



Weatherford®

6 3/4 In. & 4 3/4 in.
WeatherfordM/LWD™
Gamma Ray & Resistivity
1 in. & 5 in. MEASURED DEPTH
RECORDED DATA

Company: Anadarko
Well: Sparboe 7N-3HZ
Field: Wattenburg
Rig: Xtreme 23
County: Weld

COMPANY		<u>Anadarko</u>	
WELL		<u>Sparboe 7N-3HZ</u>	
FIELD		<u>Wattenburg</u>	
RIG		<u>Xtreme 23</u>	
COUNTY		<u>Weld</u>	
API #		<u>05-123-36235</u>	
		STATE <u>Colorado</u>	

Location		Latitude: 40.101501° N	X = 3,238,883.55 ft	Mag Decl: 8.62°
		Longitude: 104.645921° W	Y = 1,280,971.47 ft	Mag Dip: 66.75°
Other Services: Directional				

Permanent Datum:	<u>Ground Level</u>	
Log Measured From:	<u>Drill Floor</u>	Elev: <u>4993.0 ft</u> above perm. datum
Depth Reference:	<u>Drillers Tally</u>	Total Depth: <u>13900 ft</u>
Depth Logged:	6506 ft	Runs: 4
Date Logged:	1-Feb-13 to 8-Feb-13	Spud Date: 30-Jan-13

Elevation	K.B. Top Drive
	G.L. 4977.0 ft
	D.F. 4993.0 ft
	W.D. Land

Borehole Record			Casing Record		
Hole Size	From	To	Size	Weight	From To
8.750 in.	1882 ft	7414 ft	9.625 in.	53.5 lb/ft	Surface 1882 ft
6.125 in.	7514 ft	13900 ft	7.000 in.	26.0 lb/ft	Surface 7514 ft

Borehole Deviation Record			Mud Record		
Hole Size	Min. Inc.	Max. Inc.	Type	Weight	From To
8.750 in.	0.49°	84.96°	WBM	8.60 - 10.10 ppq	1882 ft 13900 ft
6.125 in.	84.13°	93.08°			

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		
Bit Size	in.	8.750	8.750	6.125	6.125		
Bit Type		PDC	PDC	PDC	PDC		
Bit TFA	sq.in.	1.243	1.534	0.982	0.982		
Bit Start Depth	ft	1882	6550	7514	9320		
Bit End Depth	ft	6550	7514	9320	13900		
Top Log Interval	ft	na	6506	7430	9236		
Bottom Log Interval	ft	na	7514	9320	13900		
Begin Log Time	hrs	na	19:21	0:02	18:23		
Begin Log Date	DD-MMM-YY	na	1-Feb-13	4-Feb-13	6-Feb-13		
End Log Time	hrs	na	19:08	12:50	17:23		
End Log Date	DD-MMM-YY	na	2-Feb-13	5-Feb-13	8-Feb-13		
Drill or Wipe		Drill	Drill	Drill	Drill		
Flow Rate	gal/min	588	569	305	295		
Max AV / CV @ MWD	ft/min	465 / 354	450 / 363	500 / 412	483 / 412		
Min Inc @ Depth	deg @ ft	0.53 @ 1903	0.49 @ 6535	84.13 @ 13843	84.13 @ 13843		
Max Inc @ Depth	deg @ ft	9.94 @ 4612	84.96 @ 7454	93.08 @ 9294	93.08 @ 9294		
MUD DATA							
Depth	ft	6550	7514	9320	13900		
Fluid Type		WBM	WBM	WBM	WBM		
Mud Weight	ppg	9.80	10.10	9.50	9.50		
Plastic Viscosity	cP	12	14	15	15		
Solids / Sand	%	7.2 / 0.25	9.2 / 0.25	7.2 / 0.25	7.2 / 0.25		
NaCl Equiv. Chlorides	ppm	2640	3300	3630	3300		
pH		WBM	WBM	WBM	WBM		
Oil:Water Ratio	% Vol	97.8 : 2.3	97.8 : 2.3	97.8 : 2.2	97.8 : 2.2		
Rm @ Temperature	ohm-m @ deg F	na	na	1.96 @ 65	1.96 @ 65		
Rmc @ Temperature	ohm-m @ deg F	na	na	1.99 @ 65	1.99 @ 65		
Rmf @ Temperature	ohm-m @ deg F	na	na	1.91 @ 65	1.91 @ 65		
KCl	% Vol	0	0	0	0		
Client Representative		D. Bell	D. Bell	R. McPeters	R. McPeters		
WeatherfordLWD Engineer		R. Kondret	R. Kondret	R. Kondret	R. Kondret		

EQUIPMENT SUMMARY

M/LWD Run Number	1	2	3	4	
BTR / CDS Serial Number	983	983	na	na	
Battery Serial Number	403469279	403469279	na	na	
Gamma Ray Serial Number	na	40799	37131	37131	
Pulser Serial Number	43924	43924	10405	10405	
HEL Serial Number	na	na	NW22920PDBBI4.75-M1	NW22917PDBBI4.75-M2	
MFR Serial Number	na	na	NW130162RBBK4.75	NW130162RBBK4.75	
SAGR Serial Number	na	na	NW130210JB4.75	NW130210JB4.75	
Sensor to Bit Offsets / Acquisition Rates					
Directional	ft / sec	61.72 / RT	61.72 / RT	55.54 / RT	55.5 / RT
Gamma Ray	ft / sec	na	47.51 / 10	40.81 / 5	40.81 / 5
Resistivity	ft / sec	na	na	83.97 / 5	83.75 / 5
Other Information					
Total BHA Length	ft	119.65	1974.15	9011.04	9010.22
BHA Assembly Type		Steerable	Steerable	Steerable	Steerable
Stabilizer Location	ft	na	na	36.03	36.03
Stabilizer Location	ft	na	na	105.67	104.85
Stabilizer Location	ft	na	na	141.10	140.28
Run Circulating Time	hr	20.19	24.07	25.16	55.15
Run Drilling Time	hr	11.70	13.39	10.67	28.83

MUD SUMMARY

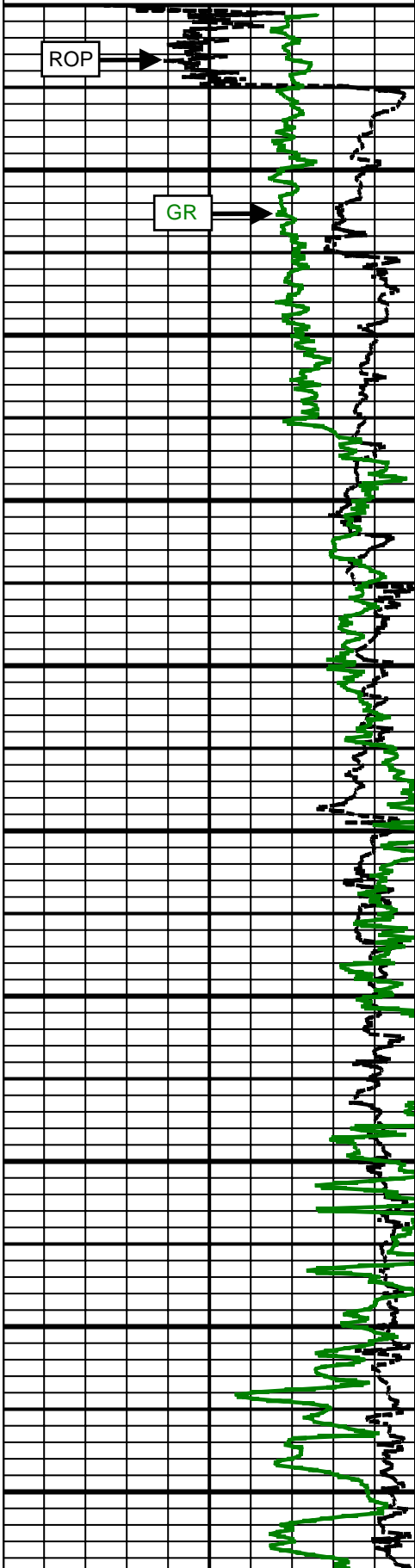
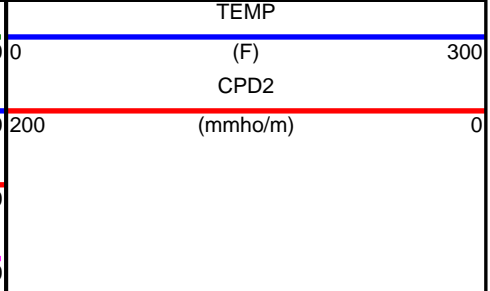
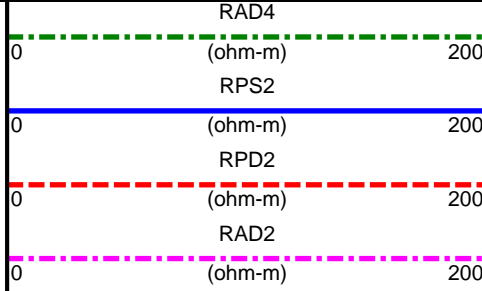
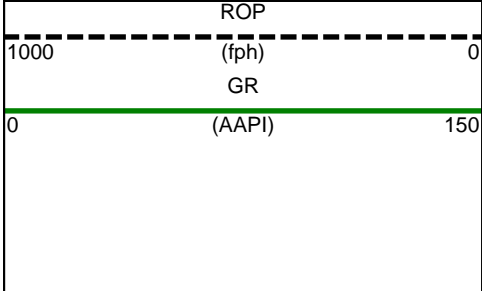
Date and Time	Run	Bit Depth	Mud Weight	% K	Rm @ Temp	Rmf @ Temp	Rmc @ Temp	BHCT
01 Feb 13 @ 08:30	01	6550 ft	9.80 ppg	0	na	na	na	138 F
03 Feb 13 @ 03:00	02	7514 ft	10.10 ppg	0	na	na	na	177 F
06 Feb 13 @ 21:00	03	9320 ft	9.50 ppg	0	1.96 ohm-m @ 65 F	1.99 ohm-m @ 65 F	1.91 ohm-m @ 65 F	183 F
09 Feb 13 @ 10:00	04	13900 ft	9.50 ppg	0	1.96 ohm-m @ 65 F	1.99 ohm-m @ 65 F	1.91 ohm-m @ 65 F	231 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:			
Hole Size:	8.750 in.	Gamma Ray: Hole size, mudweight, Collar O.D., Collar I.D. and K1 factor.	
Mud Weight:	8.34 ppg	Collar O.D.:	6.80 in.
K1 Factor:	3.164	Collar I.D.:	3.25 in.
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:			
Hole Size:	8.750 in.	Gamma Ray: Hole size, mudweight, Collar O.D., Collar I.D. and K1 factor.	
Mud Weight:	8.34 ppg	Collar O.D.:	6.80 in.
K1 Factor:	3.164	Collar I.D.:	3.25 in.
Run Number: 3 :: 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:	9.40 ppg	Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity	
Borehole Temperature:	200° F	and dielectric correction.	
Drilling Fluid Resistivity:	1.96		
KCl Concentration:	0%		
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:	9.40 ppg	Resistivities: Corrected for borehole temperature, hole size, drilling fluid resistivity	
Borehole Temperature:	200° F	and dielectric correction.	
Drilling Fluid Resistivity:	1.96		
KCl Concentration:	0%		

M/LWD LOG COMMENTS	
Comment No. 1-1	No logging done during this run.
Comment No. 2-1	RECORDED DATA LOG Start of M/LWD Drilling Run 02 Weatherford International provided 6 3/4 in. Directional, Gamma Ray, and Temperature for Run 02. Run 02 started formation drilling February 1, 2013 at 19:21 at 6550 MD / 6518 TVD. Weatherford International logged the 8.750 in. borehole. The WBM at the start of drilling was 10.1 ppg.
Comment No. 2-2	End of M/LWD Drilling Run 02 Run 02 ended drilling formation February 2, 2013 at 19:08 at 7514 MD / 7135 TVD. The WBM at the end of drilling was 10.1 ppg.
Comment No. 3-1	RECORDED DATA LOG Start of LWD Drilling Run 03 Weatherford International provided 4 3/4 in. Directional, Resistivity, Gamma Ray, and Temperature for Run 03. Run 03 started formation drilling February 4, 2013 at 0:02 at 7514 MD / 7135 TVD. Weatherford International logged the 6.125 in. borehole. The WBM at the start of drilling was 9.6 ppg.
Comment No. 3-2	End of LWD Drilling Run 03 Run 03 ended drilling formation February 5, 2013 at 15:50 at 9320 MD / 7105 TVD. The WBM at the end of drilling was 9.5 ppg.
Comment No. 4-1	RECORDED DATA LOG Start of LWD Drilling Run 04 Weatherford International provided 4 3/4 in. Directional, Resistivity, Gamma Ray, and Temperature for Run 04. Run 04 started formation drilling February 6, 2013 at 18:23 at 9320 MD / 7105 TVD. Weatherford International logged the 6.125 in. borehole. The WBM at the start of drilling was 9.5 ppg.
Comment No. 4-2	End of LWD Drilling Run 04 Run 04 ended drilling formation February 8, 2013 at 17:23 at 13900 MD / 7123 TVD. The WBM at the end of drilling was 9.5 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	
Shallow Phase Resistivity	RPS2	ohm-m	2 MHz Shallow Phase Resistivity 3.0 ft window 0.5 ft Exponential Smoothing	
Deep Phase Conductivity	CPD2	mmho/m	2 MHz Deep Phase Conductivity 3.0 ft window 0.5 ft Exponential Smoothing	
Temperature	TEMP	F	Temperature 3.0 ft window 0.5 ft Exponential Smoothing	None

1 Inch - Measured Depth



6500 MD

6600 MD

6700 MD

6800 MD

6900 MD

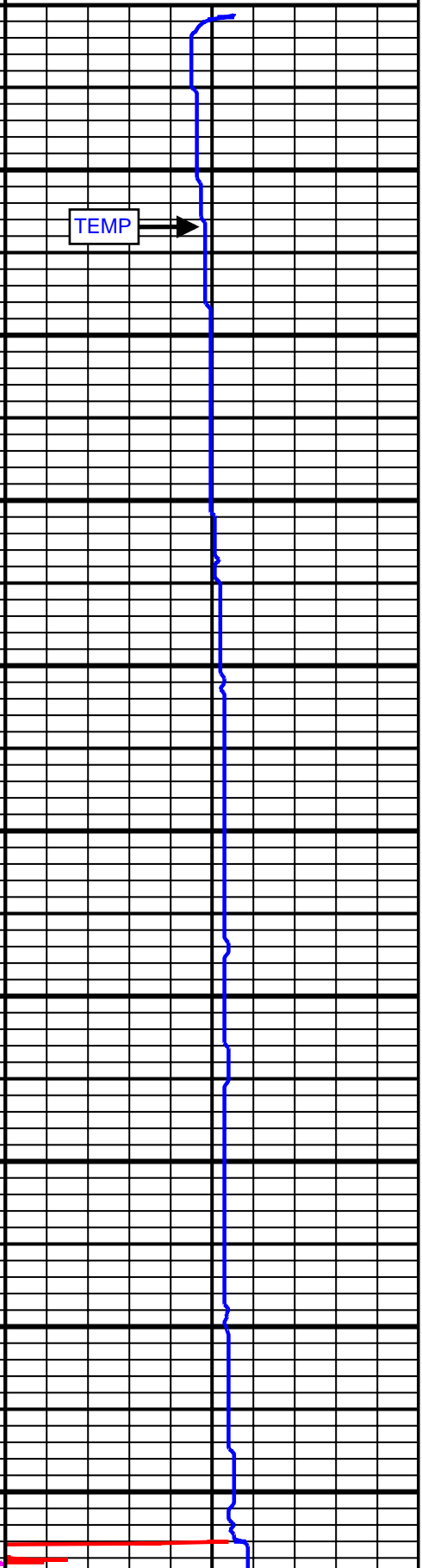
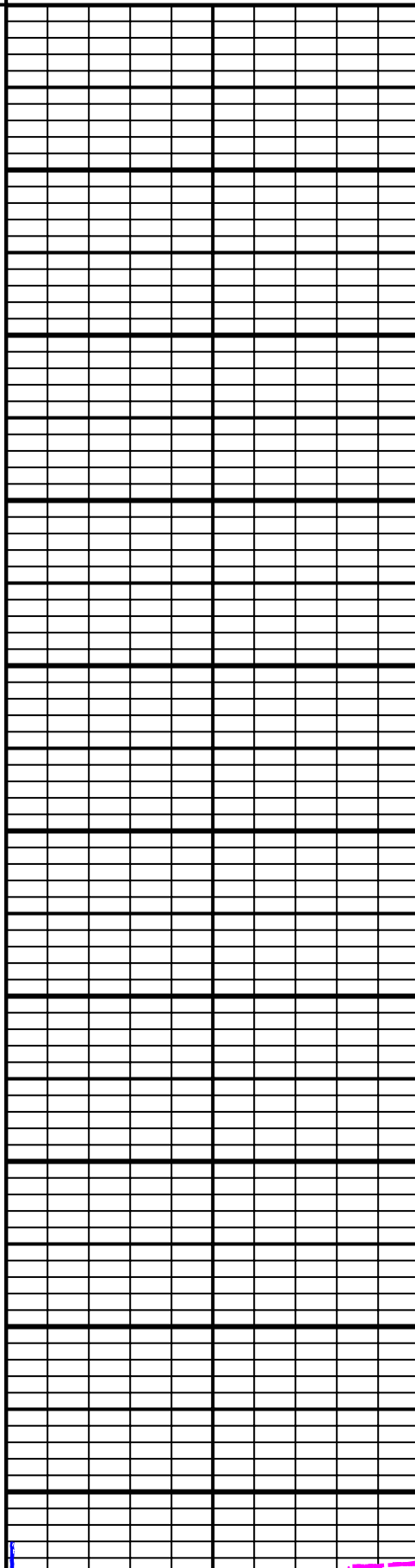
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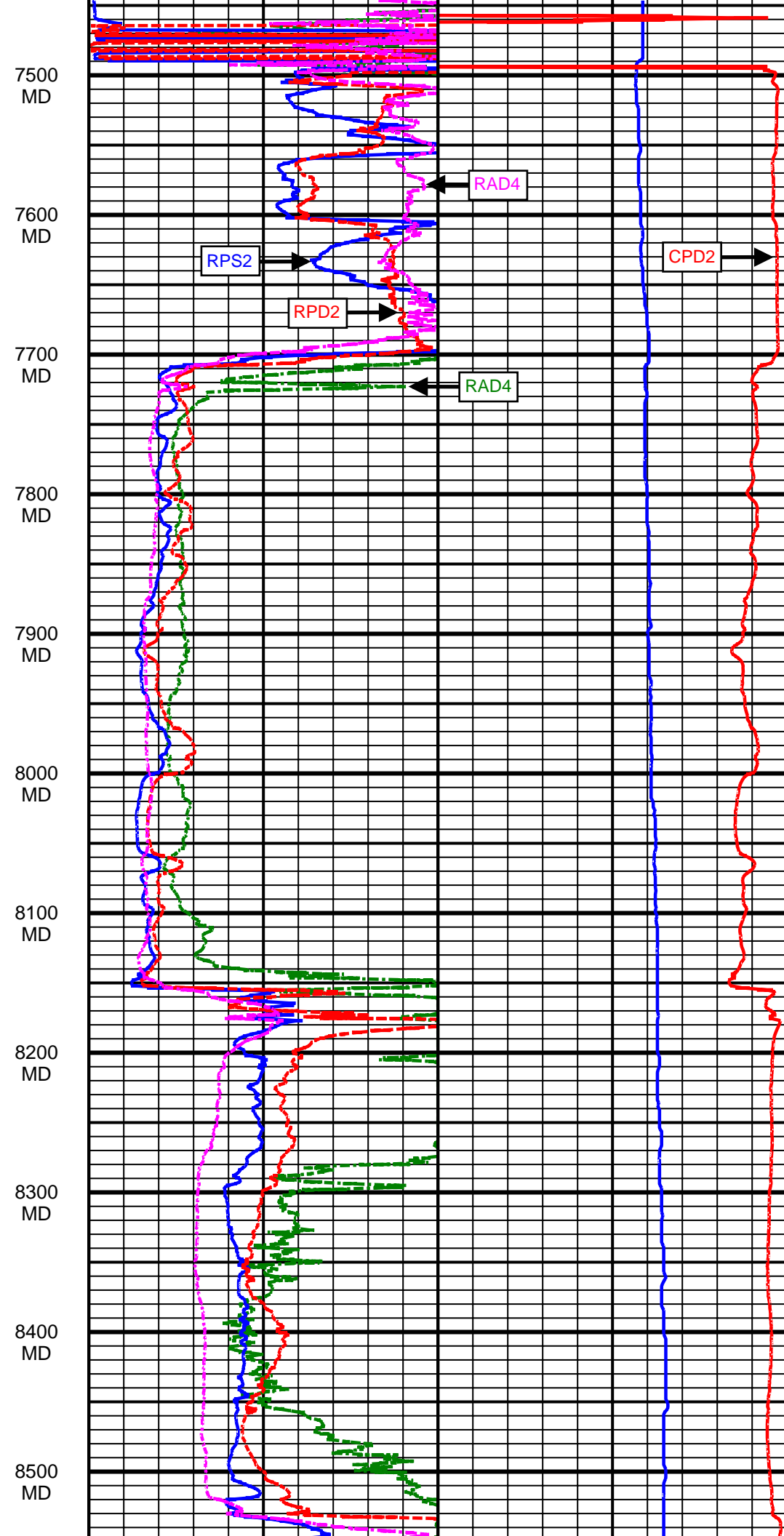
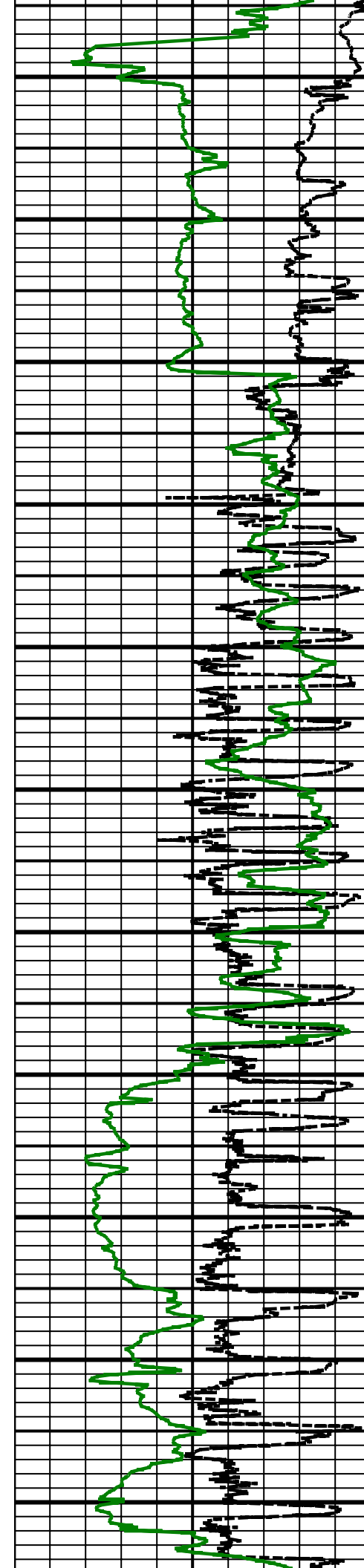
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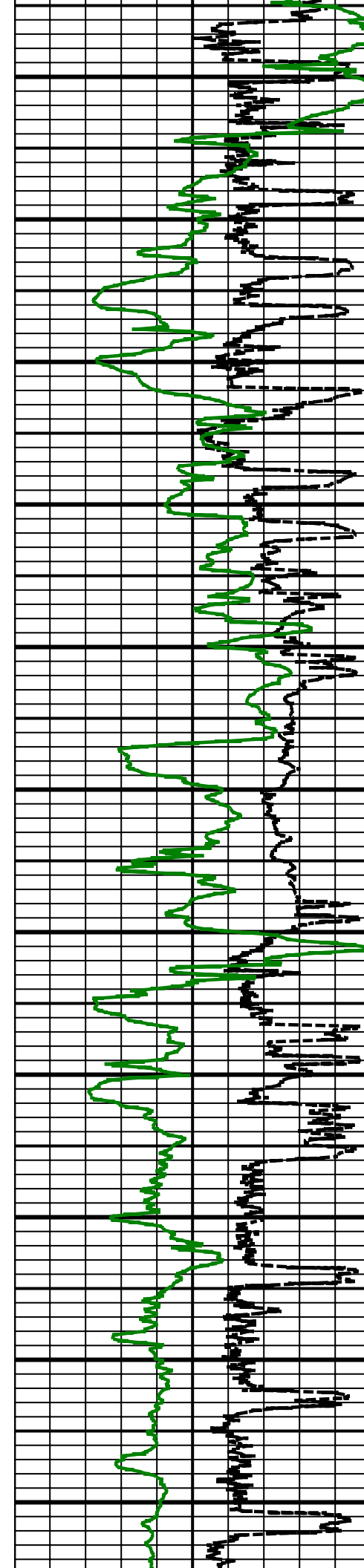
7200 MD

