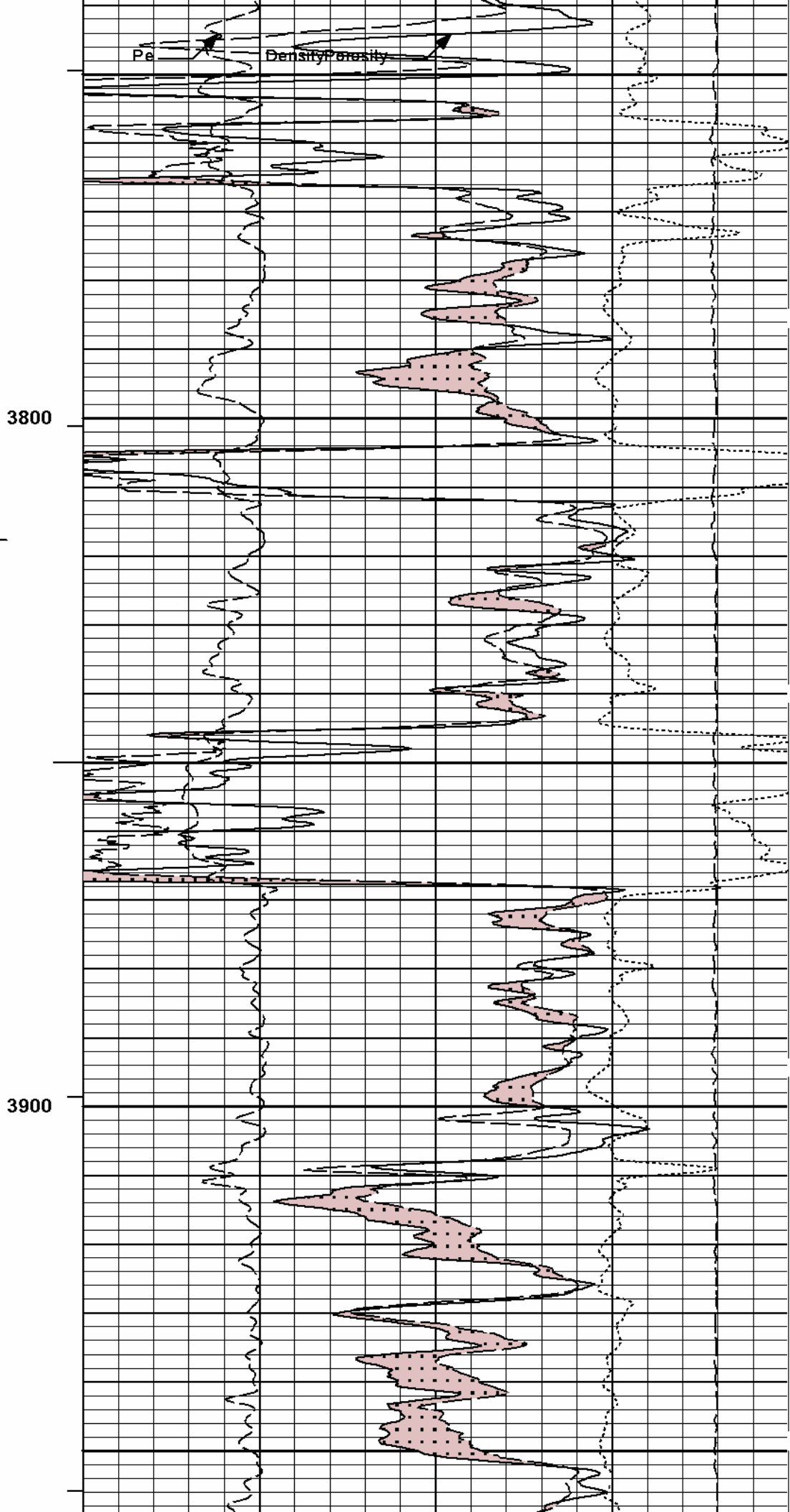
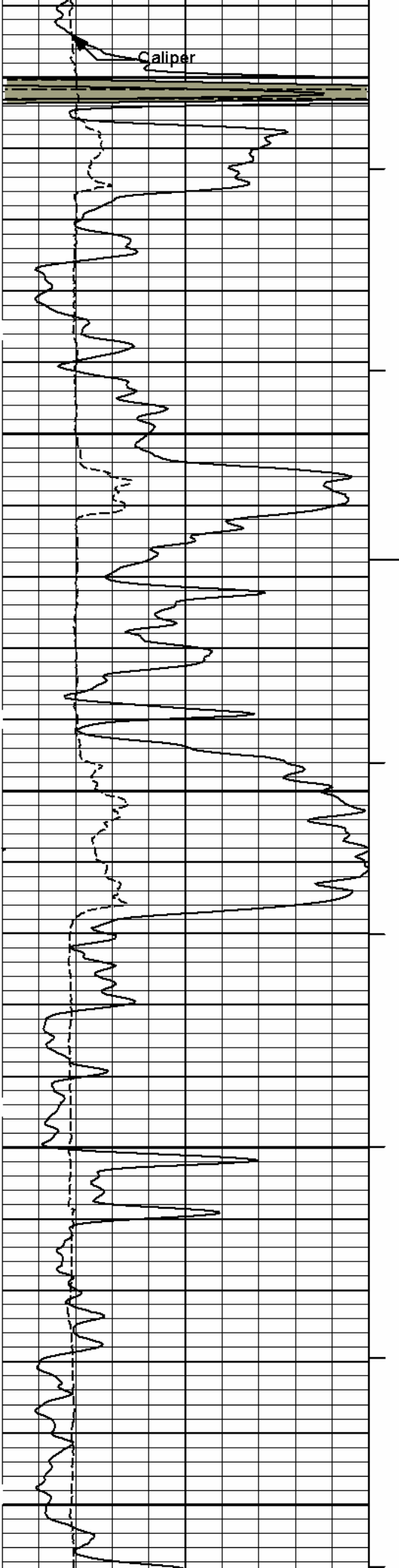


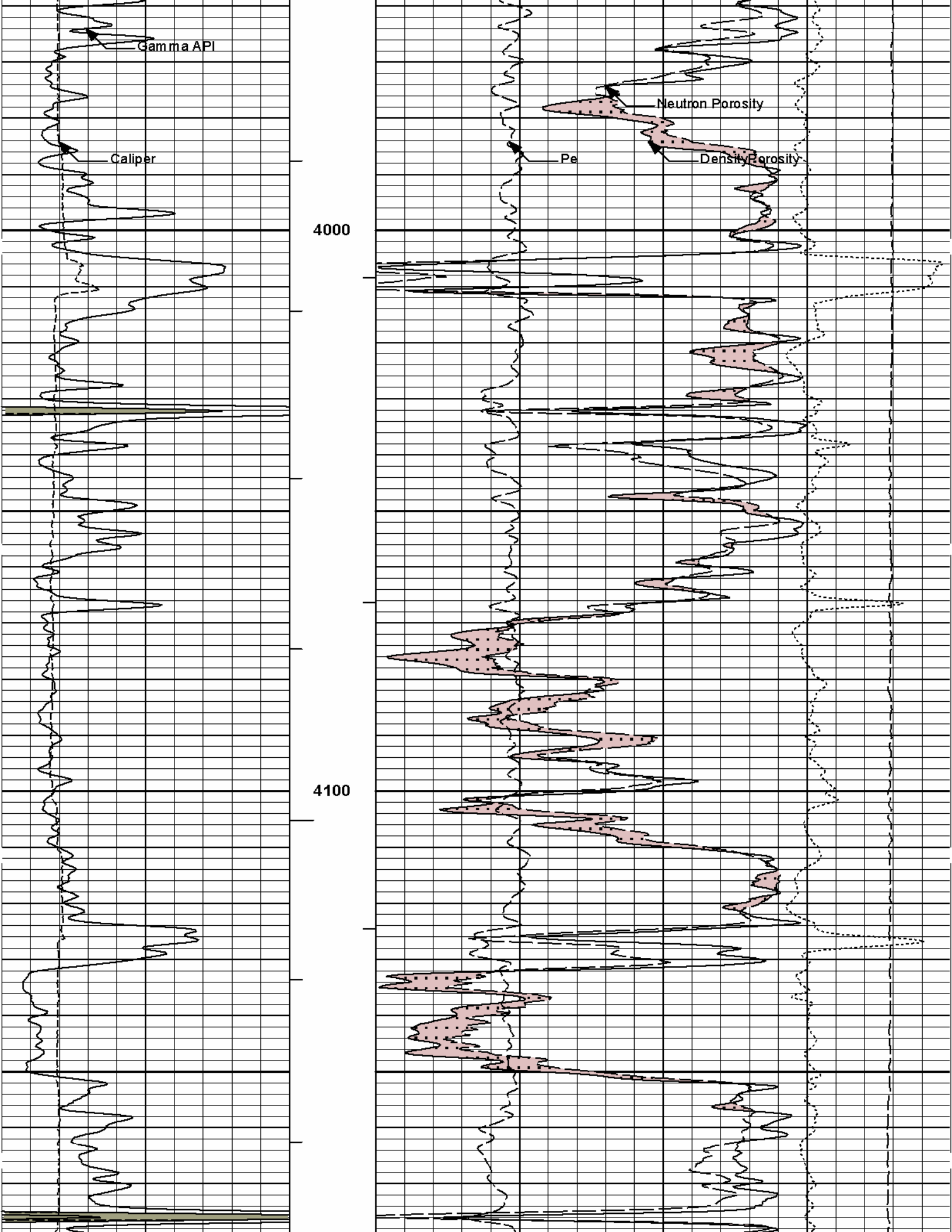
DUAL SPACED NEUTRON
SPECTRAL DENSITY
LOG

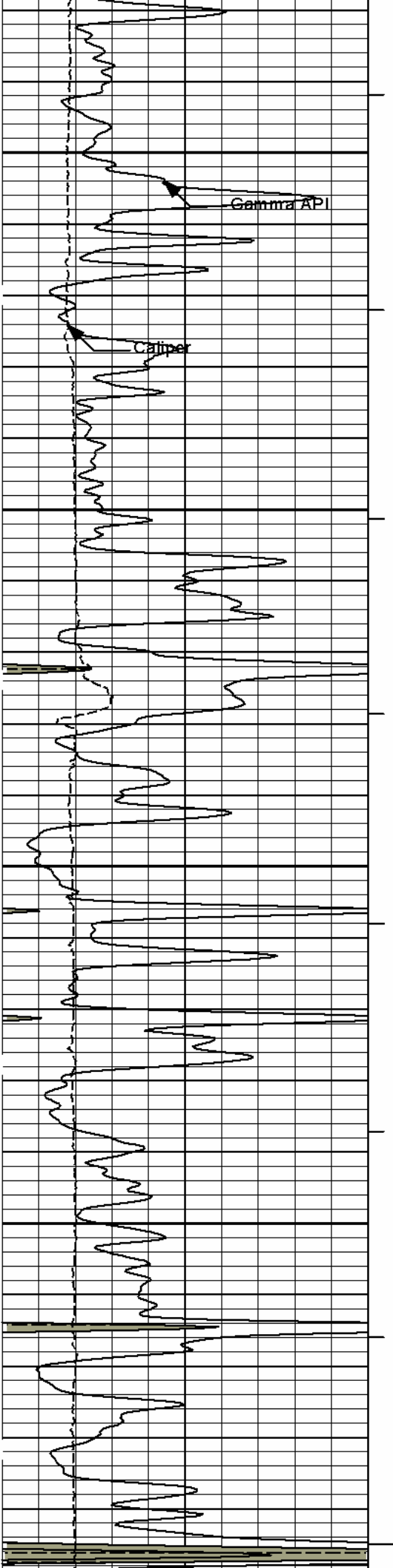
Fold here

Service Ticket No.: 9571790				API Serial No.: 15-055-22129				PGM Version: WL INSITE R3.4.2 (Build 2)			
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.	11048627	Serial No.		Serial No.	104_M296	Serial No.	11055304				
Model No.	GTET	Model No.		Model No.	SDLT	Model No.	DSNT				
Diameter	3.625"	No. of Cent.		Diameter	4.5"	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				
Run	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix	
No.	From	To	ft/min	L	R	L	R		L	R		L	R		
ONE	4988	3700	REC	0	150				30	-10	2.71	30	-10	LIME	
DIRECTIONAL INFORMATION															
Maximum Deviation				7.00 deg				@		KOP				@	
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING															
CHLORIDES REPORTED AT 1800 MG/L															
LCM REPORTED AT 4 PPB															
TODAY'S CREW V. JAIME K. KING															
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES LIBERAL, KANSAS 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.															
HALLIBURTON															





