

HALLIBURTON

MICROLOG

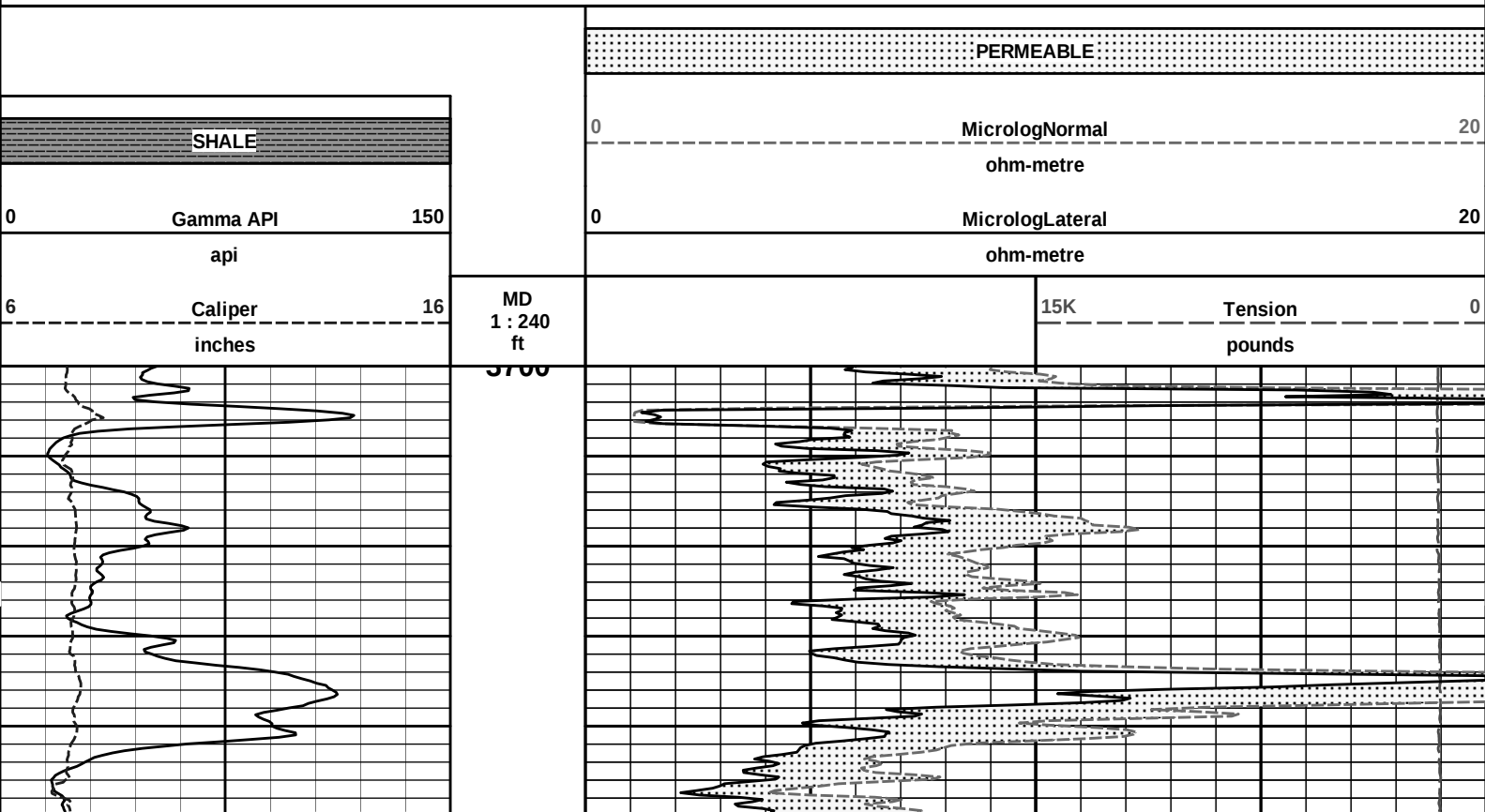
COMPANY		HARTMAN OIL CO.	
WELL		GARDEN CITY B TWIN #5	
FIELD/BLOCK		DAMME	
COUNTY		FINNEY	
STATE		KANSAS	
Permanent Datum		GL	
Log measured from		KB	
Drilling measured from		KB	
Date		30-Aug-13	
Run No.		ONE	
Depth - Driller		4830.00 ft	
Depth - Logger		4824.0 ft	
Bottom - Logged Interval		4780.0 ft	
Top - Logged Interval		3700.0 ft	
Casing - Driller		8.625 in @ 337.0 ft	
Casing - Logger		332.0 ft	
Bit Size		7.875 in @	
Type Fluid in Hole		WATER BASED MUD	
Density		9.5 ppg	
Viscosity		53.00 s/qt	
PH		10.50 pH	
Fluid Loss		8.0 cpm	
Source of Sample		MUD PIT	
Rm @ Meas. Temperature		1.220 ohmm @ 75.00 degF	
Rmf @ Meas. Temperature		1.00 ohmm @ 75.00 degF	
Rmc @ Meas. Temperature		1.900 ohmm @ 75.00 degF	
Source Rmf		MEASURED	
Rmc		MEASURED	
Rm @ BHT		0.73 ohmm @ 130.0 degF	
Time Since Circulation		5.0 hr	
Time on Bottom		30-Aug-13 08:42	
Max. Rec. Temperature		130.0 degF @ 4824.0 ft	
Equipment		11230668 LIBERAL	
Recorded By		J. BOLLOW	
Witnessed By		K. NOAH	

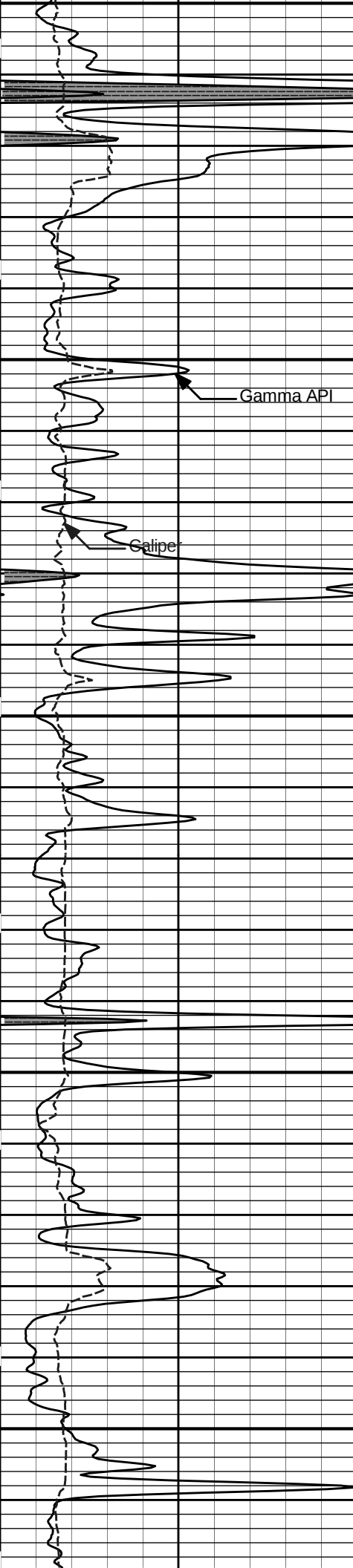
COMPANY	HARTMAN OIL CO.
WELL	GARDEN CITY B TWIN #5
FIELD/BLOCK	DAMME
COUNTY	FINNEY
STATE	KANSAS
API No.	15-055-22234-00-00
Location	(SHL) 1880' FSL & 1980' FEL N2 SE NW SE
Sect.	5
Twp.	22S
Rge.	33W
Elev.	2888.0 ft
D.F.	2899.0 ft
G.L.	2888.0 ft
Other Services:	ACRT DSNT'S DLT BSAT

Fold here

Service Ticket No.: 900688933				API Serial No.: 15-055-22234-00-00				PGM Version: WL INSITE R3.8.4 (Build 5)							
CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE						RESISTIVITY SCALE CHANGES									
Date		Sample No.				Type Log		Depth		Scale Up Hole		Scale Down Hole			
Depth-Driller															
Type Fluid in Hole															
Density		Viscosity													
Ph		Fluid Loss													
Source of Sample						RESISTIVITY EQUIPMENT DATA									
Rm @ Meas. Temp		@		@		Run No.		Tool Type & No.		Pad Type		Tool Pos.		Other	
Rmf @ Meas. Temp.		@		@		ONE		MICROLOG		RUBBER		ADJ		N/A	
Rmc @ Meas. Temp.		@		@				10673803							
Source Rmf		Rmc													
Rm @ BHT		@		@											
Rmf @ BHT		@		@											
Rmc @ BHT		@		@											
EQUIPMENT DATA															
GAMMA				ACOUSTIC				DENSITY				NEUTRON			
Run No.		ONE		Run No.				Run No.				Run No.			
Serial No.		10748374		Serial No.				Serial No.				Serial No.			
Model No.		GTET		Model No.				Model No.				Model No.			
Diameter		3.625"		No. of Cent.				Diameter				Diameter			
Detector Model No.		T-102		Spacing				Log Type				Log Type			
Type		SCINT						Source Type				Source Type			
Length		8'		LSA [Y/N]				Serial No.				Serial No.			
Distance to Source		10'		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		
ONE	4824	3700	REC	0	150										
DIRECTIONAL INFORMATION															
Maximum Deviation								@	KOP @						
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5-INCH CASING															
CHLORIDES REPORTED AT 3,000 PPM															
LCM REPORTED AT 6 LB/BBL															
GTET-DSNT-SDLT-BSAT-ACRT RUN IN COMBINATION															
TODAY'S CREW: F. VILLA & V. JAIME															
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES LIBERAL, KS. 620-624-8123															
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.															
HALLIBURTON															



