

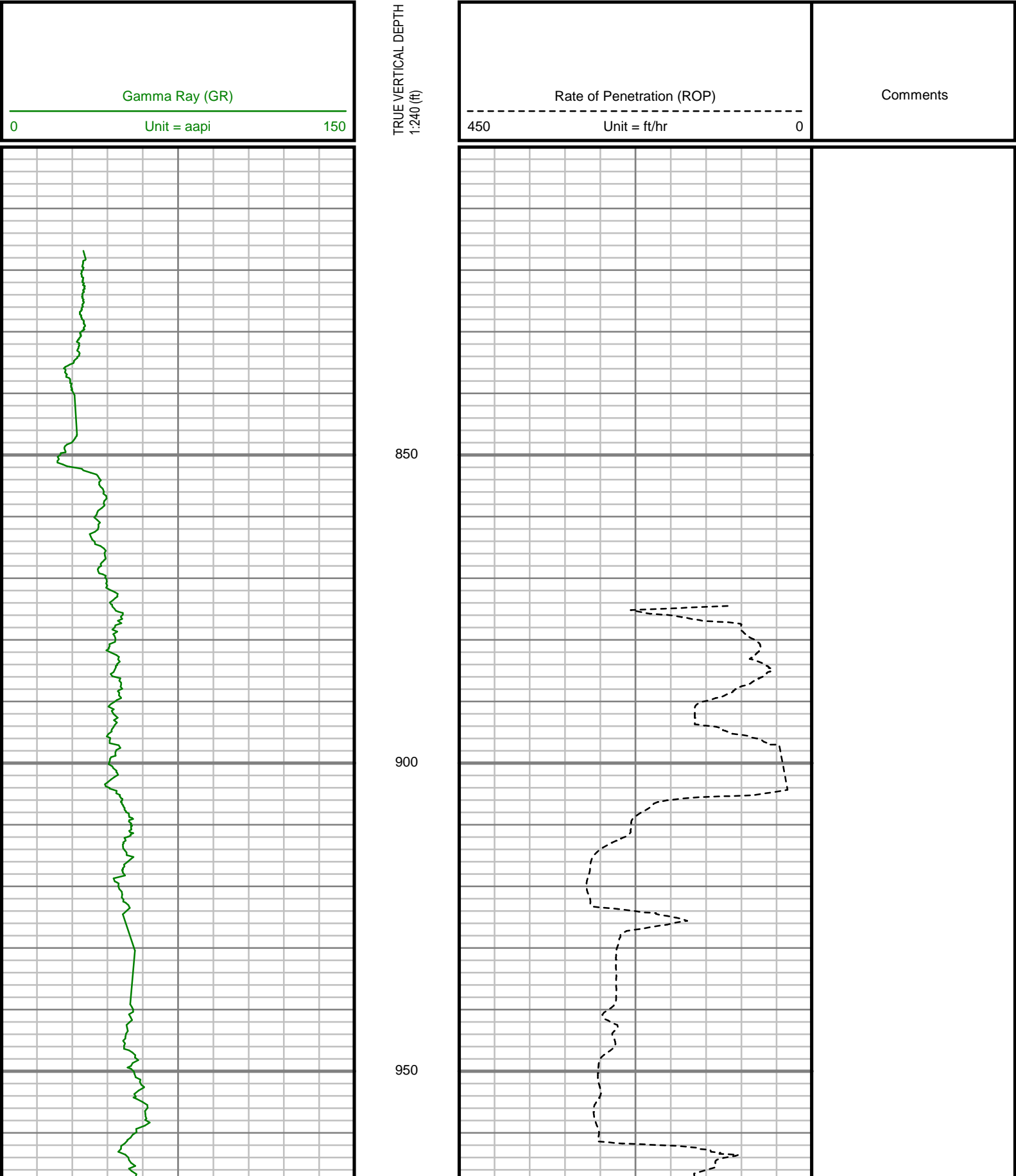
5" = 100' FEET TVD

COMPANY : ENCANA OIL & GAS (U.S.A.) INC WELL : SPRAGUE 31-9H-N267 PRODUCTION FIELD : WATTENBERG COUNTY : WELD STATE : COLORADO COUNTRY : U.S.A. UWI : 05-123-39296										COMPANY : ENCANA OIL & GAS (U.S.A.) INC WELL : SPRAGUE 31-9H-N267 PRODUCTION FIELD : WATTENBERG COUNTY : WELD STATE : COLORADO COUNTRY : U.S.A. UWI : 05-123-39296									
DEPTH REF. : RKB REF. HEIGHT : 28.500 ft GROUND LEVEL : 4982.000 ft										RKB to Ground Level G.I. to MEAN SEA LEVEL									
BOREHOLE RECORD						DEVIATION RECORD						DIRECTIONAL ROP							
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg			FROM ft	TO ft				FROM ft	TO ft							
8.75	879	7802	10 - 75			879	7802												
6.125	7802	12900	75 - 91			7802	12900												



All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions as set out in our current price schedule.

ENCANA OIL & GAS (U.S.A.) INC  
SPRAGUE 3I-9H-N267 PRODUCTION  
WATTENBERG FIELD  
WELD COUNTY, COLORADO  
05-123-39269



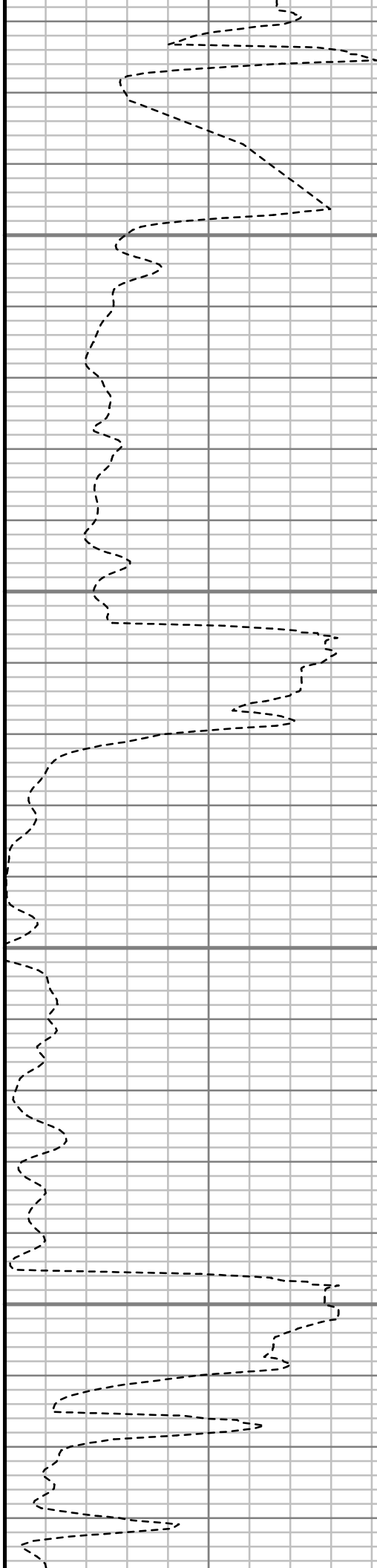


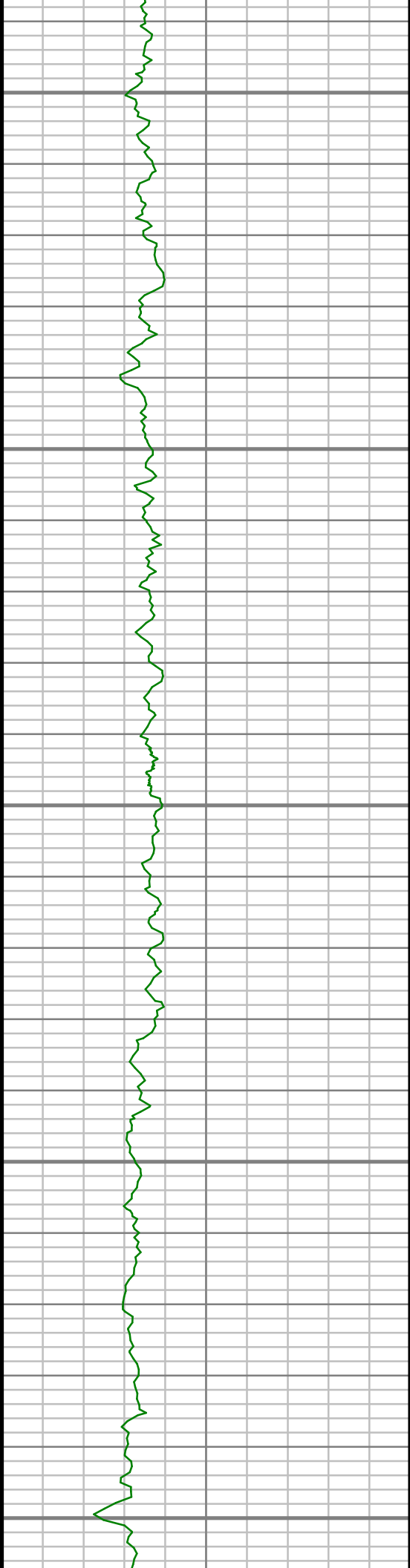
1000

1050

1100

1150





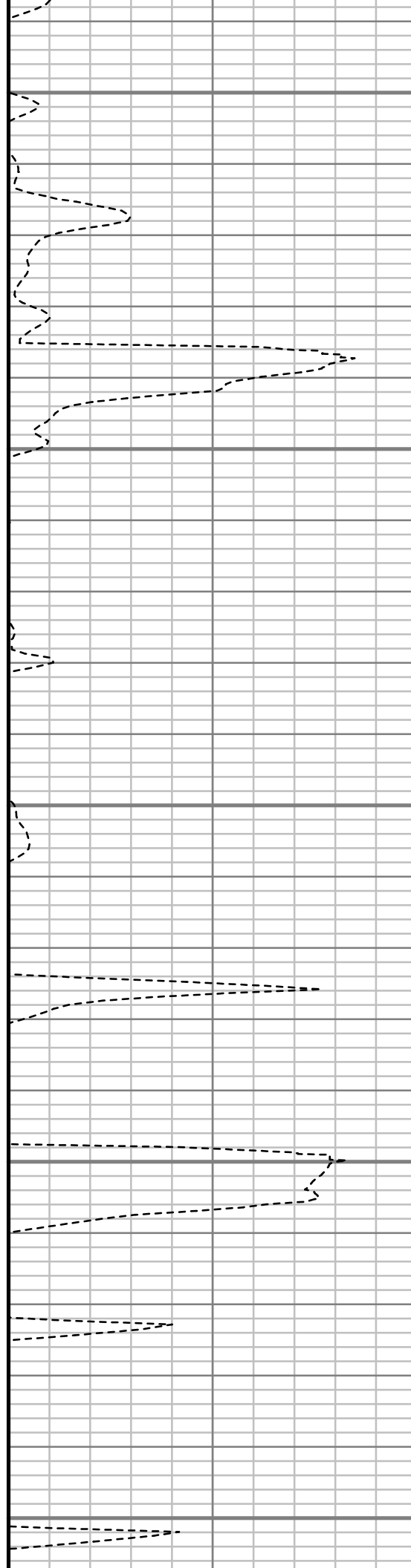
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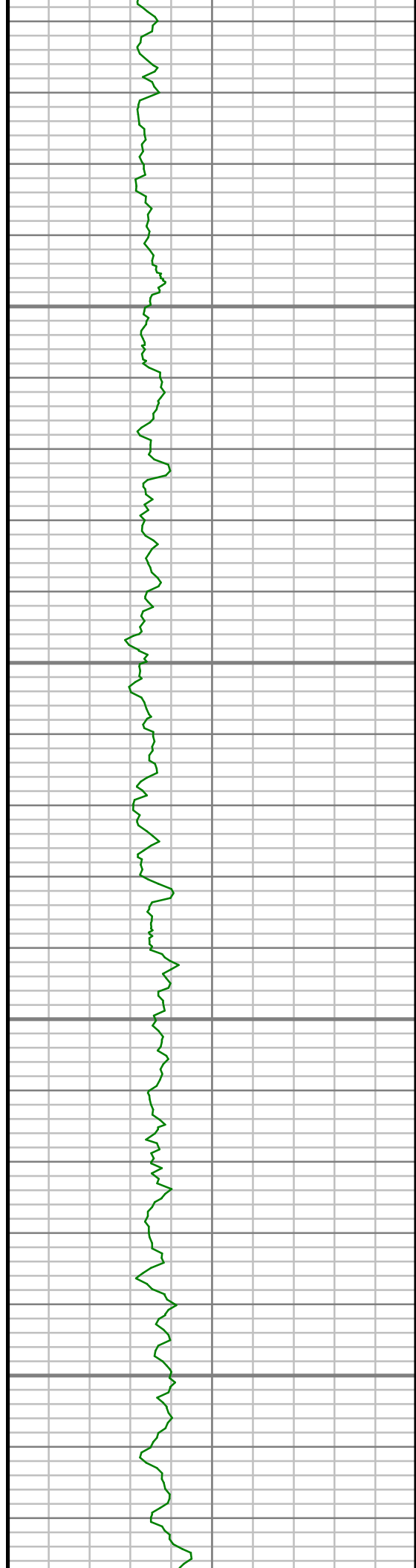
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1300

1350

1400



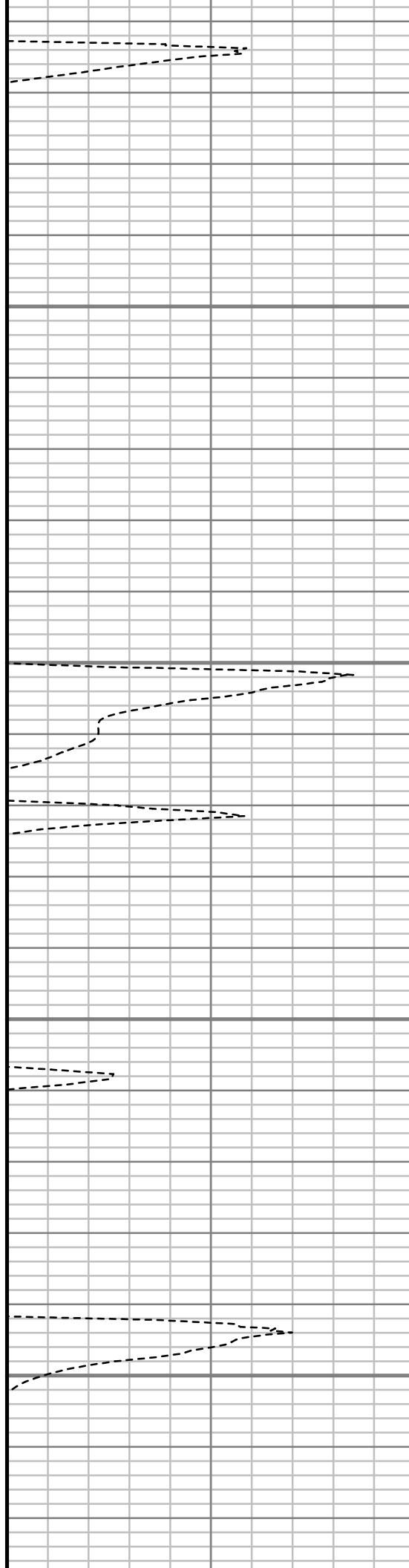


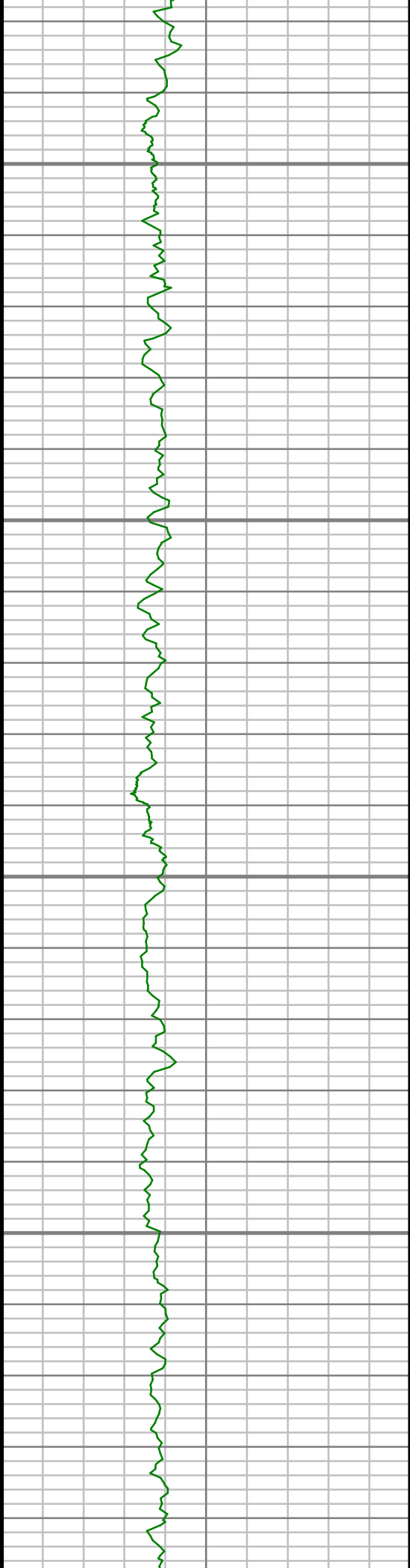
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1500

