

5" = 100' FEET MD

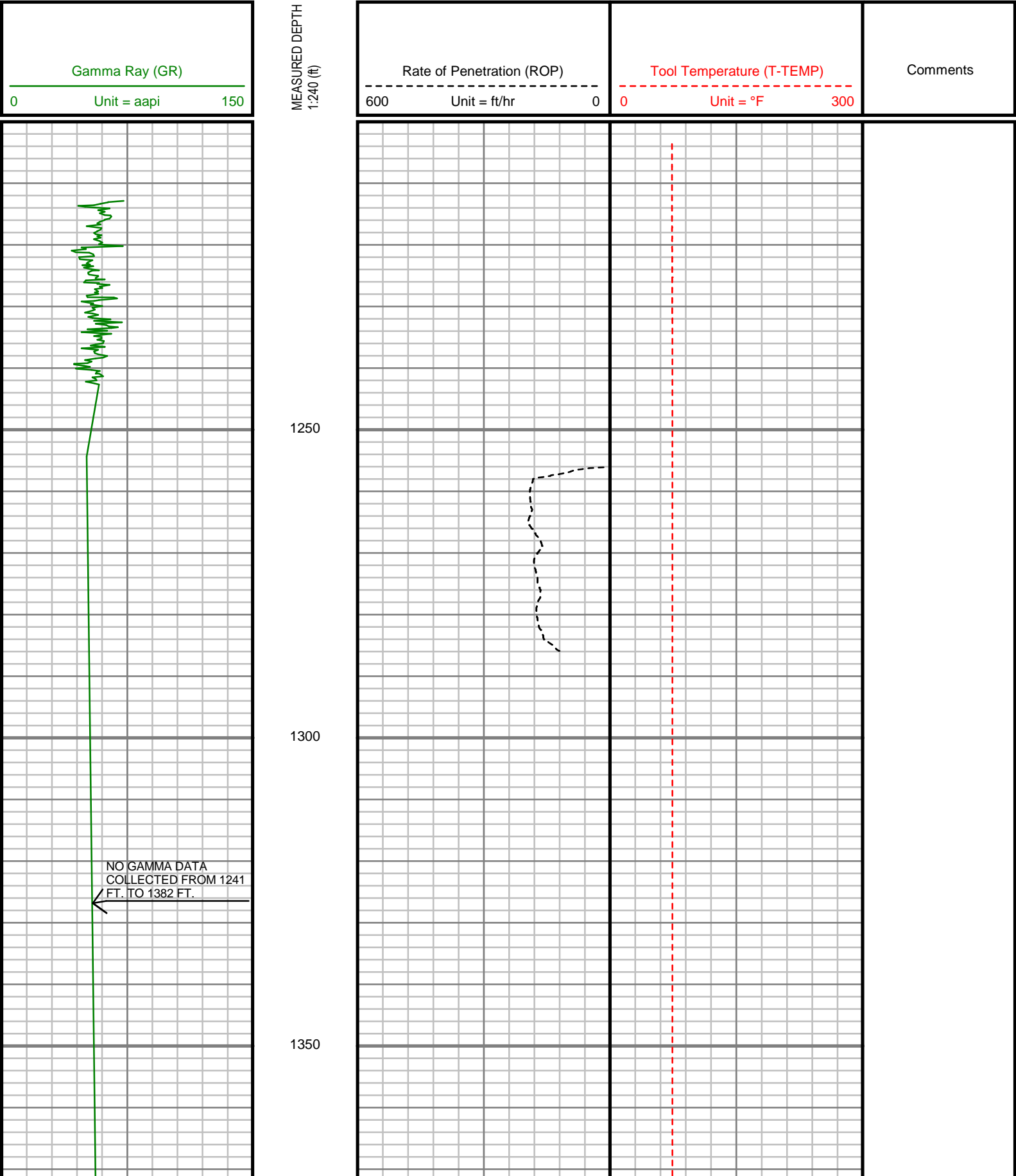
COMPANY : ANADARKO PETROLEUM CORP.									
WELL : NRC 28C-8HZ									
FIELD : WATTENBURG									
COUNTY : WELD									
STATE : COLORADO									
COUNTRY : U.S.A.									
UWI : 05-123-39092									
WELL LOCATION					OTHER SERVICES				
LAT:40°3'33.379"N LONG:104°54'41.616"W					DIRECTIONAL ROP				
N:1264984.63 ft E:3164709.09 ft									
SEC:8 TWP:1N RANGE:67W									
DEPTH REF. : RKB									
REF. HEIGHT : 25.000 ft					RKB to Ground Level				
GROUND LEVEL : 5063.000 ft					G.L. to MEAN SEA LEVEL				
BOREHOLE RECORD					DEVIATION RECORD				
HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft				
12.25	0	1252	0-10	0	7187				
8.75	1252	8260	10-90	7187	8260				
6.125	8260	13002	90-92	8260	13002				
CASING RECORD									
CASING SIZE in	FROM ft	TO ft							
9.625	0	1252							
7	0	8260							
DRILLING CO. : H&P									
RIG : 311									
LMD UNIT NO. : C-46						DISTRICT : CASPER			
SPUD DATE : 05/07/2014									
LMD START DATE : 5/9/2014						DEPTH : 1252 ft			
LMD END DATE : 05/15/2014						DEPTH : 12954 ft			
TOTAL DEPTH : 13002 ft									

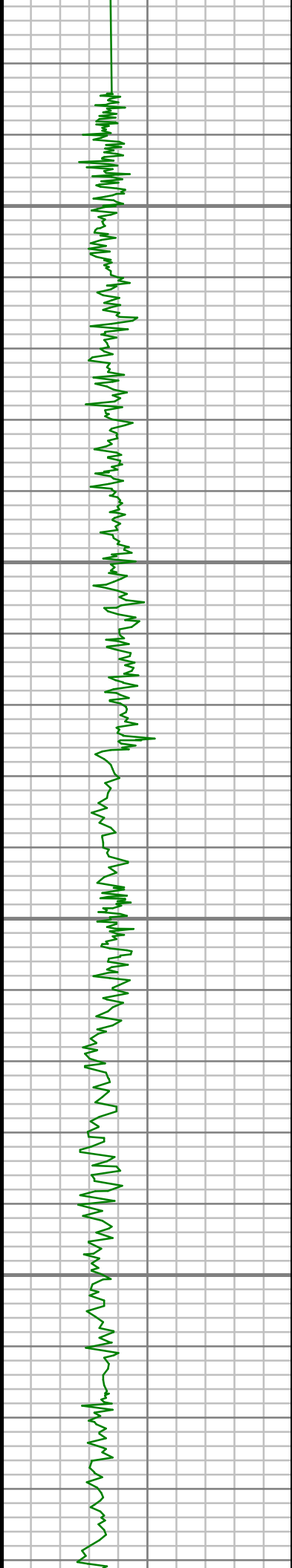
Remarks
ANADARKO PETROLEUM CORP. PRODUCTION AFE# 2085774
SCIENTIFIC DRILLING INTERNATIONAL JOB# 148874
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
RUN #1: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSAR = 128-289 / CONT = 590 / EYE = 826 / GAMMA RAY = 1101
BIT TO SENSOR OFFSETS: SURVEY = 52.43 FT. / GAMMA RAY = 43.18 FT.
RUN #2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSAR = 78-197 / CONT = 239 / EYE = 298 / GAMMA RAY = 1083
BIT TO SENSOR OFFSETS: SURVEY = 59.08 FT. / GAMMA RAY = 49.83 FT.
RUN #3: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSAR = 78-197 / CONT = 546 / EYE = 386 / GAMMA RAY = 1031
BIT TO SENSOR OFFSETS: SURVEY = 58.93 FT. / GAMMA RAY = 48.68 FT.
SURVEY WELL NOTES:
SURVEYS FROM 0.0 FT. TO 1252 FT. WERE ACQUIRED BY MS GYRO MWD.
SURVEYS FROM 1252 FT. TO 12954 FT. WERE ACQUIRED BY SCIENTIFIC DRILLING INTERNATIONAL MWD.
MNEMONICS LIST:
GR = GAMMA RAY

[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.

ANADARKO PETROLEUM CORP.
NRC 28C-8HZ
WATTENBERG FIELD
WELD COUNTY, COLORADO
05-123-39092



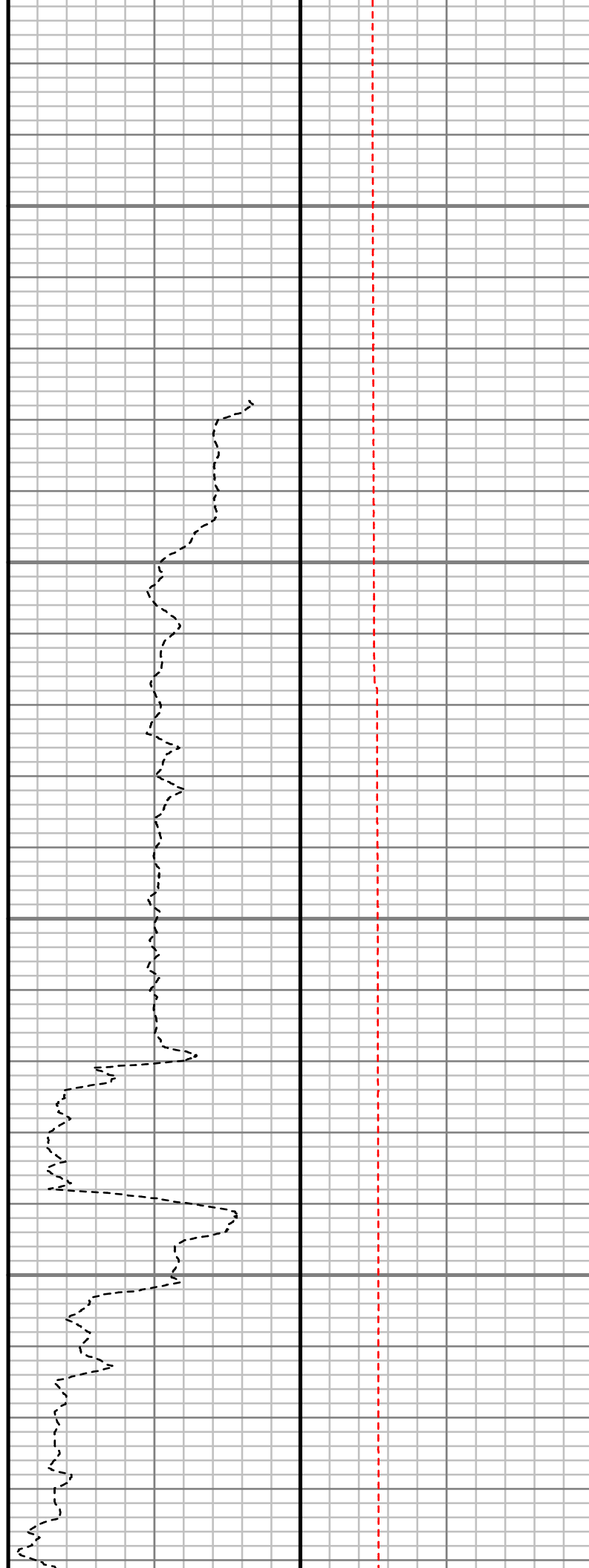


1400

1450

1500

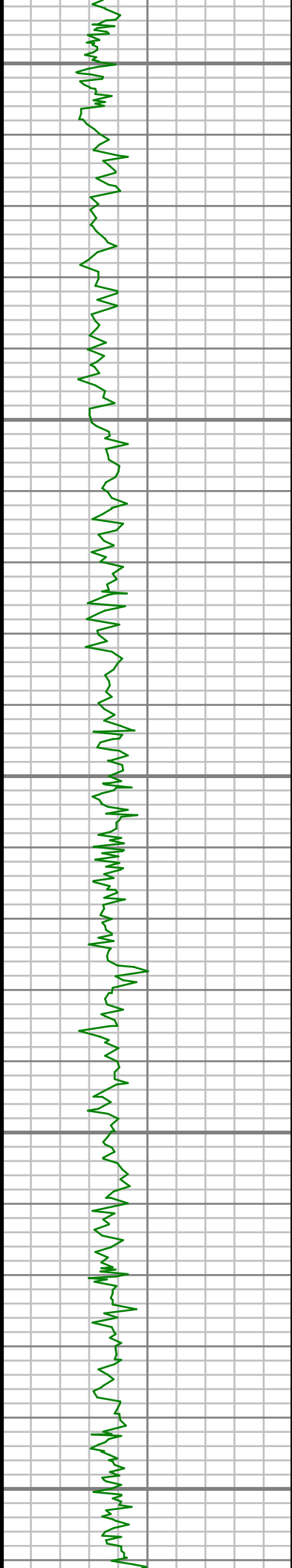
1550



S: 14 MD: 1373.00 ft
Inc: 0.34 deg Az:
284.61 deg TVD:
1372.96 ft

S: 15 MD: 1464.00 ft
Inc: 2.22 deg Az:
233.18 deg TVD:
1463.94 ft

S: 16 MD: 1573.00 ft
Inc: 4.84 deg Az:
237.34 deg TVD:
1572.72 ft



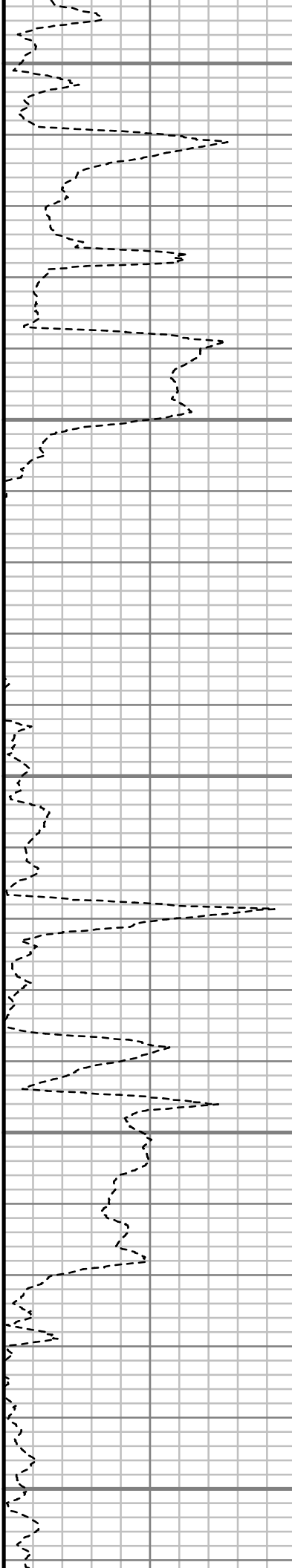
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1650

1700

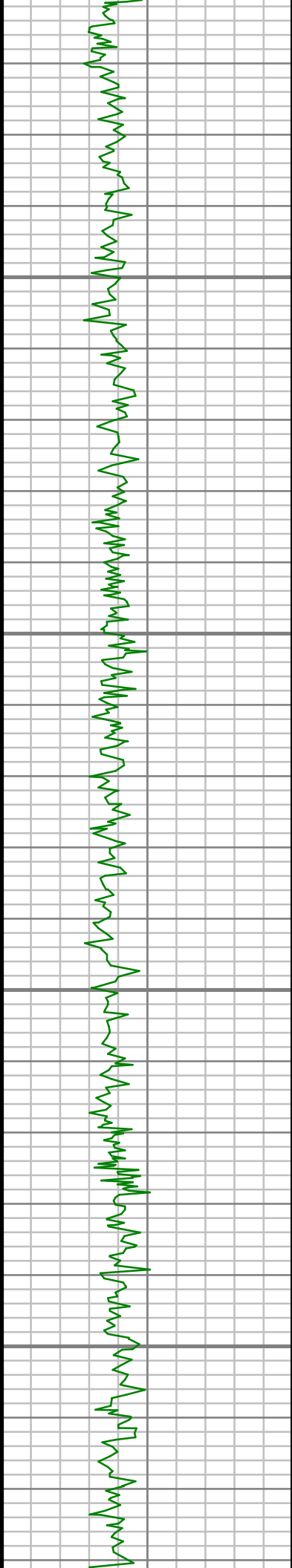
1750

1800



S: 17 MD: 1665.00 ft
Inc: 8.01 deg Az:
240.38 deg TVD:
1664.13 ft

S: 18 MD: 1757.00 ft
Inc: 10.13 deg Az:
237.93 deg TVD:
1754.98 ft

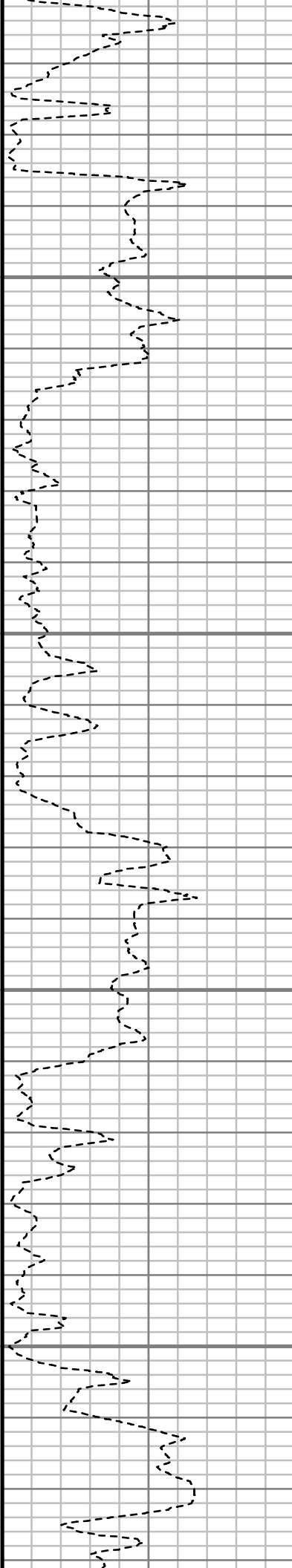


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1900

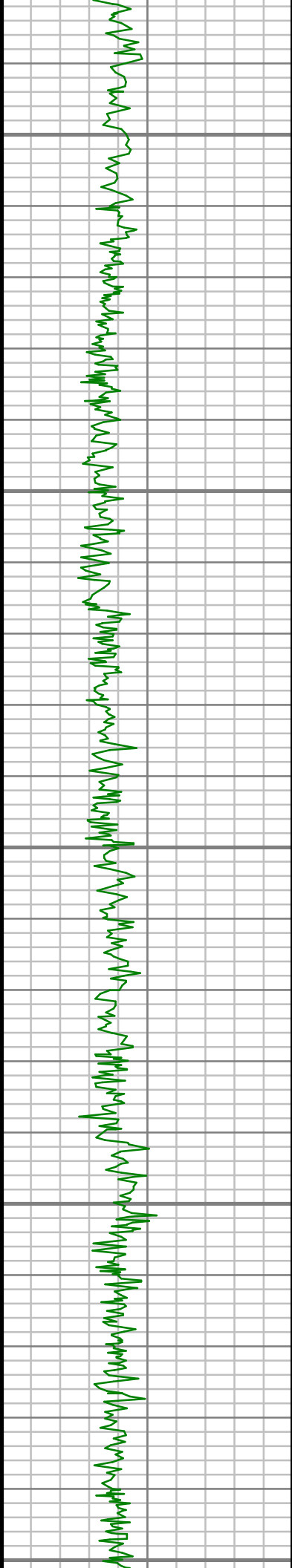
1950

2000



S: 19 MD: 1849.00 ft
Inc: 14.07 deg Az:
233.28 deg TVD:
1844.92 ft

S: 20 MD: 1941.00 ft
Inc: 16.42 deg Az:
224.04 deg TVD:
1933.68 ft



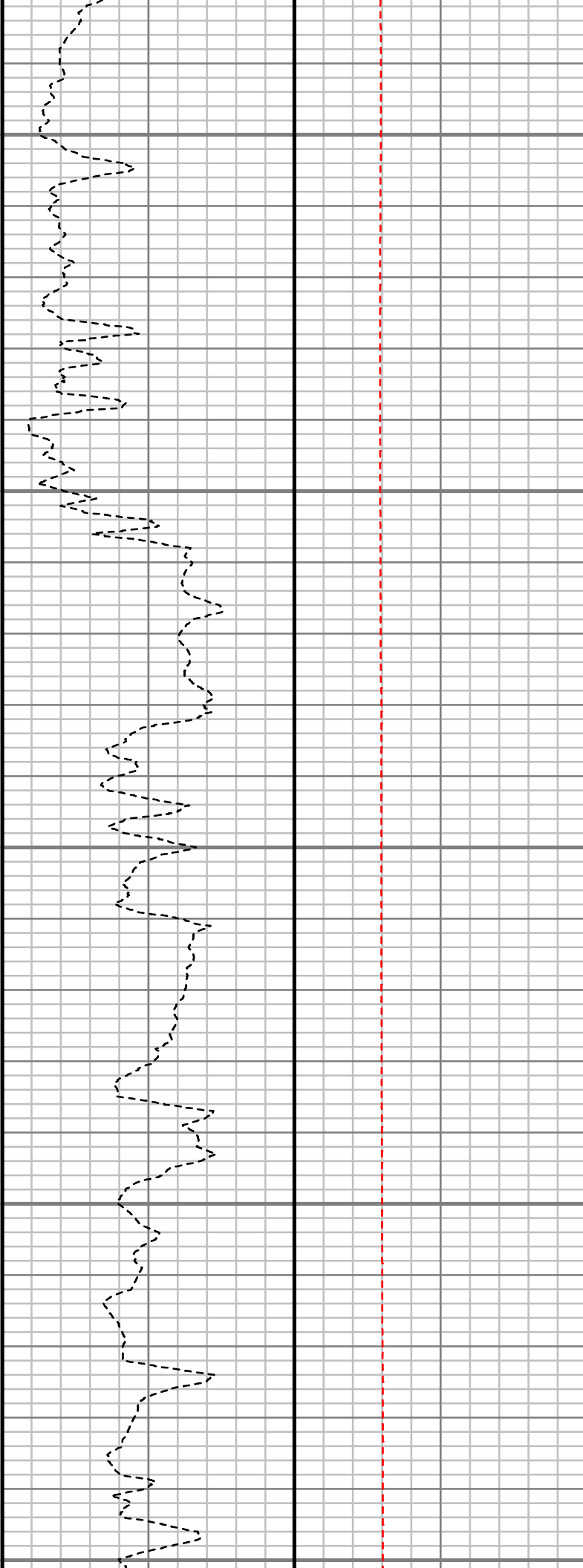
2050

2100

2150

2200

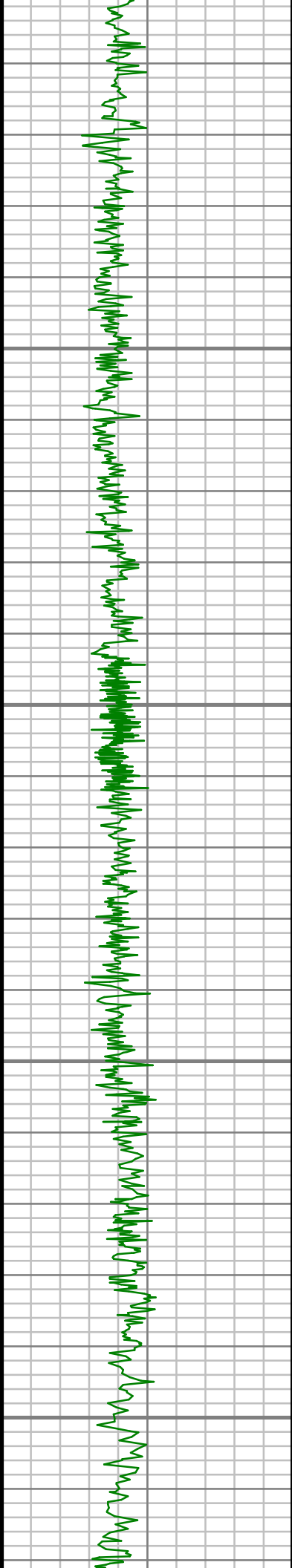
2250



S: 21 MD: 2032.00 ft
Inc: 16.59 deg Az:
219.56 deg TVD:
2020.94 ft

S: 22 MD: 2123.00 ft
Inc: 18.38 deg Az:
210.56 deg TVD:
2107.75 ft

S: 23 MD: 2215.00 ft
Inc: 17.42 deg Az:
210.09 deg TVD:
2195.29 ft

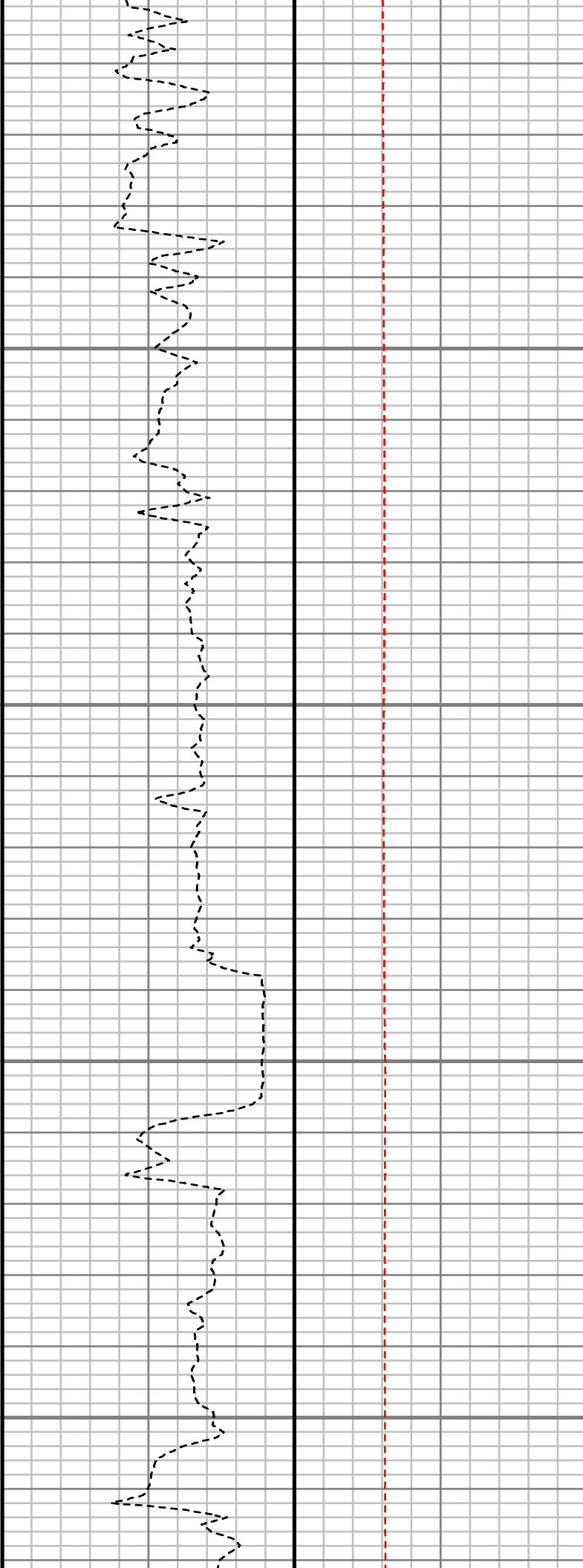


2300

2350

2400

2450



S: 24 MD: 2397.00 ft
Inc: 16.99 deg Az:
215.46 deg TVD:
2369.16 ft

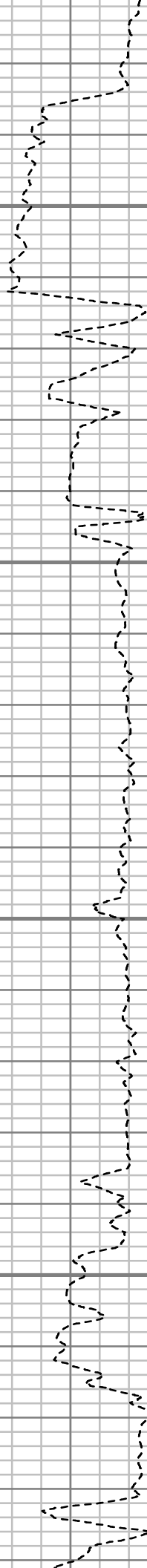


2500

2550

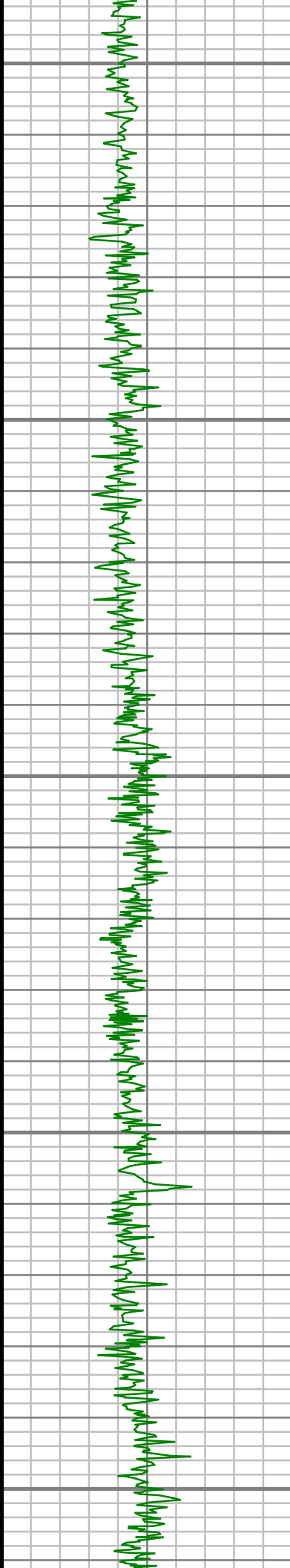
2600

2650



S: 25 MD: 2488.00 ft
Inc: 18.37 deg Az:
207.69 deg TVD:
2455.87 ft

S: 26 MD: 2580.00 ft
Inc: 17.20 deg Az:
207.60 deg TVD:
2543.47 ft



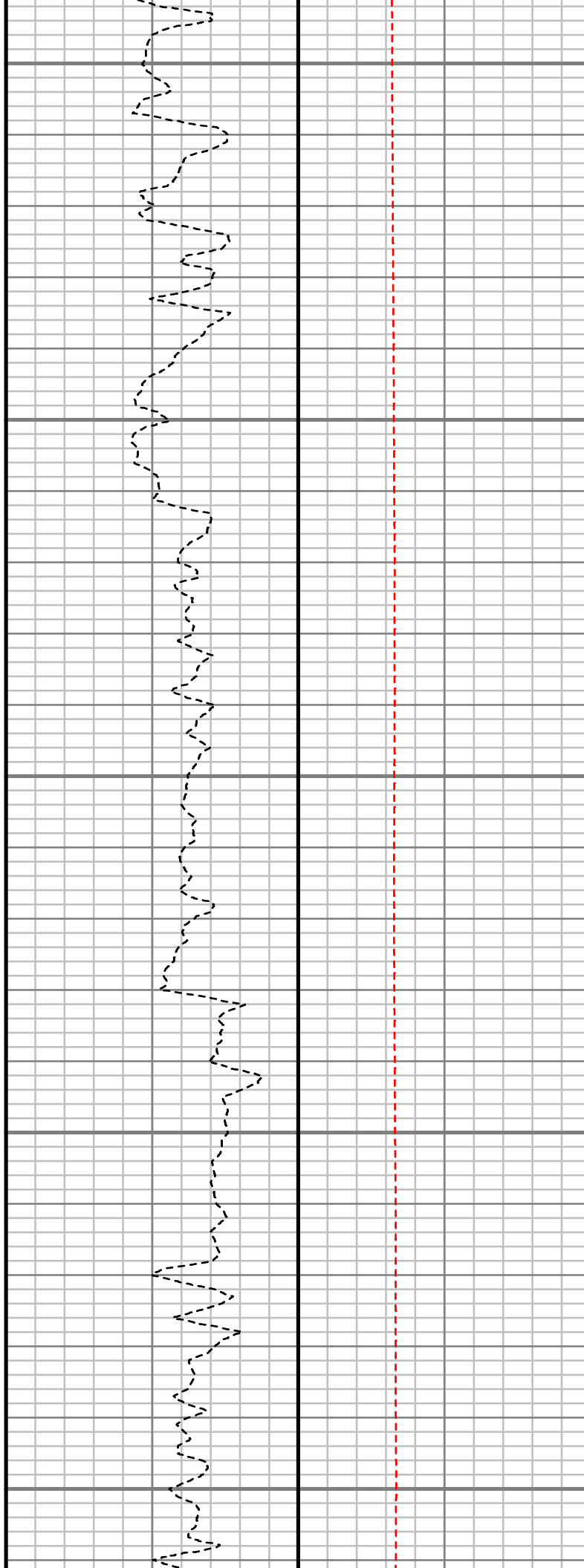
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2750

