



5" = 100' FEET MD

COMPANY : ANADARKO E&P ONSHORE LLC  
WELL : BUFFALO 35C-15HZ  
FIELD : WATTENBERG  
COUNTY : WELD  
STATE : COLORADO  
COUNTRY : U.S.A.  
UWI : 05-123-36454

COMPANY : ANADARKO E&P ONSHORE LLC

WELL : BUFFALO 35C-15HZ

FIELD : WATTENBERG

COUNTY : WELD

STATE : COLORADO

COUNTRY : U.S.A.

UWI : 05-123-36454

WELL LOCATION

LAT:40°3'26.427"N LONG:104°59'44.534"W  
N:1264136.08 ft E:3141160.78 ft

SEC:15 TWP:1 N RANGE:68 W

OTHER SERVICES

DIRECTIONAL  
ROP

DEPTH REF. : RKB

REF. HEIGHT : 20.000 ft RKB to Ground Level

GROUND LEVEL : 5138.000 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	1317	0 - 12	0	2828
8.75	1317	8298	12 - 0	2828	5162
6.125	8298	12427	0 - 81	5162	8298
			81 - 92	8298	12427

## CASING RECORD

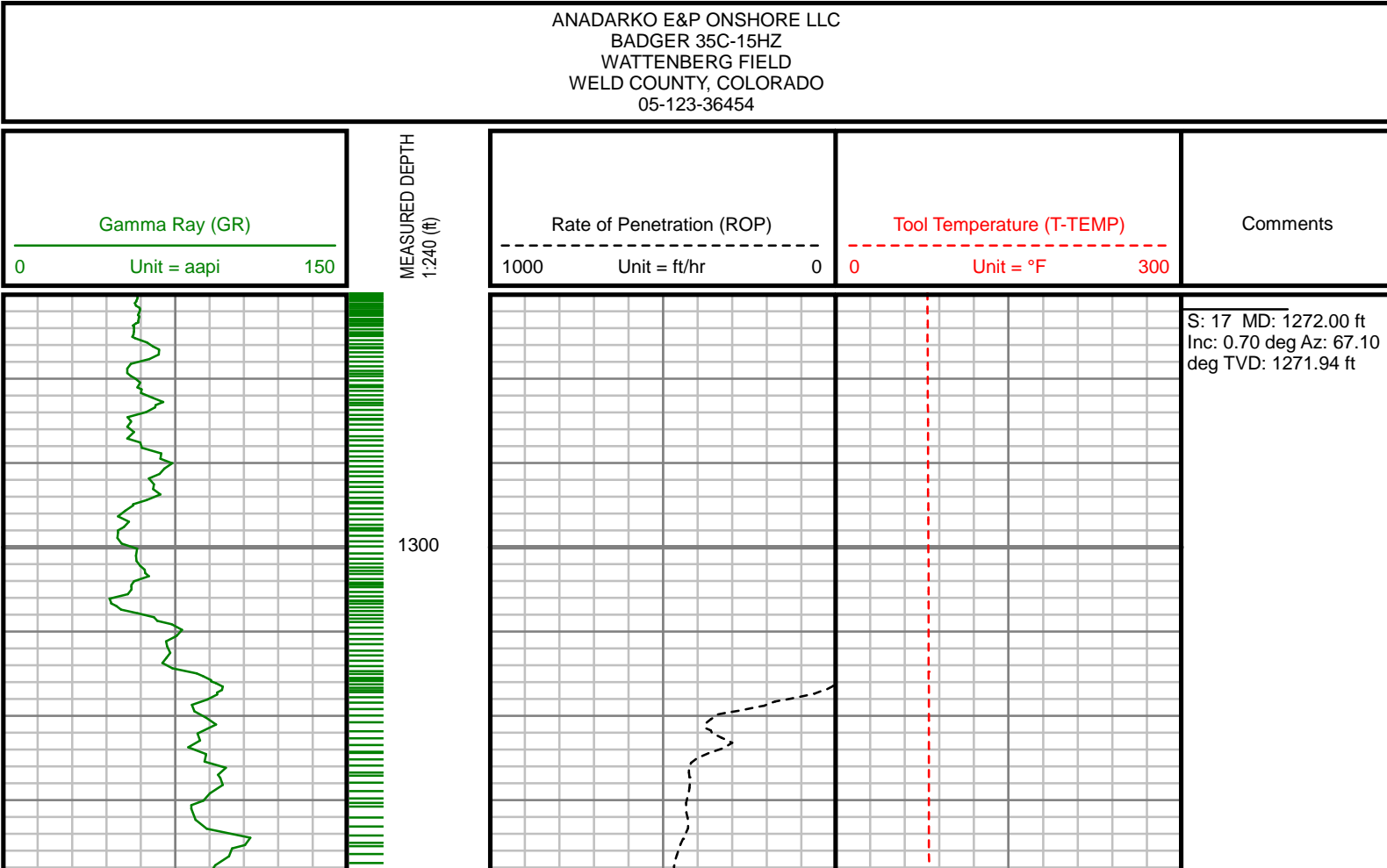
CASING SIZE in	FROM ft	TO ft			
9.625	0	1317			
7	0	8288	DRILLING CO. : PRECISION RIG : 461 LWD UNIT NO. : MWD 00282-CDISTRICT : CASPER SPUD DATE : 04/30/2015 LWD START DATE : 04/30/2015 DEPTH : 1223 ft LWD END DATE : 05/05/2015 DEPTH : 12427 ft TOTAL DEPTH : 12427 ft		

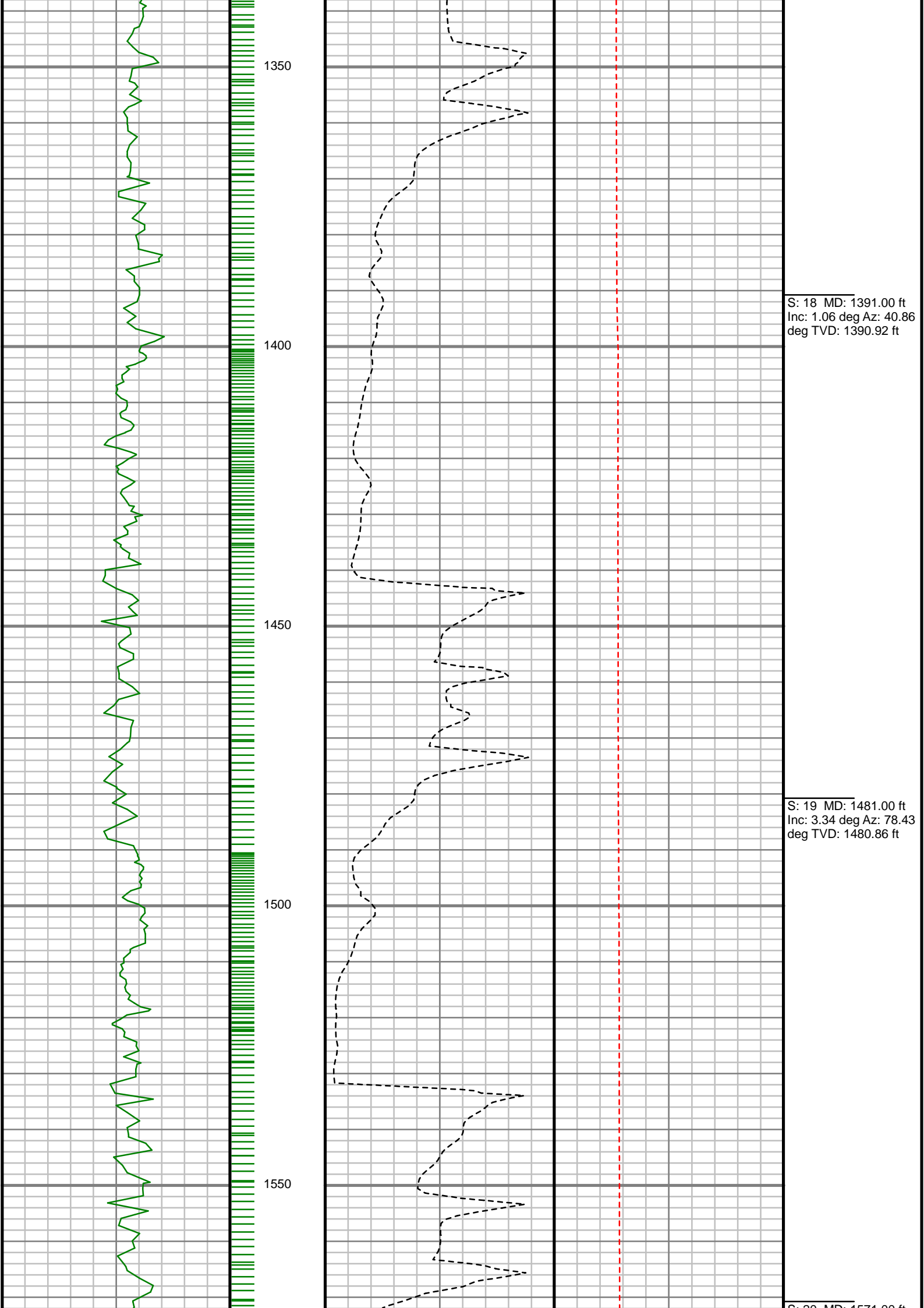
## Run Data

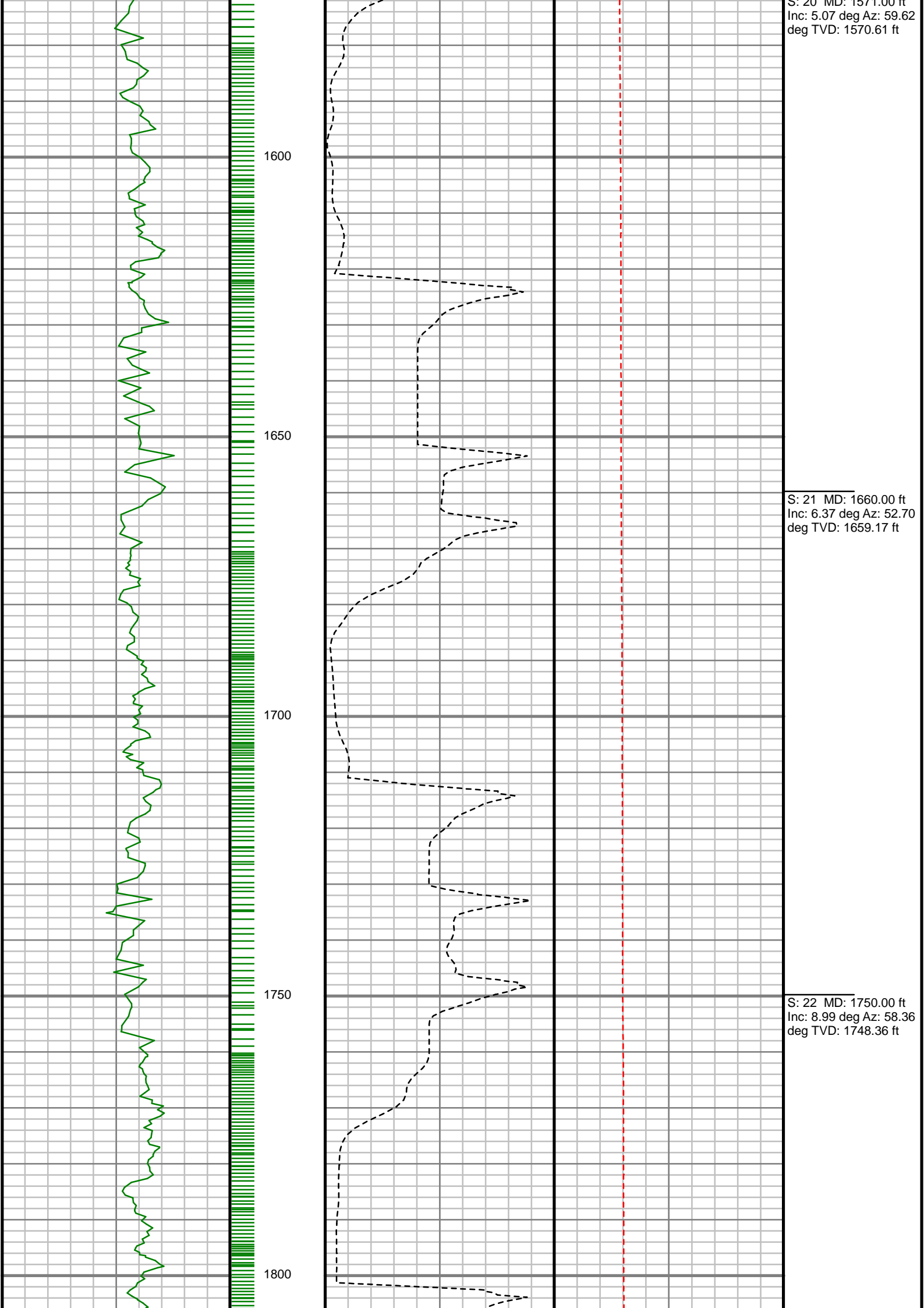
Run Data						
RUN NUMBER	1	2				
START DATE	04/30/2015	05/03/2015				
START TIME	1020	1530				
END DATE	05/02/2015	05/05/2015				
END TIME	1515	1315				
DEPTH IN (ft)	1317	8298				
DEPTH OUT (ft)	8298	12427				
LOG TOP (ft)	1223	8255				
LOG BOTTOM (ft)	8255	12379				
HOLE SIZE (in)	8.75	6.125				
MUD DATA @ (ft)	1307	11430				
MUD TYPE	WATER-BASED	WATER-BASED				
DENSITY (lb / gal)	8.4	10.0				
VISCOSITY (s / qt)	28	43				
pH	7.8	9.0				
FLUID LOSS (cm <sup>3</sup> / 30)	-	5.2				
SALINITY (ppm)	4400	3400				
Rm (ohmm @ deg F)	-	-				
Rmf (ohmm @ deg F)	-	-				
MAX TEMP (deg F)		230				
Rm @ MAX TEMP (ohmm)	-	-				
LWD ENGINEER #1	C. COLLINS	H. ORAHOOD				
LWD ENGINEER #2	H. ORAHOOD	C. COLLINS				
LWD ENGINEER #3	S. NEJAD	-				
LOG WITNESS #1	J. MORGAN	J. MORGAN				
LOG WITNESS #2	-	-				

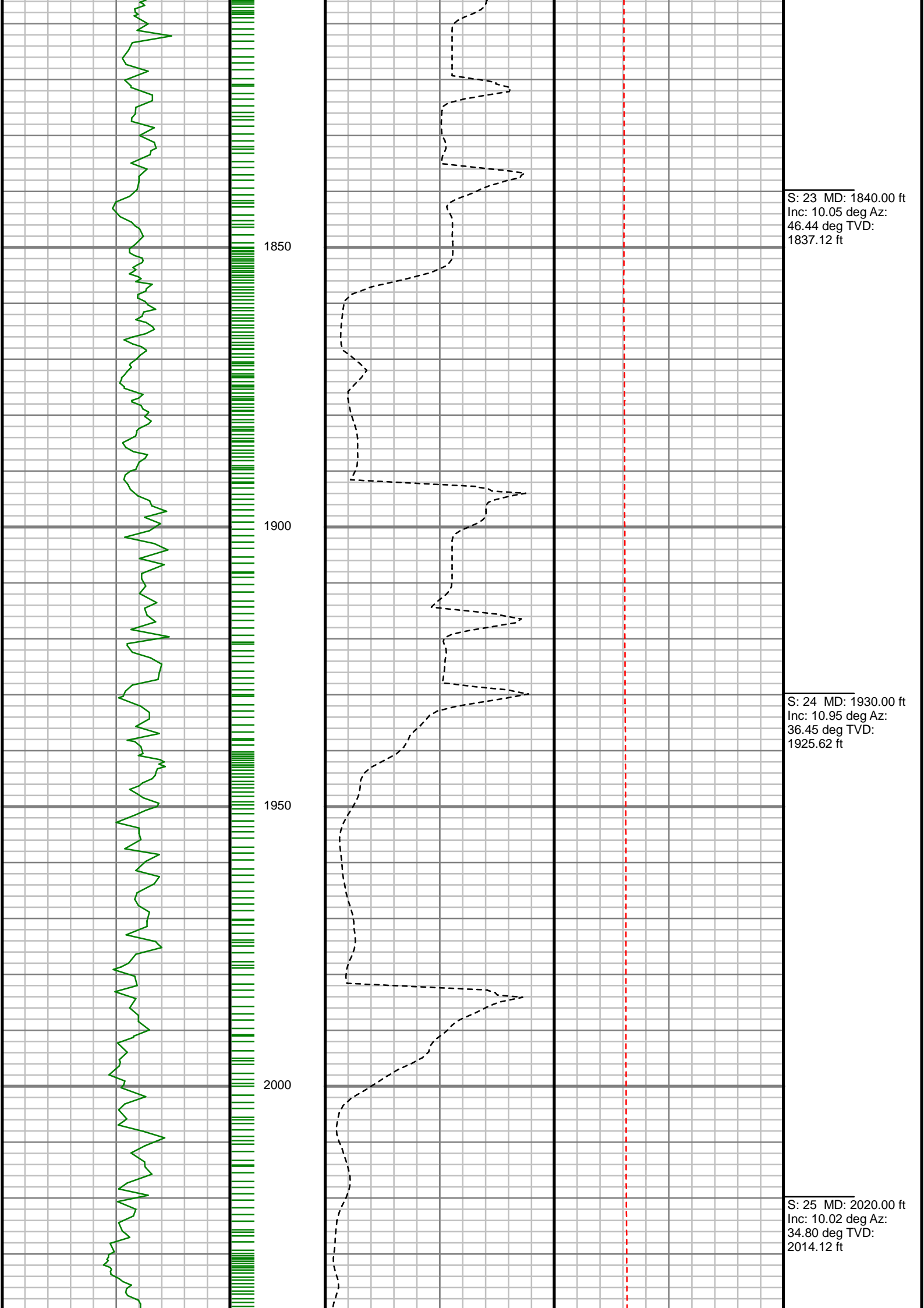
Remarks
ANADARKO E&P ONSHORE LLC PRODUCTION AFE# 2063247
SCIENTIFIC DRILLING INTERNATIONAL JOB# 277350
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO TOOL TEMPERATURE CURVE
RUN # 1: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-265 / CONT = 863 / MWD EYE = 0399 / GAMMA RAY = 1344
BIT TO SENSOR OFFSETS: SURVEY = 53.00 FT. / GAMMA RAY = 42.01 FT.
RUN # 2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 78-118 / CONT = 277 / MWD EYE = 0538 / GAMMA RAY = 1367
BIT TO SENSOR OFFSETS: SURVEY = 58.00 FT. / GAMMA RAY = 47.67 FT.
MNEMONICS LIST:
GR = GAMMA RAY
ROP = RATE OF PENETRATION
T-TEMP = TOOL TEMPERATURE

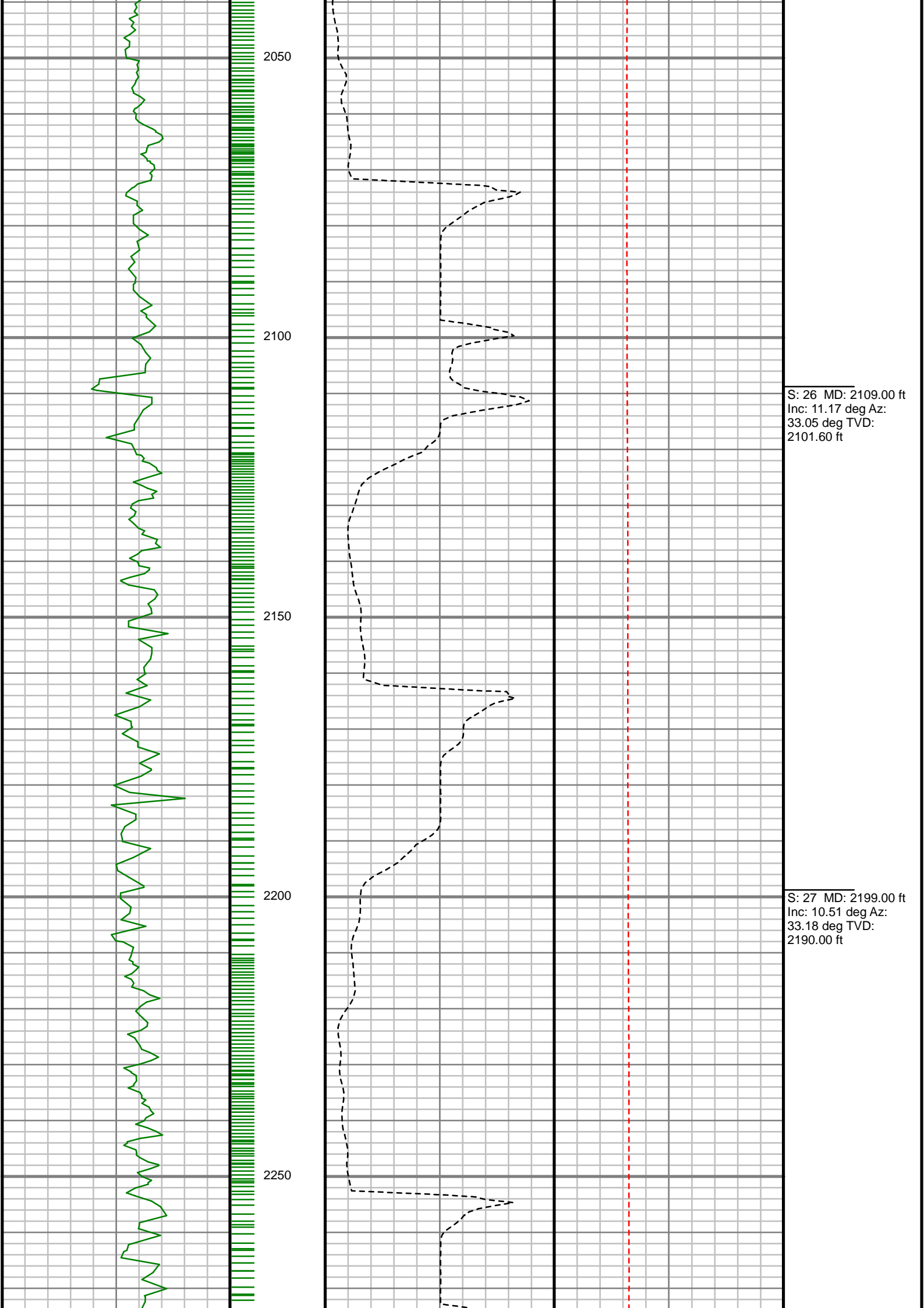
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

