

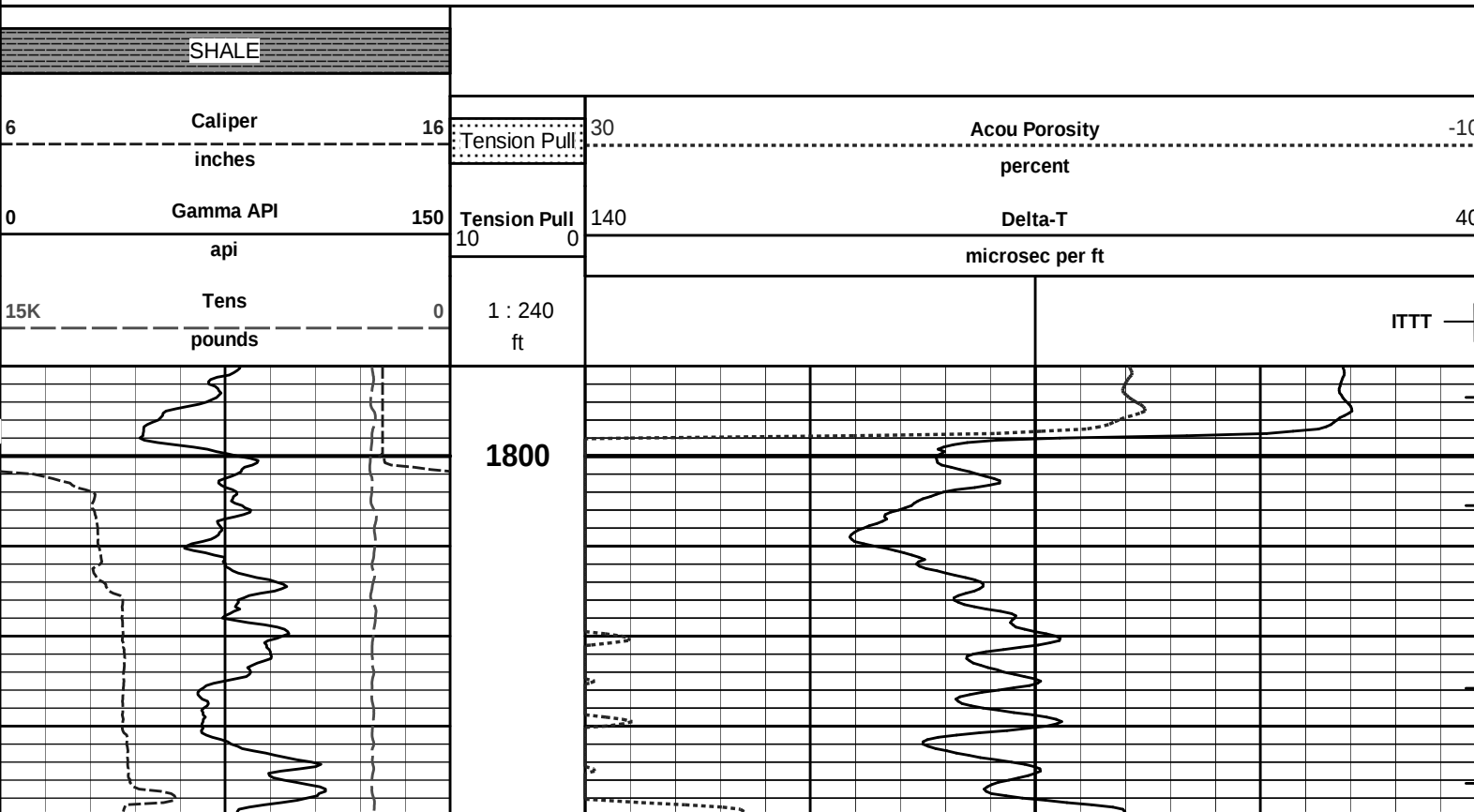
HALLIBURTON

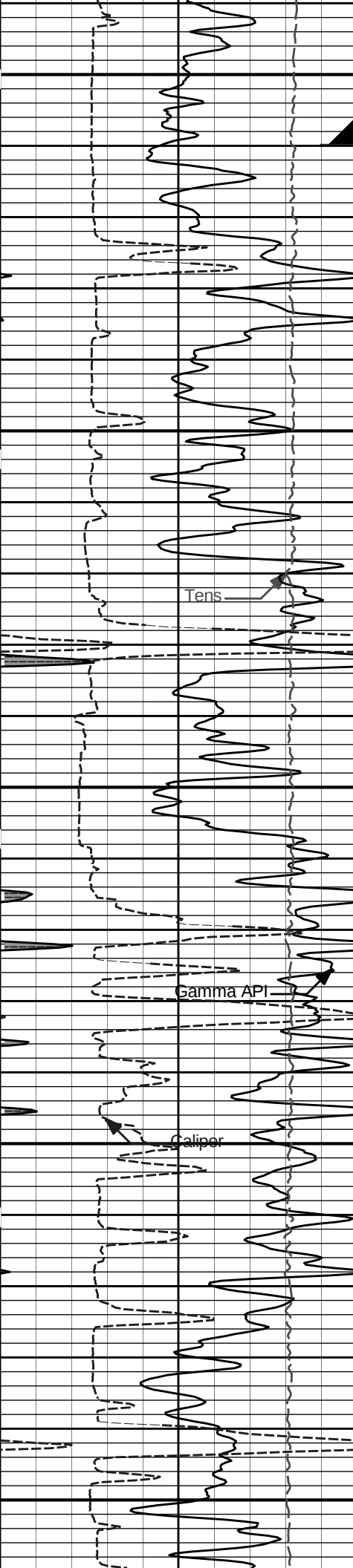
BOREHOLE COMPENSATED SONIC ARRAY LOG

COMPANY		OXY USA INC.	
WELL		KU B-4	
FIELD/BLOCK		ARROYO	
COUNTY		STANTON	
STATE		KANSAS	
Permanent Datum		API No. 15187212340000	
Log measured from		Location (SHL) 1439' FSL & 1159' FEL	
Drilling measured from		Other Services: MICROLOG DSNT, SDLT ACRT	
Date		Sect. 17	
Run No.		Twp. 29S	
Depth - Driller		Rge. 41W	
Depth - Logger		Elev. 3412.9 ft	
Bottom - Logged Interval		Elev. K.B. 3424.0 ft	
Top - Logged Interval		D.F. 3423.0 ft	
Casing - Driller		G.L. 3412.9 ft	
Casing - Logger			
Bit Size			
Type Fluid in Hole			
Density			
PH			
Source of Sample			
Rm @ Meas. Temperature			
Rmf @ Meas. Temperature			
Rmc @ Meas. Temperature			
Source Rmf			
Rm @ BHT			
Time Since Circulation			
Time on Bottom			
Max. Rec. Temperature			
Equipment			
Recorded By			
Witnessed By			

Service Ticket No.: 900523447				API Serial No.: 15187212340000				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.		@		@											
Rmc @ Meas. Temp.		@		@											
Source Rmf		Rmc													
Rm @ BHT		@		@											
Rmf @ BHT		@		@											
Rmc @ BHT		@		@											
EQUIPMENT DATA															
GAMMA				ACOUSTIC				DENSITY				NEUTRON			
Run No.		ONE		Run No.		ONE		Run No.				Run No.			
Serial No.		GTET		Serial No.		10747684		Serial No.				Serial No.			
Model No.		11048627		Model No.		BSAT		Model No.				Model No.			
Diameter		3.625"		No. of Cent.		2		Diameter				Diameter			
Detector Model No.		T-102		Spacing		6"		Log Type				Log Type			
Type		SCINT						Source Type				Source Type			
Length		8'		LSA [Y/N]		NO		Serial No.				Serial No.			
Distance to Source		10'		FWDA [Y/N]		NO		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	5640	1800	REC	0	150	30	-10	47.6							
DIRECTIONAL INFORMATION															
Maximum Deviation								@	KOP @						
Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5-INCH CASING															
CHLORIDES REPORTED AT 600 MG/L															
LCM REPORTED AT 6 LB/BBL															
GTET-DSNT-SDLT-BSAT-ACRT RUN IN COMBINATION															
TODAY'S CREW: B. TERRELL & 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															