1550

1600



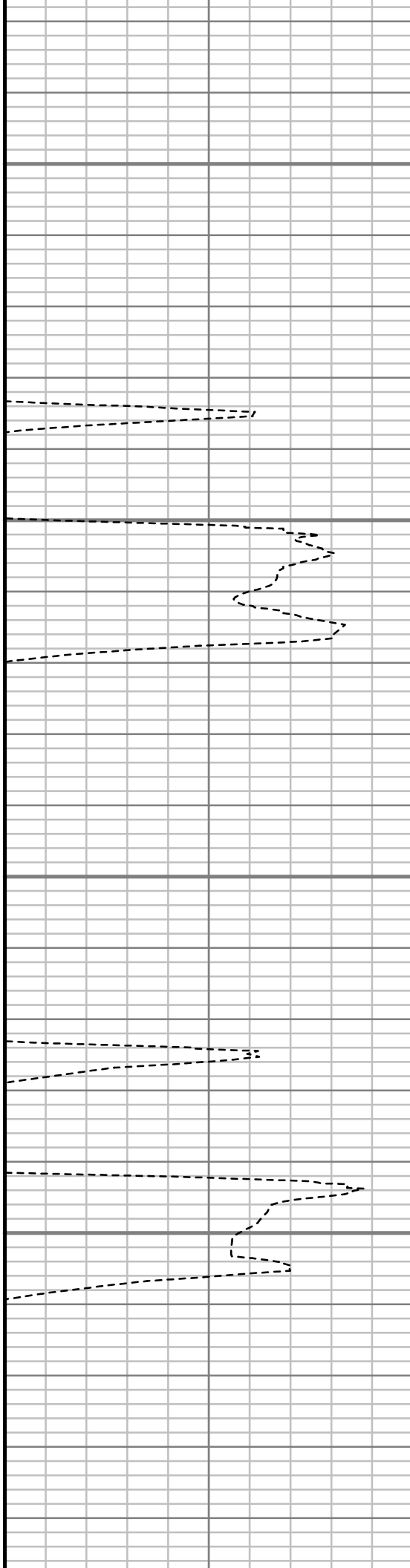


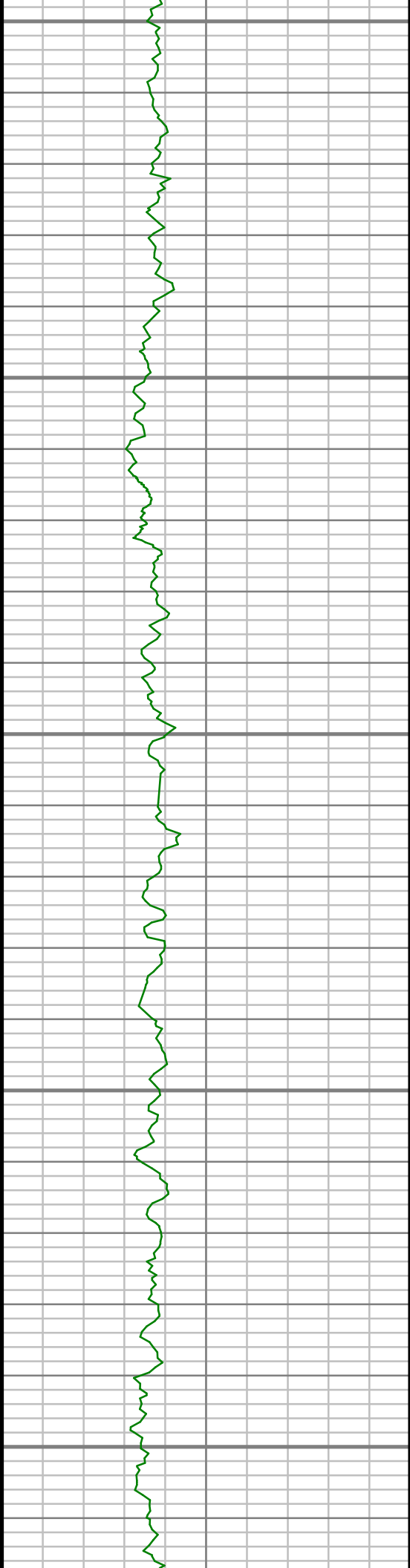
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1700

1750

1800





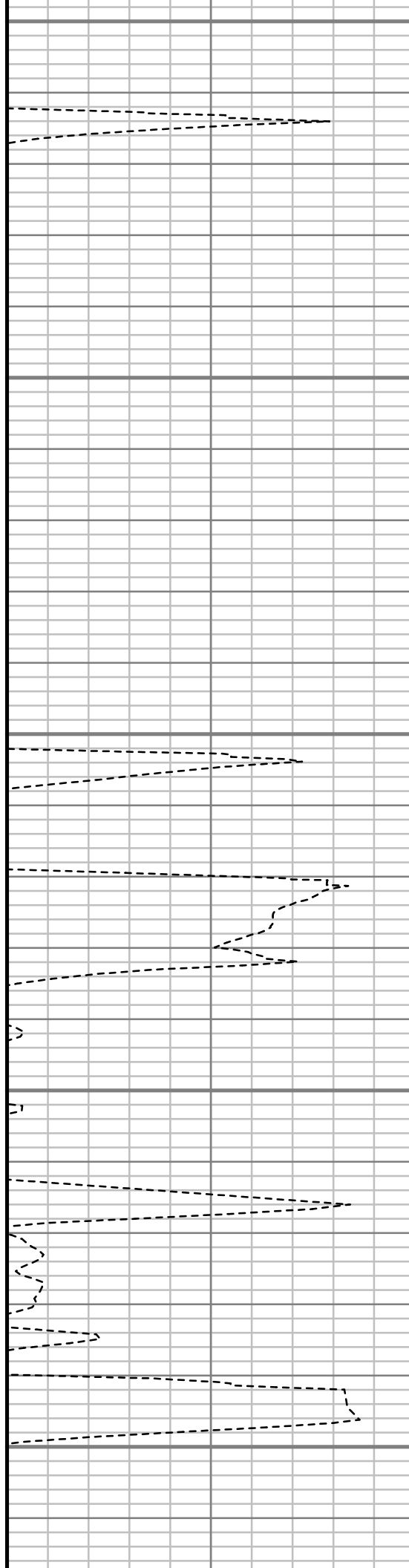
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1900

1950

2000

2050





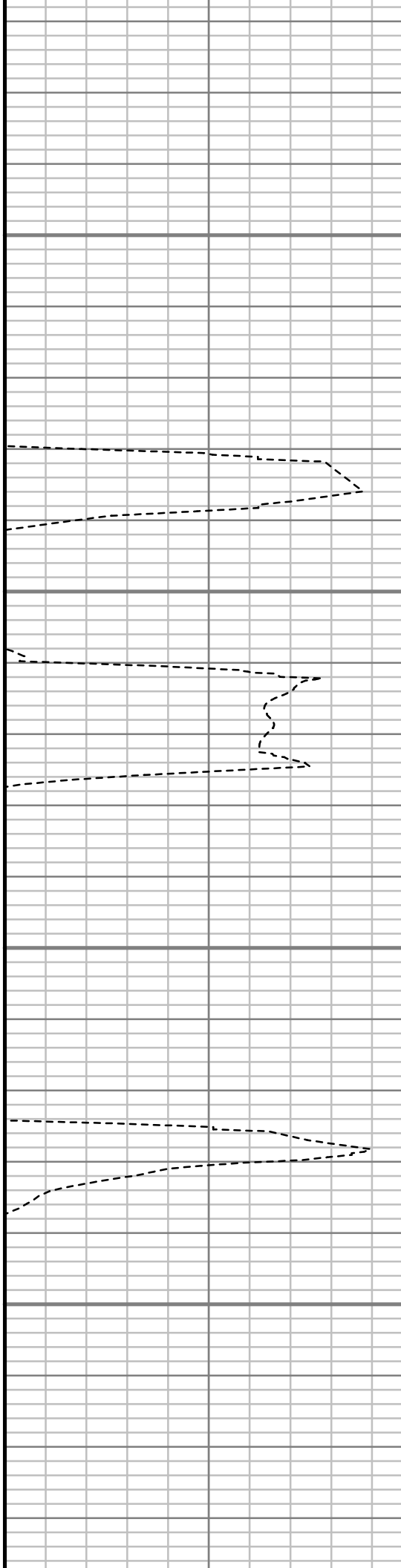


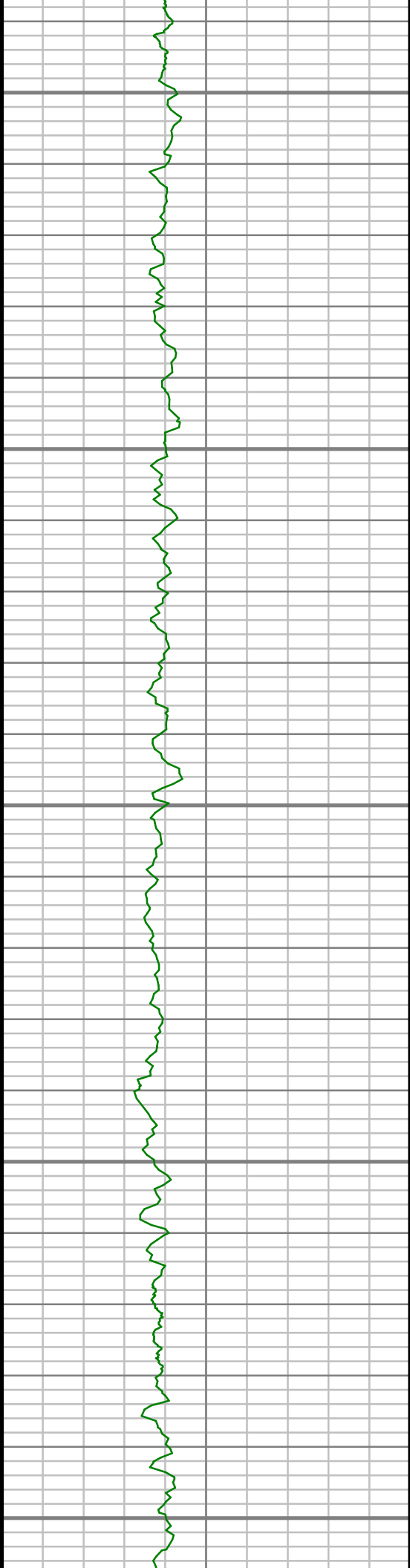
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2150

2200

2250





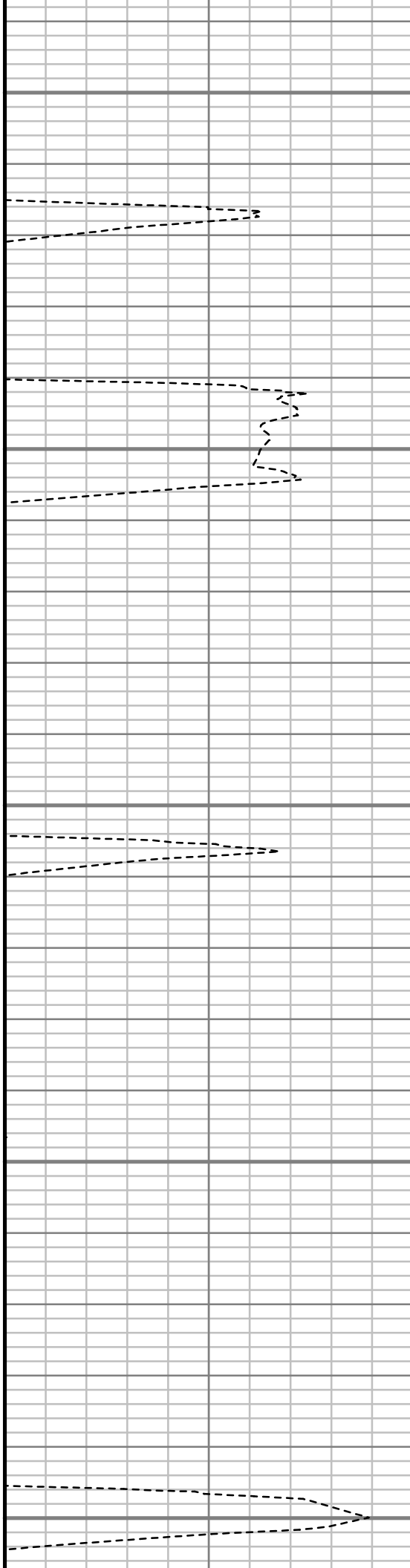
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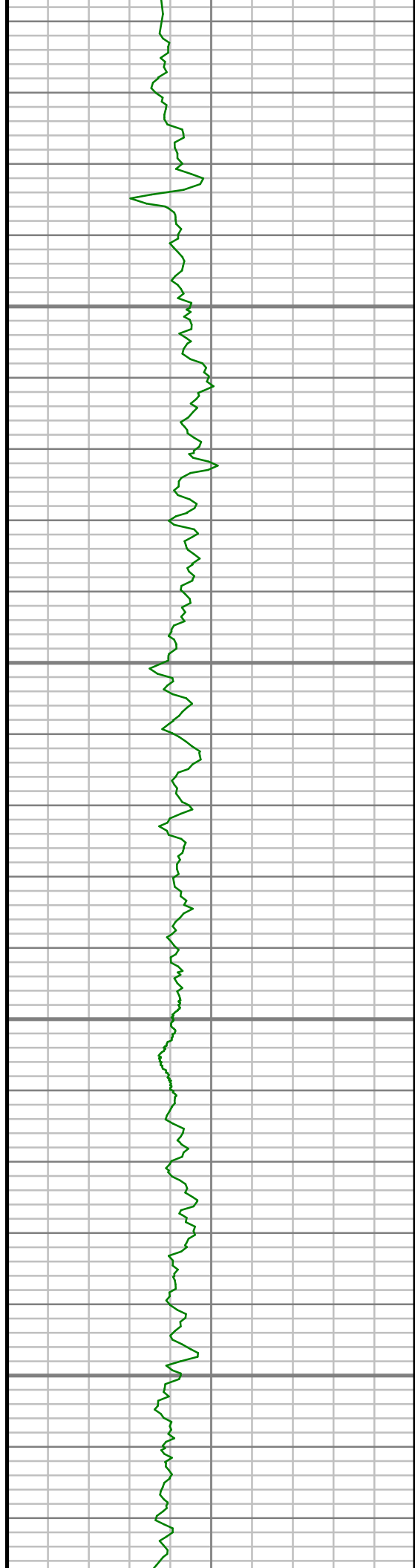
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2400

