



Azimuthal Gamma Ray

LWD MEMORY LOG

Scale: **1:240**

Company: **KERR-MCGEE OIL & GAS ONSHORE LP (WA)**
 Well: **Nelson 35-3HZ**
 Field: **Wattenberg**

True Vertical Depth
 Driller's Depth
 State: **Colorado** Country: **United States**

Status: **Final Print**
 API No: **05-123-51254**
 Job ID: **110760663**
 Surface Location: Latitude: **40° 06' 04.874" N** Longitude: **104° 58' 20.402" W**
 SEC: **35** TWN: **2N** RGE: **68W**

Permanent Datum (P.D.): **Mean Sea Level** Elevation: **0.00 ft**
 Log Measured From: **Rig Floor** Above P.D.: **4975.00 ft**
 Elev. KB: **N/A**
 Elev. DF: **4975.00 ft**
 Elev. GL: **4955.00 ft**

Dates
 From: **2021-03-08** Drilled (ft) **1923.00** Logged (ft) **1923.00** Azi Reference North: **True** Dip Angle: (deg) **66.41**
 To: **2021-03-11** Top: **1923.00** Bottom: **20116.00** Total Magnetic Field Strength: (nT) **52064**
 Spud: **2021-03-08** Bottom: **20116.00** Bottom: **20103.00** Mag to Reference North Correction: (deg) **8.08**

Borehole Record			Casing Record			
Hole Size (in)	From (ft)	To (ft)	Size (in)	Weight (lb/ft)	From (ft)	To (ft)
12.500	20.00	1923.00	9.625	36.00	20.00	1913.00
8.500	1923.00	20116.00				

Mud Record			Deviation Record			
Type	From (ft)	To (ft)	Hole Size (in)	Interval (ft)	Incl Az (Start)	Incl Az (End)
Diesel-Oil Based Mud	1923.00	20116.00	8.500	18193.00	19.58 315.78	91.48 178.23

Acquisition System: **Cadence Plot Studio** Software Version: **RT 5.9 5.9.9111.3**
 Rig: **Precision 461** Contractor: **Precision Drilling** District: **RMD** Unit: **D&E**

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Log Run Summary

Run No	Bit Run No.	Bit Size (in)	Bit Type	Bit Gauge Length (in)	Assembly Type	Logged Interval		Bit Depth Interval		Date / Time		Circ. Hours (h)
						Top (ft)	Bottom (ft)	From (ft)	To (ft)	Start Logging	End Logging	
1	1	8.500	PDC	3.00	Rotary Steerable	1923.00	20103.00	1923.00	20116.00	2021-03-08 09:00	2021-03-11 15:30	74.62

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
John Moisan	2021-03-07	2021-03-12	Adam Schlenz	2021-03-08	2021-03-12

Mud Properties Record

Date / Time	Run No.	Depth (ft)	Mud Type	Density (ppg)	Viscosity (cP)	pH	Fluid Loss (cm3)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
2021-03-08 06:00	1	1923.00	Diesel-Oil Based Mud	8.9	18	N/A	12.8	66/26	Active Pit	36433	0.00
2021-03-08 16:00	1	4558.00	Diesel-Oil Based Mud	8.9	17	N/A	12.8	64/28	Active Pit	38351	0.00
2021-03-09 06:00	1	8395.00	Diesel-Oil Based Mud	8.9	16	N/A	9.2	66/26	Active Pit	38351	0.00
2021-03-09 16:00	1	10792.00	Diesel-Oil Based Mud	9.0	21	N/A	8.4	65/27	Active Pit	40000	0.00
2021-03-10 06:00	1	12842.00	Diesel-Oil Based Mud	9.2	17	N/A	8.0	66/25	Active Pit	41905	0.00
2021-03-10 16:00	1	15695.00	Diesel-Oil Based Mud	9.2	17	N/A	8.4	66/24	Active Pit	42857	0.00

2021-03-11 06:00	1	18997.00	Diesel-Oil Based Mud	9.2	17	N/A	10.0	66/24	Active Pit	40952	0.00
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Equipment and Service Data

Run No.	Tool	Serial Number	Measurement	Sensor Offset (ft)	Bit Offset (ft)	Max O.D. (in)	Min I.D. (in)
1	AutoTrak Curve Steering Unit	12512033	Near Bit Inclination	5.93	6.76	7.000	4.330
1	AutoTrak Curve Steering Unit	12512033	Near Bit VSS	5.93	6.76	7.000	4.330
1	AutoTrak Curve MWD	14705361	Gamma (single)	2.74	12.93	7.000	3.250
1	AutoTrak Curve MWD	14705361	Directional (mag)	12.26	22.45	7.000	3.250

Service and Tool Mnemonics

Mnemonic	Name	Description
ATC SU	AutoTrak Curve SU	Auto Trak Curve Steering Unit
ATC MWD	AutoTrak Curve MWD	Auto Trak Curve MWD
ATC LCPM	AutoTrak Curve LCPM	Auto Trak Curve LCPM

Comments

- 1 Depths and depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to lack of control by Baker Hughes logging engineers, depth calibrations and measurements could not be independently verified. These unverified depths are being used to represent logging data.
- 2 Baker Hughes LWD Run1 1 utilized 6 ¼ inch NaviGamma services (Gamma Ray and Directional) behind 8 ½ inch bit and rotary steerable assembly from 1923 to 20116 feet MD (1879 to 7709 feet TVD).
- 3 Gamma Ray Apparent (GRAX) is presented 0 to 200 API per customer request.

Remarks

Number	Depth (ft)	Hole Section (in)	Run No.	Remark
1	1923.00	8.500	1	Baker Hughes logging services began at 1923 feet MD (1879 feet TVD).

Curve Mnemonics

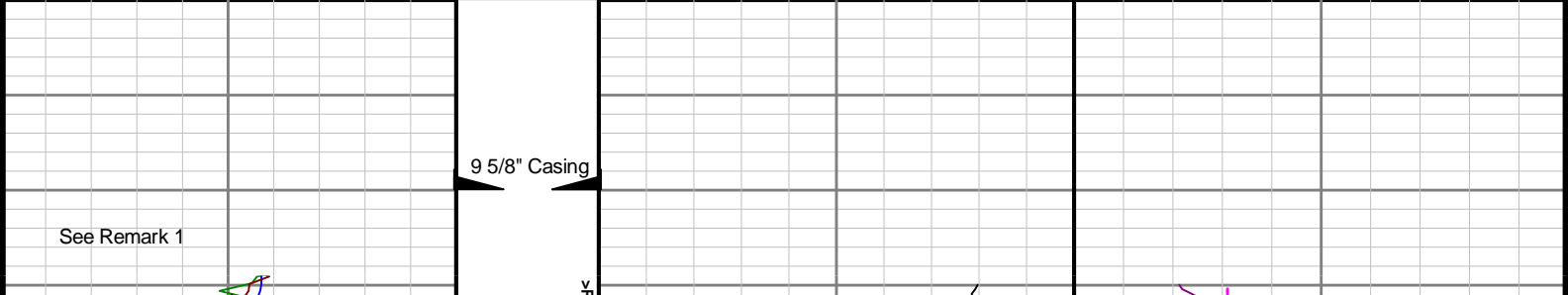
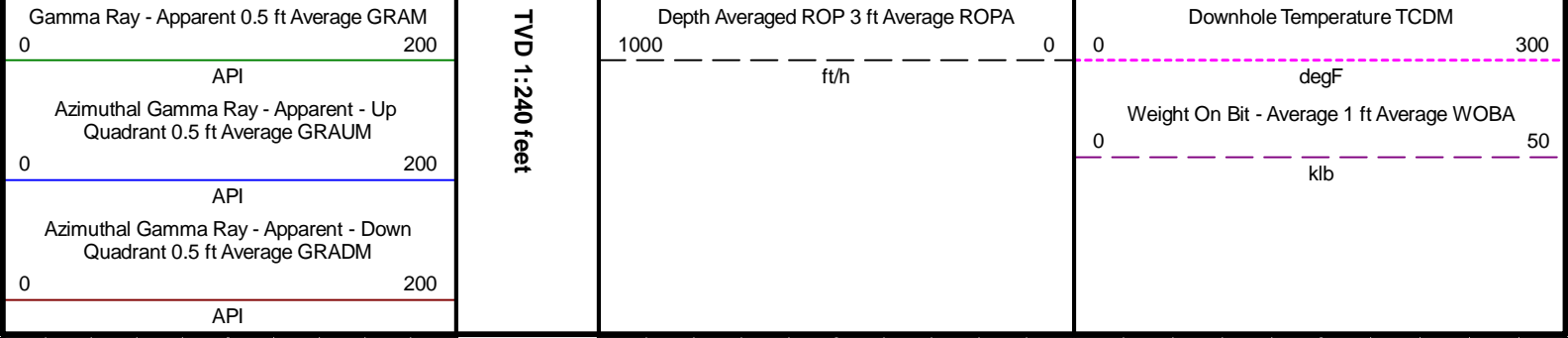
Presented Curves	Description	Units
ROPA	Depth Averaged ROP 3 ft Average	ft/h
WOBA	Weight on Bit - Average 1 ft Average	klb
GRAM	Gamma Ray - Apparent - Memory 0.5 ft Average	API
GRADM	Gamma Ray - Apparent - Down Quadrant - Memory 0.5 ft Average	API
GRAUM	Gamma Ray - Apparent - Up Quadrant - Memory 0.5 ft Average	API
TCDM	Directional Real-Time Survey Temperature	degF

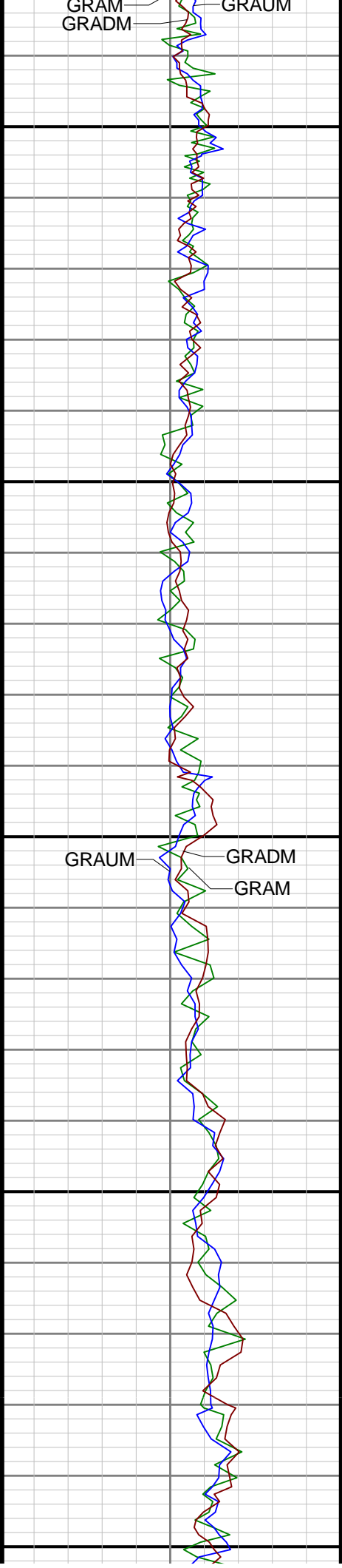
Company KERR-MCGEE OIL & GAS ONSHORE LP (WA)

Well Nelson 35-3HZ

Interval **Date From:** 2021-03-08 09:00 **Interval Drilled: (ft)** 1923.00 - 20116.00
Date To: 2021-03-11 15:30 **Interval Logged: (ft)** 1923.00 - 20103.00

Created 2021-03-12 05:47:46

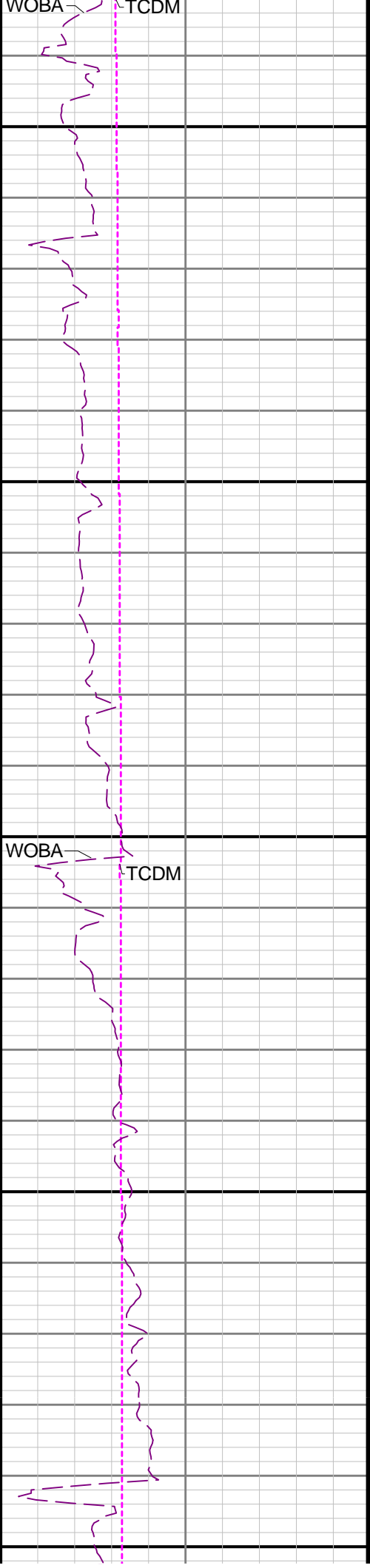
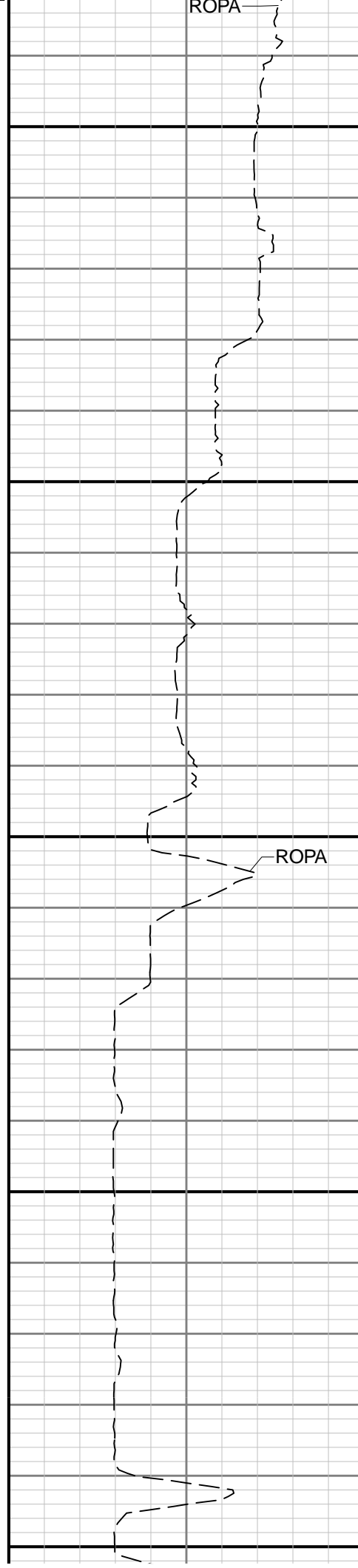


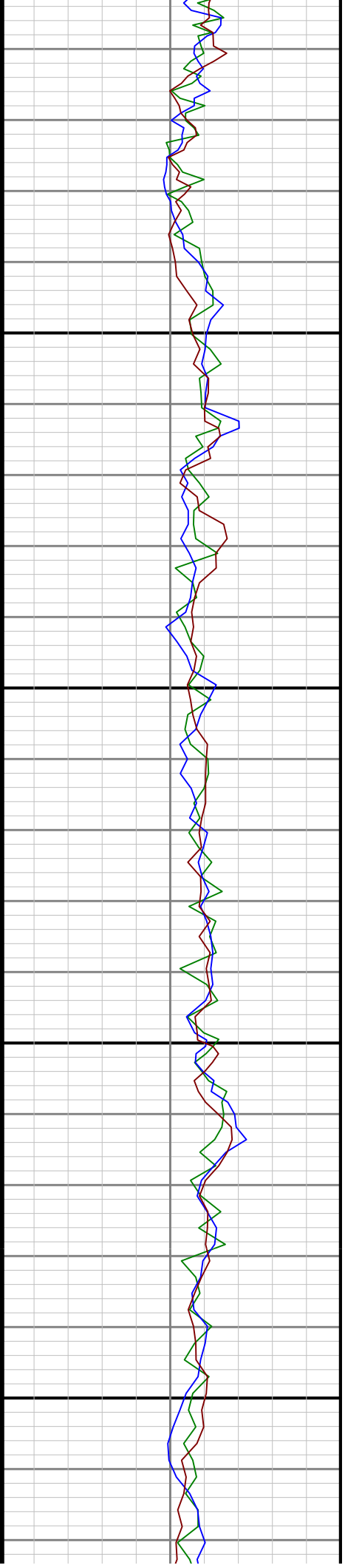


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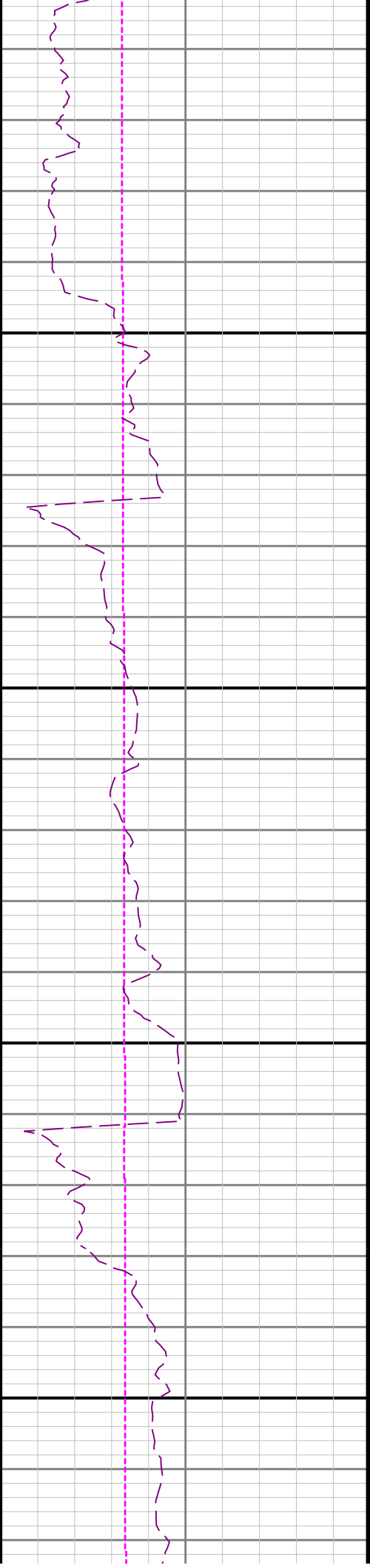
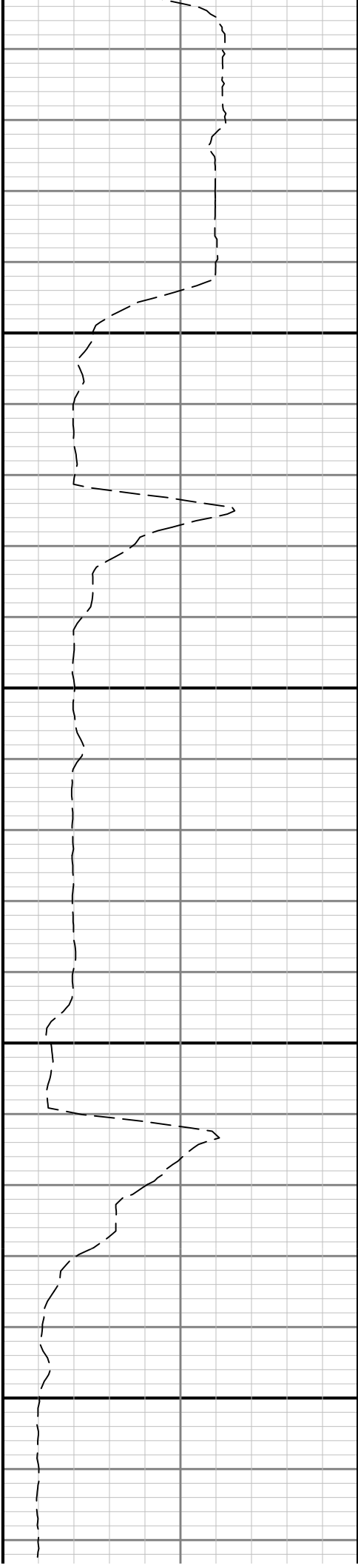
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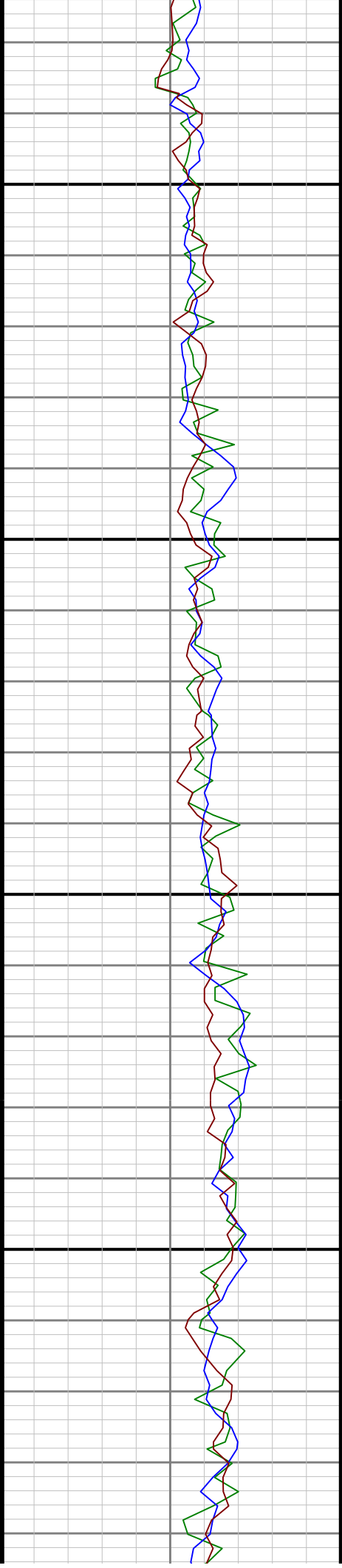




