

MICROLOG

Fold here

Service Ticket No.: 904526367						API No.: 15-055-22147-00-01						PGM Version: WL INSITE R5.0.5 (Build 8)																			
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.								Run No.								Run No.								Run No.							
Serial No.								Serial No.								Serial No.								Serial No.							
Model No.								Model No.								Model No.								Model No.							
Diameter								No. of Cent.								Diameter								Diameter							
Detector Model No.								Spacing								Log Type								Log Type							
Type																Source Type								Source Type							
Length								LSA [Y/N]								Serial No.								Serial No.							
Distance to Source								FWDA [Y/N]								Strength								Strength							
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									

[illegible]

HALLIBURTON

Plot Time: 29-Dec-17 21:30:12

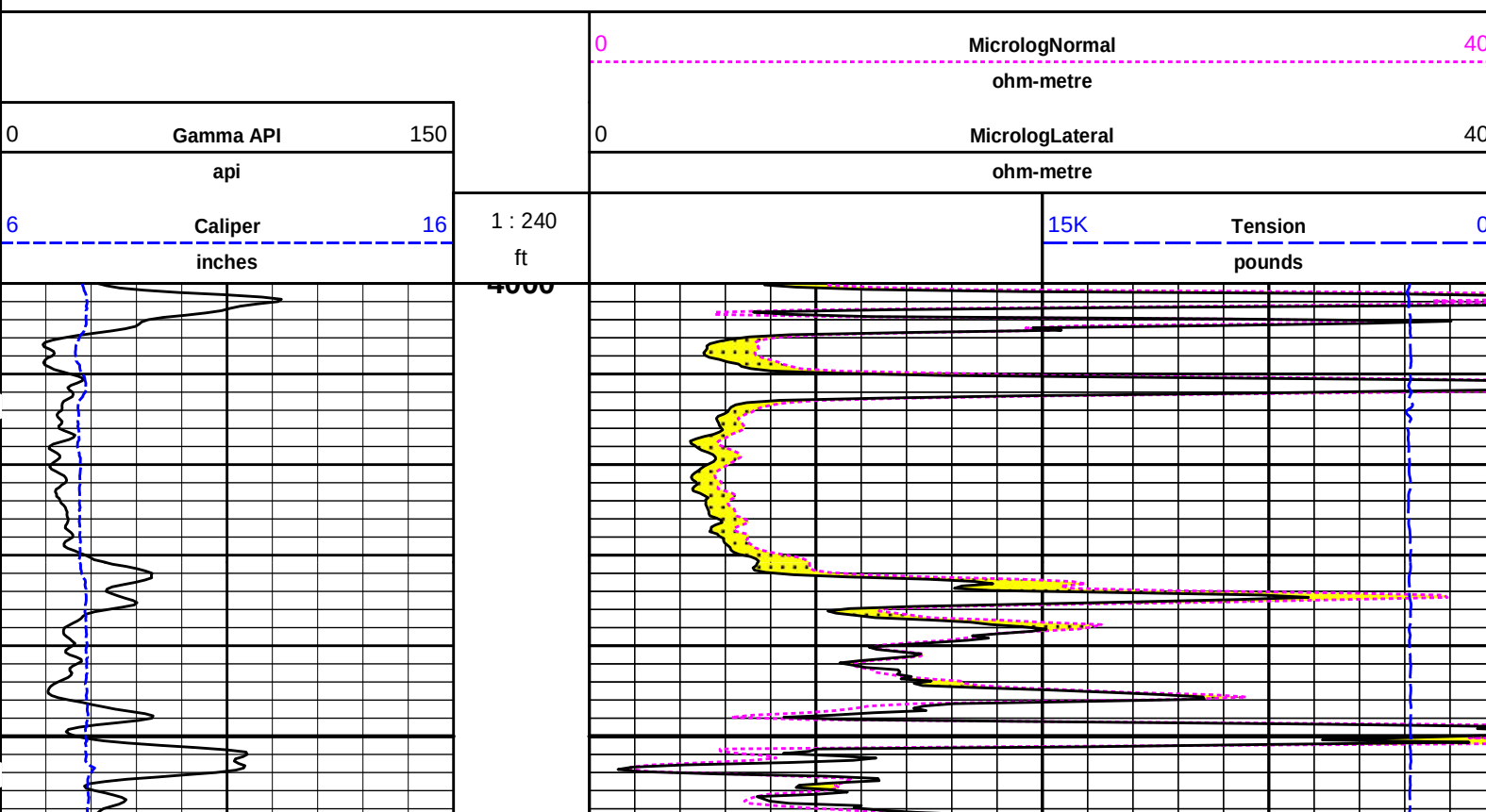
Plot Range: 4000 ft to 5570.67 ft

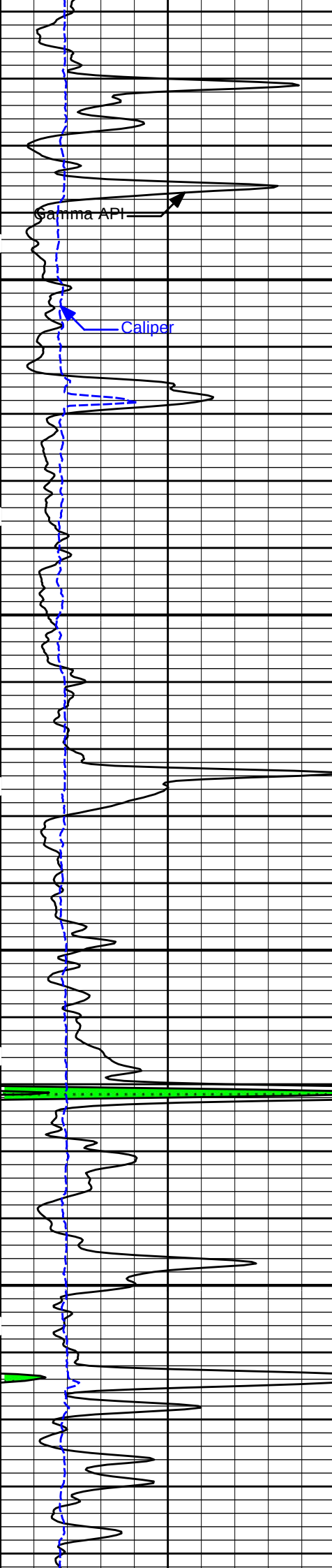
Data: MERIT_HMU203S\Well Based\DAQ-0001-005\

Plot File: \\-LOCAL-\\MERIT_HMU203S\\0001 GTET-DSNT-SDLT-ACRT\\ML\\Microlog IQ 5 main

5 INCH MAIN LOG

MAIN LOG 5" PER 100'