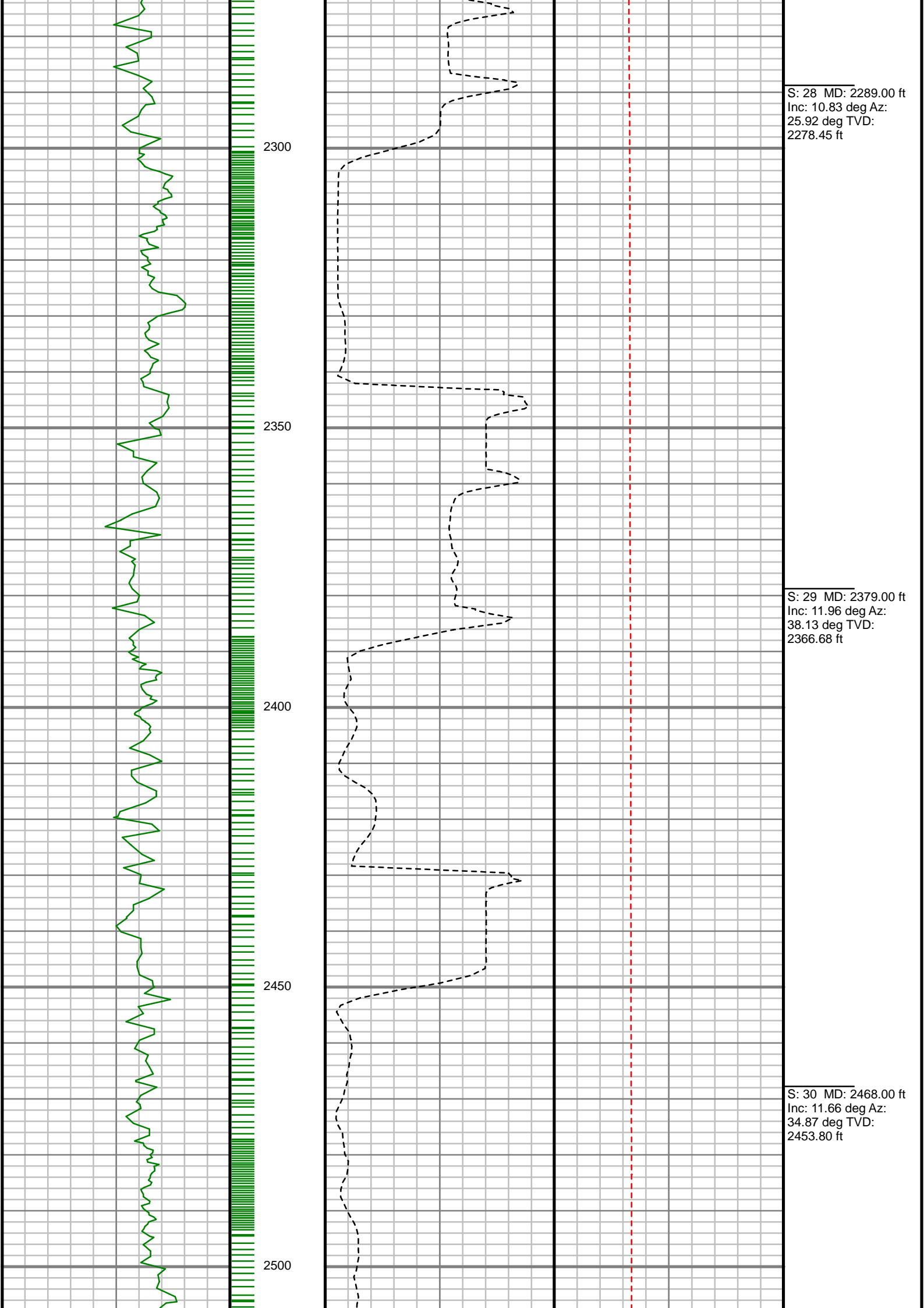


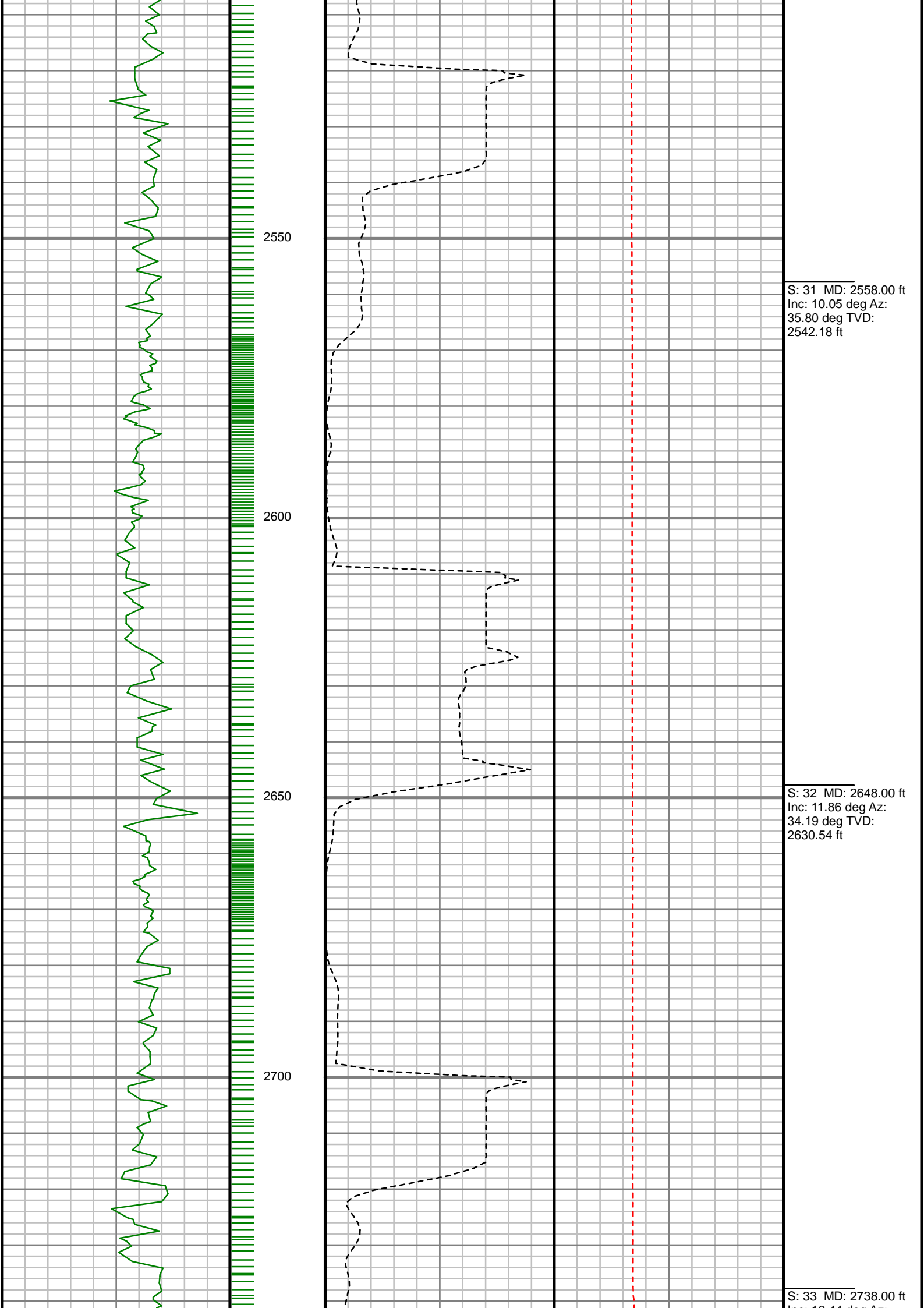




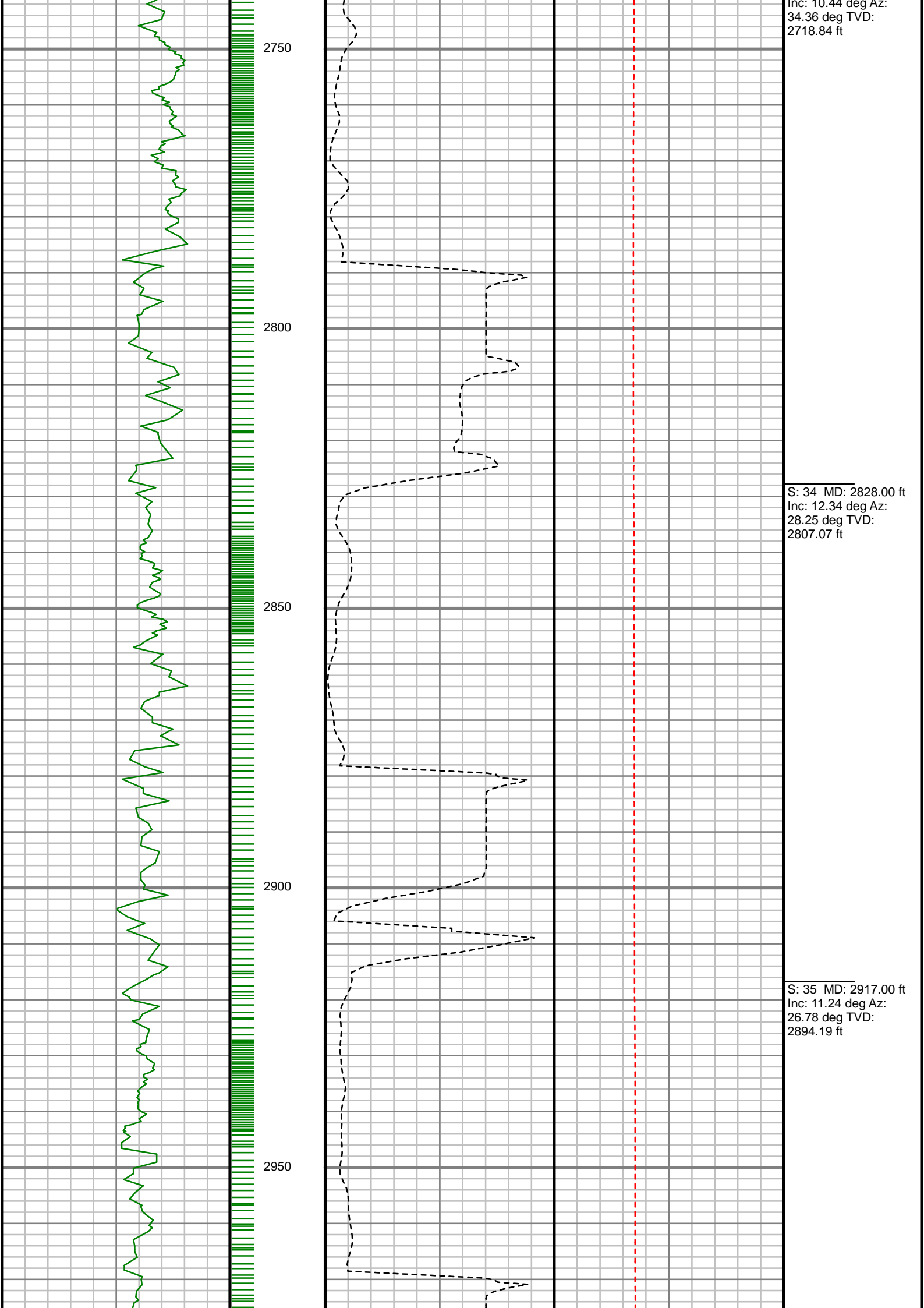








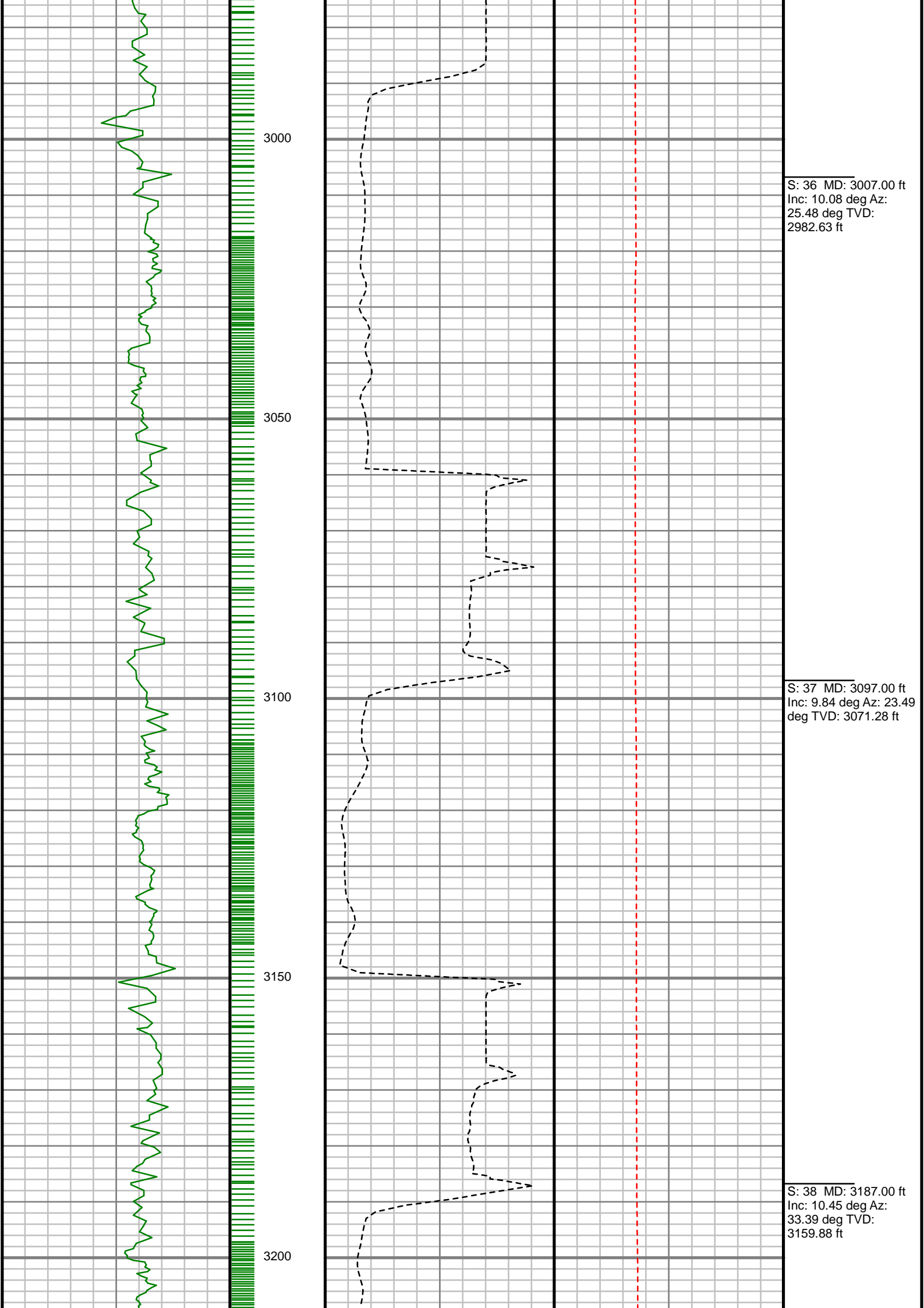


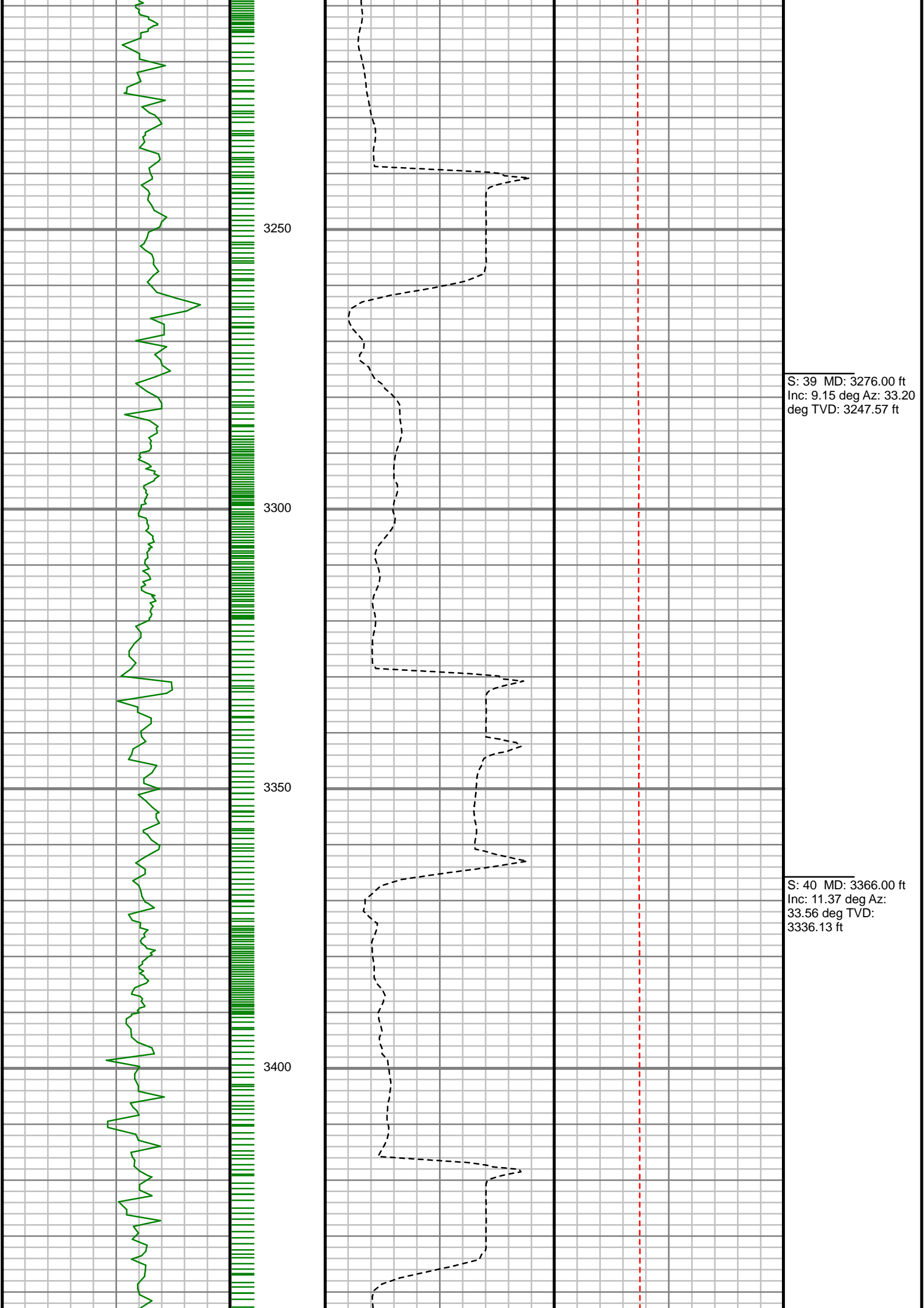


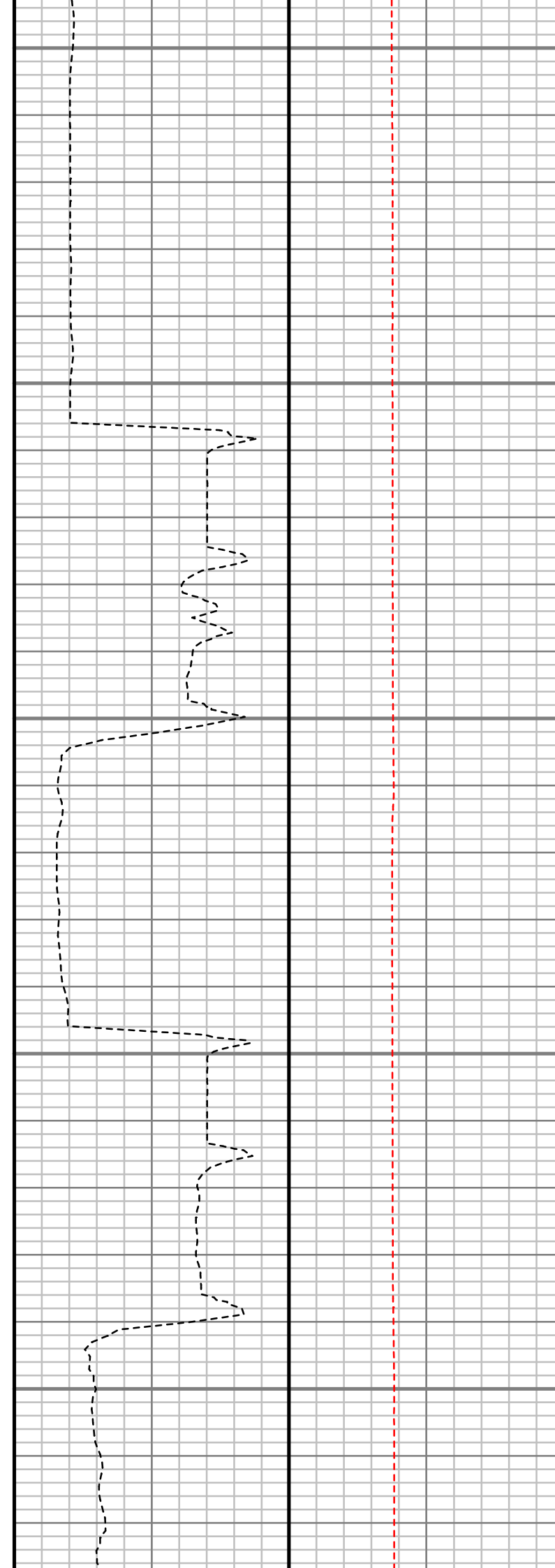
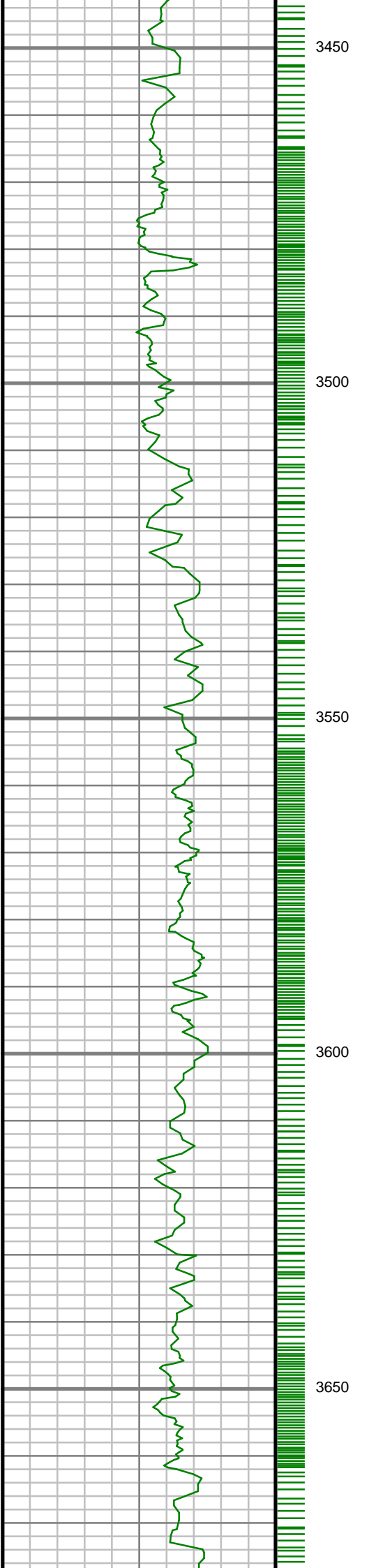
Inc: 10.44 deg Az:  
34.36 deg TVD:  
2718.84 ft

