HALLIBURTON

BOREHOLE COMPENSATED SONIC ARRAY LOG

COMPANY	OXY USA INC.
WELL	GARDEN CITY H-11
FIELD	GARDEN CITY
COUNTY	FINNEY
STATE	KANSAS

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WELL	**GARDEN CITY H-11**
FIELD	**GARDEN CITY**
COUNTY	**FINNEY**
STATE	**KANSAS**

API No. 15055221910000

Location 620' FSL & 342' FWL NE SW SW SW

Other Services: MICROLOG DSNT, SDLT ACRT

Sect. 23 Twp. 23S Rge. 34W

Permanent Datum	GL	Elev. 2941.0 ft	Elev.: K.B. 2952.0 ft
Log measured from	KB	11.0 ft above perm. Datum	D.F. 2951.0 ft
Drilling measured from	KB		G.L. 2941.0 ft

Date	11-Jan-13		
Run No.	ONE		
Depth - Driller	5090.00 ft		
Depth - Logger	5024.0 ft		
Bottom - Logged Interval	4997.0 ft		
Top - Logged Interval	1799.0 ft		
Casing - Driller	8.625 in @ 1800.0 ft	@	@
Casing - Logger	1799.0 ft		
Bit Size	7.875 in	@	@
Type Fluid in Hole	WATER BASED MUD		
Density / Viscosity	9.4 ppg / 32.00 s/qt		
PH / Fluid Loss	10.40 pH / 15.6 cptm		
Source of Sample	MUD PIT		
Rm @ Meas. Temperature	0.470 ohmm @ 75.00 degF	@	@
Rmf @ Meas. Temperature	0.39 ohmm @ 75.00 degF	@	@
Rmc @ Meas. Temperature	0.790 ohmm @ 75.00 degF	@	@
Source Rmf / Rmc	MEASURED / MEASURED		
Rm @ BHT	0.29 ohmm @ 125.0 degF	@	@
Time Since Circulation	8.0 hr		
Time on Bottom	11-Jan-13 14:22		
Max. Rec. Temperature	125.0 degF @ 5024.0 ft	@	@
Equipment / Location	10546696 / LIBERAL		
Recorded By	J. BOLLOM		
Witnessed By	M. BONNER		

Fold here

Service Ticket No.: 900131775 API Serial No.: 15055221910000 PGM Version: WL INSITE R3.6.0 (Build 3)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

Date	Sample No.				
Depth-Driller					
Type Fluid in Hole					
Density	Viscosity				
Ph	Fluid Loss				
Source of Sample					
Rm @ Meas. Temp		@		@	
Rmf @ Meas. Temp.		@		@	
Rmc @ Meas. Temp.		@		@	
Source Rmf	Rmc				
Rm @ BHT		@		@	
Rmf @ BHT		@		@	
Rmc @ BHT		@		@	

RESISTIVITY SCALE CHANGES

Type Log	Depth	Scale Up Hole	Scale Down Hole

RESISTIVITY EQUIPMENT DATA

Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.	ONE	Run No.		Run No.	
Serial No.	11048627	Serial No.	10747683	Serial No.		Serial No.	
Model No.	GTET	Model No.	BSAT	Model No.		Model No.	
Diameter	3.625"	No. of Cent.	2	Diameter		Diameter	
Detector Model No.	GTET	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

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	5024	1799	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 16,000 MG/L

