



LWD MEMORY LOG

Gamma Ray

Scale:

1:240

True Vertical Depth

Company: Noble Energy

Well: Reveille A35-772

Field: Wattenberg

County: Weld Country: United States

Depth Reference:

Driller's Depth

State: Colorado

Status:

Final Print

Surface Location:

Latitude: 40° 26' 10.788" N

Longitude: 104° 31' 31.440" W

Other Services:

API No: 05-123-50796-00

Job ID: 110697728

SEC: 35 TWN: 6N RGE: 64W

Permanent Datum (P.D.): Mean Sea Level

Elevation:

0.00 ft

Elev. KB: 4678.00 ft

Log Measured From:

Rig Floor

Above P.D.:

4678.00 ft

Elev. DF: 4648.00 ft

Dates

Interval

Magnetic Field Reference

From: 2021-01-18	Drilled (ft)	Logged (ft)	Azi Reference North:	Grid	Dip Angle: (deg)	66.83
To: 2021-01-20	Top: 1944.00	Top: 1944.00	Total Magnetic Field Strength: (nT)			51975
Spud: 2021-01-18	Bottom: 17043.00	Bottom: 17030.00	Mag to Reference North Correction: (deg)			7.11

Borehole Record

Casing Record

Hole Size (in)	From (ft)	To (ft)	Size (in)	Weight (lb/ft)	From (ft)	To (ft)
13.500	30.00	1944.00	9.625	36.00	30.00	1934.00
8.500	1944.00	17043.00				

Mud Record

Deviation Record

Type	From (ft)	To (ft)	Hole Size (in)	Interval (ft)	Inc Az (Start)	Inc Az (End)
Oil Based Mud	1944.00	17043.00	8.500	15099.00	0.93 185.47	89.78 359.56

Acquisition System

Software Version

Other

Cadence	RT 5.8	Rig: H&P 517
Plot Studio	5.8.9018.1	Contractor: Helmerich & Payne Drilling Co
		District: RMA
		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
						Top	Bottom	From	To	Start Logging	End Logging	
						(ft)	(ft)	(ft)	(ft)			
1	1	8.500	PDC	2.50	Rotary Steerable	1944.00	9378.00	1944.00	9391.00	2021-01-18 06:00	2021-01-19 09:50	26.71
2	1RR	8.500	PDC	2.50	Rotary Steerable	9378.00	17030.00	9391.00	17043.00	2021-01-19 18:47	2021-01-20 19:40	24.76

Crew

Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite	Name	Arrive Wellsite	Depart Wellsite
Adam Schlenz	2021-01-17	2021-01-21						

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+ (%)
2021-01-18 04:36	1	1944.00	Oil Based Mud	9.4	12	N/A	17.8	68.9/19.4	Active Pit	27211	0.00
2021-01-18 16:00	1	5893.00	Oil Based Mud	9.2	11	N/A	15.8	70.8/19	Active Pit	26239	0.00
2021-01-19 05:00	1	7644.00	Oil Based Mud	9.6	12	N/A	17.4	70.4/18	Active Pit	26239	0.00
2021-01-19 16:00	2	9391.00	Oil Based Mud	9.6	11	N/A	18.3	69.6/18.4	Active Pit	25753	0.00
2021-01-20 05:00	2	12889.00	Oil Based Mud	9.8	14	N/A	19.2	68.8/18	Active Pit	26725	0.00
2021-01-20 16:00	2	16100.00	Oil Based Mud	9.8	14	N/A	18.7	68.4/18	Active Pit	25267	0.00

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		14452345		Near Bit Inclination			5.93	6.78	7.000	4.330
1	AutoTrak Curve Steering Unit		14452345		Near Bit VSS			5.93	6.78	7.000	4.330
1	AutoTrak Curve MWD		14219791		Gamma (single)			2.75	12.95	7.000	3.250
1	AutoTrak Curve MWD		14219791		Directional (mag)			12.27	22.47	7.000	3.250
2	AutoTrak Curve Steering Unit		14381997		Near Bit VSS			5.93	6.78	7.000	4.330
2	AutoTrak Curve Steering Unit		14381997		Near Bit Inclination			5.93	6.78	7.000	4.330
2	AutoTrak Curve MWD		14313857		Gamma (single)			2.75	12.93	7.000	3.250
2	AutoTrak Curve MWD		14313857		Directional (mag)			12.27	22.45	7.000	3.250

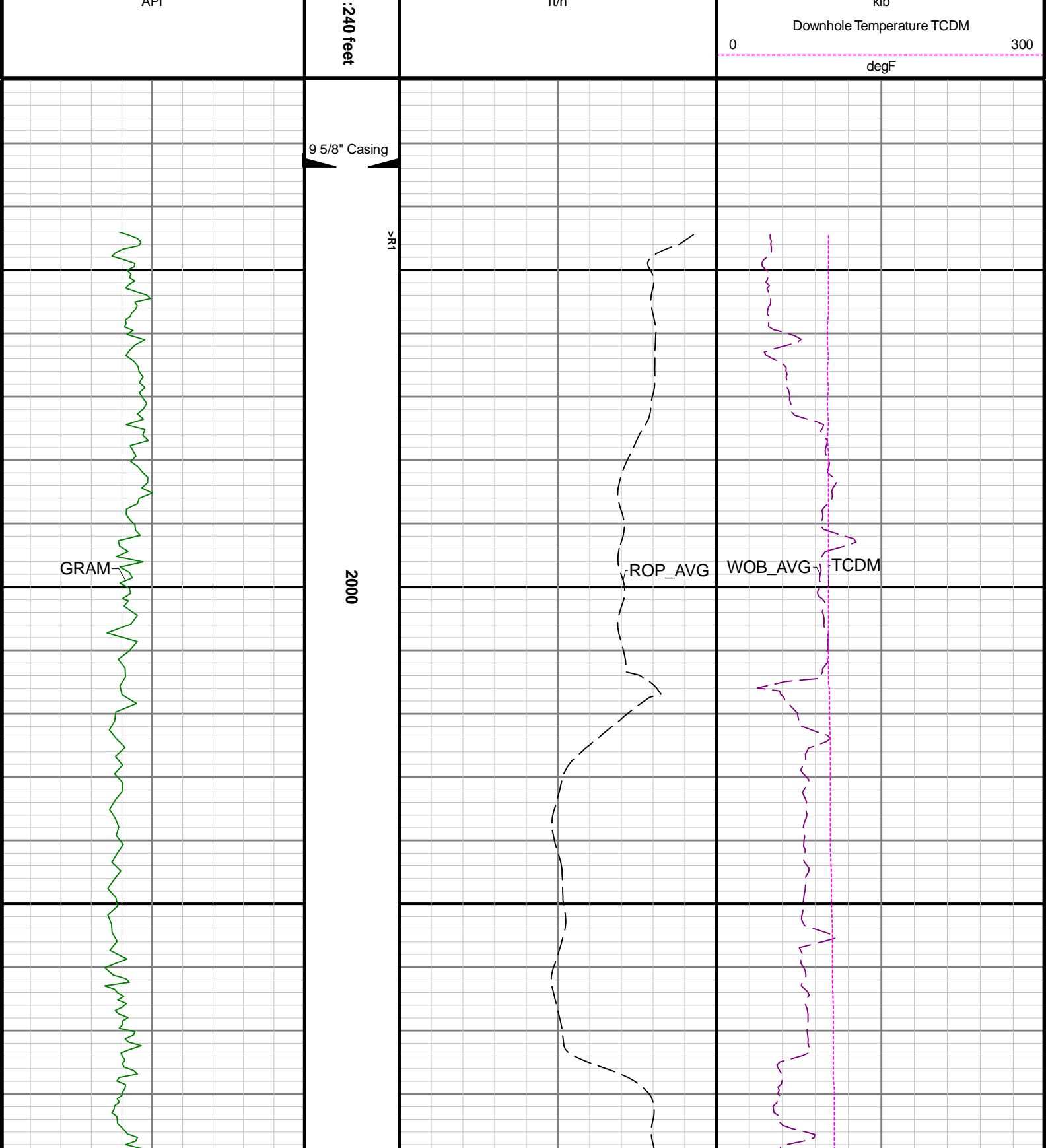
Service and Tool Mnemonics											
Mnemonic	Name		Description								
ATC SU	AutoTrak Curve SU		Auto Trak Curve Steering Unit								
ATC MWD	AutoTrak Curve MWD		Auto Trak Curve MWD								
ATC LCPM	AutoTrak Curve LCPM		Auto Trak Curve LCPM								

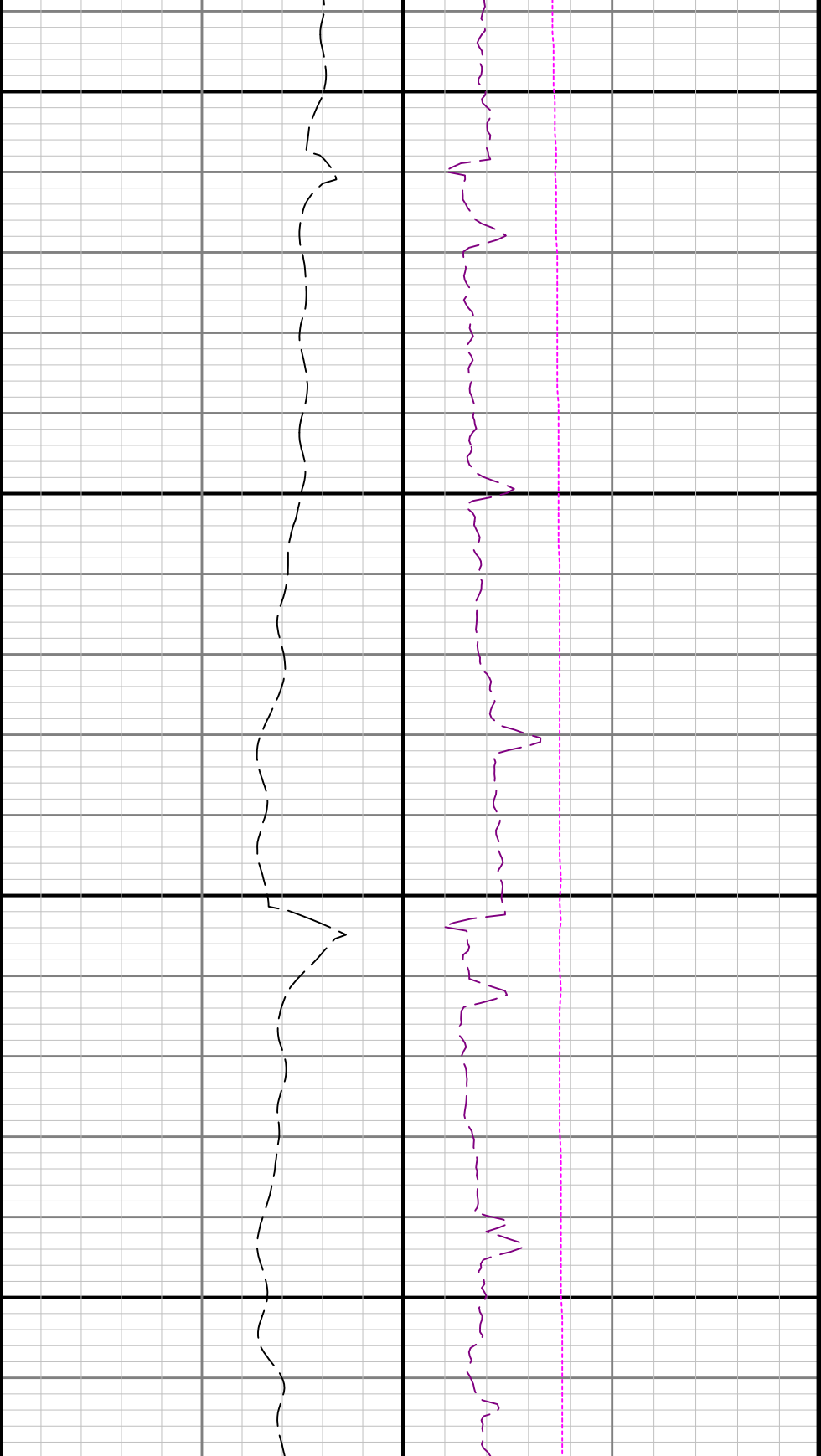
Comments											
1	Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes, depth calibrations and measurements could not be independently verified.										
2	Baker Hughes LWD runs 1 and 2 utilized a 6.75 inch NaviGamma service (Directional and Gamma Ray) behind a 8.5 inch bit and rotary steerable assembly from 1944 to 17043 feet MD (1944 to 6682 feet TVD).										
3	The Gamma Ray Apparent (GRAM) data is presented 0 to 300 API, per the customer's request.										

Remarks											
Number	Depth	Hole Section	Run No.	Remark							
	(ft)	(in)									

Curve Mnemonics											
Presented Curves			Description								Units
ROP_AVG			Rate of Penetration - Average 3 ft Average								ft/h
WOB_AVG			Weight on Bit - Average 1 ft Average								klb
GRAM			Gamma Ray - Apparent - Memory 0.5 ft Average								API
TCDM			Directional Real-Time Survey Temperature								degF

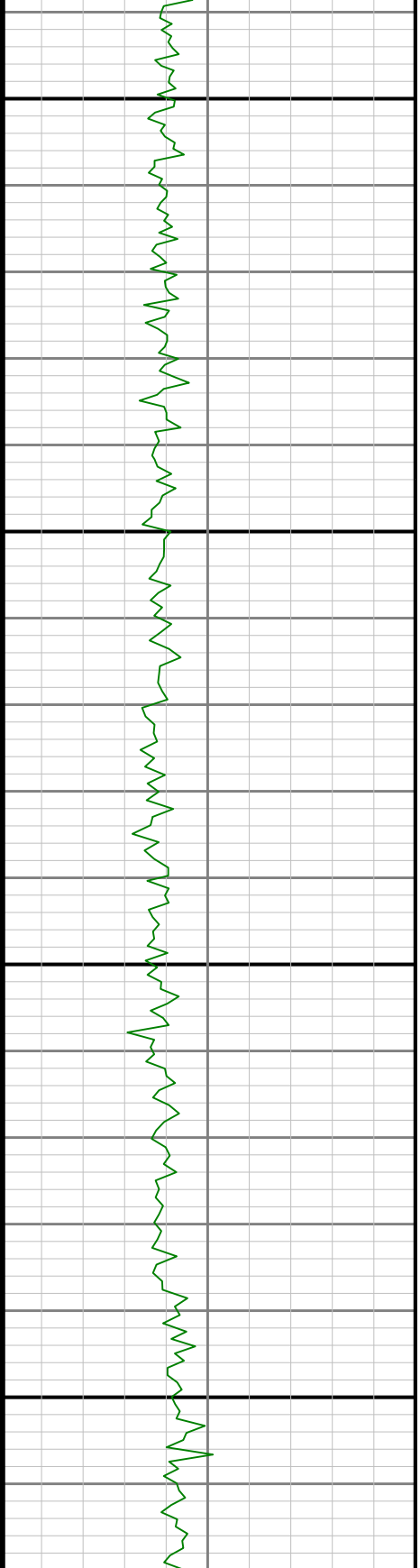
Gamma Ray - Apparent 0.5 ft Average GRAM			TVD 1	Rate of Penetration 3 ft Average ROP_AVG			Weight On Bit 1 ft Average WOB_AVG		
0		300		1000		0	0		50

