

# CASTOR FEDERAL LD15-72HN

**MD**  
2":100'

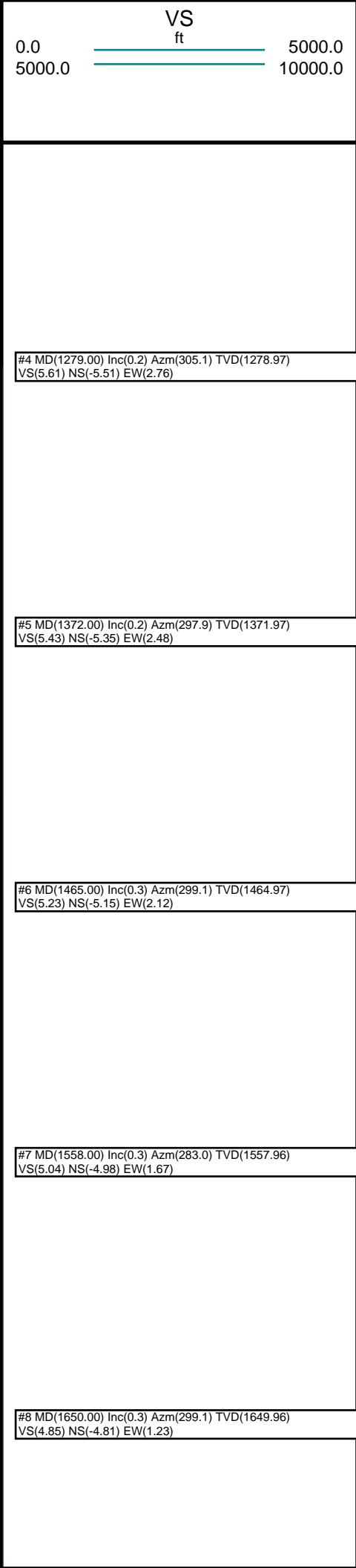
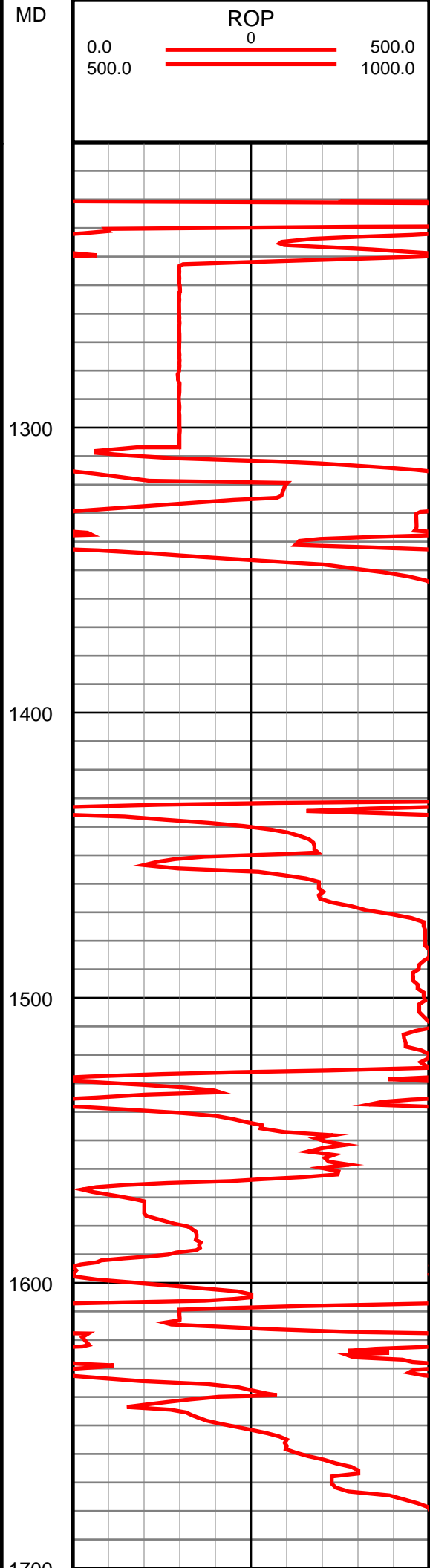
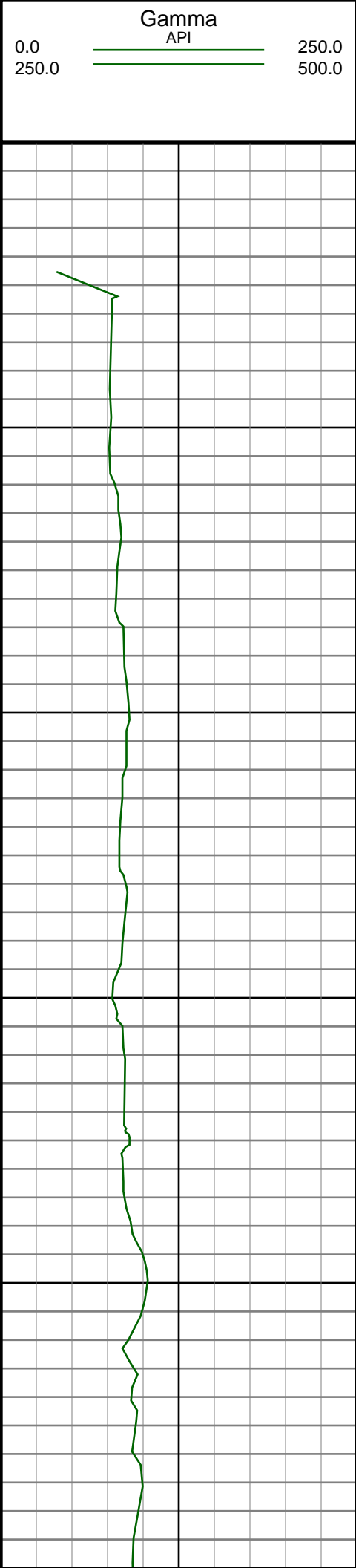
**Company:** Noble Energy Inc  
**Well Name:** CASTOR FEDERAL LD15-72HN  
**UWI or LSD:** 05-123-37433  
**Rig Id:** H&P 273  
**State:** Colorado  
**County/Parish:** Weld  
**Country:** USA  
**Survey Company:** Ensign Directional  
**Job number:** 139453  
**Dir. Driller Days** Mike David  
**Dir. Driller Nights** Bret Johnson  
**MWD/LWD Days** Tyler Teague  
**MWD/LWD Nights** Jamey House

