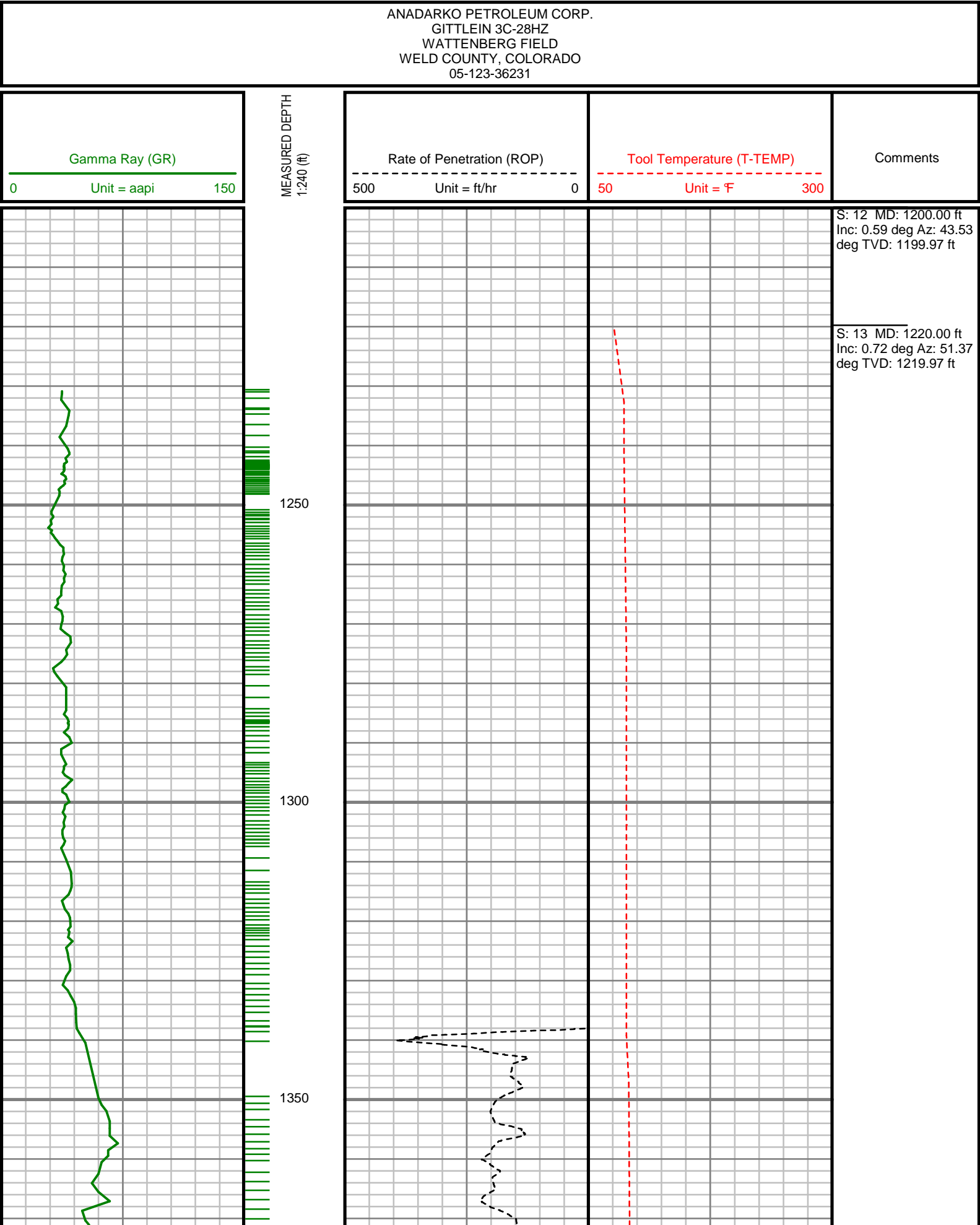


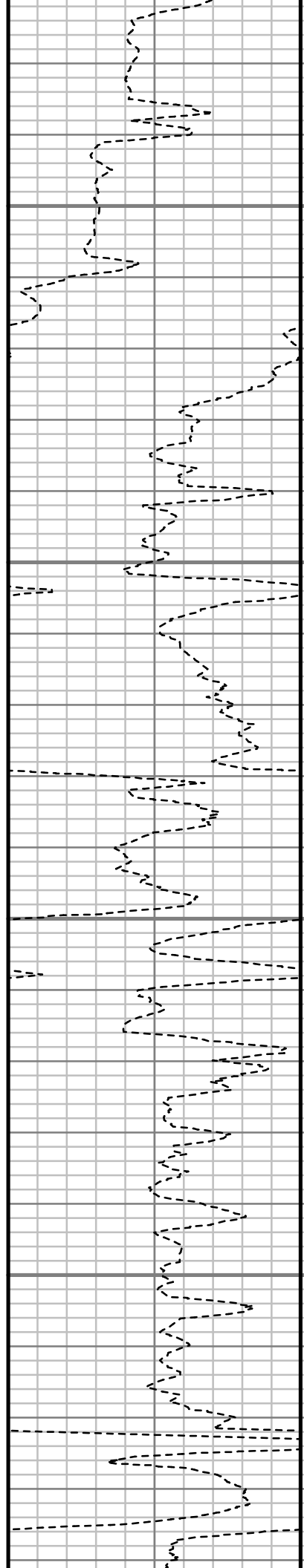
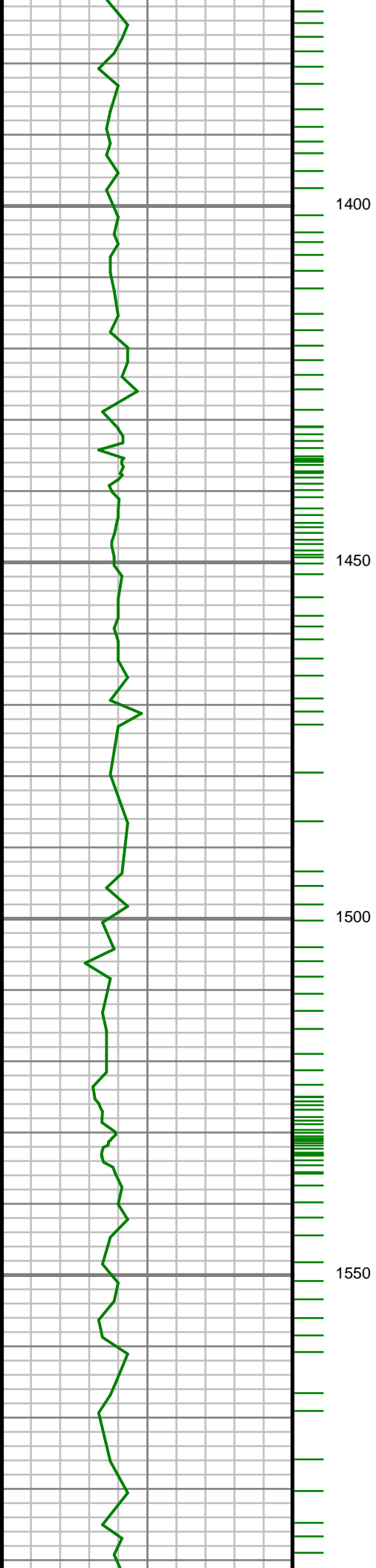


Remarks
ANADARKO PETROLEUM CORP. PRODUCTION AFE# 2075257
SCIENTIFIC DRILLING INTERNATIONAL JOB# 64410
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT. APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT. APPLIED TO RATE OF PENETRATION CURVE
FLAT AVERAGE FILTER OF 1.00 FT. APPLIED TO TOOL TEMPERATURE CURVE
RUN #1: MWD / GAMMA RAY LOGGIN RUN
SENSORS S/N: PULSER = 128-311 / CONT = 295 / MWD EYE = 0206 / GAMMA RAY = 456
BIT TO SENSOR OFFSETS: SURVEY = 57.02 FT. / GAMMA RAY = 47.77 FT.
RUN #2: MWD / GAMMA RAY LOGGIN RUN
SENSORS S/N: PULSER = 128-311 / CONT = 295 / MWD EYE = 0206 / GAMMA RAY = 456
BIT TO SENSOR OFFSETS: SURVEY = 60.12 FT. / GAMMA RAY = 51.12 FT.
RUN #3: MWD / GAMMA RAY / PROPAGATION RESISTIVITY LOGGIN RUN
SENSORS S/N: PULSER = 78-015 / CONT = 542 / MWD EYE = 0778 / GAMMA RAY = 232 / PRT = 314
BIT TO SENSOR OFFSETS: SURVEY = 60.00 FT. / GAMMA RAY = 40.45 FT. / RESISTIVITY 48.75 FT.
RUN #4: MWD / GAMMA RAY / PROPAGATION RESISTIVITY LOGGIN RUN
SENSORS S/N: PULSER = 78-207 / CONT = 492 / MWD EYE = 0853 / GAMMA RAY = 506 / PRT = 322
BIT TO SENSOR OFFSETS: SURVEY = 60.25 FT. / GAMMA RAY = 40.70 FT. / RESISTIVITY 49.00 FT.

[illegible]

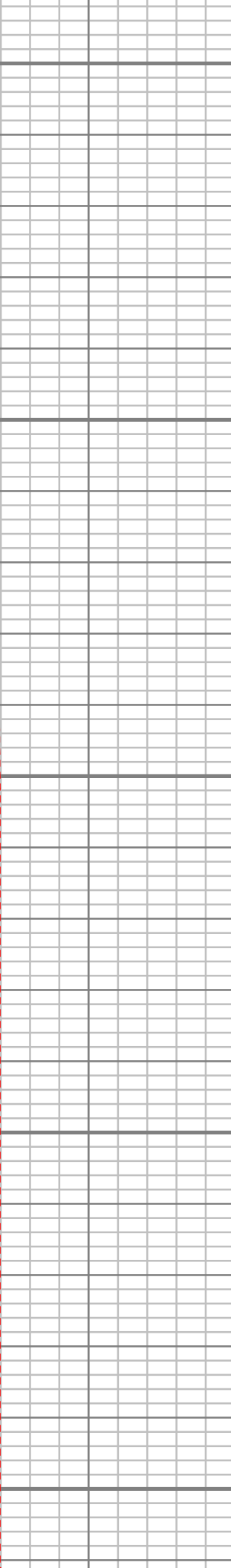
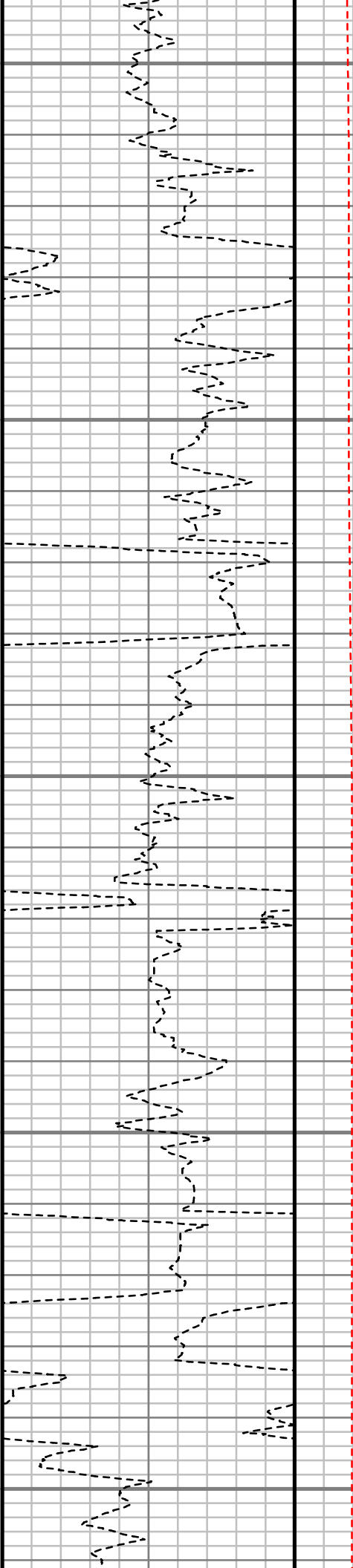
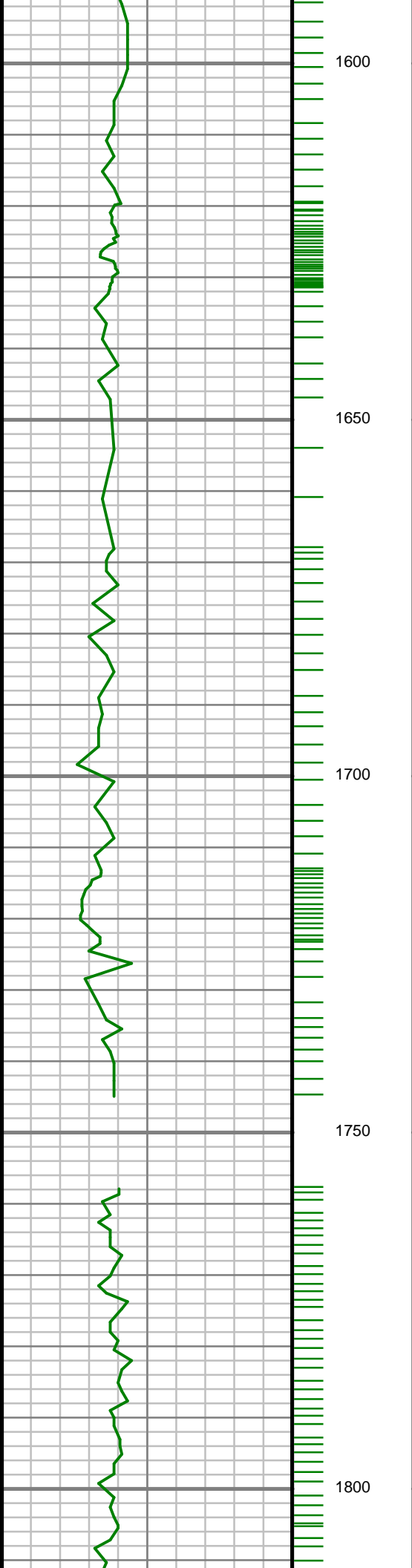
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.





S: 14 MD: 1421.00 ft  
Inc: 0.44 deg Az: 57.00  
deg TVD: 1420.96 ft

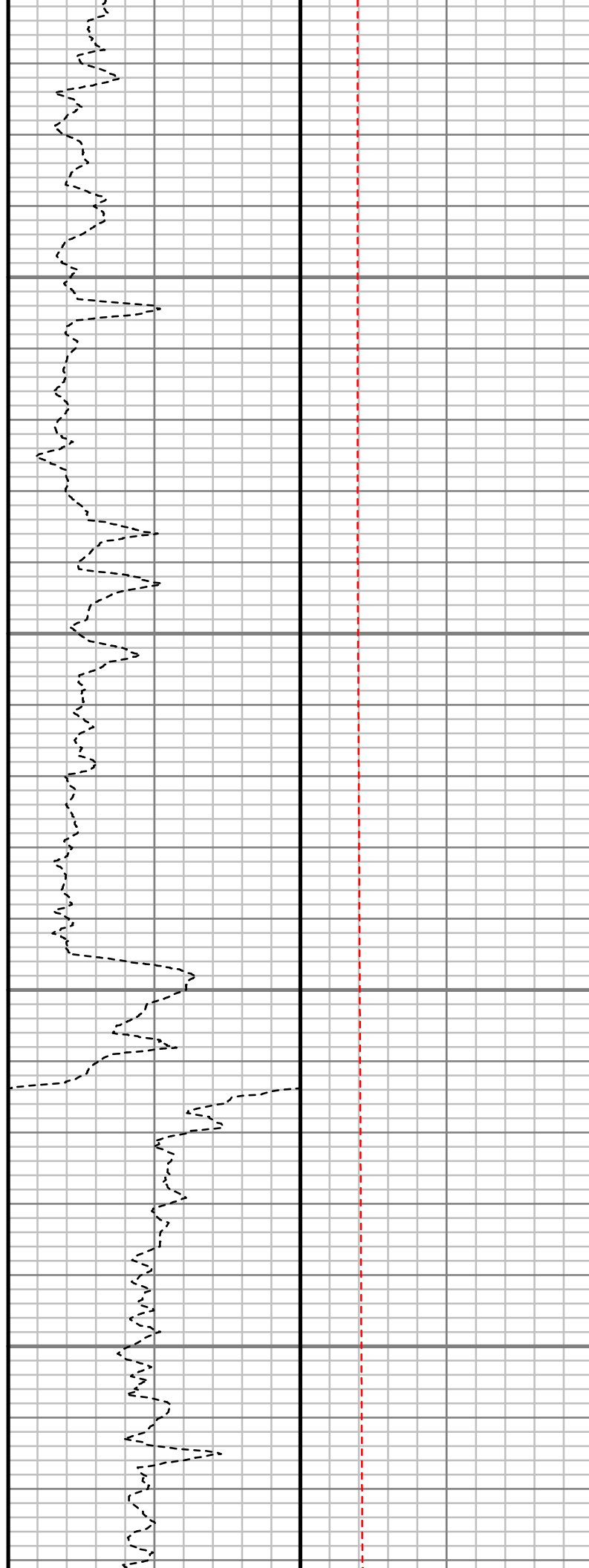
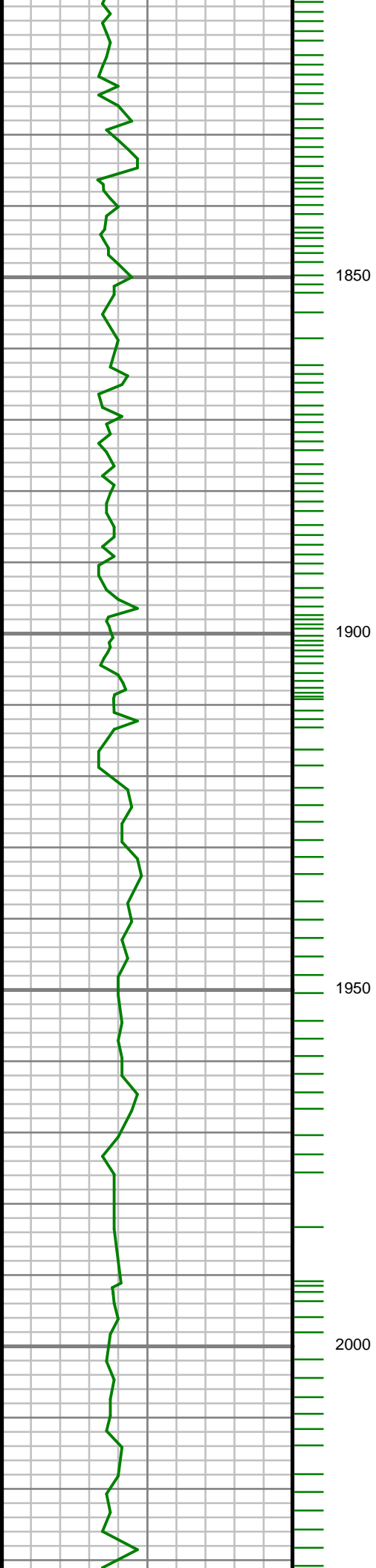
S: 15 MD: 1513.00 ft  
Inc: 3.33 deg Az:  
105.97 deg TVD:  
1512.90 ft



S: 16 MD: 1604.00 ft  
Inc: 4.86 deg Az:  
111.48 deg TVD:  
1603.66 ft

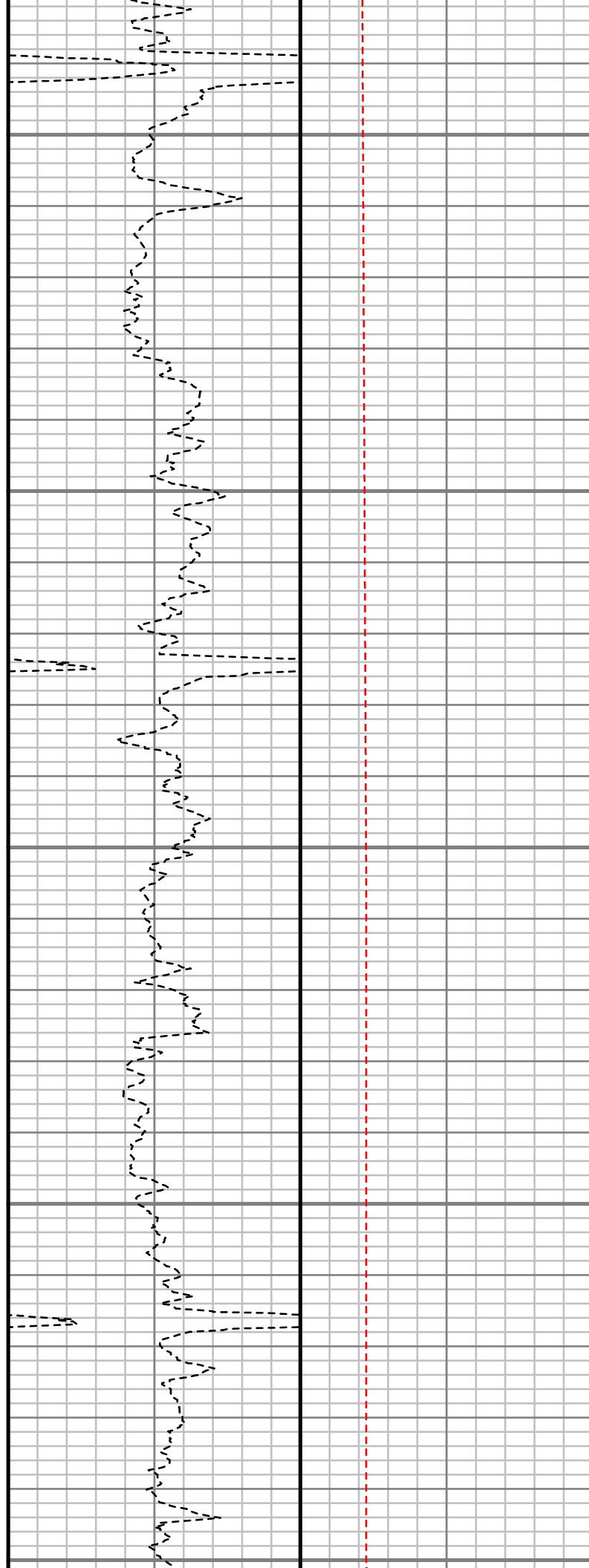
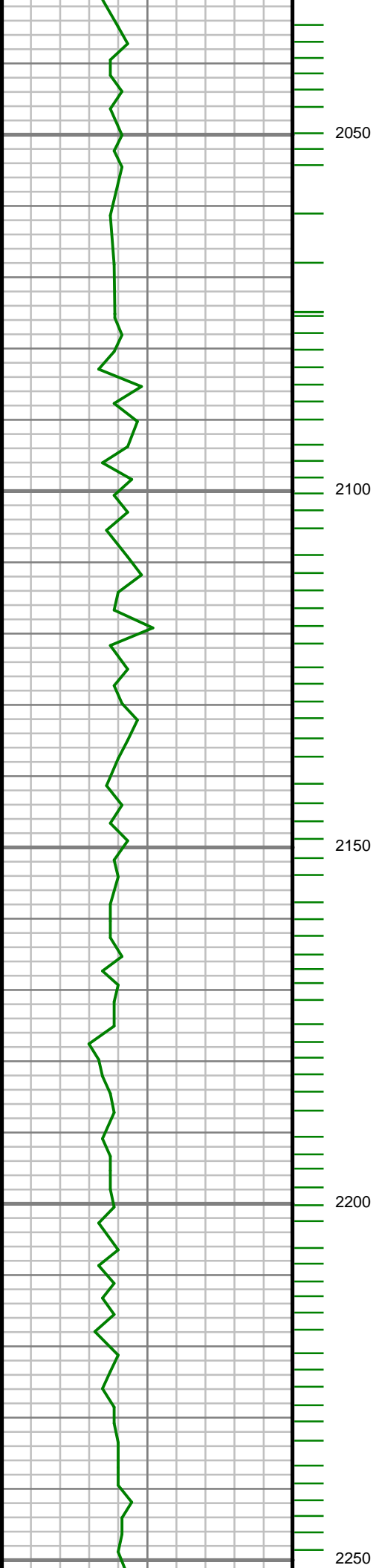
S: 17 MD: 1696.00 ft  
Inc: 7.41 deg Az:  
121.92 deg TVD:  
1695.13 ft

S: 18 MD: 1787.00 ft  
Inc: 9.67 deg Az:  
126.26 deg TVD:  
1785.12 ft



S: 19 MD: 1879.00 ft  
Inc: 9.54 deg Az:  
121.29 deg TVD:  
1875.83 ft

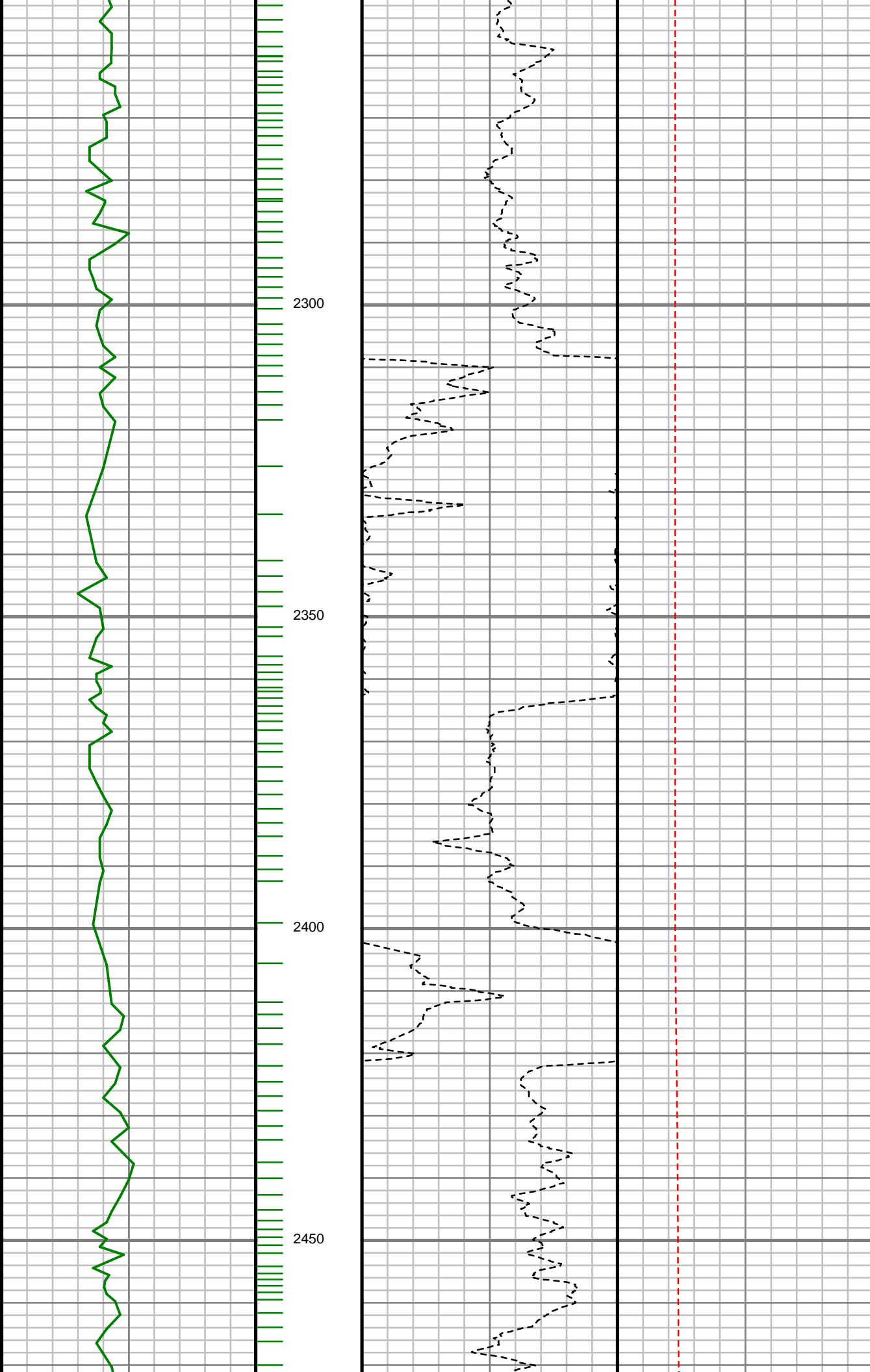
S: 20 MD: 1971.00 ft  
Inc: 9.88 deg Az:  
132.43 deg TVD:  
1966.52 ft



S: 21 MD: 2063.00 ft  
Inc: 13.16 deg Az:  
135.66 deg TVD:  
2056.65 ft

S: 22 MD: 2154.00 ft  
Inc: 13.30 deg Az:  
126.99 deg TVD:  
2145.25 ft

S: 23 MD: 2246.00 ft  
Inc: 11.52 deg Az:

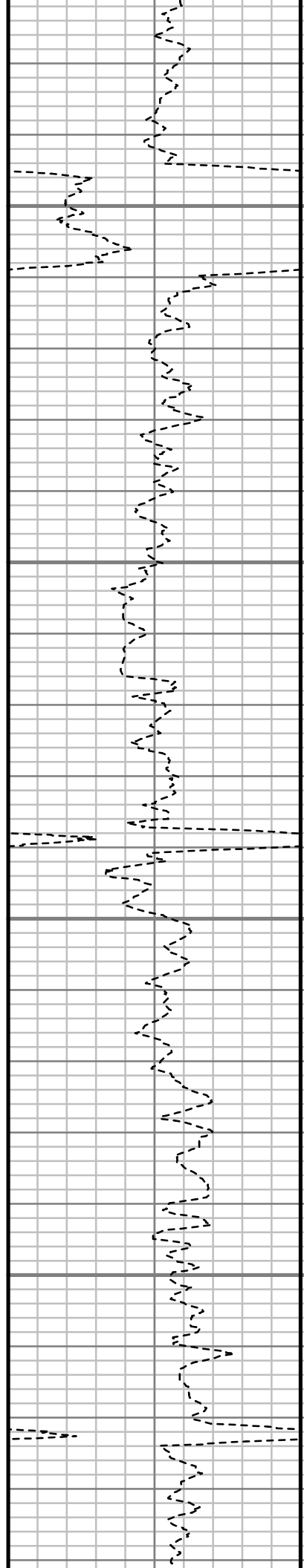
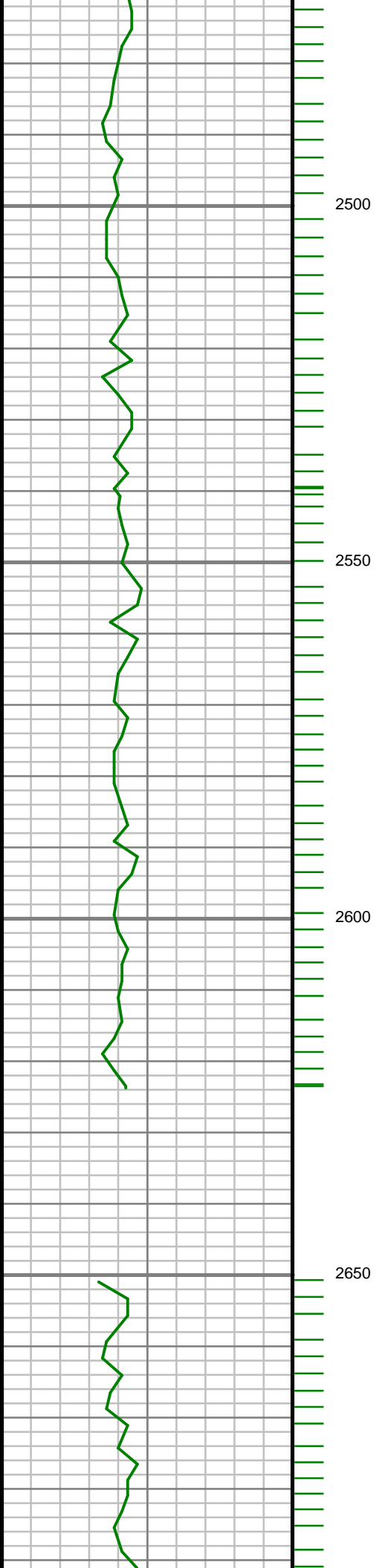


119.36 deg TVD:  
2235.10 ft

S: 24 MD: 2338.00 ft  
Inc: 9.96 deg Az:  
128.83 deg TVD:  
2325.49 ft

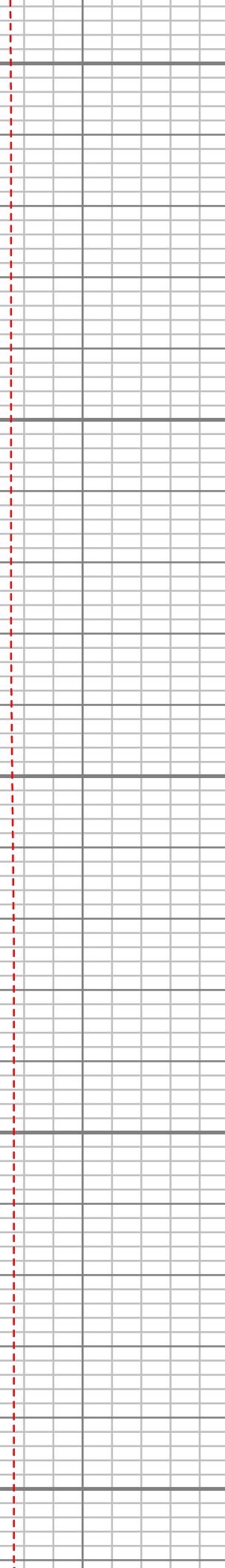
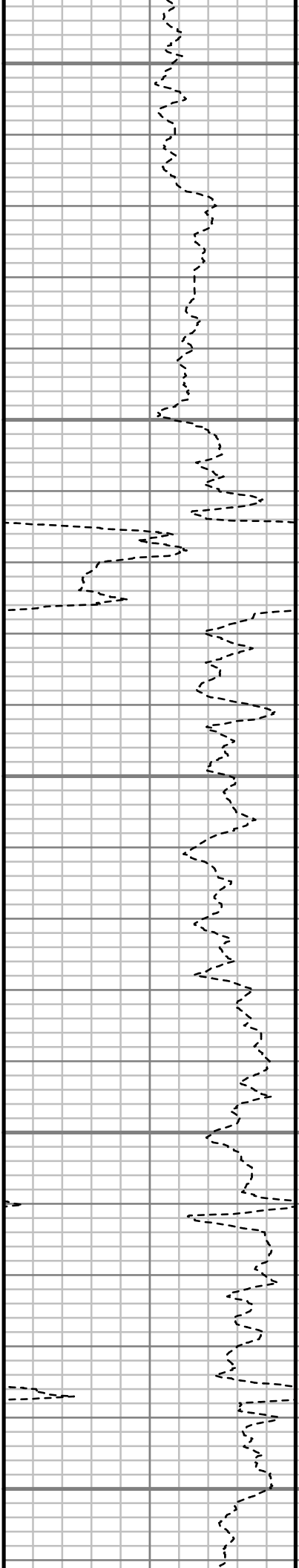
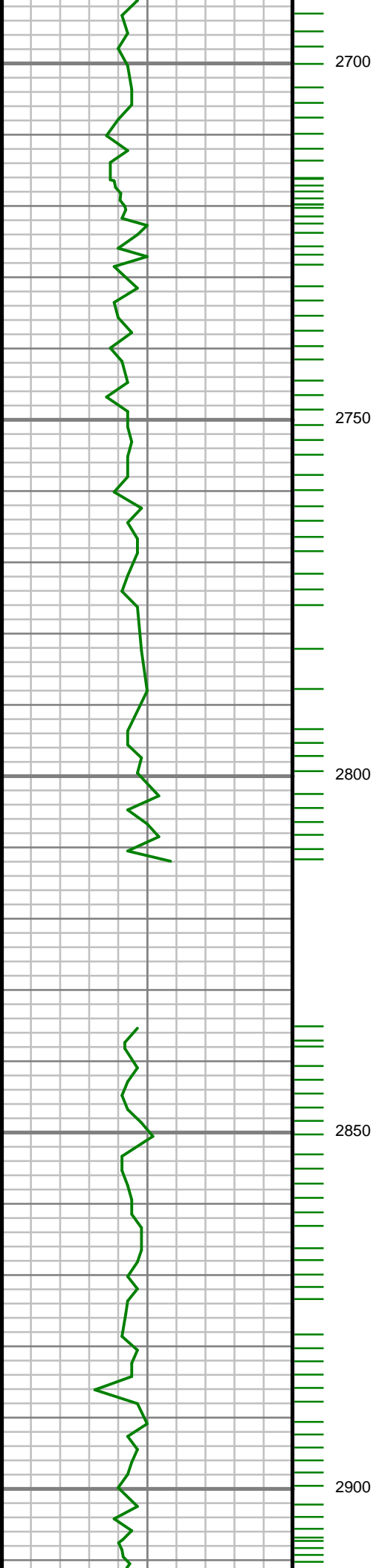
S: 25 MD: 2430.00 ft  
Inc: 11.39 deg Az:  
138.88 deg TVD:  
2415.91 ft