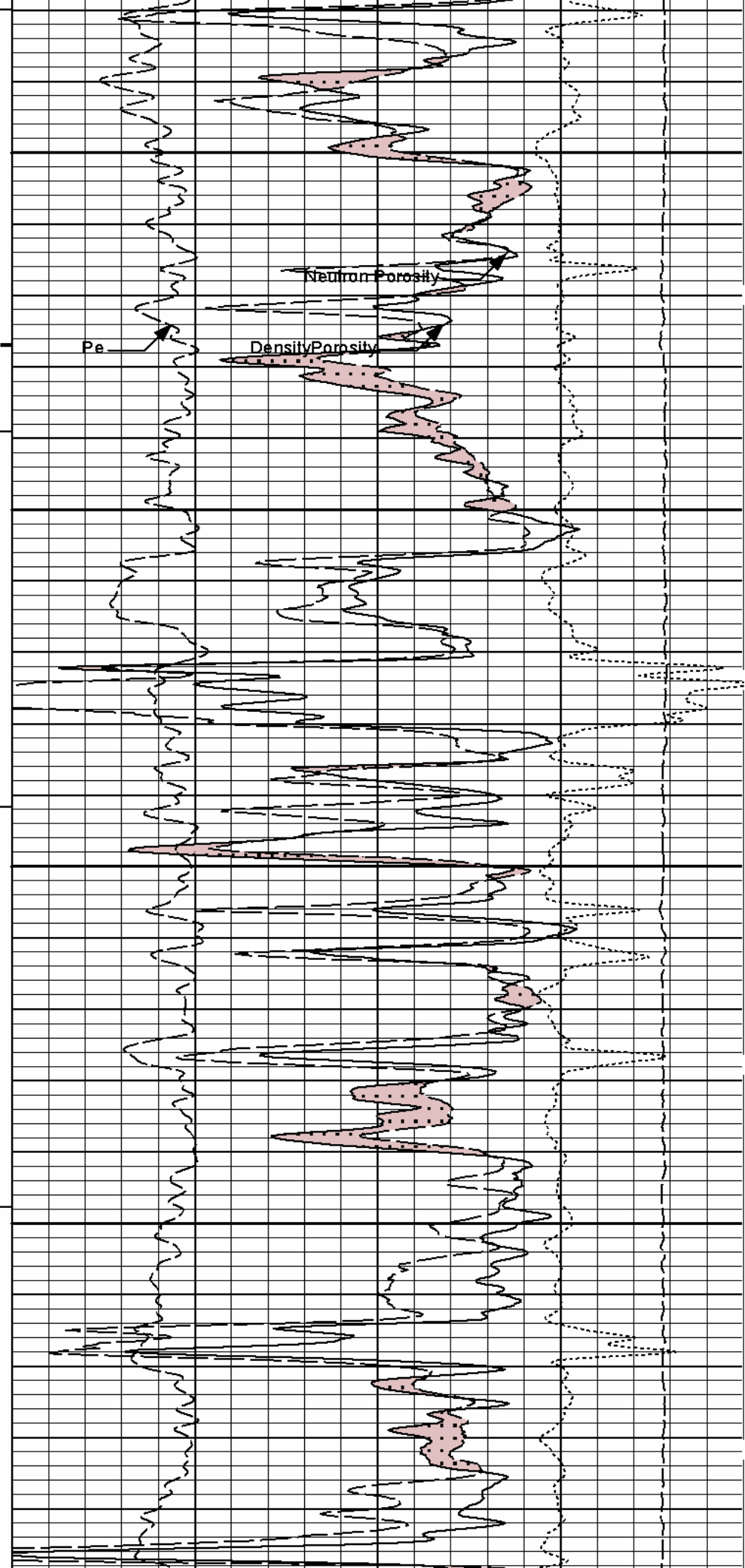


4200

Gamma API

Caliper

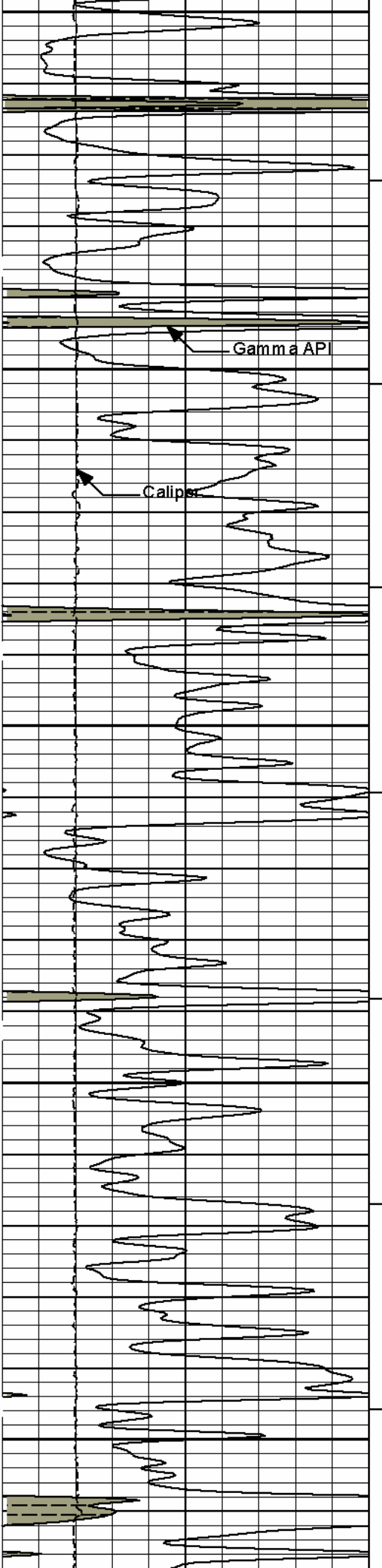
4300



Neutron Porosity

Density Porosity

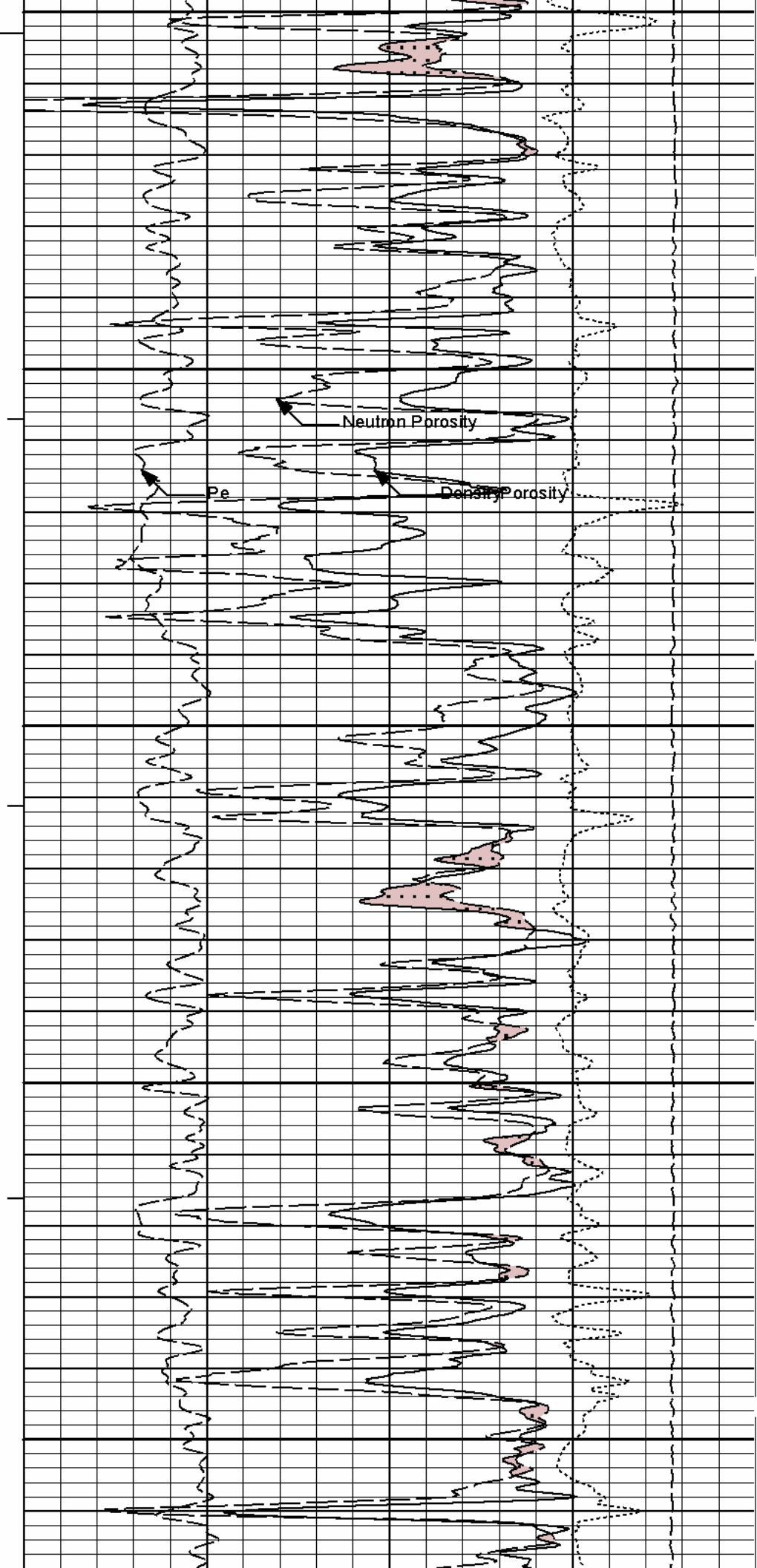
Pe

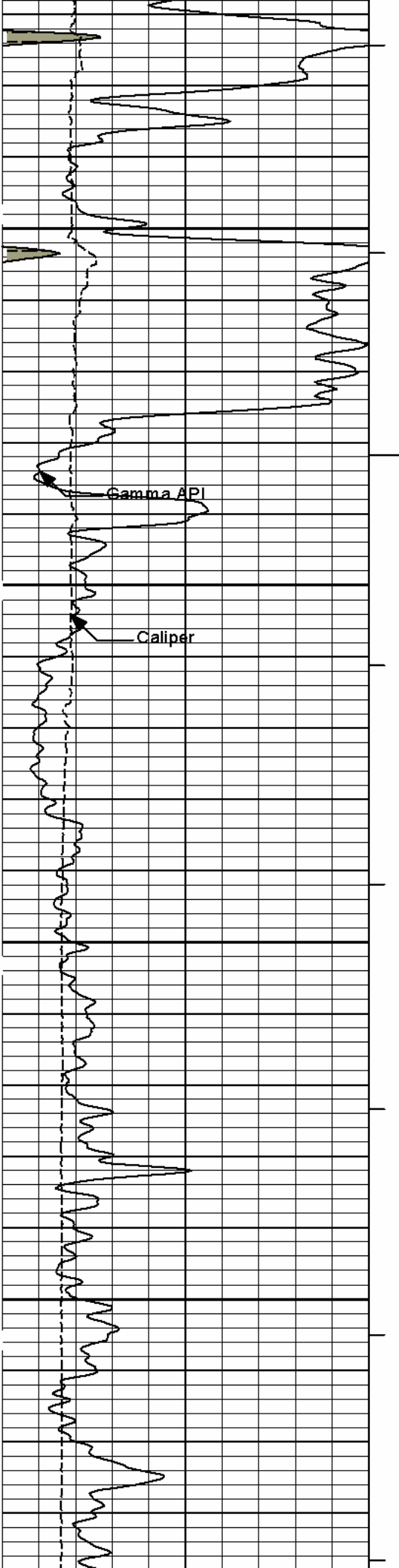


4400

4500

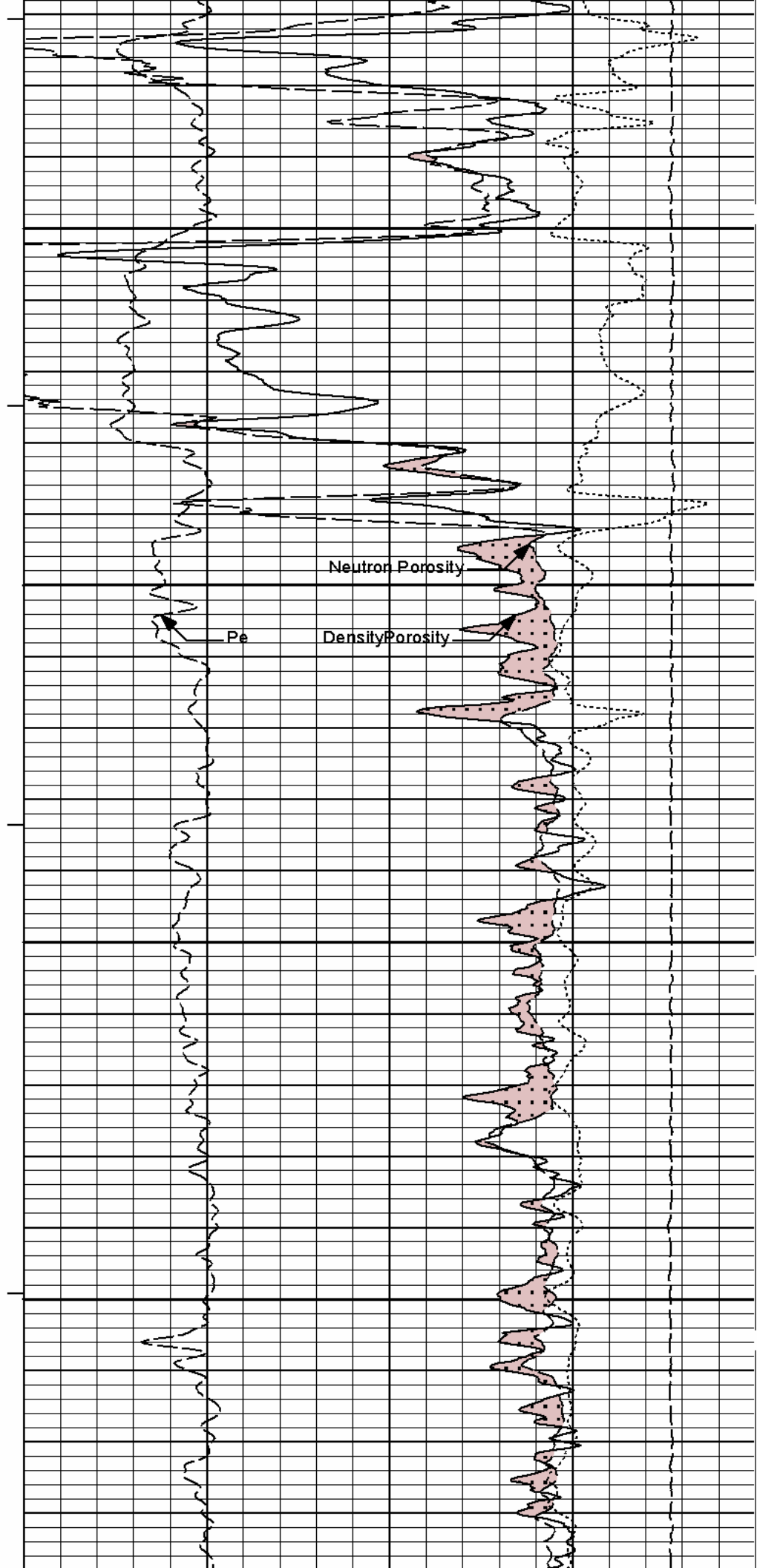
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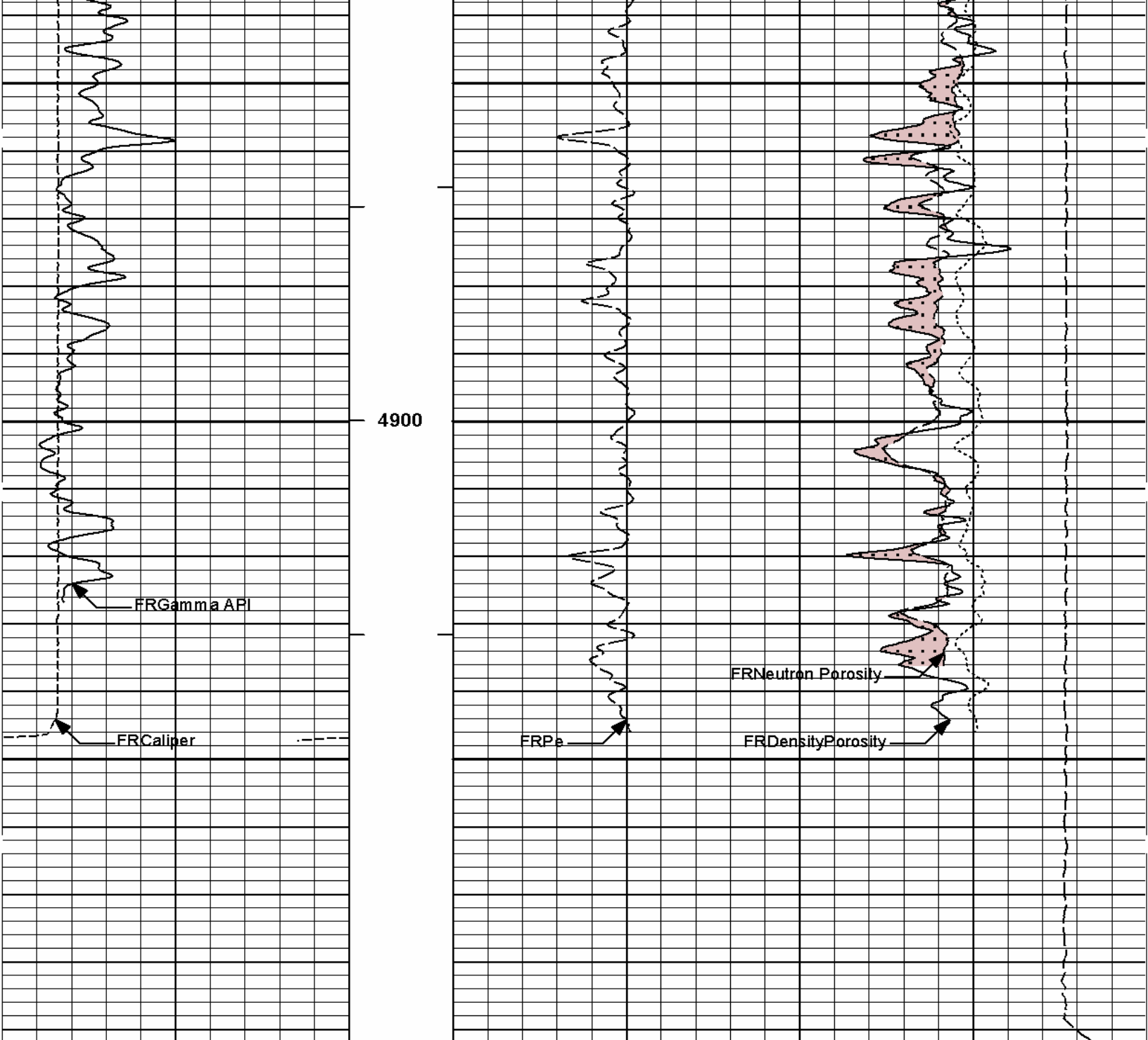




