HALLIBURTON

BOREHOLE
SONIC ARRAY

COMPANY MERIT ENERGY COMPANY, LLC
WELL KATY JACKSON 1-7
FIELD/BLOCK SEVEN MILE
COUNTY FINNEY
STATE KANSAS

COMPANY **MERIT ENERGY COMPANY, LLC**

WELL **KATY JACKSON 1-7**

FIELD/BLOCK **SEVEN MILE**

COUNTY **FINNEY** STATE **KANSAS**

API No. 15055225570100

Location 549' FNL & 181' FEL
SE NE NE NE

Sect. 7 Twp. 23S Rge. 32W

Other Services:
DSNT-SDLT
ACRT

Permanent Datum	GL	Elev. 2857.9 ft	Elev.: K.B. 2869.9 ft
Log measured from	KB	, 12.0 ft above perm. Datum	D.F. 2868.9 ft
Drilling measured from	KB		G.L. 2857.9 ft

Date		07-Apr-22					
Run No.		ONE					
Depth - Driller		5000.0 ft					
Depth - Logger		5000.0 ft					
Bottom - Logged Interval		4970.0 ft					
Top - Logged Interval		1811.0 ft					
Casing - Driller		8.625 in	@ 1813.0 ft	@		@	
Casing - Logger		1811.0 ft					
Bit Size		7.875 in		@		@	
Type Fluid in Hole		Water Based Mud					
Density	Viscosity	9.4 ppg	48.00 s/qt				
PH	Fluid Loss	11.00 pH	5.2 cptm				
Source of Sample		MUD PIT					
Rm @ Meas. Temperature		1.45 ohmm	@ 56.10 degF	@		@	
Rmf @ Meas. Temperature		1.73 ohmm	@ 56.10 degF	@		@	
Rmc @ Meas. Temperature		1.10 ohmm	@ 56.10 degF	@		@	
Source Rmf	Rmc	CALC	CALC				
Rm @ BHT		0.74 ohmm	@ 117.0 degF	@		@	
Time Since Circulation		06:30 hr					
Time on Bottom		08-Apr-22 01:00					
Max. Rec. Temperature		117.00 degF	@ 5000.0 ft	@		@	
Equipment	Location	12128583	ALVARADO				
Recorded By		K. BJERGA		M. ABUELGASIM			
Witnessed By		M. LANGE		A. GARNER			

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Sales Order Number: 907776086 API No.: 15055225570100 PGM Version: WL INSITE R6.4.20 (Build 2)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

	Sample No.					
Date						
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.	11958947	Serial No.	10747681	Serial No.		Serial No.	
Model No.	GTET	Model No.	BSAT	Model No.		Model No.	
Diameter	3.625"	No. of Cent.	TWO	Diameter		Diameter	
Detector Model No.	GTET	Spacing	0.5'	Log Type		Log Type	
Type	SCINT			Source Type		Source Type	
Length	8"	LSA [Y/N]	Y	Serial No.		Serial No.	
Distance to Source	10'	FWDA [Y/N]	Y	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	5000'	1811'	REC	0 gapi	150 gapi	30%	-10%	47.6 usec/ft						

DIRECTIONAL INFORMATION

Maximum Deviation	@	KOP	@

Remarks: FIRST LOG ON WELL, POSITIVE DEPTH CORRECTION APPLIED

ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING

LOGGING INTERVALS AND SERVICES ARE AS PER CUSTOMER REQUEST

TOOLS RAN IN COMBINATION AS PER TOOLSTRING DIAGRAM

CHLORIDES REPORTED AT 2,900

CREW: C. HERRERA, B. EZEKWU

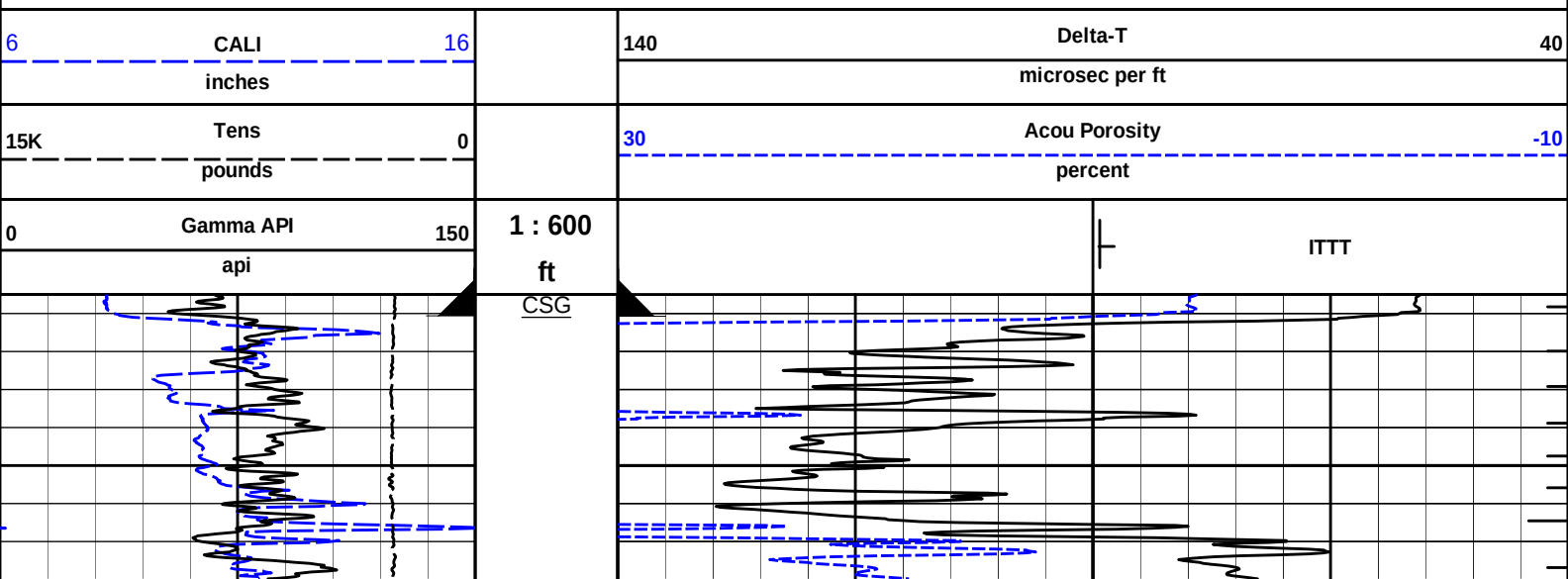
*****THANK YOU FOR CHOOSING HALLIBURTON ENERGY SERVICES*****

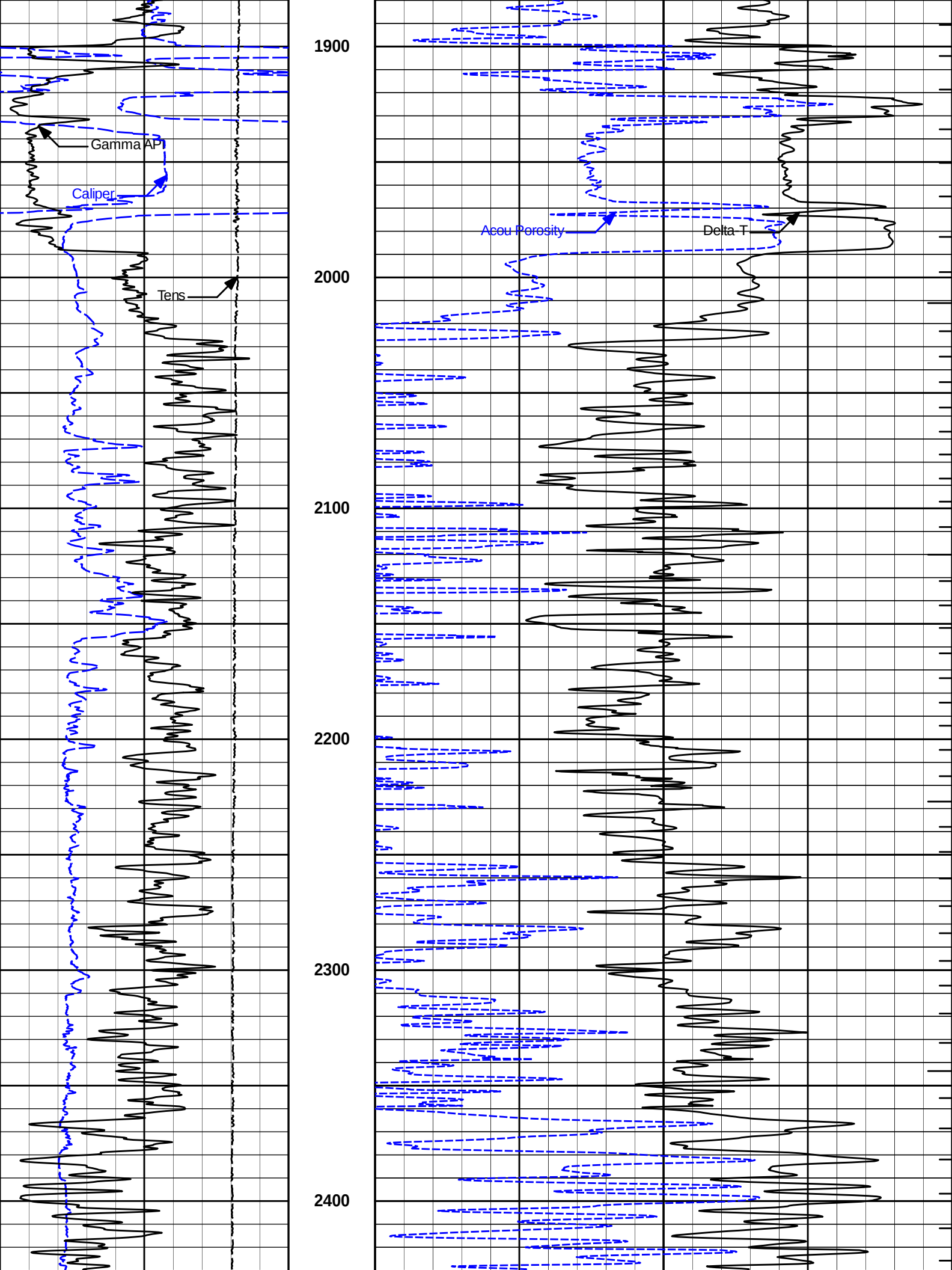
HALLIBURTON

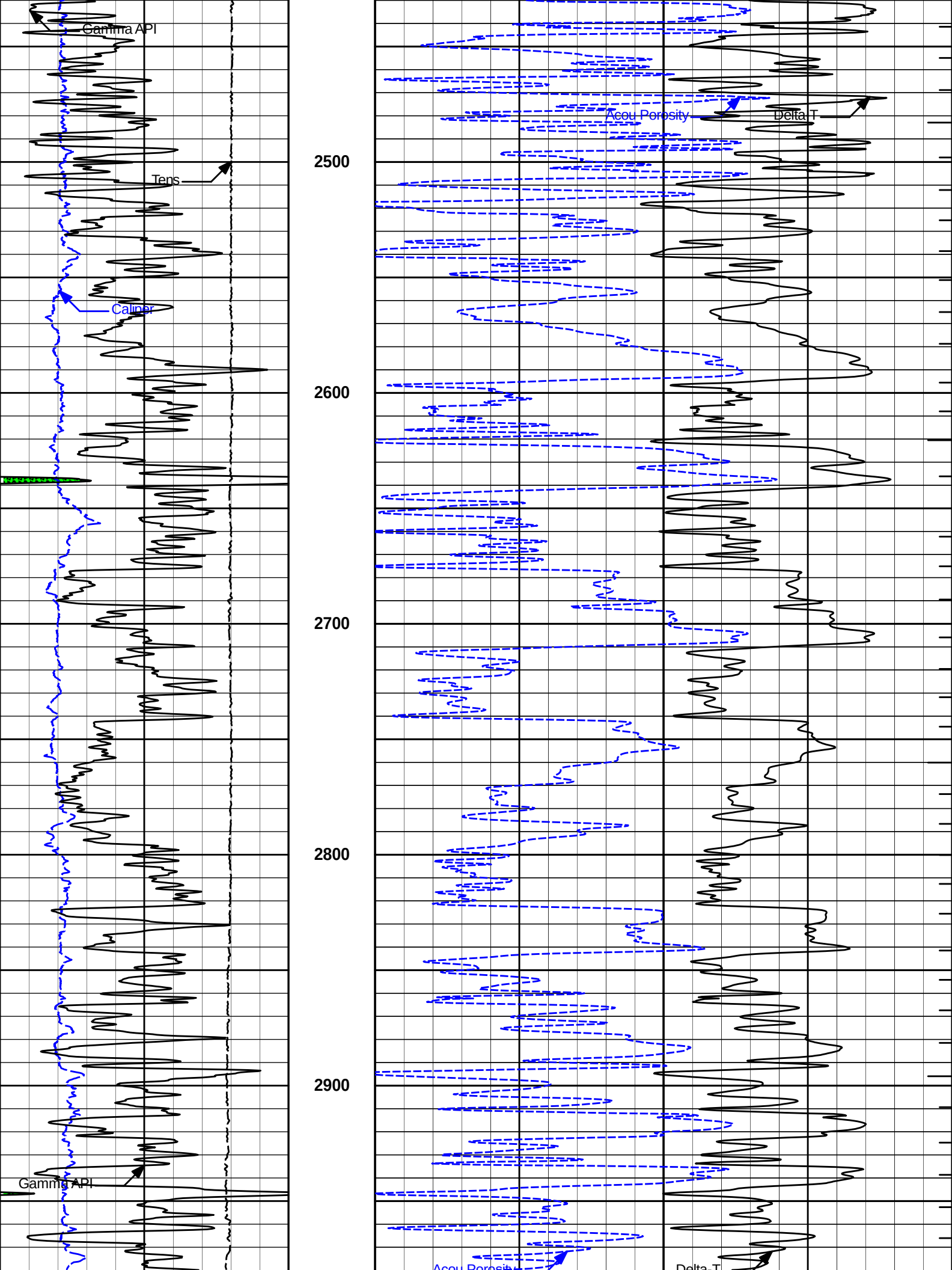
Plot Time: 08-Apr-22 02:59:41
Plot Range: 1805 ft to 5006.67 ft
Data: 04_07_MERIT\Well Based\DAQ-0001-004
Plot File: \\SONIC\BSAT_2inch