GTET-DSNT-SDLT-BSAT-ACRT RUN IN COMBINATION

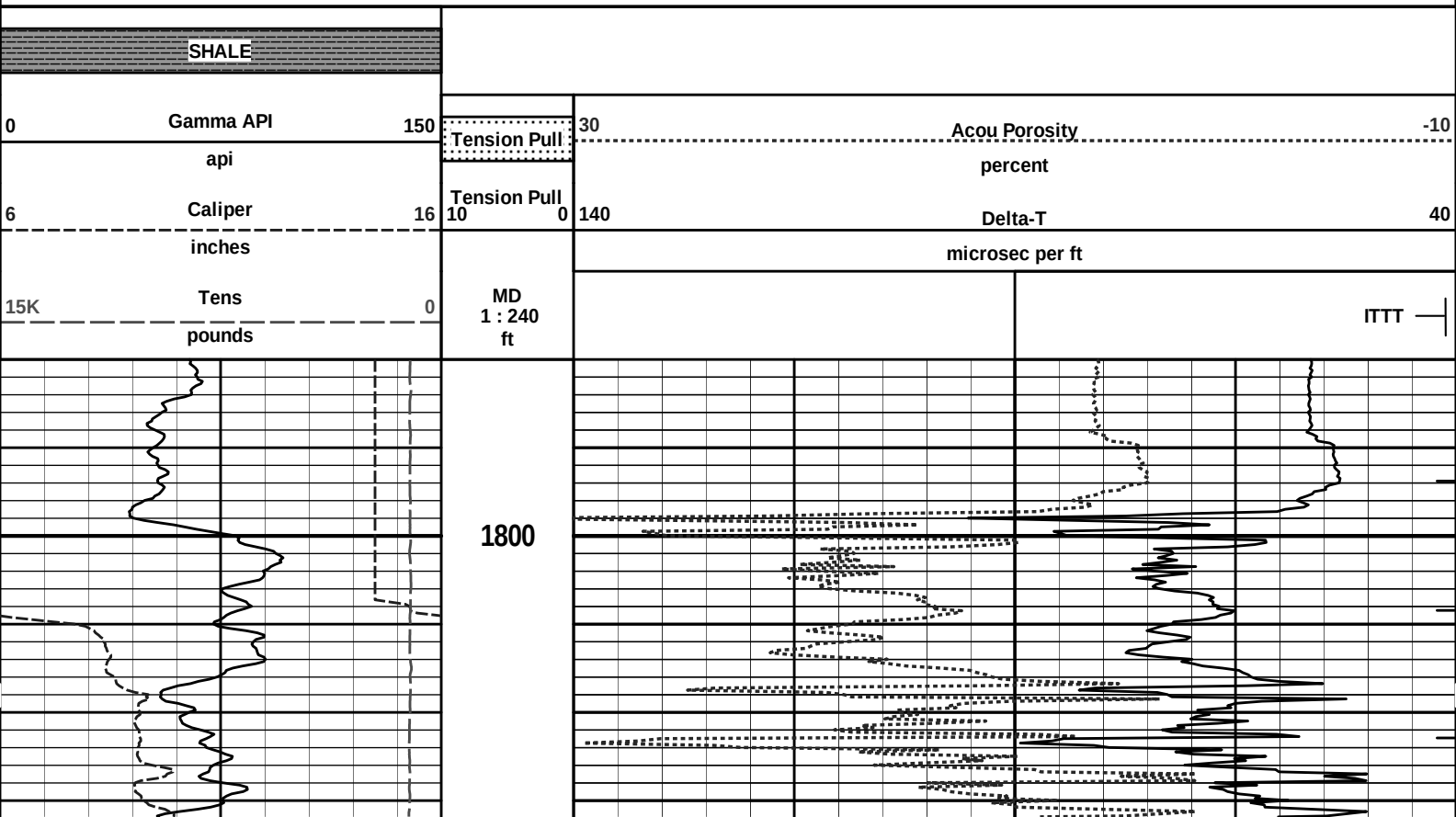
TODAY'S CREW: B. TERRELL & F. VILLA

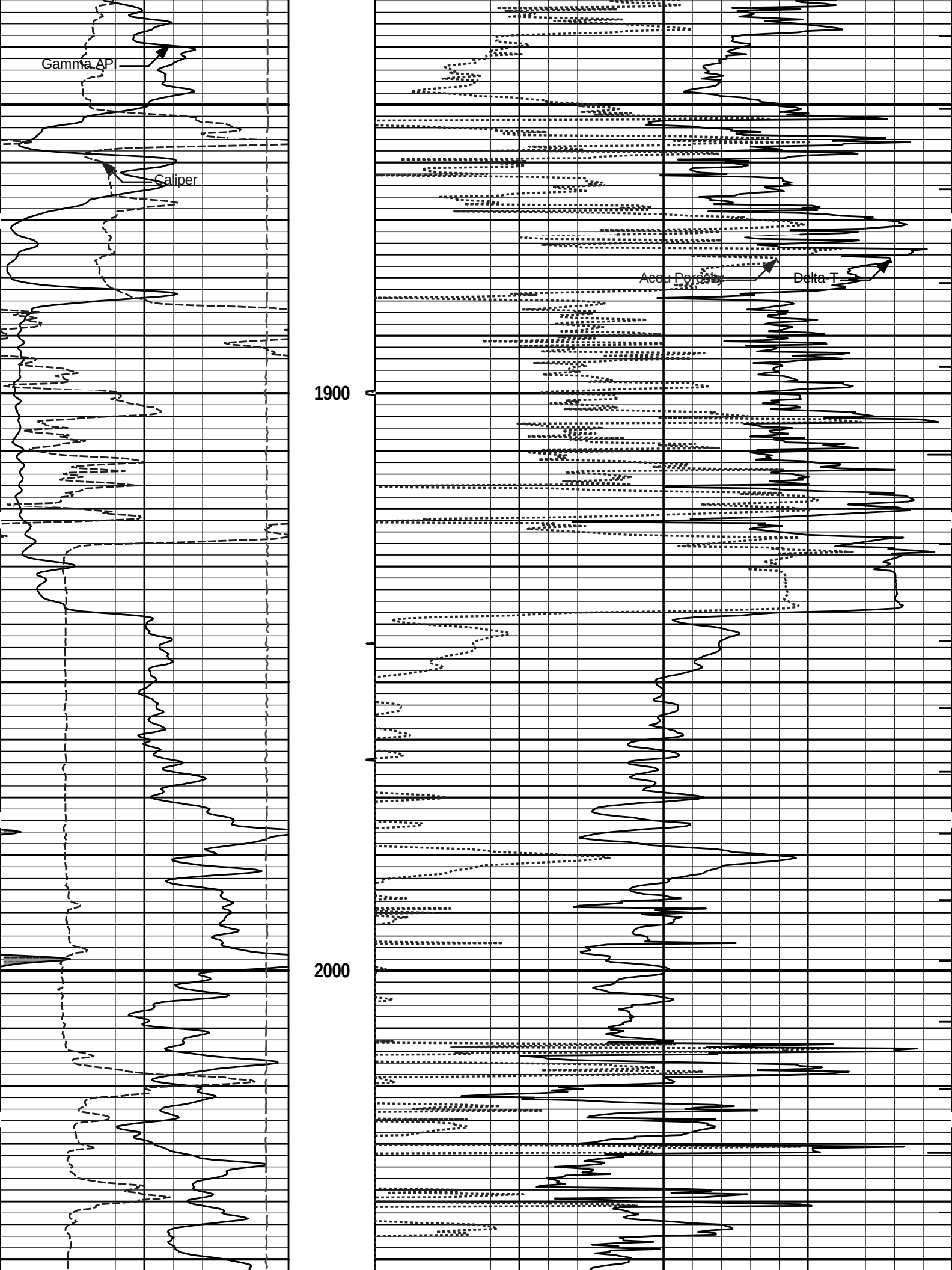
THANK YOU FOR CHOOSING HALLIBURTON ENERGY SOURCES LIBERAL, KS. 620-624-8123

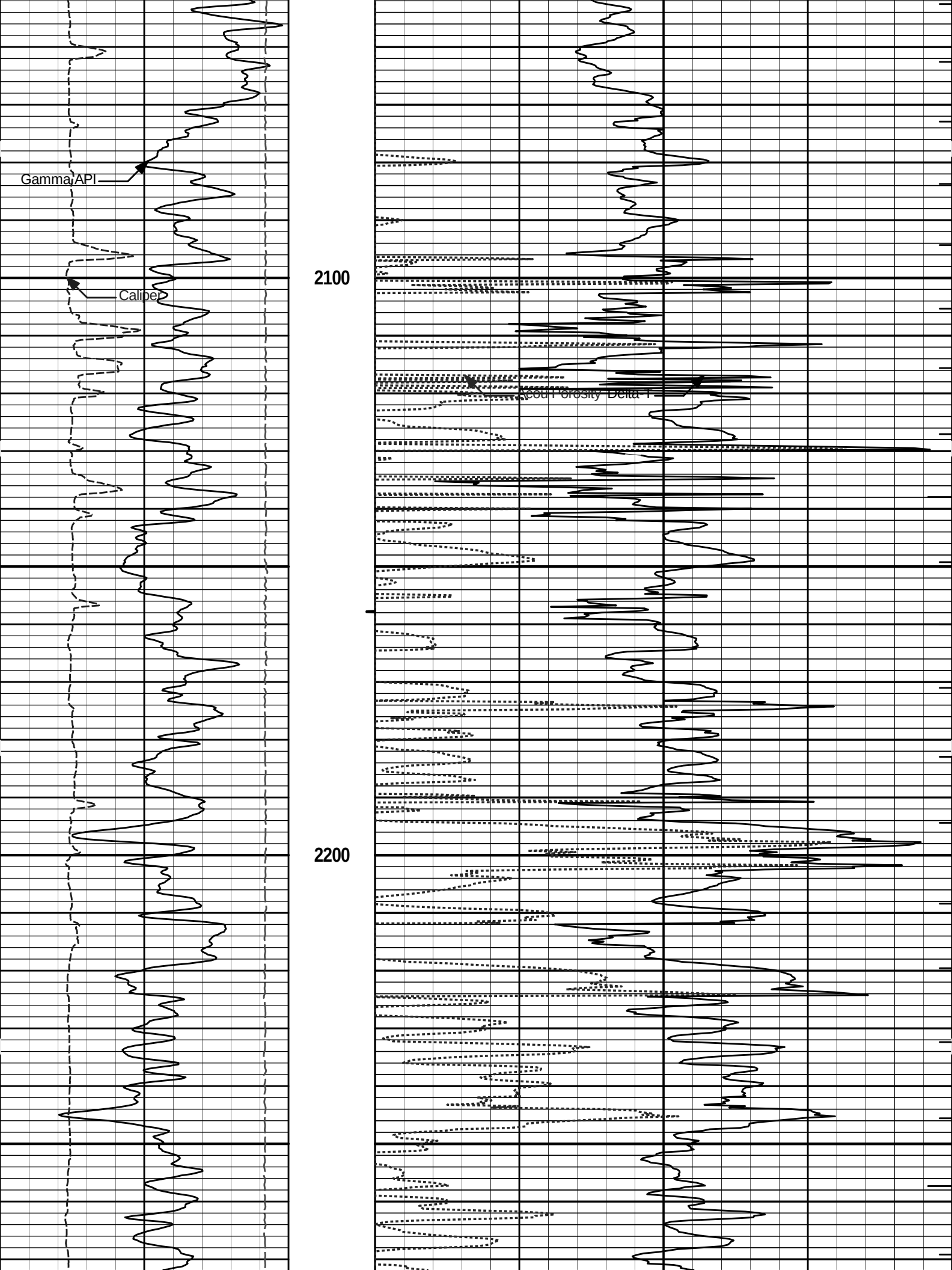
HALLIBURTON

Plot Time: 11-Jan-13 16:33:52
Plot Range: 1780 ft to 5028.83 ft
Data: GARDEN_CITY_H11\Well Based\CASING
Plot File: \\BSAT\BSAT_5_MAIN_LIB

