

MICROLOG

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Service Ticket No.: 903643500				API No.: 15-175-22250-00-00		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.		@			@									
Rmc @ Meas. Temp.		@			@									
Source Rmf	Rmc													
Rm @ BHT		@			@									
Rmf @ BHT		@			@									
Rmc @ BHT		@			@									
EQUIPMENT DATA														
GAMMA			ACOUSTIC			DENSITY			NEUTRON					
Run No.				Run No.				Run No.						
Serial No.				Serial No.				Serial No.						
Model No.				Model No.				Model No.						
Diameter				No. of Cent.				Diameter						
Detector Model No.				Spacing				Log Type						
Type								Source Type						
Length				LSA [Y/N]				Serial No.						
Distance to Source				FWDA [Y/N]				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	

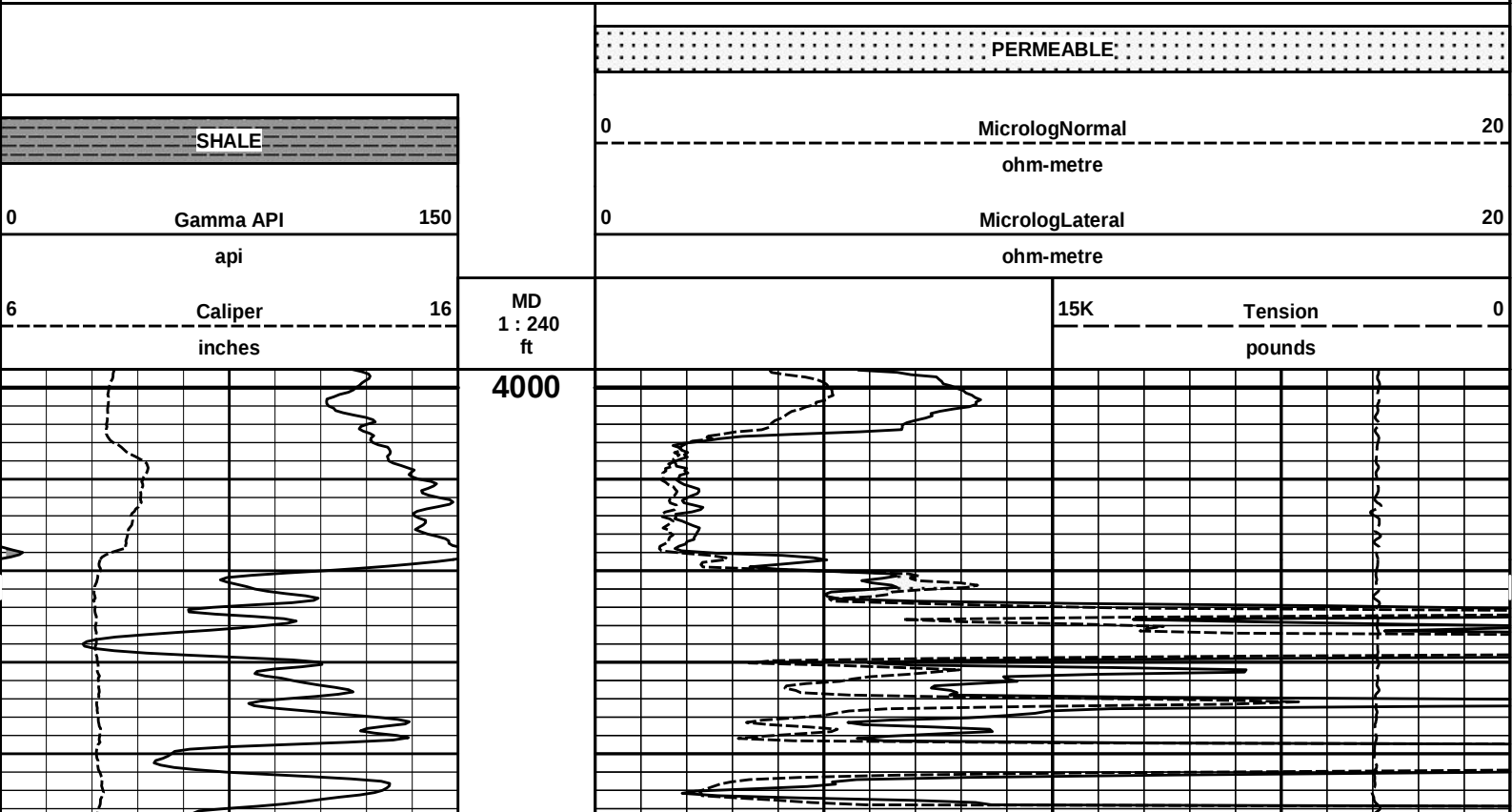
[illegible]

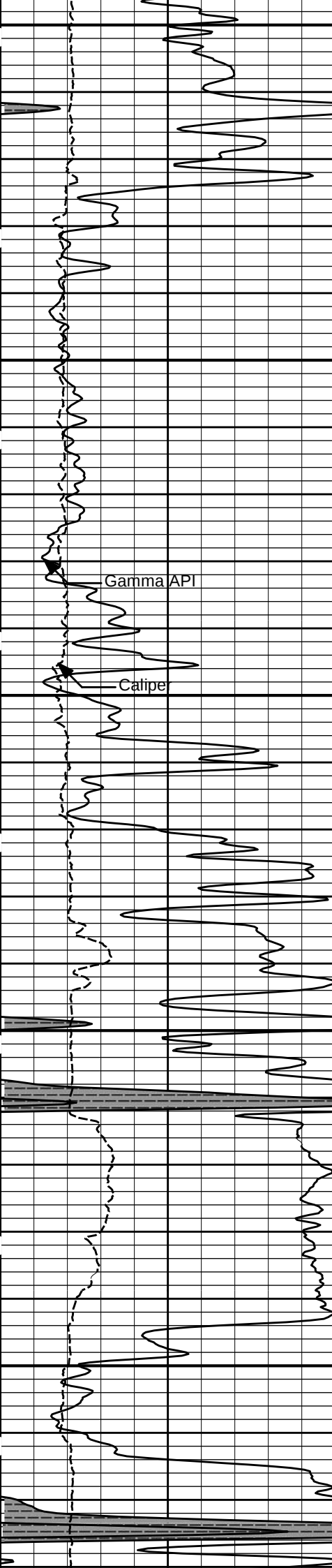
HALLIBURTON

Plot Time: 17-Nov-16 13:17:27
Plot Range: 3998 ft to 6145.92 ft
Data: ROCK_1-23\Well Based\DETAILS\
Plot File: \\-LOCAL-\\ROCK_1-23\Well Based\MICROLOG\Microlog_IQ_5_main.lib

5 INCH MAIN LOG

MEASURED DEPTH
MAIN LOG 5" PER 100'