2 INCH MAIN LOG

2" MAIN LOG SECTION




Gamma API
Caliper
Tens
Acou Porosity
Delta T
1900
2000
2100
2200
2300
2400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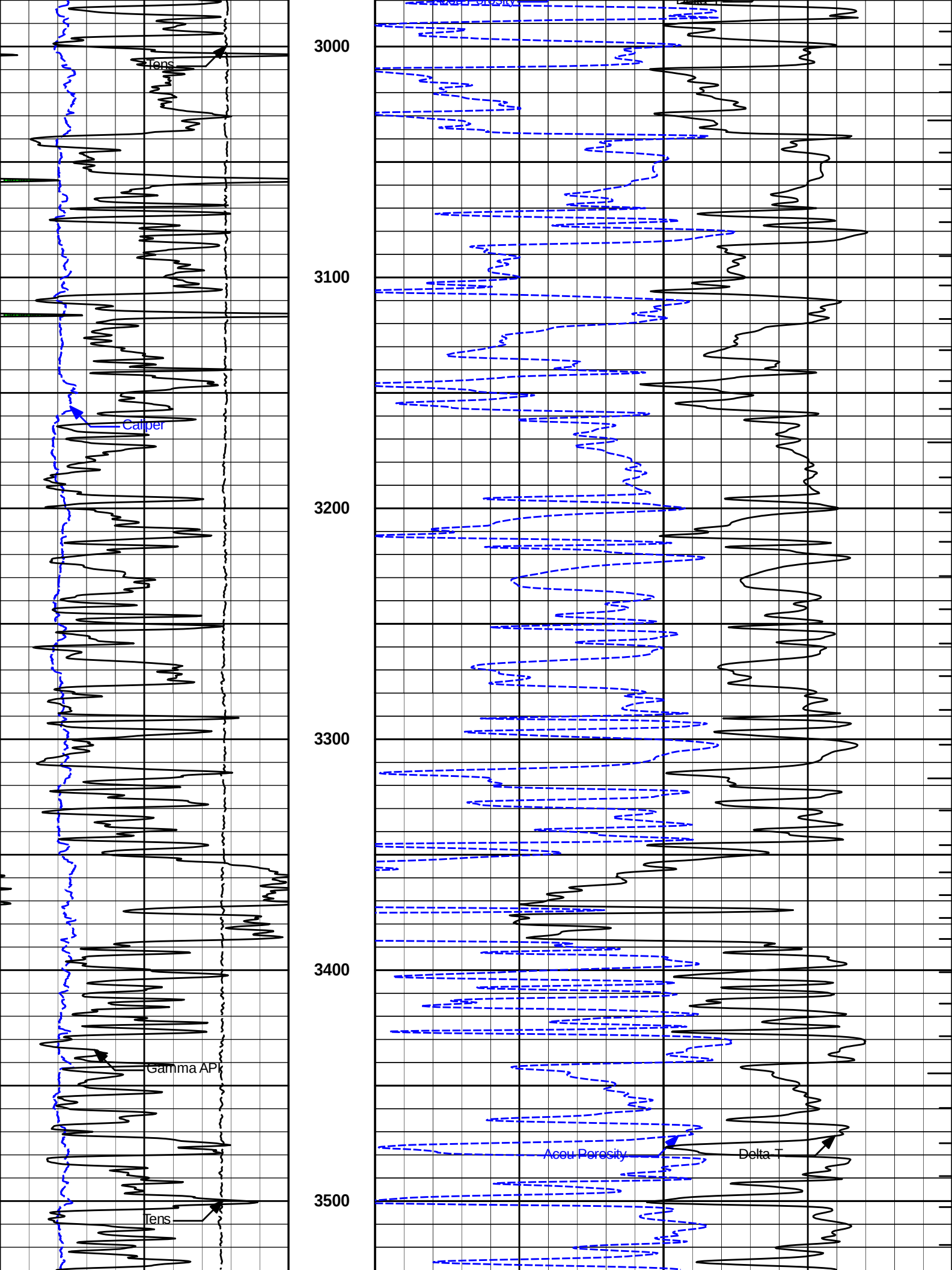
Tens
Caliper
Gamma API
2500
2600
2700
2800
2900
Acou Porosity
Delta-T
Acou Porosity
Delta-T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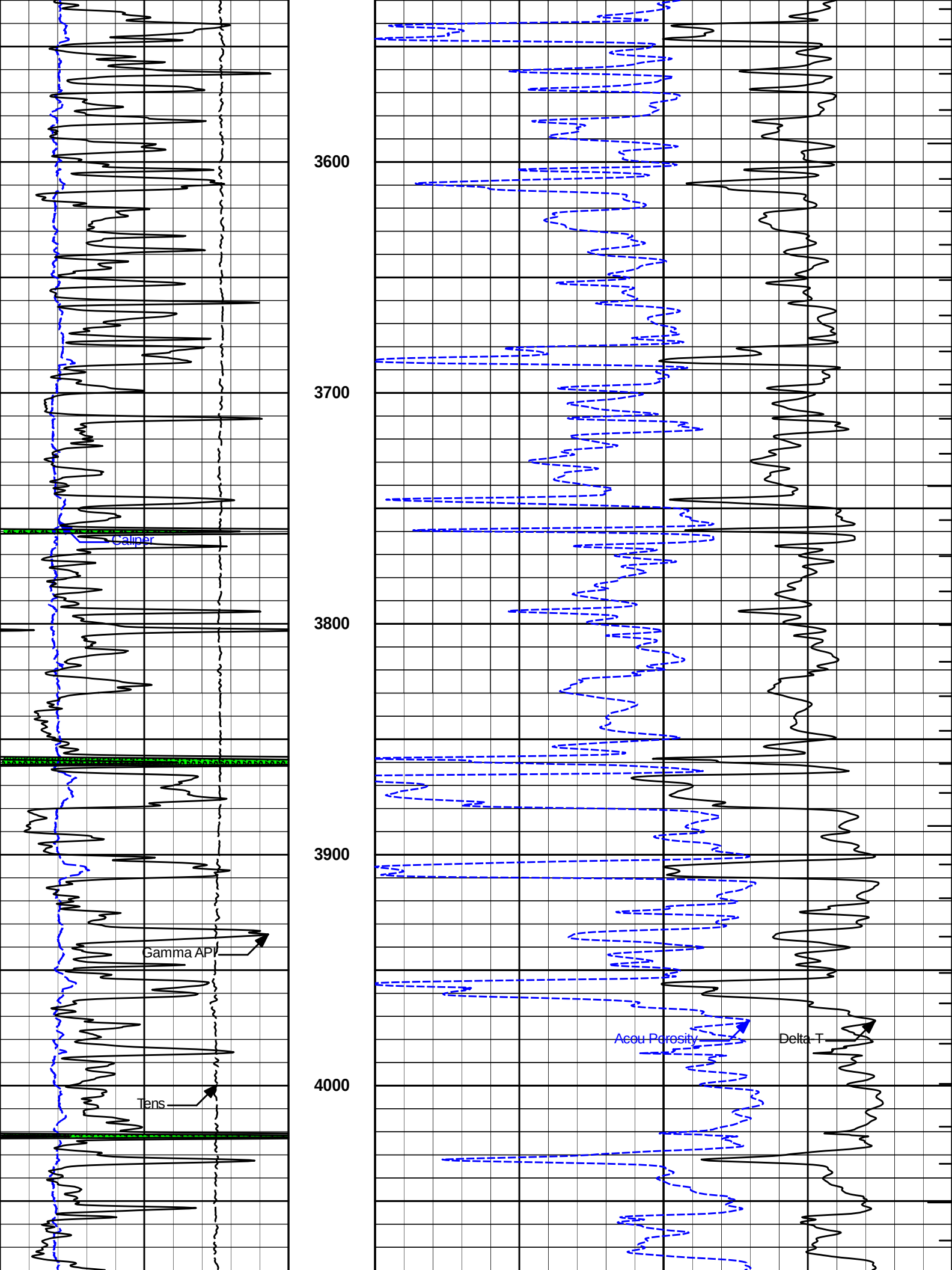
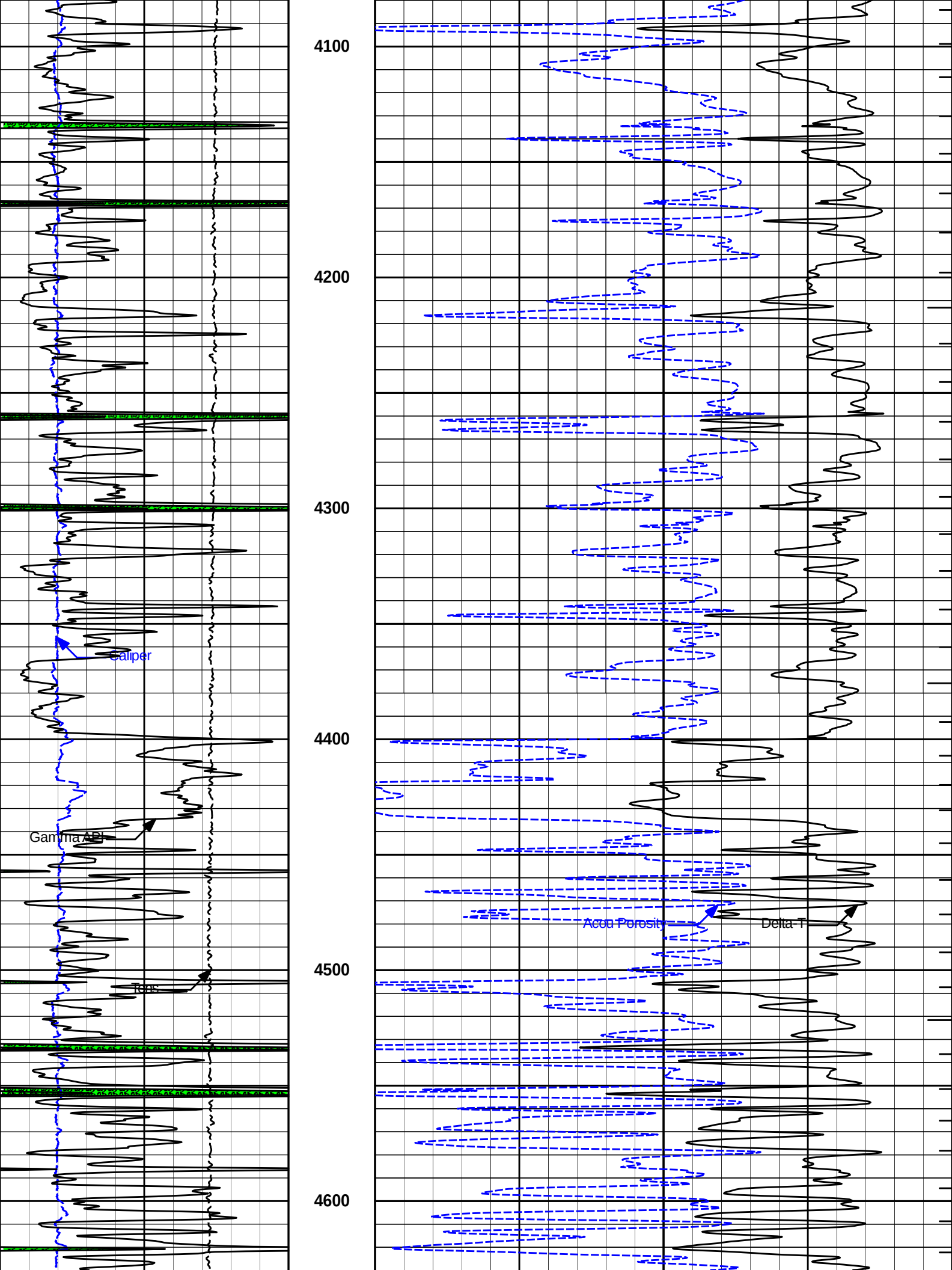
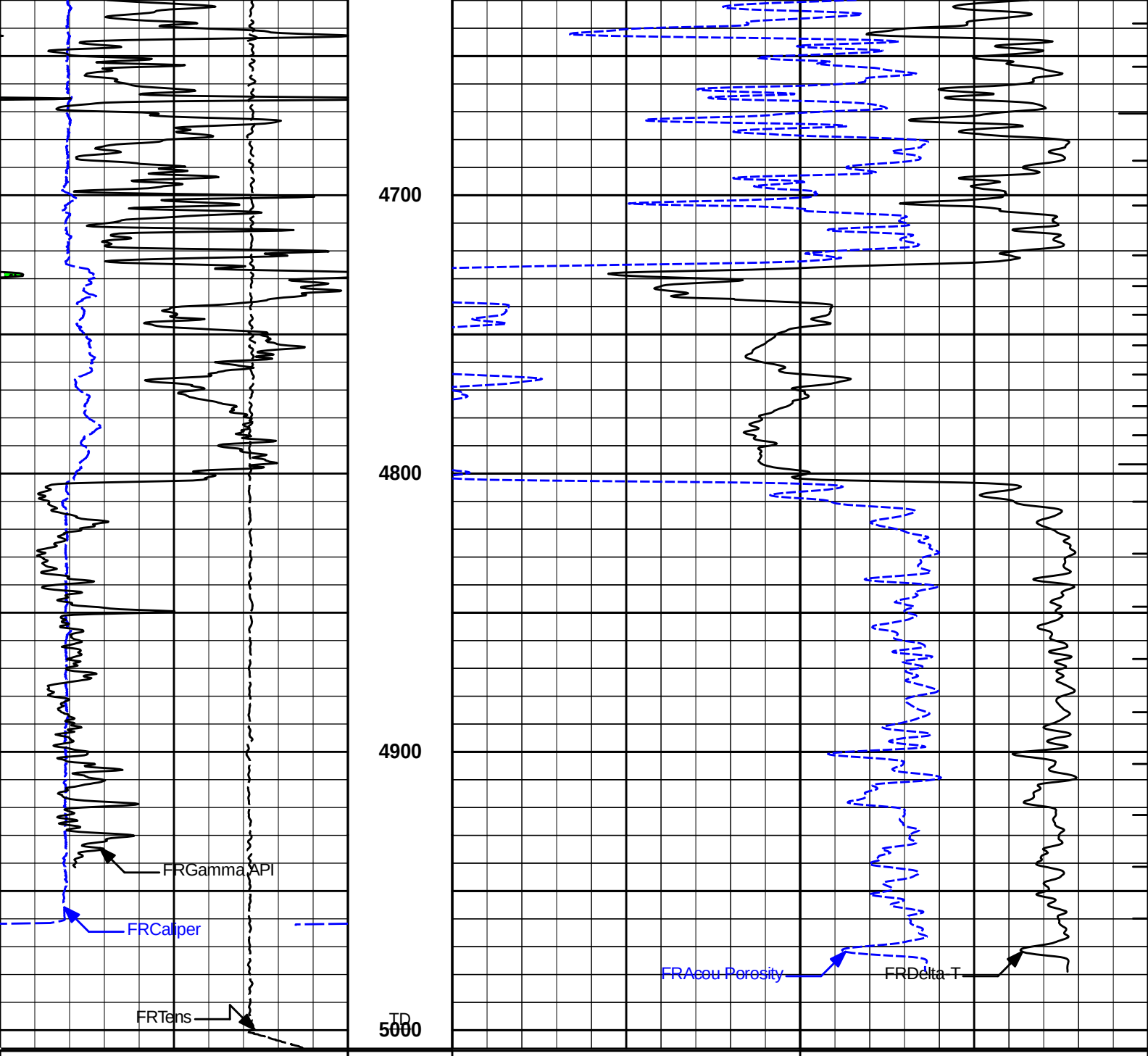
Caliper
Gamma API
Tens
3000
3100
3200
3300
3400
3500
Acou Porosity
Delta T


3600
3700
3800
3900
4000
Caliper
Gamma API
Tens
Acou Porosity
Delta T


4100
4200
4300
4400
4500
4600
Caliper
Gamma API
Tens
Acou Porosity
Delta T



0 Gamma API 150 api	1 : 600 ft	ITTT
15K Tens 0 pounds		30 Acou Porosity -10 percent
6 CALI 16 inches		140 Delta-T 40 microsec per ft

HALLIBURTON

Plot Time: 08-Apr-22 02:59:44
Plot Range: 1805 ft to 5006.67 ft
Data: 04_07_MERIT\Well Based\DAQ-0001-004\
Plot File: \\SONIC\BSAT_2inch

