



5" = 100' FEET MD

COMPANY : ANADARKO E&P ONSHORE LLC
WELL : POWERS 13N-22HZ
FIELD : WATTENBERG
COUNTY : WELD
STATE : COLORADO
COUNTRY : U.S.A.
UWI : 05-123-41904

COMPANY : ANADARKO E&P ONSHORE LLC

WELL : POWERS 13N-22HZ

FIELD : WATTENBERG

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STATE : COLORADO

COUNTRY : U.S.A.

UWI : 05-123-41904

WELL LOCATION

LAT:40.1293330°N LONG:104.6539120°W
N:14574017.68 ft E:1737155.93 ft

OTHER SERVICES

DIRECTIONAL
ROP

DEPTH REF. : RKB

REF. HEIGHT : 20.000 ft

RKB to Ground Level

GROUND LEVEL : 4883.000 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	1881	0 - 21	0	5379
8.5	1881	12765	21 - 0	5379	6609
			0 - 81	6609	7555
			81 - 92	7555	12765

CASING RECORD

CASING SIZE in	FROM ft	TO ft	
9.625	0	1839	
			DRILLING CO. : PRECISION
			RIG : 461
			LWD UNIT NO. : MWD-00282-CDISTRICT : CASPER
			SPUD DATE : 08/16/2015
			LWD START DATE : 10/10/2015 DEPTH : 1881 ft
			LWD END DATE : 10/12/2015 DEPTH : 12765 ft
			TOTAL DEPTH : 12765 ft


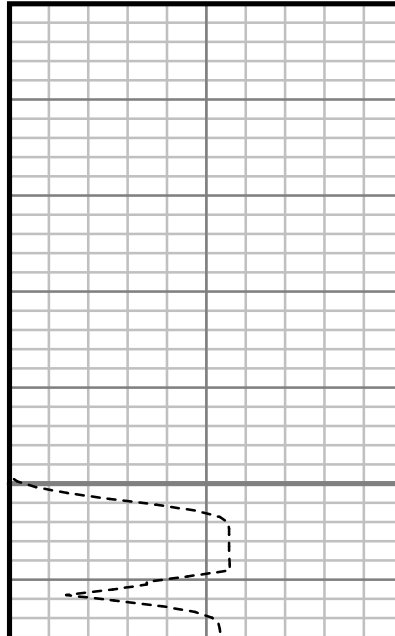
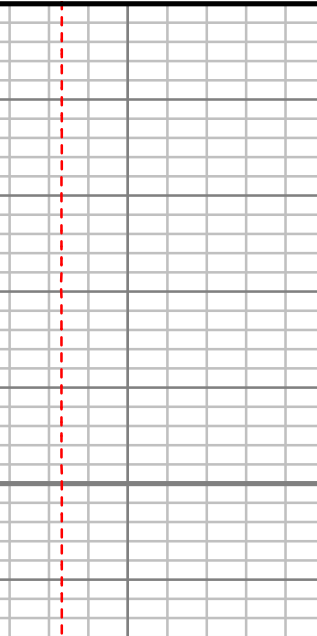
Run Data

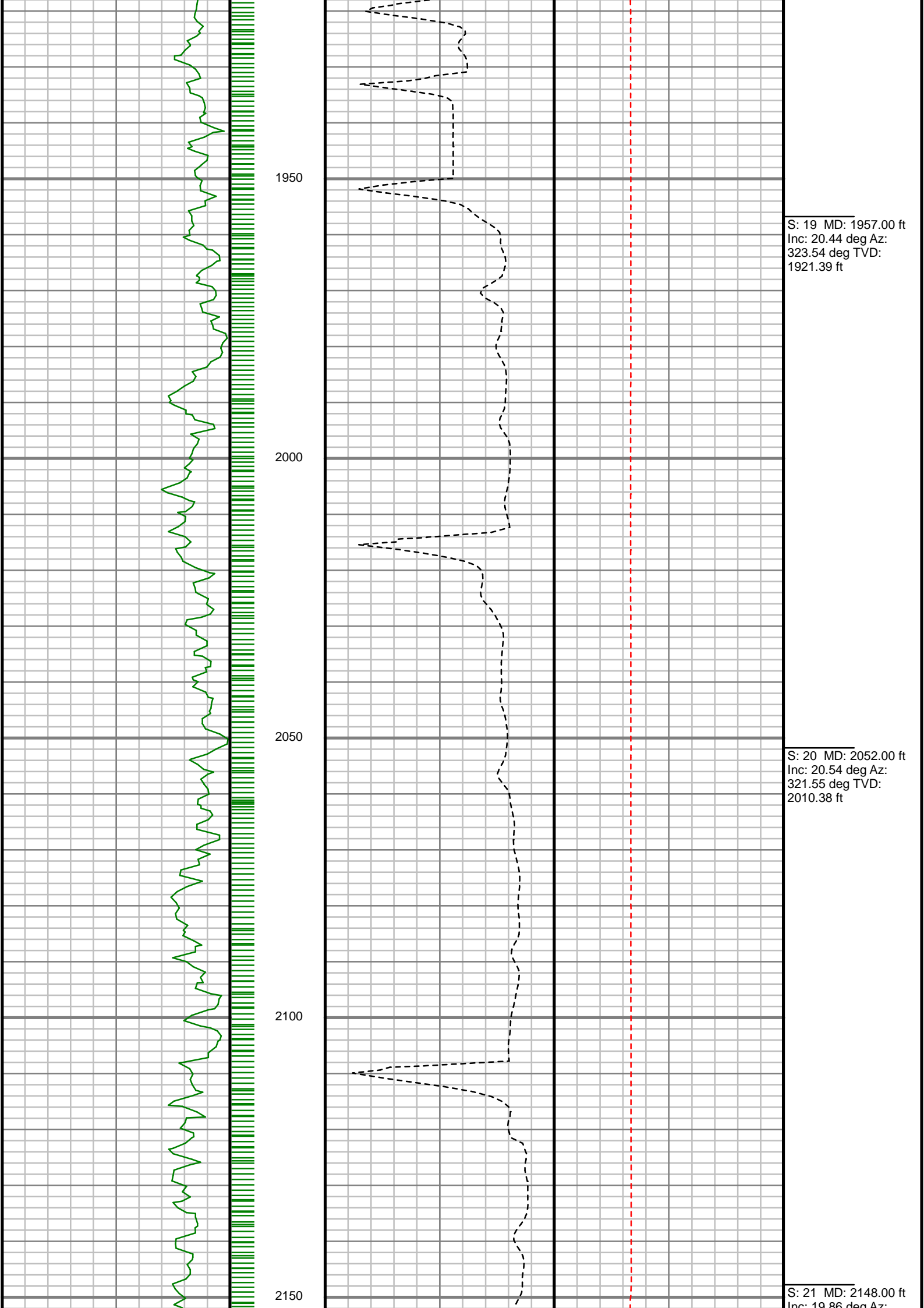
Run Data						
Run Number	1					
Start Date	10/10/2015					
Start Time	0230					
End Date	10/12/2015					
End Time	1630					
Depth In (ft)	1881					
Depth Out (ft)	12765					
Log Top (ft)	1835					
Log Bottom (ft)	12765					
Hole Size (in)	8.5					
Mud Data @ (ft)	5100					
Mud Type	OIL-BASED					
Density (lb / gal)	9.1					
Viscosity (s / qt)	77					
pH	-					
Fluid Loss (cm ³ / 30)	3.2					
Salinity (ppm)	58000					
Rm (ohmm @ deg F)	-					
Rmf (ohmm @ deg F)	-					
Max Temp (deg F)	221					
Rm @ Max Temp (ohmm)	-					
LWD Engineer #1	S. WAXLER					
LWD Engineer #2	H. ORAHOOD					
LWD Engineer #3	-					
Log Witness #1	R. CANNON					
Log Witness #2	I. HARRIS					

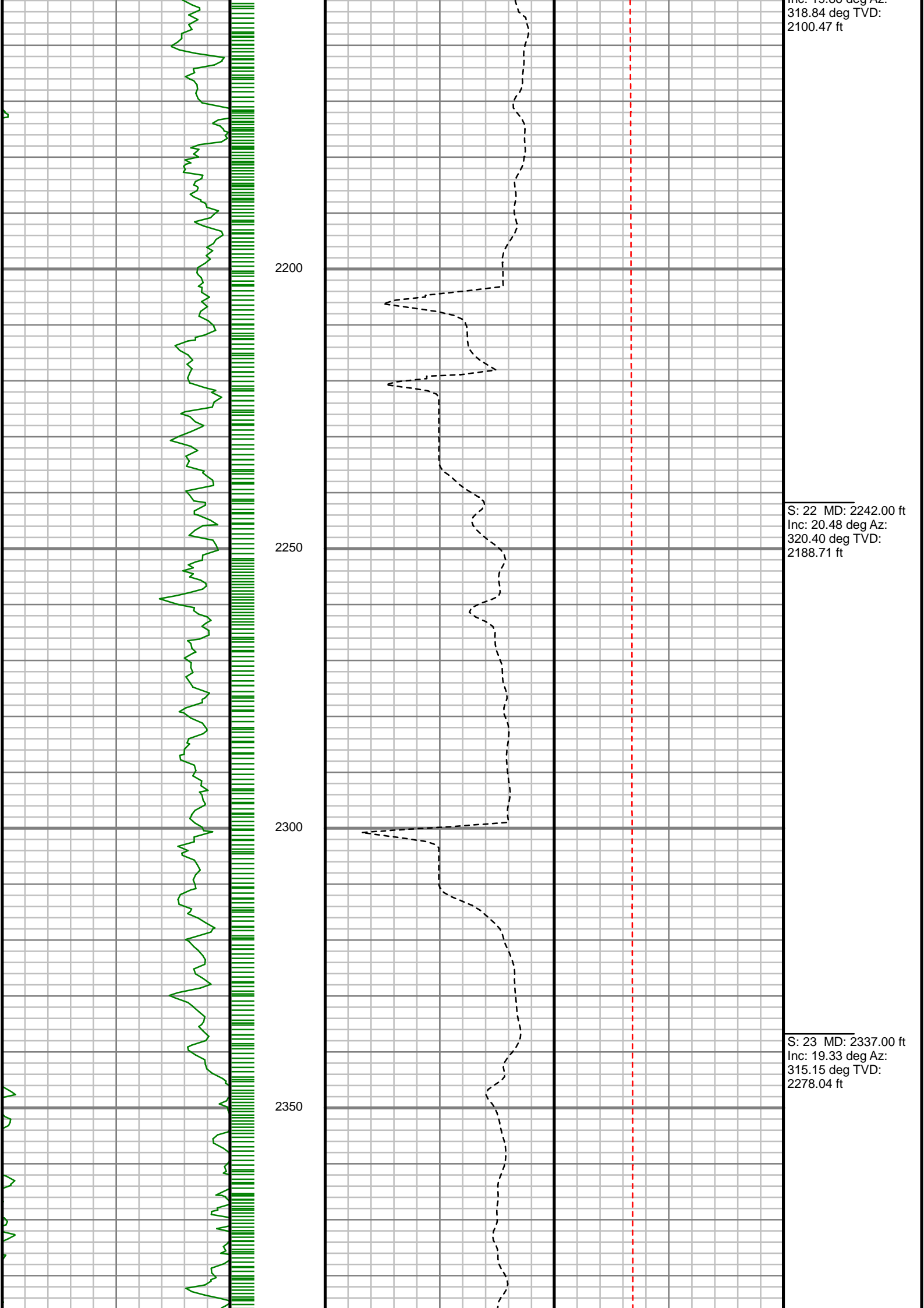
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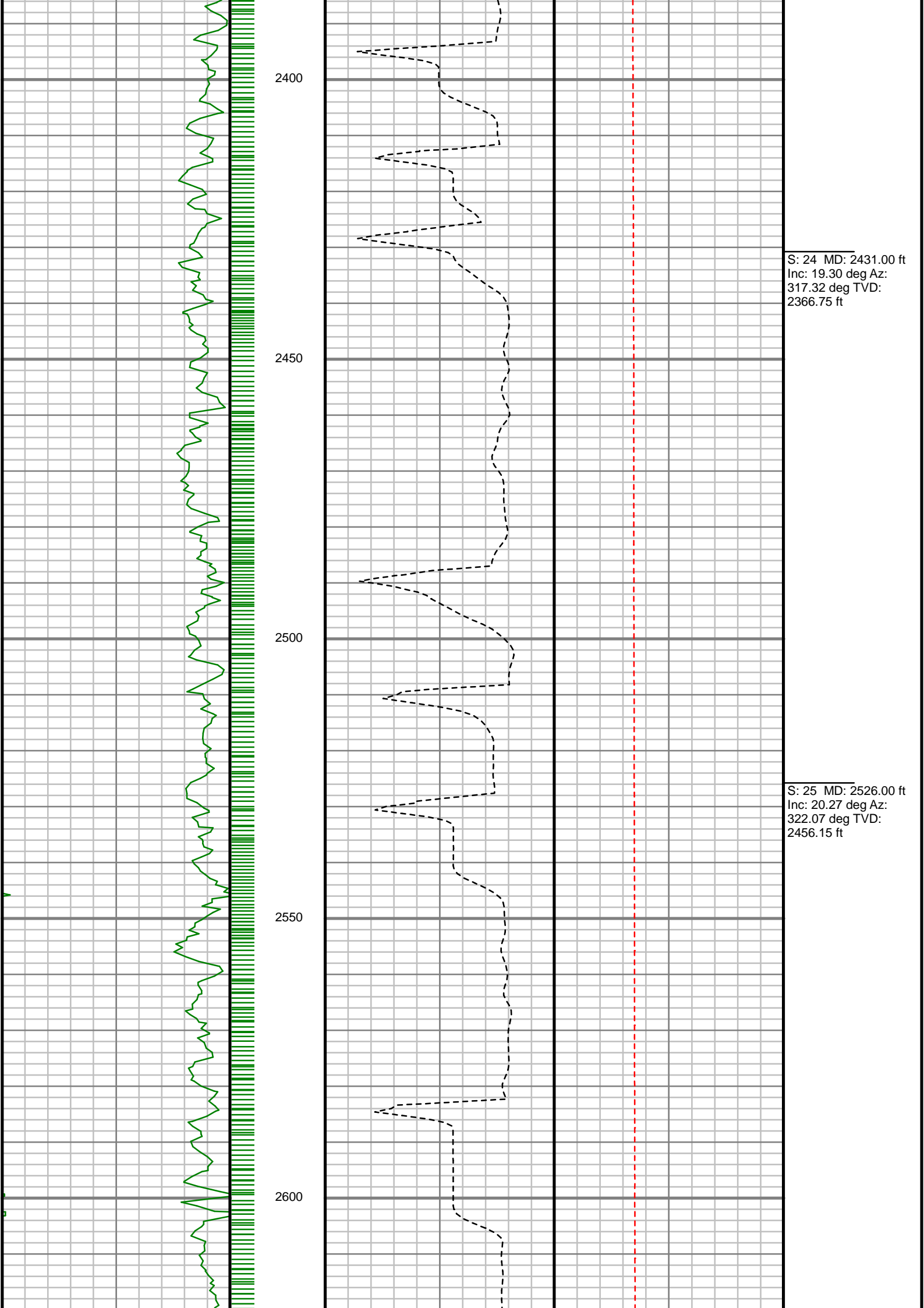
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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 E&P ONSHORE LLC
POWERS 13N-22HZ
WATTENBERG FIELD
WELD COUNTY, COLORADO
05-123-41904

Gamma Ray (GR) Unit = aapi	MEASURED DEPTH 1:240 (ft)	Rate of Penetration (ROP) Unit = ft/hr	Tool Temperature (T-TEMP) Unit = °F	Comments
0 150		0 800	0 300	
	1900			

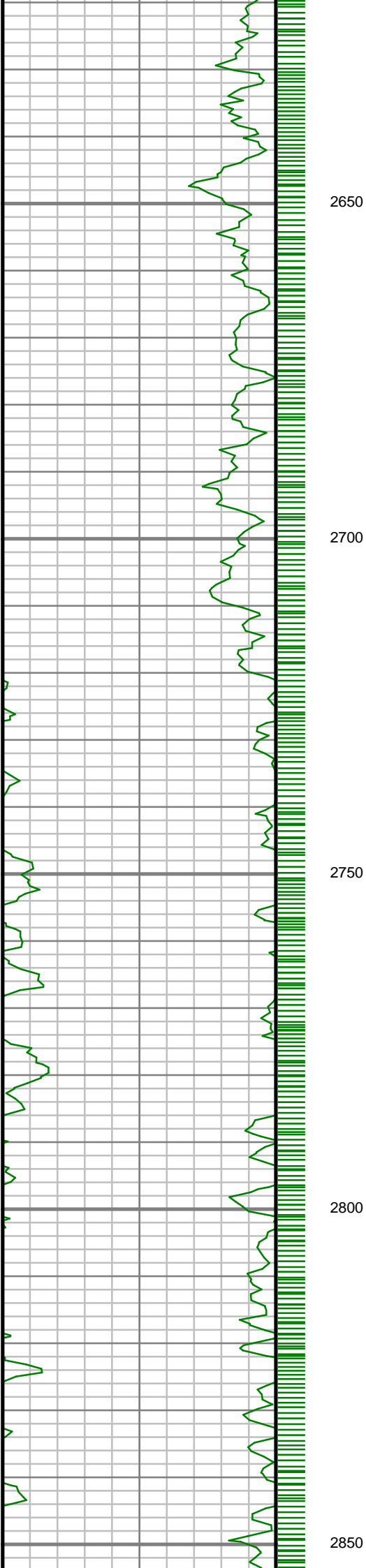






S: 24 MD: 2431.00 ft
Inc: 19.30 deg Az:
317.32 deg TVD:
2366.75 ft

S: 25 MD: 2526.00 ft
Inc: 20.27 deg Az:
322.07 deg TVD:
2456.15 ft



2650

2700

2750

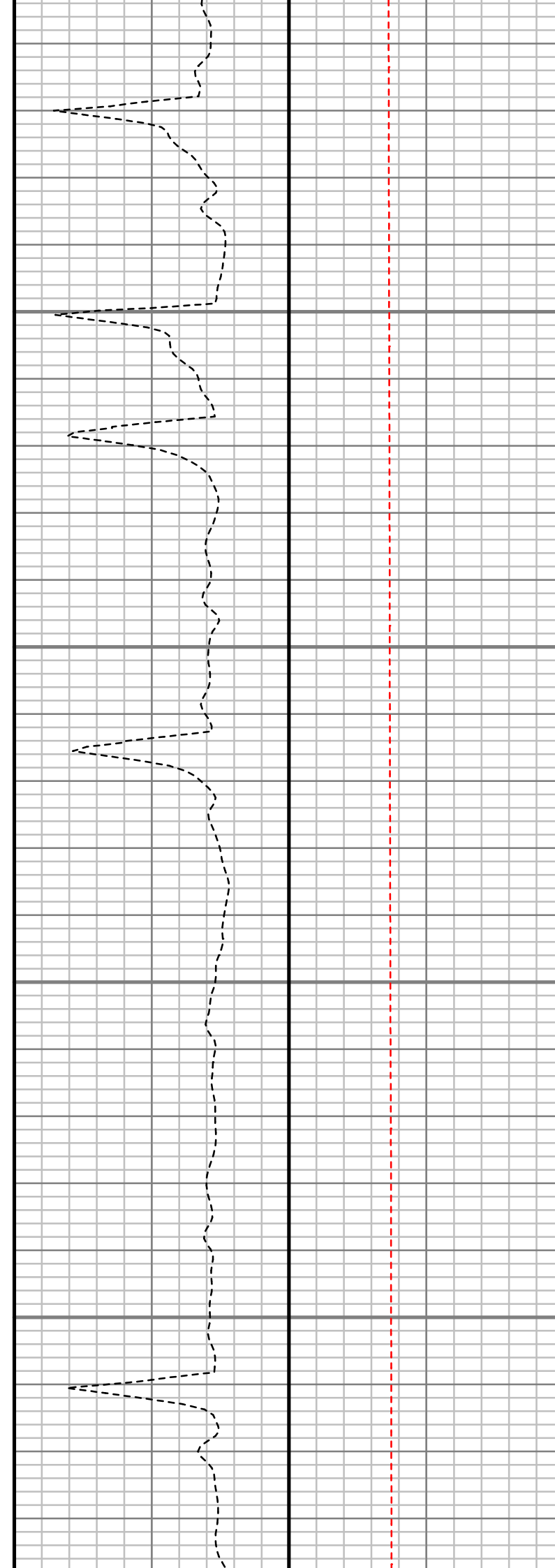
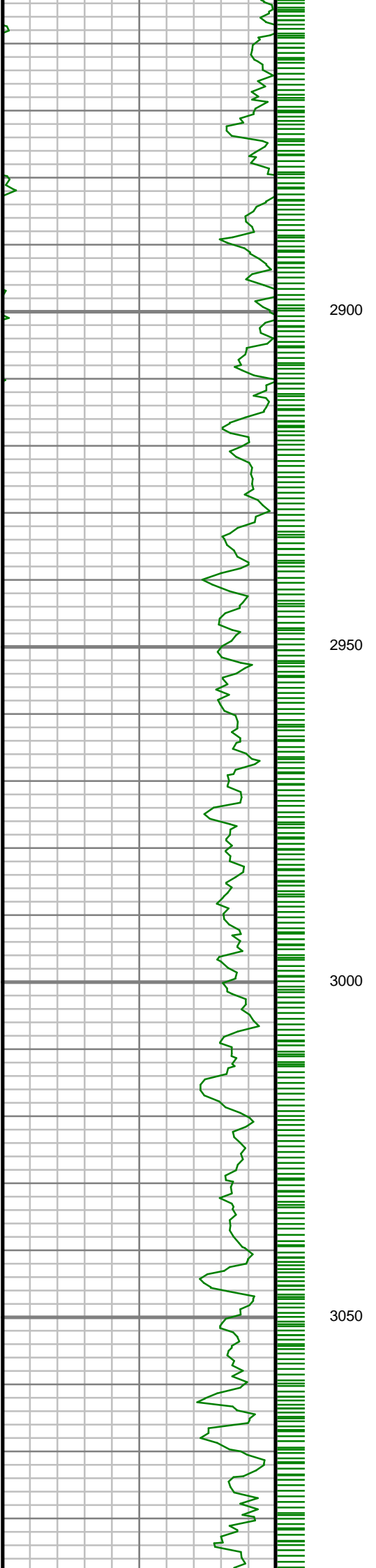
2800

2850

S: 26 MD: 2621.00 ft
Inc: 20.06 deg Az:
320.52 deg TVD:
2545.33 ft

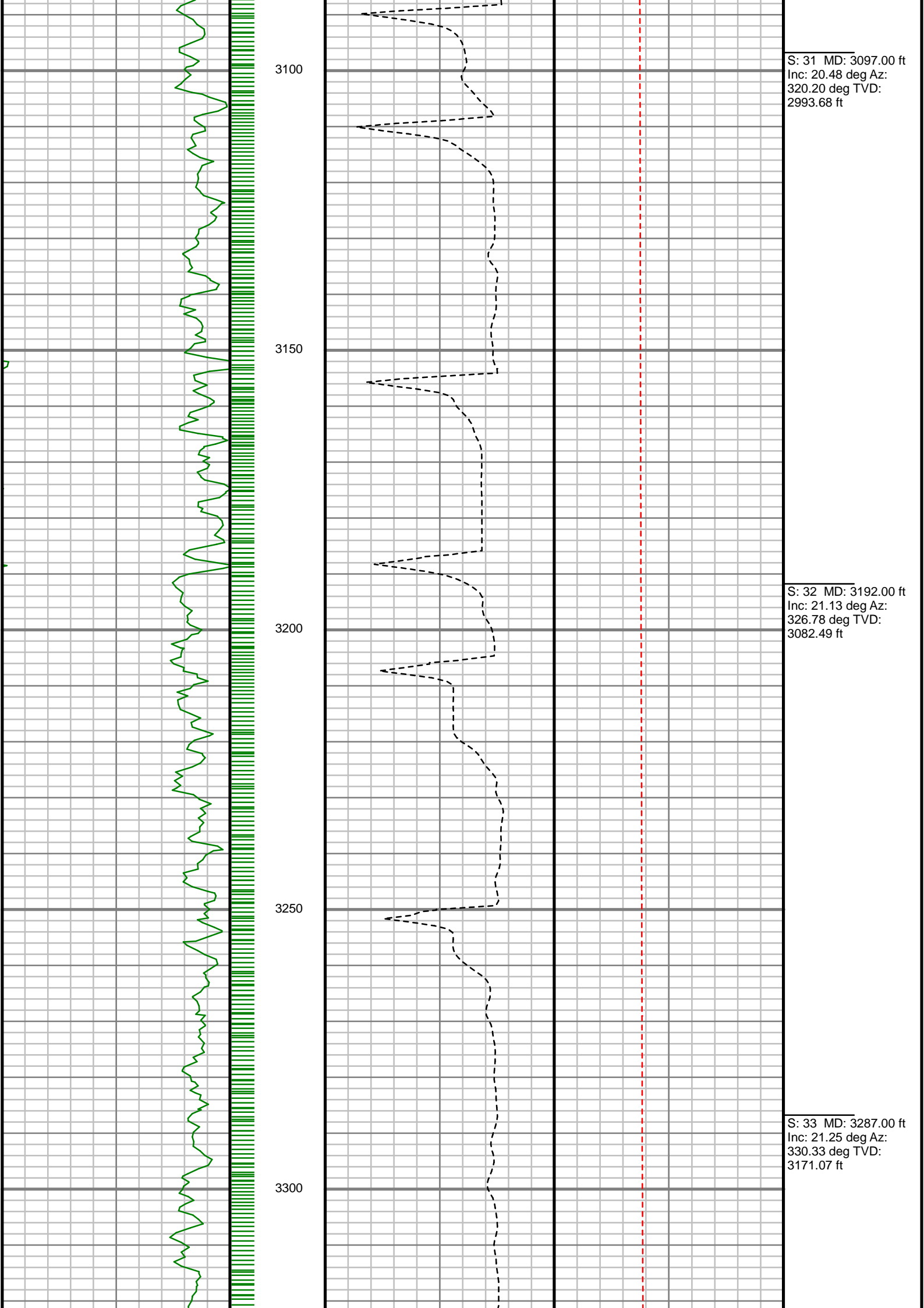
S: 27 MD: 2717.00 ft
Inc: 18.76 deg Az:
316.45 deg TVD:
2635.88 ft

