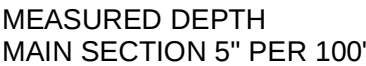
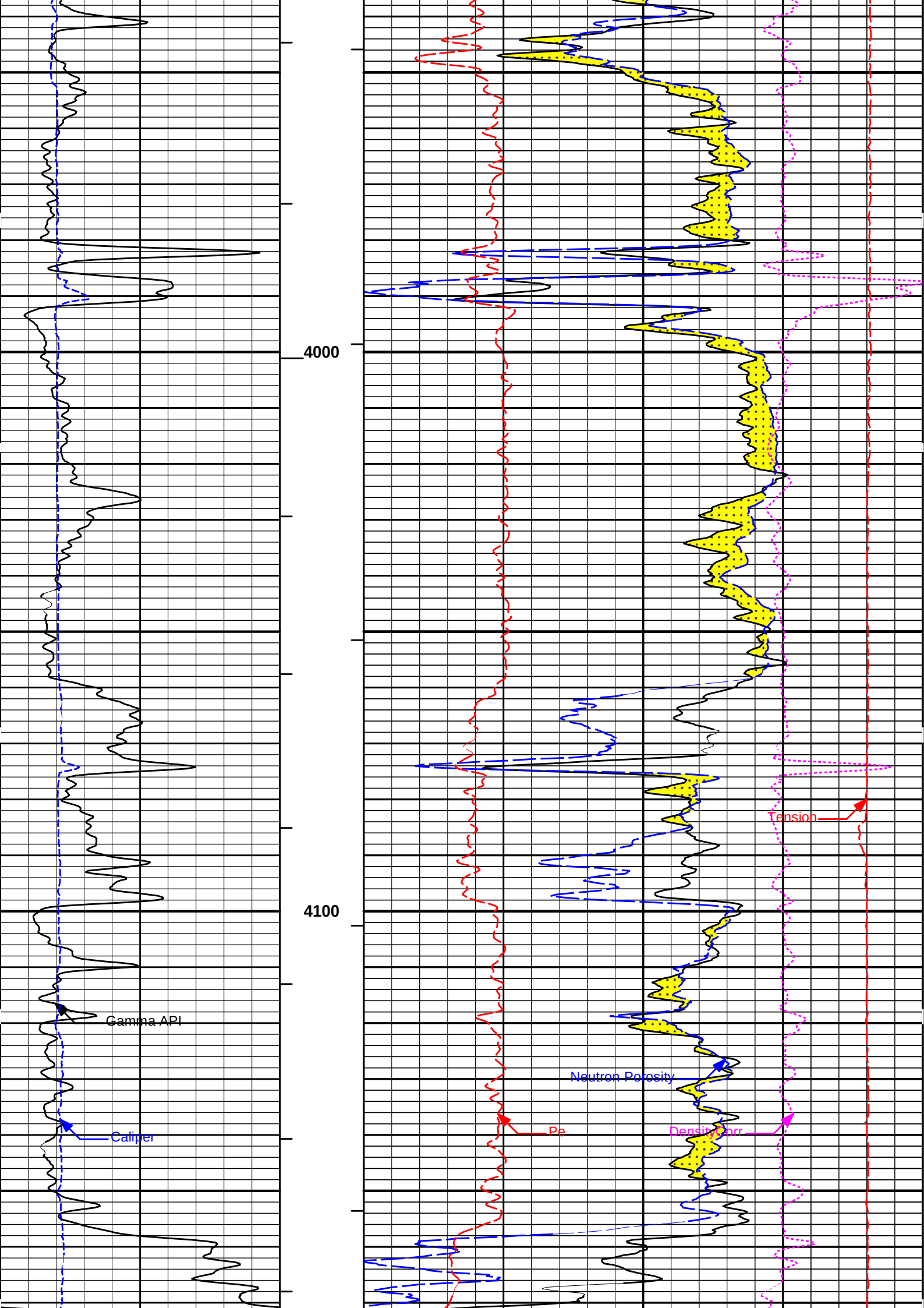


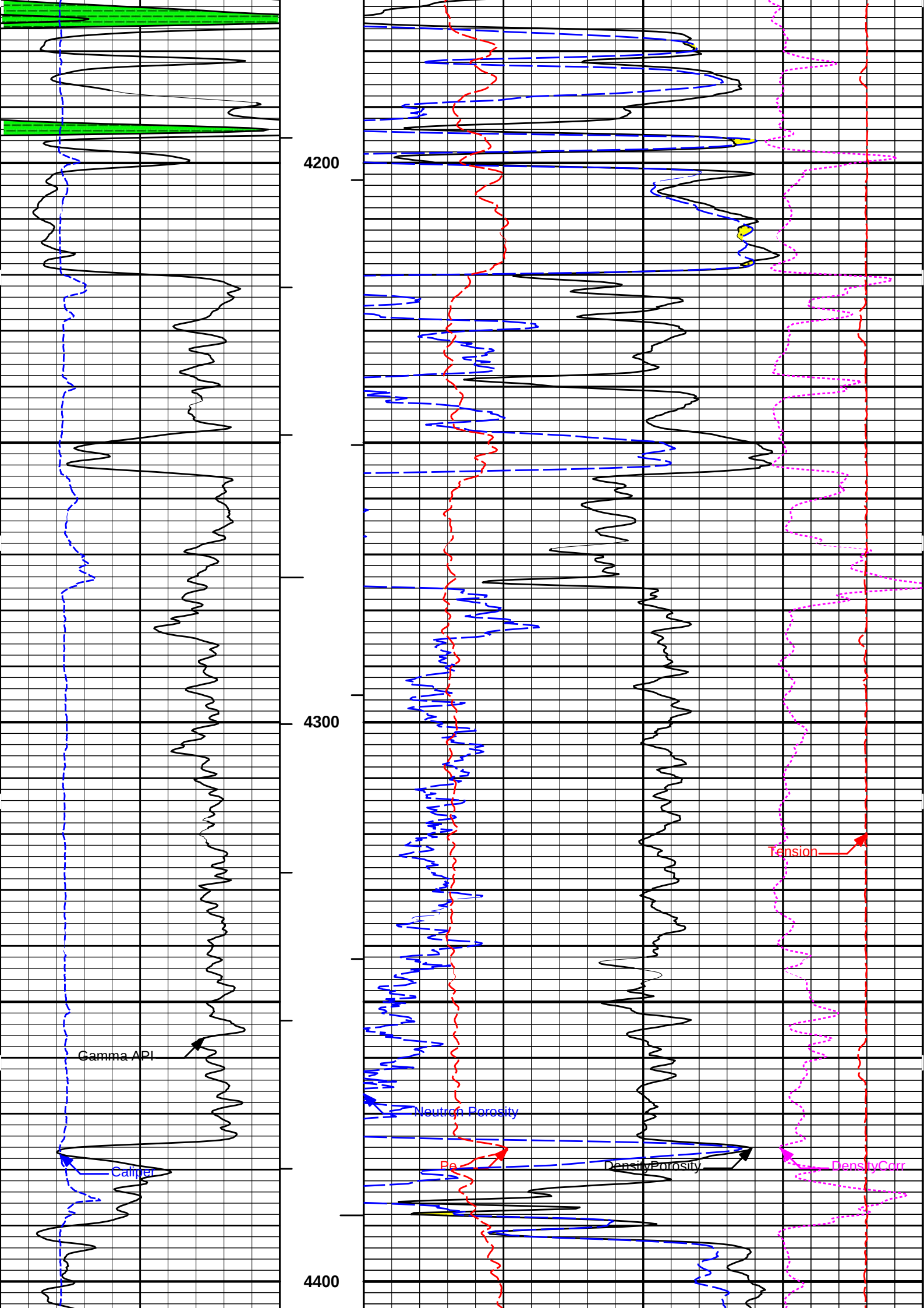
DUAL SPACED NEUTRON
SPECTRAL DENSITY
LOG