7300 MD

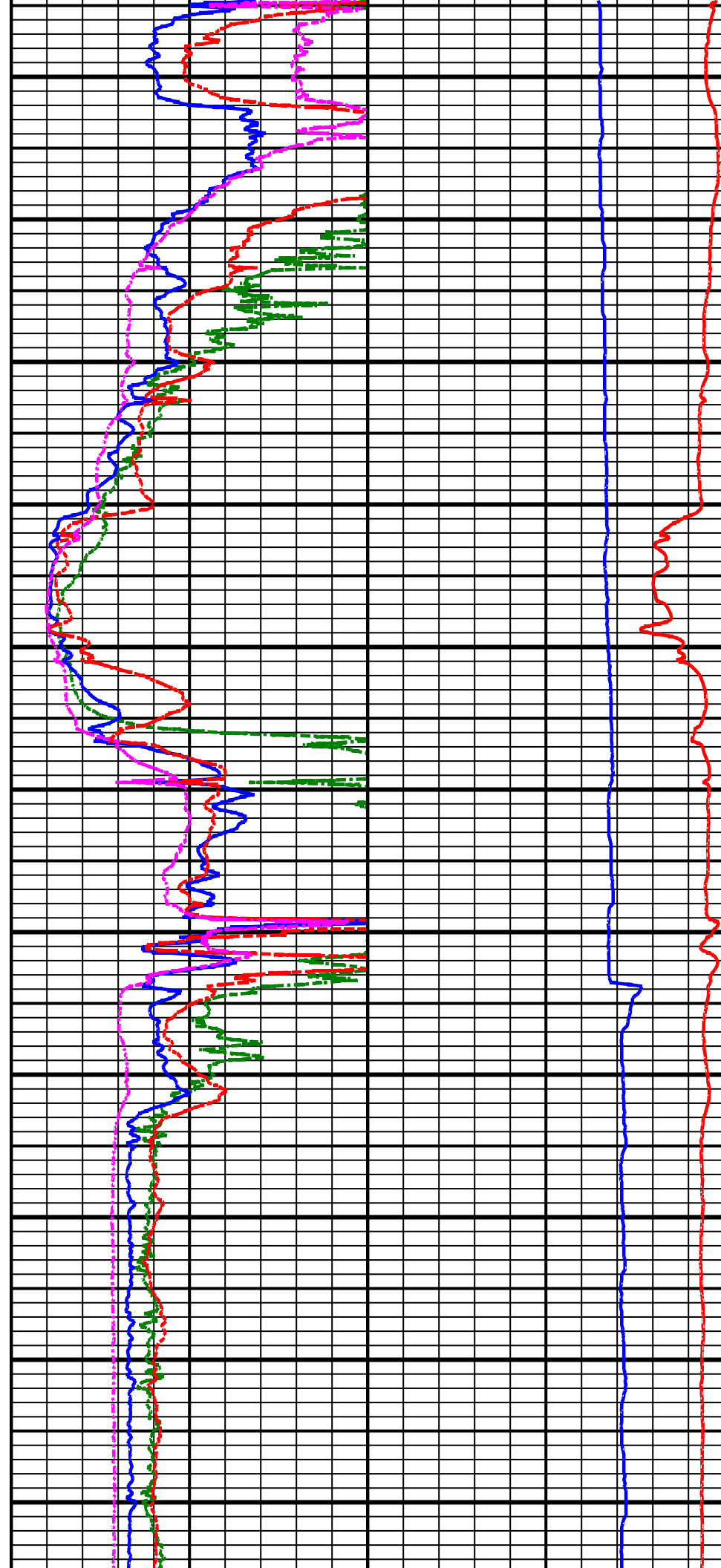
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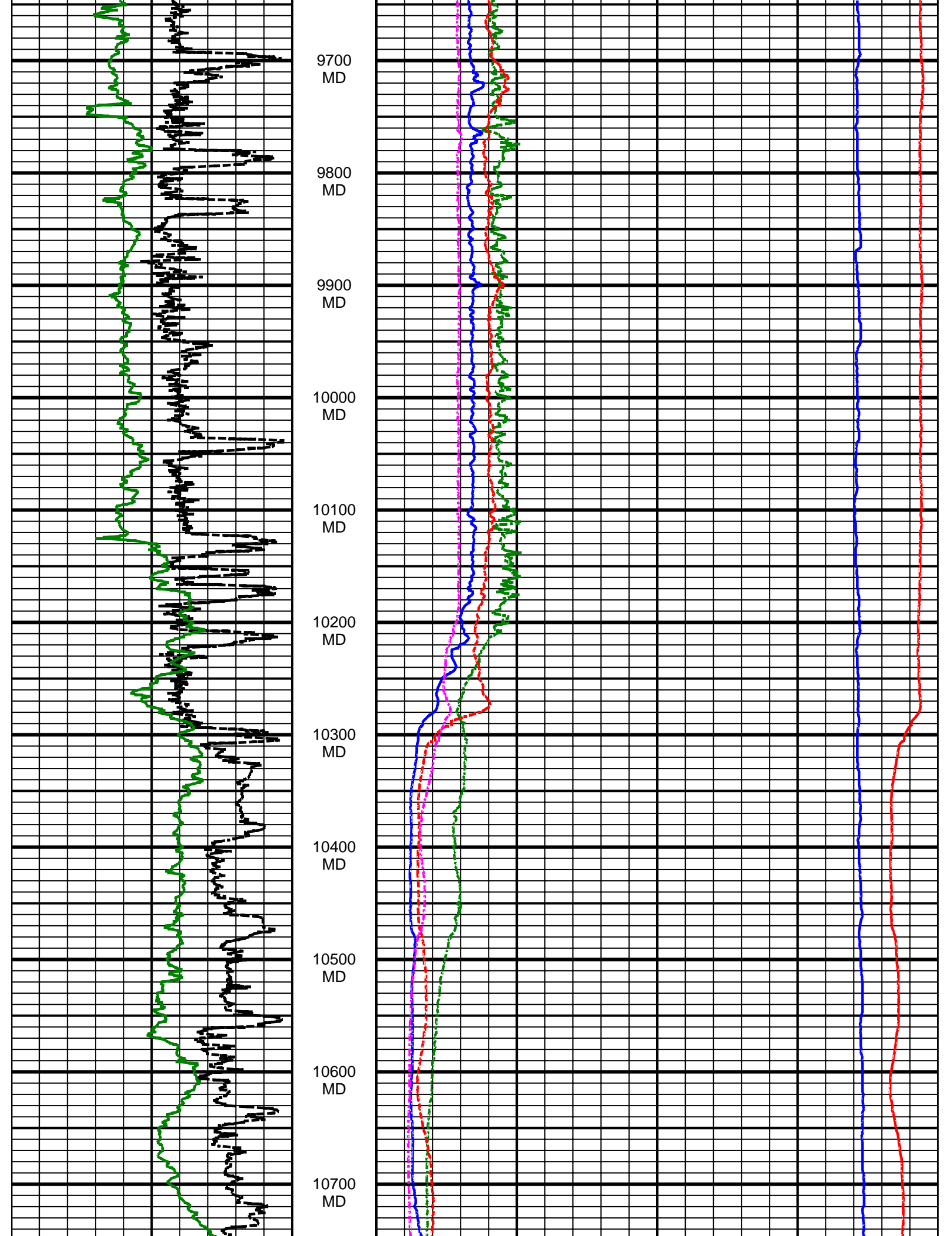


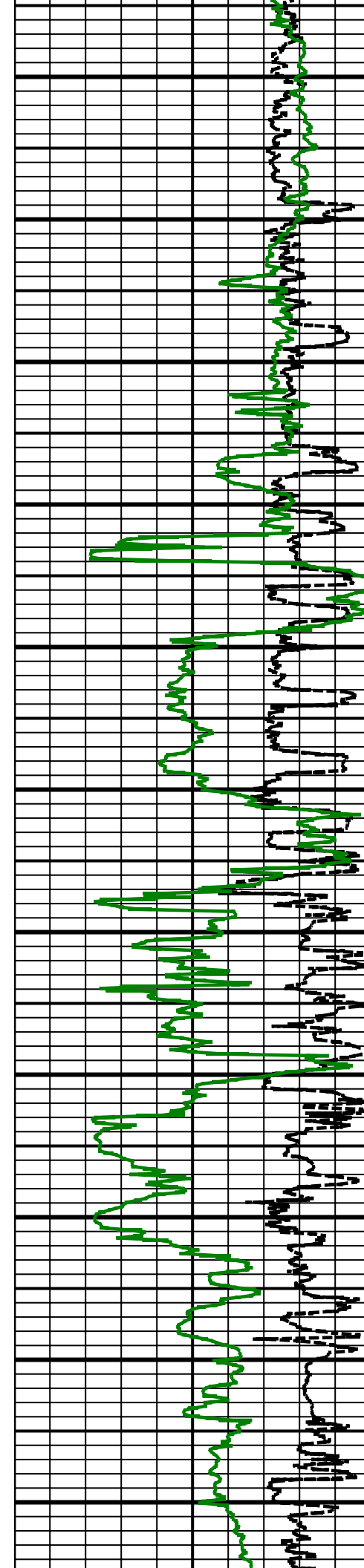




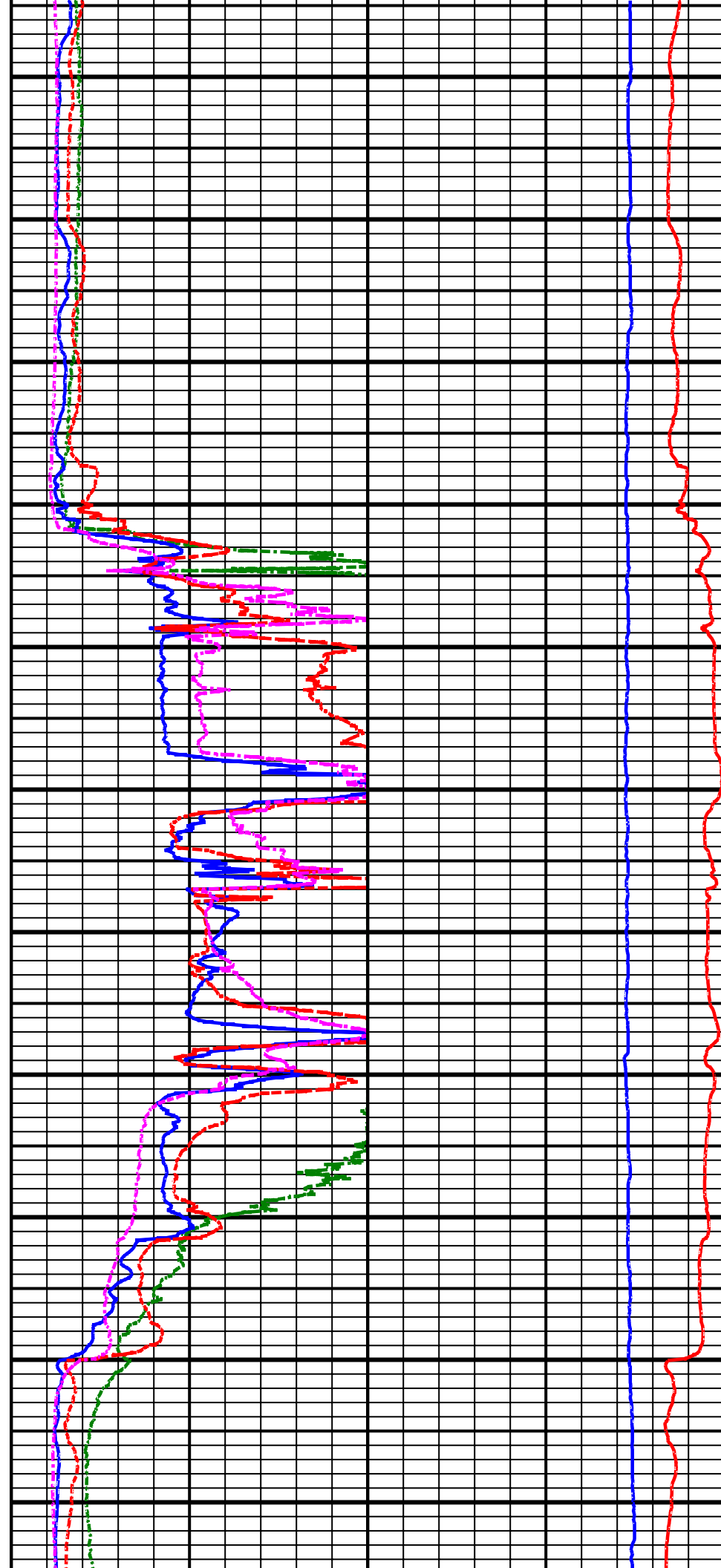
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8700 MD
8800 MD
8900 MD
9000 MD
9100 MD
9200 MD
9300 MD
9400 MD
9500 MD
9600 MD

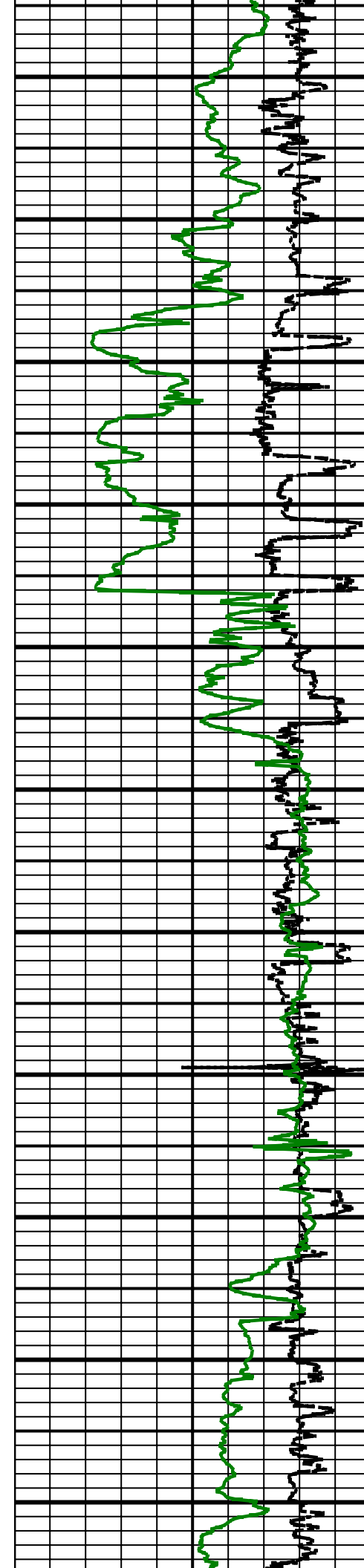




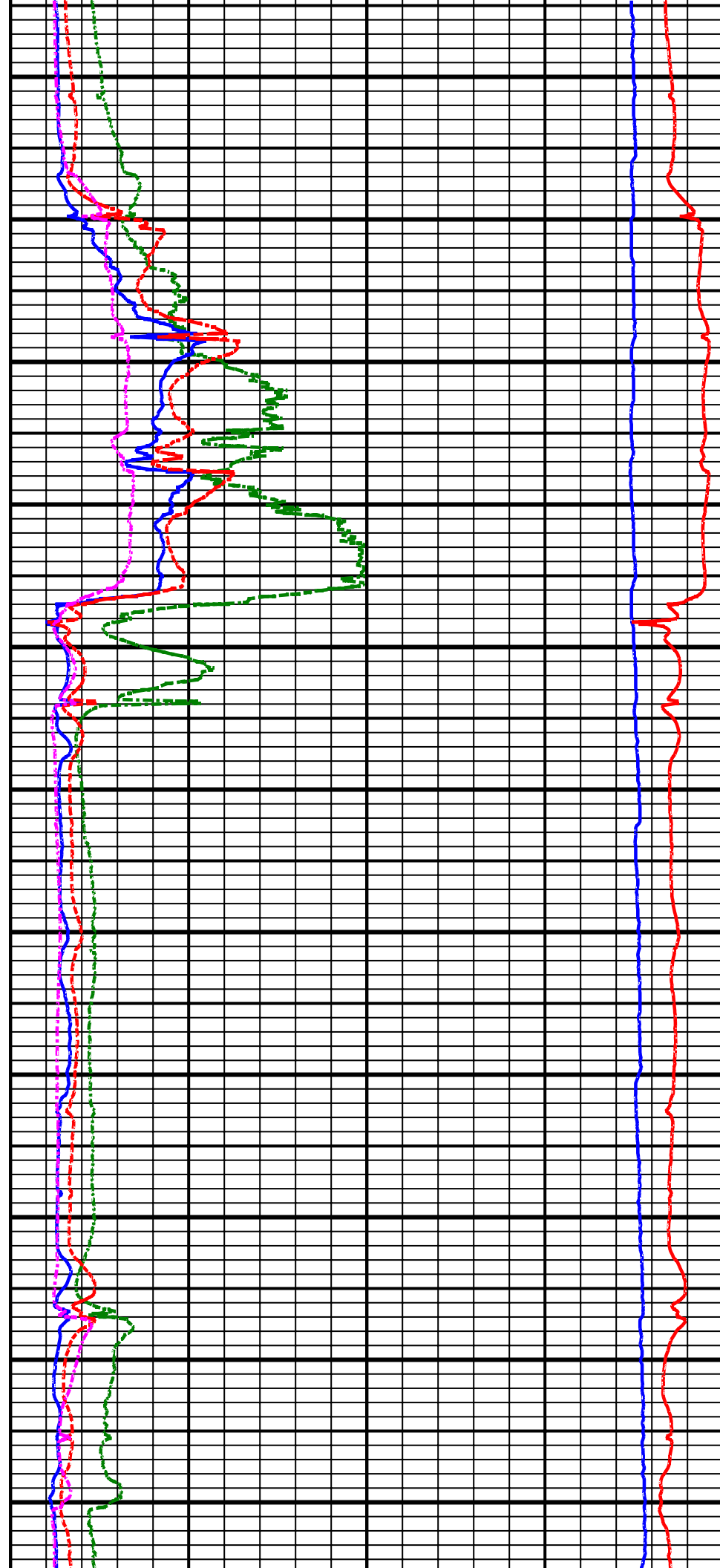


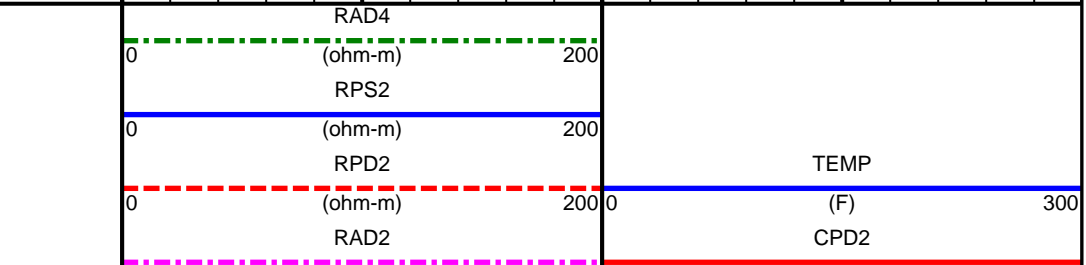
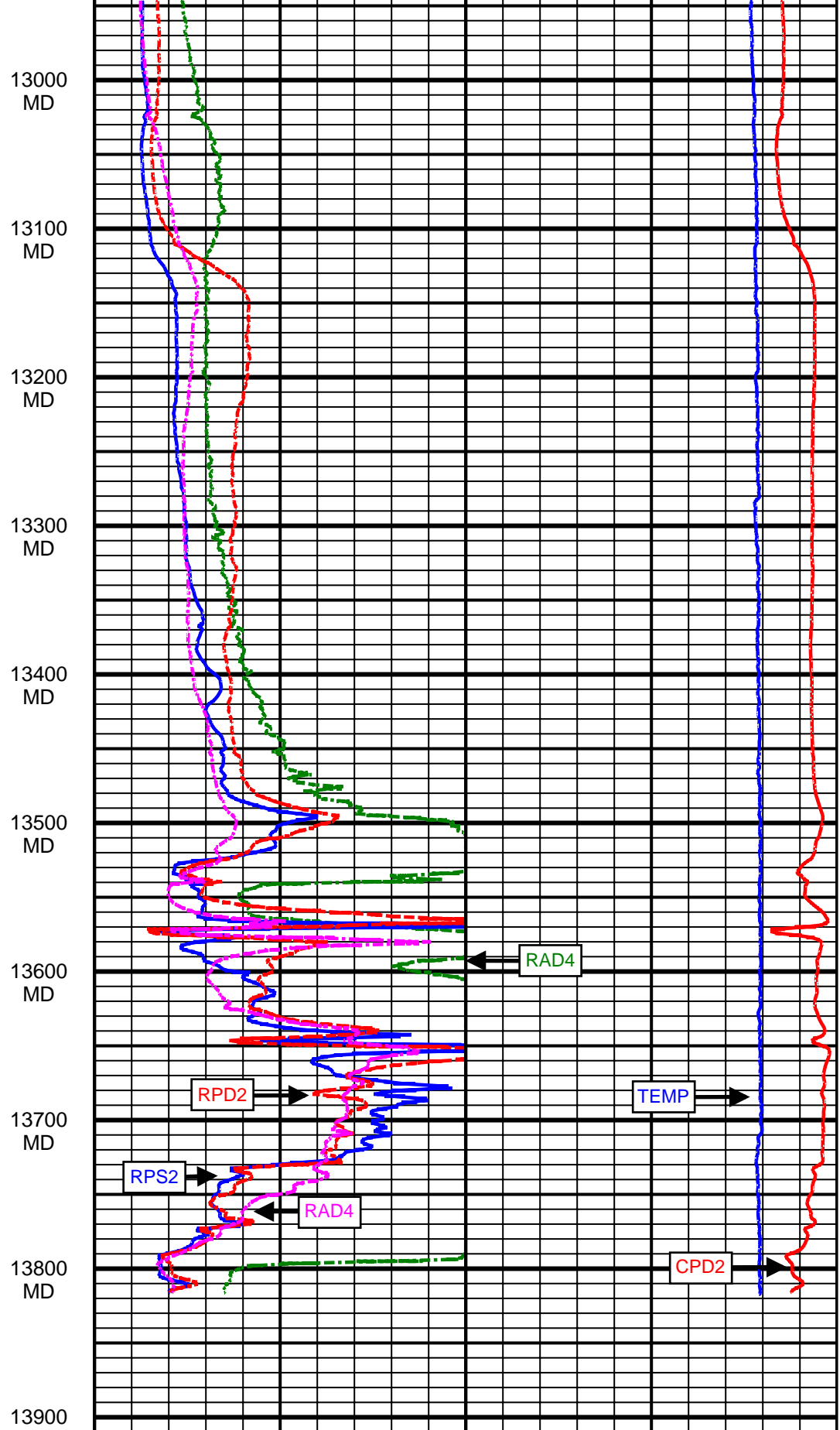
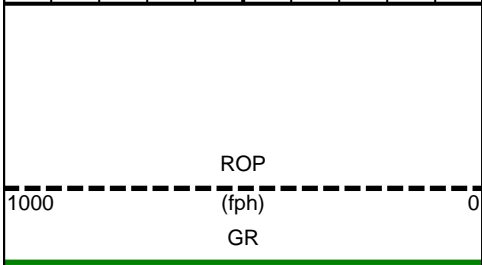
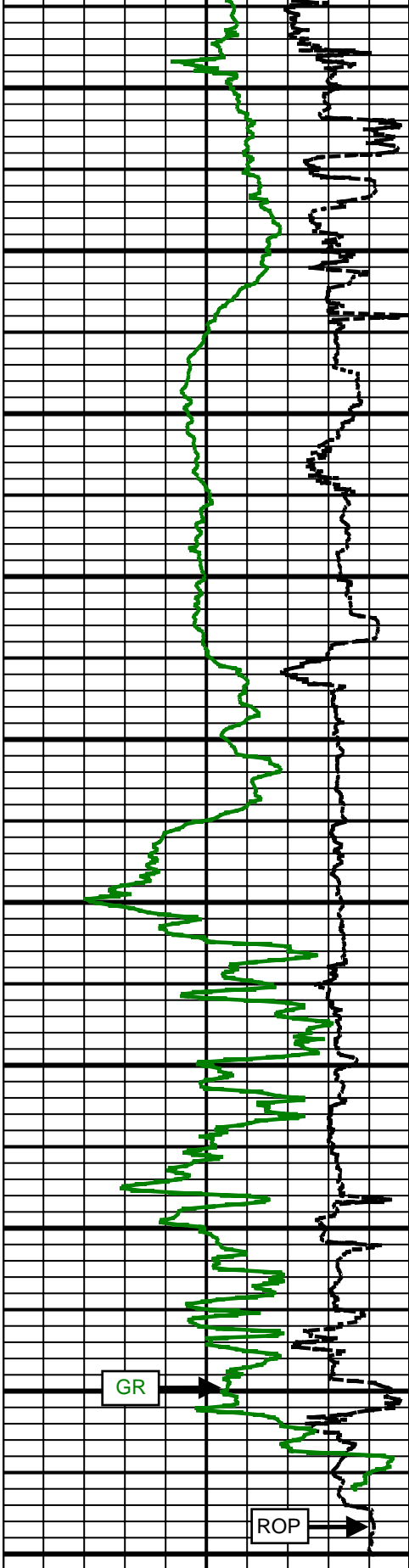
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10900 MD
11000 MD
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11200 MD
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11500 MD
11600 MD
11700 MD
11800 MD





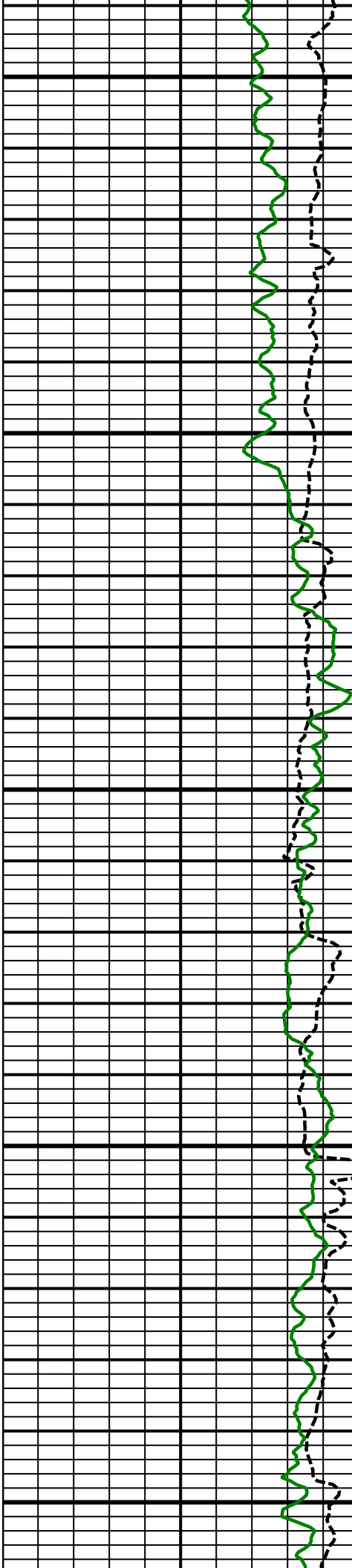
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12200 MD
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12400 MD
12500 MD
12600 MD
12700 MD
12800 MD
12900 MD





0	(AAPI)	150	0	(ohm-m)	200	200	(mmho/m)	0
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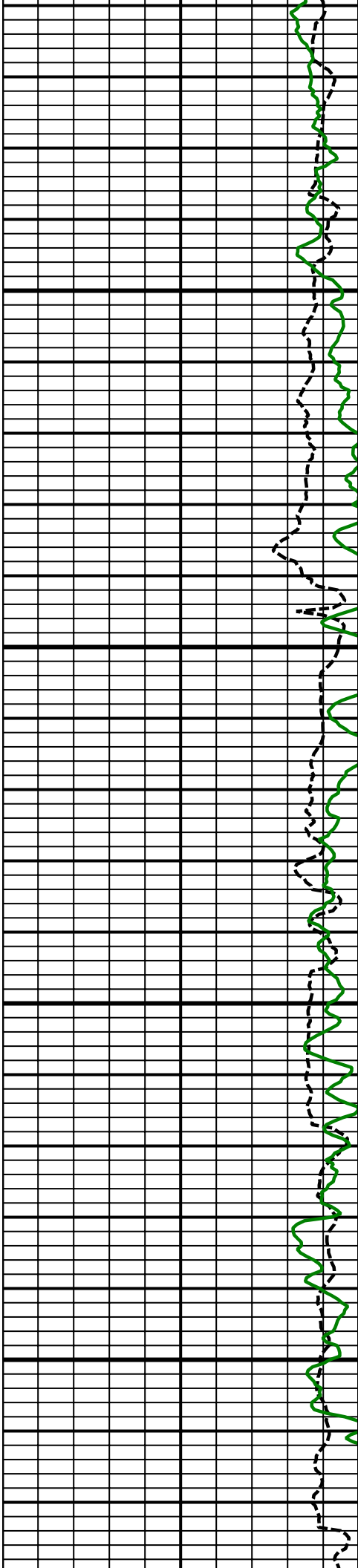
5 Inch - Measured Depth



6700
MD

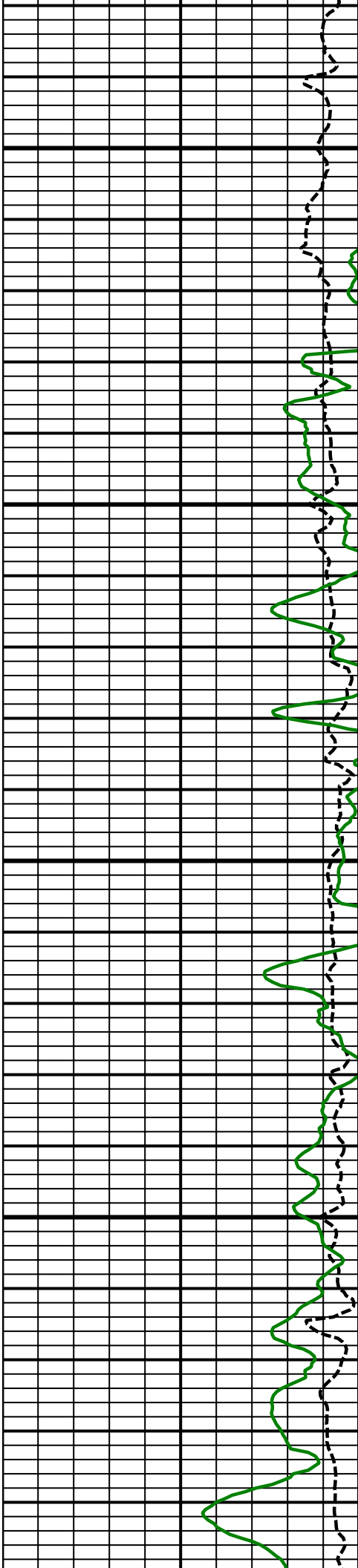
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MD

