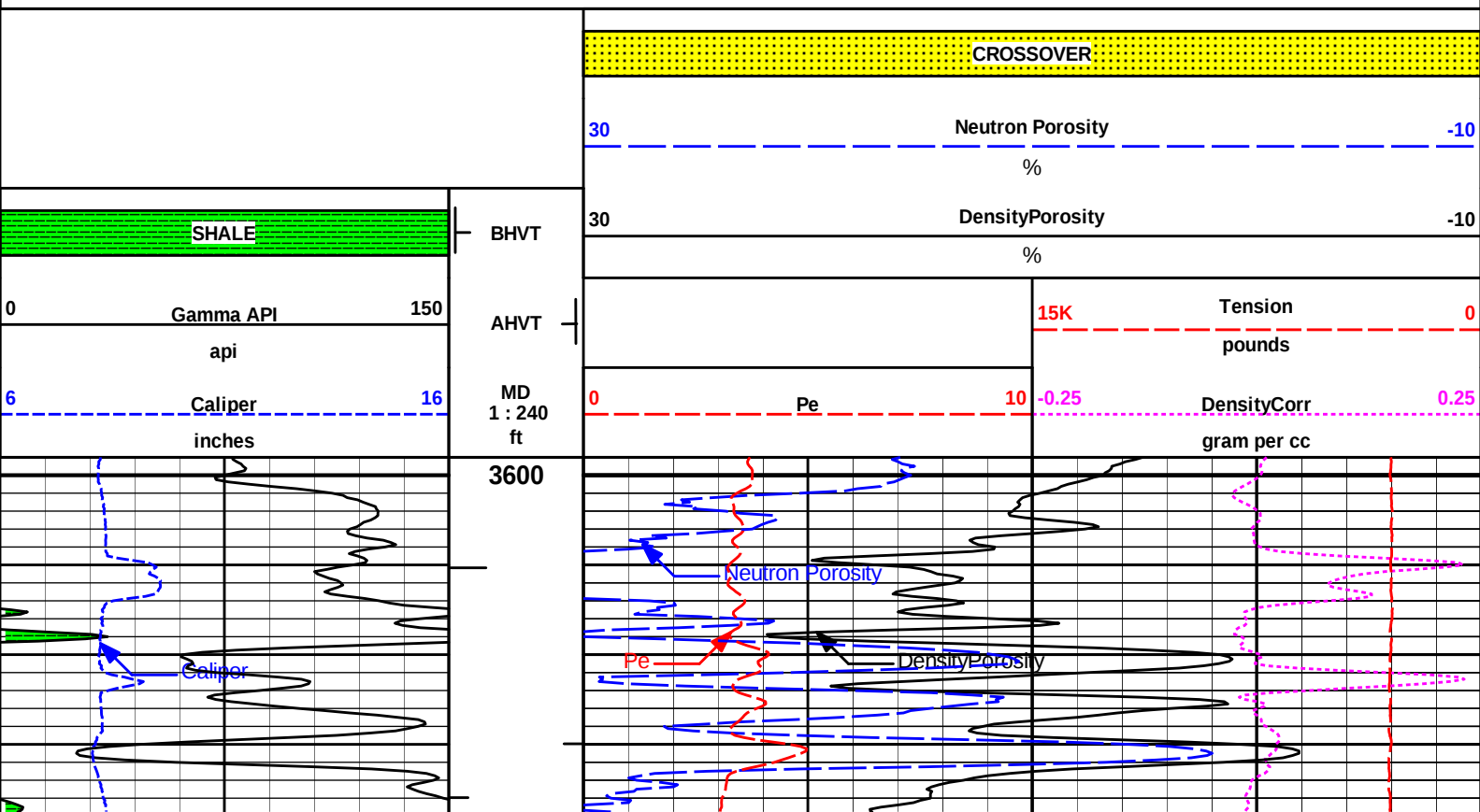


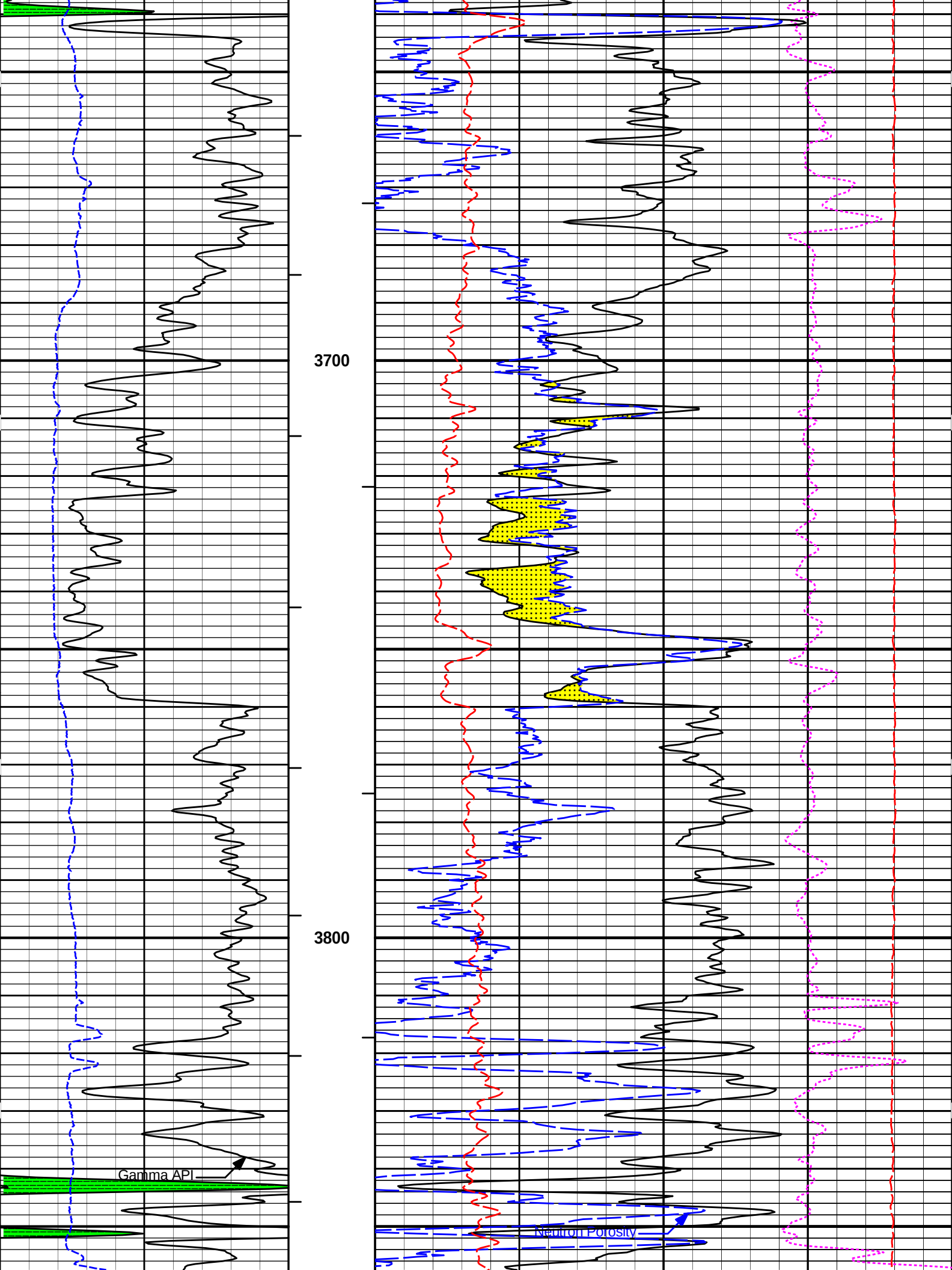
HALLIBURTON

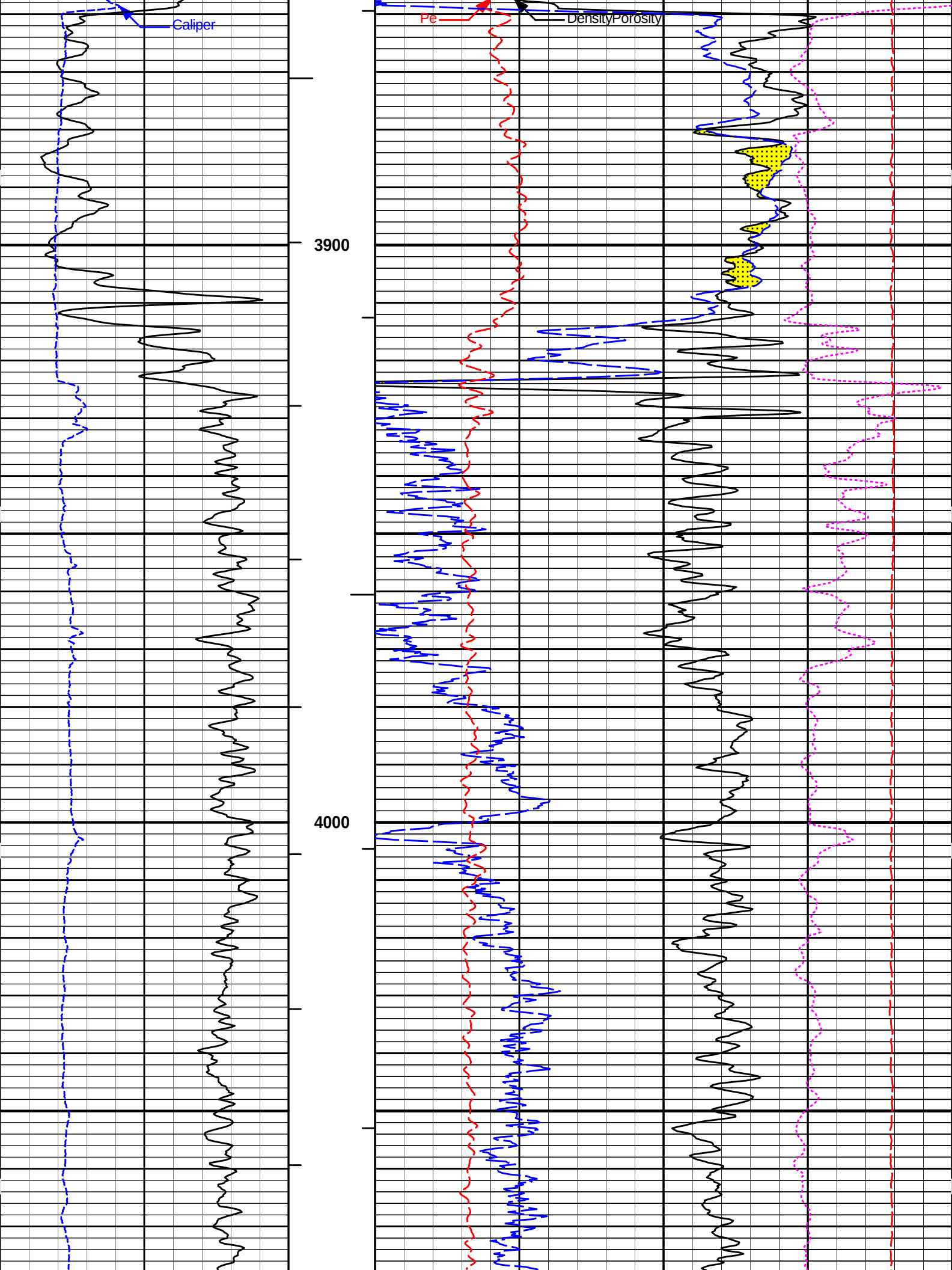
DUAL SPACED NEUTRON
SPECTRAL DENSITY
LOG

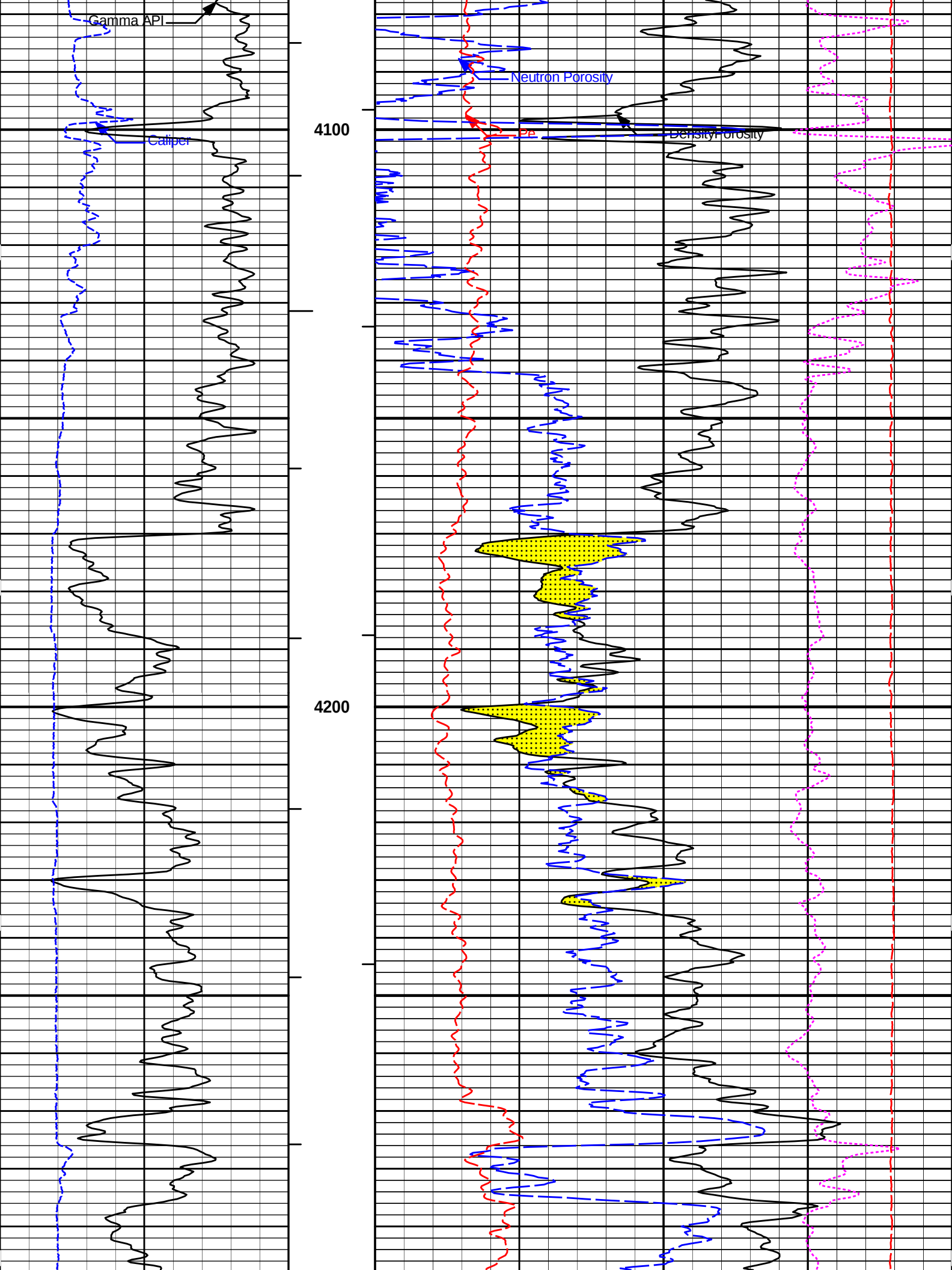
COMPANY		HERMAN L. LOEB, LLC.			
WELL		SCHOOL TRUST 22-5			
FIELD/BLOCK		HARDTNER			
COUNTY		BARBER			
STATE		KANSAS			
Permanent Datum Log measured from Drilling measured from	GL	Sect. 5	Twp. 35S	Rge. 12W	Other Services: ACRT BSAT MICRO XRMI
	KB				
Date		19-Feb-14			
Run No.		ONE			
Depth - Driller		5580.00 ft			
Depth - Logger		5578.0 ft			
Bottom - Logged Interval		5534.0 ft			
Top - Logged Interval		3600.0 ft			
Casing - Driller		13.375 in @ 266.0 ft			
Casing - Logger		265.0 ft			
Bit Size		7.875 in @			
Type Fluid in Hole		WATER BASED			
Density	Viscosity	9.4 ppg	68.00 s/qt		
PH	Fluid Loss	10.00 pH	9.6 cpm		
Source of Sample		MUD PIT			
Rm @ Meas. Temperature		0.700 ohmm	@ 85.00 degF	@	
Rmf @ Meas. Temperature		0.54 ohmm	@ 84.00 degF	@	
Rmc @ Meas. Temperature		0.810 ohmm	@ 85.00 degF	@	
Source Rmf	Rmc	MEASURED	MEASURED		
Rm @ BHT		0.51 ohmm	@ 120.0 degF	@	
Time Since Circulation		4.0 hr			
Time on Bottom		19-Feb-14 18:02			
Max. Rec. Temperature		120.0 degF	@ 5578.0 ft	@	
Equipment	Location	11230668	LIBERAL		
Recorded By		THOMAS HYDE			
Witnessed By		J. CHRISTENSEN			

