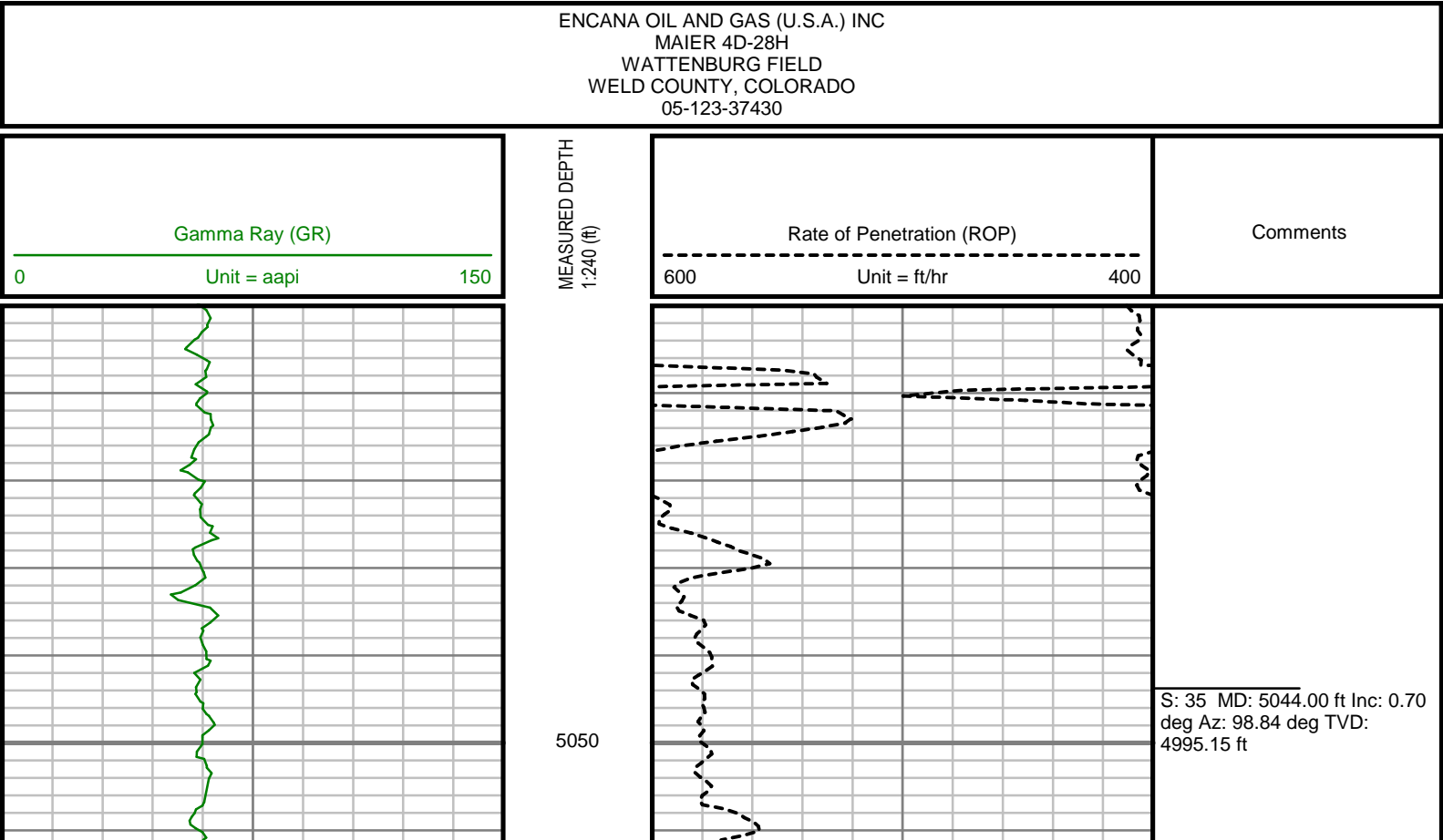


Remarks
ENCANA OIL AND GASS (U.S.A.) INC PRODUCTION AFE# 13174974
SCIENTIFIC DRILLING INTERNATIONAL JOB# 53595
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
RUN #1: MWD / DIRECTIONAL RUN
SENSORS S/N: CONT = 1011 / MWD EYE = 0120
BIT TO SENSOR OFFSET: SURVEY = 59.61 FT.
RUN #2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-321 / CONT = 761 / MWD EYE = 0764 / GAMMA RAY = 342
BIT TO SENSOR OFFSETS: SURVEY = 56.89 FT. / GAMMA RAY = 47.64 FT.
RUN #3: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-208 / CONT = 786 / MWD EYE = 0120 / GAMMA RAY = 450
BIT TO SENSOR OFFSETS: SURVEY = 56.60 FT. / GAMMA RAY = 47.35 FT.
MNEMONICS LIST:
GR = GAMMA RAY
ROP = RATE OF PENETRATION

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.



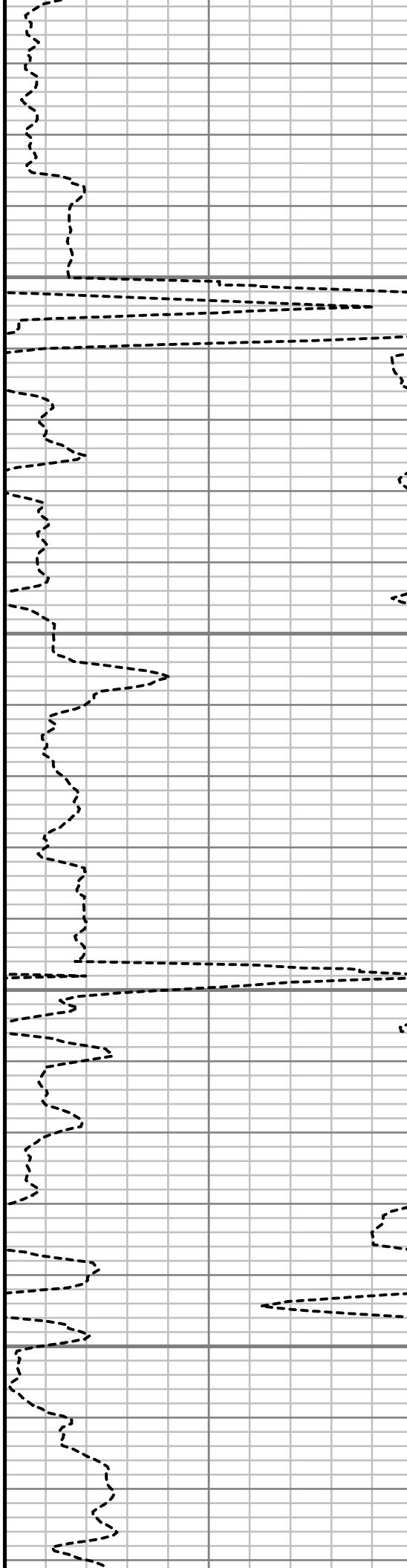


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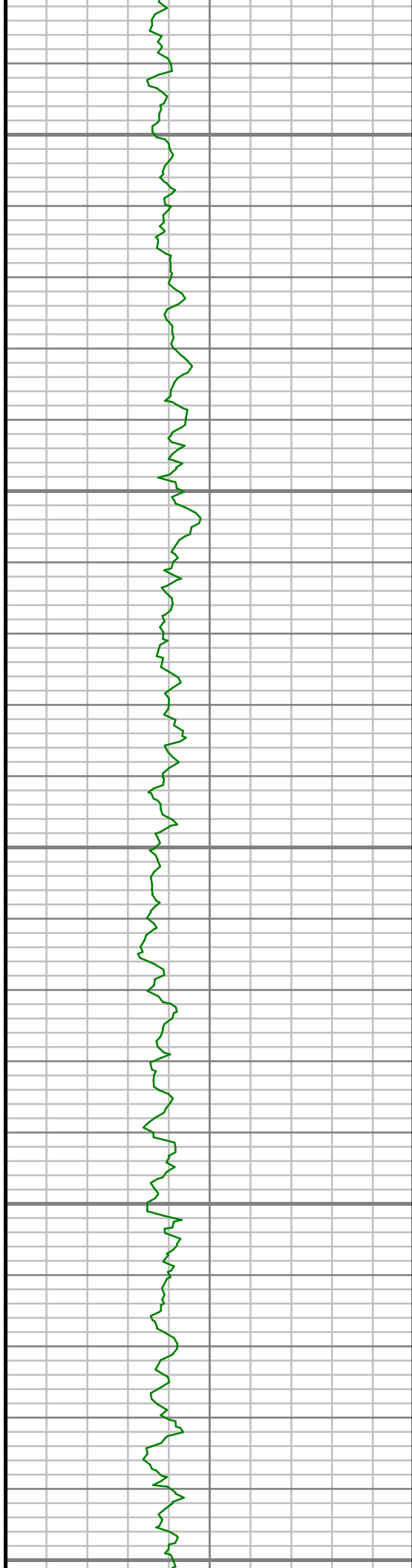
5150

5200

5250



S: 36 MD: 5234.00 ft Inc: 1.85
deg Az: 155.35 deg TVD:
5185.10 ft



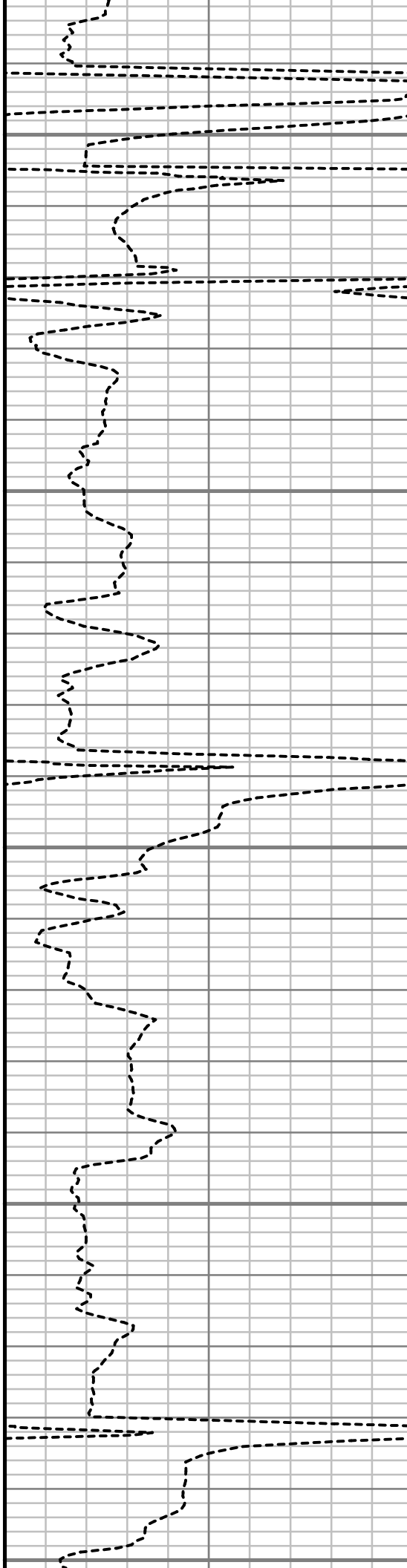
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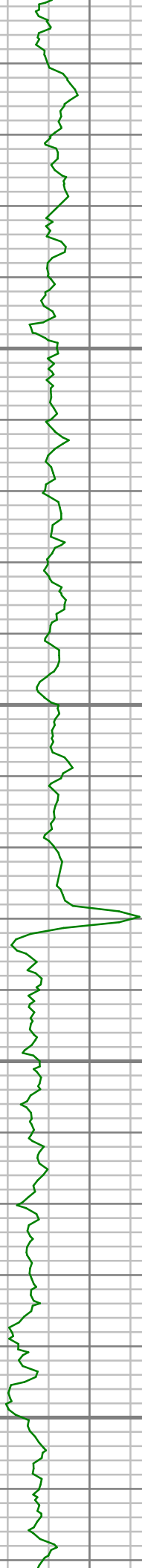
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5450

5500



S: 37 MD: 5424.00 ft Inc: 0.97
deg Az: 115.54 deg TVD:
5375.05 ft

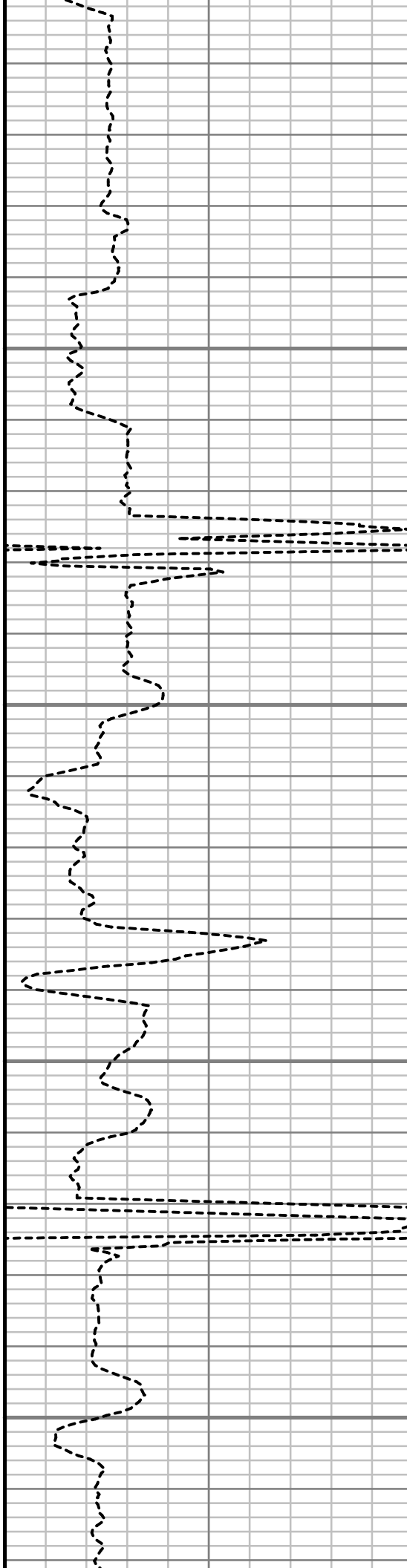


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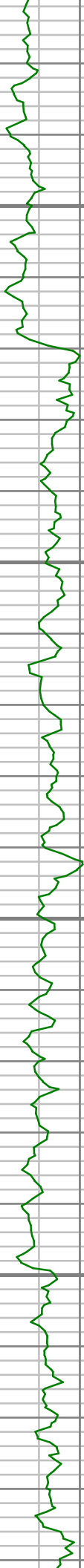
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5650

5700



S: 38 MD: 5614.00 ft Inc: 0.44
deg Az: 81.44 deg TVD:
5565.03 ft

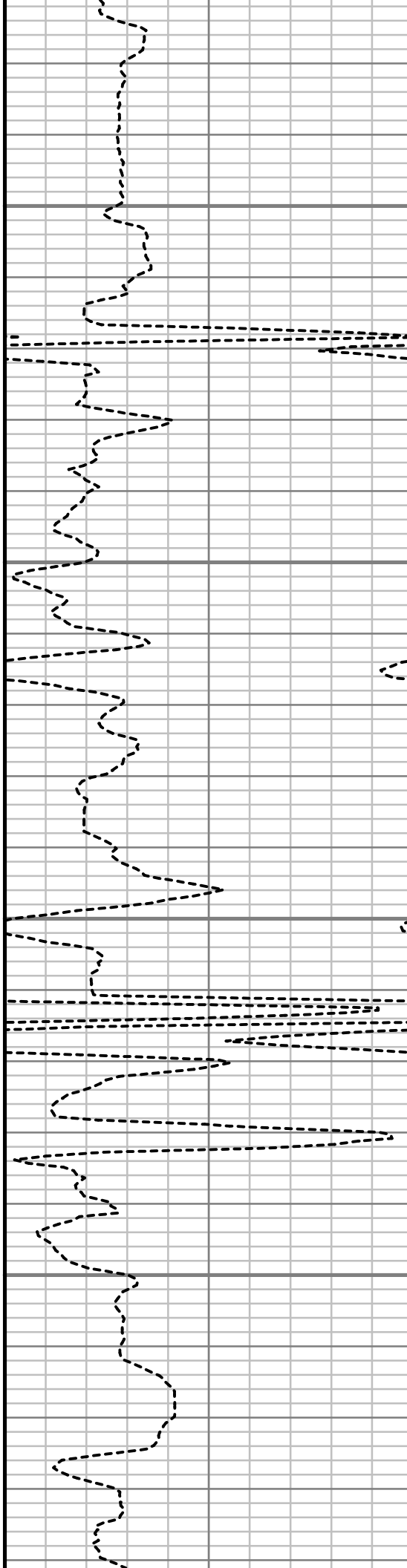


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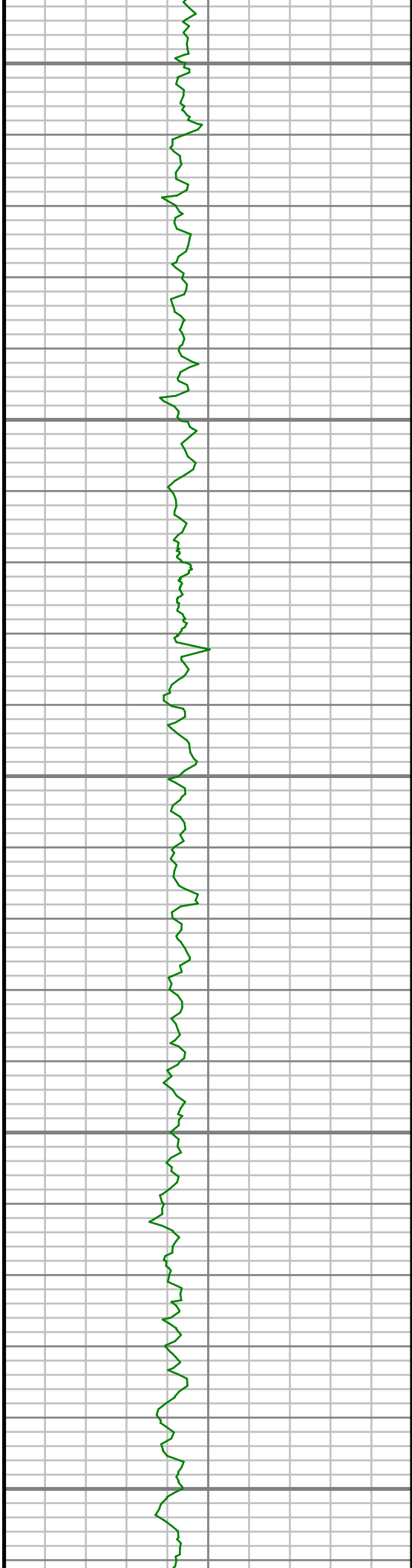
5800