2800

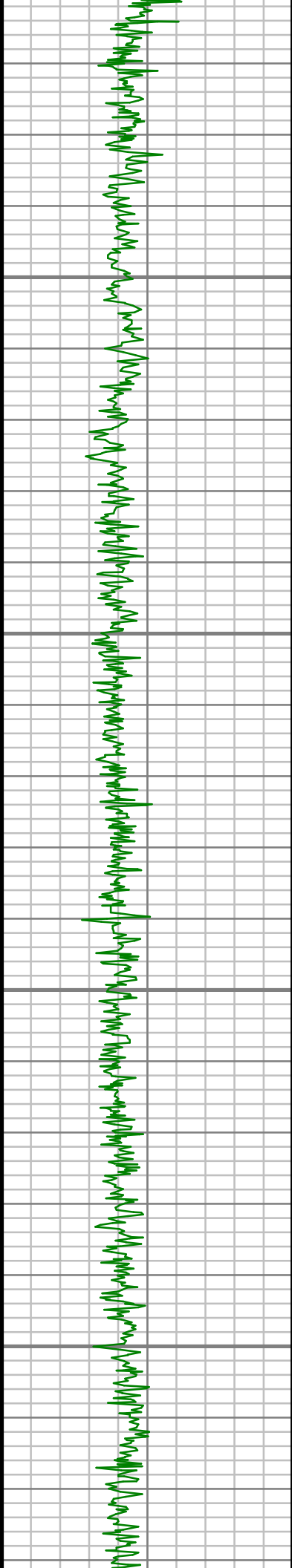
2850

2900



S: 27 MD: 2763.00 ft
Inc: 13.92 deg Az:
198.78 deg TVD:
2719.77 ft

S: 28 MD: 2854.00 ft
Inc: 14.54 deg Az:
205.73 deg TVD:
2807.98 ft

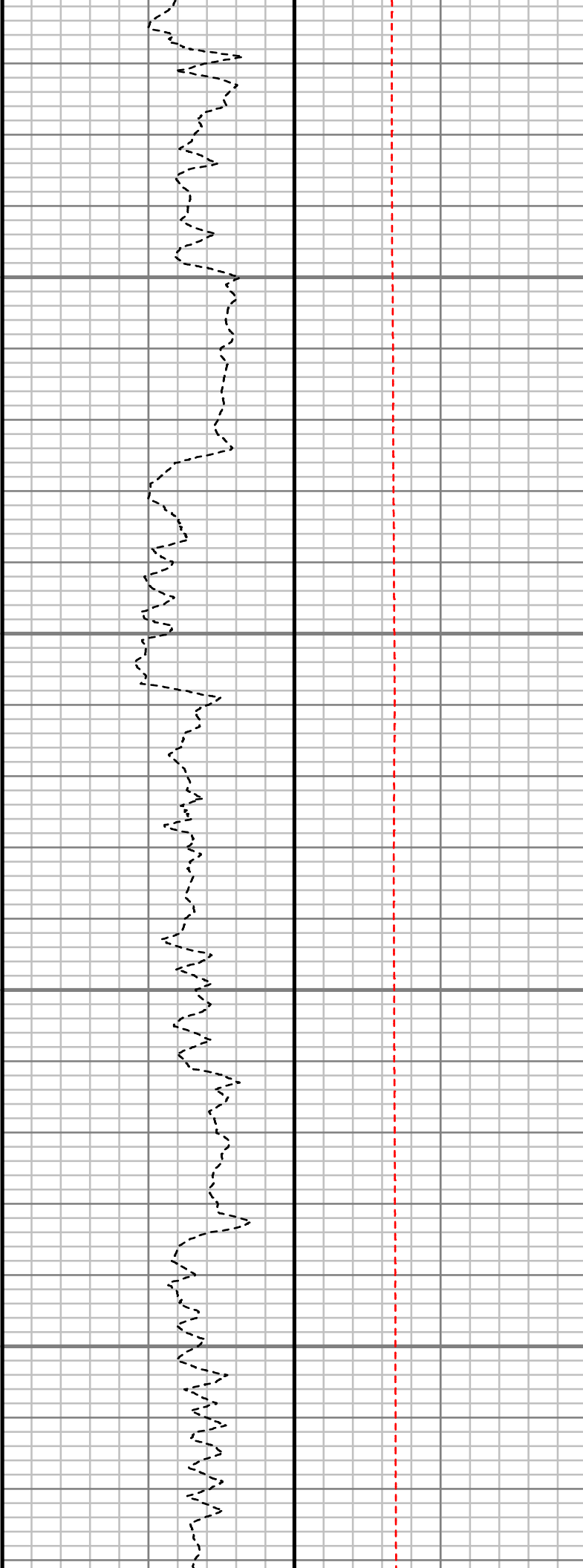


2950

3000

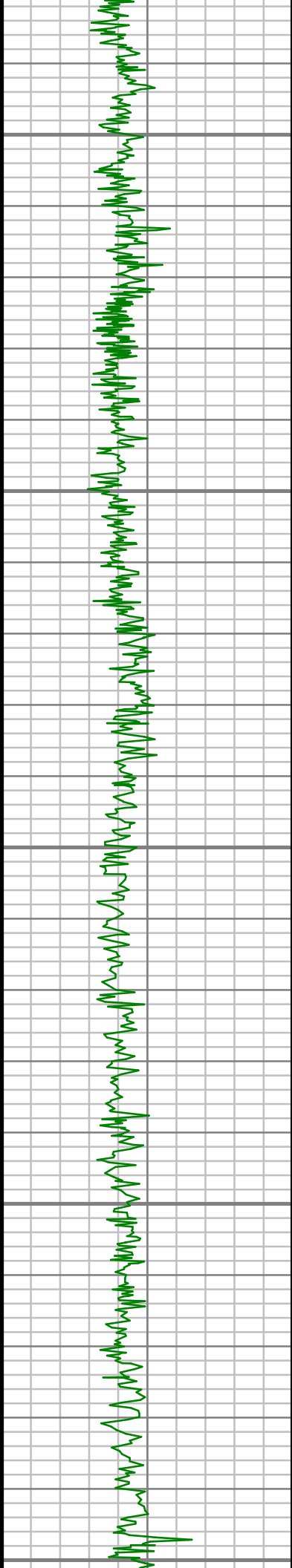
3050

3100



S: 29 MD: 3037.00 ft
Inc: 17.23 deg Az:
214.53 deg TVD:
2984.01 ft

S: 30 MD: 3129.00 ft



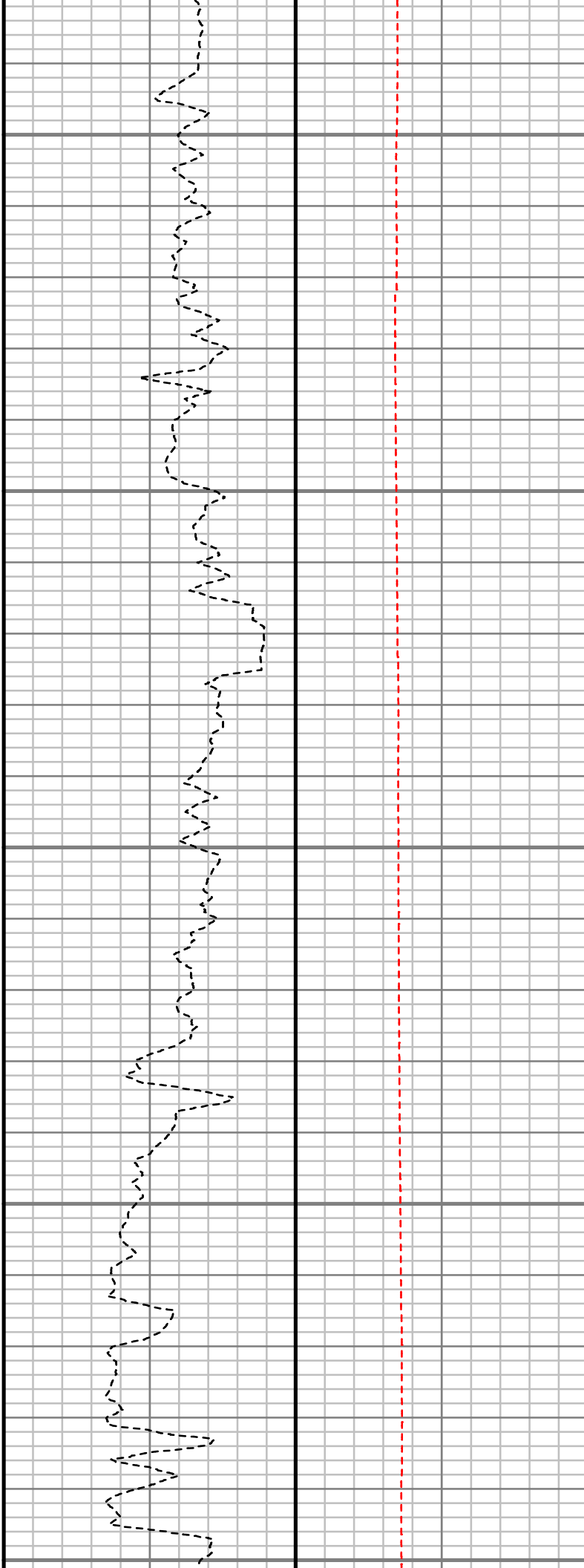
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3200

3250

3300

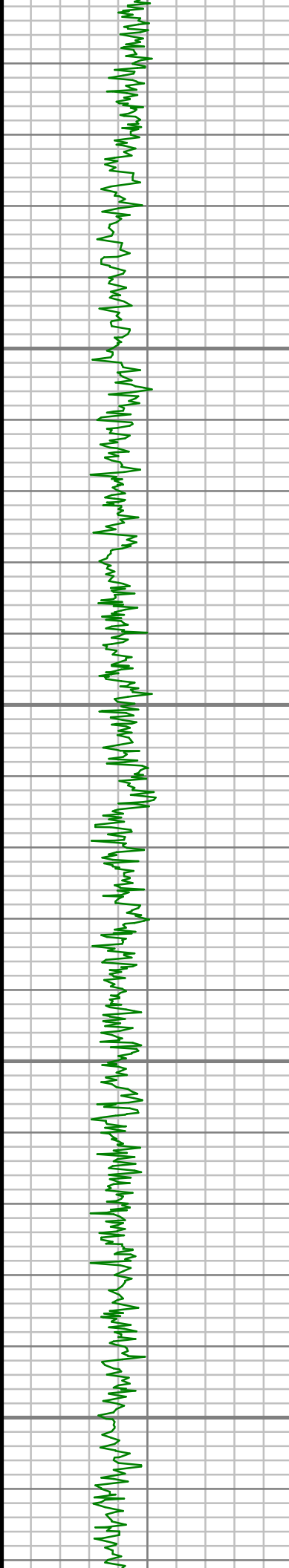
3350



Inc: 18.67 deg Az:
212.62 deg TVD:
3071.53 ft

S: 31 MD: 3220.00 ft
Inc: 18.47 deg Az:
206.11 deg TVD:
3157.80 ft

S: 32 MD: 3312.00 ft
Inc: 17.22 deg Az:
206.16 deg TVD:
3245.37 ft

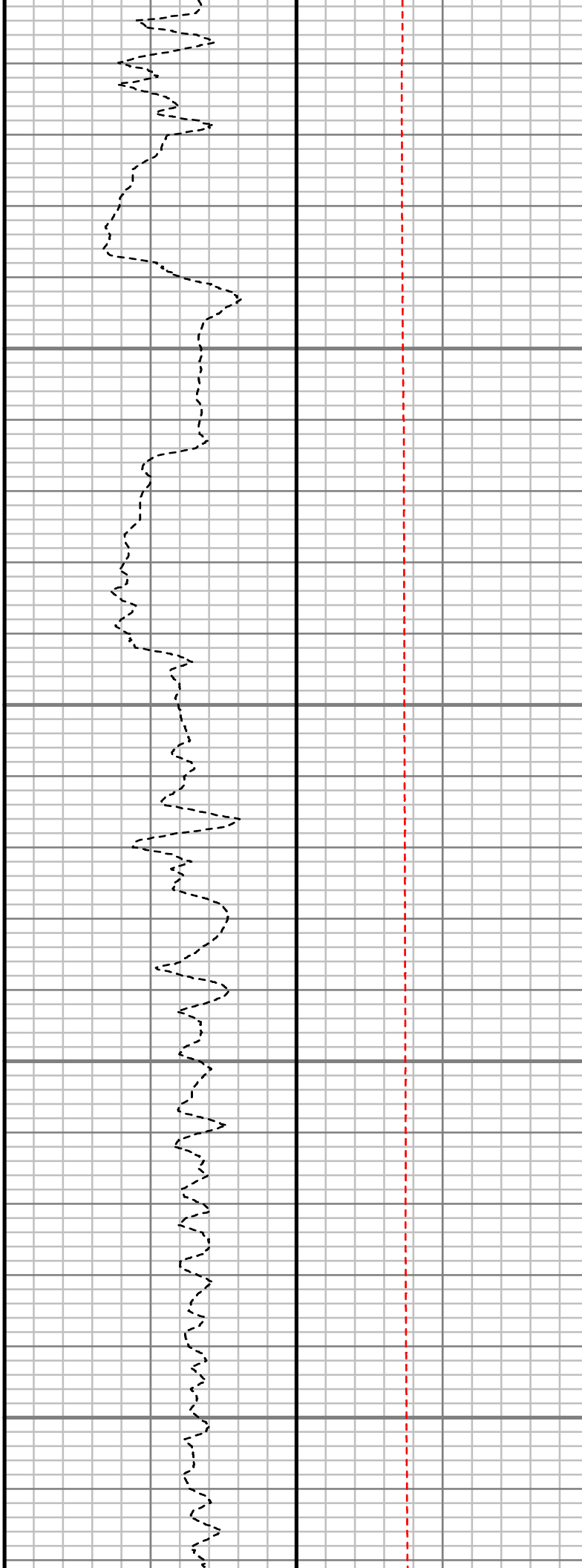


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3450

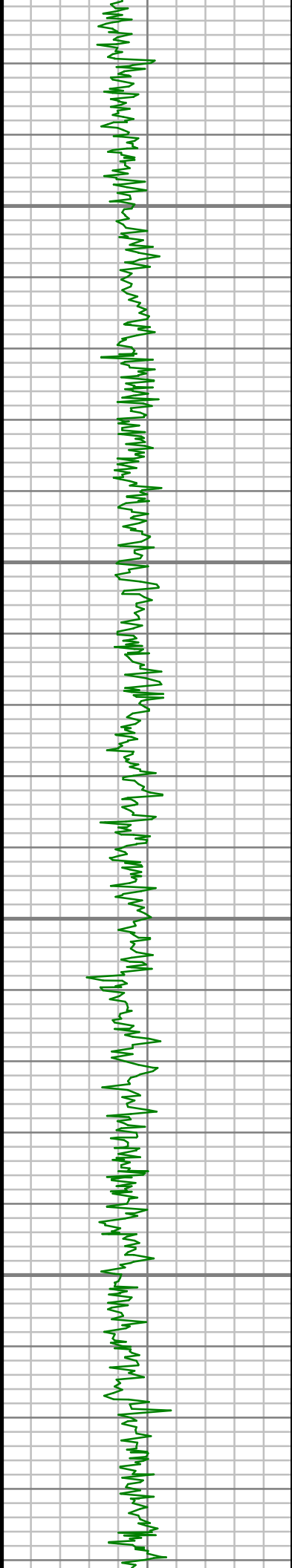
3500

3550



S: 33 MD: 3406.00 ft
Inc: 17.52 deg Az:
206.93 deg TVD:
3335.08 ft

S: 34 MD: 3501.00 ft
Inc: 17.00 deg Az:
204.06 deg TVD:
3425.80 ft

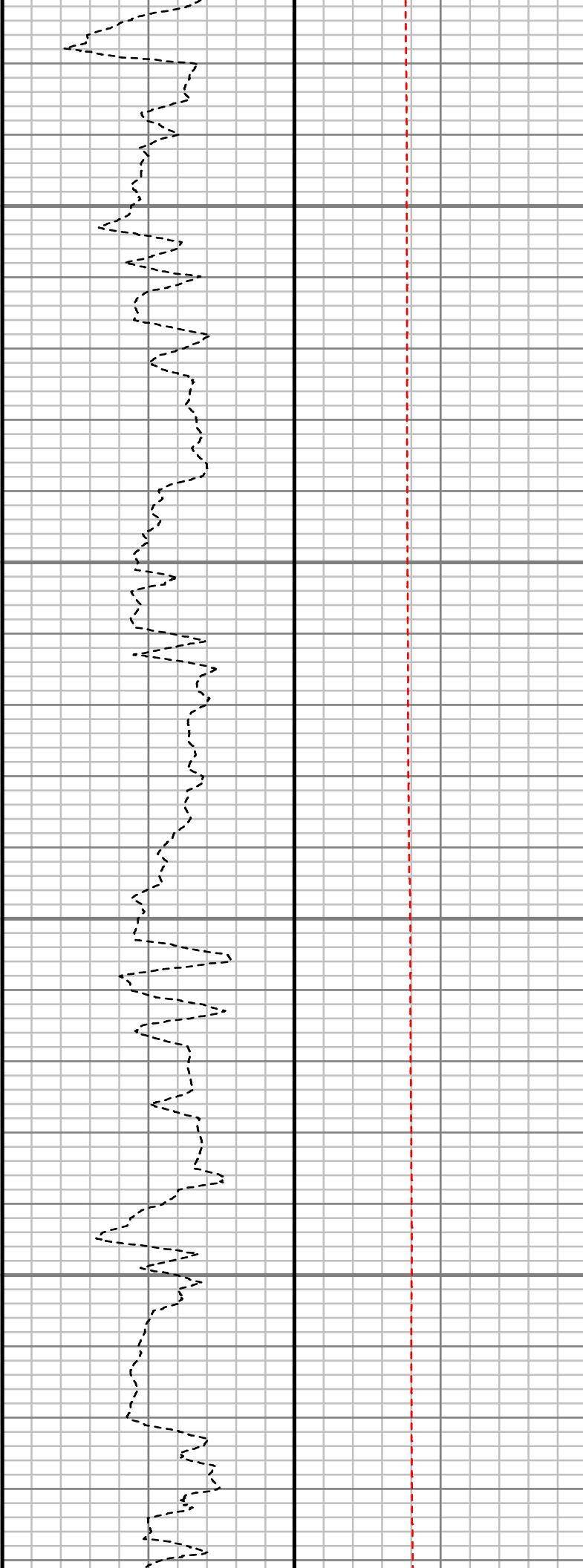


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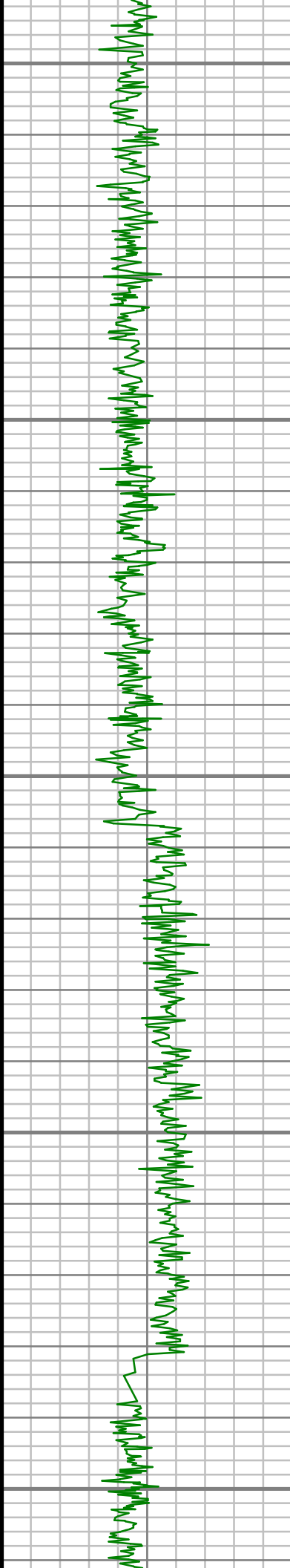
3700

3750



S: 35 MD: 3595.00 ft
Inc: 14.62 deg Az:
204.10 deg TVD:
3516.24 ft

S: 36 MD: 3690.00 ft
Inc: 15.60 deg Az:
208.92 deg TVD:
3607.96 ft



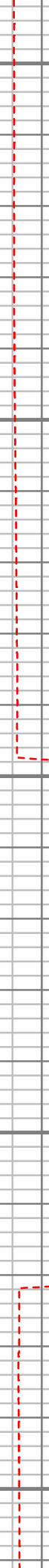
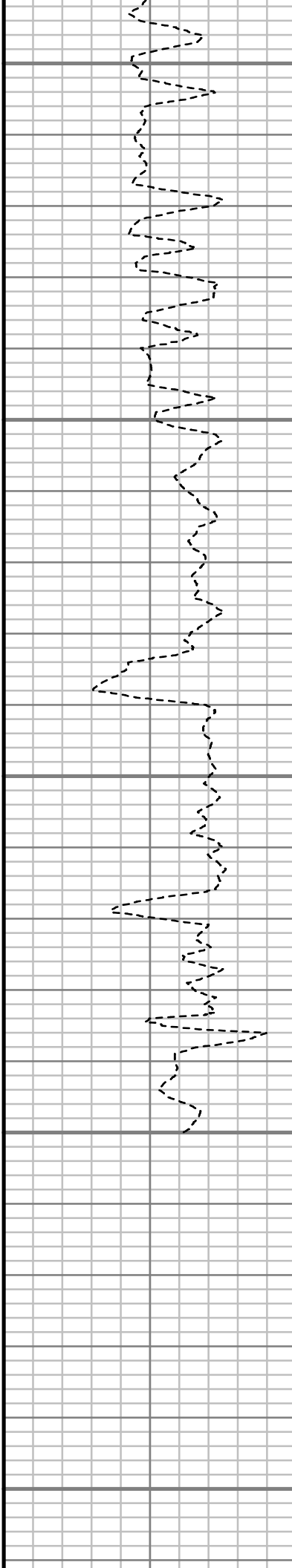
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3850

3900

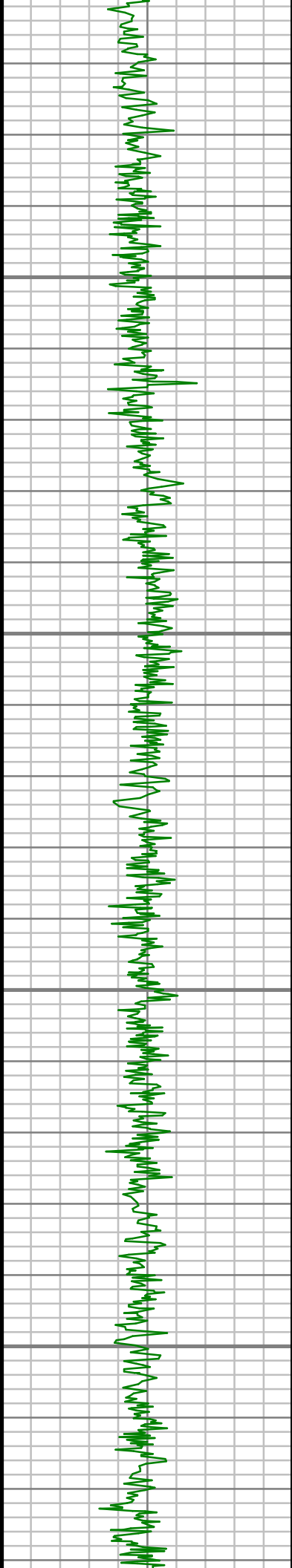
3950

4000



S: 37 MD: 3878.00 ft
Inc: 14.03 deg Az:
211.10 deg TVD:
3789.71 ft

S: 38 MD: 3973.00 ft
Inc: 14.06 deg Az:
208.00 deg TVD:
3881.87 ft

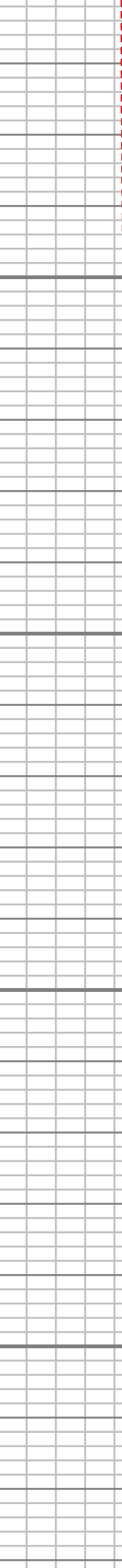
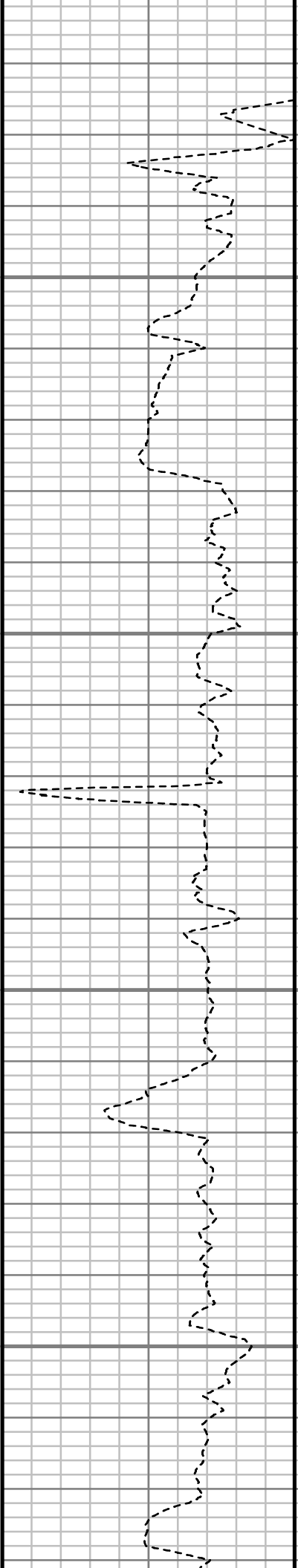


