HALLIBURTON

BOREHOLE TEMPERATURE LOG

COMPANY **BEREXCO INC.**

WELL **WELLINGTON KGS #1-28**

FIELD **WELLINGTON**

COUNTY **SUMNER** STATE **KANSAS**

COMPANY	BEREXCO INC.
WELL	WELLINGTON KGS #1-28
FIELD	WELLINGTON
COUNTY	SUMNER
STATE	KANSAS

API No. 15-191-22590

Location 560' FSL & 1700' FWL

Sect. 28 Twp. 31S Rge. 1W

Other Services:
DSN/SDL
MICRO
CSNG
GEM
WSTT
XRMI
MRIL

Permanent Datum	GL	Elev. 1257.0 ft	Elev.: K.B. 1270.0 ft
Log measured from	KB	, 13.0 ft above perm. Datum	D.F. 1269.0 ft
Drilling measured from	KB		G.L. 1257.0 ft

Date		03-Mar-11					
Run No.		1					
Depth - Driller		5250.00 ft					
Depth - Logger		5250.0 ft					
Bottom - Logged Interval		5180.0 ft					
Top - Logged Interval		50.0 ft					
Casing - Driller		8.625 in @ 633.0 ft		@		@	
Casing - Logger		648.0 ft					
Bit Size		7.875 in		@		@	
Type Fluid in Hole		WATER BASED MUD					
Density	Viscosity	9.0 ppg	48.00 s/qt				
PH	Fluid Loss	9.00 pH	6.0 cptm				
Source of Sample		MUD PIT					
Rm @ Meas. Temperature		1.260 ohmm @ 70.00 degF		@		@	
Rmf @ Meas. Temperature		1.10 ohmm @ 70.00 degF		@		@	
Rmc @ Meas. Temperature		1.500 ohmm @ 70.00 degF		@		@	
Source Rmf	Rmc	MEAS	MEAS				
Rm @ BHT		0.85 ohmm @ 130.0 degF		@		@	
Time Since Circulation		4.0 hr					
Time on Bottom		03-Mar-11 23:12					
Max. Rec. Temperature		130.0 degF @ 5250.0 ft		@		@	
Equipment	Location	10546696	LIBERAL				
Recorded By		J. BOSH					
Witnessed By		L. WATNEY		K. CRISLER		G. KORALEGEDARA	

Fold here

Service Ticket No.: 7980390 API Serial No.: 15-191-22590 PGM Version: WL INSITE R3.2.0 (Build 7)

CHANGE IN MUD TYPE OR ADDITIONAL SAMPLE

RESISTIVITY SCALE CHANGES

	Sample No.	Type Log	Depth	Scale Up Hole	Scale Down Hole
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 EQUIPMENT DATA

	Run No.	Tool Type & No.	Pad Type	Tool Pos.	Other
Run No.	ONE	ACRT S5909	N/A	1.5 S.O.	N/A
Serial No.					
Model No.					
Diameter					
Log Type					
Source Type					
Serial No.					
Strength					

EQUIPMENT DATA

GAMMA		ACOUSTIC		DENSITY		NEUTRON	
Run No.	ONE	Run No.		Run No.		Run No.	
Serial No.	11039640	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 ACOUSTIC GAMMA 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	50	5180	REC	0	150									

DIRECTIONAL INFORMATION

Maximum Deviation	@	KOP	@

Remarks: ANNULAR HOLE VOLUME CALCULATED FOR 5.5 INCH CASING

CHLORIDES: 3000 PPM LCM: 13 LB/BBL

GPS COORDINATES: LAT: 37.19 N LONG: 97.26 W

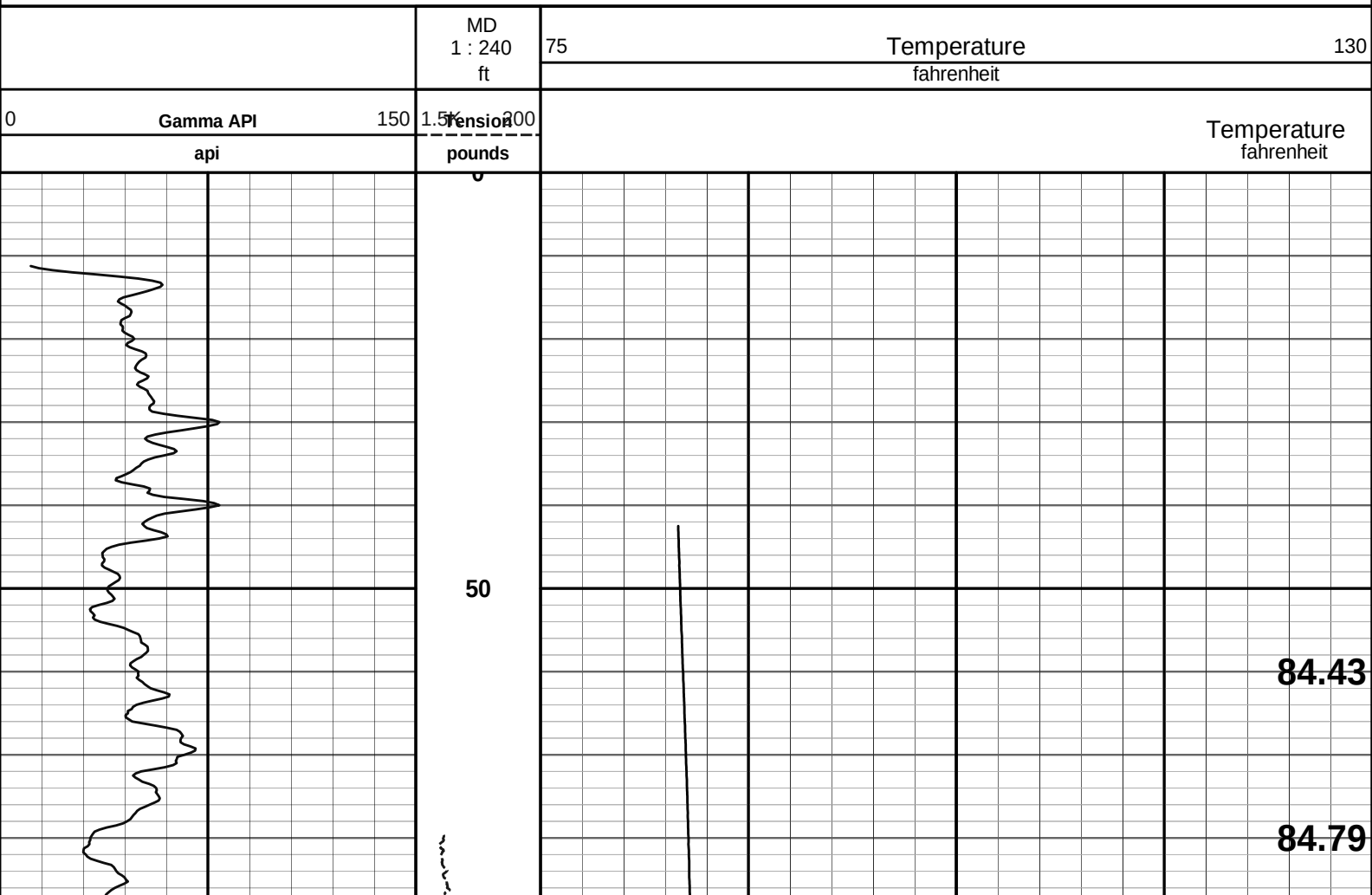
TEMP/WSTT/XRMI RAN IN COMBINATION

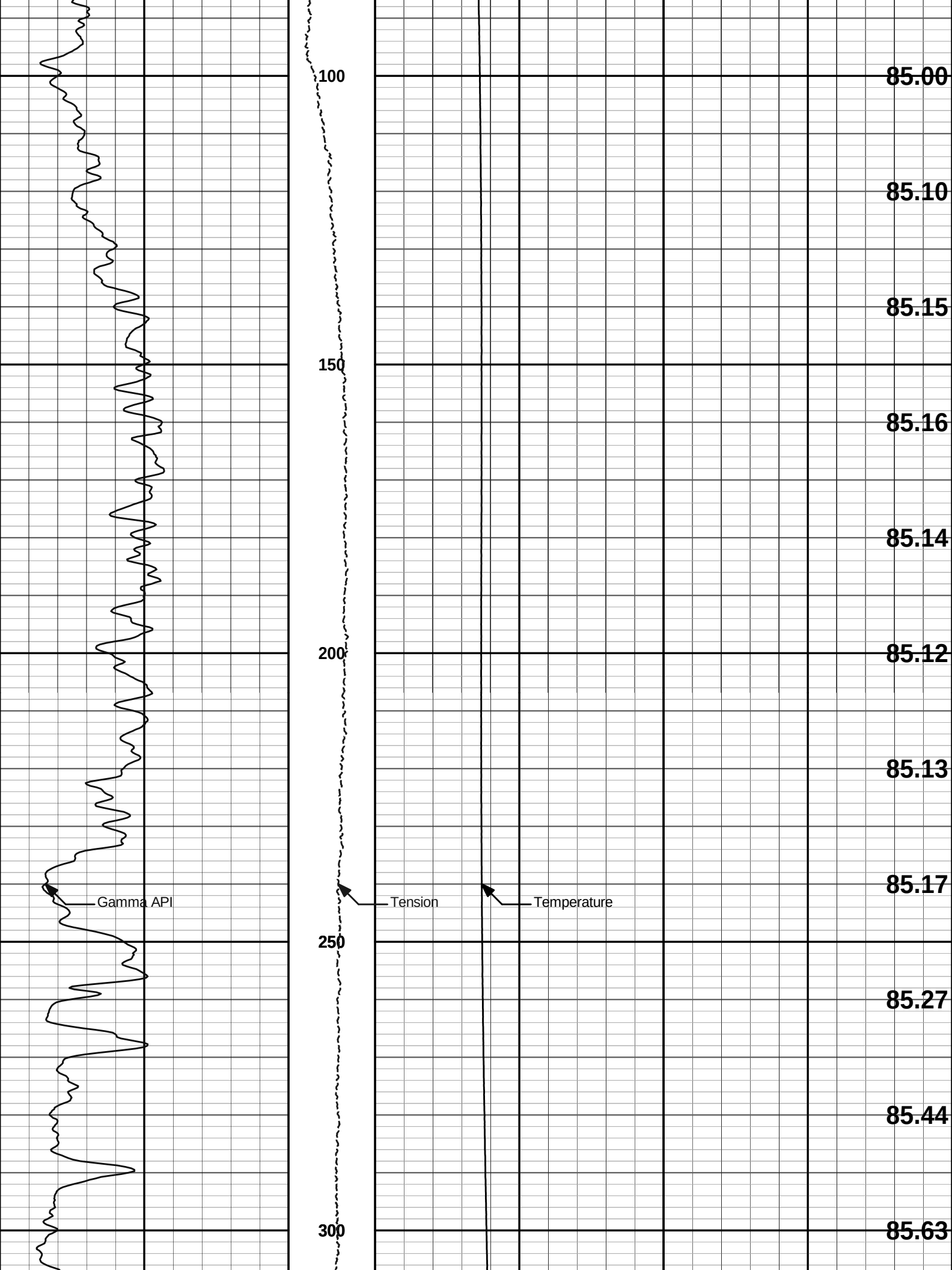
TODAY'S CREW: V. JAIME, K. KELLY

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

HALLIBURTON

Plot Time: 04-Mar-11 16:50:59
Plot Range: 0 ft to 5251.83 ft
Data: WELLINGTON_1_28\Well Based\DAQ-0003-MAIN
Plot File: \\BHPT\GR TIE IN

