



1:500 FEET MD

COMPANY : ANADARKO E&P ONSHORE LLC  
WELL : CHEESE STATE 27N-21HZ  
FIELD : WATTENBERG  
COUNTY : WELD  
STATE : COLORADO  
COUNTRY : U.S.A.  
UWI : 05-123-40955

COMPANY : ANADARKO E&P ONSHORE LLC

WELL : CHEESE STATE 27N-21HZ

FIELD : WATTENBERG

COUNTY : WELD

STATE : COLORADO

COUNTRY : U.S.A.

UWI : 05-123-40955

WELL LOCATION

LAT:40°12'9.050"N LONG:104°39'44.615"W  
N:14600657.57 ft E:1734684.02 ft

SEC:28

TWP: 3N

RANGE:65W

OTHER SERVICES

DIRECTIONAL  
ROP

DEPTH REF. : RKB

REF. HEIGHT : 25.000 ft

RKB to Ground Level

GROUND LEVEL : 4818.000 ft

G.L. to MEAN SEA LEVEL

## BOREHOLE RECORD

## DEVIATION RECORD

HOLE SIZE in	FROM ft	TO ft	INCLINATION deg	FROM ft	TO ft
8.75	1207	12660	0 - 12	0	1296
			12 - 0	1296	6356
			0 - 88	6356	7533
			88 - 92	7533	12660

## CASING RECORD

CASING SIZE	in	FROM	ft	TO	ft
9.625		0		1196	

DRILLING CO. : H&P

RIG : 307

LWD UNIT NO. : C-46 DISTRICT : CASPER

SPUD DATE : 05/02/2015

LWD START DATE : 05/02/2015 DEPTH : 1207 ft

LWD END DATE : 05/06/2015 DEPTH : 12660 ft

TOTAL DEPTH : 12660 ft

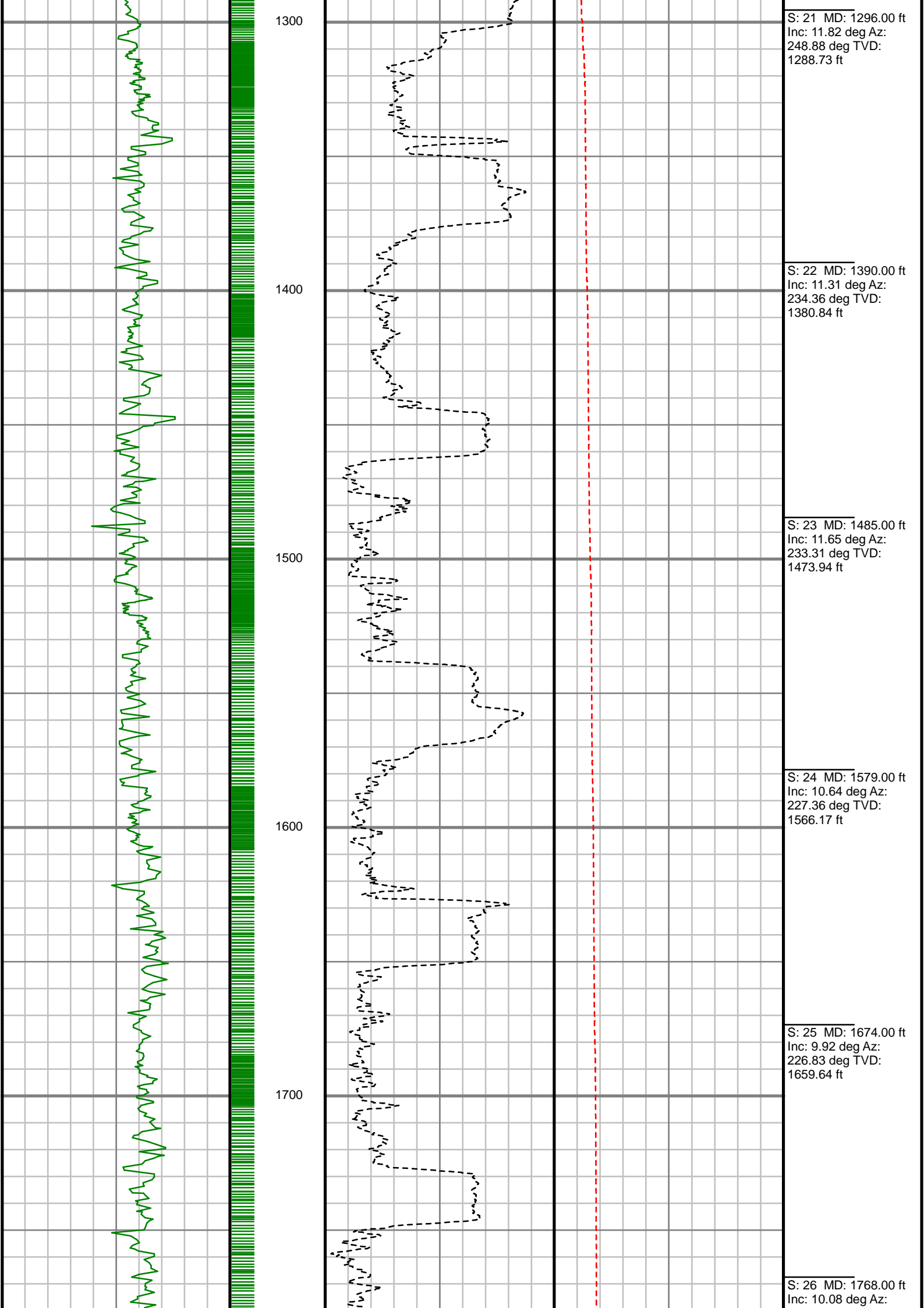
## Run Data

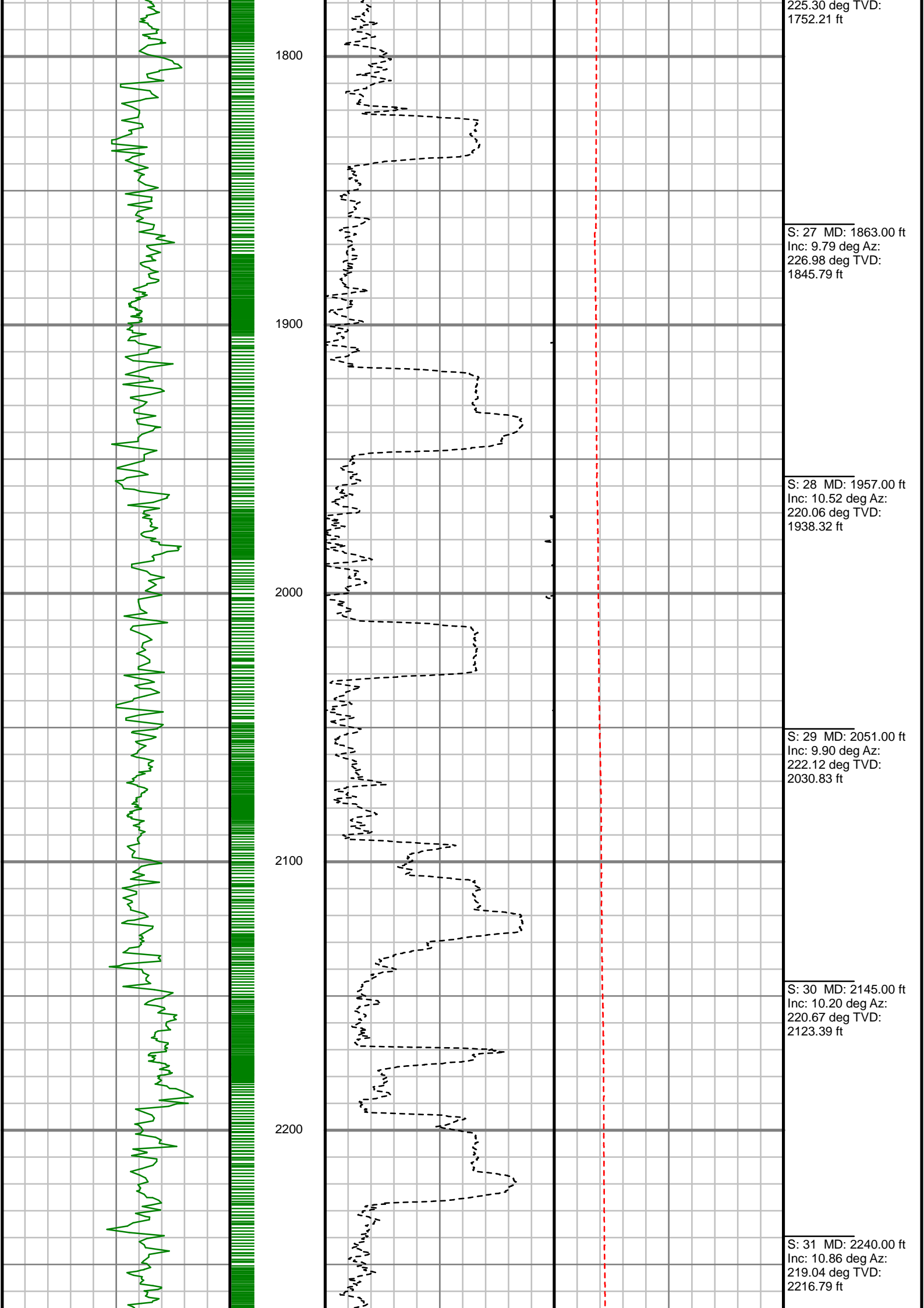
Run Data						
RUN NUMBER	1	2				
START DATE	05/02/2015	05/03/2015				
START TIME	0530	1730				
END DATE	05/03/2015	05/05/2015				
END TIME	1730	11342				
DEPTH IN (ft)	1207	6537				
DEPTH OUT (ft)	6537	12660				
LOG TOP (ft)	1154	6495				
LOG BOTTOM (ft)	6495	12660				
HOLE SIZE (in)	8.75	8.75				
MUD DATA @ (ft)	5546	11324				
MUD TYPE	OIL-BASED	OIL-BASED				
DENSITY (lb / gal)	9.4	9.7				
VISCOSITY (s / qt)	78	74				
pH	-	-				
FLUID LOSS (cm <sup>3</sup> / 30)	6	4.4				
SALINITY (ppm)	-	-				
Rm (ohmm @ deg F)	-	-				
Rmf (ohmm @ deg F)	-	-				
MAX TEMP (deg F)	165	220				
Rm @ MAX TEMP (ohmm)	-	-				
LWD ENGINEER #1	S. WAXLER	S. WAXLER				
LWD ENGINEER #2	B. GREER	M. SCHUSTER				
LWD ENGINEER #3	M. SCHUSTER	-				
LOG WITNESS #1	-	-				
LOG WITNESS #2	-	-				

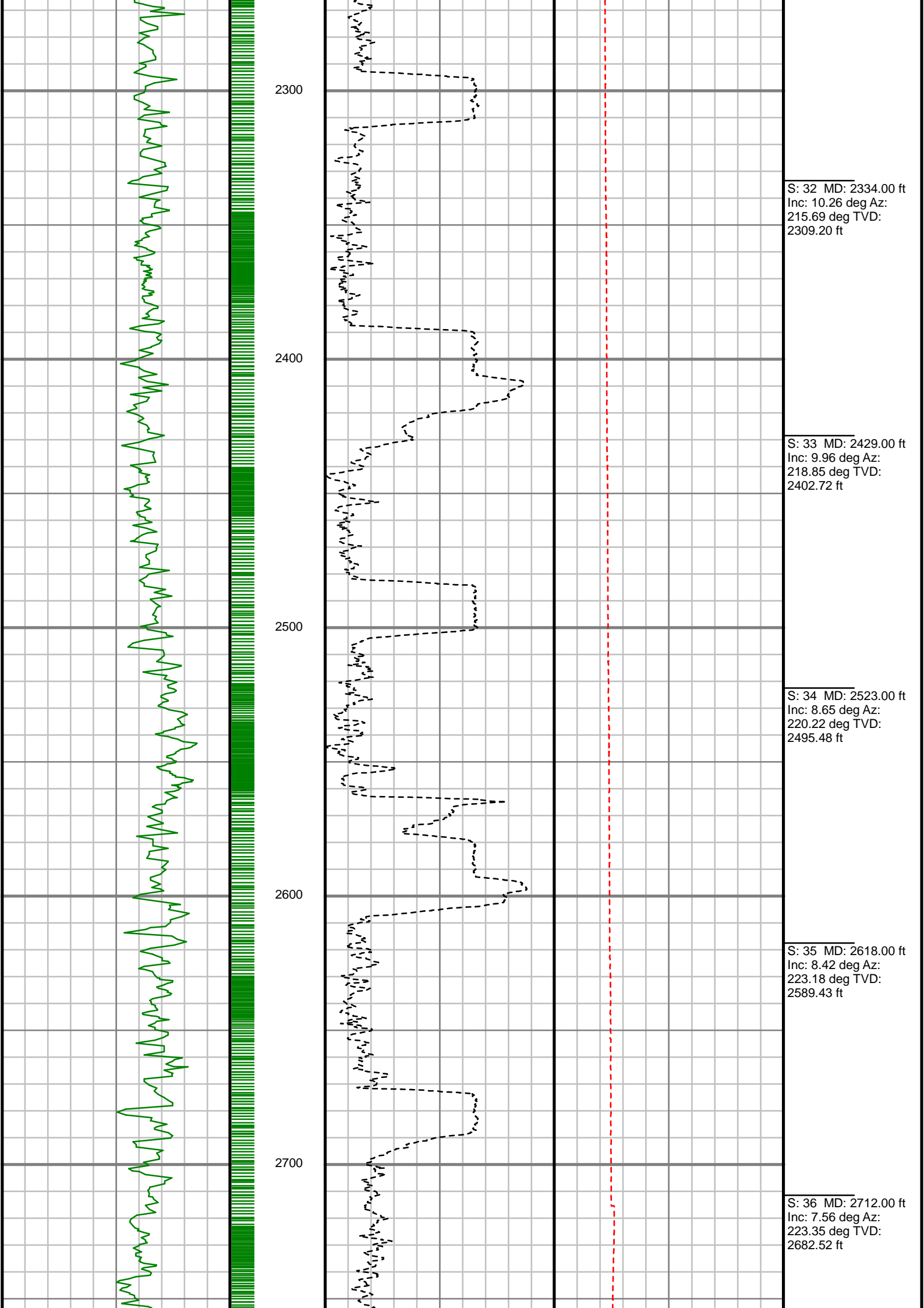
Remarks
ANADARKO E&P ONSHORE LLC PRODUCTION AFE# 2102427
SCIENTIFIC DRILLING INTERNATIONAL JOB# 277483
ALL REFERENCES IN THE DEPTH TRACK ARE AT BIT DEPTH.
ALL DATA IS MEMORY DATA UNLESS STATED OTHERWISE.
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO GAMMA RAY CURVE
FLAT AVERAGE FILTER OF 1.00 FT APPLIED TO RATE OF PENETRATION CURVE
RUN #1: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-242 / CONT = 625 / MWD EYE = 174 / GAMMA RAY = 1297
BIT TO SENSOR OFFSETS: SURVEY = 51.33 FT. / GAMMA RAY = 42.08 FT.
RUN #2: MWD / GAMMA RAY LOGGING RUN
SENSORS S/N: PULSER = 128-392 / CONT = 132 / MWD EYE = 0561 / GAMMA RAY = 1208
BIT TO SENSOR OFFSETS: SURVEY = 52.01 FT. / GAMMA RAY = 43.45 FT.
MNEMONICS LIST:
GR = GAMMA RAY
ROP = RATE OF PENETRATION
T-TEMP = TOOL TEMPERATURE