2 INCH MAIN LOG

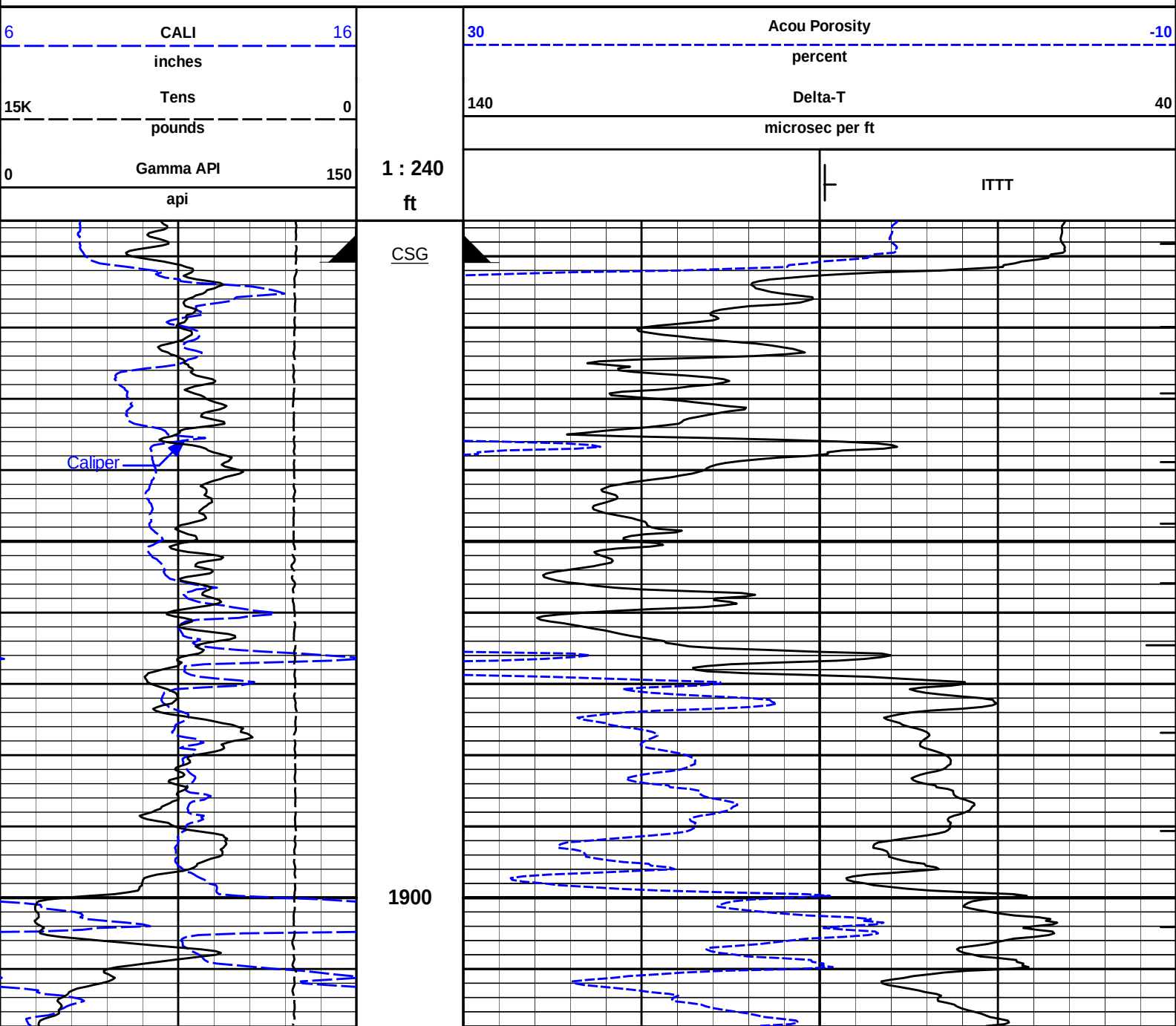
2" MAIN LOG SECTION

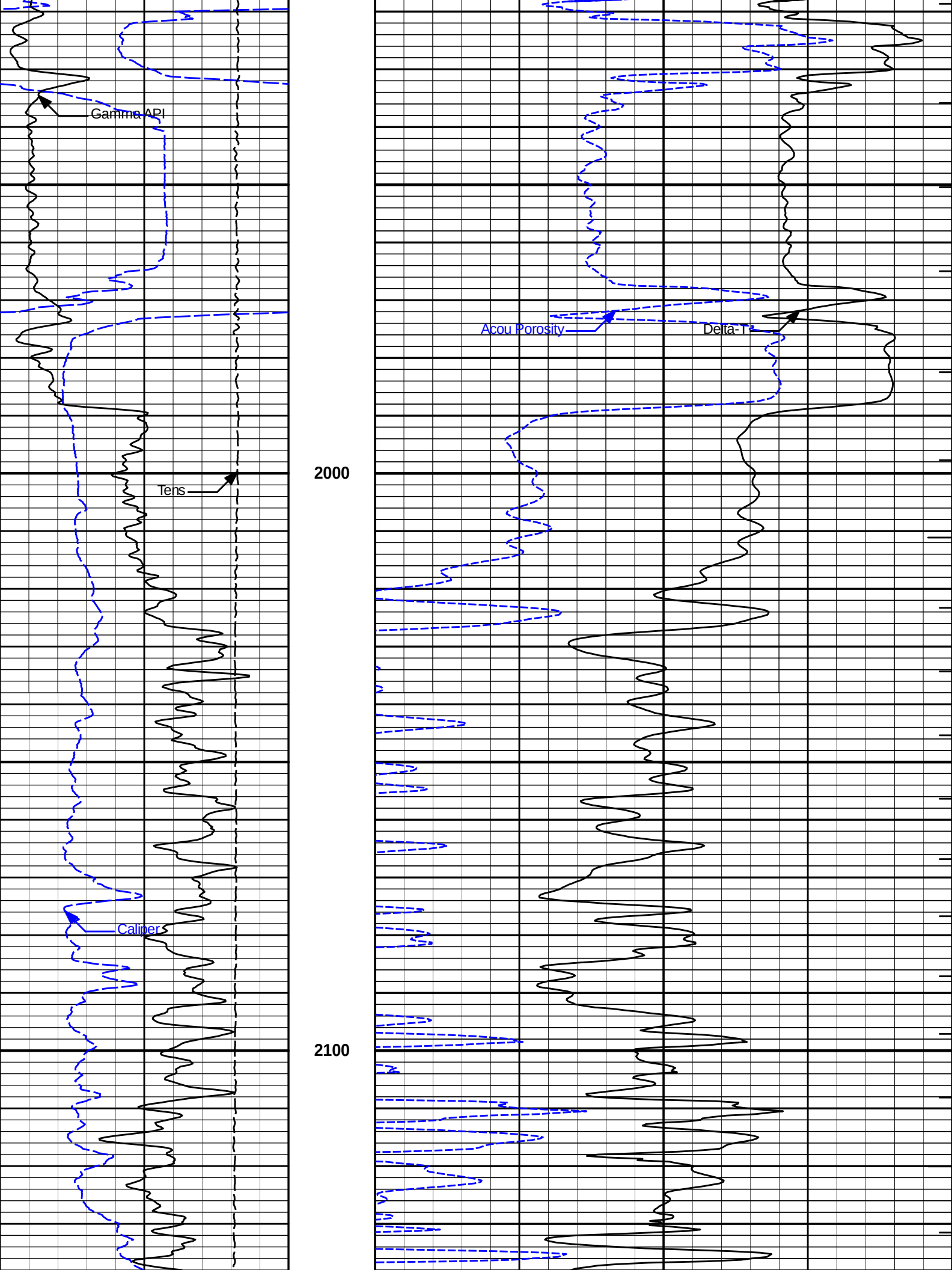
HALLIBURTON

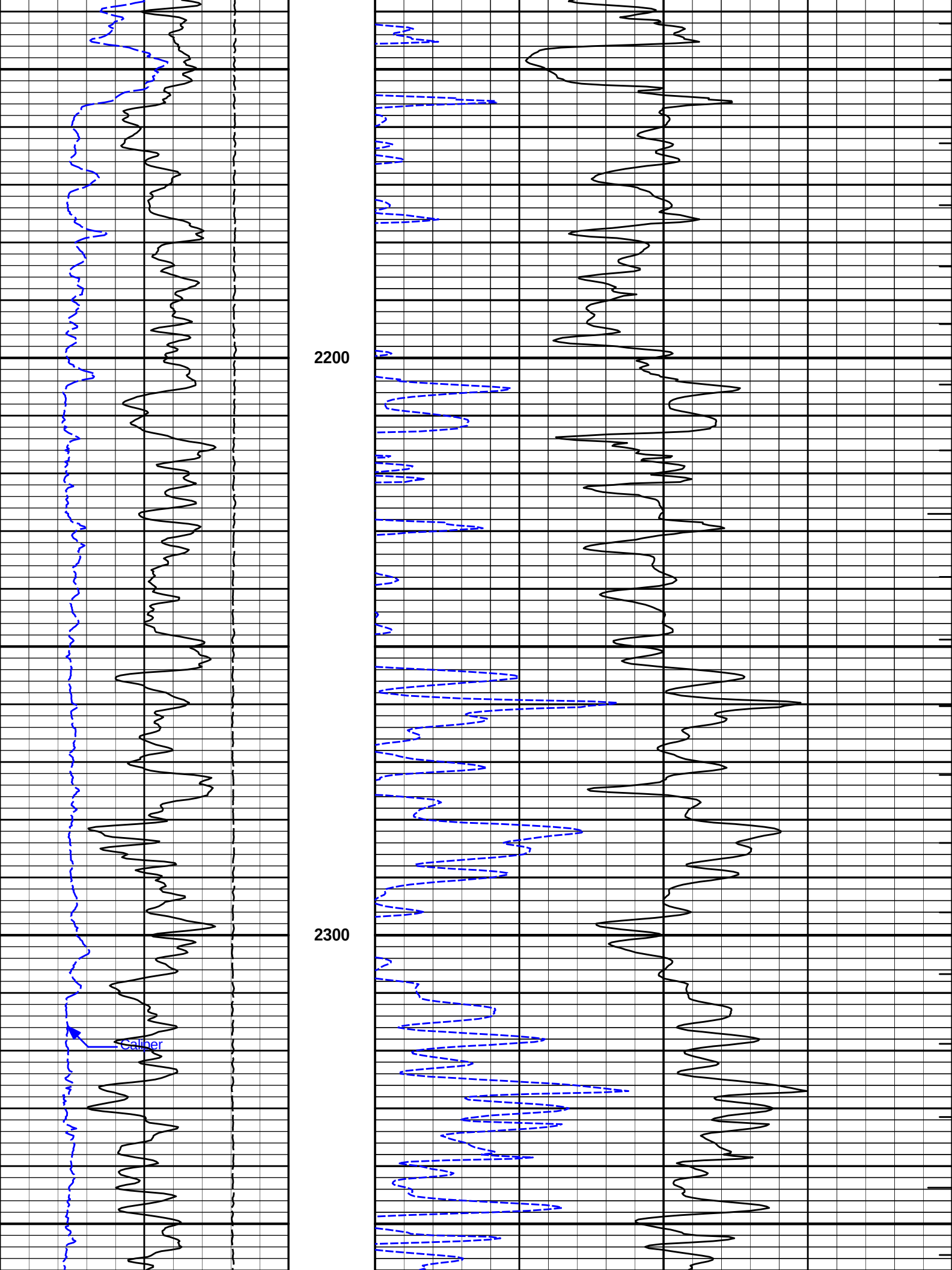
Plot Time: 08-Apr-22 02:59:44
Plot Range: 1805 ft to 5006.67 ft
Data: 04_07_MERIT\Well Based\DAQ-0001-004\
Plot File: \\SONIC\BSAT_5inch

5 INCH MAIN LOG

MAIN LOG SECTION




Gamma API
Tens
Caliper
2000
2100
Acou Porosity
Delta-T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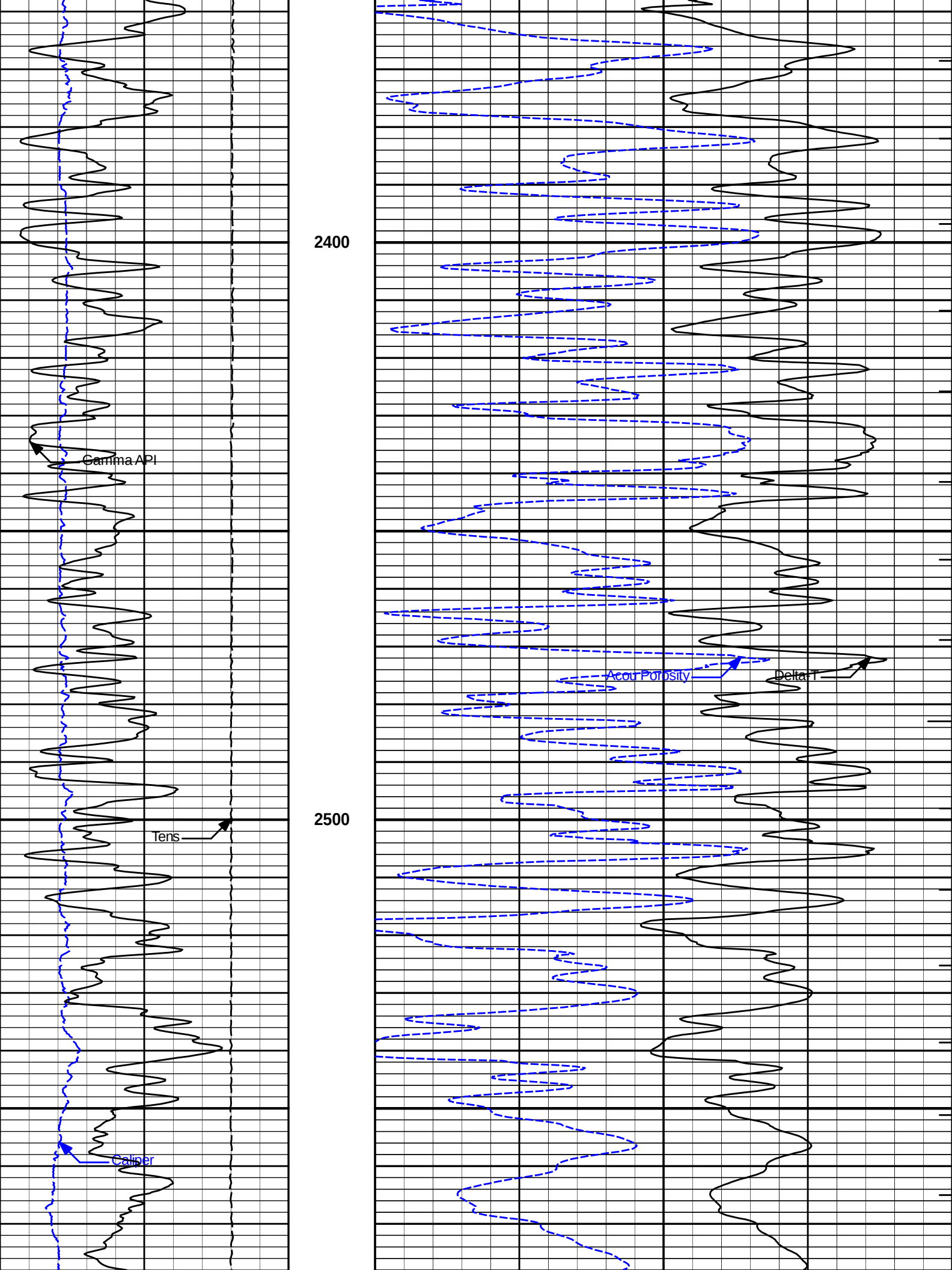
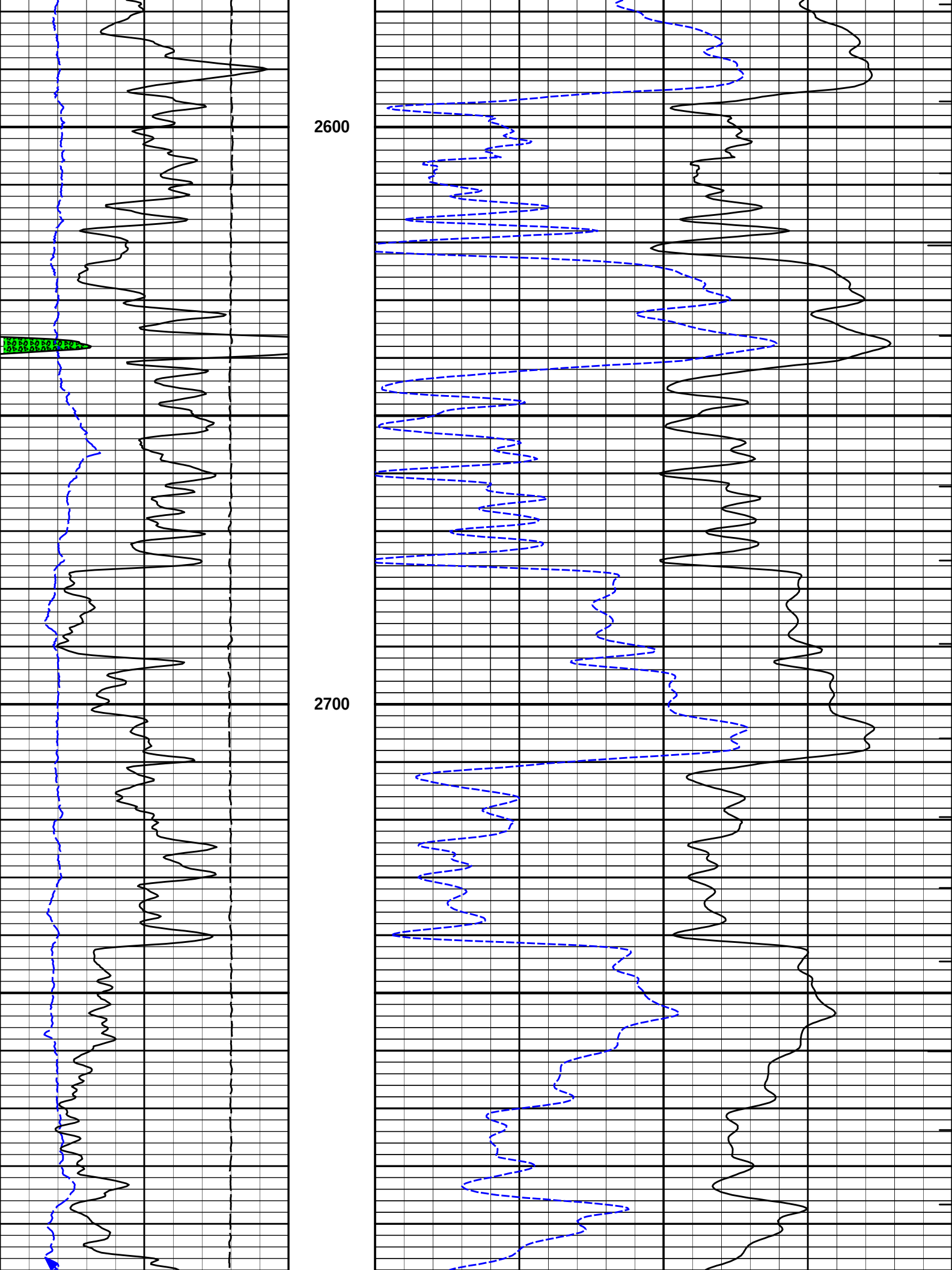
2300
Caliper