5850

5900



S: 39 MD: 5803.00 ft Inc: 0.62
deg Az: 179.52 deg TVD:
5754.03 ft



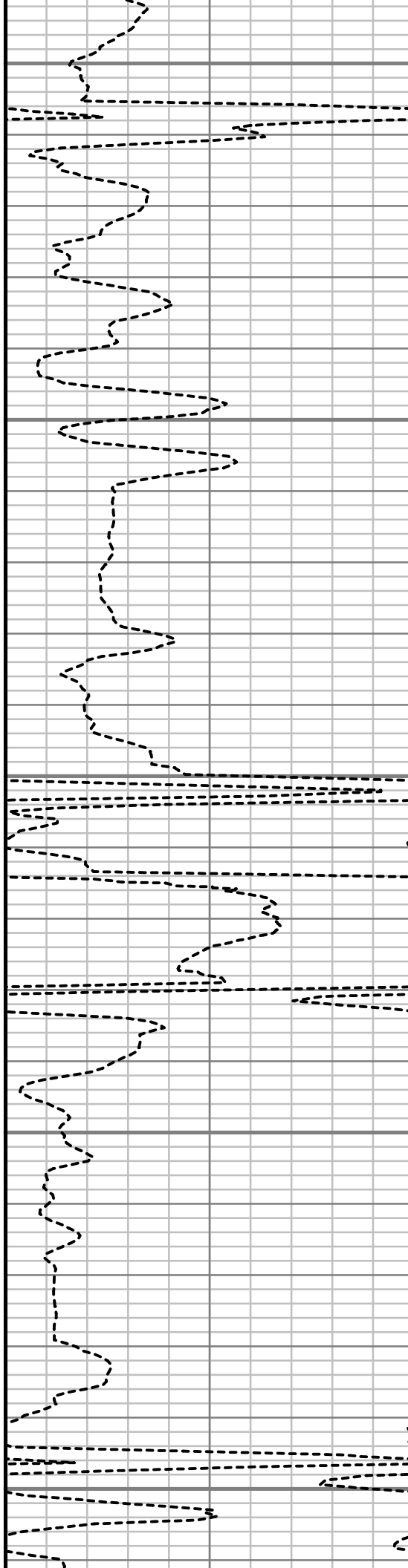
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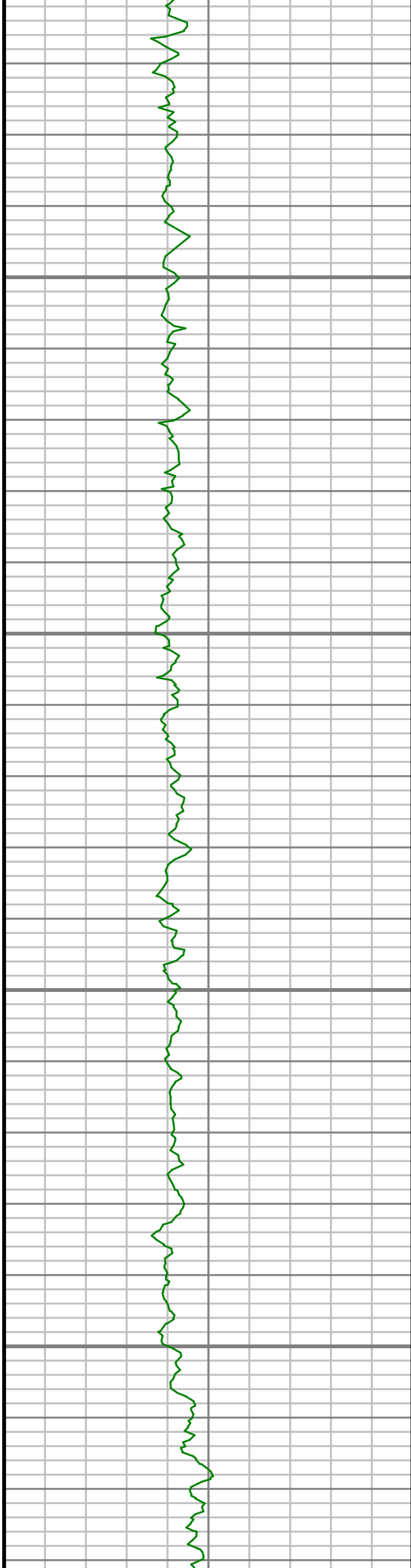
6050

6100

6150



S: 40 MD: 5992.00 ft Inc: 1.23
deg Az: 203.43 deg TVD:
5943.00 ft

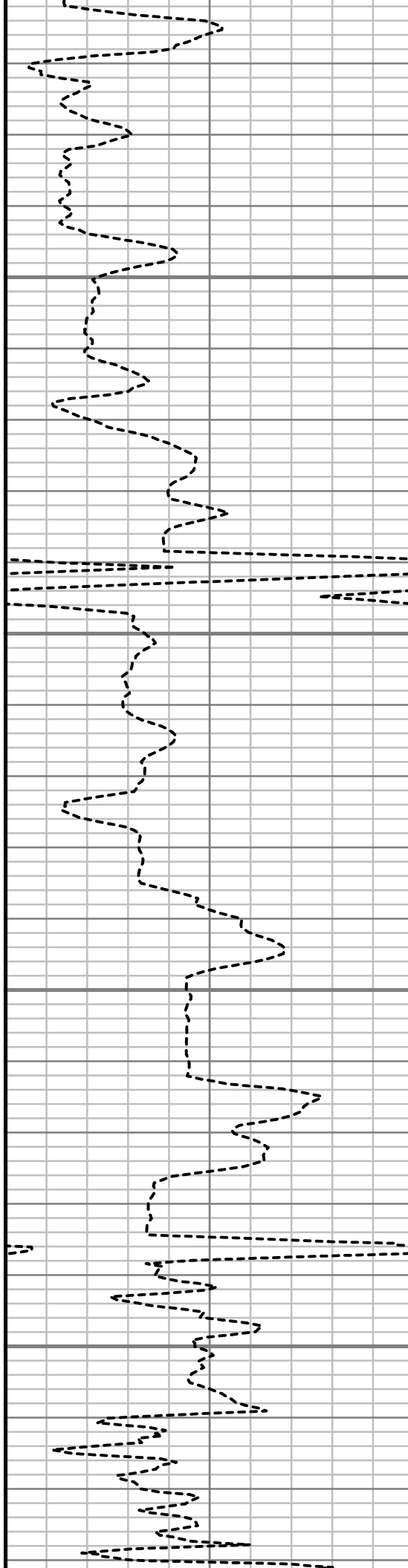


6200

6250

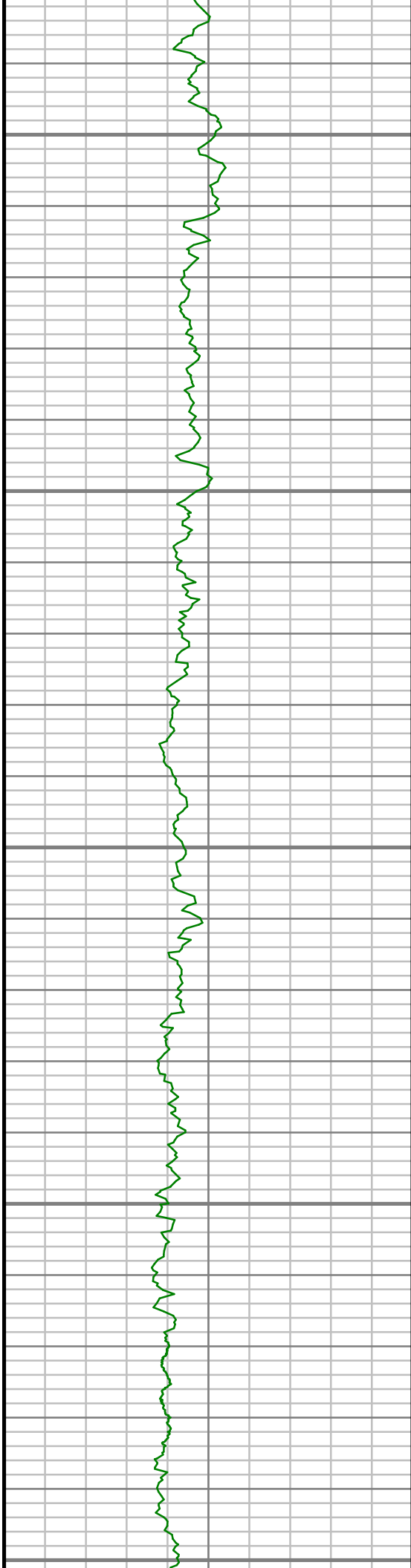
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6350



S: 41 MD: 6182.00 ft Inc: 0.79
deg Az: 285.69 deg TVD:
6132.98 ft

S: 42 MD: 6372.00 ft Inc: 0.62
deg Az: 226.54 deg TVD:
6322.97 ft



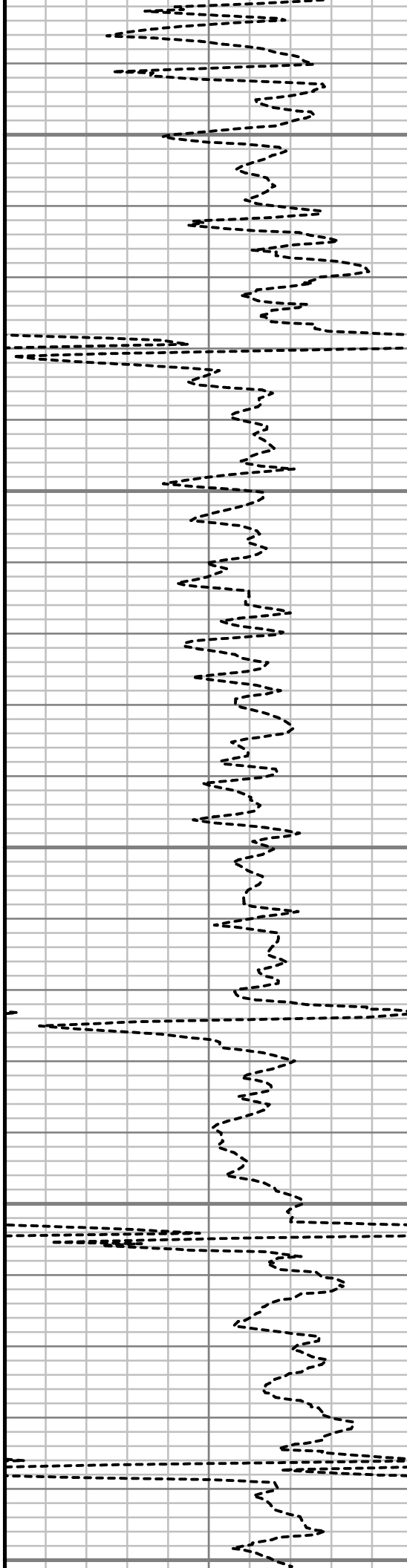
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6450

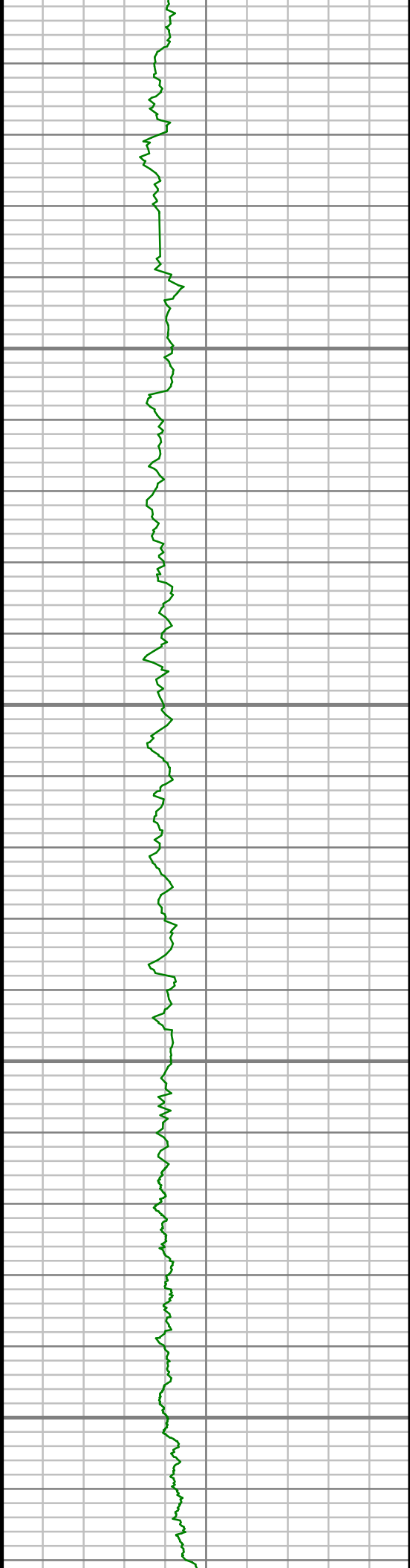
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6550