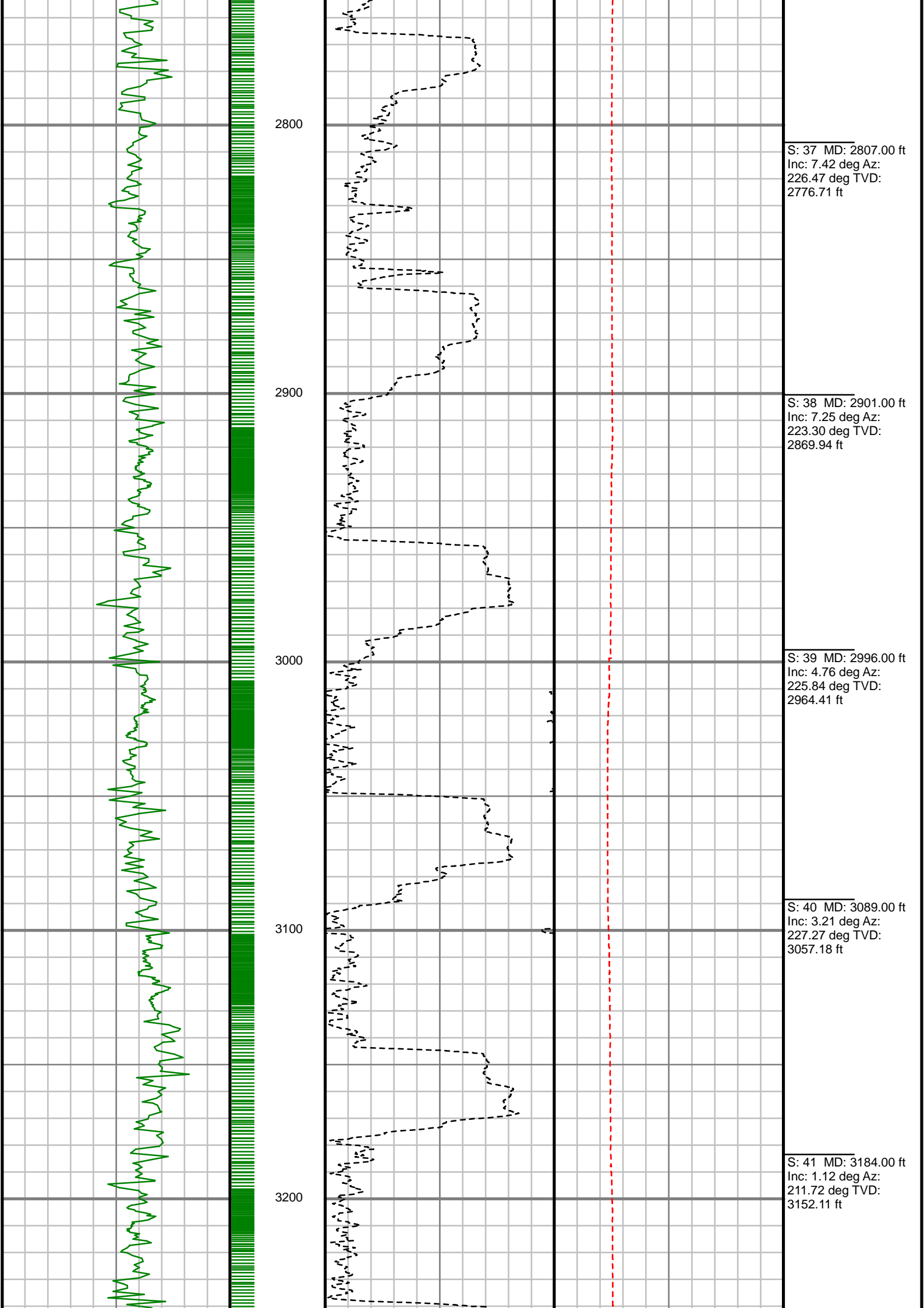
All interpretations are opinions based on inferences from electrical or other measurements and we cannot, and do not guarantee the accuracy or correctness of any interpretations, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs,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

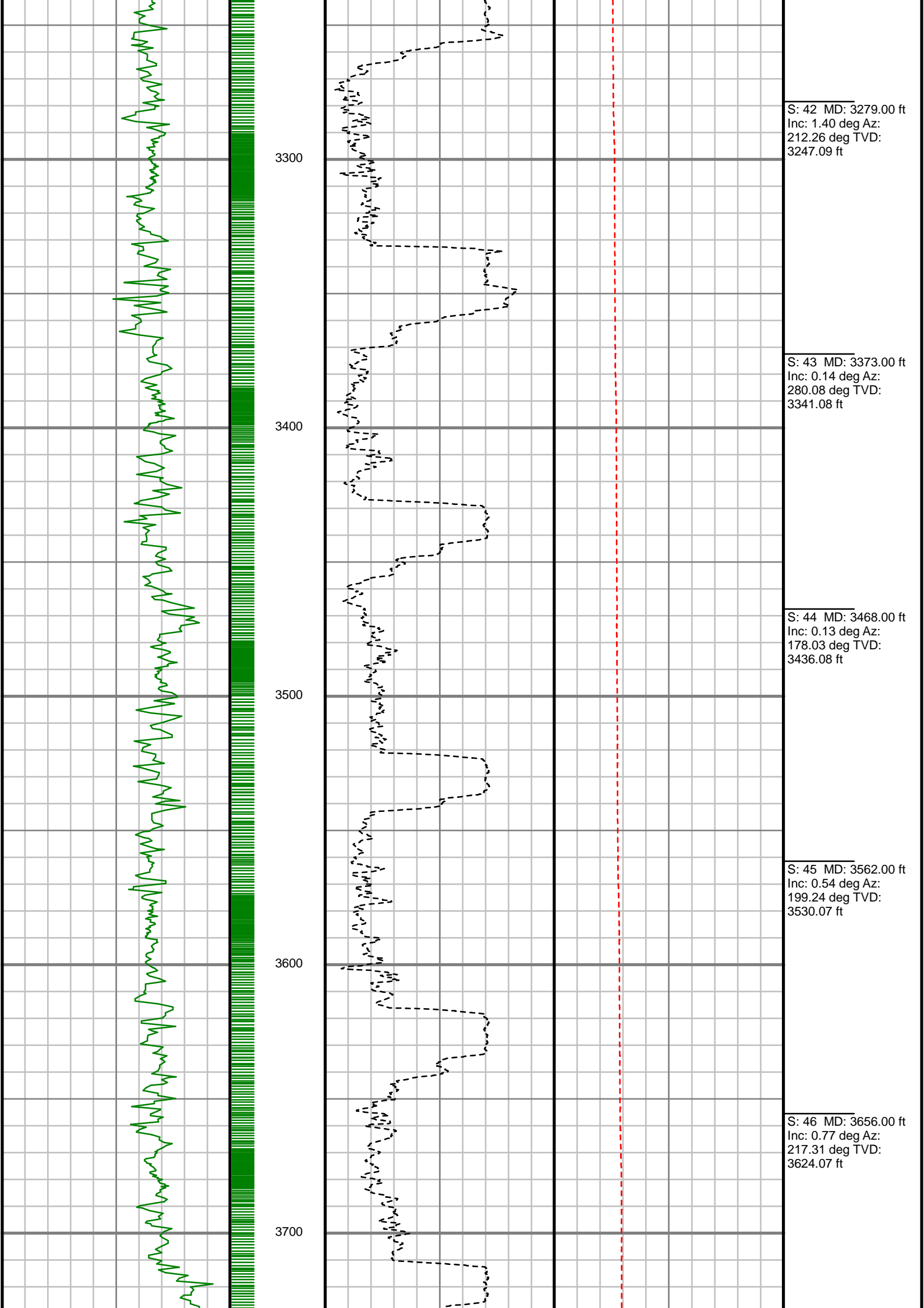
ANADARKO E&P ONSHORE LLC CHEESE STATE 27N-21HZ WATTENBURG FIELD WELD COUNTY, COLORADO 05-123-40955			
Gamma Ray (GR) 0 Unit = aapi 150	MEASURED DEPTH 1:500 (ft)	Rate of Penetration (ROP) 1000 Unit = ft/hr 0	Tool Temperature (T-TEMP) 50 Unit = °F 300
S: 19 MD: 1162.00 ft Inc: 10.90 deg Az: 251.10 deg TVD: 1157.39 ft			
S: 20 MD: 1233.00 ft Inc: 11.55 deg Az: 254.44 deg TVD: 1227.04 ft			