2400
Gamma API
Acou Porosity
Delta-T
2500
Tens
Caliper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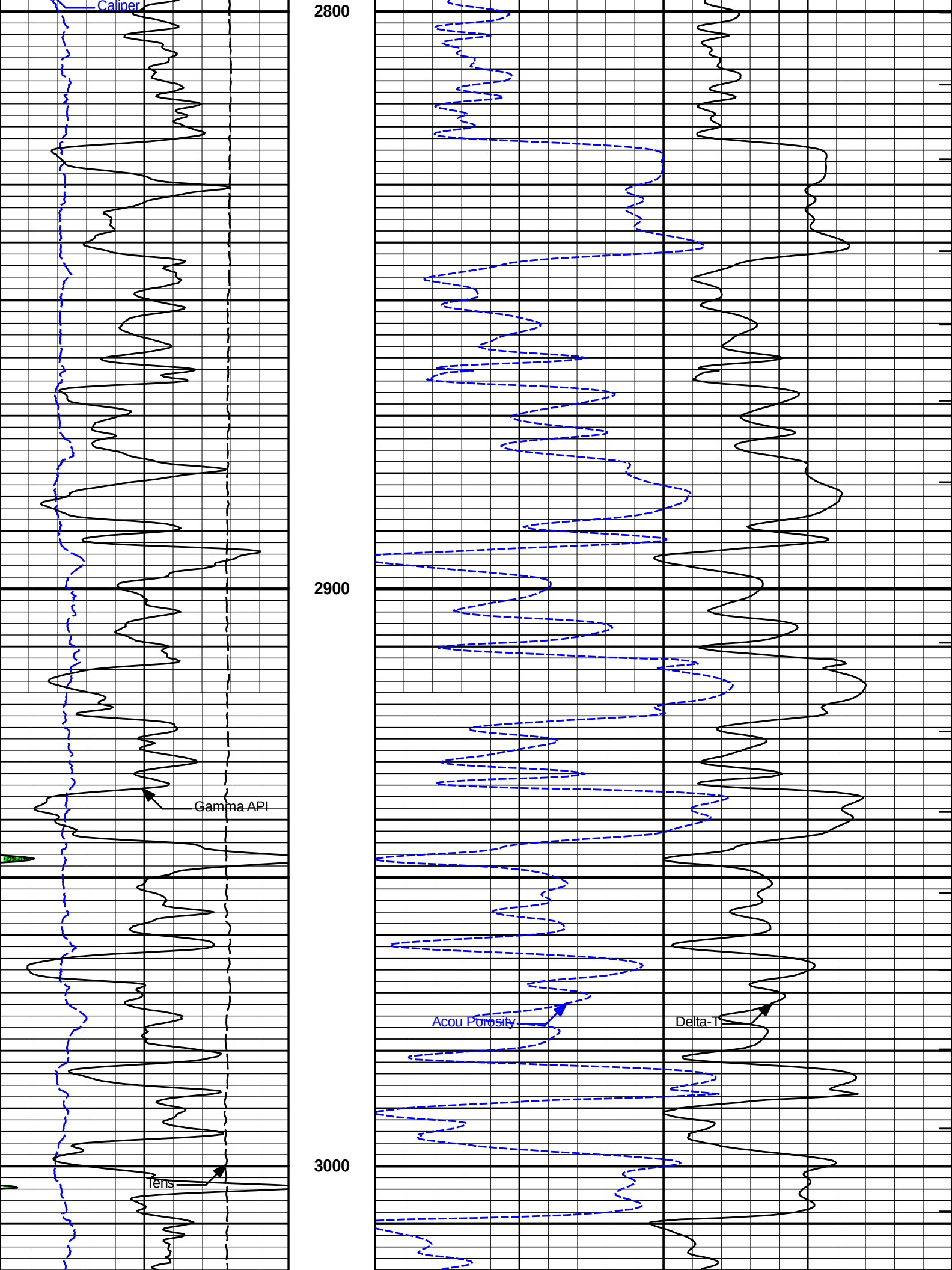
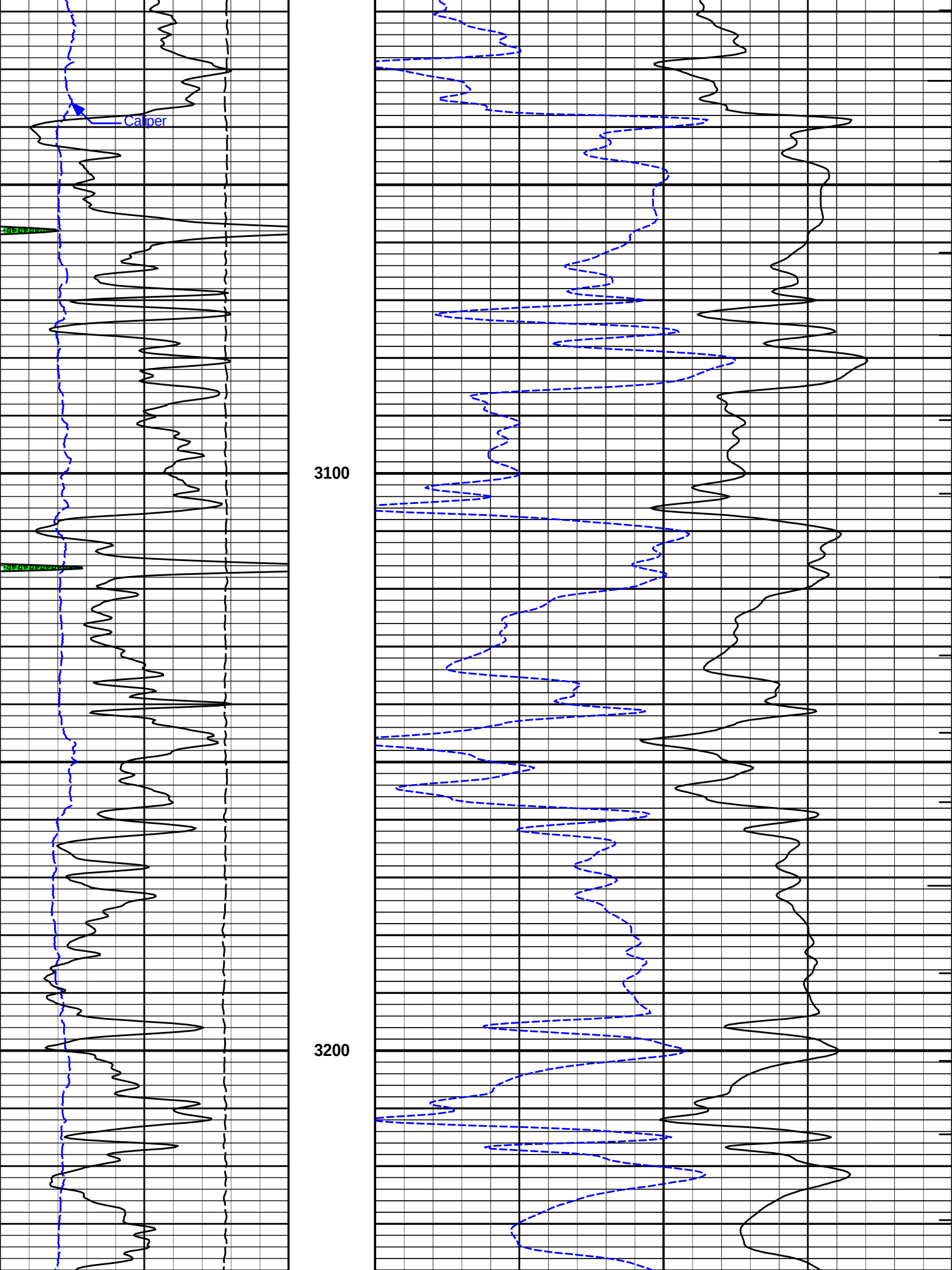
2700