CSG

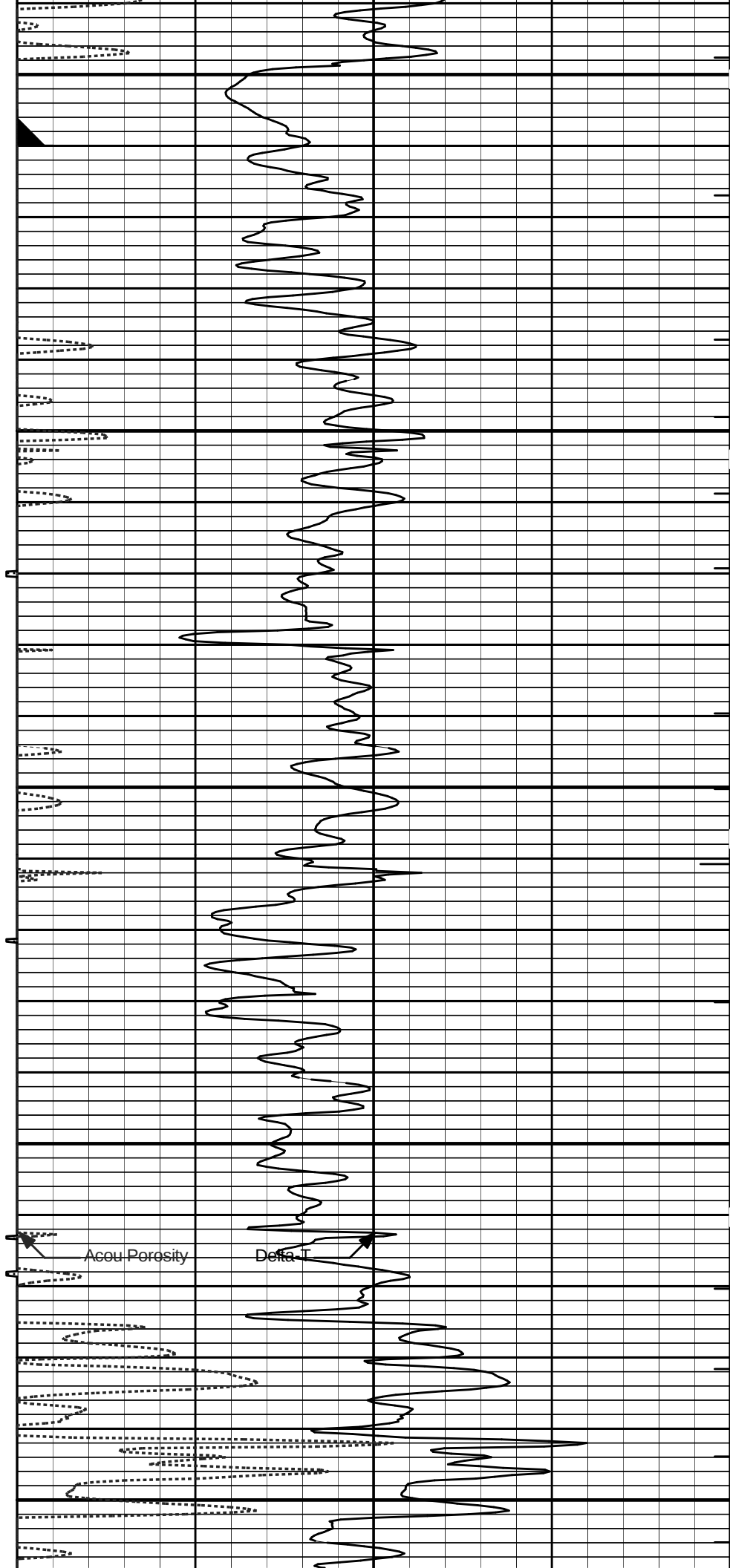
1900

Tens

Gamma API

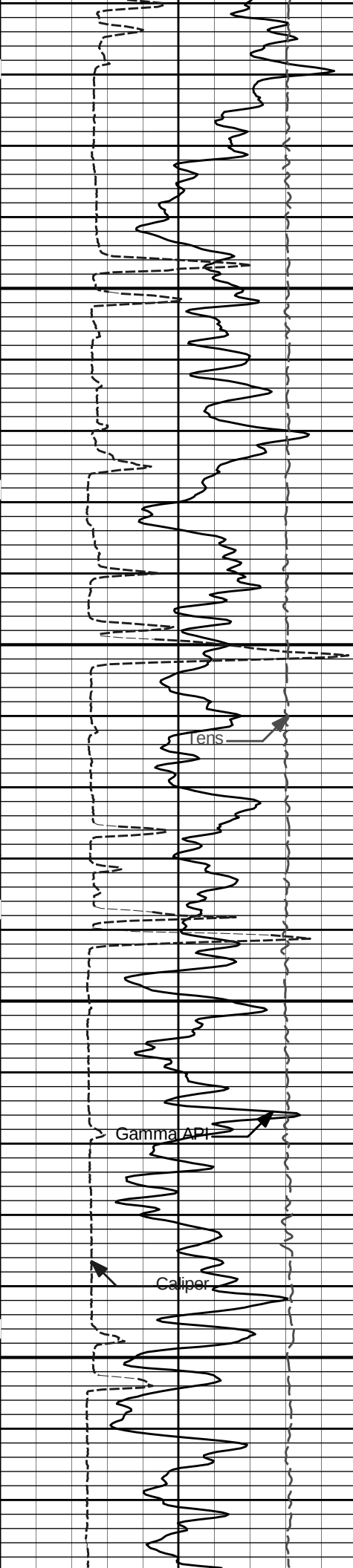
Caliper

2000



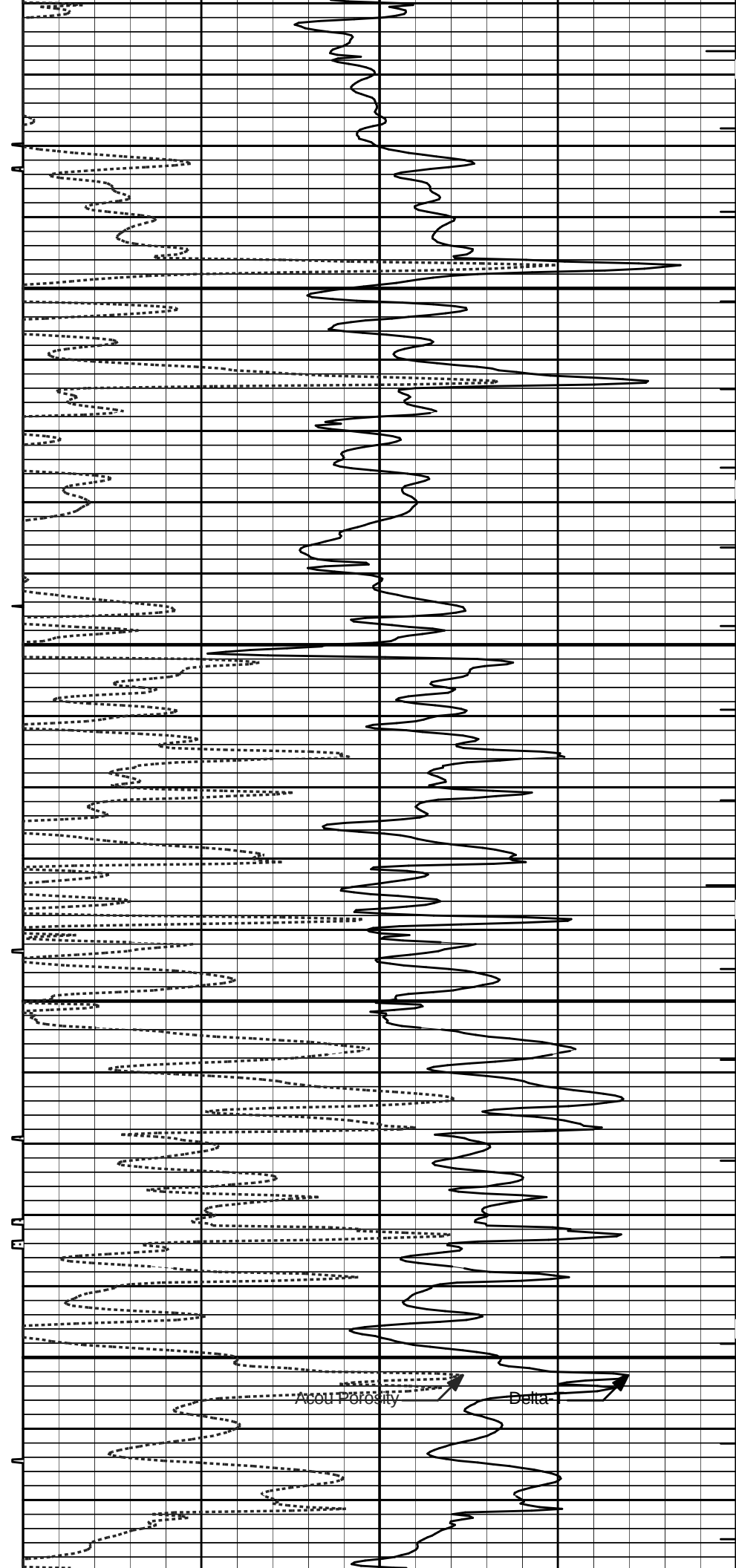
Acou Porosity

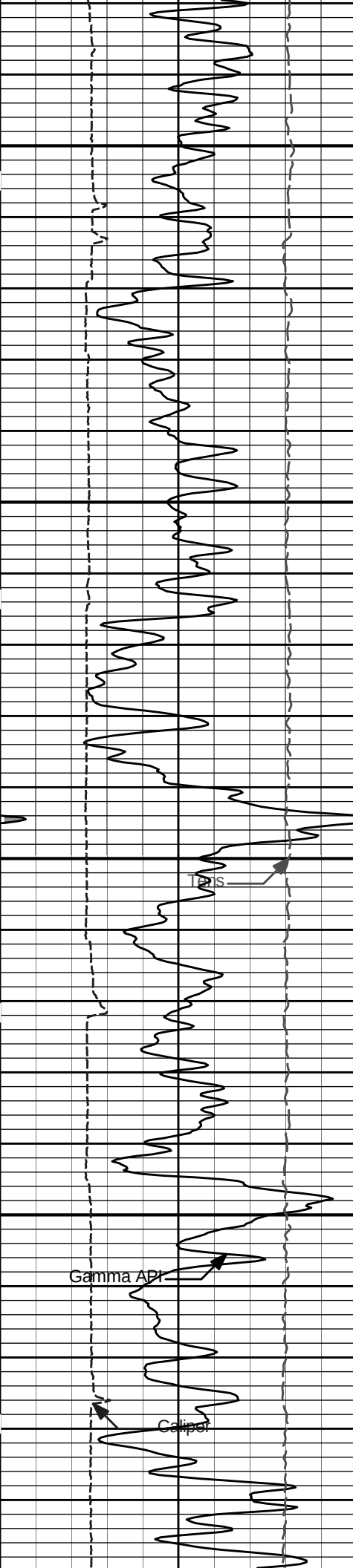
Delta T



2100

2200

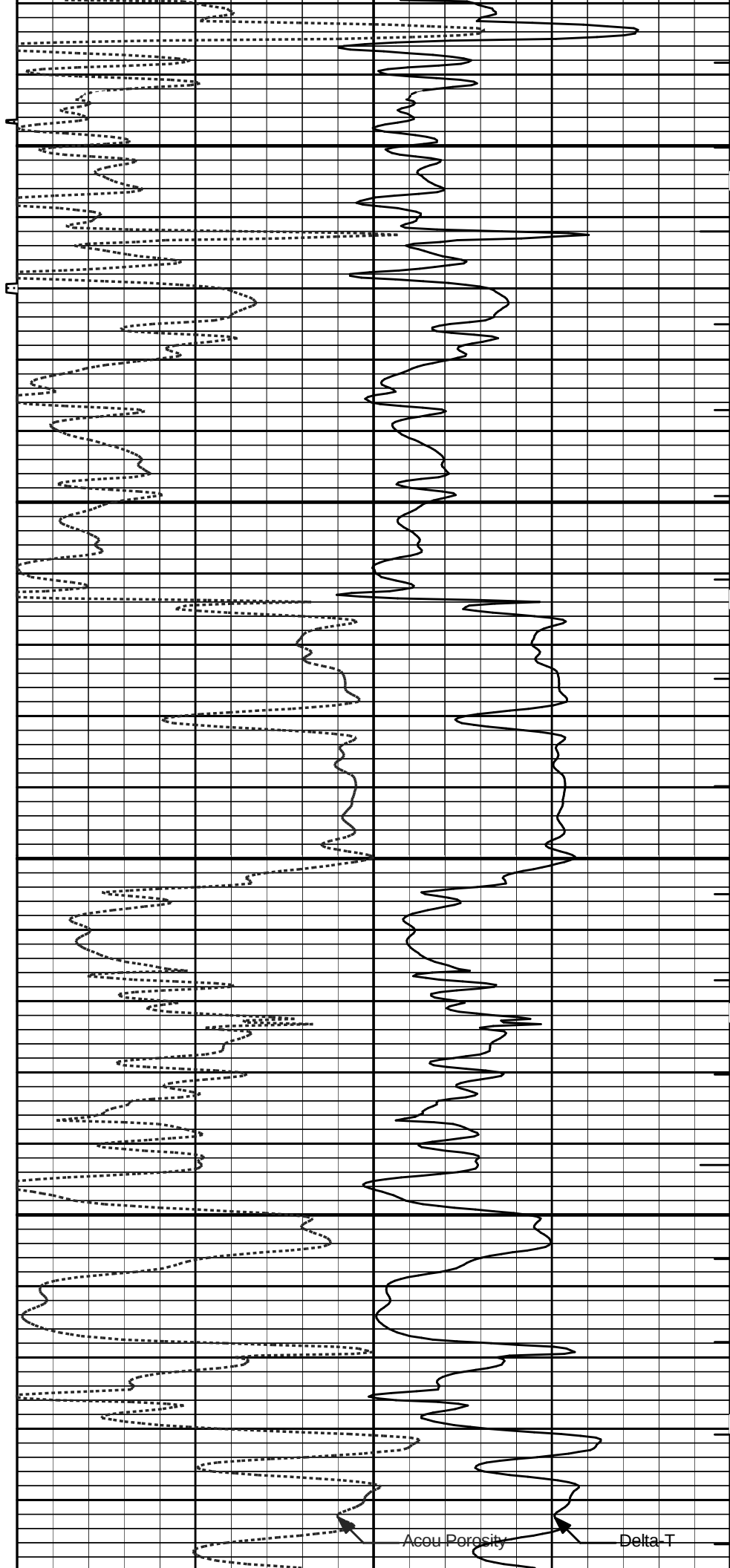


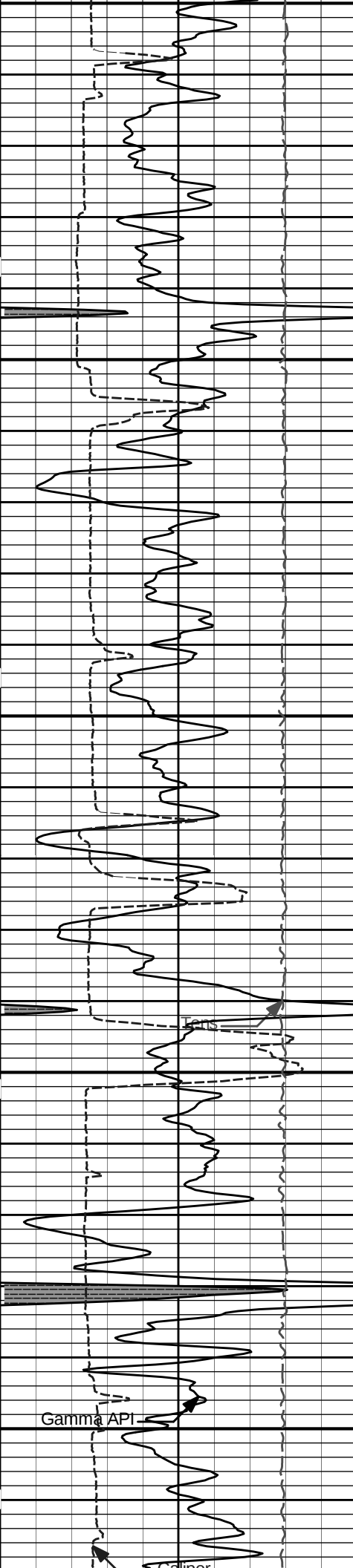


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2400

2500

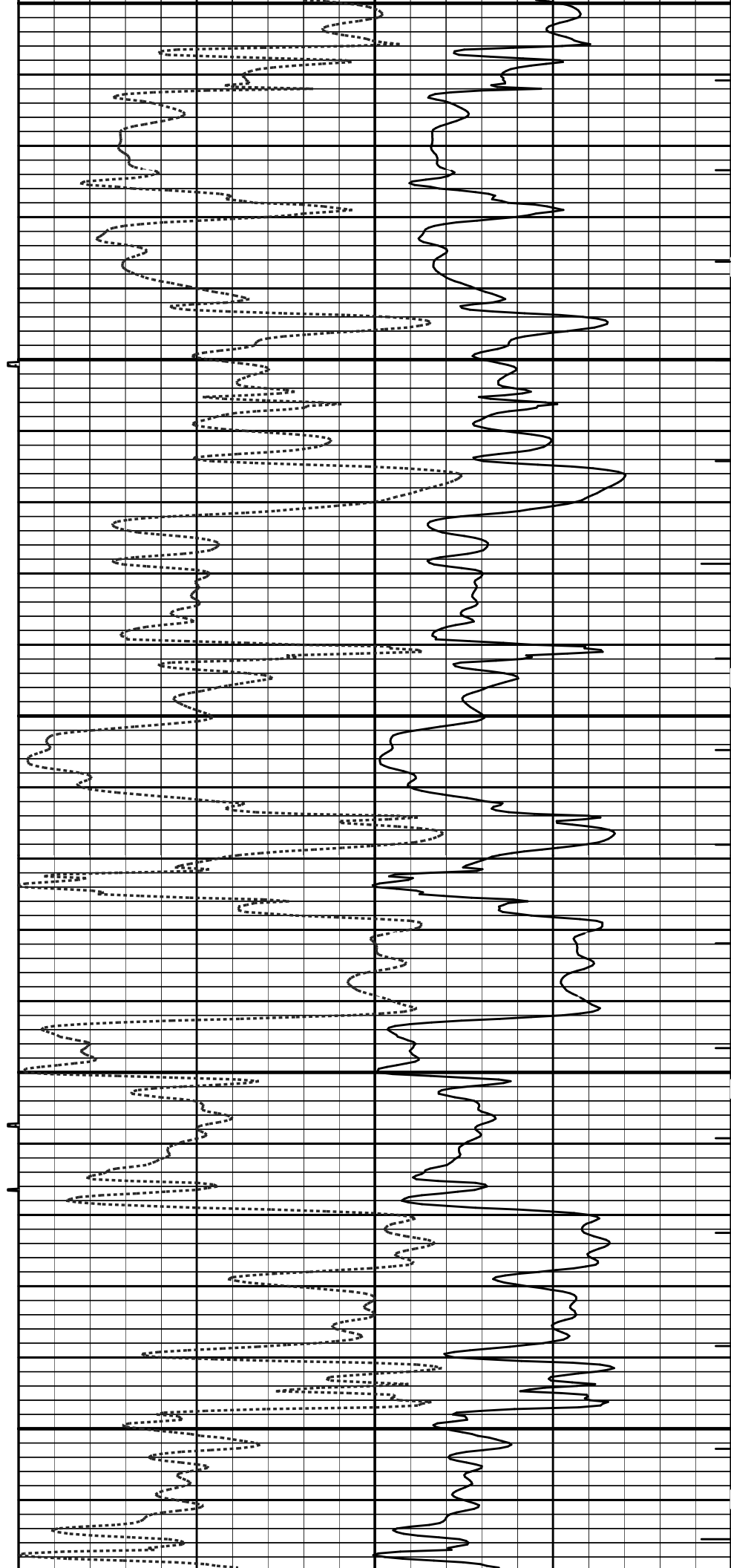


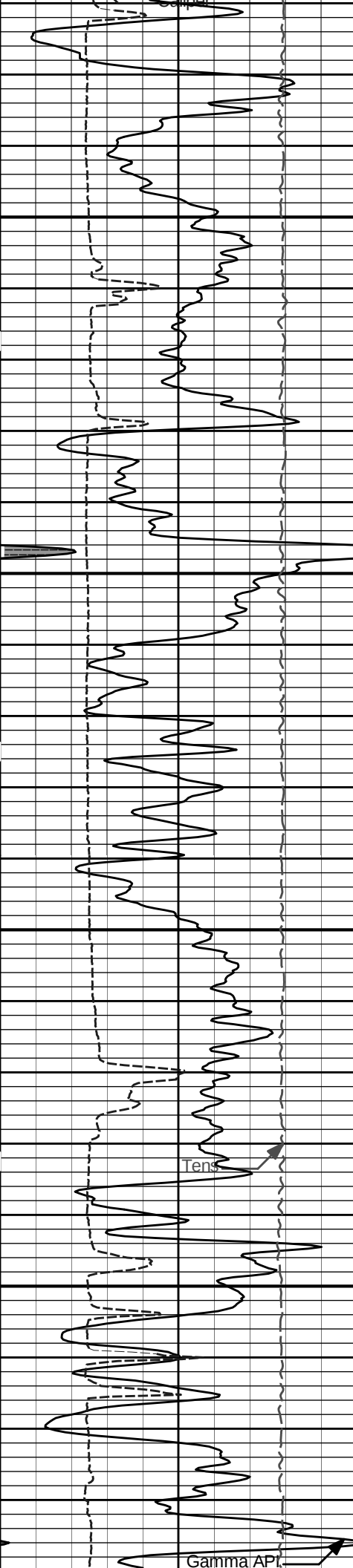


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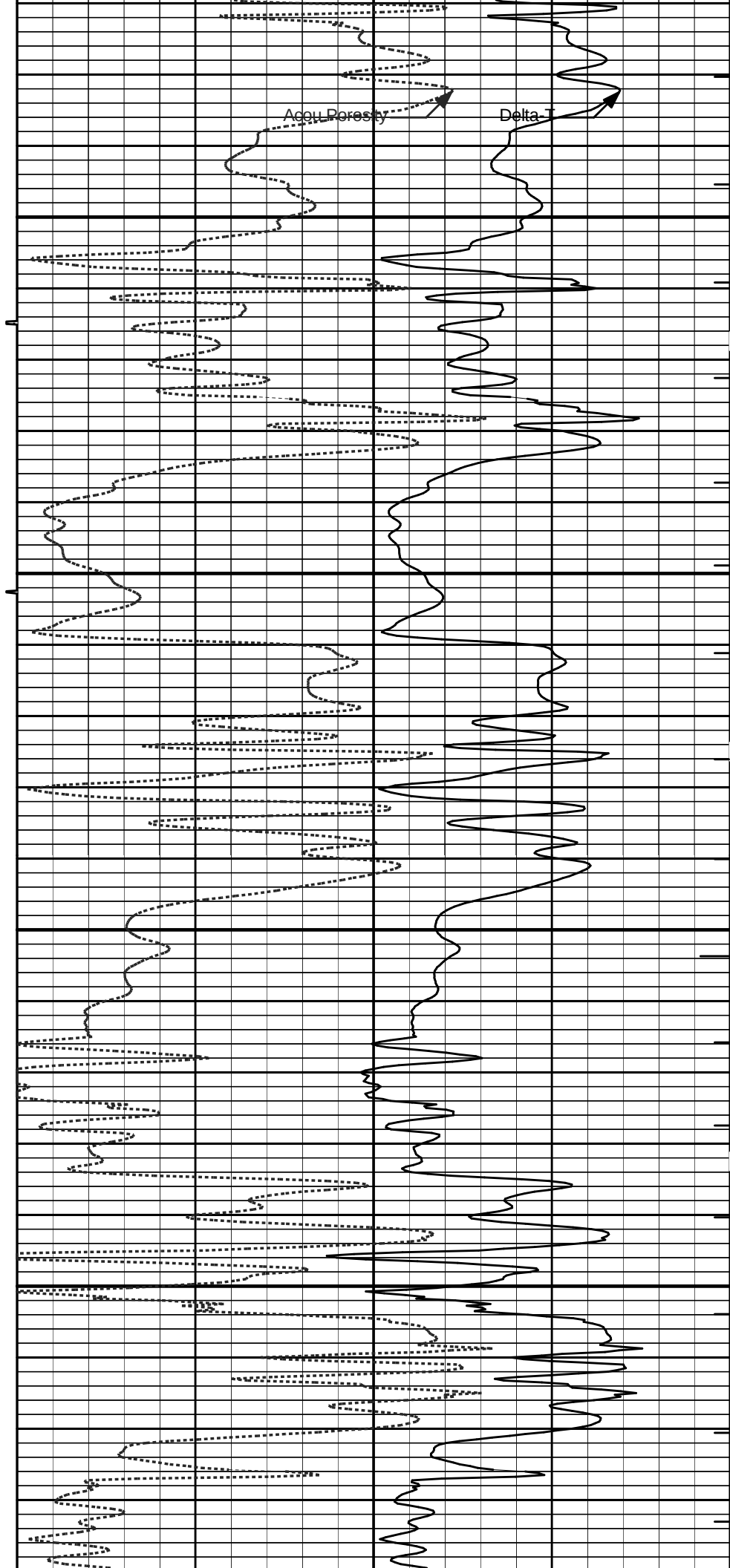
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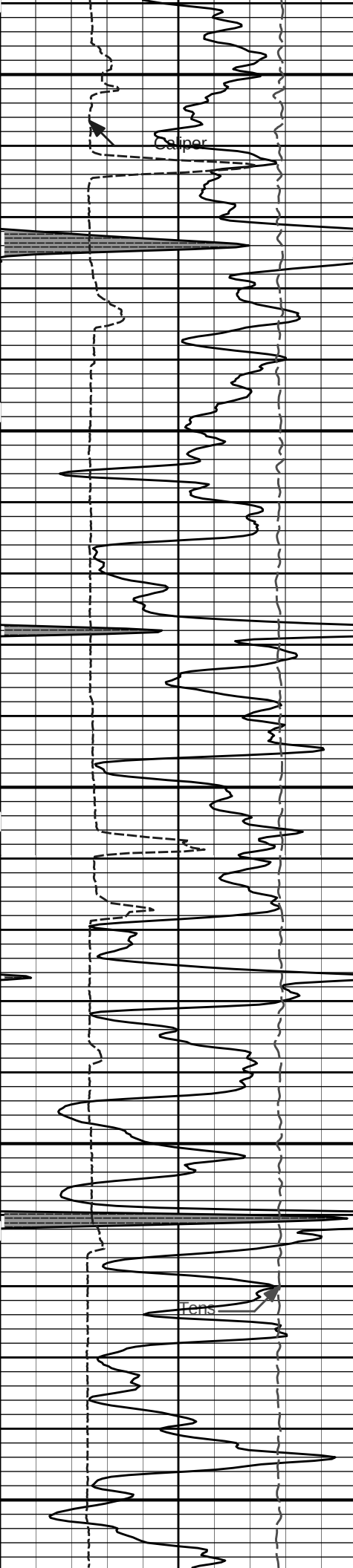