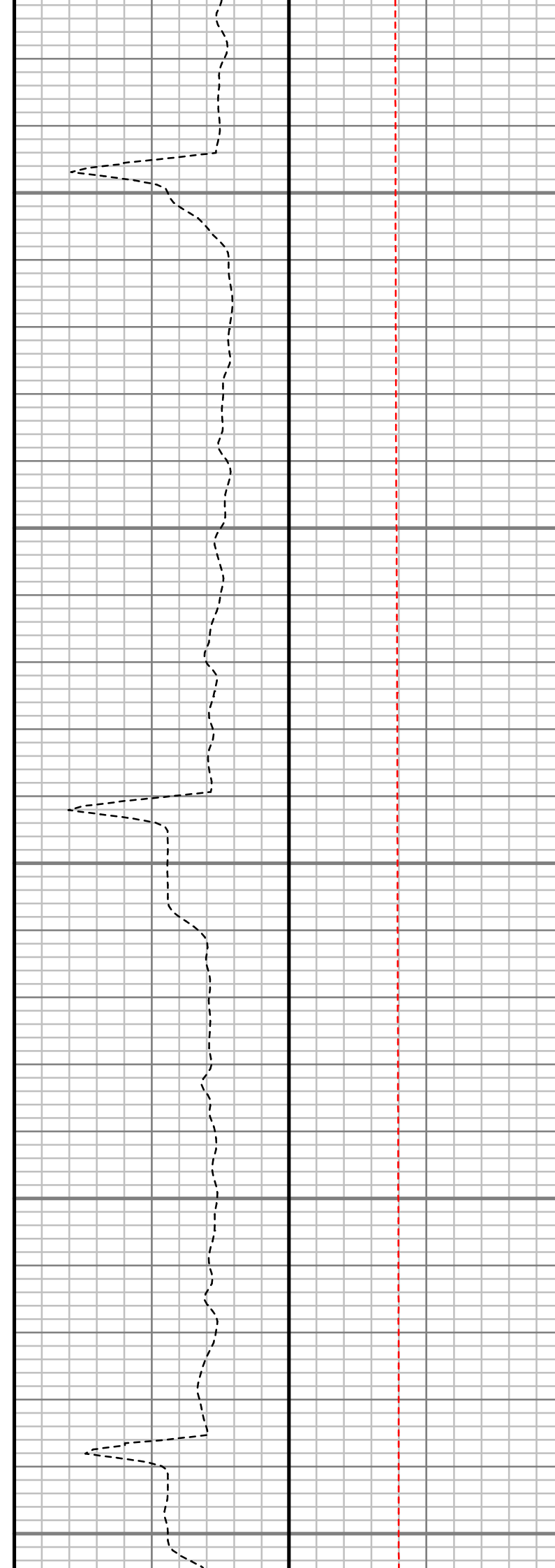
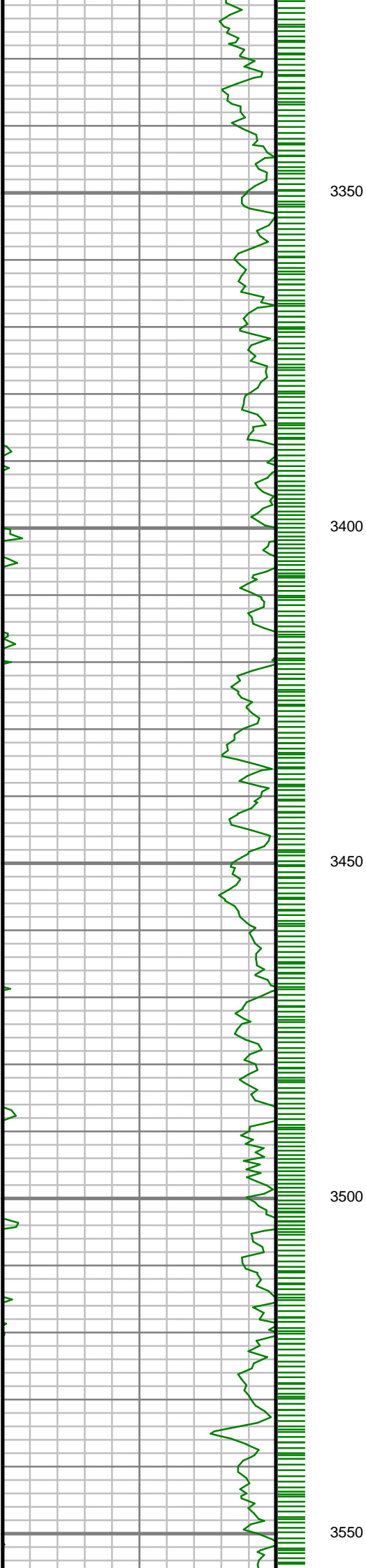
S: 28 MD: 2811.00 ft
Inc: 19.13 deg Az:
318.03 deg TVD:
2724.79 ft



S: 29 MD: 2906.00 ft
Inc: 19.64 deg Az:
319.59 deg TVD:
2814.40 ft

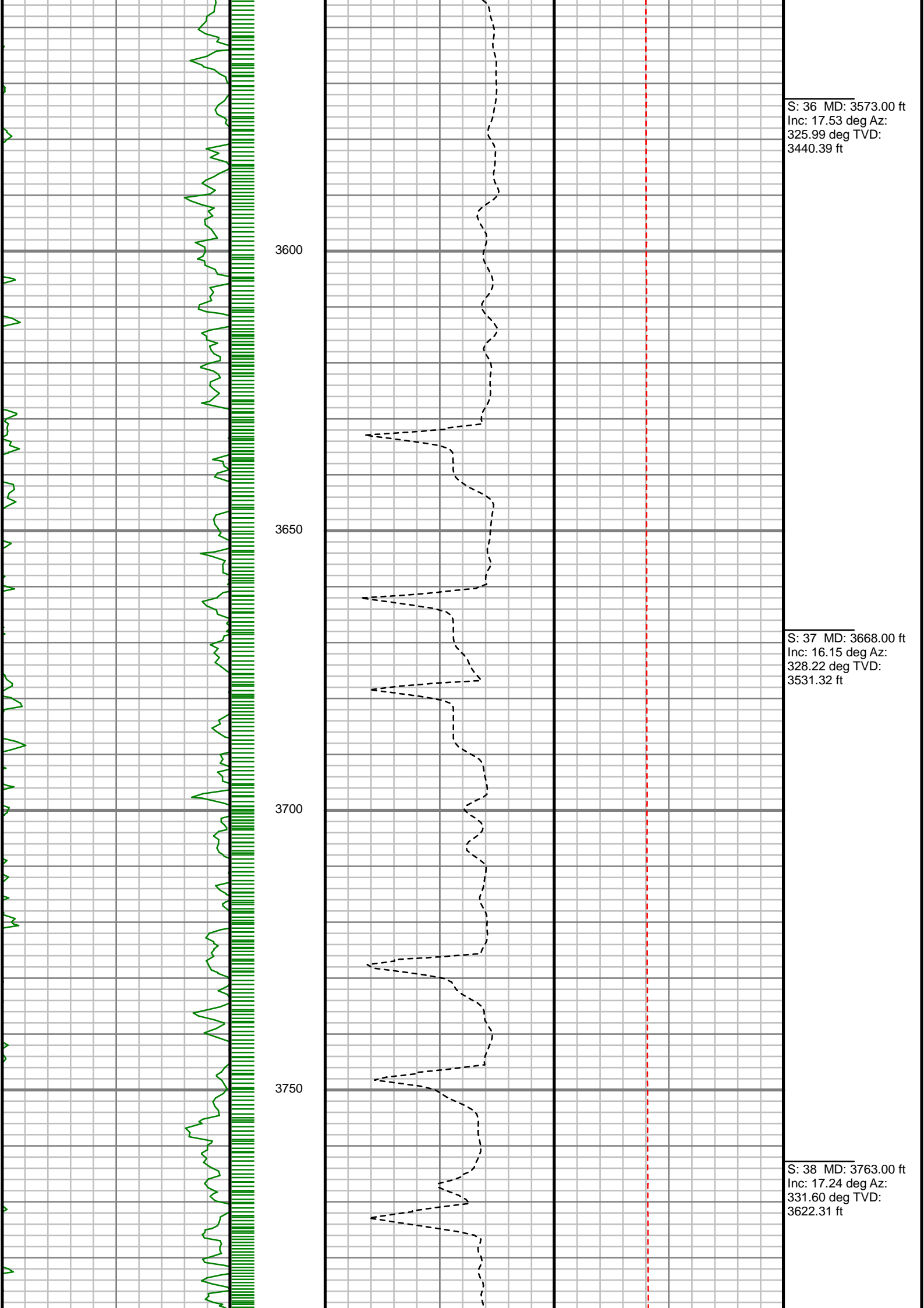
S: 30 MD: 3002.00 ft
Inc: 20.30 deg Az:
318.13 deg TVD:
2904.63 ft

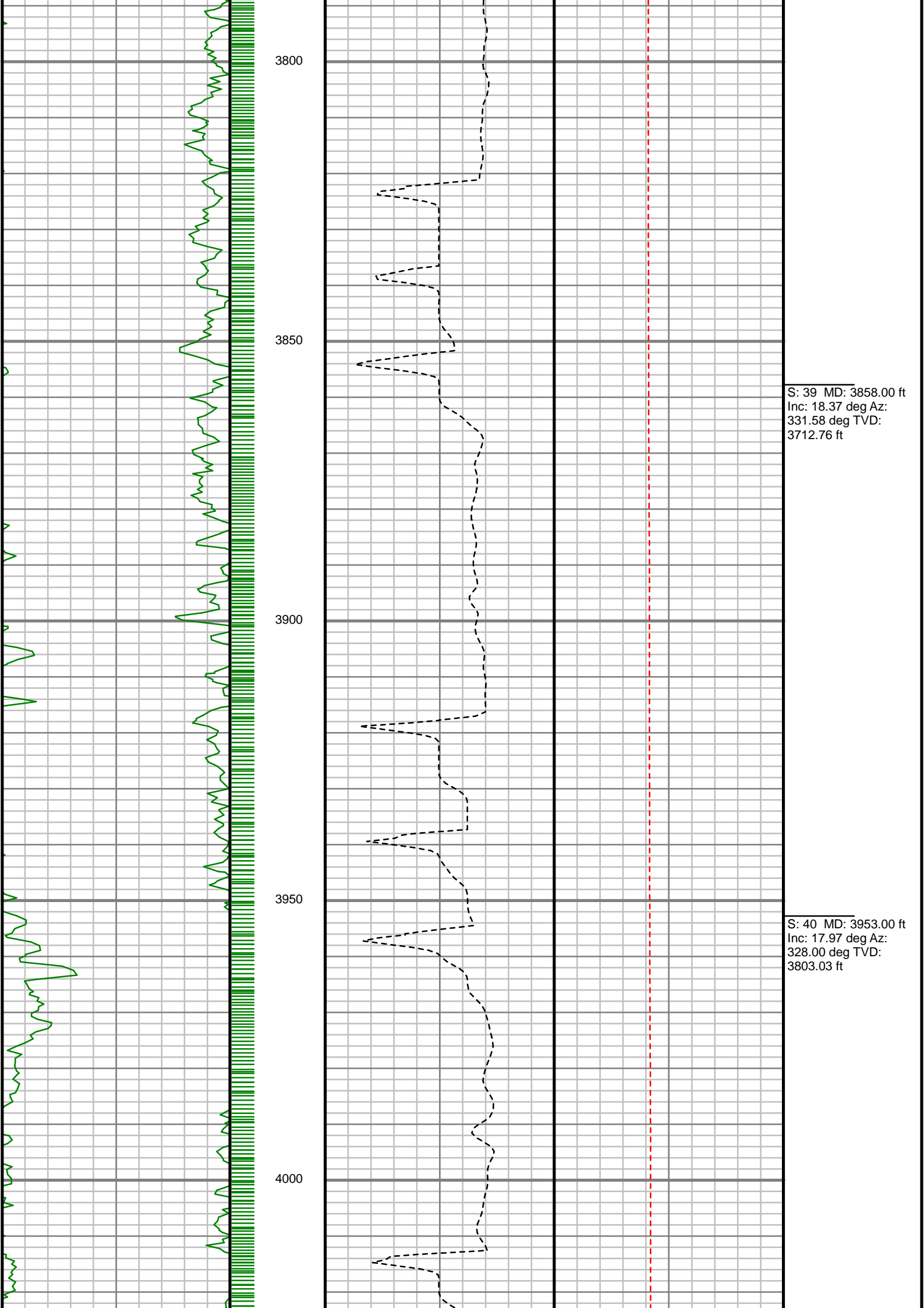


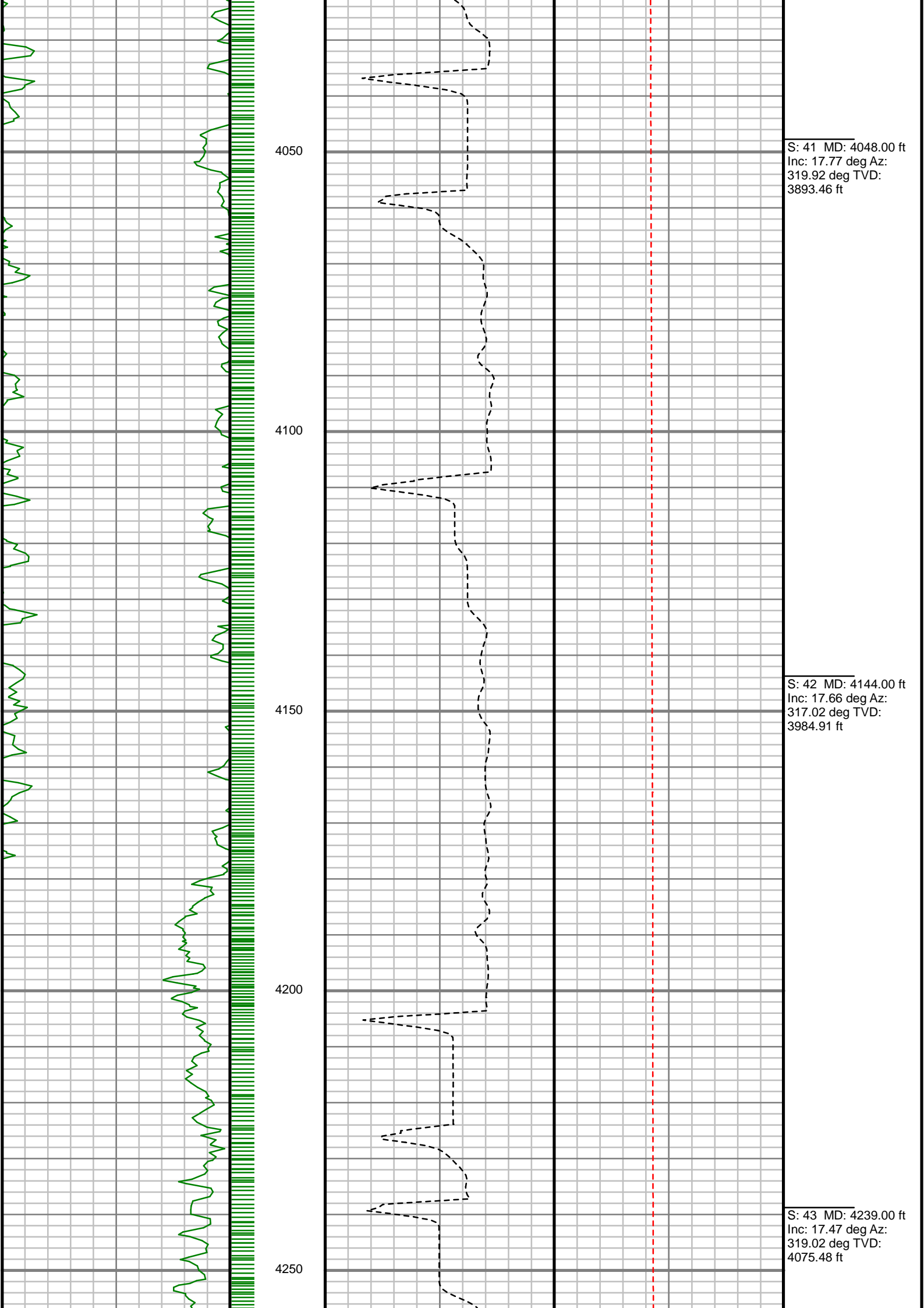


S: 34 MD: 3382.00 ft
Inc: 20.25 deg Az:
328.65 deg TVD:
3259.91 ft

S: 35 MD: 3478.00 ft
Inc: 19.28 deg Az:
327.21 deg TVD:
3350.25 ft







4050

4100

4150

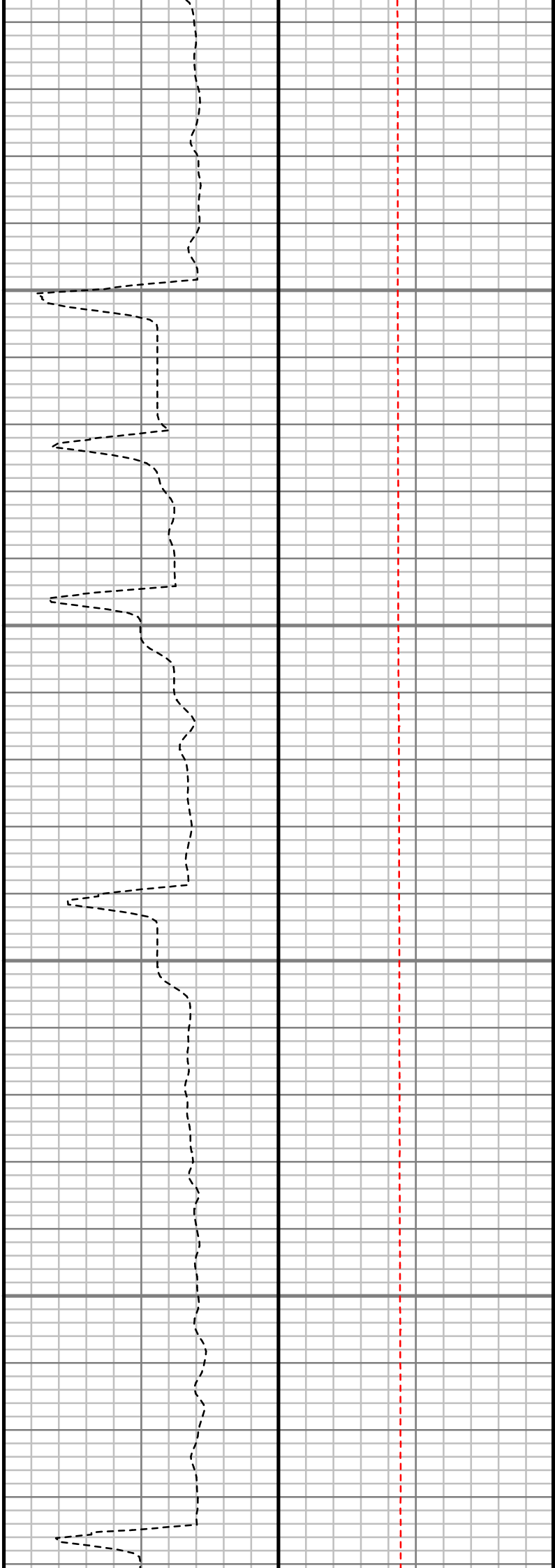
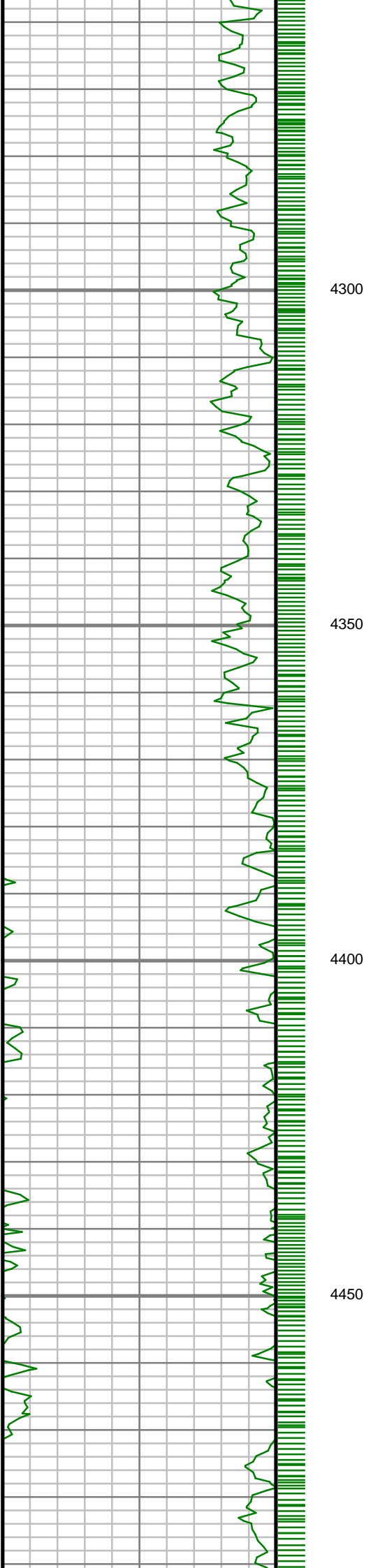
4200

4250

S: 41 MD: 4048.00 ft
Inc: 17.77 deg Az:
319.92 deg TVD:
3893.46 ft

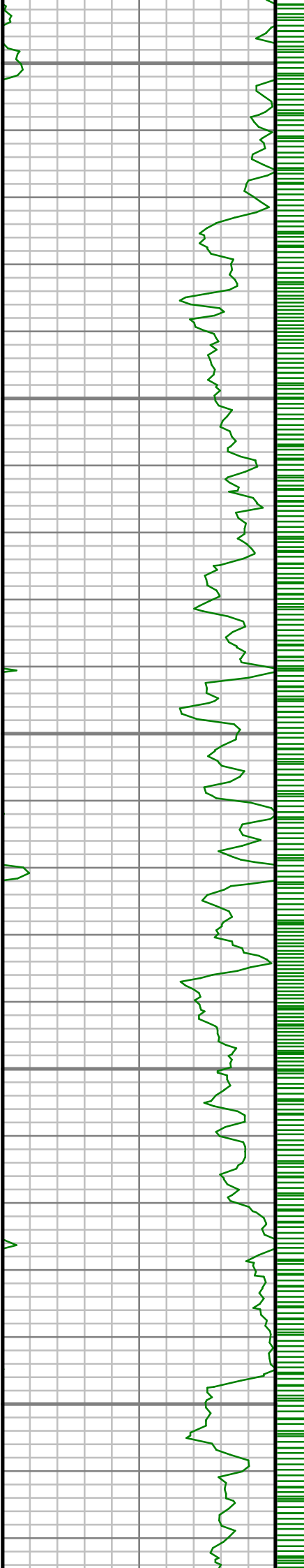
S: 42 MD: 4144.00 ft
Inc: 17.66 deg Az:
317.02 deg TVD:
3984.91 ft