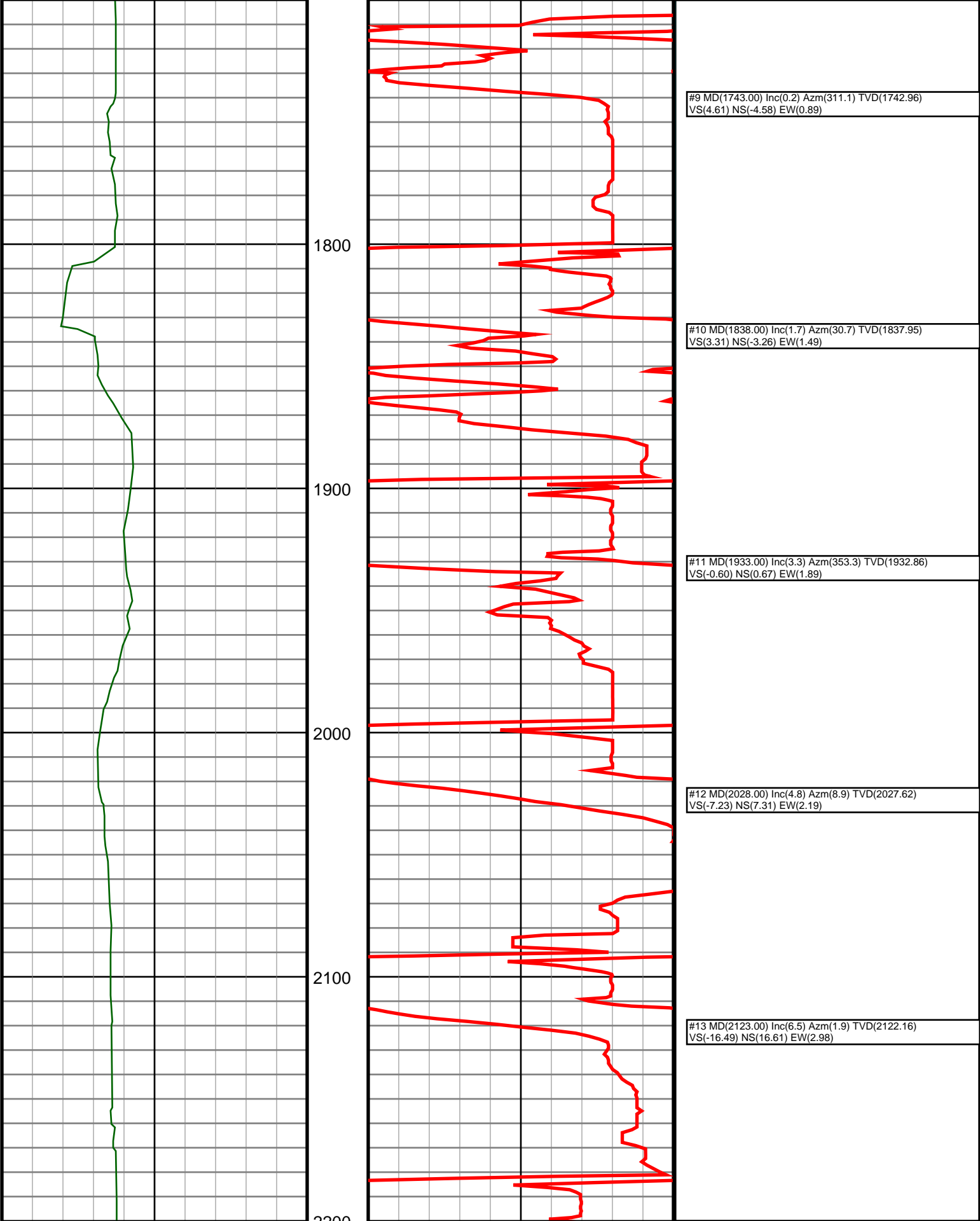
**Log measurements:**  
**Depth measured from:**  
**Maximum temperature:** 206.6