Caliper
2800
2900
3000
Gamma API
Tens
Acou Porosity
Delta-T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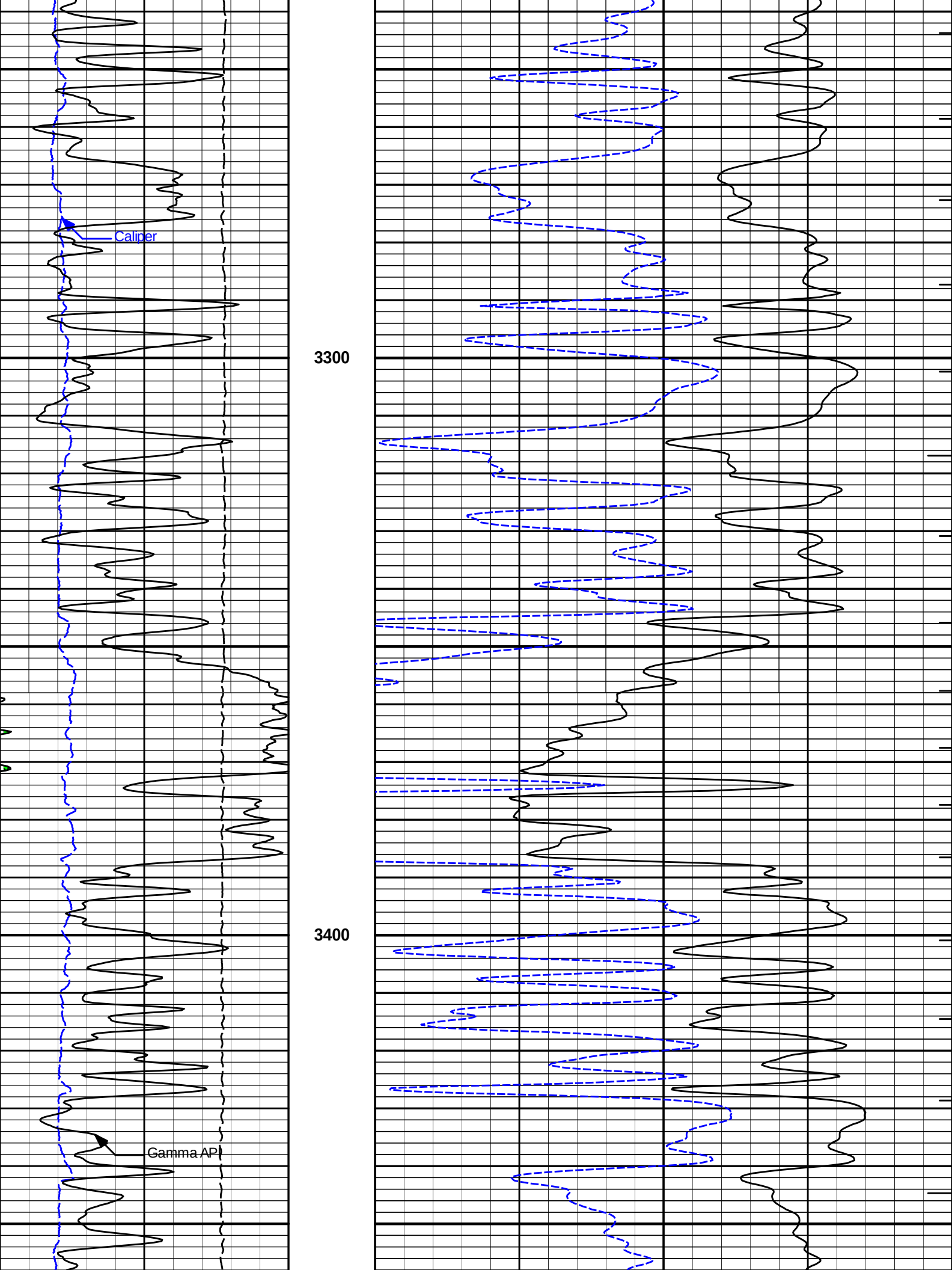
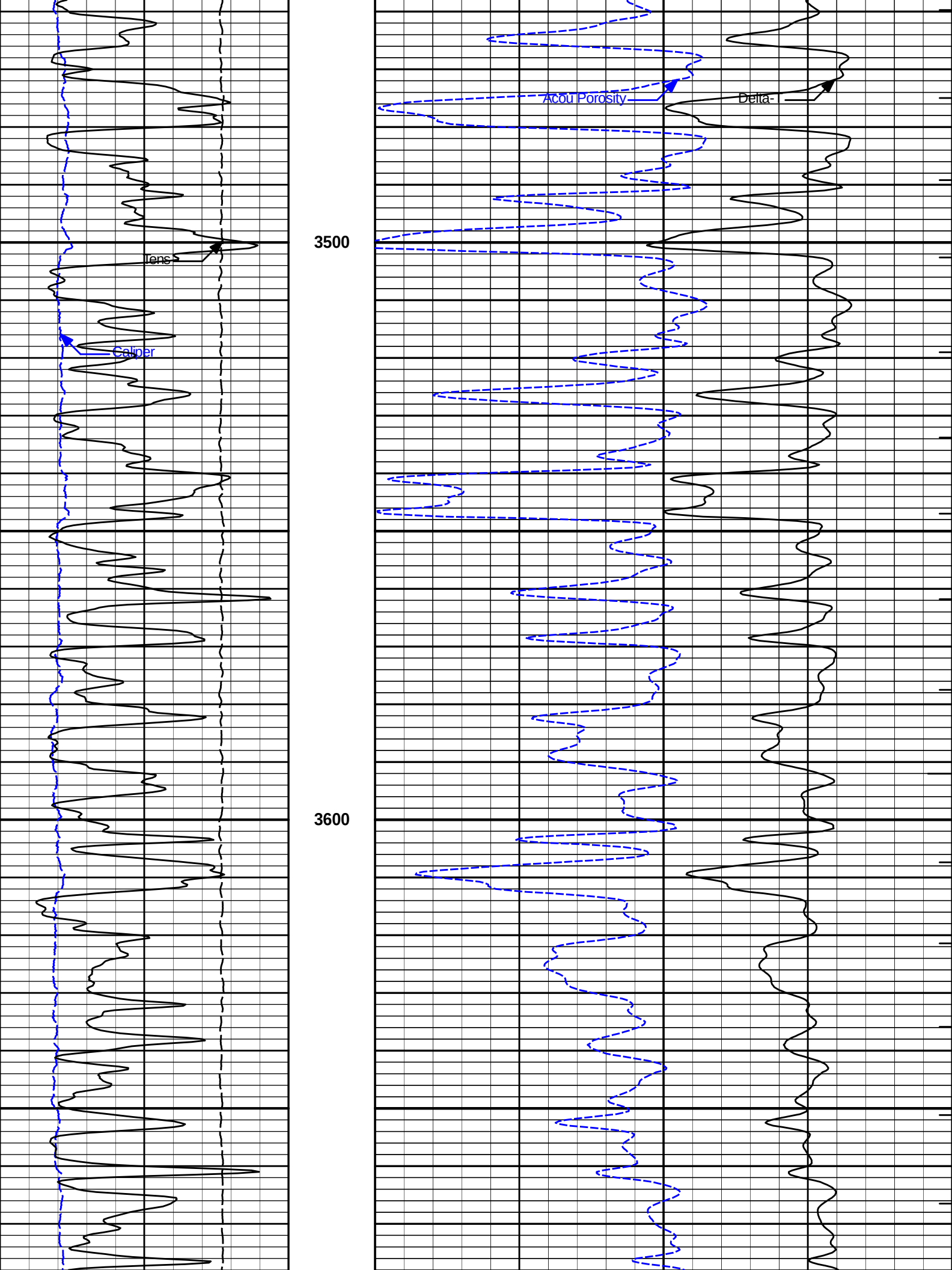
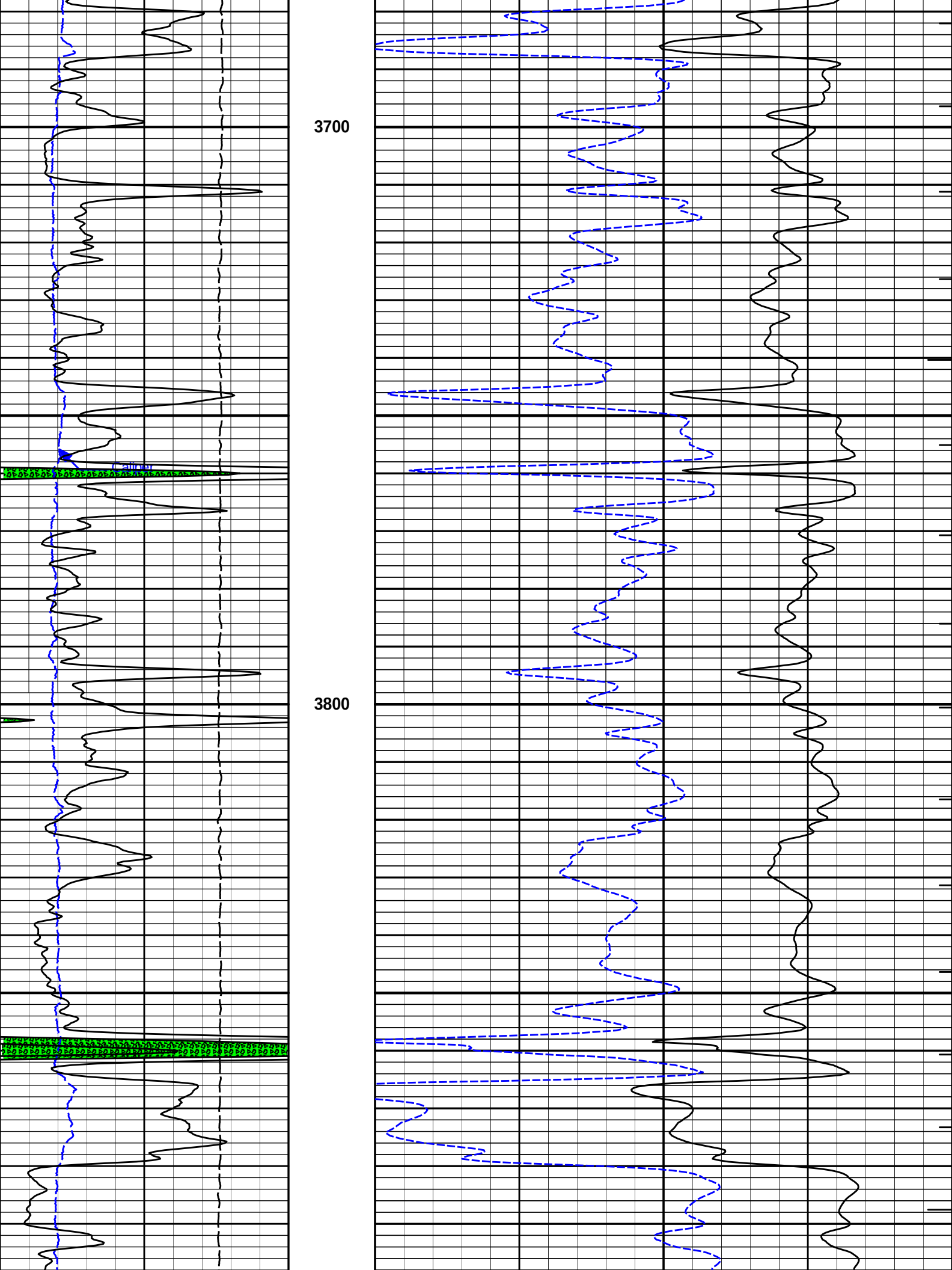
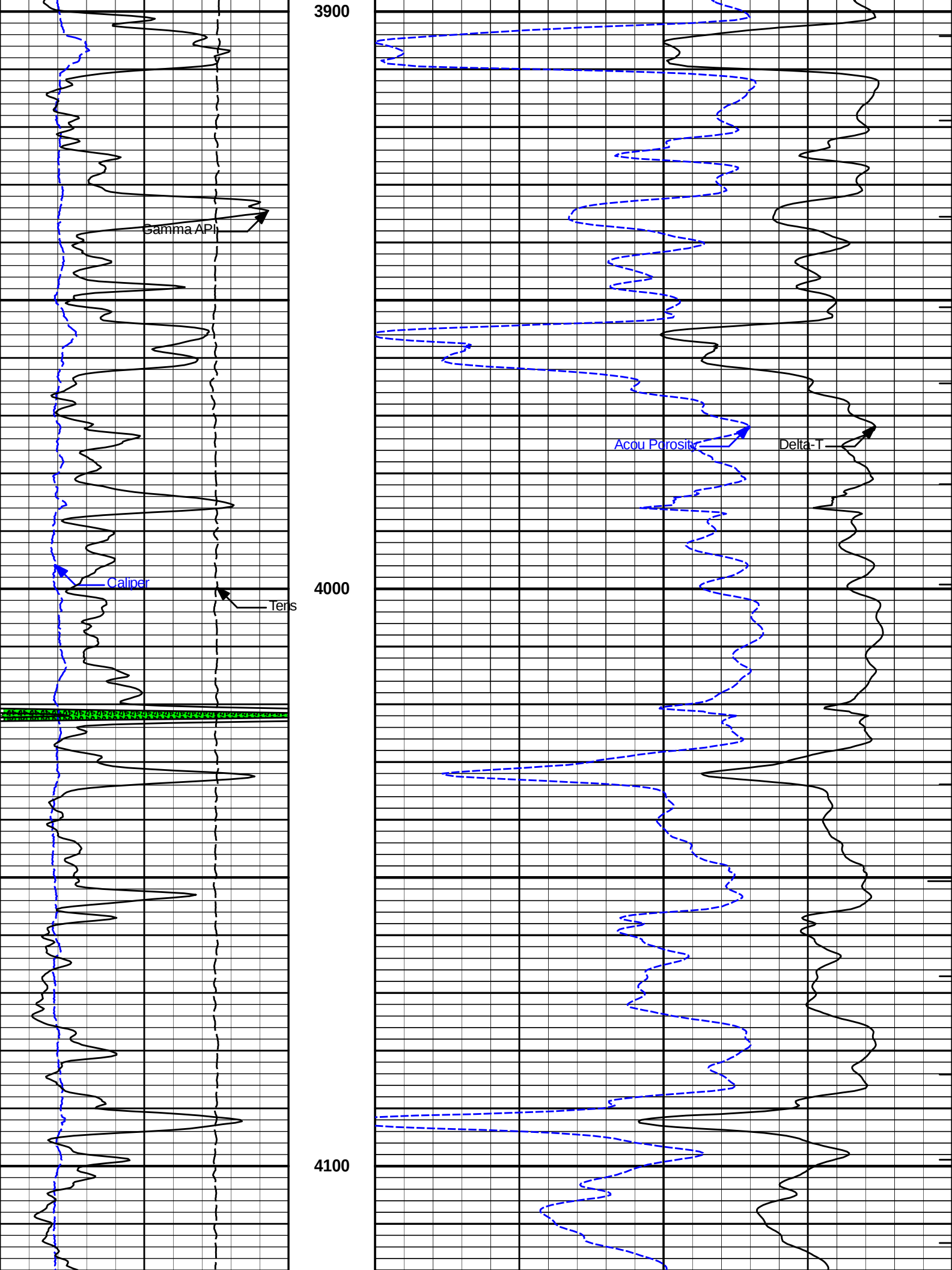
3100
3200