S: 43 MD: 4239.00 ft
Inc: 17.47 deg Az:
319.02 deg TVD:
4075.48 ft



S: 44 MD: 4334.00 ft
Inc: 19.78 deg Az:
319.89 deg TVD:
4165.50 ft

S: 45 MD: 4429.00 ft
Inc: 20.67 deg Az:
321.51 deg TVD:
4254.64 ft



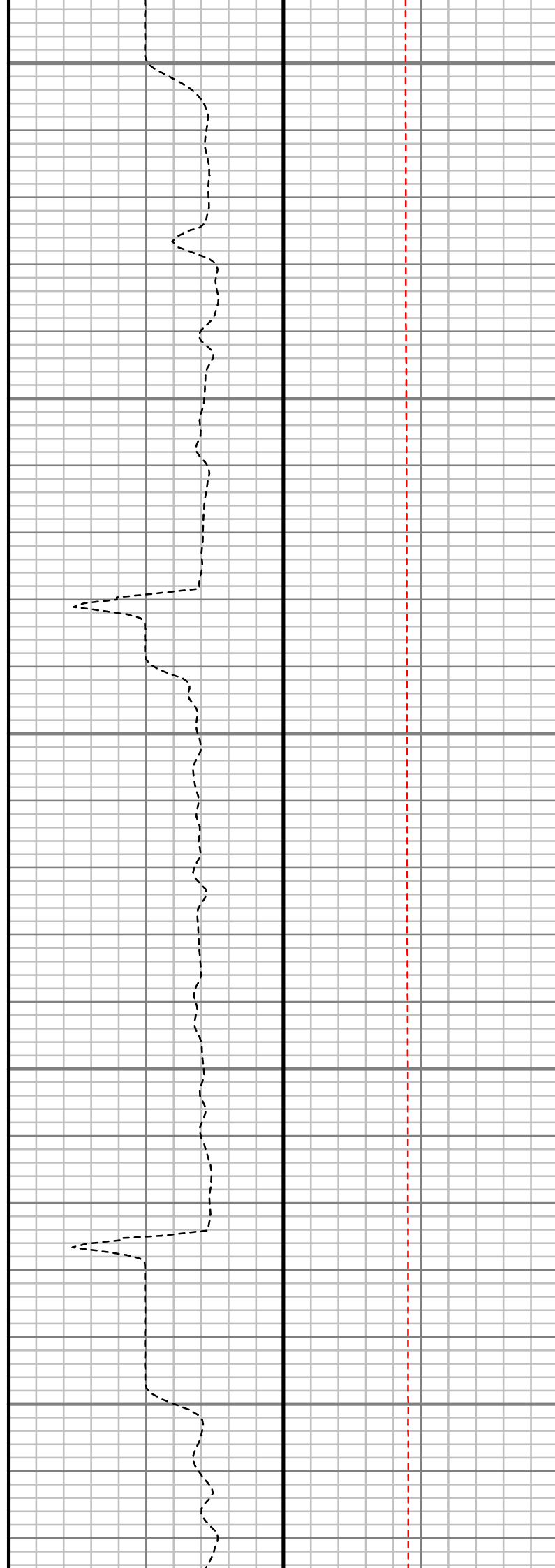
4500

4550

4600

4650

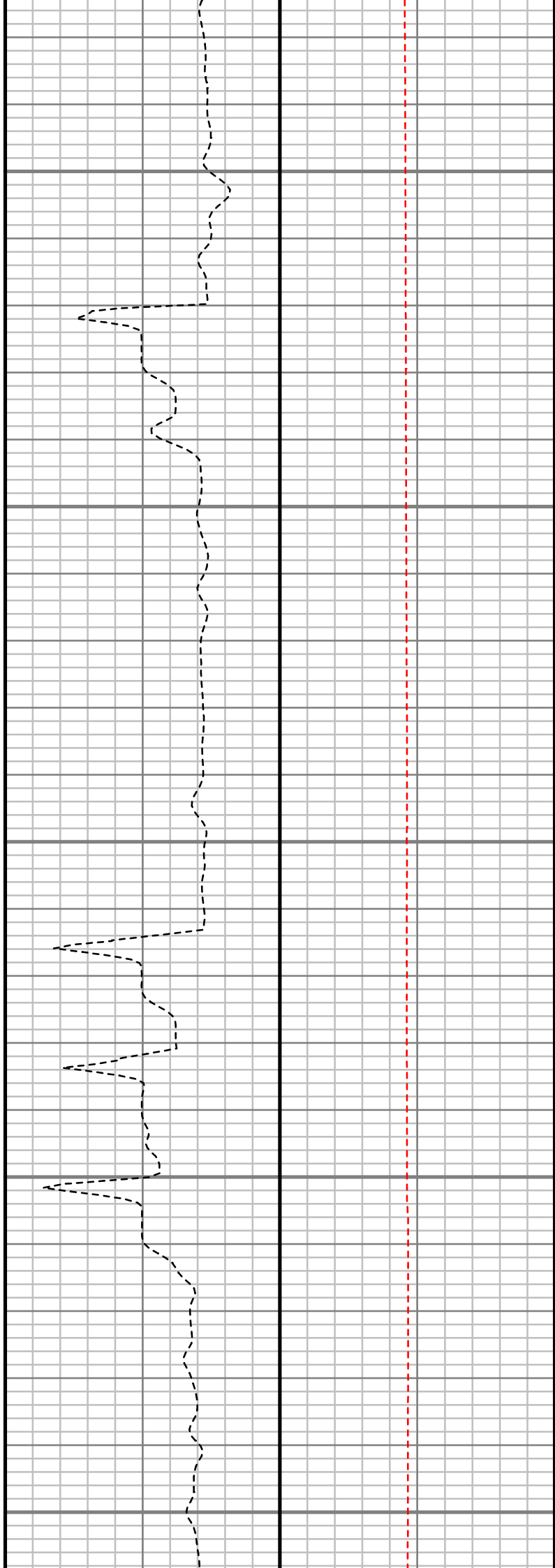
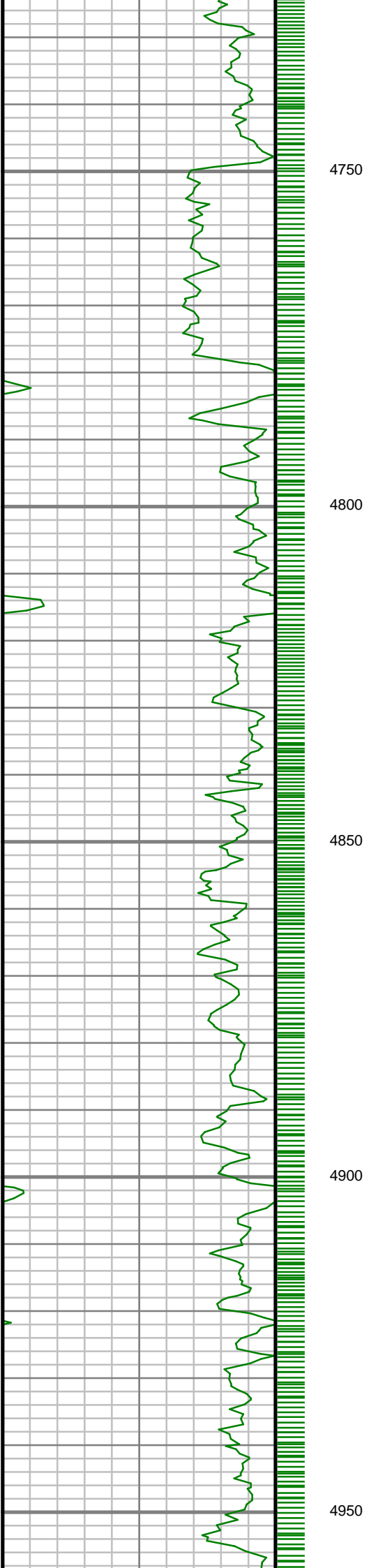
4700



S: 46 MD: 4524.00 ft
Inc: 19.47 deg Az:
319.82 deg TVD:
4343.87 ft

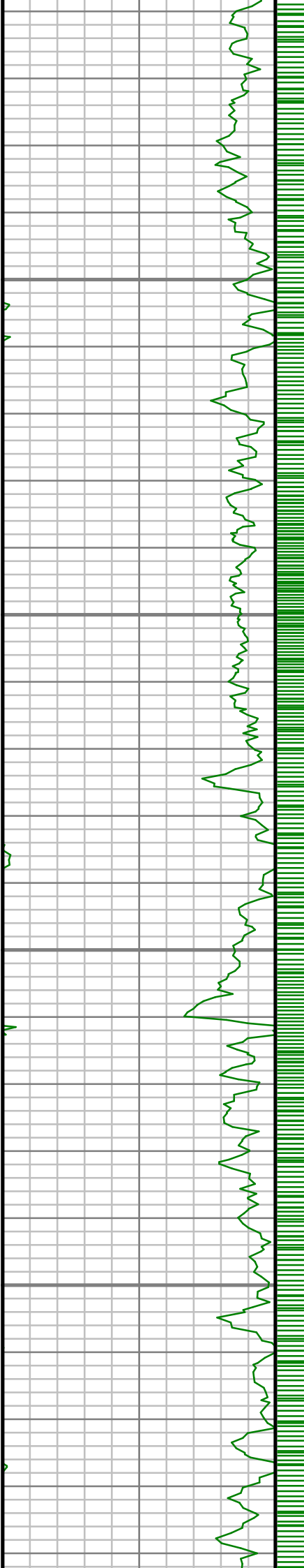
S: 47 MD: 4619.00 ft
Inc: 18.63 deg Az:
320.24 deg TVD:
4433.67 ft

S: 48 MD: 4714.00 ft
Inc: 17.49 deg Az:
321.16 deg TVD:
4523.98 ft



S: 49 MD: 4809.00 ft
Inc: 16.85 deg Az:
320.07 deg TVD:
4614.75 ft

S: 50 MD: 4904.00 ft
Inc: 18.44 deg Az:
321.65 deg TVD:
4705.28 ft

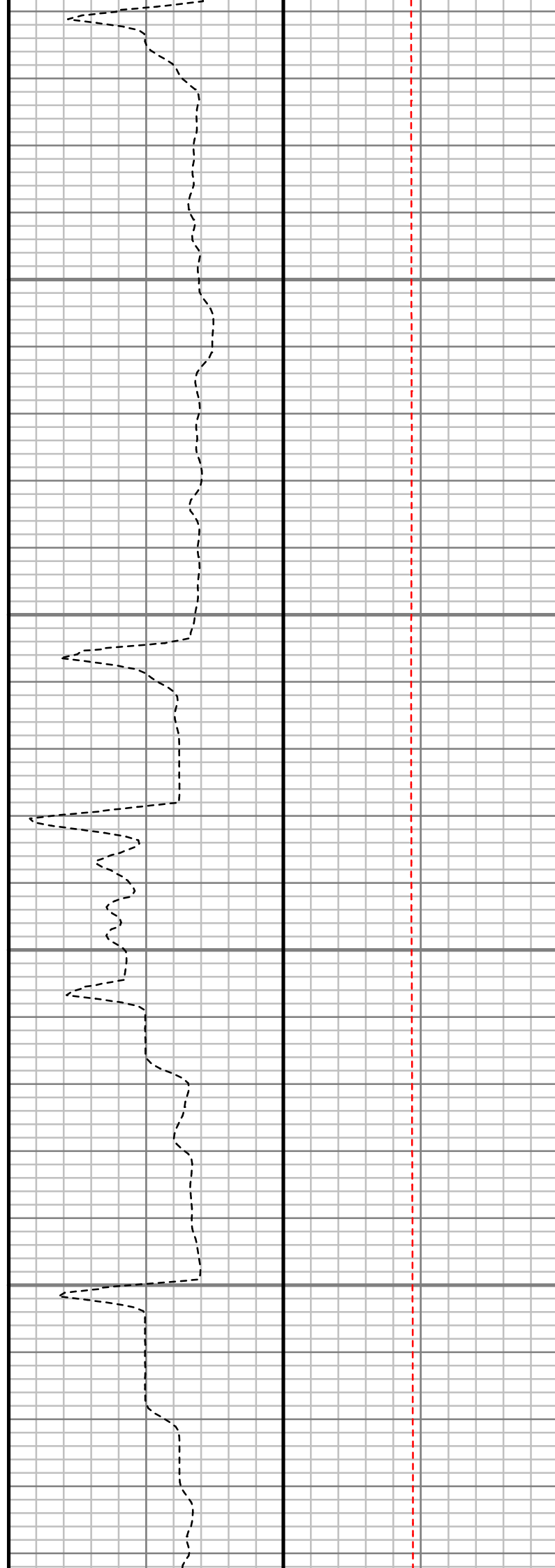


5000

5050

5100

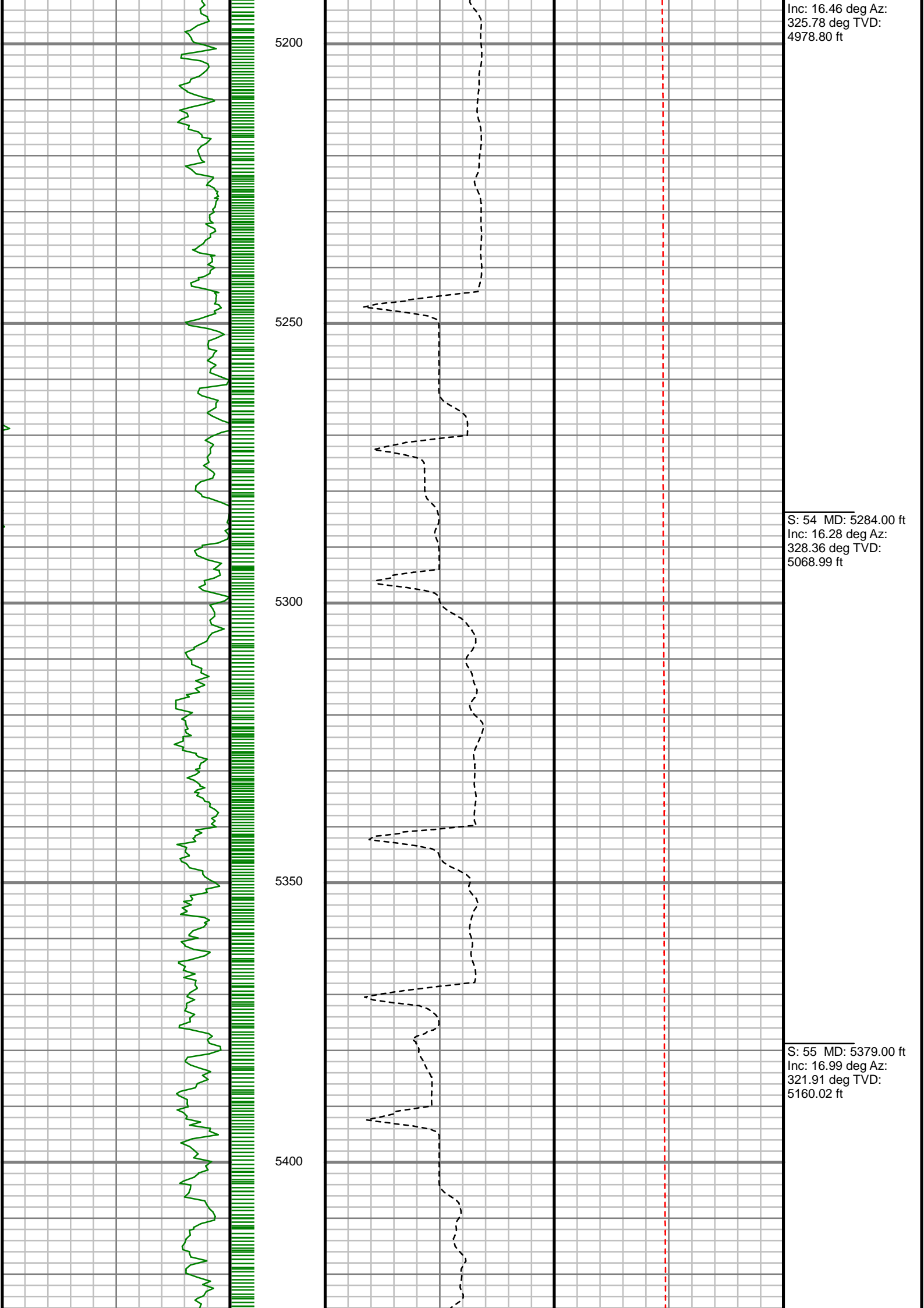
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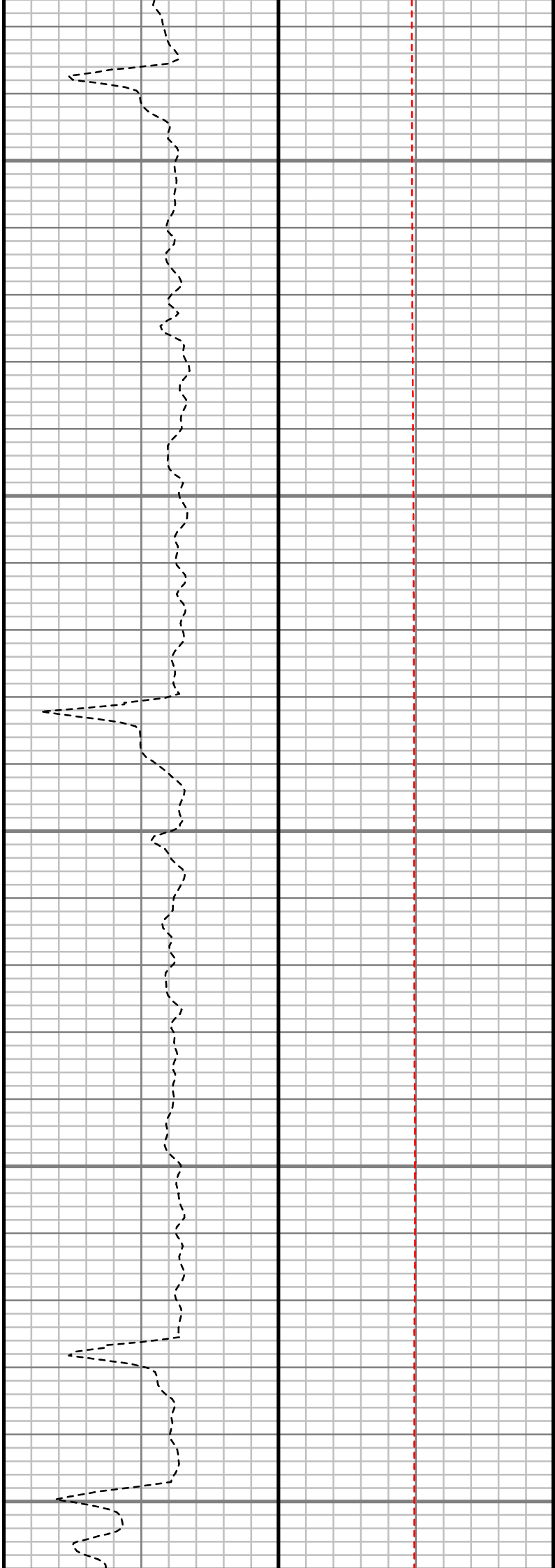
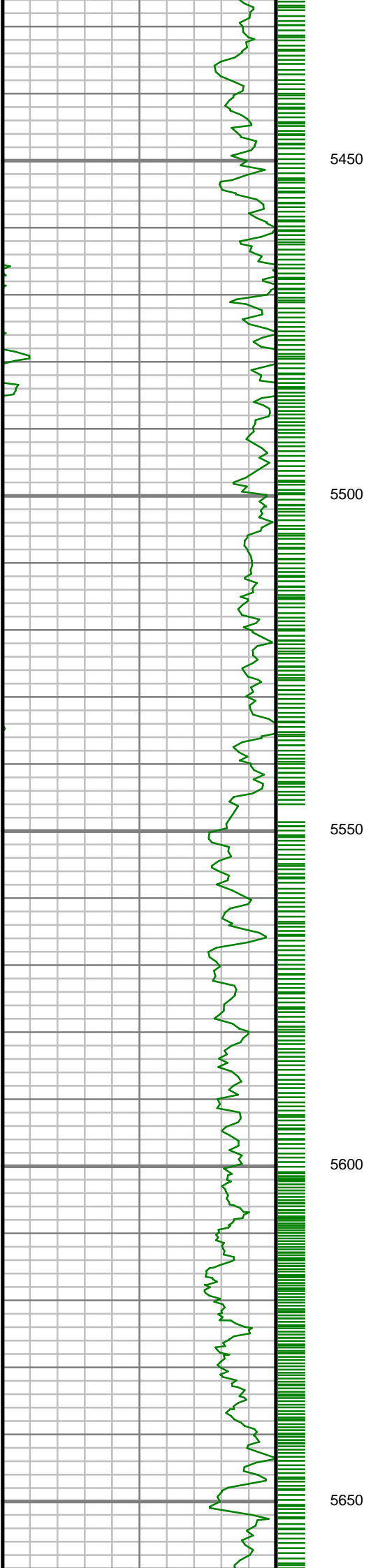


S: 51 MD: 4999.00 ft
Inc: 16.73 deg Az:
320.91 deg TVD:
4795.83 ft

S: 52 MD: 5094.00 ft
Inc: 16.77 deg Az:
321.49 deg TVD:
4886.80 ft

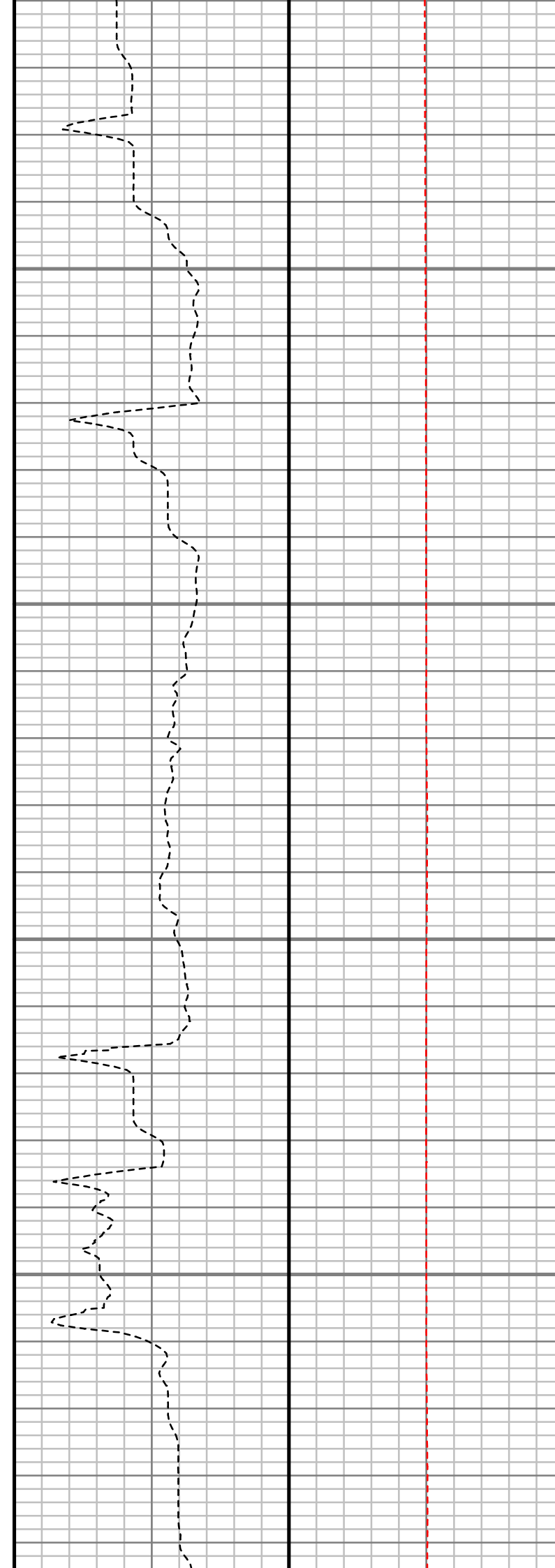
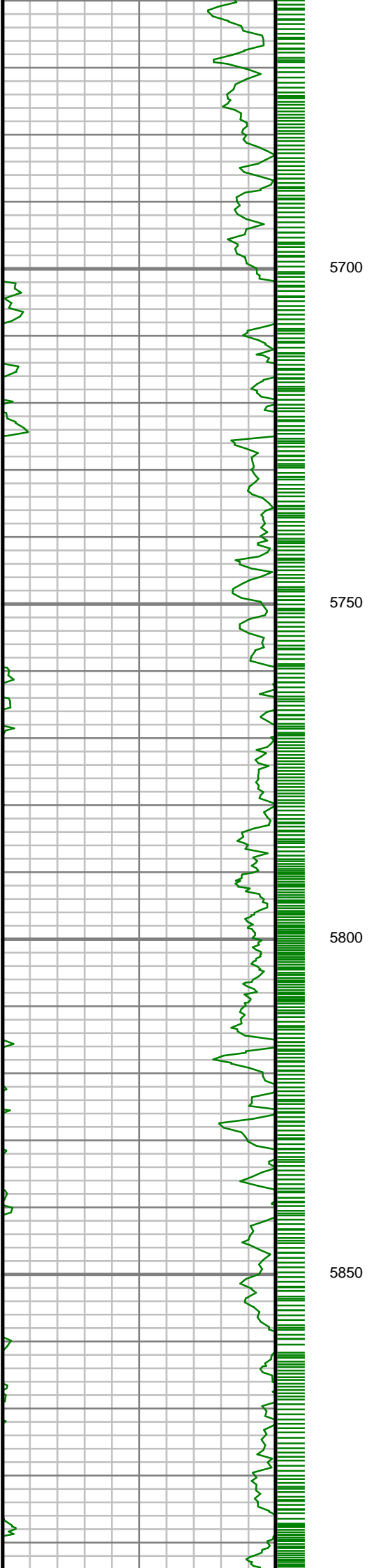
S: 53 MD: 5190.00 ft





S: 56 MD: 5475.00 ft
Inc: 15.33 deg Az:
321.05 deg TVD:
5252.22 ft

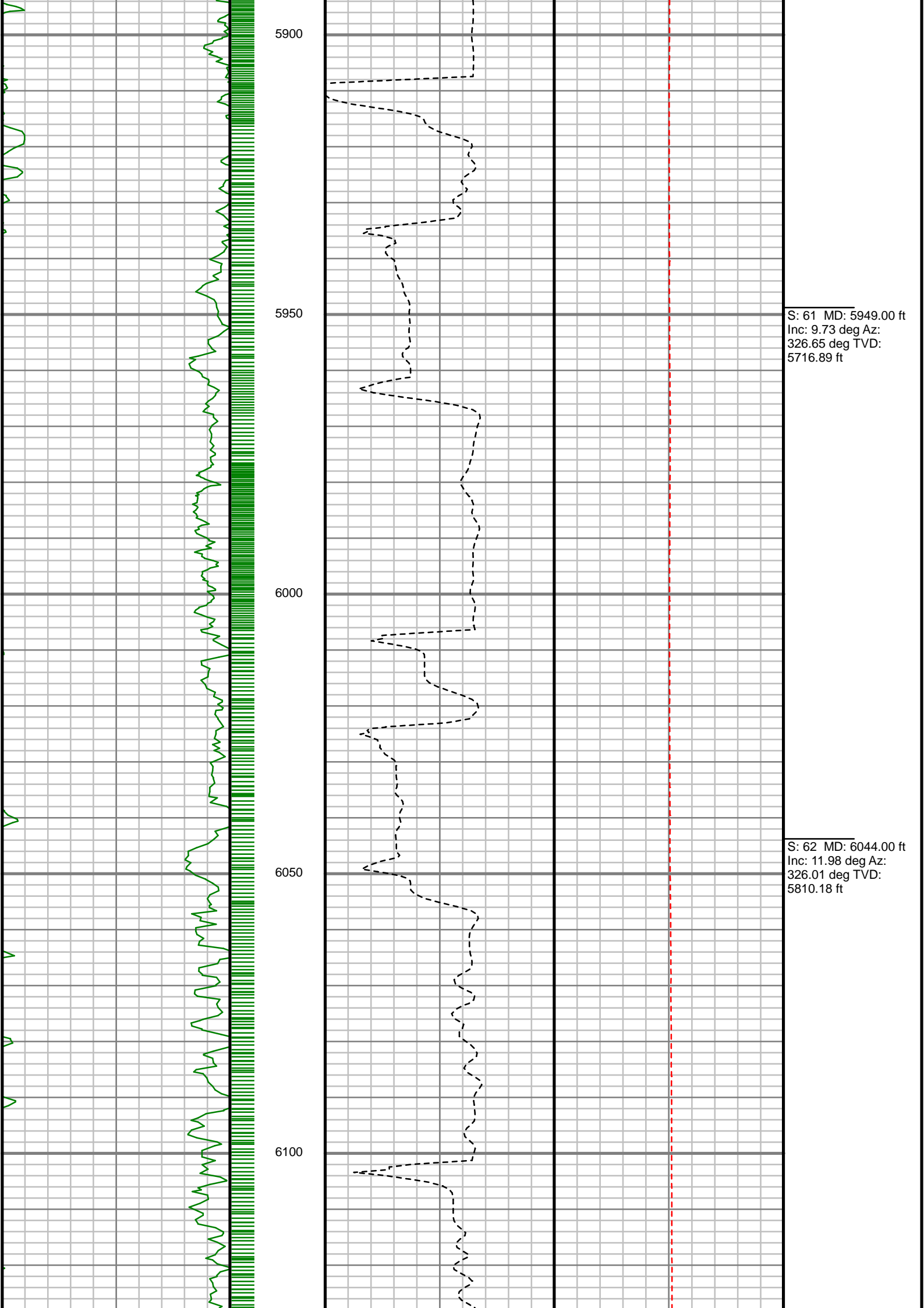
S: 57 MD: 5569.00 ft
Inc: 12.36 deg Az:
319.28 deg TVD:
5343.48 ft