5 INCH MAIN LOG




Gamma API
Caliper
Accu Porosity
Delta T
1900
2000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Caliper
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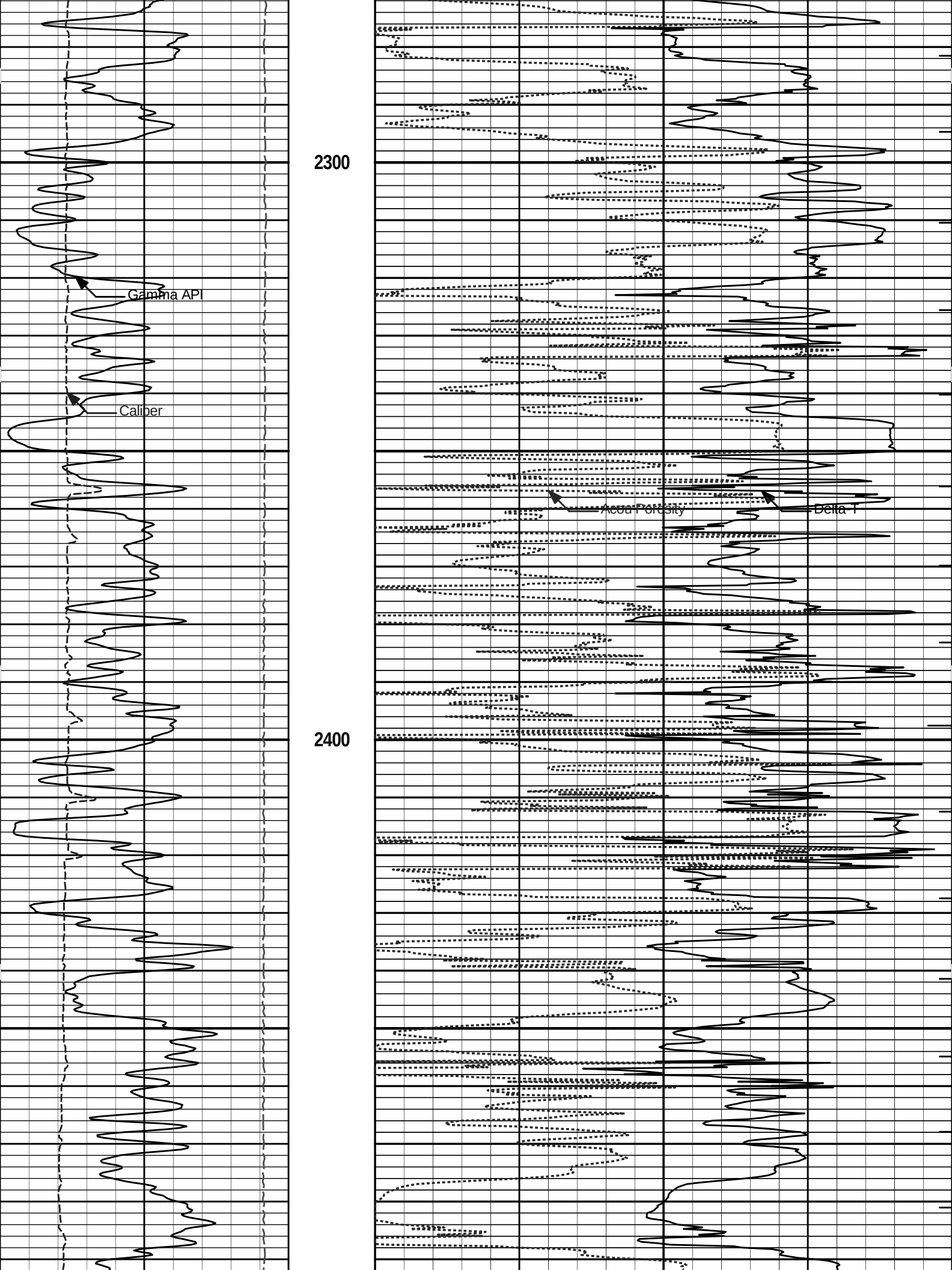
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Caliber
Acou Porosity
Delta T
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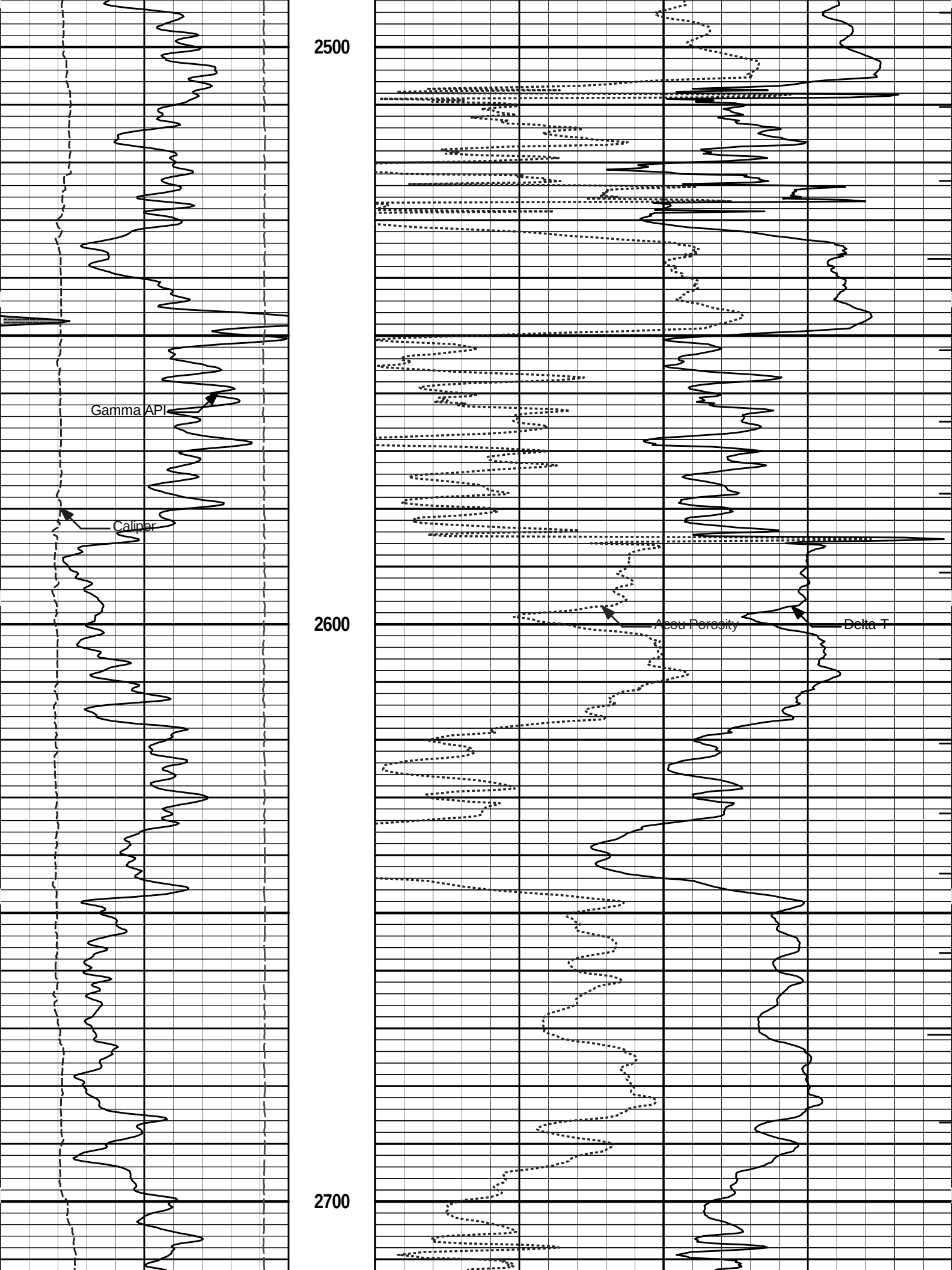