S: 34 MD: 2828.00 ft  
Inc: 12.34 deg Az:  
28.25 deg TVD:  
2807.07 ft

S: 35 MD: 2917.00 ft  
Inc: 11.24 deg Az:  
26.78 deg TVD:  
2894.19 ft



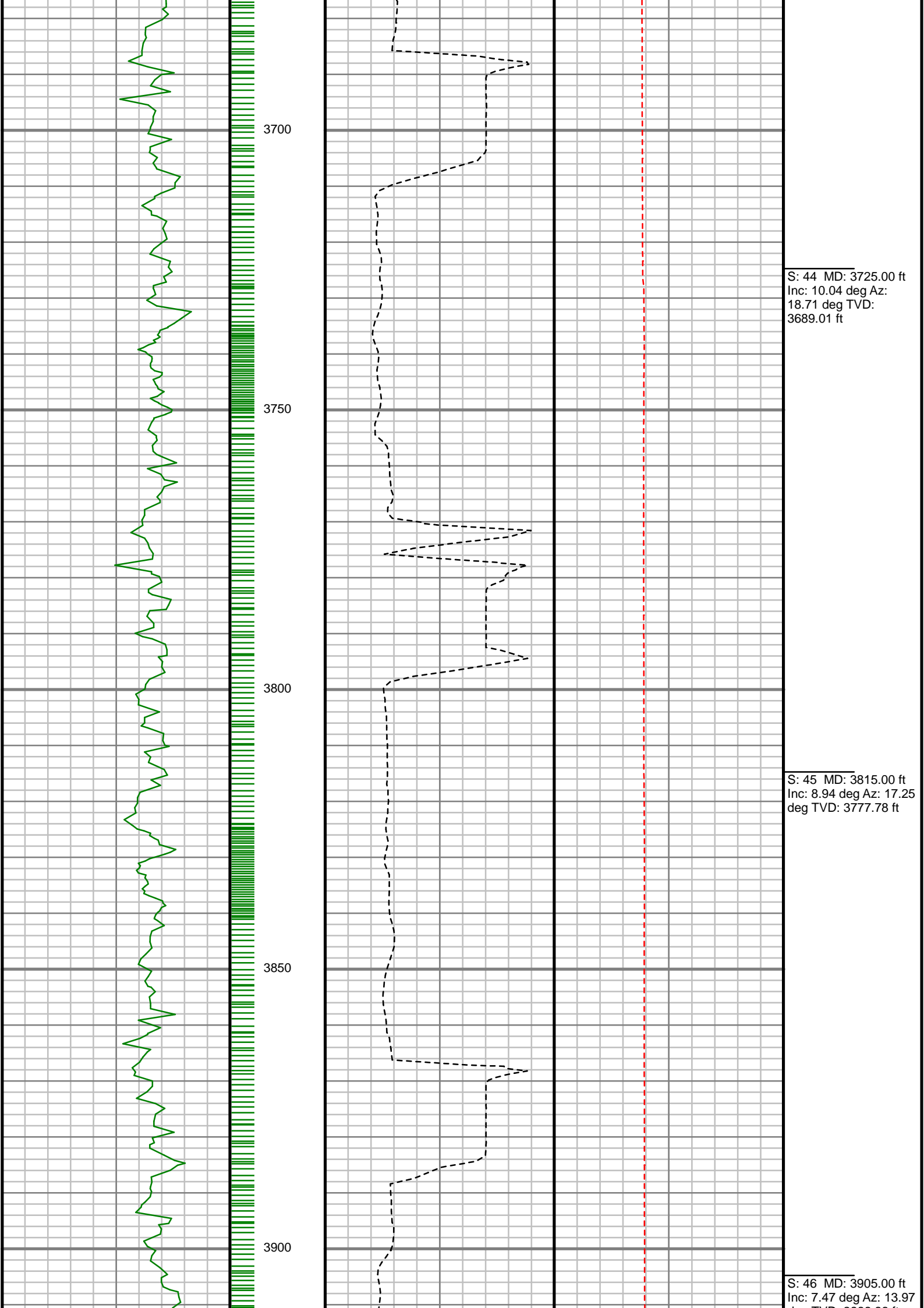


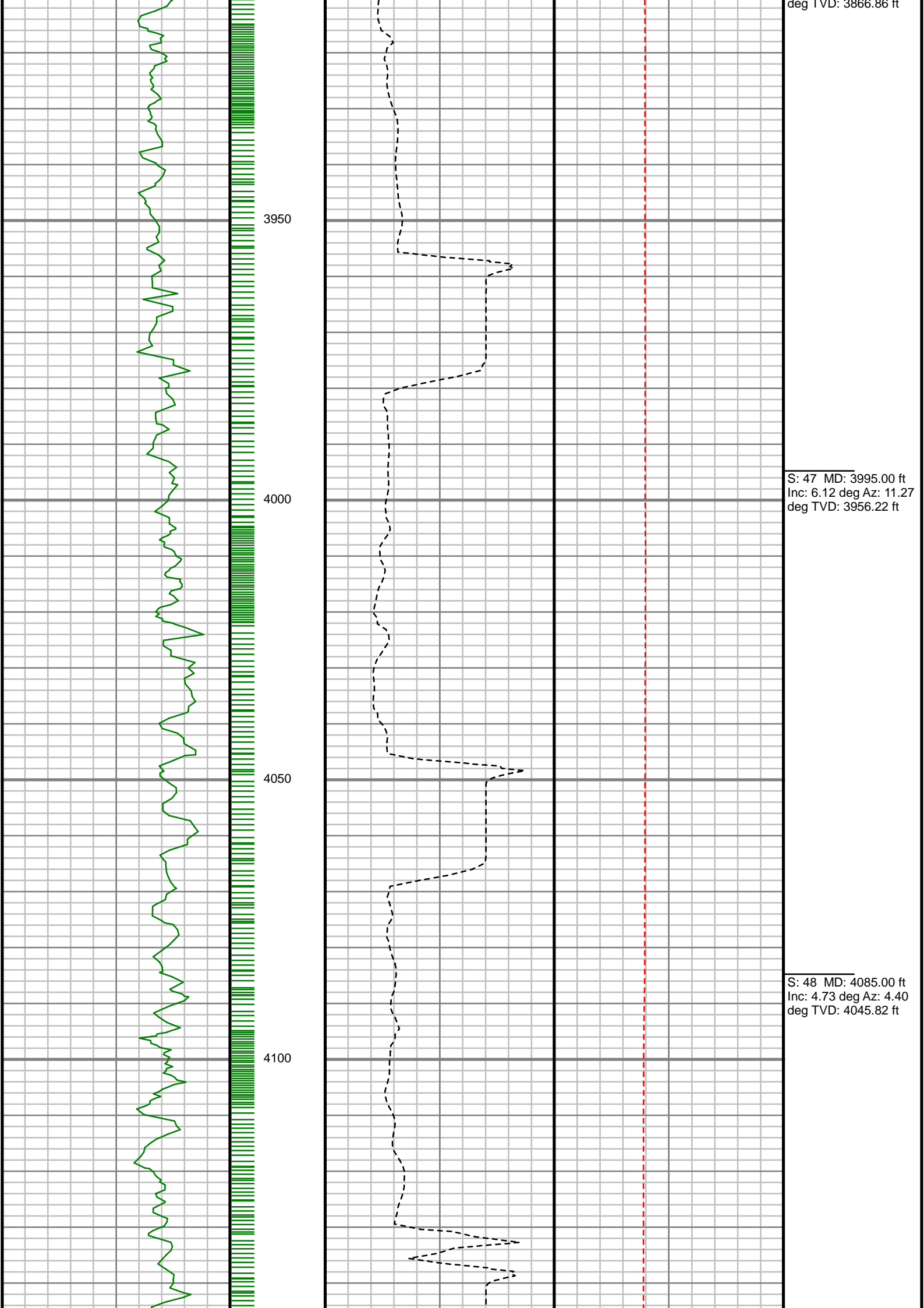


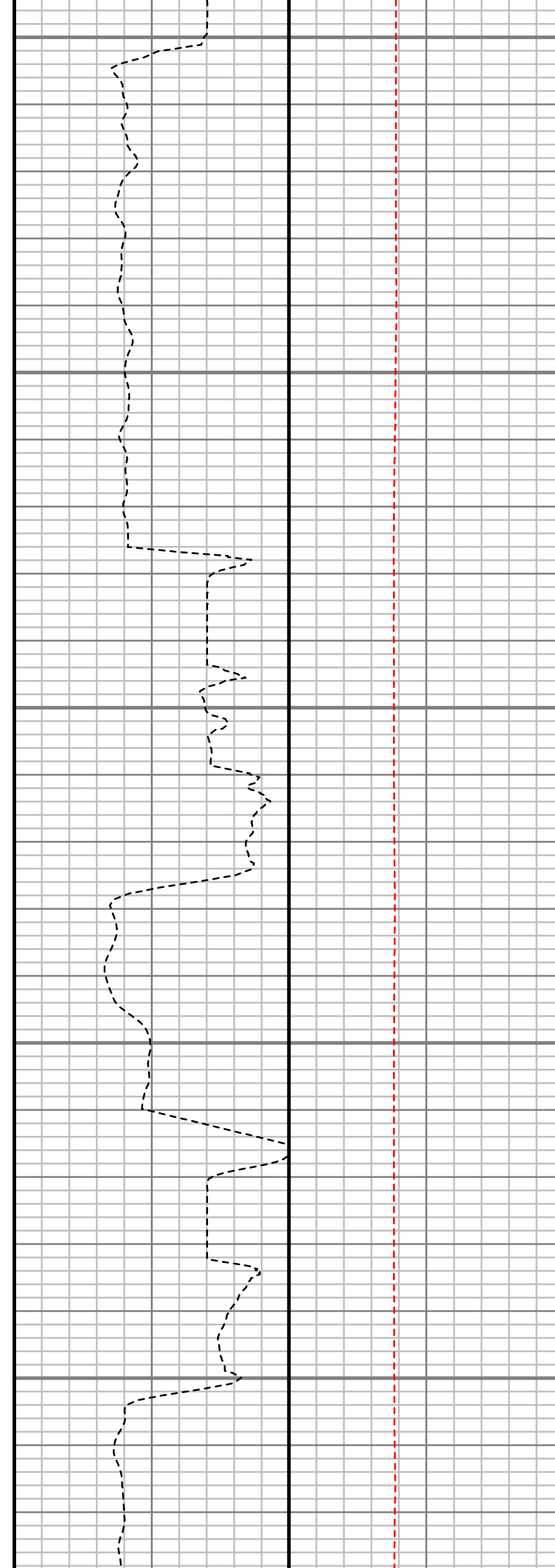
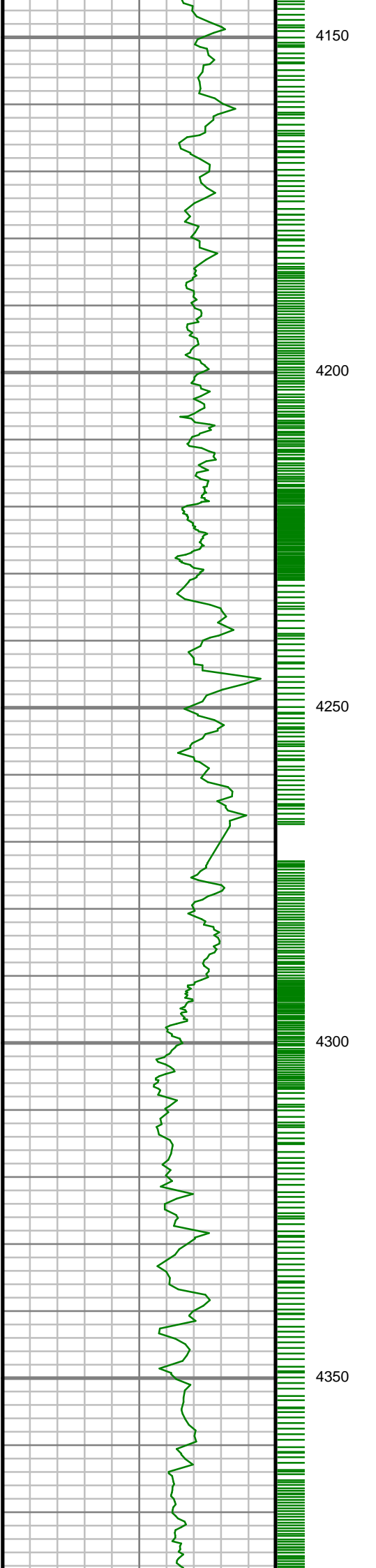
S: 41 MD: 3456.00 ft  
Inc: 10.74 deg Az:  
36.88 deg TVD:  
3424.46 ft

S: 42 MD: 3546.00 ft  
Inc: 9.66 deg Az: 32.05  
deg TVD: 3513.04 ft

S: 43 MD: 3636.00 ft  
Inc: 11.26 deg Az:  
22.05 deg TVD:  
3601.55 ft



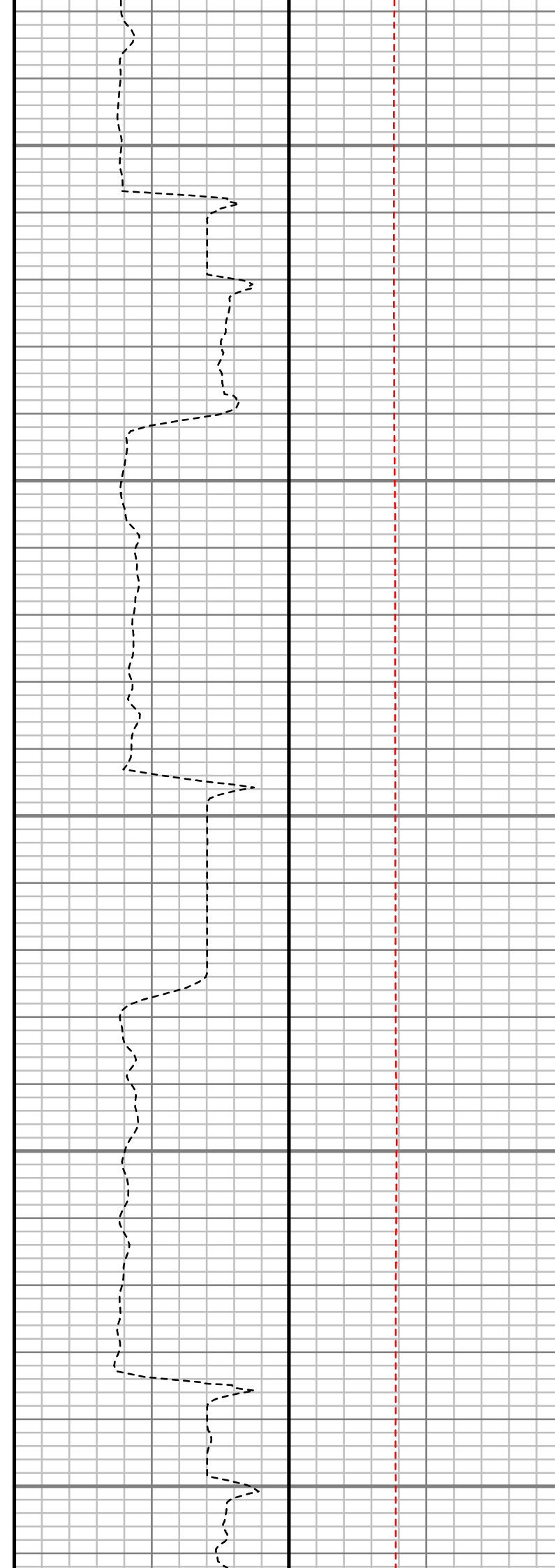
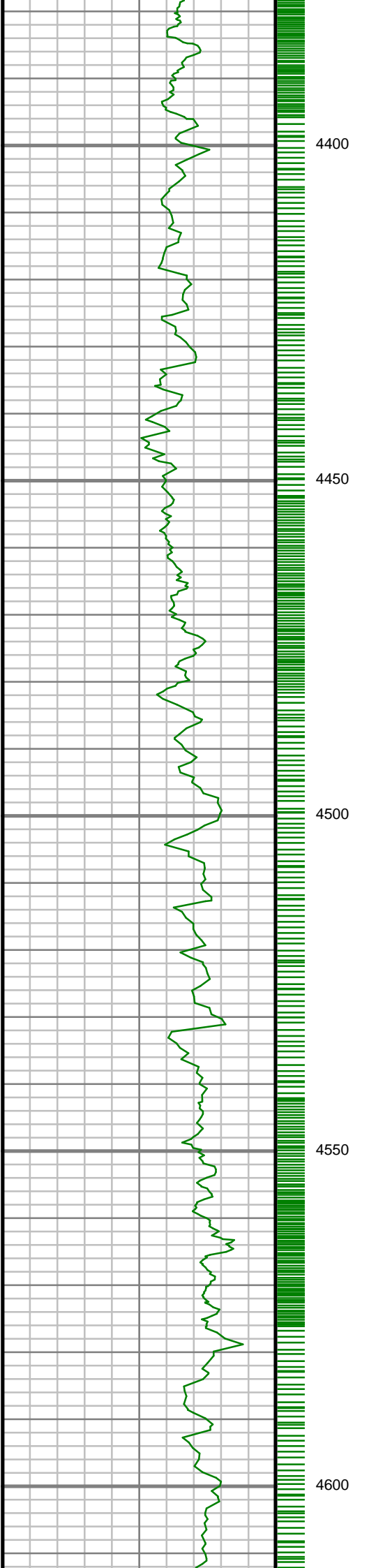




S: 49 MD: 4174.00 ft  
Inc: 4.04 deg Az:  
354.84 deg TVD:  
4134.56 ft

S: 50 MD: 4264.00 ft  
Inc: 3.86 deg Az:  
333.32 deg TVD:  
4224.35 ft

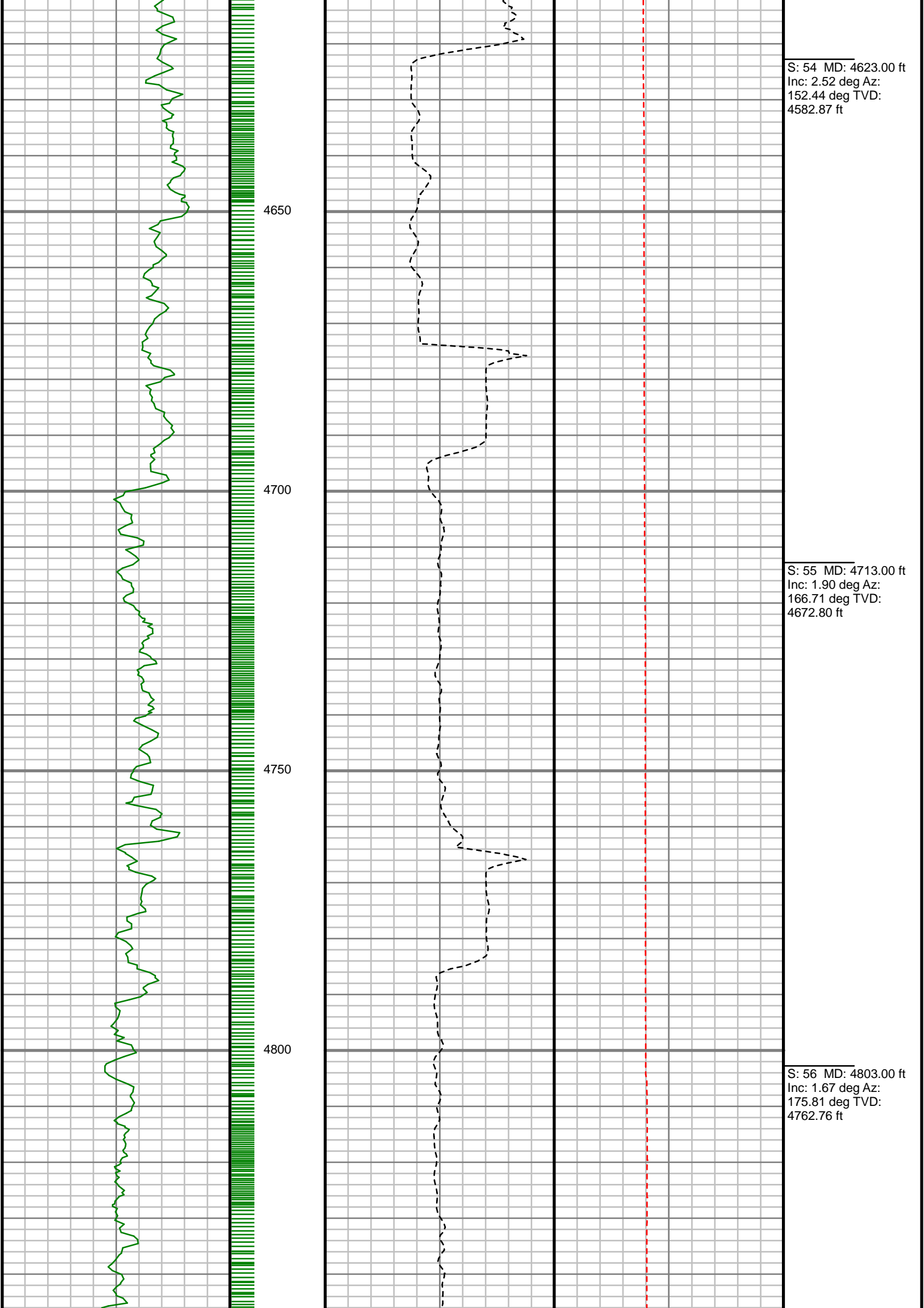
S: 51 MD: 4354.00 ft  
Inc: 3.06 deg Az:  
278.94 deg TVD:  
4314.21 ft

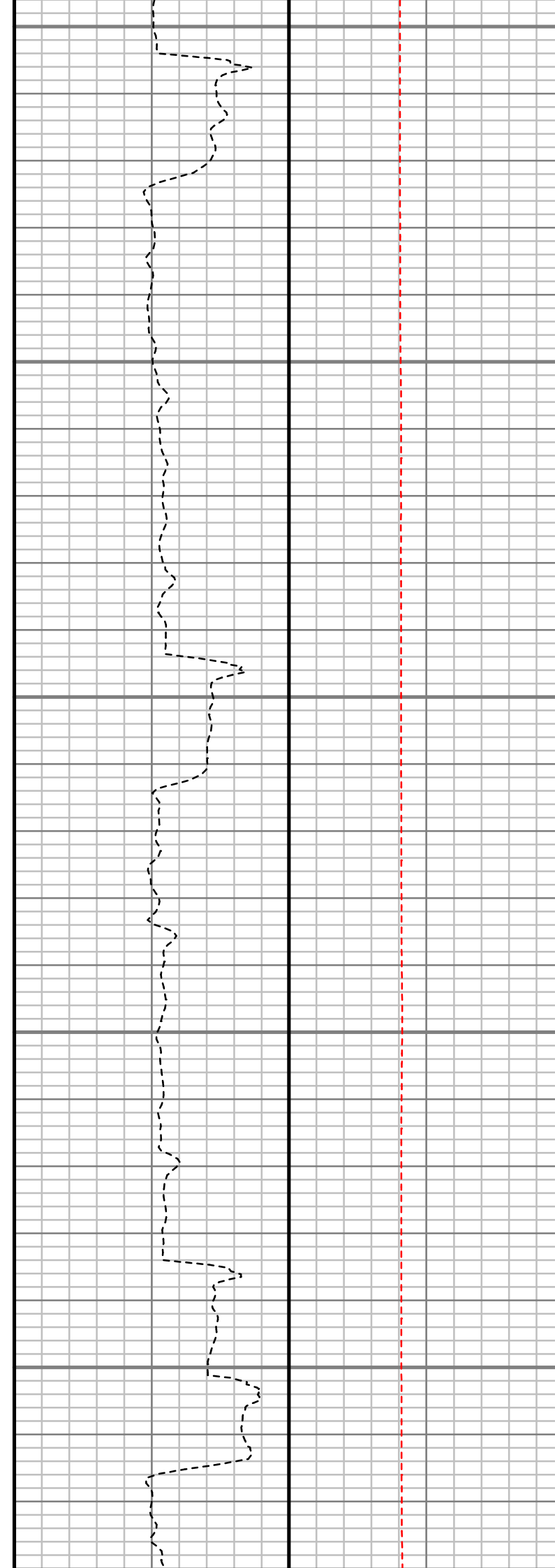
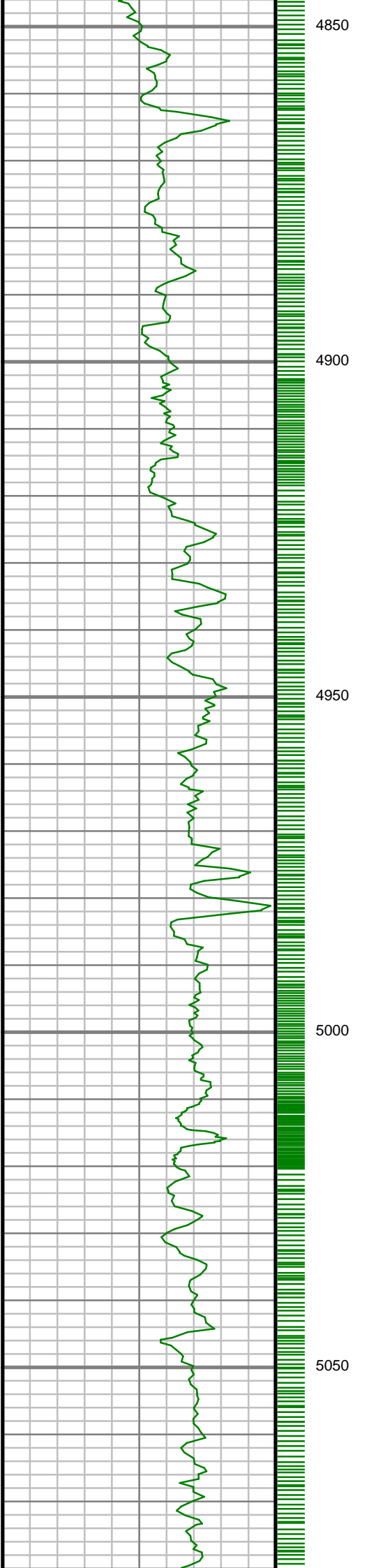


S: 52 MD: 4444.00 ft  
Inc: 3.30 deg Az:  
224.11 deg TVD:  
4404.09 ft

S: 53 MD: 4533.00 ft  
Inc: 3.07 deg Az:  
224.07 deg TVD:  
4492.95 ft



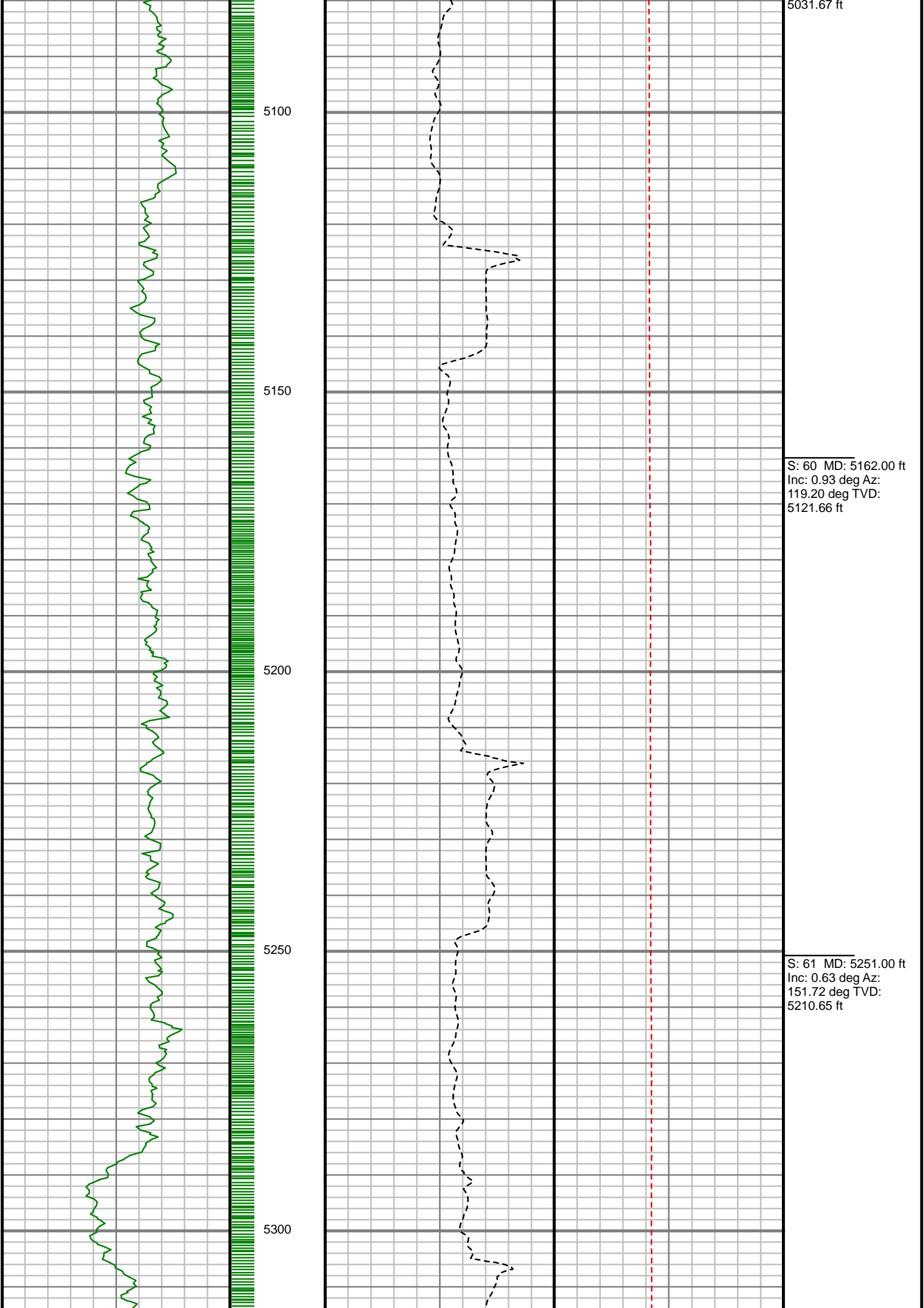


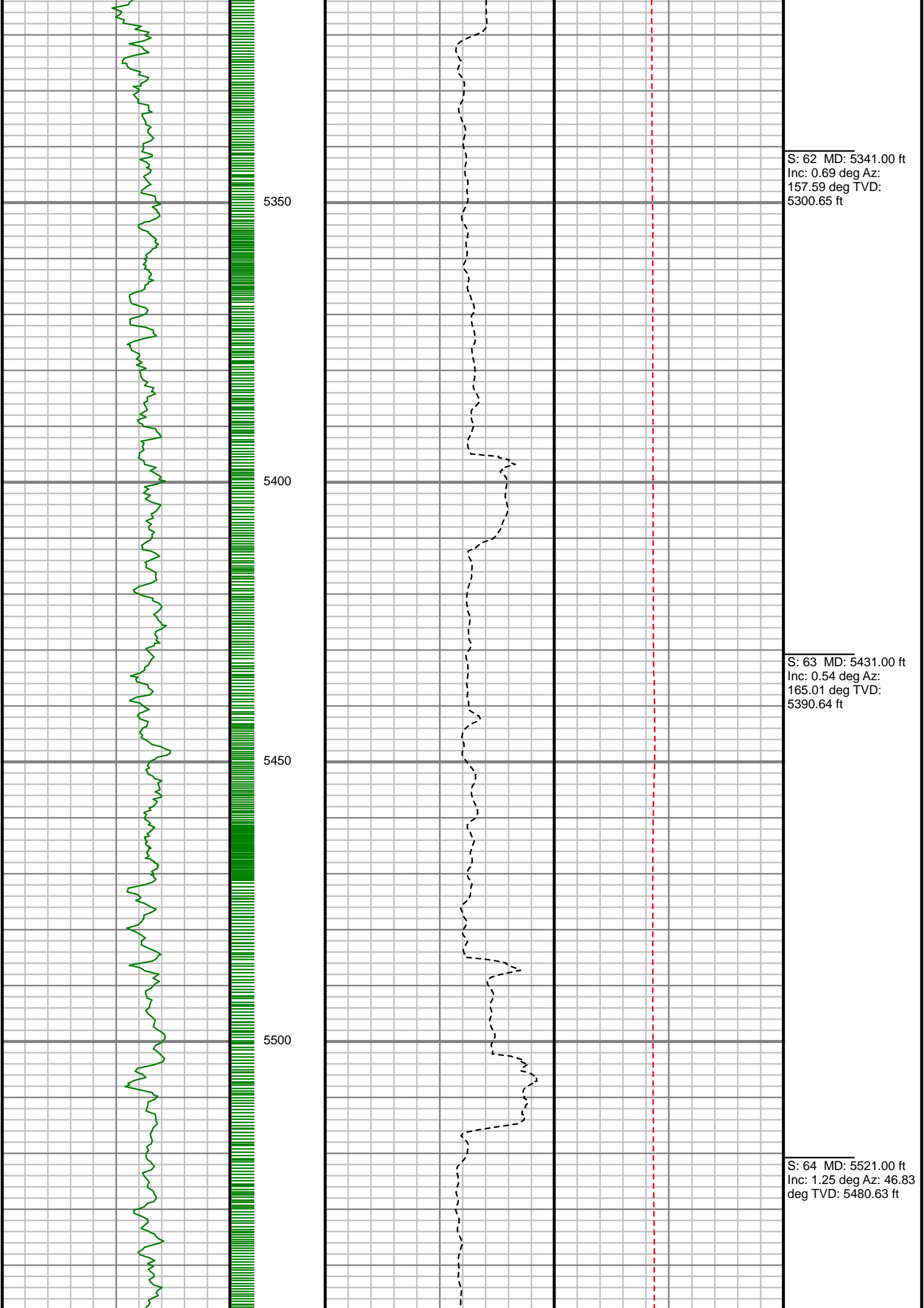


S: 57 MD: 4892.00 ft  
Inc: 1.51 deg Az:  
179.56 deg TVD:  
4851.72 ft

S: 58 MD: 4982.00 ft  
Inc: 1.44 deg Az:  
188.46 deg TVD:  
4941.69 ft

S: 59 MD: 5072.00 ft  
Inc: 1.14 deg Az:  
125.33 deg TVD:

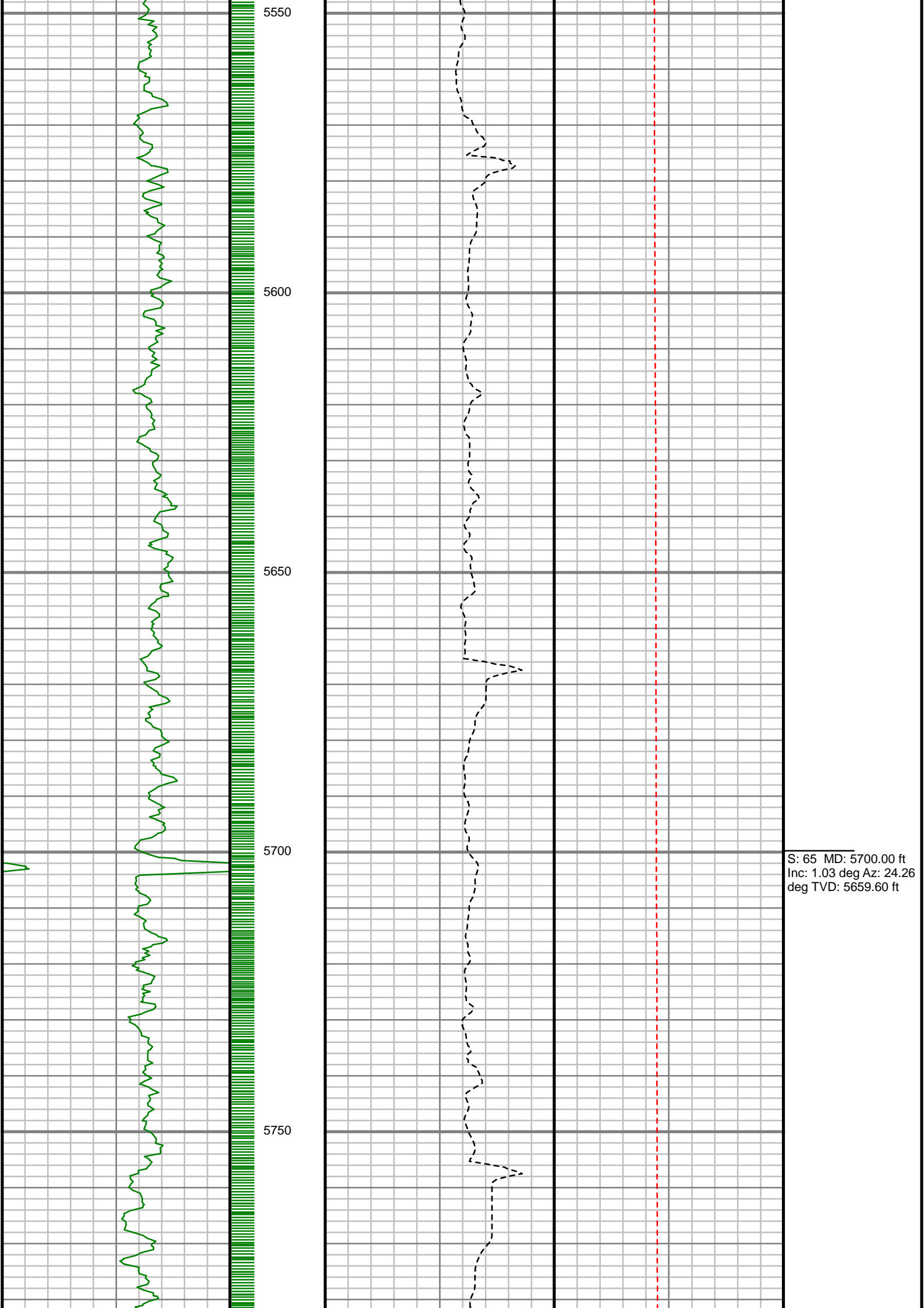


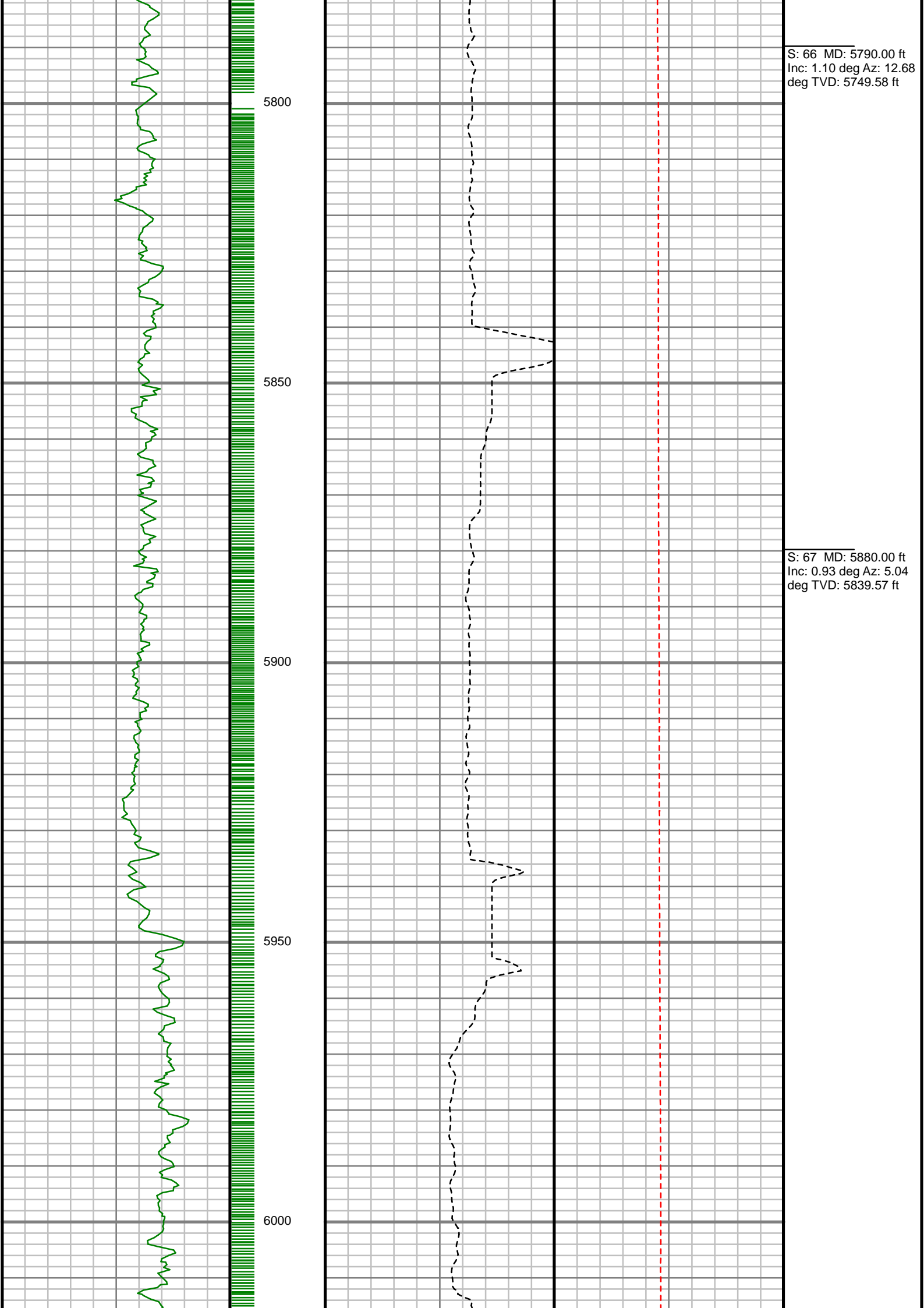


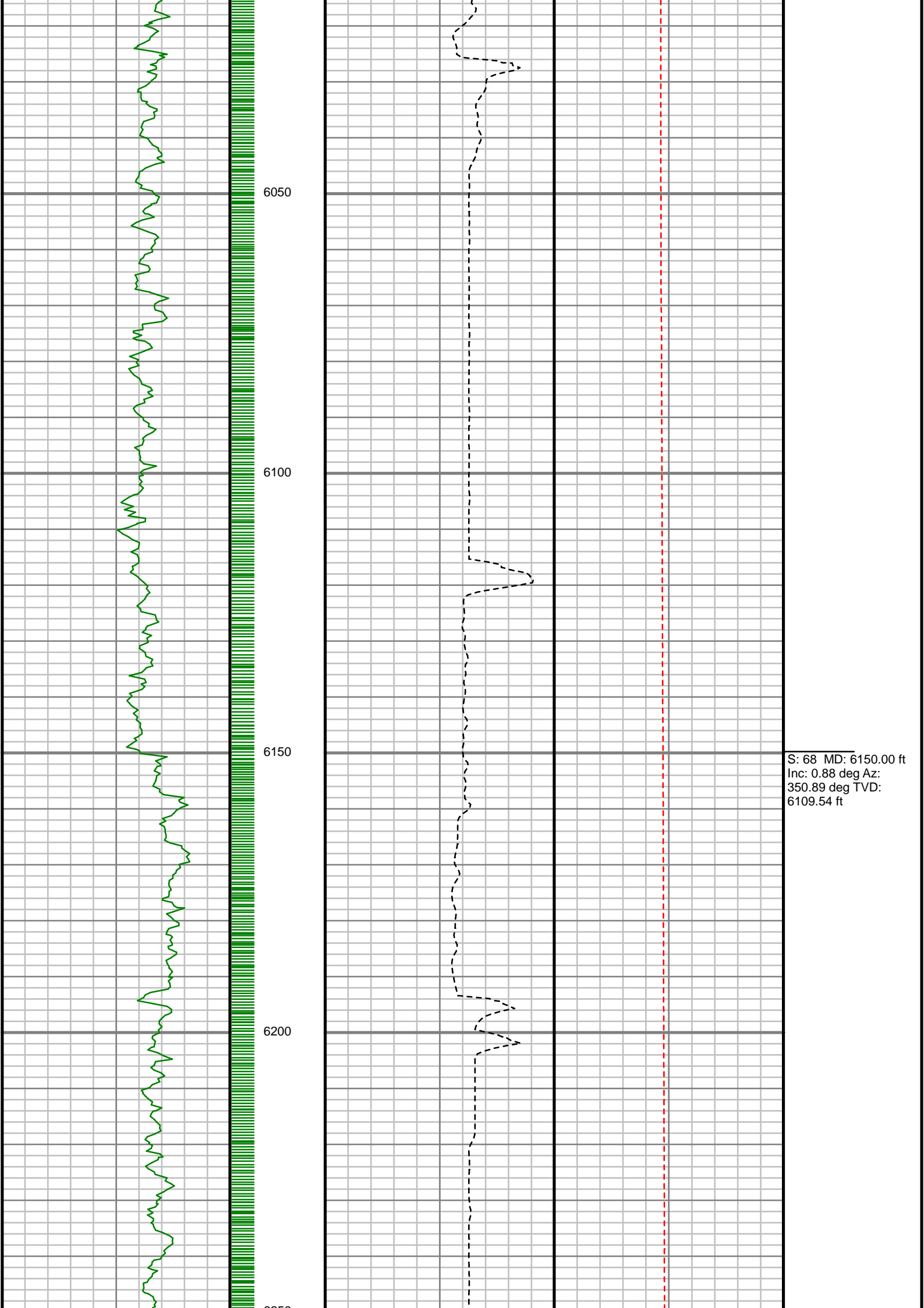
S: 62 MD: 5341.00 ft  
Inc: 0.69 deg Az:  
157.59 deg TVD:  
5300.65 ft

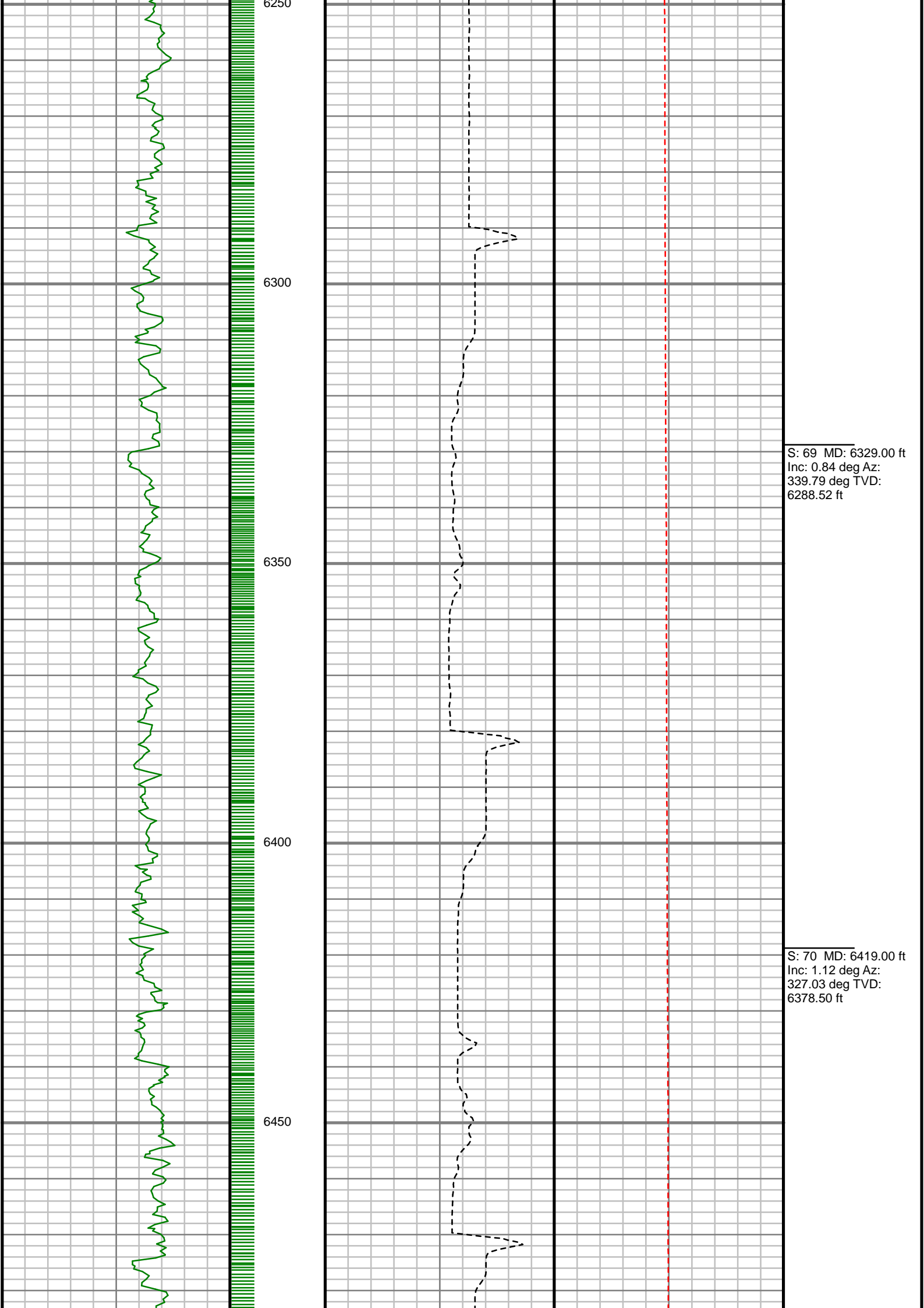
S: 63 MD: 5431.00 ft  
Inc: 0.54 deg Az:  
165.01 deg TVD:  
5390.64 ft

