

HALLIBURTON

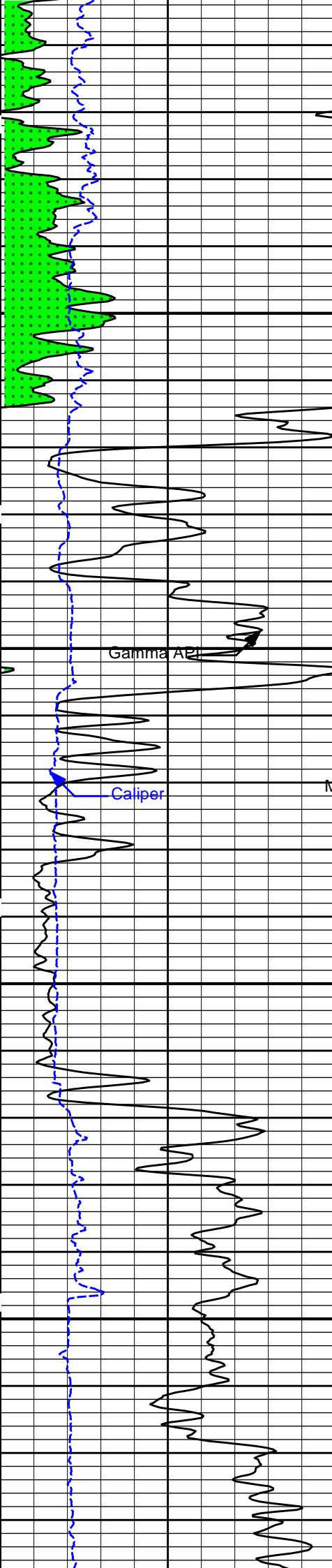
MICROLOG

COMPANY				K3 OIL & GAS OPERATING COMPANY			
WELL				CLARK 13-24			
FIELD/BLOCK				WILDCAT			
COUNTY				LINCOLN			
STATE				COLORADO			
Permanent Datum		GL		API No. 05-073-06726-00-00		Other Services: DSNT/SDLT MICROLOG BSAT ACRT	
Log measured from		KB		Location (SHL) 650' FNL & 650' FWL SW SW			
Drilling measured from		KB		Sect. 24		Twp. 15S	
Date		20-Oct-17				Rge. 55W	
Run No.		ONE					
Depth - Driller		7500.0 ft					
Depth - Logger		7510.0 ft					
Bottom - Logged Interval		7466.00 ft					
Top - Logged Interval		2750.00 ft					
Casing - Driller		13.375 in		@ 470.0 ft		@	
Casing - Logger		464.0 ft					
Bit Size		7.875 in					
Type Fluid in Hole		Vassa LP-120				12.250 in @ 2500.0 ft	
Density		9.4 ppg		65.00 s/qt			
PH		9.00 pH		8.0 cpm			
Source of Sample		MUD PIT					
Rm @ Meas. Temperature		1.41 ohmm		@ 75.00 degF		@	
Rmf @ Meas. Temperature		1.29 ohmm		@ 75.00 degF		@	
Rmc @ Meas. Temperature		1.55 ohmm		@ 75.00 degF		@	
Source Rmf		MEAS		MEAS			
Rm @ BHT		0.72 ohmm		@ 153.0 degF		@	
Time Since Circulation		10.0 hr					
Time on Bottom		20-Oct-17 17:30					
Max. Rec. Temperature		153.00 degF		@ 7510.0 ft		@	
Equipment		12147634		EL RENO, OK			
Recorded By		JORGE ORLANDO PEREZ					
Witnessed By		JOHN MARVIN				SUSAN RAINBOLT	
						RANDY SAY	

Fold here

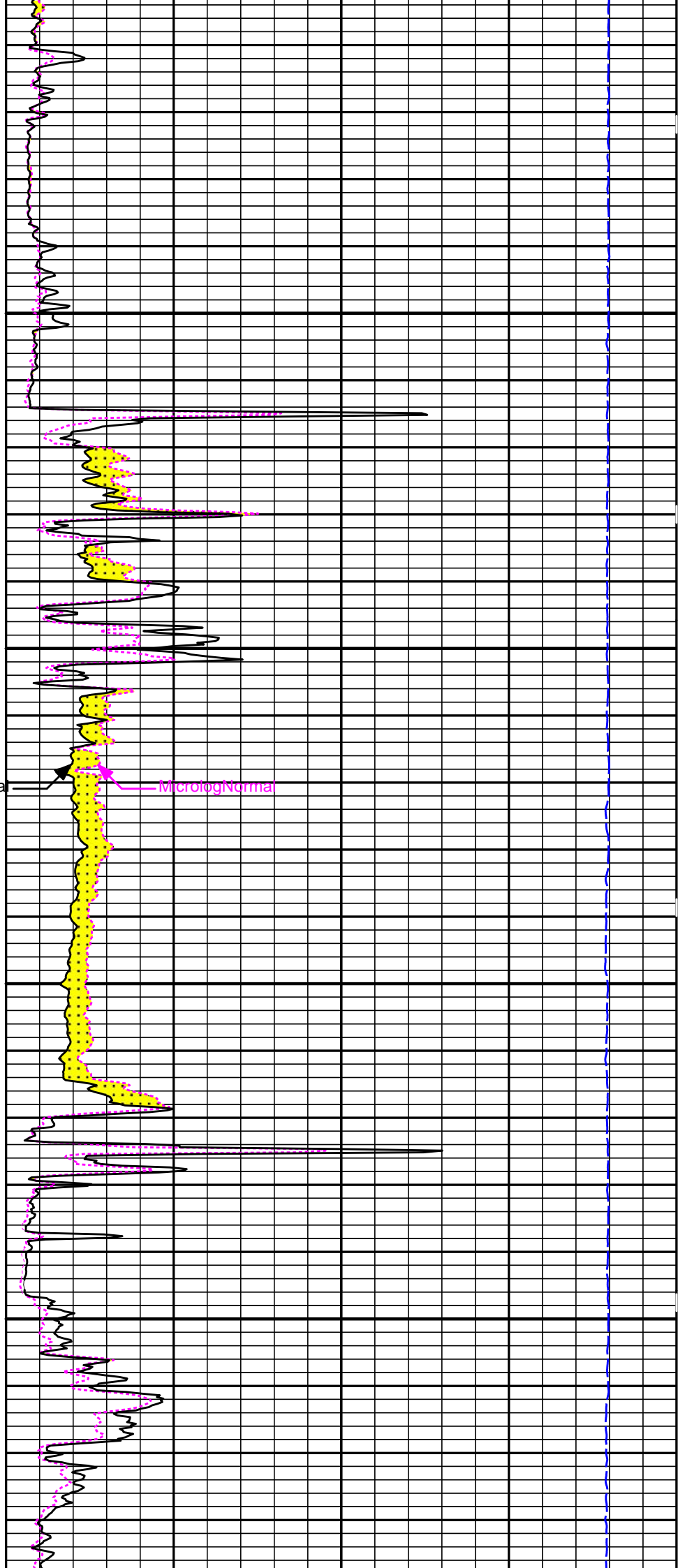
Service Ticket No.: 904382733						API No.: 05-073-06726-00-00						PGM Version: WL INSITE R5.0.5 (Build 8)											
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE												RESISTIVITY SCALE CHANGES											
Date		Sample No.										Type Log		Depth		Scale Up Hole		Scale Down Hole					
Depth-Driller																							
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.				@				@				ONE		ACRT		N/A		CENT		N/A			
Rmc @ Meas. Temp.				@				@						I-11022962									
Source Rmf		Rmc										S-11005909											
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.		11048327		Serial No.		10747683		Serial No.		10960494		Serial No.		11055304									
Model No.		GTET		Model No.		BSAT		Model No.		SDLT		Model No.		DSNT									
Diameter		3.625"		No. of Cent.		2		Diameter		5.5"		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.		5168GW		Serial No.		DSN-424									
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	Matrix		L	R	Matrix		L	R	Matrix						
ONE	TD	CSG	REC	0	150	20	10	47.6 uSec/ft		20	10	2.71 gr/cc		20	10	LIME							

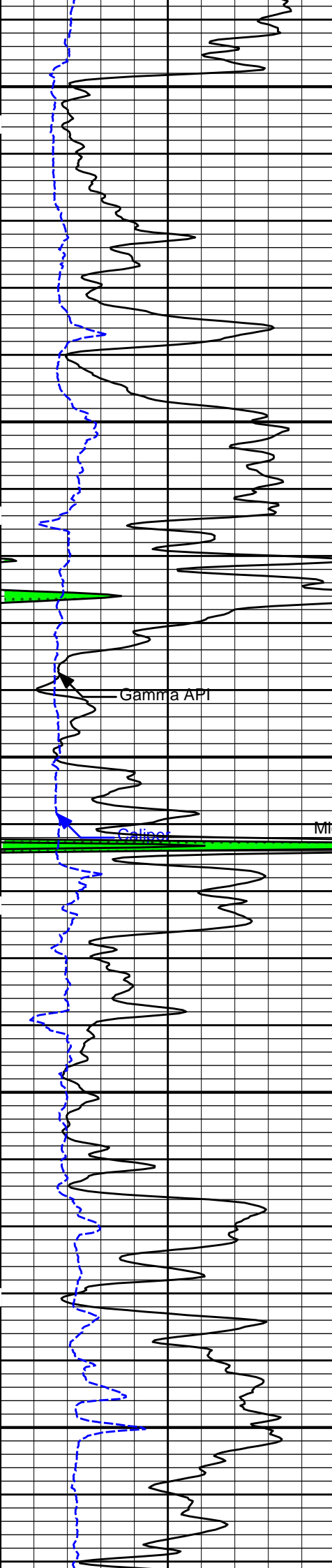
ONE	ID	CSG	REC	0	150	30	-10	47.6 usec/ft	50	-10	2.77 g/cc	50	-10	LIME		
DIRECTIONAL INFORMATION																
Maximum Deviation								@	KOP							@
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING																
CHLORIDES REPORTED AT 400 ppm																