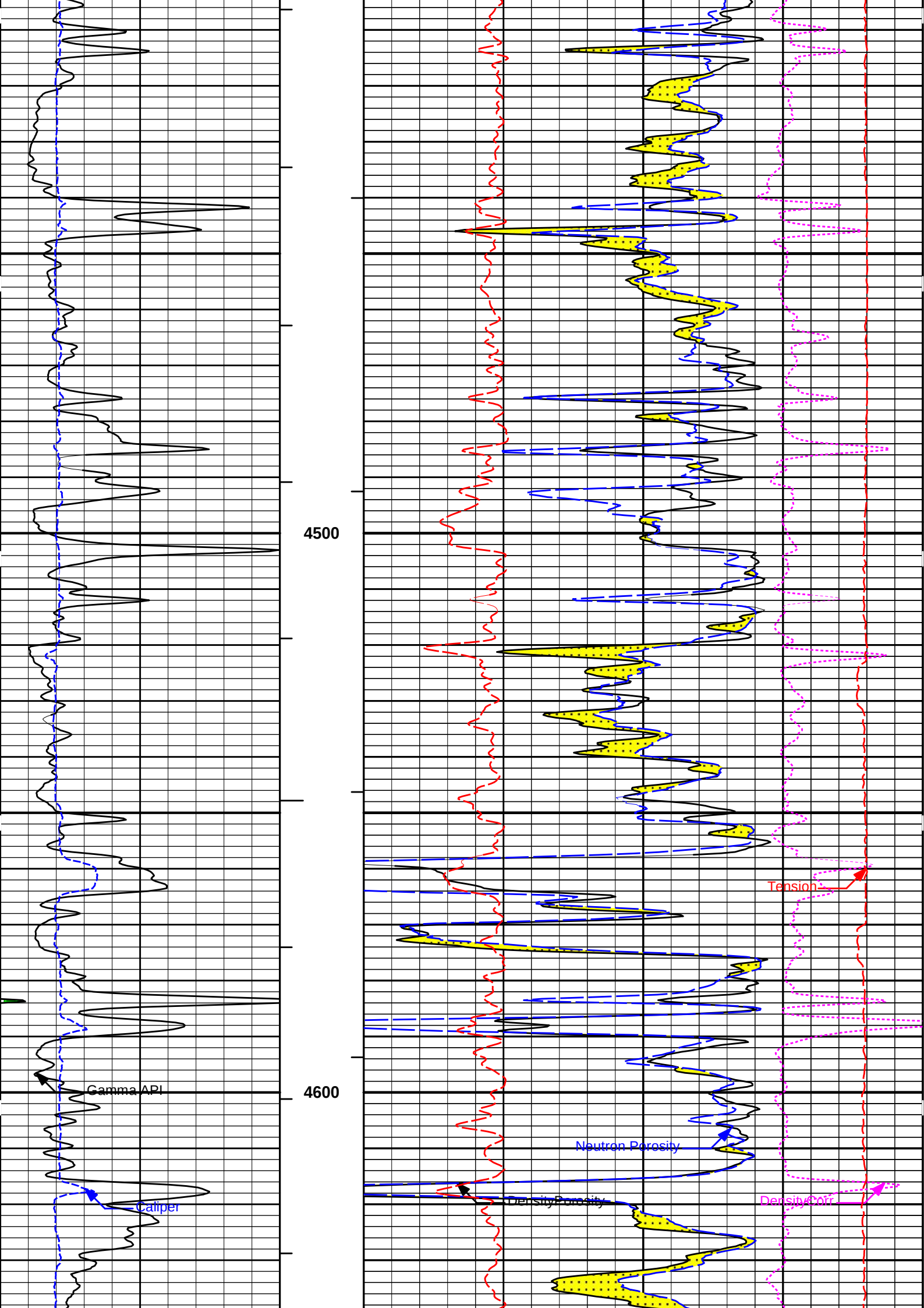
----- Fold here -----

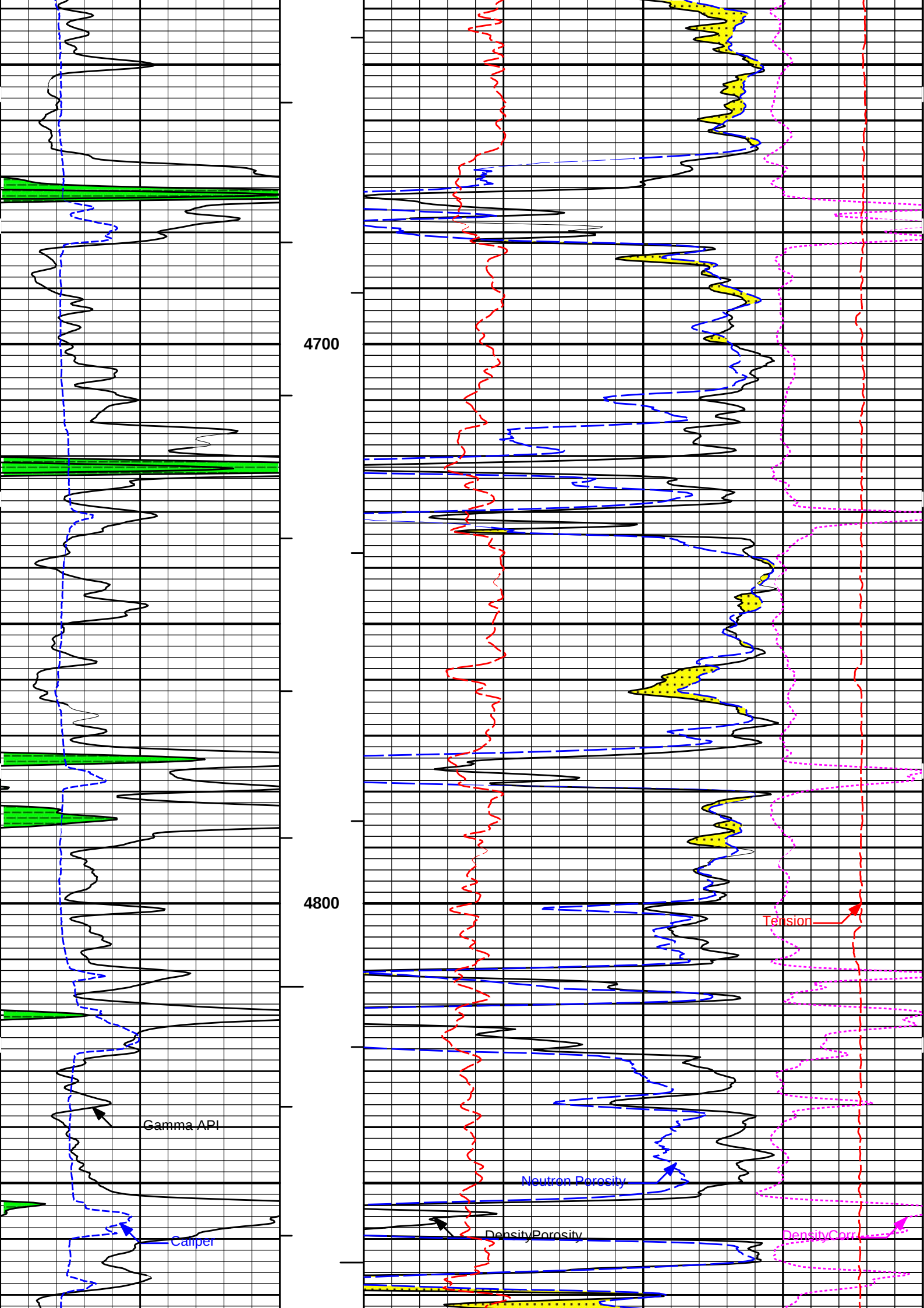
Service Ticket No.: 903246317						API Serial No.: 15-097-21823-00-00						PGM Version: WLM INSITE R4.6.3 (Build 5)					
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE								RESISTIVITY SCALE CHANGES									
Date	Sample No.						Type Log	Depth		Scale Up Hole		Scale Down Hole					
Depth-Driller																	
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.			@			@			ONE	ACRT		N/A		1.5 S.O.		N/A	
Rmc @ Meas. Temp.			@			@				I-11055059							
Source Rmf	Rmc							S-11038385									
Rm @ BHT			@			@											
Rmf @ BHT			@			@											
Rmc @ BHT			@			@											
EQUIPMENT DATA																	
GAMMA				ACOUSTIC				DENSITY				NEUTRON					
Run No.		ONE		Run No.		ONE		Run No.		ONE		Run No.		ONE			
Serial No.		11021139		Serial No.		11014316		Serial No.		10951315		Serial No.		11019641			
Model No.		GTET		Model No.		BSAT		Model No.		SDLT		Model No.		DSNT			
Diameter		3.625"		No. of Cent.		2		Diameter		5.3"		Diameter		3.625"			
Detector Model No.		T-102		Spacing		EVEN		Log Type		GAM-GAM		Log Type		NEU-NEU			
Type		SCINT						Source Type		CS137		Source Type		AM241BE			
Length		8"		LSA [Y/N]				Serial No.		5577GW		Serial No.		DSN-373			
Distance to Source		N/A		FWDA [Y/N]				Strength		1.5 Ci		Strength		15.0 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	TD	CSG	REC	0	150	30	-10	47.6 uSec/ft	30	-10	2.71 gr/cc	30	-10	LIME			