6900
MD



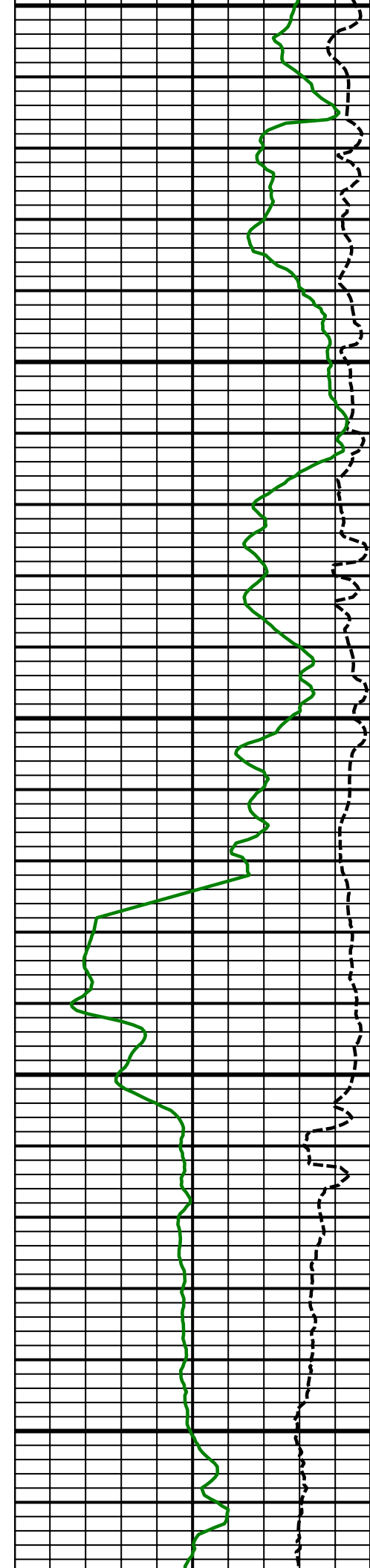
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7100
MD



7200
MD

7300
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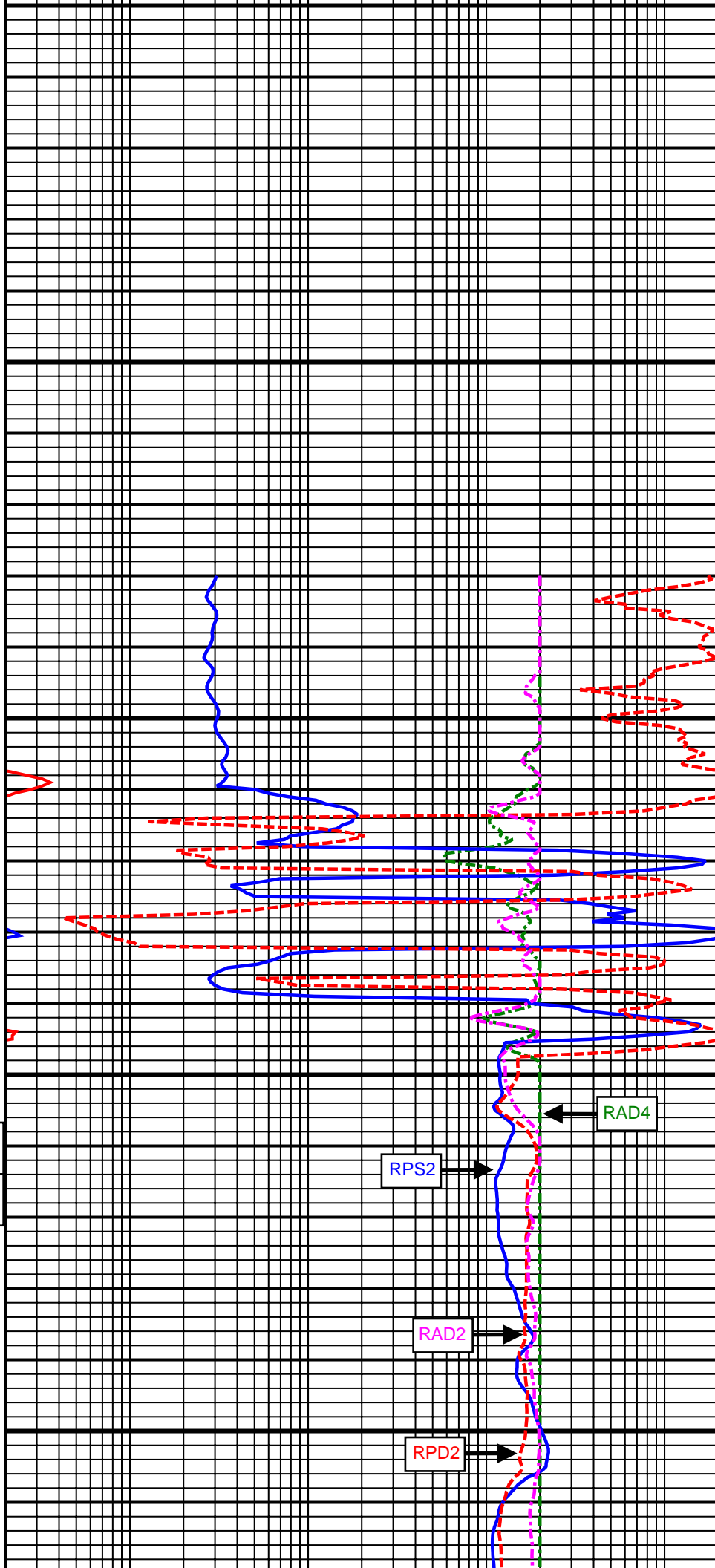


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MD

7500
MD

Comment
No. 2-2

Comment
No. 3-1

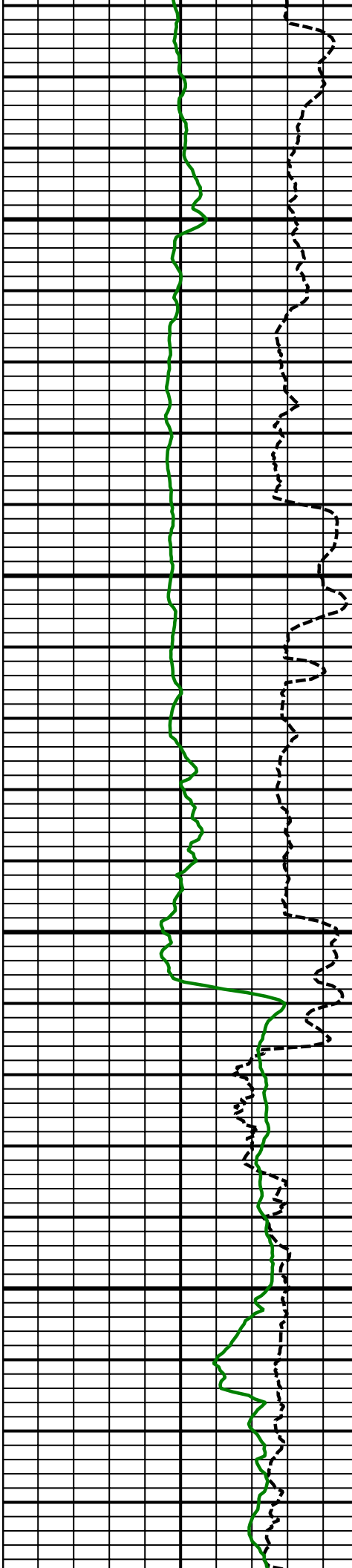


RPS2

RAD2

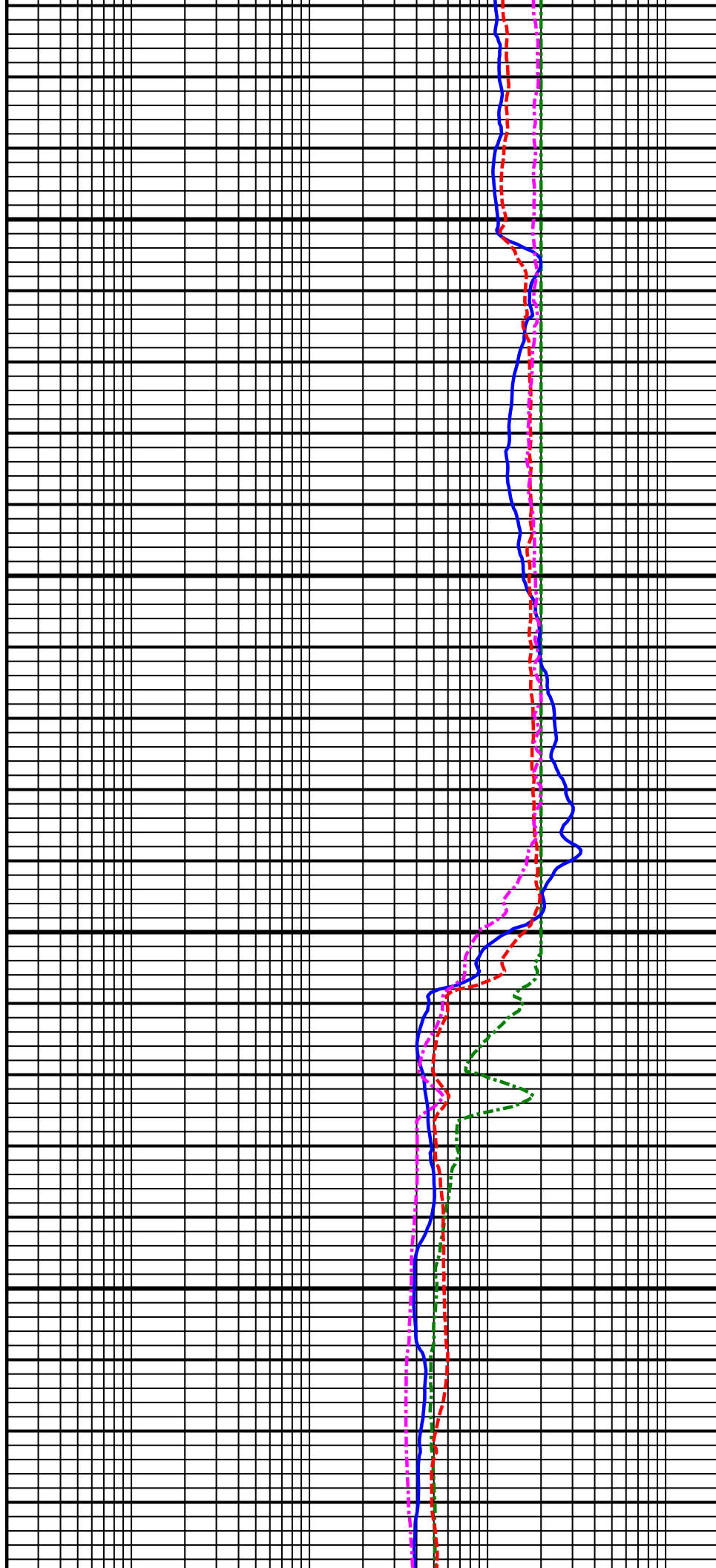
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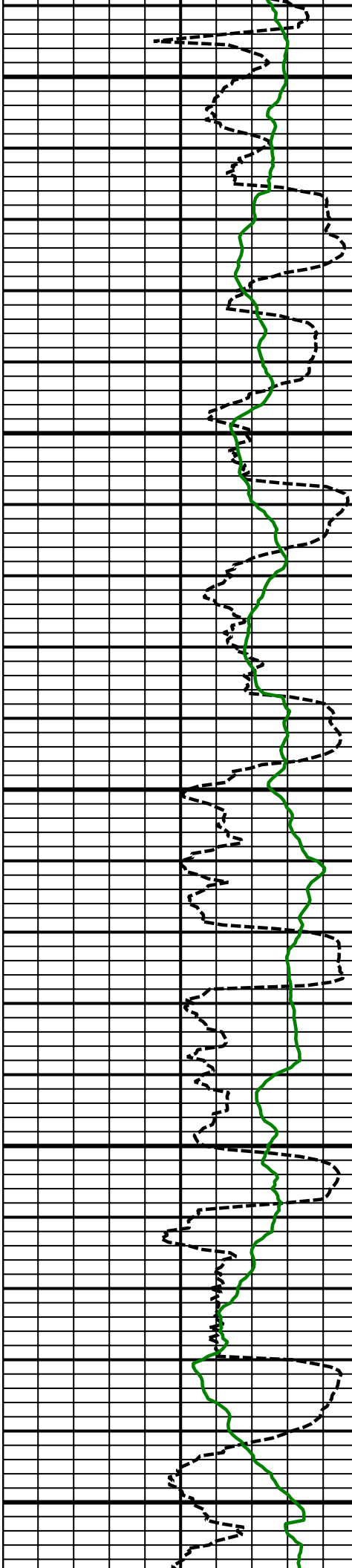
RAD4



7600
MD

7700
MD

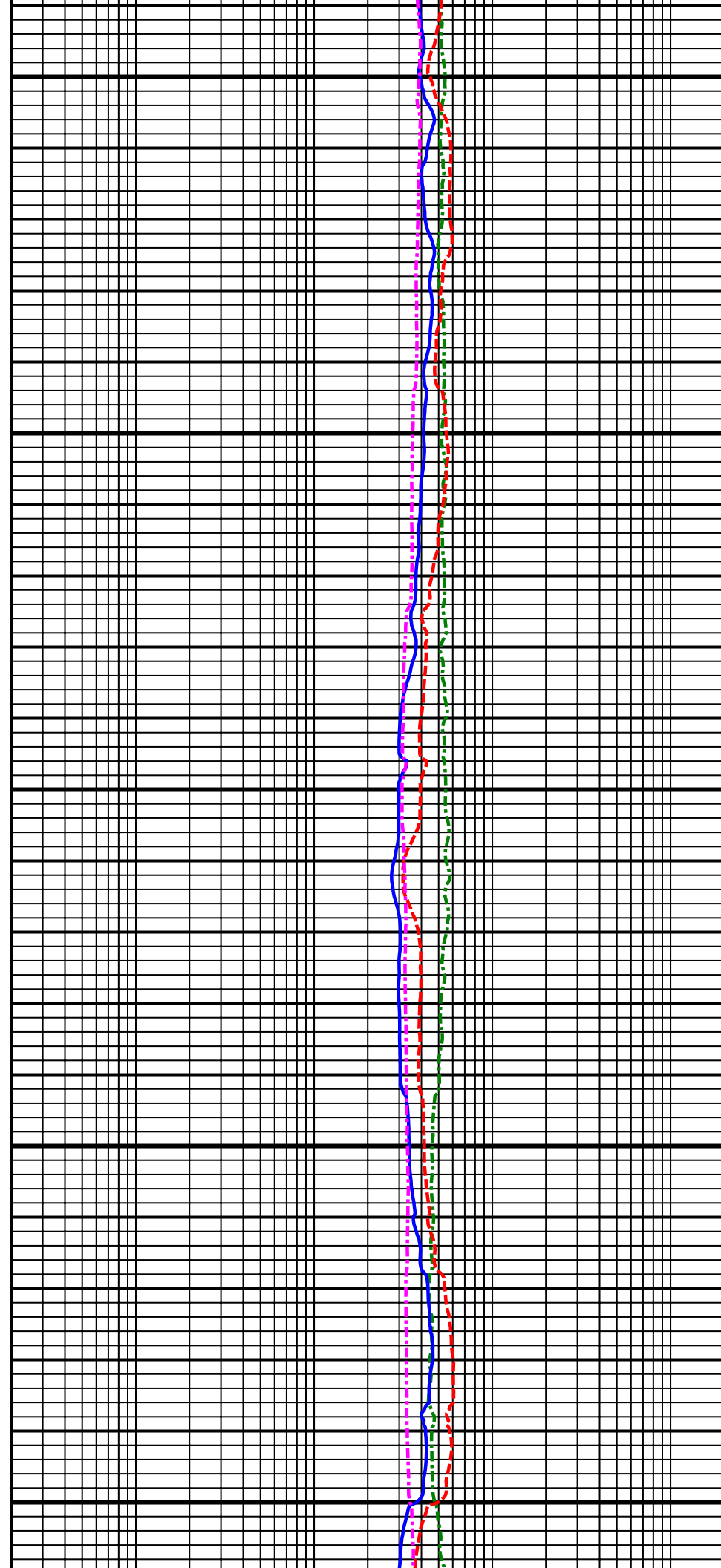


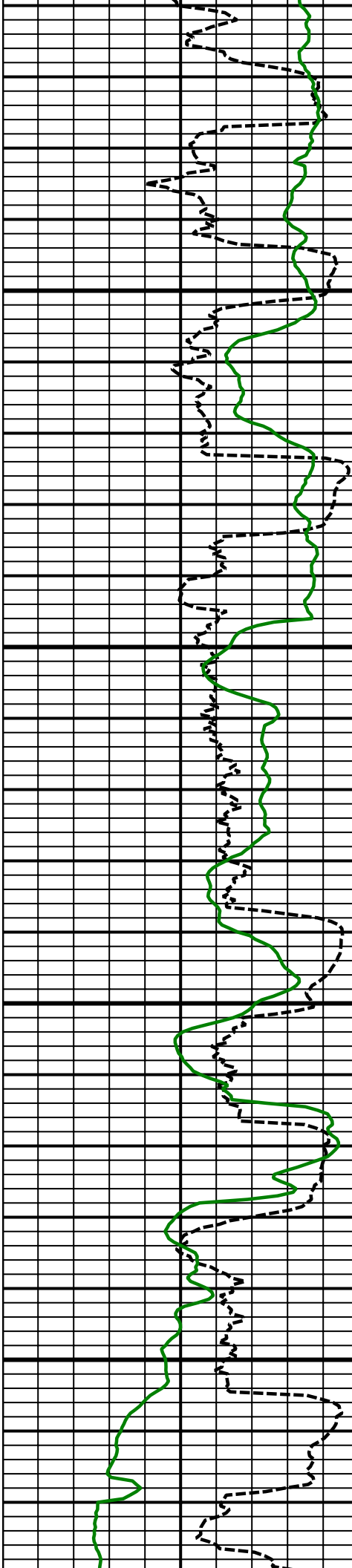


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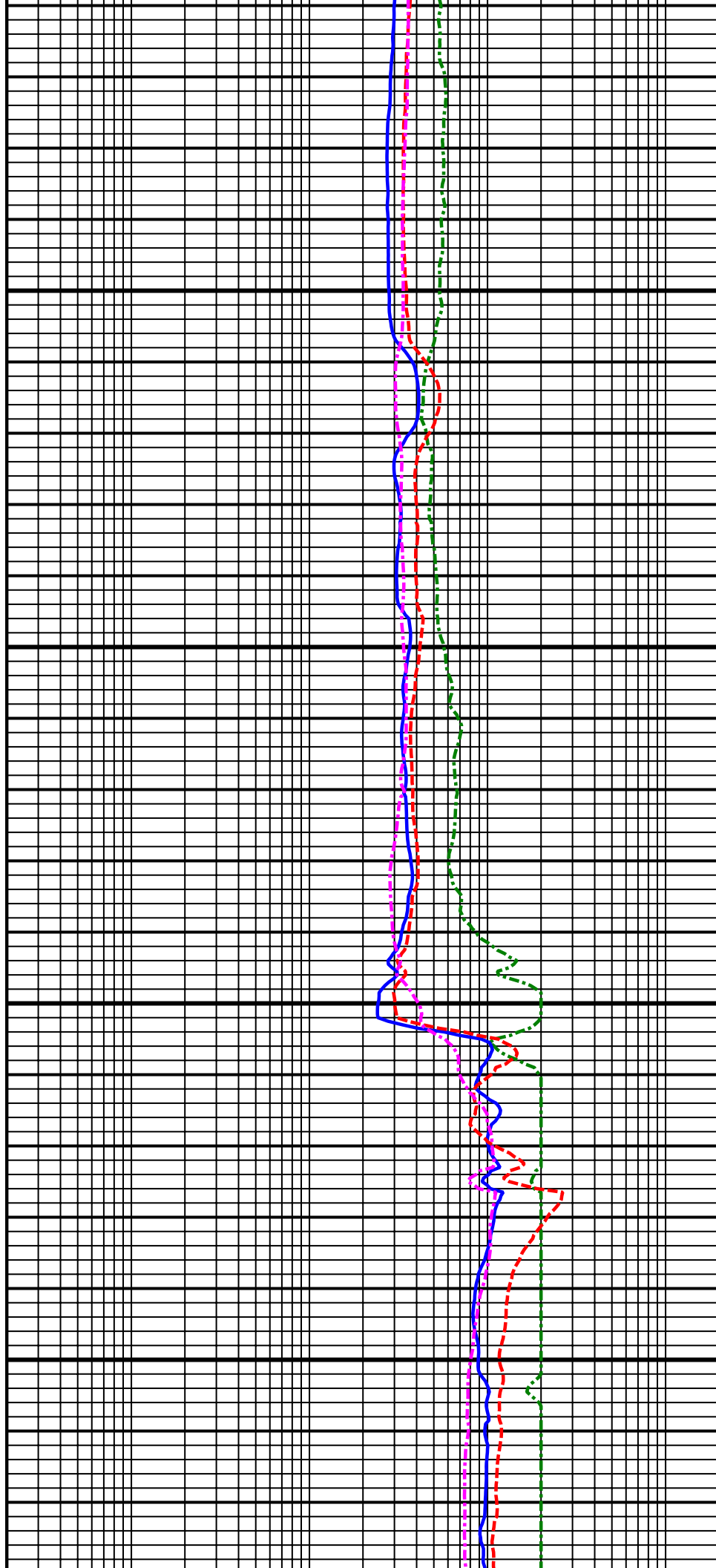
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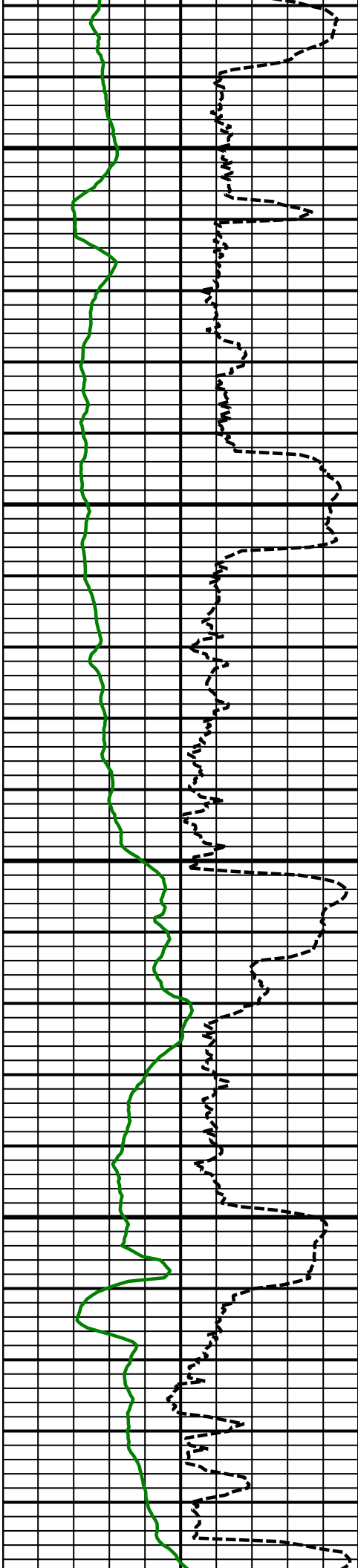




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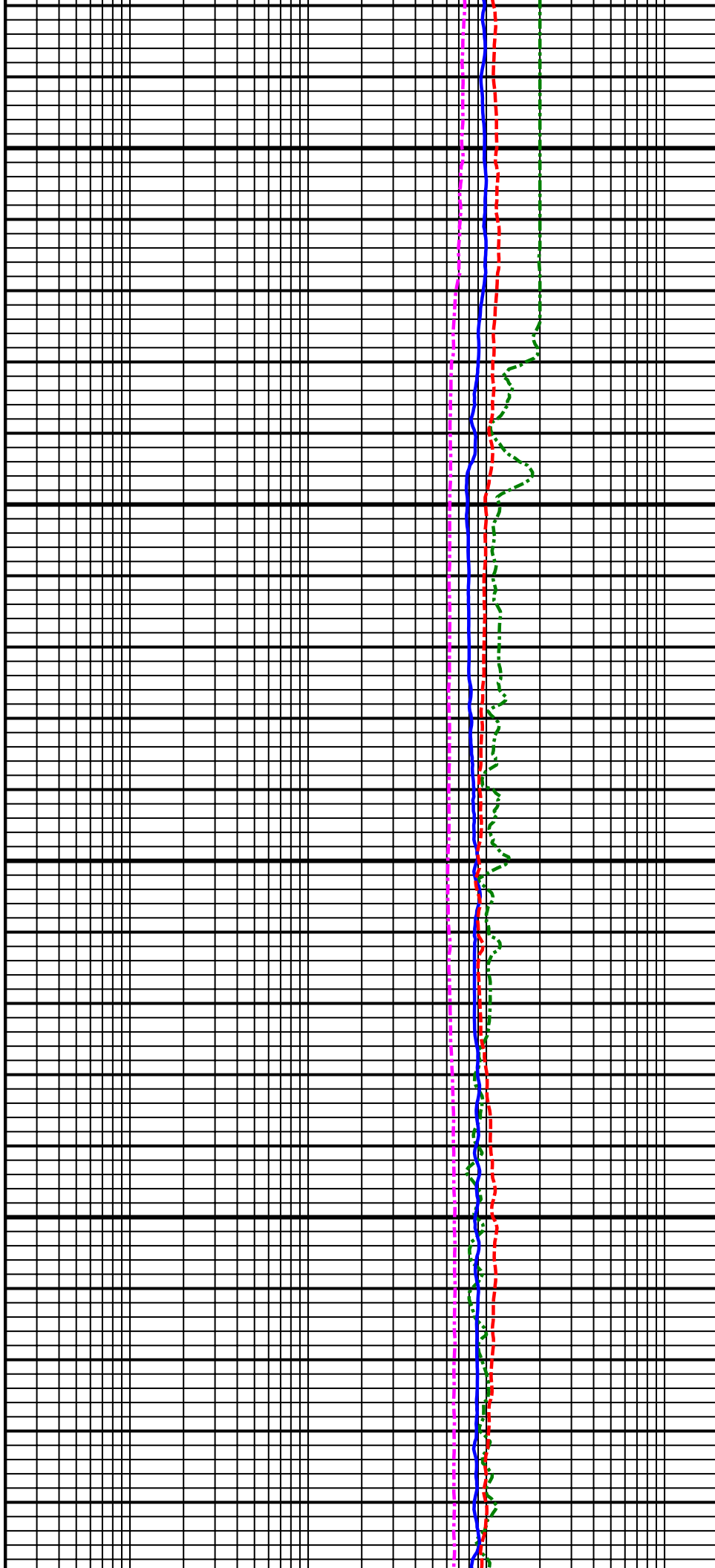
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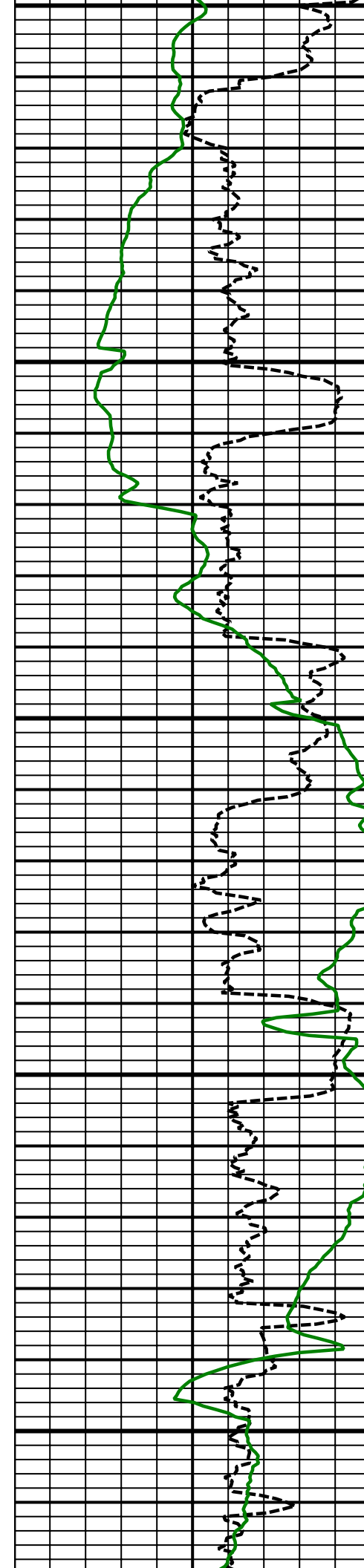