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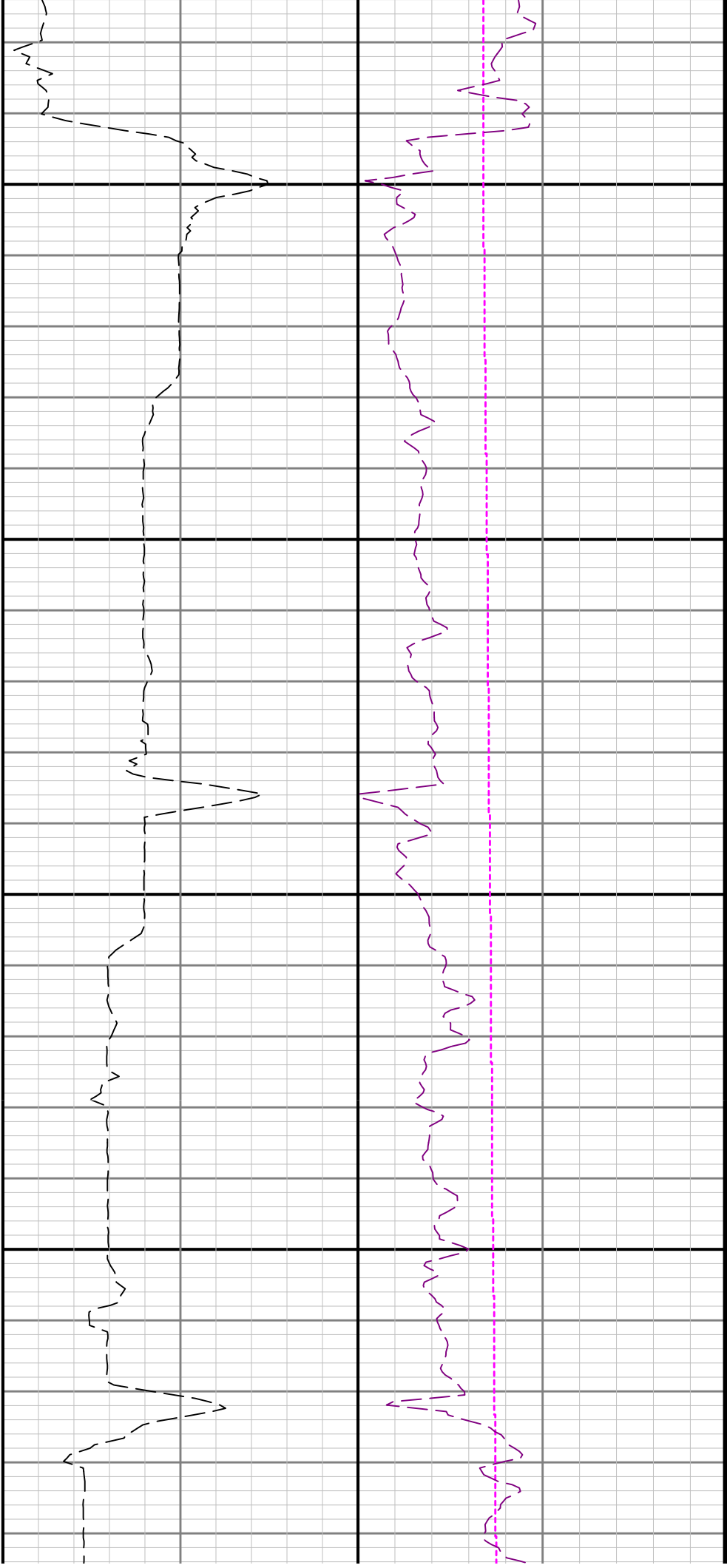
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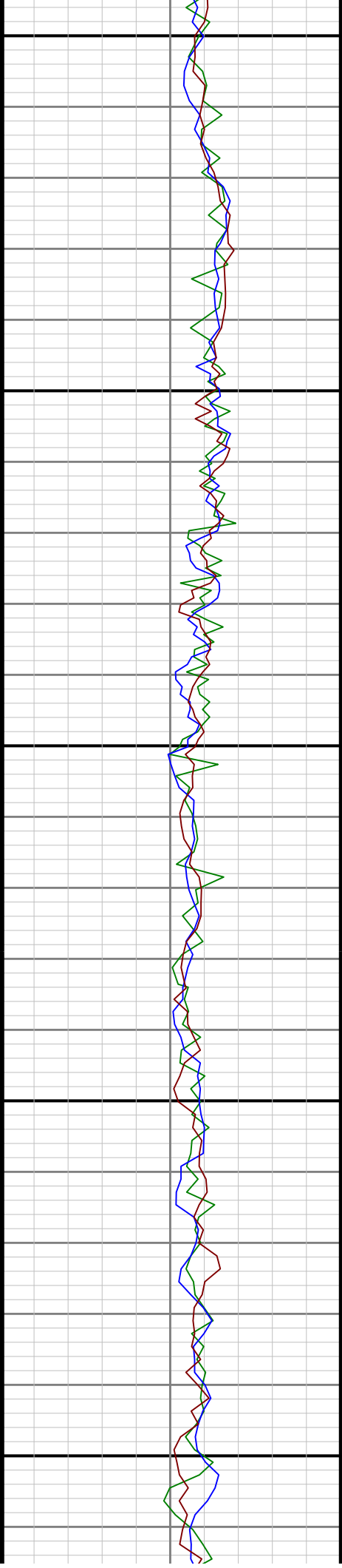




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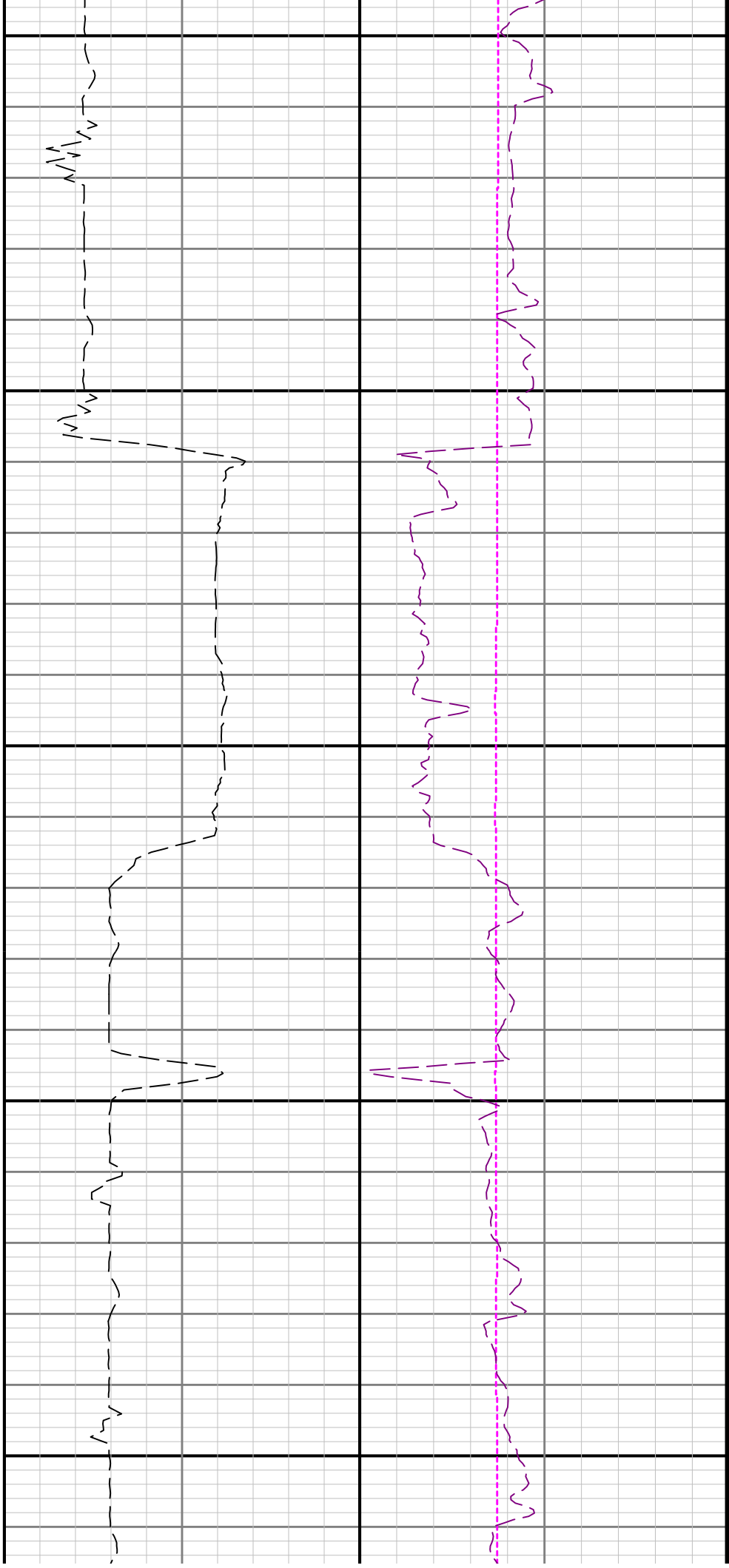
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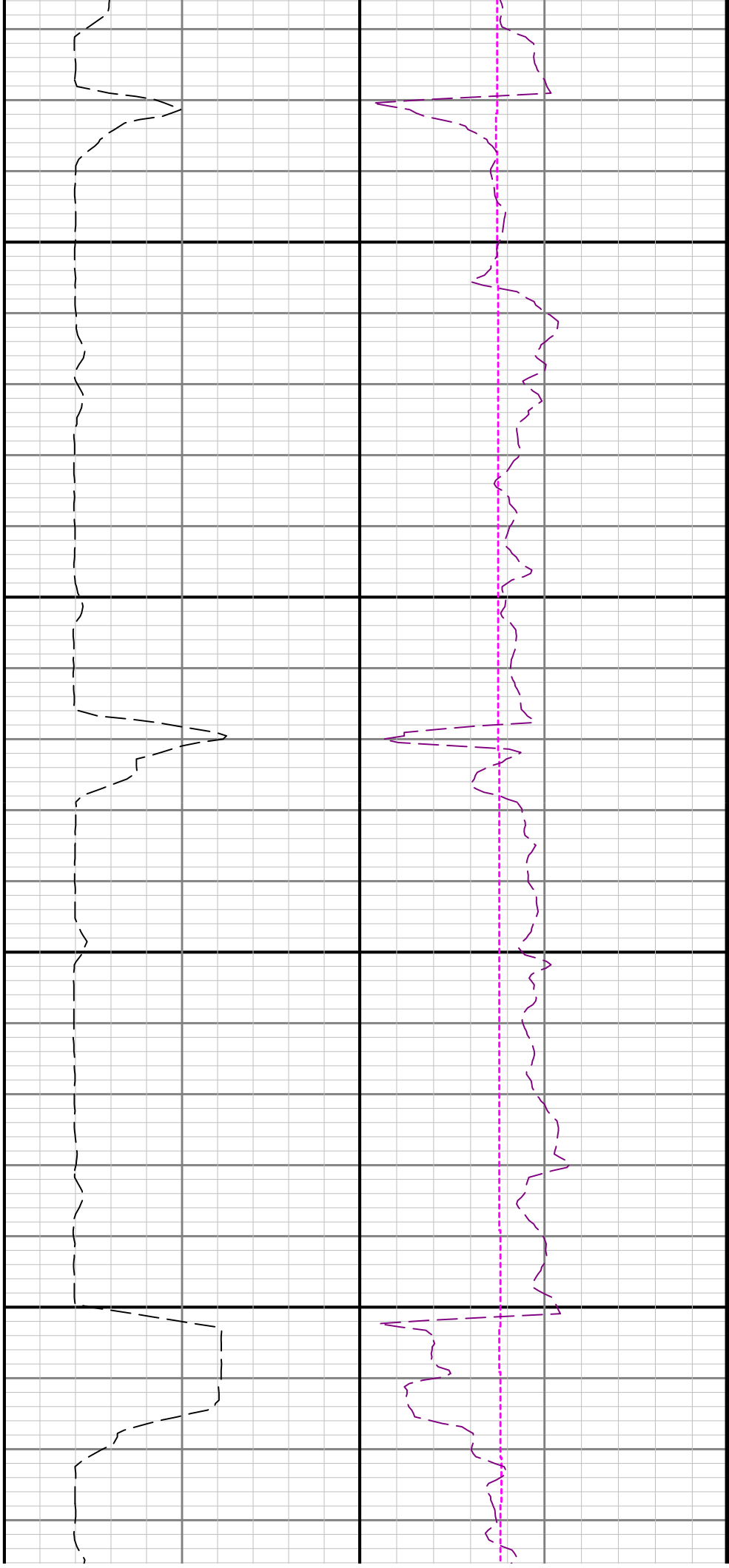
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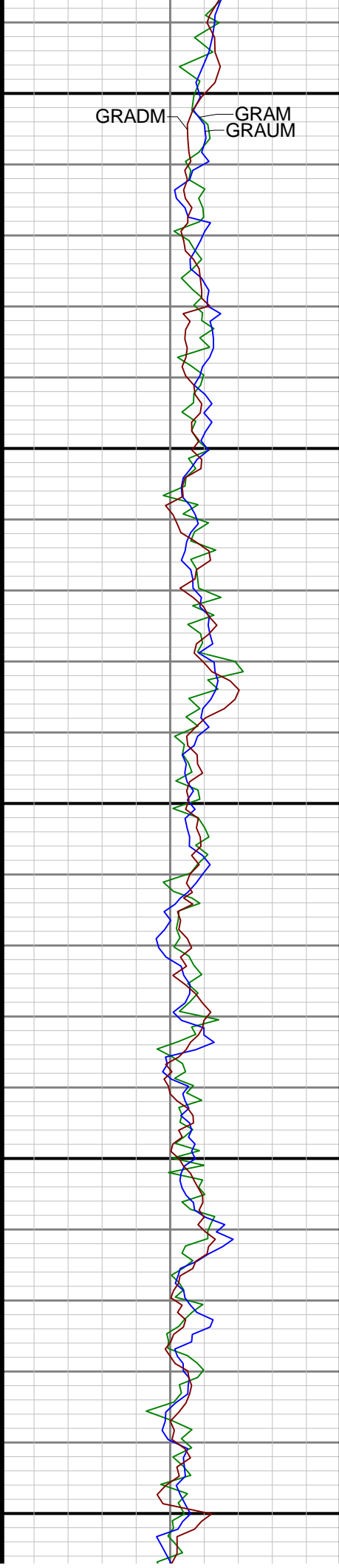




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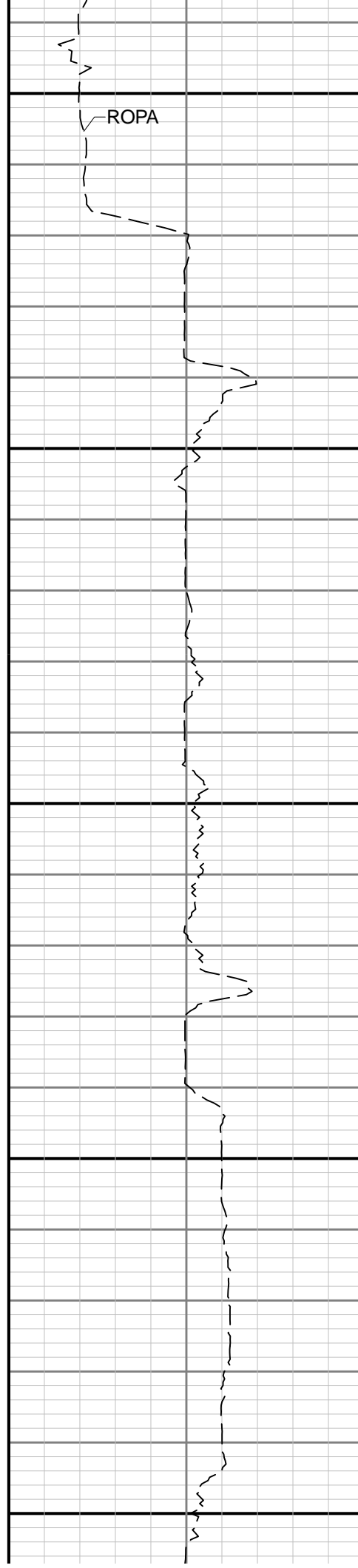




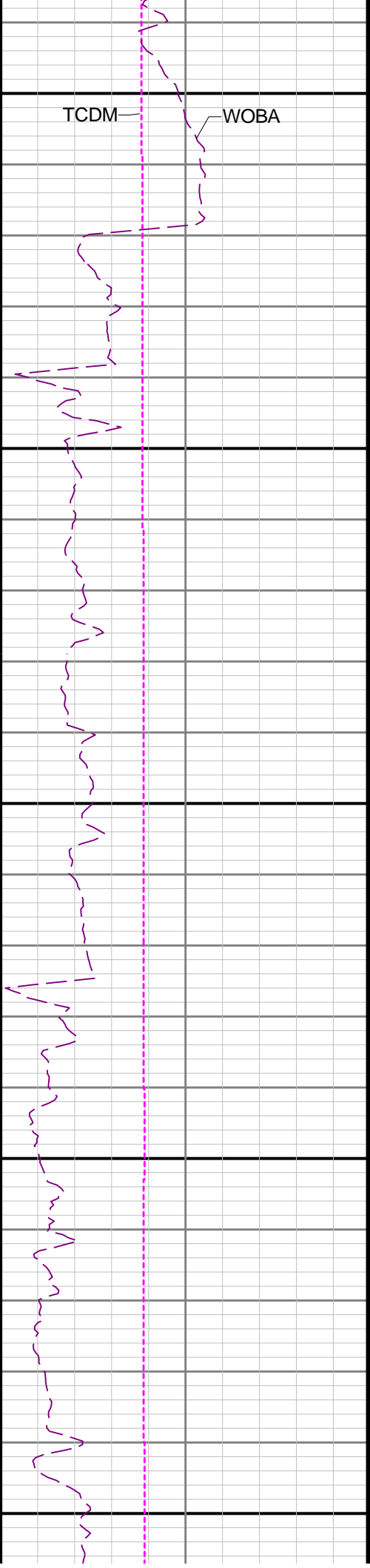
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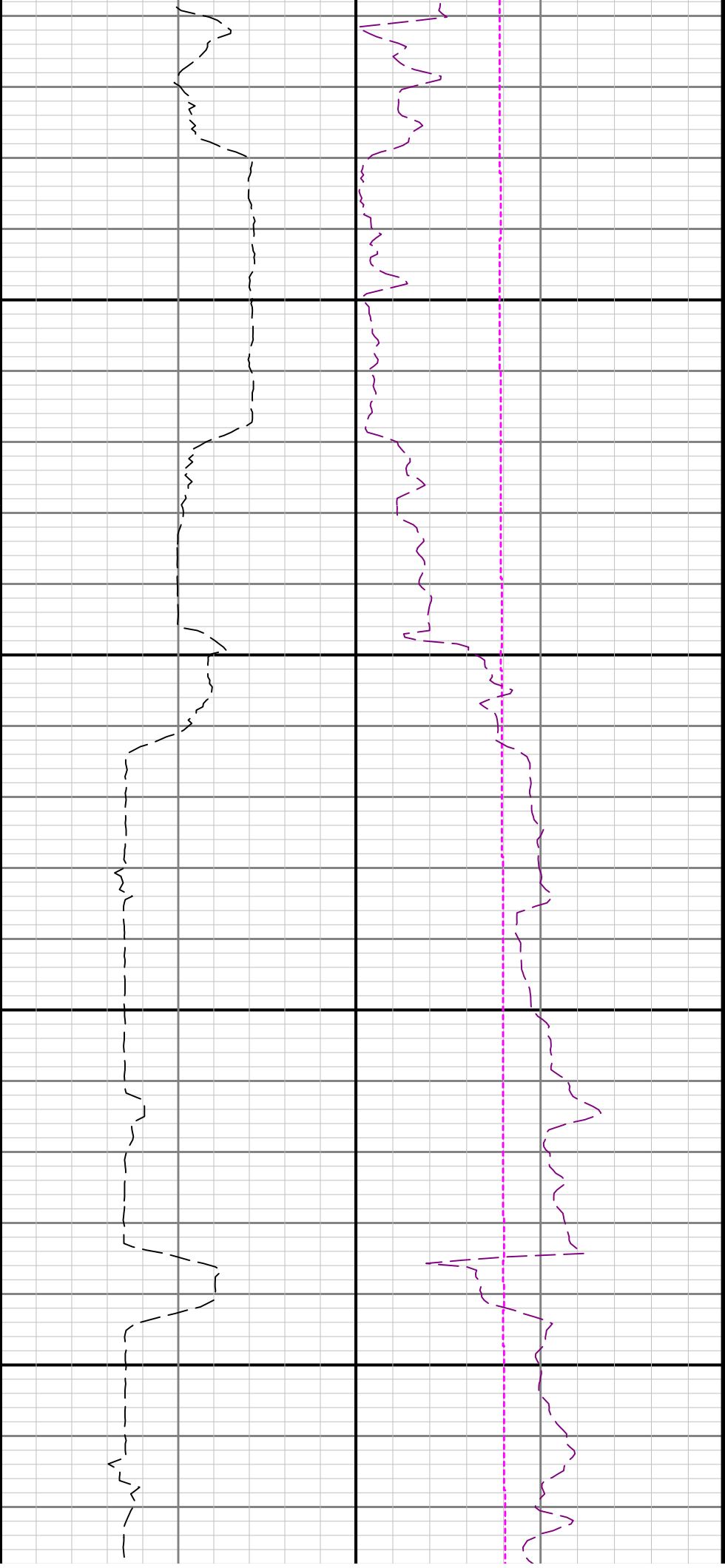