2450

2500



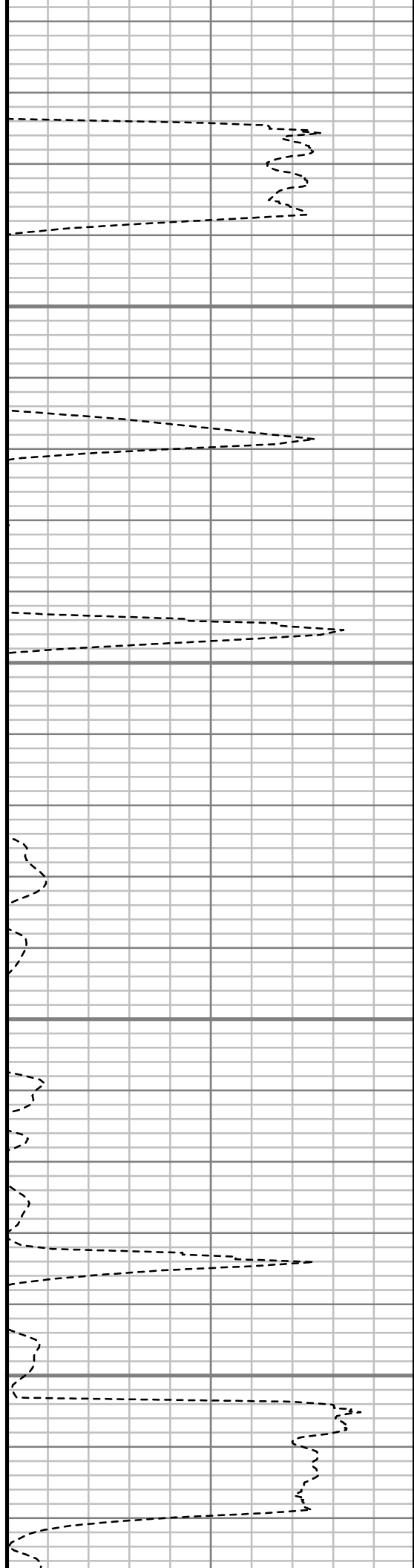


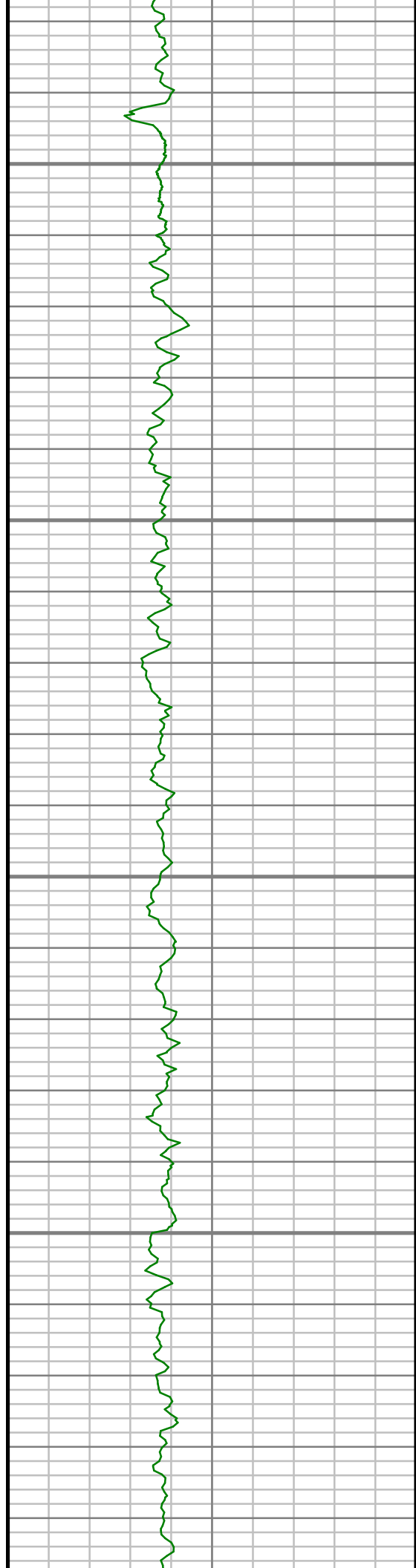
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2700



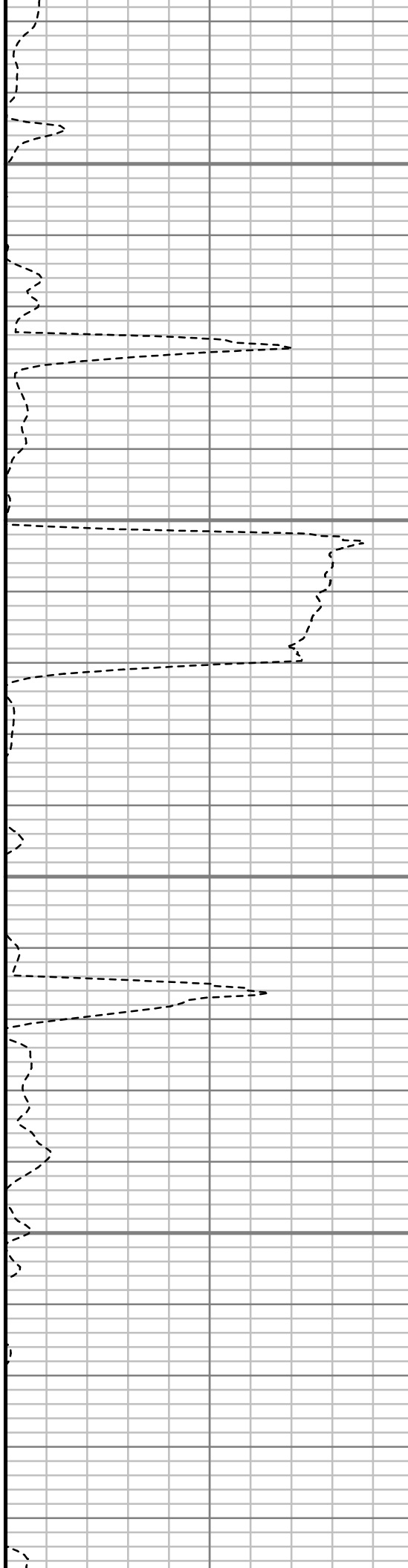


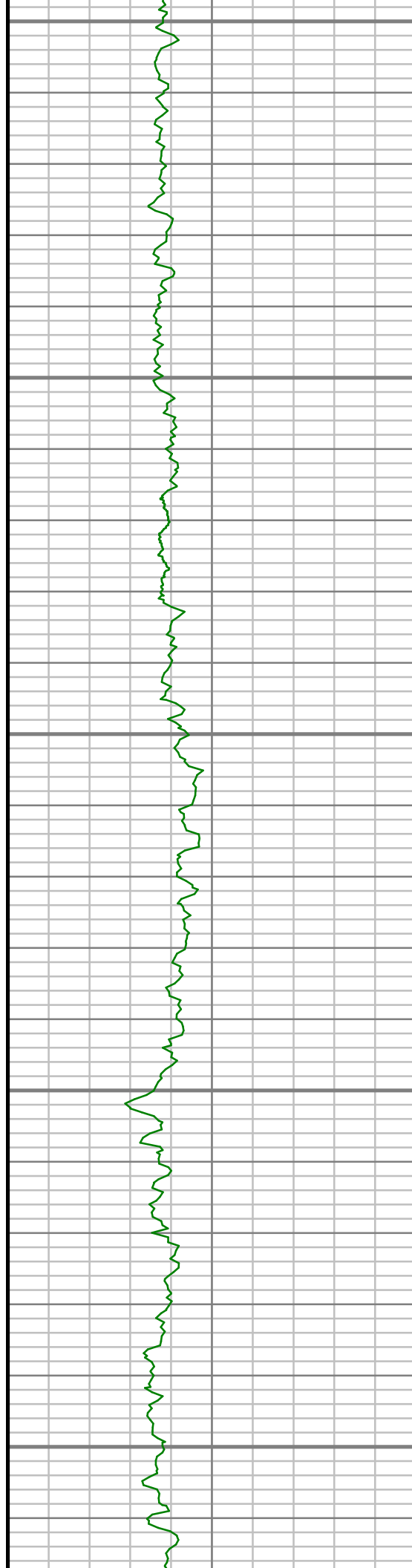
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2850

2900





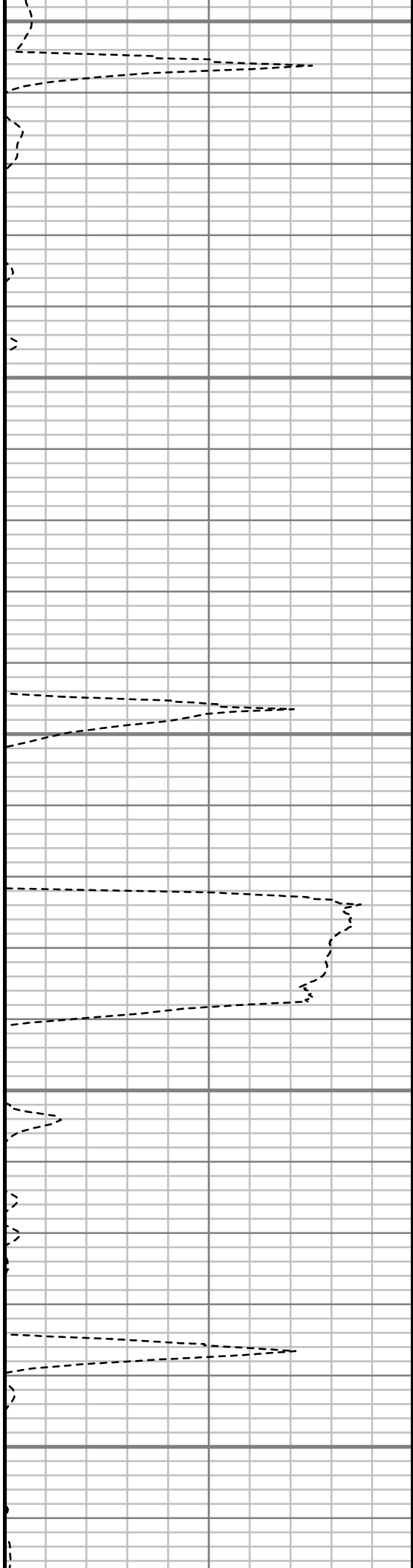
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3000

3050

3100

3150



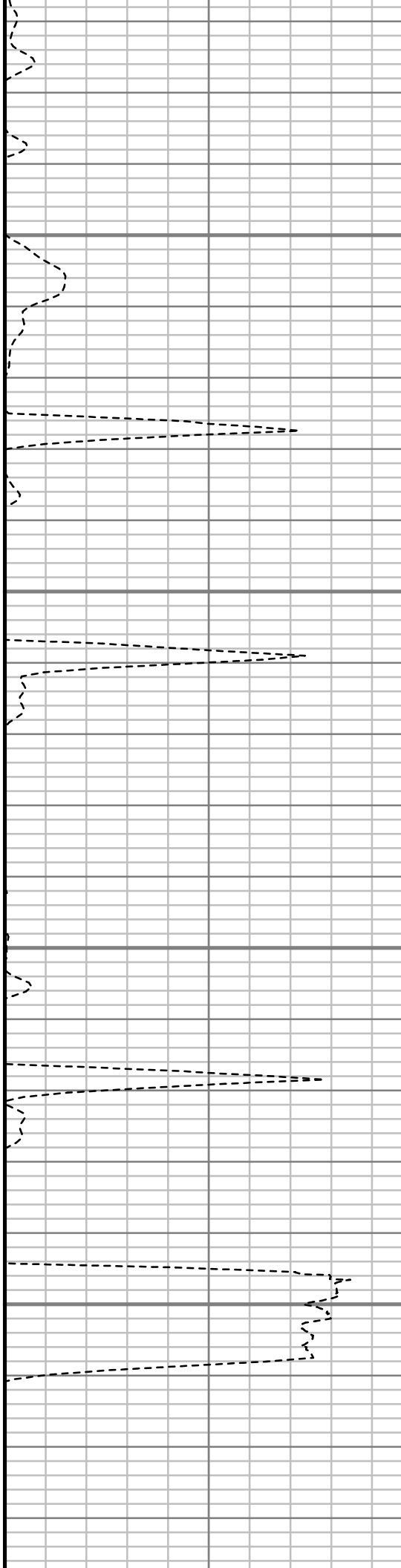


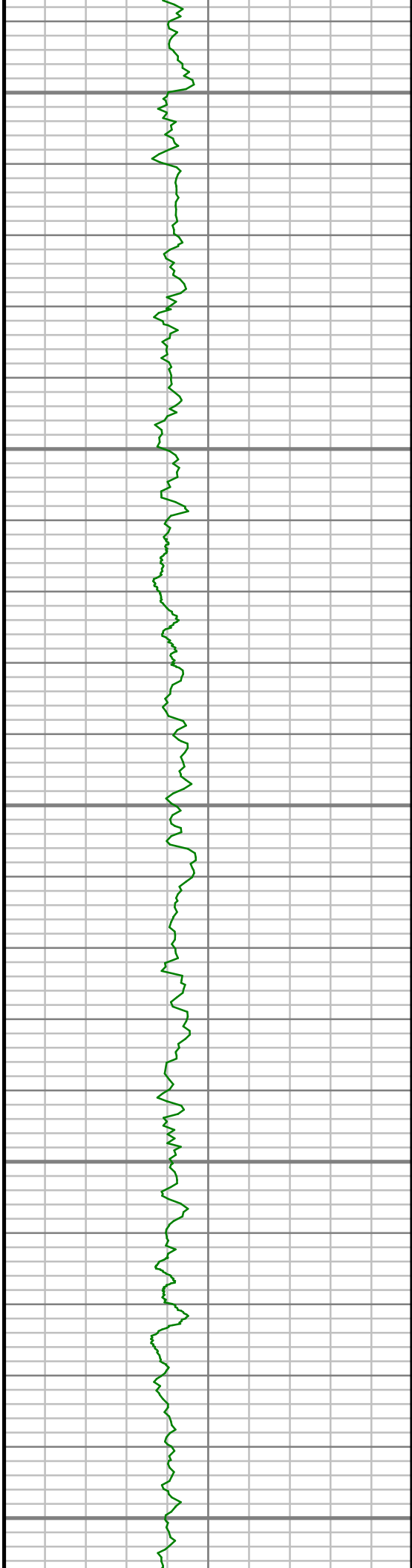
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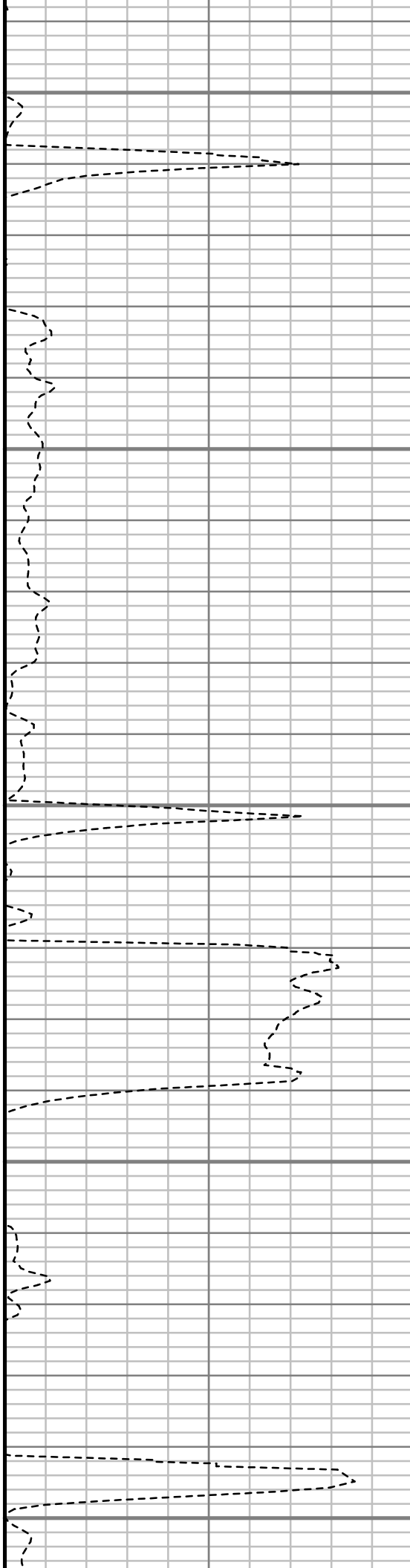
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3350