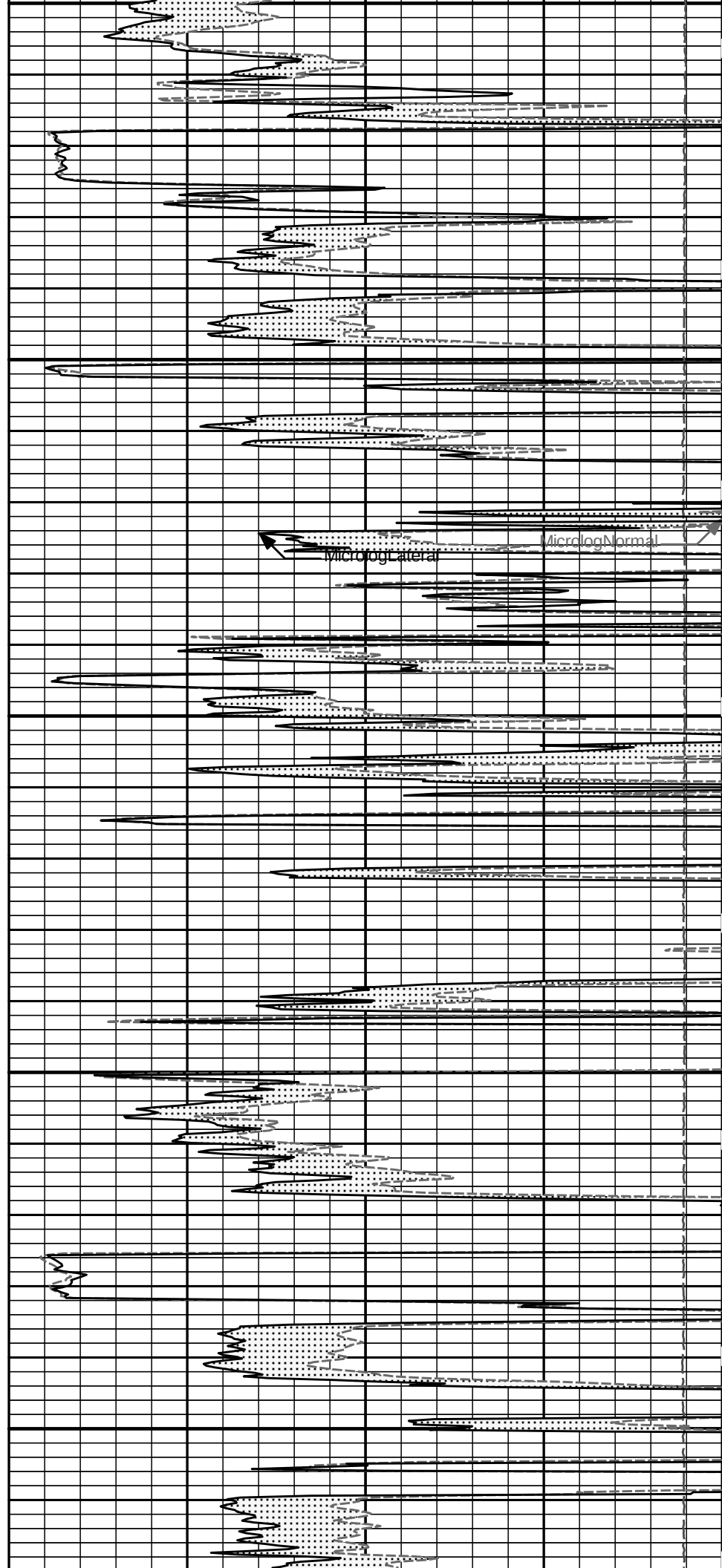


3800

Gamma API

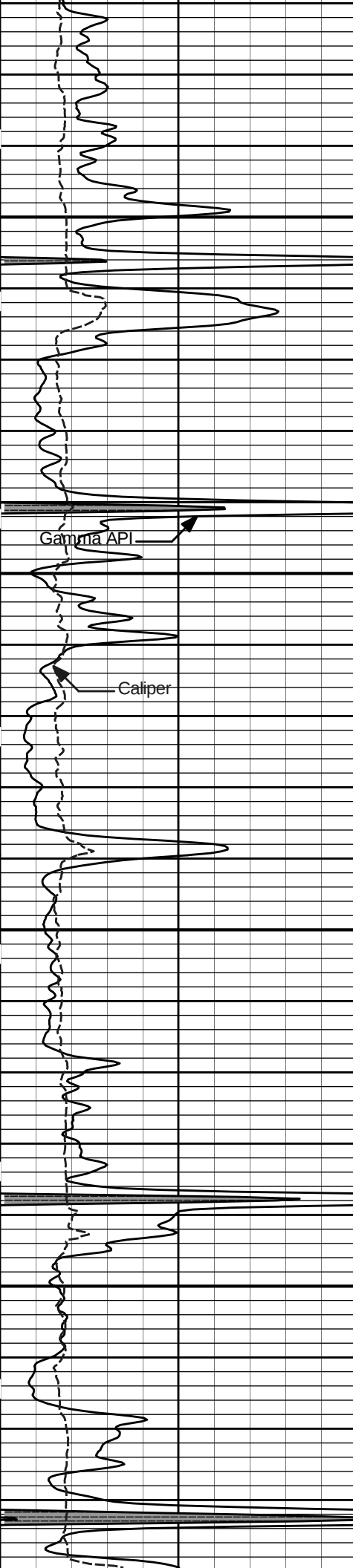
Caliper

3900



Microlog Lateral

Microlog Normal

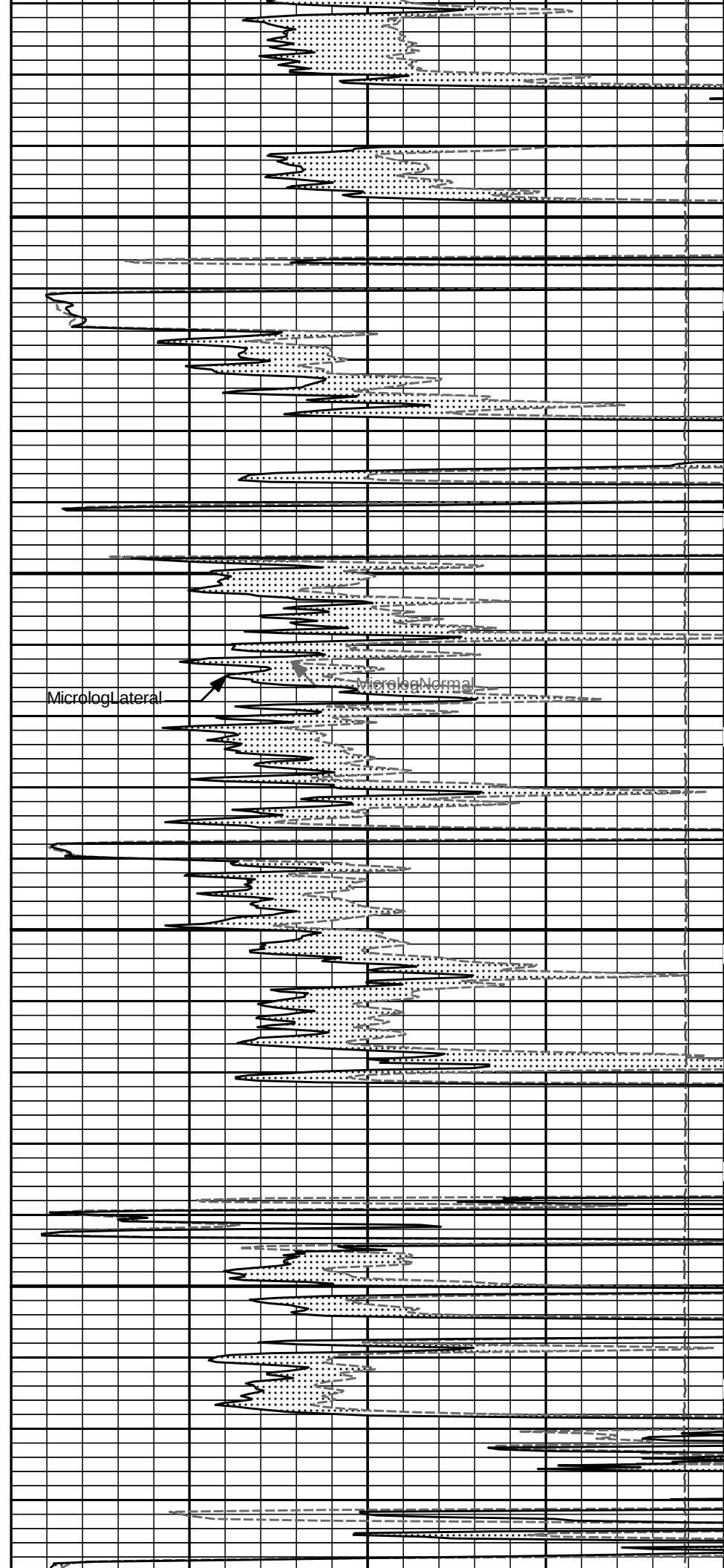


4000

4100

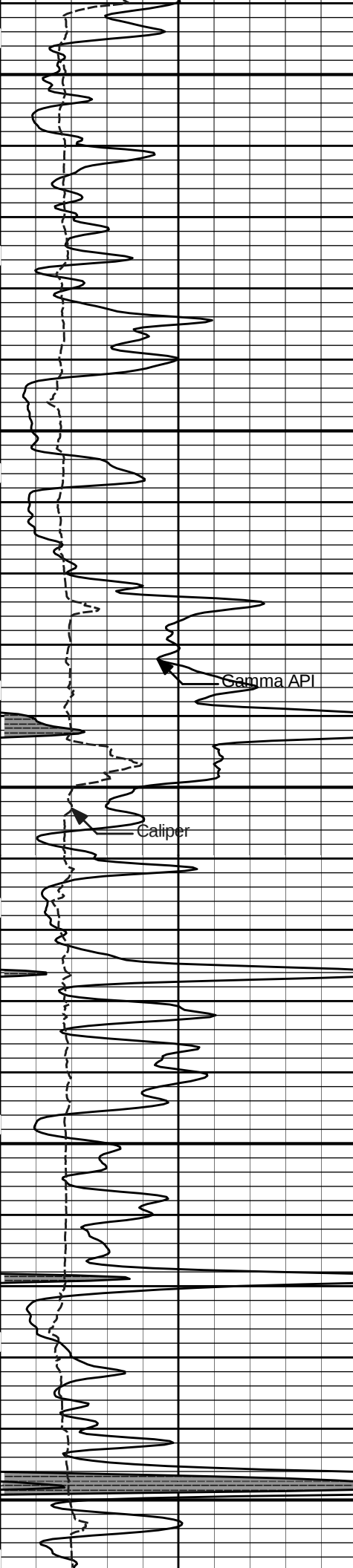
Gamma API

Caliper



Microlog Lateral

Microlog Normal



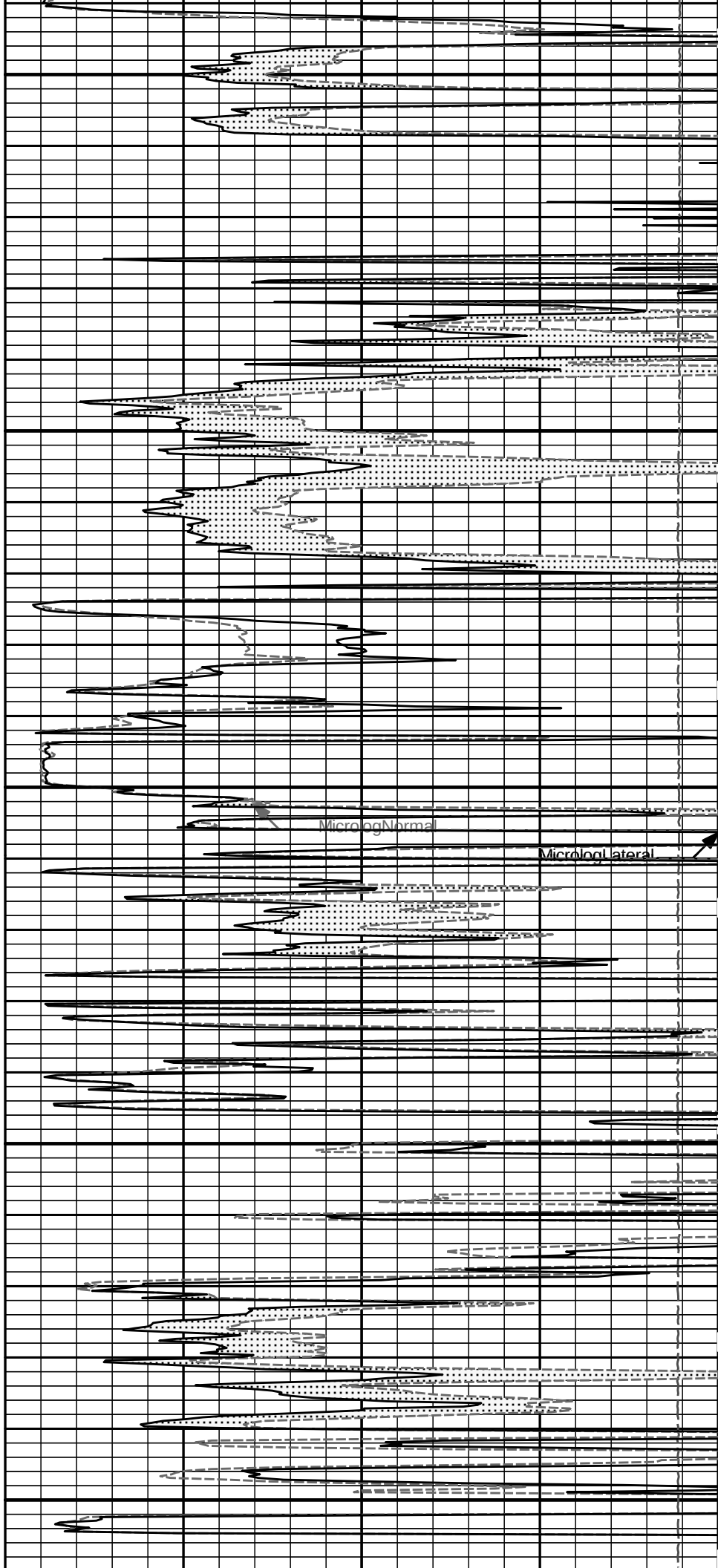
4200

Gamma API

Caliper

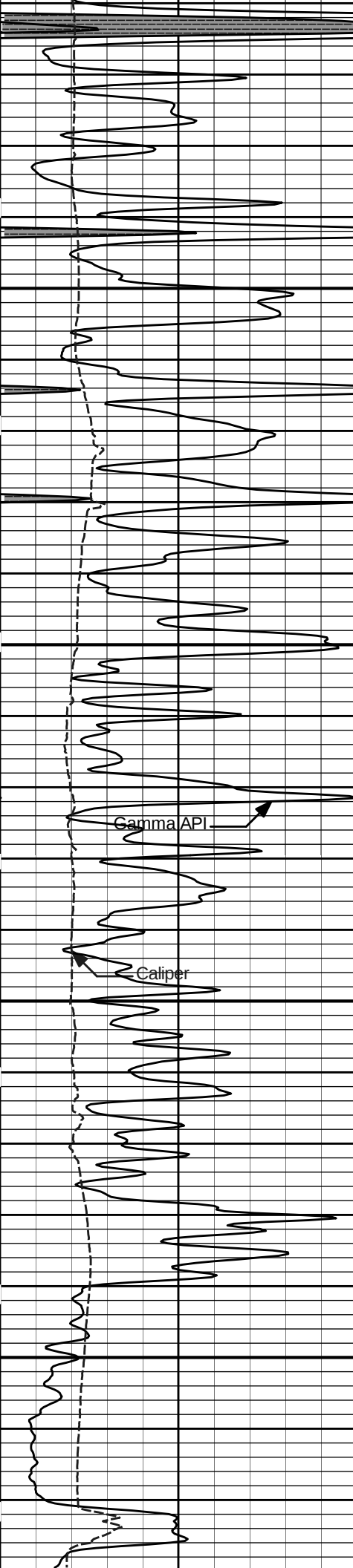
4300

4400



MicrologNormal

MicrologLateral

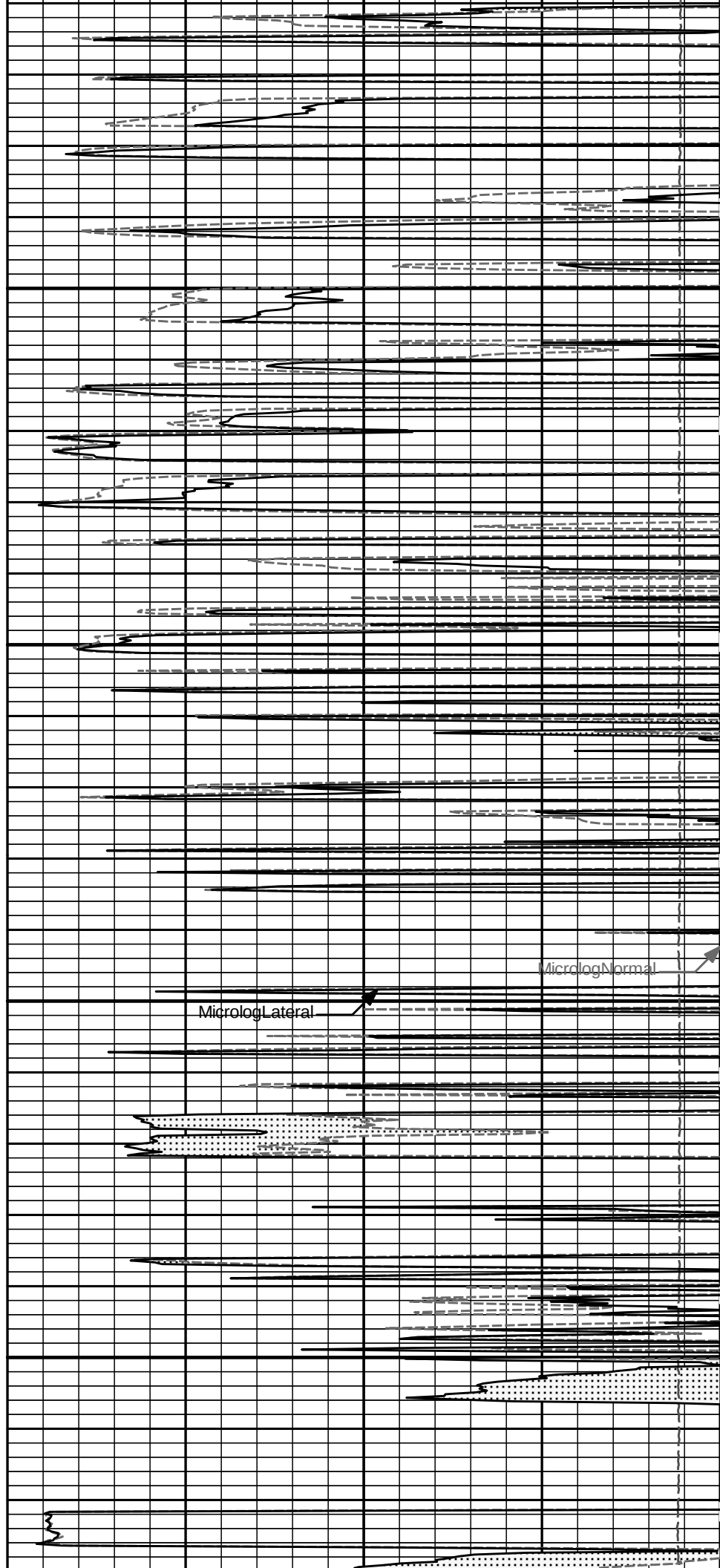


