AHVT



Pe

Density

0	Gamma API	150	BHVT	0	Pe	10	-0.25	DensityCorr	0.25
	api							gram per cc	
10	Caliper	20	AHVT	1.65	Density				2.65
	inches				gram per cc				

45	FarQuality	-5		10K	Tension	0
					pounds	
-45	NearQuality	5				

HALLIBURTON

Plot Time: 05-Apr-07 02:14:52  
 Plot Range: 5190 ft to 5526 ft  
 Data: {ActiveWell}-Well Based-DAQ-0001-003-  
 Plot File: \\(not saved)\\5IN\_RHOB\_REPEAT

RHOB REPEAT PASS 5"=100'

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Previous Calibration Date: 04-Mar-07 14:39:45

Tool Name: NGRT - 108646

Calibration Date: 25-Mar-07 21:20:21

Calibrator Source S/N: 290  
 Calibrator API Reference:230.00 api

Measurement	Measured	Calibrated	Units
Background	68.4	63.5	api
Background + Calibrator	316.2	293.5	api
Calibrator	225.1	230.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Reference Calibration Date: 25-Mar-07 21:20:21

Tool Name: NGRT - 108646

Calibration Date: 04-Apr-07 17:37:28

Calibrator Source S/N: 290  
 Calibrator API Reference:230.00 api

Field Verification	Shop	Field	Units
Background	63.5	39.8	api
Background + Calibrator	293.5	271.0	api
Calibrator	230.0	231.2	api

Shop	Field	Difference	Tolerance
230.0	231.2	-1.2	+/- 9.0

DUAL SPACED NEUTRON SHOP CALIBRATION

Previous Calibration Date: 15-Jan-07 12:18:46

Tool Name: DSN\_II - 108722

Calibration Date: 23-Mar-07 09:19:06

Logging Source S/N: DSN-83  
 Calibrator Source S/N: CAL-83  
 Water Tank S/N: CASPER  
 Water Tank Value: 55.571  
 Setup Block CAL-KIA

SNOW BLOCK S/N: RVV

#### WATER TANK SUMMARY

Measurement	Measured	Calibrated	Units
Ratio	6.776	6.799	
Porosity	0.25845	0.25949	decg

#### SNOW BLOCK SUMMARY

Measurement	Measured	Calibrated	Units
Ratio	6.601	6.623	
Porosity	0.25029	0.25131	decg

DSN Sensitivity: 1.047

#### DUAL SPACED NEUTRON FIELD CALIBRATION

Reference Calibration Date: 23-Mar-07 09:19:06

Tool Name: DSN\_II - 108722

Calibration Date: 04-Apr-07 17:44:08

Logging Source S/N: DSN-83  
Calibrator Source S/N: CAL-83  
Water Tank S/N: CASPER

#### SNOW BLOCK SUMMARY

Measurement	Shop	Field	Units
Ratio	6.620	6.720	
Porosity	0.25130	0.25580	decg

DSN Sensitivity: 1.047

#### DUAL SPACED NEUTRON POST CALIBRATION

Reference Calibration Date: 04-Apr-07 17:44:08

Tool Name: DSN\_II - 108722

Calibration Date: 05-Apr-07 00:00:32

Logging Source S/N: DSN-83  
Calibrator Source S/N: CAL-83  
Water Tank S/N: CASPER

#### SNOW BLOCK SUMMARY

Measurement	Field	Post	Units
Ratio	6.720	6.650	
Porosity	0.25580	0.25260	decg

DSN Sensitivity: 1.047

#### SPECTRAL DENSITY SHOP CALIBRATION

Previous Calibration Date: 21-Feb-07 10:20:57

Tool Name: SDL\_DC - A046

Calibration Date: 23-Mar-07 09:48:04

Logging Source S/N: 2370GW  
Aluminum Block S/N: CASPER

Density: 2.602g/cc

**DENSITY CALIBRATION SUMMARY**

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0858	1.0835	0.85 - 1.15
Near Dens Gain	1.0841	1.0777	0.85 - 1.15
Near Peak Gain	1.0637	1.0455	0.85 - 1.15
Near Lith Gain	1.0475	1.0421	0.85 - 1.15
Far Bar Gain	1.0167	1.0170	0.85 - 1.15
Far Dens Gain	1.0075	1.0091	0.85 - 1.15
Far Peak Gain	1.0120	1.0072	0.85 - 1.15
Far Lith Gain	1.0117	1.0108	0.85 - 1.15
Near Bar Offset	-0.5445	-0.5183	NONE
Near Dens Offset	-0.4697	-0.4051	NONE
Near Peak Offset	-0.2332	-0.0710	NONE
Near Lith Offset	-0.0319	0.0188	NONE
Far Bar Offset	0.0688	0.0767	NONE
Far Dens Offset	0.1472	0.1416	NONE
Far Peak Offset	0.0987	0.1498	NONE
Far Lith Offset	0.0960	0.1084	NONE
Near Bar Background	827.63	825.44	700 - 1500
Near Dens Background	338.48	337.61	290 - 600
Near Peak Background	145.99	146.85	130 - 280
Near Lith Background	142.94	143.41	125 - 270
Far Bar Background	491.28	487.99	350 - 750
Far Dens Background	193.10	192.11	140 - 300
Far Peak Background	80.91	80.74	50 - 130
Far Lith Background	80.72	80.26	50 - 130

**CALIBRATION BLOCK SUMMARY**

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.694	1.691	-0.003	+/- 0.015
Pe	2.660	2.650	-0.010	+/- 0.150
ALUMINUM				
Density (g/cc)	2.603	2.602	-0.001	+/- 0.01500
Pe	3.182	3.170	-0.012	+/- 0.150