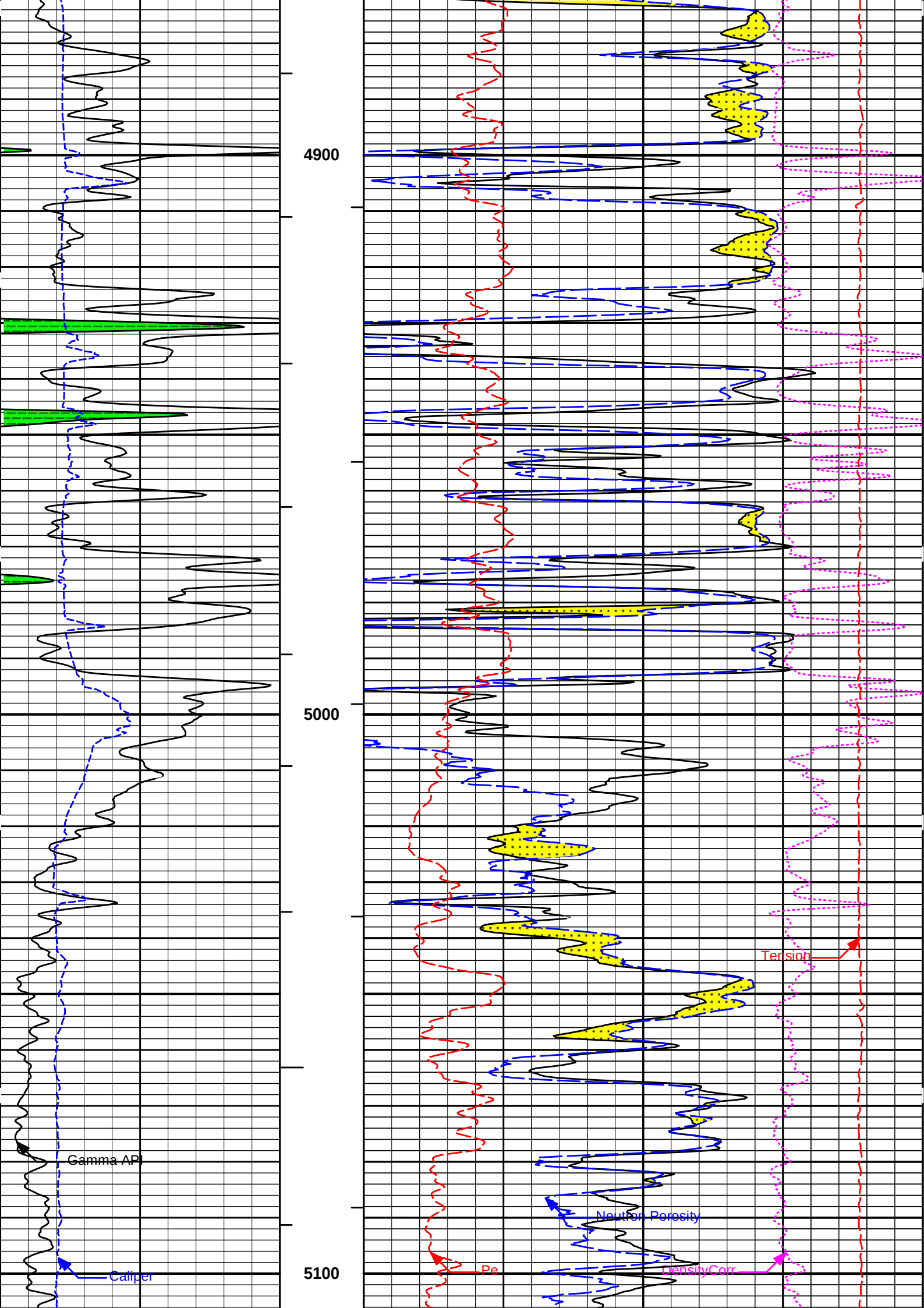


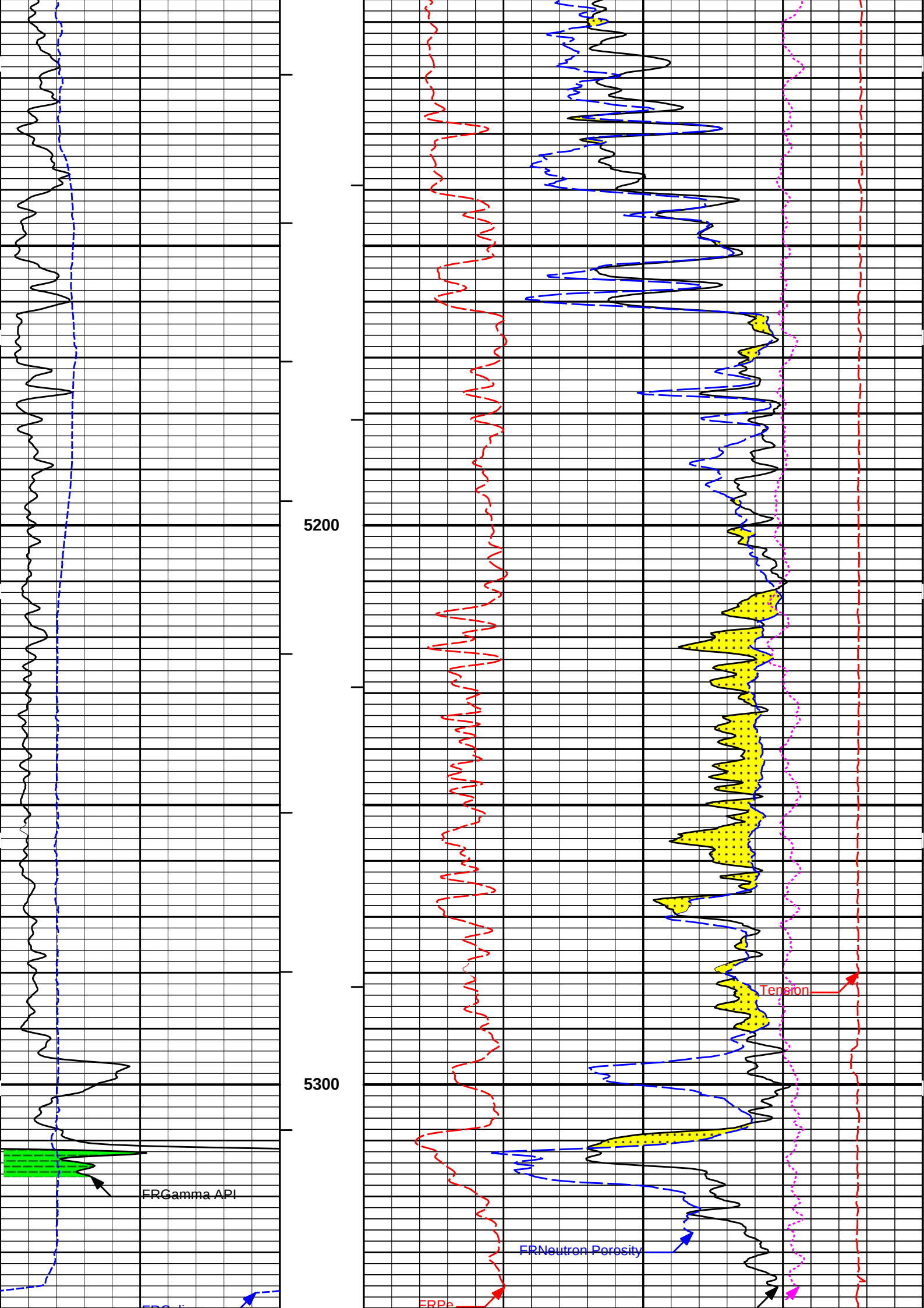


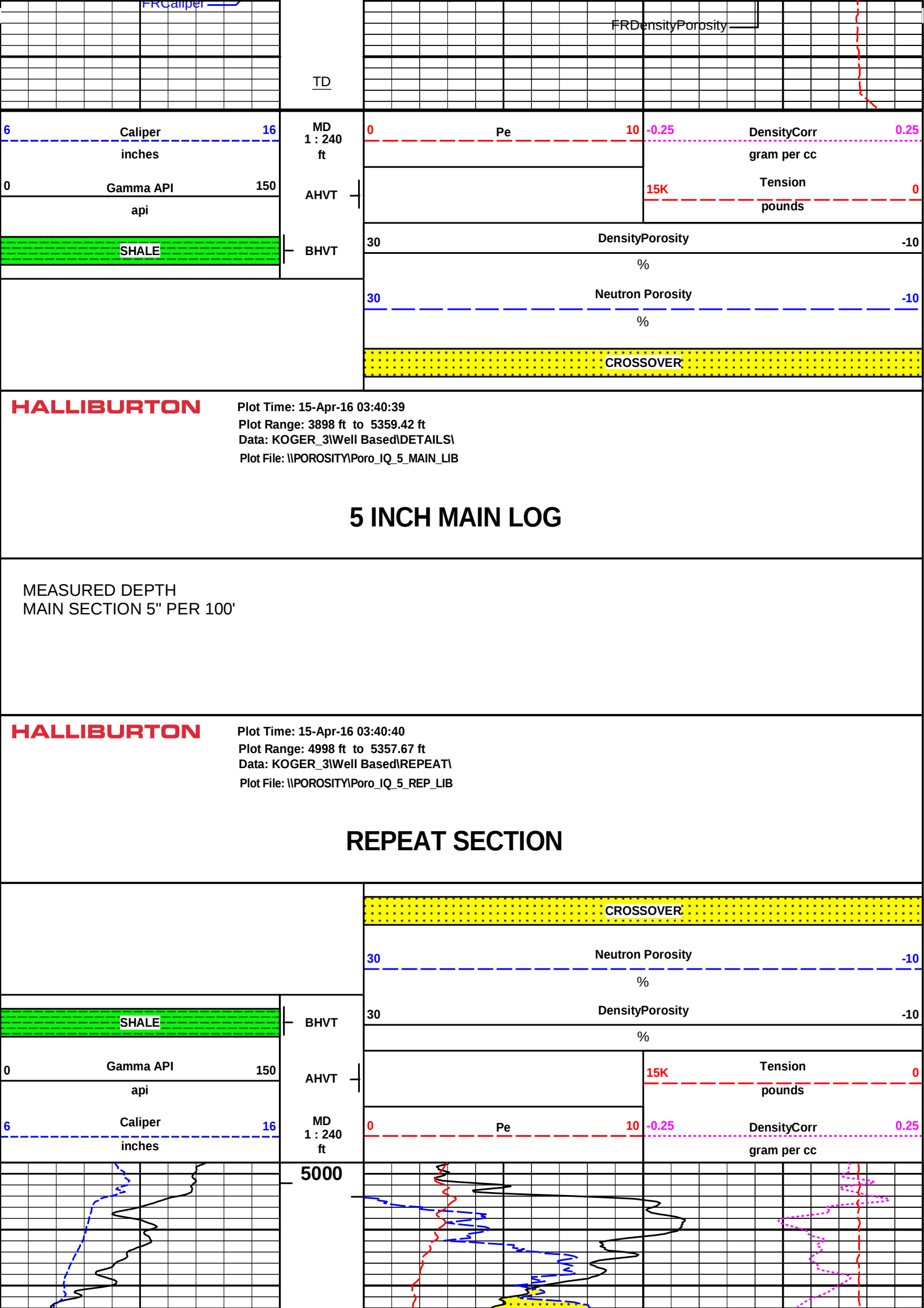


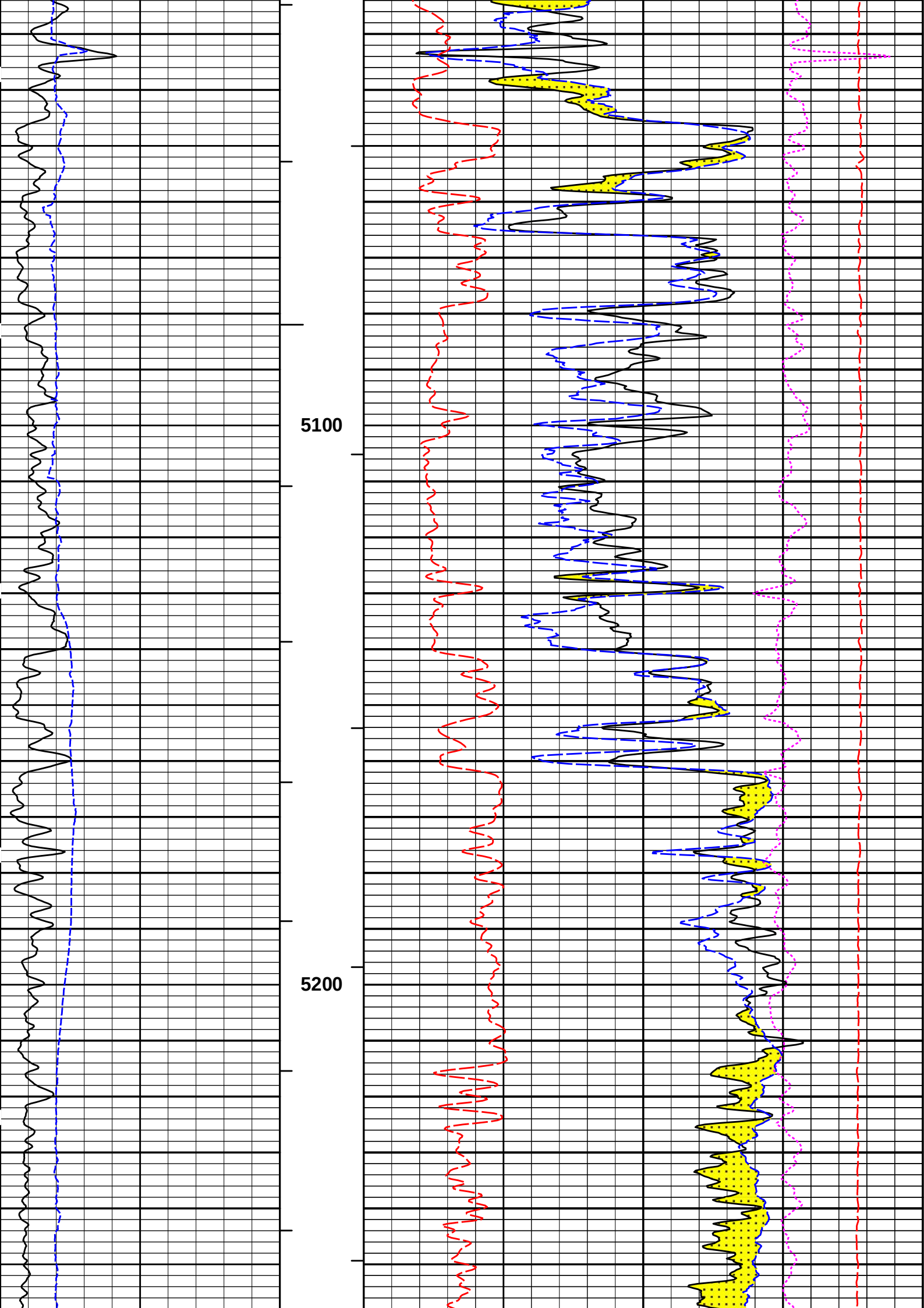


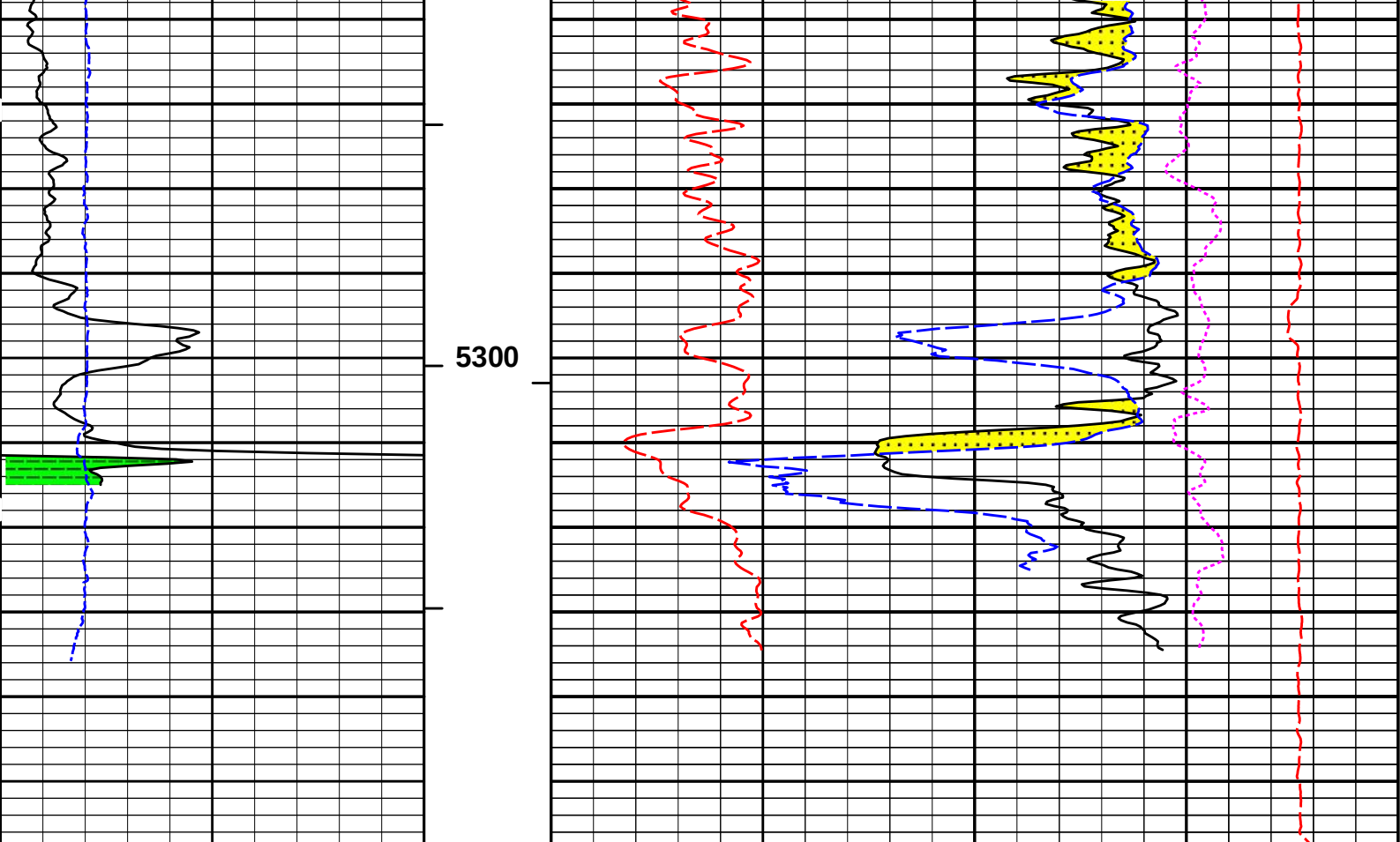












6	Caliper	16	MD	0	Pe	10	-0.25	DensityCorr	0.25
	inches		1 : 240					gram per cc	
0	Gamma API	150	AHVT				15K	Tension	0
	api							pounds	
	SHALE		BHVT	30	DensityPorosity				-10
					%				
				30	Neutron Porosity				-10
					%				
					CROSSOVER				