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150
200
250
300
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85.10
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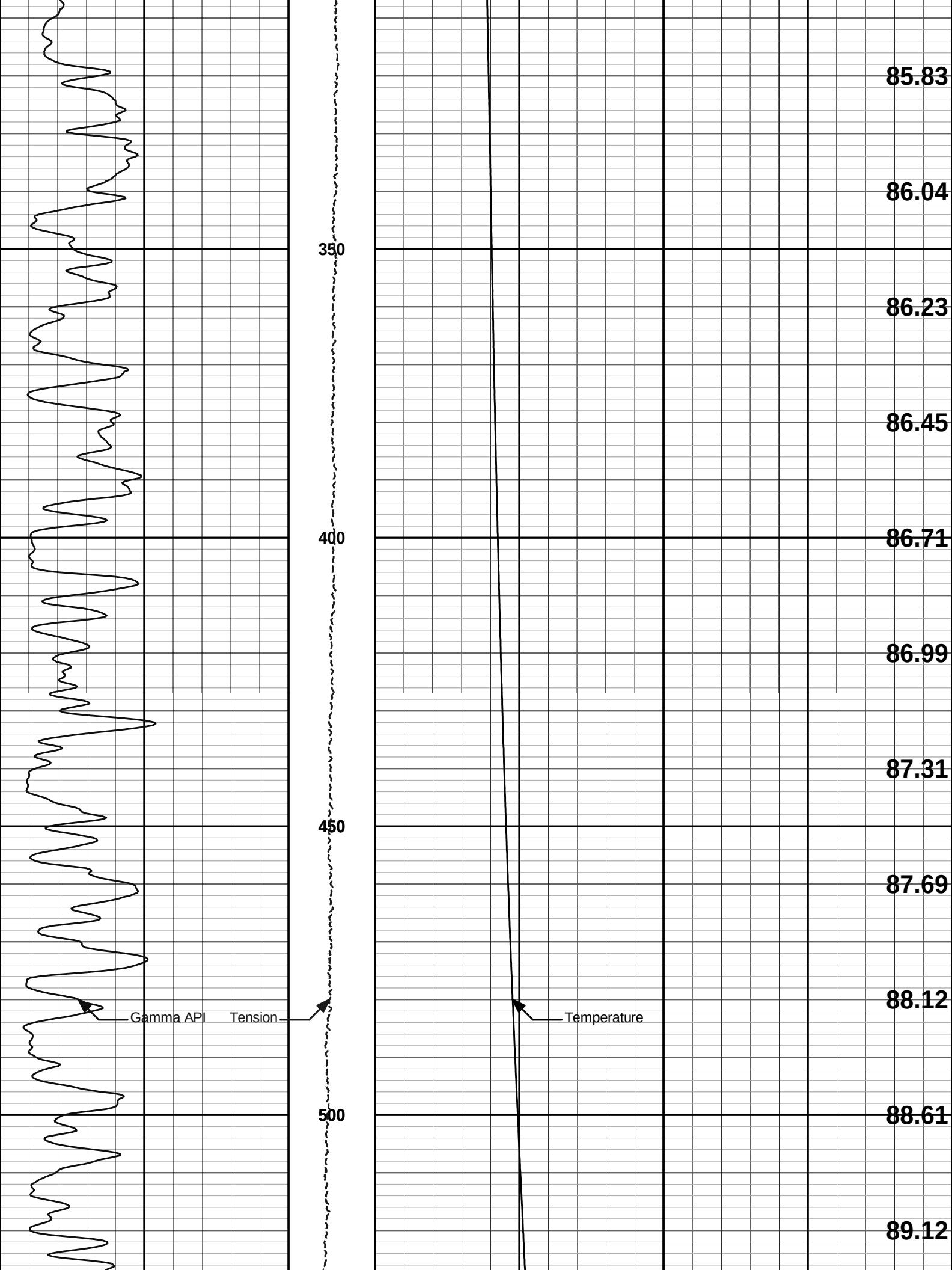
85.14
85.12
85.13
85.17
85.27
85.44
85.63
Gamma API
Tension
Temperature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400
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500
85.83
86.04
86.23
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86.71
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87.69
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88.61
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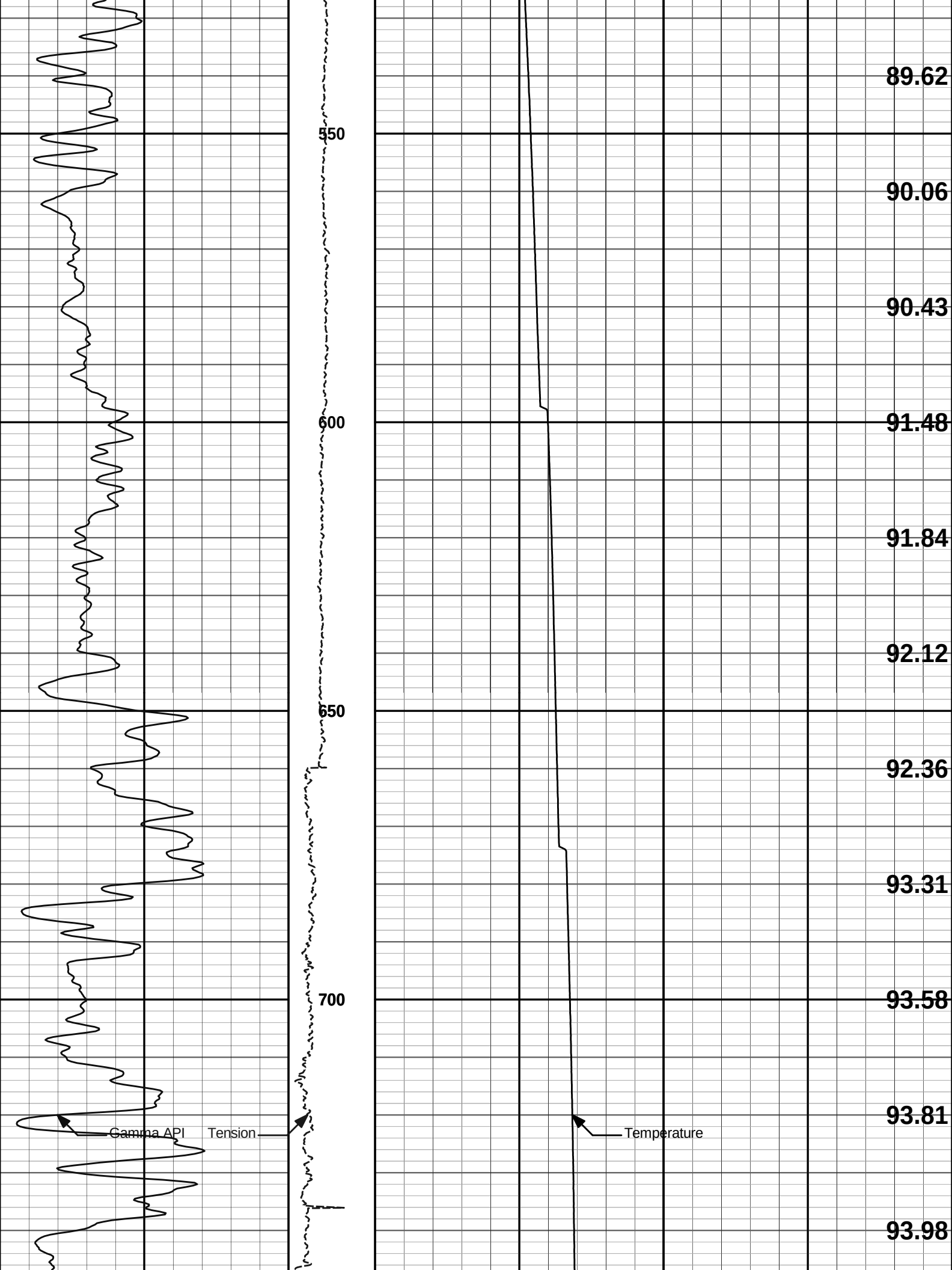
Gamma API
Tension
Temperature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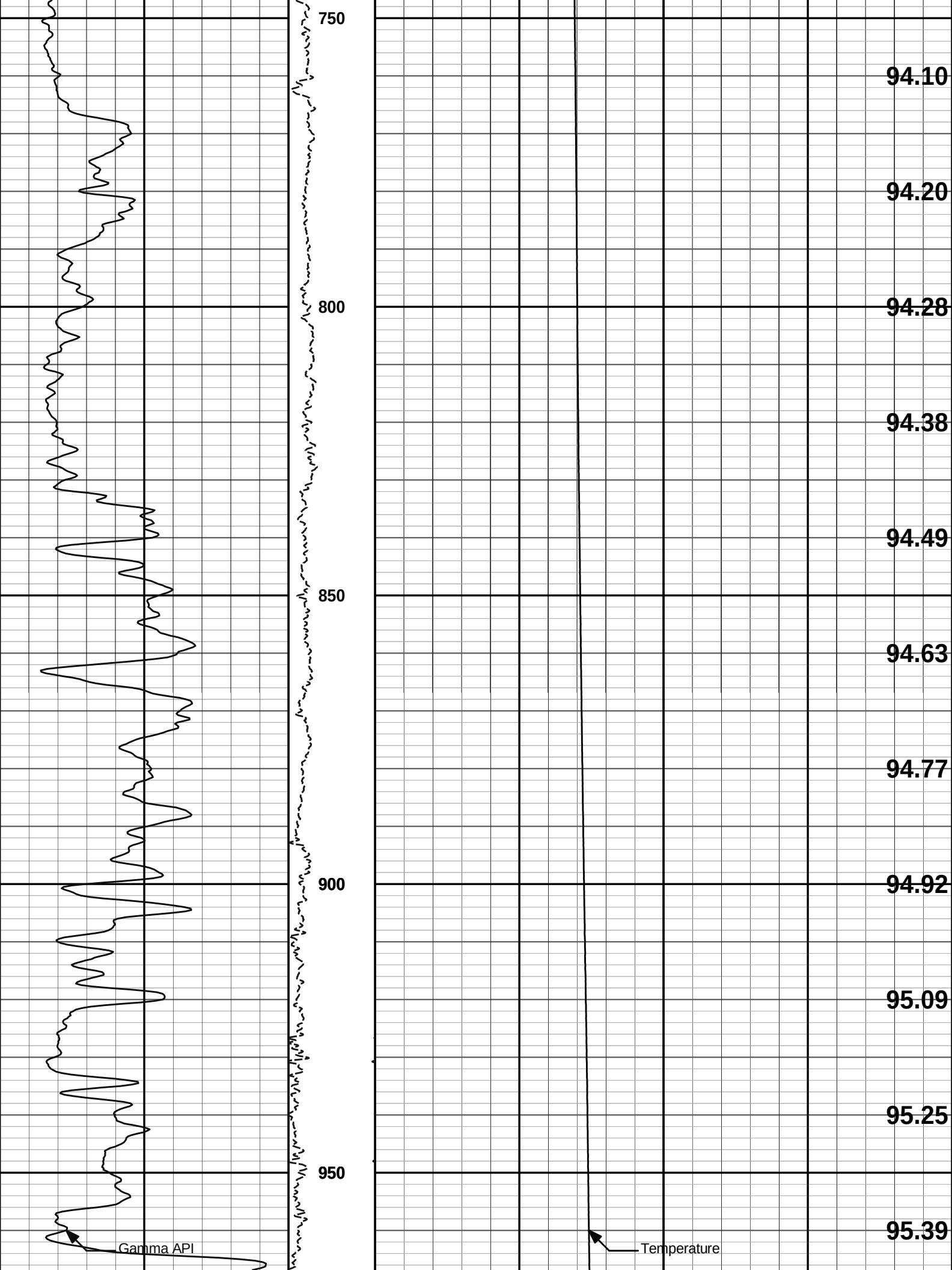
600
650
700
89.62
90.06
90.43
91.48
91.84
92.12
92.36
93.31
93.58
93.81
93.98
Gamma API
Tension
Temperature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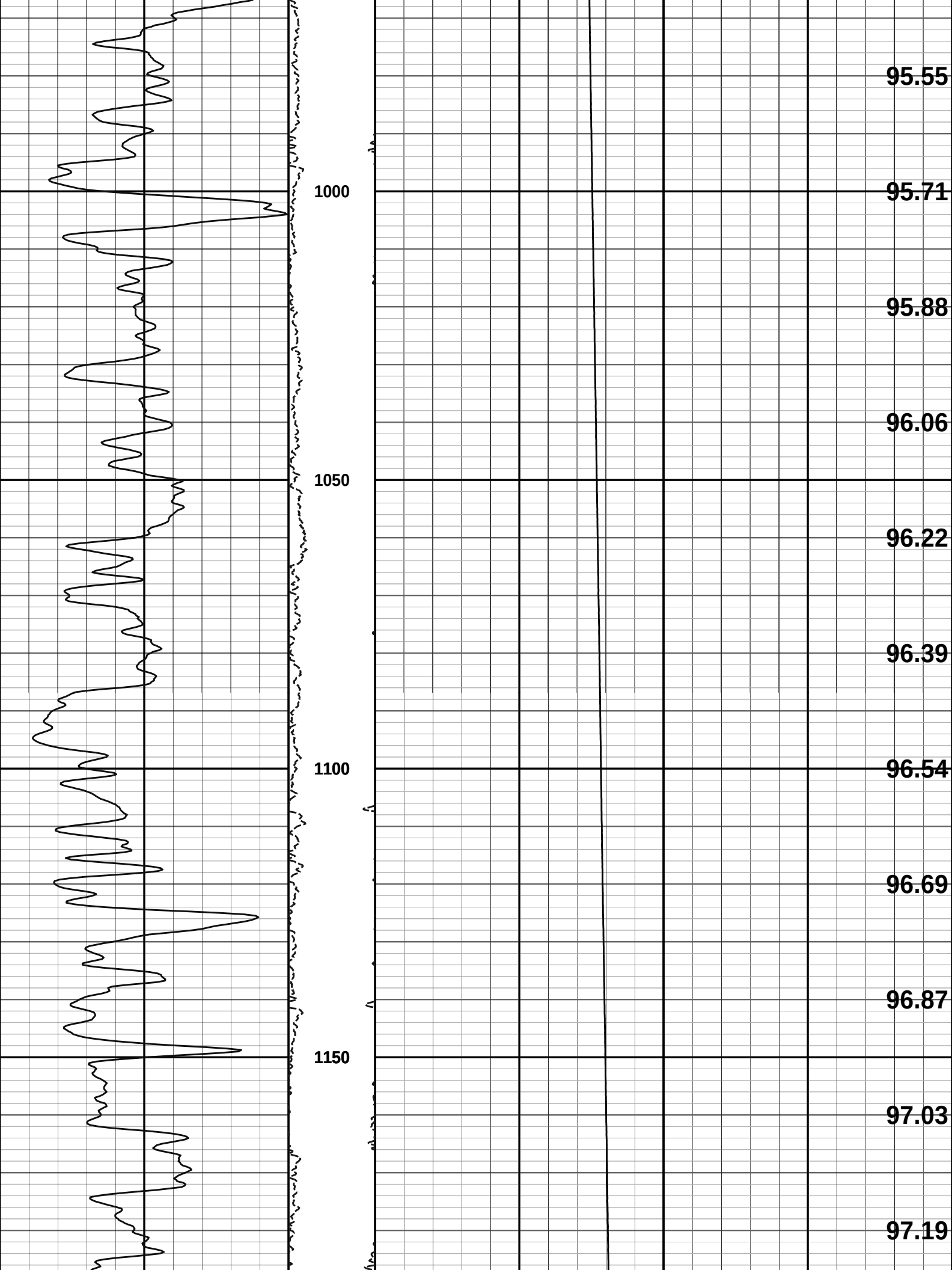
800
850
900
950
94.10
94.20
94.28
94.38
94.49
94.63
94.77
94.92
95.09
95.25
95.39
Gamma API
Temperature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1050
1100
1150
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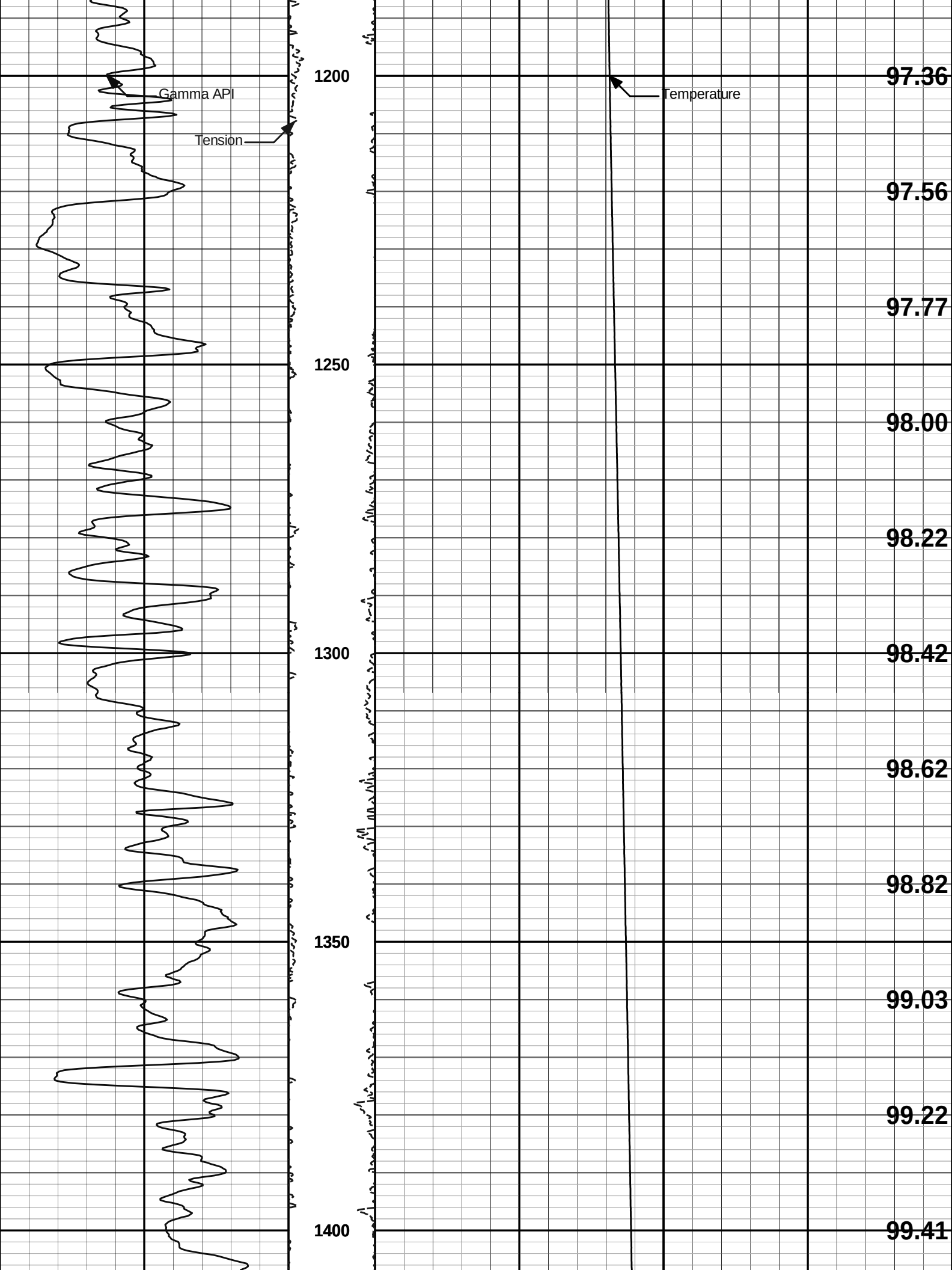
95.71
95.88
96.06
96.22
96.39
96.54
96.69
96.87
97.03
97.19


