

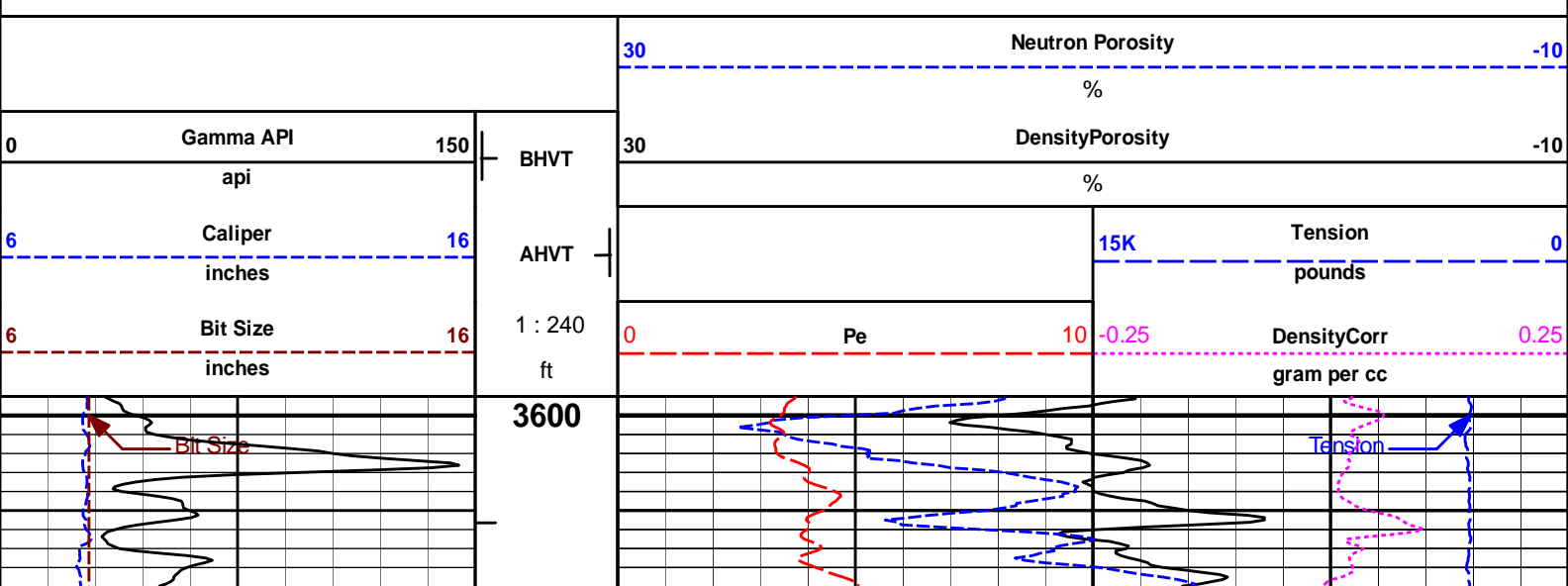


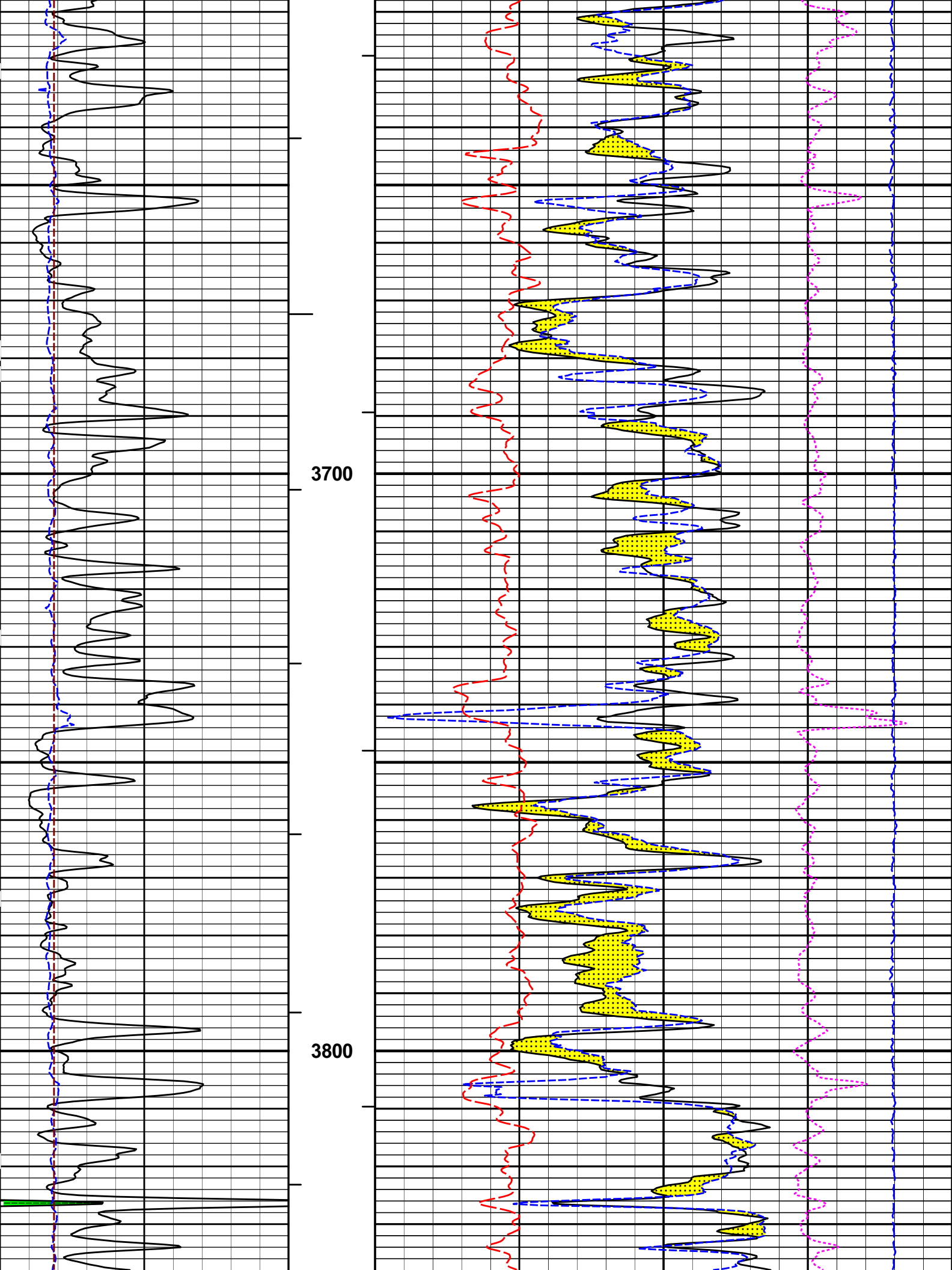
GENERAL			GAMMA		ACOUSTIC		DENSITY			NEUTRON				
Run No.	Depth		Speed	Scale		Scale		Matrix	Scale		Matrix	Scale		Matrix
	From	To	ft/min	L	R	L	R		L	R		L	R	
ONE	5167'	3600'	REC	0gapi	150gapi				0.3decP	0.0decP	2.71 g/cc	0.3decP	0.0decP	LIME
DIRECTIONAL INFORMATION														
Maximum Deviation					@					KOP @				
Remarks: FIRST LOG ON WELL, POSITIVE DEPTH CONTROL APPLIED														
SCALES AND PRESENTATIONS AS PER CLIENT REQUEST														
TOOLS RAN IN COMBINATION AS PER TOOLSTRING DIAGRAM														
ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING														
CREW: C. HERRERA, B. EZEKWU														
***THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES***														
<p>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.</p>														
HALLIBURTON														

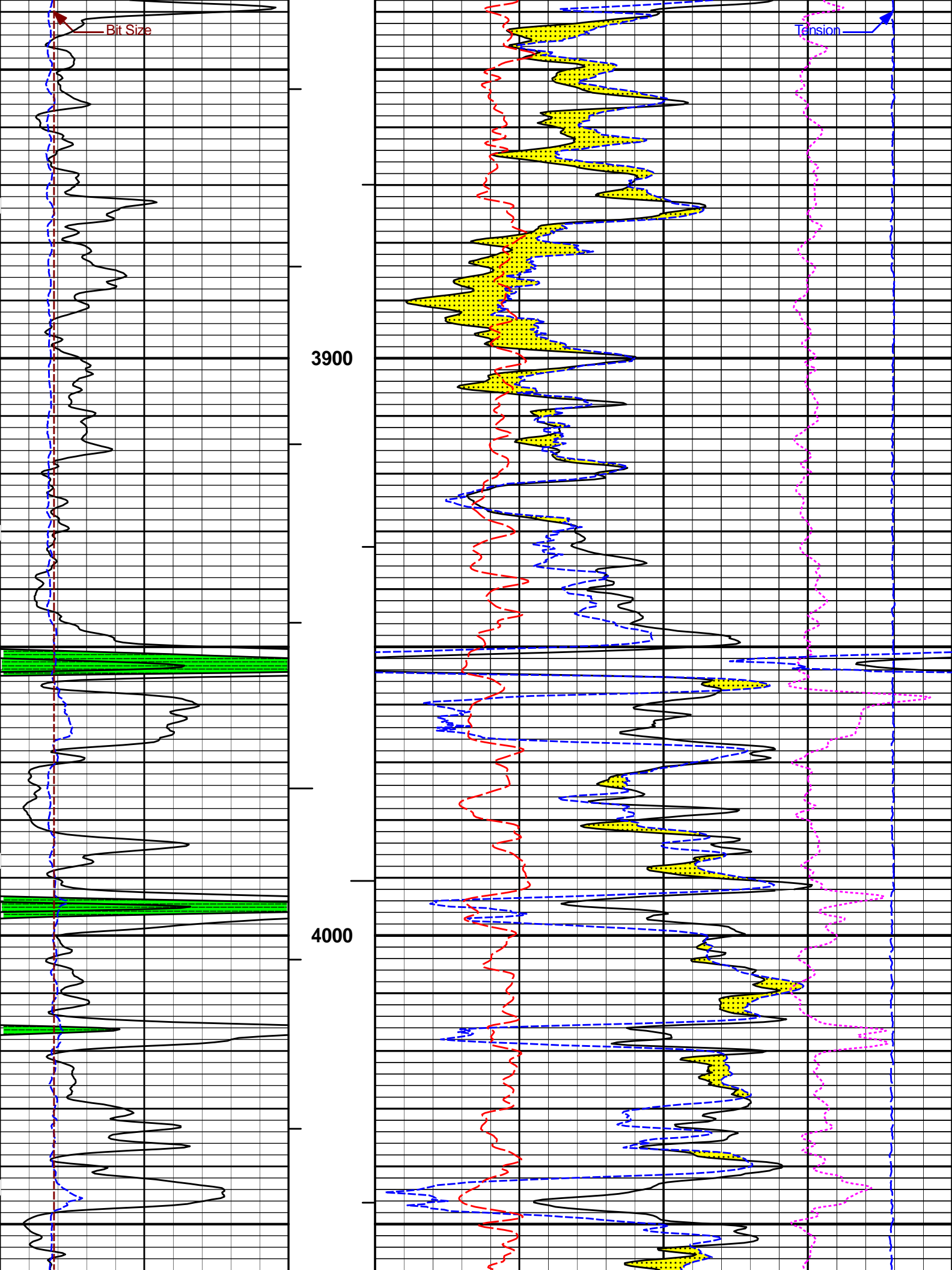
**HALLIBURTON** Plot Time: 26-Sep-22 22:03:09  
Plot Range: 3598 ft to 5170.75 ft  
Data: 09\_26\_MERIT\Well Based\DAQ-DETAIL\  
Plot File: \\POR\Porosity\_IQ\_5\_MAIN

