



Weatherford®

4 3/4 in. WeatherfordM/LWD™
Gamma Ray & Resistivity
1 in. & 5 in. MEASURED DEPTH
RECORDED DATA
FINAL PRINT

Company: Anadarko
Well: D&C Farms 13C-33HZ
Field: Wattenberg
Rig: Xtreme 23
County: Weld

COMPANY	<u>Anadarko</u>
WELL	<u>D&C Farms 13C-33HZ</u>
FIELD	<u>Wattenberg</u>
RIG	<u>Xtreme 23</u>
COUNTY	<u>Weld</u>
STATE	<u>Colorado</u>
API #	<u>05-123-37889</u>

Location		
Latitude: 40.016204° N	X = 3,168,174.45 ft	Mag Decl: 0.8.63°
Longitude: 104.899559° W	Y = 1,249,318.91 ft	Mag Dip: 66.63°
Other Services: Directional and Temperature		

Permanent Datum: <u>Mean Sea Level</u>	
Log Measured From: <u>Drill Floor</u>	Elev: <u>5033.0 ft</u> above perm. datum
Depth Reference: <u>Drillers Tally</u>	Total Depth: <u>13010 ft</u>
Depth Logged: 7226 ft	Runs: 5
Date Logged: 5-Oct-13	Spud Date: 13-Sep-13
	Elevation
	K.B. Top Drive
	G.L. 5008.0 ft
	D.F. 5033.0 ft
	W.D. Land

Borehole Record			Casing Record			
Hole Size	From	To	Size	Weight	From	To
8.750 in.	7267 ft	8266 ft	9.625 in.	55.0 lb/ft	Surface	794 ft
6.125 in.	8266 ft	13010 ft	7.000 in.	39.0 lb/ft	Surface	8271 ft

Borehole Deviation Record			Mud Record			
Hole Size	Min. Inc.	Max. Inc.	Type	Weight	From	To
8.750 in.	3.20°	87.27°	WBM	8.90 - 10.25 ppq	7267 ft	13010 ft
6.125 in.	87.78°	92.22°				

All interpretations of log data are opinions based on inferences from electrical or other measurements. Weatherford International does not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

Run Summary							
M/LWD Run Number	1	2	3	4	5		
Bit Size in.	8.750	8.750	8.750	6.125	6.125		
Bit Type	PDC	PDC	PDC	PDC	PDC		
Bit TFA sq.in.	1.388	1.388	1.388	1.534	1.534		
Bit Start Depth ft	7267	7565	8010	8266	9041		
Bit End Depth ft	7565	8010	8266	9041	13010		
Top Log Interval ft	7226	7516	7961	8210	8988		
Bottom Log Interval ft	7565	8010	8266	9041	13010		
Begin Log Time hrs	5:36	1:26	4:58	5:32	4:25		
Begin Log Date DD-MMM-YY	5-Oct-13	6-Oct-13	7-Oct-13	9-Oct-13	10-Oct-13		
End Log Time hrs	14:09	9:15	15:06	12:33	15:19		
End Log Date DD-MMM-YY	5-Oct-13	6-Oct-13	7-Oct-13	9-Oct-13	11-Oct-13		
Drill or Wipe	Drill	Drill	Drill	Drill	Drill		
Flow Rate gal/min	600	450	600	300	270		
Max AV / CV @ MWD ft/min	474 / 239	355 / 362	474 / 353	213 / 208	212 / 281		
Min Inc @ Depth deg @ ft	3.20° @ 7289 ft	25.45° @ 7545 ft	65.86° @ 7972 ft	89.82° @ 8361 ft	87.78° @ 10752 ft		
Max Inc @ Depth deg @ ft	23.39° @ 7459 ft	57.74° @ 7886 ft	87.27° @ 8201 ft	91.23° @ 8958 ft	92.22° @ 9214 ft		
Mud Data							
Depth ft	7565	8010	8266	9041	13010		
Fluid Type	WBM	WBM	WBM	WBM	WBM		
Mud Weight ppG	9.60	10.20	10.25	9.25	8.90		
Plastic Viscosity cP	3	13	12	4	8		
Solids / Sand %	5.7 / 0.3	9.2 / 0.9	11.3 / 0.8	4.7 / 0.9	4.7 / 0.3		
NaCl Equiv. Chlorides ppm	2970	2145	1815	1650	1980		
pH	8.9	9.6	9.6	8.6	9.2		
Oil:Water Ratio % Vol	1.0 : 99.0	1.0 : 99.0	1.0 : 99.0	1.0 : 99.0	1.0 : 99.0		
Rm @ Temperature ohm-m @ deg F	NA	NA	NA	1.70 @ 73	1.70 @ 73		
Rmc @ Temperature ohm-m @ deg F	NA	NA	NA	1.49 @ 73	1.49 @ 73		
Rmf @ Temperature ohm-m @ deg F	NA	NA	NA	0.97 @ 73	0.97 @ 73		
KCl % Vol	0	0	0	0	0		
Client Representative	J. Tuttelton	J. Tuttelton	J. Tuttelton	J. Tuttelton	J. Tuttelton		
WeatherfordLWD Engineer	T. Previto	T. Previto	T. Previto	N. Aaron	N. Aaron		

EQUIPMENT SUMMARY					
M/LWD Run Number	1	2	3	4	5
BTR / CDS Serial Number	454 / 1165	454 / 1165	454 / 1165	NA	NA
Battery Serial Number	403715894	403715894	403715894	NA	NA
Gamma Ray Serial Number	51260	51260	51260	NA	NA
CMS Serial Number	51376	51376	51376	NA	NA
Pulser Serial Number	45600	45600	45600	NA	NA
HEL Serial Number	NA	NA	NA	NW132442PDBBK14.75	NW132442PDBBK14.75
MFR Serial Number	NA	NA	NA	NW132309RSS4.75	NW132309RSS4.75
Sensor to Bit Offsets / Acquisition Rates					
Directional	ft / sec	58.00 / RT	63.28 / RT	65.00 / RT	51.87 / RT
Gamma Ray	ft / sec	43.79 / 16	49.06 / 16	49.02 / 16	55.97 / 10
Resistivity	ft / sec	NA	NA	NA	80.18 / 10
Other Information					
Total BHA Length	ft	112.13	117.30	117.36	96.98
BHA Assembly Type		Steerable	Steerable	Steerable	Steerable
Stabilizer Location	ft	NA	NA	NA	30.69
Run Circulating Time	hr	9.37	9.64	12.57	7.36
Run Drilling Time	hr	4.23	4.98	5.21	3.73

MUD SUMMARY

Date and Time	Run	Bit Depth	Mud Weight	% K	Rm @ Temp	Rmf @ Temp	Rmc @ Temp	BHCT
05 Oct 13 @ 14:09	02	7565 ft	9.60 ppg	0	NA	NA	NA	152 F
06 Oct 13 @ 9:15	03	8010 ft	10.20 ppg	0	NA	NA	NA	161 F
07 Oct 13 @ 15:06	04	8010 ft	10.25 ppg	0	NA	NA	NA	168 F
09 Oct 13 @ 12:33	05	8266 ft	9.25 ppg	0	1.70 ohm-m @ 73 deg F	1.49 ohm-m @ 73 deg F	0.97 ohm-m @ 73 deg F	192 F
11 Oct 13 @ 15:19	06	13010 ft	8.90 ppg	0	1.70 ohm-m @ 73 deg F	1.49 ohm-m @ 73 deg F	0.97 ohm-m @ 73 deg F	229 F

M/LWD RUN REMARKS

Run Number: 1 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Gamma Ray and Temperature.

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Collar O.D.: 6.860 in.

Gamma Ray: Collar O.D., collar I.D. and K1 factor.

Collar I.D.: 3.250 in.

K1 Factor: 3.147

Run Number: 2 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Gamma Ray and Temperature.

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Collar O.D.: 6.860 in.

Gamma Ray: Collar O.D., collar I.D. and K1 factor.

Collar I.D.: 3.250 in.

K1 Factor: 3.147

Run Number: 3 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Gamma Ray and Temperature.

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Collar O.D.:	6.860 in.	Gamma Ray: Collar O.D., collar I.D. and K1 factor.
Collar I.D.:	3.250 in.	
K1 Factor:	3.147	

Run Number: 4 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Gamma Ray, Deep, Medium and Shallow Resistivity, and Temperature

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Hole Size:	6.125 in.	Gamma Ray: Corrected for mud weight, hole size and KCl concentration.
Mud Weight:	12.25 ppg	Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity
Borehole Temperature:	173° F	and dielectric correction.
Drilling Fluid Resistivity:	0.759 ohm-m	
KCl Concentration:	0%	

Run Number: 5 :: RECORDED DATA LOG

WFT Services Provided:

Recorded and Real Time Logging: Gamma Ray, Deep, Medium and Shallow Resistivity, and Temperature

Directional Services: On demand Inclination and Azimuth.

Borehole and Environmental Correction:

Hole Size:	6.125 in.	Gamma Ray: Corrected for mud weight, hole size and KCl concentration.
Mud Weight:	9.0 ppg	Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity
Borehole Temperature:	192° F	and dielectric correction.
Drilling Fluid Resistivity:	0.682 ohm-m	
KCl Concentration:	0%	

M/LWD LOG COMMENTS

Comment No. 1-1

RECORDED DATA LOG

Start of MWD Drilling Run 01

Weatherford International provided 6 3/4 in. Directional, Gamma Ray and Temperature for Run 01.

Run 01 started formation drilling October 5, 2013 at 5:36 at 7267 MD / 7159 TVD. Weatherford International logged the 8.750 in. borehole.

The WBM at the start of drilling was 8.80 ppg.

Comment No. 1-2

End of MWD Drilling Run 01

Run 01 ended drilling formation October 5, 2013 at 14:09 at 7565 MD / 7442 TVD.

The WBM at the end of drilling was 9.60 ppg.

Comment No. 2-1

RECORDED DATA LOG

Start of MWD Drilling Run 02

Weatherford International provided 6 3/4 in. Directional, Gamma Ray and Temperature for Run 02.

Run 02 started formation drilling October 6, 2013 at 1:26 at 7565 MD / 7442 TVD. Weatherford International logged the 8.750 in. borehole.

The WBM at the start of drilling was 8.80 ppg.

Comment No. 2-2

End of MWD Drilling Run 02

Run 02 ended drilling formation October 6, 2013 at 9:15 at 8010 MD / 7748 TVD.

The WBM at the end of drilling was 10.20 ppg.

Comment No. 3-1

RECORDED DATA LOG

Start of MWD Drilling Run 03

Weatherford International provided 6 3/4 in. Directional, Gamma Ray and Temperature for Run 03.

Run 03 started formation drilling October 7, 2013 at 4:58 at 8010 MD / 11913 TVD. Weatherford International logged the 8.750 in. borehole.

The WBM at the start of drilling was 10.00 ppg.

Comment No. 3-2

End of MWD Drilling Run 03

Run 03 ended drilling formation October 7, 2013 at 15:06 at 8266 MD / 7791 TVD.

The WBM at the end of drilling was 10.25 ppg.

Comment No. 4-1

RECORDED DATA LOG

Start of LWD Drilling Run 04

Weatherford International provided 4 3/4 in. Directional, Gamma Ray, Resistivity and Temperature for Run 04.

Run 04 started formation drilling October 9, 2013 at 5:32 at 8266 MD / 7791 TVD. Weatherford International logged the 6.125 in. borehole.

The WBM at the start of drilling was 10.25 ppg.

Comment No. 4-2

End of LWD Drilling Run 04

Run 04 ended drilling formation October 9, 2013 at 12:33 at 9041 MD / 7786 TVD.

The WBM at the end of drilling was 9.25 ppg.

Comment No. 5-1

RECORDED DATA LOG

Start of LWD Drilling Run 05

Weatherford International provided 4 3/4 in. Directional, Gamma Ray, Resistivity and Temperature for Run 05.

Run 05 started formation drilling October 10, 2013 at 4:25 at 9041 MD / 7786 TVD. Weatherford International logged the 6.125 in. borehole.

The WBM at the start of drilling was 9.00 ppg.

Comment No. 5-2

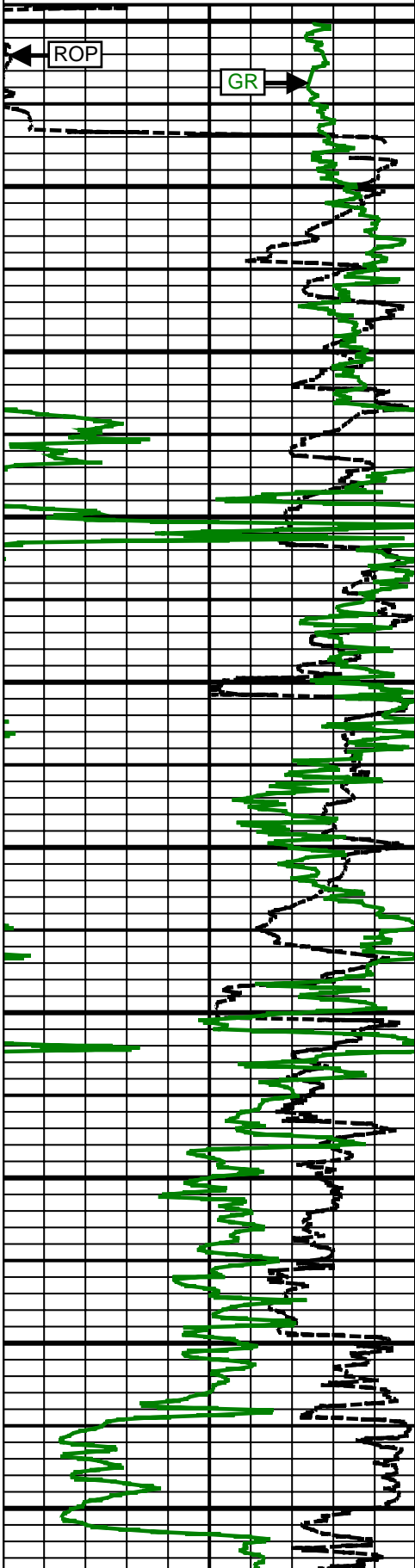
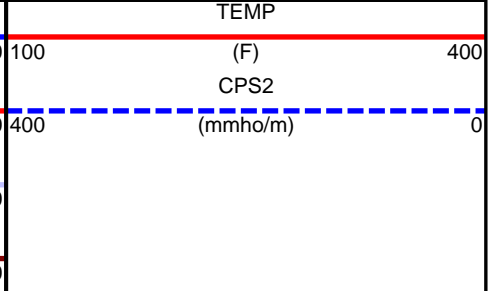
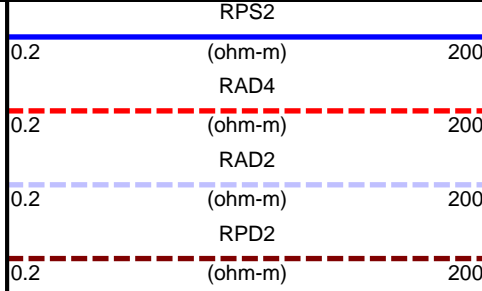
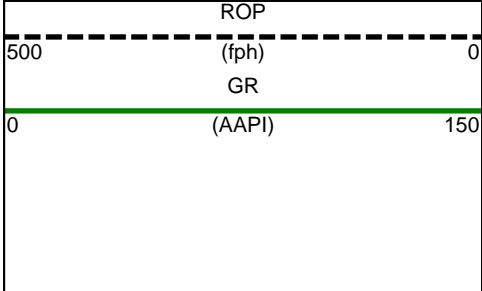
End of LWD Drilling Run 05

Run 05 ended drilling formation October 11, 2013 at 15:19 at 13010 MD / 7802 TVD.

The WBM at the end of drilling was 8.90 ppg.

CURVE SPECIFICATIONS				
CURVE TYPE	MNEMONIC	UNITS	COMMENTS	CORRECTIONS
Rate of Penetration	ROP	fph	Rate of Penetration 3.0 ft window 0.5 ft Exponential Smoothing	None
Gamma Ray	GR	AAPI	Gamma Ray 3.0 ft window 0.5 ft Exponential Smoothing	See M/LWD Run Remarks
Deep Phase Resistivity	RPD2	ohm-m	2 MHz Deep Phase Resistivity 3.0 ft window 0.5 ft Exponential Smoothing	
Deep Attenuation Resistivity	RAD2	ohm-m	2 MHz Deep Attenuation Resistivity 3.0 ft window 0.5 ft Exponential Smoothing	
Deep Attenuation Resistivity	RAD4	ohm-m	400 kHz Deep Attenuation Resistivity 3.0 ft window 0.5 ft Exponential Smoothing	
Deep Phase Conductivity	CPD2	mmho/m	2MHz Deep Phase Conductivity 3.0 ft window 0.5 ft Exponential Smoothing	
Temperature	TEMP	deg Celsius	Recorded Bore hole Tmperature 0.35 m window 0.15 m Exp. Smoothing	None

1 Inch - Measured Depth



7200 MD

7300 MD

7400 MD

7500 MD

7600 MD

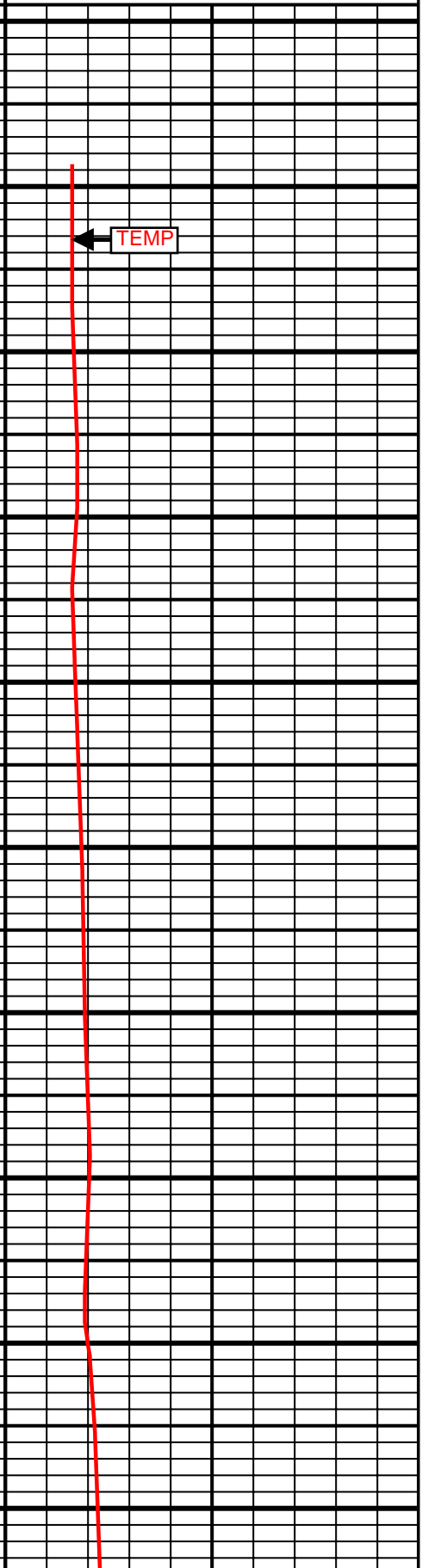
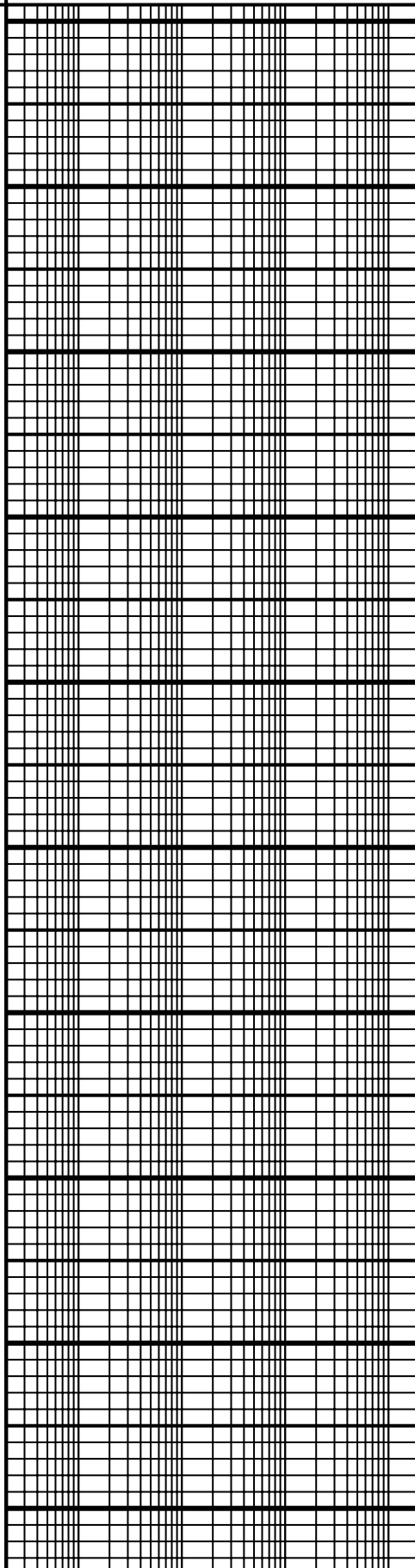
7700 MD

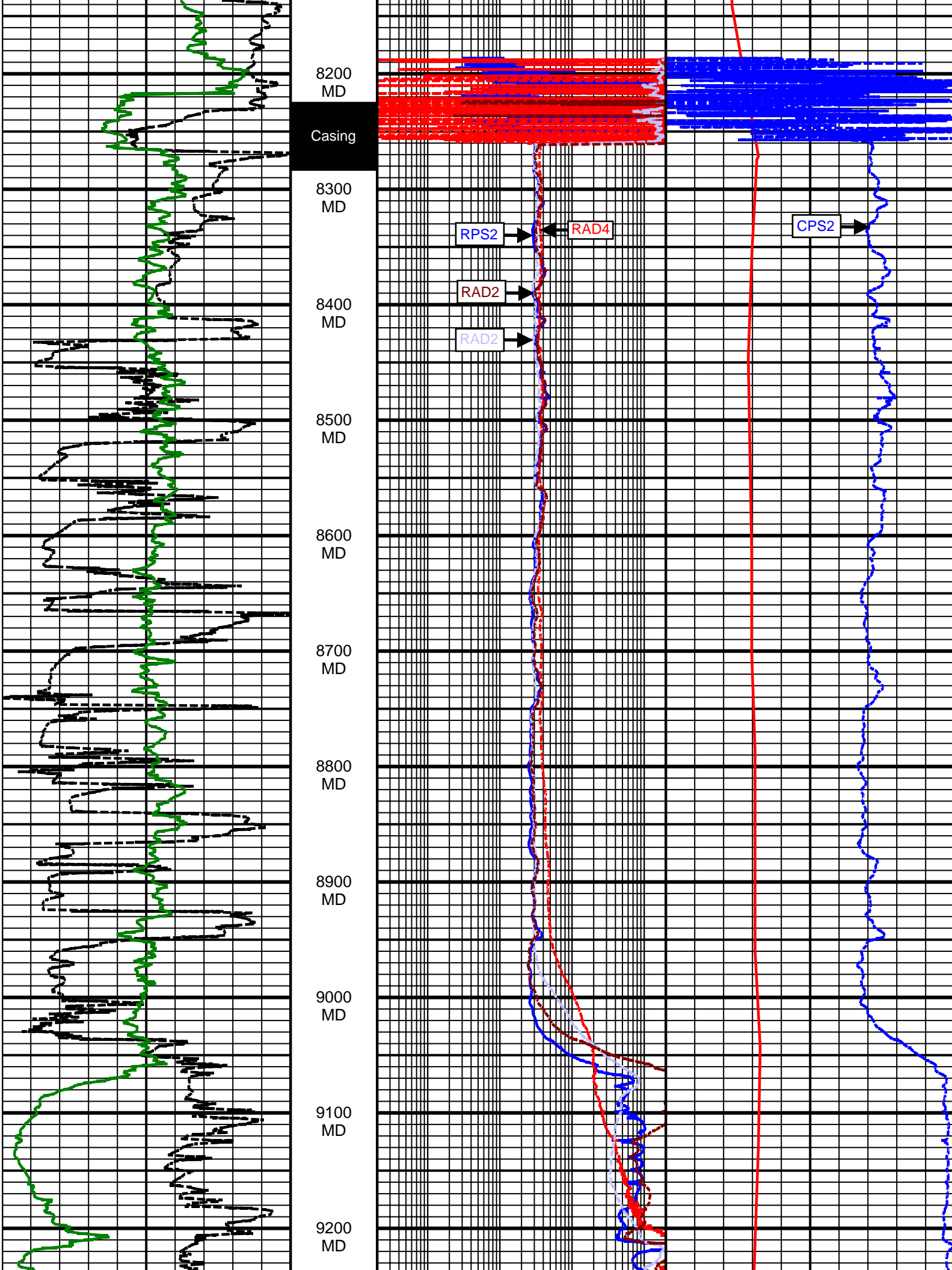
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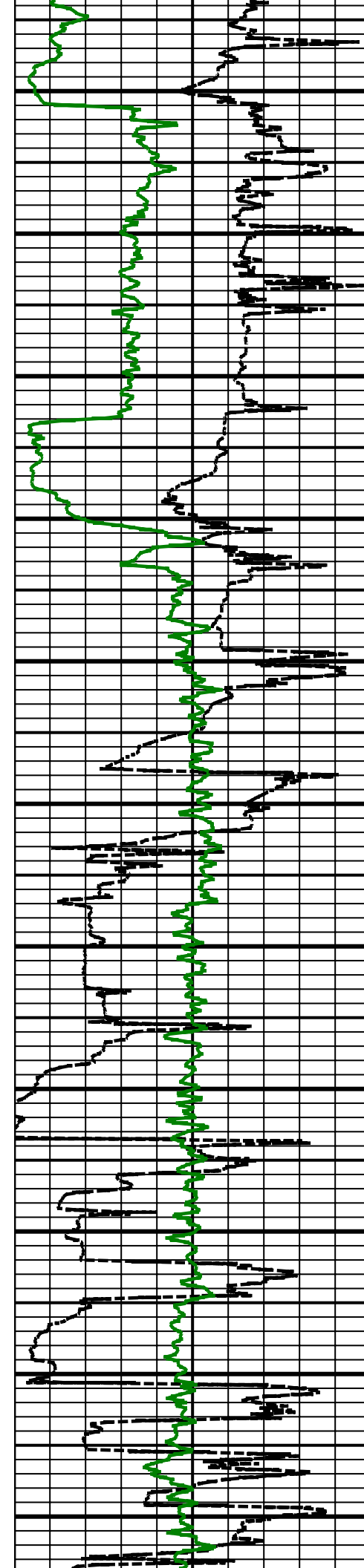
7900 MD