Gamma API
Tension
Temperature
1200
1250
1300
1350
1400
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97.56
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98.00
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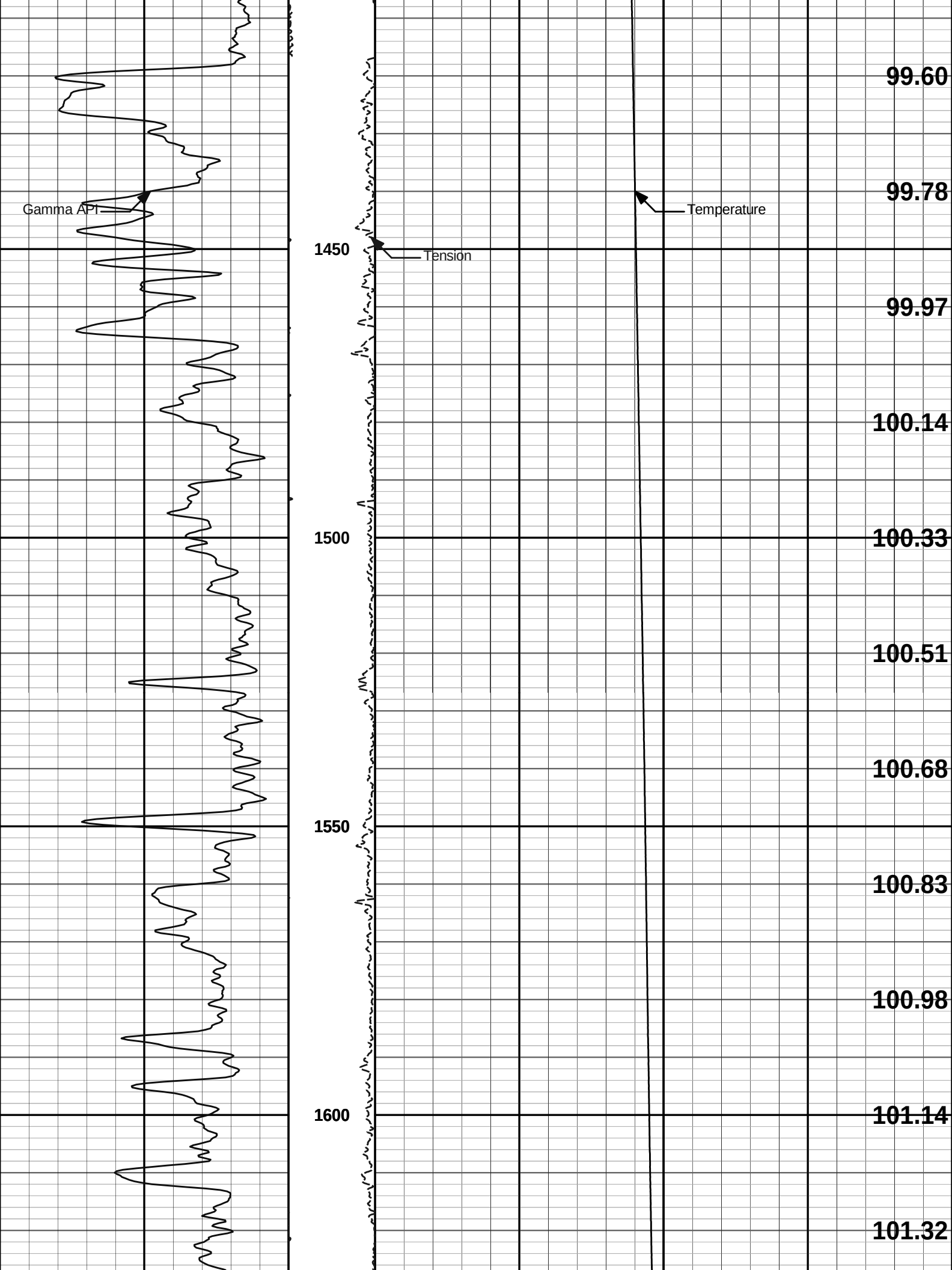
98.62
98.82
99.03
99.22
99.41


Gamma API
Tension
Temperature
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1500
1550
1600
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100.68
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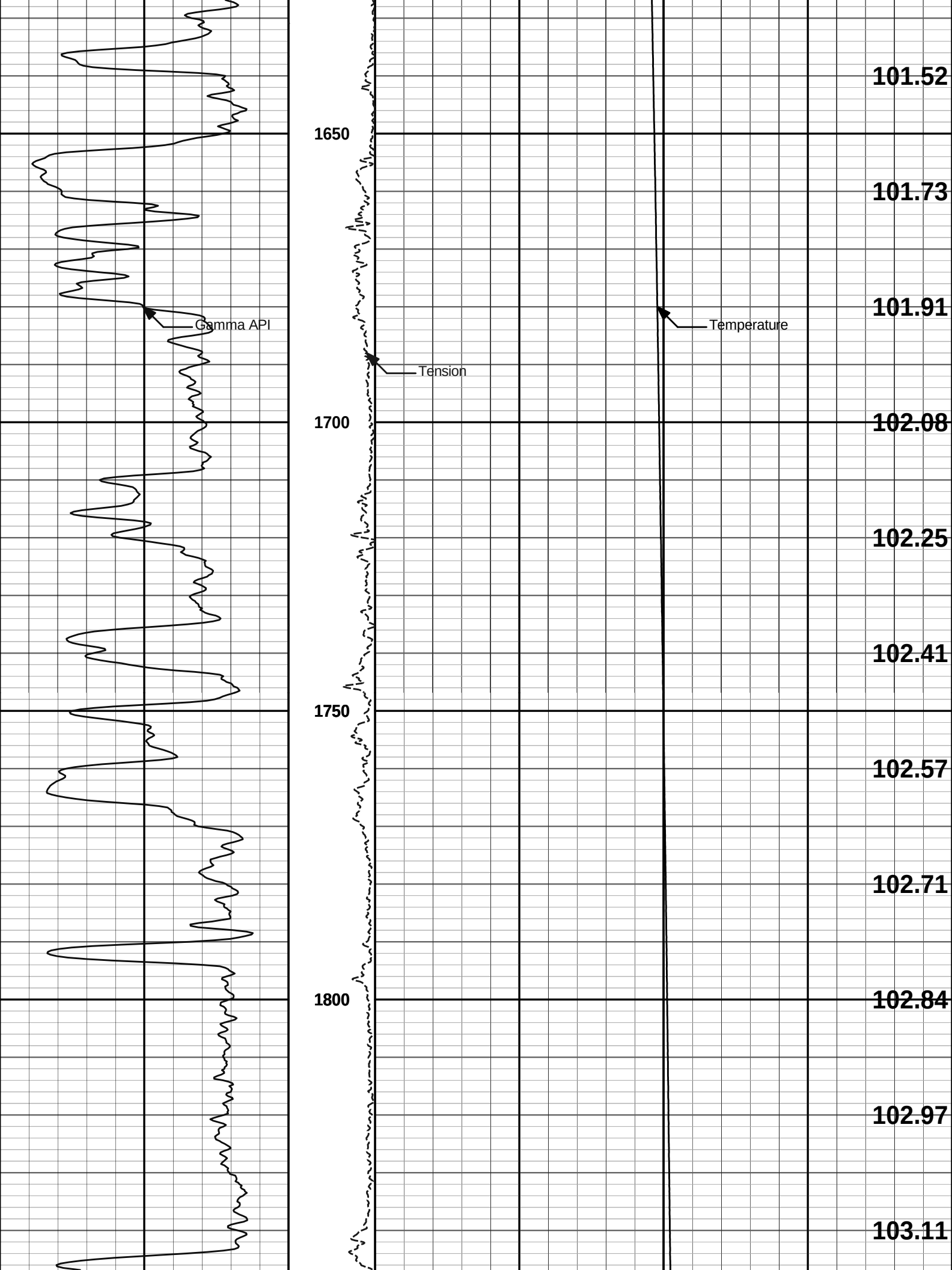
100.98
101.14
101.32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Temperature
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1700
1750
1800
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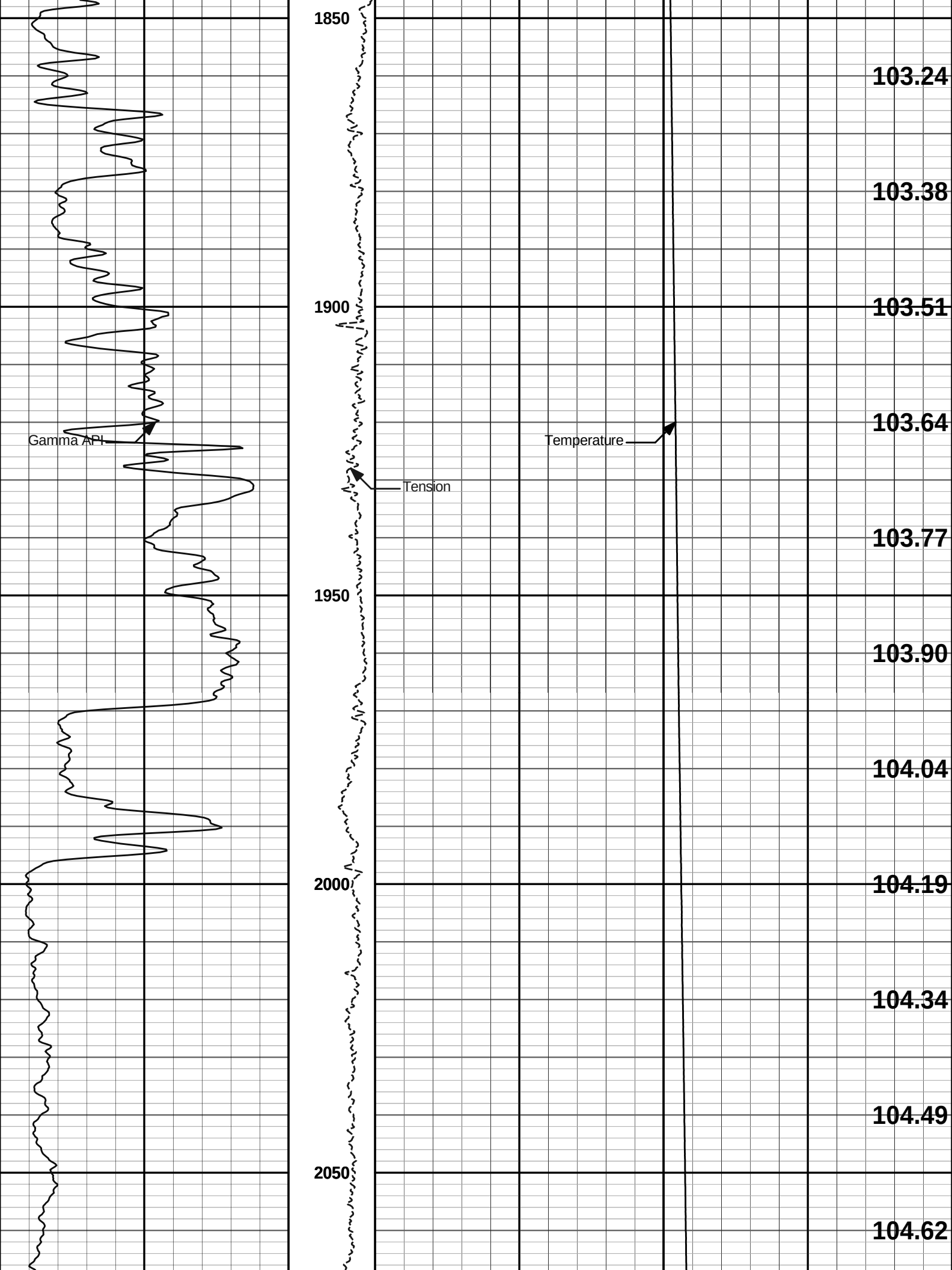
101.91
102.08
102.25
102.41
102.57
102.71
102.84
102.97
103.11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1900
1950
2000
2050
Gamma API
Tension
Temperature
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104.19
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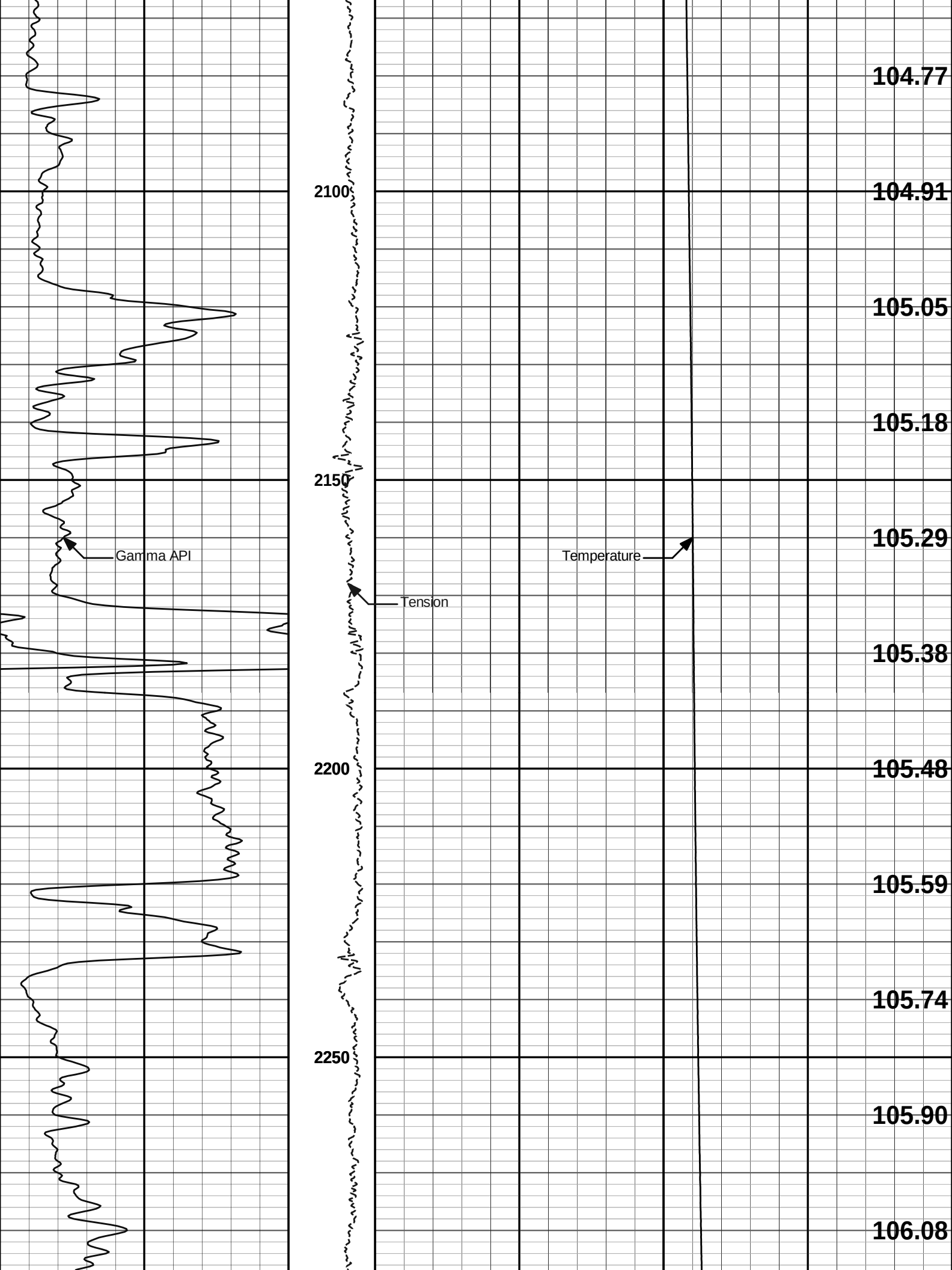
104.49
104.62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2100
104.91
105.05
105.18
2150
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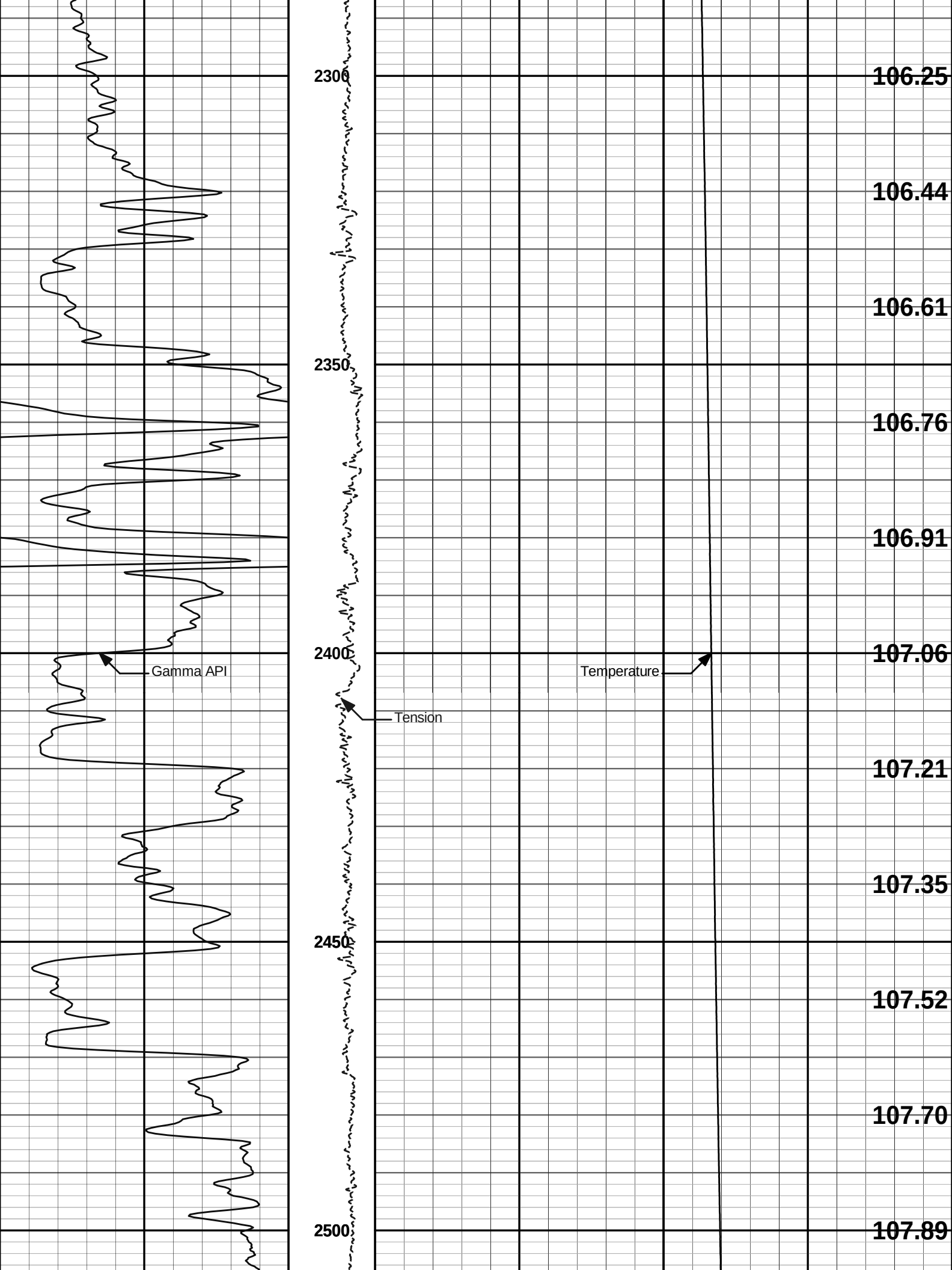
Gamma API
Temperature
Tension
105.38
2200
105.48
105.59
105.74
2250
105.90
106.08