2900

3000





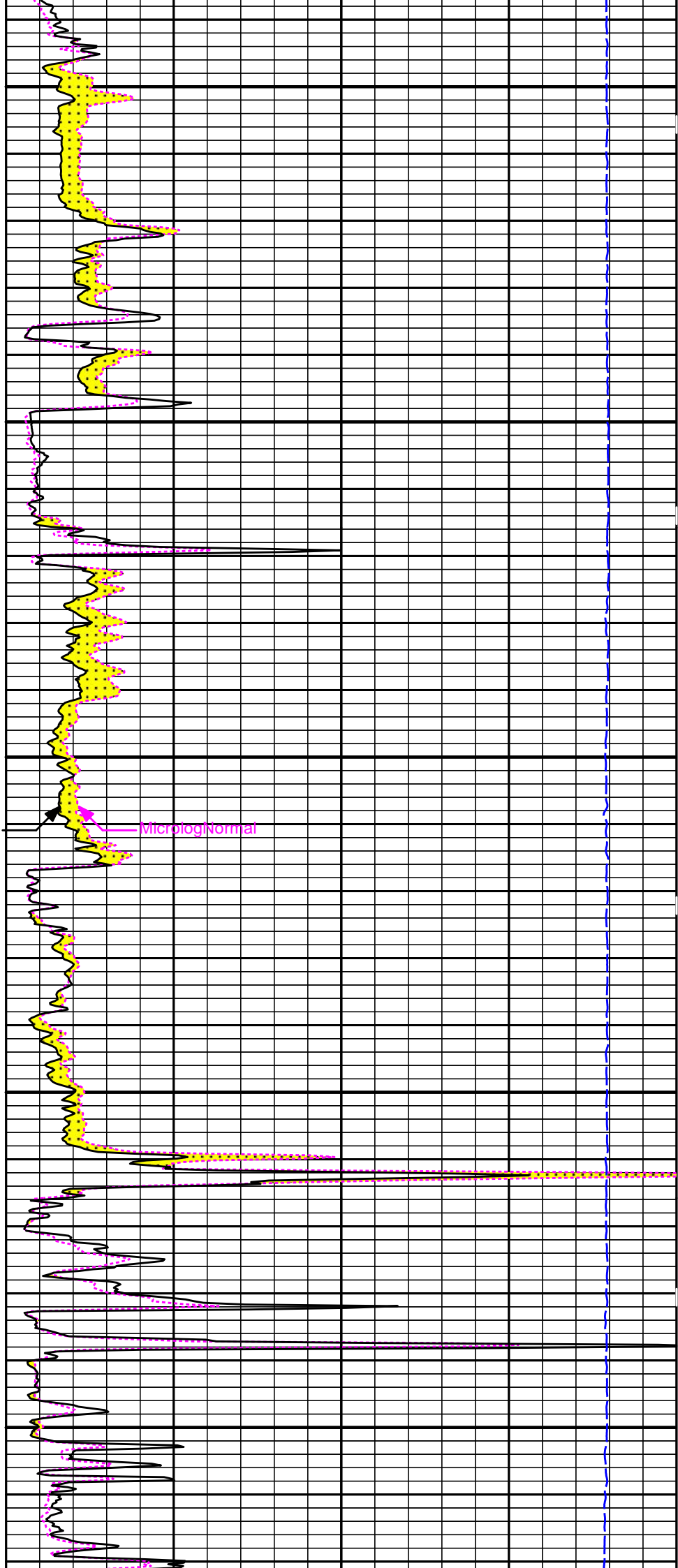
3100

Gamma API

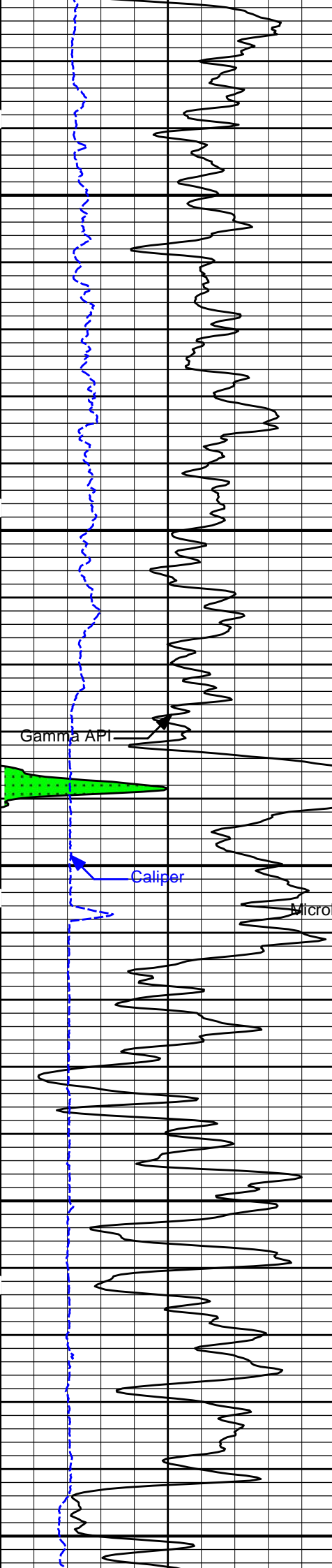
Caliper

MicrologLateral

3200



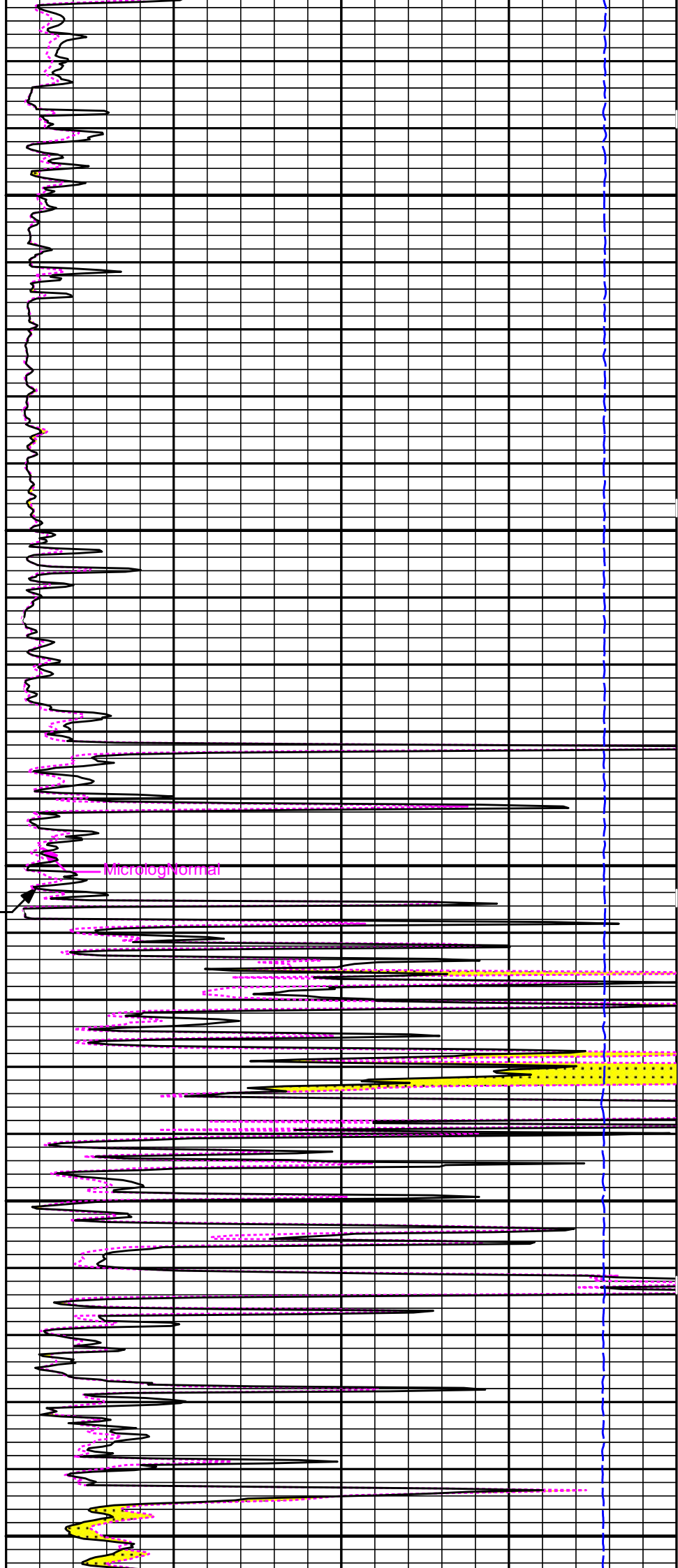
MicrologNormal

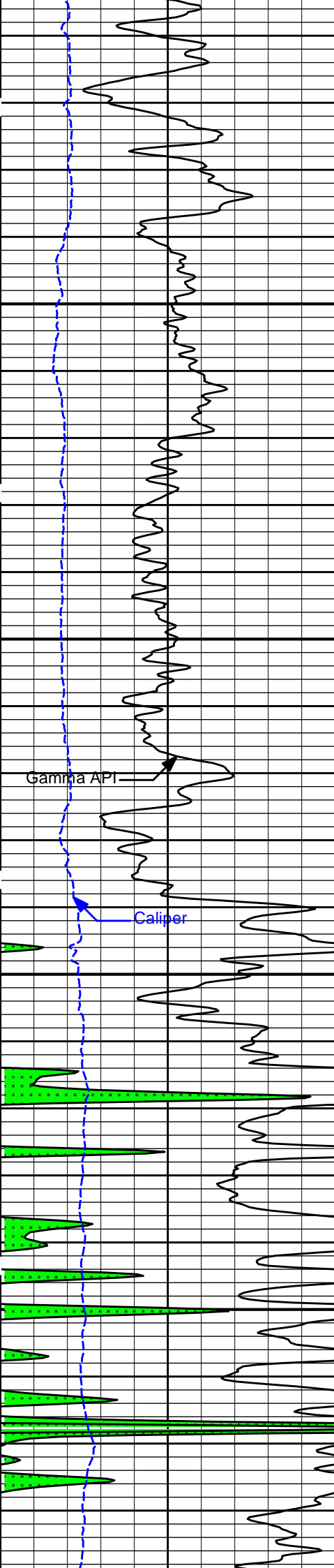


3300

3400

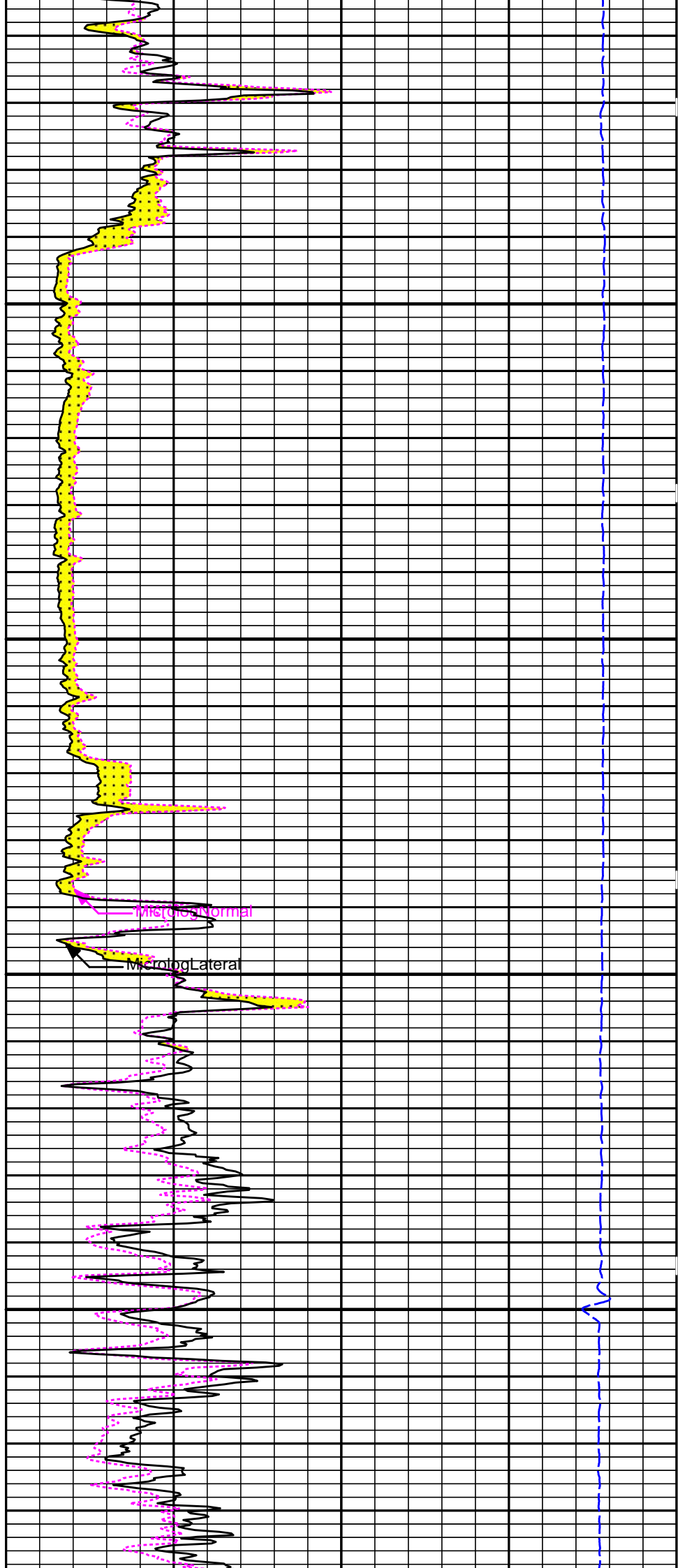
3500

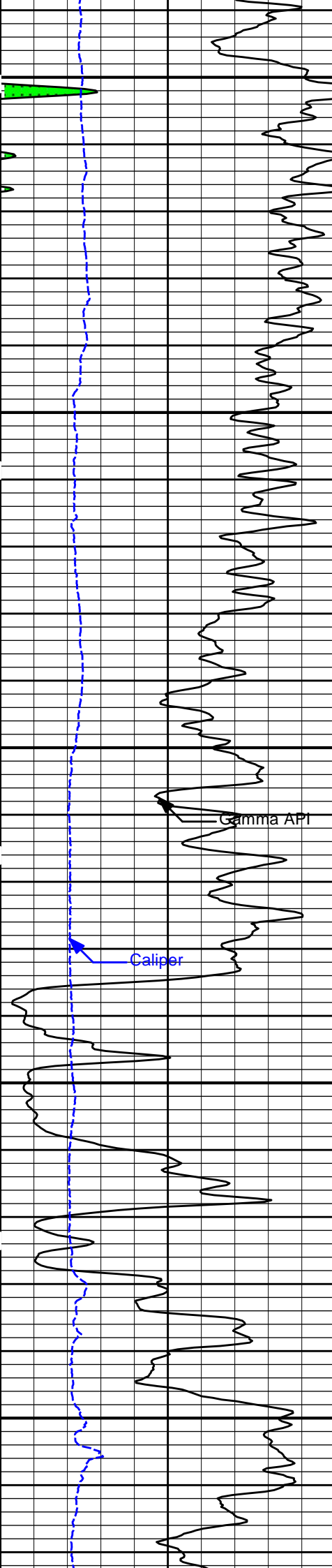




3600

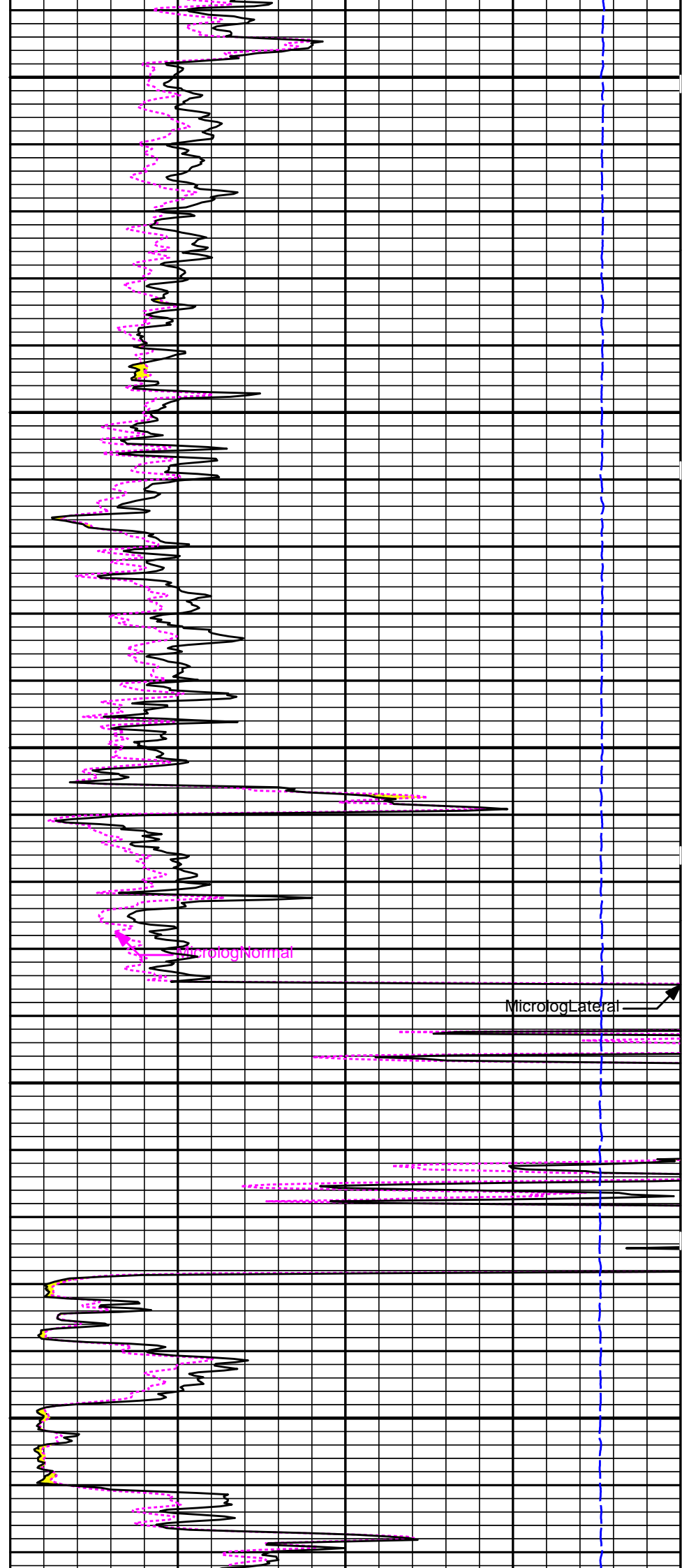
3700

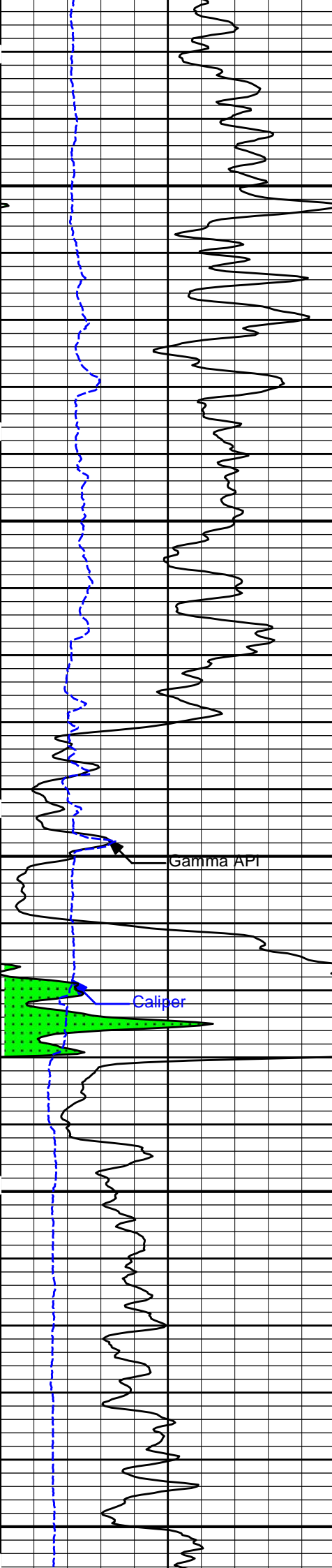




3800