HALLIBURTON

Plot Time: 15-Apr-16 03:40:41
Plot Range: 4998 ft to 5357.67 ft
Data: KOGER_3\Well Based\REPEAT\
Plot File: \\POROSITY\Porosity_Q5_REP_LIB

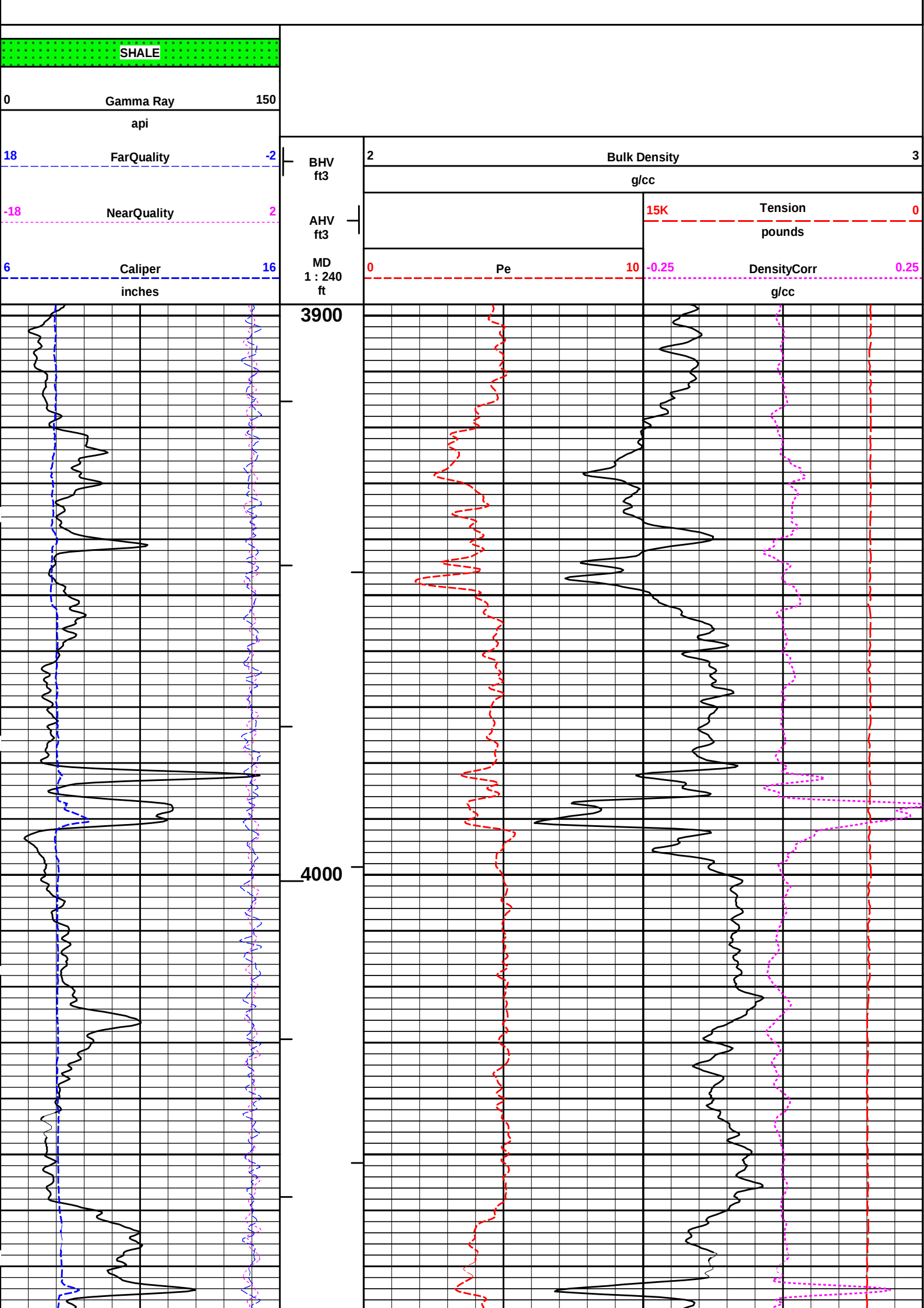
REPEAT SECTION

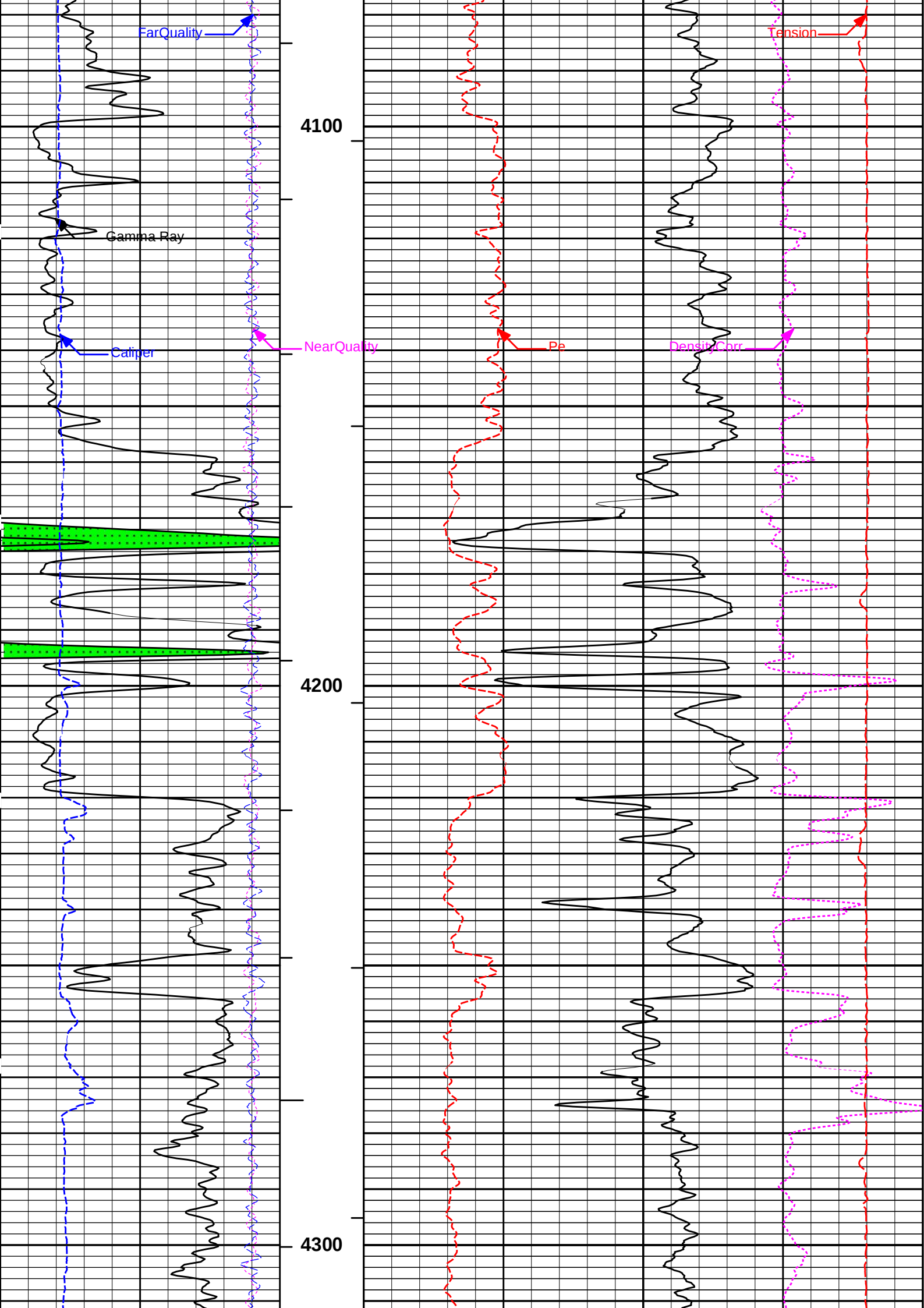
HALLIBURTON

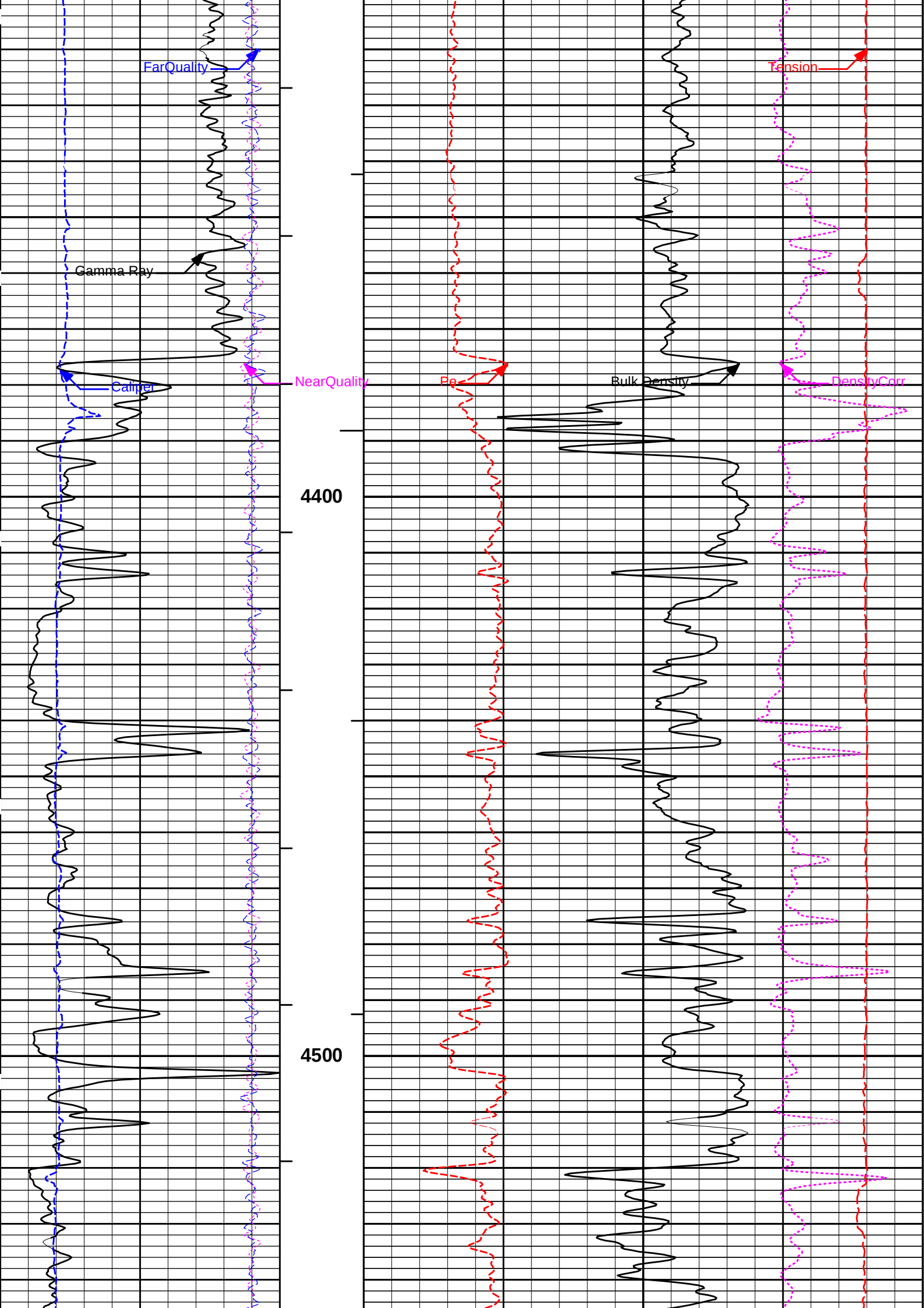
Plot Time: 15-Apr-16 03:40:41
Plot Range: 3898 ft to 5359.42 ft
Data: KOGER_3\Well Based\DETAILS\
Plot File: \\LOCAL-KOGER_3\Well Based\POROSITY\BULKD_5_MAIN_LIB