S: 26 MD: 2522.00 ft  
Inc: 12.93 deg Az:  
131.98 deg TVD:  
2505.84 ft

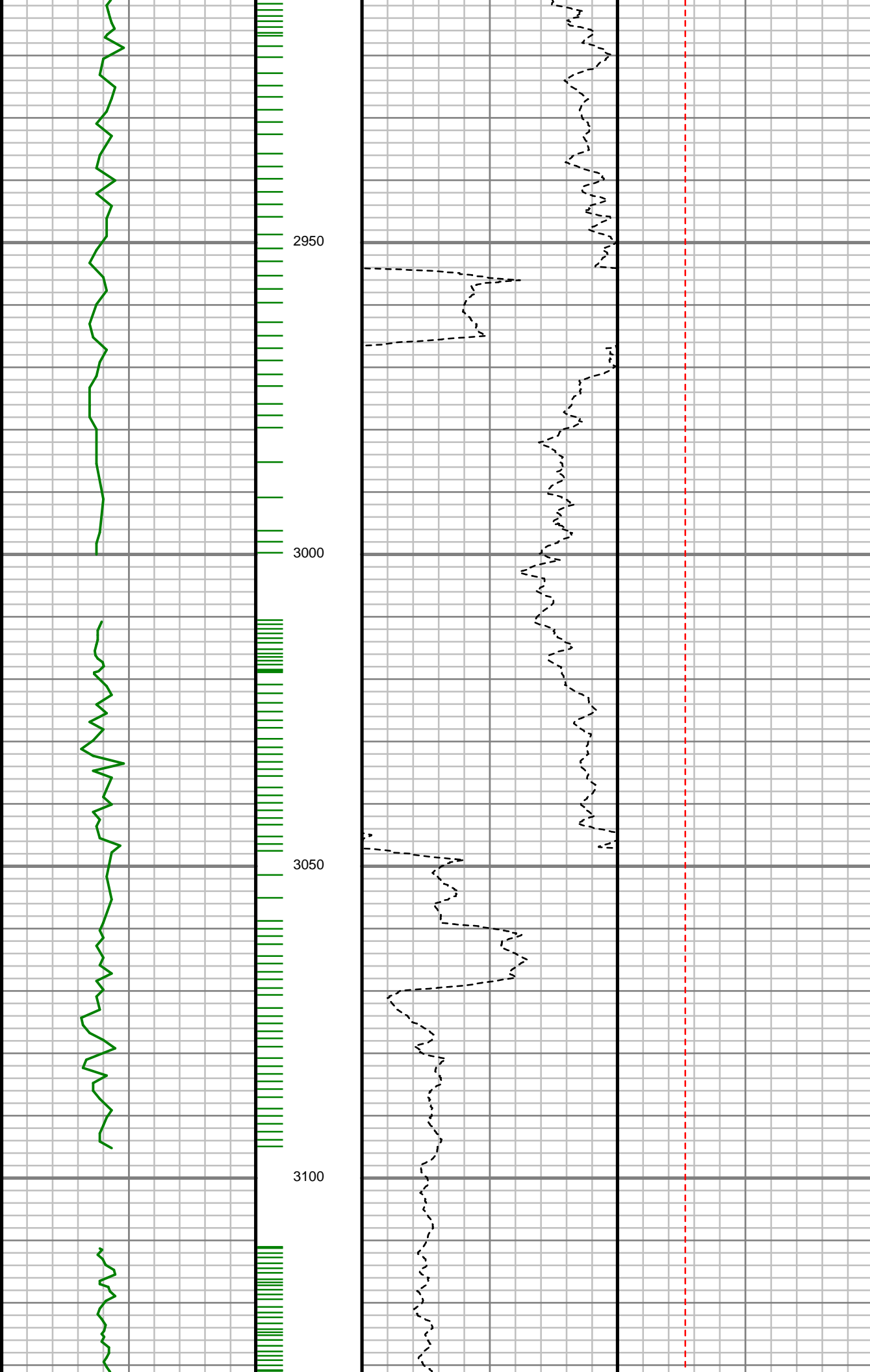
S: 27 MD: 2613.00 ft  
Inc: 12.58 deg Az:  
126.66 deg TVD:  
2594.60 ft



S: 28 MD: 2705.00 ft  
Inc: 10.69 deg Az:  
127.34 deg TVD:  
2684.71 ft

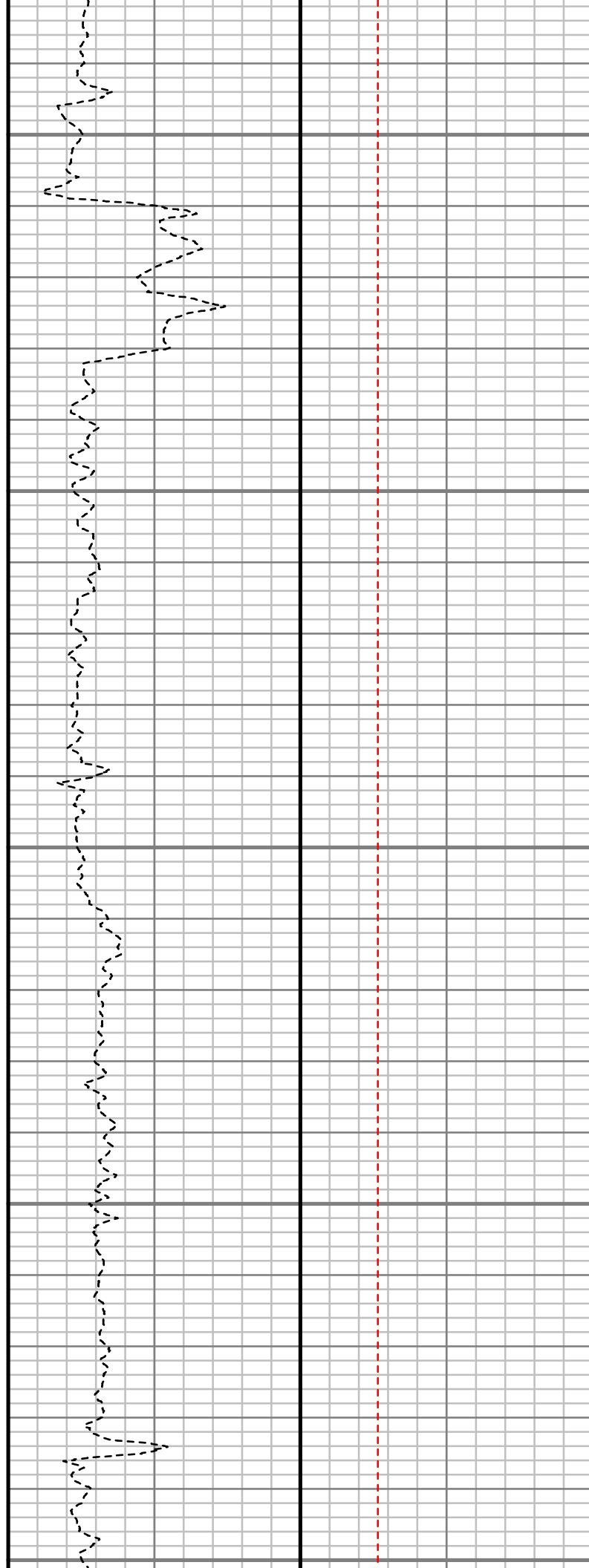
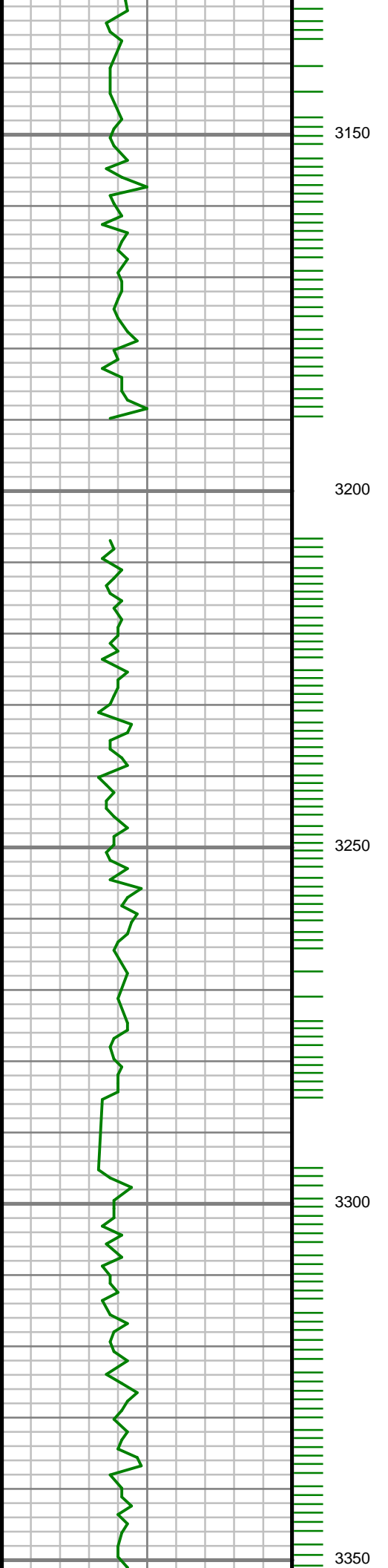
S: 29 MD: 2800.00 ft  
Inc: 7.65 deg Az:  
132.79 deg TVD:  
2778.48 ft

S: 30 MD: 2894.00 ft  
Inc: 5.79 deg Az:  
127.28 deg TVD:  
2871.83 ft



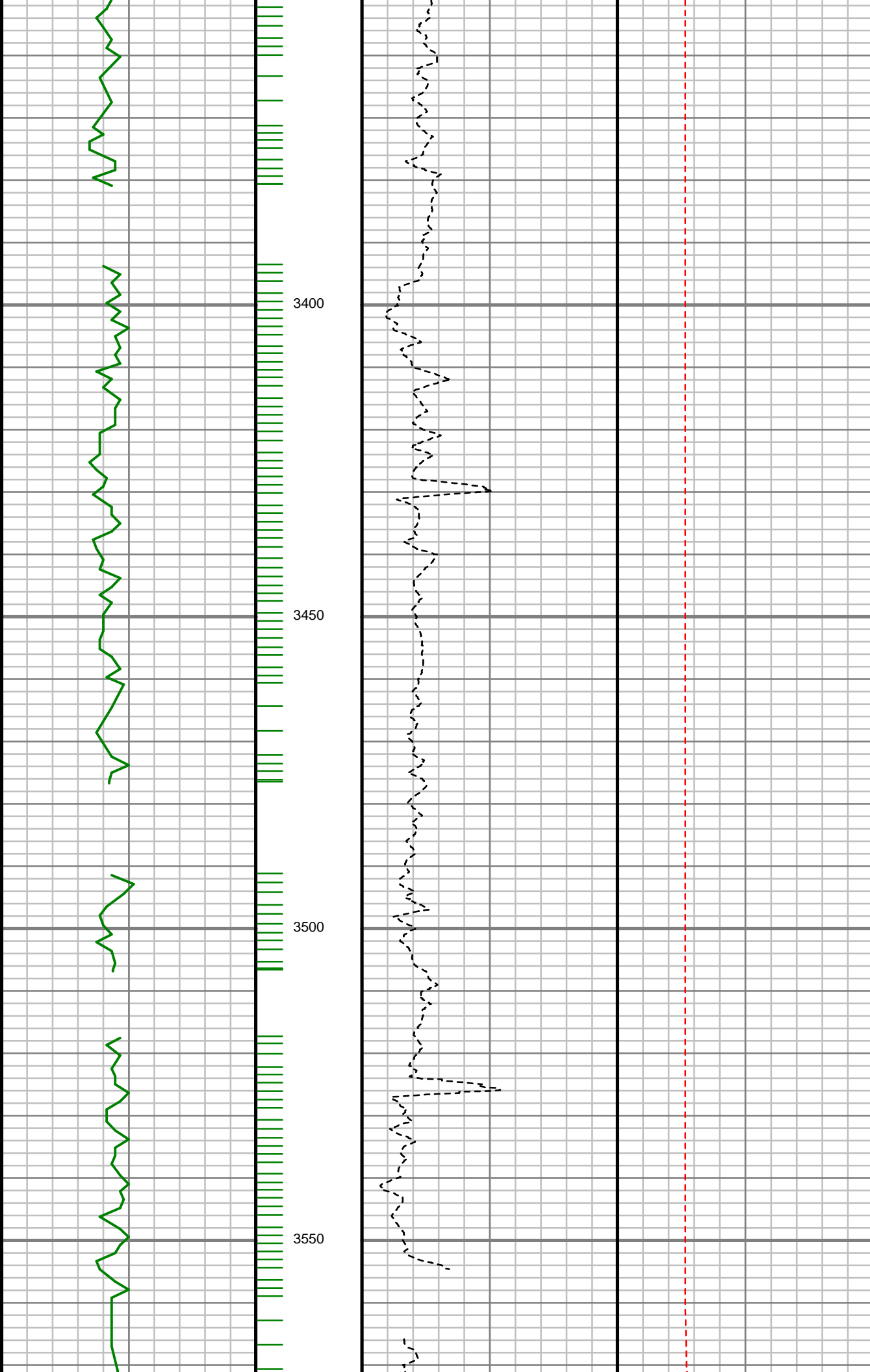
S: 31 MD: 2989.00 ft  
Inc: 4.23 deg Az:  
152.13 deg TVD:  
2966.48 ft

S: 32 MD: 3083.00 ft  
Inc: 3.24 deg Az:  
168.19 deg TVD:  
3060.28 ft



S: 33 MD: 3177.00 ft  
Inc: 1.58 deg Az:  
215.43 deg TVD:  
3154.20 ft

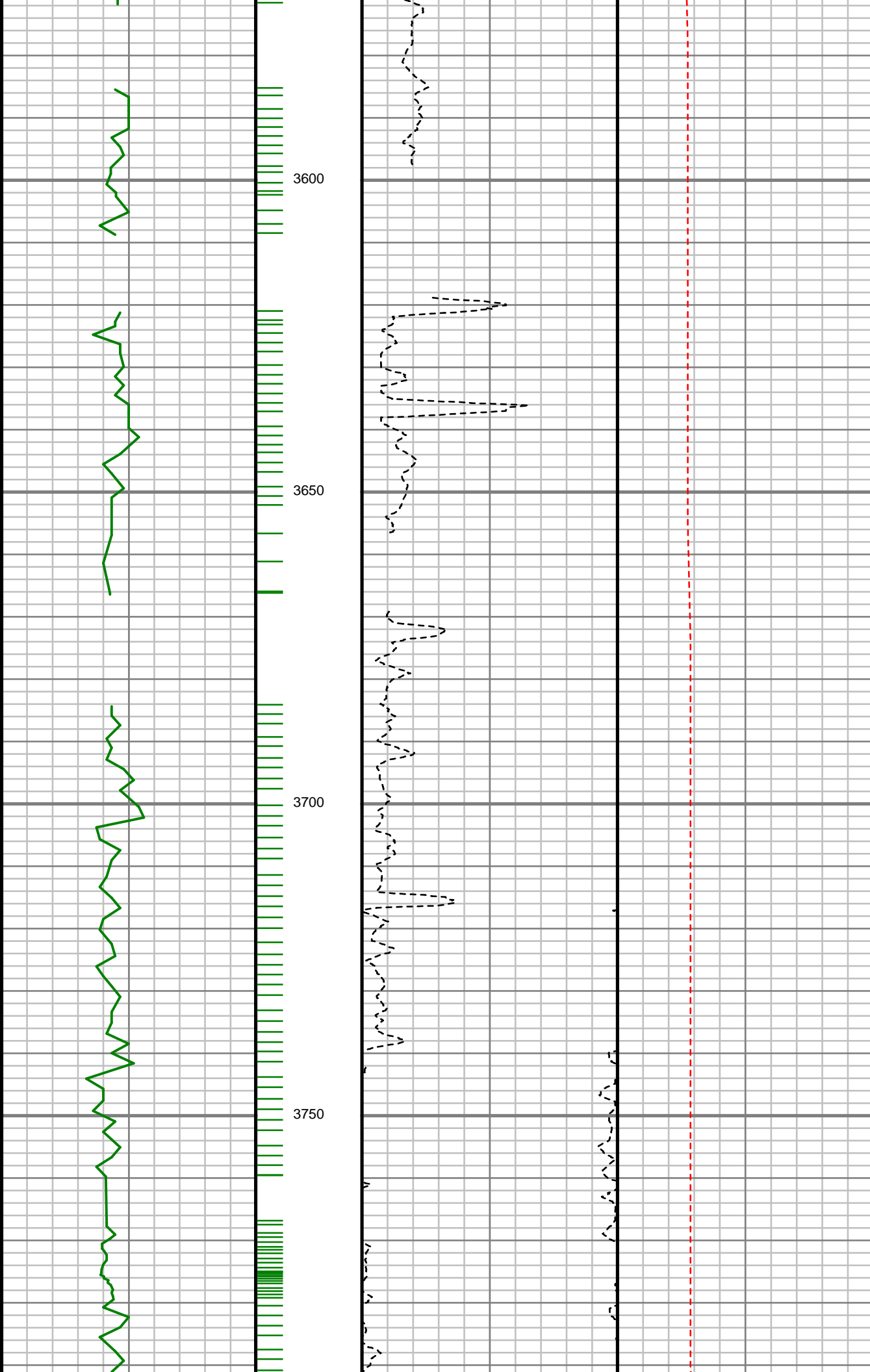
S: 34 MD: 3272.00 ft  
Inc: 1.15 deg Az:  
257.45 deg TVD:  
3249.18 ft



S: 35 MD: 3366.00 ft  
Inc: 0.99 deg Az:  
256.21 deg TVD:  
3343.16 ft

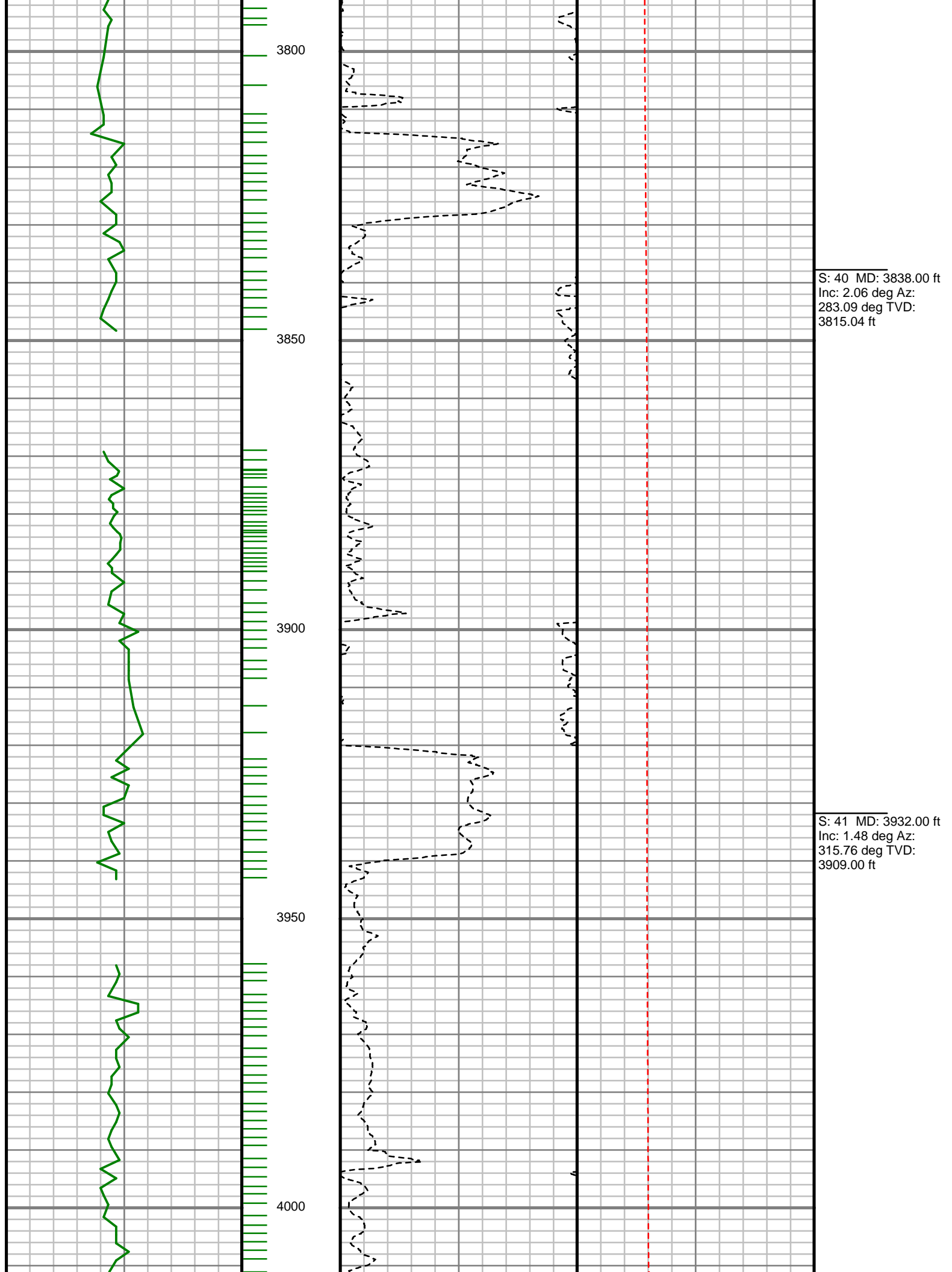
S: 36 MD: 3460.00 ft  
Inc: 1.14 deg Az:  
246.18 deg TVD:  
3437.14 ft

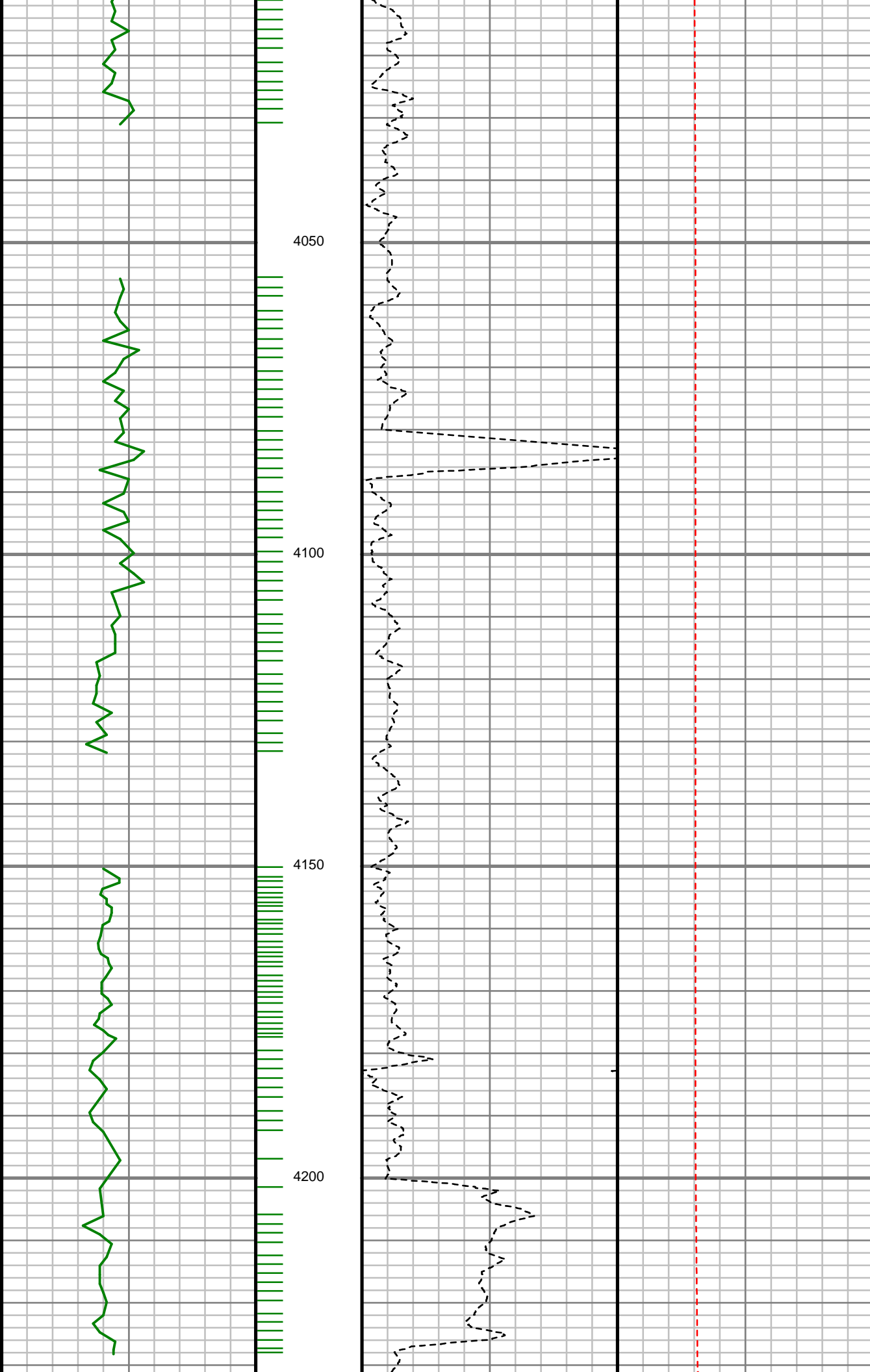
S: 37 MD: 3554.00 ft  
Inc: 1.02 deg Az:  
274.70 deg TVD:  
3531.13 ft



S: 38 MD: 3649.00 ft  
Inc: 1.46 deg Az:  
265.96 deg TVD:  
3626.11 ft

S: 39 MD: 3743.00 ft  
Inc: 1.14 deg Az:  
272.36 deg TVD:  
3720.08 ft



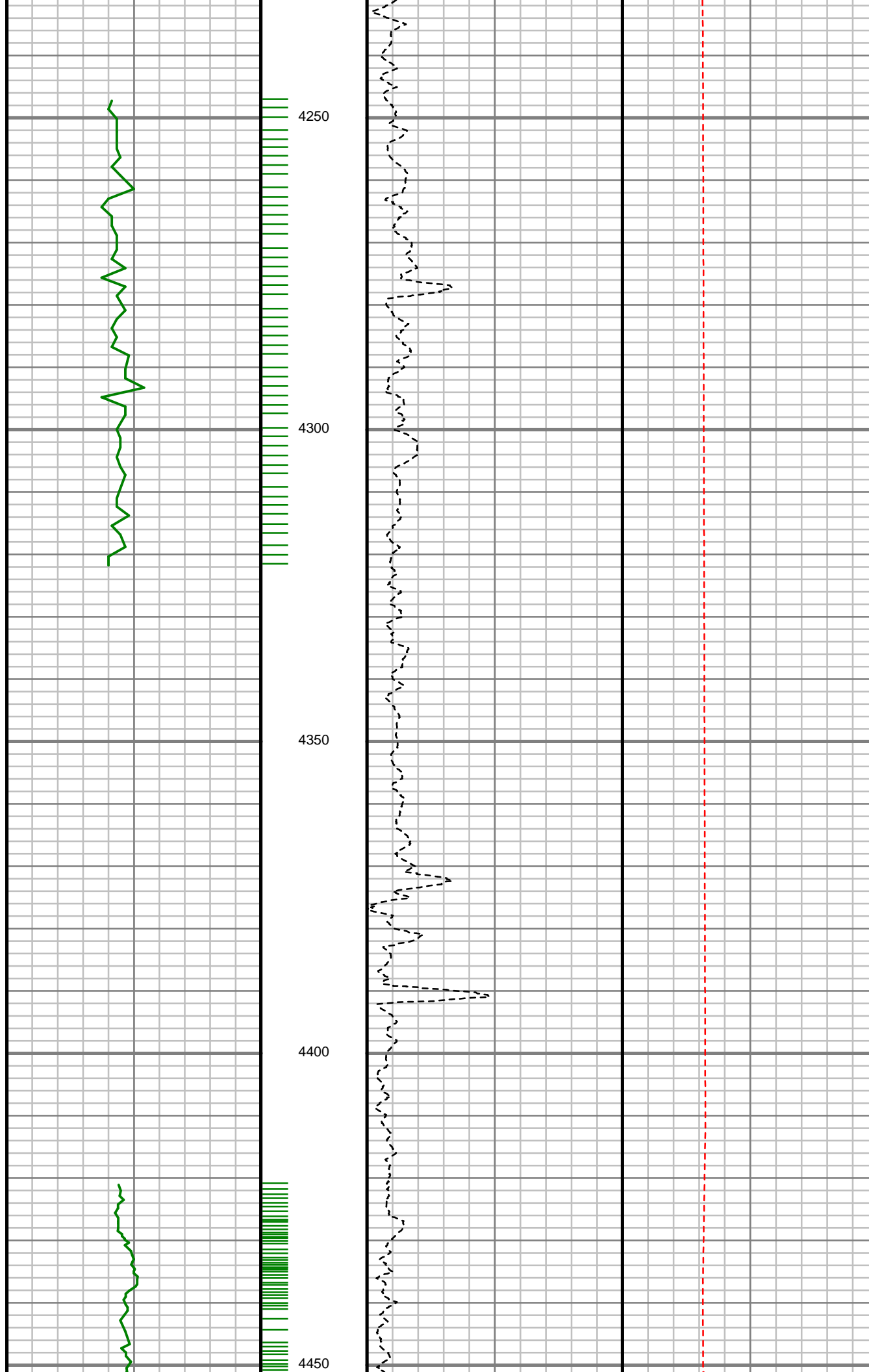


S: 42 MD: 4027.00 ft  
Inc: 1.86 deg Az:  
333.31 deg TVD:  
4003.96 ft

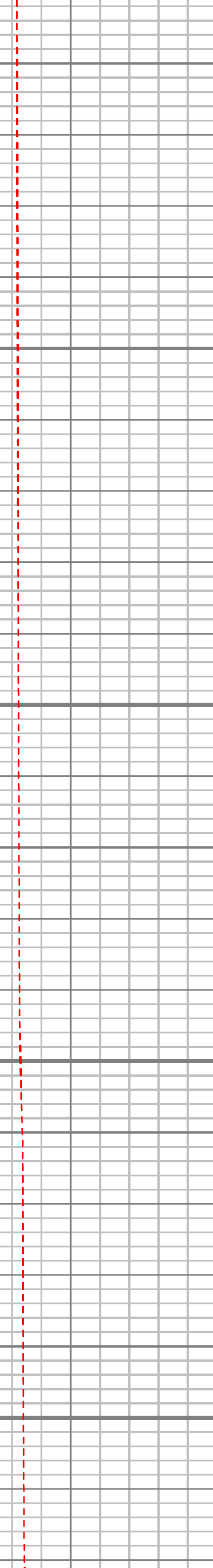
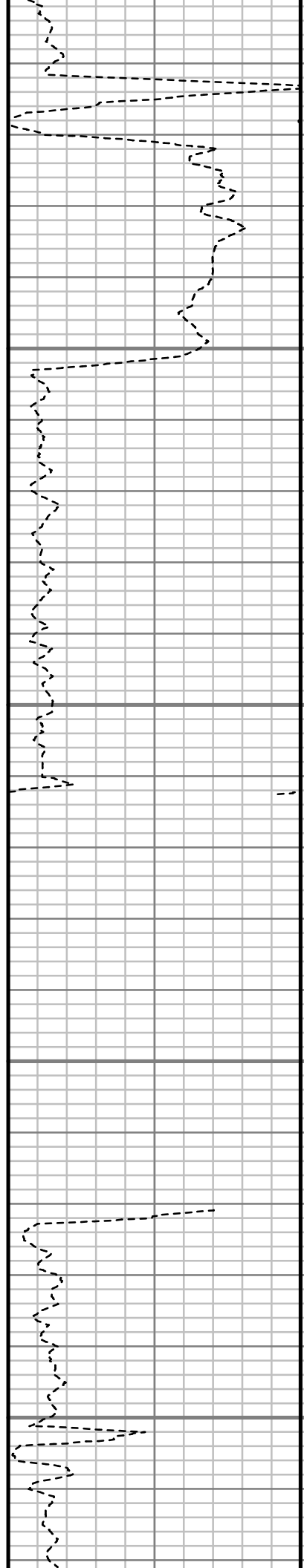
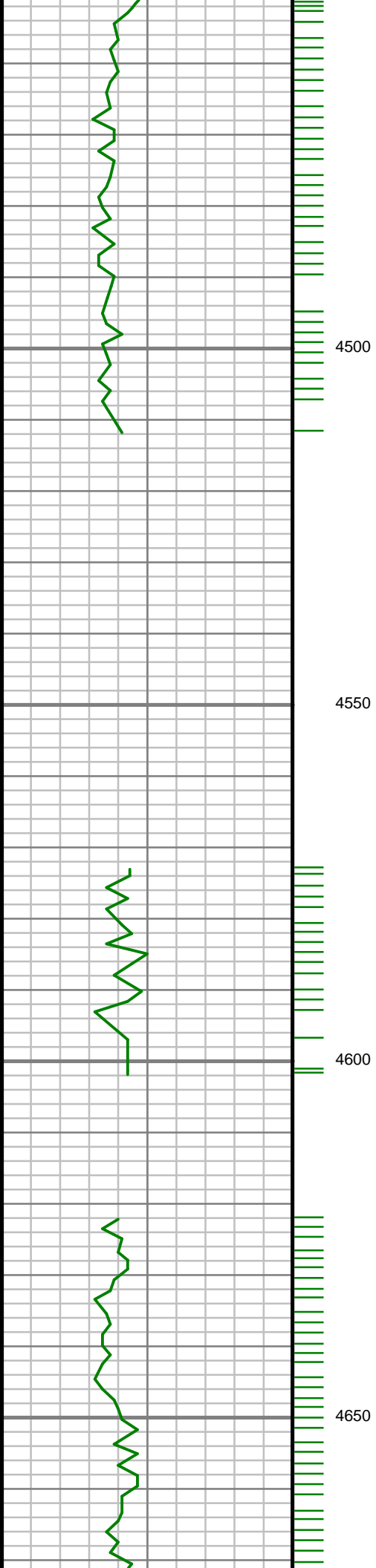
S: 43 MD: 4121.00 ft  
Inc: 2.17 deg Az:  
306.90 deg TVD:  
4097.91 ft

S: 44 MD: 4215.00 ft  
Inc: 1.94 deg Az:  
337.40 deg TVD:  
4191.85 ft



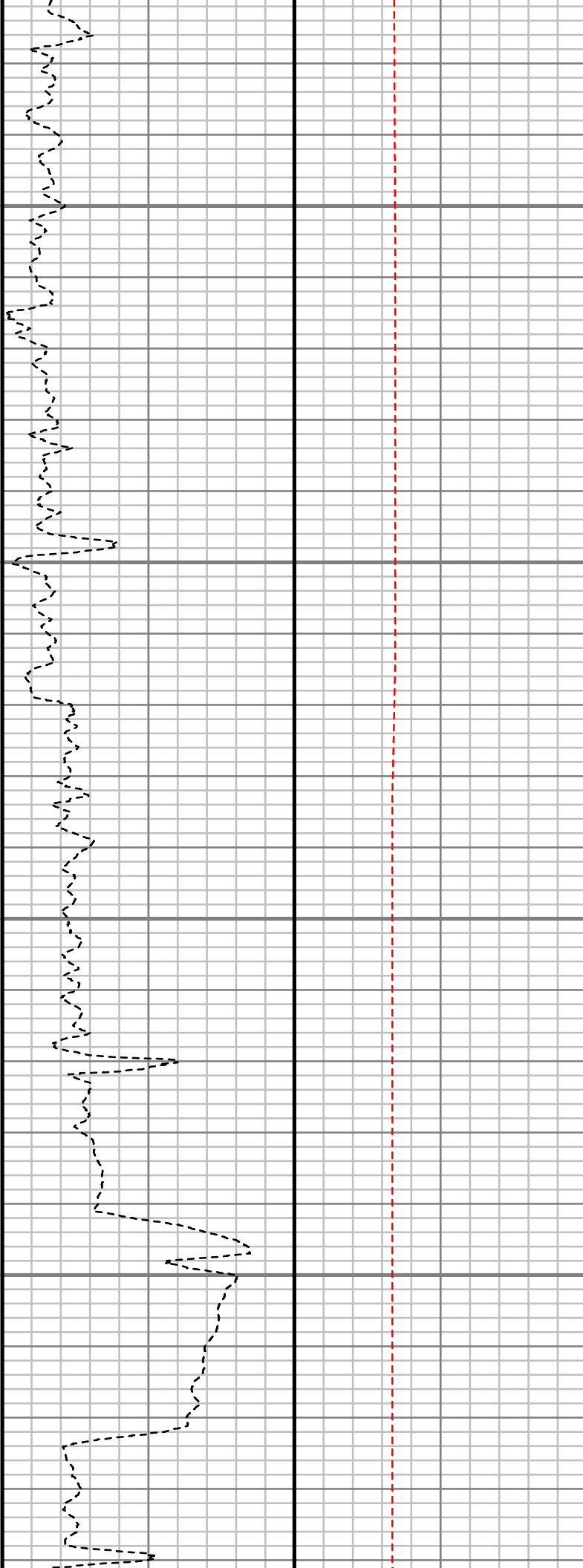
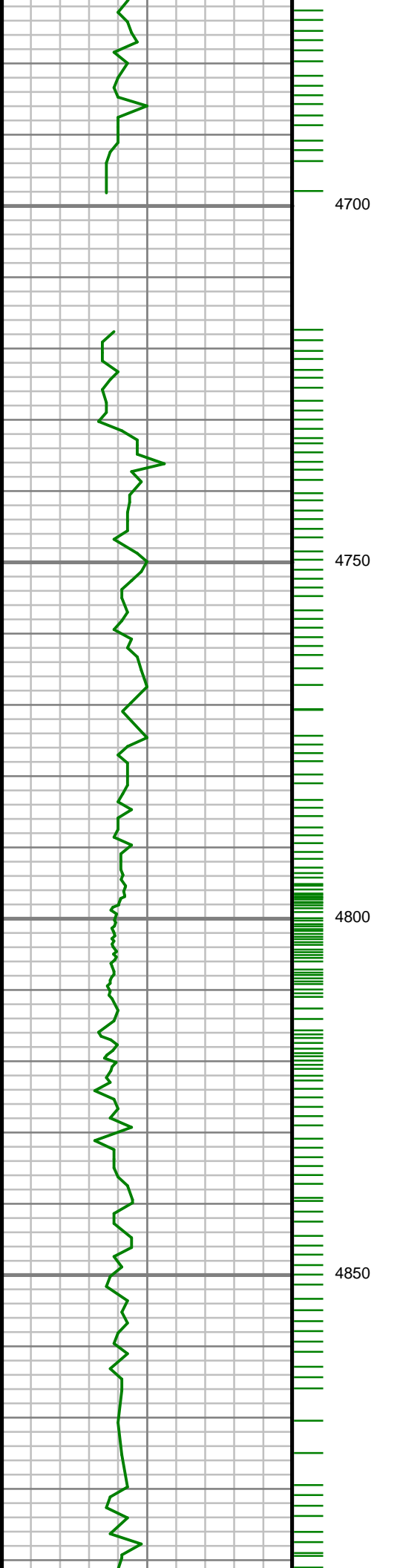