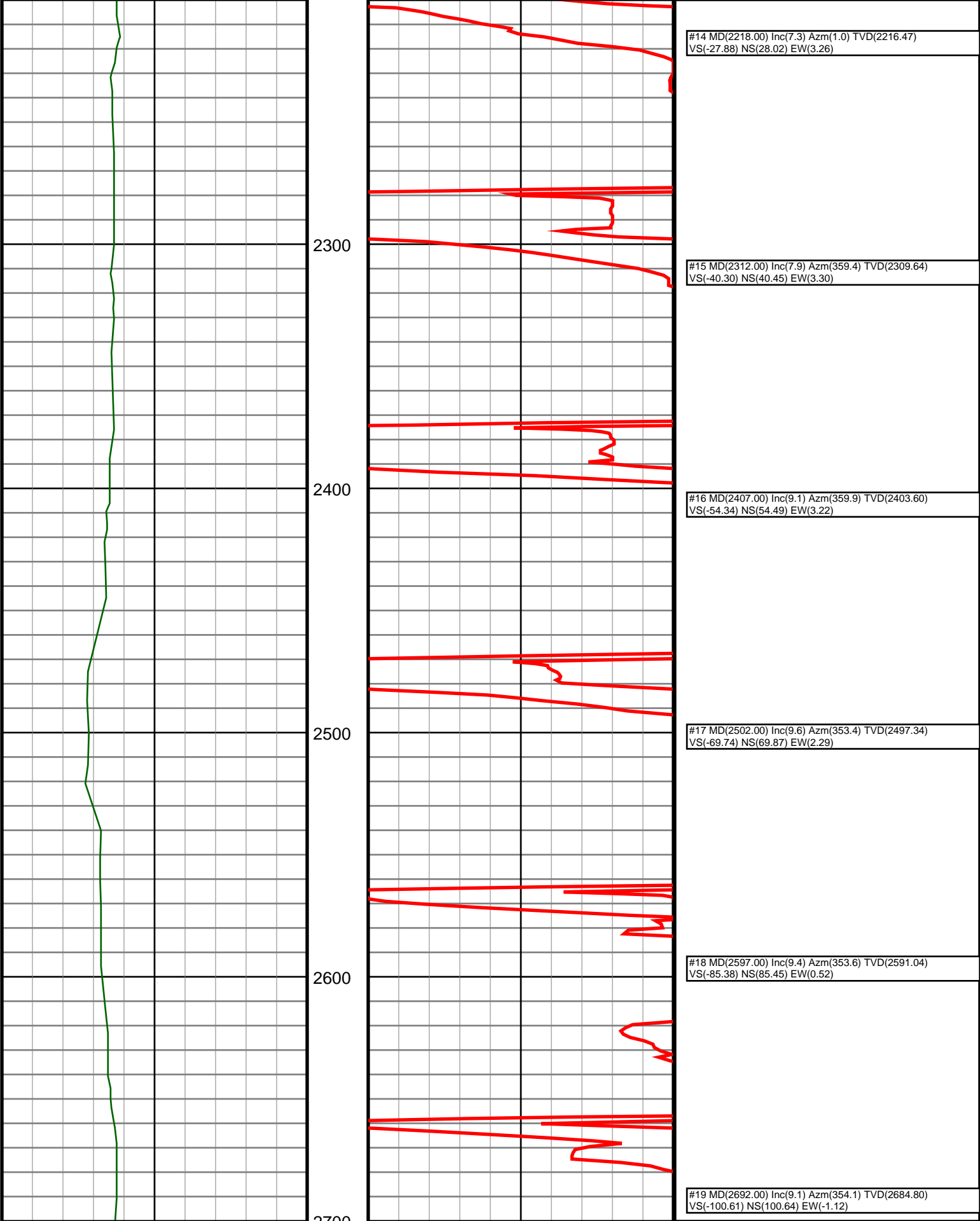
**Depth** **Date**  
**Start:** 1242 ft 12/09/2013  
**End:** 9861 ft 12/15/2013

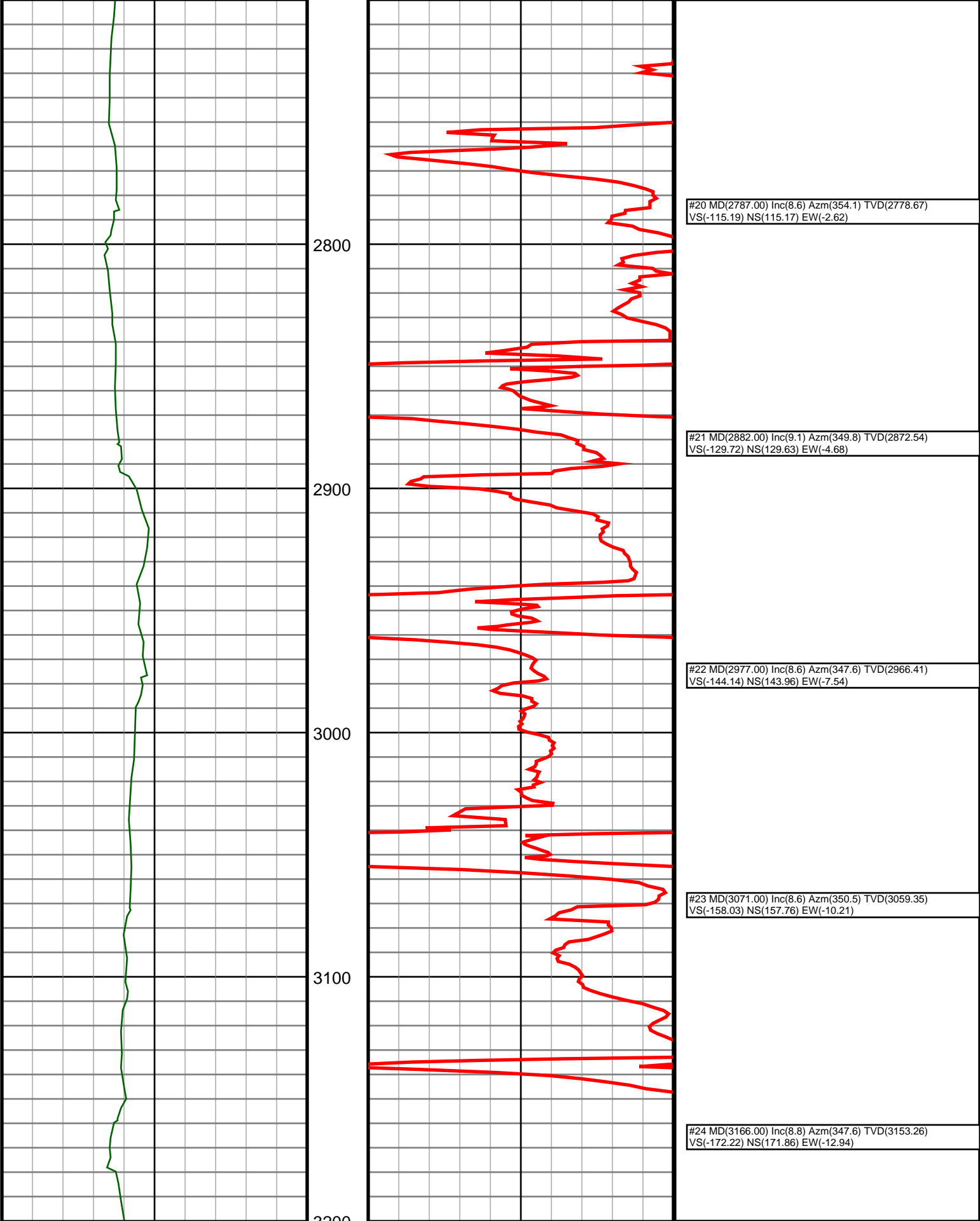
Casing	Depth	Size	Mud Type:	Elevations
Surface:	1232	9.625	Density:	KB: 4728
Intermediate:	6037	7	Viscosity:	GL: 4704
			Rm:	DF: 4728
			Rmf:	
			Rmc:	