S: 64 MD: 5521.00 ft  
Inc: 1.25 deg Az: 46.83  
deg TVD: 5480.63 ft

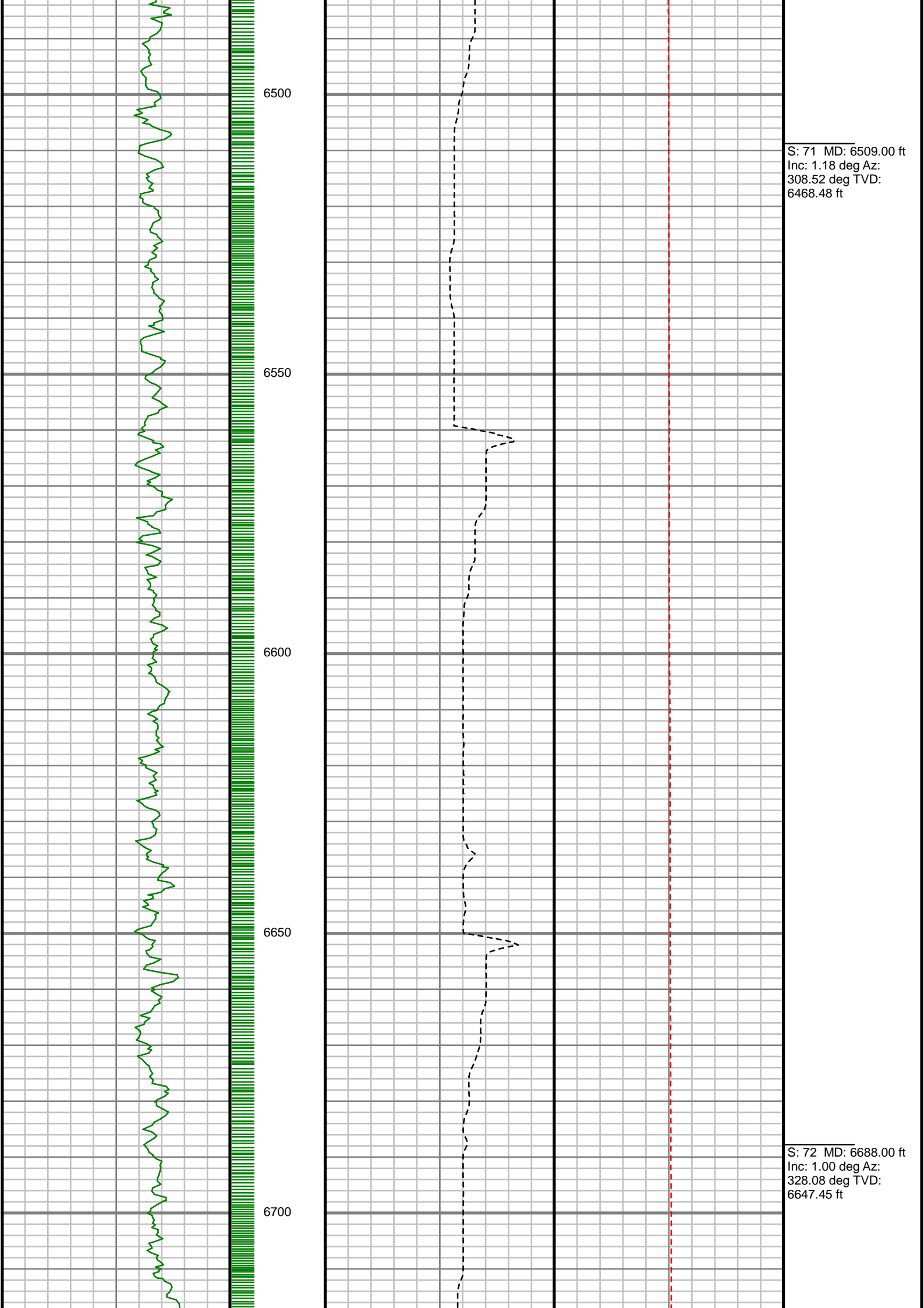


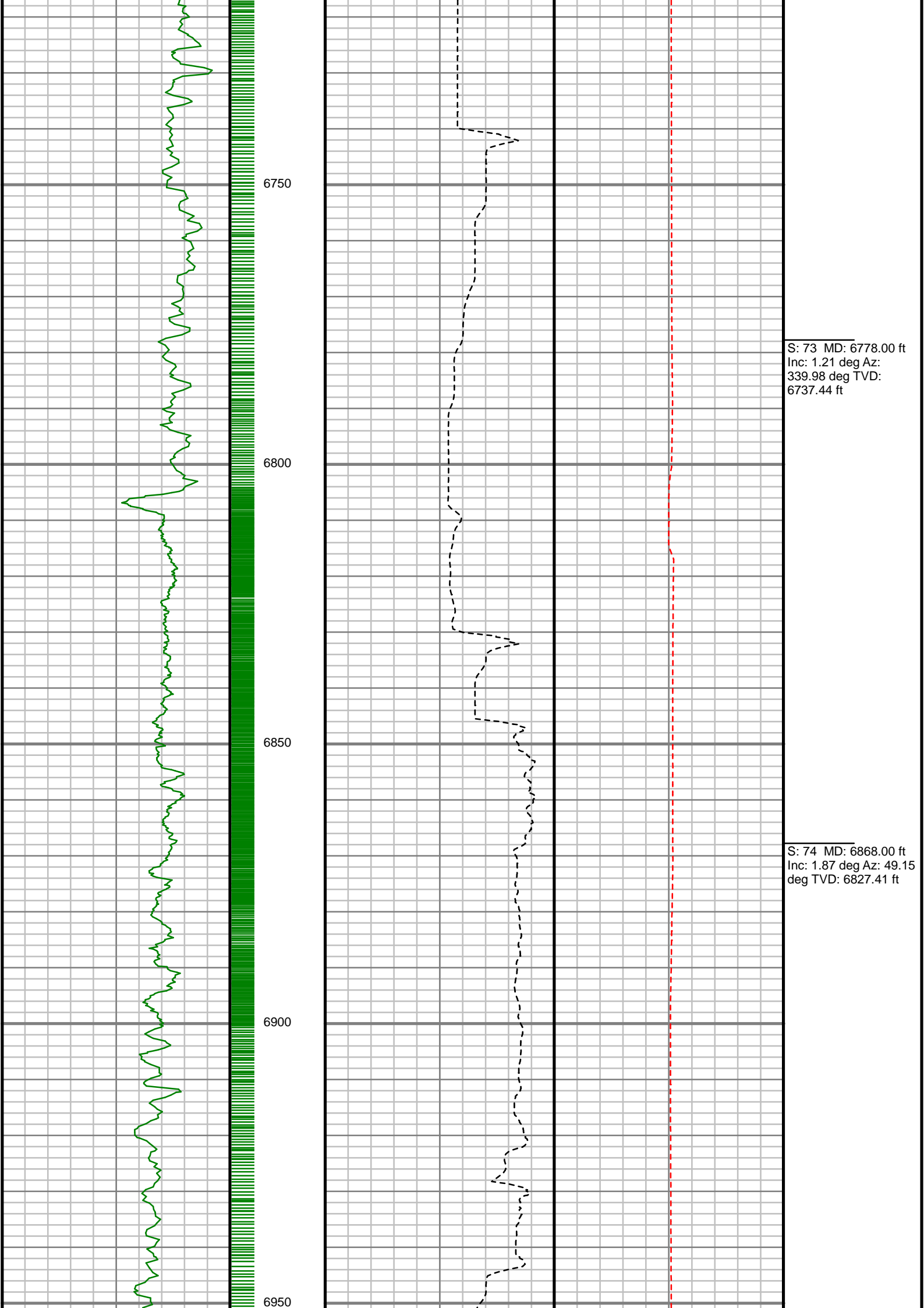


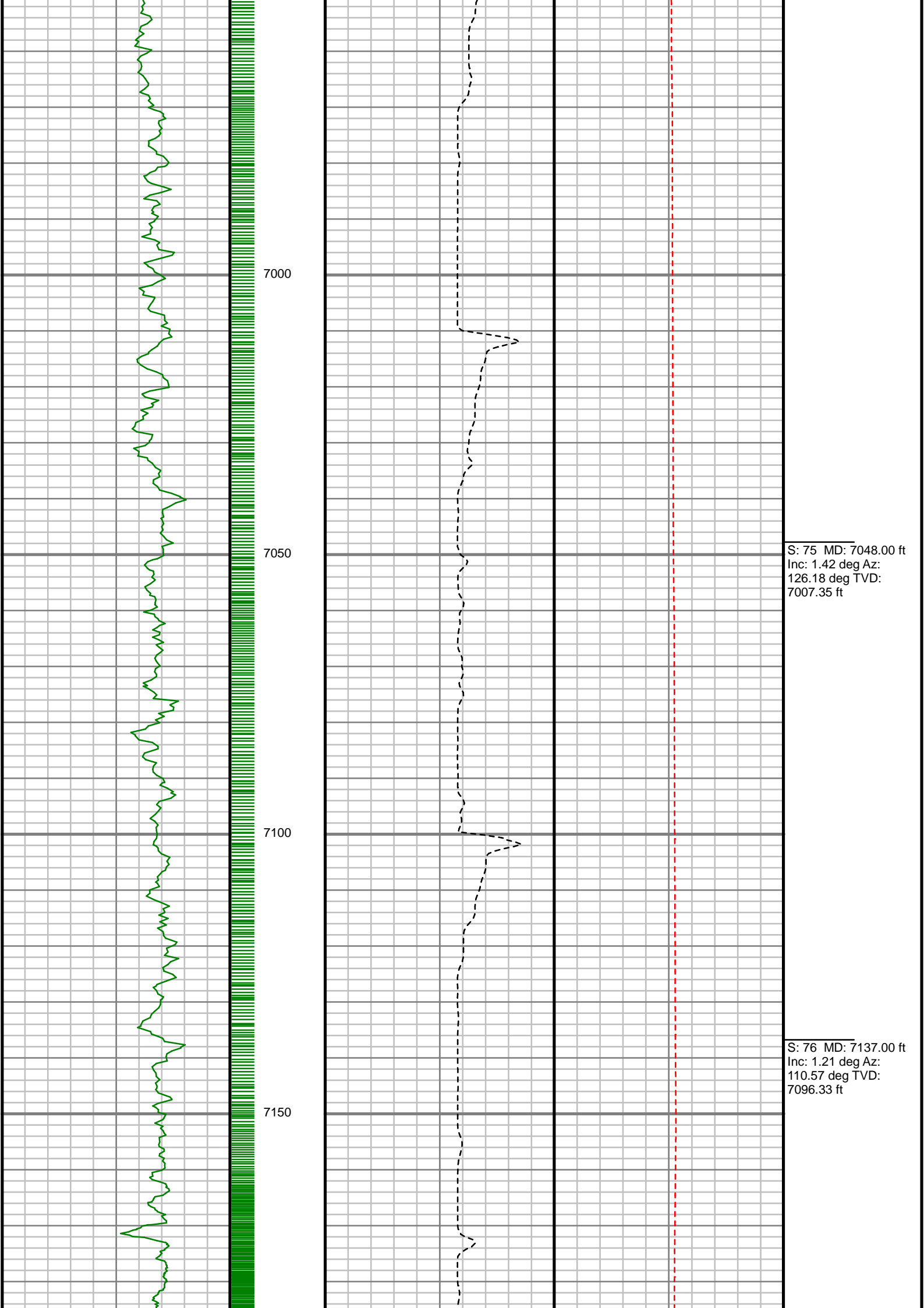






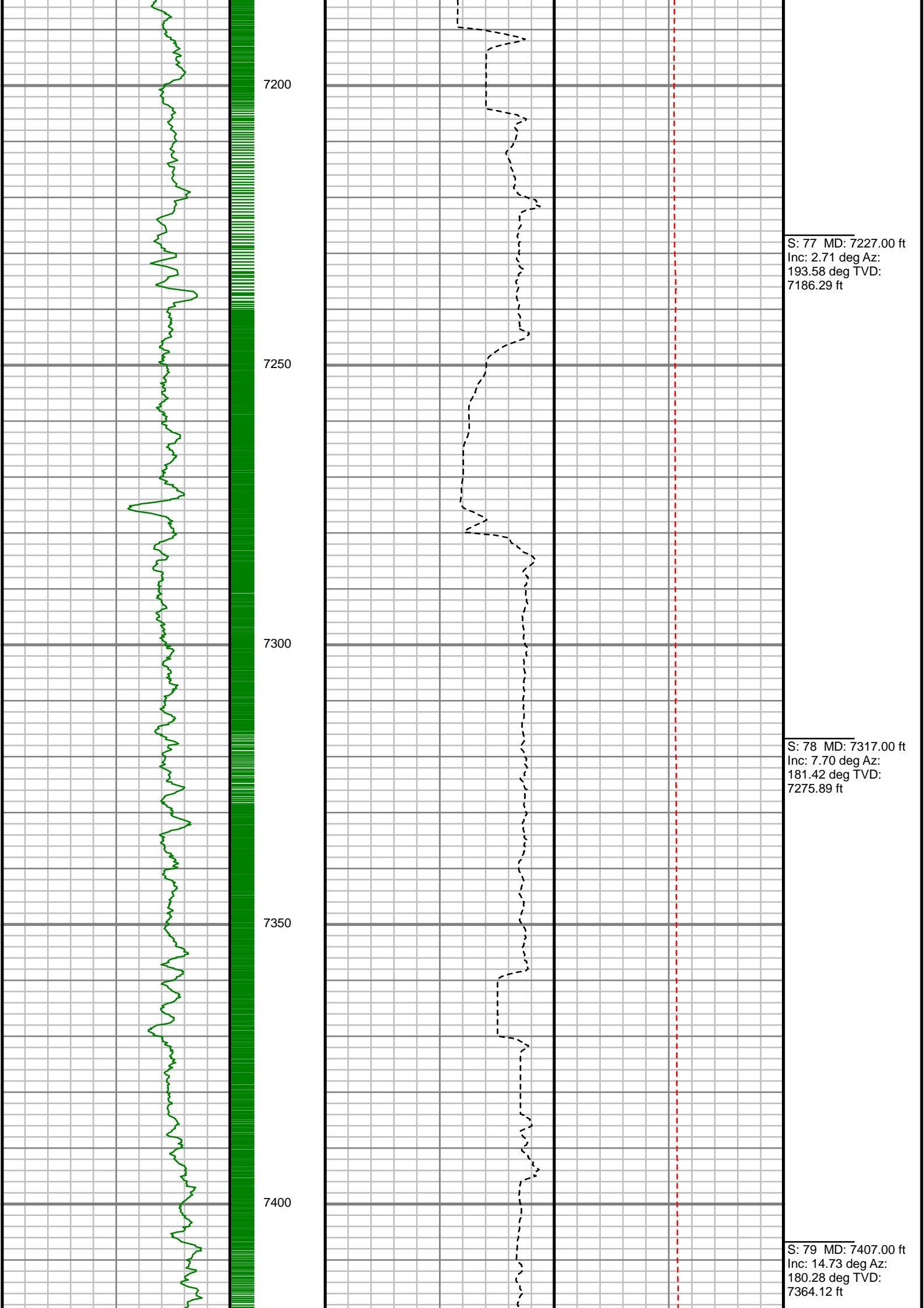


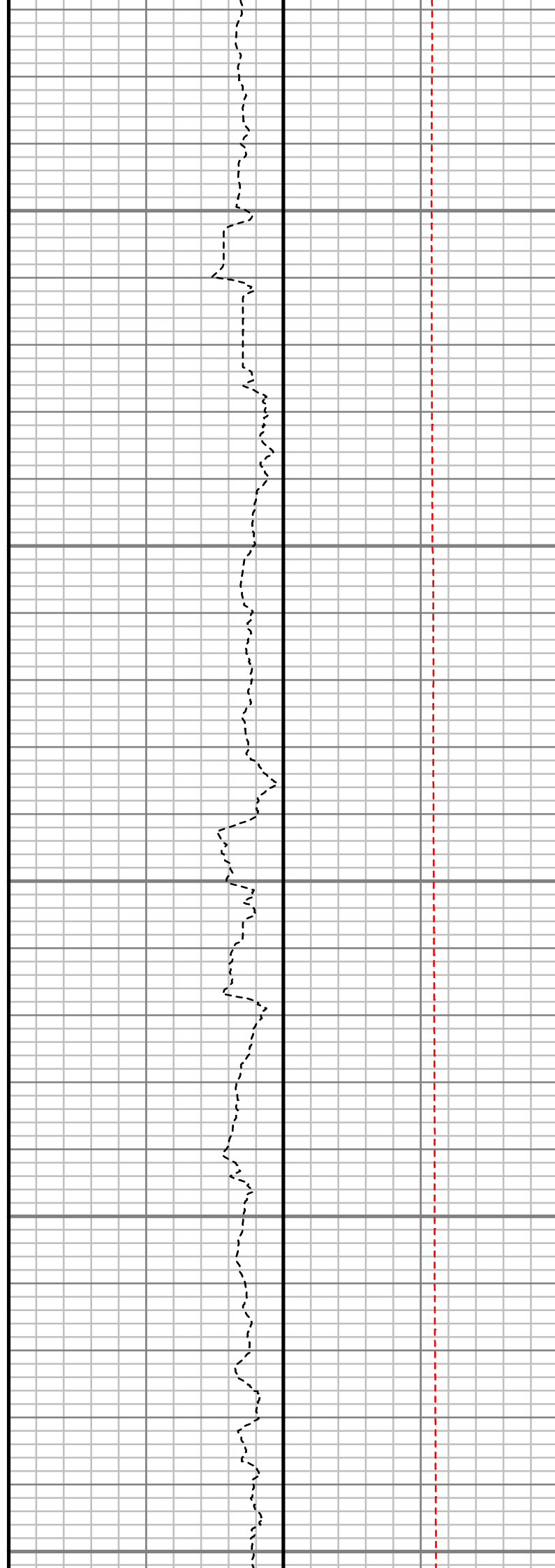
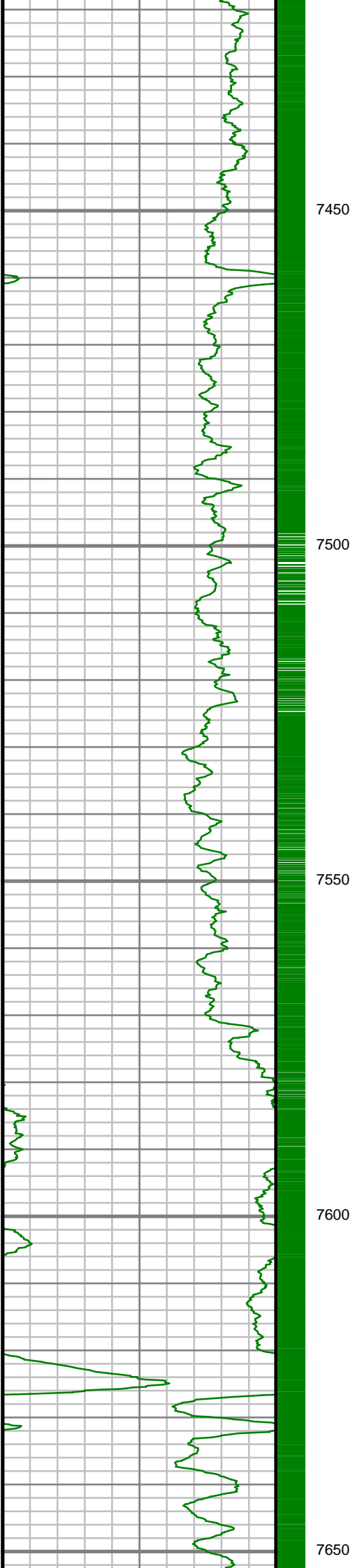




S: 75 MD: 7048.00 ft  
Inc: 1.42 deg Az:  
126.18 deg TVD:  
7007.35 ft

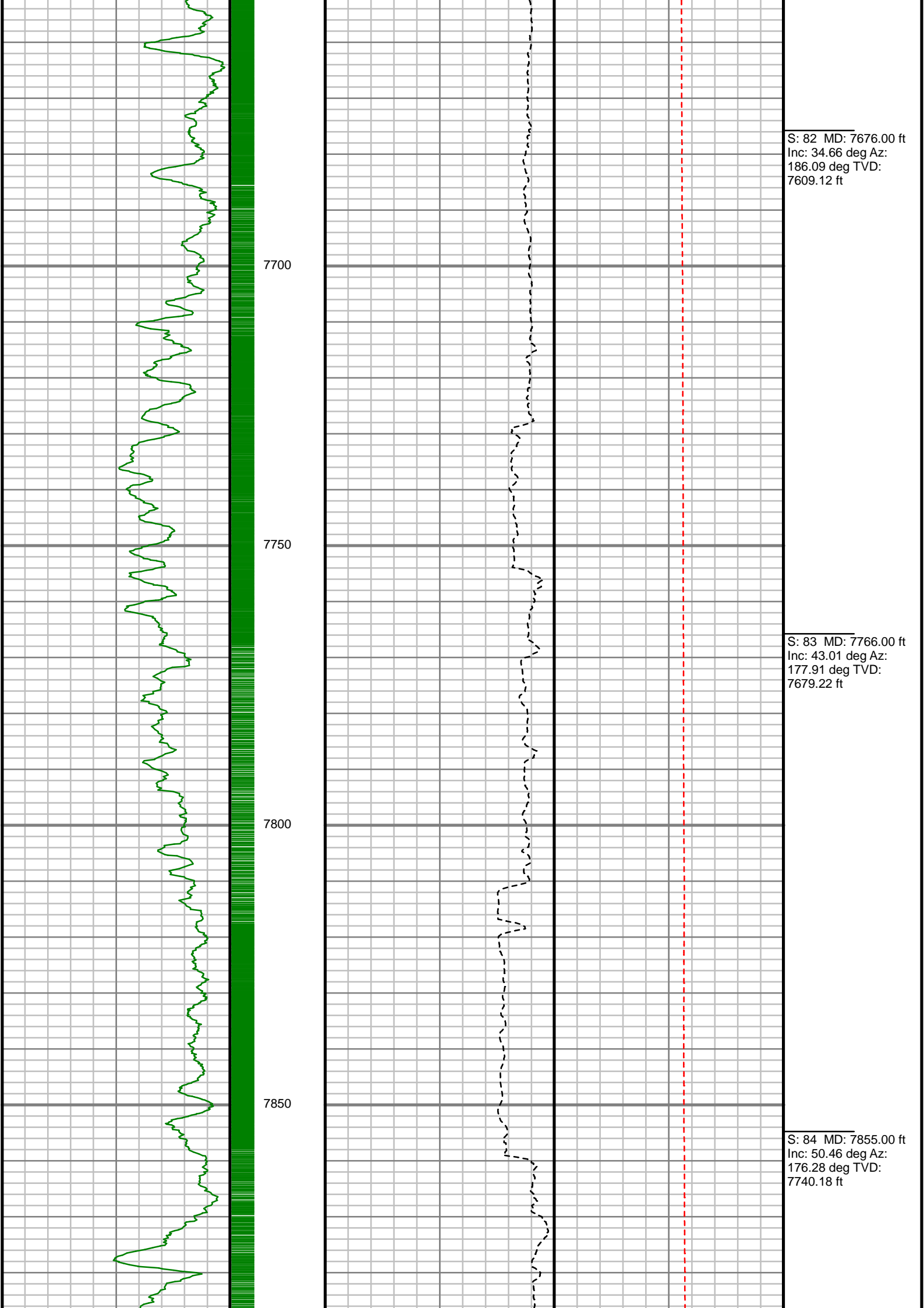
S: 76 MD: 7137.00 ft  
Inc: 1.21 deg Az:  
110.57 deg TVD:  
7096.33 ft

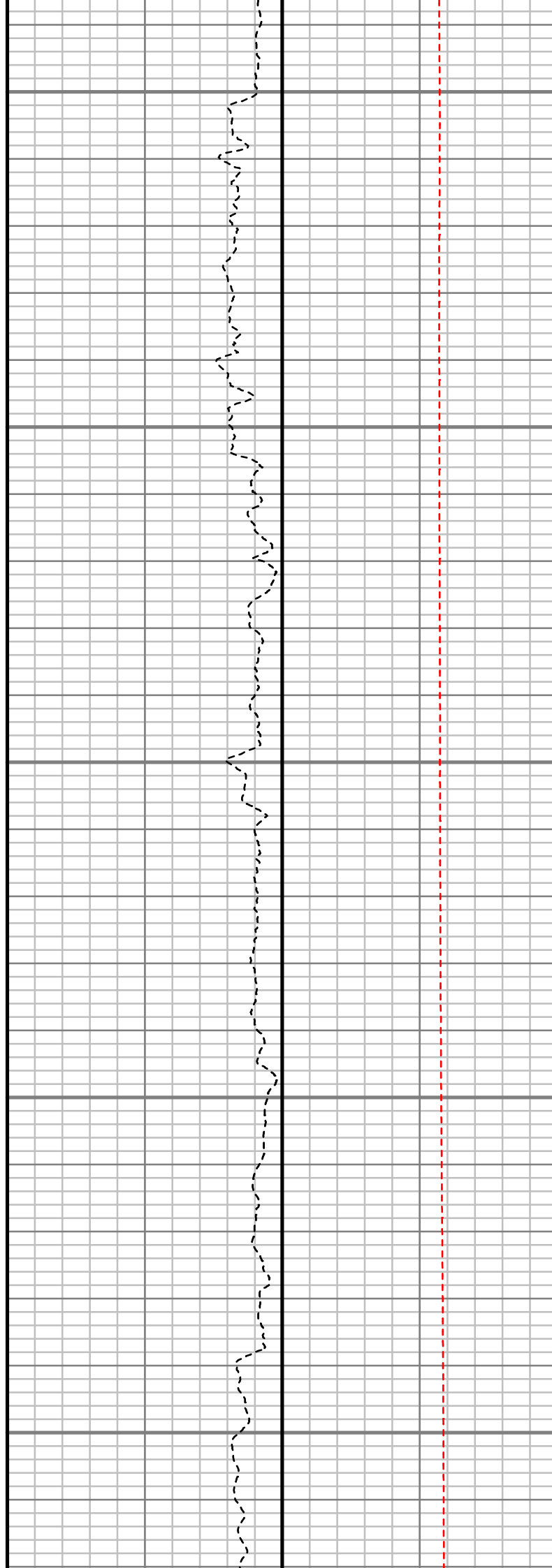
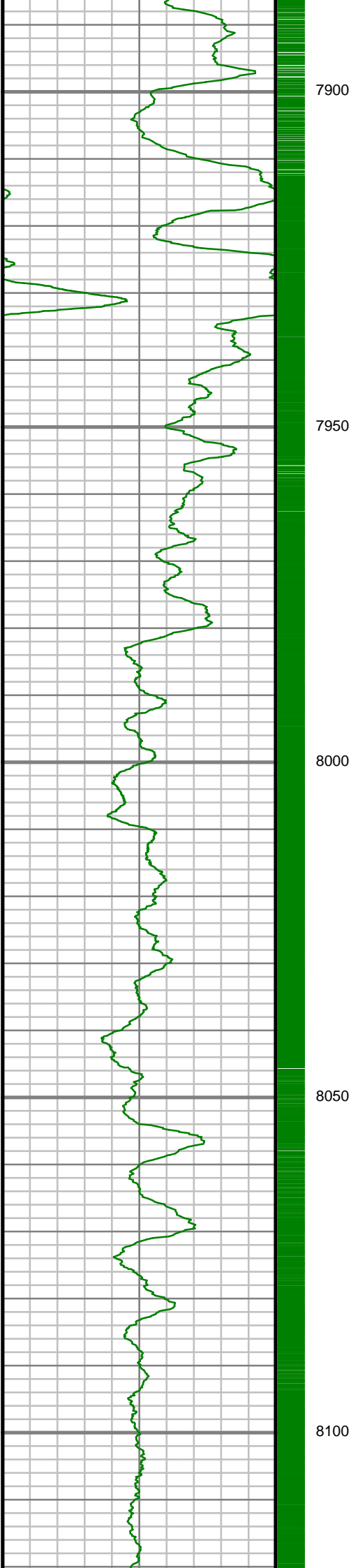




S: 80 MD: 7496.00 ft  
Inc: 20.73 deg Az:  
192.82 deg TVD:  
7448.88 ft

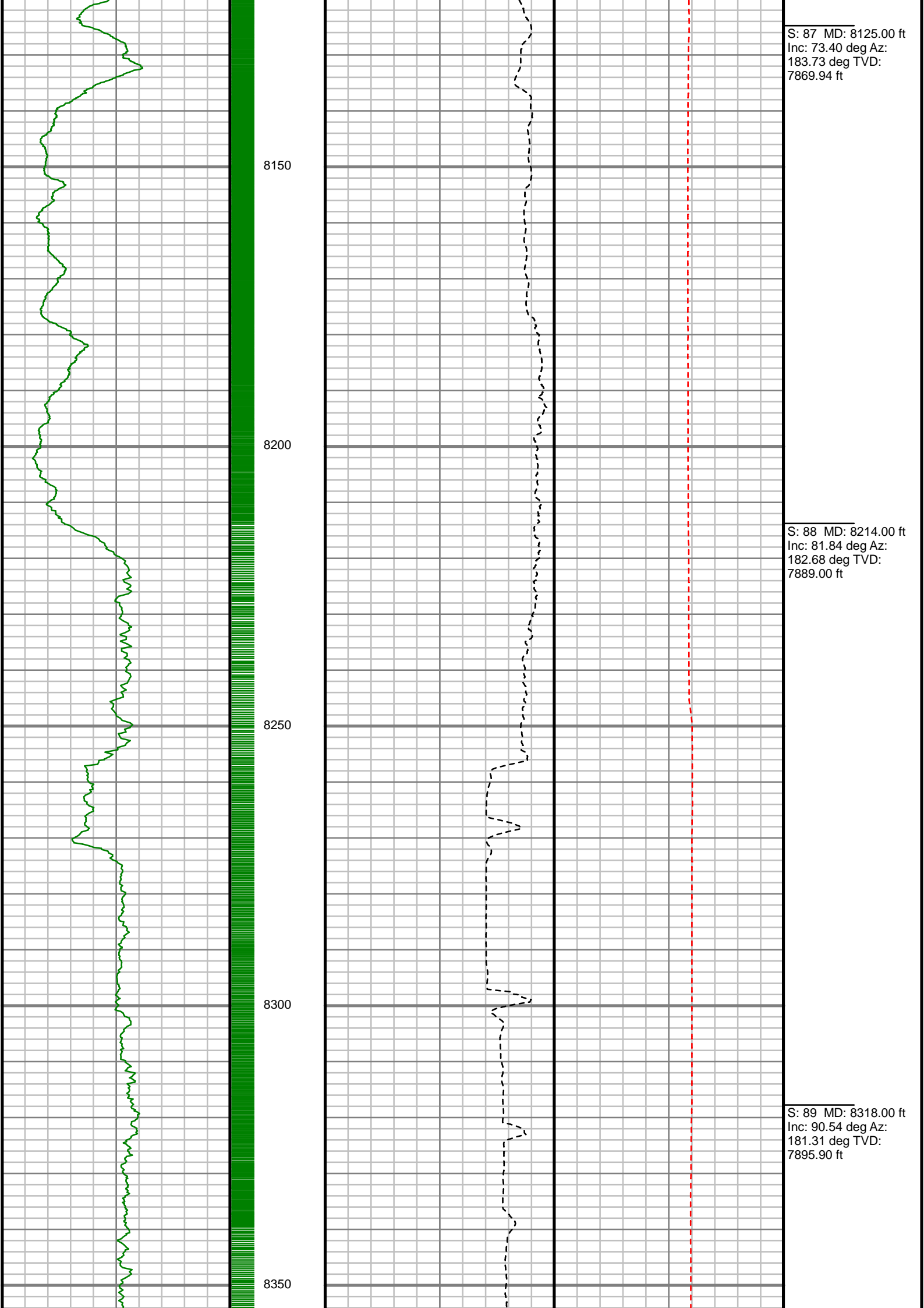
S: 81 MD: 7586.00 ft  
Inc: 25.99 deg Az:  
194.55 deg TVD:  
7531.48 ft



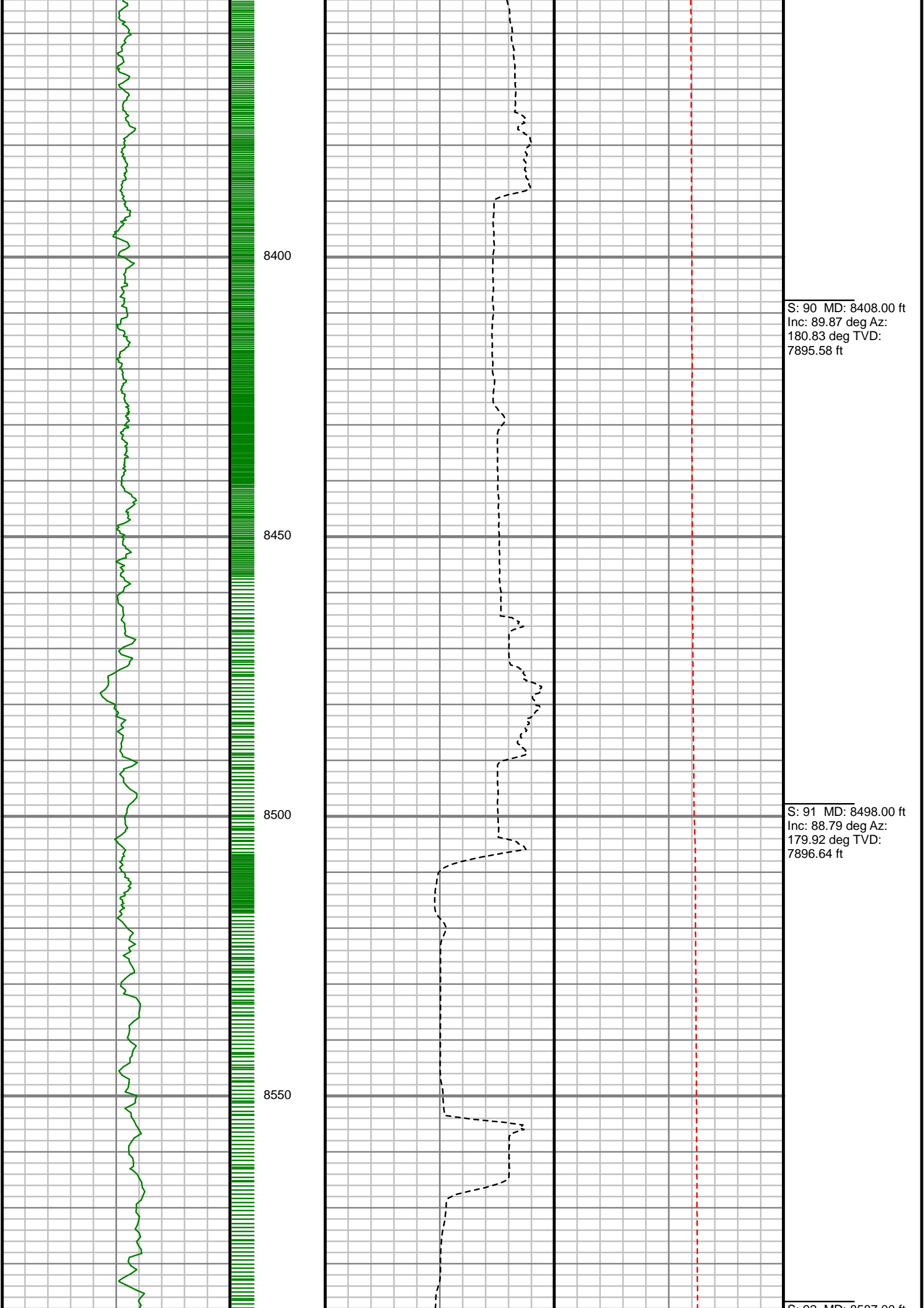


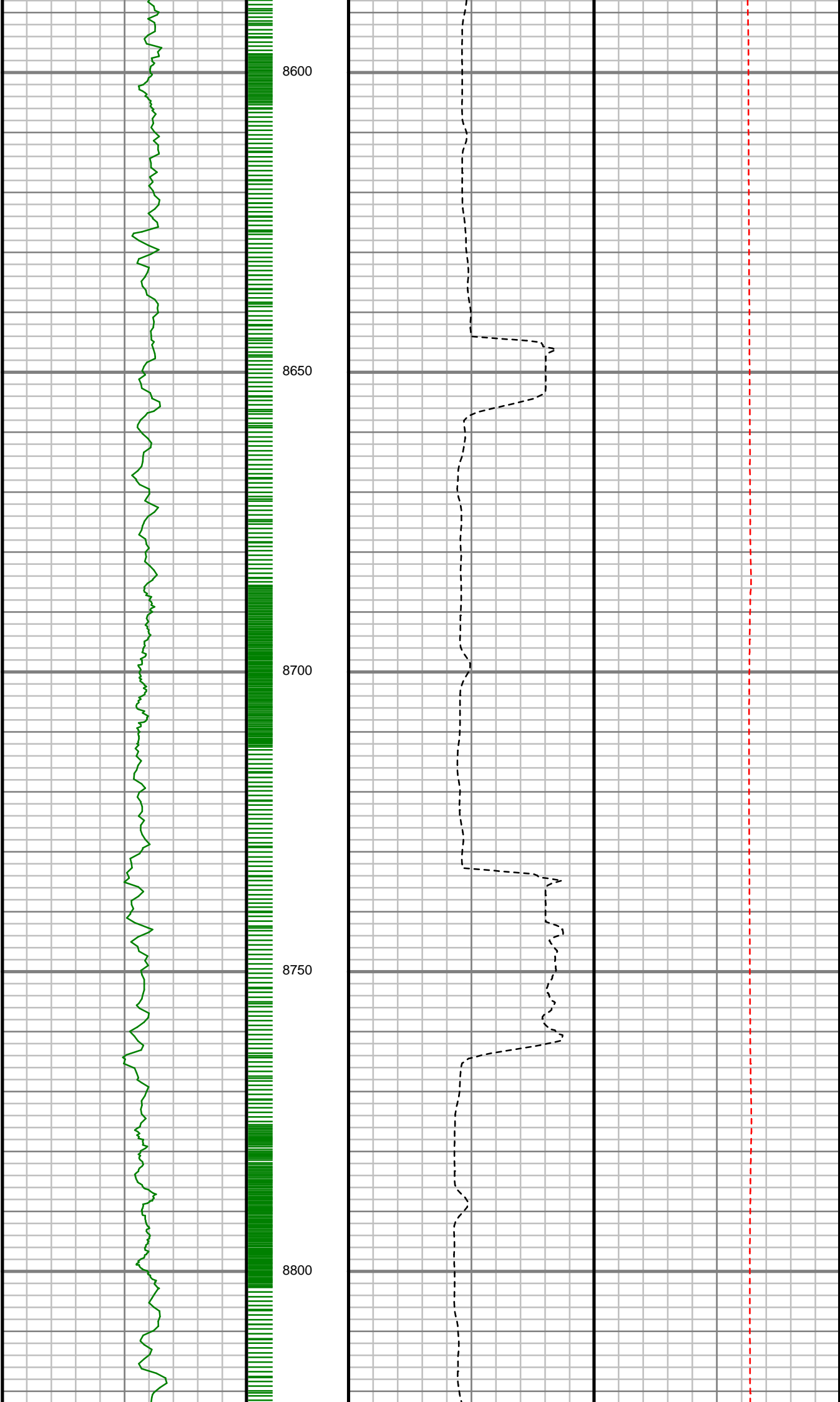
S: 85 MD: 7945.00 ft  
Inc: 55.81 deg Az:  
175.96 deg TVD:  
7794.15 ft