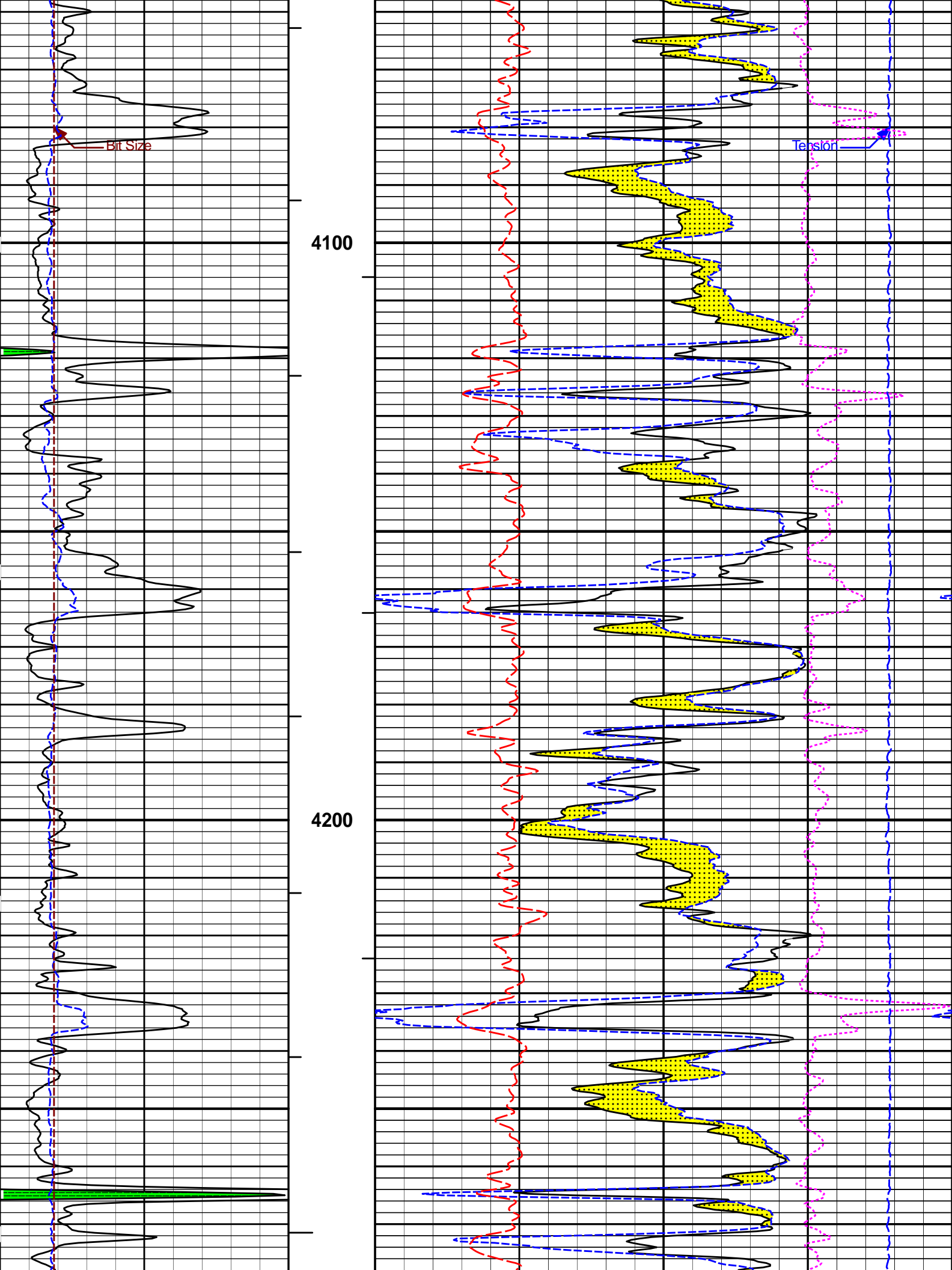
## 5 INCH MAIN LOG

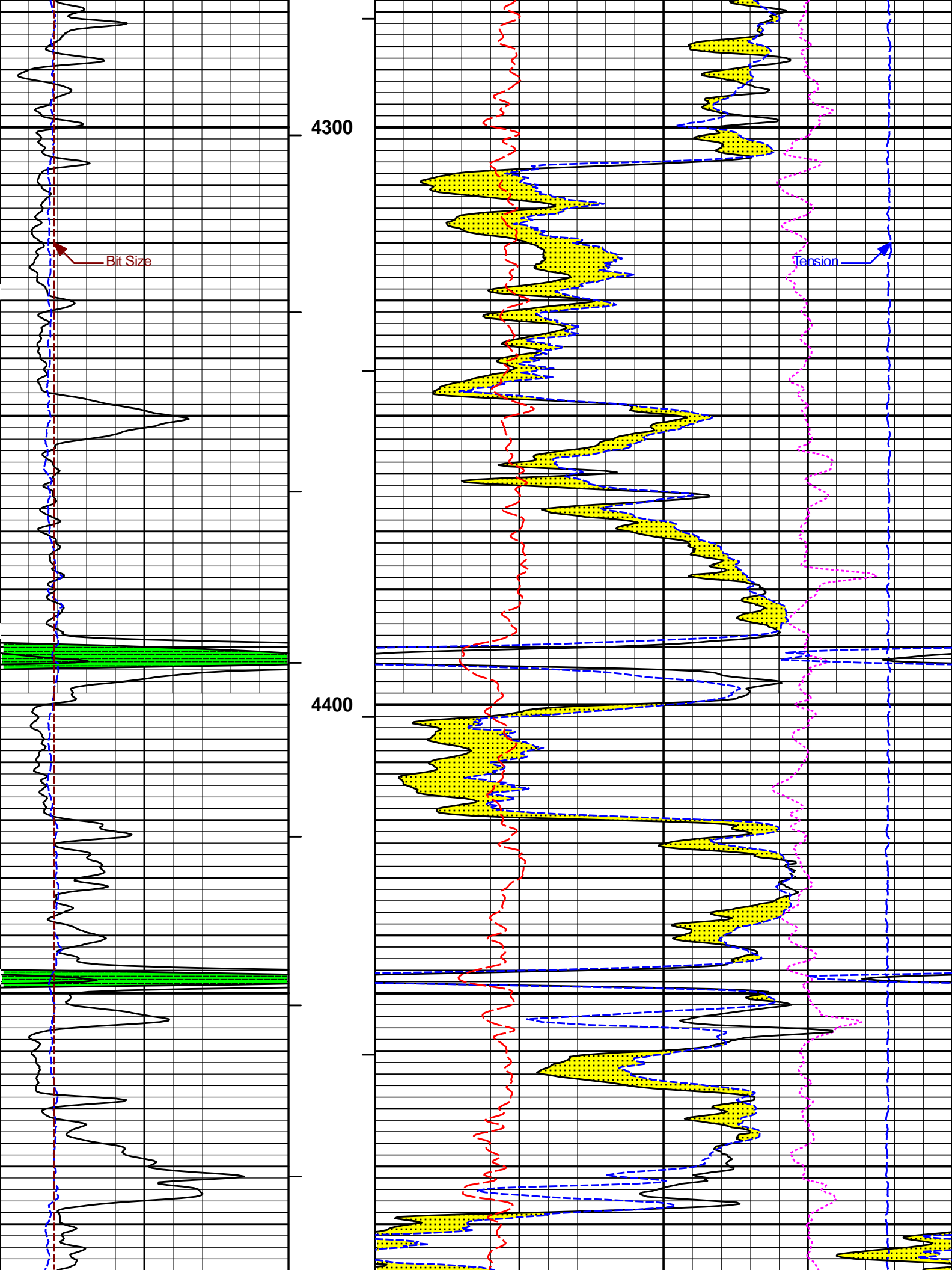
### MAIN SECTION 5" PER 100'