3900

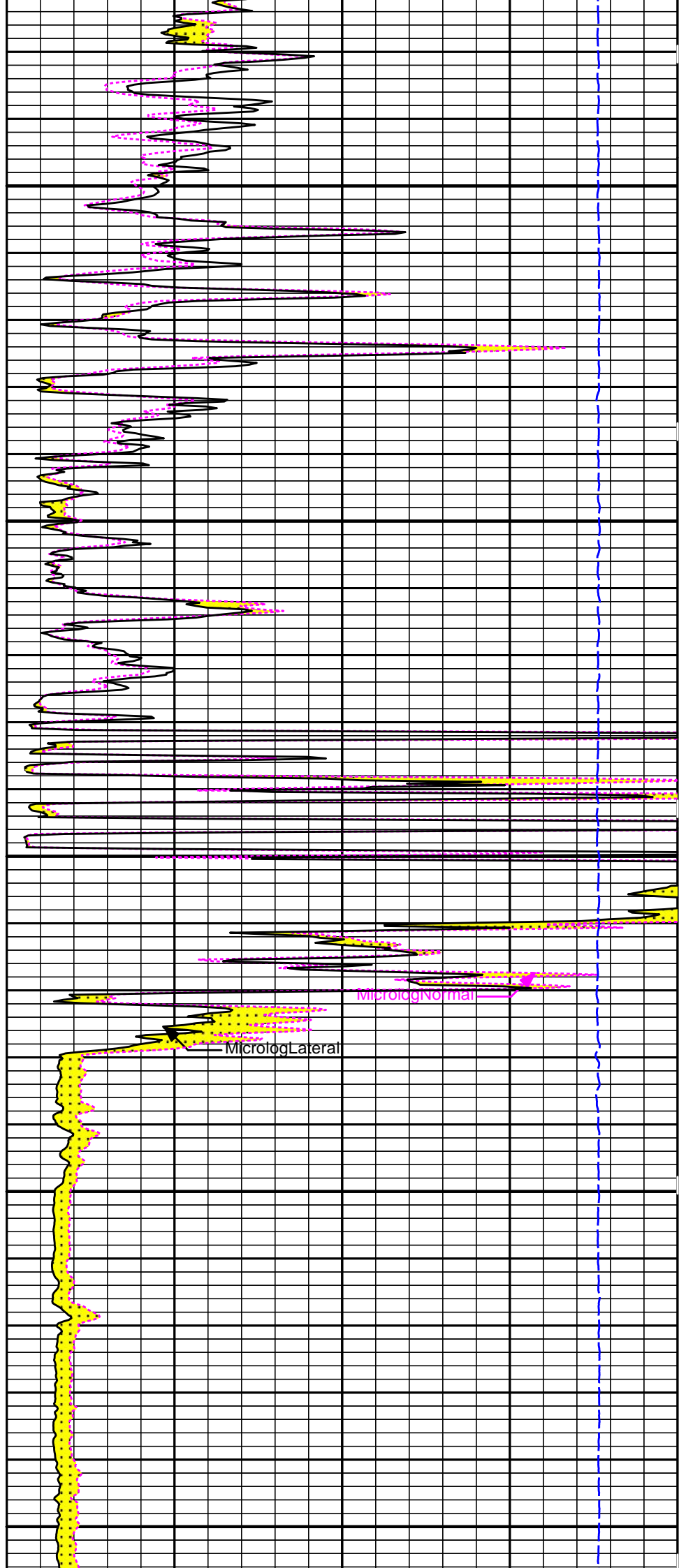


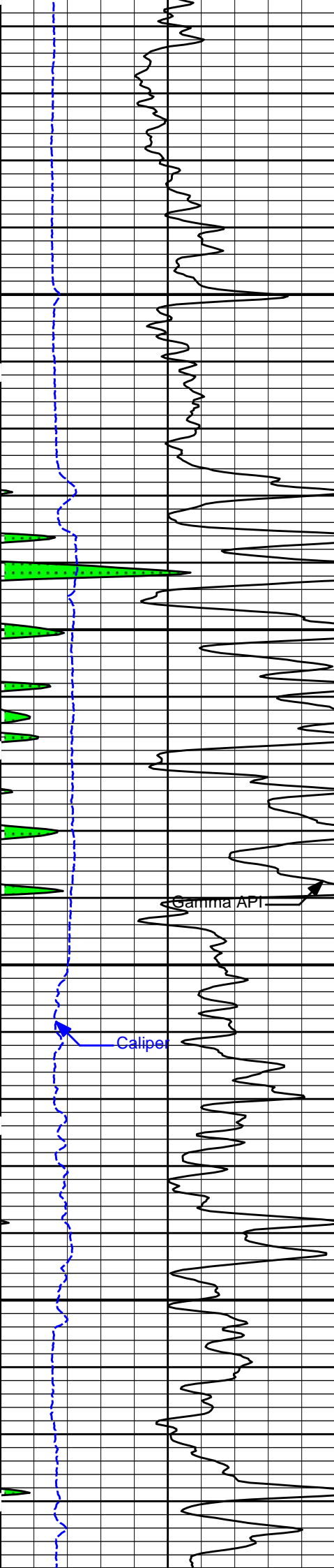


4000

4100

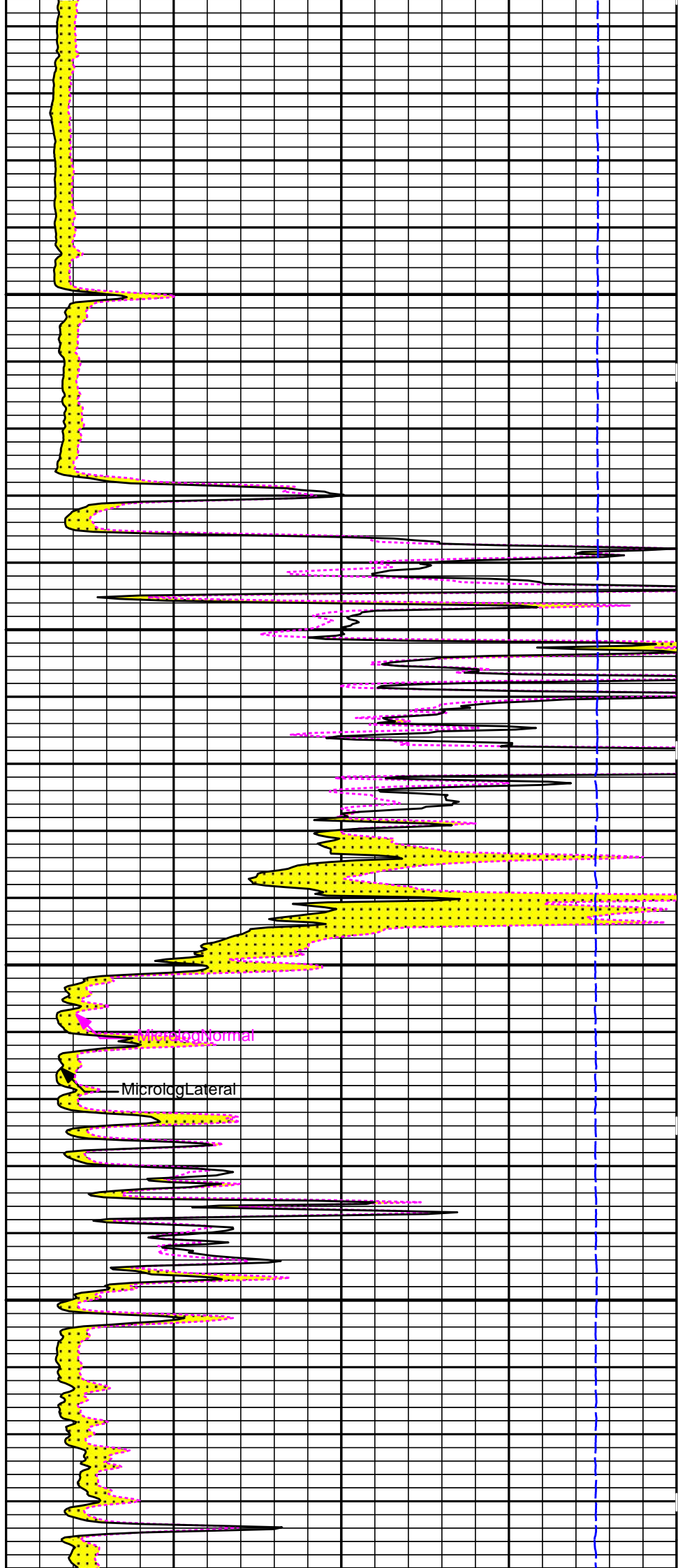
4200

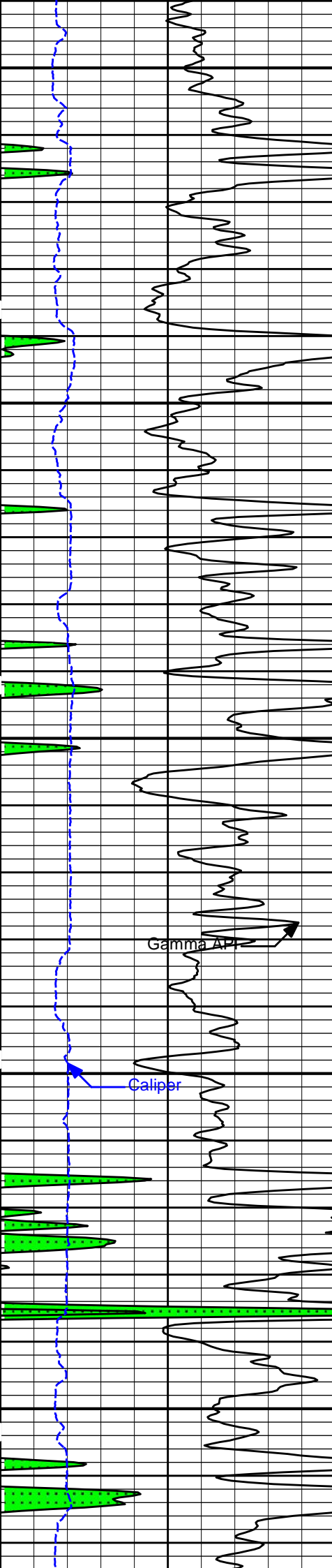




4300

4400



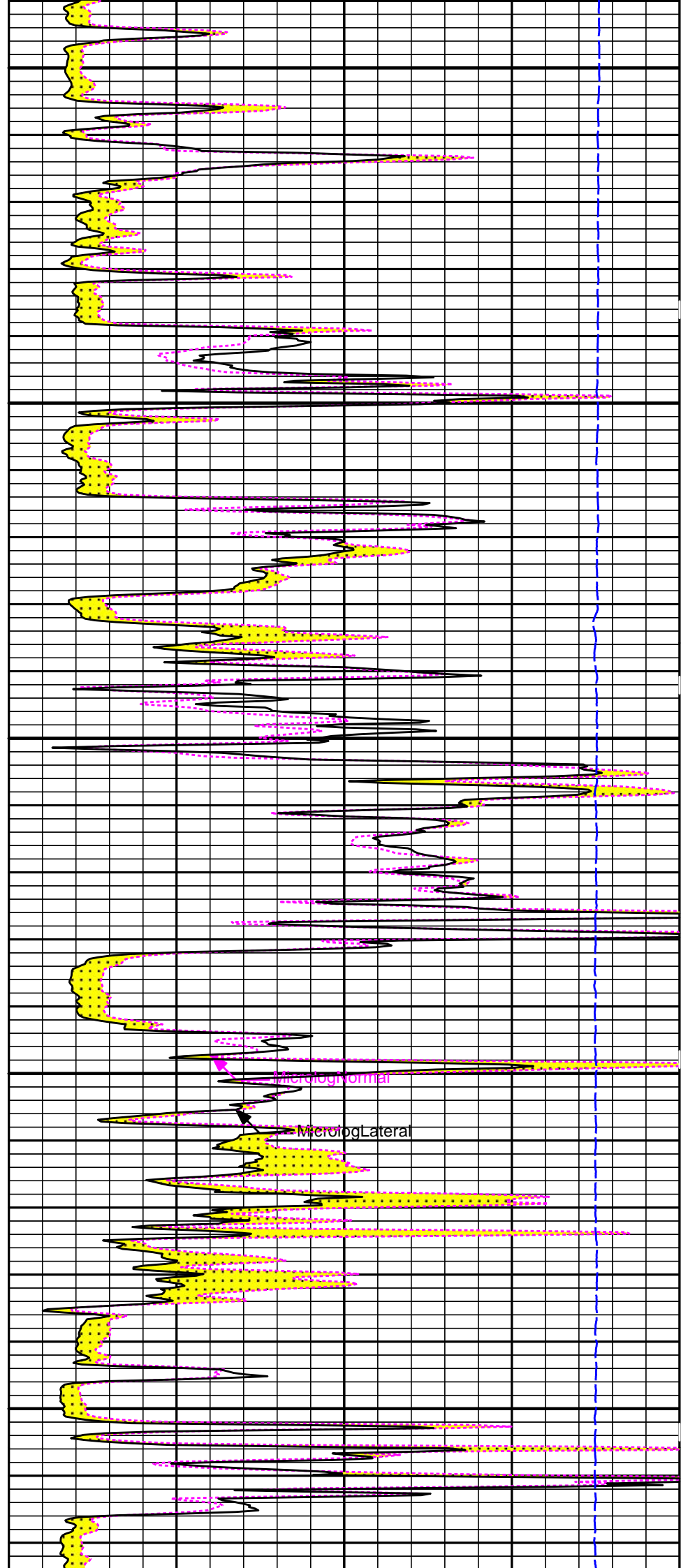


4500

4600

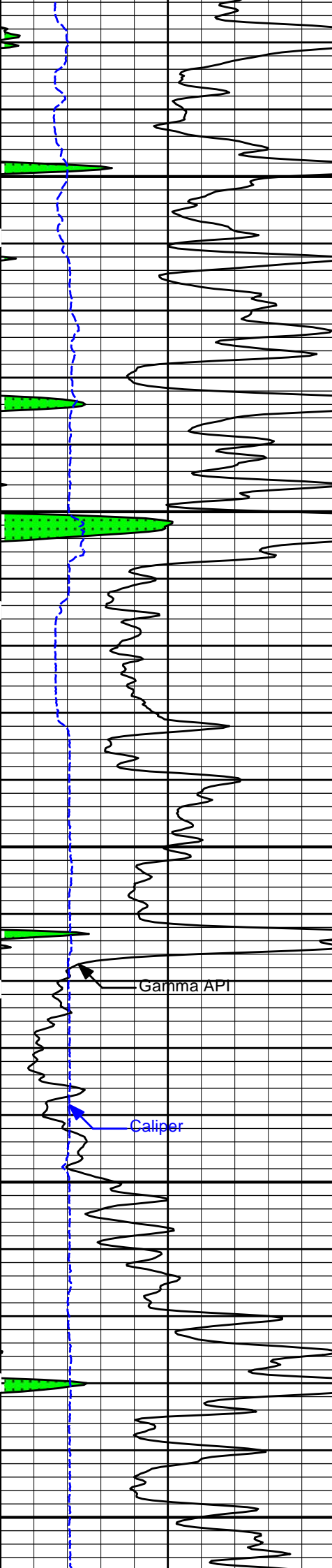
Gamma API

Caliper



MicrologNormal

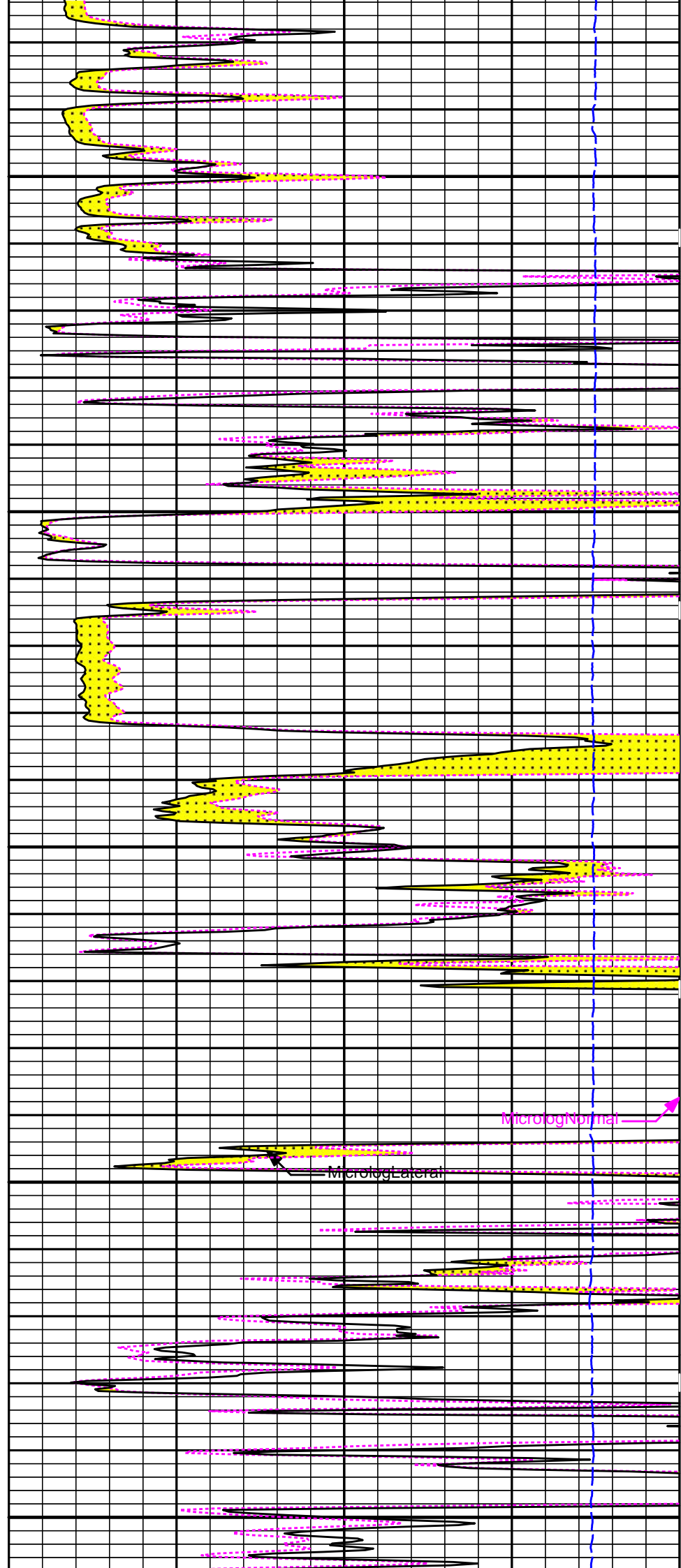
MicrologLateral

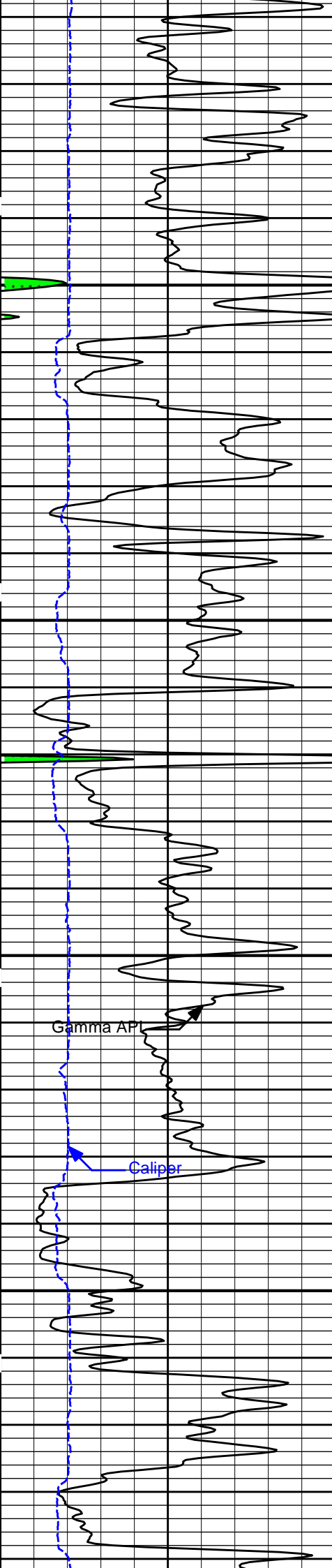


4700

4800

