



5" = 100' FEET MD

COMPANY : BILL BARRETT CORP.
WELL : ANSCHUTZ STATE 05-62-22-3225B2
FIELD : WATTENBERG
COUNTY : WELD
STATE : COLORADO
COUNTRY : U.S.A.
UWI : 05-123-41753

COMPANY : BILL BARRETT CORP.
WELL : ANSCHUTZ STATE 05-62-22-3225B2
FIELD : WATTENBERG
COUNTY : WELD
STATE : COLORADO
COUNTRY : U.S.A.
UWI : 05-123-41753

WELL LOCATION
LAT:40°23'13.120"N LONG:104°19'5.459"W
N:1386010.26 Ft E:3329201.76 Ft
SEC:22 TWP:5N RANGE:62W

OTHER SERVICES

DIRECTIONAL

ROP

CONDUCTIVITY

FEET

DEPTH REF. : RKB

REF. HEIGHT : 16.000 Ft

RKB to Ground Level

GROUND LEVEL : 4719.000 Ft

G.I. to MEAN SEA LEVEL

BOREHOLE RECORD

DEVIATION RECORD

HOLE SIZE in	FROM Ft	TO Ft	INCLINATION deg	FROM Ft	TO Ft
			0 - 8	805	5890
			8 - 88	5890	6679
			88 - 93	6679	16404
CASING RECORD					
CASING SIZE in	FROM Ft	TO Ft			
9.625	0	805			
7	0	6667			

DRILLING CO. : CADDE
RIG : 24

LMD UNIT NO. : MWD-00267-DISTRICT : CASPER

SPUD DATE : 10/09/2015

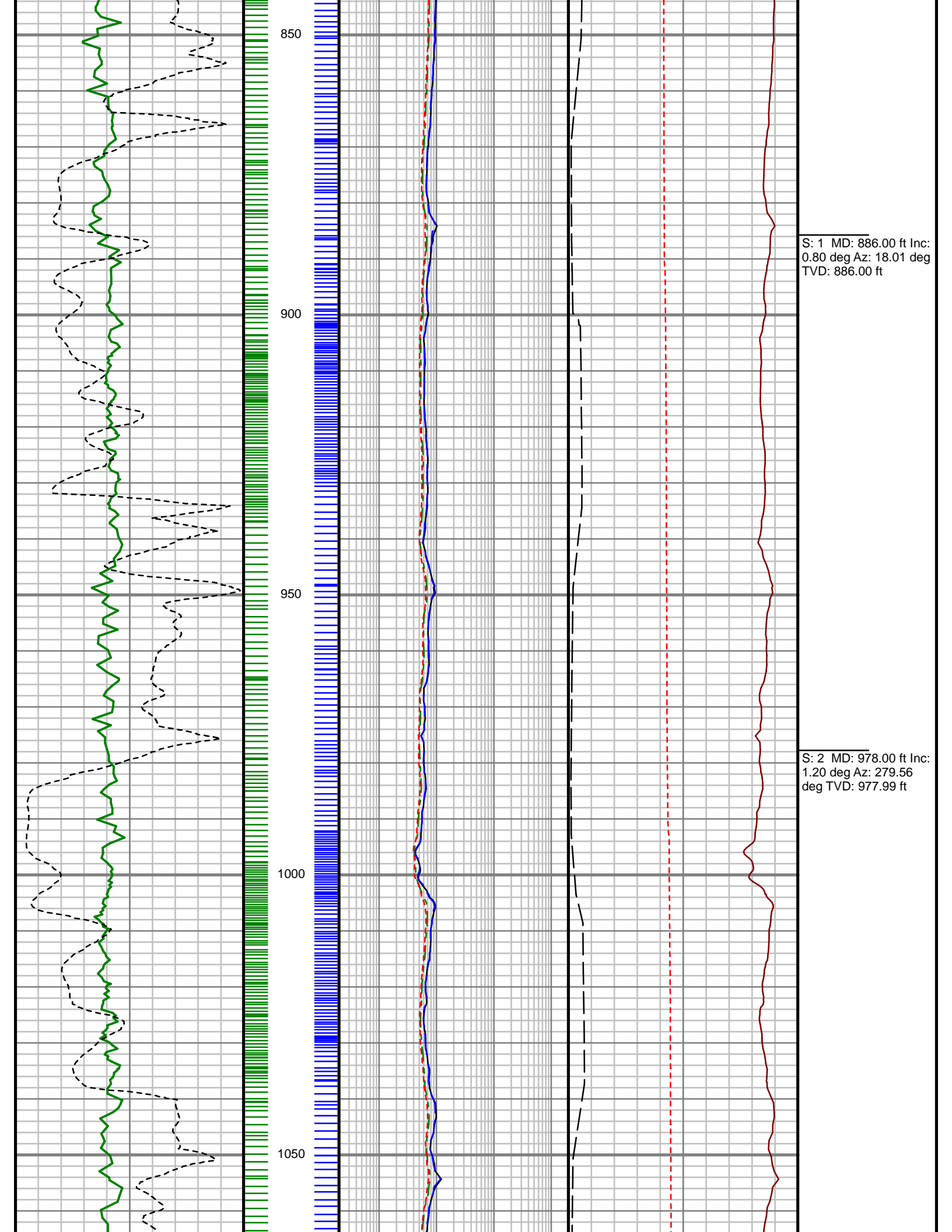
LMD START DATE : 10/11/2015

LMD END DATE : 10/17/2015

DEPTH : 4000 Ft
DEPTH : 16404 Ft
TOTAL DEPTH : 16404 Ft

Run Data

RUN NUMBER	1	2	3		
START DATE	10/10/2015	10/11/2015	10/13/2015		
START TIME	2240	2305	0810		
END DATE	10/11/2015	10/12/2015	10/17/2015		
END TIME	2305	1515	0100		
DEPTH IN (ft)	805	5890	6679		
DEPTH OUT (ft)	5890	6679	16404		
LOG TOP (ft)	4000	5849	6625		
LOG BOTTOM (ft)	5849	6625	16356		
HOLE SIZE (in)	8.75	8.75	6.125		
MUD DATA @ (ft)	3640	6679	16252		
MUD TYPE	WATER-BASED	WATER-BASED	WATER-BASED		
DENSITY (lb / gal)	9.55	9.8	9		
VISCOSITY (s / qt)	31	32	29		
pH	9.5	8.3	8.4		
FLUID LOSS (cm3 / 30)	-	-	-		
SALINITY (ppm)	-	-	-		
Rm (ohmm @ deg F)	-	-	-		
Rmf (ohmm @ deg F)	-	-	-		
MAX TEMP (deg F)	160	165	230		
Rm @ MAX TEMP (ohmm)	-	-	-		
LWD ENGINEER #1	R. KLASSEN	R. KLASSEN	R. KLASSEN		
LWD ENGINEER #2	C. COLLINS	Z. BROWN	Z. BROWN		
LWD ENGINEER #3	-	-	-		
LOG WITNESS #1	T. BARNES	T. BARNES	T. BARNES		
LOG WITNESS #2	V. SPIKES	V. SPIKES	V. SPIKES		



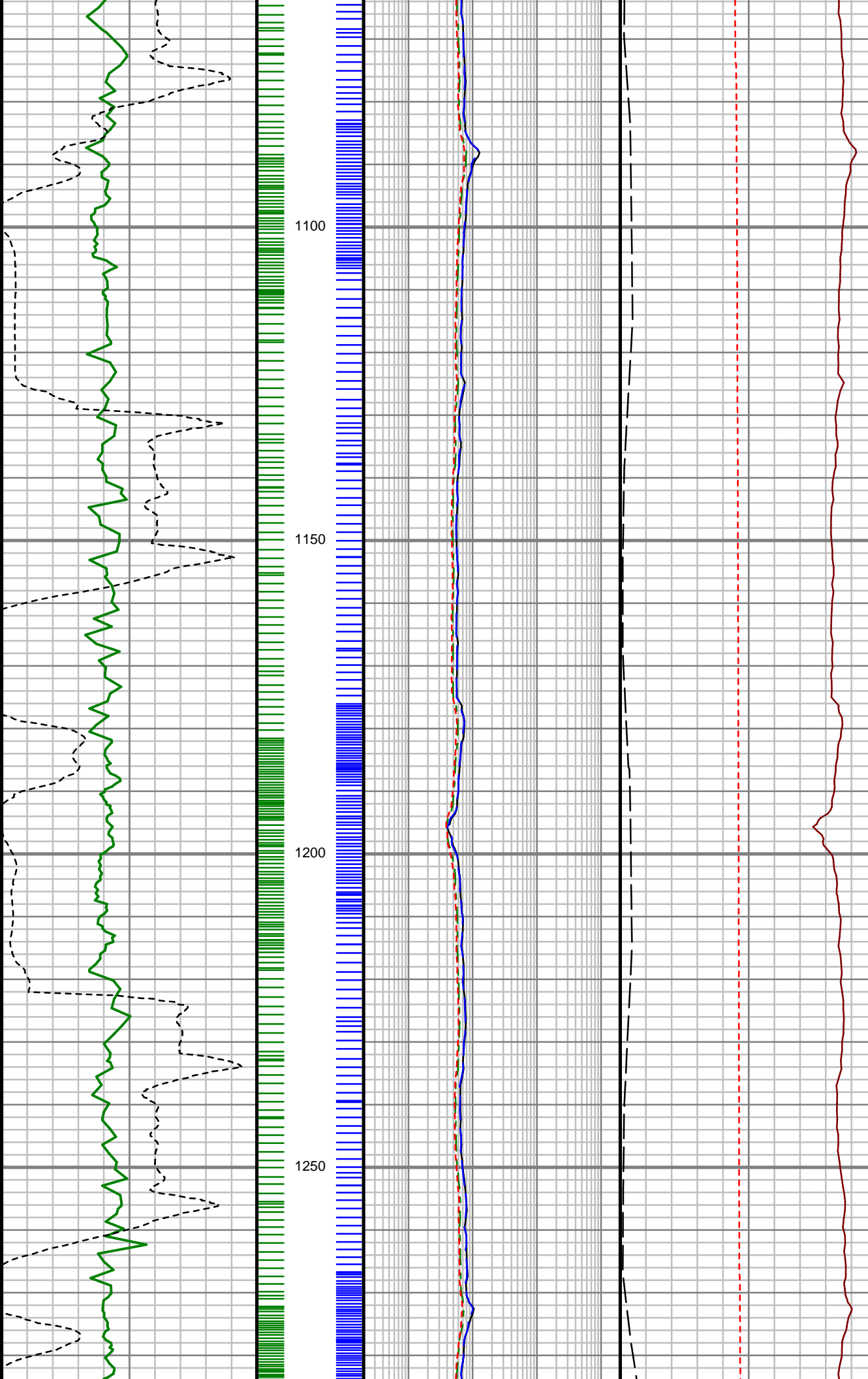
S: 1 MD: 886.00 ft Inc:
0.80 deg Az: 18.01 deg
TVD: 886.00 ft

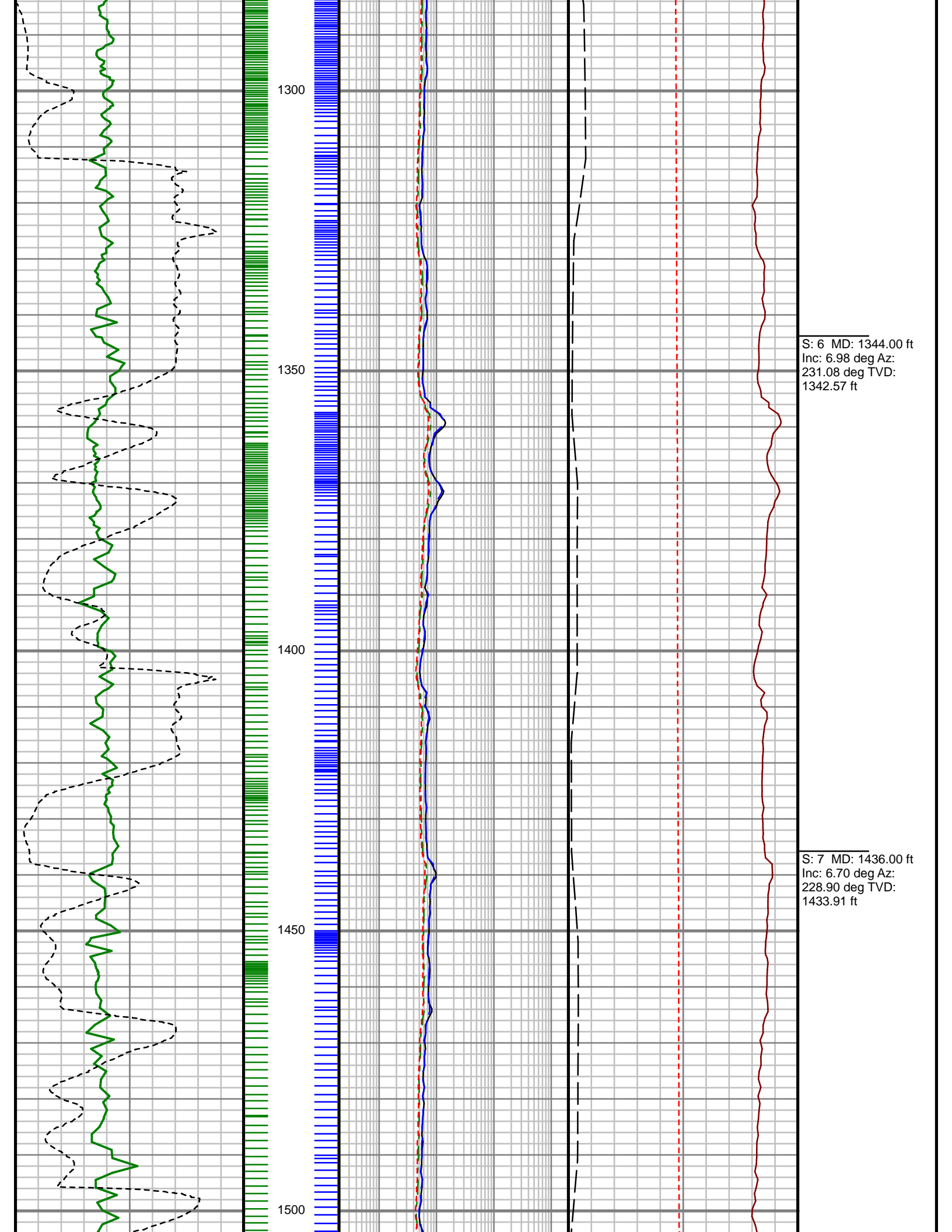
S: 2 MD: 978.00 ft Inc:
1.20 deg Az: 279.56
deg TVD: 977.99 ft