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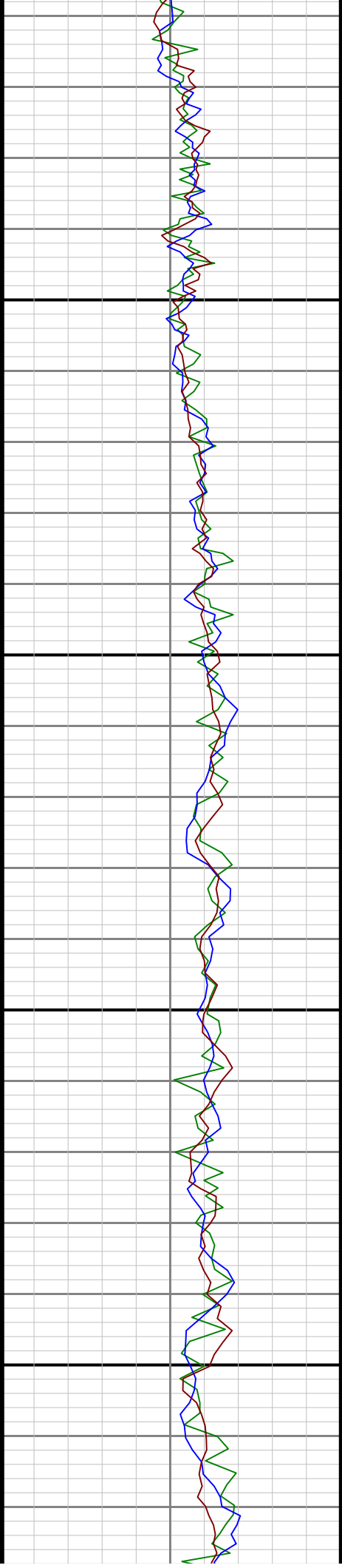
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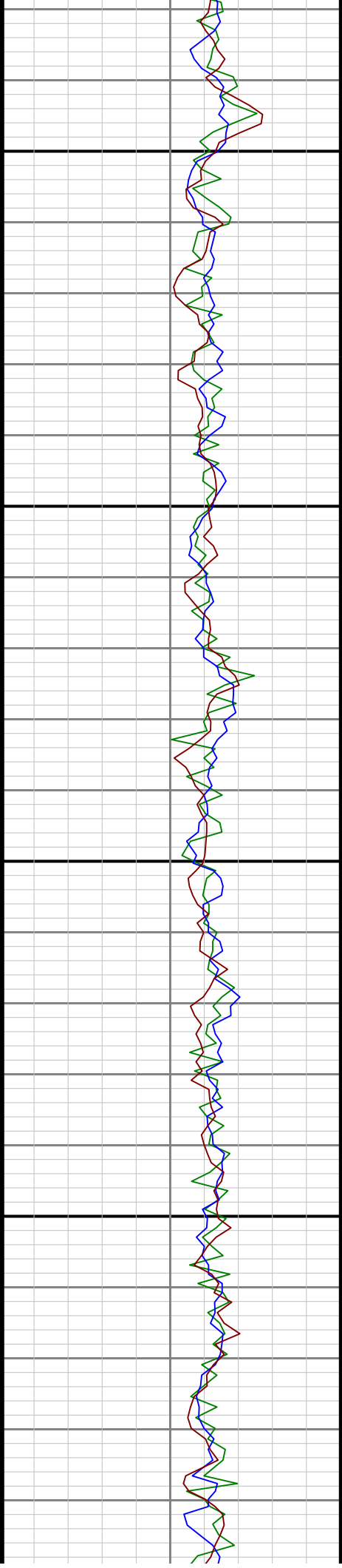
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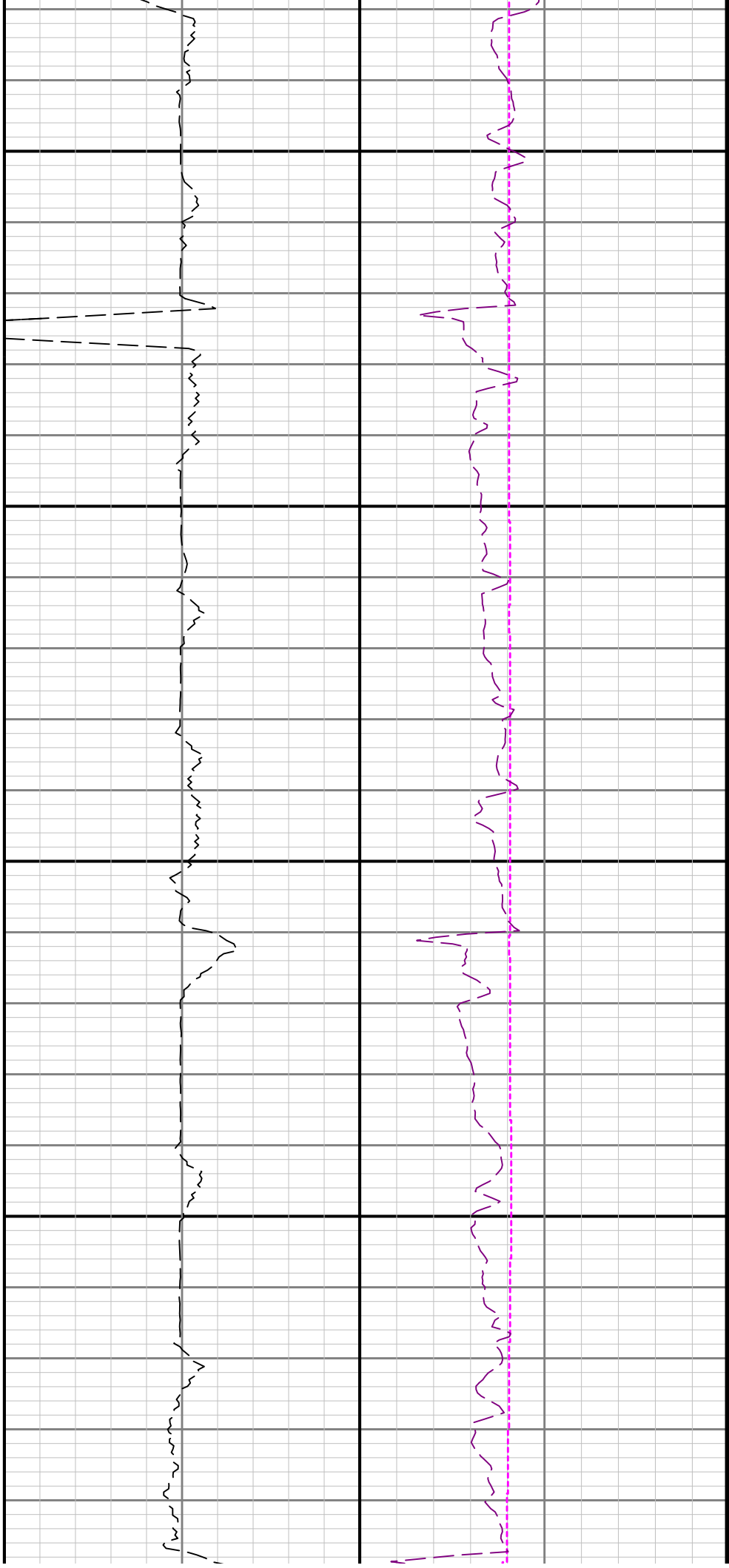
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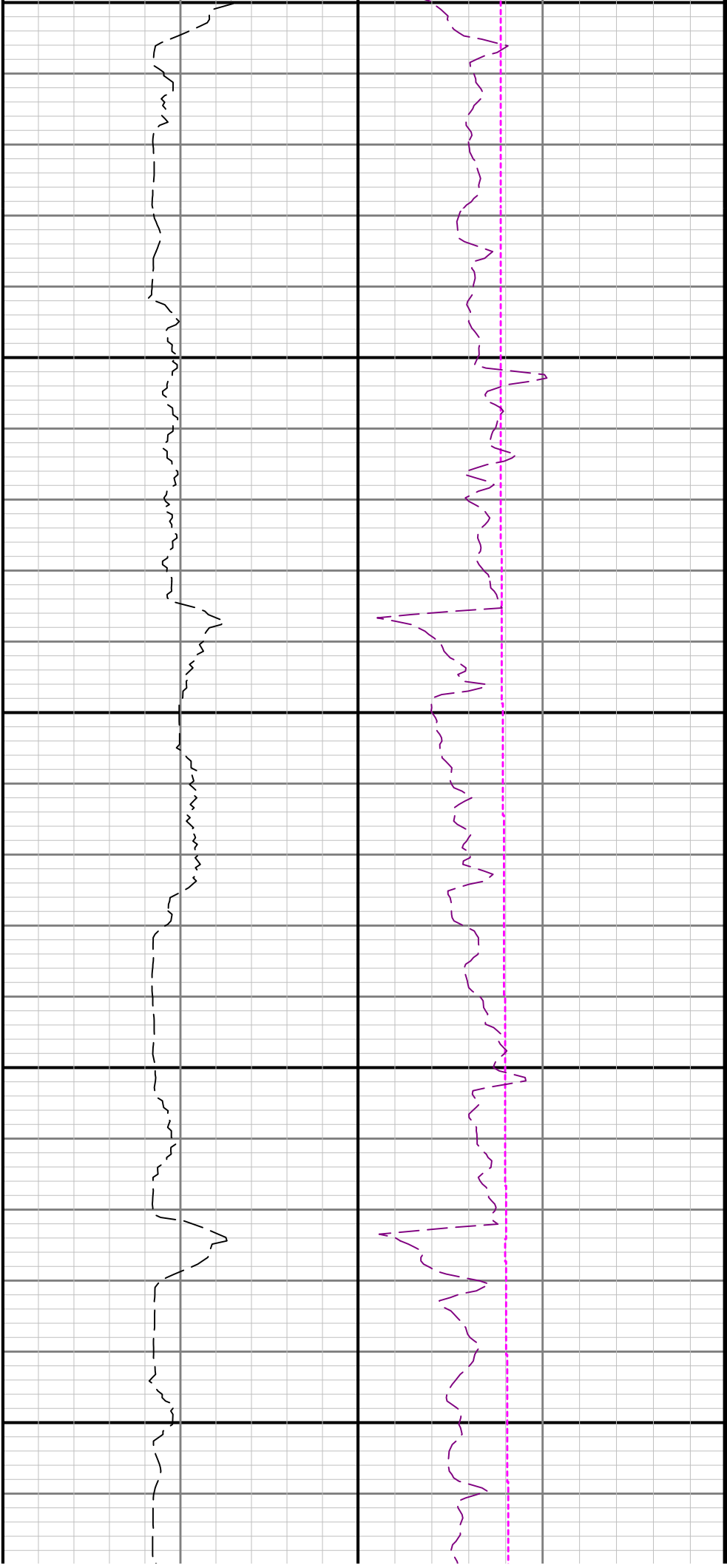




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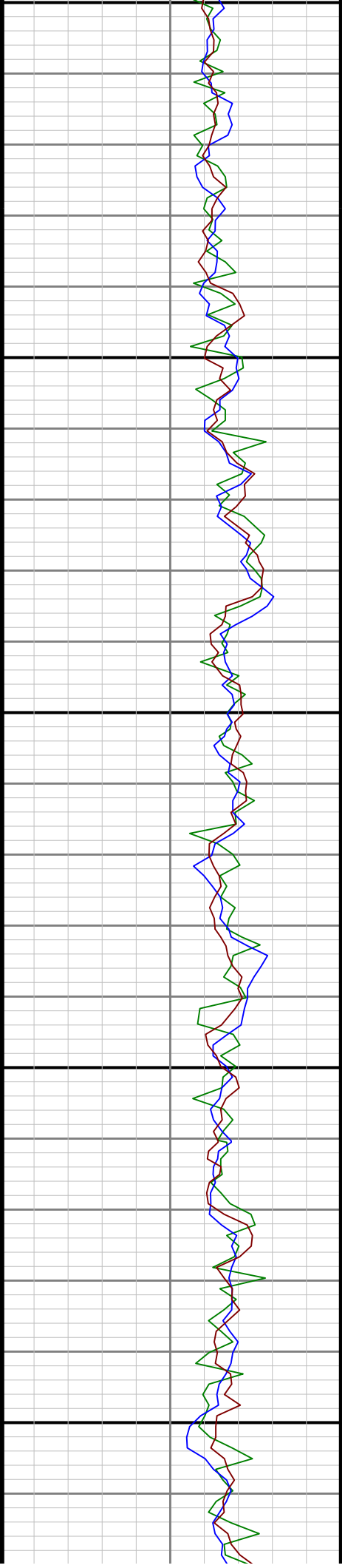
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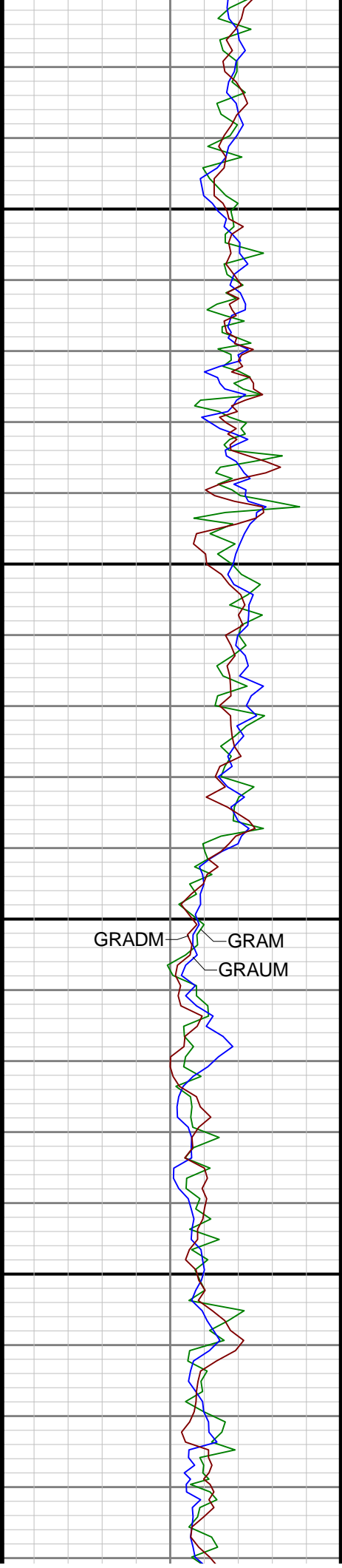




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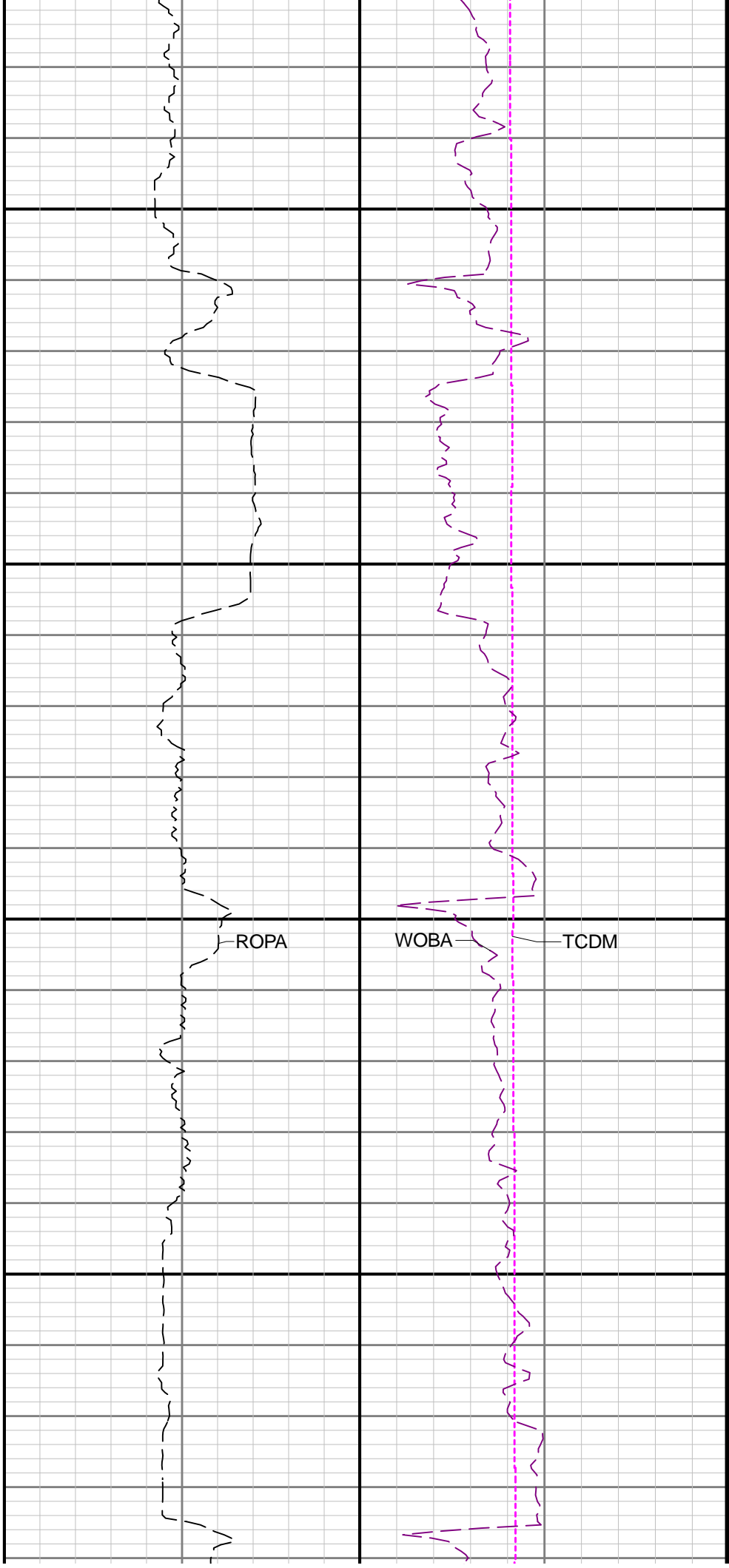
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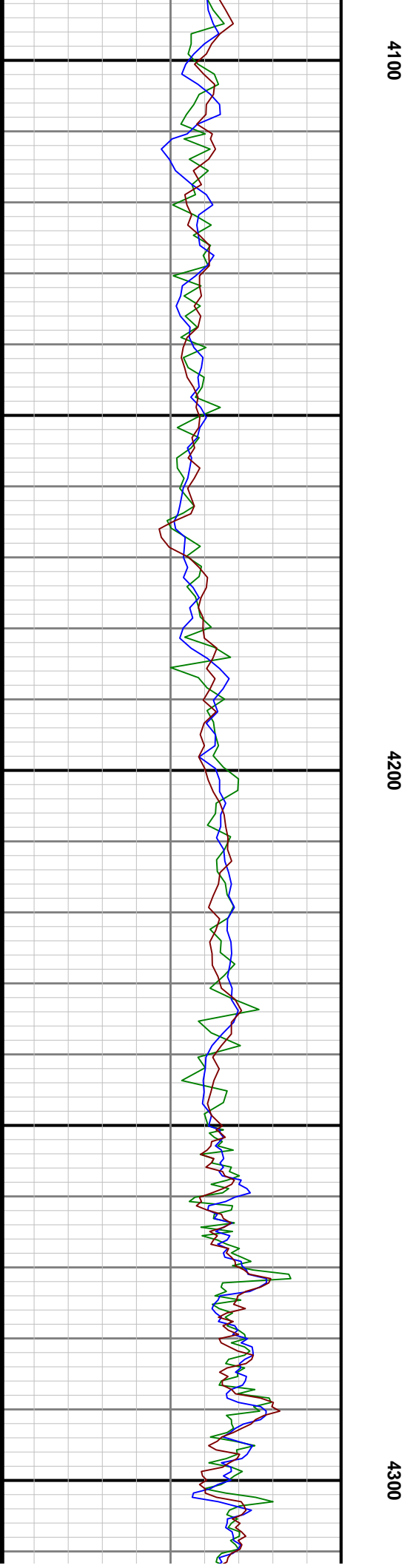
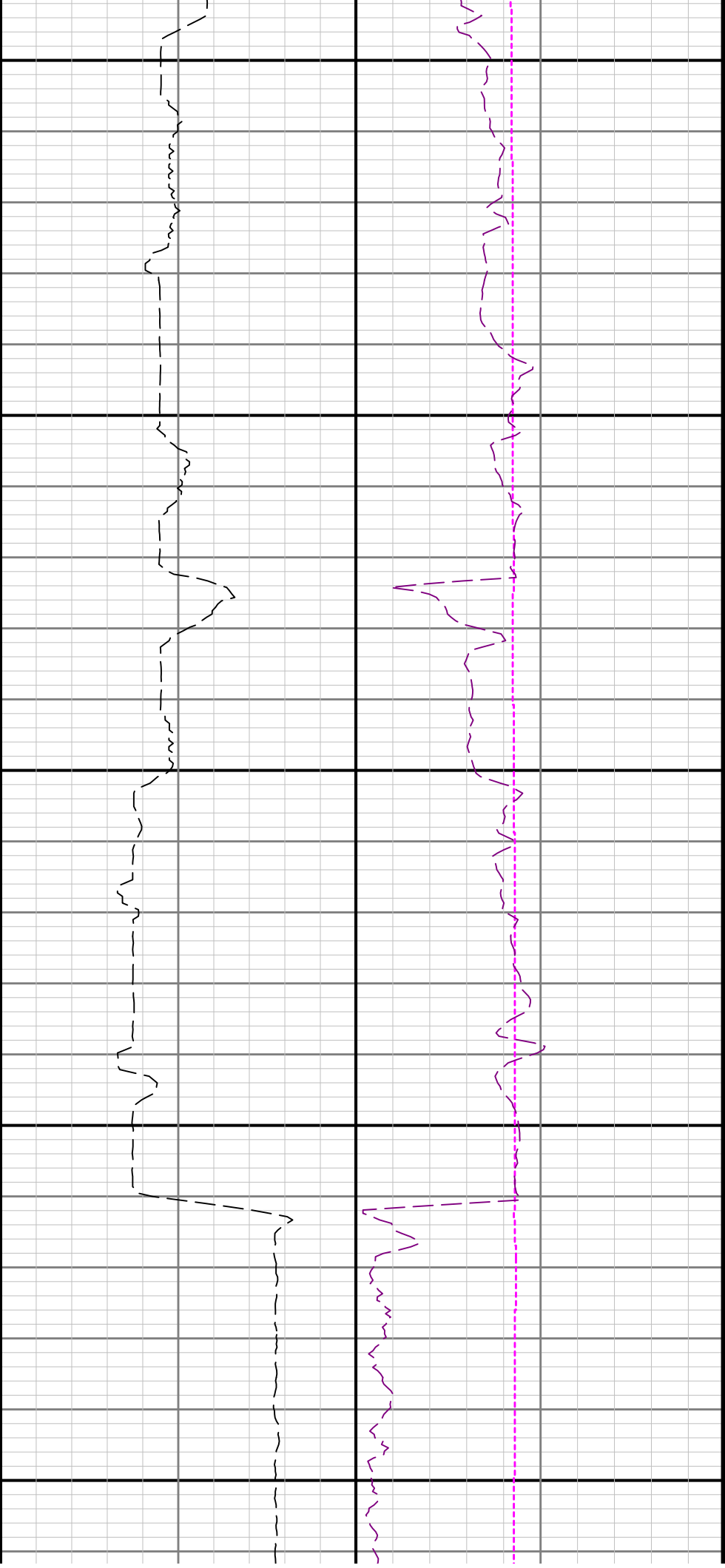