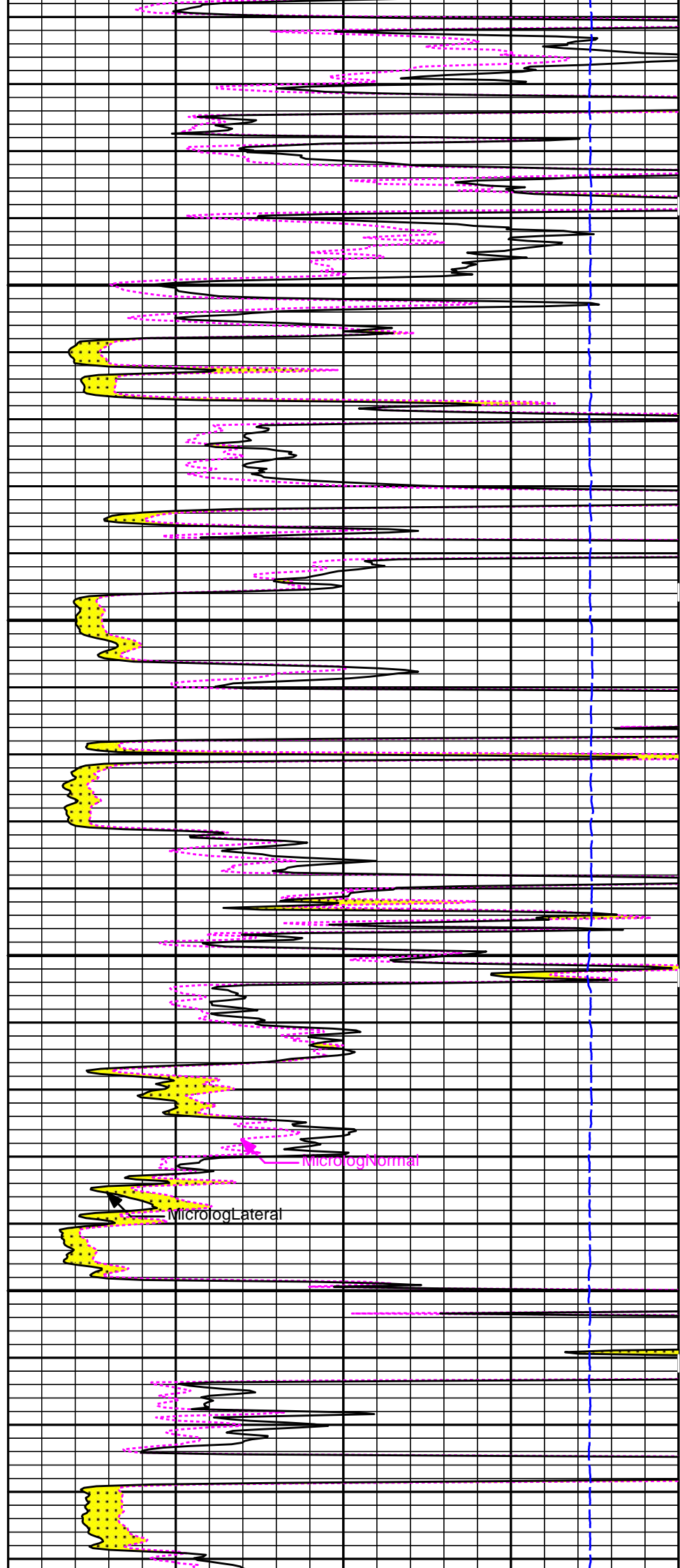
4900

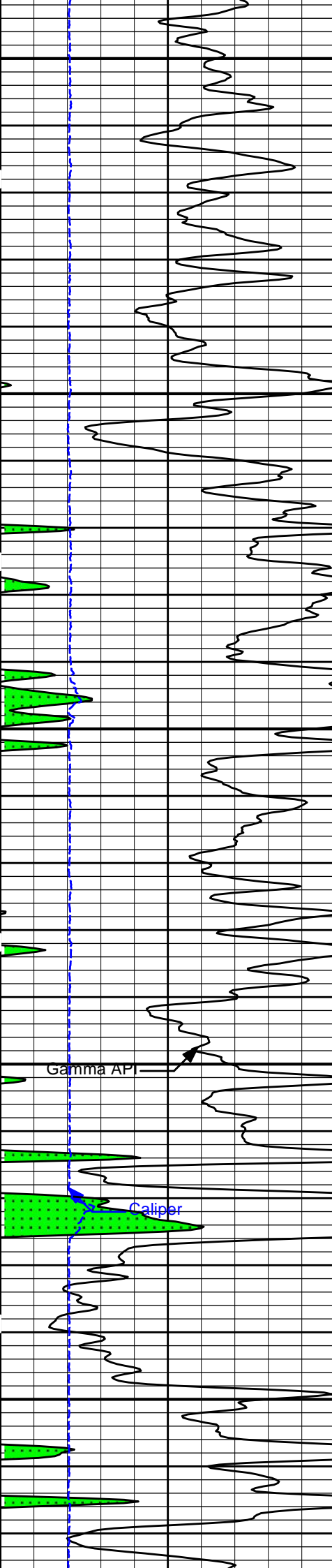




5000

5100



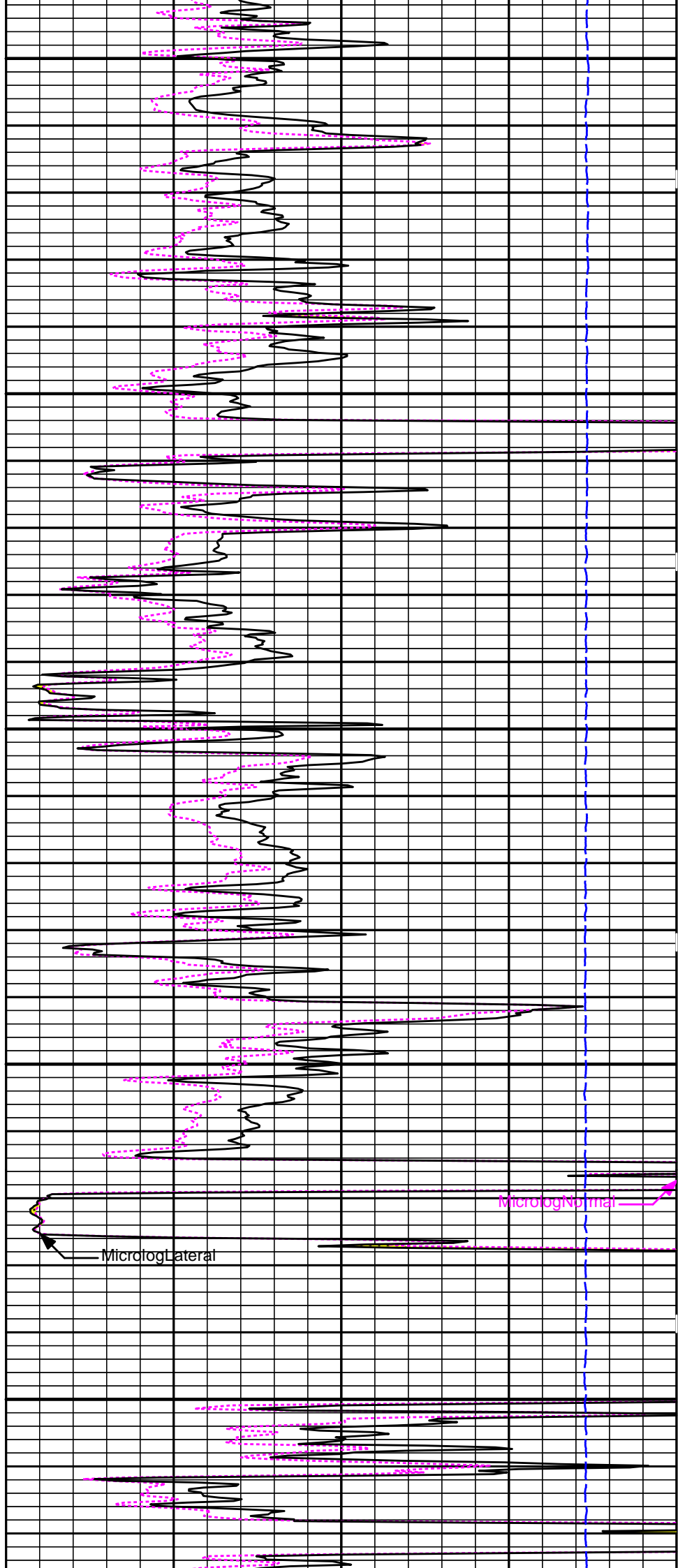


5200

5300

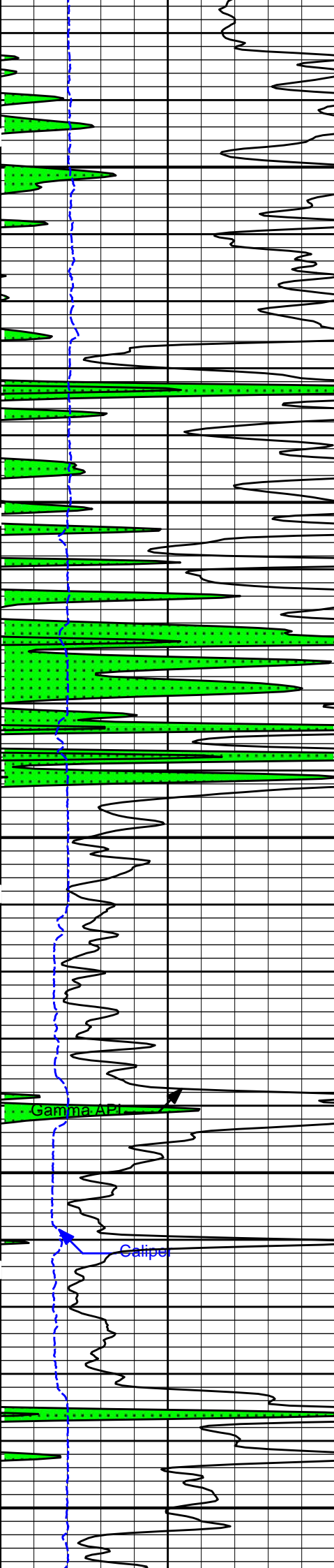
Gamma API

Caliper



MicrologLateral

MicrologNormal



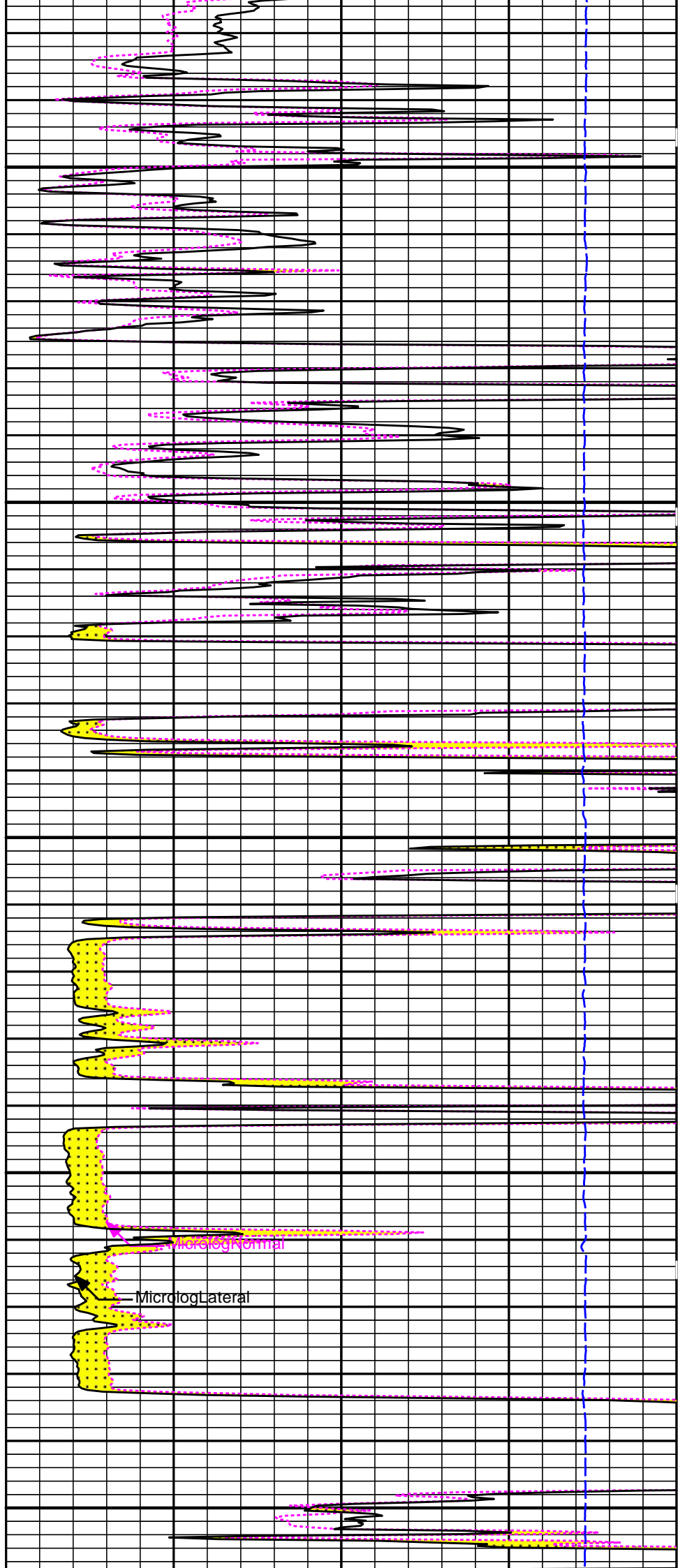
5400

5500

5600

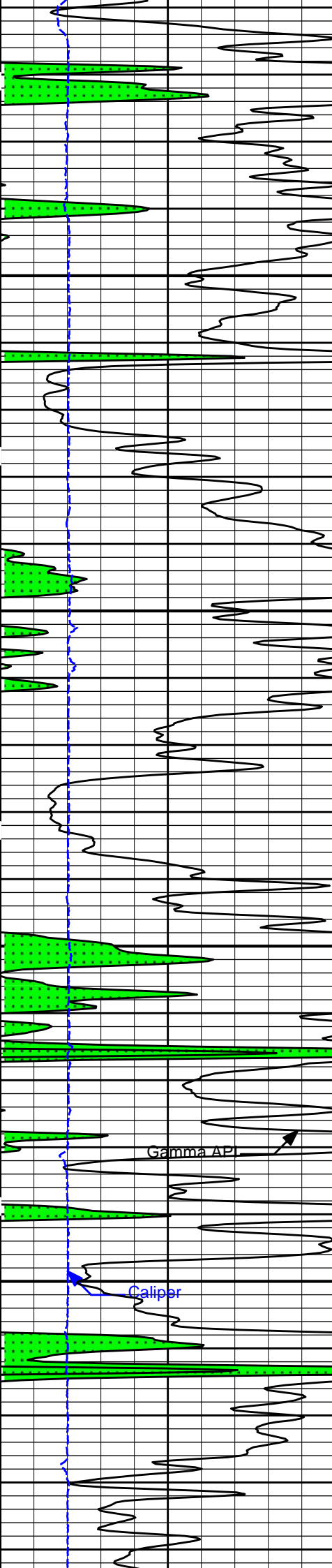
Gamma API

Caliper



MicrologNormal

MicrologLateral

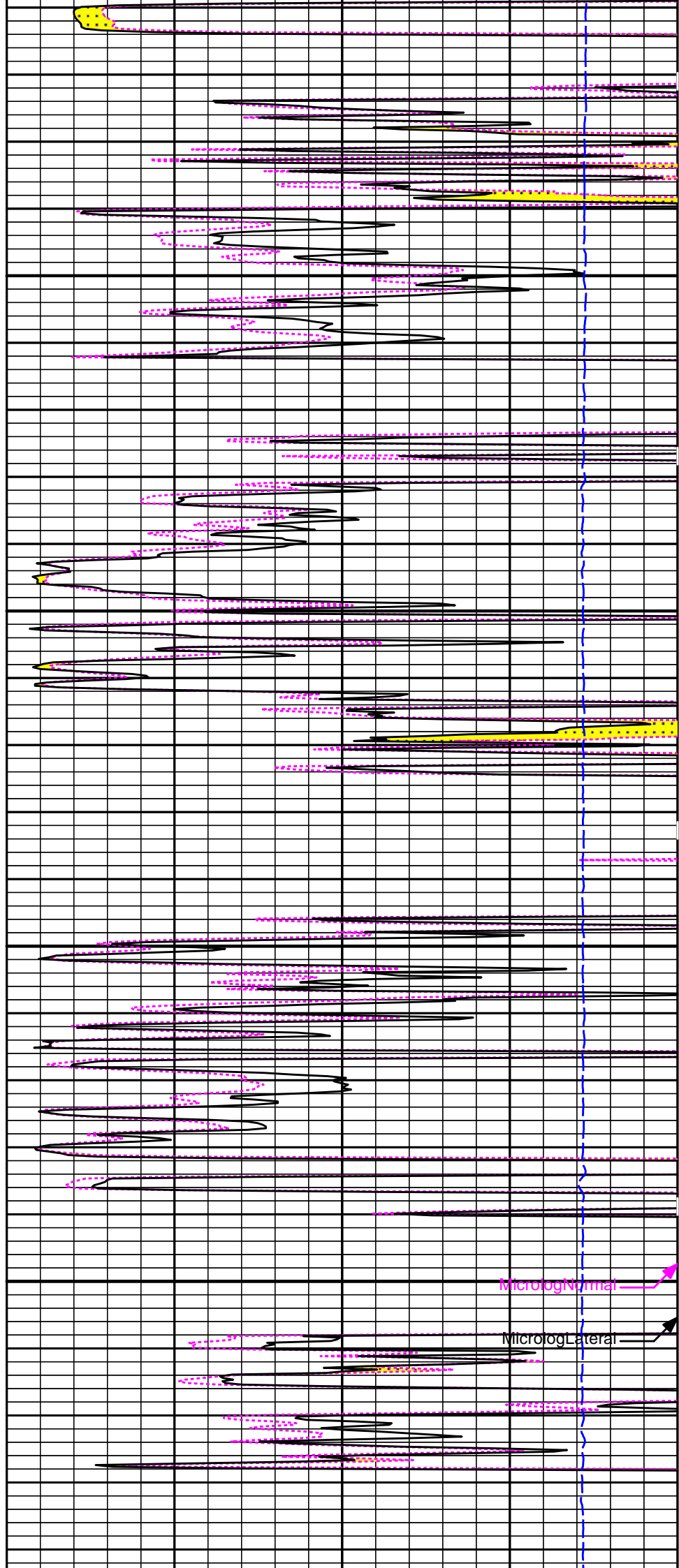


5700