2300
2350
2400
2450
2500
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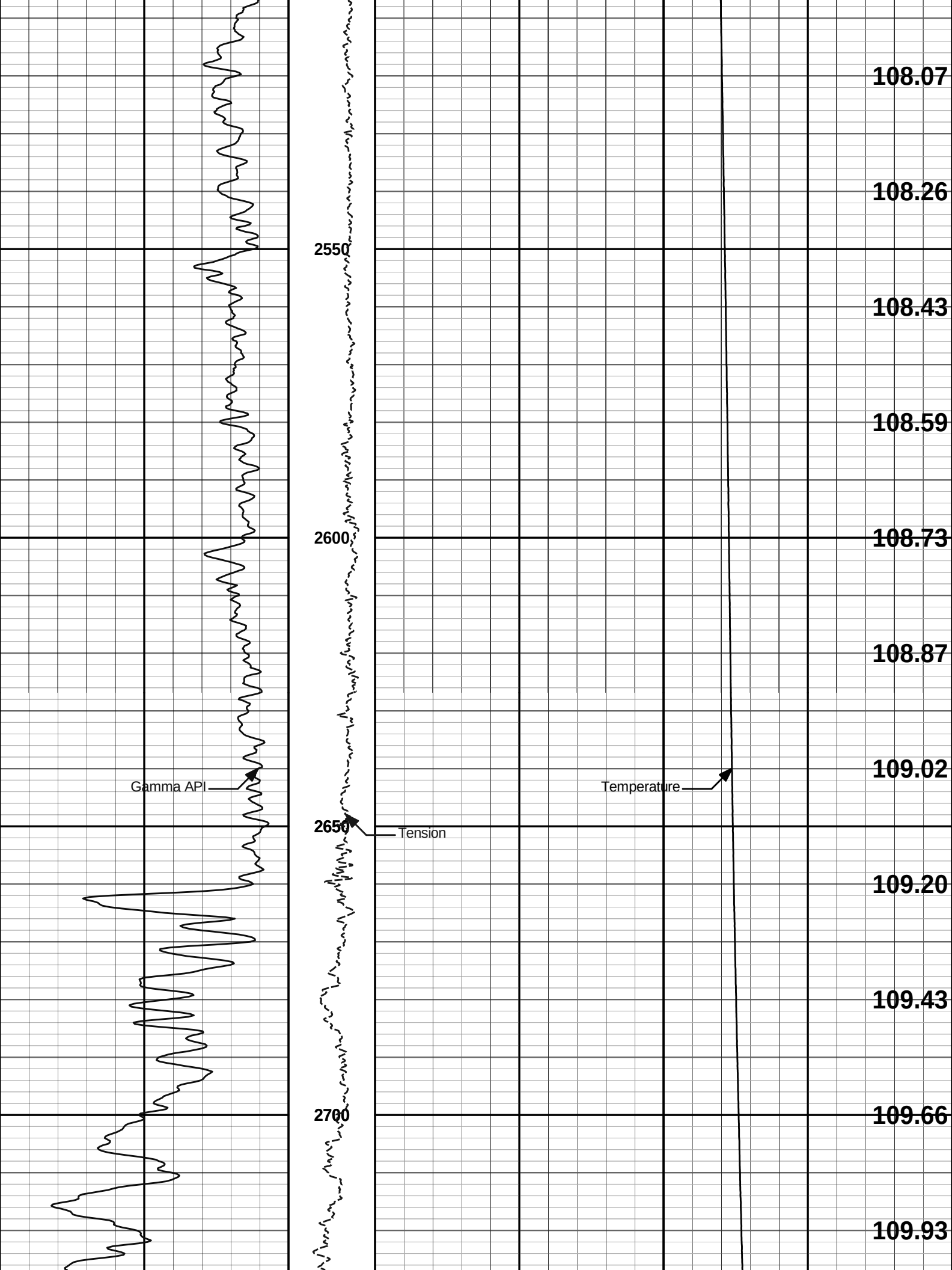
106.91
107.06
107.21
107.35
107.52
107.70
107.89
Gamma API
Tension
Temperature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2600
2650
2700
Gamma API
Tension
Temperature
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108.59
108.73
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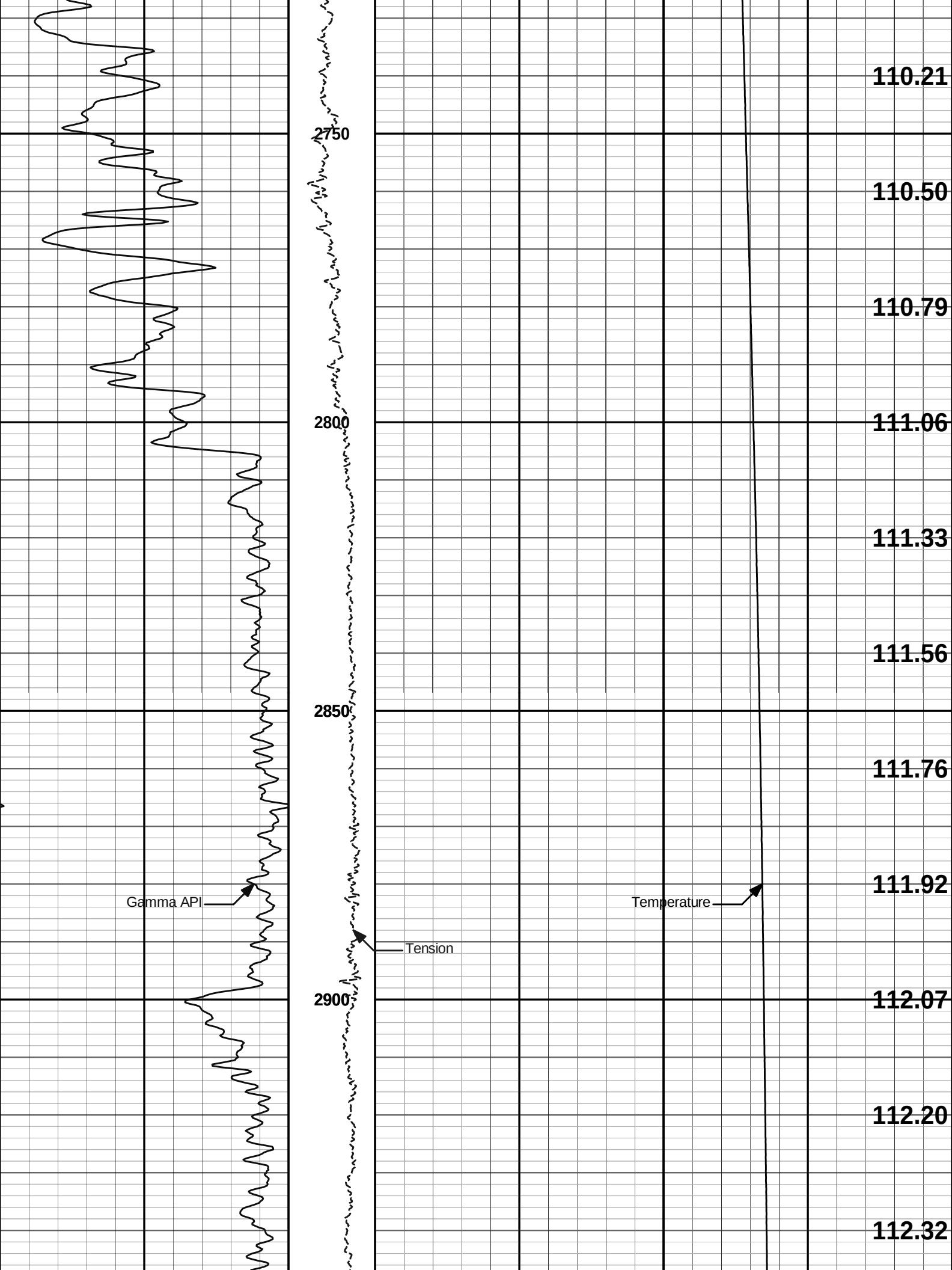
109.43
109.66
109.93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110.50
110.79
111.06
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111.92
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112.20
112.32
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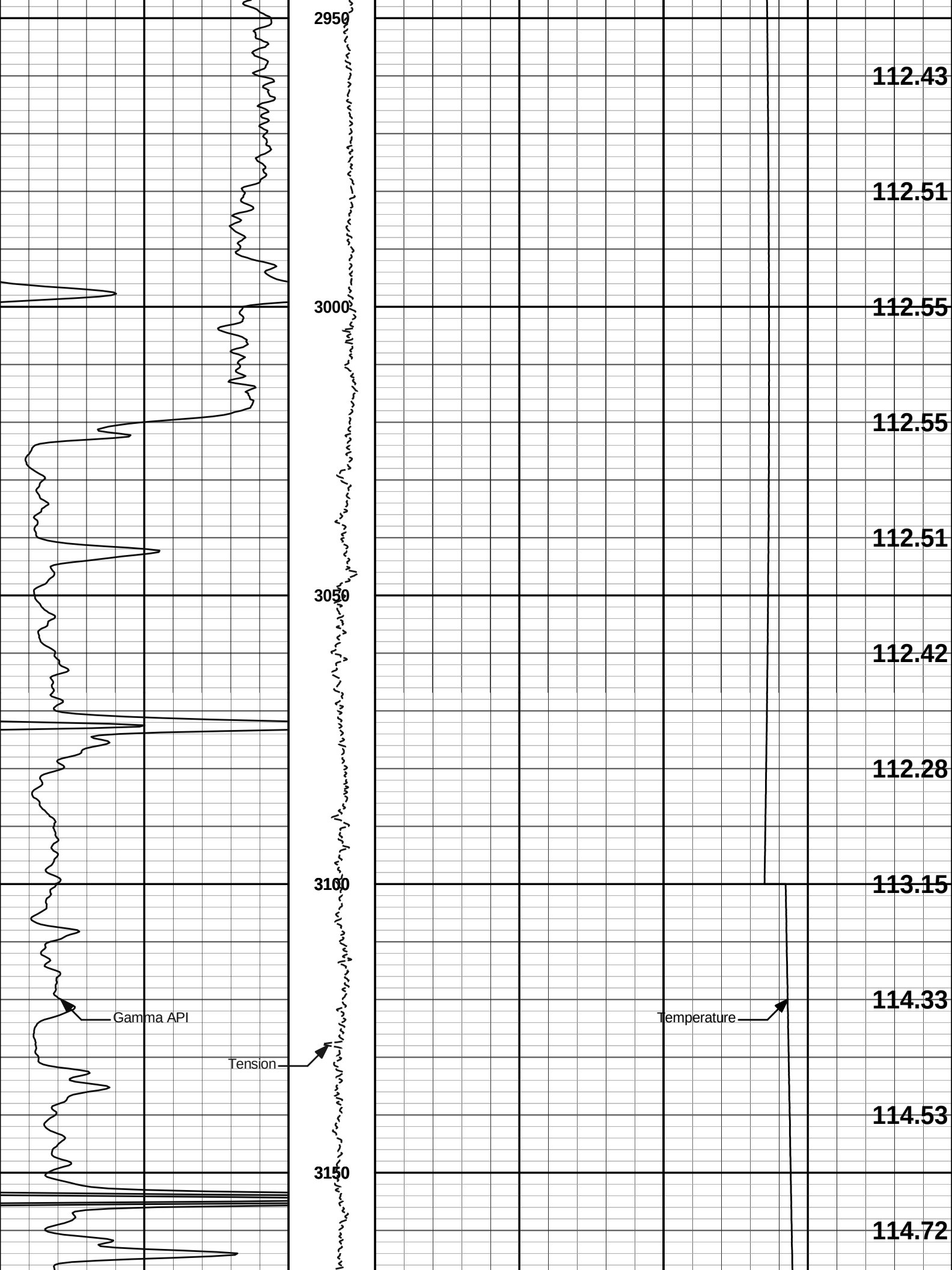
2800
2850
2900
Gamma API
Tension
Temperature