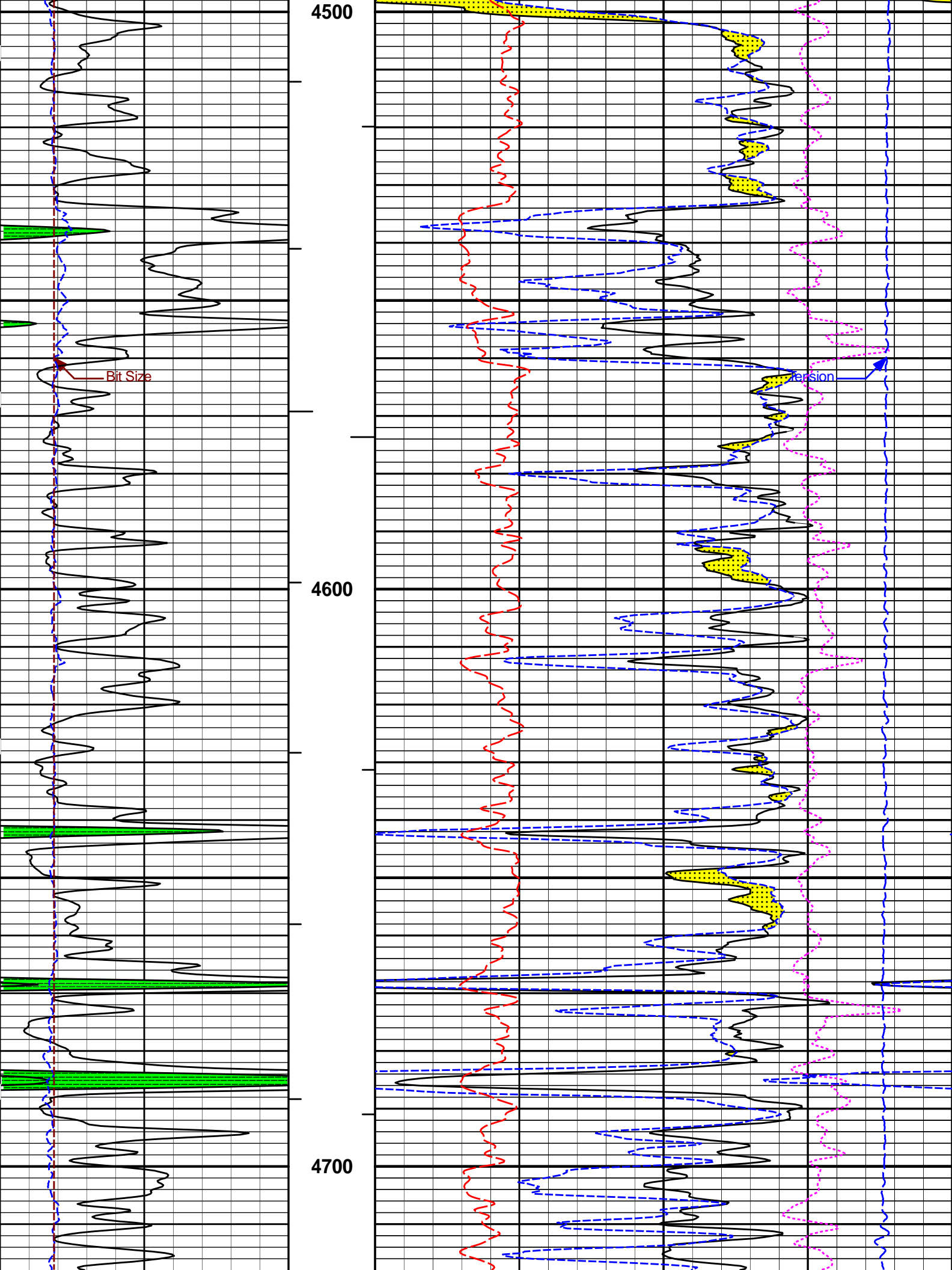


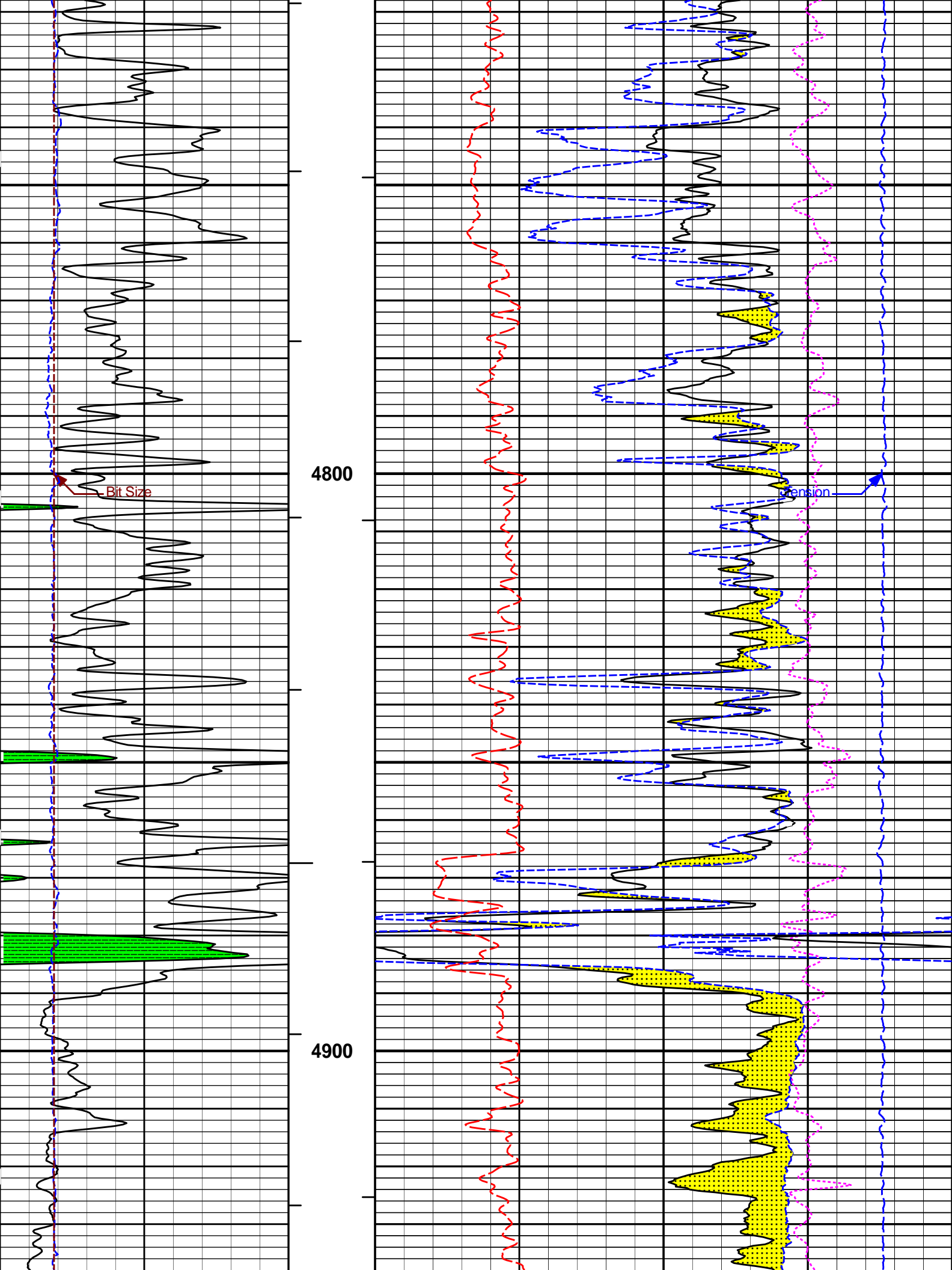


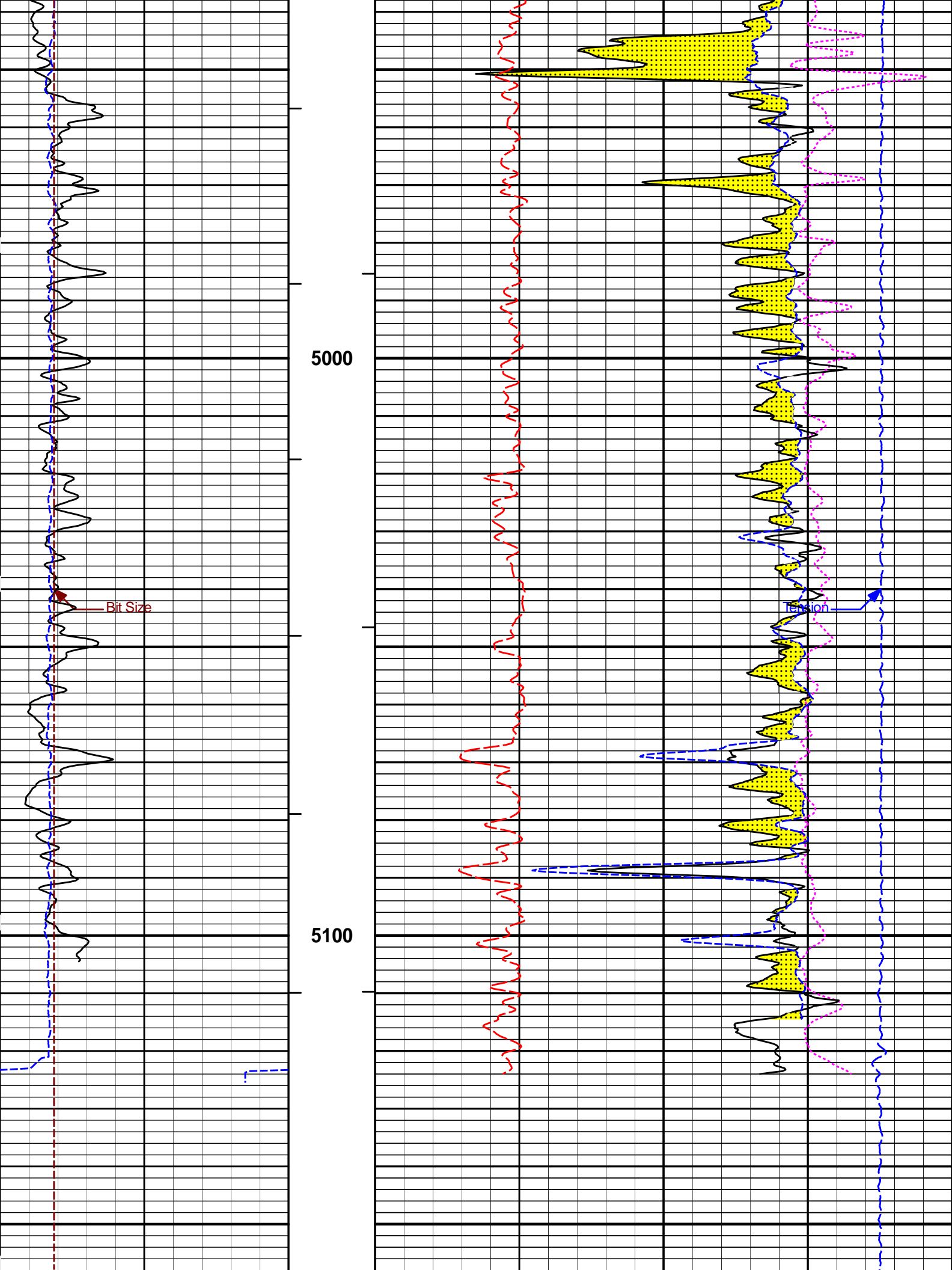












		TD							
6	Bit Size inches	16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr gram per cc	0.25
6	Caliper inches	16	AHVT				15K	Tension pounds	0
0	Gamma API api	150	BHVT	30	DensityPorosity %				-10
				30	Neutron Porosity %				-10

**HALLIBURTON**

Plot Time: 26-Sep-22 22:03:11  
 Plot Range: 3598 ft to 5170.75 ft  
 Data: 09\_26\_MERIT\Well Based\DAQ-DETAIL\  
 Plot File: \\POR\Poro\_IQ\_5\_MAIN

### 5 INCH MAIN LOG

### MAIN SECTION 5" PER 100'

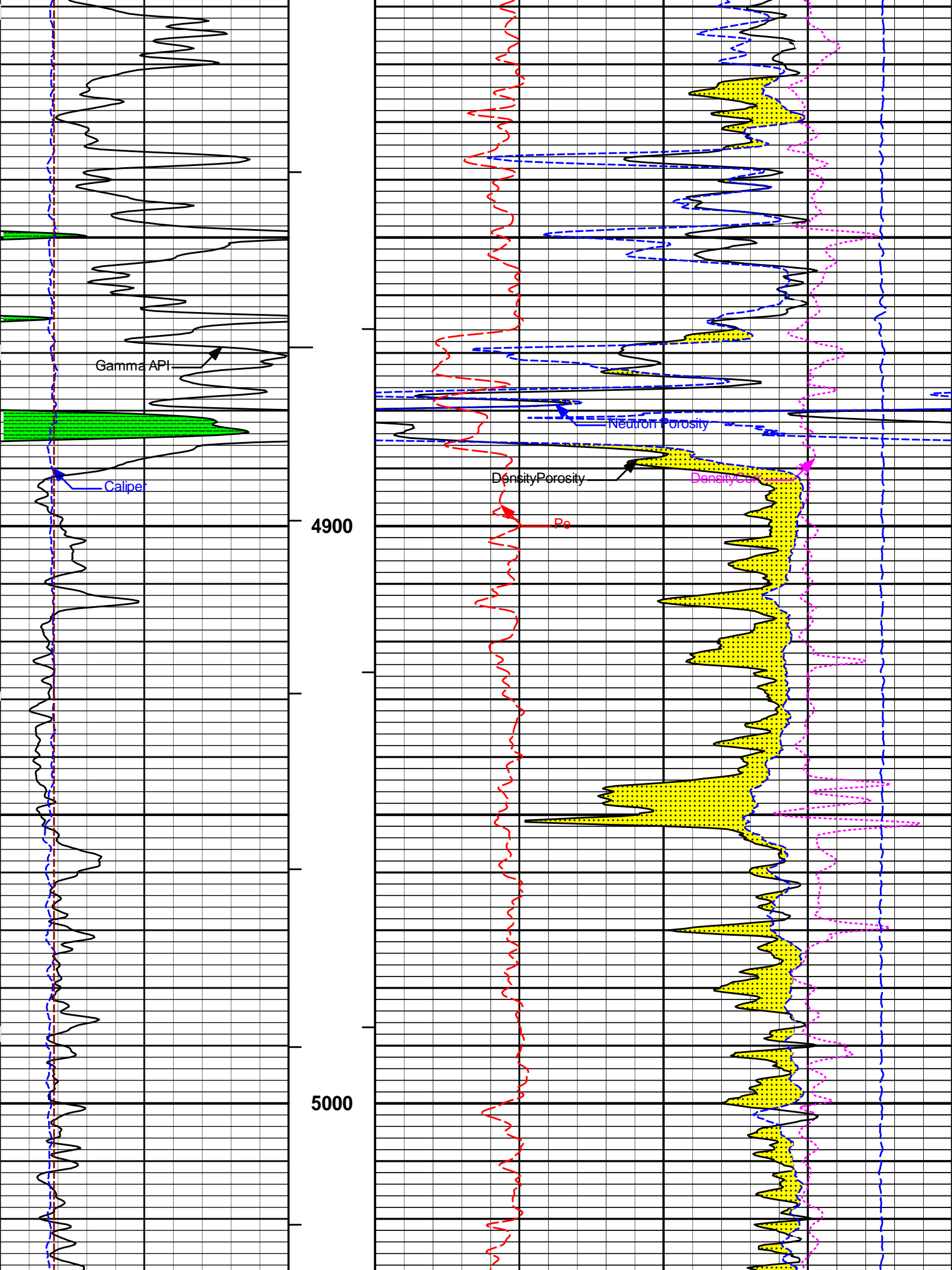
**HALLIBURTON**

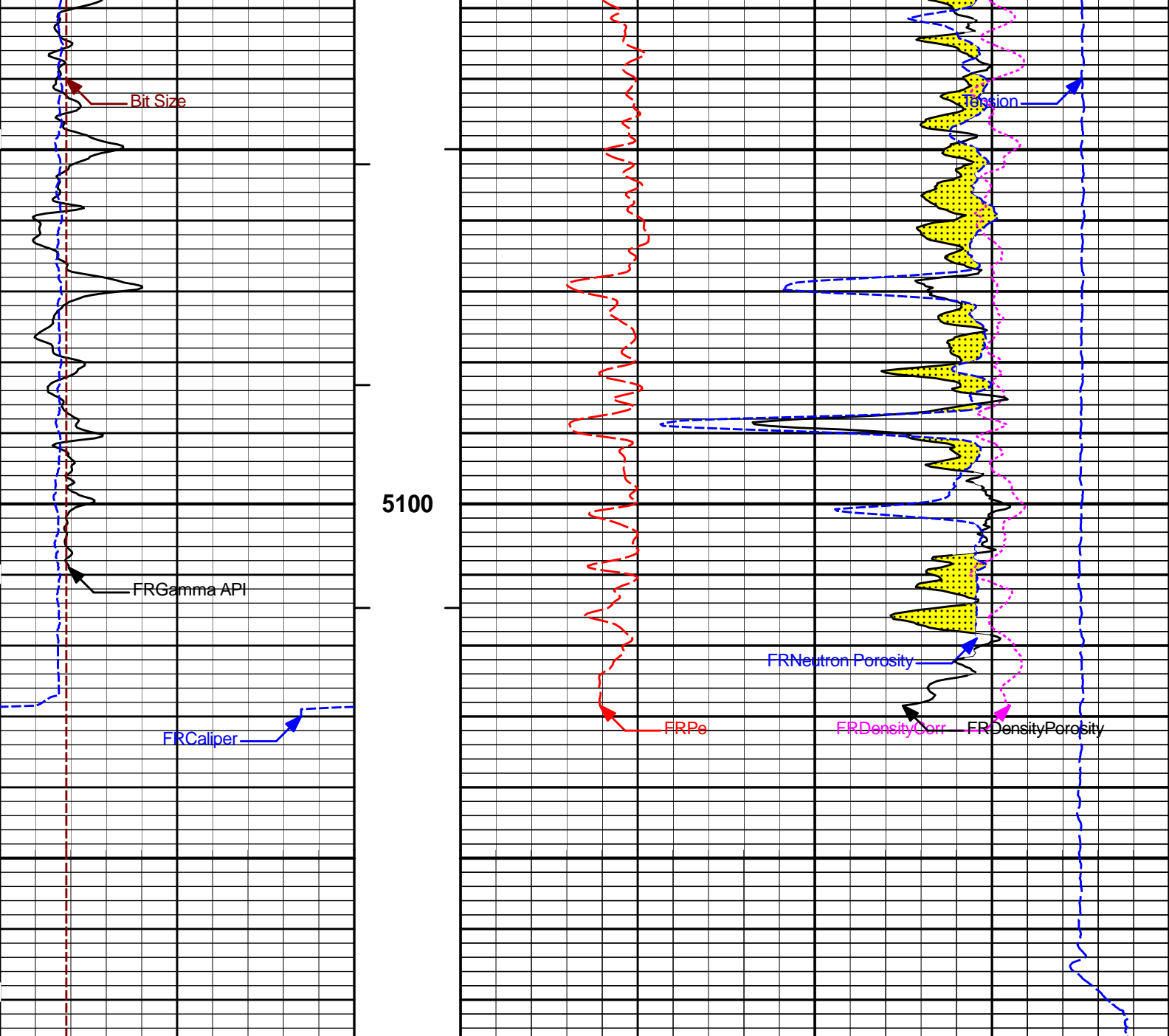
Plot Time: 26-Sep-22 22:03:11  
 Plot Range: 4798 ft to 5175.5 ft  
 Data: 09\_26\_MERIT\Well Based\DAQ-0001-003\  
 Plot File: \\POR\Poro\_IQ\_5 REPEAT