S: 45 MD: 4404.00 ft  
Inc: 1.98 deg Az:  
344.25 deg TVD:  
4380.74 ft



S: 46 MD: 4498.00 ft  
Inc: 2.16 deg Az: 48.24  
deg TVD: 4474.69 ft

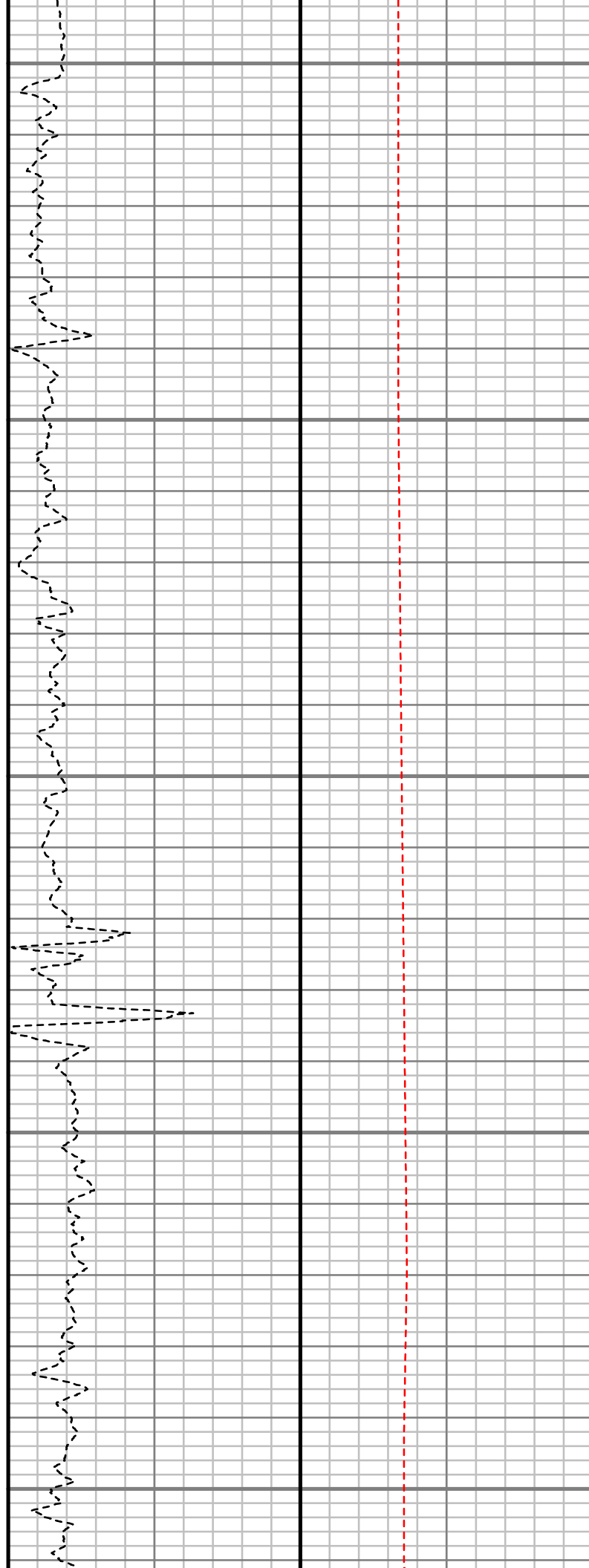
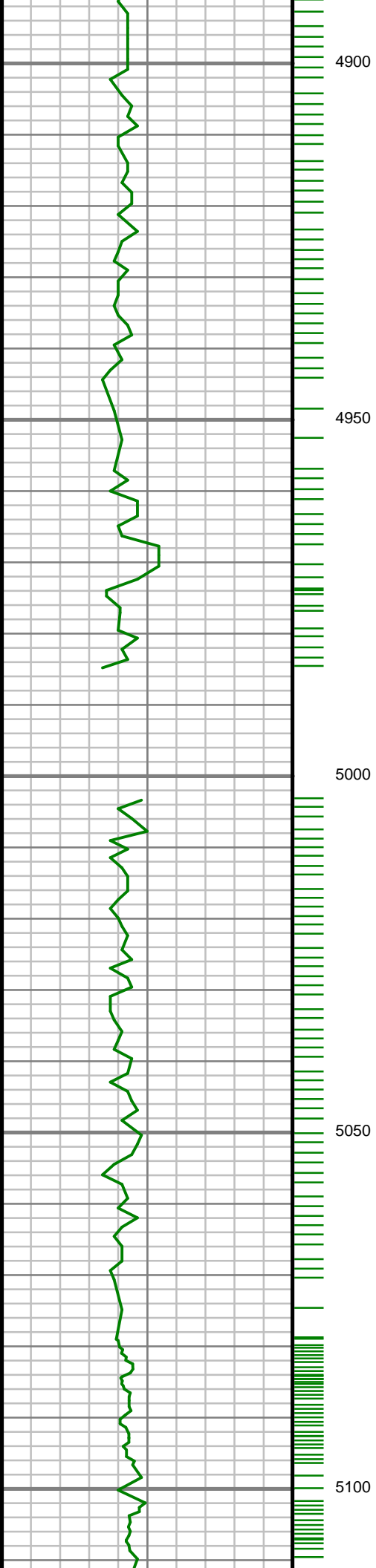
S: 47 MD: 4593.00 ft  
Inc: 2.33 deg Az: 58.25  
deg TVD: 4569.61 ft



S: 48 MD: 4687.00 ft  
Inc: 3.05 deg Az: 61.64  
deg TVD: 4663.51 ft

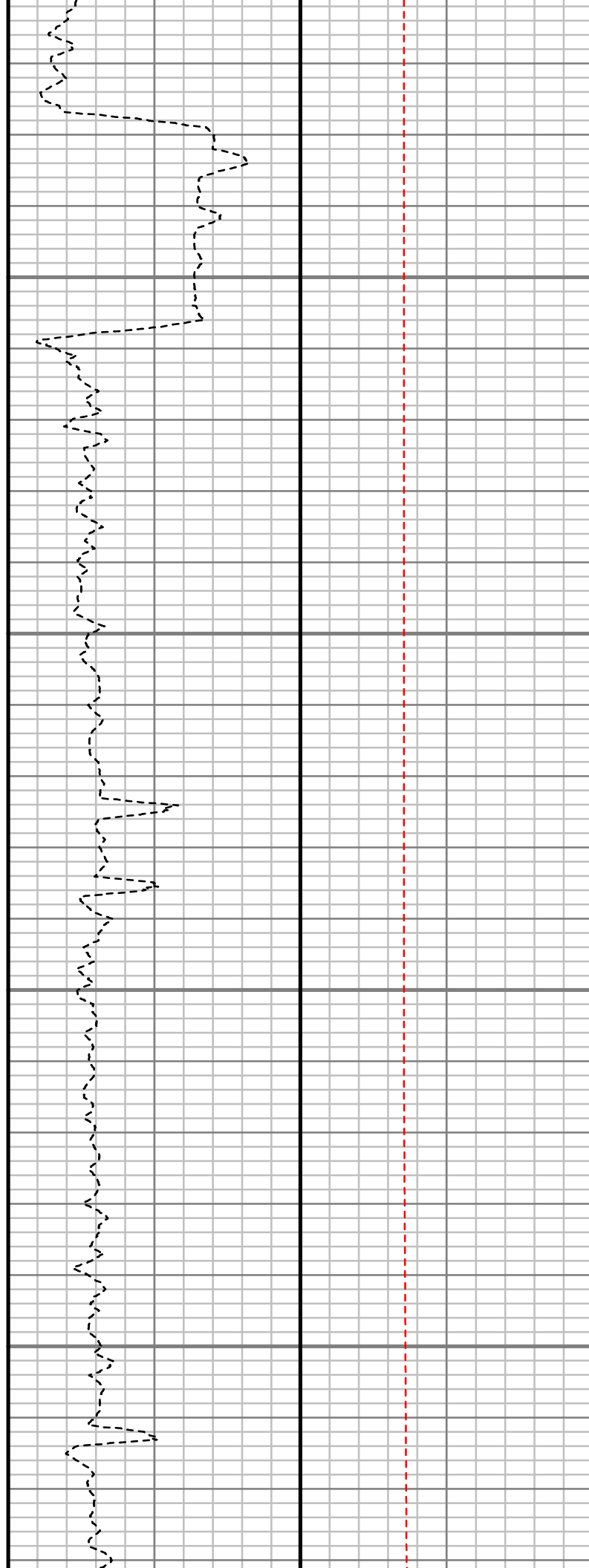
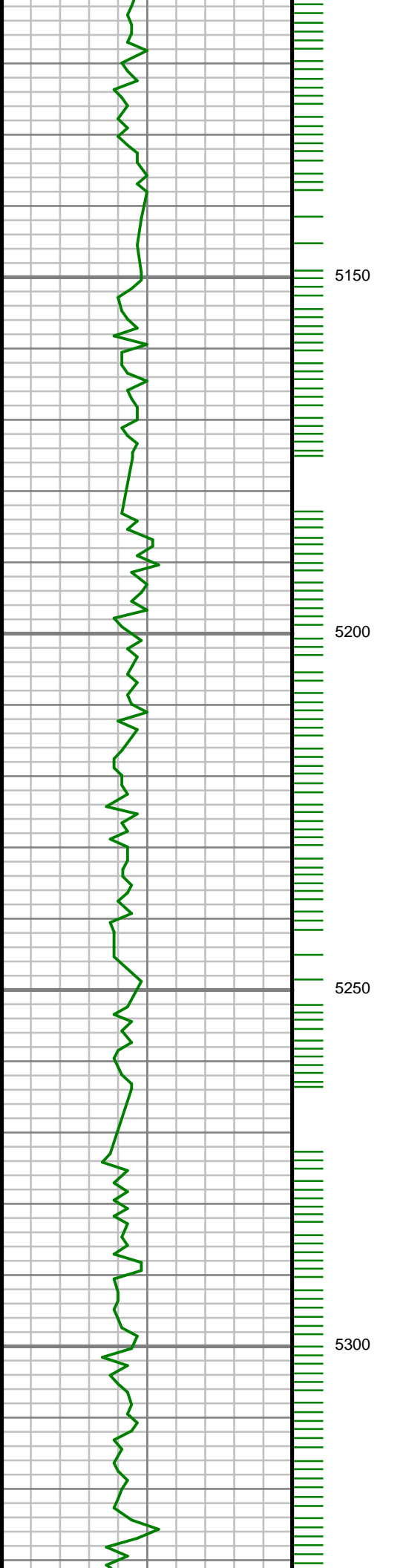
S: 49 MD: 4781.00 ft  
Inc: 3.14 deg Az: 61.57  
deg TVD: 4757.37 ft

S: 50 MD: 4876.00 ft  
Inc: 1.56 deg Az:  
133.39 deg TVD:  
4852.31 ft



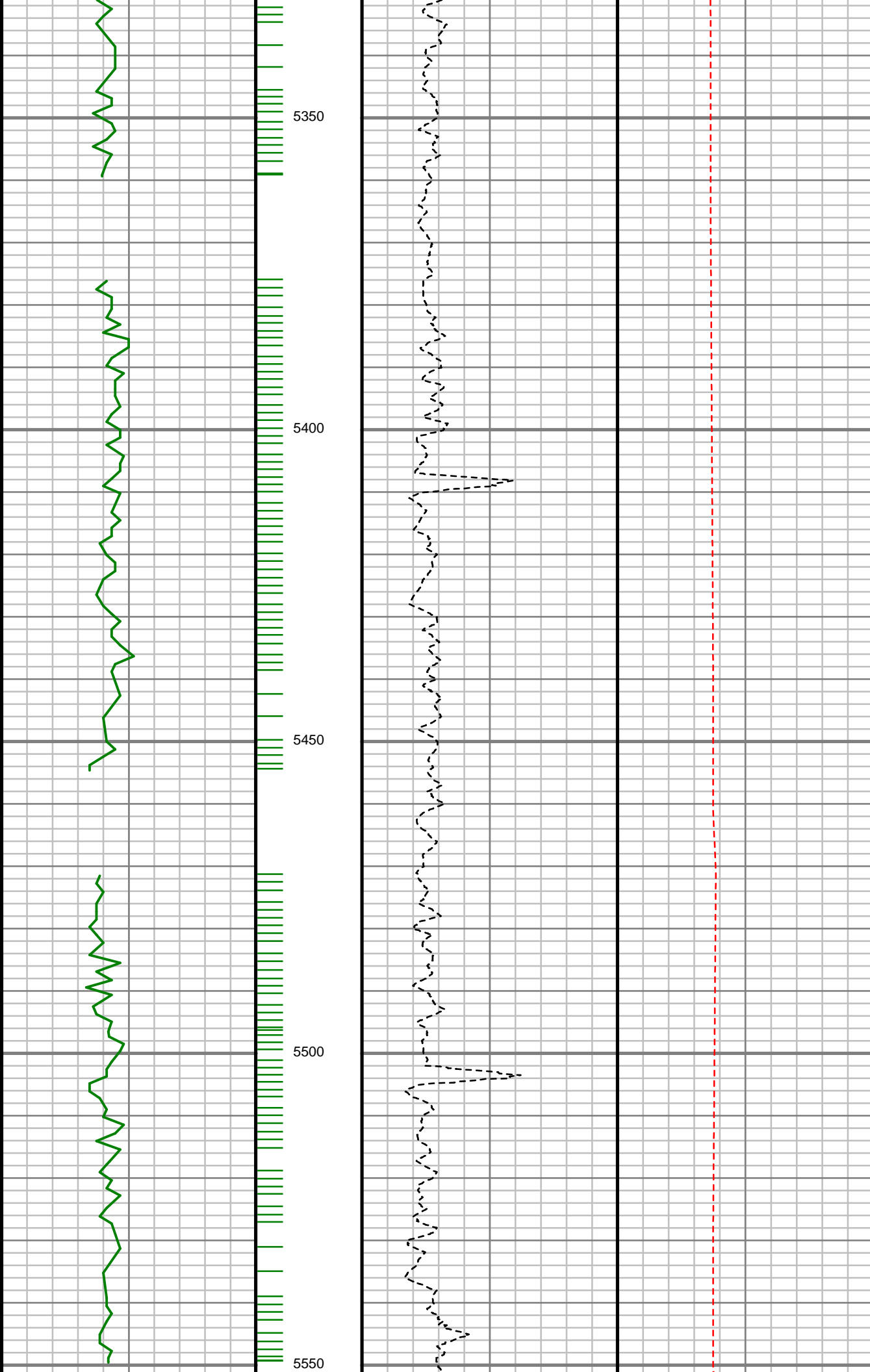
S: 51 MD: 4970.00 ft  
Inc: 2.00 deg Az:  
117.29 deg TVD:  
4946.26 ft

S: 52 MD: 5064.00 ft  
Inc: 2.11 deg Az:  
113.72 deg TVD:  
5040.20 ft



S: 53 MD: 5159.00 ft  
Inc: 1.77 deg Az:  
168.83 deg TVD:  
5135.15 ft

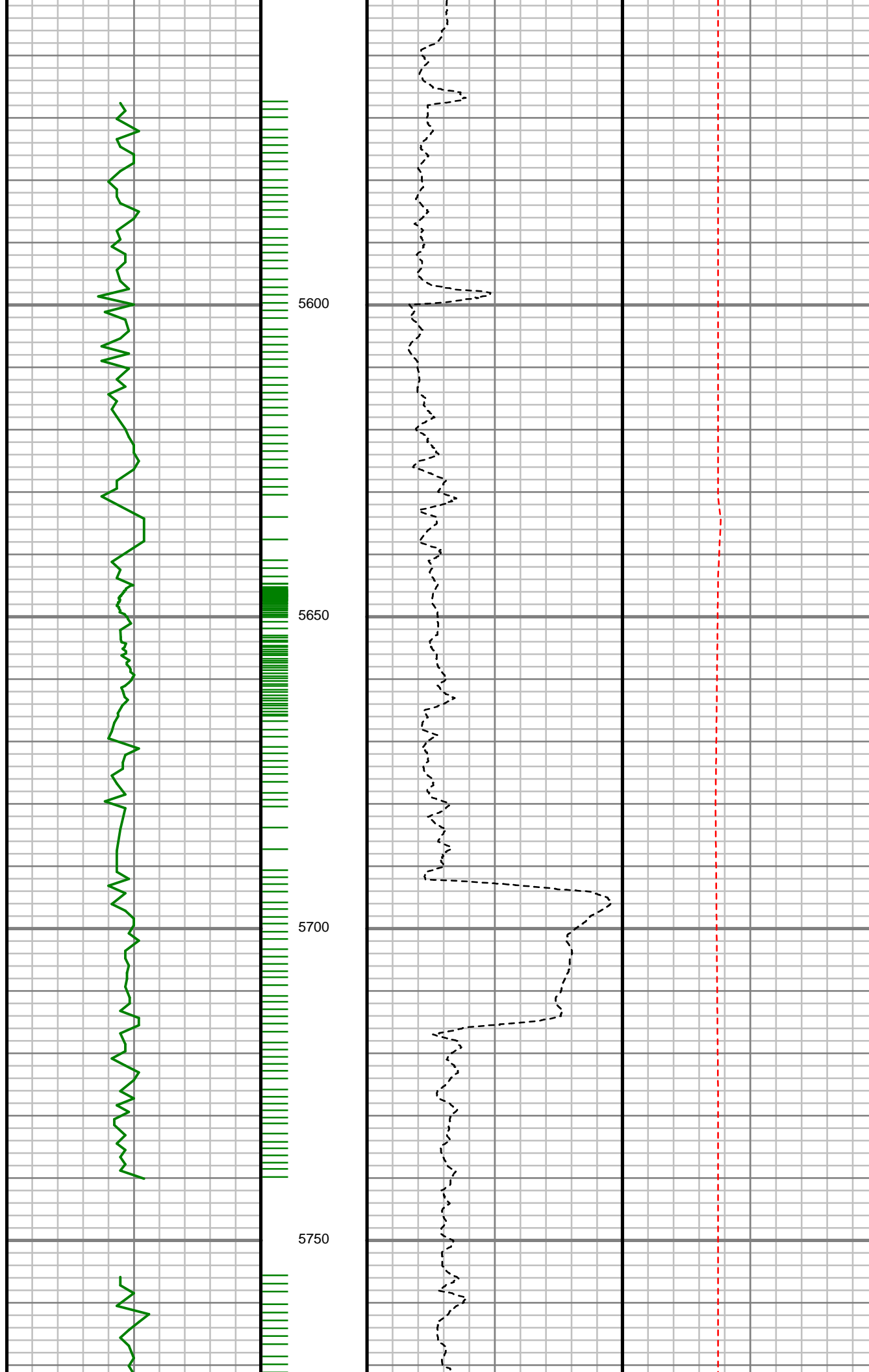
S: 54 MD: 5253.00 ft  
Inc: 1.76 deg Az:  
200.99 deg TVD:  
5229.11 ft



S: 55 MD: 5347.00 ft  
Inc: 1.37 deg Az:  
219.69 deg TVD:  
5323.08 ft

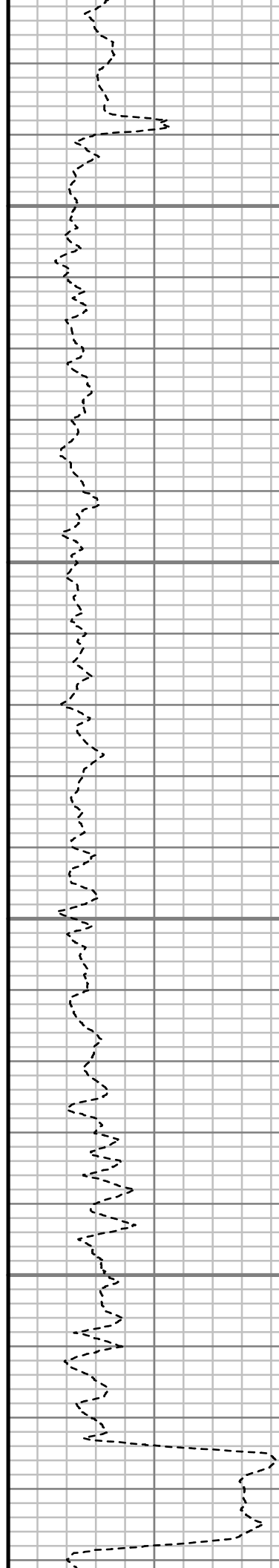
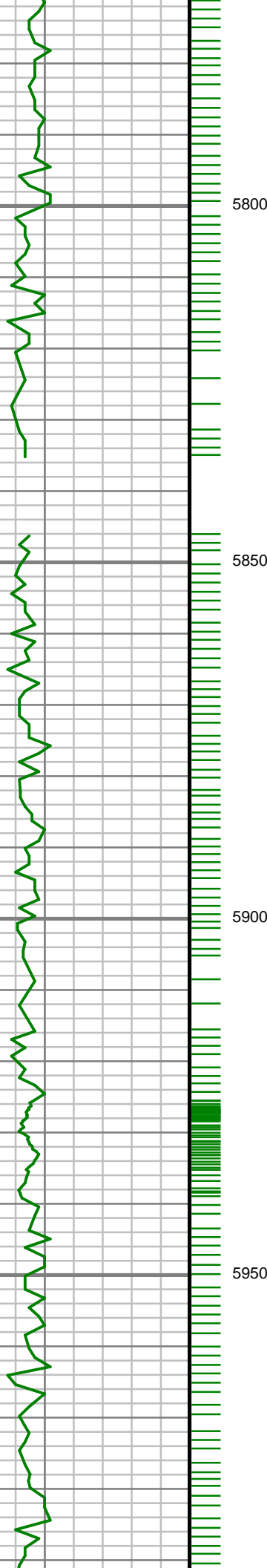
S: 56 MD: 5442.00 ft  
Inc: 0.81 deg Az:  
244.52 deg TVD:  
5418.06 ft

S: 57 MD: 5536.00 ft  
Inc: 2.08 deg Az:  
295.81 deg TVD:  
5512.03 ft



S: 58 MD: 5630.00 ft  
Inc: 2.30 deg Az:  
290.92 deg TVD:  
5605.96 ft

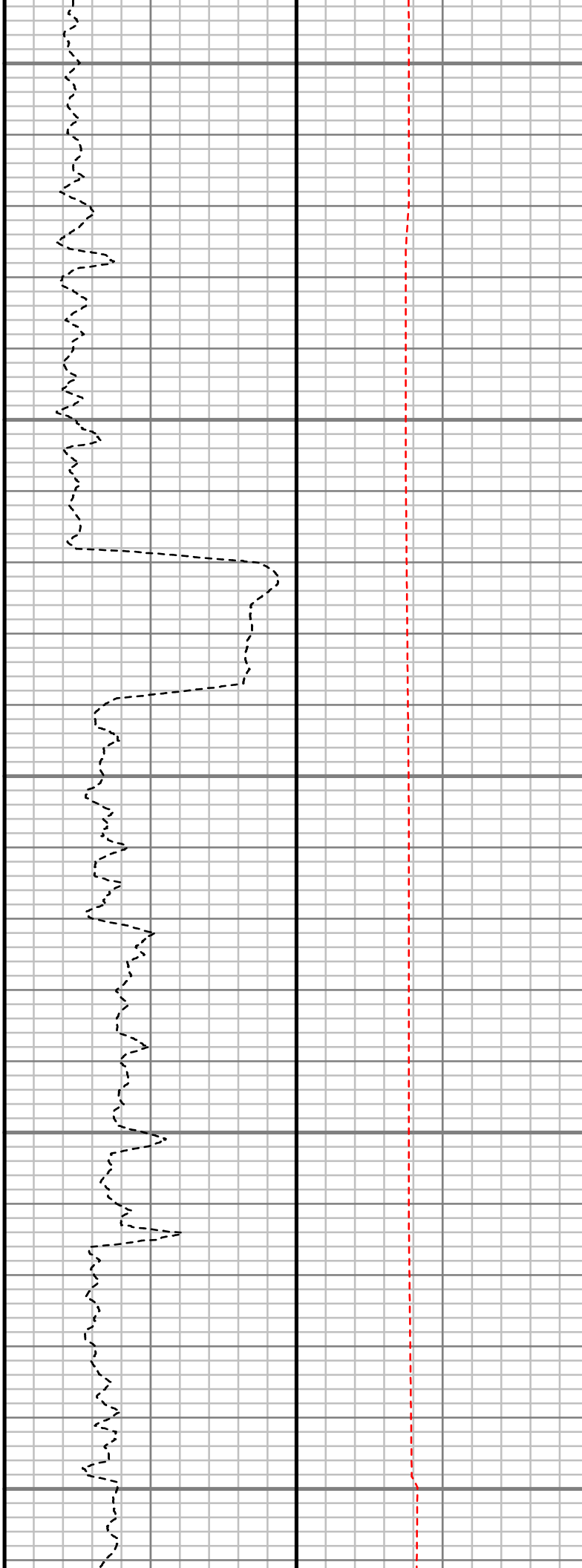
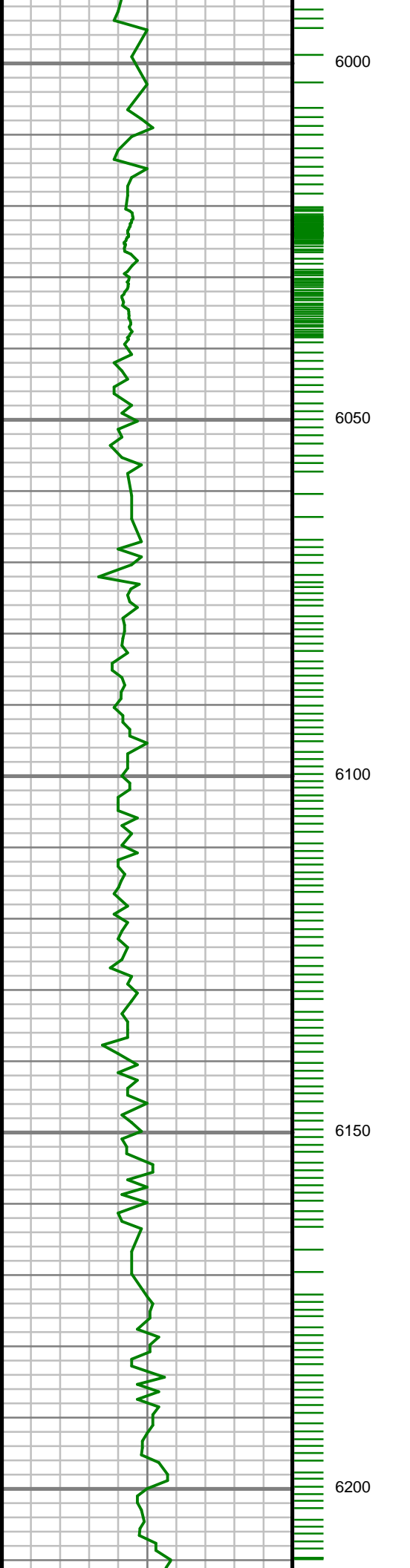
S: 59 MD: 5725.00 ft  
Inc: 1.60 deg Az: 25.08  
deg TVD: 5700.93 ft



S: 60 MD: 5819.00 ft  
Inc: 1.45 deg Az: 42.10  
deg TVD: 5794.89 ft

S: 61 MD: 5914.00 ft  
Inc: 1.56 deg Az: 41.60  
deg TVD: 5889.86 ft

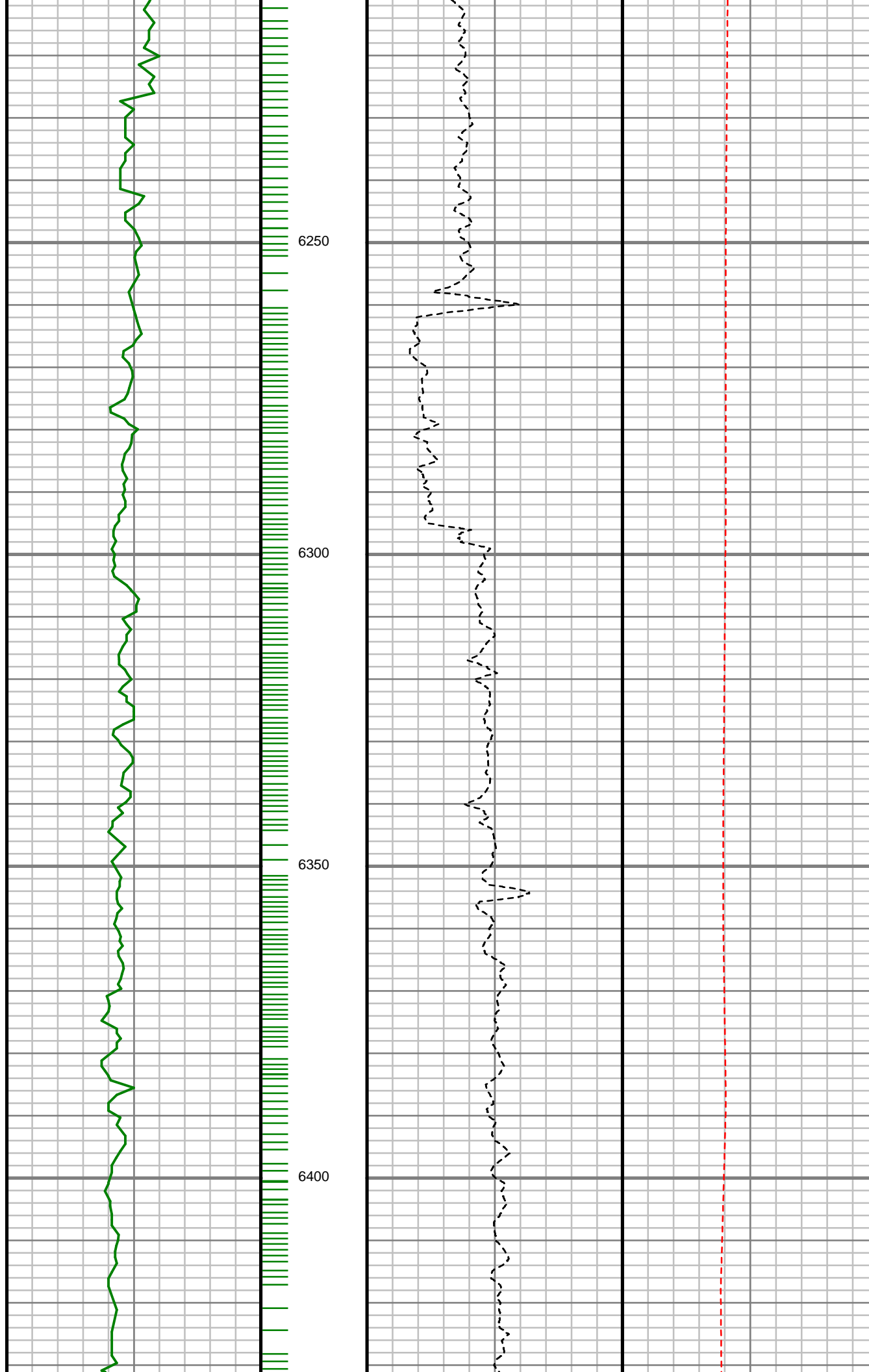




S: 62 MD: 6008.00 ft  
Inc: 1.50 deg Az: 90.29  
deg TVD: 5983.83 ft

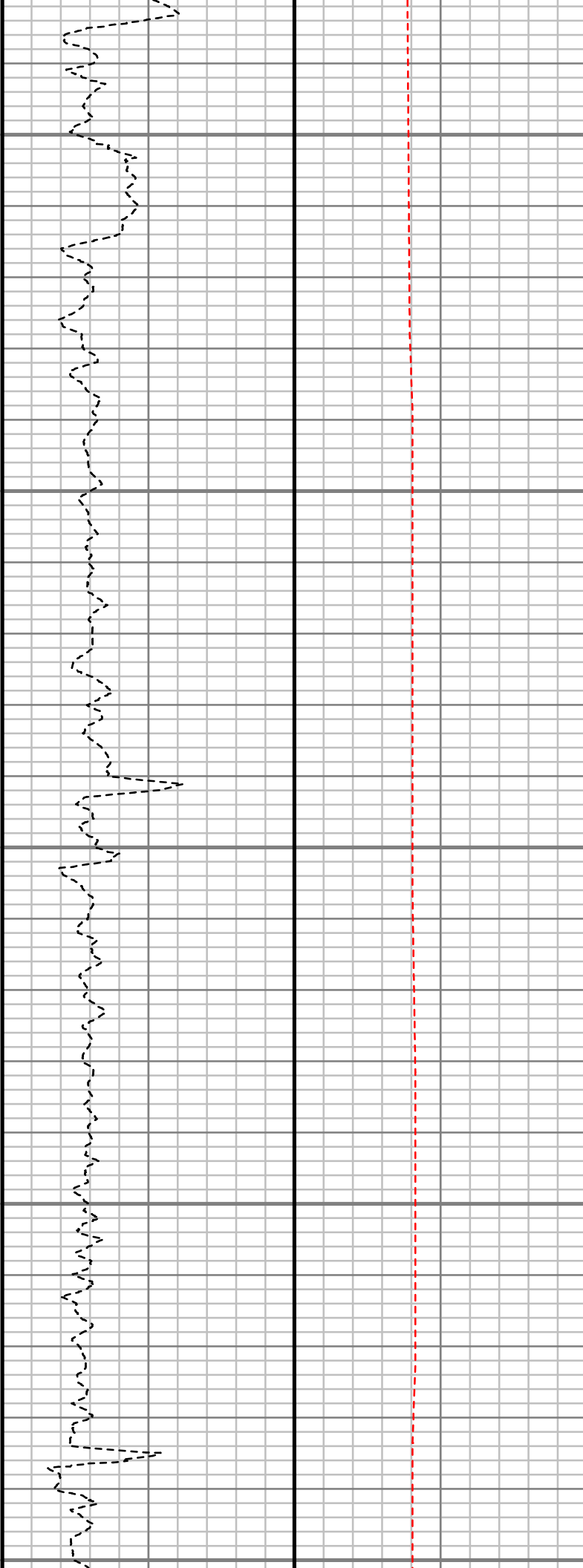
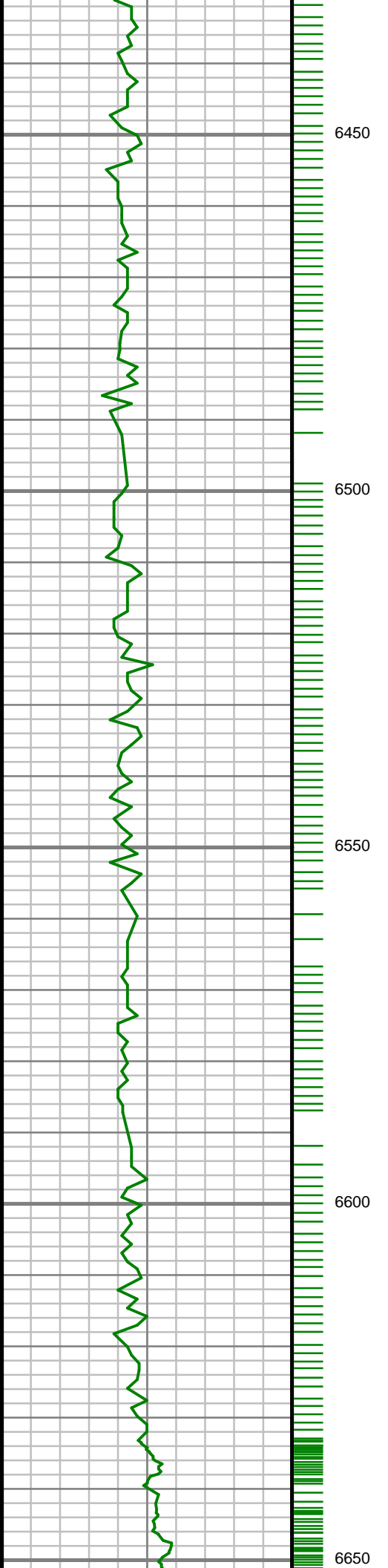
S: 63 MD: 6102.00 ft  
Inc: 2.17 deg Az:  
155.41 deg TVD:  
6077.79 ft

S: 64 MD: 6197.00 ft  
Inc: 1.76 deg Az:  
143.05 deg TVD:  
6172.74 ft



S: 65 MD: 6291.00 ft  
Inc: 1.62 deg Az:  
147.17 deg TVD:  
6266.70 ft

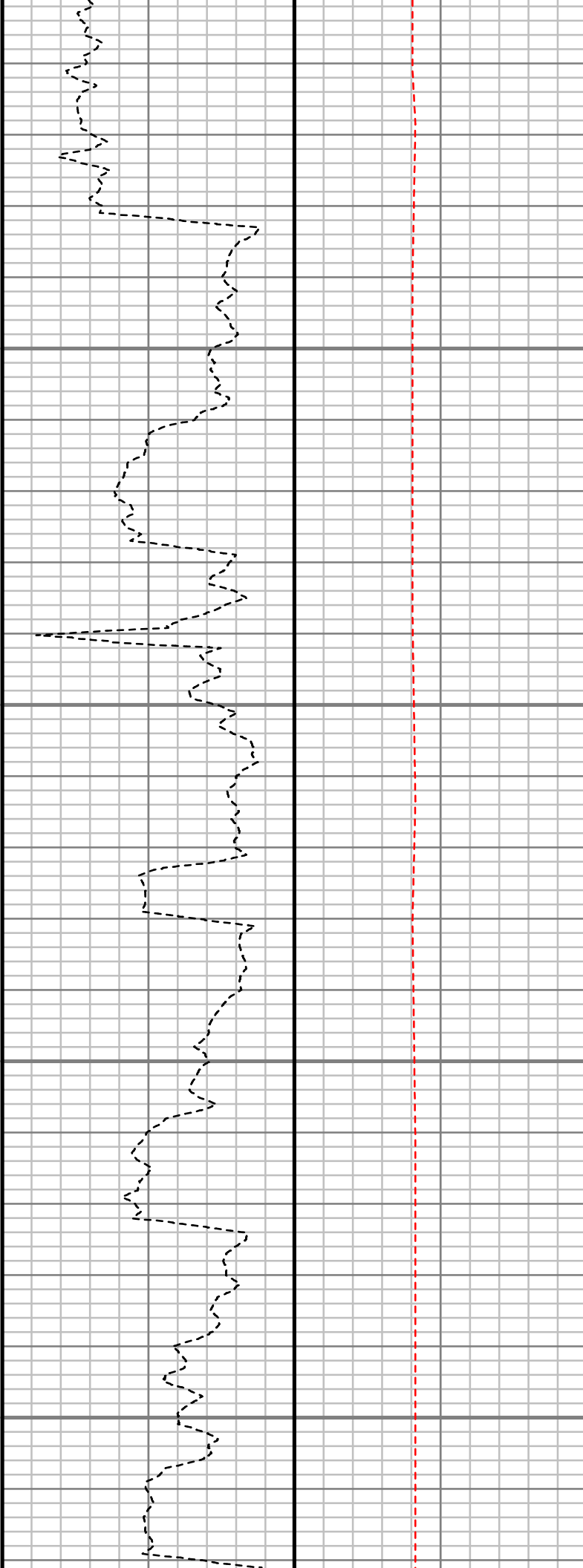
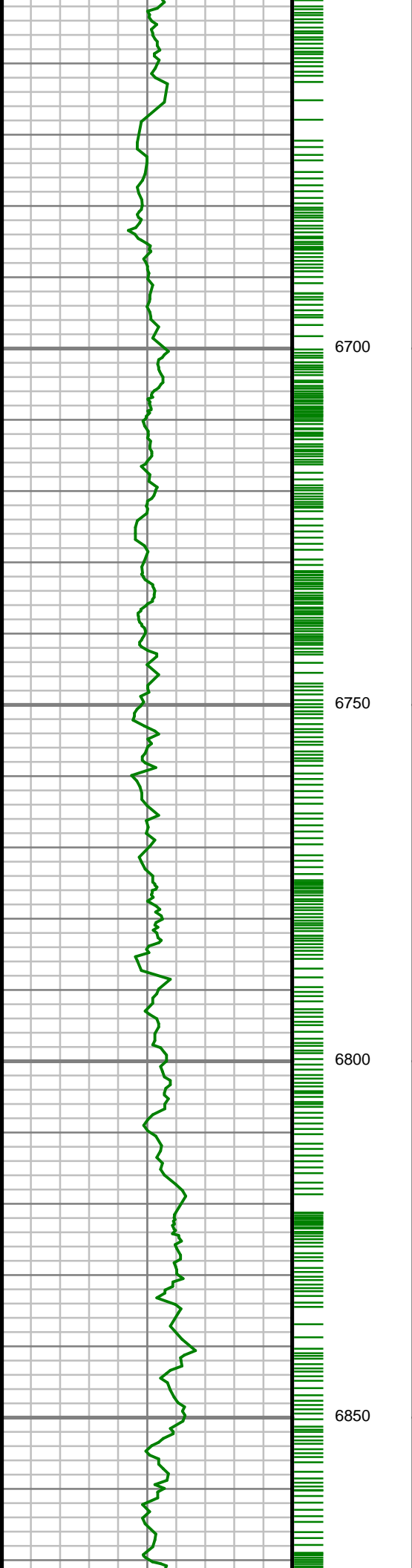
S: 66 MD: 6386.00 ft  
Inc: 0.78 deg Az:  
153.08 deg TVD:  
6361.67 ft