8000 MD

8100 MD







9300
MD

9400
MD

9500
MD

9600
MD

9700
MD

9800
MD

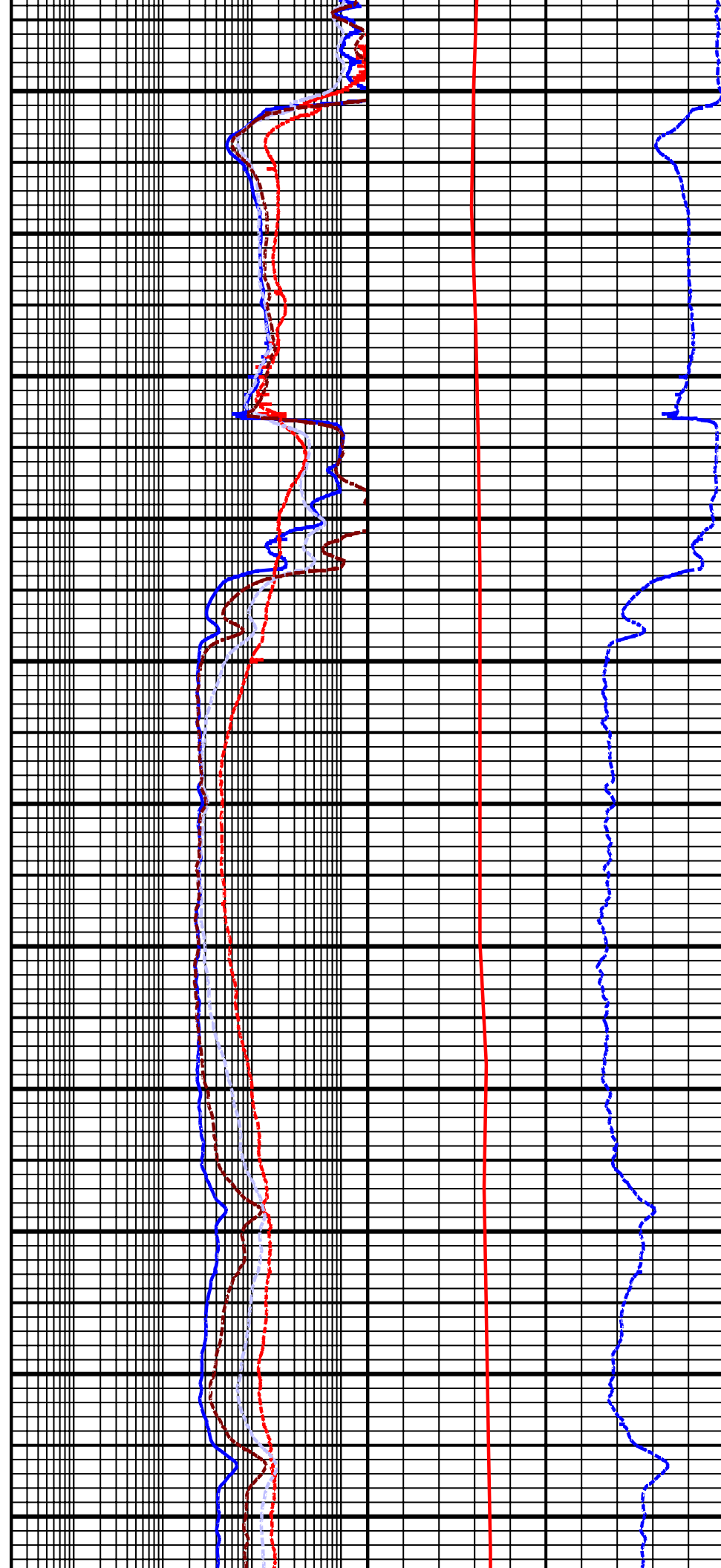
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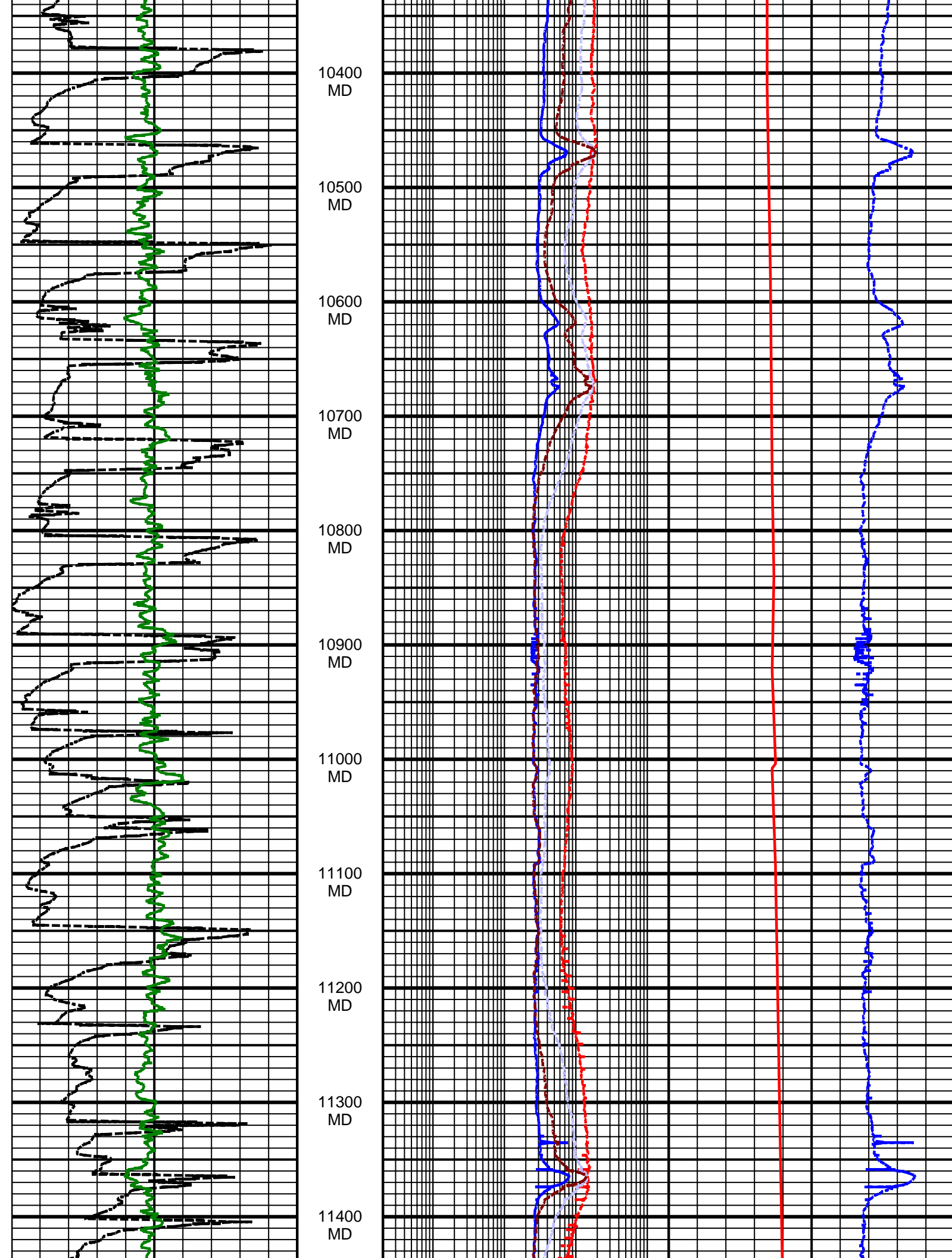
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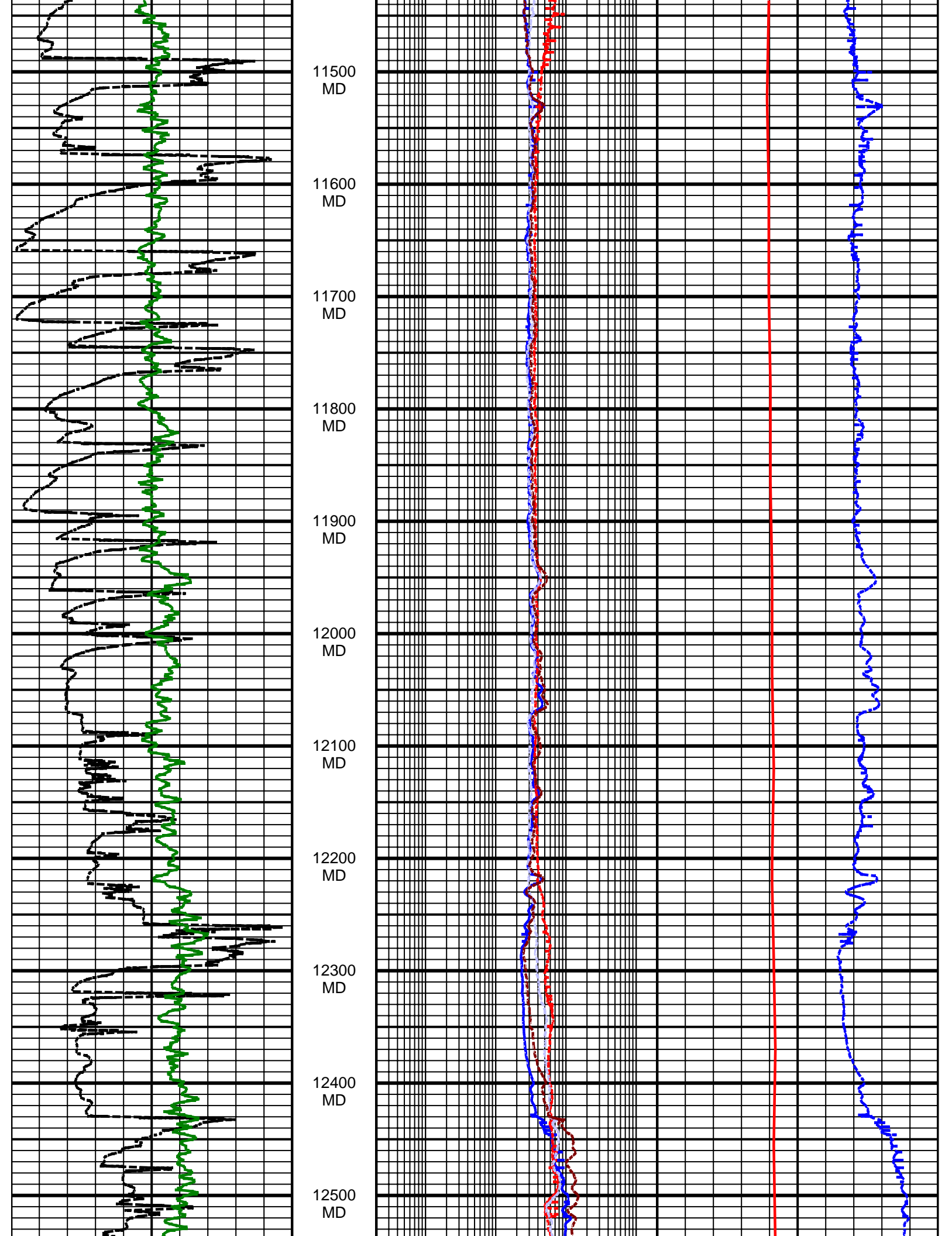
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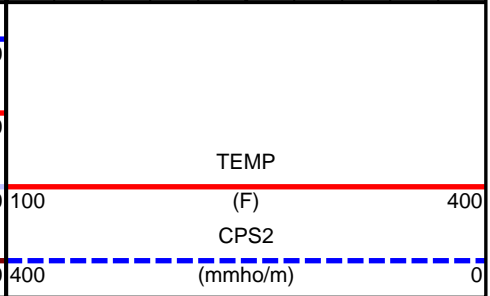
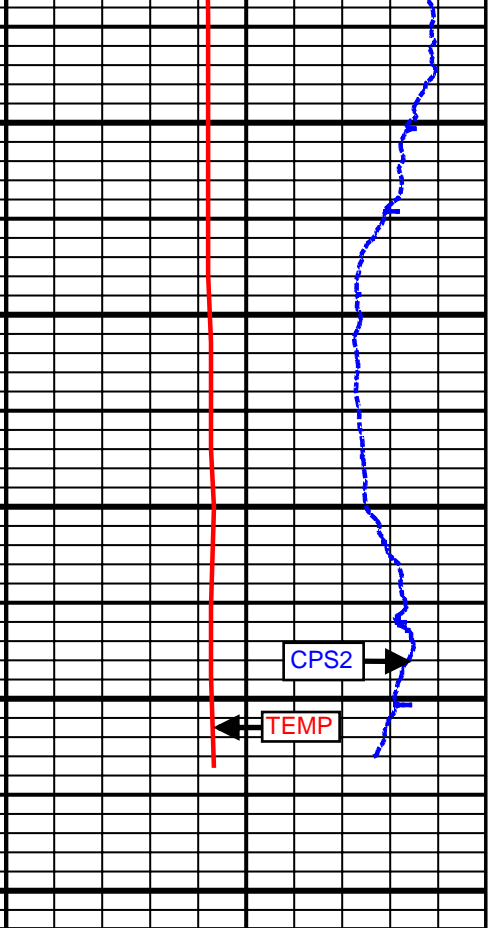
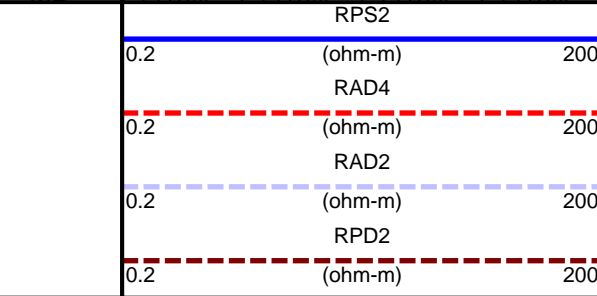
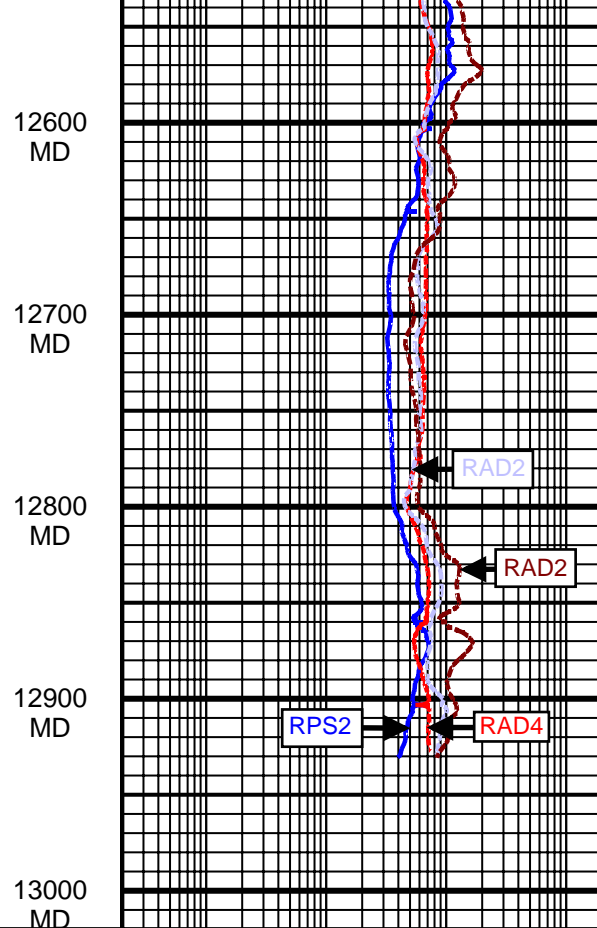
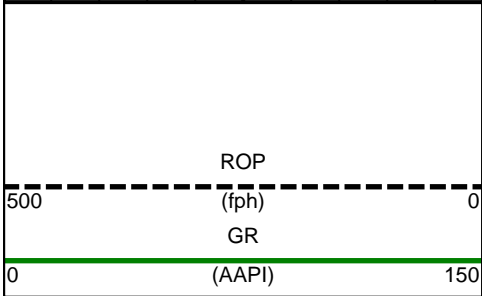
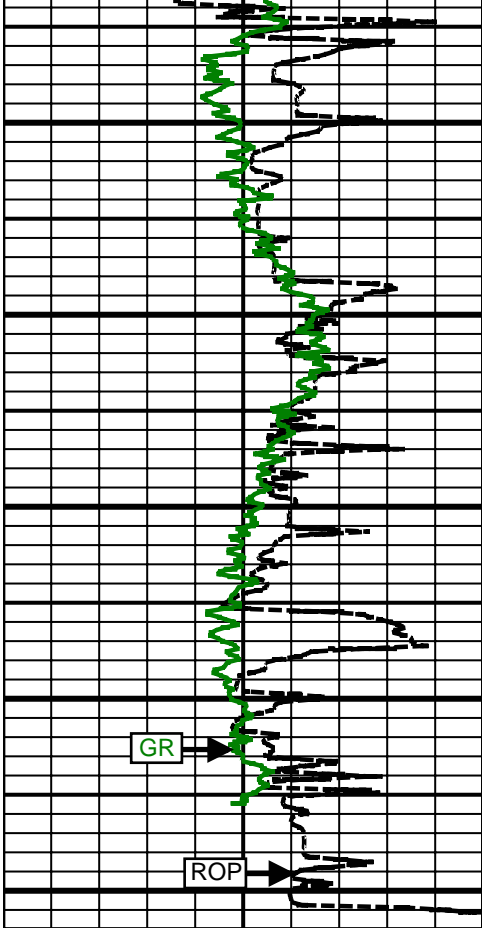
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10300
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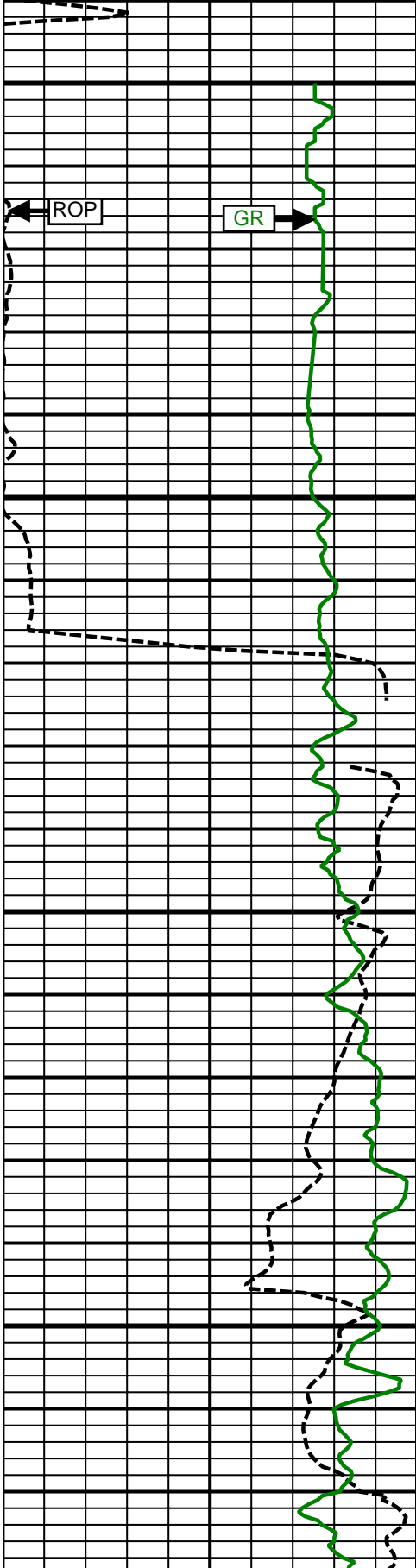
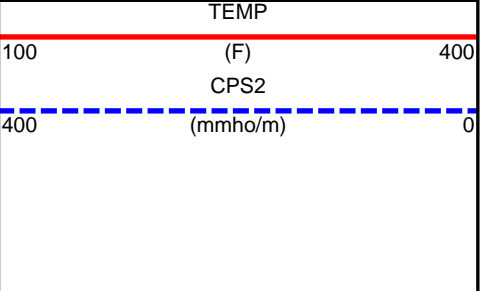
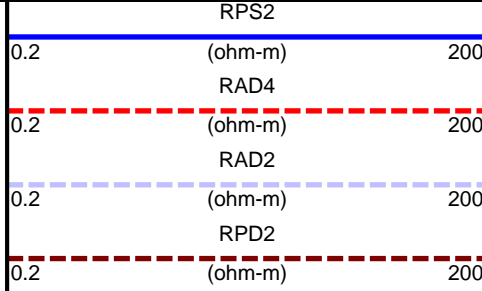
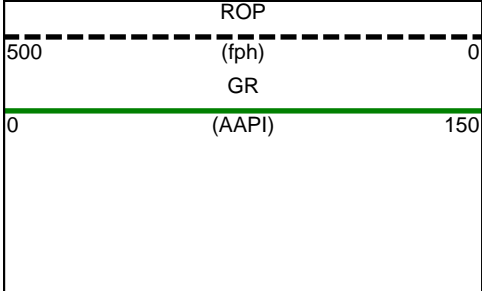