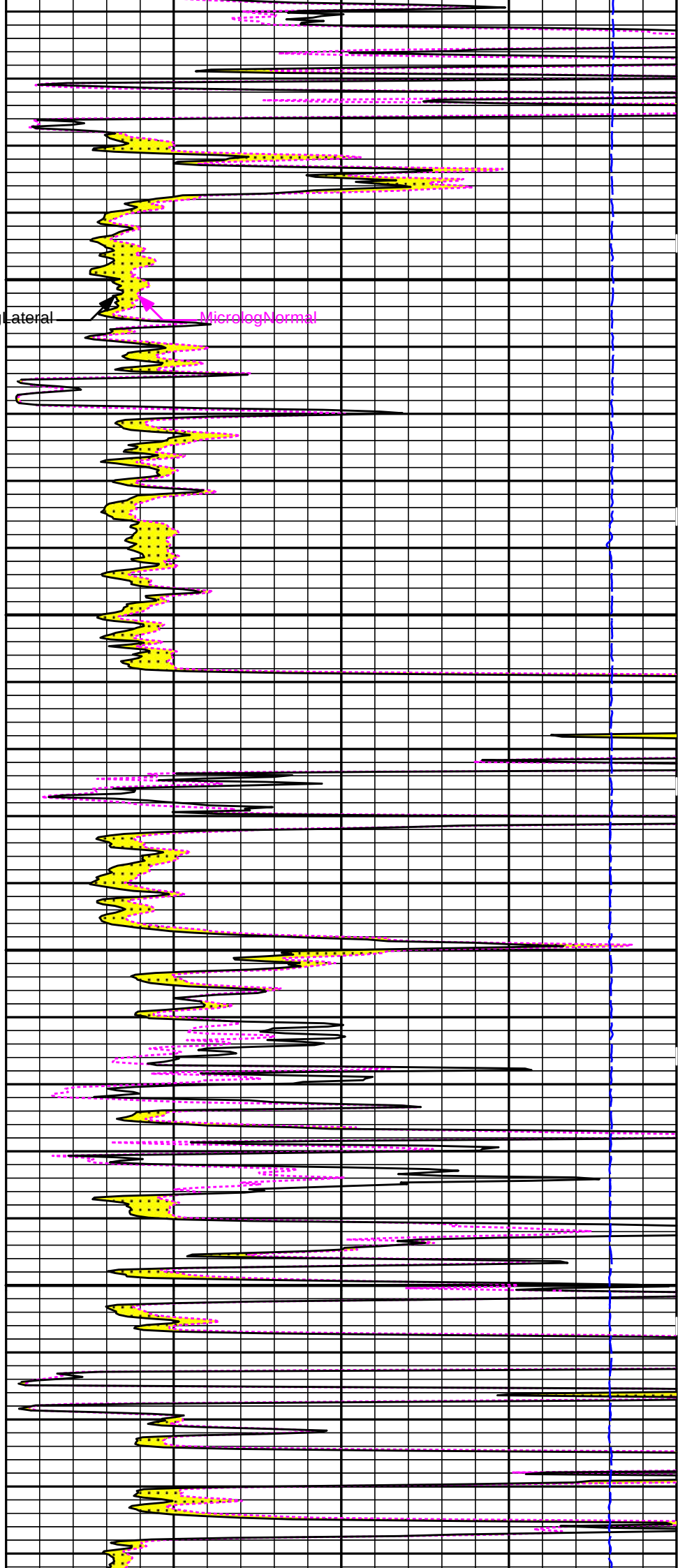


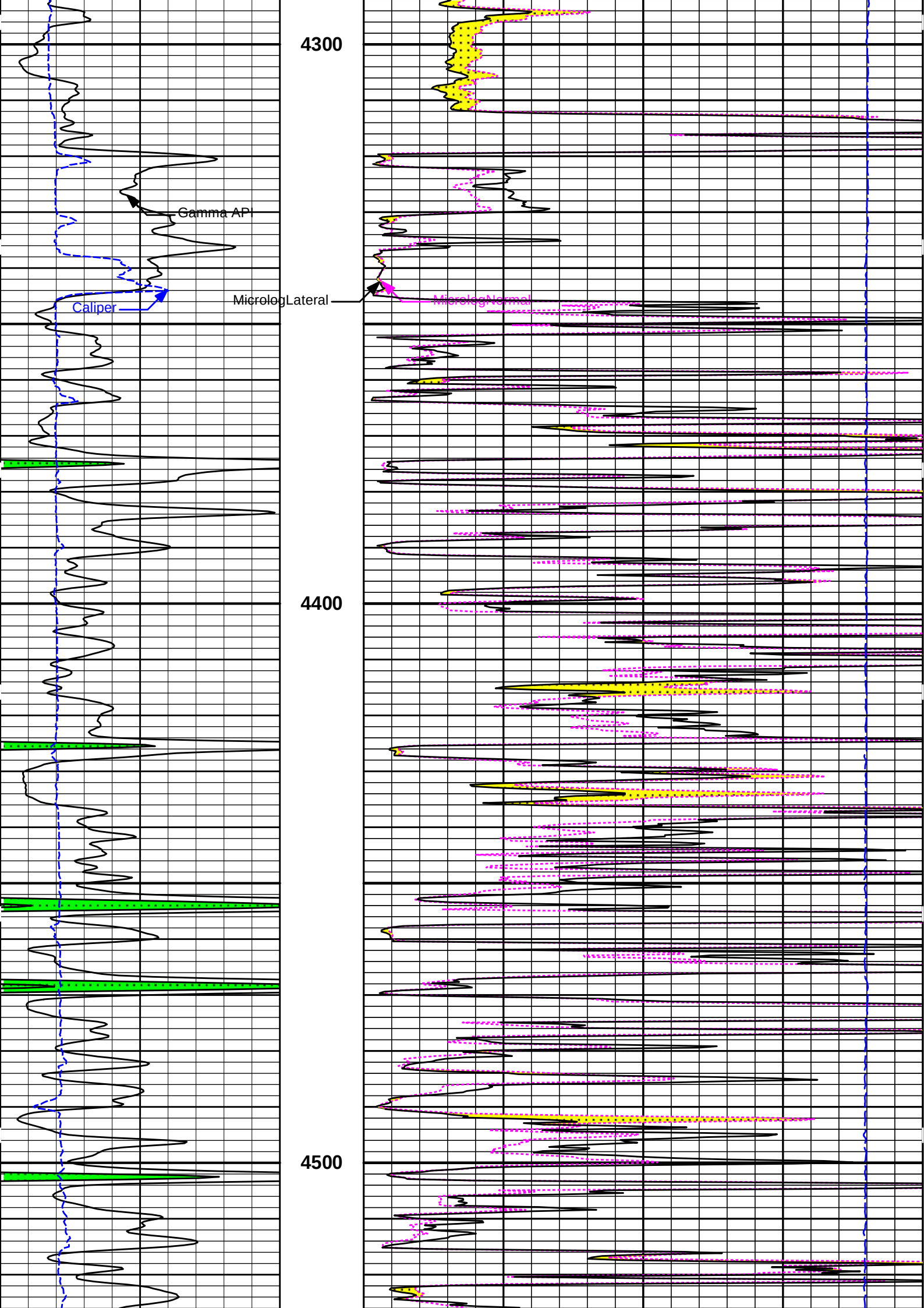


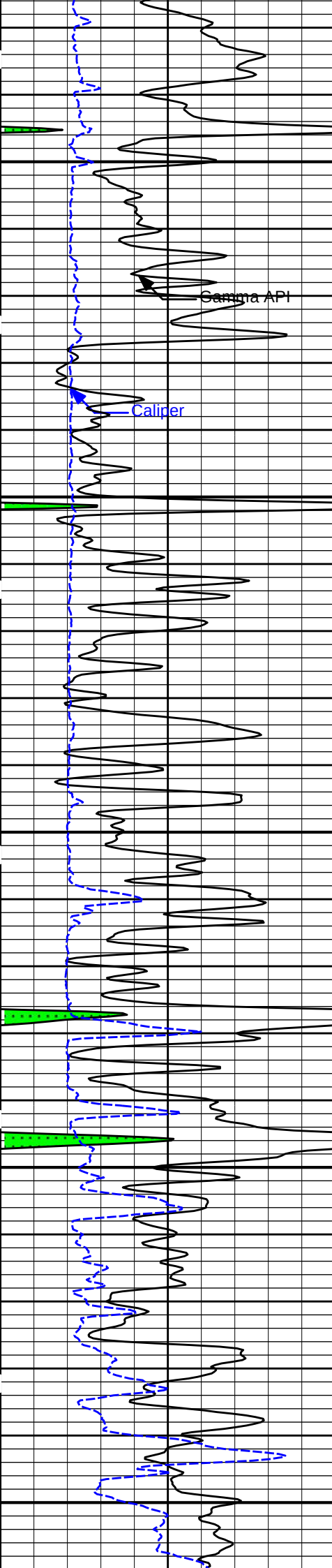
4100

MicrologLateral

4200

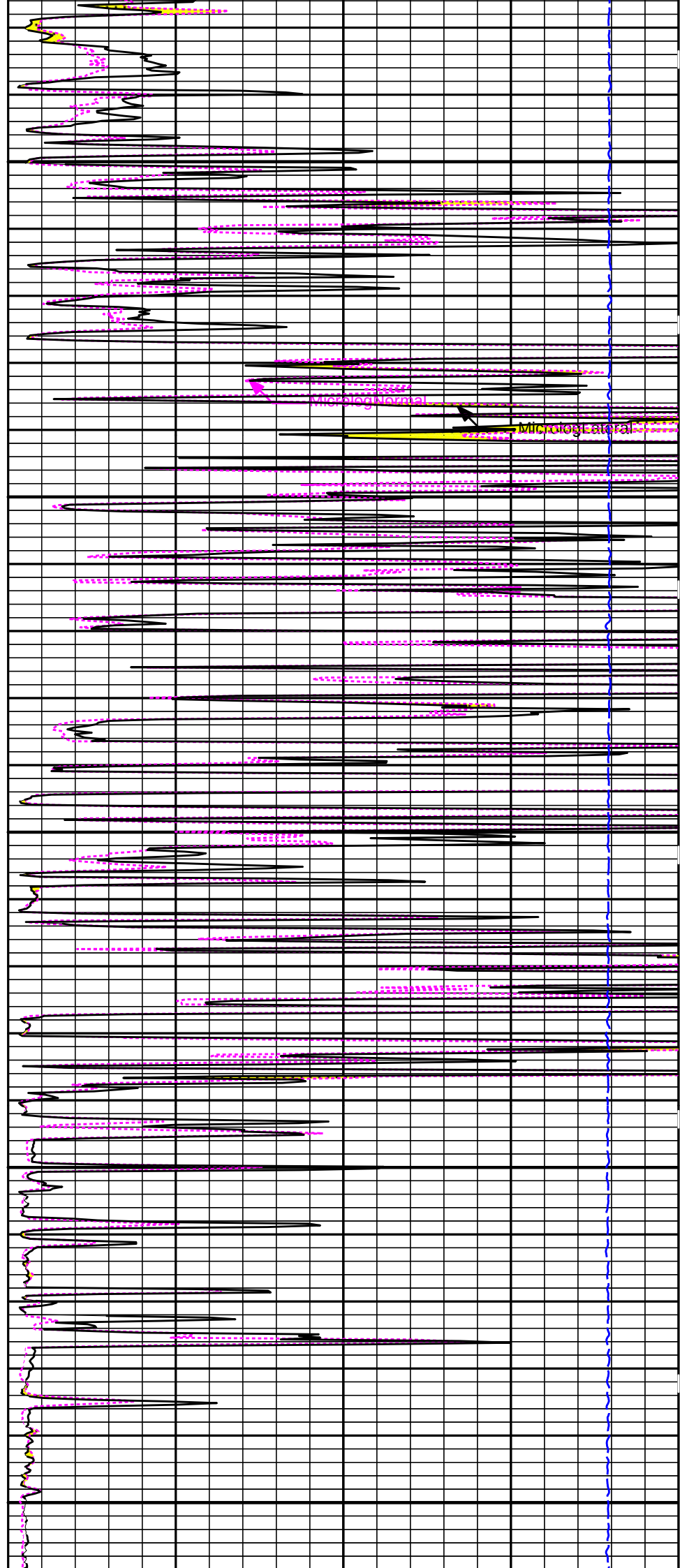


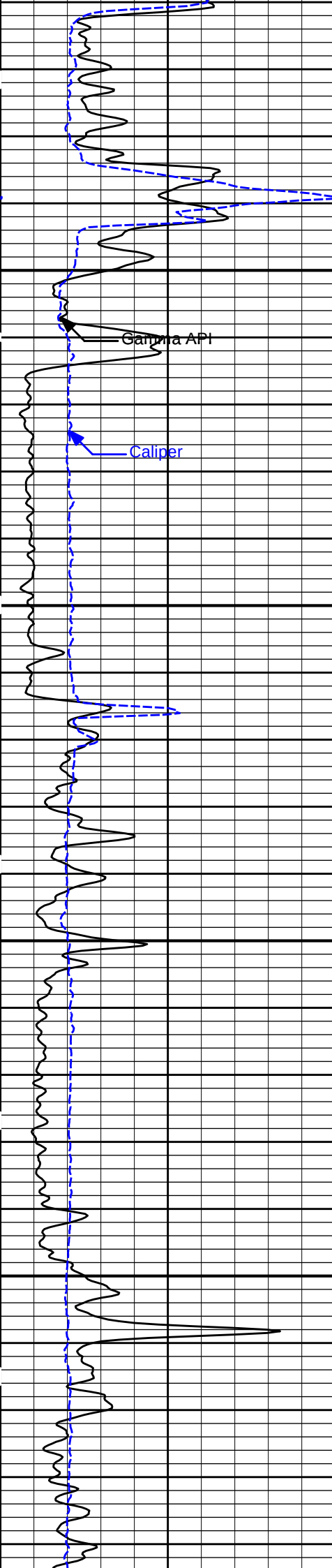