4700

4800





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

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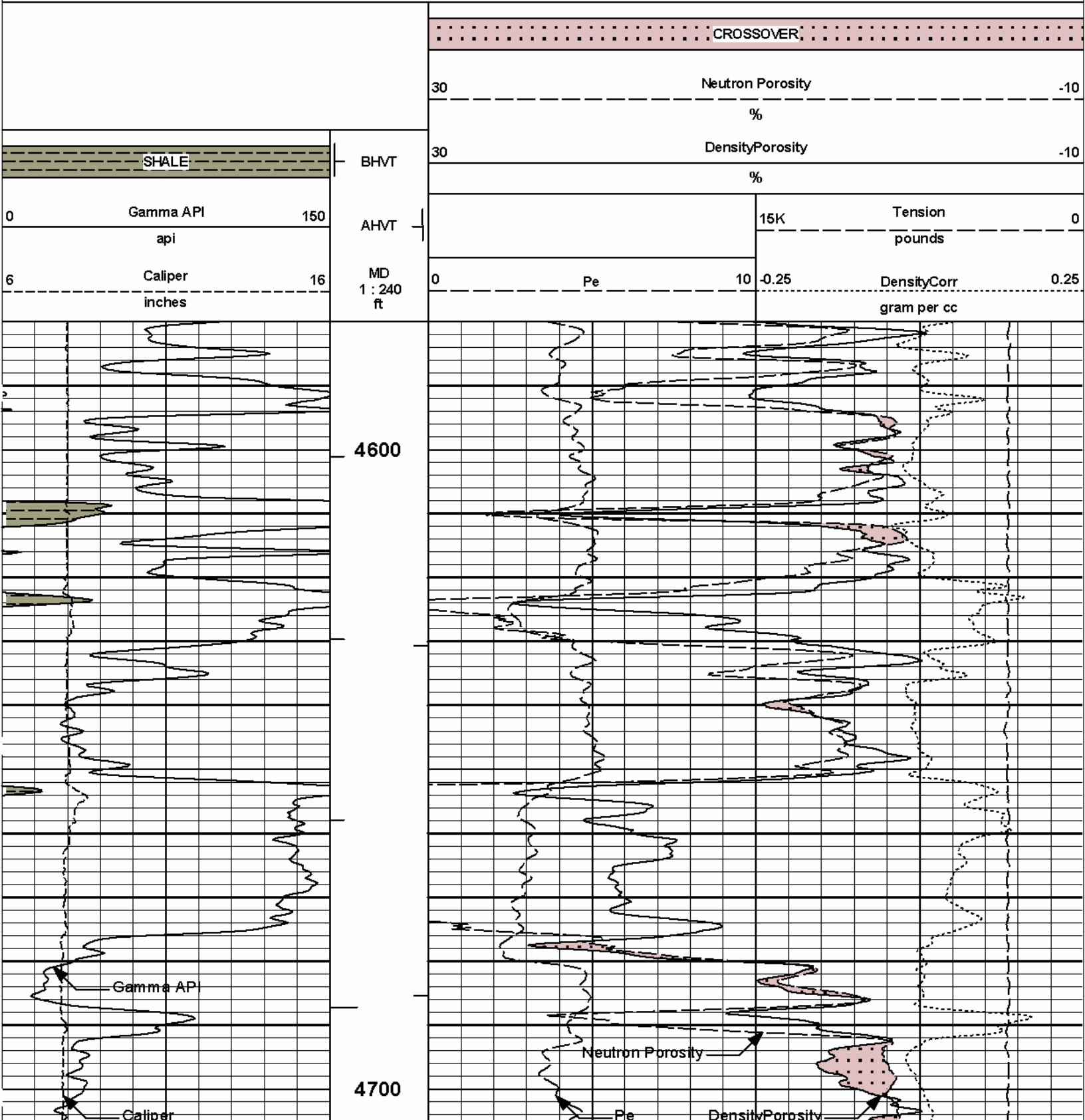
Plot Time: 13-Jun-12 08:27:15
 Plot Range: 3698 ft to 4991.75 ft
 Data: CUNDIFF_A_2_B\Well Based\DAQ-0001-0061
 Plot File: \\POROI\Poroi_IQ_5_MAIN_LIB

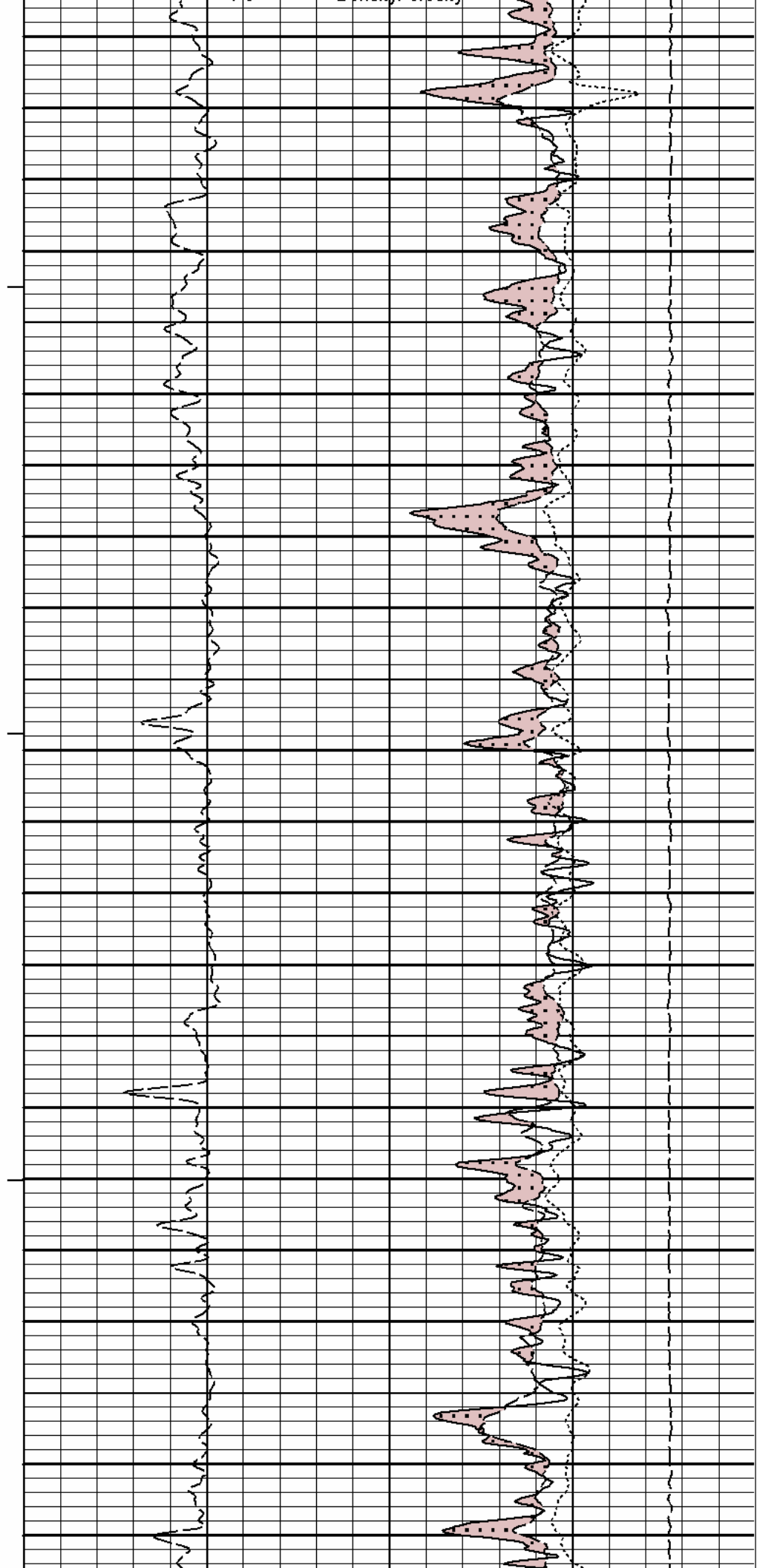
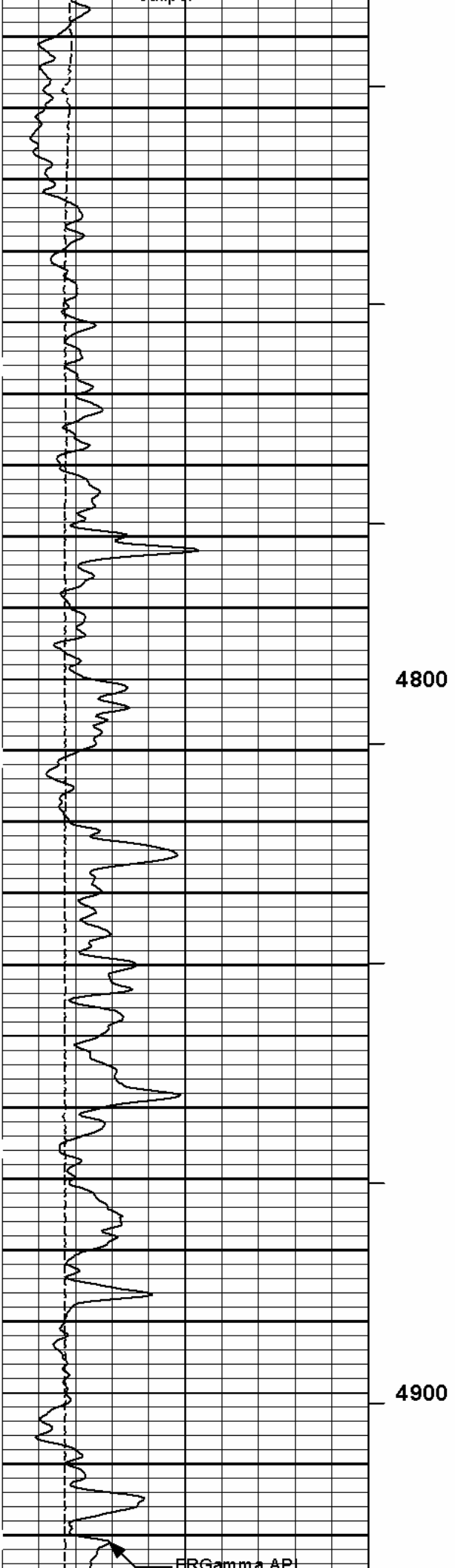
5 INCH MAIN LOG