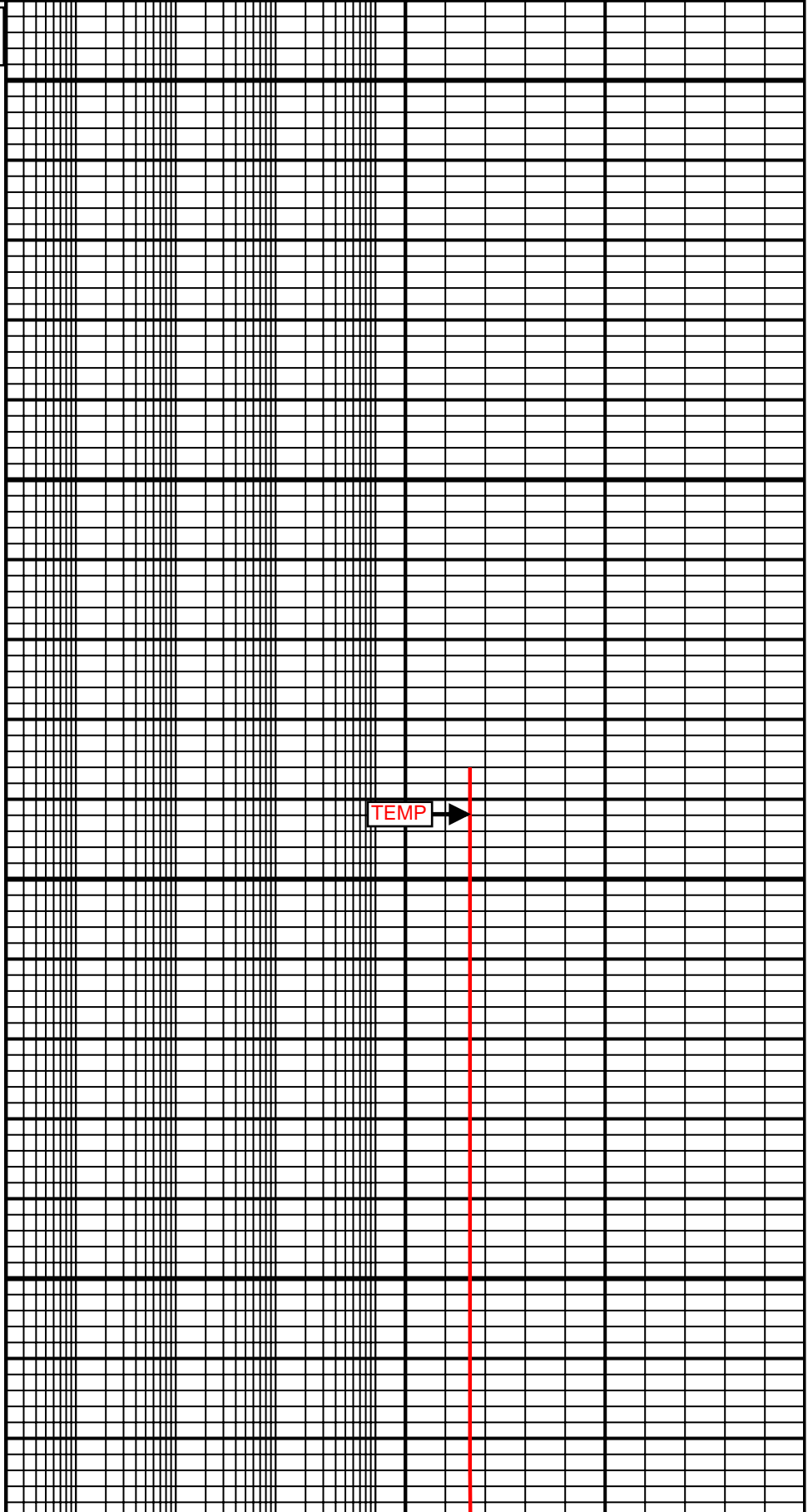
5 Inch - Measured Depth



Comment
No. 1-1

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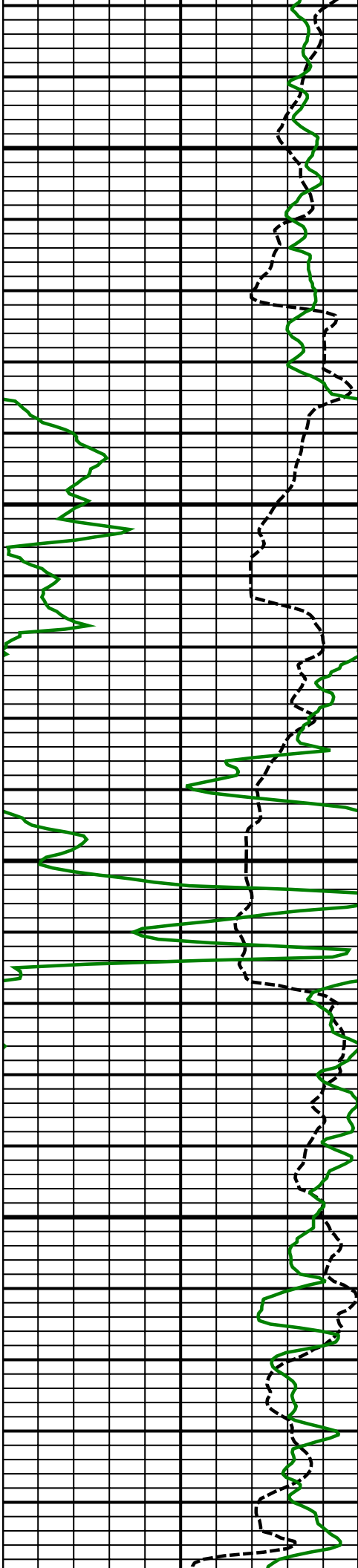
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ROP

GR

TEMP



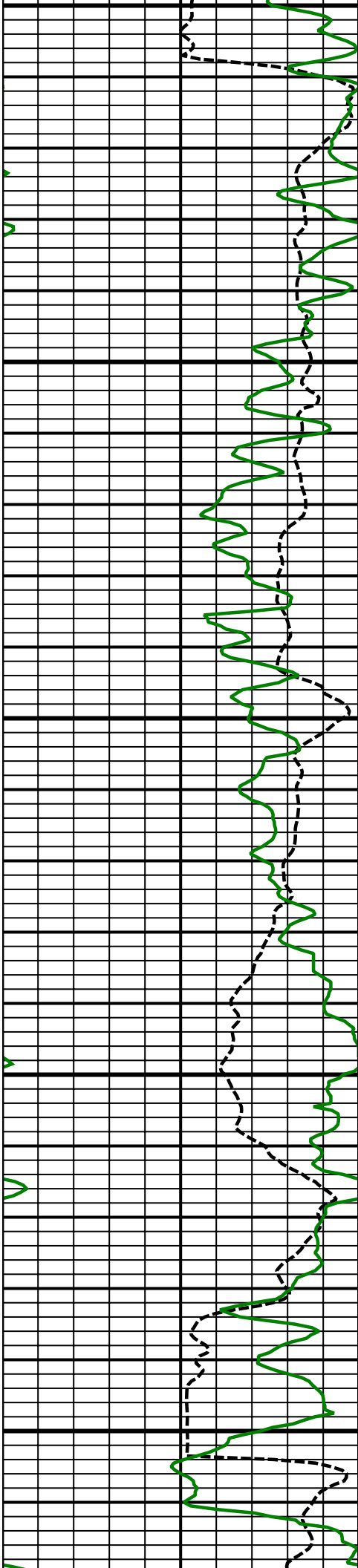
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No. 1-2

Comment
No. 2-1

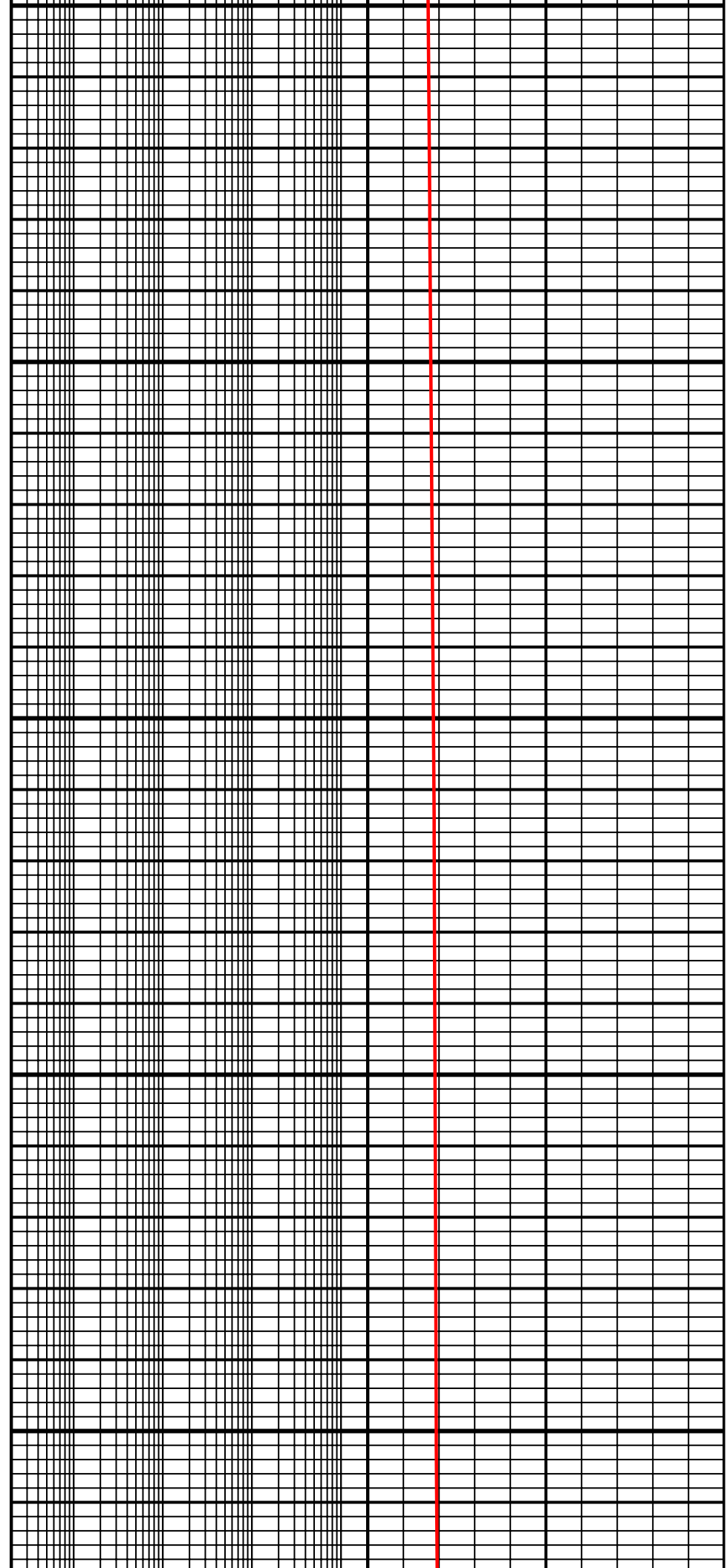
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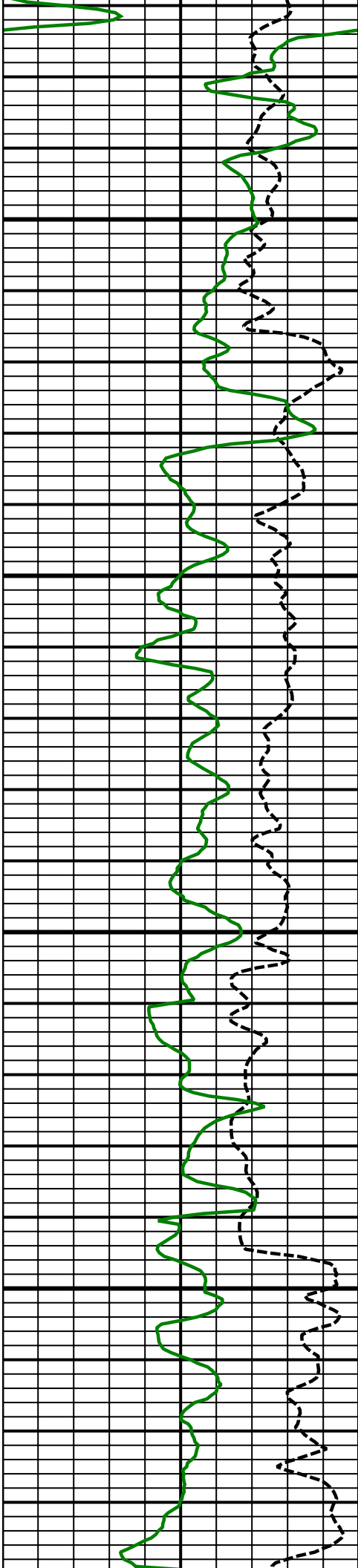


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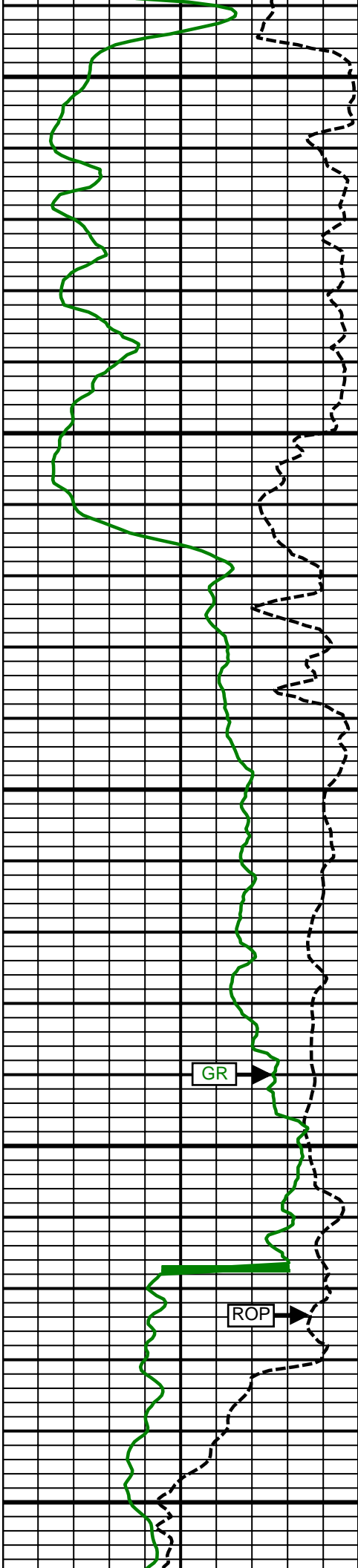


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No. 3-1

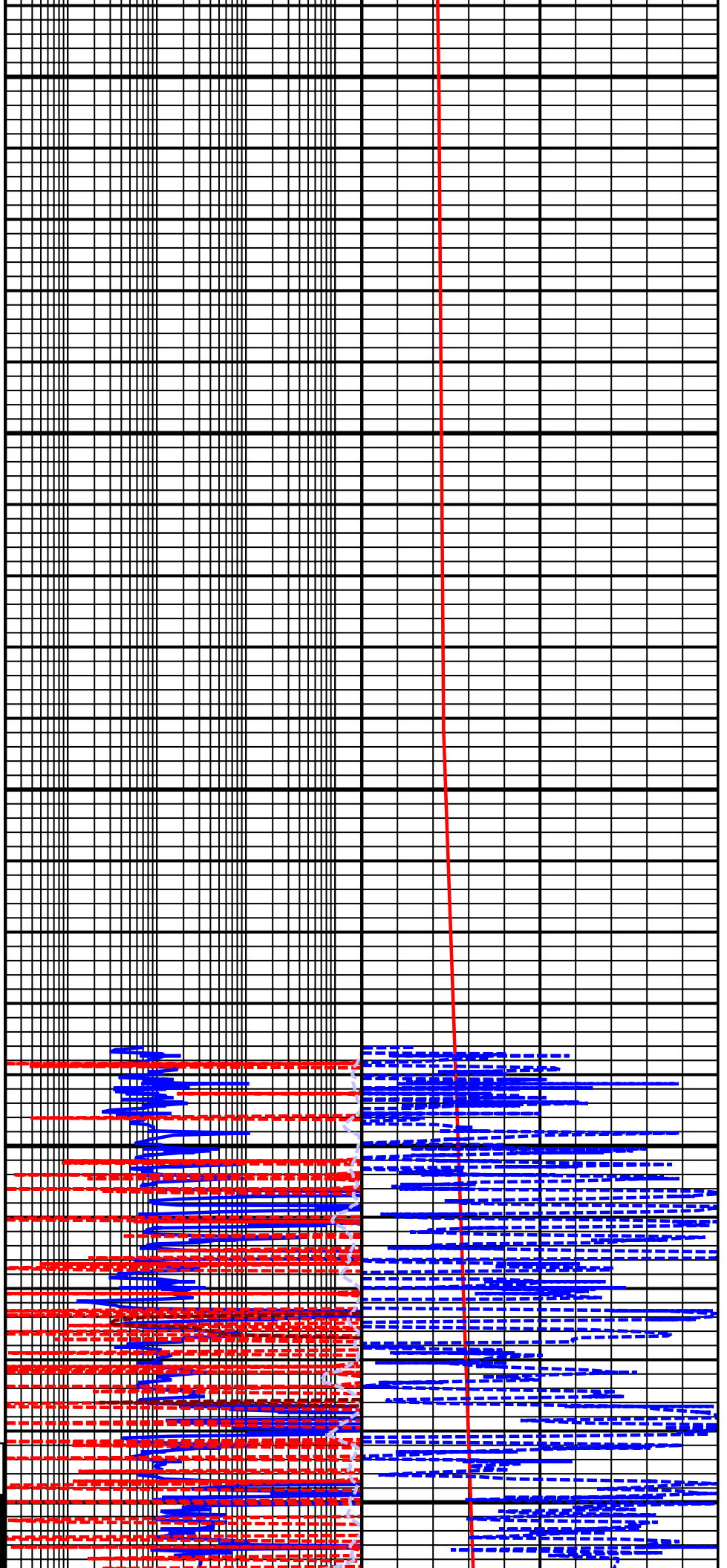


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8200
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Comment
No. 3-2

Casing



Comment
No. 4-1

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8400
MD

RPS2

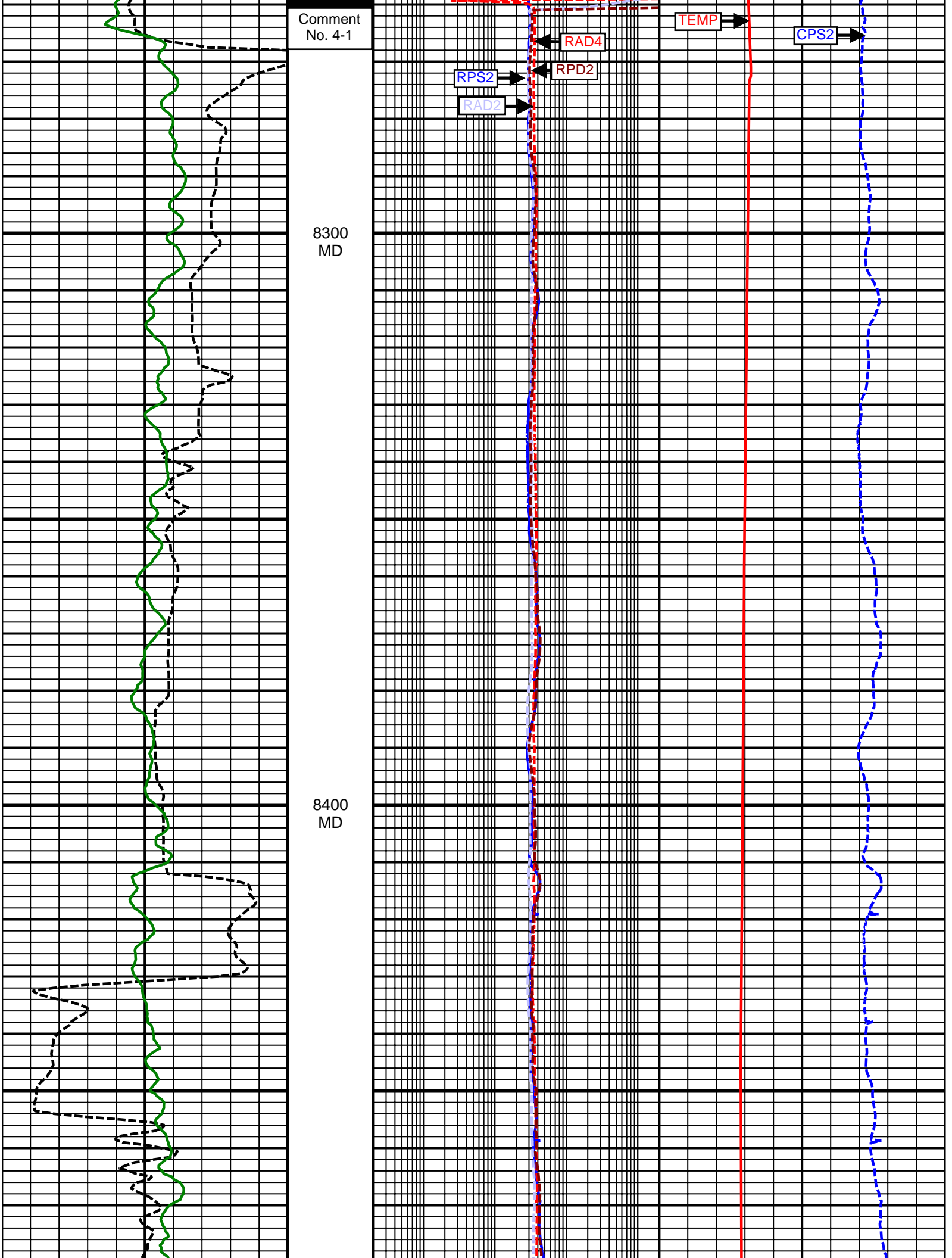
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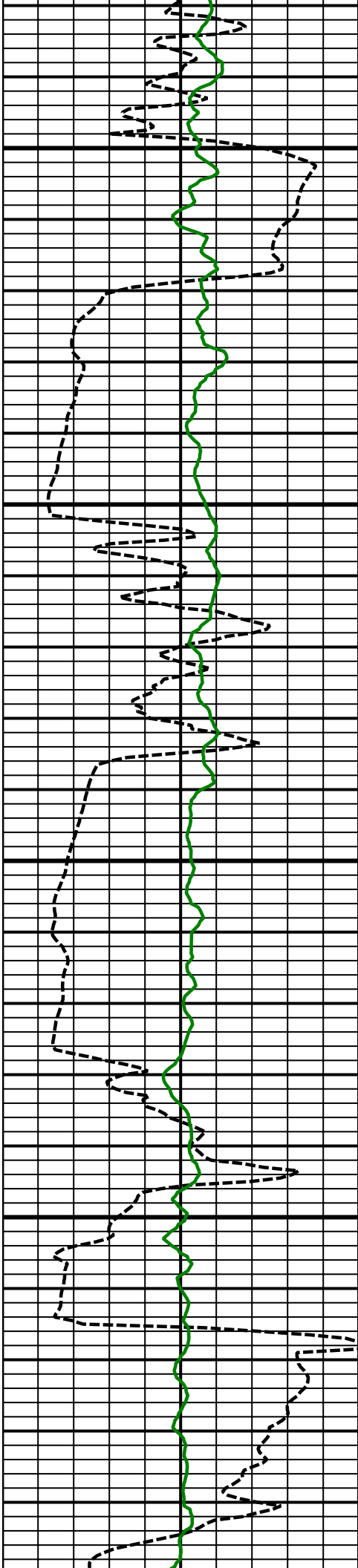
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RPD2