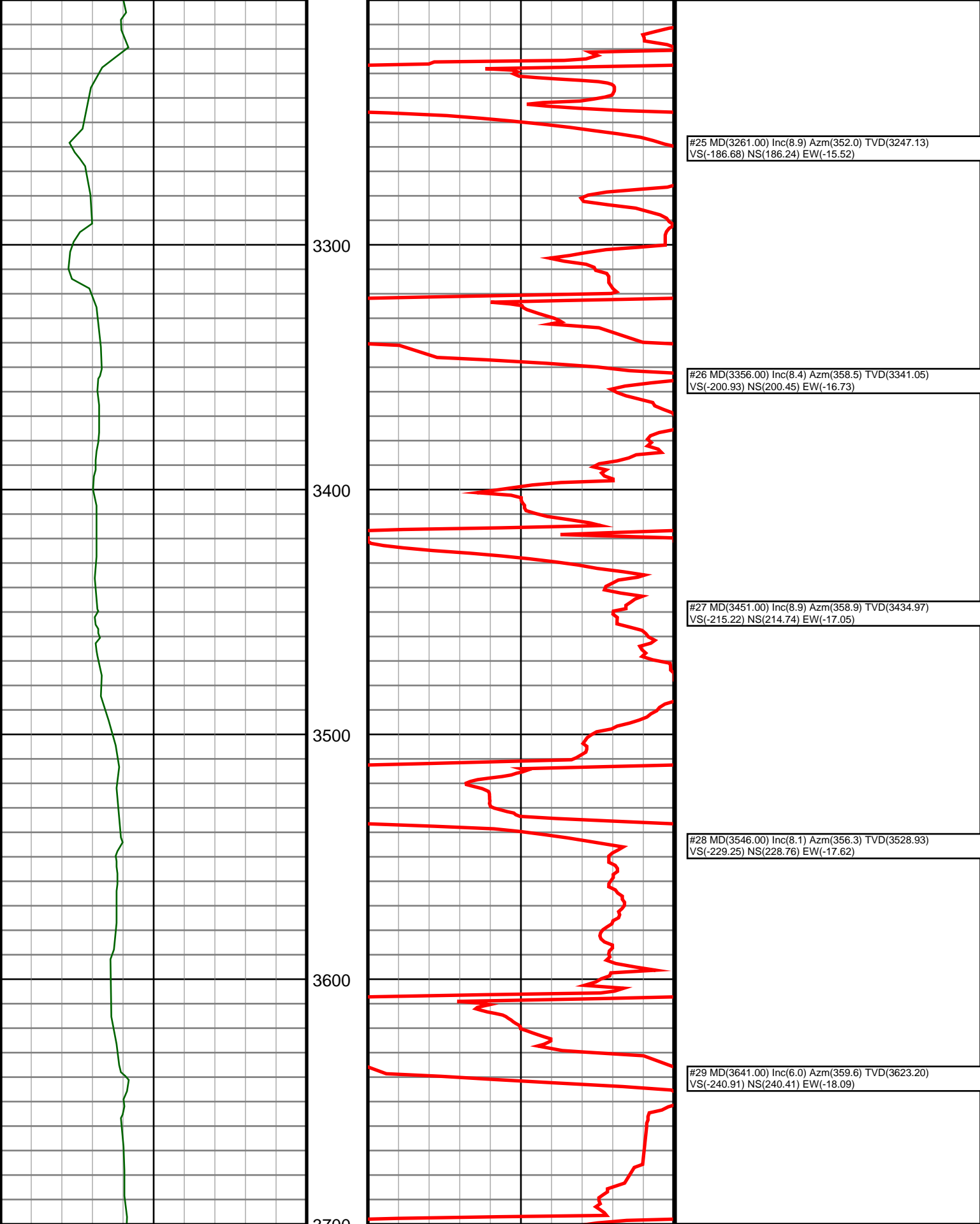
Run	Bit Size	Offsets	Gamma	Survey	Start	Depths	End	Start	Dates	End
1	8.75	-1.00	-1.00		0	1242		12/08/2013		12/08/2013
2	8.75	61.58	56.58		1242	4860		12/10/2013		12/11/2013
3	8.75	61.78	56.78		4860	6048		12/11/2013		12/12/2013
4	6.125	72.59	67.59		6048	9861		12/13/2013		12/15/2013
5										
6										
7										
8										
9										
10										