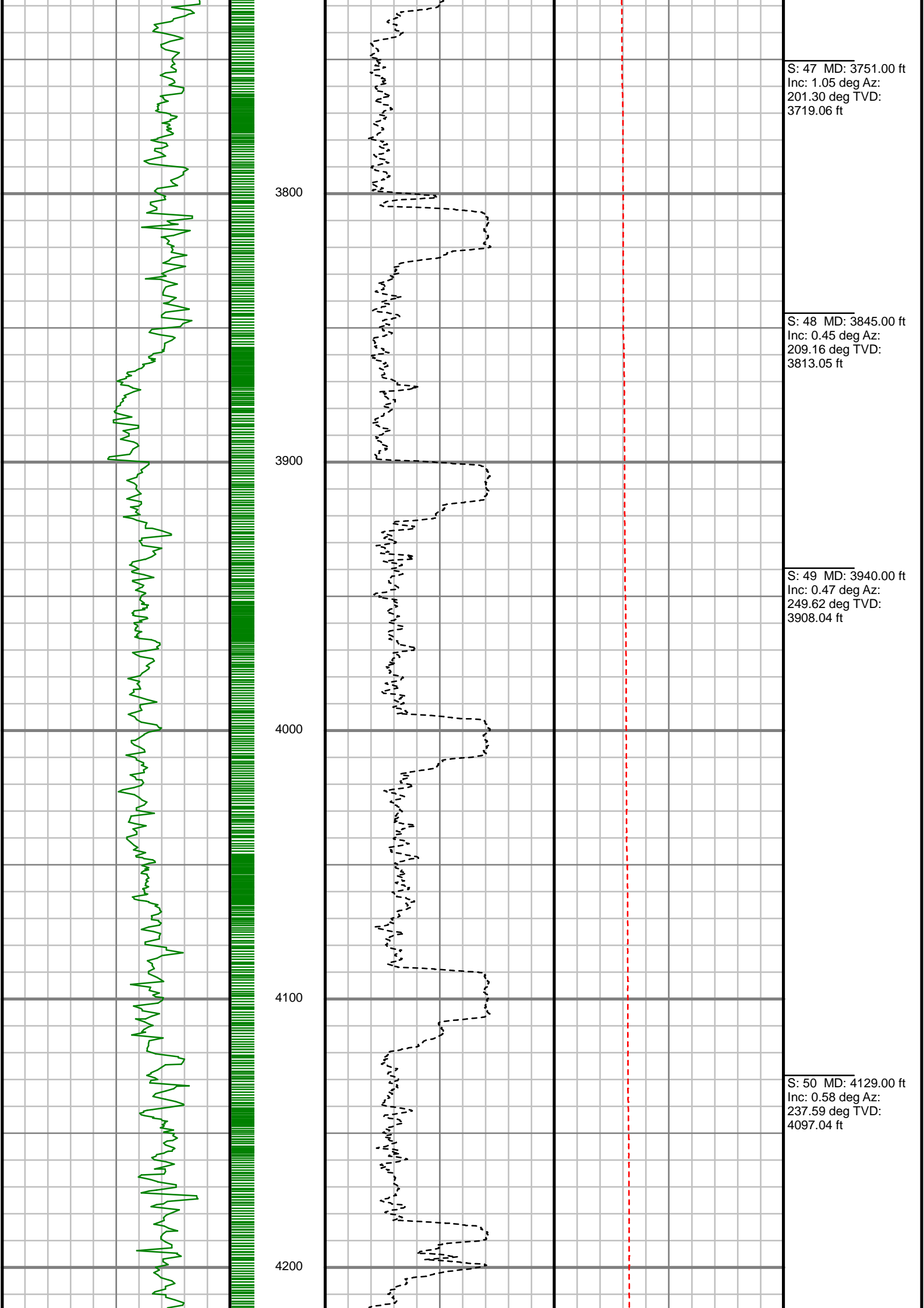




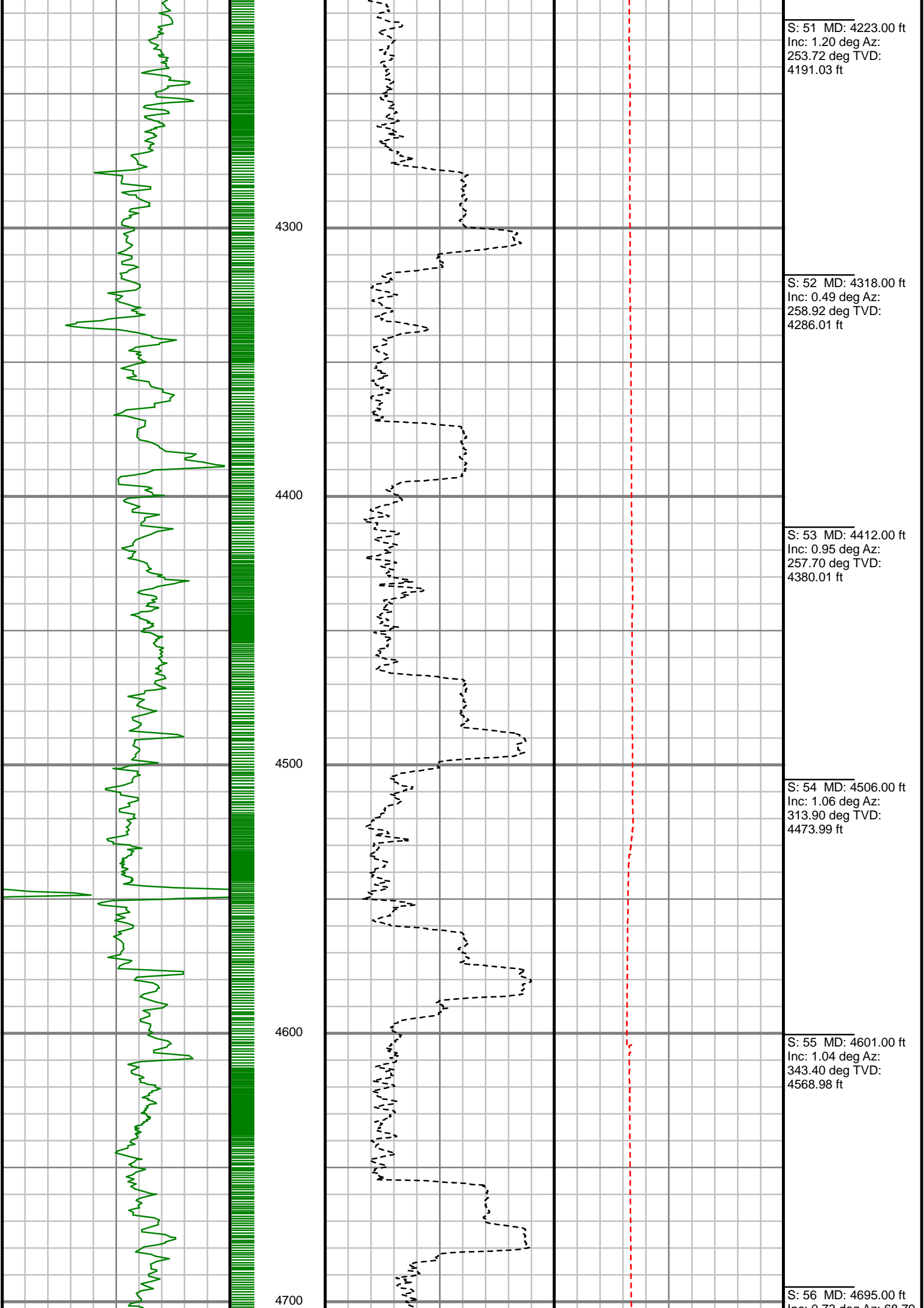


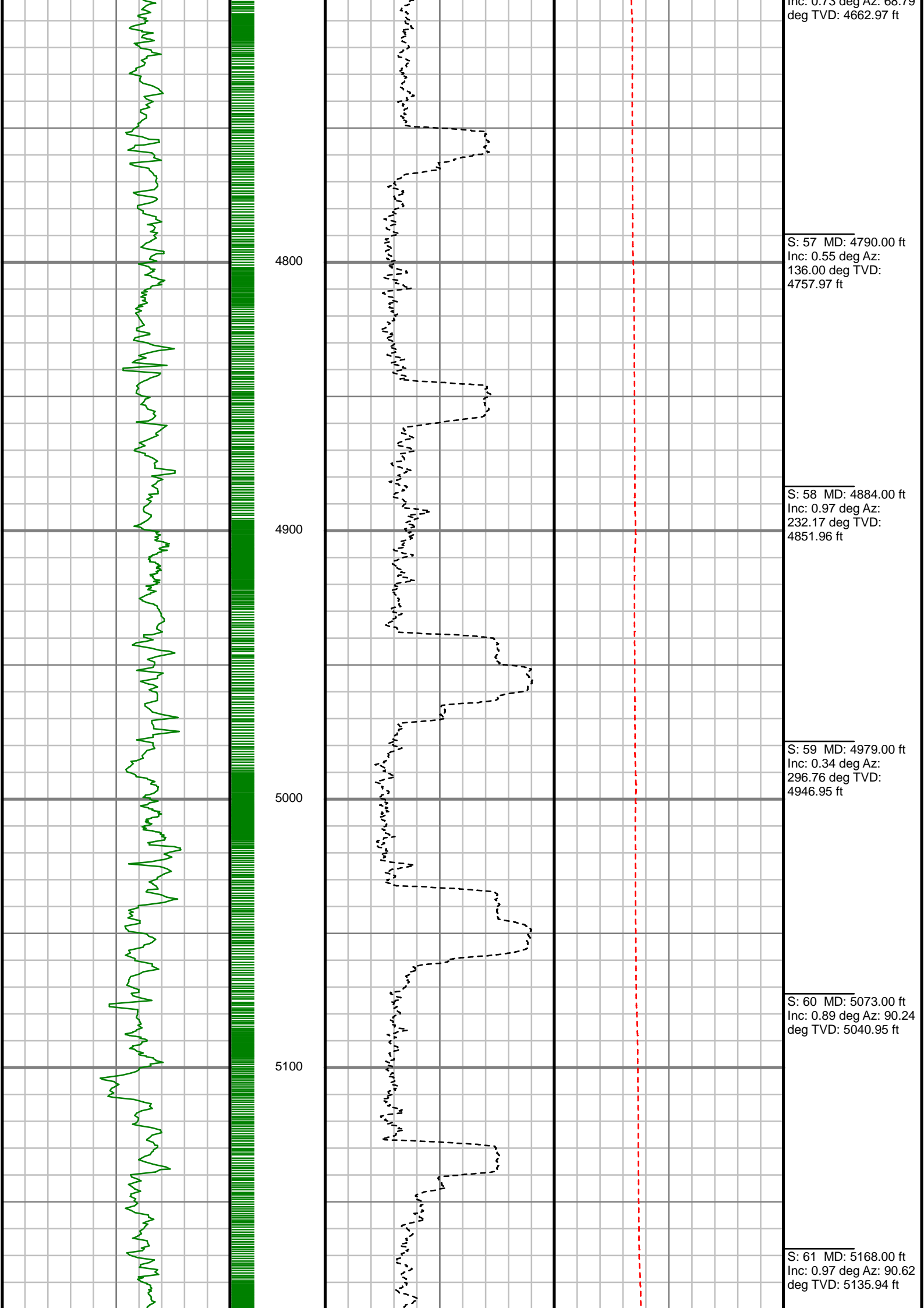


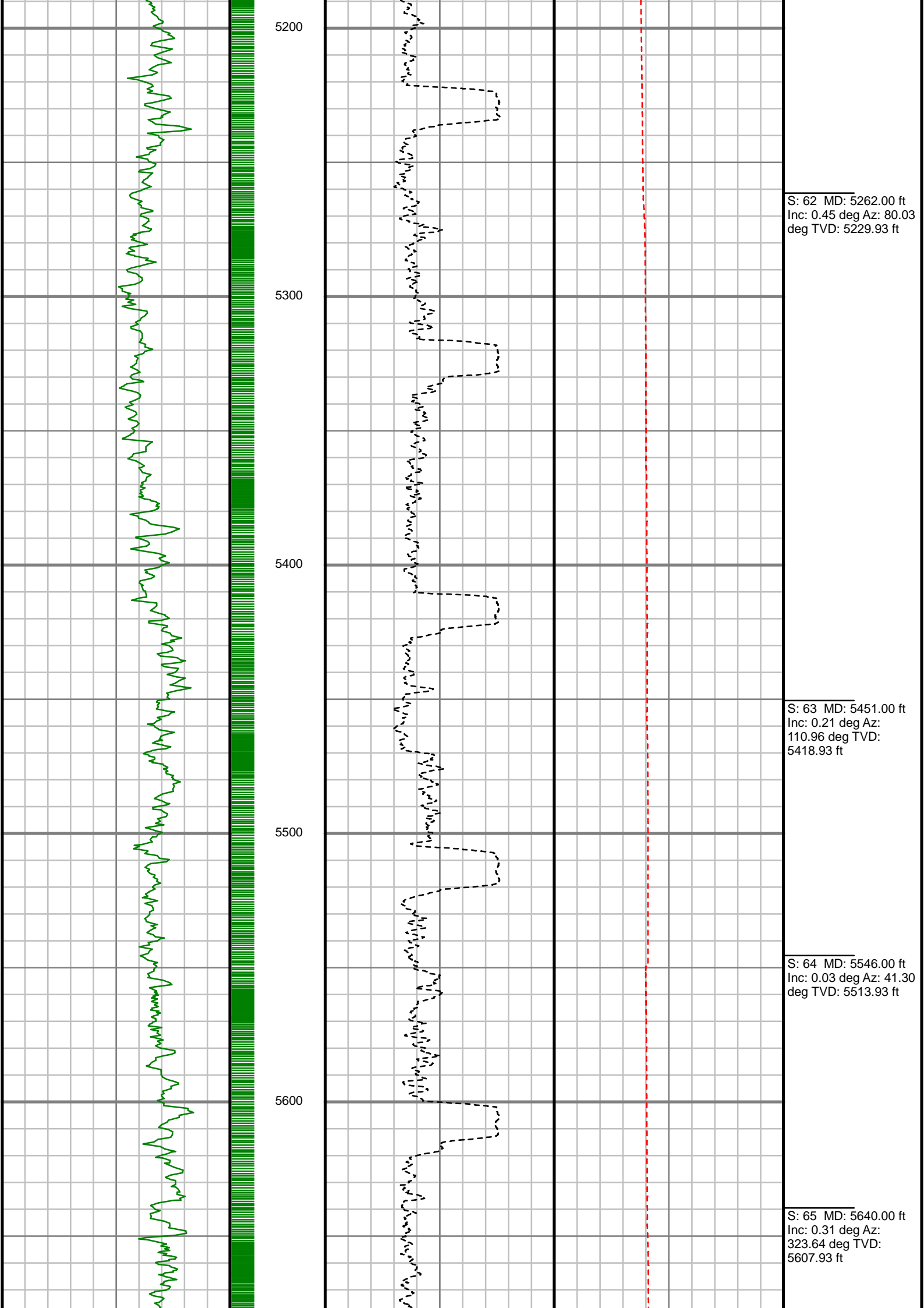


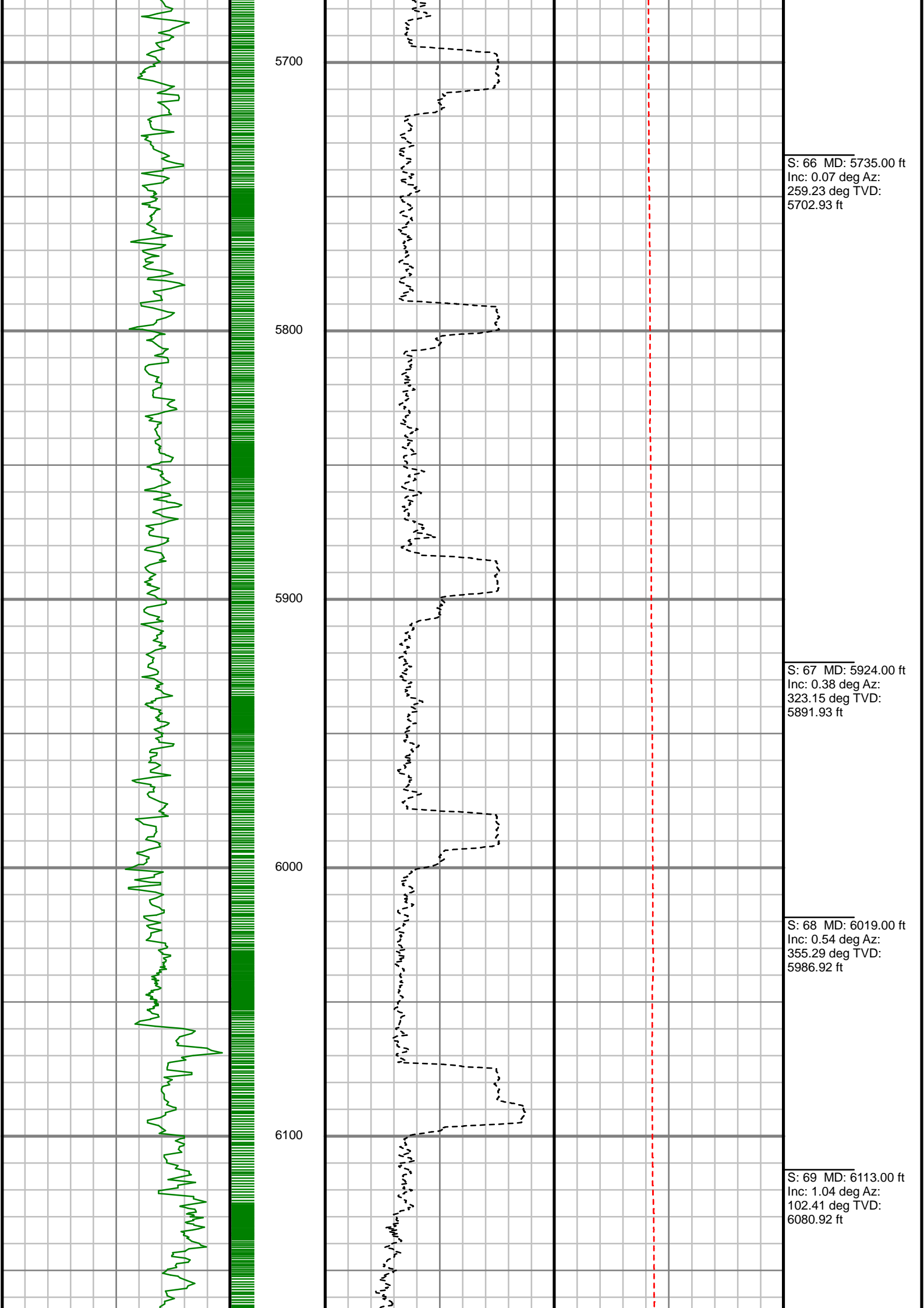


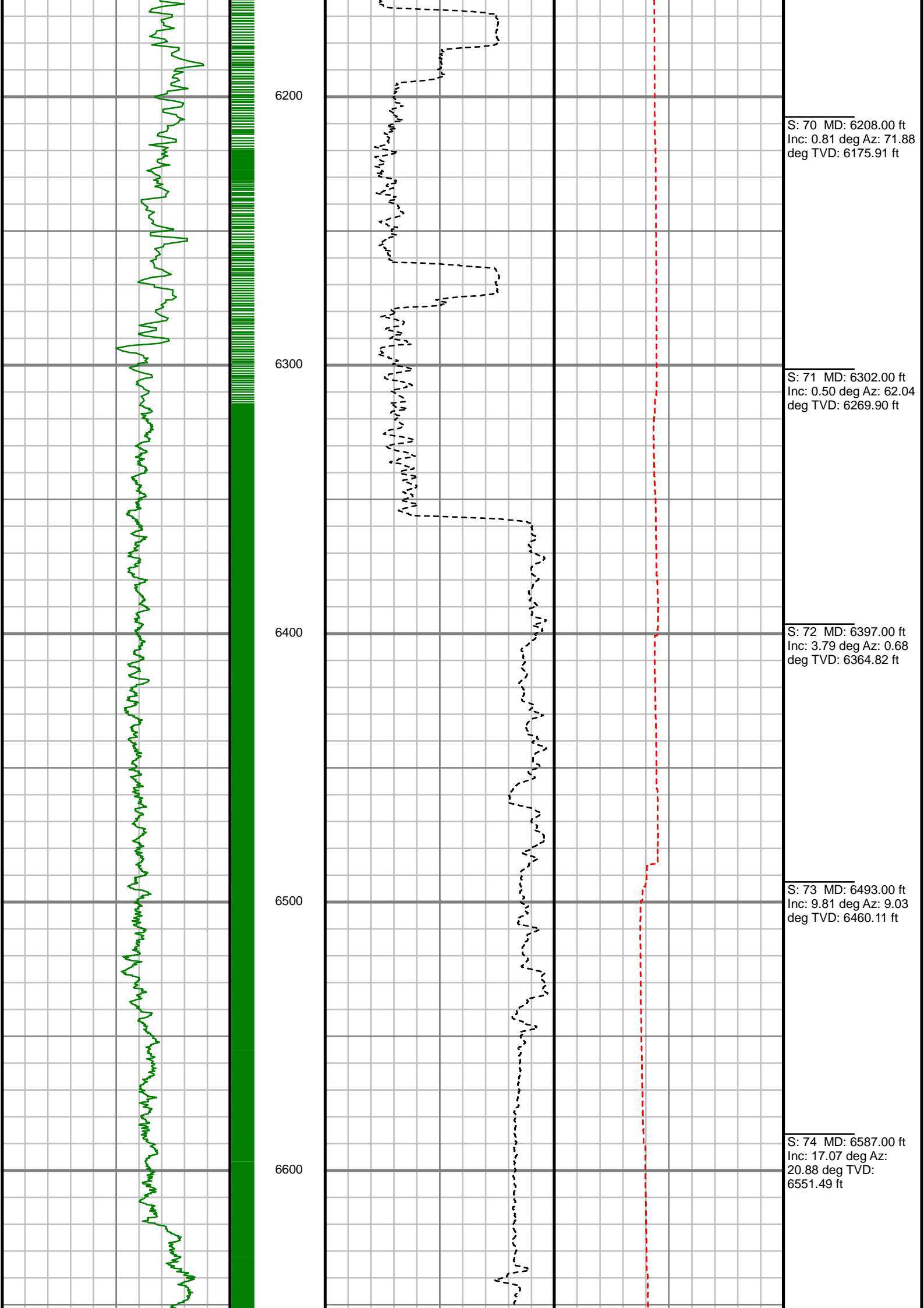


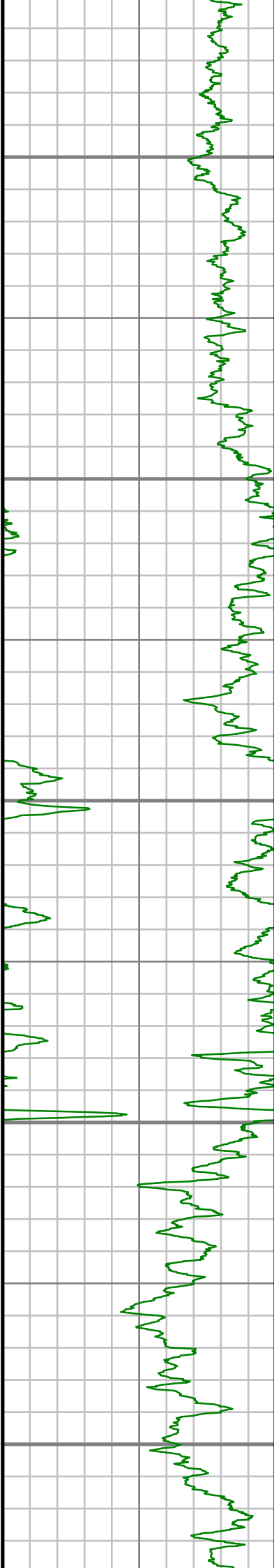












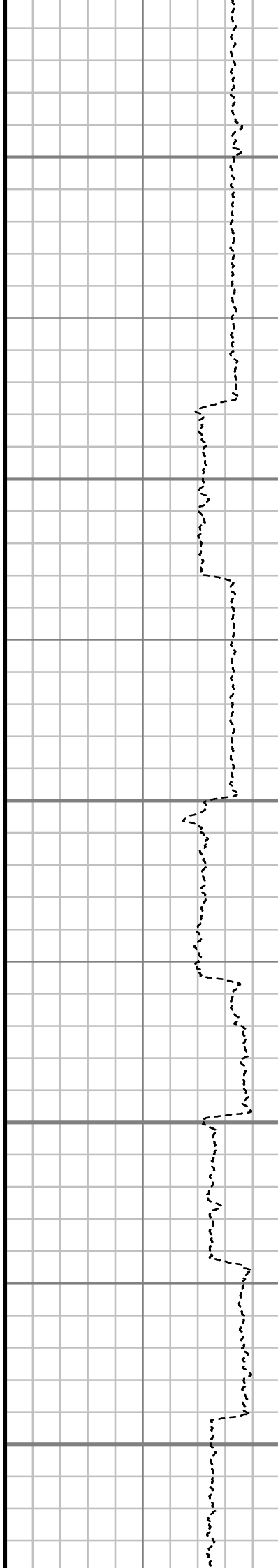
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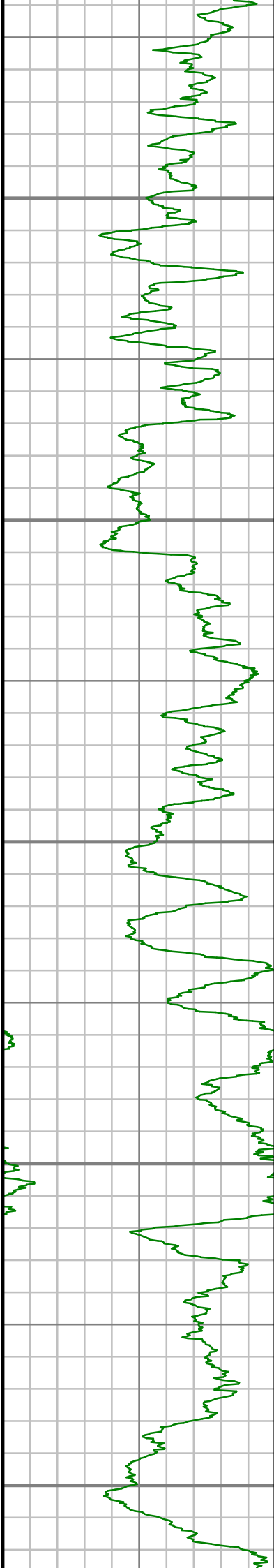
S: 75 MD: 6682.00 ft  
Inc: 29.97 deg Az:  
19.18 deg TVD:  
6638.41 ft

S: 76 MD: 6776.00 ft  
Inc: 36.18 deg Az:  
359.56 deg TVD:  
6717.37 ft

S: 77 MD: 6871.00 ft  
Inc: 42.93 deg Az: 1.42  
deg TVD: 6790.57 ft

S: 78 MD: 6965.00 ft  
Inc: 47.75 deg Az: 3.45  
deg TVD: 6856.63 ft

S: 79 MD: 7060.00 ft  
Inc: 56.61 deg Az: 0.53  
deg TVD: 6914.84 ft



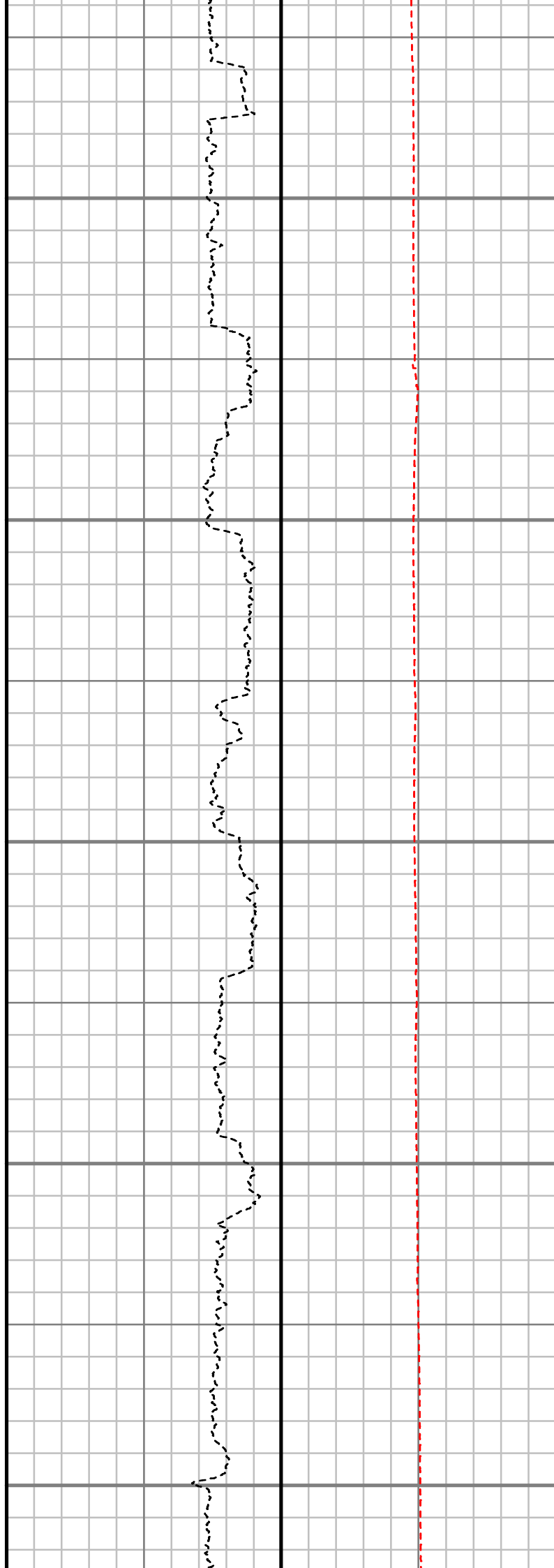