TEMP

CPS2

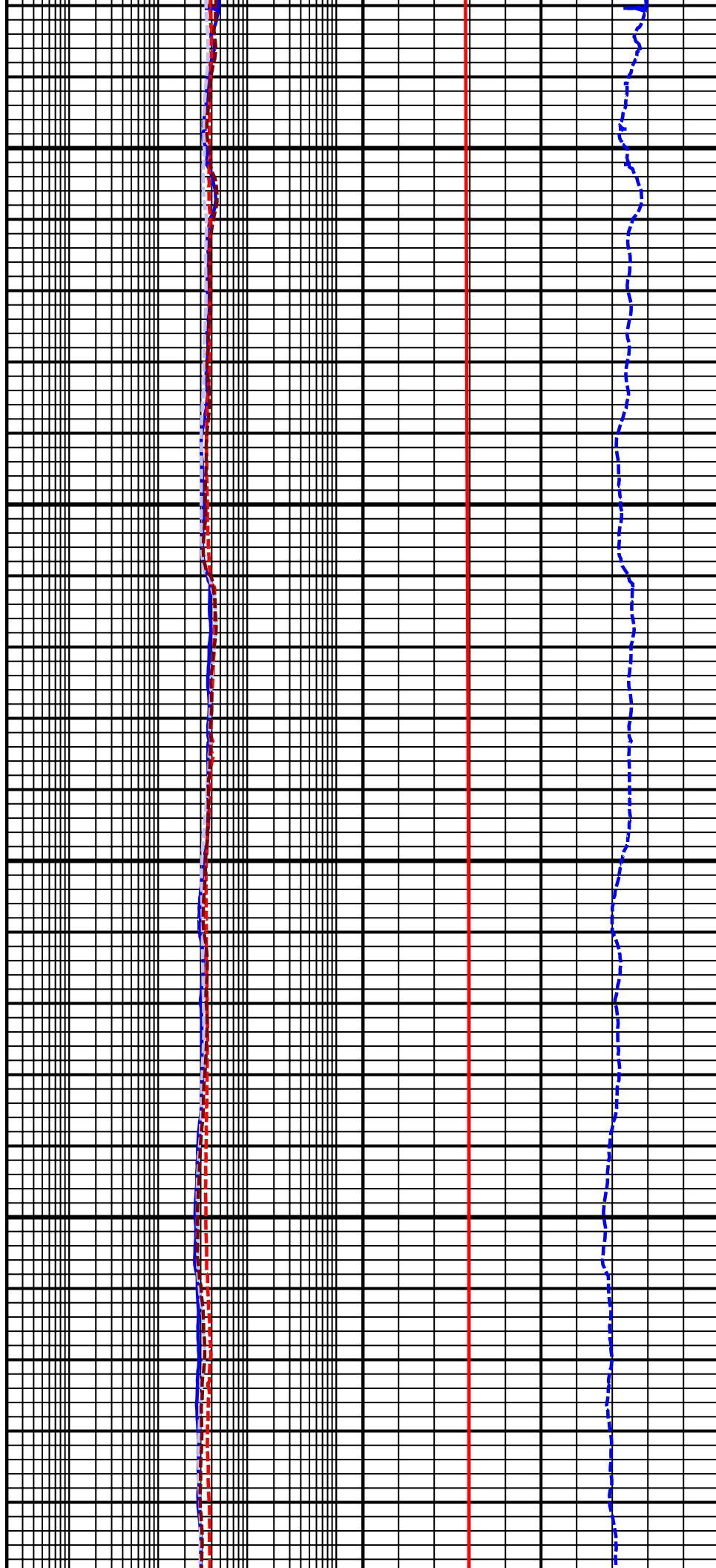


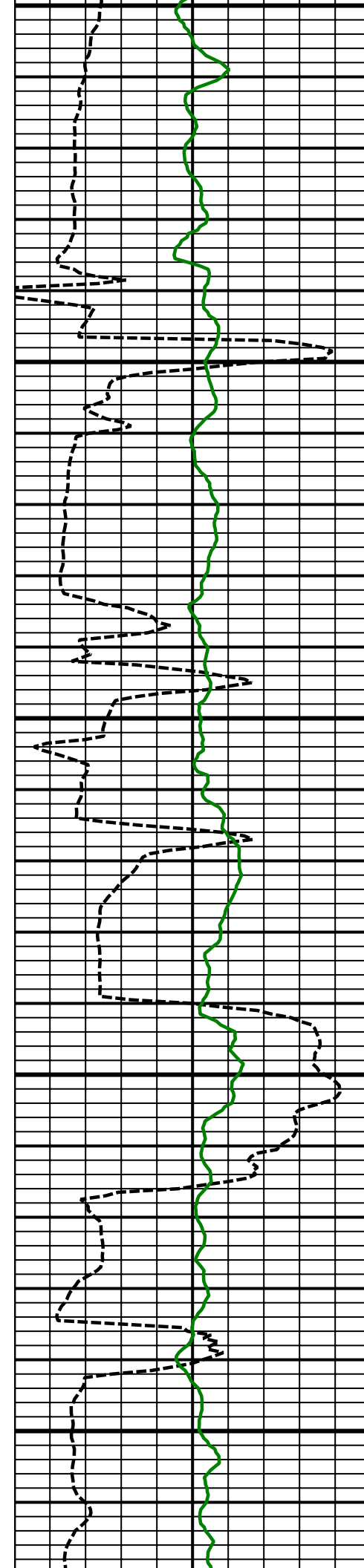


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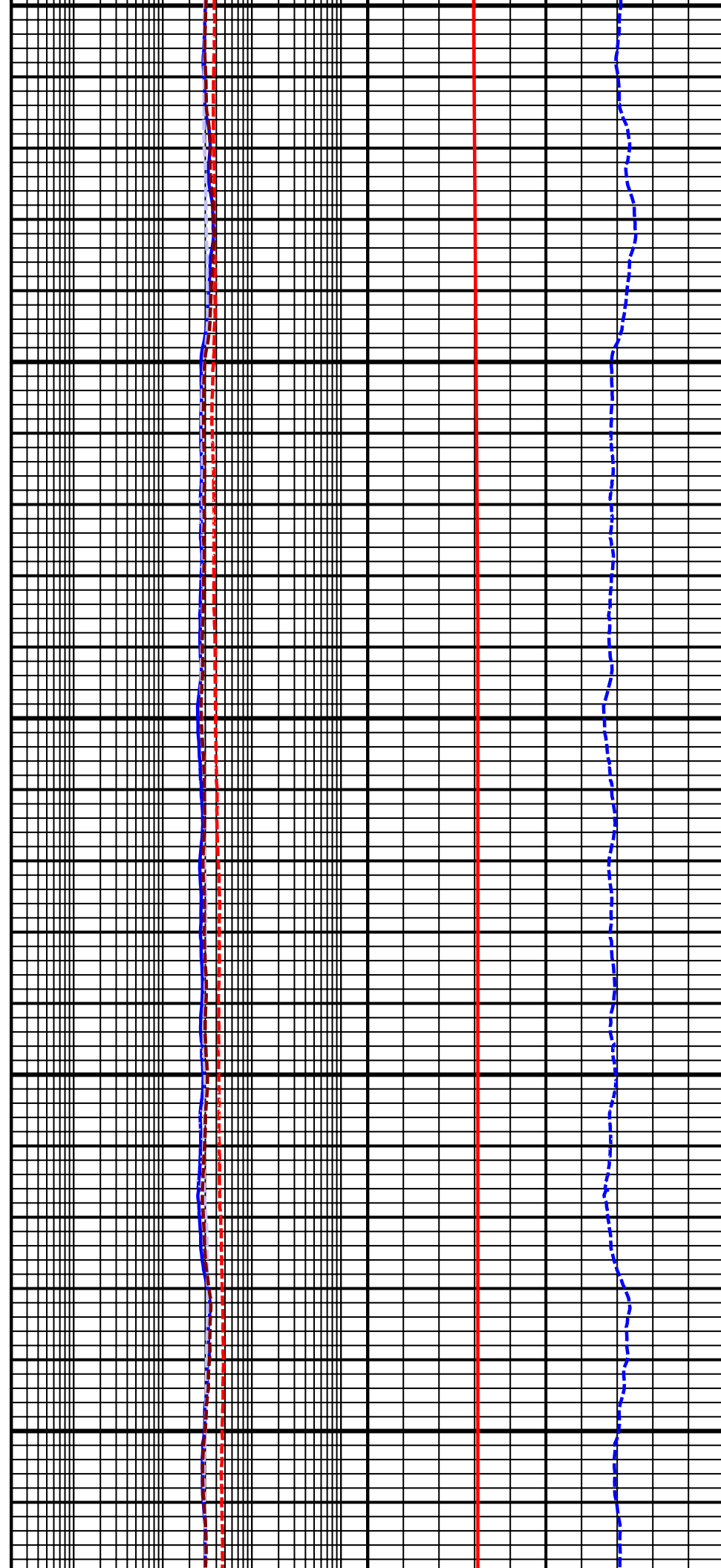


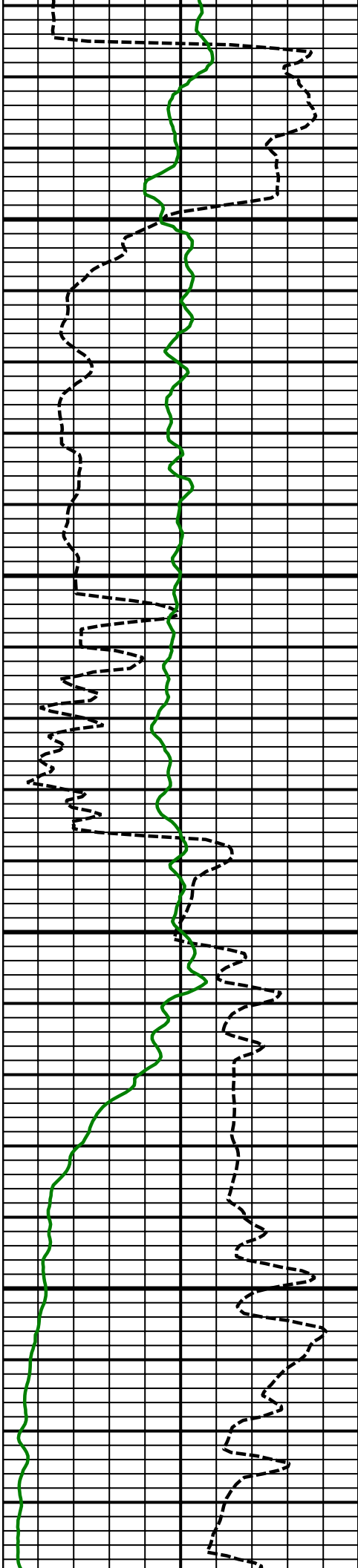


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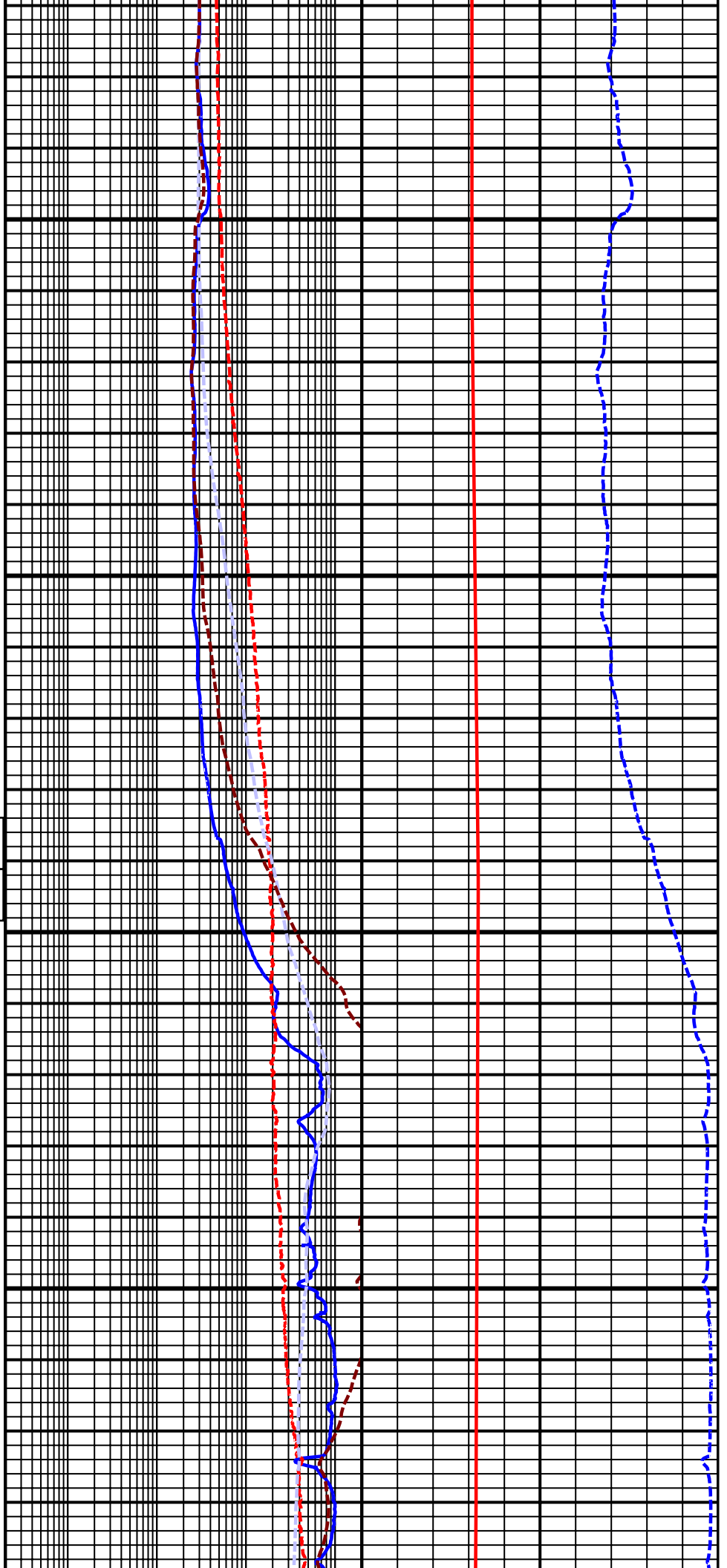


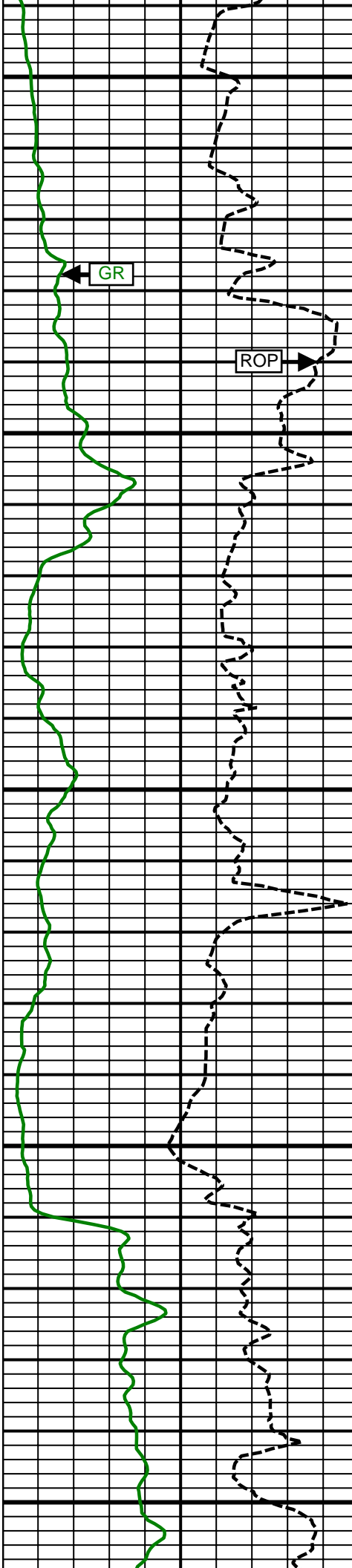
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Comment
No. 4-2

Comment
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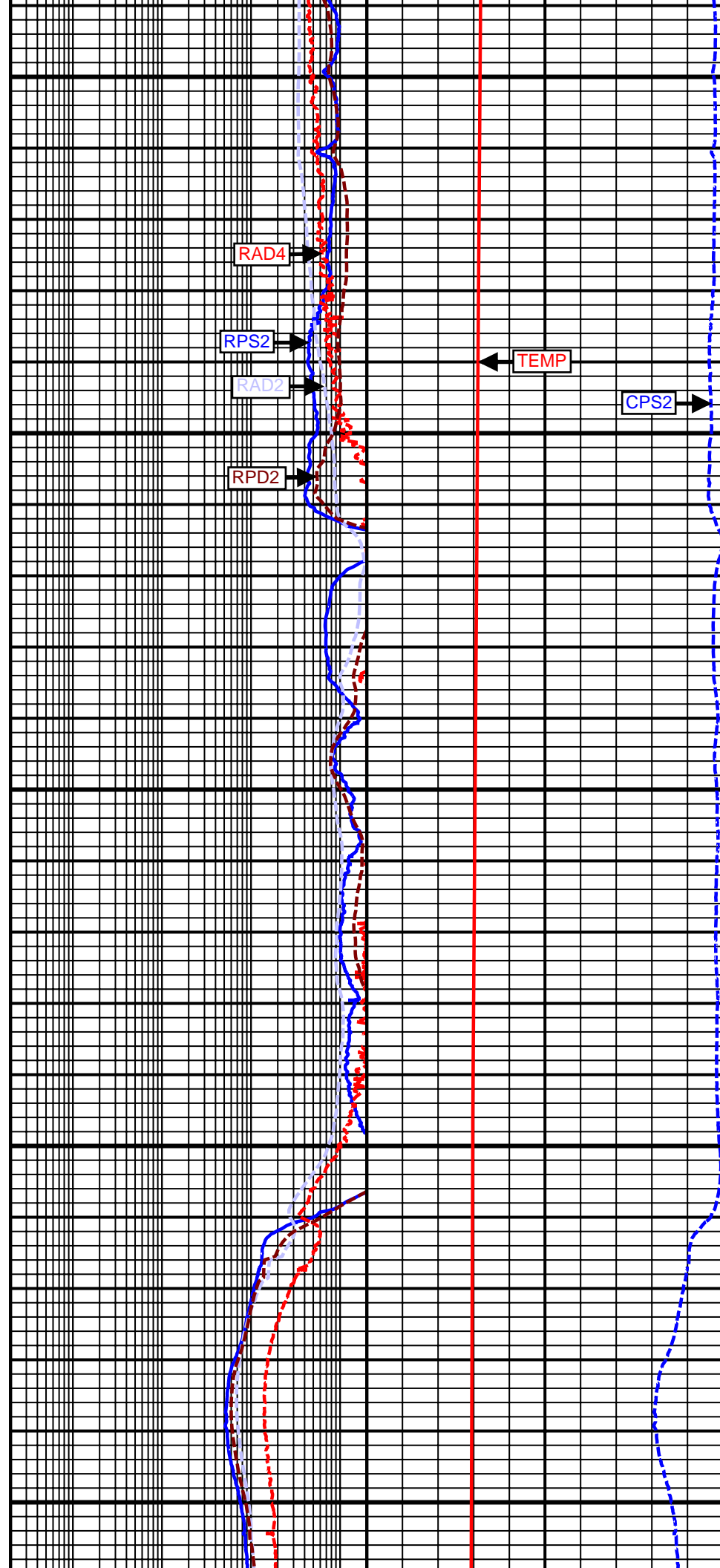
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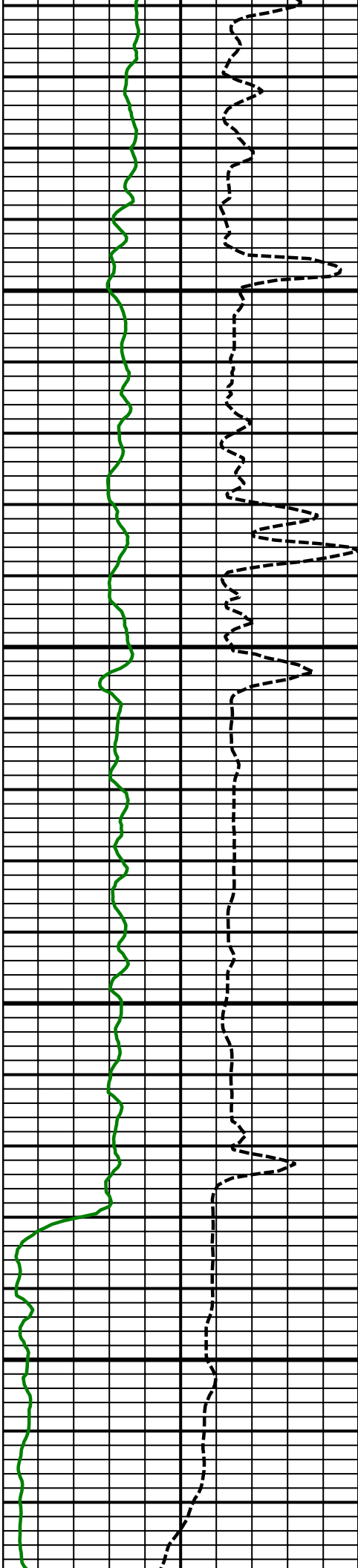




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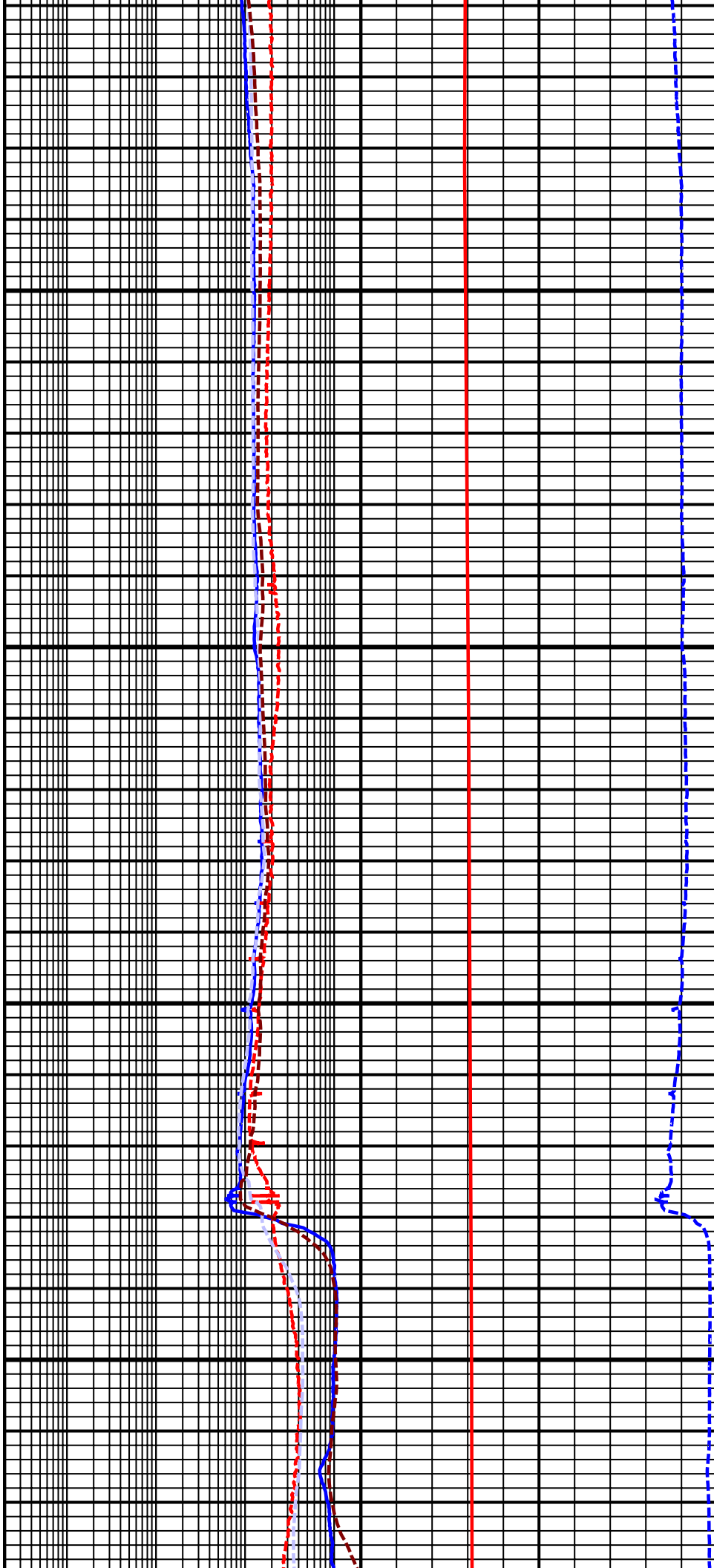
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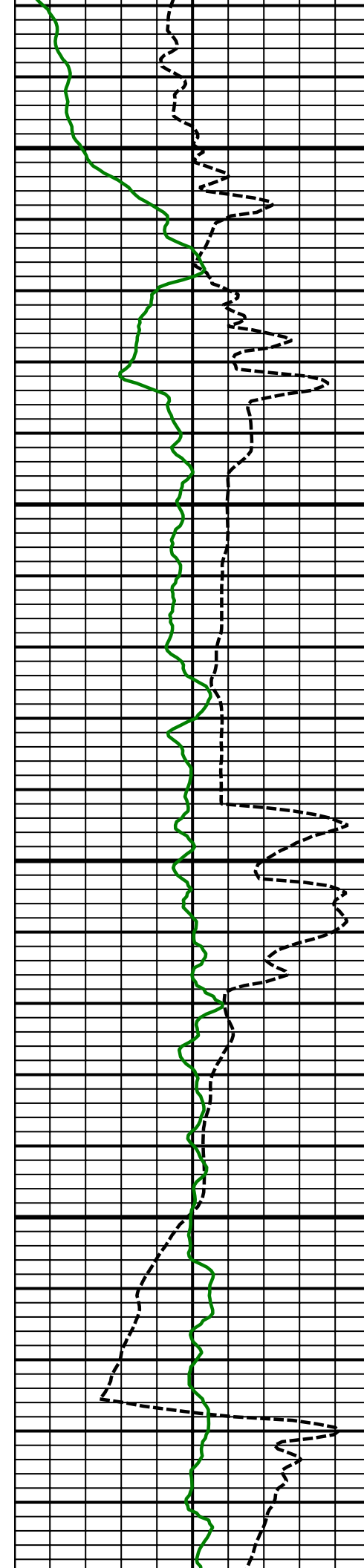