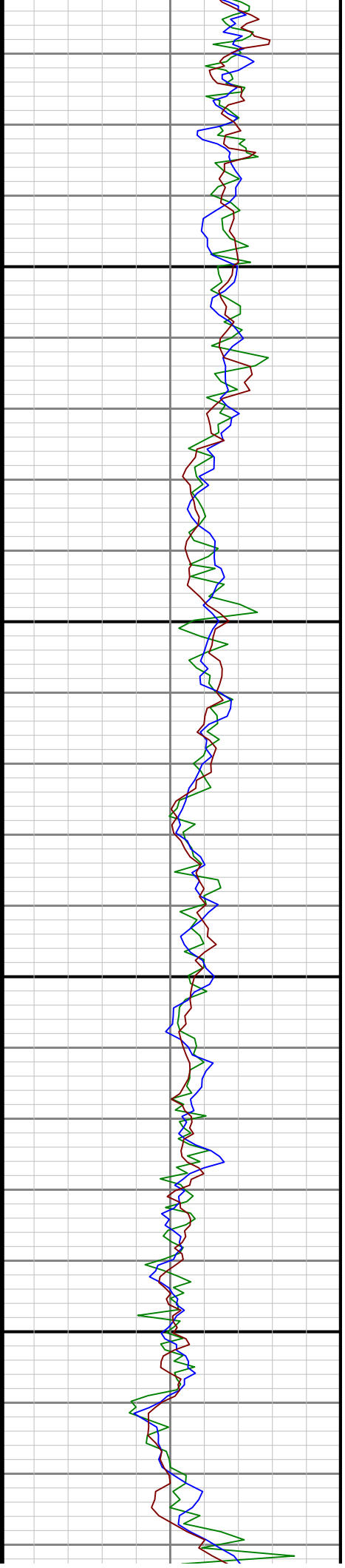


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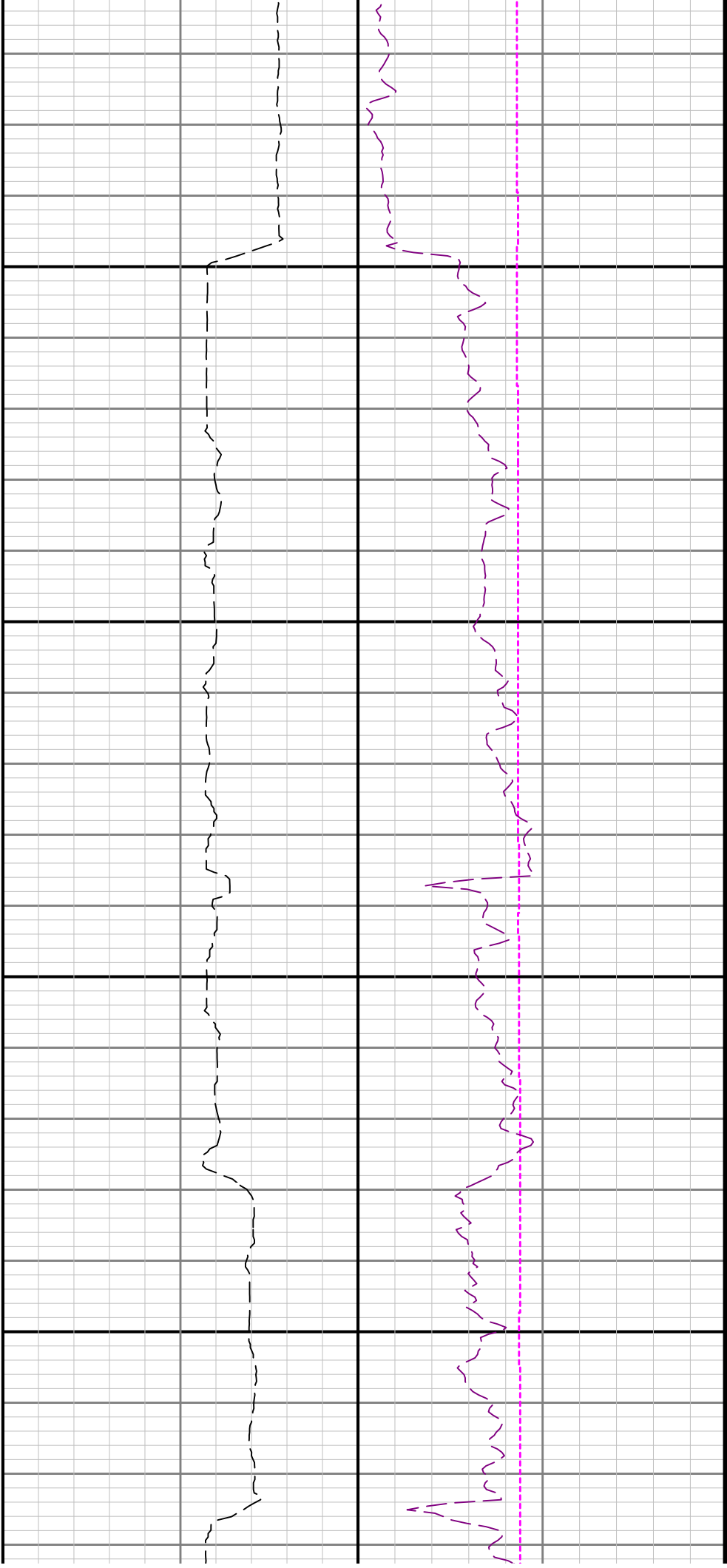


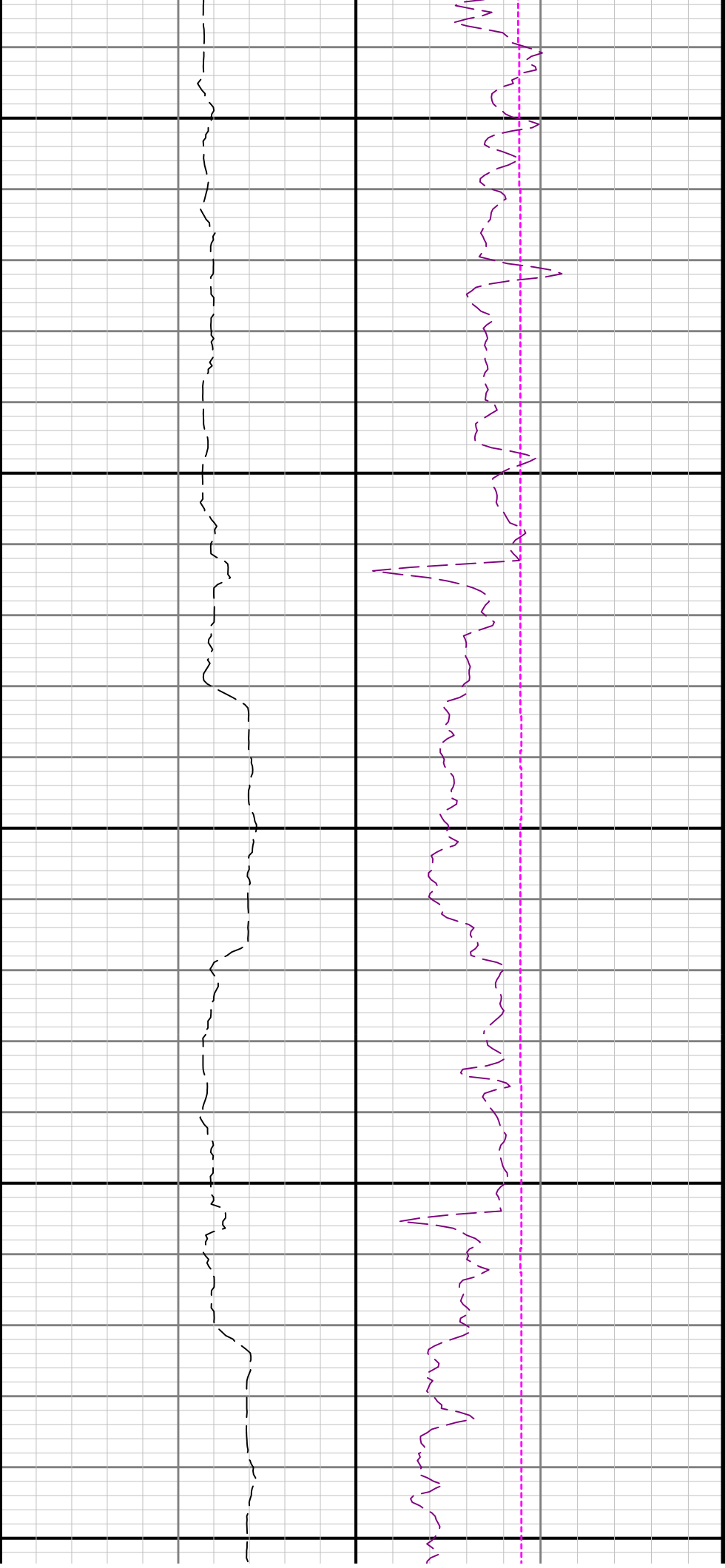




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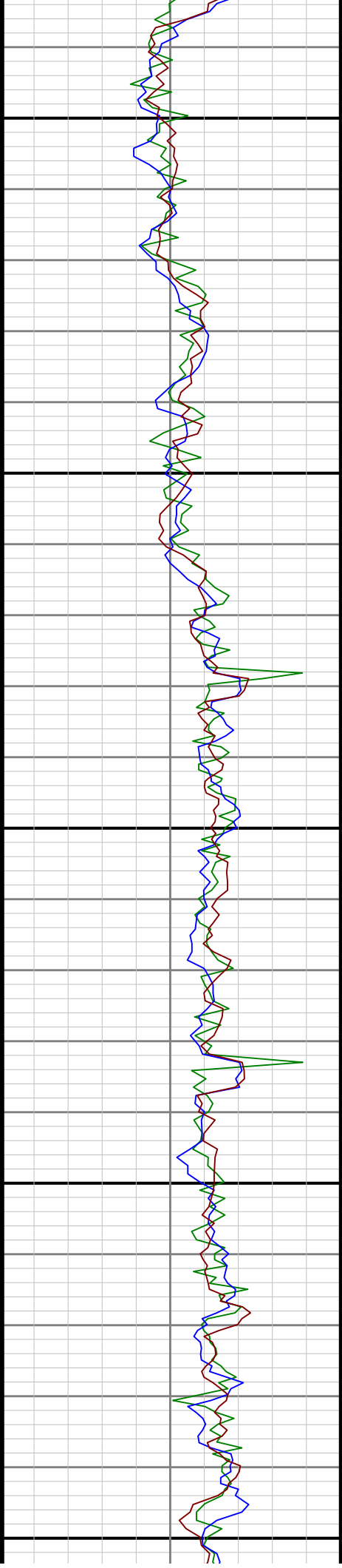
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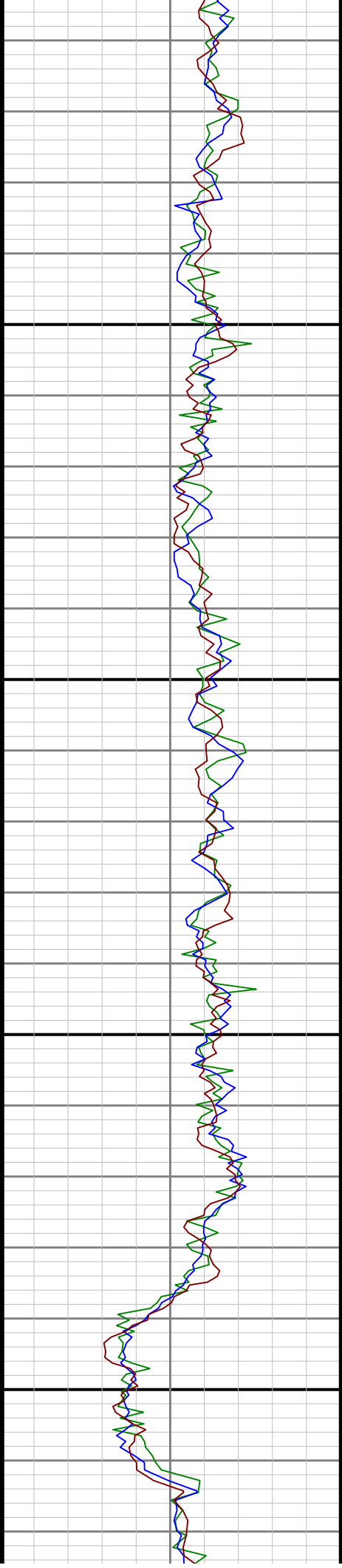




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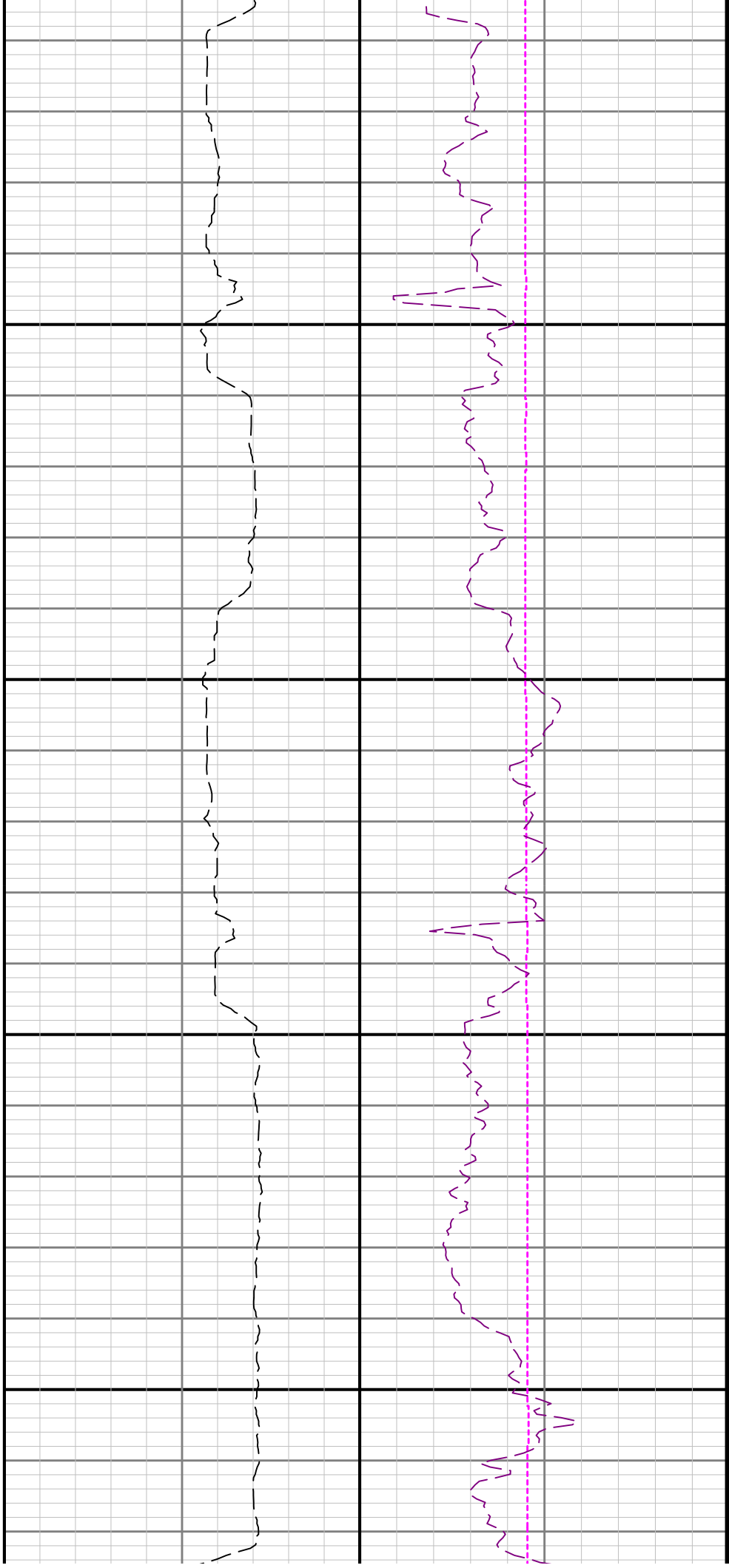
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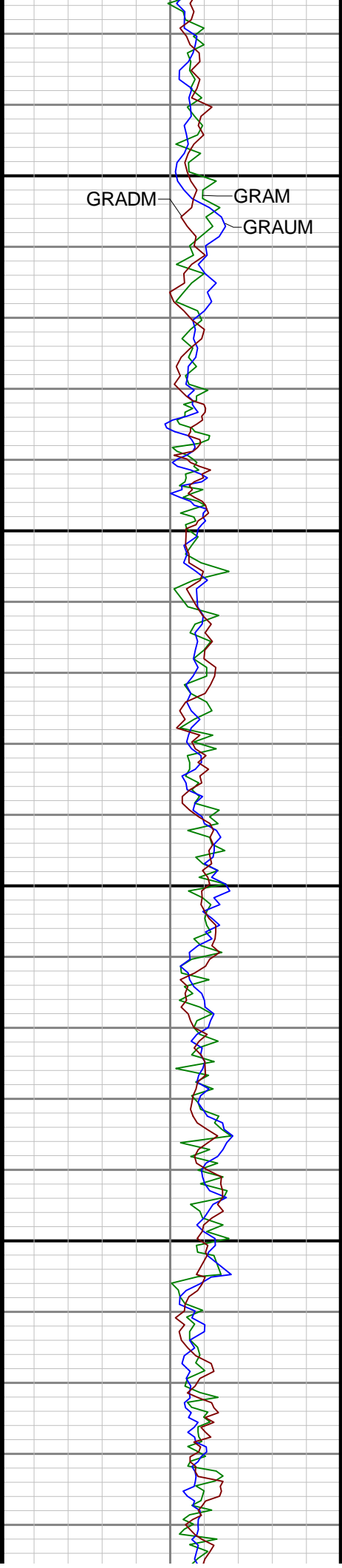




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4900





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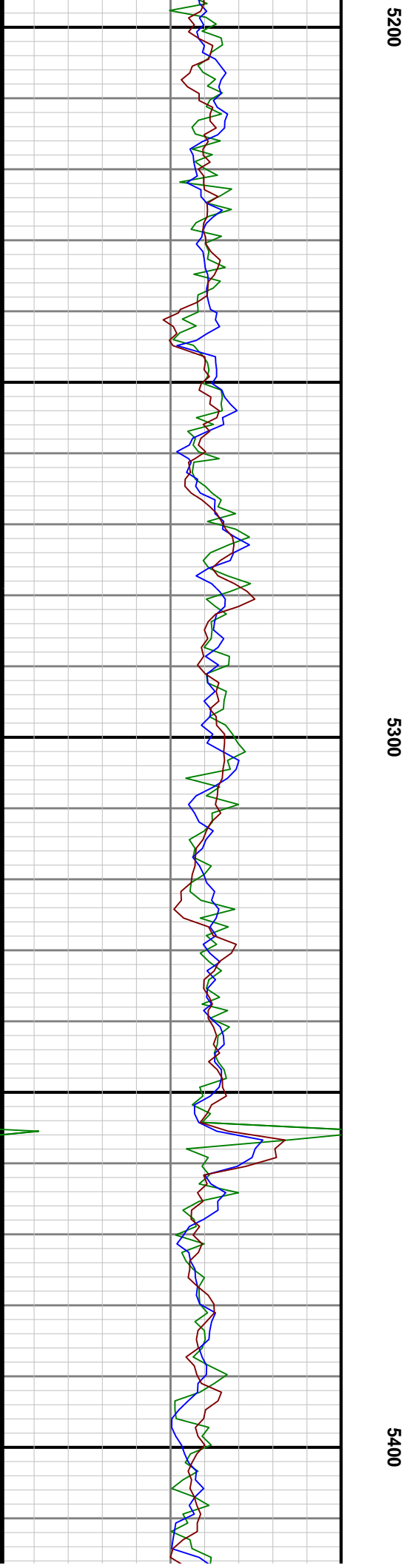
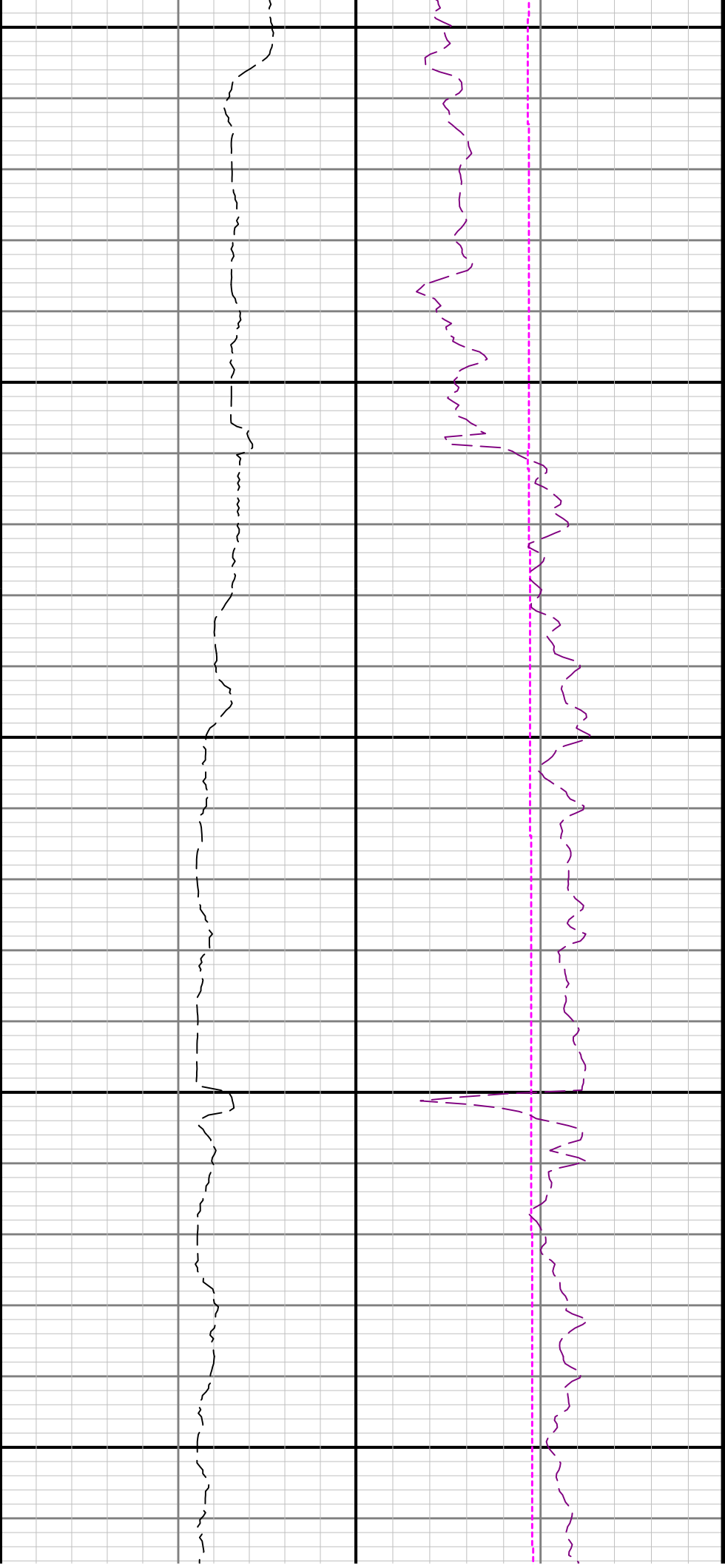