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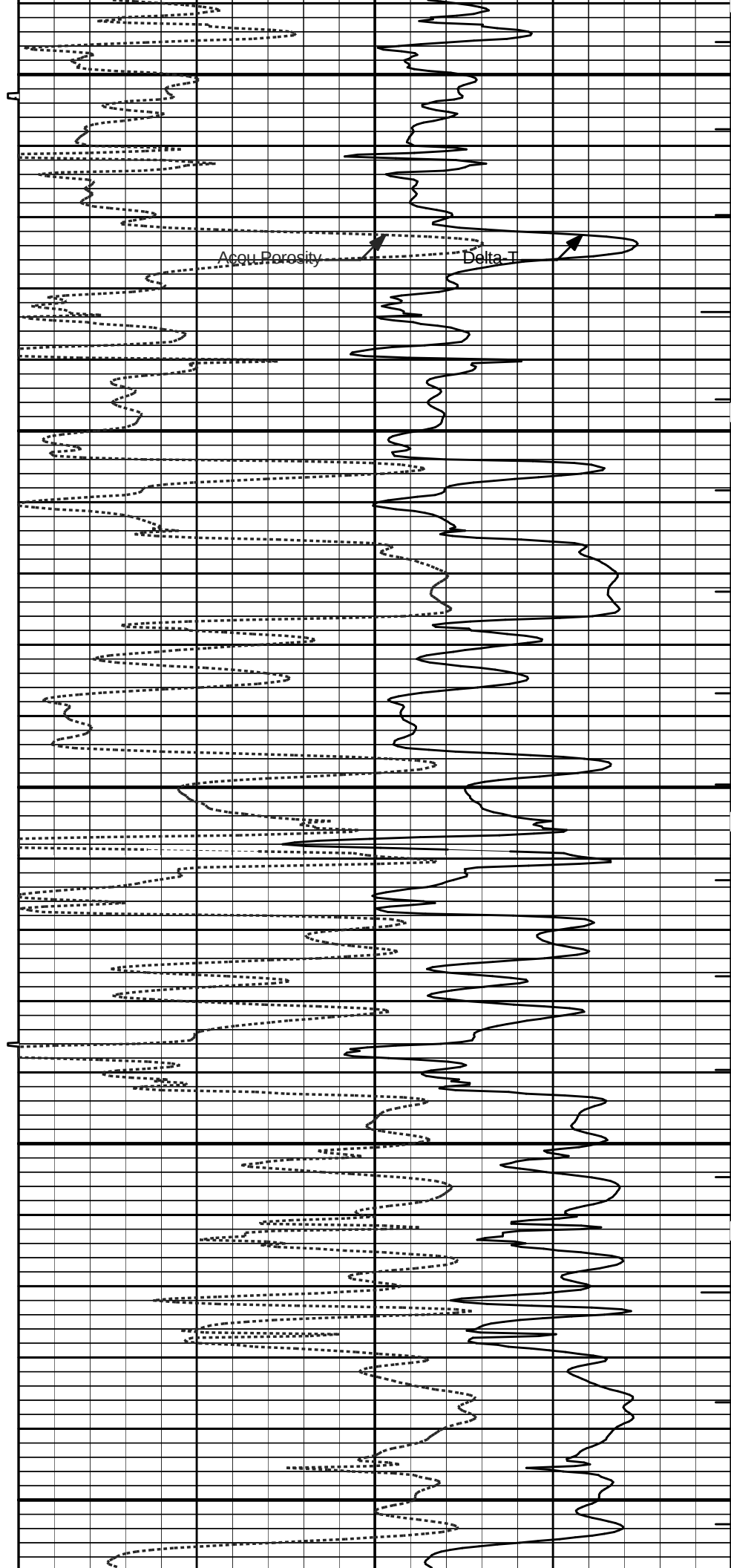
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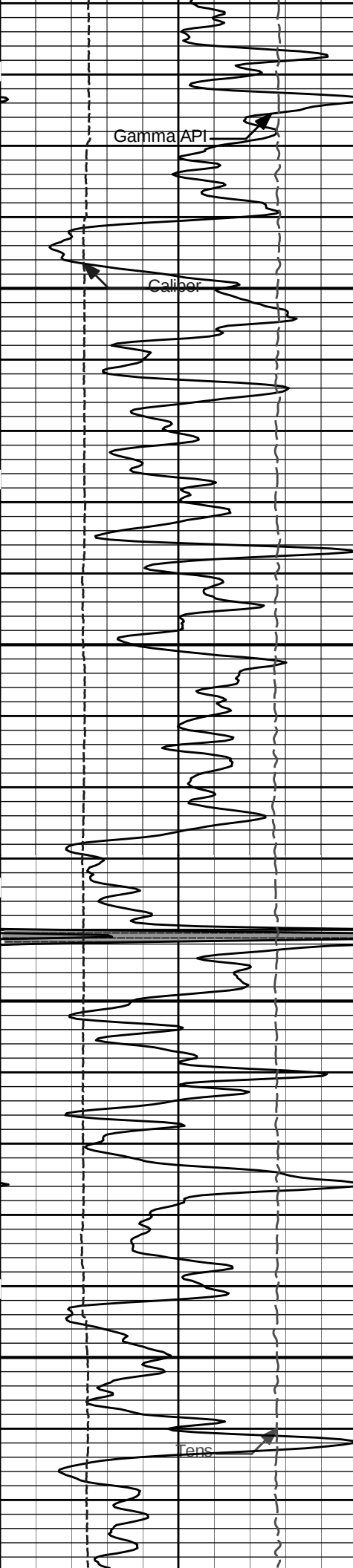




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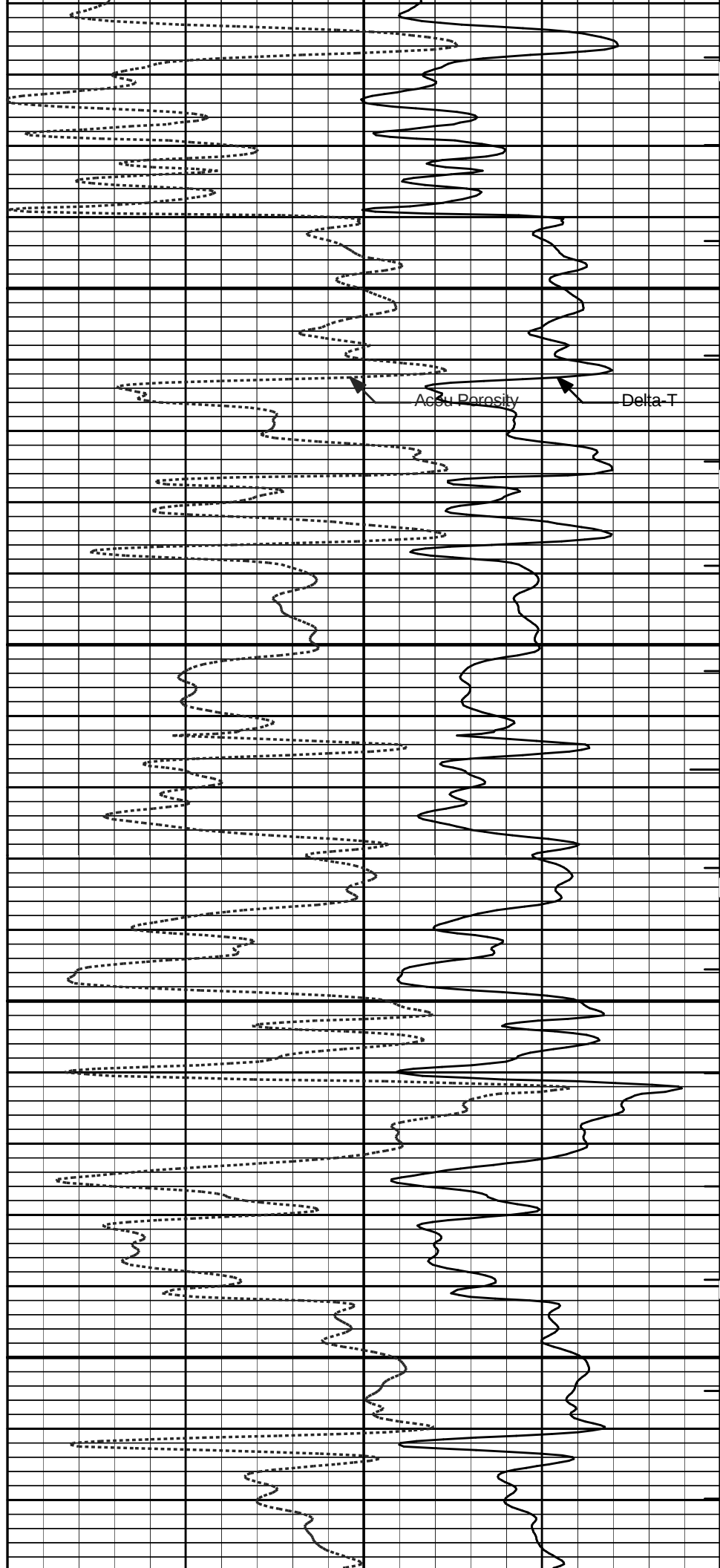
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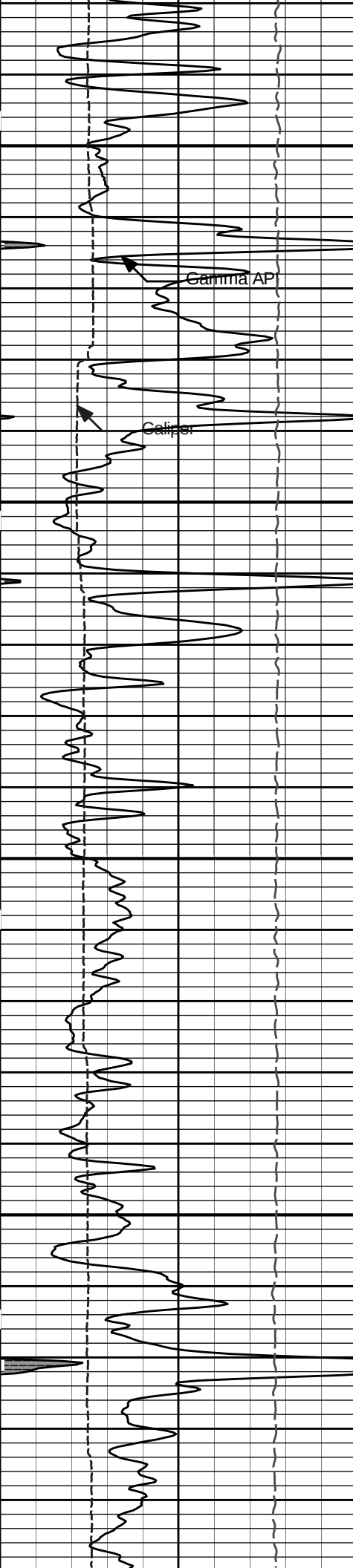




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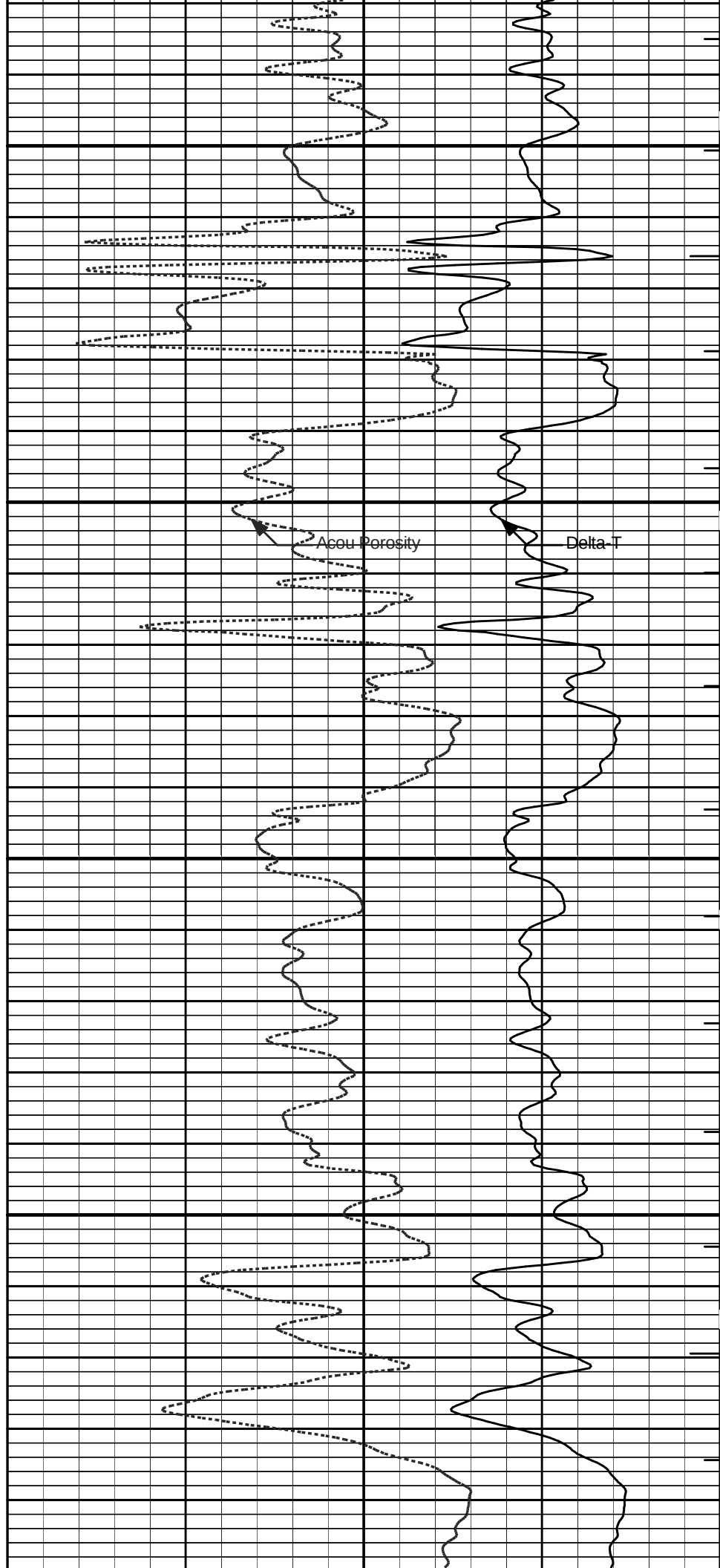


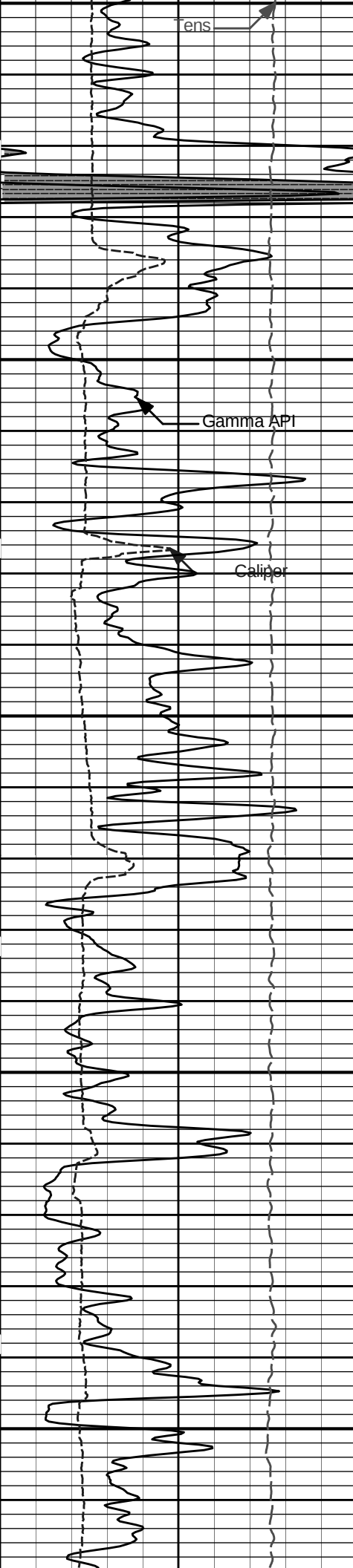


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3500

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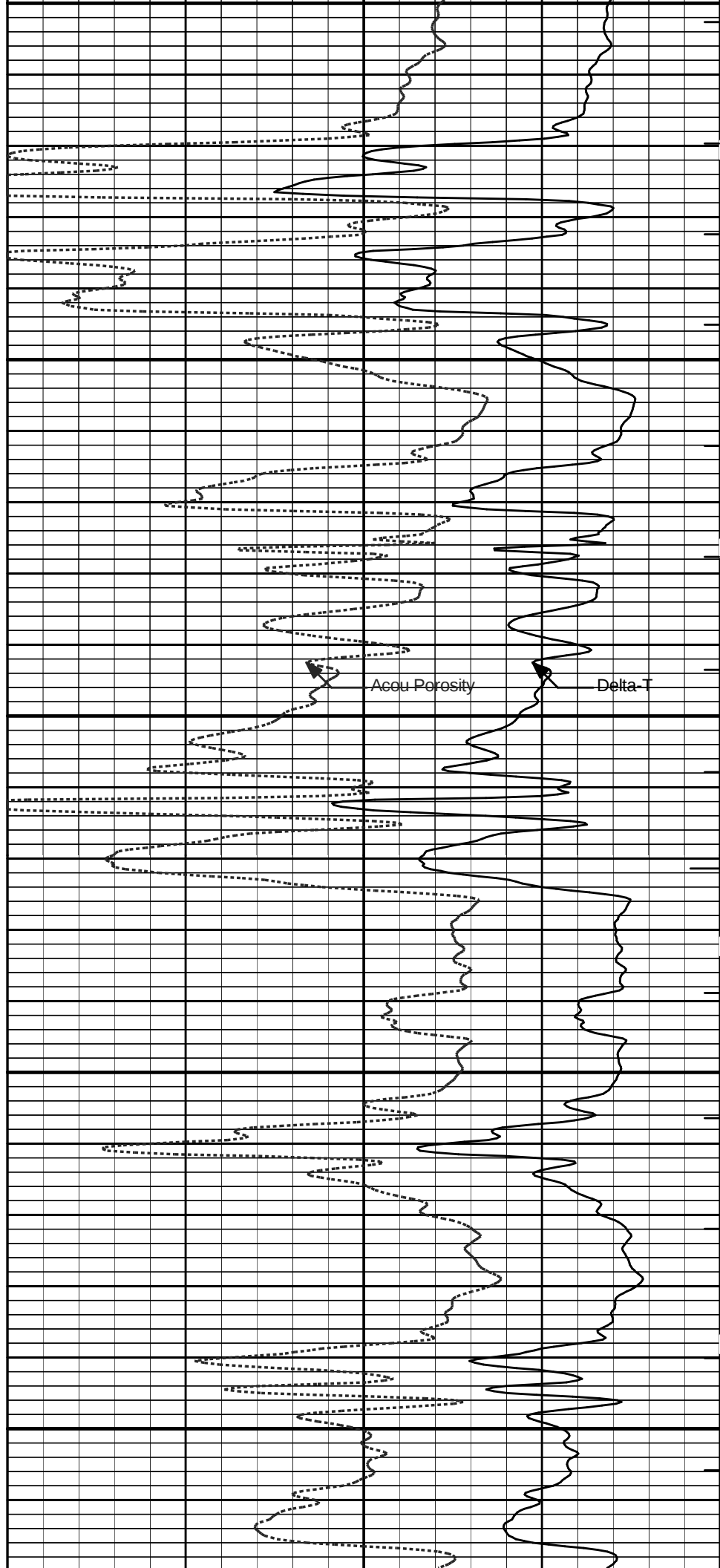