6600



S: 43 MD: 6562.00 ft Inc: 0.79
deg Az: 207.47 deg TVD:
6512.95 ft

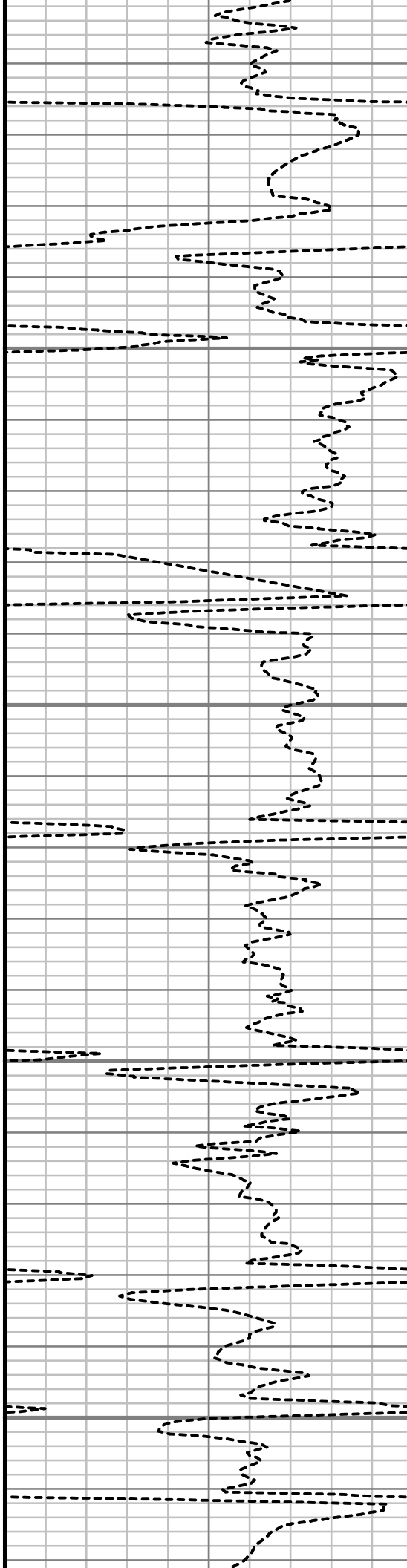


6650

6700

6750

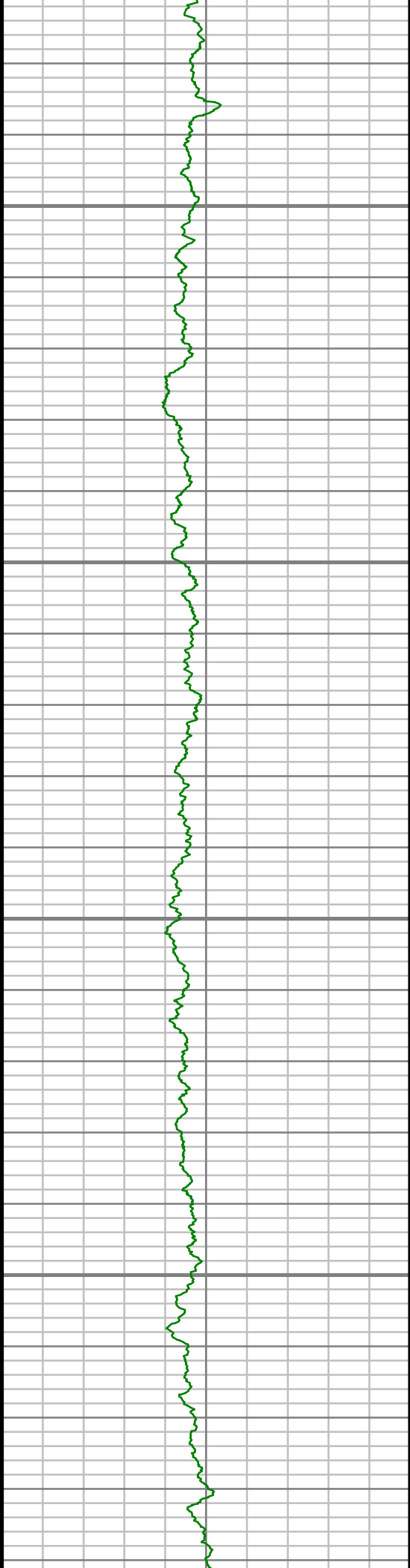
6800



S: 44 MD: 6752.00 ft Inc: 0.97
deg Az: 324.45 deg TVD:
6702.94 ft

S: 45 MD: 6784.00 ft Inc: 1.14
deg Az: 316.02 deg TVD:
6734.94 ft

S: 46 MD: 6815.00 ft Inc: 2.90
deg Az: 348.27 deg TVD:
6765.02 ft

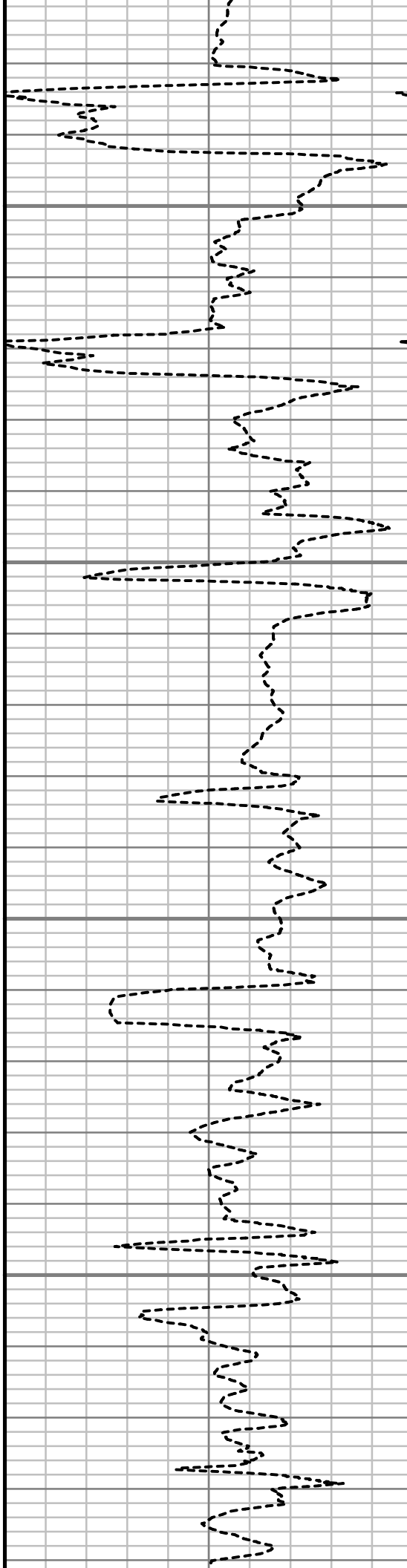


6850

6900

6950

7000



S: 47 MD: 6847.00 ft Inc: 5.01
deg Az: 4.09 deg TVD: 6797.84
ft

S: 48 MD: 6879.00 ft Inc: 7.56
deg Az: 11.83 deg TVD:
6829.64 ft

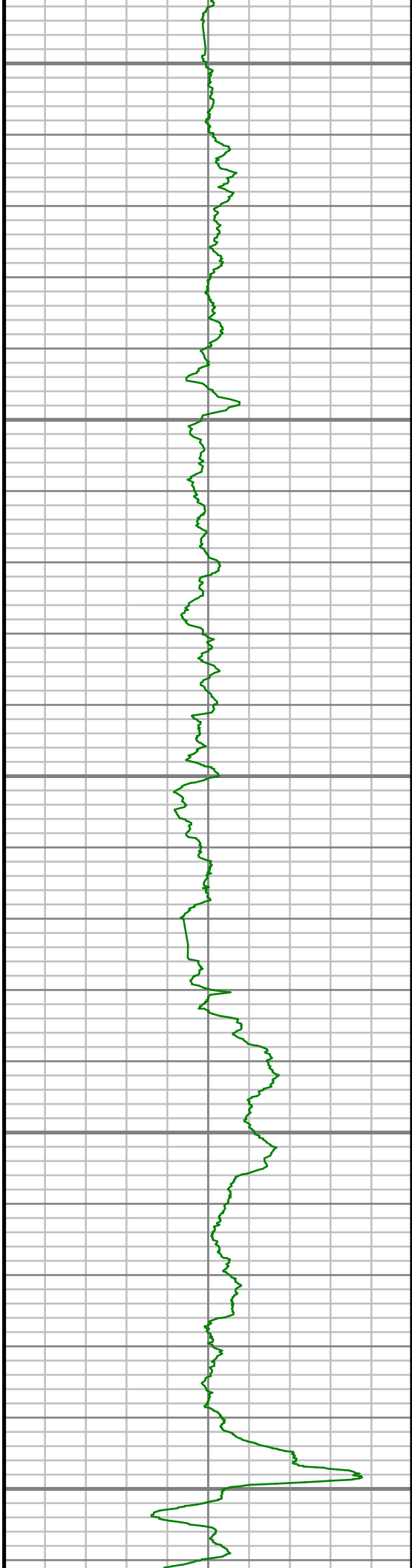
S: 49 MD: 6910.00 ft Inc: 9.50
deg Az: 11.39 deg TVD:
6860.30 ft

S: 50 MD: 6942.00 ft Inc: 12.66
deg Az: 8.49 deg TVD: 6891.70
ft

S: 51 MD: 6974.00 ft Inc: 15.04
deg Az: 7.52 deg TVD: 6922.77
ft

S: 52 MD: 7005.00 ft Inc: 17.94
deg Az: 9.01 deg TVD: 6952.49
ft

S: 53 MD: 7037.00 ft Inc: 20.58
deg Az: 7.26 deg TVD: 6982.70
ft



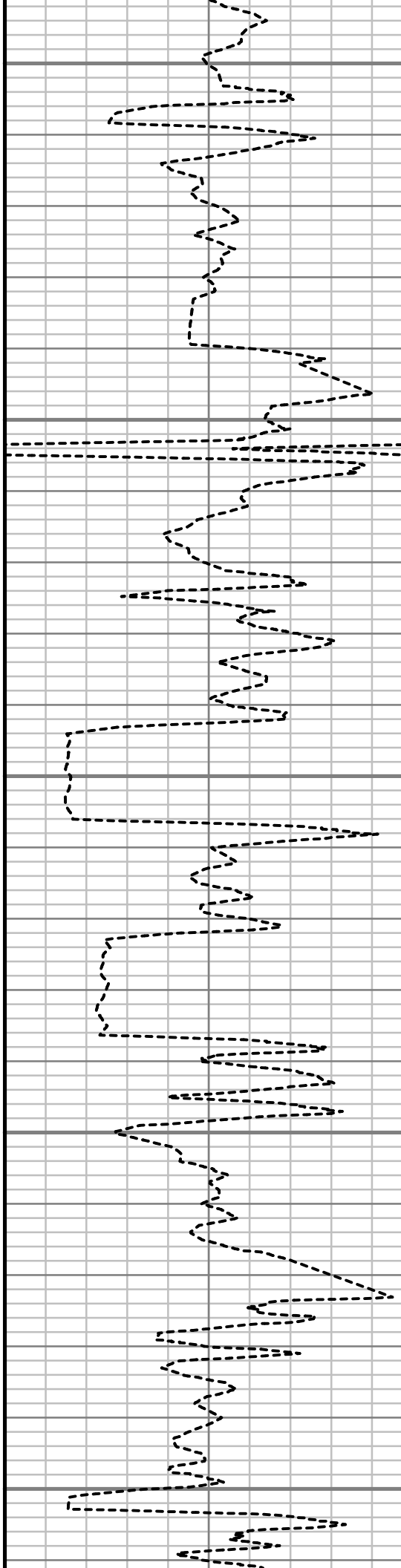
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7100

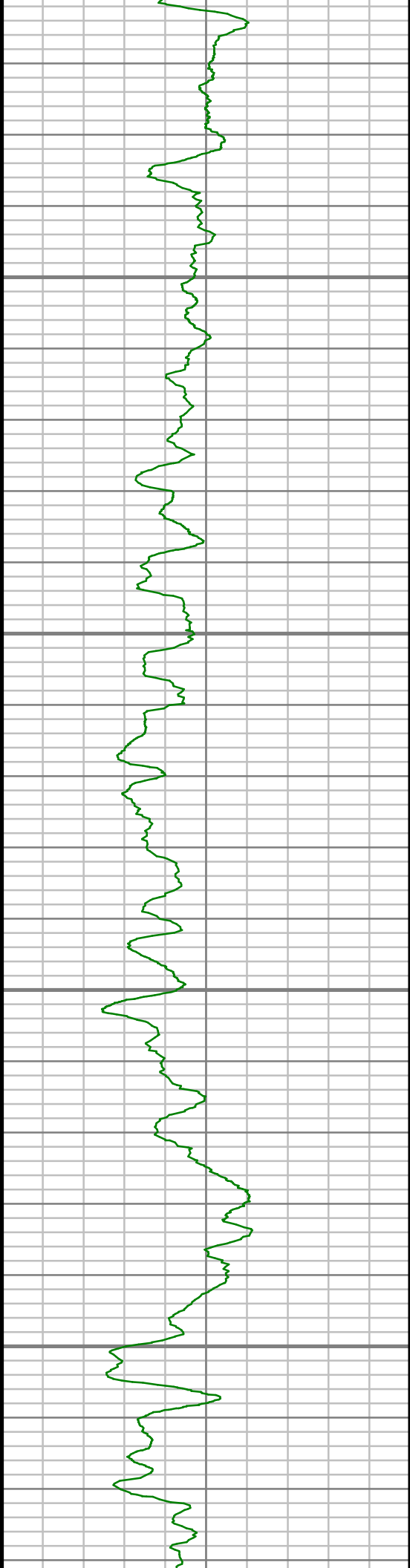
7150

7200

7250



ft
S: 54 MD: 7068.00 ft Inc: 24.80 deg Az: 3.39 deg TVD: 7011.29 ft
S: 55 MD: 7100.00 ft Inc: 29.19 deg Az: 0.93 deg TVD: 7039.80 ft
S: 56 MD: 7132.00 ft Inc: 31.74 deg Az: 359.96 deg TVD: 7067.38 ft
S: 57 MD: 7164.00 ft Inc: 32.80 deg Az: 1.37 deg TVD: 7094.44 ft
S: 58 MD: 7195.00 ft Inc: 33.59 deg Az: 4.00 deg TVD: 7120.38 ft
S: 59 MD: 7227.00 ft Inc: 36.67 deg Az: 5.32 deg TVD: 7146.55 ft
S: 60 MD: 7259.00 ft Inc: 38.87

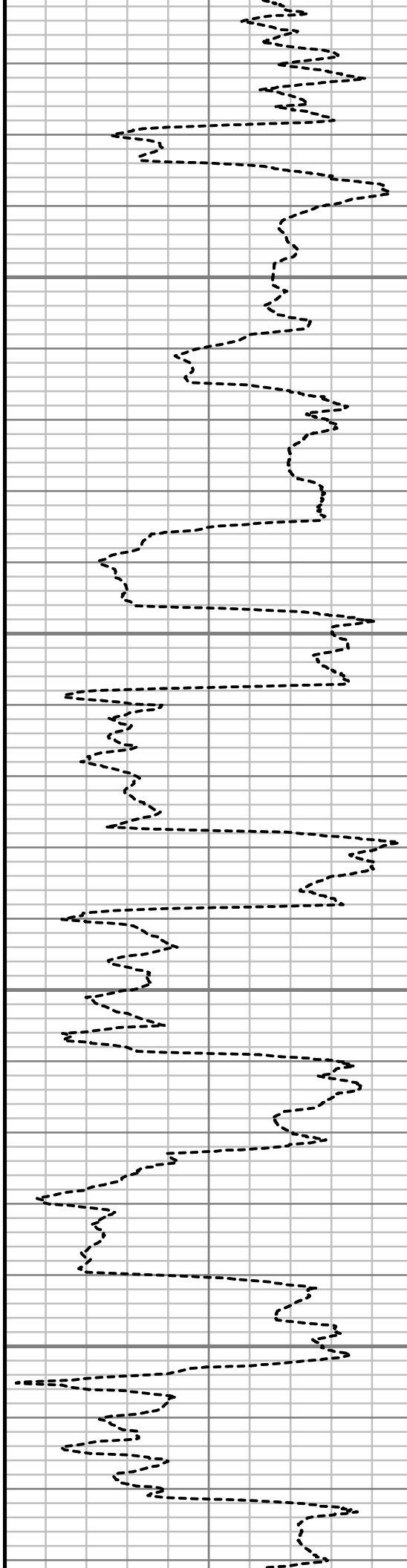


7300

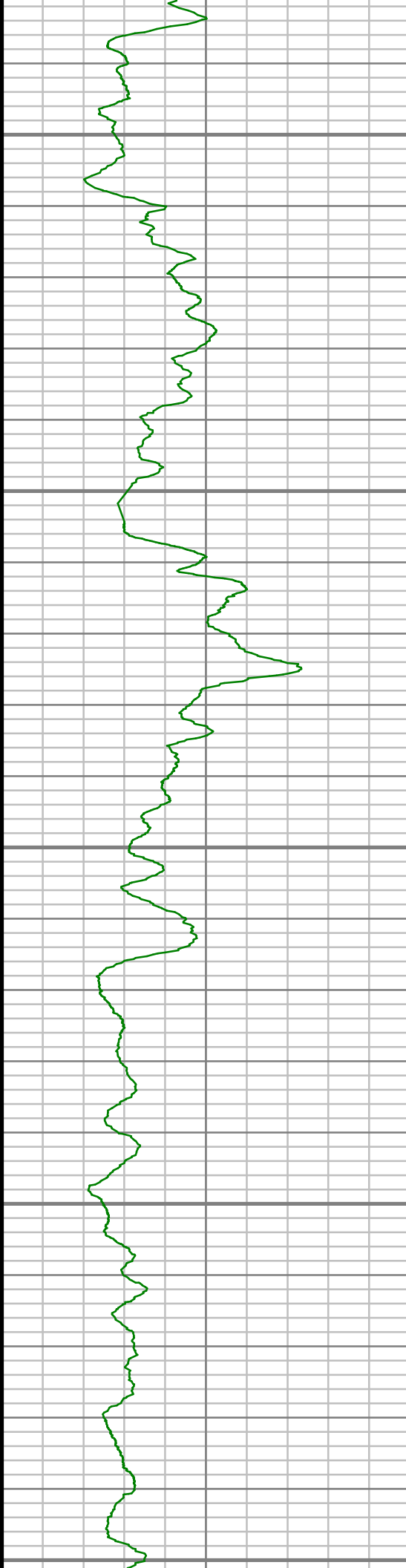
7350

7400

7450



deg Az: 5.59 deg TVD: 7171.84 ft
S: 61 MD: 7290.00 ft Inc: 41.77 deg Az: 3.57 deg TVD: 7195.48 ft
S: 62 MD: 7322.00 ft Inc: 44.76 deg Az: 1.02 deg TVD: 7218.78 ft
S: 63 MD: 7354.00 ft Inc: 46.78 deg Az: 359.26 deg TVD: 7241.10 ft
S: 64 MD: 7385.00 ft Inc: 48.63 deg Az: 358.20 deg TVD: 7261.96 ft
S: 65 MD: 7417.00 ft Inc: 50.83 deg Az: 357.76 deg TVD: 7282.65 ft
S: 66 MD: 7449.00 ft Inc: 53.02 deg Az: 358.20 deg TVD: 7302.38 ft
S: 67 MD: 7480.00 ft Inc: 54.61



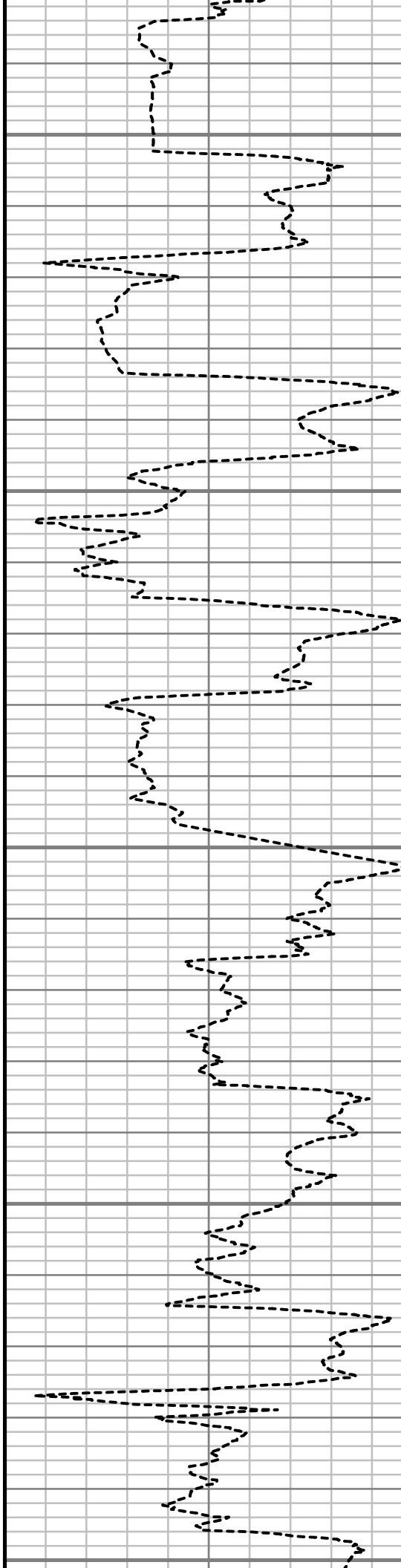
7500

7550

7600

7650

7700



S: 67 MD: 7480.00 ft Inc: 54.61
deg Az: 359.87 deg TVD: 7320.68 ft

S: 68 MD: 7512.00 ft Inc: 56.45
deg Az: 0.66 deg TVD: 7338.79 ft

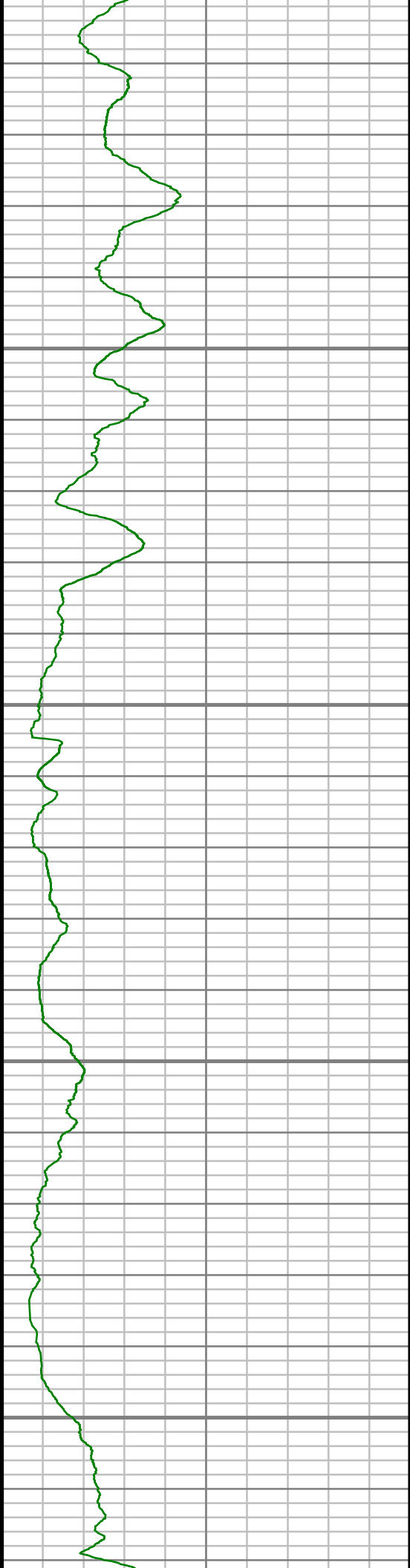
S: 69 MD: 7543.00 ft Inc: 58.56
deg Az: 0.93 deg TVD: 7355.44 ft