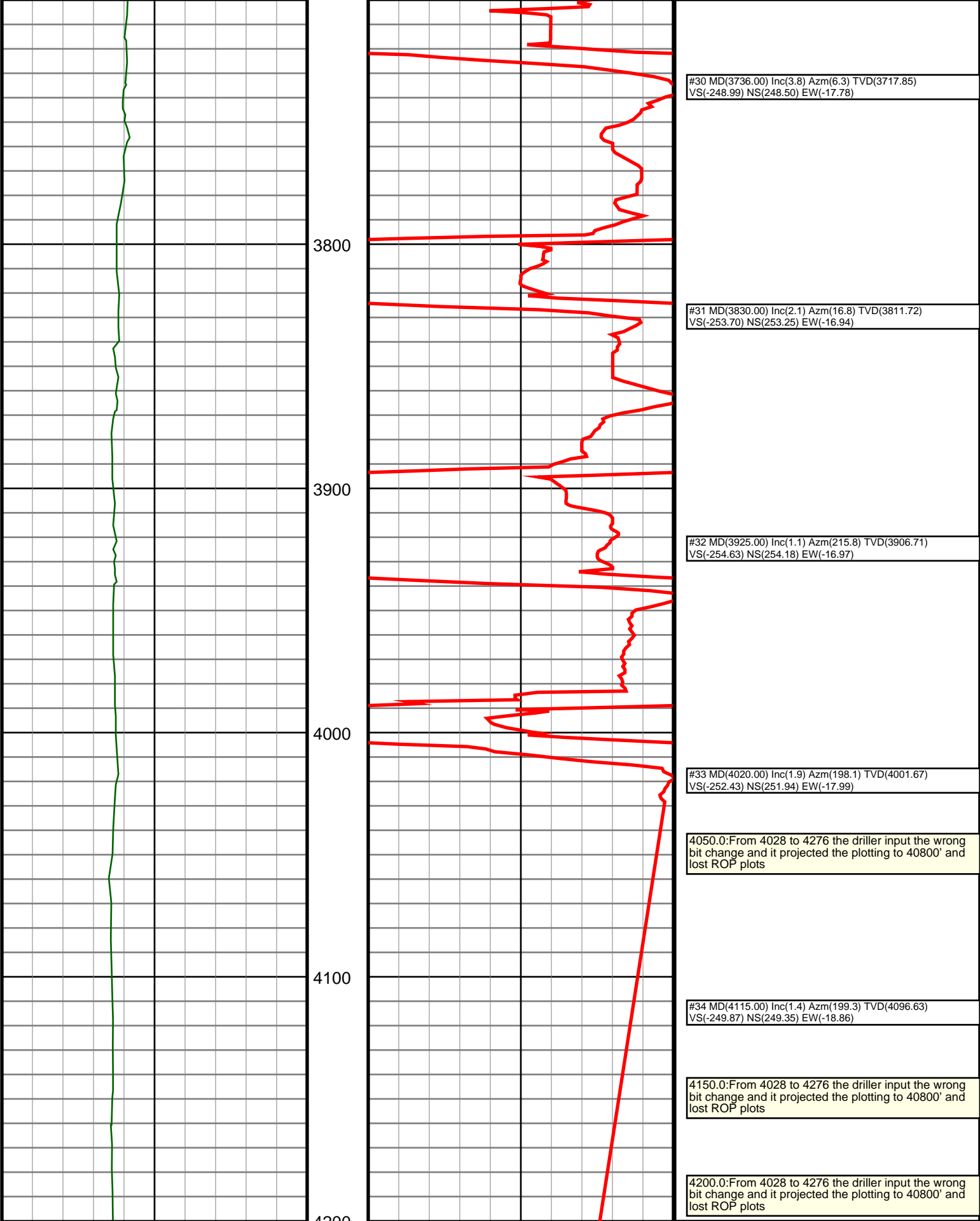


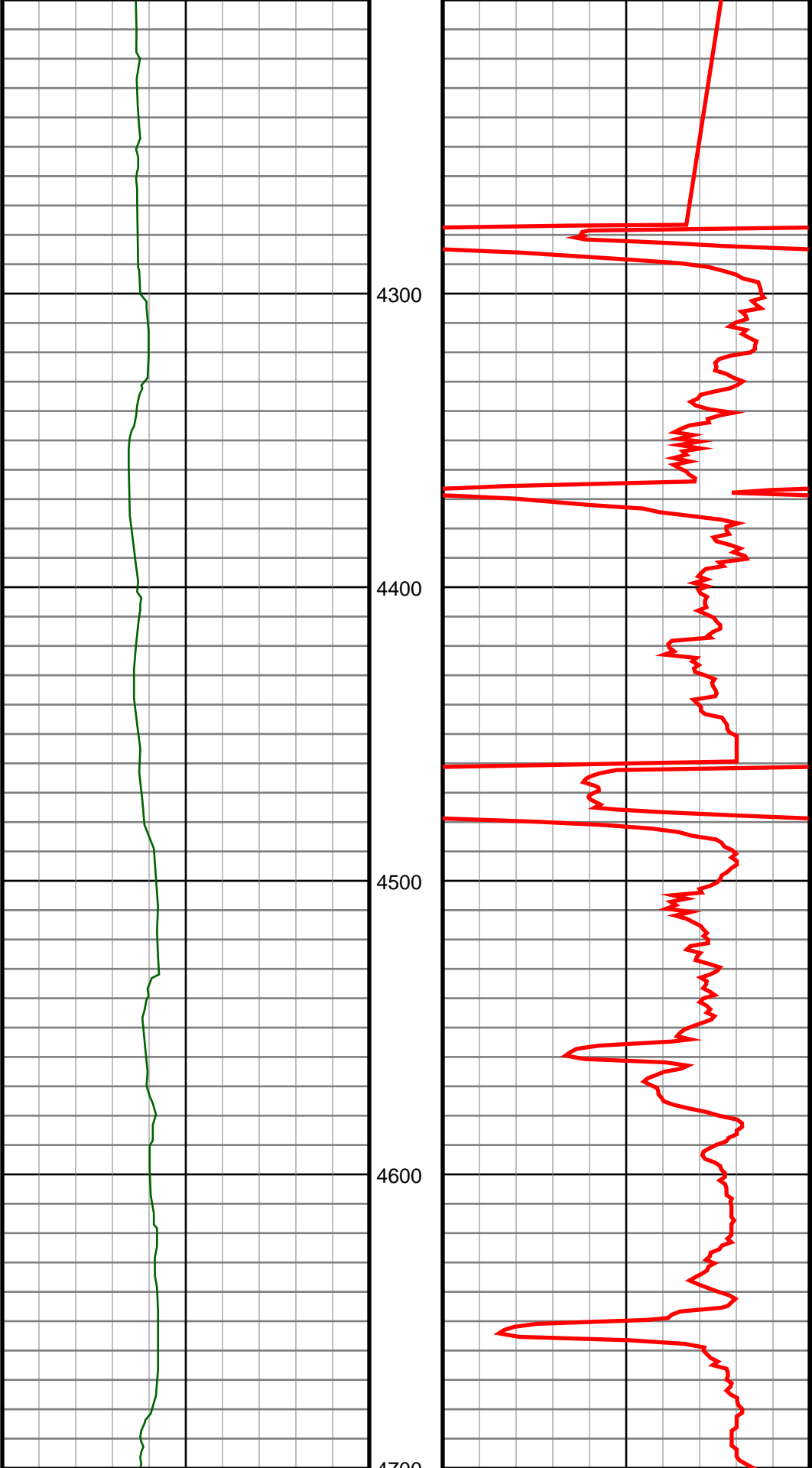












4200.0: From 4028 to 4276 the driller input the wrong bit change and it projected the plotting to 40800' and lost ROP plots