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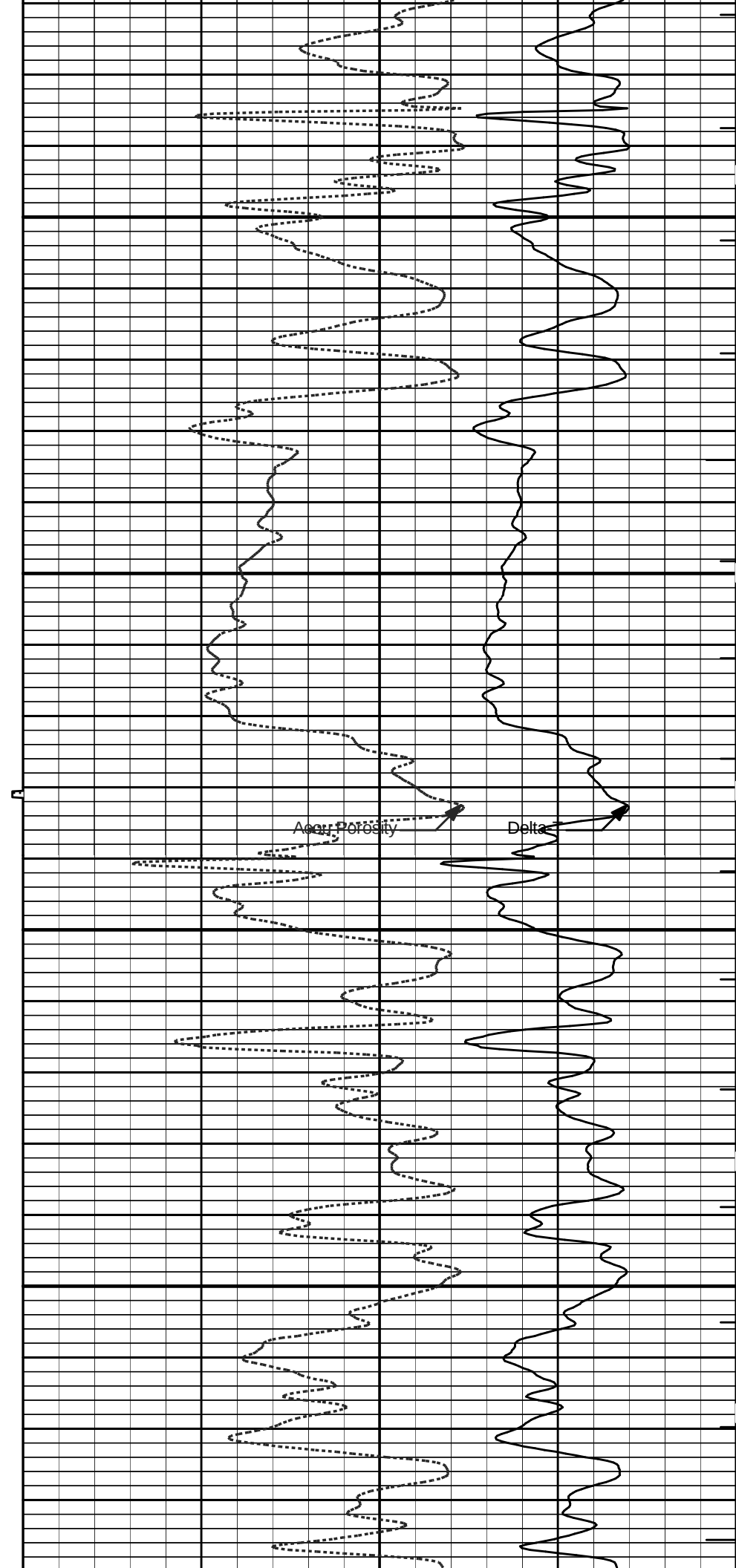
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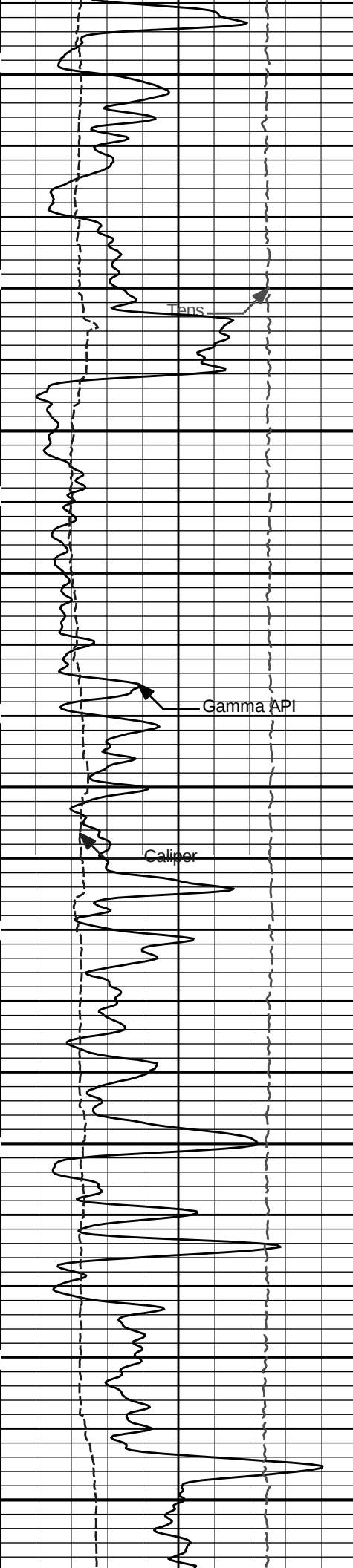




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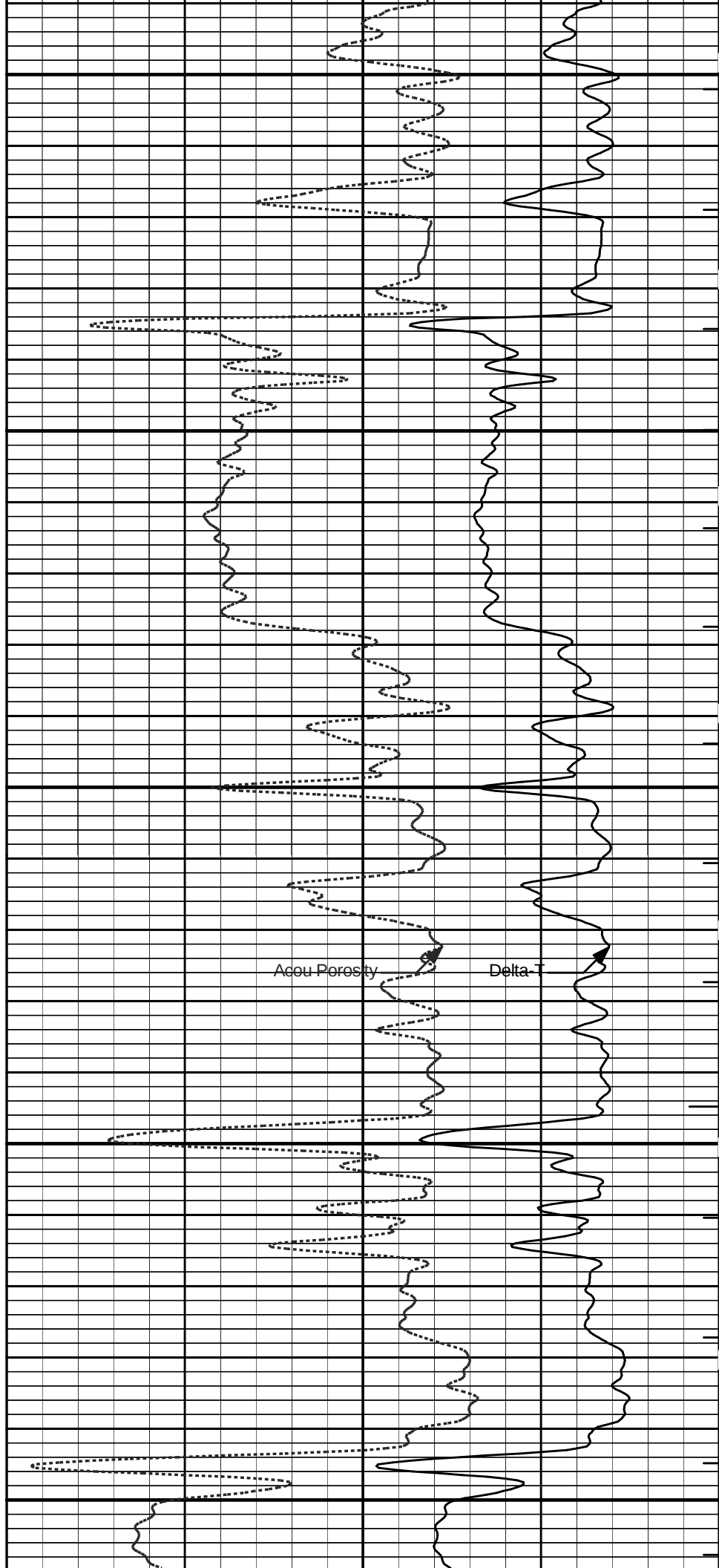
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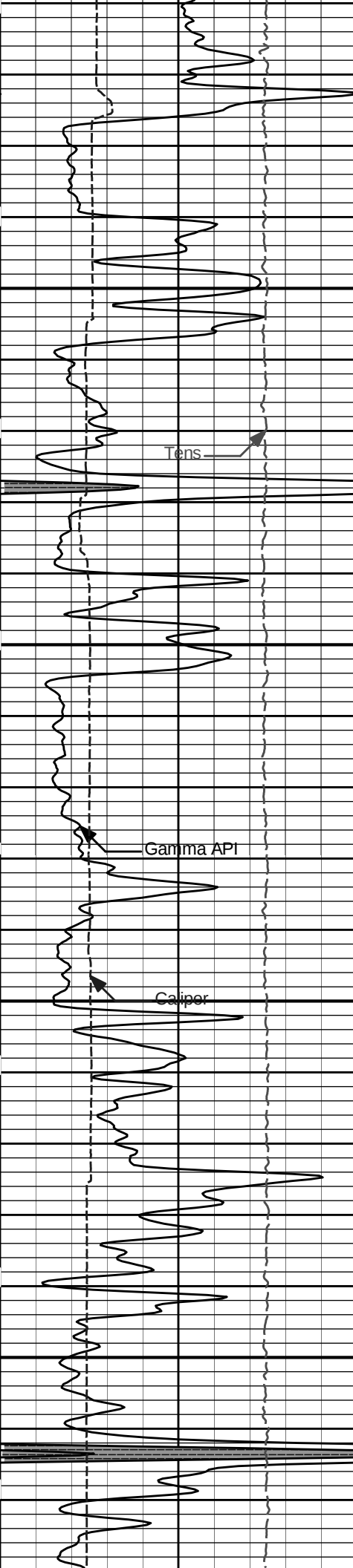




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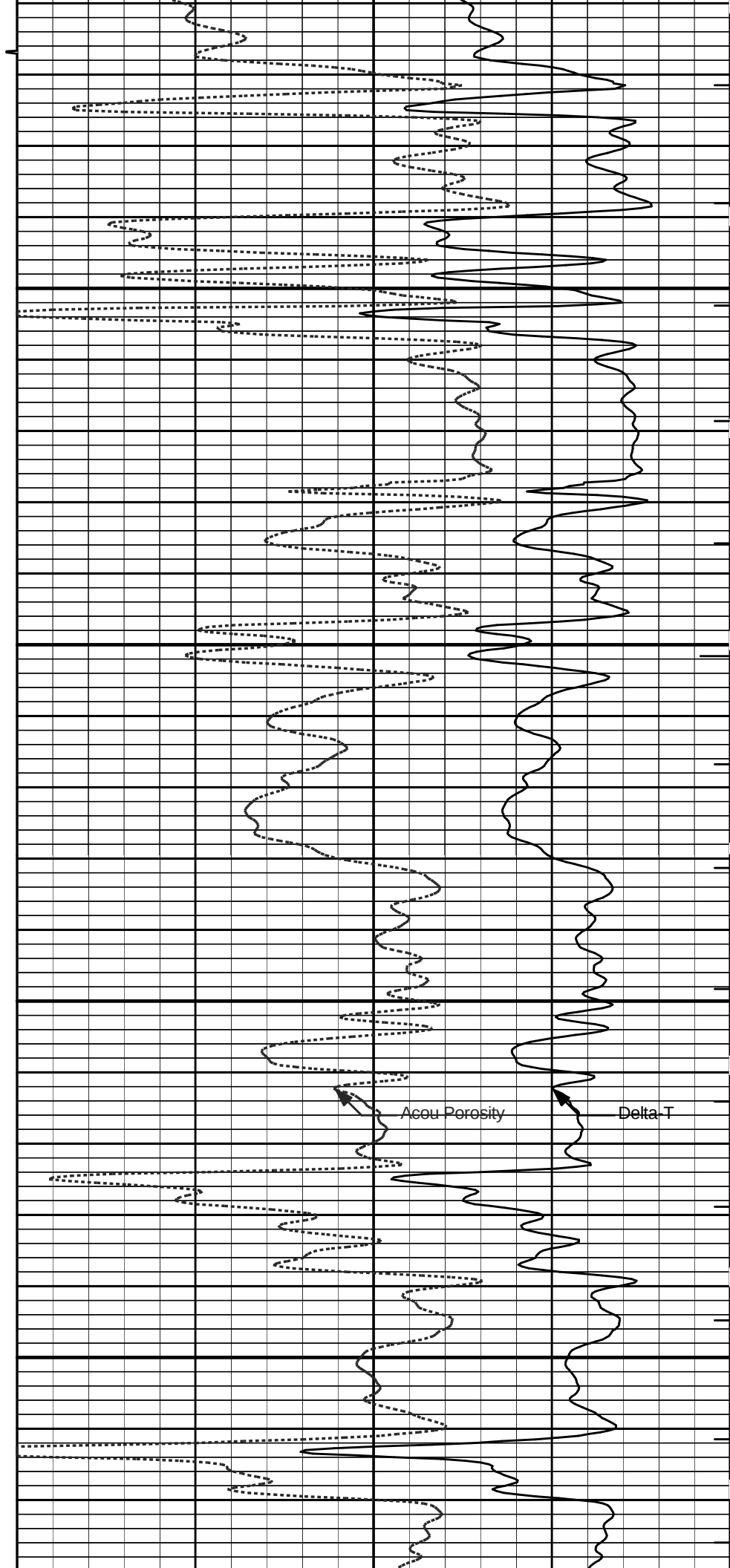
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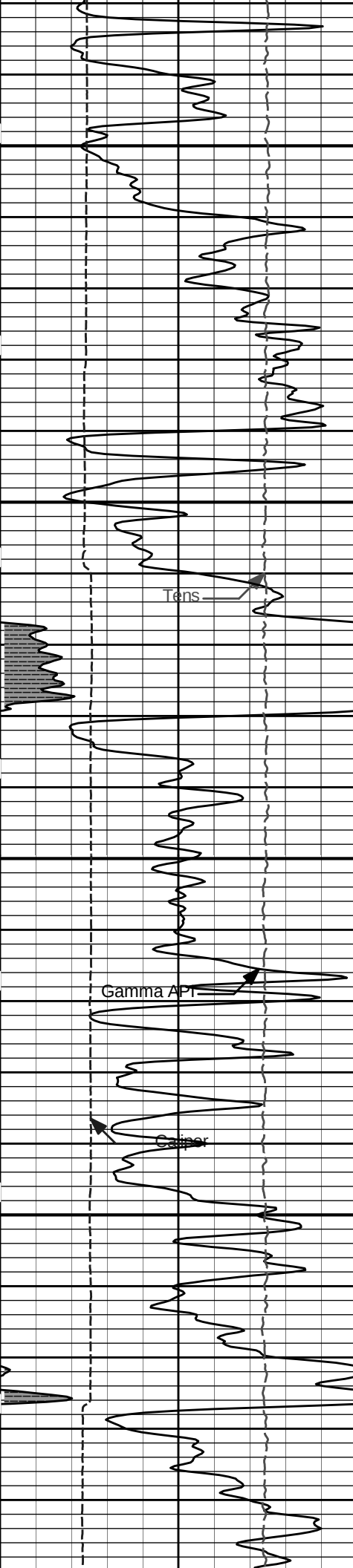
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4400