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Delta T
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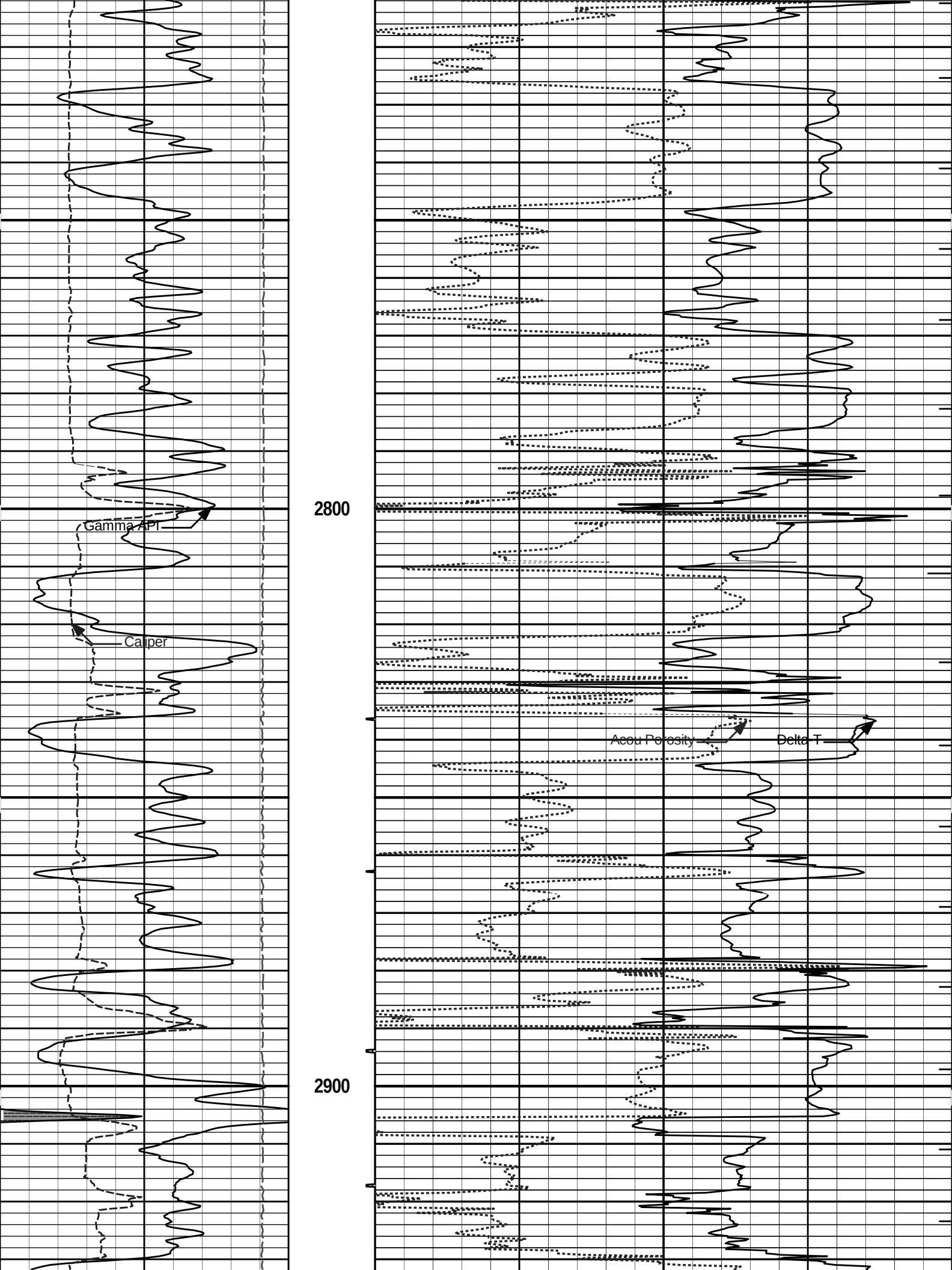
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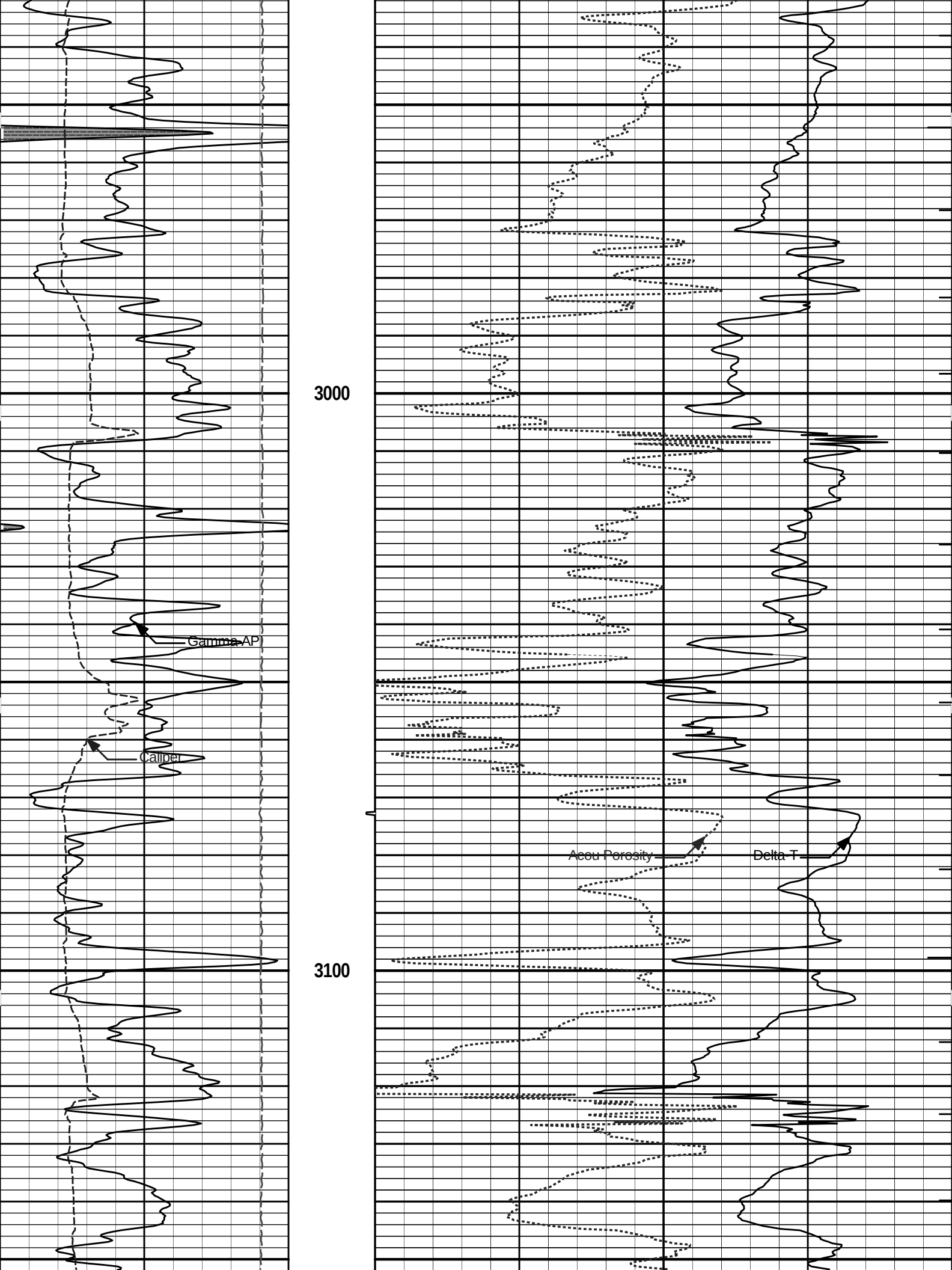
Caliper
2800
Acou Porosity
Delta T
2900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Caliper