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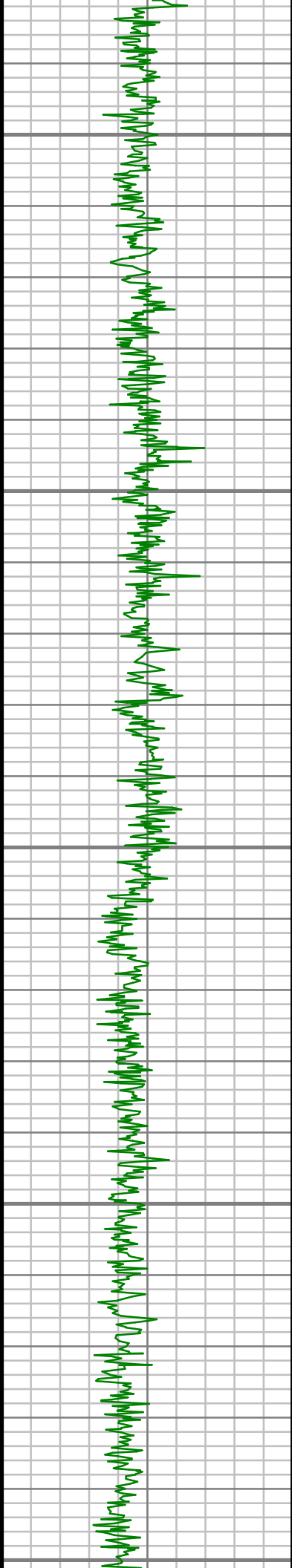
4100

4150

4200



S: 39 MD: 4162.00 ft
Inc: 12.74 deg Az:
212.02 deg TVD:
4065.72 ft



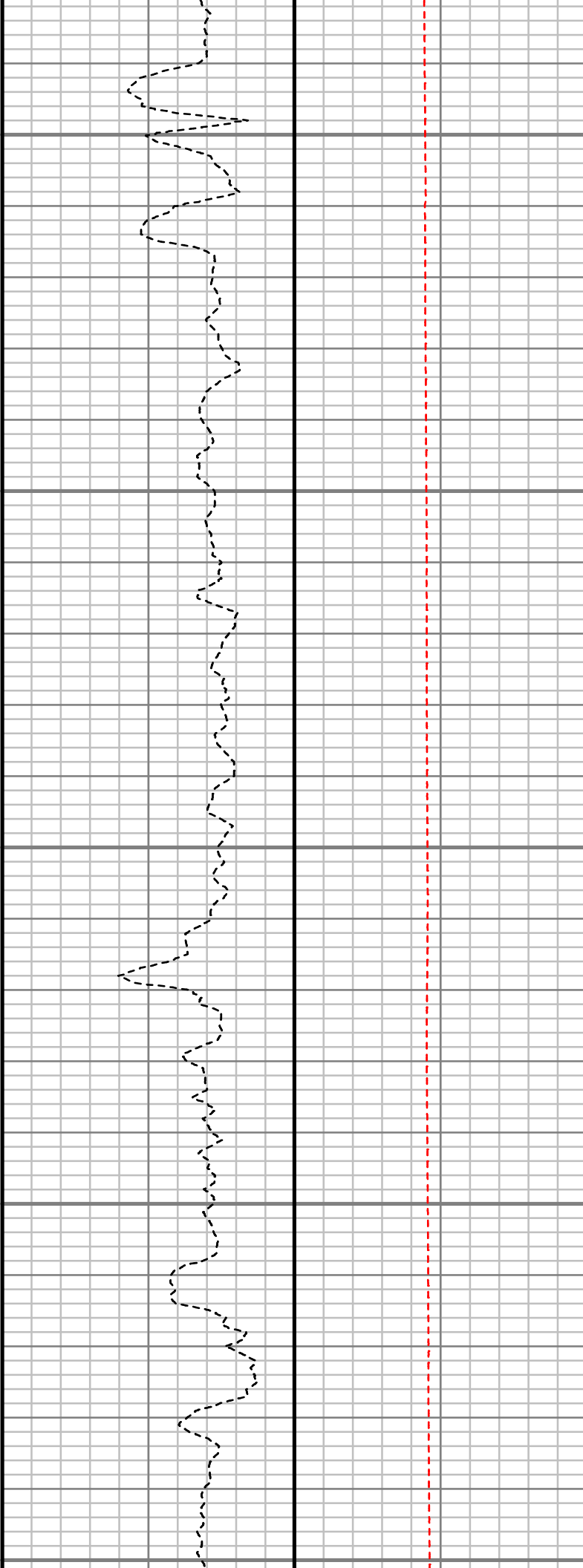
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4300

4350

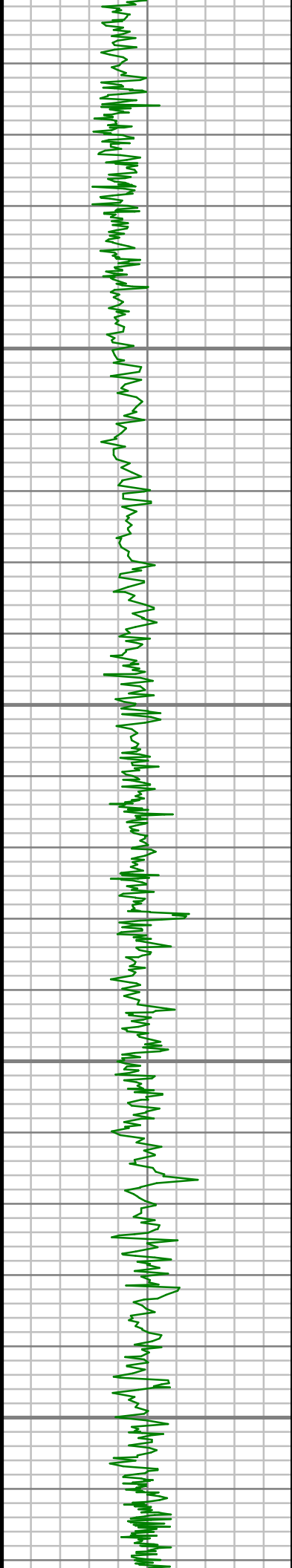
4400

4450



S: 40 MD: 4350.00 ft
Inc: 13.37 deg Az:
210.94 deg TVD:
4248.86 ft

S: 41 MD: 4445.00 ft
Inc: 14.07 deg Az:
203.30 deg TVD:

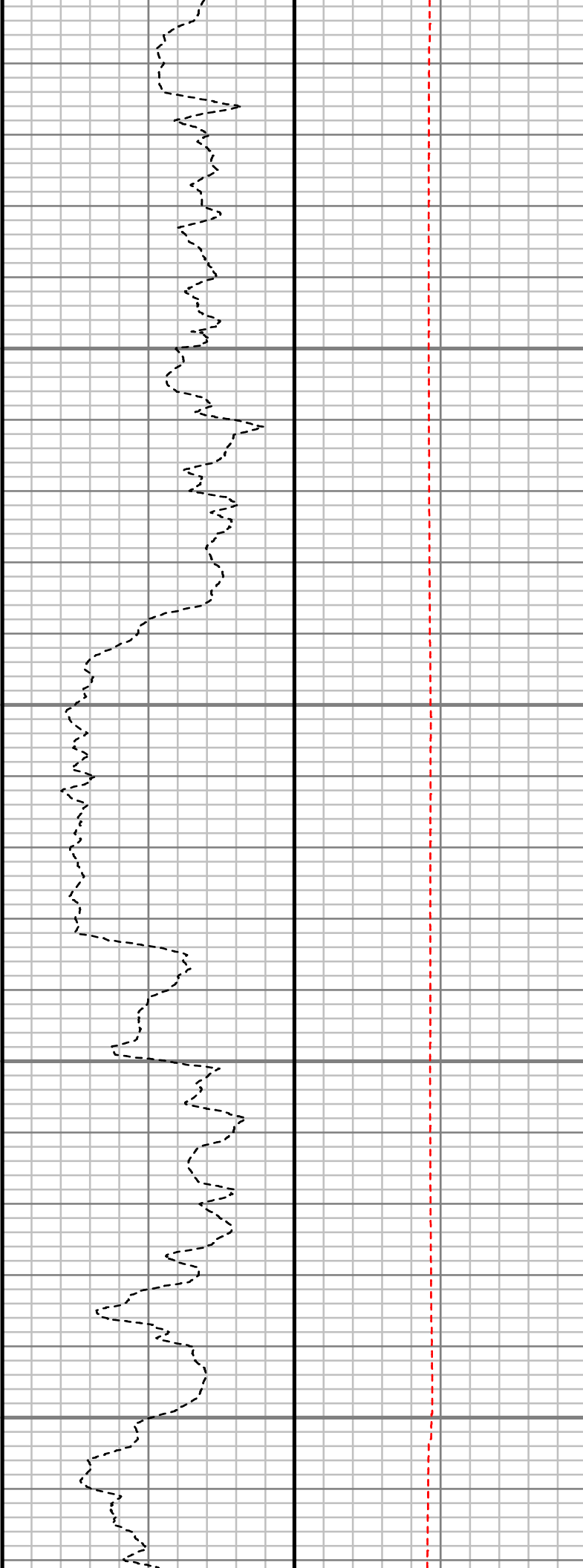


4500

4550

4600

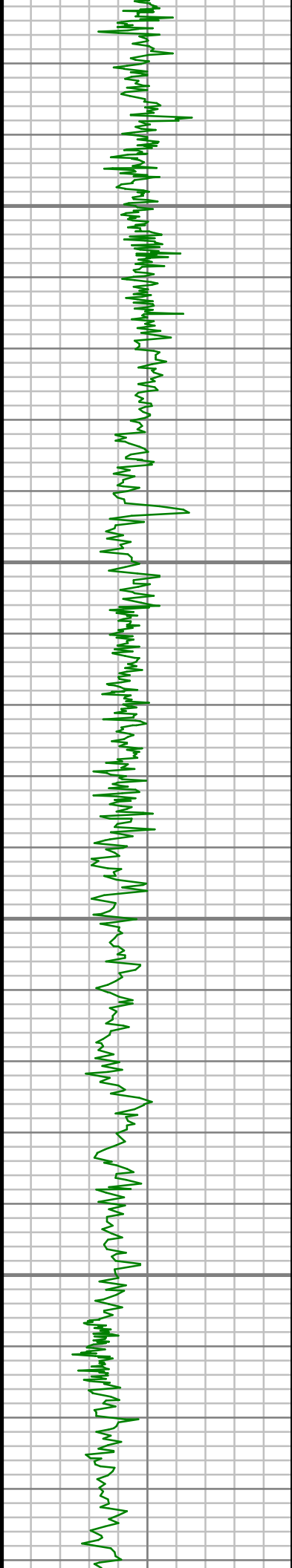
4650



203.39 deg TVD:
4341.15 ft

S: 42 MD: 4539.00 ft
Inc: 15.84 deg Az:
204.38 deg TVD:
4431.97 ft

S: 43 MD: 4633.00 ft
Inc: 15.60 deg Az:
201.36 deg TVD:
4522.45 ft

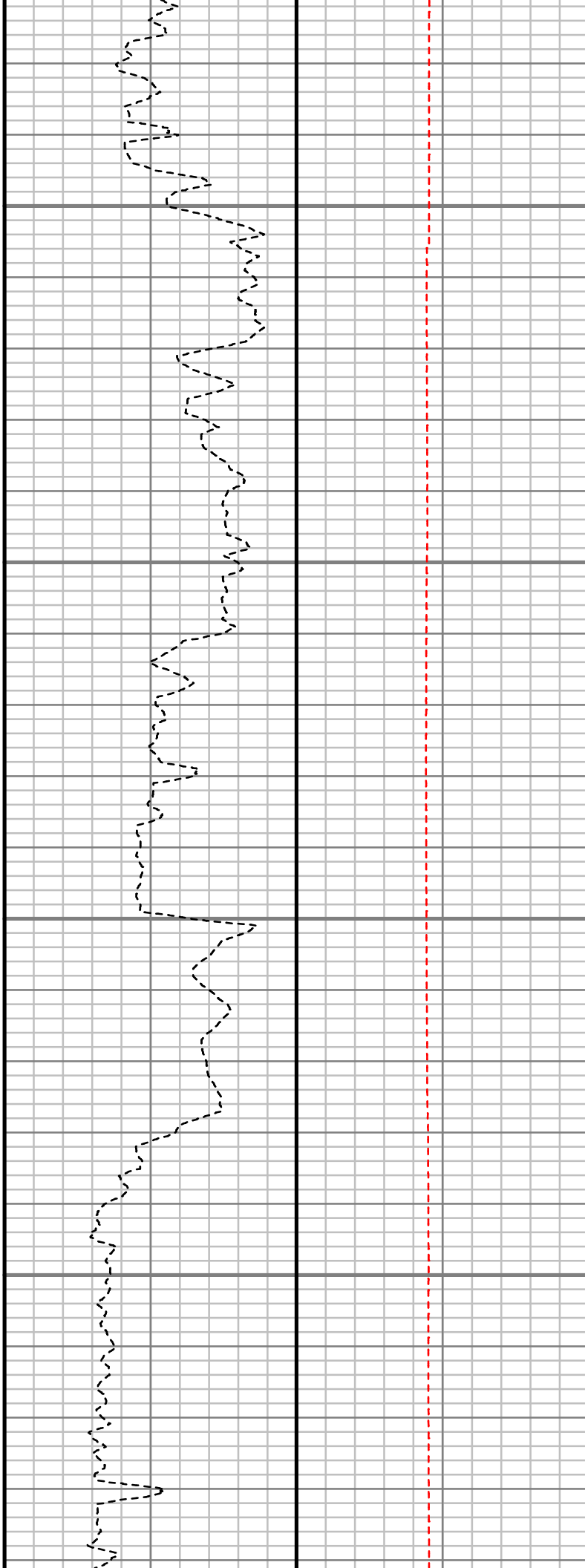


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4750

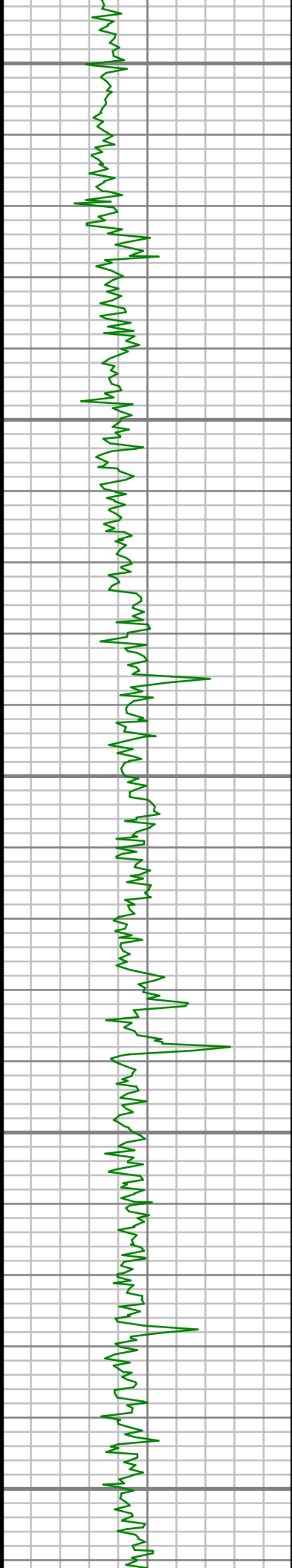
4800

4850



S: 44 MD: 4728.00 ft
Inc: 14.45 deg Az:
205.11 deg TVD:
4614.20 ft

S: 45 MD: 4822.00 ft
Inc: 15.72 deg Az:
201.75 deg TVD:
4704.96 ft



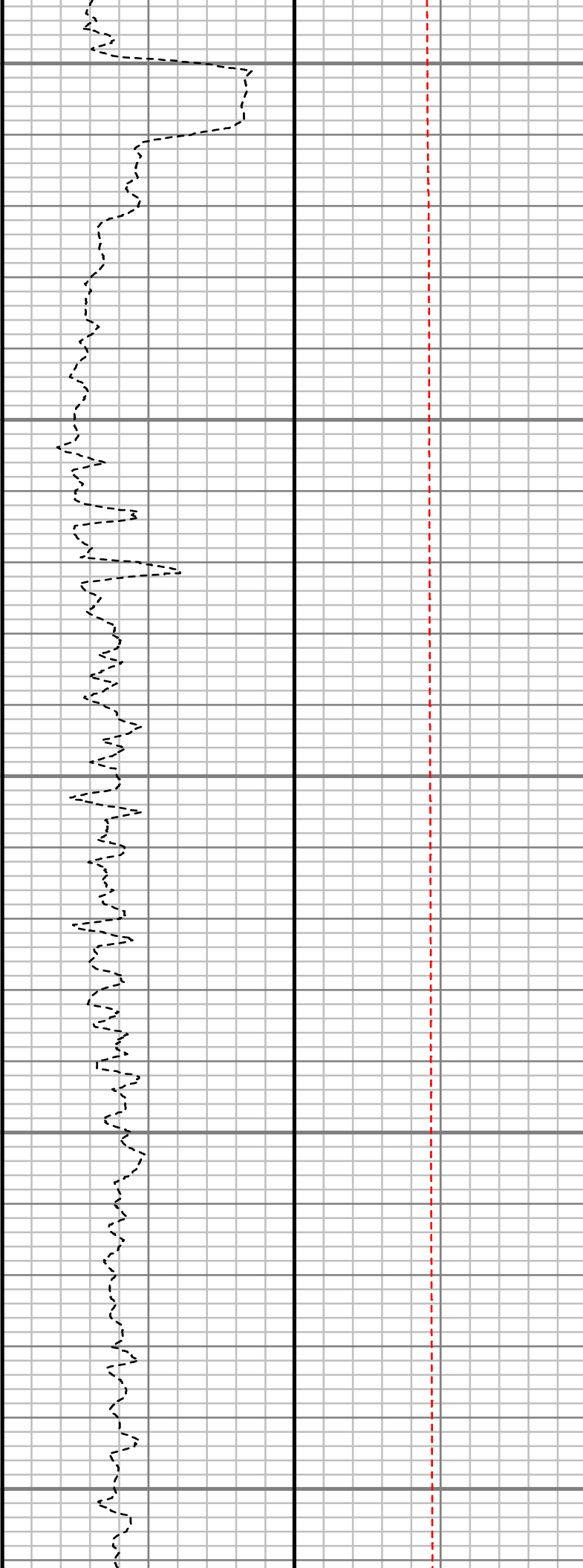
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4950