S: 67 MD: 6480.00 ft  
Inc: 0.55 deg Az:  
187.98 deg TVD:  
6455.67 ft

S: 68 MD: 6575.00 ft  
Inc: 0.39 deg Az:  
189.24 deg TVD:  
6550.66 ft

S: 69 MD: 6622.00 ft  
Inc: 0.64 deg Az:  
173.62 deg TVD:  
6597.66 ft



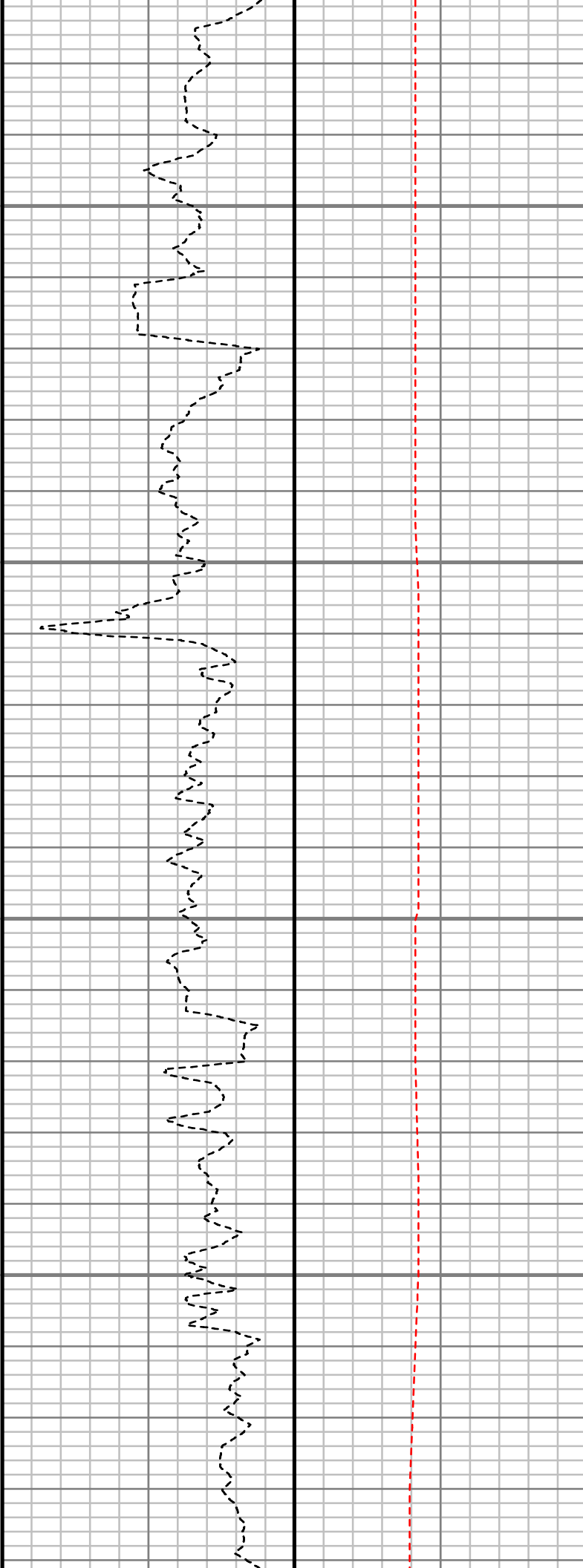
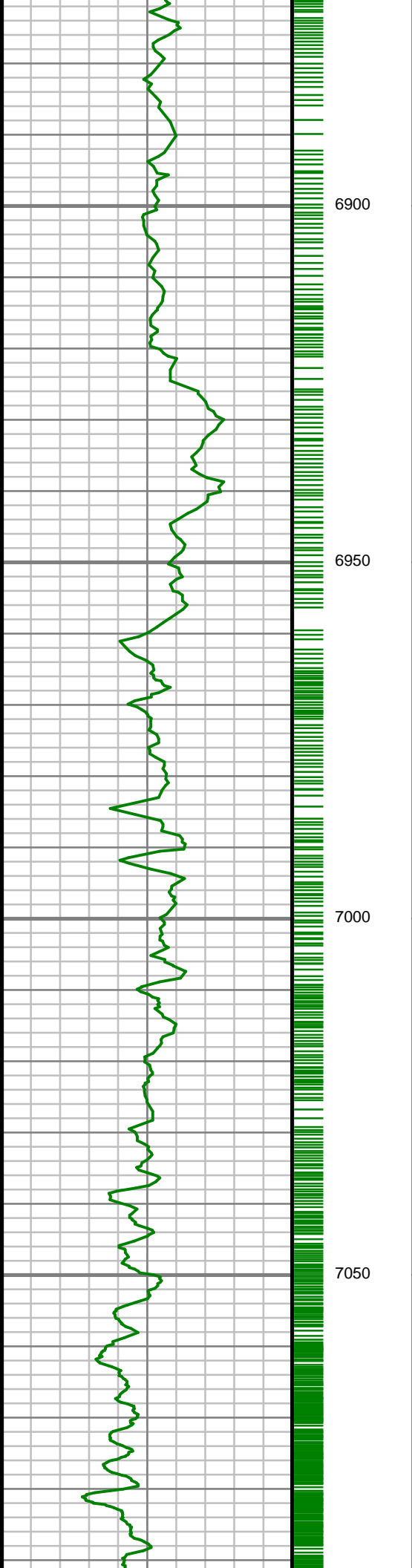
S: 70 MD: 6669.00 ft  
Inc: 0.29 deg Az:  
174.22 deg TVD:  
6644.66 ft

S: 71 MD: 6714.00 ft  
Inc: 2.57 deg Az:  
351.54 deg TVD:  
6689.65 ft

S: 72 MD: 6763.00 ft  
Inc: 4.37 deg Az:  
337.69 deg TVD:  
6738.56 ft

S: 73 MD: 6808.00 ft  
Inc: 7.11 deg Az:  
352.17 deg TVD:  
6783.33 ft

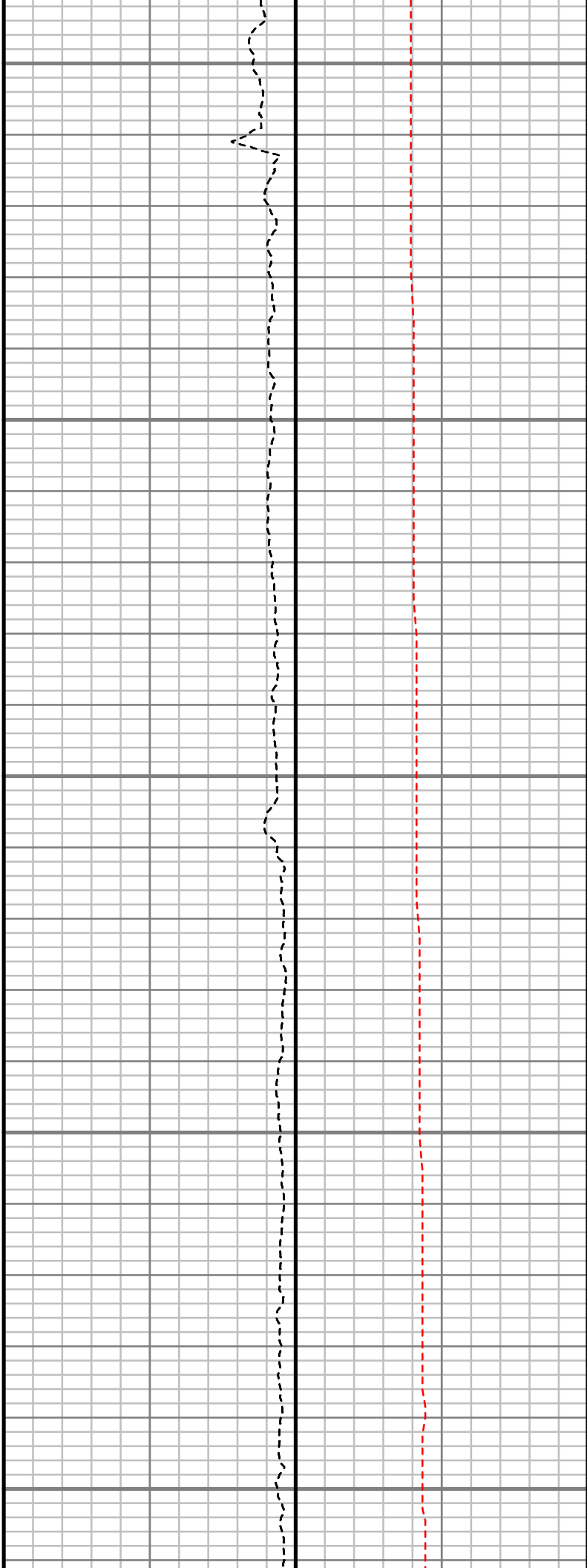
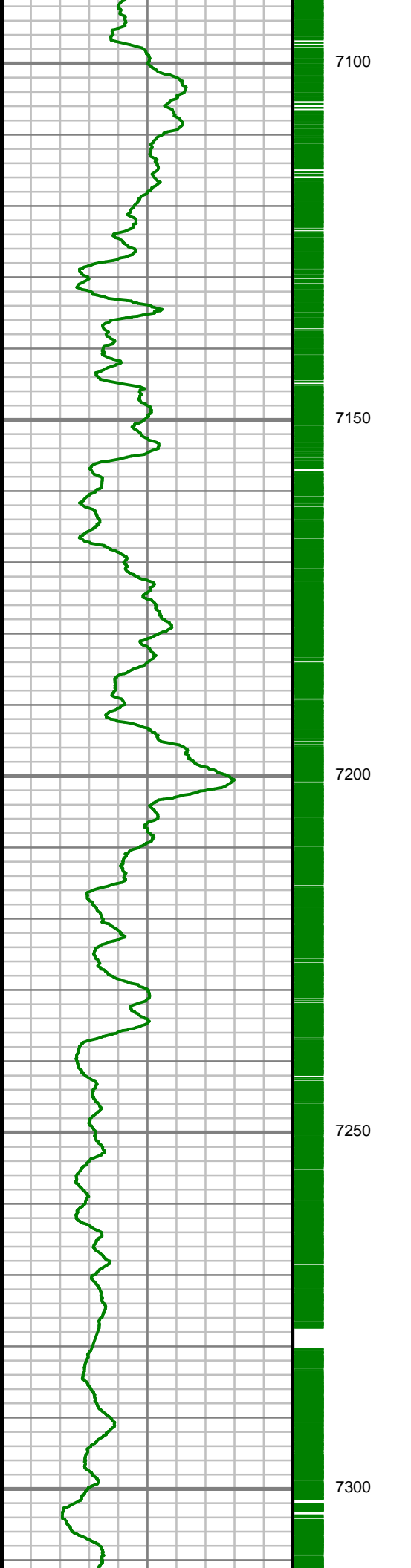
S: 74 MD: 6857.00 ft  
Inc: 10.03 deg Az:  
357.14 deg TVD:  
6831.78 ft



S: 75 MD: 6952.00 ft  
Inc: 15.74 deg Az: 0.22  
deg TVD: 6924.35 ft

S: 76 MD: 6997.00 ft  
Inc: 18.88 deg Az:  
357.04 deg TVD:  
6967.31 ft

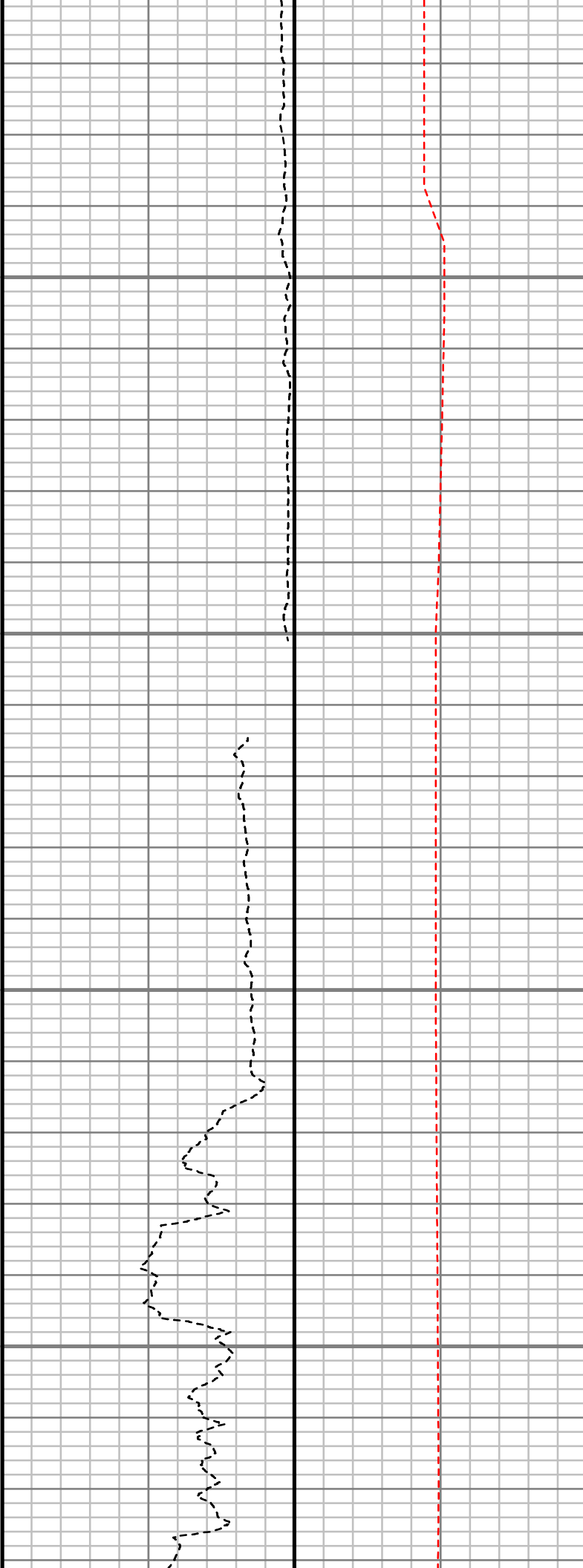
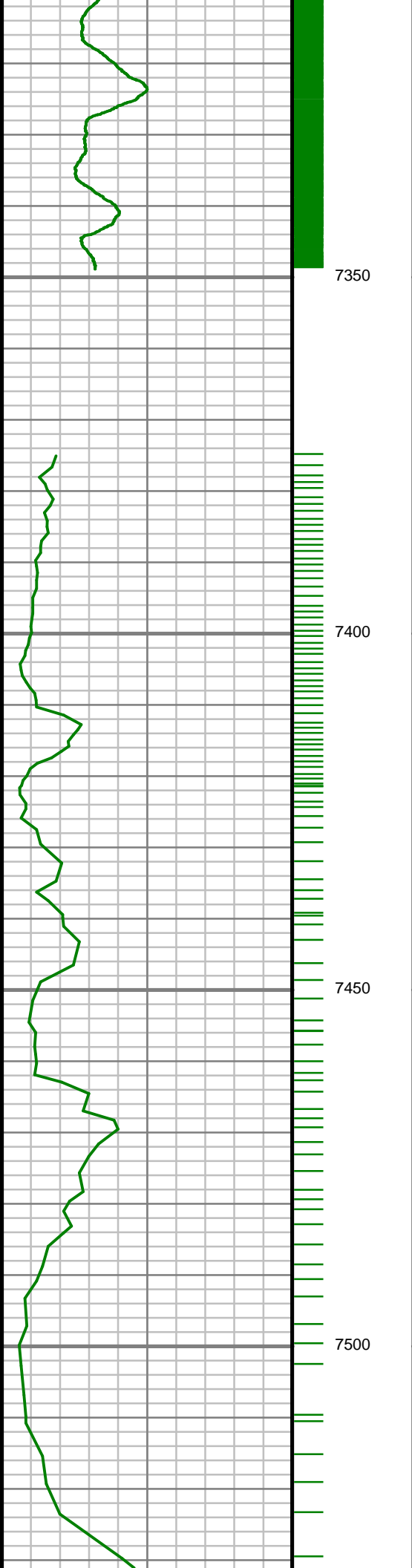
S: 77 MD: 7046.00 ft  
Inc: 20.95 deg Az:  
354.37 deg TVD:  
7013.37 ft



S: 78 MD: 7093.00 ft  
Inc: 25.15 deg Az:  
351.10 deg TVD:  
7056.61 ft

S: 79 MD: 7140.00 ft  
Inc: 32.04 deg Az:  
353.79 deg TVD:  
7097.85 ft

S: 80 MD: 7235.00 ft  
Inc: 47.86 deg Az:  
358.34 deg TVD:  
7170.46 ft

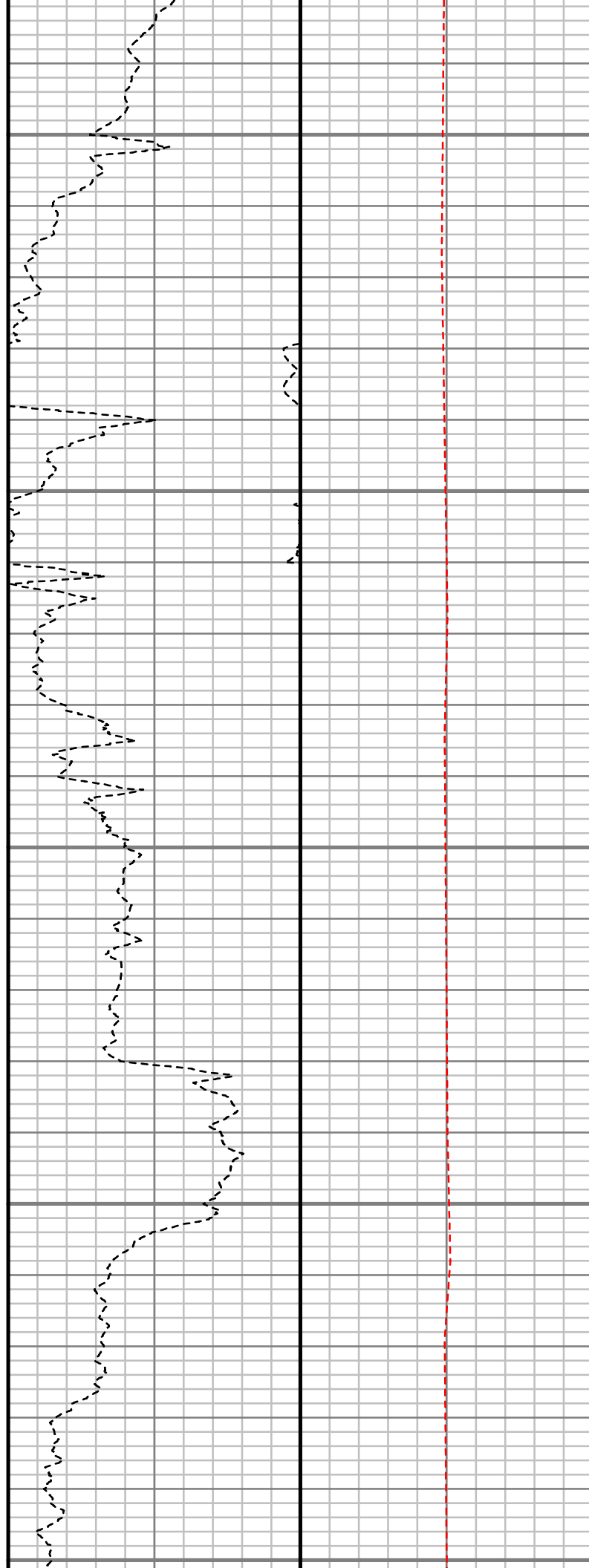
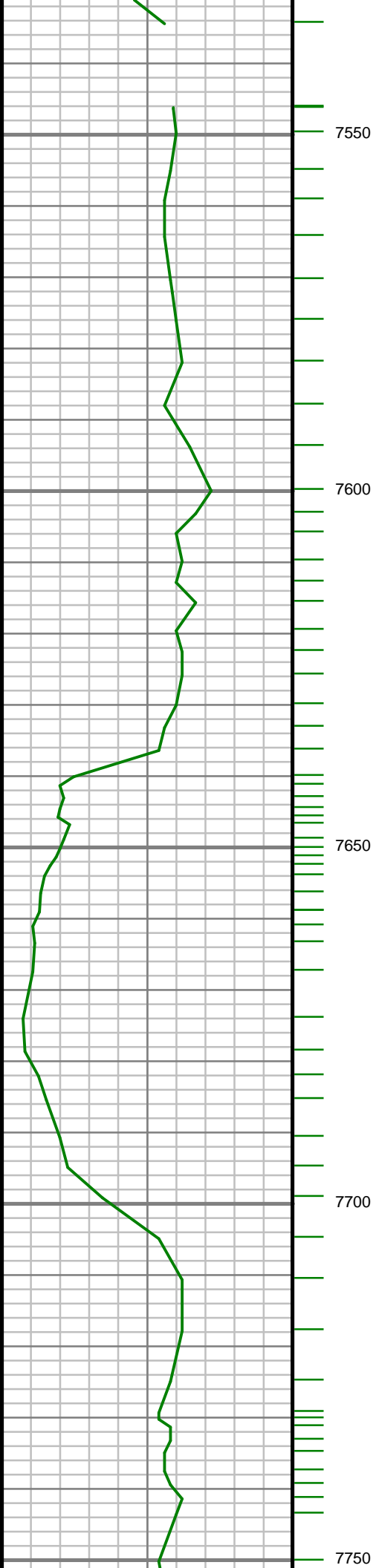


S: 81 MD: 7329.00 ft  
Inc: 69.75 deg Az: 2.14  
deg TVD: 7218.86 ft

S: 82 MD: 7338.00 ft  
Inc: 72.50 deg Az: 2.27  
deg TVD: 7221.77 ft

S: 83 MD: 7400.00 ft  
Inc: 83.14 deg Az: 2.71  
deg TVD: 7234.83 ft

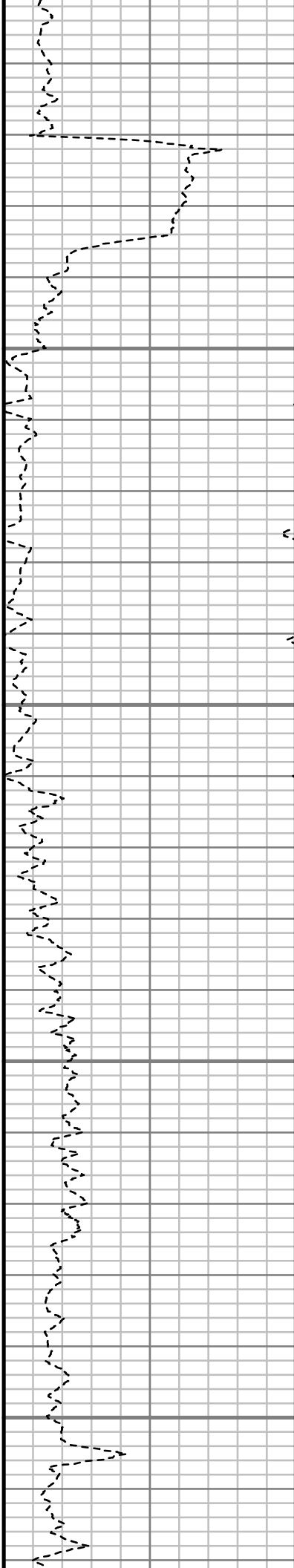
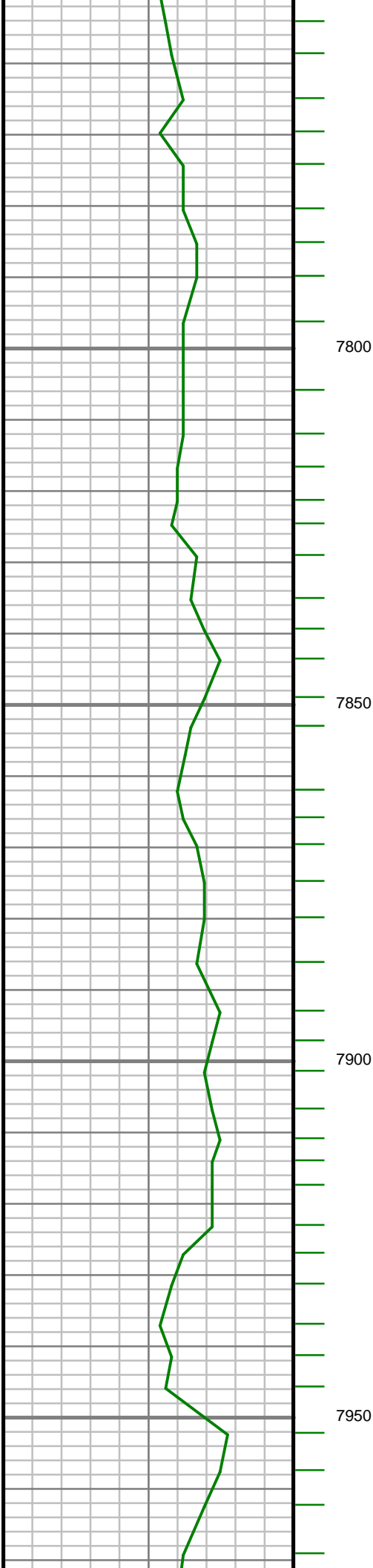
S: 84 MD: 7488.00 ft  
Inc: 85.51 deg Az: 2.60  
deg TVD: 7243.53 ft



S: 85 MD: 7617.00 ft  
Inc: 87.89 deg Az: 1.55  
deg TVD: 7250.95 ft

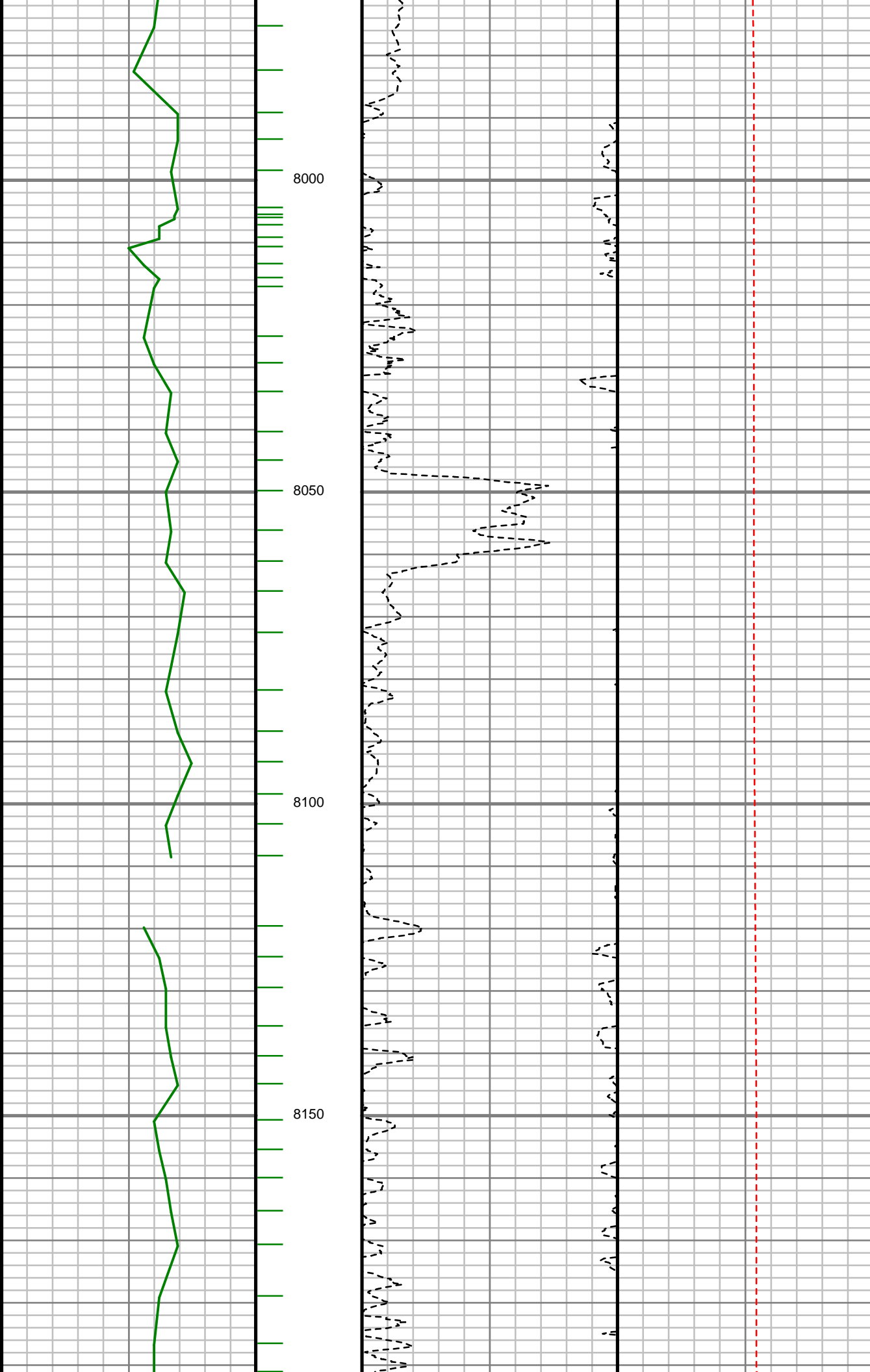
S: 86 MD: 7709.00 ft  
Inc: 88.53 deg Az: 0.43  
deg TVD: 7253.83 ft





S: 87 MD: 7801.00 ft  
Inc: 89.33 deg Az:  
359.71 deg TVD:  
7255.56 ft

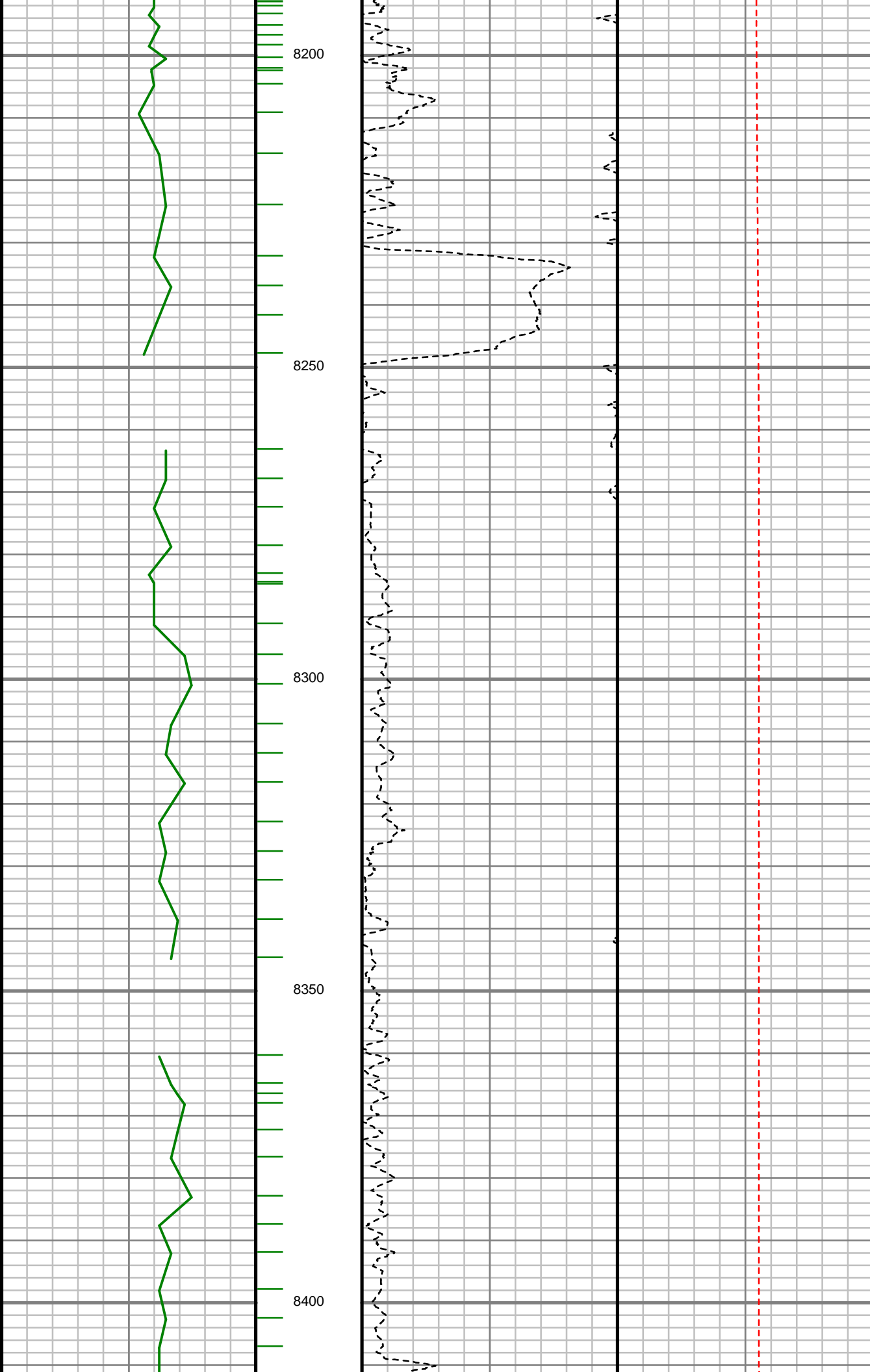
S: 88 MD: 7892.00 ft  
Inc: 89.66 deg Az:  
359.17 deg TVD:  
7256.35 ft



S: 89 MD: 7982.00 ft  
Inc: 90.91 deg Az: 0.15  
deg TVD: 7255.91 ft

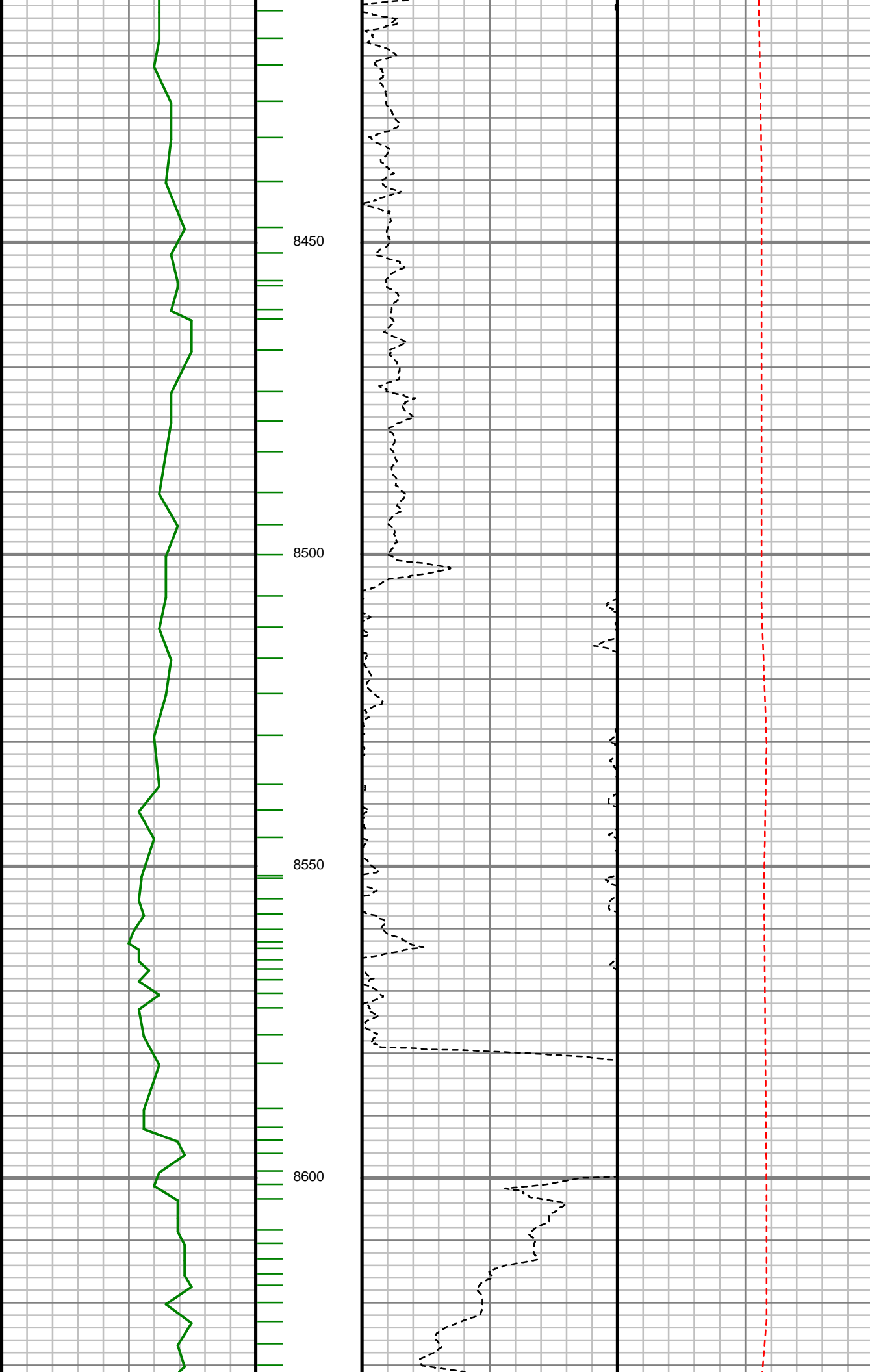
S: 90 MD: 8073.00 ft  
Inc: 89.87 deg Az:  
359.64 deg TVD:  
7255.29 ft