2950
3000
3050
3100
3150
112.43
112.51
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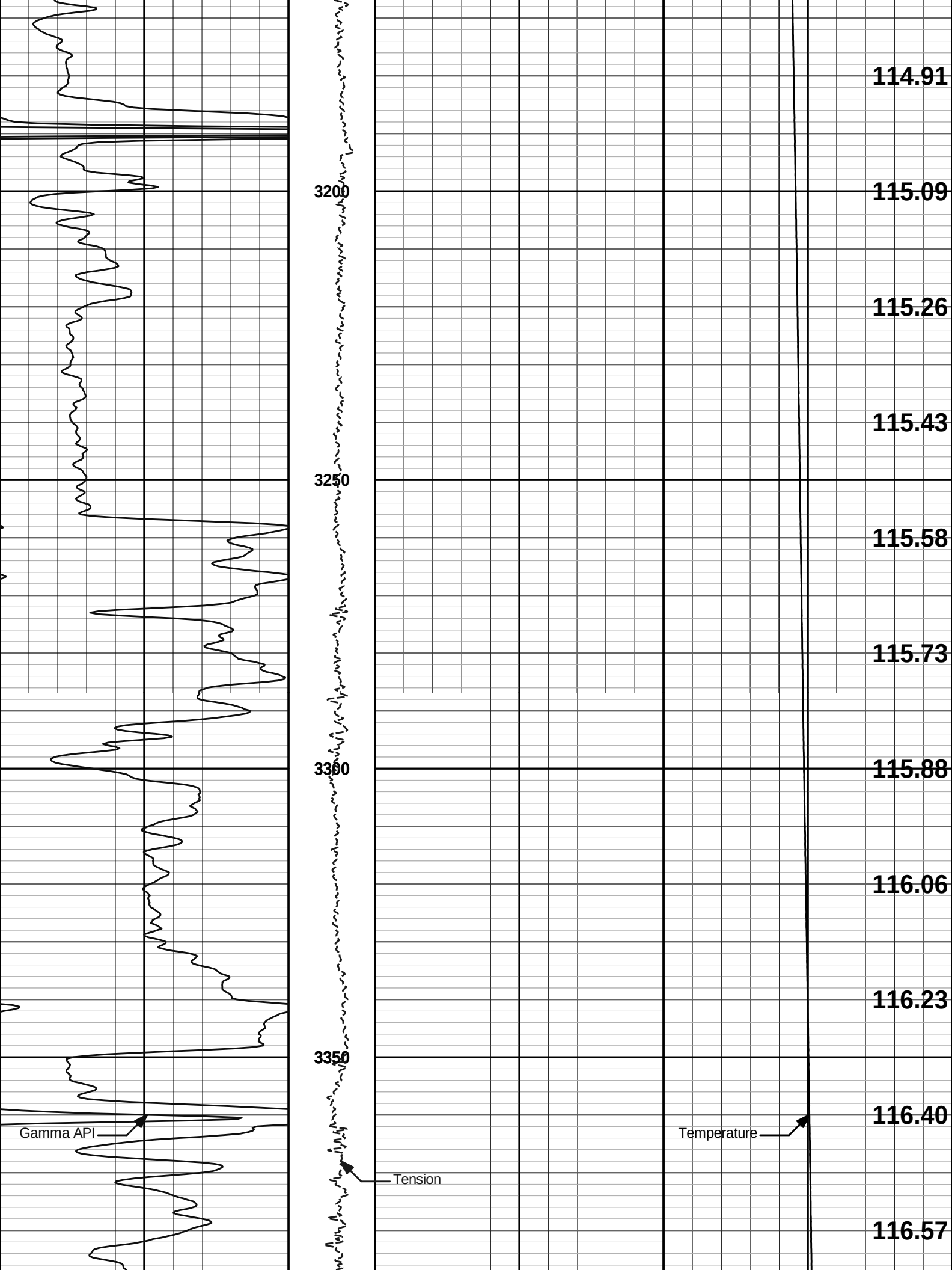
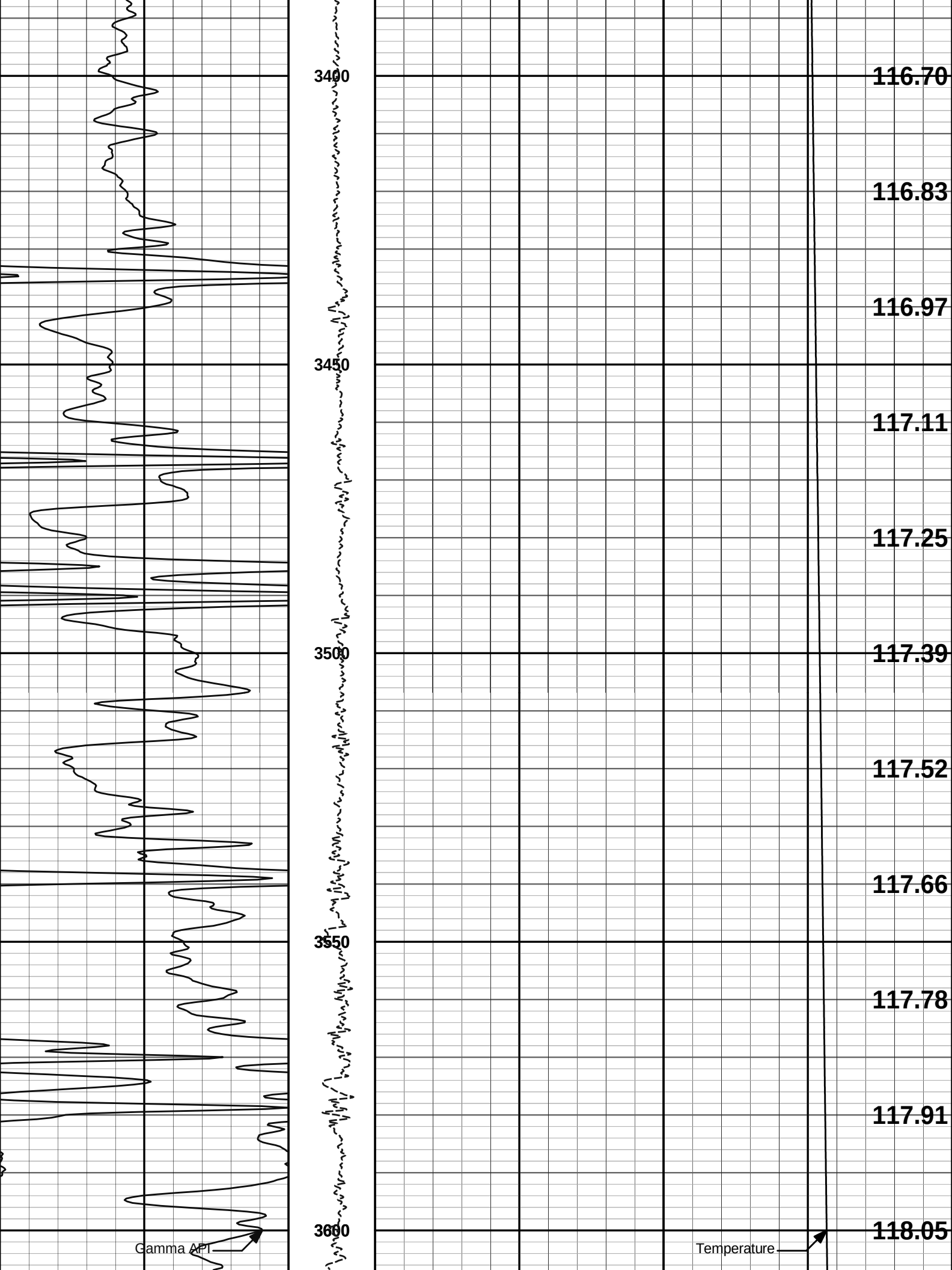
112.55
112.51
112.42
112.28
113.15
114.33
114.53
114.72
Gamma API
Tension
Temperature


3200
3250
3300
3350
114.91
115.09
115.26
115.43
115.58
115.73
115.88
116.06
116.23
116.40
116.57
Gamma API
Tension
Temperature


3400
3450
3500
3550
3600
116.70
116.83
116.97
117.11
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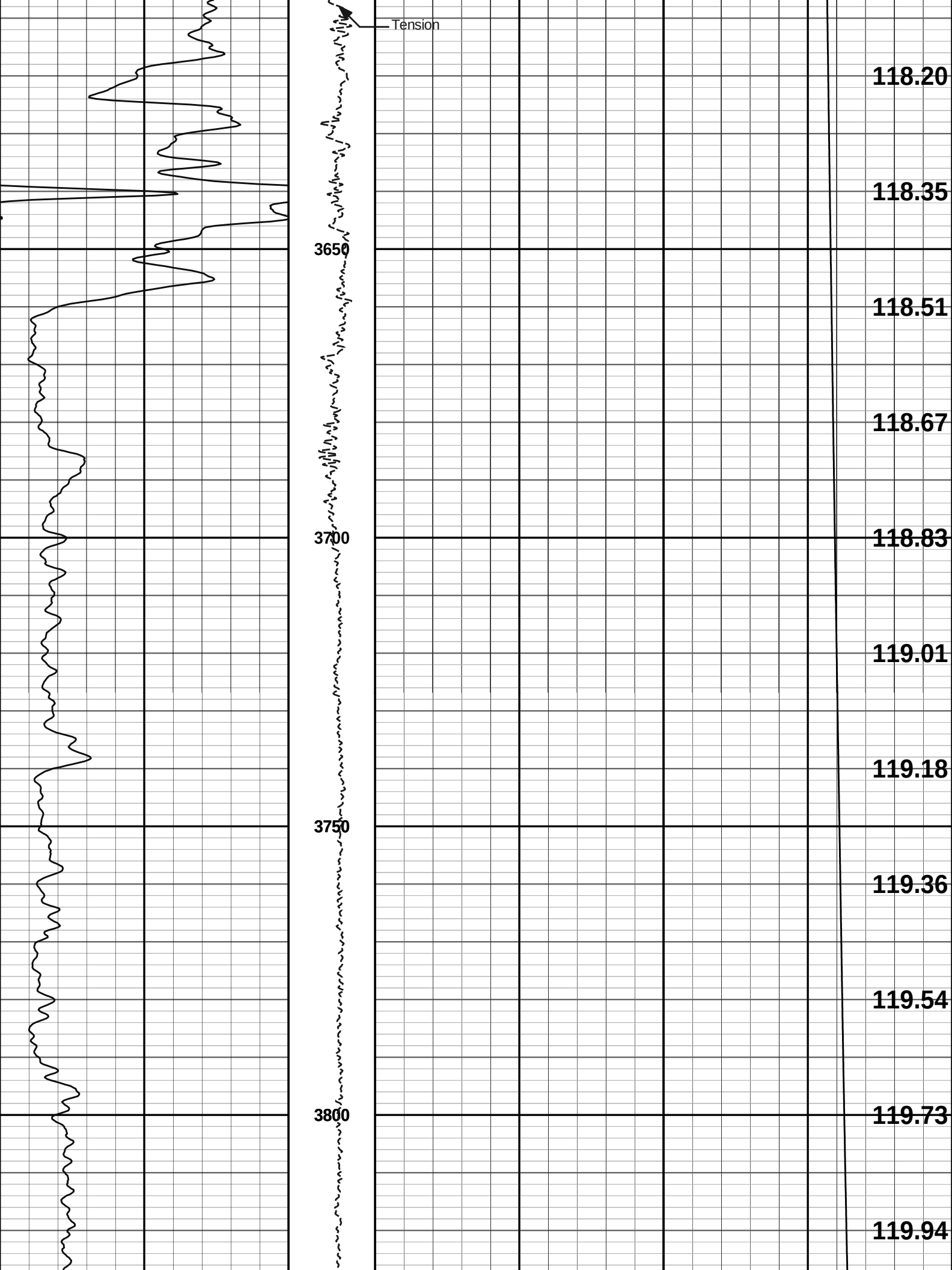
117.39
117.52
117.66
117.78
117.91
118.05
Gamma API
Temperature


Tension
118.20
118.35
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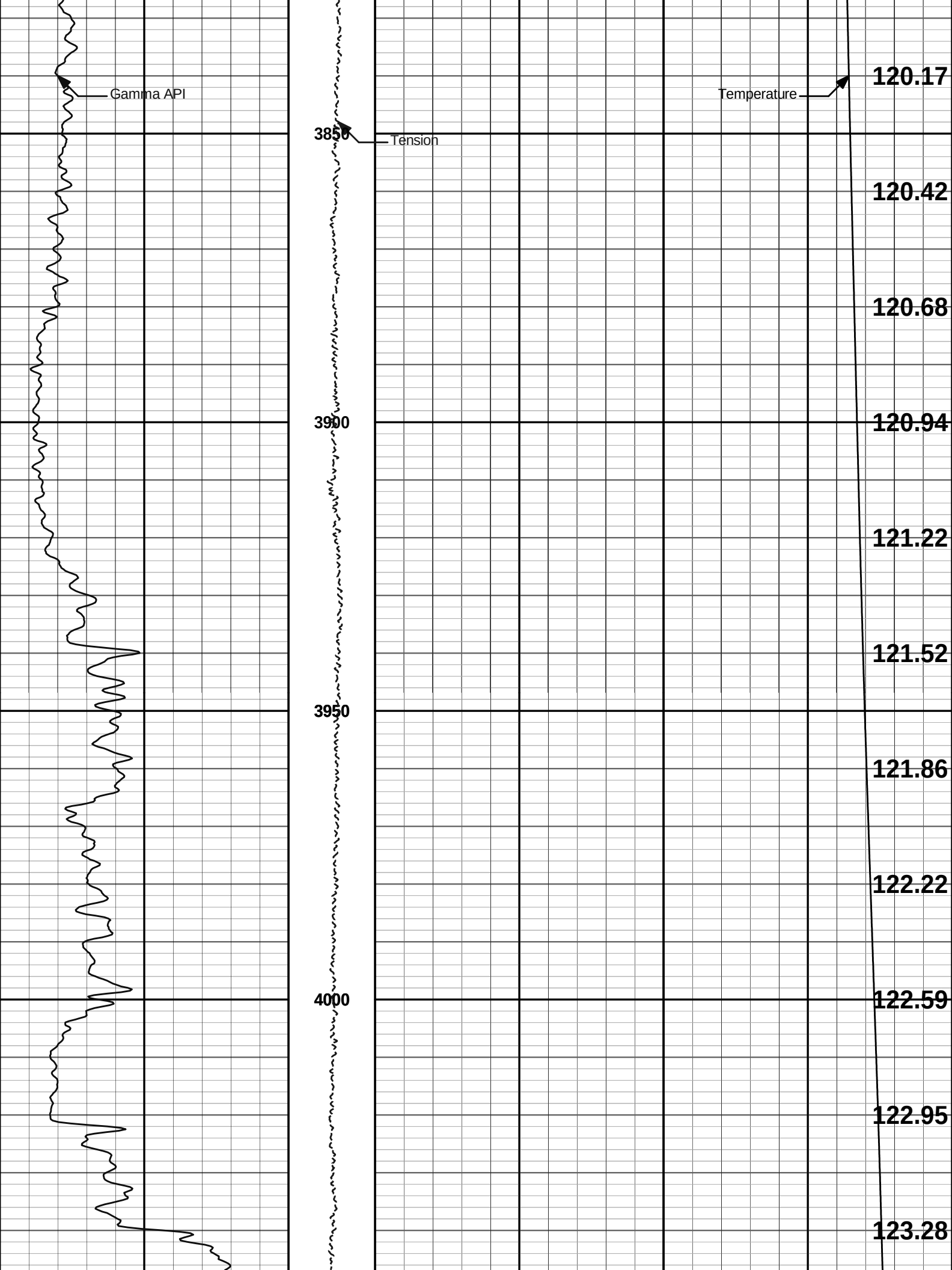
3700
118.83
119.01
119.18
3750
119.36
119.54
3800
119.73
119.94


Gamma API
Tension
Temperature
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3900
3950
4000
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120.68
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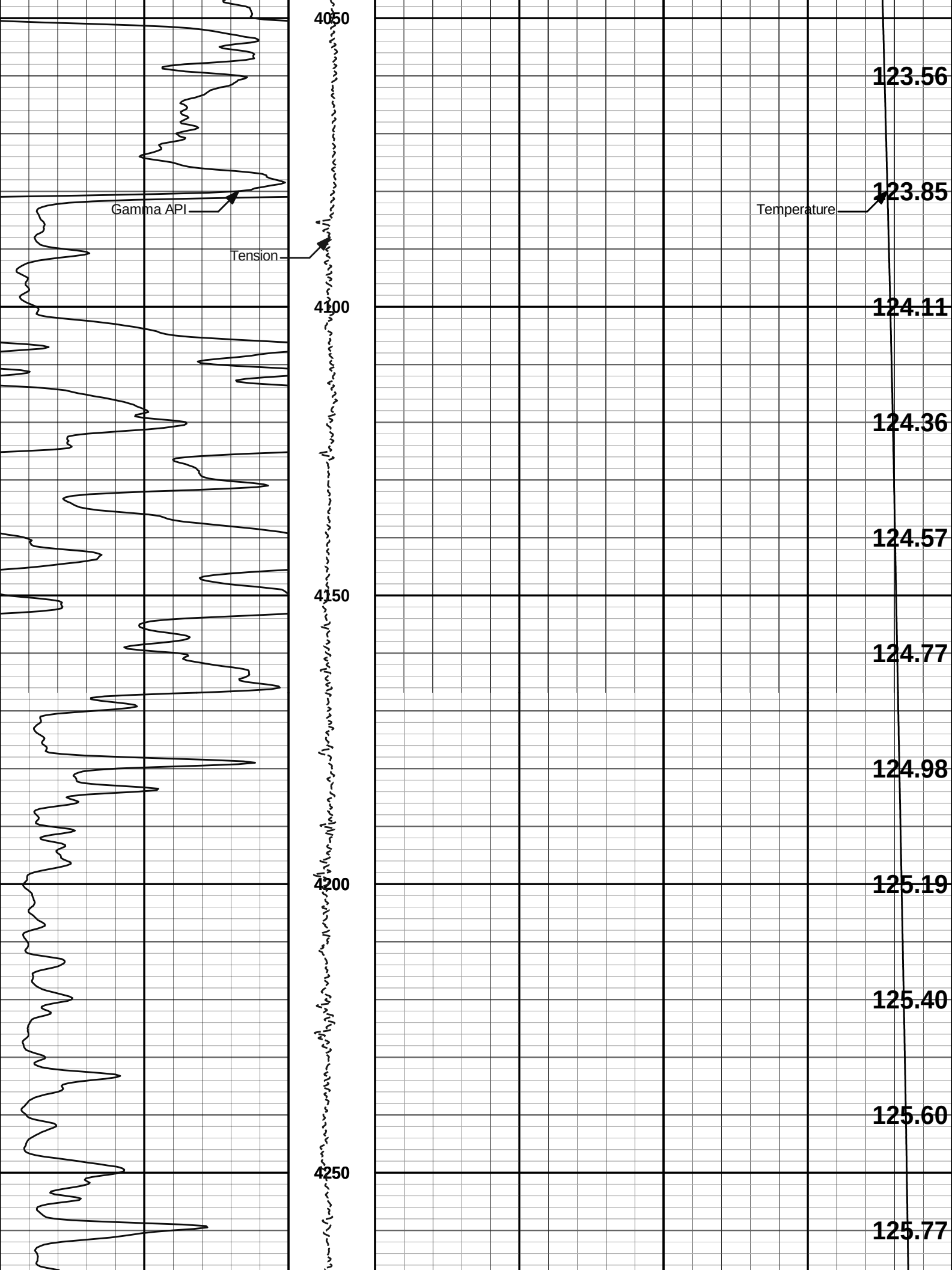
121.86
122.22
122.59
122.95
123.28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4150
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124.57
124.77
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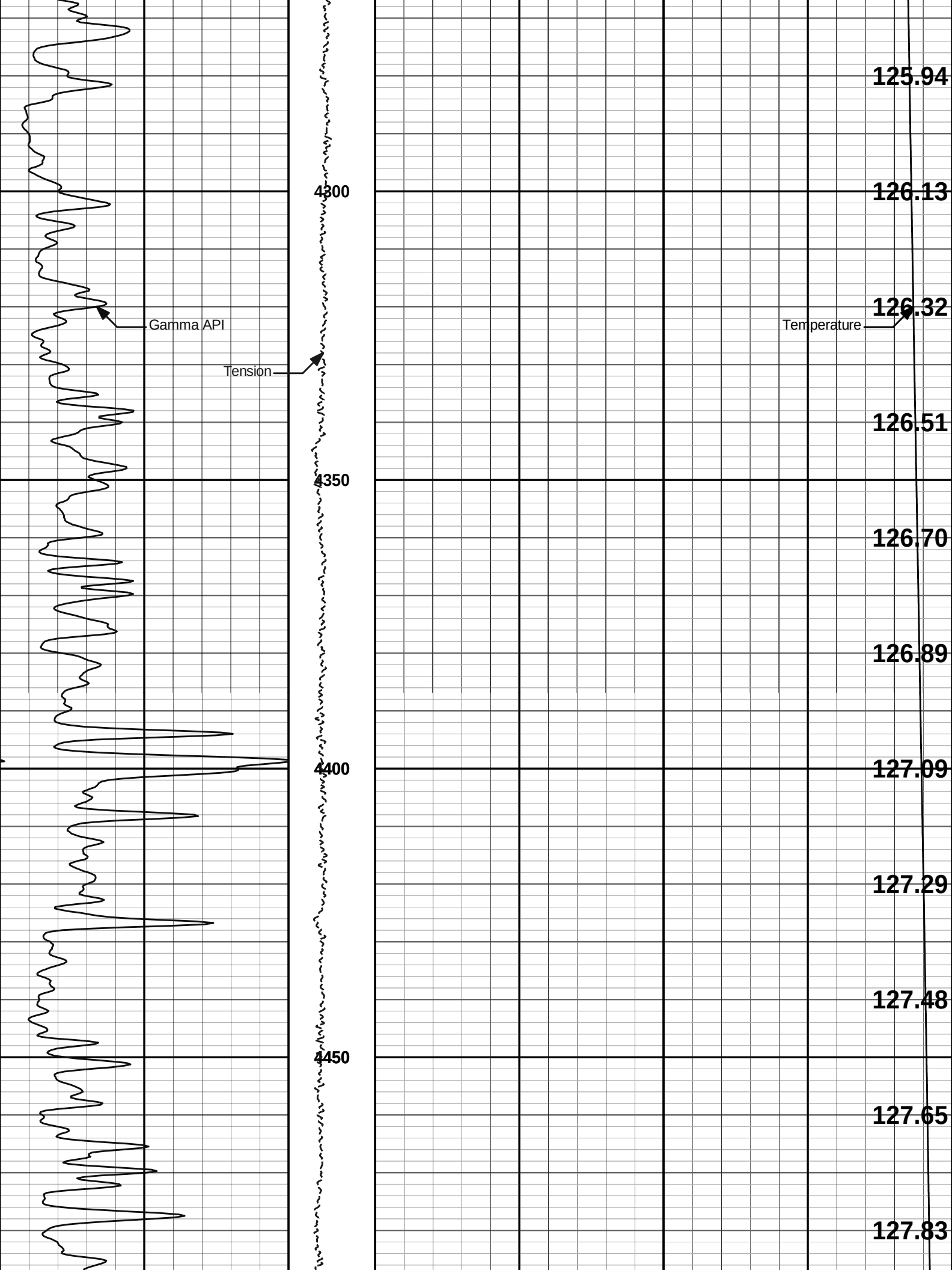
125.60
125.77