### REPEAT SECTION

### REPEAT SECTION

			30	Neutron Porosity %	-10				
0	Gamma API api	150	BHVT	30	DensityPorosity %				
6	Caliper inches	16	AHVT		15K	Tension pounds	0		
6	Bit Size inches	16	1 : 240 ft	0	Pe	10	-0.25	DensityCorr gram per cc	0.25
			4800						





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

**HALLIBURTON**

Plot Time: 26-Sep-22 22:03:13  
 Plot Range: 4798 ft to 5175.5 ft  
 Data: 09\_26\_MERITWell Based\DAQ-0001-003\  
 Plot File: \\POR\Porosity\_IQ\_5 REPEAT

**REPEAT SECTION**

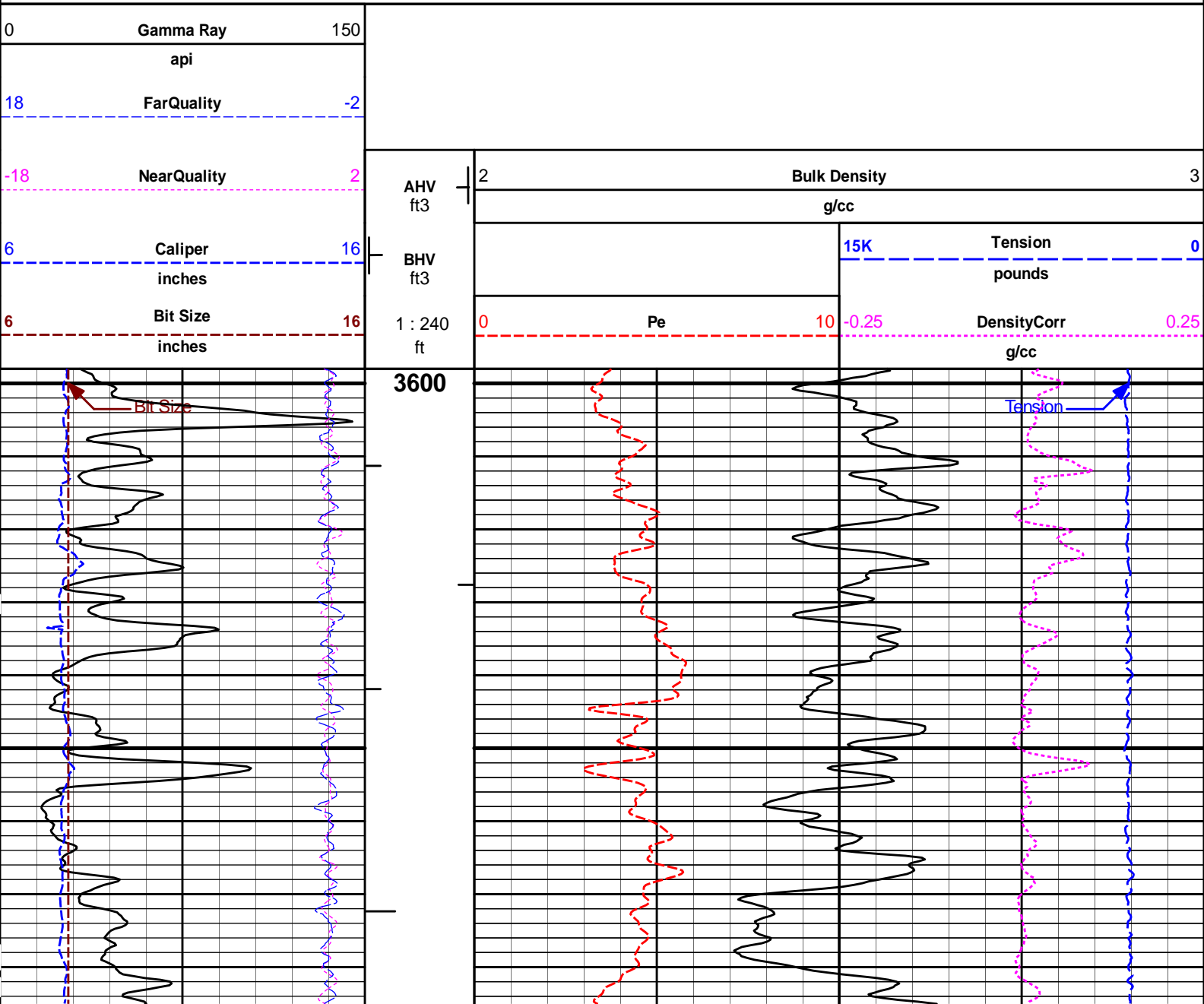
# REPEAT SECTION

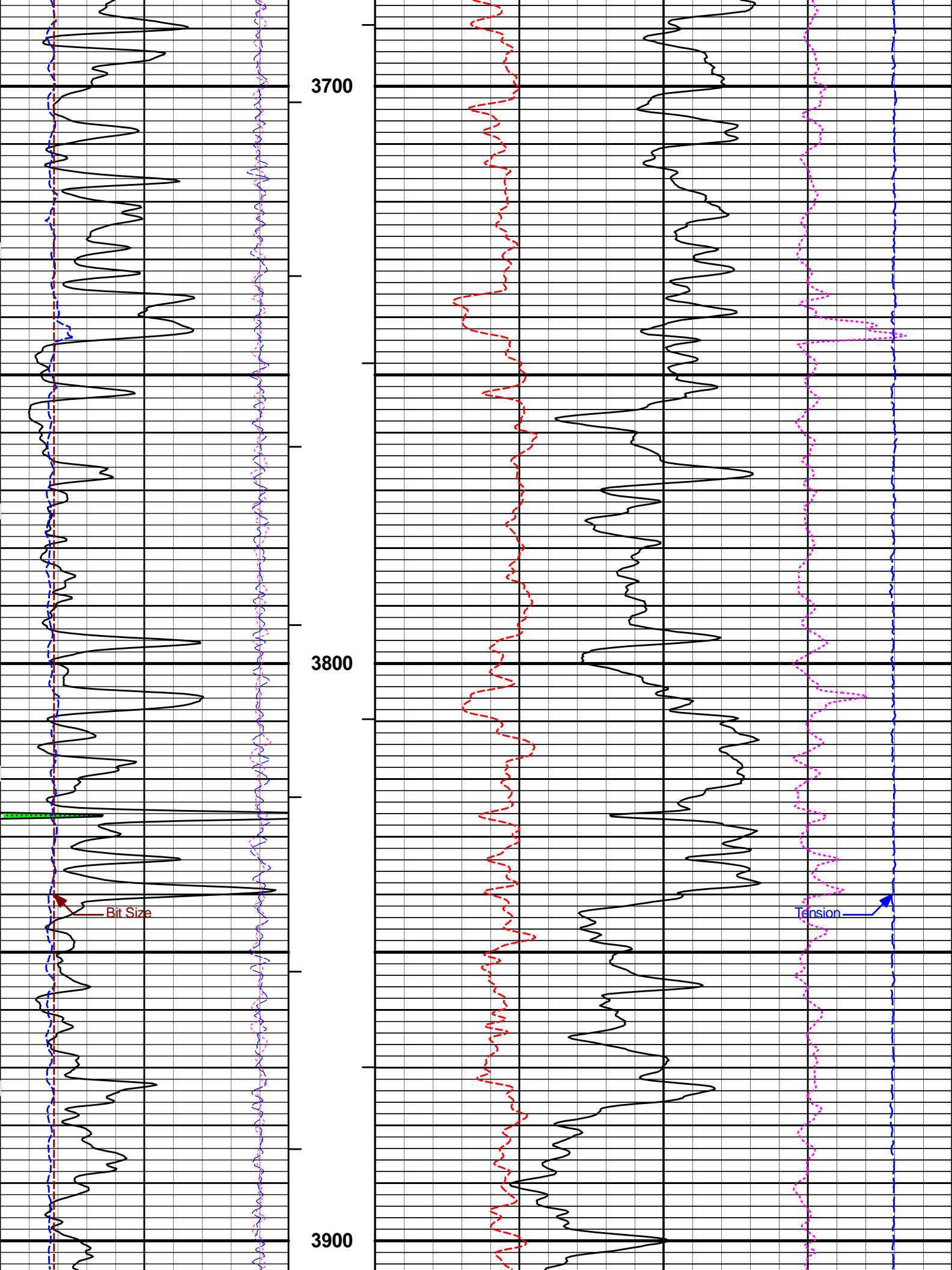
**HALLIBURTON**

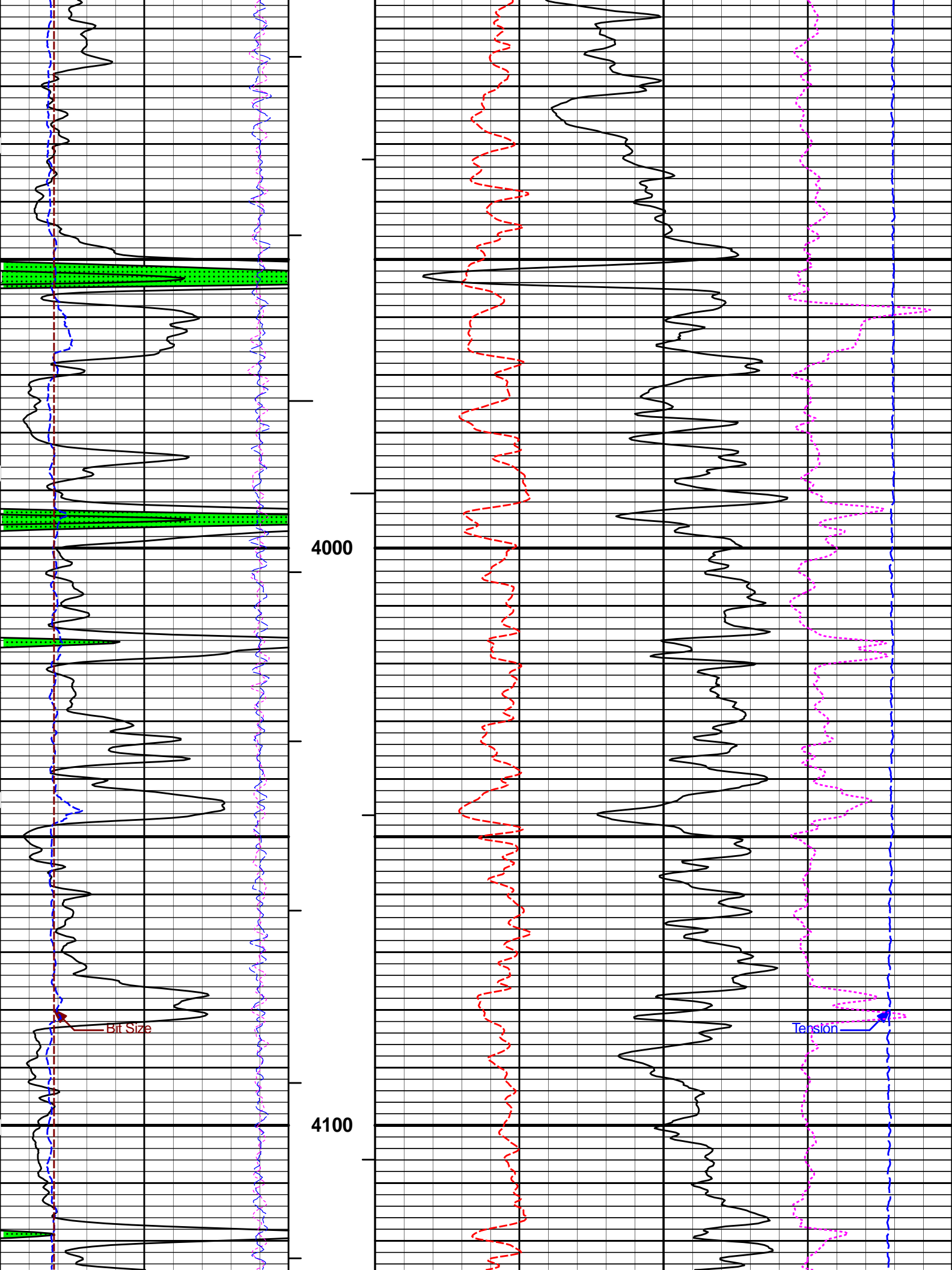
Plot Time: 26-Sep-22 22:03:13  
 Plot Range: 3598 ft to 5170.75 ft  
 Data: 09\_26\_MERITWell Based\DAQ-DETAIL\  
 Plot File: \\-LOCAL-109\_26\_MERIT0001 GTET-DSNT-SDLT-BSAT-ACRTIPORIBULKD\_5\_MAIN\_IQ