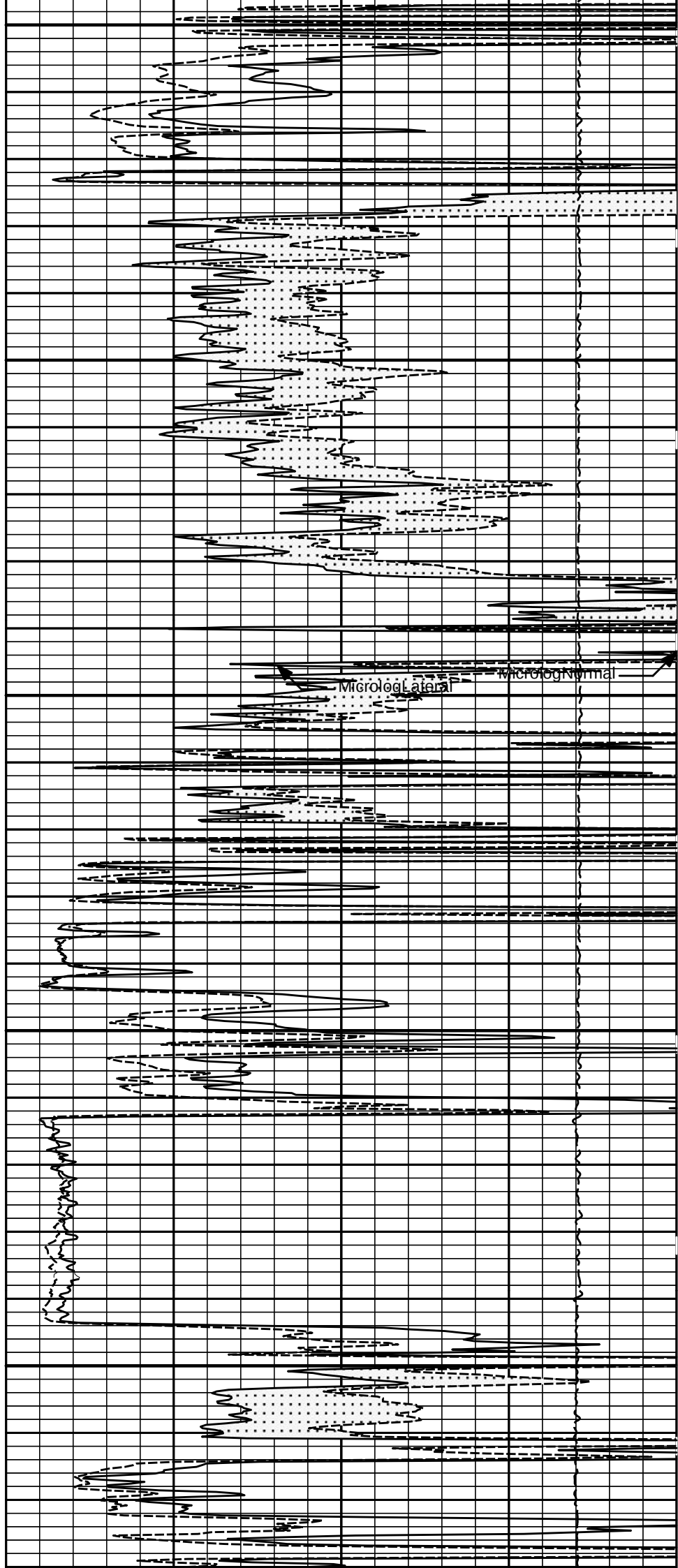


4100

Gamma API

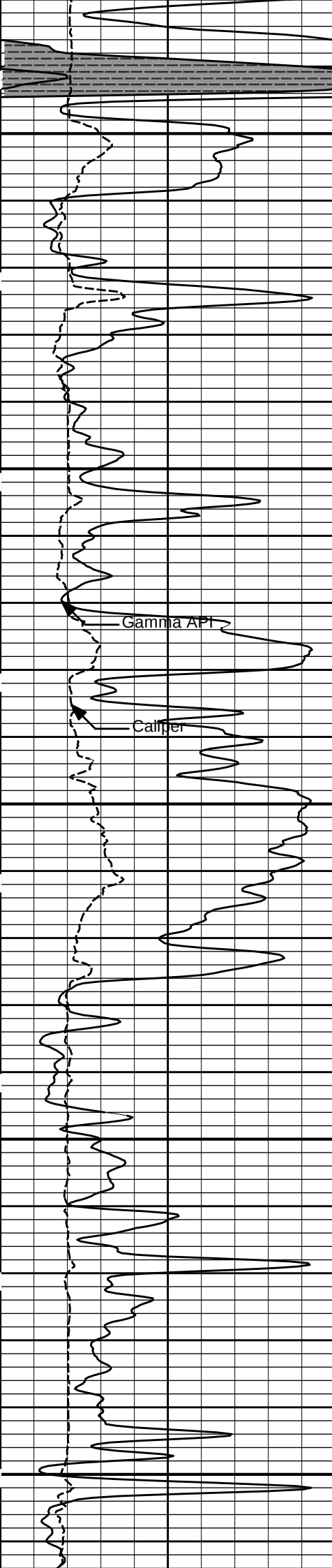
Calipe

4200



Microlog Lateral

Microlog Normal



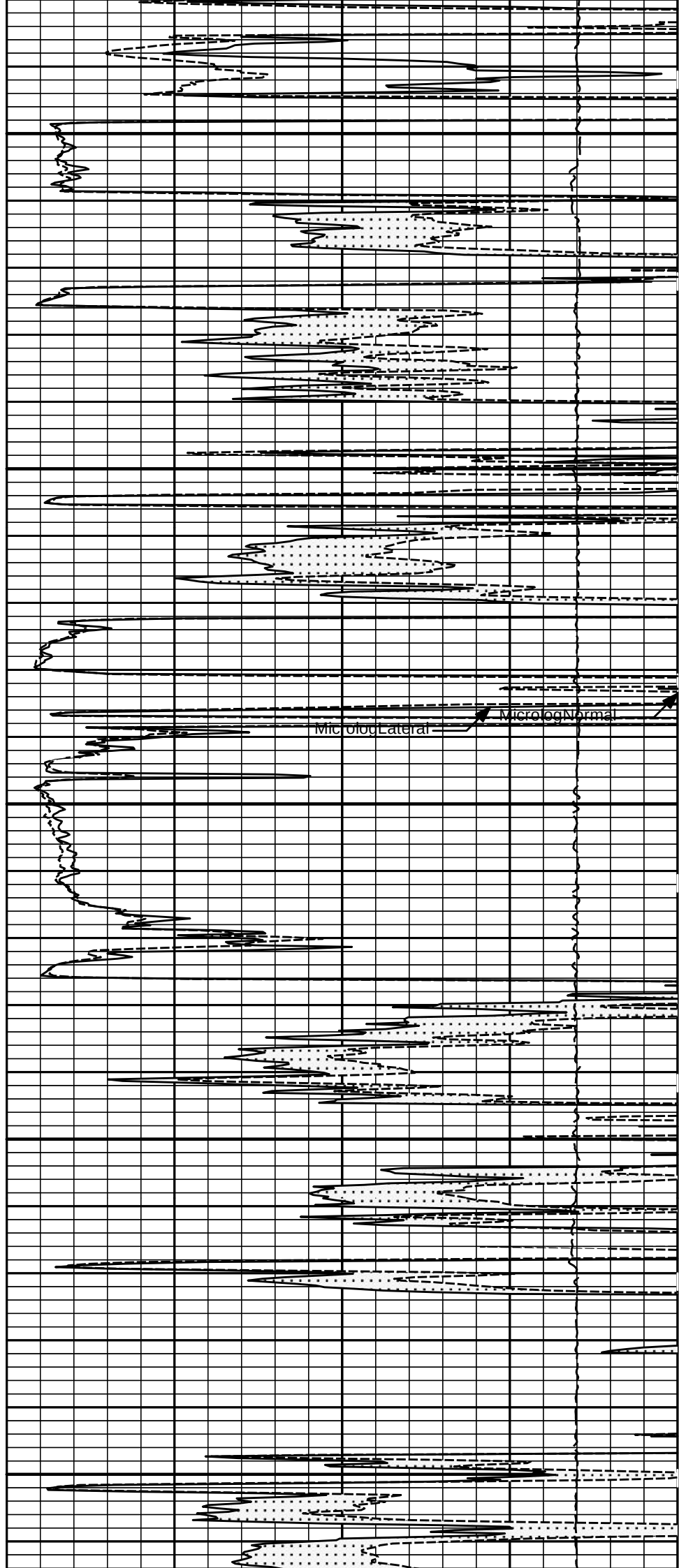
4300

Gamma API

Caliper

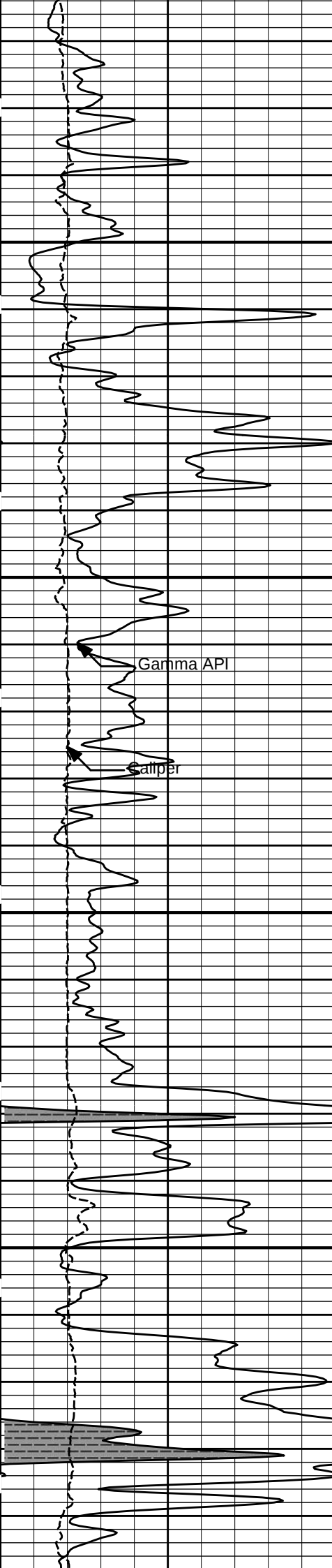
4400

4500



Microlog Lateral

Microlog Normal

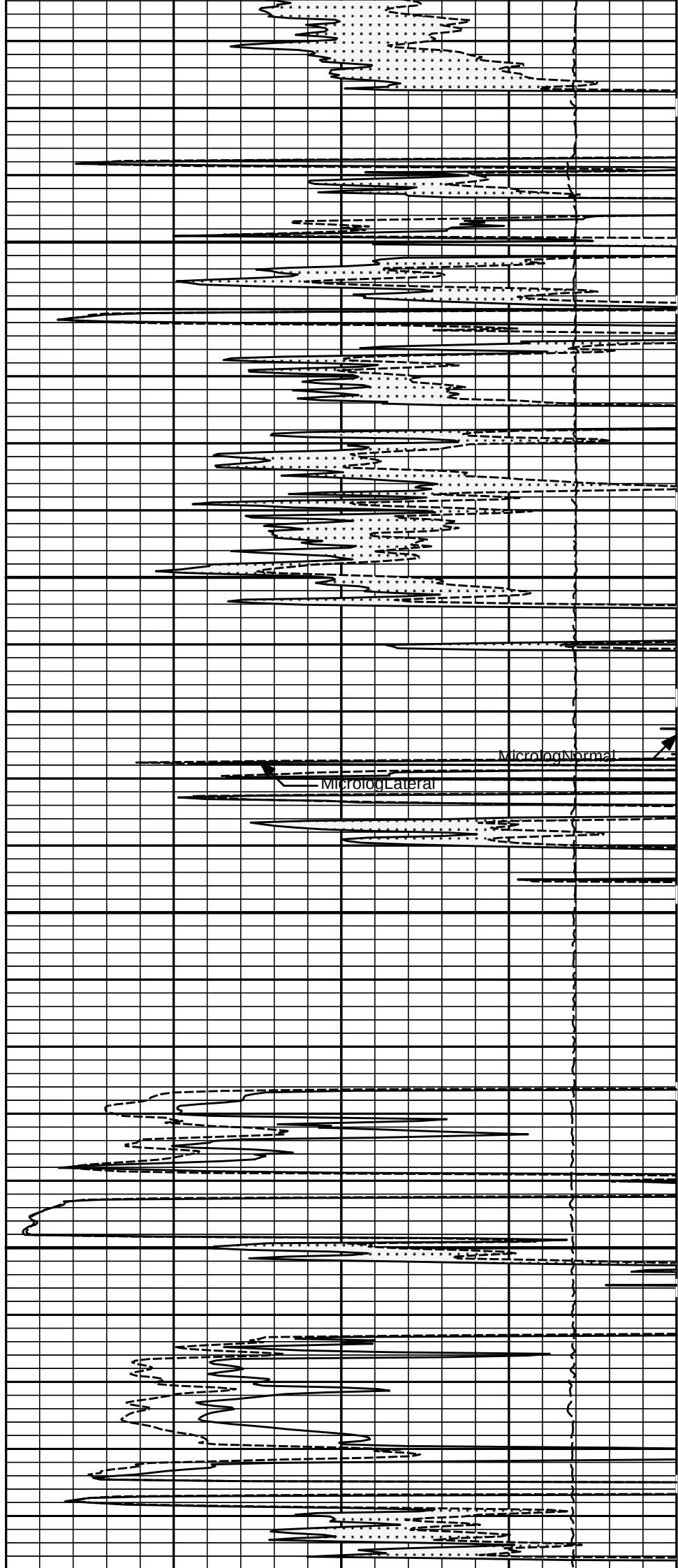


4600

Gamma API