Gamma API
Tension
Temperature
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4400
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126.51
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127.09
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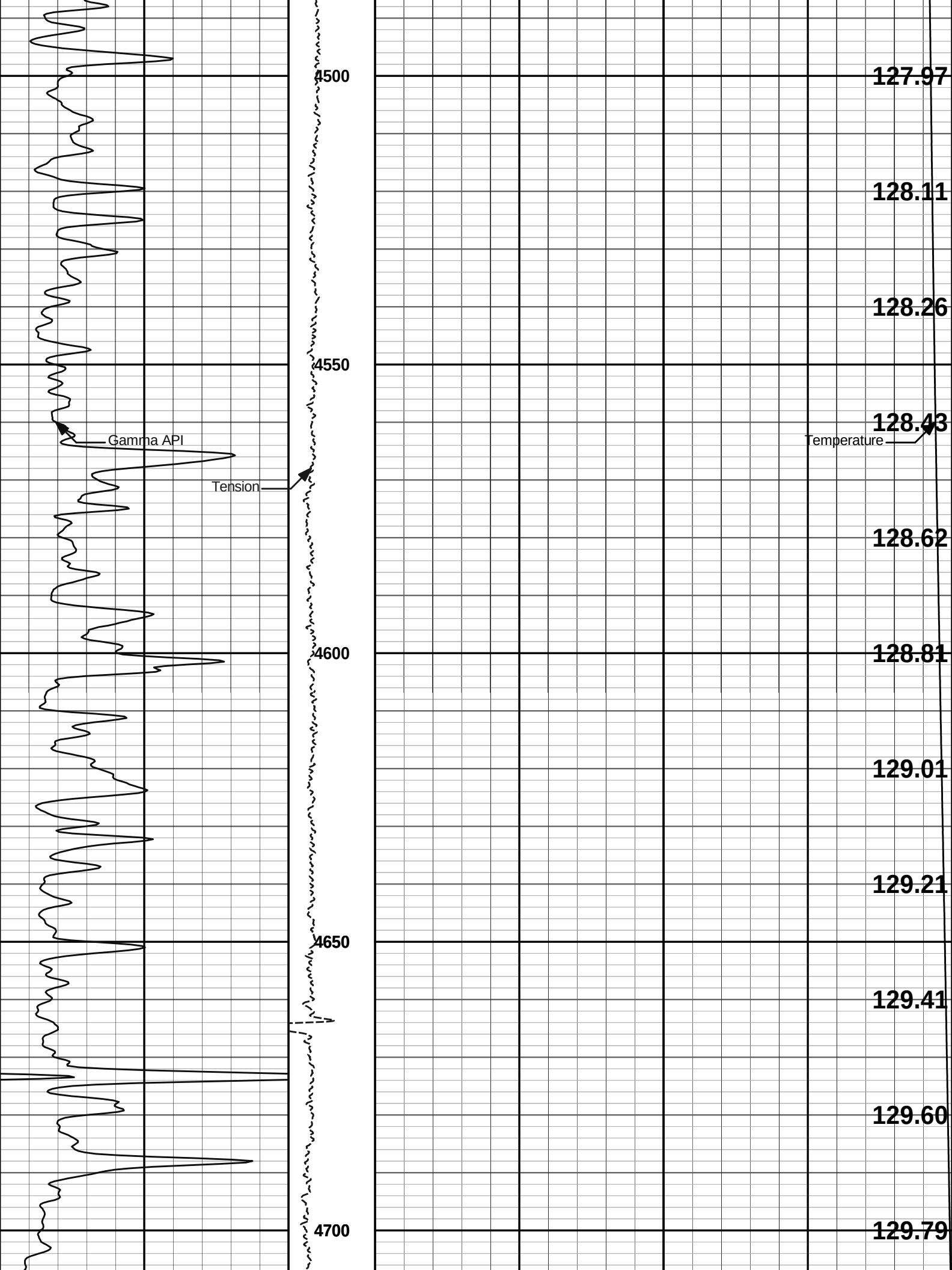
127.48
127.65
127.83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4550
4600
4650
4700
Gamma API
Tension
Temperature
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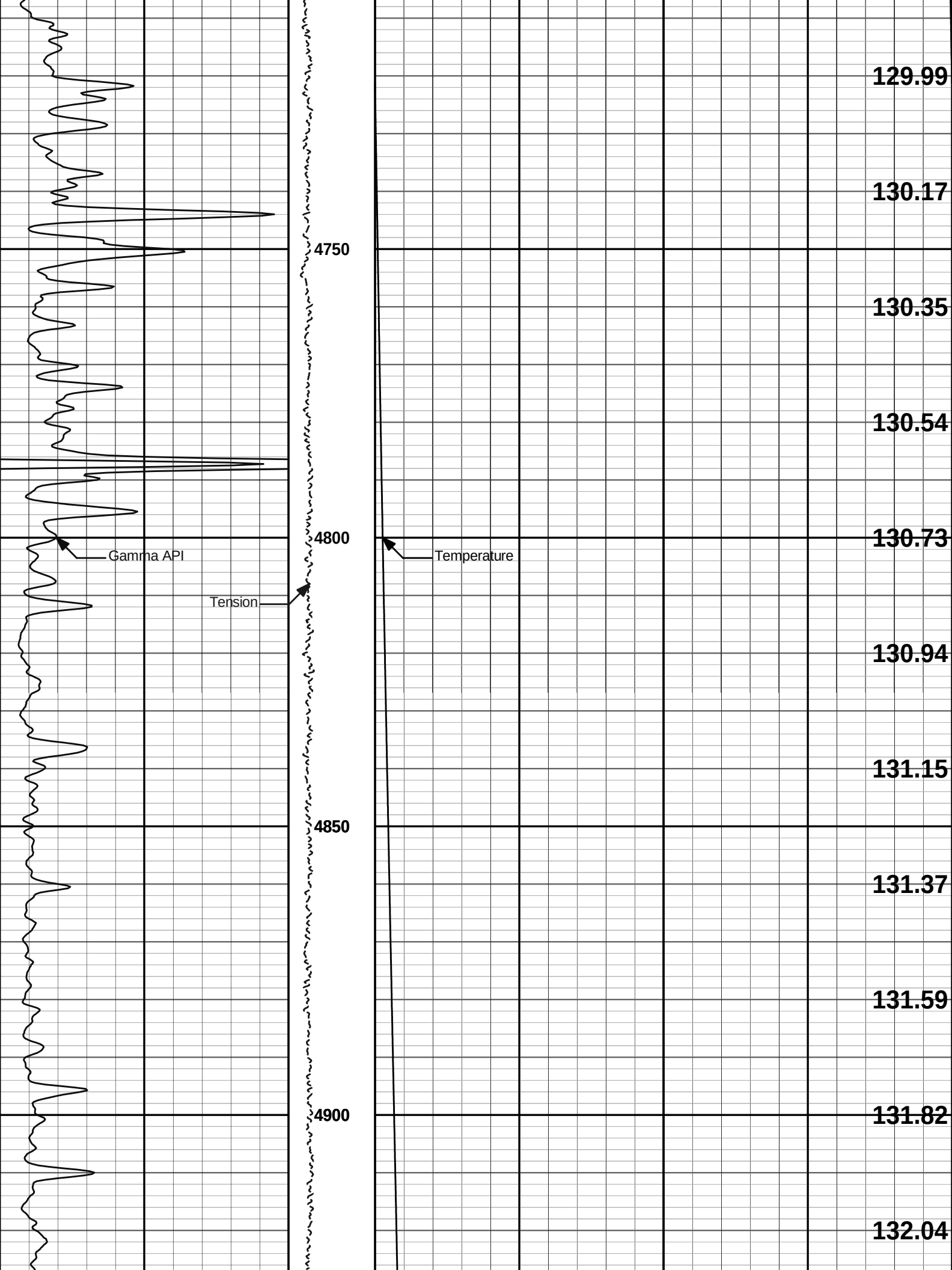
129.60
129.79


129.99
130.17
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130.54
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Temperature
Tension
130.94
131.15
4850
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4900
131.82
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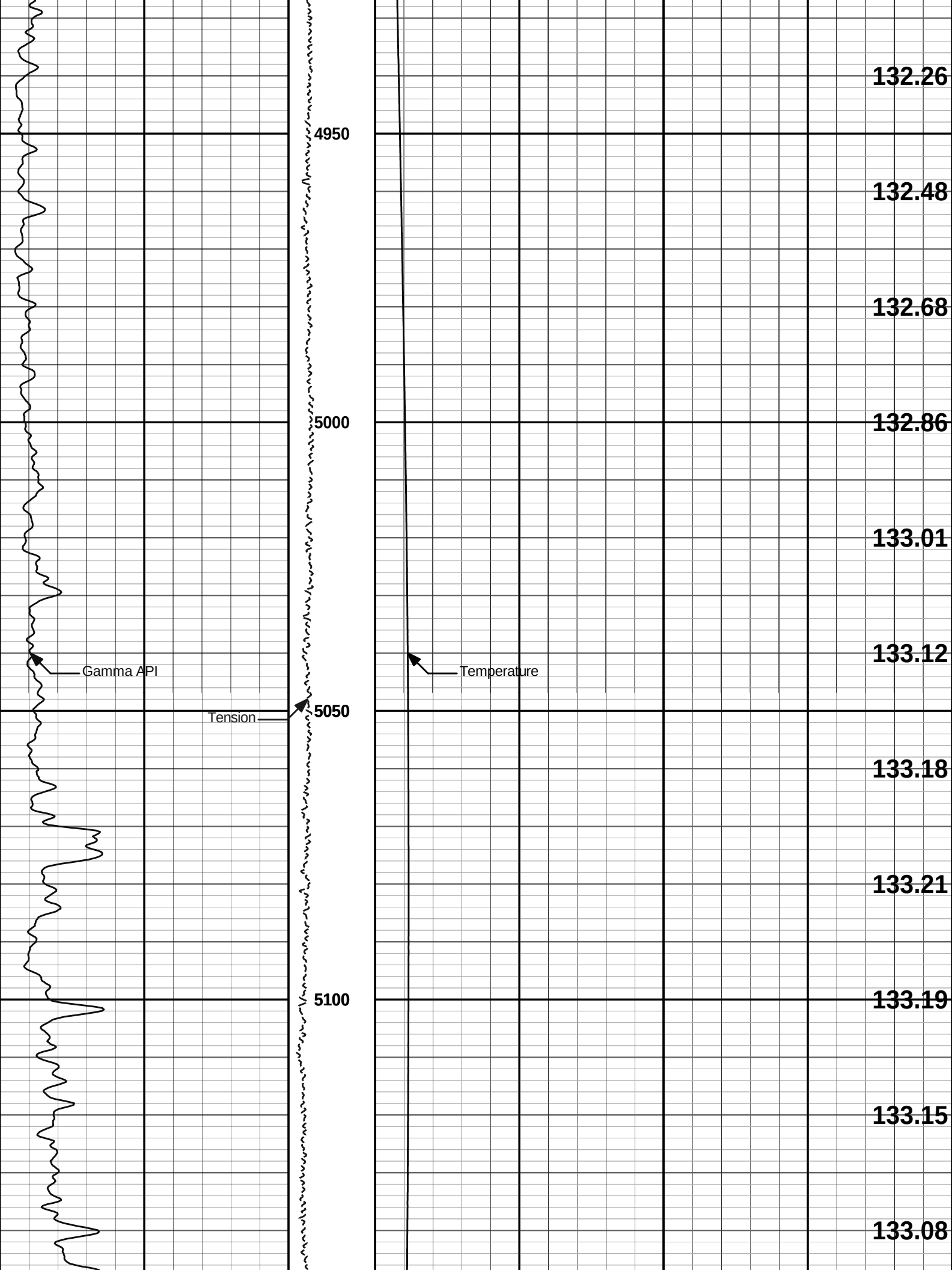
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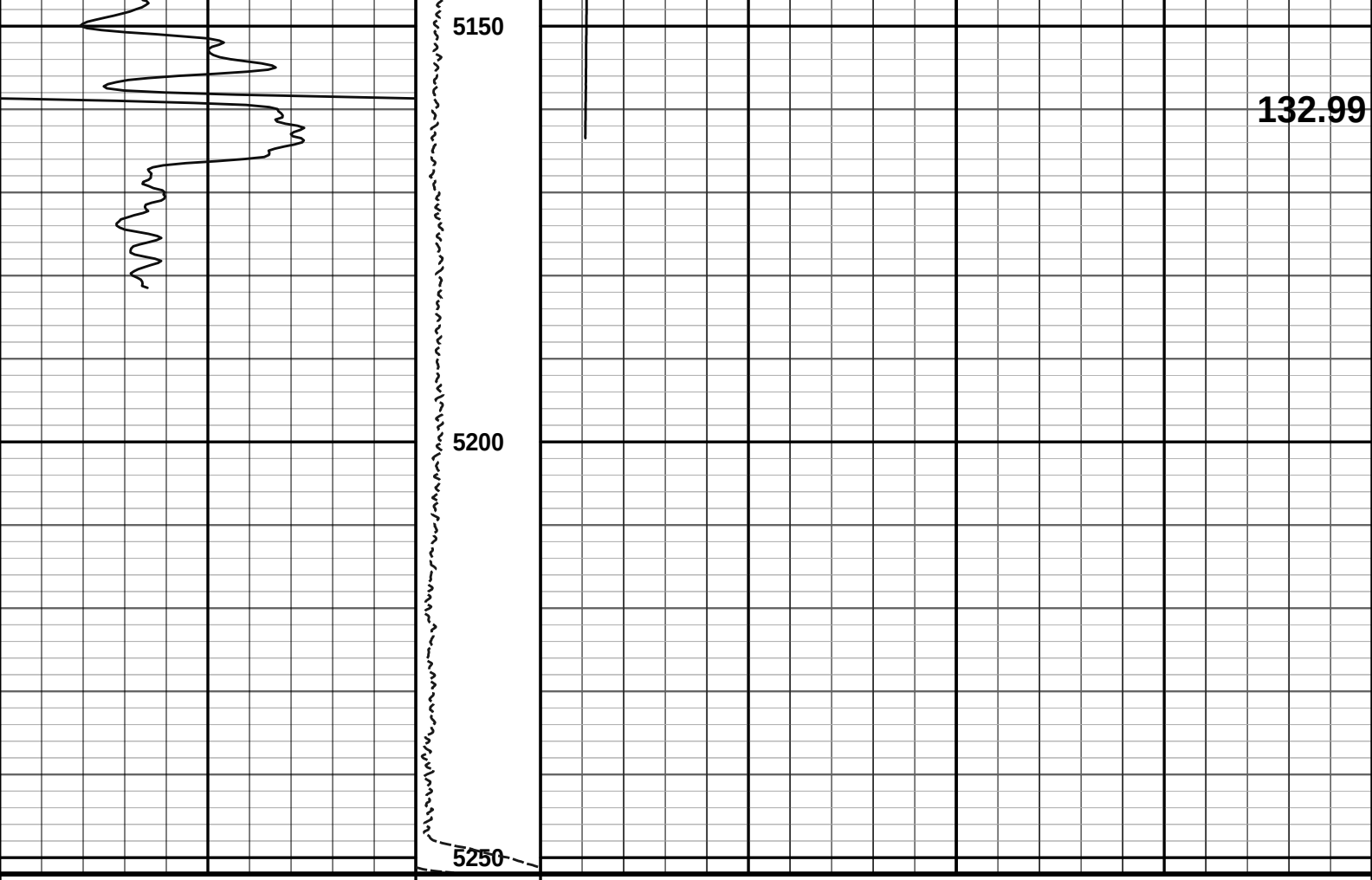