3400

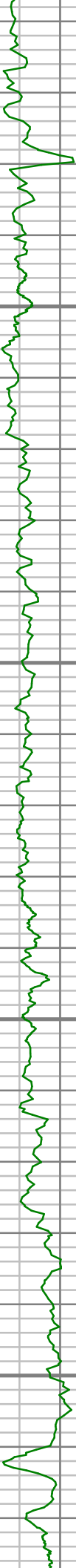


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3600

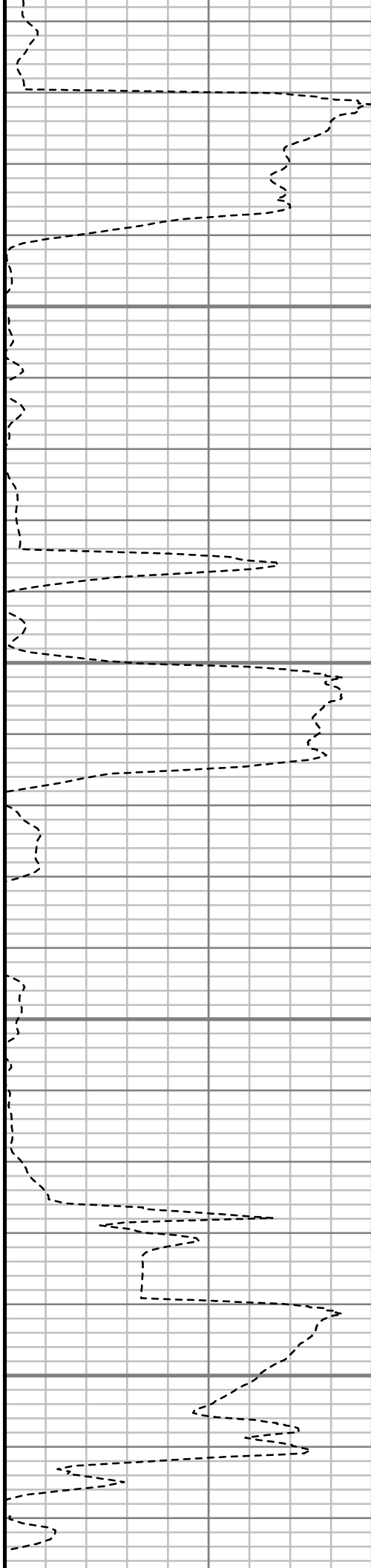


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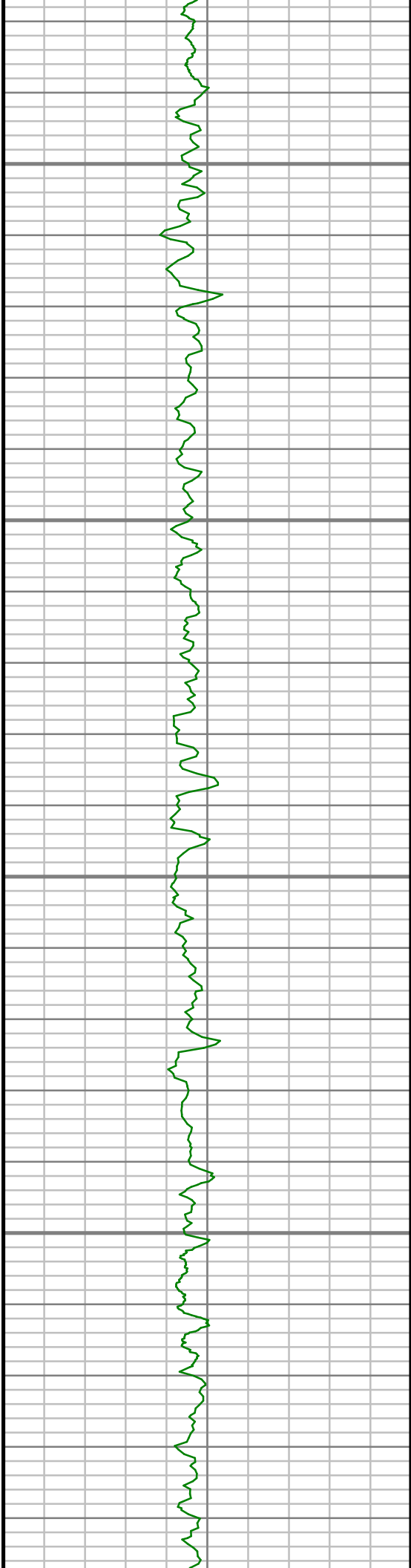
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3750

3800





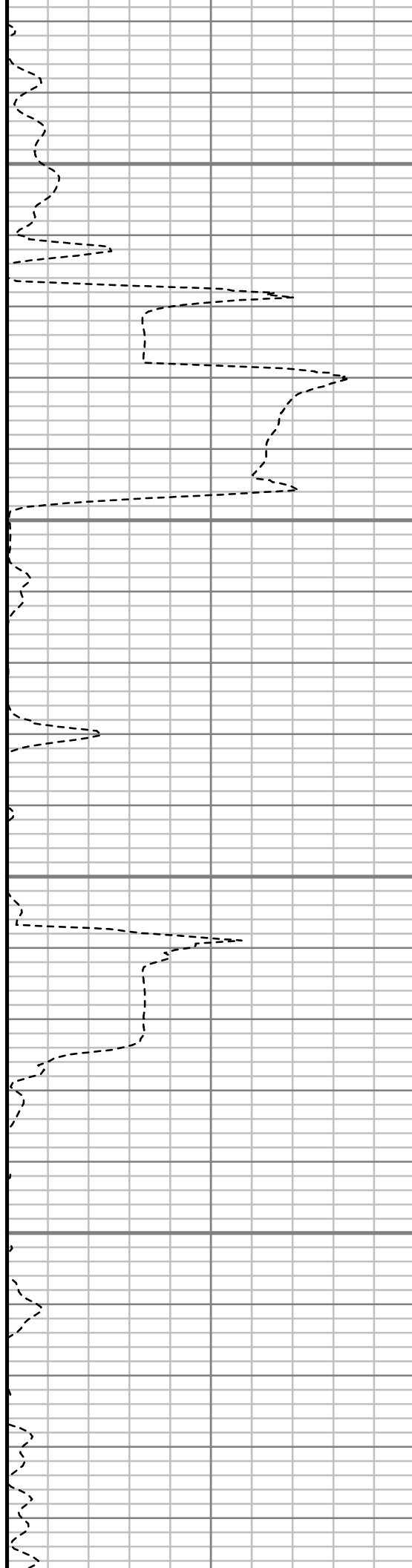


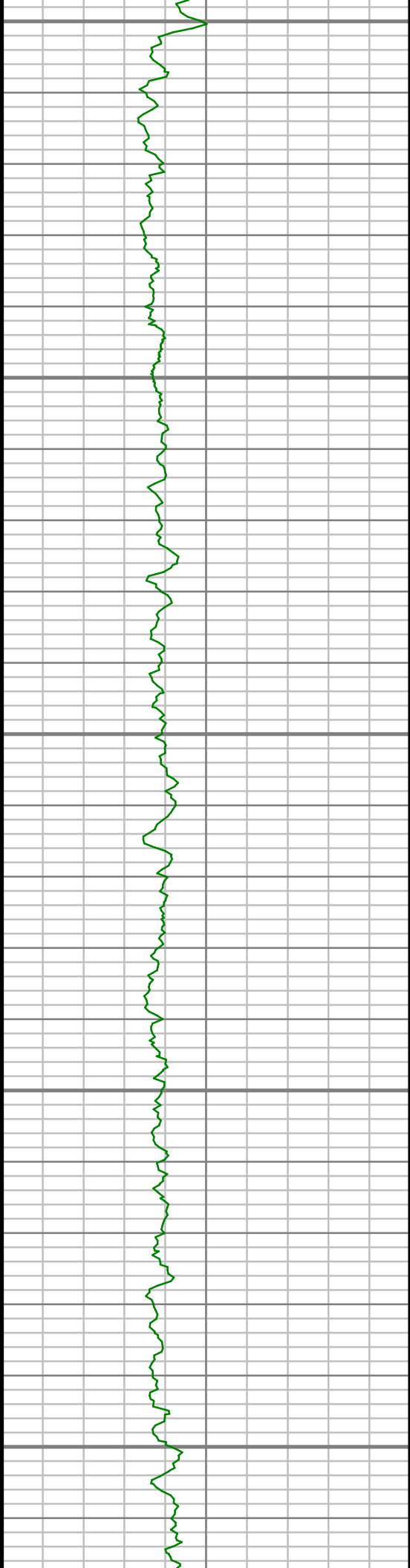
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3900

3950

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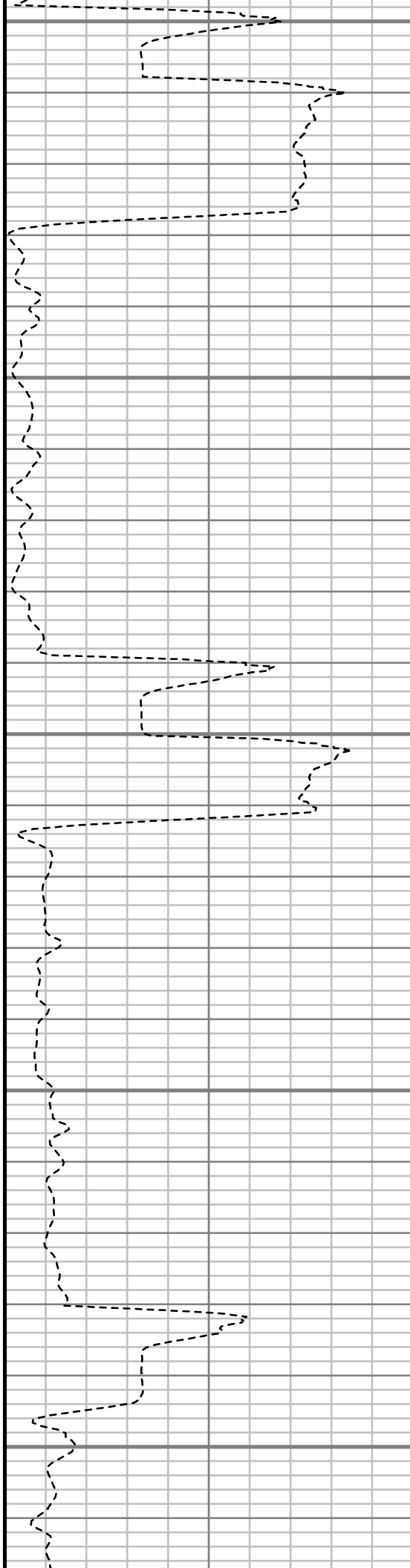
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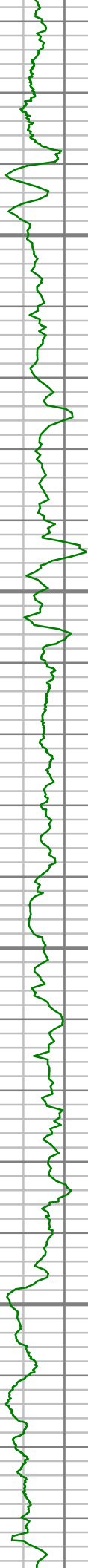
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4150

4200

4250



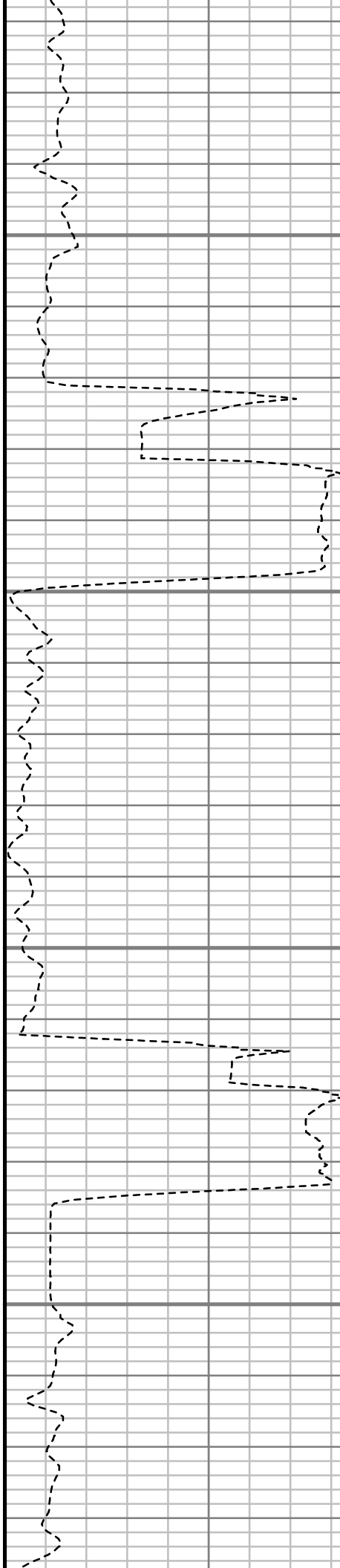


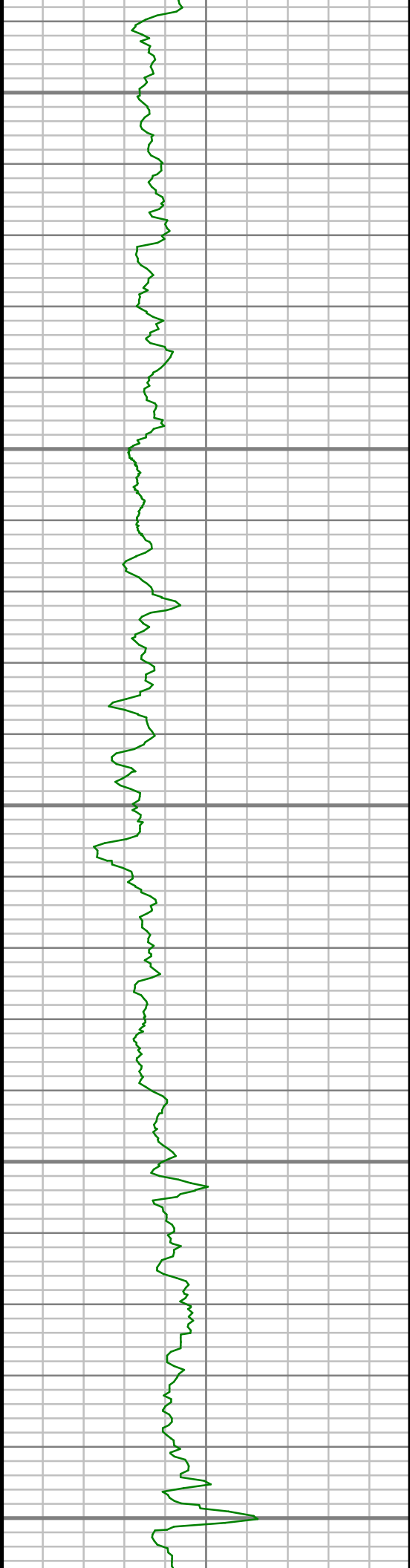
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4400