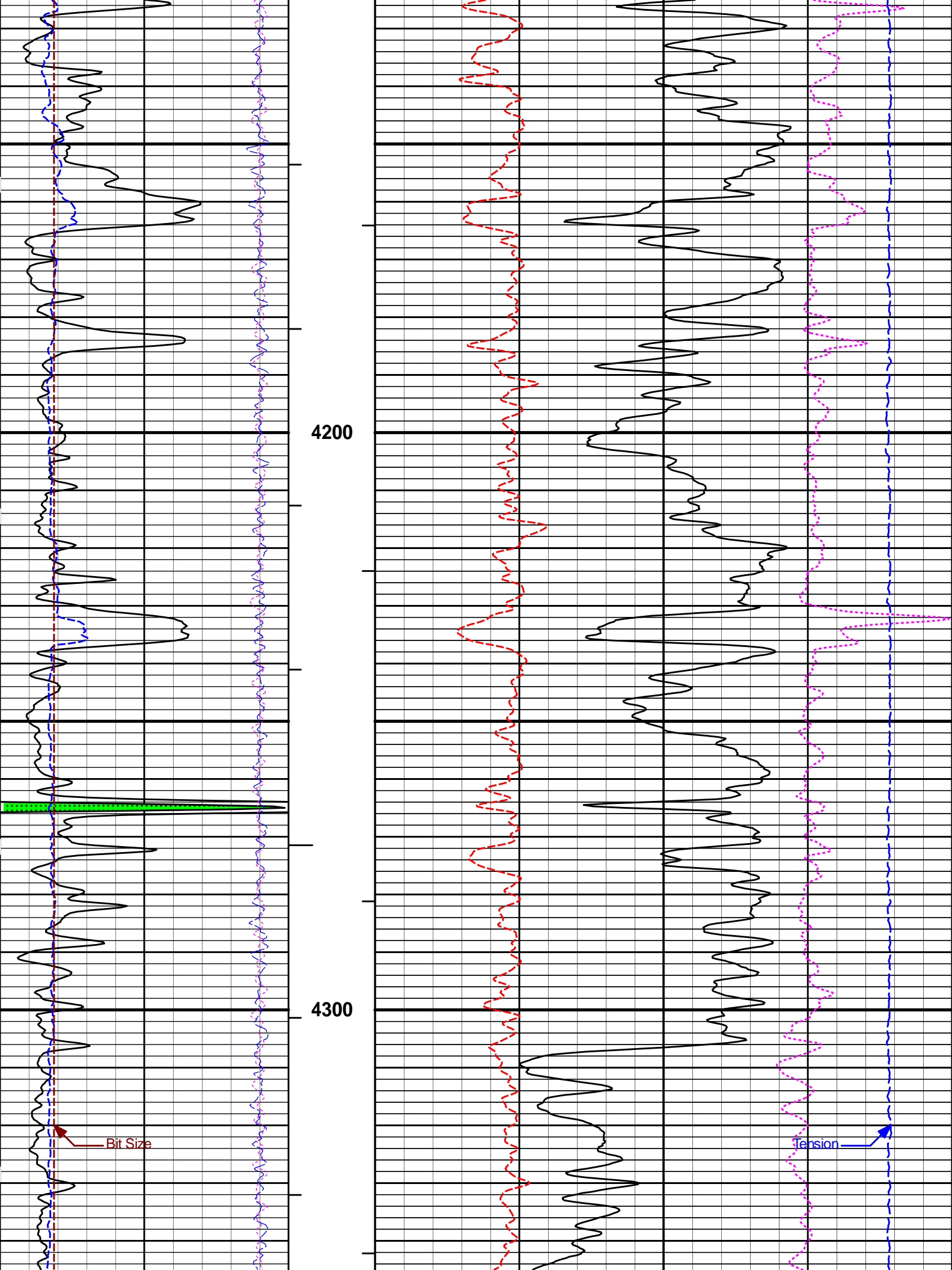
## 5 INCH MAIN LOG

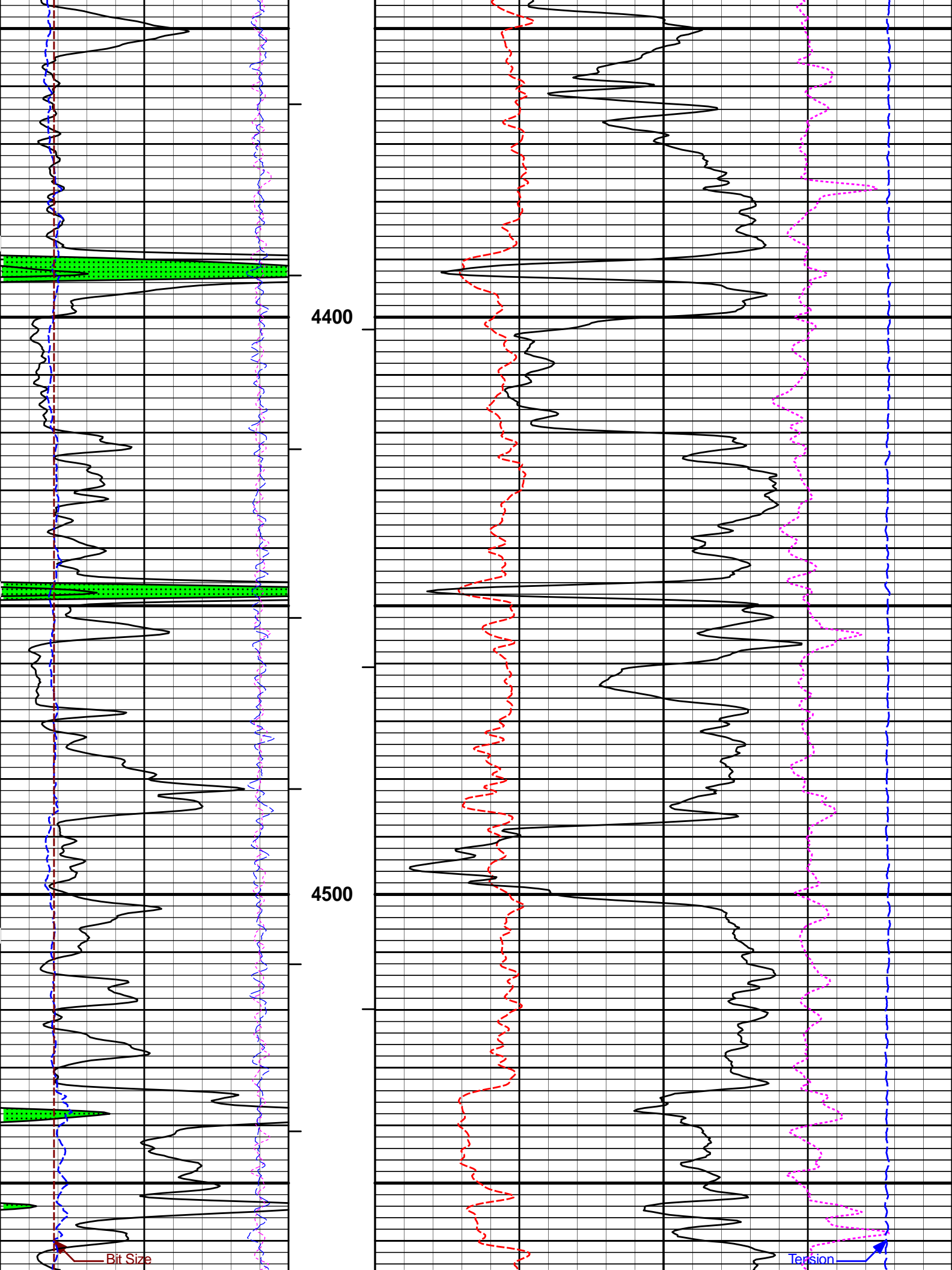
### MAIN SECTION 5" PER 100'