S: 70 MD: 7575.00 ft Inc: 60.32
deg Az: 1.10 deg TVD: 7371.71 ft

S: 71 MD: 7607.00 ft Inc: 62.61
deg Az: 0.93 deg TVD: 7387.00 ft

S: 72 MD: 7638.00 ft Inc: 65.33
deg Az: 0.93 deg TVD: 7400.60 ft

S: 73 MD: 7670.00 ft Inc: 67.71
deg Az: 0.93 deg TVD: 7413.35 ft

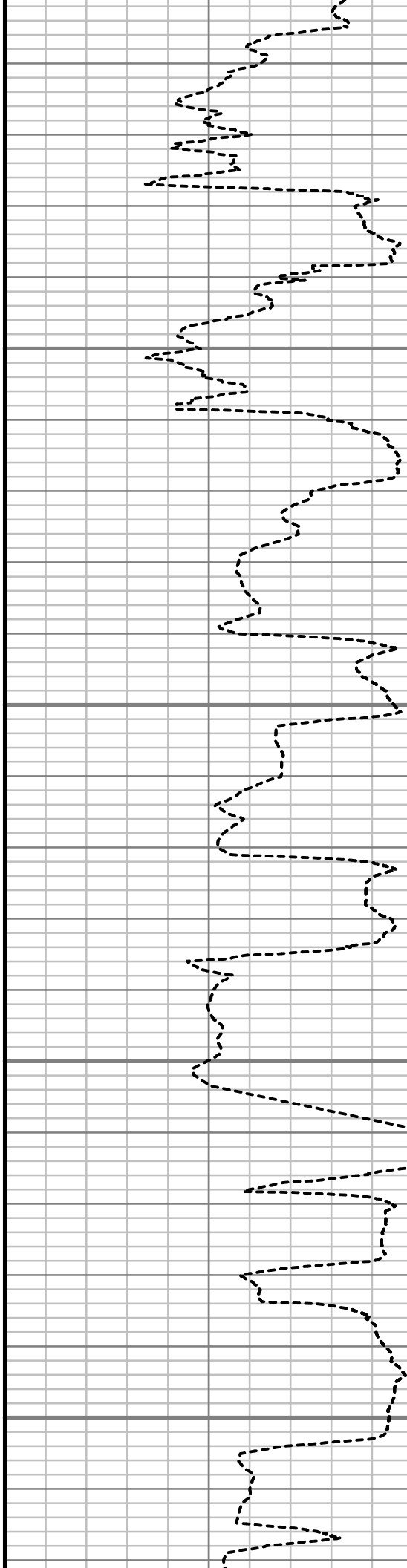


7750

7800

7850

7900



S: 74 MD: 7702.00 ft Inc: 69.91
deg Az: 0.31 deg TVD: 7424.91
ft

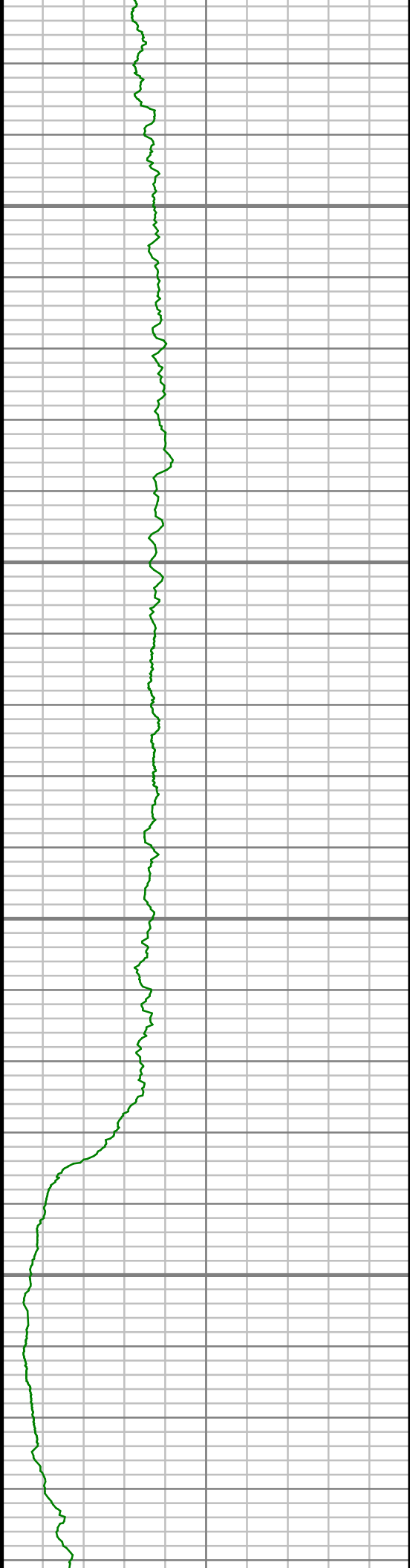
S: 75 MD: 7734.00 ft Inc: 71.58
deg Az: 0.58 deg TVD: 7435.47
ft

S: 76 MD: 7765.00 ft Inc: 73.42
deg Az: 0.58 deg TVD: 7444.79
ft

S: 77 MD: 7797.00 ft Inc: 74.83
deg Az: 0.75 deg TVD: 7453.54
ft

S: 78 MD: 7829.00 ft Inc: 76.68
deg Az: 0.66 deg TVD: 7461.41
ft

S: 79 MD: 7860.00 ft Inc: 78.44
deg Az: 0.49 deg TVD: 7468.09
ft

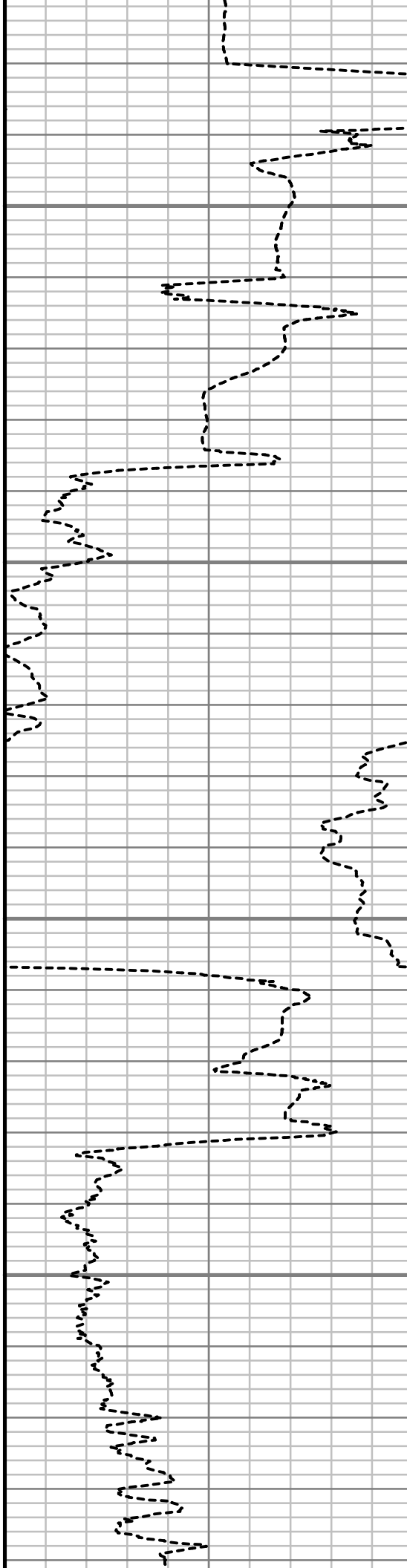


7950

8000

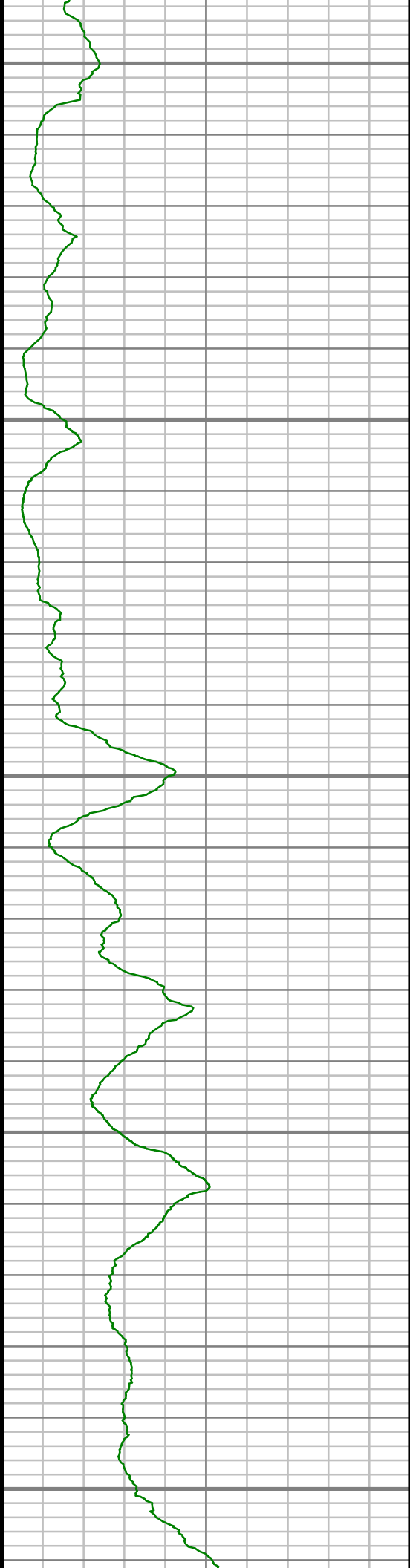
8050

8100



S: 80 MD: 8001.00 ft Inc: 88.12
deg Az: 357.76 deg TVD:
7484.59 ft

S: 81 MD: 8096.00 ft Inc: 89.40
deg Az: 359.37 deg TVD:
7486.65 ft



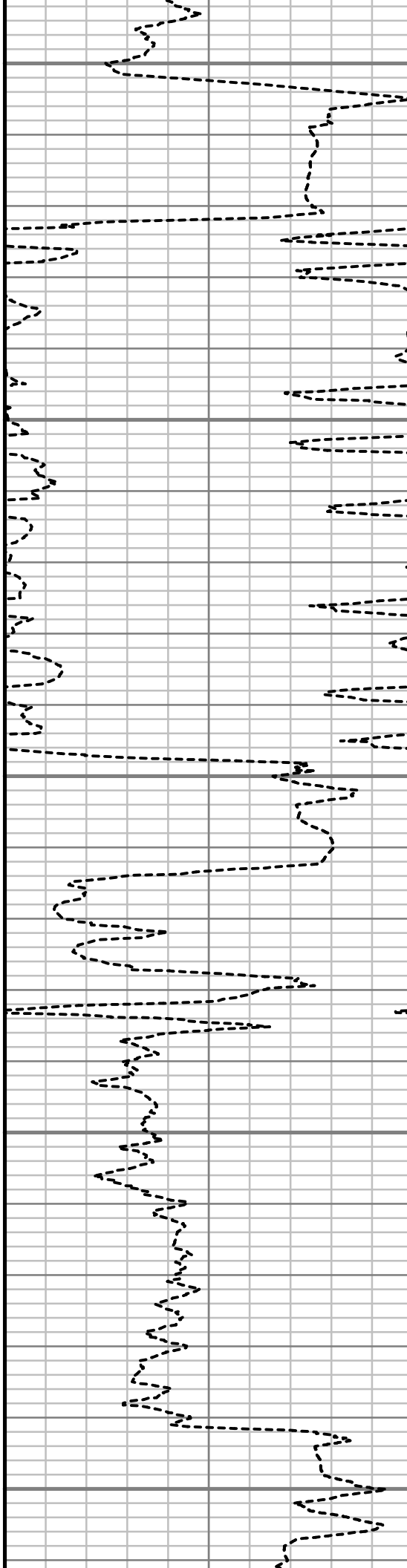
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8200

8250

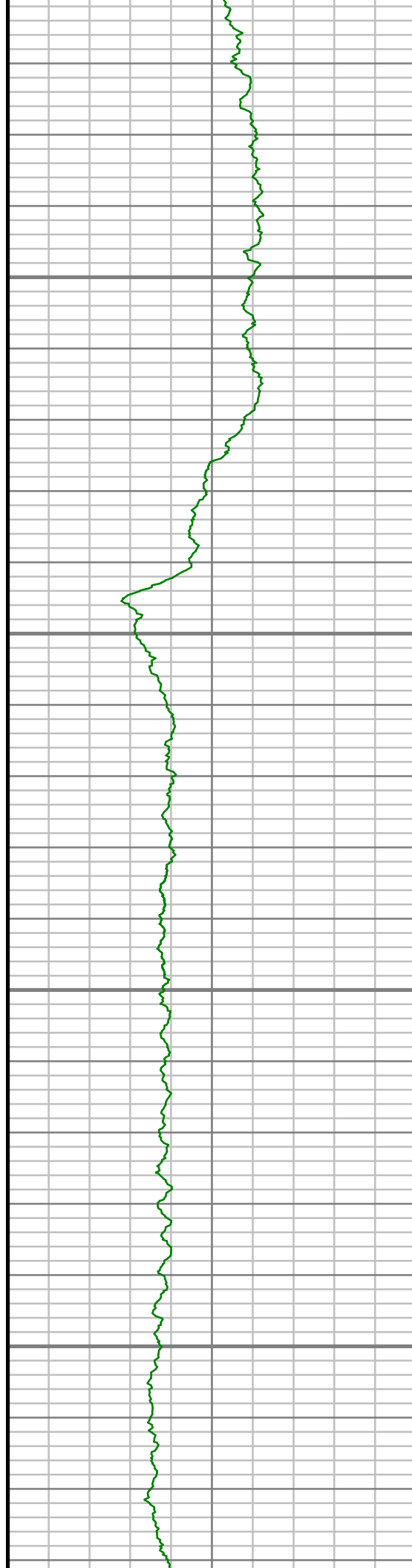
8300

8350



S: 82 MD: 8190.00 ft Inc: 91.21
deg Az: 1.05 deg TVD: 7486.15
ft

S: 83 MD: 8286.00 ft Inc: 91.01
deg Az: 1.66 deg TVD: 7484.29
ft

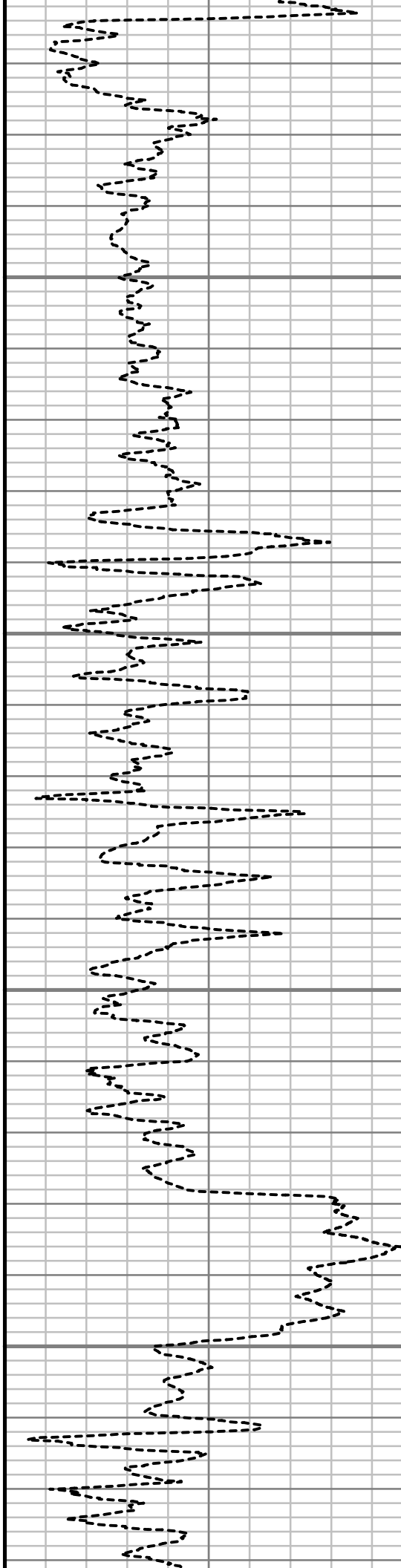


8400

8450

8500

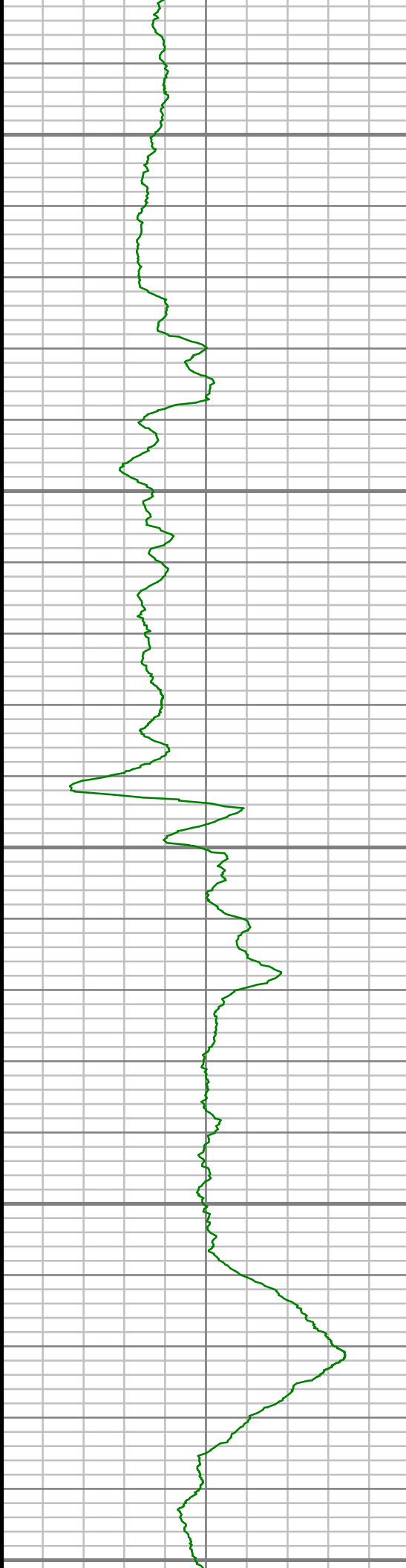
8550



S: 84 MD: 8380.00 ft Inc: 88.83
deg Az: 1.25 deg TVD: 7484.43
ft

S: 85 MD: 8475.00 ft Inc: 88.26
deg Az: 358.77 deg TVD:
7486.85 ft

S: 86 MD: 8571.00 ft Inc: 88.69
deg Az: 1.38 deg TVD: 7489.40
ft



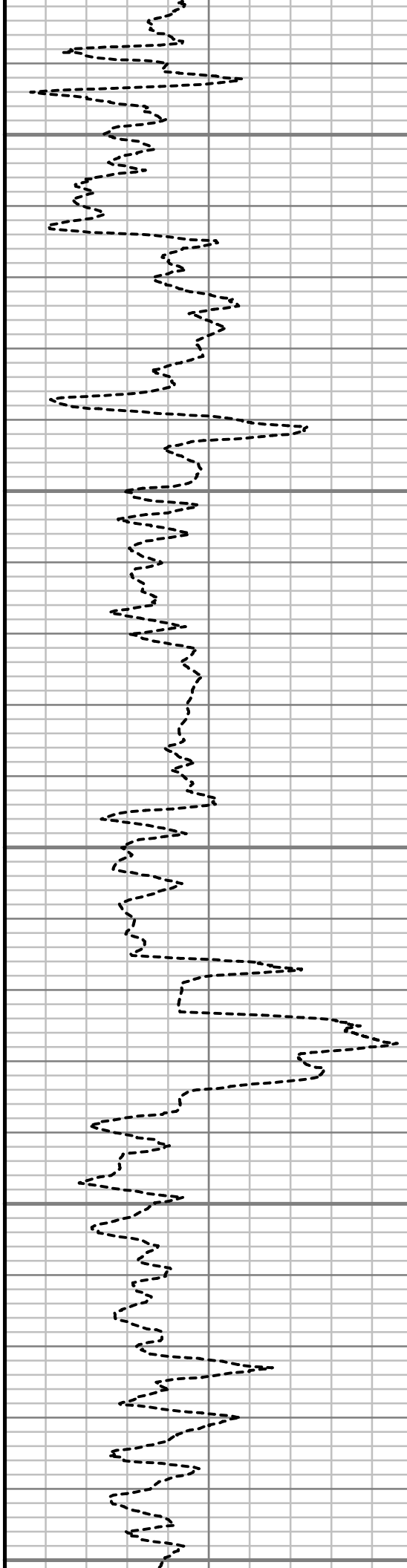
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8650