Acou Porosity
Delta T
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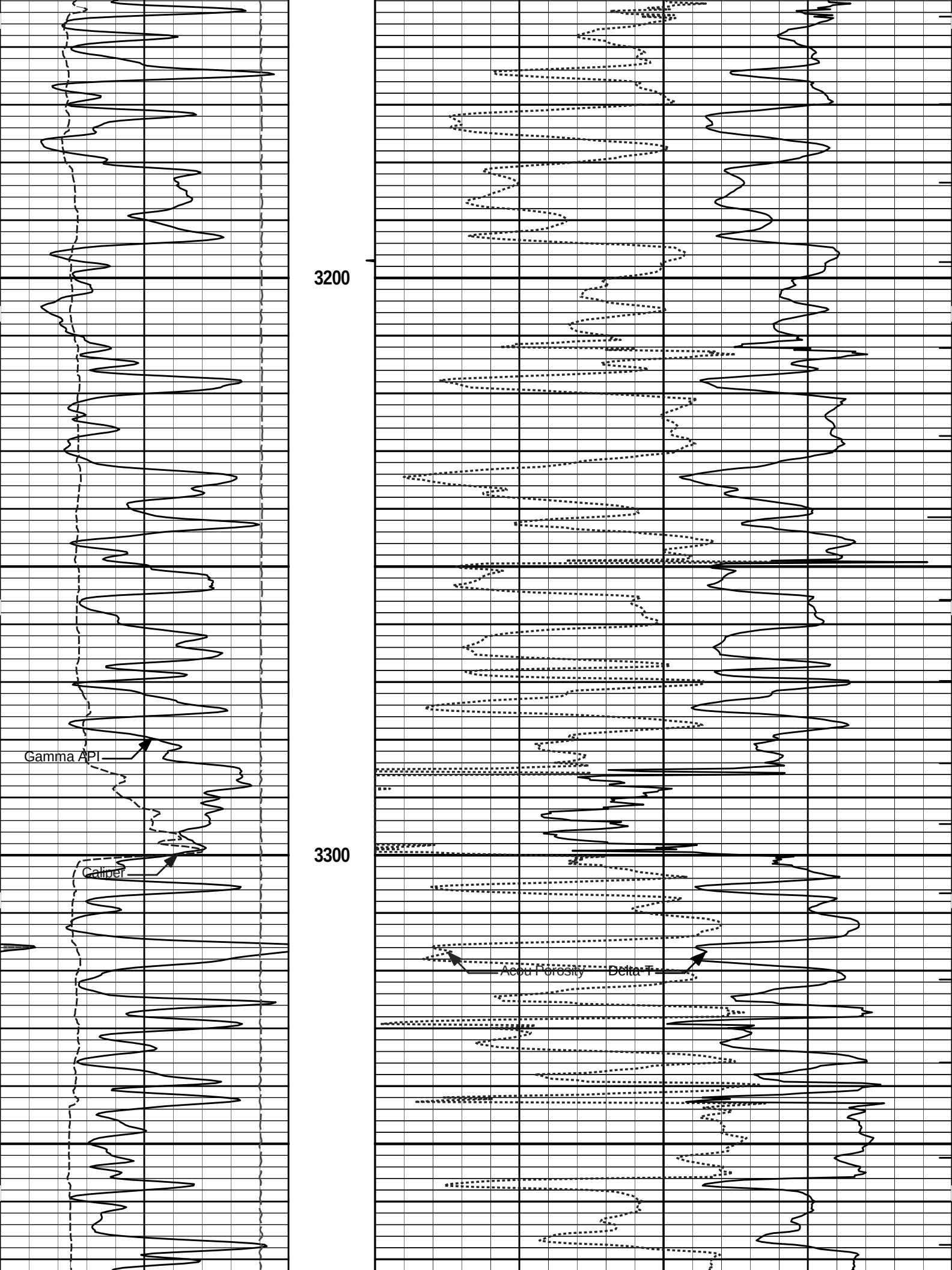
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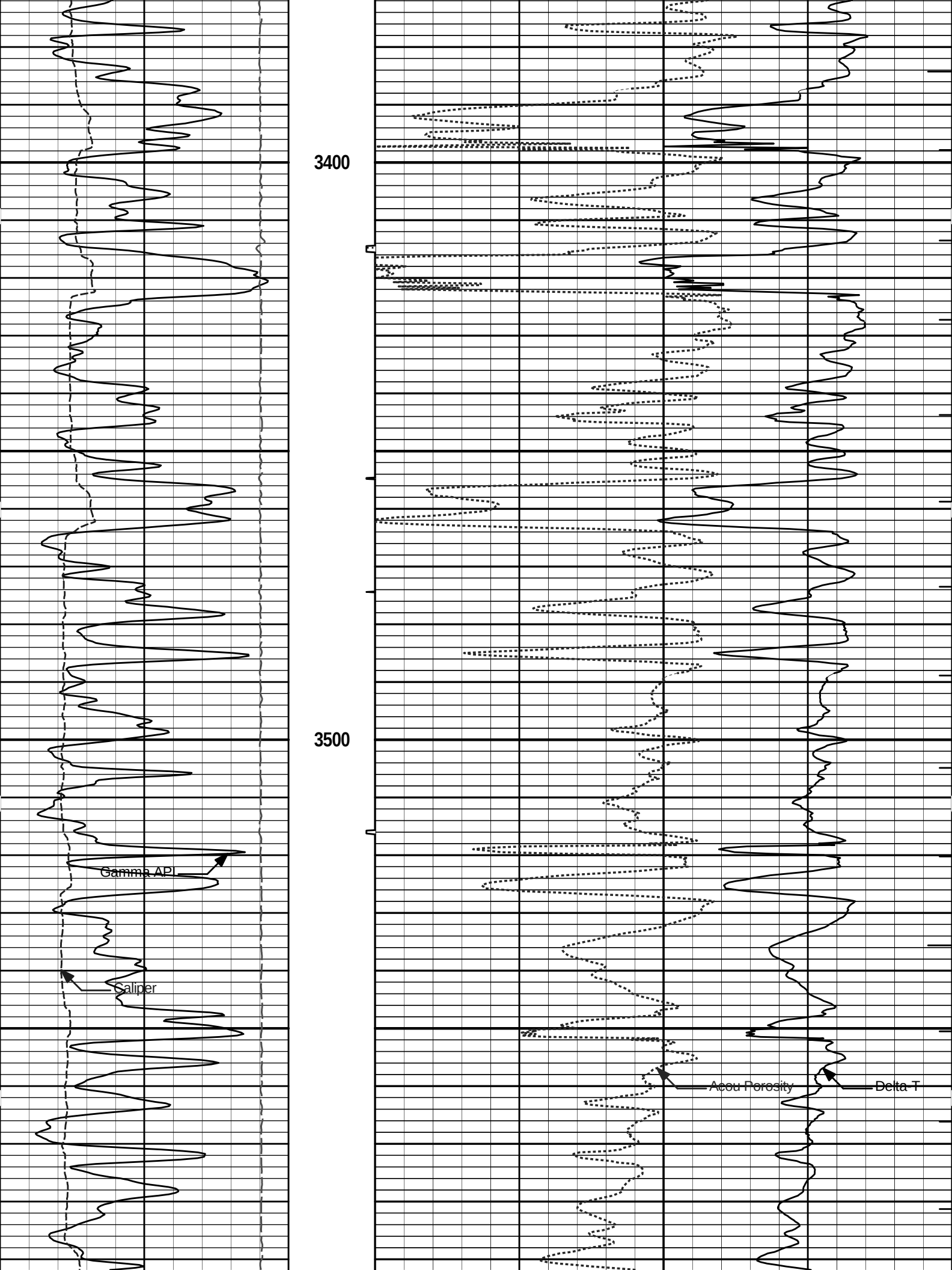
Caliper
Accu Porosity
Delta T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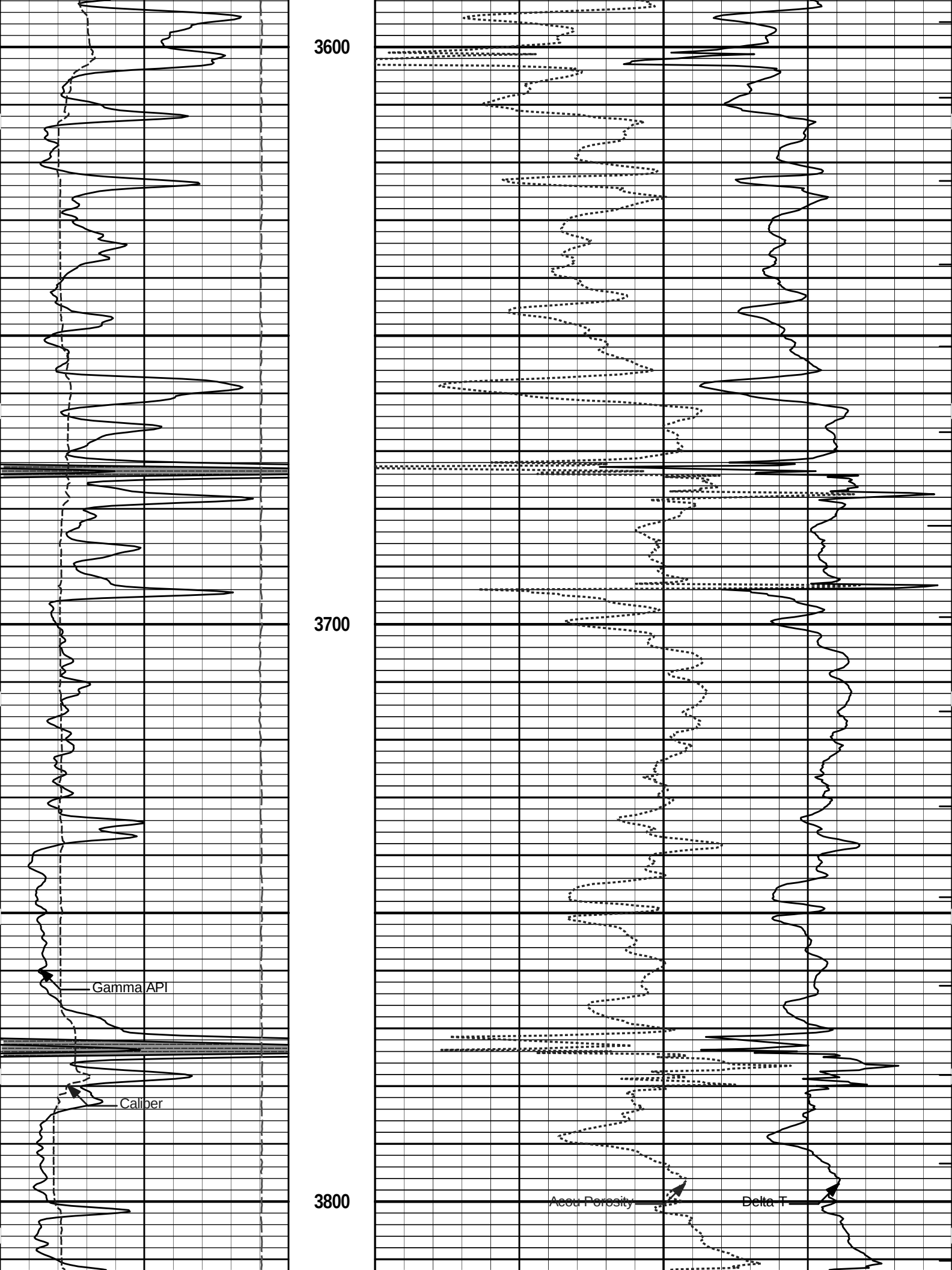
Gamma API