Gamma API

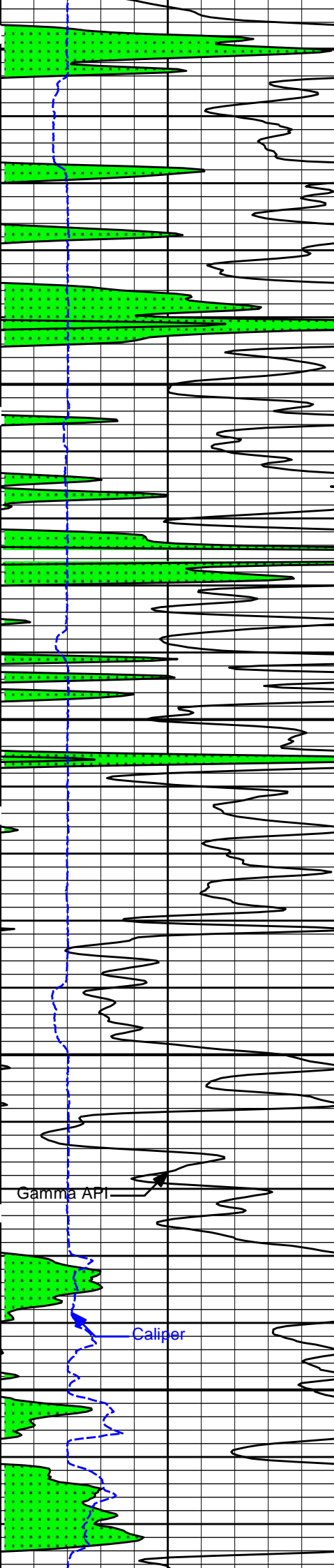
Caliper

5800



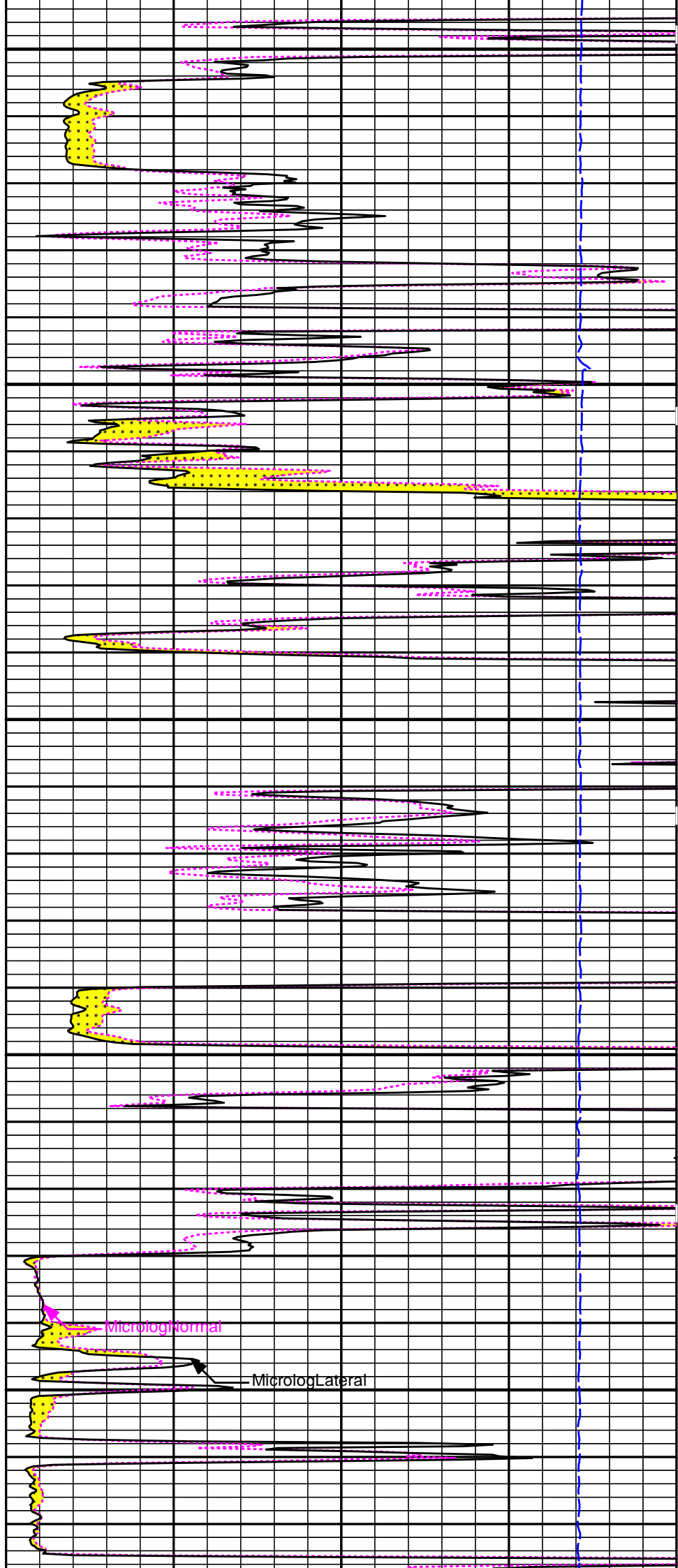
MicrologNormal

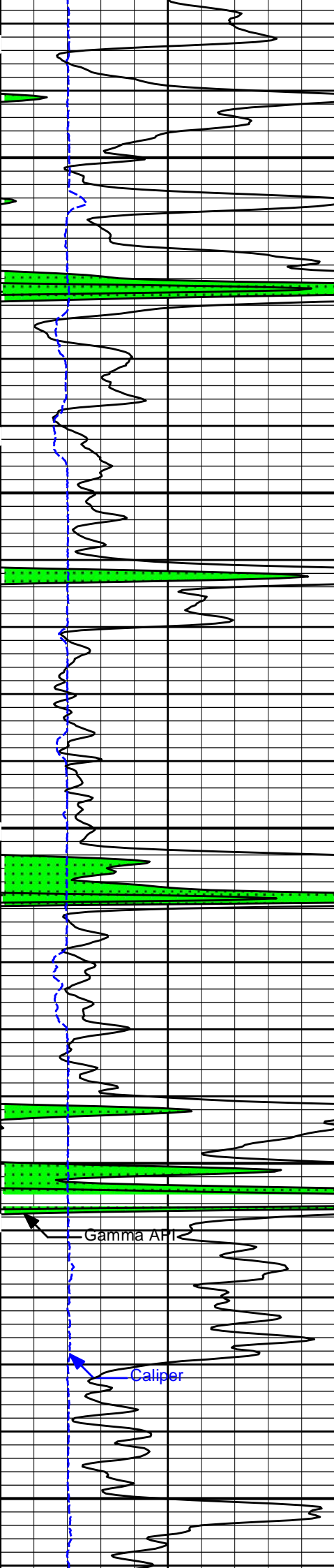
MicrologLateral



5900

6000

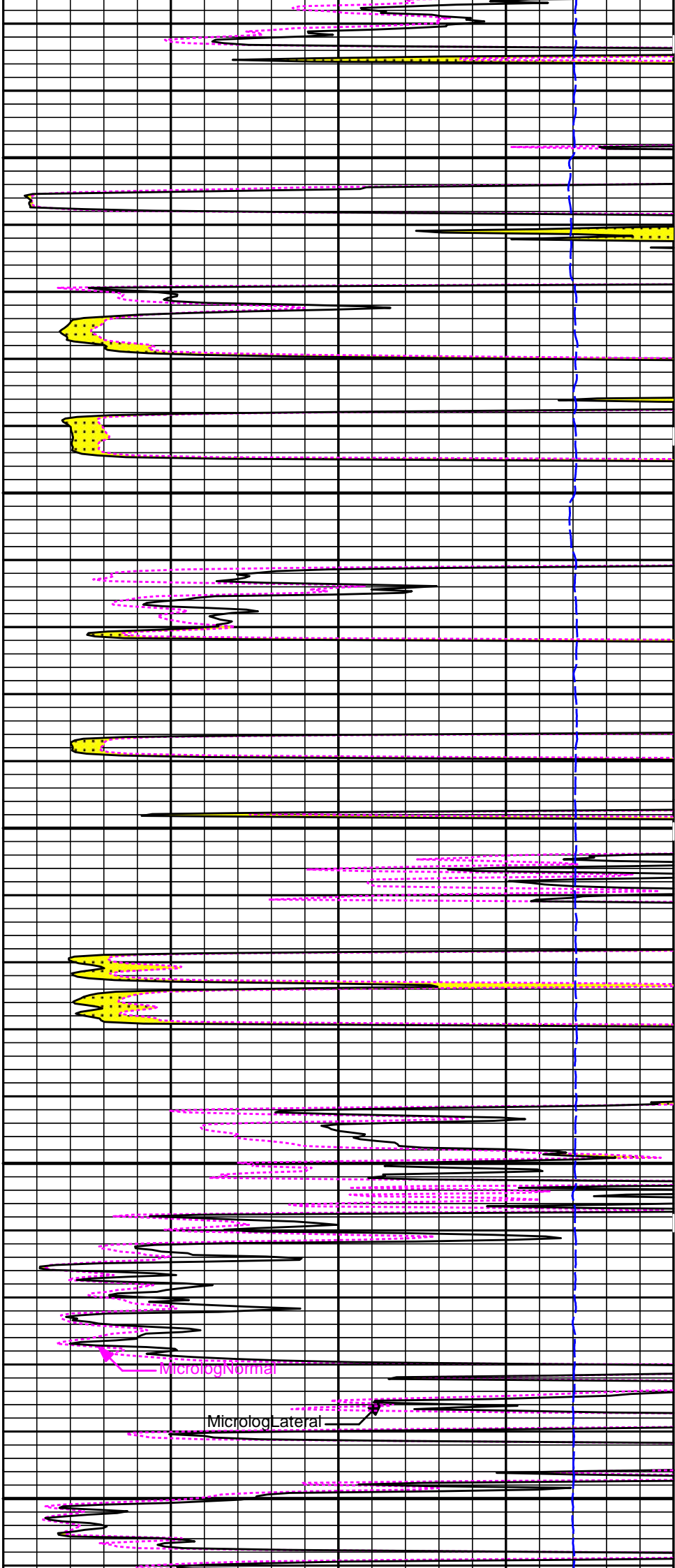


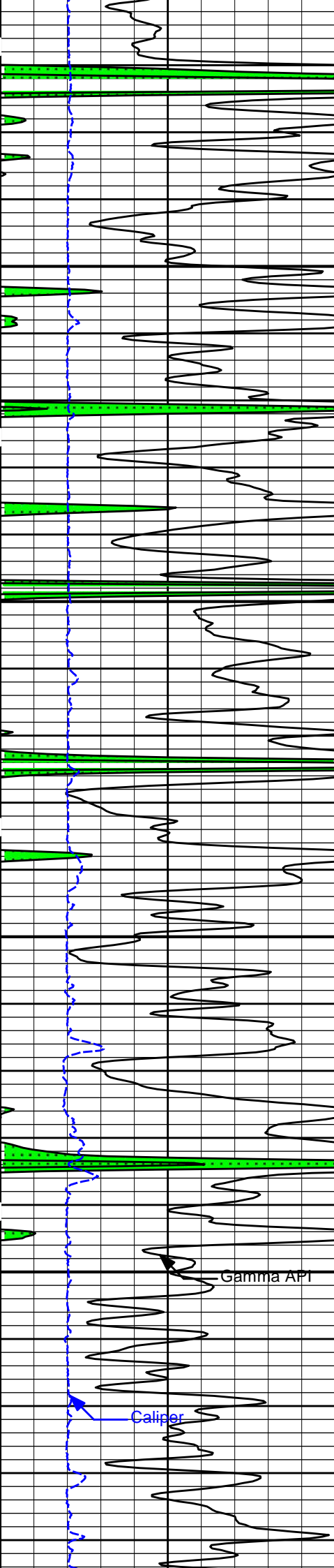


6100

6200

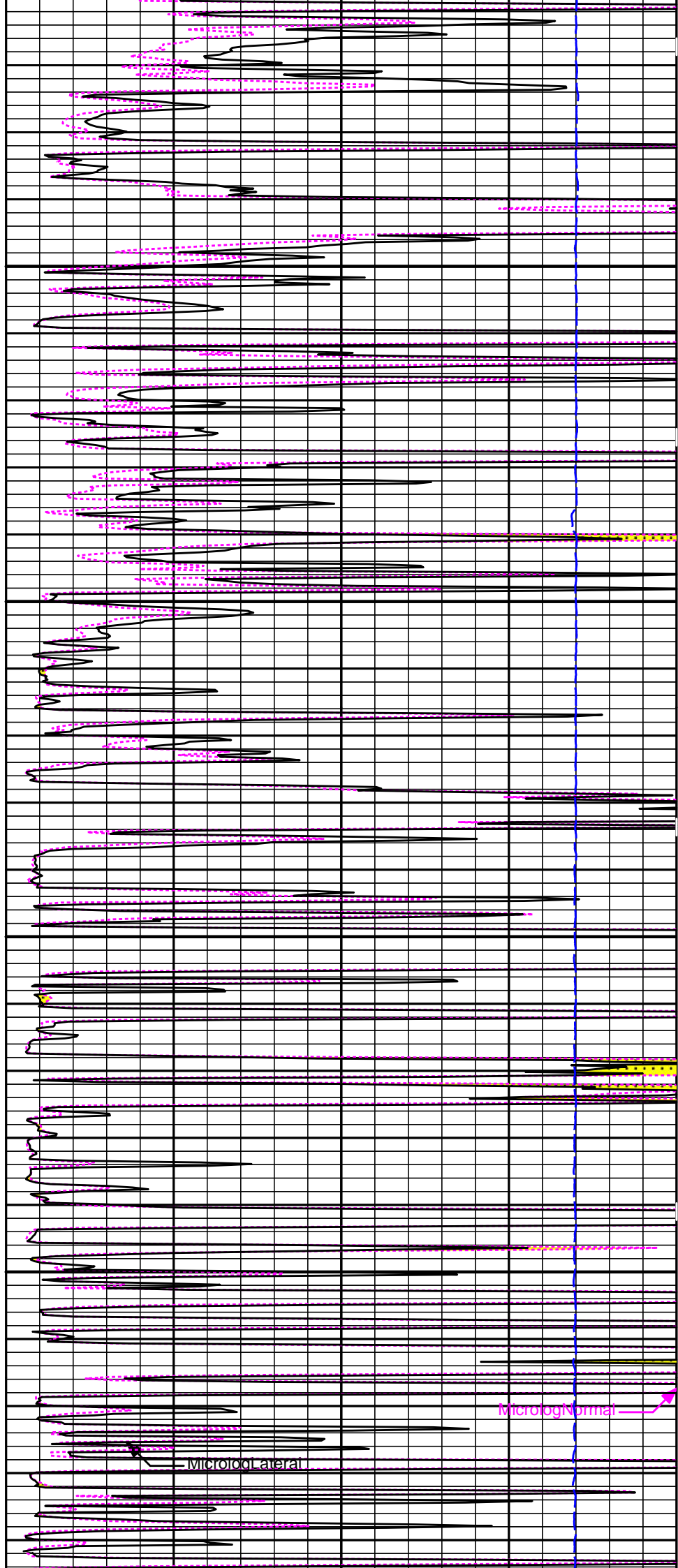
6300

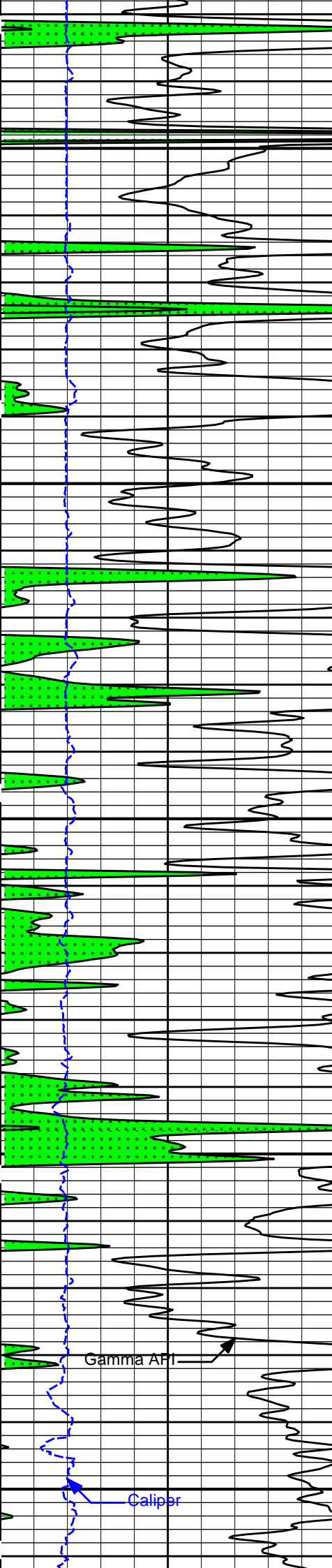




6400

6500





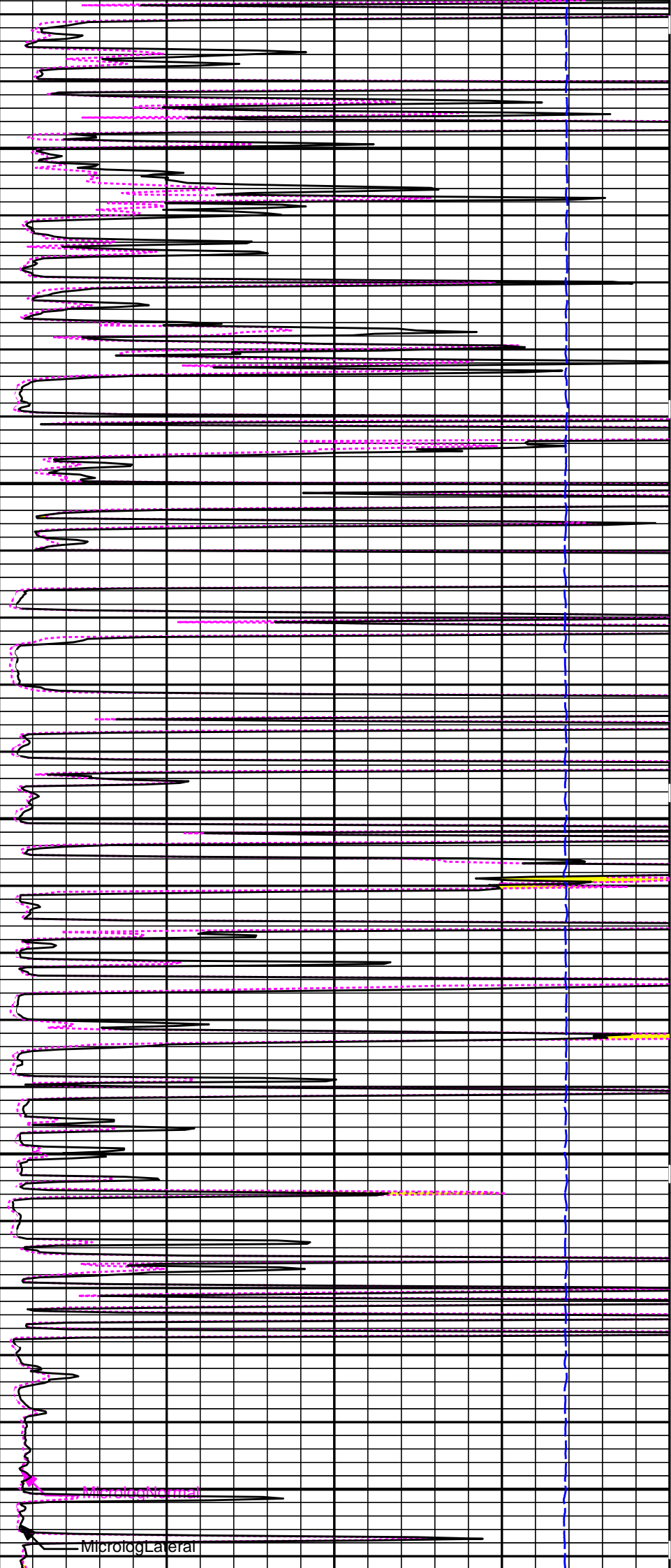
6800

6900

7000