4600

4700



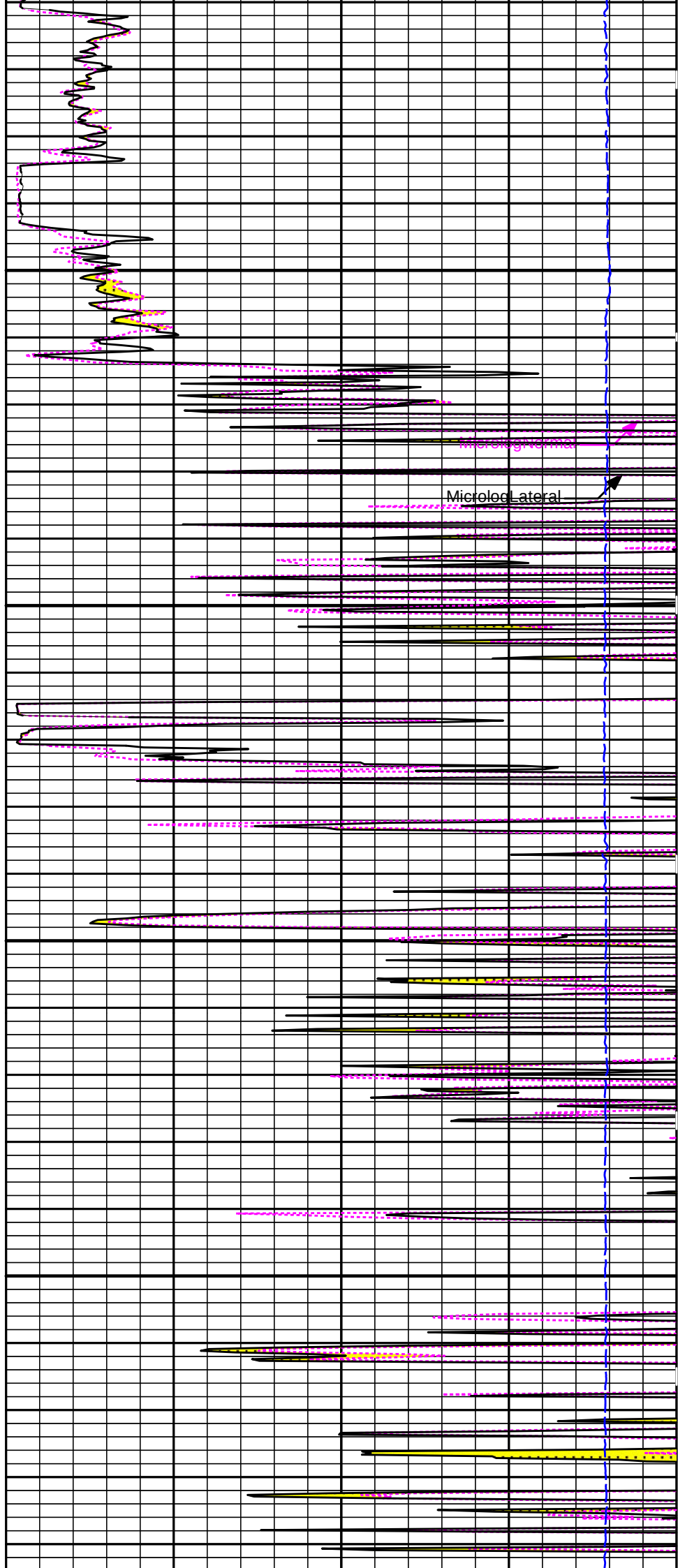


4800

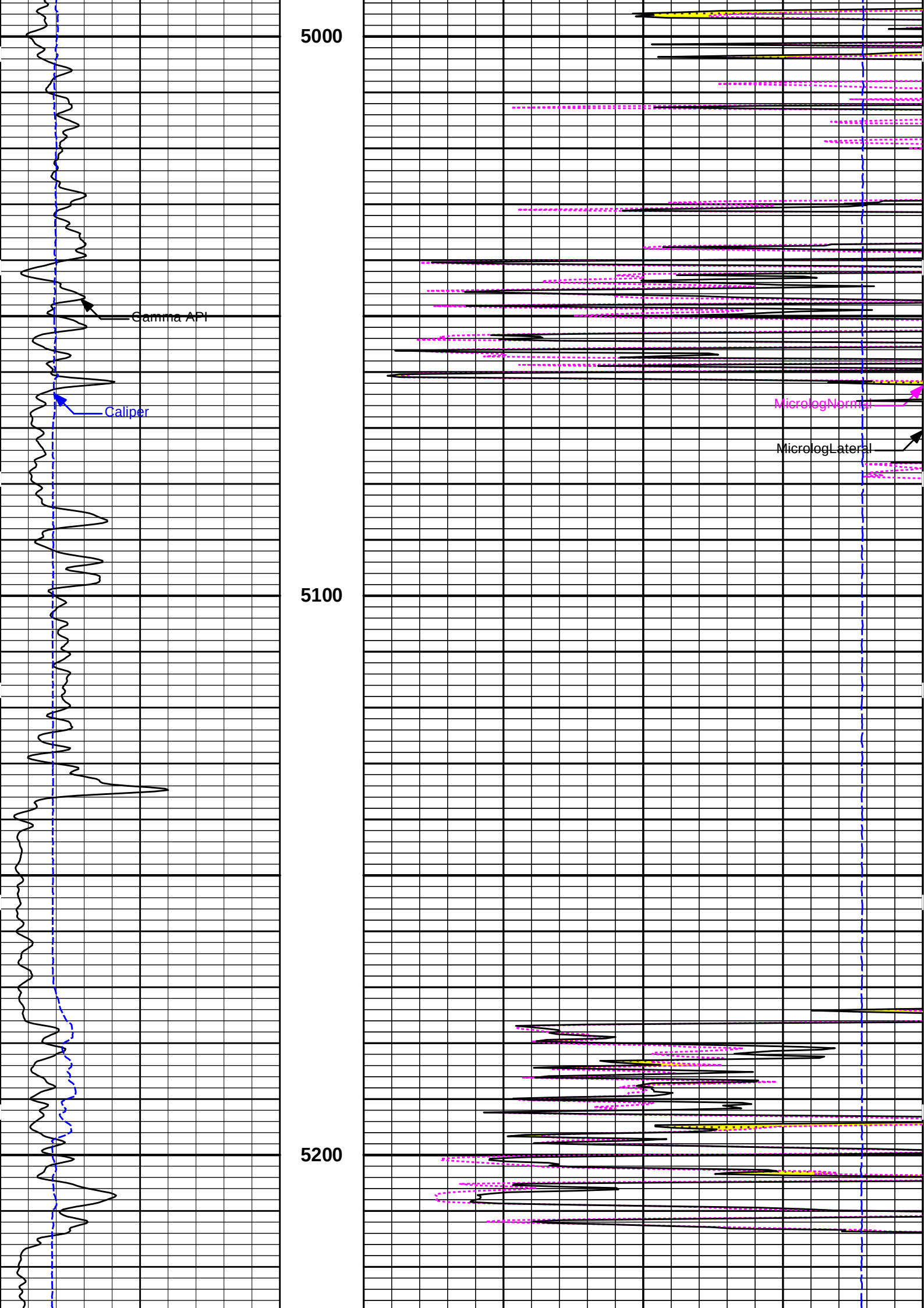
Gamma API

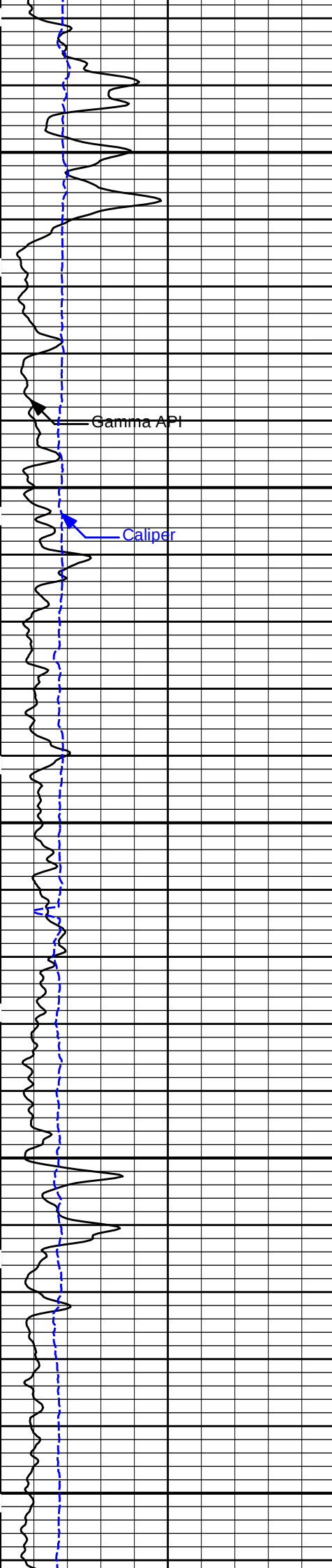
Caliper

4900



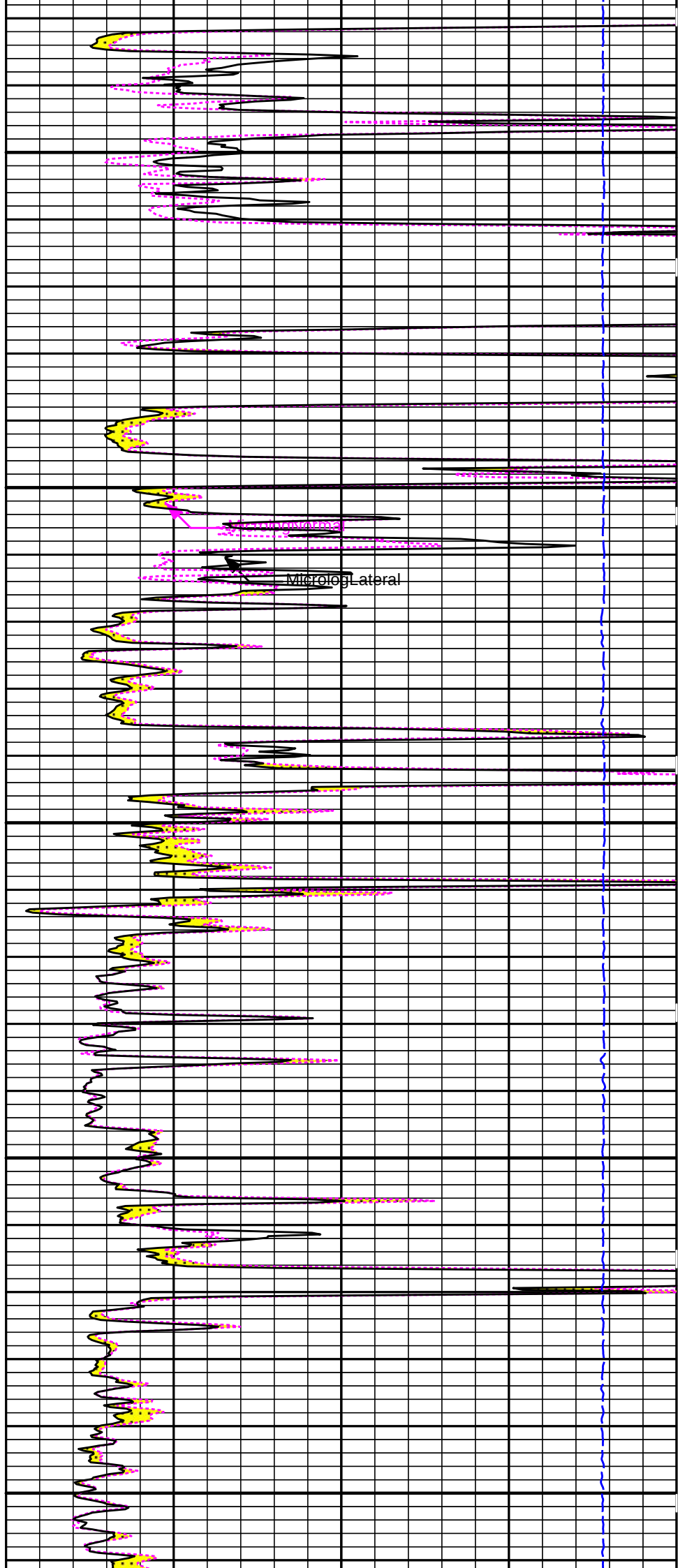