Acou Porosity

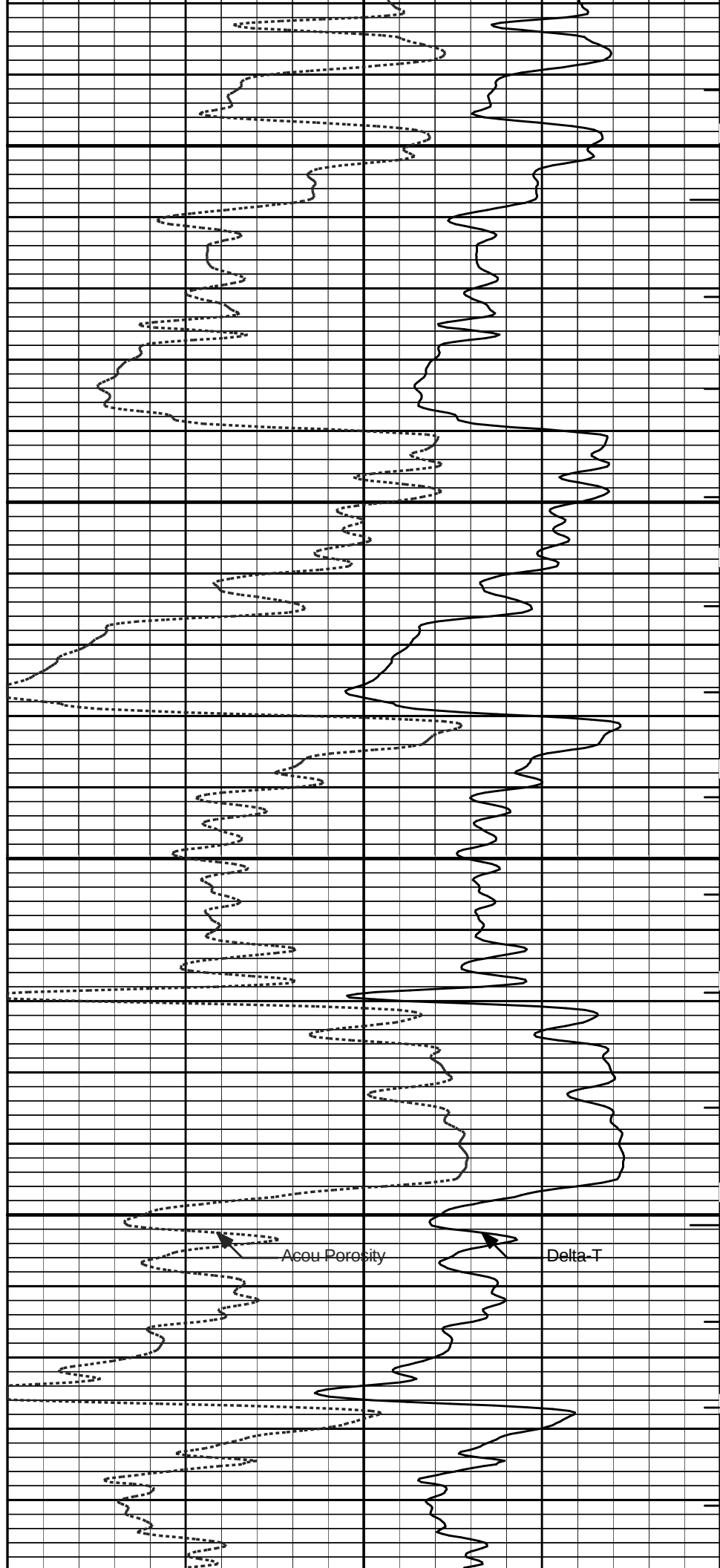
Delta-T



4500

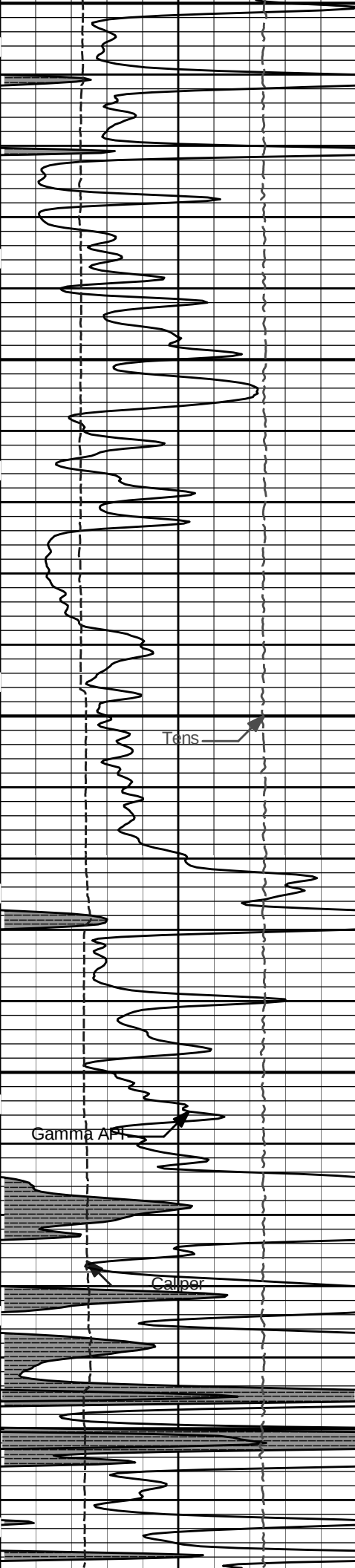
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4700