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9500
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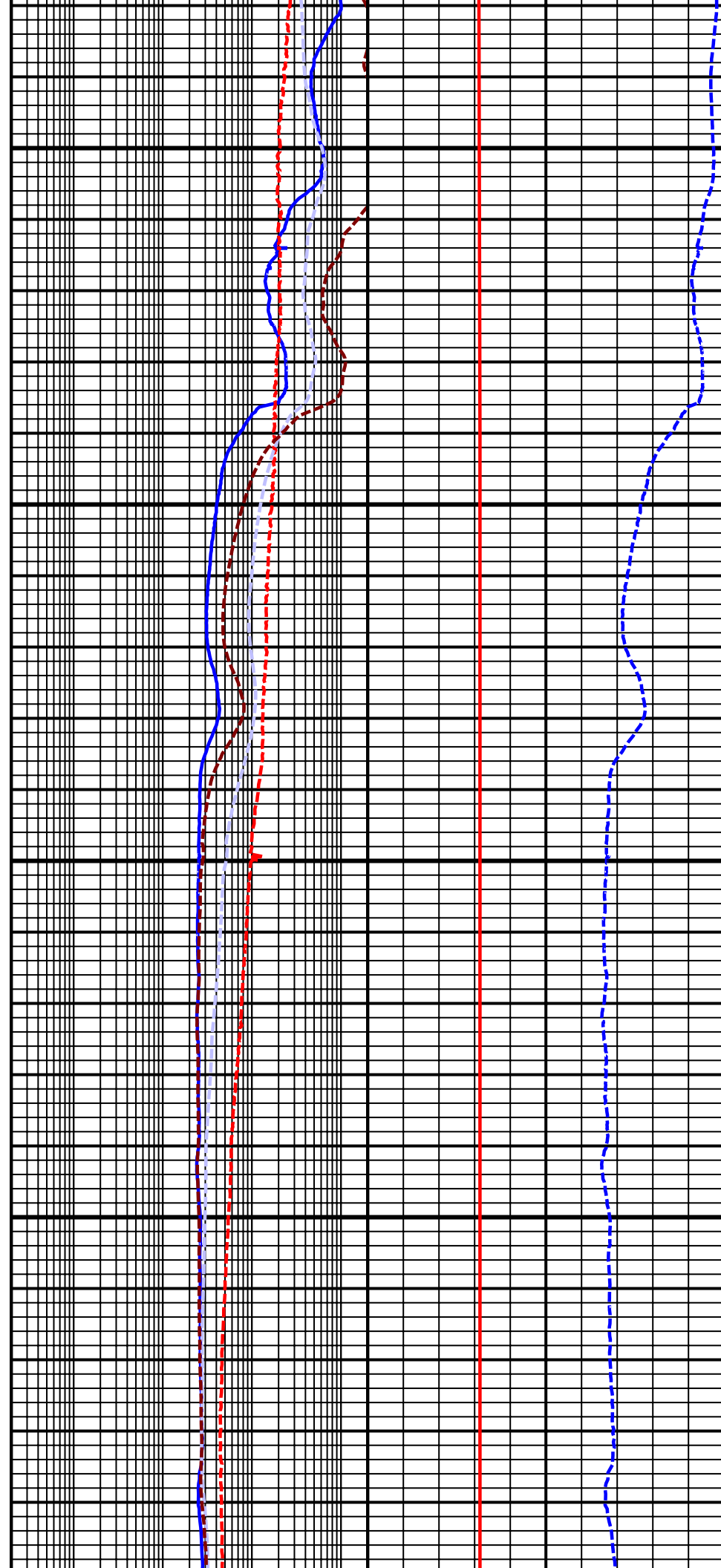


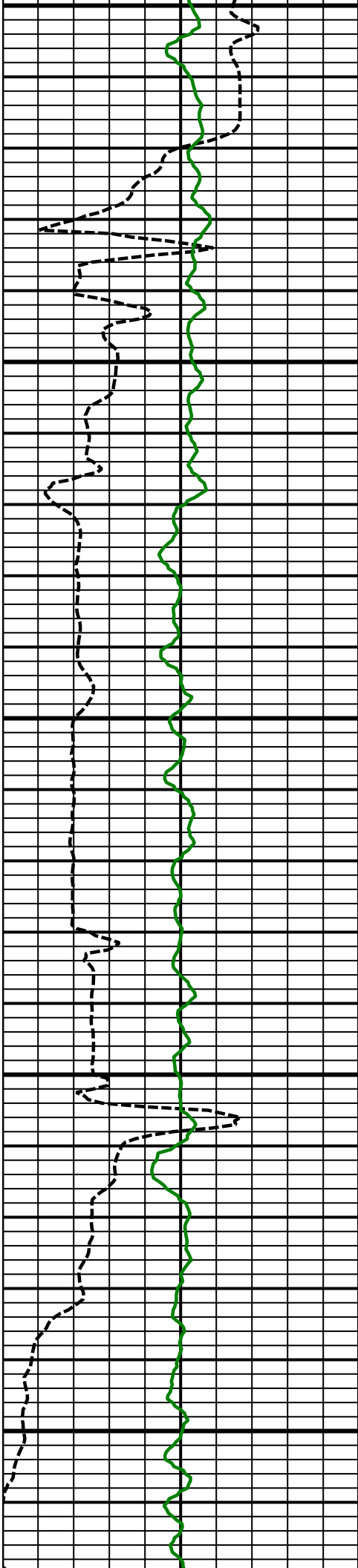


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9700
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9800
MD