Microlog Lateral

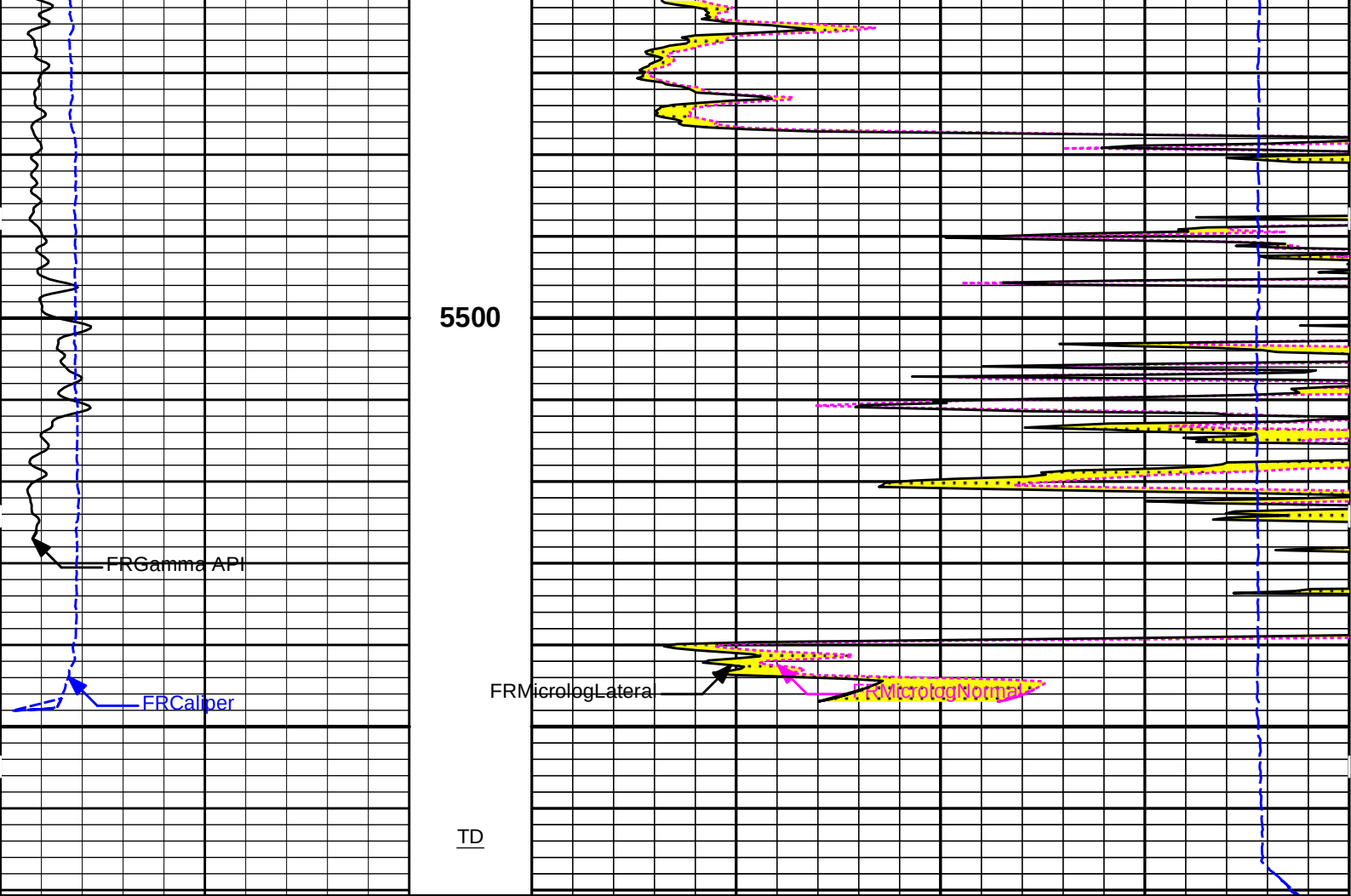




5300

5400





6	Caliper inches	16	1 : 240 ft	15K	Tension pounds	0
0	Gamma API api	150		0	MicrologLateral ohm-metre	40
				0	MicrologNormal ohm-metre	40

HALLIBURTON

Plot Time: 29-Dec-17 21:30:16
Plot Range: 4000 ft to 5570.67 ft
Data: MERIT_HMU203S\Well Based\DAQ-0001-005\
Plot File: \\-LOCAL-\\MERIT_HMU203S\\0001 GTET-DSNT-SDLT-ACRT\\ML\\Microlog_IQ_5_main

5 INCH MAIN LOG

MAIN LOG 5" PER 100'