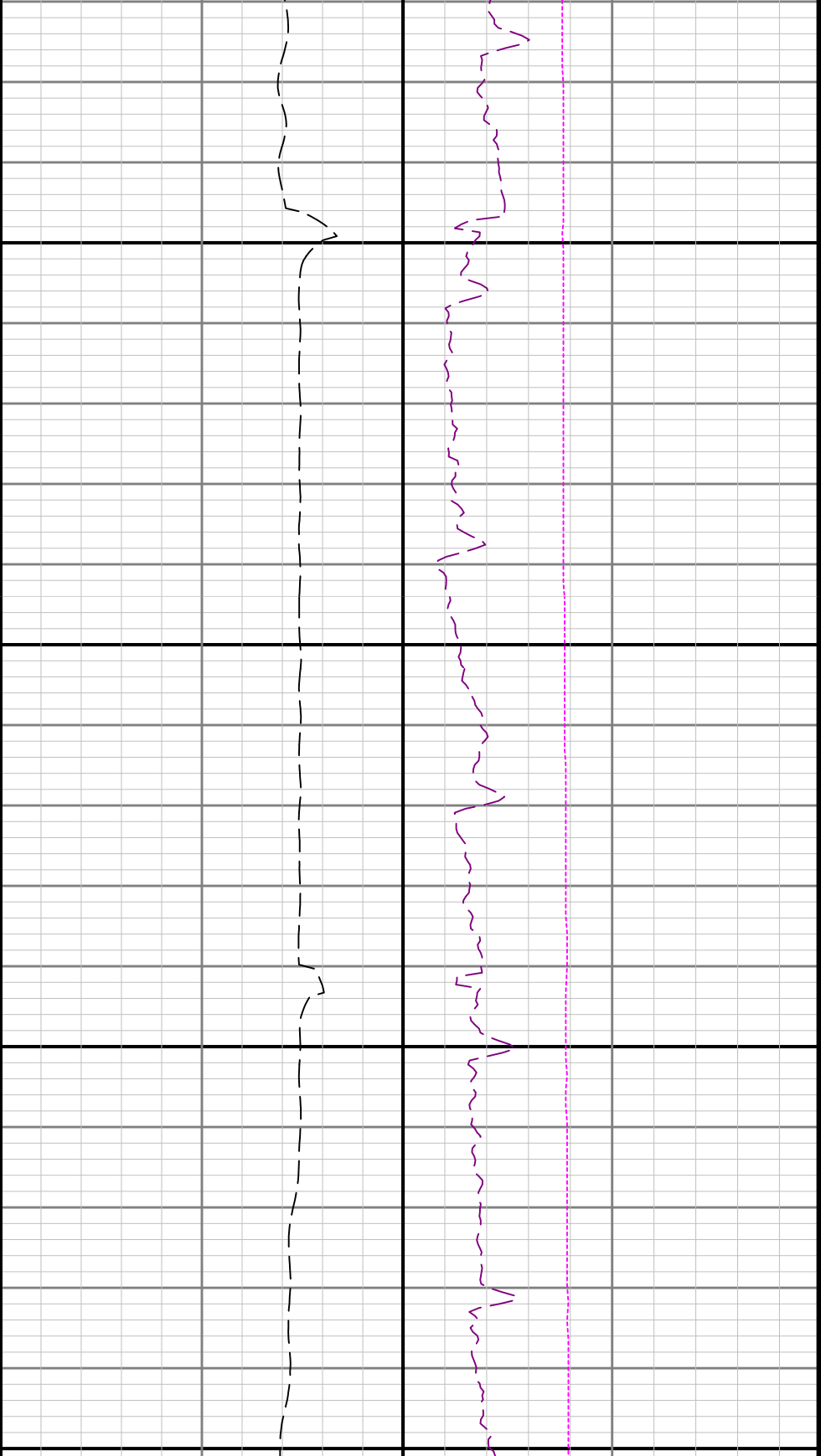




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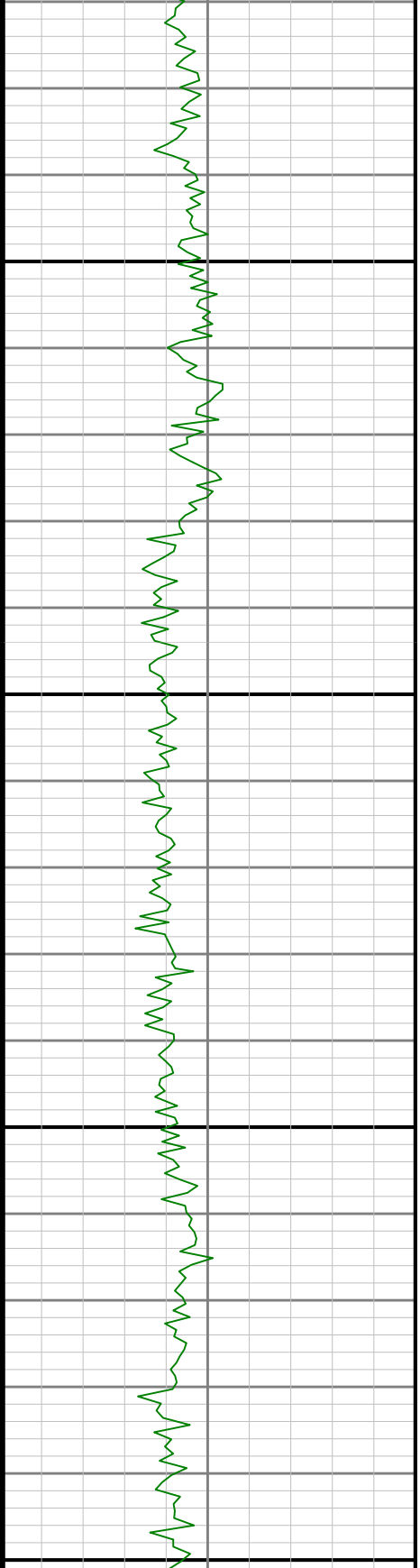
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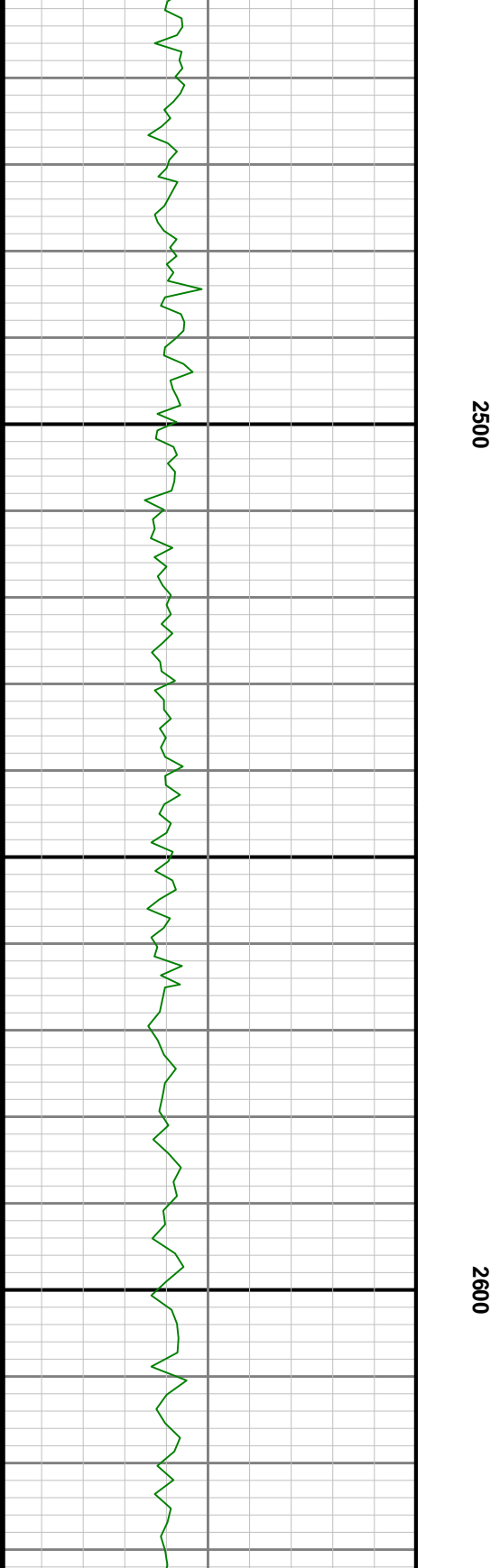
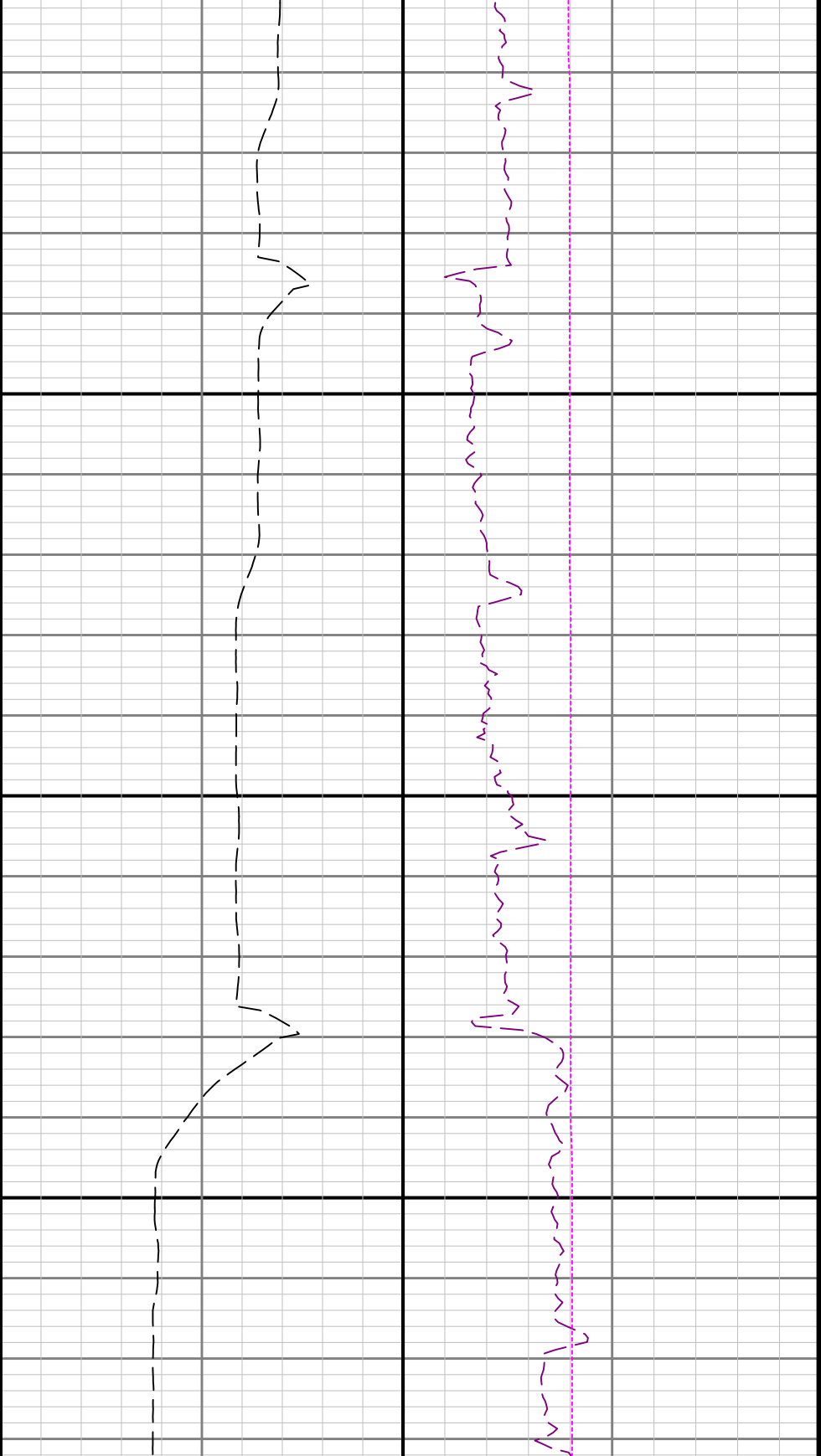


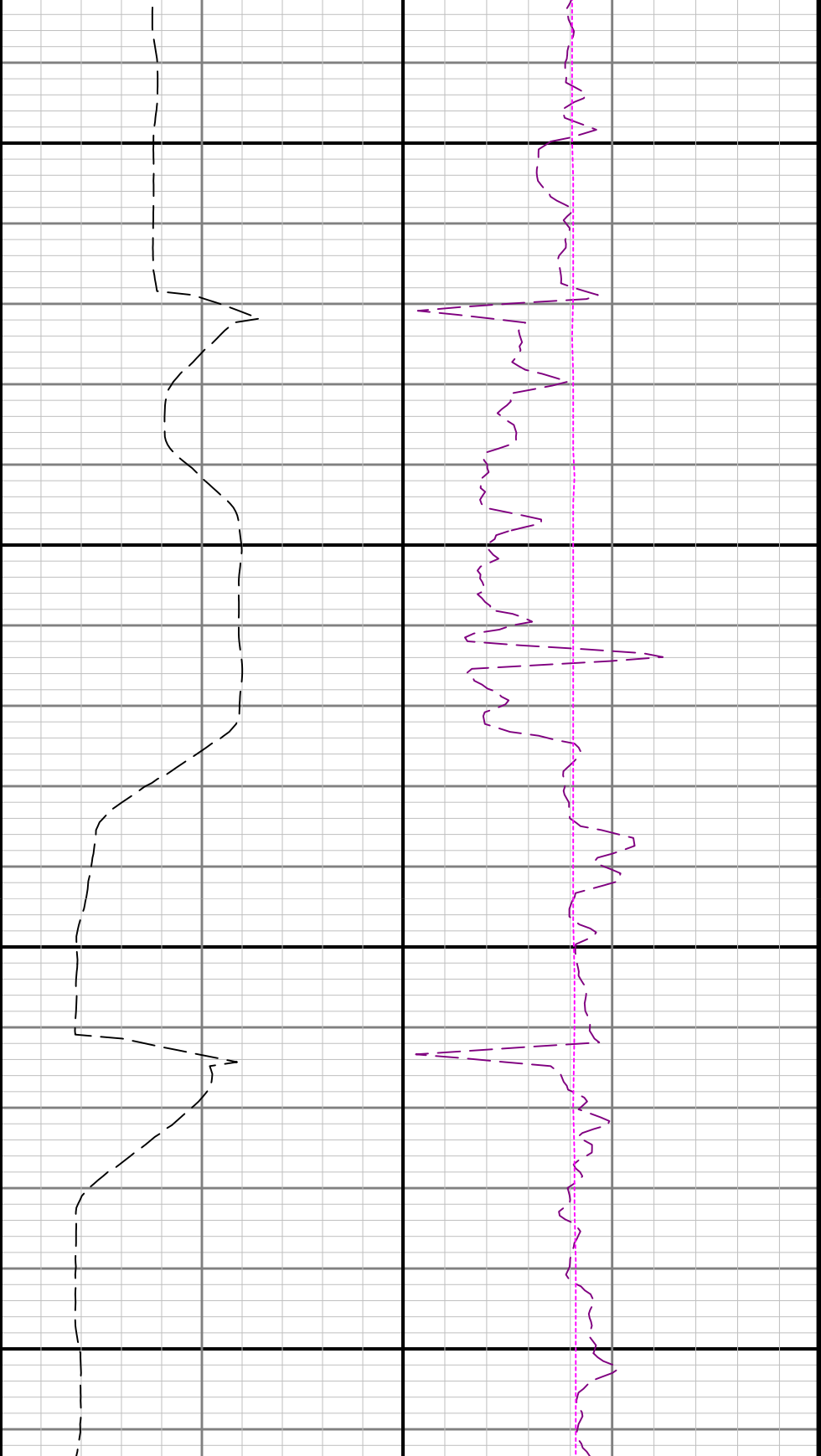


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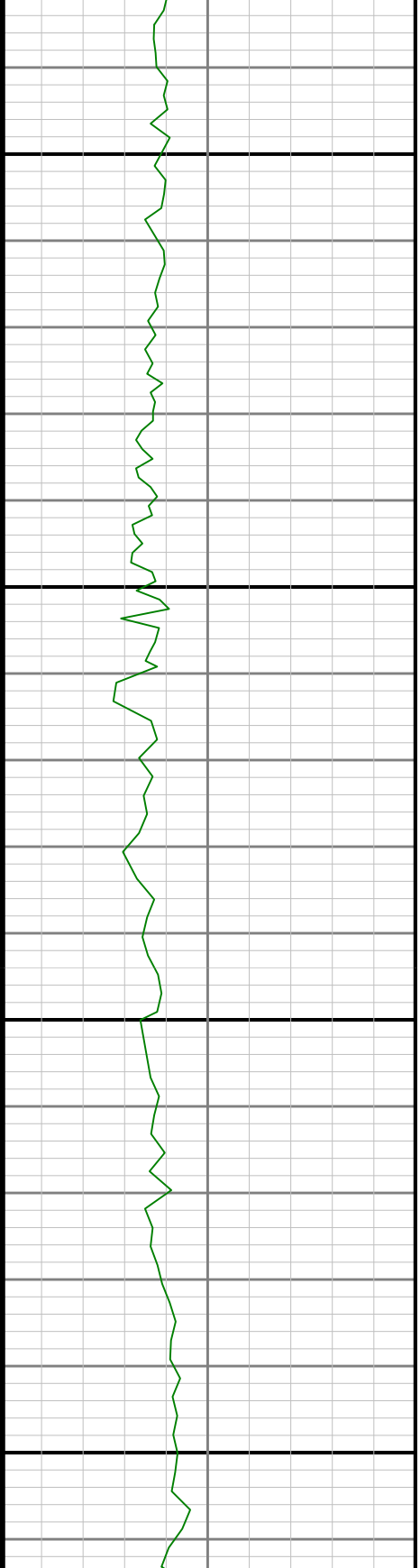


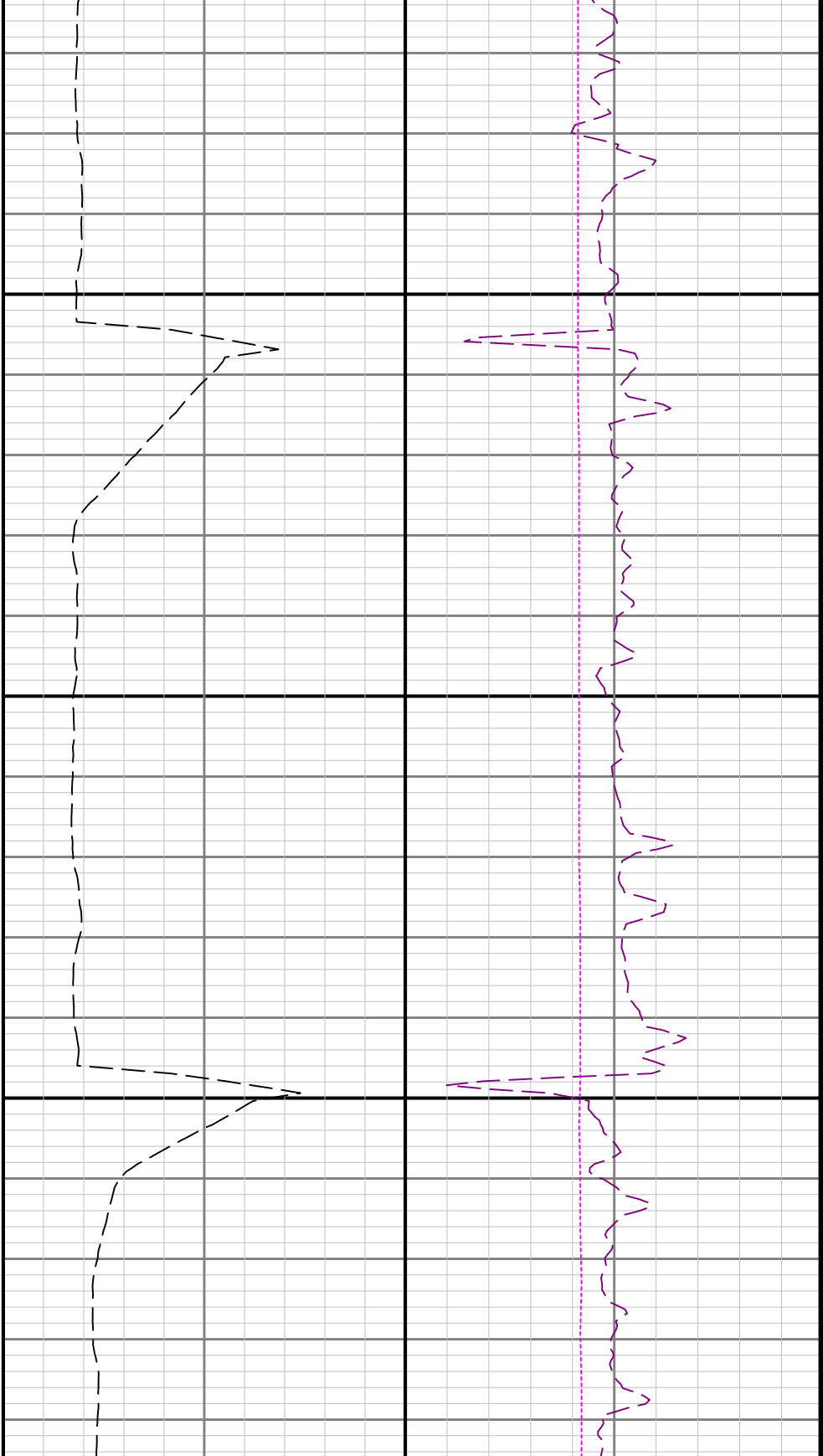




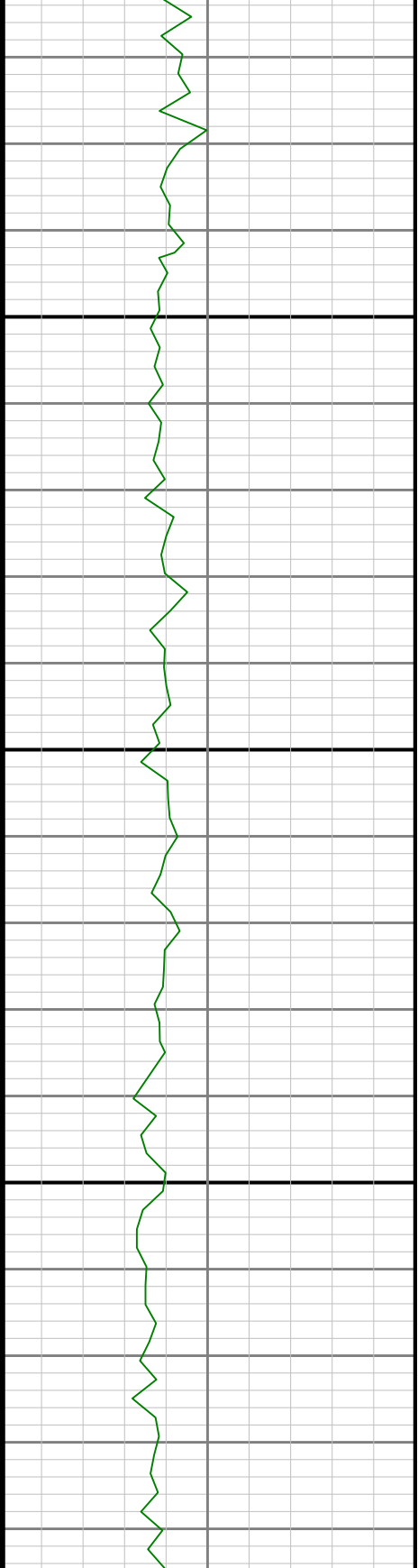
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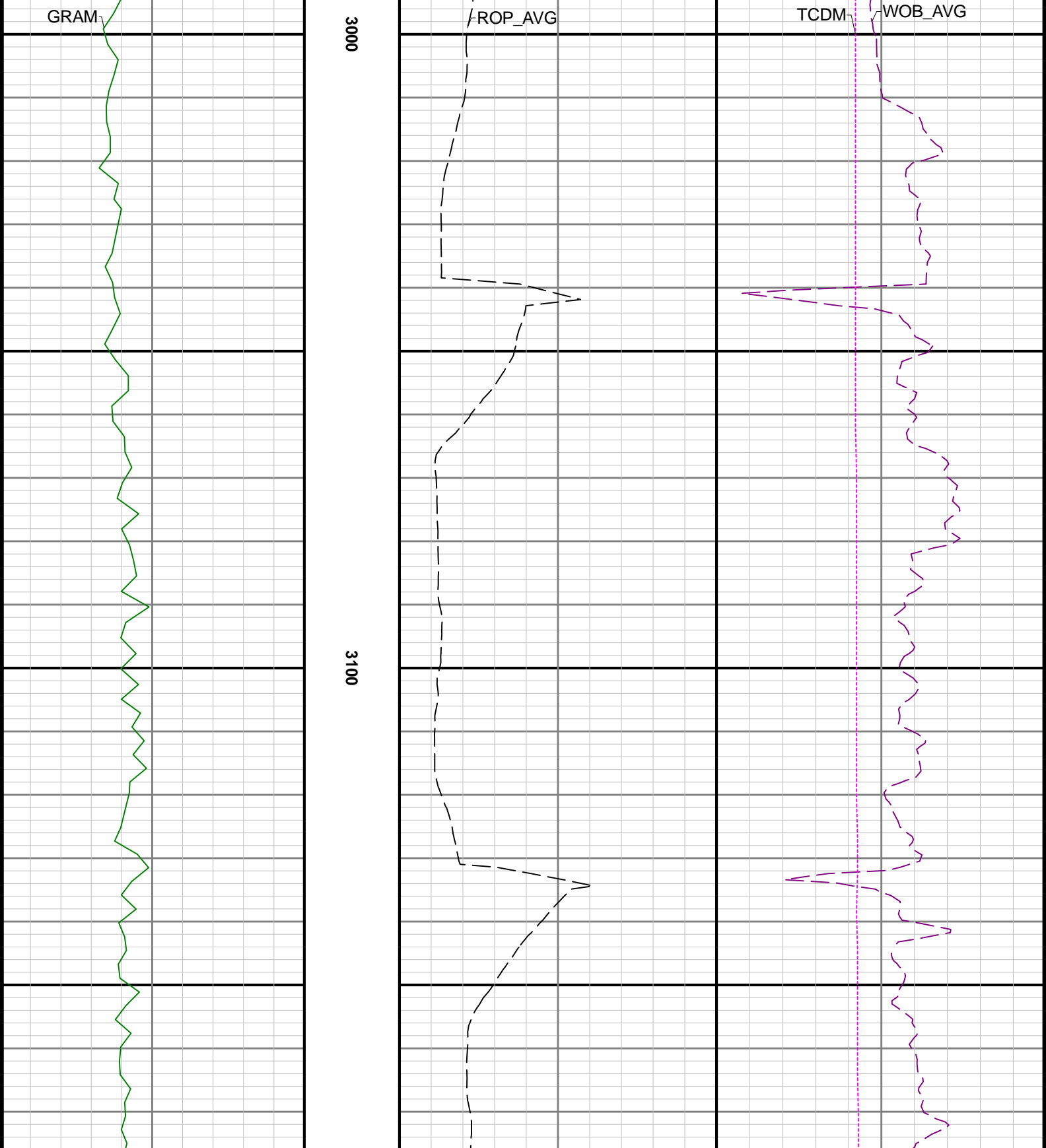
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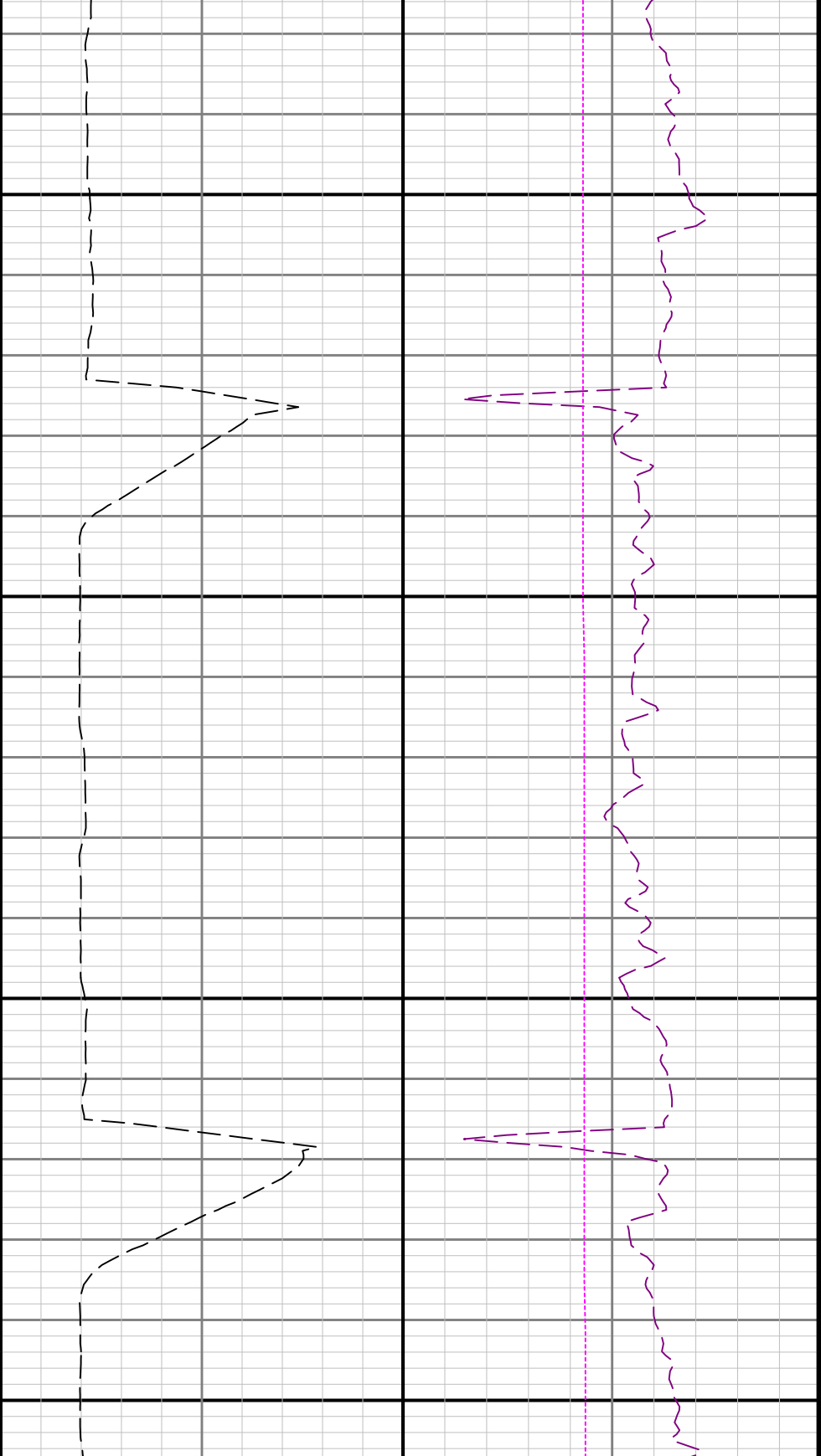