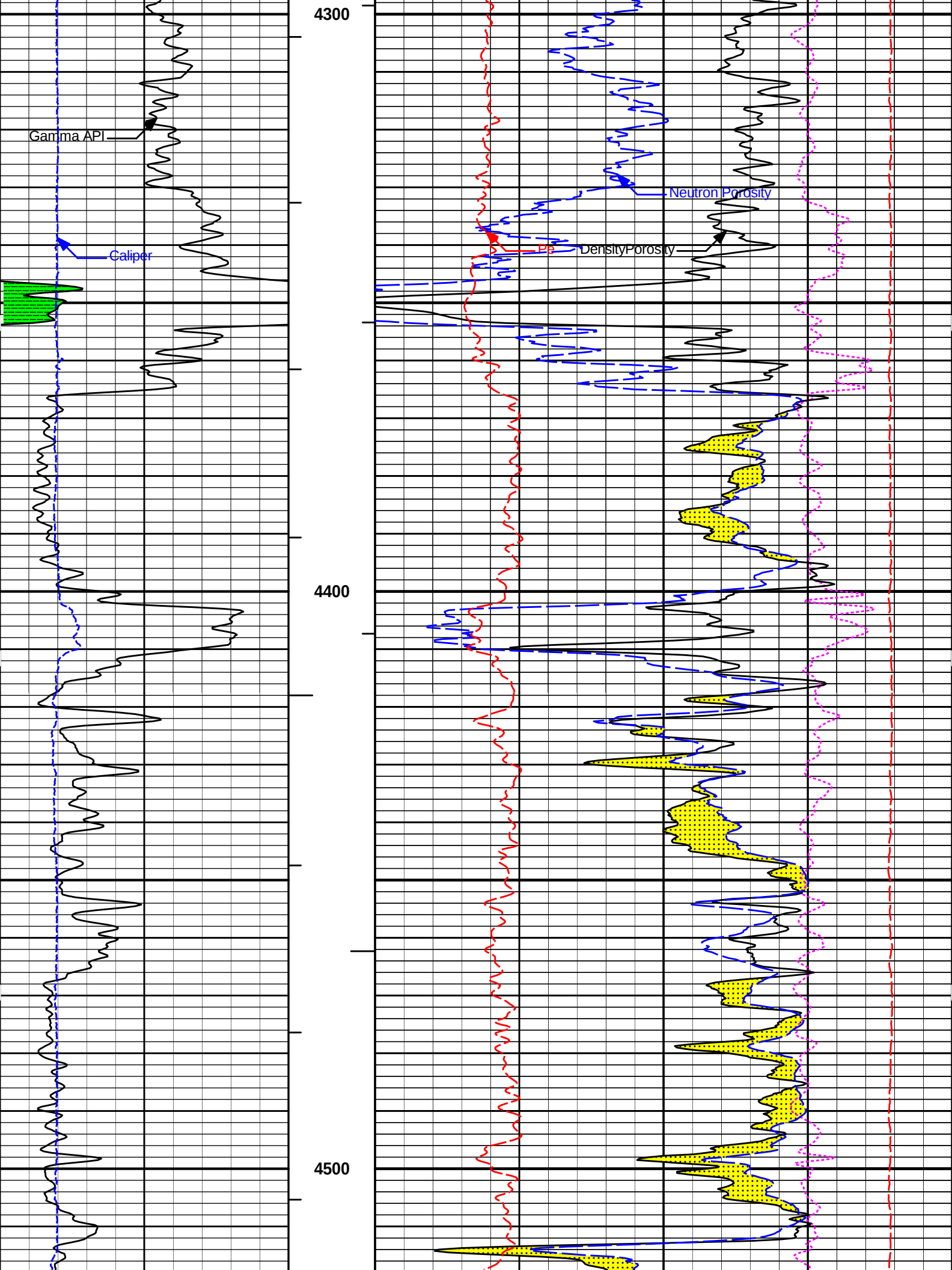
Service Ticket No.: 901099086				API Serial No.: 15-007-24127-00-00				PGM Version: WL INSITE R3.8.4 (Build 5)							
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES									
Date		Sample No.				Type Log		Depth		Scale Up Hole		Scale Down Hole			
Depth-Driller															
Type 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.		@		@											
Rmc @ Meas. Temp.		@		@											
Source Rmf		Rmc													
Rm @ BHT		@		@											
Rmf @ BHT		@		@											
Rmc @ BHT		@		@											
EQUIPMENT DATA															
GAMMA				ACOUSTIC				DENSITY				NEUTRON			
Run No.		ONE		Run No.				Run No.		ONE		Run No.		ONE	
Serial No.		10748374		Serial No.				Serial No.		10673803		Serial No.		10735145	
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.		5073 GW		Serial No.		DSN-436	
Distance to Source		10'		FWDA [Y/N]				Strength		1.5 Ci		Strength		15 Ci	
LOGGING DATA															

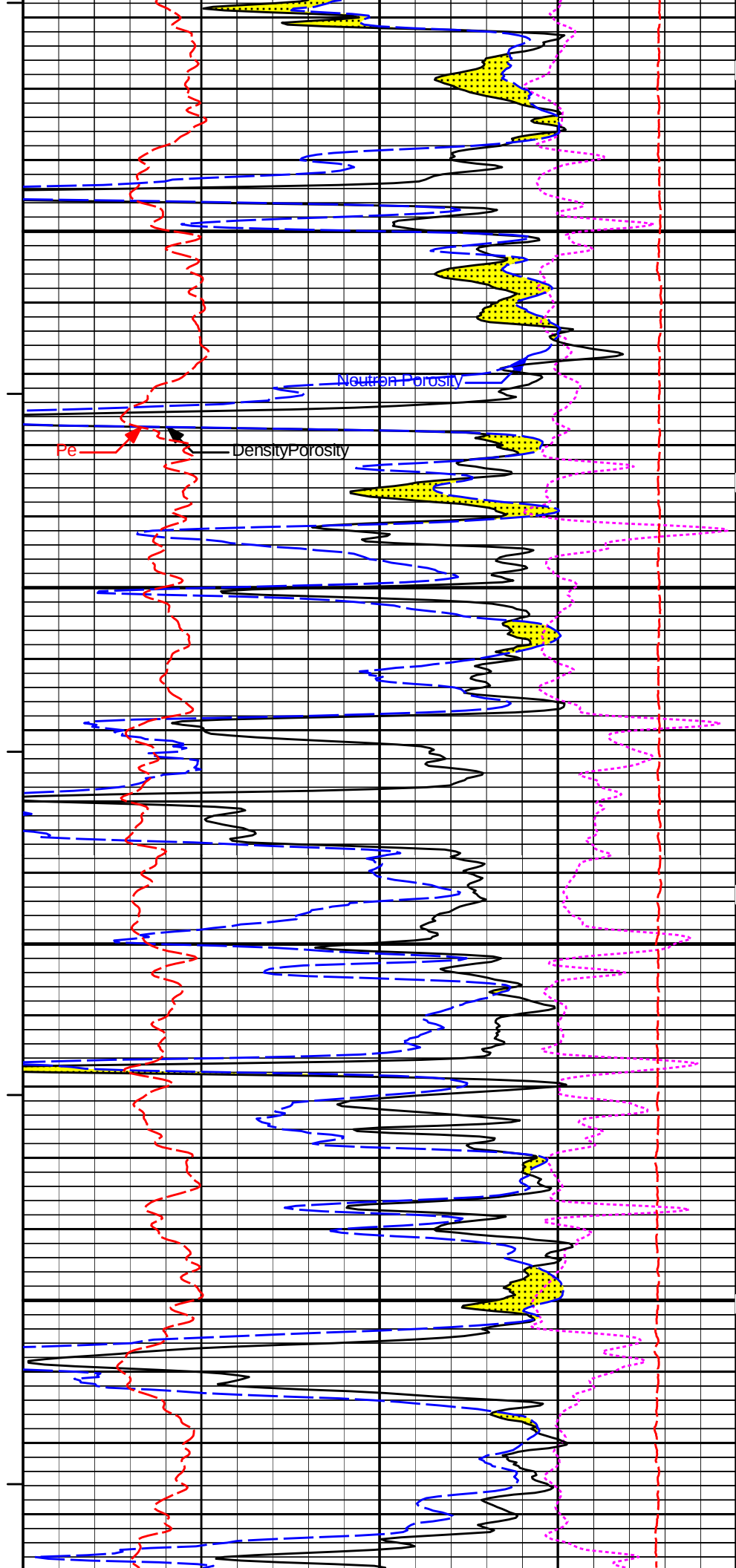
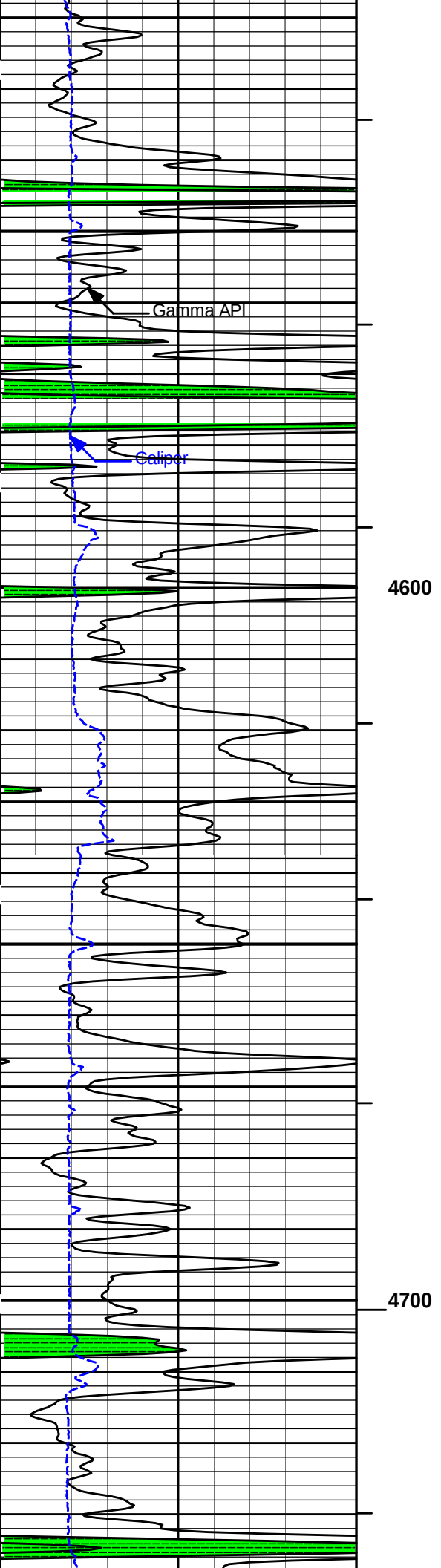