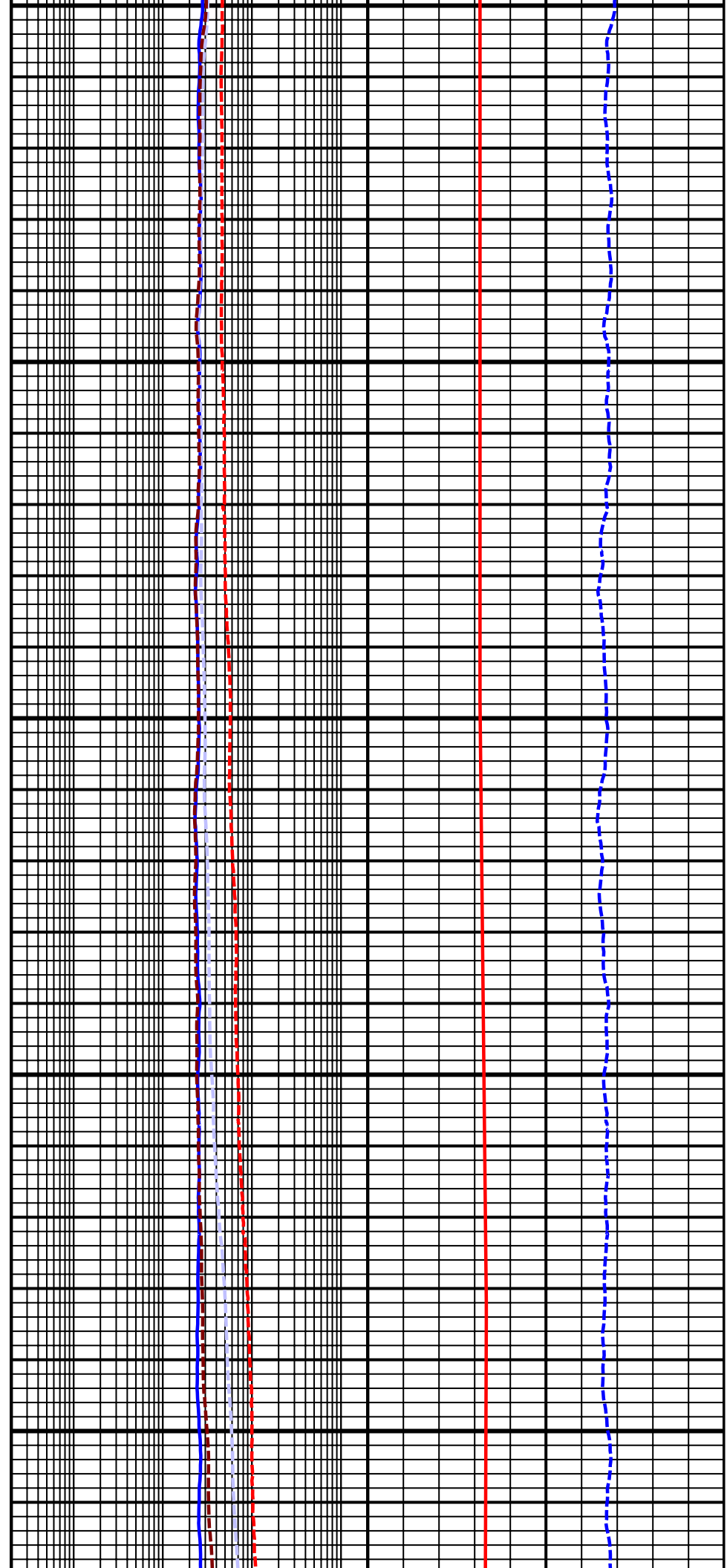


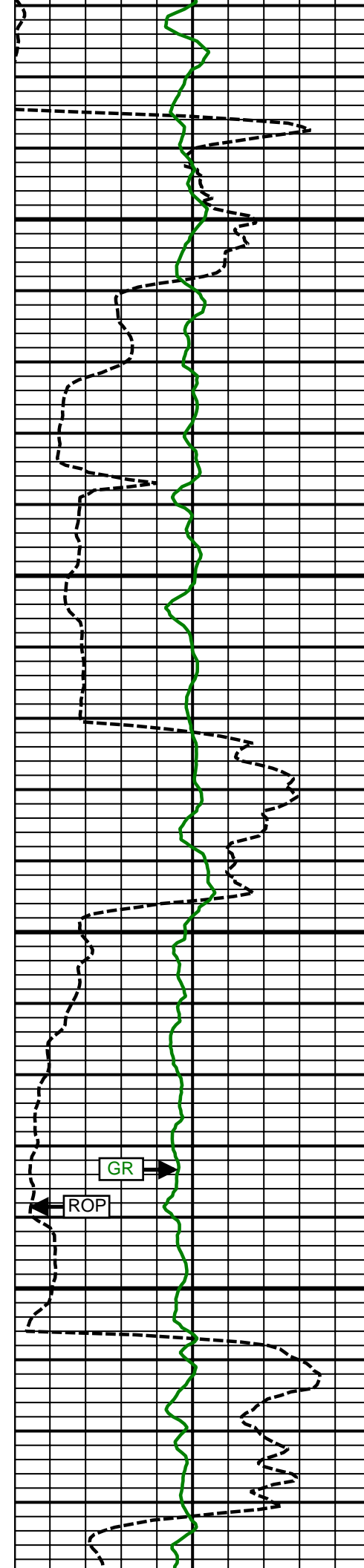


9800
MD

9900
MD

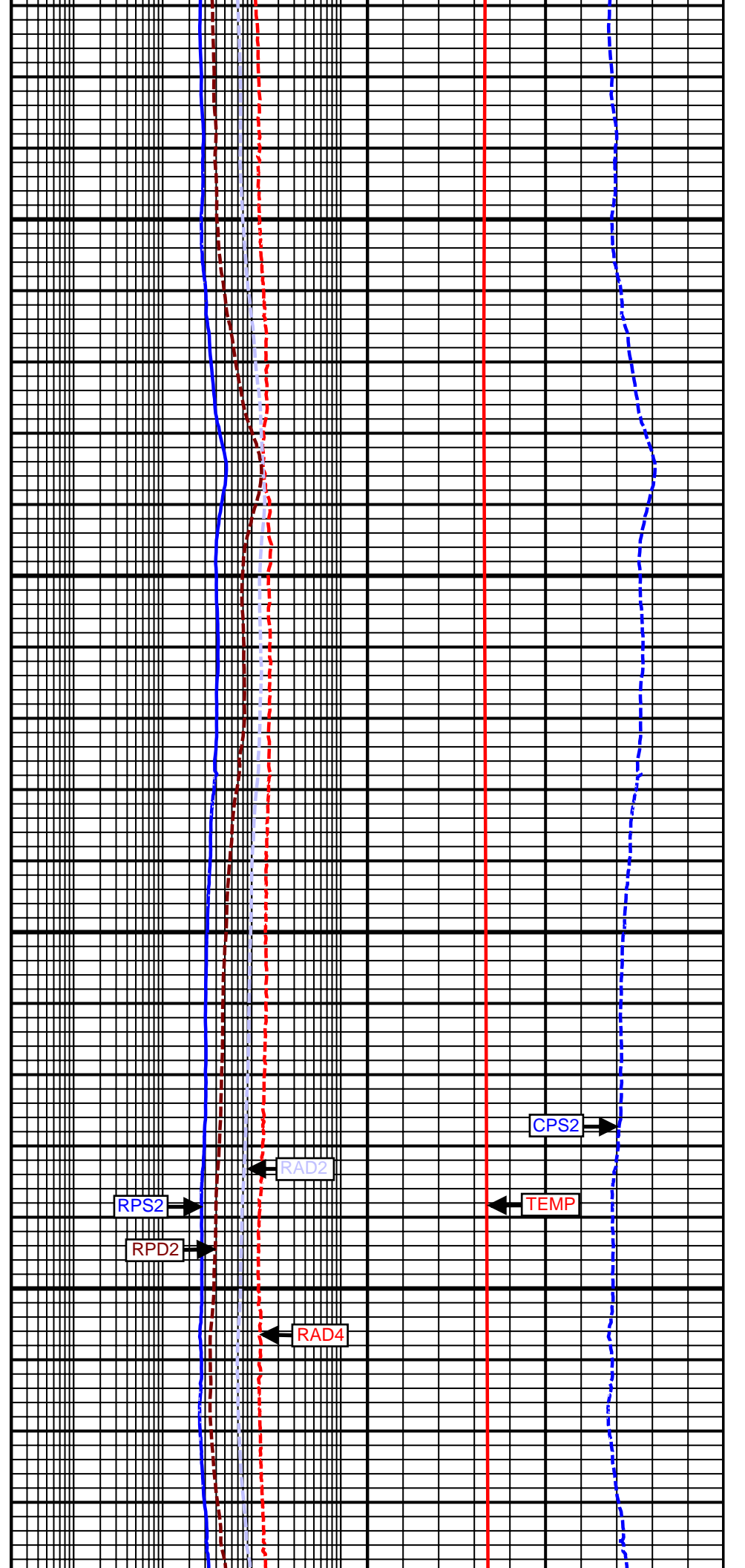
10000
MD

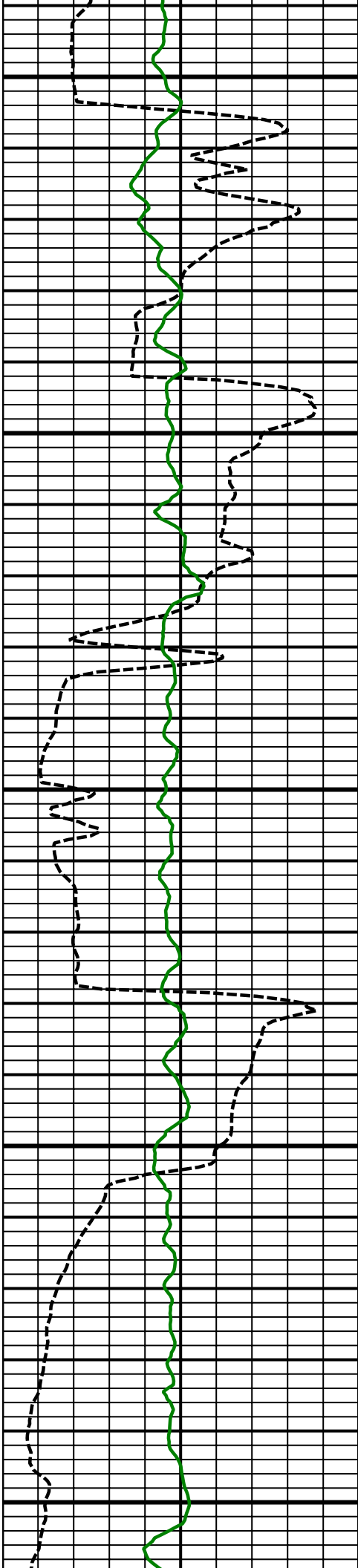




10100
MD

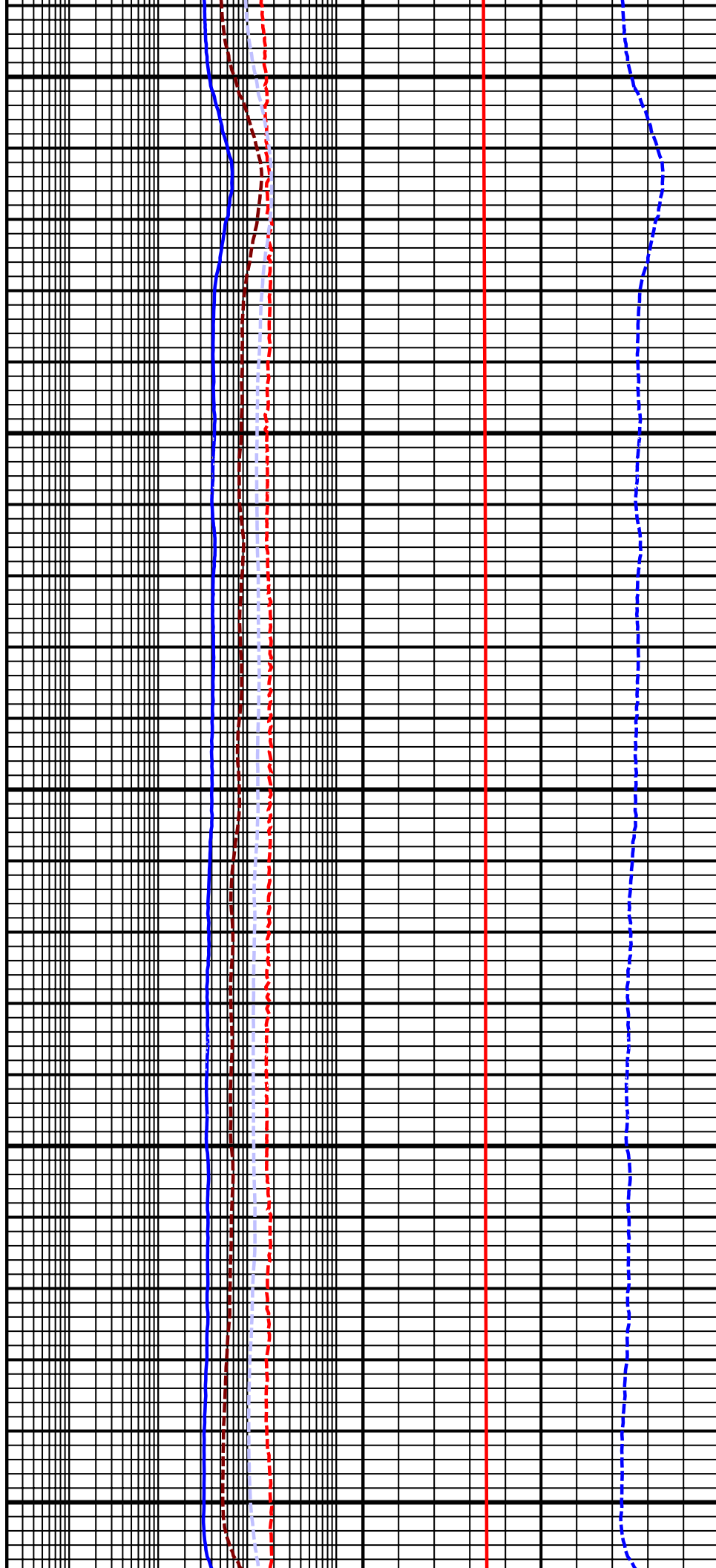
10200
MD

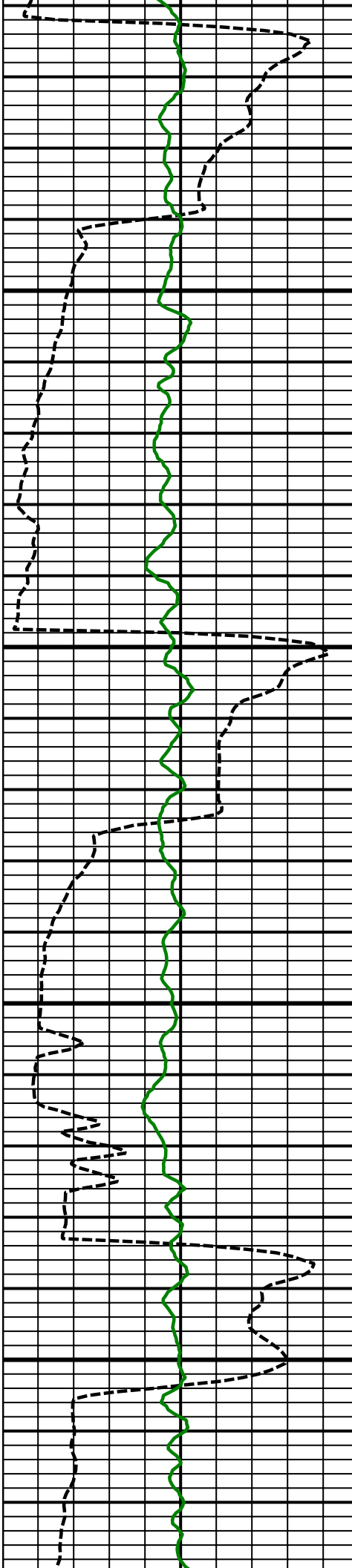




10300
MD

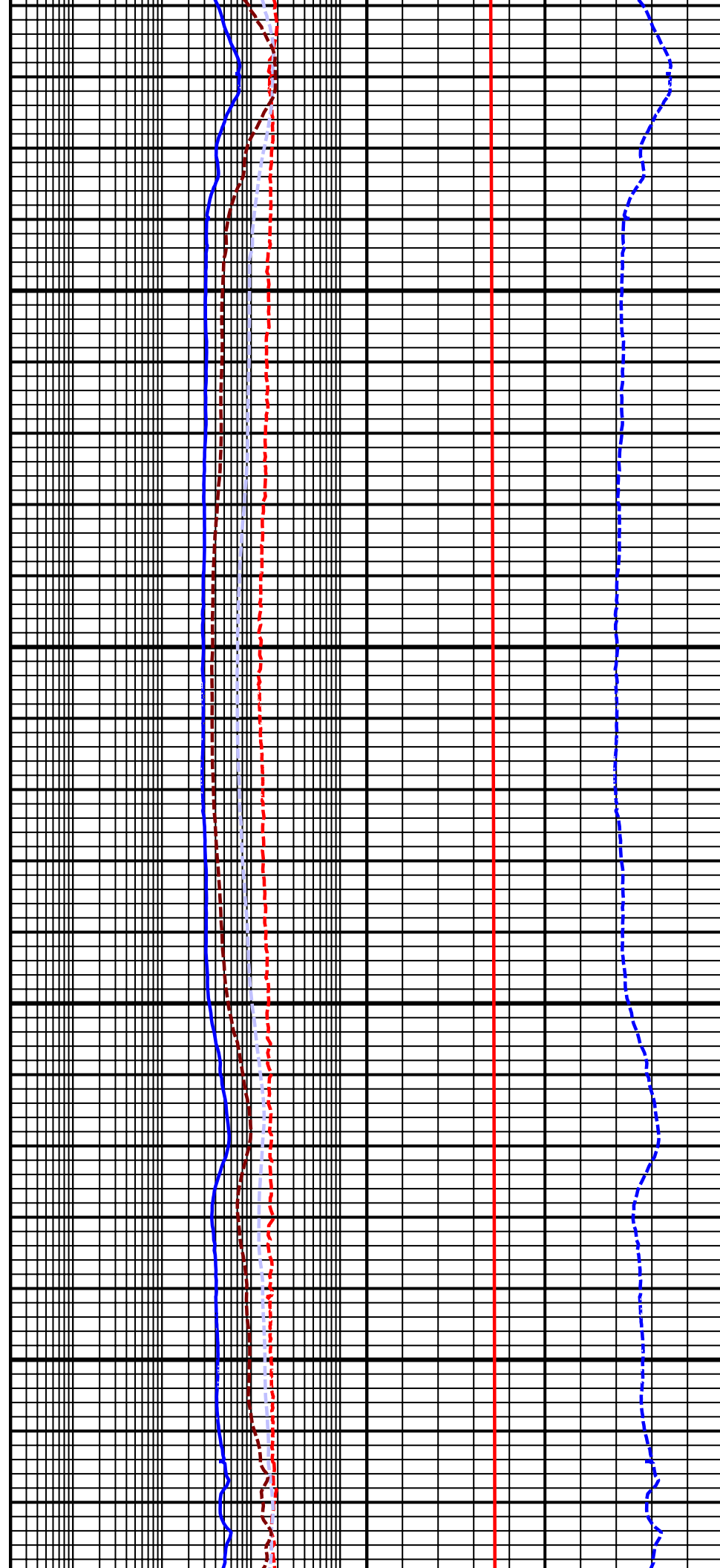
10400
MD

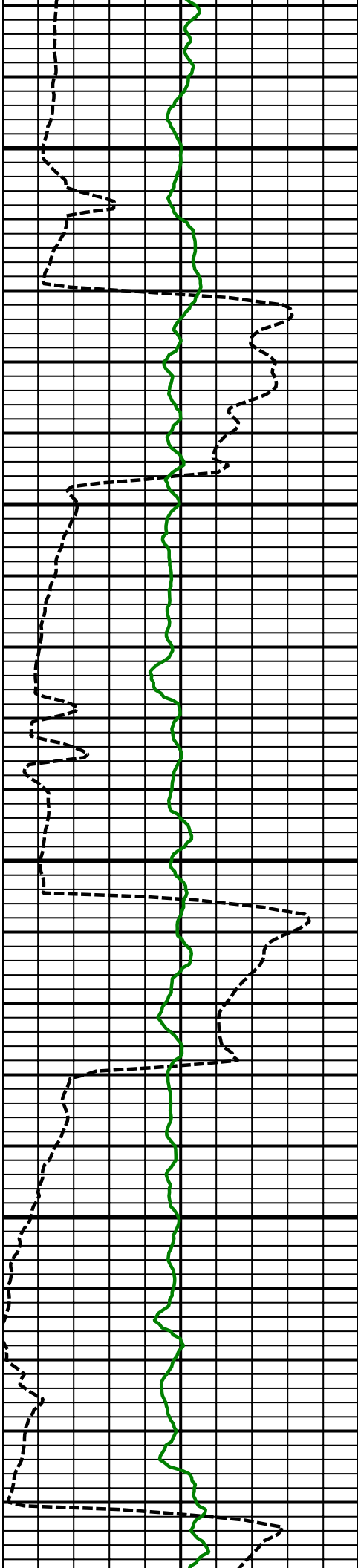




10500
MD

10600
MD

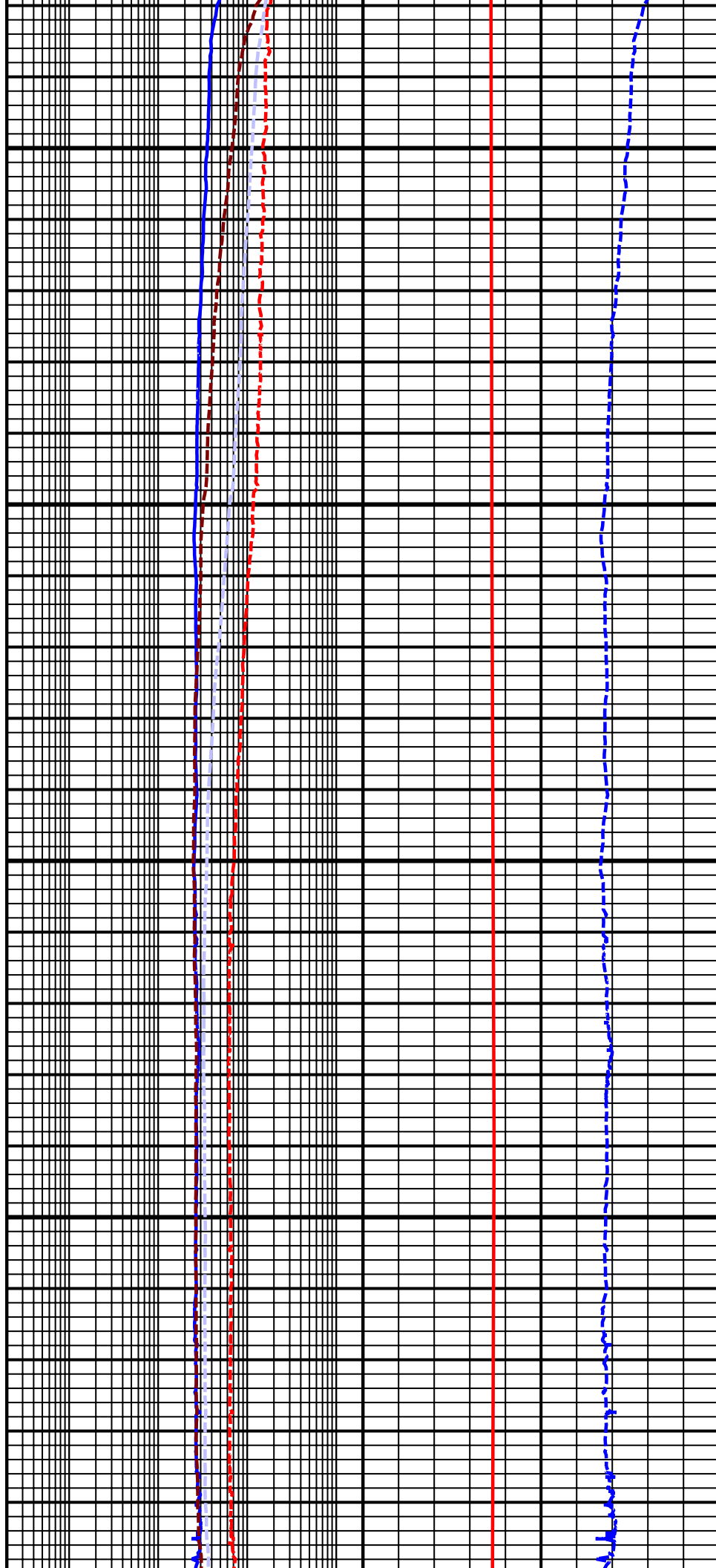


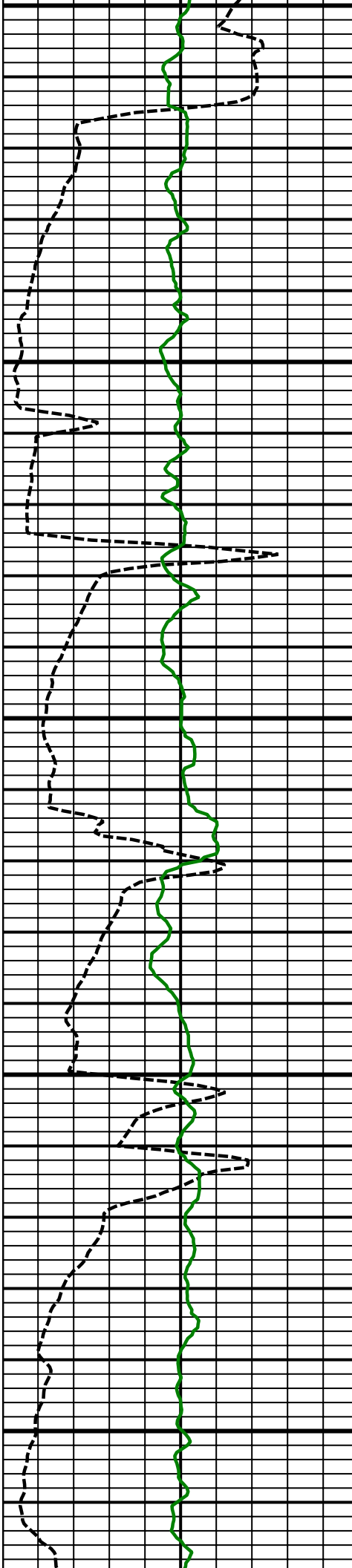


10700
MD

10800
MD

10900

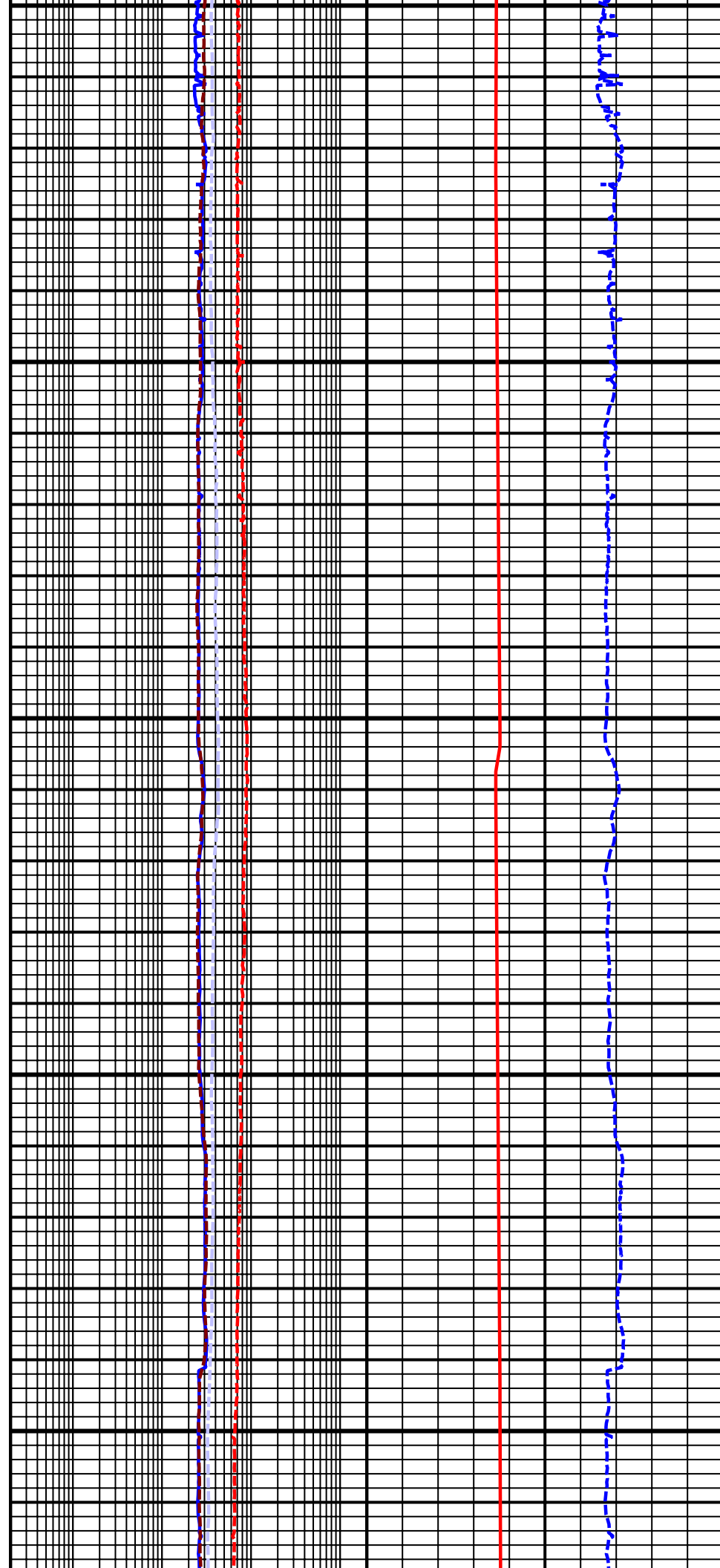


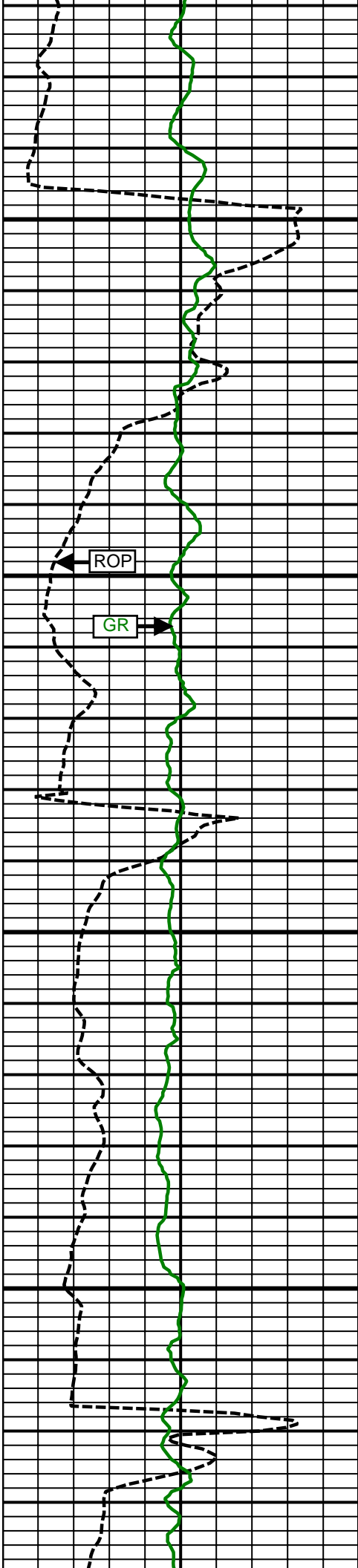


10900
MD

11000
MD

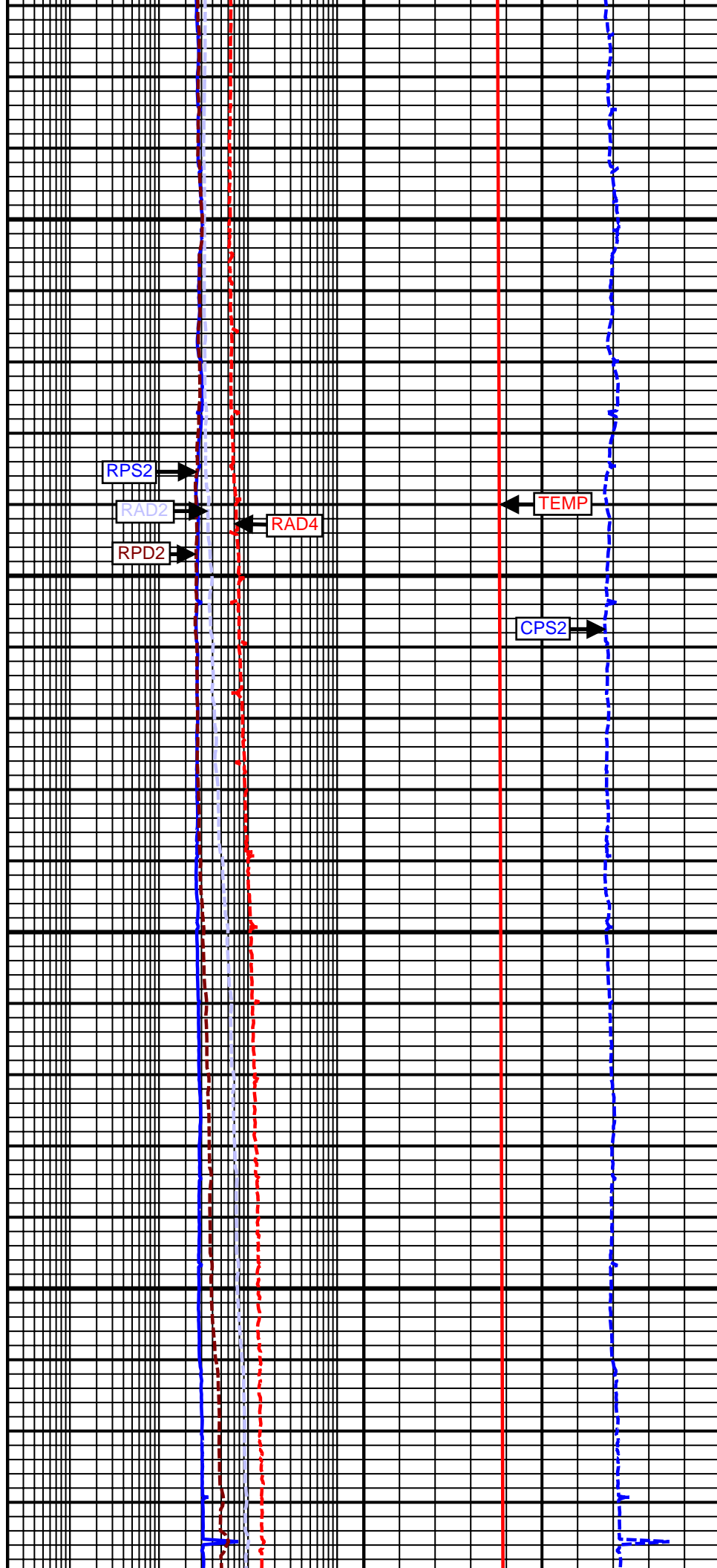
11100
MD





11200
MD

11300
MD



RPS2

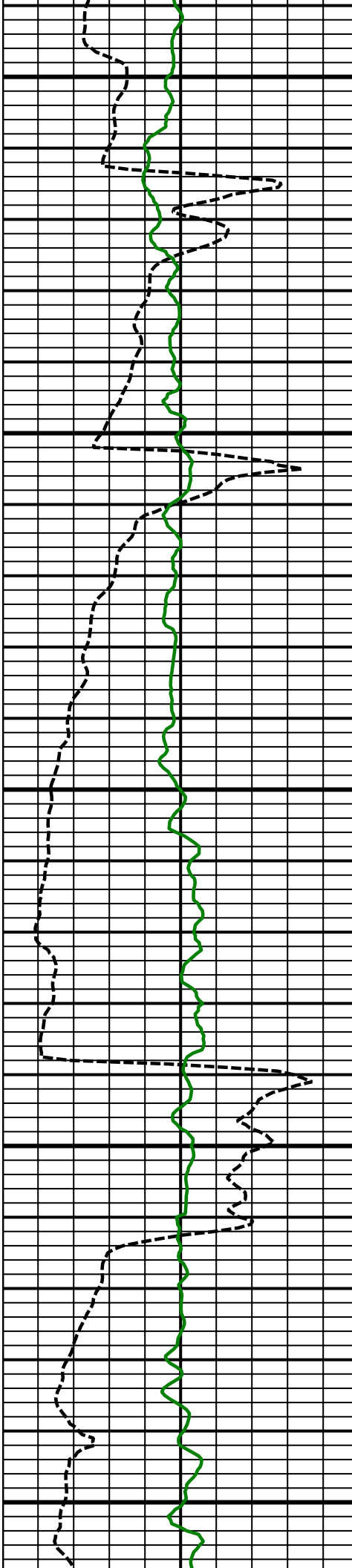
RAD2

RPD2

RAD4

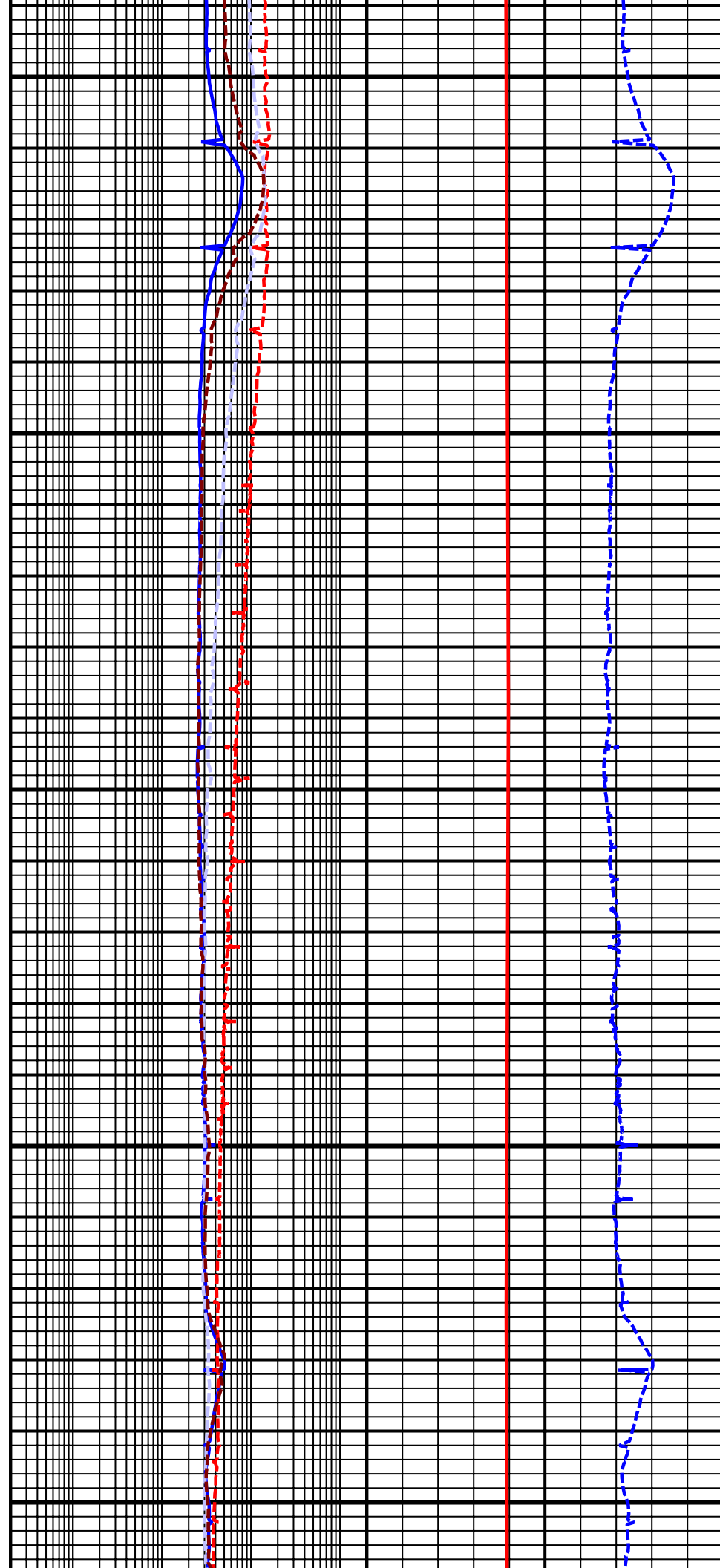
TEMP

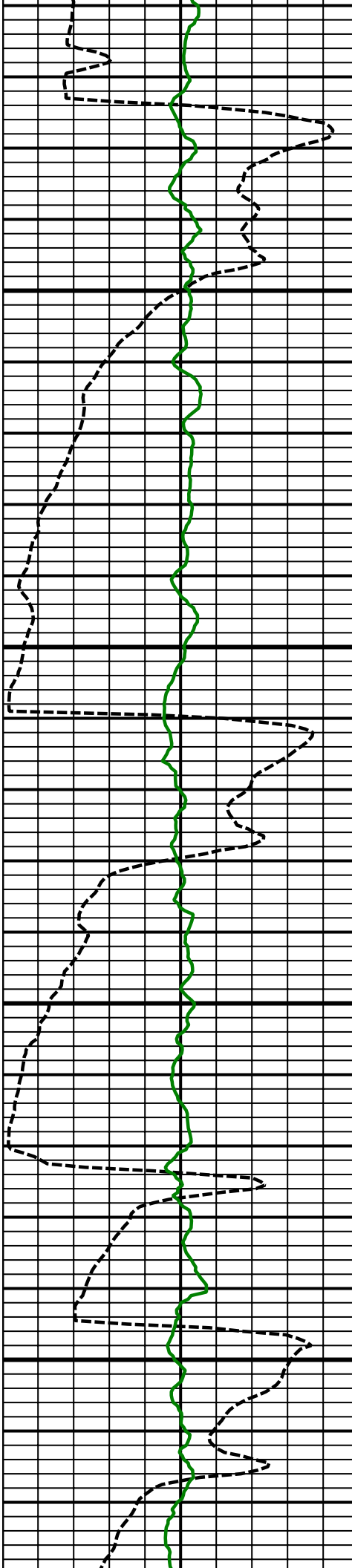
CPS2



11400
MD

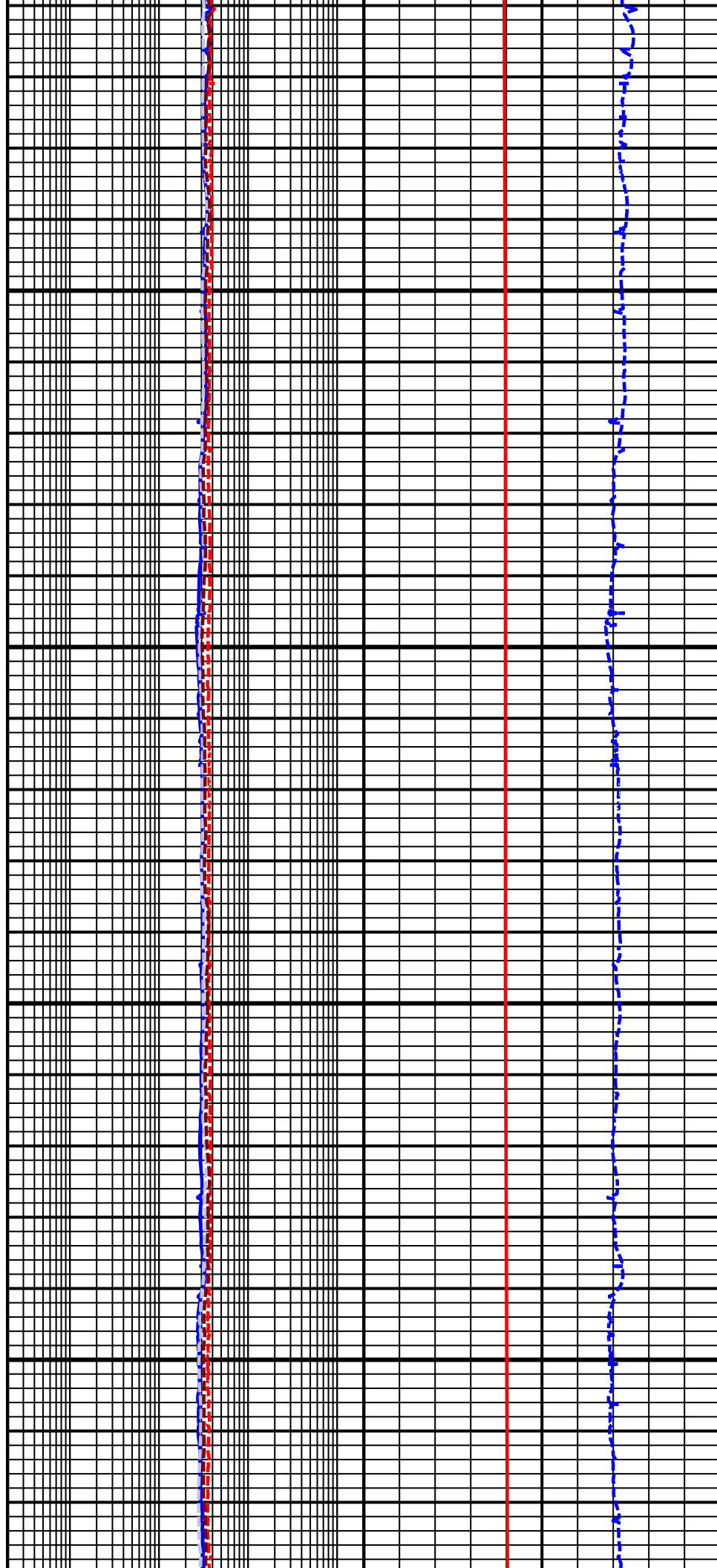
11500
MD

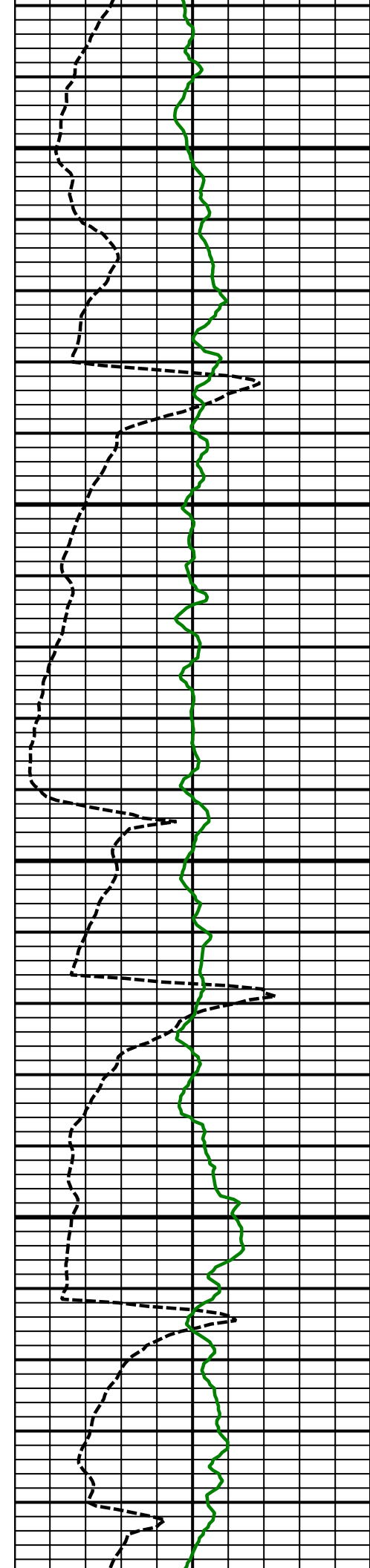




11600
MD

11700
MD

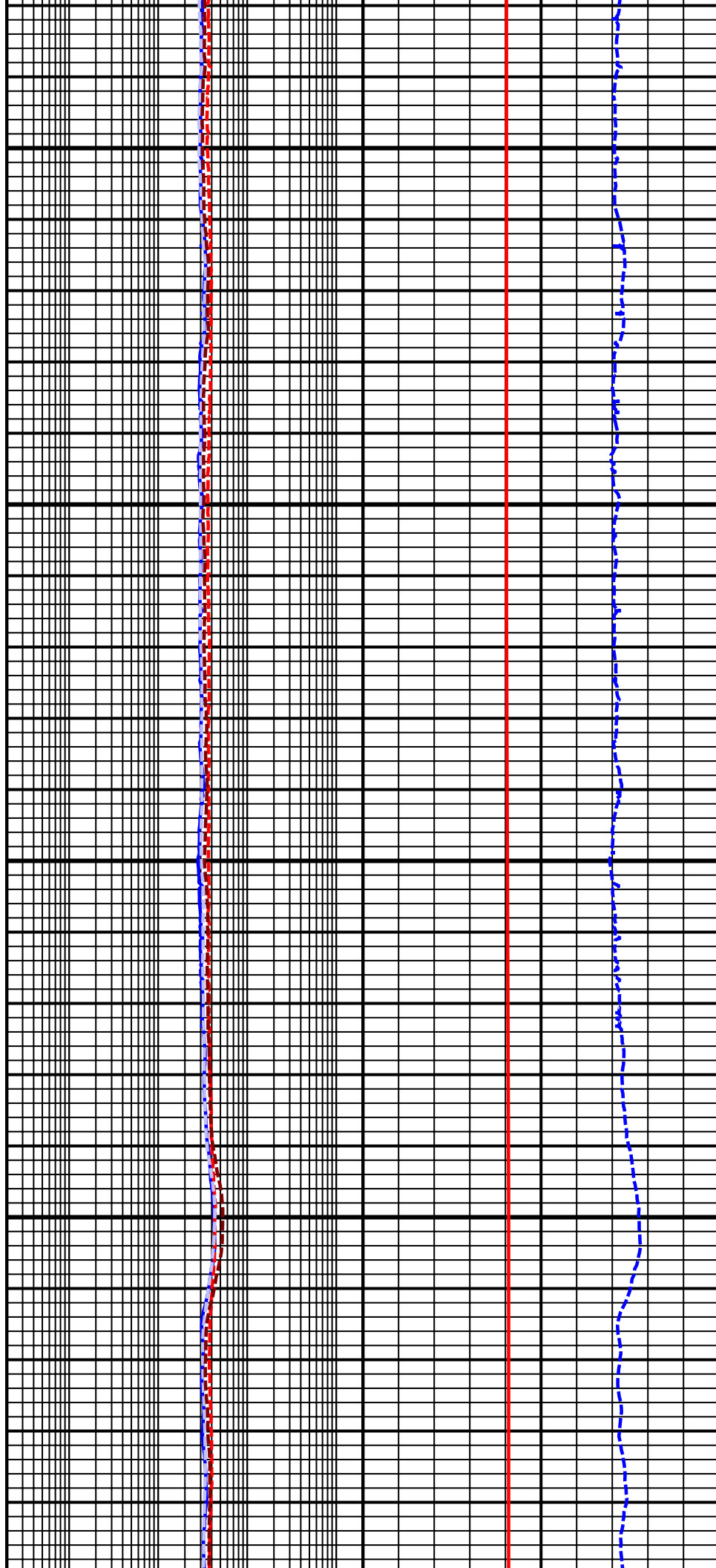


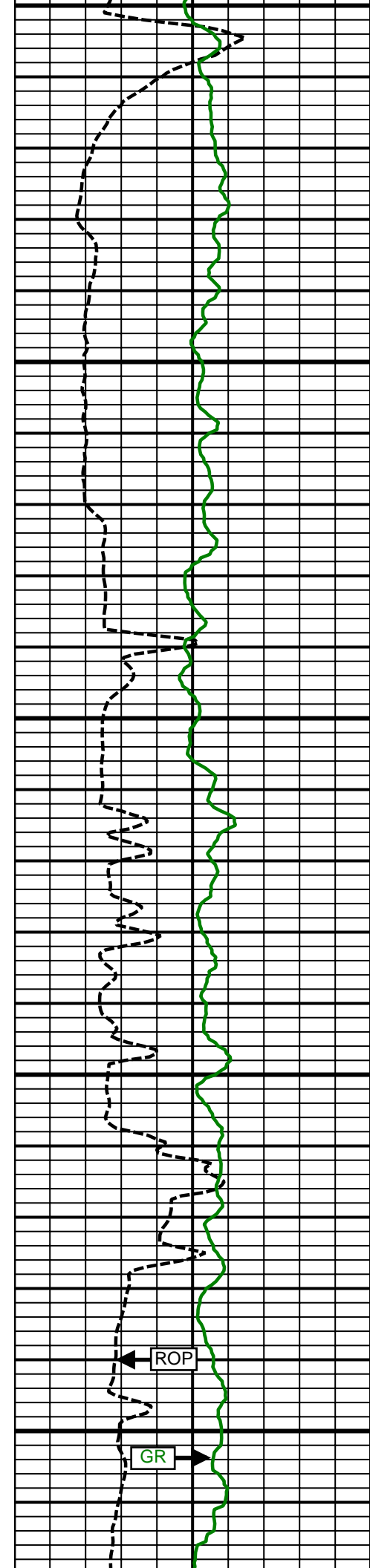


11800
MD

11900
MD

12000





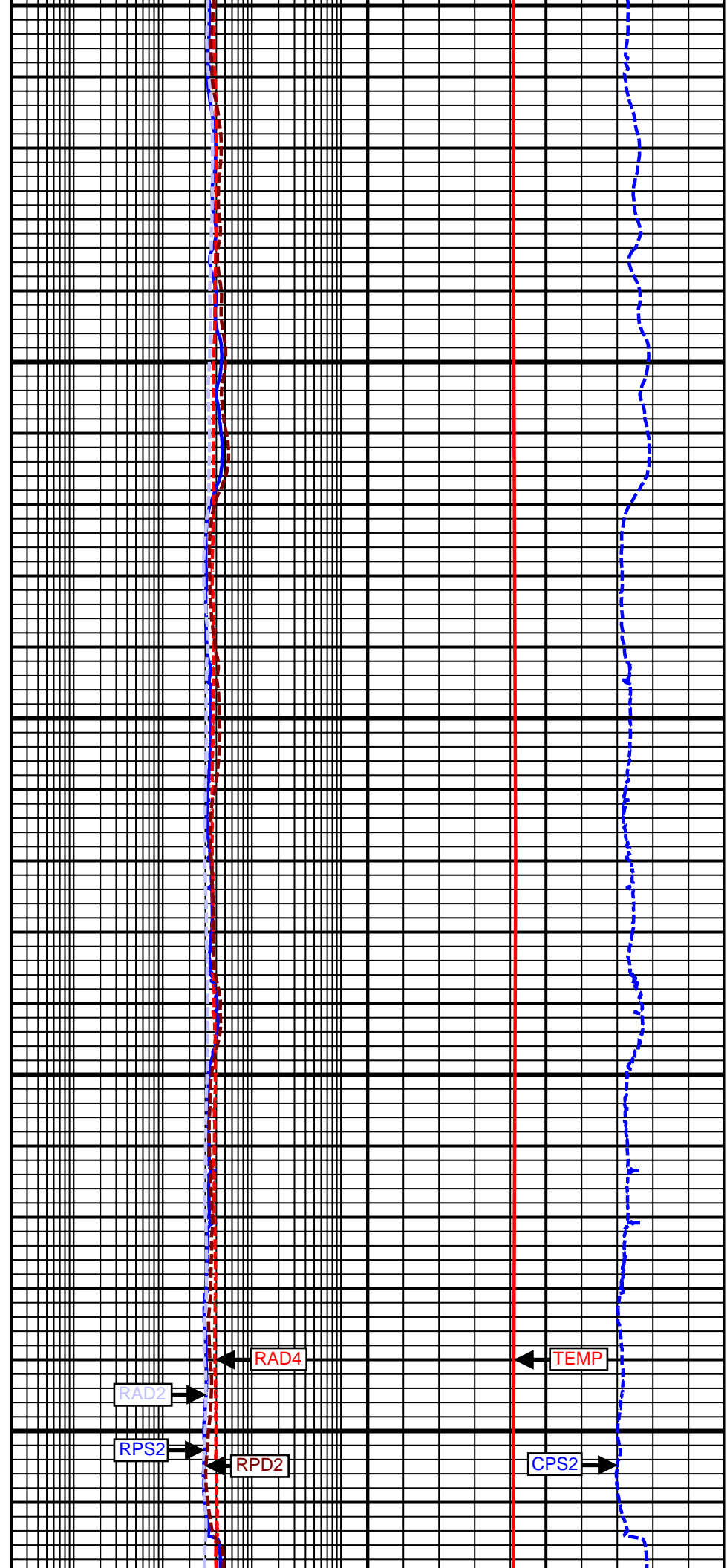
12000
MD

12100
MD

12200
MD

ROP

GR



RAD2

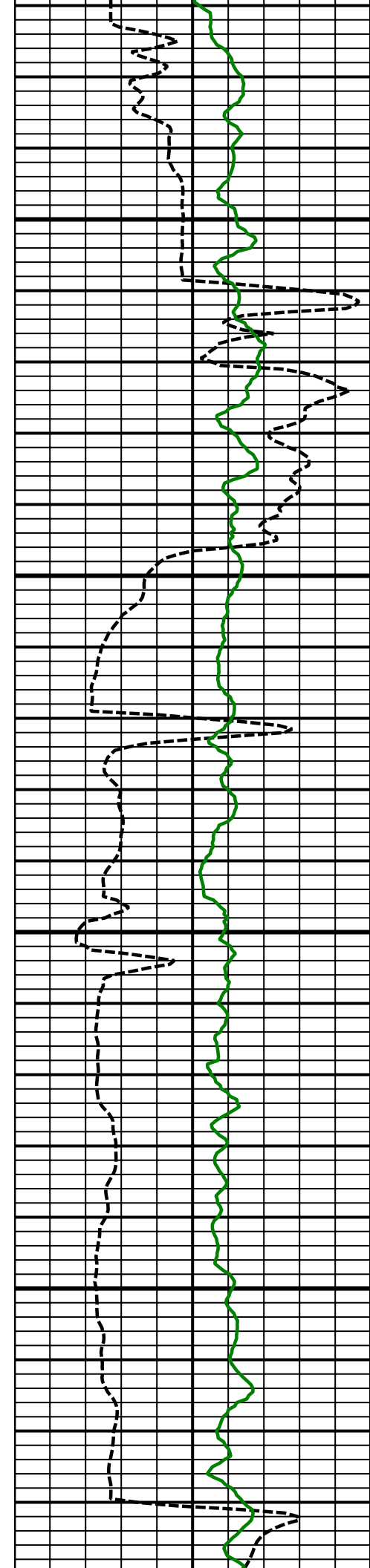
RAD4

TEMP

RPS2

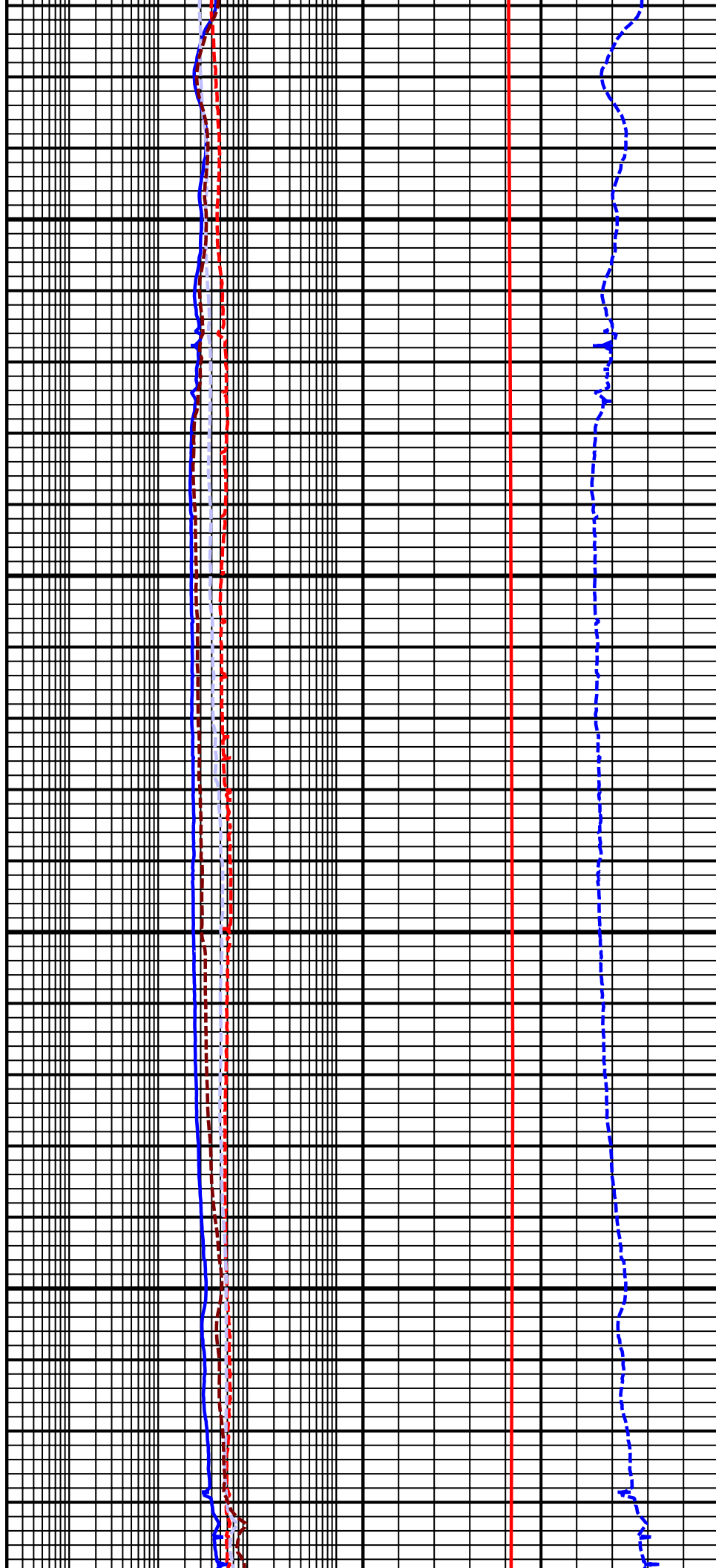
RPD2

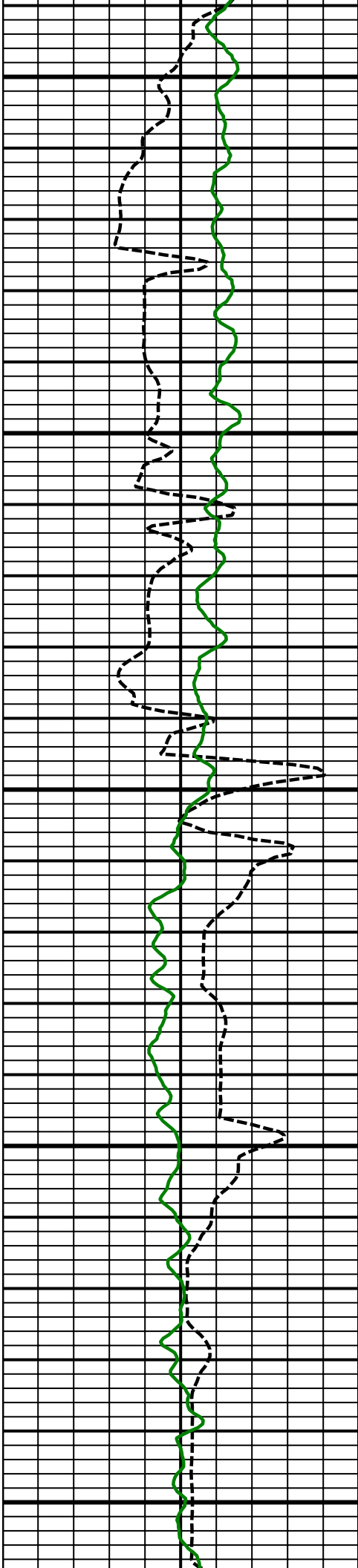
CPS2



12300
MD

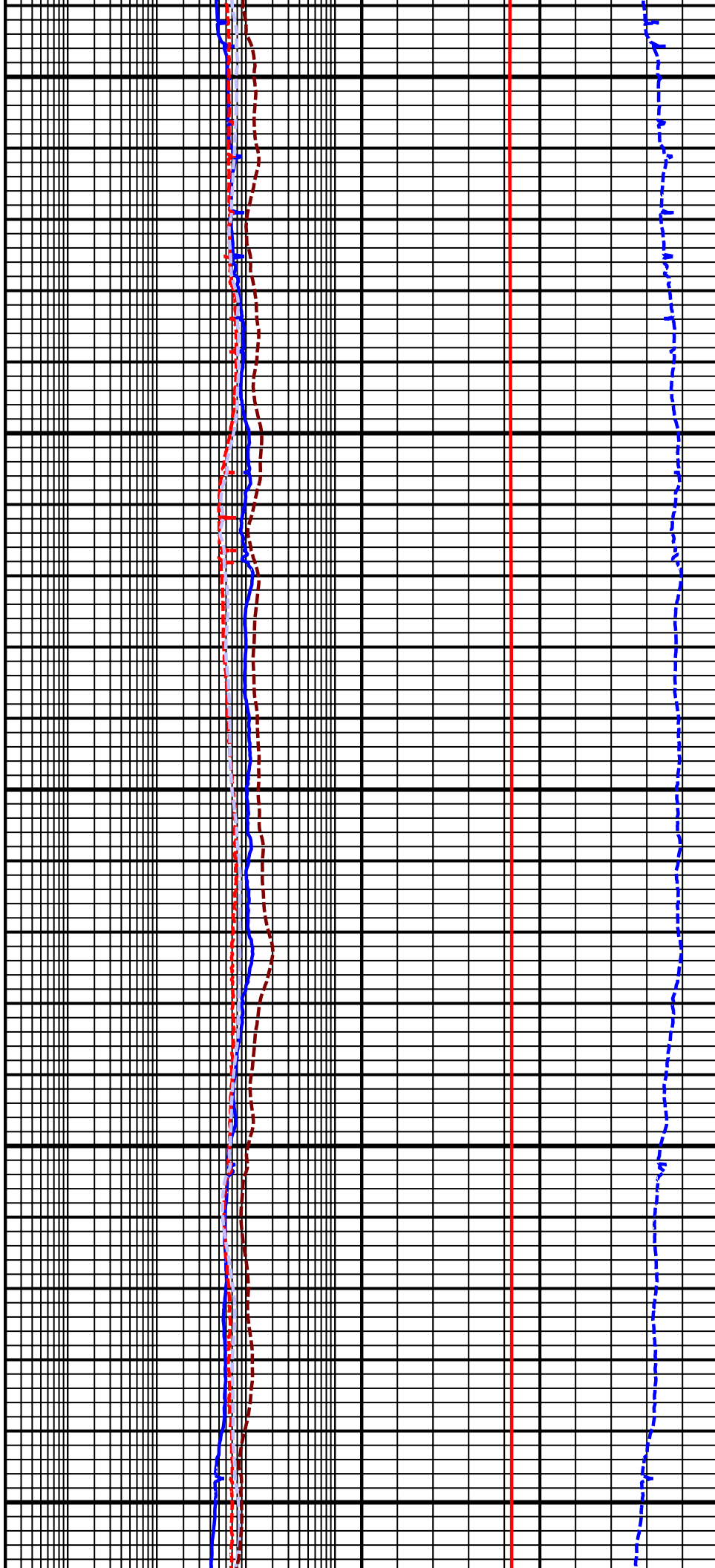
12400
MD

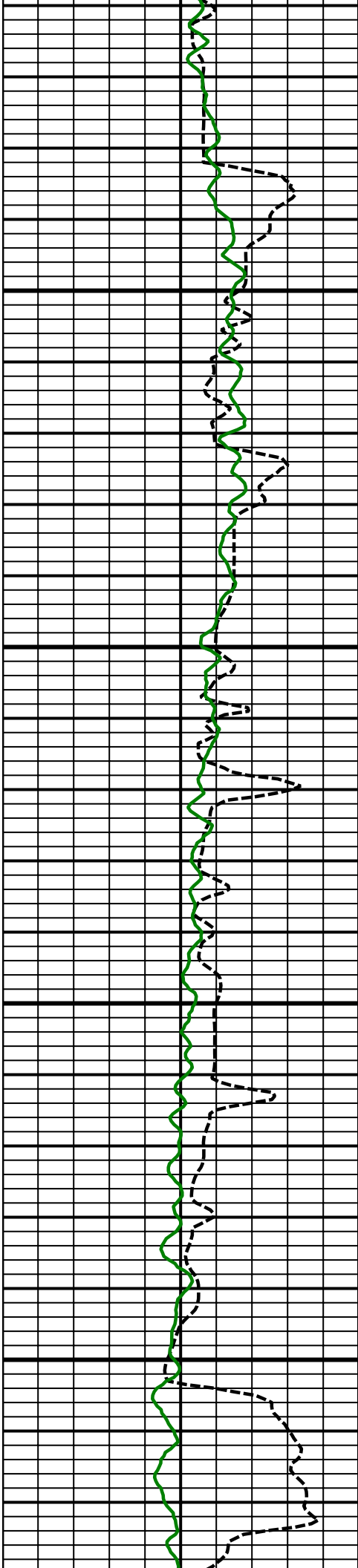




12500
MD

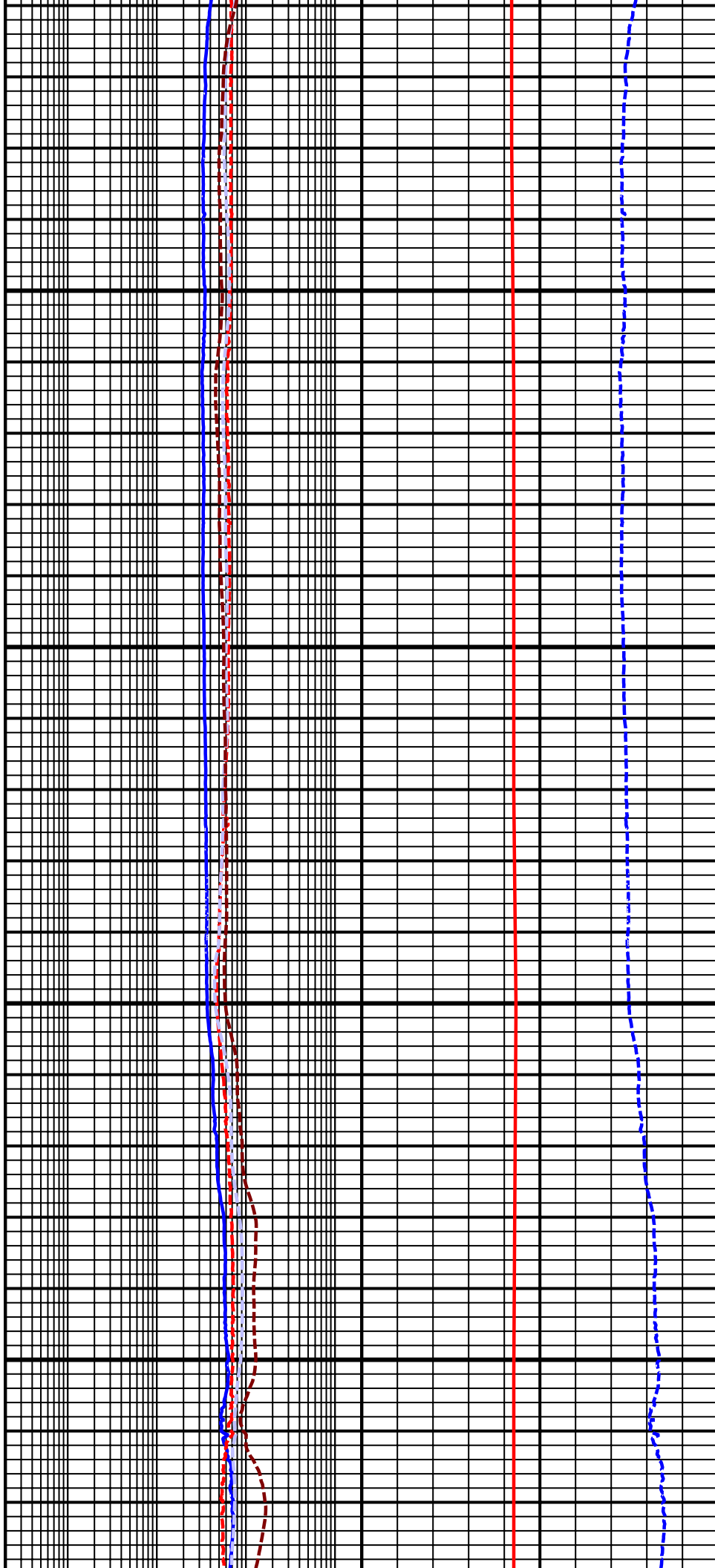
12600
MD

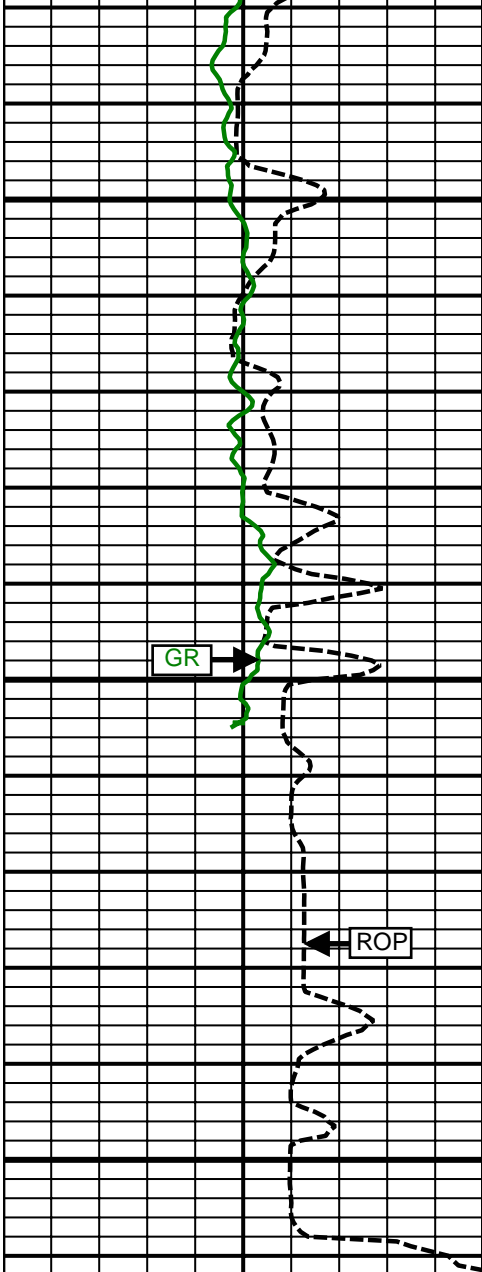




12700
MD

12800
MD

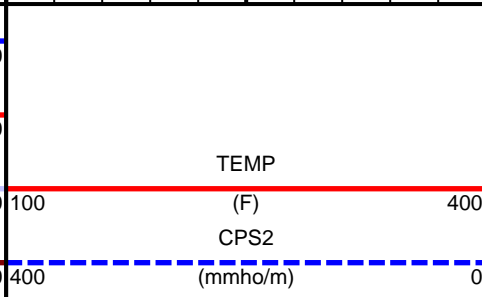
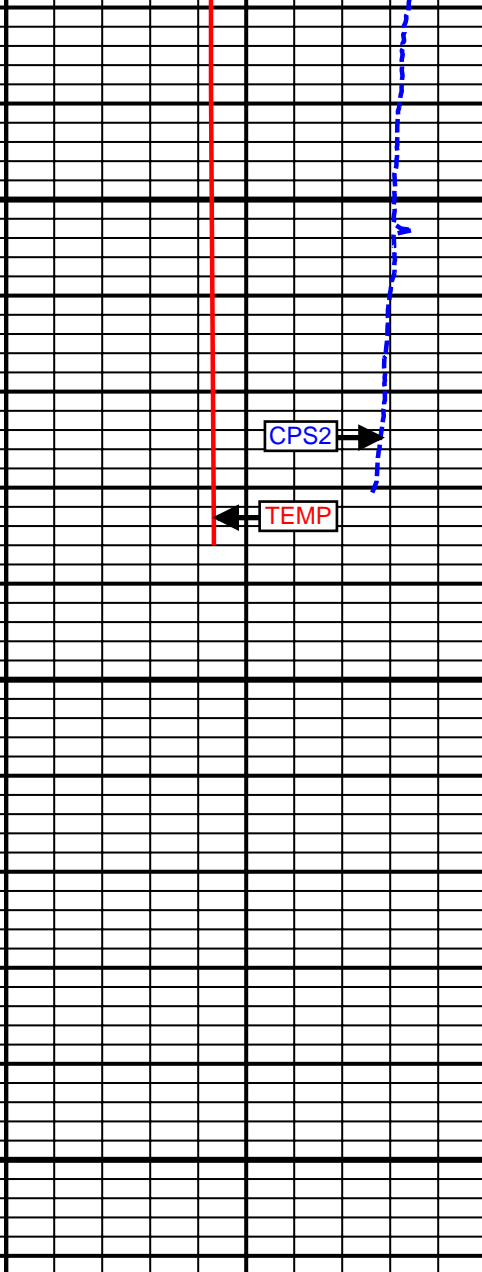
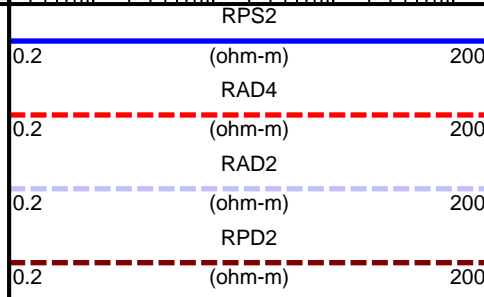
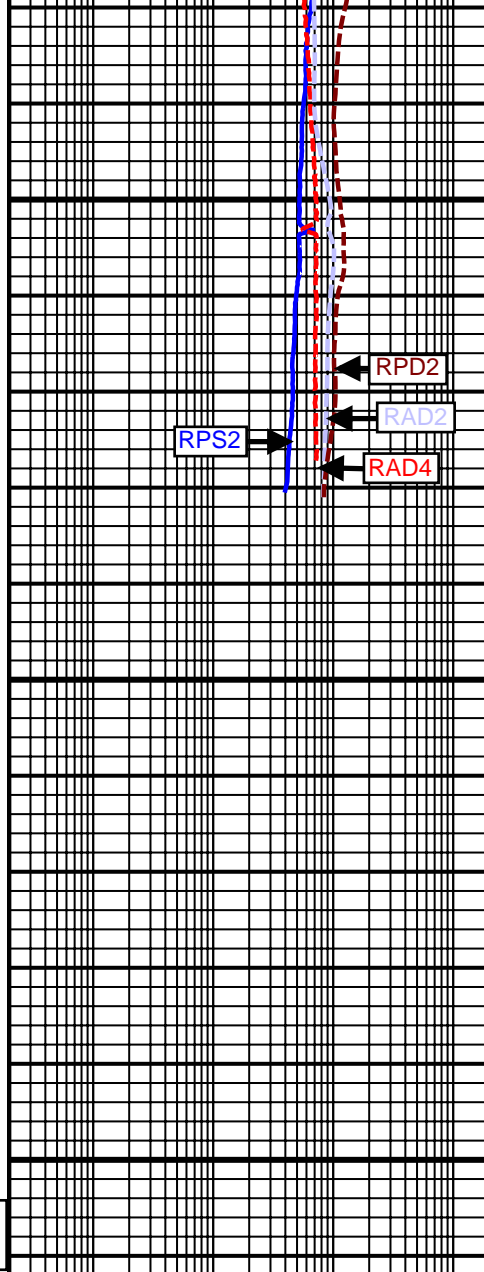
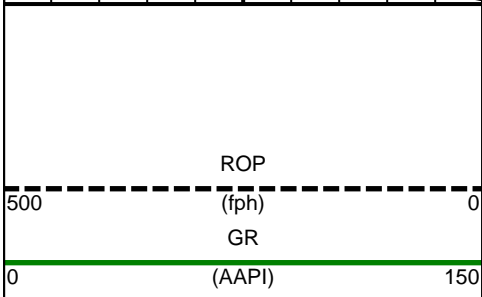




12900
MD

13000
MD

Comment
No. 5-2



SURVEY						
Survey Calculation Method: Minimum Curvature						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
True North	179.79 deg	52605 nT	66.63 deg	8.64 deg	0.00 deg	8.64 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	955.00 ft	0.15 deg	20.58 deg	954.99 ft	2.18 ft	-1.04 ft

Well Head							
Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	NS (ft)	EW (ft)	VSect (ft)	Dogleg (deg/100ft)
1085.00	0.49	263.44	1084.99	2.28	-1.53	-2.28	0.44
1461.00	0.55	325.03	1460.98	3.57	-4.16	-3.59	0.14
1742.00	0.44	273.19	1741.97	4.74	-6.01	-4.76	0.16
1836.00	3.22	297.15	1835.91	5.96	-8.72	-5.99	3.00
1929.00	5.61	292.87	1928.63	8.92	-15.24	-8.98	2.59
2024.00	6.58	284.72	2023.09	12.11	-24.78	-12.20	1.37
2115.00	7.38	283.94	2113.42	14.84	-35.50	-14.97	0.89
2206.00	9.16	280.42	2203.47	17.56	-48.29	-17.74	2.03
2297.00	10.10	274.46	2293.19	19.49	-63.37	-19.72	1.50
2388.00	11.16	274.99	2382.62	20.88	-80.10	-21.17	1.17
2479.00	11.88	272.47	2471.79	22.05	-98.23	-22.41	0.97
2572.00	13.36	271.91	2562.54	22.82	-118.54	-23.25	1.60
2664.00	15.10	275.33	2651.72	24.28	-141.09	-24.80	2.10
2757.00	16.18	275.16	2741.27	26.57	-166.06	-27.18	1.16
2849.00	16.98	271.90	2829.45	28.17	-192.25	-28.88	1.33
2943.00	17.01	270.60	2919.34	28.77	-219.72	-29.58	0.41
3036.00	16.68	269.66	3008.35	28.84	-246.67	-29.74	0.46