#36 MD(4305.00) Inc(1.9) Azm(195.9) TVD(4286.56)  
VS(-244.70) NS(244.17) EW(-19.02)

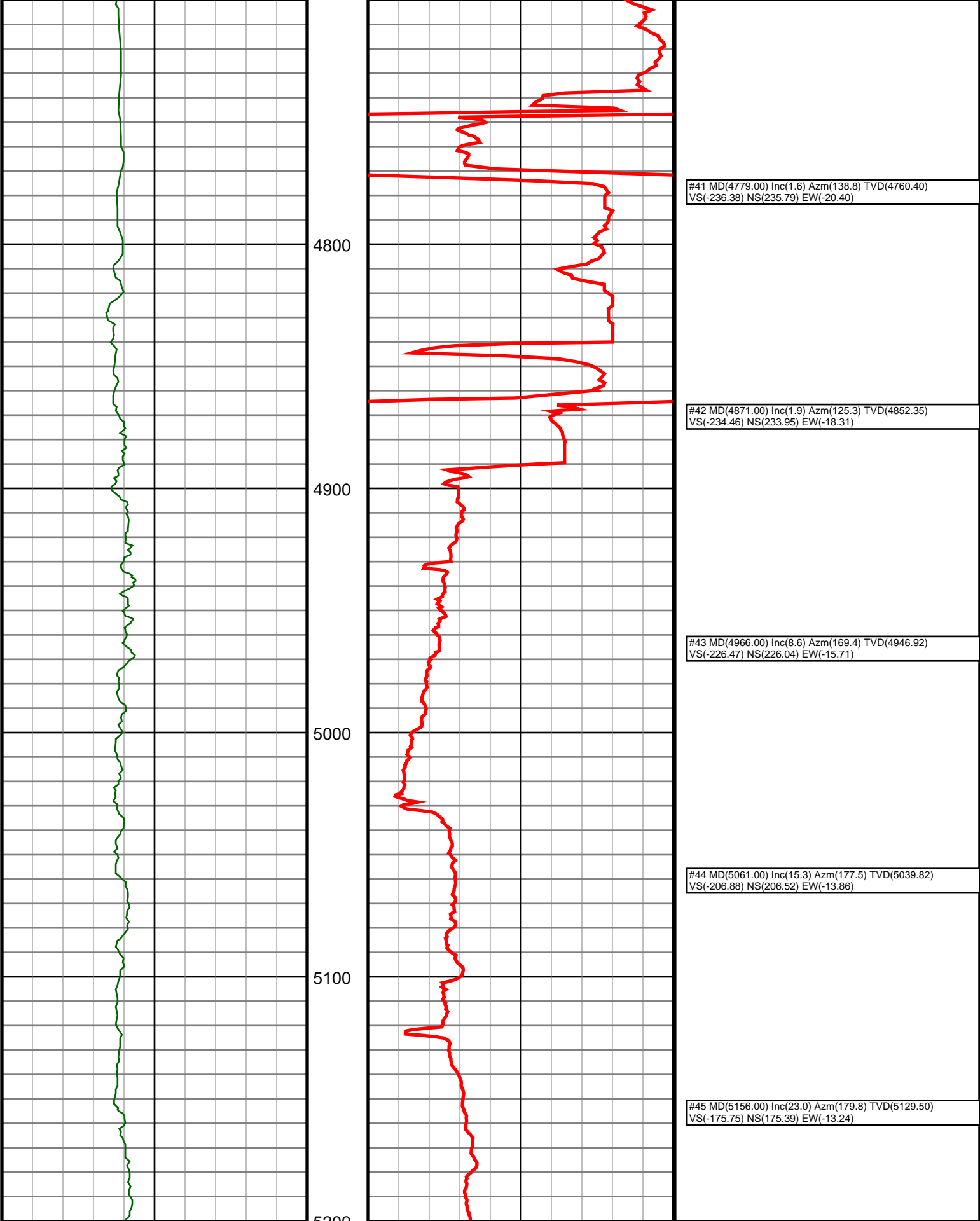
#37 MD(4400.00) Inc(2.6) Azm(228.1) TVD(4381.49)  
VS(-241.82) NS(241.21) EW(-21.06)