4500

Gamma API

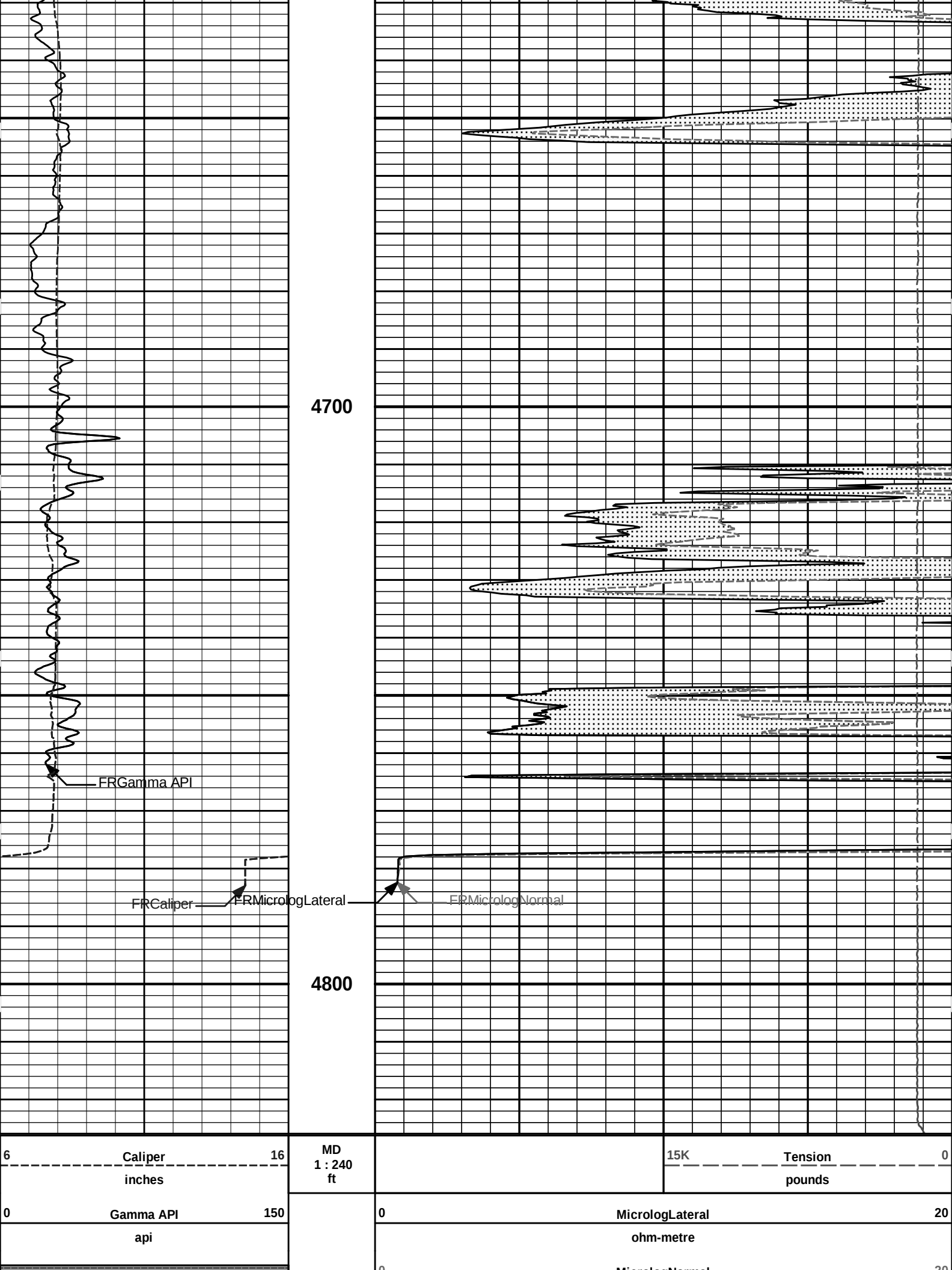
Caliper

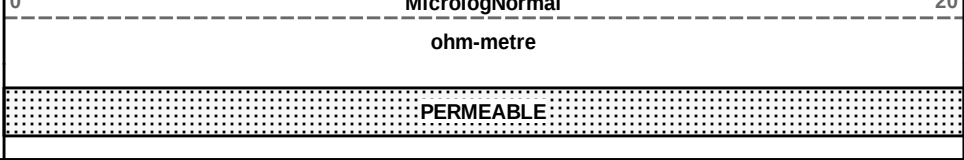
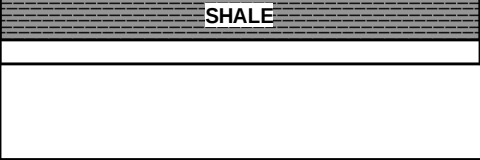
4600



Microlog Lateral

Microlog Normal





HALLIBURTON

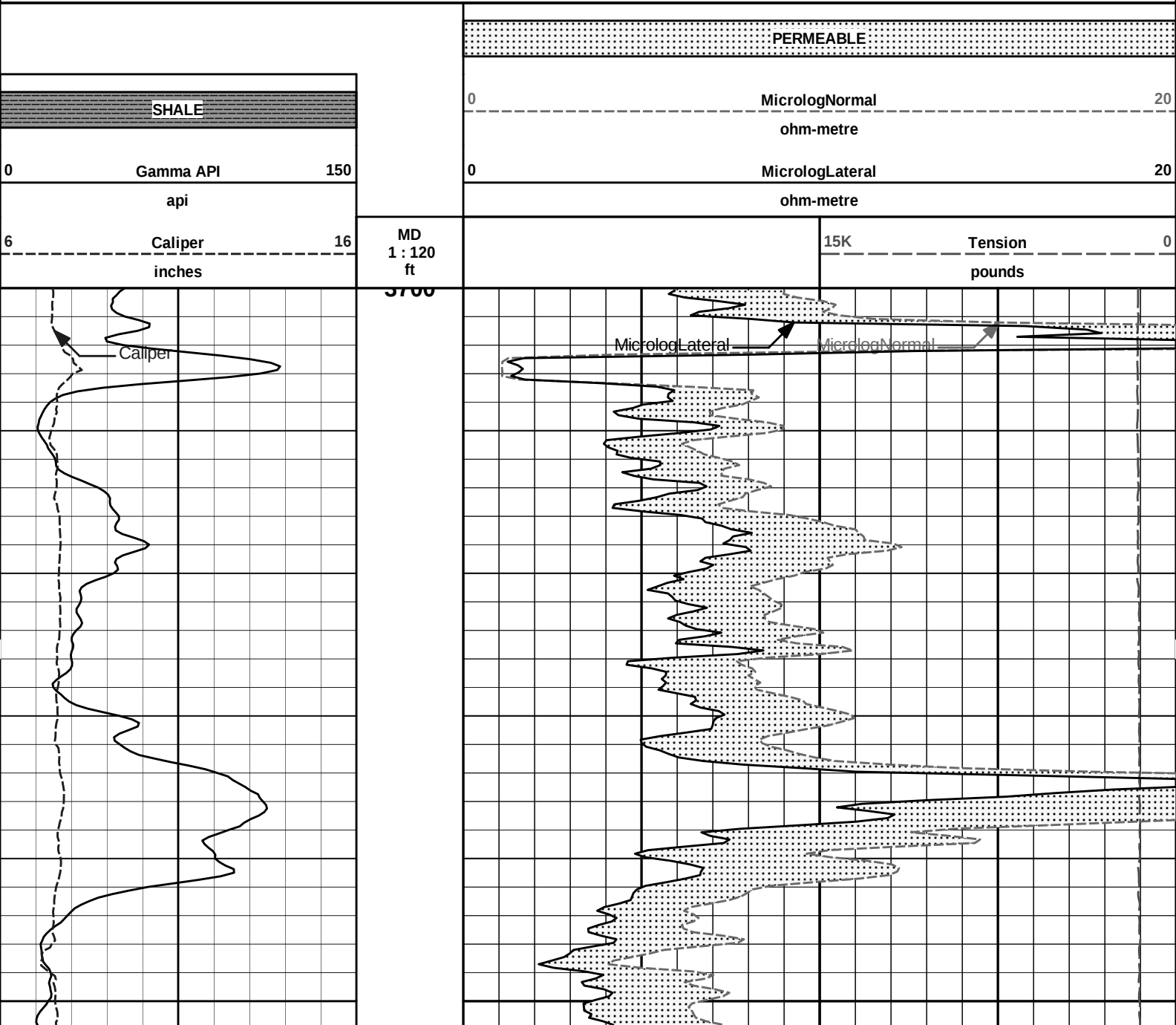
Plot Time: 30-Aug-13 11:57:10
Plot Range: 3700 ft to 4825.92 ft
Data: GARDEN_CITYTWIN\Well Based\DETAIL\
Plot File: \\LOCAL-IGARDEN_CITYTWIN\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\MICRO\Microlog_IQ_5_main.lib