S: 3 MD: 1070.00 ft
Inc: 3.39 deg Az:
252.27 deg TVD:
1069.91 ft

S: 4 MD: 1161.00 ft
Inc: 5.32 deg Az:
245.41 deg TVD:
1160.64 ft

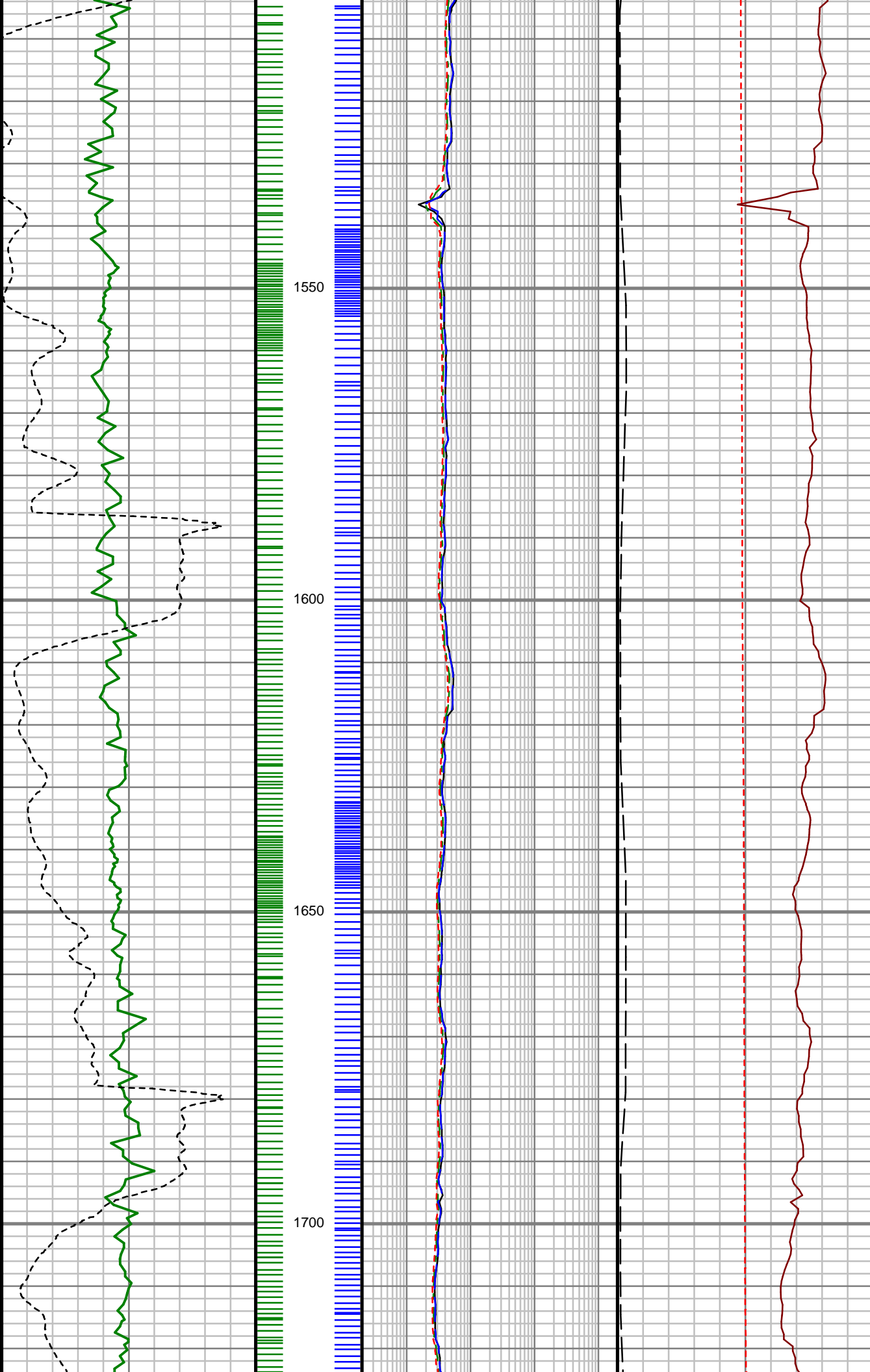
S: 5 MD: 1253.00 ft
Inc: 6.30 deg Az:
230.94 deg TVD:
1252.18 ft





S: 6 MD: 1344.00 ft
Inc: 6.98 deg Az:
231.08 deg TVD:
1342.57 ft

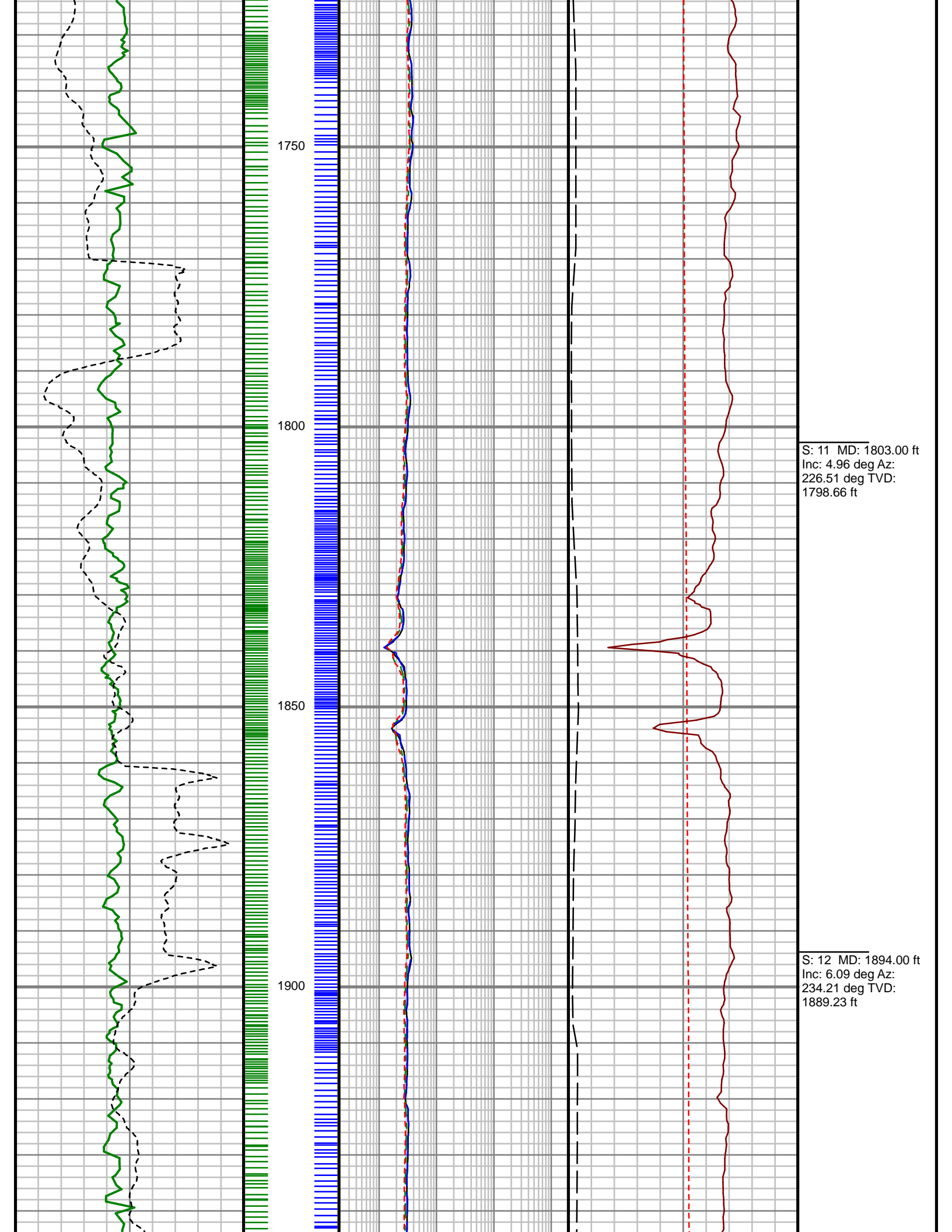
S: 7 MD: 1436.00 ft
Inc: 6.70 deg Az:
228.90 deg TVD:
1433.91 ft