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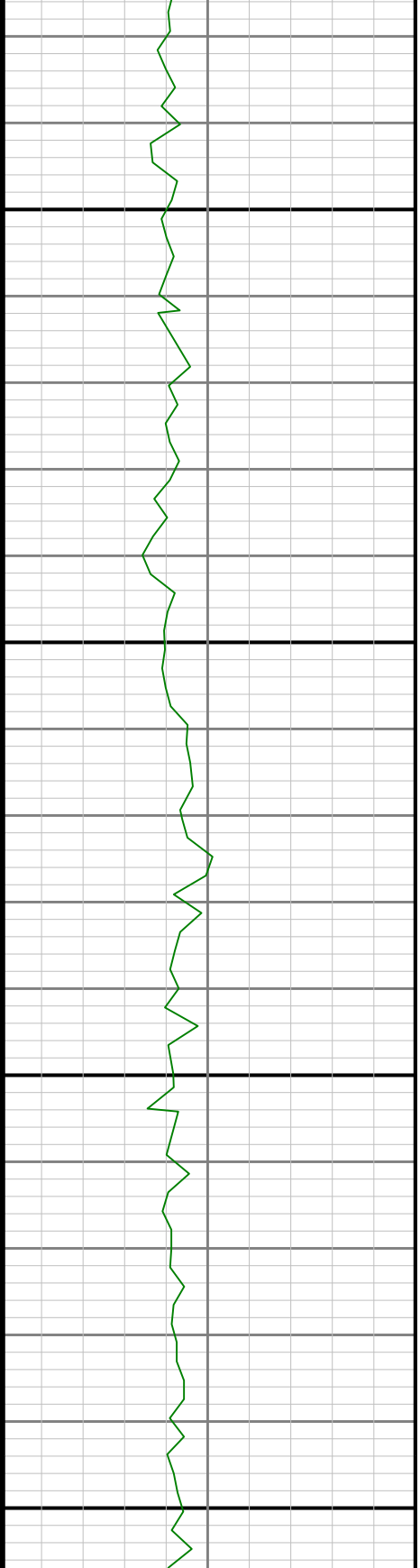


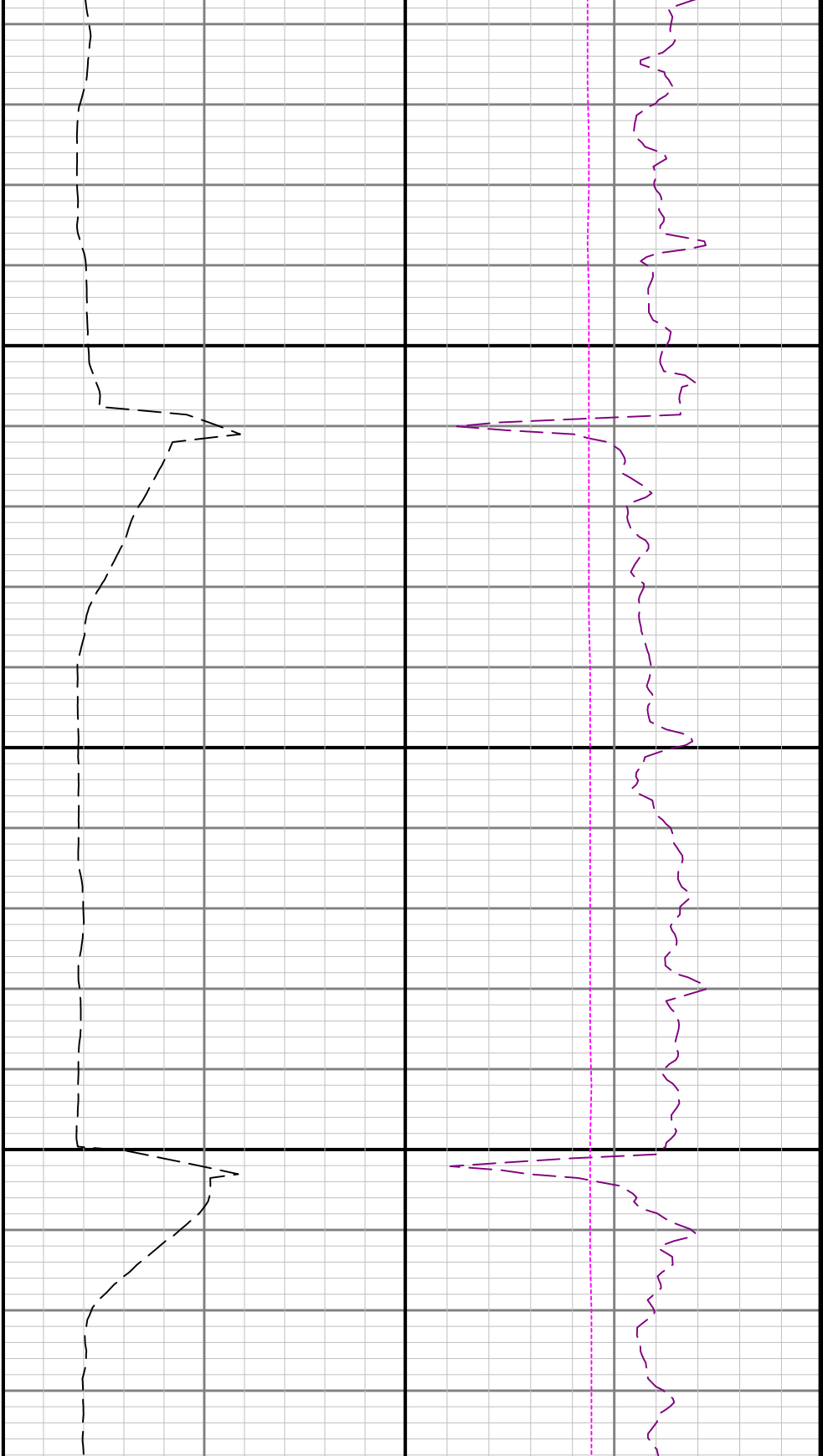




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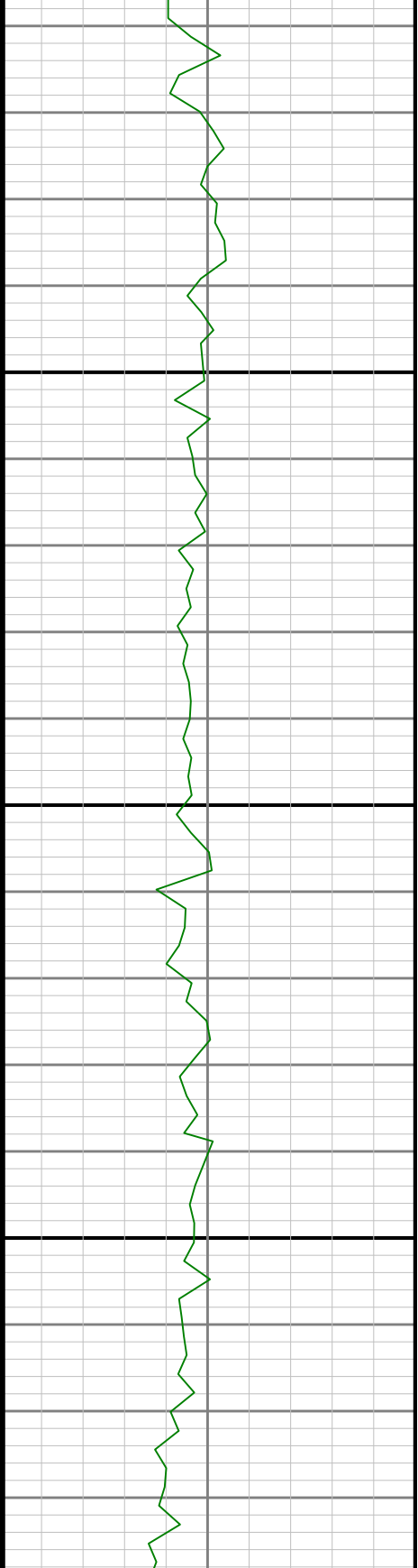
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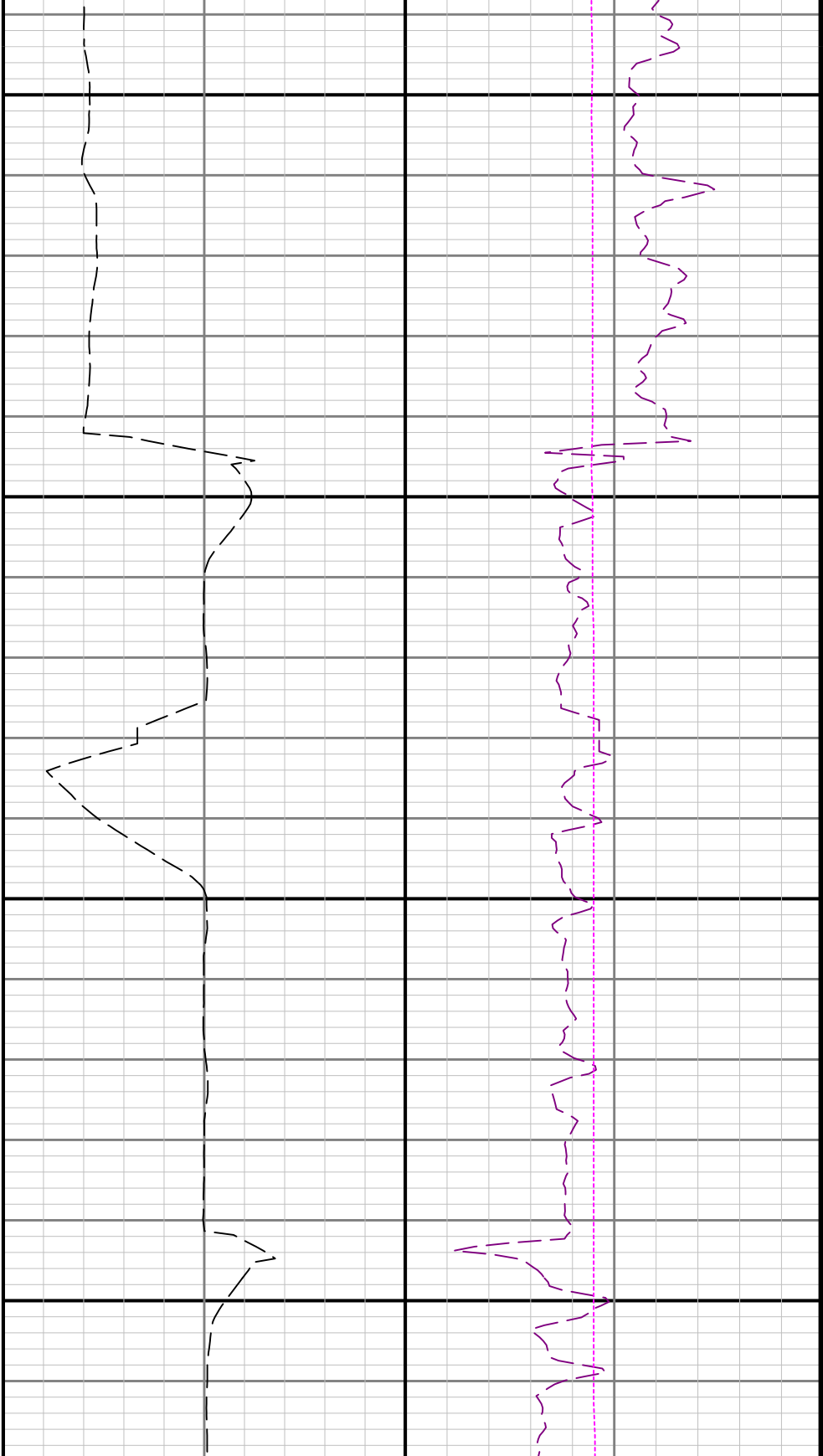




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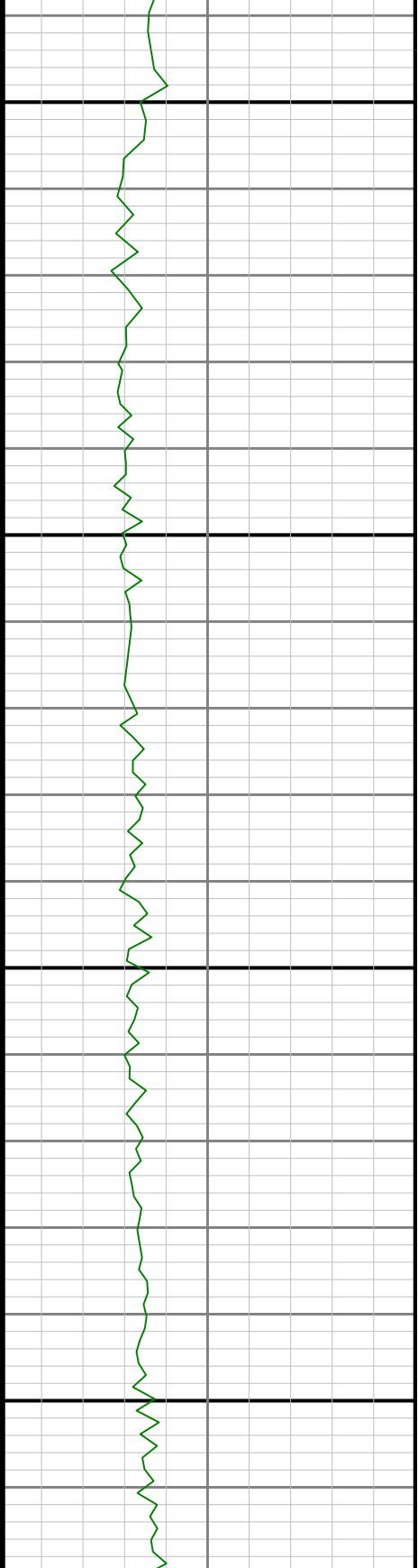
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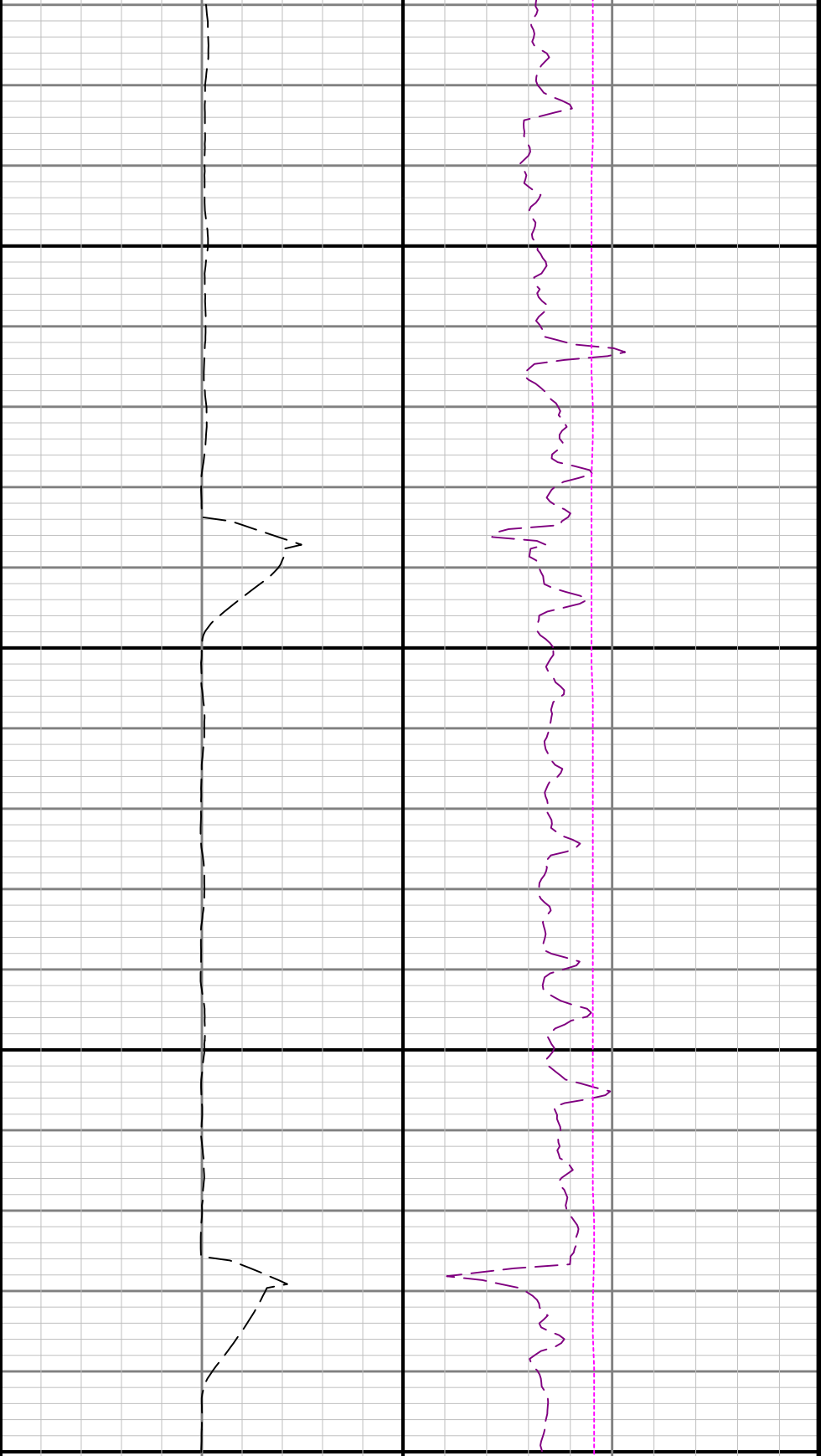




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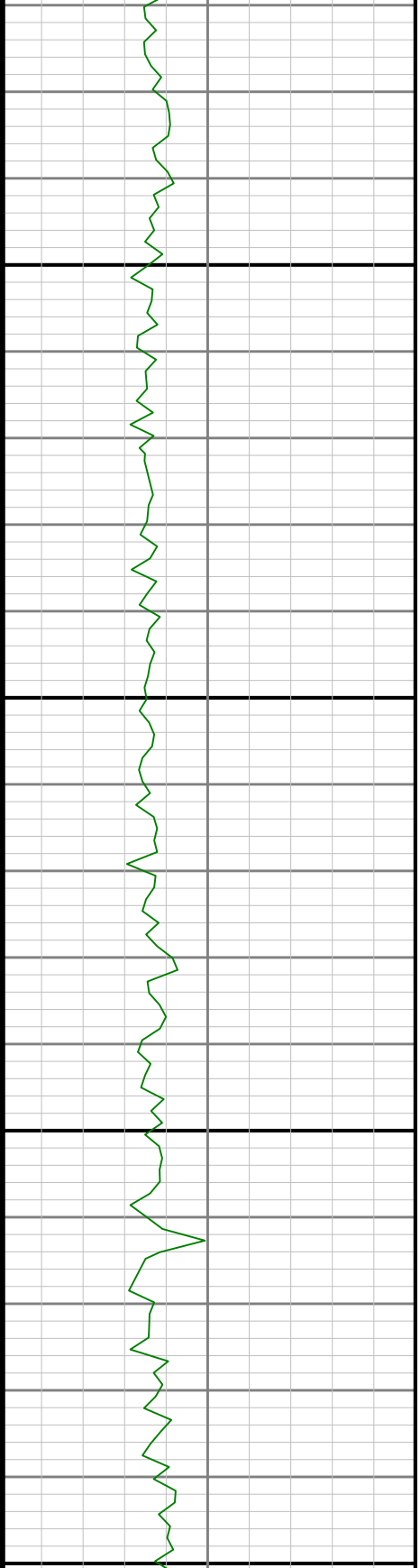
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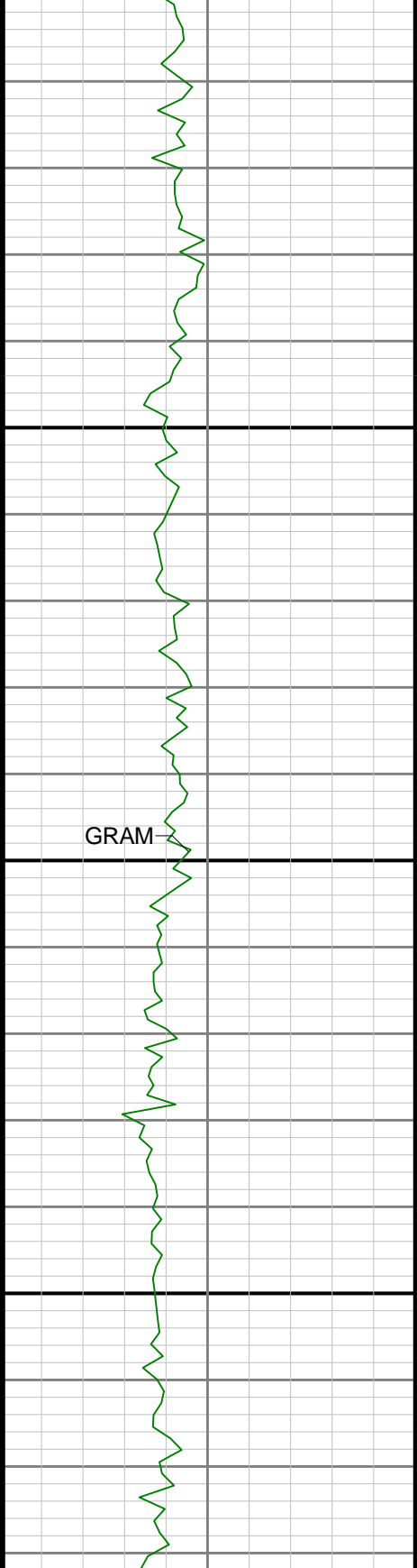