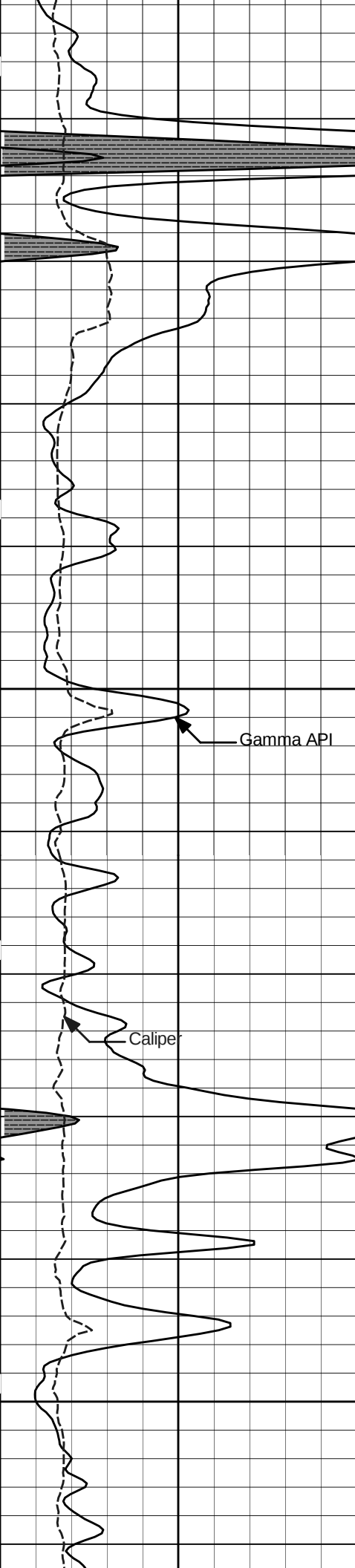
5 INCH MAIN LOG

HALLIBURTON

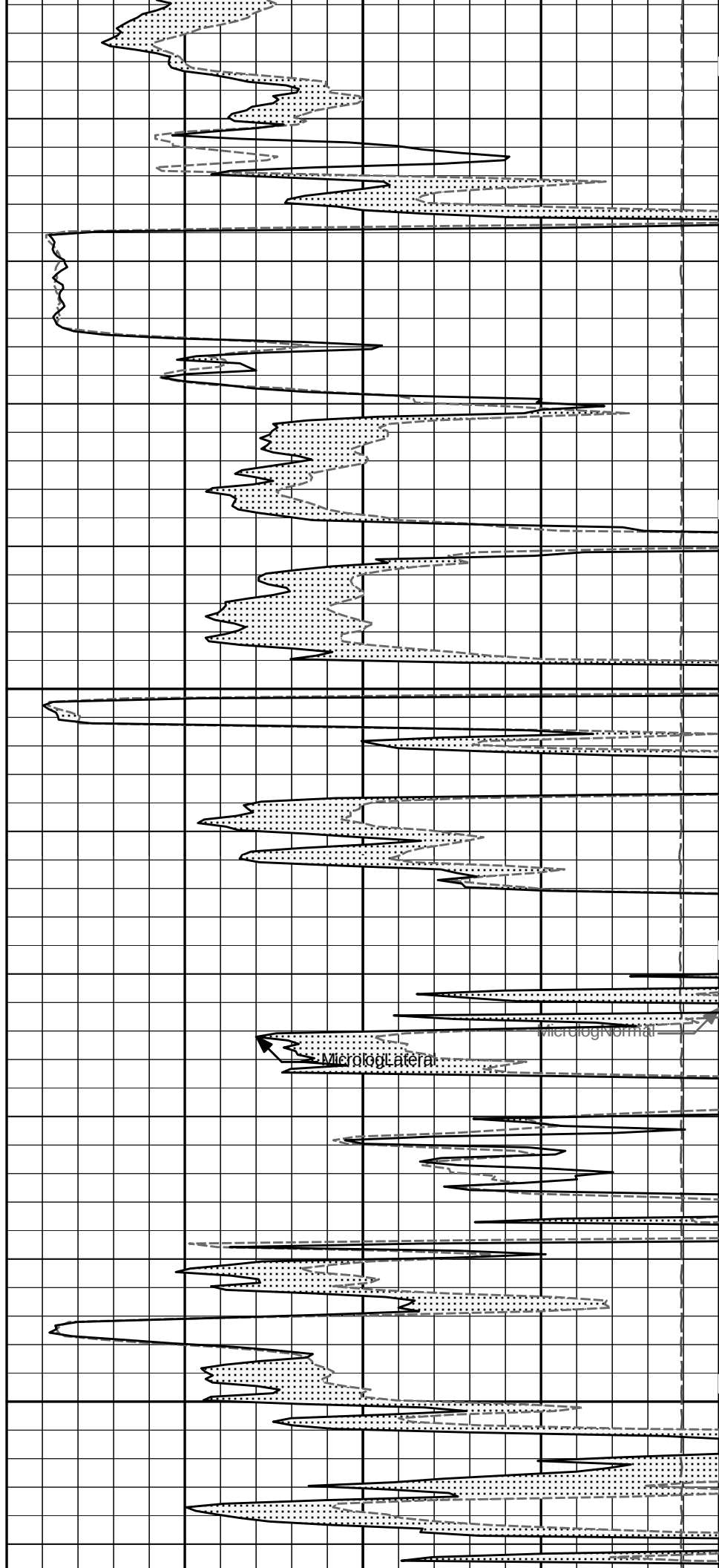
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Plot Range: 3700 ft to 4825.92 ft
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Plot File: \\LOCAL-IGARDEN_CITYTWIN\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\MICRO\Microlog_IQ_5_main.lib

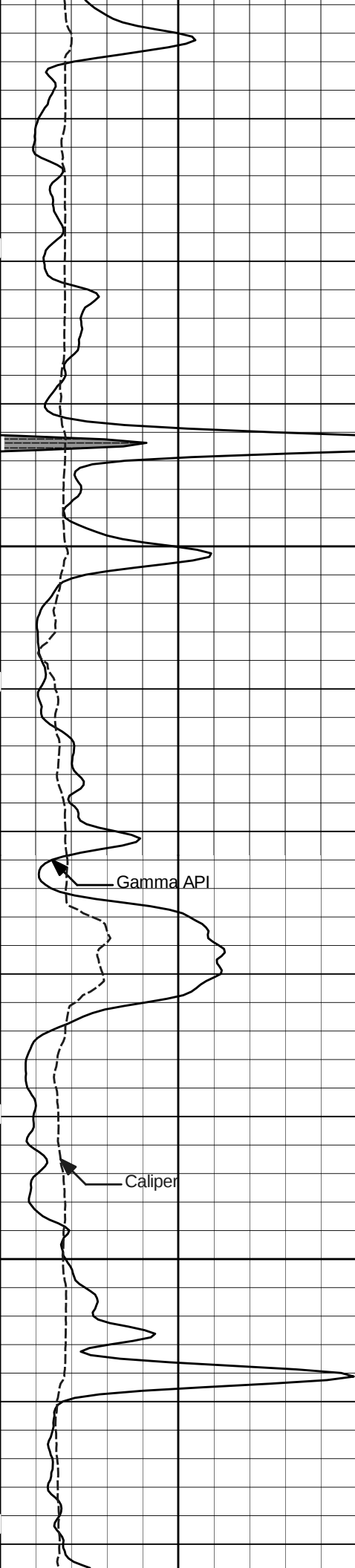
5 INCH MAIN LOG



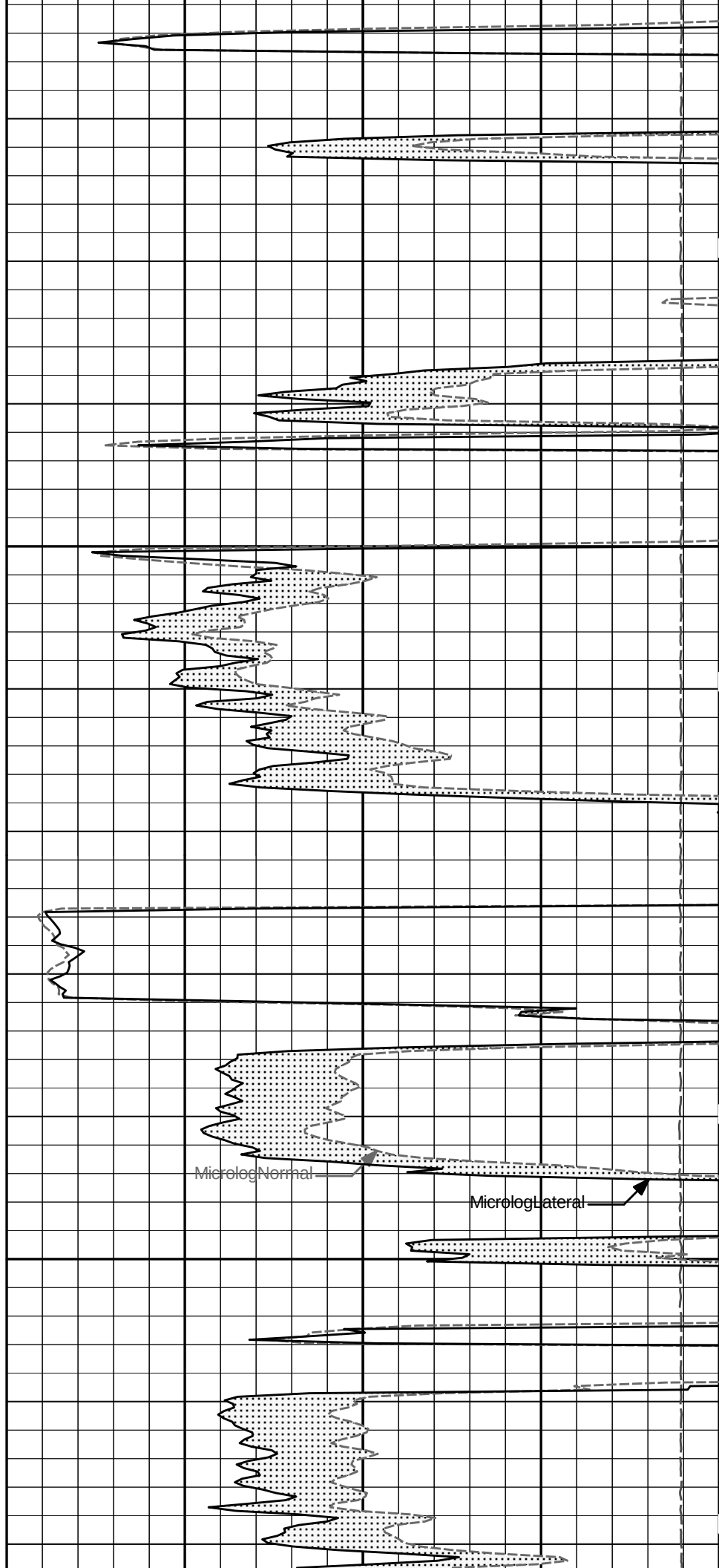


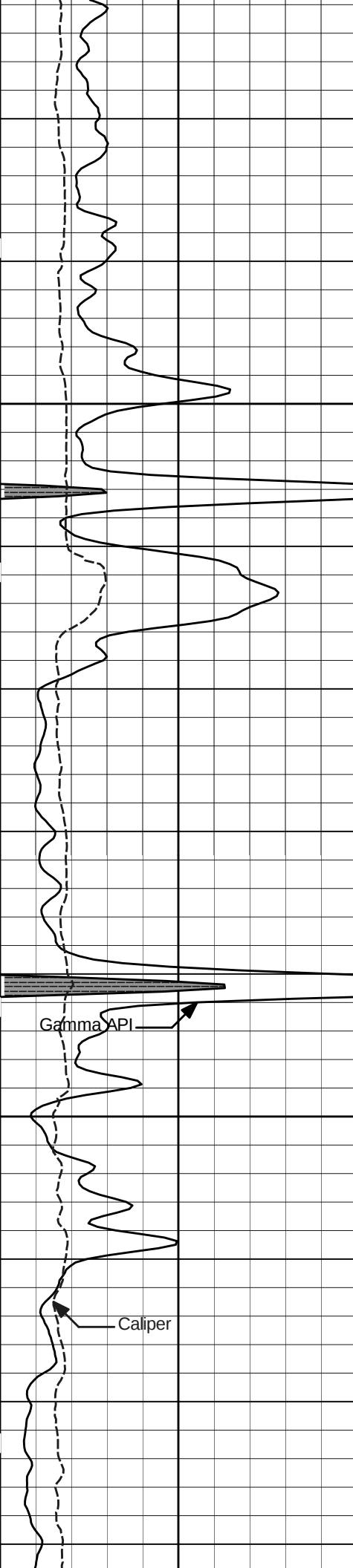
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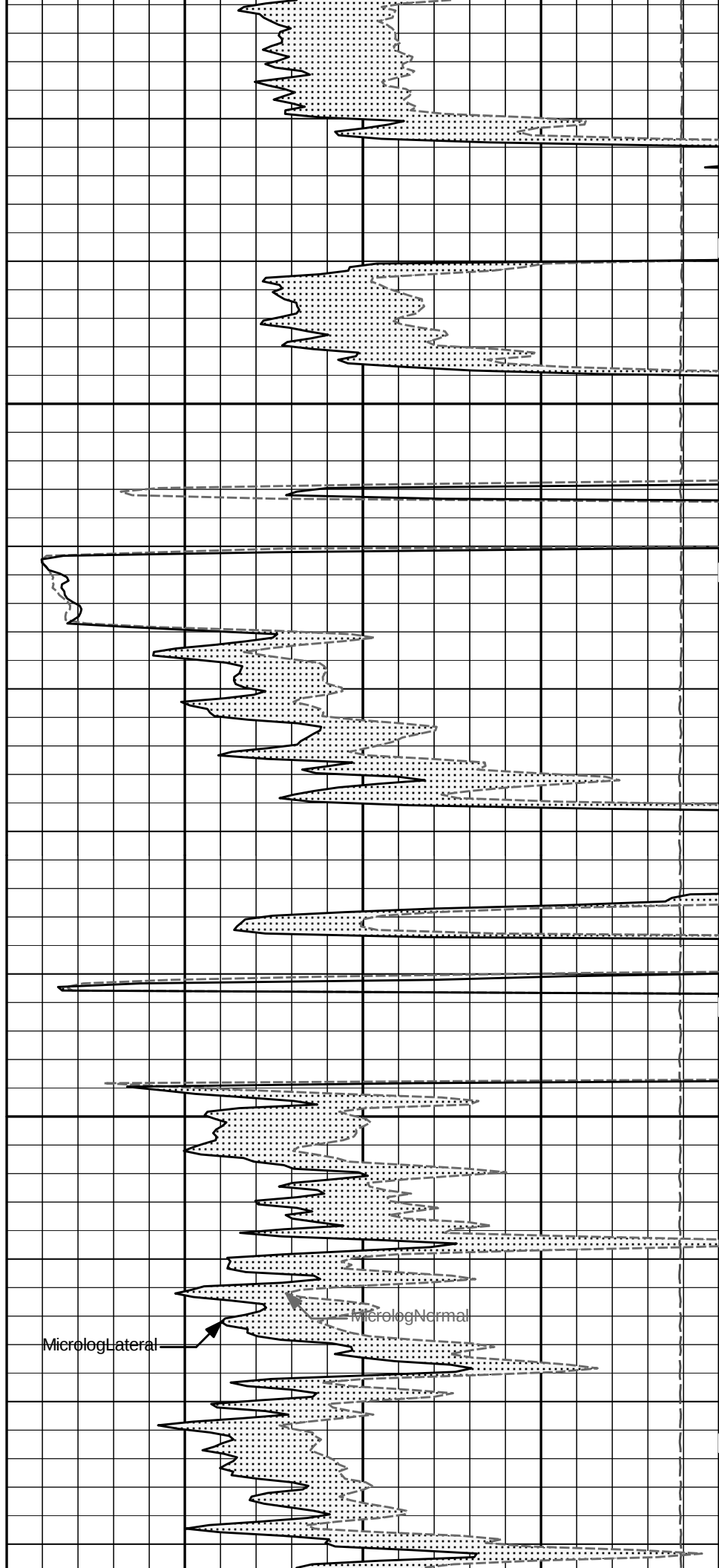