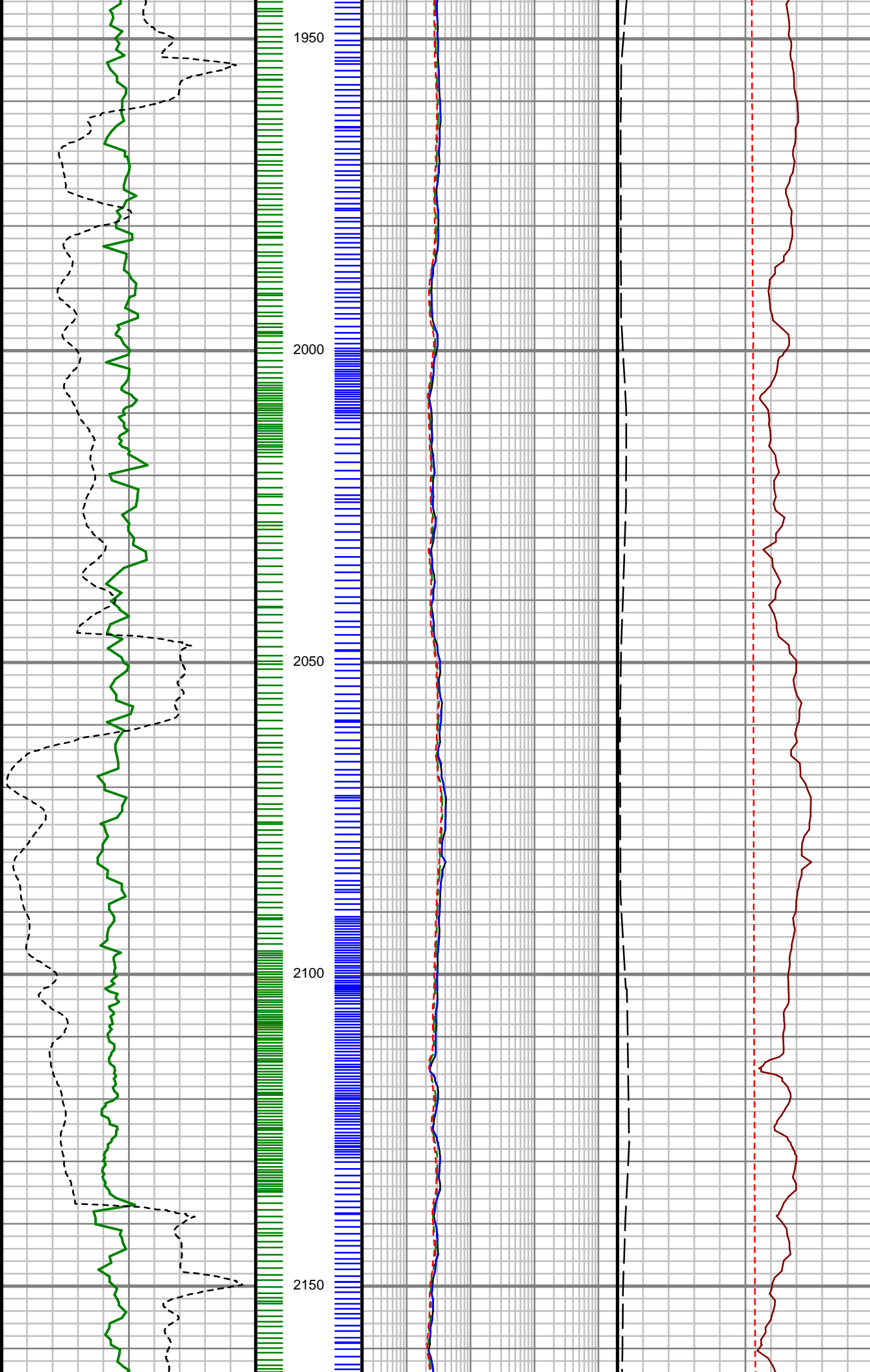


S: 8 MD: 1527.00 ft
Inc: 7.13 deg Az:
223.92 deg TVD:
1524.25 ft

S: 9 MD: 1619.00 ft
Inc: 6.81 deg Az:
229.32 deg TVD:
1615.57 ft

S: 10 MD: 1711.00 ft
Inc: 5.49 deg Az:
229.70 deg TVD:
1707.04 ft





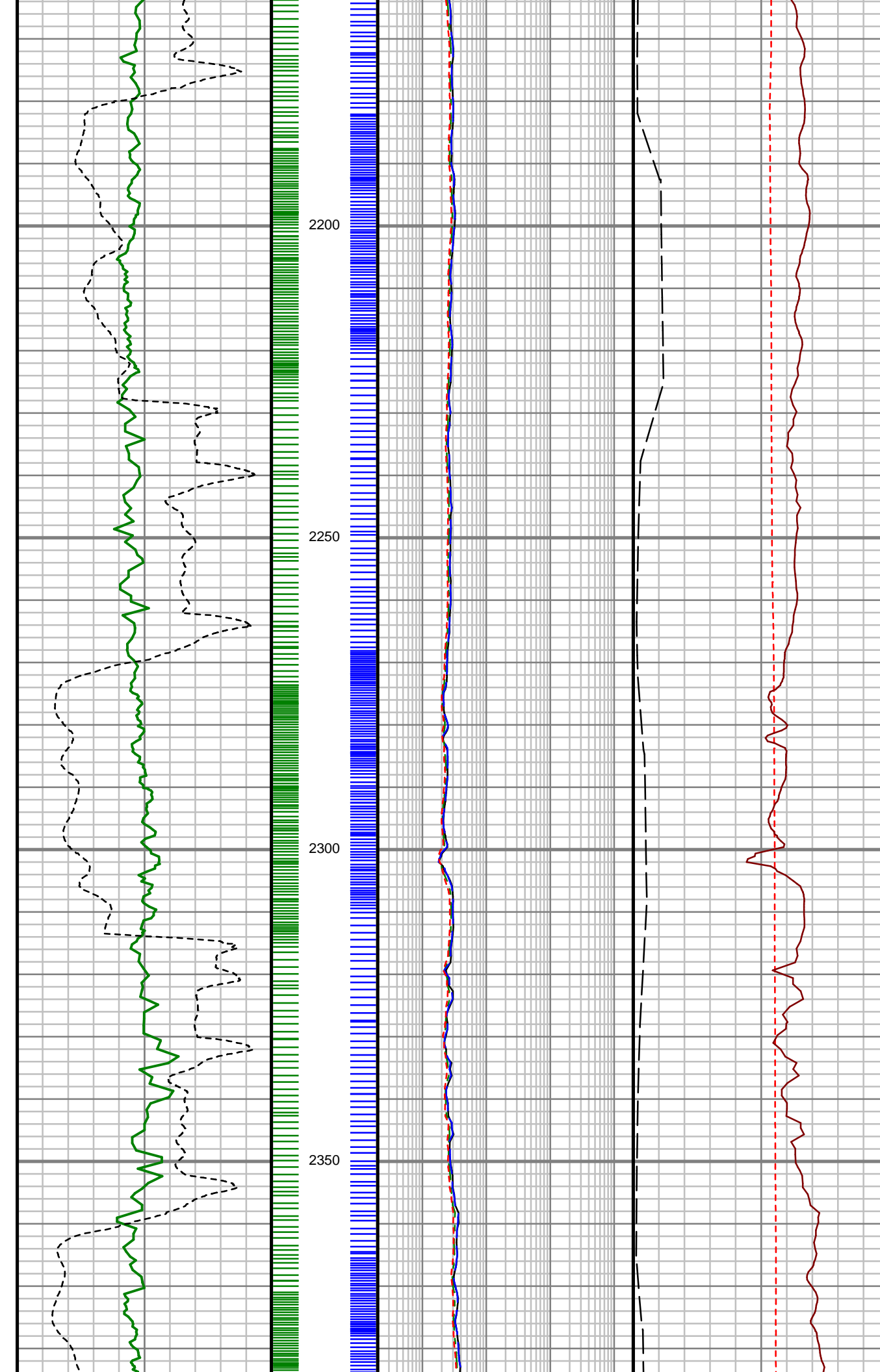
S: 13 MD: 1986.00 ft
Inc: 5.38 deg Az:
229.28 deg TVD:
1980.77 ft

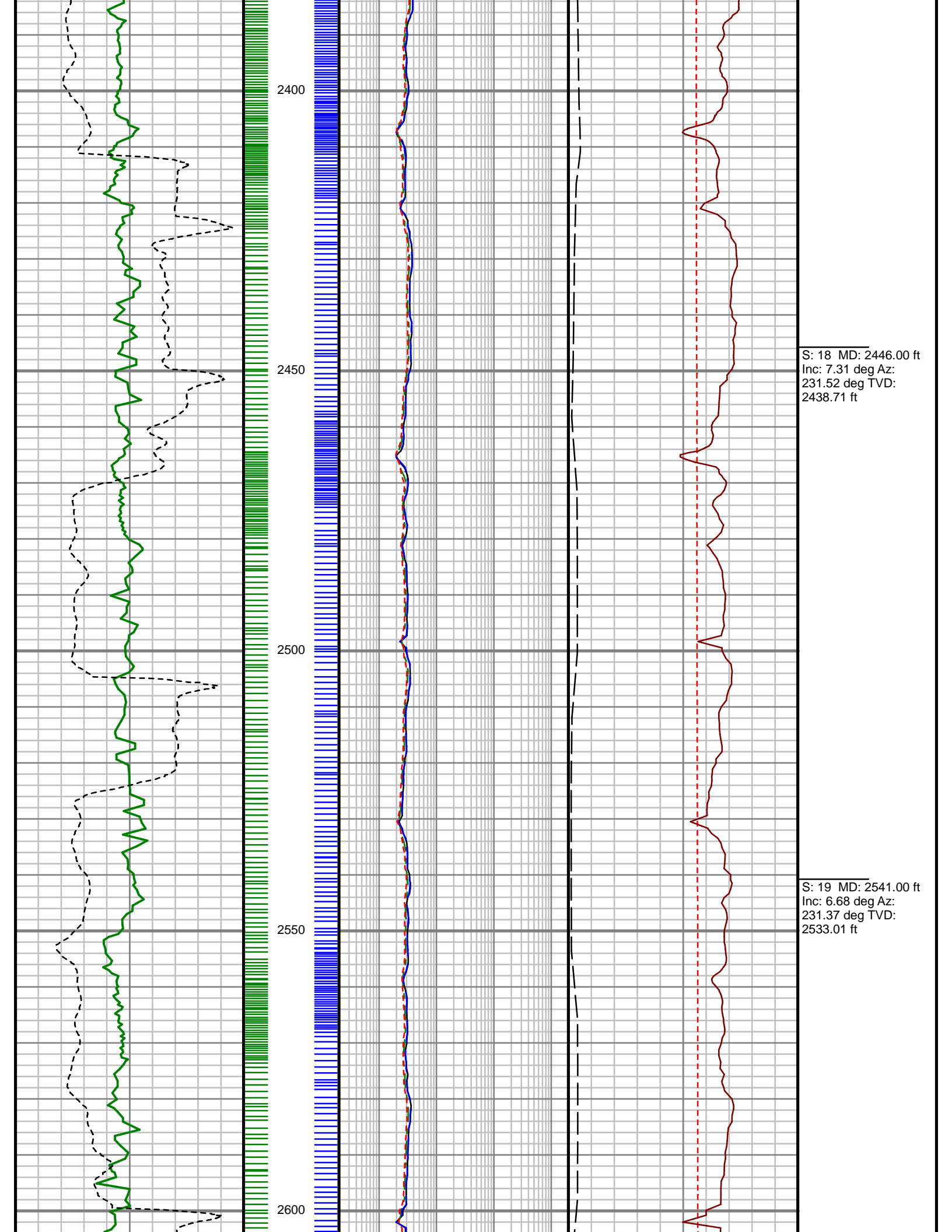
S: 14 MD: 2077.00 ft
Inc: 3.90 deg Az:
221.97 deg TVD:
2071.47 ft

S: 15 MD: 2169.00 ft
Inc: 5.05 deg Az:
230.00 deg TVD:
2163.19 ft

S: 16 MD: 2260.00 ft
Inc: 5.31 deg Az:
235.66 deg TVD:
2253.82 ft

S: 17 MD: 2352.00 ft
Inc: 6.17 deg Az:
244.17 deg TVD:
2345.36 ft





2400

2450

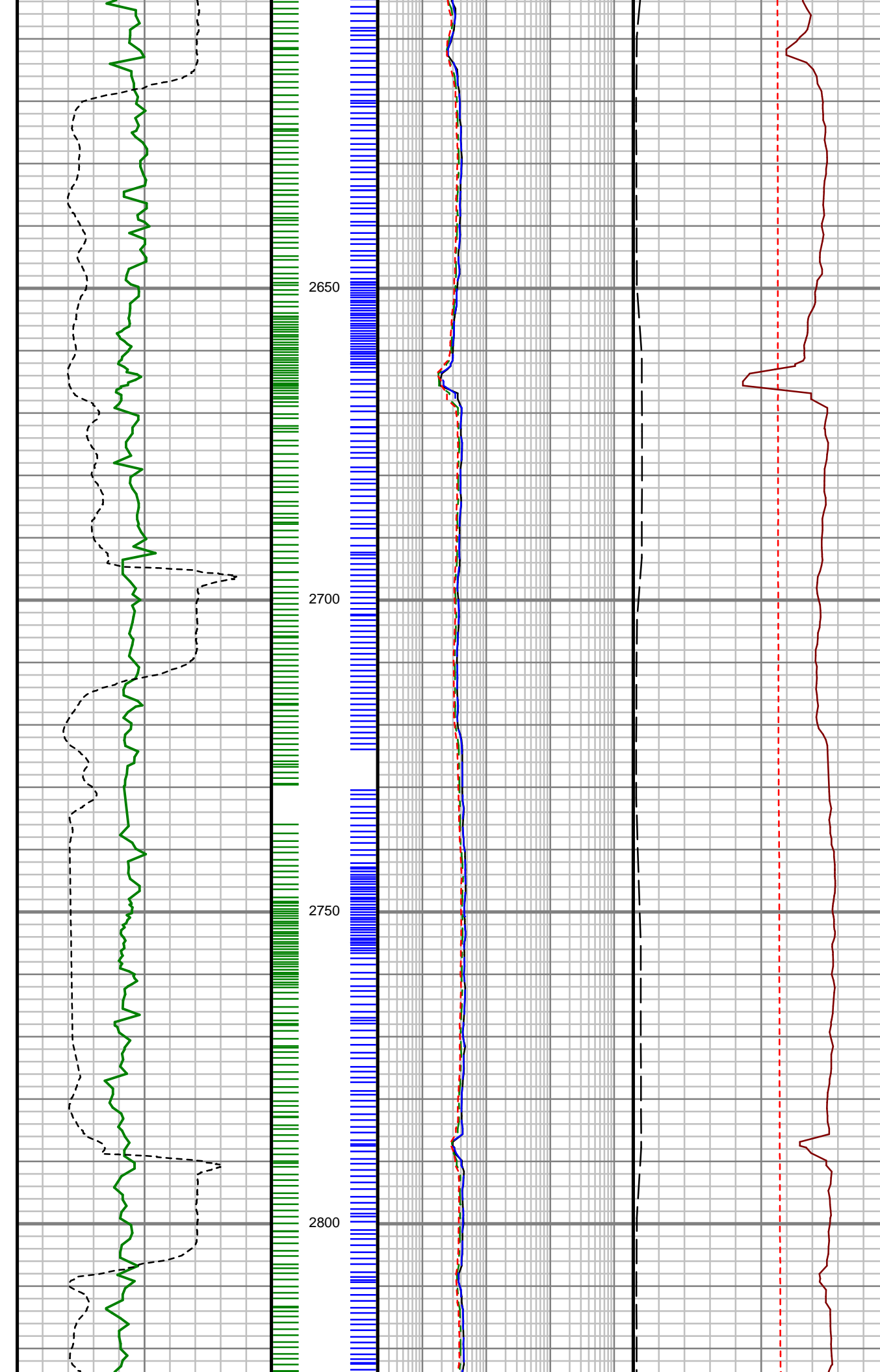
2500

2550

2600

S: 18 MD: 2446.00 ft
Inc: 7.31 deg Az:
231.52 deg TVD:
2438.71 ft

S: 19 MD: 2541.00 ft
Inc: 6.68 deg Az:
231.37 deg TVD:
2533.01 ft



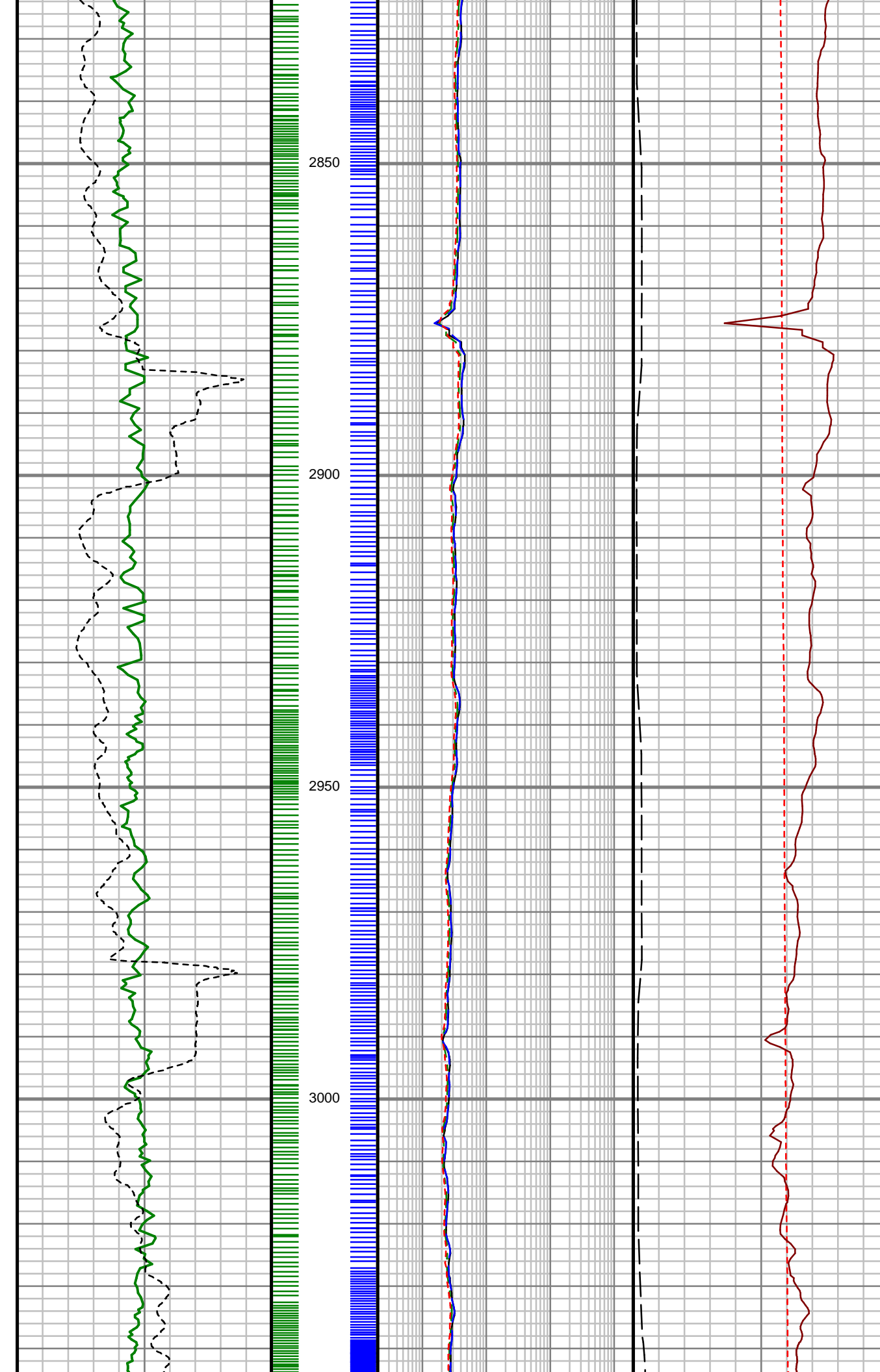
S: 20 MD: 2636.00 ft
Inc: 6.37 deg Az:
225.87 deg TVD:
2627.39 ft