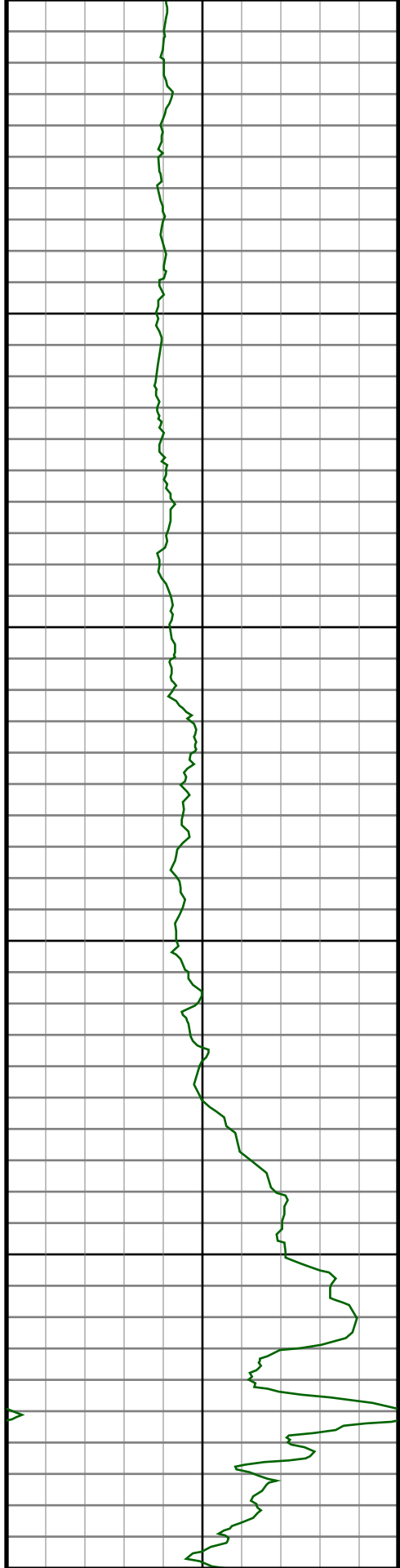
#38 MD(4495.00) Inc(1.3) Azm(192.1) TVD(4476.44)  
VS(-239.40) NS(238.72) EW(-22.89)

#39 MD(4589.00) Inc(0.6) Azm(148.7) TVD(4570.42)  
VS(-237.93) NS(237.26) EW(-22.86)

#40 MD(4684.00) Inc(0.8) Azm(91.7) TVD(4665.42)  
VS(-237.45) NS(236.81) EW(-21.94)