Acou Porosity

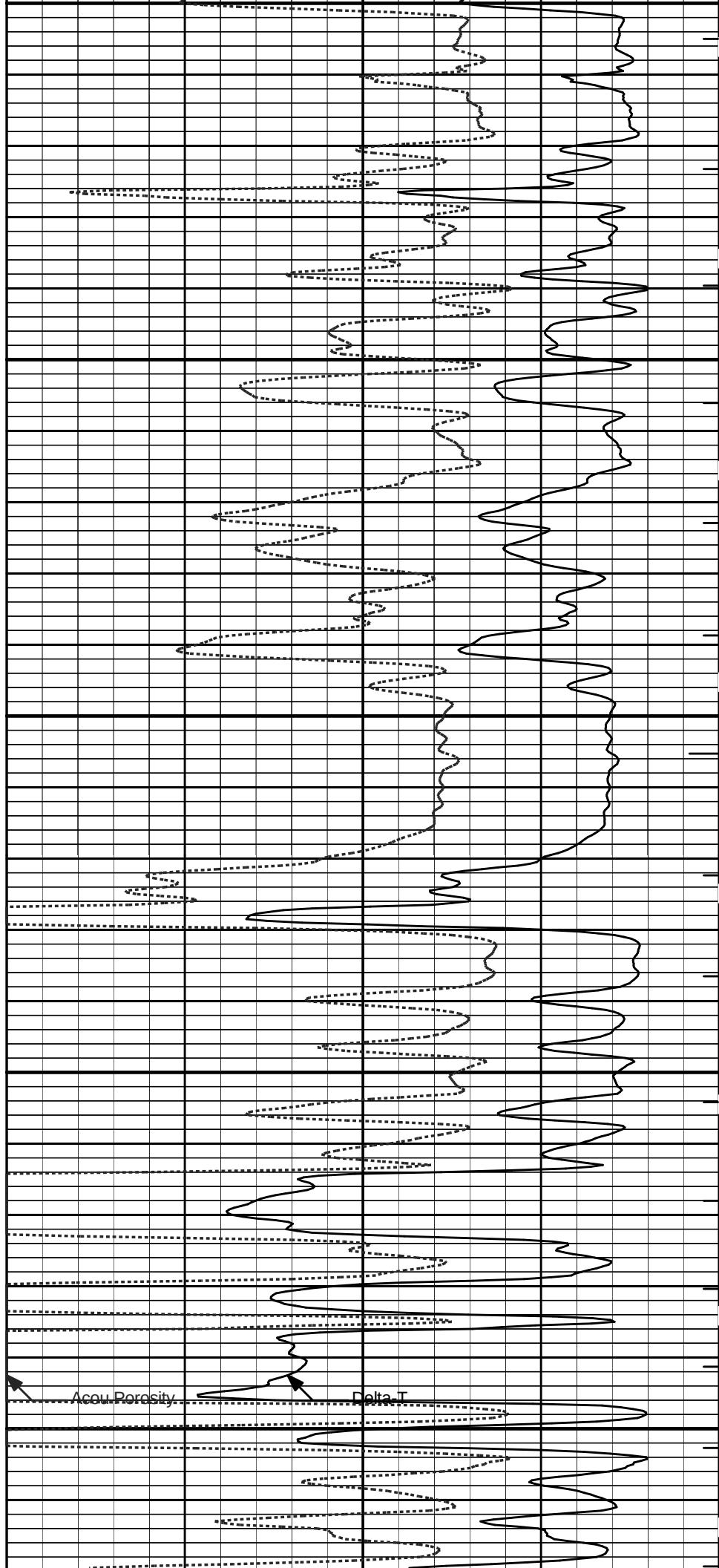
Delta-T

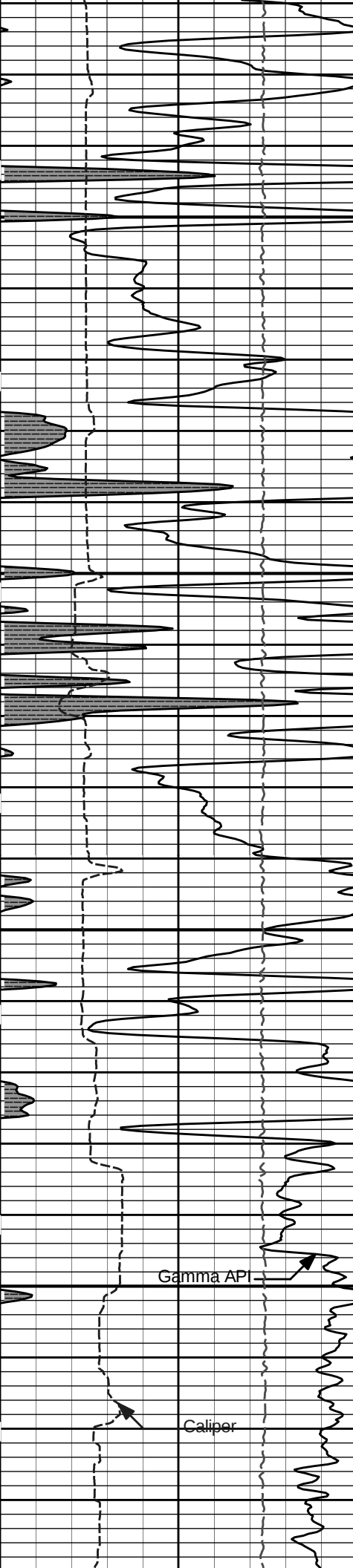


4700

4800

TD
4900



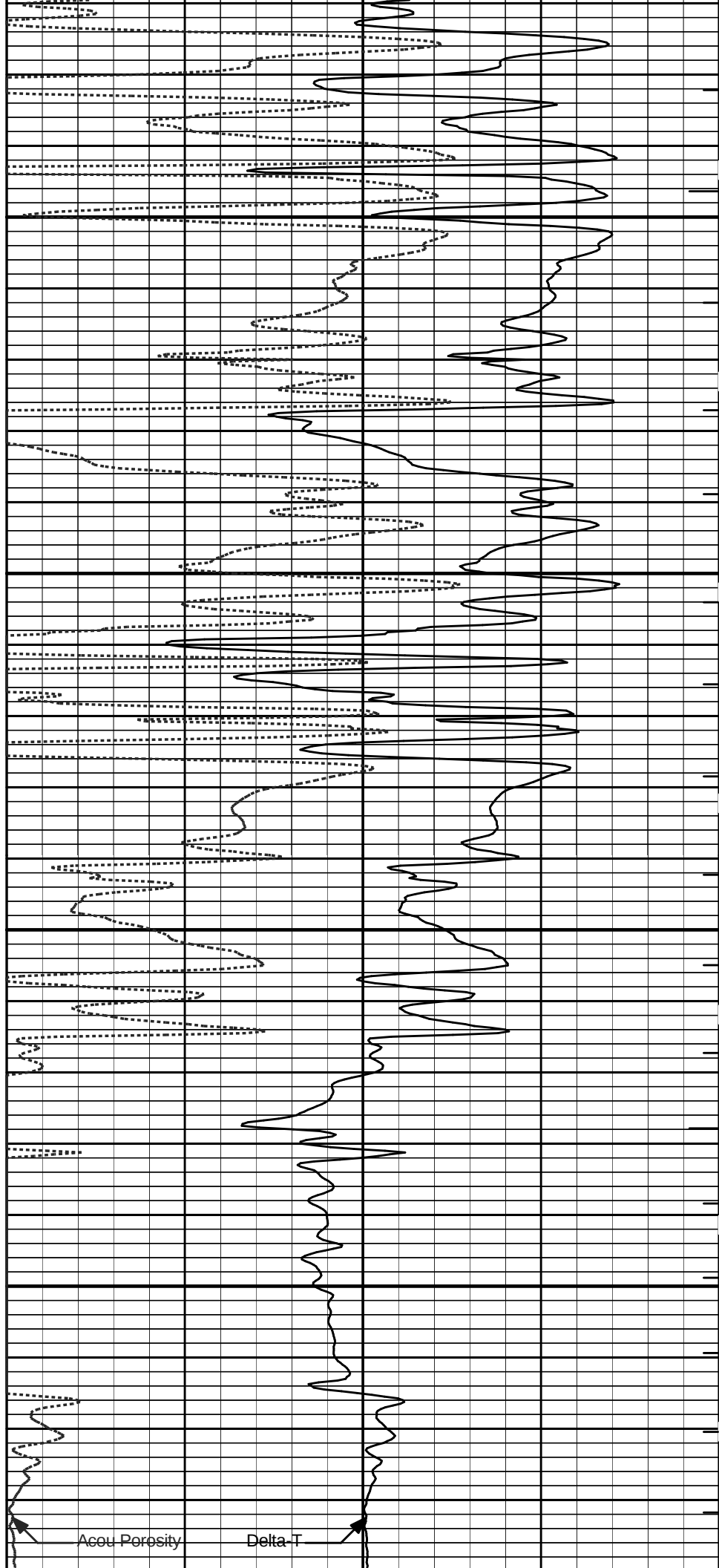


5000

5100

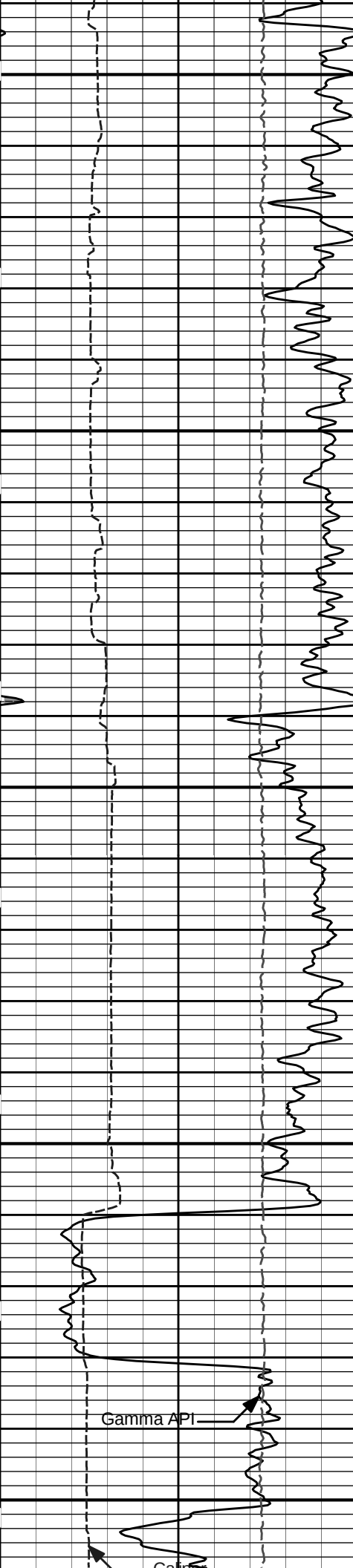
Gamma API

Caliper



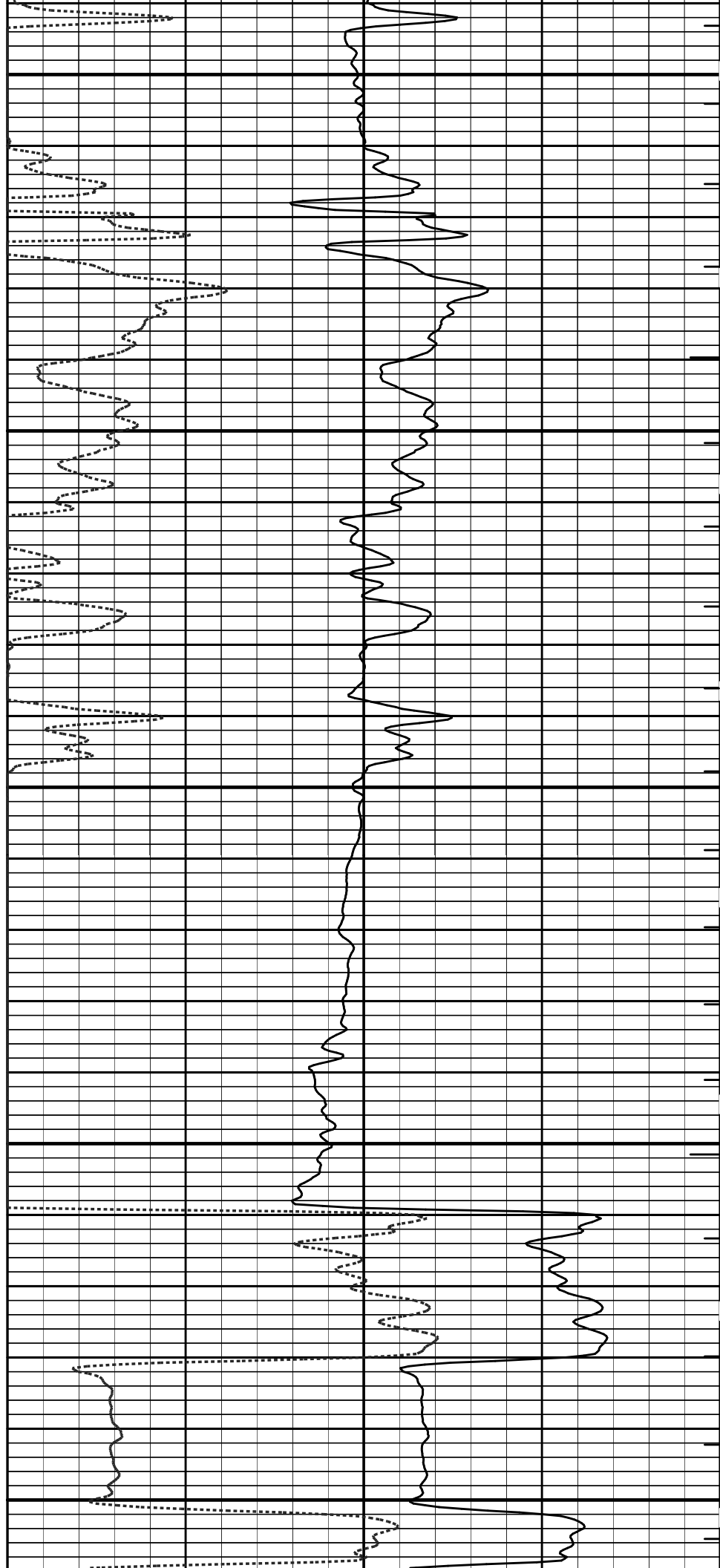
Acou Porosity

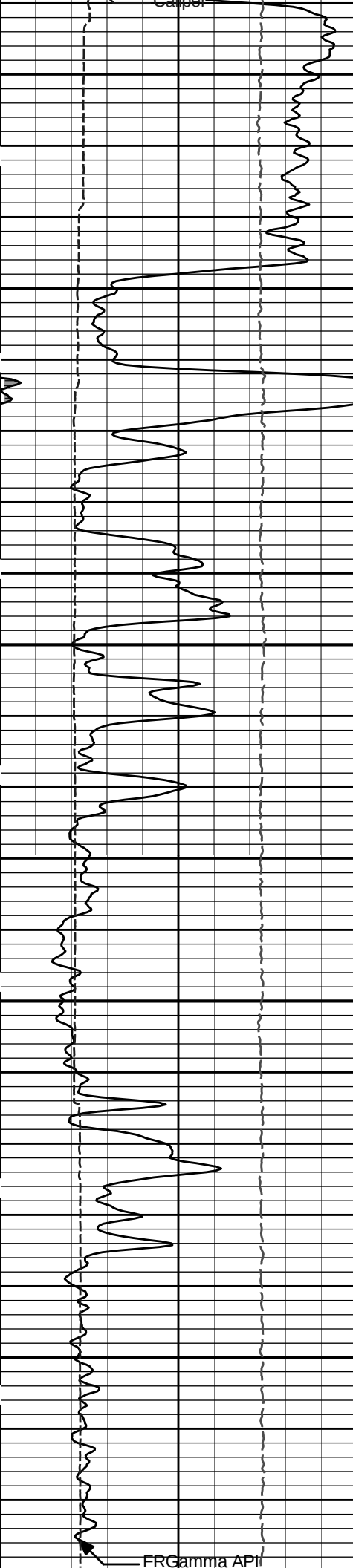
Delta-T



5200

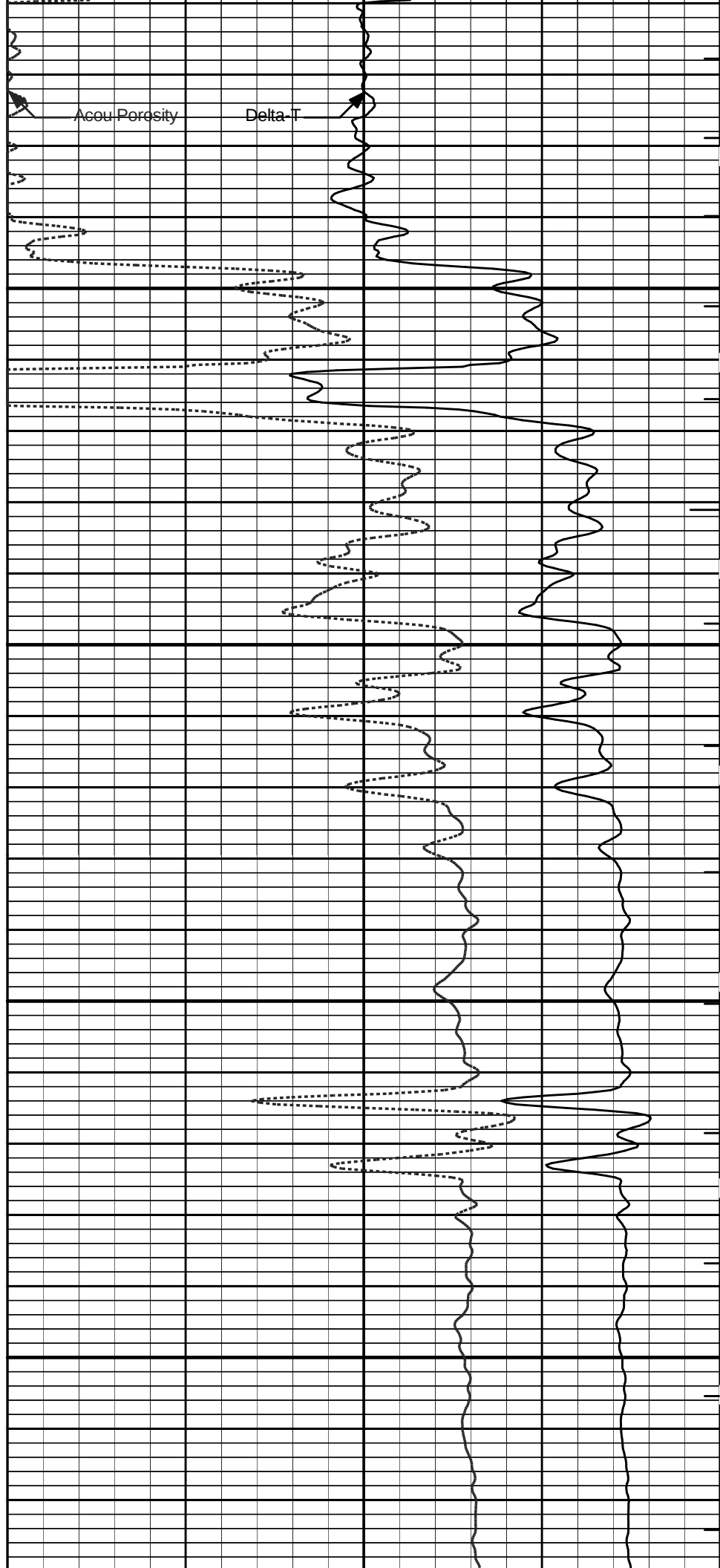
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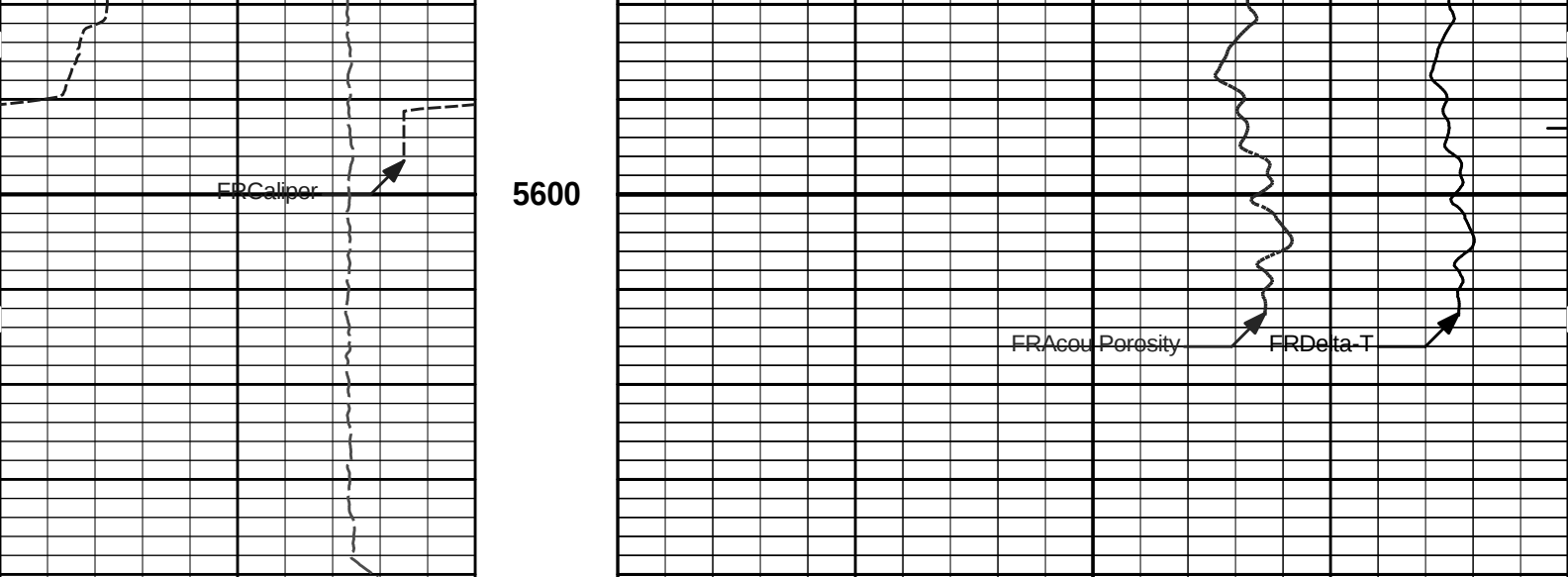




5400

5500





15K	Tens	0	1 : 240		ITTT
	pounds		ft		
0	Gamma API	150	Tension Pull	140	Delta-T
	api		10	0	microsec per ft
6	Caliper	16	Tension Pull	30	Acou Porosity
	inches				percent
	SHALE				

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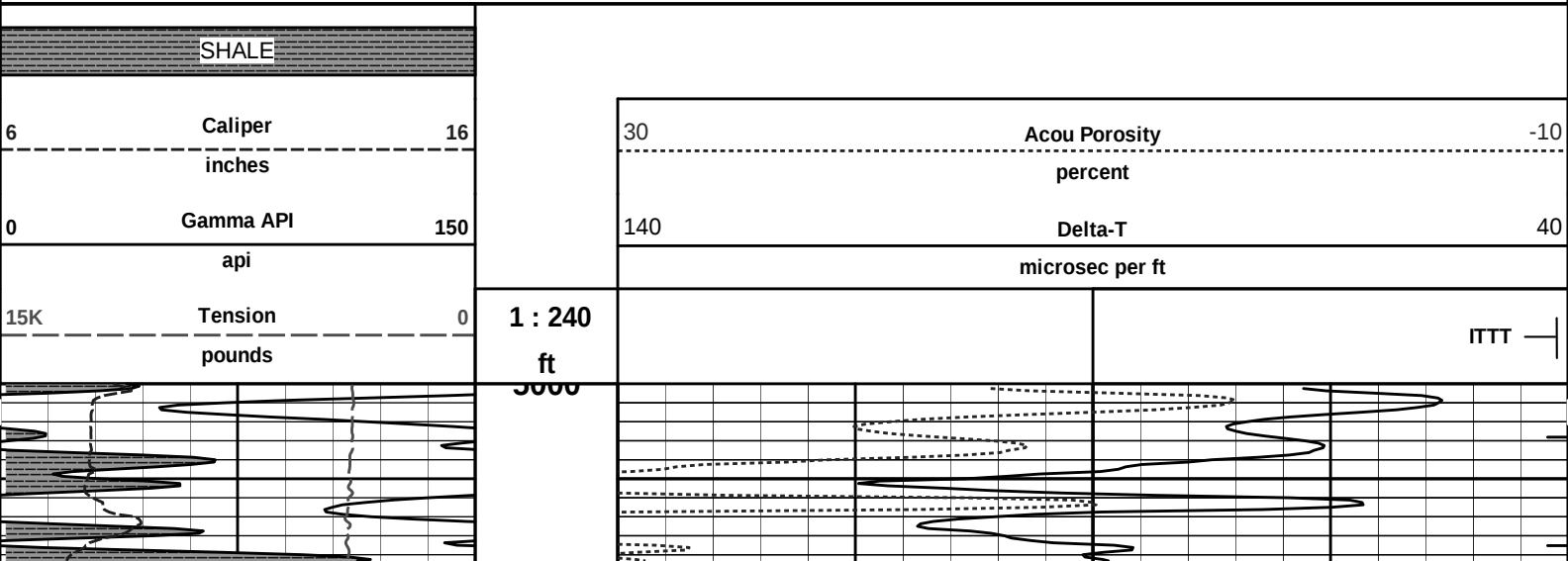
Plot Time: 21-Jun-13 08:52:13
Plot Range: 1790 ft to 5640.58 ft
Data: KU_B-4\Well Based\CASING\
Plot File: \\BSAT\BSAT_5_MAIN_LIB

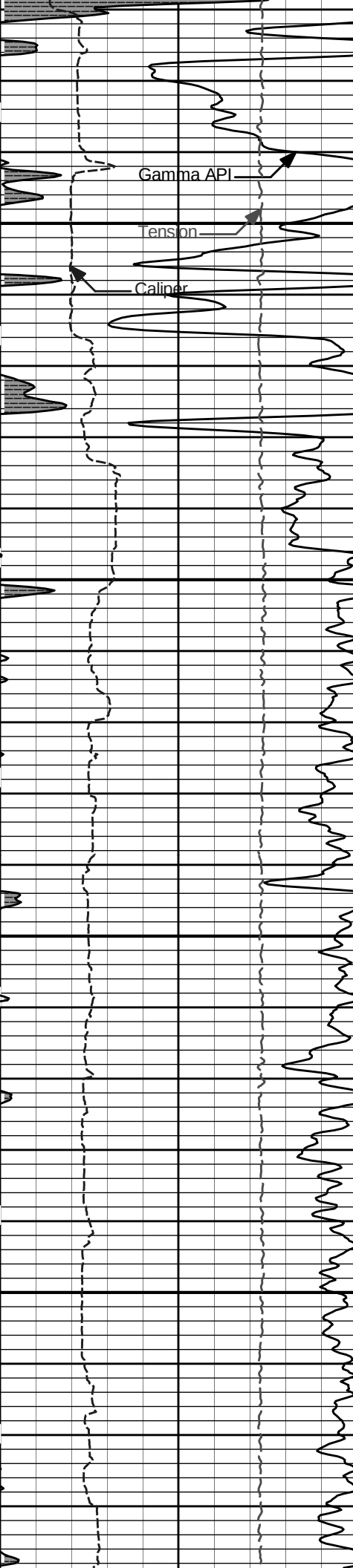
5 INCH MAIN LOG

HALLIBURTON

Plot Time: 21-Jun-13 08:52:14
Plot Range: 5000 ft to 5643.58 ft
Data: KU_B-4\Well Based\REPEAT\
Plot File: \\BSAT\BSAT_5_REP_LIB