5000

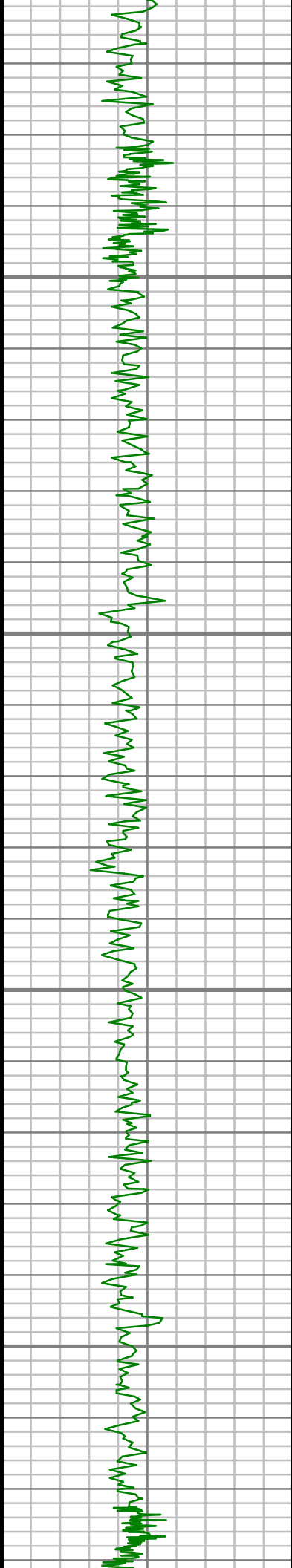
5050

5100



S: 46 MD: 4917.00 ft
Inc: 16.75 deg Az:
208.68 deg TVD:
4796.18 ft

S: 47 MD: 5011.00 ft
Inc: 15.36 deg Az:
208.59 deg TVD:
4886.51 ft

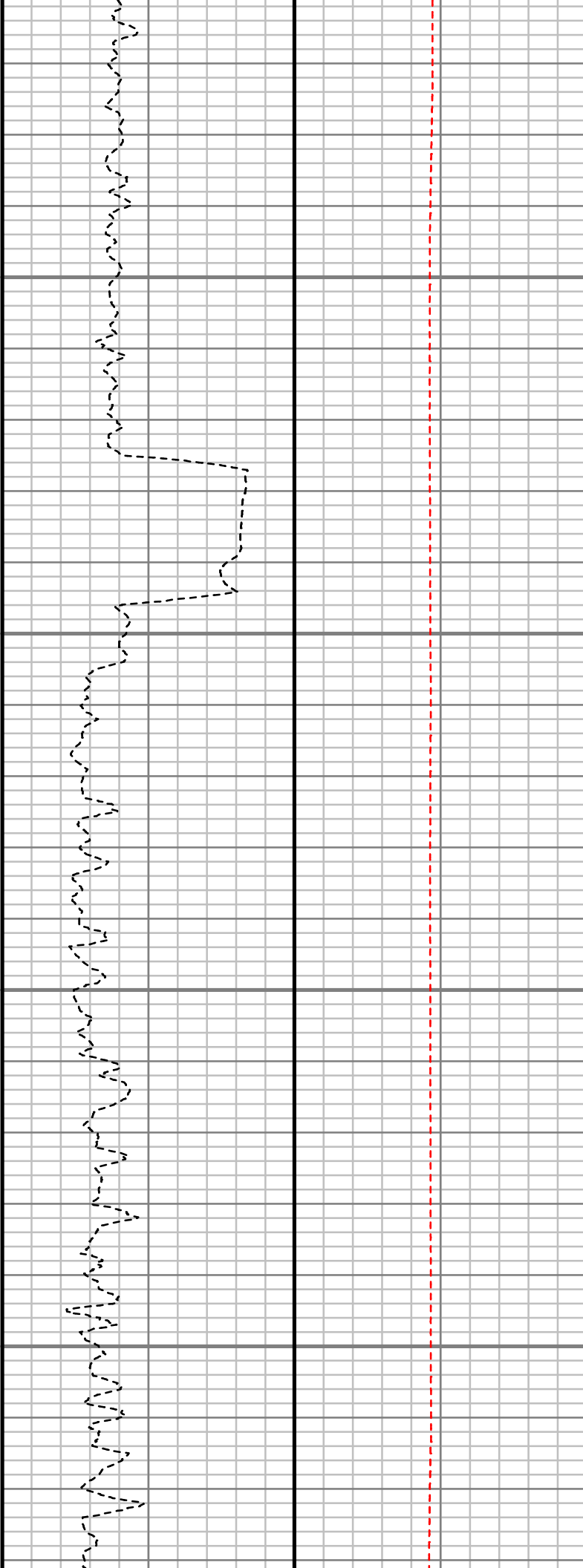


5150

5200

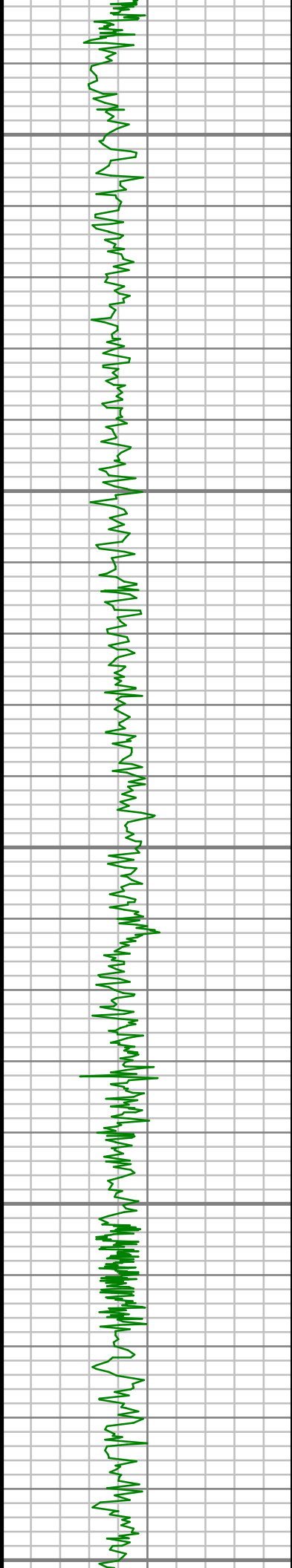
5250

5300



S: 48 MD: 5199.00 ft
Inc: 13.89 deg Az:
210.47 deg TVD:
5068.42 ft

S: 49 MD: 5293.00 ft
Inc: 11.62 deg Az:
206.52 deg TVD:
5160.09 ft



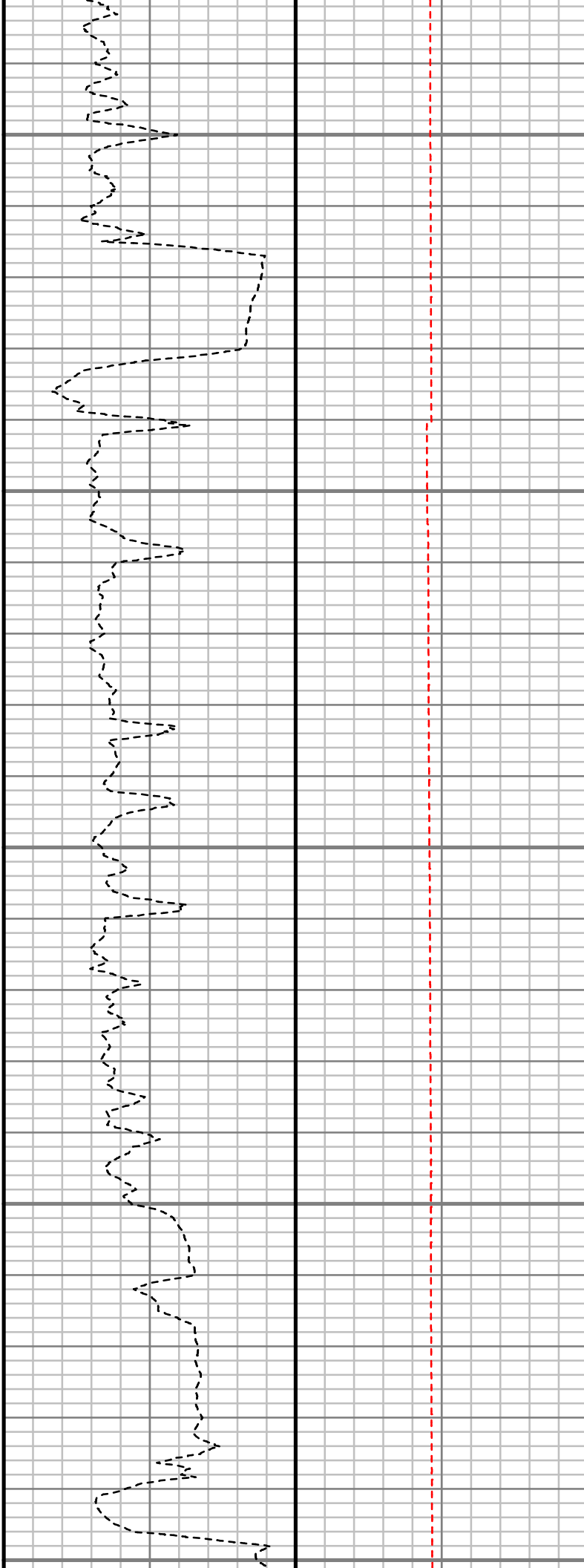
5350

5400

5450

5500

5550



S: 50 MD: 5388.00 ft
Inc: 12.04 deg Az:
208.24 deg TVD:
5253.07 ft

S: 51 MD: 5482.00 ft
Inc: 10.46 deg Az:
203.30 deg TVD:
5345.27 ft

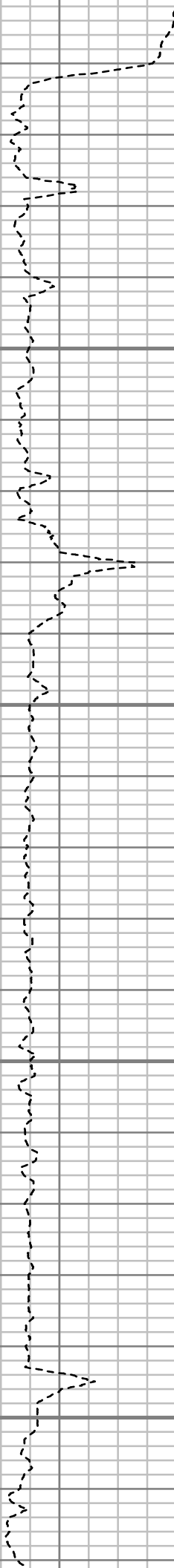


5600

5650

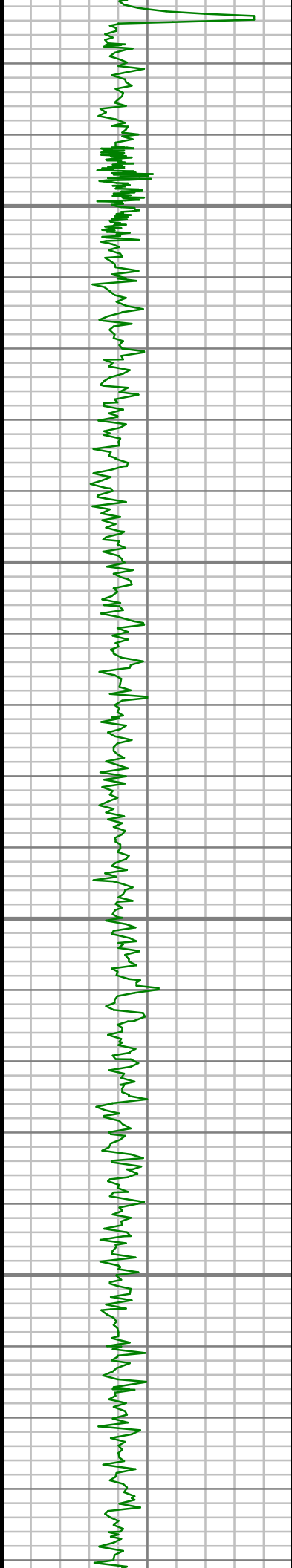
5700

5750



S: 52 MD: 5576.00 ft
Inc: 10.63 deg Az:
209.53 deg TVD:
5437.68 ft

S: 53 MD: 5671.00 ft
Inc: 8.53 deg Az:
208.86 deg TVD:
5531.35 ft

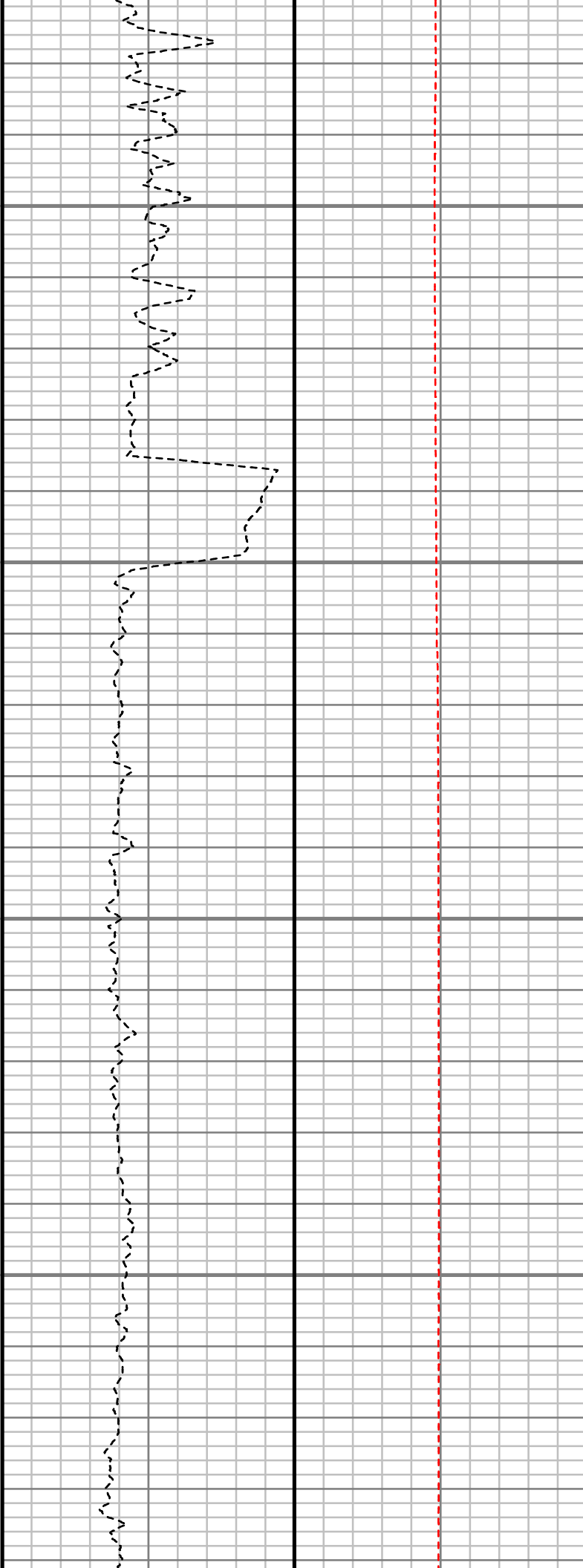


5800

5850

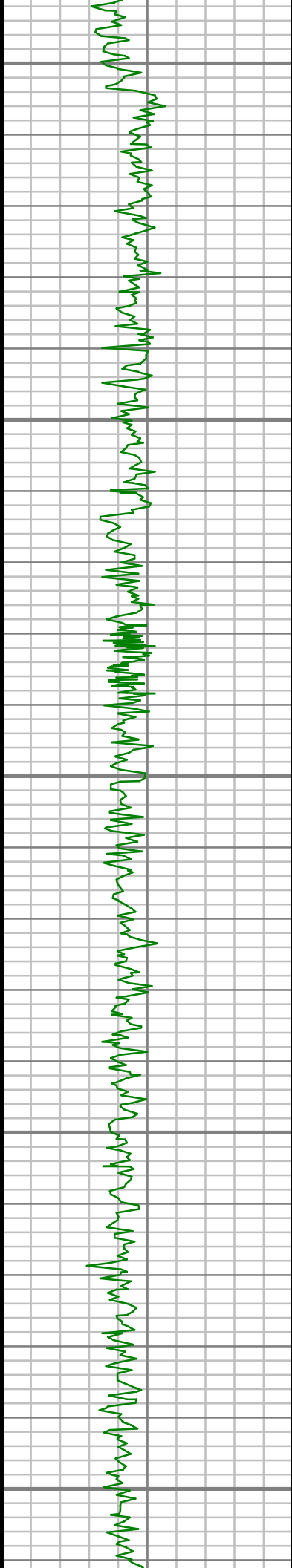
5900

5950



S: 54 MD: 5860.00 ft
Inc: 6.26 deg Az:
209.23 deg TVD:
5718.77 ft

S: 55 MD: 5954.00 ft
Inc: 5.27 deg Az:
201.73 deg TVD:
5812.29 ft



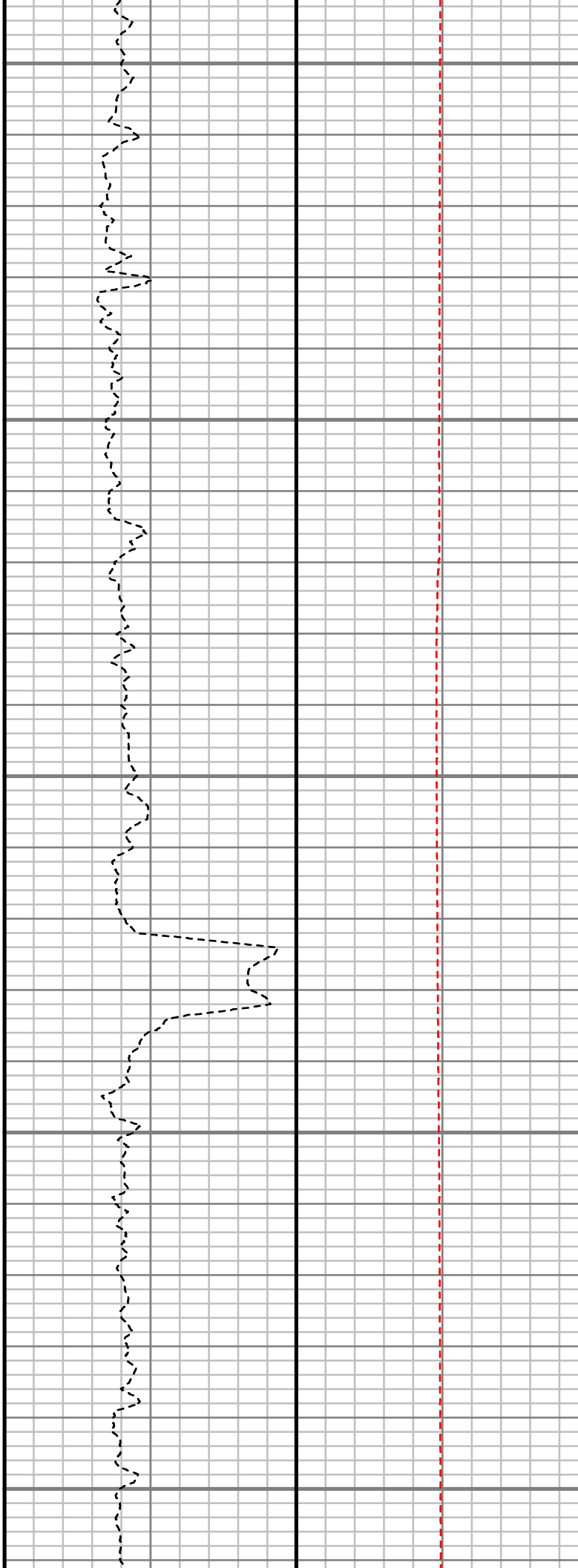
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6050

6100

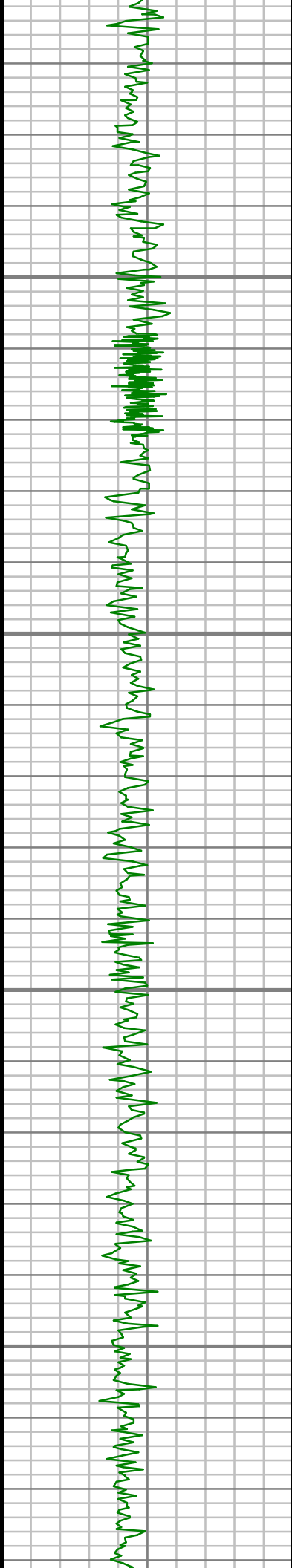
6150

6200



S: 56 MD: 6048.00 ft
Inc: 3.56 deg Az:
187.18 deg TVD:
5906.01 ft

S: 57 MD: 6143.00 ft
Inc: 1.71 deg Az:
204.44 deg TVD:
6000.91 ft

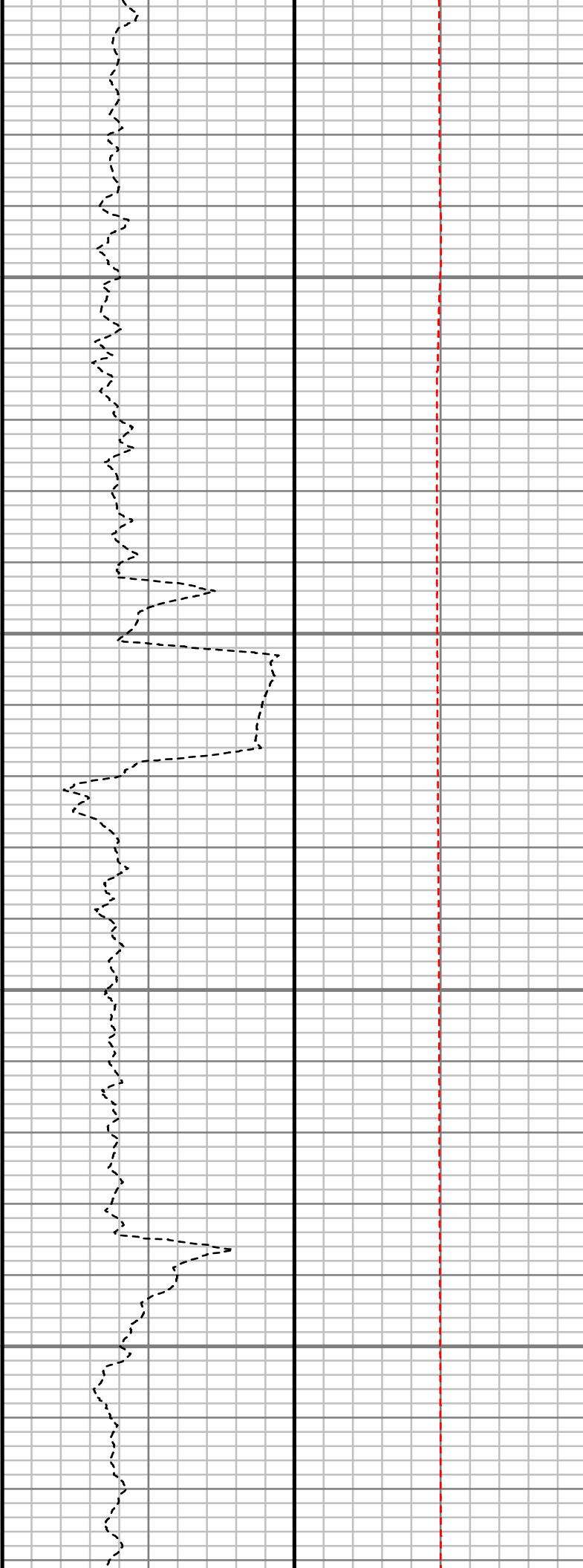


6250

6300

6350

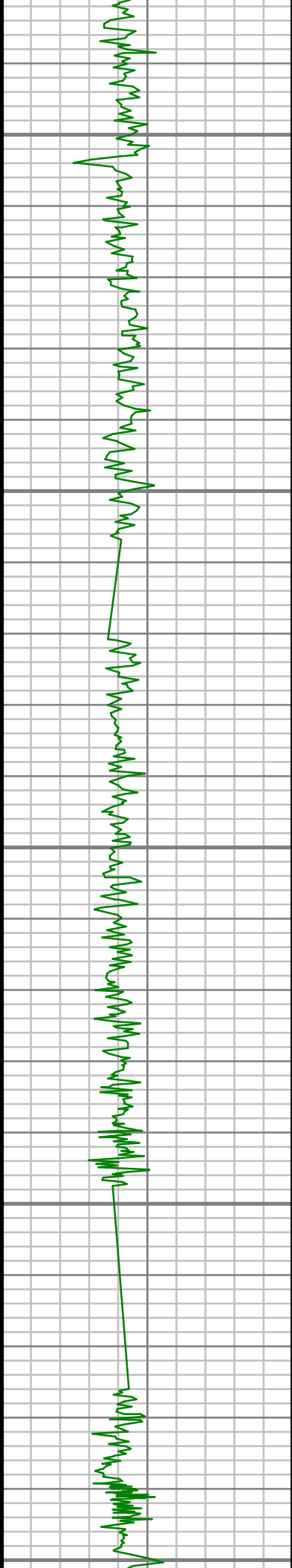
6400



S: 58 MD: 6237.00 ft
Inc: 1.98 deg Az:
184.10 deg TVD:
6094.86 ft

S: 59 MD: 6332.00 ft
Inc: 1.41 deg Az:
328.76 deg TVD:
6189.84 ft

S: 60 MD: 6426.00 ft
Inc: 1.10 deg Az:



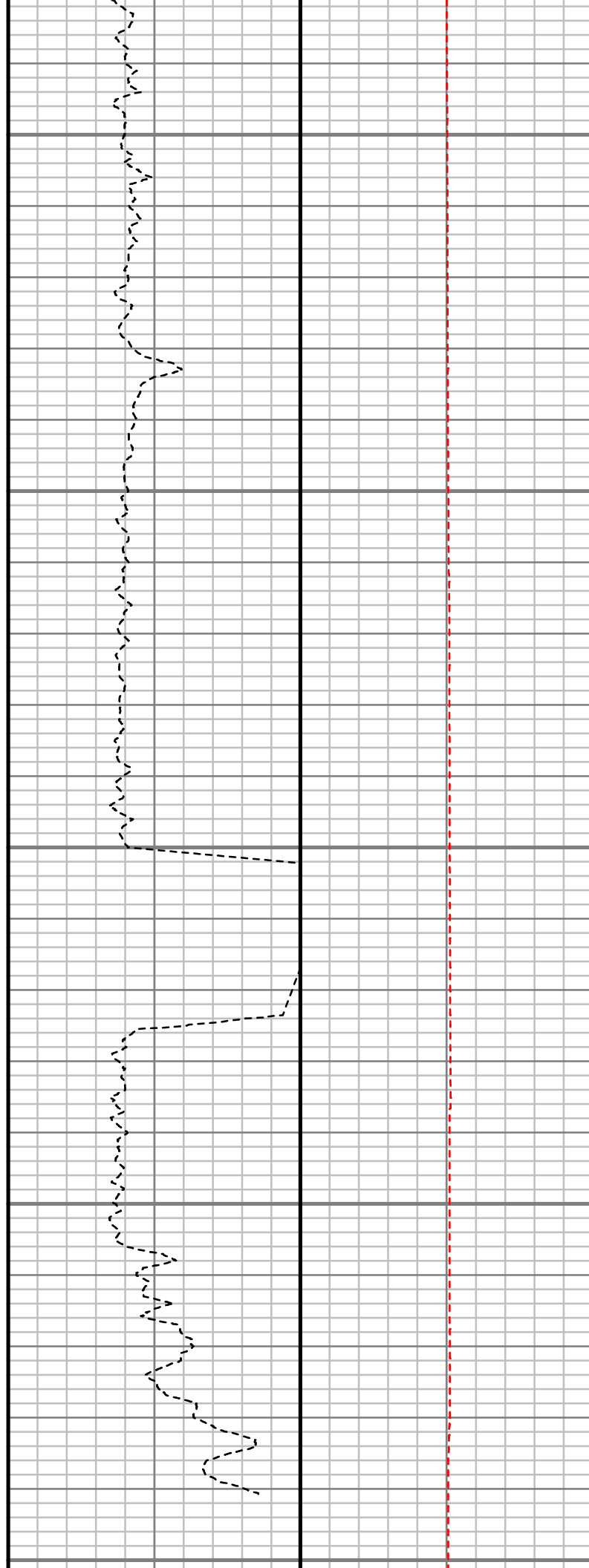
6450

6500

6550

6600

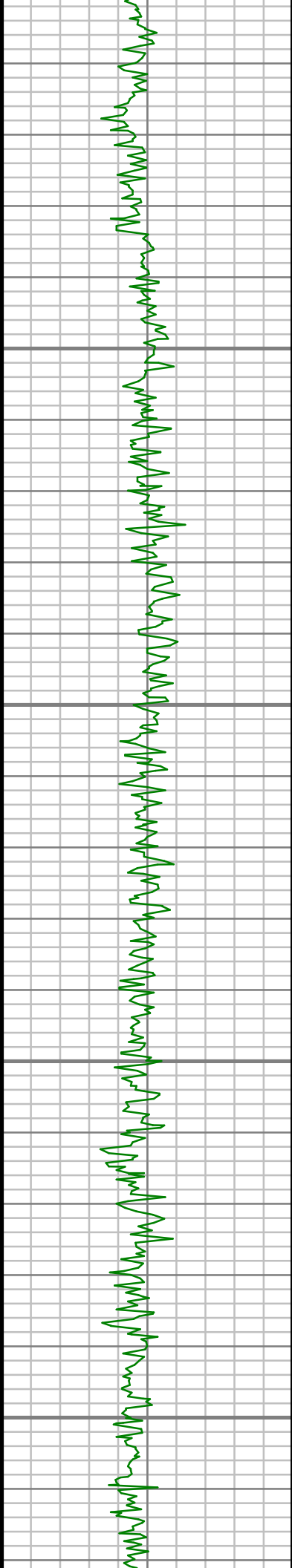
6650



318.72 deg TVD:
6283.82 ft

S: 61 MD: 6520.00 ft
Inc: 0.75 deg Az:
303.87 deg TVD:
6377.81 ft

S: 62 MD: 6614.00 ft
Inc: 0.98 deg Az:
337.26 deg TVD:
6471.80 ft

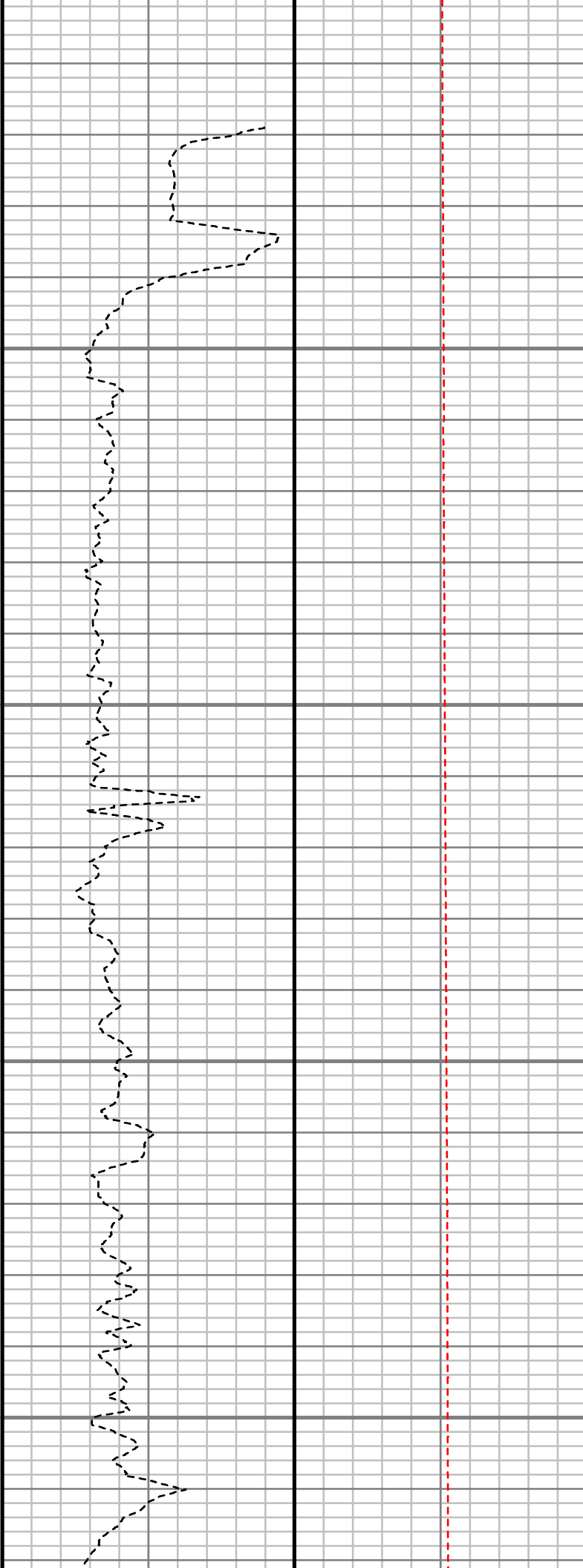


6700

6750

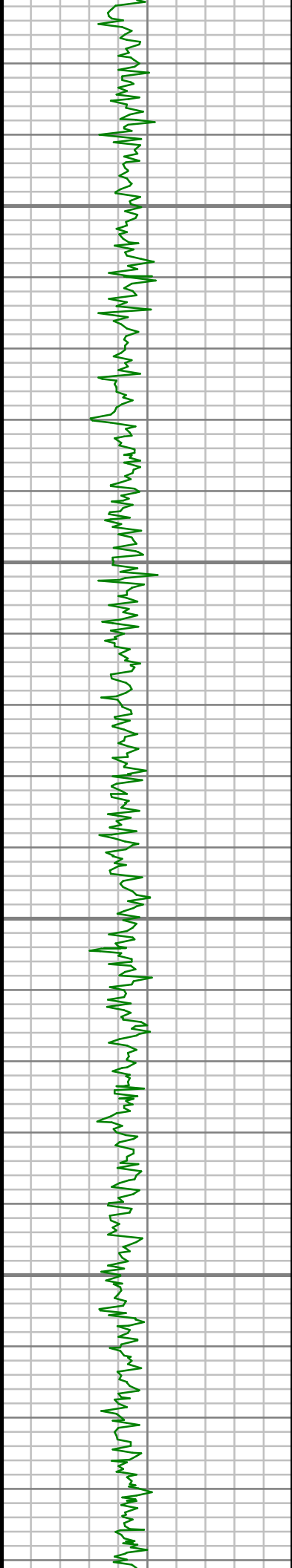
6800

6850



S: 63 MD: 6709.00 ft
Inc: 0.42 deg Az: 326.40 deg TVD: 6566.79 ft

S: 64 MD: 6803.00 ft
Inc: 0.78 deg Az: 96.70 deg TVD: 6660.79 ft

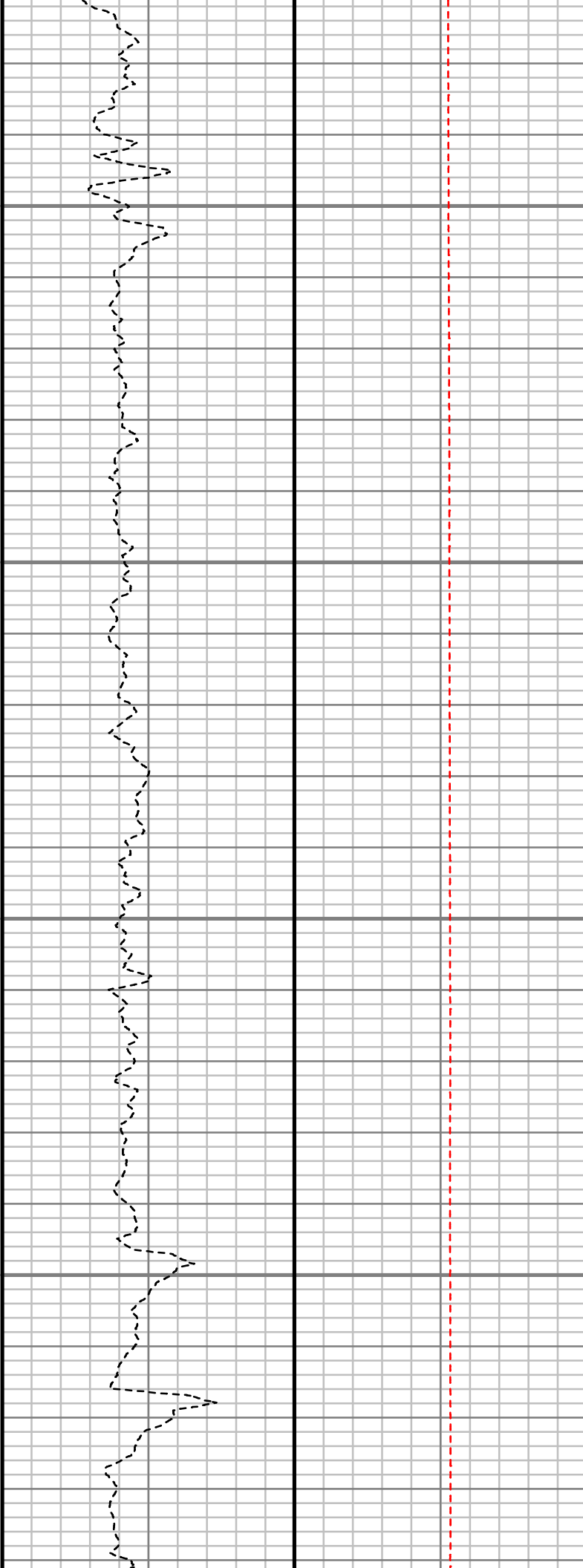


6900

6950

7000

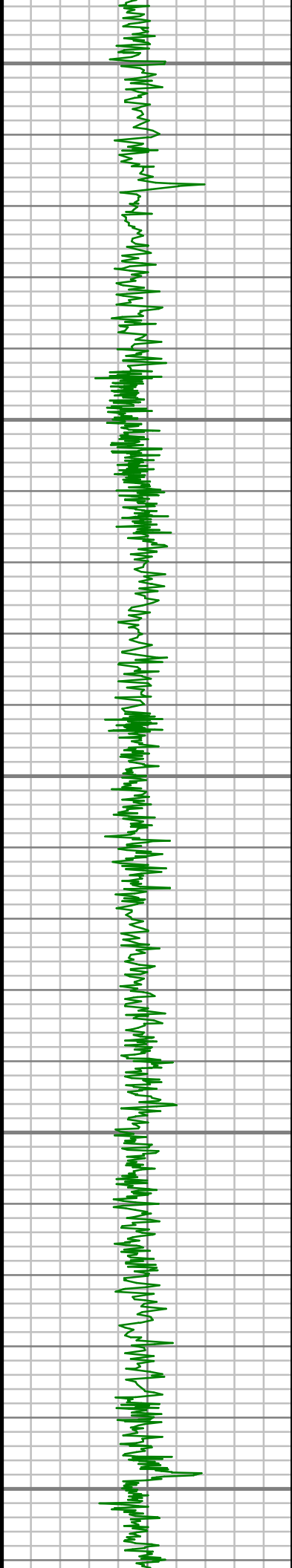
7050



S: 65 MD: 6898.00 ft
Inc: 0.33 deg Az: 92.27
deg TVD: 6755.78 ft

S: 66 MD: 6992.00 ft
Inc: 0.55 deg Az: 42.44
deg TVD: 6849.78 ft

S: 67 MD: 7086.00 ft
Inc: 0.76 deg Az:



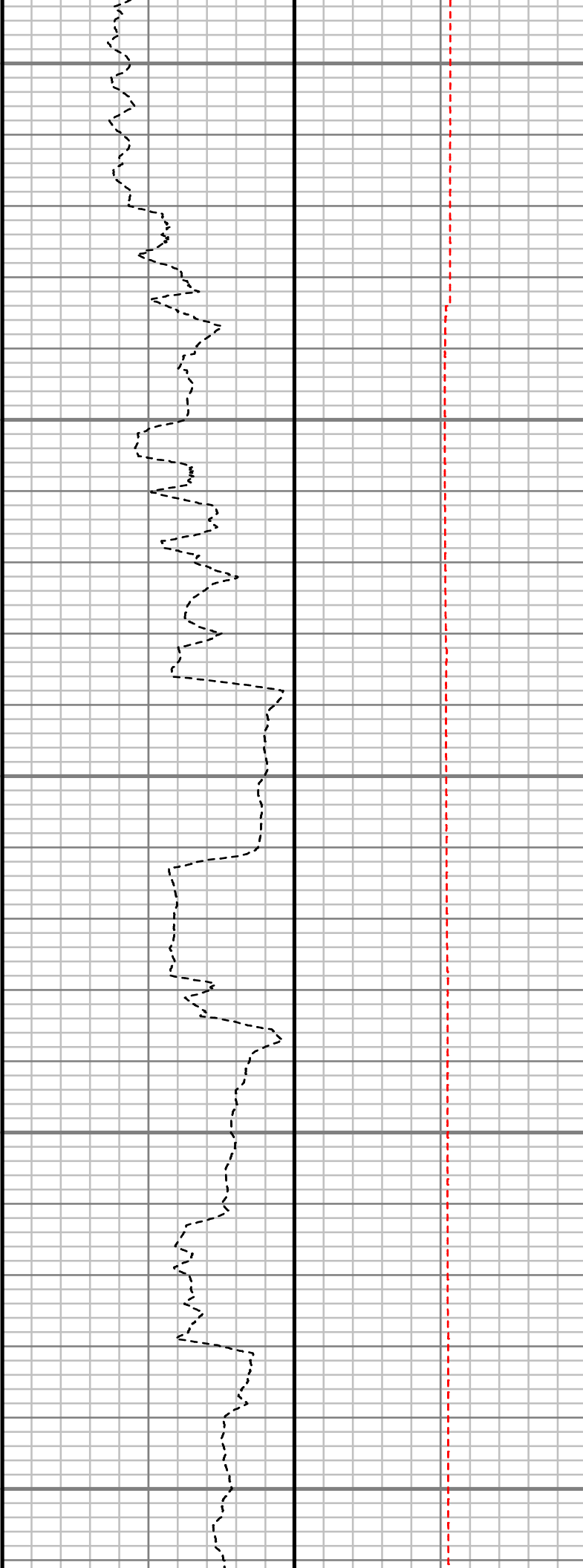
7100

7150

7200

7250

7300



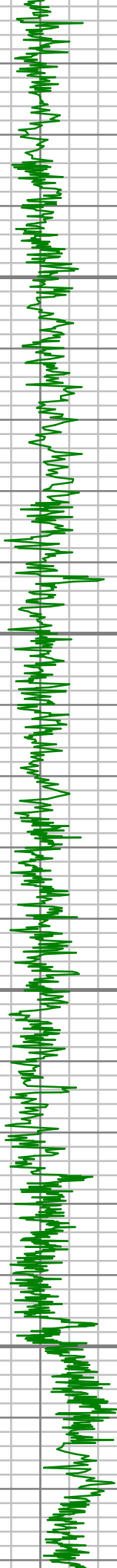
352.87 deg TVD:
6943.78 ft

S: 68 MD: 7132.00 ft
Inc: 0.47 deg Az: 65.64
deg TVD: 6989.77 ft

S: 69 MD: 7179.00 ft
Inc: 1.34 deg Az: 38.68
deg TVD: 7036.77 ft

S: 70 MD: 7226.00 ft
Inc: 3.84 deg Az: 13.56
deg TVD: 7083.72 ft

S: 71 MD: 7275.00 ft
Inc: 7.01 deg Az: 7.38
deg TVD: 7132.49 ft

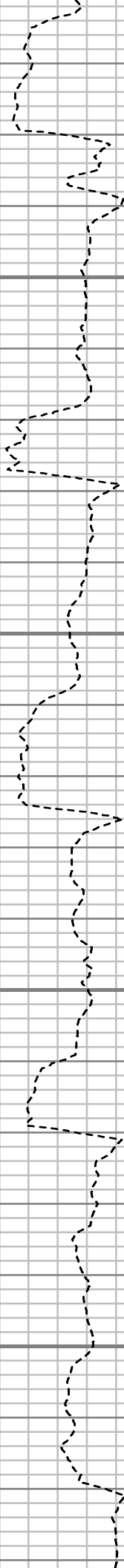


7350

7400

7450

7500



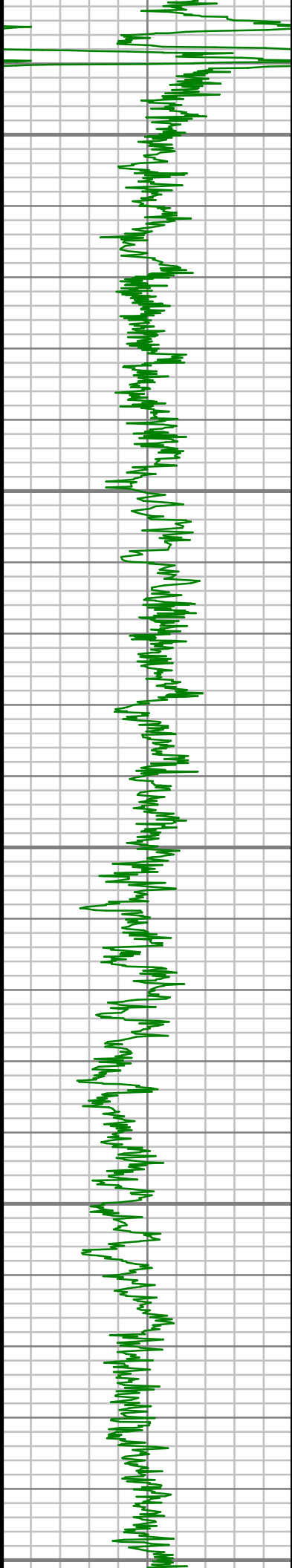
S: 72 MD: 7321.00 ft
Inc: 9.61 deg Az: 8.45
deg TVD: 7178.01 ft

S: 73 MD: 7369.00 ft
Inc: 13.63 deg Az:
10.63 deg TVD:
7225.01 ft

S: 74 MD: 7416.00 ft
Inc: 16.65 deg Az:
13.09 deg TVD:
7270.38 ft

S: 75 MD: 7464.00 ft
Inc: 18.89 deg Az:
12.69 deg TVD:
7316.08 ft

S: 76 MD: 7511.00 ft
Inc: 21.96 deg Az:
10.86 deg TVD:
7360.12 ft



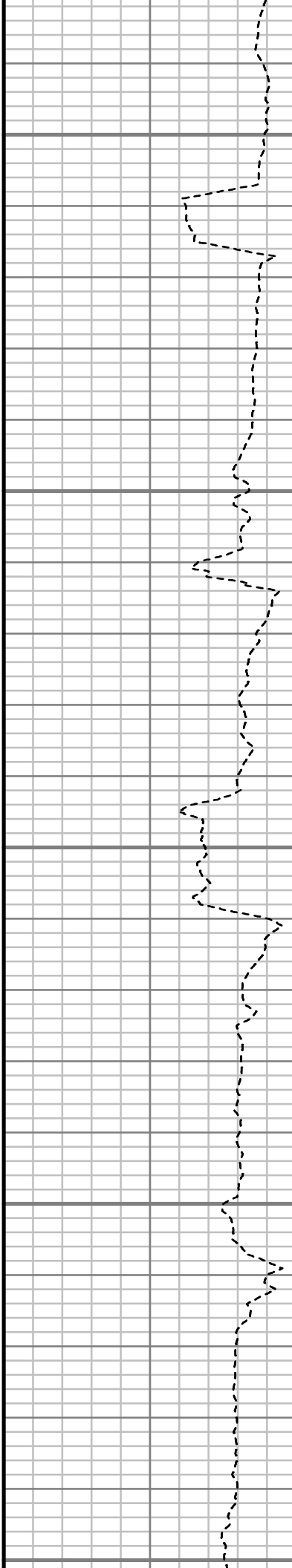
7550

7600

7650

7700

7750



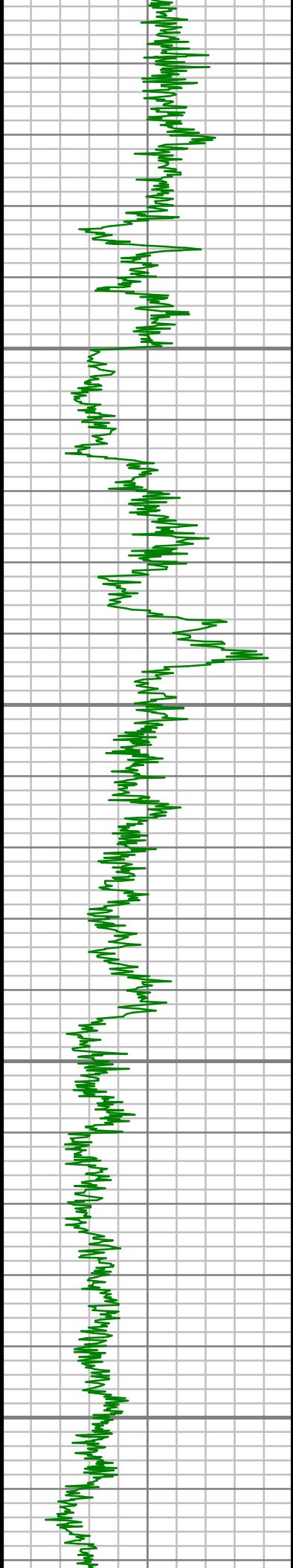
S: 77 MD: 7558.00 ft
Inc: 26.47 deg Az: 6.35
deg TVD: 7402.98 ft

S: 78 MD: 7605.00 ft
Inc: 30.23 deg Az: 2.34
deg TVD: 7444.34 ft

S: 79 MD: 7653.00 ft
Inc: 32.88 deg Az:
359.59 deg TVD:
7485.24 ft

S: 80 MD: 7700.00 ft
Inc: 37.81 deg Az:
357.98 deg TVD:
7523.56 ft

S: 81 MD: 7747.00 ft
Inc: 42.31 deg Az:

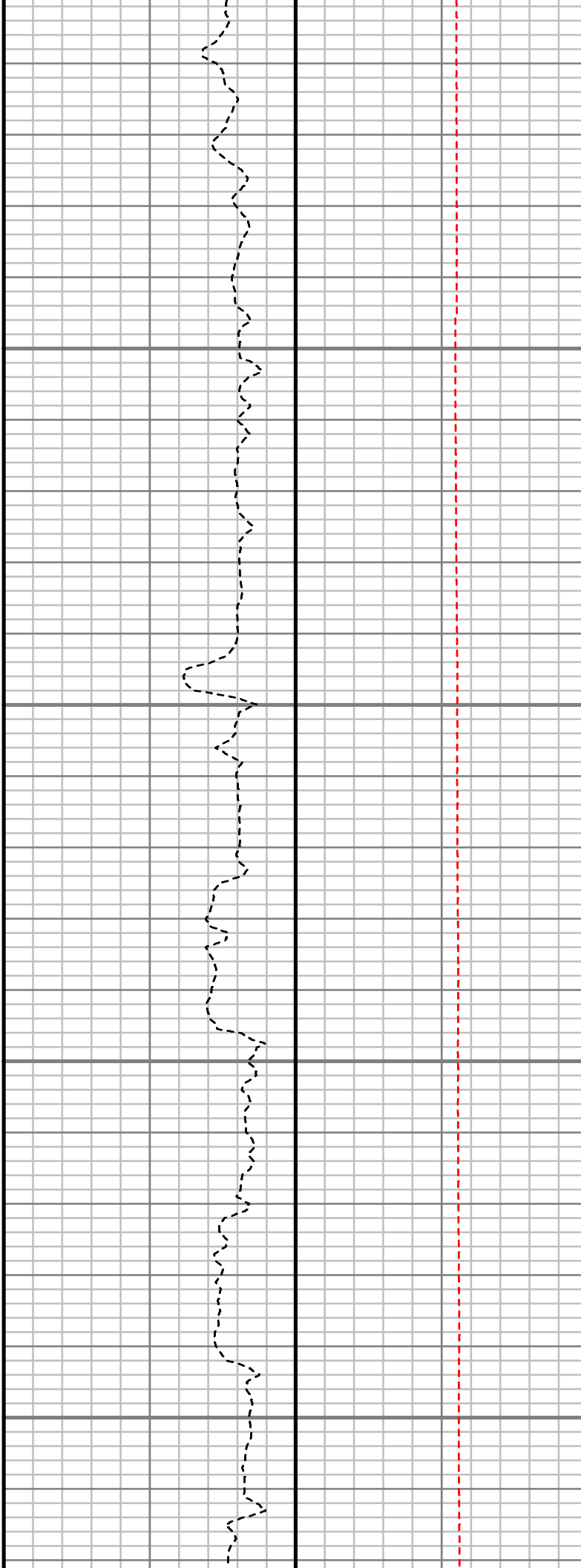


7800

7850

7900

7950

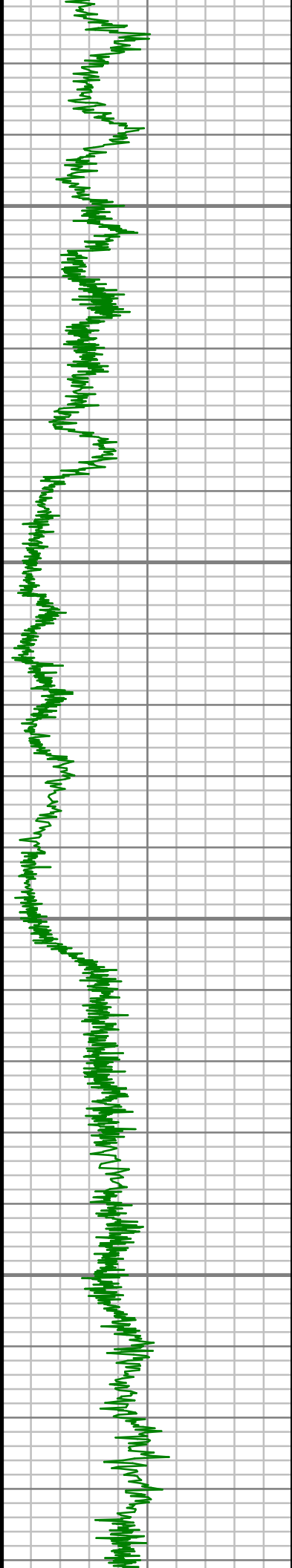


S: 81 MD: 7788.00 ft
Inc: 358.66 deg Az: 359.23 deg
TVD: 7559.52 ft

S: 82 MD: 7794.00 ft
Inc: 47.95 deg Az: 359.23 deg
TVD: 7592.67 ft

S: 83 MD: 7888.00 ft
Inc: 58.85 deg Az: 359.95 deg
TVD: 7648.63 ft

S: 84 MD: 7936.00 ft
Inc: 62.87 deg Az: 0.39 deg
TVD: 7672.00 ft

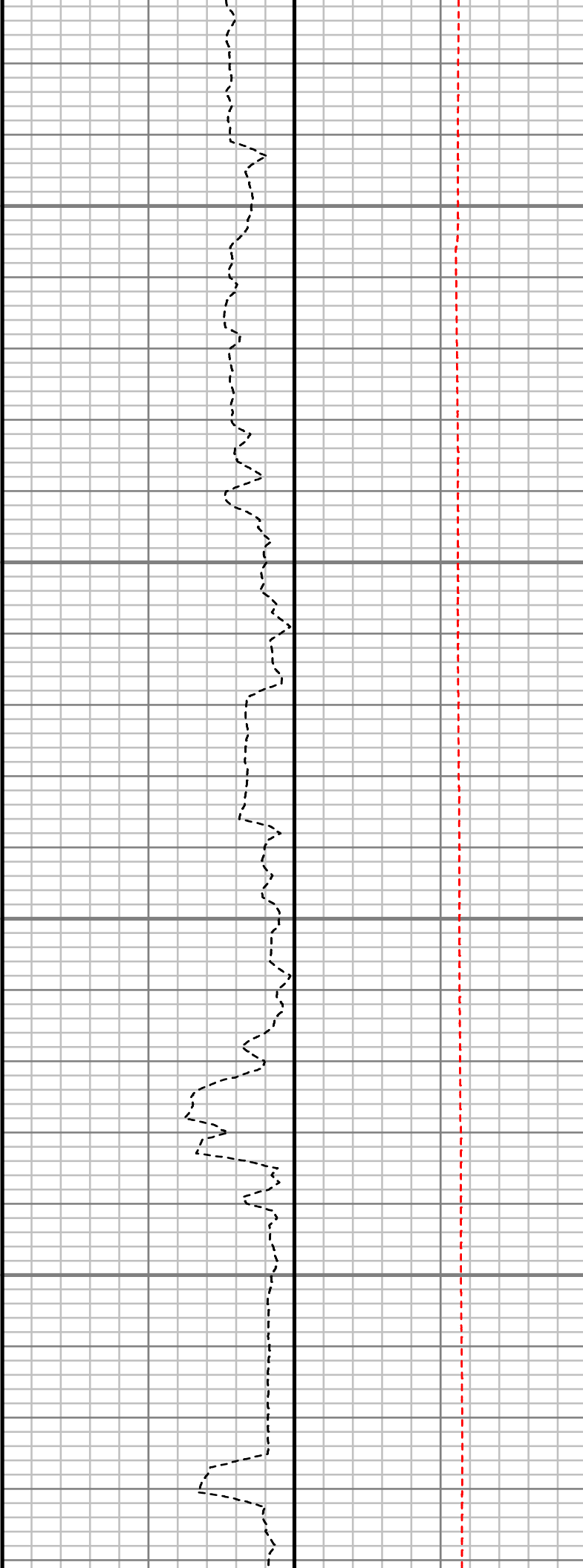


8000

8050

8100

8150



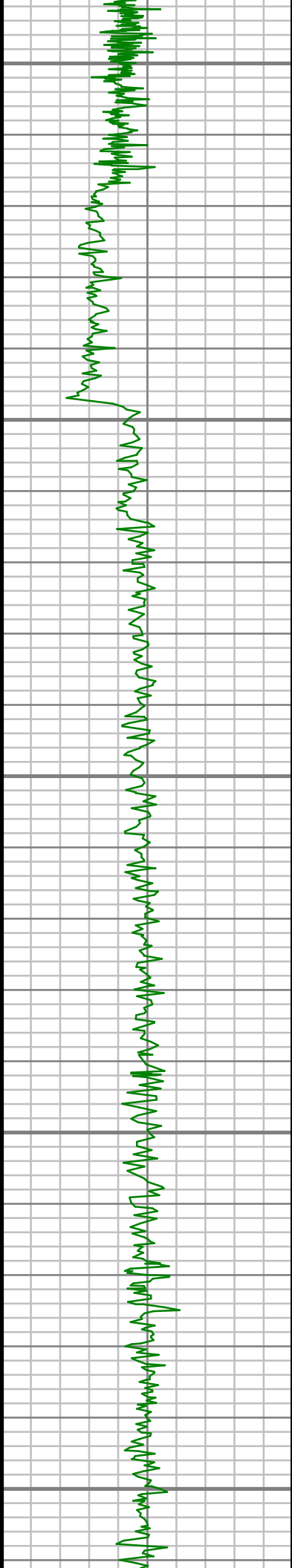
S: 85 MD: 7983.00 ft
Inc: 65.88 deg Az: 1.09
deg TVD: 7692.33 ft