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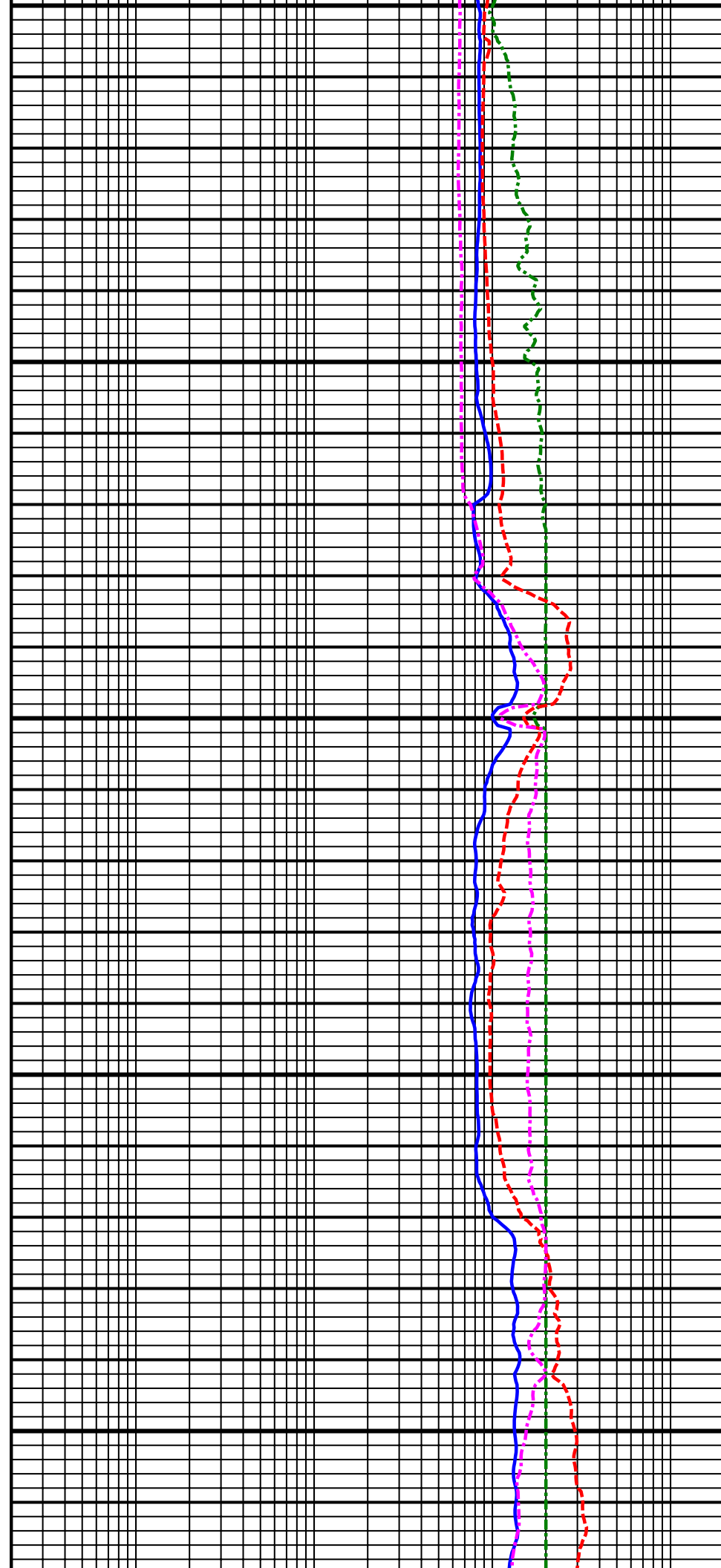
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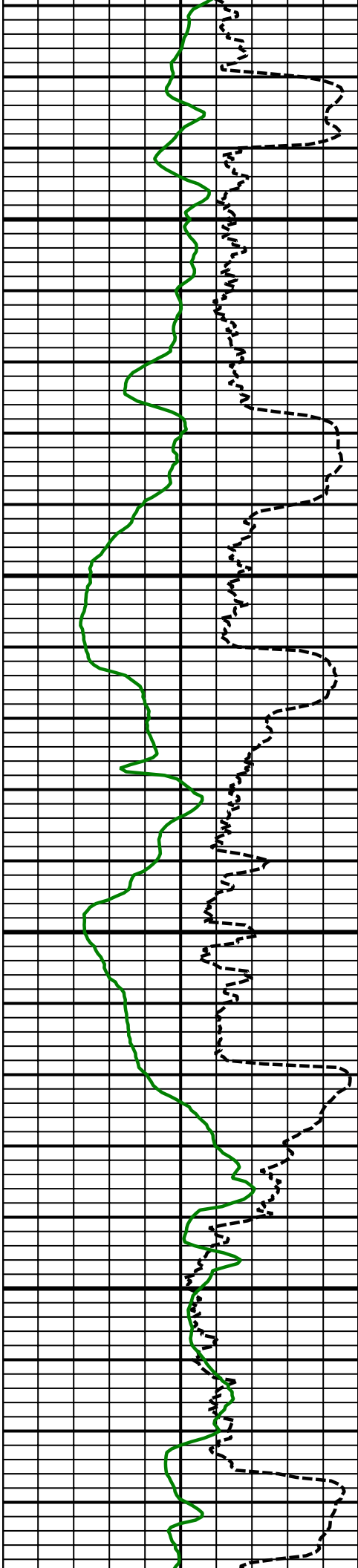




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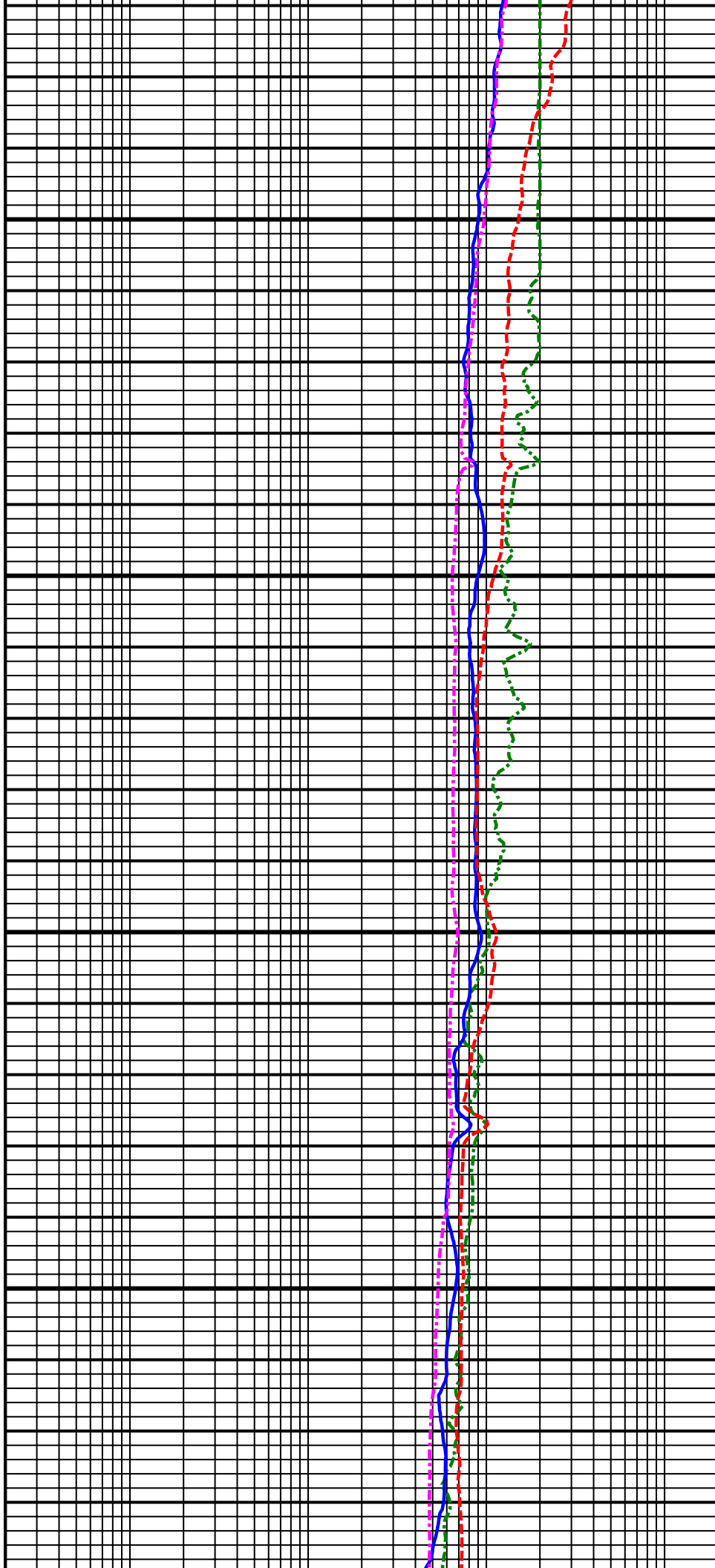
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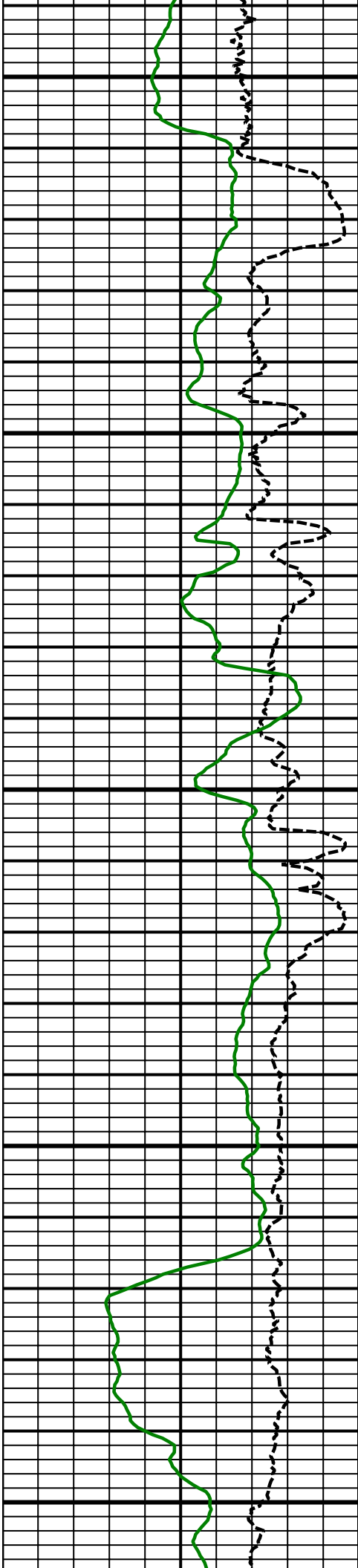




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8800
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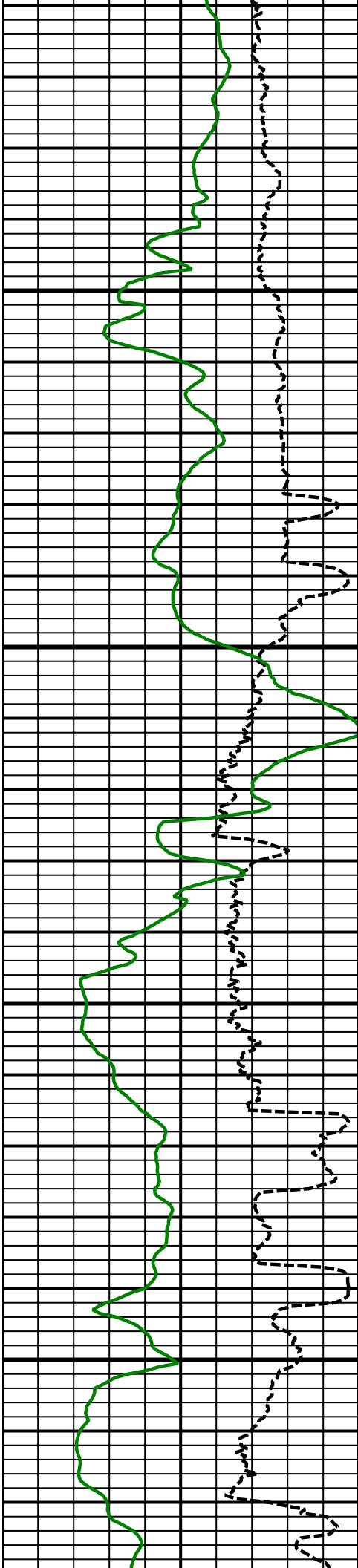


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9000
MD

9100
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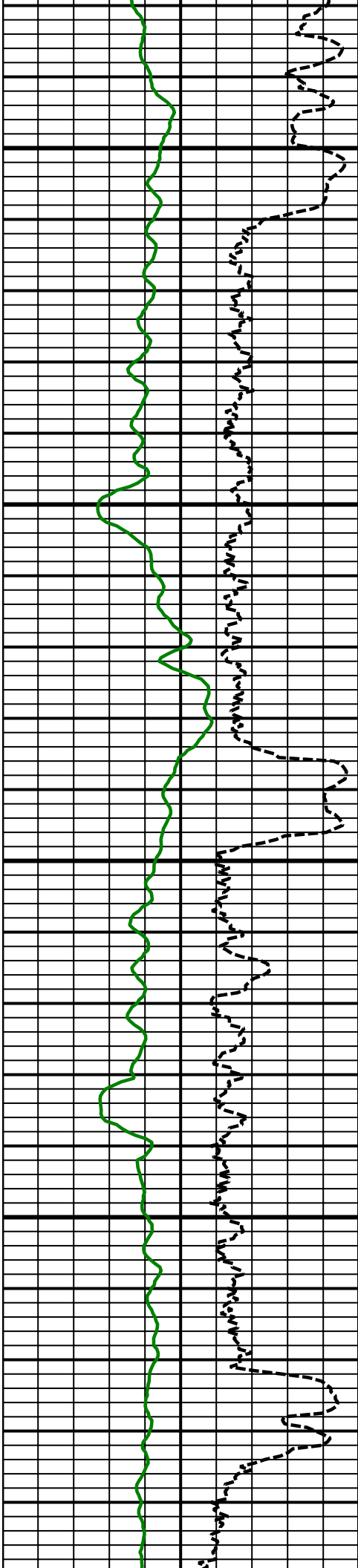


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9300
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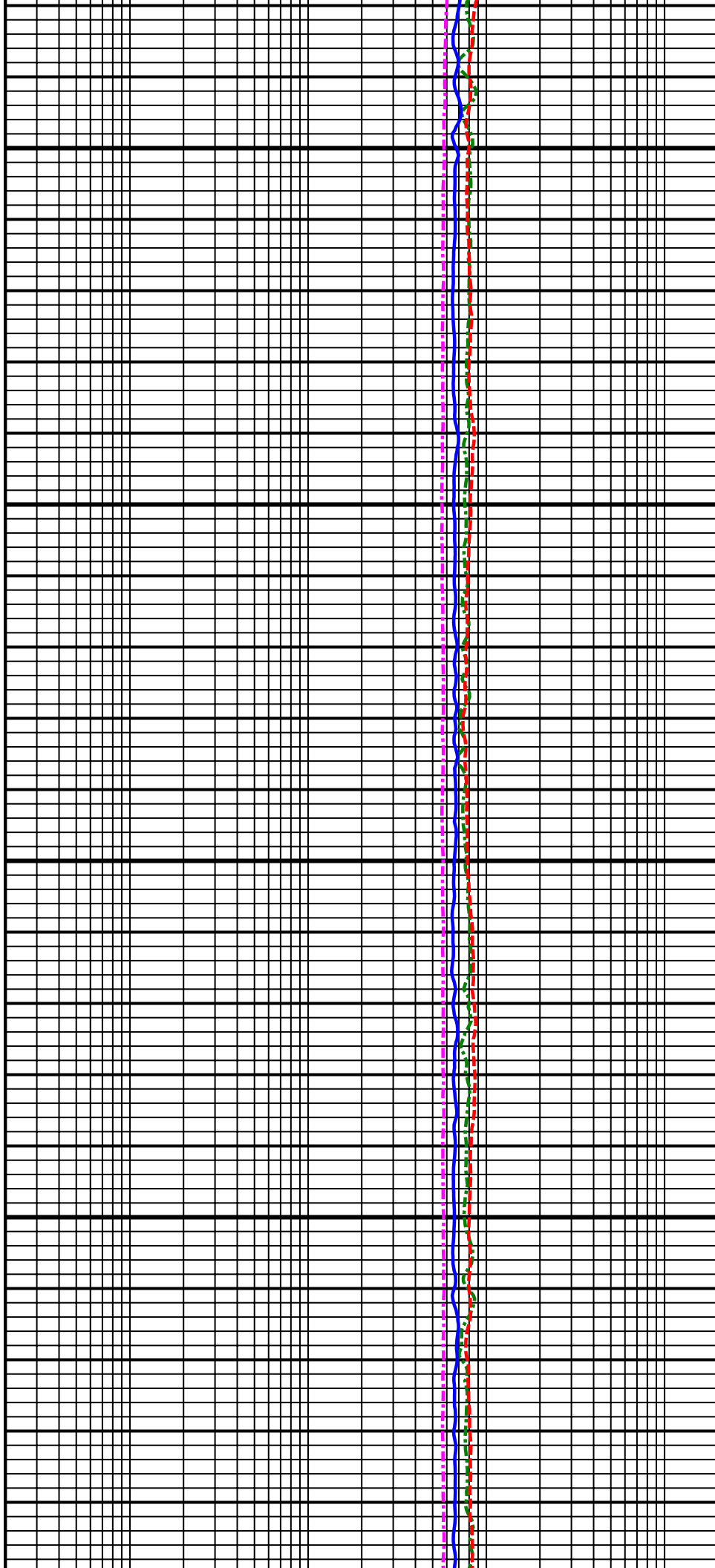
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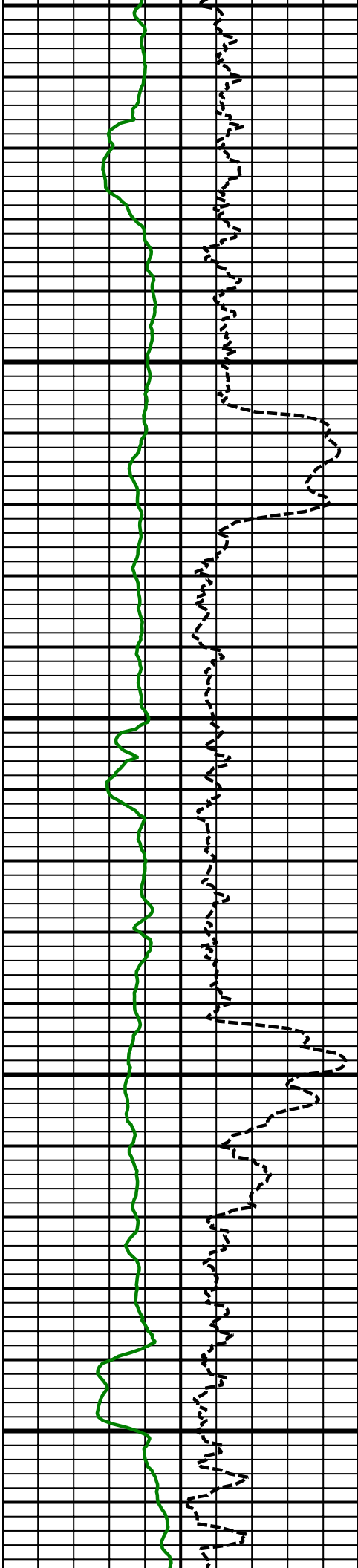
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No. 4-1



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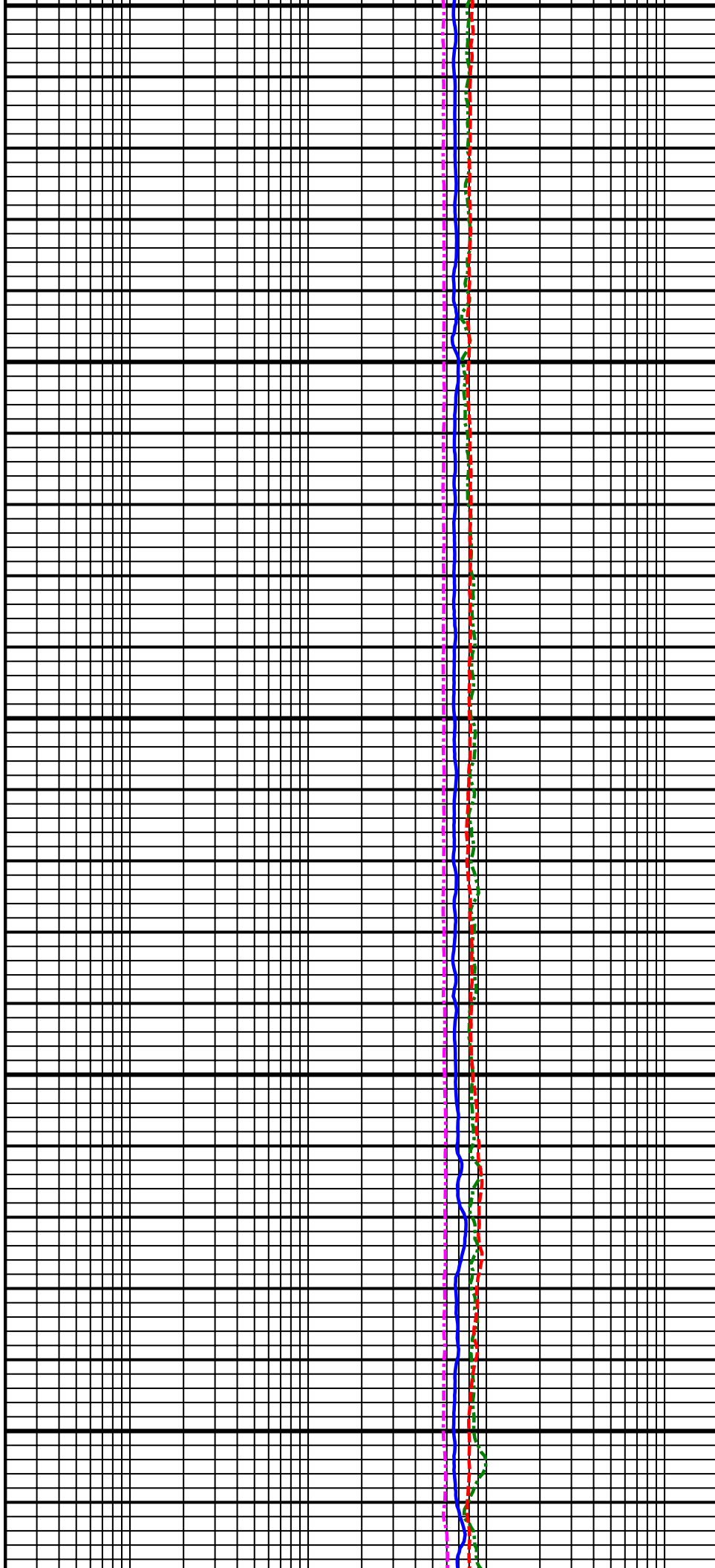
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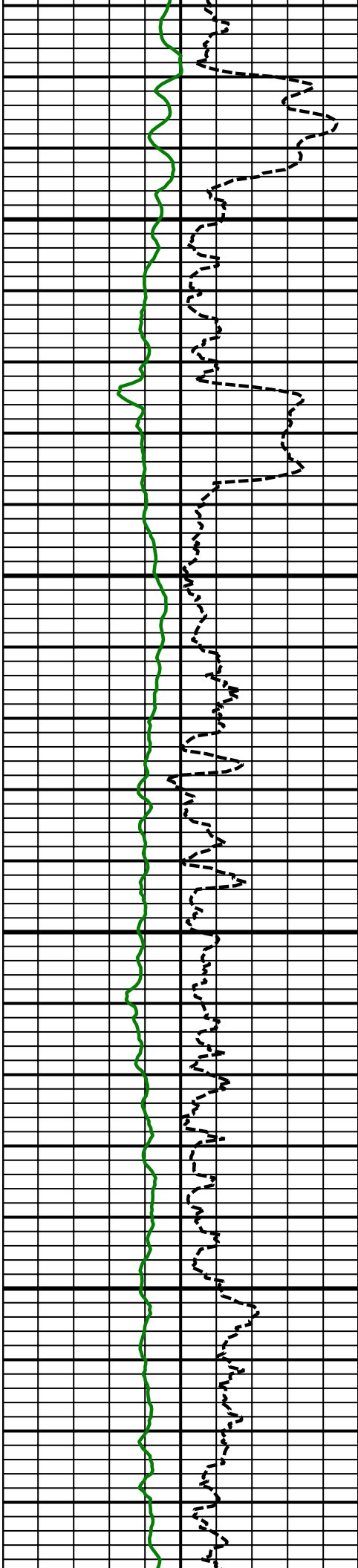