0 Gamma API 150	1.5K Tension 200	Temperature
api	pounds	fahrenheit
	MD 1 : 240 ft	75 Temperature 130 fahrenheit

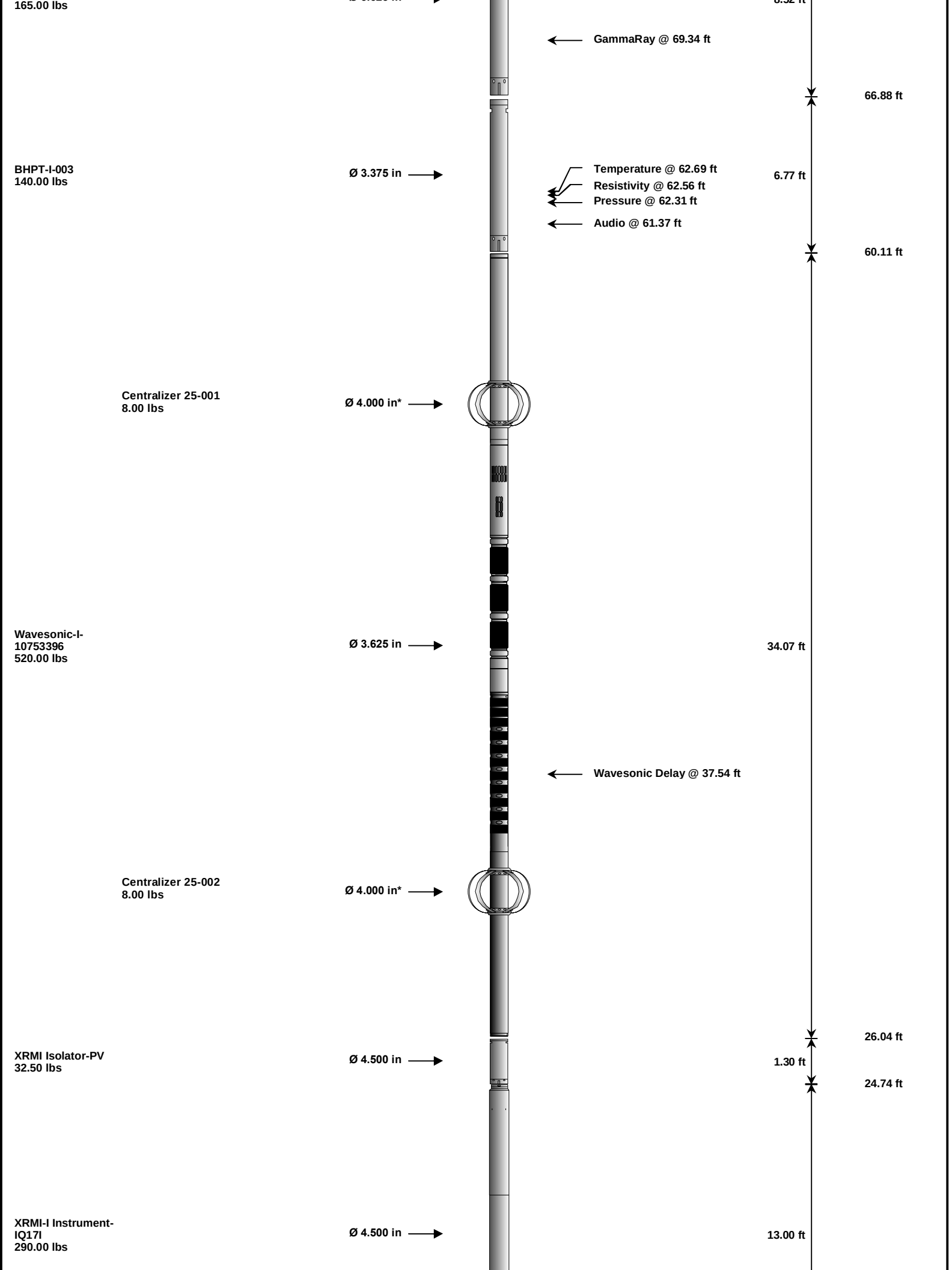
HALLIBURTON

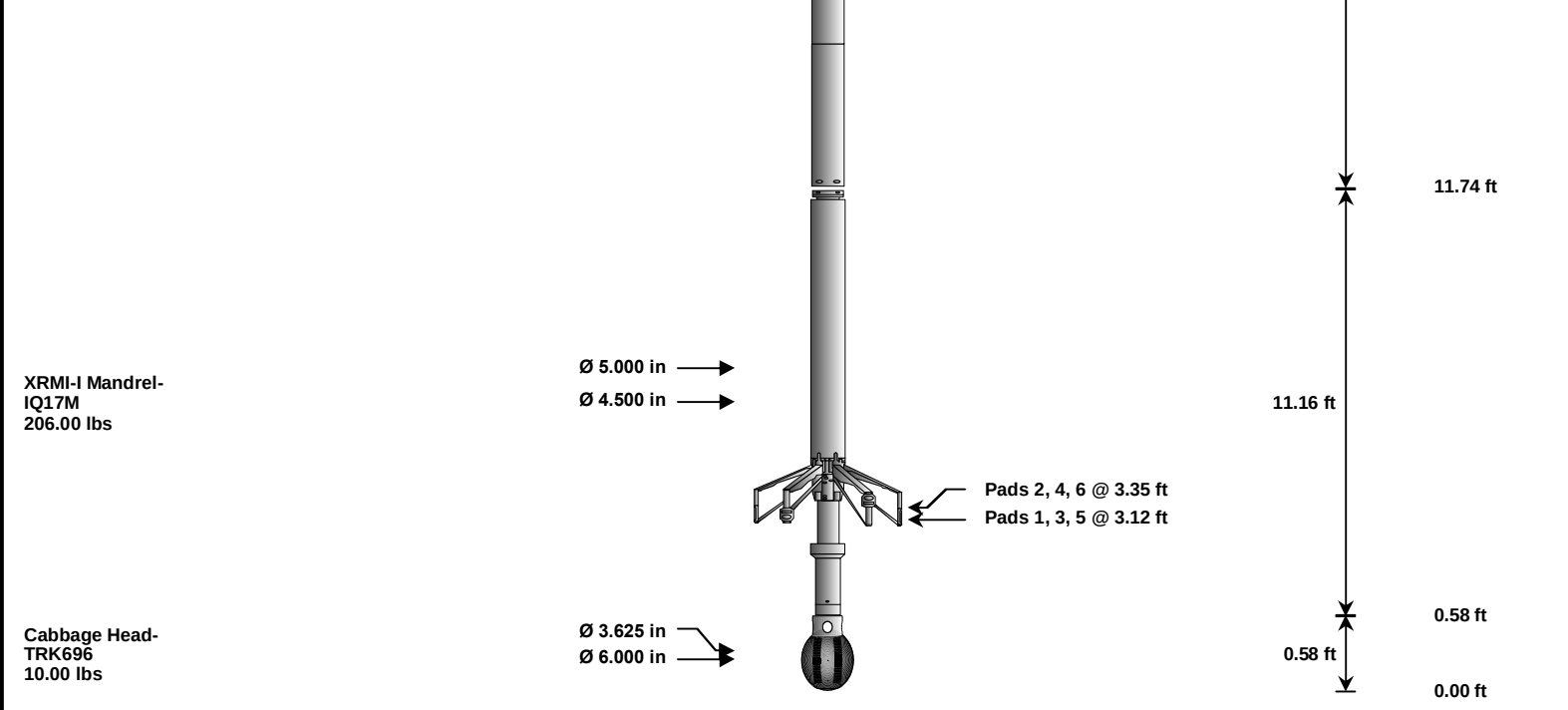
Plot Time: 04-Mar-11 16:51:44
Plot Range: 0 ft to 5251.83 ft
Data: WELLINGTON_1_28\Well Based\DAQ-0003-MAIN\
Plot File: \\BHPT\GR TIE IN

HALLIBURTON

TOOL STRING DIAGRAM REPORT

Description	Overbody Description	O.D.	Diagram	Sensors @ Delays	Length	Accumulated Length
						83.12 ft
CH_HOS-CH_696 37.50 lbs		Ø 2.750 in		Temperature @ 82.09 ft	3.03 ft	
						80.09 ft
XOHD-TRK696 20.00 lbs		Ø 2.750 in Ø 3.625 in			0.95 ft	
						79.14 ft
SP Sub-PROT01 60.00 lbs		Ø 3.625 in		SP @ 77.36 ft	3.74 ft	
						75.40 ft
GTET-11039640		Ø 3.625 in			8.52 ft	


165.00 lbs
GammaRay @ 69.34 ft
66.88 ft
BHPT-I-003
140.00 lbs
Ø 3.375 in
Temperature @ 62.69 ft
Resistivity @ 62.56 ft
Pressure @ 62.31 ft
6.77 ft
Audio @ 61.37 ft
60.11 ft
Centralizer 25-001
8.00 lbs
Ø 4.000 in*
Wavesonic-I-
10753396
520.00 lbs
Ø 3.625 in
34.07 ft
Wavesonic Delay @ 37.54 ft
Centralizer 25-002
8.00 lbs
Ø 4.000 in*
26.04 ft
XRMI Isolator-PV
32.50 lbs
Ø 4.500 in
1.30 ft
24.74 ft
XRMI-I Instrument-
IQ17I
290.00 lbs
Ø 4.500 in
13.00 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		80.09	300.00
XOHD	Hostile to Dits Cross Over	TRK696	20.00	0.95		79.14	300.00
SP	SP Sub	PROT01	60.00	3.74		75.40	300.00
GTET	Gamma Telemetry Tool	11039640	165.00	8.52		66.88	60.00
BHPT	Borehole Properties Tool - Insite	003	140.00	6.77		60.11	100.00
WSTT	WaveSonic Insite	10753396	520.00	34.07		26.04	30.00
OBCEN	Centralizer - 25 in. Overbody	002	8.00	2.08	*	31.40	300.00
OBCEN	Centralizer - 25 in. Overbody	001	8.00	2.08	*	52.53	300.00
	Isolator for the XRMI tool	PV	32.50	1.30		24.74	300.00
XRMI	XRMI Navigation - Insite	IQ17I	290.00	13.00		11.74	30.00
XRMI-I	XRMI Imager - Insite	IQ17M	206.00	11.16		0.58	30.00
CBHD	Cabbage Head	TRK696	10.00	0.58		0.00	300.00
Total			**1,497.00**	**83.12**			

* Not included in Total Length and Length Accumulation.

Data: WELLINGTON_1_28\0002 SP-GTET-BHPT-WSTT-XRMI-CH\IDLE **Date: 04-Mar-11 10:25:12**

HALLIBURTON

CALIBRATION REPORT

BOREHOLE PROPERTIES TOOL SHOP CALIBRATION

Tool Name: BHPT-I - 003 **Reference Calibration Date:** 01-Jan-70 00:00:00

Engineer: WHITLOCK **Calibration Date:** 24-Oct-07 16:22:40

Software Version: WL INSITE R2.0 (Build 18) **Calibration Version:** 1

Measurement	Measured	Calibrated	Units
Temperature	32.00	372.2	degF
Pressure	14.7000	12984.17	psia
Resistivity	0.0000	0.1363	ohmm

BHPT Tool Constants

Constant	0	1	2	3	4
Pressure G	3.4473001099e+002	-1.0561000109e+000	4.0286998264e-003	-5.2413001868e-006	0.0000000000e+000
Pressure H	6.5513000488e+002	-2.1934999526e-001	1.5268999850e-003	-2.7466001029e-006	0.0000000000e+000

Pressure I	-1.8423999548e+000	3.7569999695e-002	-2.4074999965e-004	4.2951998580e-007	0.0000000000e+000
Pressure J	6.0139000416e-002	-1.2822999852e-003	7.9179999375e-006	-1.3082999573e-008	0.0000000000e+000
Pressure K	0.0000000000e+000	0.0000000000e+000	0.0000000000e+000	0.0000000000e+000	0.0000000000e+000
Pressure T	4.2484001160e+001	4.4630999565e+000	4.0759000182e-001	-6.2828999944e-003	0.0000000000e+000
Temperature	0.0000000000e+000	0.0000000000e+000	0.0000000000e+000	0.0000000000e+000	0.0000000000e+000

HIGH RESOLUTION TEMPERATURE TOOL SHOP CALIBRATION

Tool Name:	**BHPT-I - 003**	**Reference Calibration Date:**	**30-Jul-09 10:03:32**
Engineer:	**T. BRIDGEMAN**	**Calibration Date:**	**03-Nov-10 21:57:05**
Software Version:	**WL INSITE R3.2.0 (Build 7)**	**Calibration Version:**	**1**

Calibration Summary

Measurement	Previous Raw Value	Current Raw Value	Units
Ambient Temperature	77.00	71.27	degF

CALIBRATION SUMMARY

Sensor	Shop	Field	Post	Difference	Tolerance	Units
BHPT-I-003						
Temperature:	71.27	----------	----------	0.00	+/- xxxx	degF

Data: WELLINGTON_1_28\0002 SP-GTET-BHPT-WSTT-XRMI-CH\IDLE **Date: 04-Mar-11 10:25:56**

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PARAMETERS REPORT

Depth (ft)	Tool Name	Mnemonic	Description	Value	Units
TOP					
	SHARED	CSD	Logging Interval is Cased?	Yes	
	SHARED	CSOD	Inner Casing OD size	8.625	in
	SHARED	CSWT	Casing Weight	20.00	lbpf
	SHARED	ISOC	Is Outer Casing Present?	No	
	SHARED	CSCM	Casing Cemented	Yes	
	SHARED	CMWT	Cement Weight	16.500	ppg
648.00					
	XRMI-I Mandrel	DIMG	Process XRMI?	No	
2200.00					
	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	9.000	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	1.260	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	5250.00	ft
	SHARED	BHT	Bottom Hole Temperature	130.0	degF