3129.00	17.34	275.39	3097.29	30.06	-273.82	-31.06	1.94
3223.00	18.01	273.14	3186.85	32.17	-302.27	-33.28	1.02
3316.00	16.45	271.68	3275.68	33.34	-329.79	-34.55	1.74
3410.00	16.24	274.34	3365.88	34.73	-356.20	-36.03	0.83
3503.00	15.46	276.57	3455.34	37.13	-381.48	-38.53	1.06
3596.00	16.08	275.12	3544.84	39.70	-406.63	-41.19	0.79
3690.00	15.32	276.87	3635.34	42.35	-431.92	-43.93	0.95
3783.00	14.06	274.43	3725.29	44.69	-455.38	-46.36	1.51
3869.00	13.10	275.30	3808.89	46.40	-475.50	-48.14	1.14
3954.00	13.95	272.90	3891.53	47.80	-495.33	-49.62	1.20
4040.00	14.17	269.41	3974.96	48.22	-516.21	-50.11	1.02
4125.00	14.83	268.47	4057.25	47.82	-537.48	-49.79	0.82
4211.00	15.37	270.40	4140.28	47.61	-559.88	-49.66	0.86
4296.00	15.83	274.12	4222.15	48.52	-582.71	-50.65	1.30
4381.00	16.63	272.94	4303.76	49.98	-606.42	-52.20	1.02
4466.00	16.95	264.29	4385.15	49.37	-630.90	-51.68	2.96
4556.00	17.55	262.88	4471.10	46.38	-657.42	-48.79	0.81
4641.00	16.72	266.05	4552.33	43.95	-682.34	-46.45	1.47
4727.00	14.49	267.90	4635.16	42.70	-705.43	-45.29	2.66
4812.00	13.96	273.52	4717.55	42.94	-726.30	-45.60	1.74
4897.00	13.35	278.48	4800.15	45.02	-746.24	-47.75	1.55
4983.00	12.70	279.06	4883.94	47.97	-765.39	-50.78	0.77
5068.00	13.16	277.31	4966.79	50.67	-784.22	-53.55	0.71
5153.00	11.22	277.01	5049.87	52.91	-802.02	-55.85	2.28
5239.00	8.53	278.77	5134.58	54.91	-816.63	-57.90	3.15

5324.00	8.34	280.01	5218.66	56.94	-828.93	-59.98	0.31
5409.00	7.55	281.32	5302.85	59.11	-840.48	-62.19	0.95
5495.00	6.45	281.45	5388.21	61.18	-850.76	-64.29	1.28
5580.00	5.09	284.19	5472.77	63.05	-859.09	-66.20	1.63
5665.00	4.06	287.43	5557.50	64.87	-865.62	-68.05	1.25
5751.00	2.70	289.44	5643.35	66.46	-870.43	-69.65	1.59
5837.00	1.04	315.01	5729.30	67.69	-872.89	-70.89	2.11
6264.00	1.31	350.81	6156.22	75.25	-876.41	-78.46	0.18
6692.00	1.13	343.27	6584.12	84.12	-878.41	-87.34	0.06
7118.00	1.30	56.09	7010.05	90.84	-875.61	-94.05	0.34
7202.00	1.28	53.06	7094.03	91.93	-874.07	-95.14	0.08
7289.00	3.20	148.66	7180.97	90.44	-872.03	-93.64	4.09
7374.00	14.04	163.15	7264.90	78.51	-867.79	-81.69	12.91
7459.00	23.39	158.22	7345.32	52.92	-858.52	-56.06	11.15
7545.00	25.45	162.25	7423.62	19.46	-846.55	-22.56	3.08
7630.00	29.83	169.97	7498.93	-18.78	-837.29	15.71	6.65
7715.00	40.47	174.28	7568.34	-67.19	-830.84	64.15	12.85
7801.00	46.78	171.51	7630.57	-126.02	-823.43	123.00	7.66
7886.00	57.74	177.39	7682.54	-192.79	-817.20	189.80	14.00
7972.00	65.86	179.23	7723.15	-268.49	-815.01	265.50	9.63
8057.00	68.29	182.90	7756.27	-346.74	-816.49	343.74	4.90
8142.00	77.82	187.47	7781.03	-427.59	-823.91	424.56	12.33
8201.00	87.27	187.22	7788.67	-485.54	-831.38	482.49	16.02
8361.00	89.82	184.37	7792.74	-644.64	-847.52	641.53	2.39
8446.00	90.26	183.53	7792.68	-729.44	-853.38	726.31	1.12
8532.00	91.23	182.70	7791.56	-815.30	-858.05	812.15	1.48
8617.00	90.43	183.05	7790.33	-900.19	-862.31	897.02	1.03
8703.00	90.80	181.59	7789.40	-986.11	-865.79	982.93	1.75
8788.00	90.18	181.49	7788.68	-1071.08	-868.08	1067.89	0.74
8873.00	89.82	179.65	7788.68	-1156.07	-868.92	1152.88	2.21
8958.00	91.23	180.05	7787.90	-1241.06	-868.70	1237.87	1.72
9043.00	90.25	179.77	7786.80	-1326.05	-868.57	1322.86	1.20