**TOOL SUMMARY**

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0023	+/- 0.0110	-0.0031	+/- 0.0140
Magnesium Block	-0.0031	+/- 0.0110	-0.0069	+/- 0.0140
Aluminum Block	-0.0064	+/- 0.0110	-0.0004	+/- 0.0140
Resolution	9.21	6.00 - 11.00	9.80	6.00 - 11.00
Internal Verifier(B+D+P+L)	1453	1250 - 2700	841	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**

Reference Calibration Date: 23-Mar-07 09:48:04

Tool Name: SDL\_DC - A046

Calibration Date: 04-Apr-07 17:36:22

Aluminum Block S/N: CASPER

Density: 2.602g/cc

Magnesium Block S/N: CASPER

Density: 1.691g/cc

Pad Temperature: 65.1 degF

**DENSITY FIELD CALIBRATION SUMMARY**

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1453.307	1456.344	3.037	15.377
Far (B+D+P+L) cps	841.099	841.061	-0.038	15.937
Near Resolution	9.21	9.22	0.010	0.50
Far Resolution	9.83	9.80	0.030	1.00

**PASS/FAIL SUMMARY**

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

**SPECTRAL DENSITY POST CHECK**

Reference Calibration Date: 04-Apr-07 17:36:22

Tool Name: SDL\_DC - A046

Calibration Date: 04-Apr-07 23:48:43

Aluminum Block S/N: CASPER

Density: 2.602g/cc

Magnesium Block S/N: CASPER

Density: 1.691g/cc

Pad Temperature: 68.9 degF

**DENSITY POST CALIBRATION SUMMARY**

Measurement	Field	Post	Change	Control Limit +/-
Near (B+D+P+L) cps	1456.344	1445.370	-10.974	17.074
Far (B+D+P+L) cps	841.061	844.635	3.574	17.228
Near Resolution	9.22	9.32	0.100	0.50
Far Resolution	9.89	9.83	0.060	1.00

**PASS/FAIL SUMMARY**

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

**CALIPER SHOP CALIBRATION**

Previous Calibration Date: 23-Mar-07 09:59:16

Tool Name: SDL\_DC - A046

Calibration Date: 23-Mar-07 10:01:33

### MEASURED CALIPER RINGS

Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change
RING DIAMETER:			
Ring #1 (in)	6.06	6.00	0.06
Ring #2 (in)	16.00	16.00	0.00

### CALIPER FIELD CALIBRATION

Reference Calibration Date: 23-Mar-07 10:01:33

Tool Name: SDL\_DC - A046

Calibration Date: 04-Apr-07 17:40:25

### MEASURED CALIPER RINGS

Measurement	Shop	Field	Change	Control Limit On New Value
Ring #1 (in)	6.06	5.89	-0.17	+/- 0.50

### PASS/FAIL SUMMARY

Ring #1 Check: Passed

Data: WNDY\_7\_17S\_RN2\0001 TRIPLENDLE

Date: 05-Apr-07 00:01:16

## HALLIBURTON

### CUSTOMER EVENT LOG


Event Type	Time & Date	Depth (ft)	Event Description
	04-Apr-07 19:56:59	691.50	Logging 001 04-Apr-07 19:56 Up @691.5f
	04-Apr-07 20:05:15	409.08	Halting 001 04-Apr-07 19:56 Up @691.5f
	04-Apr-07 20:06:52	320.25	Logging 002 04-Apr-07 20:06 Dn @320.3f
	04-Apr-07 20:32:22	5491.75	Halting 002 04-Apr-07 20:06 Dn @320.3f
	04-Apr-07 20:33:48	5526.75	Logging 003 04-Apr-07 20:33 Up @5526.8f
	04-Apr-07 20:43:44	5216.83	Halting 003 04-Apr-07 20:33 Up @5526.8f
	04-Apr-07 20:47:16	5527.50	Logging 004 04-Apr-07 20:47 Up @5527.5f
	04-Apr-07 23:05:34	395.53	Halting 004 04-Apr-07 20:47 Up @5527.5f

Data: WINDY\_7\_17S\_RN2\0001 TRIPLE\HWI0608

Date: 04-Apr-07 23:48:31

## HALLIBURTON

### TOOL STRING DIAGRAM REPORT

Description	OD/Sensors	Diagram	Sensors	Tool Length	Accumulated Length
RWCH-B097 135.00 lbs	O.D. = 3.63 in		Load Cell @ 80.08 ft BH Temperature @ 79.51 ft	6.25 ft	83.76 ft 77.51 ft

SDLD-A046  
100.00 lbs

O.D. = 3.63 in

6.50 ft

NGRT-108646  
176.00 lbs

O.D. = 3.63 in

8.00 ft

DSN\_II-108722  
195.80 lbs

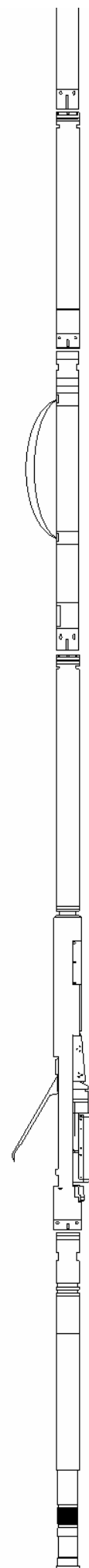
O.D. = 3.63 in

10.25 ft

SDLD-A046  
420.00 lbs

O.D. = 4.50 in

19.43 ft



71.01 ft

63.01 ft

52.76 ft

33.33 ft