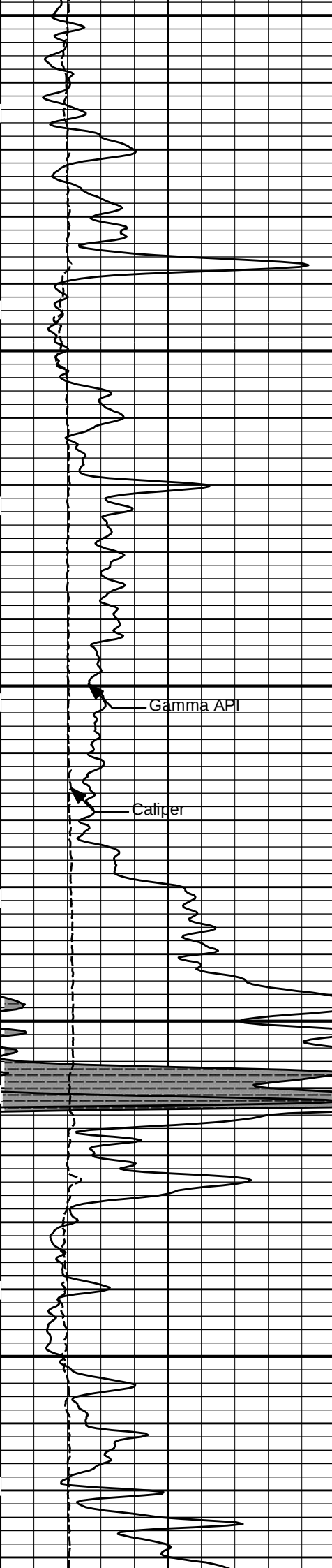
Caliper

4700



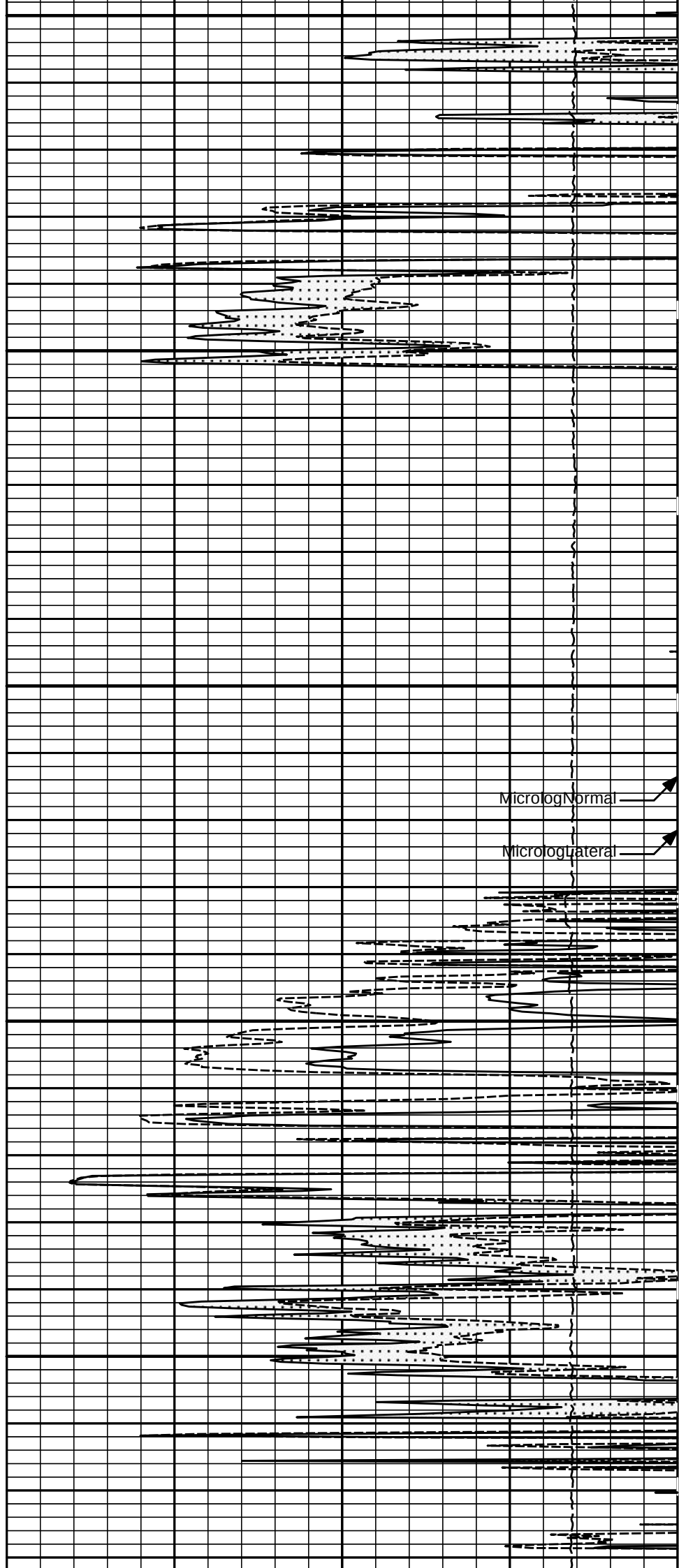
MicrologNormal

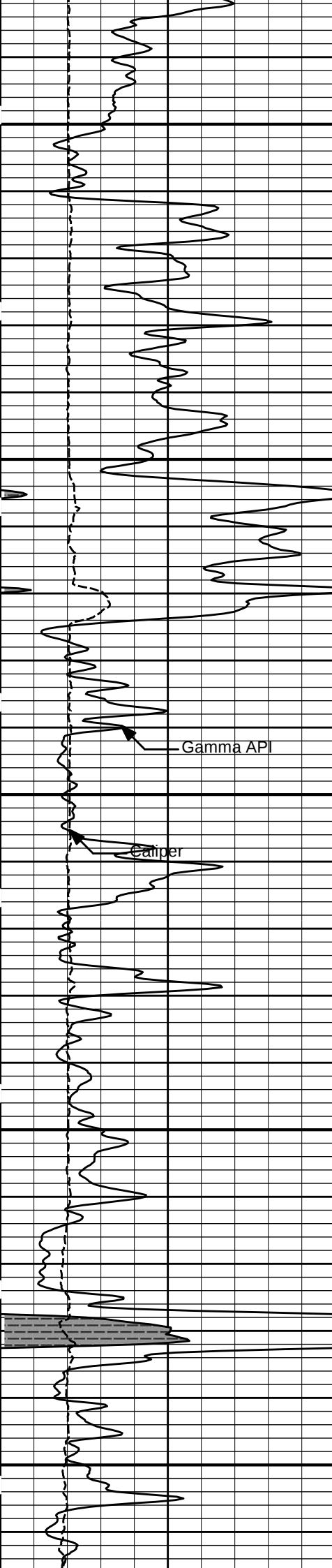
MicrologLateral



4800

4900





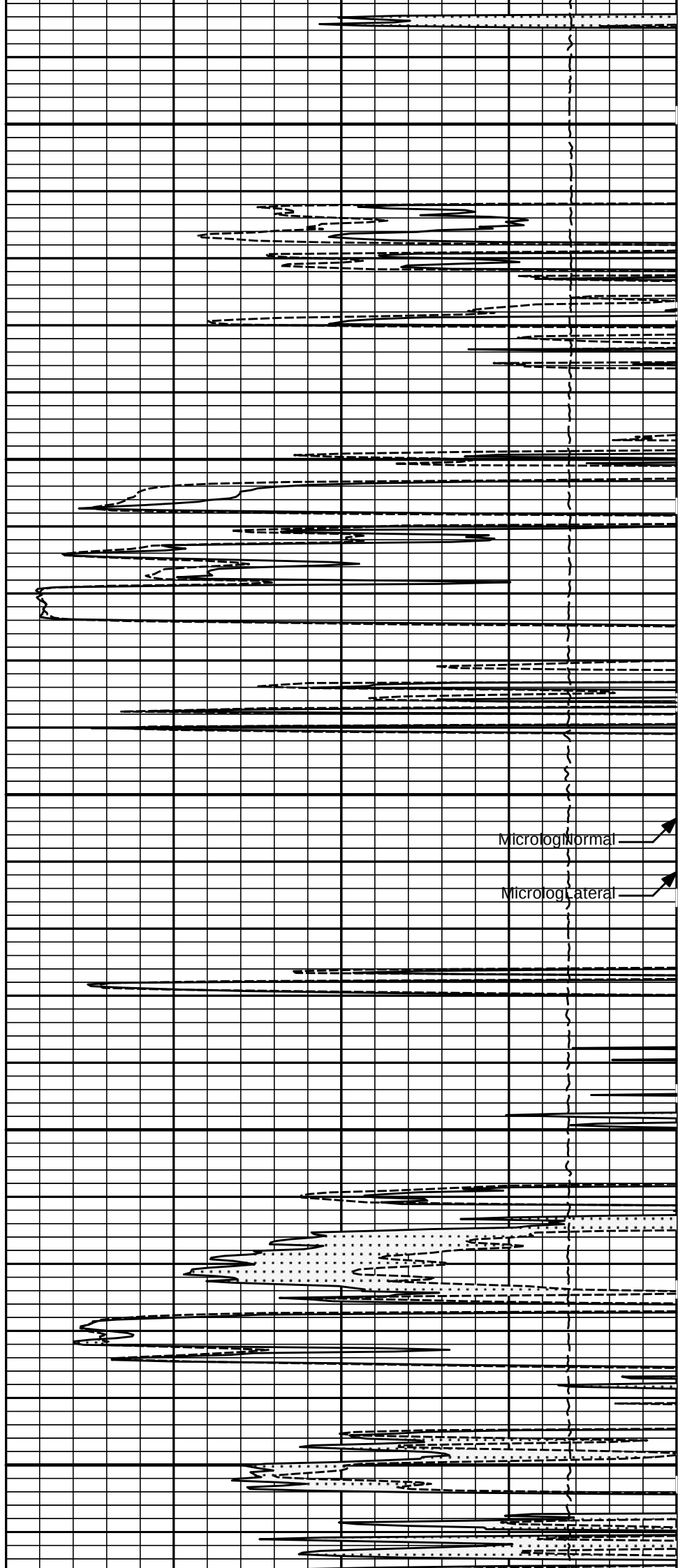
5000

5100

5200

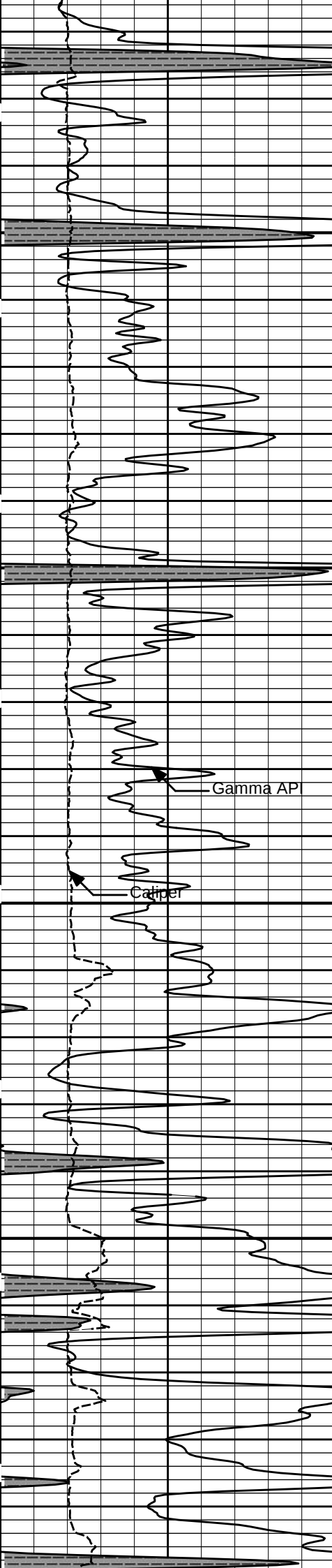
Gamma API

Caliper



Microlog Normal

Microlog Lateral