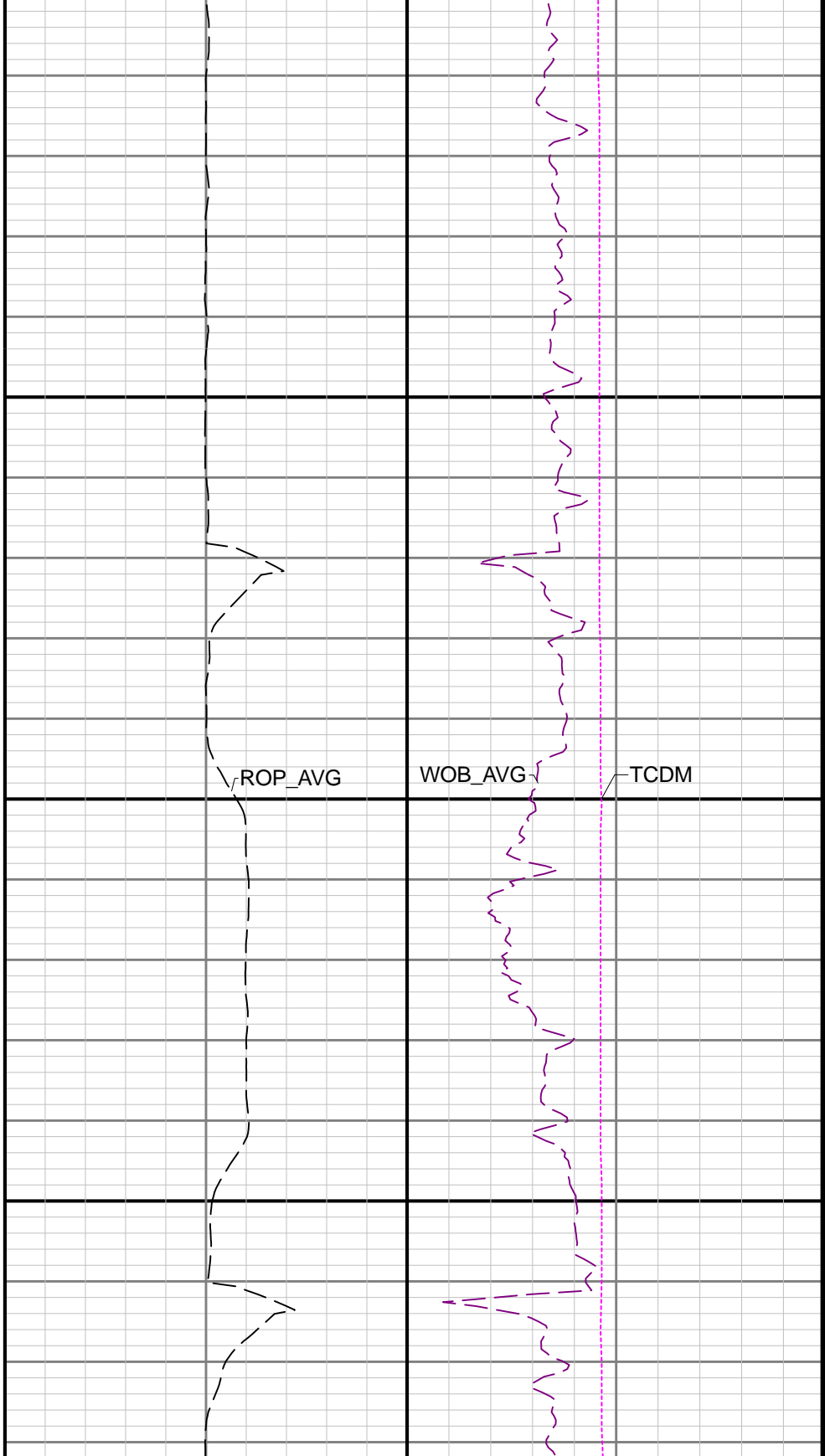
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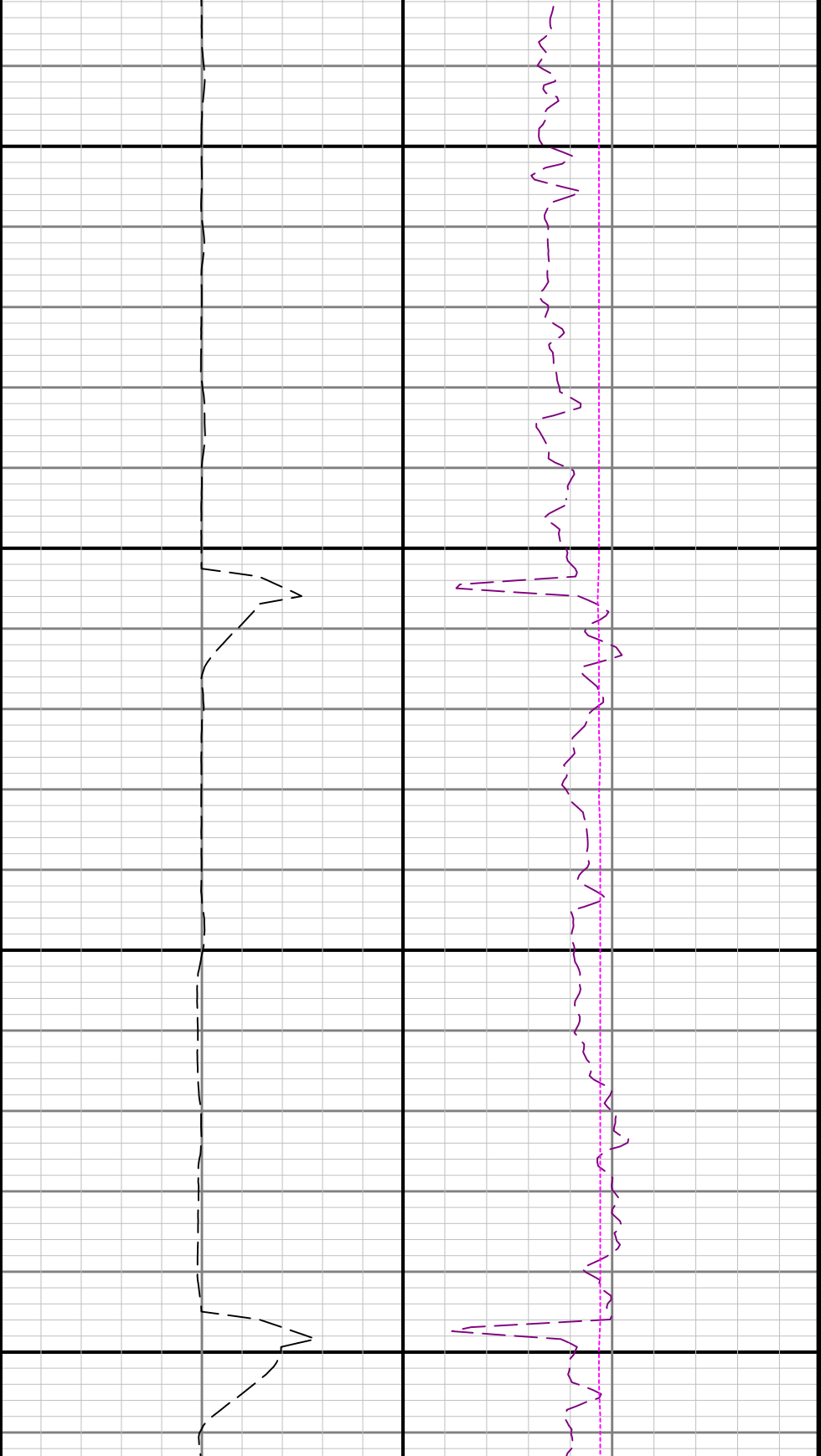
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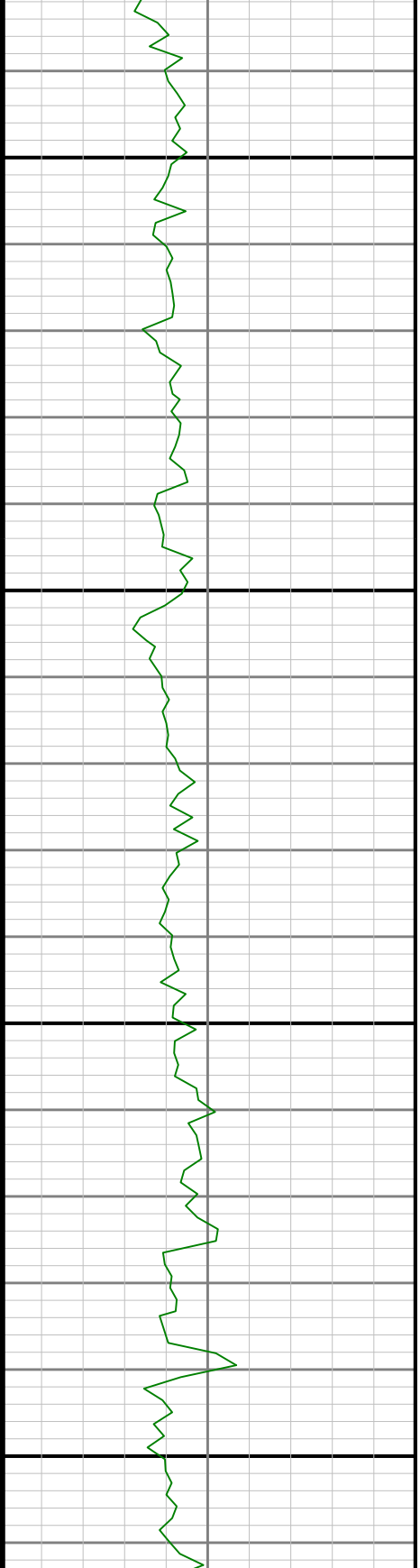
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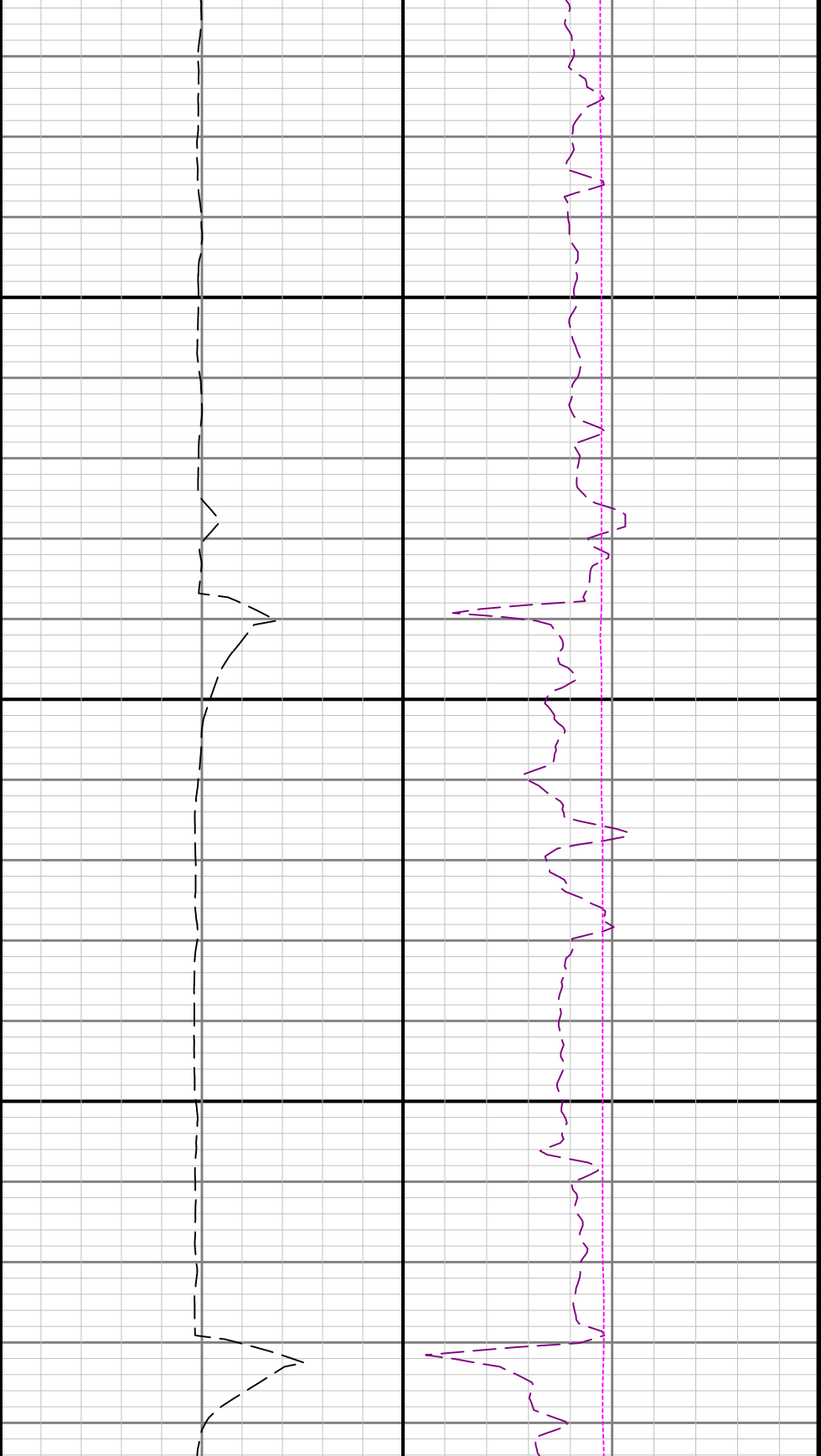




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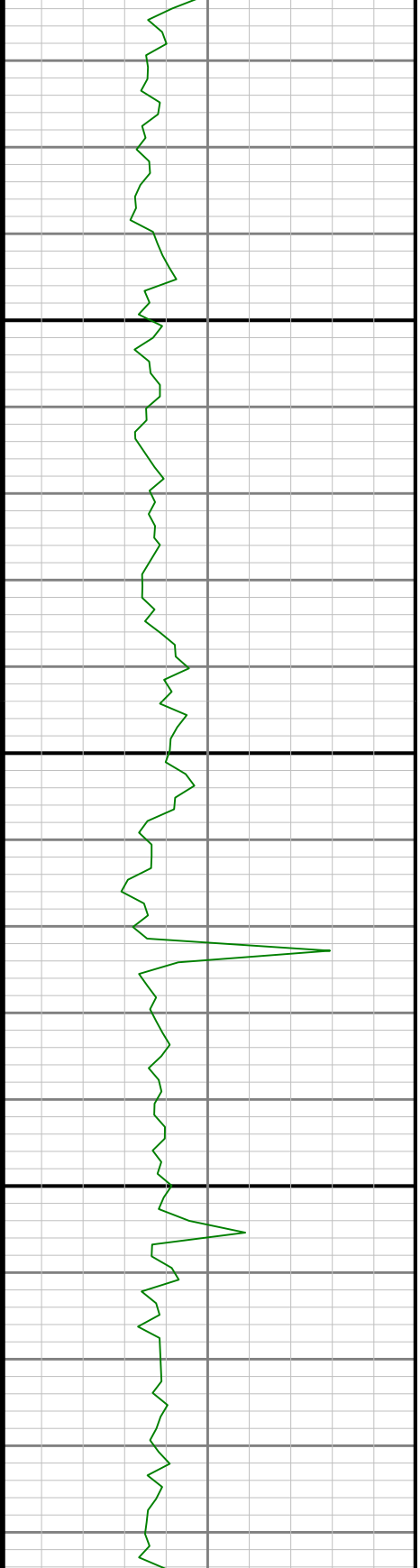
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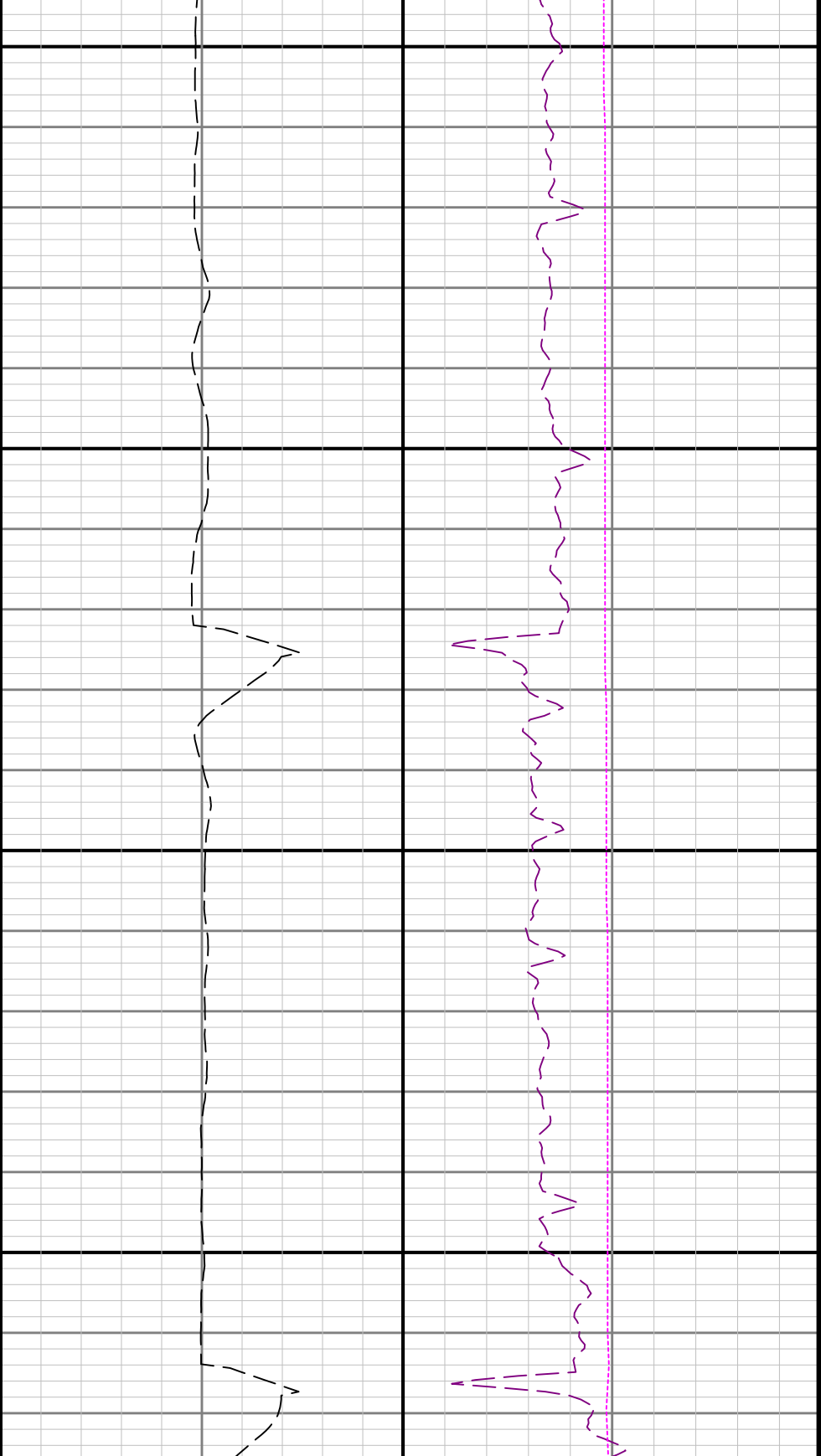




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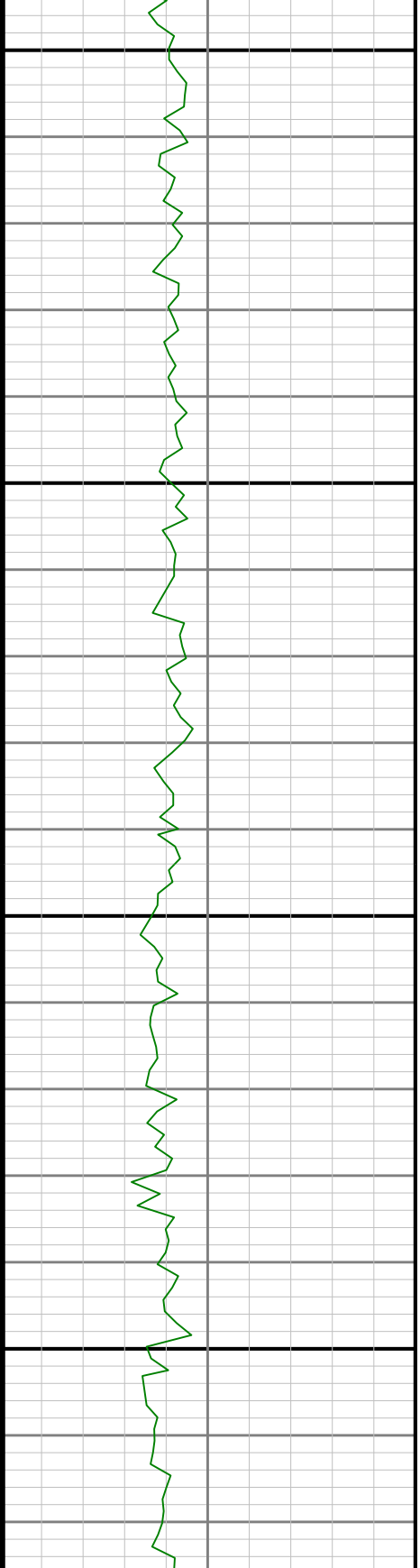
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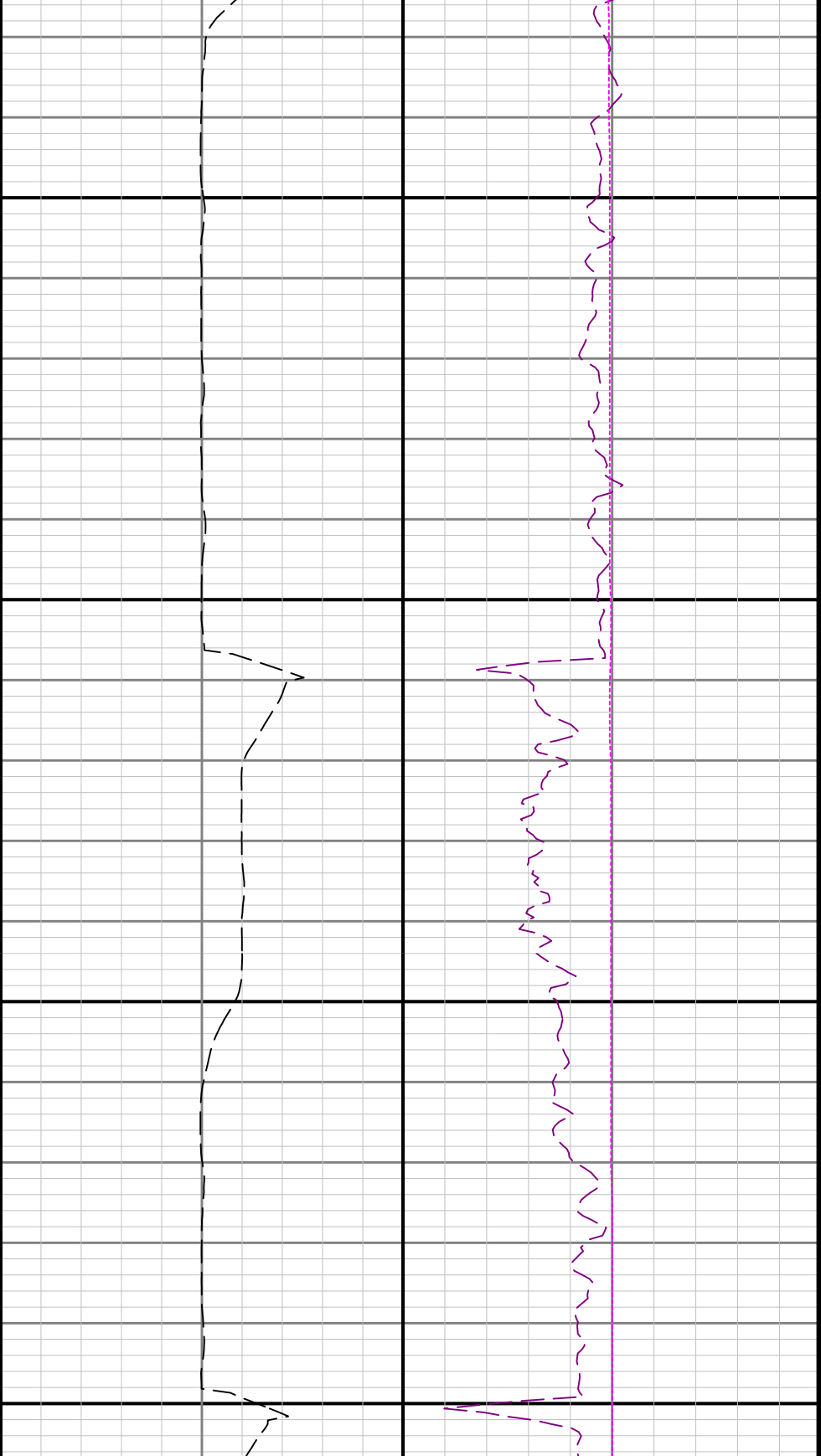