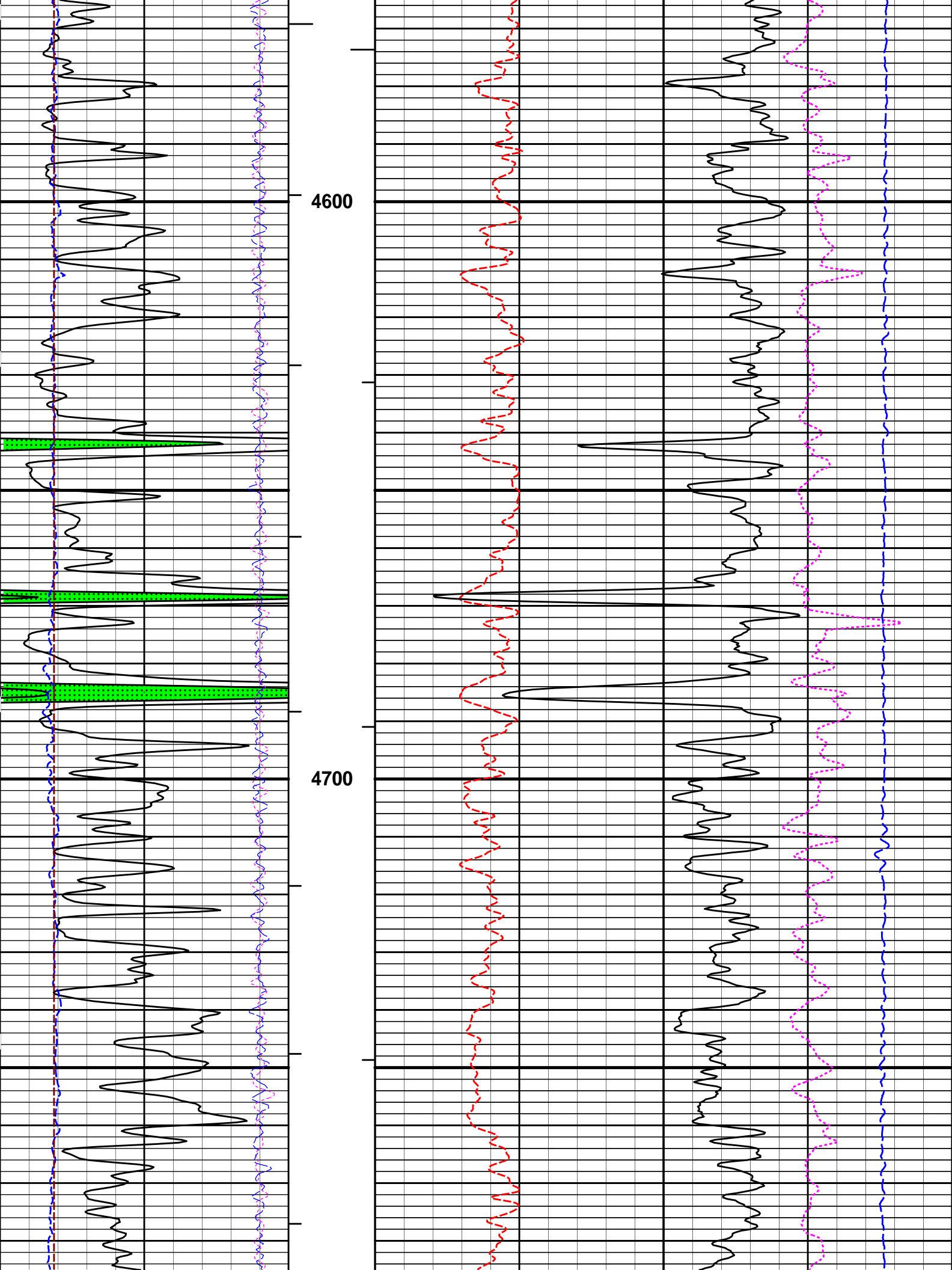


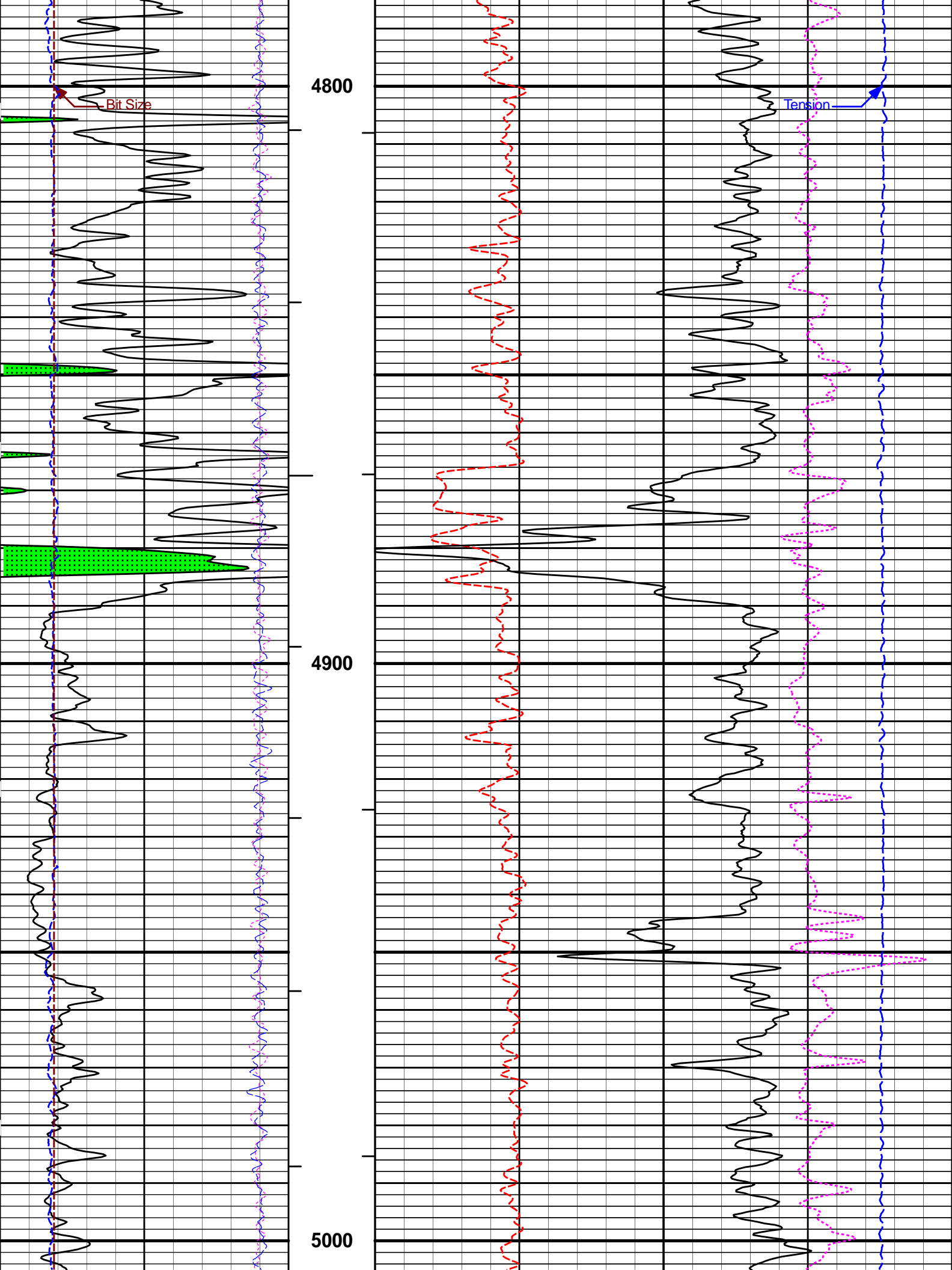


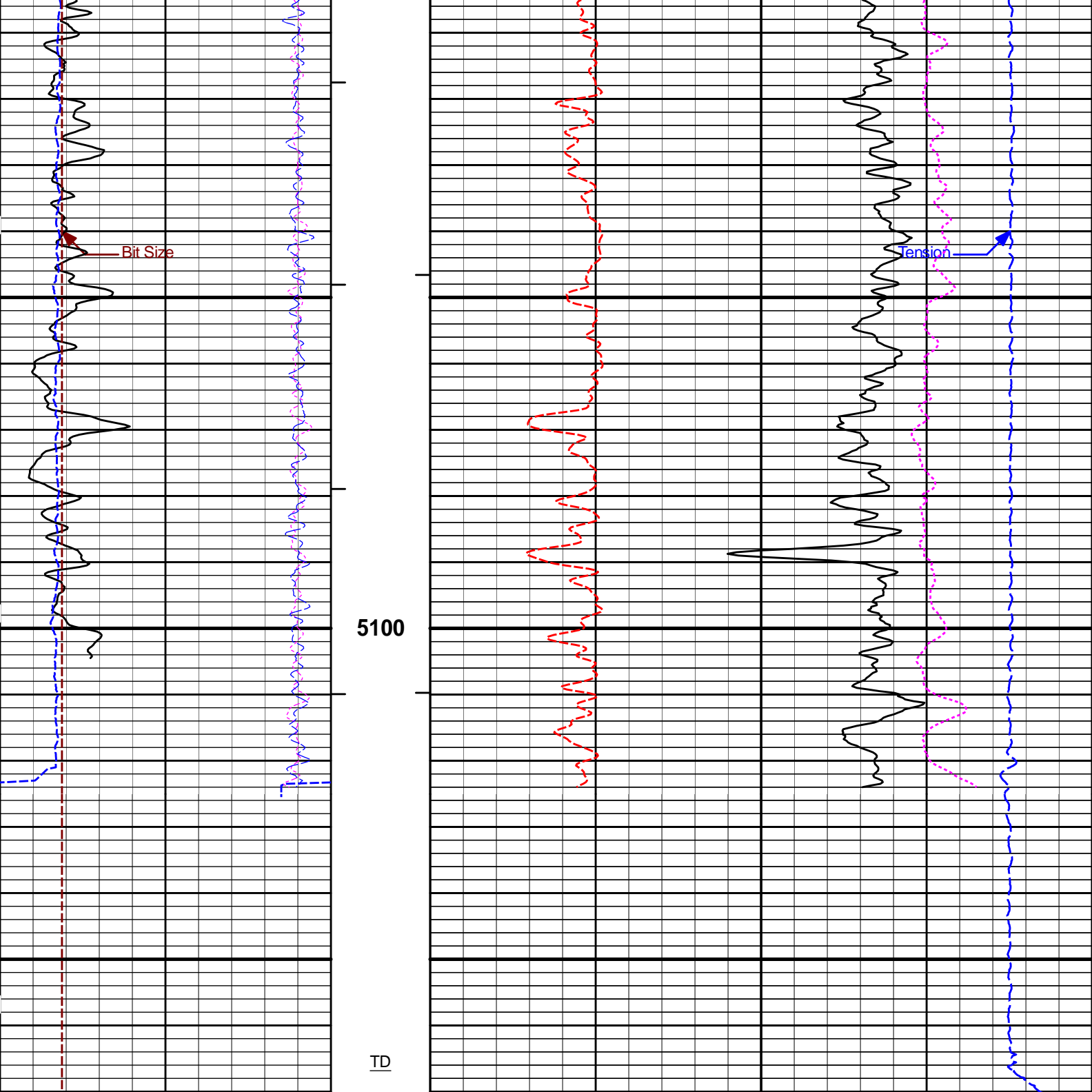












5100

TD

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

# 5 INCH MAIN LOG

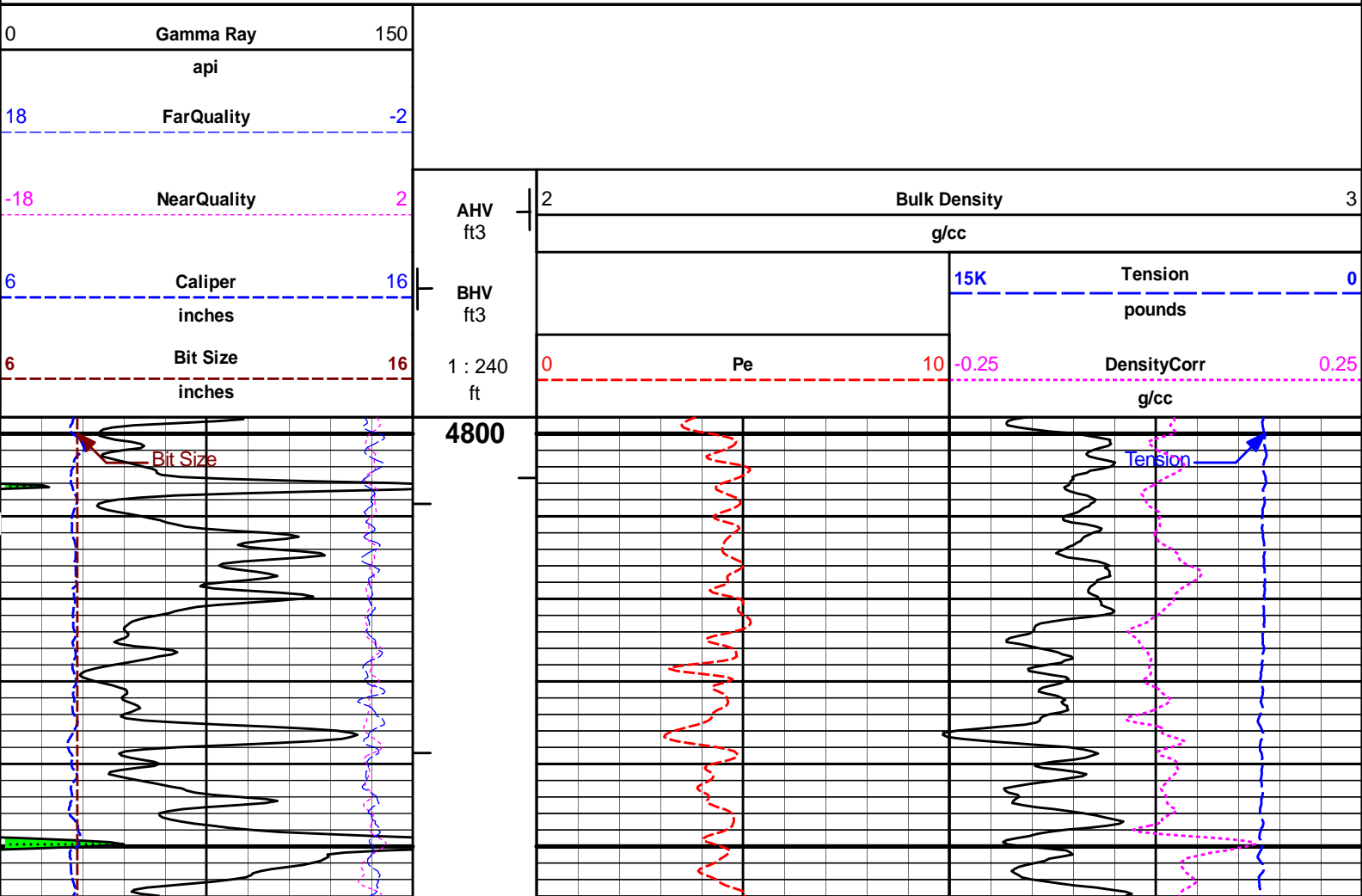
## MAIN SECTION 5" PER 100'