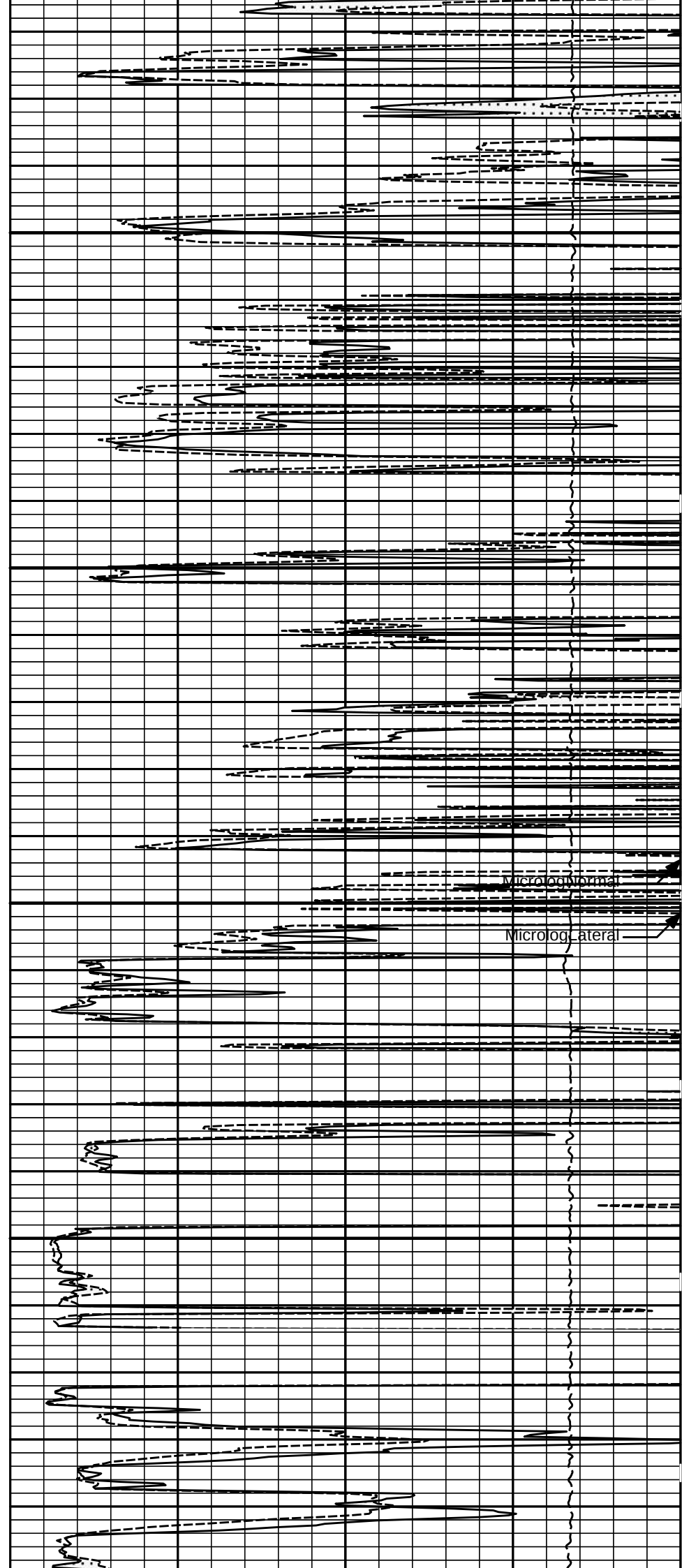


5300

Gamma AP

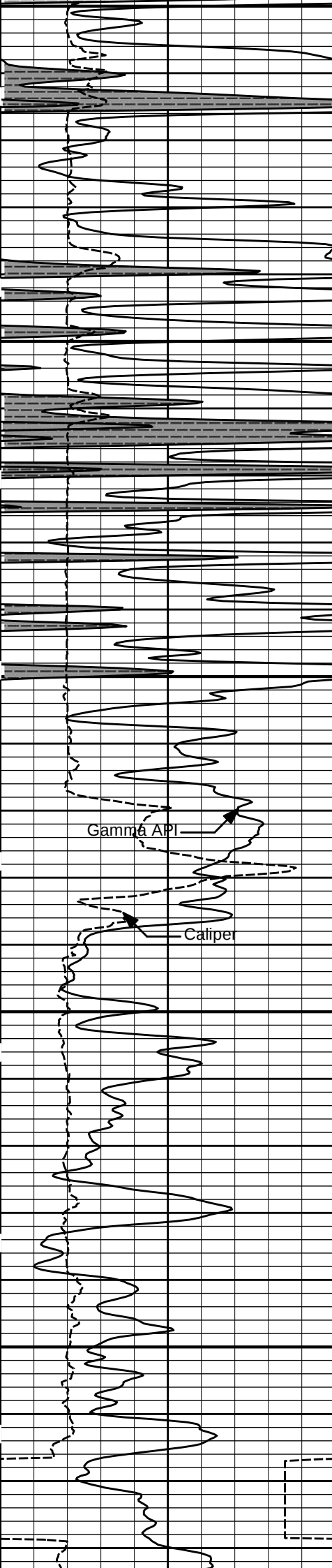
Caliper

5400



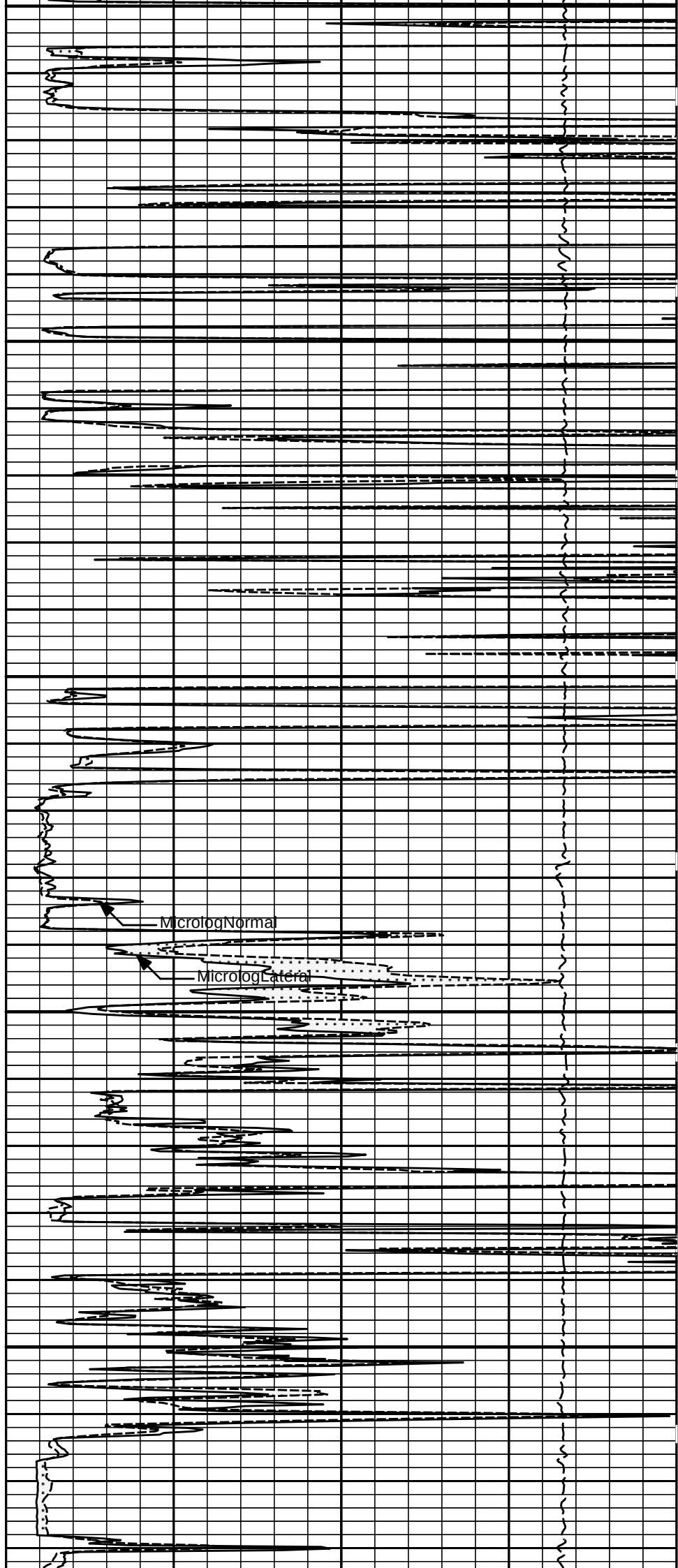
Microlog Normal

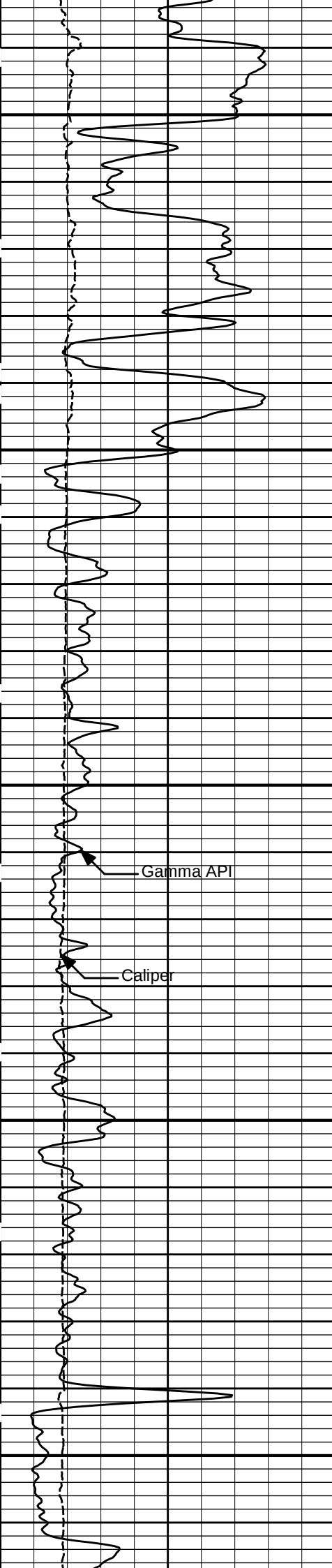
Microlog Lateral



5500

5600





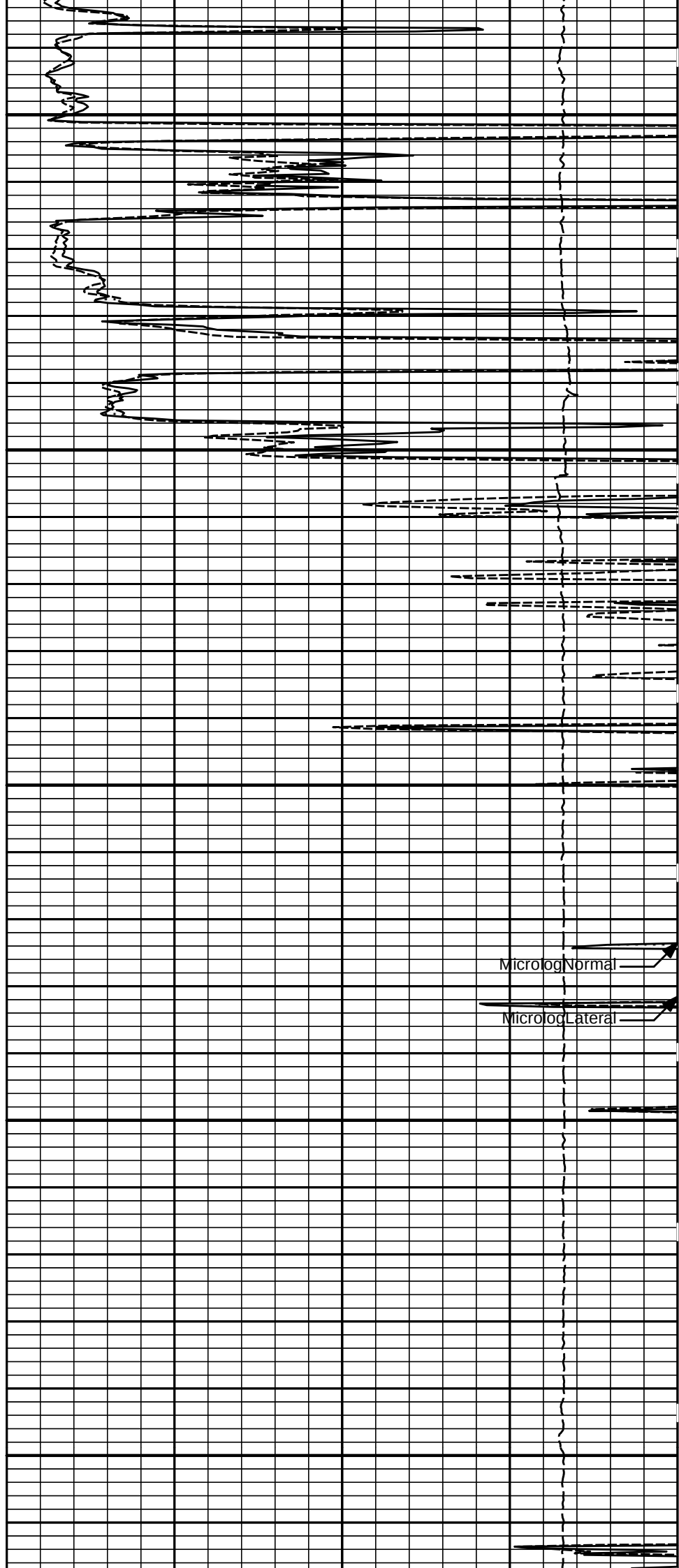
5700

5800

5900

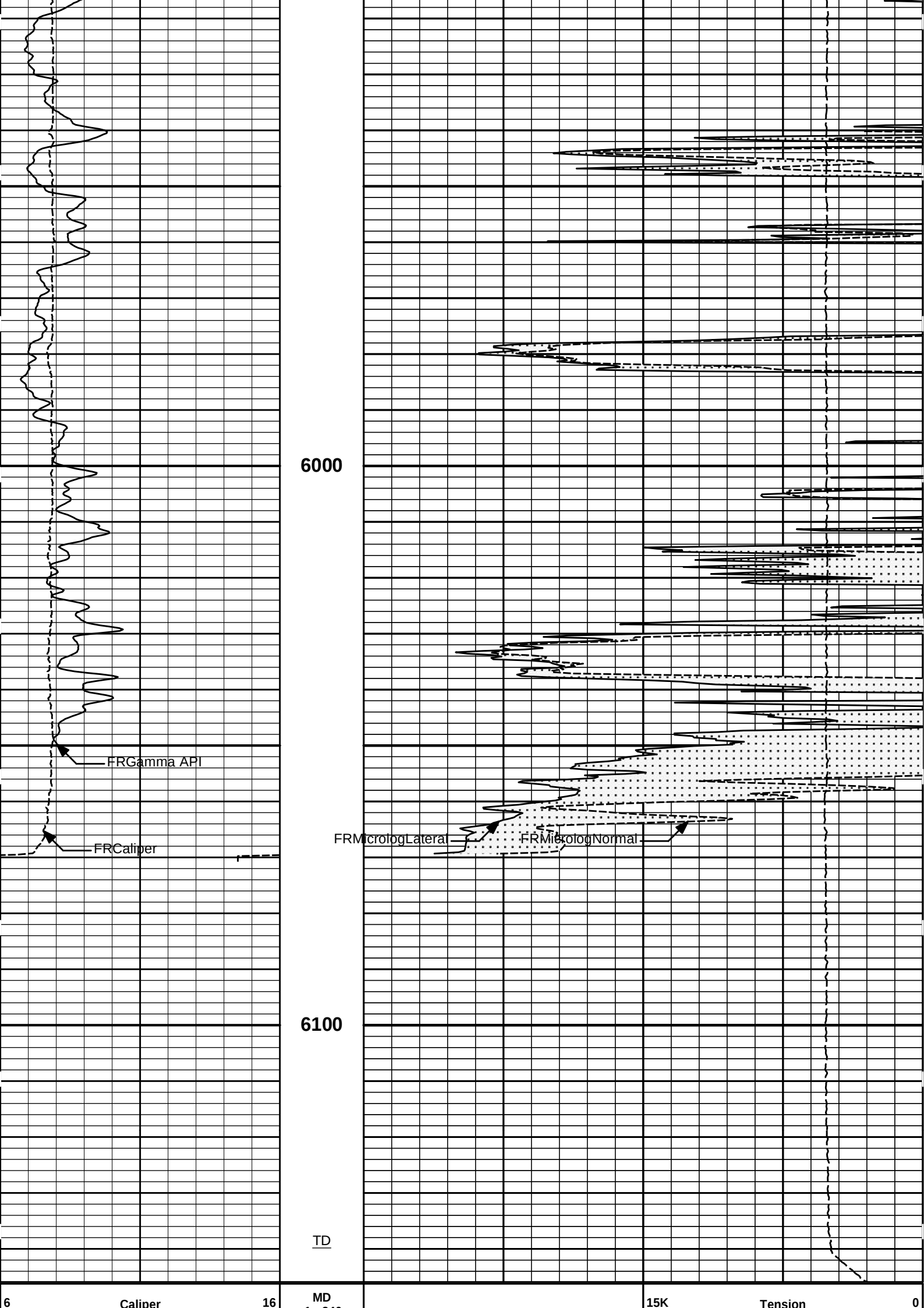
Gamma API

Caliper



Microlog Normal

Microlog Lateral



inches		1 : 240 ft		pounds		
0	Gamma API	150		0	MicrologLateral	20
api				ohm-metre		
SHALE				0	MicrologNormal	20
				ohm-metre		
				PERMEABLE:		

HALLIBURTON

Plot Time: 17-Nov-16 13:17:29
Plot Range: 3998 ft to 6145.92 ft
Data: ROCK_1-23\Well Based\DETAILS\
Plot File: \\LOCAL-1\ROCK_1-23\Well Based\MICROLOG\Microlog_IQ_5_main_lib