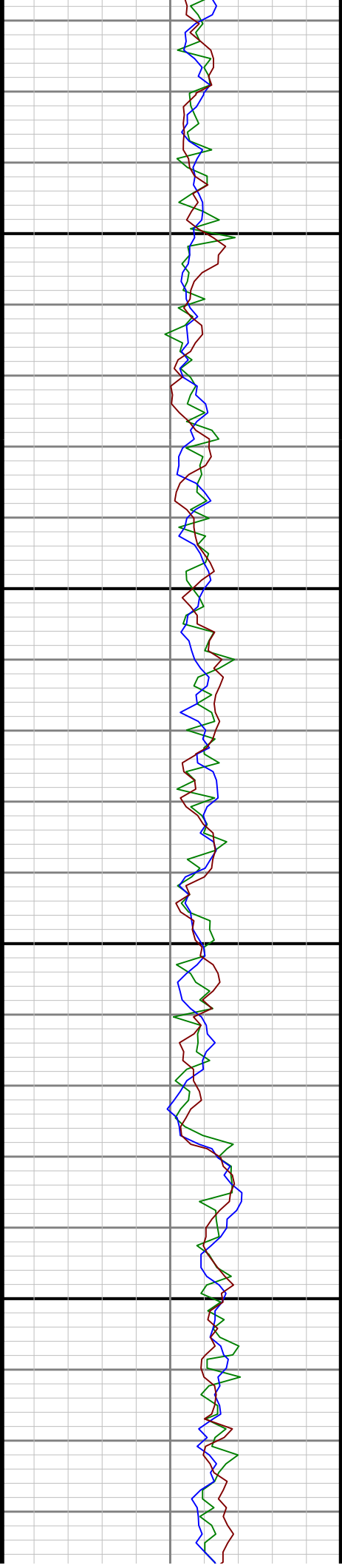
ROPA



TCDM

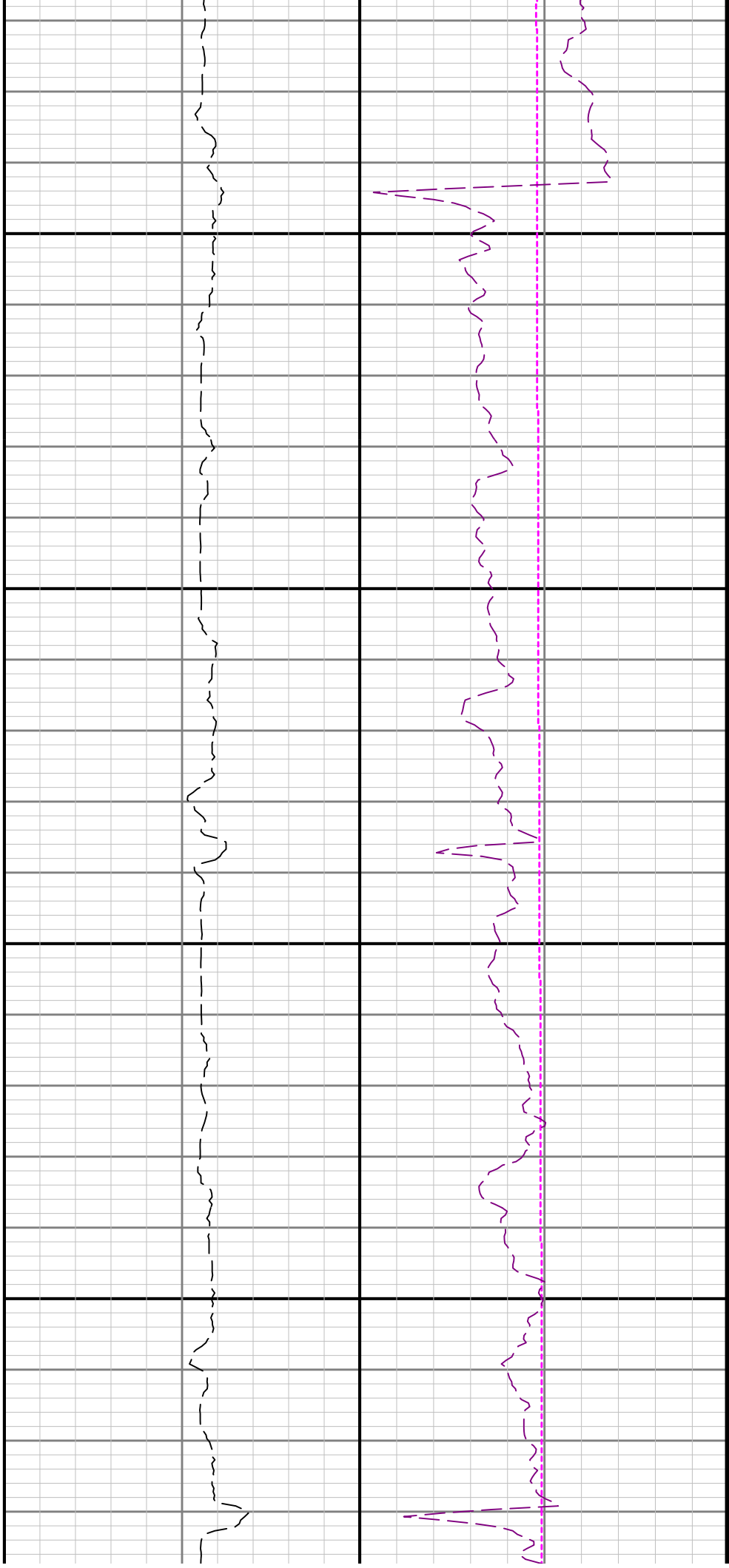
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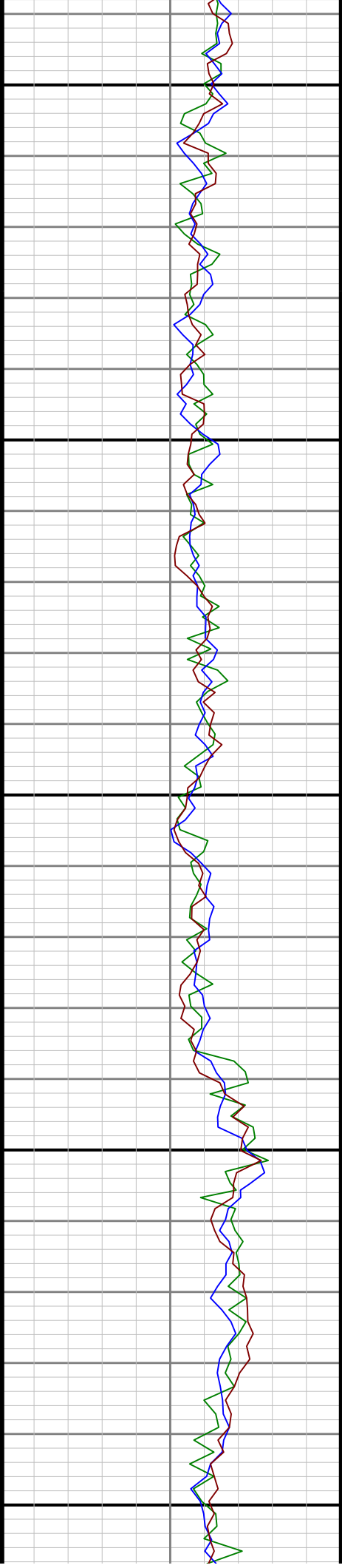




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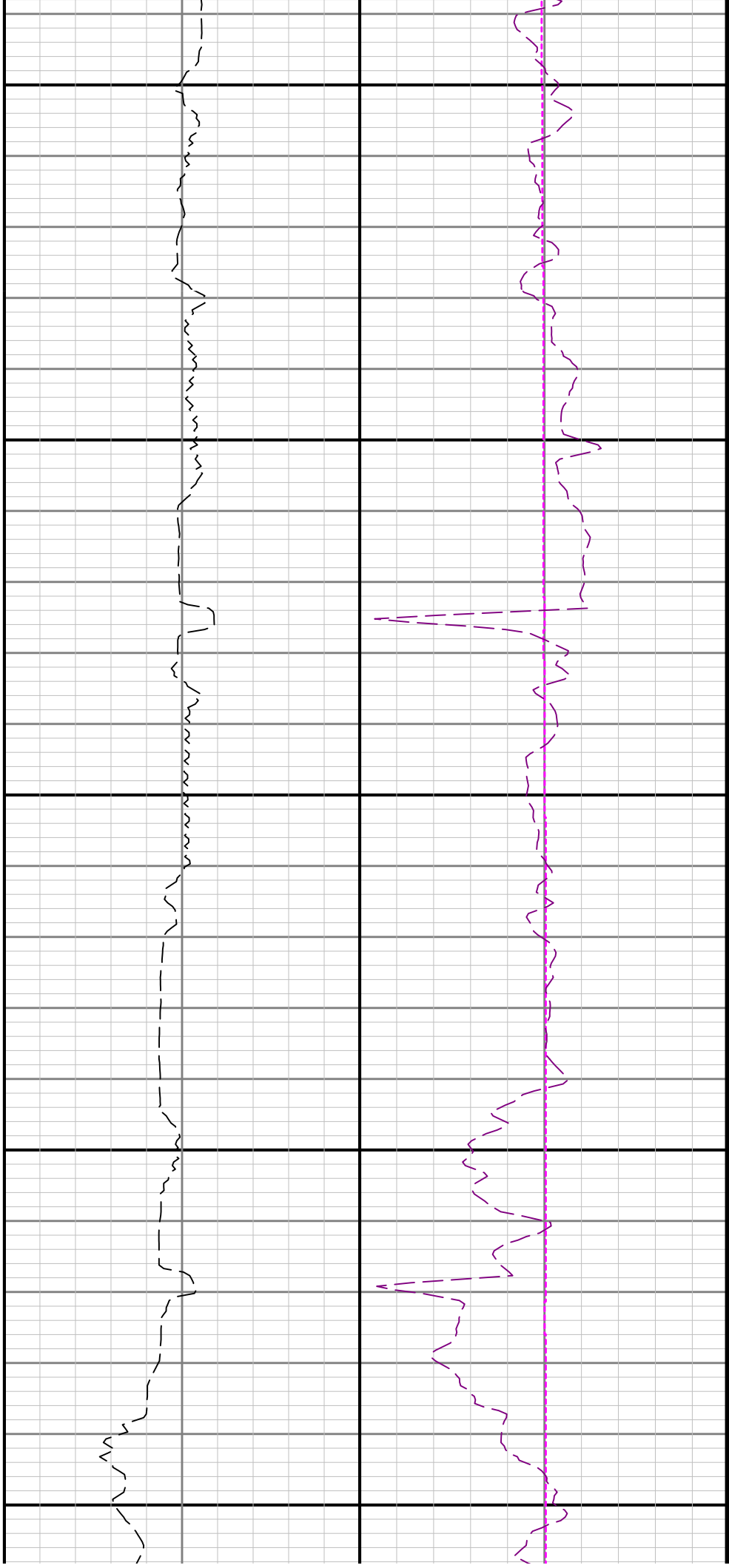
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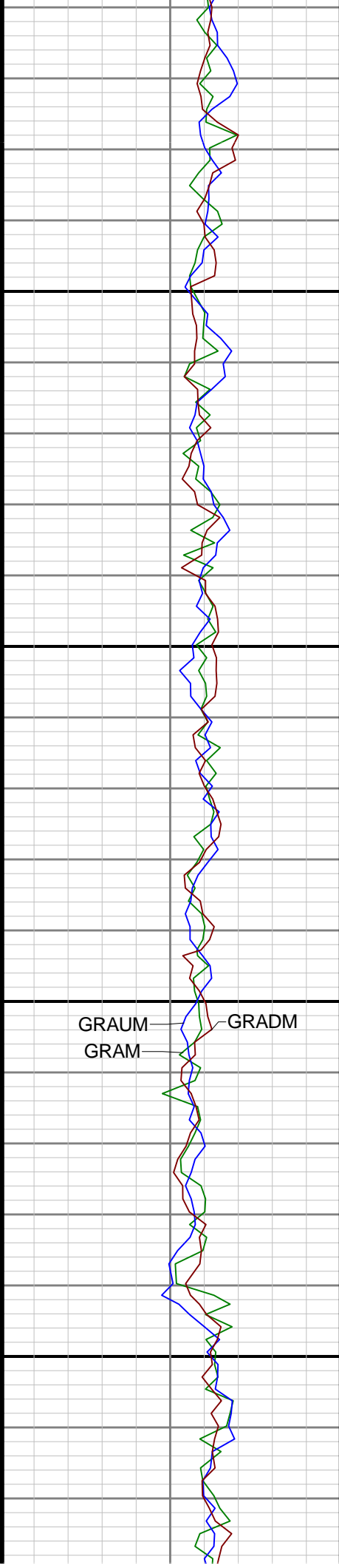




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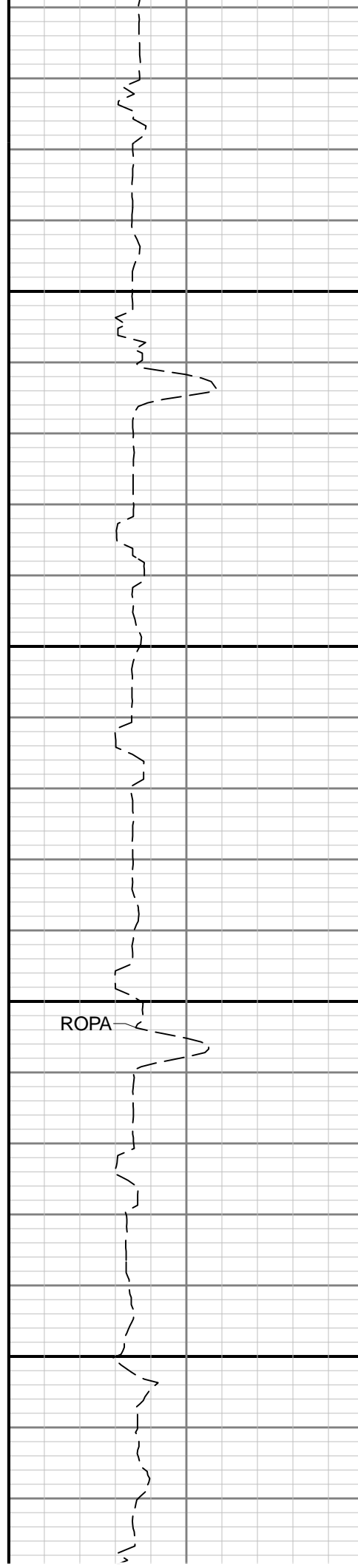




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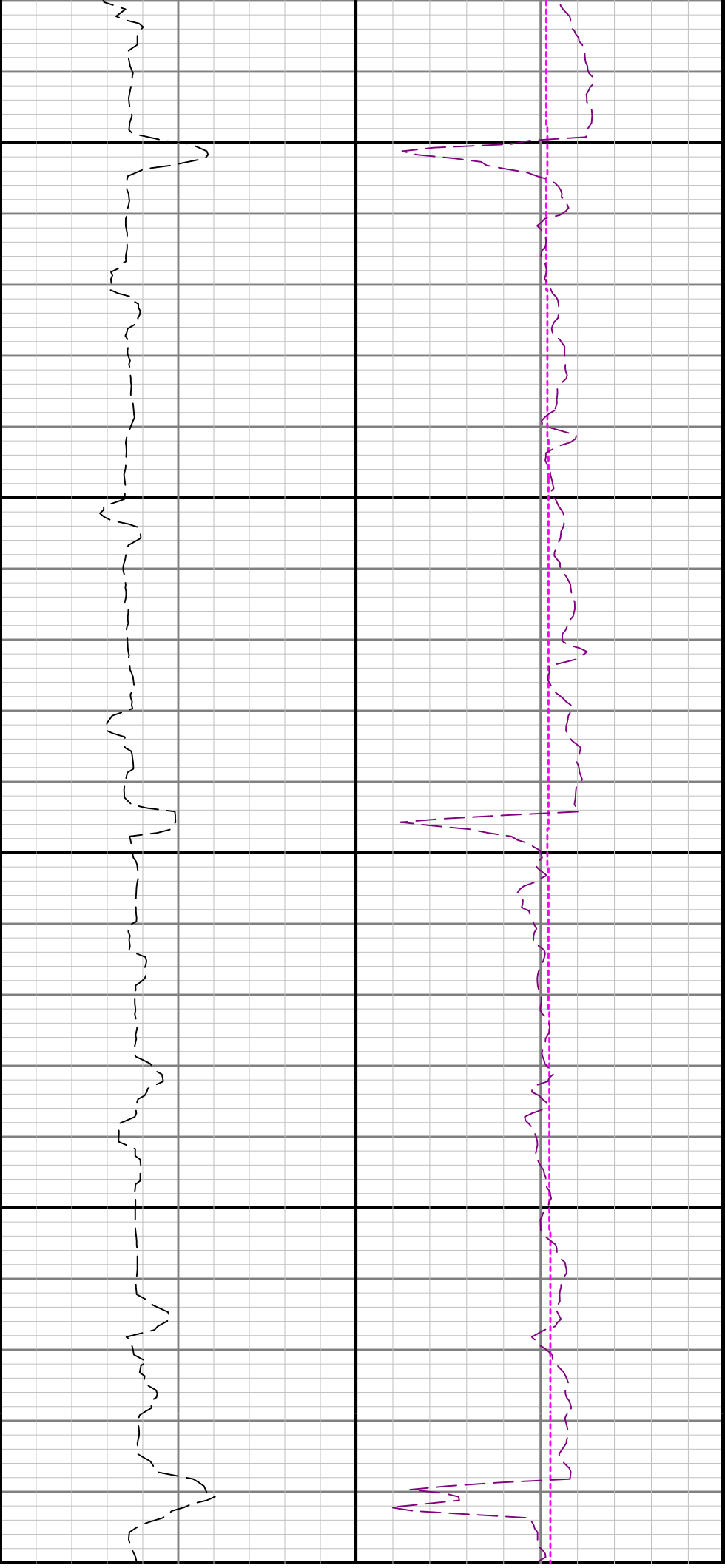
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GRAM
GRADM
GRADM