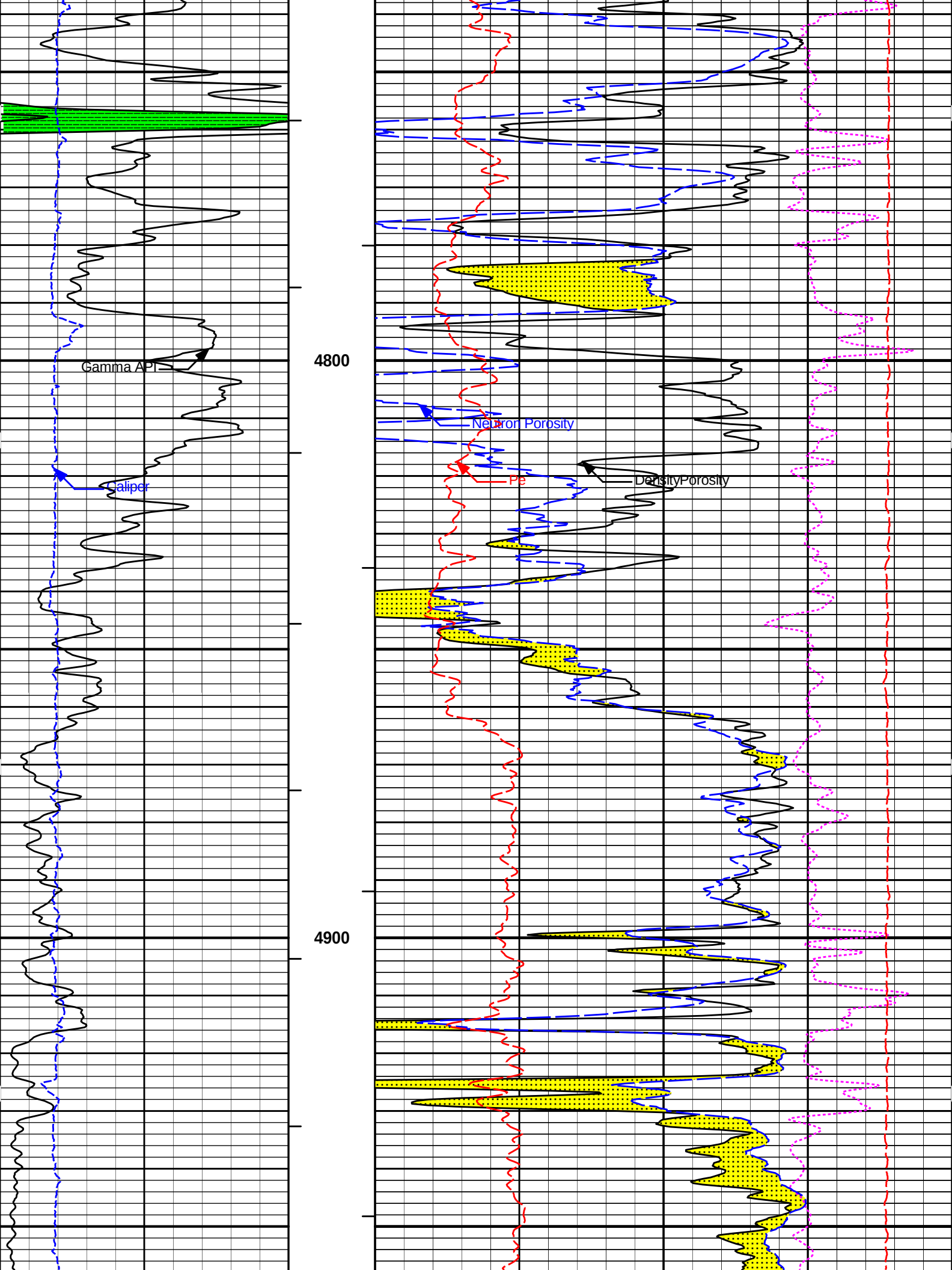


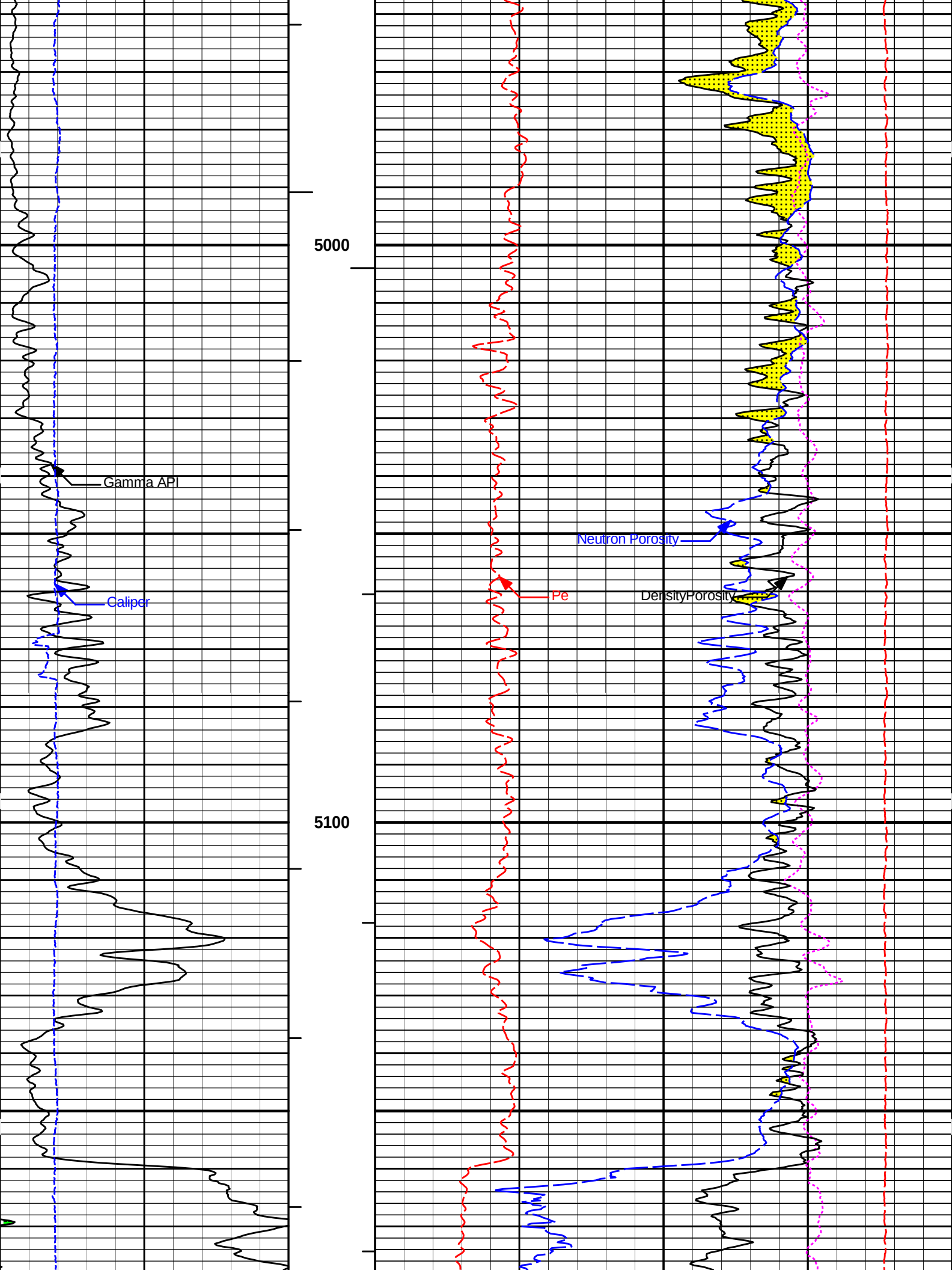


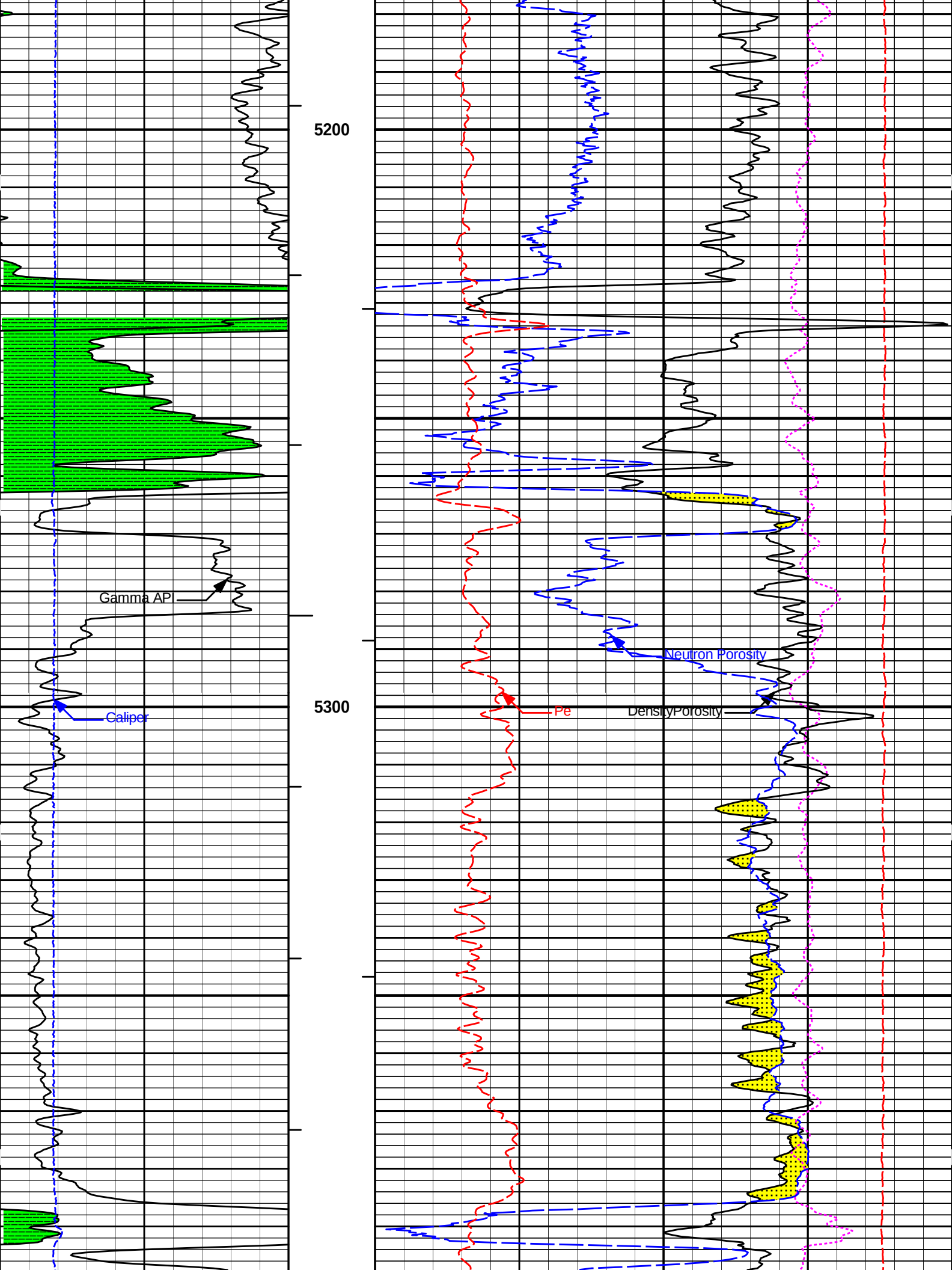


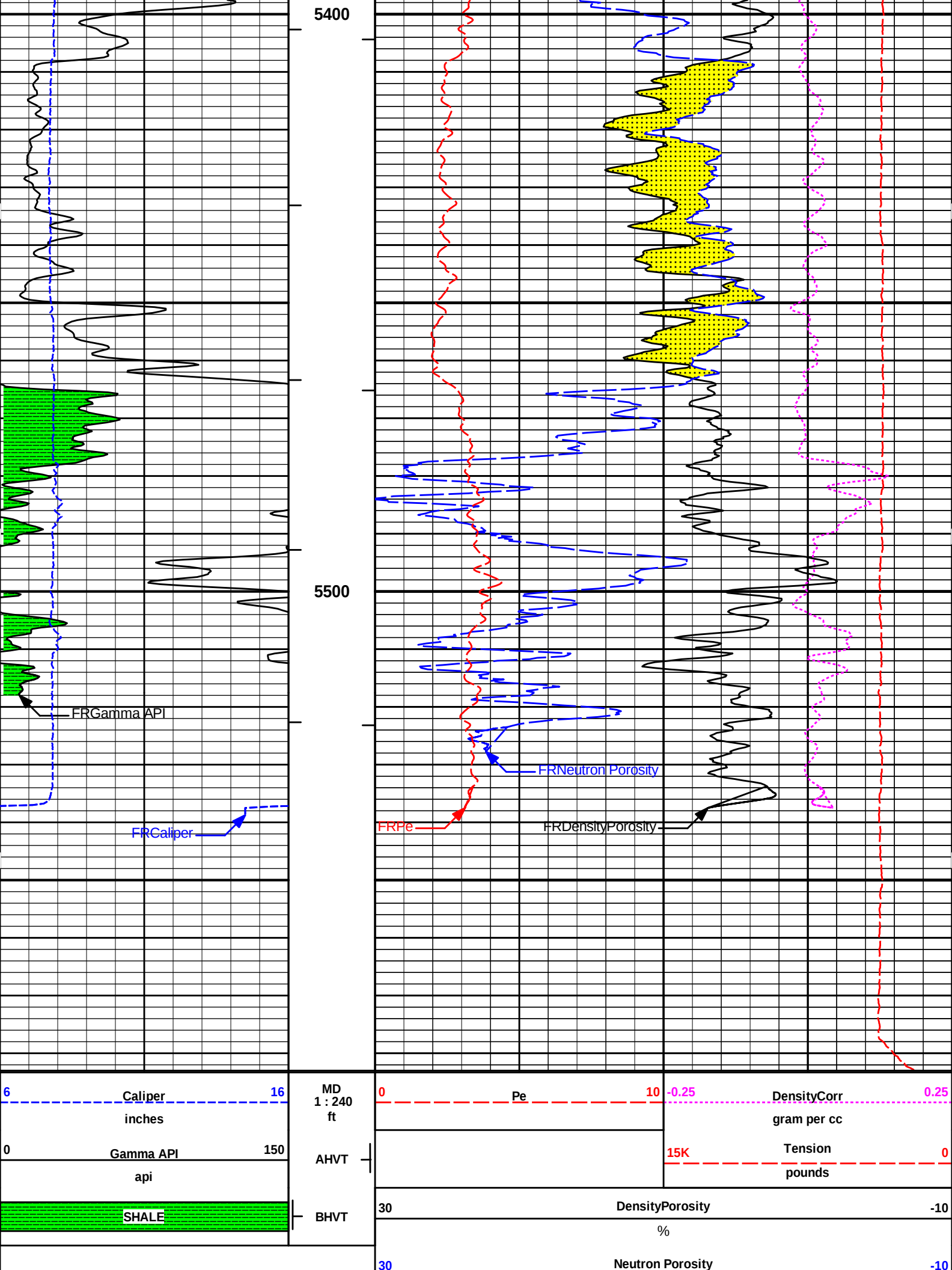












%

CROSSOVER

HALLIBURTON

Plot Time: 19-Feb-14 21:04:26
Plot Range: 3598 ft to 5583 ft
Data: SCHOOL_TST_22-5\Well Based\DAQ-0001-005\
Plot File: \\PORO\Poros_IQ_5_MAIN_LIB

5 INCH MAIN LOG

HALLIBURTON

Plot Time: 19-Feb-14 21:04:26
Plot Range: 5300 ft to 5582.92 ft
Data: SCHOOL_TST_22-5\Well Based\DAQ-0001-004\
Plot File: \\PORO\Poros_IQ_5_REP_LIB

REPEAT SECTION

CROSSOVER

30

Neutron Porosity

-10

%

30

DensityPorosity

-10

%

0

Gamma API

150

api

BHVT

AHVT

MD
1 : 240
ft

6

Caliper

16

inches

0

Pe

10

-0.25

DensityCorr

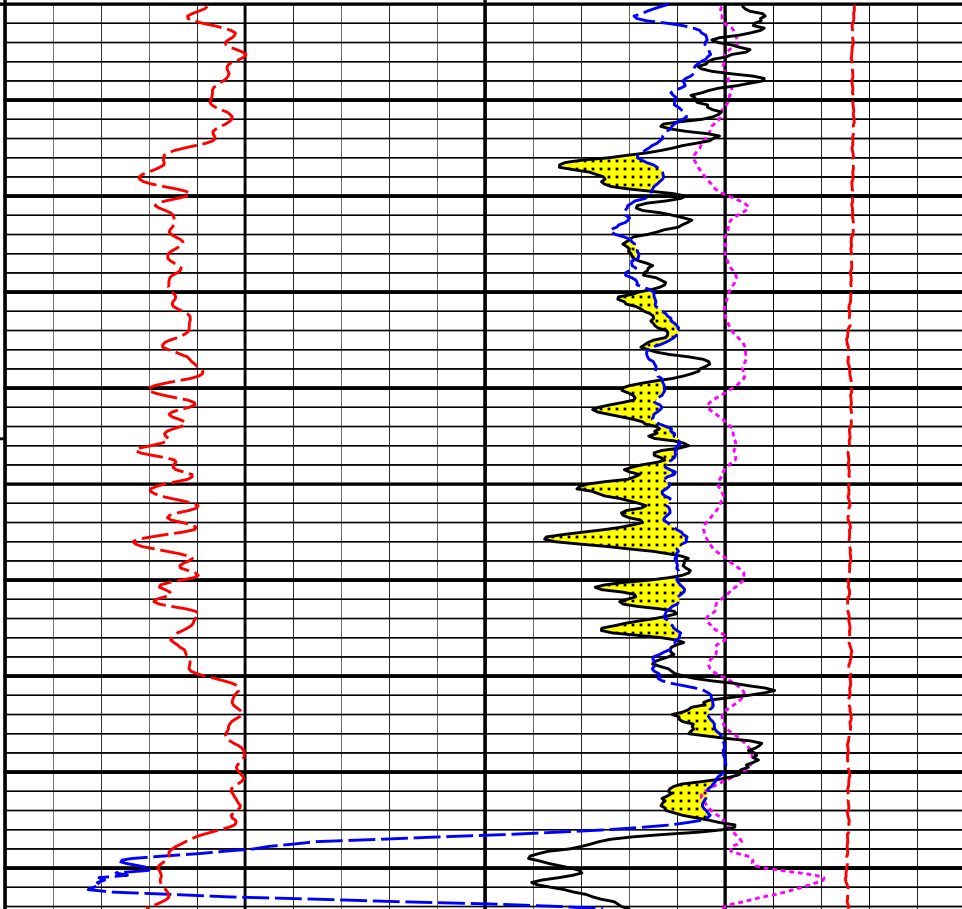
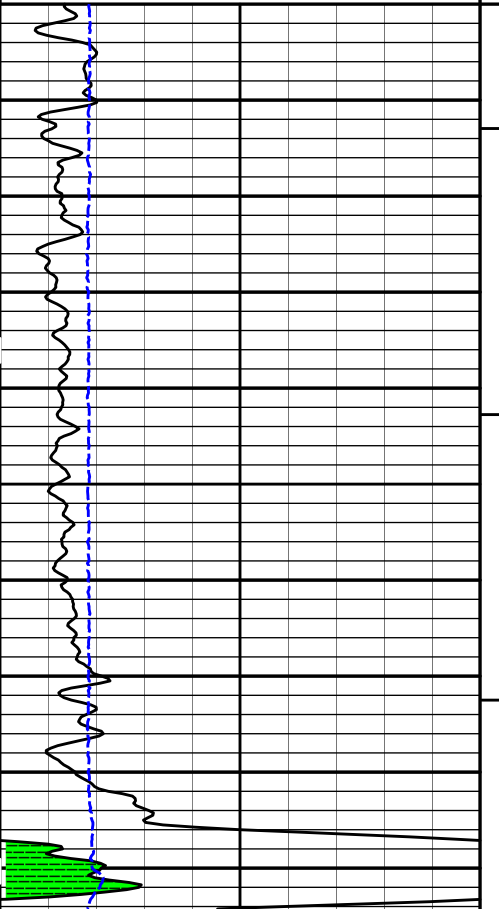
0.25