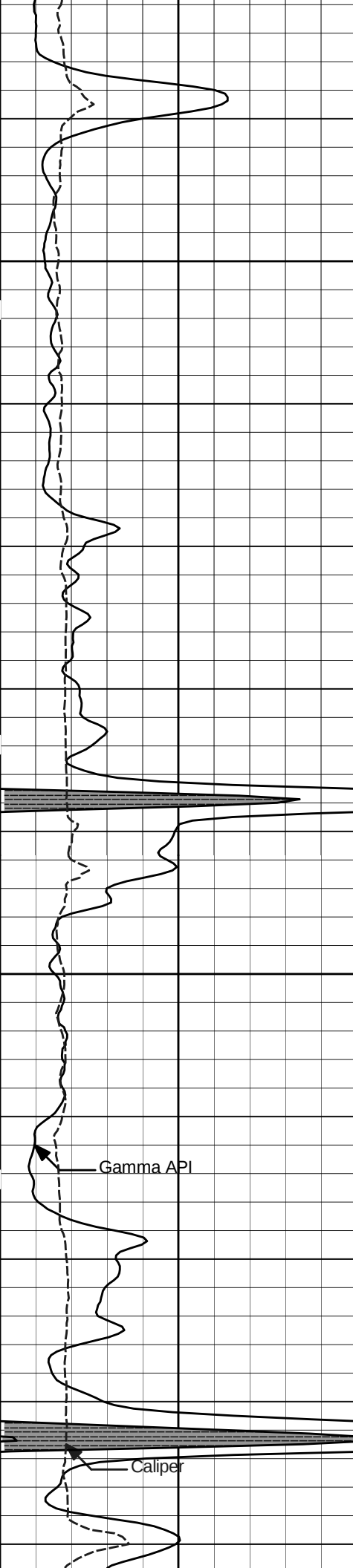
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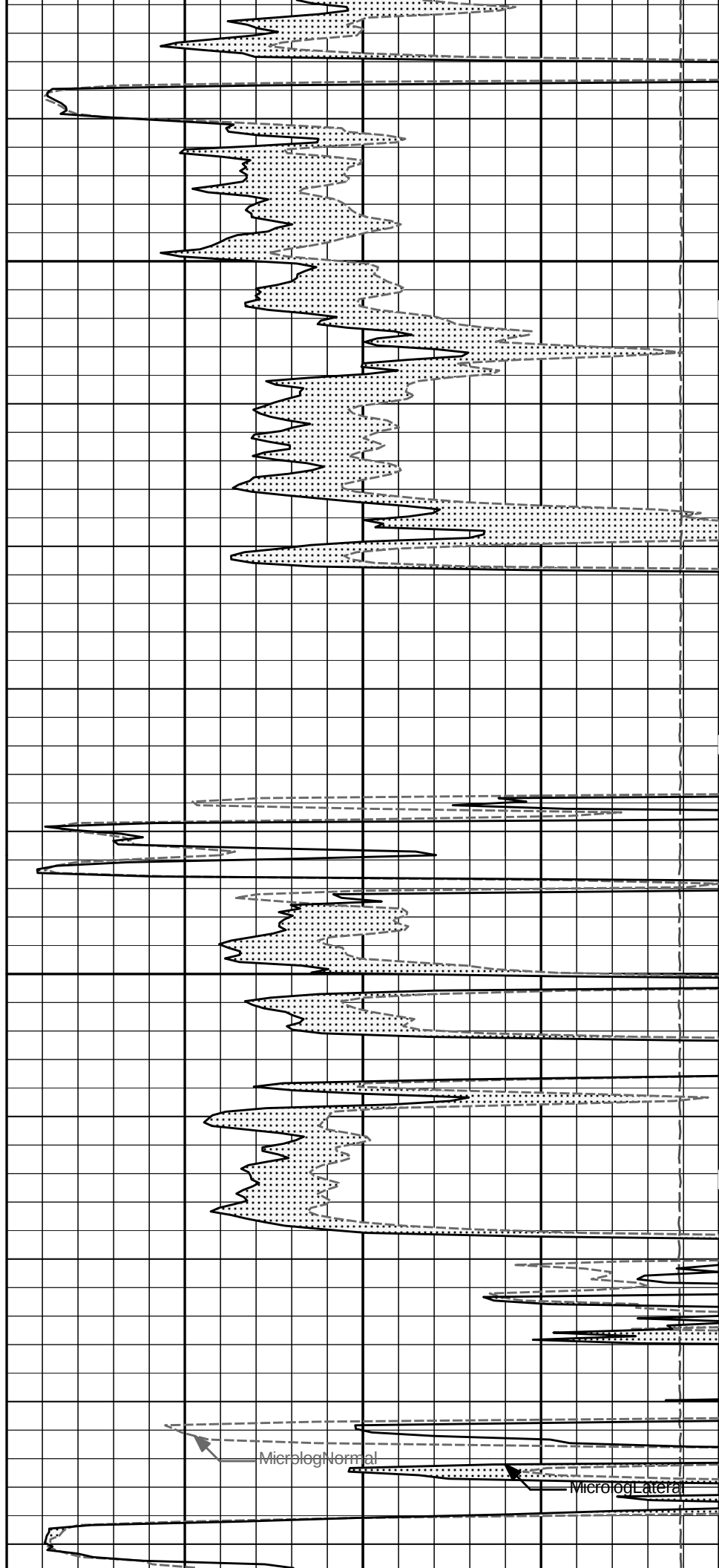


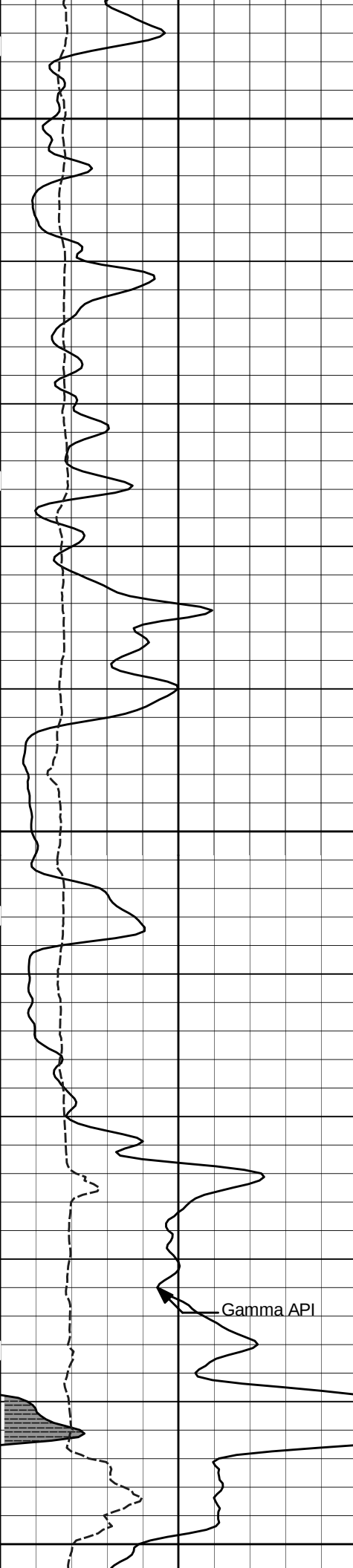
4000





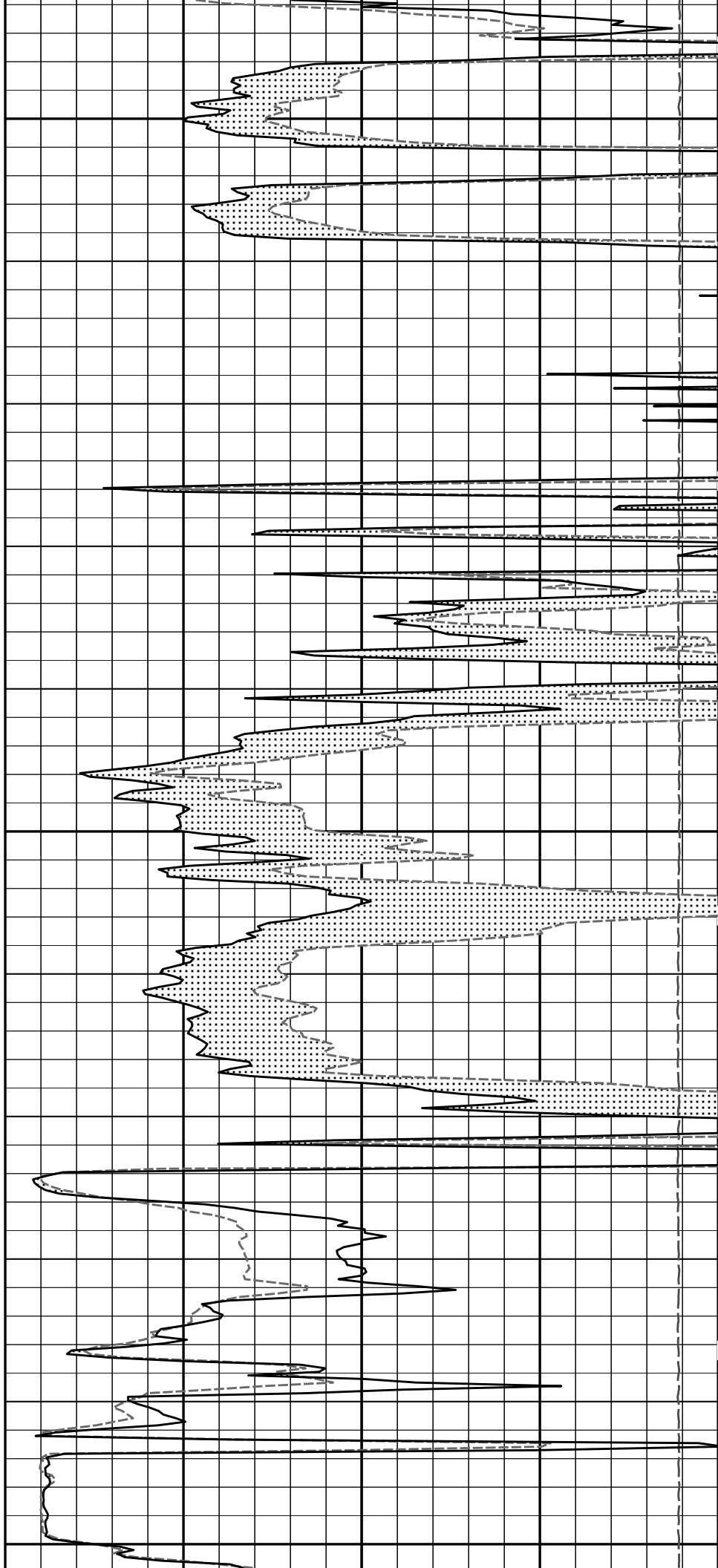
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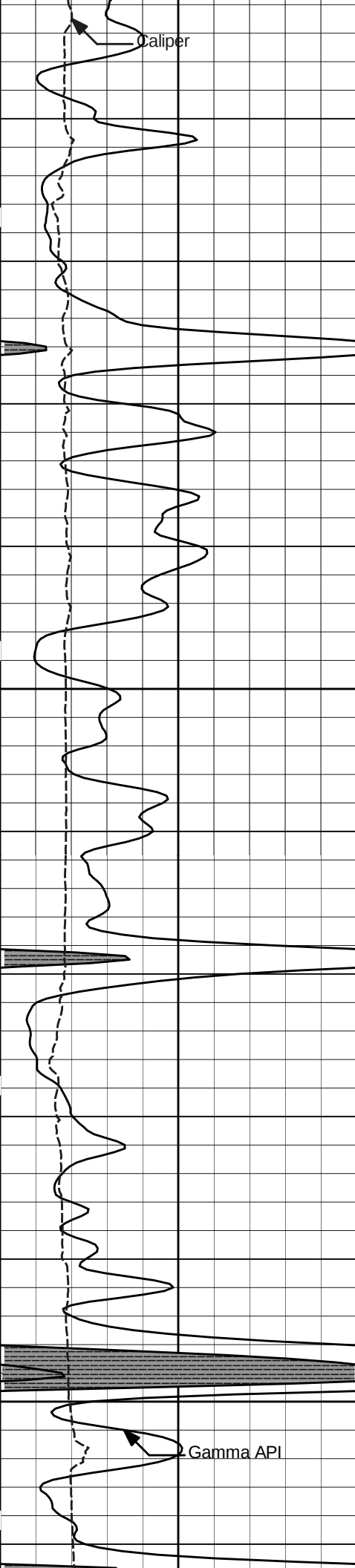