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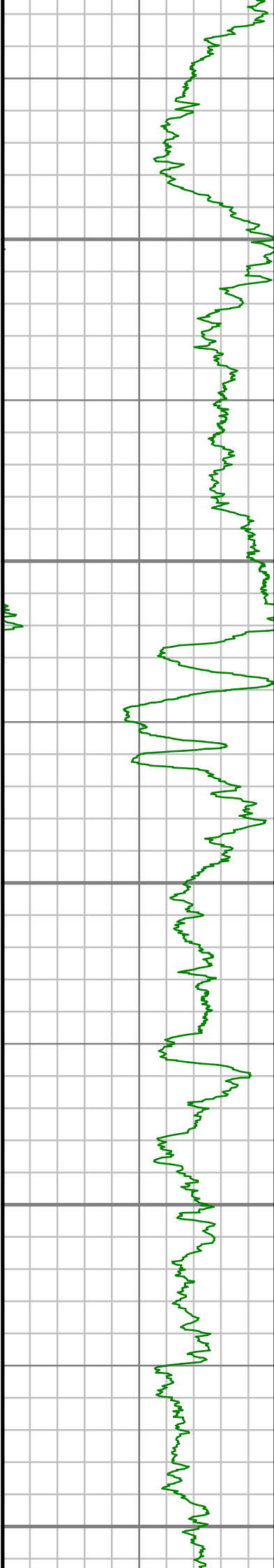
S: 80 MD: 7154.00 ft  
Inc: 63.17 deg Az:  
358.99 deg TVD:  
6961.98 ft

S: 81 MD: 7248.00 ft  
Inc: 67.39 deg Az:  
357.23 deg TVD:  
7001.28 ft

S: 82 MD: 7343.00 ft  
Inc: 76.16 deg Az:  
359.60 deg TVD:  
7030.96 ft

S: 83 MD: 7438.00 ft  
Inc: 84.10 deg Az: 2.11  
deg TVD: 7047.23 ft

S: 84 MD: 7533.00 ft  
Inc: 88.05 deg Az: 2.09  
deg TVD: 7053.73 ft



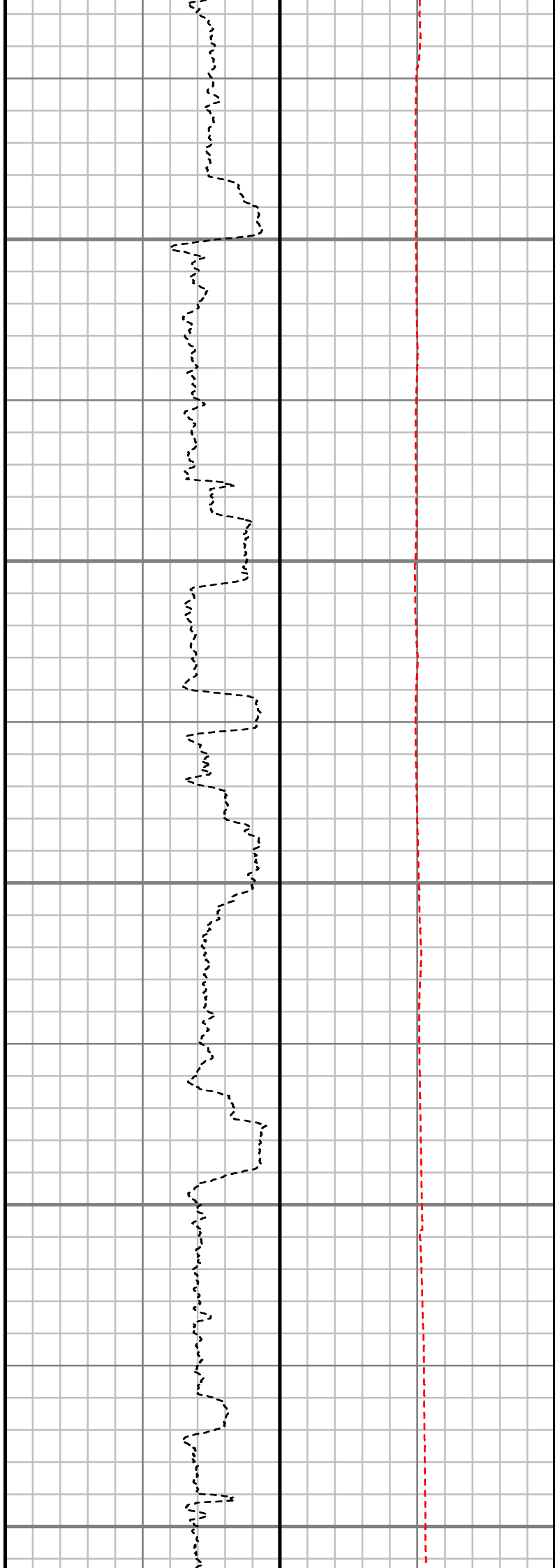
7700

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8100



S: 85 MD: 7627.00 ft  
Inc: 91.01 deg Az: 0.28  
deg TVD: 7054.50 ft

S: 86 MD: 7722.00 ft  
Inc: 91.01 deg Az: 0.22  
deg TVD: 7052.82 ft

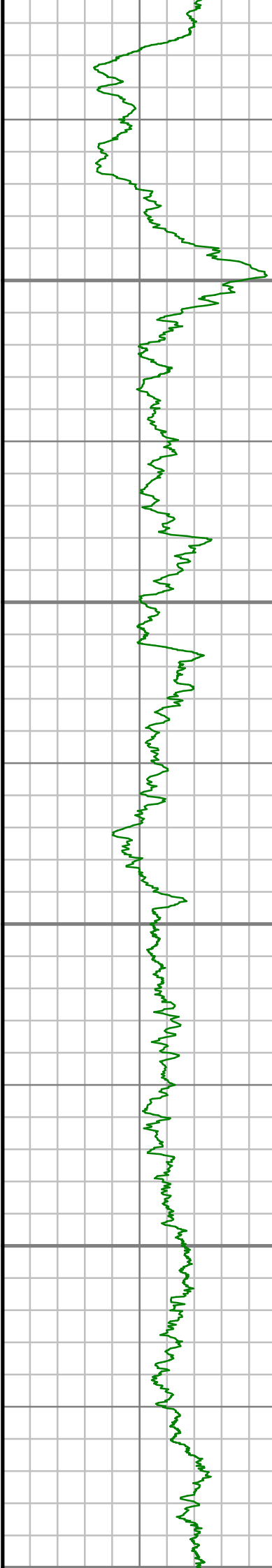
S: 87 MD: 7816.00 ft  
Inc: 90.67 deg Az:  
359.19 deg TVD:  
7051.45 ft