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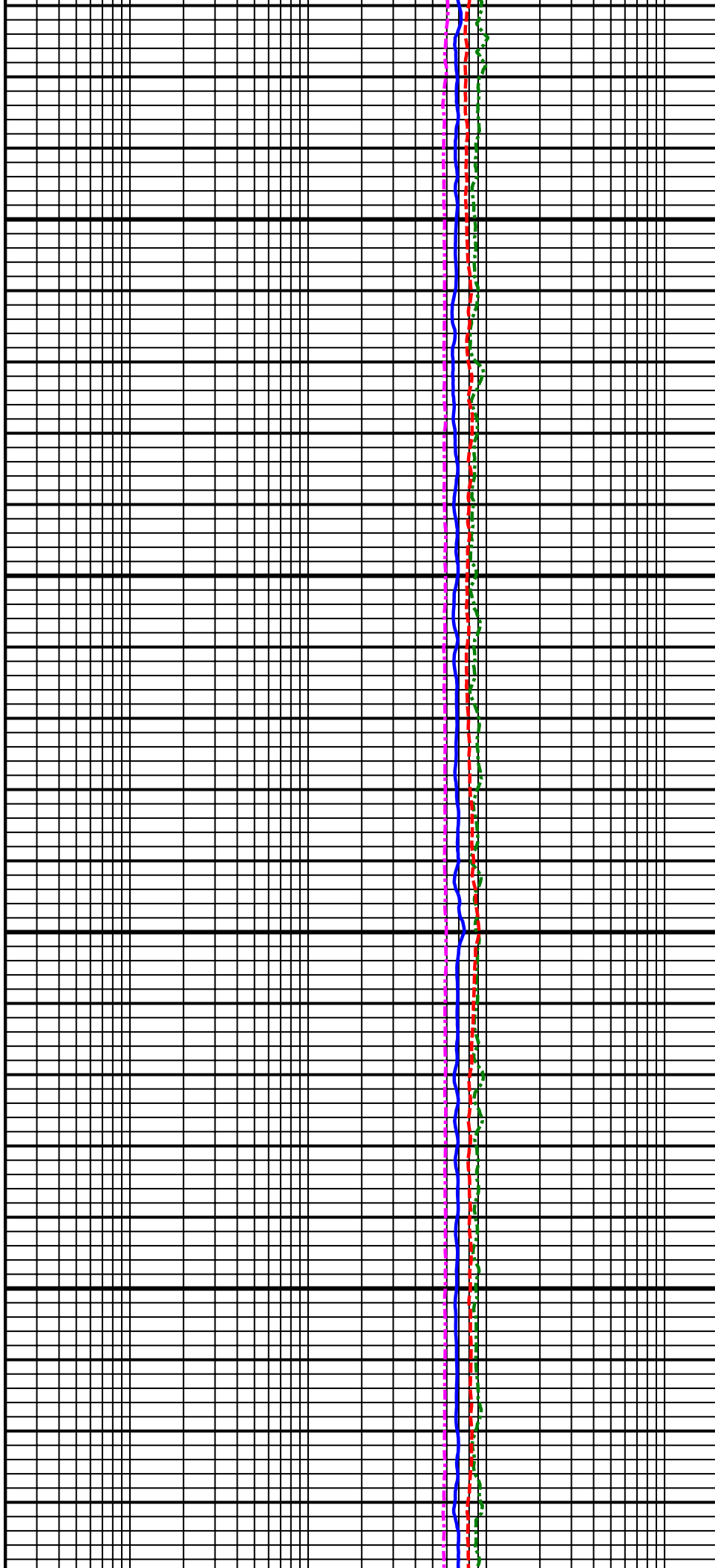
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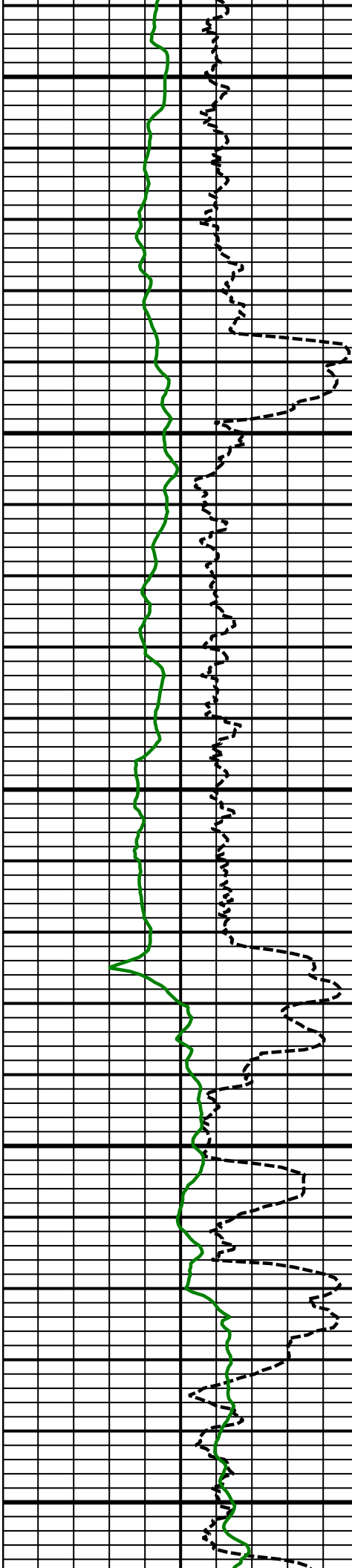




9800
MD

9900
MD

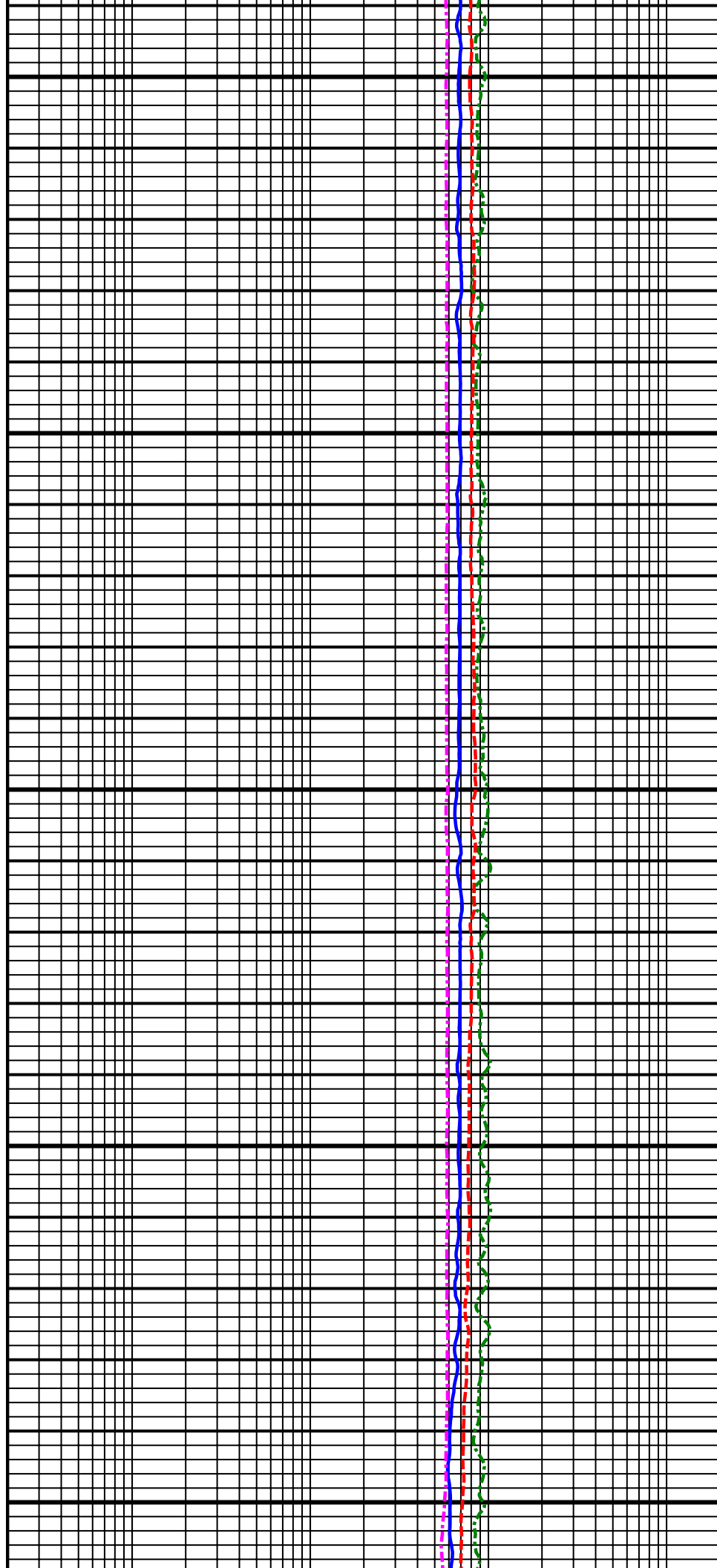


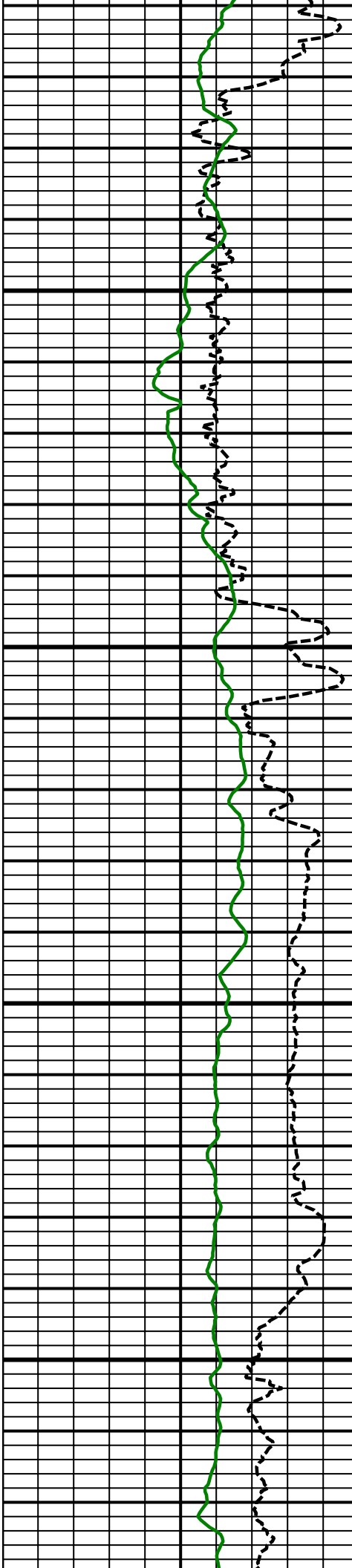


10000
MD

10100
MD

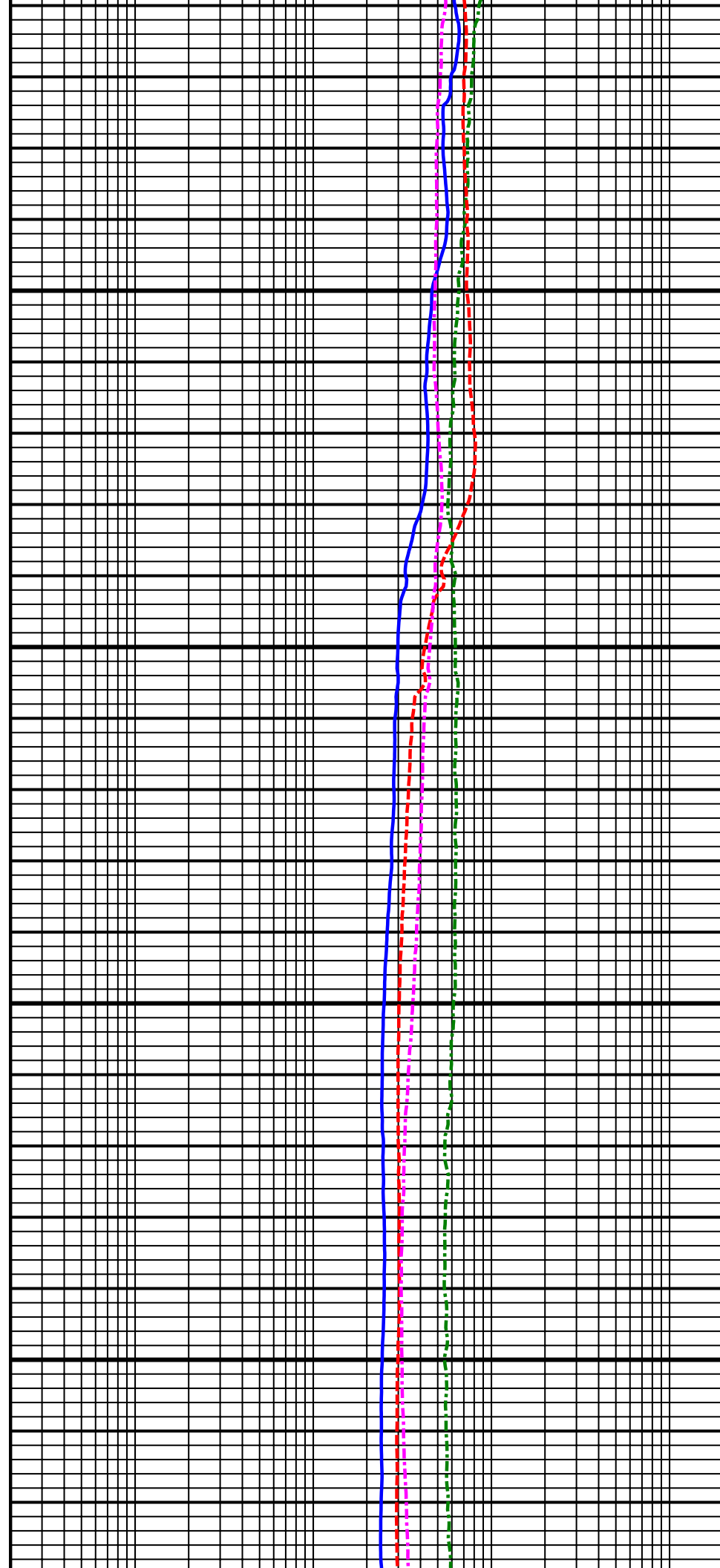
10200
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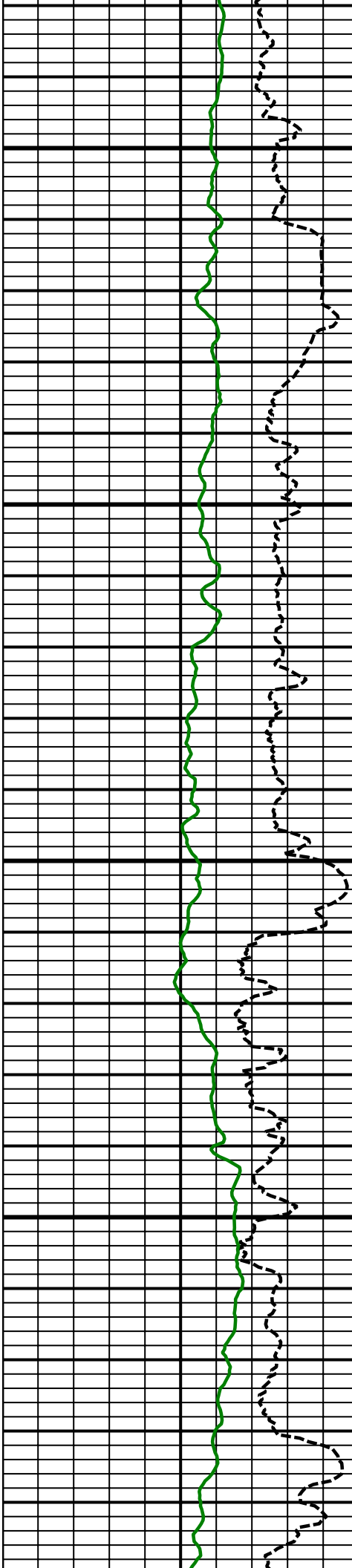




10300
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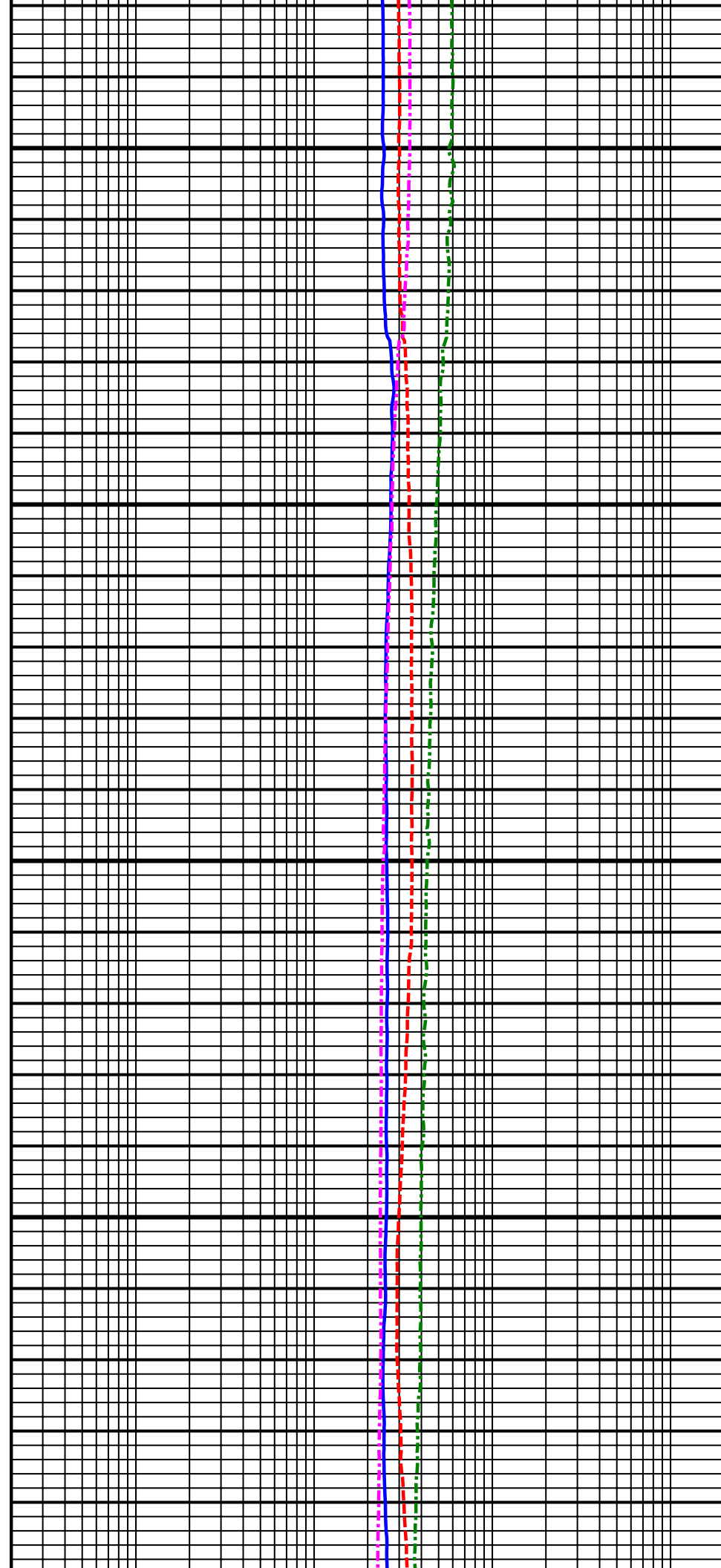
10400
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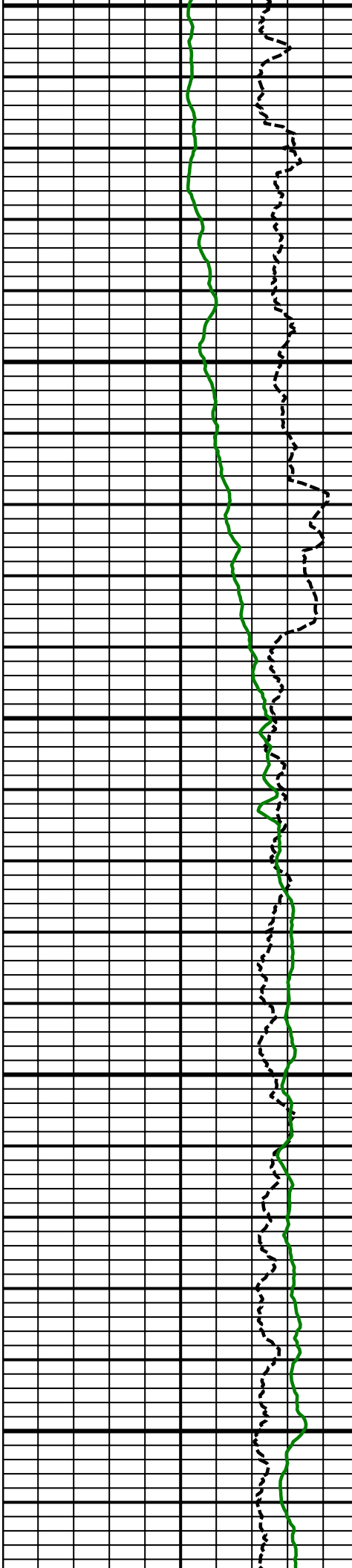




10500
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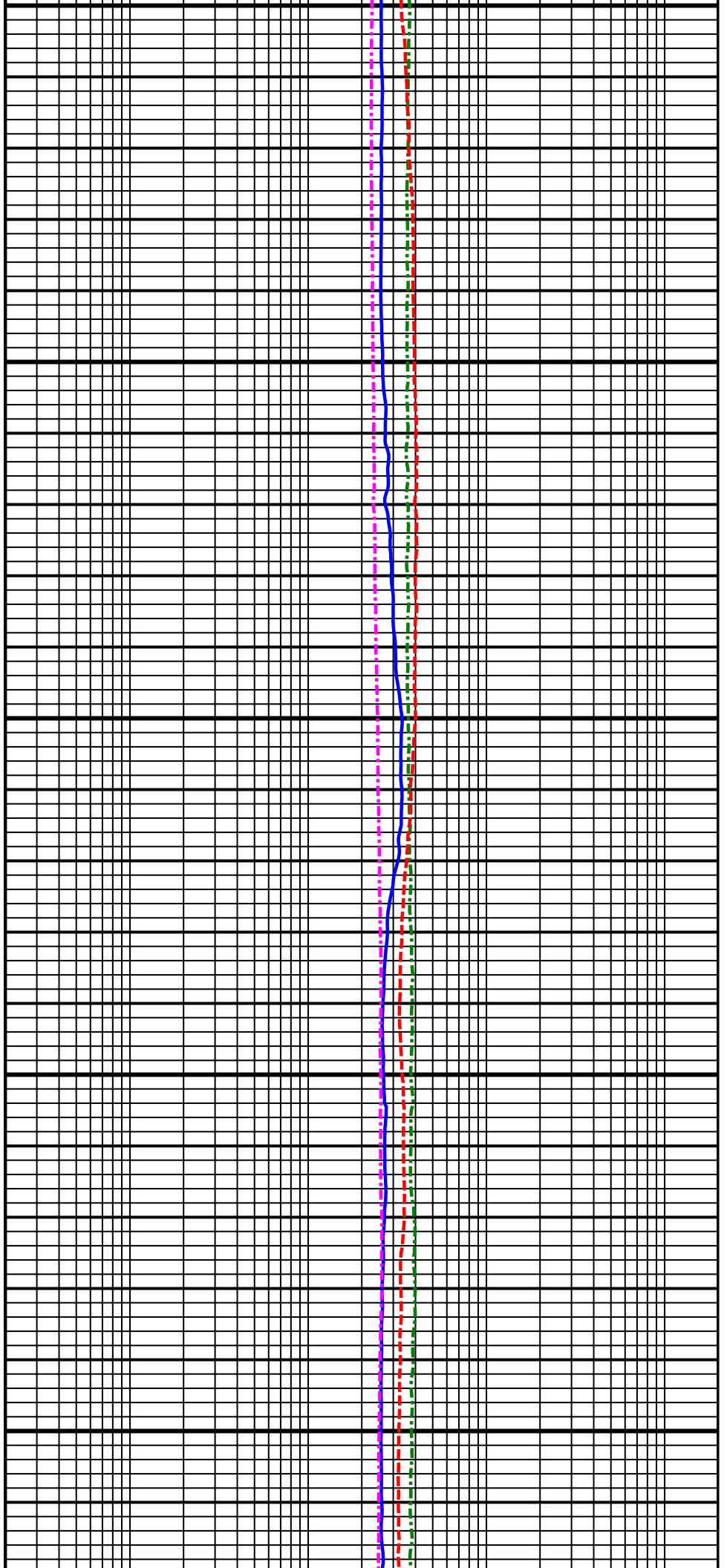
10600
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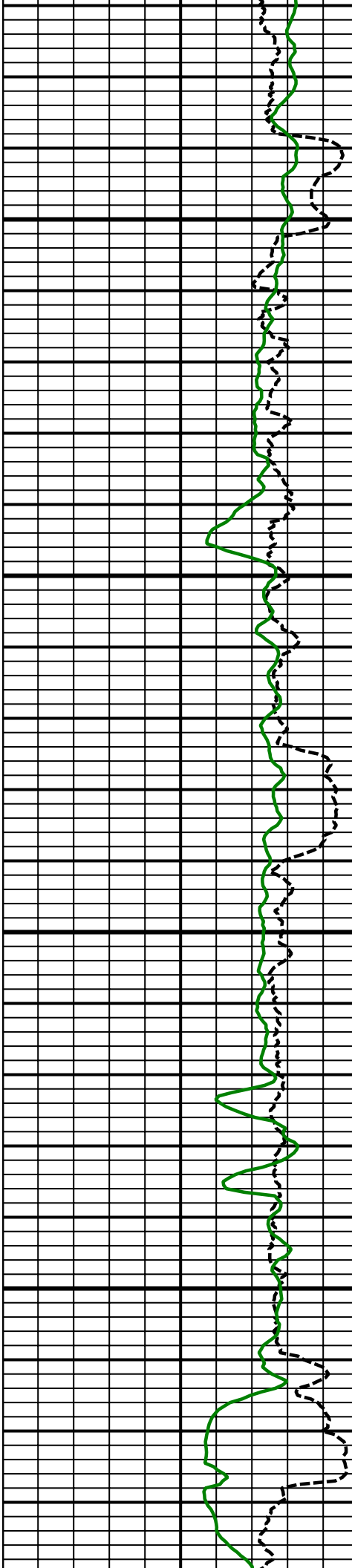




10700
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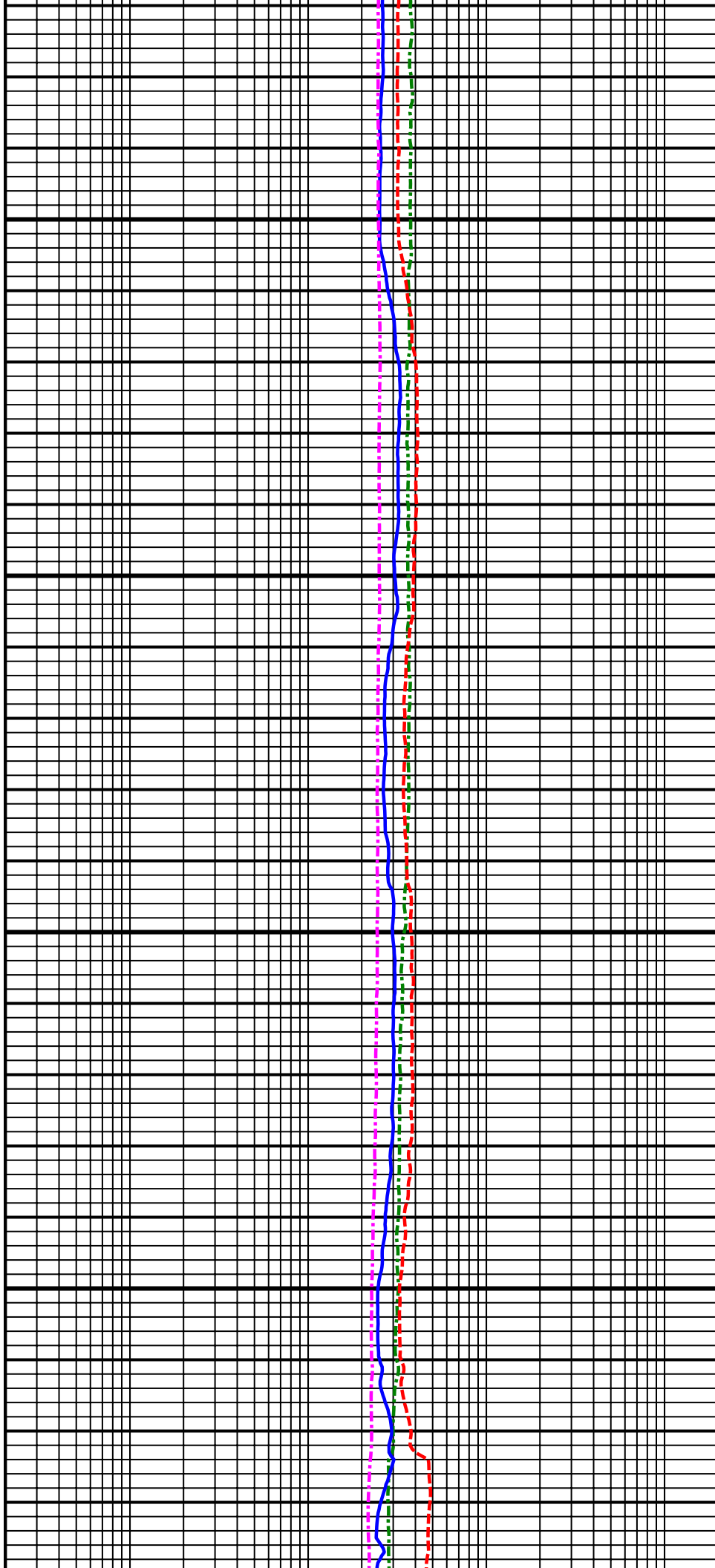
10800
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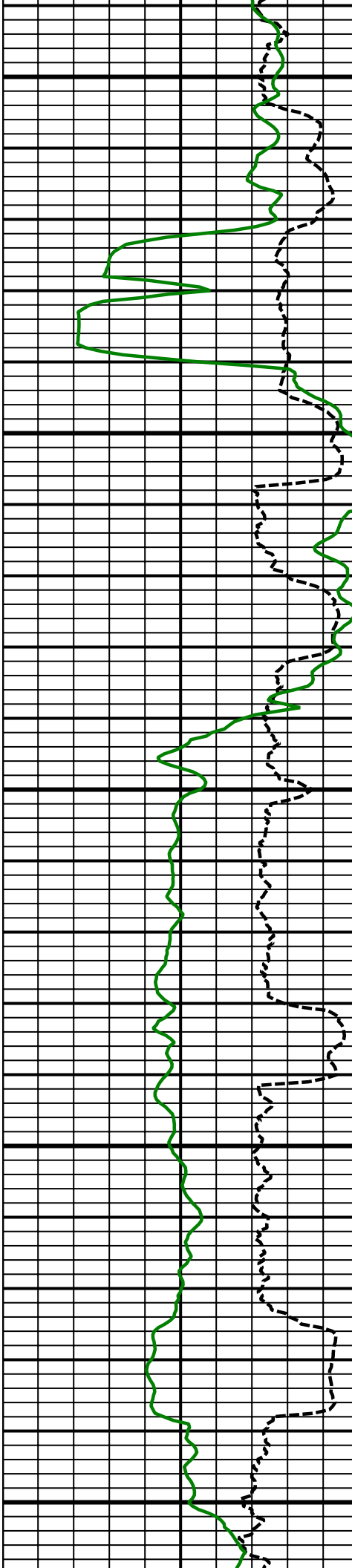