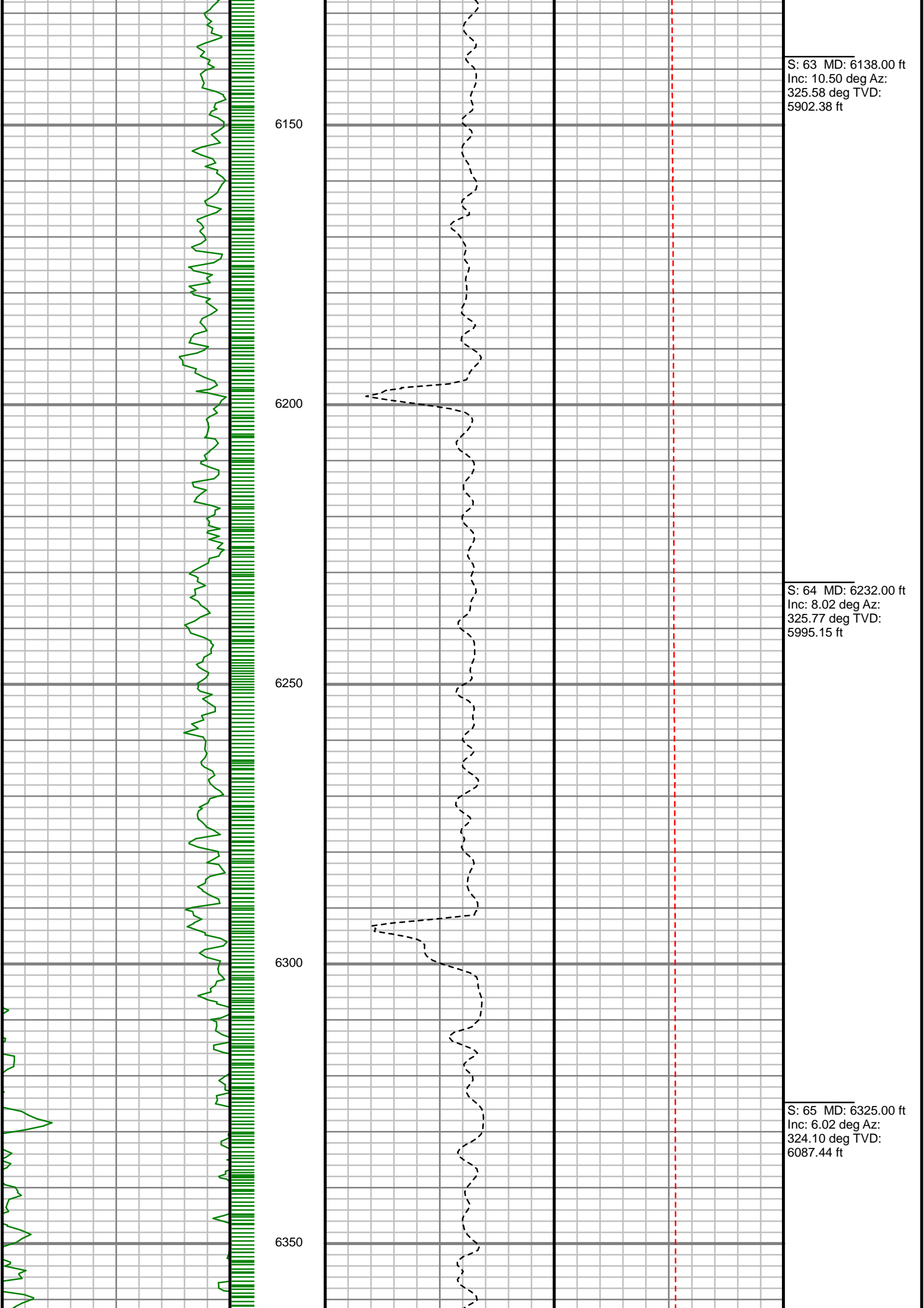


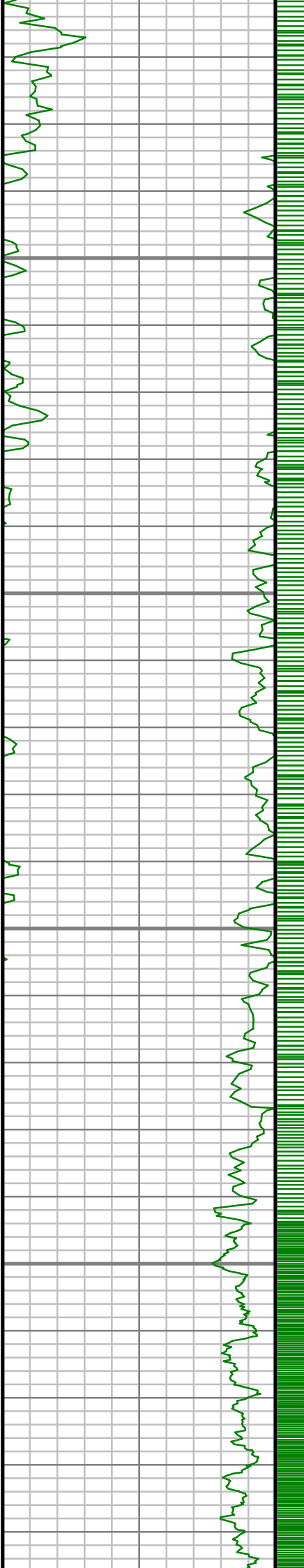
S: 58	MD: 5663.00 ft
Inc: 11.63 deg	Az: 319.42 deg
TVD: 5435.43 ft	

S: 59	MD: 5759.00 ft
Inc: 10.42 deg	Az: 319.43 deg
TVD: 5529.65 ft	

S: 60	MD: 5853.00 ft
Inc: 9.49 deg	Az: 321.21 deg
TVD: 5622.23 ft	





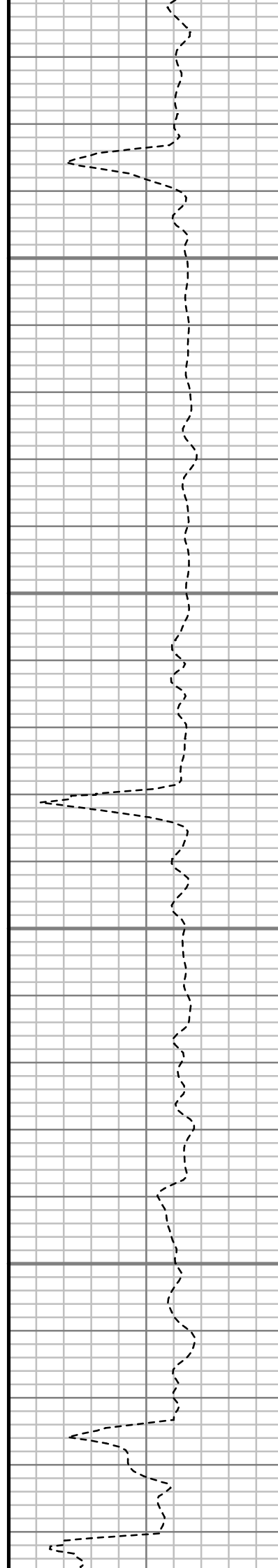


6400

6450

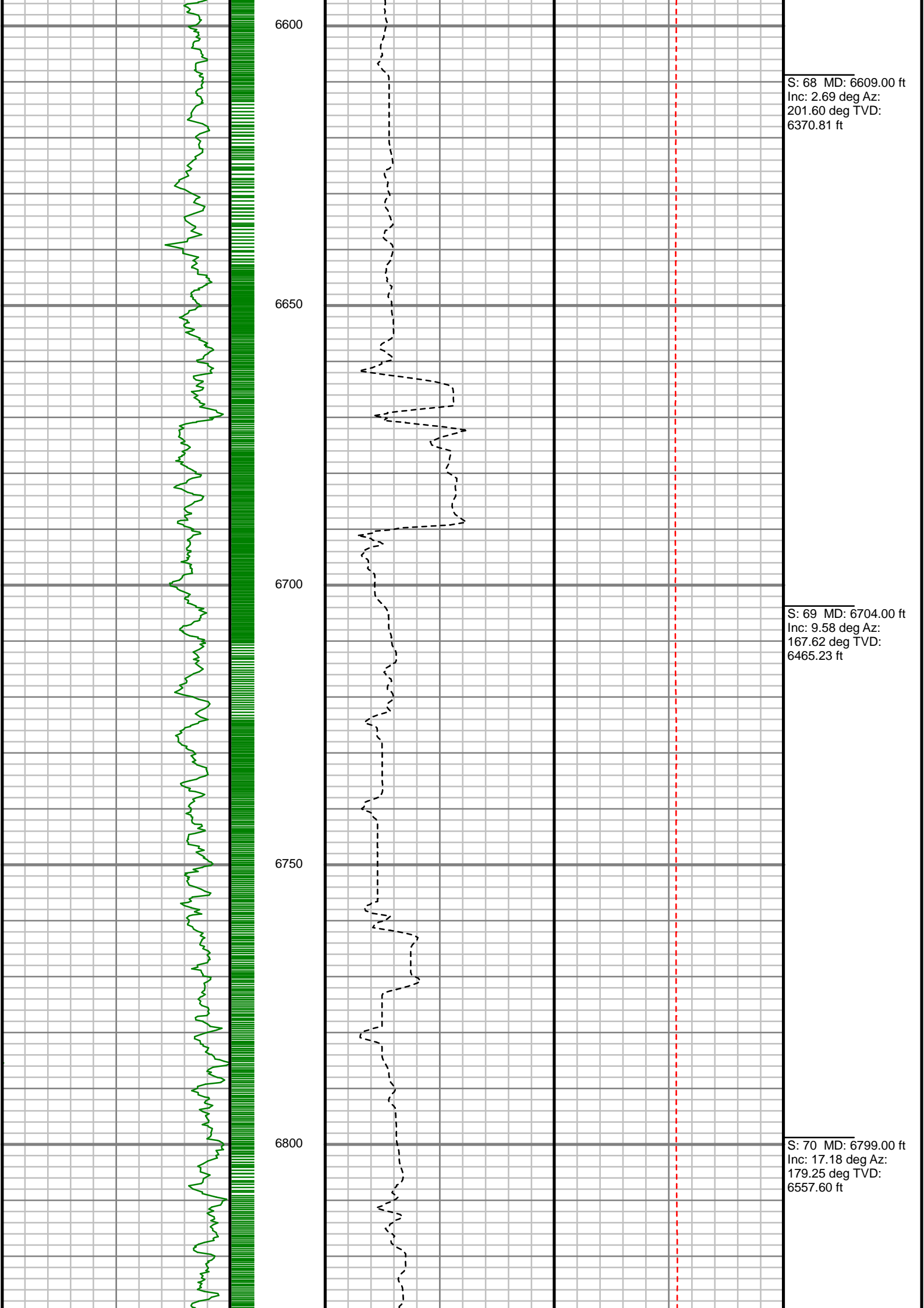
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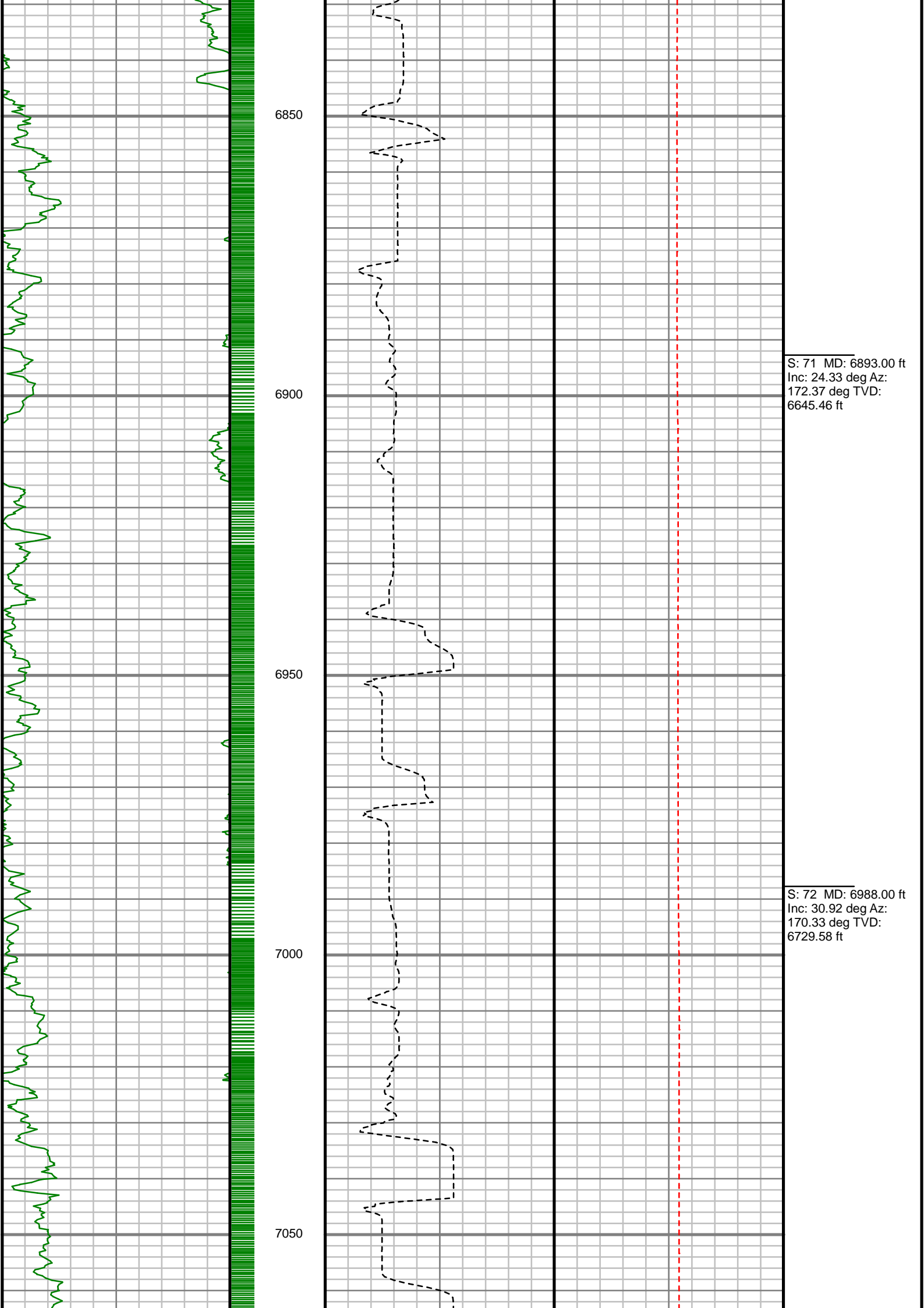
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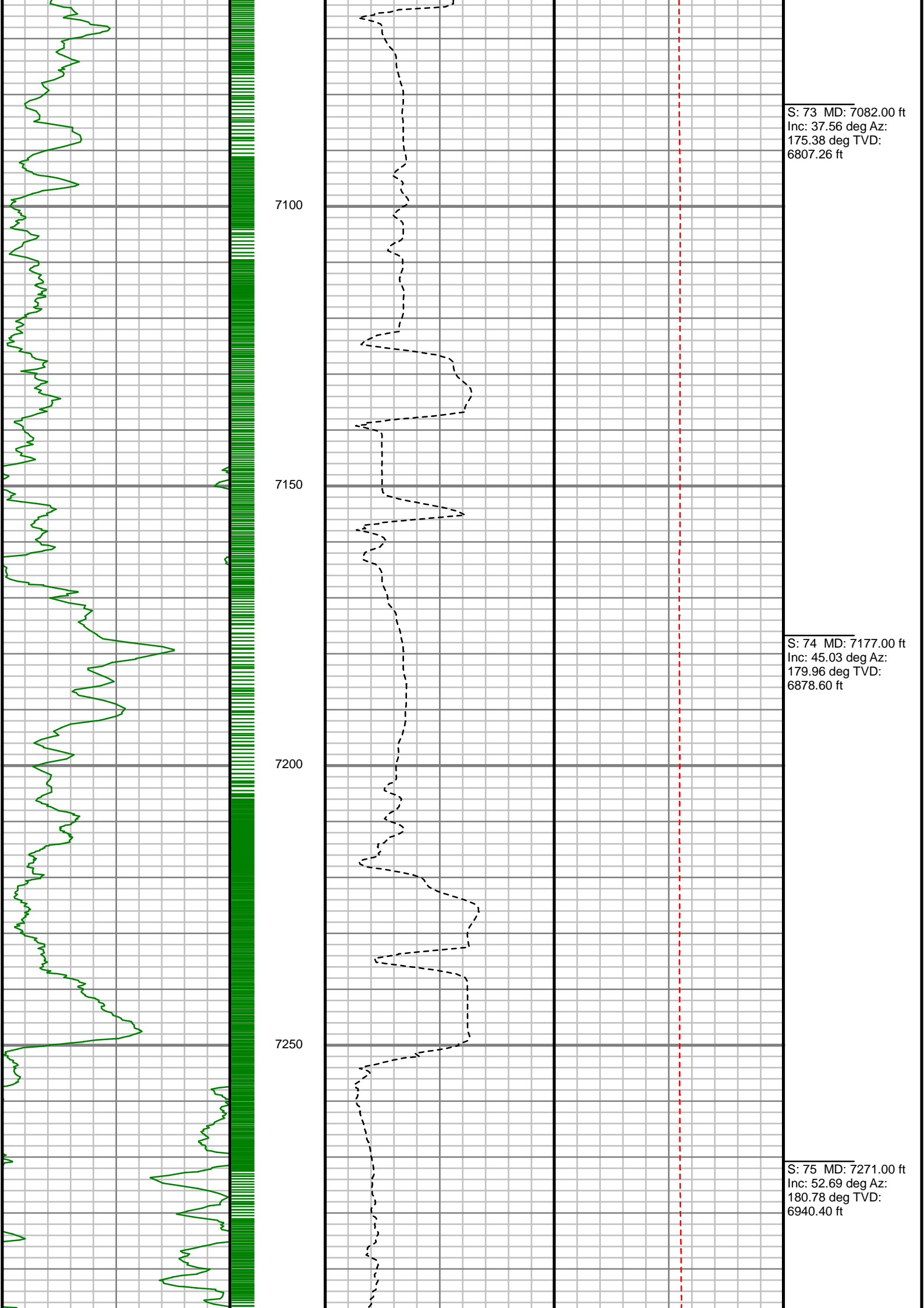


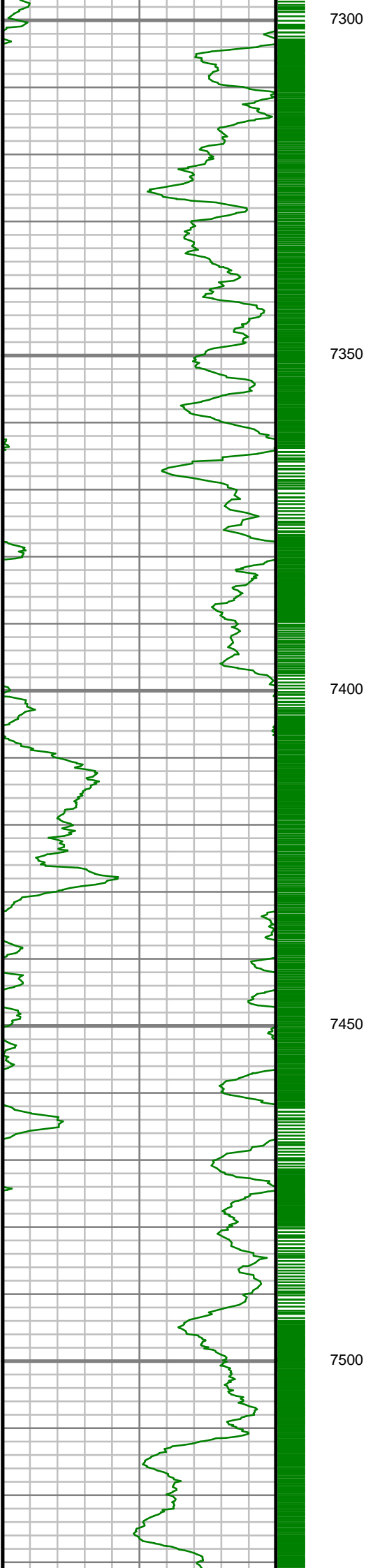
S: 66 MD: 6420.00 ft
Inc: 4.36 deg Az:
323.79 deg TVD:
6182.05 ft

S: 67 MD: 6515.00 ft
Inc: 2.75 deg Az:
323.40 deg TVD:
6276.87 ft









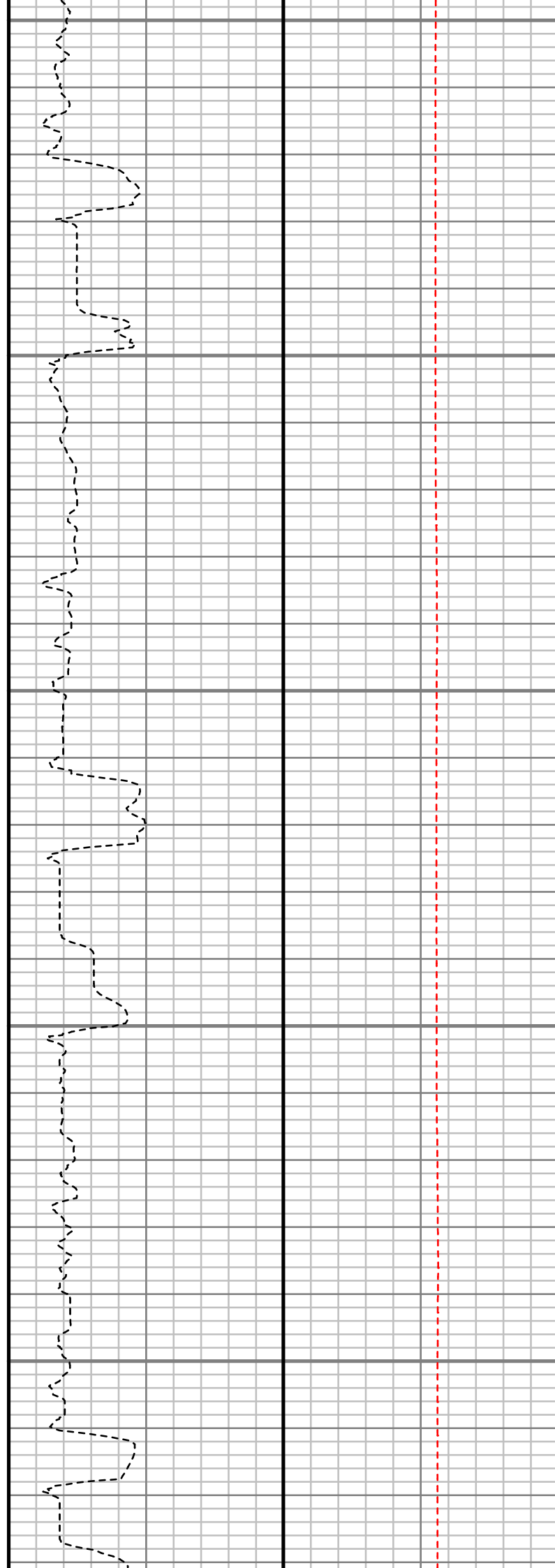
7300

7350

7400

7450

7500



S: 76 MD: 7366.00 ft
Inc: 62.05 deg Az:
180.30 deg TVD:
6991.57 ft

S: 77 MD: 7461.00 ft
Inc: 70.38 deg Az:
180.44 deg TVD:
7029.86 ft



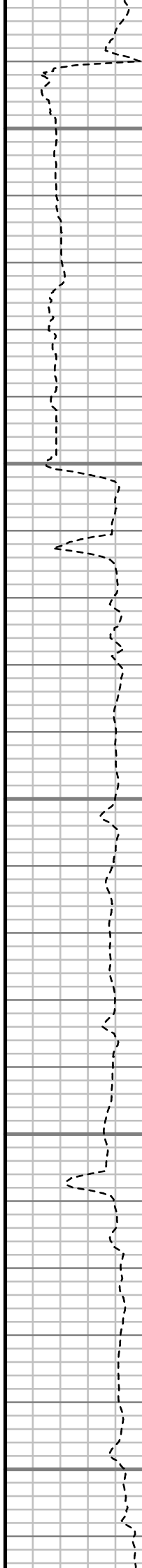
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7600