8700

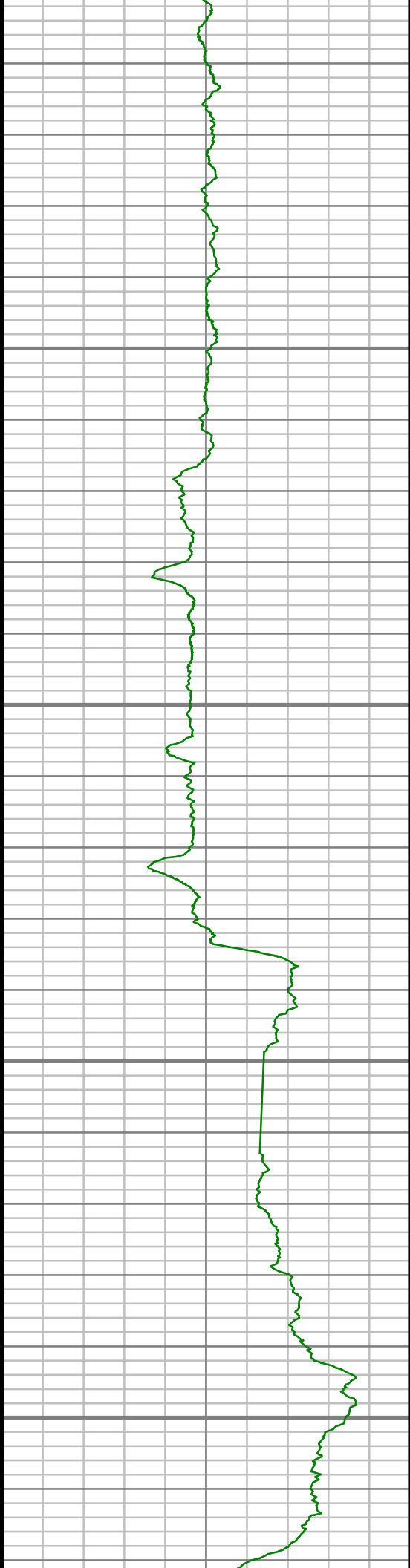
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8800



S: 87 MD: 8666.00 ft Inc: 88.99
deg Az: 1.01 deg TVD: 7491.33
ft

S: 88 MD: 8761.00 ft Inc: 88.15
deg Az: 359.21 deg TVD:
7493.69 ft

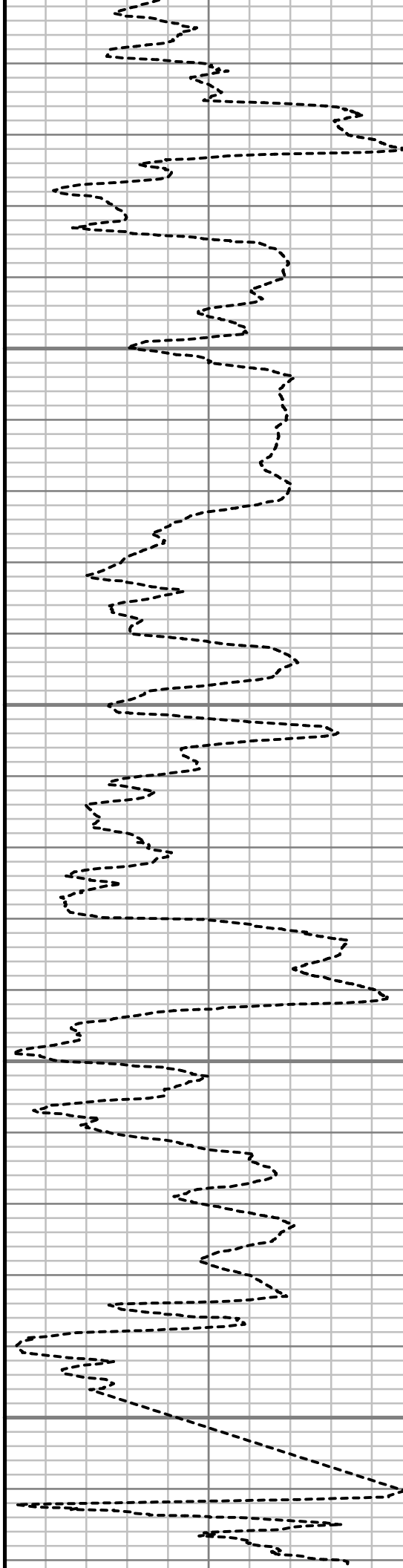


8850

8900

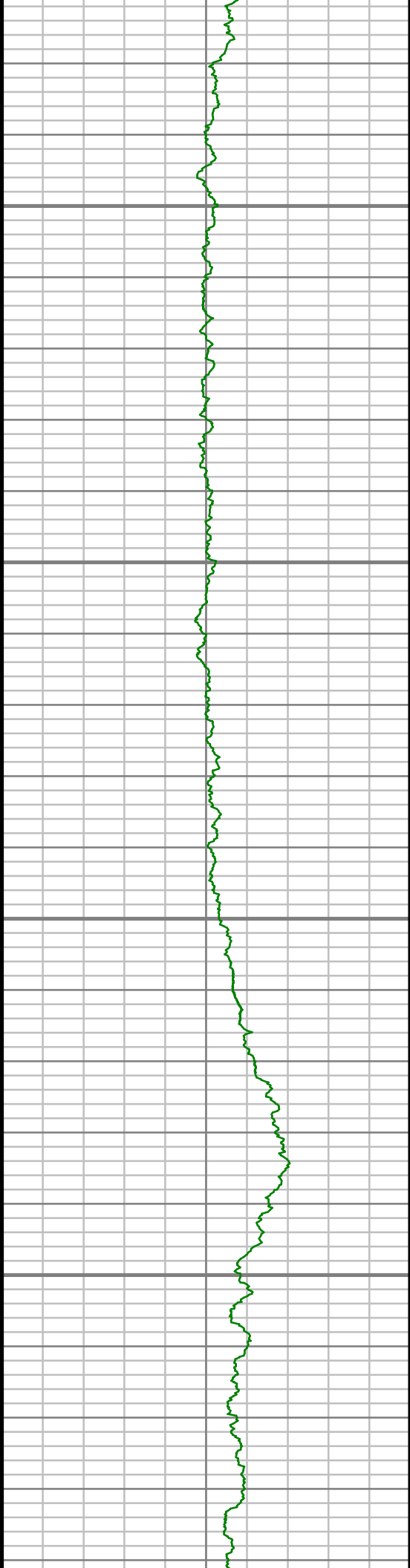
8950

9000



S: 89 MD: 8856.00 ft Inc: 87.42
deg Az: 359.18 deg TVD:
7497.36 ft

S: 90 MD: 8951.00 ft Inc: 88.86
deg Az: 359.92 deg TVD:
7500.45 ft

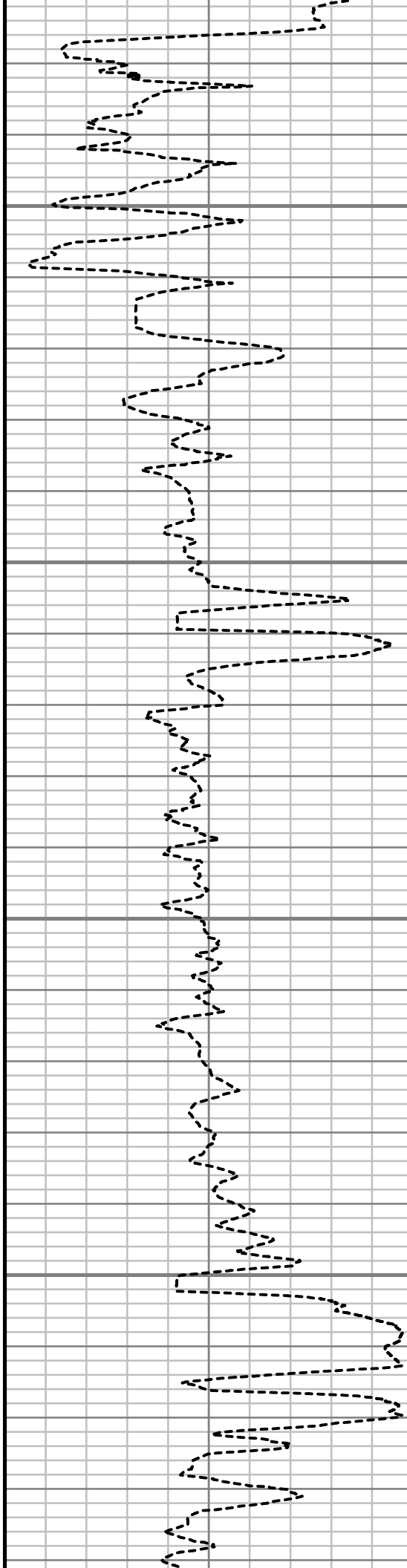


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9100

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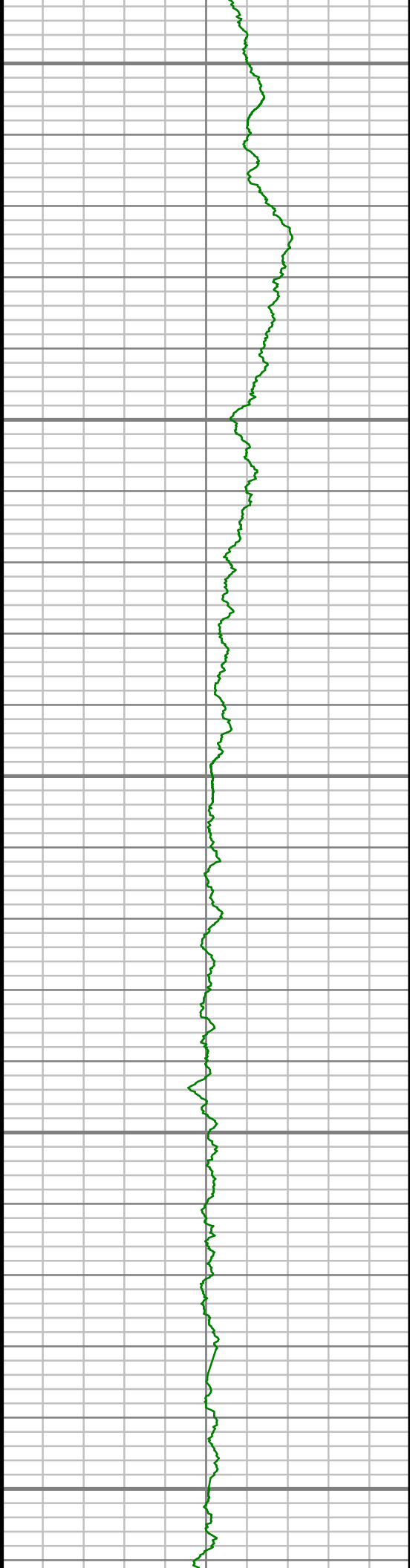
9200



S: 91 MD: 9045.00 ft Inc: 89.70
deg Az: 359.59 deg TVD:
7501.63 ft

S: 92 MD: 9140.00 ft Inc: 88.96
deg Az: 358.77 deg TVD:
7502.75 ft

S: 93 MD: 9235.00 ft Inc: 90.37
deg Az: 359.69 deg TVD:
7502.20 ft



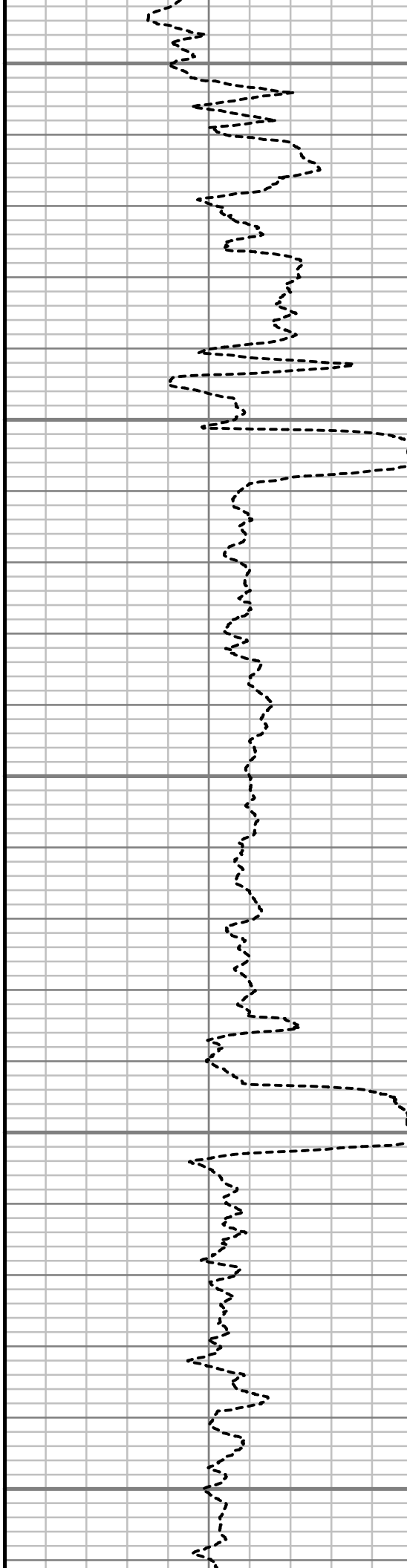
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9300