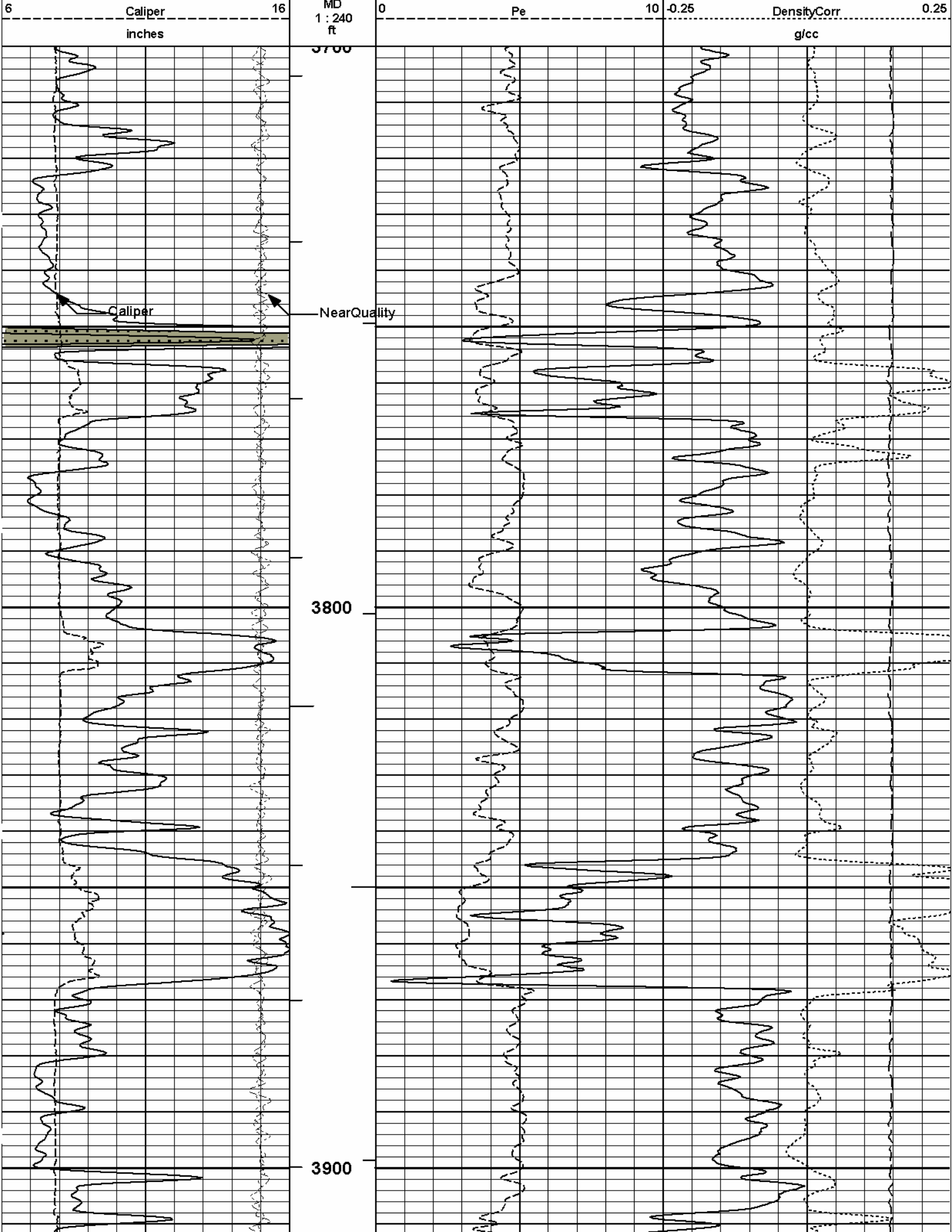
HALLIBURTON

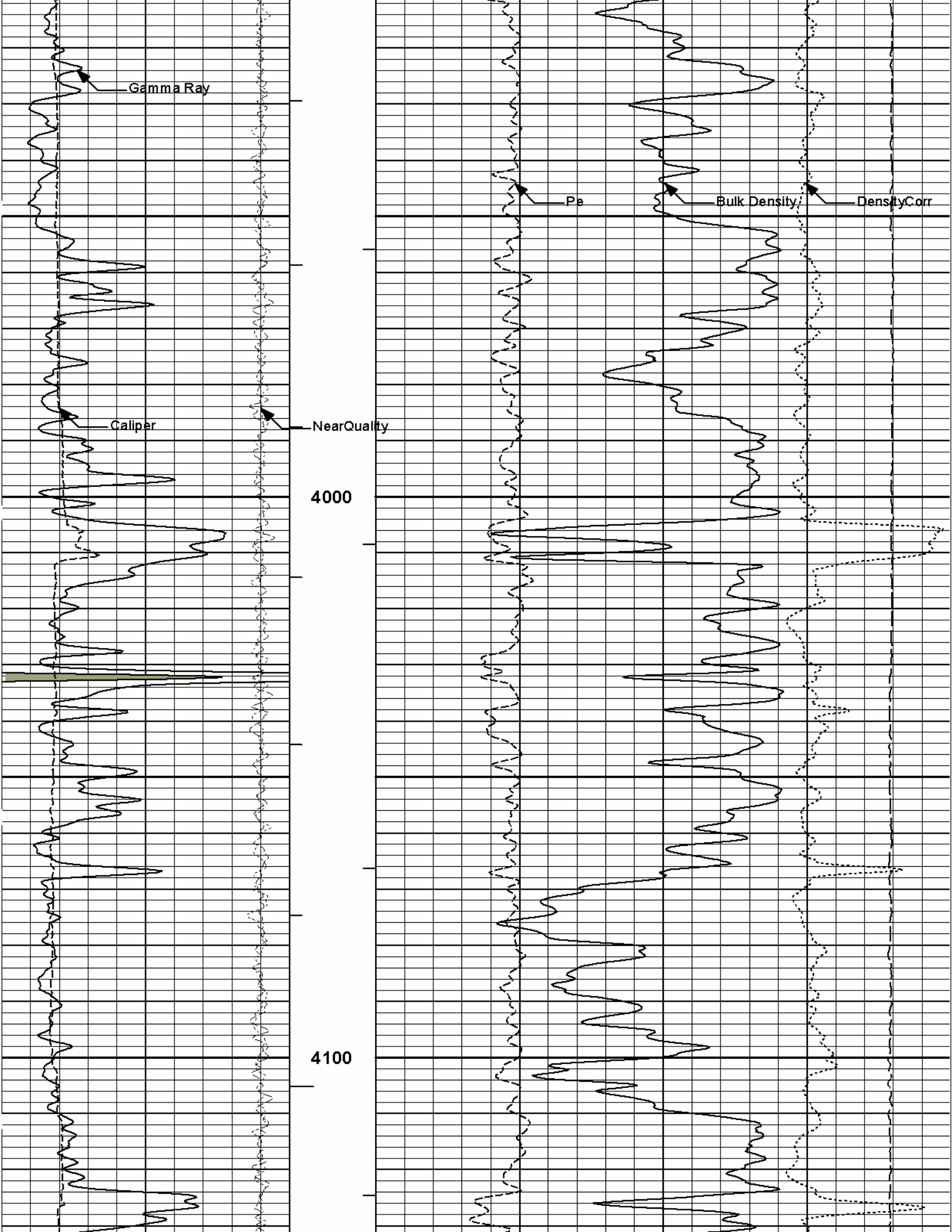
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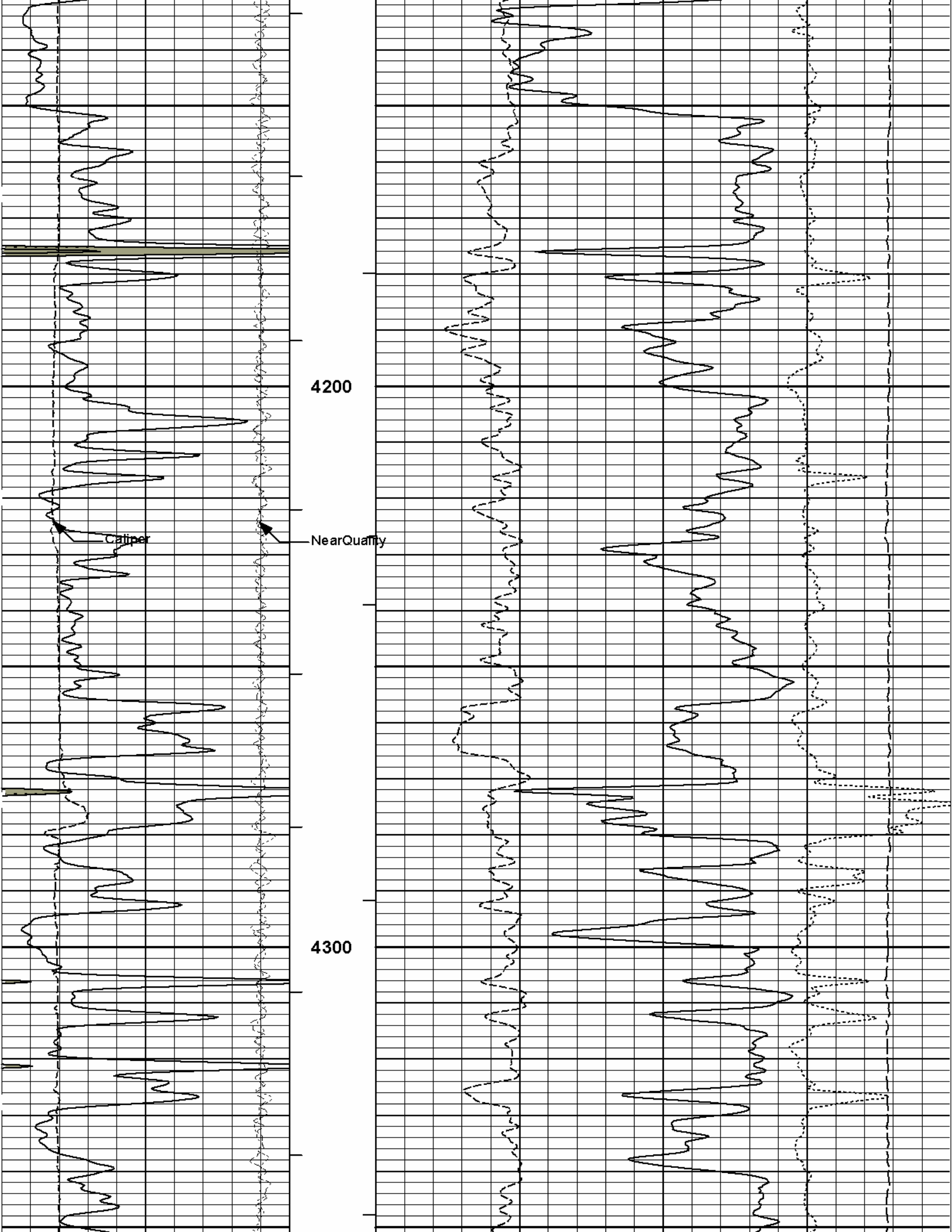
REPEAT SECTION