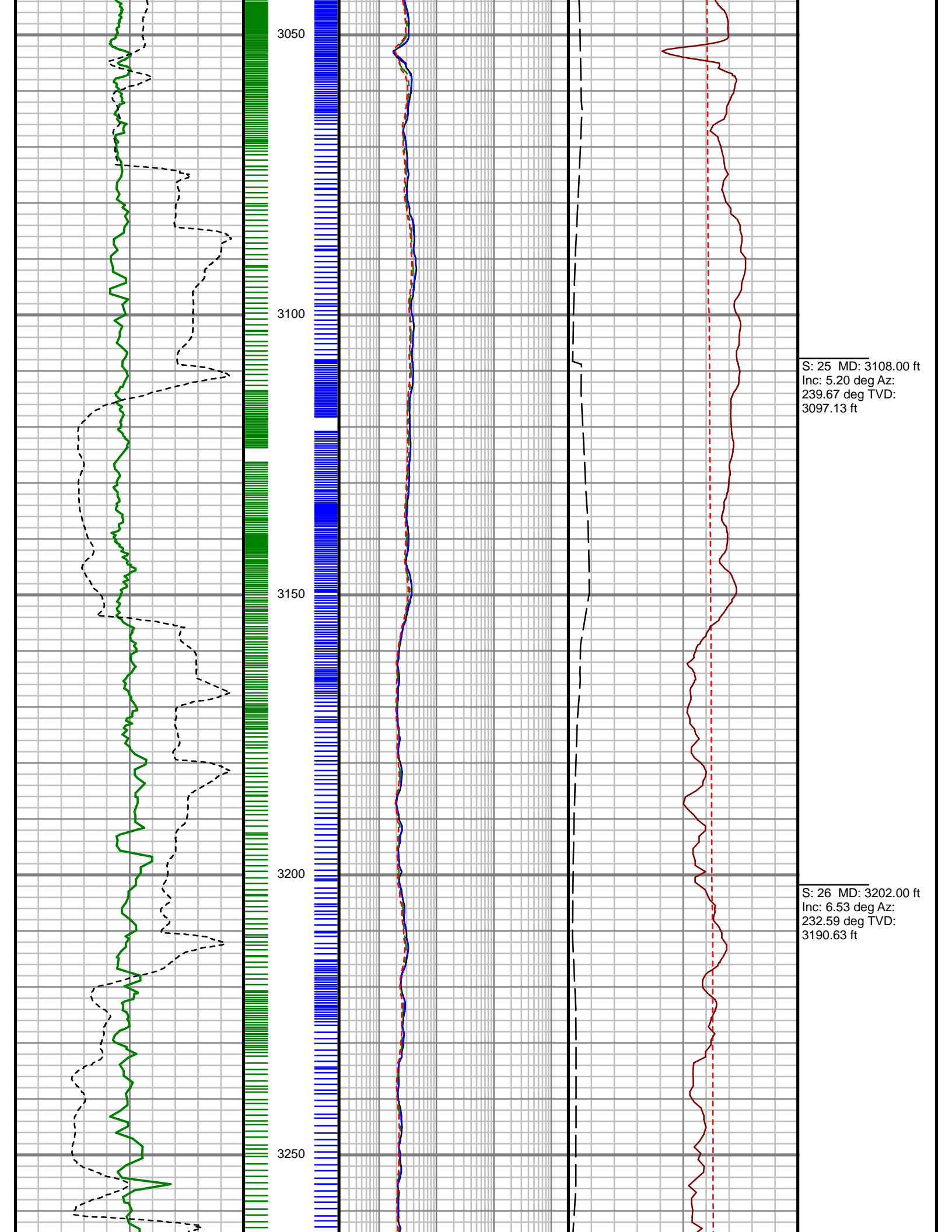
S: 21 MD: 2730.00 ft
Inc: 6.18 deg Az:
226.96 deg TVD:
2720.83 ft

S: 22 MD: 2825.00 ft
Inc: 5.79 deg Az:
227.92 deg TVD:
2815.31 ft

S: 23 MD: 2919.00 ft
Inc: 5.69 deg Az:
221.66 deg TVD:
2908.84 ft

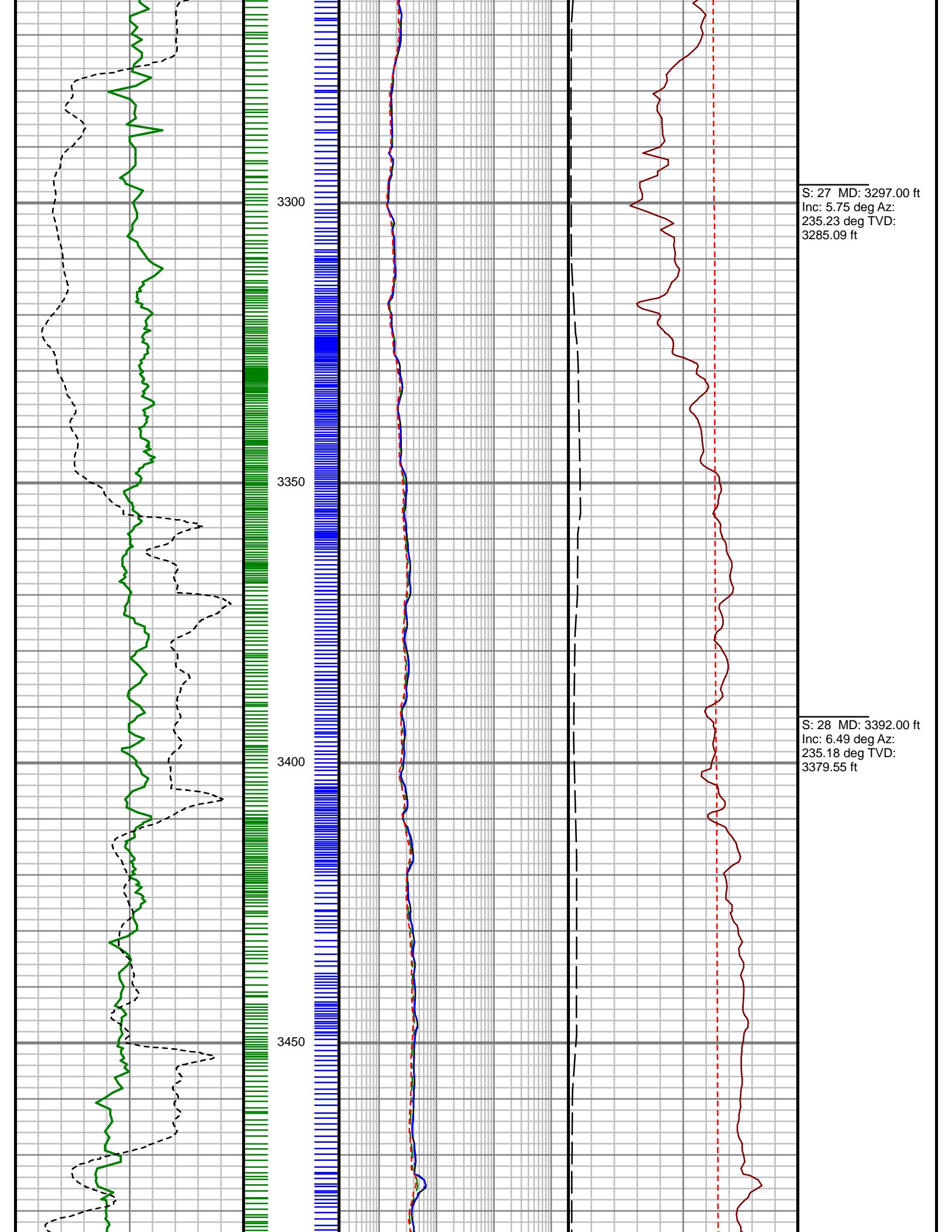
S: 24 MD: 3014.00 ft
Inc: 4.53 deg Az:
223.34 deg TVD:
3003.46 ft





S: 25 MD: 3108.00 ft
Inc: 5.20 deg Az:
239.67 deg TVD:
3097.13 ft

S: 26 MD: 3202.00 ft
Inc: 6.53 deg Az:
232.59 deg TVD:
3190.63 ft



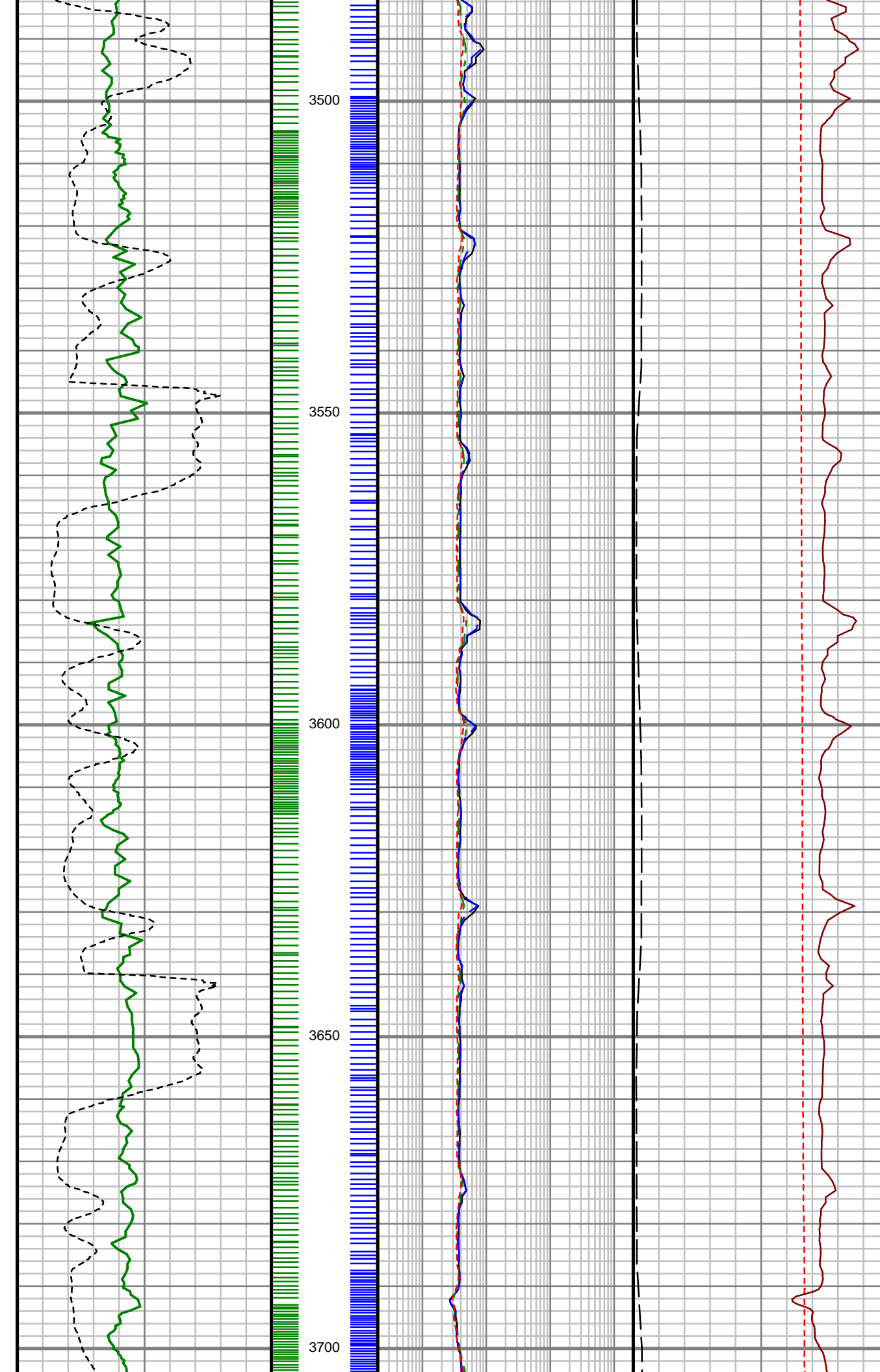
S: 27 MD: 3297.00 ft
Inc: 5.75 deg Az:
235.23 deg TVD:
3285.09 ft