S: 86 MD: 8035.00 ft  
Inc: 65.40 deg Az:  
179.57 deg TVD:  
7838.29 ft





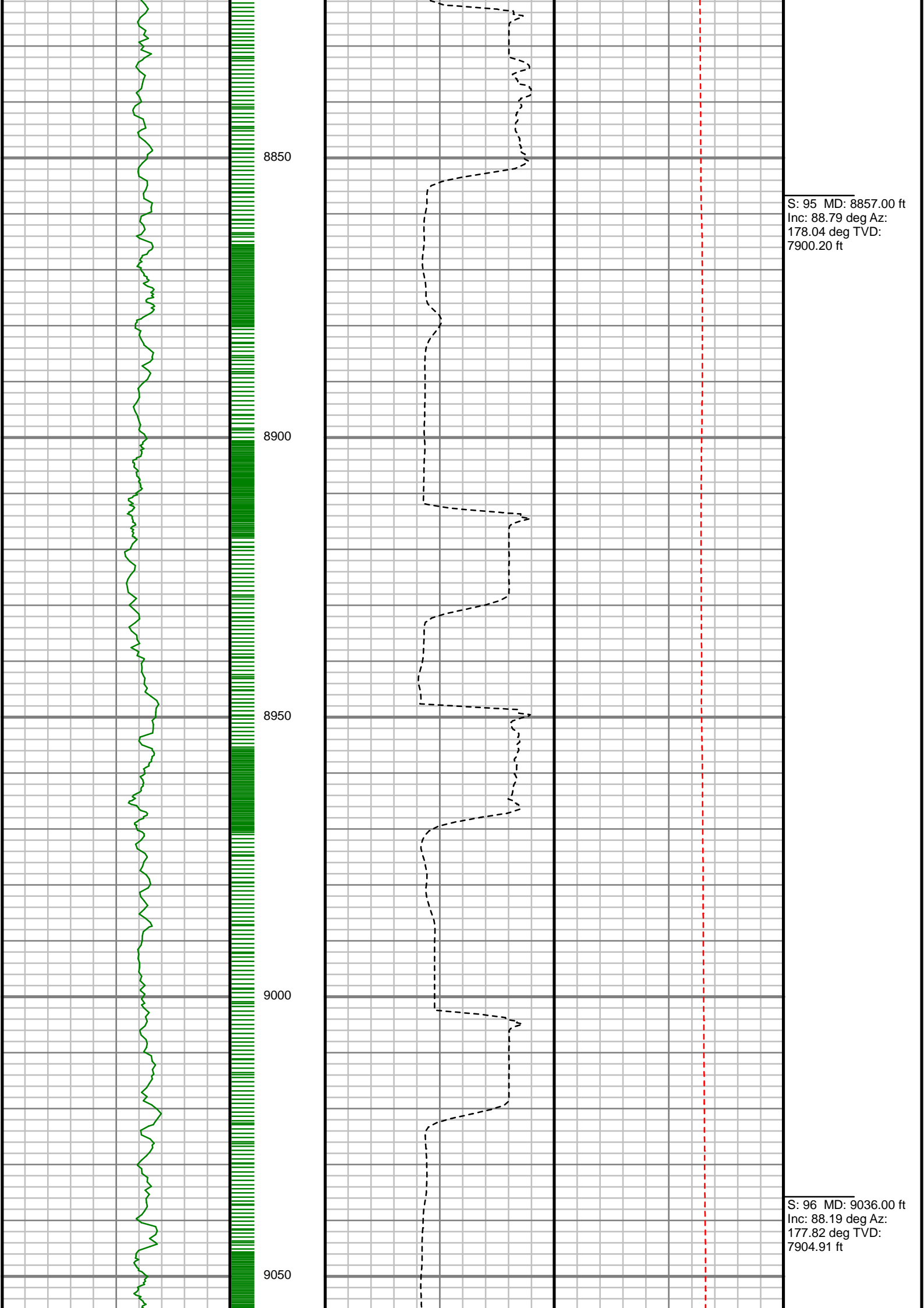


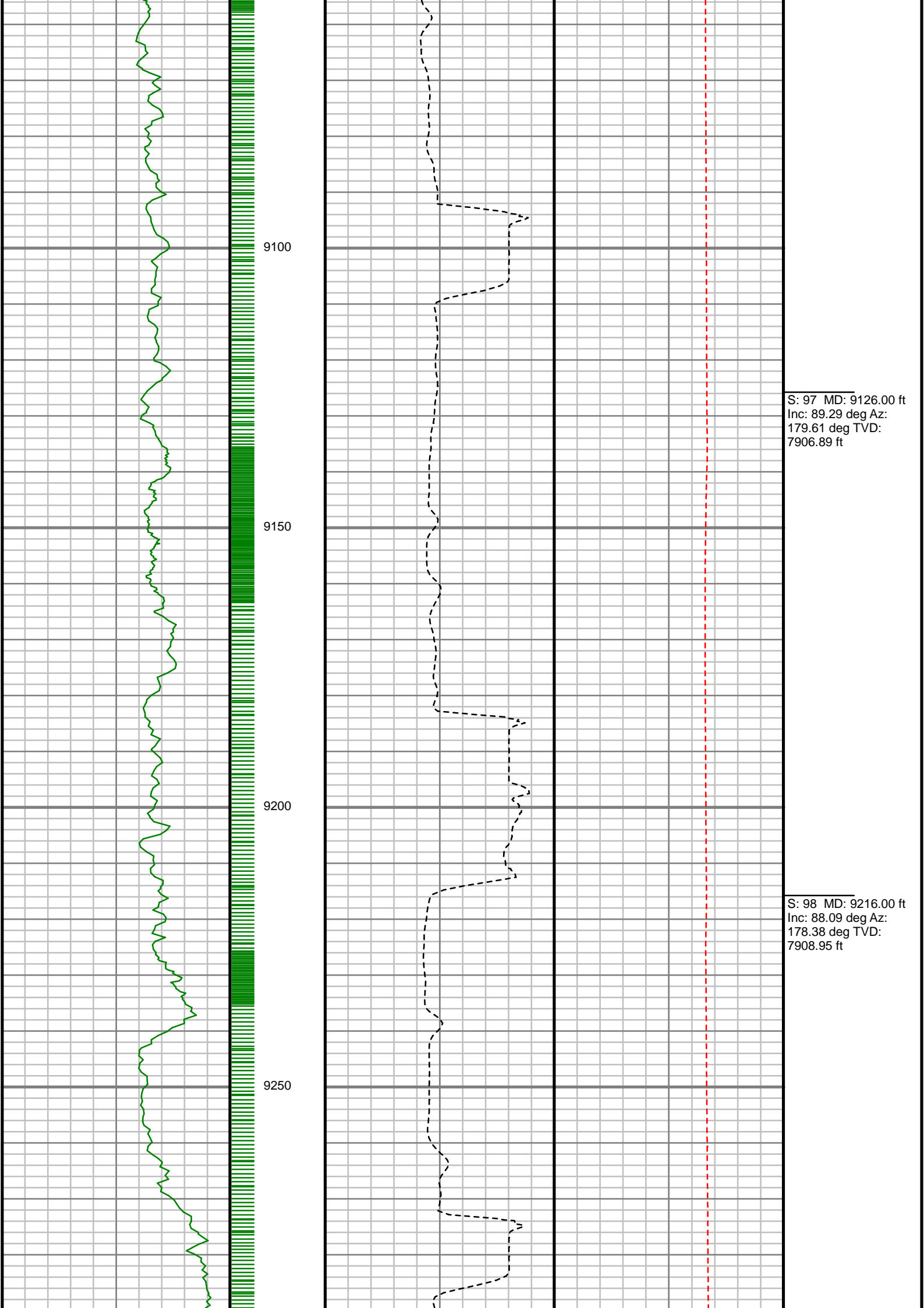


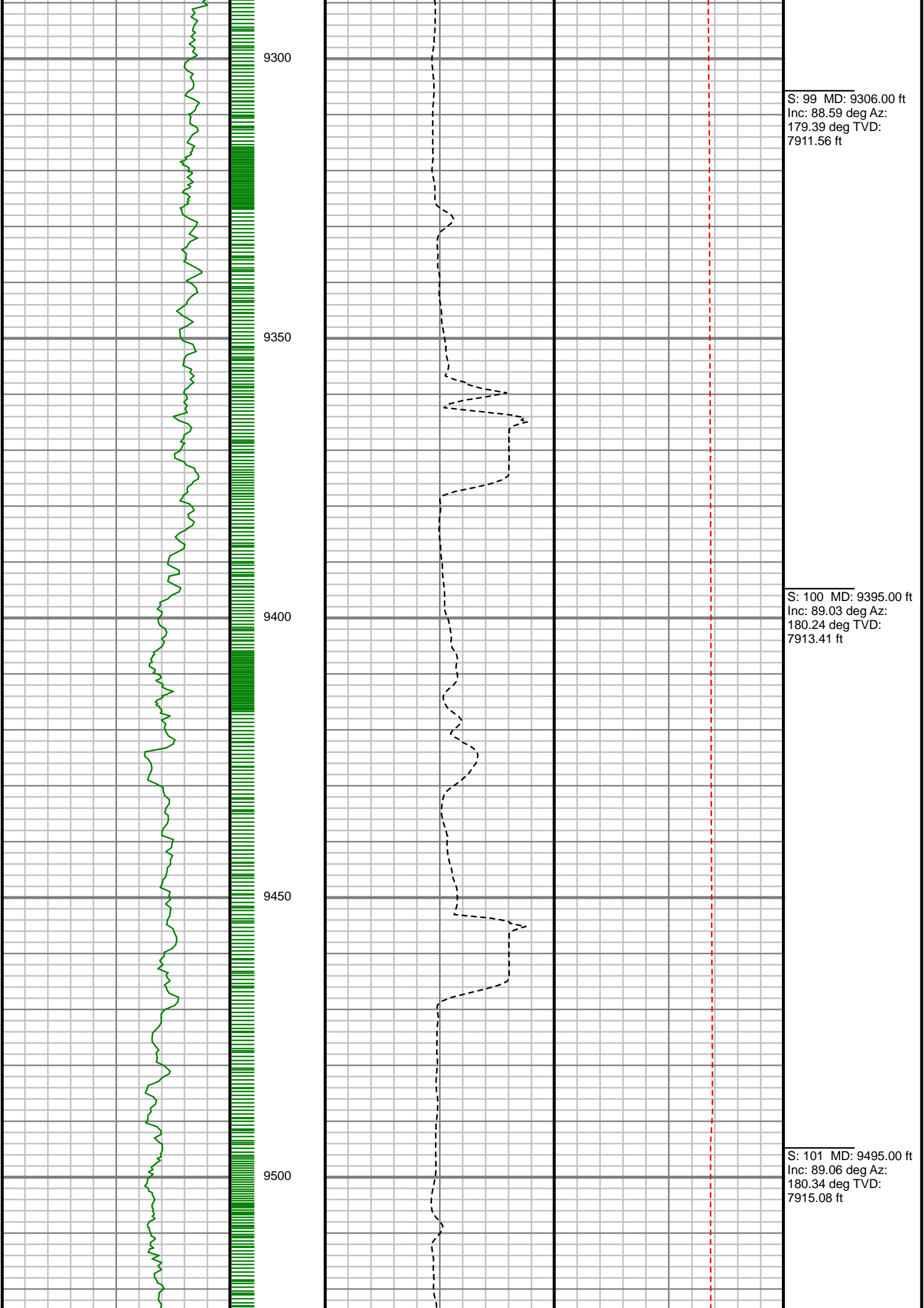
S: 92 MD: 8587.00 ft  
Inc: 88.96 deg Az:  
179.79 deg TVD:  
7898.38 ft

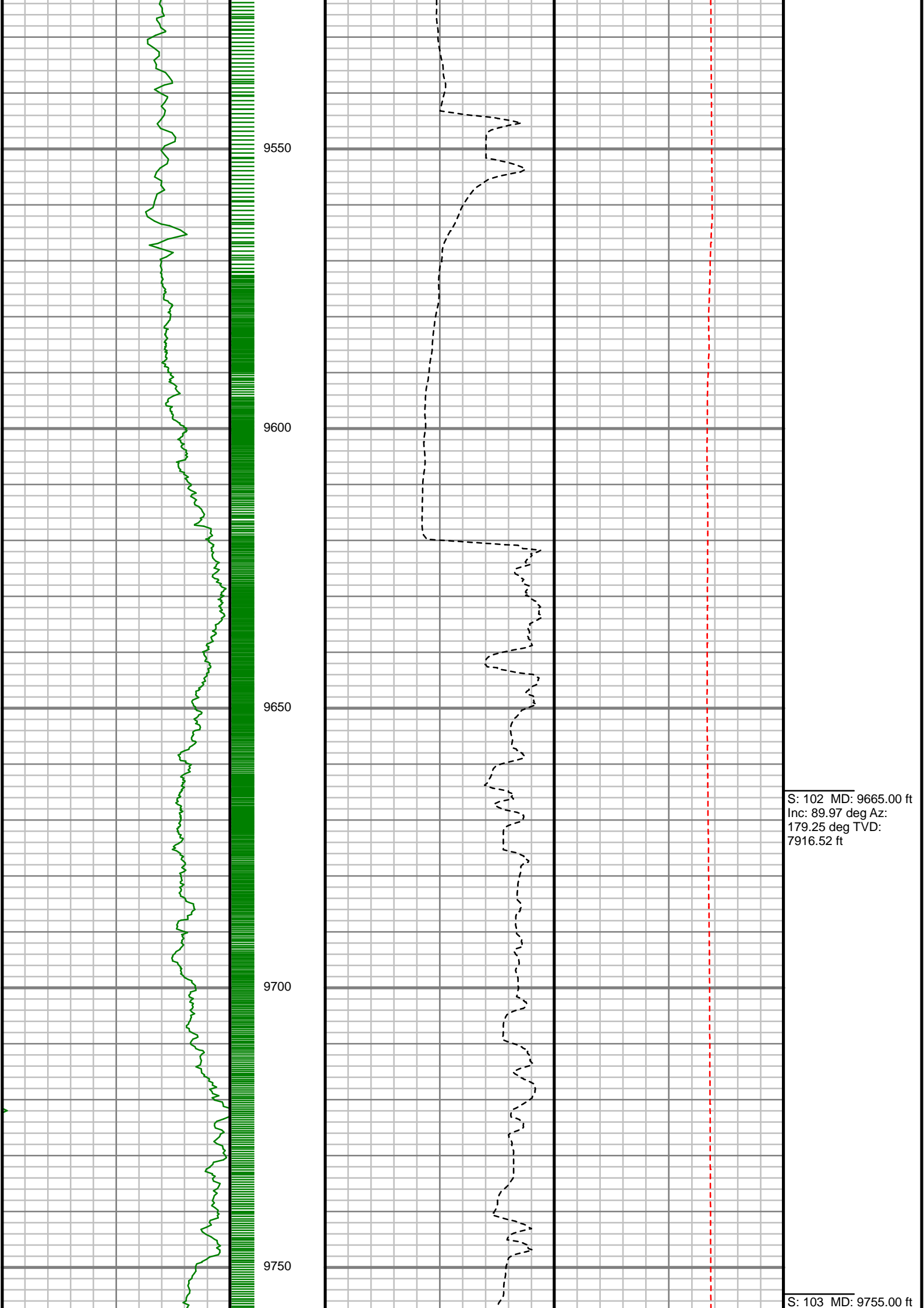
S: 93 MD: 8677.00 ft  
Inc: 90.57 deg Az:  
180.36 deg TVD:  
7898.75 ft