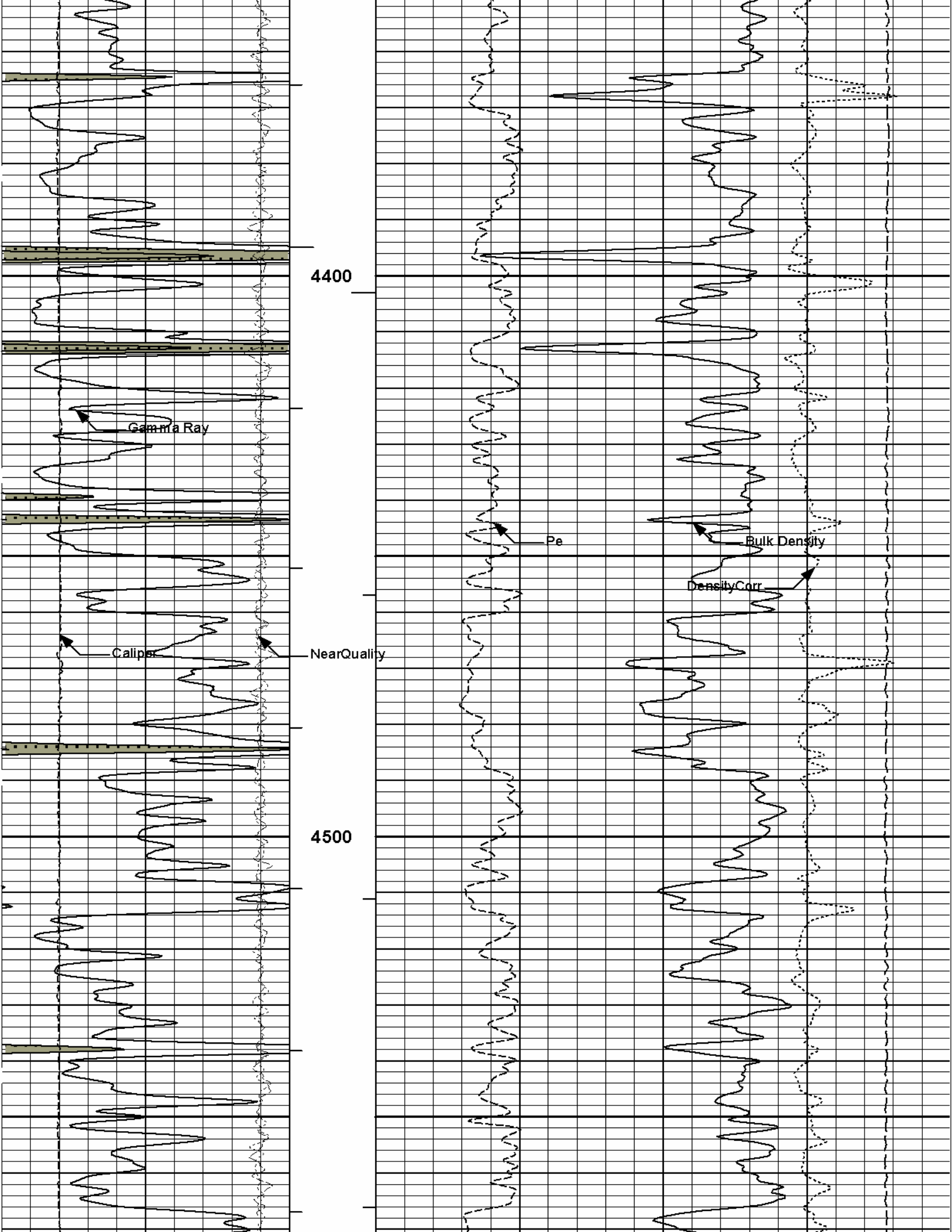


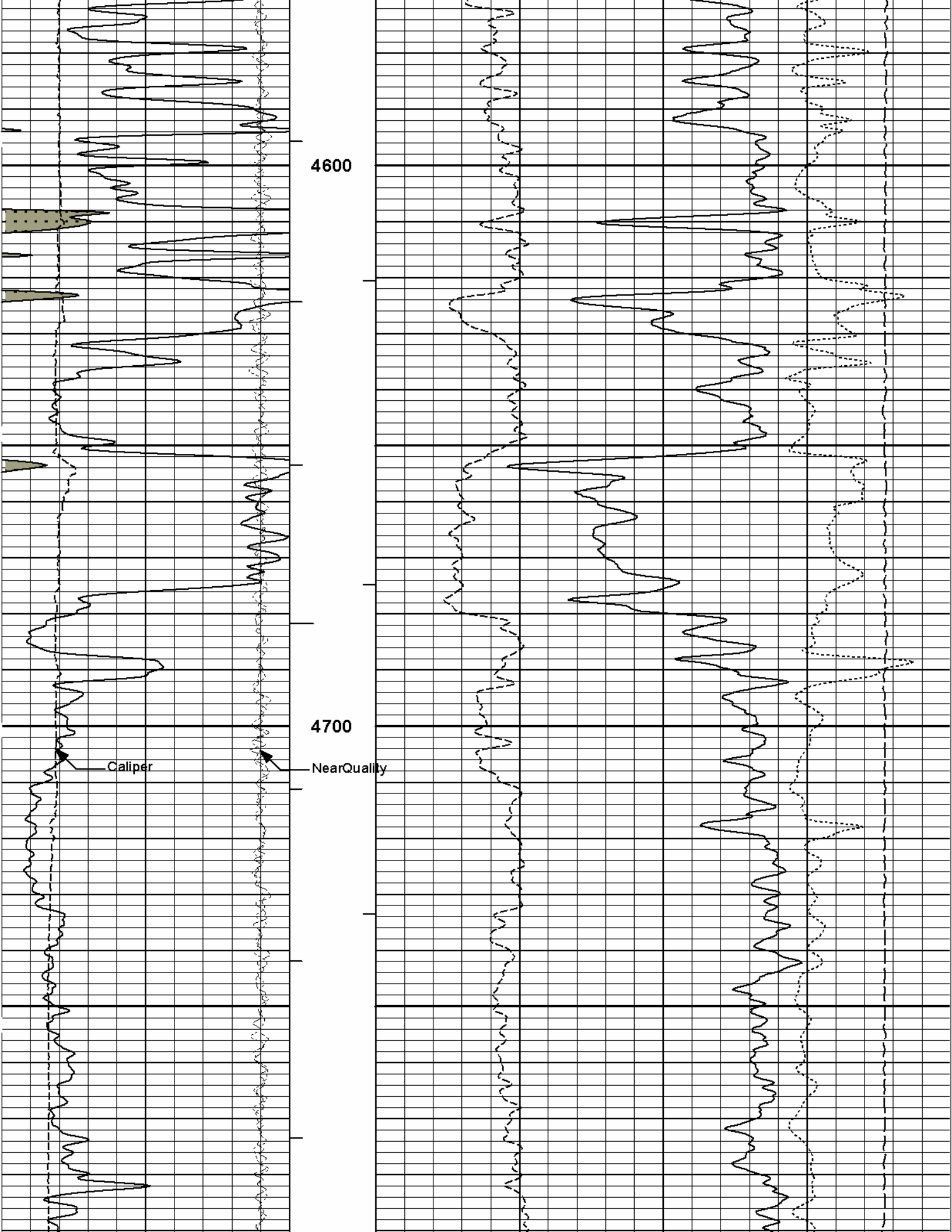


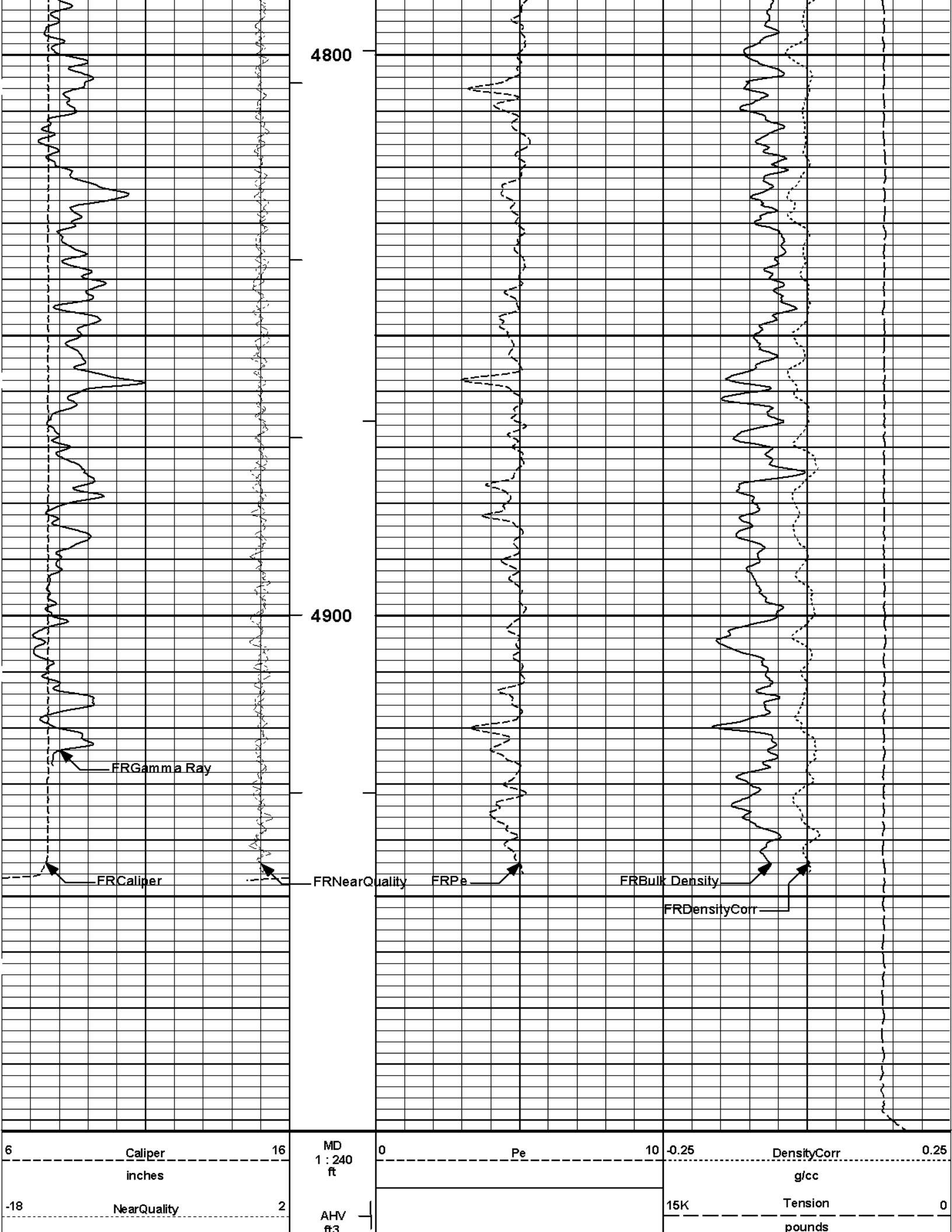












18	FarQuality	-2	BHV ft3	2	Bulk Density	3
					g/cc	
0	Gamma Ray	150	Tension Pull 10	0		
	api					
	SHALE		Tension Pull			

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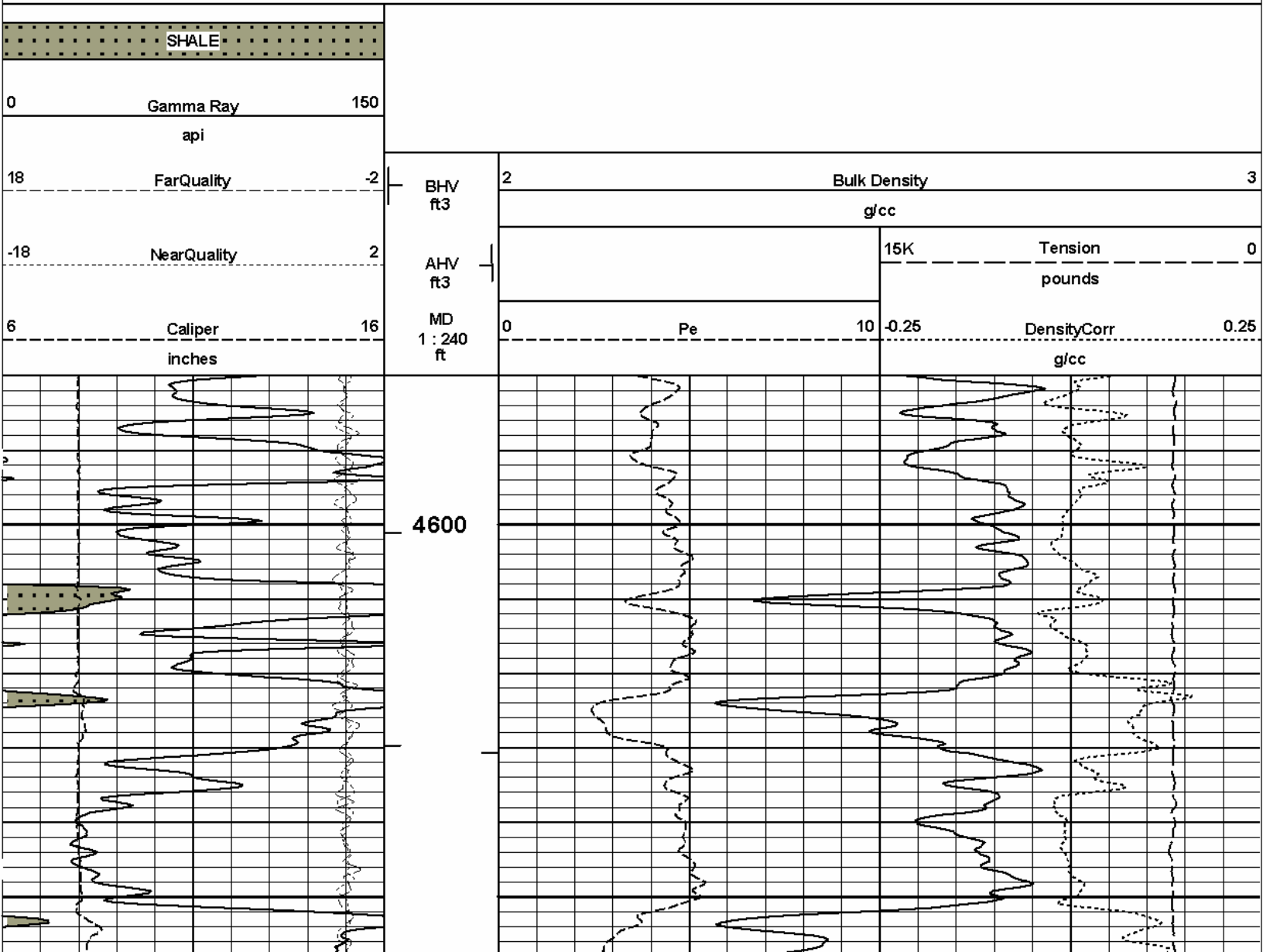
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Data: CUNDIFF_A_2_BiWell Based\DAQ-0001-006\
Plot File: \\LOCAL-1\CUNDIFF_A_2_Bi0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHPORO\BULKD_5_MAIN_LIB

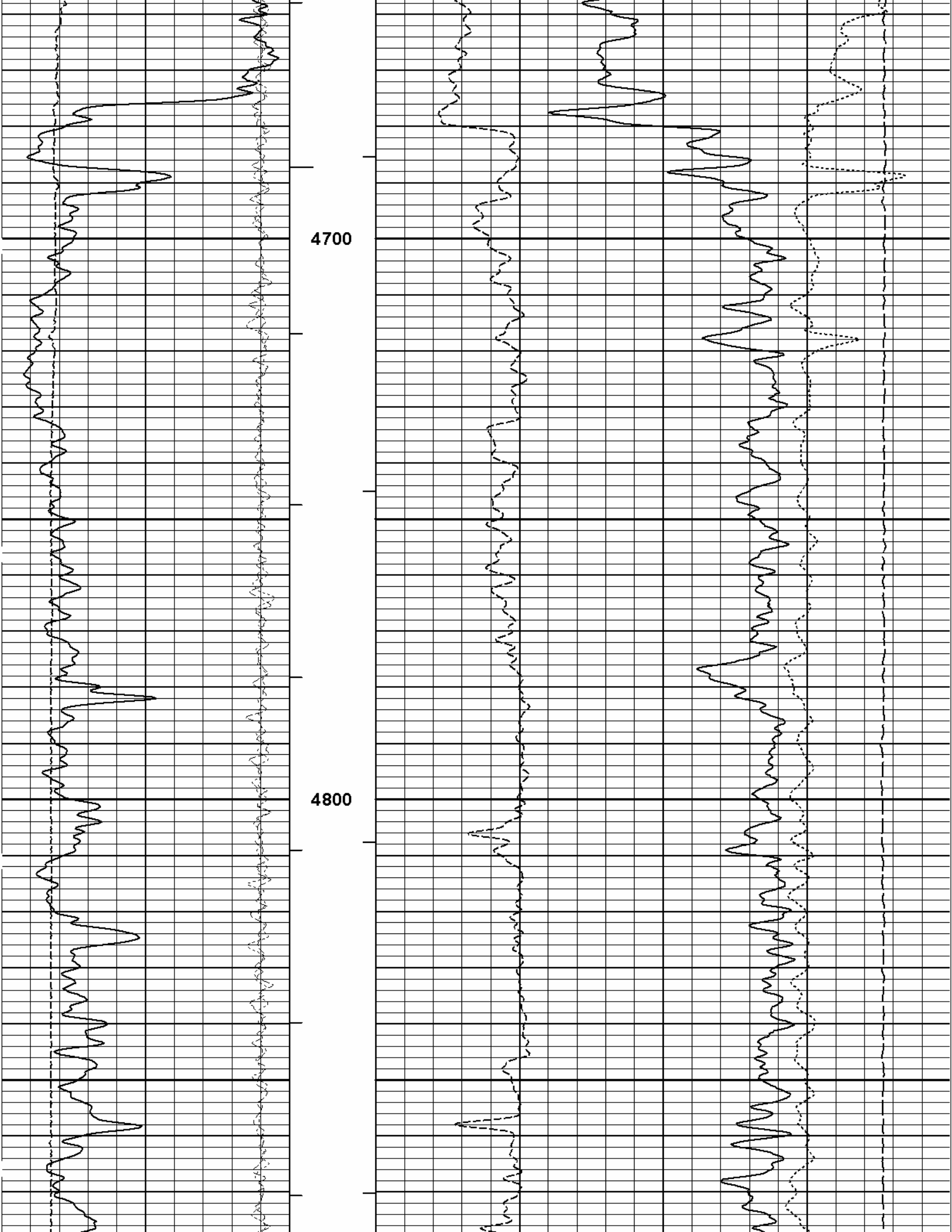
5 INCH MAIN LOG

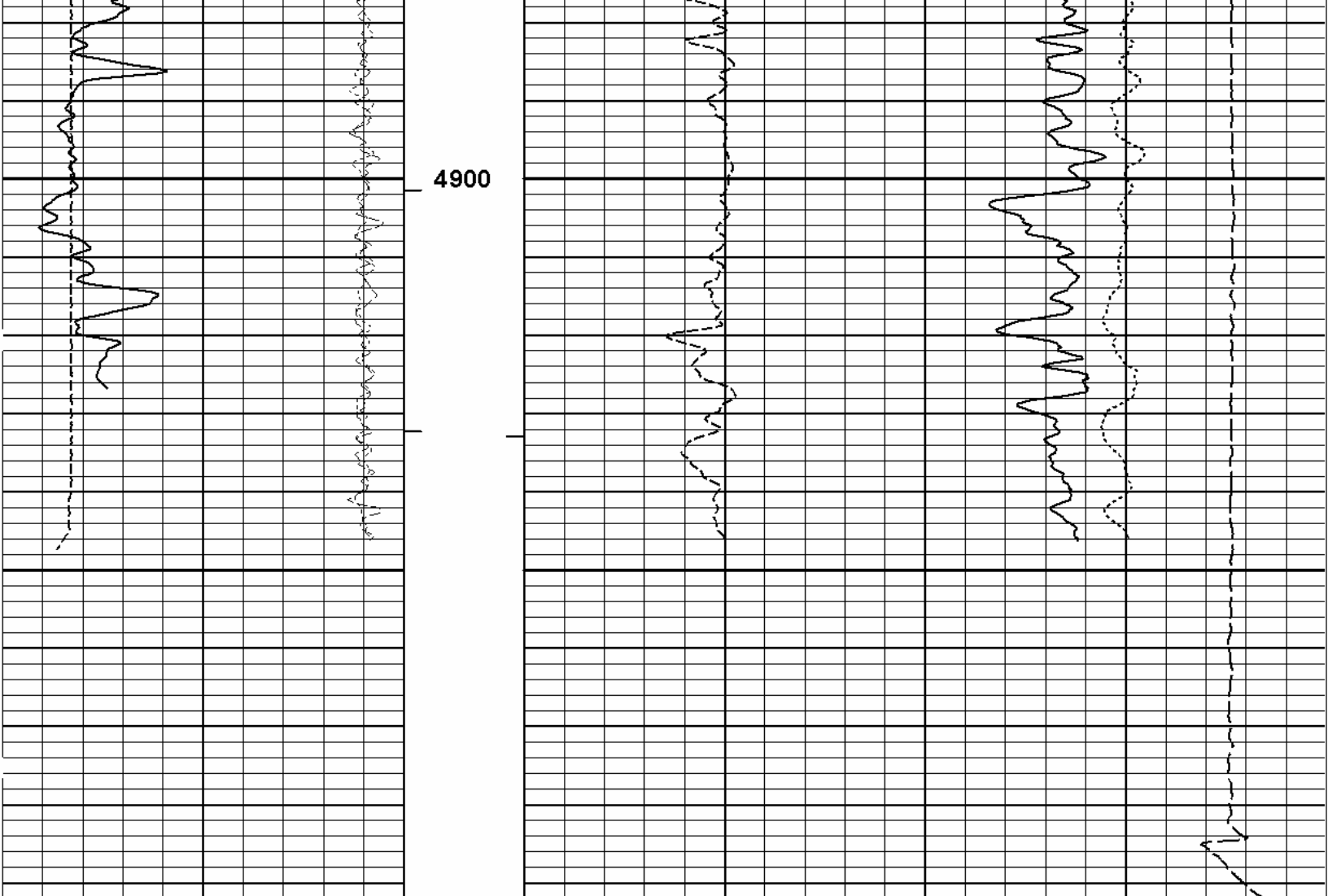
HALLIBURTON

Plot Time: 13-Jun-12 08:27:21
Plot Range: 4580 ft to 4992 ft
Data: CUNDIFF_A_2_BiWell Based\DAQ-0001-005\
Plot File: \\LOCAL-1\CUNDIFF_A_2_Bi0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHPORO\BULKD_5_REP_LIB