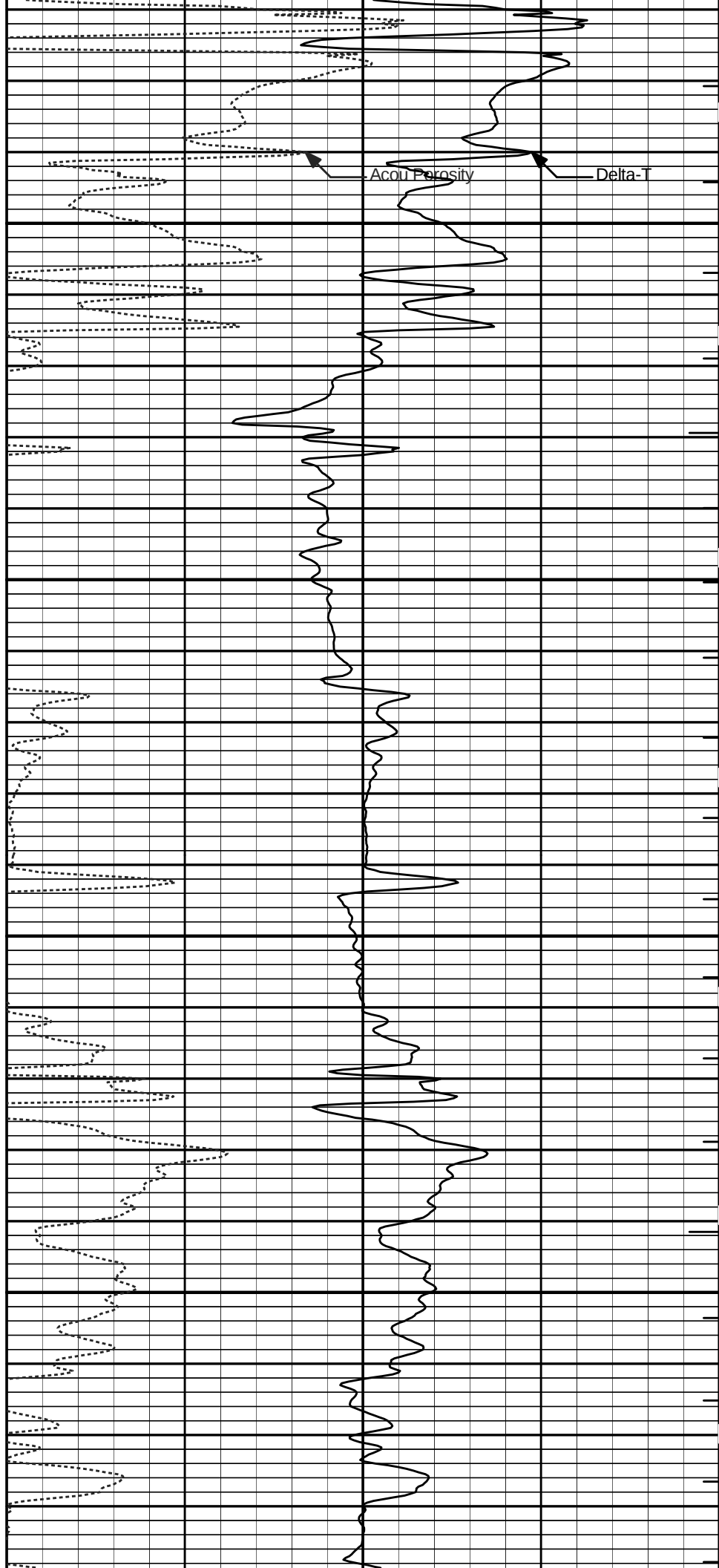
REPEAT SECTION





5100

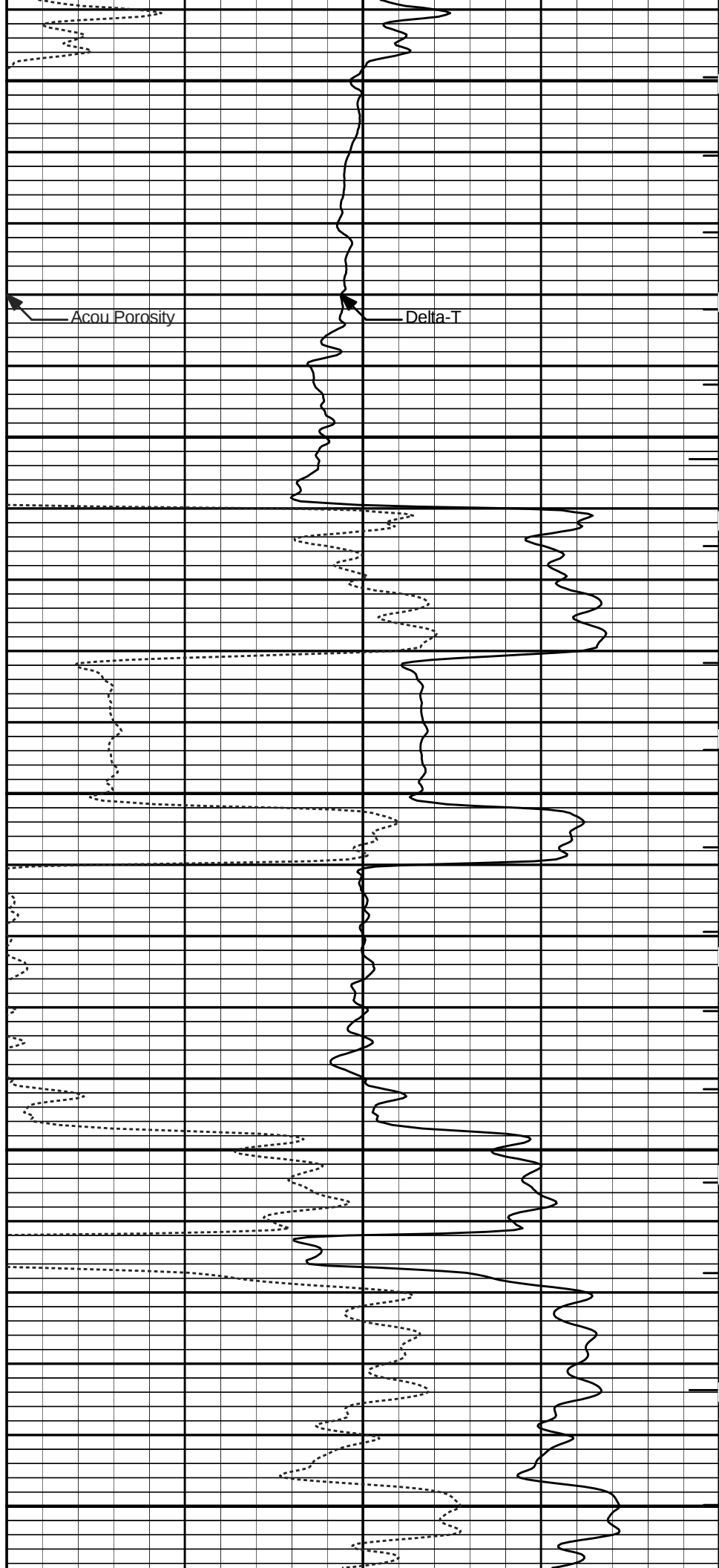
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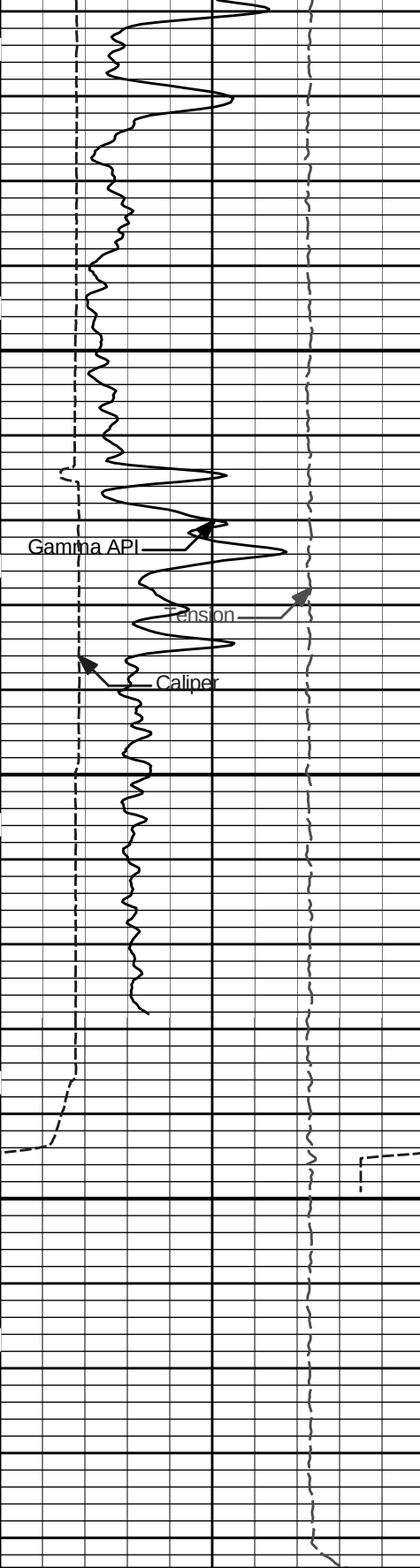




5300

5400



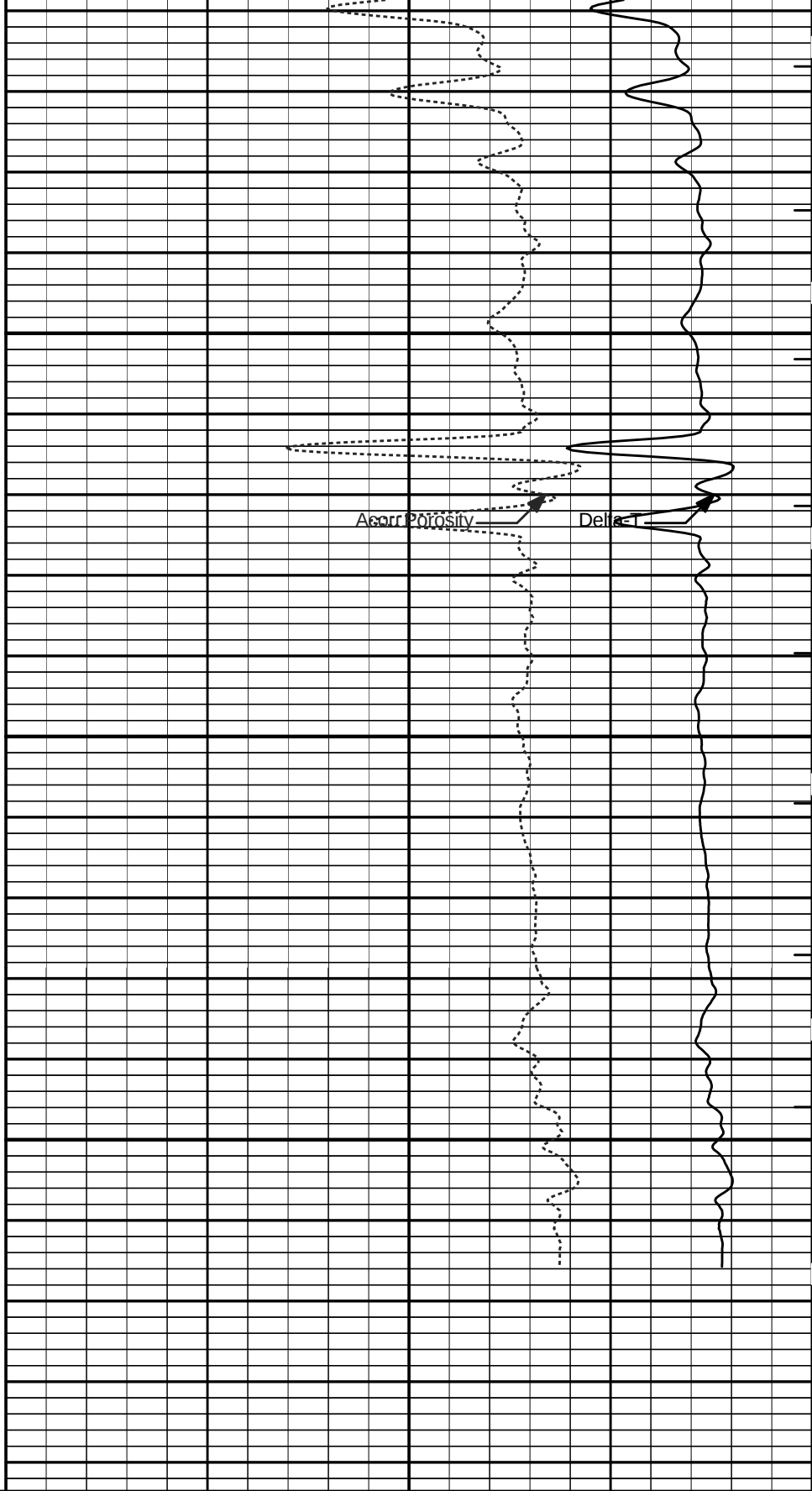


5500

5600

15K	Tension	0
	pounds	
0	Gamma API	150
	api	
6	Caliper	16
	inches	
SHALE		

1 : 240
ft

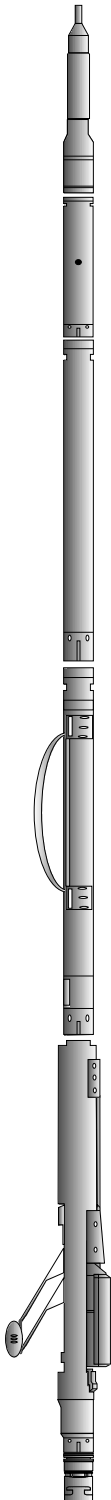


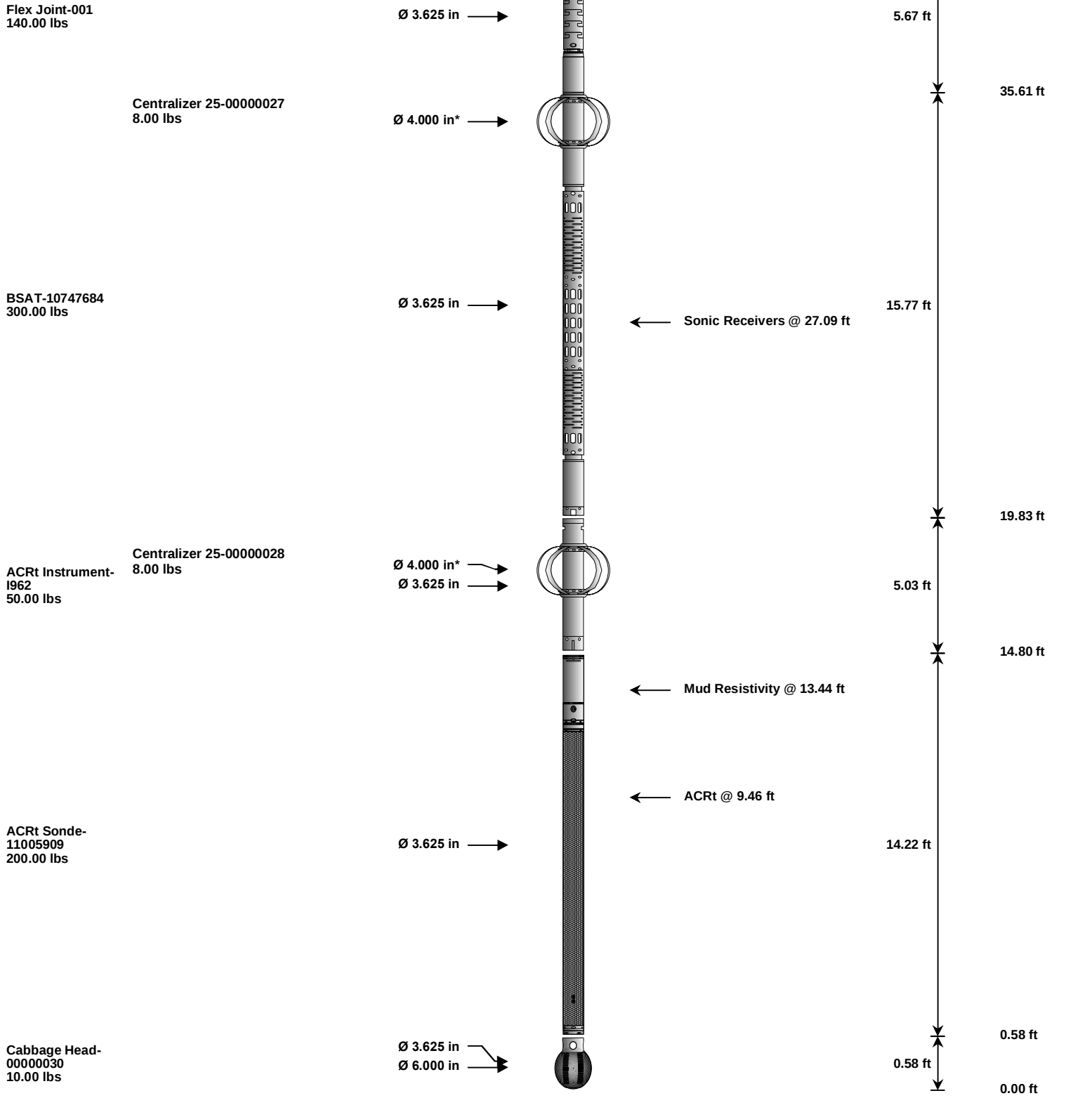
	ITTT	
140	Delta-T	40
	microsec per ft	
30	Acou Porosity	-10
	percent	

HALLIBURTON

Plot Time: 21-Jun-13 08:52:17
 Plot Range: 5000 ft to 5643.58 ft
 Data: KU_B-4\Well Based\REPEAT\
 Plot File: \\BSAT\BSAT_5_REP_LIB

REPEAT SECTION**HALLIBURTON****TOOL STRING DIAGRAM REPORT**

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
CH_HOS-CH_696 37.50 lbs		Ø 2.750 in →		← Temperature @ 76.98 ft	3.03 ft	78.01 ft
XOHD-TRK696 20.00 lbs		Ø 2.750 in → Ø 3.625 in →			0.95 ft	74.98 ft
SP Sub-11441455 60.00 lbs		Ø 3.625 in →		← SP @ 72.26 ft	3.74 ft	74.03 ft
						70.30 ft
GTET-11048627 165.00 lbs		Ø 3.625 in →		← GammaRay @ 64.23 ft	8.52 ft	
						61.78 ft
DSNT-11055304 174.00 lbs	DSN Decentralizer- 11005605 6.60 lbs	Ø 5.000 in* → Ø 3.625 in →		← DSN Far @ 54.84 ft ← DSN Near @ 54.09 ft	9.69 ft	
						52.09 ft
SDLT-11014296 360.00 lbs	SDLT Pad-10865884 65.00 lbs Microlog Pad-11014296 8.00 lbs	Ø 4.500 in → Ø 4.750 in* → Ø 4.750 in* →		Microlog @ 44.28 ft SDL Caliper @ 44.09 ft SDL @ 44.08 ft	10.81 ft	
						41.28 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		CH_696	37.50	3.03	74.98	300.00
XOHD	Hostile to Dits Cross Over		TRK696	20.00	0.95	74.03	300.00
SP	SP Sub		11441455	60.00	3.74	70.30	300.00
GTET	Gamma Telemetry Tool		11048627	165.00	8.52	61.78	60.00
DSNT	Dual Spaced Neutron		11055304	174.00	9.69	52.09	60.00
DCNT	DSN Decentralizer		11005605	6.60	5.13	* 55.42	300.00
SDLT	Spectral Density Tool		11014296	360.00	10.81	41.28	60.00
MICP	Microlog Pad		11014296	8.00	1.00	* 43.78	60.00
SDLP	Density Insite Pad		10865884	65.00	2.55	* 43.49	60.00
FLEX	Flex Joint		001	140.00	5.67	35.61	300.00
BSAT	Borehole Sonic Array Tool		10747684	300.00	15.77	19.83	60.00
OBCEN	Centralizer - 25 in. Overbody		00000027	8.00	2.08	* 33.50	300.00
ACRt	Array Compensated True Resistivity Instrument Section		1962	50.00	5.03	14.80	300.00
OBCEN	Centralizer - 25 in. Overbody		00000028	8.00	2.08	* 16.80	300.00