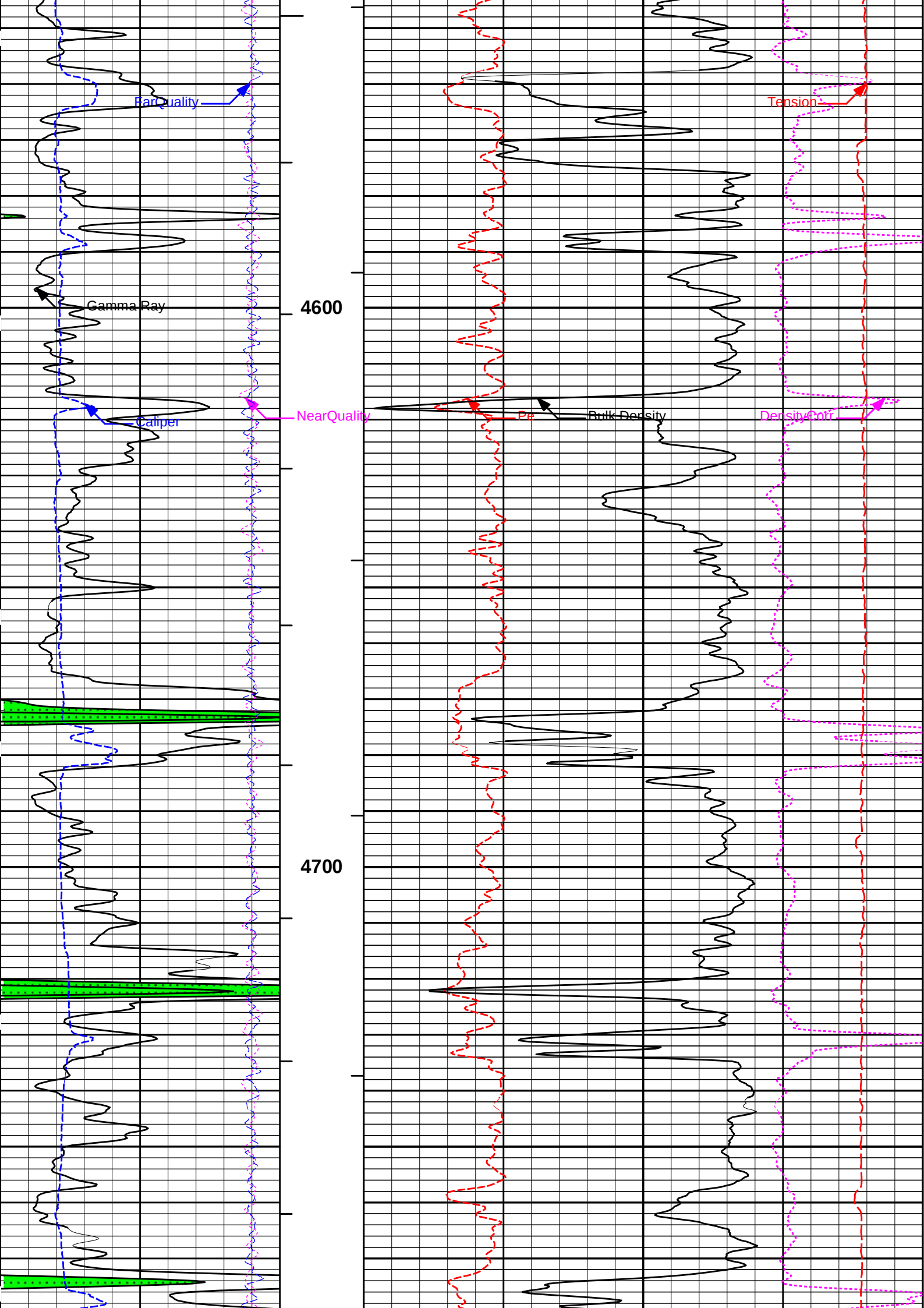
5 INCH MAIN LOG

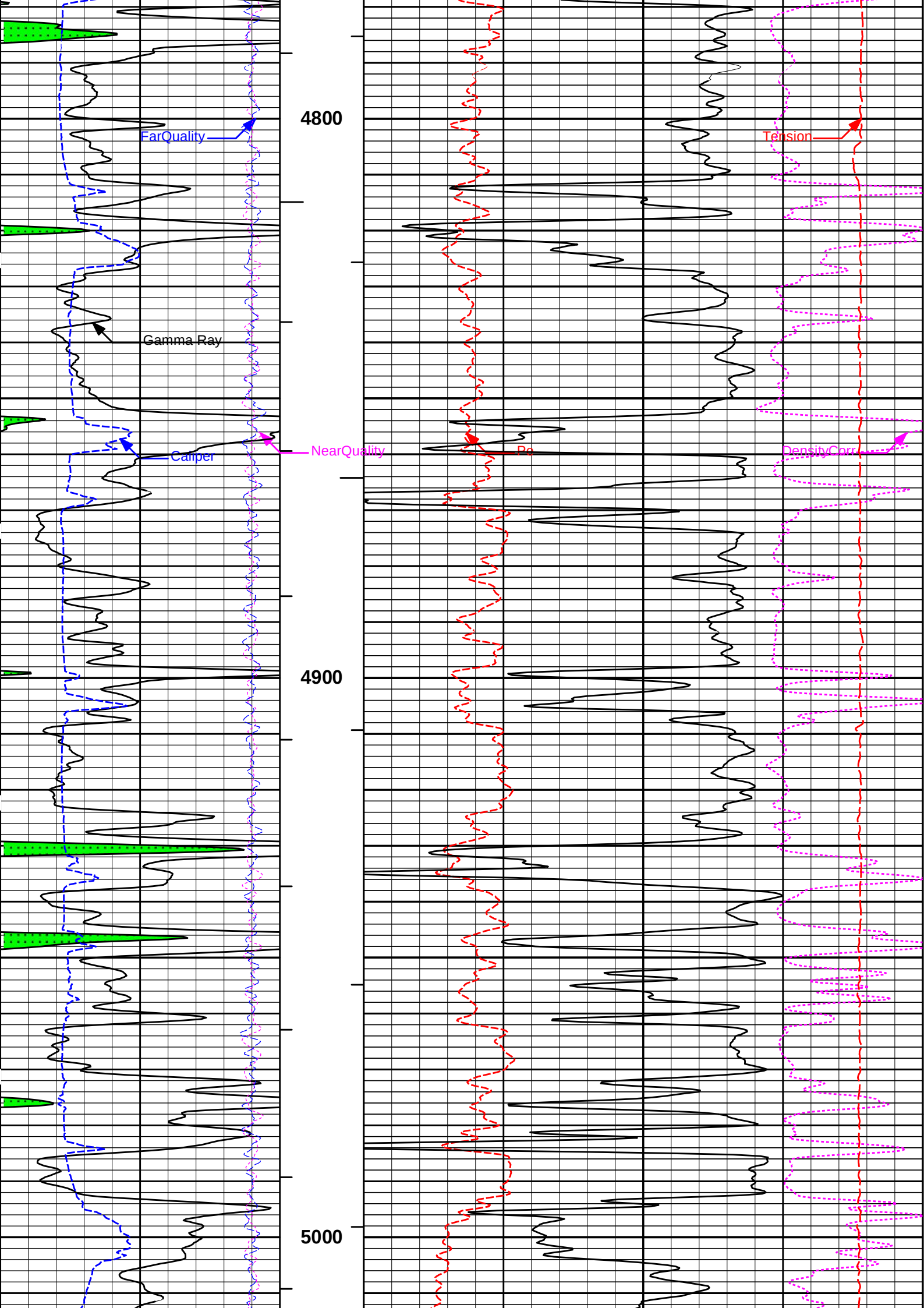
MEASURED DEPTH
MAIN SECTION 5" PER 100'