REPEAT SECTION







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

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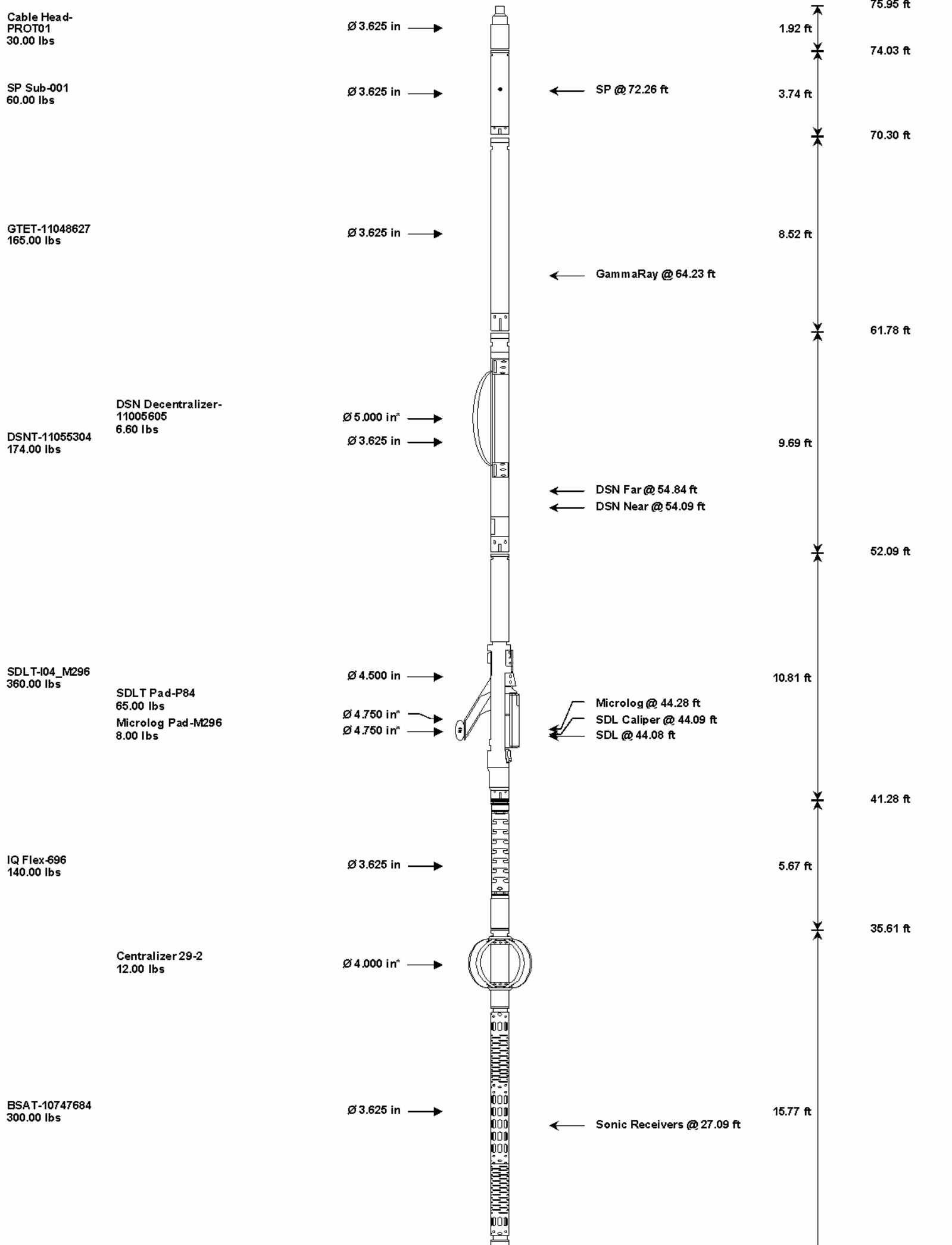
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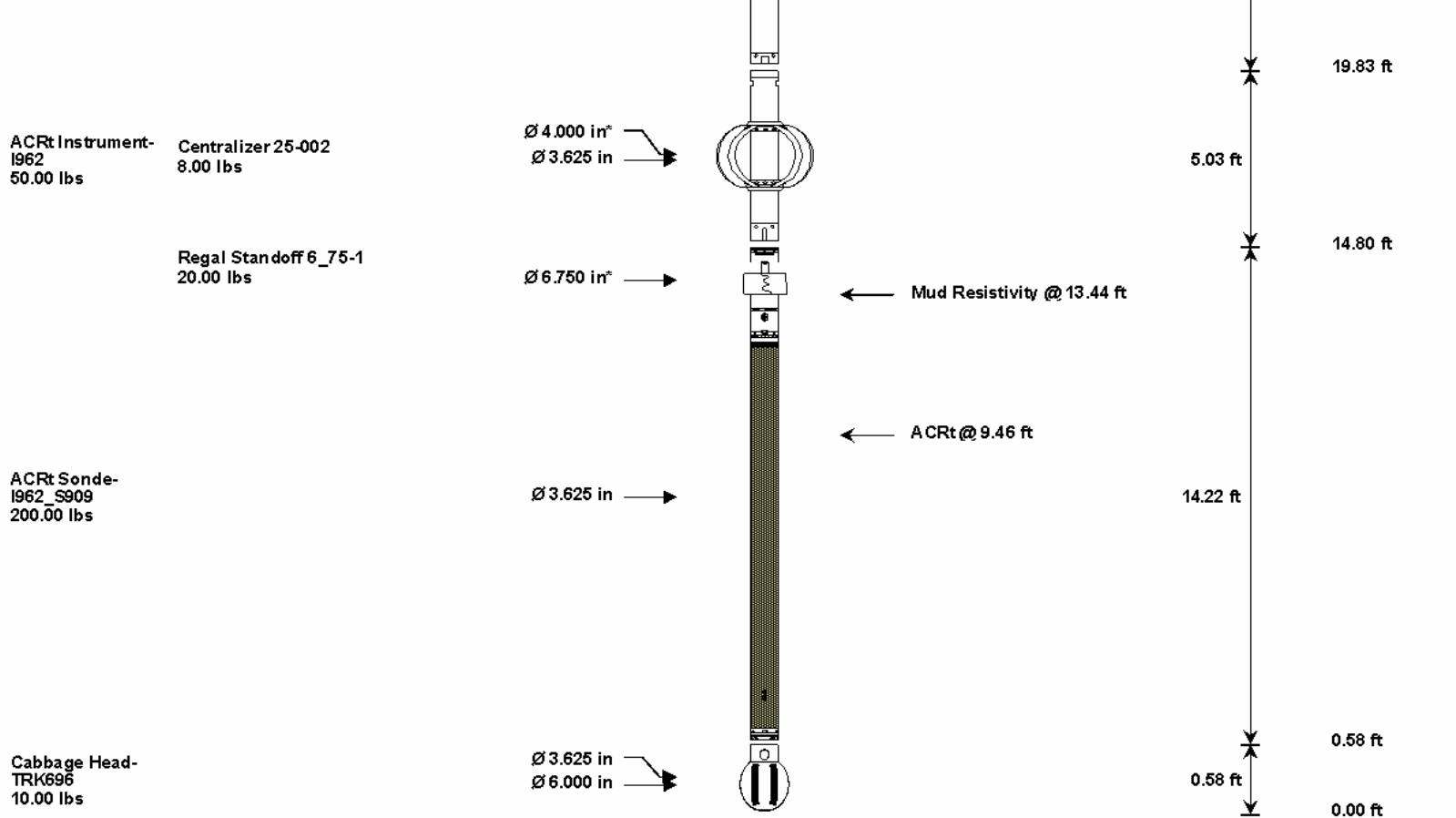
REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
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Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max.Log. Speed (fpm)
CH	Standard OH Cable Head	PROT01	30.00	1.92	74.03	300.00
SP	SP Sub	001	60.00	3.74	70.30	300.00
GTET	Gamma Telemetry Tool	11048627	165.00	8.52	61.78	60.00
DSNT	Dual Spaced Neutron	11055304	174.00	9.69	52.09	60.00
DCNT	DSN Decentralizer	11005605	6.60	5.13	* 55.42	300.00
SDLT	Spectral Density Tool	I04_M296	360.00	10.81	41.28	60.00
SDLP	Density Insite Pad	P84	65.00	2.55	* 43.49	60.00
MICP	Microlog Pad	M296	8.00	1.00	* 43.78	60.00
IQF	IQ Flex tool	696	140.00	5.67	35.61	300.00
BSAT	Borehole Sonic Array Tool	10747684	300.00	15.77	19.83	60.00
OBCEN	Centralizer - 29 in.Overbody	2	12.00	2.42	* 32.88	300.00
ACRt	Array Compensated True Resistivity Instrument Section	1962	50.00	5.03	14.80	300.00
OBCEN	Centralizer - 25 in. Overbody	002	8.00	2.08	* 16.30	300.00
ACRt	Array Compensated True Resistivity	1962_S909	200.00	14.22	0.58	300.00
RSOF	Regal Standoff 6.75in	1	20.00	1.00	* 13.38	300.00
CBHD	Cabbage Head	TRK696	10.00	0.58	0.00	300.00
Total			1,608.60	75.95		
						* Not included in Total Length and Length Accumulation.
Data: CUNDIFF_A_2_B\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CH\IDLE						Date: 13-Jun-12 04:20:34

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 11048627

Engineer: THOMAS HYDE

Software Version: WL INSITE R3.4.2 (Build 2)

Reference Calibration Date: 15-May-12 17:53:19

Calibration Date: 18-May-12 15:34:35

Calibration Version: 1

Calibrator Source S/N: TB146

Calibrator API Reference:265.00 api

Equivalent Calibrator API Reference:269.6 api

Measurement	Measured	Calibrated	Units
Background	37.2	34.8	api
Background + Calibrator	320.4	299.8	api
Calibrator	262.6	265.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name: GTET - 11048627

Reference Calibration Date: 18-May-12 15:34:35

Engineer: T. HYDE

Calibration Date: 11-Jun-12 22:17:12

Software Version: WL INSITE R3.4.2 (Build 2)

Calibration Version: 1

Calibrator Source S/N: TB146

Calibrator API Reference:265.00 api

Equivalent Calibrator API Reference:269.6 api

Field Verification	Shop	Field	Units
Background	34.8	43.3	api
Background + Calibrator	299.8	313.2	api
Calibrator	265.0	269.9	api

Shop	Field	Difference	Tolerance
265.0	269.9	-4.9	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 11055304

Reference Calibration Date: 17-May-12 10:16:24

Engineer: T. HYDE

Calibration Date: 17-May-12 10:28:45

Software Version: WL INSITE R3.4.2 (Build 2)

Calibration Version: 1

Logging Source S/N: 696

Tank Serial Number: LIBERAL_NEUTRON

Reference value assigned to Tank: 51.680

Snow Block S/N: 696

Calibration Tank Water Temperature: 70 degF

Min. Tool Housing Outside Diameter: 3.620 in

CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.987	0.987	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):	0.2105	0.2107	0.0001	+/- 0.0020
Calibrated Ratio:	9.71	9.72	0.004	+/- 0.050

VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0669	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 - 11055304

Reference Calibration Date: 17-May-12 10:28:45

Engineer: T. HYDE

Calibration Date: 11-Jun-12 22:26:10

Software Version: WL INSITE R3.4.2 (Build 2)

Calibration Version: 1

Logging Source S/N: 696

Snow Block S/N: 696

NEUTRON FIELD-CHECK SUMMARY

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0669	0.0739	0.0070	+/- 0.0150

PASS/FAIL SUMMARY

Block Change Check: Passed

Snow Block Stat Check: Passed

Temperature Check: Passed

DENSITY CALIPER SHOP CALIBRATION

Tool Name: SDLT - I04_M296

Reference Calibration Date: 19-May-12 15:30:32

Engineer: THOMAS HYDE

Calibration Date: 19-May-12 15:40:53

Software Version: WL INSITE R3.4.2 (Build 2)

Calibration Version: 1

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-3745.22	-3923.53	-7000.00 - -1000.00
Pad Gain	0.0003823	0.0003831	0.000200 - 0.000600
Arm Offset	-3745.04	-3444.88	-5000.00 - 3000.00
Arm Gain	0.0005928	0.0005881	0.000300 - 0.000700
Arm Power	-0.000008674	-0.000008535	-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)	2.06	2.00	-0.06	+/- 0.20
Medium Ring (in)	3.81	3.75	-0.06	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.42	6.50	0.08	+/- 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 - I04_M296

Reference Calibration Date: 19-May-12 15:40:53

Engineer: T. HYDE

Calibration Date: 11-Jun-12 22:28:54

Software Version: WL INSITE R3.4.2 (Build 2)

Calibration Version: 1

MEASURED CALIPER VALUES

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.74	-0.01	+/- 0.10
Ring Diameter	8.25	8.24	-0.01	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:	Passed
Diameter Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name:	SDLT Pad - P84	Reference Calibration Date:	17-May-12 11:23:53
Engineer:	T. HYDE	Calibration Date:	17-May-12 11:42:22
Software Version:	WL INSITE R3.4.2 (Build 2)	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: 2.598

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0397	1.0540	0.90 - 1.10
Near Dens Gain	1.0072	1.0097	0.90 - 1.10
Near Peak Gain	1.0050	1.0188	0.90 - 1.10
Near Lith Gain	0.9934	0.9953	0.90 - 1.10
Far Bar Gain	1.0132	1.0151	0.90 - 1.10
Far Dens Gain	0.9993	0.9998	0.90 - 1.10
Far Peak Gain	0.9955	0.9926	0.90 - 1.10
Far Lith Gain	0.9719	0.9716	0.90 - 1.10
Near Bar Offset	-0.1738	-0.3046	NONE
Near Dens Offset	0.0912	0.0692	NONE
Near Peak Offset	0.0877	-0.0277	NONE
Near Lith Offset	0.1436	0.1269	NONE
Far Bar Offset	0.0195	0.0020	NONE
Far Dens Offset	0.1135	0.1091	NONE
Far Peak Offset	0.1235	0.1496	NONE
Far Lith Offset	0.2752	0.2790	NONE
Near Bar Background	846.27	850.56	700 - 1450
Near Dens Background	280.90	282.32	230 - 480
Near Peak Background	123.95	123.31	100 - 210
Near Lith Background	150.57	149.54	125 - 260
Far Bar Background	523.49	524.45	450 - 900
Far Dens Background	203.76	205.37	175 - 345
Far Peak Background	80.28	80.42	70 - 140
Far Lith Background	82.97	83.01	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.683	1.684	0.001	+/- 0.015
Pe	2.552	2.561	0.009	+/- 0.150
ALUMINUM				