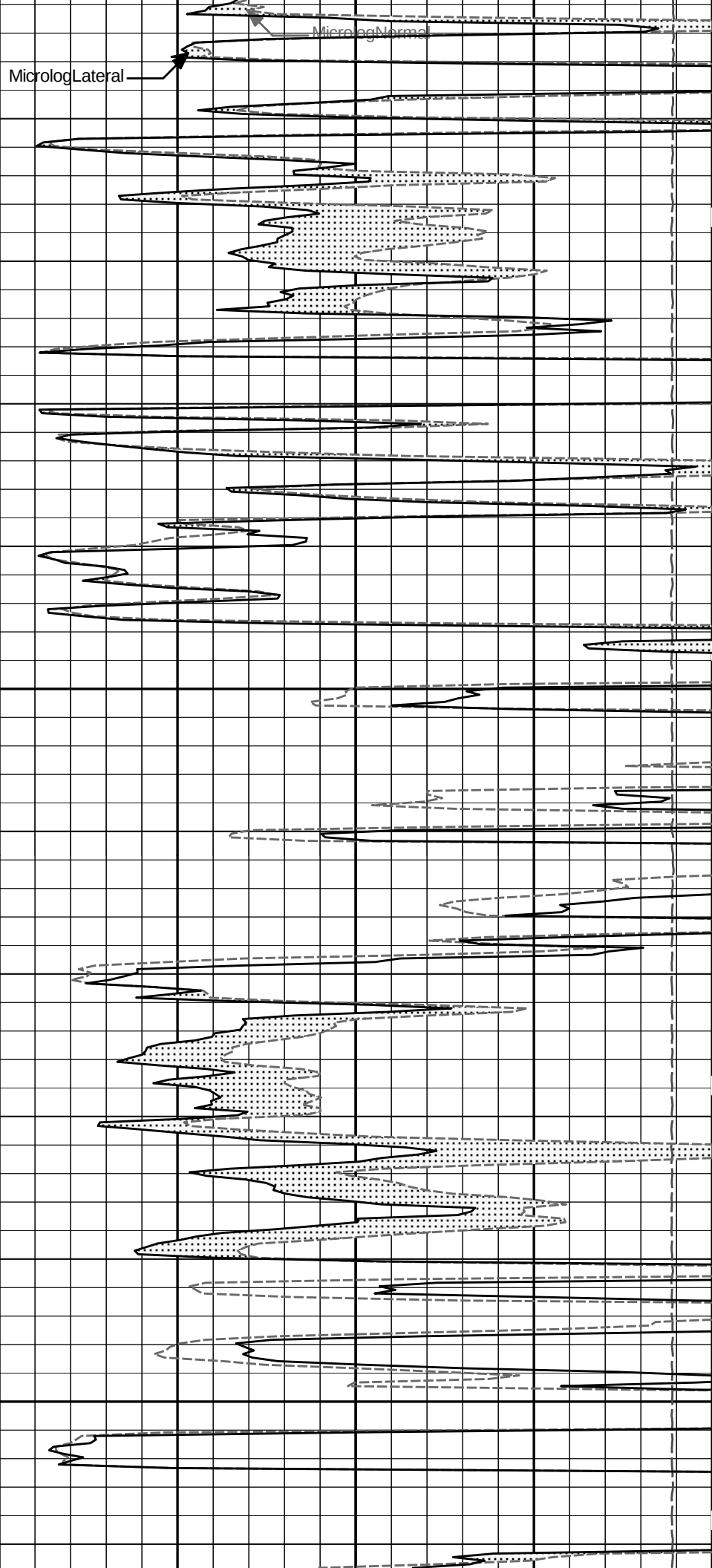
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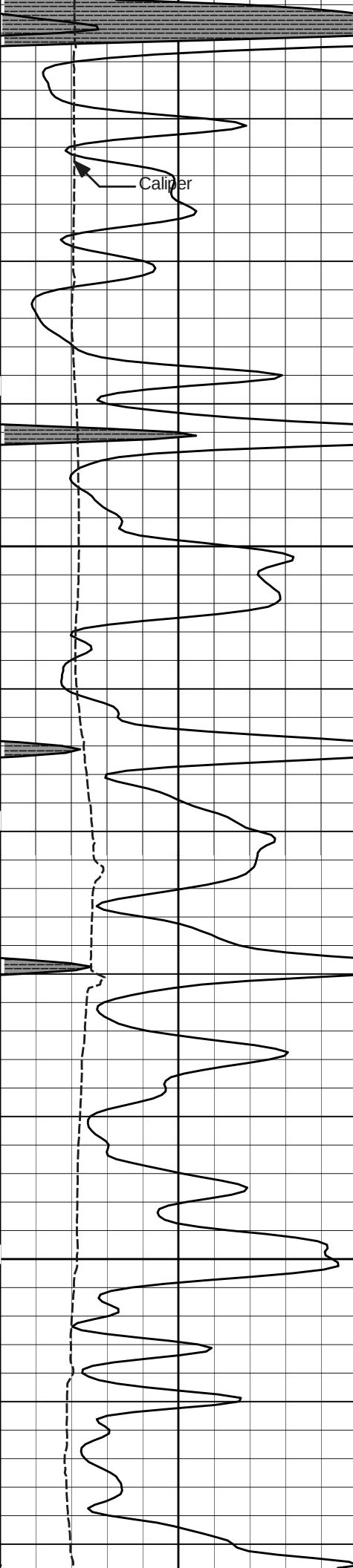
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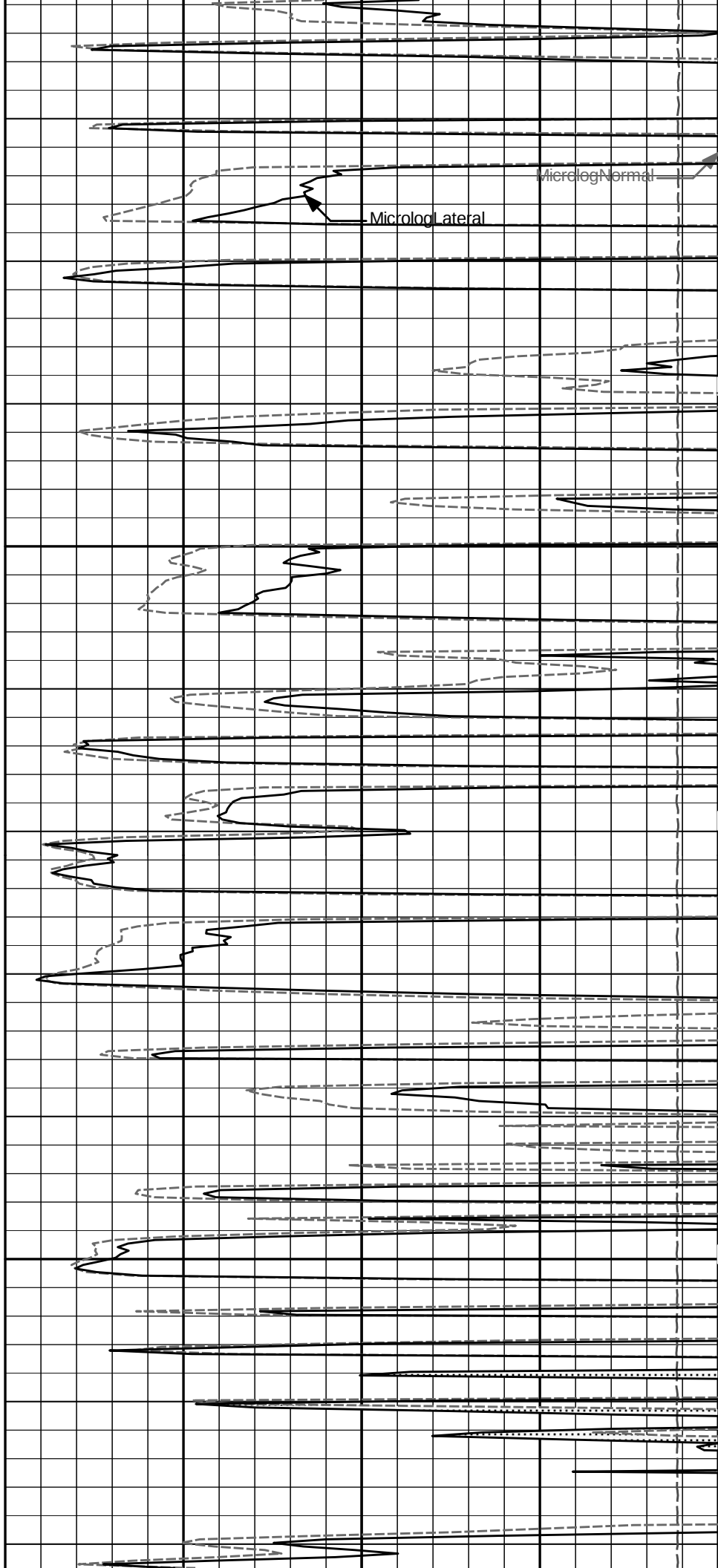


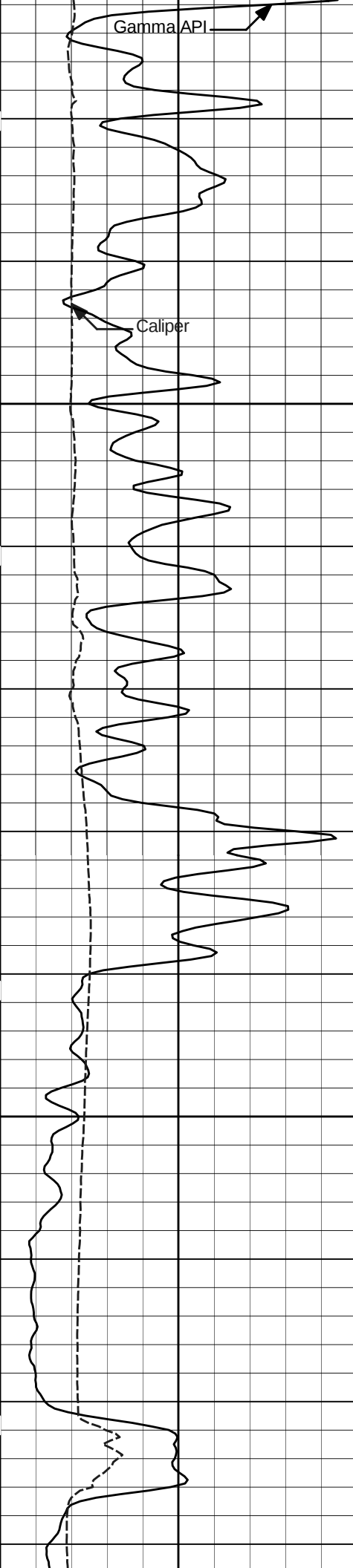
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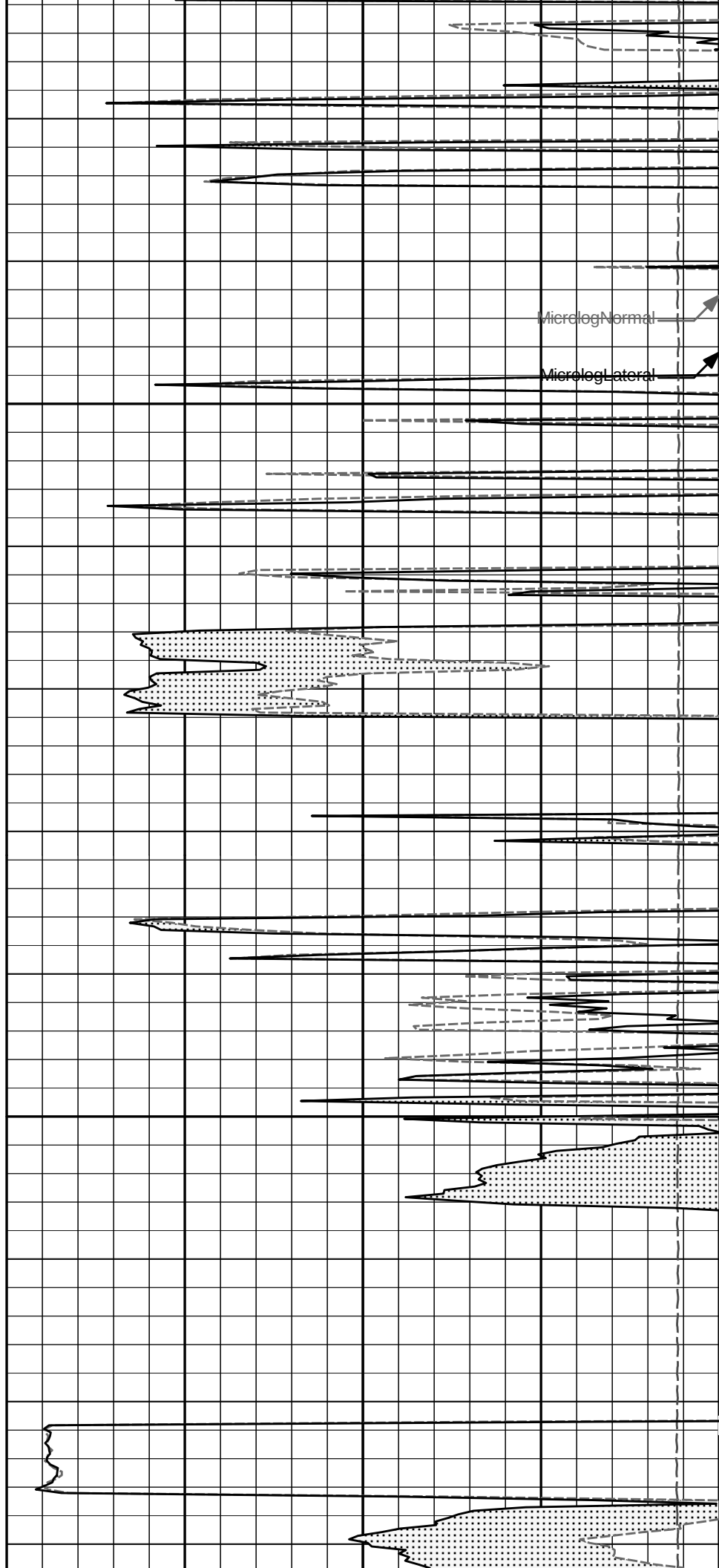