Caliper
Accu Porosity
Delta T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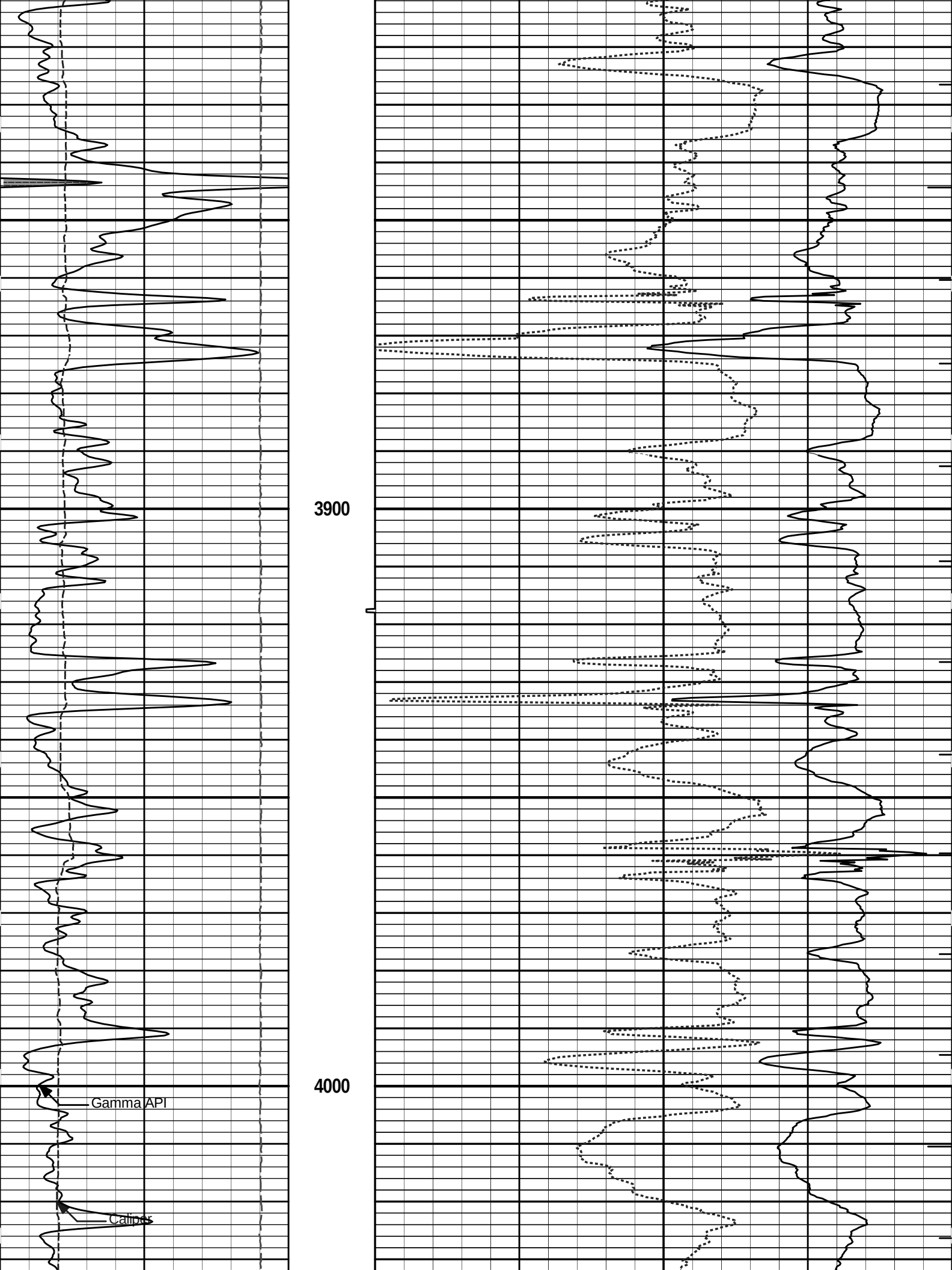
Gamma API
Caliber
Accu Porosity
Delta T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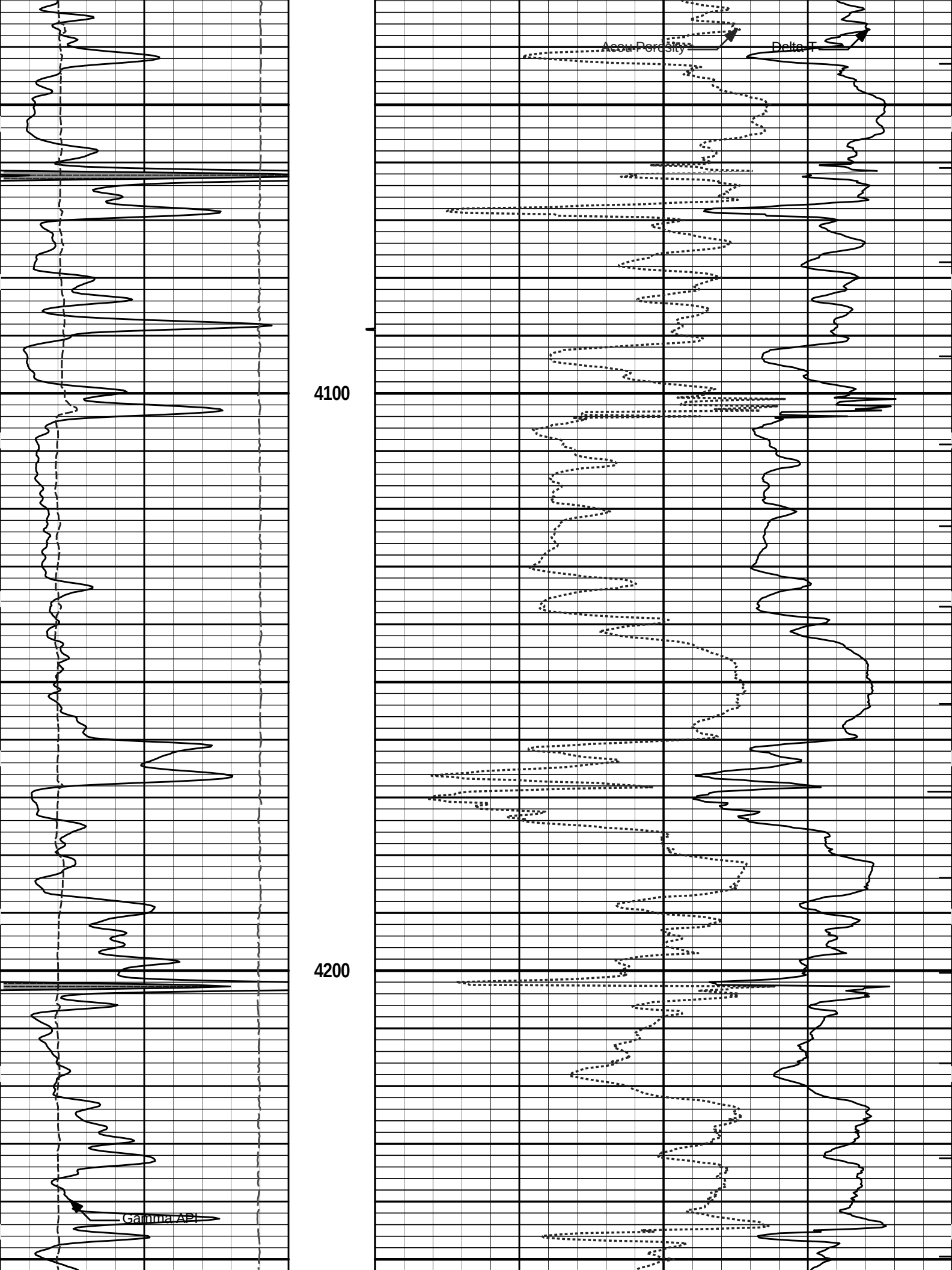
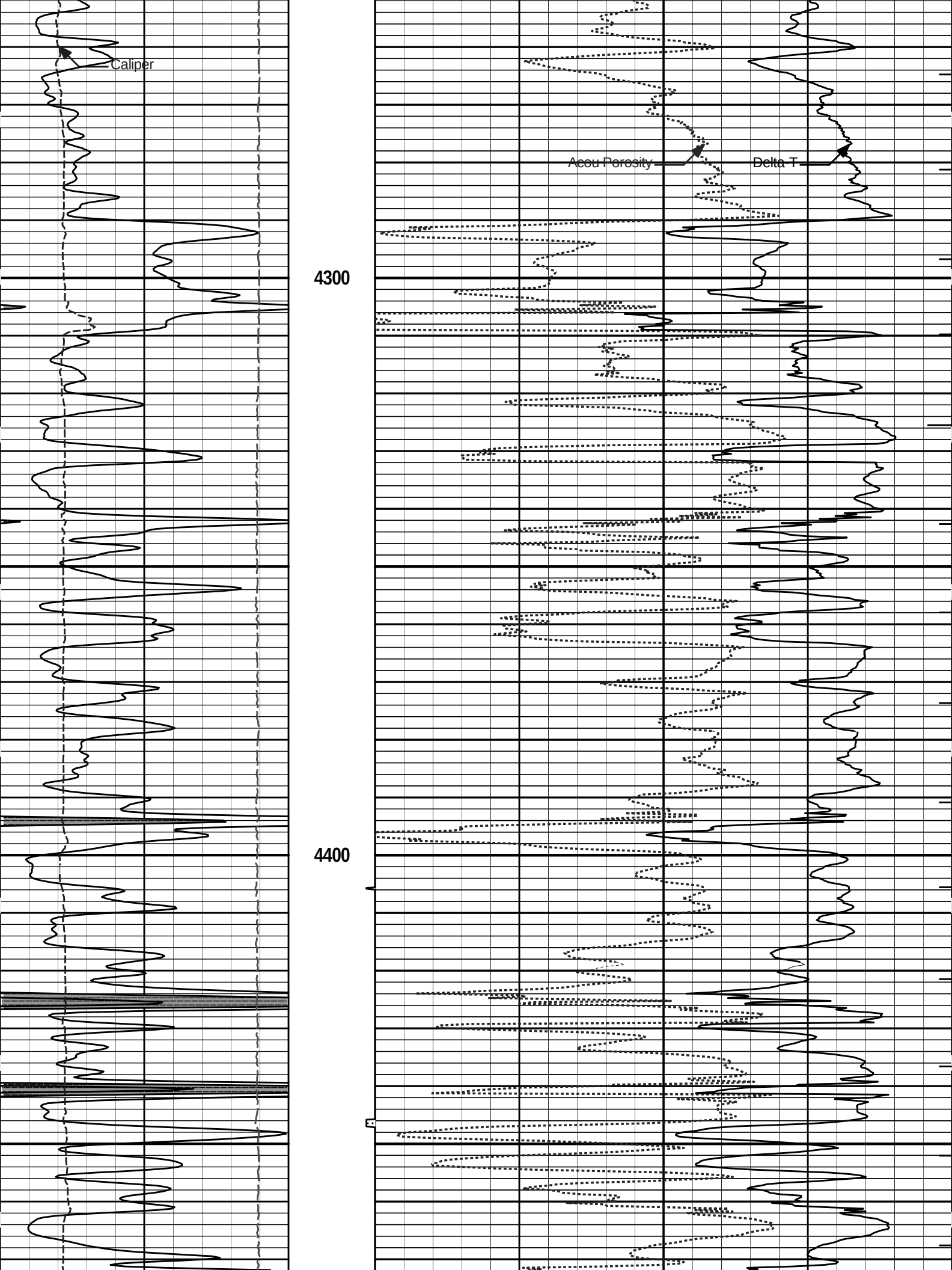
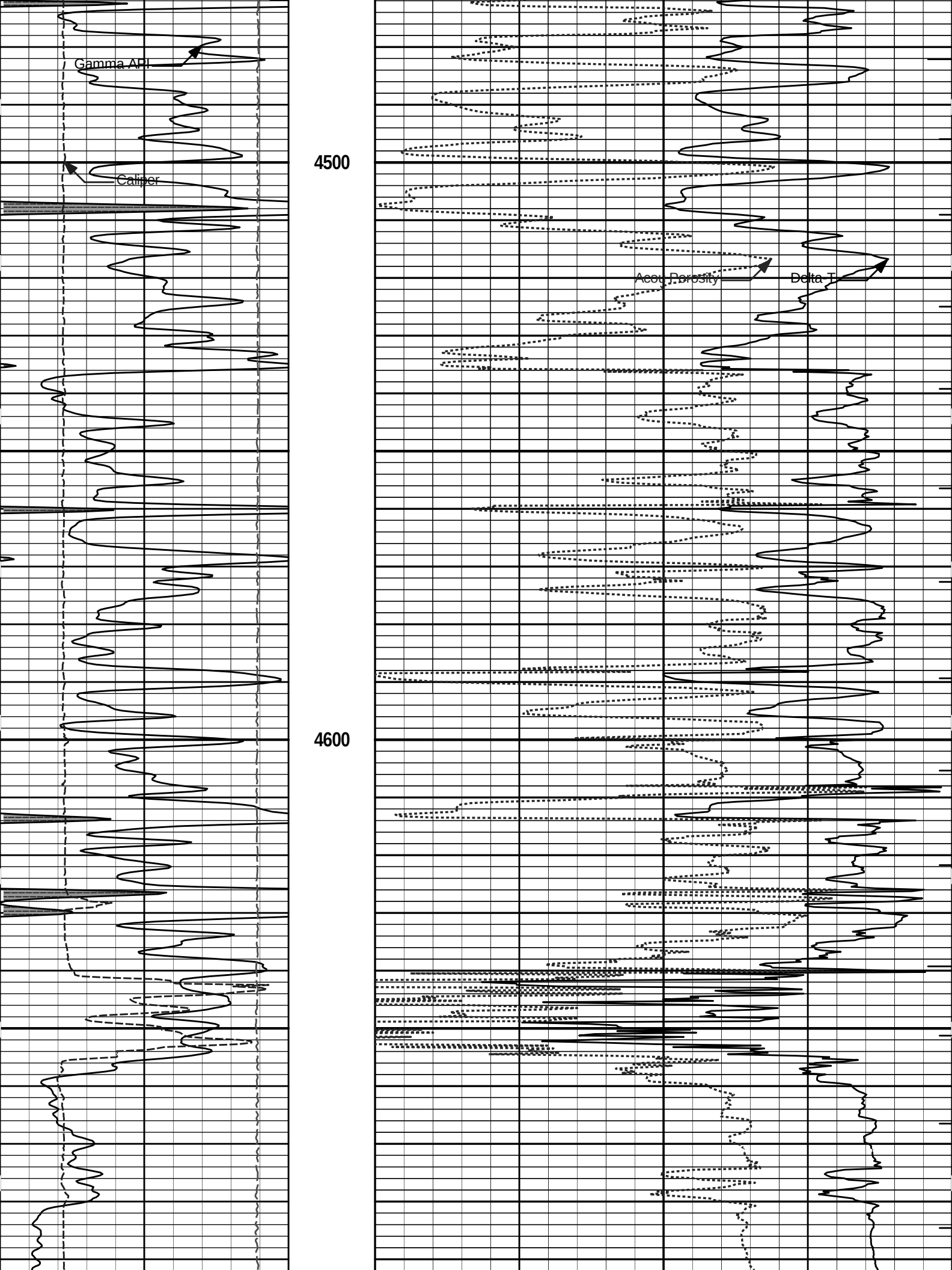
4000
Gamma API
Caliper