9350

9400

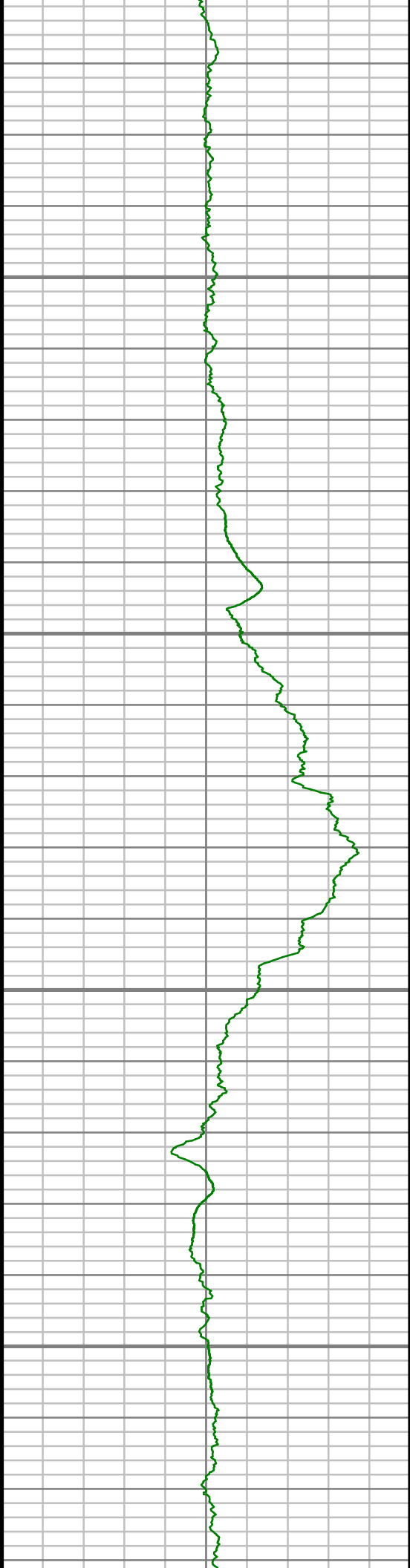
9450



7503.50 ft

S: 94 MD: 9330.00 ft Inc: 91.04
deg Az: 359.29 deg TVD:
7502.13 ft

S: 95 MD: 9425.00 ft Inc: 91.14
deg Az: 0.19 deg TVD: 7500.32
ft



9500

9550

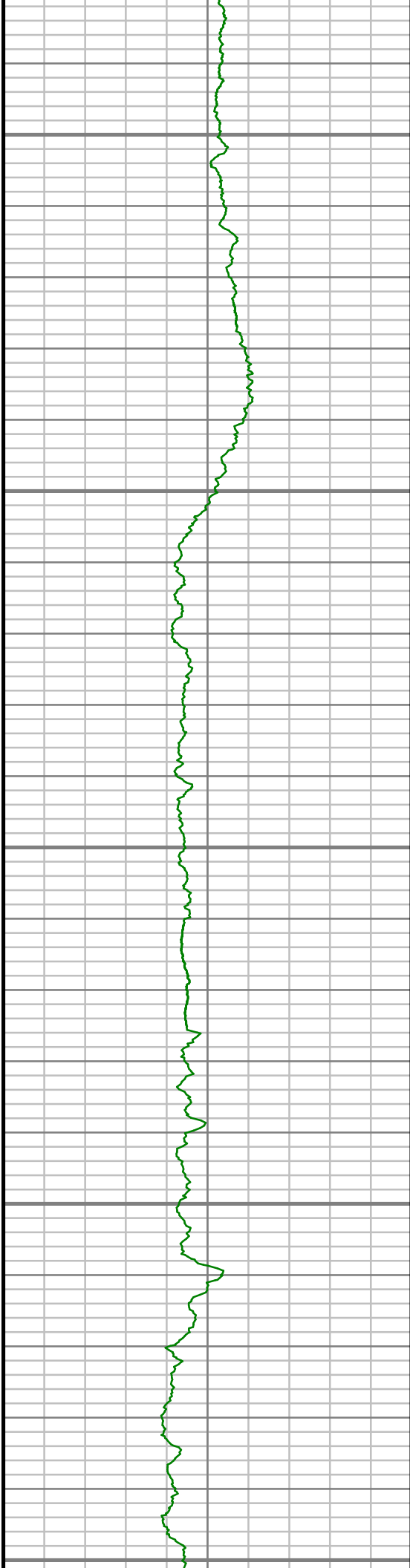
9600

9650



S: 96 MD: 9519.00 ft Inc: 90.37
deg Az: 358.67 deg TVD:
7499.08 ft

S: 97 MD: 9614.00 ft Inc: 90.70
deg Az: 359.36 deg TVD:
7498.19 ft



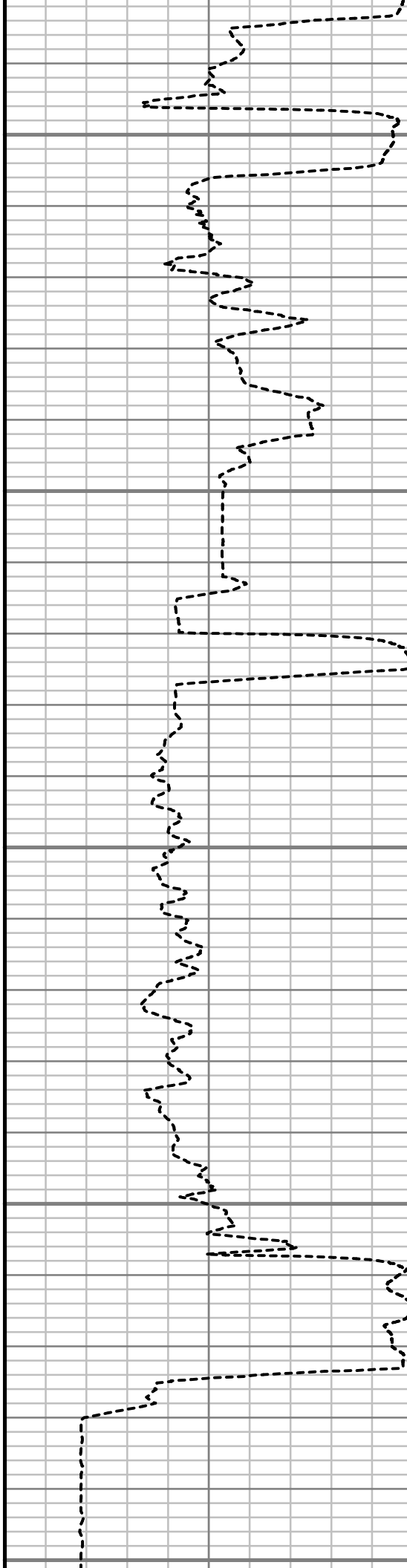
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9800

9850

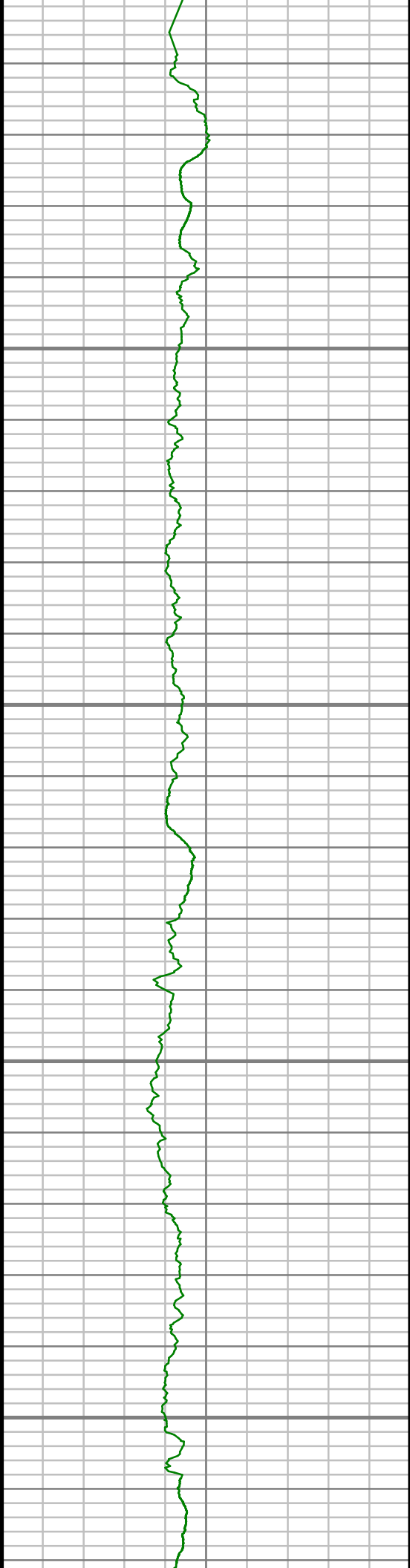
9900



S: 98 MD: 9709.00 ft Inc: 91.91
deg Az: 359.43 deg TVD:
7496.02 ft

S: 99 MD: 9804.00 ft Inc: 91.58
deg Az: 358.51 deg TVD:
7493.13 ft

S: 100 MD: 9899.00 ft Inc:

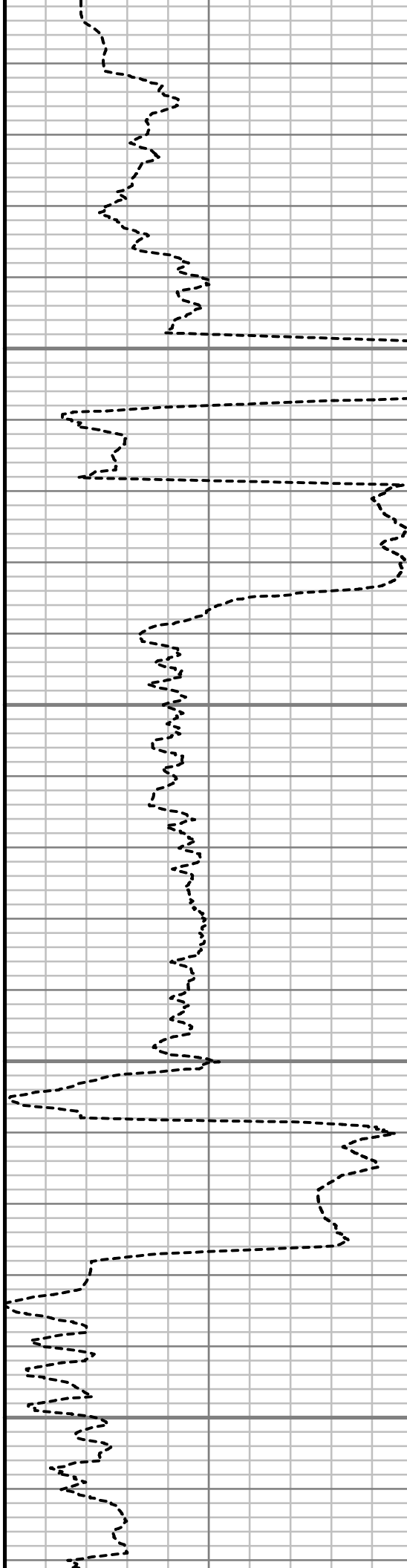


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10000

10050

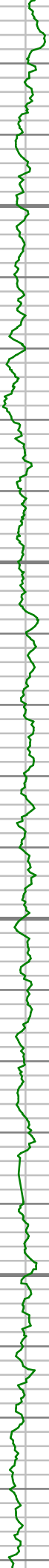
10100



91.07 deg Az: 359.54 deg TVD:
7490.93 ft

S: 101 MD: 9994.00 ft Inc:
90.71 deg Az: 1.06 deg TVD:
7489.46 ft

S: 102 MD: 10089.00 ft Inc:
90.37 deg Az: 1.88 deg TVD:
7488.57 ft

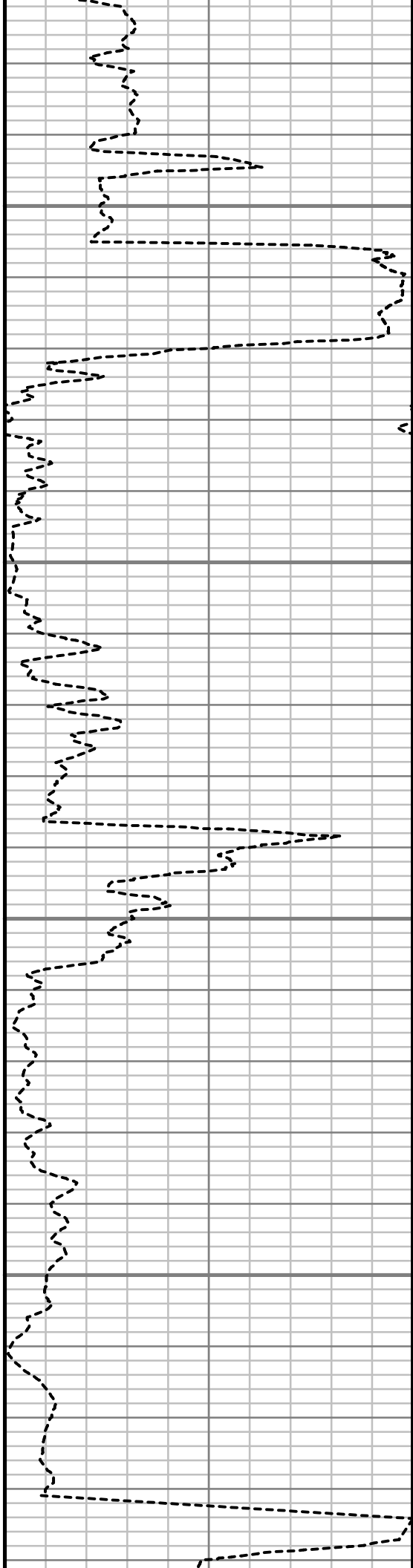


10150

10200

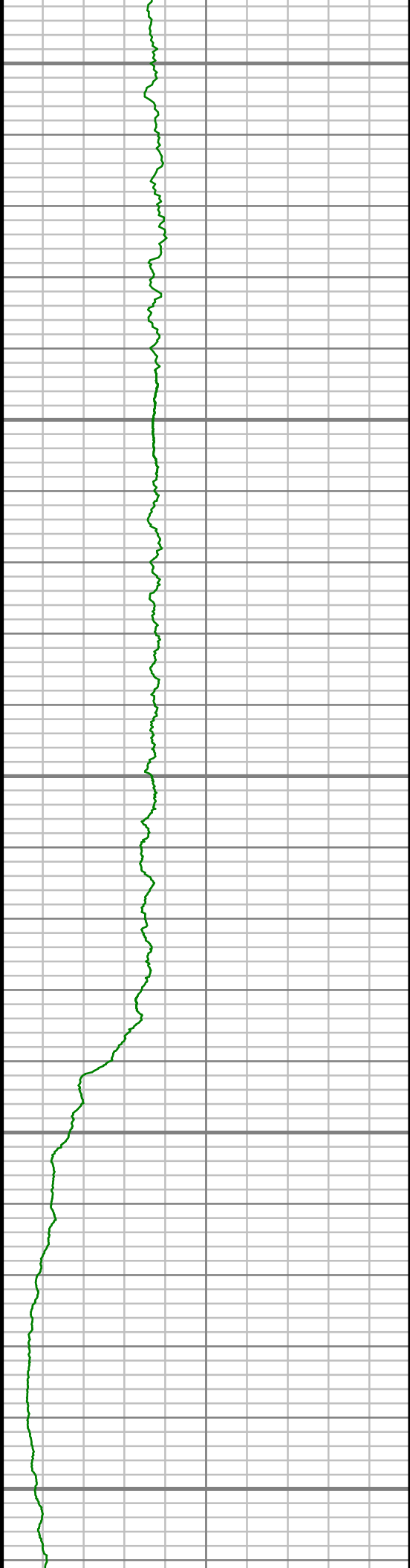
10250

10300



S: 103 MD: 10184.00 ft Inc:
89.03 deg Az: 2.59 deg TVD:
7489.07 ft

S: 104 MD: 10278.00 ft Inc:
89.03 deg Az: 1.58 deg TVD:
7490.66 ft



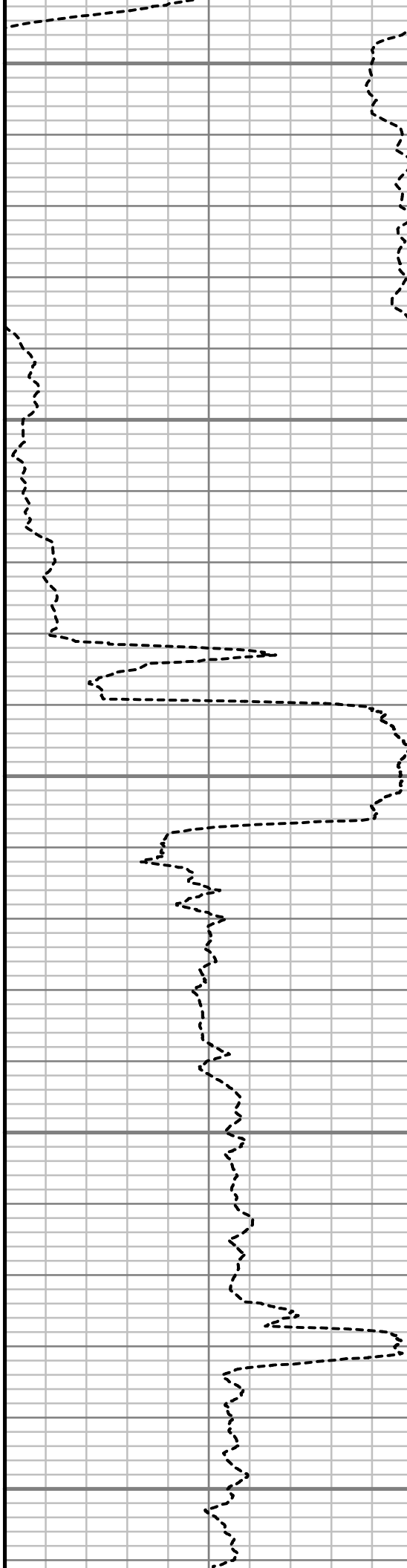
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10400