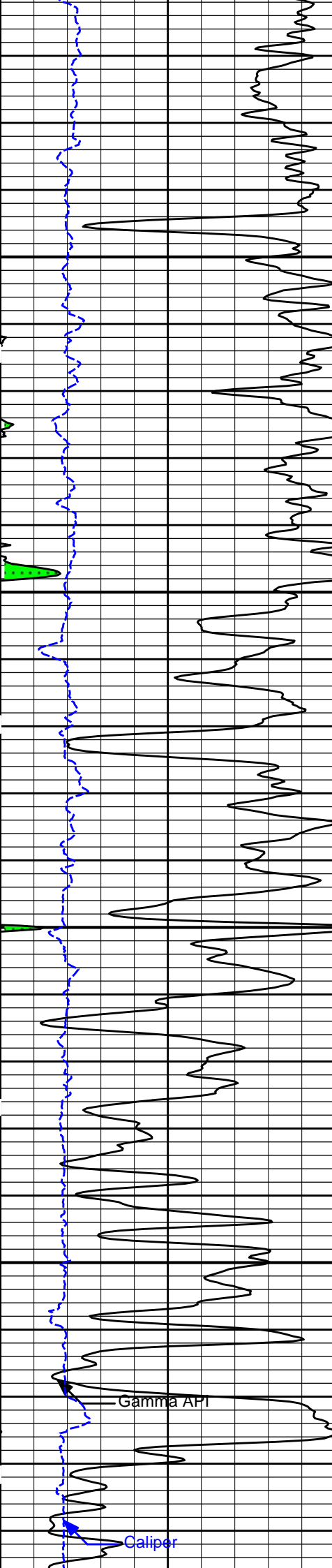
Gamma API

Caliper



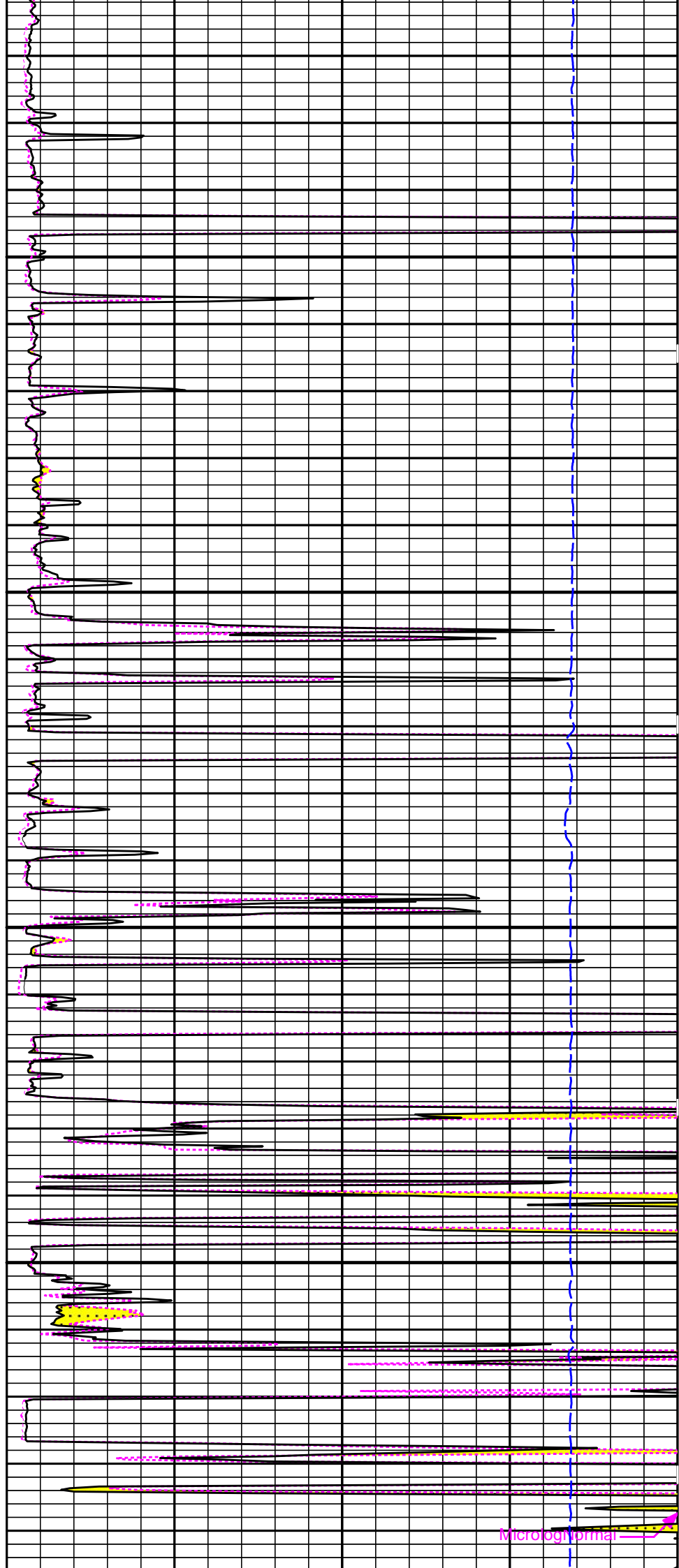
Microlog Normal

Microlog Lateral

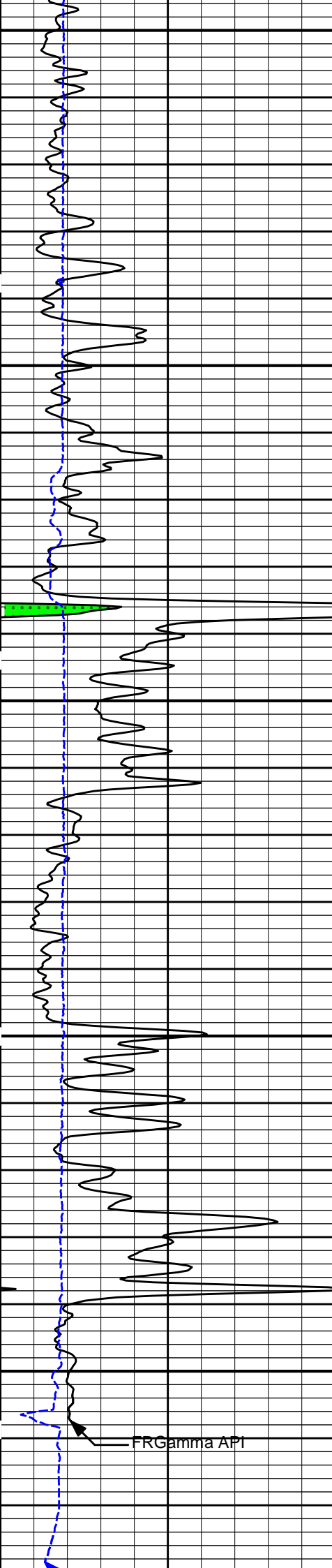


7100

7200



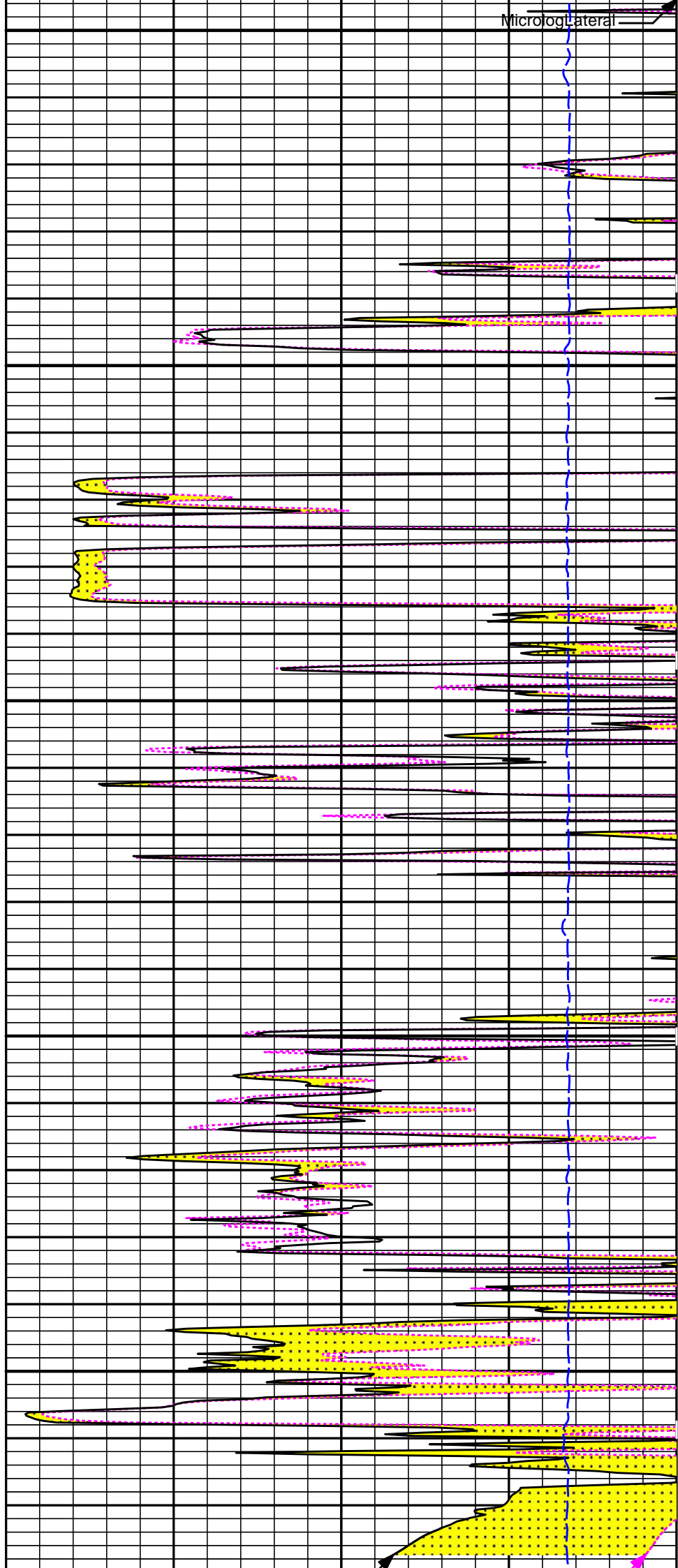
Microlognormal

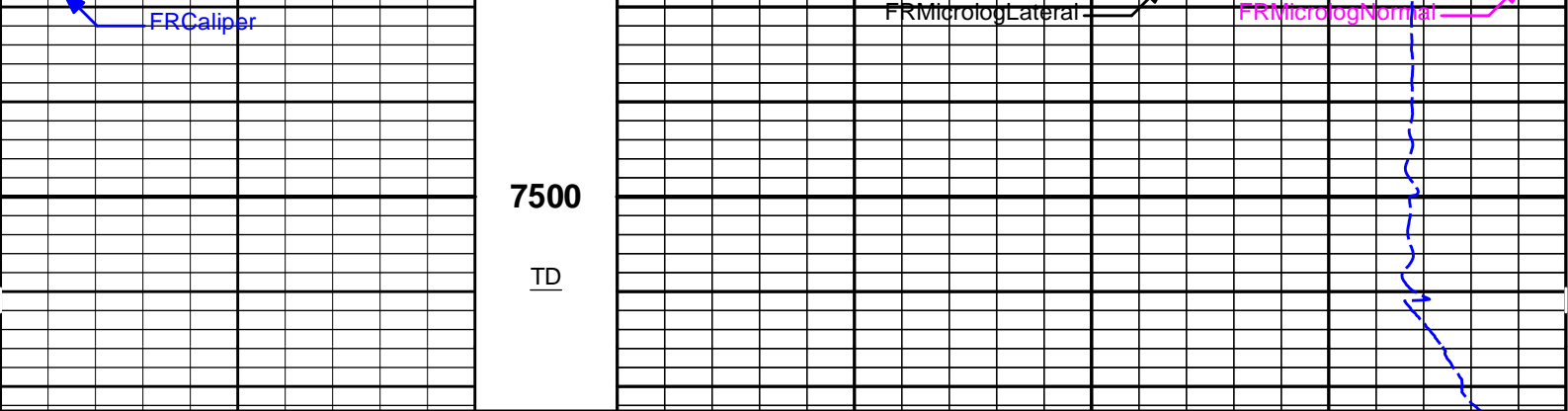


7300

7400

FR Gamma API





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

HALLIBURTON

Plot Time: 20-Oct-17 20:17:38
Plot Range: 2745 ft to 7522.58 ft