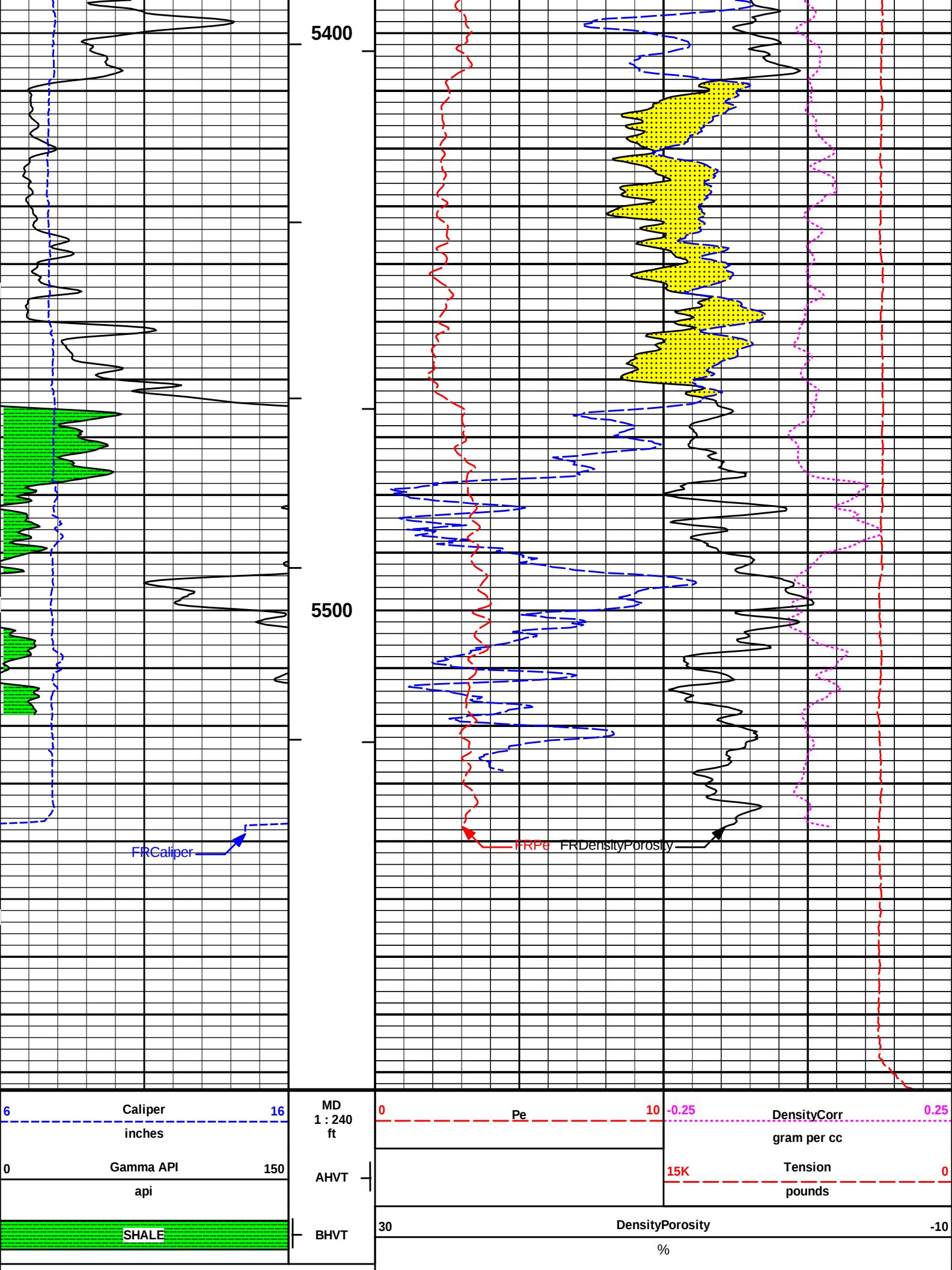
gram per cc

Tension

pounds

0





30	Neutron Porosity	-10
	%	
	CROSSOVER	

HALLIBURTON

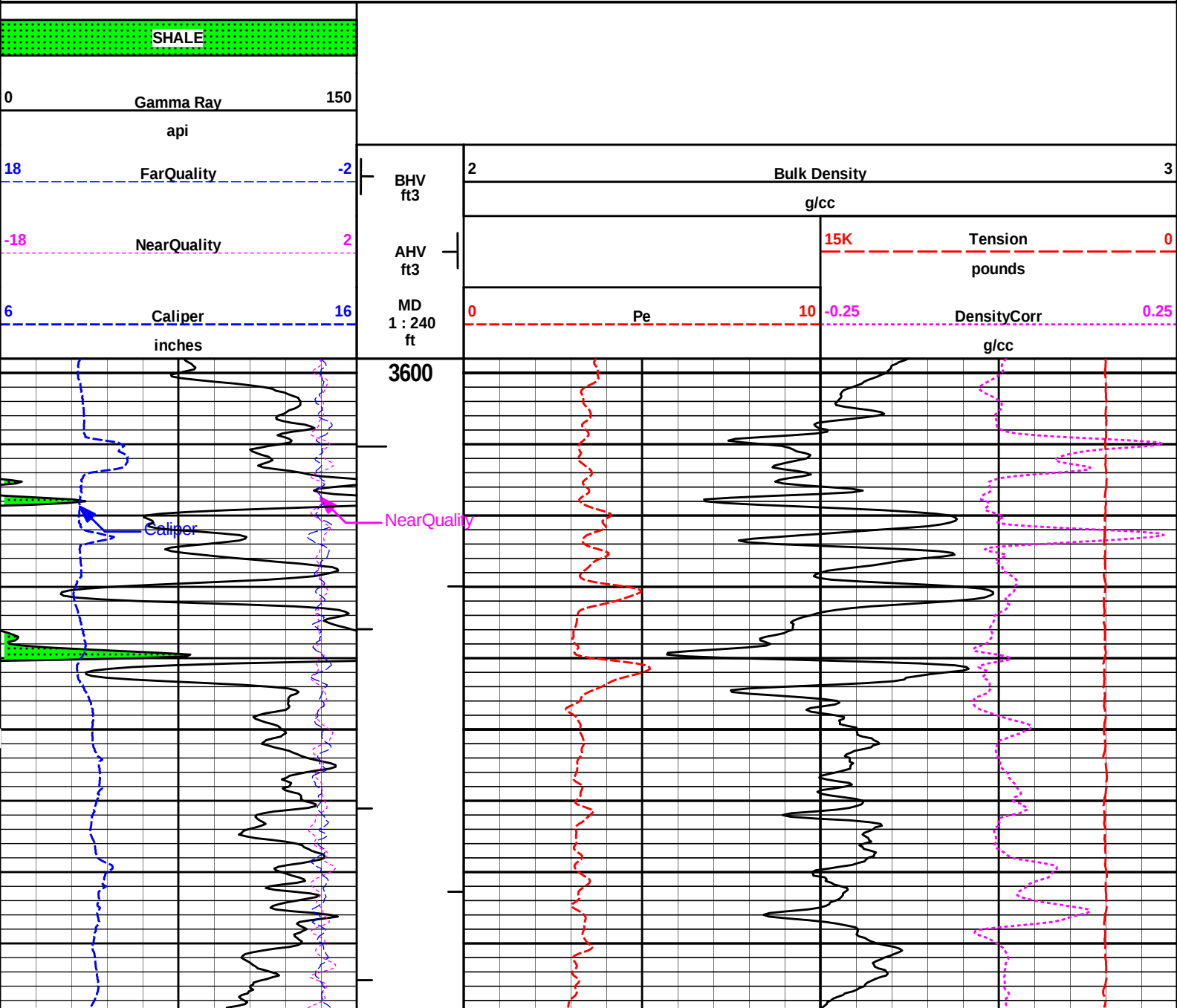
Plot Time: 19-Feb-14 21:04:29
Plot Range: 5300 ft to 5582.92 ft
Data: SCHOOL_TST_22-5\Well Based\DAQ-0001-004\
Plot File: \\PORO\Poro_IQ_5_REP_LIB

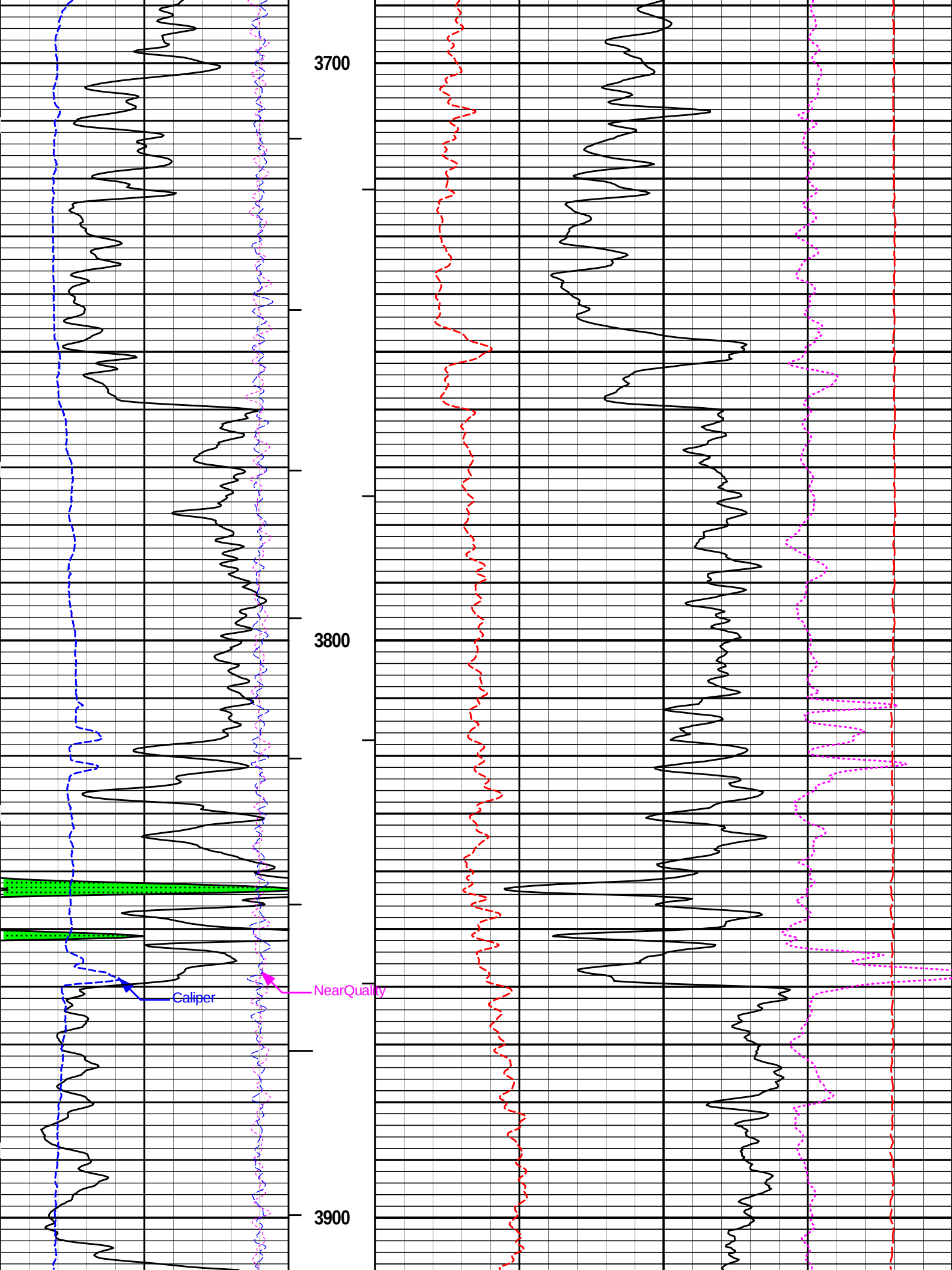
REPEAT SECTION

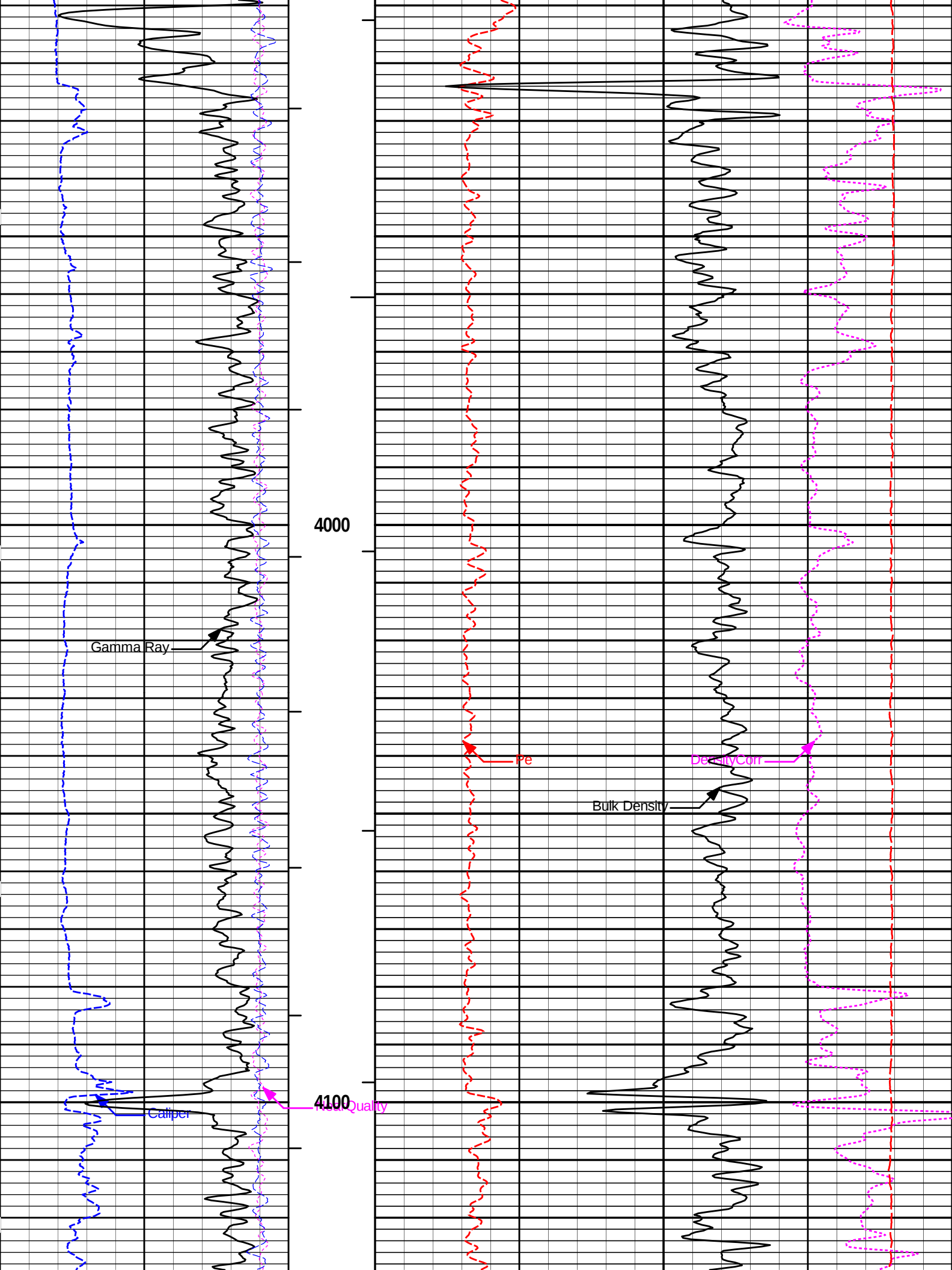
HALLIBURTON

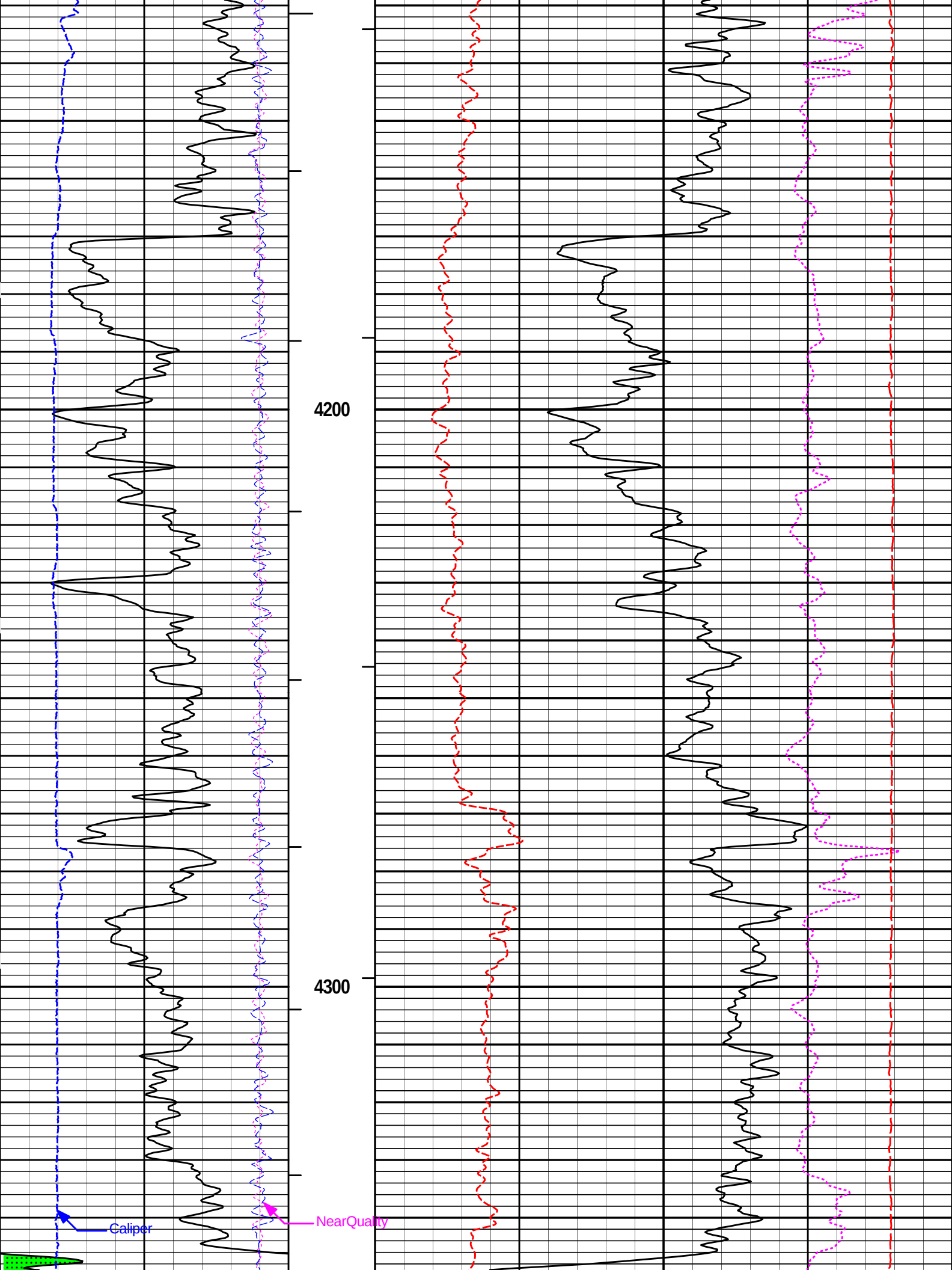
Plot Time: 19-Feb-14 21:04:29
Plot Range: 3598 ft to 5583 ft
Data: SCHOOL_TST_22-5\Well Based\DAQ-0001-005\
Plot File: \\LOCAL\SCHOOL_TST_22-5\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\PORO\BULKD_5_MAIN_LIB