Density (g/cc)	2.598	2.598	0.000	+/- 0.01500
Pe	3.133	3.129	-0.004	+/- 0.150

TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0029	+/- 0.0110	0.0017	+/- 0.0140
Magnesium Block	-0.0002	+/- 0.0110	-0.0001	+/- 0.0140
Aluminum Block	-0.0008	+/- 0.0110	0.0009	+/- 0.0140
Resolution	9.19	6.00 - 11.50	8.95	6.00 - 11.50
Internal Verifier(B+D+P+L)	1406	1200 - 2700	893	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 Pad - P84	Reference Calibration Date: 17-May-12 11:42:22
Engineer: T. HYDE	Calibration Date: 11-Jun-12 22:24:00
Software Version: WL INSITE R3.4.2 (Build 2)	Calibration Version: 1

Pad Temperature: 85.8 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1405.731	1399.188	-6.543	15.140
Far (B+D+P+L) cps	893.248	896.575	3.327	16.271
Near Resolution	9.19	9.27	0.080	0.50
Far Resolution	8.95	9.61	0.660	1.00

PASS/FAIL SUMMARY

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

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11048627						
Gamma Ray Calibrator	265.0	269.9	-----	-4.9	+/- 9.00	api
DSNT-11055304						
Snow-Block Porosity	0.0669	0.0739	-----	-0.0070	+/- 0.0150	decP
SDLT-I04_M296						
Pad Extension	3.75	3.74	-----	0.01	+/-0.10	in
Ring Diameter	8.25	8.24	-----	0.010	+/-0.15	in
SDLT Pad-P84						
Near(B+D+P+L)	1405.731	1399.188		-6.543	+/- 15.140	cps

Near(B+D+P+L)	1405.731	1399.188	-----	6.543		cps
Far(B+D+P+L)	893.248	896.575	-----	-3.327	+/-16.271	cps

Data: CUNDIFF_A_2_BW001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHWDL

Date: 13-Jun-12 05:23:45

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PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.200	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	2.000	ohmm
	SHARED	TRM	Temperature of Mud	75.0	degF
	SHARED	CSD	Logging Interval is Cased?	No	
	SHARED	ICOD	AHV Casing OD	5.500	in
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5020.00	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	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	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 for Gamma Ray Tools.	Eccentered	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DSO	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	CLOK	Process Caliper Outputs?	Yes	
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
SDLT Pad	DNOK	Process Density?	Yes	
SDLT Pad	DNOK	Process Density EVR?	No	
SDLT Pad	CB	Logging Calibration Blocks?	No	
SDLT Pad	SPVT	SDLT Pad Temperature Valid?	Yes	
SDLT Pad	DTWN	Disable temperature warning	No	
SDLT Pad	DMA	Formation Density Matrix	2.710	g/cc
SDLT Pad	DFL	Formation Density Fluid	1.000	g/cc
BSAT	MBOK	Compute BCAS Results?	Yes	
BSAT	FLLO	Frequency Filter Low Pass Value?	5000	Hz
BSAT	FLHI	Frequency Filter High Pass Value?	27000	Hz
BSAT	DTFL	Delta -T Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	User define	
BSAT	DTMA	Delta -T Matrix	47.60	uspf
BSAT	DTSH	Delta -T Shale	100.00	uspf
BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
ACRt Sonde	RTOK	Process ACRt?	Yes	
ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
ACRt Sonde	TPOS	Tool Position	Centered	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	

BOTTOM

Data: CUNDIFF_A_2_BV0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHDLE

Date: 13-Jun-12 05:24:50

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INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
SP Sub				
PLTC	Plot Control Mask	72.25	NO	
SP	Spontaneous Potential	72.25	BLK	1.250
SPR	Raw Spontaneous Potential	72.25	NO	
SPO	Spontaneous Potential Offset	72.25	NO	
GTET				
TPUL	Tension Pull	64.23	NO	
GR	Natural Gamma Ray API	64.23	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	64.23	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	64.23	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.99	NO	
RNDS	Near Detector Telemetry Counts	54.09	BLK	1.417
REDS	Far Detector Telemetry Counts	54.84	TRI	0.583

ERFD	Far Detector Telemetry Counts	54.84	BLK	0.000
DNTT	DSN Tool Temperature	54.09	NO	
DSNS	DSN Tool Status	53.99	NO	
ERND	Near Detector Telemetry Counts EVR	54.09	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.84	BLK	0.000
ENTM	DSN Tool Temperature EVR	54.09	NO	
SDLT				
TPUL	Tension Pull	44.09	NO	
PCAL	Pad Caliper	44.09	TRI	0.250
ACAL	Arm Caliper	44.09	TRI	0.250
BSAT				
TPUL	Tension Pull	27.09	NO	
STAT	Status	27.09	NO	
DLYT	Delay Time	27.09	NO	
SI	Sample Interval	27.09	NO	
TXRX	Raw Telemetry 10 Receivers	27.09	NO	
FRMC	Tool Frame Count	27.09	NO	
ACRt Sonde				
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
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	
Microlog Pad				
TPUL	Tension Pull	44.28	NO	
MINV	Microlog Lateral	44.28	BLK	0.750
MNOR	Microlog Normal	44.28	BLK	0.750
SDLT Pad				
TPUL	Tension Pull	44.08	NO	
NAB	Near Above	43.90	BLK	0.920
NHI	Near Cesium High	43.90	BLK	0.920
NLO	Near Cesium Low	43.90	BLK	0.920
NVA	Near Valley	43.90	BLK	0.920
NBA	Near Barite	43.90	BLK	0.920
NDE	Near Density	43.90	BLK	0.920
NPK	Near Peak	43.90	BLK	0.920
NLI	Near Lithology	43.90	BLK	0.920
NBAU	Near Barite Unfiltered	43.90	BLK	0.250
NLIU	Near Lithology Unfiltered	43.90	BLK	0.250
FAB	Far Above	44.26	BLK	0.250
FHI	Far Cesium High	44.26	BLK	0.250
FLO	Far Cesium Low	44.26	BLK	0.250
FVA	Far Valley	44.26	BLK	0.250
FBA	Far Barite	44.26	BLK	0.250
FDE	Far Density	44.26	BLK	0.250
FPK	Far Peak	44.26	BLK	0.250
FLI	Far Lithology	44.26	BLK	0.250
PTMP	Pad Temperature	44.09	BLK	0.920
NHV	Near Detector High Voltage	43.49	NO	
FHV	Far Detector High Voltage	43.49	NO	
ITMP	Instrument Temperature	43.49	NO	
DDHV	Detector High Voltage	43.49	NO	
Data: CUNDIFF_A_2_B\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CH\IDLE			Date: 13-Jun-12 05:25:15	