Data: CLARK_13-24\Well Based\DETAILS\
Plot File: \\-LOCAL-CLARK_13-24\Well Based\MICROLOG\Microlog_IQ_5_main

5 INCH MAIN LOG

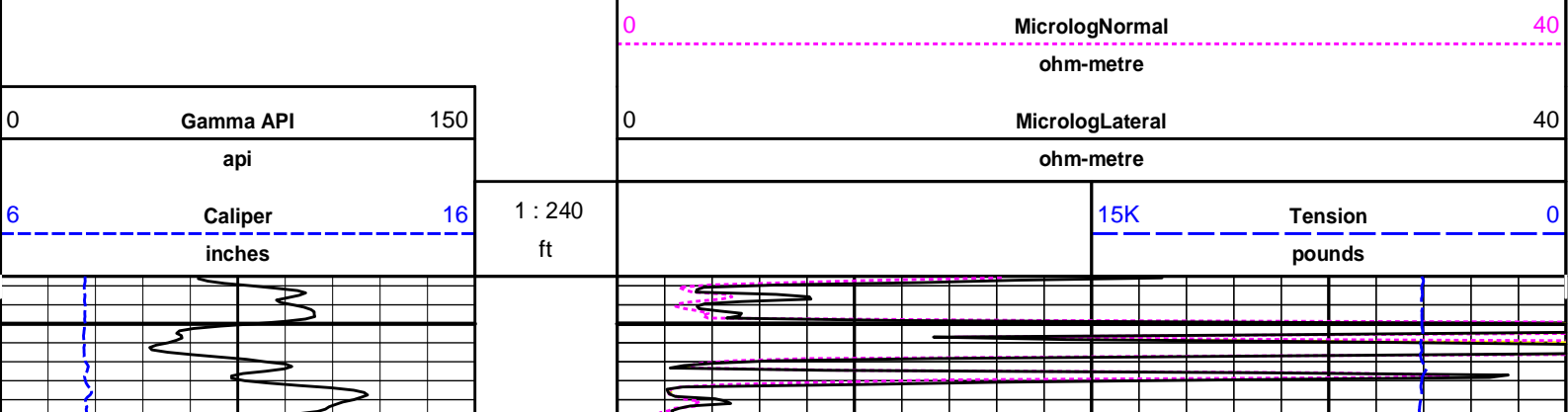
MAIN LOG 5" PER 100'

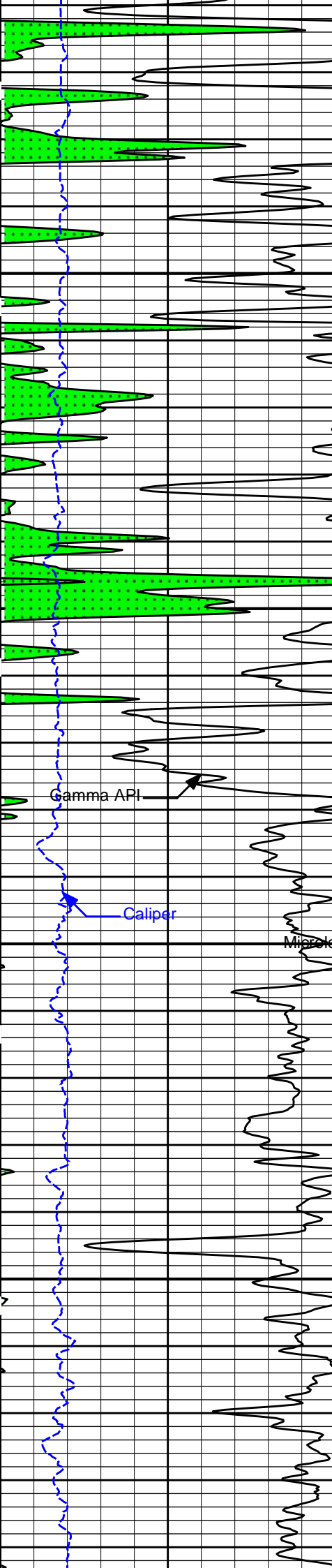
HALLIBURTON

Plot Time: 20-Oct-17 20:17:38
Plot Range: 6845 ft to 7519.67 ft
Data: CLARK_13-24\Well Based\REPEAT\
Plot File: \\-LOCAL-CLARK_13-24\Well Based\MICROLOG\Microlog_IQ_5_main

5 INCH REPEAT LOG

REPEAT 5" PER 100'