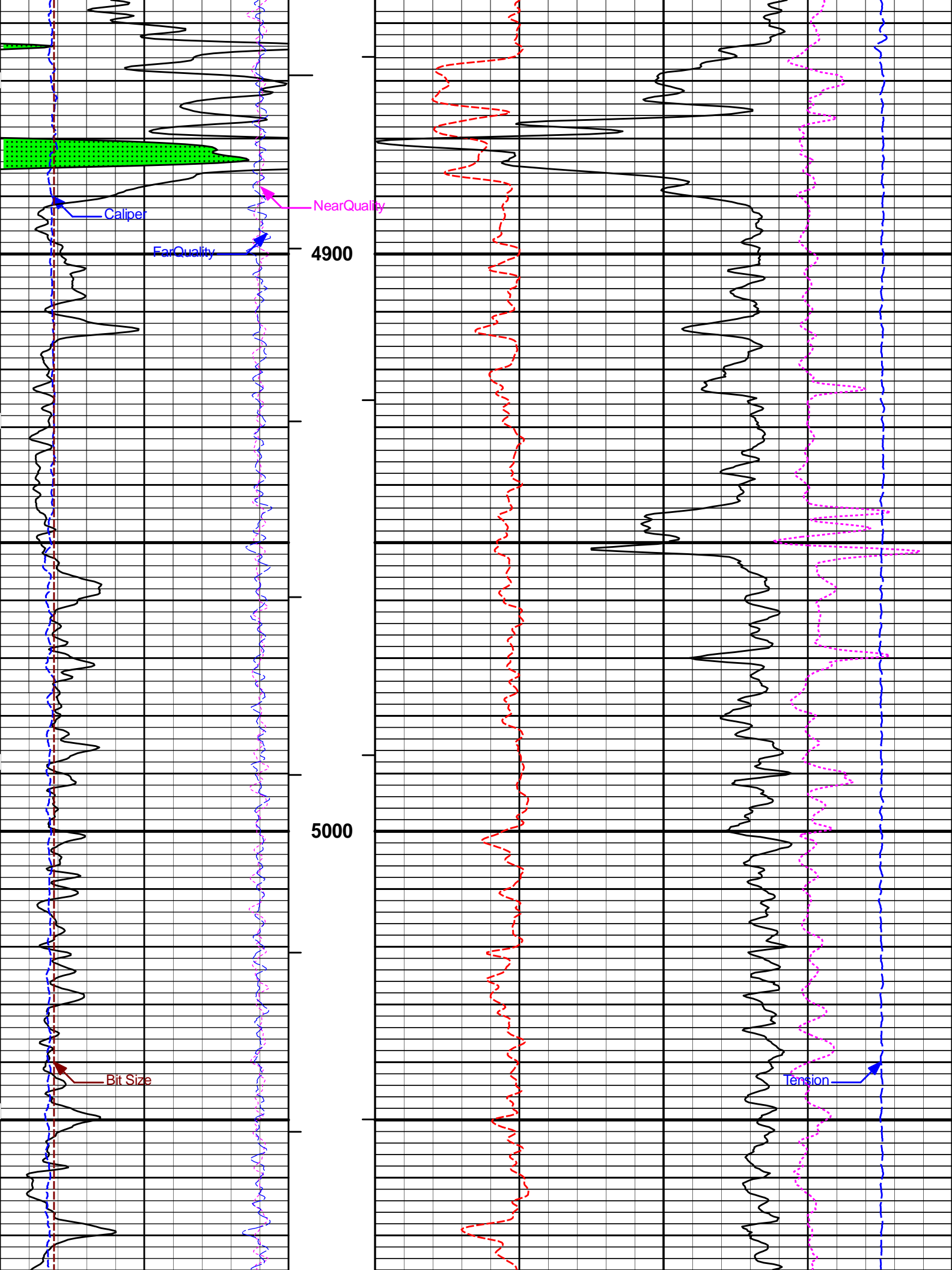
**HALLIBURTON**

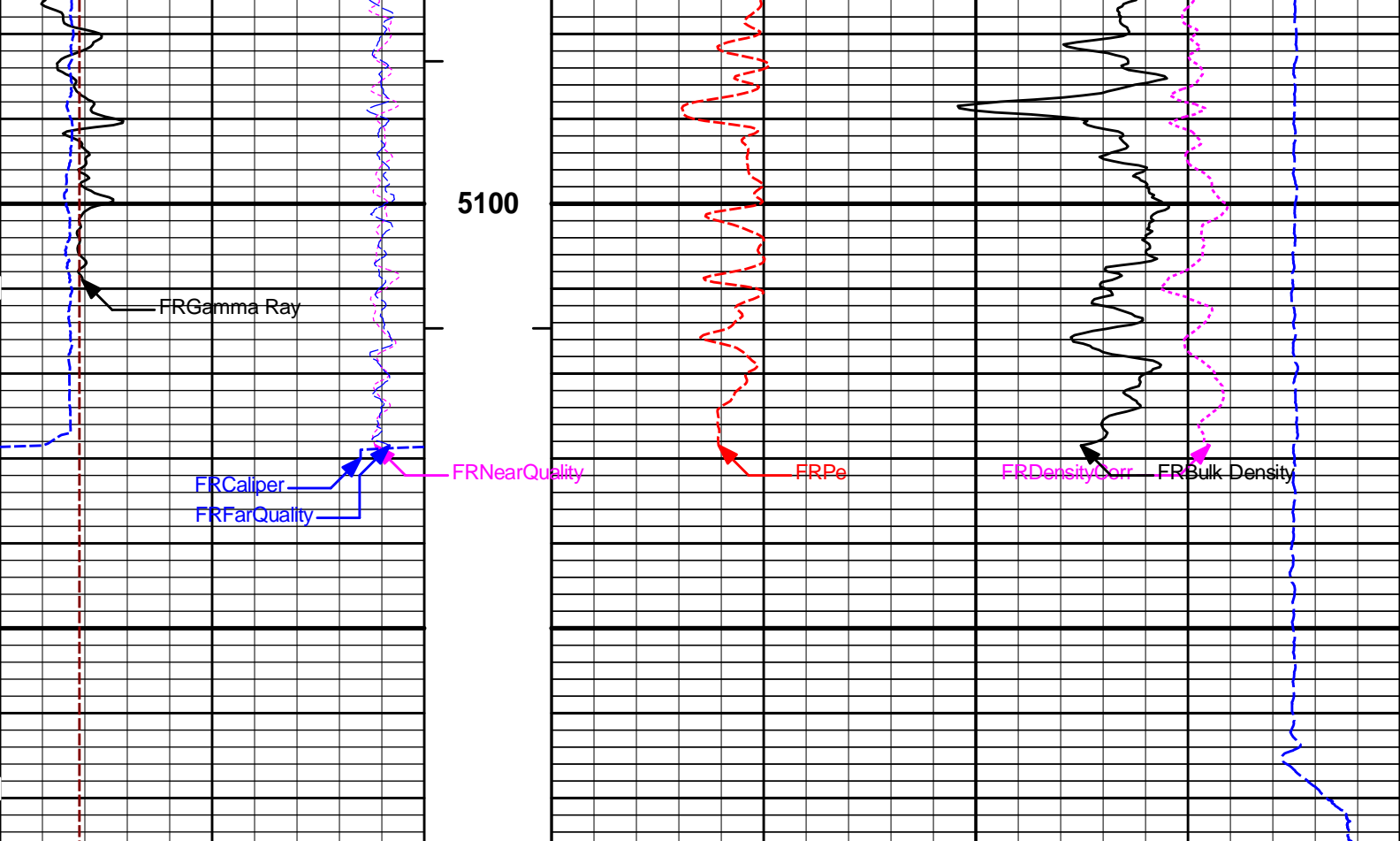
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 Plot Range: 4798 ft to 5175.5 ft  
 Data: 09\_26\_MERIT\Well Based\DAQ-0001-003\  
 Plot File: \\-LOCAL-109\_26\_MERIT0001 GTET-DSNT-SDLT-BSAT-ACRTIPORIBULKD\_5\_RPT\_IQ

## REPEAT SECTION

## REPEAT SECTION







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

**HALLIBURTON**

Plot Time: 26-Sep-22 22:03:17  
 Plot Range: 4798 ft to 5175.5 ft  
 Data: 09\_26\_MERITWell Based\DAQ-0001-003\  
 Plot File: \\-LOCAL-109\_26\_MERIT0001 GTET-DSNT-SDLT-BSAT-ACRTIPORIBULKD\_5\_RPT\_IQ

**REPEAT SECTION**

**REPEAT SECTION**

**HALLIBURTON**

# CALIBRATION REPORT

## NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name: GTET - 11405267

Reference Calibration Date: 05-Aug-21 10:53:16

Engineer: MOHAMED ABUELGASIM

Calibration Date: 17-Jun-22 16:53:35

Software Version: WL INSITE R6.4.5 (Build 6)

Calibration Version: 1

Calibrator Source S/N: TB-768

Calibrator API Reference:203.00 api

Equivalent Calibrator API Reference:206.6 api

Measurement	Measured	Calibrated	Units
Background	19.1	17.9	api
Background + Calibrator	238.9	224.5	api
Calibrator	219.9	206.6	api

## DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name: DSNT - 11019641

Reference Calibration Date: 19-Aug-22 17:45:26

Engineer: J. Cabanzo

Calibration Date: 19-Aug-22 18:08:05

Software Version: WL INSITE R6.6.7 (Build 8)

Calibration Version: 1

Logging Source S/N: 96395B

Tank Serial Number: 10585331

Reference value assigned to Tank: 54.090

Snow Block S/N: 2

Calibration Tank Water Temperature: 86 degF

Min. Tool Housing Outside Diameter: 3.625 in

### CALIBRATION CONSTANTS

Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	0.95915	0.96288	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):	0.2233	0.2244	0.0012	+/- 0.0020
Calibrated Ratio:	10.1421	10.1815	0.039	+/- 0.050

### VERIFIER

Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0589	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: 19-Aug-22 18:08:05

Engineer: J. Cabanzo

Calibration Date: 19-Aug-22 18:09:36

Software Version: WL INSITE R6.6.7 (Build 8)

Calibration Version: 1

Logging Source S/N: 96395B

Snow Block S/N: 2

### NEUTRON FIELD-CHECK SUMMARY

Shop	Field	Difference	Control Limit
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	Shop	Field	Difference	On Change
Snow-Block Porosity (decip):	0.0589	0.0712	0.0122	+/- 0.0150

**PASS/FAIL SUMMARY**

Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

**DENSITY CALIPER SHOP CALIBRATION**

<b>Tool Name:</b> SDLT - 10695352	<b>Reference Calibration Date:</b> 19-Aug-22 15:31:53
<b>Engineer:</b> J. Cabanzo	<b>Calibration Date:</b> 19-Aug-22 15:37:09
<b>Software Version:</b> WL INSITE R6.6.7 (Build 8)	<b>Calibration Version:</b> 1
<b>Host Tool Name:</b> DSNT - 11019641	

**CALIBRATION COEFFICIENTS**

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2934.34	-3021.58	-7000.00 - -1000.00
Pad Gain	0.0003900	0.0003927	0.0002000 - 0.0006000
Arm Offset	-3023.74	-2984.46	-5000.00 - 3000.00
Arm Gain	0.0005200	0.0005114	0.000300 - 0.000700
Arm Power	-0.000005411	-0.000004687	-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
<b>PAD EXTENSION:</b>				
Small Ring (in)	2.02	2.00	-0.02	+/- 0.20
Medium Ring (in)	3.76	3.75	-0.01	+/- 0.20
<b>RING DIAMETER:</b>				
Small Ring (in)	6.54	6.50	-0.04	+/- 0.20
Medium Ring (in)	8.30	8.25	-0.05	+/- 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
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**SDLT CALIPER FIELD CALIBRATION**

<b>Tool Name:</b> SDLT - 10695352	<b>Reference Calibration Date:</b> 19-Aug-22 15:37:09
<b>Engineer:</b> J. Cabanzo	<b>Calibration Date:</b> 19-Aug-22 15:38:25
<b>Software Version:</b> WL INSITE R6.6.7 (Build 8)	<b>Calibration Version:</b> 1

**MEASURED CALIPER VALUES**

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.76	0.01	+/- 0.10
Ring Diameter	8.25	8.24	-0.01	+/- 0.15

**PASS/FAIL SUMMARY**

Pad Extension Check:	Passed
Diameter Check:	Passed

### MICRO LOG SHOP CALIBRATION

Tool Name: <b>Microlog Pad - 10695352</b>	Reference Calibration Date: <b>19-Aug-22 15:26:27</b>
Engineer: <b>M. GALLION</b>	Calibration Date: <b>18-Sep-22 11:56:50</b>
Software Version: <b>WL INSITE R6.6.5 (Build 5)</b>	Calibration Version: <b>1</b>
Host Tool Name: <b>DSNT - 11019641</b>	

#### CALIBRATION COEFFICIENT SUMMARY

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	-0.07	-0.05	-0.01	0.01	ohmm
Calibration Point #1	0.00	0.02	-0.00	0.02	ohmm
Calibration Point #2	20.00	20.00	20.00	20.00	ohmm
Internal Reference	19.93	19.93	19.99	20.00	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	-0.11	0.29	V
Calibration Point #1	18.75	2.31	V
Calibration Point #2	5342.97	6961.14	V
Internal Reference	5325.50	6960.16	V