Caliper
3300
3400
Gamma API


Tens
Caliper
3500
Acou Porosity
Delta-
3600


3700
3800
Caliper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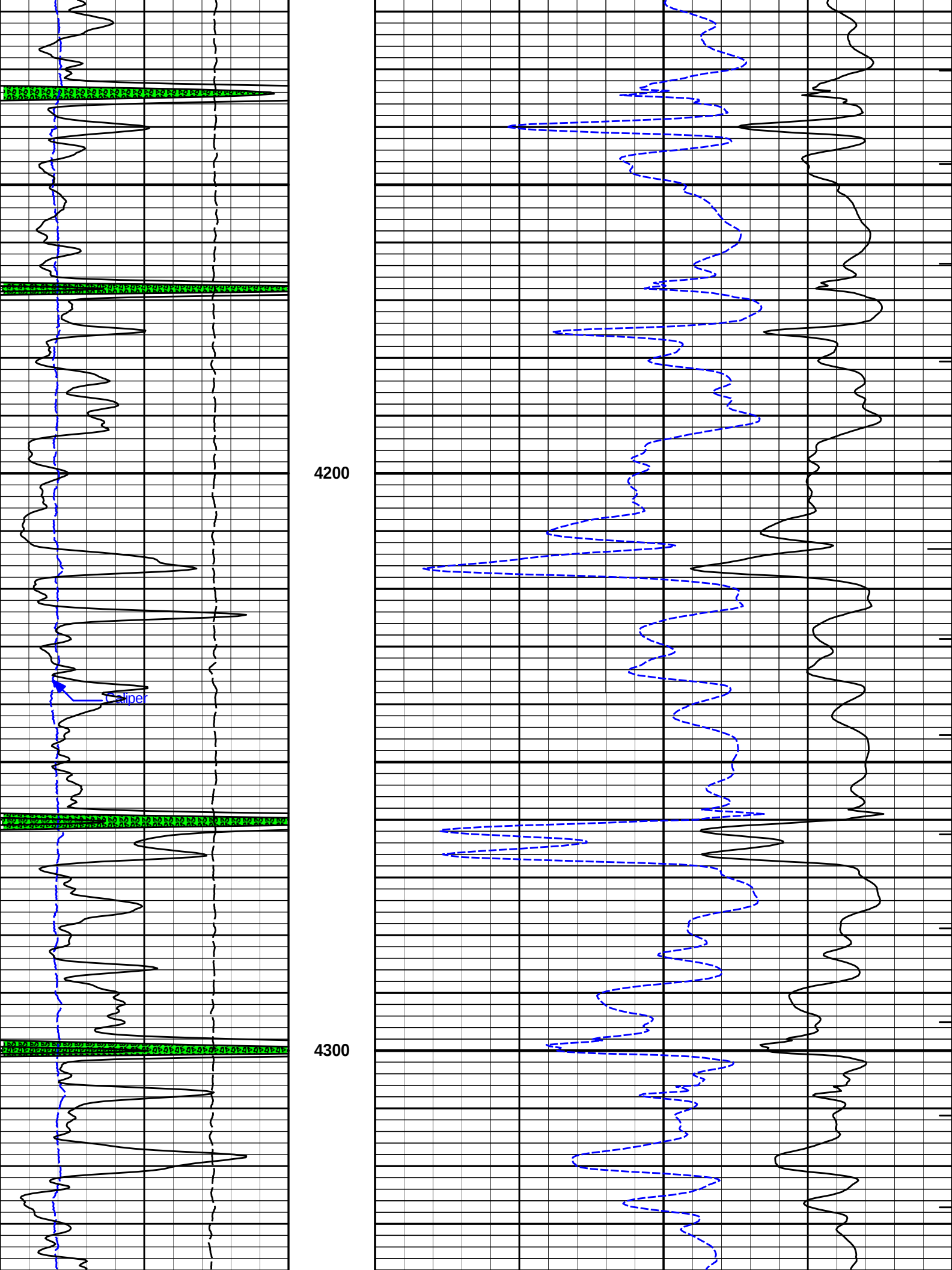
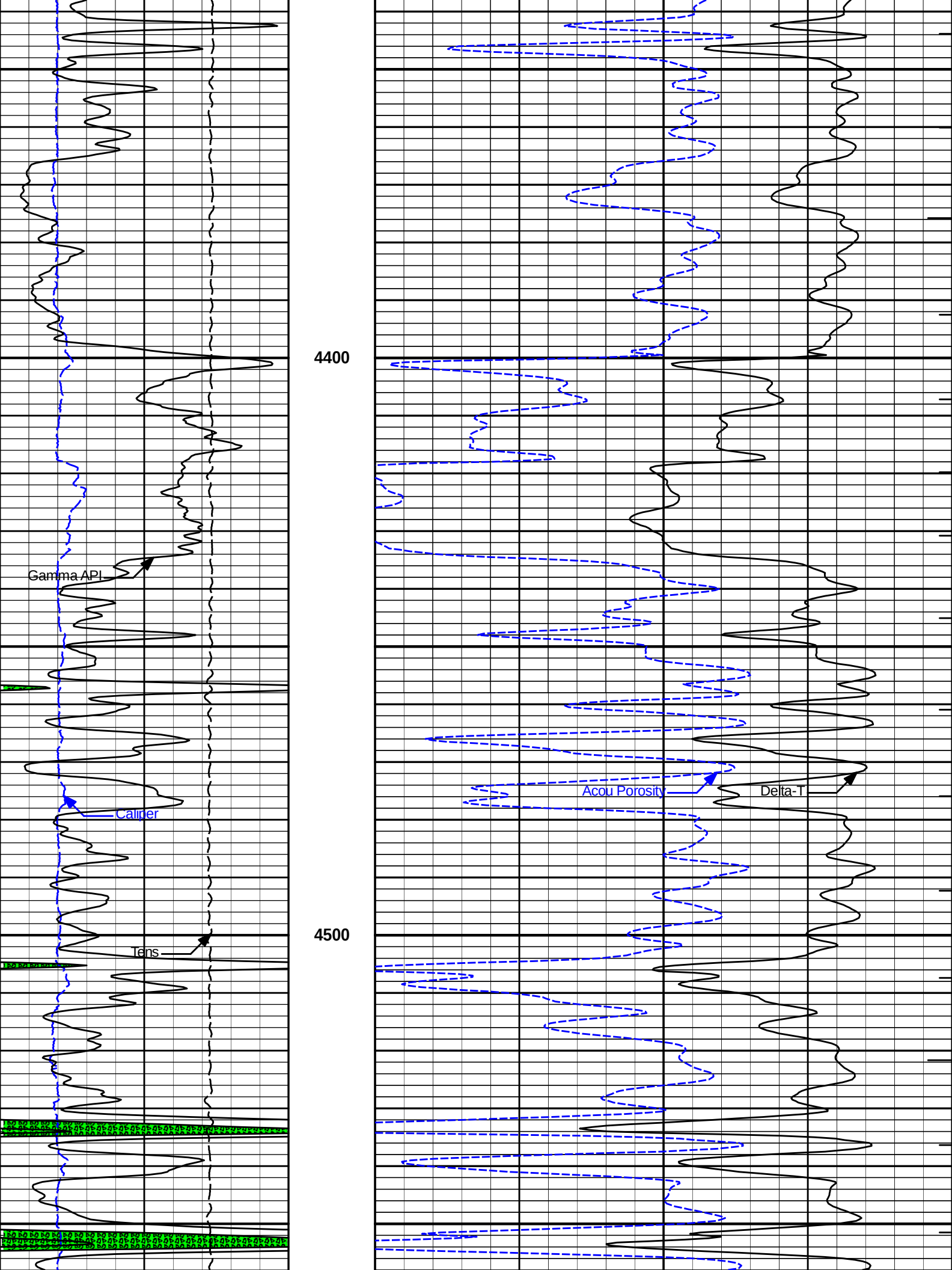
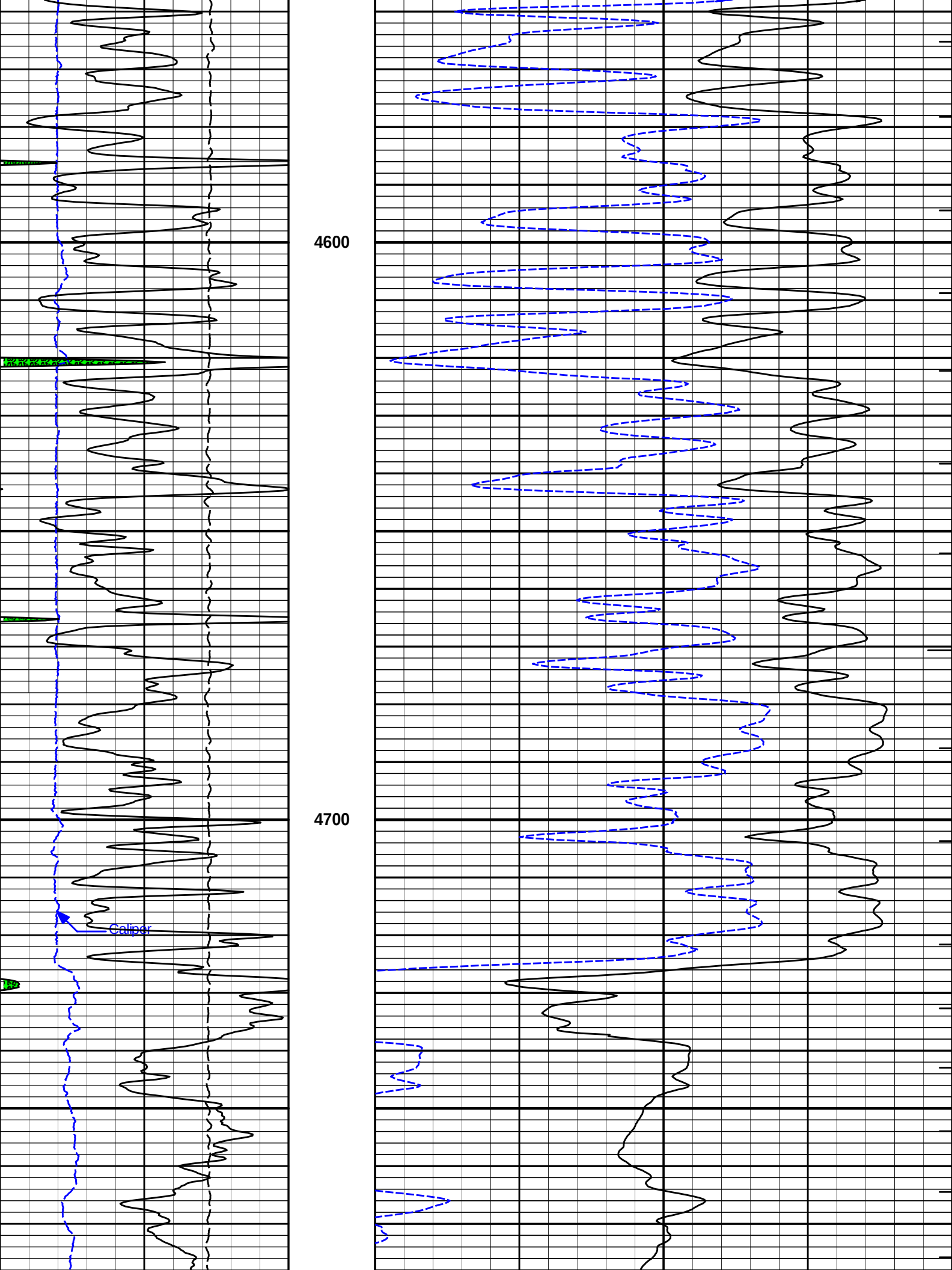
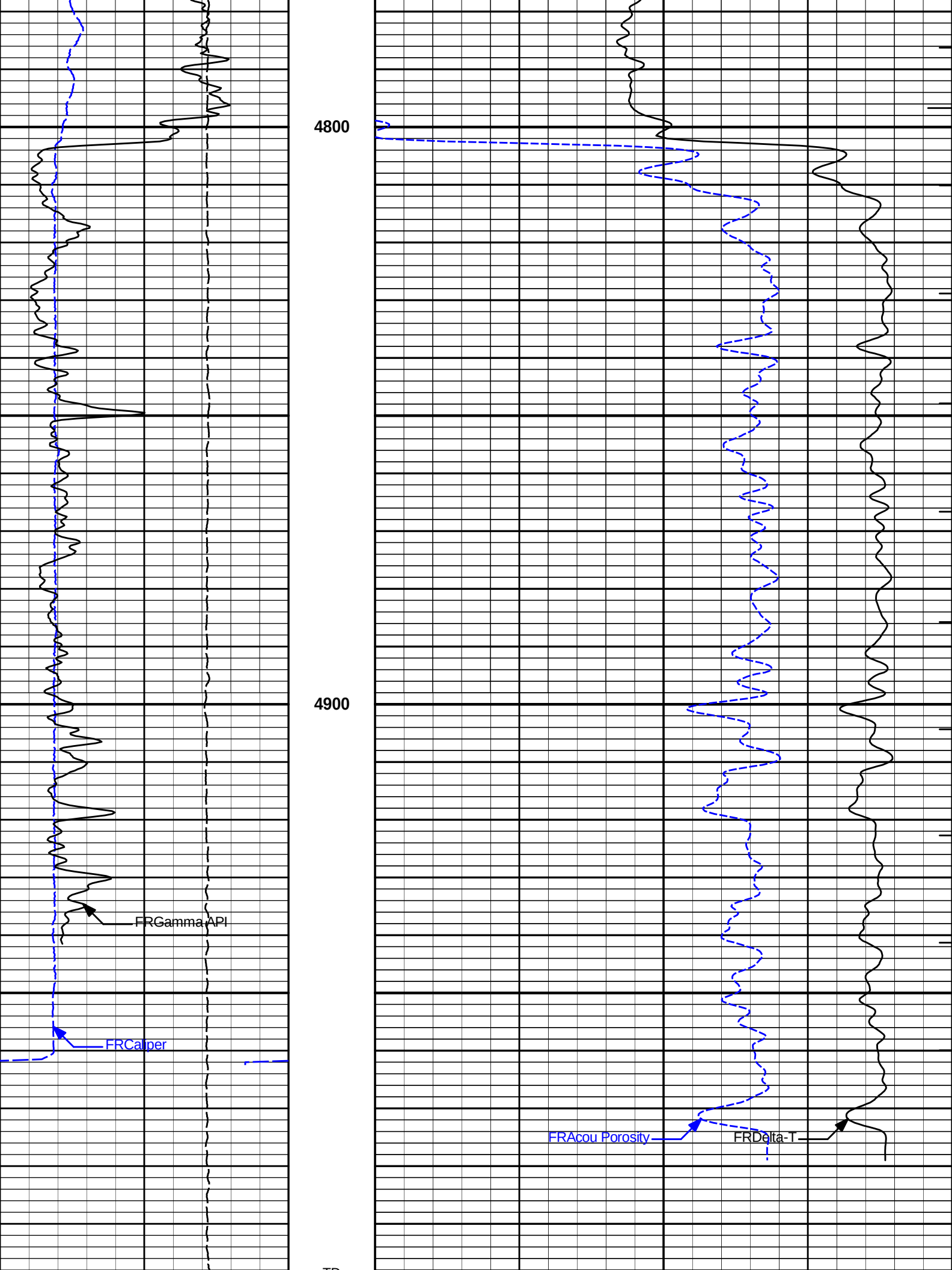
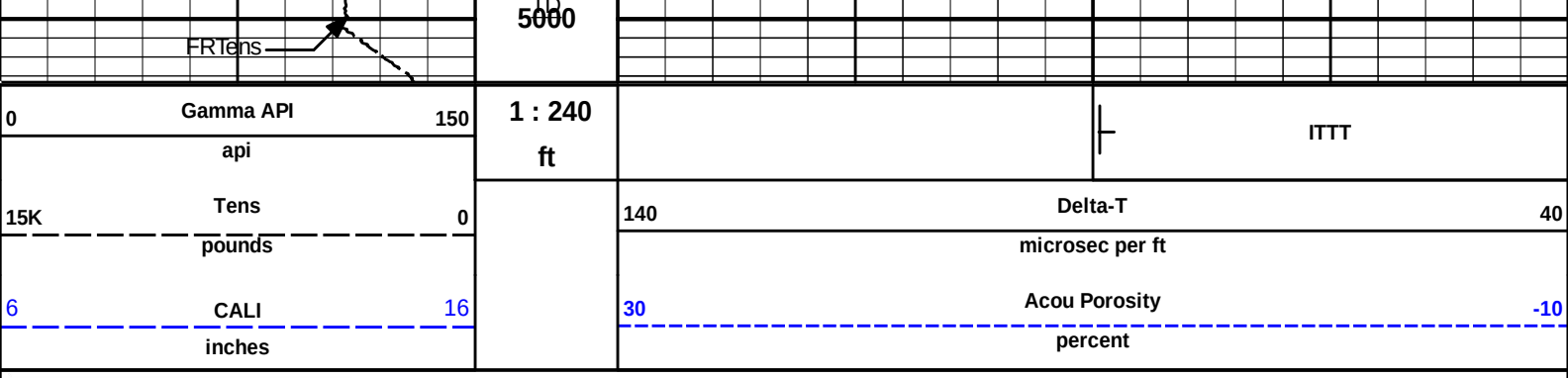
Gamma API
Acou Porosity
Delta-T
Caliper
Tens
4000
4100


4200
Caliper
4300


4400
Gamma API
Caliper
Tens
4500
Acou Porosity
Delta-T


4600
4700
Caliper


4800
4900
FRGamma API
FRCaliper
FRAcou Porosity
FRDelta-T



HALLIBURTON

Plot Time: 08-Apr-22 02:59:47
Plot Range: 1805 ft to 5006.67 ft
Data: 04_07_MERIT\Well Based\DAQ-0001-004\
Plot File: \\SONIC\BSAT_5inch