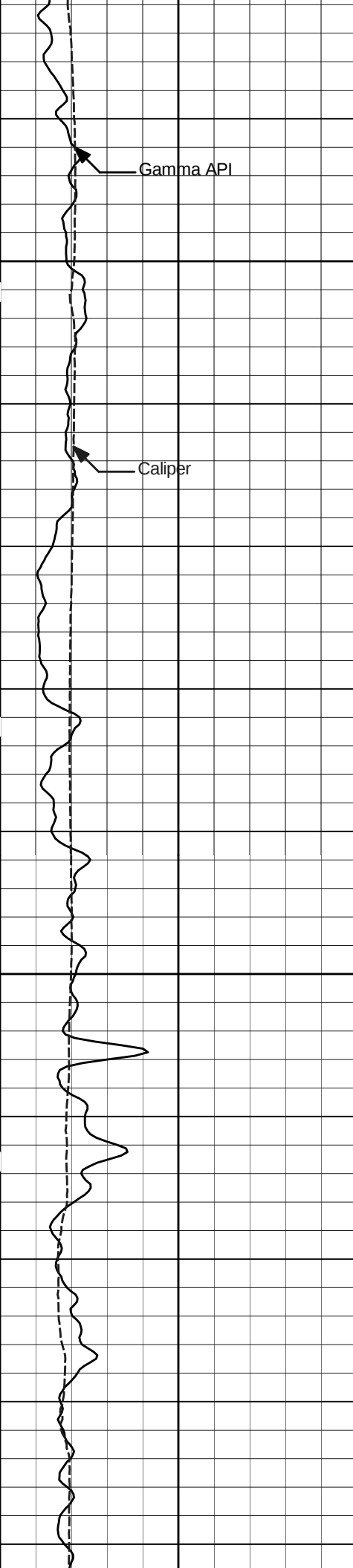
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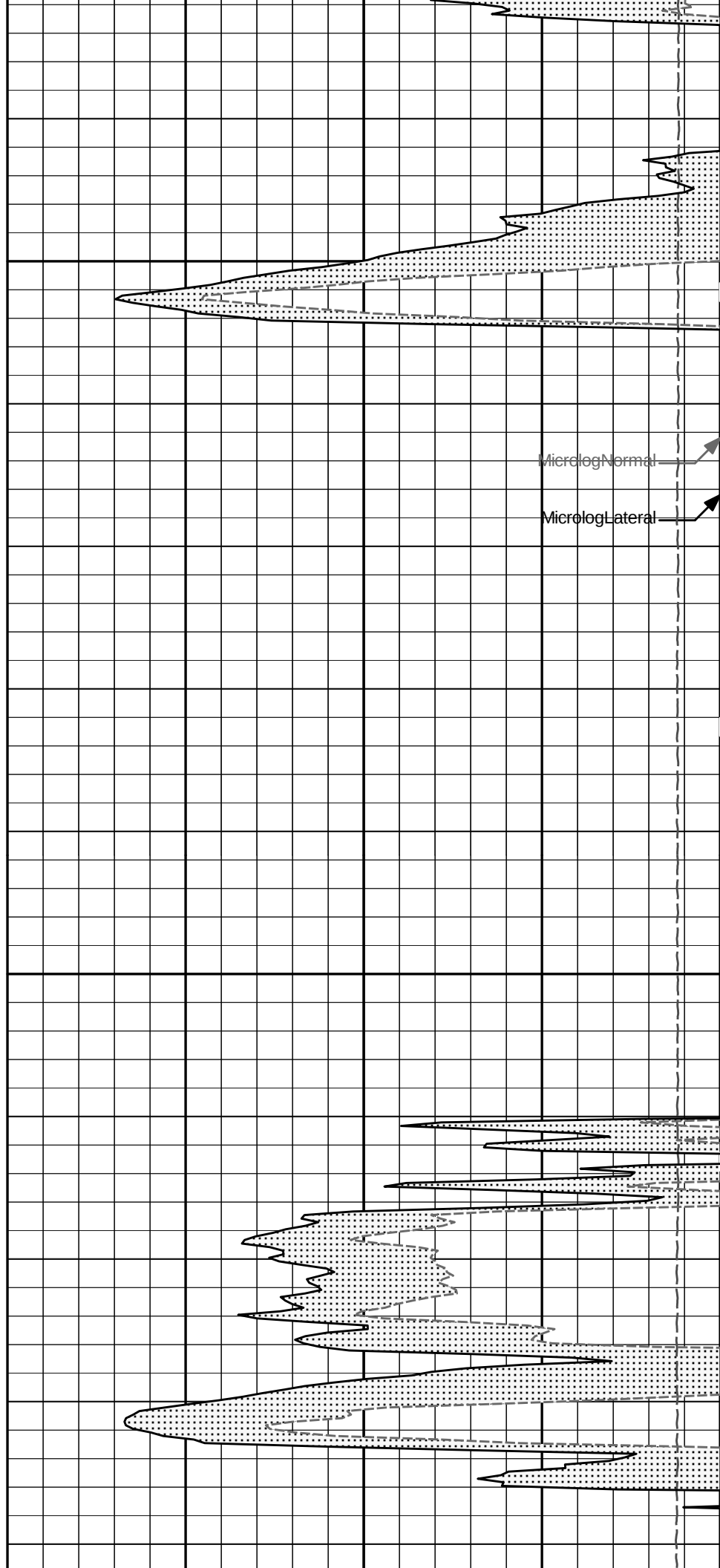


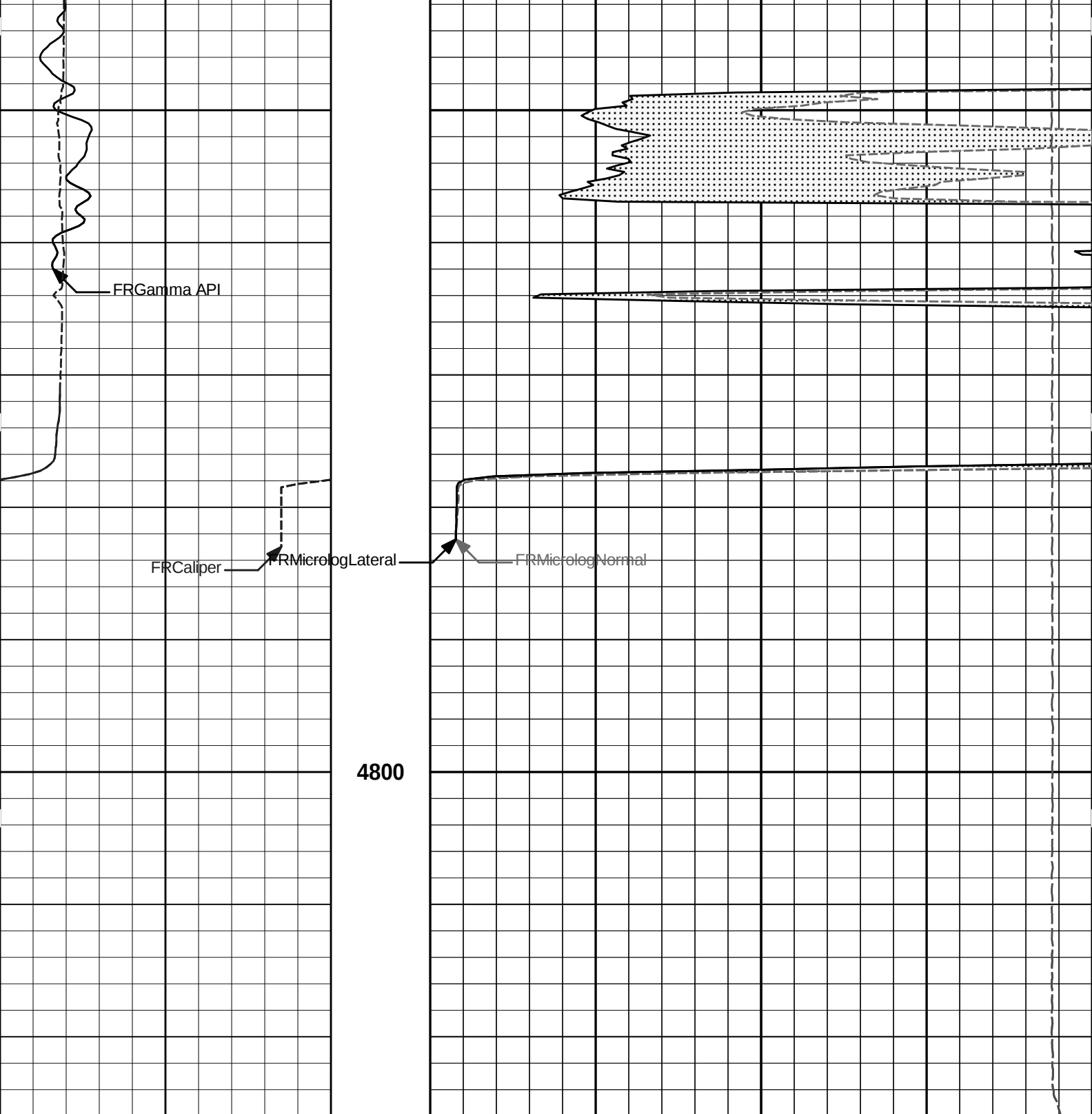
4600





4700





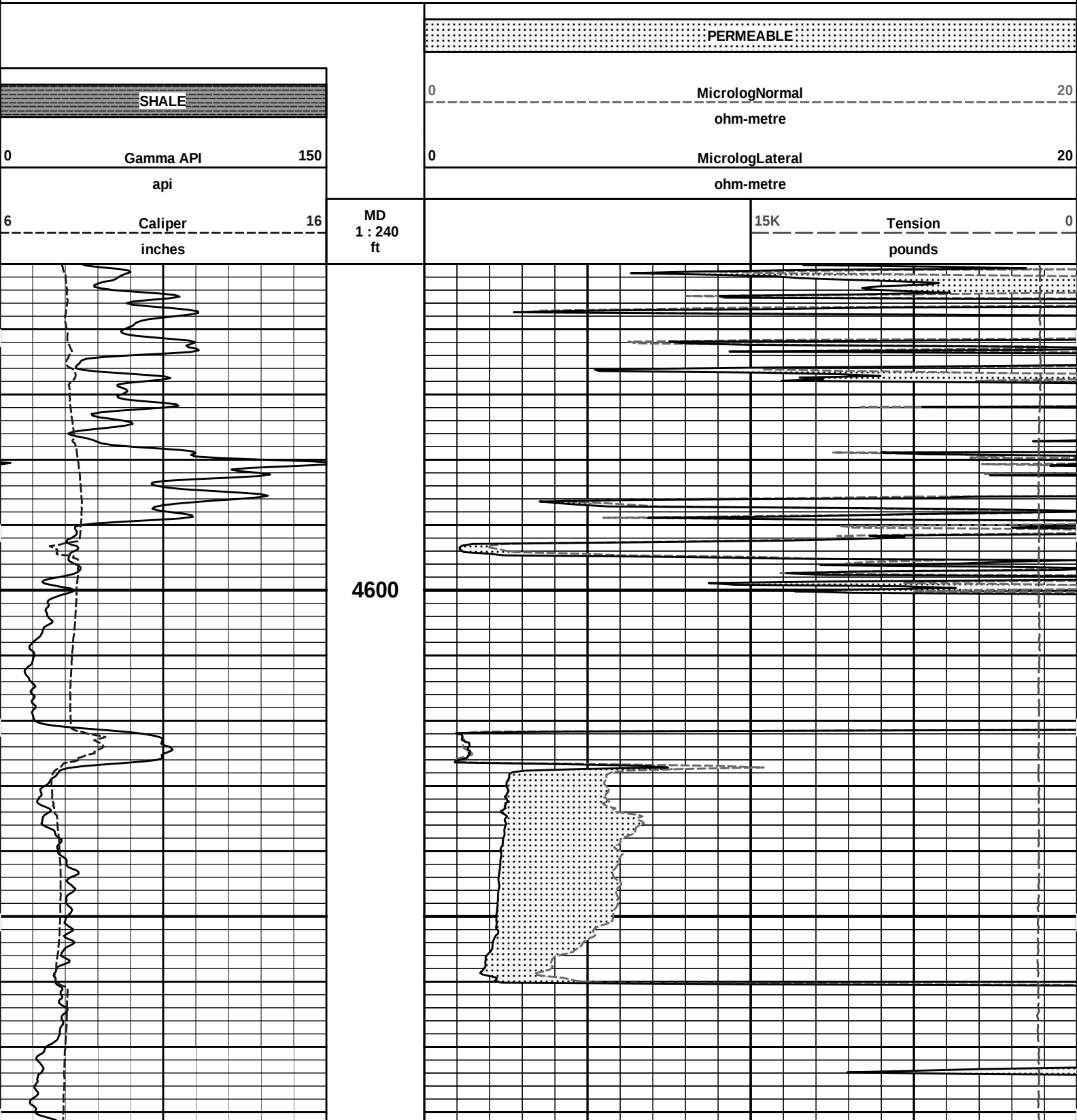
6	Caliper	16	MD 1 : 120 ft		15K	Tension	0	
	inches					pounds		
0	Gamma API	150		0	MicrologLateral			20
	api				ohm-metre			
	SHALE			0	MicrologNormal			20
					ohm-metre			
					PERMEABLE			