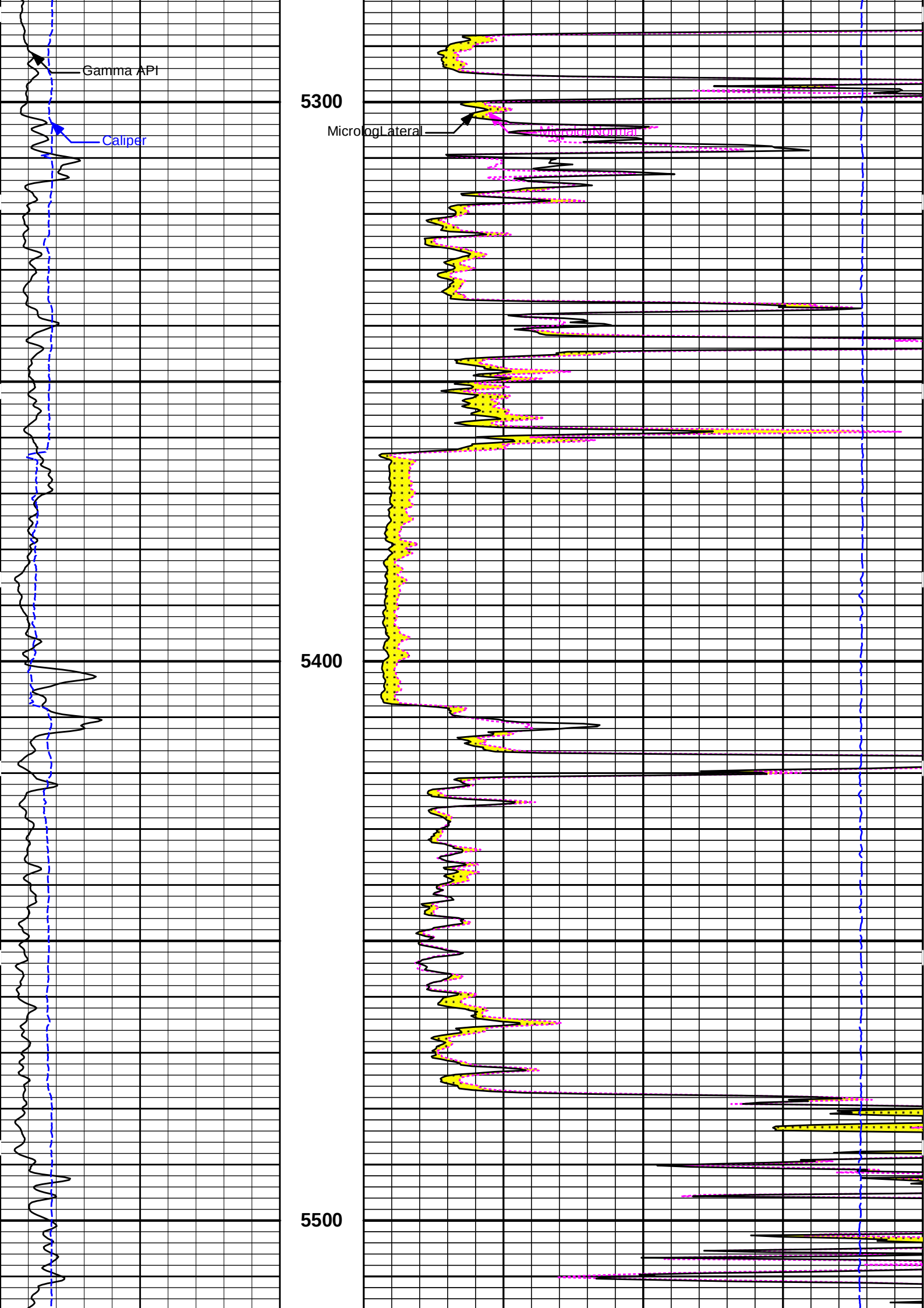
HALLIBURTON

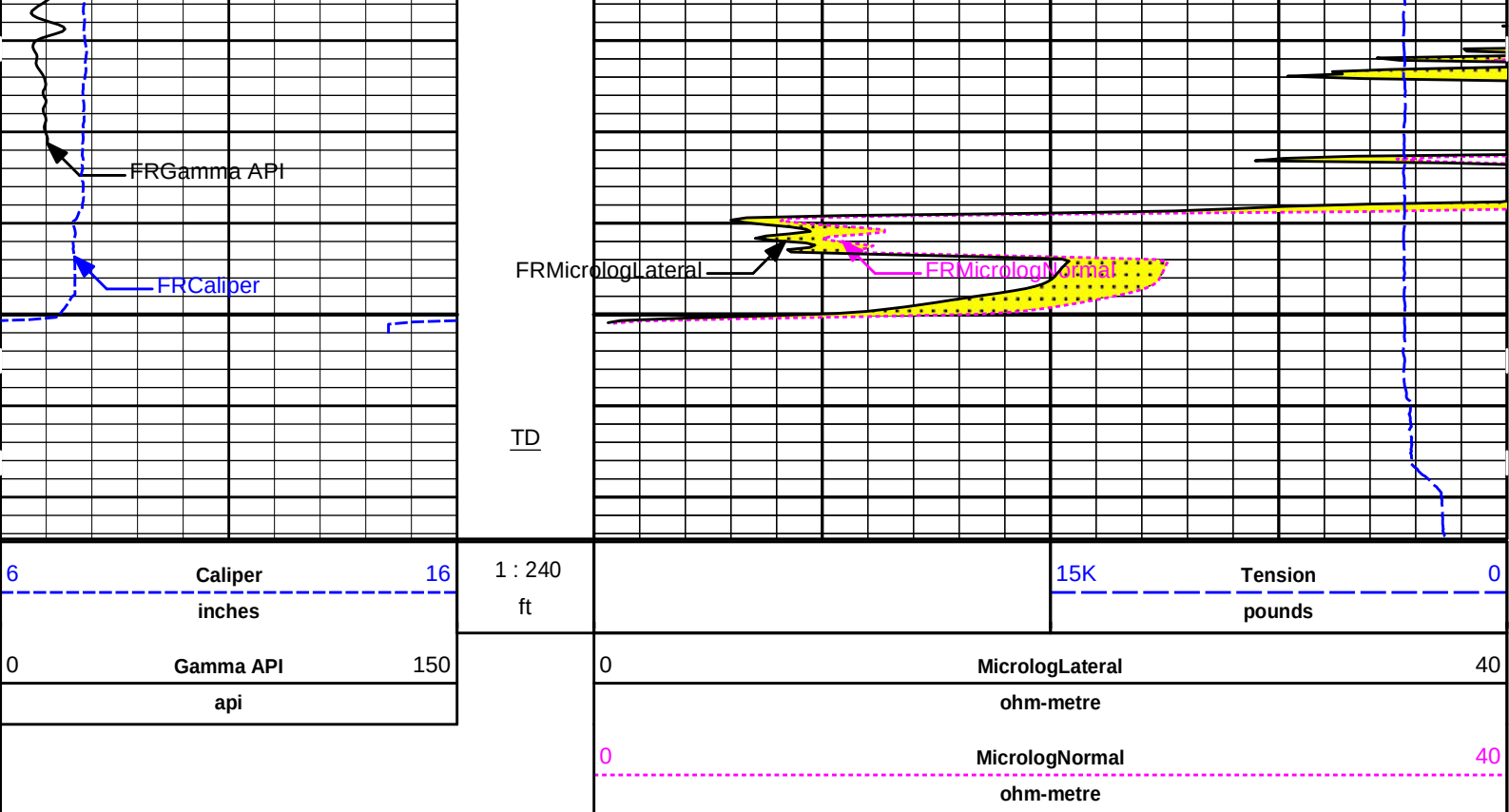
Plot Time: 29-Dec-17 21:30:17
Plot Range: 5100 ft to 5574.58 ft
Data: MERIT_HMU203S\Well Based\DAQ-0001-004\
Plot File: \\-LOCAL-\\MERIT_HMU203S\\0001 GTET-DSNT-SDLT-ACRT\\ML\\Microlog_IQ_5_main

REPEAT SECTION

REPEAT SECTION

[illegible]





HALLIBURTON

Plot Time: 29-Dec-17 21:30:19
Plot Range: 5100 ft to 5574.58 ft
Data: MERIT_HMU203S\Well Based\DAQ-0001-004\
Plot File: \\LOCAL-MERIT_HMU203S\0001 GTET-DSNT-SDLT-ACRT\ML\Microlog_IQ_5_main

REPEAT SECTION

REPEAT SECTION

HALLIBURTON

CALIBRATION REPORT

SURFACE TENSION SHOP CALIBRATION

Tool Name:	Depth Panel - 12345678	Reference Calibration Date:	20-Dec-17 19:23:54
Engineer:	JORGE ORLANDO PEREZ	Calibration Date:	27-Dec-17 01:07:01
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1

SURFACE TENSION LOAD CELL					
Measurement	Load Cell Value	Measurement	Calibrated	Units	
Low	10950.60	33.10	0.00	lbs	
High	17502.48	7854.54	7830.00	lbs	

DOWNHOLE TENSION SHOP CALIBRATION

Tool Name:	CH_HOS - 11459024	Reference Calibration Date:	18-Dec-17 23:34:33
Engineer:	JORGE ORLANDO PEREZ	Calibration Date:	20-Dec-17 19:26:08
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1

DOWNHOLE LOAD CELL					
Measurement	Tool Value	Measurement	Calibrated	Units	

	Low	-336.89	14.21	0.00	lbs
	High	3312.58	805.28	974.10	lbs

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:GTET - 11958947

Reference Calibration Date:08-Dec-17 09:10:57

Engineer:HARRIS

Calibration Date:08-Dec-17 09:13:31

Software Version:WL INSITE R5.0.5 (Build 8)

Calibration Version:1

Calibrator Source S/N: TB-185

Calibrator API Reference:228.00 api

Equivalent Calibrator API Reference:232.0 api

Measurement	Measured	Calibrated	Units
Background	33.1	32.7	api
Background + Calibrator	267.5	264.7	api
Calibrator	234.4	232.0	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:GTET - 11958947

Reference Calibration Date:08-Dec-17 09:13:31

Engineer:WHITLOCK

Calibration Date:28-Dec-17 10:40:47

Software Version:WL INSITE R5.0.5 (Build 8)

Calibration Version:1

Calibrator Source S/N: TB-185

Calibrator API Reference:228.00 api

Equivalent Calibrator API Reference:232.0 api

Field Verification	Shop	Field	Units
Background	32.7	22.9	api
Background + Calibrator	264.7	255.8	api
Calibrator	232.0	232.9	api

Shop	Field	Difference	Tolerance
232.0	232.9	-0.9	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:DSNT - 11055304

Reference Calibration Date:26-Dec-17 10:04:12

Engineer:JORGE ORLANDO PEREZ

Calibration Date:26-Dec-17 10:24:08

Software Version:WL INSITE R5.0.5 (Build 8)

Calibration Version:1

Logging Source S/N: DSN-424

Tank Serial Number: 12345678

Reference value assigned to Tank: 56.100

Snow Block S/N: 12345678

Calibration Tank Water Temperature: 68 degF

Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS			
Measurement	Prev. Value	New Value	Control Limit On New Value
Gain:	1.03005	1.02655	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):	0.2368	0.2358	0.0011	+/- 0.0020
Calibrated Ratio:	10.5954	10.5595	0.036	+/- 0.050