4450





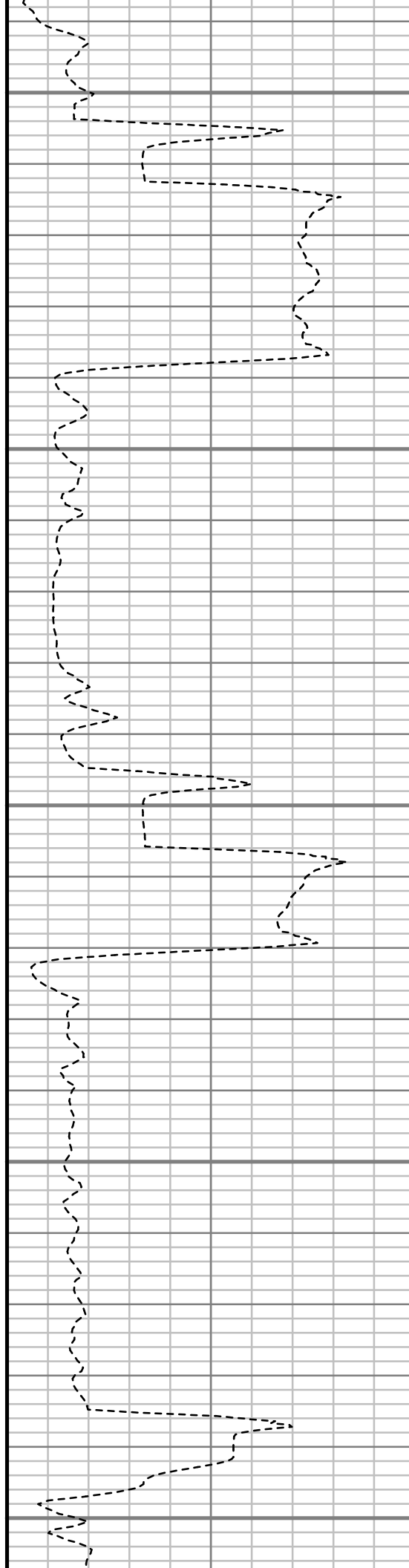
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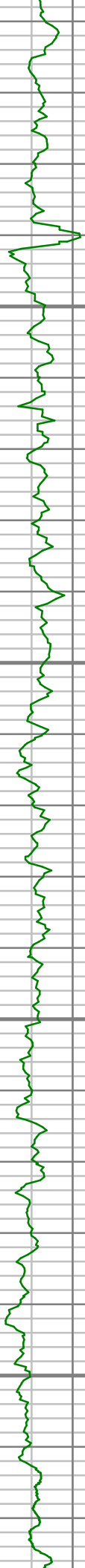
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4700



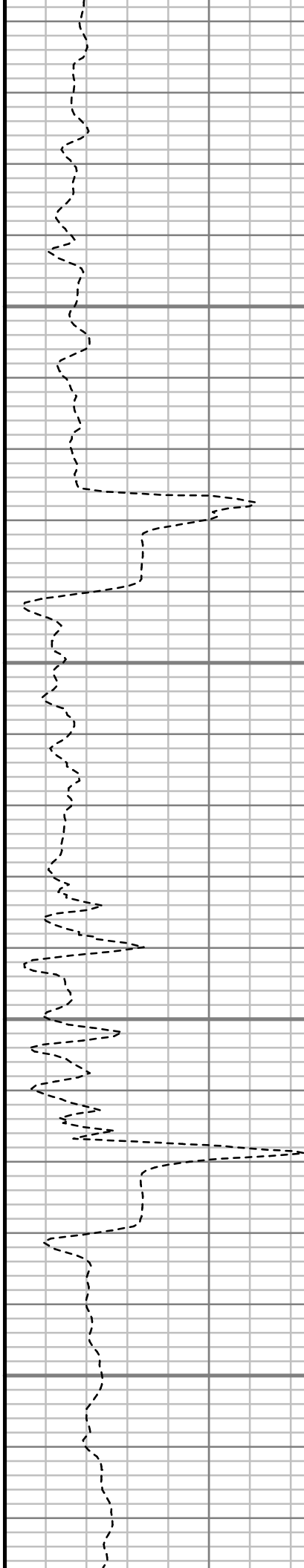


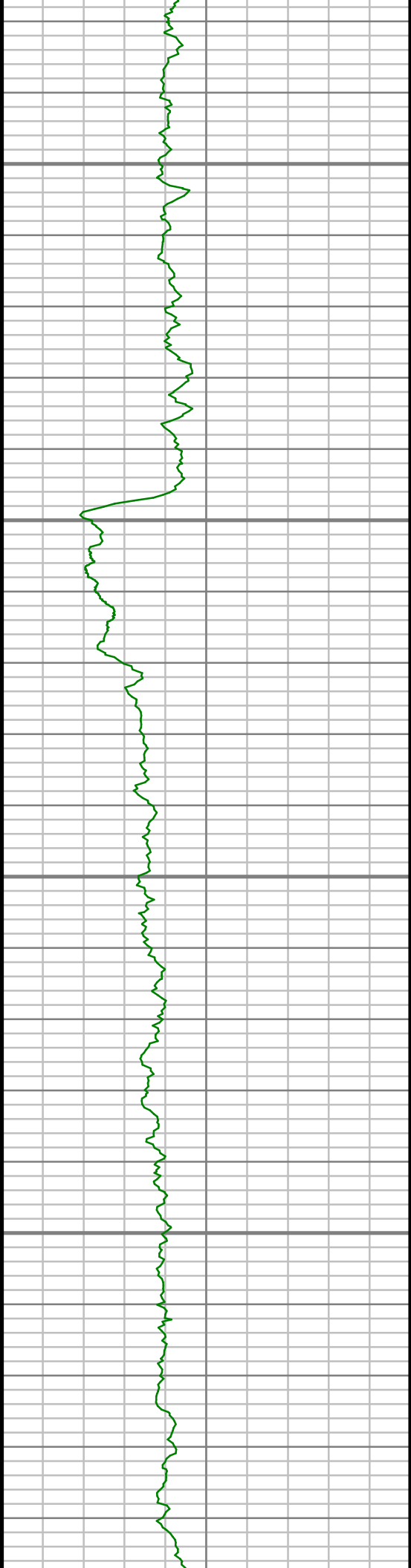
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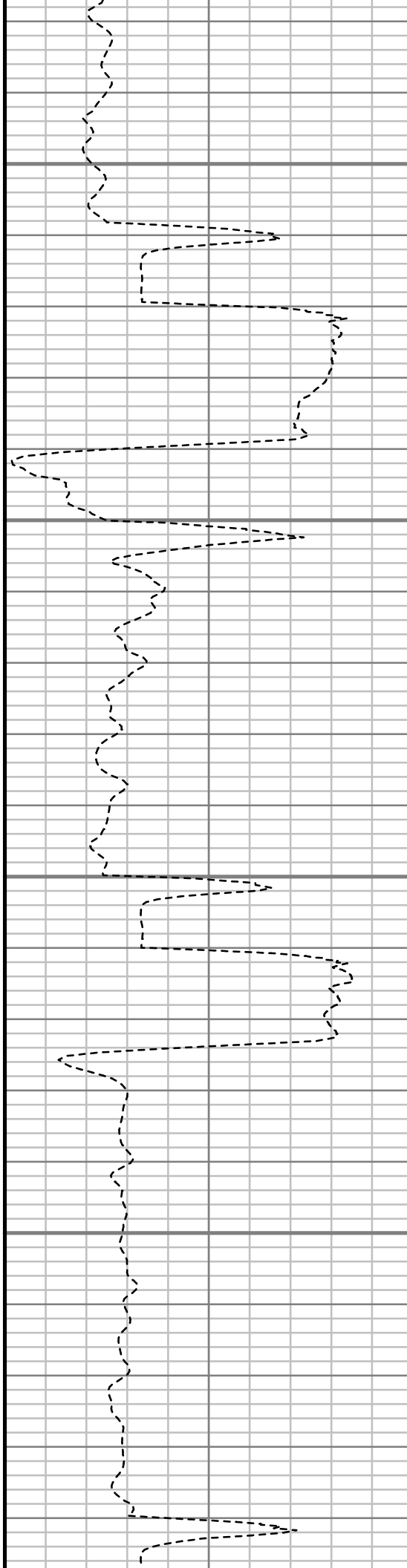


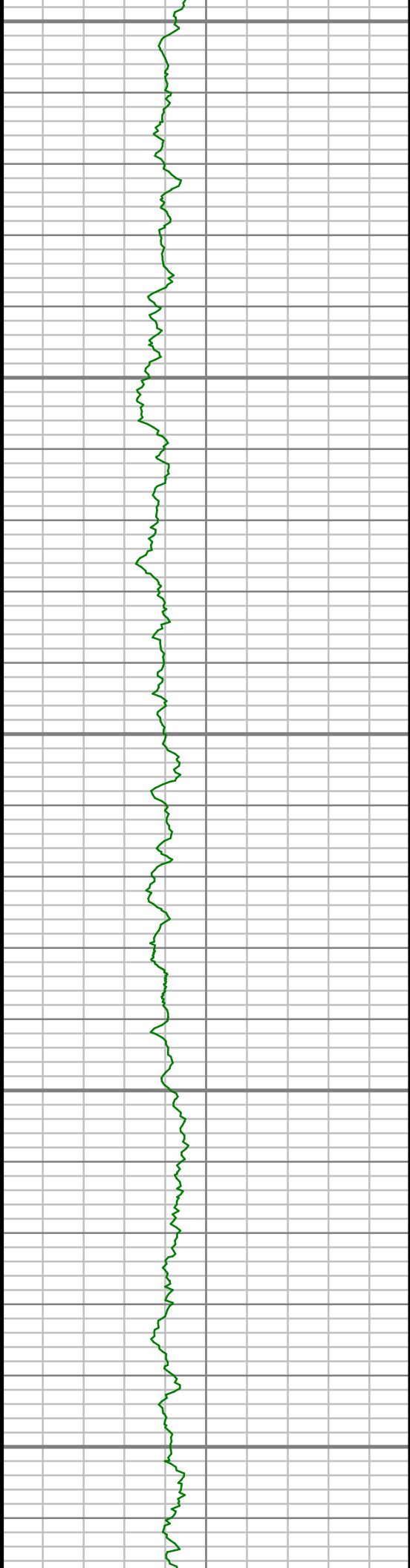
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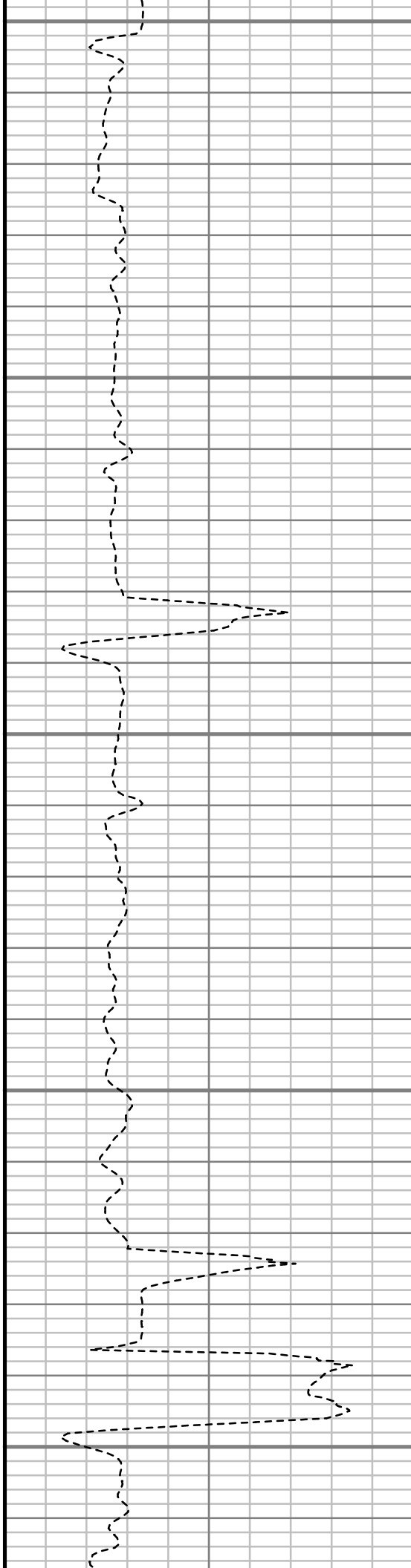
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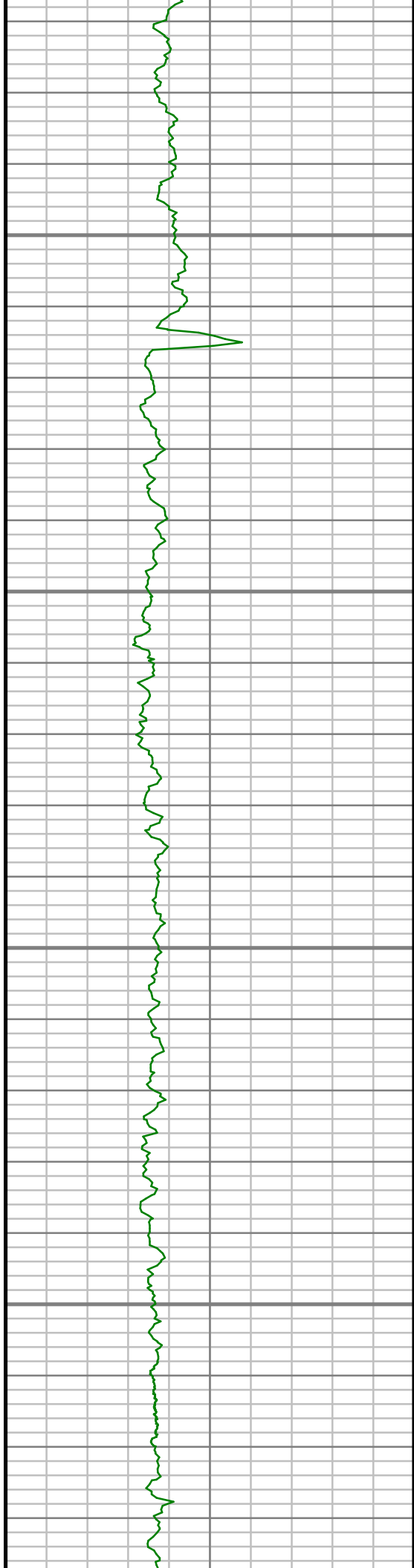
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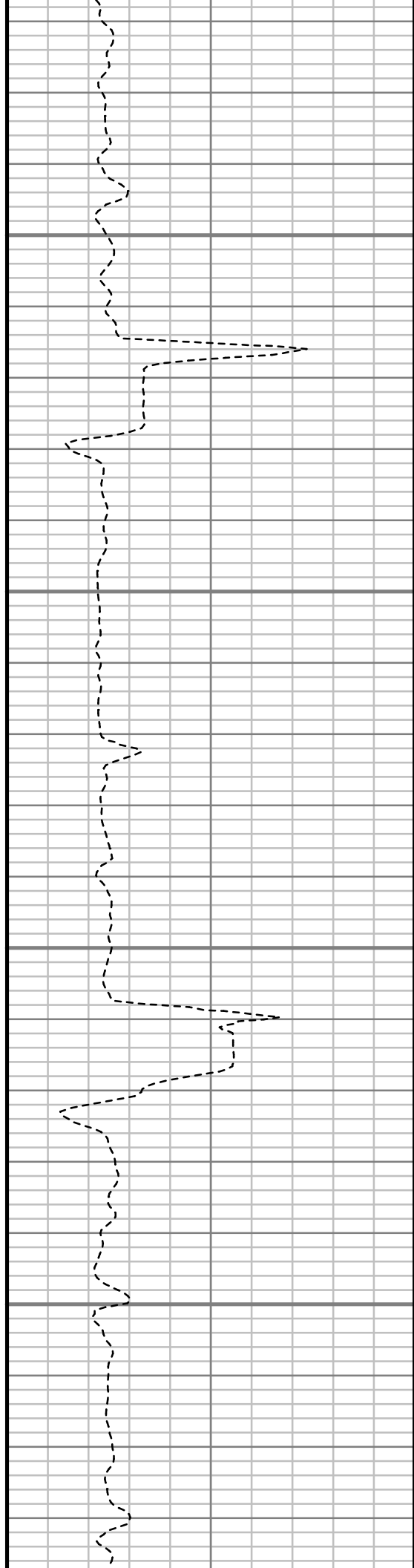