10900
MD

11000
MD

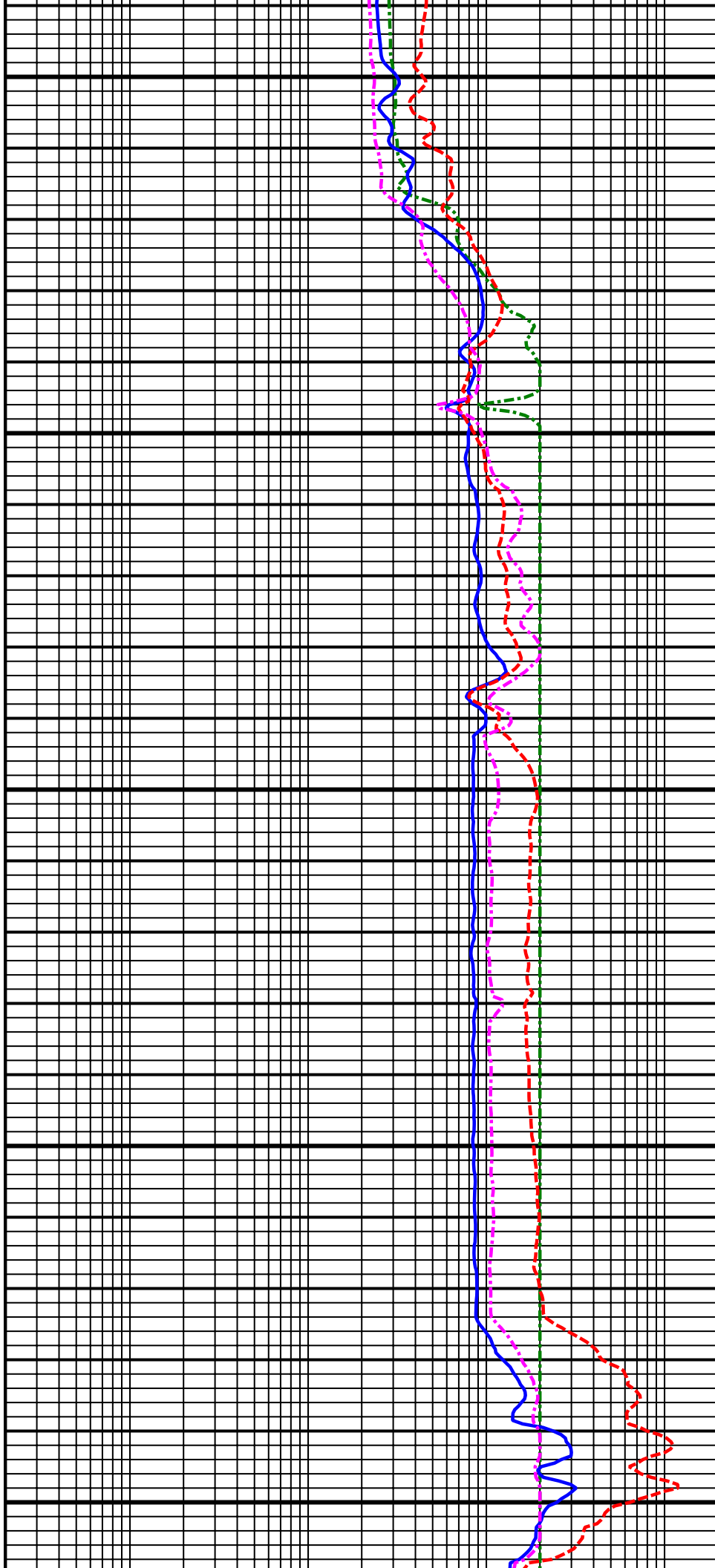


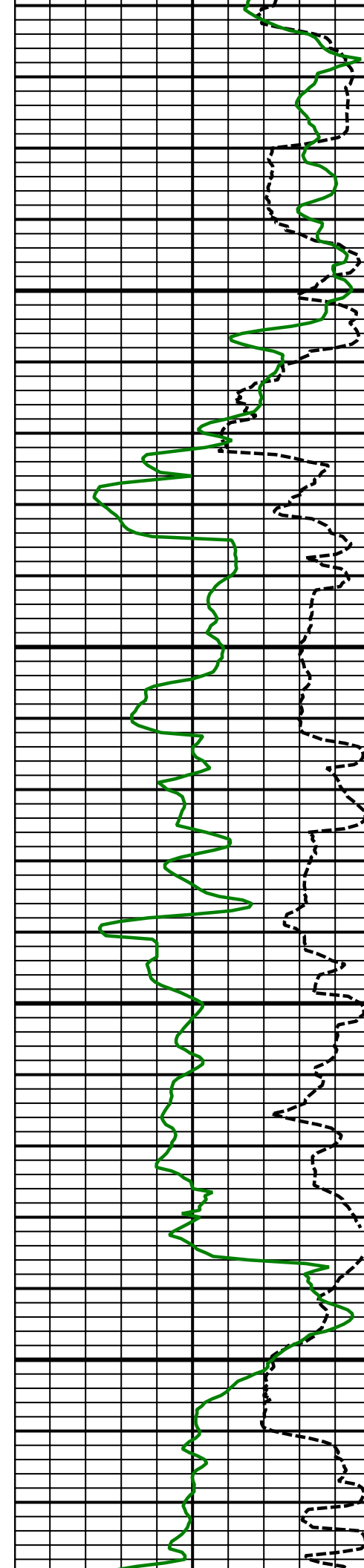


11100
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11200
MD

11300
MD

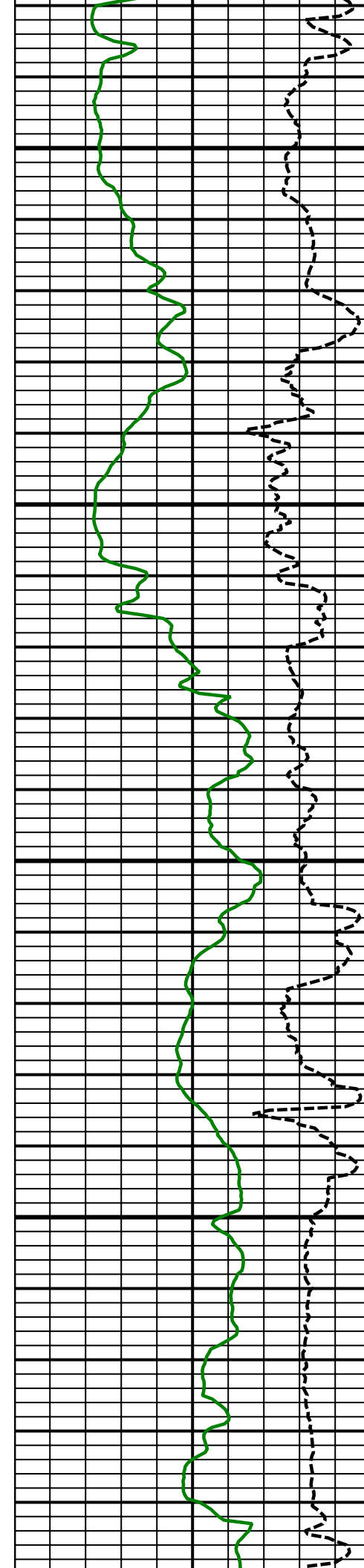




11400
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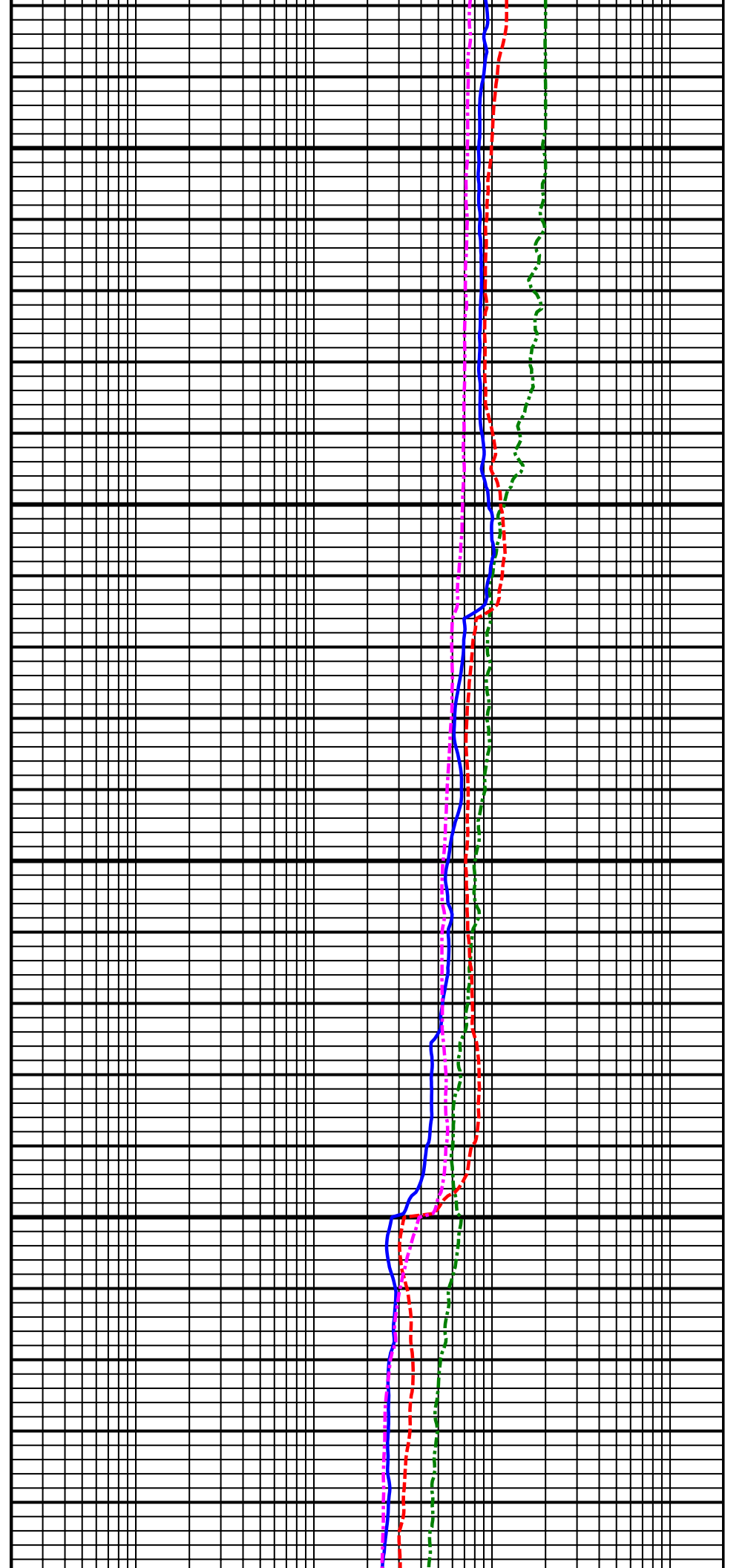
11500
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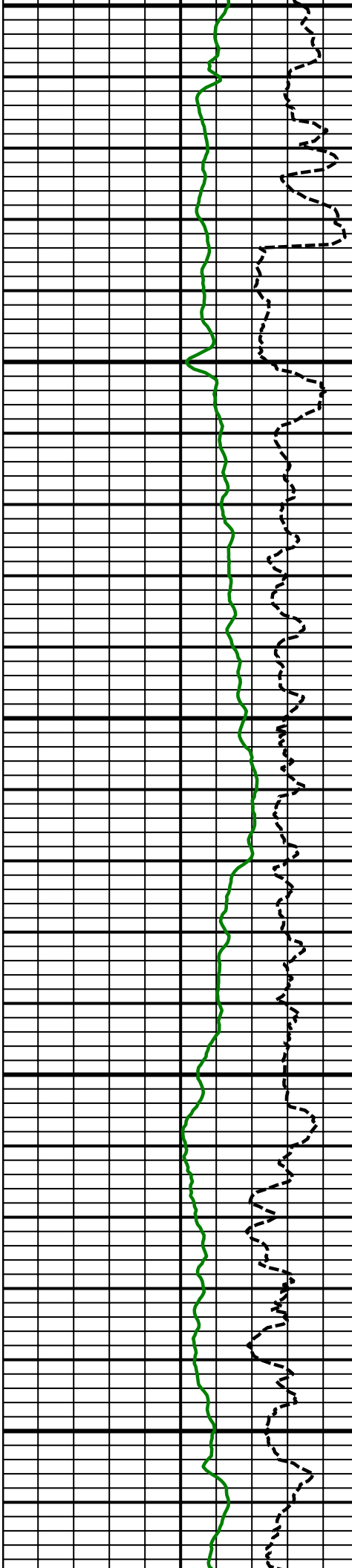




11600
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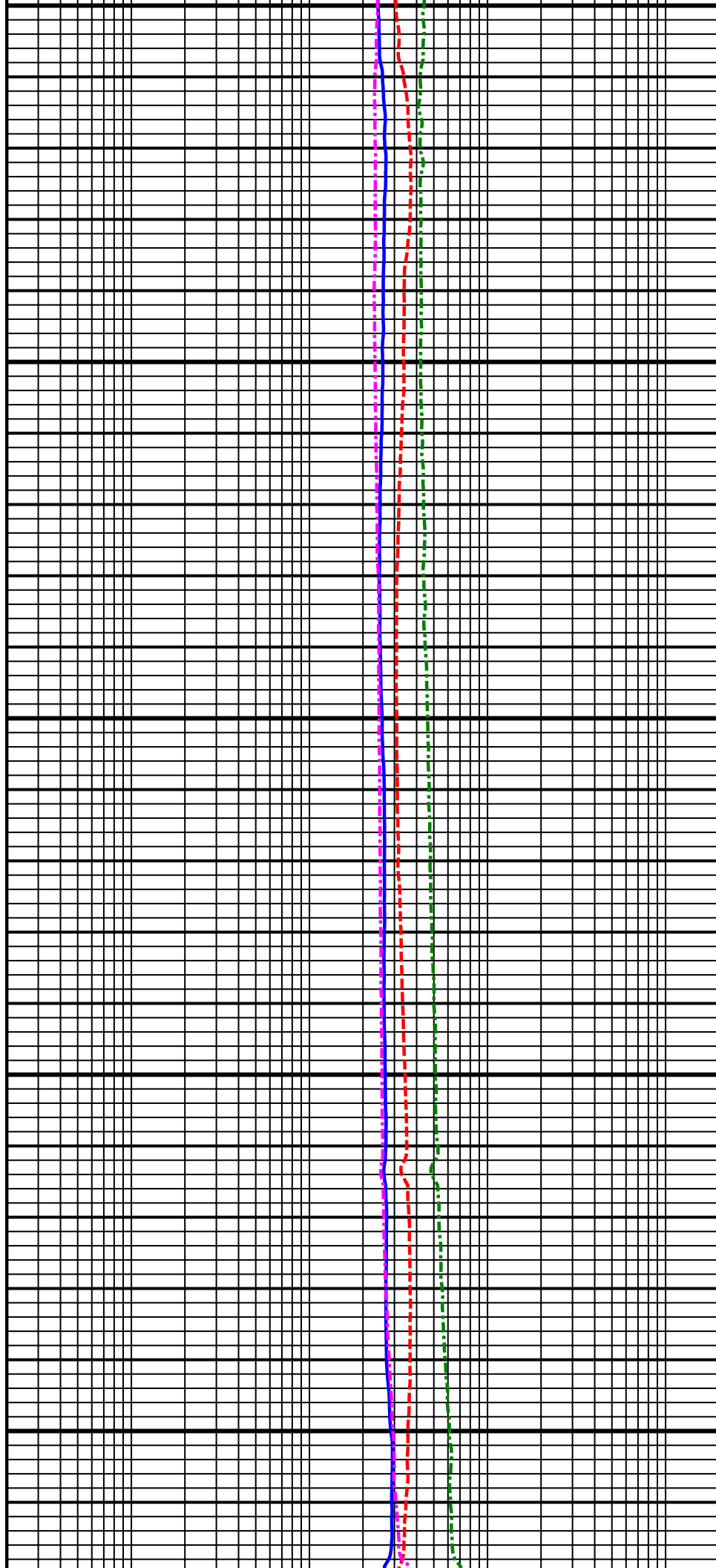
11700
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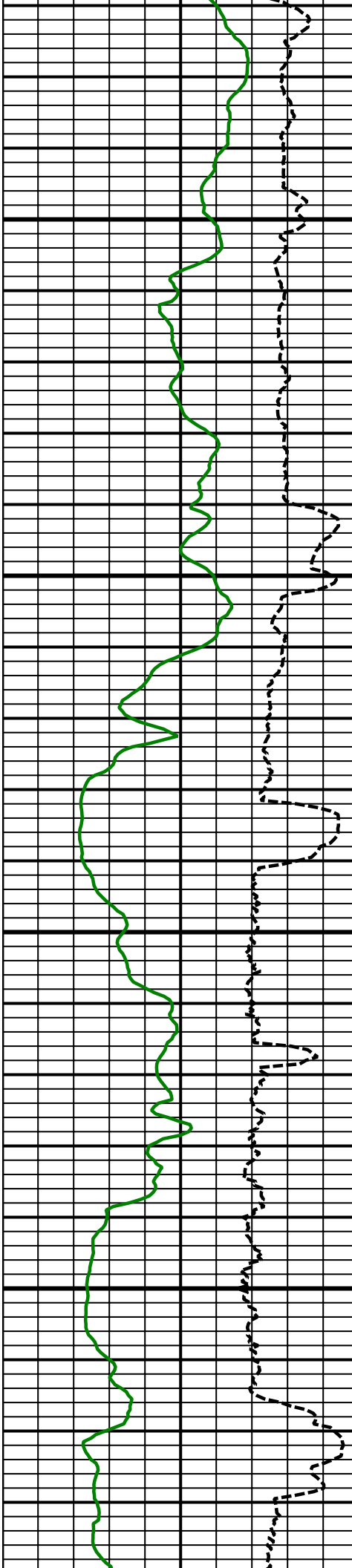




11800
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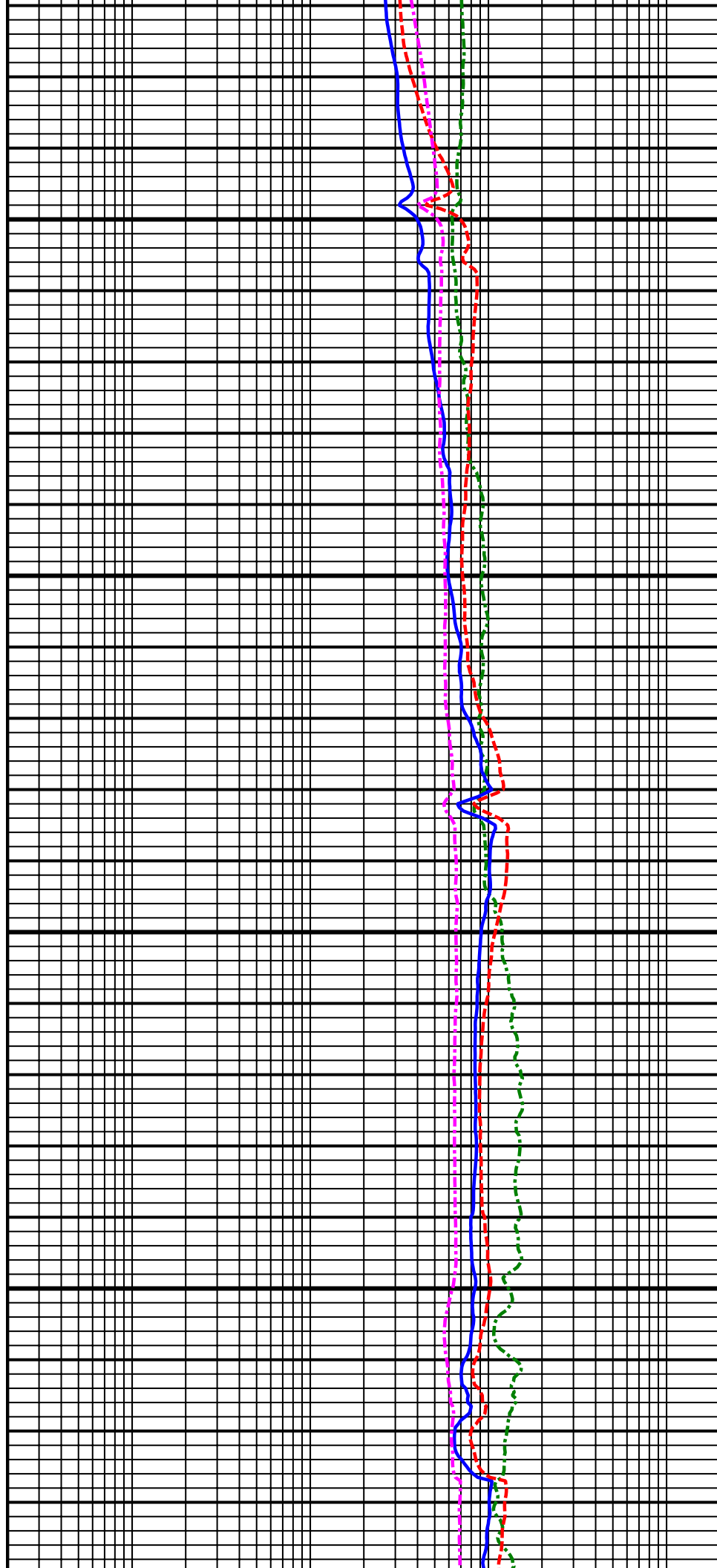
11900
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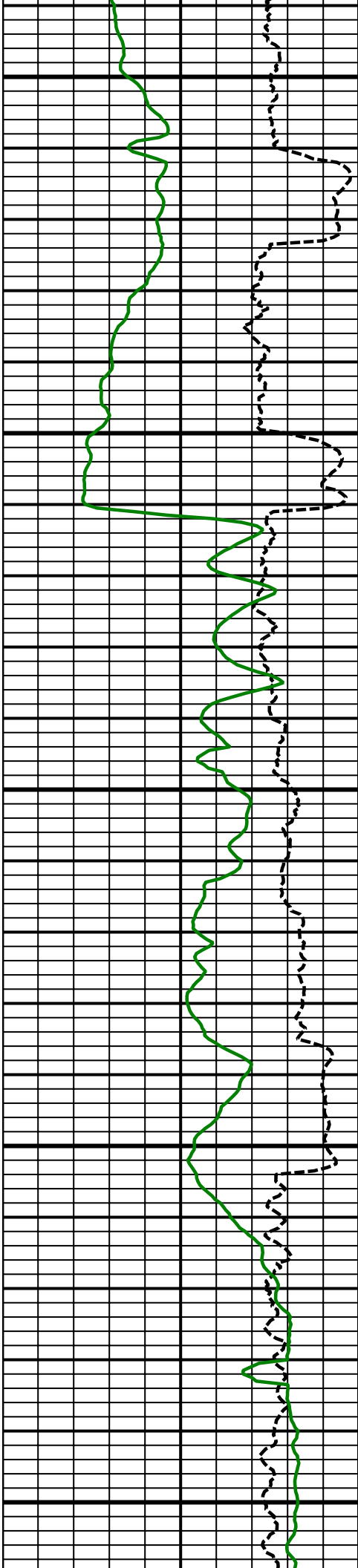