S: 91 MD: 8164.00 ft  
Inc: 90.61 deg Az: 0.14  
deg TVD: 7254.92 ft



S: 92 MD: 8256.00 ft  
Inc: 89.53 deg Az: 0.33  
deg TVD: 7254.81 ft

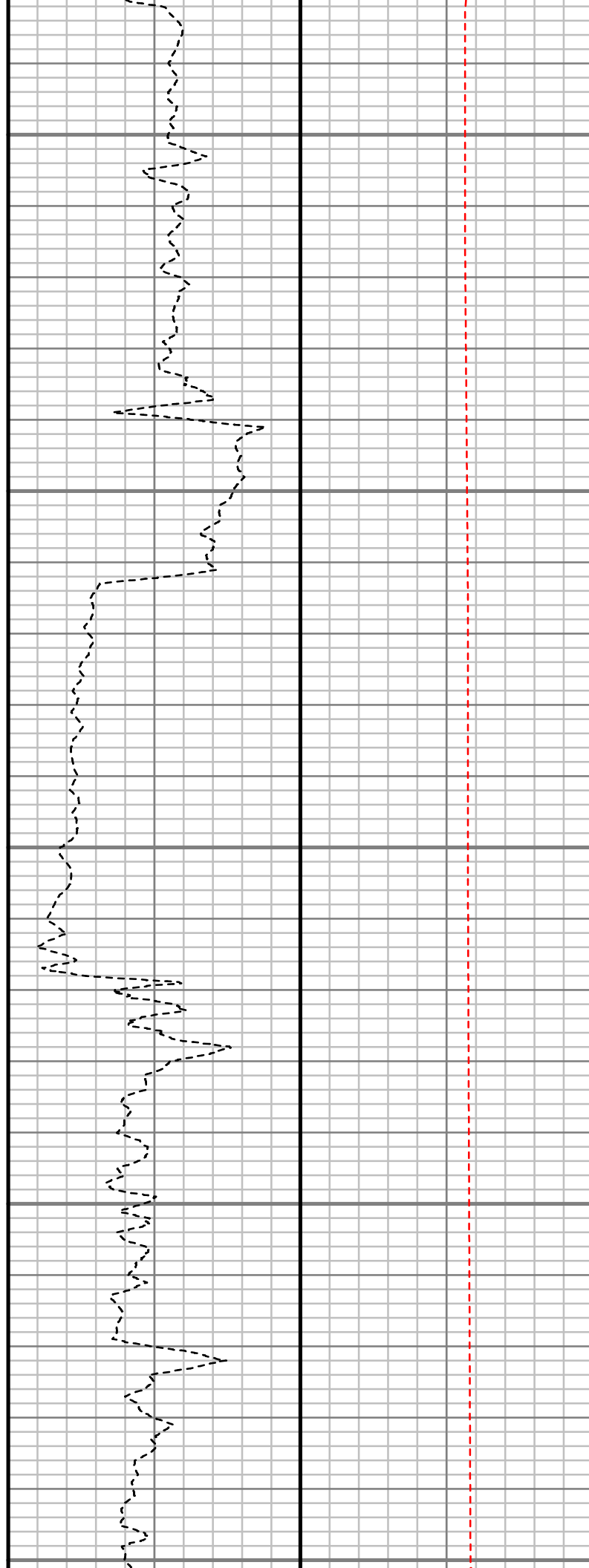
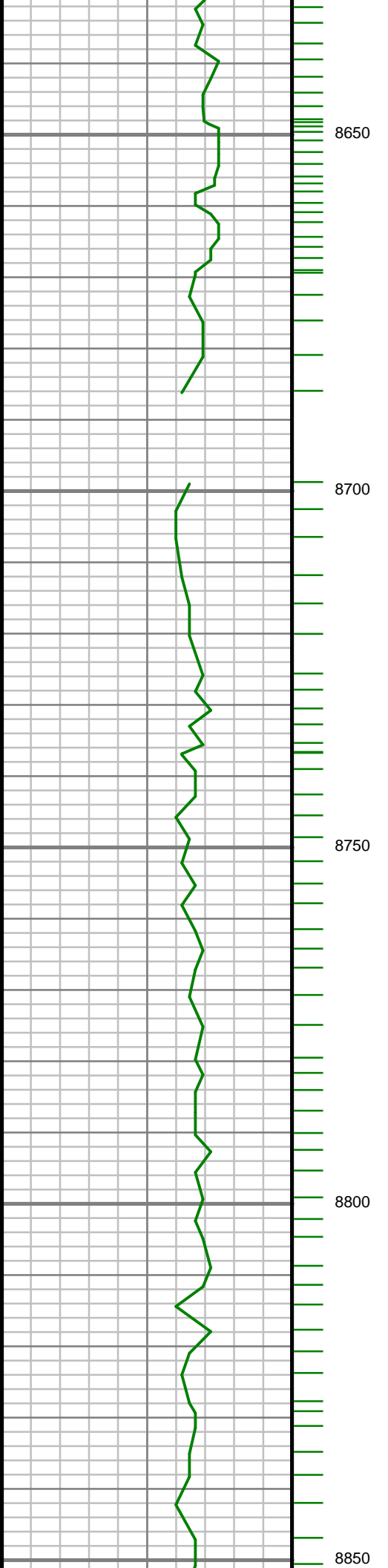
S: 93 MD: 8348.00 ft  
Inc: 89.50 deg Az: 358.90 deg  
TVD: 7255.59 ft



S: 94 MD: 8439.00 ft  
Inc: 89.09 deg Az:  
358.79 deg TVD:  
7256.71 ft

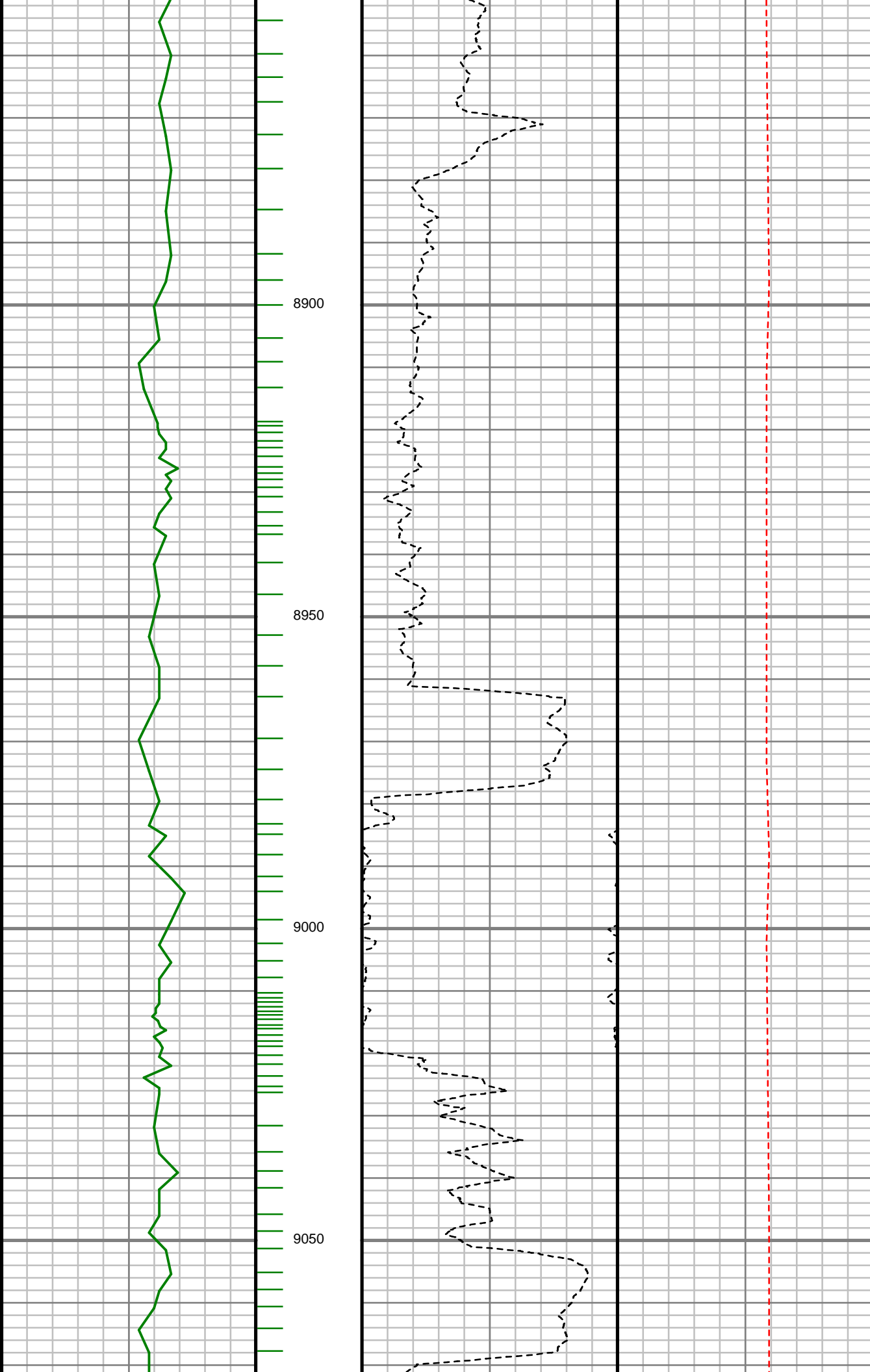
S: 95 MD: 8531.00 ft  
Inc: 88.86 deg Az:  
358.47 deg TVD:  
7258.36 ft

S: 96 MD: 8622.00 ft  
Inc: 88.89 deg Az:  
356.92 deg TVD:  
7260 15 ft



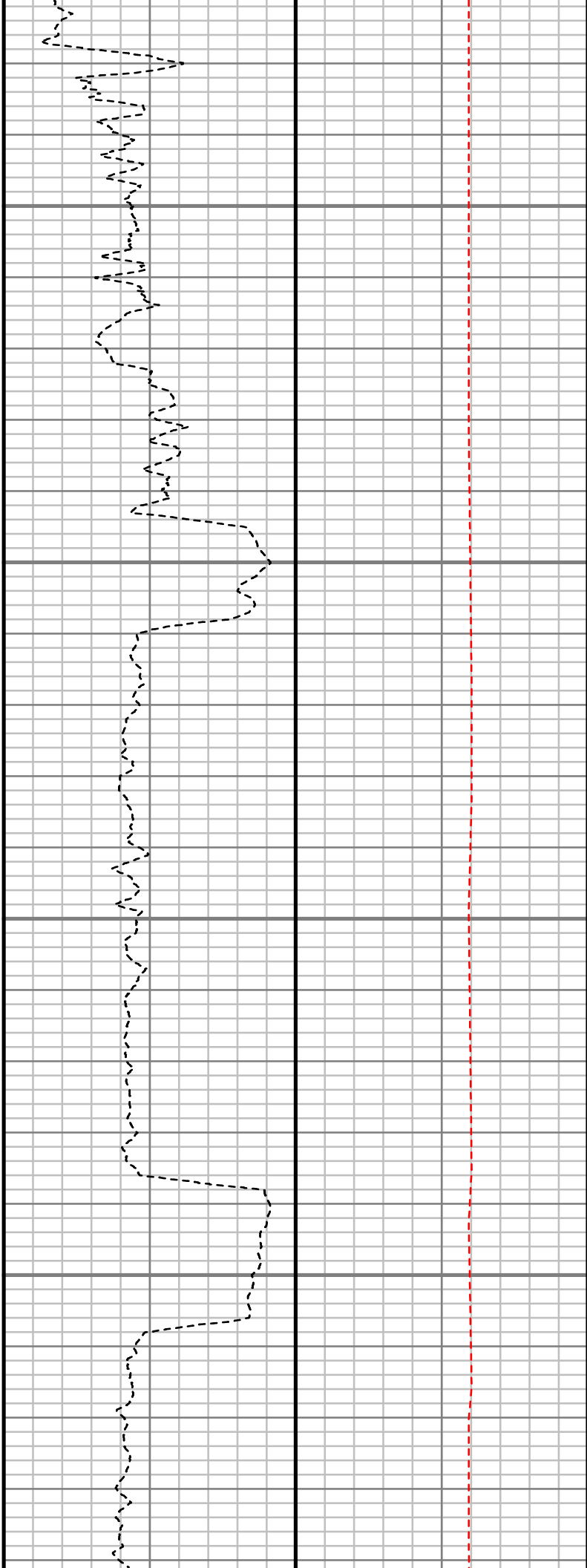
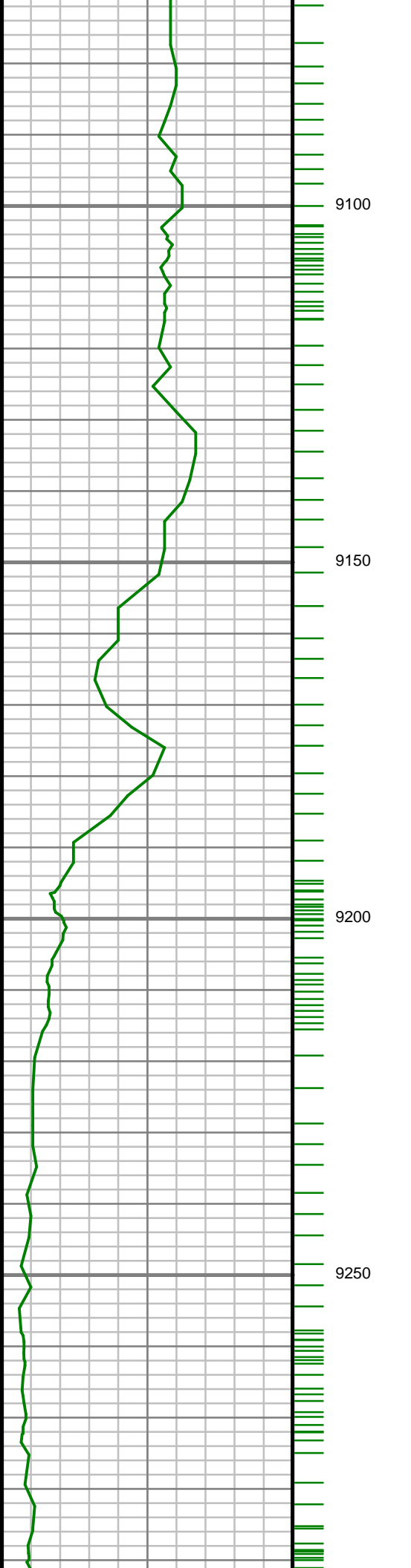
S: 97 MD: 8714.00 ft  
Inc: 90.64 deg Az:  
359.46 deg TVD:  
7260.53 ft

S: 98 MD: 8805.00 ft  
Inc: 90.61 deg Az:  
358.55 deg TVD:  
7259.54 ft



S: 99 MD: 8897.00 ft  
Inc: 90.67 deg Az:  
356.75 deg TVD:  
7258.51 ft

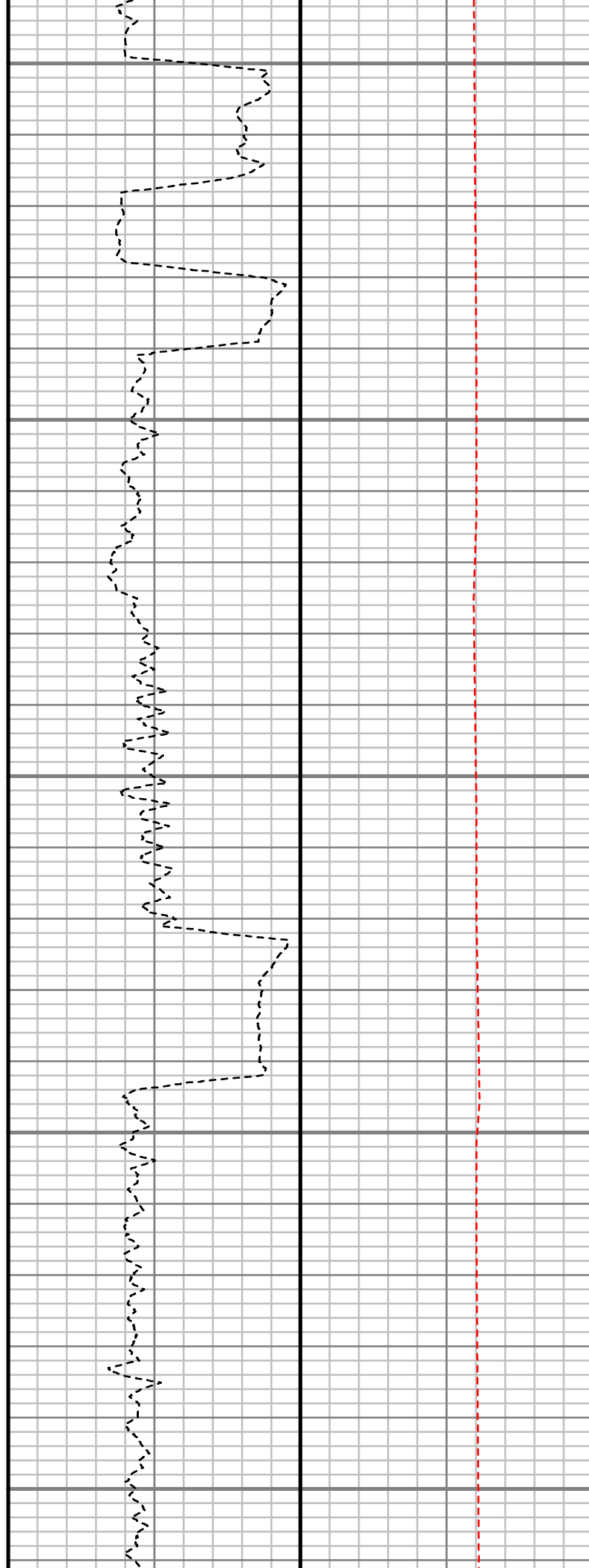
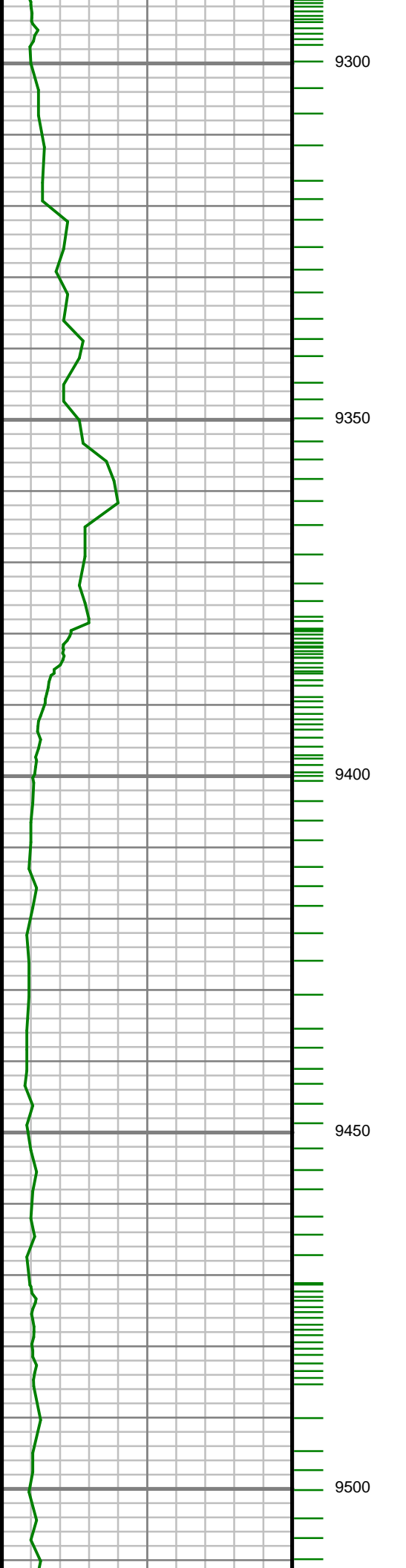
S: 100 MD: 8989.00 ft  
Inc: 91.91 deg Az:  
356.96 deg TVD:  
7256.43 ft



S: 101 MD: 9080.00 ft  
Inc: 92.57 deg Az:  
359.36 deg TVD:  
7252.87 ft

S: 102 MD: 9172.00 ft  
Inc: 91.53 deg Az:  
358.09 deg TVD:  
7249.59 ft

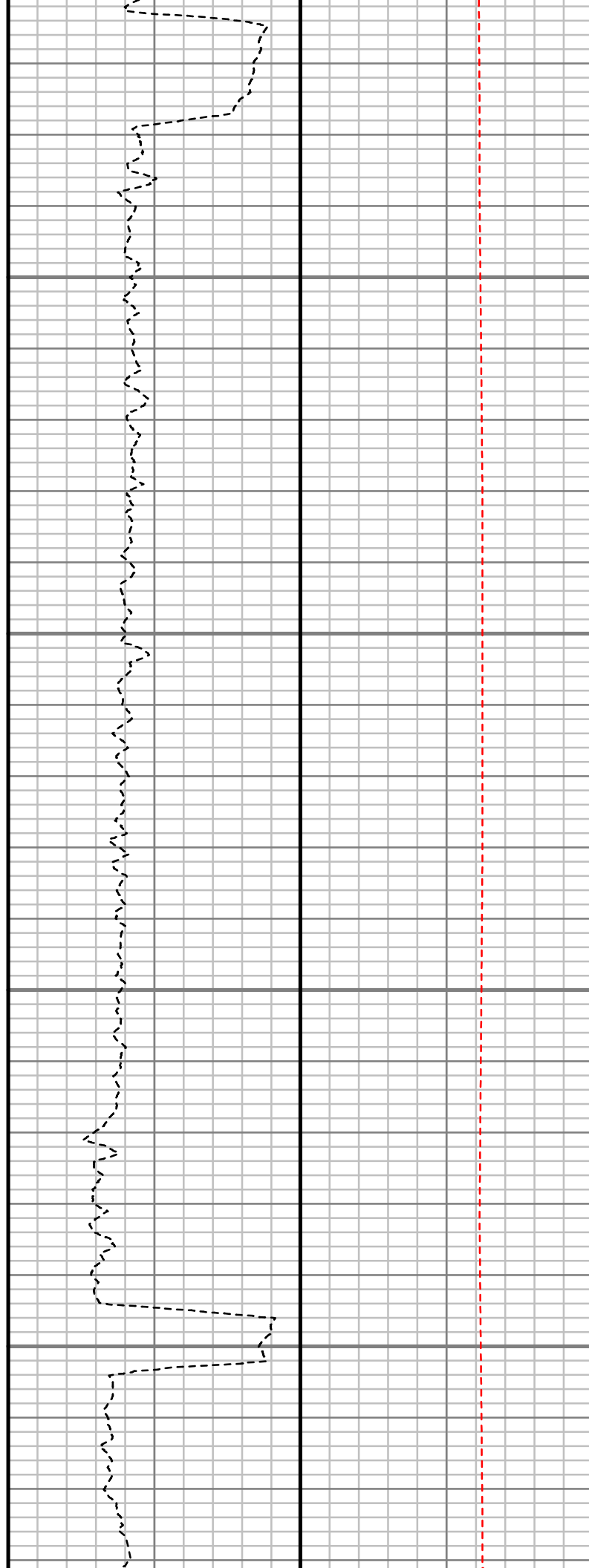
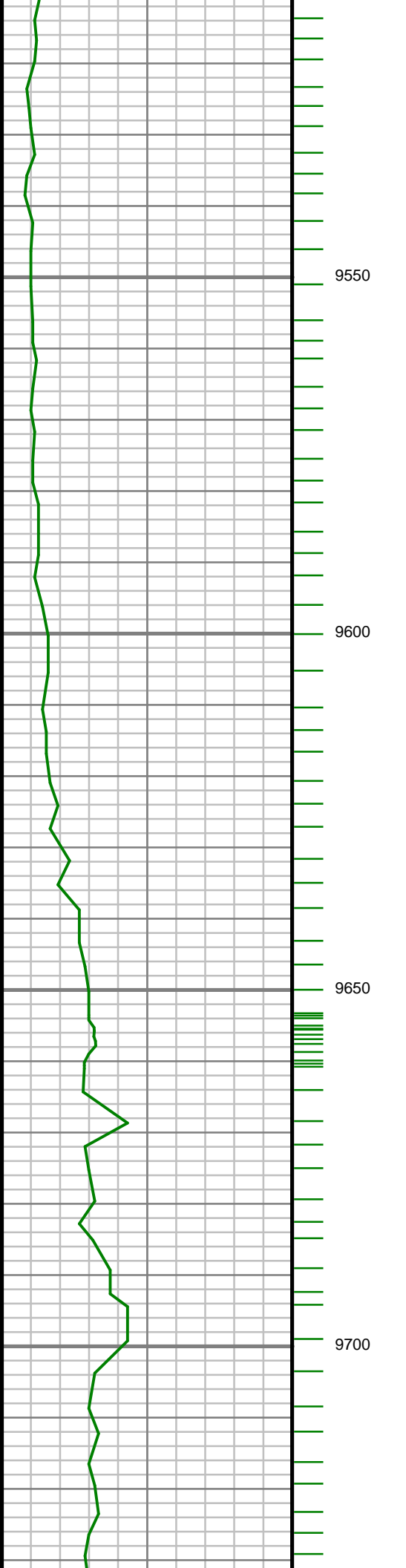
S: 103 MD: 9264.00 ft  
Inc: 91.08 deg Az: 1.29  
deg TVD: 7247.50 ft



S: 104 MD: 9355.00 ft  
Inc: 92.41 deg Az: 3.29  
deg TVD: 7244.74 ft

S: 105 MD: 9447.00 ft  
Inc: 90.37 deg Az: 4.18  
deg TVD: 7242.51 ft

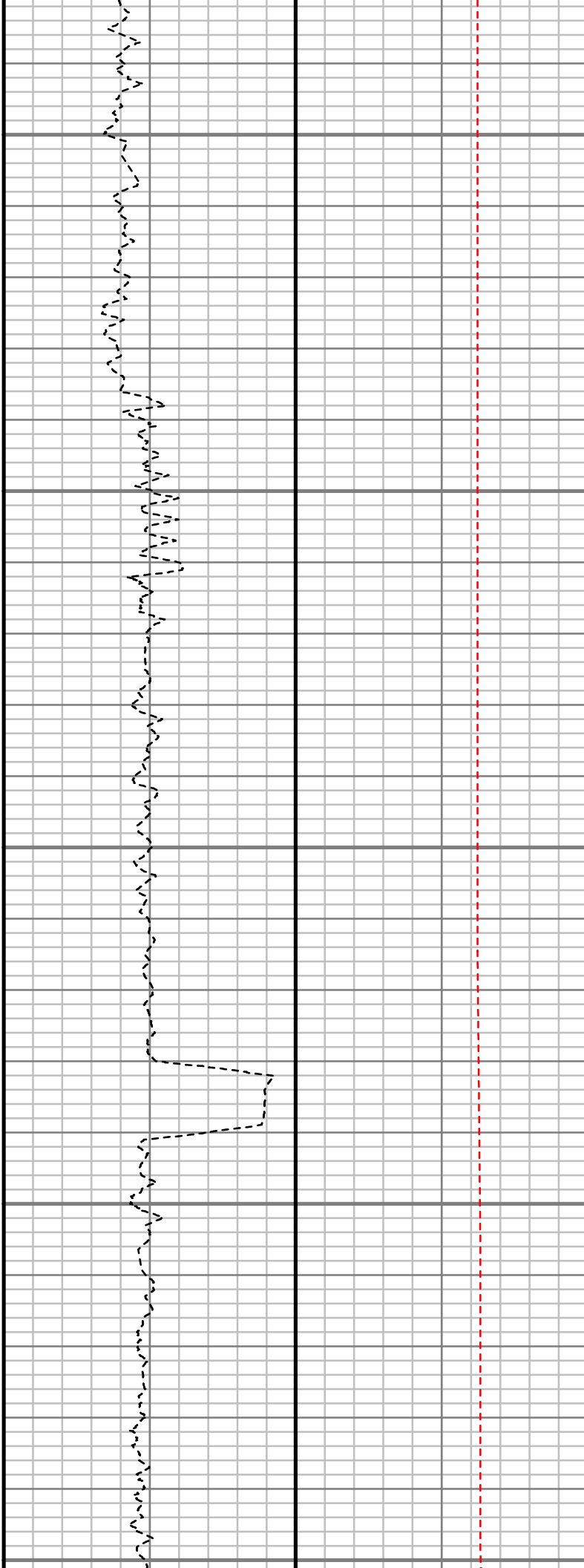
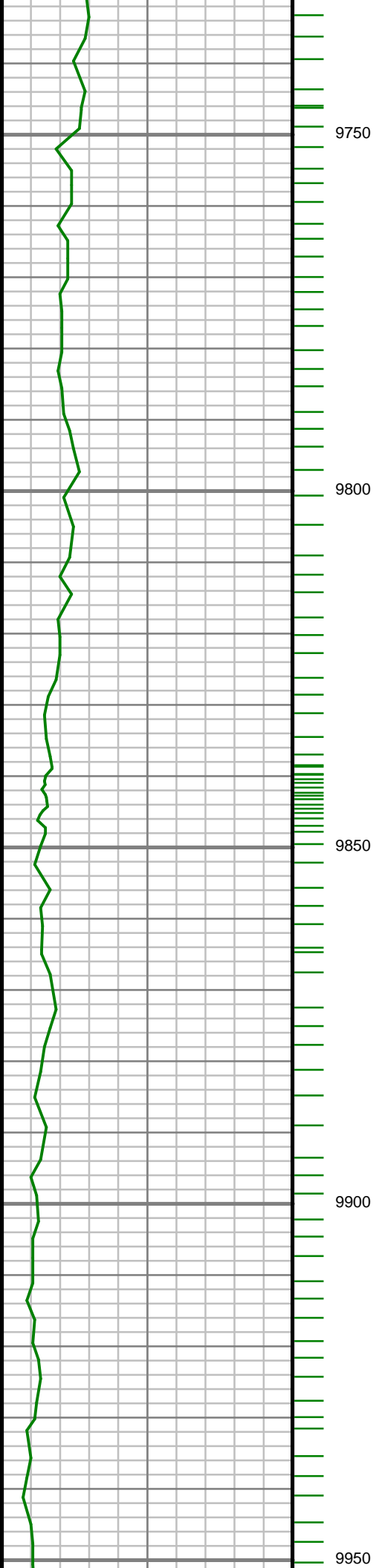




S: 106 MD: 9539.00 ft  
Inc: 89.43 deg Az: 3.85  
deg TVD: 7242.67 ft

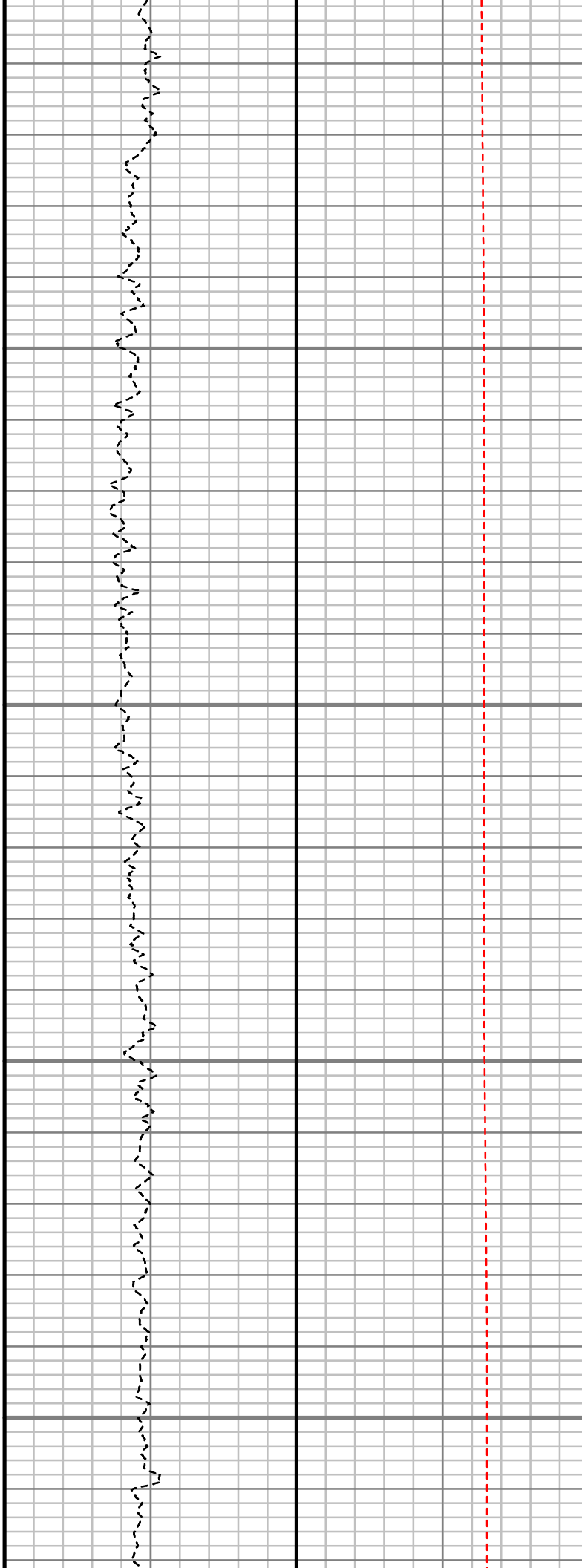
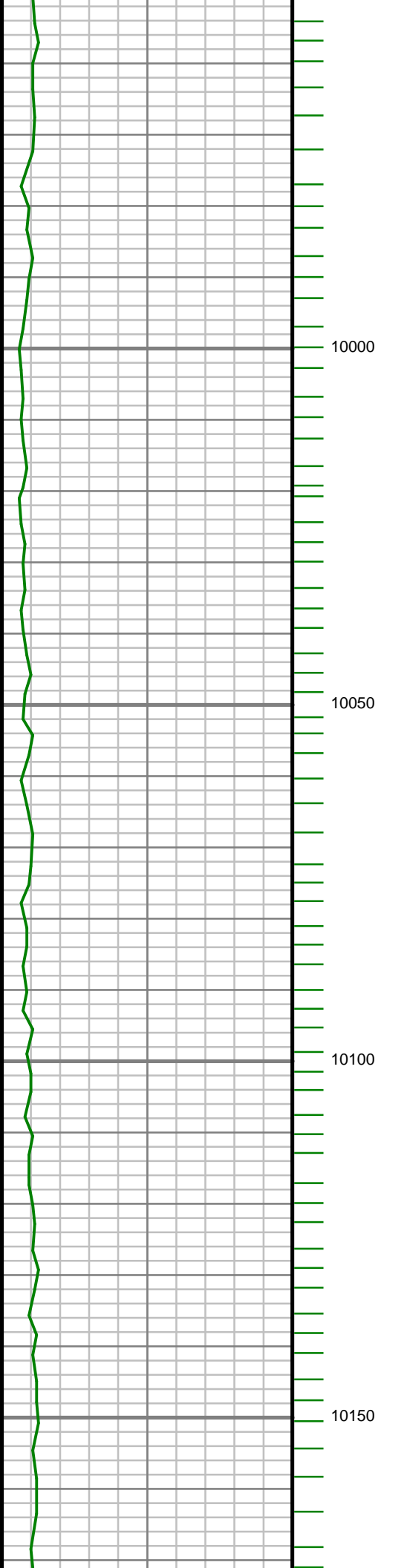
S: 107 MD: 9631.00 ft  
Inc: 89.80 deg Az: 2.91  
deg TVD: 7243.29 ft

S: 108 MD: 9723.00 ft  
Inc: 88.59 deg Az: 5.00  
deg TVD: 7244.58 ft



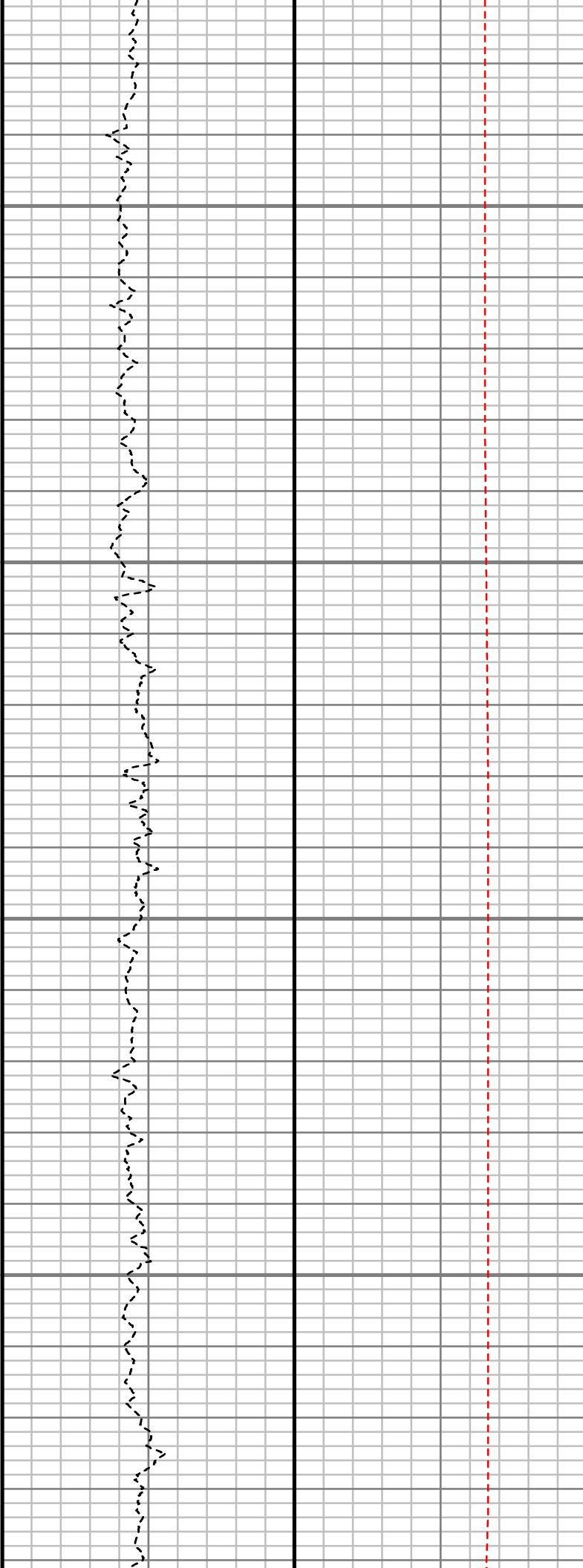
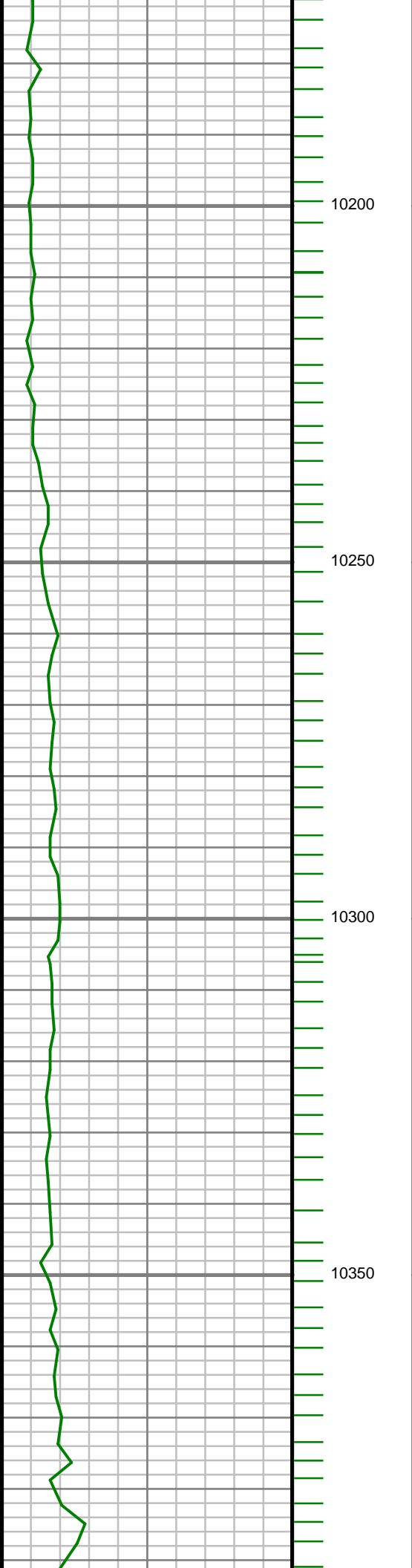
S: 109 MD: 9815.00 ft  
Inc: 89.12 deg Az: 5.58  
deg TVD: 7246.42 ft