7650

7700

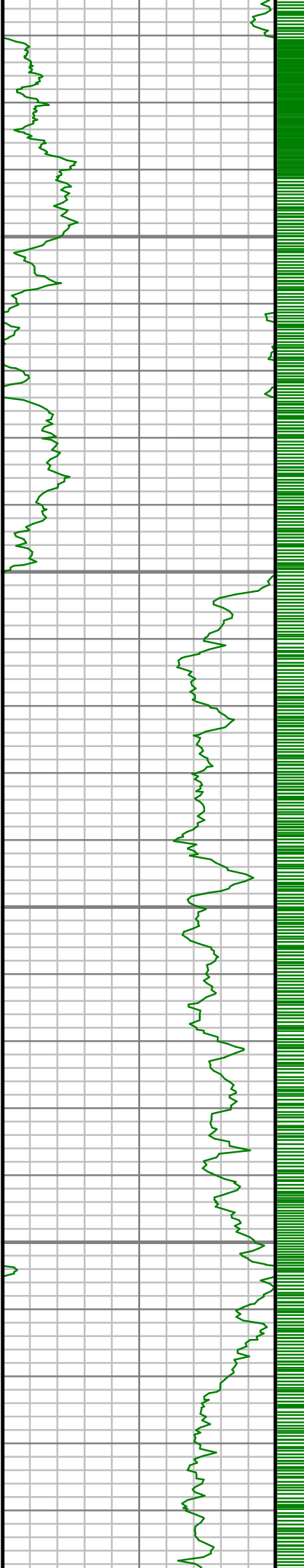
7750



S: 78 MD: 7555.00 ft
Inc: 80.89 deg Az:
181.16 deg TVD:
7053.14 ft

S: 79 MD: 7650.00 ft
Inc: 89.13 deg Az:
183.18 deg TVD:
7061.40 ft

S: 80 MD: 7745.00 ft
Inc: 90.77 deg Az:
182.98 deg TVD:
7061.48 ft

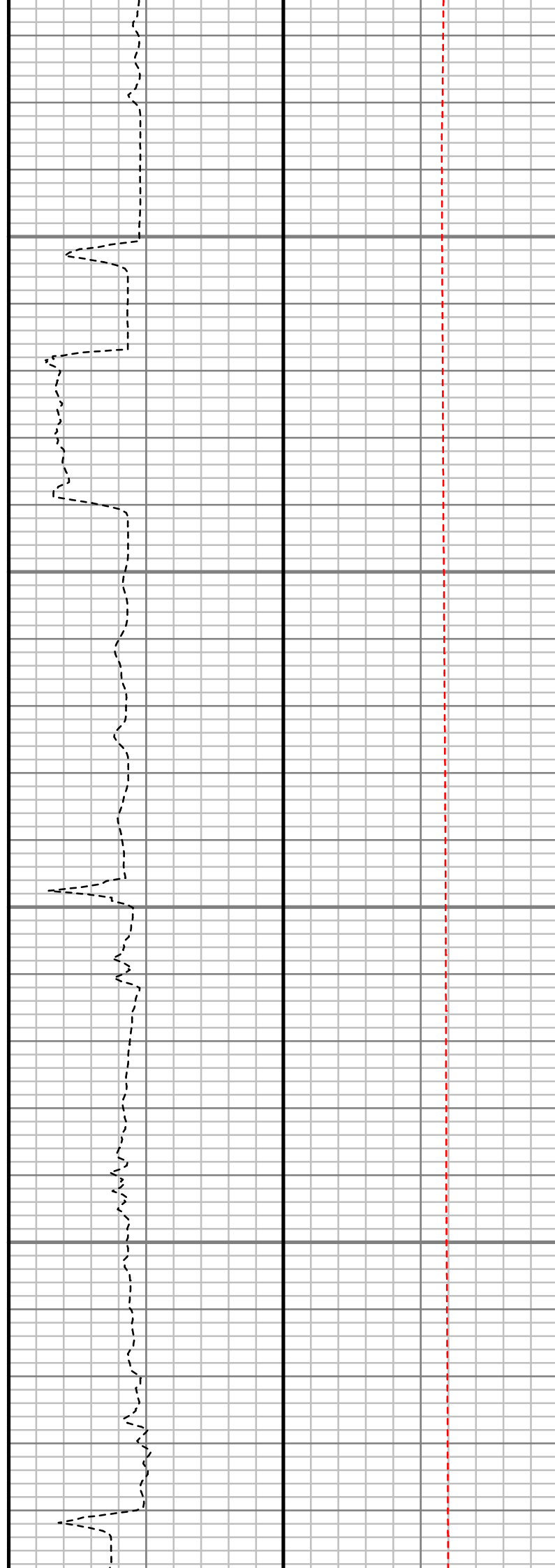


7800

7850

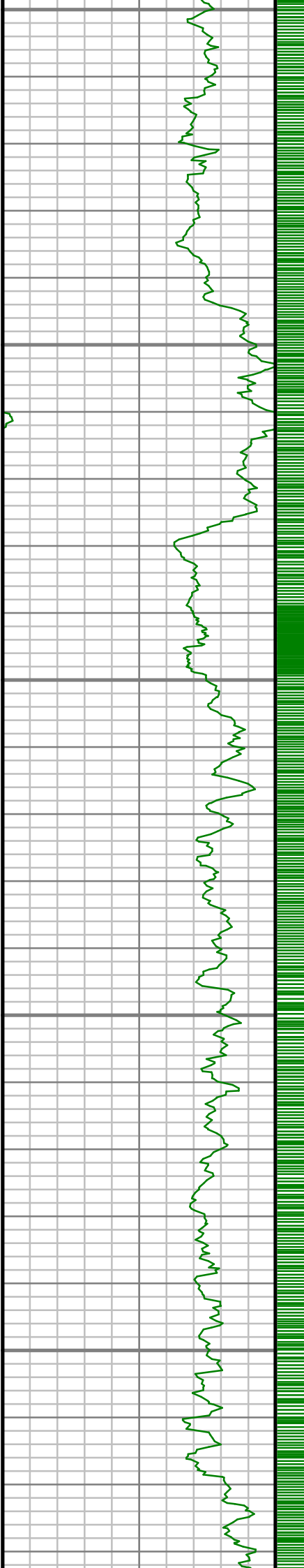
7900

7950



S: 81 MD: 7839.00 ft
Inc: 88.36 deg Az:
183.62 deg TVD:
7062.20 ft

S: 82 MD: 7933.00 ft
Inc: 89.03 deg Az:
182.96 deg TVD:
7064.35 ft



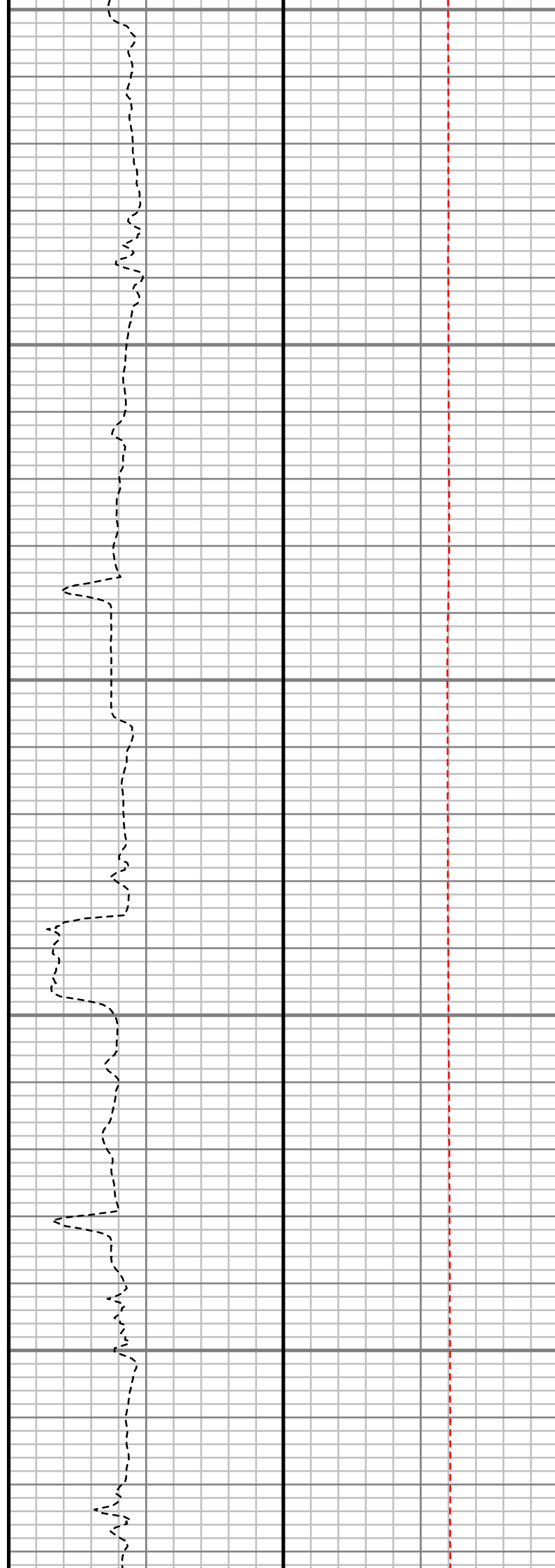
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8050

8100

8150

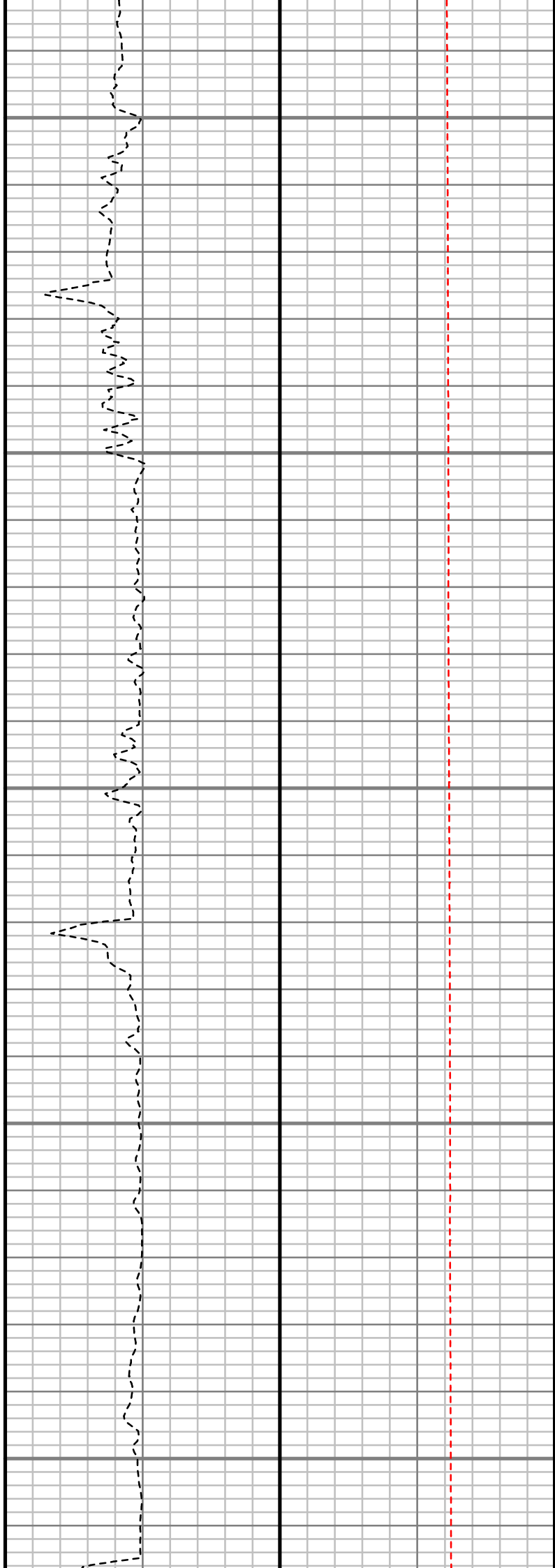
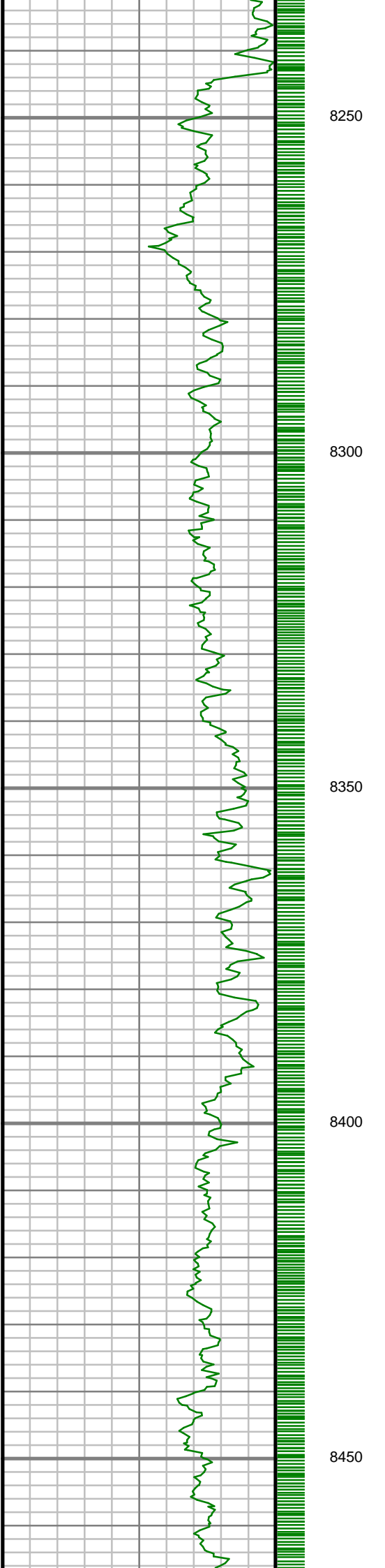
8200



S: 83 MD: 8028.00 ft
Inc: 90.24 deg Az:
183.34 deg TVD:
7064.96 ft

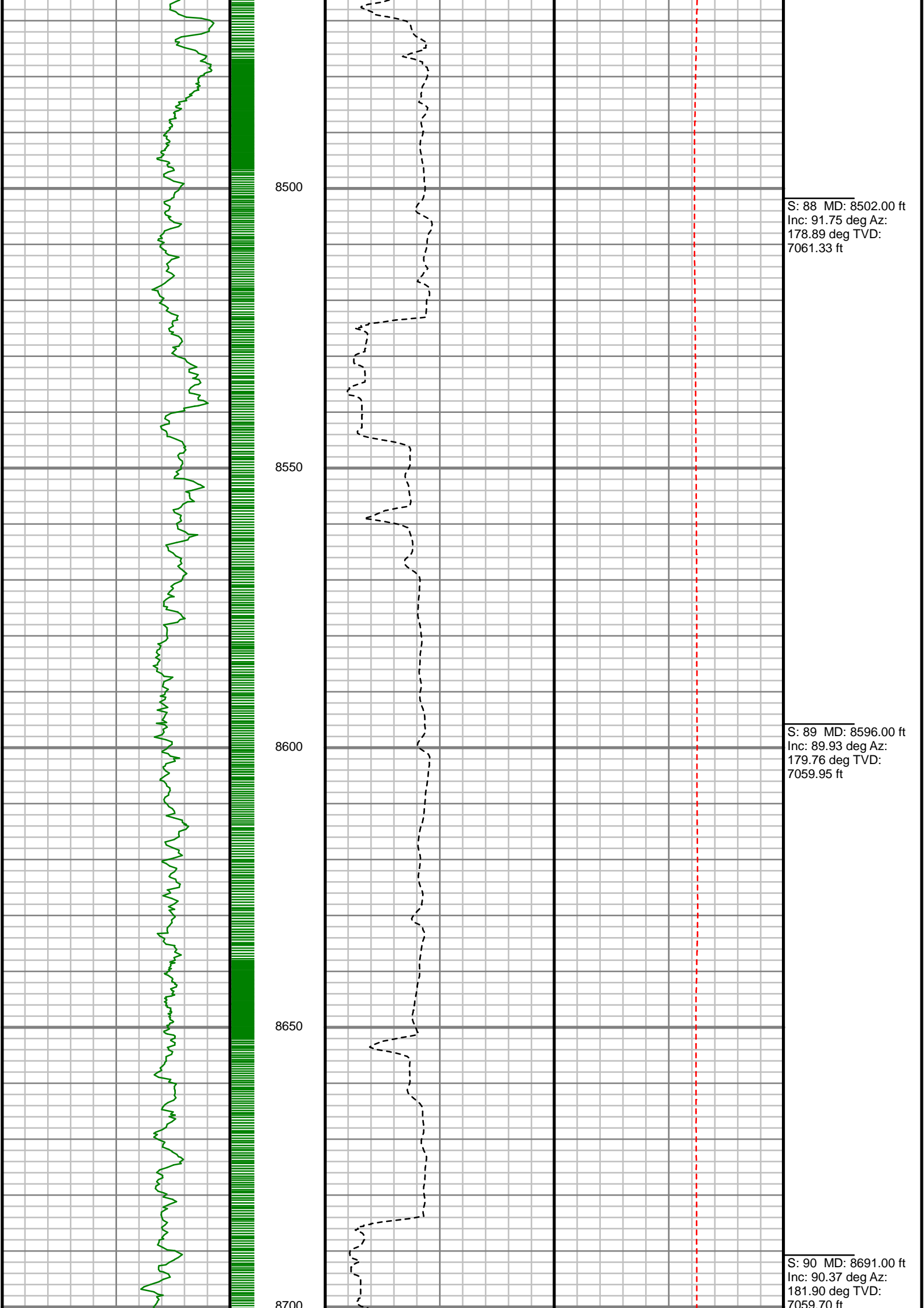
S: 84 MD: 8122.00 ft
Inc: 91.21 deg Az:
182.65 deg TVD:
7063.77 ft

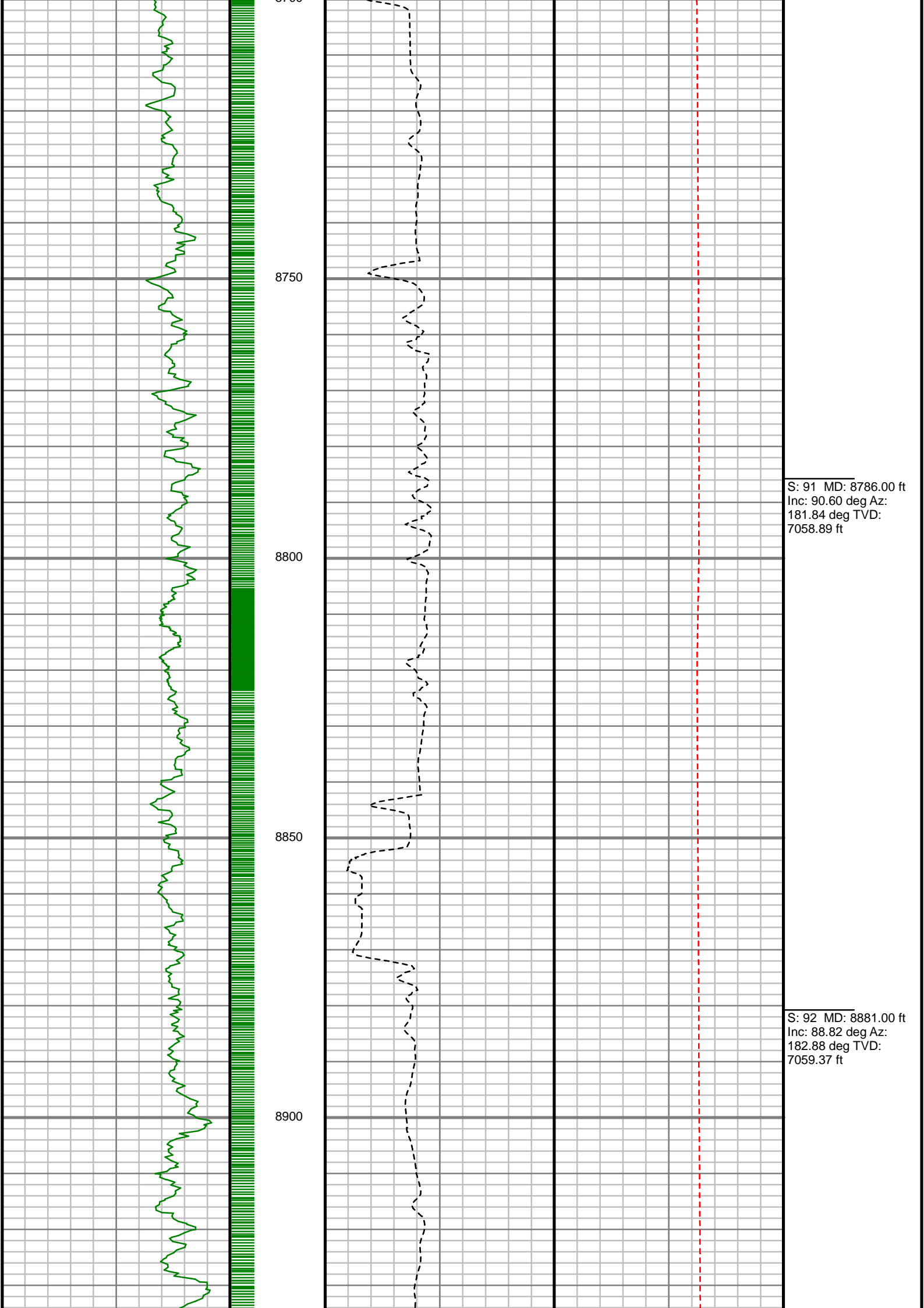
S: 85 MD: 8217.00 ft
Inc: 89.83 deg Az:
180.65 deg TVD:
7062.91 ft

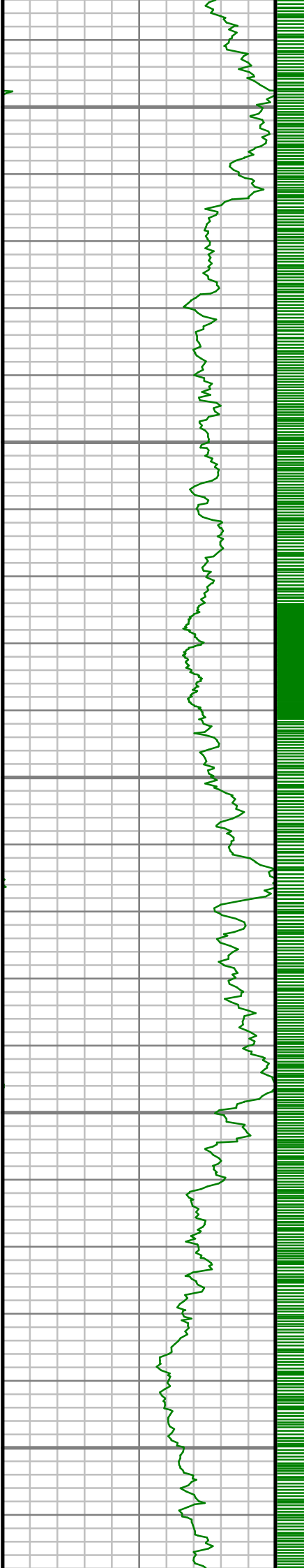


S: 86 MD: 8312.00 ft
Inc: 90.17 deg Az:
180.81 deg TVD:
7062.91 ft

S: 87 MD: 8407.00 ft
Inc: 90.00 deg Az:
177.91 deg TVD:
7062.77 ft







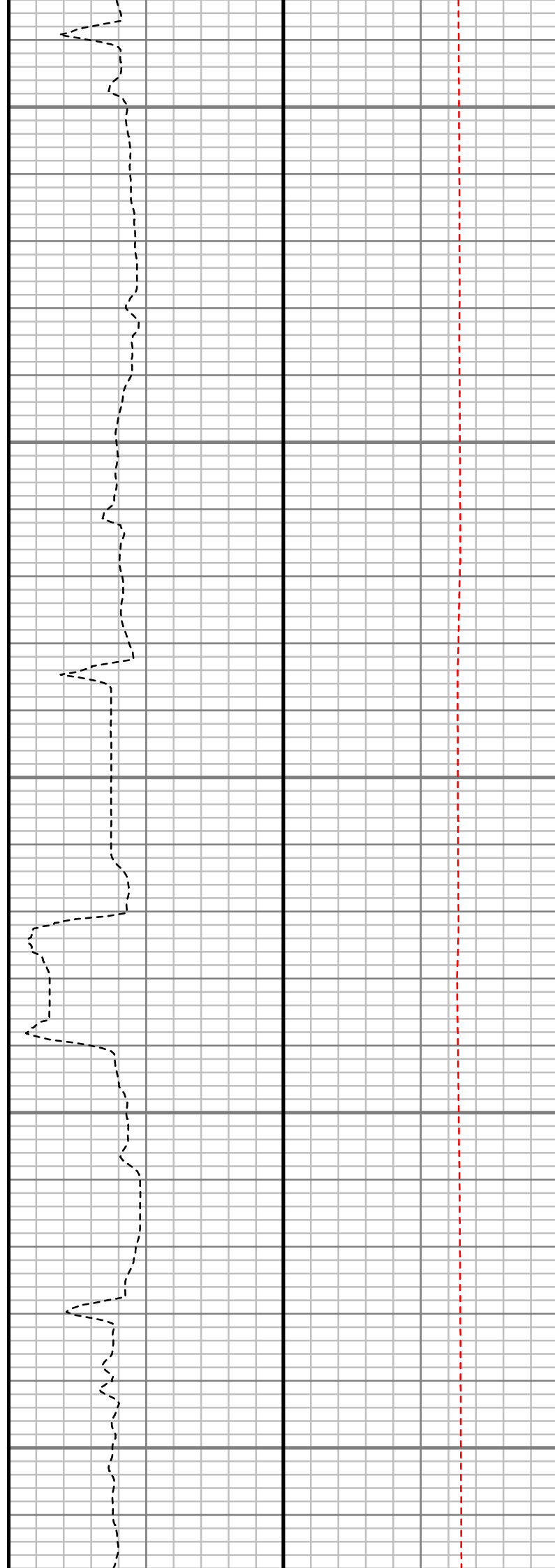
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9000