S: 88 MD: 7911.00 ft  
Inc: 90.44 deg Az:  
359.30 deg TVD:  
7050.53 ft

S: 89 MD: 8005.00 ft  
Inc: 89.36 deg Az: 1.11  
deg TVD: 7050.69 ft

S: 90 MD: 8100.00 ft  
Inc: 91.11 deg Az: 1.42  
deg TVD: 7050.30 ft





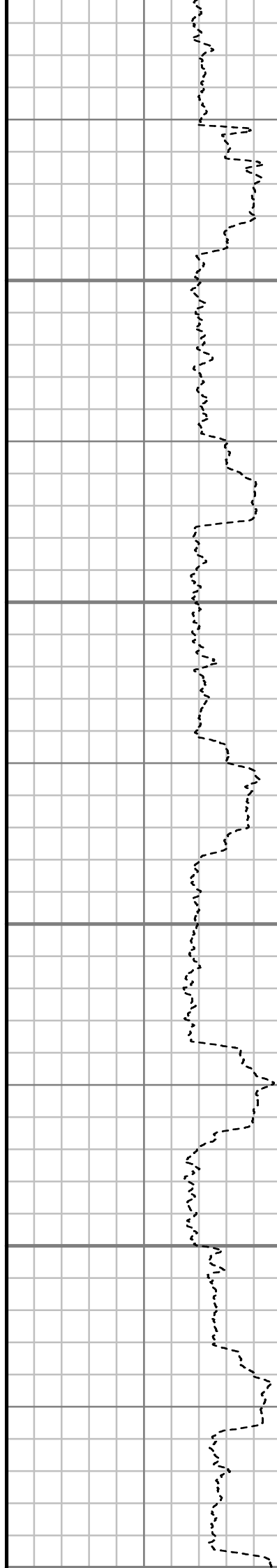
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8600



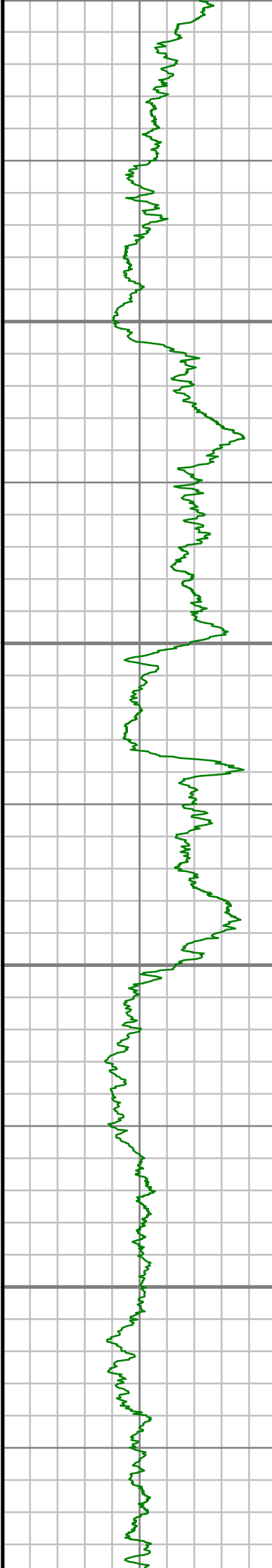
S: 91 MD: 8194.00 ft  
Inc: 90.30 deg Az:  
359.41 deg TVD:  
7049.15 ft

S: 92 MD: 8289.00 ft  
Inc: 90.60 deg Az:  
357.29 deg TVD:  
7048.40 ft

S: 93 MD: 8383.00 ft  
Inc: 91.24 deg Az:  
359.34 deg TVD:  
7046.88 ft

S: 94 MD: 8477.00 ft  
Inc: 91.27 deg Az:  
359.90 deg TVD:  
7044.82 ft

S: 95 MD: 8572.00 ft  
Inc: 91.58 deg Az: 1.18  
deg TVD: 7042.45 ft

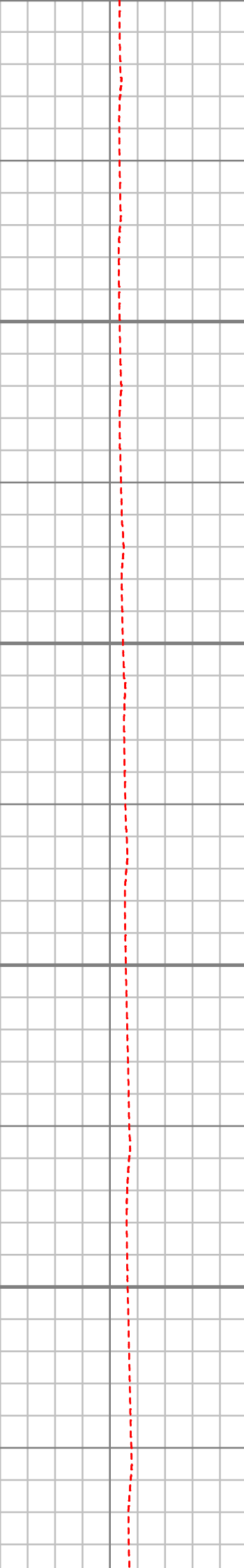
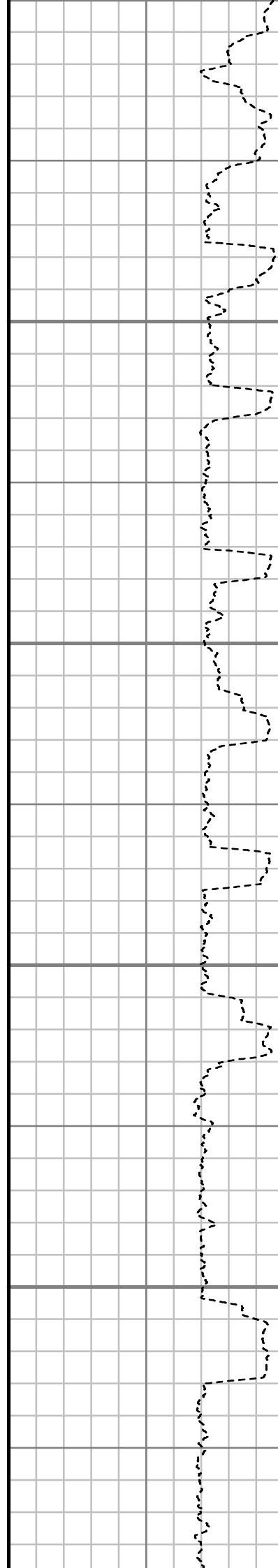


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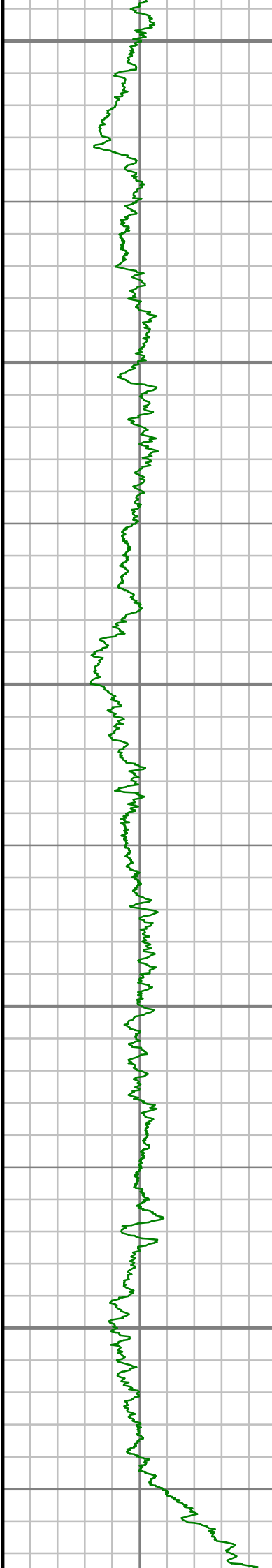
S: 96 MD: 8667.00 ft  
Inc: 89.50 deg Az:  
358.19 deg TVD:  
7041.56 ft

S: 97 MD: 8761.00 ft  
Inc: 89.23 deg Az:  
357.38 deg TVD:  
7042.61 ft

S: 98 MD: 8855.00 ft  
Inc: 88.89 deg Az:  
356.06 deg TVD:  
7044.15 ft

S: 99 MD: 8949.00 ft  
Inc: 89.23 deg Az:  
357.15 deg TVD:  
7045.69 ft

S: 100 MD: 9044.00 ft  
Inc: 88.93 deg Az:  
358.81 deg TVD:  
7047.22 ft



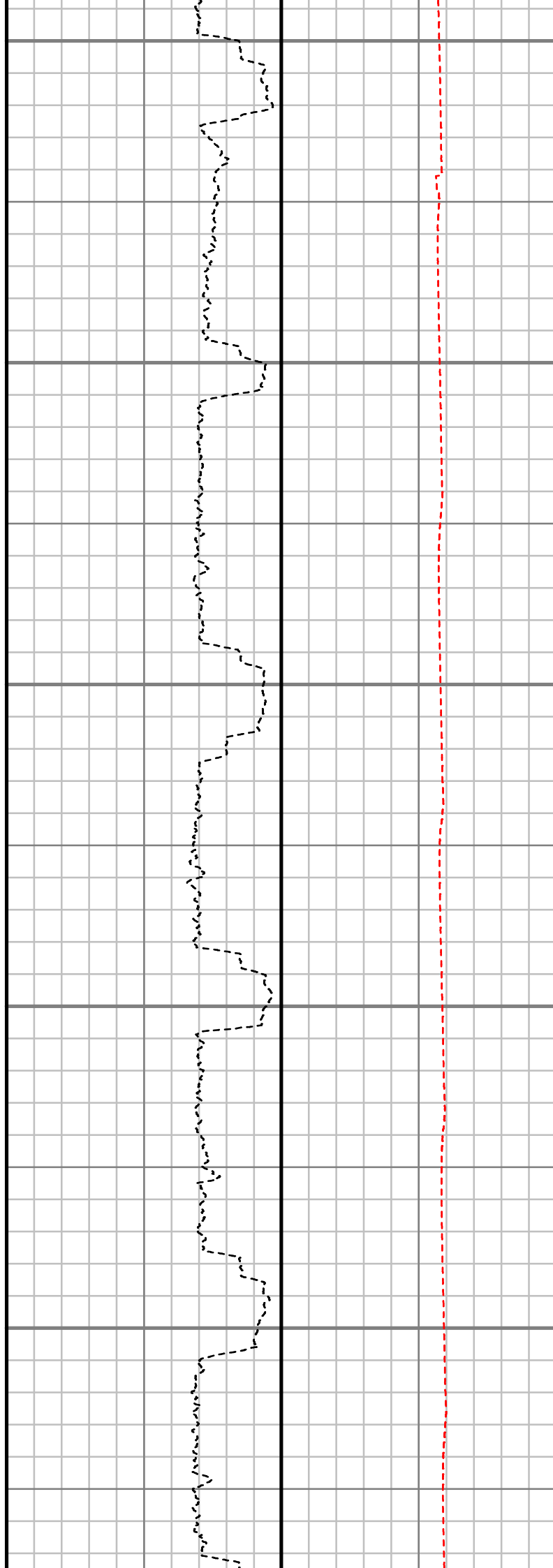
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9200

9300

9400

9500



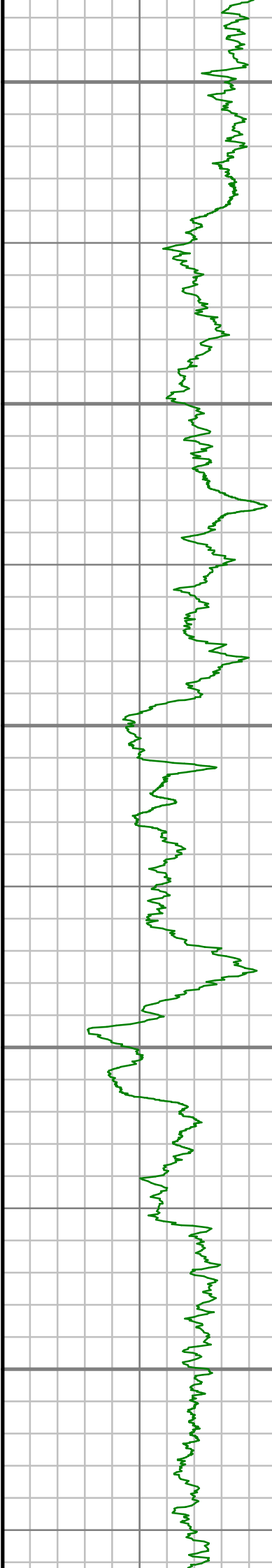
S: 101 MD: 9139.00 ft  
Inc: 88.83 deg Az: 359.60 deg TVD: 7049.09 ft