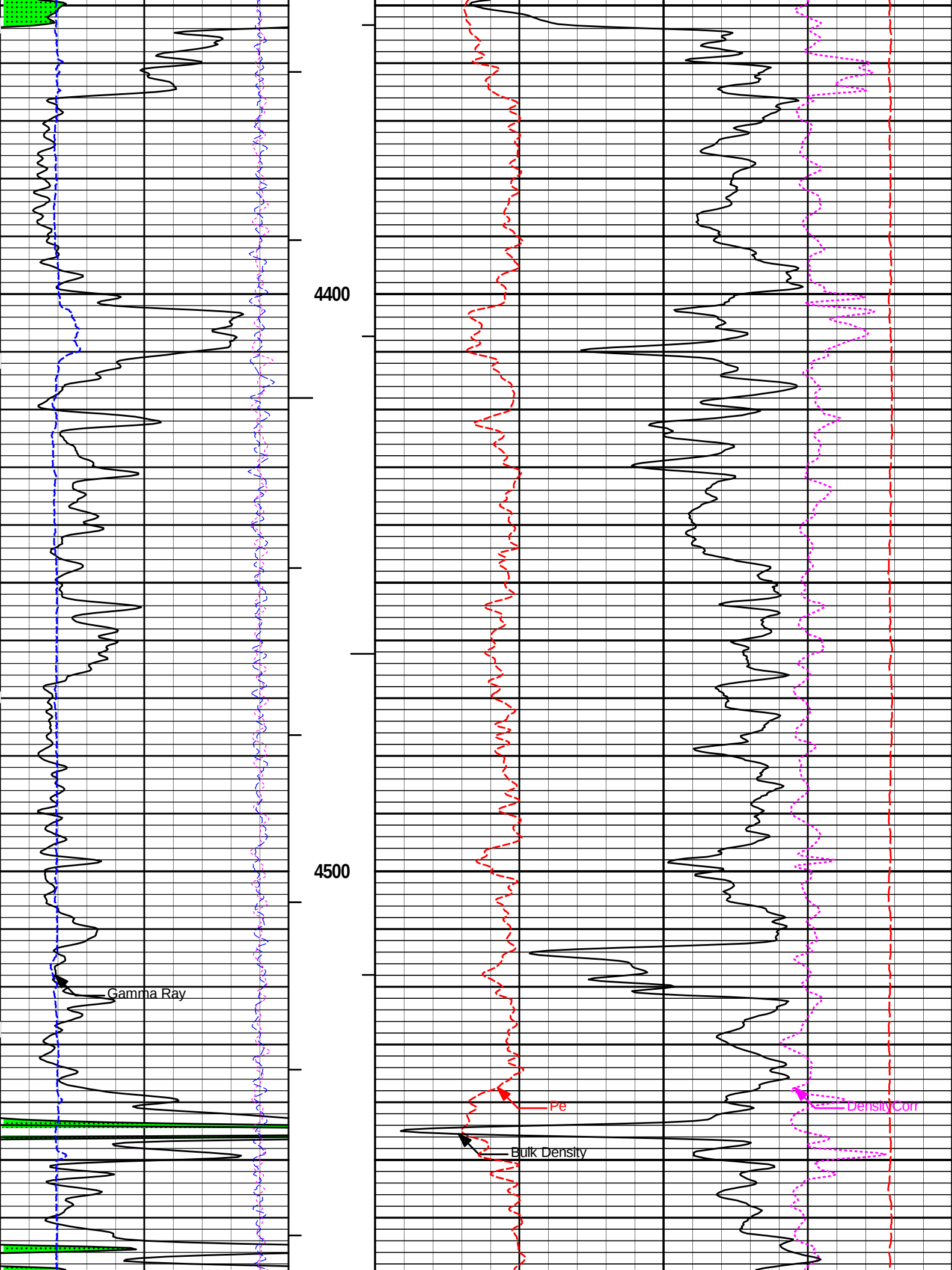
5 INCH MAIN LOG

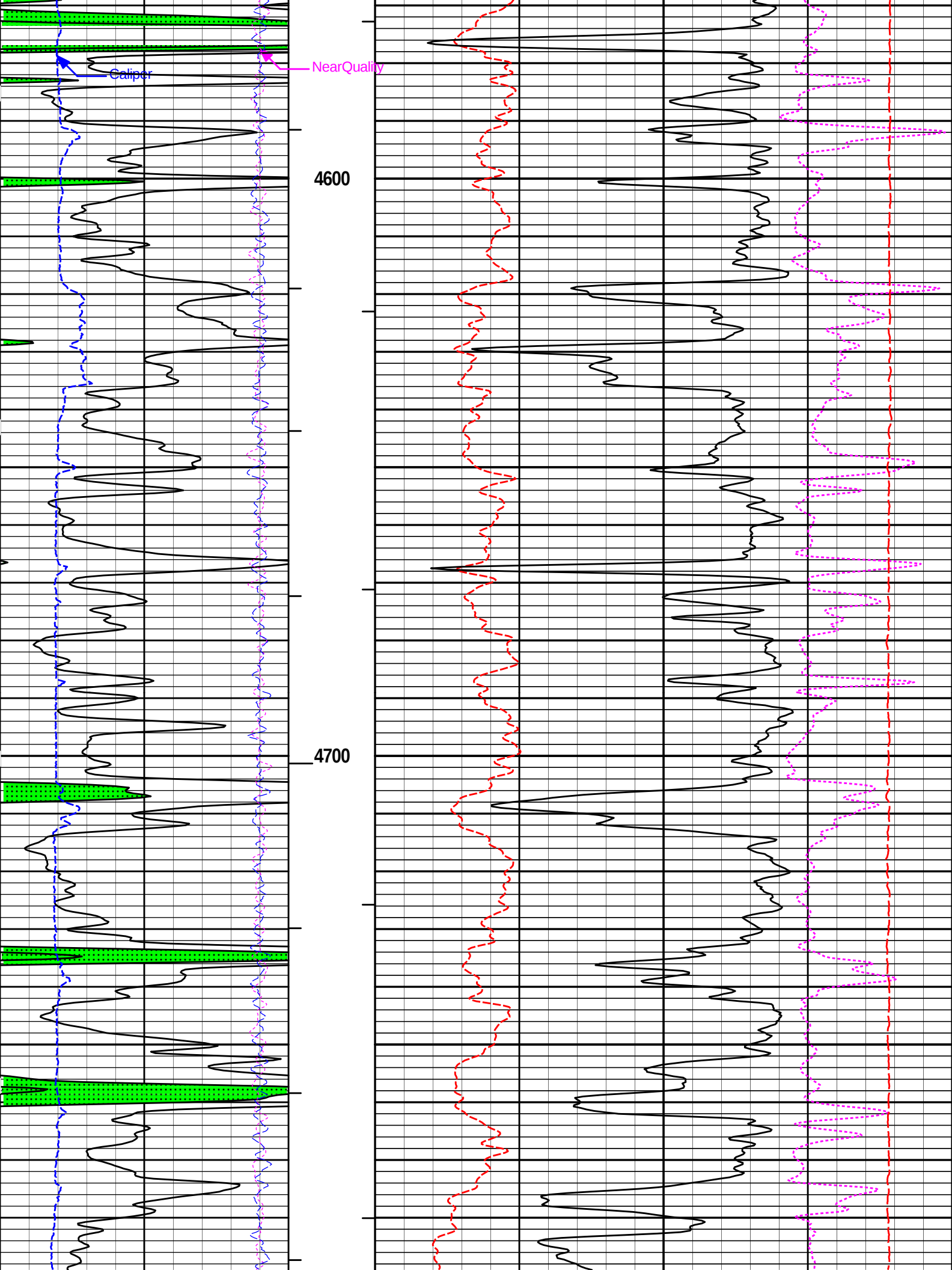


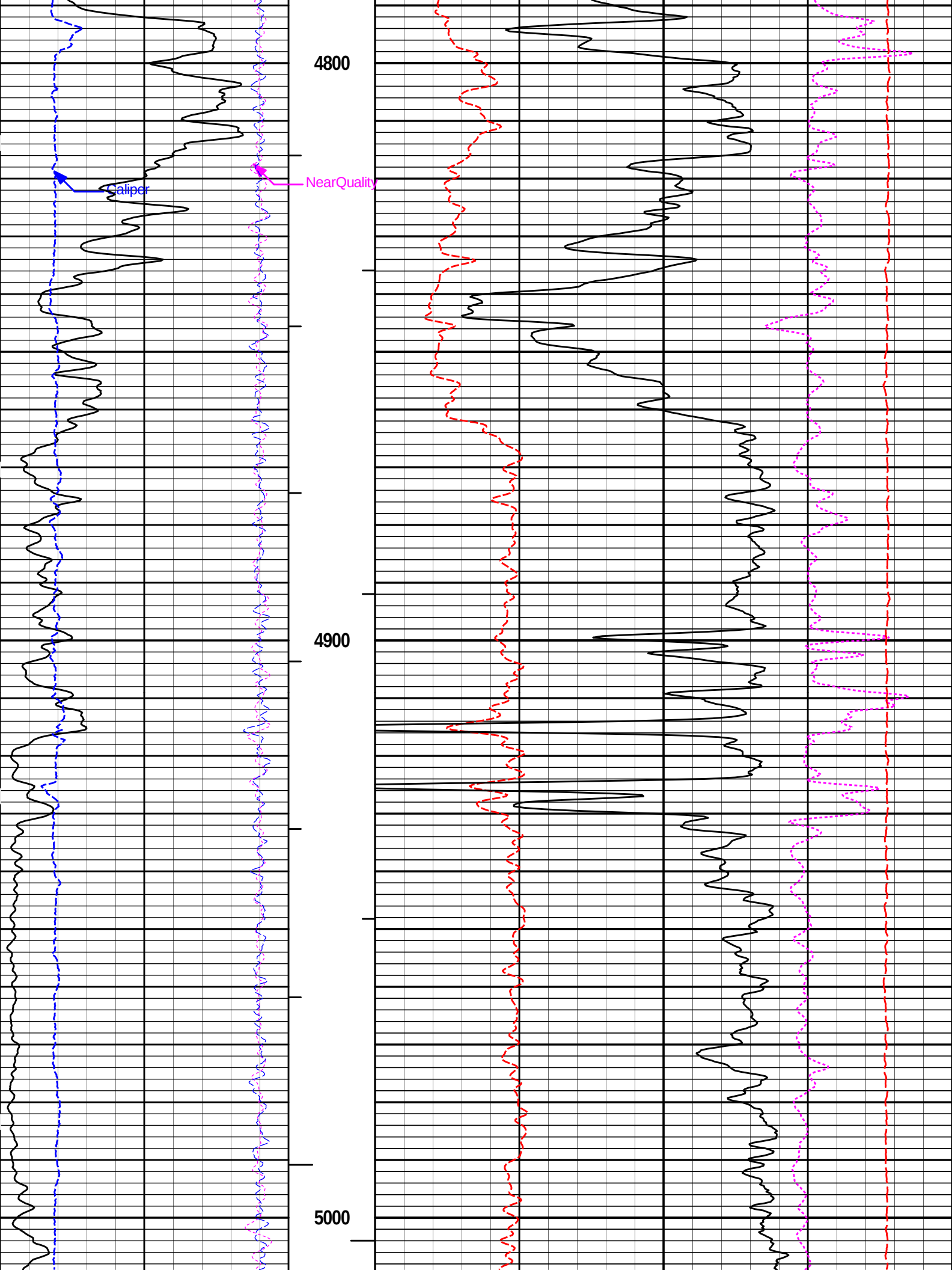


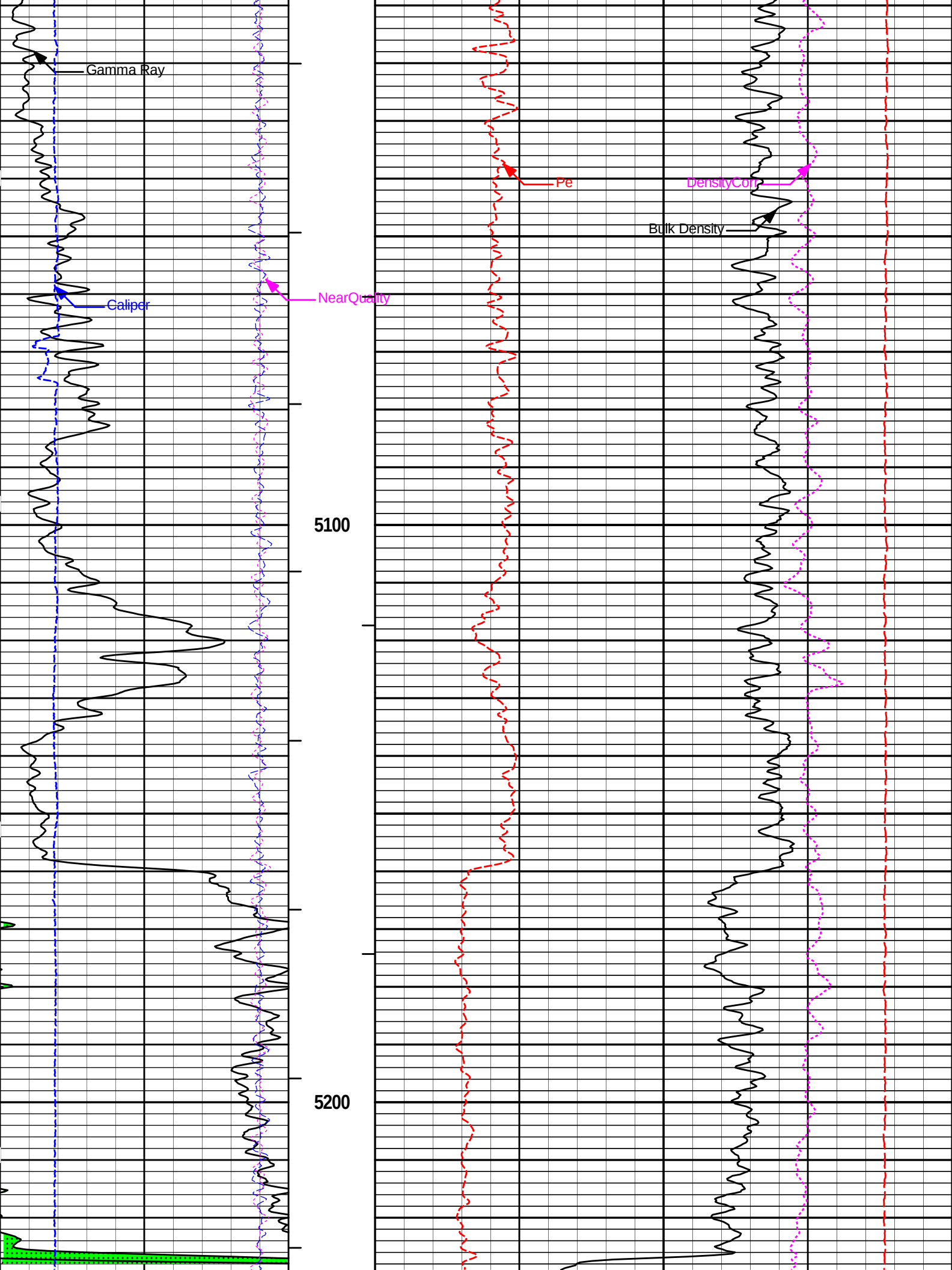


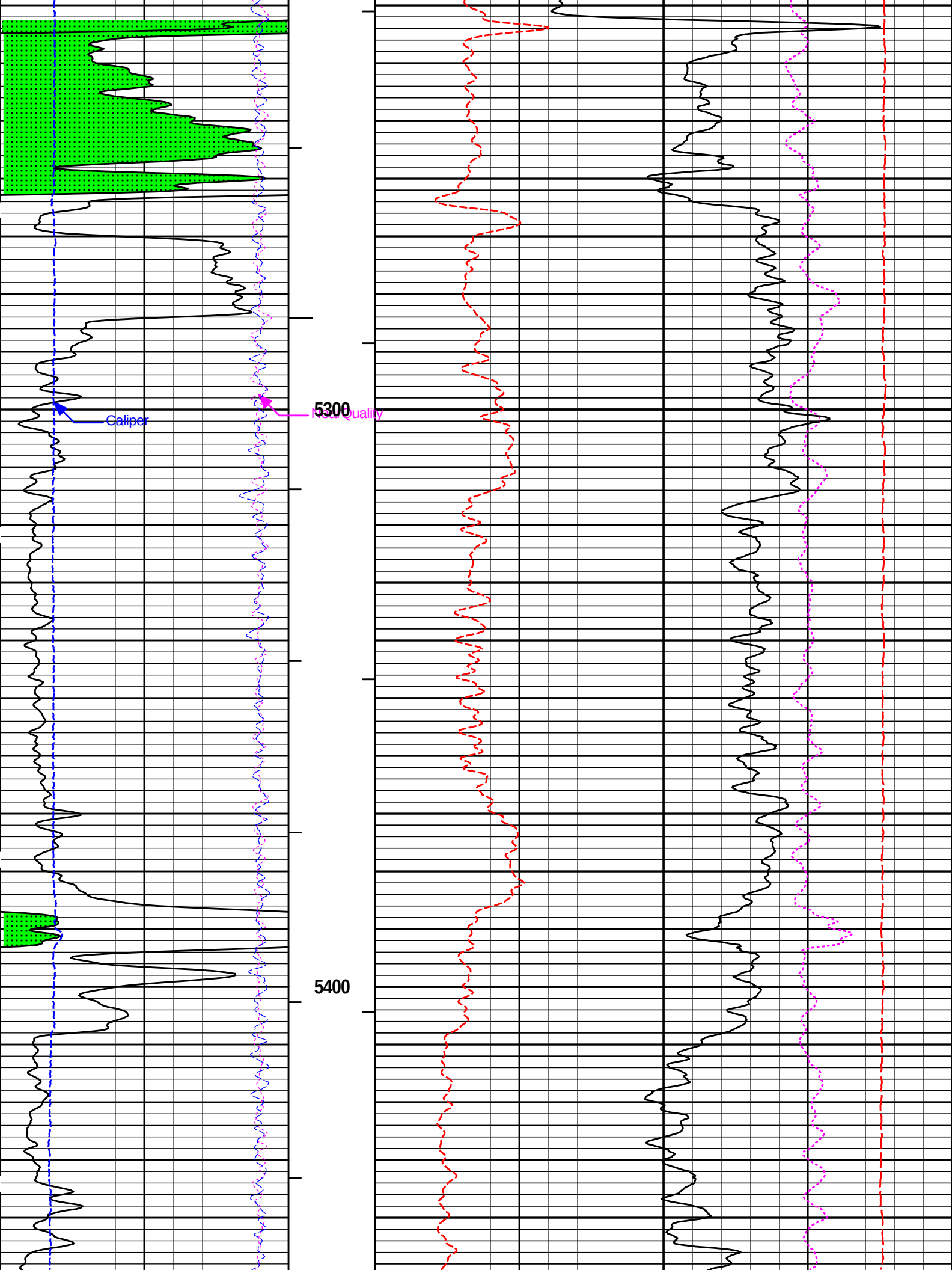


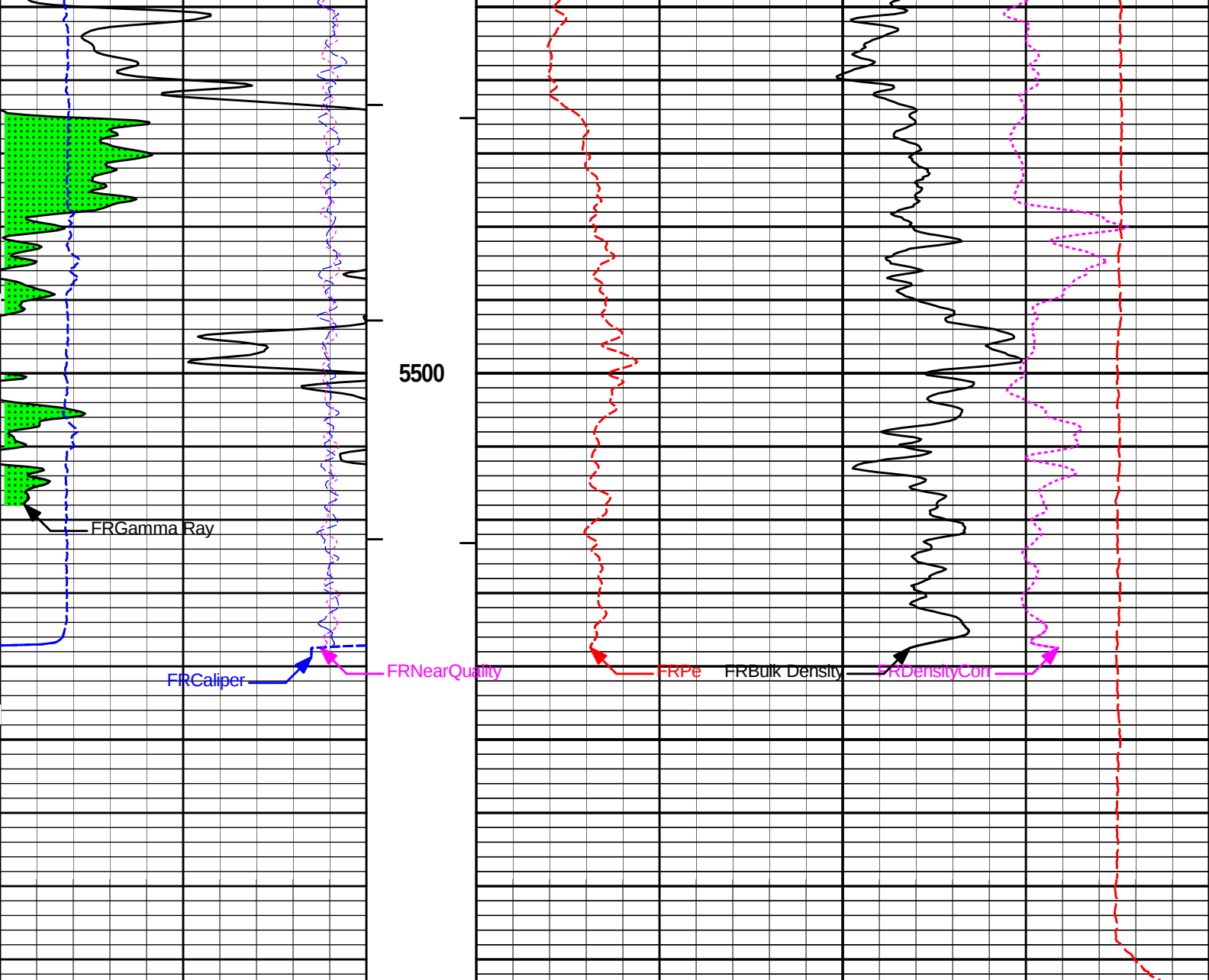












6	Caliper	16	MD 1 : 240 ft	AHV ft3		0	Pe	10	-0.25	DensityCorr	0.25
	inches								g/cc		
	NearQuality	2						15K	Tension	0	
									pounds		
18	FarQuality	-2		BHV ft3	2	Bulk Density					3
					g/cc						
0	Gamma Ray	150									
	api										
SHALE											

HALLIBURTON

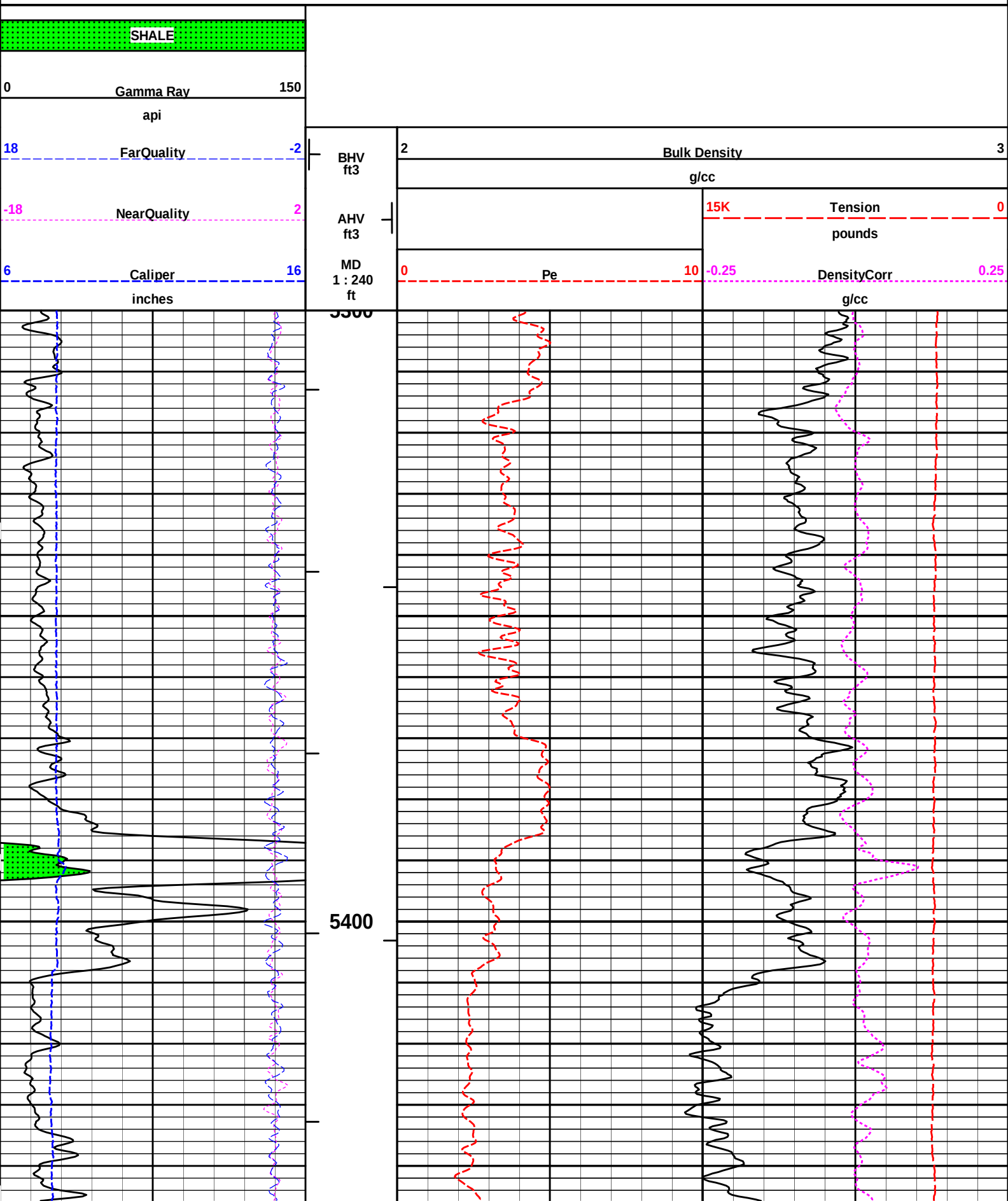
Plot Time: 19-Feb-14 21:04:35