10450

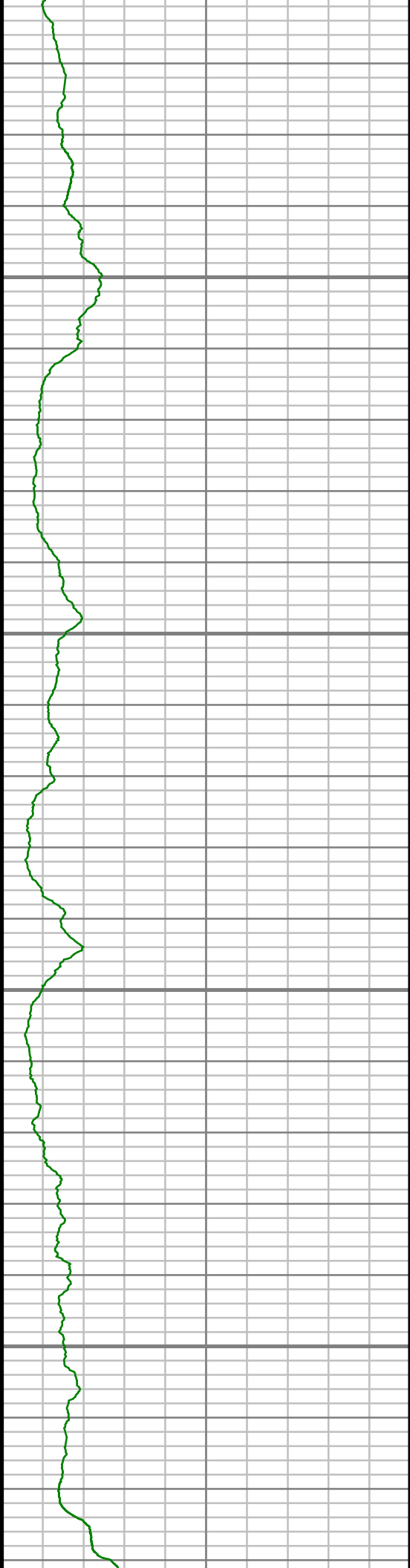
10500

10550



S: 105 MD: 10373.00 ft Inc:
89.06 deg Az: 0.53 deg TVD:
7492.25 ft

S: 106 MD: 10468.00 ft Inc:
88.83 deg Az: 0.52 deg TVD:
7494.00 ft

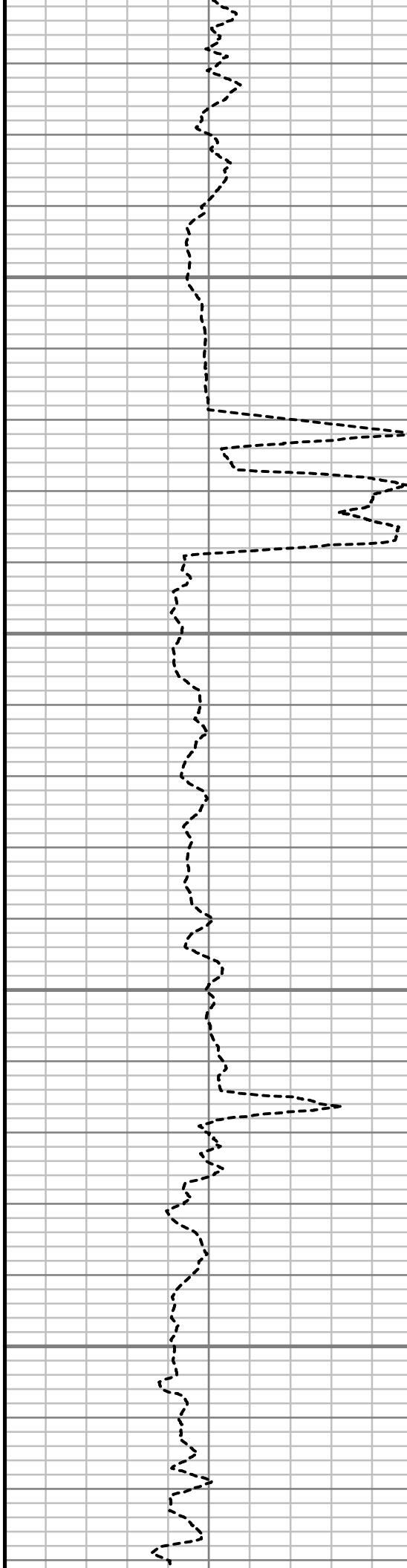


10600

10650

10700

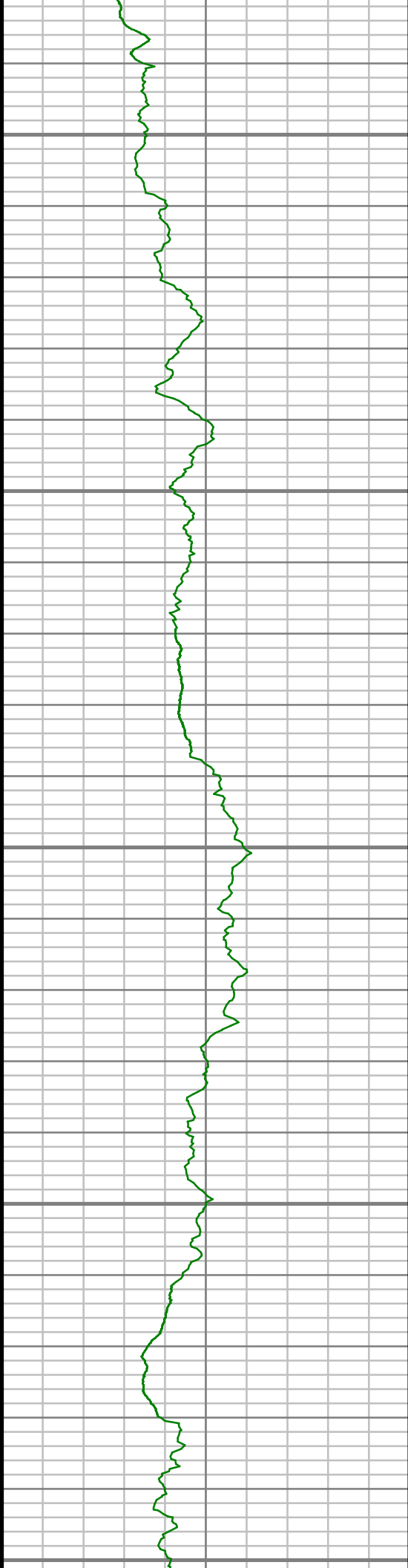
10750



S: 107 MD: 10563.00 ft Inc:
89.26 deg Az: 0.15 deg TVD:
7495.58 ft

S: 108 MD: 10657.00 ft Inc:
90.10 deg Az: 0.37 deg TVD:
7496.11 ft

S: 109 MD: 10752.00 ft Inc:
90.34 deg Az: 359.36 deg TVD:
7495.74 ft



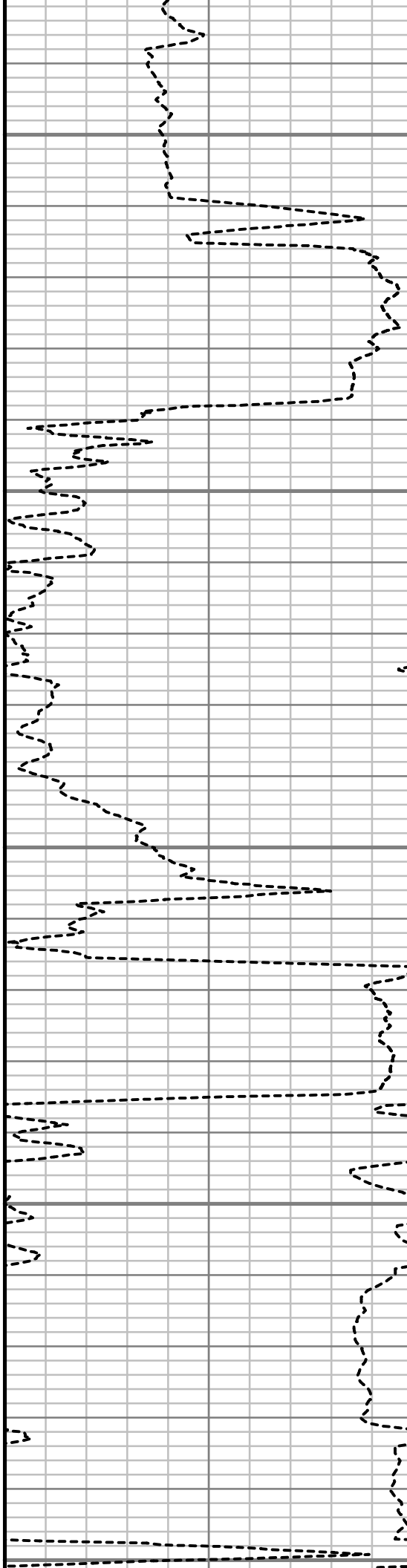
10800

10850

10900

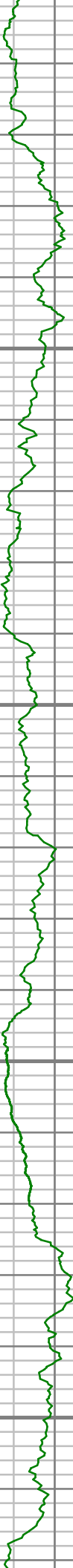
10950

11000



S: 110 MD: 10847.00 ft Inc:
92.35 deg Az: 1.04 deg TVD:
7493.52 ft

S: 111 MD: 10942.00 ft Inc:
92.05 deg Az: 2.38 deg TVD:
7489.87 ft



11050

11100

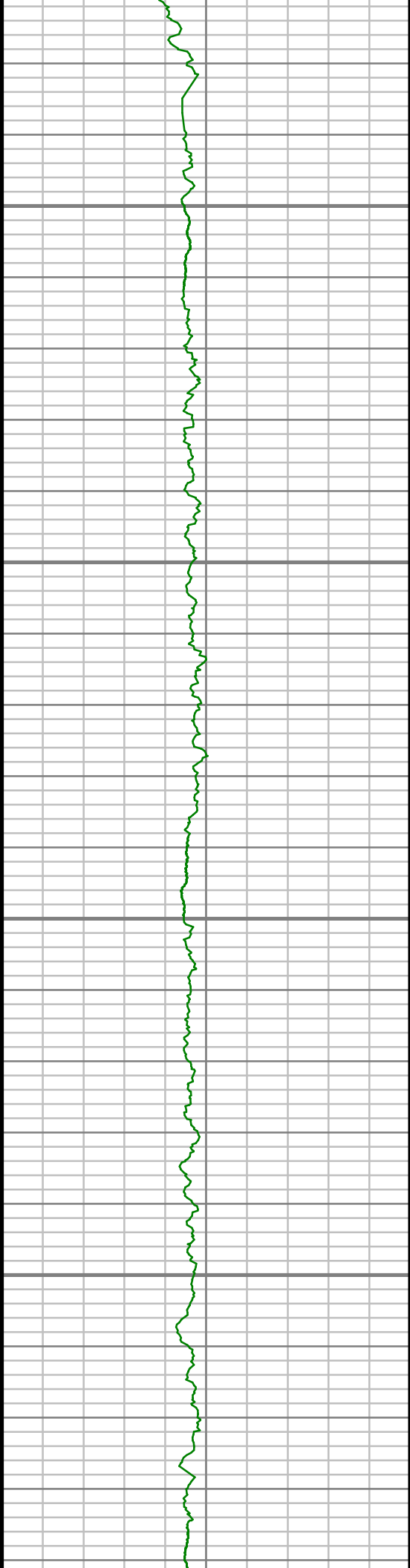
11150

11200

S: 112 MD: 11037.00 ft Inc:
89.60 deg Az: 3.55 deg TVD:
7488.50 ft

S: 113 MD: 11132.00 ft Inc:
88.39 deg Az: 0.66 deg TVD:
7490.17 ft



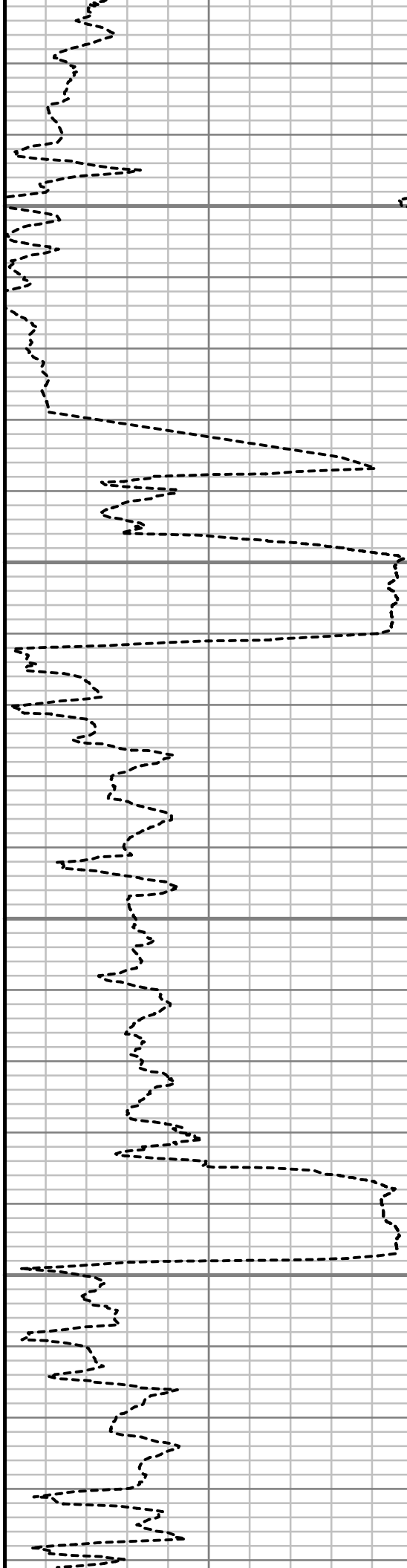


11250

11300

11350

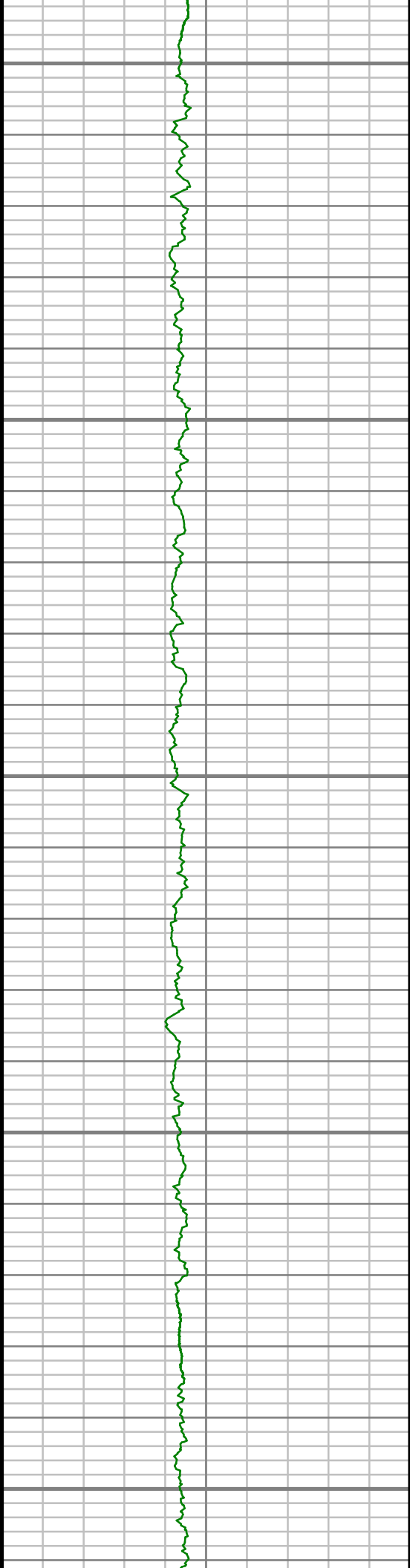
11400



S: 114 MD: 11227.00 ft Inc:
88.89 deg Az: 359.85 deg TVD:
7492.43 ft

S: 115 MD: 11322.00 ft Inc:
90.13 deg Az: 359.28 deg TVD:
7493.23 ft

S: 116 MD: 11417.00 ft Inc:
89.40 deg Az: 0.17 deg TVD:
7493.62 ft



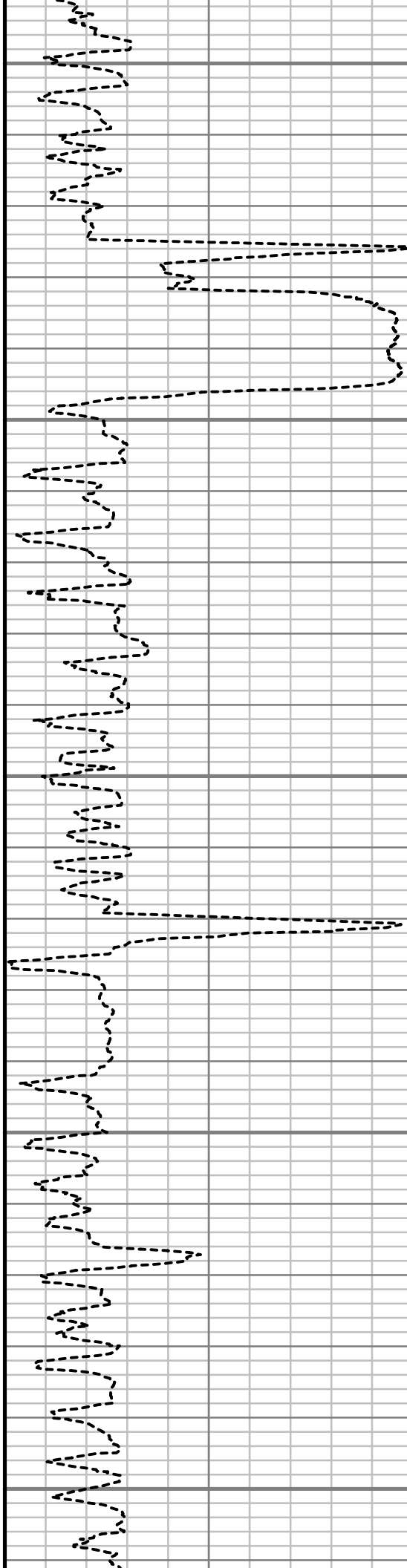
11450

11500

11550

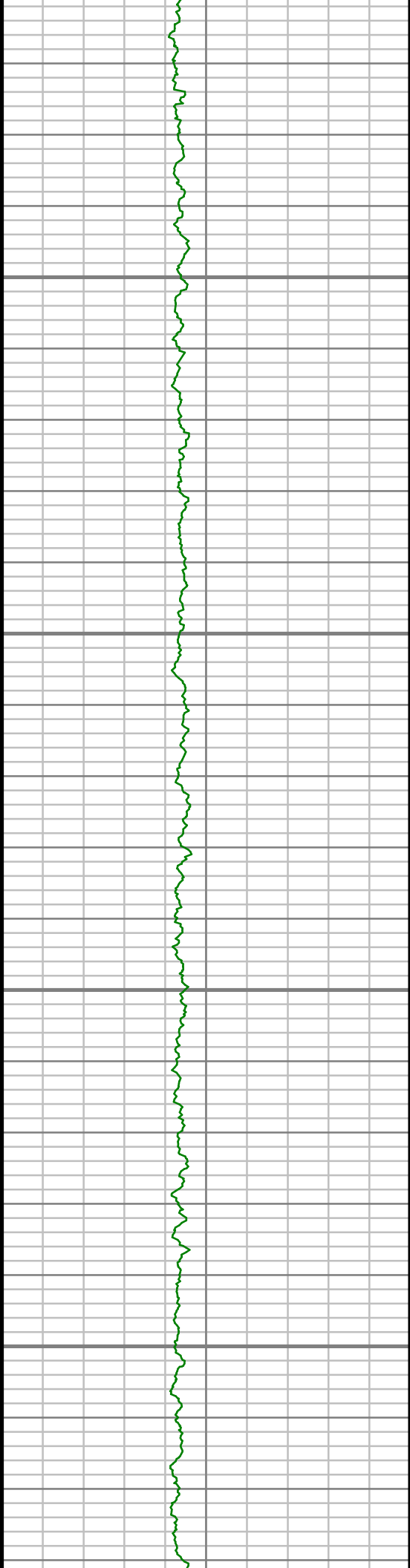
11600

11650



S: 117 MD: 11512.00 ft Inc:
90.17 deg Az: 0.40 deg TVD:
7493.98 ft

S: 118 MD: 11607.00 ft Inc:
89.66 deg Az: 0.08 deg TVD:
7494.12 ft

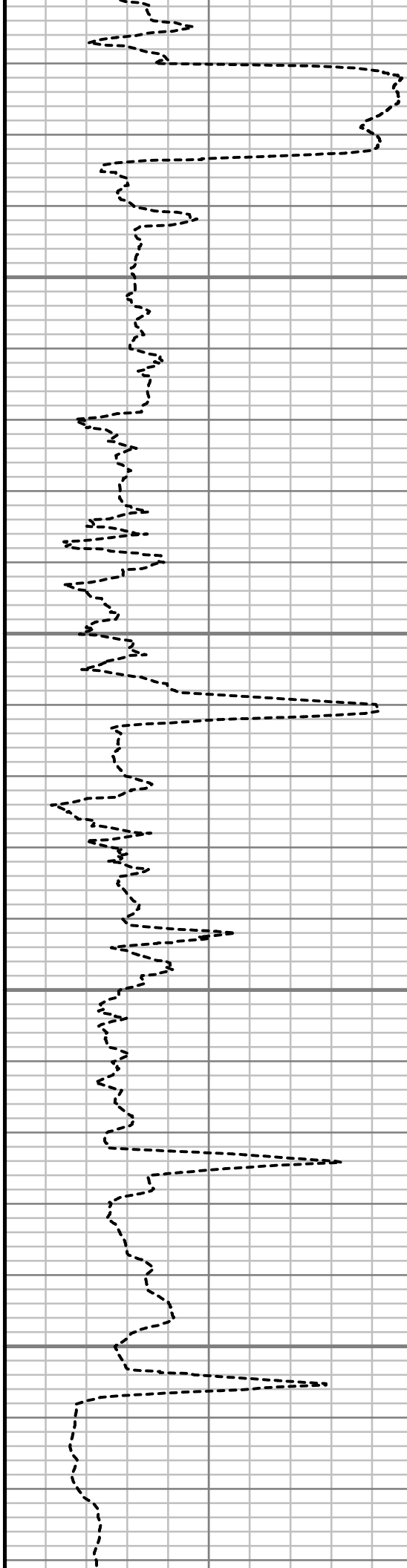


11700

11750

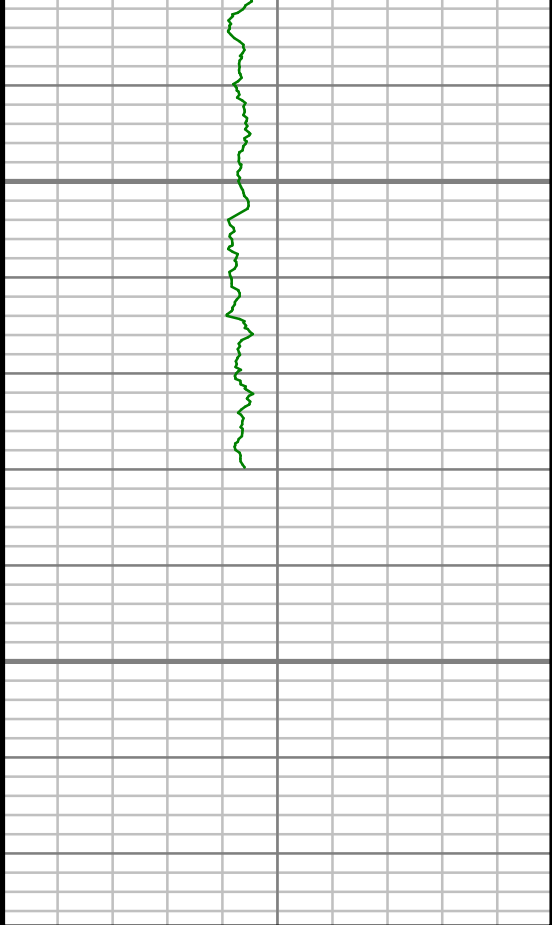
11800

11850



S: 119 MD: 11702.00 ft Inc:
90.77 deg Az: 359.99 deg TVD:
7493.76 ft

S: 120 MD: 11797.00 ft Inc:
90.44 deg Az: 0.54 deg TVD:
7492.76 ft



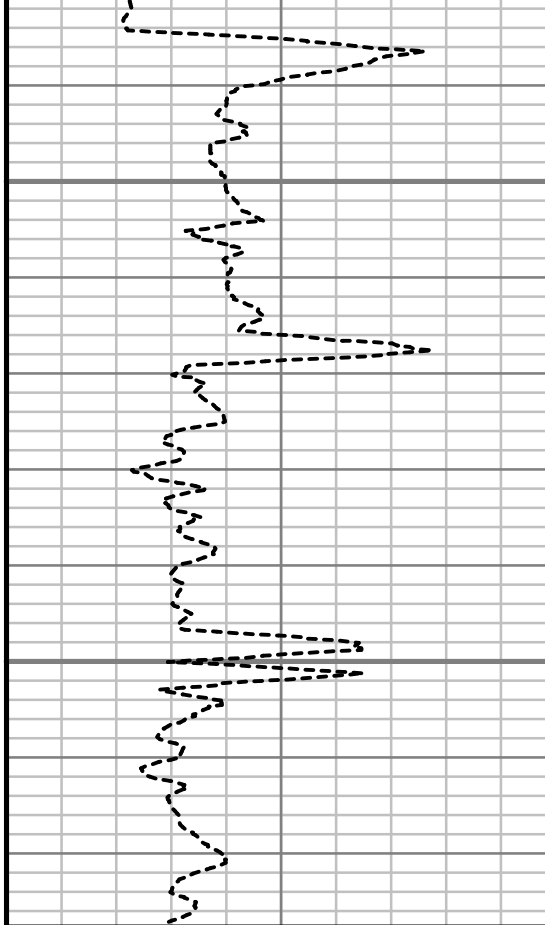
Gamma Ray (GR)

0 Unit = aapi 150

11900

11950

MEASURED DEPTH
1:240 (ft)



Rate of Penetration (ROP)

200 Unit = ft/hr 0

S: 121 MD: 11918.00 ft Inc:
90.17 deg Az: 359.37 deg TVD:
7492.12 ft

Comments



GAMMA RAY

5" = 100' FEET MD



MWD Survey Report
for
ENCANA OIL AND GASS (U.S.A.) INC

Well Location	MAIER
Well Name	MAIER 4D-28H
Rig Number	ENSIGN 124
Survey Date	9/14/2013
Latitude	40°6'11.628"N
B Total	52664 NT
Dip	66.72 deg
Magnetic Declination	8.57 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (13.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 356.41Azim (deg)
Definitive Survey	MAIER 4D-28H
Operator(s)	JEFFREY SMITH, MARK SMITH

Well Notes

ALL SURVEYS AQUIED BY SCIENTIFIC DRILLING INTL. MWD TOOL.



Well Name: MAIER 4D-28H

Survey: MAIER 4D-28H

Survey Date: 9/14/2013

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Direction deg	Closure Distance ft	DLS 7100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
153.00	0.21	252.75	153.00	-0.07	-0.09	-0.27	252.75	0.29	0.14
245.00	0.51	121.04	245.00	-0.34	-0.35	-0.09	194.07	0.36	0.73
370.00	2.07	122.41	369.96	-1.98	-1.84	2.29	128.79	2.94	1.24
465.00	3.86	118.82	464.83	-4.70	-4.30	6.54	123.34	7.83	1.90
613.00	5.98	114.12	612.28	-10.96	-9.85	17.94	118.78	20.47	1.46
705.00	6.48	130.35	703.74	-16.79	-15.18	26.27	120.01	30.34	1.98
797.00	7.00	142.98	795.11	-25.07	-23.02	33.61	124.40	40.73	1.70
889.00	7.89	153.76	886.34	-35.58	-33.15	39.78	129.81	51.78	1.79
981.00	7.87	159.81	977.47	-47.44	-44.73	44.74	134.99	63.26	0.90
1029.00	7.55	162.75	1025.04	-53.65	-50.82	46.81	137.35	69.09	1.06
1176.00	6.65	181.70	1170.93	-71.51	-68.55	49.42	144.21	84.50	1.70
1268.00	7.88	211.77	1262.22	-81.96	-79.23	45.94	149.89	91.59	4.28
1360.00	7.77	210.20	1353.37	-92.27	-89.97	39.49	156.30	98.26	0.26
1452.00	8.09	210.46	1444.49	-102.80	-100.93	33.08	161.85	106.21	0.34
1544.00	8.44	206.94	1535.53	-113.98	-112.53	26.74	166.63	115.66	0.67
1636.00	8.71	217.93	1626.51	-125.01	-124.04	19.40	171.11	125.55	1.80
1728.00	9.76	218.11	1717.32	-136.05	-135.67	10.31	175.66	136.06	1.15
1820.00	9.76	215.56	1807.99	-147.92	-148.15	0.96	179.63	148.15	0.47
2007.00	10.20	225.40	1992.17	-171.08	-172.67	-20.05	186.62	173.83	0.94
2197.00	9.41	228.92	2179.39	-191.57	-194.69	-43.74	192.66	199.55	0.52
2387.00	8.79	224.87	2367.00	-210.66	-215.19	-65.69	196.98	224.99	0.47
2576.00	10.02	225.31	2553.46	-231.05	-237.00	-87.58	200.28	252.66	0.65
2766.00	10.82	222.76	2740.32	-254.22	-261.72	-111.44	203.06	284.45	0.48
2956.00	7.91	227.86	2927.77	-274.68	-283.58	-133.25	205.17	313.33	1.59
3146.00	10.82	221.80	3115.23	-295.36	-305.65	-154.83	206.87	342.63	1.61
3336.00	12.93	221.80	3301.15	-322.81	-334.79	-180.88	208.38	380.53	1.11
3525.00	10.73	221.27	3486.13	-350.13	-363.78	-206.58	209.59	418.34	1.16
3715.00	8.53	224.43	3673.44	-372.09	-387.13	-228.11	210.51	449.34	1.19
3905.00	8.18	232.61	3861.43	-389.03	-405.40	-248.71	211.53	475.61	0.65
4095.00	6.42	219.51	4049.90	-404.30	-421.80	-266.21	212.26	498.78	1.27
4285.00	6.95	224.43	4238.61	-419.74	-438.20	-281.01	212.67	520.56	0.41
4475.00	6.33	223.82	4427.33	-434.52	-453.96	-296.31	213.13	542.11	0.33
4665.00	4.75	210.20	4616.45	-448.15	-468.32	-307.52	213.29	560.26	1.08
4855.00	1.23	181.46	4806.17	-456.72	-477.16	-311.53	213.14	569.85	1.96
5044.00	0.70	98.84	4995.15	-458.99	-479.37	-310.43	212.93	571.11	0.71

Survey Report

Well Name: MAIER 4D-28H

Survey: MAIER 4D-28H

Survey Date: 9/14/2013

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Direction deg	Closure Distance ft	DLS 7100ft
5234.00	1.85	155.35	5185.10	-462.10	-482.33	-308.00	212.56	572.28	0.83
5424.00	0.97	115.54	5375.05	-465.74	-485.81	-305.28	212.15	573.76	0.67
5614.00	0.44	81.44	5565.03	-466.45	-486.39	-303.11	211.93	573.11	0.34
5803.00	0.62	179.52	5754.03	-467.40	-487.30	-302.39	211.82	573.49	0.43
5992.00	1.23	203.43	5943.00	-470.23	-490.17	-303.18	211.74	576.36	0.38
6182.00	0.79	285.69	6132.98	-471.61	-491.69	-305.26	211.83	578.74	0.72
6372.00	0.62	226.54	6322.97	-471.83	-492.04	-307.26	211.98	580.10	0.37
6562.00	0.79	207.47	6512.95	-473.61	-493.90	-308.61	212.00	582.39	0.15