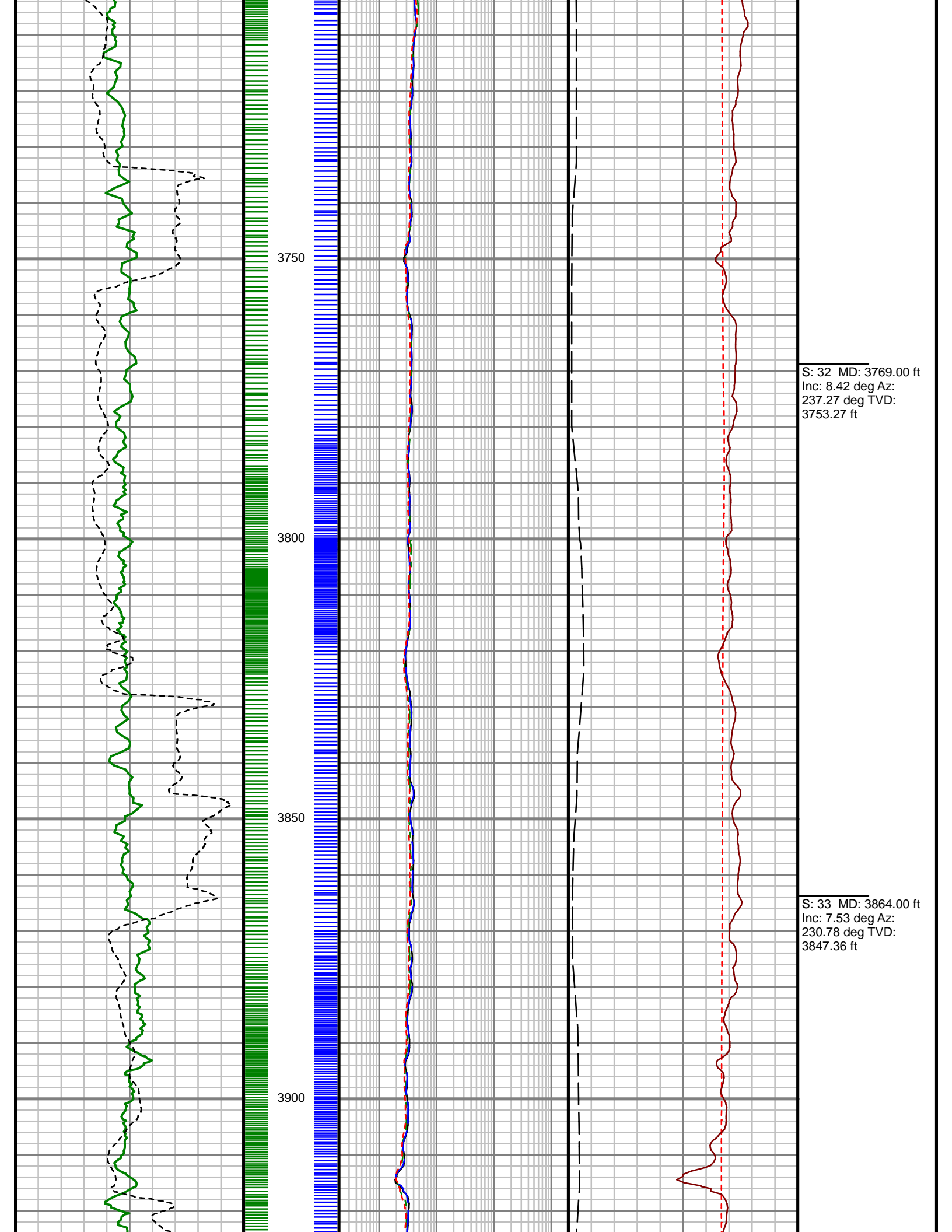
S: 28 MD: 3392.00 ft
Inc: 6.49 deg Az:
235.18 deg TVD:
3379.55 ft

S: 29 MD: 3486.00 ft
Inc: 6.78 deg Az:
232.99 deg TVD:
3472.92 ft

S: 30 MD: 3581.00 ft
Inc: 7.68 deg Az:
232.11 deg TVD:
3567.16 ft

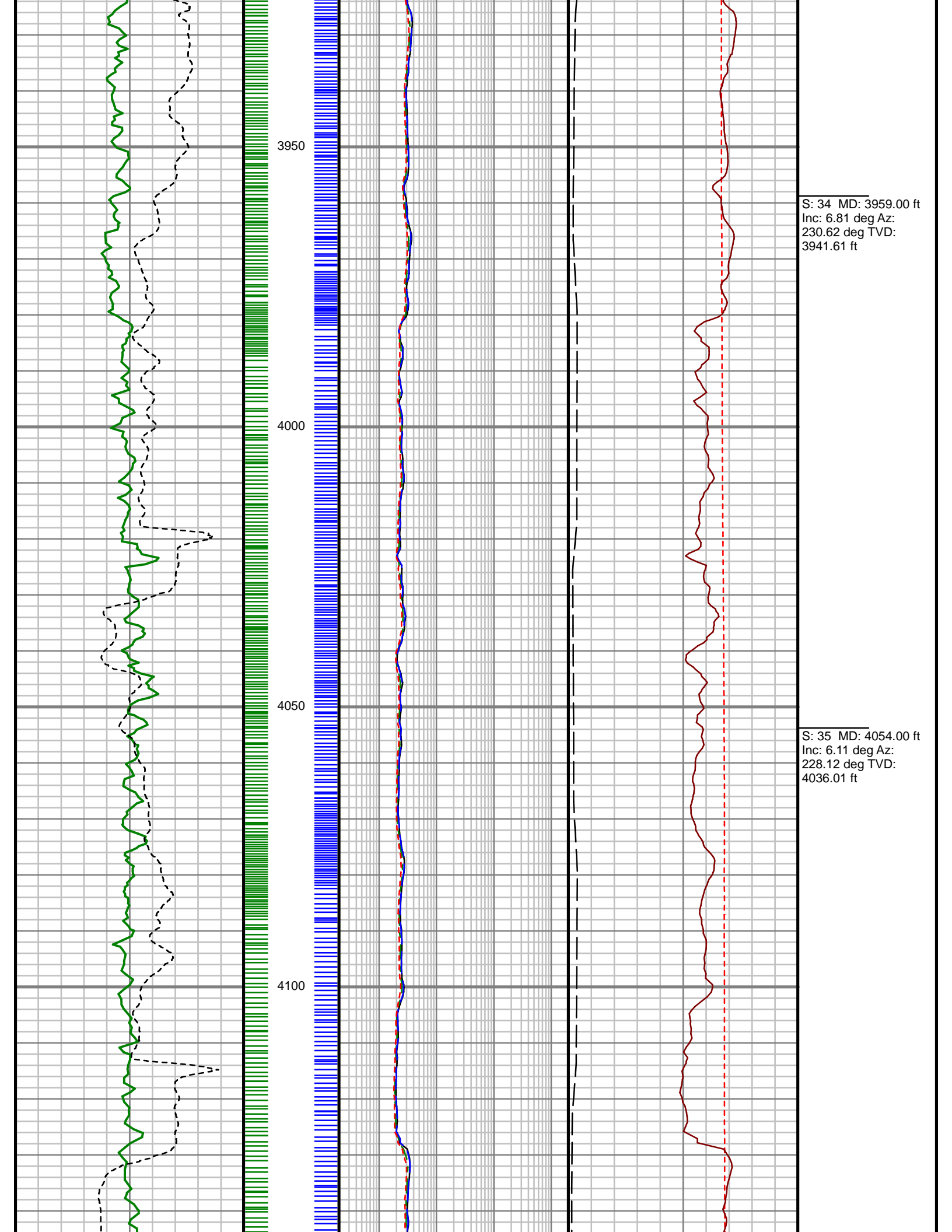
S: 31 MD: 3675.00 ft
Inc: 8.19 deg Az:
233.41 deg TVD:
3660.26 ft





S: 32 MD: 3769.00 ft
Inc: 8.42 deg Az:
237.27 deg TVD:
3753.27 ft

S: 33 MD: 3864.00 ft
Inc: 7.53 deg Az:
230.78 deg TVD:
3847.36 ft



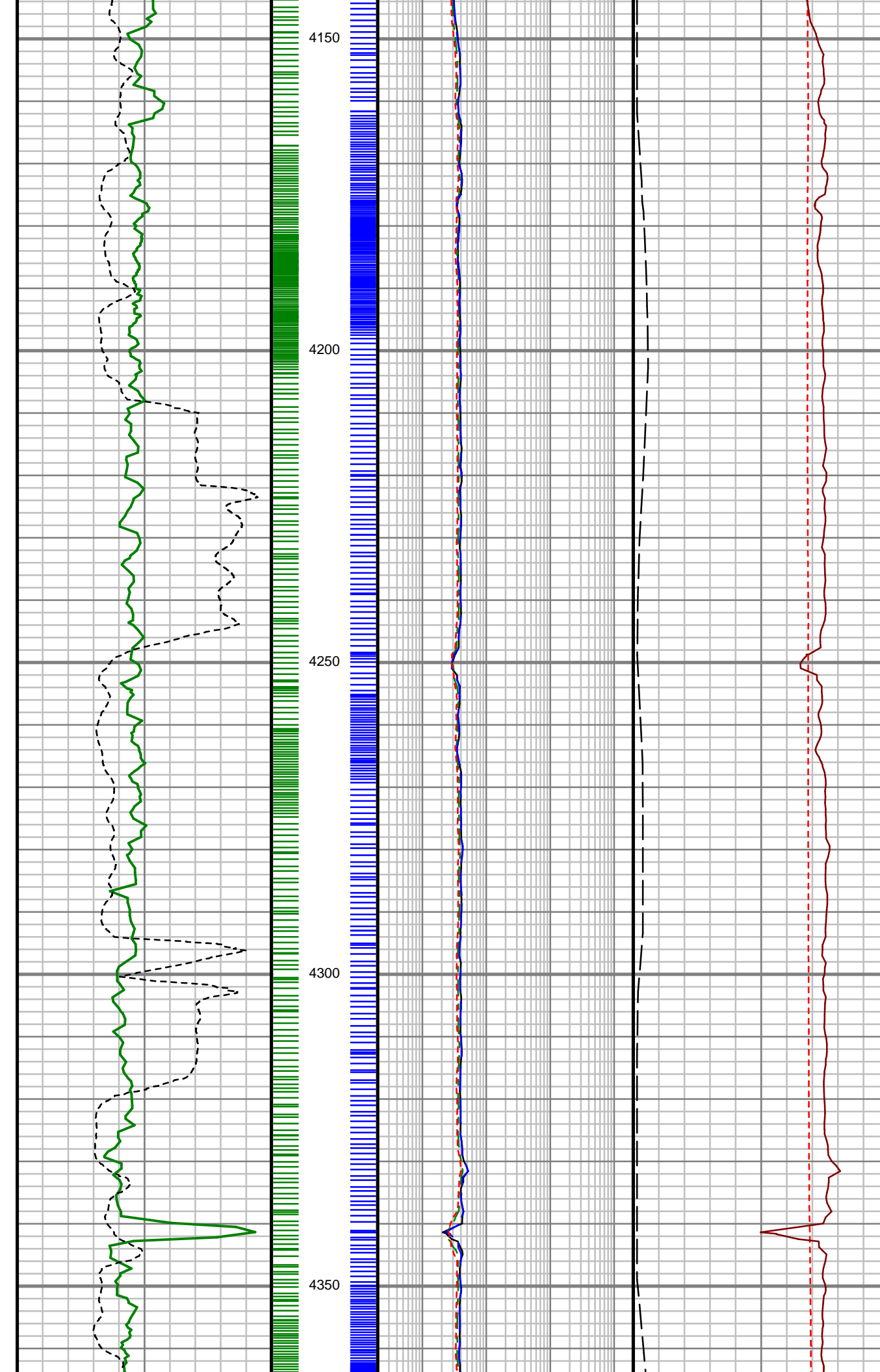
S: 34 MD: 3959.00 ft
Inc: 6.81 deg Az:
230.62 deg TVD:
3941.61 ft

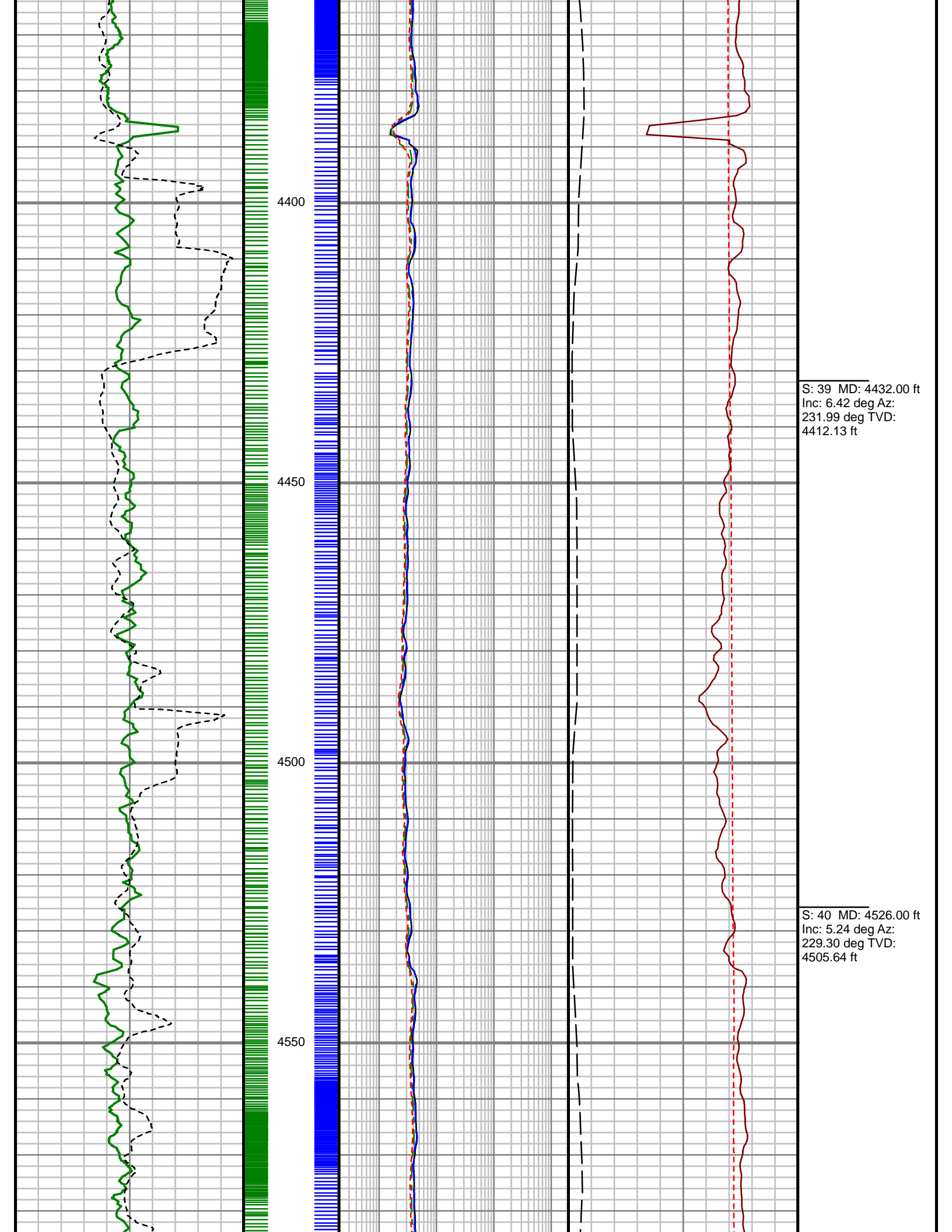
S: 35 MD: 4054.00 ft
Inc: 6.11 deg Az:
228.12 deg TVD:
4036.01 ft