S: 102 MD: 9233.00 ft  
Inc: 90.27 deg Az: 0.15 deg TVD: 7049.83 ft

S: 103 MD: 9328.00 ft  
Inc: 89.80 deg Az: 0.64 deg TVD: 7049.78 ft

S: 104 MD: 9422.00 ft  
Inc: 90.50 deg Az: 0.93 deg TVD: 7049.53 ft

S: 105 MD: 9517.00 ft  
Inc: 90.07 deg Az: 0.55 deg TVD: 7049.06 ft



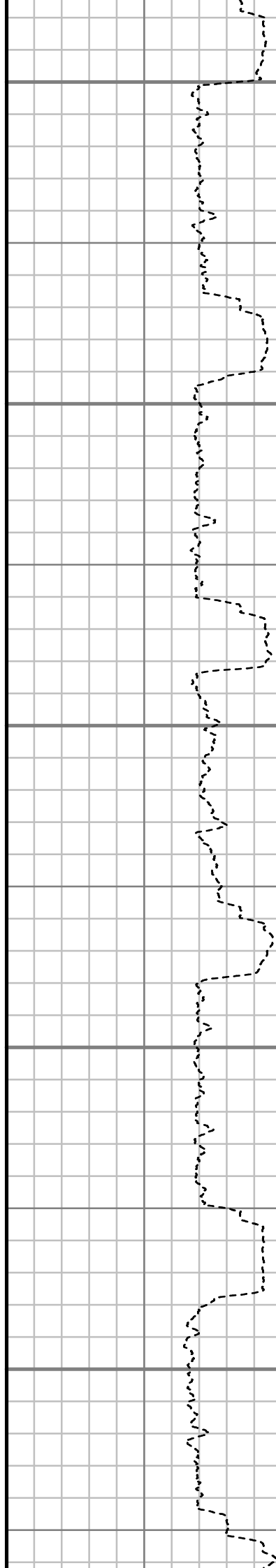
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9700

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10000



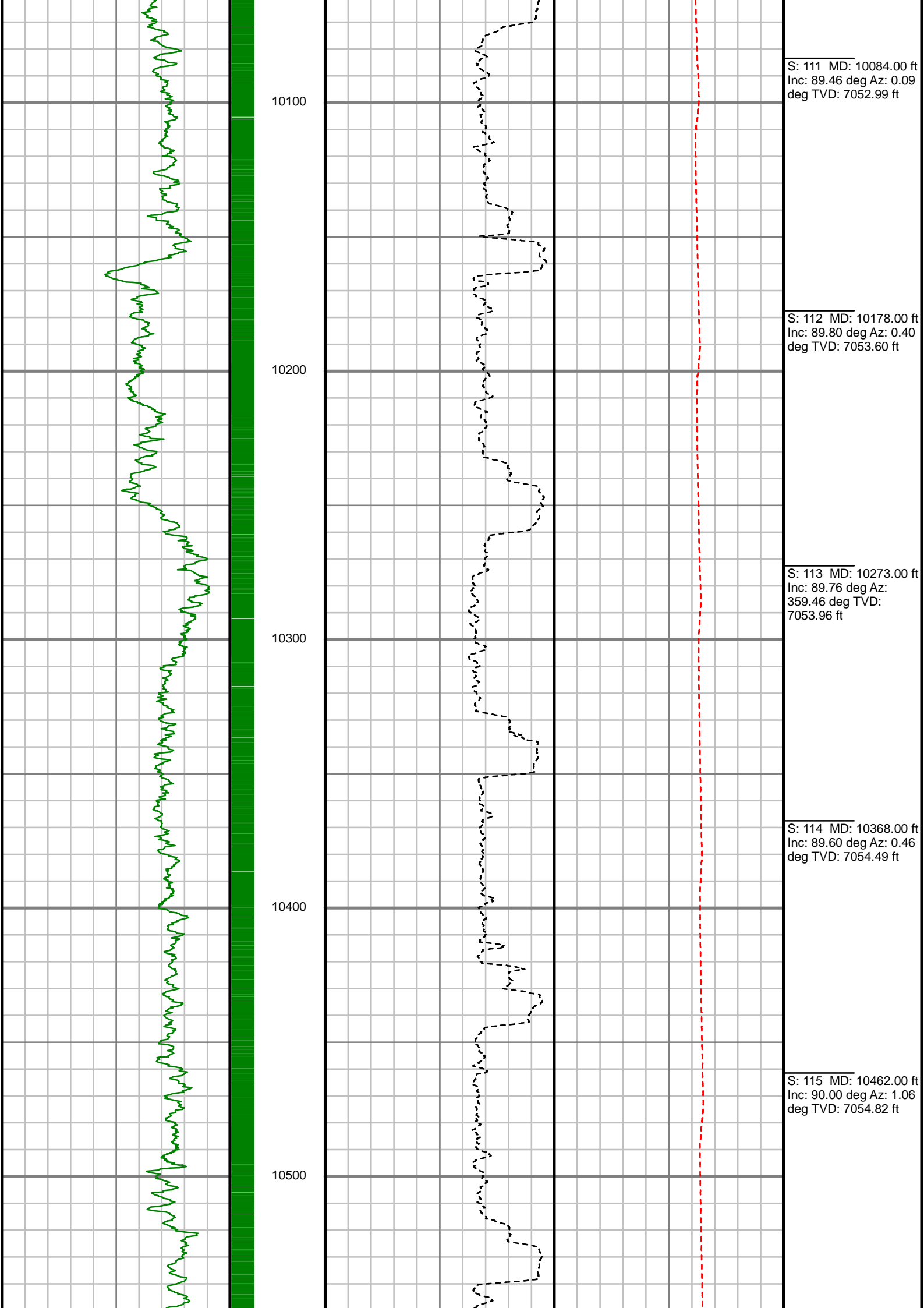
S: 106 MD: 9611.00 ft  
Inc: 89.03 deg Az: 0.83  
deg TVD: 7049.80 ft

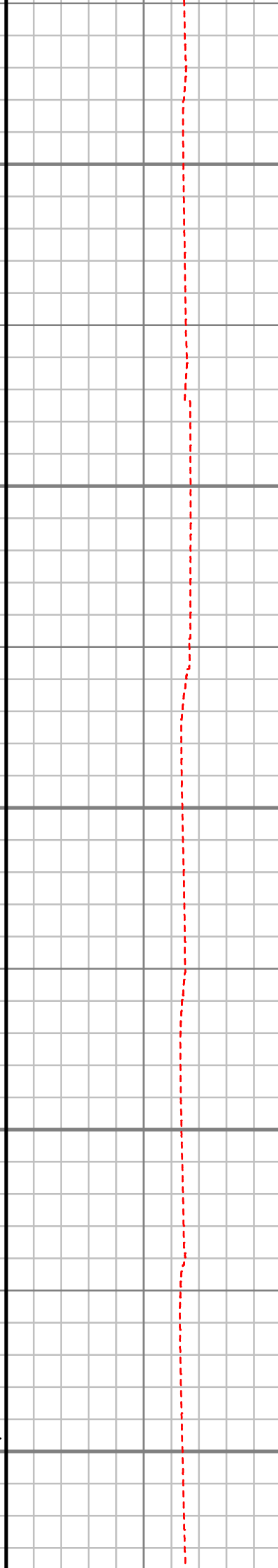
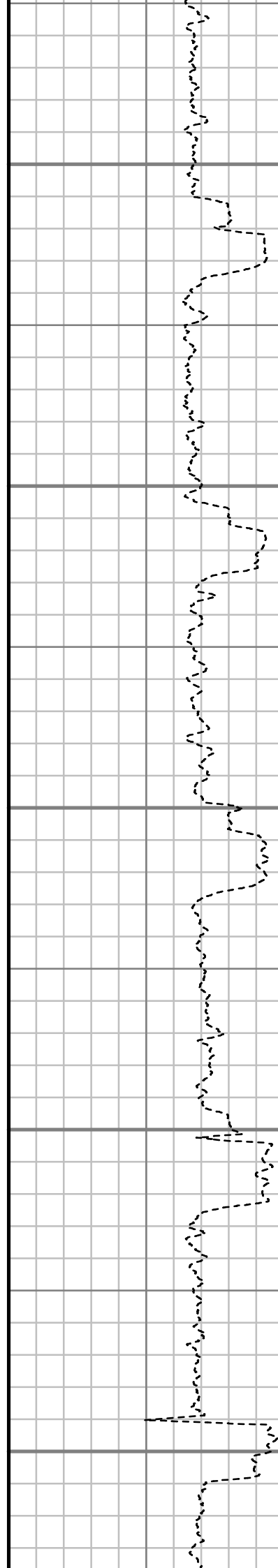
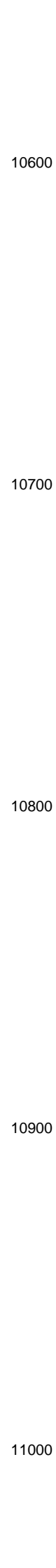
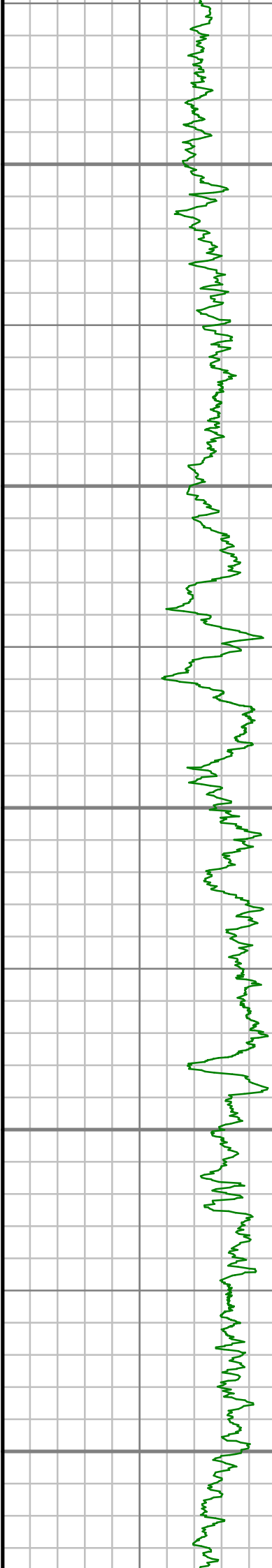
S: 107 MD: 9706.00 ft  
Inc: 89.19 deg Az: 1.84  
deg TVD: 7051.27 ft

S: 108 MD: 9800.00 ft  
Inc: 89.63 deg Az: 2.08  
deg TVD: 7052.24 ft

S: 109 MD: 9895.00 ft  
Inc: 90.47 deg Az: 0.85  
deg TVD: 7052.15 ft

S: 110 MD: 9989.00 ft  
Inc: 89.53 deg Az: 1.01  
deg TVD: 7052.16 ft





S: 116 MD: 10556.00 ft  
Inc: 89.77 deg Az: 1.49  
deg TVD: 7055.01 ft

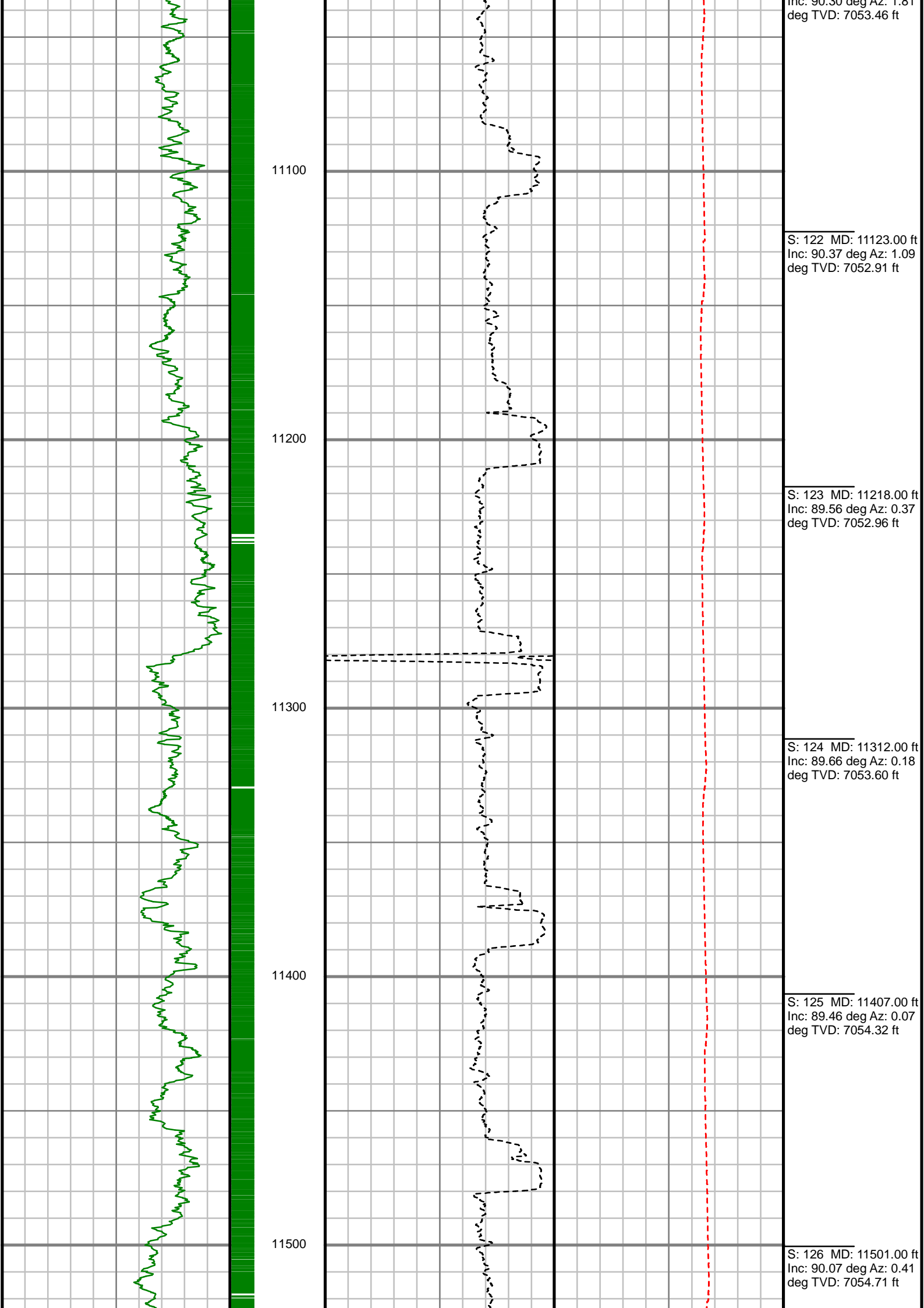
S: 117 MD: 10651.00 ft  
Inc: 89.90 deg Az: 0.65  
deg TVD: 7055.29 ft