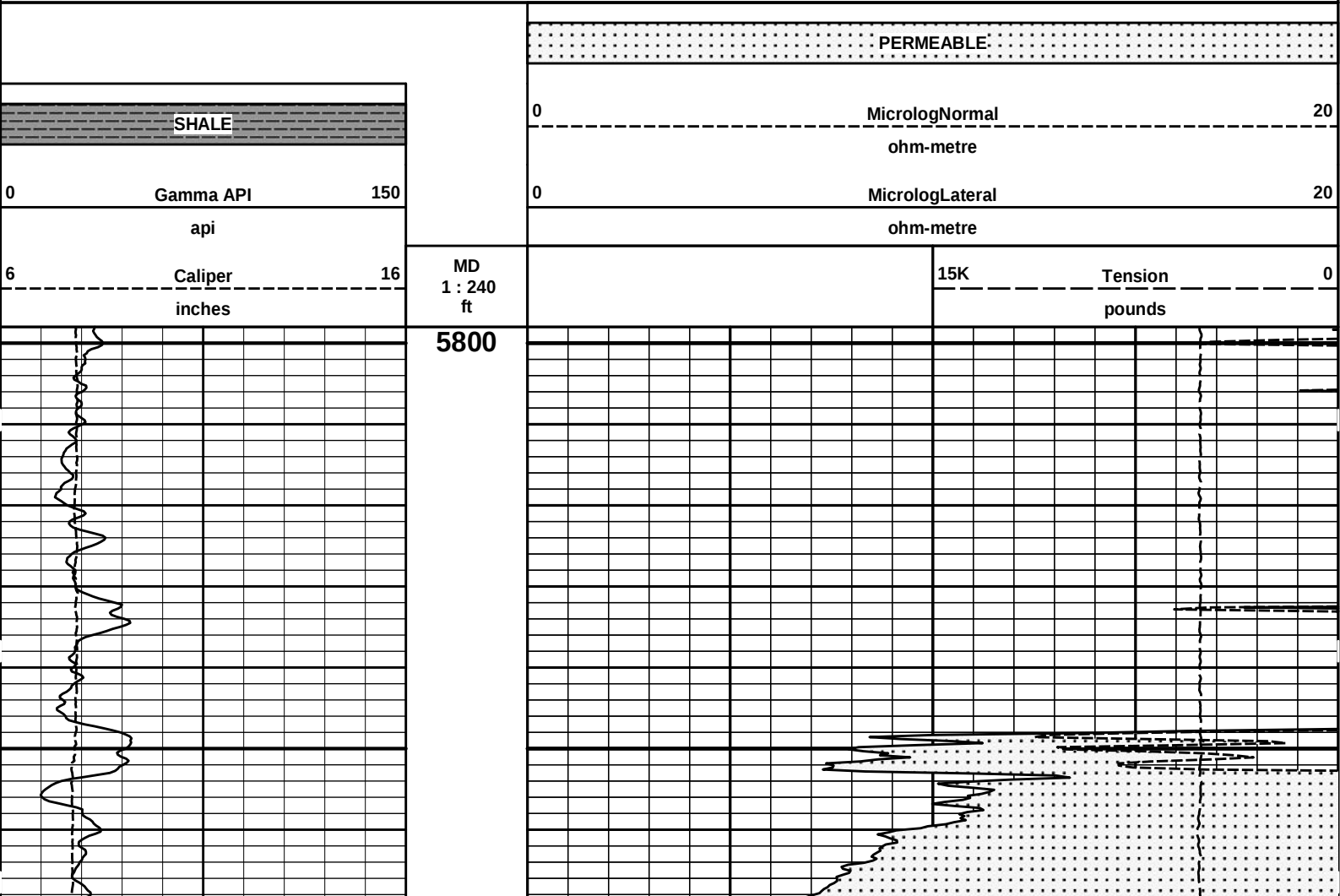
5 INCH MAIN LOG

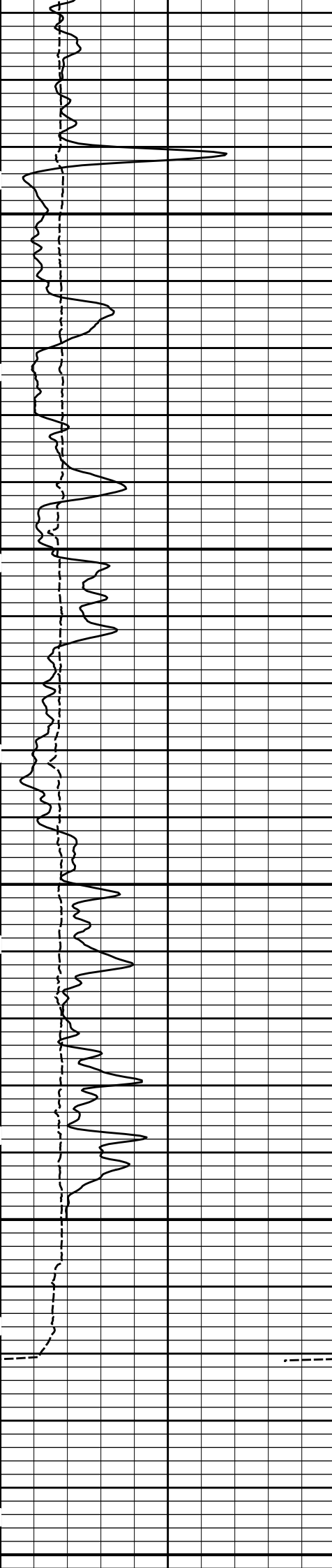
MEASURED DEPTH
MAIN LOG 5" PER 100'

HALLIBURTON

Plot Time: 17-Nov-16 13:17:29
Plot Range: 5798 ft to 6146.08 ft
Data: ROCK_1-23\Well Based\REPEAT\
Plot File: \\LOCAL-1\ROCK_1-23\Well Based\MICROLOG\Microlog_IQ_5_rep_lib

REPEAT SECTION

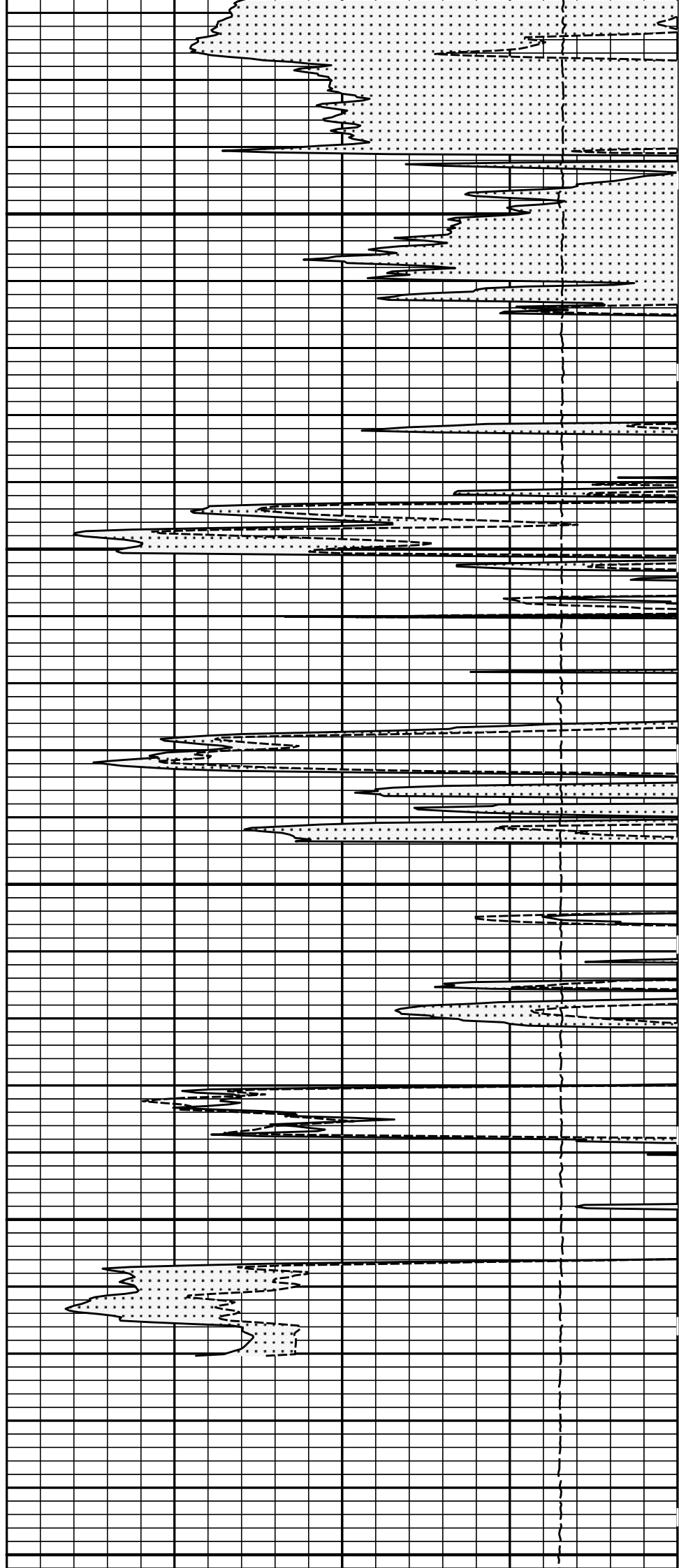




5900

6000

6100



6	Caliper	16	MD 1 : 240 ft		15K	Tension	0	
	inches					pounds		
0	Gamma API	150		0	MicrologLateral			20
	api			ohm-metre				
	SHALE			0	MicrologNormal			20
				ohm-metre				
				PERMEABLE				

Plot Time: 17-Nov-16 13:17:30
Plot Range: 5798 ft to 6146.08 ft
Data: ROCK_1-23\Well Based\REPEAT\
Plot File: \\LOCAL-1\ROCK_1-23\Well Based\MICROLOG\Microlog_IQ_5_rep.lib

REPEAT SECTION

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 11013114	Reference Calibration Date:	04-Oct-16 13:37:27
Engineer:	MICHAEL RICHTER	Calibration Date:	06-Nov-16 09:30:14
are Version:	WL INSITE R5.0.5 (Build 8)	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	33.3	32.5	api
Background + Calibrator	309.8	302.1	api
Calibrator	276.5	269.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	GTET - 11013114	Reference Calibration Date:	06-Nov-16 09:30:14
Engineer:	MICHAEL RICHTER	Calibration Date:	06-Nov-16 09:43:46
ware Version:	WL INSITE R5.0.5 (Build 8)	Calibration Version:	1

Calibrator Source S/N: TB-146
Calibrator API Reference:265.00 api
Equivalent Calibrator API Reference:269.6 api

Field Verification	Shop	Field	Units
Background	32.5	33.0	api
Background + Calibrator	302.1	304.9	api
Calibrator	269.6	271.8	api

CALIBRATION COEFFICIENT SUMMARY

Measurement		Micro Log Normal		Micro Log Lateral		Units
		Measured	Calibrated	Measured	Calibrated	
Tool Zero		-0.74	-0.12	-0.01	-0.00	ohmm
Calibration Point #1		-0.62	0.00	-0.01	0.00	ohmm
Calibration Point #2		19.57	20.00	19.82	20.00	ohmm
Internal Reference		19.88	20.31	19.98	20.17	ohmm

Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units
Tool Zero	0.26		0.65		V
Calibration Point #1	30.91		1.99		V
Calibration Point #2	5266.14		6948.00		V
Internal Reference	5346.57		7006.00		V

MICRO LOG FIELD CHECK

Tool Name: Microlog Pad - 10950489

Reference Calibration Date: 06-Nov-16 09:56:20

Engineer: MICHAEL RICHTER

Calibration Date: 06-Nov-16 10:01:29

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	-0.12	-0.11	-0.00	-0.00	ohmm
Internal Reference	20.31	20.30	20.17	20.16	ohmm