12000
MD

12100
MD

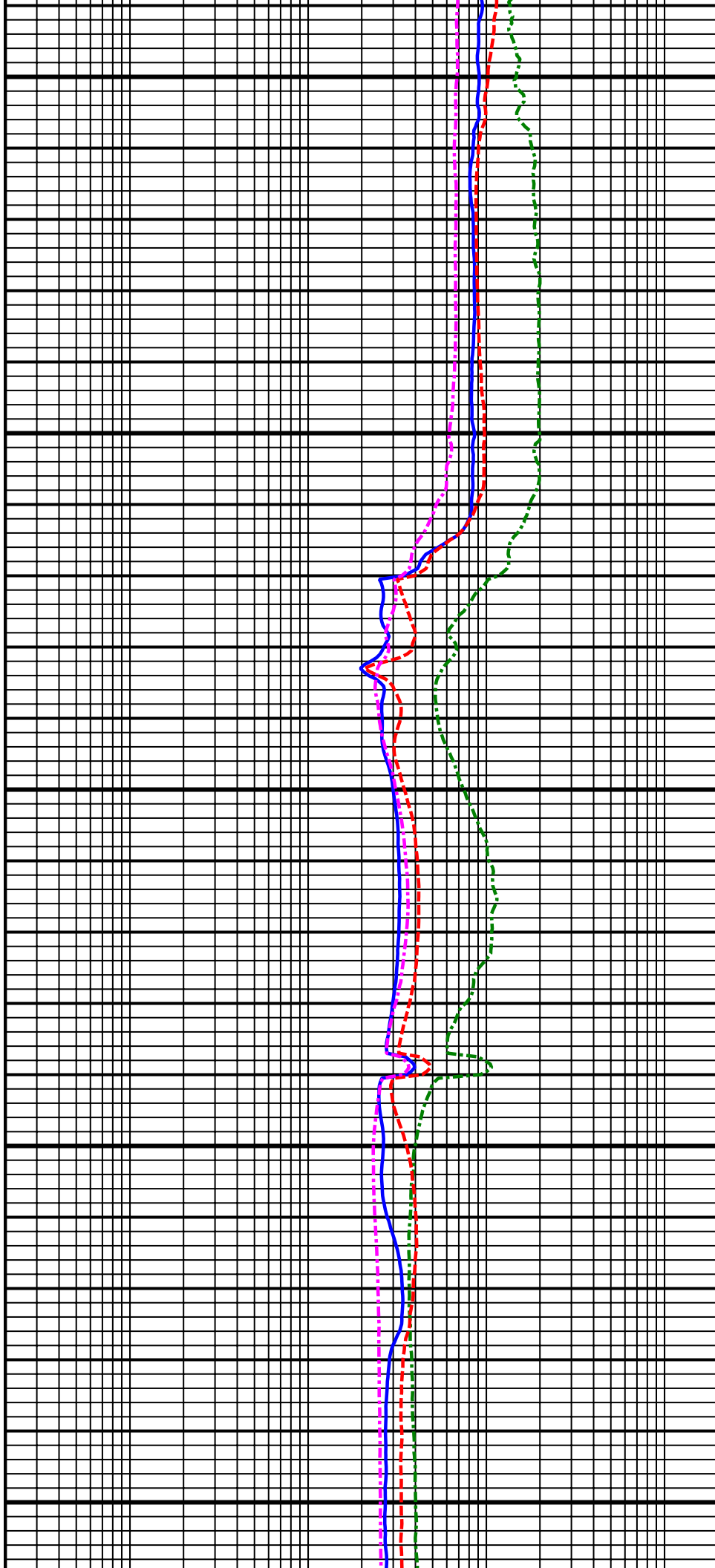


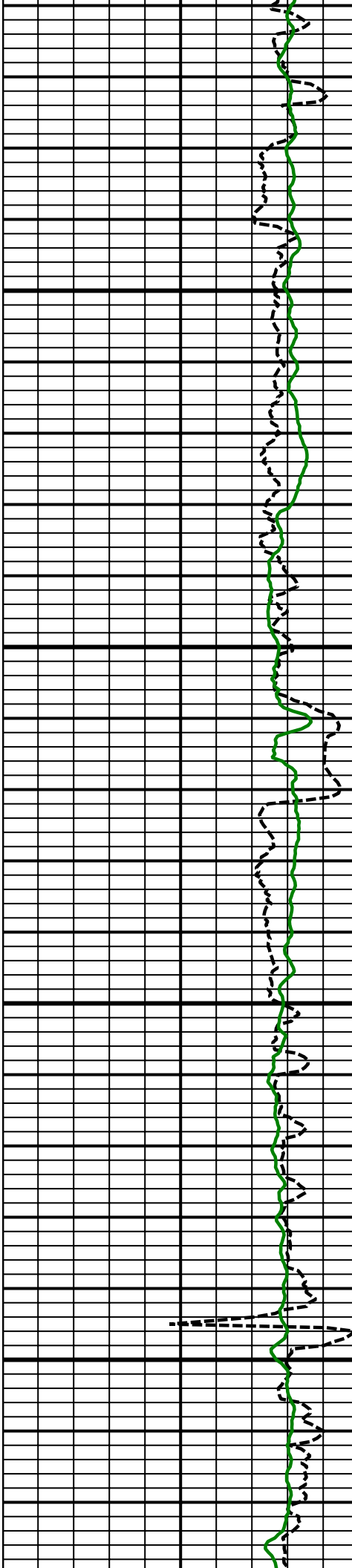


12200
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12300
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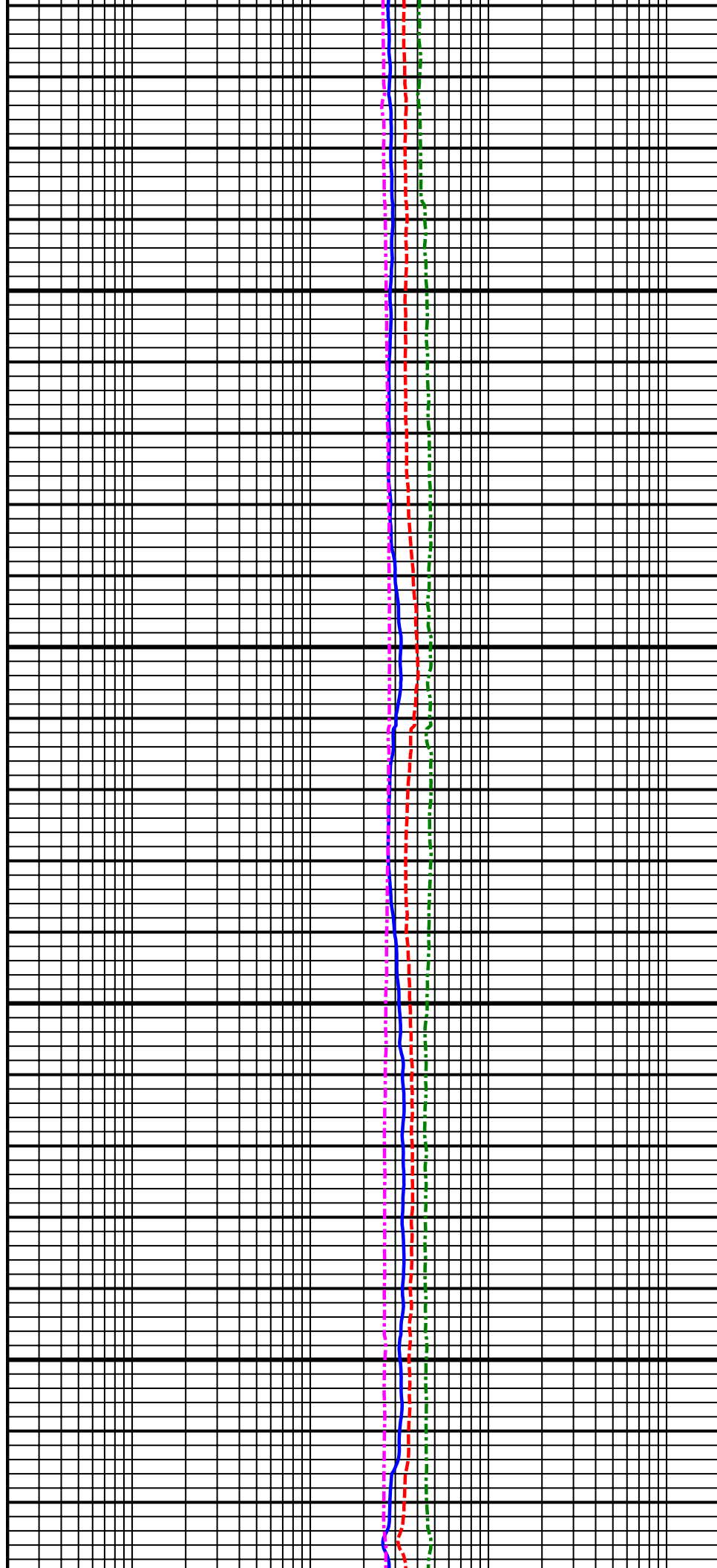
12400
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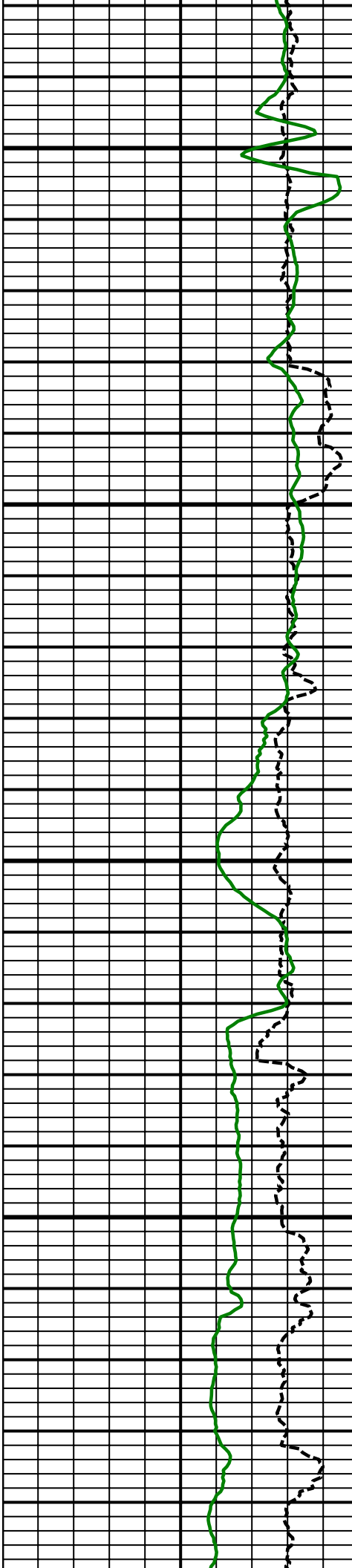




12500
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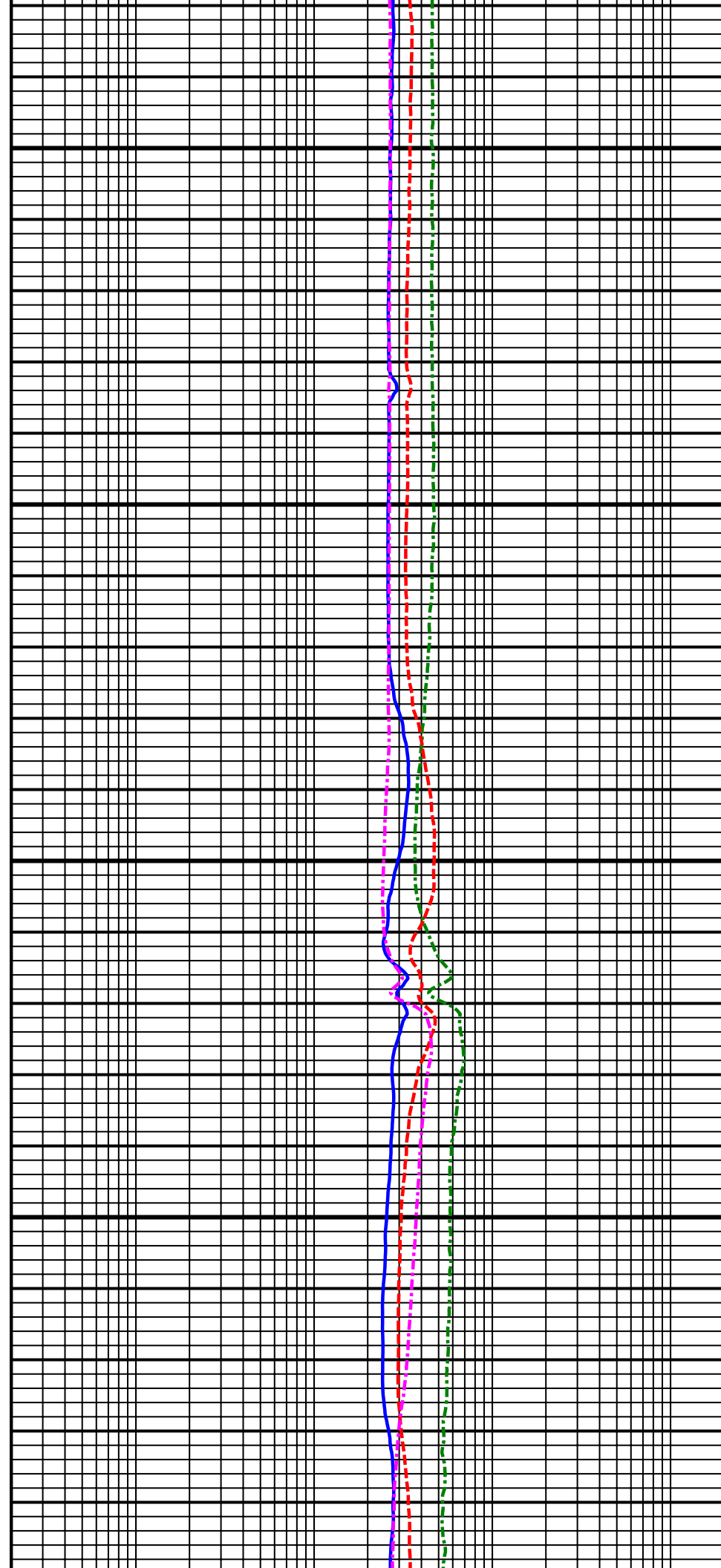
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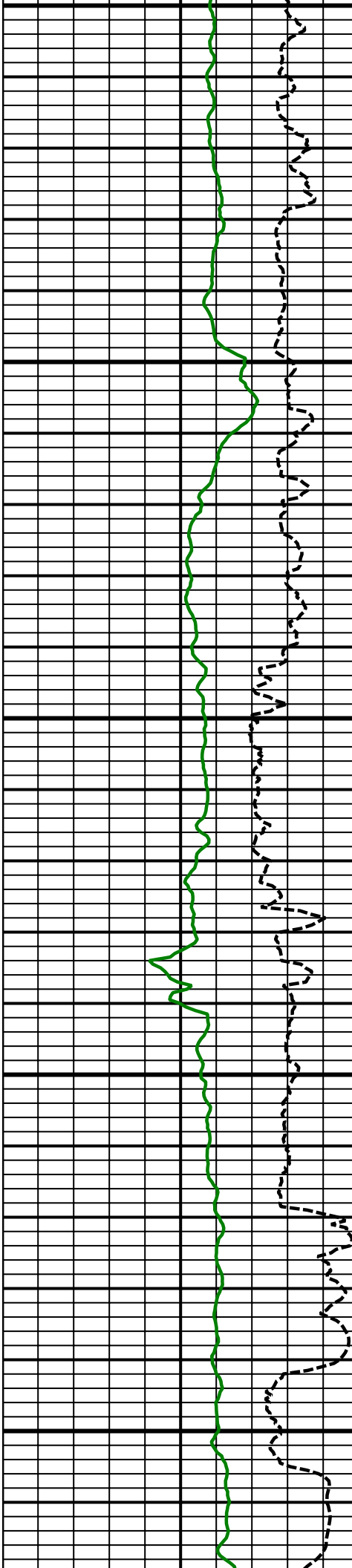




12700
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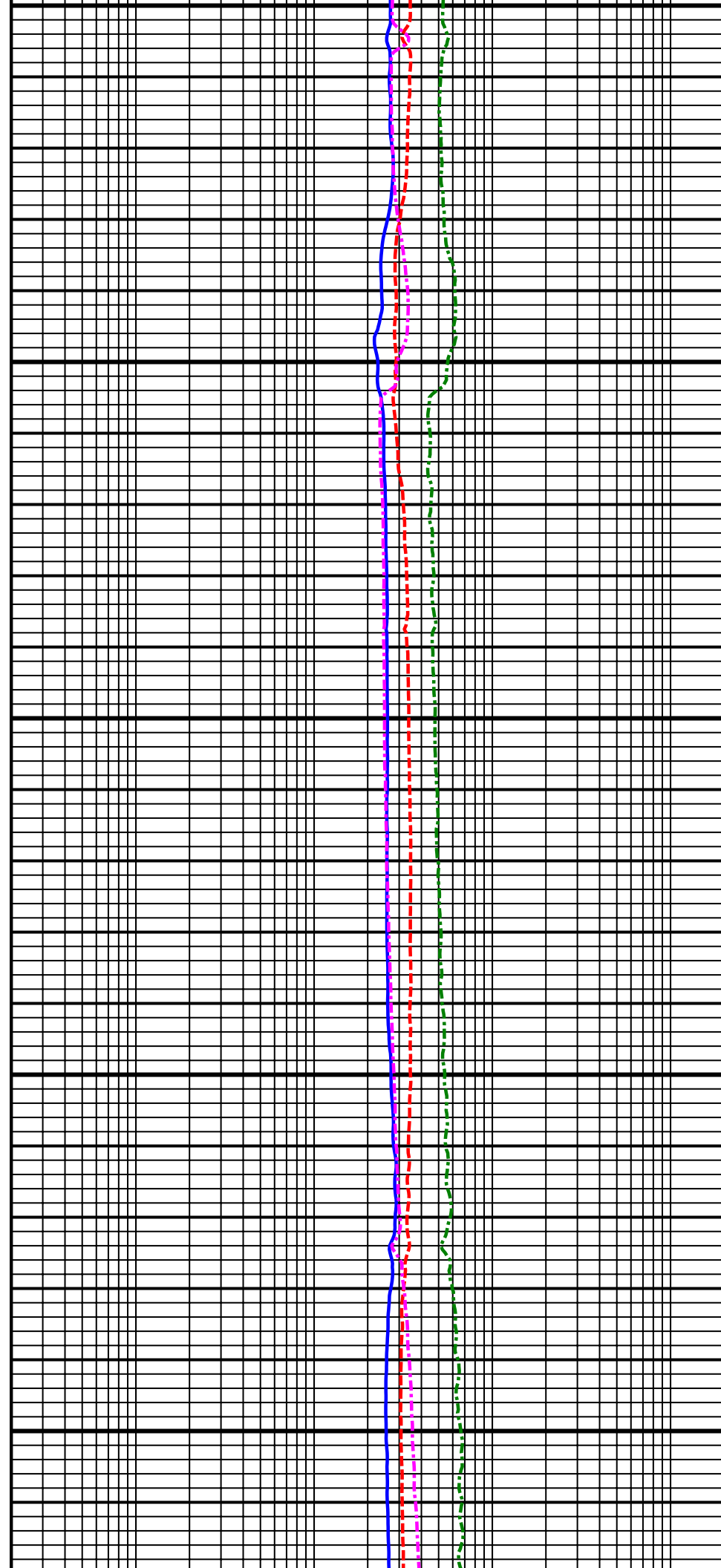
12800
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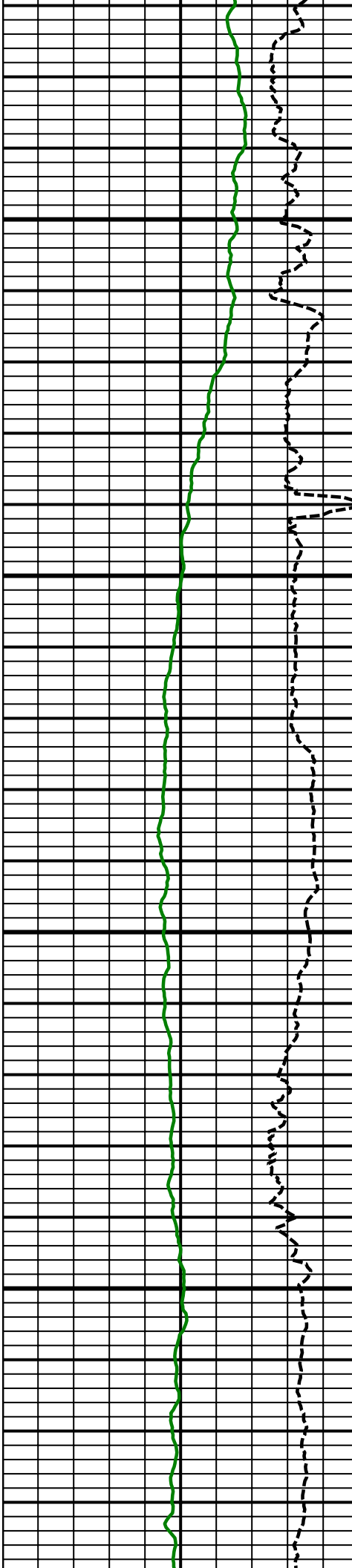




12900
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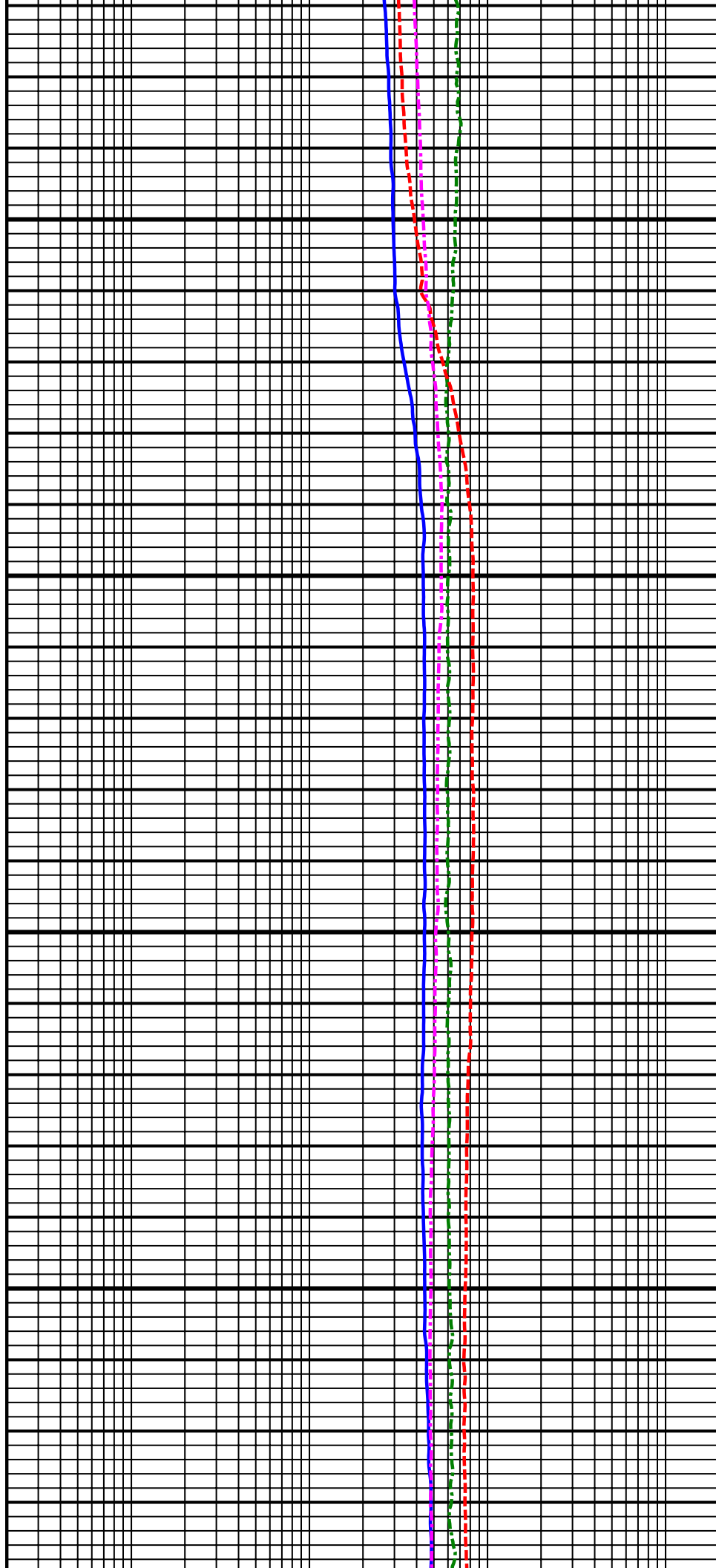
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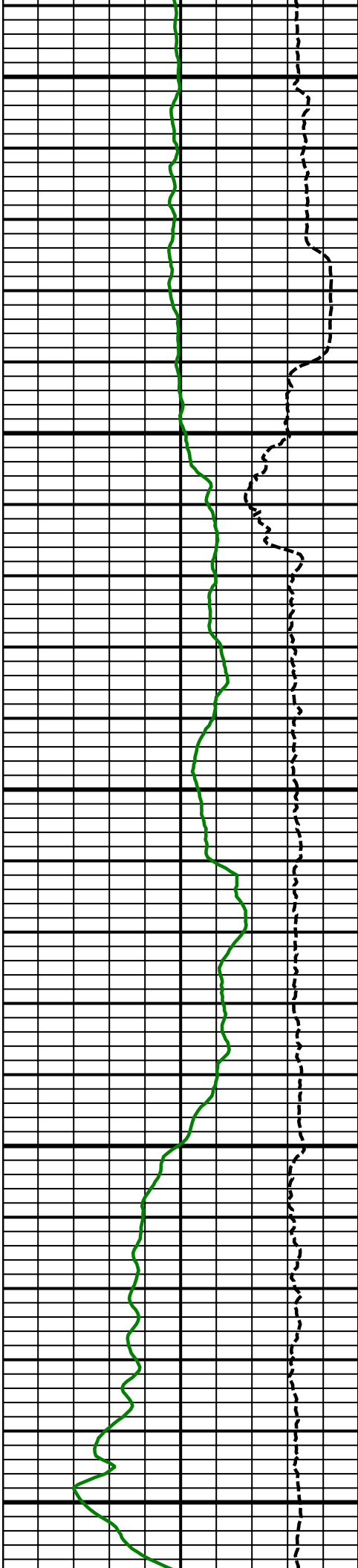




13100
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13200
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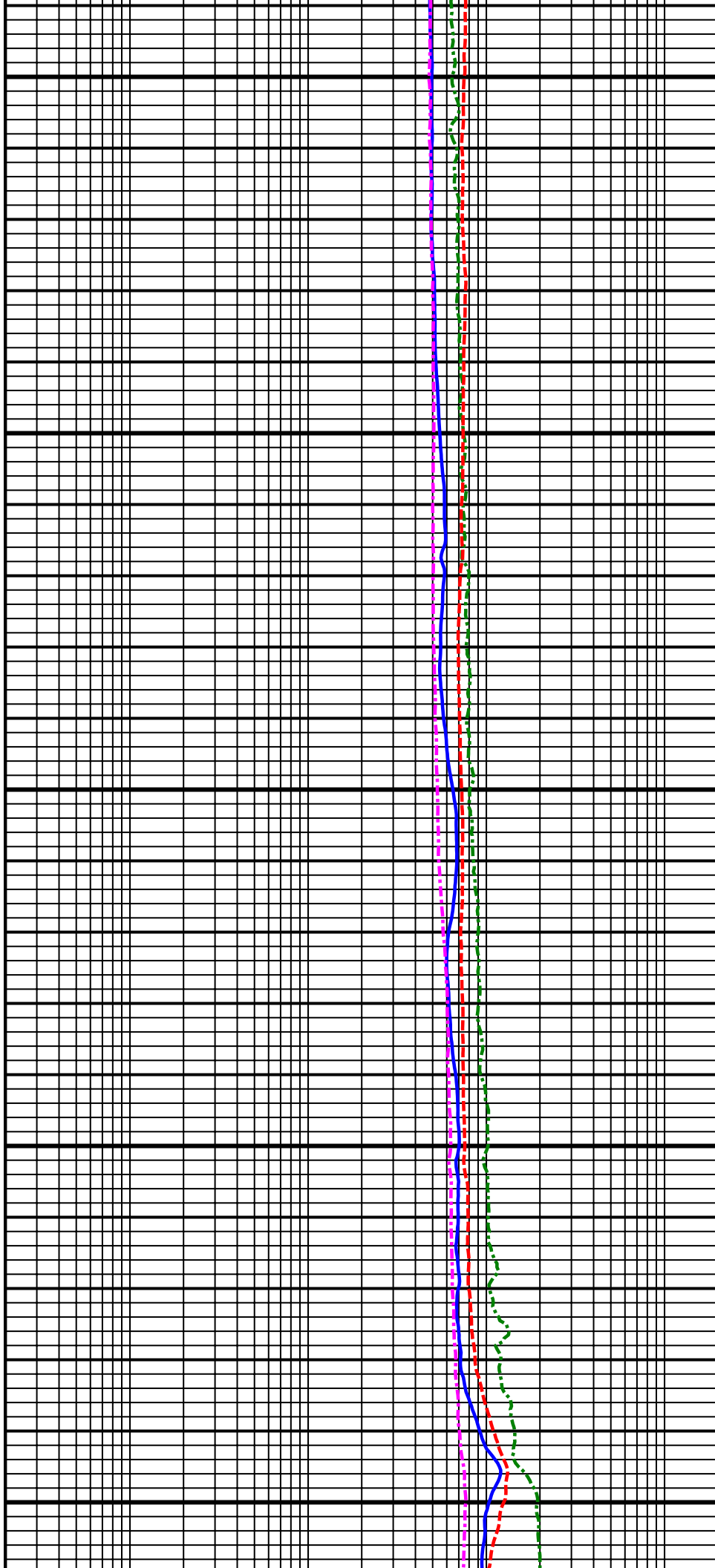