S: 36 MD: 4148.00 ft
Inc: 5.43 deg Az:
232.13 deg TVD:
4129.53 ft

S: 37 MD: 4242.00 ft
Inc: 5.60 deg Az:
230.54 deg TVD:
4223.09 ft

S: 38 MD: 4337.00 ft
Inc: 5.54 deg Az:
234.24 deg TVD:
4317.65 ft





4400

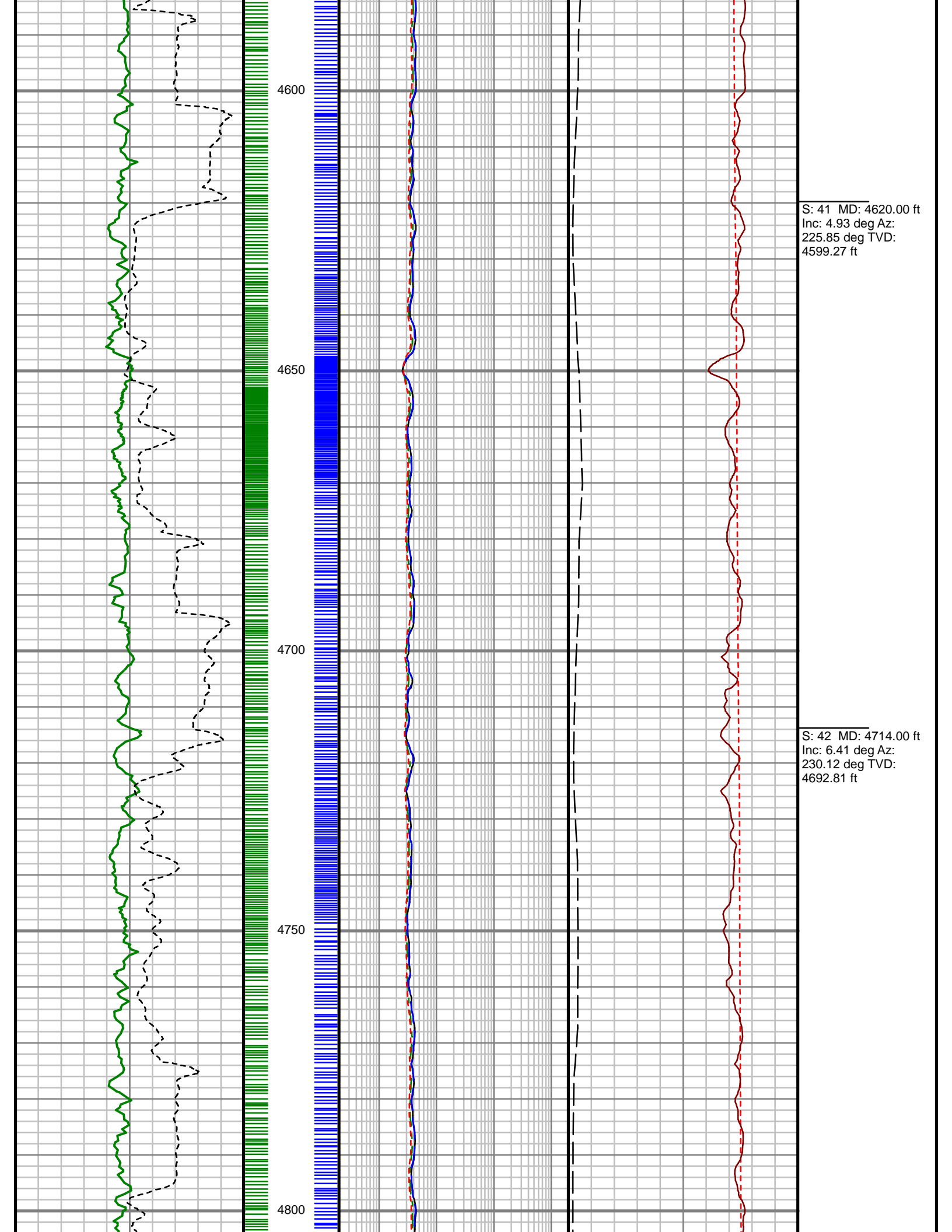
4450

4500

4550

S: 39 MD: 4432.00 ft
Inc: 6.42 deg Az:
231.99 deg TVD:
4412.13 ft

S: 40 MD: 4526.00 ft
Inc: 5.24 deg Az:
229.30 deg TVD:
4505.64 ft



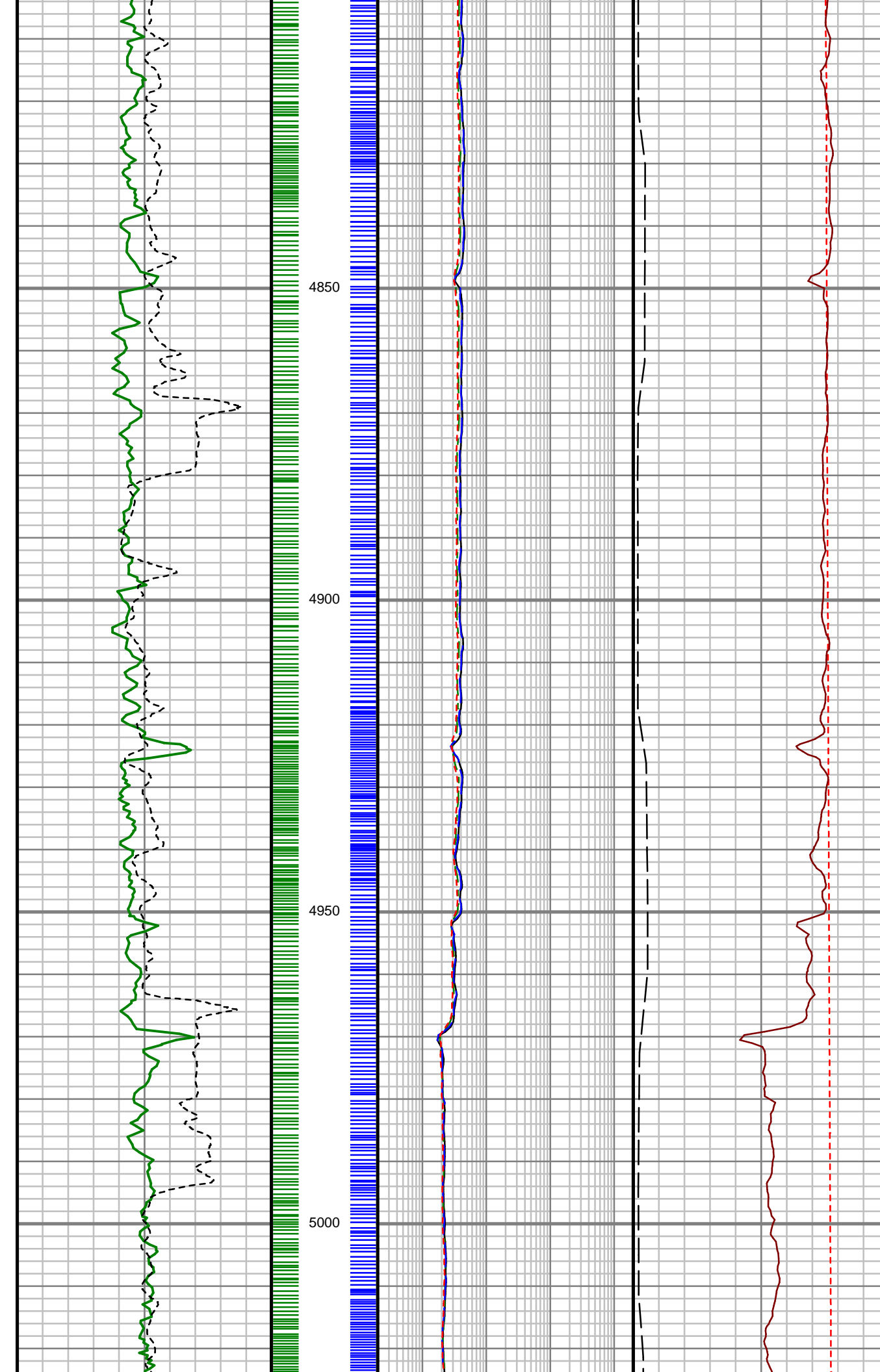
S: 41 MD: 4620.00 ft
Inc: 4.93 deg Az:
225.85 deg TVD:
4599.27 ft

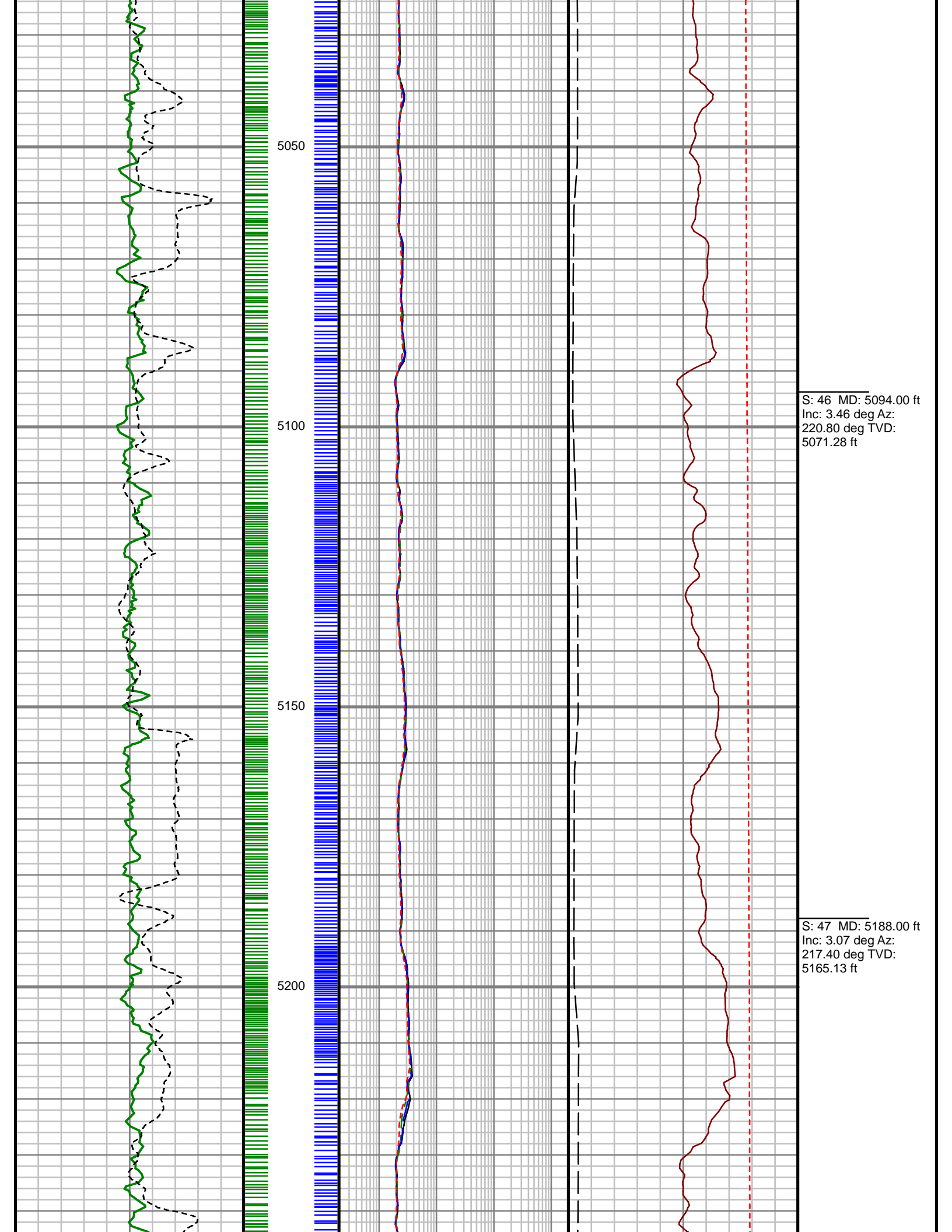
S: 42 MD: 4714.00 ft
Inc: 6.41 deg Az:
230.12 deg TVD:
4692.81 ft

S: 43 MD: 4809.00 ft
Inc: 5.66 deg Az:
226.74 deg TVD:
4787.28 ft

S: 44 MD: 4905.00 ft
Inc: 5.35 deg Az:
224.99 deg TVD:
4882.84 ft

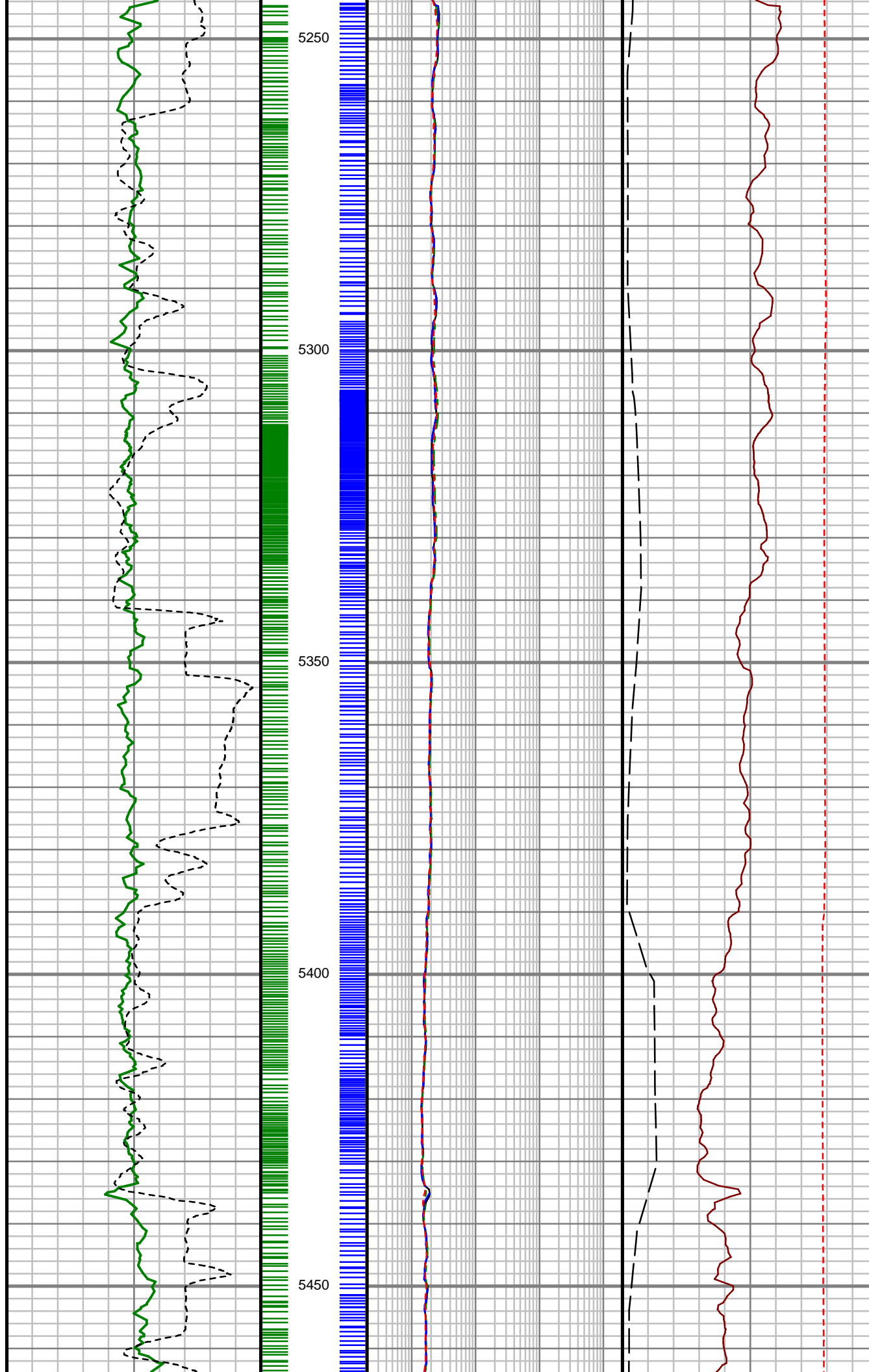
S: 45 MD: 4999.00 ft
Inc: 4.37 deg Az:
216.46 deg TVD:
4976.50 ft