9050

9100

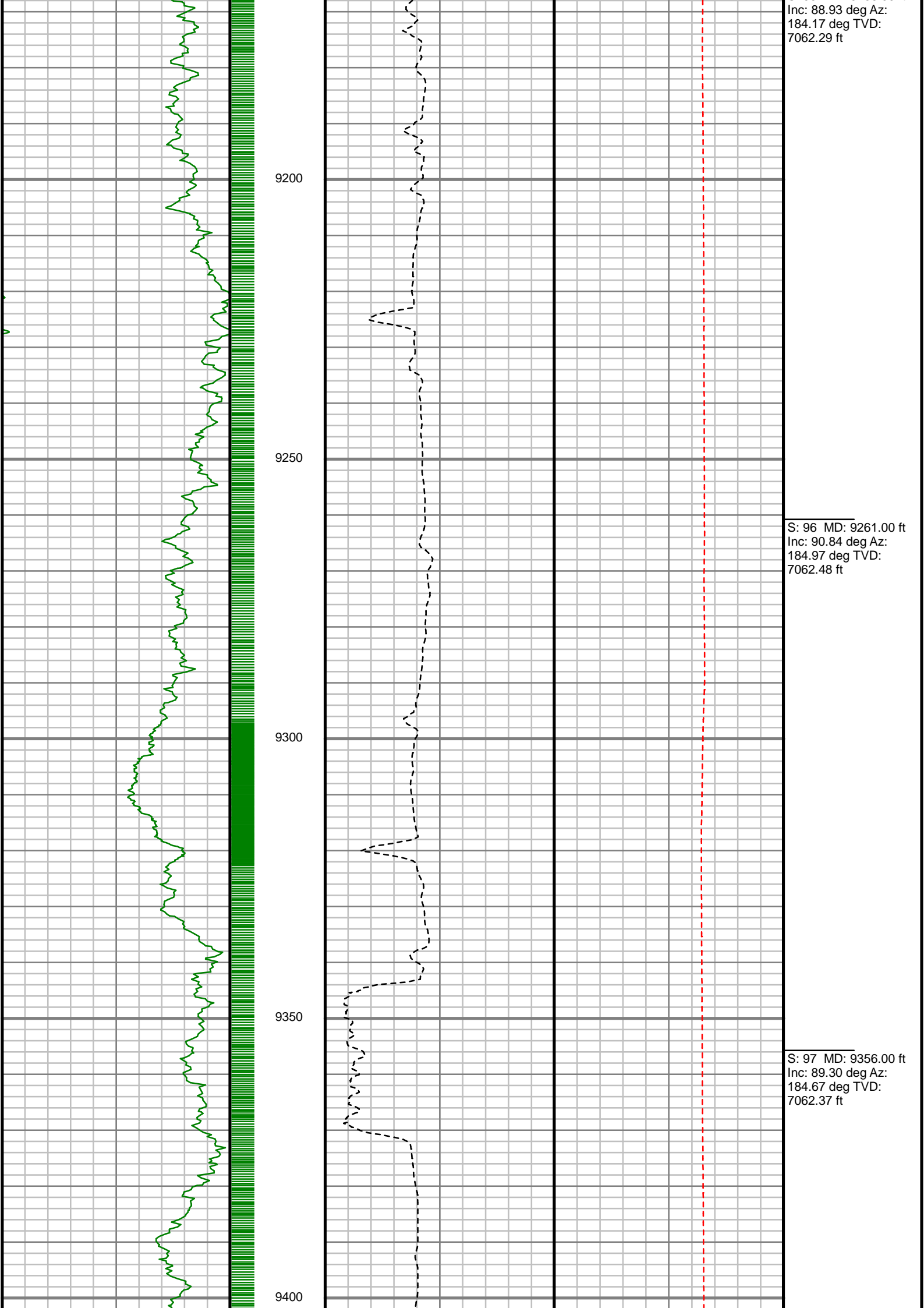
9150



S: 93 MD: 8976.00 ft
Inc: 88.96 deg Az:
182.48 deg TVD:
7061.20 ft

S: 94 MD: 9071.00 ft
Inc: 90.40 deg Az:
184.38 deg TVD:
7061.73 ft

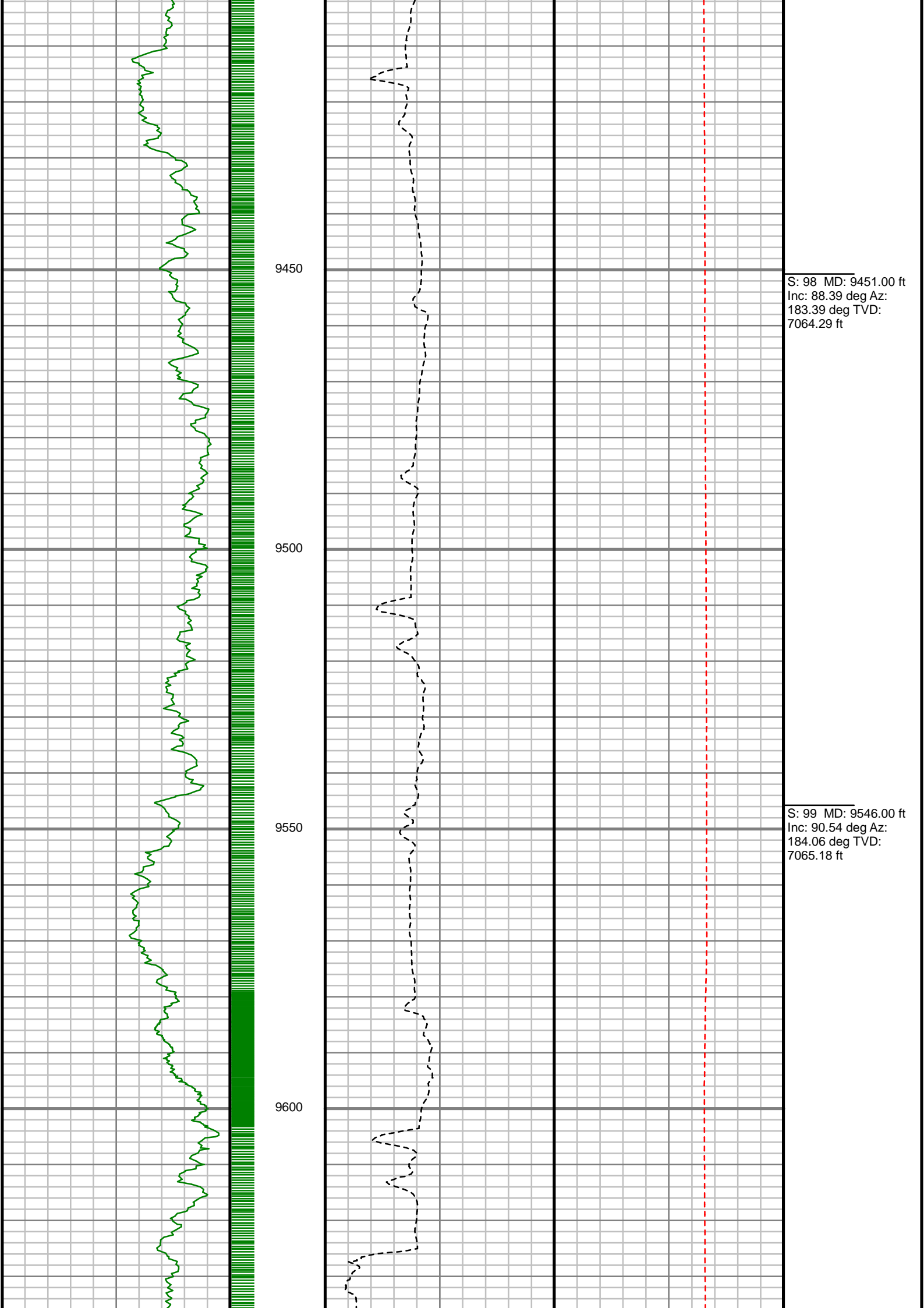
S: 95 MD: 9166.00 ft

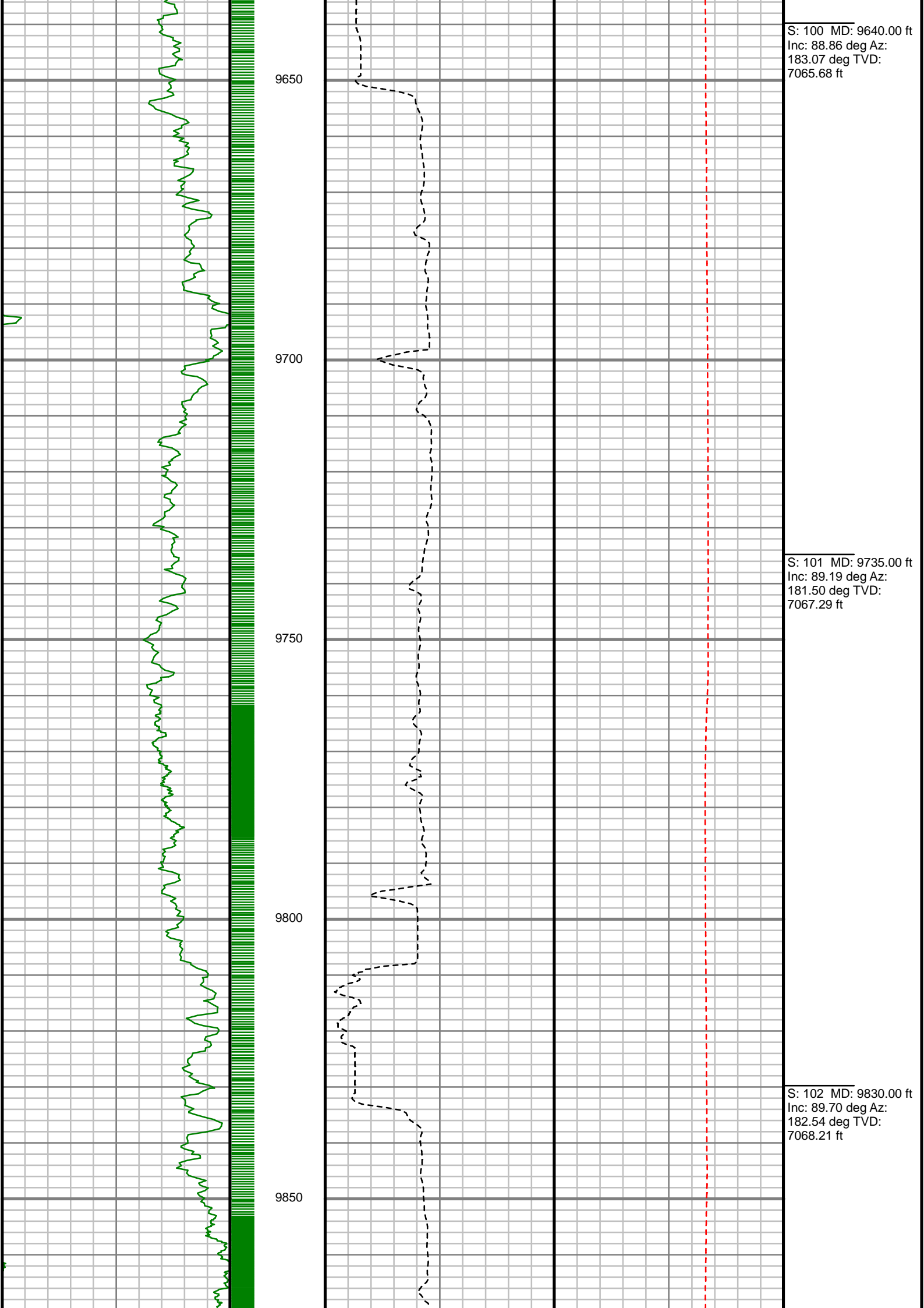


Inc: 88.93 deg Az:
184.17 deg TVD:
7062.29 ft

S: 96 MD: 9261.00 ft
Inc: 90.84 deg Az:
184.97 deg TVD:
7062.48 ft

S: 97 MD: 9356.00 ft
Inc: 89.30 deg Az:
184.67 deg TVD:
7062.37 ft

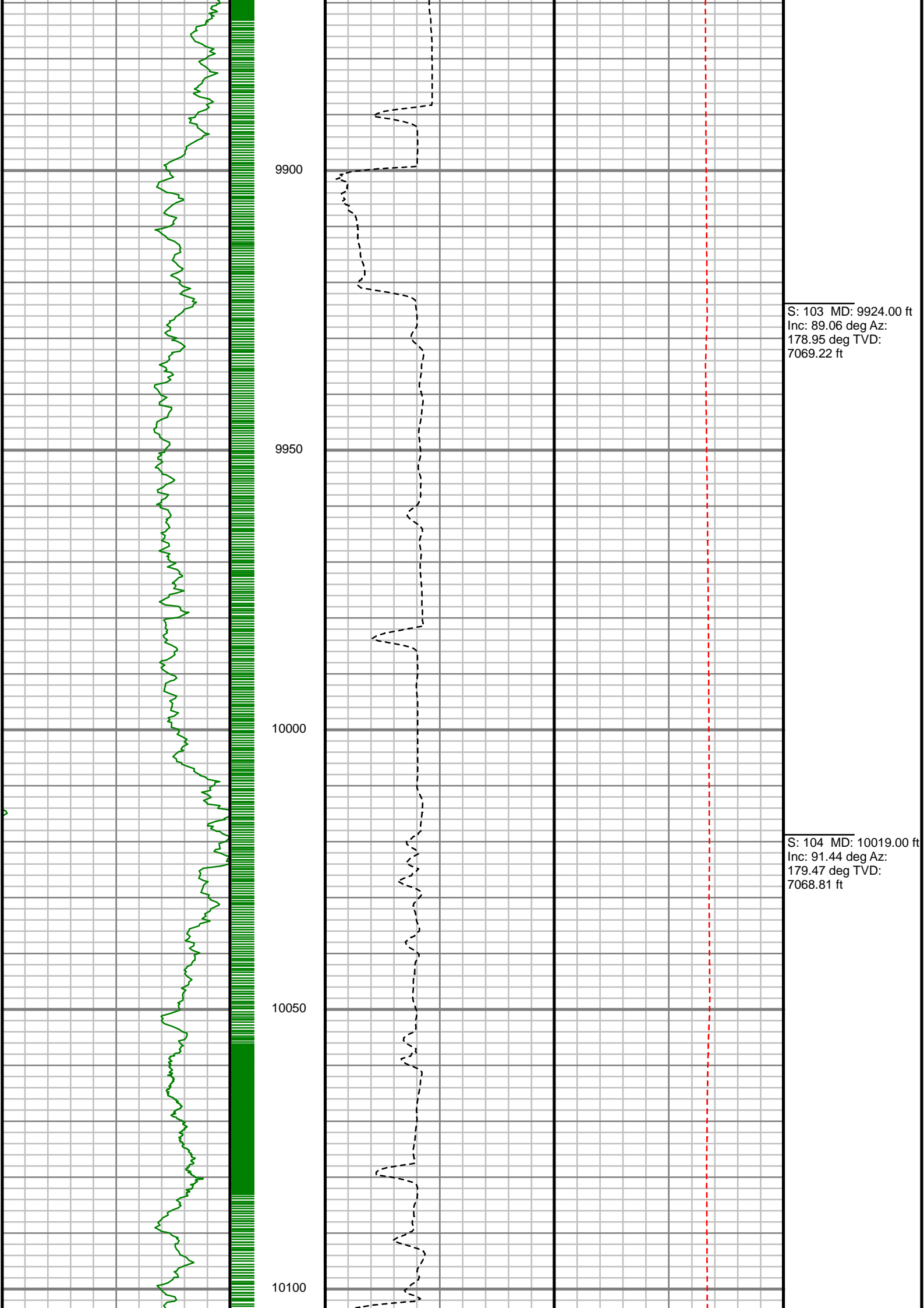


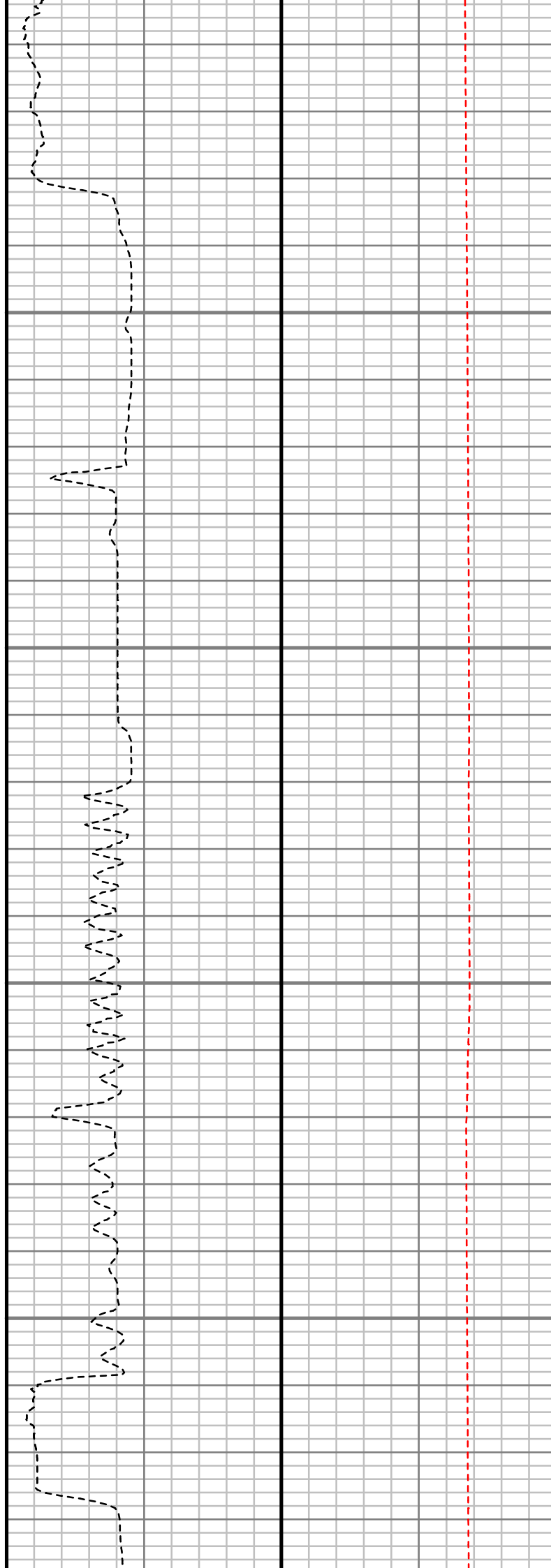
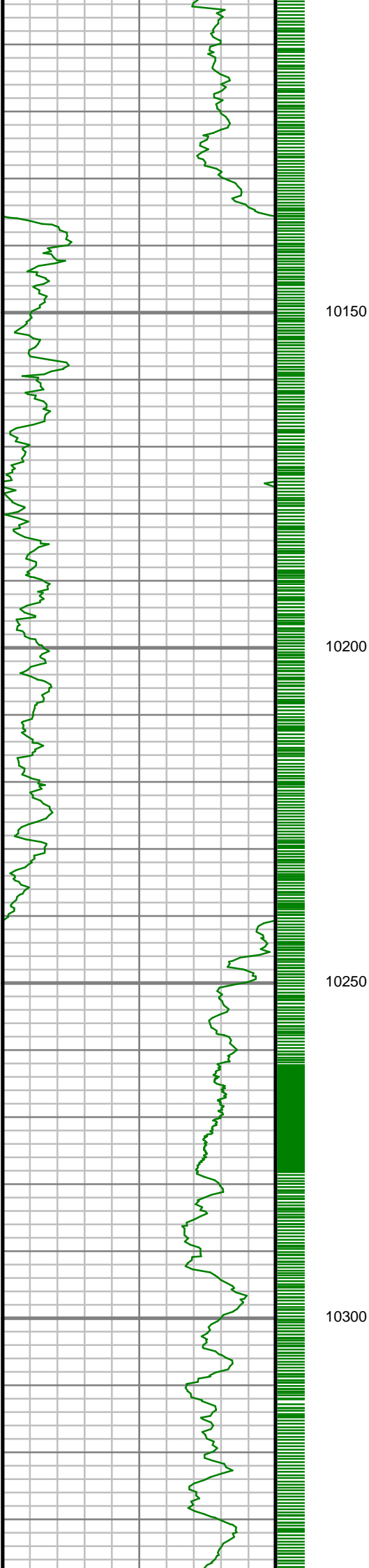