S: 94 MD: 8767.00 ft  
Inc: 89.40 deg Az:  
180.23 deg TVD:  
7898.77 ft









9550

9600

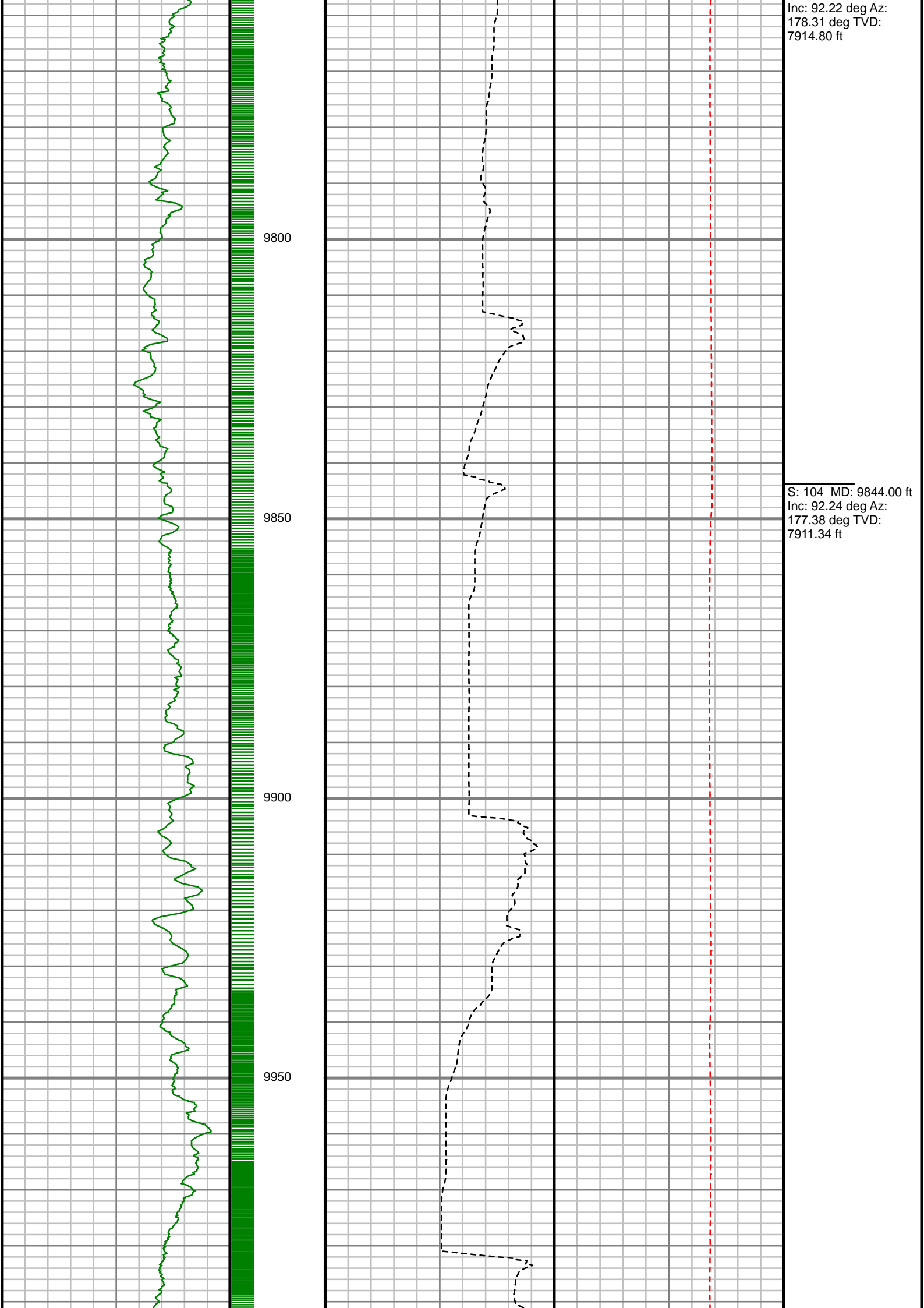
9650

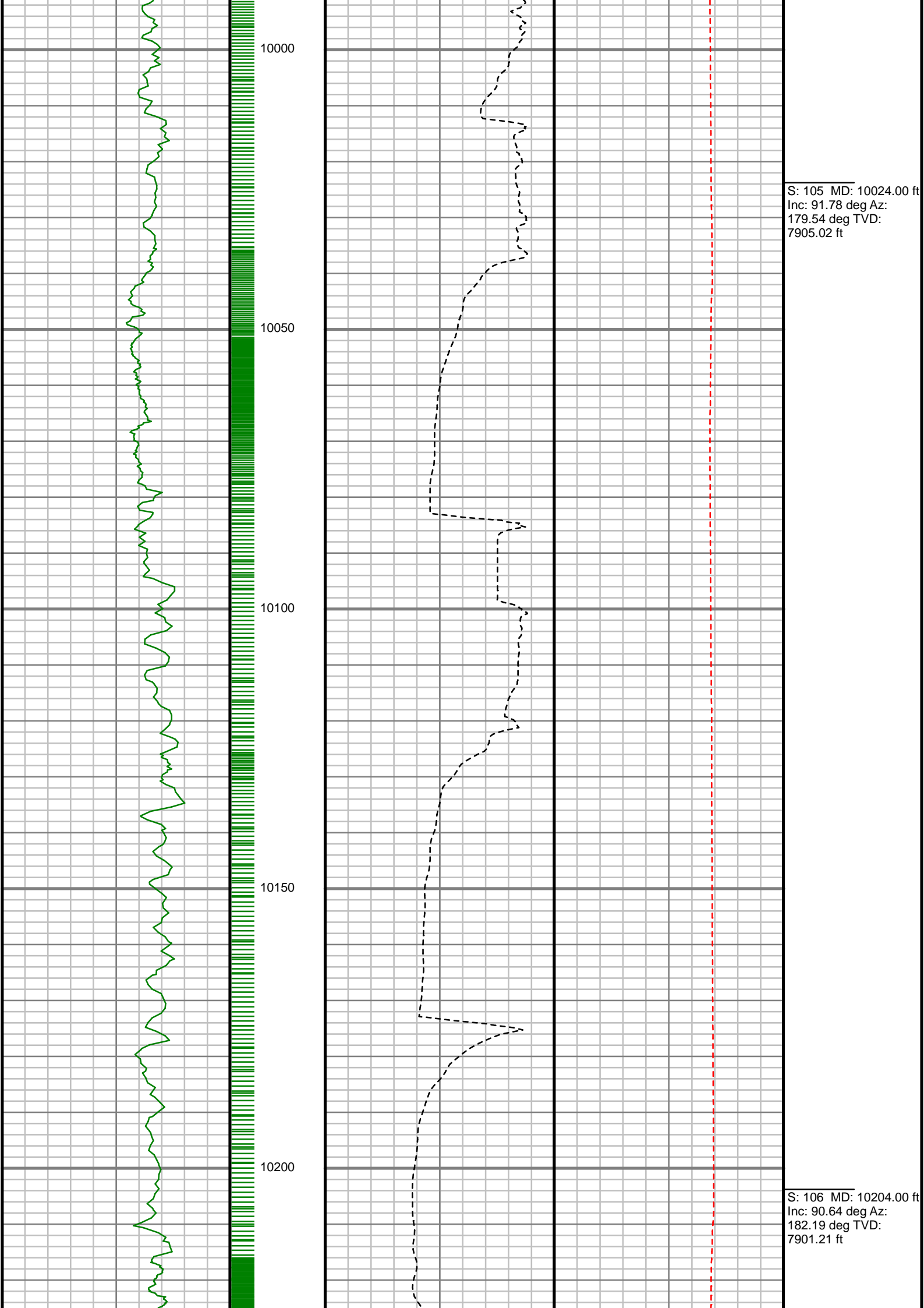
9700

9750

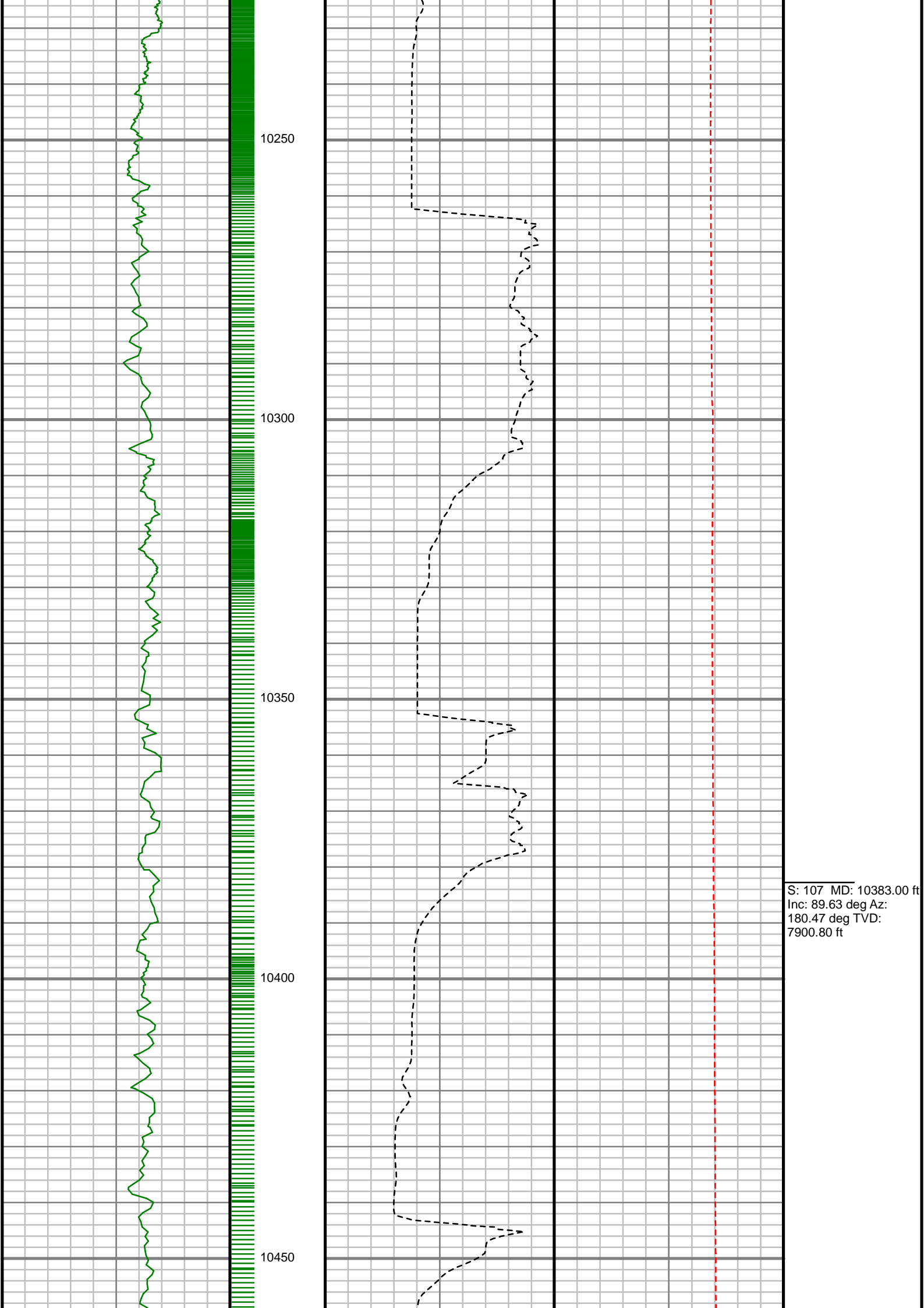
S: 102 MD: 9665.00 ft  
Inc: 89.97 deg Az:  
179.25 deg TVD:  
7916.52 ft

S: 103 MD: 9755.00 ft

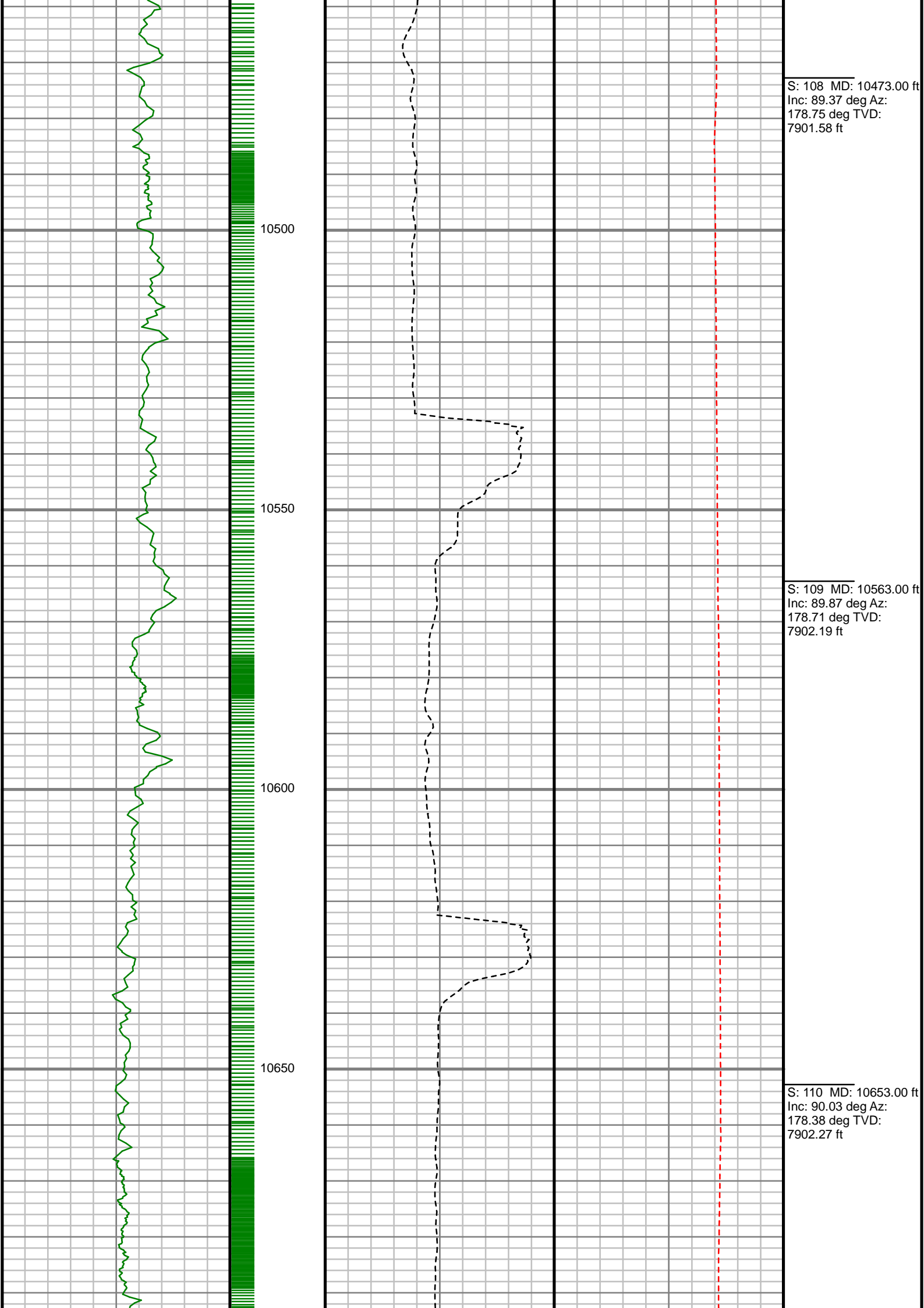


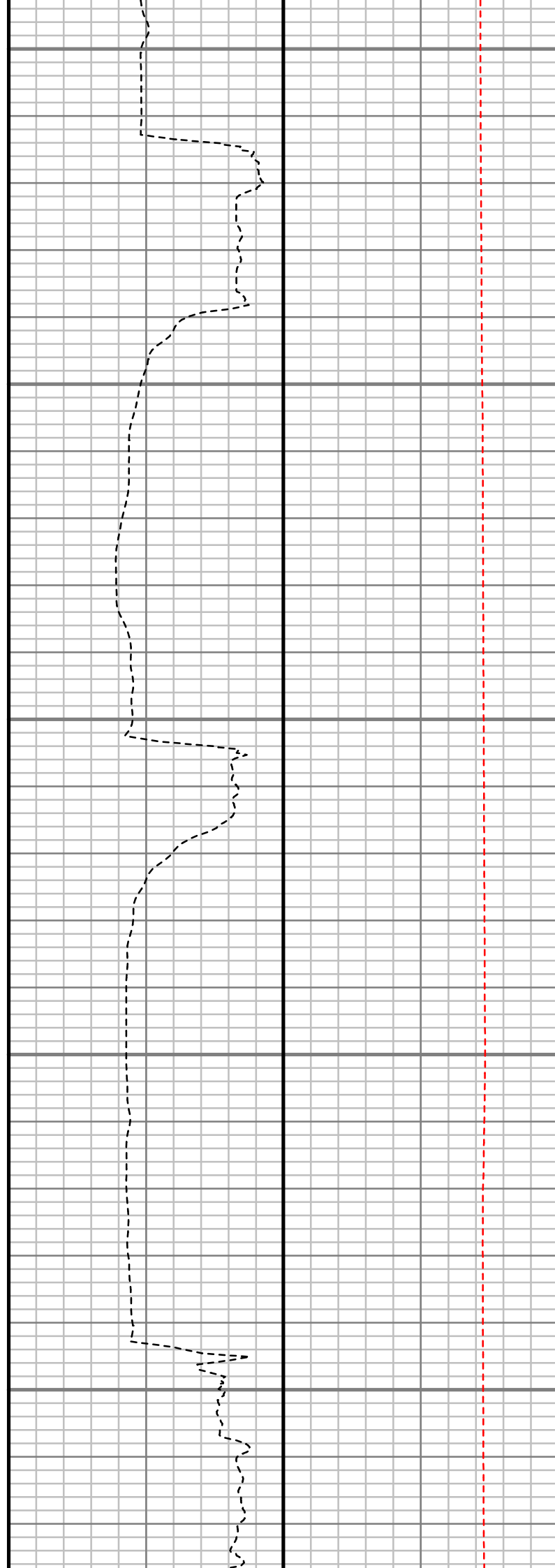
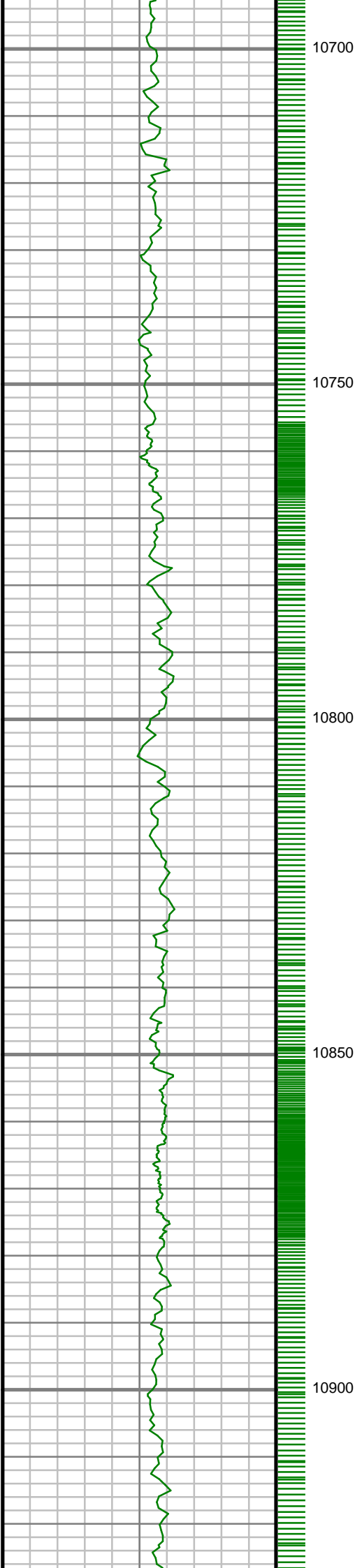






S: 107 MD: 10383.00 ft  
Inc: 89.63 deg Az:  
180.47 deg TVD:  
7900.80 ft

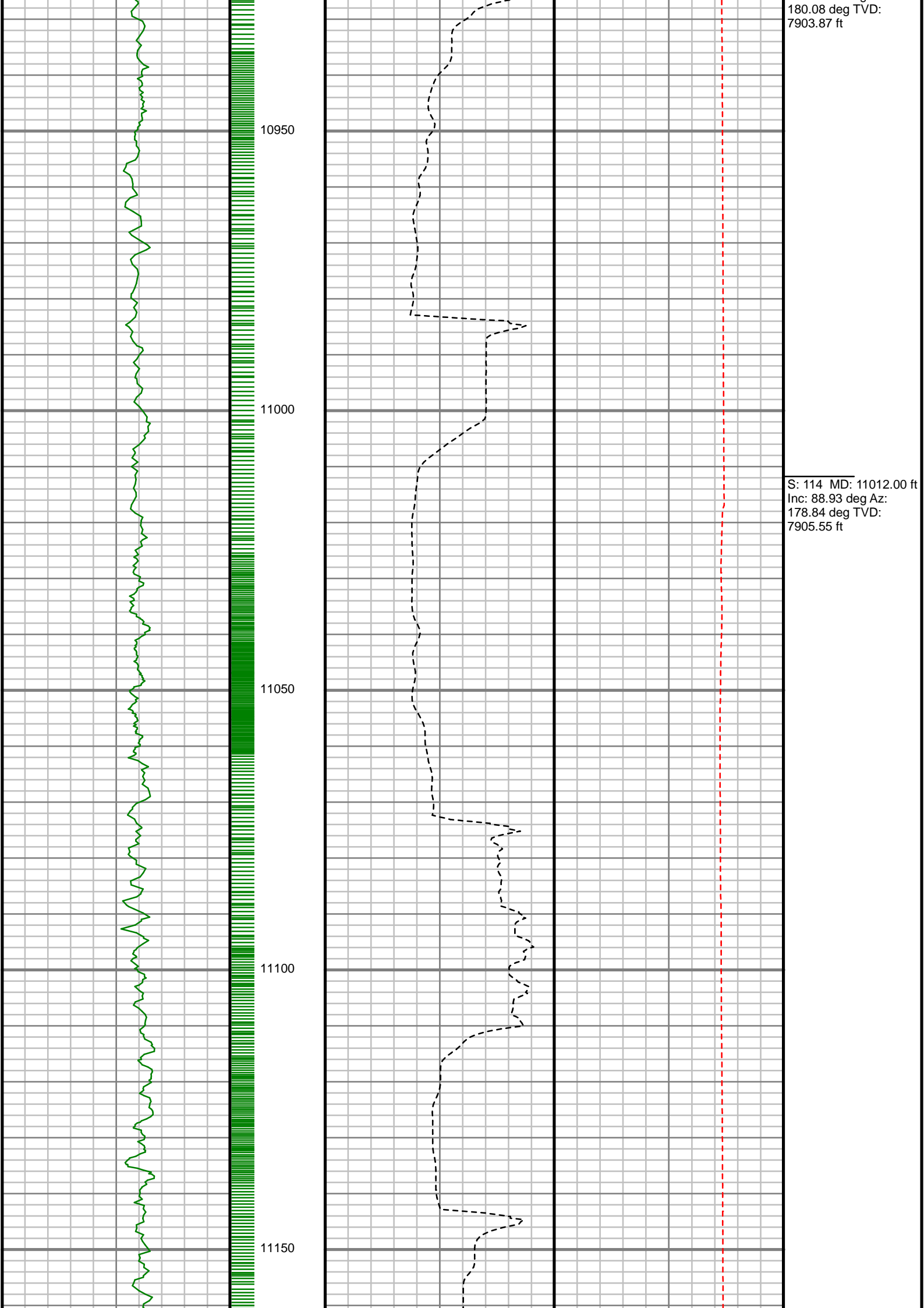


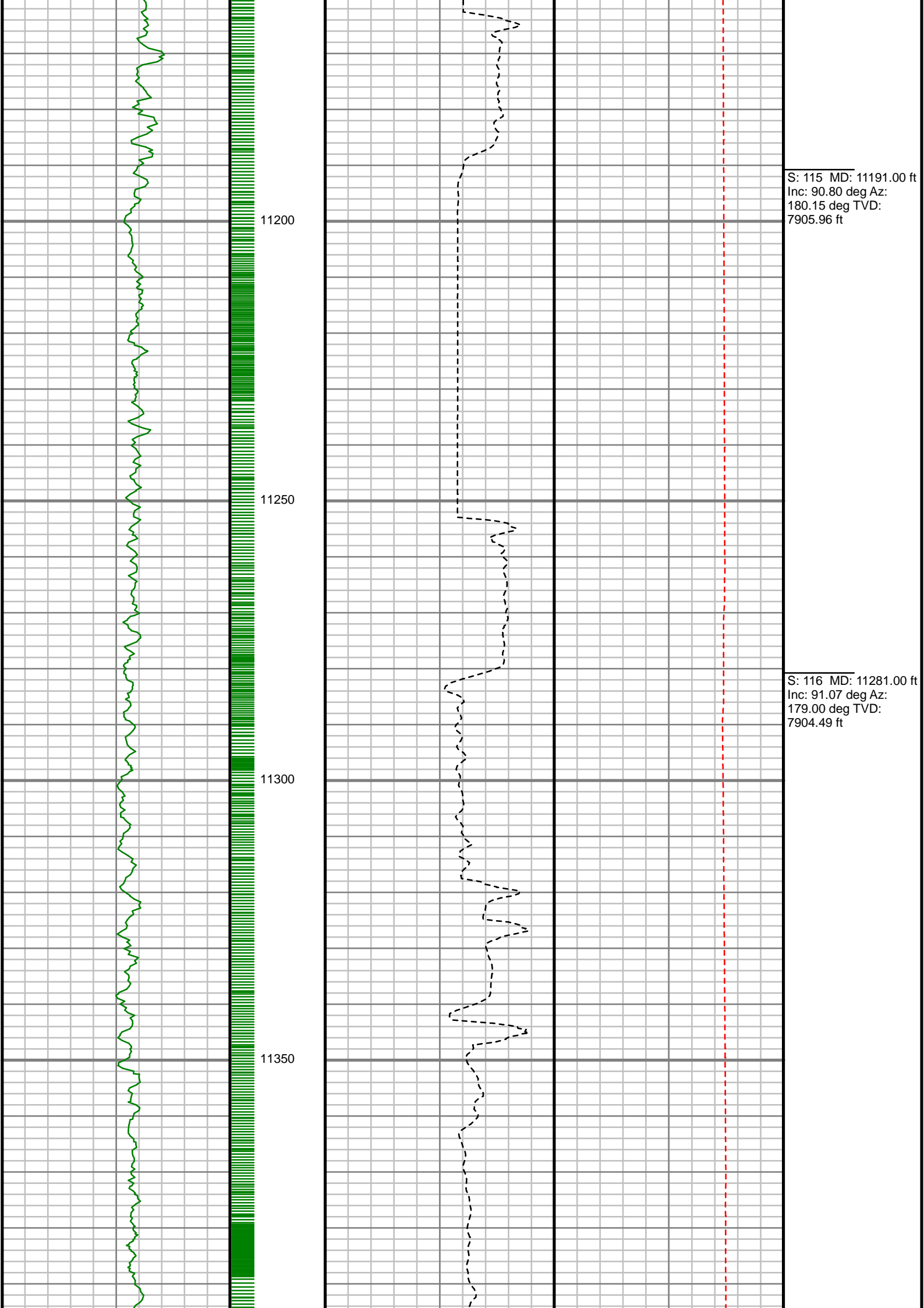


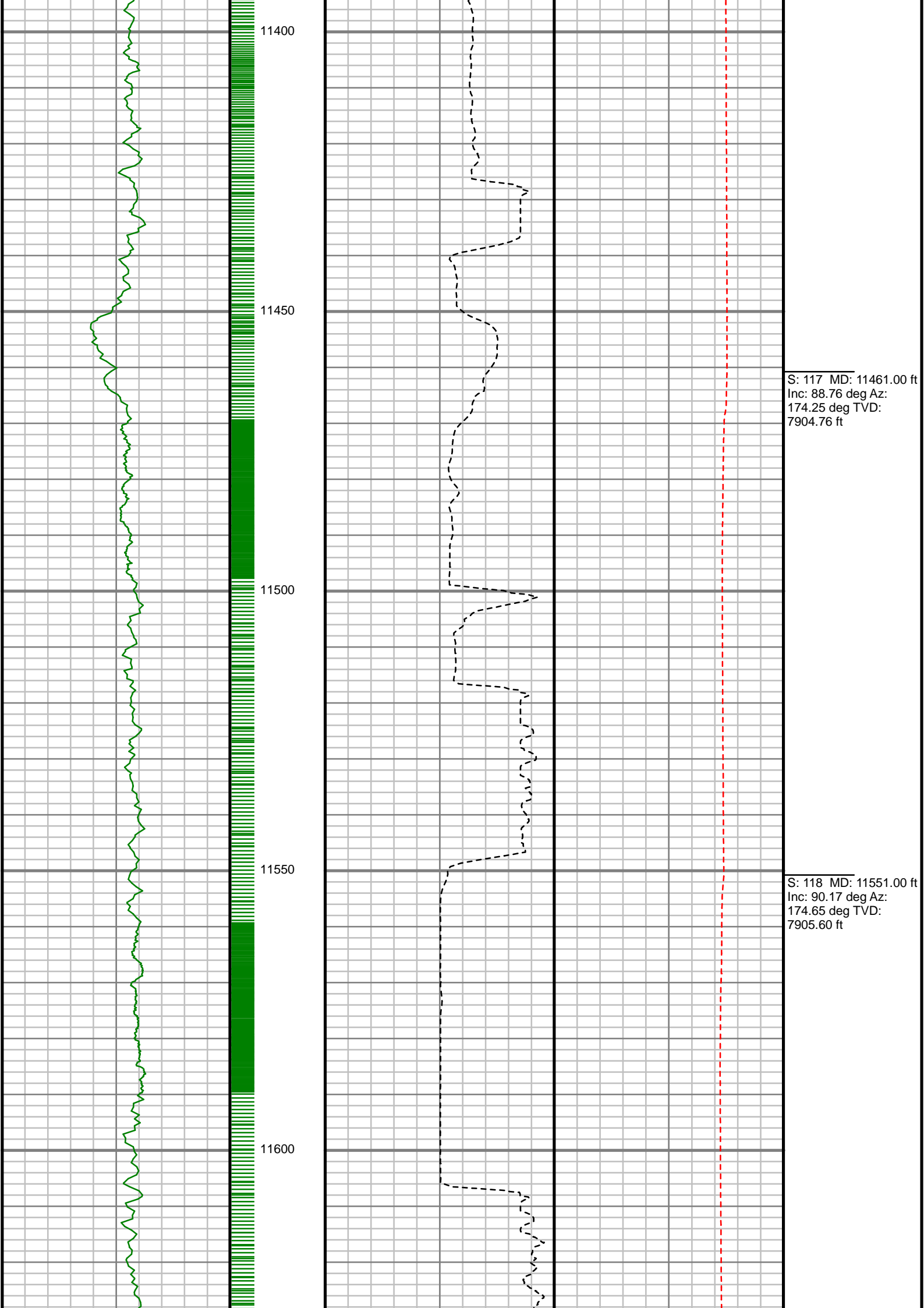
S: 111 MD: 10742.00 ft  
Inc: 89.56 deg Az:  
178.25 deg TVD:  
7902.58 ft

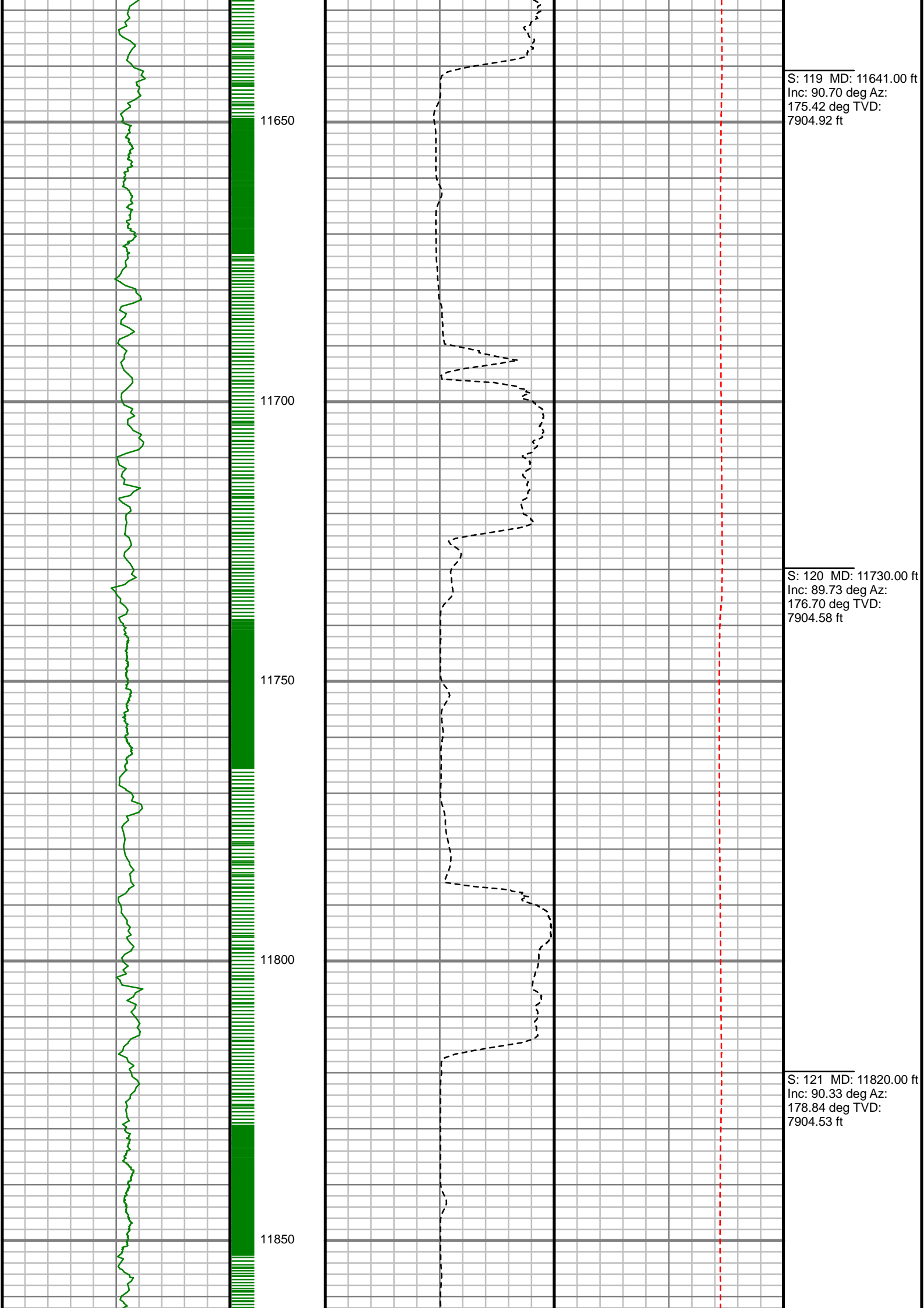
S: 112 MD: 10832.00 ft  
Inc: 89.93 deg Az:  
177.94 deg TVD:  
7902.97 ft