Plot Range: 3598 ft to 5583 ft
Data: SCHOOL_TST_22-5\Well Based\DAQ-0001-005\
Plot File: \\LOCAL-ISCHOOL_TST_22-5\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIPORO\BULKD_5_MAIN_LIB

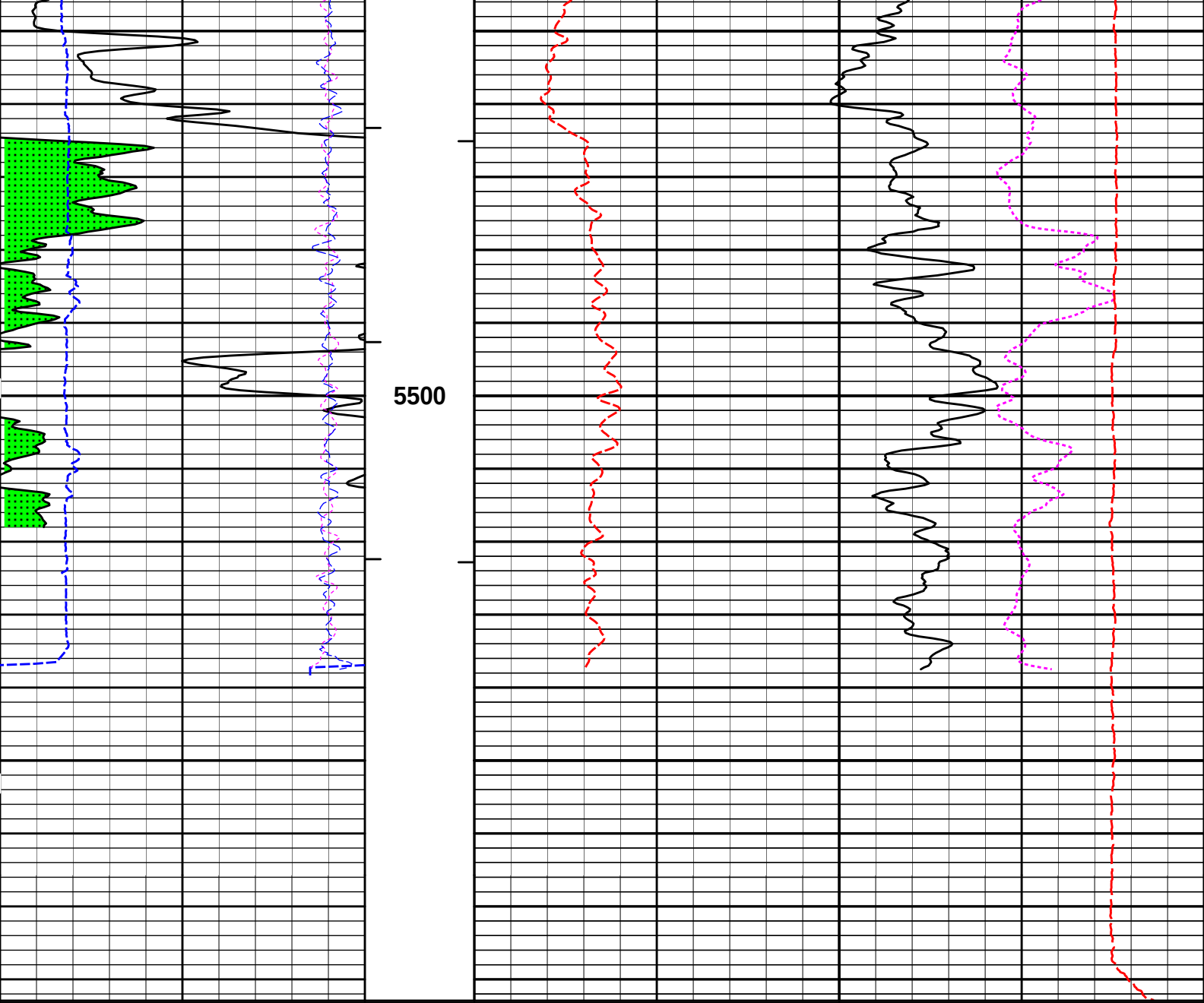
5 INCH MAIN LOG

HALLIBURTON

Plot Time: 19-Feb-14 21:04:36
Plot Range: 3598 ft to 5583 ft

REPEAT SECTION





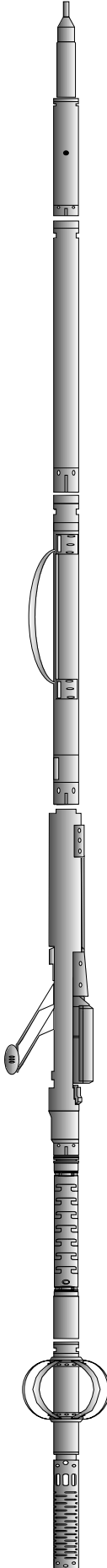
6	Caliper	16	MD 1 : 240 ft		0	10	-0.25	DensityCorr	0.25	
	inches								g/cc	
	-18	NearQuality			2			15K	Tension	0
									pounds	
18	FarQuality	-2		BH ft3	2	Bulk Density			3	
					g/cc					
0	Gamma Ray	150								
	api									
SHALE										