5 INCH MAIN LOG

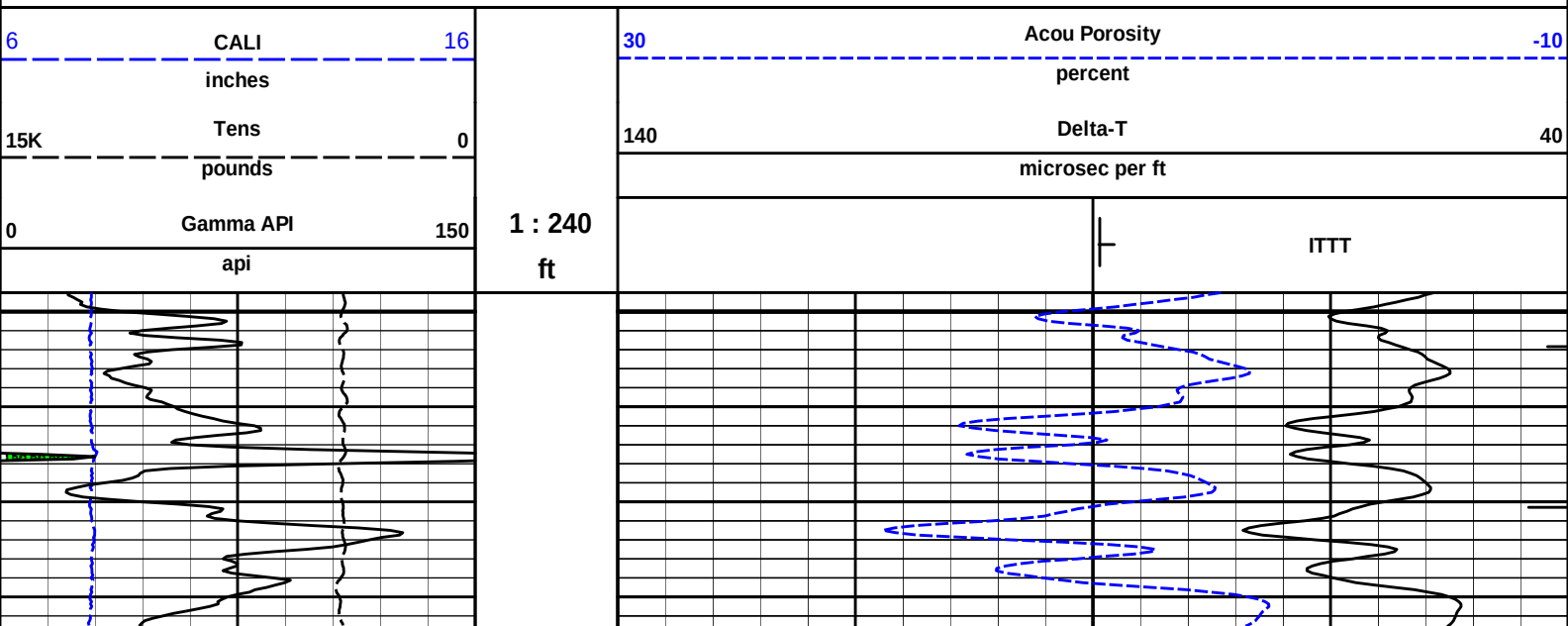
MAIN LOG SECTION

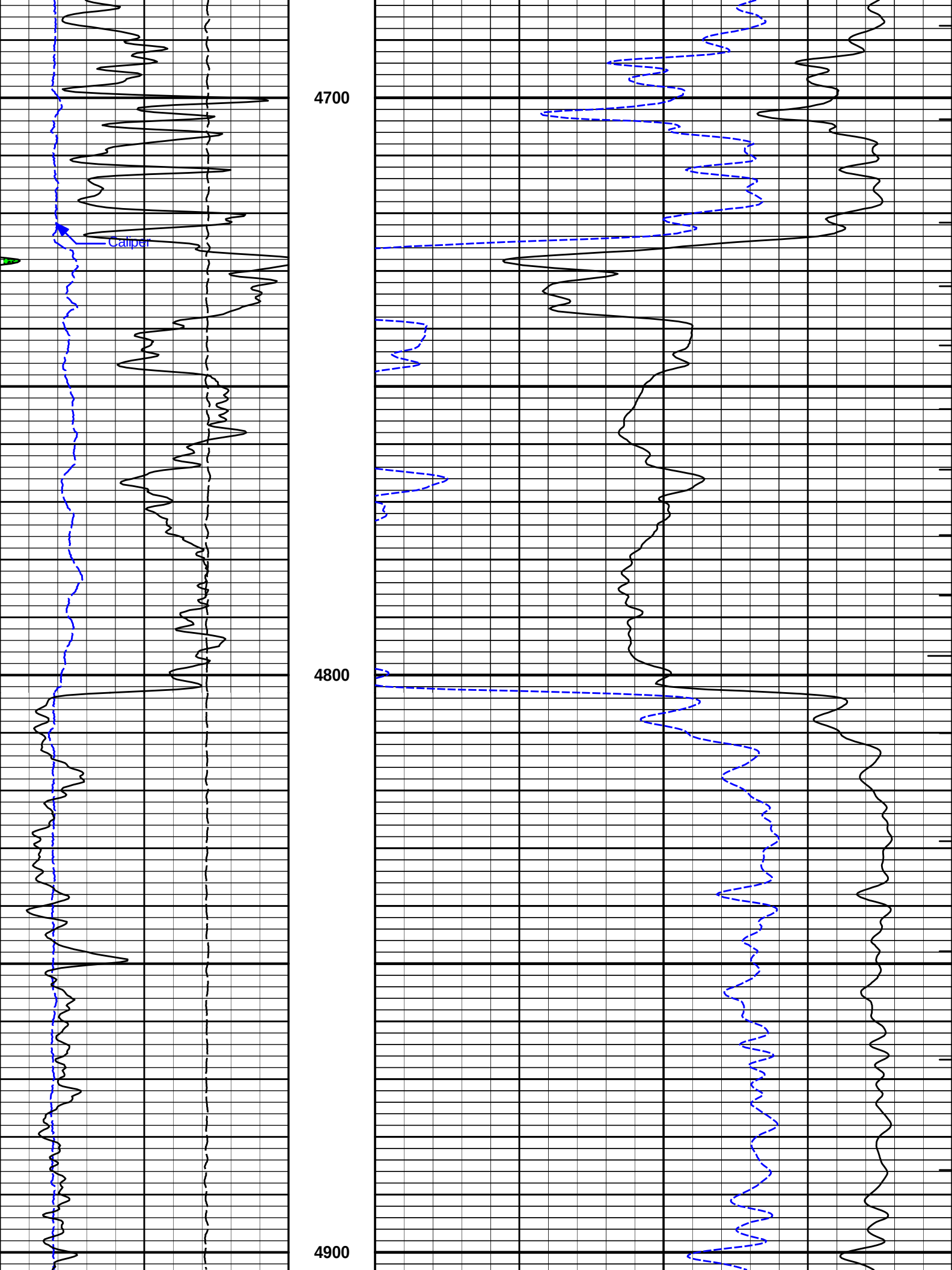
HALLIBURTON

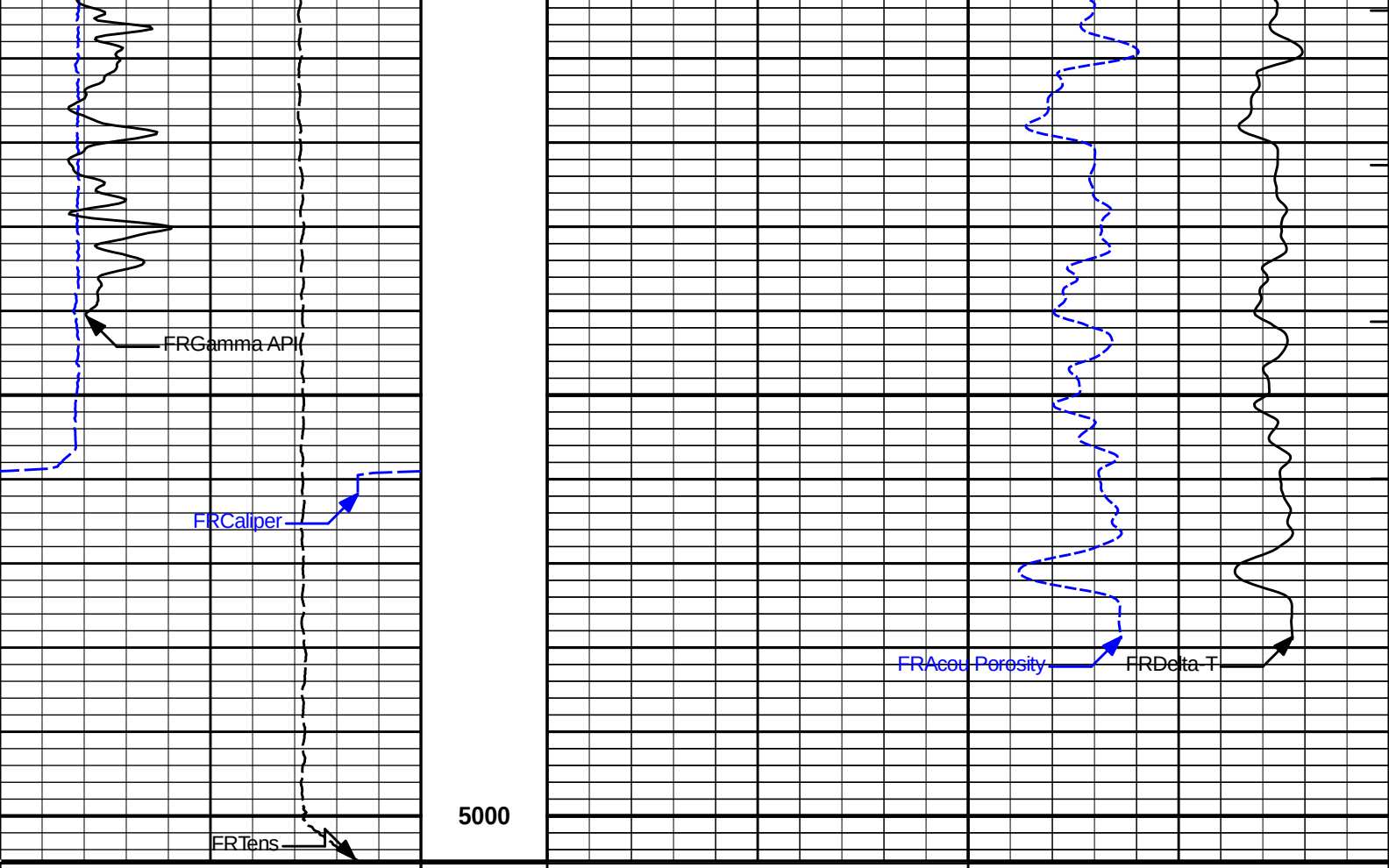
Plot Time: 08-Apr-22 02:59:47
Plot Range: 4648 ft to 5005.33 ft
Data: 04_07_MERIT\Well Based\DAQ-0001-003\
Plot File: \\SONIC\BSAT_5inch

REPEAT SECTION

REPEAT SECTION




4700
Caliper
4800
4900



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

HALLIBURTON

Plot Time: 08-Apr-22 02:59:48
Plot Range: 4648 ft to 5005.33 ft
Data: 04_07_MERIT\Well Based\DAQ-0001-003\
Plot File: \\SONIC\BSAT_5inch

REPEAT SECTION

REPEAT SECTION

HALLIBURTON

CALIBRATION REPORT

NATURAL GAMMA RAY TOOL SHOP CALIBRATION

Tool Name:	GTET - 11958947	Reference Calibration Date:	19-Dec-21 12:49:37
Engineer:	M. GALLION	Calibration Date:	07-Mar-22 16:02:32

Engineer:	**M. GALLION**	**Calibration Date:**	**07-Mar-22 16:02:32**
Software Version:	**WL INSITE R6.4.20 (Build 2)**	**Calibration Version:**	**1**

Calibrator Source S/N: TB-768
Calibrator API Reference:203.00 api
Equivalent Calibrator API Reference:206.6 api

Measurement	Measured	Calibrated	Units
Background	17.8	17.9	api
Background + Calibrator	222.2	224.5	api
Calibrator	204.5	206.6	api

NATURAL GAMMA RAY TOOL FIELD CALIBRATION

Tool Name:	**GTET - 11958947**	**Reference Calibration Date:**	**07-Mar-22 16:02:32**
Engineer:	**M. GALLION**	**Calibration Date:**	**07-Mar-22 16:05:20**
Software Version:	**WL INSITE R6.4.20 (Build 2)**	**Calibration Version:**	**1**

Calibrator Source S/N: TB-768
Calibrator API Reference:203.00 api
Equivalent Calibrator API Reference:206.6 api

Field Verification	Shop	Field	Units
Background	17.9	18.4	api
Background + Calibrator	224.5	223.9	api
Calibrator	206.6	205.5	api

Shop	Field	Difference	Tolerance
206.6	205.5	1.1	+/- 9.00

DUAL SPACED NEUTRON SHOP CALIBRATION

Tool Name:	**DSNT - 11019643**	**Reference Calibration Date:**	**20-Nov-21 07:01:22**
Engineer:	**M. GALLION**	**Calibration Date:**	**03-Mar-22 14:13:22**
Software Version:	**WL INSITE R6.6.1 (Build 2)**	**Calibration Version:**	**1**

Logging Source S/N: DSN-313
Tank Serial Number: 10585331
Reference value assigned to Tank: 54.090
Snow Block S/N: 7665
Calibration Tank Water Temperature: 68 degF
Min. Tool Housing Outside Diameter: 3.625 in

CALIBRATION CONSTANTS			
Measurement	**Prev. Value**	**New Value**	**Control Limit On New Value**
Gain:	0.99248	0.98833	0.900 - 1.100

WATER TANK SUMMARY (Horizontal Water Tank)				
Measurement	**Current Reading (Previous Coef.)**	**Calibrated (New Coef.)**	**Change**	**Control Limit On Change**
Porosity (decp):	0.2257	0.2244	0.0013	+/- 0.0020
Calibrated Ratio:	10.2239	10.1812	0.043	+/- 0.050

VERIFIER		
Measurement	**Value**	**Control Limit**
Snow-Block Porosity (decp):	0.0842	0.02000 - 0.09000

PASS/FAIL SUMMARY	
Background Check:	Passed

Gain-Range Check:	Passed
Snow-Block Check:	Passed

DUAL SPACED NEUTRON FIELD CALIBRATION

Tool Name:	**DSNT - 11019643**	**Reference Calibration Date:**	**03-Mar-22 14:13:22**
Engineer:	**M. GALLION**	**Calibration Date:**	**03-Mar-22 14:14:35**
Software Version:	**WL INSITE R6.6.1 (Build 2)**	**Calibration Version:**	**1**

Logging Source S/N: DSN-313

Snow Block S/N: 7665

NEUTRON FIELD-CHECK SUMMARY

	Shop	Field	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0842	0.0844	0.0002	+/- 0.0150

PASS/FAIL SUMMARY

Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

DUAL SPACED NEUTRON POST CALIBRATION

Tool Name:	**DSNT - 11019643**	**Reference Calibration Date:**	**03-Mar-22 14:14:35**
Engineer:	**M. GALLION**	**Calibration Date:**	**03-Mar-22 14:15:45**
Software Version:	**WL INSITE R6.6.1 (Build 2)**	**Calibration Version:**	**1**

Logging Source S/N: DSN-313

Snow Block S/N: 7665

NEUTRON POST-CHECK SUMMARY

	Field Value	Post Value	Difference	Control Limit On Change
Snow-Block Porosity (decp):	0.0844	0.0847	0.0003	+/- 0.0150

PASS/FAIL SUMMARY

Block Change Check:	Passed
Snow Block Stat Check:	Passed
Temperature Check:	Passed

DENSITY CALIPER SHOP CALIBRATION

Tool Name:	**SDLT - 11014296**	**Reference Calibration Date:**	**03-Mar-22 17:02:51**
Engineer:	**M. GALLION**	**Calibration Date:**	**03-Mar-22 17:07:15**
Software Version:	**WL INSITE R6.6.1 (Build 2)**	**Calibration Version:**	**1**
Host Tool Name:	**DSNT - 11019643**		

CALIBRATION COEFFICIENTS

Measurement	Previous Value	New Value	Control Limit On New Value
Pad Offset	-3072.02	-2996.82	-7000.00 - -1000.00
Pad Gain	0.0003911	0.0003888	0.0002000 - 0.0006000
Arm Offset	-2272.58	-2154.18	-5000.00 - 3000.00
Arm Gain	0.0005311	0.0005170	0.000300 - 0.000700
Arm Power	-0.000005994	-0.000005256	-0.000010000 - 0.000010000

The ring diameter is computed from: DIAMETER = PAD EXTENSION + ARM EXTENSION + TOOL DIAMETER

Tool Diameter: 4.50 in

CALIBRATION RINGS

Measurement	Current Reading (Previous Coeff.)	Calibrated (New Coeff.)	Change	Control Limit On New Value

	(Previous Coeff.)	(New Coeff.)		New Value
PAD EXTENSION:				
Small Ring (in)	1.98	2.00	0.02	+/- 0.20
Medium Ring (in)	3.74	3.75	0.01	+/- 0.20
RING DIAMETER:				
Small Ring (in)	6.46	6.50	0.04	+/- 0.20
Medium Ring (in)	8.24	8.25	0.01	+/- 0.20
Large Ring (in)	15.00	15.00	0.00	+/- 0.20

PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed
Ring-Measurement Check:	Passed

PASS/FAIL SUMMARY	
Calibration-Coefficients Range Check:	Passed

SDLT CALIPER FIELD CALIBRATION

Tool Name: SDLT - 11014296 **Reference Calibration Date:** 03-Mar-22 17:07:15

Engineer: M. GALLION **Calibration Date:** 03-Mar-22 17:08:43

Software Version: WL INSITE R6.6.1 (Build 2) **Calibration Version:** 1

MEASURED CALIPER VALUES

Measurement	Shop	Field	Change	Control Limit On New Value
Pad Extension	3.75	3.75	0.00	+/- 0.10
Ring Diameter	8.25	8.25	-0.00	+/- 0.15

PASS/FAIL SUMMARY	
Pad Extension Check:	Passed
Diameter Check:	Passed

SPECTRAL DENSITY SHOP CALIBRATION

Tool Name: SDLT Pad - 10763919 **Reference Calibration Date:** 27-Nov-21 18:58:04

Engineer: M. GALLION **Calibration Date:** 03-Mar-22 14:57:18

Software Version: WL INSITE R6.6.1 (Build 2) **Calibration Version:** 1

Logging Source S/N: 5381GW

Aluminum Block S/N: 10585329 Density: 2.595g/cc Pe: 3.270

Magnesium Block S/N: 10585330 Density: 1.679g/cc Pe: 2.580

DENSITY CALIBRATION SUMMARY

Measurement	Previous Value	New Value	Control Limit
Near Bar Gain	1.0635	1.0463	0.90 - 1.10
Near Dens Gain	1.0182	1.0224	0.90 - 1.10
Near Peak Gain	1.0153	1.0087	0.90 - 1.10
Near Lith Gain	0.9960	0.9946	0.90 - 1.10
Far Bar Gain	1.0131	1.0125	0.90 - 1.10
Far Dens Gain	0.9974	0.9983	0.90 - 1.10
Far Peak Gain	0.9909	0.9935	0.90 - 1.10
Far Lith Gain	0.9670	0.9594	0.90 - 1.10
Near Bar Offset	-0.4009	-0.2344	NONE
Near Dens Offset	0.0352	0.0040	NONE
Near Peak Offset	0.0554	0.1183	NONE
Near Lith Offset	0.1652	0.1750	NONE
Far Bar Offset	0.0380	0.0510	NONE
Far Dens Offset	0.1461	0.1396	NONE

Far Dens Offset	0.1401	0.1396	NONE
Far Peak Offset	0.1605	0.1304	NONE
Far Lith Offset	0.2829	0.3123	NONE

Near Bar Background	920.62	917.41	700 - 1450
Near Dens Background	302.56	301.92	230 - 480
Near Peak Background	133.05	132.96	100 - 210
Near Lith Background	164.13	163.11	125 - 260
Far Bar Background	622.74	619.39	450 - 900
Far Dens Background	243.73	242.74	175 - 345
Far Peak Background	97.27	95.52	70 - 140
Far Lith Background	100.58	101.28	75 - 145

CALIBRATION BLOCK SUMMARY

Measurement	Current Reading (Previous Coef)	Calibrated (New Coef)	Change	Control Limit On Change
MAGNESIUM				
Density (g/cc)	1.672	1.679	0.008	+/- 0.015
Pe	2.496	2.545	0.049	+/- 0.150
ALUMINUM				
Density (g/cc)	2.583	2.595	0.012	+/- 0.01500
Pe	3.137	3.221	0.084	+/- 0.150

TOOL SUMMARY

Measurement	Near Detector		Far Detector	
	Value	Control Limits	Value	Control Limits
QUALITY				
Background	0.0002	+/- 0.0110	-0.0003	+/- 0.0140
Magnesium Block	-0.0002	+/- 0.0110	-0.0015	+/- 0.0140
Aluminum Block	0.0004	+/- 0.0110	-0.0005	+/- 0.0140
Resolution	8.80	6.00 - 11.50	9.20	6.00 - 11.50
Internal Verifier(B+D+P+L)	1515	1200 - 2700	1059	800 - 1700

PASS/FAIL SUMMARY

Background Quality Check:	Passed
Background Range Check:	Passed
Background Resolution Check:	Passed
Background Verification Check:	Passed
Magnesium Quality Check:	Passed
Aluminum Quality Check:	Passed
Gains Check:	Passed
Changes in Calibration Blocks:	Passed

SPECTRAL DENSITY FIELD CHECK

Tool Name: SDLT Pad - 10763919
Reference Calibration Date: 03-Mar-22 14:57:18
Engineer: M. GALLION
Calibration Date: 03-Mar-22 15:02:13
Software Version: WL INSITE R6.6.1 (Build 2)
Calibration Version: 1

Pad Temperature: 82.3 degF

DENSITY FIELD CALIBRATION SUMMARY

Measurement	Shop	Field	Change	Control Limit +/-
Near (B+D+P+L) cps	1515.394	1519.413	4.019	15.681
Far (B+D+P+L) cps	1058.939	1053.560	-5.379	17.272

Near Resolution	8.80	8.85	0.050	0.50
Far Resolution	9.20	9.15	-0.050	1.00

PASS/FAIL SUMMARY	
Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

SPECTRAL DENSITY POST CHECK

Tool Name: SDLT Pad - 10763919 **Reference Calibration Date:** 03-Mar-22 15:02:13

Engineer: M. GALLION **Calibration Date:** 03-Mar-22 15:05:26

Software Version: WL INSITE R6.6.1 (Build 2) **Calibration Version:** 1

Pad Temperature: 82.3 degF

DENSITY POST CALIBRATION SUMMARY

Measurement	Field	Post	Change	Control Limit +/-
Near (B+D+P+L) cps	1519.413	1511.939	-7.474	15.681
Far (B+D+P+L) cps	1053.560	1056.094	2.534	17.272
Near Resolution	8.85	8.73	-0.120	0.50
Far Resolution	9.15	9.19	0.040	1.00