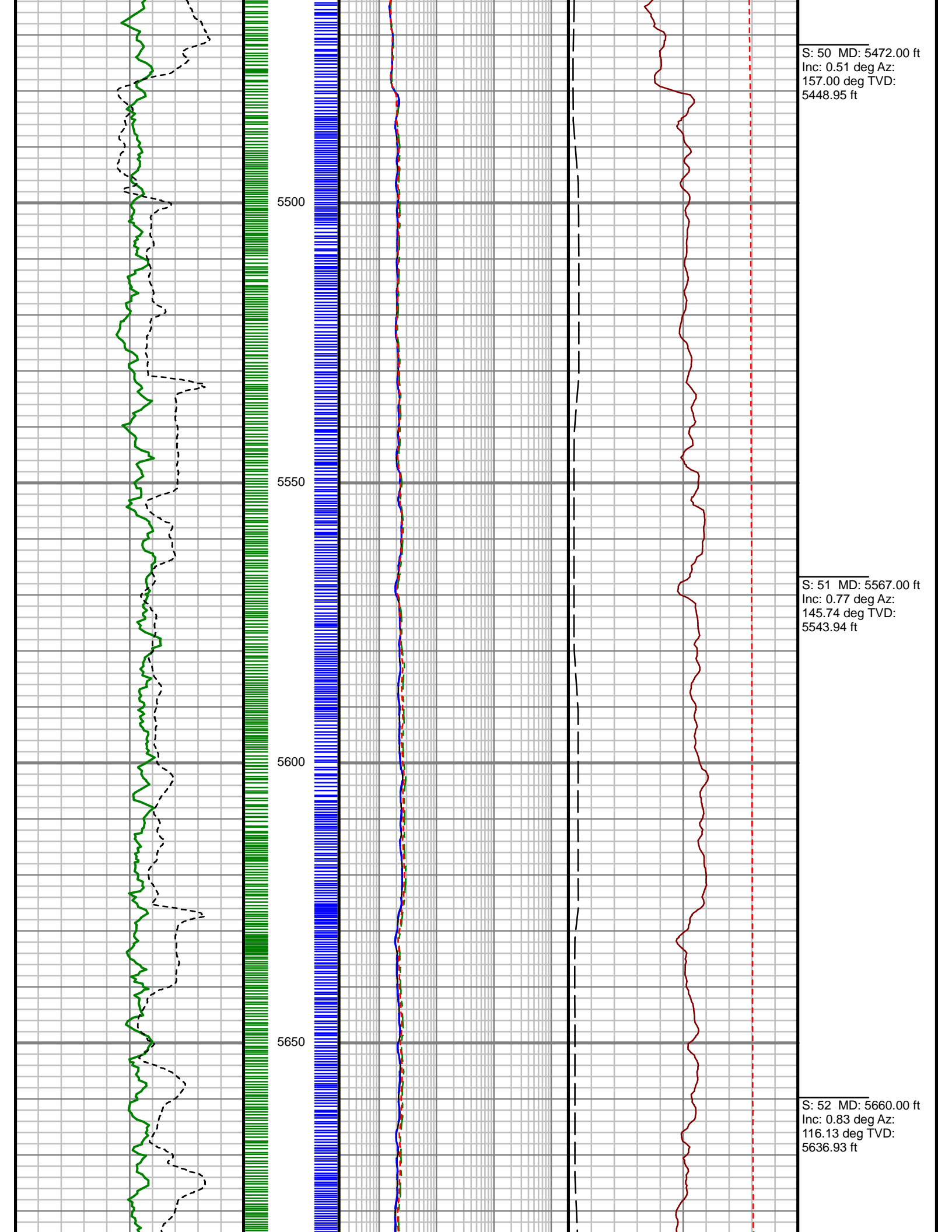
S: 46 MD: 5094.00 ft
Inc: 3.46 deg Az:
220.80 deg TVD:
5071.28 ft

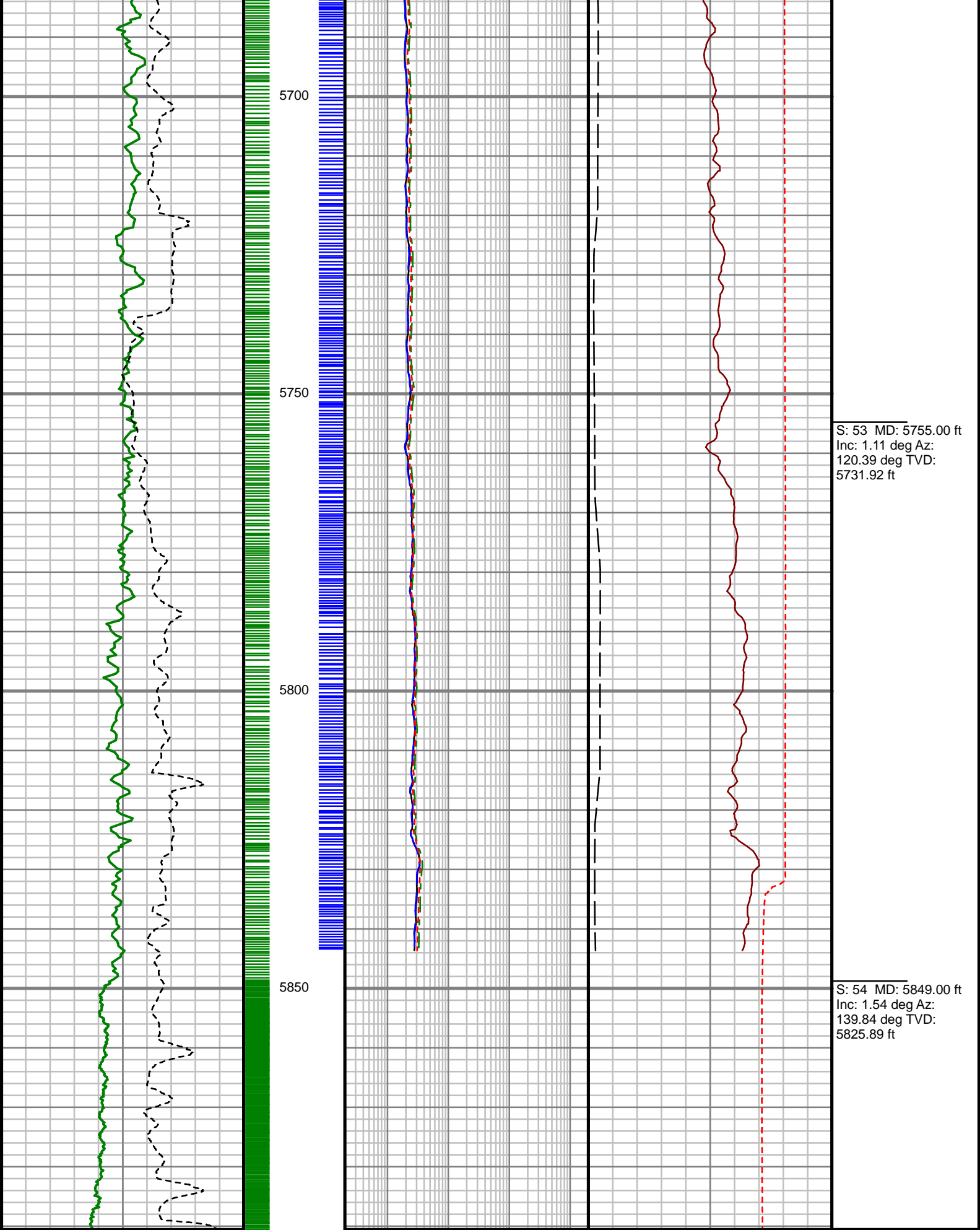
S: 47 MD: 5188.00 ft
Inc: 3.07 deg Az:
217.40 deg TVD:
5165.13 ft



S: 48 MD: 5283.00 ft
Inc: 2.85 deg Az:
198.90 deg TVD:
5260.00 ft

S: 49 MD: 5377.00 ft
Inc: 0.61 deg Az:
172.69 deg TVD:
5353.95 ft





S: 53 MD: 5755.00 ft
 Inc: 1.11 deg Az:
 120.39 deg TVD:
 5731.92 ft

S: 54 MD: 5849.00 ft
 Inc: 1.54 deg Az:
 139.84 deg TVD:
 5825.89 ft

Rate of Penetration (ROP)

 1000 Unit = ft/hr 0
 Gamma Ray (GR)

MEASURED
 1:240 (ft)

Attenuation Resistivity, 33" (AR33)

 0.2 Unit = ohmm 2000
 Phase Shift Resistivity, 33" (PR33)

Phase Shift Conductivity, 33" (PC33)

 1000 Unit = mmho/m 0
 Tool Temperature (T-TEMP)

Comments

0	Unit = aapi	150
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DEPTH

0.2	Unit = ohmm	2000
Attenuation Resistivity, 23" (AR23)		
0.2	Unit = ohmm	2000
Phase Shift Resistivity, 23" (PR23)		
0.2	Unit = ohmm	2000

0	Unit = °F	200
FET of Resistivity (FETR)		
0	Unit = hr	5

Well Location	ANSCHUTZ STATE 05-62-22_23 SWNW PAD
Well Name	ANSCHUTZ STATE 05-62-22-3225B2
Survey Date	10/9/2015
Latitude	40°23'13.120"N
Longitude	104°19'5.459"W
Btotal	52648 nT
Dip	67.03 deg
Magnetic Declination	8.27 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (16.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 88.91Azim (deg)
Operator(s)	C. COLLINS, R. KLASSEN, Z. BROWN