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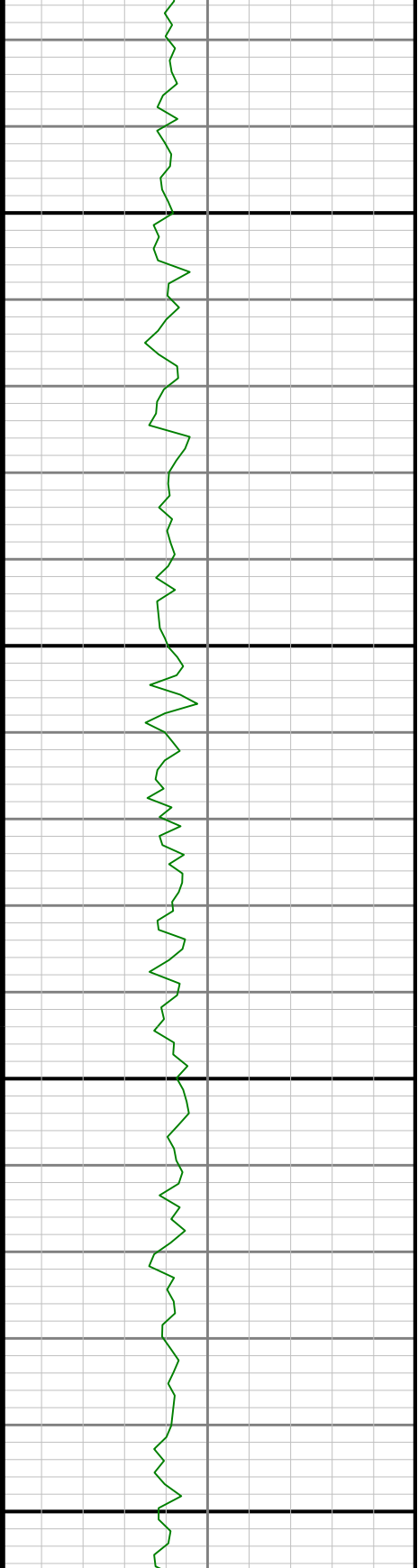
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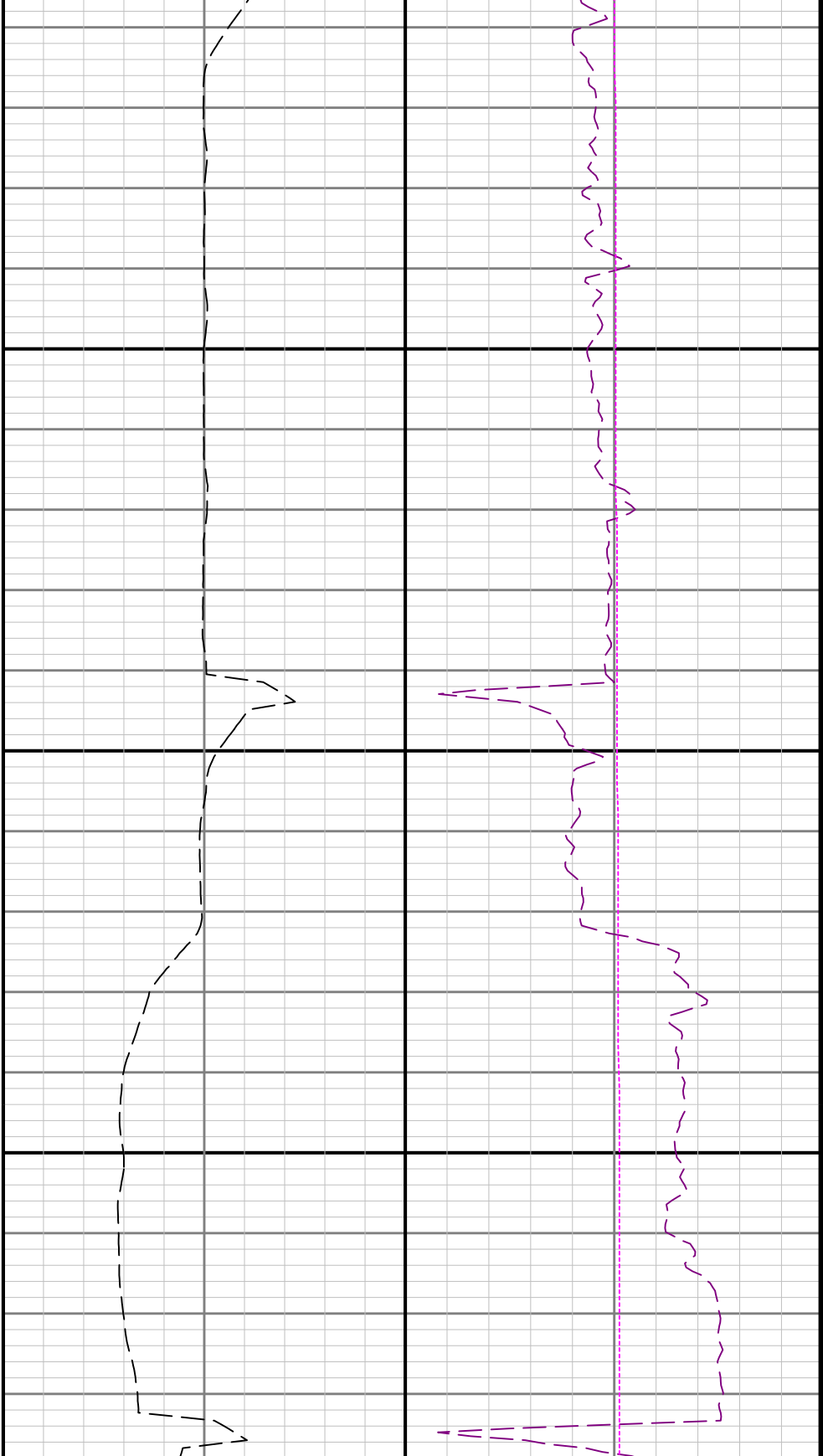




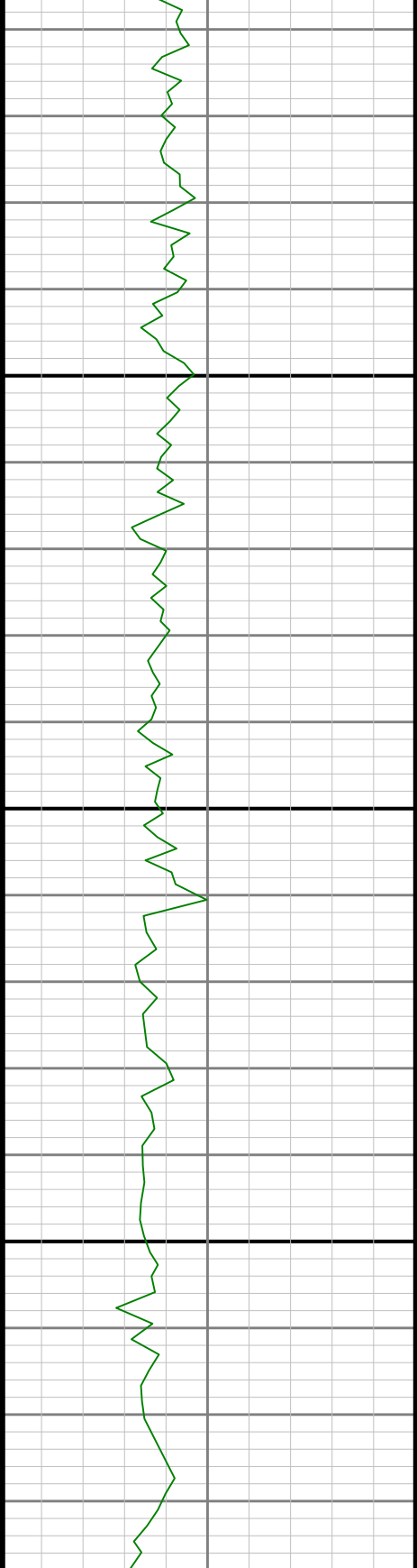
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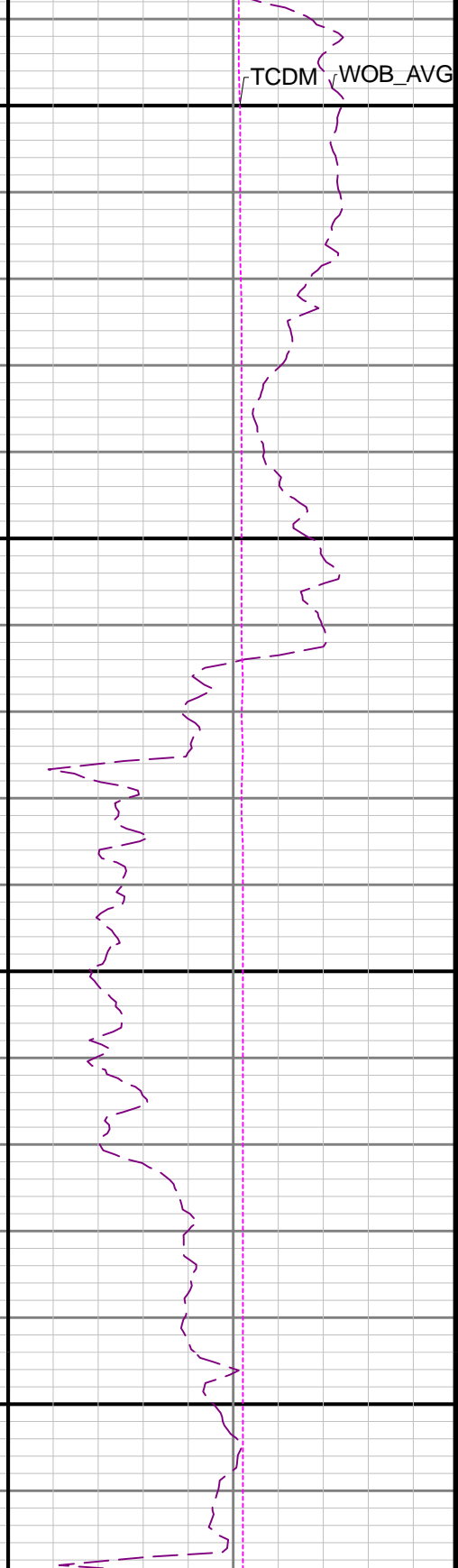
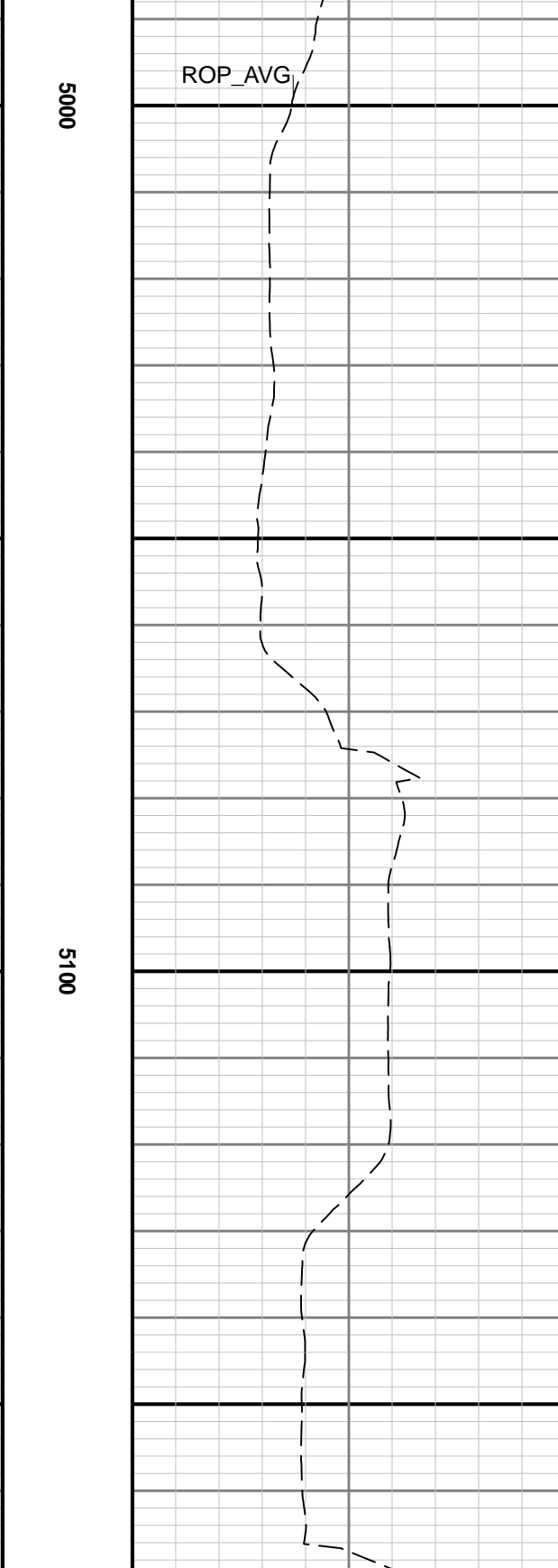
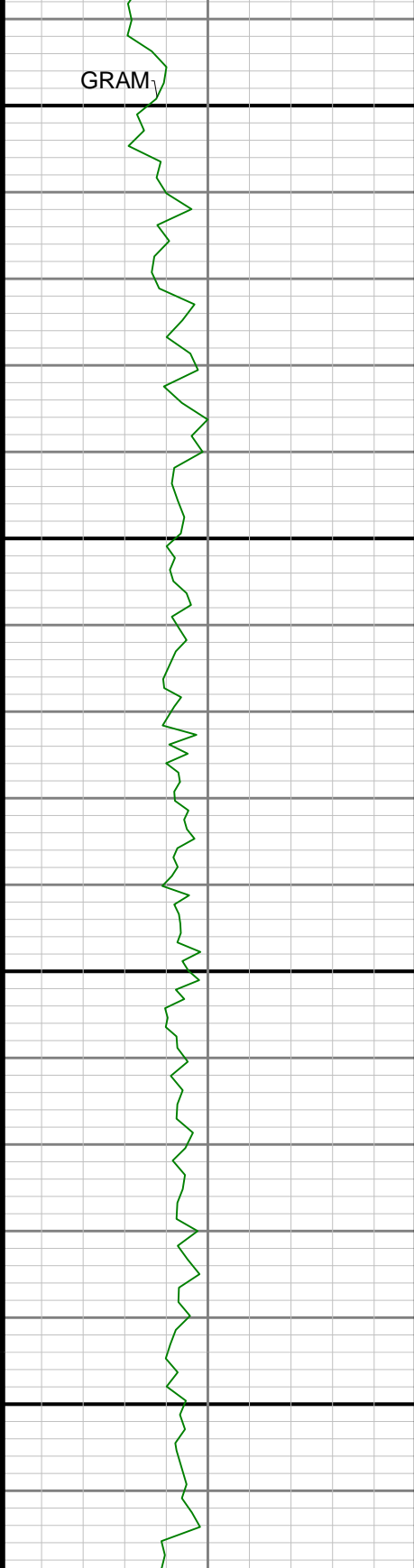
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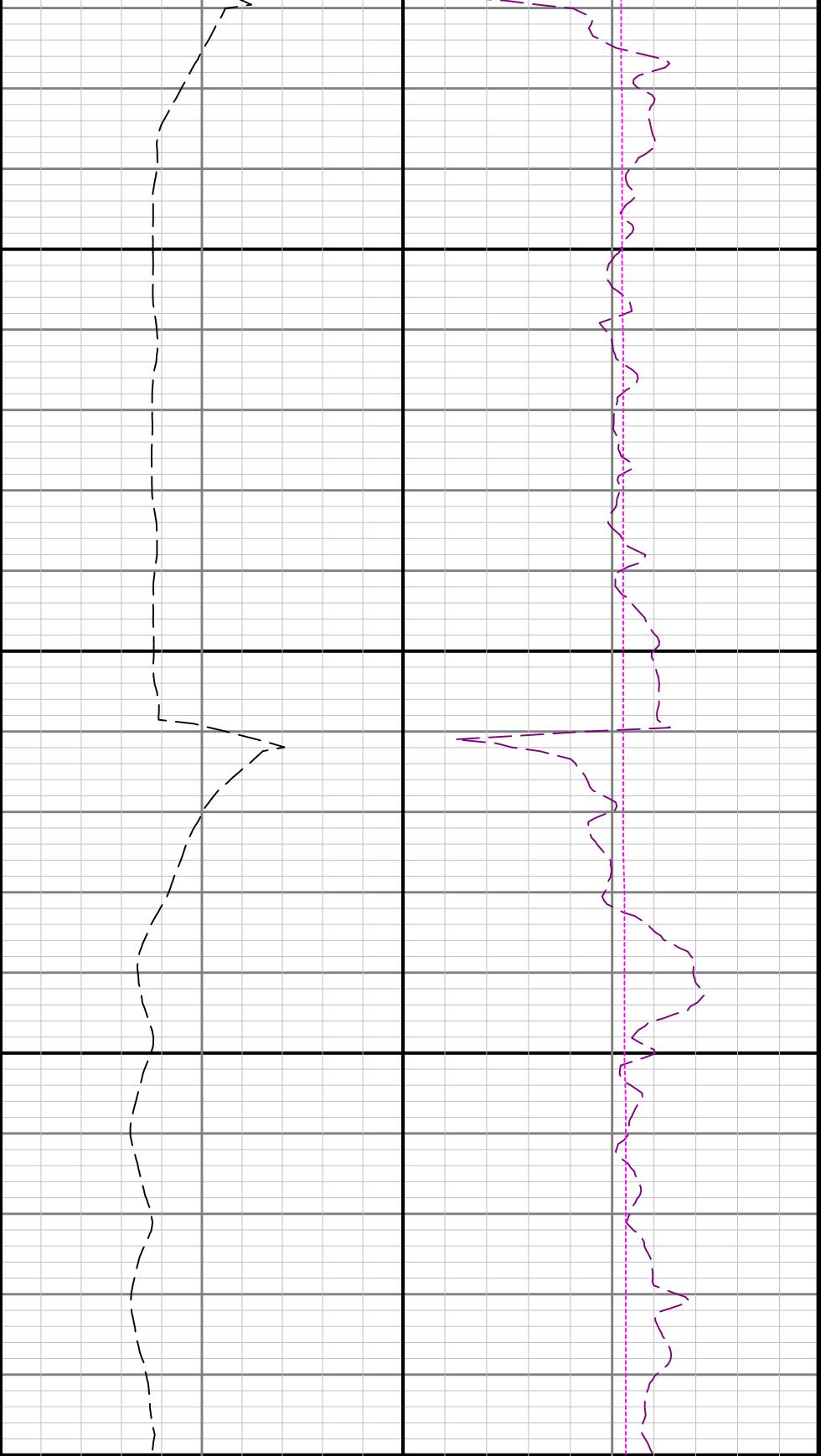




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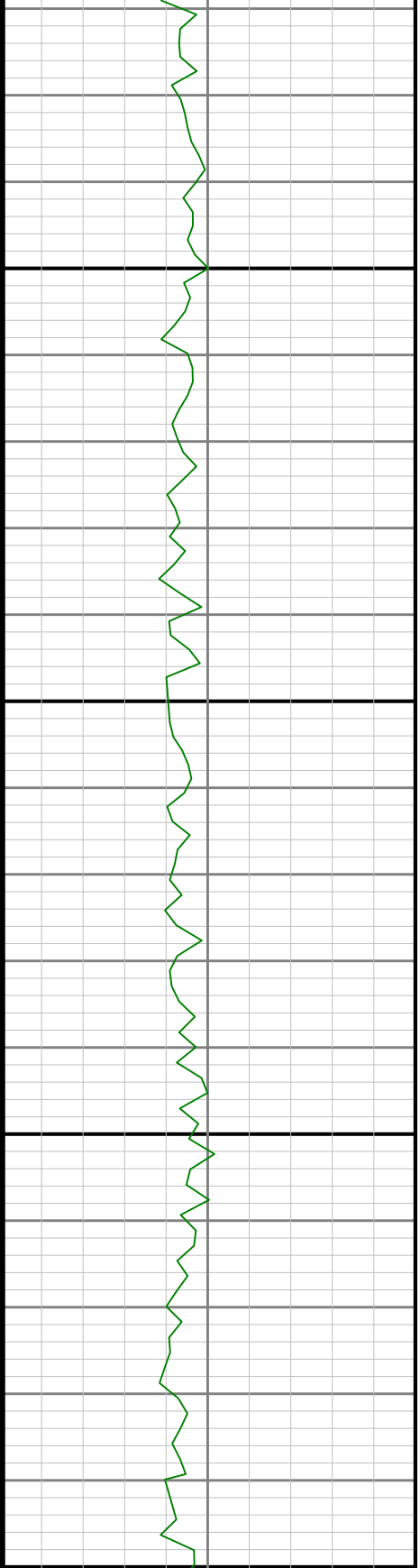