Accu-Porosity
Delta-T
4100
4200
Gamma API


Caliper
Acou Porosity
Delta T
4300
4400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Caliper
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Acou. Porosity
Delta T
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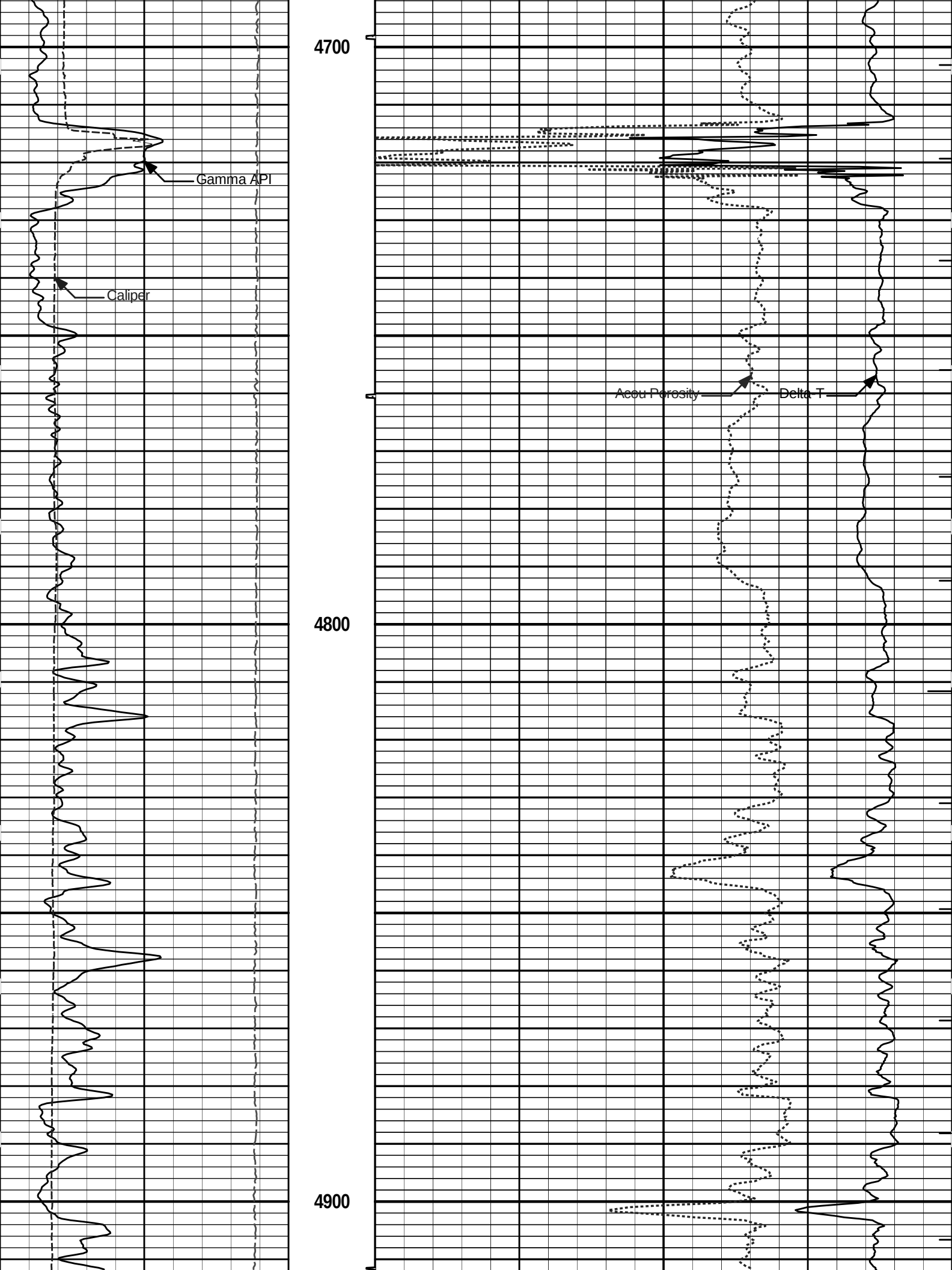
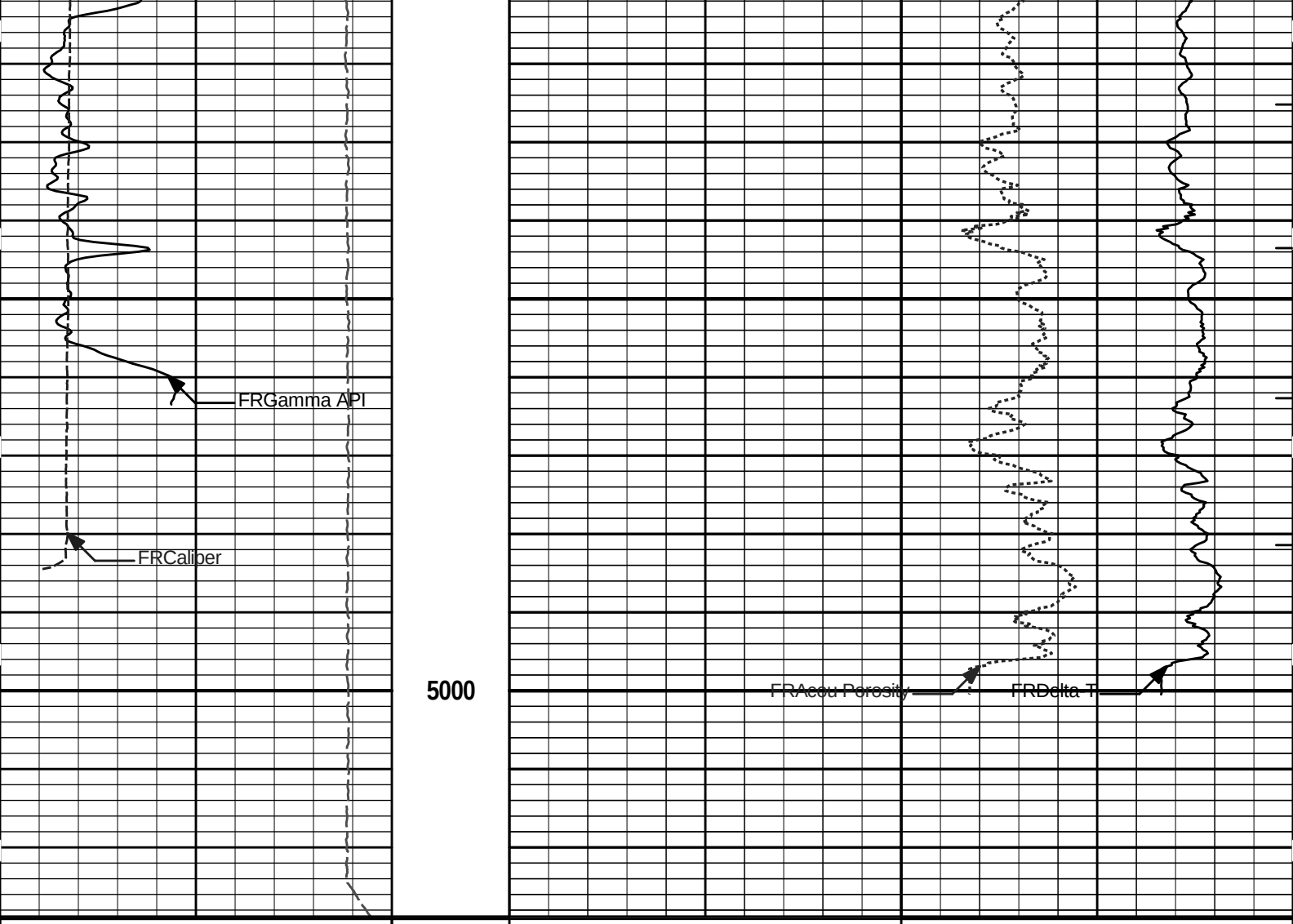

Gamma API
Caliper
Acou Porosity
Delta T
4700
4800
4900



15K Tens 0	MD 1 : 240 ft	ITTT
pounds		
6 Caliper 16	Tension Pull 10 0	140 Delta-T 40
inches		microsec per ft
0 Gamma API 150	Tension Pull	30 Acou Porosity -10
api		percent
SHALE		

HALLIBURTON

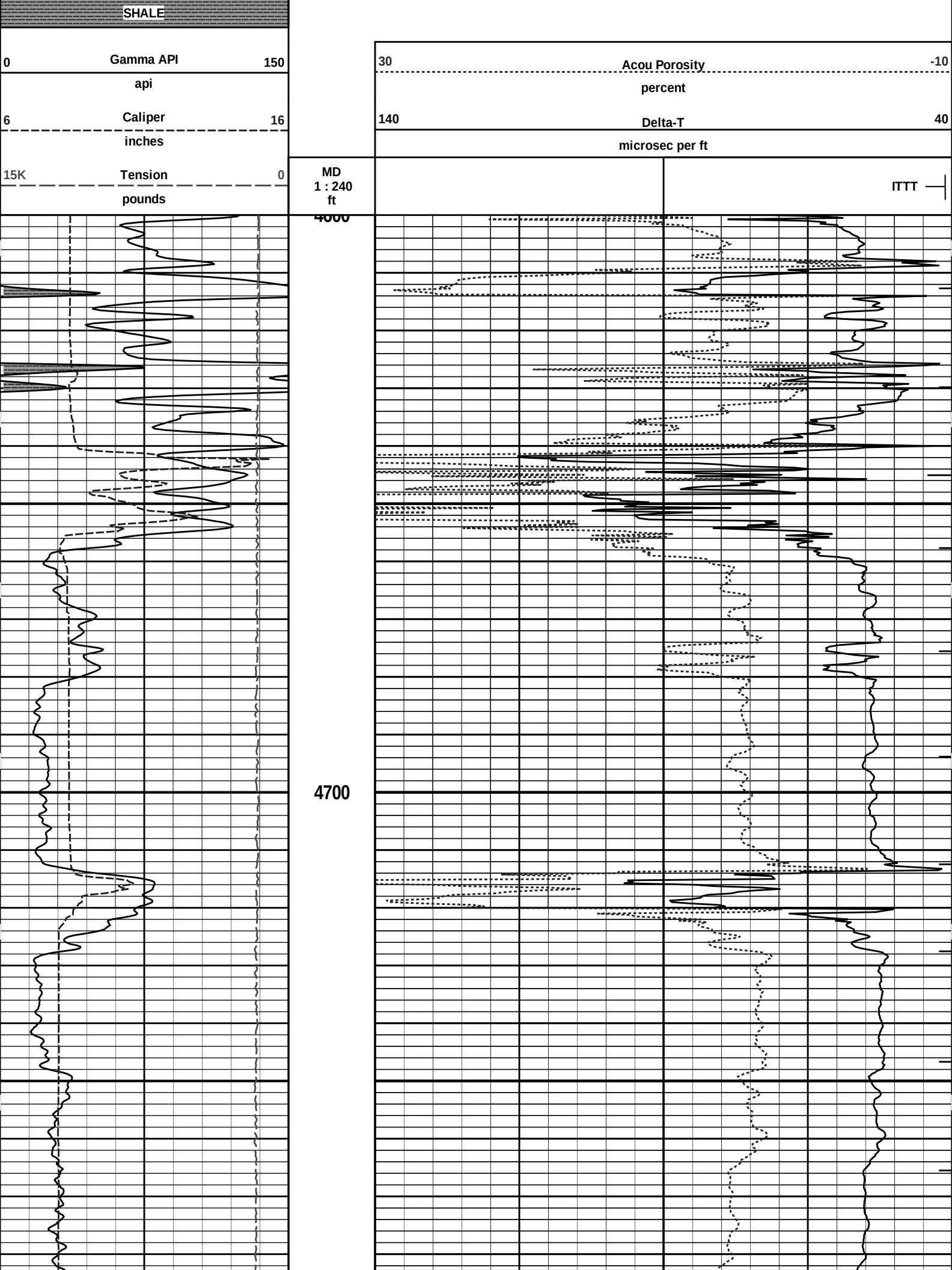
Plot Time: 11-Jan-13 16:34:19
Plot Range: 1780 ft to 5028.83 ft
Data: GARDEN_CITY_H11\Well Based\CASING\
Plot File: \\BSAT\BSAT_5_MAIN_LIB