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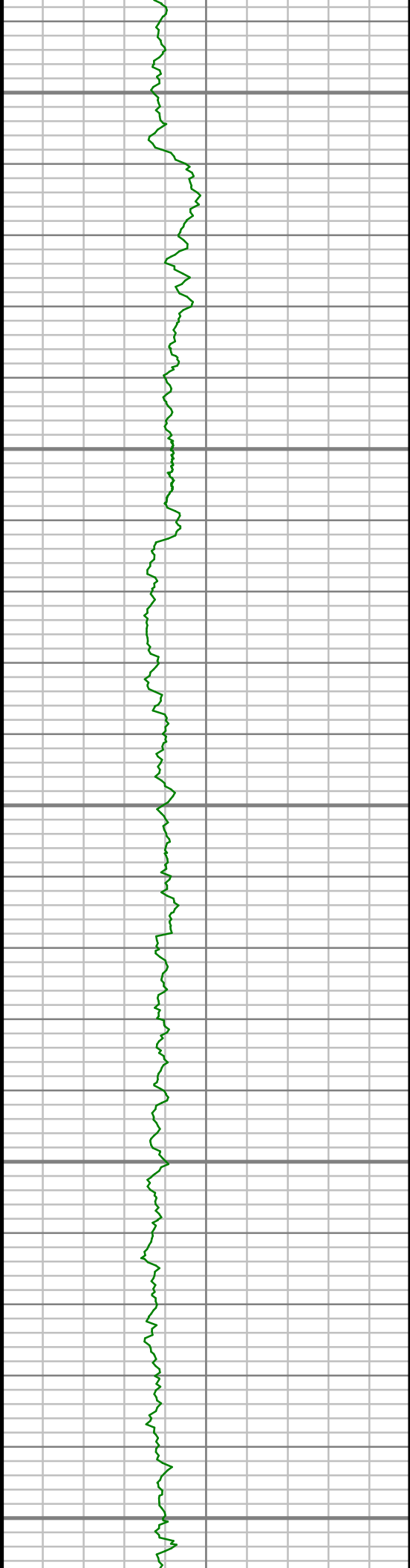
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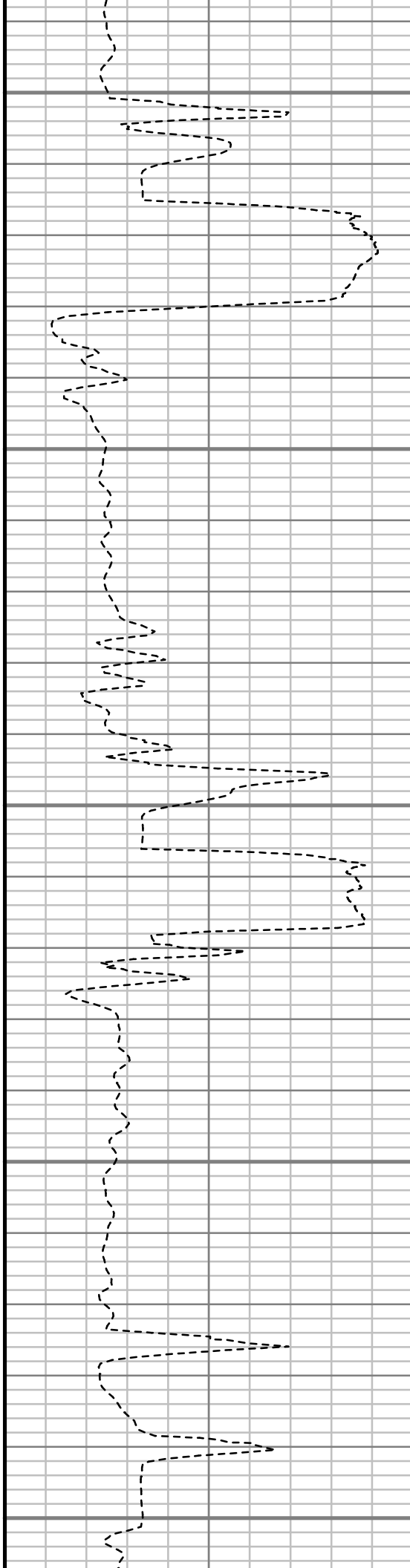
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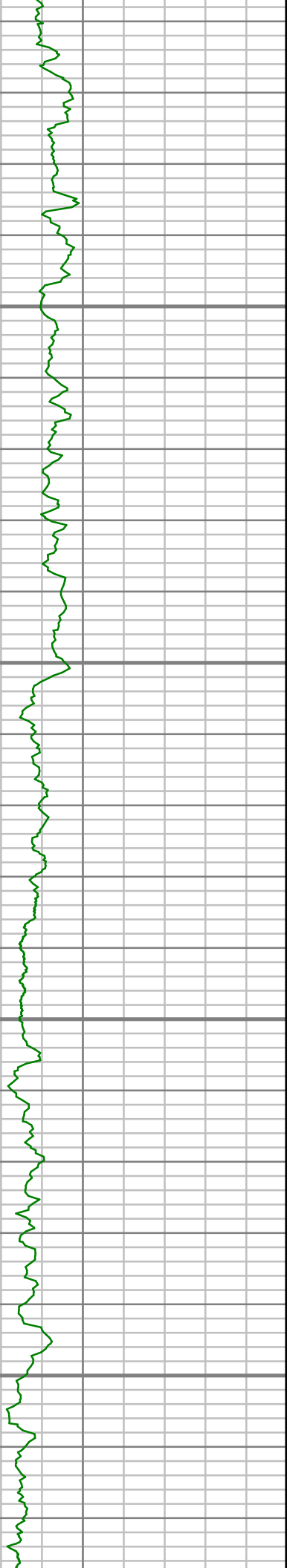
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5800





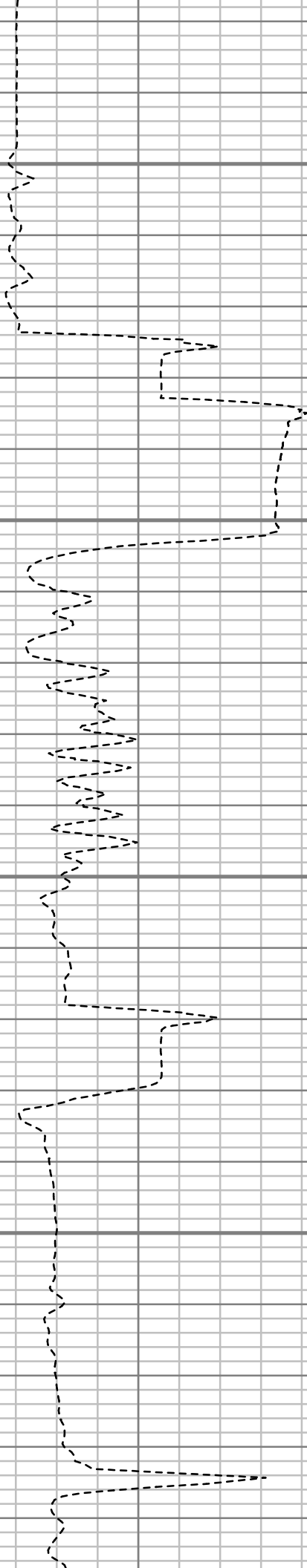


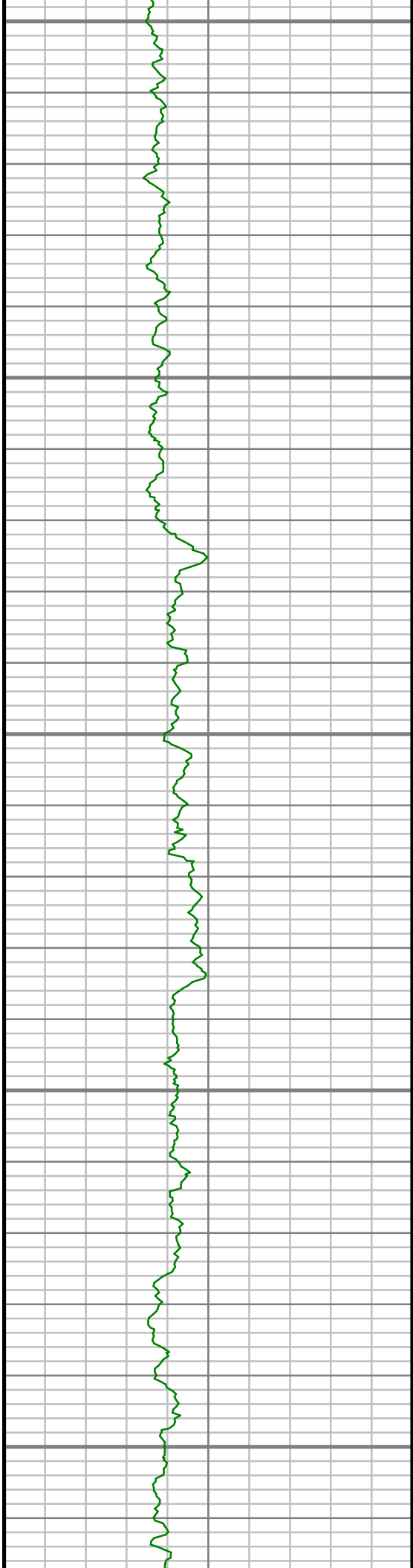
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6100

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6200





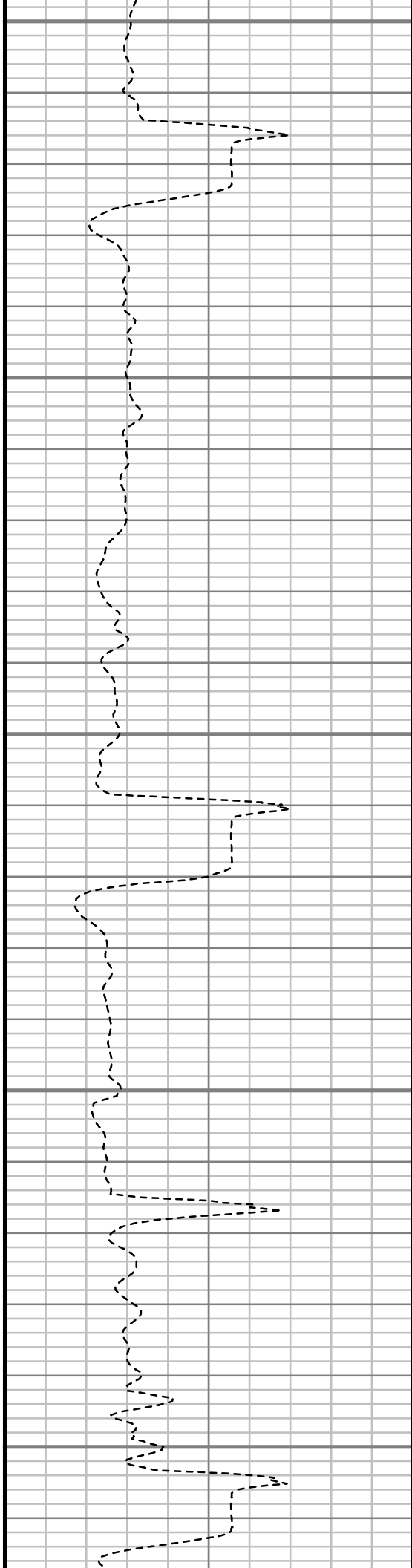
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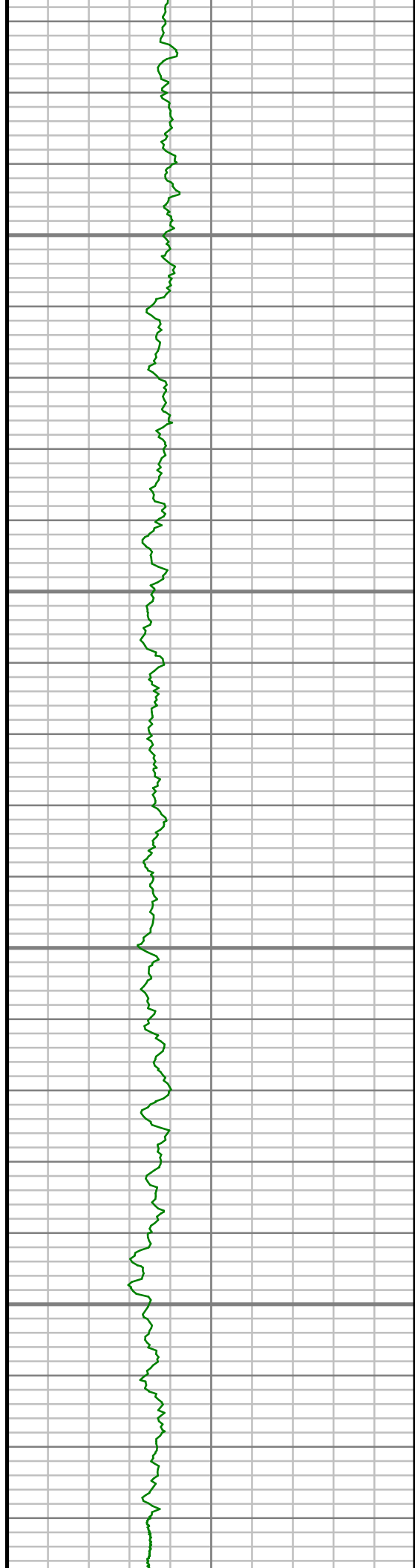
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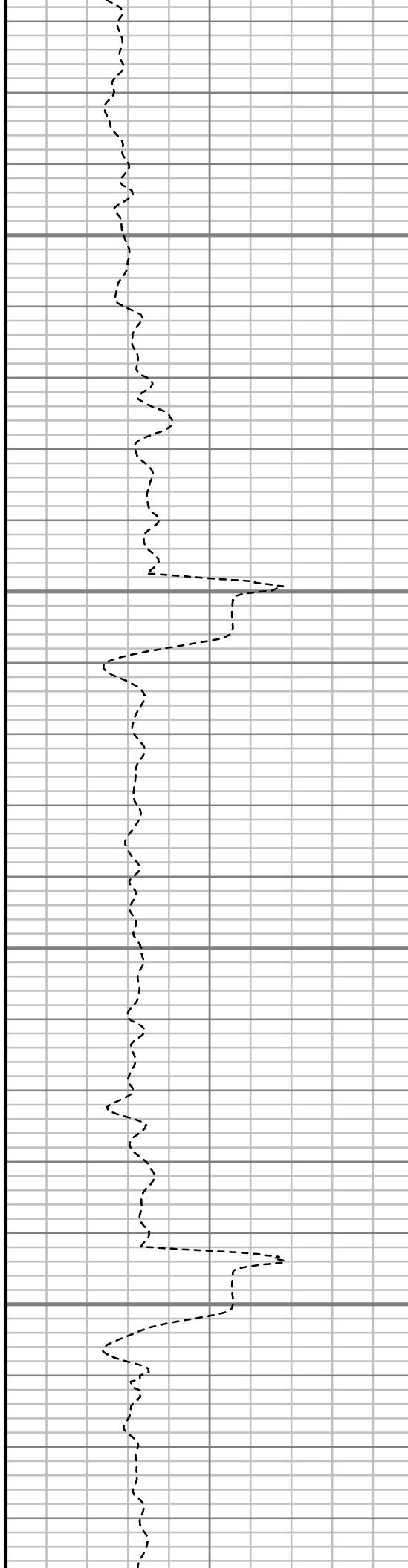