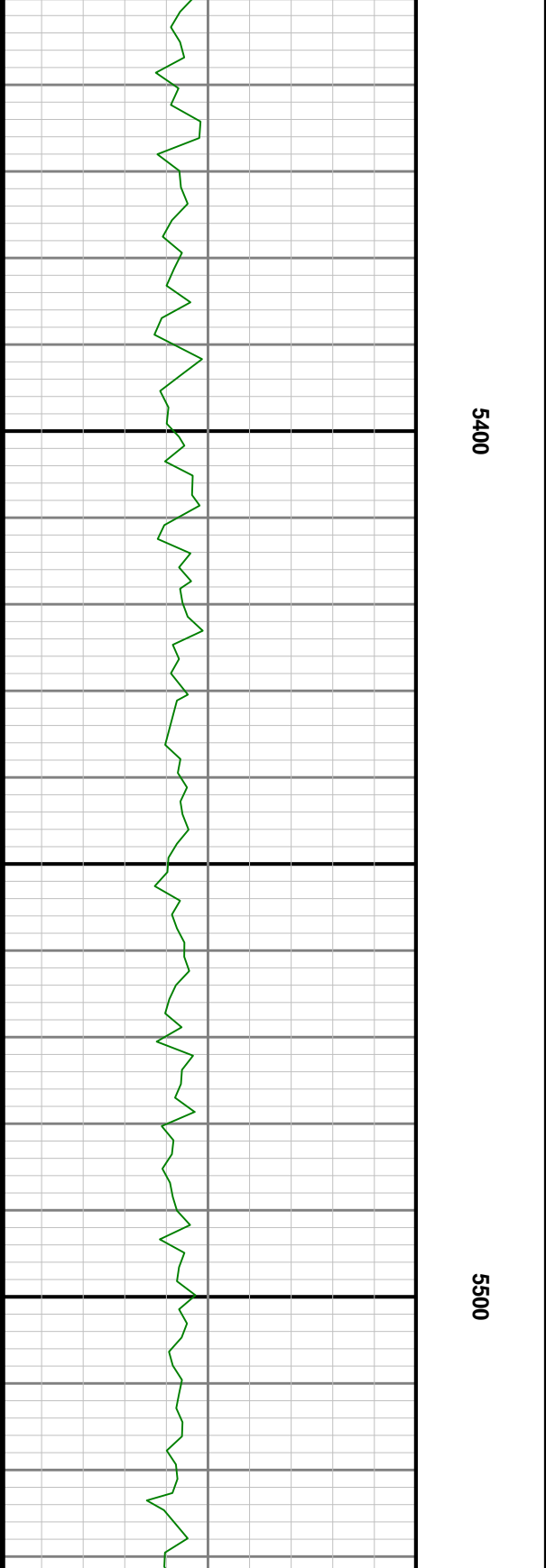


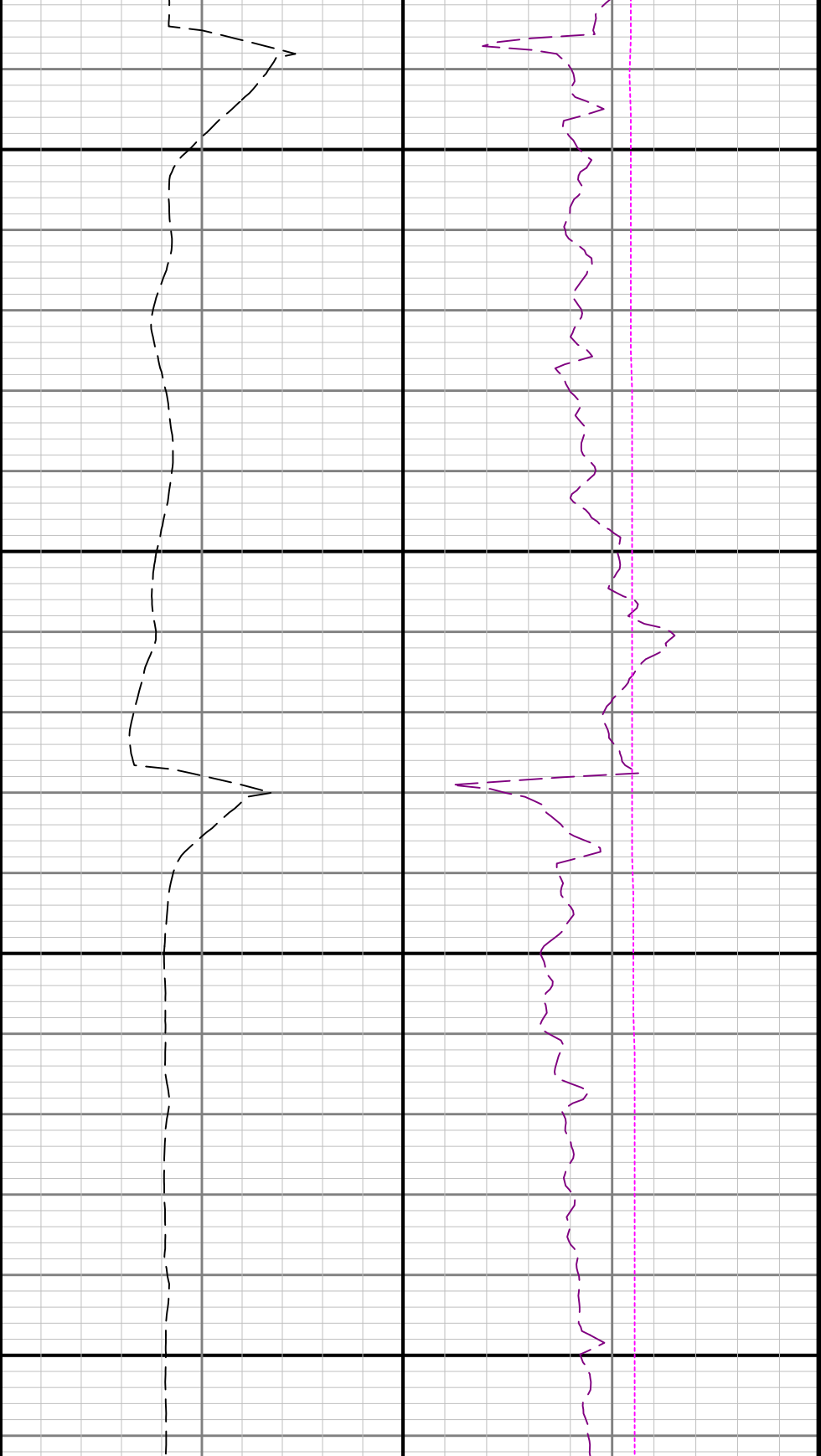


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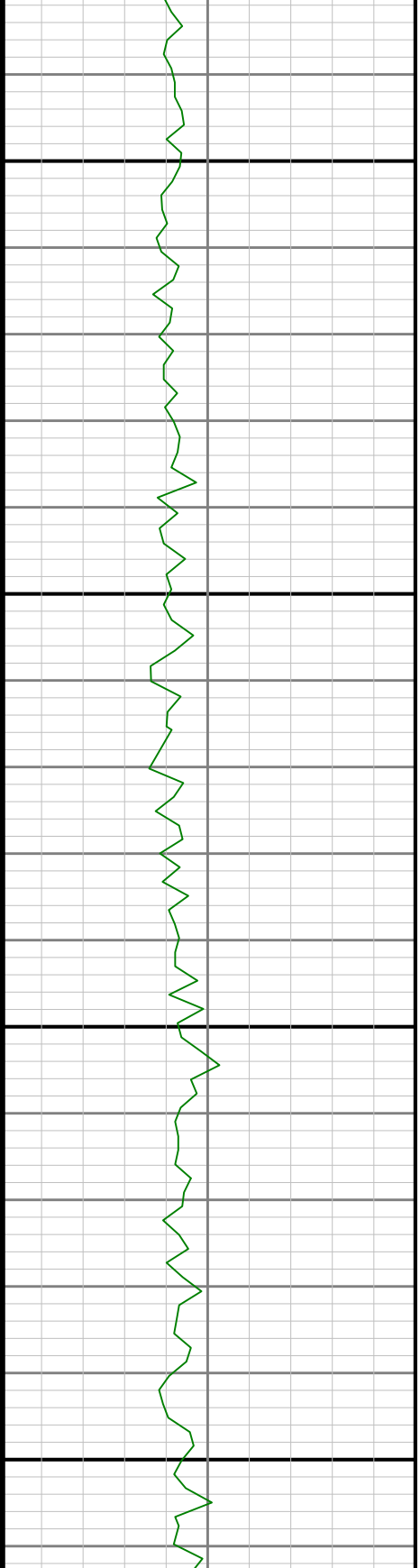


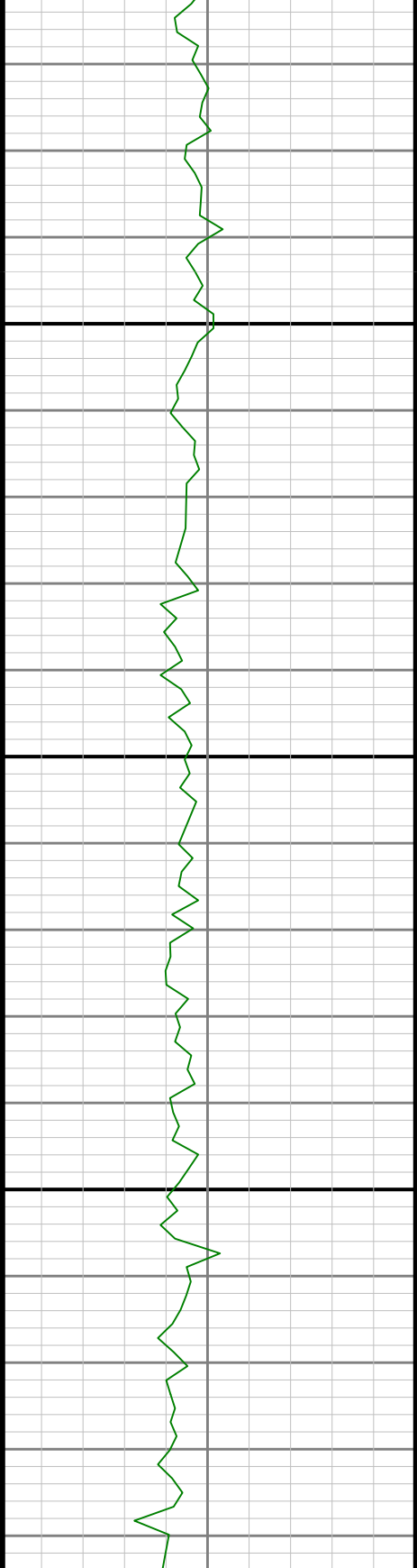




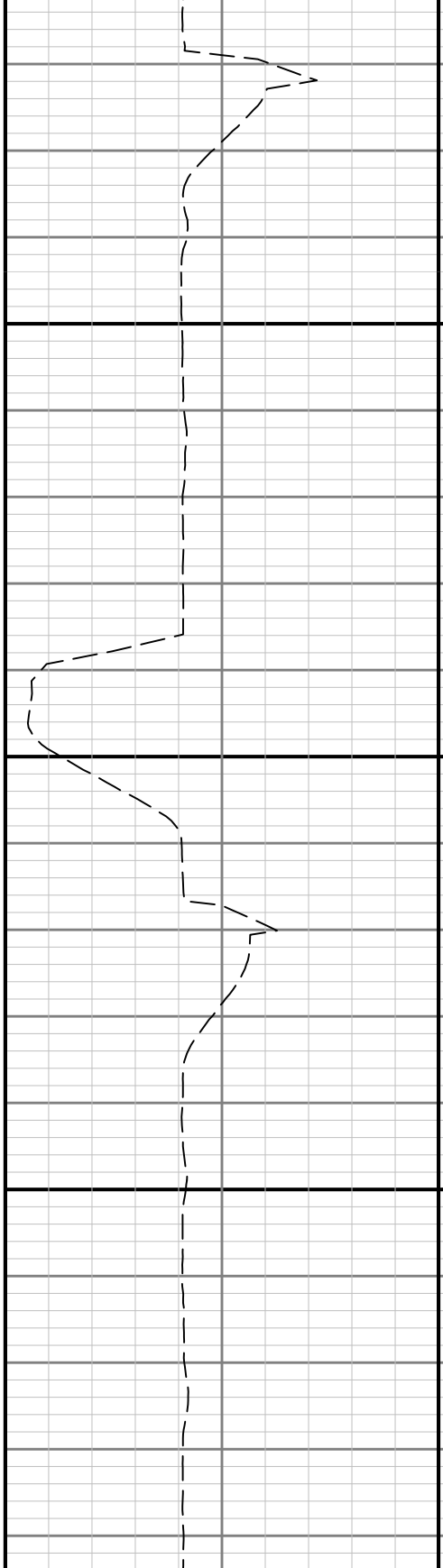
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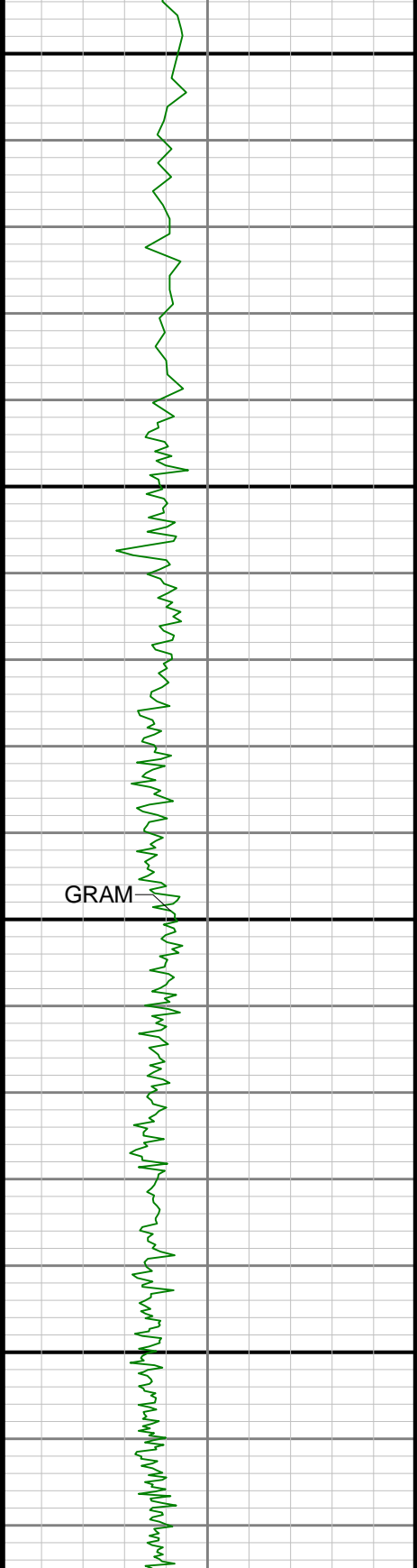
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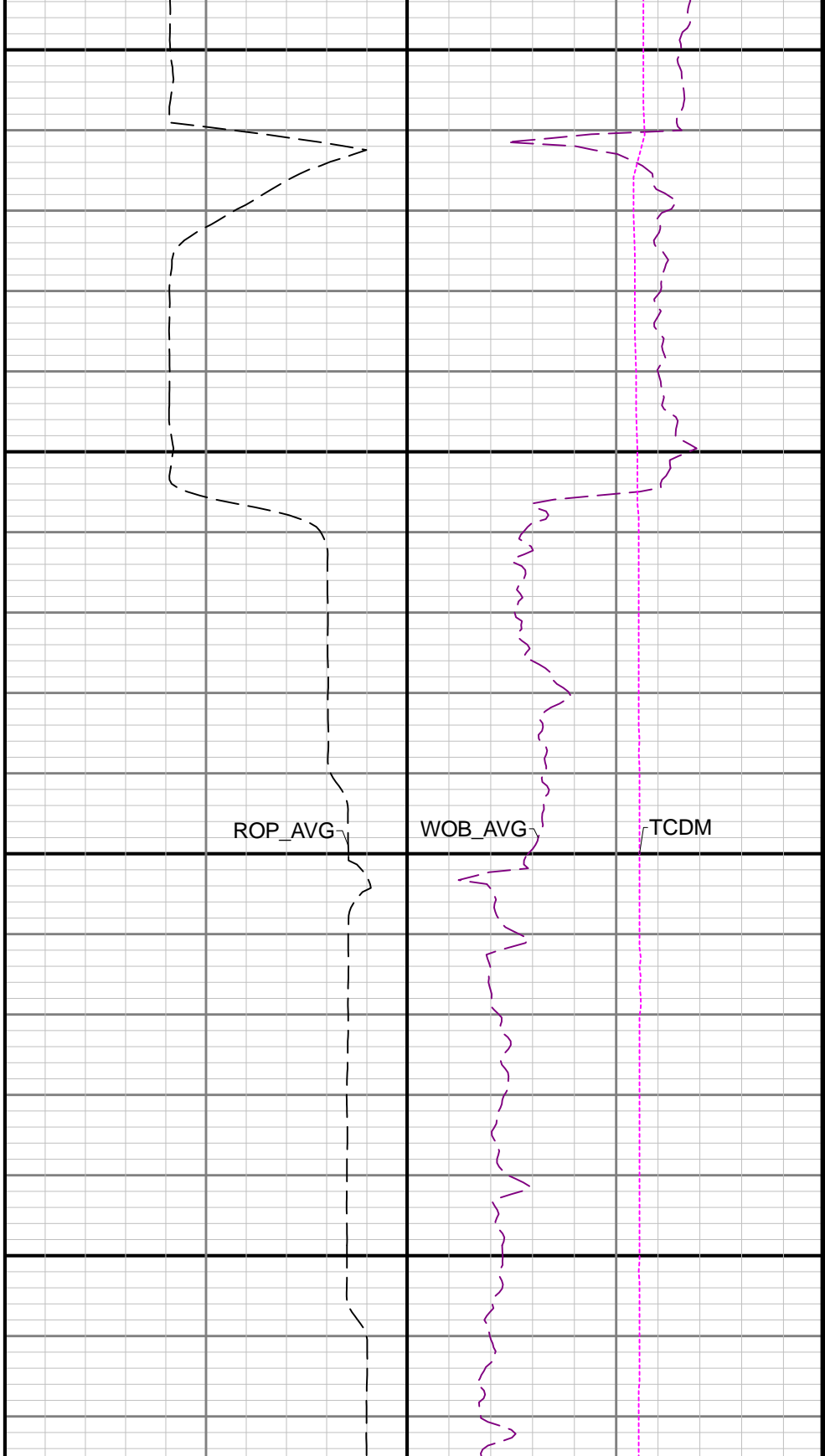
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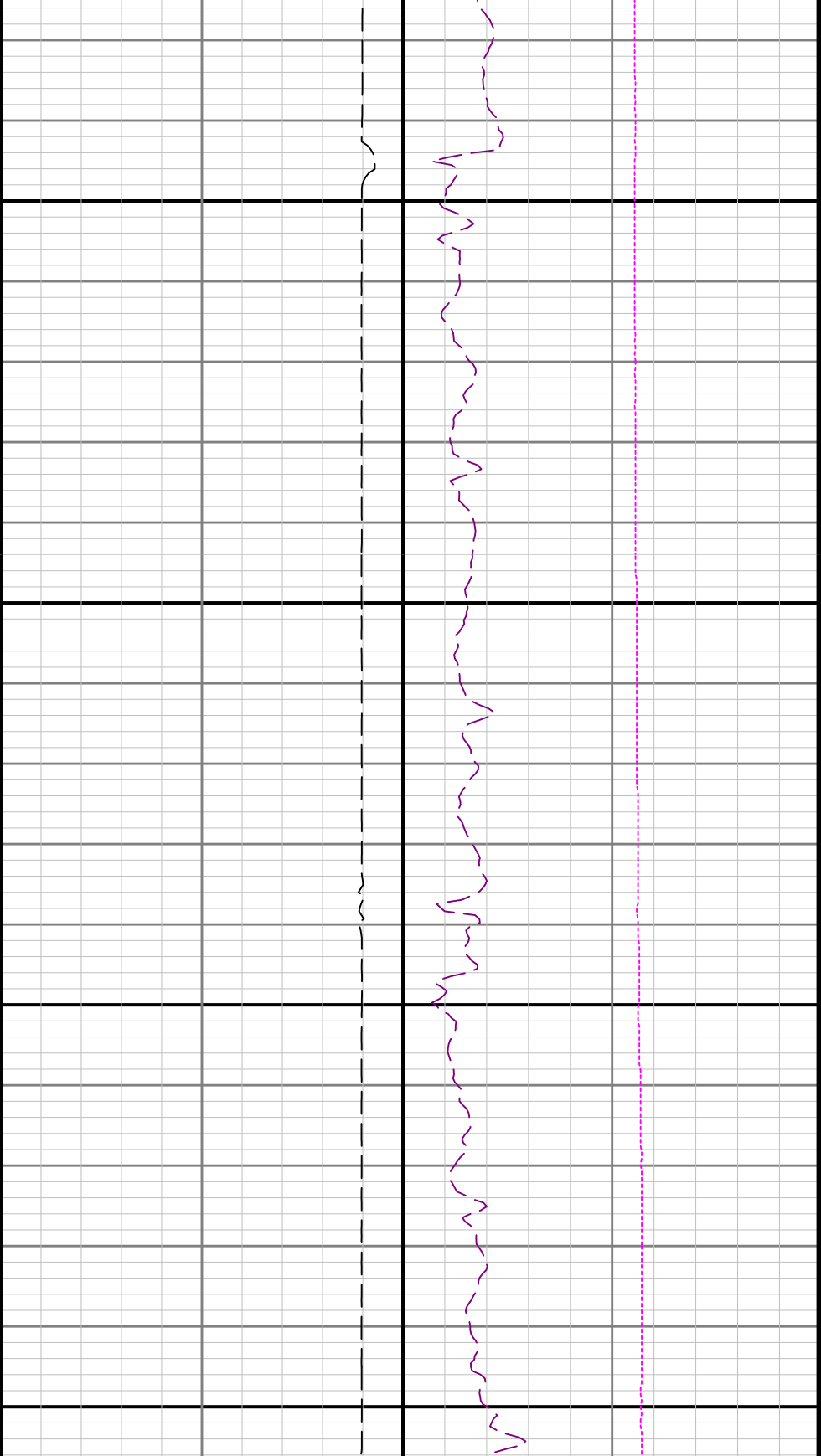
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ROP_AVG