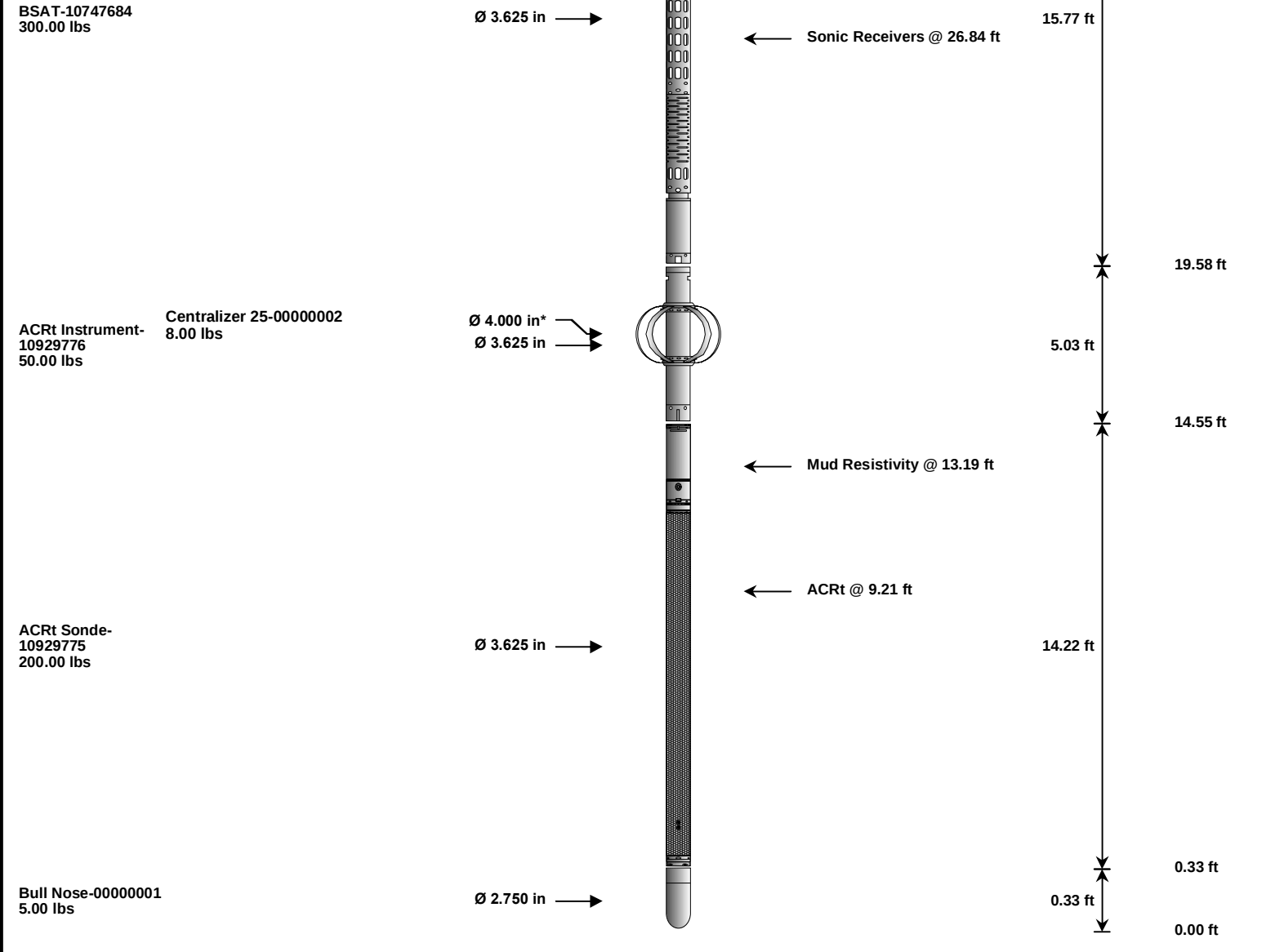
HALLIBURTON

Plot Time: 19-Feb-14 21:04:38
Plot Range: 5300 ft to 5582.92 ft
Data: SCHOOL_TST_22-5\Well Based\DAQ-0001-004\
Plot File: \\LOCAL-1\SCHOOL_TST_22-5\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\PORO\BULKD_5_REP_LIB

REPEAT SECTION

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-HOSTILE 37.50 lbs		Ø 2.750 in →		← Temperature @ 75.79 ft	3.03 ft	76.82 ft
SP Sub-12345678 60.00 lbs		Ø 3.625 in →		← SP @ 72.01 ft	3.74 ft	73.79 ft
GTET-10748374 165.00 lbs		Ø 3.625 in →		← GammaRay @ 63.99 ft	8.52 ft	70.05 ft
DSNT-10735145 174.00 lbs	DSN Decentralizer- 10755066 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 54.59 ft ← DSN Near @ 53.84 ft	9.69 ft	61.53 ft
SDLT-10673803 360.00 lbs	SDLT Pad-10673790 65.00 lbs Microlog Pad-10673803 8.00 lbs	Ø 4.500 in → Ø 4.750 in* → Ø 4.750 in* →		Microlog @ 44.03 ft SDL Caliper @ 43.84 ft SDL @ 43.83 ft	10.81 ft	51.84 ft
Flex Joint-00000001 140.00 lbs		Ø 3.625 in →			5.67 ft	41.03 ft
Centralizer 25-00000001 8.00 lbs		Ø 4.000 in* →				35.36 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	HOSTILE	37.50	3.03	73.79	300.00	
SP	SP Sub	12345678	60.00	3.74	70.05	300.00	
GTET	Gamma Telemetry Tool	10748374	165.00	8.52	61.53	60.00	
DSNT	Dual Spaced Neutron	10735145	174.00	9.69	51.84	60.00	
DCNT	DSN Decentralizer	10755066	6.60	5.13	* 55.17	300.00	
SDLT	Spectral Density Tool	10673803	360.00	10.81	41.03	60.00	
MICP	Microlog Pad	10673803	8.00	1.00	* 43.53	60.00	
SDLP	Density Insite Pad	10673790	65.00	2.55	* 43.24	60.00	
FLEX	Flex Joint	00000001	140.00	5.67	35.36	300.00	
BSAT	Borehole Sonic Array Tool	10747684	300.00	15.77	19.58	60.00	
OBCEN	Centralizer - 25 in. Overbody	00000001	8.00	2.08	* 32.82	300.00	
ACRt	Array Compensated True Resistivity Instrument Section	10929776	50.00	5.03	14.55	300.00	
OBCEN	Centralizer - 25 in. Overbody	00000002	8.00	2.08	* 16.30	300.00	
ACRt	Array Compensated True Resistivity Sonde Section	10929775	200.00	14.22	0.33	300.00	
BLNS	Bull Nose	00000001	5.00	0.33	0.00	300.00	
Total			1,587.10	76.82			
* Not included in Total Length and Length Accumulation.							
Data: SCHOOL_TST_22-510001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN DLE							
Date: 19-Feb-14 18:01:15							

NATURAL GAMMA RAY TOOL SHOP CALIBRATION			
Tool Name:	GTET - 10748374	Reference Calibration Date:	25-Nov-13 16:08:30
Engineer:	SHELDON INGERSOLL	Calibration Date:	03-Feb-14 18:18:39
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

Measurement	Measured	Calibrated	Units
Background	44.9	44.5	api
Background + Calibrator	279.2	276.5	api
Calibrator	234.3	232.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION			
Tool Name:	GTET - 10748374	Reference Calibration Date:	03-Feb-14 18:18:39
Engineer:	J. BOLLUM	Calibration Date:	18-Feb-14 18:13:43
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

Field Verification	Shop	Field	Units
Background	44.5	43.7	api
Background + Calibrator	276.5	278.5	api
Calibrator	232.0	234.8	api

Shop	Field	Difference	Tolerance
232.0	234.8	-2.8	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION			
Tool Name:	DSNT - 10735145	Reference Calibration Date:	19-Feb-14 12:04:55
Engineer:	THOMAS HYDE	Calibration Date:	19-Feb-14 12:37:26
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.946	0.946	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):	0.2106	0.2107	0.0000	+/- 0.0020
Calibrated Ratio:	9.72	9.72	0.001	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0590	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 - 10735145	Reference Calibration Date:	19-Feb-14 12:37:26
Engineer:	THOMAS HYDE	Calibration Date:	19-Feb-14 12:47:09
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

Reference Calibration Date: 19-Feb-14 12:37:26

Calibration Date: 19-Feb-14 12:47:09

Calibration Version: 1

Snow Block S/N: 08910

NEUTRON FIELD-CHECK SUMMARY			
Shop	Field	Difference	Control Limit On Change

Snow-Block Porosity (decg):	0.0590	0.0590	-0.0000	+/- 0.0150
-----------------------------	--------	--------	---------	------------

PASS/FAIL SUMMARY

Block Change Check:	Passed
---------------------	--------

Snow Block Stat Check: Passed

Temperature Check:	Passed
--------------------	--------

DENSITY CALIPER SHOP CALIBRATION			
Tool Name:	SDLT - 10673803	Reference Calibration Date:	19-Feb-14 11:31:38
Engineer:	THOMAS HYDE	Calibration Date:	19-Feb-14 11:36:45
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1
Host Tool Name:	DSNT - 10735145		

Reference Calibration Date: 19-Feb-14 11:31:38

Calibration Date: 19-Feb-14 11:36:45

Calibration Version: 1

Host Tool Name: DSNT - 10735145

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value

Pad Offset	-4075.88	-4075.69	-7000.00 - -1000.00
------------	----------	----------	---------------------

Pad Gain	0.0003810	0.0003810	0.000200 - 0.000600
----------	-----------	-----------	---------------------

Arm Offset	-4884.23	-4794.44	-5000.00 - 3000.00
------------	----------	----------	--------------------

Arm Gain	0.0005229	0.0005107	0.000300 - 0.000700
----------	-----------	-----------	---------------------

Arm Power	-0.000005992	-0.000005244	-0.000010000 - 0.000010000
-----------	--------------	--------------	----------------------------

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)	2.00	2.00	0.00	+/- 0.20
-----------------	------	------	------	----------

Medium Ring (in)	3.75	3.75	0.00	+/- 0.20
------------------	------	------	------	----------

RING DIAMETER:

Small Ring (in)	6.50	6.50	0.00	+/- 0.20
-----------------	------	------	------	----------

Medium Ring (in)	8.28	8.25	-0.03	+/- 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

SDLT CALIPER FIELD CALIBRATION

Tool Name:	SDLT - 10673803	Reference Calibration Date:	19-Feb-14 11:36:45
Engineer:	THOMAS HYDE	Calibration Date:	19-Feb-14 11:38:32
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.75	0.00	+/- 0.10
Ring Diameter	8.25	8.25	0.00	+/- 0.15

PASS/FAIL SUMMARY

Pad Extension Check:	Passed
Diameter Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name:	SDLT Pad - 10673790	Reference Calibration Date:	19-Feb-14 11:01:16
Engineer:	THOMAS HYDE	Calibration Date:	19-Feb-14 11:23:10
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

Logging Source S/N: 5073GW

Aluminum Block S/N: LIBERAL ALUMINUM

Density: 2.598g/cc

Pe: 3.170

Magnesium Block S/N: LIBERAL MAG BLOCK

Density: 1.684g/cc

Pe: 2.598

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0080	1.0082	0.90 - 1.10
Near Dens Gain	0.9897	0.9895	0.90 - 1.10
Near Peak Gain	0.9709	0.9720	0.90 - 1.10
Near Lith Gain	0.9544	0.9540	0.90 - 1.10
Far Bar Gain	1.0086	1.0086	0.90 - 1.10
Far Dens Gain	0.9959	0.9960	0.90 - 1.10
Far Peak Gain	0.9908	0.9909	0.90 - 1.10
Far Lith Gain	0.9601	0.9599	0.90 - 1.10
Near Bar Offset	0.1810	0.1793	NONE
Near Dens Offset	0.3401	0.3417	NONE
Near Peak Offset	0.4925	0.4836	NONE
Near Lith Offset	0.6175	0.6209	NONE
Far Bar Offset	0.1011	0.1011	NONE
Far Dens Offset	0.1833	0.1824	NONE
Far Peak Offset	0.1771	0.1763	NONE
Far Lith Offset	0.3366	0.3379	NONE
Near Bar Background	850.15	850.08	700 - 1450
Near Dens Background	278.40	278.54	230 - 480
Near Peak Background	123.21	123.16	100 - 210
Near Lith Background	151.27	151.16	125 - 260
Far Bar Background	568.84	568.95	450 - 900
Far Dens Background	222.55	222.59	175 - 345
Far Peak Background	88.27	88.29	70 - 140
Far Lith Background	92.27	92.30	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.684	1.684	0.000	+/- 0.015
Pe	2.555	2.555	0.000	+/- 0.150
ALUMINUM				
Density (g/cc)	2.598	2.598	0.000	+/- 0.01500
Pe	3.124	3.123	-0.001	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0014	+/- 0.0110	-0.0007	+/- 0.0140
Magnesium Block	-0.0007	+/- 0.0110	-0.0011	+/- 0.0140
Aluminum Block	-0.0008	+/- 0.0110	-0.0001	+/- 0.0140
Resolution	8.61	6.00 - 11.50	9.00	6.00 - 11.50
Internal Verifier(B+D+P+L)	1403	1200 - 2700	972	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 - 10673790	Reference Calibration Date:	19-Feb-14 11:23:10
Engineer:	THOMAS HYDE	Calibration Date:	19-Feb-14 11:27:41
Software Version:	WL INSITE R3.8.4 (Build 5)	Calibration Version:	1

Pad Temperature: 64.6 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1402.939	1397.510	-5.429	15.125
Far (B+D+P+L) cps	972.123	974.233	2.110	16.758
Near Resolution	8.61	8.63	0.020	0.50
Far Resolution	9.00	9.00	0.000	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

Gamma Ray Calibrator	232.0	234.8	-----	-2.8	+/- 9.00	api
DSNT-10735145						
Snow-Block Porosity	0.0590	0.0590	-----	0.0000	+/- 0.0150	decp
SDLT-10673803						
Pad Extension	3.75	3.75	-----	0.00	+/-0.10	in
Ring Diameter	8.25	8.25	-----	0.00	+/-0.15	in
SDLT Pad-10673790						
Near(B+D+P+L)	1402.939	1397.510	-----	5.429	+/-15.125	cps
Far(B+D+P+L)	972.123	974.233	-----	-2.110	+/-16.758	cps

Data: SCHOOL TST 22-50001 SP-GTET-DSN-SDL-ELFX-BSAT-ACRT-BNIDLE		Date: 19-Feb-14 18:20:06
HALLIBURTON PARAMETERS REPORT		

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.400	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	55.0	degF
	SHARED	TD	Total Well Depth	5580.00	ft
	SHARED	BHT	Bottom Hole Temperature	200.0	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	NLIT	Neutron Lithology	Limestone	
DSNT	DSNO	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	
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
Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
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 Up	
ACRt Sonde	TPOS	Tool Position	Free Hanging	
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	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM				
Data: SCHOOL_TST_22-510001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIDLE				Date: 19-Feb-14 18:20:54

HALLIBURTON INPUTS, DELAYS AND FILTERS TABLE				
Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Sub				
PLTC	Plot Control Mask	72.01	NO	
SP	Spontaneous Potential	72.01	BLK	1.250
SPR	Raw Spontaneous Potential	72.01	NO	
SPO	Spontaneous Potential Offset	72.01	NO	
GTET				

TPUL	Tension Pull	63.99	NO	
GR	Natural Gamma Ray API	63.99	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	63.99	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	63.99	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.74	NO	
RNDS	Near Detector Telemetry Counts	53.84	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.59	TRI	0.583
DNTT	DSN Tool Temperature	53.84	NO	
DSNS	DSN Tool Status	53.74	NO	
ERND	Near Detector Telemetry Counts EVR	53.84	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.59	BLK	0.000
ENTM	DSN Tool Temperature EVR	53.84	NO	
SDLT				
TPUL	Tension Pull	43.84	NO	
PCAL	Pad Caliper	43.84	TRI	0.250
ACAL	Arm Caliper	43.84	TRI	0.250
BSAT				
TPUL	Tension Pull	26.84	NO	
STAT	Status	26.84	NO	
DLYT	Delay Time	26.84	NO	
SI	Sample Interval	26.84	NO	
TXRX	Raw Telemetry 10 Receivers	26.84	NO	
FRMC	Tool Frame Count	26.84	NO	
GMOD	Gain processing mode	19.58	NO	
ACRt Sonde				
TPUL	Tension Pull	2.73	NO	
F1R1	ACRT 12KHz - 80in R value	8.98	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	8.98	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.48	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.48	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	4.98	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	4.98	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	3.98	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	3.98	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.48	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.48	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.23	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.23	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	8.98	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	8.98	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.48	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.48	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	4.98	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	4.98	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	3.98	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	3.98	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.48	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.48	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.23	BLK	0.000

F2X6	ACRT 36KHz - 6in X value	3.23	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	8.98	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	8.98	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.48	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.48	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	4.98	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	4.98	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	3.98	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	3.98	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.48	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.48	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.23	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.23	BLK	0.000
RMUD	Mud Resistivity	12.52	BLK	0.000
F1RT	Transmitter Current Raw 12K X Receiver	2.73	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.73	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.73	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.73	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.73	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.73	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.73	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.73	BLK	0.000
ITMP	Instrument Temperature	2.73	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.73	NO	
TIDV	Instrument Temperature Derivative	2.73	NO	
TUDV	Upper Temperature Derivative	2.73	NO	
TLDV	Lower Temperature Derivative	2.73	NO	
TRBD	Receiver Board Temperature	2.73	NO	
SDLT Pad				
TPUL	Tension Pull	43.83	NO	
NAB	Near Above	43.66	BLK	0.920
NHI	Near Cesium High	43.66	BLK	0.920
NLO	Near Cesium Low	43.66	BLK	0.920
NVA	Near Valley	43.66	BLK	0.920
NBA	Near Barite	43.66	BLK	0.920
NDE	Near Density	43.66	BLK	0.920
NPK	Near Peak	43.66	BLK	0.920
NLI	Near Lithology	43.66	BLK	0.920
NBAU	Near Barite Unfiltered	43.66	BLK	0.250
NLIU	Near Lithology Unfiltered	43.66	BLK	0.250
FAB	Far Above	44.01	BLK	0.250
FHI	Far Cesium High	44.01	BLK	0.250
FLO	Far Cesium Low	44.01	BLK	0.250
FVA	Far Valley	44.01	BLK	0.250
FBA	Far Barite	44.01	BLK	0.250
FDE	Far Density	44.01	BLK	0.250
FPK	Far Peak	44.01	BLK	0.250
FLI	Far Lithology	44.01	BLK	0.250
PTMP	Pad Temperature	43.84	BLK	0.920
NHV	Near Detector High Voltage	43.24	NO	
FHV	Far Detector High Voltage	43.24	NO	
ITMP	Instrument Temperature	43.24	NO	
DDHV	Detector High Voltage	43.24	NO	