VERIFIER		
Measurement	Value	Control Limit
Snow-Block Porosity (decp):	0.0338	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:	26-Dec-17 10:24:08	
Engineer:	WHITLOCK	Calibration Date:	28-Dec-17 10:26:02	
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1	

Logging Source S/N: DSN-424

Snow Block S/N: 12345678

NEUTRON FIELD-CHECK SUMMARY				
	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0338	0.0474	0.0136	+/- 0.0150

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

DENSITY CALIPER SHOP CALIBRATION				
Tool Name:	SDLT - 10960494	Reference Calibration Date:	20-Aug-17 12:41:21	
Engineer:	JORGE ORLANDO PEREZ	Calibration Date:	09-Dec-17 12:48:22	
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1	
Host Tool Name:	DSNT - 11055304			

CALIBRATION COEFFICIENTS			
Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-2993.12	-3003.48	-7000.00 - -1000.00
Pad Gain	0.0003799	0.0003806	0.0002000 - 0.0006000
Arm Offset	-746.82	-1647.28	-5000.00 - 3000.00
Arm Gain	0.0004486	0.0005279	0.000300 - 0.000700
Arm Power	-0.000001023	-0.000005848	-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)	6.64	6.50	-0.14	+/- 0.20
Medium Ring (in)	8.21	8.25	0.04	+/- 0.20
Large Ring (in)	14.95	15.00	0.05	+/- 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 - 10960494	Reference Calibration Date:	09-Dec-17 12:48:22	
Engineer:	WHITLOCK	Calibration Date:	28-Dec-17 09:50:40	

QUALITY CHECK SHOP CALIBRATION			
Tool Name:	ACRt Sonde - 11005908	Reference Calibration Date:	10-Nov-17 11:33:26
Engineer:	JORGE ORLANDO PEREZ	Calibration Date:	10-Nov-17 11:34:40
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1
Host Tool Name:	ACRt Instrument - 11026095		

STANDARD DEVIATIONS									
	R12KHz			R36KHz			R72KHz		
	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail
A1 (80")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A2 (50")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A3 (29")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A4 (17")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A5 (10")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
A6 (6")	0.000	< 0.750	Pass	0.000	< 0.750	Pass	0.000	< 0.750	Pass
AVERAGES									
	R12KHz			R36KHz			R72KHz		
	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail	Measured (mmho/m)	Expected (mmho/m)	Pass/Fail
A1 (80")	0.000	< 0.500	Pass	-0.001	> -0.500	Pass	-0.006	> -0.500	Pass
A2 (50")	0.000	< 0.500	Pass	-0.001	> -0.500	Pass	-0.005	> -0.500	Pass
A3 (29")	-0.000	< 0.500	Pass	-0.001	> -0.500	Pass	-0.003	> -0.500	Pass
A4 (17")	-0.002	> -0.500	Pass	-0.007	> -0.500	Pass	-0.024	> -0.500	Pass
A5 (10")	-0.014	> -0.500	Pass	-0.026	> -0.500	Pass	-0.048	> -0.500	Pass
A6 (6")	0.017	< 0.500	Pass	0.078	< 0.500	Pass	0.167	< 0.500	Pass
GAIN TOLERANCE									
R12KHz									
	Measured (mmho/m)	Last Month (mmho/m)	Difference (mmho/m)	Tolerance (mmho/m)	Pass/Fail				
A1 (80")	-216865984.000	-216877216.000	11232.000	10843860.800	Pass				
A2 (50")	-216599408.000	-216609920.000	10512.000	10830496.000	Pass				
A3 (29")	-217540240.000	-217550704.000	10464.000	10877535.200	Pass				
A4 (17")	-213427792.000	-213432208.000	4416.000	10671610.400	Pass				
A5 (10")	-210590928.000	-210602896.000	11968.000	10530144.800	Pass				
A6 (6")	-215428144.000	-215438304.000	10160.000	10771915.200	Pass				
R36KHz									
	Measured (mmho/m)	Last Month (mmho/m)	Difference (mmho/m)	Tolerance (mmho/m)	Pass/Fail				
A1 (80")	49366364.000	49368072.000	1708.000	2468403.600	Pass				
A2 (50")	49290164.000	49292088.000	1924.000	2464604.400	Pass				
A3 (29")	44800484.000	44804868.000	4384.000	2240243.400	Pass				
A4 (17")	40789108.000	40793480.000	4372.000	2039674.000	Pass				
A5 (10")	36882076.000	36872316.000	9760.000	1843615.800	Pass				
A6 (6")	35712096.000	35714260.000	2164.000	1785713.000	Pass				
R72KHz									
	Measured (mmho/m)	Last Month (mmho/m)	Difference (mmho/m)	Tolerance (mmho/m)	Pass/Fail				
A1 (80")	-93241072.000	-93236992.000	4080.000	4661849.600	Pass				
A2 (50")	-89038832.000	-89039632.000	800.000	4451981.600	Pass				
A3 (29")	-88716992.000	-88717136.000	144.000	4435856.800	Pass				
A4 (17")	-89277208.000	-89260376.000	16832.000	4463018.800	Pass				
A5 (10")	-87229560.000	-87228376.000	1184.000	4361418.800	Pass				
A6 (6")	-89965224.000	-89964336.000	888.000	4498216.800	Pass				
PASS/FAIL SUMMARY									
Std Deviation Verification					Pass				
Average Verification					Pass				
Gain Tolerance Verification					Pass				

MICRO LOG SHOP CALIBRATION						
Tool Name:	Microlog Pad - 10960494			Reference Calibration Date:	24-Nov-17 11:21:38	
Engineer:	JORGE ORLANDO PEREZ			Calibration Date:	24-Nov-17 11:23:09	
Software Version:	WL INSITE R5.0.5 (Build 8)			Calibration Version:	1	
Host Tool Name:	DSNT - 11055304					
	CALIBRATION COEFFICIENT SUMMARY					
	Measurement	Micro Log Normal		Micro Log Lateral		Units
		Measured	Calibrated	Measured	Calibrated	
	Tool Zero	-0.18	-0.17	-0.00	0.00	ohmm
	Calibration Point #1	-0.01	0.00	-0.00	0.00	ohmm
	Calibration Point #2	20.00	20.00	20.00	20.00	ohmm
	Internal Reference	19.83	19.83	19.99	19.99	ohmm
	Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units
	Tool Zero		-1.46		0.65	V
	Calibration Point #1		44.89		0.58	V
	Calibration Point #2		5370.73		6909.13	V
	Internal Reference		5324.87		6905.27	V

MICRO LOG FIELD CHECK						
Tool Name:	Microlog Pad - 10960494			Reference Calibration Date:	24-Nov-17 11:23:09	
Engineer:	WHITLOCK			Calibration Date:	28-Dec-17 10:36:41	
Software Version:	WL INSITE R5.0.5 (Build 8)			Calibration Version:	1	
	Measurement	Micro Log Normal		Micro Log Lateral		Units
		Shop	Field	Shop	Field	
	Tool Zero	-0.17	-0.17	0.00	-0.00	ohmm
	Internal Reference	19.83	19.77	19.99	19.93	ohmm
	Summary					
	Signal	Shop	Field	Difference	Tolerance	
	Microlog Normal	19.83	19.77	0.06	+/- 0.80	
	Microlog Lateral	19.99	19.93	0.06	+/- 0.80	

SPECTRAL DENSITY SHOP CALIBRATION					
Tool Name:	SDLT Pad - 10844781			Reference Calibration Date:	13-Mar-17 10:24:03
Engineer:	JORGE ORLANDO PEREZ			Calibration Date:	09-Dec-17 11:03:23
Software Version:	WL INSITE R5.0.5 (Build 8)			Calibration Version:	1
Logging Source S/N: 5168GW					
Aluminum Block S/N: EL RENO STD ALUMINUM			Density: 2.581g/cc		Pe: 3.170
Magnesium Block S/N: EL RENO			Density: 1.687g/cc		Pe: 2.594
	DENSITY CALIBRATION SUMMARY				
	Measurement	Previous Value		New Value	Control Limit
	Near Bar Gain	1.0364		1.0186	0.90 - 1.10
	Near Dens Gain	1.0238		1.0069	0.90 - 1.10
	Near Peak Gain	1.0221		1.0079	0.90 - 1.10
	Near Lith Gain	1.0552		1.0294	0.90 - 1.10
	Far Bar Gain	1.0145		1.0123	0.90 - 1.10
	Far Dens Gain	1.0038		0.9989	0.90 - 1.10
	Far Peak Gain	1.0000		0.9971	0.90 - 1.10
	Far Lith Gain	0.9816		0.9753	0.90 - 1.10
	Near Bar Offset	-0.0376		0.1365	NONE
	Near Dens Offset	0.0482		0.2065	NONE