Well Notes

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
800.00	0.00	0.00	800.00	0.00	0.00	0.00	Invalid	Invalid
886.00	0.80	18.01	886.00	0.20	0.57	0.18	0.92	86.00
978.00	1.20	279.56	977.99	-0.54	1.33	-0.57	1.67	92.00
1070.00	3.39	252.27	1069.91	-4.10	0.67	-4.11	2.60	92.00
1161.00	5.32	245.41	1160.64	-10.55	-1.91	-10.51	2.19	91.00
1253.00	6.30	230.94	1252.18	-18.44	-6.86	-18.31	1.91	92.00
1344.00	6.98	231.08	1342.57	-26.74	-13.48	-26.48	0.75	91.00
1436.00	6.70	228.90	1433.91	-35.26	-20.52	-34.88	0.41	92.00
1527.00	7.13	223.92	1524.25	-43.32	-28.08	-42.79	0.81	91.00
1619.00	6.81	229.32	1615.57	-51.56	-35.74	-50.89	0.79	92.00
1711.00	5.49	229.70	1707.04	-59.17	-42.14	-58.38	1.44	92.00
1803.00	4.96	226.51	1798.66	-65.52	-47.73	-64.62	0.65	92.00
1894.00	6.09	234.21	1889.23	-72.39	-53.26	-71.39	1.48	91.00
1986.00	5.38	229.28	1980.77	-79.73	-58.93	-78.62	0.94	92.00
2077.00	3.90	221.97	2071.47	-85.13	-64.01	-83.92	1.74	91.00
2169.00	5.05	230.00	2163.19	-90.41	-68.94	-89.12	1.41	92.00
2260.00	5.31	235.66	2253.82	-97.05	-73.89	-95.66	0.63	91.00
2352.00	6.17	244.17	2345.36	-105.11	-78.45	-103.63	1.31	92.00
2446.00	7.31	231.52	2438.71	-114.45	-84.38	-112.87	1.98	94.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
2541.00	6.68	231.37	2533.01	-123.64	-91.59	-121.92	0.66	95.00
2636.00	6.37	225.87	2627.39	-131.87	-98.71	-130.02	0.74	95.00
2730.00	6.18	226.96	2720.83	-139.45	-105.79	-137.46	0.24	94.00
2825.00	5.79	227.92	2815.31	-146.87	-112.49	-144.75	0.43	95.00
2919.00	5.69	221.66	2908.84	-153.61	-119.15	-151.37	0.67	94.00
3014.00	4.53	223.34	3003.46	-159.43	-125.40	-157.07	1.23	95.00
3108.00	5.20	239.67	3097.13	-165.74	-130.25	-163.30	1.63	94.00
3202.00	6.53	232.59	3190.63	-173.77	-135.65	-171.22	1.61	94.00
3297.00	5.75	235.23	3285.09	-182.08	-141.64	-179.42	0.87	95.00
3392.00	6.49	235.18	3379.55	-190.51	-147.42	-187.74	0.78	95.00
3486.00	6.78	232.99	3472.92	-199.42	-153.80	-196.53	0.41	94.00
3581.00	7.68	232.11	3567.16	-209.05	-161.08	-206.02	0.95	95.00
3675.00	8.19	233.41	3660.26	-219.53	-168.92	-216.36	0.57	94.00
3769.00	8.42	237.27	3753.27	-230.84	-176.64	-227.53	0.64	94.00
3864.00	7.53	230.78	3847.36	-241.66	-184.33	-238.20	1.34	95.00
3959.00	6.81	230.62	3941.61	-250.98	-191.84	-247.38	0.75	95.00
4054.00	6.11	228.12	4036.01	-259.23	-198.80	-255.50	0.79	95.00
4148.00	5.43	232.13	4129.53	-266.59	-204.87	-262.74	0.84	94.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
4242.00	5.60	230.54	4223.09	-273.75	-210.52	-269.79	0.24	94.00
4337.00	5.54	234.24	4317.65	-281.15	-216.14	-277.09	0.38	95.00
4432.00	6.42	231.99	4412.13	-289.17	-222.09	-285.00	0.95	95.00
4526.00	5.24	229.30	4505.64	-296.68	-228.13	-292.39	1.29	94.00
4620.00	4.93	225.85	4599.27	-302.94	-233.74	-298.54	0.46	94.00
4714.00	6.41	230.12	4692.81	-309.98	-239.92	-305.47	1.64	94.00
4809.00	5.66	226.74	4787.28	-317.59	-246.54	-312.96	0.87	95.00
4905.00	5.35	224.99	4882.84	-324.33	-252.95	-319.57	0.37	96.00
4999.00	4.37	216.46	4976.50	-329.67	-258.93	-324.80	1.30	94.00
5094.00	3.46	220.80	5071.28	-333.79	-264.01	-328.82	1.00	95.00
5188.00	3.07	217.40	5165.13	-337.25	-268.15	-332.21	0.46	94.00
5283.00	2.85	198.90	5260.00	-339.64	-272.41	-334.52	1.03	95.00
5377.00	0.61	172.69	5353.95	-340.38	-275.12	-335.21	2.47	94.00
5472.00	0.51	157.00	5448.95	-340.17	-276.01	-334.98	0.19	95.00
5567.00	0.77	145.74	5543.94	-339.66	-276.93	-334.45	0.30	95.00
5660.00	0.83	116.13	5636.93	-338.72	-277.75	-333.49	0.44	93.00
5755.00	1.11	120.39	5731.92	-337.32	-278.52	-332.08	0.31	95.00
5849.00	1.54	139.84	5825.89	-335.74	-279.95	-330.48	0.65	94.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
5944.00	9.91	94.42	5920.36	-326.78	-281.56	-321.48	9.36	95.00
6039.00	18.49	91.65	6012.37	-303.56	-282.62	-298.24	9.06	95.00
6133.00	24.33	91.15	6099.85	-269.29	-283.44	-263.95	6.22	94.00
6227.00	37.52	92.67	6180.31	-221.16	-285.17	-215.78	14.06	94.00
6321.00	49.22	91.95	6248.52	-156.83	-287.72	-151.39	12.46	94.00
6416.00	58.24	84.00	6304.72	-80.44	-284.71	-75.04	11.63	95.00
6511.00	69.34	86.20	6346.61	4.47	-277.52	9.75	11.87	95.00
6605.00	84.78	91.50	6367.61	95.77	-275.81	101.04	17.31	94.00
6620.00	87.45	92.19	6368.62	110.72	-276.29	115.99	18.37	15.00
6694.00	91.01	91.42	6369.62	184.60	-278.62	189.94	4.92	74.00
6789.00	91.01	92.23	6367.95	279.46	-281.65	284.87	0.85	95.00
6883.00	90.57	92.16	6366.66	373.30	-285.25	378.80	0.47	94.00
6978.00	89.73	88.54	6366.41	468.25	-285.83	473.78	3.92	95.00
7072.00	90.07	90.25	6366.57	562.25	-284.84	567.77	1.86	94.00
7166.00	90.27	89.07	6366.30	656.24	-284.28	661.76	1.28	94.00
7260.00	90.64	87.27	6365.55	750.22	-281.28	755.71	1.95	94.00
7355.00	90.60	86.72	6364.52	845.16	-276.30	850.57	0.58	95.00
7449.00	90.87	88.07	6363.31	939.12	-272.03	944.47	1.46	94.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
7544.00	89.66	87.08	6362.87	1034.09	-268.01	1039.38	1.65	95.00
7638.00	90.27	88.36	6362.92	1128.07	-264.27	1133.30	1.51	94.00
7732.00	90.60	88.64	6362.20	1222.06	-261.81	1227.26	0.47	94.00
7827.00	90.91	88.96	6360.95	1317.05	-259.82	1322.23	0.46	95.00
7921.00	90.47	89.73	6359.82	1411.04	-258.75	1416.22	0.95	94.00
8016.00	90.64	90.52	6358.91	1506.02	-258.96	1511.22	0.85	95.00
8111.00	91.51	88.99	6357.12	1600.99	-258.56	1606.19	1.86	95.00
8206.00	91.04	87.47	6355.01	1695.95	-255.63	1701.12	1.67	95.00
8301.00	90.34	87.23	6353.87	1790.91	-251.24	1796.01	0.78	95.00
8394.00	90.47	87.69	6353.21	1883.88	-247.12	1888.92	0.52	93.00
8489.00	89.77	87.00	6353.02	1978.84	-242.72	1983.82	1.04	95.00
8583.00	88.89	86.74	6354.12	2072.77	-237.59	2077.67	0.97	94.00
8678.00	91.44	87.45	6353.84	2167.72	-232.78	2172.54	2.79	95.00
8772.00	90.00	86.87	6352.65	2261.66	-228.13	2266.41	1.66	94.00
8866.00	91.24	87.57	6351.63	2355.61	-223.58	2360.29	1.52	94.00
8960.00	90.27	85.84	6350.39	2449.53	-218.18	2454.13	2.12	94.00
9055.00	90.23	87.70	6349.98	2544.46	-212.83	2548.97	1.96	95.00
9150.00	90.57	90.16	6349.31	2639.45	-211.05	2643.94	2.61	95.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
9244.00	90.84	89.16	6348.15	2733.43	-210.50	2737.93	1.10	94.00
9339.00	90.77	88.90	6346.82	2828.42	-208.89	2832.91	0.28	95.00
9433.00	91.01	87.84	6345.36	2922.41	-206.22	2926.86	1.15	94.00
9528.00	90.07	89.38	6344.47	3017.40	-203.92	3021.82	1.89	95.00
9623.00	91.62	89.78	6343.07	3112.38	-203.22	3116.81	1.68	95.00
9717.00	89.13	88.97	6342.46	3206.37	-202.19	3210.79	2.79	94.00
9812.00	88.79	87.94	6344.19	3301.35	-199.63	3305.74	1.14	95.00
9907.00	88.69	88.68	6346.27	3396.32	-196.83	3400.68	0.79	95.00
10001.00	89.80	88.86	6347.51	3490.31	-194.81	3494.64	1.19	94.00
10095.00	89.36	88.69	6348.20	3584.30	-192.80	3588.62	0.50	94.00
10190.00	90.24	88.65	6348.53	3679.30	-190.59	3683.59	0.92	95.00
10284.00	90.54	88.58	6347.90	3773.30	-188.32	3777.56	0.33	94.00
10379.00	89.97	89.40	6347.48	3868.30	-186.64	3872.55	1.05	95.00
10471.00	90.57	89.63	6347.05	3960.29	-185.87	3964.54	0.70	92.00
10562.00	92.05	89.08	6344.97	4051.26	-184.85	4055.51	1.73	91.00
10653.00	92.32	89.02	6341.51	4142.19	-183.34	4146.43	0.31	91.00
10745.00	92.90	88.68	6337.32	4234.10	-181.50	4238.32	0.73	92.00
10837.00	91.14	87.13	6334.09	4326.02	-178.14	4330.19	2.54	92.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
10929.00	89.90	87.97	6333.25	4417.99	-174.21	4422.10	1.63	92.00
11020.00	90.07	88.13	6333.28	4508.98	-171.12	4513.05	0.26	91.00
11111.00	91.51	90.50	6332.03	4599.96	-170.03	4604.03	3.05	91.00
11203.00	91.92	90.80	6329.28	4691.87	-171.08	4695.98	0.55	92.00
11295.00	92.08	90.17	6326.07	4783.78	-171.86	4787.92	0.71	92.00
11386.00	91.14	89.61	6323.51	4874.73	-171.69	4878.88	1.21	91.00
11478.00	91.21	88.92	6321.62	4966.71	-170.50	4970.85	0.75	92.00
11569.00	91.68	88.83	6319.33	5057.68	-168.71	5061.81	0.52	91.00
11661.00	89.80	89.20	6318.15	5149.67	-167.13	5153.78	2.08	92.00
11753.00	89.09	87.89	6319.04	5241.66	-164.79	5245.74	1.61	92.00
11844.00	89.87	89.65	6319.86	5332.65	-162.84	5336.72	2.11	91.00
11936.00	90.03	89.79	6319.94	5424.64	-162.39	5428.71	0.24	92.00
12028.00	89.06	89.32	6320.67	5516.63	-161.67	5520.71	1.18	92.00
12119.00	90.40	89.23	6321.10	5607.63	-160.52	5611.70	1.48	91.00
12211.00	90.80	89.93	6320.13	5699.62	-159.84	5703.69	0.88	92.00
12302.00	90.37	89.78	6319.20	5790.60	-159.62	5794.68	0.50	91.00
12394.00	90.70	88.42	6318.33	5882.59	-158.17	5886.67	1.53	92.00
12485.00	90.37	88.29	6317.48	5973.58	-155.56	5977.62	0.39	91.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
12577.00	90.44	87.47	6316.84	6065.56	-152.15	6069.56	0.89	92.00
12668.00	90.64	86.14	6315.98	6156.50	-147.09	6160.41	1.48	91.00
12759.00	90.30	88.32	6315.24	6247.45	-142.69	6251.30	2.42	91.00
12851.00	89.66	89.99	6315.26	6339.45	-141.33	6343.28	1.94	92.00
12943.00	89.46	90.01	6315.96	6431.43	-141.33	6435.28	0.22	92.00
13035.00	90.17	89.65	6316.26	6523.41	-141.06	6527.28	0.86	92.00
13126.00	90.47	89.44	6315.75	6614.41	-140.33	6618.27	0.41	91.00
13218.00	90.07	88.86	6315.32	6706.40	-138.96	6710.26	0.77	92.00
13310.00	92.24	89.99	6313.46	6798.37	-138.04	6802.23	2.67	92.00
13401.00	91.81	89.56	6310.24	6889.31	-137.69	6893.17	0.67	91.00
13493.00	91.28	89.61	6307.76	6981.27	-137.02	6985.14	0.58	92.00
13585.00	90.64	88.82	6306.23	7073.25	-135.76	7077.11	1.11	92.00
13676.00	89.36	88.51	6306.23	7164.25	-133.64	7168.09	1.44	91.00
13768.00	89.19	88.47	6307.39	7256.24	-131.22	7260.05	0.19	92.00
13860.00	90.17	88.00	6307.90	7348.23	-128.39	7352.00	1.18	92.00
13952.00	90.47	88.24	6307.39	7440.22	-125.37	7443.95	0.42	92.00
14043.00	89.93	87.25	6307.07	7531.20	-121.78	7534.88	1.23	91.00
14135.00	90.20	87.92	6306.96	7623.17	-117.90	7626.79	0.78	92.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	ft
14227.00	89.03	87.47	6307.58	7715.15	-114.20	7718.72	1.37	92.00
14319.00	89.87	87.43	6308.47	7807.11	-110.10	7810.62	0.91	92.00
14410.00	91.27	88.08	6307.56	7898.09	-106.53	7901.54	1.70	91.00
14501.00	90.40	88.04	6306.23	7989.07	-103.45	7992.48	0.96	91.00
14593.00	90.94	89.55	6305.15	8081.06	-101.51	8084.45	1.74	92.00
14684.00	90.84	89.56	6303.74	8172.04	-100.80	8175.44	0.11	91.00
14775.00	90.57	89.45	6302.62	8263.03	-100.02	8266.43	0.32	91.00
14867.00	89.97	88.71	6302.19	8355.03	-98.53	8358.41	1.04	92.00
14959.00	91.27	88.66	6301.19	8447.02	-96.42	8450.38	1.42	92.00
15051.00	90.97	88.88	6299.39	8539.00	-94.45	8542.34	0.41	92.00
15142.00	89.93	87.95	6298.67	8629.99	-91.94	8633.30	1.53	91.00
15234.00	90.37	88.75	6298.43	8721.98	-89.29	8725.26	0.99	92.00
15326.00	91.14	89.66	6297.22	8813.97	-88.01	8817.24	1.29	92.00
15417.00	91.37	89.15	6295.22	8904.95	-87.07	8908.22	0.61	91.00
15509.00	91.11	89.28	6293.23	8996.93	-85.80	9000.19	0.32	92.00
15600.00	91.44	89.42	6291.20	9087.90	-84.77	9091.16	0.40	91.00
15695.00	92.99	90.88	6287.53	9182.80	-85.01	9186.08	2.24	95.00
15790.00	90.50	90.64	6284.63	9277.70	-86.28	9281.02	2.63	95.00
15885.00	90.44	90.34	6283.85	9372.66	-87.09	9376.01	0.32	95.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Course Length ft
15980.00	90.03	90.33	6283.46	9467.63	-87.65	9471.01	0.42	95.00
16075.00	89.29	90.50	6284.02	9562.59	-88.34	9566.01	0.80	95.00
16169.00	89.19	90.22	6285.26	9656.56	-88.93	9660.00	0.31	94.00
16264.00	89.19	90.36	6286.60	9751.52	-89.42	9754.99	0.15	95.00
16345.00	88.99	89.87	6287.88	9832.49	-89.59	9835.97	0.65	81.00

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

5" = 100' FEET MD