PASS/FAIL SUMMARY	
Bkg Quality Check:	Passed
Bkg Resolution Check:	Passed
Bkg Verification Check:	Passed

MICRO LOG SHOP CALIBRATION

Tool Name: Microlog Pad - 11014296 **Reference Calibration Date:** 21-Jan-22 15:19:35

Engineer: M. GALLION **Calibration Date:** 03-Mar-22 17:13:27

Software Version: WL INSITE R6.6.1 (Build 2) **Calibration Version:** 1

Host Tool Name: DSNT - 11019643

CALIBRATION COEFFICIENT SUMMARY

Measurement	Micro Log Normal		Micro Log Lateral		
	Measured	Calibrated	Measured	Calibrated	Units
Tool Zero	0.03	0.05	0.02	0.02	ohmm
Calibration Point #1	-0.00	0.02	0.02	0.02	ohmm
Calibration Point #2	19.90	20.00	20.05	20.00	ohmm
Internal Reference	19.83	19.93	20.04	19.99	ohmm

Measurement	Micro Log Normal Tool Value	Micro Log Lateral Tool Value	Units
Tool Zero	3.19	0.02	V
Calibration Point #1	-4.69	1.39	V
Calibration Point #2	5311.30	6943.48	V
Internal Reference	5292.64	6940.73	V

MICRO LOG FIELD CHECK

Tool Name: Microlog Pad - 11014296 **Reference Calibration Date:** 03-Mar-22 17:13:27

Engineer: M. GALLION **Calibration Date:** 03-Mar-22 17:13:58

Software Version: WL INSITE R6.6.1 (Build 2) **Calibration Version:** 1

Measurement	Micro Log Normal		Micro Log Lateral		
	Shop	Field	Shop	Field	Units

Tool Zero	0.05	0.03	0.02	0.02	ohmm
Internal Reference	19.93	19.93	19.99	19.99	ohmm

Summary

Signal	Shop	Field	Difference	Tolerence
Microlog Normal	19.93	19.93	0.00	+/- 0.80
Microlog Lateral	19.99	19.99	0.00	+/- 0.80

ARRAY COMPENSATED TRUE RESISTIVITY SHOP CALIBRATION

Tool Name:	**ACRt Sonde - 10947895**	**Reference Calibration Date:**	**29-Nov-21 18:24:28**
Engineer:	**J. CABANZO**	**Calibration Date:**	**10-Mar-22 12:20:29**
Software Version:	**WL INSITE R6.6.1 (Build 2)**	**Calibration Version:**	**1**
Host Tool Name:	**ACRt Instrument - 10937852**		

TYPICAL GAIN RANGE

Subarray	R12KHz			R36KHz			R72KHz		
	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper	Lower	(mmho/m)	Upper
A1 (80")	0.95	1.0126	1.05	0.95	1.0107	1.05	0.95	1.0014	1.05
A2 (50")	0.95	1.0093	1.05	0.95	1.0069	1.05	0.95	0.9979	1.05
A3 (29")	0.95	1.0038	1.05	0.95	1.0018	1.05	0.95	0.9932	1.05
A4 (17")	0.95	1.0082	1.05	0.95	1.0027	1.05	0.95	0.9974	1.05
A5 (10")	N/A	N/A	N/A	0.95	0.9967	1.05	0.95	0.9917	1.05
A6 (6")	N/A	N/A	N/A	0.95	0.9813	1.05	0.95	0.9768	1.05

SONDE OFFSET

Subarray	R12KHz	R36KHz	R72KHz
	(mmho/m)	(mmho/m)	(mmho/m)
A1 (80")	0.091	-3.205	-5.370
A2 (50")	-1.993	-5.050	-7.471
A3 (29")	-15.480	-5.635	-6.034
A4 (17")	-103.132	-32.683	-26.370
A5 (10")	N/A	-88.492	-43.615
A6 (6")	N/A	294.356	148.105

TRANSMITTER CURRENT GAIN

Signal	Lower	R	Upper
12K	0.6	0.87	1.3
36K	1.0	1.88	2.0
72K	1.0	1.12	2.0

R-MUD VERIFICATION

Signal	Lower (ohm-m)	Measured (ohm-m)	Upper (ohm-m)
Mud Cell	0.95	1.00	1.05

PASS/FAIL SUMMARY

GAIN RANGE CHK	PASS
SONDE OFFSET CHK	PASS

TOOL OK TO LOG

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
GTET-11958947						
Gamma Ray Calibrator	206.6	205.5	----------	1.1	+/- 9.00	api
DSNT-11019643						
Snow-Block Porosity	0.0842	0.0844	0.0847	-0.0003	+/- 0.0150	decp

SDLT-11014296						
Pad Extension	3.75	3.75	----------	0.00	+/-0.10	in
Ring Diameter	8.25	8.25	----------	0.00	+/-0.15	in
SDLT Pad-10763919						
Near(B+D+P+L)	1515.394	1519.413	1511.939	7.474	+/-15.681	cps
Far(B+D+P+L)	1058.939	1053.560	1056.094	-2.534	+/-17.272	cps
Microlog Pad-11014296						
MicroLog Normal	19.93	19.93	----------	0.00	+/-0.80	ohmm
MicroLog Lateral	19.99	19.99	----------	0.00	+/-0.80	ohmm
ACRt Sonde-10947895						
Mud Cell	1.00	----------	----------	0	----------	ohm-m

Data: 04_07_MERIT\0001 RWCH-GTET-DSNT-SDLT-BSAT-ACRT\004 08-Apr-22 01:10 Up @5007.0f **Date: 08-Apr-22 01:33:01**

HALLIBURTON

PARAMETERS REPORT

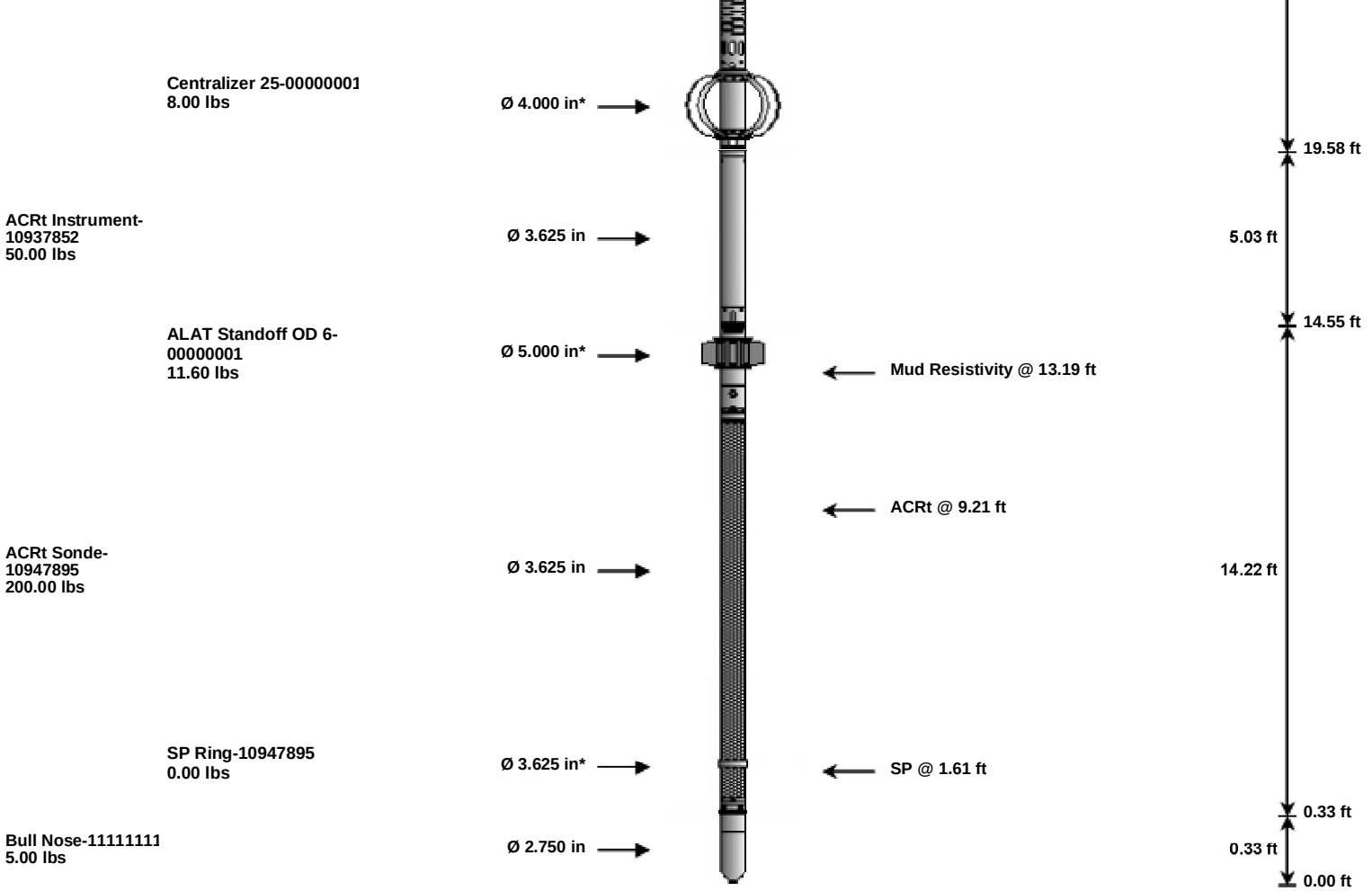
Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	BS	Bit Size	7.875	in
	SHARED	UBS	Use Bit Size instead of Caliper for all applications.	No	
	SHARED	MDBS	Mud Base	Water	
	SHARED	MDWT	Borehole Fluid Weight	9.400	ppg
	SHARED	WAGT	Weighting Agent	Barite	
	SHARED	BSAL	Borehole salinity	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	CSTR	Compressive Strength	1000.00	psia
	SHARED	ST	Surface Temperature	75.0	degF
	SHARED	TD	Total Well Depth	10000.00	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	CBM Temperature Master Tool	GTET	
	SHARED	MSAL	Water-base mud filtrate salinity	0.00	ppm
	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	SDLT	

	Rwa / CrossPlot	ROIN	Input for RO Calculation	Rwa	
	GTET	ACOK	Do ACCZ Calculations?	Yes	
	GTET	GROK	Process Gamma Ray?	Yes	
	GTET	GEOK	Process Gamma Ray EVR?	No	
	GTET	TPOS	Tool Position for Gamma Ray Tools.	Eccentered	
	GTET	BHSM	Borehole Size Source Tool	SDLT	
	DSNT	DNOK	Process DSN?	Yes	
	DSNT	DEOK	Process DSN EVR?	No	
	DSNT	NLIT	Neutron Lithology	Limestone	
	DSNT	DNSO	DSN Standoff - 0.25 in (6.35 mm) Recommended	0.250	in
	DSNT	DNTT	Temperature Correction Type	None	
	DSNT	DPRS	DSN Pressure Correction Type	None	
	DSNT	SHCO	View More Correction Options	No	
	DSNT	UTVD	Use TVD for Gradient Corrections?	No	
	DSNT	LHWT	Logging Horizontal Water Tank?	No	
	DSNT	UCLA	Classic Neutron Parameter utilized?	No	
	DSNT	BHSM	Borehole Size Source Tool	SDLT	
	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
	SDLT Pad	BHSM	Borehole Size Source Tool	SDLT	
	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 Pore Fluid	189.00	uspf
	BSAT	DTMT	Delta -T Matrix Type	Limestone 47.6	
	BSAT	DTSH	Delta -T Shale	100.00	uspf
	BSAT	SPEQ	Acoustic Porosity Equation	Wylie	
	ACRt Sonde	RTOK	Process ACRt?	Yes	
	ACRt Sonde	MNSO	Minimum Tool Standoff	1.50	in
	ACRt Sonde	TCS1	Temperature Correction Source	FP Lwr & FP Upr	
	ACRt Sonde	TPOS	Tool Position	Centered	
	ACRt Sonde	RMOP	Rmud Source	Mud Cell	
	ACRt Sonde	RMIN	Minimum Resistivity for MAP	0.20	ohmm
	ACRt Sonde	RMAX	Maximum Resistivity for MAP	200.00	ohmm
	ACRt Sonde	THQY	Threshold Quality	0.50	
	ACRt Sonde	MRFX	Fixed mud resistivity	2000	ohmm
	ACRt Sonde	BHSM	Borehole Size Source Tool	SDLT	
	ACRt Sonde	MBFL	Apply Corkscrew Effect?	No	
BOTTOM					

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
						76.60 ft
		Ø 2.310 in		Fishing Neck @ 75.72 ft		
RWCH-12027542 135.00 lbs		Ø 3.625 in		Load Cell @ 72.91 ft BH Temperature @ 72.35 ft	6.25 ft	
	Weak Point 12000 lbs- 11111111 0.01 lbs	Ø 0.010 in*				70.35 ft
				Z-Accelerometer @ 69.90 ft		
GTET-11958947 165.00 lbs		Ø 3.625 in			8.52 ft	
				GammaRay @ 64.29 ft		61.83 ft
	DSN Decentralizer- 11020488 6.60 lbs	Ø 5.000 in*				
DSNT-11019643 174.00 lbs		Ø 3.625 in			9.69 ft	
				DSN Far @ 54.89 ft DSN Near @ 54.14 ft		
						52.14 ft
	SDLT Pad-10763919 65.00 lbs Microlog Pad-11014296 8.00 lbs	Ø 4.500 in				
SDLT-11014296 360.00 lbs		Ø 4.500 in*		Microlog @ 44.33 ft	10.81 ft	
	RAM-Cs137-11206141 1.00 lbs	Ø 4.750 in*		SDL Caliper @ 44.14 ft		
		Ø 0.800 in*		SDL @ 44.13 ft		
						41.33 ft
Flex Joint - Pressure Comp- 11288767 140.00 lbs		Ø 3.625 in			5.97 ft	
						35.36 ft
	Centralizer 25-00000002 8.00 lbs	Ø 4.000 in*				
BSAT-10747681 300.00 lbs		Ø 3.625 in		Receiver Array @ 26.84 ft Sonic Receivers @ 26.84 ft	15.77 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		70.35	300.00
WP12K	Weak Point 12000 lbs	11111111	0.01	0.01	*	71.15	300.00
GTET	Gamma Telemetry Tool	11958947	165.00	8.52		61.83	60.00
DSNT	Dual Spaced Neutron	11019643	174.00	9.69		52.14	60.00
DCNT	DSN Decentralizer	11020488	6.60	5.13	*	55.47	300.00
SDLT	Spectral Density Tool	11014296	360.00	10.81		41.33	60.00
SDLP	Density Insite Pad	10763919	65.00	2.55	*	43.54	60.00
Cs137	Logging Source, SDLT-I, 1.78 Ci - Cs137	11206141	1.00	0.80	*	43.77	300.00
MICP	Microlog Pad	11014296	8.00	1.00	*	43.83	60.00
FLEX	Flex Joint - Pressure Compensated	11288767	140.00	5.97		35.36	300.00
BSAT	Borehole Sonic Array Tool	10747681	300.00	15.77		19.58	60.00
OBCEN	Centralizer - 25 in. Overbody	00000001	8.00	2.08	*	19.87	300.00
OBCEN	Centralizer - 25 in. Overbody	00000002	8.00	2.08	*	32.48	300.00
ACRt	Array Compensated True Resistivity Instrument Section	10937852	50.00	5.03		14.55	120.00
ACRt	Array Compensated True Resistivity Sonde Section	10947895	200.00	14.22		0.33	120.00
SP	SP Ring	10947895	0.00	0.25	*	1.61	300.00
ALATS	Array Laterolog Tool OD 5 Standoff	00000001	11.60	1.00	*	13.21	60.00
BLNS	Bull Nose	11111111	5.00	0.33		0.00	300.00
Total			**1,637.21**	**76.60**			

* Not included in Total Length and Length Accumulation.

Data: 04_07_MERIT\0001 RWCH-GTET-DSNT-SDLT-BSAT-ACRT\IDLE **Date: 07-Apr-22 23:15:56**

COMPANY	**MERIT ENERGY COMPANY, LLC**
WELL	**KATY JACKSON 1-7**
FIELD	**SEVEN MILE**

COUNTY	FINNEY	STATE	KANSAS

HALLIBURTON	BOREHOLE SONIC ARRAY