Microlog Pad

TPUL	Tension Pull	44.03	NO	
MINV	Microlog Lateral	44.03	BLK	0.750
MNOR	Microlog Normal	44.03	BLK	0.750

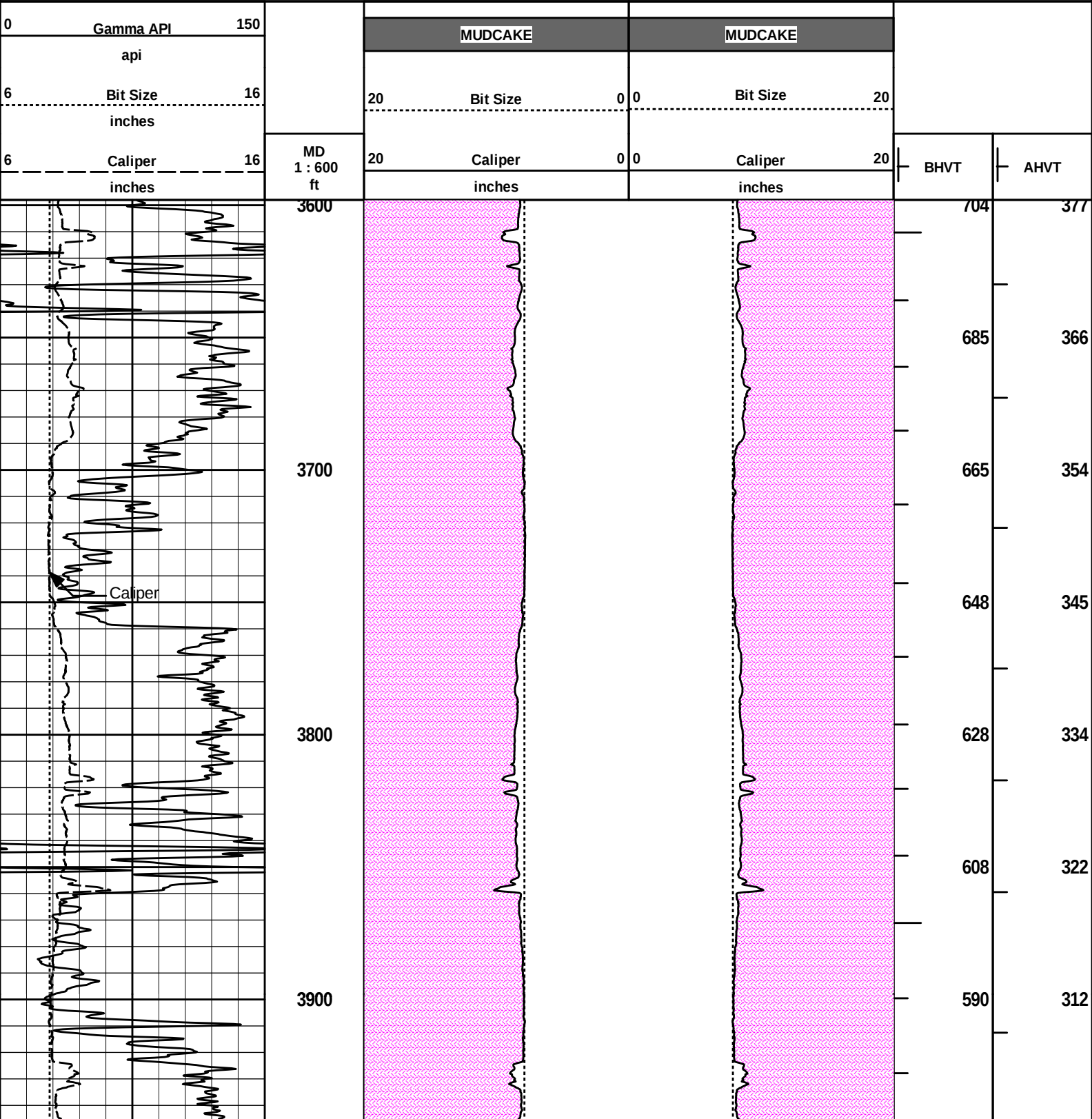
Data: SCHOOL_TST_22-510001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIDLE

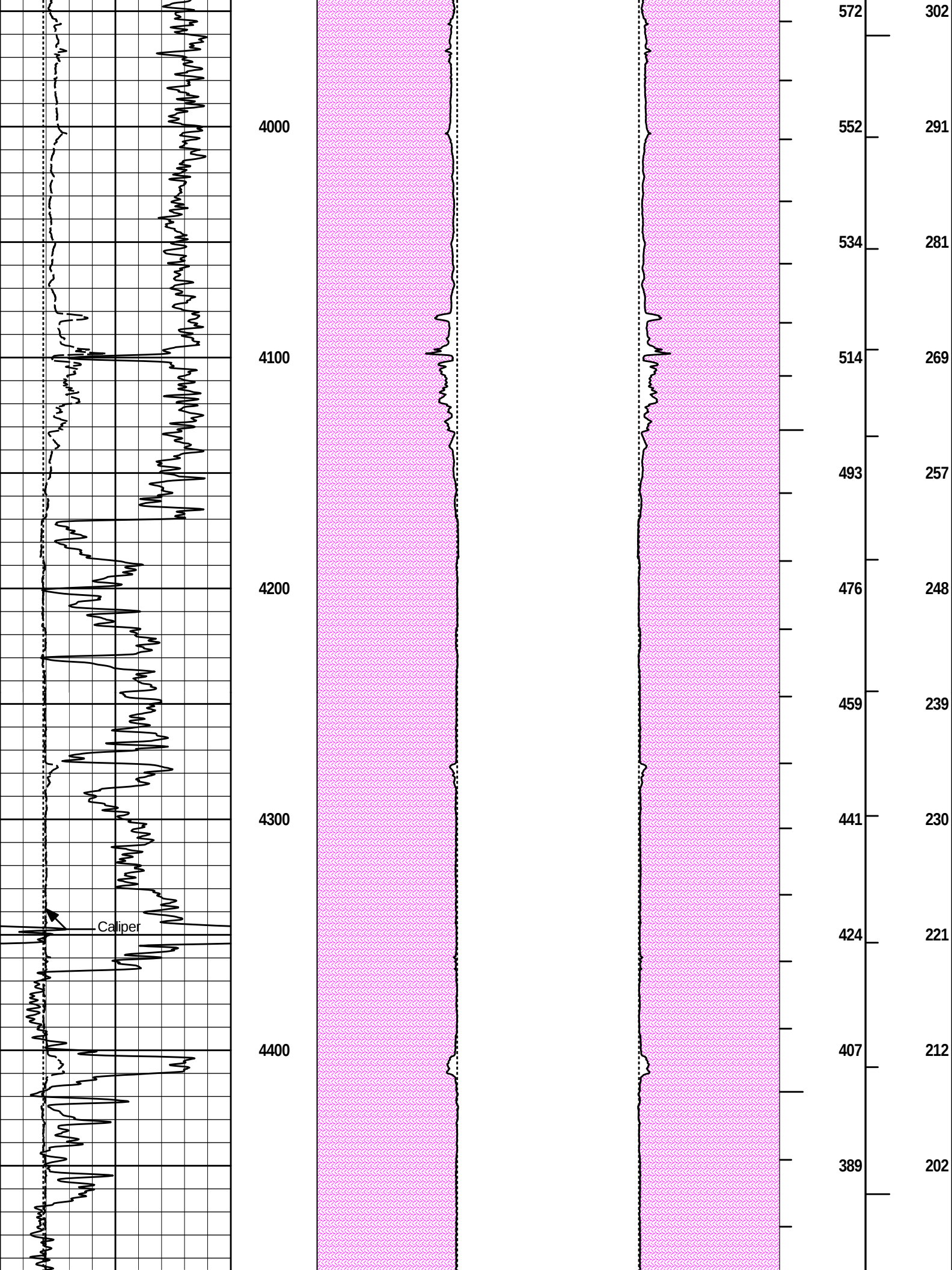
Date: 19-Feb-14 18:21:03

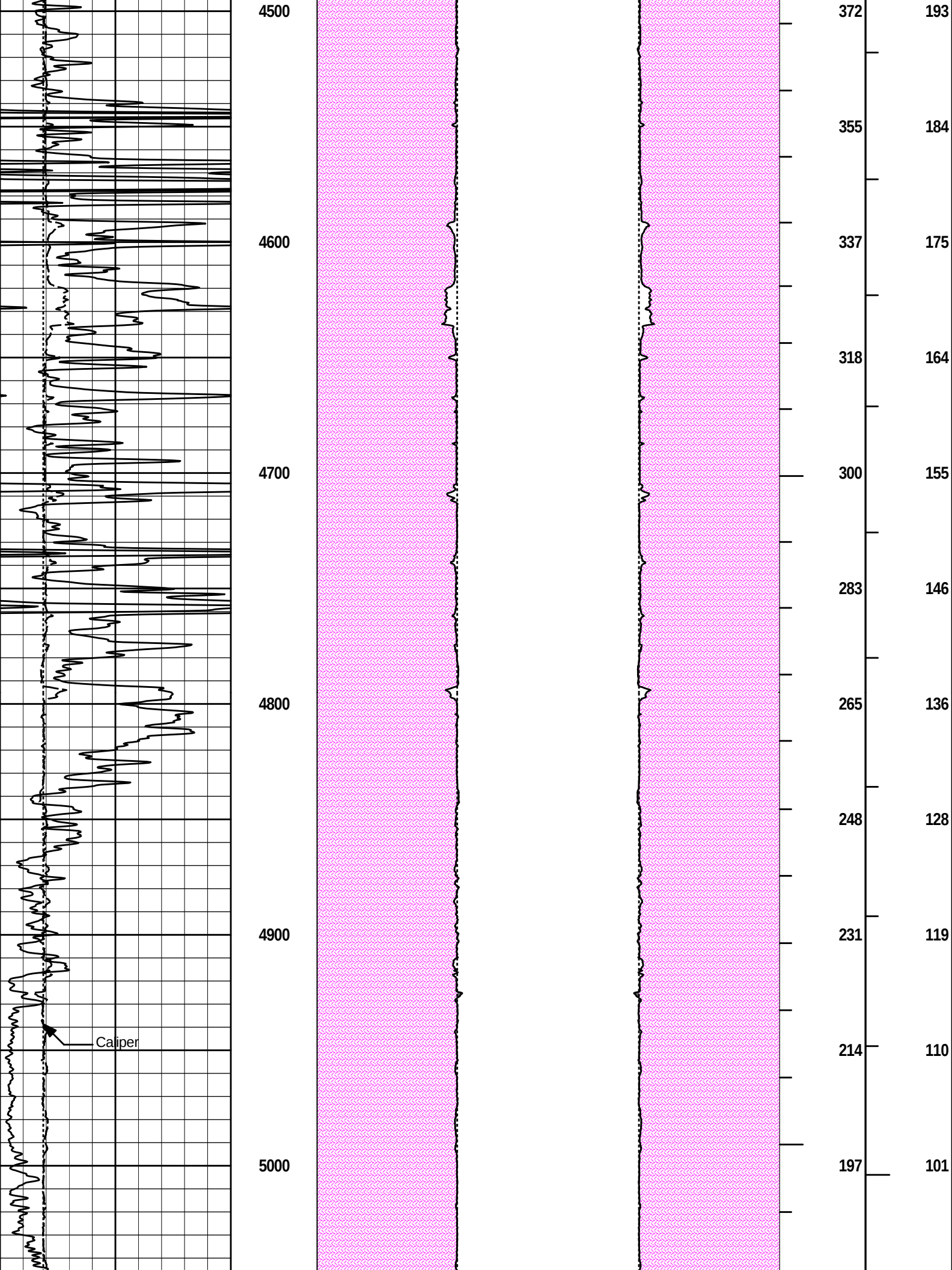


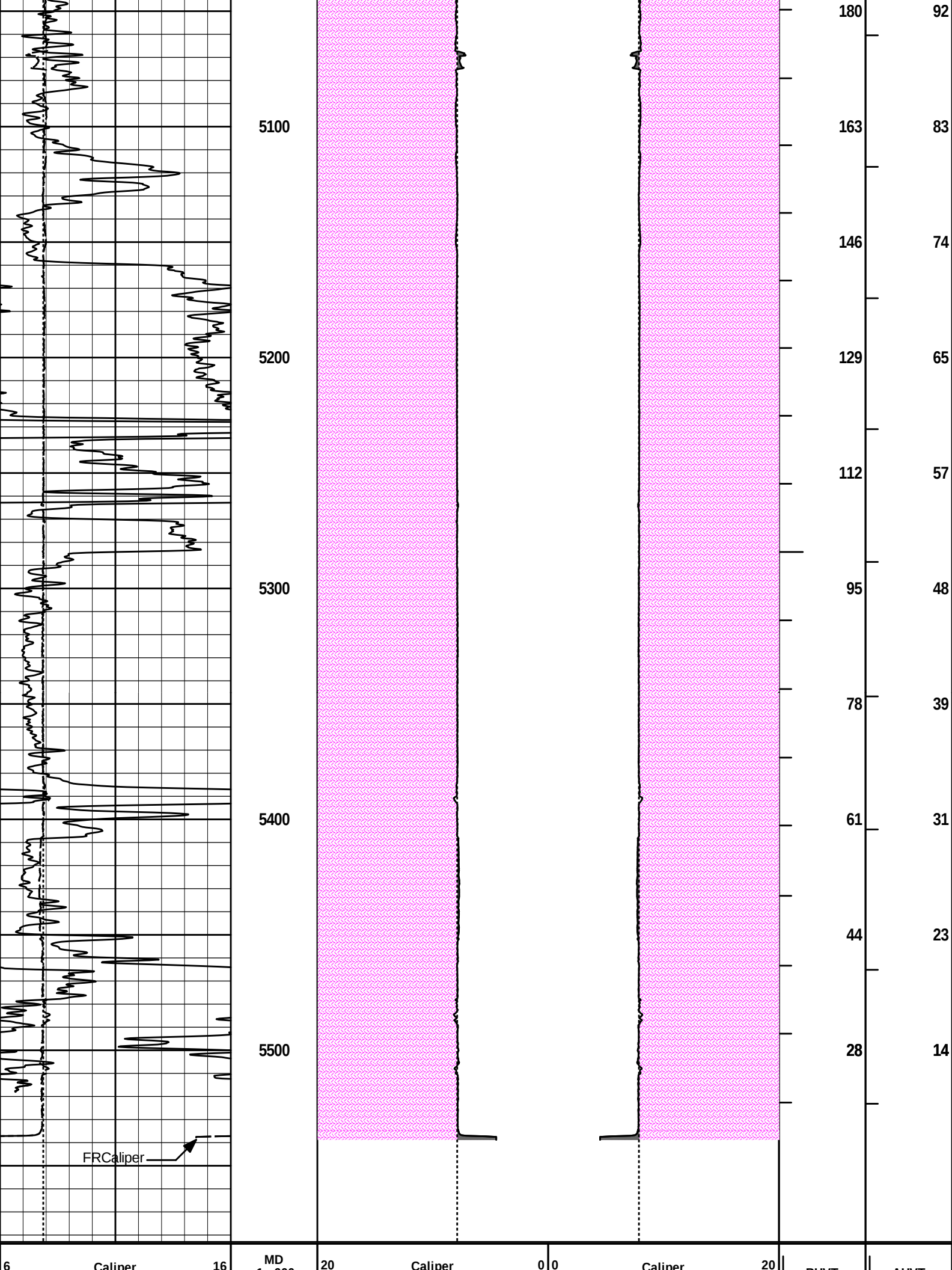
Plot Time: 19-Feb-14 21:04:40
Plot Range: 3598 ft to 5583 ft
Data: SCHOOL_TST_22-5\Well Based\DAQ-0001-005\
Plot File: \\-LOCAL-\SCHOOL_TST_22-510001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIPOROI\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT









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

HALLIBURTON

Plot Time: 19-Feb-14 21:04:52
Plot Range: 3598 ft to 5583 ft
Data: SCHOOL_TST_22-5\Well Based\DAQ-0001-005\
Plot File: \\-LOCAL-\\SCHOOL_TST_22-5\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIPOROI\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT

COMPANY	HERMAN L. LOEB, LLC.		
WELL	SCHOOL TRUST 22-5		
FIELD	HARDTNER		
COUNTY	BARBER	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	