ROPA

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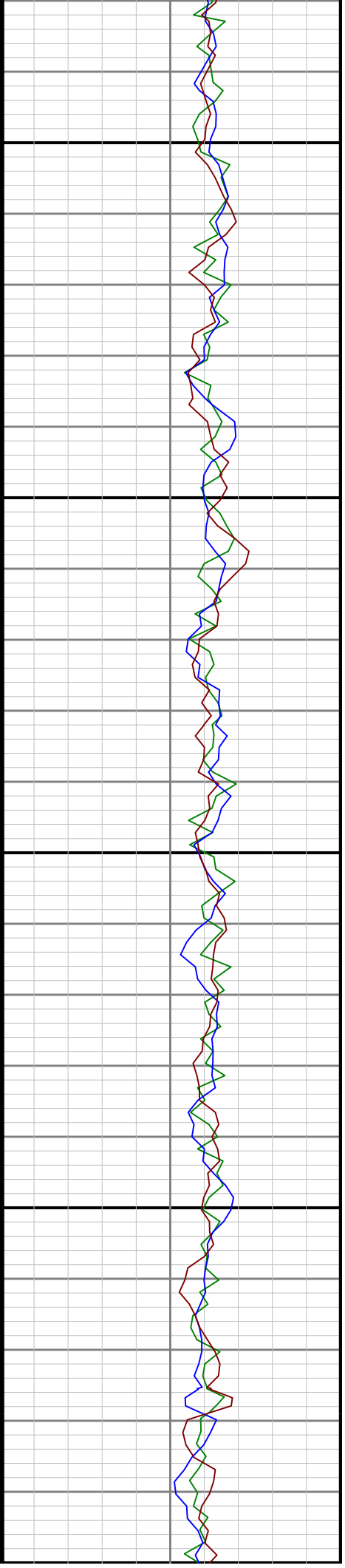
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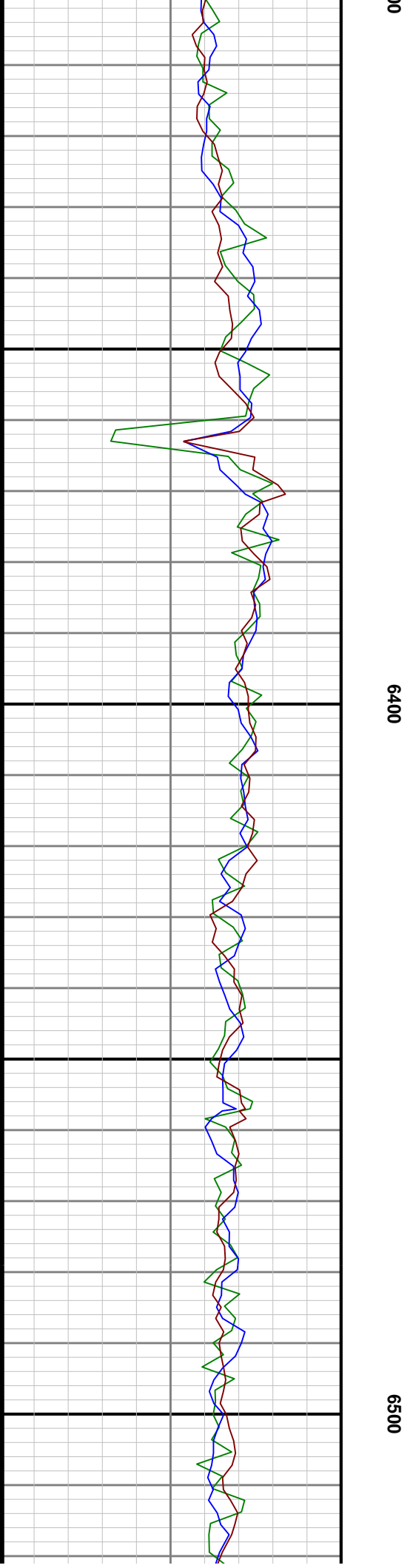
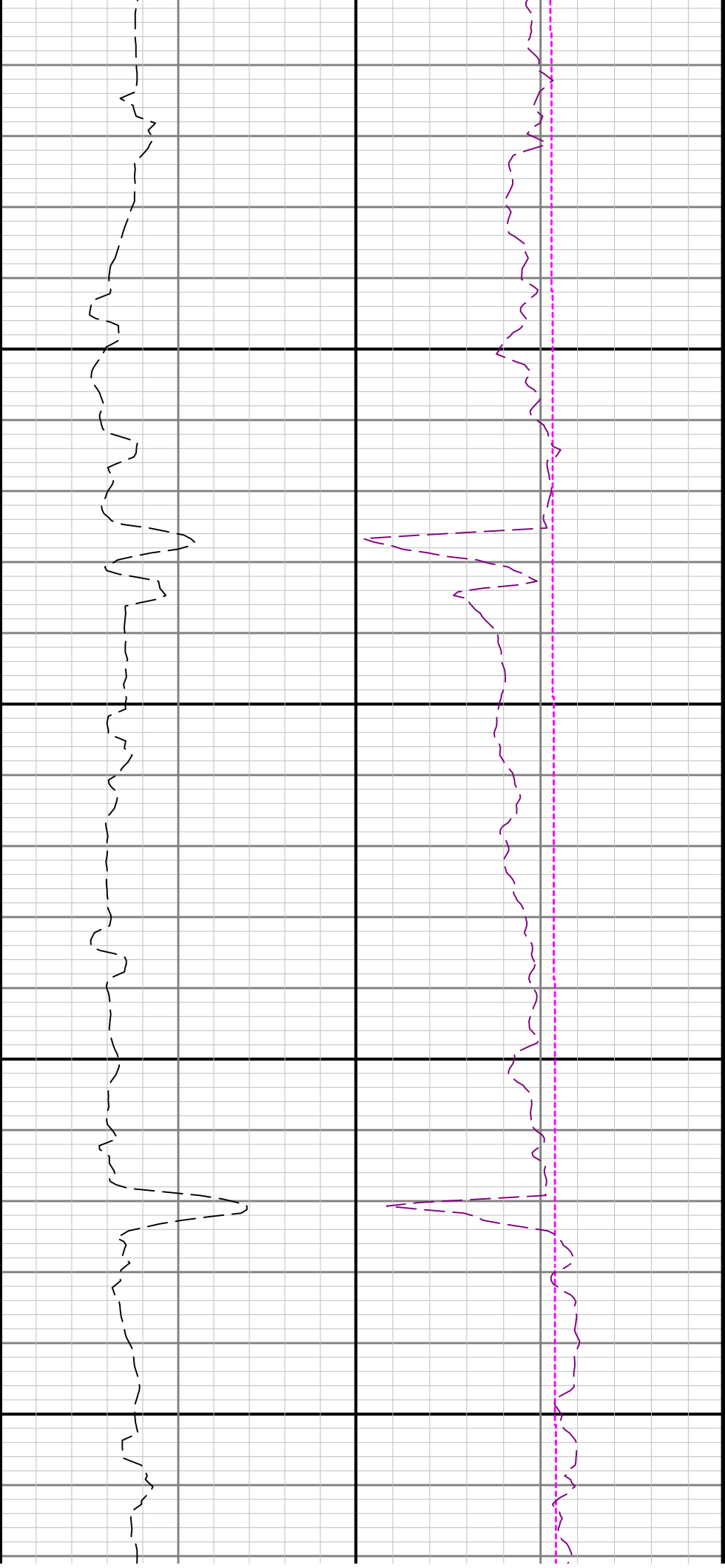


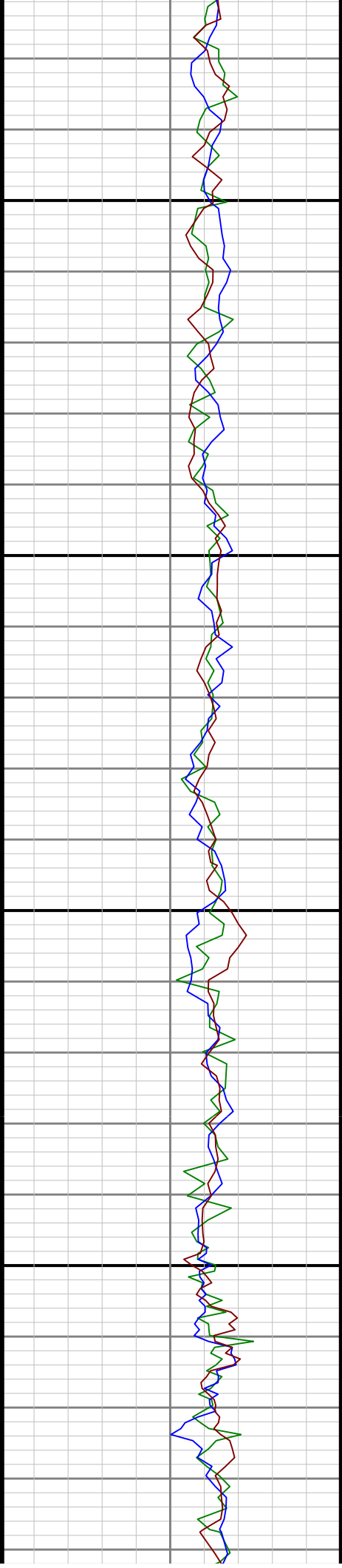
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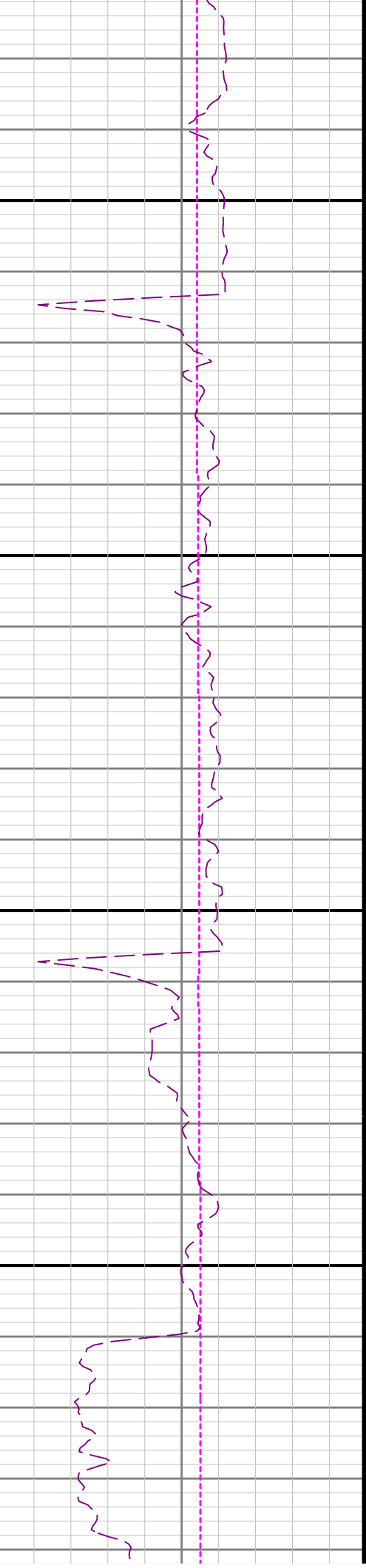
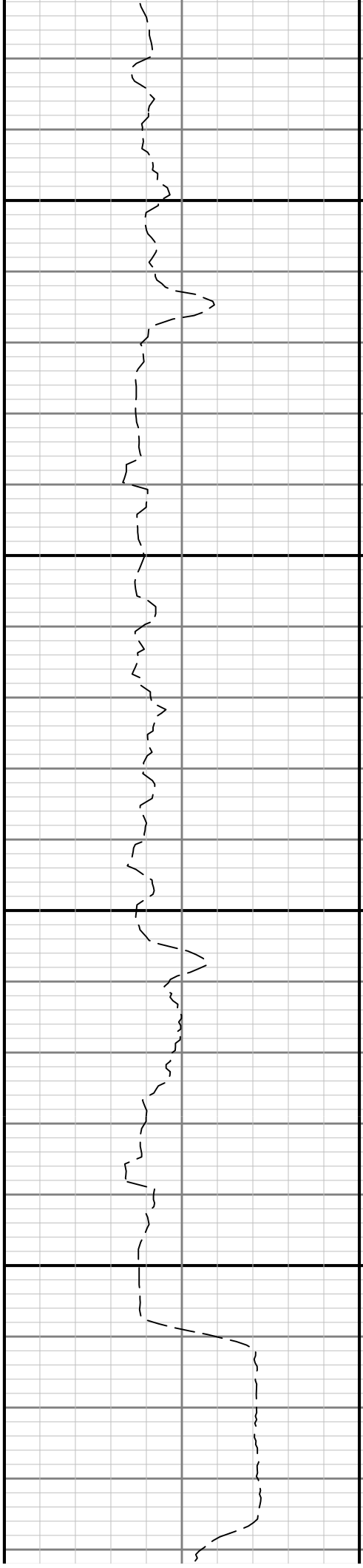


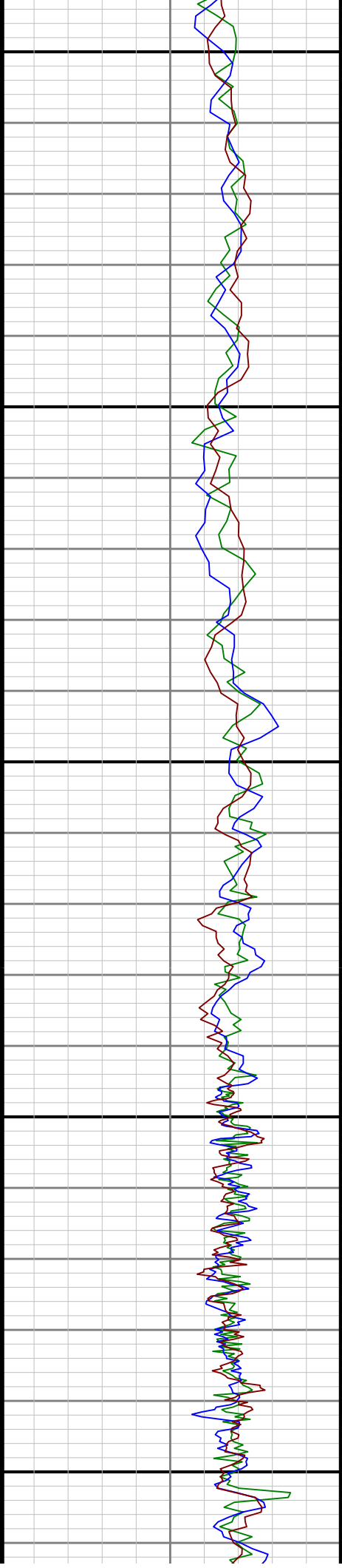




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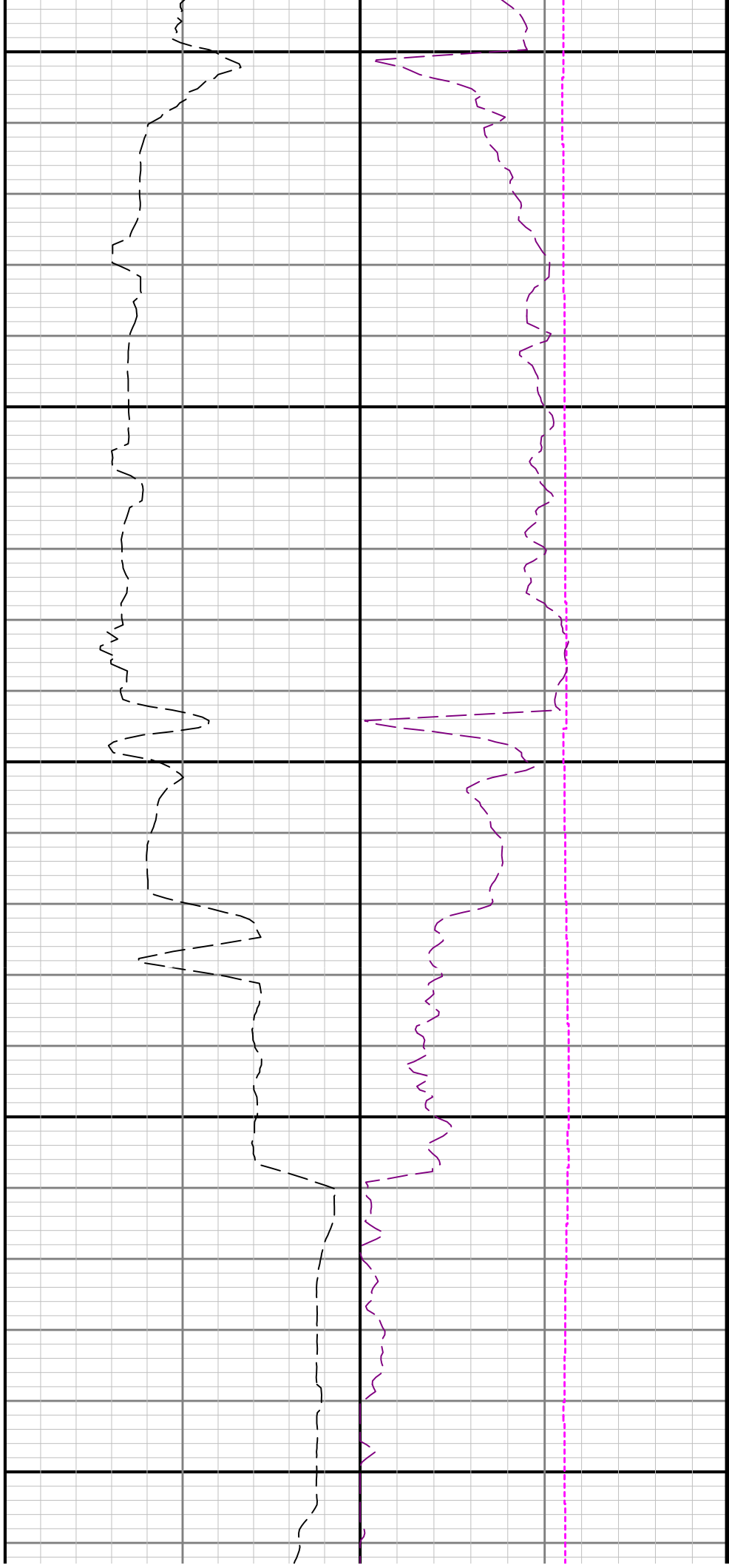
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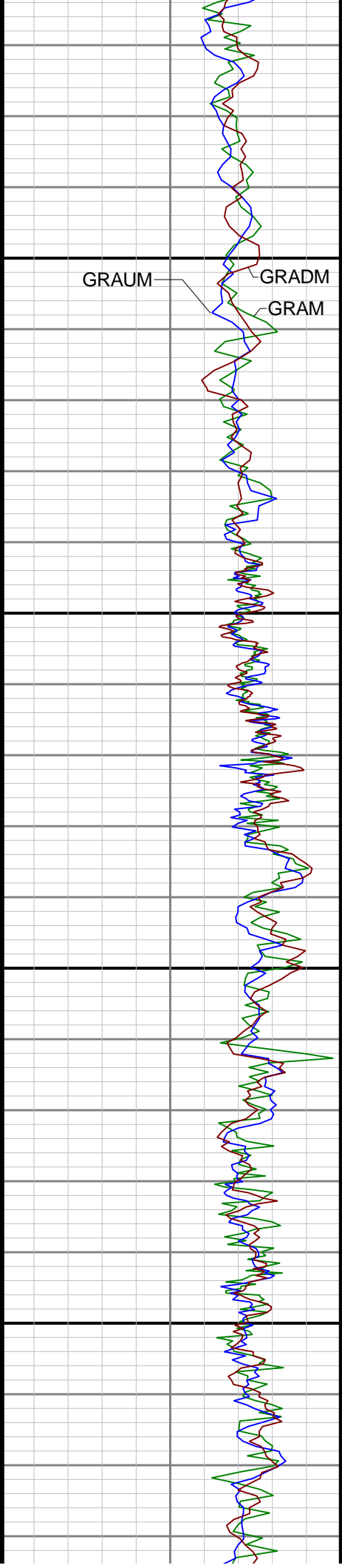




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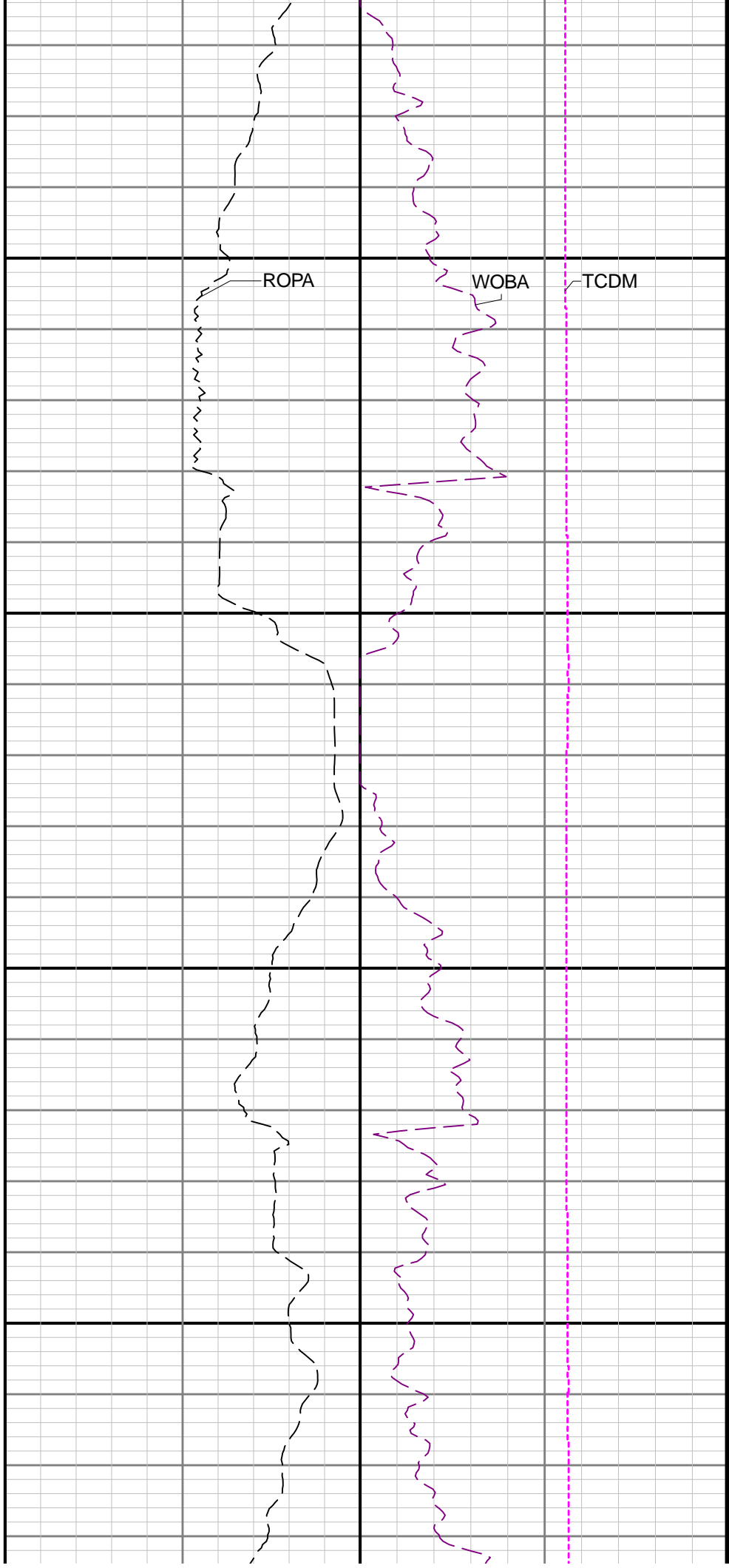
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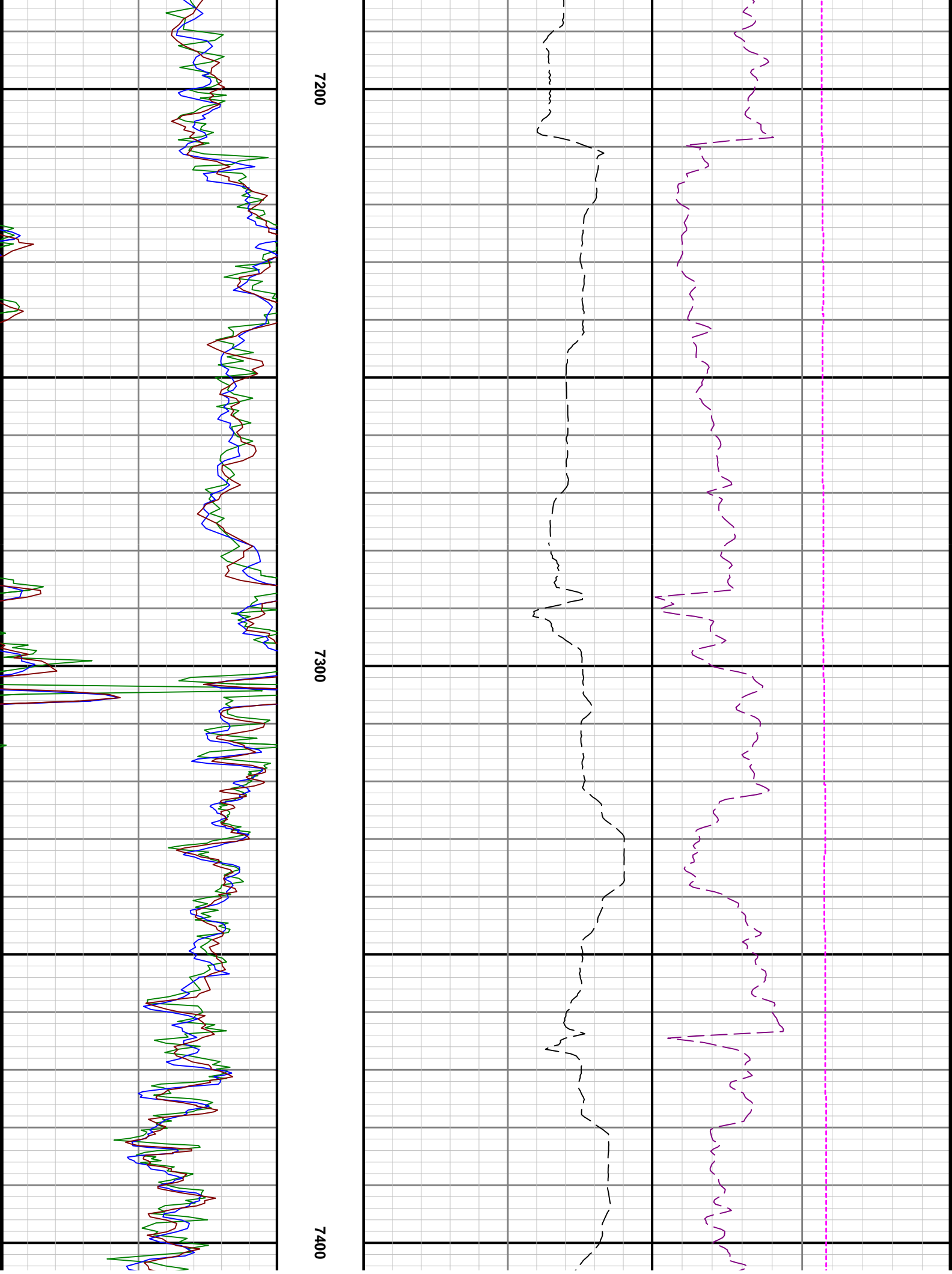