WOB_AVG

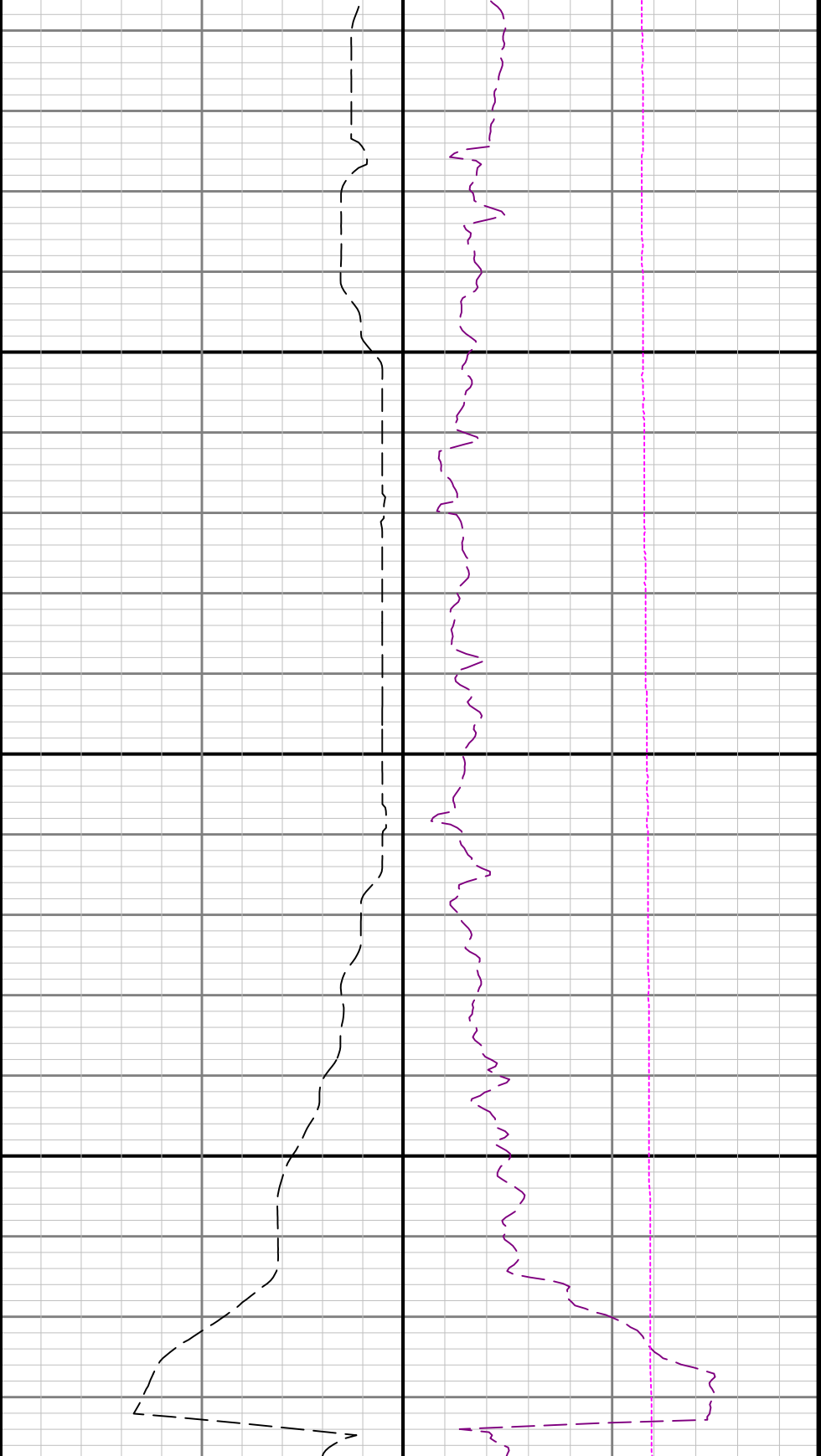
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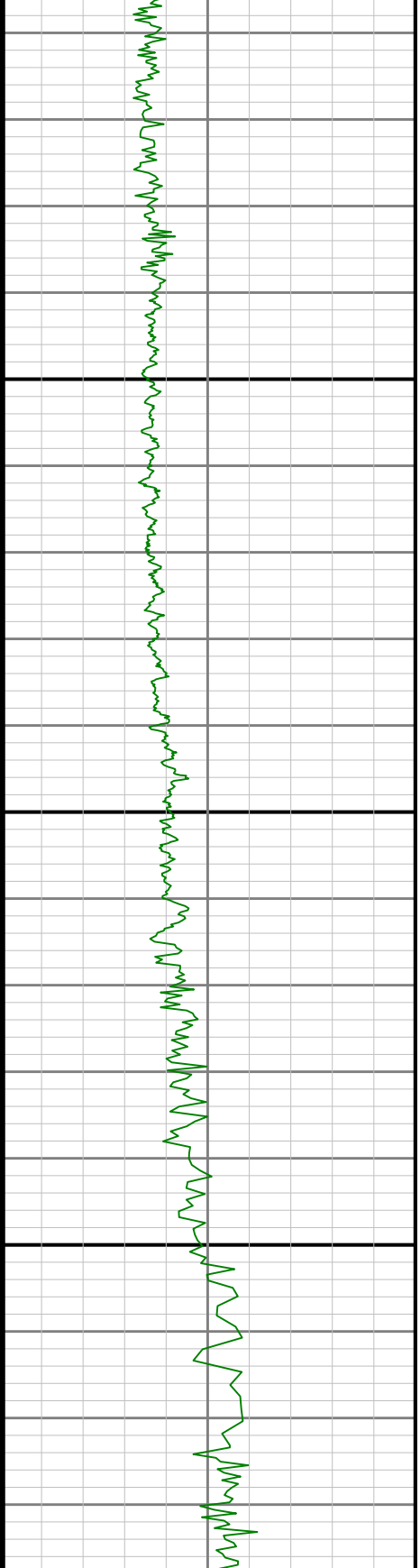
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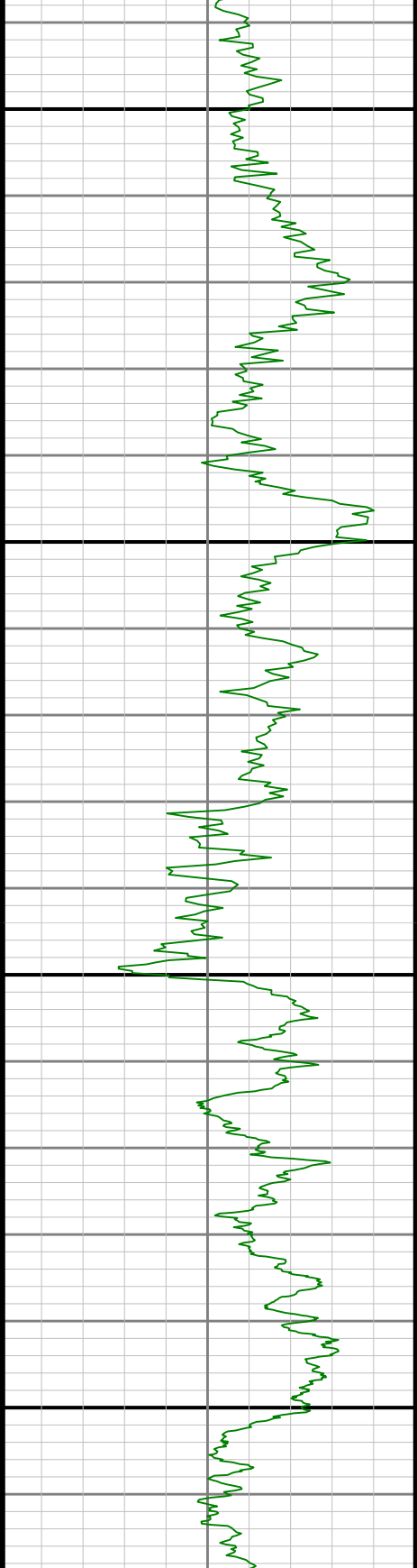




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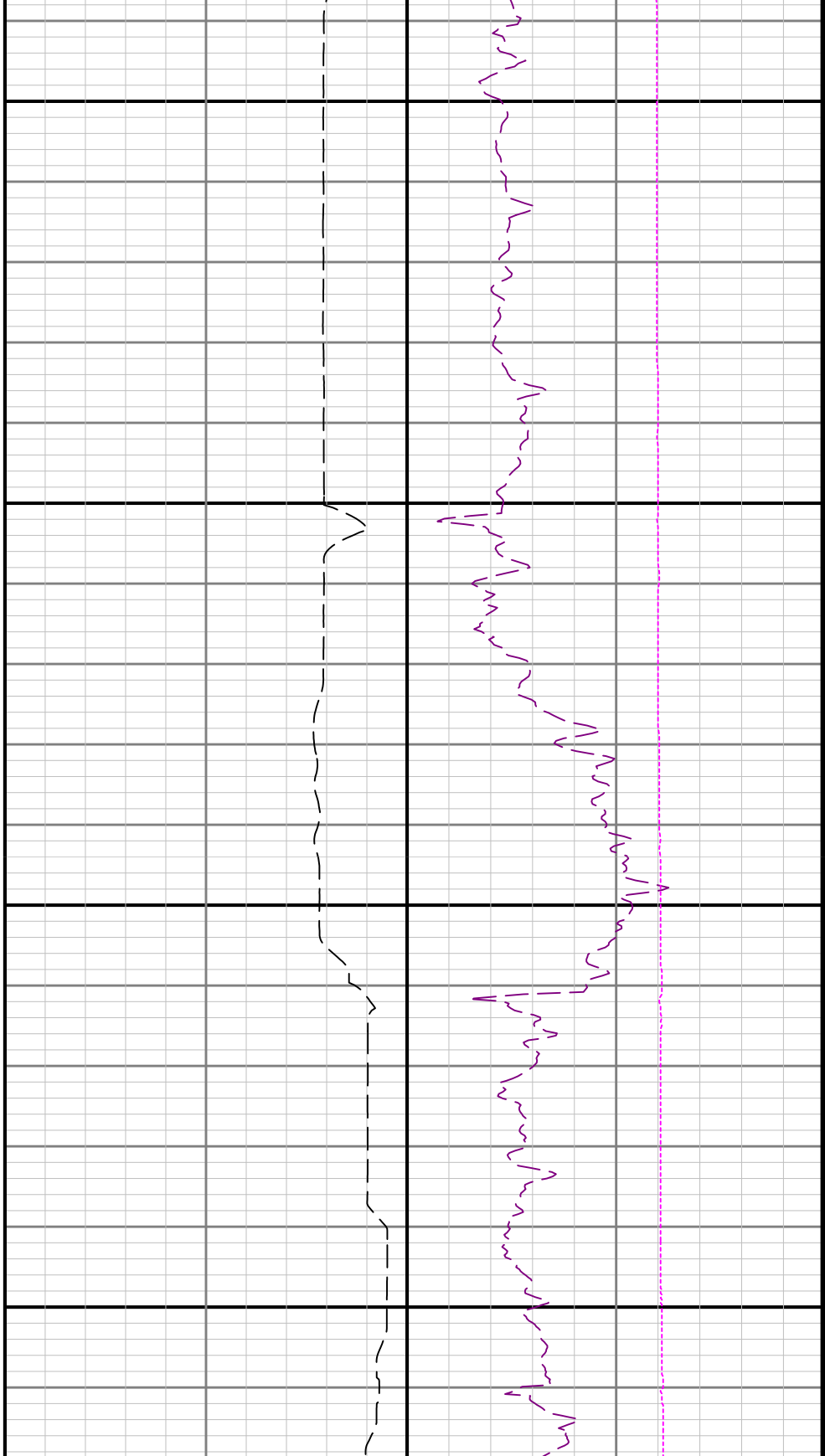
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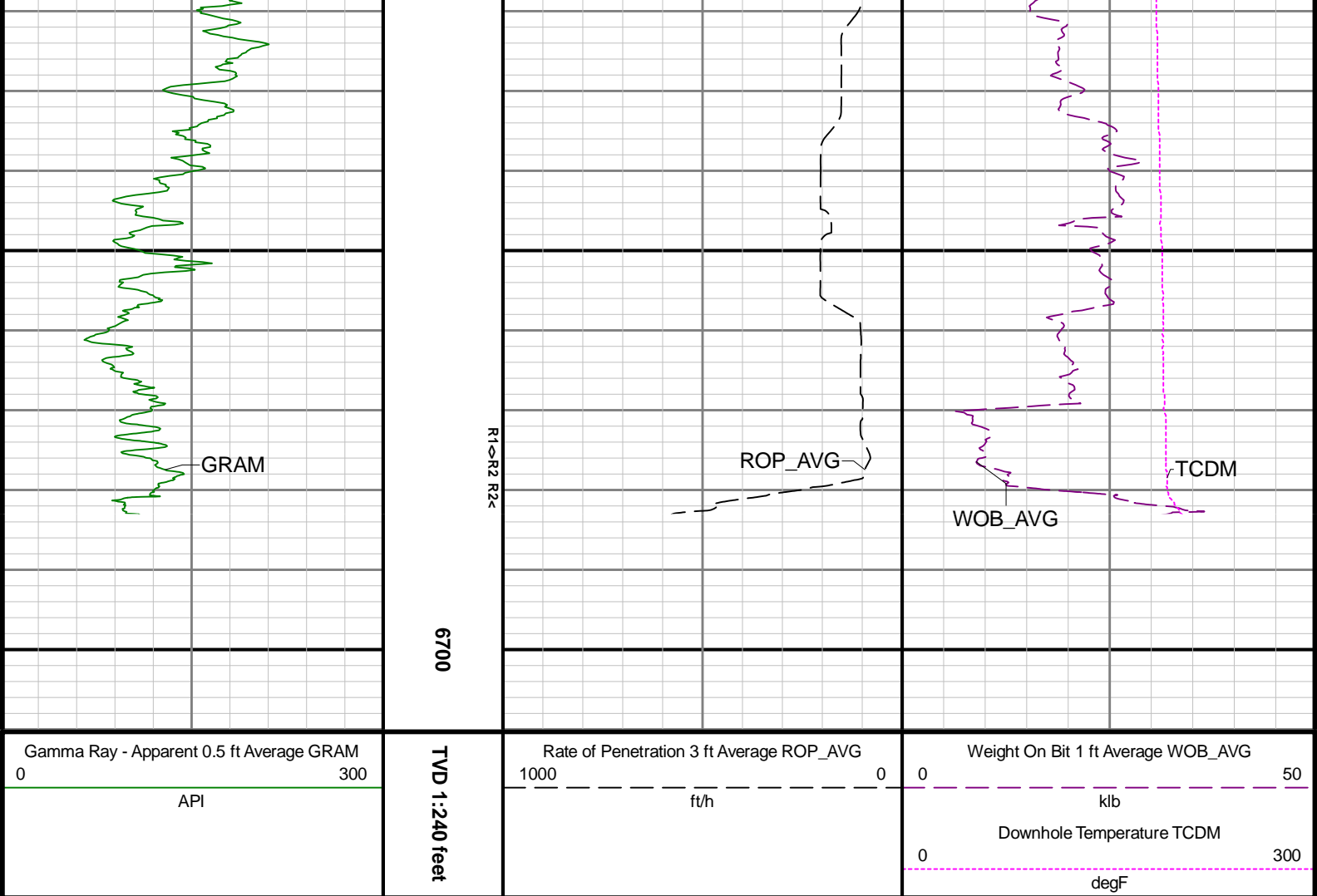




6000

6500





Directional Survey Summary

Latitude:	40° 26' 10.788" N	Longitude:	104° 31' 31.440" W
North Reference:	Grid	Drill Depth Zero:	Rig Floor
Vertical Datum is:	Mean Sea Level	Vertical Datum to DDZ: (ft)	4678.00
Vertical Section North: (ft)	0.00	Vertical Section East: (ft)	0.00
Vertical Section Azimuth: (deg)	3.81		
Grid Convergence: (deg)	-0.63	Magnetic Declination: (deg)	7.74
Total Correction: (deg)	7.11	TVD Calculation Method:	Minimum Curvature
Magnetic Correction:	N/A	Local Magnetic Field: (nT)	51975
Local Magnetic Dip Angle: (deg)	66.83	Local Gravity Field: (m/s2)	9.800

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	0.00	0.00	0.00	N/A	0.00	0.00	0.00	-4678.00	0.00	0.00	0.00	0.00	0.00
	82.00	0.14	150.81	N/A	-0.09	0.05	82.00	-4596.00	-0.08	82.00	0.17	0.17	183.91
	175.00	0.20	43.20	N/A	-0.07	0.22	175.00	-4503.00	-0.05	93.00	0.30	0.06	-115.71
	266.00	0.19	188.70	N/A	-0.10	0.30	266.00	-4412.00	-0.08	91.00	0.41	-0.01	159.89
	361.00	0.23	206.02	N/A	-0.43	0.19	361.00	-4317.00	-0.41	95.00	0.08	0.04	18.23
	455.00	0.24	109.78	N/A	-0.66	0.30	455.00	-4223.00	-0.64	94.00	0.37	0.01	-102.38
	550.00	0.28	158.26	N/A	-0.95	0.57	550.00	-4128.00	-0.91	95.00	0.23	0.04	51.03
	645.00	0.17	186.57	N/A	-1.30	0.64	645.00	-4033.00	-1.26	95.00	0.16	-0.12	29.80