S: 86 MD: 8030.00 ft
Inc: 68.98 deg Az: 1.31
deg TVD: 7710.37 ft

S: 87 MD: 8077.00 ft
Inc: 72.59 deg Az: 1.06
deg TVD: 7725.83 ft

S: 88 MD: 8124.00 ft
Inc: 77.26 deg Az:
359.70 deg TVD:
7738.05 ft

S: 89 MD: 8171.00 ft
Inc: 82.98 deg Az:
359.03 deg TVD:
7746.11 ft



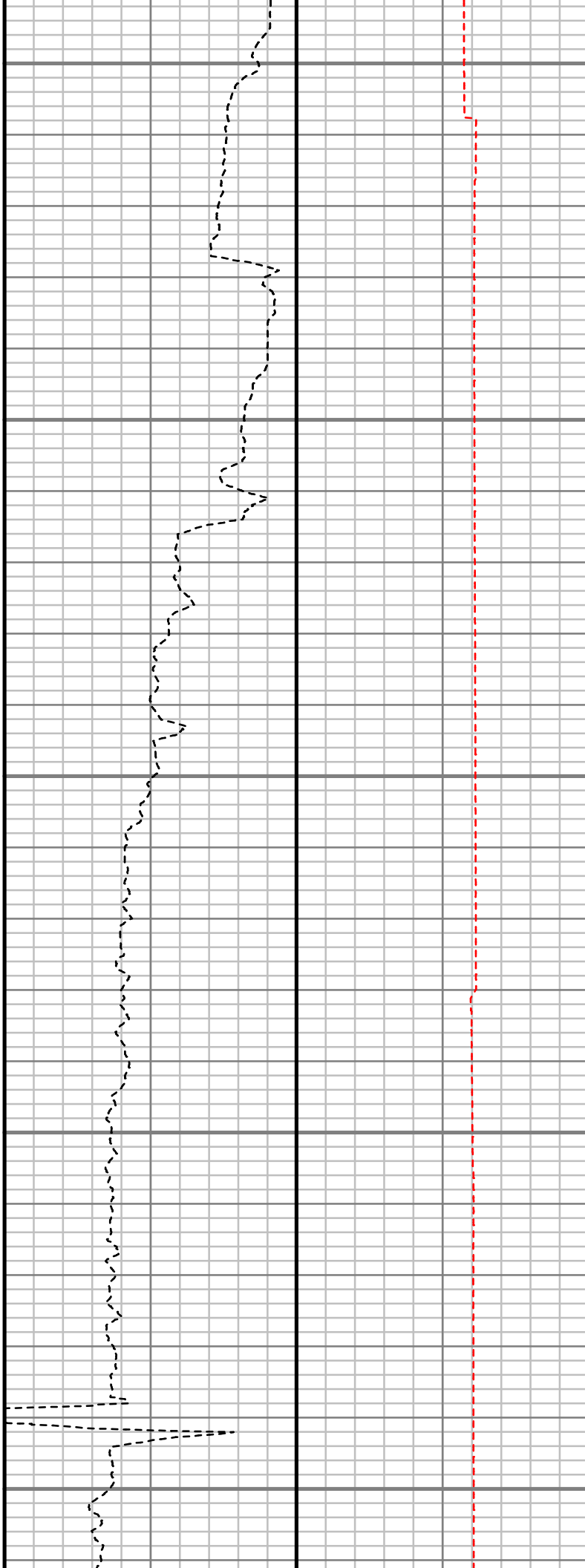
8200

8250

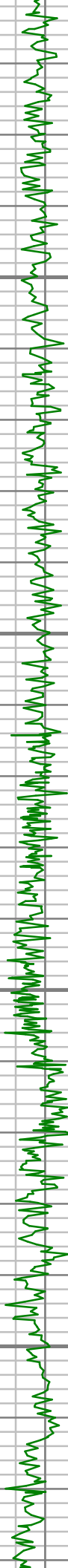
8300

8350

8400



S: 90 MD: 8327.00 ft
Inc: 89.53 deg Az:
359.07 deg TVD:
7756.30 ft

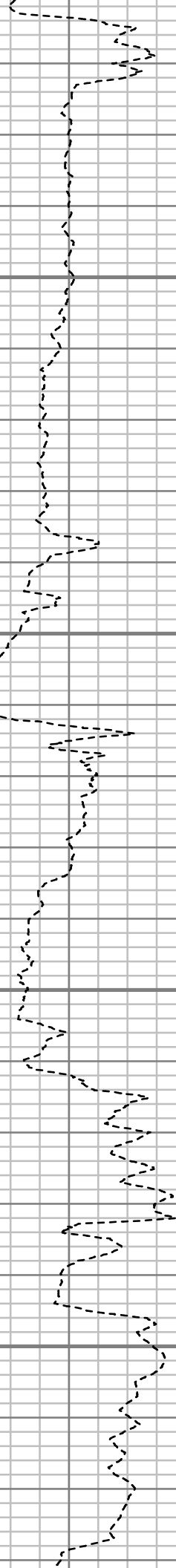


8450

8500

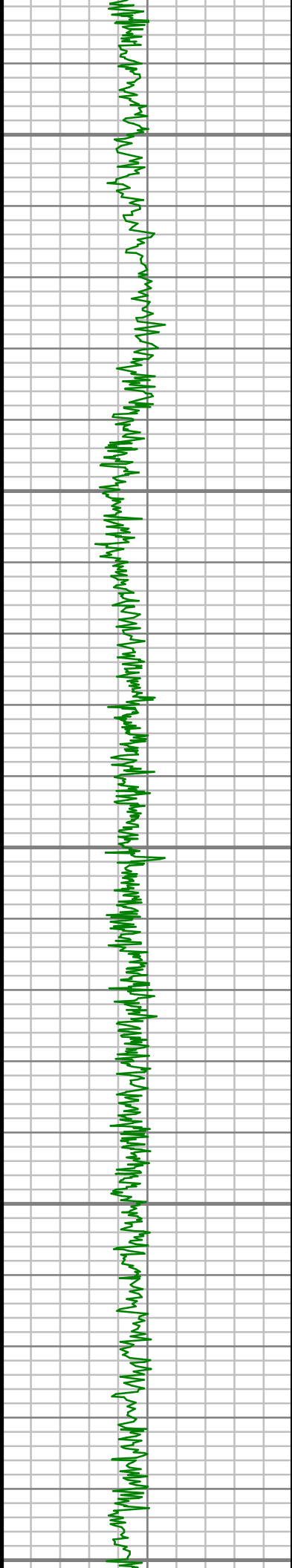
8550

8600



S: 91 MD: 8421.00 ft
Inc: 91.04 deg Az:
358.53 deg TVD:
7755.83 ft

S: 92 MD: 8610.00 ft
Inc: 92.29 deg Az:
358.31 deg TVD:
7750.34 ft



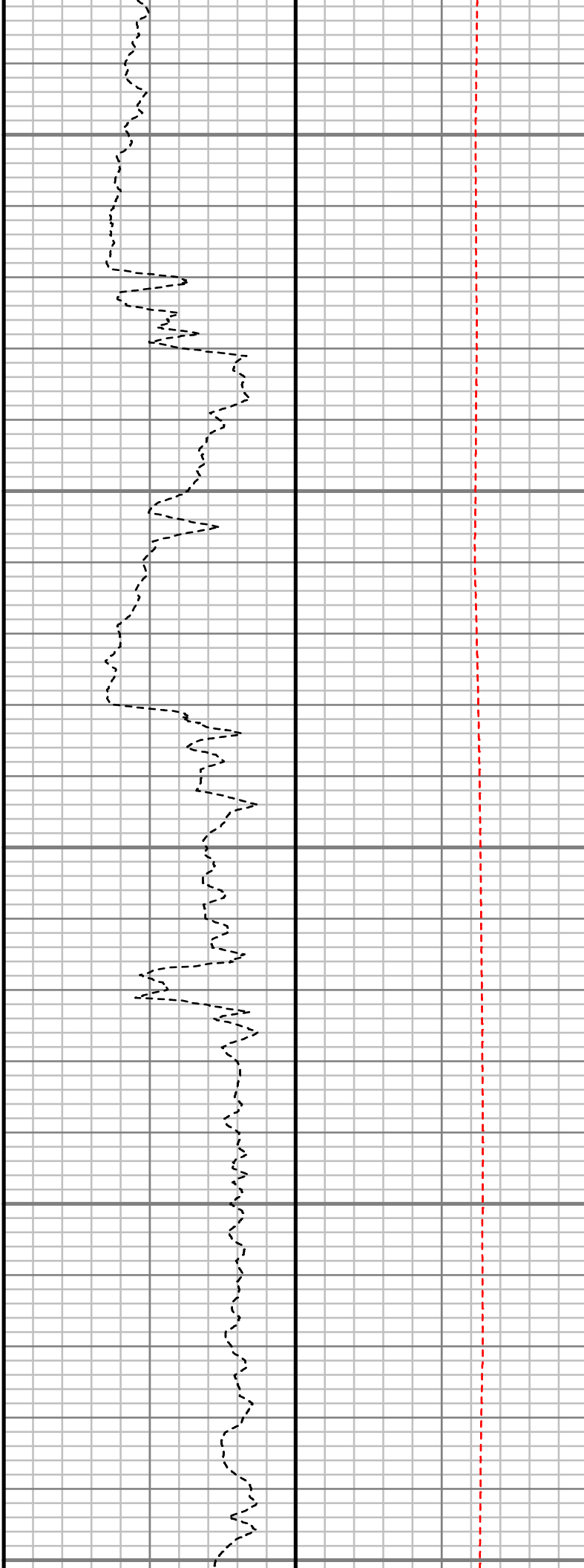
8650

8700

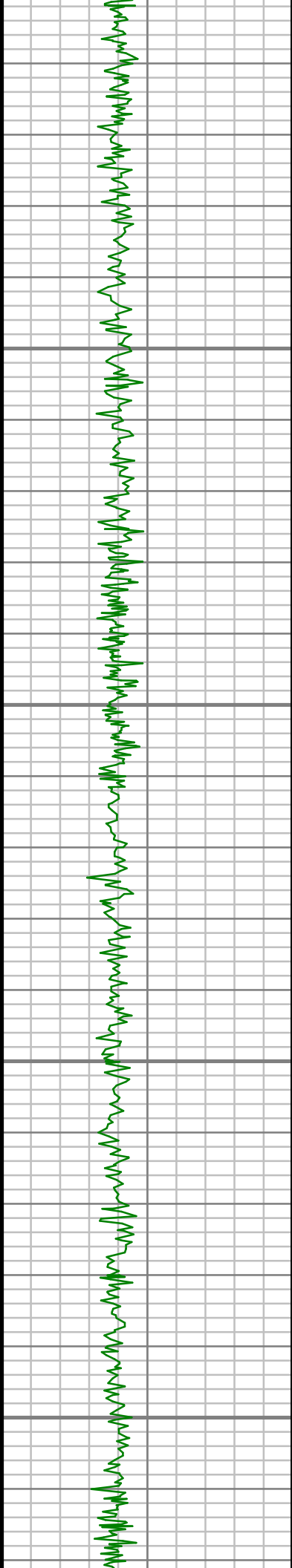
8750

8800

8850



S: 93 MD: 8798.00 ft
Inc: 91.64 deg Az:
358.93 deg TVD:
7743.89 ft

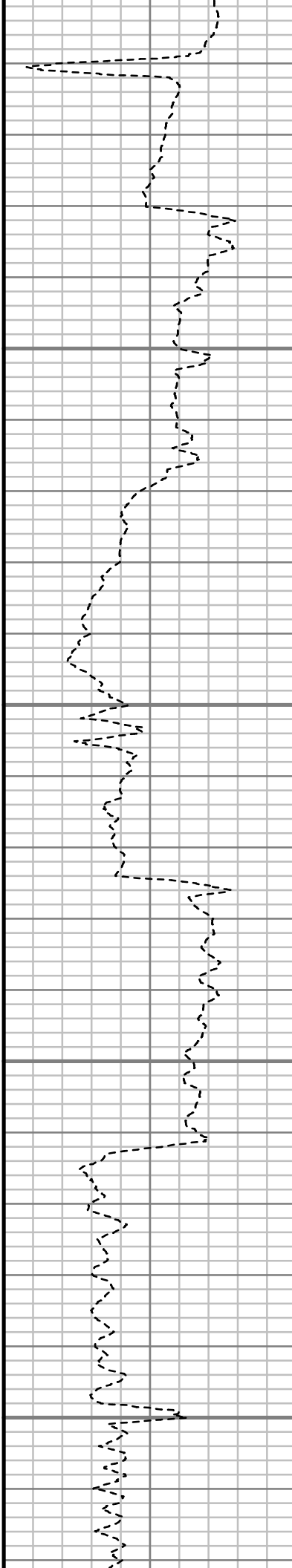


8900

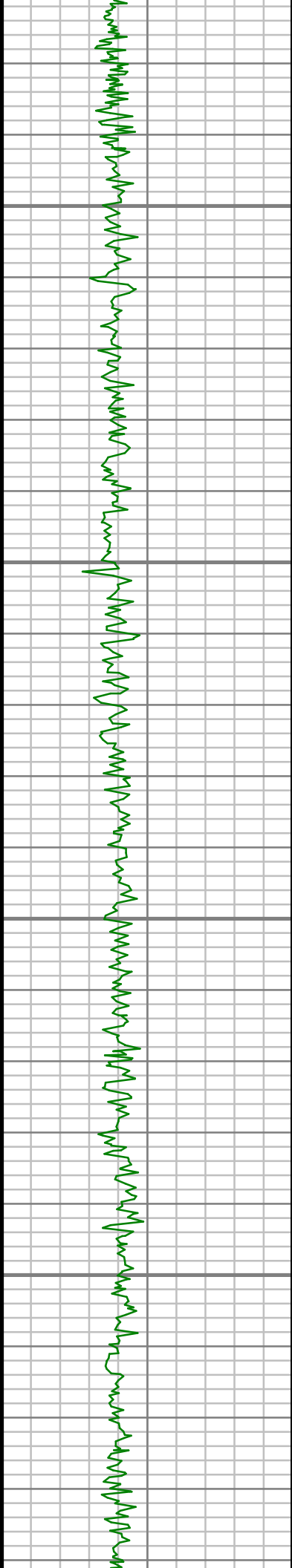
8950

9000

9050



S: 94 MD: 8987.00 ft
Inc: 90.10 deg Az: 0.27
deg TVD: 7741.02 ft

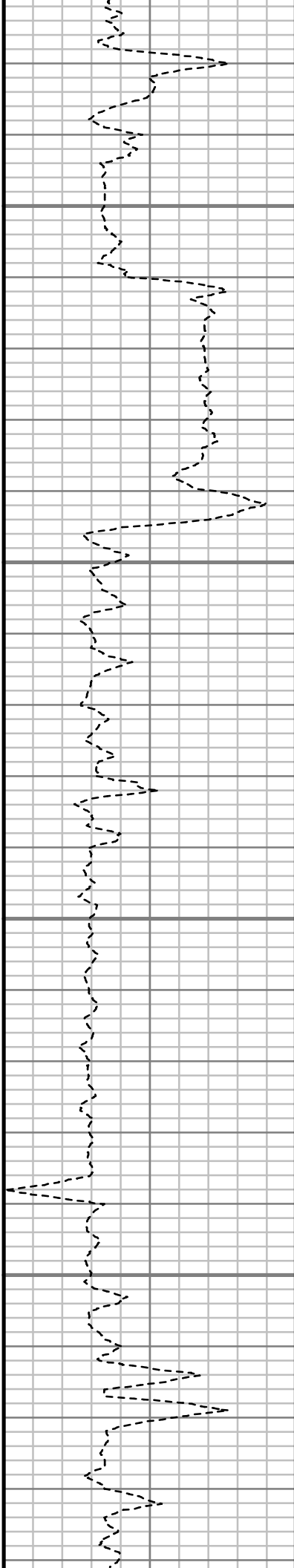


9100

9150

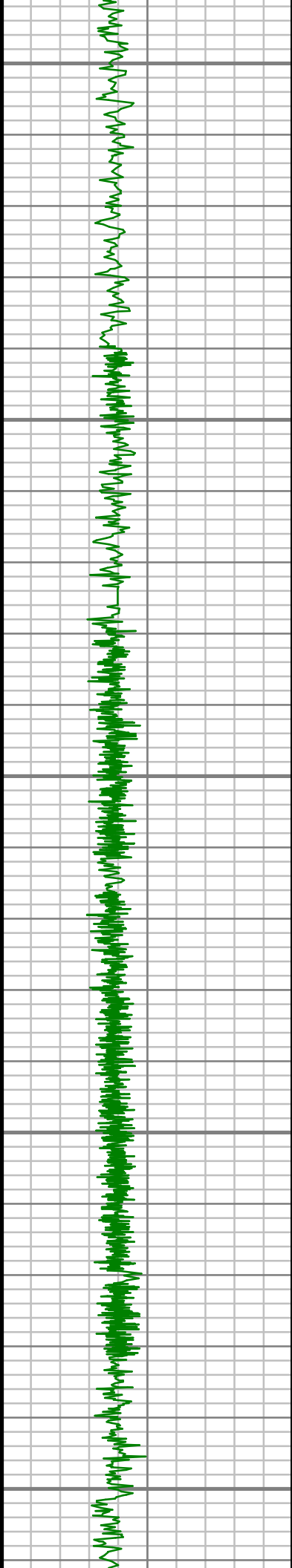
9200

9250



S: 95 MD: 9175.00 ft
Inc: 88.96 deg Az:
359.14 deg TVD:
7742.56 ft

S: 96 MD: 9270.00 ft
Inc: 90.24 deg Az:
359.06 deg TVD:
7743.23 ft



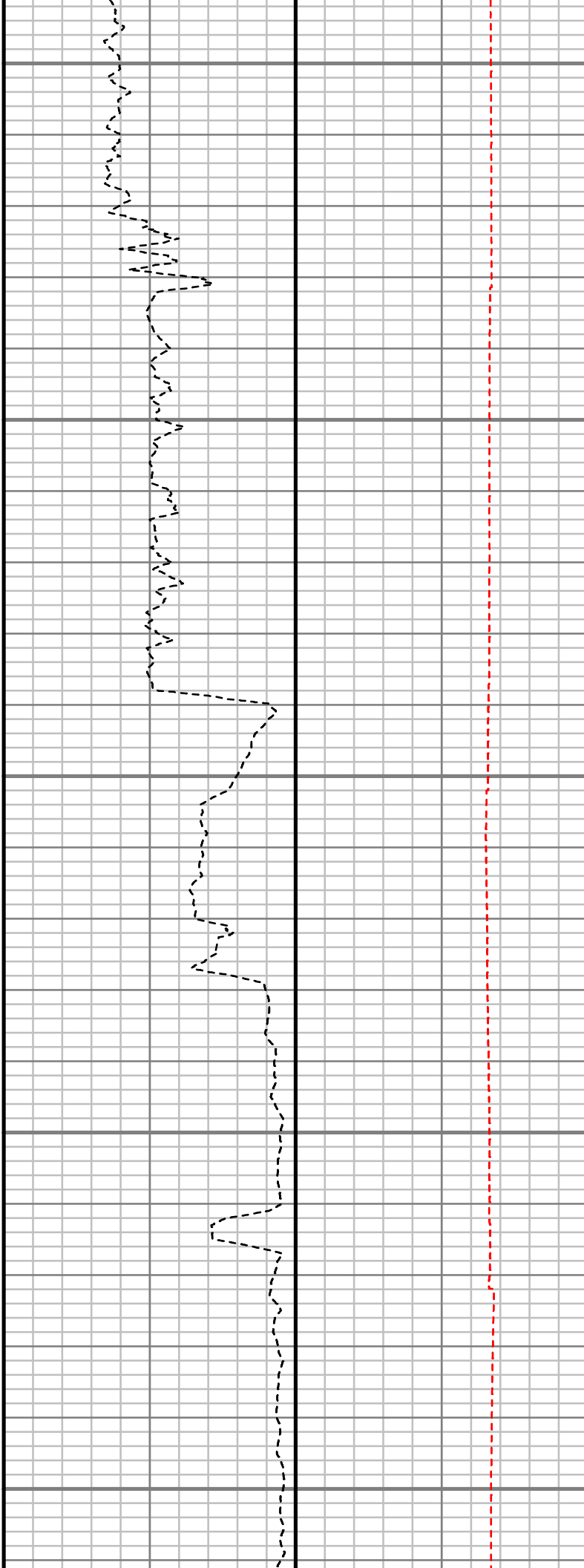
9300

9350

9400

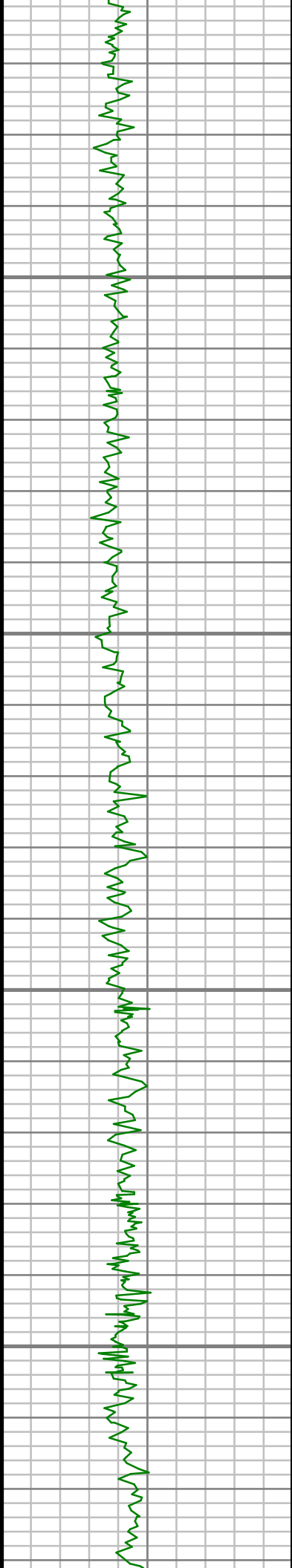
9450

9500



S: 97 MD: 9364.00 ft
Inc: 90.50 deg Az:
357.78 deg TVD:
7742.62 ft

S: 98 MD: 9459.00 ft
Inc: 90.57 deg Az:
357.73 deg TVD:
7741.73 ft

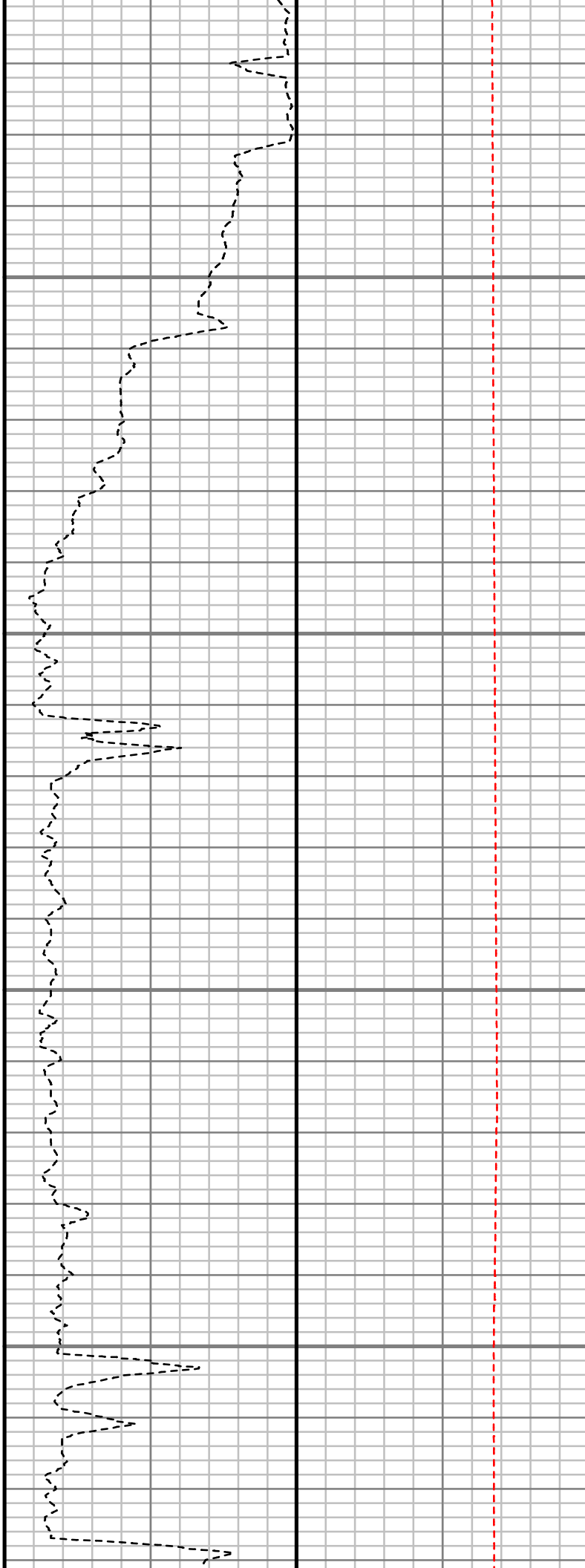


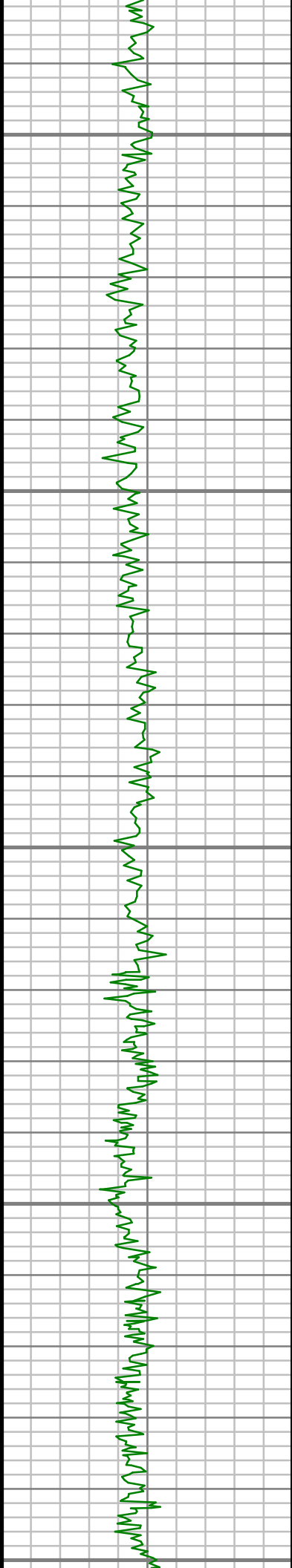
9550

9600

9650

9700





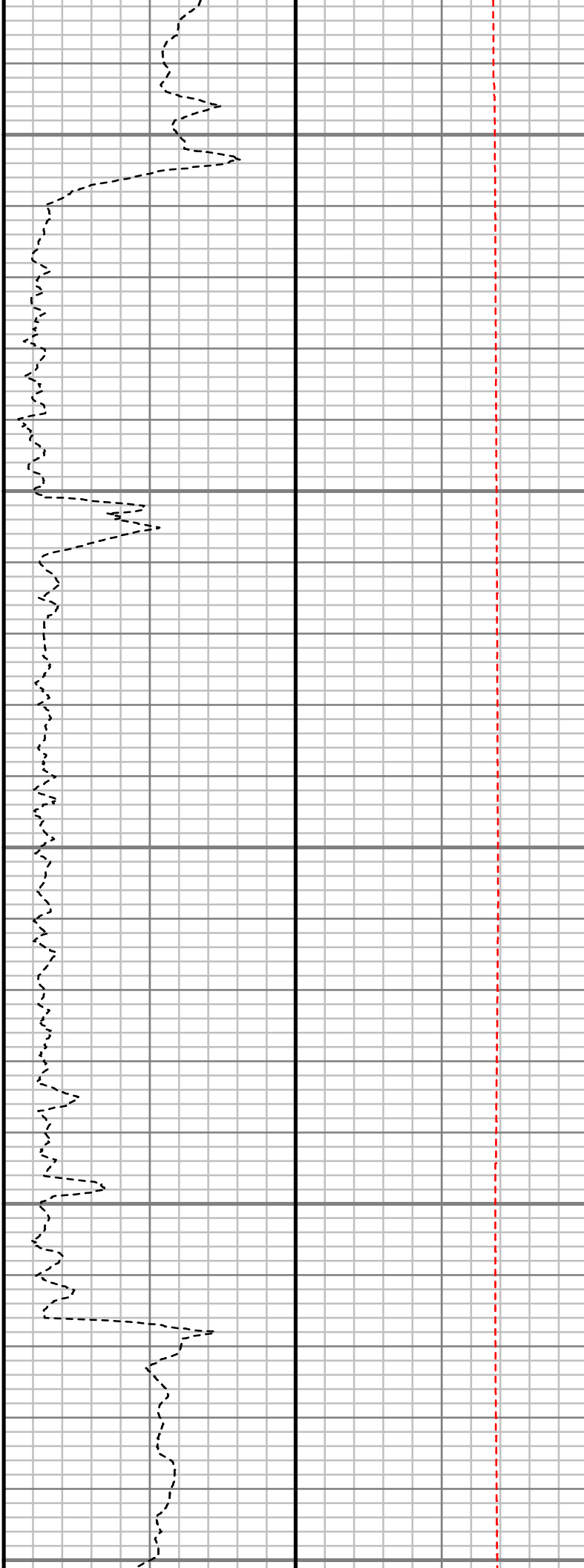
9750

9800

9850

9900

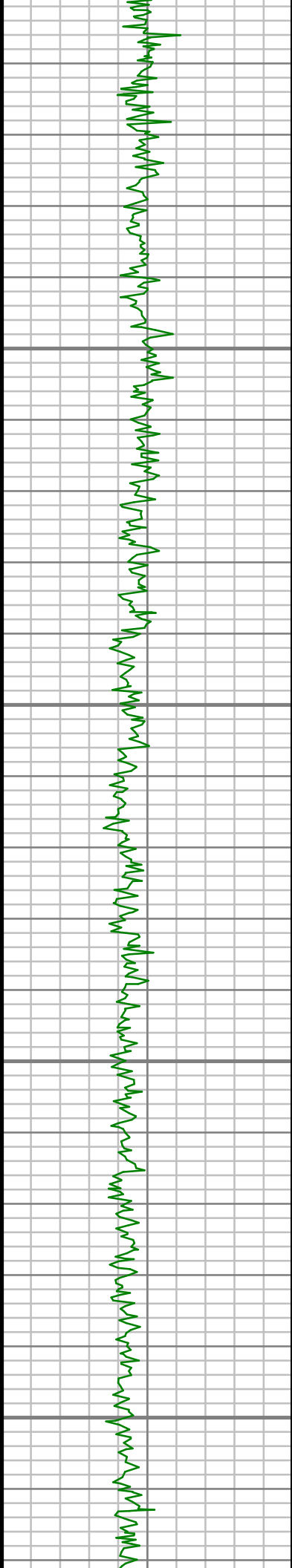
9950



S: 99 MD: 9741.00 ft
Inc: 88.03 deg Az:
357.50 deg TVD:
7745.18 ft

S: 100 MD: 9835.00 ft
Inc: 88.83 deg Az:
358.09 deg TVD:
7747.76 ft

S: 101 MD: 9929.00 ft
Inc: 90.17 deg Az:
358.46 deg TVD:
7748.58 ft

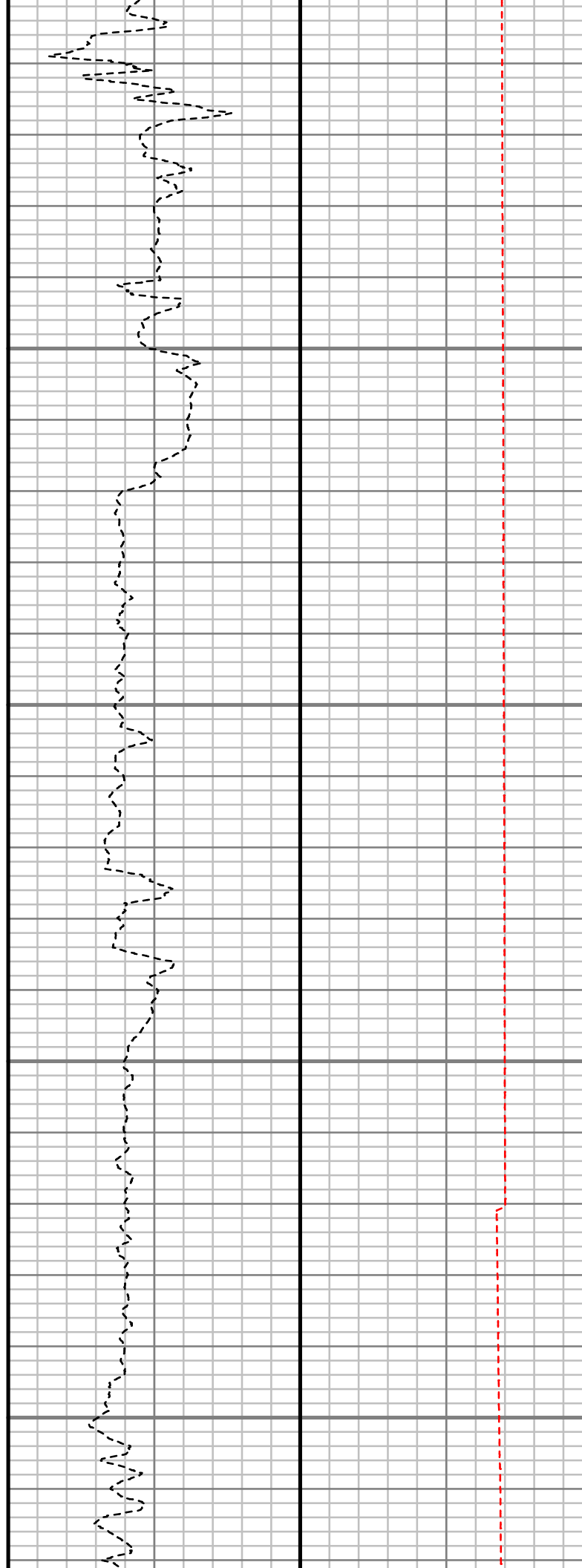


10000

10050

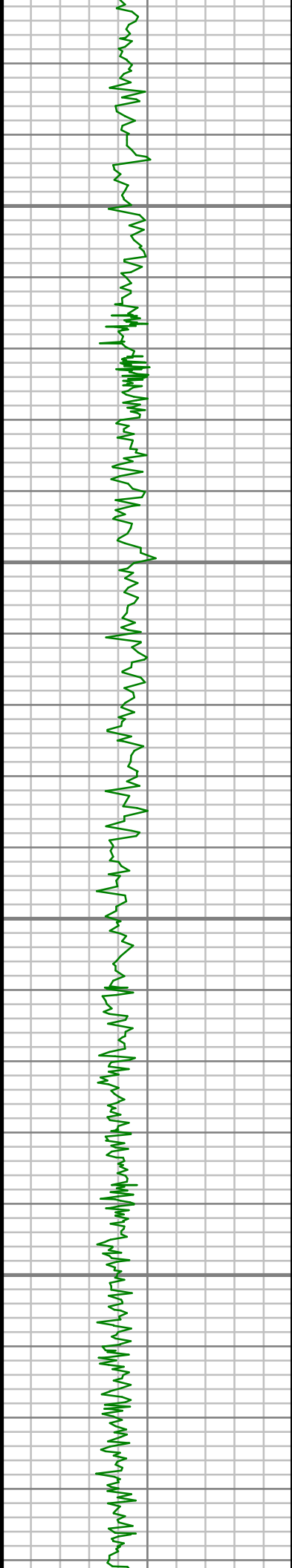
10100

10150



S: 102 MD: 10023.00 ft
Inc: 90.74 deg Az:
359.09 deg TVD:
7747.84 ft

S: 103 MD: 10117.00 ft
Inc: 90.84 deg Az:
358.14 deg TVD:
7746.55 ft

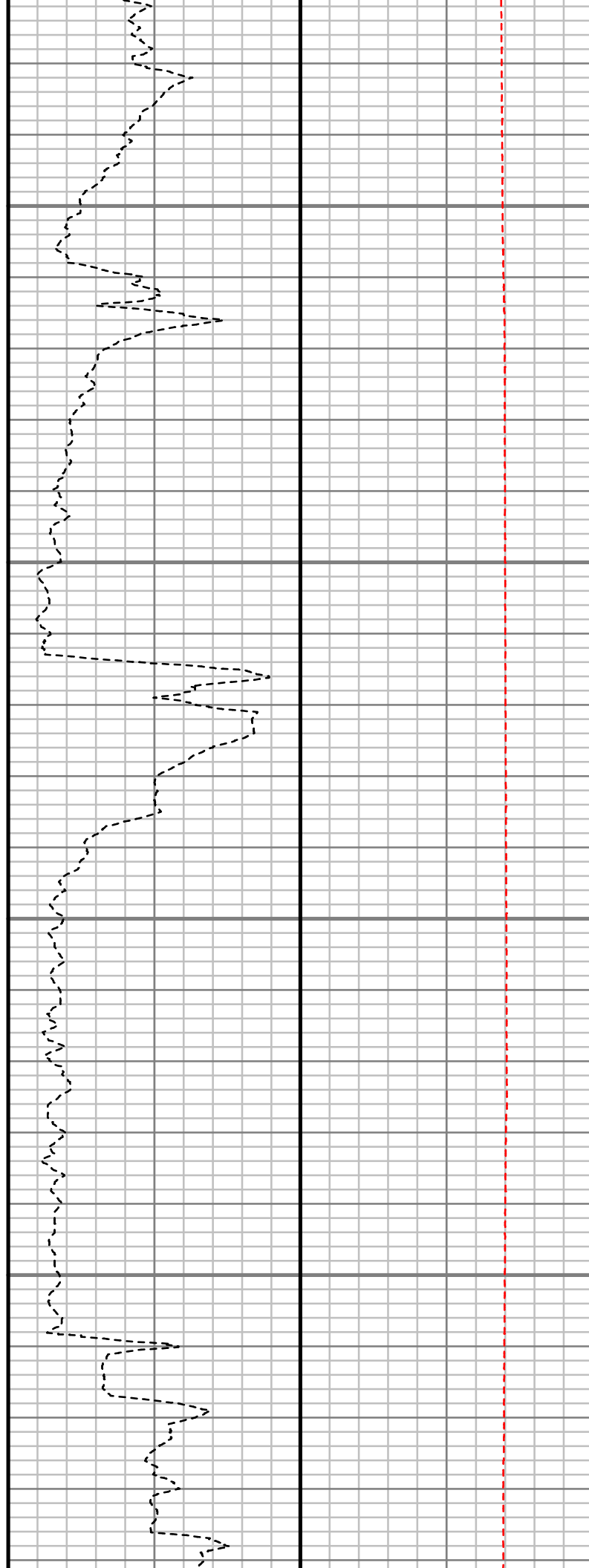


10200

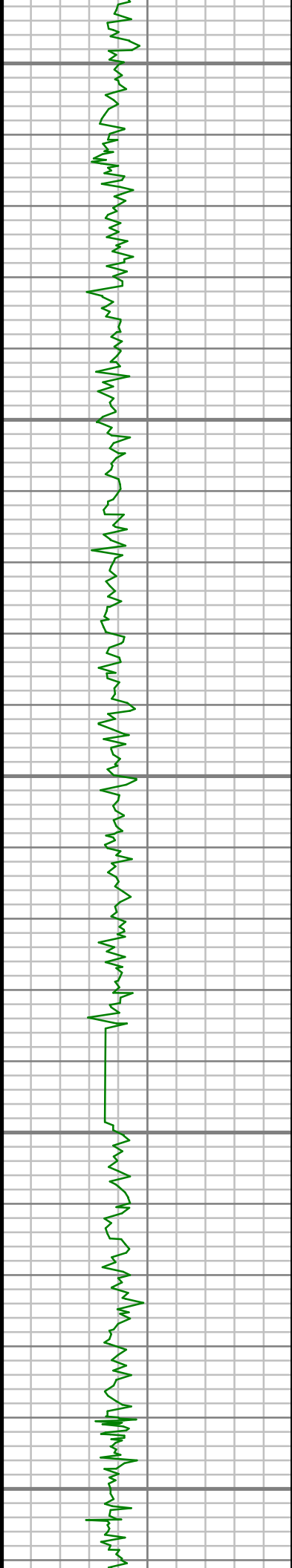
10250

10300

10350



S: 104 MD: 10211.00 ft
Inc: 89.97 deg Az:
357.58 deg TVD:
7745.88 ft



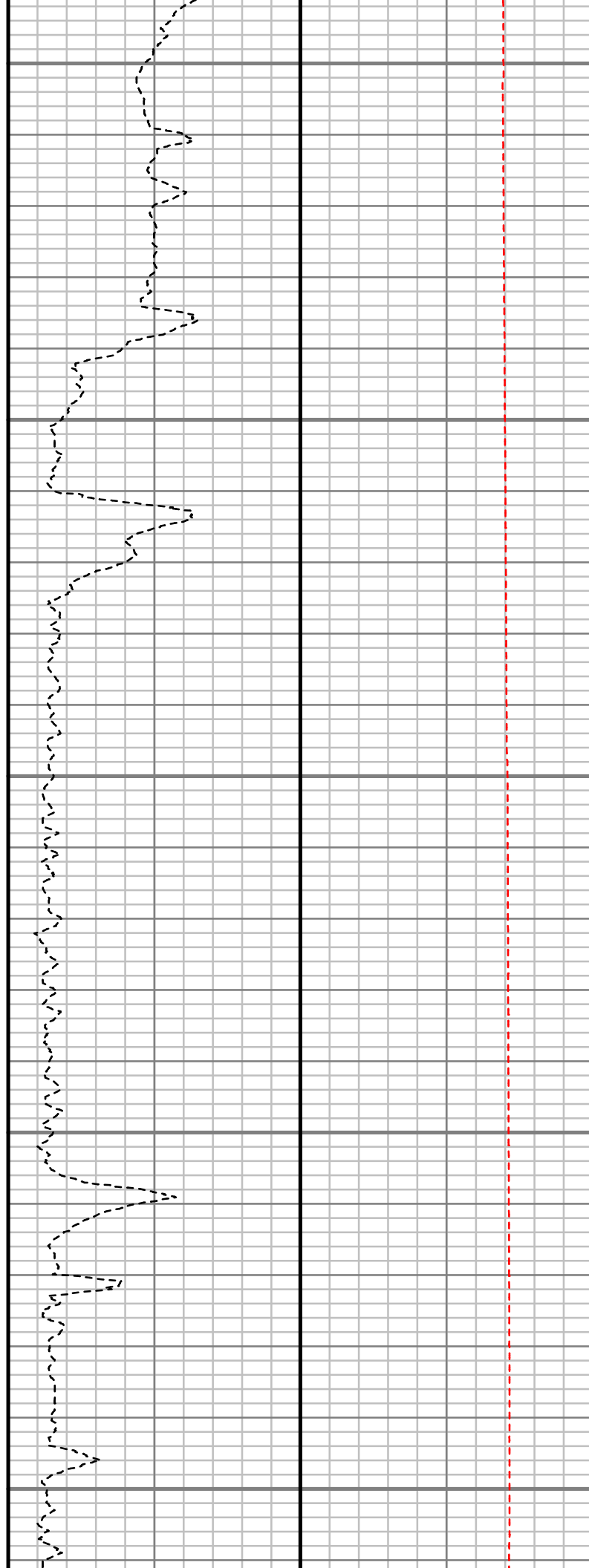
10400

10450

10500

10550

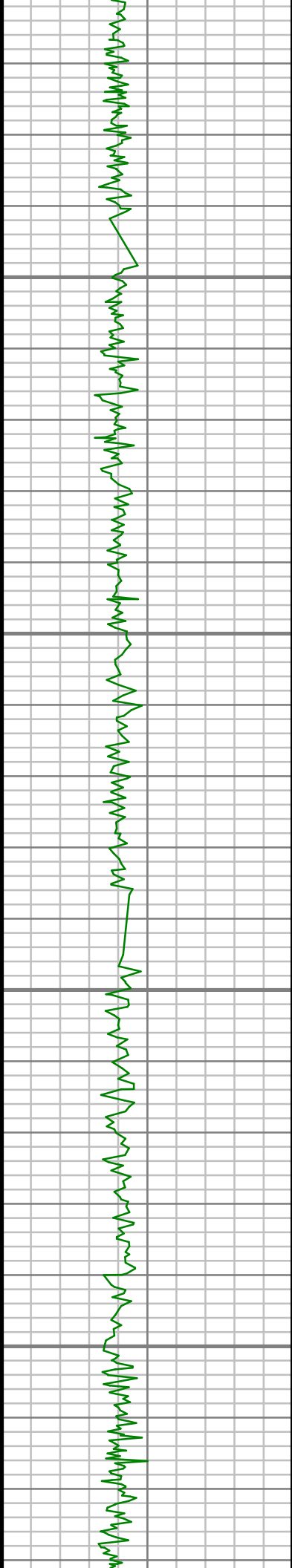
10600



S: 105 MD: 10400.00 ft
Inc: 90.50 deg Az:
357.65 deg TVD:
7745.11 ft

S: 106 MD: 10494.00 ft
Inc: 89.80 deg Az:
359.00 deg TVD:
7744.87 ft

S: 107 MD: 10589.00 ft
Inc: 89.93 deg Az:
358.30 deg TVD:
7745.09 ft

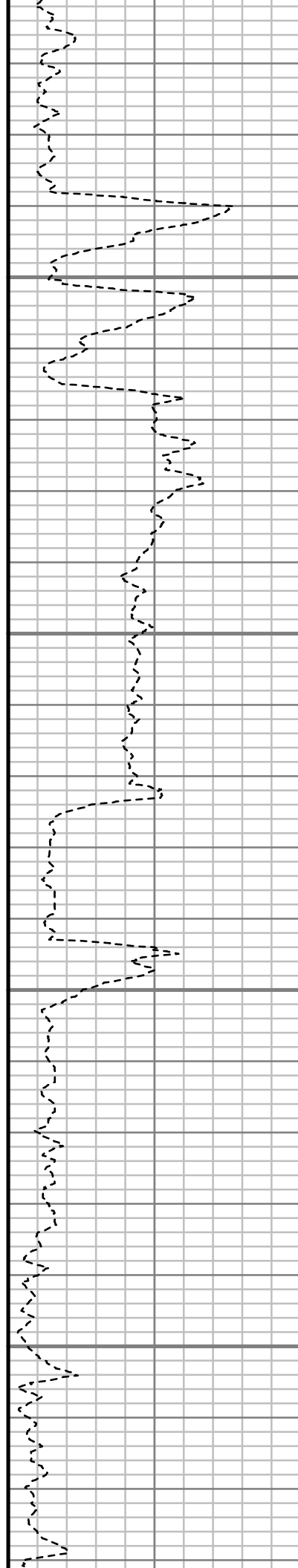


10650

10700

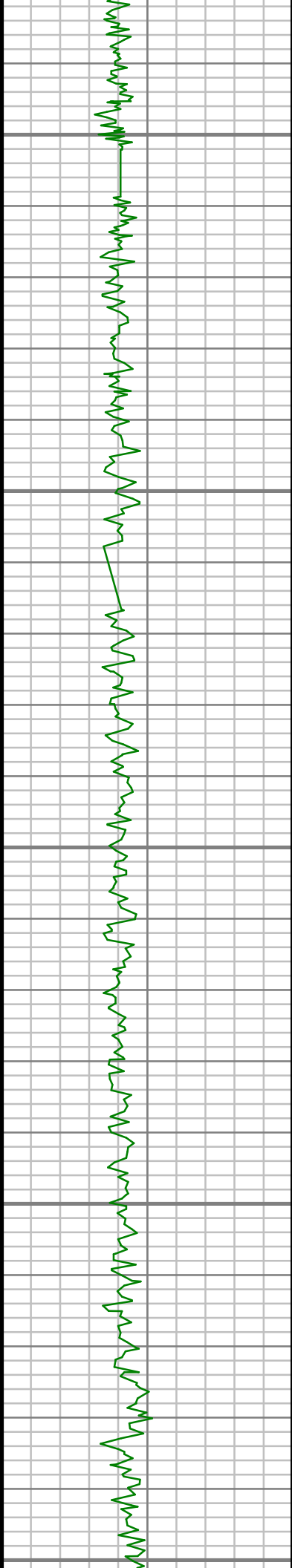
10750

10800



S: 108 MD: 10683.00 ft
Inc: 89.77 deg Az:
358.10 deg TVD:
7745.34 ft

S: 109 MD: 10778.00 ft
Inc: 89.70 deg Az:
358.72 deg TVD:
7745.78 ft



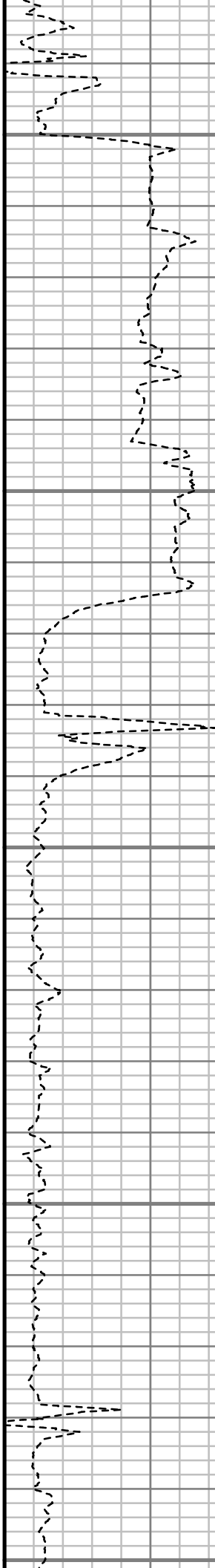
10850

10900

10950

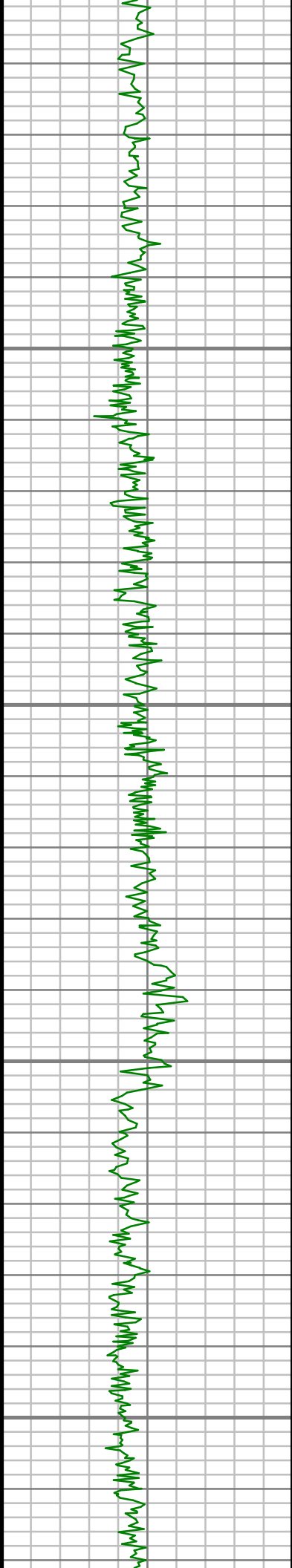
11000

11050



S: 110 MD: 10873.00 ft
Inc: 89.40 deg Az:
360.00 deg TVD:
7746.53 ft

S: 111 MD: 10968.00 ft
Inc: 88.93 deg Az: 1.94
deg TVD: 7747.92 ft

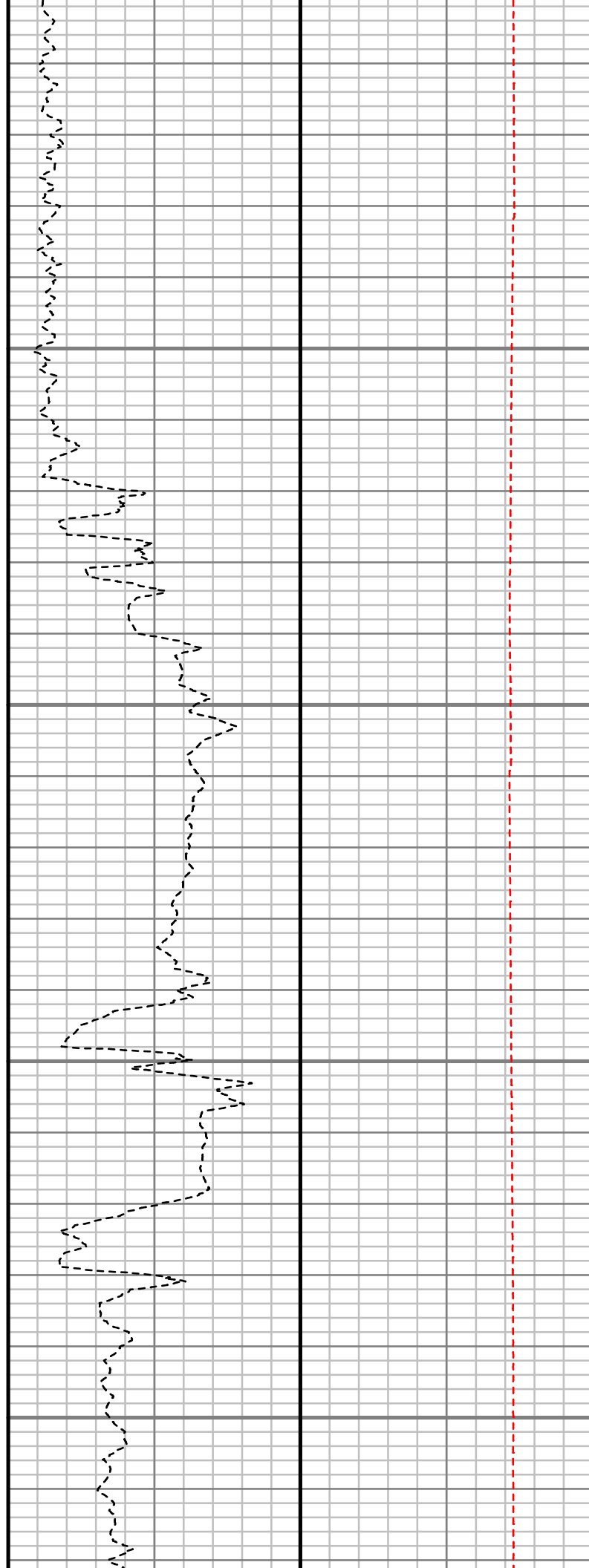


11100

11150

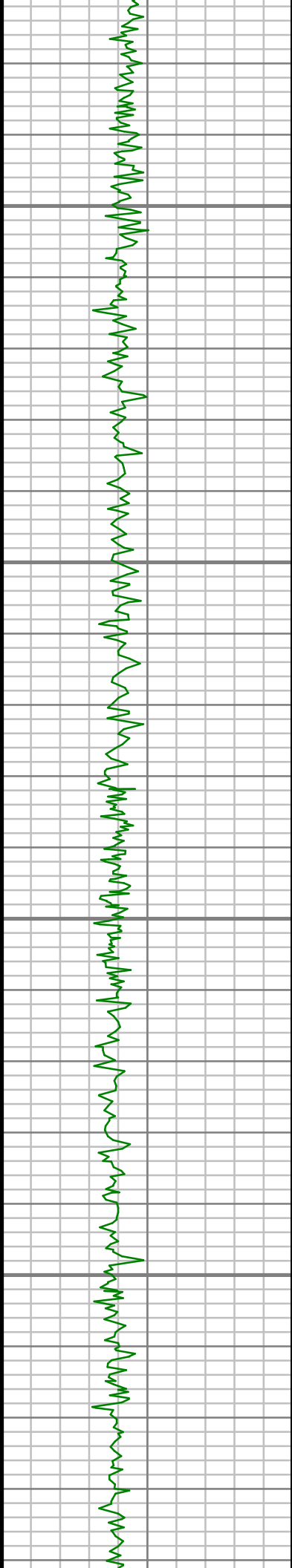
11200

11250



S: 112 MD: 11157.00 ft
Inc: 90.47 deg Az: 1.93
deg TVD: 7748.91 ft

S: 113 MD: 11251.00 ft
Inc: 91.61 deg Az: 3.07
deg TVD: 7747.21 ft

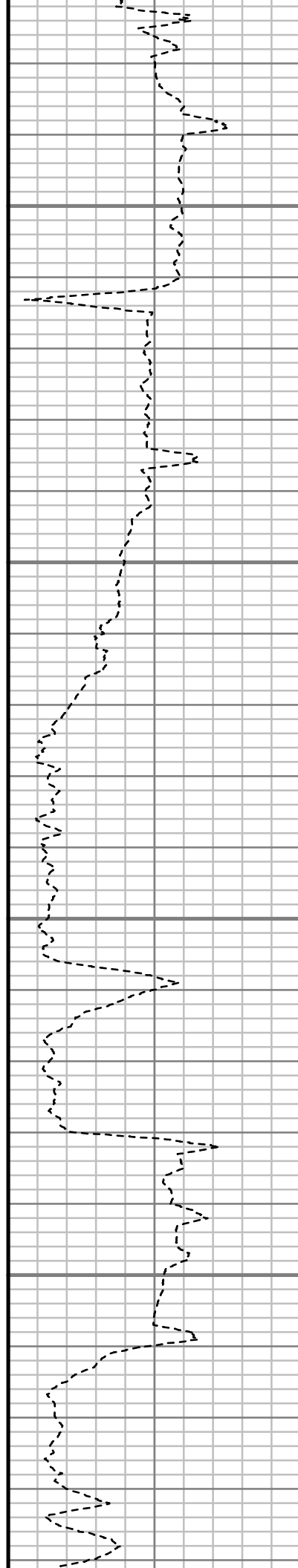


11300

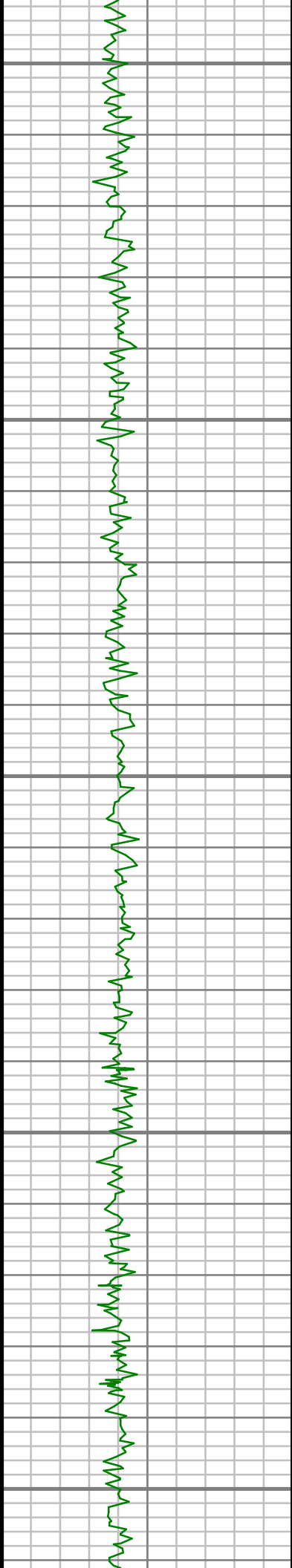
11350

11400

11450



S: 114 MD: 11440.00 ft
Inc: 90.34 deg Az: 2.52
deg TVD: 7743.99 ft



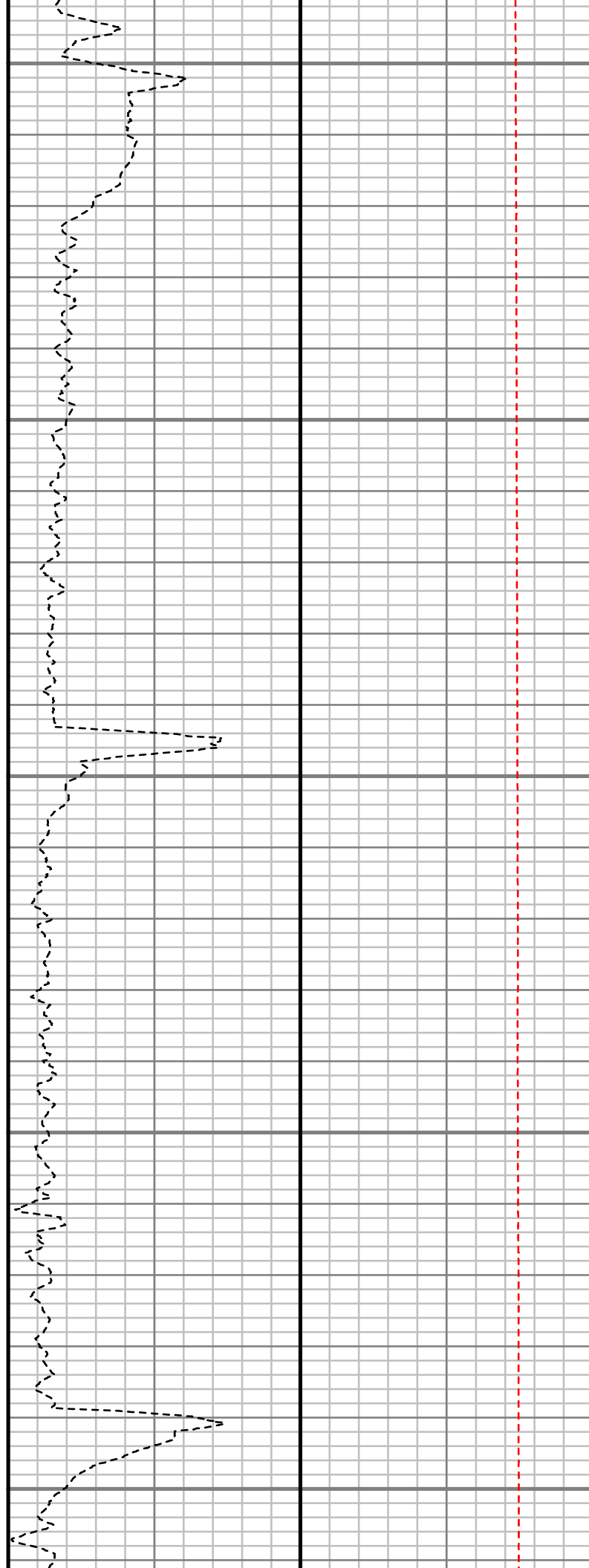
11500

11550

11600

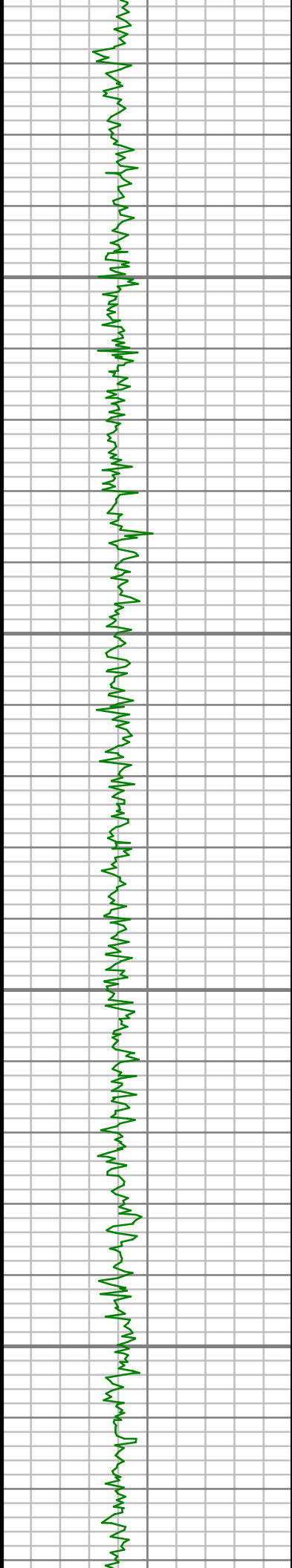
11650

11700



S: 115 MD: 11534.00 ft
Inc: 89.40 deg Az: 1.20
deg TVD: 7744.21 ft

S: 116 MD: 11628.00 ft
Inc: 90.13 deg Az:
359.99 deg TVD:
7744.60 ft

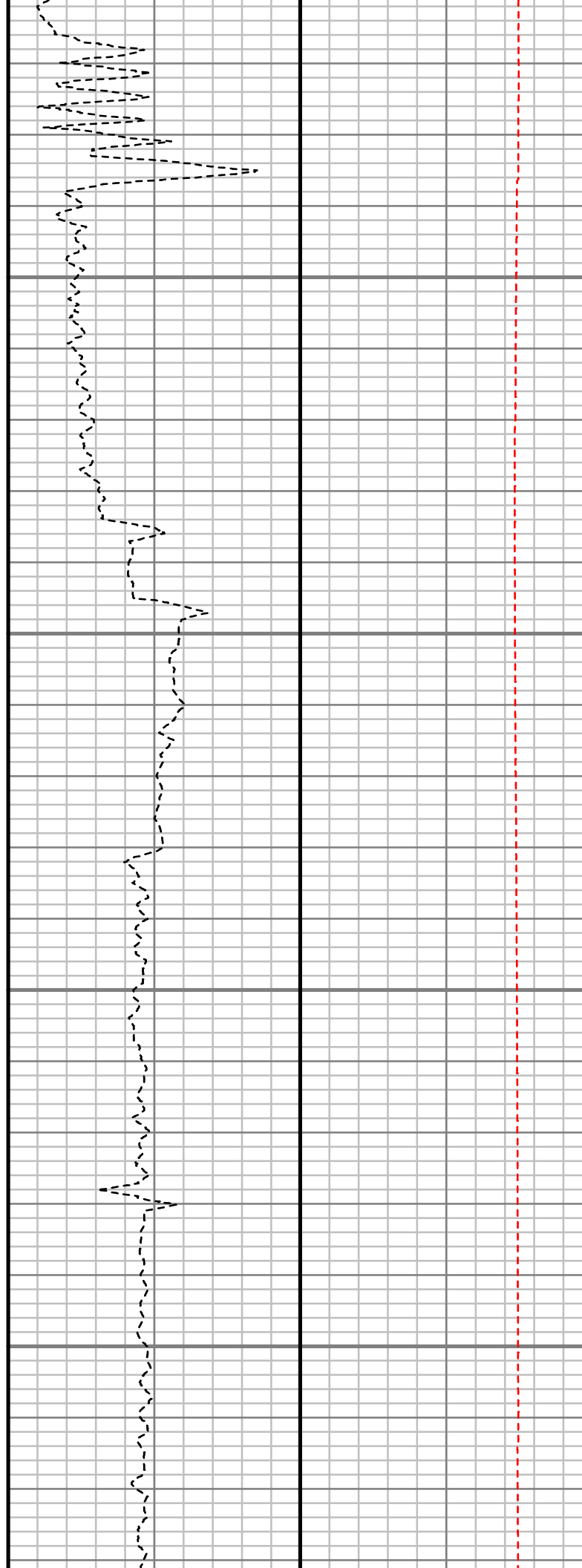


11750

11800

11850

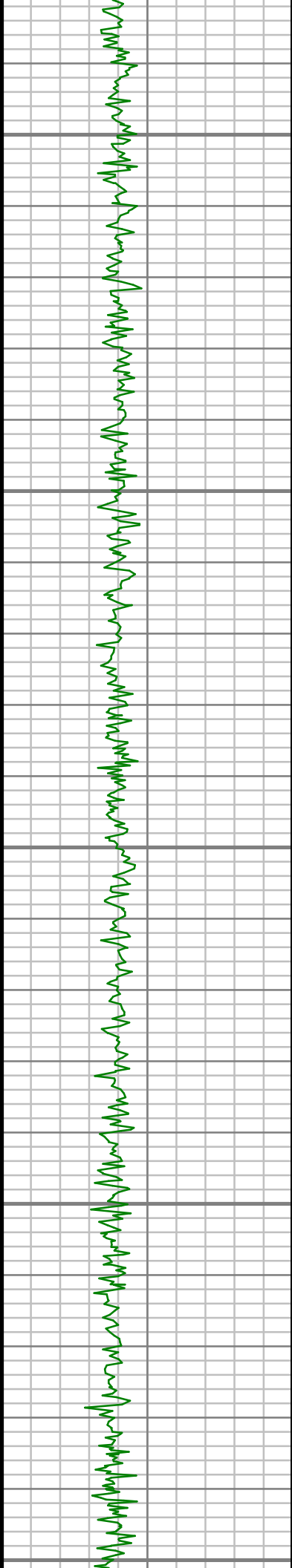
11900



S: 117 MD: 11722.00 ft
Inc: 90.37 deg Az:
359.09 deg TVD:
7744.18 ft

S: 118 MD: 11817.00 ft
Inc: 89.66 deg Az: 0.25
deg TVD: 7744.16 ft

S: 119 MD: 11911.00 ft
Inc: 90.10 deg Az: 0.29
deg TVD: 7744.35 ft



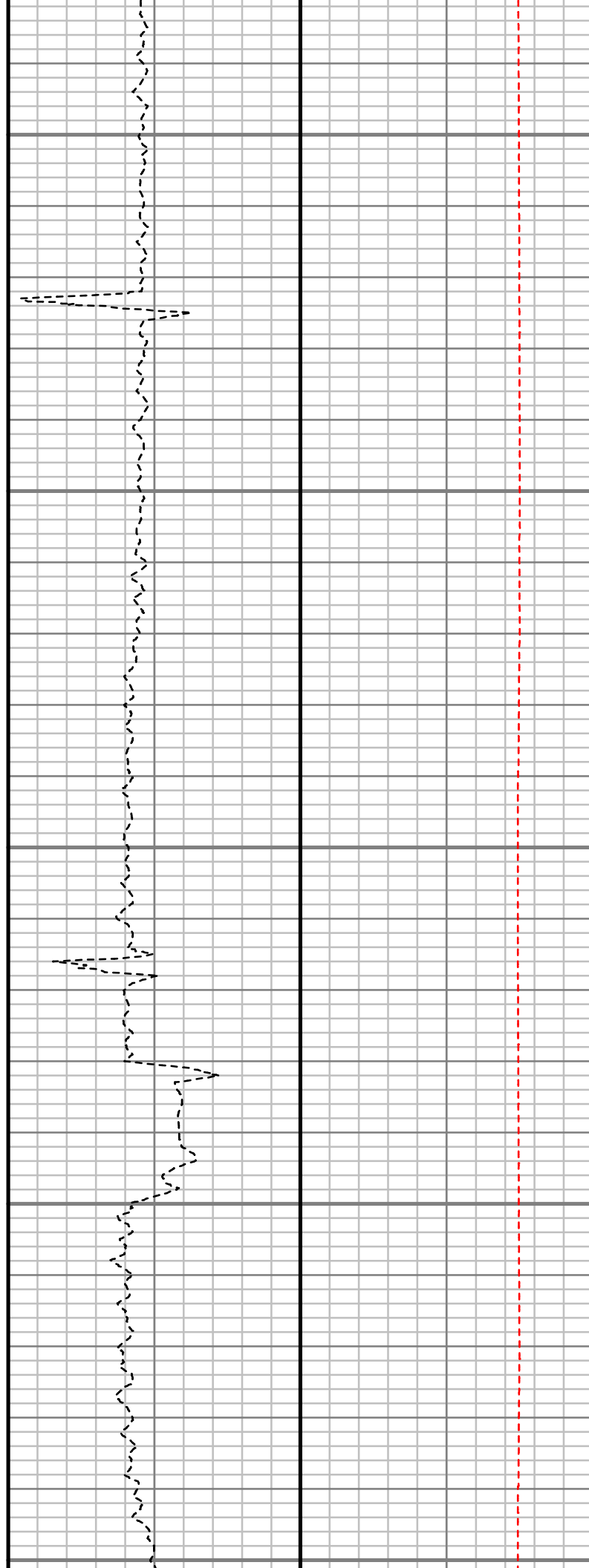
11950

12000

12050

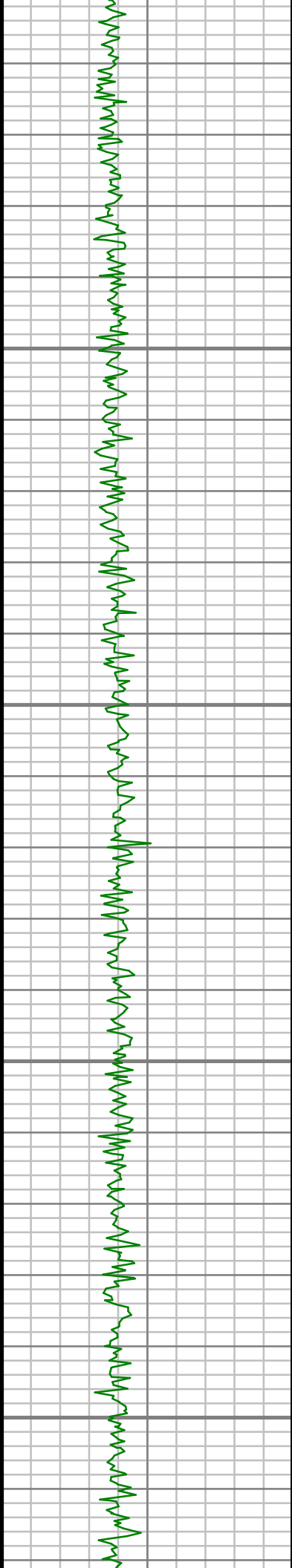
12100

12150



S: 120 MD: 12006.00 ft
Inc: 90.40 deg Az: 0.64
deg TVD: 7743.93 ft

S: 121 MD: 12100.00 ft
Inc: 90.13 deg Az: 0.03
deg TVD: 7743.49 ft