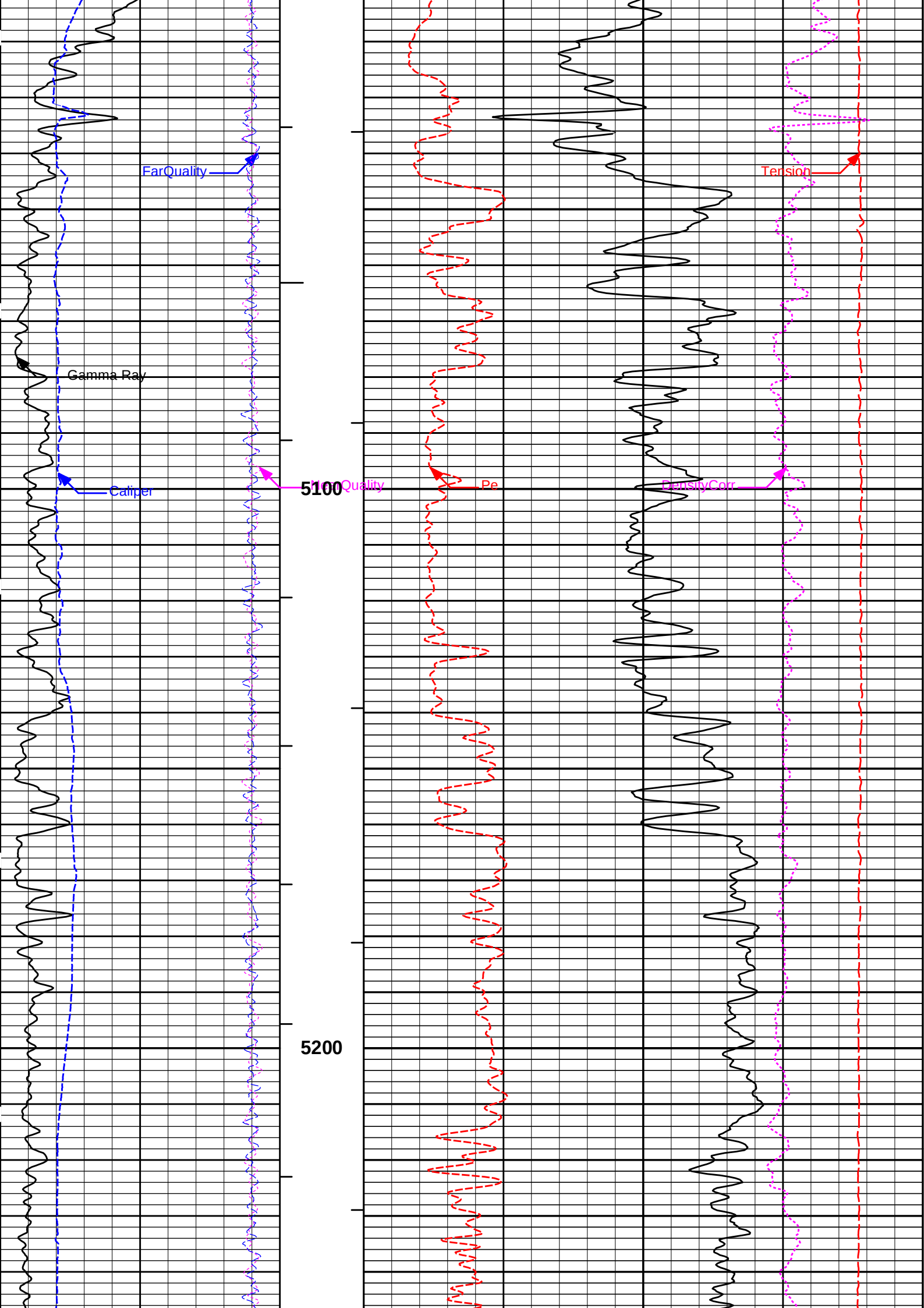


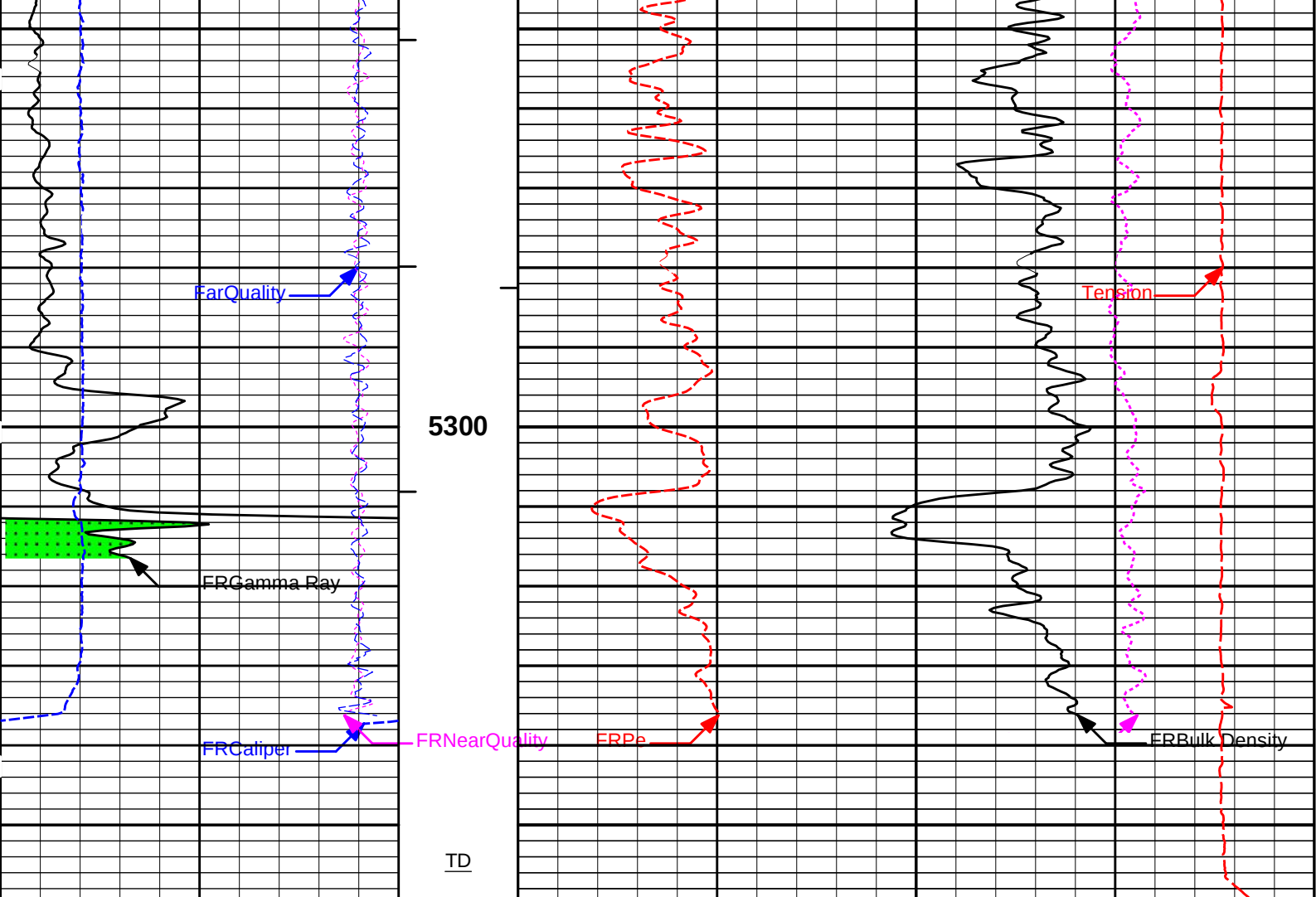












6	Caliper inches	16	MD 1 : 240 ft	0	Pe	10	-0.25	DensityCorr	0.25
-18	NearQuality	2	AHV ft3	15K	Tension	0			
18	FarQuality	-2	BHV ft3	Bulk Density		3			
				g/cc					
0	Gamma Ray	150							
api									
SHALE									

HALLIBURTON

Plot Time: 15-Apr-16 03:40:43
Plot Range: 3898 ft to 5359.42 ft
Data: KOGER_3\Well Based\DETAILS\
Plot File: \\LOCAL\KOGER_3\Well Based\POROSITY\BULKD_5_MAIN_LIB

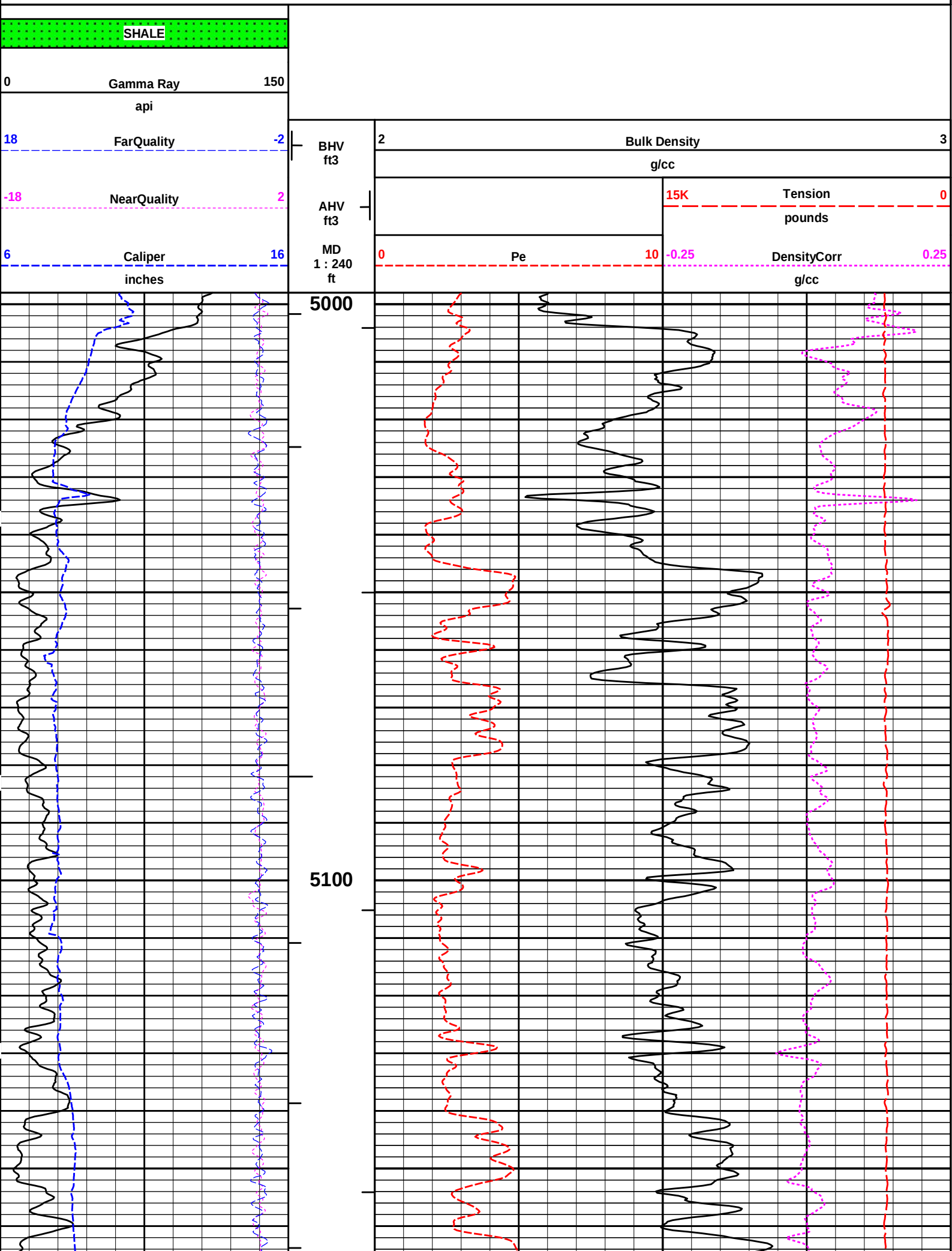
5 INCH MAIN LOG

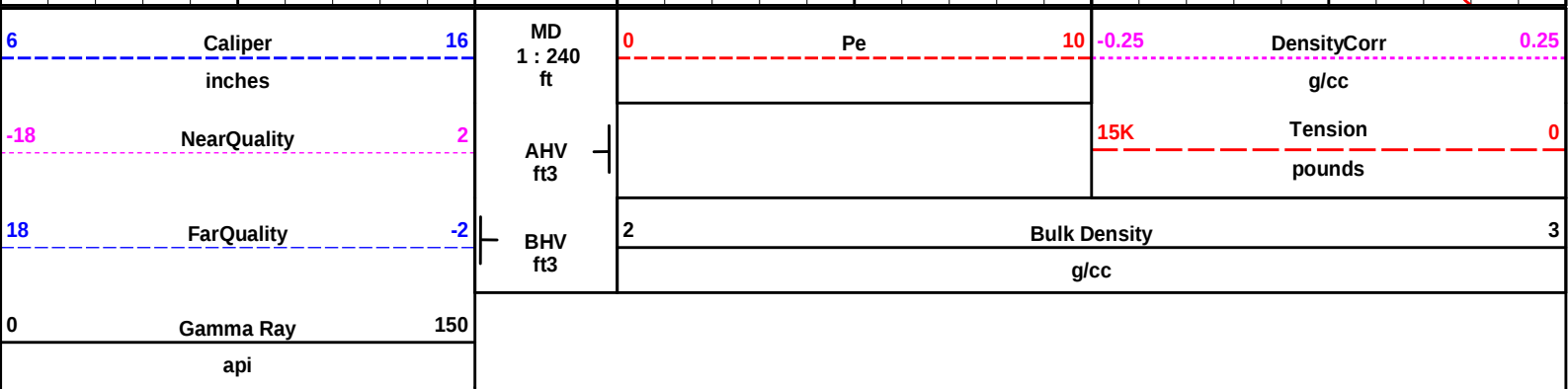
MEASURED DEPTH
MAIN SECTION 5" PER 100'

HALLIBURTON

Plot Time: 15-Apr-16 03:40:43
Plot Range: 4998 ft to 5357.67 ft
Data: KOGER_3\Well Based\REPEAT\
Plot File: \\LOCAL\KOGER_3\Well Based\POROSITY\BULKD_5_REPEAT_LIB

REPEAT SECTION





SHALE

HALLIBURTON

Plot Time: 15-Apr-16 03:40:44

Plot Range: 4998 ft to 5357.67 ft

Data: KOGER_3\Well Based\REPEAT\

Plot File: \\LOCAL-KOGER_3\Well Based\POROSITY\BULKD_5_REP_LIB

REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS_I 37.50 lbs		Ø 2.750 in →		← Temperature @ 55.29 ft	3.50 ft	56.79 ft
XOHD-12345678 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	53.29 ft
SP Sub-10904995 60.00 lbs		Ø 3.625 in →		← SP @ 50.56 ft	3.74 ft	52.34 ft
						48.60 ft
GTET-11021139 165.00 lbs		Ø 3.625 in →		← GammaRay @ 42.54 ft	8.52 ft	
						40.08 ft
DSNT-11019641 174.00 lbs	DSN Decentralizer- 11019641 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 33.15 ft ← DSN Near @ 32.40 ft	9.69 ft	
						30.40 ft
SDLT-10951315 360.00 lbs	SDLT Pad-10865873 65.00 lbs Microlog Pad-10951315 8.00 lbs	Ø 4.500 in → Ø 4.750 in* → Ø 4.750 in* →		Microlog @ 22.58 ft SDL Caliper @ 22.40 ft SDL @ 22.39 ft	10.81 ft	
						19.58 ft
ACRt Instrument- 11055059 50.00 lbs		Ø 3.625 in →			5.03 ft	