Summary				
Signal	Shop	Field	Difference	Tolerance
Microlog Normal	20.31	20.30	0.01	+/- 0.80
Microlog Lateral	20.17	20.16	0.01	+/- 0.80

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11013114						
Gamma Ray Calibrator	269.6	271.8	-----	-2.2	+/- 9.00	api
SDLT-10950489						
Pad Extension	3.75	3.80	-----	-0.05	+/-0.10	in
Ring Diameter	8.25	8.27	-----	-0.02	+/-0.15	in
Microlog Pad-10950489						
MicroLog Normal	20.31	20.30	-----	0.01	+/-0.80	ohmm
MicroLog Lateral	20.17	20.16	-----	0.01	+/-0.80	ohmm

Data: ROCK_1-23\0001 GTET-DSN-SDL-BSAT-XRMI-ACRT\IDLE

Date: 16-Nov-16 17:02:33

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	108.90	NO	
BS	Bit Size	108.90	NO	
HDIA	Measured Hole Diameter	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000

SP Sub				
PLTC	Plot Control Mask	103.14	NO	
SP	Spontaneous Potential	103.14	BLK	1.250
SPR	Raw Spontaneous Potential	103.14	NO	
SPO	Spontaneous Potential Offset	103.14	NO	
GTET				
TPUL	Tension Pull	95.12	NO	
GR	Natural Gamma Ray API	95.12	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	95.12	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	95.12	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	84.87	NO	
RNDS	Near Detector Telemetry Counts	84.97	BLK	1.417
RFDS	Far Detector Telemetry Counts	85.72	TRI	0.583
DNTT	DSN Tool Temperature	84.97	NO	
DSNS	DSN Tool Status	84.87	NO	
ERND	Near Detector Telemetry Counts EVR	84.97	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	85.72	BLK	0.000
ENTM	DSN Tool Temperature EVR	84.97	NO	
HDIA	Measured Hole Diameter	0.00	NO	
SDLT				
TPUL	Tension Pull	74.97	NO	
PCAL	Pad Caliper	74.97	TRI	0.250
ACAL	Arm Caliper	74.97	TRI	0.250
BSAT				
TPUL	Tension Pull	57.97	NO	
STAT	Status	57.97	NO	
DLYT	Delay Time	57.97	NO	
SI	Sample Interval	57.97	NO	
TXRX	Raw Telemetry 10 Receivers	57.97	NO	
FRMC	Tool Frame Count	57.97	NO	
GMOD	Gain processing mode	50.71	NO	
XRMI-I Mandrel				
TPUL	Tension Pull	28.02	NO	
PAD1	XRMI Pad 1 values	27.79	NO	
PAD2	XRMI Pad 2 values	27.79	NO	
PAD3	XRMI Pad 3 values	27.79	NO	
PAD4	XRMI Pad 4 values	27.79	NO	
PAD5	XRMI Pad 5 values	27.79	NO	
PAD6	XRMI Pad 6 values	27.79	NO	
OD1	EMI Odd Button Values Pad 1	27.79	NO	
OD2	EMI Odd Button Values Pad 2	28.02	NO	
OD3	EMI Odd Button Values Pad 3	27.79	NO	
OD4	EMI Odd Button Values Pad 4	28.02	NO	
OD5	EMI Odd Button Values Pad 5	27.79	NO	
OD6	EMI Odd Button Values Pad 6	28.02	NO	
EV1	EMI Even Button Values Pad 1	27.81	NO	
EV2	EMI Even Button Values Pad 2	27.99	NO	
EV3	EMI Even Button Values Pad 3	27.81	NO	
EV4	EMI Even Button Values Pad 4	27.99	NO	
EV5	EMI Even Button Values Pad 5	27.81	NO	

EV6	EMI Even Button Values Pad 6	27.99	NO	
ITMP	Instrument Temperature	25.25	NO	
EMIM	Tool Mode	25.25	NO	
HAZI	Hole Azimuth	27.54	NO	
HAZD	Hole Azimuth - Down Delay	28.04	NO	
ACCZ	Accelerometer Z	27.79	NO	
RB	Relative Bearing	27.54	NO	
RBD	Relative Bearing Down	28.04	NO	
TPUL	Tension Pull	28.02	NO	
FIR1	Current Button R - Pad 1	27.79	NO	
FIR2	Current Button R - Pad 2	28.02	NO	
FIR3	Current Button R - Pad 3	27.79	NO	
FIR4	Current Button R - Pad 4	28.02	NO	
FIR5	Current Button R - Pad 5	27.79	NO	
FIR6	Current Button R - Pad 6	28.02	NO	
FIX1	Current Button X - Pad 1	27.79	NO	
FIX2	Current Button X - Pad 2	28.02	NO	
FIX3	Current Button X - Pad 3	27.79	NO	
FIX4	Current Button X - Pad 4	28.02	NO	
FIX5	Current Button X - Pad 5	27.79	NO	
FIX6	Current Button X - Pad 6	28.02	NO	
SIR1	Current Slow Button R - Pad 1	27.79	BLK	3.000
SIR2	Current Slow Button R - Pad 2	28.02	BLK	3.000
SIR3	Current Slow Button R - Pad 3	27.79	BLK	3.000
SIR4	Current Slow Button R - Pad 4	28.02	BLK	3.000
SIR5	Current Slow Button R - Pad 5	27.79	BLK	3.000
SIR6	Current Slow Button R - Pad 6	28.02	BLK	3.000
SIX1	Current Slow Button X - Pad 1	27.79	BLK	3.000
SIX2	Current Slow Button X - Pad 2	28.02	BLK	3.000
SIX3	Current Slow Button X - Pad 3	27.79	BLK	3.000
SIX4	Current Slow Button X - Pad 4	28.02	BLK	3.000
SIX5	Current Slow Button X - Pad 5	27.79	BLK	3.000
SIX6	Current Slow Button X - Pad 6	28.02	BLK	3.000
EMMR	Phasor Voltage - Real Part	27.79	NO	
EMMX	Phasor Voltage - Imaginary Part	27.79	NO	
PADV	Pad Voltage	25.25	BLK	0.250
ITMP	Instrument Temperature	25.25	BLK	0.000
CON1	Conductivity Pad 1	27.79	BLK	3.000
CON2	Conductivity Pad 2	28.02	BLK	3.000
CON3	Conductivity Pad 3	27.79	BLK	3.000
CON4	Conductivity Pad 4	28.02	BLK	3.000
CON5	Conductivity Pad 5	27.79	BLK	3.000
CON6	Conductivity Pad 6	28.02	BLK	3.000
UIR2	Current Button R No Delay - Pad 2	27.79	NO	
UIR4	Current Button R No Delay - Pad 4	27.79	NO	
UIR6	Current Button R No Delay - Pad 6	27.79	NO	
UIX2	Current Button X No Delay - Pad 2	27.79	NO	
UIX4	Current Button X No Delay - Pad 4	27.79	NO	
UIX6	Current Button X No Delay - Pad 6	27.79	NO	
HDIA	Measured Hole Diameter	0.00	NO	
TPUL	Tension Pull	28.02	NO	
ARM1	Caliper 1 measurement	27.79	BLK	0.000
ARM2	Caliper 2 measurement	27.79	BLK	0.000
ARM3	Caliper 3 measurement	27.79	BLK	0.000
ARM4	Caliper 4 measurement	27.79	BLK	0.000
ARM5	Caliper 5 measurement	27.79	BLK	0.000
ARM6	Caliper 6 measurement	27.79	BLK	0.000
MOTV	Motor Voltage 1	27.79	BLK	0.000
PRES	Caliper percentage of total compression of the spring	25.25	BLK	0.000

HAZI	Hole Azimuth	27.79	NO	
RB	Relative Bearing	27.79	NO	
AZI1	PAD1 Azimuth	27.79	NO	
DEVI	Inclination	27.79	NO	
ACRt Sonde				
TPUL	Tension Pull	2.73	NO	
F1R1	ACRT 12KHz - 80in R value	8.98	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	8.98	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.48	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.48	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	4.98	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	4.98	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	3.98	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	3.98	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.48	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.48	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.23	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.23	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	8.98	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	8.98	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.48	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.48	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	4.98	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	4.98	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	3.98	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	3.98	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.48	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.48	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.23	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.23	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	8.98	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	8.98	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.48	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.48	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	4.98	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	4.98	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	3.98	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	3.98	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.48	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.48	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.23	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.23	BLK	0.000
RMUD	Mud Resistivity	12.52	BLK	0.000
F1RT	Transmitter 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	

HDIA	Measured Hole Diameter	0.00	NO		
Microlog Pad					
TPUL	Tension Pull	75.16	NO		
MINV	Microlog Lateral	75.16	BLK	0.750	
MNOR	Microlog Normal	75.16	BLK	0.750	
SDLT Pad					
TPUL	Tension Pull	74.96	NO		
NAB	Near Above	74.79	BLK	0.920	
NHI	Near Cesium High	74.79	BLK	0.920	
NLO	Near Cesium Low	74.79	BLK	0.920	
NVA	Near Valley	74.79	BLK	0.920	
NBA	Near Barite	74.79	BLK	0.920	
NDE	Near Density	74.79	BLK	0.920	
NPK	Near Peak	74.79	BLK	0.920	
NLI	Near Lithology	74.79	BLK	0.920	
NBAU	Near Barite Unfiltered	74.79	BLK	0.250	
NLIU	Near Lithology Unfiltered	74.79	BLK	0.250	
FAB	Far Above	75.14	BLK	0.250	
FHI	Far Cesium High	75.14	BLK	0.250	
FLO	Far Cesium Low	75.14	BLK	0.250	
FVA	Far Valley	75.14	BLK	0.250	
FBA	Far Barite	75.14	BLK	0.250	
FDE	Far Density	75.14	BLK	0.250	
FPK	Far Peak	75.14	BLK	0.250	
FLI	Far Lithology	75.14	BLK	0.250	
PTMP	Pad Temperature	74.97	BLK	0.920	
NHV	Near Detector High Voltage	74.37	NO		
FHV	Far Detector High Voltage	74.37	NO		
ITMP	Instrument Temperature	74.37	NO		
DDHV	Detector High Voltage	74.37	NO		
HDIA	Measured Hole Diameter	0.00	NO		
Data: ROCK_1-2310001 GTET-DSN-SDL-BSAT-XRMI-ACRT\IDLE			Date: 16-Nov-16 17:04:30		
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	8.900	ppg
	SHARED	WAGT	Weighting Agent	Natural	
	SHARED	BSAL	Borehole salinity	2500.00	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	6400.00	ft
	SHARED	BHT	Bottom Hole Temperature	135.0	degF
	SHARED	SVTM	Navigation and Survey Master Tool	XRMI-I Instrument	
	SHARED	AZTM	High Res Z Accelerometer Master Tool	XRMI-I Instrument	