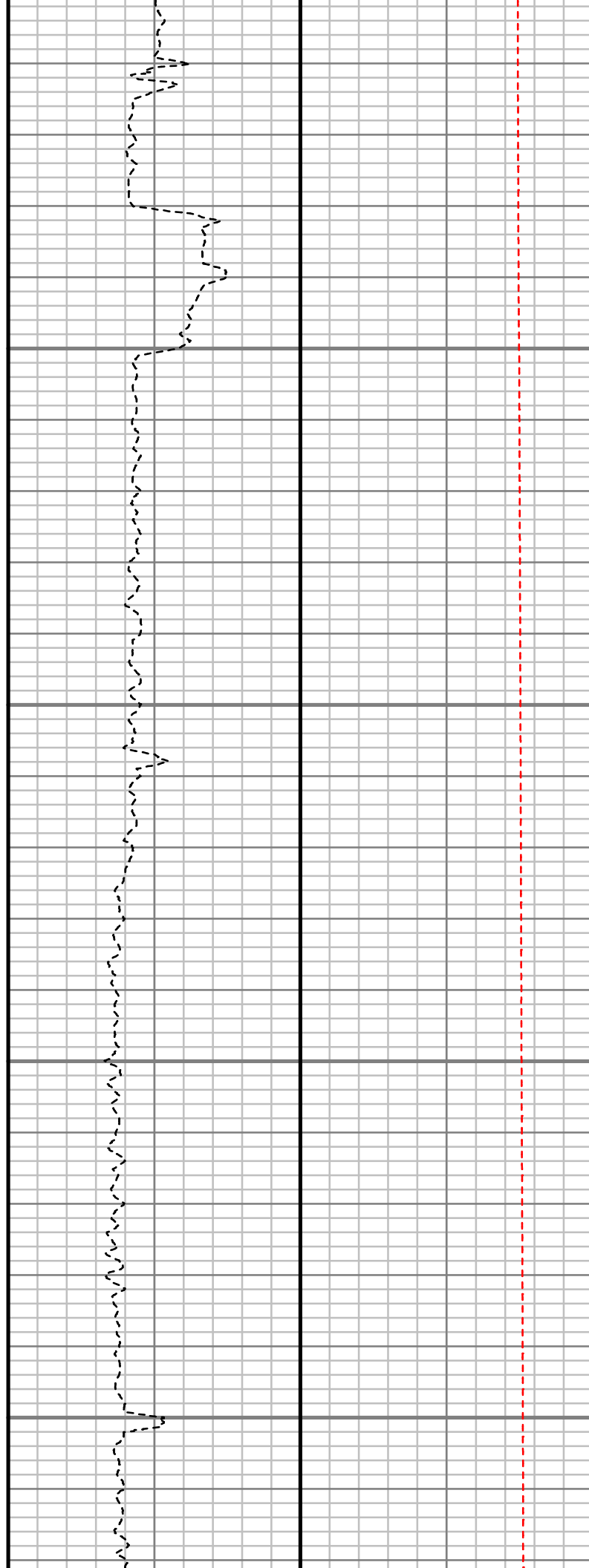


12200

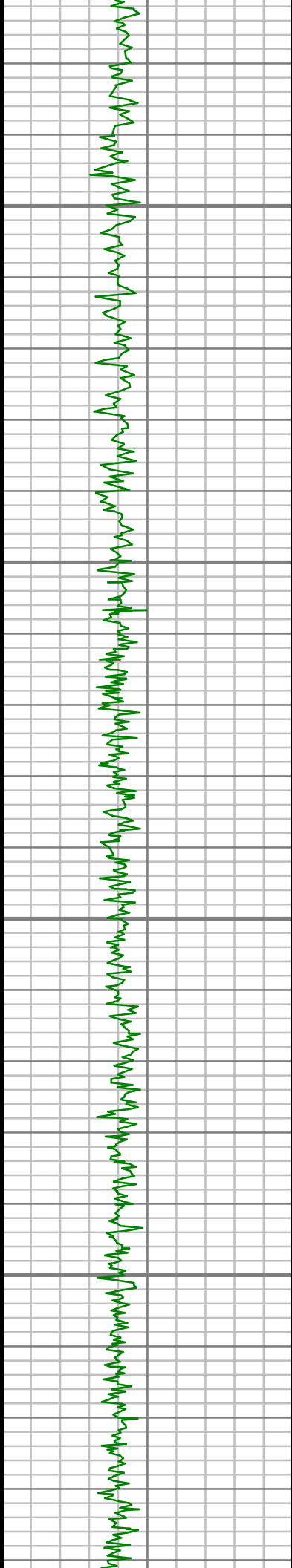
12250

12300

12350



S: 122 MD: 12195.00 ft
Inc: 88.86 deg Az:
359.36 deg TVD:
7744.32 ft

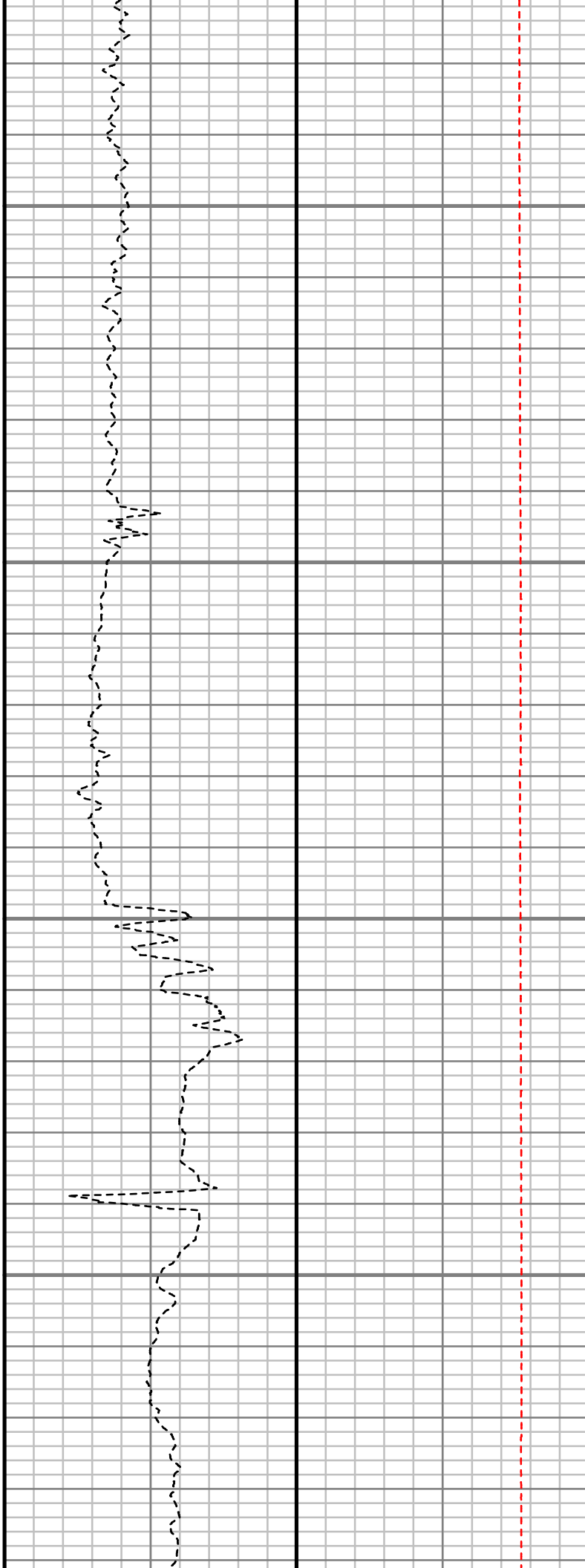


12400

12450

12500

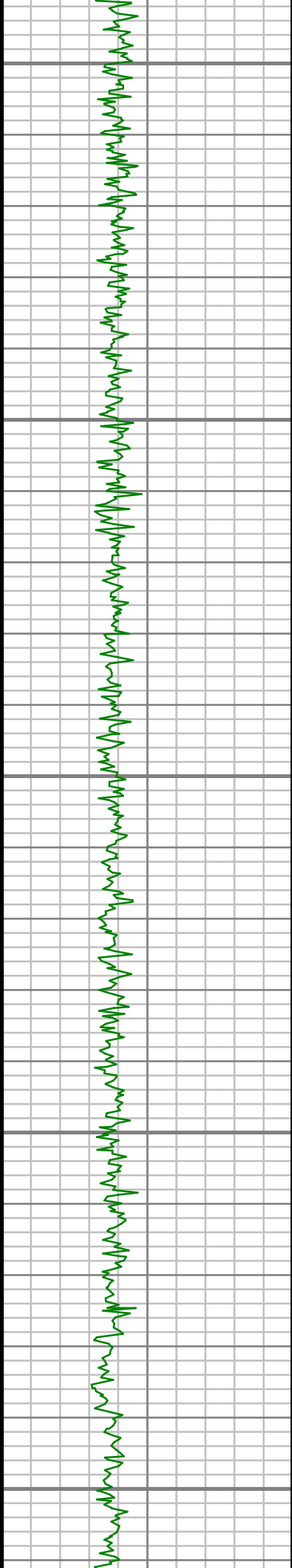
12550



S: 123 MD: 12383.00 ft
Inc: 89.16 deg Az:
358.23 deg TVD:
7747.56 ft

S: 124 MD: 12478.00 ft
Inc: 89.67 deg Az:
358.06 deg TVD:
7748.53 ft

S: 125 MD: 12572.00 ft
Inc: 90.03 deg Az:
357.60 deg TVD:
7748.78 ft



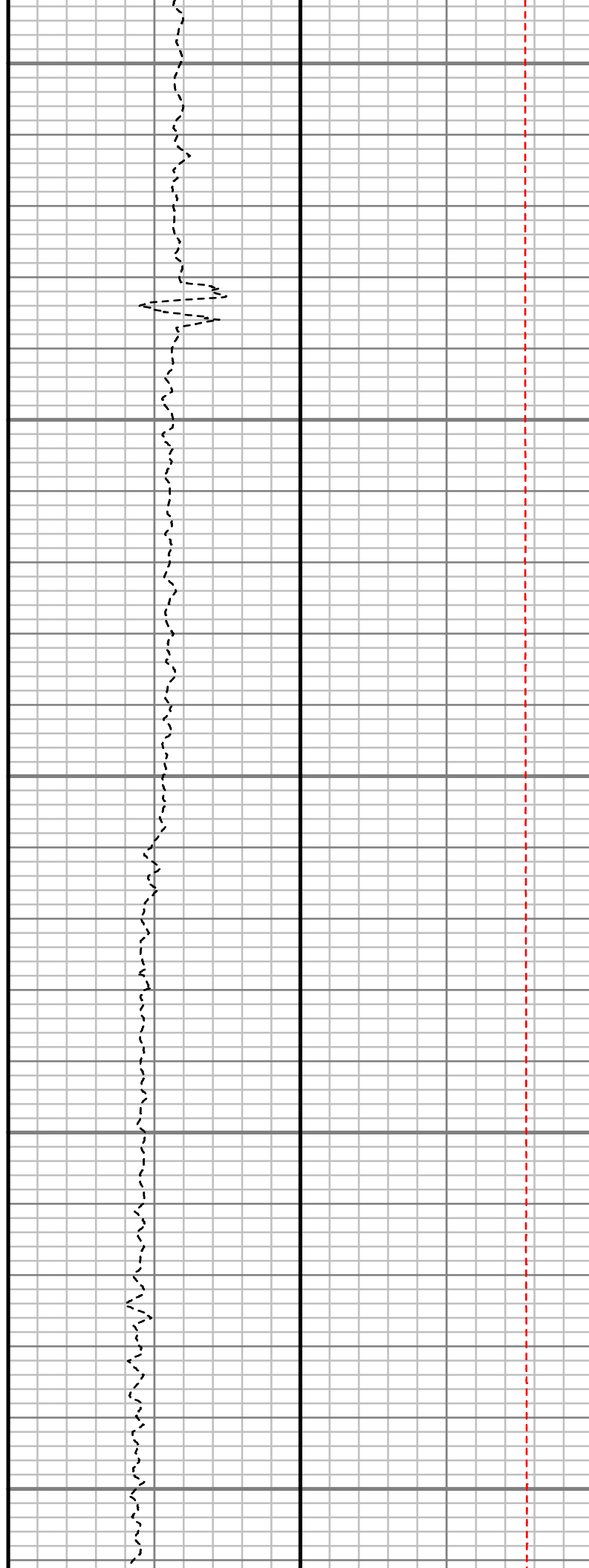
12600

12650

12700

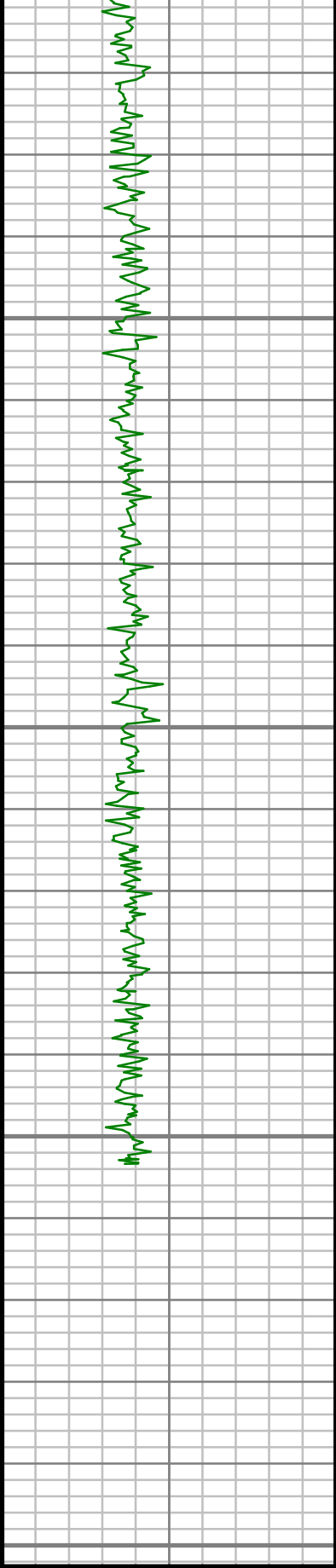
12750

12800



S: 126 MD: 12666.00 ft
Inc: 90.27 deg Az:
356.72 deg TVD:
7748.53 ft

S: 127 MD: 12761.00 ft
Inc: 90.13 deg Az:
355.85 deg TVD:
7748.20 ft



Gamma Ray (GR)		
0	Unit = aapi	150

12850

12900

12950

13000

MEASURED DEPTH
1:240 (ft)



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

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

S: 128 MD: 12855.00 ft
Inc: 90.07 deg Az:
354.54 deg TVD:
7748.03 ft

Comments

Survey Report

Customer Name:	ANADARKO PETROLEUM CORP.						
Site Name:	NRC 15-8HZ PAD						
Well Name:	NRC 28C-8HZ						
Survey:	NRC 28C-8HZ						
Survey Date:	5/9/2014						
Magnetic Declination:	8.51 deg						
North Reference:	True North						
Calculation Method:	Minimum Curvature						
Section (VS) Ref:	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 °/100ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid
25.00	0.00	0.00	25.00	0.00	0.00	0.00	0.00
125.00	0.13	2.53	125.00	0.11	0.11	0.01	0.13
225.00	0.55	219.33	225.00	-0.14	-0.14	-0.29	0.66
325.00	0.05	204.94	325.00	-0.56	-0.56	-0.62	0.50
425.00	0.20	65.84	425.00	-0.52	-0.52	-0.48	0.24
525.00	0.65	136.37	524.99	-0.86	-0.86	0.07	0.61
625.00	0.39	152.05	624.99	-1.57	-1.57	0.63	0.29
725.00	0.30	119.68	724.99	-2.00	-2.00	1.01	0.21

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft
825.00	0.77	85.24	824.98	-2.08	-2.08	1.91	0.55
925.00	0.76	74.97	924.97	-1.85	-1.85	3.22	0.14
1025.00	0.46	55.13	1024.97	-1.45	-1.45	4.19	0.36
1125.00	0.67	88.25	1124.96	-1.20	-1.20	5.10	0.38
1175.00	0.36	82.09	1174.96	-1.17	-1.17	5.55	0.63
1373.00	0.34	284.61	1372.96	-0.94	-0.94	5.59	0.35
1464.00	2.22	233.18	1463.94	-1.92	-1.92	3.92	2.22
1573.00	4.84	237.34	1572.72	-5.67	-5.67	-1.64	2.41
1665.00	8.01	240.38	1664.13	-10.93	-10.93	-10.48	3.47
1757.00	10.13	237.93	1754.98	-18.40	-18.40	-22.91	2.34
1849.00	14.07	233.28	1844.92	-29.38	-29.38	-38.73	4.41
1941.00	16.42	224.04	1933.68	-45.42	-45.42	-56.75	3.67
2032.00	16.59	219.56	2020.94	-64.69	-64.69	-73.96	1.41
2123.00	18.38	210.56	2107.75	-87.06	-87.06	-89.53	3.56
2215.00	17.42	210.09	2195.29	-111.47	-111.47	-103.81	1.06
2397.00	16.99	215.46	2369.16	-156.70	-156.70	-132.90	0.90
2488.00	18.37	207.69	2455.87	-180.24	-180.24	-147.28	3.00
2580.00	17.20	207.60	2543.47	-205.13	-205.13	-160.32	1.28
2763.00	13.92	198.78	2719.77	-249.96	-249.96	-179.95	2.20
2854.00	14.54	205.73	2807.98	-270.61	-270.61	-188.43	1.99

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft
3037.00	17.23	214.53	2984.01	-313.64	-313.64	-213.76	1.97
3129.00	18.67	212.62	3071.53	-337.27	-337.27	-229.42	1.69
3220.00	18.47	206.11	3157.80	-362.48	-362.48	-243.62	2.29
3312.00	17.22	206.16	3245.37	-387.80	-387.80	-256.04	1.36
3406.00	17.52	206.93	3335.08	-412.91	-412.91	-268.59	0.40
3501.00	17.00	204.06	3425.80	-438.34	-438.34	-280.73	1.05
3595.00	14.62	204.10	3516.24	-461.72	-461.72	-291.18	2.53
3690.00	15.60	208.92	3607.96	-483.85	-483.85	-302.25	1.67
3878.00	14.03	211.10	3789.71	-525.48	-525.48	-326.24	0.89
3973.00	14.06	208.00	3881.87	-545.53	-545.53	-337.61	0.79
4162.00	12.74	212.02	4065.72	-583.48	-583.48	-359.44	0.85
4350.00	13.37	210.94	4248.86	-619.71	-619.71	-381.61	0.36
4445.00	14.07	203.39	4341.15	-639.73	-639.73	-391.84	2.02
4539.00	15.84	204.38	4431.97	-661.91	-661.91	-401.68	1.90
4633.00	15.60	201.36	4522.45	-685.37	-685.37	-411.58	0.91
4728.00	14.45	205.11	4614.20	-708.00	-708.00	-421.26	1.59
4822.00	15.72	201.75	4704.96	-730.45	-730.45	-430.96	1.64
4917.00	16.75	208.68	4796.18	-754.41	-754.41	-442.30	2.31
5011.00	15.36	208.59	4886.51	-777.24	-777.24	-454.76	1.48

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft
5199.00	13.89	210.47	5068.42	-818.55	-818.55	-478.12	0.82
5293.00	11.62	206.52	5160.09	-836.75	-836.75	-488.07	2.58
5388.00	12.04	208.24	5253.07	-854.05	-854.05	-497.03	0.57
5482.00	10.46	203.30	5345.27	-870.52	-870.52	-505.05	1.97
5576.00	10.63	209.53	5437.68	-885.90	-885.90	-512.70	1.23
5671.00	8.53	208.86	5531.35	-899.69	-899.69	-520.42	2.22