SHARED	SVTM	Navigation and Survey Master Tool	XRMI-I Instrument	
SHARED	AZTM	High Res Z Accelerometer Master Tool	XRMI-I Instrument	
SHARED	TEMM	Temperature Master Tool	NONE	
SHARED	BHSM	Borehole Size Master Tool	NONE	
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	Centered	
BHPT-I	CASO	Compute BHPT Results	Yes	
BHPT-I	TTMP	Internal Tool Temperature	0.0	degF
BHPT-I	TOLP	Tool Pressure	0.00	
BHPT-I	UFIN	Use fixed inclination?	Yes	
BHPT-I	DEVF	Fixed Inclination Value	0.0	deg
BHPT-I	TEME	Process High Resolution Temperature Tool?	Yes	
Wavesonic-I	WSOK	Process WSTT?	Yes	
Wavesonic-I	MSWN	Monopole Sliding Window Length	-1.00	us
Wavesonic-I	DSWN	Dipole Sliding Window Length	-1.00	us
Wavesonic-I	PINT	Process 1 Sample and Skip	0	
Wavesonic-I	PROM	Process Mode: M=1,MX=2,MY=3,MXY=4	4	
Wavesonic-I	SMTH	Semblance Smoothing	-2.00	
Wavesonic-I	DTSH	Delta -T Shale	100.00	uspf
Wavesonic-I	DTMT	Delta -T Matrix Type	User define	
Wavesonic-I	DTMA	Delta -T Matrix	47.60	uspf
Wavesonic-I	DTFL	Delta -T Fluid	189.00	uspf
Wavesonic-I	RHOM	Matrix Density	2.7100	g/cc
Wavesonic-I	RHOF	Fluid Density	1.0000	g/cc
Wavesonic-I	STOL	Slow Tolerance	40.00	
Wavesonic-I	SMTL	Semblance Tolerance	0.25	
Wavesonic-I	SMTL	Semblance Cutoff	0.25	
Wavesonic-I	VPVS	VPVS Ratio	1.40	
Wavesonic-I	APEQ	Acoustic Porosity Equation	Wylie	
Wavesonic-I	SHAO	Show Advanced Options?	Yes	
Wavesonic-I	WRNM	Wavesonic Receiver Normalization Method	None	
Wavesonic-I	DTRM	Transmitter to First Receiver Distance - Mono	10.24	ft
Wavesonic-I	DTRX	Transmitter to First Receiver Distance Dipole X	9.24	ft
Wavesonic-I	DTRY	Transmitter to First Receiver Distance Dipole Y	9.24	ft
Wavesonic-I	DIRM	Receiver Spacing	0.50	ft
Wavesonic-I	NRAM	Number of Receivers in Array	8	
Wavesonic-I	DWCM	Digitizer Word Count Monopole	400	
Wavesonic-I	DSIM	Digitizer Sample Interval - Monopole	20.3174	us
Wavesonic-I	WDDM	Waveform Digitization Delay Monopole	-304.761	us
Wavesonic-I	DWCX	Digitizer Word Count Dipole X	400	
Wavesonic-I	DSIX	Digital Sample Interval Dipole X	40.635	us
Wavesonic-I	WDDX	Waveform Digitization Delay Dipole X	-304.761	us
Wavesonic-I	DWCY	Digitizer Word Count Dipole Y	400	
Wavesonic-I	DSIY	Digital Sample Interval Dipole Y	40.635	us
Wavesonic-I	WDDY	Waveform Digitization Delay Dipole Y	-304.761	us
Wavesonic-I	NAVS	Navigation Source Tool	XRMI-I Instrument	
XRMI-I Instrument	WRTI	Survey Writing Interval	30	ft
XRMI-I Instrument	SOPT	Smoothing Option	None	
XRMI-I Mandrel	DIMG	Process XRMI?	Yes	
XRMI-I Mandrel	ROTI	Rotate Image (N-E-S-W-N)?	Yes	
XRMI-I Mandrel	AGN	Use Button Auto Gain?	Yes	

XRMI-I Mandrel	BCLR	Button Auto Gain Color	127	
XRMI-I Mandrel	BFIL	Button Auto Gain Filter	0.020	
XRMI-I Mandrel	BGAN	Button Gain Value	0.001	
XRMI-I Mandrel	BOFF	Button Offset	0	
XRMI-I Mandrel	DIPE	Process Dipmeter Calculations?	Yes	
XRMI-I Mandrel	BHCS	Process Borehole Corrections?	Yes	
XRMI-I Mandrel	CLOK	Process Caliper Outputs?	Yes	

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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	
	CH_HOS			
DHTN	DownholeTension	0.00	BLK	0.000
	SP Sub			
PLTC	Plot Control Mask	77.36	NO	
SP	Spontaneous Potential	77.36	BLK	1.250
SPR	Raw Spontaneous Potential	77.36	NO	
SPO	Spontaneous Potential Offset	77.36	NO	
	GTET			
TPUL	Tension Pull	69.34	NO	
GR	Natural Gamma Ray API	69.34	TRI	1.750
GRU	Unfiltered Natural Gamma Ray API	69.34	NO	
EGR	Natural Gamma Ray API with Enhanced Vertical Resolution	69.34	W	1.416 , 0.750
ACCZ	Accelerometer Z	0.00	BLK	0.083
DEVI	Inclination	0.00	NO	
	BHPT-I			
TPUL	Tension Pull	62.69	NO	
STAT	Status	60.11	NO	
PRES	Pressure Counts	62.31	TRI	0.500
TMCP	Temperature compensation	62.31	BLK	0.500
BTCT	Borehole Temperature Counts	62.69	BLK	0.250
RSVT	Resistivity Voltage	62.56	BLK	0.500
RSCT	Resistivity Current	62.56	BLK	0.500
PSCF	Pressure Counts Filtered	62.31	BLK	50.000
DEVI	BHPT Inclination	62.31	NO	
2P5V	2.5 Volt Power Supply Reference	60.11	NO	
BABN	Borehole Audio Bins	61.37	BLK	1.250
BABD	Borehole Audio Bands	61.37	BLK	1.250
APWR	Borehole Audio Power Bins	61.37	BLK	1.250
BPWR	Borehole Audio Power Bands	61.37	BLK	1.250
TPUL	Tension Pull	63.19	NO	
TEMP	Temperature Counts	62.69	BLK	0.250
TEMP	Temperature Delayed	64.69	BLK	0.250

Wavesonic-I			
TPUL	Tension Pull	37.54	NO
DPSX	Dipole Source X Structurel	26.04	NO
DPSY	Dipole Source Y Structurel	26.04	NO
DPSM	Monopole Source Structure	26.04	NO
WVST	Wavesonic Compressed Data	37.54	NO
TPUL	Tension Pull	37.54	NO
XMS1	Wave Sonic Status Word 1	26.04	NO
XMS2	Wave Sonic Status Word 2	26.04	NO
XMS1	Wave Sonic XMITStatus Word 1	26.04	NO
XMS1	Wave Sonic XMITStatus Word 2	26.04	NO
F1HA	Dipole 1 HV After	26.04	NO
F1HB	Dipole 1 HV Before	26.04	NO
F2HA	Dipole 2 HV After	26.04	NO
F2HB	Dipole 2 HV Before	26.04	NO
F3HA	Monopole HV After	26.04	NO
F3HB	Monopole HV Before	26.04	NO
INVT	Input Voltage	26.04	NO
5VOL	5 Volts	26.04	NO
MI5A	Minus 5 Volts Analog	26.04	NO
ITMP	Instrument Temperature	26.04	NO
PL5A	Plus 5 Volts Analog	26.04	NO
5VD	Plus 5 Volts Digital	26.04	NO
TCUR	Tool Current	26.04	NO
SUPV	Supply Voltage	26.04	NO
PRVT	Preregulated voltage	26.04	NO
PRVT	Pre-regulated voltage Xmter	26.04	NO
TEMP	Temperature	26.04	NO
ACQN	Acquisition Number	26.04	NO
XDP	Delay Reference	37.54	NO
MITM	MIT Mode	37.54	NO
VERS	Version	26.04	NO
D1CT	Dipole 1 Compressed Word Count	37.54	NO
D2CT	Dipole 2 Compressed Word Count	37.54	NO
MCNT	Monopole Compressed Word Count	37.54	NO
SEQN	Sequence Number	26.04	NO
FREV	Firmware Revision	26.04	NO
MSMP	Monopole Sample Rate	26.04	NO
MSMP	Dipole Sample Rate	26.04	NO
MFWF	Monopole Firing Waveform	26.04	NO
MFRQ	Monopole Frequency	26.04	NO
MDLY	Monopole Delay	26.04	NO
DXWF	Dipole X Firing Waveform	26.04	NO
XFRQ	Dipole X Frequency	26.04	NO
XDLY	Dipole X Delay	26.04	NO
DYWF	Dipole Y Firing Waveform	26.04	NO
YFRQ	Dipole Y Frequency	26.04	NO
YDLY	Dipole Y Delay	26.04	NO
DPSX	Dipole Source X Structurel	26.04	NO
DPSY	Dipole Source Y Structurel	26.04	NO
DPSM	Monopole Source Structure	26.04	NO
WVST	Wavesonic Compressed Data	37.54	NO
AUTM	Auto Mode	26.04	NO
SONM	tool mode for sonic - 0 for normal or 3 for calibration	26.04	NO
MSL	Monopole Lower Travel Time	37.54	NO
MSH	Monopole Upper Travel Time	37.54	NO

MLFC	Monopole Lower Frequency Cut-off	26.04	NO
MUFC	Monopole Upper Frequency Cut-off	26.04	NO
DLTT	Dipole Lower Travel Time	26.04	NO
DUTT	Dipole Upper Travel Time	26.04	NO
DLFC	Dipole Lower Frequency Cut-off	26.04	NO
DUFC	Dipole Upper Frequency Cut-off	26.04	NO
MUTE	WaveSonic Mute/Enable Channels and Sides map	26.04	NO
MUTS	Mute/Enable Sides	26.04	NO
WSRB	Relative Bearing	37.54	NO
WSAZ	WSX Azimuth Pad 1	37.54	NO
TPUL	Tension Pull	37.54	NO
WMP	Summed array of Monopole for SIDES - A,B,C,D	37.54	NO
WXX	Dipole X for SIDES - A-C	37.54	NO
WYY	Dipole X for SIDES - B-D	37.54	NO
WXY	Dipole X for SIDES - B-D	37.54	NO
WYX	Dipole Y for SIDES - A-C	37.54	NO
TPUL	Tension Pull	37.54	NO
WMA	Monopole Waveform Side A - Channel 1 to Channel 8 Receivers	37.54	NO
WMB	Monopole Waveform Side B - Channel 1 to Channel 8 Receivers	37.54	NO
WMC	Monopole Waveform Side C - Channel 1 to Channel 8 Receivers	37.54	NO
WMD	Monopole Waveform Side D - Channel 1 to Channel 8 Receivers	37.54	NO
WXA	Dipole X Waveform Side A - Channel 1 to Channel 8 Receivers	37.54	NO
WXB	Dipole X Waveform Side B - Channel 1 to Channel 8 Receivers	37.54	NO
WXC	Dipole X Waveform Side C - Channel 1 to Channel 8 Receivers	37.54	NO
WXD	Dipole X Waveform Side D - Channel 1 to Channel 8 Receivers	37.54	NO
WAY	Dipole Y Waveform Side A - Channel 1 to Channel 8 Receivers	37.54	NO
WYB	Dipole Y Waveform Side B - Channel 1 to Channel 8 Receivers	37.54	NO
WYC	Dipole Y Waveform Side C - Channel 1 to Channel 8 Receivers	37.54	NO
WYD	Dipole Y Waveform Side D - Channel 1 to Channel 8 Receivers	37.54	NO

XRMI-I Mandrel			
TPUL	Tension Pull	3.35	NO
PAD1	XRMI Pad 1 values	3.12	NO
PAD2	XRMI Pad 2 values	3.12	NO
PAD3	XRMI Pad 3 values	3.12	NO
PAD4	XRMI Pad 4 values	3.12	NO
PAD5	XRMI Pad 5 values	3.12	NO
PAD6	XRMI Pad 6 values	3.12	NO
OD1	EMI Odd Button Values Pad 1	3.12	NO
OD2	EMI Odd Button Values Pad 2	3.35	NO
OD3	EMI Odd Button Values Pad 3	3.12	NO
OD4	EMI Odd Button Values Pad 4	3.35	NO
OD5	EMI Odd Button Values Pad 5	3.12	NO
OD6	EMI Odd Button Values Pad 6	3.35	NO
EV1	EMI Even Button Values Pad 1	3.14	NO
EV2	EMI Even Button Values Pad 2	3.32	NO
EV3	EMI Even Button Values Pad 3	3.14	NO
EV4	EMI Even Button Values Pad 4	3.32	NO
EV5	EMI Even Button Values Pad 5	3.14	NO

EV6	EMI Even Button Values Pad 6	3.32	NO	
ITMP	Instrument Temperature	0.58	NO	
EMIM	Tool Mode	0.58	NO	
HAZI	Hole Azimuth	2.87	NO	
HAZI	Hole Azimuth - Down Delay	3.37	NO	
ZACC	Accelerometer Z	3.12	NO	
TPUL	Tension Pull	3.35	NO	
FIR1	Current Button R - Pad 1	3.12	NO	
FIR2	Current Button R - Pad 2	3.35	NO	
FIR3	Current Button R - Pad 3	3.12	NO	
FIR4	Current Button R - Pad 4	3.35	NO	
FIR5	Current Button R - Pad 5	3.12	NO	
FIR6	Current Button R - Pad 6	3.35	NO	
FIX1	Current Button X - Pad 1	3.12	NO	
FIX2	Current Button X - Pad 2	3.35	NO	
FIX3	Current Button X - Pad 3	3.12	NO	
FIX4	Current Button X - Pad 4	3.35	NO	
FIX5	Current Button X - Pad 5	3.12	NO	
FIX6	Current Button X - Pad 6	3.35	NO	
SIR1	Current Slow Button R - Pad 1	3.12	BLK	3.000
SIR2	Current Slow Button R - Pad 2	3.35	BLK	3.000
SIR3	Current Slow Button R - Pad 3	3.12	BLK	3.000
SIR4	Current Slow Button R - Pad 4	3.35	BLK	3.000
SIR5	Current Slow Button R - Pad 5	3.12	BLK	3.000
SIR6	Current Slow Button R - Pad 6	3.35	BLK	3.000
SIX1	Current Slow Button X - Pad 1	3.12	BLK	3.000
SIX2	Current Slow Button X - Pad 2	3.35	BLK	3.000
SIX3	Current Slow Button X - Pad 3	3.12	BLK	3.000
SIX4	Current Slow Button X - Pad 4	3.35	BLK	3.000
SIX5	Current Slow Button X - Pad 5	3.12	BLK	3.000
SIX6	Current Slow Button X - Pad 6	3.35	BLK	3.000
EMMR	Phasor Voltage - Real Part	3.12	NO	
EMMX	Phasor Voltage - Imaginary Part	3.12	NO	
PADV	Pad Voltage	0.58	BLK	0.250
ITMP	Instrument Temperature	0.58	BLK	0.000
CON1	Conductivity Pad 1	3.12	BLK	3.000
CON2	Conductivity Pad 2	3.35	BLK	3.000
CON3	Conductivity Pad 3	3.12	BLK	3.000
CON4	Conductivity Pad 4	3.35	BLK	3.000
CON5	Conductivity Pad 5	3.12	BLK	3.000
CON6	Conductivity Pad 6	3.35	BLK	3.000
UIR2	Current Button R No Delay - Pad 2	3.12	NO	
UIR4	Current Button R No Delay - Pad 4	3.12	NO	
UIR6	Current Button R No Delay - Pad 6	3.12	NO	
UIX2	Current Button X No Delay - Pad 2	3.12	NO	
UIX4	Current Button X No Delay - Pad 4	3.12	NO	
UIX6	Current Button X No Delay - Pad 6	3.12	NO	
TPUL	Tension Pull	3.35	NO	
ARM1	Caliper 1 measurement	3.12	BLK	0.000
ARM2	Caliper 2 measurement	3.12	BLK	0.000
ARM3	Caliper 3 measurement	3.12	BLK	0.000
ARM4	Caliper 4 measurement	3.12	BLK	0.000
ARM5	Caliper 5 measurement	3.12	BLK	0.000
ARM6	Caliper 6 measurement	3.12	BLK	0.000
MOTV	Motor Voltage Monitor 1	3.12	BLK	0.000
PRES	Caliper percentage of total compression of the spring	0.58	BLK	0.000

HAZI	Hole Azimuth	3.12	NO
RB	Relative Bearing	3.12	NO
AZI1	PAD1 Azimuth	3.12	NO
DEVI	Inclination	3.12	NO

Data: WELLINGTON_1_28\0002 SP-GTET-BHPT-WSTT-XRMI-CH\IDLE **Date: 04-Mar-11 10:33:31**

COMPANY	**BEREXCO INC.**		
WELL	**WELLINGTON KGS #1-28**		
FIELD	**WELLINGTON**		
COUNTY	**SUMNER**	STATE	**KANSAS**

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BOREHOLE TEMPERATURE LOG