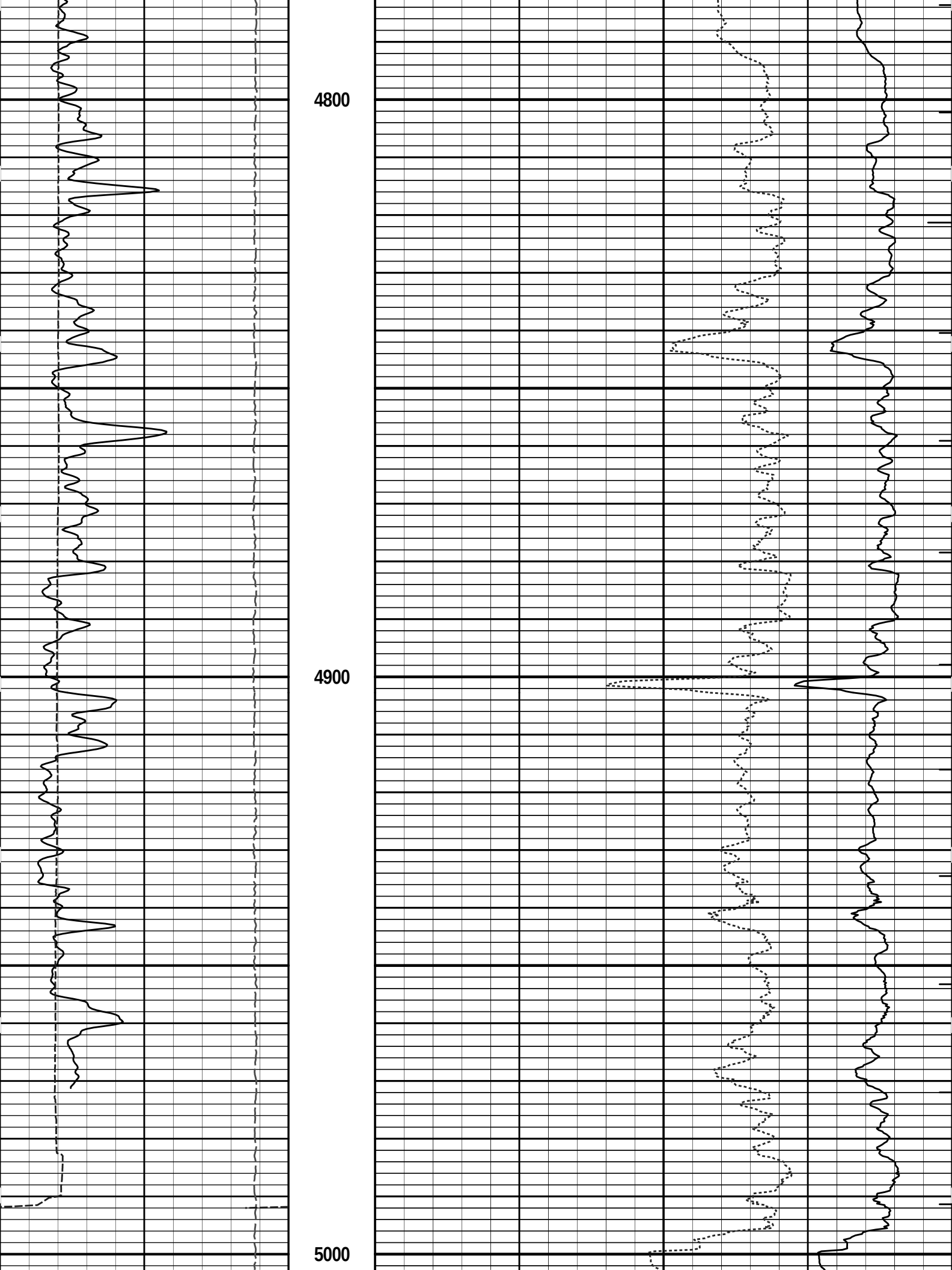
5 INCH MAIN LOG

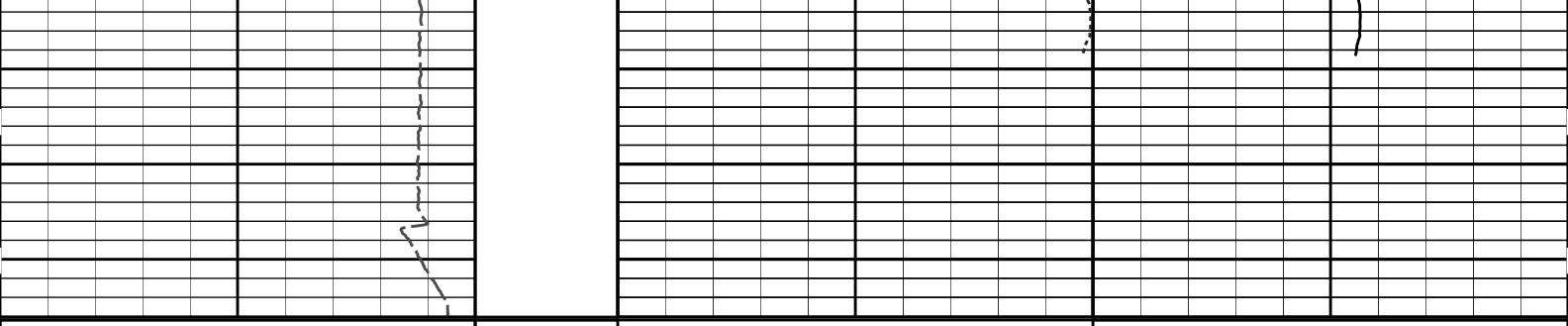
HALLIBURTON

Plot Time: 11-Jan-13 16:34:19
Plot Range: 4600 ft to 5036.08 ft
Data: GARDEN_CITY_H11\Well Based\REPEAT\
Plot File: \\BSAT\BSAT_5_REP_LIB

REPEAT SECTION


SHALE
0
Gamma API
150
api
6
Caliper
16
inches
15K
Tension
0
pounds
MD
1 : 240
ft
30
Acou Porosity
-10
percent
140
Delta-T
40
microsec per ft
ITTT
4700


4800
4900
5000



15K Tension 0	MD 1 : 240 ft		ITTT
pounds			
6 Caliper 16		140 Delta-T 40	
inches		microsec per ft	
0 Gamma API 150		30 Acou Porosity -10	
api		percent	
SHALE			

HALLIBURTON

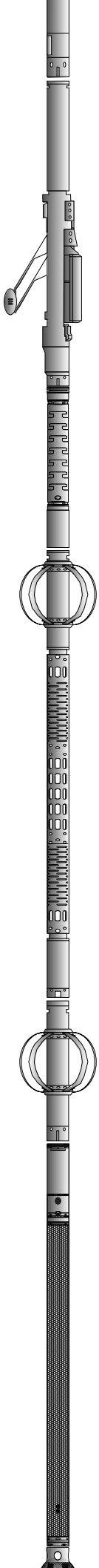
Plot Time: 11-Jan-13 16:34:29
Plot Range: 4600 ft to 5036.08 ft
Data: GARDEN_CITY_H11\Well Based\REPEAT\
Plot File: \\BSAT\BSAT_5_REP_LIB

REPEAT SECTION

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
						77.06 ft
CH_HOS-CH_696 37.50 lbs		Ø 2.750 in		Temperature @ 76.03 ft	3.03 ft	
						74.03 ft
SP Sub-11441455 60.00 lbs		Ø 3.625 in		SP @ 72.26 ft	3.74 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-11019643 6.60 lbs	Ø 5.000 in* Ø 3.625 in		DSN Far @ 54.84 ft	9.69 ft	



DSN Far @ 54.84 ft
DSN Near @ 54.09 ft
52.09 ft
SDLT-11014296
360.00 lbs
Ø 4.500 in
SDLT Pad-10865884
65.00 lbs
Microlog @ 44.28 ft
SDL Caliper @ 44.09 ft
SDL @ 44.08 ft
10.81 ft
Microlog Pad-11014296
8.00 lbs
Ø 4.750 in*
Ø 4.750 in*
41.28 ft
Flex Joint-001
140.00 lbs
Ø 3.625 in
5.67 ft
35.61 ft
Centralizer 29-1
12.00 lbs
Ø 4.000 in*
BSAT-10747683
300.00 lbs
Ø 3.625 in
Sonic Receivers @ 27.09 ft
15.77 ft
19.83 ft
ACRt Instrument-I962
50.00 lbs
Centralizer 29-2
12.00 lbs
Ø 4.000 in*
Ø 3.625 in
5.03 ft
14.80 ft
Mud Resistivity @ 13.44 ft
ACRt @ 9.46 ft
ACRt Sonde-11005909
200.00 lbs
Ø 3.625 in
14.22 ft
0.58 ft
Cabbage Head-
Ø 3.625 in

TRK696
10.00 lbs

Ø 6.000 in

0.58 ft

0.00 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		74.03	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	11019643	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	10747683	300.00	15.77		19.83	60.00
OBCEN	Centralizer - 29 in.Overbody	1	12.00	2.42	*	32.77	300.00
ACRt	Array Compensated True Resistivity Instrument Section	I962	50.00	5.03		14.80	300.00
OBCEN	Centralizer - 29 in.Overbody	2	12.00	2.42	*	16.39	300.00
ACRt	Array Compensated True Resistivity Sonde Section	11005909	200.00	14.22		0.58	300.00
CBHD	Cabbage Head	TRK696	10.00	0.58		0.00	300.00
Total			**1,600.10**	**77.06**			

* Not included in Total Length and Length Accumulation.

Data: GARDEN_CITY_H11\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CH\IDLE **Date: 11-Jan-13 12:44:48**

HALLIBURTON

PARAMETERS REPORT

Depth ((ft))	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.300	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	5090.00	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 /	RMFR	Rmf Reference	0.10	ohmm

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	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

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	
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

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
RMUD	Mud Resistivity	12.76	BLK	0.000
F1RT	Transmitter Reference 12 KHz Real Signal	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: GARDEN_CITY_H11\0001 SP-GTET-DSN-SDL-FLEX-BSAT-ACRT-CH\IDLE **Date: 11-Jan-13 12:45:17**

COMPANY	**OXY USA INC.**		
WELL	**GARDEN CITY H-11**		
FIELD	**GARDEN CITY**		
COUNTY	**FINNEY**	STATE	**KANSAS**

HALLIBURTON

BOREHOLE COMPENSATED SONIC ARRAY LOG