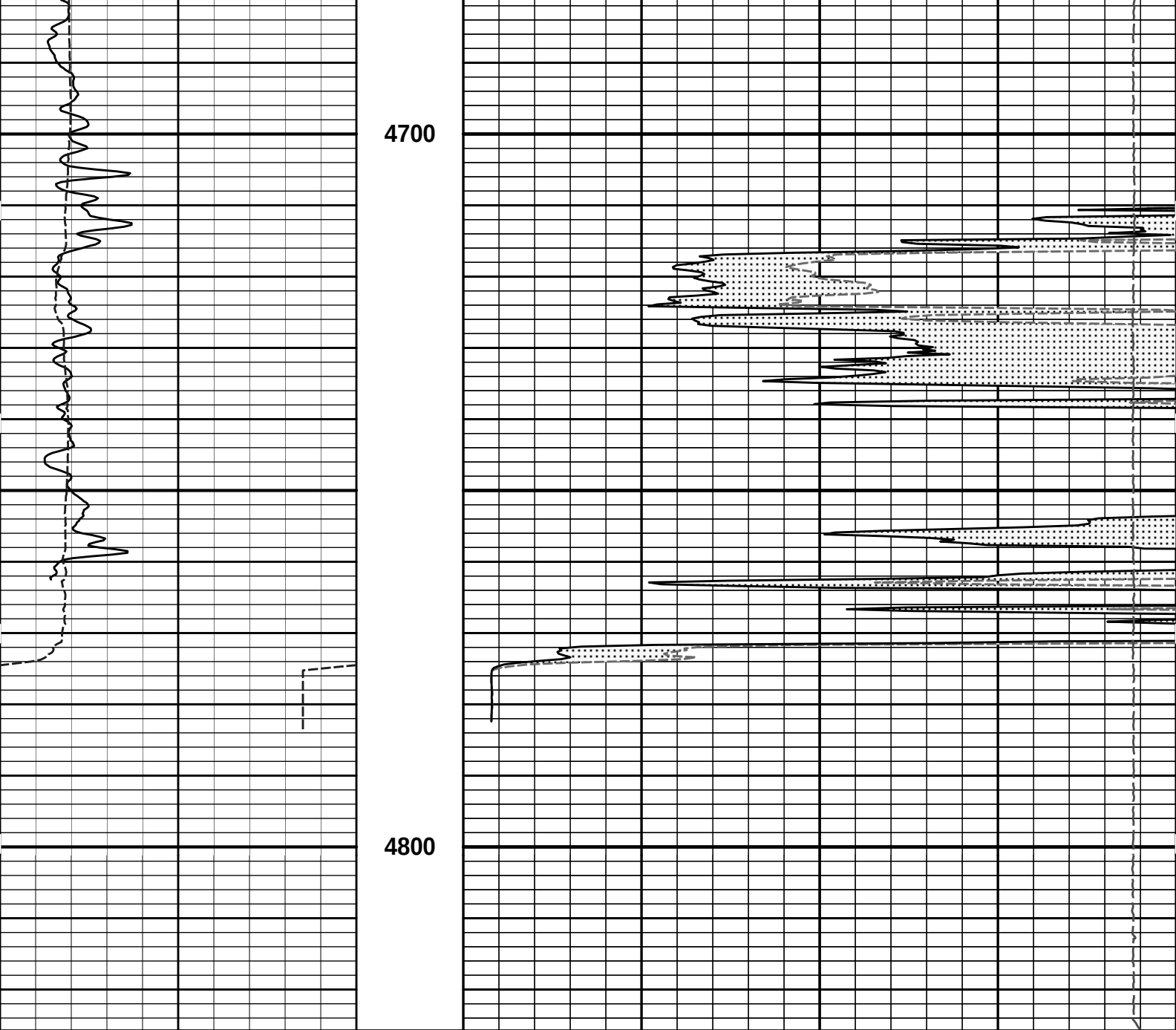
5 INCH MAIN LOG

HALLIBURTON

Plot Time: 30-Aug-13 11:57:28
Plot Range: 4550 ft to 4825.75 ft
Data: GARDEN_CITYTWIN\\Well Based\\REPEAT\\
Plot File: \\-LOCAL-\\GARDEN_CITYTWIN0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\\MICRO\\Microlog_IQ_5_rep_lib

REPEAT SECTION





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			

HALLIBURTON

Plot Time: 30-Aug-13 11:57:40
Plot Range: 4550 ft to 4825.75 ft
Data: GARDEN_CITYTWINWell Based\REPEAT\
Plot File: \\-LOCAL-IGARDEN_CITYTWIN0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BNIMICRO\Microlog_IQ_5_rep_lib

REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
					80.04 ft	
RWCH-12027542 135.00 lbs		Ø 3.625 in →		← Load Cell @ 76.35 ft ← BH Temperature @ 75.79 ft	6.25 ft	
						73.79 ft
SP Sub-12345678 60.00 lbs		Ø 3.625 in →		← SP @ 72.01 ft	3.74 ft	
						70.05 ft
GTET-10748374 165.00 lbs		Ø 3.625 in →		← GammaRay @ 63.99 ft	8.52 ft	
						61.53 ft
DSNT-10735145 174.00 lbs	DSN Decentralizer- 10755066 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-10673803 360.00 lbs	SDLT Pad-10673790 65.00 lbs Microlog Pad-10673803 8.00 lbs	Ø 4.500 in → Ø 4.750 in* → Ø 4.750 in* →		Microlog @ 44.03 ft SDL Caliper @ 43.84 ft SDL @ 43.83 ft	10.81 ft	
						41.03 ft
Flex Joint-00000001 140.00 lbs		Ø 3.625 in →			5.67 ft	
	Centralizer 25-00000001 8.00 lbs	Ø 4.000 in* →				35.36 ft

BSAT-10747684
300.00 lbs

Ø 3.625 in →

← Sonic Receivers @ 26.84 ft

15.77 ft

ACRt Instrument-
10929776
50.00 lbs

Centralizer 25-00000002
8.00 lbs

Ø 4.000 in*
Ø 3.625 in →

19.58 ft

5.03 ft

14.55 ft

← Mud Resistivity @ 13.19 ft

← ACRt @ 9.21 ft

ACRt Sonde-
10929775
200.00 lbs

Ø 3.625 in →

14.22 ft

Bull Nose-00000001
5.00 lbs

Ø 2.750 in →

0.33 ft

0.33 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		12027542	135.00	6.25	73.79	300.00
SP	SP Sub		12345678	60.00	3.74	70.05	300.00
GTET	Gamma Telemetry Tool		10748374	165.00	8.52	61.53	60.00
DSNT	Dual Spaced Neutron		10735145	174.00	9.69	51.84	60.00
DCNT	DSN Decentralizer		10755066	6.60	5.13	* 55.17	300.00
SDLT	Spectral Density Tool		10673803	360.00	10.81	41.03	60.00
MICP	Microlog Pad		10673803	8.00	1.00	* 43.53	60.00
SDLP	Density Insite Pad		10673790	65.00	2.55	* 43.24	60.00
FLEX	Flex Joint		00000001	140.00	5.67	35.36	300.00
BSAT	Borehole Sonic Array Tool		10747684	300.00	15.77	19.58	60.00
OBCEN	Centralizer - 25 in. Overbody		00000001	8.00	2.08	* 32.82	300.00
ACRt	Array Compensated True Resistivity Instrument Section		10929776	50.00	5.03	14.55	300.00
OBCEN	Centralizer - 25 in. Overbody		00000002	8.00	2.08	* 16.30	300.00
ACRt	Array Compensated True Resistivity Sonde Section		10929775	200.00	14.22	0.33	300.00
BLNS	Bull Nose		00000001	5.00	0.33	0.00	300.00

Total 1,684.60 80.04

* Not included in Total Length and Length Accumulation.

Data: GARDEN_CITYTWIN\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\IDLE

Date: 30-Aug-13 08:46:16

CALIBRATION REPORT					
NATURAL GAMMA RAY TOOL SHOP CALIBRATION					
Tool Name:	GTET - 10748374		Reference Calibration Date:	25-Jul-13 22:09:38	
Engineer:	THOMAS HYDE		Calibration Date:	02-Aug-13 14:20:06	
Software Version:	WL INSITE R3.8.4 (Build 5)		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		41.8	41.9	api	
Background + Calibrator		273.2	273.9	api	
Calibrator		231.4	232.0	api	
NATURAL GAMMA RAY TOOL FIELD CALIBRATION					
Tool Name:	GTET - 10748374		Reference Calibration Date:	02-Aug-13 14:20:06	
Engineer:	J. BOLLLOM		Calibration Date:	30-Aug-13 05:36:07	
Software Version:	WL INSITE R3.8.4 (Build 5)		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		41.9	42.5	api	
Background + Calibrator		273.9	276.1	api	
Calibrator		232.0	233.6	api	
Shop		Field	Difference	Tolerance	
232.0		233.6	-1.6	+/- 9.00	
MICRO LOG SHOP CALIBRATION					
Tool Name:	Microlog Pad - 10673803		Reference Calibration Date:	18-May-13 22:05:23	
Engineer:	J. BOLLLOM		Calibration Date:	21-Aug-13 17:23:25	
Software Version:	WL INSITE R3.8.4 (Build 5)		Calibration Version:	1	
Host Tool Name:	DSNT - 10735145				
CALIBRATION COEFFICIENT SUMMARY					
Measurement	Micro Log Normal		Micro Log Lateral		Units
	Measured	Calibrated	Measured	Calibrated	
Tool Zero	-0.06	-0.44	0.01	0.01	ohmm
Calibration Point #1	0.38	0.00	-0.00	0.00	ohmm
Calibration Point #2	20.45	20.00	20.04	20.00	ohmm
Internal Reference	20.03	19.58	20.05	20.01	ohmm
Measurement	Micro Log Normal Tool Value		Micro Log Lateral Tool Value		Units
Tool Zero	2.39		3.98		V
Calibration Point #1	121.08		1.49		V
Calibration Point #2	5527.92		7047.33		V
Internal Reference	5415.52		7049.88		V
MICRO LOG FIELD CHECK					
Tool Name:	Microlog Pad - 10673803		Reference Calibration Date:	21-Aug-13 17:23:25	
Engineer:	J. BOLLLOM		Calibration Date:	22-Aug-13 05:35:49	

Engineer: J. BOLLUM		Calibration Date: 30-Aug-13 05:35:49				
Software Version: WL INSITE R3.8.4 (Build 5)		Calibration Version: 1				
	Measurement	Micro Log Normal		Micro Log Lateral		
		Shop	Field	Shop	Field	Units
	Tool Zero	-0.44	-0.48	0.01	0.01	ohmm
	Internal Reference	19.58	19.53	20.01	19.95	ohmm
	Summary					
	Signal	Shop	Field	Difference		Tolerance
	Microlog Normal	19.58	19.53	0.05		+/- 0.80
	Microlog Lateral	20.01	19.95	0.06		+/- 0.80
CALIBRATION SUMMARY						
Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-10748374						
Gamma Ray Calibrator	232.0	233.6	-----	-1.6	+/- 9.00	api
Microlog Pad-10673803						
MicroLog Normal	19.58	19.53	-----	0.05	+/-0.80	ohmm
MicroLog Lateral	20.01	19.95	-----	0.06	+/-0.80	ohmm
Data: GARDEN_CITYTWIN\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-BN\IDLE					Date: 30-Aug-13 08:55:31	
HALLIBURTON						
PARAMETERS REPORT						
Depth (ft)	Tool Name	Mnemonic	Description	Value	Units	
TOP						
	GTET	GEOK	Process Gamma Ray EVR?	No		
	DSNT	DEOK	Process DSN EVR?	No		
	SDLT Pad	DNOK	Process Density EVR?	No		
3600.00						
	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	9.500	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	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	ST	Surface Temperature	75.0	degF	
	SHARED	TD	Total Well Depth	4830.00	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	Temperature Master Tool	NONE		
	SHARED	BHSM	Borehole Size Master Tool	NONE		
	Rwa / CrossPlot	XPOK	Process Crossplot?	Yes		

	Rwa / CrossPlot	FCHO	Select Source of F	Automatic	
	Rwa / CrossPlot	AFAC	Archie A factor	0.6200	
	Rwa / CrossPlot	MFAC	Archie M factor	2.1500	
	Rwa / CrossPlot	RMFR	Rmf Reference	0.10	ohmm
	Rwa / CrossPlot	TMFR	Rmf Ref Temp	75.00	degF
	Rwa / CrossPlot	RWA	Resistivity of Formation Water	0.05	ohmm
	Rwa / CrossPlot	ADP	Use Air Porosity to calculate CrossplotPhi	No	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GRSO	Gamma Tool Standoff	0.000	in
	GTET	GEOK	Process Gamma Ray EVR?	Yes	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	Yes	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
	DSNT	DNTP	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	
	DSNT	SHCO	View More Correction Options	No	
	DSNT	UTVD	Use TVD for Gradient Corrections?	No	
	DSNT	LHWT	Logging Horizontal Water Tank?	No	
	SDLT	CLOK	Process Caliper Outputs?	Yes	
	SDLT Pad	DNOK	Process Density?	Yes	
	SDLT Pad	DNOK	Process Density EVR?	Yes	
	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
	Microlog Pad	MLOK	Process MicroLog Outputs?	Yes	
	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 Fluid	189.00	uspf
	BSAT	DTMT	Delta -T Matrix Type	User define	
	BSAT	DTMA	Delta -T Matrix	47.60	uspf
	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 Upr	
	ACRt Sonde	TPOS	Tool Position	Free Hanging	
	ACRt Sonde	RMOP	Rmud Source	Mud Cell	
	ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
	ACRt Sonde	RMIN	Maximum Resistivity for MAP	200.00	ohmm
	ACRt Sonde	THQY	Threshold Quality	0.50	
	ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM					
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INPUTS, DELAYS AND FILTERS TABLE					
Mnemonic		Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel					
TENS	Tension		0.00	NO	
RWCH					
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
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	
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
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 Current Raw 12K X Receiver	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	
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
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	
Microlog Pad				
TPUL	Tension Pull	44.03	NO	
MINV	Microlog Lateral	44.03	BLK	0.750
MNOR	Microlog Normal	44.03	BLK	0.750
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COMPANY	HARTMAN OIL CO.		
WELL	GARDEN CITY B TWIN #5		
FIELD	DAMME		
COUNTY	FINNEY	STATE	KANSAS
HALLIBURTON		MICROLOG	