		739.00	0.07	233.11	N/A	-1.48	0.58	739.00	-3939.00	-1.43	94.00	0.14	-0.11	49.51
		834.00	0.23	204.23	N/A	-1.69	0.45	834.00	-3844.00	-1.65	95.00	0.18	0.17	-30.40
		928.00	0.40	223.07	N/A	-2.10	0.15	927.99	-3750.01	-2.08	94.00	0.21	0.18	20.04
		1023.00	0.25	229.88	N/A	-2.47	-0.23	1022.99	-3655.01	-2.48	95.00	0.16	-0.16	7.17
		1118.00	0.12	223.18	N/A	-2.68	-0.46	1117.99	-3560.01	-2.70	95.00	0.14	-0.14	-7.05
		1213.00	0.33	252.23	N/A	-2.83	-0.79	1212.99	-3465.01	-2.88	95.00	0.24	0.22	30.58
		1307.00	0.11	335.92	N/A	-2.84	-1.08	1306.99	-3371.01	-2.90	94.00	0.36	-0.23	89.03
		1402.00	0.37	169.44	N/A	-3.05	-1.06	1401.99	-3276.01	-3.12	95.00	0.50	0.27	-175.24
		1497.00	0.17	139.36	N/A	-3.46	-0.92	1496.99	-3181.01	-3.52	95.00	0.25	-0.21	-31.66
		1592.00	0.51	141.17	N/A	-3.90	-0.56	1591.99	-3086.01	-3.93	95.00	0.36	0.36	1.91
		1686.00	0.88	165.26	N/A	-4.92	-0.11	1685.98	-2992.02	-4.92	94.00	0.49	0.39	25.63
		1781.00	1.39	182.20	N/A	-6.78	0.03	1780.96	-2897.04	-6.76	95.00	0.64	0.54	17.83
		1876.00	1.24	195.09	N/A	-8.92	-0.28	1875.94	-2802.06	-8.92	95.00	0.35	-0.16	13.57
Tie-In		1927.00	0.93	185.47	N/A	-9.87	-0.47	1926.93	-2751.07	-9.88	51.00	0.70	-0.61	-18.86
		1993.00	0.14	133.88	101.4	-10.46	-0.46	1992.93	-2685.07	-10.46	66.00	1.29	-1.20	-78.17
		2088.00	0.18	109.64	109.5	-10.59	-0.24	2087.92	-2590.08	-10.58	95.00	0.08	0.04	-25.52
		2182.00	2.28	121.83	112.2	-11.62	1.49	2181.90	-2496.10	-11.50	94.00	2.24	2.23	12.97
		2277.00	4.02	122.50	114.9	-14.41	5.91	2276.75	-2401.25	-13.99	95.00	1.83	1.83	0.71
		2371.00	5.71	123.06	117.6	-18.73	12.60	2370.41	-2307.59	-17.85	94.00	1.80	1.80	0.60
		2466.00	8.24	123.19	117.6	-25.04	22.26	2464.70	-2213.30	-23.50	95.00	2.66	2.66	0.14
		2561.00	10.16	123.18	120.3	-33.35	34.98	2558.47	-2119.53	-30.95	95.00	2.02	2.02	-0.01
		2655.00	11.57	121.91	123.0	-42.87	49.92	2650.78	-2027.22	-39.46	94.00	1.52	1.50	-1.35
		2750.00	11.99	122.56	123.0	-53.22	66.32	2743.78	-1934.22	-48.69	95.00	0.46	0.44	0.68
		2845.00	11.58	123.25	123.0	-63.76	82.61	2836.78	-1841.22	-58.12	95.00	0.46	-0.43	0.73
		2939.00	11.84	122.75	125.7	-74.15	98.61	2928.82	-1749.18	-67.43	94.00	0.30	0.28	-0.53
		3034.00	11.88	123.24	125.7	-84.78	114.99	3021.80	-1656.20	-76.95	95.00	0.11	0.04	0.52
		3128.00	11.66	125.18	128.4	-95.55	130.84	3113.82	-1564.18	-86.65	94.00	0.48	-0.23	2.06
		3223.00	11.68	123.23	131.1	-106.35	146.73	3206.86	-1471.14	-96.37	95.00	0.42	0.02	-2.05
		3318.00	11.79	123.32	131.1	-116.96	162.89	3299.87	-1378.13	-105.87	95.00	0.12	0.12	0.09
		3412.00	11.60	123.63	131.1	-127.46	178.78	3391.92	-1286.08	-115.30	94.00	0.21	-0.20	0.33
		3507.00	11.79	122.65	133.8	-137.99	194.91	3484.95	-1193.05	-124.73	95.00	0.29	0.20	-1.03
		3602.00	12.07	121.93	133.8	-148.48	211.51	3577.90	-1100.10	-134.10	95.00	0.33	0.29	-0.76
		3696.00	12.07	122.08	136.5	-158.90	228.18	3669.82	-1008.18	-143.38	94.00	0.03	-0.00	0.16
		3791.00	12.06	122.31	136.5	-169.48	244.98	3762.72	-915.28	-152.82	95.00	0.05	-0.01	0.24
		3980.00	11.76	123.18	139.2	-190.57	277.79	3947.65	-730.35	-171.69	189.00	0.18	-0.16	0.46
		4074.00	12.17	122.55	139.2	-201.14	294.16	4039.61	-638.39	-181.15	94.00	0.46	0.44	-0.67
		4169.00	12.06	122.83	141.9	-211.91	310.94	4132.49	-545.51	-190.78	95.00	0.13	-0.12	0.29
		4264.00	12.05	123.11	141.9	-222.71	327.58	4225.40	-452.60	-200.45	95.00	0.06	-0.01	0.29
		4358.00	12.35	122.19	141.9	-233.43	344.31	4317.27	-360.73	-210.03	94.00	0.38	0.32	-0.98
		4453.00	12.42	122.50	144.6	-244.33	361.52	4410.06	-267.94	-219.76	95.00	0.10	0.07	0.33
		4547.00	12.02	123.15	144.6	-255.11	378.24	4501.93	-176.07	-229.41	94.00	0.45	-0.43	0.69
		4642.00	12.12	122.75	147.3	-265.92	394.91	4594.83	-83.17	-239.09	95.00	0.14	0.11	-0.42
		4737.00	12.19	122.87	150.0	-276.75	411.72	4687.70	9.70	-248.78	95.00	0.08	0.07	0.13
		4831.00	12.14	120.62	150.0	-287.17	428.57	4779.59	101.59	-258.06	94.00	0.51	-0.05	-2.39
		4926.00	12.42	120.50	152.7	-297.45	445.96	4872.42	194.42	-267.16	95.00	0.30	0.29	-0.13
		5020.00	12.22	120.94	152.7	-307.69	463.21	4964.25	286.25	-276.23	94.00	0.24	-0.21	0.47
		5209.00	12.04	120.23	155.4	-327.90	497.40	5149.04	471.04	-294.13	189.00	0.12	-0.10	-0.38
		5303.00	12.18	121.39	158.1	-338.00	514.33	5240.94	562.94	-303.08	94.00	0.30	0.15	1.23
		5398.00	12.35	121.59	160.8	-348.54	531.54	5333.78	655.78	-312.45	95.00	0.18	0.18	0.21
		5492.00	12.01	131.62	160.8	-360.31	547.42	5425.67	747.67	-323.14	94.00	2.28	-0.36	10.67
		5587.00	12.22	123.79	163.5	-372.46	563.16	5518.56	840.56	-334.22	95.00	1.74	0.22	-8.24
		5681.00	12.01	122.14	163.5	-383.20	579.71	5610.47	932.47	-343.83	94.00	0.43	-0.22	-1.76
		5776.00	12.38	121.58	166.2	-393.79	596.76	5703.32	1025.32	-353.27	95.00	0.41	0.39	-0.59
		5871.00	12.18	121.49	168.9	-404.36	613.98	5796.15	1118.15	-362.67	95.00	0.21	-0.21	-0.09
		5965.00	12.19	121.75	163.5	-414.76	630.87	5888.03	1210.03	-371.92	94.00	0.06	0.01	0.28
		6060.00	12.56	119.08	166.2	-425.06	648.43	5980.82	1302.82	-381.03	95.00	0.72	0.39	-2.81
		6155.00	12.65	92.23	166.2	-430.49	667.87	6073.61	1395.61	-385.16	95.00	6.11	0.09	-28.26
		6249.00	17.28	57.68	168.9	-423.41	690.00	6164.58	1486.58	-376.62	94.00	10.48	4.93	-36.76
		6344.00	23.14	34.99	171.6	-400.52	712.69	6253.82	1575.82	-352.28	95.00	10.20	6.17	-23.88
		6438.00	30.87	27.09	174.3	-363.85	734.30	6337.54	1659.54	-314.25	94.00	9.05	8.22	-8.40
		6532.00	38.24	18.24	177.3	-311.85	755.42	6415.42	1755.42	-283.44	95.00	8.12	8.22	-1.00
		6626.00	45.61	9.39	180.3	-260.35	775.42	6493.42	1855.42	-252.63	95.00	7.19	8.22	-1.00
		6720.00	52.98	0.54	183.3	-208.85	795.42	6571.42	1955.42	-221.82	95.00	6.26	8.22	-1.00
		6814.00	60.35	-9.31	186.3	-157.35	815.42	6649.42	2055.42	-191.01	95.00	5.33	8.22	-1.00
		6908.00	67.72	-18.46	189.3	-105.85	835.42	6727.42	2155.42	-160.20	95.00	4.40	8.22	-1.00
		7002.00	75.09	-27.61	192.3	-54.35	855.42	6805.42	2255.42	-129.39	95.00	3.47	8.22	-1.00
		7096.00	82.46	-36.76	195.3	-2.85	875.42	6883.42	2355.42	-98.58	95.00	2.54	8.22	-1.00
		7190.00	89.83	-45.91	198.3	48.15	895.42	6961.42	2455.42	-67.77	95.00	1.61	8.22	-1.00
		7284.00	97.20	-55.06	201.3	101.65	915.42	7039.42	2555.42	-36.96	95.00	0.68	8.22	-1.00
		7378.00	104.57	-64.21	204.3	155.15	935.42	7117.42	2655.42	-6.15	95.00	-0.25	8.22	-1.00
		7472.00	111.94	-73.36	207.3	208.65	955.42	7195.42	2755.42	24.66	95.00	-1.32	8.22	-1.00
		7566.00	119.31	-82.51	210.3	262.15	975.42	7273.42	2855.42	53.85	95.00	-2.39	8.22	-1.00
		7660.00	126.68	-91.66	213.3	315.65	995.42	7351.42	2955.42	107.04	95.00	-3.46	8.22	-1.00
		7754.00	134.05	-100.81	216.3	369.15	1015.42	7429.42	3055.42	160.23	95.00	-4.53	8.22	-1.00
		7848.00	141.42	-109.96	219.3	422.65	1035.42	7507.42	3155.42	213.42	95.00	-5.60	8.22	-1.00
		7942.00	148.79	-119.11	222.3	476.15	1055.42	7585.42	3255.42	266.61	95.00	-6.67	8.22	-1.00
		8036.00	156.16	-128.26	225.3	529.65	1075.42	7663.42	3355.42	319.80	95.00	-7.74	8.22	-1.00
		8130.00	163.53	-137.41	228.3	583.15	1095.42	7741.42	3455.42	372.99	95.00	-8.81	8.22	-1.00
		8224.00	170.90	-146.56	231.3	636.65	1115.42	7819.42	3555.42	426.18	95.00	-9.88	8.22	-1.00
		8318.00	178.27	-155.71	234.3	690.15	1135.42	7897.42	3655.42	479.37	95.00	-10.95	8.22	-1.00
		8412.00	185.64	-164.86	237.3	743.65	1155.42	7975.42	3755.42	532.56	95.00	-12.02	8.22	-1.00
		8506.00	193.01	-174.01	240.3	797.15	1175.42	8053.42	3855.42	585.75	95.00	-13.09	8.22	-1.00
		8600.00	200.38	-183.16	243.3	850.65	1195.42	8131.42	3955.42	638.94	95.00	-14.16	8.22	-1.00
		8694.00	207.75	-192.31	246.3	904.15	1215.42	8209.42	4055.42	692.13	95.00	-15.23	8.22	-1.00
		8788.00	215.12	-201.46										

		6533.00	38.81	19.61	179.7	-314.00	755.43	6415.48	1737.48	-253.11	95.00	9.48	8.36	-7.87
		6627.00	45.23	13.39	179.7	-253.71	773.07	6485.31	1807.31	-201.78	94.00	8.13	6.83	-6.62
		6722.00	52.93	7.24	179.7	-183.16	785.68	6547.52	1869.52	-130.55	95.00	9.46	8.11	-6.47
		6817.00	60.70	2.30	182.5	-104.02	792.13	6599.50	1921.50	-51.15	95.00	9.26	8.18	-5.20
		6911.00	69.98	358.12	185.2	-18.71	792.33	6638.69	1960.69	33.98	94.00	10.66	9.87	-4.45
		7006.00	77.62	355.90	187.9	72.32	787.54	6665.18	1987.18	124.49	95.00	8.35	8.04	-2.34
		7101.00	86.52	356.17	190.6	166.09	781.05	6678.28	2000.28	217.62	95.00	9.37	9.37	0.28
		7195.00	90.03	355.68	193.3	259.80	774.37	6681.10	2003.10	310.68	94.00	3.77	3.73	-0.52
		7290.00	89.17	0.04	198.7	354.71	770.82	6681.77	2003.77	405.14	95.00	4.68	-0.91	4.59
		7385.00	89.32	357.95	204.1	449.68	769.16	6683.02	2005.02	499.79	95.00	2.21	0.16	-2.20
		7480.00	90.74	0.10	204.1	544.66	767.54	6682.97	2004.97	594.45	95.00	2.71	1.49	2.26
		7574.00	89.91	359.76	206.8	638.65	767.43	6682.44	2004.44	688.24	94.00	0.95	-0.88	-0.36
		7669.00	90.06	0.32	209.5	733.65	767.49	6682.46	2004.46	783.03	95.00	0.61	0.16	0.59
		7764.00	90.43	359.07	209.5	828.65	766.99	6682.06	2004.06	877.78	95.00	1.37	0.39	-1.32
		7858.00	90.65	359.63	212.2	922.64	765.92	6681.17	2003.17	971.49	94.00	0.64	0.23	0.60
		7953.00	90.31	359.56	212.2	1017.63	765.25	6680.37	2002.37	1066.23	95.00	0.37	-0.36	-0.07
		8048.00	90.03	359.66	214.9	1112.63	764.60	6680.09	2002.09	1160.98	95.00	0.31	-0.29	0.11
		8142.00	90.28	359.84	214.9	1206.63	764.19	6679.84	2001.84	1254.74	94.00	0.33	0.27	0.19
		8237.00	90.28	359.10	217.6	1301.62	763.31	6679.37	2001.37	1349.47	95.00	0.78	0.00	-0.78
		8331.00	90.25	359.01	217.6	1395.61	761.76	6678.94	2000.94	1443.14	94.00	0.10	-0.03	-0.10
		8426.00	90.34	359.56	217.6	1490.60	760.58	6678.45	2000.45	1537.84	95.00	0.59	0.09	0.58
		8521.00	90.18	359.72	220.3	1585.60	759.98	6678.02	2000.02	1632.59	95.00	0.24	-0.17	0.17
		8616.00	90.34	359.61	223.0	1680.59	759.42	6677.59	1999.59	1727.34	95.00	0.20	0.17	-0.12
		8710.00	90.34	359.18	223.0	1774.59	758.43	6677.03	1999.03	1821.06	94.00	0.46	-0.00	-0.46
		8805.00	89.88	359.52	223.0	1869.58	757.35	6676.85	1998.85	1915.77	95.00	0.60	-0.48	0.36
		8900.00	90.59	357.78	225.7	1964.55	755.12	6676.46	1998.46	2010.38	95.00	1.98	0.75	-1.83
		8995.00	90.15	359.65	225.7	2059.52	752.99	6675.84	1997.84	2105.00	95.00	2.02	-0.46	1.97
		9089.00	90.25	359.52	228.4	2153.51	752.30	6675.52	1997.52	2198.74	94.00	0.17	0.11	-0.14
		9184.00	89.69	359.68	228.4	2248.51	751.64	6675.57	1997.57	2293.49	95.00	0.61	-0.59	0.17
		9278.00	90.06	359.31	231.1	2342.51	750.81	6675.77	1997.77	2387.22	94.00	0.56	0.39	-0.39
		9373.00	90.43	358.92	220.3	2437.50	749.35	6675.36	1997.36	2481.90	95.00	0.57	0.39	-0.41
		9467.00	90.06	359.64	217.6	2531.49	748.16	6674.96	1996.96	2575.61	94.00	0.86	-0.39	0.77
		9562.00	89.82	359.49	217.6	2626.48	747.44	6675.06	1997.06	2670.34	95.00	0.30	-0.25	-0.16
		9657.00	90.77	359.48	220.3	2721.48	746.59	6674.57	1996.57	2765.07	95.00	1.00	1.00	-0.01
		9751.00	90.18	359.47	223.0	2815.47	745.73	6673.79	1995.79	2858.80	94.00	0.63	-0.63	-0.01
		9846.00	90.25	359.20	225.7	2910.46	744.63	6673.44	1995.44	2953.51	95.00	0.29	0.07	-0.28
		9940.00	89.63	359.74	225.7	3004.46	743.76	6673.54	1995.54	3047.24	94.00	0.87	-0.66	0.57
		10035.00	88.71	358.78	225.7	3099.44	742.53	6674.91	1996.91	3141.93	95.00	1.40	-0.97	-1.01
		10130.00	90.00	359.22	225.7	3194.41	740.87	6675.98	1997.98	3236.58	95.00	1.43	1.36	0.46
		10224.00	90.00	359.74	228.4	3288.41	740.02	6675.98	1997.98	3330.32	94.00	0.55	0.00	0.55
		10319.00	88.95	359.71	231.1	3383.40	739.56	6676.85	1998.85	3425.07	95.00	1.11	-1.11	-0.03
		10413.00	89.41	359.36	231.1	3477.39	738.80	6678.20	2000.20	3518.80	94.00	0.61	0.49	-0.37
		10508.00	90.06	358.76	233.8	3572.38	737.24	6678.64	2000.64	3613.47	95.00	0.93	0.68	-0.63
		10603.00	90.43	359.44	236.5	3667.36	735.75	6678.23	2000.23	3708.15	95.00	0.81	0.39	0.72
		10697.00	90.55	359.96	236.5	3761.36	735.26	6677.43	1999.43	3801.90	94.00	0.57	0.13	0.55
		10791.00	90.83	358.82	239.2	3855.34	734.26	6676.29	1998.29	3895.61	94.00	1.25	0.30	-1.21
		10886.00	90.34	356.43	239.2	3950.25	730.32	6675.32	1997.32	3990.05	95.00	2.57	-0.52	-2.52
		10981.00	87.66	357.45	241.9	4045.09	725.25	6676.98	1998.98	4084.34	95.00	3.02	-2.82	1.07
		11075.00	89.08	0.73	239.2	4139.03	723.76	6679.66	2001.66	4177.97	94.00	3.80	1.51	3.49
		11170.00	90.52	1.34	241.9	4234.01	725.47	6679.99	2001.99	4272.86	95.00	1.65	1.52	0.64
		11265.00	92.13	0.50	241.9	4328.96	727.00	6677.79	1999.79	4367.70	95.00	1.91	1.69	-0.88
		11359.00	89.29	358.14	241.9	4422.93	725.88	6676.63	1998.63	4461.39	94.00	3.93	-3.02	-2.51
		11453.00	89.91	0.93	244.6	4516.92	725.12	6677.28	1999.28	4555.12	94.00	3.04	0.66	2.97
		11548.00	89.60	359.35	244.6	4611.92	725.35	6677.69	1999.69	4649.92	95.00	1.69	-0.33	-1.66
		11643.00	89.48	358.63	244.6	4706.90	723.68	6678.45	2000.45	4744.58	95.00	0.77	-0.13	-0.76
		11737.00	89.35	359.53	247.3	4800.88	722.17	6679.41	2001.41	4838.26	94.00	0.97	-0.14	0.96
		11832.00	90.25	358.29	247.3	4895.86	720.36	6679.74	2001.74	4932.90	95.00	1.61	0.95	-1.31
		11926.00	89.85	359.80	247.3	4989.84	718.80	6679.66	2001.66	5026.58	94.00	1.66	-0.43	1.61
		12021.00	88.92	358.60	250.0	5084.82	717.47	6680.68	2002.68	5121.26	95.00	1.60	-0.98	-1.26
		12115.00	88.89	0.45	250.0	5178.80	716.69	6682.48	2004.48	5214.98	94.00	1.97	-0.03	1.97
		12210.00	90.46	359.30	247.3	5273.79	716.48	6683.02	2005.02	5309.75	95.00	2.05	1.65	-1.21

	12304.00	91.23	0.82	250.0	5367.78	716.58	6681.63	2003.63	5403.53	94.00	1.81	0.82	1.62
	12399.00	91.39	0.06	250.0	5462.75	717.31	6679.46	2001.46	5498.34	95.00	0.82	0.17	-0.80
	12493.00	90.55	0.47	250.0	5556.74	717.75	6677.87	1999.87	5592.15	94.00	0.99	-0.89	0.44
	12588.00	90.86	0.17	250.0	5651.73	718.28	6676.70	1998.70	5686.96	95.00	0.45	0.33	-0.32
	12683.00	90.22	359.99	252.7	5746.72	718.41	6675.80	1997.80	5781.76	95.00	0.70	-0.67	-0.19
	12777.00	91.26	359.98	252.7	5840.71	718.38	6674.59	1996.59	5875.54	94.00	1.11	1.11	-0.01
	12872.00	90.28	0.47	252.7	5935.70	718.76	6673.31	1995.31	5970.34	95.00	1.15	-1.03	0.52
	12966.00	89.72	0.27	255.4	6029.70	719.36	6673.31	1995.31	6064.17	94.00	0.63	-0.60	-0.21
	13061.00	89.91	1.13	255.4	6124.69	720.52	6673.62	1995.62	6159.03	95.00	0.93	0.20	0.91
	13155.00	90.77	0.70	255.4	6218.68	722.03	6673.06	1995.06	6252.91	94.00	1.02	0.91	-0.46
	13250.00	90.46	0.54	252.7	6313.67	723.05	6672.04	1994.04	6347.76	95.00	0.37	-0.33	-0.17
	13345.00	89.78	1.00	252.7	6408.66	724.33	6671.84	1993.84	6442.62	95.00	0.86	-0.72	0.48
	13440.00	89.69	1.48	255.4	6503.63	726.39	6672.28	1994.28	6537.53	95.00	0.51	-0.09	0.51
	13534.00	90.15	1.17	255.4	6597.61	728.56	6672.41	1994.41	6631.44	94.00	0.59	0.49	-0.33
	13629.00	89.26	1.17	255.4	6692.59	730.50	6672.90	1994.90	6726.33	95.00	0.94	-0.94	0.00
	13723.00	90.28	358.99	258.1	6786.58	730.63	6673.28	1995.28	6820.13	94.00	2.56	1.09	-2.32
	13818.00	89.63	357.74	258.1	6881.54	727.92	6673.35	1995.35	6914.70	95.00	1.48	-0.68	-1.32
	13913.00	90.25	358.14	258.1	6976.47	724.51	6673.45	1995.45	7009.20	95.00	0.78	0.65	0.42
	14008.00	89.78	358.49	258.1	7071.43	721.71	6673.43	1995.43	7103.76	95.00	0.62	-0.49	0.37
	14102.00	89.88	357.84	260.8	7165.38	718.70	6673.71	1995.71	7197.30	94.00	0.70	0.11	-0.69
	14291.00	90.09	358.68	260.8	7354.29	712.96	6673.76	1995.76	7385.42	189.00	0.46	0.11	0.44
	14386.00	90.00	358.38	263.5	7449.26	710.53	6673.68	1995.68	7480.01	95.00	0.33	-0.09	-0.32
	14481.00	89.88	358.61	260.8	7544.23	708.03	6673.78	1995.78	7574.60	95.00	0.27	-0.13	0.24
	14575.00	90.34	358.61	263.5	7638.20	705.75	6673.60	1995.60	7668.22	94.00	0.49	0.49	0.00
	14670.00	90.09	358.33	263.5	7733.17	703.21	6673.24	1995.24	7762.80	95.00	0.40	-0.26	-0.29
	14765.00	90.12	358.94	260.8	7828.14	700.95	6673.07	1995.07	7857.42	95.00	0.64	0.03	0.64
	14859.00	89.85	358.56	263.5	7922.12	698.90	6673.10	1995.10	7951.05	94.00	0.50	-0.29	-0.40
	14954.00	90.31	358.99	263.5	8017.09	696.87	6672.96	1994.96	8045.68	95.00	0.66	0.48	0.45
	15049.00	89.63	358.73	263.5	8112.08	694.98	6673.01	1995.01	8140.33	95.00	0.77	-0.72	-0.27
	15143.00	90.43	358.97	266.2	8206.06	693.09	6672.96	1994.96	8233.97	94.00	0.89	0.85	0.26
	15238.00	89.72	358.38	266.2	8301.03	690.90	6672.84	1994.84	8328.59	95.00	0.97	-0.75	-0.62
	15333.00	89.88	359.31	266.2	8396.01	688.98	6673.17	1995.17	8423.23	95.00	0.99	0.17	0.98
	15427.00	89.32	358.30	260.8	8489.98	687.02	6673.83	1995.83	8516.87	94.00	1.23	-0.60	-1.07
	15522.00	89.54	358.57	263.5	8584.94	684.43	6674.77	1996.77	8611.45	95.00	0.37	0.23	0.28
	15616.00	89.66	358.81	263.5	8678.92	682.28	6675.43	1997.43	8705.07	94.00	0.29	0.13	0.26
	15711.00	89.60	358.89	266.2	8773.90	680.37	6676.04	1998.04	8799.71	95.00	0.11	-0.06	0.08
	15805.00	89.45	359.12	266.2	8867.88	678.74	6676.82	1998.82	8893.38	94.00	0.29	-0.16	0.24
	15900.00	89.48	359.42	266.2	8962.87	677.53	6677.71	1999.71	8988.08	95.00	0.32	0.03	0.32
	15995.00	89.48	359.30	266.2	9057.86	676.47	6678.57	2000.57	9082.79	95.00	0.13	-0.00	-0.13
	16089.00	89.42	359.45	266.2	9151.85	675.44	6679.47	2001.47	9176.50	94.00	0.17	-0.06	0.16
	16184.00	89.91	359.11	269.0	9246.84	674.25	6680.03	2002.03	9271.20	95.00	0.63	0.52	-0.36
	16279.00	89.82	359.68	266.2	9341.83	673.25	6680.25	2002.25	9365.92	95.00	0.61	-0.09	0.60
	16373.00	89.85	359.47	269.0	9435.83	672.55	6680.52	2002.52	9459.66	94.00	0.23	0.03	-0.22
	16468.00	89.91	359.37	269.0	9530.82	671.59	6680.72	2002.72	9554.38	95.00	0.12	0.06	-0.11
	16563.00	89.88	359.24	269.0	9625.82	670.43	6680.90	2002.90	9649.09	95.00	0.14	-0.03	-0.14
	16657.00	89.75	359.22	269.0	9719.81	669.17	6681.20	2003.20	9742.79	94.00	0.14	-0.14	-0.02
	16752.00	89.97	359.31	269.0	9814.80	667.95	6681.43	2003.43	9837.49	95.00	0.25	0.23	0.09
	16846.00	89.72	358.78	269.0	9908.78	666.39	6681.69	2003.69	9931.16	94.00	0.62	-0.27	-0.56
	16941.00	89.97	359.47	271.7	10003.77	664.94	6681.94	2003.94	10025.85	95.00	0.77	0.26	0.73
	17019.00	89.78	359.56	271.7	10081.77	664.27	6682.11	2004.11	10103.63	78.00	0.27	-0.24	0.12
Projection	17043.00	89.78	359.56	N/A	10105.77	664.09	6682.20	2004.20	10127.56	24.00	0.00	-0.02	-0.00