	SHARED	SVTM	Navigation and Survey Master Tool	NONE	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	GTET	
	SHARED	TEMM	Temperature 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	
	Rwa / CrossPlot	BHSM	Borehole Size Source Tool	SDLT	
	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	
	GTET	BHSM	Borehole Size Source Tool	SDLT	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
	DSNT	DNTP	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	
	DSNT	SHCO	View More Correction Options	No	
	DSNT	UTVD	Use TVD for Gradient Corrections?	No	
	DSNT	LHWT	Logging Horizontal Water Tank?	No	
	DSNT	BHSM	Borehole Size Source Tool	SDLT	
	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
	SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
	Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
	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	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
	ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
	ACRt Sonde	MBFL	Apply Corkscrew Effect?	No	
BOTTOM_____					

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 11021139	Reference Calibration Date:	26-Feb-16 09:56:46
Engineer:	WHITLOCK	Calibration Date:	10-Apr-16 15:48:49
Software Version:	WL INSITE R4.6.3 (Build 5)	Calibration Version:	1

Calibrator Source S/N: TB 79
Calibrator API Reference:222.00 api
Equivalent Calibrator API Reference:225.9 api

Measurement	Measured	Calibrated	Units
Background	23.0	23.1	api
Background + Calibrator	248.2	249.0	api
Calibrator	225.2	225.9	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 11021139	Reference Calibration Date:	10-Apr-16 15:48:49
Engineer:	WHITLOCK	Calibration Date:	10-Apr-16 15:54:51
Software Version:	WL INSITE R4.6.3 (Build 5)	Calibration Version:	1

Calibrator Source S/N: TB 79
Calibrator API Reference:222.00 api
Equivalent Calibrator API Reference:225.9 api

Field Verification	Shop	Field	Units
Background	23.1	23.3	api
Background + Calibrator	249.0	248.9	api
Calibrator	225.9	225.6	api

Shop	Field	Difference	Tolerance
225.9	225.6	0.3	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	DSNT - 11019641	Reference Calibration Date:	18-Jan-16 12:31:04
Engineer:	COTHREN	Calibration Date:	22-Feb-16 20:00:52
Software Version:	WL INSITE R4.6.3 (Build 5)	Calibration Version:	1

Logging Source S/N: DSN 373
Tank Serial Number: FTSM
Reference value assigned to Tank: 56.100
Snow Block S/N: 786
Calibration Tank Water Temperature: 69 degF
Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.990	0.991	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):	0.2355	0.2358	0.0003	+/- 0.0020
Calibrated Ratio:	10.55	10.56	0.010	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0644	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 - 11019641	Reference Calibration Date:	22-Feb-16 20:00:52	
Engineer:	WHITLOCK	Calibration Date:	10-Apr-16 16:12:24	
Software Version:	WL INSITE R4.6.3 (Build 5)	Calibration Version:	1	

Logging Source S/N: DSN 373

Snow Block S/N: 786

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0644	0.0710	0.0066	+/- 0.0150

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

DENSITY CALIPER SHOP CALIBRATION				
Tool Name:	SDLT - 10951315	Reference Calibration Date:	18-Jan-16 11:11:04	
Engineer:	WHITLOCK	Calibration Date:	18-Feb-16 11:56:22	
Software Version:	WL INSITE R4.6.3 (Build 5)	Calibration Version:	1	
Host Tool Name:	DSNT - 11019641			

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2649.25	-2649.25	-7000.00 - -1000.00
Pad Gain	0.0003773	0.0003773	0.000200 - 0.000600
Arm Offset	480.90	480.90	-5000.00 - 3000.00
Arm Gain	0.0004044	0.0004044	0.000300 - 0.000700
Arm Power	0.000001870	0.000001870	-0.000010000 - 0.000010000

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)	2.00	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)	8.25	8.25	0.00	+/- 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 - 10951315	Reference Calibration Date:	18-Feb-16 11:56:22	

Engineer: WHITLOCK		Calibration Date: 10-Apr-16 15:44:16		
Software Version: WL INSITE R4.6.3 (Build 5)		Calibration Version: 1		
	MEASURED CALIPER VALUES			
	Measurement	Shop	Field	Change Control Limit On New Value
	Pad Extension	3.75	3.77	0.02 +/- 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 - 10865873		Reference Calibration Date: 18-Jan-16 11:21:13		
Engineer: COTHREN		Calibration Date: 22-Feb-16 19:16:44		
Software Version: WL INSITE R4.6.3 (Build 5)		Calibration Version: 1		
Logging Source S/N: 5577GW				
Aluminum Block S/N: FTSM		Density: 2.581g/cc Pe: 3.170		
Magnesium Block S/N: FTSM		Density: 1.687g/cc Pe: 2.594		
	DENSITY CALIBRATION SUMMARY			
	Measurement	Previous Value	New Value	Control Limit
	Near Bar Gain	0.9298	0.9843	0.90 - 1.10
	Near Dens Gain	0.9569	0.9806	0.90 - 1.10
	Near Peak Gain	0.9727	0.9863	0.90 - 1.10
	Near Lith Gain	0.9925	1.0052	0.90 - 1.10
	Far Bar Gain	0.9875	0.9964	0.90 - 1.10
	Far Dens Gain	0.9864	0.9930	0.90 - 1.10
	Far Peak Gain	0.9897	0.9928	0.90 - 1.10
	Far Lith Gain	0.9761	0.9774	0.90 - 1.10
	Near Bar Offset	0.5973	0.0939	NONE
	Near Dens Offset	0.3310	0.1237	NONE
	Near Peak Offset	0.1621	0.0538	NONE
	Near Lith Offset	-0.0197	-0.1227	NONE
	Far Bar Offset	0.0426	-0.0313	NONE
	Far Dens Offset	0.0232	-0.0302	NONE
	Far Peak Offset	-0.0512	-0.0740	NONE
	Far Lith Offset	0.0183	0.0058	NONE
	Near Bar Background	866.59	863.77	700 - 1450
	Near Dens Background	282.75	281.12	230 - 480
	Near Peak Background	124.23	122.96	100 - 210
	Near Lith Background	151.80	150.74	125 - 260
	Far Bar Background	490.51	485.47	450 - 900
	Far Dens Background	190.56	192.09	175 - 345
	Far Peak Background	75.19	75.89	70 - 140
	Far Lith Background	77.99	78.55	75 - 145
	CALIBRATION BLOCK SUMMARY			
	Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change Control Limit On Change
	MAGNESIUM			
	Density (g/cc)	1.680	1.687	0.007 +/- 0.015
	Pe	2.511	2.548	0.037 +/- 0.150
	ALUMINUM			

Density (g/cc)	2.575	2.581	0.006	+/- 0.01500
Pe	3.134	3.120	-0.014	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0007	+/- 0.0110	-0.0001	+/- 0.0140
Magnesium Block	-0.0008	+/- 0.0110	-0.0030	+/- 0.0140
Aluminum Block	-0.0007	+/- 0.0110	-0.0017	+/- 0.0140
Resolution	9.86	6.00 - 11.50	9.07	6.00 - 11.50
Internal Verifier(B+D+P+L)	1419	1200 - 2700	832	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 - 10865873	Reference Calibration Date:	22-Feb-16 19:16:44
Engineer:	WHITLOCK	Calibration Date:	10-Apr-16 16:22:40
Software Version:	WL INSITE R4.6.3 (Build 5)	Calibration Version:	1

Pad Temperature: 78.8 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1418.594	1418.442	-0.152	15.204
Far (B+D+P+L) cps	832.011	832.293	0.282	15.878
Near Resolution	9.86	10.02	0.160	0.50
Far Resolution	9.07	9.30	0.230	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-11021139						
Gamma Ray Calibrator	225.9	225.6	-----	0.3	+/- 9.00	api
DSNT-11019641						
Snow-Block Porosity	0.0644	0.0710	-----	-0.0066	+/- 0.0150	decp
SDLT-10951315						
Pad Extension	3.75	3.77	-----	-0.02	+/-0.10	in
Ring Diameter	8.25	8.25	-----	0.00	+/-0.15	in
SDLT Pad-10865873						
Near(B+D+P+L)	1418.594	1418.442	-----	0.152	+/-15.204	cps
Far(B+D+P+L)	832.011	832.293	-----	-0.282	+/-15.878	cps

INPUTS, DELAYS AND FILTERS TABLE

Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
Rwa / CrossPlot				
TPUL	Tension Pull	56.79	NO	
BS	Bit Size	56.79	NO	
HDIA	Measured Hole Diameter	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Sub				
PLTC	Plot Control Mask	50.56	NO	
SP	Spontaneous Potential	50.56	BLK	1.250
SPR	Raw Spontaneous Potential	50.56	NO	
SPO	Spontaneous Potential Offset	50.56	NO	
GTET				
TPUL	Tension Pull	42.54	NO	
GR	Natural Gamma Ray API	42.54	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	42.54	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	42.54	W	1.416 , 0.750
HDIA	Measured Hole Diameter	0.00	NO	
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	32.30	NO	
RNDS	Near Detector Telemetry Counts	32.40	BLK	1.417
RFDS	Far Detector Telemetry Counts	33.15	TRI	0.583
DNTT	DSN Tool Temperature	32.40	NO	
DSNS	DSN Tool Status	32.30	NO	
ERND	Near Detector Telemetry Counts EVR	32.40	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	33.15	BLK	0.000
ENTM	DSN Tool Temperature EVR	32.40	NO	
HDIA	Measured Hole Diameter	0.00	NO	
SDLT				
TPUL	Tension Pull	22.40	NO	
PCAL	Pad Caliper	22.40	TRI	0.250
ACAL	Arm Caliper	22.40	TRI	0.250
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 Reference 12 KHz Real Signal	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	
HDIA	Measured Hole Diameter	0.00	NO	
SDLT Pad				
TPUL	Tension Pull	22.39	NO	
NAB	Near Above	22.21	BLK	0.920
NHI	Near Cesium High	22.21	BLK	0.920
NLO	Near Cesium Low	22.21	BLK	0.920
NVA	Near Valley	22.21	BLK	0.920
NBA	Near Barite	22.21	BLK	0.920
NDE	Near Density	22.21	BLK	0.920
NPK	Near Peak	22.21	BLK	0.920
NLI	Near Lithology	22.21	BLK	0.920
NBAU	Near Barite Unfiltered	22.21	BLK	0.250
NLIU	Near Lithology Unfiltered	22.21	BLK	0.250
FAB	Far Above	22.56	BLK	0.250
FHI	Far Cesium High	22.56	BLK	0.250
FLO	Far Cesium Low	22.56	BLK	0.250
FVA	Far Valley	22.56	BLK	0.250
FBA	Far Barite	22.56	BLK	0.250

BA	Far Barite	22.56	BLK	0.250
FDE	Far Density	22.56	BLK	0.250
FPK	Far Peak	22.56	BLK	0.250
FLI	Far Lithology	22.56	BLK	0.250
PTMP	Pad Temperature	22.40	BLK	0.920
NHV	Near Detector High Voltage	21.79	NO	
FHV	Far Detector High Voltage	21.79	NO	
ITMP	Instrument Temperature	21.79	NO	
DDHV	Detector High Voltage	21.79	NO	
HDIA	Measured Hole Diameter	0.00	NO	

Microlog Pad				
TPUL	Tension Pull	22.58	NO	
MINV	Microlog Lateral	22.58	BLK	0.750
MNOR	Microlog Normal	22.58	BLK	0.750
Data: KOGER_3\0001 RED_TRIPLE\IDLE			Date: 15-Apr-16 02:15:10	