6752.00	0.97	324.45	6702.94	-473.37	-493.76	-310.15	212.13	583.09	0.79
6784.00	1.14	316.02	6734.94	-472.90	-493.31	-310.53	212.19	582.91	0.73
6815.00	2.90	348.27	6765.92	-471.89	-492.32	-310.90	212.27	582.27	6.54
6847.00	5.01	4.09	6797.84	-469.70	-490.14	-310.97	212.39	580.46	7.36
6879.00	7.56	11.83	6829.64	-466.29	-486.68	-310.43	212.53	577.26	8.38
6910.00	9.50	11.39	6860.30	-461.85	-482.18	-309.51	212.70	572.97	6.24
6942.00	12.66	8.49	6891.70	-455.87	-476.12	-308.47	212.94	567.31	10.04
6974.00	15.04	7.52	6922.77	-448.36	-468.53	-307.41	213.27	560.38	7.45
7005.00	17.94	9.01	6952.49	-439.76	-459.83	-306.14	213.65	552.41	9.46
7037.00	20.58	7.26	6982.70	-429.42	-449.38	-304.65	214.13	542.92	8.44
7068.00	24.80	3.39	7011.29	-417.61	-437.48	-303.58	214.76	532.50	14.43
7100.00	29.19	0.93	7039.80	-403.17	-422.97	-303.06	215.62	520.34	14.17
7132.00	31.74	359.96	7067.38	-386.98	-406.75	-302.94	216.68	507.16	8.11
7164.00	32.80	1.37	7094.44	-369.94	-389.66	-302.73	217.84	493.44	4.05
7195.00	33.59	4.00	7120.38	-353.08	-372.72	-301.94	219.01	479.67	5.31
7227.00	36.67	5.32	7146.55	-334.86	-354.37	-300.43	220.29	464.58	9.91
7259.00	38.87	5.59	7171.84	-315.51	-334.86	-298.57	221.72	448.63	6.89
7290.00	41.77	3.57	7195.48	-295.65	-314.87	-296.98	223.33	432.82	10.27
7322.00	44.76	1.02	7218.78	-273.84	-292.96	-296.11	225.31	416.54	10.82
7354.00	46.78	359.26	7241.10	-250.96	-270.03	-296.06	227.63	400.71	7.45
7385.00	48.63	358.20	7261.96	-228.06	-247.11	-296.58	230.20	386.03	6.47
7417.00	50.83	357.76	7282.65	-203.65	-222.71	-297.44	233.18	371.58	6.95
7449.00	53.02	358.20	7302.38	-178.47	-197.54	-298.32	236.49	357.79	6.95
7480.00	54.61	359.87	7320.68	-153.48	-172.52	-298.74	239.99	344.98	6.71
7512.00	56.45	0.66	7338.79	-127.16	-146.14	-298.61	243.92	332.46	6.12
7543.00	58.56	0.93	7355.44	-101.09	-120.00	-298.25	248.08	321.48	6.85
7575.00	60.32	1.10	7371.71	-73.62	-92.45	-297.76	252.75	311.78	5.52
7607.00	62.61	0.93	7387.00	-45.60	-64.34	-297.26	257.79	304.14	7.16



Well Name: MAIER 4D-28H

Survey: MAIER 4D-28H

Survey Date: 9/14/2013

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Direction deg	Closure Distance ft	DLS 7100ft
7638.00	65.33	0.93	7400.60	-17.84	-36.49	-296.81	262.99	299.04	8.79
7670.00	67.71	0.93	7413.35	11.42	-7.15	-296.33	268.62	296.42	7.42
7702.00	69.91	0.31	7424.91	41.17	22.68	-296.01	274.38	296.88	7.10
7734.00	71.58	0.58	7435.47	71.31	52.89	-295.77	280.14	300.47	5.28
7765.00	73.42	0.58	7444.79	100.79	82.45	-295.48	285.59	306.77	5.96
7797.00	74.83	0.75	7453.54	131.49	113.23	-295.12	290.99	316.10	4.43
7829.00	76.68	0.66	7461.41	162.41	144.24	-294.74	296.08	328.14	5.78
7860.00	78.44	0.49	7468.09	192.61	174.51	-294.43	300.66	342.26	5.70
8001.00	88.12	357.76	7484.59	332.30	314.35	-296.60	316.66	432.19	7.13
8096.00	89.40	359.37	7486.65	427.21	409.29	-298.98	323.85	506.86	2.16
8190.00	91.21	1.05	7486.15	520.99	503.28	-298.63	329.32	585.21	2.63
8286.00	91.01	1.66	7484.29	616.61	599.23	-296.35	333.69	668.51	0.66
8380.00	88.83	1.25	7484.43	710.24	693.20	-293.96	337.02	752.95	2.36
8475.00	88.26	358.77	7486.85	805.02	788.16	-293.95	339.55	841.19	2.69
8571.00	88.69	1.38	7489.40	900.78	884.12	-293.83	341.62	931.66	2.76
8666.00	88.99	1.01	7491.33	995.43	979.08	-291.84	343.40	1021.65	0.50
8761.00	88.15	359.21	7493.69	1090.20	1074.04	-291.66	344.81	1112.94	2.09
8856.00	87.42	359.18	7497.36	1185.01	1168.96	-293.00	345.93	1205.12	0.78
8951.00	88.86	359.92	7500.45	1279.82	1263.90	-293.75	346.92	1297.59	1.71
9045.00	89.70	359.59	7501.63	1373.65	1357.89	-294.15	347.78	1389.39	0.96
9140.00	88.96	358.77	7502.75	1468.53	1452.88	-295.50	348.50	1482.62	1.16
9235.00	90.37	359.69	7503.30	1563.41	1547.86	-296.78	349.15	1576.06	1.77
9330.00	91.04	359.29	7502.13	1658.26	1642.85	-297.63	349.73	1669.59	0.82
9425.00	91.14	0.19	7500.32	1753.09	1737.83	-298.07	350.27	1763.21	0.95
9519.00	90.37	358.67	7499.08	1846.94	1831.82	-299.01	350.73	1856.06	1.82
9614.00	90.70	359.36	7498.19	1941.84	1926.80	-300.64	351.13	1950.11	0.82
9709.00	91.91	359.43	7496.02	2036.68	2021.76	-301.64	351.51	2044.14	1.28
9804.00	91.58	358.51	7493.13	2131.54	2116.70	-303.34	351.84	2138.33	1.03
9899.00	91.07	359.54	7490.93	2226.42	2211.66	-304.95	352.15	2232.59	1.21
9994.00	90.71	1.06	7489.46	2321.18	2306.65	-304.45	352.48	2326.65	1.65
10089.00	90.37	1.88	7488.57	2415.81	2401.61	-302.01	352.83	2420.53	0.93
10184.00	89.03	2.59	7489.07	2510.31	2496.54	-298.30	353.19	2514.29	1.60
10278.00	89.03	1.58	7490.66	2603.84	2590.46	-294.89	353.51	2607.19	1.08
10373.00	89.06	0.53	7492.25	2698.51	2685.43	-293.14	353.77	2701.38	1.10
10468.00	88.83	0.52	7494.00	2793.25	2780.41	-292.27	354.00	2795.73	0.25
10563.00	89.26	0.15	7495.58	2888.02	2875.39	-291.71	354.21	2890.15	0.60

Survey Report

Well Name: MAIER 4D-28H

Survey: MAIER 4D-28H

Survey Date: 9/14/2013

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	Closure Direction deg	Closure Distance ft	DLS 7100ft
10657.00	90.10	0.37	7496.11	2981.80	2969.39	-291.28	354.40	2983.64	0.92
10752.00	90.34	359.36	7495.74	3076.63	3064.39	-291.51	354.57	3078.22	1.09
10847.00	92.35	1.04	7493.52	3171.38	3159.35	-291.17	354.73	3172.74	2.76
10942.00	92.05	2.38	7489.87	3265.91	3254.24	-288.34	354.94	3266.99	1.44
11037.00	89.60	3.55	7488.50	3360.27	3349.09	-283.42	355.16	3361.06	2.86
11132.00	88.39	0.66	7490.17	3454.77	3444.00	-279.93	355.35	3455.36	3.30
11227.00	88.89	359.85	7492.43	3549.53	3538.97	-279.51	355.48	3549.99	1.00
11322.00	90.13	359.28	7493.23	3644.38	3633.96	-280.23	355.59	3644.75	1.44
11417.00	89.40	0.17	7493.62	3739.22	3728.96	-280.69	355.70	3739.51	1.21
11512.00	90.17	0.40	7493.98	3834.00	3823.96	-280.21	355.81	3834.21	0.85
11607.00	89.66	0.08	7494.12	3928.79	3918.96	-279.81	355.92	3928.93	0.63
11702.00	90.77	359.99	7493.76	4023.59	4013.95	-279.74	356.01	4023.69	1.17
11797.00	90.44	0.54	7492.76	4118.37	4108.95	-279.30	356.11	4118.43	0.68
11918.00	90.17	359.37	7492.12	4239.14	4229.94	-279.39	356.22	4239.16	0.99