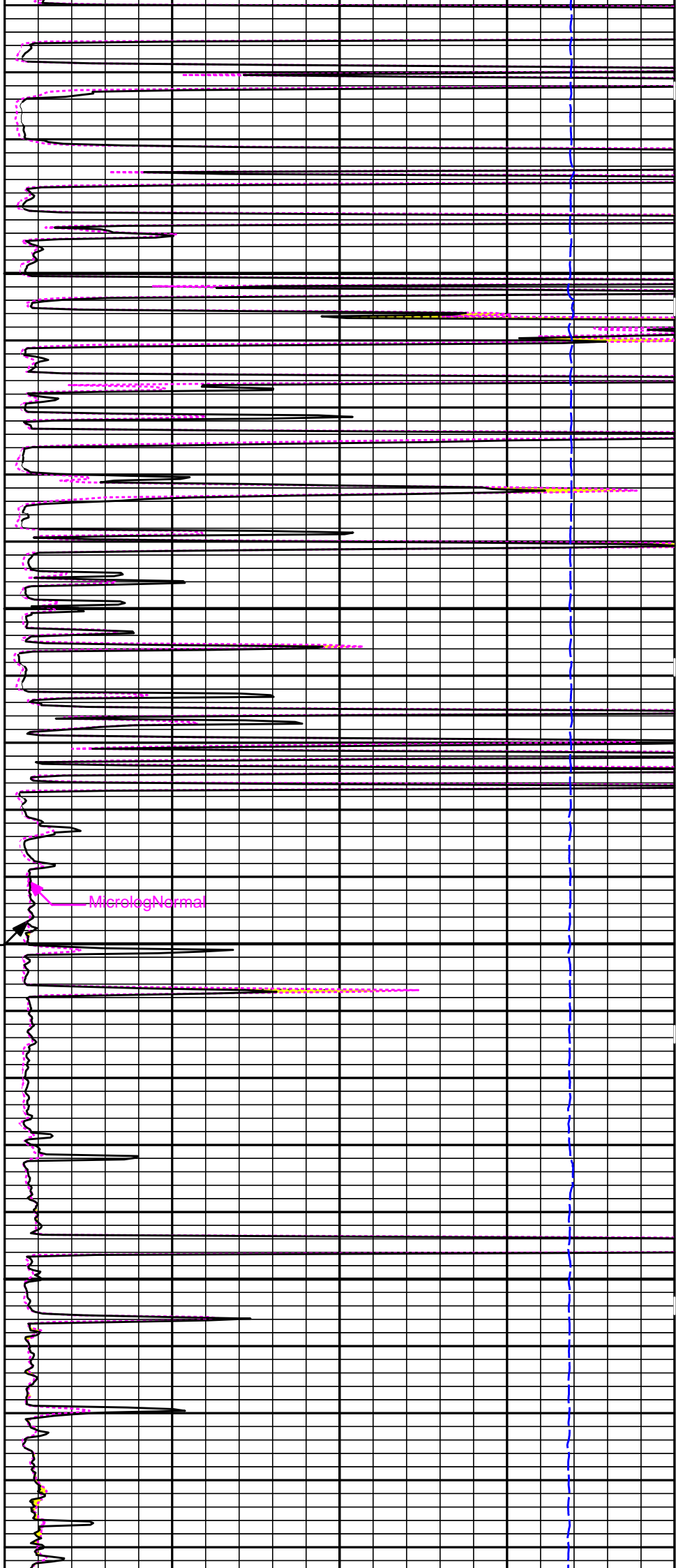
6900

Gamma API

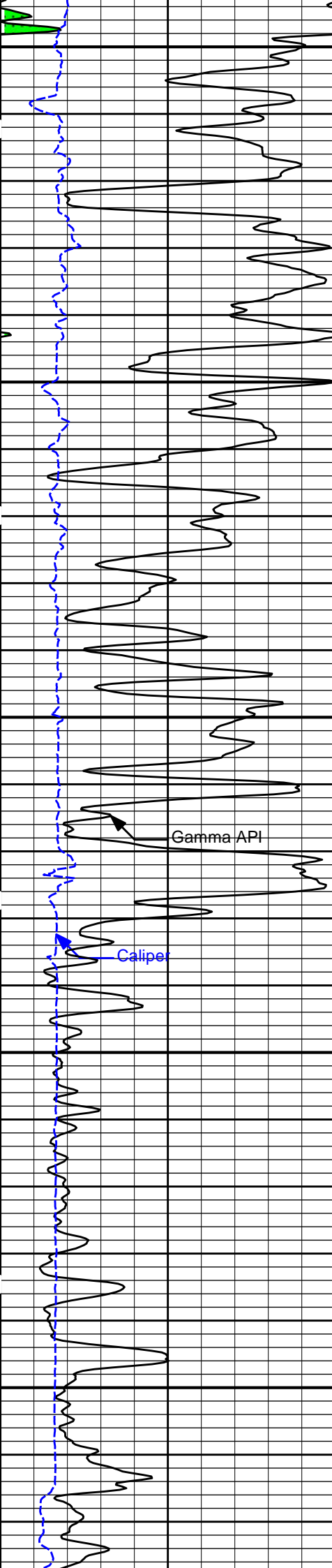
Caliper

Microlog

7000



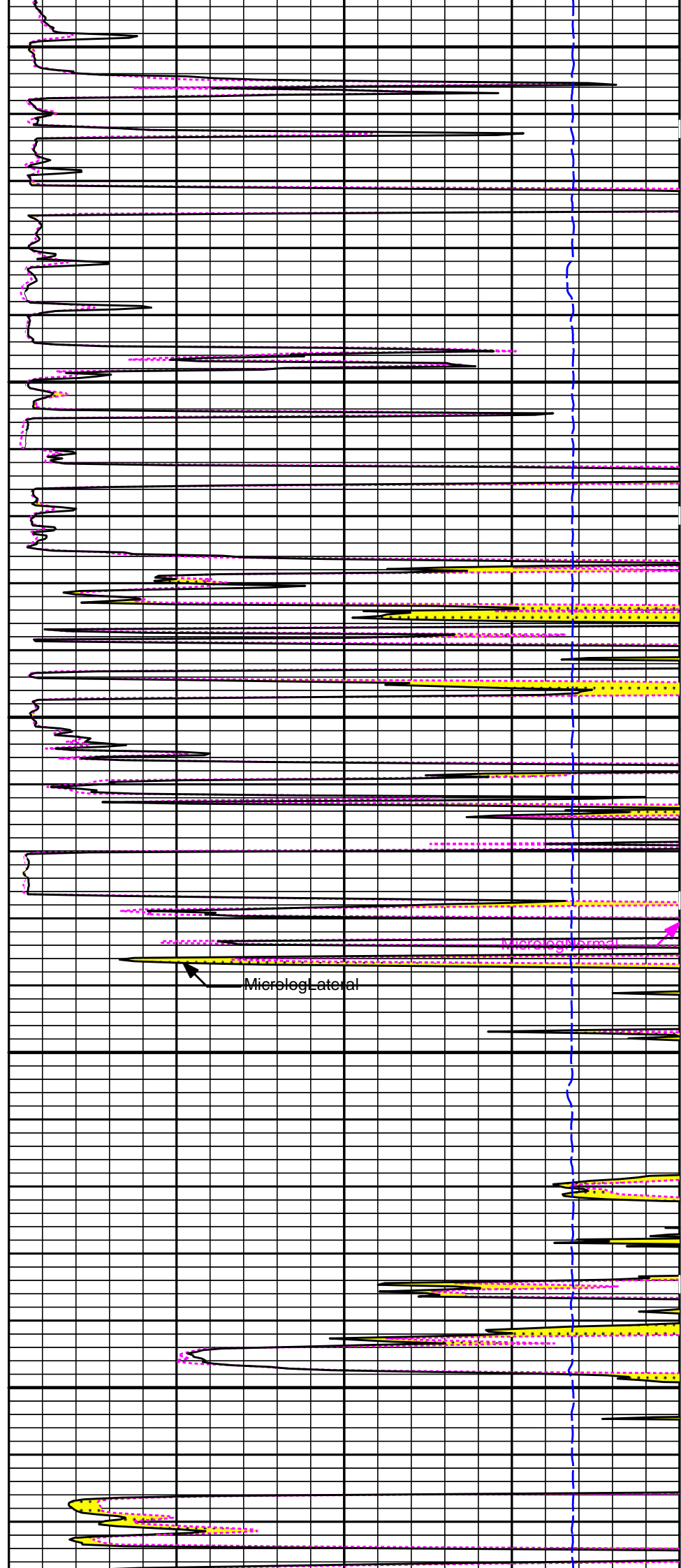
MicrologNormal

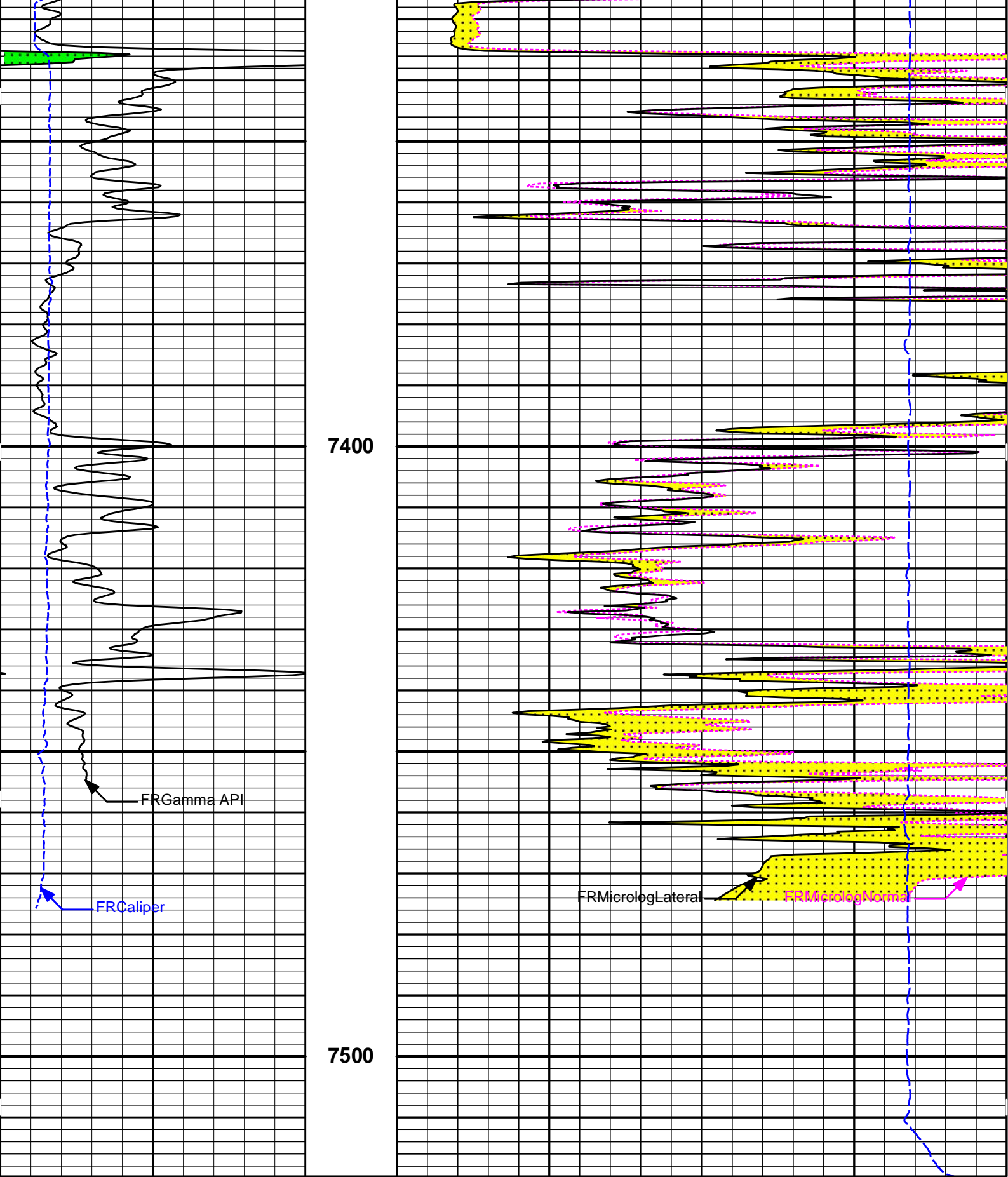


7100

7200

7300





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

HALLIBURTON

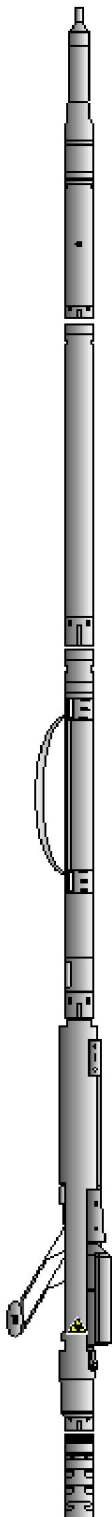
Plot Time: 20-Oct-17 20:17:40
Plot Range: 6845 ft to 7519.67 ft
Data: CLARK_13-24\Well Based\REPEAT\

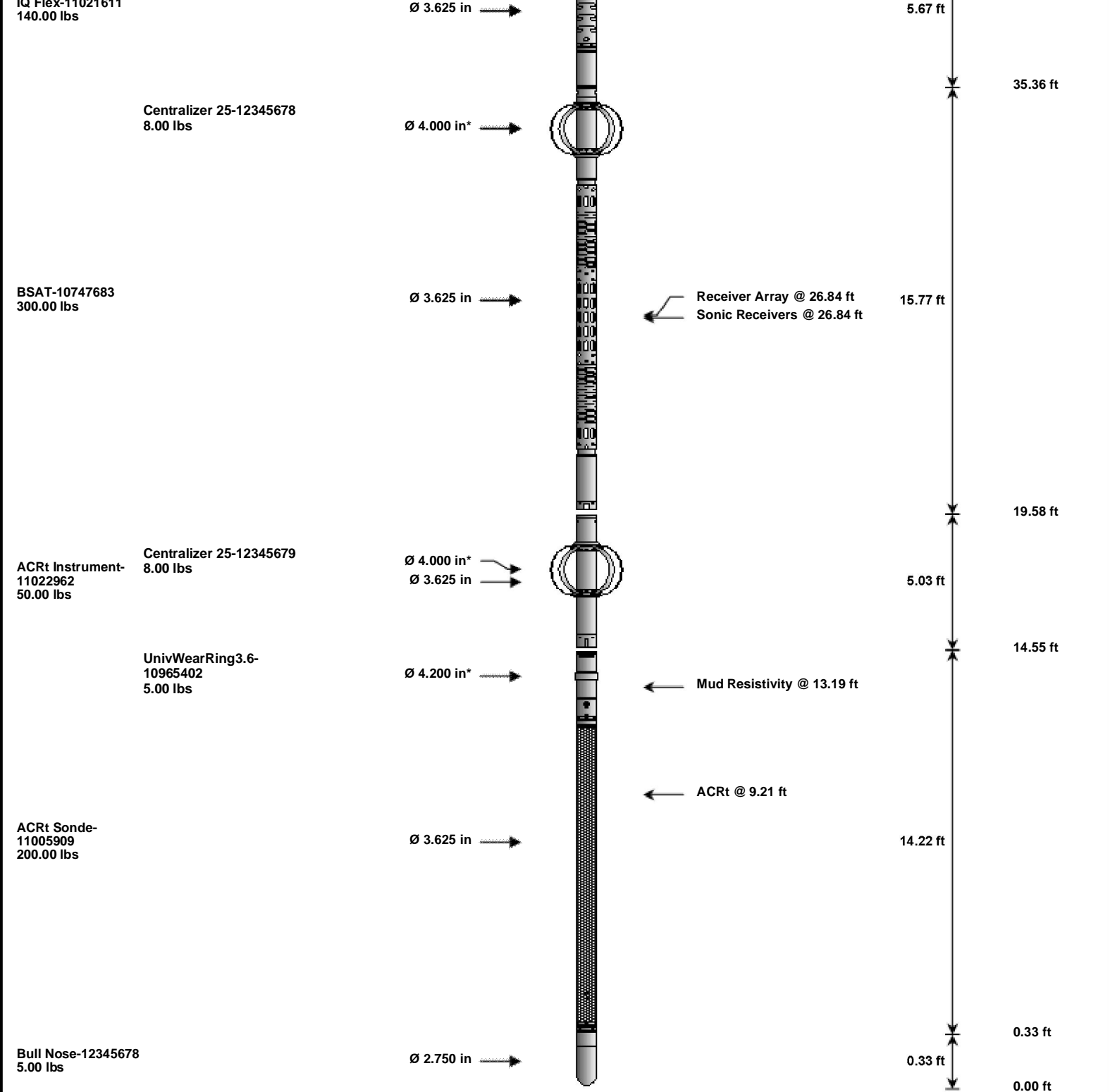
5 INCH REPEAT LOG

REPEAT 5" PER 100'

HALLIBURTON

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 @ 76.74 ft	2.50 ft	77.24 ft
XOHD-11572809 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	74.74 ft
SP Sub-11441455 60.00 lbs		Ø 3.625 in →		← SP @ 72.01 ft	3.74 ft	73.79 ft
				← Z-Accelerometer @ 69.60 ft		70.05 ft
GTET-11048627 165.00 lbs		Ø 3.625 in →			8.52 ft	
				← GammaRay @ 63.99 ft		61.53 ft
DSNT-11055304 174.00 lbs	DSN Decentralizer- 11055304 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 54.59 ft ← DSN Near @ 53.84 ft	9.69 ft	
						51.84 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 @ 44.03 ft SDL Caliper @ 43.84 ft SDL @ 43.83 ft	10.81 ft	
						41.03 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	74.74	300.00
XOHD	Hostile to Dits Cross Over	11572809	20.00	0.95	73.79	300.00
SP	SP Sub	11441455	60.00	3.74	70.05	300.00
GTET	Gamma Telemetry Tool	11048627	165.00	8.52	61.53	60.00
DSNT	Dual Spaced Neutron	11055304	174.00	9.69	51.84	60.00
DCNT	DSN Decentralizer	11055304	6.60	5.13	* 55.17	300.00
SDLT	Spectral Density Tool	10960494	360.00	10.81	41.03	60.00
SDLP	Density Insite Pad	10844781	65.00	2.55	* 43.24	60.00
Cs137	Logging Source, SDLT-I, 1.78 Ci - Cs137	00005168	1.00	0.80	* 43.47	300.00
MICP	Microlog Pad	10960494	8.00	1.00	* 43.53	60.00
IQF	IQ Flex tool	11021611	140.00	5.67	35.36	300.00
BSAT	Borehole Sonic Array Tool	10747683	300.00	15.77	19.58	60.00
OBCEN	Centralizer - 25 in. Overbody	12345678	8.00	2.08	* 32.79	300.00
ACRt	Array Compensated True Resistivity Instrument Section	11022962	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	11005909	200.00	14.22	0.33	120.00
UWR3P6	Universal Wear Ring 3 5-8 inch	10965402	5.00	0.35	* 13.40	300.00
BLNS	Bull Nose	12345678	5.00	0.33	0.00	300.00

Total	1,613.10	77.24
* Not included in Total Length and Length Accumulation.		
Data: CLARK_13-24\0002 GTET-DSNT-SDLT-BSAT-ACRT\002 20-Oct-17 18:29 Up @7520.0f	Date: 20-Oct-17 18:37:17	



PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
2500.00	SHARED	BS	Bit Size	12.250	in
	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	1.408	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	7500.00	ft
	SHARED	BHT	Bottom Hole Temperature	152.0	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	1.29	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	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	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	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: CLARK_13-24\0002 GTET-DSNT-SDLT-BSAT-ACRTIDLE			Date: 20-Oct-17 18:46:55	

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:

GTET - 11048627

Engineer:

WHITLOCK

Software Version:

WL INSITE R5.0.5 (Build 8)

Reference Calibration Date:

20-Aug-17 14:02:22

Calibration Date:

21-Sep-17 09:43:40

Calibration Version:

1

Calibrator Source S/N: TB-146

Calibrator API Reference:265.00 api

Equivalent Calibrator API Reference:269.6 api

Measurement	Measured	Calibrated	Units
Background	29.7	29.3	api
Background + Calibrator	303.0	299.0	api
Calibrator	273.2	269.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:

GTET - 11048627

Engineer:

JORGE ORLANDO PEREZ

Software Version:

WL INSITE R5.0.5 (Build 8)

Reference Calibration Date:

21-Sep-17 09:43:40

Calibration Date:

19-Oct-17 09:44:29

Calibration Version:

1

Field Verification	Shop	Field	Units
Background	29.3	26.5	api
Background + Calibrator	299.0	298.4	api
Calibrator	269.6	271.9	api

Shop	Field	Difference	Tolerance
269.6	271.9	-2.3	+/- 9.00

DENSITY CALIPER SHOP CALIBRATION

Tool Name:	SDLT - 10960494	Reference Calibration Date:	20-Aug-17 12:41:21
Engineer:	T. HARRIS	Calibration Date:	20-Aug-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:	20-Aug-17 12:48:22
Engineer:	JORGE ORLANDO PEREZ	Calibration Date:	19-Oct-17 12:50:40
Software Version:	WL INSITE R5.0.5 (Build 8)	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

MICRO LOG SHOP CALIBRATION						
Tool Name:	Microlog Pad - 10960494			Reference Calibration Date:	04-Oct-16 14:39:47	
Engineer:	T. HARRIS			Calibration Date:	20-Aug-17 12:57:45	
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	-0.10	-0.09	-0.00	0.00	ohmm
	Calibration Point #1	-0.02	0.00	-0.00	0.00	ohmm
	Calibration Point #2	20.43	20.00	19.95	20.00	ohmm
	Internal Reference	20.42	19.99	20.25	20.30	ohmm
	Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units
	Tool Zero	0.08		0.36		V
	Calibration Point #1	22.98		0.30		V
Calibration Point #2	5373.30		6830.18		V	
Internal Reference	5369.77		6931.81		V	
MICRO LOG FIELD CHECK						
Tool Name:	Microlog Pad - 10960494			Reference Calibration Date:	20-Aug-17 12:57:45	
Engineer:	JORGE ORLANDO PEREZ			Calibration Date:	19-Oct-17 09:58:20	
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	-0.09	-0.09	0.00	0.00	ohmm
	Internal Reference	19.99	19.80	20.30	20.20	ohmm
	Summary					
	Signal	Shop	Field	Difference	Tolerance	
	Microlog Normal	19.99	19.80	0.19	+/- 0.80	
	Microlog Lateral	20.30	20.20	0.10	+/- 0.80	
CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11048627						
Gamma Ray Calibrator	269.6	271.9	-----	-2.3	+/- 9.00	api
SDLT-10960494						
Pad Extension	3.75	3.75	-----	0.00	+/-0.10	in
Ring Diameter	8.25	8.25	-----	0.00	+/-0.15	in
Microlog Pad-10960494						
MicroLog Normal	19.99	19.80	-----	0.19	+/-0.80	ohmm
MicroLog Lateral	20.30	20.20	-----	0.10	+/-0.80	ohmm
Data: CLARK_13-24\0001 GTET-DSNT-SDLT-BSAT-ACRTIDLE					Date: 20-Oct-17 13:49:20	
HALLIBURTON						
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	77.24	NO	
BS	Bit Size	77.24	NO	
HDIA	Measured Hole Diameter	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
HDIA	Measured Hole Diameter	0.00	NO	
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	
HDIA	Measured Hole Diameter	0.00	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

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	
Microlog Pad				
TPUL	Tension Pull	44.03	NO	
MINV	Microlog Lateral	44.03	BLK	0.750
MNOR	Microlog Normal	44.03	BLK	0.750
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
NDAH	Near Density Histogram	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	
HDIA	Measured Hole Diameter	0.00	NO	
Data: CLARK_13-24\0001 GTET-DSNT-SDLT-BSAT-ACRTVDLE			Date: 20-Oct-17 18:47:19	

COMPANY	K3 OIL & GAS OPERATING COMPANY		
WELL	CLARK 13-24		
FIELD	WILDCAT		
COUNTY	LINCOLN	STATE	COLORADO
HALLIBURTON		MICROLOG	