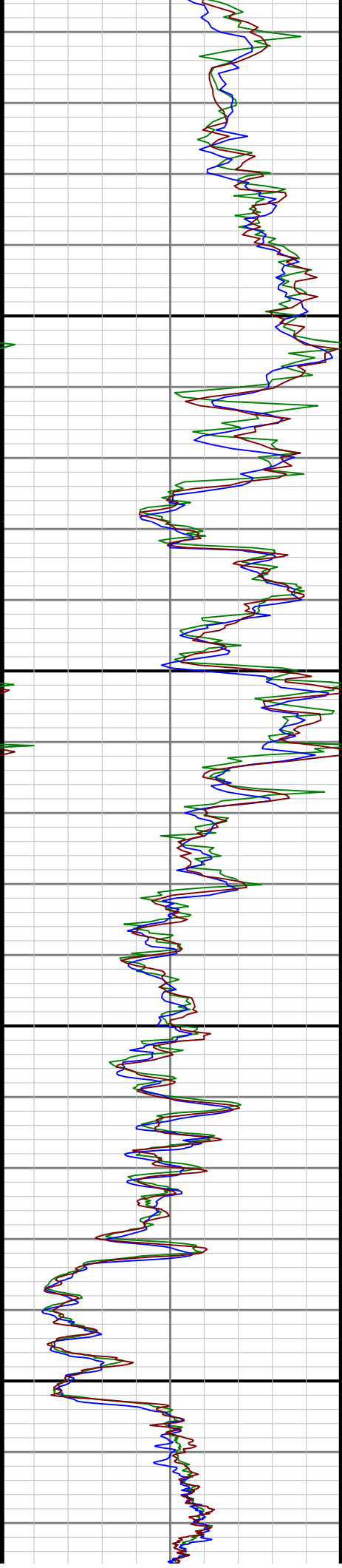


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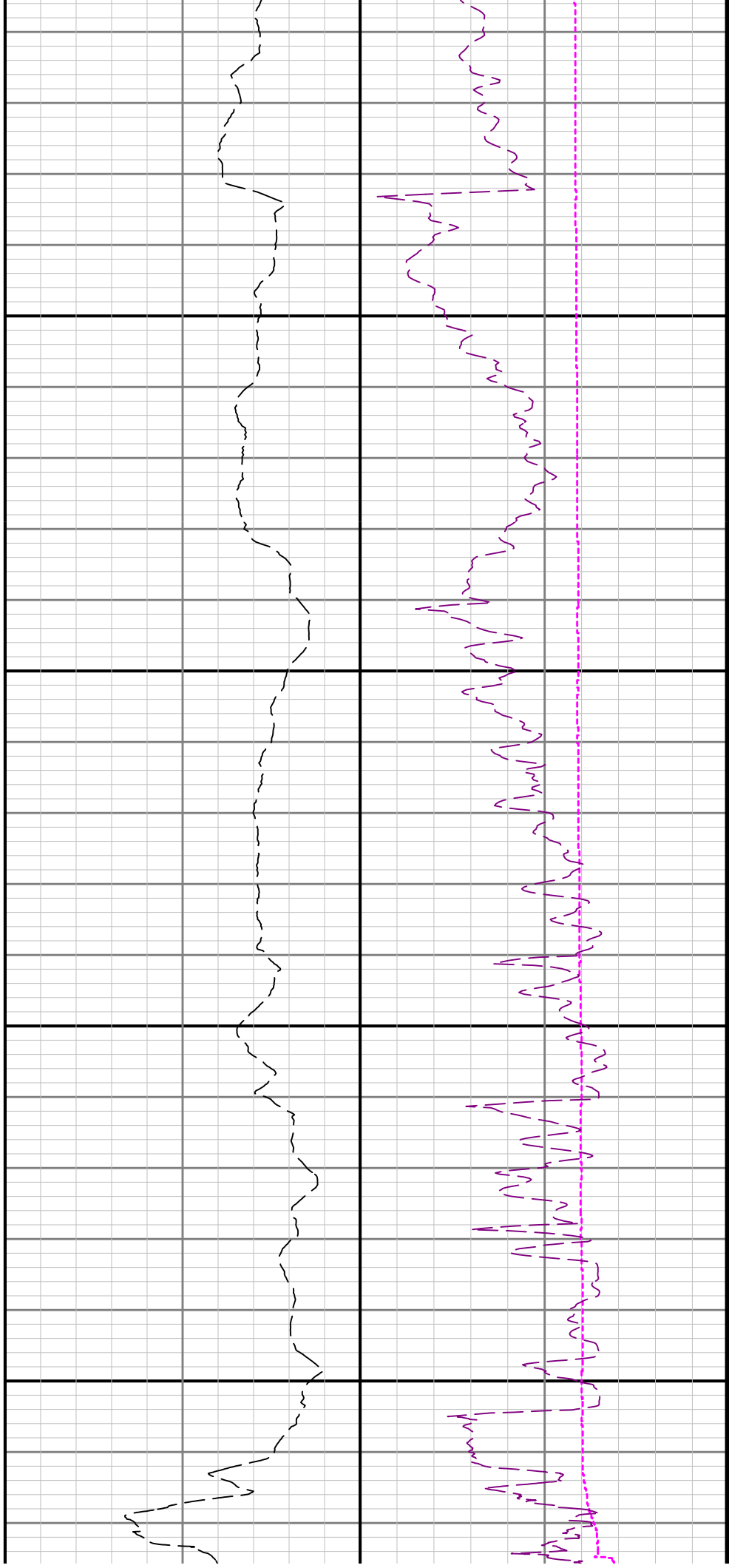


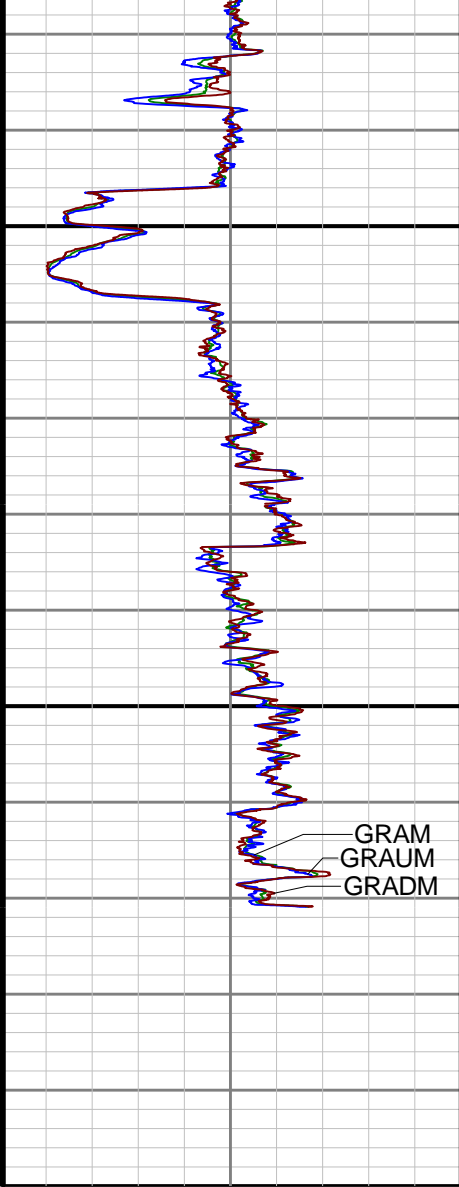




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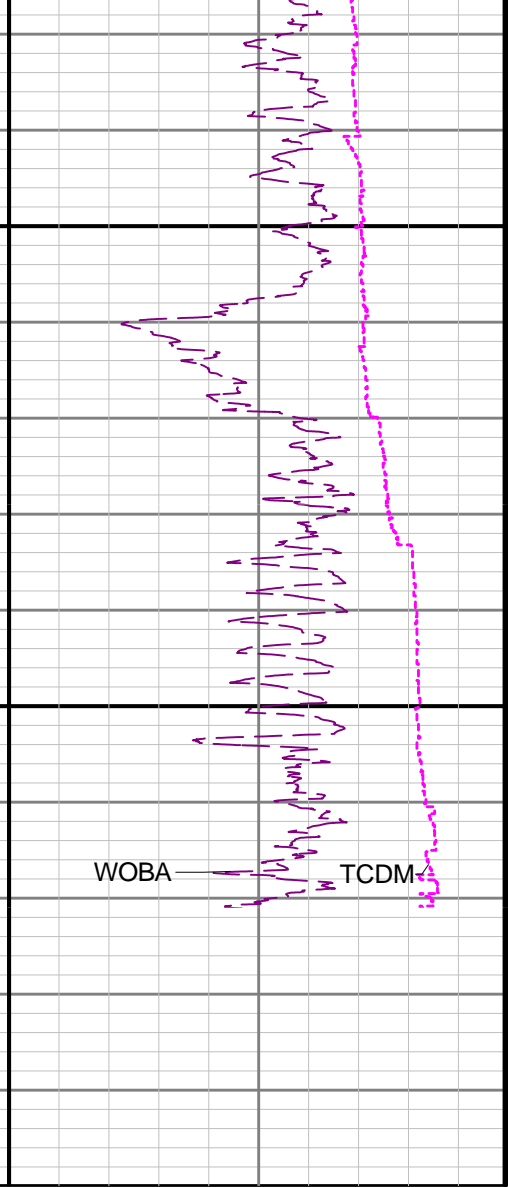
7600





7700

R1 <



Gamma Ray - Apparent 0.5 ft Average GRAM	
0	200
API	
Azimuthal Gamma Ray - Apparent - Up Quadrant 0.5 ft Average GRAUM	
0	200
API	
Azimuthal Gamma Ray - Apparent - Down Quadrant 0.5 ft Average GRADM	
0	200
API	

TVD 1:240 feet

Depth Averaged ROP 3 ft Average ROPA	
1000	0
ft/h	

Downhole Temperature TCDM	
0	300
degF	
Weight On Bit - Average 1 ft Average WOBA	
0	50
klb	

Directional Survey Summary

Latitude:	40° 06' 04.874" N	Longitude:	104° 58' 20.402" W
North Reference:	True	Drill Depth Zero:	Rig Floor
Vertical Datum is:	Mean Sea Level	Vertical Datum to DDZ: (ft)	4975.00
Vertical Section North: (ft)	0.00	Vertical Section East: (ft)	0.00
Vertical Section Azimuth: (deg)	180.02	Magnetic Declination: (deg)	8.08
Grid Convergence: (deg)	N/A	TVD Calculation Method:	Minimum Curvature
Total Correction: (deg)	8.08	Local Magnetic Field: (nT)	52064
Magnetic Correction:	Off	Local Gravity Field: (m/s ²)	9.800
Local Magnetic Dip Angle: (deg)	66.41		

Tie-In / Projection	Measured Depth (ft)	Inclination (deg)	Azimuth (deg)	Temperature (degF)	North (ft)	East (ft)	True Vertical Depth (ft)	TVD Subsea (ft)	Vertical Section (ft)	Course Length (ft)	Dog Leg Severity (deg/100ft)	Build Rate (deg/100ft)	Turn Rate (deg/100ft)
Tie-In	20.00	0.00	66.80	N/A	0.00	0.00	20.00	-4955.00	0.00	0.00	0.00	0.00	0.00
	95.00	0.93	66.80	N/A	0.24	0.56	95.00	-4880.00	-0.24	75.00	1.24	1.24	0.00
	183.00	0.78	100.02	N/A	0.42	1.81	182.99	-4792.01	-0.42	88.00	0.58	-0.17	37.75
	265.00	0.57	0.99	N/A	0.73	2.36	264.98	-4710.02	-0.73	82.00	1.26	-0.26	-120.77
	357.00	1.04	334.20	N/A	1.94	2.01	356.97	-4618.03	-1.94	92.00	0.64	0.51	-29.12
	447.00	2.26	245.00	N/A	2.05	0.42	446.04	-4528.06	2.05	90.00	1.46	1.26	20.32

	447.00	2.26	315.32	N/A	3.93	0.42	446.94	-4326.06	-3.93	90.00	1.46	1.36	-20.31
	537.00	2.77	317.60	N/A	6.83	-2.28	536.85	-4438.15	-6.83	90.00	0.57	0.57	-1.87
	626.00	4.00	317.43	N/A	10.70	-5.83	625.69	-4349.31	-10.70	89.00	1.38	1.38	-0.19
	716.00	5.24	317.90	N/A	16.06	-10.71	715.40	-4259.60	-16.06	90.00	1.38	1.38	0.52
	806.00	7.00	305.18	N/A	22.27	-17.95	804.89	-4170.11	-22.27	90.00	2.46	1.96	-14.13
	896.00	9.84	303.51	N/A	29.68	-28.85	893.91	-4081.09	-29.67	90.00	3.17	3.16	-1.86
	986.00	11.52	308.61	N/A	39.53	-42.28	982.35	-3992.65	-39.52	90.00	2.14	1.87	5.67
	1076.00	12.69	314.79	N/A	52.11	-56.32	1070.35	-3904.65	-52.09	90.00	1.94	1.30	6.87
	1166.00	14.08	316.11	N/A	66.96	-70.93	1157.90	-3817.10	-66.94	90.00	1.58	1.54	1.47
	1256.00	15.93	316.88	N/A	83.87	-86.96	1244.83	-3730.17	-83.84	90.00	2.07	2.06	0.86
	1346.00	15.58	315.30	N/A	101.48	-103.91	1331.45	-3643.55	-101.44	90.00	0.62	-0.39	-1.76
	1435.00	17.02	313.09	N/A	118.87	-121.83	1416.87	-3558.13	-118.83	89.00	1.76	1.62	-2.48
	1525.00	16.82	313.78	N/A	136.88	-140.85	1502.97	-3472.03	-136.83	90.00	0.31	-0.22	0.77
	1615.00	18.84	314.46	N/A	156.07	-160.62	1588.65	-3386.35	-156.01	90.00	2.26	2.24	0.76
	1705.00	17.85	315.08	N/A	176.01	-180.74	1674.07	-3300.93	-175.95	90.00	1.12	-1.10	0.69
	1795.00	19.54	315.93	N/A	196.60	-200.95	1759.32	-3215.68	-196.53	90.00	1.90	1.88	0.94
Tie-In	1860.00	20.64	316.35	N/A	212.70	-216.41	1820.36	-3154.64	-212.62	65.00	1.71	1.69	0.65
	1938.00	19.58	315.78	96.0	232.01	-235.02	1893.61	-3081.39	-231.93	78.00	1.38	-1.36	-0.73
	2031.00	21.12	315.09	98.7	255.05	-257.72	1980.80	-2994.20	-254.96	93.00	1.68	1.66	-0.74
	2123.00	20.69	316.07	98.7	278.49	-280.69	2066.74	-2908.26	-278.39	92.00	0.60	-0.47	1.07
	2215.00	21.24	313.05	98.7	301.57	-304.15	2152.66	-2822.34	-301.46	92.00	1.32	0.60	-3.28
	2307.00	20.78	313.86	101.4	324.25	-328.09	2238.54	-2736.46	-324.14	92.00	0.59	-0.50	0.88
	2399.00	19.24	313.26	101.4	345.95	-350.90	2324.98	-2650.02	-345.83	92.00	1.69	-1.67	-0.65
	2492.00	20.48	313.49	106.8	367.65	-373.86	2412.45	-2562.55	-367.52	93.00	1.34	1.33	0.25
	2584.00	20.83	314.73	112.2	390.24	-397.16	2498.54	-2476.46	-390.10	92.00	0.61	0.38	1.35
	2677.00	20.41	317.18	109.5	413.77	-419.93	2585.58	-2389.42	-413.63	93.00	1.03	-0.45	2.63
	2769.00	21.54	313.84	109.5	437.24	-443.02	2671.49	-2303.51	-437.08	92.00	1.79	1.23	-3.63
	2861.00	21.34	314.55	109.5	460.68	-467.13	2757.12	-2217.88	-460.52	92.00	0.36	-0.22	0.77
	3046.00	20.64	318.09	112.2	508.56	-512.90	2929.85	-2045.15	-508.38	185.00	0.78	-0.38	1.91
	3139.00	20.07	318.76	114.9	532.76	-534.37	3017.04	-1957.96	-532.57	93.00	0.66	-0.61	0.72
	3233.00	22.21	317.96	117.6	558.08	-556.90	3104.71	-1870.29	-557.89	94.00	2.30	2.28	-0.85
	3327.00	22.45	319.48	114.9	584.92	-580.46	3191.66	-1783.34	-584.72	94.00	0.67	0.26	1.62
	3419.00	21.51	309.91	117.6	609.11	-604.82	3277.00	-1698.00	-608.90	92.00	4.02	-1.02	-10.40
	3513.00	19.66	310.93	120.3	630.52	-629.98	3365.00	-1610.00	-630.30	94.00	2.00	-1.97	1.09
	3606.00	20.11	315.45	120.3	652.17	-653.02	3452.46	-1522.54	-651.94	93.00	1.72	0.48	4.86
	3700.00	21.75	309.46	120.3	674.76	-677.81	3540.26	-1434.74	-674.52	94.00	2.87	1.74	-6.37
	3793.00	21.44	309.50	114.9	696.52	-704.23	3626.73	-1348.27	-696.27	93.00	0.33	-0.33	0.04
	3885.00	20.19	309.22	117.6	717.25	-729.50	3712.73	-1262.27	-717.00	92.00	1.36	-1.36	-0.30
	3979.00	20.29	309.12	120.3	737.79	-754.71	3800.92	-1174.08	-737.53	94.00	0.11	0.11	-0.11
	4074.00	19.34	310.05	123.0	758.31	-779.54	3890.30	-1084.70	-758.04	95.00	1.05	-1.00	0.98
	4167.00	21.06	312.70	123.0	779.55	-803.61	3977.58	-997.42	-779.27	93.00	2.09	1.85	2.85
	4259.00	21.14	311.07	125.7	801.66	-828.26	4063.41	-911.59	-801.37	92.00	0.64	0.09	-1.77
	4351.00	21.56	310.14	128.4	823.46	-853.69	4149.10	-825.90	-823.16	92.00	0.59	0.46	-1.01
	4445.00	20.01	311.86	128.4	845.33	-878.88	4236.98	-738.02	-845.02	94.00	1.77	-1.65	1.83
	4539.00	18.50	314.96	128.4	866.60	-901.41	4325.72	-649.28	-866.28	94.00	1.94	-1.61	3.30
	4631.00	18.35	314.50	131.1	887.06	-922.07	4413.00	-562.00	-886.74	92.00	0.23	-0.16	-0.50
	4724.00	18.25	315.10	131.1	907.64	-942.79	4501.30	-473.70	-907.31	93.00	0.23	-0.11	0.65
	4816.00	16.04	314.66	133.8	926.78	-962.00	4589.20	-385.80	-926.44	92.00	2.41	-2.40	-0.48
	4909.00	13.65	312.47	133.8	943.22	-979.23	4679.09	-295.91	-942.88	93.00	2.64	-2.57	-2.35
	5002.00	11.11	314.03	133.8	956.86	-993.77	4769.92	-205.08	-956.51	93.00	2.75	-2.73	1.68
	5095.00	7.72	310.21	136.5	967.12	-1004.99	4861.66	-113.34	-966.77	93.00	3.70	-3.65	-4.11
	5188.00	6.25	309.22	136.5	974.36	-1013.68	4953.97	-21.03	-974.00	93.00	1.59	-1.58	-1.06
	5282.00	3.35	314.05	139.2	979.50	-1019.62	5047.63	72.63	-979.15	94.00	3.11	-3.09	5.14
	5376.00	4.37	317.02	139.2	984.03	-1024.04	5141.41	166.41	-983.68	94.00	1.11	1.09	3.16
	5470.00	2.66	318.91	141.9	988.30	-1027.91	5235.23	260.23	-987.94	94.00	1.82	-1.82	2.01
	5562.00	0.15	124.67	141.9	989.84	-1029.22	5327.20	352.20	-989.48	92.00	3.05	-2.73	180.17
	5656.00	0.11	35.87	144.6	989.84	-1029.06	5421.20	446.20	-989.48	94.00	0.20	-0.04	-94.47
	5749.00	0.13	96.89	144.6	989.90	-1028.90	5514.20	539.20	-989.54	93.00	0.13	0.02	65.61
	5844.00	0.03	323.64	147.3	989.91	-1028.81	5609.20	634.20	-989.55	95.00	0.16	-0.11	-140.26
	5938.00	0.06	90.03	150.0	989.93	-1028.78	5703.20	728.20	-989.57	94.00	0.09	0.03	134.46
	6031.00	0.14	51.39	150.0	990.00	-1028.64	5796.20	821.20	-989.64	93.00	0.11	0.09	-41.55
	6124.00	0.15	269.20	152.7	990.07	-1028.67	5889.20	914.20	-989.71	93.00	0.30	0.01	-152.89
	6217.00	0.40	0.38	152.7	990.39	-1028.79	5982.20	1007.20	-990.03	93.00	0.46	0.27	98.04
	6310.00	0.06	170.57	155.4	990.67	-1028.78	6075.20	1100.20	-990.31	93.00	0.49	-0.37	183.00
	6403.00	0.00	98.10	155.4	990.62	-1028.77	6168.20	1193.20	-990.26	93.00	0.06	-0.06	-77.92
	6496.00	0.06	69.85	158.1	990.64	-1028.73	6261.20	1286.20	-990.28	93.00	0.06	0.06	-30.38
	6590.00	0.11	99.07	160.8	990.64	-1028.59	6355.20	1380.20	-990.28	94.00	0.07	0.05	31.09
	6684.00	0.09	41.52	163.5	990.68	-1028.46	6449.20	1474.20	-990.32	94.00	0.10	-0.02	-61.22
	6778.00	0.04	89.32	163.5	990.74	-1028.37	6543.20	1568.20	-990.38	94.00	0.07	-0.05	50.85
	6871.00	0.11	54.45	163.5	990.79	-1028.27	6636.20	1661.20	-990.43	93.00	0.09	0.08	-37.49
	6964.00	0.12	81.96	163.5	990.85	-1028.10	6729.20	1754.20	-990.49	93.00	0.06	0.01	29.58
	7057.00	0.09	19.68	166.2	990.94	-1027.98	6822.20	1847.20	-990.58	93.00	0.12	-0.03	-66.97
	7151.00	1.28	184.58	166.2	989.96	-1028.04	6916.19	1941.19	-989.60	94.00	1.45	1.27	175.43
	7244.00	9.87	180.18	168.9	980.94	-1028.15	7008.67	2033.67	-980.58	93.00	9.24	9.24	-4.73