Near Peak Offset	0.0495	0.1754	NONE
Near Lith Offset	-0.2247	-0.0123	NONE
Far Bar Offset	0.1095	0.1369	NONE
Far Dens Offset	0.1904	0.2360	NONE
Far Peak Offset	0.2182	0.2309	NONE
Far Lith Offset	0.3442	0.3659	NONE
Near Bar Background	733.33	732.60	700 - 1450
Near Dens Background	239.77	241.62	230 - 480
Near Peak Background	105.24	104.56	100 - 210
Near Lith Background	129.58	128.06	125 - 260
Far Bar Background	478.31	473.96	450 - 900
Far Dens Background	188.83	186.91	175 - 345
Far Peak Background	74.80	74.19	70 - 140
Far Lith Background	77.92	76.67	75 - 145

CALIBRATION BLOCK SUMMARY				
Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.675	1.687	0.012	+/- 0.015
Pe	2.474	2.559	0.085	+/- 0.150
ALUMINUM				
Density (g/cc)	2.566	2.581	0.015	+/- 0.01500
Pe	3.051	3.132	0.081	+/- 0.150

TOOL SUMMARY				
Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	-0.0007	+/- 0.0110	-0.0009	+/- 0.0140
Magnesium Block	-0.0007	+/- 0.0110	-0.0029	+/- 0.0140
Aluminum Block	-0.0007	+/- 0.0110	0.0006	+/- 0.0140
Resolution	9.59	6.00 - 11.50	8.79	6.00 - 11.50
Internal Verifier(B+D+P+L)	1207	1200 - 2700	812	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 - 10844781	Reference Calibration Date:	09-Dec-17 11:03:23
Engineer:	WHITLOCK	Calibration Date:	28-Dec-17 10:40:37
Software Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1

Pad Temperature: 64.7 degF

DENSITY FIELD CALIBRATION SUMMARY				
Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1206.834	1193.624	-13.210	14.101
Far (B+D+P+L) cps	811.738	805.890	-5.848	15.745

Near Resolution	9.59	9.63	0.040	0.50
Far Resolution	8.79	8.79	0.000	1.00

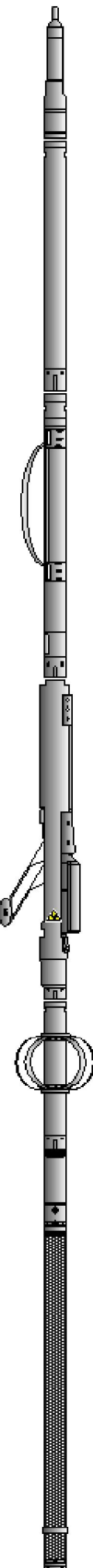
PASS/FAIL SUMMARY						
Bkg Quality Check:			Passed			
Bkg Resolution Check:			Passed			
Bkg Verification Check:			Passed			

CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
Depth Panel-12345678						
Tension Zero	0.00	-----	-----	0.00	-----	lbs
Tension Cal	7830.00	-----	-----	0.00	-----	lbs
CH_HOS-11459024						
DH Tension Zero	0.00	-----	-----	0.00	-----	lbs
DH Tension Cal	974.10	-----	-----	0.00	-----	lbs
GTET-11958947						
Gamma Ray Calibrator	232.0	232.9	-----	-0.9	+/- 9.00	api
DSNT-11055304						
Snow-Block Porosity	0.0338	0.0474	-----	-0.0136	+/- 0.0150	decp
SDLT-10960494						
Pad Extension	3.75	3.75	-----	0.00	+/-0.10	in
Ring Diameter	8.25	8.25	-----	0.00	+/-0.15	in
ACRt Sonde-11005908						
Mud Cell	1.00	-----	-----	0	-----	ohm-m
Microlog Pad-10960494						
MicroLog Normal	19.83	19.77	-----	0.06	+/-0.80	ohmm
MicroLog Lateral	19.99	19.93	-----	0.06	+/-0.80	ohmm
SDLT Pad-10844781						
Near(B+D+P+L)	1206.834	1193.624	-----	13.210	+/-14.101	cps
Far(B+D+P+L)	811.738	805.890	-----	5.848	+/-15.745	cps
Data: MERIT_HMU203SI0001 GTET-DSNT-SDLT-ACRT					IDLE	
					Date: 29-Dec-17 17:51:37	

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	9.000	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	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	CSTR	Compressive Strength	1000.00	psia
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	5560.00	ft
	SHARED	BHT	Bottom Hole Temperature	135.0	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	
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	
Rwa / CrossPlot	ROIN	Input for RO Calculation	Rwa	
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	DSNO	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	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	
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	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				
Data: MERIT_HMU203SI0001 GTET-DSNT-SDLT-ACRTIDLE			Date: 29-Dec-17 17:52:58	

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-11459024 37.50 lbs		Ø 2.750 in		← Temperature @ 51.55 ft	2.50 ft	52.05 ft
XOHD-11572809 20.00 lbs		Ø 2.750 in Ø 3.625 in			0.95 ft	49.55 ft
				← Z-Accelerometer @ 48.15 ft		48.60 ft
GTET-11958947 165.00 lbs		Ø 3.625 in			8.52 ft	
				← GammaRay @ 42.54 ft		40.08 ft
DSNT-11055304 174.00 lbs	DSN Decentralizer-11055304 6.60 lbs	Ø 5.000 in* Ø 3.625 in			9.69 ft	
				← DSN Far @ 33.15 ft ← DSN Near @ 32.40 ft		30.40 ft
SDLT-10960494 360.00 lbs	SDLT Pad-10844781 65.00 lbs Microlog Pad-10960494 8.00 lbs RAM-Cs137-00005168 1.00 lbs	Ø 4.500 in Ø 4.500 in* Ø 4.750 in* Ø 0.800 in*		Microlog @ 22.58 ft SDL Caliper @ 22.40 ft SDL @ 22.39 ft	10.81 ft	
						19.58 ft
ACRt Instrument-11026095 50.00 lbs	Centralizer 25-12345679 8.00 lbs	Ø 4.000 in* Ø 3.625 in			5.03 ft	14.55 ft
				← Mud Resistivity @ 13.19 ft		
ACRt Sonde-11005908 200.00 lbs		Ø 3.625 in		← ACRt @ 9.21 ft	14.22 ft	
						0.33 ft
	SP Ring-11005908 0.00 lbs	Ø 3.625 in*		← SP @ 1.61 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	11459024	37.50	2.50	49.55	300.00	
XOHD	Hostile to Dits Cross Over	11572809	20.00	0.95	48.60	300.00	
GTET	Gamma Telemetry Tool	11958947	165.00	8.52	40.08	60.00	
DSNT	Dual Spaced Neutron	11055304	174.00	9.69	30.40	60.00	
DCNT	DSN Decentralizer	11055304	6.60	5.13	*	33.73	300.00
SDLT	Spectral Density Tool	10960494	360.00	10.81	19.58	60.00	
SDLP	Density Insite Pad	10844781	65.00	2.55	*	21.79	60.00
Cs137	Logging Source, SDLT-I, 1.78 Ci - Cs137	00005168	1.00	0.80	*	22.02	300.00
MICP	Microlog Pad	10960494	8.00	1.00	*	22.08	60.00
ACRt	Array Compensated True Resistivity Instrument Section	11026095	50.00	5.03	14.55	120.00	
OBCEN	Centralizer - 25 in. Overbody	12345679	8.00	2.08	*	16.42	300.00
ACRt	Array Compensated True Resistivity Sonde Section	11005908	200.00	14.22	0.33	120.00	
SP	SP Ring	11005908	0.00	0.25	*	1.61	300.00
BLNS	Bull Nose	12345678	5.00	0.33	0.00	300.00	