9128.00	90.12	179.49	7786.53	-1411.05	-868.02	1407.86	0.36
9214.00	92.22	180.76	7784.77	-1497.03	-868.20	1493.83	2.85
9299.00	92.12	180.88	7781.55	-1581.96	-869.42	1578.76	0.18
9385.00	91.42	180.25	7778.89	-1667.91	-870.27	1664.71	1.09
9470.00	91.05	179.63	7777.06	-1752.89	-870.18	1749.69	0.85
9556.00	90.62	178.53	7775.81	-1838.87	-868.80	1835.67	1.37
9642.00	89.20	177.63	7775.94	-1924.82	-865.92	1921.63	1.95
9728.00	89.26	176.94	7777.10	-2010.71	-861.84	2007.54	0.81
9813.00	90.92	178.09	7776.97	-2095.63	-858.16	2092.47	2.38
9898.00	90.49	177.33	7775.92	-2180.55	-854.76	2177.41	1.03
9984.00	90.26	176.83	7775.36	-2266.44	-850.38	2263.31	0.64
10069.00	90.00	177.87	7775.17	-2351.35	-846.45	2348.23	1.26
10154.00	88.27	178.03	7776.45	-2436.28	-843.41	2433.17	2.04
10240.00	90.49	178.09	7777.38	-2522.22	-840.50	2519.12	2.58
10325.00	89.32	178.93	7777.52	-2607.19	-838.29	2604.10	1.69
10411.00	89.38	178.96	7778.50	-2693.17	-836.71	2690.08	0.08
10496.00	89.26	180.65	7779.50	-2778.16	-836.42	2775.07	1.99
10581.00	90.56	179.96	7779.64	-2863.15	-836.87	2860.07	1.73
10667.00	89.63	179.53	7779.50	-2949.15	-836.49	2946.07	1.19
10752.00	87.78	180.05	7781.42	-3034.13	-836.18	3031.04	2.26
10837.00	89.44	180.85	7783.48	-3119.10	-836.84	3116.01	2.17
10923.00	90.49	182.62	7783.53	-3205.05	-839.45	3201.95	2.39
11008.00	89.88	182.24	7783.26	-3289.97	-843.05	3286.86	0.85
11093.00	89.08	180.61	7784.03	-3374.94	-845.16	3371.82	2.14
11179.00	91.17	182.32	7783.84	-3460.90	-847.36	3457.78	3.14
11264.00	90.74	181.66	7782.42	-3545.84	-850.31	3542.70	0.93
11349.00	90.00	180.95	7781.87	-3630.82	-852.25	3627.67	1.21
11435.00	88.64	180.04	7782.90	-3716.80	-852.99	3713.65	1.90
11520.00	88.83	181.16	7784.77	-3801.78	-853.88	3798.62	1.34

11606.00	89.44	180.05	7786.07	-3887.76	-854.79	3884.60	1.47
11691.00	89.51	180.66	7786.85	-3972.75	-855.32	3969.59	0.72
11776.00	90.00	182.62	7787.21	-4057.71	-857.75	4054.54	2.38
11861.00	89.38	182.93	7787.67	-4142.61	-861.86	4139.43	0.82
11947.00	89.08	181.86	7788.83	-4228.53	-865.46	4225.33	1.29
12032.00	89.38	182.62	7789.97	-4313.46	-868.78	4310.24	0.96
12117.00	89.07	182.15	7791.12	-4398.37	-872.32	4395.15	0.66
12203.00	88.46	182.15	7792.97	-4484.29	-875.54	4481.05	0.71
12288.00	89.44	180.38	7794.53	-4569.25	-877.42	4566.01	2.38
12374.00	89.14	178.94	7795.60	-4655.24	-876.91	4652.00	1.71
12459.00	88.50	178.59	7797.35	-4740.20	-875.08	4736.97	0.86
12545.00	88.95	178.09	7799.26	-4826.15	-872.59	4822.92	0.78
12631.00	88.40	177.76	7801.25	-4912.07	-869.47	4908.85	0.75
12716.00	89.88	178.77	7802.53	-4997.01	-866.90	4993.80	2.11
12801.00	91.05	179.42	7801.84	-5082.00	-865.56	5078.79	1.57
12886.00	89.32	178.89	7801.56	-5166.99	-864.30	5163.78	2.13
12956.00	89.82	179.30	7802.09	-5236.98	-863.20	5233.78	0.92
13010.00	89.82	179.30	7802.26	-5290.97	-862.54	5287.77	0.00

Weatherford Surveys from 1085 ft MD to 12956 ft MD.

Well TD at 13010 ft MD.

The total correction is 8.64 deg relative to True North.



Weatherford®

Final Print

COMPANY	<u>Anadarko</u>		
WELL	<u>D&C Farms 13C-33HZ</u>		
FIELD	<u>Watterberg</u>		
RIG	<u>United States</u>		
LOC.	<u>Colorado</u>	COUNTY	<u>Weld</u>