S: 110 MD: 9906.00 ft  
Inc: 89.27 deg Az: 3.39  
deg TVD: 7247.69 ft



S: 111 MD: 10001.00 ft  
Inc: 89.49 deg Az: 2.74  
deg TVD: 7248.72 ft

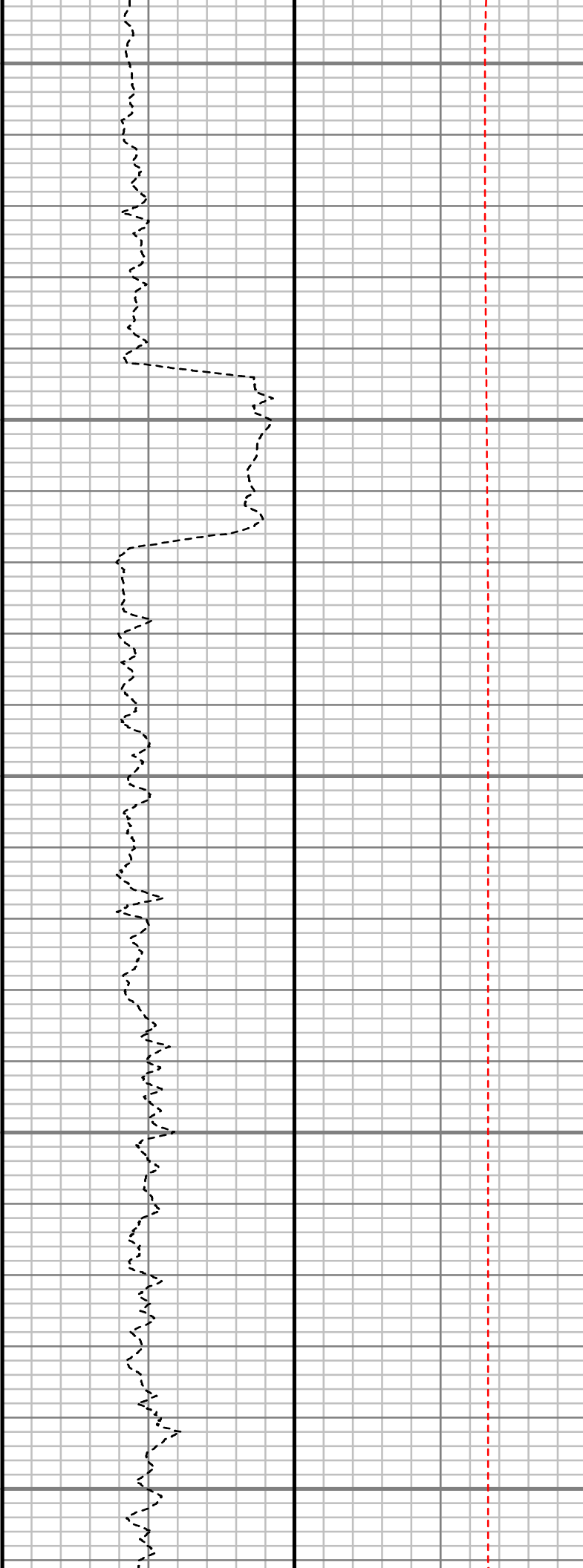
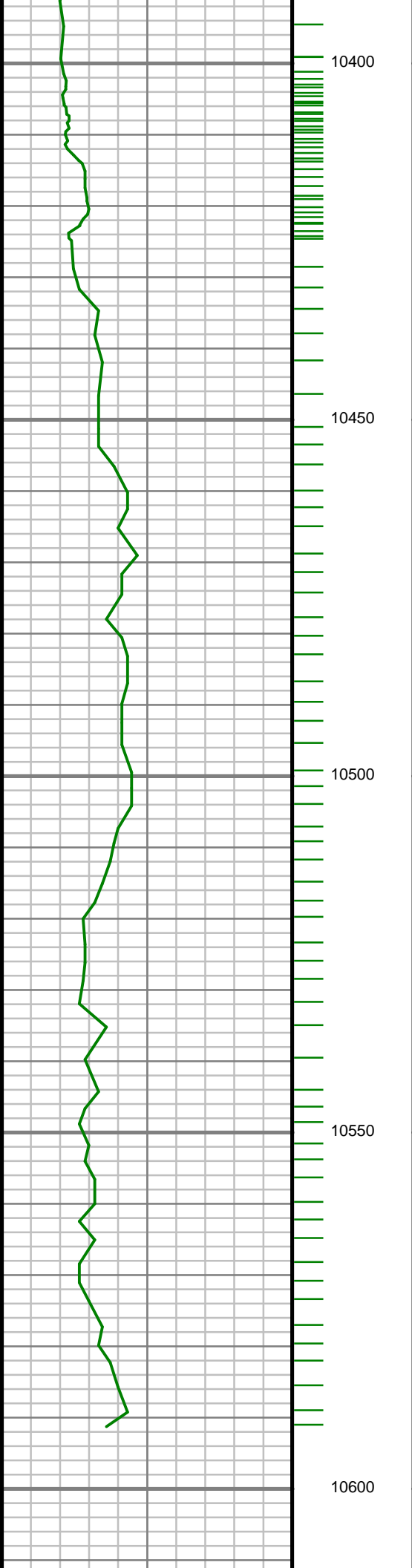
S: 112 MD: 10096.00 ft  
Inc: 89.90 deg Az: 1.46  
deg TVD: 7249.23 ft



S: 113 MD: 10190.00 ft  
Inc: 89.70 deg Az: 1.61  
deg TVD: 7249.56 ft

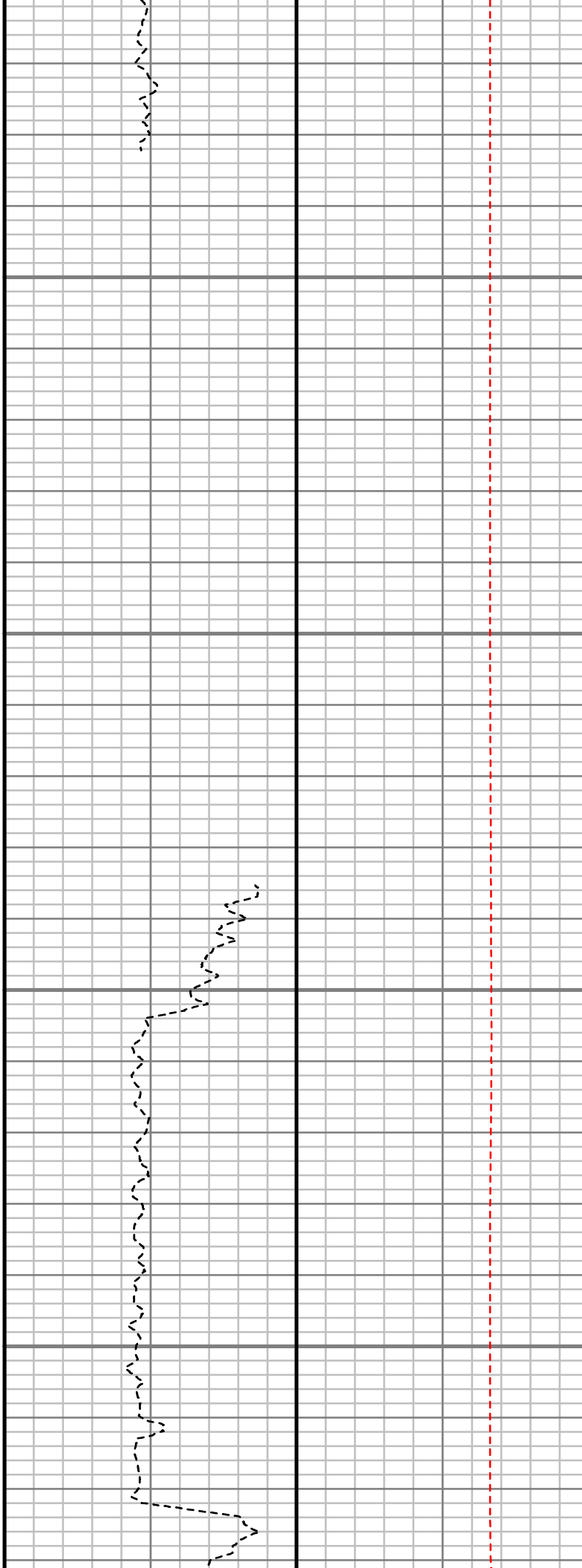
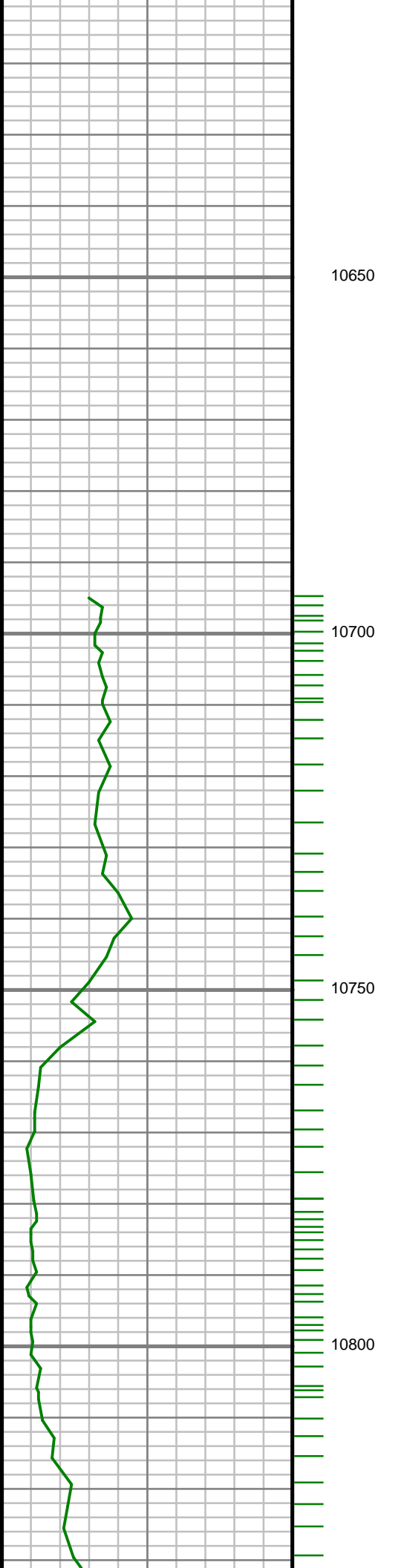
S: 114 MD: 10284.00 ft  
Inc: 90.10 deg Az: 1.10  
deg TVD: 7249.72 ft

S: 115 MD: 10379.00 ft  
Inc: 90.74 deg Az:  
358.95 deg TVD:  
7249.02 ft



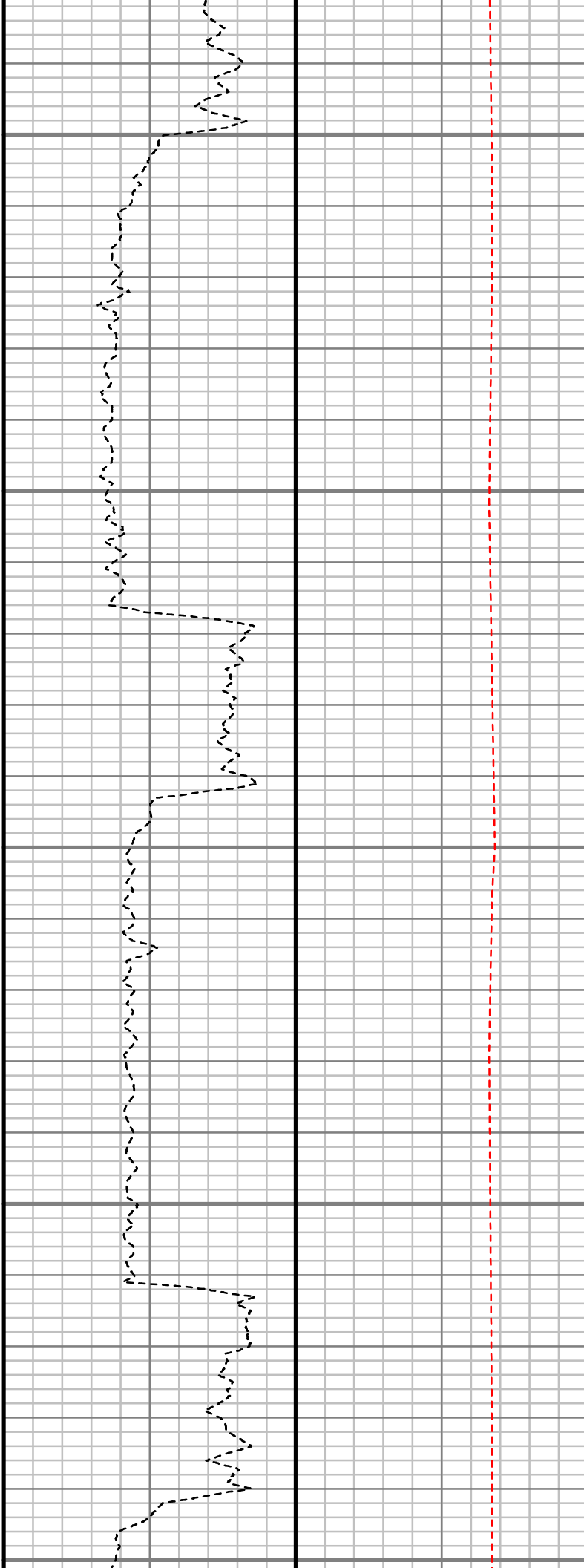
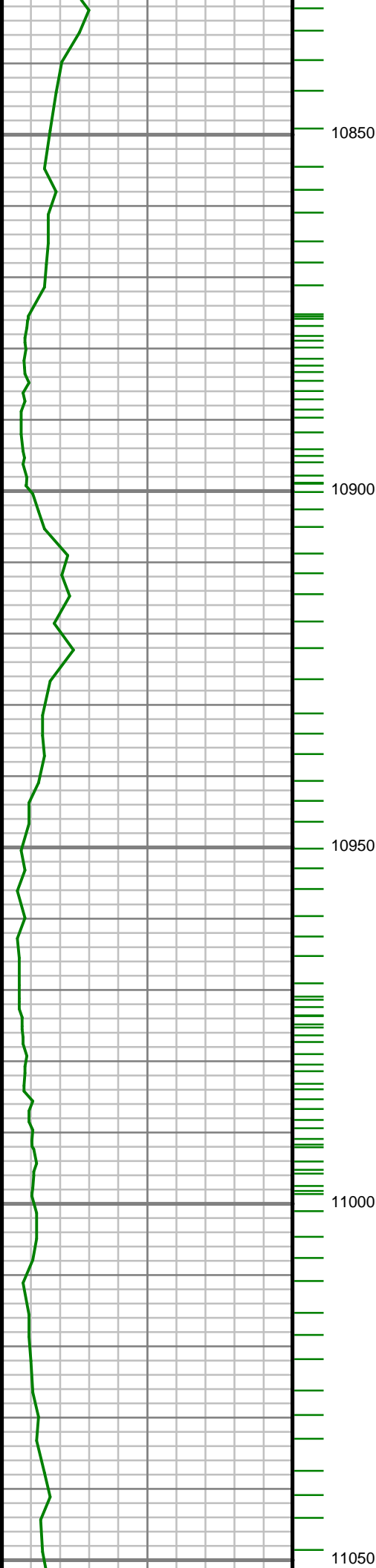
S: 116 MD: 10473.00 ft  
Inc: 89.56 deg Az:  
359.94 deg TVD:  
7248.78 ft

S: 117 MD: 10567.00 ft  
Inc: 88.59 deg Az:  
359.32 deg TVD:  
7250.29 ft



S: 118 MD: 10662.00 ft  
Inc: 87.24 deg Az:  
356.60 deg TVD:  
7253.75 ft

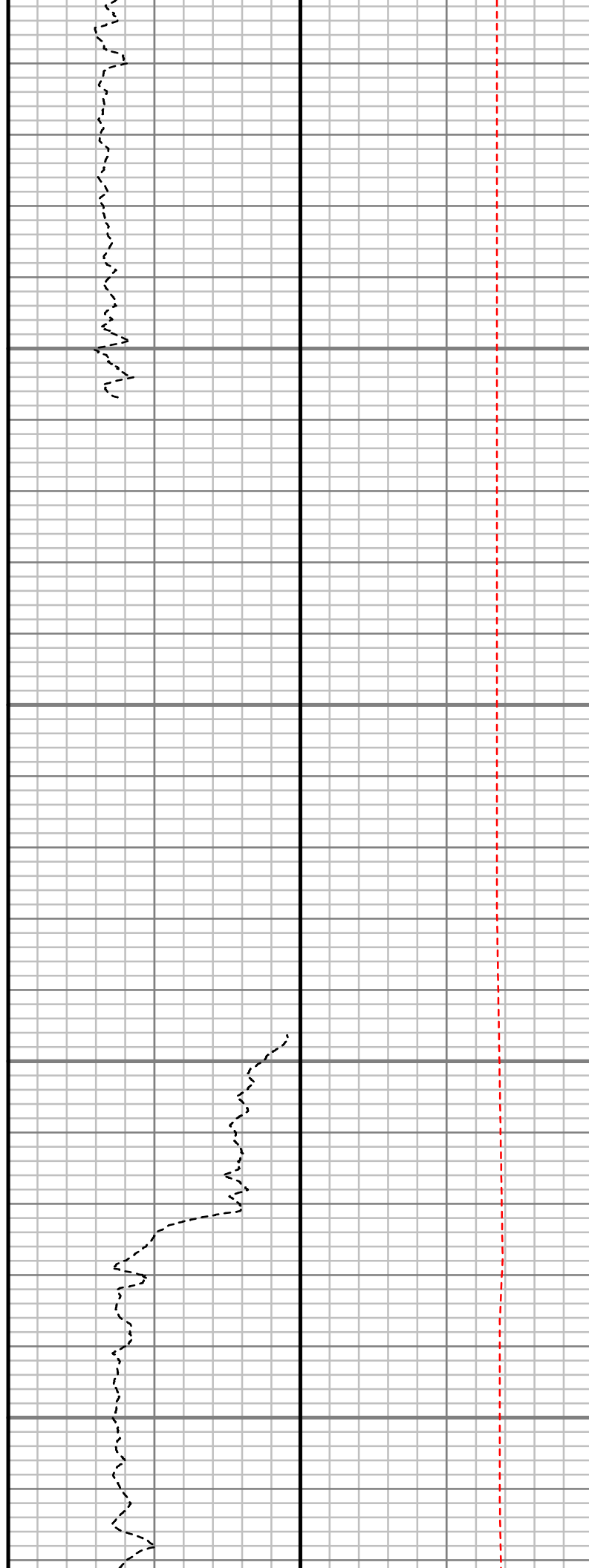
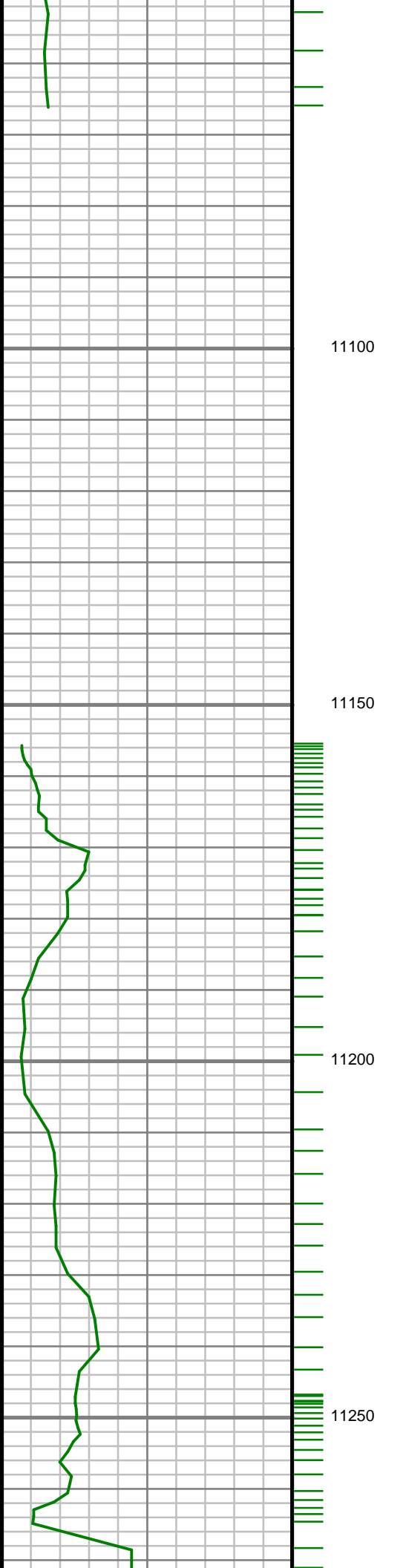
S: 119 MD: 10756.00 ft  
Inc: 90.27 deg Az:  
355.42 deg TVD:  
7255.80 ft



S: 120 MD: 10850.00 ft  
Inc: 92.49 deg Az:  
356.97 deg TVD:  
7253.54 ft

S: 121 MD: 10945.00 ft  
Inc: 92.58 deg Az: 0.35  
deg TVD: 7249.33 ft

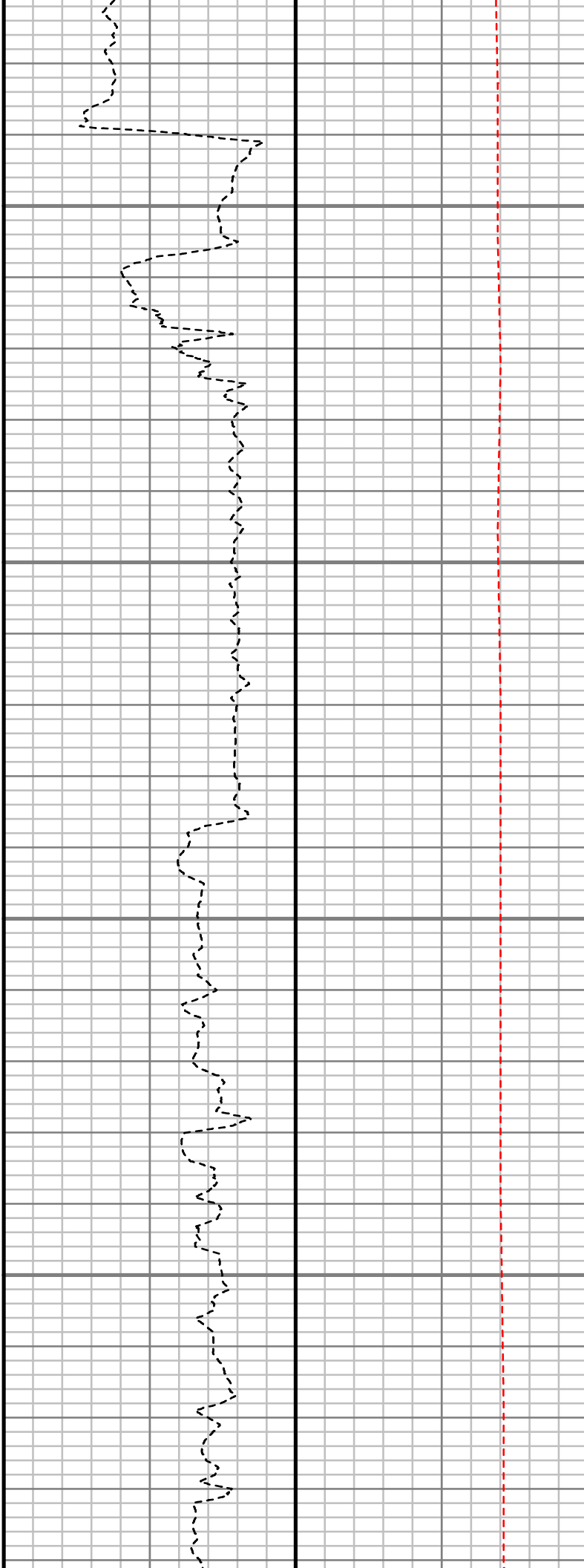
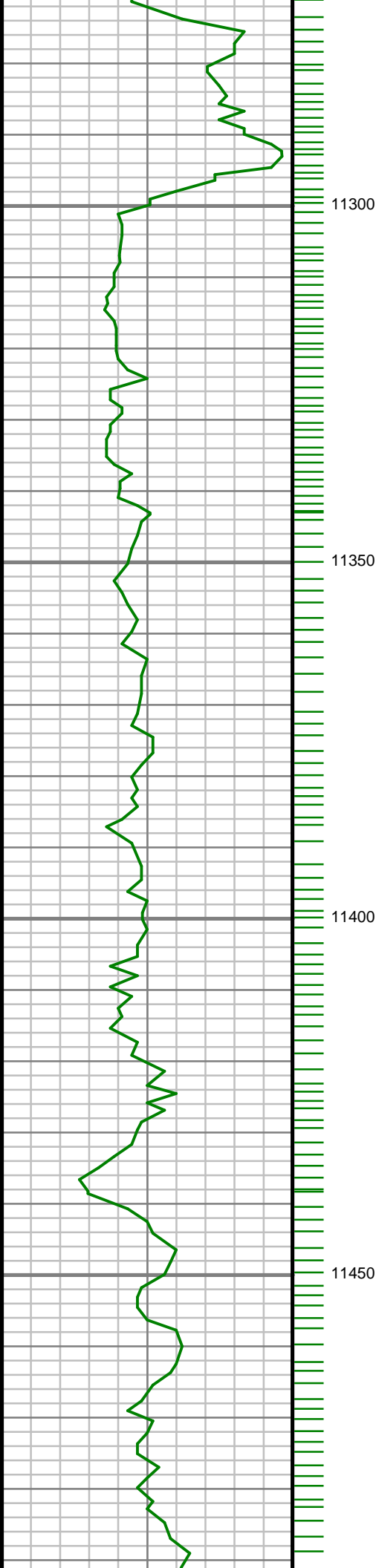
S: 122 MD: 11039.00 ft  
Inc: 92.71 deg Az: 1.83  
deg TVD: 7244.99 ft



S: 123 MD: 11134.00 ft  
Inc: 91.47 deg Az: 3.49  
deg TVD: 7241.52 ft

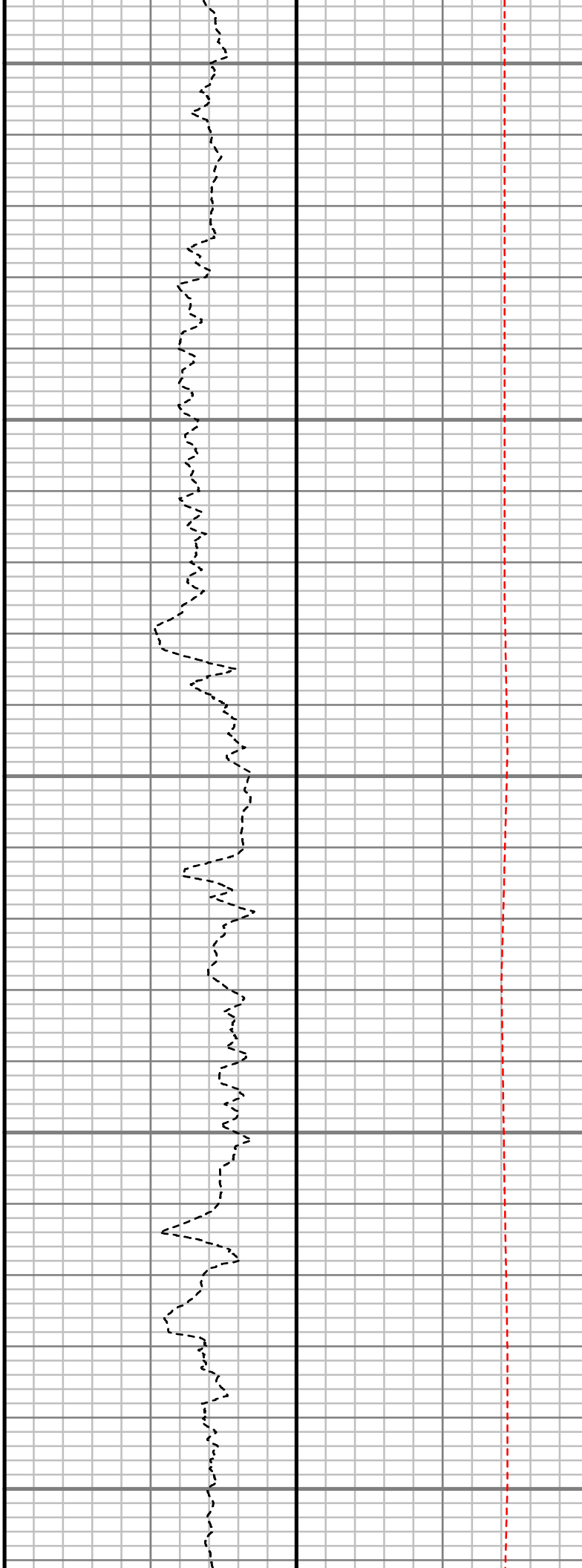
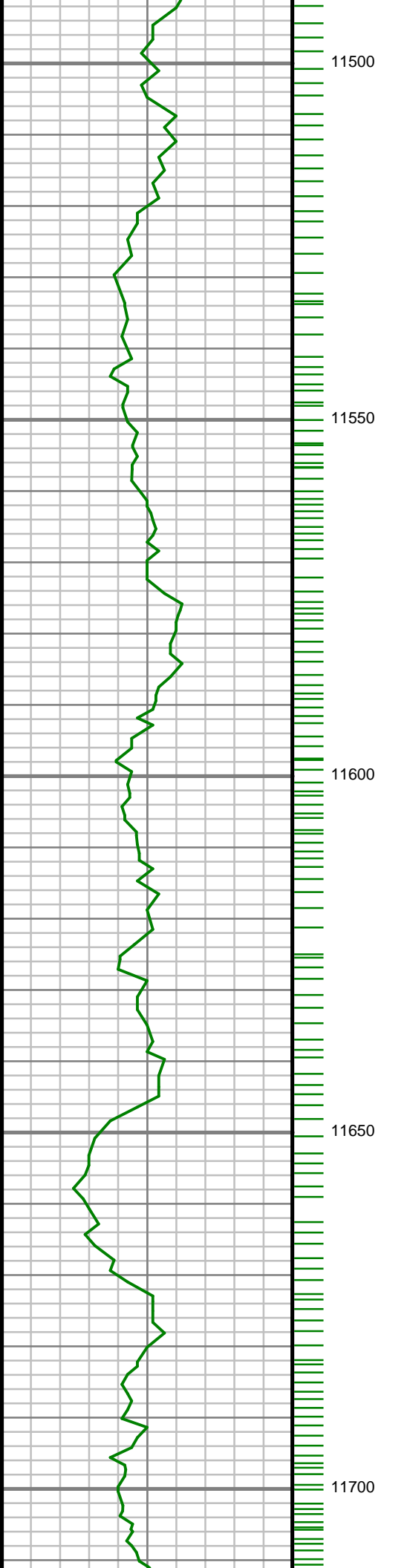
S: 124 MD: 11228.00 ft  
Inc: 90.03 deg Az: 3.75  
deg TVD: 7240.29 ft





S: 125 MD: 11322.00 ft  
Inc: 88.05 deg Az: 2.99  
deg TVD: 7241.86 ft

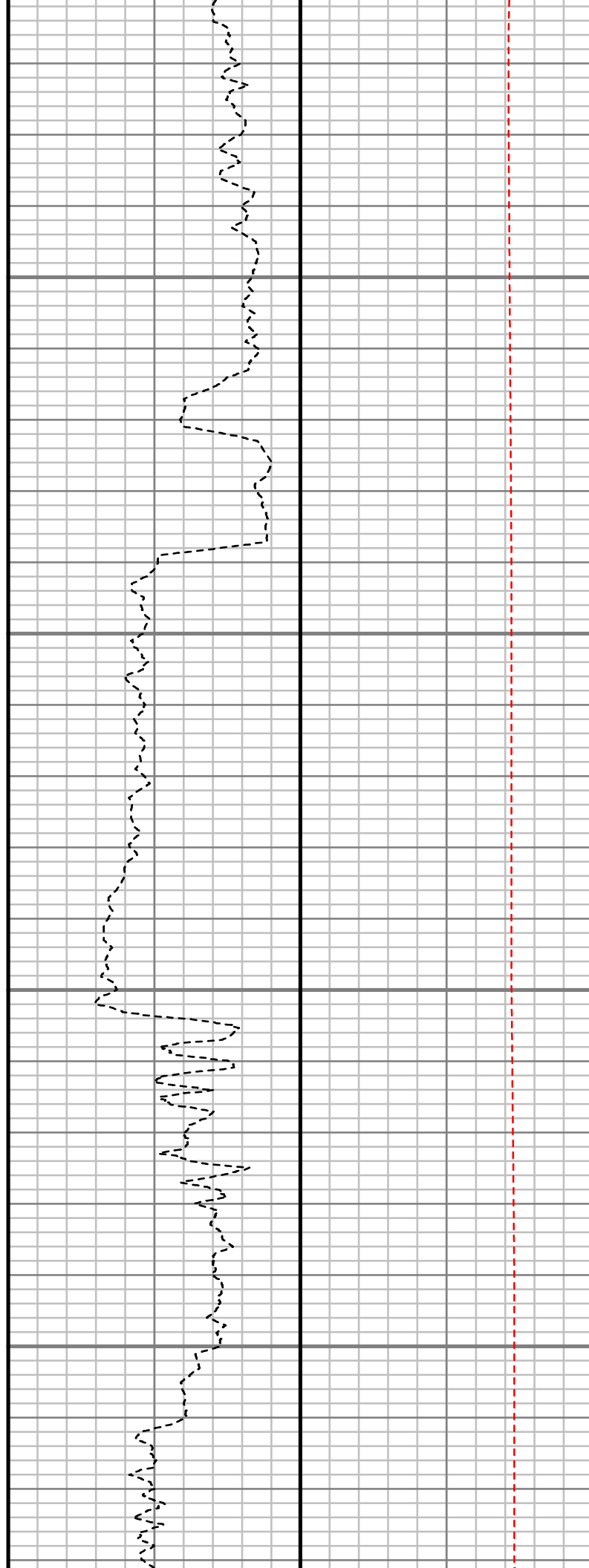
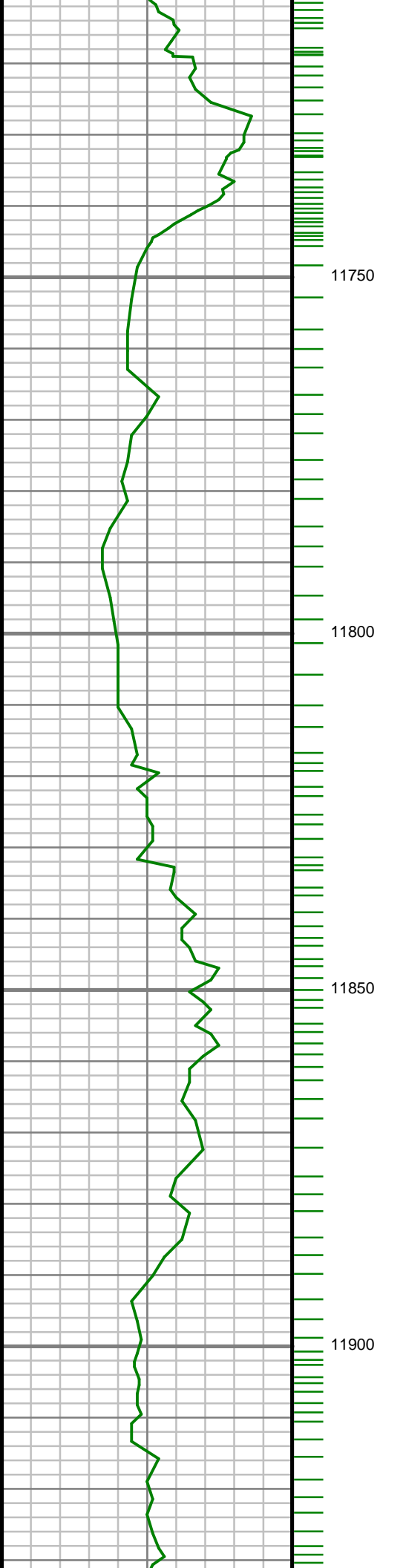
S: 126 MD: 11417.00 ft  
Inc: 88.09 deg Az: 3.18  
deg TVD: 7245.07 ft