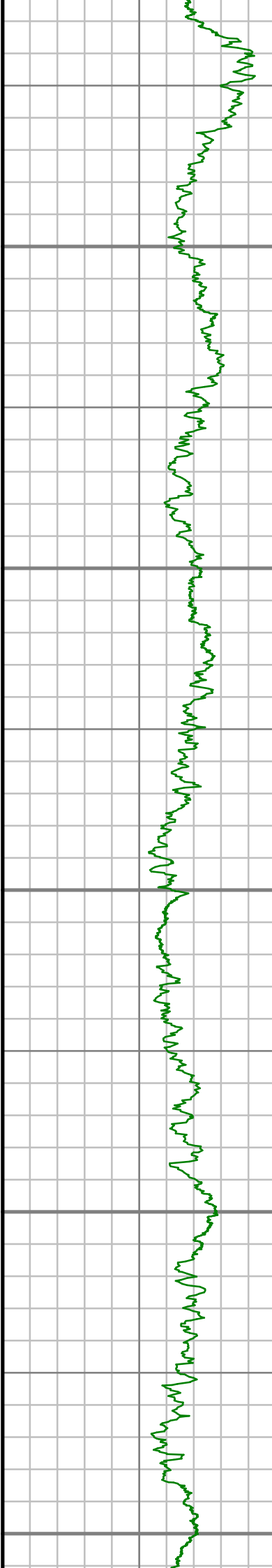
S: 118 MD: 10745.00 ft  
Inc: 90.20 deg Az: 0.57  
deg TVD: 7055.21 ft

S: 119 MD: 10839.00 ft  
Inc: 90.57 deg Az: 0.16  
deg TVD: 7054.57 ft

S: 120 MD: 10934.00 ft  
Inc: 90.24 deg Az: 1.57  
deg TVD: 7053.91 ft

S: 121 MD: 11029.00 ft  
Inc: 90.30 deg Az: 1.81  
deg TVD: 7053.21 ft





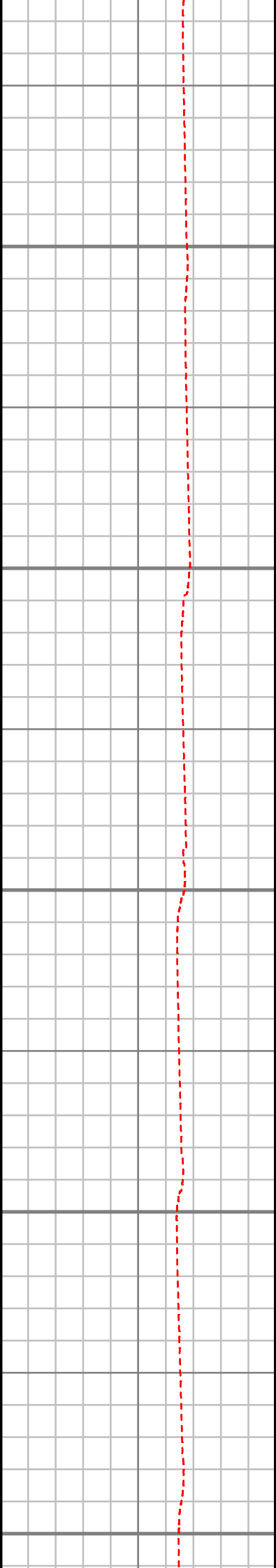
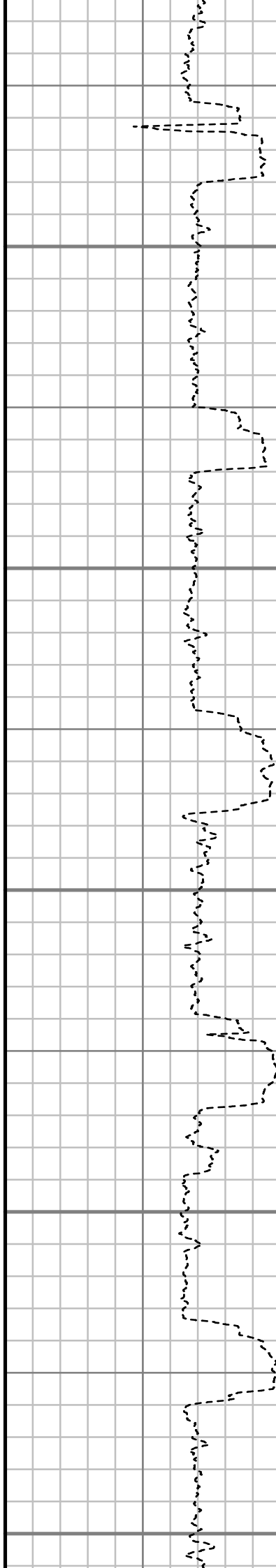
11600

11700

11800

11900

12000



S: 127 MD: 11596.00 ft  
Inc: 90.10 deg Az: 0.05  
deg TVD: 7054.57 ft

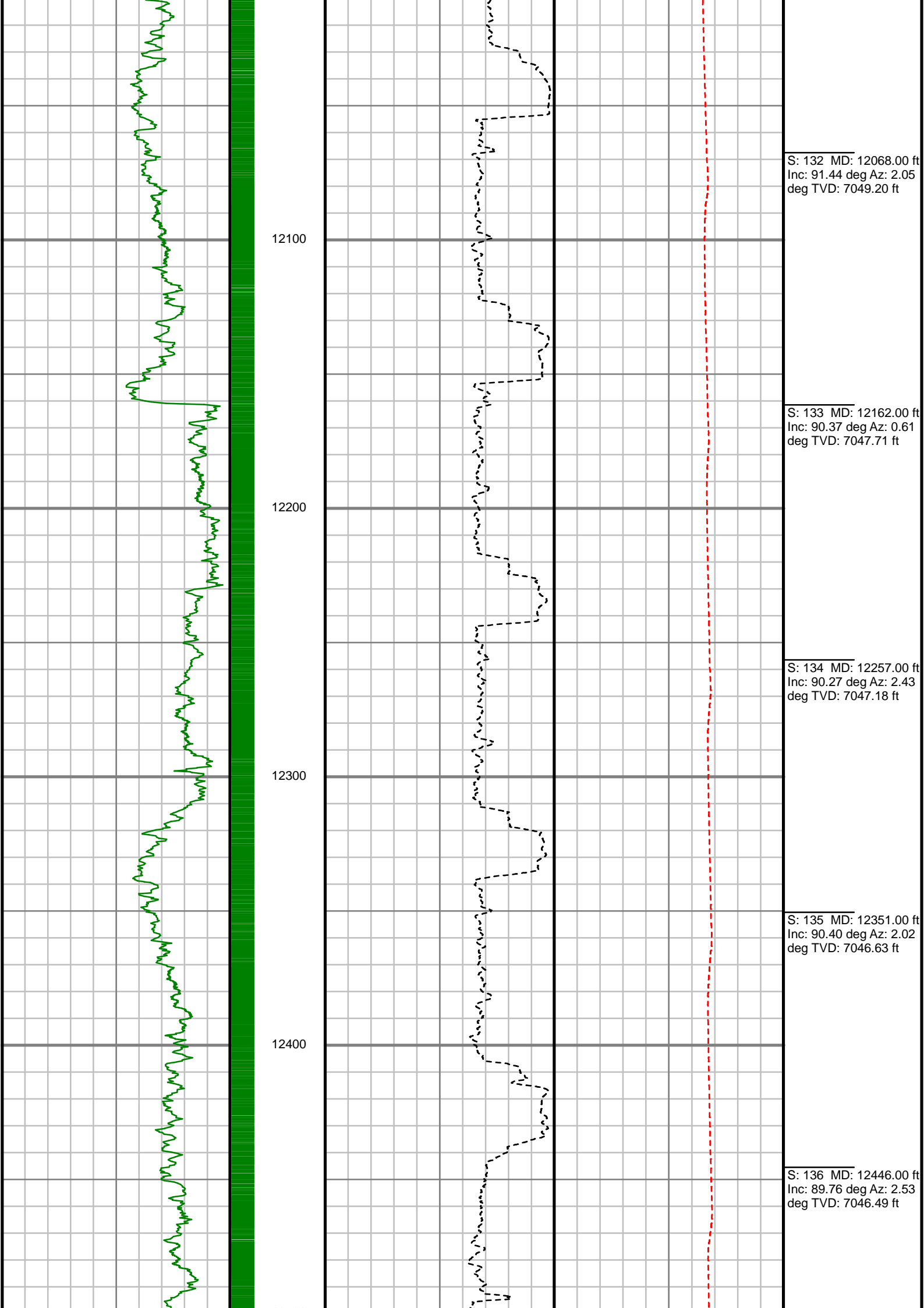
S: 128 MD: 11690.00 ft  
Inc: 90.17 deg Az:  
358.73 deg TVD:  
7054.35 ft

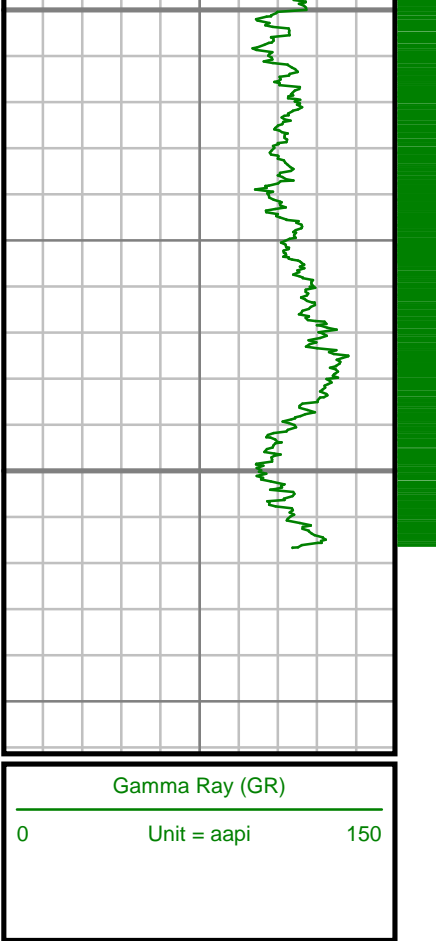
S: 129 MD: 11785.00 ft  
Inc: 91.28 deg Az:  
359.75 deg TVD:  
7053.15 ft

S: 130 MD: 11879.00 ft  
Inc: 90.07 deg Az:  
359.66 deg TVD:  
7052.05 ft

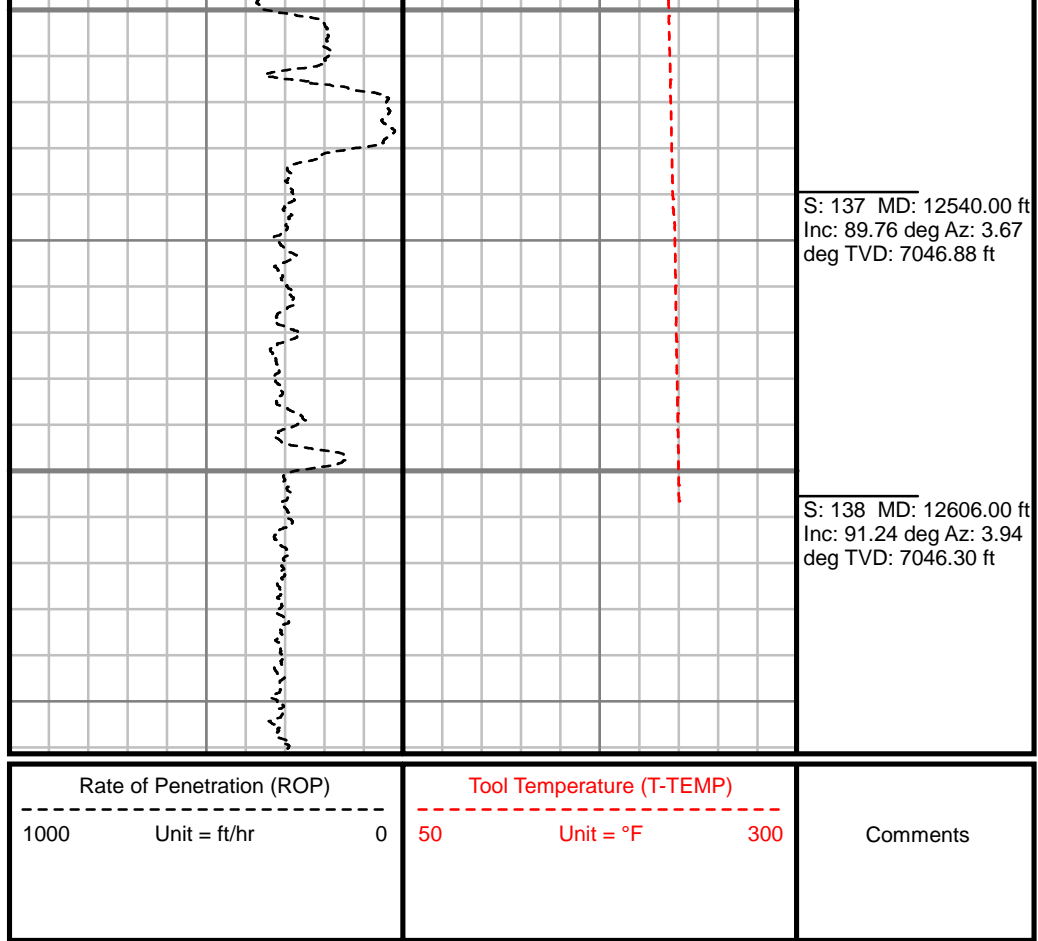
S: 131 MD: 11974.00 ft  
Inc: 90.97 deg Az: 0.84  
deg TVD: 7051.19 ft







MEASURED DEPTH  
1:500 (ft)





Well Location	CHEESE 1-28 HZ PAD
Well Name	CHEESE STATE 27N-21HZ
Survey Date	5/1/2015
Latitude	40°12'9.050"N
Longitude	104°39'44.615"W
Btotal	52524 nT
Dip	66.88 deg
Magnetic Declination	8.46 deg
North Reference	True North
Grid Correction	None
Depth Reference	RKB (25.00 ft)
Calculation Method	Minimum Curvature
Section (VS) Ref	0.00N (ft), 0.00E (ft), 0.00Azim (deg)
Operator(s)	B. GREER, M. SCHUSTER, S. WAXLER
Well Notes	

	MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Build Rate	Course Length
	ft	deg	deg	ft	ft	ft	ft	°/100ft	°/100ft	ft
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Invalid	Invalid	Invalid
	20.00	0.00	0.00	20.00	0.00	0.00	0.00	0.00	0.00	20.00
	103.00	0.10	73.90	103.00	0.02	0.02	0.07	0.12	0.12	83.00
	165.00	0.20	118.80	165.00	-0.02	-0.02	0.22	0.24	0.16	62.00
	225.00	0.10	5.40	225.00	-0.02	-0.02	0.31	0.43	-0.17	60.00
	282.00	0.10	19.50	282.00	0.08	0.08	0.33	0.04	0.00	57.00
	343.00	0.40	210.70	343.00	-0.05	-0.05	0.24	0.82	0.49	61.00
	407.00	1.20	245.10	406.99	-0.53	-0.53	-0.48	1.40	1.25	64.00
	470.00	2.00	250.70	469.97	-1.17	-1.17	-2.11	1.29	1.27	63.00
	534.00	2.80	258.40	533.91	-1.85	-1.85	-4.70	1.34	1.25	64.00
	598.00	4.00	250.00	597.80	-2.93	-2.93	-8.33	2.03	1.88	64.00
	663.00	4.50	250.50	662.62	-4.56	-4.56	-12.86	0.77	0.77	65.00
	727.00	4.90	251.40	726.40	-6.27	-6.27	-17.82	0.64	0.63	64.00
	791.00	5.40	251.90	790.14	-8.07	-8.07	-23.27	0.78	0.78	64.00
	855.00	6.30	253.40	853.81	-10.01	-10.01	-29.50	1.43	1.41	64.00
	919.00	7.30	256.30	917.36	-11.98	-11.98	-36.82	1.65	1.56	64.00
	983.00	8.10	253.70	980.78	-14.21	-14.21	-45.09	1.36	1.25	64.00
	1047.00	8.80	253.10	1044.09	-16.89	-16.89	-54.11	1.10	1.09	64.00
	1110.00	9.90	251.30	1106.25	-20.03	-20.03	-63.85	1.81	1.75	63.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Build Rate °/100ft	Course Length ft
1162.00	10.90	251.10	1157.39	-23.06	-23.06	-72.73	1.92	1.92	52.00
1233.00	11.55	254.44	1227.04	-27.14	-27.14	-85.93	1.30	0.92	71.00
1296.00	11.82	248.88	1288.73	-31.16	-31.16	-98.03	1.84	0.42	63.00
1390.00	11.31	234.36	1380.84	-40.00	-40.00	-114.51	3.14	-0.54	94.00
1485.00	11.65	233.31	1473.94	-51.16	-51.16	-129.78	0.42	0.35	95.00
1579.00	10.64	227.36	1566.17	-62.72	-62.72	-143.77	1.63	-1.07	94.00
1674.00	9.92	226.83	1659.64	-74.26	-74.26	-156.20	0.76	-0.75	95.00
1768.00	10.08	225.30	1752.21	-85.59	-85.59	-167.95	0.33	0.16	94.00
1863.00	9.79	226.98	1845.79	-96.95	-96.95	-179.76	0.43	-0.30	95.00
1957.00	10.52	220.06	1938.32	-108.97	-108.97	-191.13	1.51	0.78	94.00
2051.00	9.90	222.12	2030.83	-121.53	-121.53	-202.07	0.77	-0.67	94.00
2145.00	10.20	220.67	2123.39	-133.83	-133.83	-212.92	0.42	0.32	94.00
2240.00	10.86	219.04	2216.79	-147.17	-147.17	-224.04	0.77	0.70	95.00
2334.00	10.26	215.69	2309.20	-160.85	-160.85	-234.50	0.92	-0.65	94.00
2429.00	9.96	218.85	2402.72	-174.12	-174.12	-244.59	0.66	-0.31	95.00
2523.00	8.65	220.22	2495.48	-185.85	-185.85	-254.26	1.42	-1.40	94.00
2618.00	8.42	223.18	2589.43	-196.38	-196.38	-263.63	0.53	-0.25	95.00
2712.00	7.56	223.35	2682.52	-205.89	-205.89	-272.58	0.91	-0.91	94.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Build Rate °/100ft	Course Length ft
2807.00	7.42	226.47	2776.71	-214.66	-214.66	-281.32	0.45	-0.15	95.00
2901.00	7.25	223.30	2869.94	-223.16	-223.16	-289.79	0.46	-0.18	94.00
2996.00	4.76	225.84	2964.41	-230.27	-230.27	-296.74	2.63	-2.62	95.00
3089.00	3.21	227.27	3057.18	-234.73	-234.73	-301.42	1.68	-1.67	93.00
3184.00	1.12	211.72	3152.11	-237.33	-237.33	-303.86	2.26	-2.20	95.00
3279.00	1.40	212.26	3247.09	-239.10	-239.10	-304.97	0.30	0.30	95.00
3373.00	0.14	280.08	3341.08	-240.06	-240.06	-305.70	1.45	-1.35	94.00
3468.00	0.13	178.03	3436.08	-240.15	-240.15	-305.81	0.22	0.00	95.00
3562.00	0.54	199.24	3530.07	-240.67	-240.67	-305.95	0.44	0.43	94.00
3656.00	0.77	217.31	3624.07	-241.59	-241.59	-306.48	0.33	0.25	94.00
3751.00	1.05	201.30	3719.06	-242.91	-242.91	-307.18	0.39	0.29	95.00
3845.00	0.45	209.16	3813.05	-244.03	-244.03	-307.67	0.64	-0.63	94.00
3940.00	0.47	249.62	3908.04	-244.50	-244.50	-308.22	0.34	0.02	95.00
4129.00	0.58	237.59	4097.04	-245.28	-245.28	-309.76	0.08	0.06	189.00
4223.00	1.20	253.72	4191.03	-245.82	-245.82	-311.11	0.70	0.65	94.00
4318.00	0.49	258.92	4286.01	-246.17	-246.17	-312.46	0.75	-0.75	95.00
4412.00	0.95	257.70	4380.01	-246.41	-246.41	-313.61	0.49	0.49	94.00
4506.00	1.06	313.90	4473.99	-245.98	-245.98	-315.00	1.01	0.12	94.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Build Rate °/100ft	Course Length ft
4601.00	1.04	343.40	4568.98	-244.54	-244.54	-315.88	0.56	-0.03	95.00
4695.00	0.73	68.79	4662.97	-243.51	-243.51	-315.56	1.30	-0.32	94.00
4790.00	0.55	136.00	4757.97	-243.62	-243.62	-314.68	0.76	-0.19	95.00
4884.00	0.97	232.17	4851.96	-244.43	-244.43	-315.00	1.24	0.45	94.00
4979.00	0.34	296.76	4946.95	-244.80	-244.80	-315.88	0.93	-0.66	95.00
5073.00	0.89	90.24	5040.95	-244.68	-244.68	-315.40	1.28	0.58	94.00
5168.00	0.97	90.62	5135.94	-244.69	-244.69	-313.86	0.08	0.08	95.00
5262.00	0.45	80.03	5229.93	-244.63	-244.63	-312.70	0.56	-0.55	94.00
5451.00	0.21	110.96	5418.93	-244.63	-244.63	-311.63	0.15	-0.13	189.00
5546.00	0.03	41.30	5513.93	-244.67	-244.67	-311.45	0.22	-0.19	95.00
5640.00	0.31	323.64	5607.93	-244.45	-244.45	-311.58	0.32	0.29	94.00
5735.00	0.07	259.23	5702.93	-244.26	-244.26	-311.79	0.30	-0.25	95.00
5924.00	0.38	323.15	5891.93	-243.78	-243.78	-312.29	0.19	0.16	189.00
6019.00	0.54	355.29	5986.92	-243.08	-243.08	-312.51	0.31	0.17	95.00
6113.00	1.04	102.41	6080.92	-242.83	-242.83	-311.71	1.39	0.53	94.00
6208.00	0.81	71.88	6175.91	-242.80	-242.80	-310.23	0.56	-0.24	95.00
6302.00	0.50	62.04	6269.90	-242.40	-242.40	-309.24	0.35	-0.33	94.00
6397.00	3.79	0.68	6364.82	-239.06	-239.06	-308.83	3.77	3.46	95.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Build Rate °/100ft	Course Length ft
6493.00	9.81	9.03	6460.11	-227.81	-227.81	-307.51	6.33	6.26	96.00
6587.00	17.07	20.88	6551.49	-206.98	-206.98	-301.32	8.23	7.73	94.00
6682.00	29.97	19.18	6638.41	-171.39	-171.39	-288.50	13.59	13.57	95.00
6776.00	36.18	359.56	6717.37	-121.28	-121.28	-280.97	13.10	6.61	94.00
6871.00	42.93	1.42	6790.57	-60.82	-60.82	-280.39	7.21	7.10	95.00
6965.00	47.75	3.45	6856.63	5.95	5.95	-277.50	5.35	5.12	94.00
7060.00	56.61	0.53	6914.84	80.86	80.86	-275.01	9.63	9.33	95.00
7154.00	63.17	358.99	6961.98	162.12	162.12	-275.39	7.13	6.98	94.00
7248.00	67.39	357.23	7001.28	247.44	247.44	-278.22	4.80	4.49	94.00
7343.00	76.16	359.60	7030.96	337.55	337.55	-280.67	9.53	9.23	95.00
7438.00	84.10	2.11	7047.23	431.05	431.05	-279.25	8.75	8.36	95.00
7533.00	88.05	2.09	7053.73	525.74	525.74	-275.78	4.16	4.16	95.00
7627.00	91.01	0.28	7054.50	619.71	619.71	-273.84	3.69	3.14	94.00
7722.00	91.01	0.22	7052.82	714.69	714.69	-273.42	0.06	0.00	95.00
7816.00	90.67	359.19	7051.45	808.68	808.68	-273.91	1.16	-0.36	94.00
7911.00	90.44	359.30	7050.53	903.66	903.66	-275.16	0.27	-0.25	95.00
8005.00	89.36	1.11	7050.69	997.66	997.66	-274.83	2.24	-1.14	94.00
8100.00	91.11	1.42	7050.30	1092.63	1092.63	-272.73	1.87	1.84	95.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Build Rate °/100ft	Course Length ft
8194.00	90.30	359.41	7049.15	1186.62	1186.62	-272.04	2.31	-0.86	94.00
8289.00	90.60	357.29	7048.40	1281.57	1281.57	-274.77	2.25	0.32	95.00
8383.00	91.24	359.34	7046.88	1375.51	1375.51	-277.54	2.28	0.68	94.00
8477.00	91.27	359.90	7044.82	1469.48	1469.48	-278.16	0.60	0.03	94.00
8572.00	91.58	1.18	7042.45	1564.45	1564.45	-277.26	1.39	0.32	95.00
8667.00	89.50	358.19	7041.56	1659.43	1659.43	-277.78	3.84	-2.19	95.00
8761.00	89.23	357.38	7042.61	1753.35	1753.35	-281.41	0.90	-0.29	94.00
8855.00	88.89	356.06	7044.15	1847.18	1847.18	-286.78	1.45	-0.36	94.00
8949.00	89.23	357.15	7045.69	1941.00	1941.00	-292.35	1.21	0.36	94.00
9044.00	88.93	358.81	7047.22	2035.93	2035.93	-295.70	1.77	-0.32	95.00
9139.00	88.83	359.60	7049.09	2130.90	2130.90	-297.03	0.84	-0.11	95.00
9233.00	90.27	0.15	7049.83	2224.89	2224.89	-297.24	1.64	1.54	94.00
9328.00	89.80	0.64	7049.78	2319.89	2319.89	-296.58	0.71	-0.49	95.00
9422.00	90.50	0.93	7049.53	2413.88	2413.88	-295.30	0.81	0.75	94.00
9517.00	90.07	0.55	7049.06	2508.87	2508.87	-294.07	0.61	-0.46	95.00
9611.00	89.03	0.83	7049.80	2602.86	2602.86	-292.94	1.15	-1.11	94.00
9706.00	89.19	1.84	7051.27	2697.82	2697.82	-290.73	1.07	0.18	95.00
9800.00	89.63	2.08	7052.24	2791.76	2791.76	-287.52	0.53	0.46	94.00

MD ft	Inc deg	Azim deg	TVD ft	VS ft	+N/-S ft	+E/-W ft	DLS °/100ft	Build Rate °/100ft	Course Length ft
9895.00	90.47	0.85	7052.15	2886.73	2886.73	-285.08	1.56	0.88	95.00
9989.00	89.53	1.01	7052.16	2980.71	2980.71	-283.55	1.01	-1.00	94.00
10084.00	89.46	0.09	7052.99	3075.70	3075.70	-282.64	0.97	-0.07	95.00
10178.00	89.80	0.40	7053.60	3169.70	3169.70	-282.25	0.49	0.36	94.00
10273.00	89.76	359.46	7053.96	3264.70	3264.70	-282.36	0.98	-0.04	95.00
10368.00	89.60	0.46	7054.49	3359.70	3359.70	-282.42	1.06	-0.18	95.00
10462.00	90.00	1.06	7054.82	3453.69	3453.69	-281.18	0.76	0.43	94.00
10556.00	89.77	1.49	7055.01	3547.66	3547.66	-279.09	0.53	-0.25	94.00
10651.00	89.90	0.65	7055.29	3642.65	3642.65	-277.31	0.89	0.14	95.00
10745.00	90.20	0.57	7055.21	3736.64	3736.64	-276.31	0.33	0.32	94.00
10839.00	90.57	0.16	7054.57	3830.64	3830.64	-275.71	0.59	0.39	94.00
10934.00	90.24	1.57	7053.91	3925.62	3925.62	-274.29	1.53	-0.35	95.00
11029.00	90.30	1.81	7053.46	4020.58	4020.58	-271.49	0.26	0.07	95.00
11123.00	90.37	1.09	7052.91	4114.55	4114.55	-269.12	0.77	0.07	94.00
11218.00	89.56	0.37	7052.96	4209.54	4209.54	-267.91	1.14	-0.85	95.00
11312.00	89.66	0.18	7053.60	4303.53	4303.53	-267.46	0.22	0.11	94.00
11407.00	89.46	0.07	7054.32	4398.53	4398.53	-267.25	0.24	-0.21	95.00
11501.00	90.07	0.41	7054.71	4492.53	4492.53	-266.86	0.74	0.64	94.00

MD	Inc	Azim	TVD	VS	+N/-S	+E/-W	DLS	Build Rate	Course Length
ft	deg	deg	ft	ft	ft	ft	°/100ft	°/100ft	ft
11596.00	90.10	0.05	7054.57	4587.53	4587.53	-266.48	0.37	0.04	95.00
11690.00	90.17	358.73	7054.35	4681.52	4681.52	-267.48	1.41	0.07	94.00
11785.00	91.28	359.75	7053.15	4776.50	4776.50	-268.73	1.59	1.17	95.00
11879.00	90.07	359.66	7052.05	4870.49	4870.49	-269.22	1.29	-1.29	94.00
11974.00	90.97	0.84	7051.19	4965.48	4965.48	-268.81	1.57	0.95	95.00
12068.00	91.44	2.05	7049.20	5059.43	5059.43	-266.44	1.39	0.50	94.00
12162.00	90.37	0.61	7047.71	5153.39	5153.39	-264.26	1.92	-1.14	94.00
12257.00	90.27	2.43	7047.18	5248.35	5248.35	-261.74	1.93	-0.11	95.00
12351.00	90.40	2.02	7046.63	5342.28	5342.28	-258.08	0.46	0.14	94.00
12446.00	89.76	2.53	7046.49	5437.20	5437.20	-254.31	0.86	-0.67	95.00
12540.00	89.76	3.67	7046.88	5531.06	5531.06	-249.24	1.22	0.00	94.00
12606.00	91.24	3.94	7046.30	5596.91	5596.91	-244.86	2.28	2.24	66.00

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

1:500 FEET MD