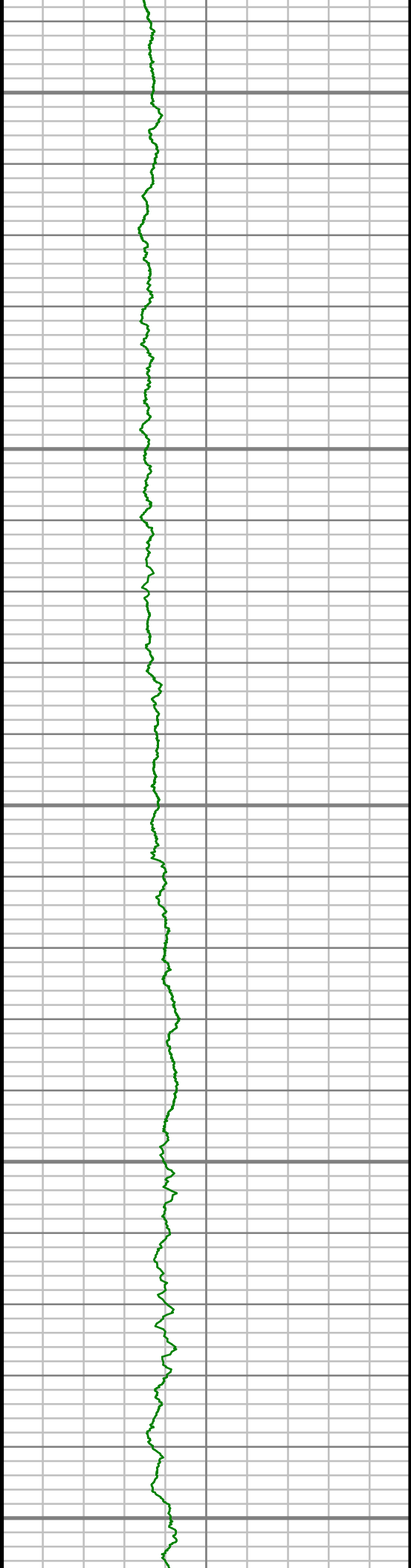
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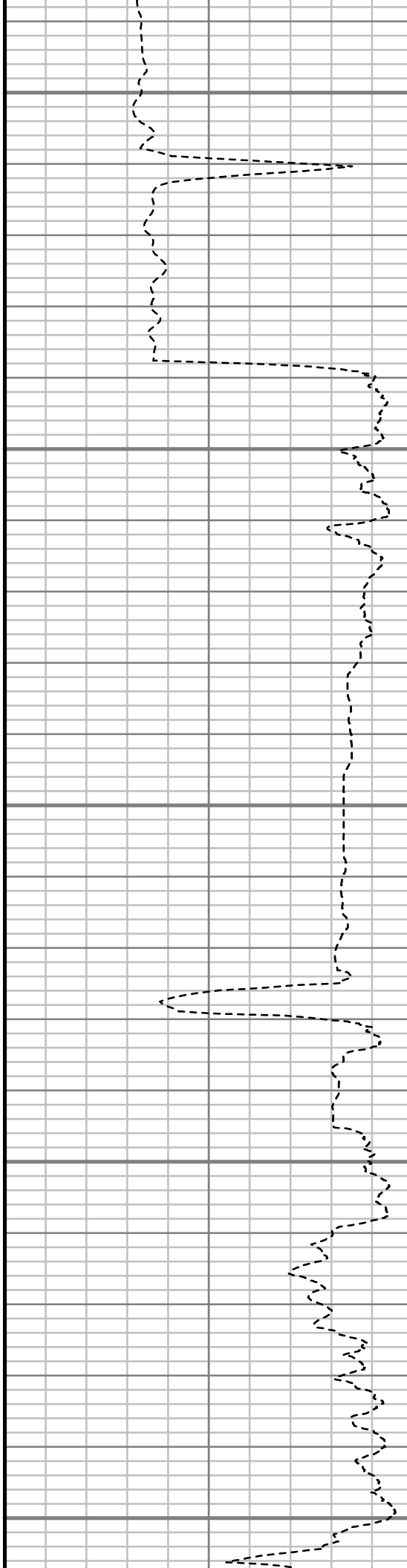
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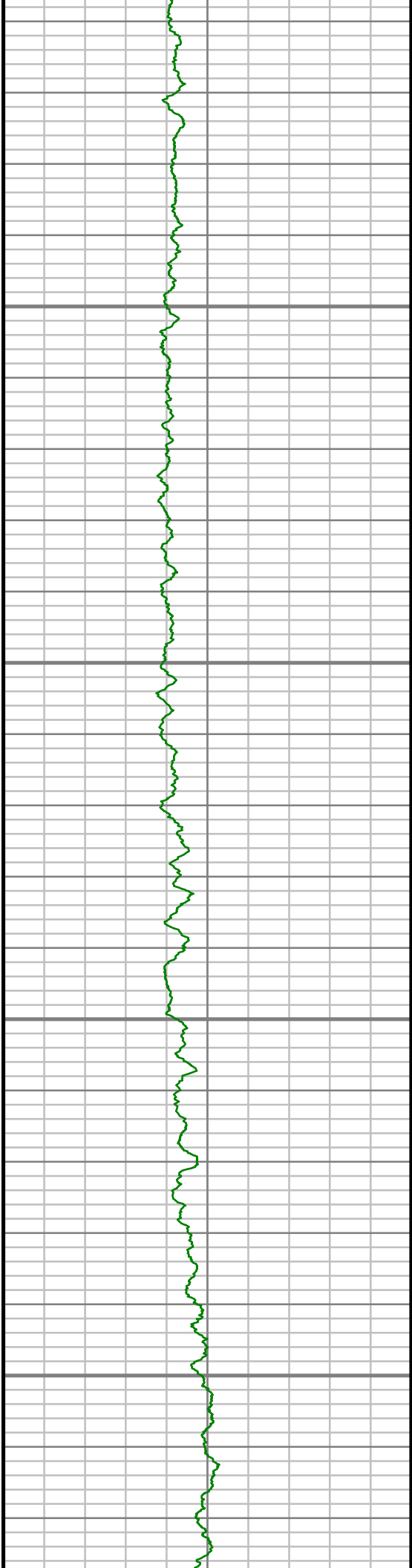
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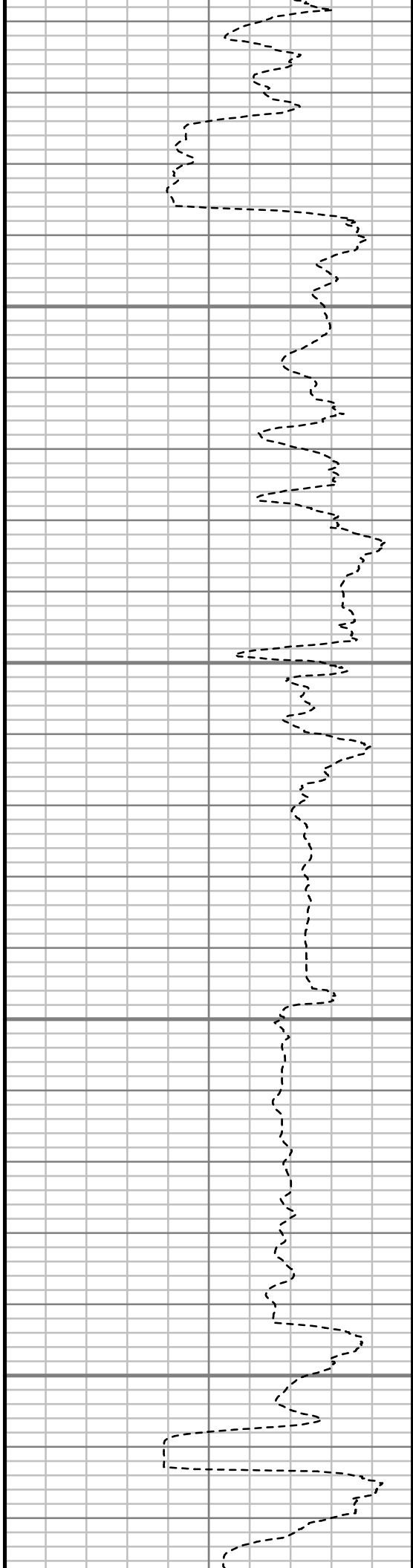


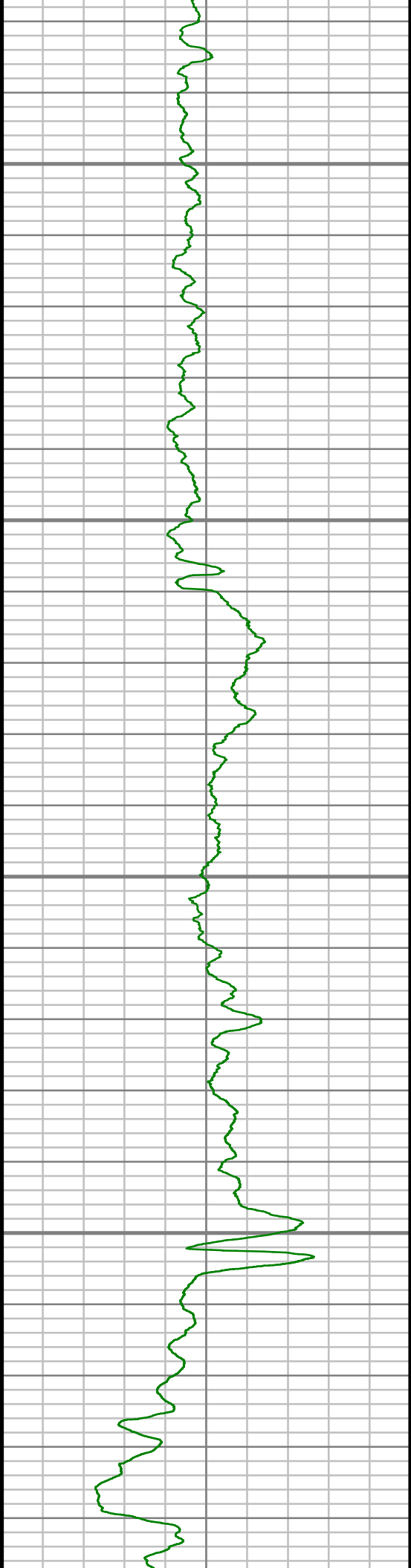
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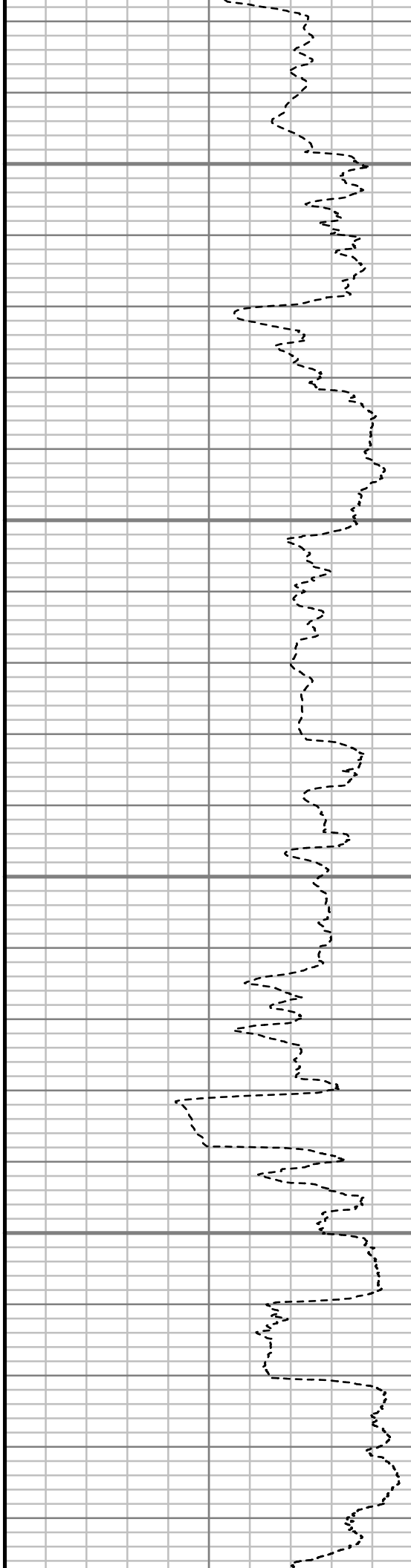


7150

7200

7250

7300





0 Unit = aapi 150

TRUE VERTICAL DEPTH  
1:240 (ft)