S: 127 MD: 11511.00 ft  
Inc: 88.45 deg Az: 1.31  
deg TVD: 7247.90 ft

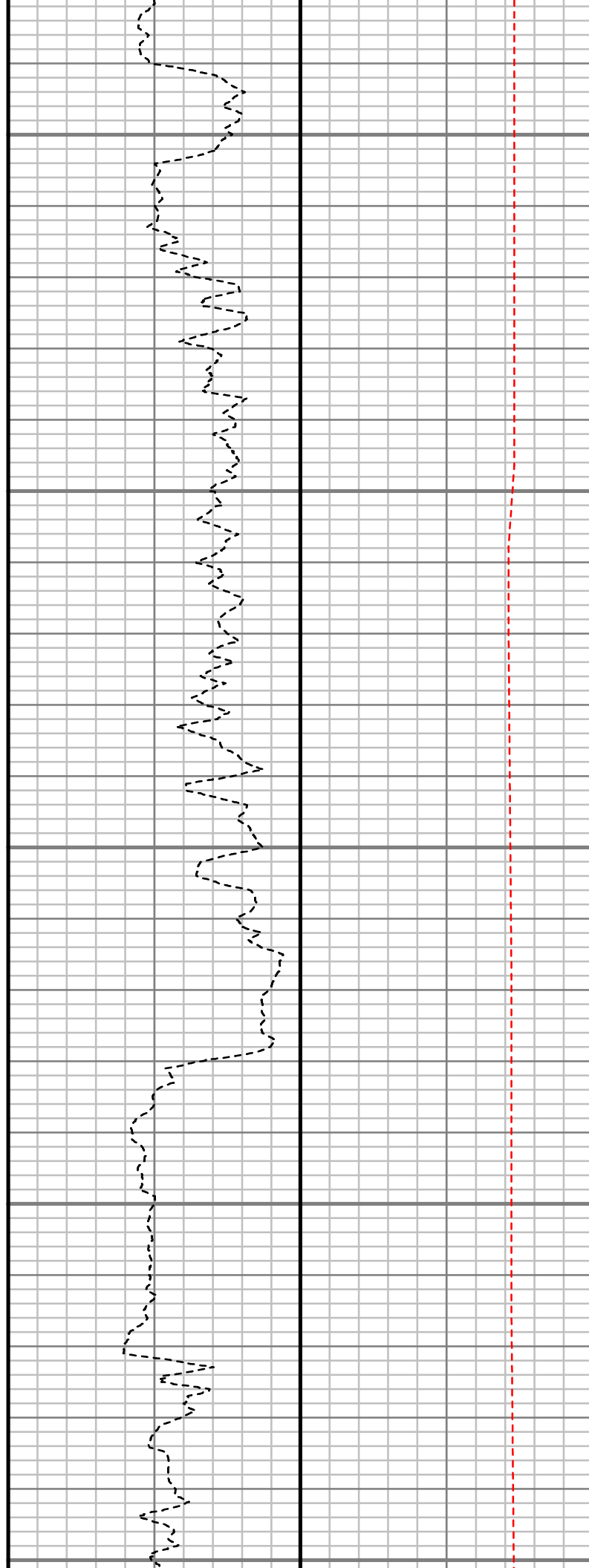
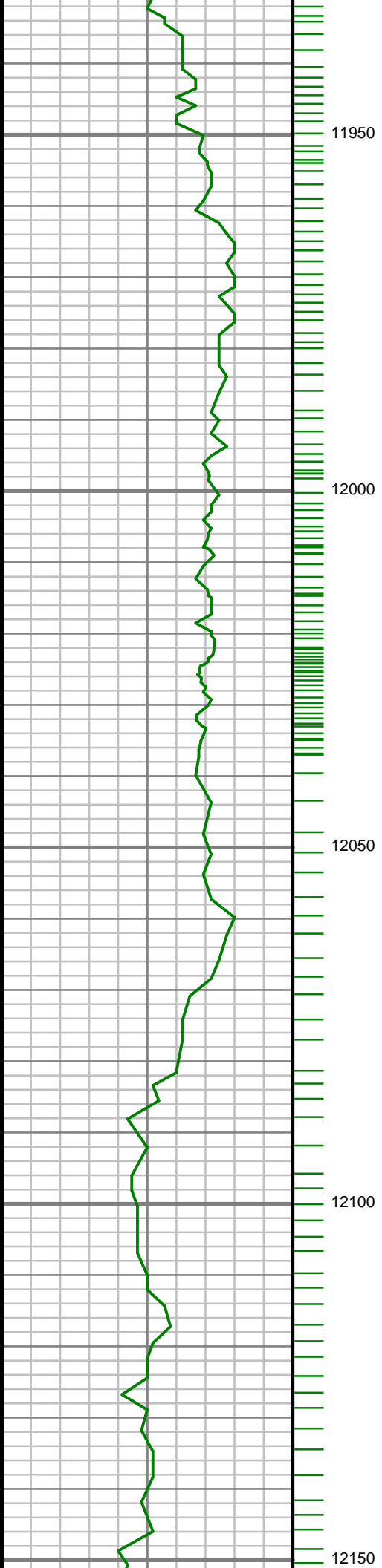
S: 128 MD: 11605.00 ft  
Inc: 88.19 deg Az: 0.94  
deg TVD: 7250.66 ft

S: 129 MD: 11700.00 ft  
Inc: 87.48 deg Az: 0.94  
deg TVD: 7254.25 ft



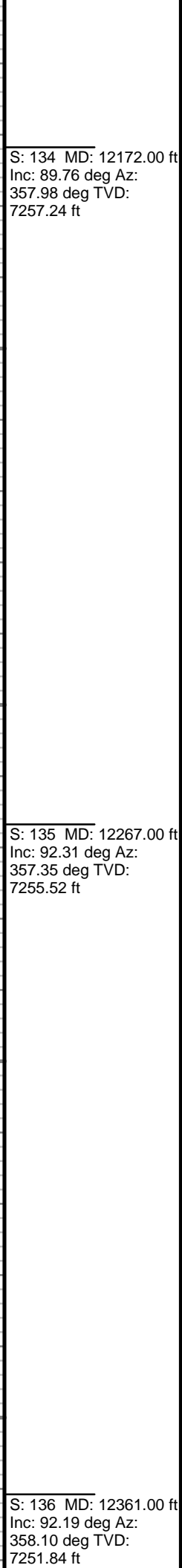
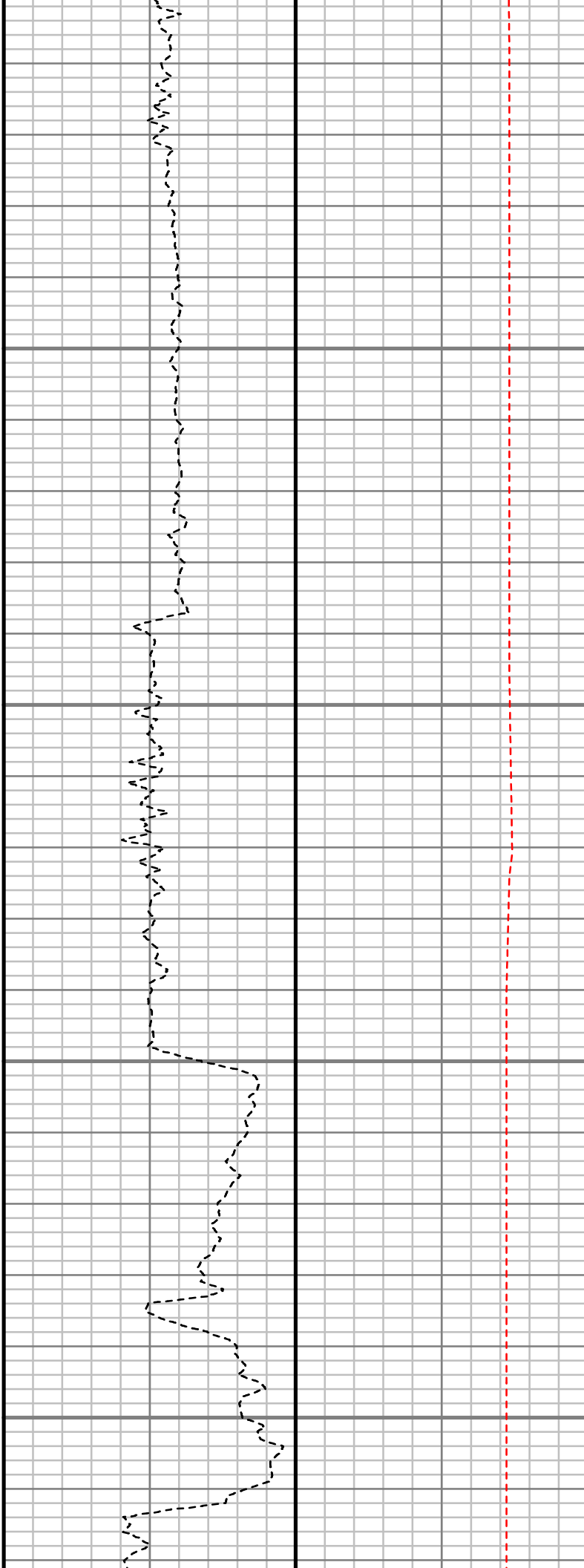
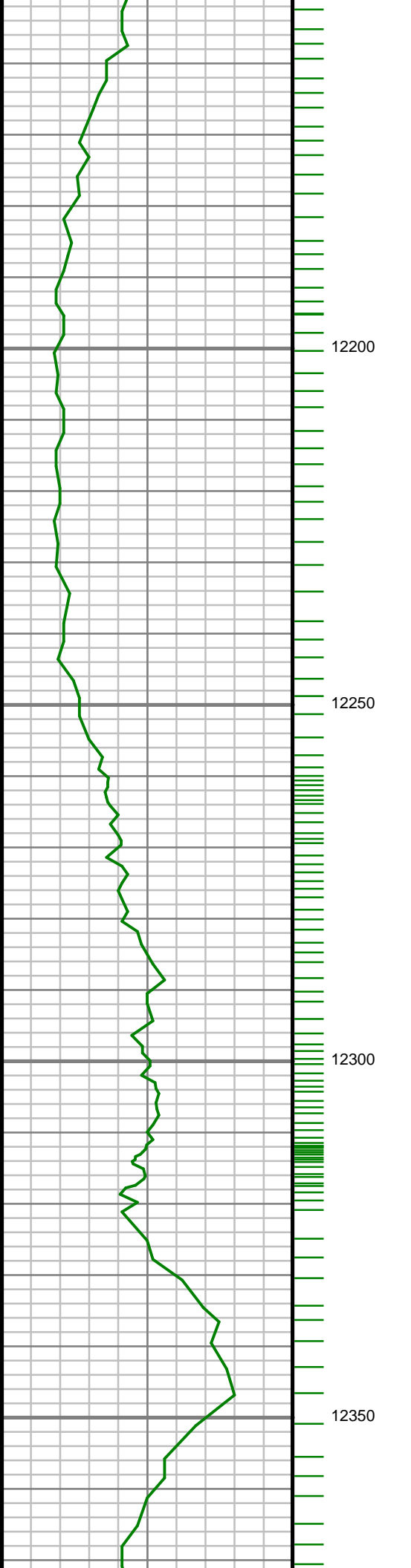
S: 130 MD: 11794.00 ft  
Inc: 89.60 deg Az: 0.26  
deg TVD: 7256.65 ft

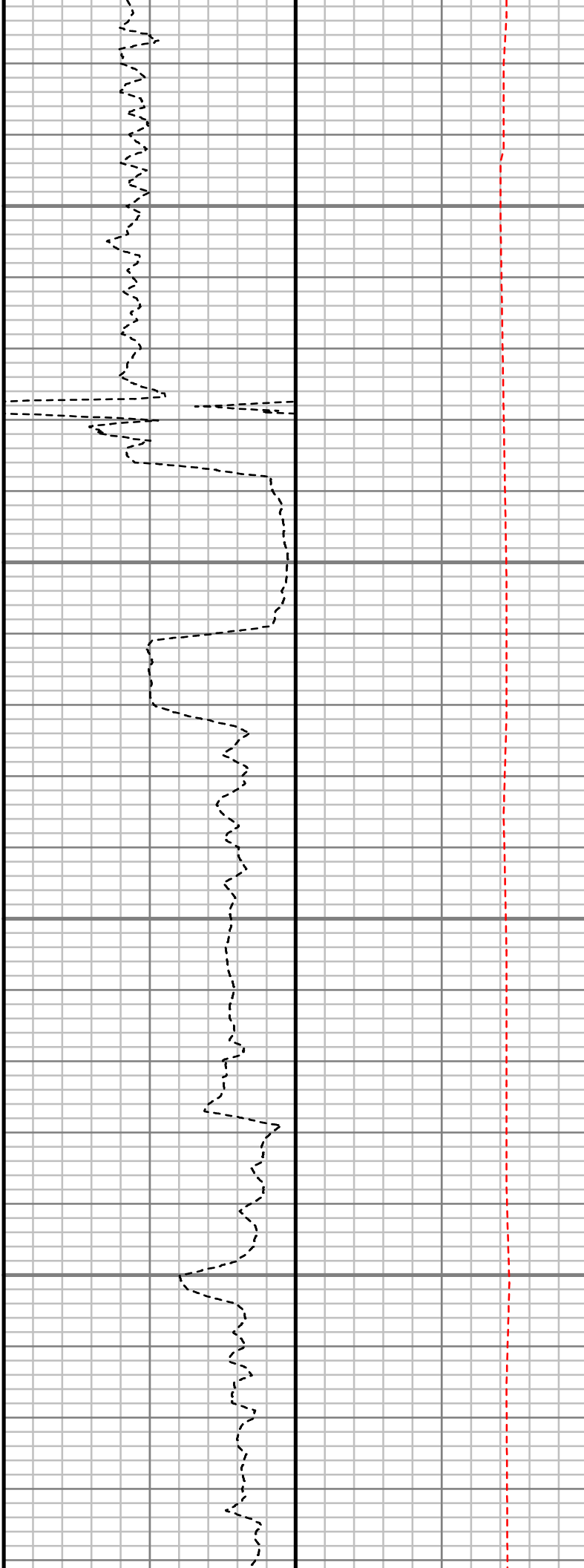
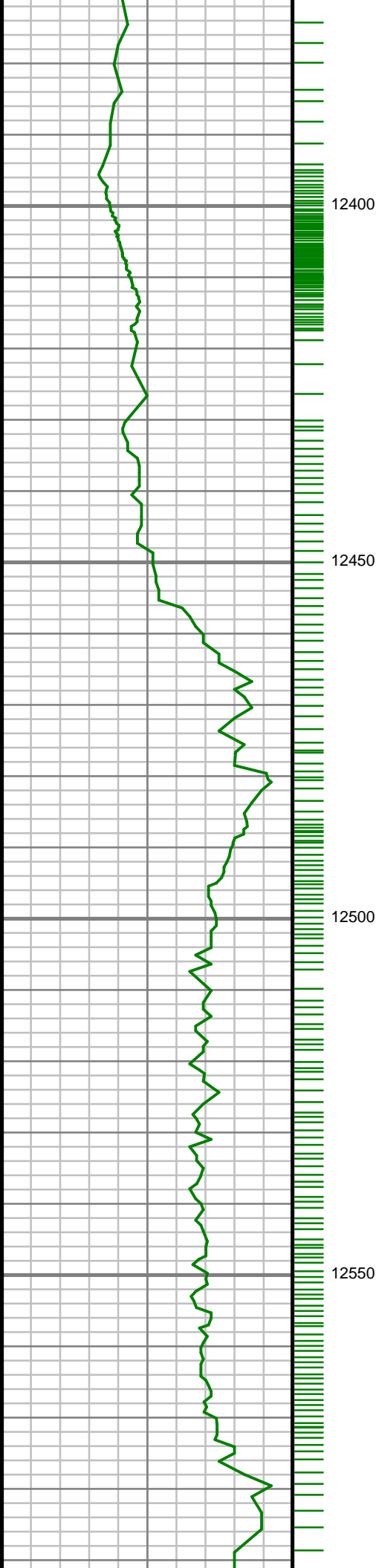
S: 131 MD: 11889.00 ft  
Inc: 89.90 deg Az:  
359.02 deg TVD:  
7257.06 ft



S: 132 MD: 11983.00 ft  
Inc: 90.94 deg Az:  
358.71 deg TVD:  
7256.38 ft

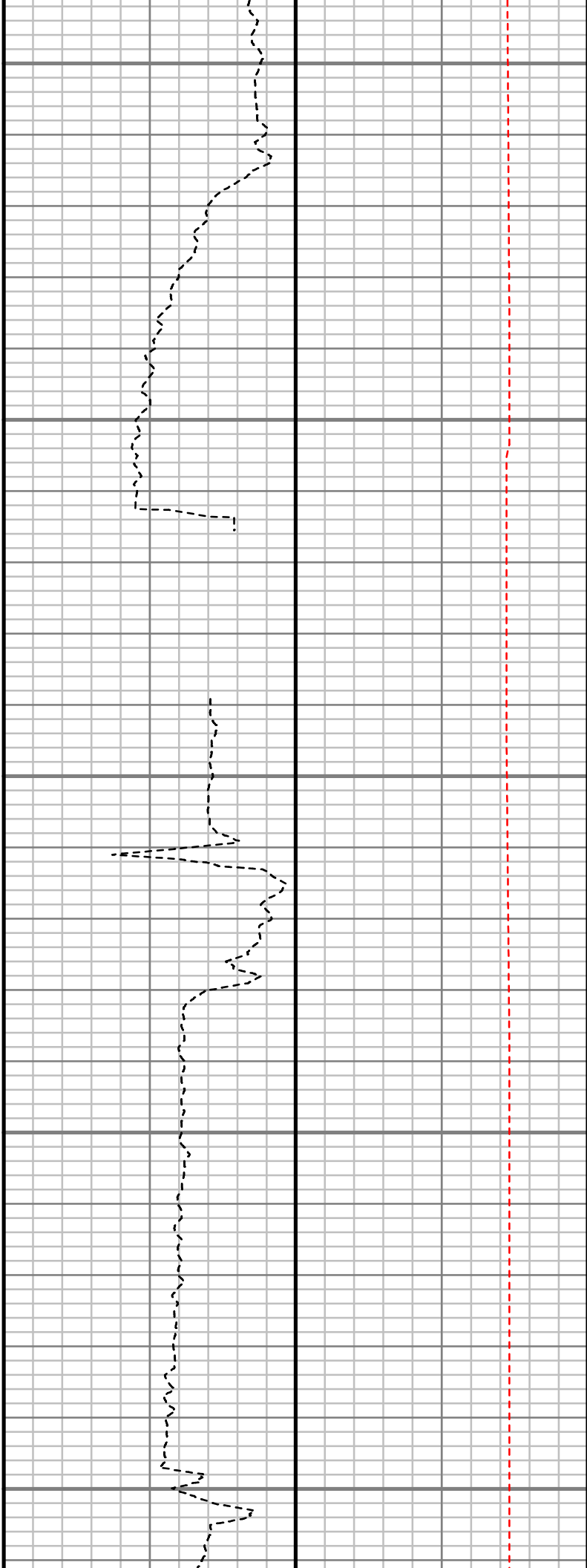
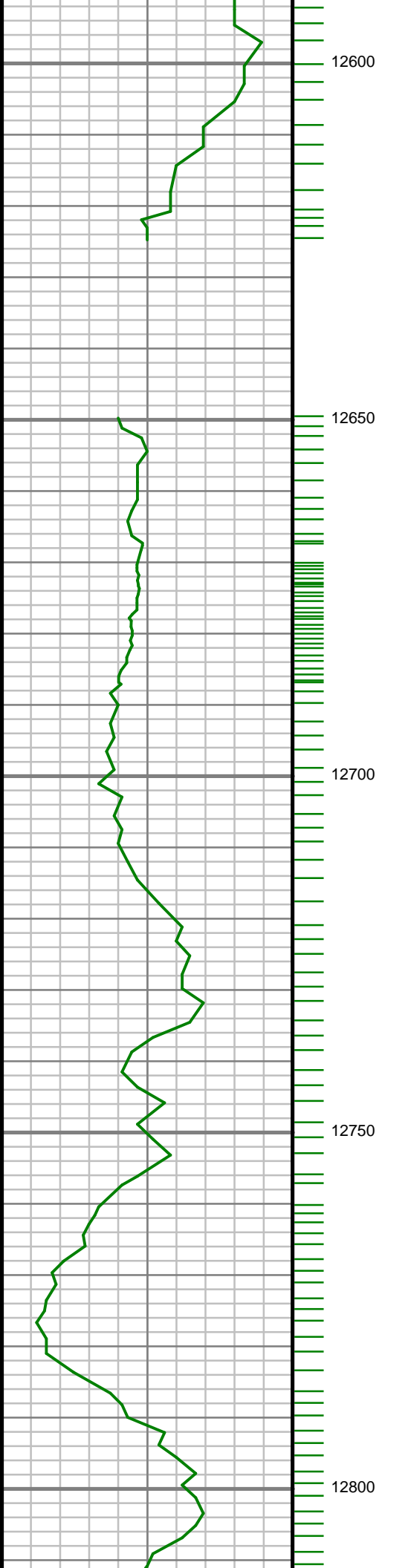
S: 133 MD: 12077.00 ft  
Inc: 89.13 deg Az:  
358.96 deg TVD:  
7256.32 ft





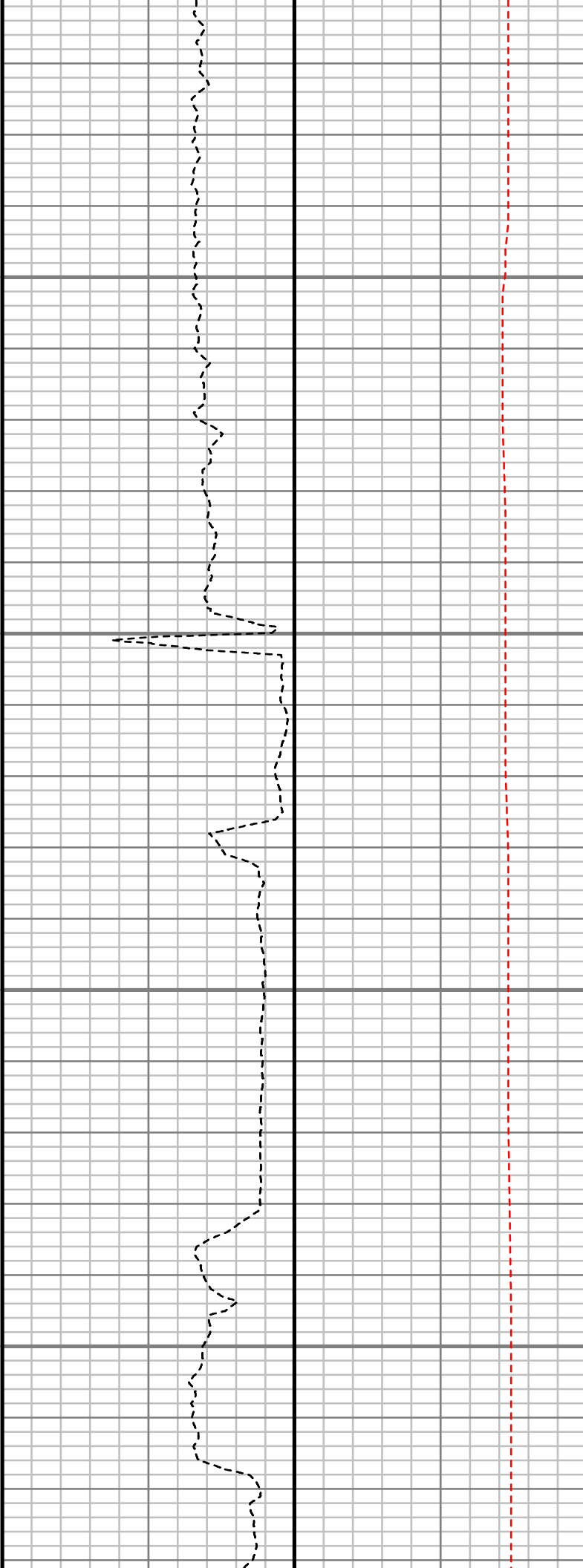
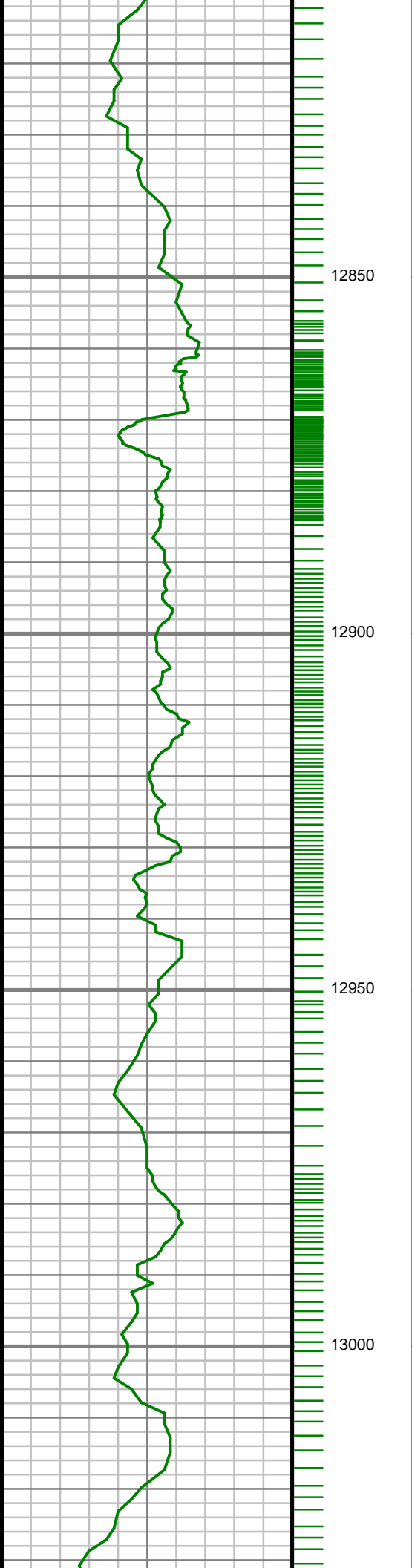
S: 137 MD: 12455.00 ft  
Inc: 91.04 deg Az:  
359.67 deg TVD:  
7249.19 ft

S: 138 MD: 12550.00 ft  
Inc: 89.59 deg Az: 0.87  
deg TVD: 7248.66 ft



S: 139 MD: 12644.00 ft  
Inc: 90.10 deg Az: 1.21  
deg TVD: 7248.91 ft

S: 140 MD: 12738.00 ft  
Inc: 88.56 deg Az: 0.64  
deg TVD: 7250.01 ft

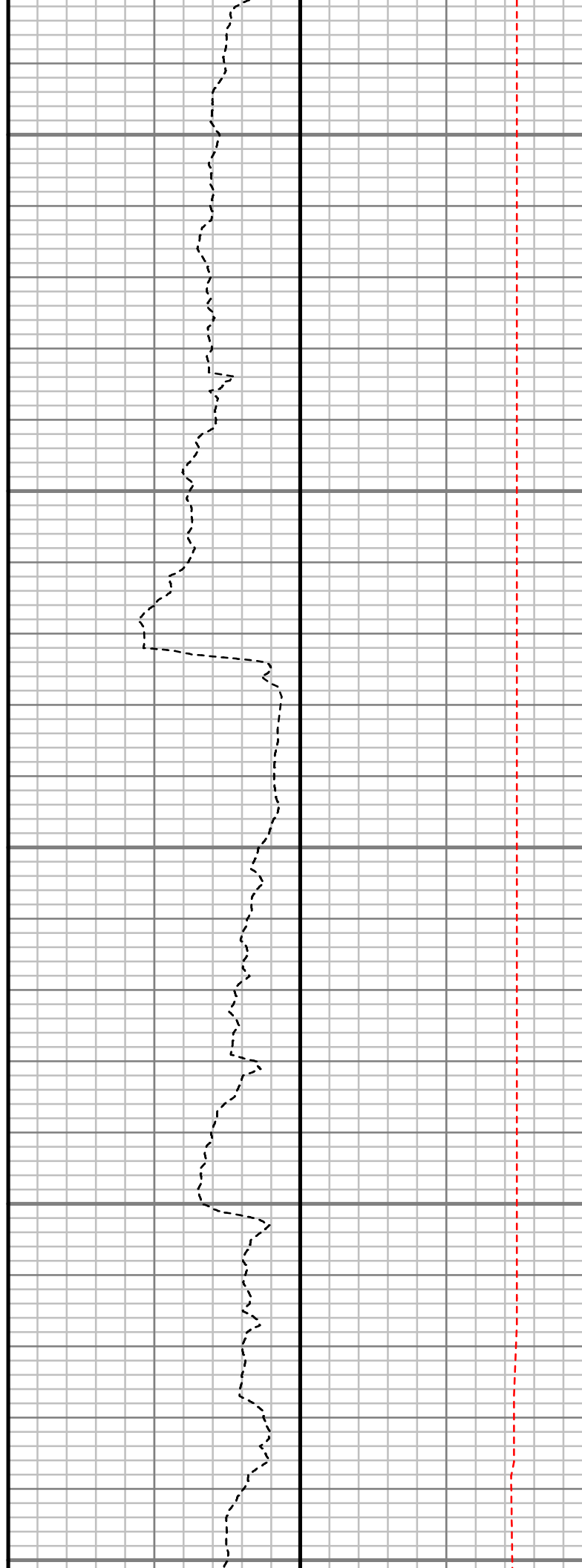
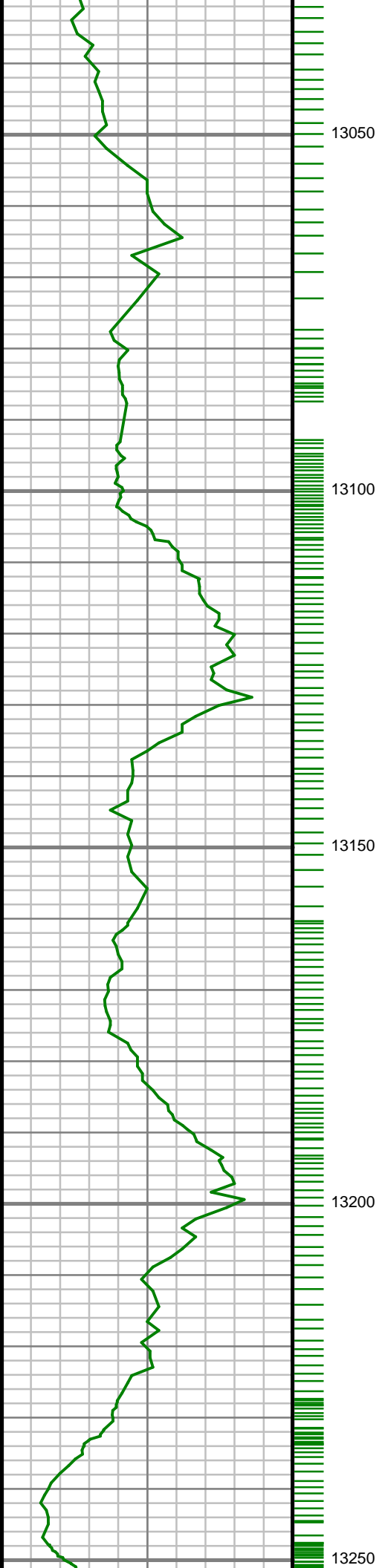


S: 141 MD: 12833.00 ft  
Inc: 90.51 deg Az: 1.22  
deg TVD: 7250.79 ft

S: 142 MD: 12927.00 ft  
Inc: 87.41 deg Az: 0.69  
deg TVD: 7252.49 ft

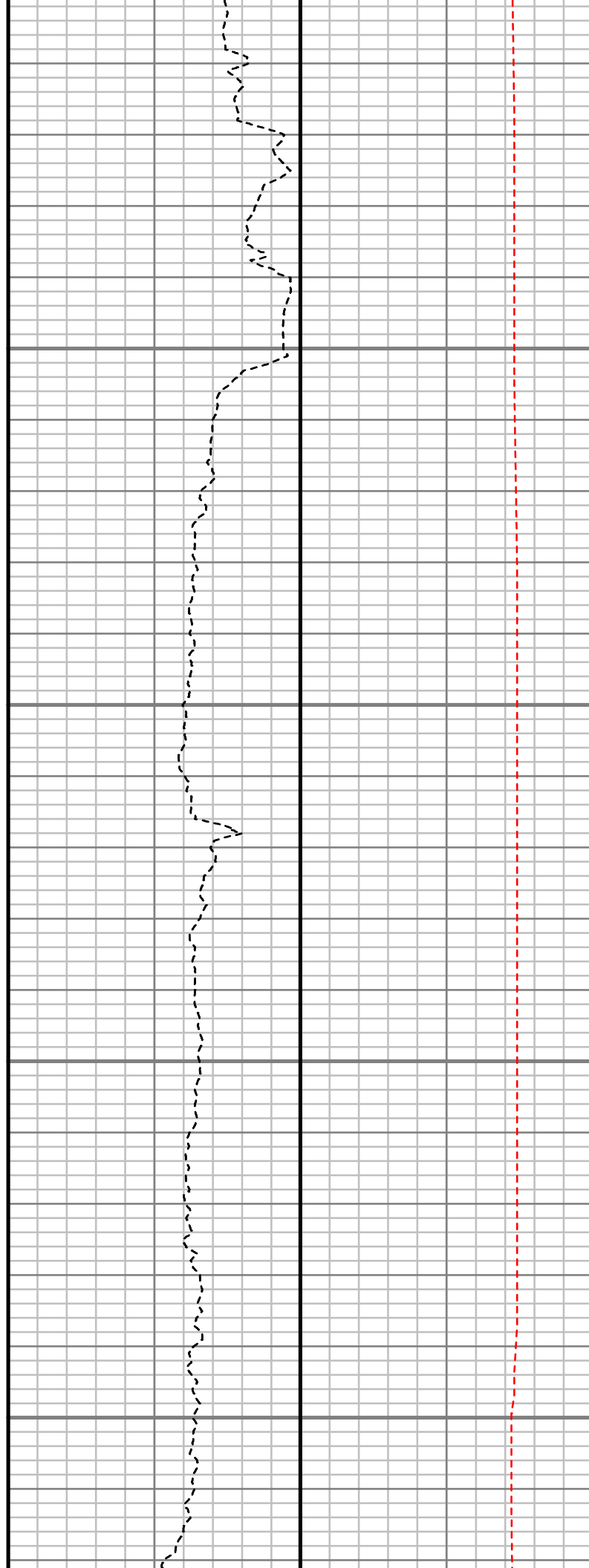
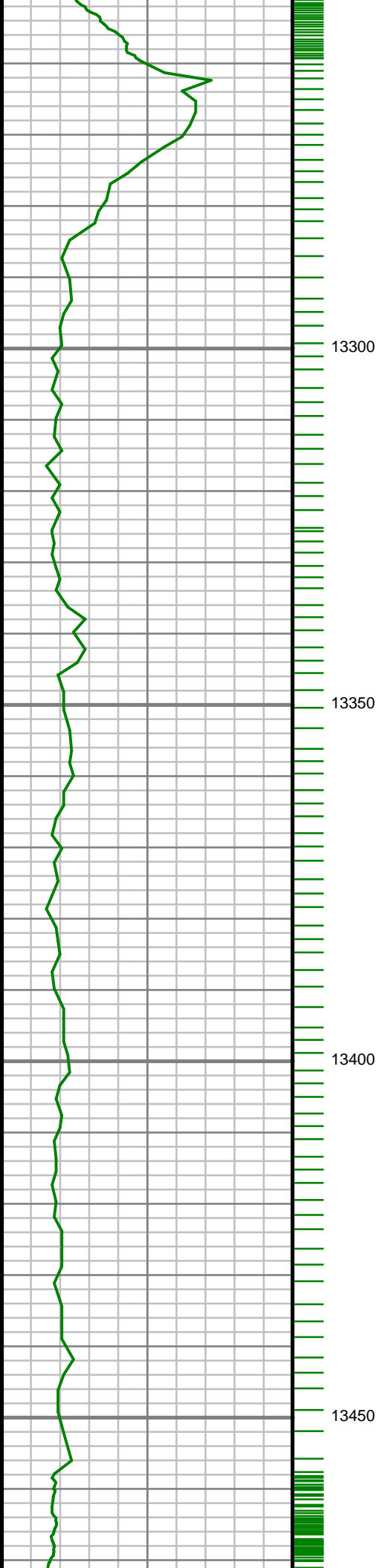
S: 143 MD: 13022.00 ft  
Inc: 87.48 deg Az:  
358.73 deg TVD:  
7256.73 ft