### MICRO LOG FIELD CHECK

Tool Name: <b>Microlog Pad - 10695352</b>	Reference Calibration Date: <b>18-Sep-22 11:56:50</b>
Engineer: <b>M. GALLION</b>	Calibration Date: <b>18-Sep-22 11:57:39</b>
Software Version: <b>WL INSITE R6.6.5 (Build 5)</b>	Calibration Version: <b>1</b>

Measurement	Micro Log Normal		Micro Log Lateral		Units
	Shop	Field	Shop	Field	
Tool Zero	-0.05	-0.05	0.01	0.01	ohmm
Internal Reference	19.93	19.94	20.00	20.00	ohmm

Summary				
Signal	Shop	Field	Difference	Tolerance
Microlog Normal	19.93	19.94	-0.01	+/- 0.80
Microlog Lateral	20.00	20.00	0.00	+/- 0.80

### SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: <b>SDLT Pad - 10865883</b>	Reference Calibration Date: <b>18-Aug-22 15:18:35</b>
Engineer: <b>J. Cabanzo</b>	Calibration Date: <b>18-Aug-22 15:40:41</b>
Software Version: <b>WL INSITE R6.6.7 (Build 8)</b>	Calibration Version: <b>1</b>

Logging Source S/N: 5406GW

Aluminum Block S/N: 10585329

Density: 2.595g/cc

Pe: 3.270

Magnesium Block S/N: 10585330

Density: 1.679g/cc

Pe: 2.580

#### DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0268	1.0413	0.90 - 1.10
Near Dens Gain	1.0028	1.0178	0.90 - 1.10
Near Peak Gain	1.0111	1.0223	0.90 - 1.10
Near Lith Gain	0.9937	1.0032	0.90 - 1.10
Far Bar Gain	1.0130	1.0125	0.90 - 1.10
Far Dens Gain	1.0018	1.0019	0.90 - 1.10
Far Peak Gain	0.9966	0.9966	0.90 - 1.10

Far Peak Gain	0.9968	0.9968	0.90 - 1.10
Far Lith Gain	0.9721	0.9764	0.90 - 1.10
Near Bar Offset	0.0440	-0.0871	NONE
Near Dens Offset	0.2346	0.1031	NONE
Near Peak Offset	0.1484	0.0544	NONE
Near Lith Offset	0.2572	0.1772	NONE
Far Bar Offset	0.0901	0.0959	NONE
Far Dens Offset	0.1963	0.1949	NONE
Far Peak Offset	0.2260	0.2243	NONE
Far Lith Offset	0.3754	0.3427	NONE
Near Bar Background	926.68	925.11	700 - 1450
Near Dens Background	305.57	305.68	230 - 480
Near Peak Background	132.20	132.48	100 - 210
Near Lith Background	164.41	164.83	125 - 260
Far Bar Background	582.80	586.26	450 - 900
Far Dens Background	228.90	229.53	175 - 345
Far Peak Background	90.63	91.49	70 - 140
Far Lith Background	94.02	94.43	75 - 145

#### CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
<b>MAGNESIUM</b>				
Density (g/cc)	1.678	1.678	0.000	+/- 0.015
Pe	2.546	2.552	0.006	+/- 0.150
<b>ALUMINUM</b>				
Density (g/cc)	2.596	2.595	-0.001	+/- 0.01500
Pe	3.221	3.228	0.007	+/- 0.150

#### TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
<b>QUALITY</b>				
Background	0.0014	+/- 0.0110	0.0003	+/- 0.0140
Magnesium Block	-0.0006	+/- 0.0110	-0.0014	+/- 0.0140
Aluminum Block	-0.0004	+/- 0.0110	-0.0004	+/- 0.0140
Resolution	8.83	6.00 - 11.50	8.98	6.00 - 11.50
Internal Verifier(B+D+P+L)	1528	1200 - 2700	1002	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 - 10865883

Reference Calibration Date: 18-Aug-22 15:40:41

Engineer: M. GALLON

Calibration Date: 17-Sep-22 10:26:40

Pad Temperature: 96.0 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1528.096	1528.486	0.390	15.742
Far (B+D+P+L) cps	1001.708	996.589	-5.119	16.936
Near Resolution	8.83	8.77	-0.060	0.50
Far Resolution	8.98	8.90	-0.080	1.00

PASS/FAIL SUMMARY	
Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

**ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION**

<b>Tool Name:</b> ACRt Sonde - 10933411	<b>Reference Calibration Date:</b> 10-Mar-22 11:52:39
<b>Engineer:</b> MOHAMED ABUELGASIM	<b>Calibration Date:</b> 17-Jun-22 12:35:28
<b>Software Version:</b> WL INSITE R6.6.7 (Build 8)	<b>Calibration Version:</b> 1
<b>Host Tool Name:</b> ACRt Instrument - 10967817	

TYPICAL GAIN RANGE									
Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0093	1.05	0.95	1.0097	1.05	0.95	1.0029	1.05
A2 (50")	0.95	1.0129	1.05	0.95	1.0137	1.05	0.95	1.0066	1.05
A3 (29")	0.95	1.0093	1.05	0.95	1.0074	1.05	0.95	1.0011	1.05
A4 (17")	0.95	1.0092	1.05	0.95	1.0064	1.05	0.95	1.0040	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.9991	1.05	0.95	0.9969	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9833	1.05	0.95	0.9814	1.05

SONDE OFFSET						
Subarray	R12KHz		R36KHz		R72KHz	
	(mmho/m)		(mmho/m)		(mmho/m)	
A1 (80")	-0.514		-4.153		-5.096	
A2 (50")	-1.142		-3.528		-4.869	
A3 (29")	-10.576		-3.717		-3.307	
A4 (17")	-100.911		-32.858		-26.318	
A5 (10")	N/A		-93.684		-45.343	
A6 (6")	N/A		345.620		160.599	

TRANSMITTER CURRENT GAIN			
Signal	Lower	R	Upper
12K	0.6	0.94	1.3
36K	1.0	1.85	2.0
72K	1.0	1.18	2.0

R-MUD VERIFICATION			
Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
Mud Cell	0.95	1.00	1.05

PASS/FAIL SUMMARY	
GAIN RANGE CHK	PASS
SONDE OFFSET CHK	PASS

TOOL OK TO LOG

## CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
<b>GTET-11405267</b>						
Gamma Ray Calibrator	206.6	-----	-----	0.0	+/- 9.00	api
<b>DSNT-11019641</b>						
Snow-Block Porosity	0.0589	0.0712	-----	-0.0123	+/- 0.0150	decg
<b>SDLT-10695352</b>						
Pad Extension	3.75	3.76	-----	-0.01	+/-0.10	in
Ring Diameter	8.25	8.24	-----	0.01	+/-0.15	in
<b>Microlog Pad-10695352</b>						
MicroLog Normal	19.93	19.94	-----	-0.01	+/-0.80	ohmm
MicroLog Lateral	20.00	20.00	-----	0.00	+/-0.80	ohmm
<b>SDLT Pad-10865883</b>						
Near(B+D+P+L)	1528.096	1528.486	-----	-0.390	+/-15.742	cps
Far(B+D+P+L)	1001.708	996.589	-----	5.119	+/-16.936	cps
<b>ACRt Sonde-10933411</b>						
Mud Cell	1.00	-----	-----	0	-----	ohm-m

Data: 09\_26\_MERIT\0001 GTET-DSNT-SDLT-BSAT-ACRTIDLE
Date: 26-Sep-22 20:48:03



## 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	Barite	
	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	1.000	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	CSTR	Compressive Strength	1000.00	psia
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5173.00	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	CBM Temperature Master Tool	GTET	
	SHARED	MSAL	Water-base mud filtrate salinity	0.00	ppm
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes	
	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa /	MEAC	Archie M factor	0.1500	

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	
Rwa / CrossPlot	ROIN	Input for RO Calculation	Rwa	
GTET	ACOK	Do ACCZ Calculations?	Yes	
GTET	GROK	Process Gamma Ray?	Yes	
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	DNTT	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	UCLA	Classic Neutron Parameter utilized?	No	
DSNT	BHSM	Borehole Size Source Tool	SDLT	
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
SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
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 Pore Fluid	189.00	uspf
BSAT	DTMT	Delta -T Matrix Type	Limestone 47.6	
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	Centered	
ACRt Sonde	RMOP	Rmud Source	Mud Cell	
ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
ACRt Sonde	RMAX	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



## TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
		Ø 2.310 in →		← Fishing Neck @ 77.17 ft		78.05 ft
RWCH-12027540 135.00 lbs		Ø 3.625 in →		← Load Cell @ 74.36 ft ← BH Temperature @ 73.80 ft	6.25 ft	
	Weak Point 12000 lbs-00000012 0.01 lbs	Ø 0.010 in* →		← Z-Accelerometer @ 71.35 ft		71.80 ft
GTET-11405267 165.00 lbs		Ø 3.625 in →		← GammaRay @ 65.74 ft	8.52 ft	
	DSN Decentralizer-11019643 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 56.34 ft ← DSN Near @ 55.59 ft		63.28 ft
DSNT-11019641 174.00 lbs					9.69 ft	
	SDLT Pad-10865883 65.00 lbs Microlog Pad-10695352 8.00 lbs RAM-Cs137-10020004 1.00 lbs	Ø 4.500 in → Ø 4.500 in* → Ø 4.750 in* → Ø 0.800 in* →		← Microlog @ 45.78 ft ← SDL Caliper @ 45.59 ft ← SDL @ 45.58 ft	10.81 ft	
SDLT-10695352 360.00 lbs					42.78 ft	
Flex Joint-10883966 140.00 lbs		Ø 3.625 in →			5.67 ft	
	Centralizer 25-00000001 8.00 lbs	Ø 4.000 in* →			37.11 ft	

BSAT-10747681  
300.00 lbs

Ø 3.625 in →

Receiver Array @ 28.59 ft  
Sonic Receivers @ 28.59 ft

15.77 ft

ACRt Instrument-  
10967817  
50.00 lbs

Centralizer 25-00000002  
8.00 lbs

Ø 3.625 in →  
Ø 4.000 in\* →



21.33 ft

5.03 ft

ACRt Sonde-  
10933411  
200.00 lbs

Ø 3.625 in →

Mud Resistivity @ 14.94 ft

ACRt @ 10.96 ft

16.30 ft

14.22 ft

SP Ring-10933411  
0.00 lbs

Ø 3.625 in\* →

SP @ 3.36 ft

2.08 ft

Hole Finder-  
11111111  
50.00 lbs

Ø 2.800 in →  
Ø 3.625 in →

2.08 ft

0.00 ft



Mnemonic	Tool Name	Serial Number	Weight (lbs)	Length (ft)	Accumulated Length (ft)	Max. Log. Speed (fpm)
RWCH	Releasable Wireline Cable Head	12027540	135.00	6.25	71.80	300.00
WP12K	Weak Point 12000 lbs	00000012	0.01	0.01	* 72.60	300.00
GTET	Gamma Telemetry Tool	11405267	165.00	8.52	63.28	60.00
DSNT	Dual Spaced Neutron	11019641	174.00	9.69	53.59	60.00
DCNT	DSN Decentralizer	11019643	6.60	5.13	* 56.92	300.00
SDLT	Spectral Density Tool	10695352	360.00	10.81	42.78	60.00
SDLP	Density Insite Pad	10865883	65.00	2.55	* 44.99	60.00
Cs137	Logging Source, SDLT-I, 1.78 Ci - Cs137	10020004	1.00	0.80	* 45.22	300.00
MICP	Microlog Pad	10695352	8.00	1.00	* 45.28	60.00
FLEX	Flex Joint	10883966	140.00	5.67	37.11	300.00
BSAT	Borehole Sonic Array Tool	10747681	300.00	15.77	21.33	60.00
OBCEN	Centralizer - 25 in. Overbody	00000001	8.00	2.08	* 33.99	300.00
ACRt	Array Compensated True Resistivity Instrument Section	10967817	50.00	5.03	16.30	120.00
OBCEN	Centralizer - 25 in. Overbody	00000002	8.00	2.08	* 17.29	300.00
ACRt	Array Compensated True Resistivity Sonde Section	10933411	200.00	14.22	2.08	120.00
SP	SP Ring	10933411	0.00	0.25	* 3.36	300.00
HFND	Hole Finder	11111111	50.00	2.08	0.00	300.00
<b>Total</b>			<b>1,670.61</b>	<b>78.05</b>		

\* Not included in Total Length and Length Accumulation.

COMPANY	MERIT ENERGY COMPANY, LLC		
WELL	CELONA No. 1-12		
FIELD	ST LOUIS		
COUNTY	FINNEY	STATE	KS
<b>HALLIBURTON</b>		DUAL SPACED NEUTRON SPECTRAL DENSITY	