S: 100 MD: 9640.00 ft
Inc: 88.86 deg Az:
183.07 deg TVD:
7065.68 ft

S: 101 MD: 9735.00 ft
Inc: 89.19 deg Az:
181.50 deg TVD:
7067.29 ft

S: 102 MD: 9830.00 ft
Inc: 89.70 deg Az:
182.54 deg TVD:
7068.21 ft

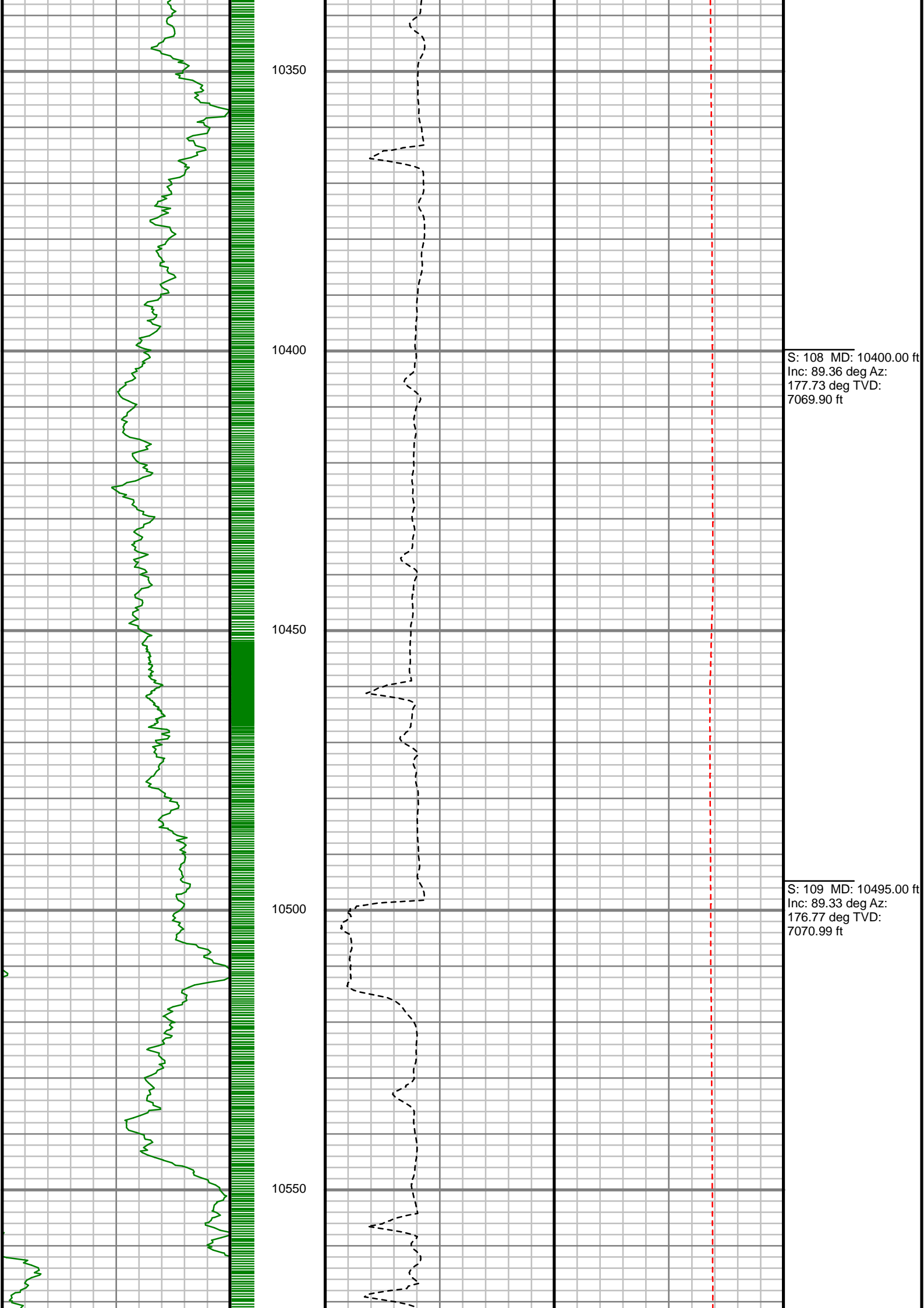


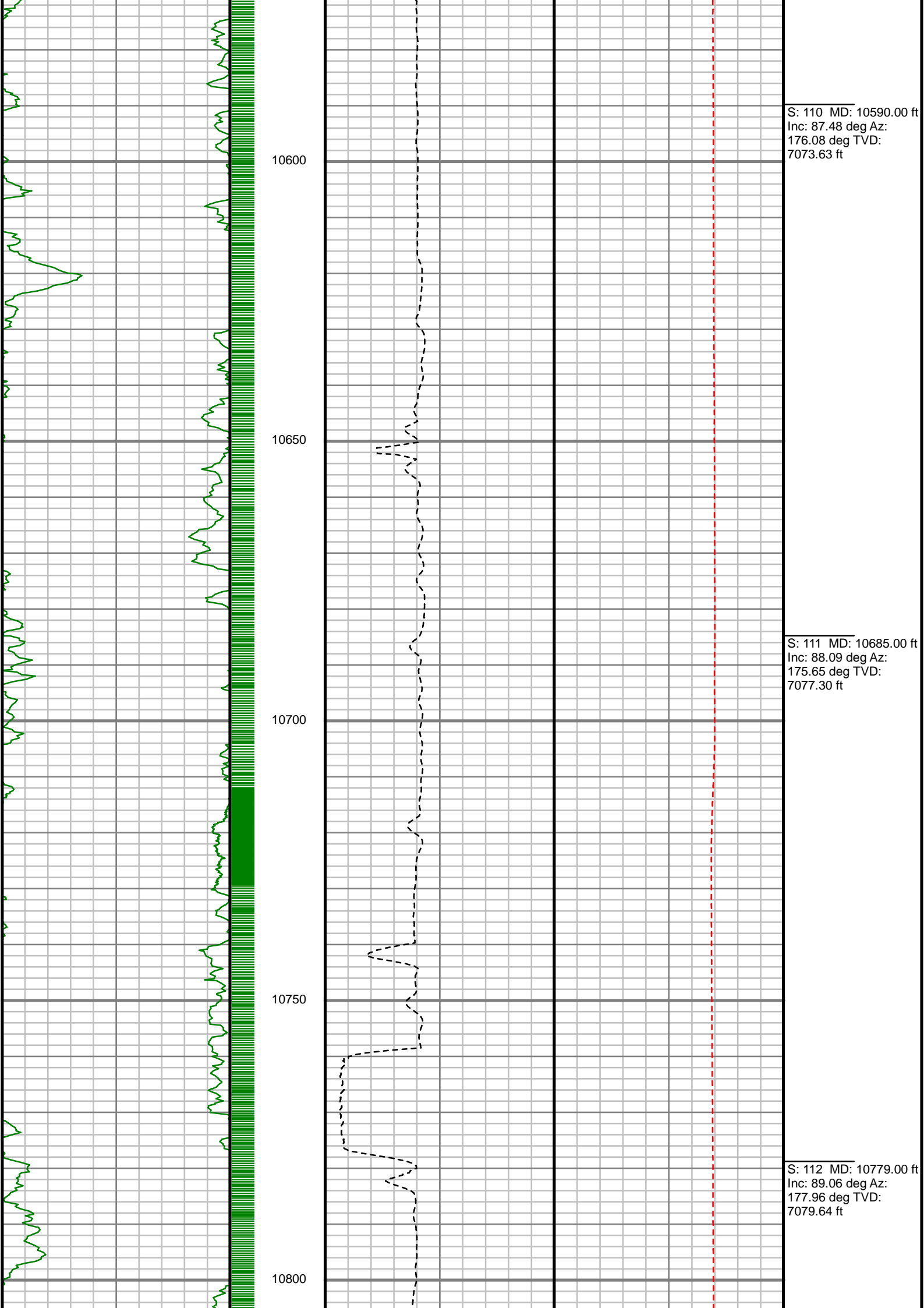


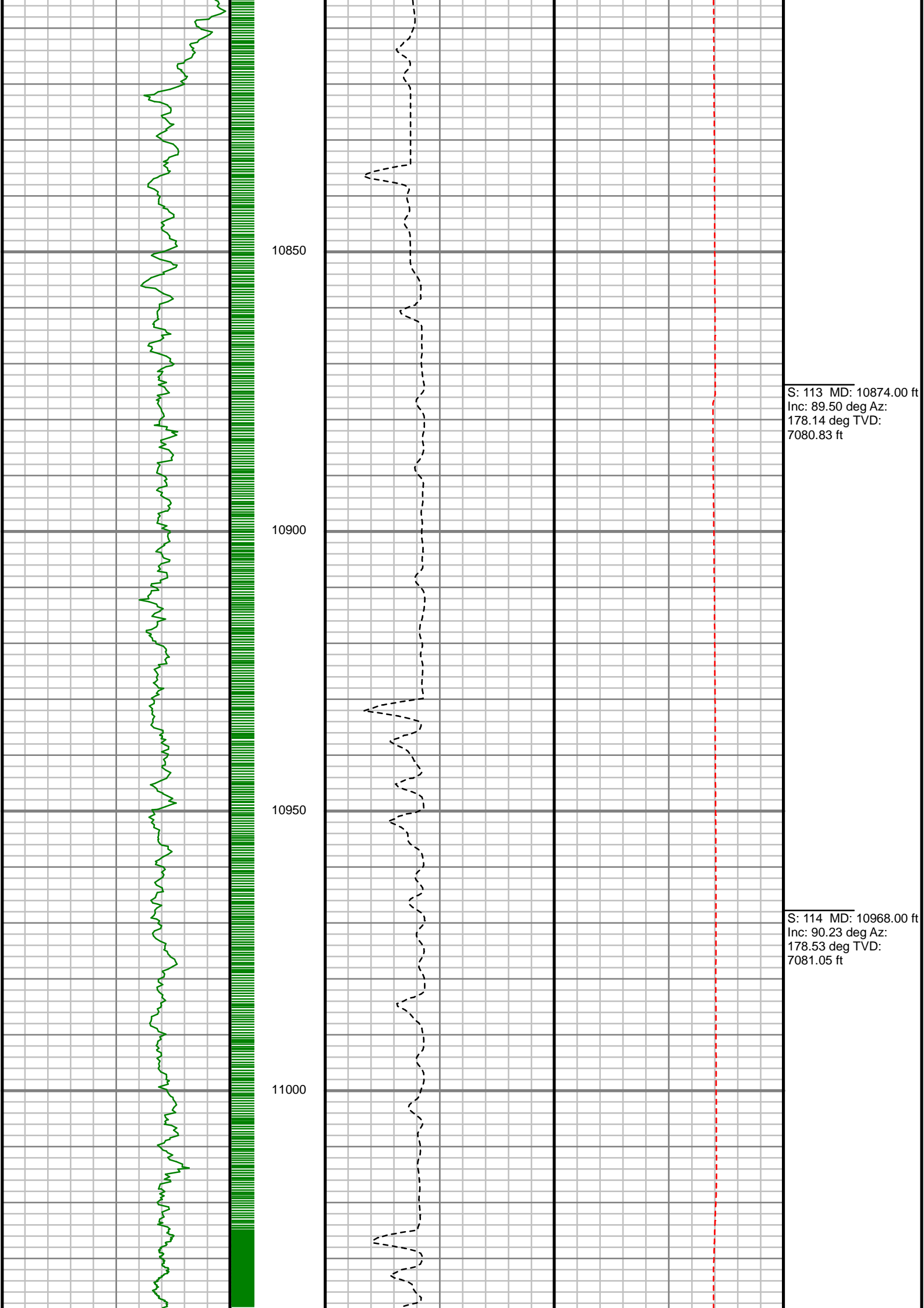
S: 105 MD: 10115.00 ft
Inc: 89.53 deg Az:
178.98 deg TVD:
7067.99 ft

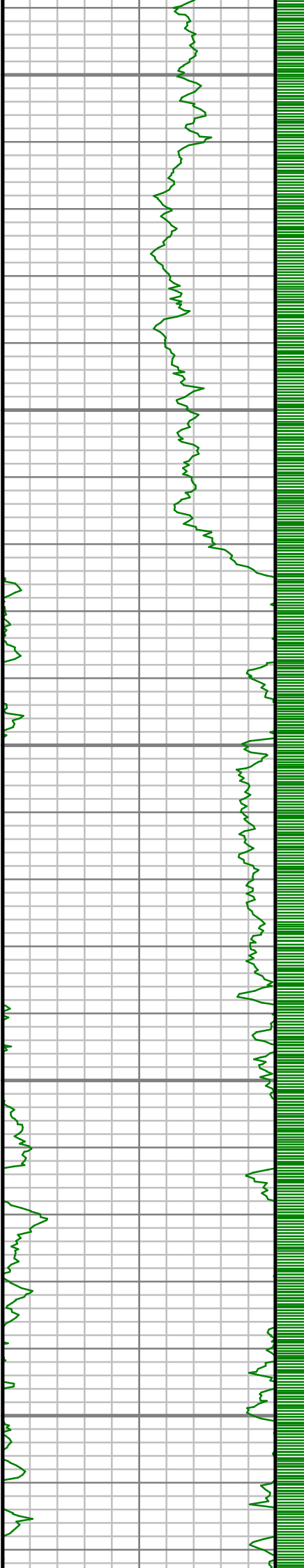
S: 106 MD: 10209.00 ft
Inc: 89.16 deg Az:
179.17 deg TVD:
7069.07 ft

S: 107 MD: 10304.00 ft
Inc: 90.23 deg Az:
178.82 deg TVD:
7069.57 ft









11050

11100

11150

11200

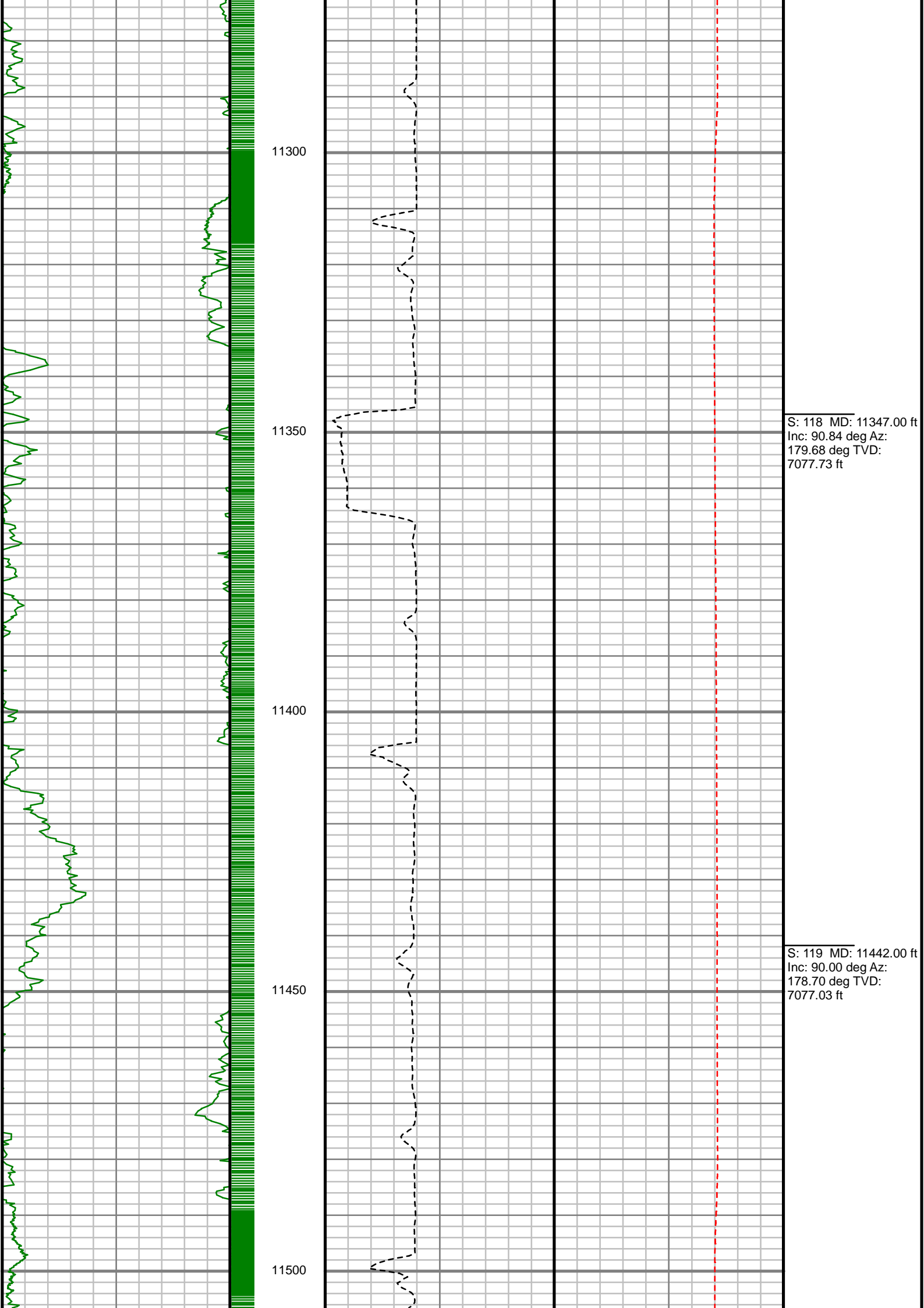
11250



S: 115 MD: 11063.00 ft
Inc: 91.31 deg Az:
179.39 deg TVD:
7079.77 ft

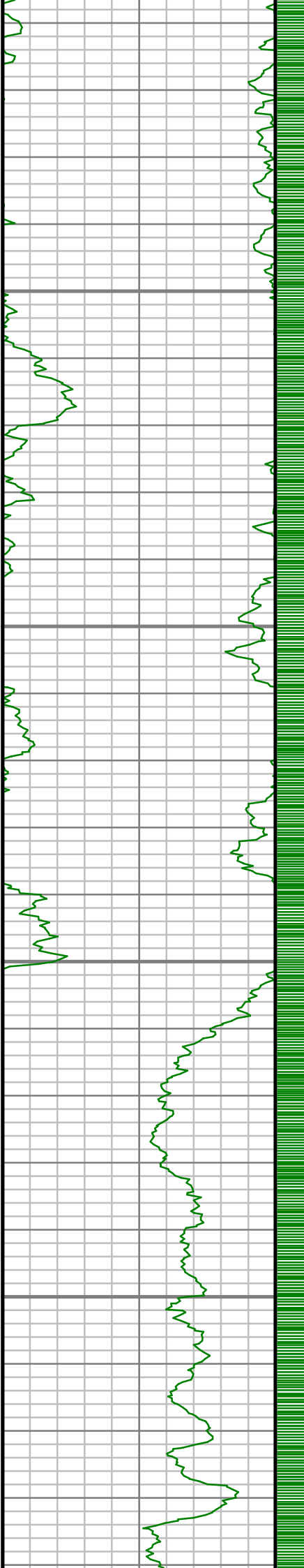
S: 116 MD: 11158.00 ft
Inc: 89.43 deg Az:
179.09 deg TVD:
7079.16 ft

S: 117 MD: 11253.00 ft
Inc: 90.74 deg Az:
179.23 deg TVD:
7079.02 ft



S: 118 MD: 11347.00 ft
Inc: 90.84 deg Az:
179.68 deg TVD:
7077.73 ft

S: 119 MD: 11442.00 ft
Inc: 90.00 deg Az:
178.70 deg TVD:
7077.03 ft

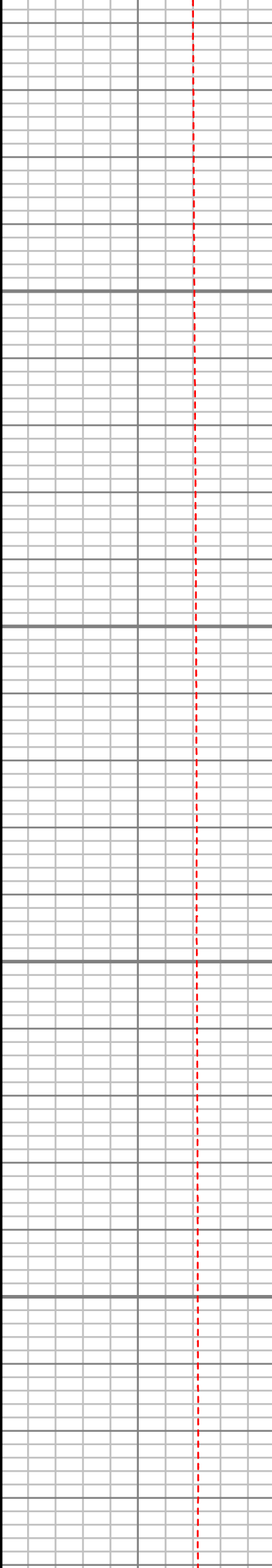
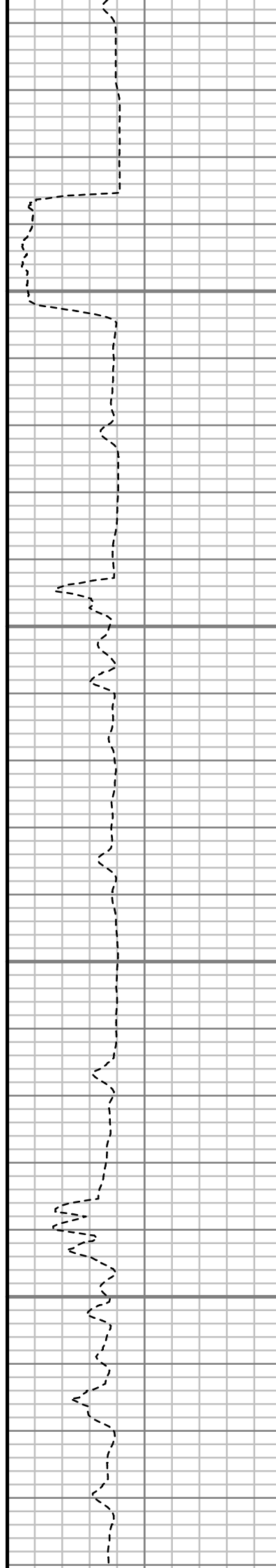