DBOEN	Centralizer	25 in. Overbody	00000020	0.00	2.00	10.00	300.00	
ACRT	Array Compensated True Resistivity Sonde Section			11005909	200.00	14.22	0.58	300.00
CBHD	Cabbage Head			00000030	10.00	0.58	0.00	300.00
Total					1,612.10	78.01		
* Not included in Total Length and Length Accumulation.								
Data: KU_B-4I0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIDLE								
Date: 20-Jun-13 02:44:43								

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	8.500	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	5645.00	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?	No			
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered			
	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	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?	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
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	Wyllie	
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	RMIN	Maximum Resistivity for MAP	200.00	ohmm
ACRt Sonde	THQY	Threshold Quality	0.50	
ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
BOTTOM				
Data: KU_B-410001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIDLE			Date: 20-Jun-13 02:46:25	

HALLIBURTON INPUTS, DELAYS AND FILTERS TABLE				
Mnemonic	Input Description	Delay (ft)	Filter Type	Filter Length (ft)
Depth Panel				
TENS	Tension	0.00	NO	
CH_HOS				
DHTN	DownholeTension	0.00	BLK	0.000
SP Sub				
PLTC	Plot Control Mask	72.25	NO	
SP	Spontaneous Potential	72.25	BLK	1.250
SPR	Raw Spontaneous Potential	72.25	NO	
SPO	Spontaneous Potential Offset	72.25	NO	
GTET				
TPUL	Tension Pull	64.23	NO	
GR	Natural Gamma Ray API	64.23	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	64.23	NO	

GRO	Unlimited Natural Gamma Ray API	64.23	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	64.23	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
DSNT				
TPUL	Tension Pull	53.99	NO	
RNDS	Near Detector Telemetry Counts	54.09	BLK	1.417
RFDS	Far Detector Telemetry Counts	54.84	TRI	0.583
DNTT	DSN Tool Temperature	54.09	NO	
DSNS	DSN Tool Status	53.99	NO	
ERND	Near Detector Telemetry Counts EVR	54.09	BLK	0.000
ERFD	Far Detector Telemetry Counts EVR	54.84	BLK	0.000
ENTM	DSN Tool Temperature EVR	54.09	NO	
SDLT				
TPUL	Tension Pull	44.09	NO	
PCAL	Pad Caliper	44.09	TRI	0.250
ACAL	Arm Caliper	44.09	TRI	0.250
BSAT				
TPUL	Tension Pull	27.09	NO	
STAT	Status	27.09	NO	
DLYT	Delay Time	27.09	NO	
SI	Sample Interval	27.09	NO	
TXRX	Raw Telemetry 10 Receivers	27.09	NO	
FRMC	Tool Frame Count	27.09	NO	
GMOD	Gain processing mode	19.83	NO	
ACRt Sonde				
TPUL	Tension Pull	2.97	NO	
F1R1	ACRT 12KHz - 80in R value	9.22	BLK	0.000
F1X1	ACRT 12KHz - 80in X value	9.22	BLK	0.000
F1R2	ACRT 12KHz - 50in R value	6.72	BLK	0.000
F1X2	ACRT 12KHz - 50in X value	6.72	BLK	0.000
F1R3	ACRT 12KHz - 29in R value	5.22	BLK	0.000
F1X3	ACRT 12KHz - 29in X value	5.22	BLK	0.000
F1R4	ACRT 12KHz - 17in R value	4.22	BLK	0.000
F1X4	ACRT 12KHz - 17in X value	4.22	BLK	0.000
F1R5	ACRT 12KHz - 10in R value	3.72	BLK	0.000
F1X5	ACRT 12KHz - 10in X value	3.72	BLK	0.000
F1R6	ACRT 12KHz - 6in R value	3.47	BLK	0.000
F1X6	ACRT 12KHz - 6in X value	3.47	BLK	0.000
F2R1	ACRT 36KHz - 80in R value	9.22	BLK	0.000
F2X1	ACRT 36KHz - 80in X value	9.22	BLK	0.000
F2R2	ACRT 36KHz - 50in R value	6.72	BLK	0.000
F2X2	ACRT 36KHz - 50in X value	6.72	BLK	0.000
F2R3	ACRT 36KHz - 29in R value	5.22	BLK	0.000
F2X3	ACRT 36KHz - 29in X value	5.22	BLK	0.000
F2R4	ACRT 36KHz - 17in R value	4.22	BLK	0.000
F2X4	ACRT 36KHz - 17in X value	4.22	BLK	0.000
F2R5	ACRT 36KHz - 10in R value	3.72	BLK	0.000
F2X5	ACRT 36KHz - 10in X value	3.72	BLK	0.000
F2R6	ACRT 36KHz - 6in R value	3.47	BLK	0.000
F2X6	ACRT 36KHz - 6in X value	3.47	BLK	0.000
F3R1	ACRT 72KHz - 80in R value	9.22	BLK	0.000
F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000
F4R1	ACRT 144KHz - 80in R value	9.22	BLK	0.000
F4X1	ACRT 144KHz - 80in X value	9.22	BLK	0.000
F4R2	ACRT 144KHz - 50in R value	6.72	BLK	0.000
F4X2	ACRT 144KHz - 50in X value	6.72	BLK	0.000
F4R3	ACRT 144KHz - 29in R value	5.22	BLK	0.000
F4X3	ACRT 144KHz - 29in X value	5.22	BLK	0.000
F4R4	ACRT 144KHz - 17in R value	4.22	BLK	0.000
F4X4	ACRT 144KHz - 17in X value	4.22	BLK	0.000
F4R5	ACRT 144KHz - 10in R value	3.72	BLK	0.000
F4X5	ACRT 144KHz - 10in X value	3.72	BLK	0.000
F4R6	ACRT 144KHz - 6in R value	3.47	BLK	0.000
F4X6	ACRT 144KHz - 6in X value	3.47	BLK	0.000
F5R1	ACRT 288KHz - 80in R value	9.22	BLK	0.000
F5X1	ACRT 288KHz - 80in X value	9.22	BLK	0.000
F5R2	ACRT 288KHz - 50in R value	6.72	BLK	0.000
F5X2	ACRT 288KHz - 50in X value	6.72	BLK	0.000
F5R3	ACRT 288KHz - 29in R value	5.22	BLK	0.000
F5X3	ACRT 288KHz - 29in X value	5.22	BLK	0.000
F5R4	ACRT 288KHz - 17in R value	4.22	BLK	0.000
F5X4	ACRT 288KHz - 17in X value	4.22	BLK	0.000
F5R5	ACRT 288KHz - 10in R value	3.72	BLK	0.000
F5X5	ACRT 288KHz - 10in X value	3.72	BLK	0.000
F5R6	ACRT 288KHz - 6in R value	3.47	BLK	0.000
F5X6	ACRT 288KHz - 6in X value	3.47	BLK	0.000
F6R1	ACRT 576KHz - 80in R value	9.22	BLK	0.000
F6X1	ACRT 576KHz - 80in X value	9.22	BLK	0.000
F6R2	ACRT 576KHz - 50in R value	6.72	BLK	0.000
F6X2	ACRT 576KHz - 50in X value	6.72	BLK	0.000
F6R3	ACRT 576KHz - 29in R value	5.22	BLK	0.000
F6X3	ACRT 576KHz - 29in X value	5.22	BLK	0.000
F6R4	ACRT 576KHz - 17in R value	4.22	BLK	0.000
F6X4	ACRT 576KHz - 17in X value	4.22	BLK	0.000
F6R5	ACRT 576KHz - 10in R value	3.72	BLK	0.000
F6X5	ACRT 576KHz - 10in X value	3.72	BLK	0.000
F6R6	ACRT 576KHz - 6in R value	3.47	BLK	0.000
F6X6	ACRT 576KHz - 6in X value	3.47	BLK	0.000
F7R1	ACRT 1152KHz - 80in R value	9.22	BLK	0.000
F7X1	ACRT 1152KHz - 80in X value	9.22	BLK	0.000
F7R2	ACRT 1152KHz - 50in R value	6.72	BLK	0.000
F7X2	ACRT 1152KHz - 50in X value	6.72	BLK	0.000
F7R3	ACRT 1152KHz - 29in R value	5.22	BLK	0.000
F7X3	ACRT 1152KHz - 29in X value	5.22	BLK	0.000
F7R4	ACRT 1152KHz - 17in R value	4.22	BLK	0.000
F7X4	ACRT 1152KHz - 17in X value	4.22	BLK	0.000
F7R5	ACRT 1152KHz - 10in R value	3.72	BLK	0.000
F7X5	ACRT 1152KHz - 10in X value	3.72	BLK	0.000
F7R6	ACRT 1152KHz - 6in R value	3.47	BLK	0.000
F7X6	ACRT 1152KHz - 6in X value	3.47	BLK	0.000
F8R1	ACRT 2304KHz - 80in R value	9.22	BLK	0.000
F8X1	ACRT 2304KHz - 80in X value	9.22	BLK	0.000
F8R2	ACRT 2304KHz - 50in R value	6.72	BLK	0.000
F8X2	ACRT 2304KHz - 50in X value	6.72	BLK	0.000
F8R3	ACRT 2304KHz - 29in R value	5.22	BLK	0.000
F8X3	ACRT 2304KHz - 29in X value	5.22	BLK	0.000
F8R4	ACRT 2304KHz - 17in R value	4.22	BLK	0.000
F8X4	ACRT 2304KHz - 17in X value	4.22	BLK	0.000
F8R5	ACRT 2304KHz - 10in R value	3.72	BLK	0.000
F8X5	ACRT 2304KHz - 10in X value	3.72	BLK	0.000
F8R6	ACRT 2304KHz - 6in R value	3.47	BLK	0.000
F8X6	ACRT 2304KHz - 6in X value	3.47	BLK	0.000
F9R1	ACRT 4608KHz - 80in R value	9.22	BLK	0.000
F9X1	ACRT 4608KHz - 80in X value	9.22	BLK	0.000
F9R2	ACRT 4608KHz - 50in R value	6.72	BLK	0.000
F9X2	ACRT 4608KHz - 50in X value	6.72	BLK	0.000
F9R3	ACRT 4608KHz - 29in R value	5.22	BLK	0.000
F9X3	ACRT 4608KHz - 29in X value	5.22	BLK	0.000
F9R4	ACRT 4608KHz - 17in R value	4.22	BLK	0.000
F9X4	ACRT 4608KHz - 17in X value	4.22	BLK	0.000
F9R5	ACRT 4608KHz - 10in R value	3.72	BLK	0.000
F9X5	ACRT 4608KHz - 10in X value	3.72	BLK	0.000
F9R6	ACRT 4608KHz - 6in R value	3.47	BLK	0.000
F9X6	ACRT 4608KHz - 6in X value	3.47	BLK	0.000
F10R1	ACRT 9216KHz - 80in R value	9.22	BLK	0.000
F10X1	ACRT 9216KHz - 80in X value	9.22	BLK	0.000
F10R2	ACRT 9216KHz - 50in R value	6.72	BLK	0.000
F10X2	ACRT 9216KHz - 50in X value	6.72	BLK	0.000
F10R3	ACRT 9216KHz - 29in R value	5.22	BLK	0.000
F10X3	ACRT 9216KHz - 29in X value	5.22	BLK	0.000
F10R4	ACRT 9216KHz - 17in R value	4.22	BLK	0.000
F10X4	ACRT 9216KHz - 17in X value	4.22	BLK	0.000
F10R5	ACRT 9216KHz - 10in R value	3.72	BLK	0.000
F10X5	ACRT 9216KHz - 10in X value	3.72	BLK	0.000
F10R6	ACRT 9216KHz - 6in R value	3.47	BLK	0.000
F10X6	ACRT 9216KHz - 6in X value	3.47	BLK	0.000
F11R1	ACRT 18432KHz - 80in R value	9.22	BLK	0.000
F11X1	ACRT 18432KHz - 80in X value	9.22	BLK	0.000
F11R2	ACRT 18432KHz - 50in R value	6.72	BLK	0.000
F11X2	ACRT 18432KHz - 50in X value	6.72	BLK	0.000
F11R3	ACRT 18432KHz - 29in R value	5.22	BLK	0.000
F11X3	ACRT 18432KHz - 29in X value	5.22	BLK	0.000
F11R4	ACRT 18432KHz - 17in R value	4.22	BLK	0.000
F11X4	ACRT 18432KHz - 17in X value	4.22	BLK	0.000
F11R5	ACRT 18432KHz - 10in R value	3.72	BLK	0.000
F11X5	ACRT 18432KHz - 10in X value	3.72	BLK	0.000
F11R6	ACRT 18432KHz - 6in R value	3.47	BLK	0.000
F11X6	ACRT 18432KHz - 6in X value	3.47	BLK	0.000
F12R1	ACRT 36864KHz - 80in R value	9.22	BLK	0.000
F12X1	ACRT 36864KHz - 80in X value	9.22	BLK	0.000
F12R2	ACRT 36864KHz - 50in R value	6.72	BLK	0.000
F12X2	ACRT 36864KHz - 50in X value	6.72	BLK	0.000
F12R3	ACRT 36864KHz - 29in R value	5.22	BLK	0.000
F12X3	ACRT 36864KHz - 29in X value	5.22	BLK	0.000

F3X1	ACRT 72KHz - 80in X value	9.22	BLK	0.000
F3R2	ACRT 72KHz - 50in R value	6.72	BLK	0.000
F3X2	ACRT 72KHz - 50in X value	6.72	BLK	0.000
F3R3	ACRT 72KHz - 29in R value	5.22	BLK	0.000
F3X3	ACRT 72KHz - 29in X value	5.22	BLK	0.000
F3R4	ACRT 72KHz - 17in R value	4.22	BLK	0.000
F3X4	ACRT 72KHz - 17in X value	4.22	BLK	0.000
F3R5	ACRT 72KHz - 10in R value	3.72	BLK	0.000
F3X5	ACRT 72KHz - 10in X value	3.72	BLK	0.000
F3R6	ACRT 72KHz - 6in R value	3.47	BLK	0.000
F3X6	ACRT 72KHz - 6in X value	3.47	BLK	0.000
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Current Raw 12K X Receiver	2.97	BLK	0.000
F1XT	Transmitter Reference 12 KHz Imaginary Signal	2.97	BLK	0.000
F2RT	Transmitter Reference 36 KHz Real Signal	2.97	BLK	0.000
F2XT	Transmitter Reference 36 KHz Imaginary Signal	2.97	BLK	0.000
F3RT	Transmitter Reference 72 KHz Real Signal	2.97	BLK	0.000
F3XT	Transmitter Reference 72 KHz Imaginary Signal	2.97	BLK	0.000
TFPU	Upper Feedpipe Temperature Calculated	2.97	BLK	0.000
TFPL	Lower Feedpipe Temperature Calculated	2.97	BLK	0.000
ITMP	Instrument Temperature	2.97	BLK	0.000
TCVA	Temperature Correction Values Loop Off	2.97	NO	
TIDV	Instrument Temperature Derivative	2.97	NO	
TUDV	Upper Temperature Derivative	2.97	NO	
TLDV	Lower Temperature Derivative	2.97	NO	
TRBD	Receiver Board Temperature	2.97	NO	
SDLT Pad				
TPUL	Tension Pull	44.08	NO	
NAB	Near Above	43.90	BLK	0.920
NHI	Near Cesium High	43.90	BLK	0.920
NLO	Near Cesium Low	43.90	BLK	0.920
NVA	Near Valley	43.90	BLK	0.920
NBA	Near Barite	43.90	BLK	0.920
NDE	Near Density	43.90	BLK	0.920
NPK	Near Peak	43.90	BLK	0.920
NLI	Near Lithology	43.90	BLK	0.920
NBAU	Near Barite Unfiltered	43.90	BLK	0.250
NLIU	Near Lithology Unfiltered	43.90	BLK	0.250
FAB	Far Above	44.26	BLK	0.250
FHI	Far Cesium High	44.26	BLK	0.250
FLO	Far Cesium Low	44.26	BLK	0.250
FVA	Far Valley	44.26	BLK	0.250
FBA	Far Barite	44.26	BLK	0.250
FDE	Far Density	44.26	BLK	0.250
FPK	Far Peak	44.26	BLK	0.250
FLI	Far Lithology	44.26	BLK	0.250
PTMP	Pad Temperature	44.09	BLK	0.920
NHV	Near Detector High Voltage	43.49	NO	
FHV	Far Detector High Voltage	43.49	NO	
ITMP	Instrument Temperature	43.49	NO	
DDHV	Detector High Voltage	43.49	NO	
Microlog Pad				
TPUL	Tension Pull	44.28	NO	
MINV	Microlog Lateral	44.28	BLK	0.750

MNOR	Microlog Normal	44.28	BLK	0.750
Data: KU_B-4\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CHIIDLE			Date: 20-Jun-13 02:45:19	
COMPANY	OXY USA INC.			
WELL	KU B-4			
FIELD	ARROYO			
COUNTY	STANTON	STATE	KANSAS	
HALLIBURTON		BOREHOLE COMPENSATED SONIC ARRAY LOG		