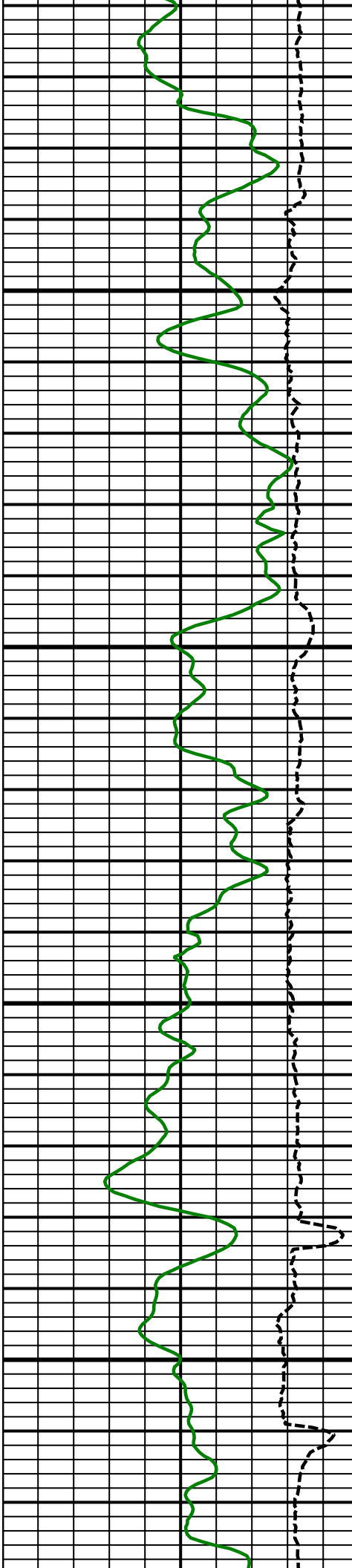


13300
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13400
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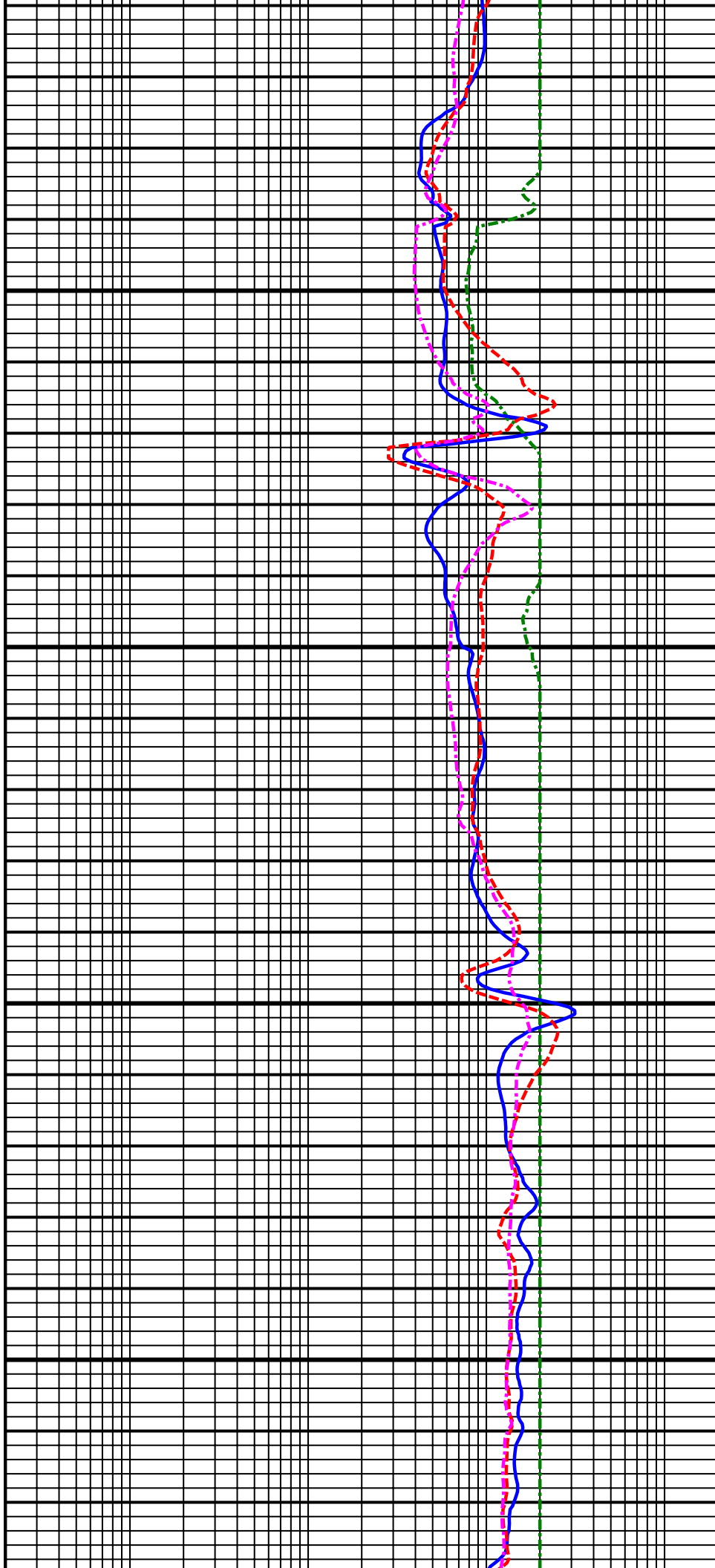
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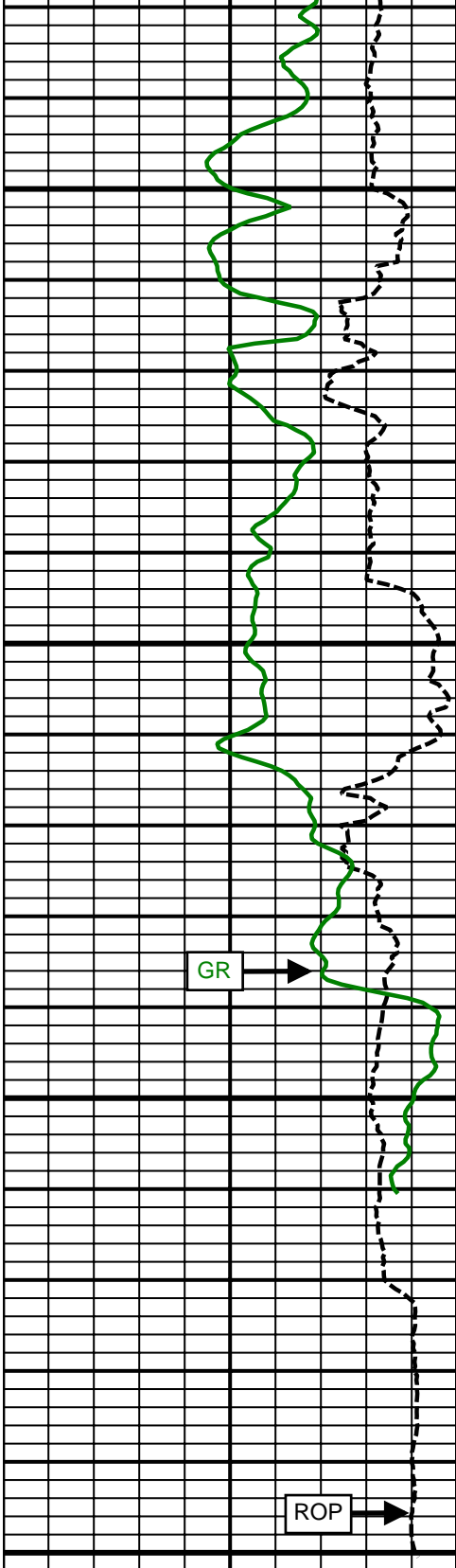




13600
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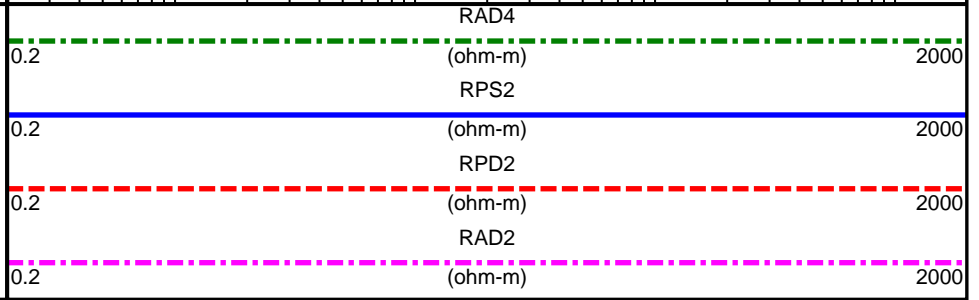
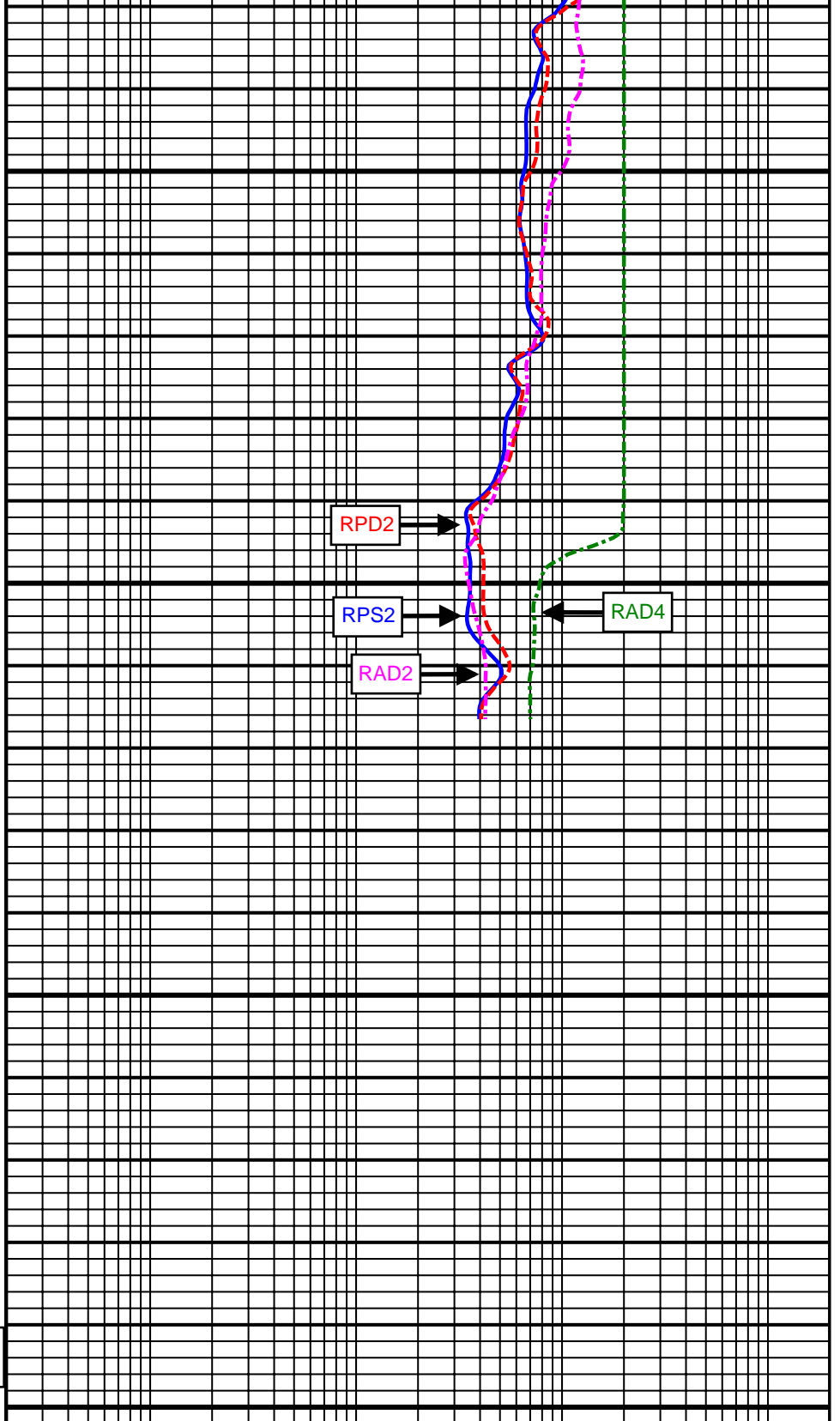
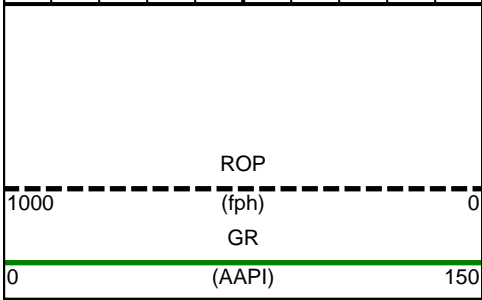
13700
MD





13800
MD

Comment
No. 4-2
13900



SURVEY						
Survey Calculation Method: Minimum Curvature						
Magnetic Reference	Target Direction	Total Magnetic Field	Magnetic Dip Angle	Magnetic Declination	Grid Convergence	Total Correction
True North	179.83 deg	52730 nT	66.75 deg	8.62 deg	0.00 deg	8.62 deg
Survey Tie-On	Depth	INC	AZ	TVD	NS	EW
	1776.00 ft	0.15 deg	338.09 deg	1775.99 ft	2.93 ft	-0.59 ft

Well Head							
Depth (ft)	Inc (deg)	Azm (deg)	TVD (ft)	NS (ft)	EW (ft)	VSect (ft)	Dogleg (deg/100ft)
1903.00	0.53	144.71	1902.99	2.60	-0.31	-2.61	0.53
1979.00	1.26	202.97	1978.98	1.55	-0.44	-1.55	1.42
2072.00	3.01	237.27	2071.91	-0.71	-2.89	0.70	2.25
2166.00	4.47	248.24	2165.71	-3.41	-8.37	3.38	1.72
2259.00	6.28	254.36	2258.30	-6.12	-16.63	6.07	2.04
2352.00	7.60	255.06	2350.62	-9.08	-27.47	9.00	1.42
2446.00	6.51	255.52	2443.90	-12.01	-38.64	11.90	1.16
2539.00	8.13	256.26	2536.14	-14.89	-50.13	14.74	1.74
2633.00	7.71	247.76	2629.25	-18.86	-62.43	18.67	1.32
2726.00	7.98	242.71	2721.38	-24.18	-73.94	23.96	0.80
2819.00	7.20	243.31	2813.57	-29.76	-84.88	29.51	0.84
2905.00	7.19	249.52	2898.89	-34.06	-94.74	33.78	0.90
2990.00	8.32	250.10	2983.11	-38.02	-105.50	37.70	1.33
3075.00	7.75	251.62	3067.28	-41.92	-116.73	41.57	0.72
3161.00	7.15	251.41	3152.55	-45.45	-127.30	45.07	0.70
3246.00	6.26	249.37	3236.97	-48.77	-136.65	48.36	1.08
3332.00	7.02	245.84	3322.39	-52.57	-145.84	52.14	1.00
3417.00	7.48	247.79	3406.71	-56.79	-155.70	56.33	0.61
3502.00	6.24	248.60	3491.10	-60.57	-165.12	60.08	1.46
3588.00	6.10	241.00	3576.60	-64.49	-173.47	63.97	0.96
3673.00	6.12	240.21	3661.12	-68.93	-181.35	68.39	0.10
3759.00	6.65	245.01	3746.59	-73.31	-189.84	72.75	0.87
3844.00	7.06	248.48	3830.98	-77.31	-199.16	76.71	0.69
3930.00	8.28	239.56	3916.21	-82.38	-209.42	81.76	1.98
4015.00	8.02	237.14	4000.35	-88.70	-219.68	88.05	0.51
4100.00	7.24	240.07	4084.60	-94.59	-229.30	93.91	1.03
4186.00	6.87	241.70	4169.95	-99.73	-238.53	99.02	0.49
4271.00	7.02	232.79	4254.33	-105.28	-247.14	104.55	1.28
4356.00	6.96	241.42	4338.70	-110.89	-255.80	110.13	1.24
4442.00	7.02	245.58	4424.06	-115.55	-265.16	114.77	0.59
4527.00	9.26	255.12	4508.20	-119.46	-276.50	118.64	3.07
4612.00	9.94	259.65	4592.01	-122.53	-290.33	121.67	1.20
4698.00	9.80	256.52	4676.74	-125.57	-304.75	124.67	0.64
4783.00	9.61	247.95	4760.53	-129.92	-318.36	128.98	1.71
4868.00	9.20	243.77	4844.39	-135.59	-331.03	134.61	0.94
4954.00	7.70	239.58	4929.45	-141.54	-342.16	140.53	1.88
5039.00	6.96	235.95	5013.76	-147.31	-351.34	146.27	1.03
5125.00	7.18	236.79	5099.10	-153.17	-360.16	152.10	0.28
5210.00	7.69	239.19	5183.39	-159.00	-369.48	157.90	0.70
5295.00	6.81	249.51	5267.71	-163.67	-379.09	162.55	1.85
5381.00	7.79	246.55	5353.01	-167.78	-389.21	166.62	1.22
5466.00	5.74	243.97	5437.42	-171.94	-398.32	170.75	2.44

5552.00	6.69	246.86	5522.91	-175.79	-406.79	174.58	1.16
5637.00	6.73	245.19	5607.33	-179.83	-415.86	178.59	0.23
5723.00	5.28	245.03	5692.86	-183.61	-424.03	182.35	1.69
5808.00	4.20	247.84	5777.56	-186.44	-430.45	185.16	1.30
5893.00	3.51	248.17	5862.37	-188.58	-435.75	187.28	0.81
5979.00	3.47	257.38	5948.21	-190.13	-440.74	188.82	0.65
6064.00	3.30	258.65	6033.06	-191.17	-445.64	189.85	0.22
6150.00	1.88	242.70	6118.97	-192.30	-449.33	190.97	1.84
6235.00	1.35	239.03	6203.94	-193.46	-451.42	192.12	0.63
6320.00	1.24	238.25	6288.92	-194.46	-453.06	193.11	0.13
6406.00	0.85	239.53	6374.90	-195.27	-454.40	193.92	0.45
6487.00	0.70	279.26	6455.90	-195.50	-455.41	194.14	0.67
6535.00	0.49	254.72	6503.89	-195.50	-455.90	194.15	0.68
6578.00	5.67	199.65	6546.82	-197.55	-456.79	196.20	12.57
6620.00	10.71	199.82	6588.38	-203.18	-458.81	201.82	12.00
6663.00	12.64	200.24	6630.49	-211.36	-461.80	209.99	4.49
6706.00	15.51	202.66	6672.19	-221.08	-465.64	219.70	6.81
6748.00	19.81	202.78	6712.20	-232.83	-470.56	231.43	10.24
6791.00	23.94	205.48	6752.10	-247.43	-477.14	246.01	9.88
6834.00	25.80	205.13	6791.11	-263.78	-484.87	262.34	4.34
6876.00	28.17	198.68	6828.54	-281.45	-491.92	279.99	8.96
6919.00	31.57	190.48	6865.84	-302.15	-497.23	300.67	12.34
6962.00	36.14	188.64	6901.54	-325.77	-501.18	324.28	10.89
7004.00	38.35	187.30	6934.97	-350.94	-504.70	349.44	5.60
7047.00	42.79	185.96	6967.63	-378.71	-507.91	377.20	10.52
7090.00	47.91	183.75	6997.84	-409.18	-510.47	407.66	12.45
7132.00	51.83	182.42	7024.91	-441.24	-512.19	439.72	9.64
7175.00	56.54	180.63	7050.06	-476.08	-513.10	474.56	11.46
7218.00	61.46	179.28	7072.20	-512.93	-513.06	511.40	11.75
7260.00	67.49	179.97	7090.29	-550.81	-512.82	549.29	14.43
7303.00	71.94	181.98	7105.20	-591.13	-513.52	589.60	11.24
7346.00	78.17	182.22	7116.28	-632.62	-515.04	631.09	14.50
7389.00	82.13	180.39	7123.64	-674.97	-516.00	673.43	10.12
7454.00	84.96	177.23	7130.95	-739.53	-514.65	738.00	6.50
7614.00	89.20	171.72	7139.10	-898.48	-499.26	896.99	4.34
7739.00	92.96	170.77	7136.75	-1021.97	-480.24	1020.55	3.10
7832.00	93.21	171.19	7131.74	-1113.69	-465.68	1112.30	0.53
7926.00	92.22	173.71	7127.29	-1206.76	-453.35	1205.41	2.88
8019.00	91.23	175.08	7124.49	-1299.27	-444.27	1297.95	1.82
8112.00	91.42	175.89	7122.34	-1391.96	-436.95	1390.66	0.89
8206.00	90.56	178.08	7120.71	-1485.81	-432.01	1484.52	2.50
8299.00	89.69	180.07	7120.51	-1578.79	-430.51	1577.51	2.34
8392.00	90.25	181.24	7120.56	-1671.78	-431.57	1670.49	1.39
8485.00	87.16	180.61	7122.66	-1764.73	-433.07	1763.44	3.39
8579.00	88.15	180.33	7126.51	-1858.65	-433.84	1857.36	1.09
8672.00	88.77	177.59	7129.01	-1951.59	-432.16	1950.30	3.02
8766.00	91.17	178.32	7129.06	-2045.53	-428.80	2044.24	2.67
8859.00	92.71	179.71	7125.91	-2138.45	-427.20	2137.18	2.23
8953.00	93.09	182.77	7121.15	-2232.30	-429.23	2231.02	3.28
9038.00	91.17	184.37	7117.99	-2317.07	-434.52	2315.77	2.94
9124.00	92.47	184.37	7115.26	-2402.77	-441.07	2401.46	1.51
9209.00	93.02	184.23	7111.19	-2487.44	-447.44	2486.10	0.67
9294.00	93.08	184.71	7106.67	-2572.06	-454.05	2570.70	0.57
9380.00	91.23	183.51	7103.43	-2657.77	-460.21	2656.39	2.56
9465.00	90.06	183.38	7102.48	-2742.61	-465.32	2741.22	1.38
9551.00	90.06	183.42	7102.39	-2828.46	-470.42	2827.05	0.05
9637.00	90.12	181.93	7102.25	-2914.36	-474.43	2912.94	1.73
9721.00	90.12	181.98	7102.08	-2998.31	-477.30	2996.89	0.06
9807.00	89.63	179.66	7102.26	-3084.30	-478.53	3082.87	2.76
9892.00	90.12	177.11	7102.45	-3169.26	-476.13	3167.83	3.05
9978.00	90.37	176.37	7102.08	-3255.12	-471.24	3253.71	0.91

10063.00	89.94	174.46	7101.85	-3339.84	-464.45	3338.45	2.30
10148.00	90.06	175.82	7101.85	-3424.53	-457.25	3423.16	1.61
10234.00	92.22	176.48	7100.14	-3510.32	-451.48	3508.96	2.63
10319.00	90.49	175.89	7098.13	-3595.10	-445.82	3593.76	2.15
10405.00	89.57	176.88	7098.08	-3680.93	-440.40	3679.61	1.57
10490.00	90.68	178.04	7097.90	-3765.84	-436.63	3764.53	1.89
10575.00	90.99	178.40	7096.66	-3850.79	-433.99	3849.49	0.56
10661.00	90.06	179.12	7095.87	-3936.77	-432.13	3935.47	1.37
10746.00	89.69	182.02	7096.06	-4021.75	-432.98	4020.45	3.44
10832.00	88.71	180.87	7097.26	-4107.71	-435.15	4106.41	1.76
10917.00	89.57	180.28	7098.53	-4192.70	-436.00	4191.39	1.23
11002.00	87.84	176.64	7100.46	-4277.63	-433.72	4276.32	4.74
11087.00	87.47	173.84	7103.93	-4362.26	-426.67	4360.97	3.32
11173.00	88.46	175.95	7106.99	-4447.86	-419.02	4446.59	2.71
11258.00	87.72	173.72	7109.82	-4532.46	-411.38	4531.22	2.76
11344.00	92.10	173.83	7109.96	-4617.93	-402.05	4616.72	5.09
11429.00	92.84	173.59	7106.29	-4702.34	-392.75	4701.15	0.92
11515.00	92.59	179.00	7102.22	-4788.03	-387.20	4786.86	6.29
11600.00	92.04	180.08	7098.78	-4872.96	-386.52	4871.79	1.42
11685.00	92.78	182.14	7095.21	-4957.86	-388.16	4956.69	2.57
11771.00	90.12	183.75	7093.03	-5043.71	-392.58	5042.52	3.62
11856.00	88.59	182.80	7093.99	-5128.56	-397.44	5127.36	2.12
11942.00	88.64	182.60	7096.07	-5214.44	-401.49	5213.23	0.24
12027.00	88.34	182.00	7098.31	-5299.34	-404.90	5298.12	0.79
12112.00	89.14	181.14	7100.18	-5384.29	-407.22	5383.06	1.38
12198.00	89.57	181.57	7101.15	-5470.26	-409.26	5469.02	0.71
12283.00	90.12	180.66	7101.38	-5555.24	-410.91	5554.00	1.25
12368.00	90.56	180.94	7100.87	-5640.23	-412.10	5638.98	0.61
12454.00	92.16	184.28	7098.83	-5726.10	-416.01	5724.84	4.31
12539.00	89.81	183.56	7097.37	-5810.88	-421.82	5809.61	2.89
12625.00	90.86	184.35	7096.87	-5896.68	-427.75	5895.38	1.53
12710.00	89.94	182.75	7096.27	-5981.51	-433.02	5980.20	2.17
12796.00	89.38	181.72	7096.78	-6067.44	-436.37	6066.12	1.36
12881.00	89.26	181.57	7097.79	-6152.40	-438.81	6151.07	0.23
12966.00	88.77	181.62	7099.25	-6237.35	-441.18	6236.02	0.58
13052.00	89.69	180.83	7100.41	-6323.32	-443.01	6321.98	1.41
13137.00	89.82	181.07	7100.77	-6408.31	-444.42	6406.96	0.32
13223.00	89.94	181.20	7100.95	-6494.29	-446.13	6492.94	0.21
13308.00	89.63	180.07	7101.27	-6579.29	-447.07	6577.93	1.38
13394.00	89.81	179.83	7101.69	-6665.29	-446.99	6663.93	0.35
13479.00	89.88	180.60	7101.92	-6750.28	-447.31	6748.93	0.91
13564.00	89.07	180.59	7102.70	-6835.27	-448.19	6833.91	0.95
13650.00	88.15	180.51	7104.79	-6921.24	-449.02	6919.88	1.07
13735.00	86.67	180.05	7108.63	-7006.15	-449.44	7004.79	1.82
13820.00	84.63	178.15	7115.07	-7090.89	-448.11	7089.53	3.28
13843.00	84.13	178.19	7117.33	-7113.77	-447.37	7112.41	2.18
Projected to Total Depth:							
13900.00	84.13	178.19	7123.15	-7170.40	-445.59	7169.05	0.00

Weatherford surveys from 1903 ft MD to 13843 ft MD.

TD well at 13900 ft MD.

The total correction is 8.62 deg relative to True North.



Weatherford®

Final Print

COMPANY	<u>Anadarko</u>		
WELL	<u>Sparboe 7N-3HZ</u>		
FIELD	<u>Wattenburg</u>		
RIG	<u>Xtreme 23</u>		
LOC.	<u>Colorado</u>	COUNTY	<u>Weld</u>