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	XRMI-I Mandrel	
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	XRMI-I Mandrel	
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	XRMI-I Mandrel	
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	Wyllie	
XRMI-I Instrument	WRTI	Survey Writing Interval	30	ft
XRMI-I Instrument	SOPT	Smoothing Option	None	
XRMI-I Instrument		Angular Offset Between Imaging Tools	0	deg
XRMI-I Mandrel	DIMG	Process XRMI?	Yes	
XRMI-I Mandrel	ALMT	Image Alignment Method	TOOL	
XRMI-I Mandrel	AGN	Use Button Auto Gain?	Yes	
XRMI-I Mandrel	BCLR	Button Auto Gain Color	127	
XRMI-I Mandrel	BFIL	Button Auto Gain Filter	0.020	
XRMI-I Mandrel	BGAN	Button Gain Value	0.001	
XRMI-I Mandrel	BOFF	Button Offset	0	

XRMI-I Mandrel	DIPE	Process Dipmeter Calculations?	Yes	
XRMI-I Mandrel	BHCS	Process Borehole Corrections?	Yes	
XRMI-I Mandrel	BHSM	Borehole Size Source Tool	XRMI-I Mandrel	
XRMI-I Mandrel	CLOK	Process Caliper Outputs?	Yes	
XRMI-I Mandrel	CMAK	Caliper Maximum Limit	100.0	in
XRMI-I Mandrel	CMIN	Caliper Mimimum Limit	3.5	in
XRMI-I Mandrel	NAVS	Navigation Source Tool	XRMI-I Instrument	
XRMI-I Mandrel	BHVC	Radius type for borehole volume calcuations	Elliptical	
XRMI-I Mandrel	CCL	Caliper Correction Algorithm	None	
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	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	XRMI-I Mandrel	
ACRt Sonde	MBFL	Apply Corkscrew Effect?	No	
BOTTOM_____				
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HALLIBURTON						
TOOL STRING DIAGRAM REPORT						
Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-00000025 37.50 lbs		Ø 2.750 in →		← Temperature @ 107.87 ft	3.03 ft	108.90 ft
XOHD-12345678 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	105.87 ft
						104.92 ft
SP Sub-11441455 60.00 lbs		Ø 3.625 in →		← SP @ 103.14 ft	3.74 ft	
				← Z-Accelerometer @ 100.73 ft		101.18 ft
GTET-11013114 165.00 lbs		Ø 3.625 in →		← GammaRay @ 95.12 ft	8.52 ft	
						92.66 ft
DSNT-11019643 174.00 lbs	DSN Decentralizer-11019643 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 85.72 ft ← DSN Near @ 84.97 ft	9.69 ft	
						82.97 ft

SDLT-10950489
360.00 lbs

SDLT Pad-10809130
65.00 lbs

Microlog Pad-10950489
8.00 lbs

Ø 4.500 in →

Ø 4.500 in* →

Ø 4.750 in* →

Microlog @ 75.16 ft

SDL Caliper @ 74.97 ft

SDL @ 74.96 ft

10.81 ft

72.16 ft

IQ Flex-11021611
140.00 lbs

Ø 3.625 in →

5.67 ft

66.49 ft

Centralizer 25-12345678
8.00 lbs

Ø 4.000 in* →

BSAT-10939050
300.00 lbs

Ø 3.625 in →

Receiver Array @ 57.97 ft

Sonic Receivers @ 57.97 ft

15.77 ft

Centralizer 25-12345679
8.00 lbs

Ø 4.000 in* →

50.71 ft

XRMI-I Instrument-
10967399
290.00 lbs

Ø 4.500 in →

14.30 ft

36.41 ft

XRMI-I Mandrel-
10967400
206.00 lbs

Ø 5.000 in →

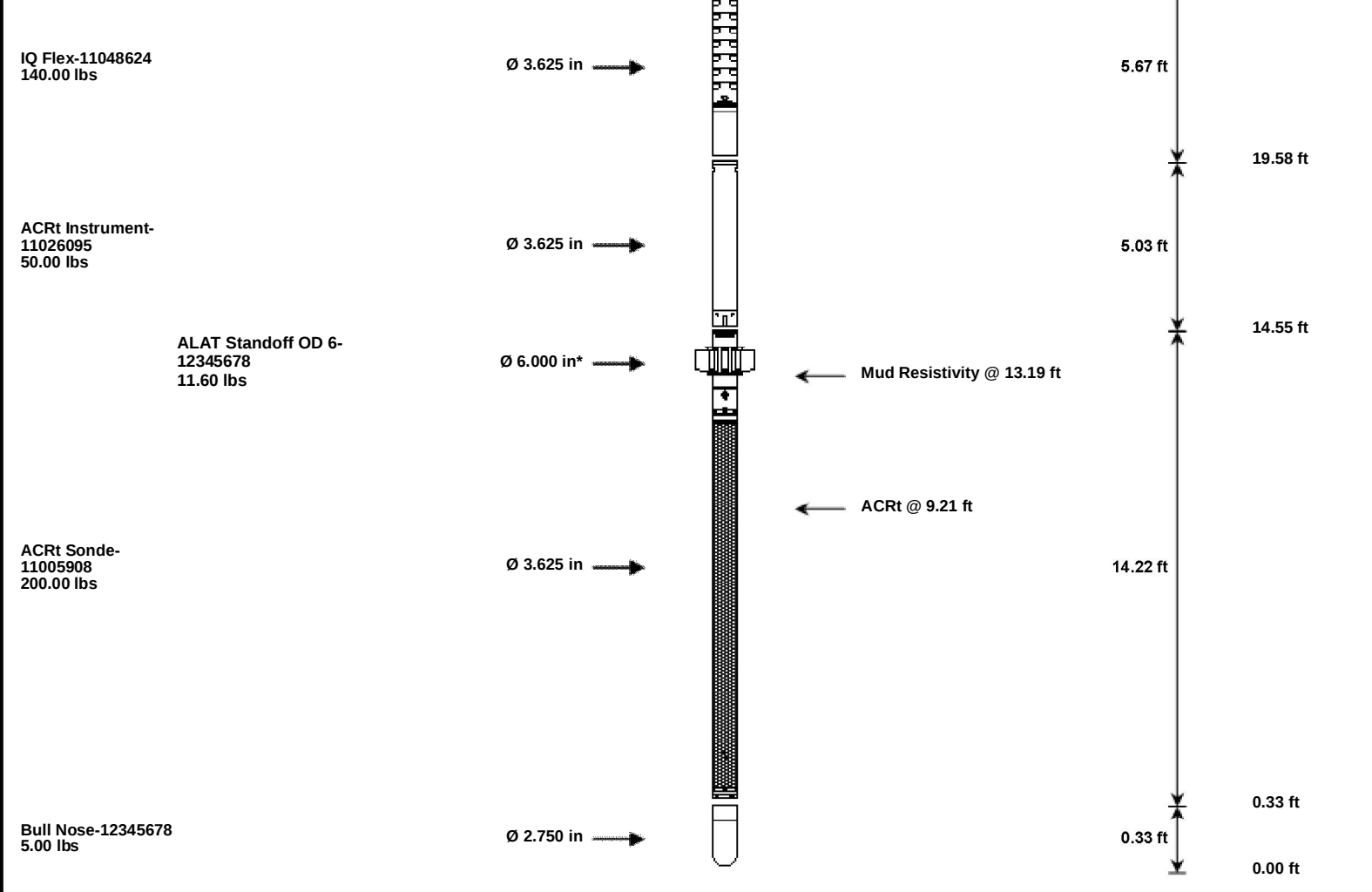
Ø 4.500 in →

11.16 ft

Pads 2, 4, 6 @ 28.02 ft

Pads 1, 3, 5 @ 27.79 ft

25.25 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	00000025	37.50	3.03	105.87	300.00	
XOHD	Hostile to Dits Cross Over	12345678	20.00	0.95	104.92	300.00	
SP	SP Sub	11441455	60.00	3.74	101.18	300.00	
GTET	Gamma Telemetry Tool	11013114	165.00	8.52	92.66	60.00	
DSNT	Dual Spaced Neutron	11019643	174.00	9.69	82.97	60.00	
DCNT	DSN Decentralizer	11019643	6.60	5.13	*	86.30	300.00
SDLT	Spectral Density Tool	10950489	360.00	10.81	72.16	60.00	
SDLP	Density Insite Pad	10809130	65.00	2.55	*	74.37	60.00
MICP	Microlog Pad	10950489	8.00	1.00	*	74.66	60.00
IQF	IQ Flex tool	11021611	140.00	5.67	66.49	300.00	
BSAT	Borehole Sonic Array Tool	10939050	300.00	15.77	50.71	60.00	
OBCEN	Centralizer - 25 in. Overbody	12345679	8.00	2.08	*	51.02	300.00
OBCEN	Centralizer - 25 in. Overbody	12345678	8.00	2.08	*	63.84	300.00
XRMI	XRMI Navigation - Insite	10967399	290.00	14.30	36.41	30.00	
XRMI-I	XRMI Imager - Insite	10967400	206.00	11.16	25.25	30.00	
IQF	IQ Flex tool	11048624	140.00	5.67	19.58	300.00	
ACRt	Array Compensated True Resistivity Instrument Section	11026095	50.00	5.03	14.55	120.00	
ACRt	Array Compensated True Resistivity Sonde Section	11005908	200.00	14.22	0.33	120.00	
ALATS	Array Laterolog Tool OD 6 Standoff	12345678	11.60	1.00	*	13.02	60.00
BLNS	Bull Nose	12345678	5.00	0.33	0.00	300.00	
Total			2,254.70	108.90			
* Not included in Total Length and Length Accumulation.							
Data: ROCK_1-23\0001 GTET-DSN-SDL-BSAT-XRMI-ACRT\IDLE					Date: 16-Nov-16 17:01:13		

COMPANY	RAYDON EXPLORATION INC.				
WELL	ROCK 1-23				
FIELD	KISMET				
COUNTY	SEWARD	STATE	KANSAS		

HALLIBURTON	MICROLOG
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