450	Unit = ft/hr	0
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Comments



## MWD Survey Report

Well Location	SPRAGUE
Well Name	SPRAGUE 3I-9H-N267 PRODUCTION
Survey Date	4/17/2015
Latitude	40°8'49.236"N
Longitude	104°53'54.024"W
Btotal	52457 nT
Dip	66.68 deg
Magnetic Declination	8.51 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (28.50 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 0.00Azim (deg)
Operator(s)	J. GREGORY, J. PARISEE, M. SMITH

### Well Notes

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	"/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
347.00	1.96	111.14	346.93	-2.14	-2.14	5.54	111.14	5.93	0.56
441.00	3.93	111.21	440.80	-3.89	-3.89	10.04	111.16	10.76	2.10
534.00	6.39	110.04	533.42	-6.81	-6.81	17.87	110.87	19.13	2.65
628.00	7.92	118.72	626.69	-11.72	-11.72	28.47	112.37	30.78	1.99
721.00	8.88	125.15	718.69	-18.93	-18.93	39.96	115.35	44.21	1.44
819.00	10.73	125.52	815.26	-28.58	-28.58	53.57	118.09	60.72	1.89
908.00	13.54	124.68	902.26	-39.33	-39.33	68.88	119.73	79.32	3.17
1002.00	14.09	118.79	993.54	-51.10	-51.10	87.96	120.15	101.73	1.61
1096.00	16.03	119.19	1084.31	-62.94	-62.94	109.32	119.93	126.15	2.07
1189.00	16.09	115.22	1173.68	-74.69	-74.69	132.19	119.47	151.83	1.18
1283.00	16.20	116.13	1263.98	-86.02	-86.02	155.74	118.91	177.92	0.30
1376.00	16.31	113.33	1353.26	-96.91	-96.91	179.39	118.38	203.89	0.85
1470.00	16.82	111.36	1443.36	-107.09	-107.09	204.18	117.68	230.56	0.80
1563.00	16.23	110.30	1532.51	-116.50	-116.50	228.90	116.97	256.84	0.71
1657.00	15.45	107.51	1622.94	-124.83	-124.83	253.17	116.25	282.27	1.16
1750.00	15.60	107.88	1712.55	-132.39	-132.39	276.88	115.56	306.90	0.19
1844.00	16.28	109.74	1802.94	-140.72	-140.72	301.31	115.03	332.55	0.91
1937.00	15.87	108.27	1892.30	-149.11	-149.11	325.65	114.60	358.16	0.62

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
2032.00	16.89	108.41	1983.45	-157.54	-157.54	351.08	114.17	384.80	1.08
2126.00	16.12	105.83	2073.57	-165.41	-165.41	376.59	113.71	411.32	1.13
2221.00	16.12	105.64	2164.84	-172.57	-172.57	401.98	113.23	437.45	0.06
2316.00	16.01	108.75	2256.13	-180.34	-180.34	427.09	112.89	463.60	0.91
2410.00	16.43	108.96	2346.39	-188.82	-188.82	451.94	112.68	489.80	0.45
2505.00	15.76	110.75	2437.66	-197.76	-197.76	476.70	112.53	516.10	0.88
2601.00	14.90	113.50	2530.25	-207.30	-207.30	500.22	112.51	541.47	1.17
2695.00	14.60	116.11	2621.15	-217.33	-217.33	521.94	112.61	565.38	0.78
2789.00	14.76	111.87	2712.09	-227.01	-227.01	543.69	112.66	589.18	1.16
2884.00	16.36	110.00	2803.60	-236.09	-236.09	567.49	112.59	614.64	1.77
2979.00	18.02	111.53	2894.36	-246.06	-246.06	593.74	112.51	642.70	1.81
3073.00	16.82	108.72	2984.05	-255.76	-255.76	620.14	112.41	670.81	1.56
3168.00	16.91	108.24	3074.96	-264.50	-264.50	646.28	112.26	698.31	0.18
3262.00	16.82	110.04	3164.92	-273.44	-273.44	672.04	112.14	725.54	0.56
3357.00	15.66	108.70	3256.12	-282.26	-282.26	697.10	112.04	752.08	1.28
3451.00	14.87	108.89	3346.81	-290.23	-290.23	720.54	111.94	776.79	0.84
3547.00	13.87	109.47	3439.80	-298.05	-298.05	743.04	111.86	800.59	1.05
3641.00	13.78	111.33	3531.08	-305.88	-305.88	764.09	111.82	823.04	0.48

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
3737.00	13.68	110.43	3624.34	-314.00	-314.00	785.38	111.79	845.82	0.25
3831.00	14.37	111.55	3715.53	-322.17	-322.17	806.64	111.77	868.59	0.79
3926.00	15.69	110.12	3807.28	-330.92	-330.92	829.66	111.74	893.22	1.44
4020.00	16.77	112.69	3897.54	-340.52	-340.52	854.11	111.74	919.49	1.38
4115.00	15.24	113.37	3988.85	-350.76	-350.76	878.22	111.77	945.68	1.62
4209.00	15.65	111.46	4079.46	-360.30	-360.30	901.36	111.79	970.71	0.69
4304.00	16.48	111.48	4170.75	-369.92	-369.92	925.82	111.78	996.99	0.88
4398.00	15.60	110.84	4261.09	-379.30	-379.30	950.04	111.76	1022.96	0.95
4493.00	15.30	112.90	4352.65	-388.72	-388.72	973.53	111.77	1048.27	0.66
4587.00	14.24	109.26	4443.54	-397.36	-397.36	995.87	111.75	1072.22	1.50
4682.00	15.11	110.13	4535.45	-405.48	-405.48	1018.53	111.71	1096.28	0.94
4776.00	17.25	114.77	4625.72	-415.54	-415.54	1042.70	111.73	1122.45	2.66
4871.00	17.13	113.69	4716.48	-427.06	-427.06	1068.30	111.79	1150.49	0.36
4965.00	15.41	112.18	4806.71	-437.33	-437.33	1092.53	111.82	1176.82	1.88
5060.00	13.64	111.57	4898.67	-446.22	-446.22	1114.64	111.82	1200.64	1.87
5154.00	14.78	112.46	4989.80	-454.87	-454.87	1136.03	111.82	1223.71	1.24
5249.00	17.04	113.51	5081.15	-465.05	-465.05	1160.00	111.85	1249.75	2.39
5343.00	15.98	113.79	5171.27	-475.77	-475.77	1184.47	111.88	1276.45	1.12

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
5438.00	14.65	112.13	5262.90	-485.57	-485.57	1207.57	111.91	1301.53	1.48
5533.00	12.14	109.65	5355.31	-493.45	-493.45	1228.10	111.89	1323.53	2.71
5627.00	10.53	107.14	5447.47	-499.31	-499.31	1245.62	111.84	1341.97	1.79
5722.00	9.23	103.85	5541.06	-503.69	-503.69	1261.32	111.77	1358.17	1.49
5816.00	7.98	109.56	5634.00	-507.68	-507.68	1274.78	111.71	1372.15	1.61
5911.00	6.73	118.59	5728.22	-512.55	-512.55	1285.88	111.73	1384.27	1.78
6006.00	5.33	118.65	5822.69	-517.33	-517.33	1294.65	111.78	1394.18	1.47
6100.00	4.75	105.64	5916.33	-520.47	-520.47	1302.23	111.79	1402.39	1.36
6195.00	2.87	102.66	6011.12	-522.06	-522.06	1308.34	111.75	1408.65	1.99
6289.00	0.23	254.54	6105.08	-522.62	-522.62	1310.46	111.74	1410.83	3.27
6384.00	0.40	349.56	6200.08	-522.34	-522.34	1310.22	111.74	1410.50	0.50
6478.00	0.48	357.05	6294.08	-521.62	-521.62	1310.14	111.71	1410.16	0.10
6573.00	0.59	358.61	6389.07	-520.74	-520.74	1310.11	111.68	1409.80	0.11
6667.00	0.86	316.65	6483.07	-519.75	-519.75	1309.61	111.65	1408.98	0.61
6761.00	0.63	329.15	6577.06	-518.79	-518.79	1308.87	111.62	1407.93	0.29
6856.00	0.90	310.51	6672.05	-517.86	-517.86	1308.03	111.60	1406.81	0.38
6950.00	2.53	342.92	6766.01	-515.40	-515.40	1306.86	111.52	1404.82	1.95
7045.00	13.39	8.54	6859.97	-502.48	-502.48	1307.88	111.02	1401.08	11.75

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
7139.00	17.74	3.69	6950.50	-477.41	-477.41	1310.42	110.02	1394.67	4.83
7233.00	26.54	355.20	7037.51	-442.11	-442.11	1309.58	108.65	1382.19	9.93
7328.00	37.29	358.62	7118.03	-392.04	-392.04	1307.10	106.70	1364.63	11.47
7423.00	44.65	0.27	7189.72	-329.80	-329.80	1306.56	104.17	1347.55	7.83
7517.00	57.09	354.99	7248.95	-257.15	-257.15	1303.26	101.16	1328.38	13.93
7612.00	69.34	354.66	7291.68	-172.85	-172.85	1295.61	97.60	1307.08	12.90
7706.00	73.60	358.58	7321.55	-83.92	-83.92	1290.39	93.72	1293.11	6.01
7737.00	75.37	359.37	7329.84	-54.05	-54.05	1289.85	92.40	1290.98	6.23
7817.00	82.97	0.48	7344.86	24.46	24.46	1289.76	88.91	1289.99	9.59
7911.00	91.04	0.63	7349.77	118.25	118.25	1290.66	84.77	1296.06	8.59
8006.00	90.81	0.13	7348.24	213.24	213.24	1291.28	80.62	1308.77	0.58
8100.00	90.47	0.87	7347.19	307.23	307.23	1292.10	76.62	1328.12	0.87
8195.00	89.83	0.10	7346.94	402.22	402.22	1292.90	72.72	1354.02	1.05
8289.00	90.27	1.03	7346.86	496.22	496.22	1293.82	69.02	1385.71	1.10
8383.00	89.40	359.85	7347.13	590.21	590.21	1294.54	65.49	1422.74	1.56
8478.00	90.54	359.53	7347.19	685.21	685.21	1294.02	62.10	1464.24	1.25
8573.00	89.70	359.48	7346.99	780.20	780.20	1293.21	58.90	1510.33	0.88
8667.00	88.29	359.82	7348.65	874.19	874.19	1292.63	55.93	1560.48	1.54

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
8762.00	87.21	359.49	7352.37	969.11	969.11	1292.06	53.13	1615.11	1.18
8856.00	88.29	358.75	7356.07	1063.02	1063.02	1290.61	50.52	1672.03	1.39
8951.00	89.13	357.77	7358.21	1157.95	1157.95	1287.72	48.04	1731.79	1.35
9045.00	89.70	356.95	7359.18	1251.85	1251.85	1283.39	45.71	1792.82	1.07
9140.00	90.98	358.25	7358.62	1346.76	1346.76	1279.40	43.53	1857.59	1.92
9234.00	90.37	359.22	7357.52	1440.73	1440.73	1277.33	41.56	1925.43	1.22
9329.00	90.30	359.54	7356.96	1535.72	1535.72	1276.31	39.73	1996.85	0.34
9423.00	89.02	358.83	7357.51	1629.71	1629.71	1274.97	38.04	2069.18	1.55
9518.00	90.27	359.50	7358.10	1724.69	1724.69	1273.59	36.44	2143.97	1.49
9612.00	90.10	359.54	7357.79	1818.69	1818.69	1272.81	34.99	2219.84	0.18
9707.00	88.22	358.57	7359.19	1913.66	1913.66	1271.25	33.60	2297.43	2.23
9801.00	88.69	357.60	7361.72	2007.57	2007.57	1268.11	32.28	2374.54	1.14
9896.00	90.91	357.62	7362.05	2102.48	2102.48	1264.15	31.02	2453.27	2.34
9990.00	91.31	358.39	7360.24	2196.41	2196.41	1260.88	29.86	2532.59	0.92
10085.00	90.84	359.01	7358.45	2291.37	2291.37	1258.72	28.78	2614.33	0.82
10179.00	90.47	359.73	7357.38	2385.35	2385.35	1257.69	27.80	2696.61	0.86
10274.00	89.53	0.98	7357.38	2480.35	2480.35	1258.27	26.90	2781.25	1.65
10369.00	90.30	1.24	7357.52	2575.33	2575.33	1260.11	26.07	2867.09	0.86

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
10464.00	89.26	1.47	7357.88	2670.30	2670.30	1262.36	25.30	2953.65	1.12
10558.00	88.69	0.88	7359.56	2764.26	2764.26	1264.29	24.58	3039.67	0.88
10653.00	88.72	359.36	7361.71	2859.24	2859.24	1264.50	23.86	3126.37	1.60
10748.00	91.11	0.07	7361.85	2954.23	2954.23	1264.03	23.16	3213.29	2.62
10843.00	90.34	0.07	7360.65	3049.22	3049.22	1264.15	22.52	3300.88	0.81
10937.00	91.64	359.60	7359.02	3143.20	3143.20	1263.88	21.90	3387.79	1.48
11031.00	91.24	359.67	7356.66	3237.17	3237.17	1263.27	21.32	3474.93	0.44
11126.00	89.97	358.92	7355.66	3332.16	3332.16	1262.10	20.74	3563.17	1.56
11220.00	91.38	358.23	7354.55	3426.12	3426.12	1259.77	20.19	3650.38	1.67
11315.00	90.70	358.29	7352.83	3521.06	3521.06	1256.88	19.64	3738.66	0.71
11409.00	88.69	357.88	7353.32	3615.00	3615.00	1253.74	19.13	3826.24	2.18
11503.00	89.23	358.73	7355.03	3708.94	3708.94	1250.96	18.64	3914.22	1.07
11598.00	90.30	357.77	7355.42	3803.89	3803.89	1248.06	18.16	4003.41	1.51
11693.00	90.20	358.26	7355.00	3898.84	3898.84	1244.78	17.71	4092.72	0.53
11787.00	90.47	359.51	7354.45	3992.81	3992.81	1242.95	17.29	4181.81	1.36
11881.00	89.80	358.72	7354.23	4086.80	4086.80	1241.50	16.90	4271.22	1.11
11975.00	89.13	0.59	7355.11	4180.79	4180.79	1240.94	16.53	4361.07	2.12
12070.00	89.23	0.20	7356.48	4275.78	4275.78	1241.60	16.19	4452.40	0.42

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft
12164.00	90.67	0.27	7356.56	4369.78	4369.78	1241.99	15.87	4542.85	1.54
12259.00	90.44	0.29	7355.64	4464.77	4464.77	1242.46	15.55	4634.42	0.25
12353.00	90.81	359.85	7354.62	4558.76	4558.76	1242.57	15.25	4725.07	0.62
12448.00	91.51	359.40	7352.70	4653.74	4653.74	1241.94	14.94	4816.61	0.88
12542.00	90.24	359.06	7351.27	4747.72	4747.72	1240.68	14.65	4907.15	1.40
12637.00	89.87	358.80	7351.19	4842.70	4842.70	1238.90	14.35	4998.67	0.47
12732.00	90.57	358.12	7350.82	4937.67	4937.67	1236.35	14.06	5090.10	1.03
12826.00	90.47	358.51	7349.97	5031.62	5031.62	1233.58	13.78	5180.63	0.42
12836.00	90.37	358.53	7349.90	5041.62	5041.62	1233.32	13.75	5190.28	1.03

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	Closure Direction	Closure Distance	DLS
ft	deg	deg	ft	ft	ft	ft	deg	ft	°/100ft

5" = 100' FEET TVD