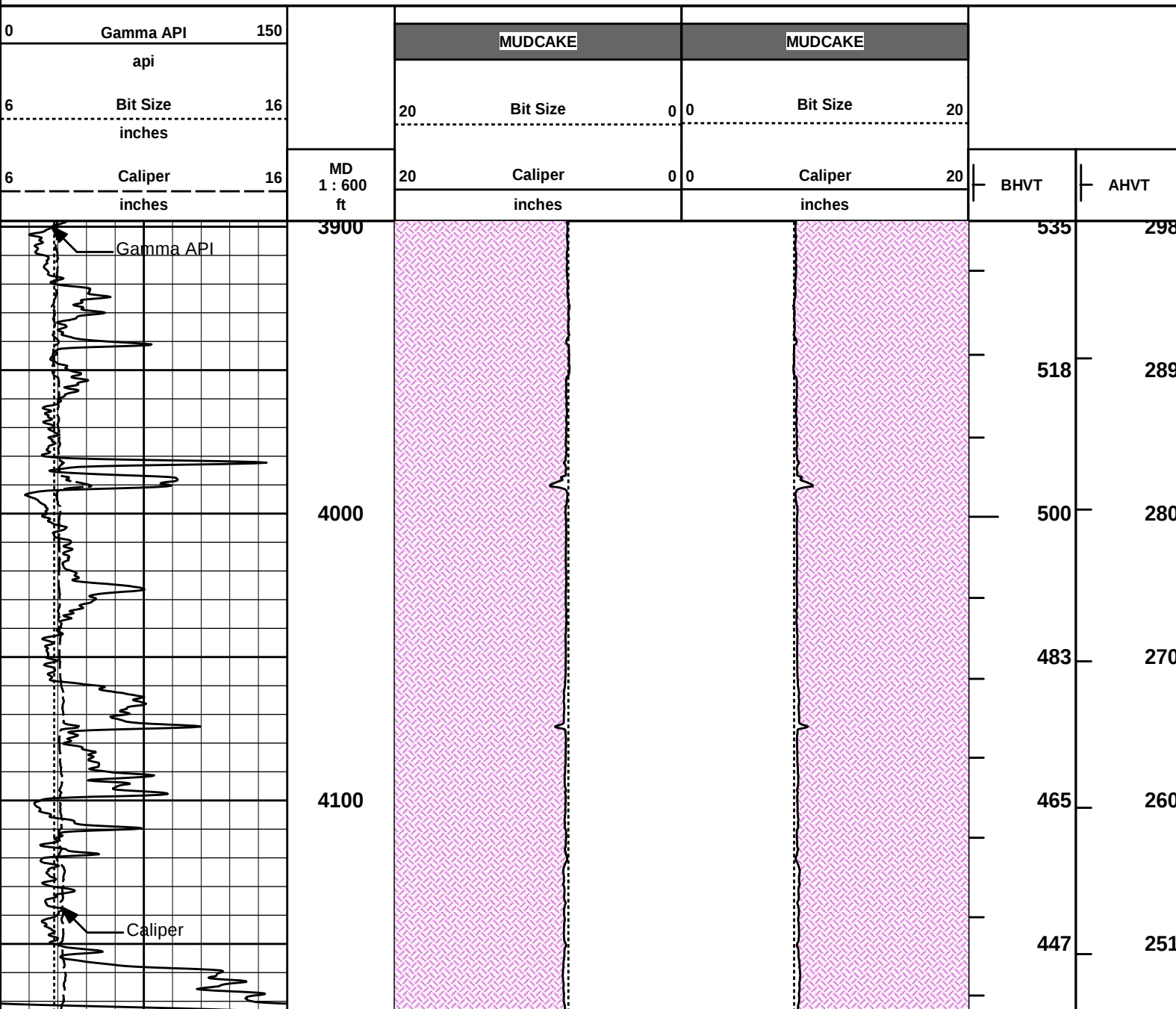
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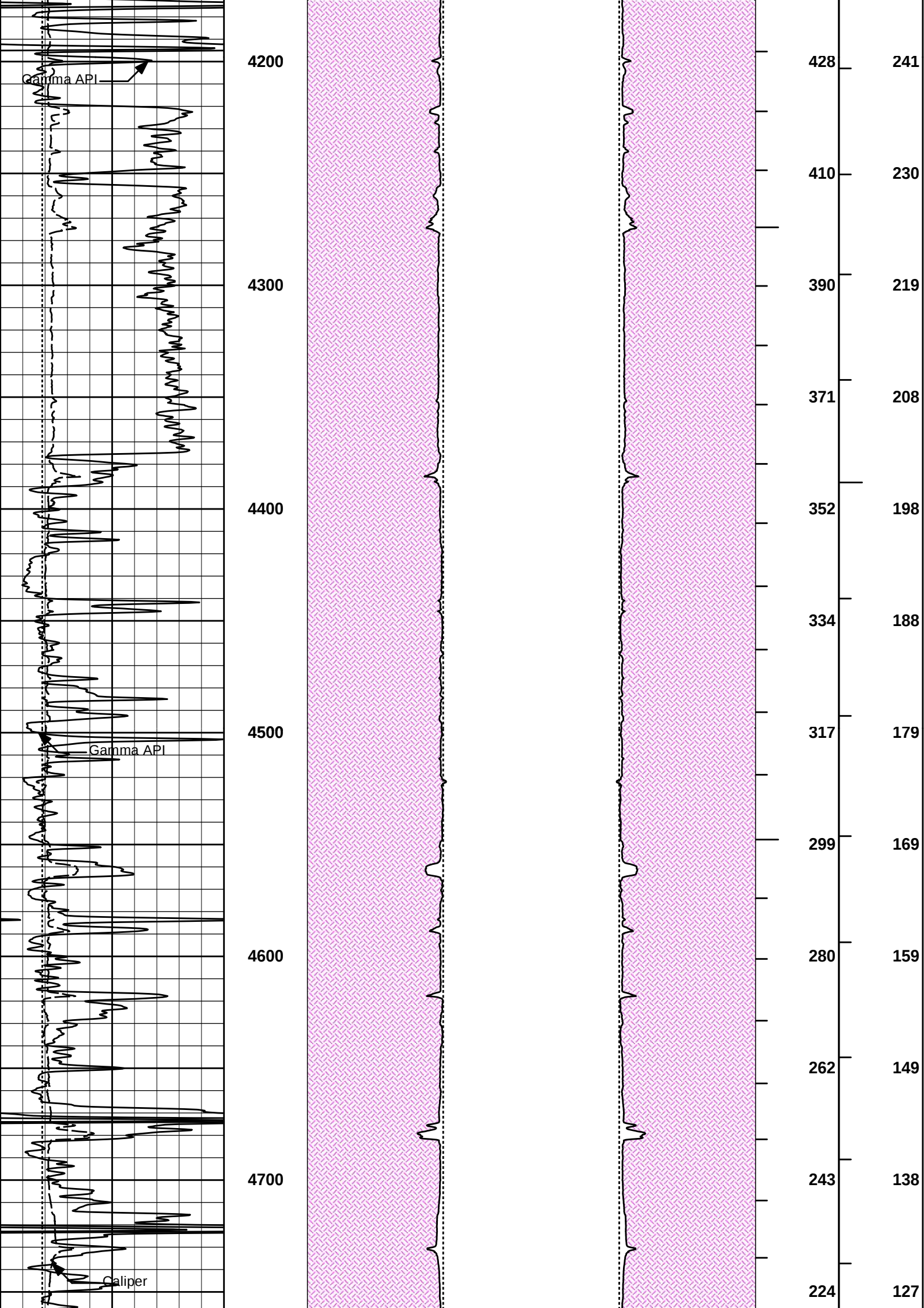
Plot Range: 3898 ft to 5359.42 ft

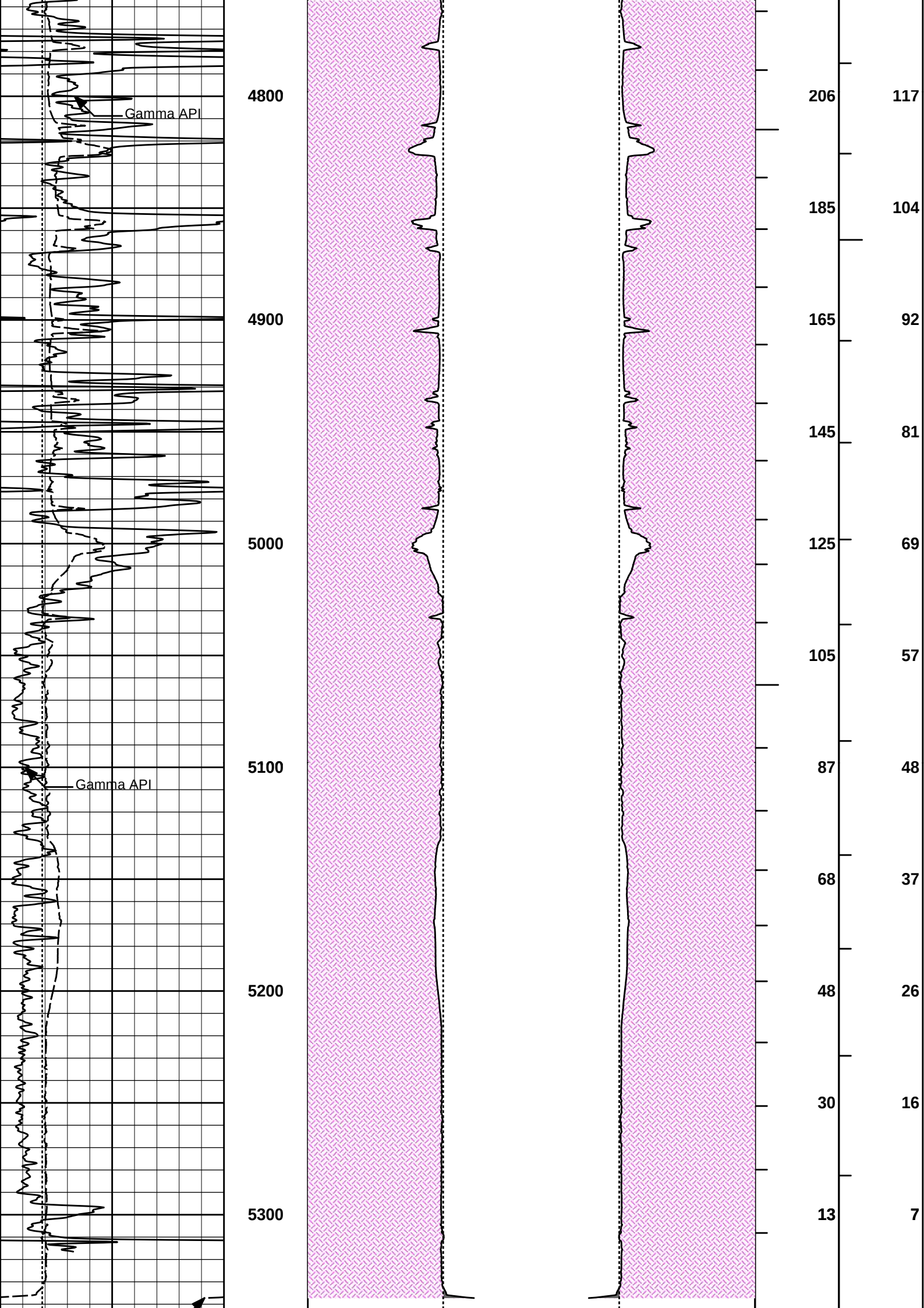
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ANNULAR HOLE VOLUME PLOT







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HALLIBURTON

Plot Time: 15-Apr-16 03:40:48
Plot Range: 3898 ft to 5359.42 ft
Data: KOGER_3\Well Based\DETAILS\
Plot File: \\LOCAL-KOGER_3\Well Based\POROSITY\AHV_2_IQ_LIB

ANNULAR HOLE VOLUME PLOT

COMPANY	HERMAN L. LOEB, LLC		
WELL	KOGER #3		
FIELD	ALFORD		
COUNTY	KIOWA	STATE	KANSAS
HALLIBURTON		DUAL SPACED NEUTRON SPECTRAL DENSITY LOG	