HALLIBURTON

Plot Time: 13-Jun-12 08:27:23

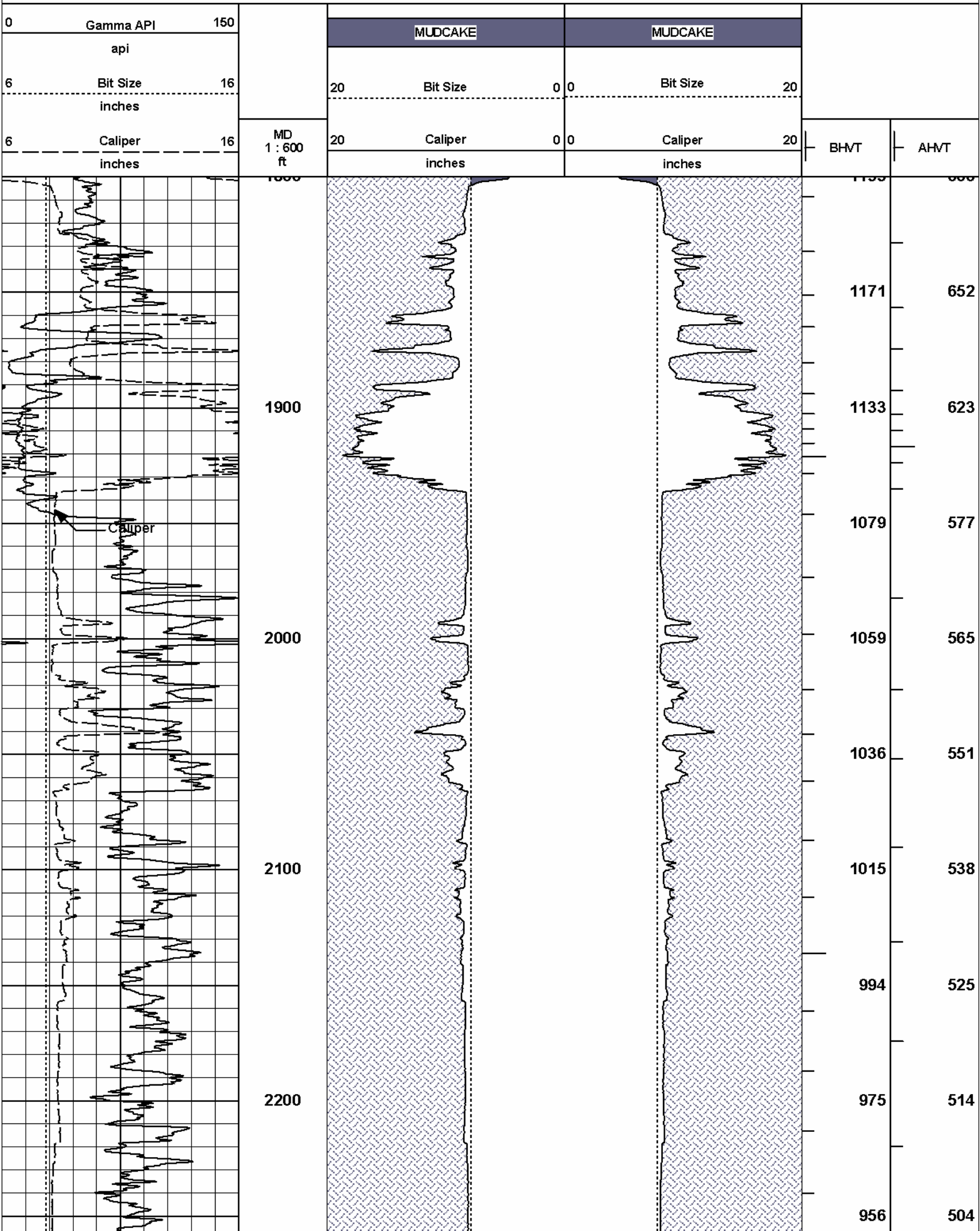
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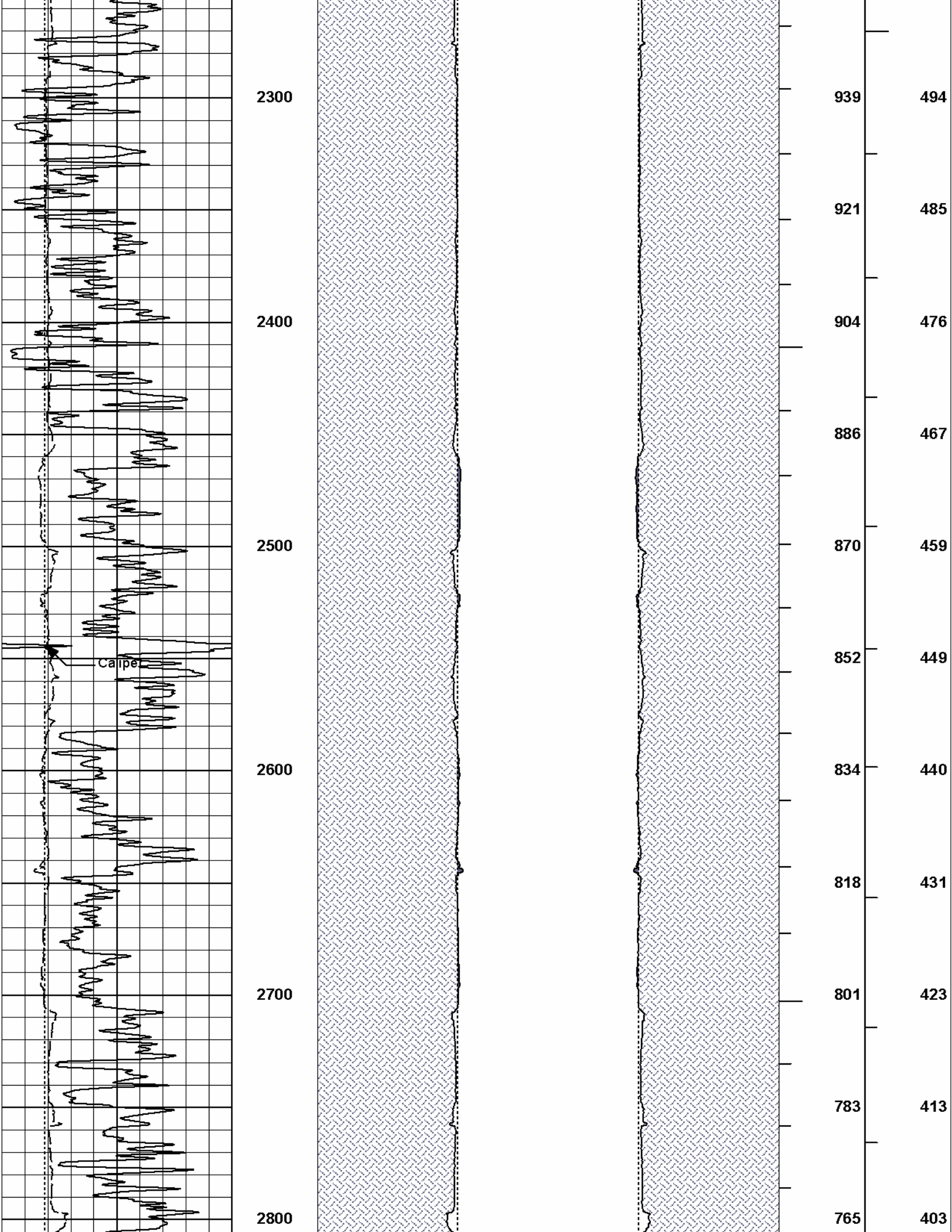
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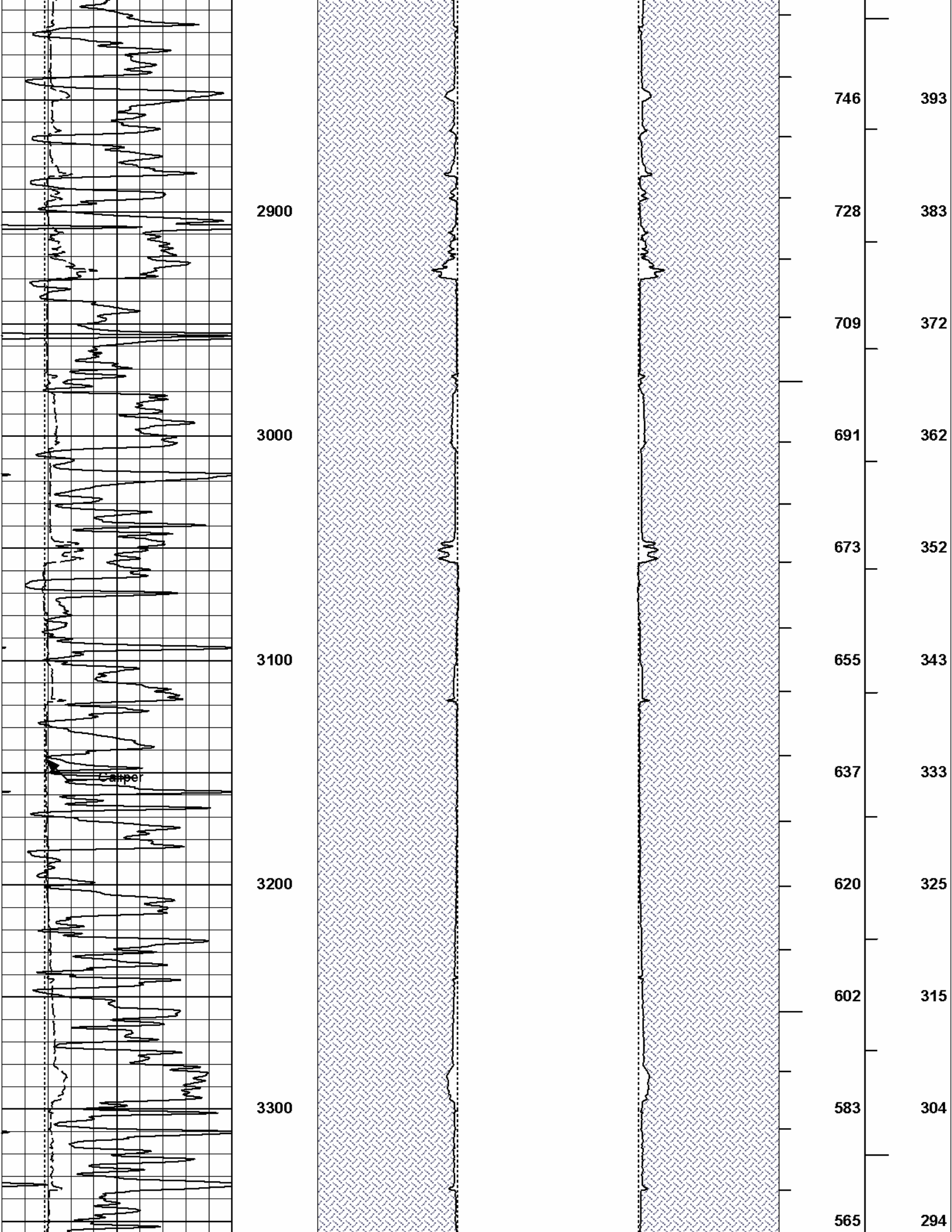
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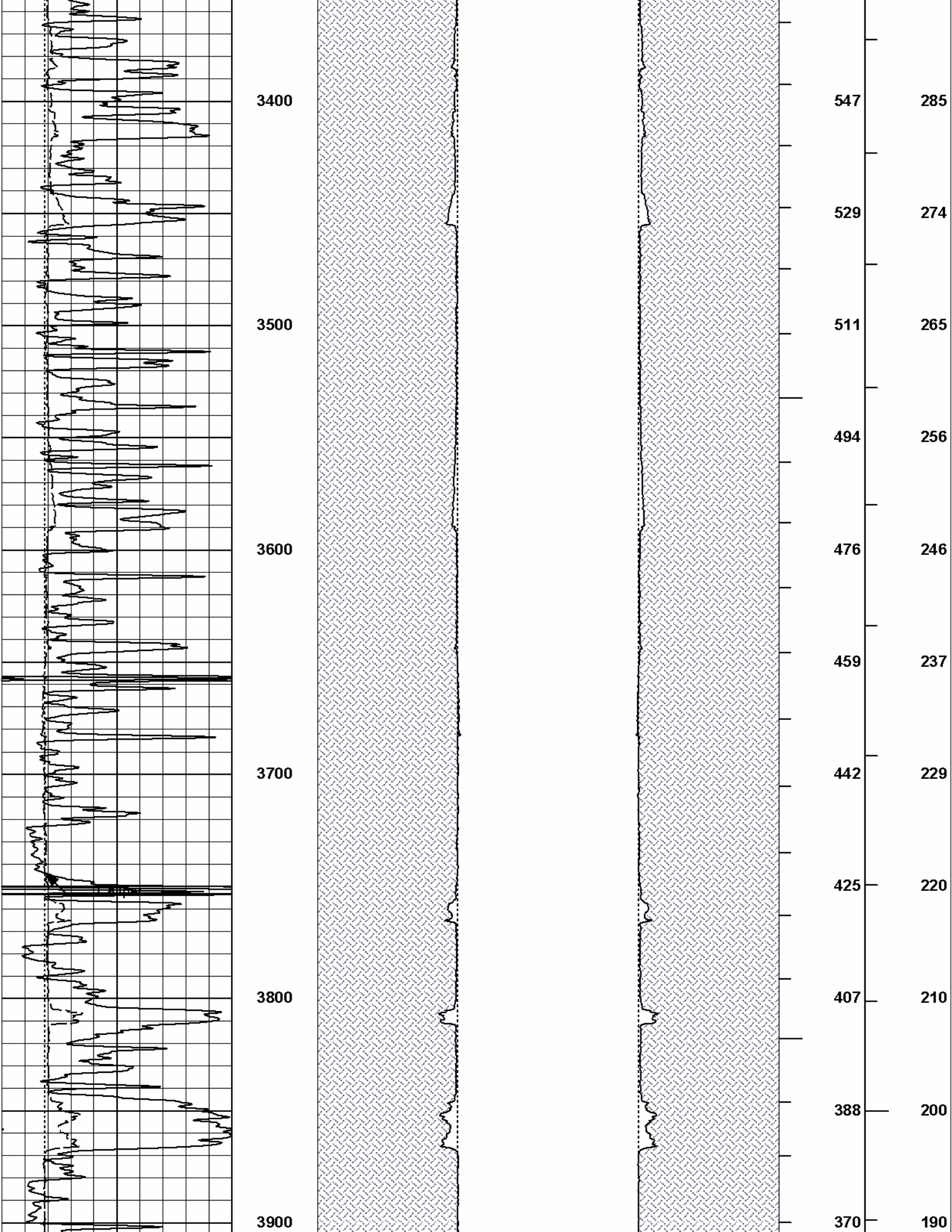
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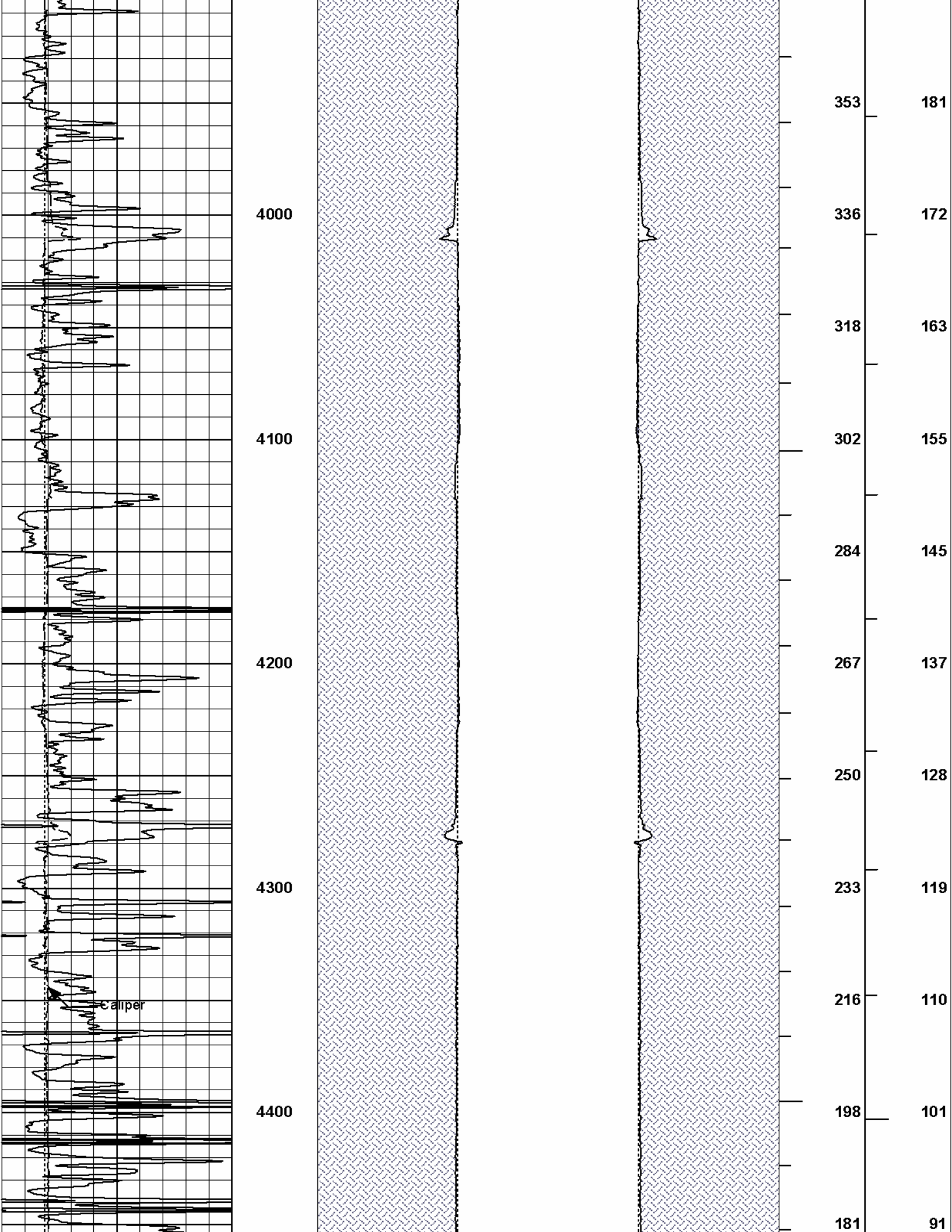
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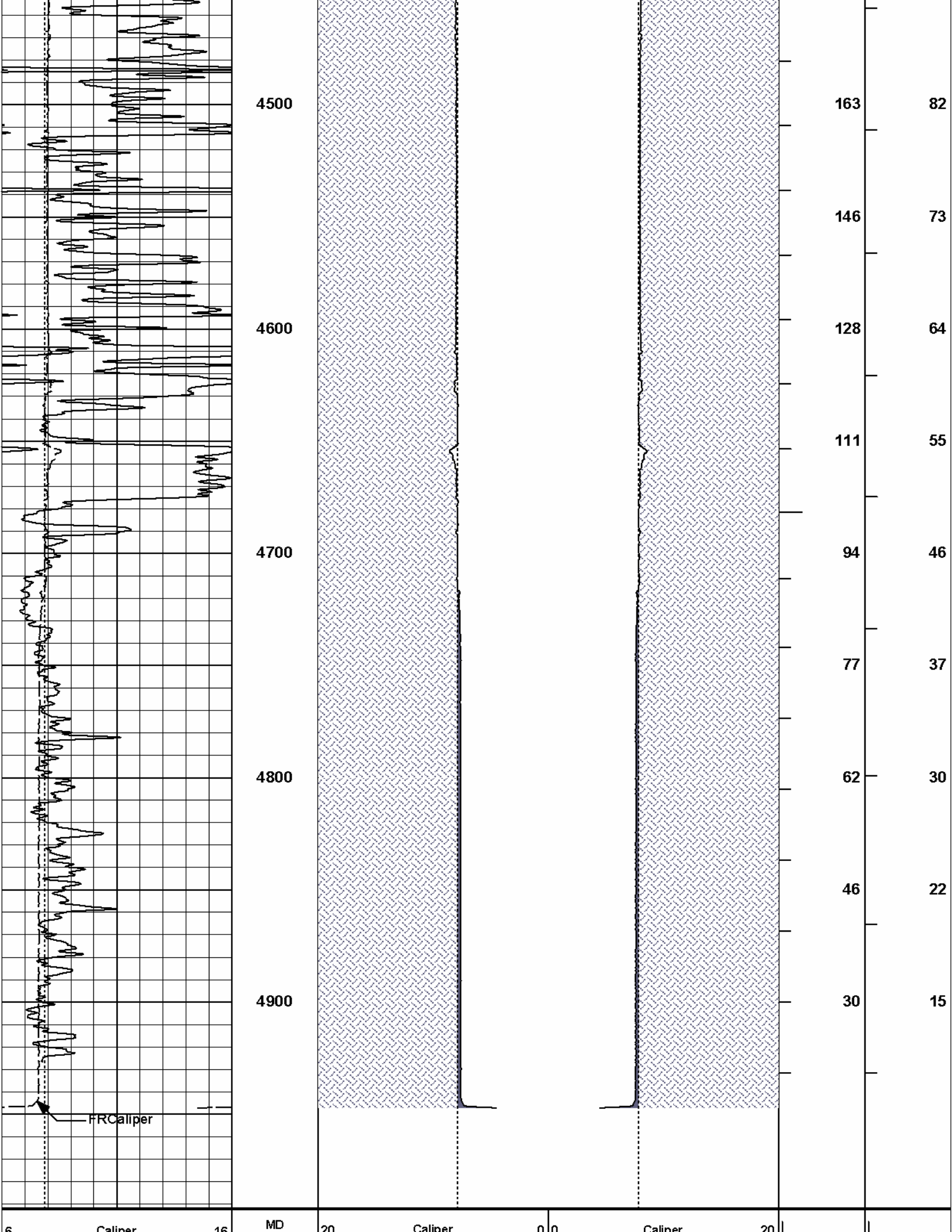












inches	1 : 600 ft	inches	inches	BHVT	AHVT
6 Bit Size 16		20 Bit Size 0 0	20 Bit Size 20		
inches					
0 Gamma API 150		MUDCAKE	MUDCAKE		
api					

HALLIBURTON

Plot Time: 13-Jun-12 08:27:30
Plot Range: 1800 ft to 4991.75 ft
Data: CUNDIFF_A_2_B\Well Based\DAQ-0001-006\
Plot File: \\LOCAL-1\CUNDIFF_A_2_B\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIPOROI\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT

COMPANY	OXY USA INC.		
WELL	CUNDIFF A-2		
FIELD			
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	