	7337.00	16.77	179.94	168.9	959.52	-1028.16	7099.11	2124.11	-959.16	93.00	7.42	7.42	-0.26
	7430.00	24.07	181.75	168.9	927.11	-1028.72	7186.21	2211.21	-926.75	93.00	7.88	7.85	1.95
	7524.00	31.26	183.00	171.6	883.53	-1030.59	7269.41	2294.41	-883.17	94.00	7.67	7.65	1.33
	7618.00	38.10	183.30	174.3	830.16	-1033.54	7346.66	2371.66	-829.80	94.00	7.28	7.28	0.32
	7711.00	45.89	179.70	174.3	768.02	-1035.02	7415.74	2440.74	-767.66	93.00	8.76	8.38	-3.87
	7804.00	52.22	178.95	177.0	697.82	-1034.17	7476.65	2501.65	-697.46	93.00	6.83	6.81	-0.81
	7898.00	60.78	180.79	179.7	619.51	-1034.05	7528.49	2553.49	-619.15	94.00	9.25	9.11	1.96
	7991.00	68.00	180.09	179.7	535.71	-1034.68	7568.66	2593.66	-535.35	93.00	7.79	7.76	-0.75
	8085.00	74.99	180.46	179.7	446.62	-1035.11	7598.48	2623.48	-446.26	94.00	7.45	7.44	0.39
	8180.00	86.83	180.57	182.5	352.99	-1035.96	7613.46	2638.46	-352.63	95.00	12.46	12.46	0.12
	8275.00	88.98	180.14	185.2	258.06	-1036.54	7616.93	2641.93	-257.70	95.00	2.31	2.26	-0.45
	8369.00	88.83	180.41	187.9	164.08	-1036.99	7618.73	2643.73	-163.72	94.00	0.33	-0.16	0.29
	8463.00	88.95	180.72	190.6	70.10	-1037.92	7620.55	2645.55	-69.74	94.00	0.35	0.13	0.33
	8557.00	88.95	180.42	193.3	-23.88	-1038.86	7622.27	2647.27	24.24	94.00	0.32	0.00	-0.32
	8650.00	88.89	180.11	190.6	-116.86	-1039.29	7624.02	2649.02	117.23	93.00	0.34	-0.06	-0.33
	8743.00	90.18	181.54	190.6	-209.85	-1040.63	7624.78	2649.78	210.21	93.00	2.07	1.39	1.54
	8836.00	89.91	181.30	193.3	-302.82	-1042.93	7624.71	2649.71	303.18	93.00	0.39	-0.29	-0.26
	8929.00	90.06	181.58	198.7	-395.79	-1045.27	7624.73	2649.73	396.15	93.00	0.34	0.16	0.30
	9023.00	89.85	181.22	198.7	-489.76	-1047.56	7624.80	2649.80	490.12	94.00	0.44	-0.22	-0.38
	9118.00	90.03	181.39	198.7	-584.73	-1049.73	7624.90	2649.90	585.10	95.00	0.26	0.19	0.18
	9211.00	90.15	181.18	198.7	-677.71	-1051.81	7624.76	2649.76	678.08	93.00	0.26	0.13	-0.23
	9305.00	90.06	181.14	201.4	-771.69	-1053.72	7624.58	2649.58	772.06	94.00	0.10	-0.10	-0.04
	9400.00	89.82	181.49	204.1	-866.67	-1055.90	7624.68	2649.68	867.03	95.00	0.45	-0.25	0.37
	9494.00	89.85	181.10	206.8	-960.64	-1058.02	7624.95	2649.95	961.01	94.00	0.42	0.03	-0.41
	9587.00	88.92	180.97	206.8	-1053.62	-1059.70	7625.95	2650.95	1053.99	93.00	1.01	-1.00	-0.14
	9679.00	88.61	180.88	209.5	-1145.59	-1061.18	7627.94	2652.94	1145.96	92.00	0.35	-0.34	-0.10
	9772.00	89.63	181.05	206.8	-1238.56	-1062.75	7629.36	2654.36	1238.93	93.00	1.11	1.10	0.18
	9866.00	88.86	180.98	209.5	-1332.54	-1064.42	7630.60	2655.60	1332.91	94.00	0.82	-0.82	-0.07
	9959.00	89.60	181.06	206.8	-1425.51	-1066.07	7631.85	2656.85	1425.89	93.00	0.80	0.80	0.09
	10052.00	88.37	181.19	206.8	-1518.48	-1067.90	7633.50	2658.50	1518.85	93.00	1.33	-1.32	0.14
	10144.00	87.29	180.55	206.8	-1610.40	-1069.29	7636.98	2661.98	1610.77	92.00	1.36	-1.17	-0.70
	10238.00	88.86	180.79	201.4	-1704.34	-1070.39	7640.14	2665.14	1704.71	94.00	1.69	1.67	0.26
	10331.00	88.86	181.15	209.5	-1797.31	-1071.97	7641.99	2666.99	1797.68	93.00	0.39	0.00	0.39
	10424.00	88.80	180.67	212.2	-1890.27	-1073.44	7643.89	2668.89	1890.65	93.00	0.52	-0.06	-0.52
	10518.00	88.83	180.79	212.2	-1984.25	-1074.64	7645.83	2670.83	1984.62	94.00	0.13	0.03	0.13
	10612.00	89.94	179.48	209.5	-2078.24	-1074.86	7646.84	2671.84	2078.61	94.00	1.83	1.18	-1.39
	10705.00	90.06	180.98	209.5	-2171.23	-1075.23	7646.84	2671.84	2171.61	93.00	1.62	0.13	1.61
	10799.00	88.86	180.94	212.2	-2265.22	-1076.81	7647.73	2672.73	2265.59	94.00	1.28	-1.28	-0.04
	10892.00	88.86	180.59	209.5	-2358.19	-1078.05	7649.58	2674.58	2358.56	93.00	0.38	0.00	-0.38
	10985.00	87.81	180.83	212.2	-2451.14	-1079.20	7652.28	2677.28	2451.52	93.00	1.16	-1.13	0.26
	11079.00	87.69	180.72	212.2	-2545.06	-1080.47	7655.97	2680.97	2545.44	94.00	0.17	-0.13	-0.12
	11172.00	89.42	181.16	214.9	-2638.01	-1082.00	7658.32	2683.32	2638.39	93.00	1.92	1.86	0.47
	11265.00	89.63	181.42	214.9	-2730.99	-1084.09	7659.09	2684.09	2731.37	93.00	0.36	0.23	0.28
	11358.00	87.41	181.47	209.5	-2823.92	-1086.44	7661.49	2686.49	2824.30	93.00	2.39	-2.39	0.05
	11451.00	87.29	181.10	214.9	-2916.80	-1088.52	7665.79	2690.79	2917.18	93.00	0.42	-0.13	-0.40
	11544.00	88.95	181.05	214.9	-3009.73	-1090.26	7668.84	2693.84	3010.11	93.00	1.79	1.78	-0.05
	11636.00	89.85	181.49	217.6	-3101.70	-1092.30	7669.80	2694.80	3102.08	92.00	1.09	0.98	0.48
	11730.00	90.09	181.11	220.3	-3195.67	-1094.43	7669.85	2694.85	3196.06	94.00	0.48	0.26	-0.40
	11822.00	90.15	181.36	220.3	-3287.65	-1096.42	7669.66	2694.66	3288.04	92.00	0.28	0.07	0.27
	11915.00	88.95	181.42	223.0	-3380.62	-1098.67	7670.39	2695.39	3381.00	93.00	1.29	-1.29	0.06
	12007.00	88.95	181.04	223.0	-3472.58	-1100.65	7672.08	2697.08	3472.97	92.00	0.41	0.00	-0.41
	12100.00	89.38	181.18	225.7	-3565.56	-1102.45	7673.43	2698.43	3565.94	93.00	0.49	0.46	0.15
	12193.00	89.42	181.39	225.7	-3658.53	-1104.53	7674.41	2699.41	3658.91	93.00	0.23	0.04	0.23
	12288.00	89.17	181.56	225.7	-3753.49	-1106.98	7675.58	2700.58	3753.88	95.00	0.32	-0.26	0.18
	12380.00	89.35	181.30	225.7	-3845.45	-1109.28	7676.76	2701.76	3845.84	92.00	0.34	0.20	-0.28
	12473.00	89.01	181.30	225.7	-3938.42	-1111.39	7678.09	2703.09	3938.81	93.00	0.37	-0.37	-0.00
	12565.00	89.75	181.29	228.4	-4030.39	-1113.46	7679.09	2704.09	4030.78	92.00	0.80	0.80	-0.01
	12659.00	89.63	181.55	228.4	-4124.36	-1115.79	7679.60	2704.60	4124.75	94.00	0.30	-0.13	0.28
	12753.00	89.60	181.61	228.4	-4218.32	-1118.39	7680.23	2705.23	4218.71	94.00	0.07	-0.03	0.06
	12846.00	89.35	181.19	228.4	-4311.29	-1120.66	7681.08	2706.08	4311.68	93.00	0.53	-0.27	-0.45
	12939.00	89.91	181.23	231.1	-4404.27	-1122.62	7681.68	2706.68	4404.66	93.00	0.60	0.60	0.04
	13031.00	89.42	181.20	233.8	-4496.24	-1124.57	7682.22	2707.22	4496.64	92.00	0.53	-0.53	-0.03
	13123.00	90.52	181.72	233.8	-4588.21	-1126.92	7682.27	2707.27	4588.61	92.00	1.32	1.20	0.57
	13215.00	89.20	181.13	233.8	-4680.18	-1129.20	7682.49	2707.49	4680.58	92.00	1.57	-1.43	-0.64
	13309.00	90.00	181.16	233.8	-4774.16	-1131.08	7683.15	2708.15	4774.55	94.00	0.85	0.85	0.03
	13401.00	90.00	181.24	236.5	-4866.14	-1133.01	7683.15	2708.15	4866.53	92.00	0.09	0.00	0.09
	13495.00	90.12	181.06	236.5	-4960.12	-1134.90	7683.05	2708.05	4960.52	94.00	0.23	0.13	-0.19
	13587.00	90.58	181.28	236.5	-5052.10	-1136.77	7682.49	2707.49	5052.50	92.00	0.55	0.50	0.24
	13681.00	90.46	181.41	236.5	-5146.07	-1138.98	7681.64	2706.64	5146.47	94.00	0.19	-0.13	0.14
	13773.00	90.37	181.33	239.2	-5238.04	-1141.18	7680.97	2705.97	5238.44	92.00	0.13	-0.10	-0.09
	13866.00	90.18	180.89	239.2	-5331.02	-1142.98	7680.52	2705.52	5331.42	93.00	0.52	-0.20	-0.47
	13959.00	90.37	181.31	239.2	-5424.00	-1144.77	7680.08	2705.08	5424.40	93.00	0.50	0.20	0.45
	14054.00	90.55	180.89	239.2	-5518.98	-1146.59	7679.31	2704.31	5519.38	95.00	0.48	0.19	-0.44
	14146.00	90.40	181.32	239.2	-5610.96	-1148.37	7678.55	2703.55	5611.36	92.00	0.49	-0.16	0.47

	14240.00	89.94	181.62	239.2	-5704.93	-1150.78	7678.27	2703.27	5705.33	94.00	0.58	-0.49	0.32
	14333.00	89.11	181.14	241.9	-5797.90	-1153.02	7679.04	2704.04	5798.30	93.00	1.03	-0.89	-0.52
	14426.00	89.48	181.57	241.9	-5890.87	-1155.22	7680.19	2705.19	5891.27	93.00	0.61	0.40	0.46
	14518.00	88.98	178.99	241.9	-5982.85	-1155.66	7681.42	2706.42	5983.25	92.00	2.86	-0.54	-2.80
	14612.00	88.12	179.46	241.9	-6076.81	-1154.39	7683.80	2708.80	6077.21	94.00	1.04	-0.91	0.50
	14704.00	88.06	179.13	244.6	-6168.75	-1153.26	7686.87	2711.87	6169.15	92.00	0.36	-0.07	-0.36
	14796.00	88.24	179.51	244.6	-6260.70	-1152.17	7689.84	2714.84	6261.10	92.00	0.46	0.20	0.41
	14891.00	87.88	179.55	244.6	-6355.64	-1151.39	7693.06	2718.06	6356.04	95.00	0.38	-0.38	0.04
	14983.00	88.09	179.86	244.6	-6447.58	-1150.92	7696.29	2721.29	6447.98	92.00	0.41	0.23	0.34
	15076.00	88.09	178.87	244.6	-6540.52	-1149.89	7699.39	2724.39	6540.92	93.00	1.06	0.00	-1.06
	15169.00	87.91	179.45	244.6	-6633.45	-1148.53	7702.64	2727.64	6633.85	93.00	0.65	-0.19	0.62
	15263.00	89.48	178.94	247.3	-6727.42	-1147.21	7704.78	2729.78	6727.82	94.00	1.76	1.67	-0.54
	15356.00	89.02	179.72	247.3	-6820.40	-1146.12	7705.99	2730.99	6820.80	93.00	0.97	-0.49	0.84
	15448.00	89.97	179.48	247.3	-6912.39	-1145.48	7706.80	2731.80	6912.79	92.00	1.07	1.03	-0.26
	15540.00	89.42	179.00	247.3	-7004.38	-1144.26	7707.29	2732.29	7004.78	92.00	0.79	-0.60	-0.52
	15634.00	89.48	179.41	250.0	-7098.37	-1142.95	7708.20	2733.20	7098.77	94.00	0.44	0.06	0.44
	15729.00	88.68	179.57	250.0	-7193.35	-1142.11	7709.72	2734.72	7193.75	95.00	0.86	-0.84	0.17
	15822.00	90.55	179.76	250.0	-7286.35	-1141.56	7710.35	2735.35	7286.74	93.00	2.02	2.01	0.20
	15914.00	89.82	179.24	250.0	-7378.34	-1140.76	7710.05	2735.05	7378.74	92.00	0.97	-0.79	-0.57
	16009.00	90.49	179.55	247.3	-7473.33	-1139.76	7709.79	2734.79	7473.73	95.00	0.78	0.71	0.33
	16103.00	90.37	179.49	250.0	-7567.33	-1138.97	7709.09	2734.09	7567.73	94.00	0.14	-0.13	-0.06
	16196.00	90.18	179.47	250.0	-7660.32	-1138.13	7708.64	2733.64	7660.72	93.00	0.21	-0.20	-0.02
	16290.00	89.57	179.23	250.0	-7754.32	-1137.06	7708.85	2733.85	7754.71	94.00	0.70	-0.65	-0.26
	16384.00	91.02	178.51	250.0	-7848.29	-1135.21	7708.36	2733.36	7848.69	94.00	1.72	1.54	-0.77
	16477.00	90.40	179.52	250.0	-7941.27	-1133.61	7707.21	2732.21	7941.67	93.00	1.27	-0.67	1.09
	16569.00	90.83	179.11	252.7	-8033.26	-1132.51	7706.22	2731.22	8033.65	92.00	0.65	0.47	-0.45
	16662.00	90.22	178.36	250.0	-8126.23	-1130.45	7705.37	2730.37	8126.63	93.00	1.04	-0.66	-0.81
	16754.00	89.94	178.26	252.7	-8218.19	-1127.74	7705.24	2730.24	8218.59	92.00	0.32	-0.30	-0.11
	16847.00	90.00	178.48	252.7	-8311.15	-1125.10	7705.29	2730.29	8311.55	93.00	0.25	0.06	0.24
	16940.00	89.82	178.51	252.7	-8404.12	-1122.65	7705.44	2730.44	8404.51	93.00	0.20	-0.19	0.03
	17034.00	89.88	178.81	255.4	-8498.10	-1120.45	7705.68	2730.68	8498.49	94.00	0.33	0.06	0.32
	17128.00	89.97	178.47	250.0	-8592.07	-1118.22	7705.81	2730.81	8592.46	94.00	0.37	0.10	-0.36
	17221.00	90.15	178.33	252.7	-8685.03	-1115.63	7705.71	2730.71	8685.42	93.00	0.25	0.19	-0.15
	17314.00	90.00	178.49	250.0	-8778.00	-1113.05	7705.59	2730.59	8778.38	93.00	0.24	-0.16	0.17
	17407.00	89.45	178.64	252.7	-8870.97	-1110.72	7706.03	2731.03	8871.35	93.00	0.61	-0.59	0.16
	17500.00	89.57	178.30	252.7	-8963.93	-1108.23	7706.83	2731.83	8964.32	93.00	0.39	0.13	-0.37
	17594.00	89.60	178.49	252.7	-9057.89	-1105.60	7707.51	2732.51	9058.28	94.00	0.20	0.03	0.20
	17689.00	89.42	178.35	252.7	-9152.85	-1102.98	7708.32	2733.32	9153.23	95.00	0.24	-0.19	-0.15
	17781.00	89.35	178.29	255.4	-9244.81	-1100.28	7709.31	2734.31	9245.19	92.00	0.10	-0.08	-0.07
	17875.00	88.92	177.94	250.0	-9338.74	-1097.19	7710.73	2735.73	9339.13	94.00	0.59	-0.46	-0.37
	17968.00	89.20	178.05	255.4	-9431.67	-1093.94	7712.25	2737.25	9432.06	93.00	0.32	0.30	0.12
	18060.00	89.05	177.90	120.3	-9523.61	-1090.69	7713.66	2738.66	9523.99	92.00	0.23	-0.16	-0.16
	18155.00	88.95	178.79	250.0	-9618.55	-1087.95	7715.32	2740.32	9618.93	95.00	0.94	-0.11	0.94
	18248.00	88.86	178.49	241.9	-9711.51	-1085.74	7717.09	2742.09	9711.89	93.00	0.34	-0.10	-0.32
	18341.00	89.94	178.62	250.0	-9804.47	-1083.39	7718.07	2743.07	9804.85	93.00	1.17	1.16	0.14
	18433.00	90.31	178.51	252.7	-9896.44	-1081.09	7717.87	2742.87	9896.82	92.00	0.42	0.40	-0.12
	18525.00	89.75	178.88	252.7	-9988.42	-1079.00	7717.82	2742.82	9988.79	92.00	0.73	-0.61	0.40
	18620.00	90.18	178.31	255.4	-10083.39	-1076.67	7717.88	2742.88	10083.76	95.00	0.75	0.45	-0.60
	18712.00	89.94	178.20	255.4	-10175.35	-1073.86	7717.78	2742.78	10175.72	92.00	0.29	-0.26	-0.12
	18804.00	89.72	178.10	255.4	-10267.30	-1070.89	7718.05	2743.05	10267.67	92.00	0.26	-0.24	-0.11
	18897.00	89.48	177.76	228.4	-10360.23	-1067.54	7718.70	2743.70	10360.61	93.00	0.45	-0.26	-0.37
	18990.00	89.60	178.15	247.3	-10453.17	-1064.22	7719.45	2744.45	10453.54	93.00	0.44	0.13	0.42
	19083.00	89.91	177.91	252.7	-10546.12	-1061.02	7719.85	2744.85	10546.49	93.00	0.42	0.33	-0.26
	19268.00	89.45	178.66	250.0	-10731.03	-1055.48	7720.88	2745.88	10731.40	185.00	0.48	-0.25	0.41
	19361.00	90.12	179.04	252.7	-10824.01	-1053.62	7721.23	2746.23	10824.38	93.00	0.83	0.72	0.41
	19455.00	90.18	178.33	255.4	-10917.98	-1051.46	7720.98	2745.98	10918.35	94.00	0.76	0.06	-0.76
	19548.00	90.09	178.57	255.4	-11010.95	-1048.94	7720.76	2745.76	11011.31	93.00	0.28	-0.10	0.26
	19642.00	91.32	178.37	255.4	-11104.91	-1046.43	7719.61	2744.61	11105.27	94.00	1.33	1.31	-0.21
	19735.00	91.35	178.37	255.4	-11197.84	-1043.79	7717.44	2742.44	11198.21	93.00	0.03	0.03	0.00
	19828.00	91.11	178.77	255.4	-11290.79	-1041.47	7715.44	2740.44	11291.15	93.00	0.50	-0.26	0.43
	19921.00	91.39	178.65	250.0	-11383.75	-1039.38	7713.42	2738.42	11384.11	93.00	0.33	0.30	-0.13
	20015.00	91.17	178.60	252.7	-11477.70	-1037.12	7711.32	2736.32	11478.06	94.00	0.24	-0.23	-0.05
	20092.00	91.48	178.23	331.1	-11554.65	-1034.99	7709.54	2734.54	11555.01	77.00	0.63	0.40	-0.48
Projection	20116.00	91.48	178.23	N/A	-11578.63	-1034.25	7708.92	2733.92	11578.99	24.00	0.00	0.01	0.01