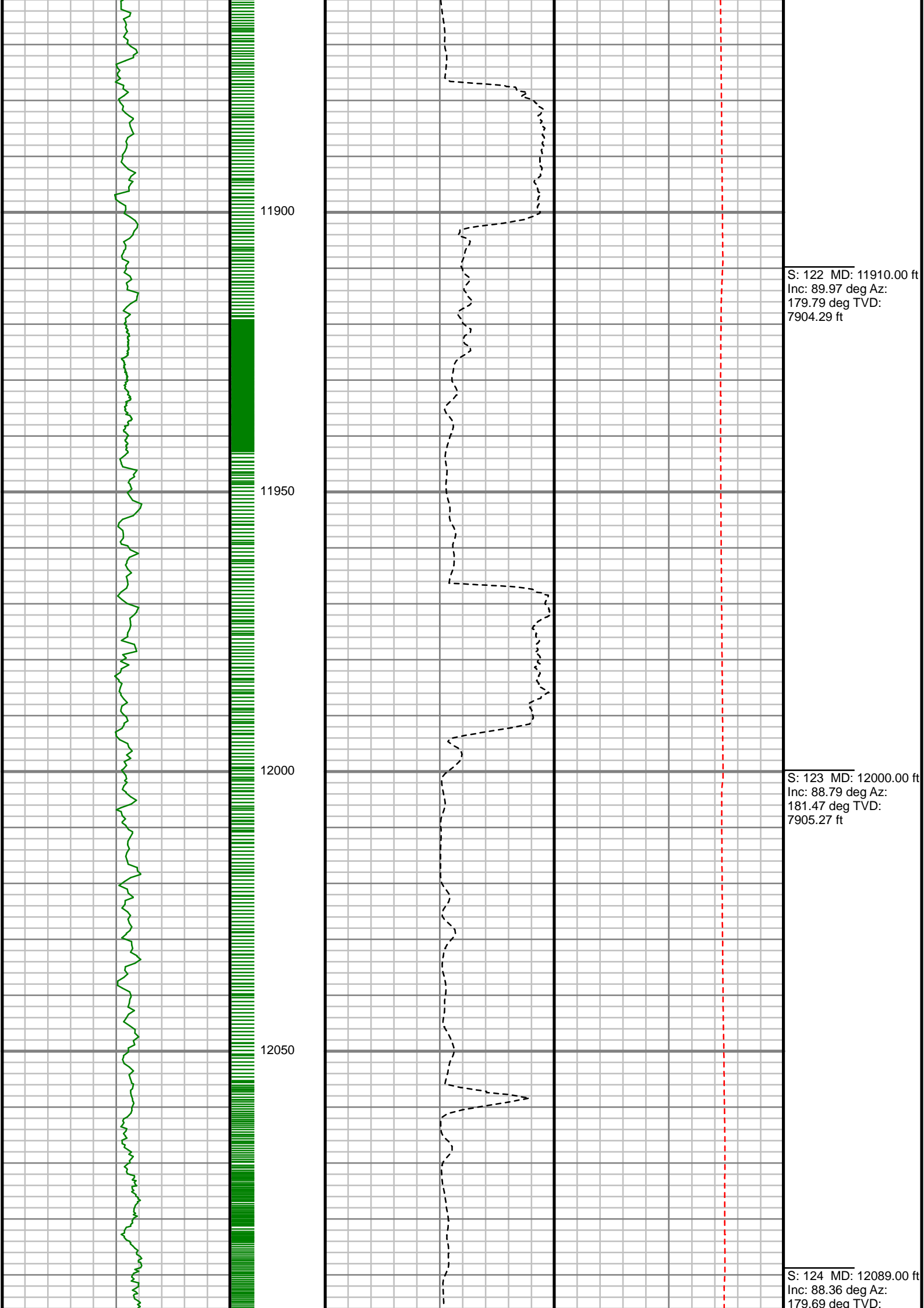
S: 113 MD: 10922.00 ft  
Inc: 88.93 deg Az:



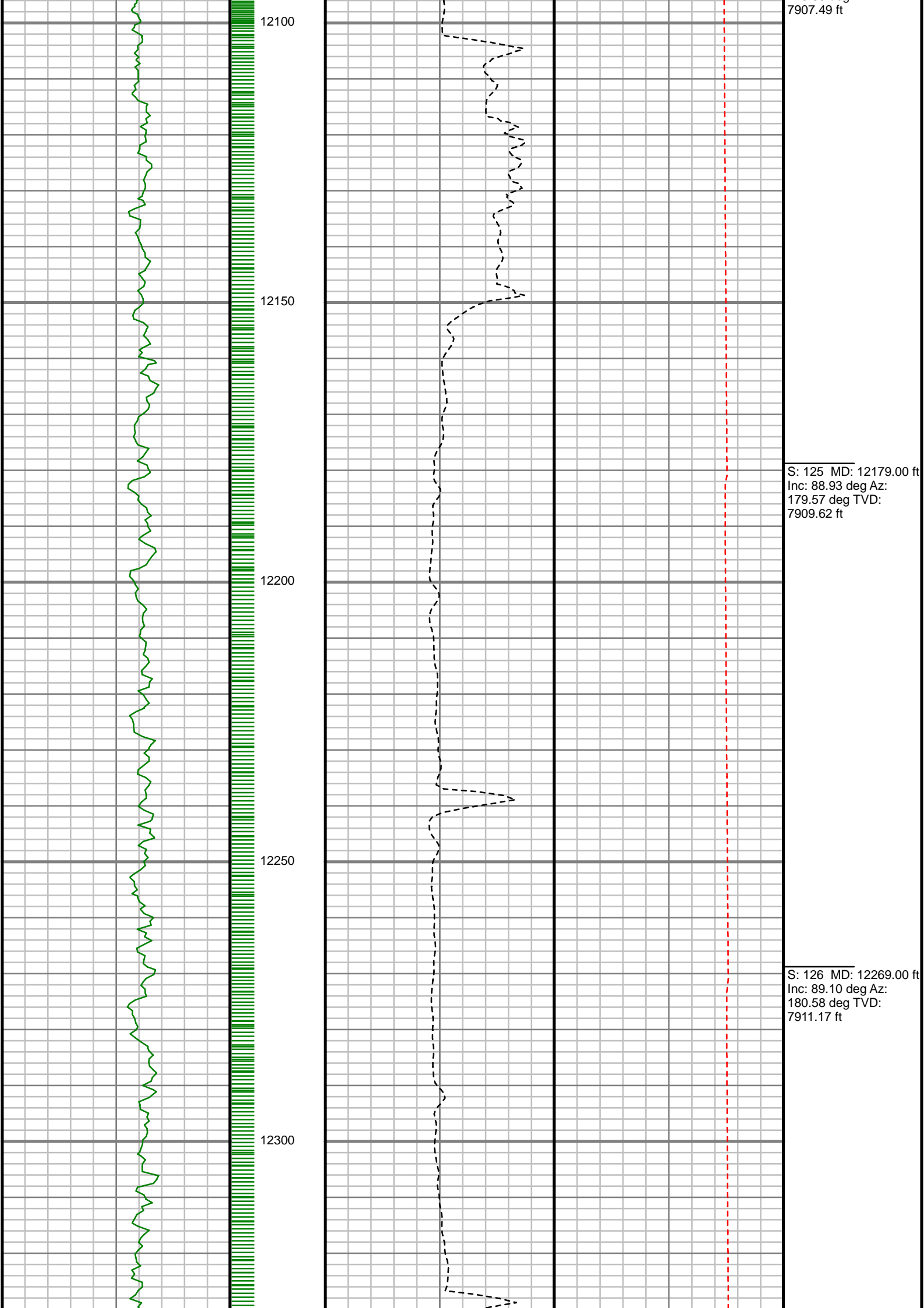


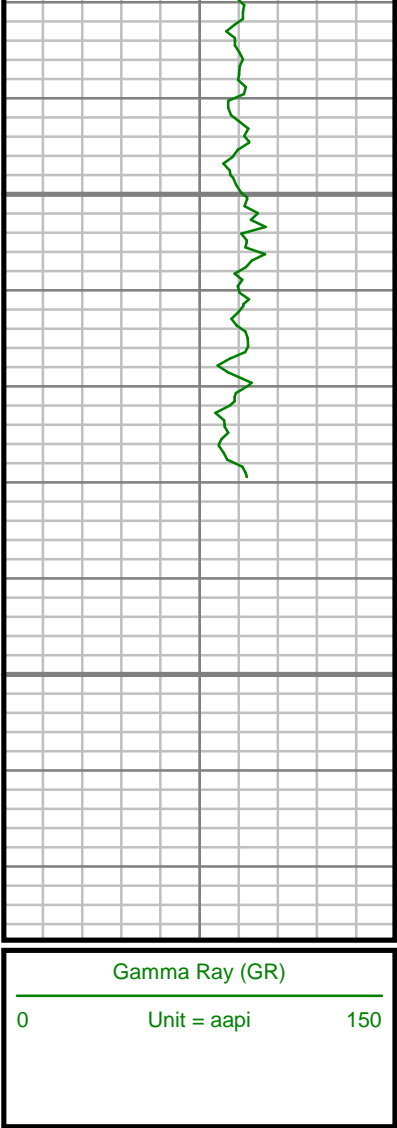




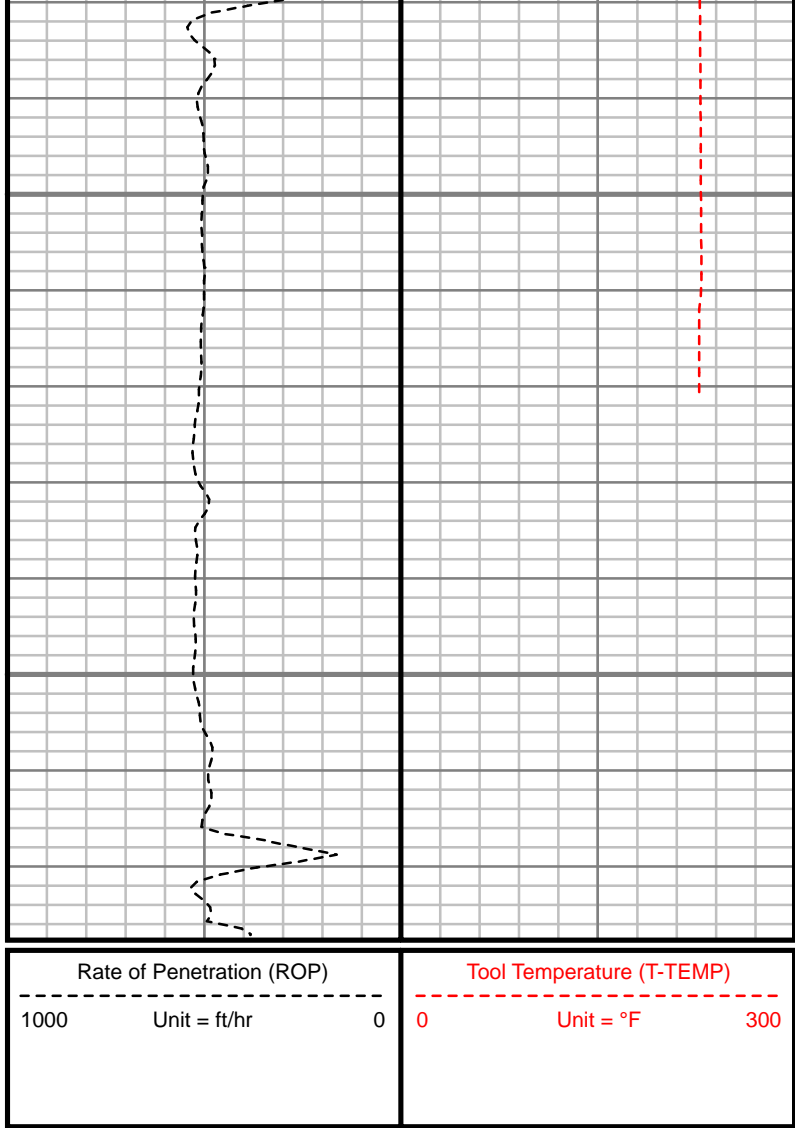








MEASURED DEPTH  
12400 (ft)



S: 127 MD: 12359.00 ft  
Inc: 88.93 deg Az:  
180.28 deg TVD:  
7912.72 ft

Comments

## MWD Survey Report

Well Location	BUFFALO & BADGER SITE
Well Name	BUFFALO 35C-15HZ
Survey Date	4/30/2015
Latitude	40°3'26.427"N
Longitude	104°59'44.534"W
Btotal	52587, 52629, 52647, 52676 nT
Dip	66.51, 66.52, 66.53 deg
Magnetic Declination	8.60, 8.61, 8.62, 8.63 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), 180.00Azim (deg)
Operator(s)	C. COLLINS, S. NEJAD

Well Notes
SURVEYS FROM 0 FT. TO 1272 FT. WERE ACQUIRED BY CATHEDRAL MWD.
SURVEYS FROM 1391 FT. TO 12359 FT. WERE ACQUIRED BY SCIENTIFIC DRILLING INTERNATIONAL MWD.

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
14.00	0.00	0.00	14.00	0.00	0.00	0.00	0.00	14.00
66.00	0.50	247.80	66.00	0.09	-0.09	-0.21	0.96	52.00
176.00	0.60	244.00	175.99	0.52	-0.52	-1.17	0.10	110.00
256.00	0.90	274.00	255.99	0.66	-0.66	-2.18	0.61	80.00
336.00	1.10	278.50	335.98	0.50	-0.50	-3.56	0.27	80.00
416.00	0.80	261.40	415.96	0.47	-0.47	-4.87	0.51	80.00
496.00	0.70	278.50	495.96	0.48	-0.48	-5.91	0.30	80.00
576.00	0.20	153.30	575.96	0.54	-0.54	-6.33	1.04	80.00
656.00	0.10	180.40	655.96	0.73	-0.73	-6.27	0.15	80.00
736.00	0.60	67.70	735.95	0.64	-0.64	-5.88	0.81	80.00
816.00	0.50	56.10	815.95	0.29	-0.29	-5.20	0.19	80.00
896.00	0.10	50.40	895.95	0.05	-0.05	-4.86	0.50	80.00
976.00	0.40	98.50	975.95	0.05	-0.05	-4.53	0.43	80.00
1056.00	0.30	2.30	1055.95	-0.12	0.12	-4.24	0.66	80.00
1136.00	0.40	354.00	1135.95	-0.61	0.61	-4.27	0.14	80.00
1216.00	0.80	62.10	1215.94	-1.15	1.15	-3.80	0.94	80.00
1272.00	0.70	67.10	1271.94	-1.46	1.46	-3.14	0.21	56.00
1391.00	1.06	40.86	1390.92	-2.58	2.58	-1.75	0.44	119.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
1481.00	3.34	78.43	1480.86	-3.73	3.73	1.35	2.87	90.00
1571.00	5.07	59.62	1570.61	-6.26	6.26	7.35	2.43	90.00
1660.00	6.37	52.70	1659.17	-11.25	11.25	14.67	1.66	89.00
1750.00	8.99	58.36	1748.36	-17.96	17.96	24.63	3.02	90.00
1840.00	10.05	46.44	1837.12	-27.07	27.07	36.31	2.48	90.00
1930.00	10.95	36.45	1925.62	-39.35	39.35	47.08	2.25	90.00
2020.00	10.02	34.80	2014.12	-52.65	52.65	56.62	1.08	90.00
2109.00	11.17	33.05	2101.60	-66.23	66.23	65.74	1.34	89.00
2199.00	10.51	33.18	2190.00	-80.41	80.41	74.98	0.73	90.00
2289.00	10.83	25.92	2278.45	-94.88	94.88	83.17	1.53	90.00
2379.00	11.96	38.13	2366.68	-109.83	109.83	92.63	2.95	90.00
2468.00	11.66	34.87	2453.80	-124.47	124.47	103.47	0.82	89.00
2558.00	10.05	35.80	2542.18	-138.31	138.31	113.27	1.81	90.00
2648.00	11.86	34.19	2630.54	-152.33	152.33	123.06	2.04	90.00
2738.00	10.44	34.36	2718.84	-166.71	166.71	132.85	1.57	90.00
2828.00	12.34	28.25	2807.07	-181.91	181.91	142.01	2.50	90.00
2917.00	11.24	26.78	2894.19	-198.03	198.03	150.42	1.29	89.00
3007.00	10.08	25.48	2982.63	-212.97	212.97	157.76	1.31	90.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
3097.00	9.84	23.49	3071.28	-227.14	227.14	164.21	0.47	90.00
3187.00	10.45	33.39	3159.88	-241.01	241.01	171.77	2.05	90.00
3276.00	9.15	33.20	3247.57	-253.67	253.67	180.09	1.47	89.00
3366.00	11.37	33.56	3336.13	-267.05	267.05	188.91	2.47	90.00
3456.00	10.74	36.88	3424.46	-281.14	281.14	198.85	0.99	90.00
3546.00	9.66	32.05	3513.04	-294.26	294.26	207.89	1.53	90.00
3636.00	11.26	22.05	3601.55	-308.81	308.81	215.20	2.68	90.00
3725.00	10.04	18.71	3689.01	-324.21	324.21	220.95	1.54	89.00
3815.00	8.94	17.25	3777.78	-338.32	338.32	225.54	1.25	90.00
3905.00	7.47	13.97	3866.86	-350.68	350.68	229.03	1.71	90.00
3995.00	6.12	11.27	3956.22	-361.06	361.06	231.38	1.55	90.00
4085.00	4.73	4.40	4045.82	-369.46	369.46	232.60	1.70	90.00
4174.00	4.04	354.84	4134.56	-376.24	376.24	232.60	1.12	89.00
4264.00	3.86	333.32	4224.35	-382.11	382.11	230.96	1.65	90.00
4354.00	3.06	278.94	4314.21	-385.19	385.19	227.22	3.60	90.00
4444.00	3.30	224.11	4404.09	-383.70	383.70	223.04	3.26	90.00
4533.00	3.07	224.07	4492.95	-380.15	380.15	219.60	0.26	89.00
4623.00	2.52	152.44	4582.87	-376.66	376.66	218.83	3.67	90.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
4713.00	1.90	166.71	4672.80	-373.45	373.45	220.09	0.91	90.00
4803.00	1.67	175.81	4762.76	-370.70	370.70	220.53	0.41	90.00
4892.00	1.51	179.56	4851.72	-368.23	368.23	220.63	0.21	89.00
4982.00	1.44	188.46	4941.69	-365.93	365.93	220.48	0.27	90.00
5072.00	1.14	125.33	5031.67	-364.29	364.29	221.04	1.53	90.00
5162.00	0.93	119.20	5121.66	-363.42	363.42	222.40	0.26	90.00
5251.00	0.63	151.72	5210.65	-362.63	362.63	223.27	0.59	89.00
5341.00	0.69	157.59	5300.65	-361.69	361.69	223.71	0.10	90.00
5431.00	0.54	165.01	5390.64	-360.78	360.78	224.02	0.19	90.00
5521.00	1.25	46.83	5480.63	-361.04	361.04	224.85	1.75	90.00
5700.00	1.03	24.26	5659.60	-363.84	363.84	226.93	0.27	179.00
5790.00	1.10	12.68	5749.58	-365.42	365.42	227.45	0.25	90.00
5880.00	0.93	5.04	5839.57	-366.99	366.99	227.71	0.24	90.00
6150.00	0.88	350.89	6109.54	-371.22	371.22	227.57	0.08	270.00
6329.00	0.84	339.79	6288.52	-373.80	373.80	226.90	0.10	179.00
6419.00	1.12	327.03	6378.50	-375.16	375.16	226.19	0.40	90.00
6509.00	1.18	308.52	6468.48	-376.48	376.48	224.98	0.42	90.00
6688.00	1.00	328.08	6647.45	-378.96	378.96	222.71	0.23	179.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
6778.00	1.21	339.98	6737.44	-380.51	380.51	221.97	0.35	90.00
6868.00	1.87	49.15	6827.41	-382.37	382.37	222.76	2.04	90.00
7048.00	1.42	126.18	7007.35	-382.97	382.97	226.79	1.16	180.00
7137.00	1.21	110.57	7096.33	-381.99	381.99	228.57	0.46	89.00
7227.00	2.71	193.58	7186.29	-379.59	379.59	228.96	3.15	90.00
7317.00	7.70	181.42	7275.89	-371.49	371.49	228.31	5.64	90.00
7407.00	14.73	180.28	7364.12	-354.00	354.00	228.10	7.82	90.00
7496.00	20.73	192.82	7448.88	-327.29	327.29	224.55	7.95	89.00
7586.00	25.99	194.55	7531.48	-292.65	292.65	216.05	5.89	90.00
7676.00	34.66	186.09	7609.12	-248.01	248.01	208.37	10.72	90.00
7766.00	43.01	177.91	7679.22	-191.75	191.75	206.77	10.87	90.00
7855.00	50.46	176.28	7740.18	-127.08	127.08	210.11	8.48	89.00
7945.00	55.81	175.96	7794.15	-55.27	55.27	214.99	5.95	90.00
8035.00	65.40	179.57	7838.29	22.98	-22.98	217.93	11.22	90.00
8125.00	73.40	183.73	7869.94	107.09	-107.09	215.42	9.88	90.00
8214.00	81.84	182.68	7889.00	193.81	-193.81	210.58	9.56	89.00
8318.00	90.54	181.31	7895.90	297.42	-297.42	206.97	8.46	104.00
8408.00	89.87	180.83	7895.58	387.40	-387.40	205.28	0.92	90.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
8498.00	88.79	179.92	7896.64	477.39	-477.39	204.70	1.56	90.00
8587.00	88.96	179.79	7898.38	566.37	-566.37	204.92	0.24	89.00
8677.00	90.57	180.36	7898.75	656.37	-656.37	204.79	1.90	90.00
8767.00	89.40	180.23	7898.77	746.36	-746.36	204.33	1.31	90.00
8857.00	88.79	178.04	7900.20	836.34	-836.34	205.69	2.52	90.00
9036.00	88.19	177.82	7904.91	1015.16	-1015.16	212.15	0.36	179.00
9126.00	89.29	179.61	7906.89	1105.11	-1105.11	214.16	2.34	90.00
9216.00	88.09	178.38	7908.95	1195.07	-1195.07	215.74	1.92	90.00
9306.00	88.59	179.39	7911.56	1285.01	-1285.01	217.48	1.26	90.00
9395.00	89.03	180.24	7913.41	1373.99	-1373.99	217.77	1.07	89.00
9495.00	89.06	180.34	7915.08	1473.97	-1473.97	217.26	0.11	100.00
9665.00	89.97	179.25	7916.52	1643.96	-1643.96	217.86	0.84	170.00
9755.00	92.22	178.31	7914.80	1733.92	-1733.92	219.78	2.71	90.00
9844.00	92.24	177.38	7911.34	1822.79	-1822.79	223.13	1.04	89.00
10024.00	91.78	179.54	7905.02	2002.60	-2002.60	227.96	1.23	180.00
10204.00	90.64	182.19	7901.21	2182.52	-2182.52	225.23	1.60	180.00
10383.00	89.63	180.47	7900.80	2361.46	-2361.46	221.06	1.11	179.00
10473.00	89.37	178.75	7901.58	2451.45	-2451.45	221.67	1.93	90.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
10563.00	89.87	178.71	7902.19	2541.43	-2541.43	223.66	0.56	90.00
10653.00	90.03	178.38	7902.27	2631.40	-2631.40	225.94	0.41	90.00
10742.00	89.56	178.25	7902.58	2720.36	-2720.36	228.56	0.55	89.00
10832.00	89.93	177.94	7902.97	2810.31	-2810.31	231.55	0.53	90.00
10922.00	88.93	180.08	7903.87	2900.29	-2900.29	233.11	2.63	90.00
11012.00	88.93	178.84	7905.55	2990.26	-2990.26	233.95	1.38	90.00
11191.00	90.80	180.15	7905.96	3169.25	-3169.25	235.54	1.28	179.00
11281.00	91.07	179.00	7904.49	3259.23	-3259.23	236.21	1.31	90.00
11461.00	88.76	174.25	7904.76	3438.85	-3438.85	246.80	2.94	180.00
11551.00	90.17	174.65	7905.60	3528.42	-3528.42	255.51	1.63	90.00
11641.00	90.70	175.42	7904.92	3618.08	-3618.08	263.31	1.04	90.00
11730.00	89.73	176.70	7904.58	3706.87	-3706.87	269.43	1.80	89.00
11820.00	90.33	178.84	7904.53	3796.79	-3796.79	272.93	2.47	90.00
11910.00	89.97	179.79	7904.29	3886.79	-3886.79	274.01	1.13	90.00
12000.00	88.79	181.47	7905.27	3976.77	-3976.77	273.03	2.28	90.00
12089.00	88.36	179.69	7907.49	4065.73	-4065.73	272.12	2.06	89.00
12179.00	88.93	179.57	7909.62	4155.71	-4155.71	272.70	0.65	90.00
12269.00	89.10	180.58	7911.17	4245.69	-4245.69	272.58	1.14	90.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
12359.00	88.93	180.28	7912.72	4335.68	-4335.68	271.90	0.38	90.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft

5" = 100' FEET MD