5860.00	6.26	209.23	5718.77	-920.97	-920.97	-532.22	1.20
5954.00	5.27	201.73	5812.29	-929.45	-929.45	-536.32	1.33
6048.00	3.56	187.18	5906.01	-936.36	-936.36	-538.28	2.16
6143.00	1.71	204.44	6000.91	-940.58	-940.58	-539.24	2.10
6237.00	1.98	184.10	6094.86	-943.48	-943.48	-539.93	0.75
6332.00	1.41	328.76	6189.84	-944.11	-944.11	-540.66	3.41
6426.00	1.10	318.72	6283.82	-942.44	-942.44	-541.85	0.41
6520.00	0.75	303.87	6377.81	-941.42	-941.42	-542.96	0.44
6614.00	0.98	337.26	6471.80	-940.34	-940.34	-543.79	0.58
6709.00	0.42	326.40	6566.79	-939.29	-939.29	-544.29	0.60
6803.00	0.78	96.70	6660.79	-939.08	-939.08	-543.85	1.17
6898.00	0.33	92.27	6755.78	-939.17	-939.17	-542.93	0.48
6992.00	0.55	42.44	6849.78	-938.85	-938.85	-542.35	0.45
7086.00	0.76	352.87	6943.78	-937.90	-937.90	-542.13	0.62

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft
7132.00	0.47	65.64	6989.77	-937.52	-937.52	-541.99	1.66
7179.00	1.34	38.68	7036.77	-937.01	-937.01	-541.47	2.01
7226.00	3.84	13.56	7083.72	-935.05	-935.05	-540.76	5.72
7275.00	7.01	7.38	7132.49	-930.49	-930.49	-539.99	6.57
7321.00	9.61	8.45	7178.01	-923.91	-923.91	-539.07	5.67
7369.00	13.63	10.63	7225.01	-914.38	-914.38	-537.43	8.42
7416.00	16.65	13.09	7270.38	-902.38	-902.38	-534.89	6.58
7464.00	18.89	12.69	7316.08	-888.10	-888.10	-531.62	4.67
7511.00	21.96	10.86	7360.12	-872.04	-872.04	-528.29	6.68
7558.00	26.47	6.35	7402.98	-852.98	-852.98	-525.48	10.36
7605.00	30.23	2.34	7444.34	-830.74	-830.74	-523.84	8.96
7653.00	32.88	359.59	7485.24	-805.63	-805.63	-523.44	6.28
7700.00	37.81	357.98	7523.56	-778.46	-778.46	-524.03	10.67
7747.00	42.31	358.66	7559.52	-748.23	-748.23	-524.91	9.62
7794.00	47.95	359.23	7592.67	-714.94	-714.94	-525.52	12.03
7888.00	58.85	359.95	7648.63	-639.59	-639.59	-526.02	11.61
7936.00	62.87	0.39	7672.00	-597.67	-597.67	-525.90	8.40
7983.00	65.88	1.09	7692.33	-555.31	-555.31	-525.35	6.54
8030.00	68.98	1.31	7710.37	-511.92	-511.92	-524.44	6.62

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft
8077.00	72.59	1.06	7725.83	-467.56	-467.56	-523.52	7.69
8124.00	77.26	359.70	7738.05	-422.19	-422.19	-523.23	10.33
8171.00	82.98	359.03	7746.11	-375.91	-375.91	-523.75	12.25
8327.00	89.53	359.07	7756.30	-220.35	-220.35	-526.33	4.20
8421.00	91.04	358.53	7755.83	-126.37	-126.37	-528.30	1.71
8610.00	92.29	358.31	7750.34	62.47	62.47	-533.50	0.67
8798.00	91.64	358.93	7743.89	250.31	250.31	-538.02	0.47
8987.00	90.10	0.27	7741.02	439.27	439.27	-539.34	1.08
9175.00	88.96	359.14	7742.56	627.25	627.25	-540.30	0.85
9270.00	90.24	359.06	7743.23	722.24	722.24	-541.79	1.35
9364.00	90.50	357.78	7742.62	816.20	816.20	-544.38	1.39
9459.00	90.57	357.73	7741.73	911.12	911.12	-548.10	0.09
9741.00	88.03	357.50	7745.18	1192.83	1192.83	-559.86	0.91
9835.00	88.83	358.09	7747.76	1286.73	1286.73	-563.48	1.06
9929.00	90.17	358.46	7748.58	1380.68	1380.68	-566.31	1.48
10023.00	90.74	359.09	7747.84	1474.65	1474.65	-568.33	0.90
10117.00	90.84	358.14	7746.55	1568.61	1568.61	-570.60	1.01
10211.00	89.97	357.58	7745.88	1662.54	1662.54	-574.12	1.11
10400.00	90.50	357.65	7745.11	1851.38	1851.38	-581.99	0.29
10494.00	89.80	359.00	7744.87	1945.33	1945.33	-584.74	1.62

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS
ft	deg	deg	ft	ft	ft	ft	°/100ft
10589.00	89.93	358.30	7745.09	2040.31	2040.31	-586.98	0.75
10683.00	89.77	358.10	7745.34	2134.26	2134.26	-589.93	0.28
10778.00	89.70	358.72	7745.78	2229.22	2229.22	-592.56	0.66
10873.00	89.40	0.00	7746.53	2324.21	2324.21	-593.62	1.38
10968.00	88.93	1.94	7747.92	2419.18	2419.18	-592.01	2.10
11157.00	90.47	1.93	7748.91	2608.07	2608.07	-585.63	0.82
11251.00	91.61	3.07	7747.21	2701.96	2701.96	-581.54	1.72
11440.00	90.34	2.52	7743.99	2890.70	2890.70	-572.32	0.73
11534.00	89.40	1.20	7744.21	2984.65	2984.65	-569.26	1.72
11628.00	90.13	359.99	7744.60	3078.64	3078.64	-568.28	1.51
11722.00	90.37	359.09	7744.18	3172.64	3172.64	-569.04	0.99
11817.00	89.66	0.25	7744.16	3267.63	3267.63	-569.59	1.43
11911.00	90.10	0.29	7744.35	3361.63	3361.63	-569.15	0.47
12006.00	90.40	0.64	7743.93	3456.63	3456.63	-568.38	0.49
12100.00	90.13	0.03	7743.49	3550.62	3550.62	-567.82	0.71
12195.00	88.86	359.36	7744.32	3645.62	3645.62	-568.33	1.52
12383.00	89.16	358.23	7747.56	3833.54	3833.54	-572.28	0.62
12478.00	89.67	358.06	7748.53	3928.49	3928.49	-575.35	0.56
12572.00	90.03	357.60	7748.78	4022.42	4022.42	-578.91	0.63

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft
12666.00	90.27	356.72	7748.53	4116.30	4116.30	-583.57	0.97
12761.00	90.13	355.85	7748.20	4211.10	4211.10	-589.73	0.93
12855.00	90.07	354.54	7748.03	4304.77	4304.77	-597.60	1.39

5" = 100' FEET MD