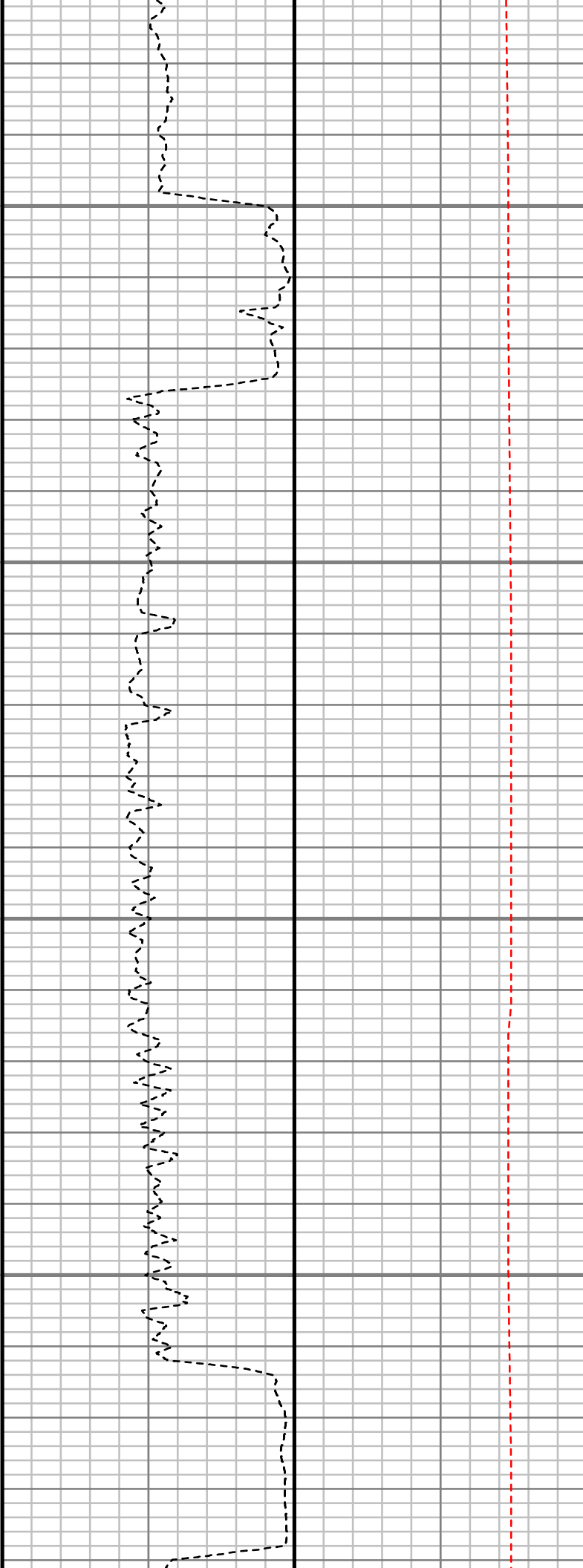
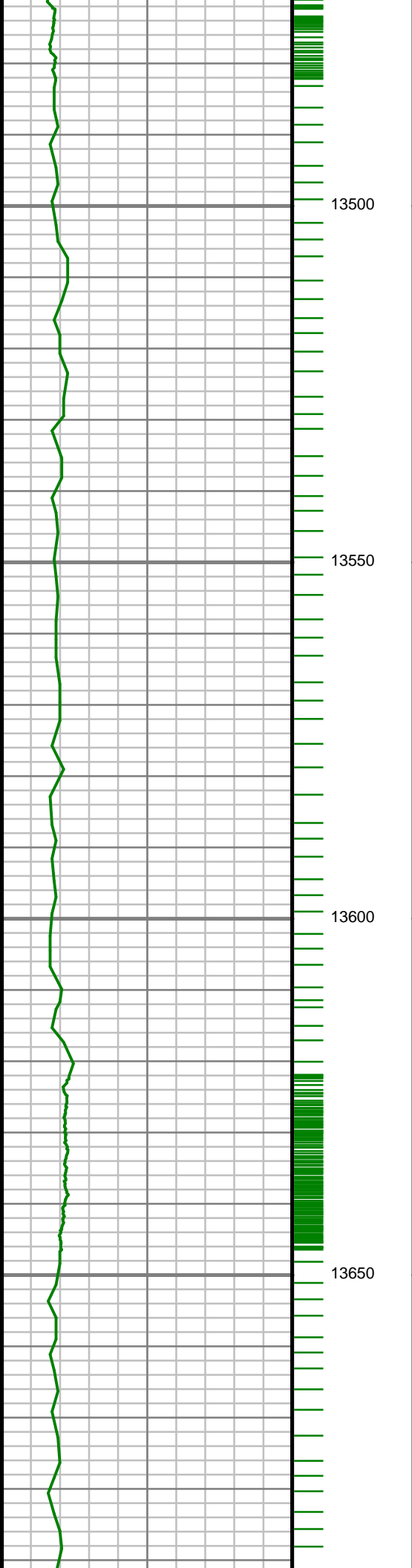
S: 144 MD: 13116.00 ft  
Inc: 87.00 deg Az:  
358.70 deg TVD:  
7261.26 ft

S: 145 MD: 13210.00 ft  
Inc: 87.19 deg Az:  
358.44 deg TVD:  
7266.02 ft



S: 146 MD: 13305.00 ft  
Inc: 89.10 deg Az:  
357.92 deg TVD:  
7269.10 ft

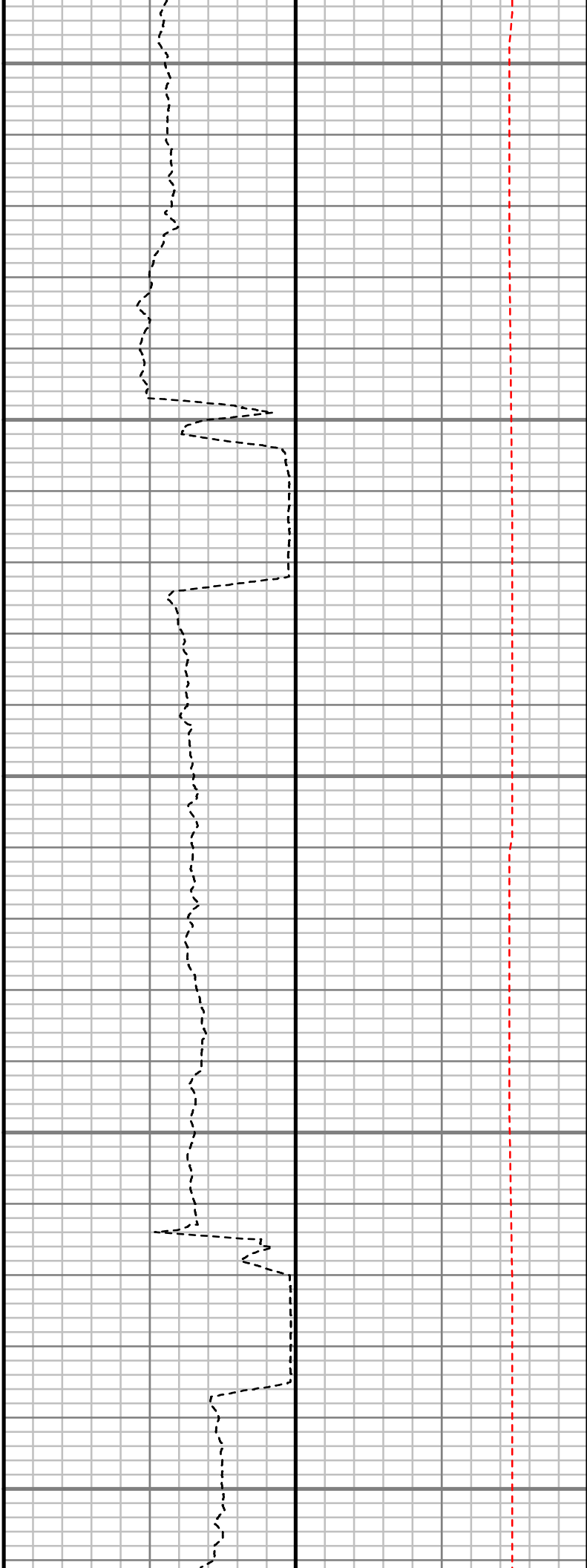
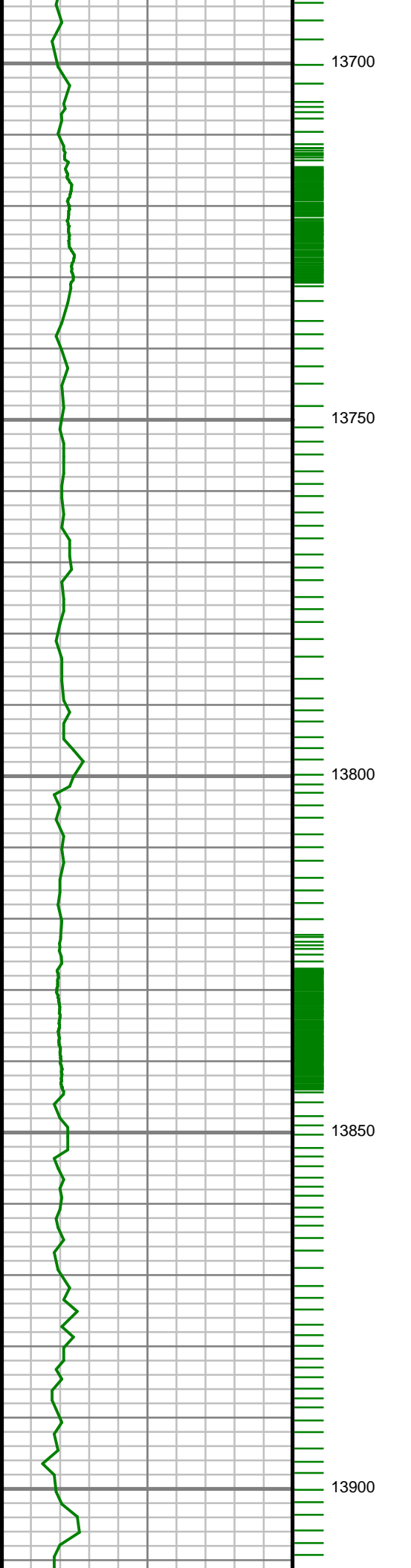
S: 147 MD: 13399.00 ft  
Inc: 89.56 deg Az:  
357.40 deg TVD:  
7270.19 ft



S: 148 MD: 13494.00 ft  
Inc: 90.74 deg Az:  
356.27 deg TVD:  
7269.94 ft

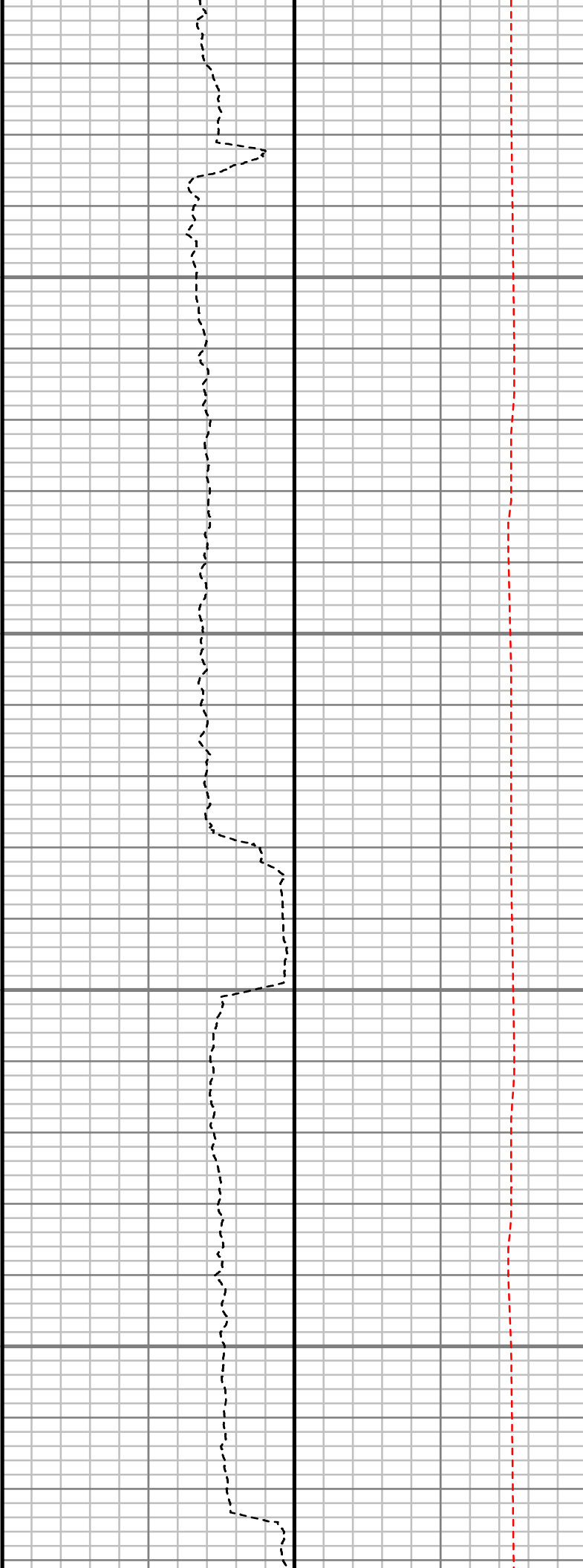
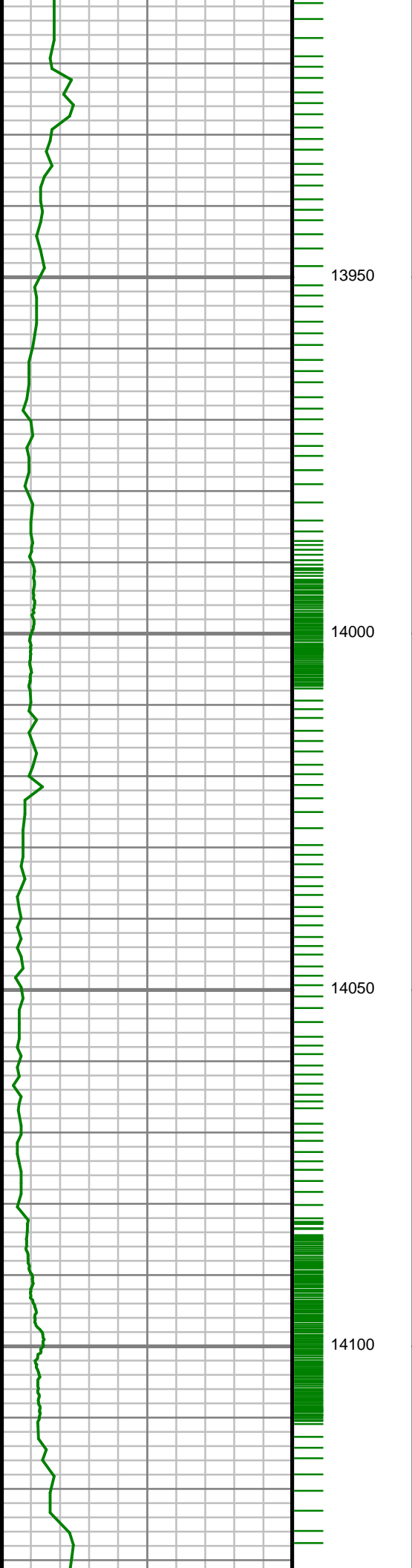
S: 149 MD: 13588.00 ft  
Inc: 91.20 deg Az:  
358.02 deg TVD:  
7268.34 ft

S: 150 MD: 13682.00 ft  
Inc: 90.13 deg Az:  
359.94 deg TVD:  
7267.25 ft



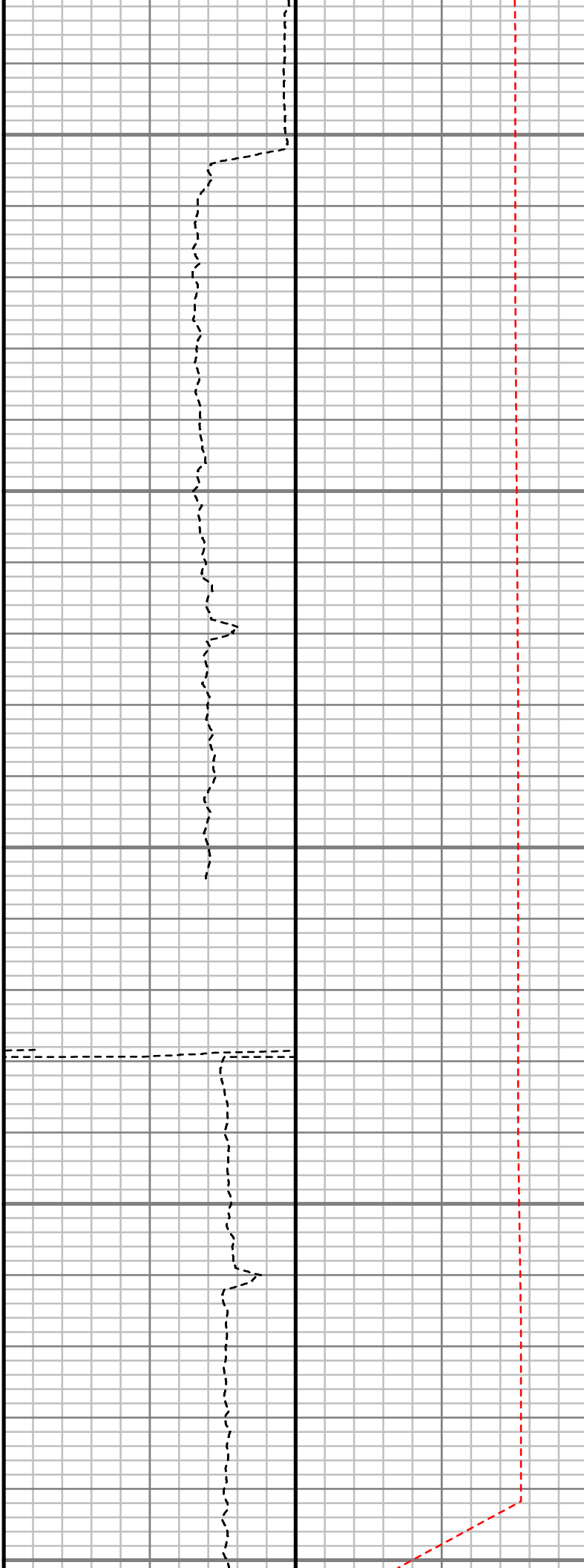
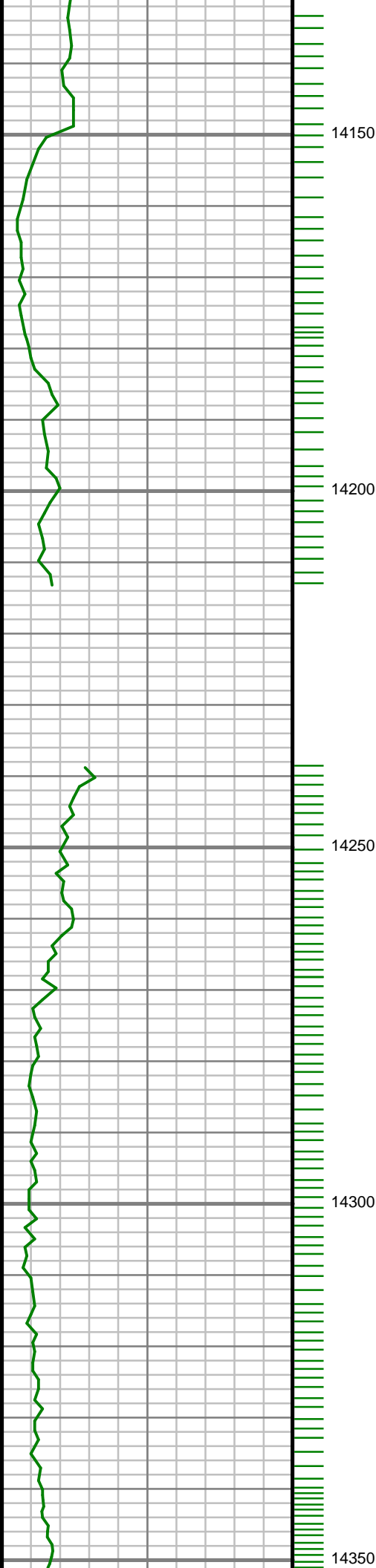
S: 151 MD: 13776.00 ft  
Inc: 89.36 deg Az: 0.60  
deg TVD: 7267.66 ft

S: 152 MD: 13871.00 ft  
Inc: 88.72 deg Az: 2.25  
deg TVD: 7269.25 ft



S: 153 MD: 13965.00 ft  
Inc: 89.36 deg Az: 1.41  
deg TVD: 7270.82 ft

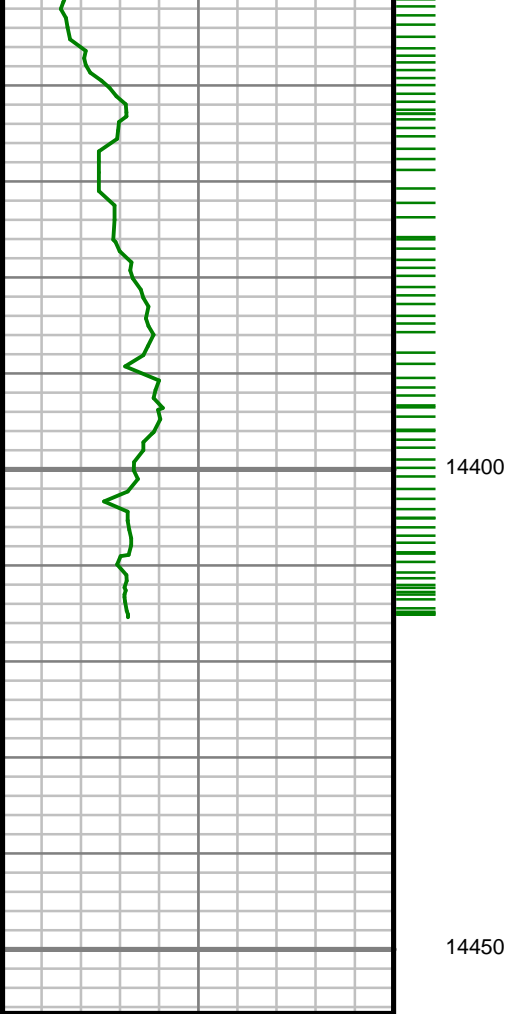
S: 154 MD: 14059.00 ft  
Inc: 88.99 deg Az: 3.80  
deg TVD: 7272.17 ft



S: 155 MD: 14153.00 ft  
Inc: 87.59 deg Az: 5.42  
deg TVD: 7274.97 ft

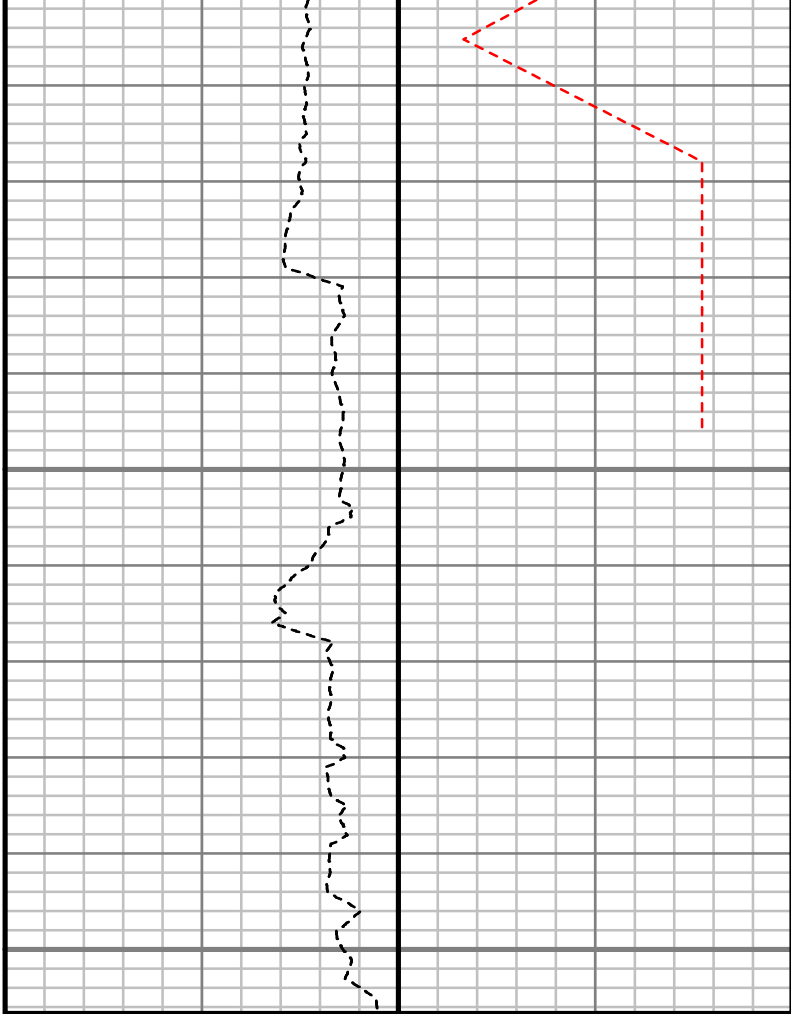
S: 156 MD: 14247.00 ft  
Inc: 88.36 deg Az: 4.37  
deg TVD: 7278.29 ft

S: 157 MD: 14342.00 ft  
Inc: 88.86 deg Az: 5.51  
deg TVD: 7280.60 ft



Gamma Ray (GR)		
0	Unit = aapi	150

MEASURED DEPTH  
1,240 (ft)



Rate of Penetration (ROP)		
500	Unit = ft/hr	0

Tool Temperature (T-TEMP)		
50	Unit = °F	300

S: 158 MD: 14394.00 ft  
Inc: 88.49 deg Az: 5.43  
deg TVD: 7281.80 ft

Comments
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# Survey Report

<b>Customer Name:</b>	ANADARKO PETROLEUM CORP.
<b>Site Name:</b>	GITTLEIN 36-33HZ
<b>Well Name:</b>	GITTLEIN 3C-28HZ
<b>Survey:</b>	Gittlein 3C-28HZ
<b>Survey Date:</b>	9/30/2013
<b>Magnetic Declination:</b>	8.29 deg
<b>North Reference:</b>	True North
<b>Calculation Method:</b>	Minimum Curvature
<b>Section (VS) Ref:</b>	0.00N (ft), 0.00E (ft), 0.00Azim (deg)

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
100.00	0.35	176.59	100.00	-0.30	-0.30	0.02	0.35
200.00	0.46	148.39	200.00	-0.95	-0.95	0.25	0.22
300.00	0.74	162.75	299.99	-1.91	-1.91	0.65	0.32
400.00	0.34	181.01	399.99	-2.82	-2.82	0.83	0.43
500.00	0.50	154.34	499.98	-3.51	-3.51	1.02	0.25
600.00	0.37	183.31	599.98	-4.23	-4.23	1.19	0.25
700.00	0.37	123.86	699.98	-4.73	-4.73	1.44	0.37
800.00	0.20	70.19	799.98	-4.85	-4.85	1.87	0.30

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
900.00	0.29	23.76	899.98	-4.56	-4.56	2.14	0.21
1000.00	0.58	40.24	999.97	-3.94	-3.94	2.57	0.31
1100.00	0.39	36.23	1099.97	-3.28	-3.28	3.09	0.19
1200.00	0.59	43.53	1199.97	-2.63	-2.63	3.65	0.21
1220.00	0.72	51.37	1219.97	-2.48	-2.48	3.82	0.79
1421.00	0.44	57.00	1420.96	-1.28	-1.28	5.45	0.14
1513.00	3.33	105.97	1512.90	-1.82	-1.82	8.31	3.33
1604.00	4.86	111.48	1603.66	-3.96	-3.96	14.45	1.74
1696.00	7.41	121.92	1695.13	-8.53	-8.53	23.11	3.01
1787.00	9.67	126.26	1785.12	-16.15	-16.15	34.26	2.58
1879.00	9.54	121.29	1875.83	-24.68	-24.68	47.01	0.91
1971.00	9.88	132.43	1966.52	-33.97	-33.97	59.36	2.07
2063.00	13.16	135.66	2056.65	-46.79	-46.79	72.51	3.62
2154.00	13.30	126.99	2145.25	-60.50	-60.50	88.11	2.19
2246.00	11.52	119.36	2235.10	-71.37	-71.37	104.57	2.63
2338.00	9.96	128.83	2325.49	-80.87	-80.87	118.77	2.55
2430.00	11.39	138.88	2415.91	-92.70	-92.70	130.95	2.55
2522.00	12.93	131.98	2505.84	-106.43	-106.43	144.58	2.29
2613.00	12.58	126.66	2594.60	-119.16	-119.16	160.10	1.35
2705.00	10.69	127.34	2684.71	-130.32	-130.32	174.92	2.06



MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
2800.00	7.65	132.79	2778.48	-139.96	-139.96	186.57	3.33
2894.00	5.79	127.28	2871.83	-147.08	-147.08	194.93	2.09
2989.00	4.23	152.13	2966.48	-153.08	-153.08	200.38	2.78
3083.00	3.24	168.19	3060.28	-158.75	-158.75	202.55	1.53
3177.00	1.58	215.43	3154.20	-162.40	-162.40	202.34	2.61
3272.00	1.15	257.45	3249.18	-163.68	-163.68	200.65	1.11
3366.00	0.99	256.21	3343.16	-164.08	-164.08	198.95	0.17
3460.00	1.14	246.18	3437.14	-164.65	-164.65	197.30	0.26
3554.00	1.02	274.70	3531.13	-164.96	-164.96	195.61	0.58
3649.00	1.46	265.96	3626.11	-164.97	-164.97	193.56	0.50
3743.00	1.14	272.36	3720.08	-165.02	-165.02	191.43	0.37
3838.00	2.06	283.09	3815.04	-164.59	-164.59	188.83	1.01
3932.00	1.48	315.76	3909.00	-163.34	-163.34	186.34	1.21
4027.00	1.86	333.31	4003.96	-161.09	-161.09	184.79	0.66
4121.00	2.17	306.90	4097.91	-158.66	-158.66	182.68	1.03
4215.00	1.94	337.40	4191.85	-156.12	-156.12	180.65	1.17
4404.00	1.98	344.25	4380.74	-150.03	-150.03	178.53	0.13
4498.00	2.16	48.24	4474.69	-147.28	-147.28	179.41	2.34
4593.00	2.33	58.25	4569.61	-145.07	-145.07	182.39	0.45

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
4687.00	3.05	61.64	4663.51	-142.88	-142.88	186.22	0.78
4781.00	3.14	61.57	4757.37	-140.47	-140.47	190.68	0.10
4876.00	1.56	133.39	4852.31	-140.12	-140.12	193.91	3.20
4970.00	2.00	117.29	4946.26	-141.75	-141.75	196.30	0.71
5064.00	2.11	113.72	5040.20	-143.20	-143.20	199.35	0.17
5159.00	1.77	168.83	5135.15	-145.34	-145.34	201.23	1.91
5253.00	1.76	200.99	5229.11	-148.11	-148.11	200.99	1.04
5347.00	1.37	219.69	5323.08	-150.32	-150.32	199.75	0.68
5442.00	0.81	244.52	5418.06	-151.49	-151.49	198.42	0.76
5536.00	2.08	295.81	5512.03	-151.03	-151.03	196.29	1.80
5630.00	2.30	290.92	5605.96	-149.61	-149.61	193.00	0.30
5725.00	1.60	25.08	5700.93	-147.73	-147.73	191.78	3.04
5819.00	1.45	42.10	5794.89	-145.66	-145.66	193.13	0.50
5914.00	1.56	41.60	5889.86	-143.80	-143.80	194.80	0.11
6008.00	1.50	90.29	5983.83	-142.85	-142.85	196.88	1.34
6102.00	2.17	155.41	6077.79	-144.47	-144.47	198.85	2.18
6197.00	1.76	143.05	6172.74	-147.27	-147.27	200.48	0.62
6291.00	1.62	147.17	6266.70	-149.54	-149.54	202.06	0.20
6386.00	0.78	153.08	6361.67	-151.24	-151.24	203.08	0.89
6480.00	0.55	187.98	6455.67	-152.26	-152.26	203.31	0.48

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
6575.00	0.39	189.24	6550.66	-153.03	-153.03	203.20	0.17
6622.00	0.64	173.62	6597.66	-153.45	-153.45	203.20	0.61
6669.00	0.29	174.22	6644.66	-153.83	-153.83	203.24	0.75
6714.00	2.57	351.54	6689.65	-152.95	-152.95	203.10	6.36
6763.00	4.37	337.69	6738.56	-150.14	-150.14	202.23	4.02
6808.00	7.11	352.17	6783.33	-145.79	-145.79	201.20	6.84
6857.00	10.03	357.14	6831.78	-138.53	-138.53	200.58	6.14
6952.00	15.74	0.22	6924.35	-117.36	-117.36	200.21	6.06
6997.00	18.88	357.04	6967.31	-103.98	-103.98	199.86	7.29
7046.00	20.95	354.37	7013.37	-87.34	-87.34	198.59	4.61
7093.00	25.15	351.10	7056.61	-69.10	-69.10	196.22	9.33
7140.00	32.04	353.79	7097.85	-46.81	-46.81	193.32	14.92
7235.00	47.86	358.34	7170.46	13.85	13.85	189.55	16.93
7329.00	69.75	2.14	7218.86	93.75	93.75	190.20	23.53
7338.00	72.50	2.27	7221.77	102.26	102.26	190.53	30.54
7400.00	83.14	2.71	7234.83	162.72	162.72	193.17	17.18
7488.00	85.51	2.60	7243.53	250.19	250.19	197.22	2.70
7617.00	87.89	1.55	7250.95	378.88	378.88	201.89	2.01
7709.00	88.53	0.43	7253.83	470.82	470.82	203.48	1.40

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
7801.00	89.33	359.71	7255.56	562.80	562.80	203.59	1.18
7892.00	89.66	359.17	7256.35	653.79	653.79	202.70	0.69
7982.00	90.91	0.15	7255.91	743.78	743.78	202.17	1.75
8073.00	89.87	359.64	7255.29	834.78	834.78	202.01	1.27
8164.00	90.61	0.14	7254.92	925.78	925.78	201.83	0.98
8256.00	89.53	0.33	7254.81	1017.78	1017.78	202.21	1.19
8348.00	89.50	358.90	7255.59	1109.77	1109.77	201.59	1.56
8439.00	89.09	358.79	7256.71	1200.74	1200.74	199.76	0.46
8531.00	88.86	358.47	7258.36	1292.70	1292.70	197.56	0.43
8622.00	88.89	356.92	7260.15	1383.61	1383.61	193.90	1.71
8714.00	90.64	359.46	7260.53	1475.55	1475.55	190.99	3.36
8805.00	90.61	358.55	7259.54	1566.53	1566.53	189.41	1.00
8897.00	90.67	356.75	7258.51	1658.44	1658.44	185.64	1.95
8989.00	91.91	356.96	7256.43	1750.28	1750.28	180.59	1.37
9080.00	92.57	359.36	7252.87	1841.16	1841.16	177.68	2.73
9172.00	91.53	358.09	7249.59	1933.07	1933.07	175.64	1.78
9264.00	91.08	1.29	7247.50	2025.03	2025.03	175.14	3.52
9355.00	92.41	3.29	7244.74	2115.91	2115.91	178.78	2.63
9447.00	90.37	4.18	7242.51	2207.69	2207.69	184.76	2.42
9539.00	89.43	3.85	7242.67	2299.46	2299.46	191.20	1.08

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
9631.00	89.80	2.91	7243.29	2391.30	2391.30	196.63	1.10
9723.00	88.59	5.00	7244.58	2483.06	2483.06	202.98	2.62
9815.00	89.12	5.58	7246.42	2574.65	2574.65	211.46	0.86
9906.00	89.27	3.39	7247.69	2665.36	2665.36	218.58	2.41
10001.00	89.49	2.74	7248.72	2760.21	2760.21	223.66	0.73
10096.00	89.90	1.46	7249.23	2855.15	2855.15	227.14	1.41
10190.00	89.70	1.61	7249.56	2949.11	2949.11	229.67	0.27
10284.00	90.10	1.10	7249.72	3043.08	3043.08	231.89	0.69
10379.00	90.74	358.95	7249.02	3138.08	3138.08	231.93	2.36
10473.00	89.56	359.94	7248.78	3232.07	3232.07	231.02	1.64
10567.00	88.59	359.32	7250.29	3326.05	3326.05	230.41	1.22
10662.00	87.24	356.60	7253.75	3420.92	3420.92	227.04	3.20
10756.00	90.27	355.42	7255.80	3514.66	3514.66	220.50	3.46
10850.00	92.49	356.97	7253.54	3608.41	3608.41	214.26	2.88
10945.00	92.58	0.35	7249.33	3703.28	3703.28	212.04	3.56
11039.00	92.71	1.83	7244.99	3797.16	3797.16	213.82	1.58
11134.00	91.47	3.49	7241.52	3891.99	3891.99	218.23	2.18
11228.00	90.03	3.75	7240.29	3985.79	3985.79	224.15	1.55
11322.00	88.05	2.99	7241.86	4079.61	4079.61	229.68	2.26

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft
11417.00	88.09	3.18	7245.07	4174.42	4174.42	234.79	0.20
11511.00	88.45	1.31	7247.90	4268.30	4268.30	238.47	2.02
11605.00	88.19	0.94	7250.66	4362.24	4362.24	240.32	0.49
11700.00	87.48	0.94	7254.25	4457.16	4457.16	241.87	0.75
11794.00	89.60	0.26	7256.65	4551.12	4551.12	242.85	2.37
11889.00	89.90	359.02	7257.06	4646.11	4646.11	242.25	1.35
11983.00	90.94	358.71	7256.38	4740.09	4740.09	240.39	1.15
12077.00	89.13	358.96	7256.32	4834.07	4834.07	238.48	1.94
12172.00	89.76	357.98	7257.24	4929.03	4929.03	235.94	1.23
12267.00	92.31	357.35	7255.52	5023.92	5023.92	232.07	2.76
12361.00	92.19	358.10	7251.84	5117.78	5117.78	228.34	0.81
12455.00	91.04	359.67	7249.19	5211.72	5211.72	226.51	2.07
12550.00	89.59	0.87	7248.66	5306.71	5306.71	226.96	1.98
12644.00	90.10	1.21	7248.91	5400.69	5400.69	228.67	0.65
12738.00	88.56	0.64	7250.01	5494.67	5494.67	230.18	1.75
12833.00	90.51	1.22	7250.79	5589.65	5589.65	231.73	2.14
12927.00	87.41	0.69	7252.49	5683.61	5683.61	233.30	3.34
13022.00	87.48	358.73	7256.73	5778.51	5778.51	232.82	2.07
13116.00	87.00	358.70	7261.26	5872.38	5872.38	230.71	0.50
13210.00	87.19	358.44	7266.02	5966.23	5966.23	228.37	0.34

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS
ft	deg	deg	ft	ft	ft	ft	7100ft
13305.00	89.10	357.92	7269.10	6061.13	6061.13	225.35	2.08
13399.00	89.56	357.40	7270.19	6155.04	6155.04	221.51	0.74
13494.00	90.74	356.27	7269.94	6249.89	6249.89	216.26	1.72
13588.00	91.20	358.02	7268.34	6343.76	6343.76	211.58	1.93
13682.00	90.13	359.94	7267.25	6437.73	6437.73	209.90	2.34
13776.00	89.36	0.60	7267.66	6531.73	6531.73	210.34	1.08
13871.00	88.72	2.25	7269.25	6626.68	6626.68	212.70	1.87
13965.00	89.36	1.41	7270.82	6720.62	6720.62	215.71	1.12
14059.00	88.99	3.80	7272.17	6814.50	6814.50	219.98	2.57
14153.00	87.59	5.42	7274.97	6908.15	6908.15	227.54	2.28
14247.00	88.36	4.37	7278.29	7001.75	7001.75	235.56	1.38
14342.00	88.86	5.51	7280.60	7096.37	7096.37	243.74	1.31
14394.00	88.49	5.43	7281.80	7148.11	7148.11	248.70	0.74

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS 7100ft

5" = 100' FEET MD