11550

11600

11650

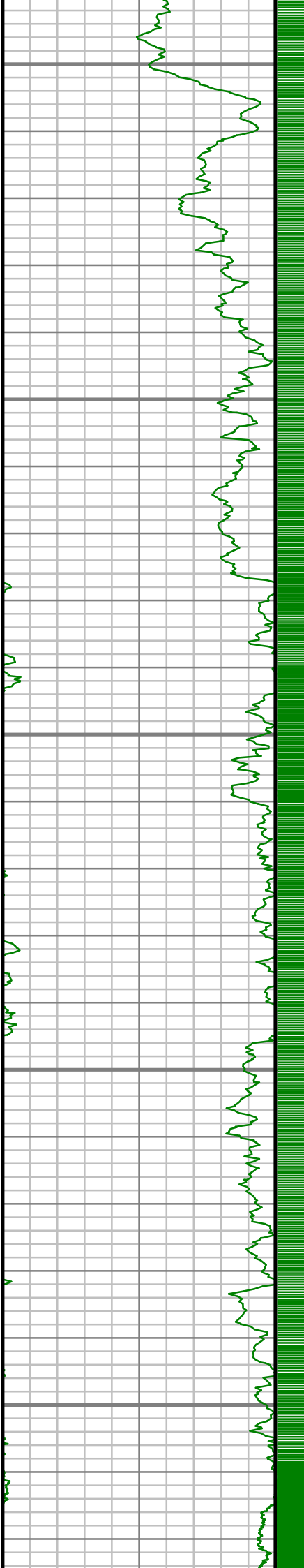
11700



S: 120 MD: 11537.00 ft
Inc: 90.34 deg Az:
180.16 deg TVD:
7076.75 ft

S: 121 MD: 11632.00 ft
Inc: 89.09 deg Az:
181.21 deg TVD:
7077.23 ft

S: 122 MD: 11727.00 ft
Inc: 89.43 deg Az:
180.70 deg TVD:
7078.45 ft



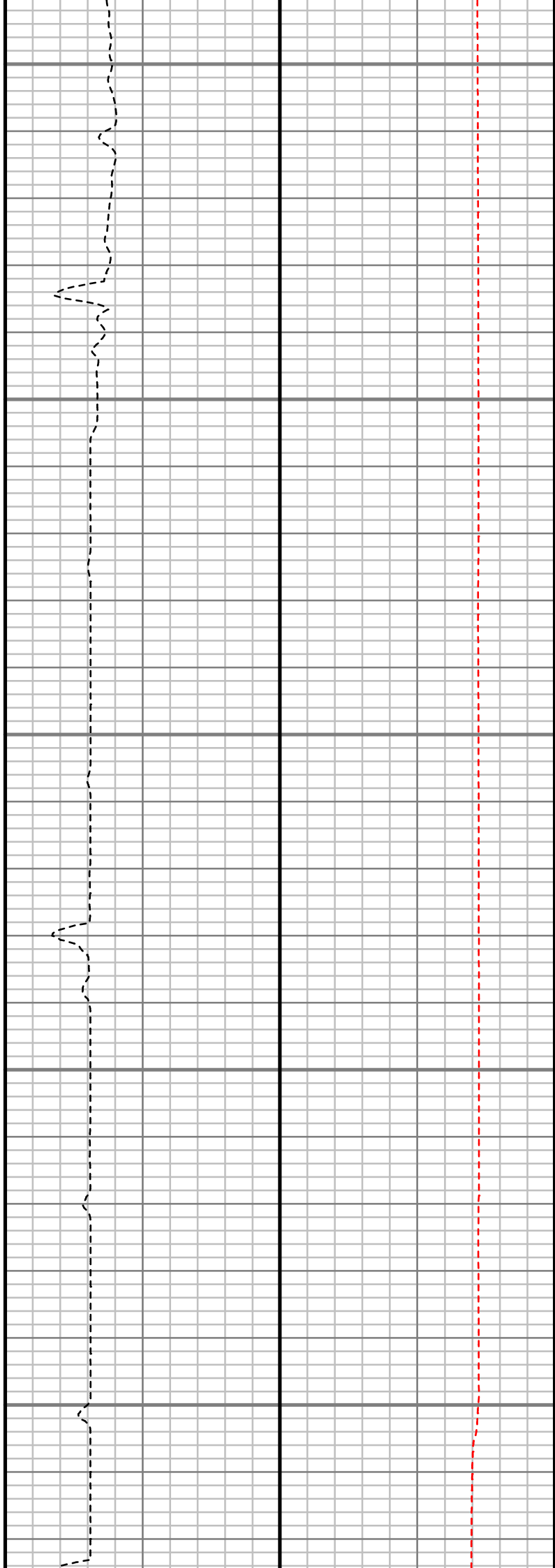
11750

11800

11850

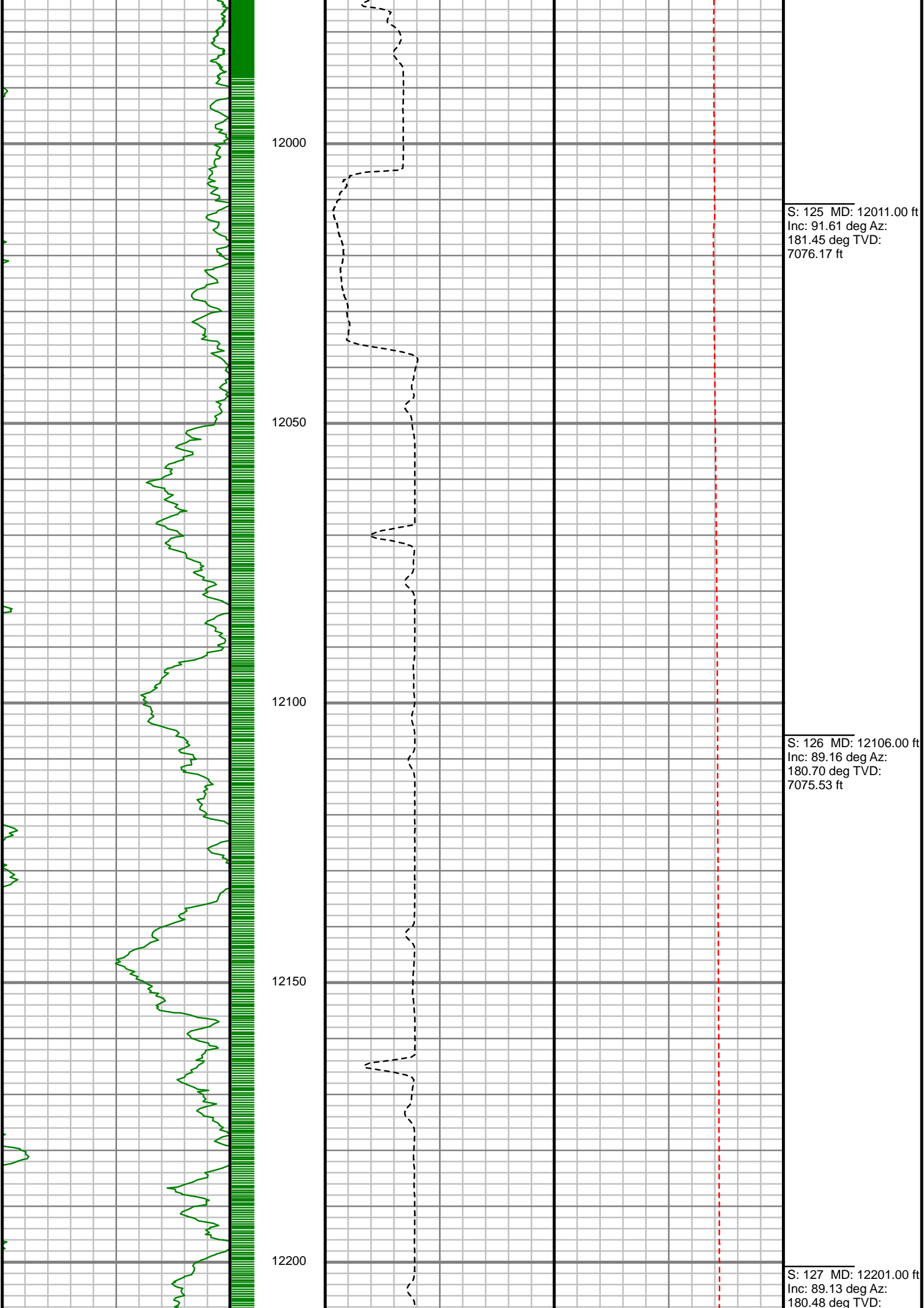
11900

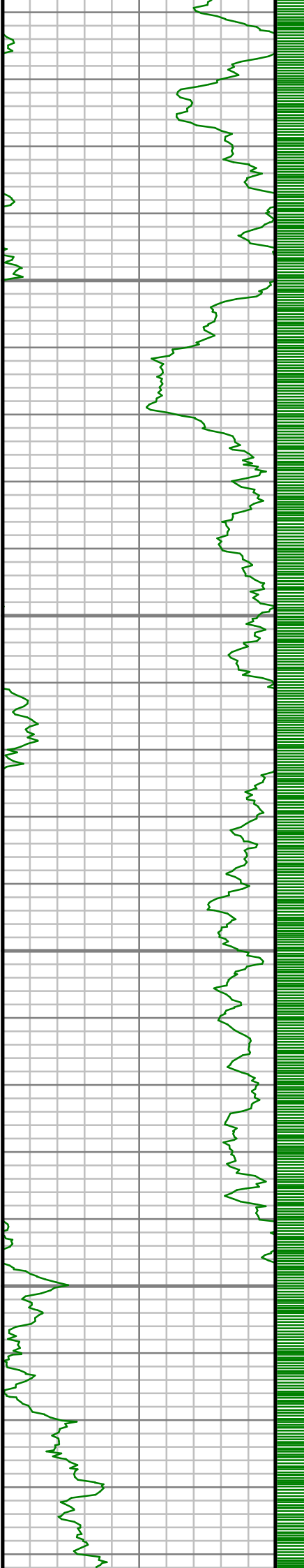
11950



S: 123 MD: 11822.00 ft
Inc: 89.66 deg Az:
180.78 deg TVD:
7079.20 ft

S: 124 MD: 11917.00 ft
Inc: 91.21 deg Az:
180.92 deg TVD:
7078.48 ft



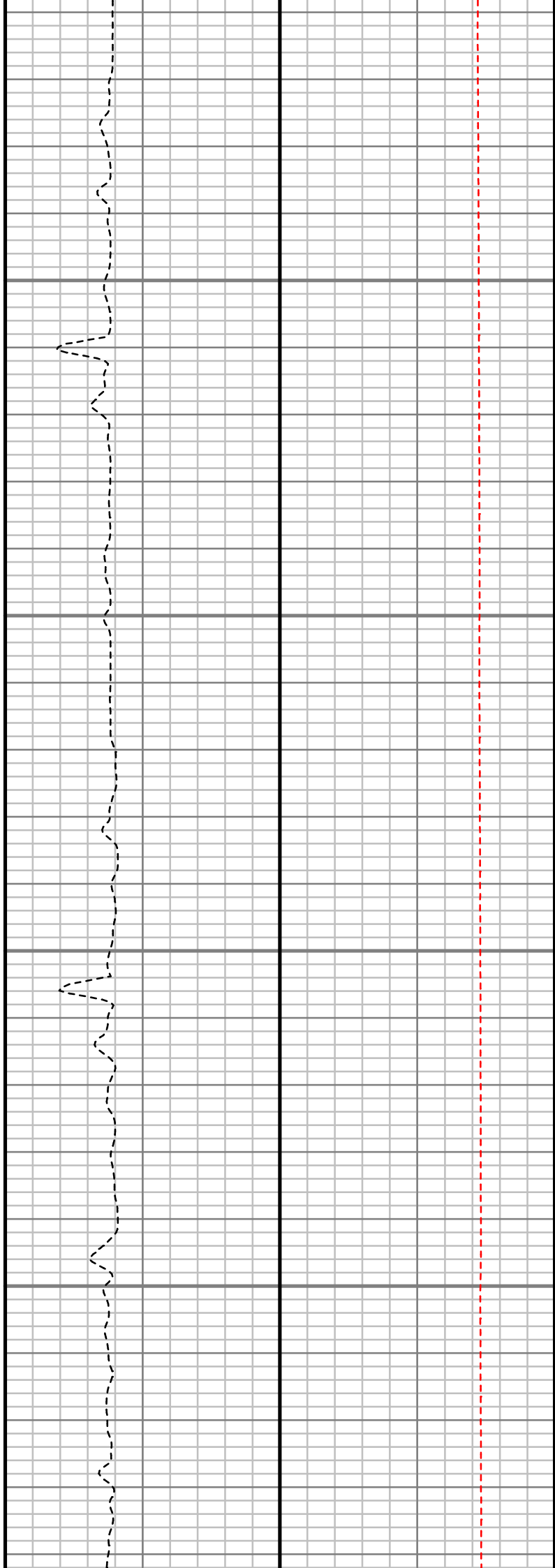


12250

12300

12350

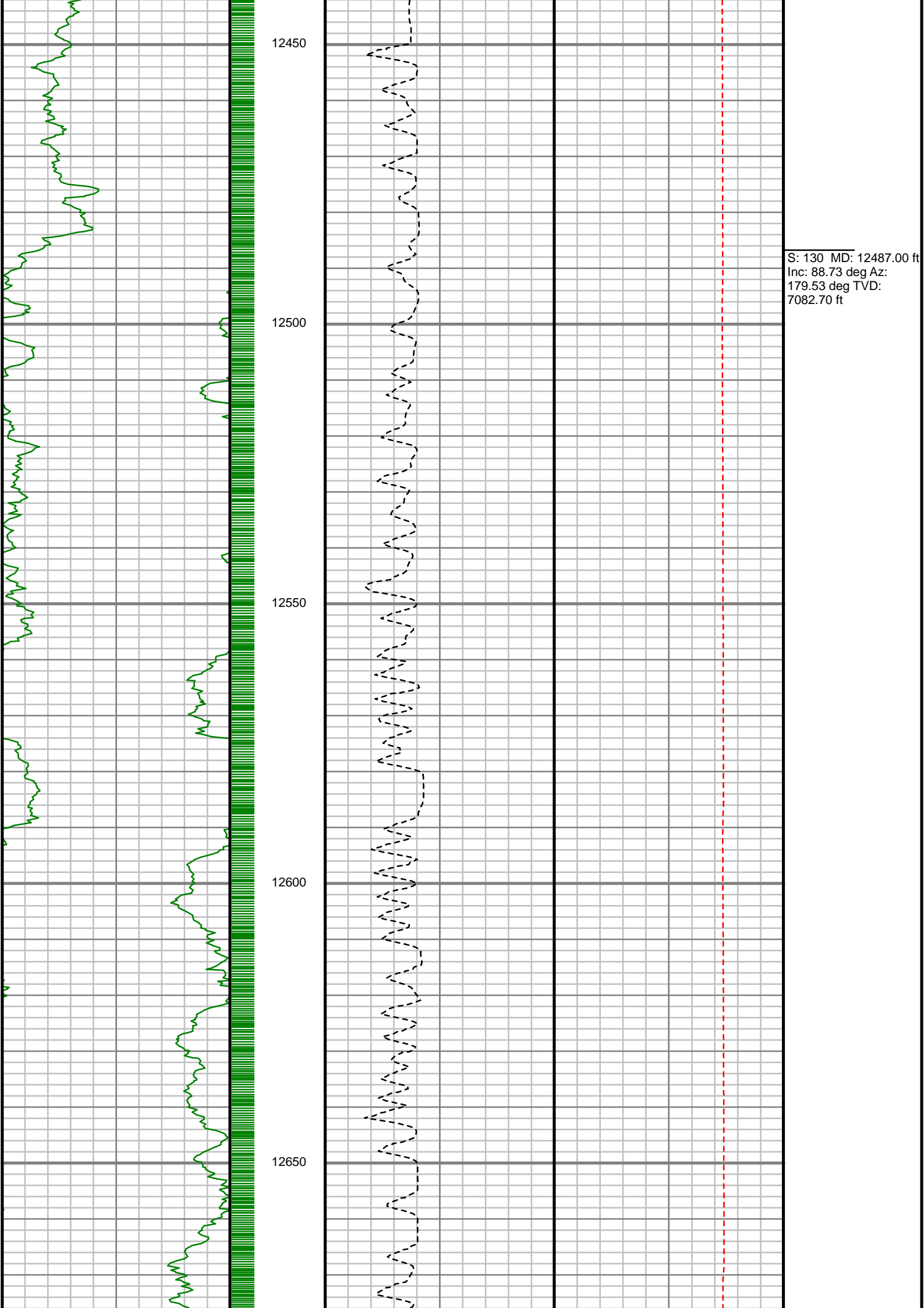
12400

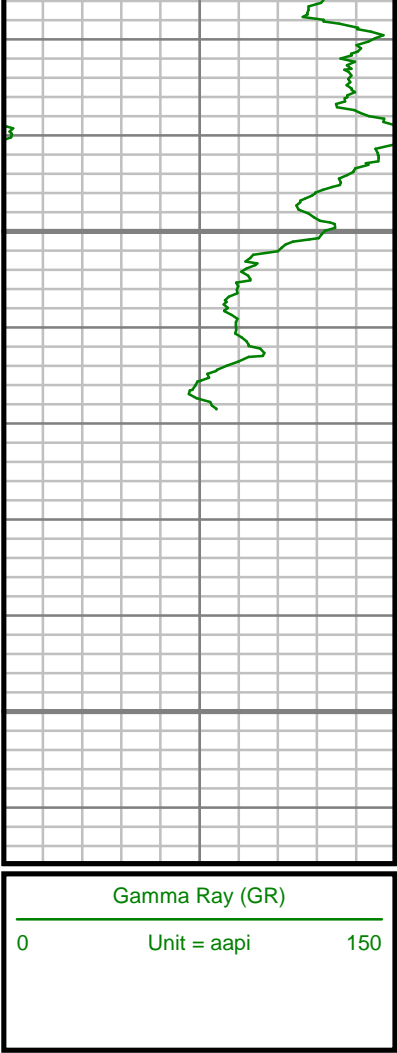


7076.95 ft

S: 128 MD: 12296.00 ft
Inc: 88.86 deg Az:
180.16 deg TVD:
7078.62 ft

S: 129 MD: 12392.00 ft
Inc: 88.76 deg Az:
179.90 deg TVD:
7080.61 ft

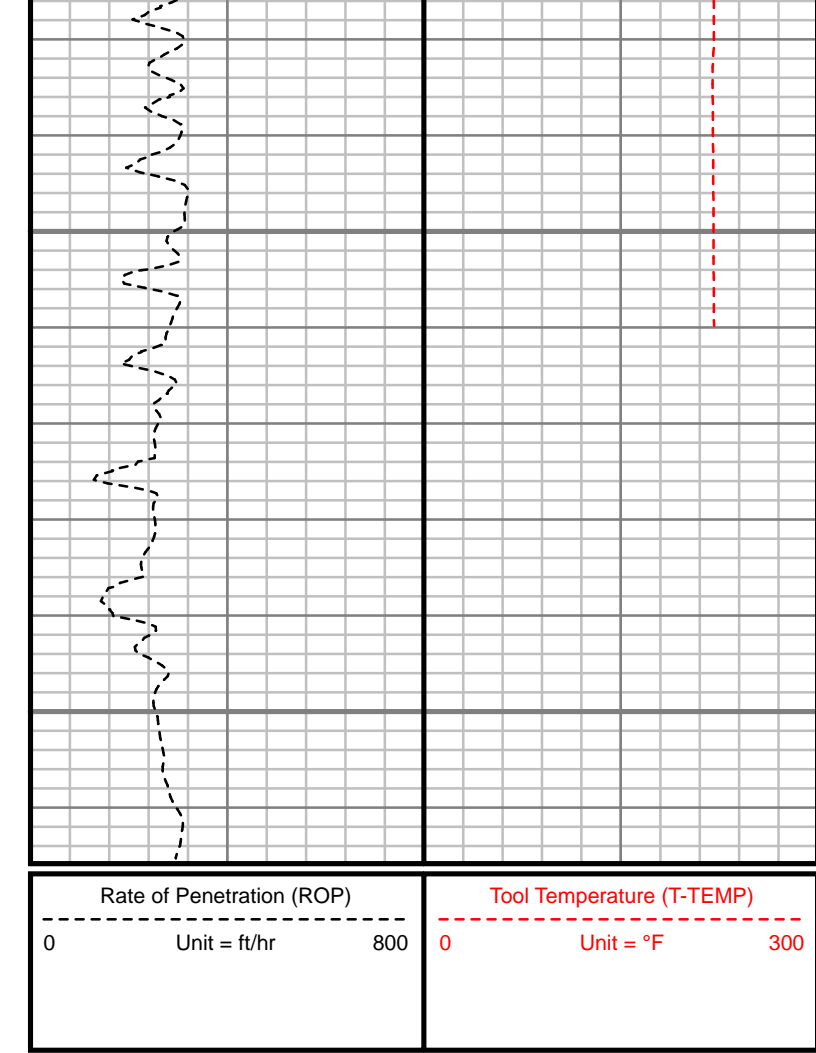




MEASURED DEPTH
1:240 (ft)

12700

12750



S: 131 MD: 12677.00 ft
Inc: 88.99 deg Az:
178.53 deg TVD:
7086.48 ft

Comments



Well Location	POWERS 3-22 PAD
Well Name	POWERS 13N-22HZ
Survey Date	10/9/2015
Latitude	40.1293330°N
Longitude	104.6539120°W
Btotal	52578, 52623 nT
Dip	66.80 deg
Magnetic Declination	8.20, 8.23 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (20.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 179.96Azim (deg)
Operator(s)	

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	Invalid
13.00	0.00	0.00	13.00	0.00	0.00	0.00	0.00	13.00
128.00	0.74	17.34	128.00	-0.71	0.71	0.22	0.64	115.00
218.00	0.95	331.85	217.99	-1.92	1.92	0.04	0.76	90.00
309.00	1.71	318.90	308.96	-3.61	3.61	-1.21	0.89	91.00
431.00	1.17	320.64	430.92	-5.95	5.94	-3.19	0.44	122.00
521.00	2.46	324.19	520.88	-8.22	8.22	-4.91	1.44	90.00
701.00	4.85	337.23	700.50	-18.38	18.37	-10.11	1.40	180.00
791.00	5.91	326.22	790.11	-25.74	25.73	-14.16	1.64	90.00
927.00	7.57	320.70	925.16	-38.50	38.48	-23.73	1.31	136.00
1017.00	8.79	316.63	1014.25	-48.09	48.07	-32.21	1.50	90.00
1152.00	10.52	316.52	1147.33	-64.55	64.51	-47.77	1.28	135.00
1242.00	11.73	315.46	1235.64	-77.04	77.00	-59.84	1.36	90.00
1377.00	13.71	322.32	1367.32	-99.50	99.44	-79.25	1.84	135.00
1467.00	14.55	321.33	1454.60	-116.77	116.71	-92.83	0.97	90.00
1557.00	15.90	322.74	1541.44	-135.42	135.35	-107.36	1.56	90.00
1647.00	17.17	324.25	1627.72	-156.03	155.94	-122.59	1.49	90.00
1737.00	18.42	324.92	1713.41	-178.46	178.36	-138.52	1.41	90.00
1824.00	18.39	322.79	1795.96	-200.65	200.54	-154.72	0.77	87.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
1957.00	20.44	323.54	1921.39	-236.06	235.94	-181.21	1.56	133.00
2052.00	20.54	321.55	2010.38	-262.47	262.33	-201.43	0.74	95.00
2148.00	19.86	318.84	2100.47	-287.95	287.80	-222.64	1.20	96.00
2242.00	20.48	320.40	2188.71	-312.66	312.49	-243.64	0.88	94.00
2337.00	19.33	315.15	2278.04	-336.63	336.45	-265.32	2.24	95.00
2431.00	19.30	317.32	2366.75	-359.09	358.89	-286.82	0.76	94.00
2526.00	20.27	322.07	2456.15	-383.63	383.41	-307.57	1.98	95.00
2621.00	20.06	320.52	2545.33	-409.19	408.97	-328.04	0.61	95.00
2717.00	18.76	316.45	2635.88	-433.10	432.86	-349.15	1.95	96.00
2811.00	19.13	318.03	2724.79	-455.52	455.26	-369.86	0.67	94.00
2906.00	19.64	319.59	2814.40	-479.26	478.99	-390.62	0.77	95.00
3002.00	20.30	318.13	2904.63	-503.96	503.67	-412.20	0.86	96.00
3097.00	20.48	320.20	2993.68	-529.02	528.71	-433.84	0.78	95.00
3192.00	21.13	326.78	3082.49	-556.13	555.81	-453.86	2.55	95.00
3287.00	21.25	330.33	3171.07	-585.43	585.10	-471.77	1.36	95.00
3382.00	20.25	328.65	3259.91	-614.45	614.10	-488.84	1.23	95.00
3478.00	19.28	327.21	3350.25	-641.97	641.62	-506.07	1.13	96.00
3573.00	17.53	325.99	3440.39	-667.03	666.66	-522.57	1.89	95.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
3668.00	16.15	328.22	3531.32	-690.13	689.75	-537.53	1.60	95.00
3763.00	17.24	331.60	3622.31	-713.76	713.37	-551.18	1.54	95.00
3858.00	18.37	331.58	3712.76	-739.32	738.92	-565.00	1.18	95.00
3953.00	17.97	328.00	3803.03	-764.91	764.51	-579.89	1.25	95.00
4048.00	17.77	319.92	3893.46	-788.45	788.03	-596.99	2.62	95.00
4144.00	17.66	317.02	3984.91	-810.33	809.90	-616.35	0.92	96.00
4239.00	17.47	319.02	4075.48	-831.65	831.21	-635.53	0.67	95.00
4334.00	19.78	319.89	4165.50	-854.73	854.27	-655.24	2.45	95.00
4429.00	20.67	321.51	4254.64	-880.16	879.69	-676.04	1.11	95.00
4524.00	19.47	319.82	4343.87	-905.40	904.91	-696.69	1.41	95.00
4619.00	18.63	320.24	4433.67	-929.17	928.67	-716.61	0.90	95.00
4714.00	17.49	321.16	4523.98	-951.97	951.46	-735.27	1.23	95.00
4809.00	16.85	320.07	4614.75	-973.67	973.14	-753.06	0.76	95.00
4904.00	18.44	321.65	4705.28	-996.02	995.49	-771.22	1.75	95.00
4999.00	16.73	320.91	4795.83	-1018.43	1017.88	-789.17	1.82	95.00
5094.00	16.77	321.49	4886.80	-1039.78	1039.22	-806.32	0.18	95.00
5190.00	16.46	325.78	4978.80	-1061.87	1061.30	-822.59	1.32	96.00
5284.00	16.28	328.36	5068.99	-1084.11	1083.53	-836.99	0.80	94.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
5379.00	16.99	321.91	5160.02	-1106.39	1105.80	-852.55	2.08	95.00
5475.00	15.33	321.05	5252.22	-1127.32	1126.71	-869.18	1.75	96.00
5569.00	12.36	319.28	5343.48	-1144.62	1144.00	-883.56	3.19	94.00
5663.00	11.63	319.42	5435.43	-1159.45	1158.83	-896.29	0.77	94.00
5759.00	10.42	319.43	5529.65	-1173.41	1172.78	-908.24	1.26	96.00
5853.00	9.49	321.21	5622.23	-1185.92	1185.28	-918.62	1.05	94.00
5949.00	9.73	326.65	5716.89	-1198.87	1198.22	-928.04	0.98	96.00
6044.00	11.98	326.01	5810.18	-1213.76	1213.11	-937.97	2.38	95.00
6138.00	10.50	325.58	5902.38	-1228.92	1228.26	-948.26	1.59	94.00
6232.00	8.02	325.77	5995.15	-1241.41	1240.75	-956.79	2.64	94.00
6325.00	6.02	324.10	6087.44	-1250.73	1250.06	-963.30	2.15	93.00
6420.00	4.36	323.79	6182.05	-1257.69	1257.01	-968.36	1.75	95.00
6515.00	2.75	323.40	6276.87	-1262.43	1261.75	-971.85	1.70	95.00
6609.00	2.69	201.60	6370.81	-1262.19	1261.51	-974.00	5.05	94.00
6704.00	9.58	167.62	6465.23	-1252.38	1251.70	-973.12	7.90	95.00
6799.00	17.18	179.25	6557.60	-1230.58	1229.91	-971.24	8.45	95.00
6893.00	24.33	172.37	6645.46	-1197.46	1196.79	-968.49	8.02	94.00
6988.00	30.92	170.33	6729.58	-1153.95	1153.28	-961.78	7.02	95.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
7082.00	37.56	175.38	6807.26	-1101.51	1100.84	-955.41	7.67	94.00
7177.00	45.03	179.96	6878.60	-1038.94	1038.27	-953.05	8.48	95.00
7271.00	52.69	180.78	6940.40	-968.20	967.54	-953.53	8.17	94.00
7366.00	62.05	180.30	6991.57	-888.29	887.63	-954.27	9.86	95.00
7461.00	70.38	180.44	7029.86	-801.44	800.77	-954.83	8.77	95.00
7555.00	80.89	181.16	7053.14	-710.52	709.85	-956.12	11.21	94.00
7650.00	89.13	183.18	7061.40	-616.03	615.37	-959.71	8.92	95.00
7745.00	90.77	182.98	7061.48	-521.18	520.51	-964.81	1.74	95.00
7839.00	88.36	183.62	7062.20	-427.35	426.67	-970.21	2.66	94.00
7933.00	89.03	182.96	7064.35	-333.53	332.85	-975.60	1.00	94.00
8028.00	90.24	183.34	7064.96	-238.68	238.00	-980.82	1.33	95.00
8122.00	91.21	182.65	7063.77	-144.82	144.14	-985.74	1.27	94.00
8217.00	89.83	180.65	7062.91	-49.88	49.19	-988.48	2.55	95.00
8312.00	90.17	180.81	7062.91	45.11	-45.80	-989.69	0.39	95.00
8407.00	90.00	177.91	7062.77	140.10	-140.79	-988.63	3.05	95.00
8502.00	91.75	178.89	7061.33	235.05	-235.74	-985.98	2.10	95.00
8596.00	89.93	179.76	7059.95	329.03	-329.71	-984.87	2.14	94.00
8691.00	90.37	181.90	7059.70	424.01	-424.70	-986.24	2.30	95.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
8786.00	90.60	181.84	7058.89	518.95	-519.64	-989.34	0.25	95.00
8881.00	88.82	182.88	7059.37	613.86	-614.56	-993.26	2.17	95.00
8976.00	88.96	182.48	7061.20	708.74	-709.44	-997.71	0.45	95.00
9071.00	90.40	184.38	7061.73	803.56	-804.26	-1003.39	2.51	95.00
9166.00	88.93	184.17	7062.29	898.28	-898.99	-1010.46	1.57	95.00
9261.00	90.84	184.97	7062.48	992.97	-993.68	-1018.03	2.19	95.00
9356.00	89.30	184.67	7062.37	1087.63	-1088.34	-1026.02	1.66	95.00
9451.00	88.39	183.39	7064.29	1182.36	-1183.09	-1032.69	1.65	95.00
9546.00	90.54	184.06	7065.18	1277.15	-1277.87	-1038.86	2.37	95.00
9640.00	88.86	183.07	7065.68	1370.96	-1371.69	-1044.70	2.08	94.00
9735.00	89.19	181.50	7067.29	1465.86	-1466.59	-1048.49	1.69	95.00
9830.00	89.70	182.54	7068.21	1560.79	-1561.53	-1051.84	1.22	95.00
9924.00	89.06	178.95	7069.22	1654.76	-1655.50	-1053.06	3.89	94.00
10019.00	91.44	179.47	7068.81	1749.75	-1750.48	-1051.74	2.57	95.00
10115.00	89.53	178.98	7067.99	1845.73	-1846.47	-1050.44	2.06	96.00
10209.00	89.16	179.17	7069.07	1939.71	-1940.45	-1048.92	0.44	94.00
10304.00	90.23	178.82	7069.57	2034.70	-2035.43	-1047.26	1.19	95.00
10400.00	89.36	177.73	7069.90	2130.65	-2131.38	-1044.37	1.45	96.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
10495.00	89.33	176.77	7070.99	2225.54	-2226.27	-1039.82	1.01	95.00
10590.00	87.48	176.08	7073.63	2320.32	-2321.04	-1033.90	2.08	95.00
10685.00	88.09	175.65	7077.30	2415.00	-2415.72	-1027.06	0.78	95.00
10779.00	89.06	177.96	7079.64	2508.83	-2509.54	-1021.82	2.66	94.00
10874.00	89.50	178.14	7080.83	2603.76	-2604.48	-1018.58	0.50	95.00
10968.00	90.23	178.53	7081.05	2697.73	-2698.44	-1015.85	0.88	94.00
11063.00	91.31	179.39	7079.77	2792.70	-2793.41	-1014.12	1.45	95.00
11158.00	89.43	179.09	7079.16	2887.69	-2888.39	-1012.86	2.00	95.00
11253.00	90.74	179.23	7079.02	2982.68	-2983.38	-1011.46	1.38	95.00
11347.00	90.84	179.68	7077.73	3076.66	-3077.37	-1010.57	0.50	94.00
11442.00	90.00	178.70	7077.03	3171.65	-3172.35	-1009.22	1.36	95.00
11537.00	90.34	180.16	7076.75	3266.64	-3267.35	-1008.28	1.58	95.00
11632.00	89.09	181.21	7077.23	3361.63	-3362.34	-1009.41	1.71	95.00
11727.00	89.43	180.70	7078.45	3456.61	-3457.31	-1011.00	0.64	95.00
11822.00	89.66	180.78	7079.20	3551.60	-3552.30	-1012.22	0.26	95.00
11917.00	91.21	180.92	7078.48	3646.58	-3647.29	-1013.63	1.63	95.00
12011.00	91.61	181.45	7076.17	3740.53	-3741.24	-1015.58	0.70	94.00
12106.00	89.16	180.70	7075.53	3835.50	-3836.21	-1017.35	2.69	95.00

5" = 100' FEET MD