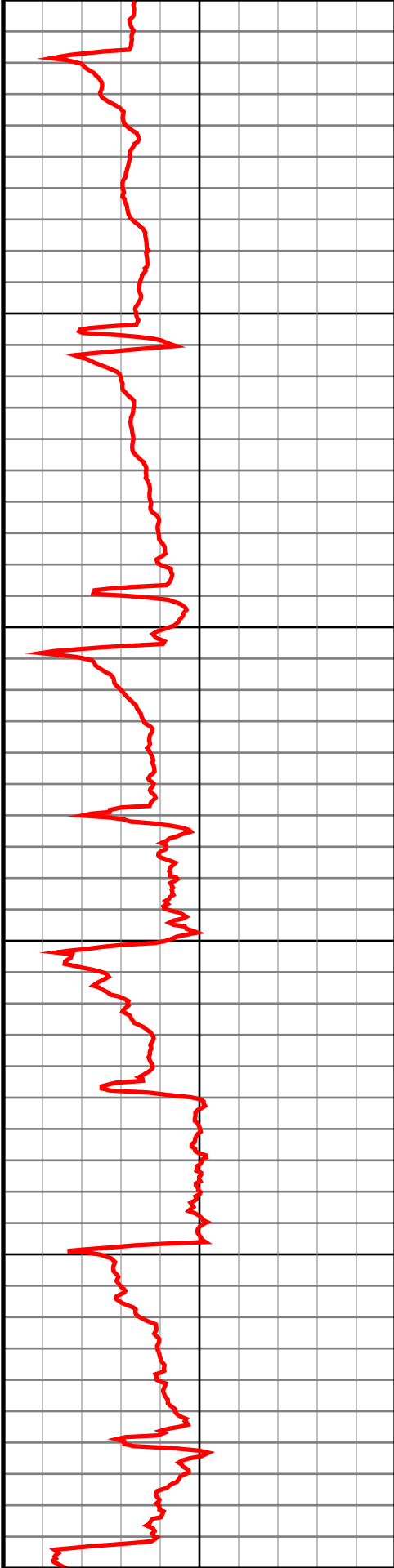
5300

5400

5500

5600

5700



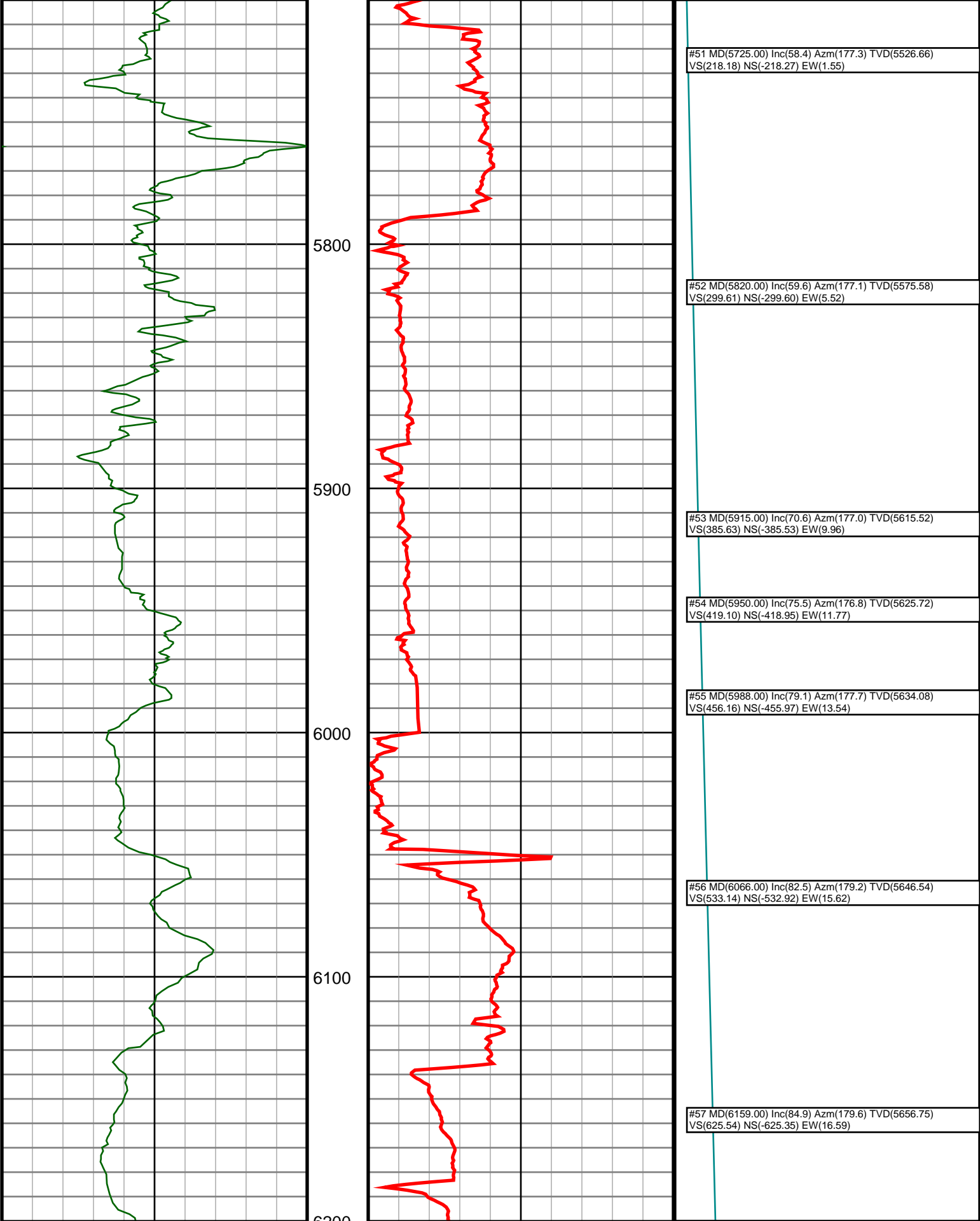
#46 MD(5251.00) Inc(31.7) Azm(177.8) TVD(5213.80)  
VS(-132.16) NS(131.80) EW(-12.22)

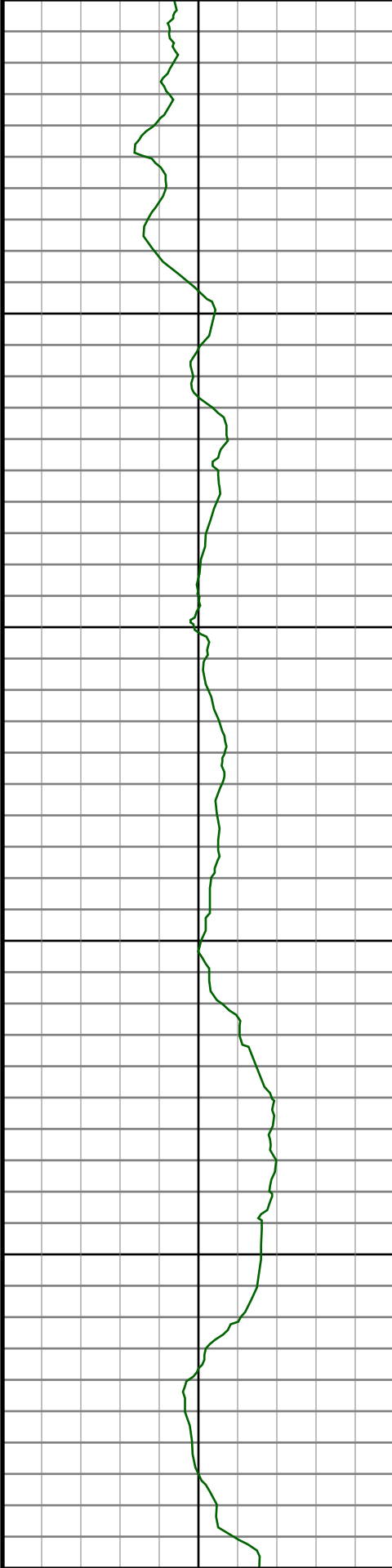
#47 MD(5346.00) Inc(40.4) Azm(179.4) TVD(5290.53)  
VS(-76.32) NS(75.97) EW(-10.94)

#48 MD(5441.00) Inc(48.0) Azm(178.0) TVD(5358.59)  
VS(-10.14) NS(9.81) EW(-9.38)

#49 MD(5535.00) Inc(51.4) Azm(177.8) TVD(5419.38)  
VS(61.54) NS(-61.83) EW(-6.75)

#50 MD(5630.00) Inc(56.3) Azm(176.4) TVD(5475.41)  
VS(138.21) NS(-138.41) EW(-2.84)





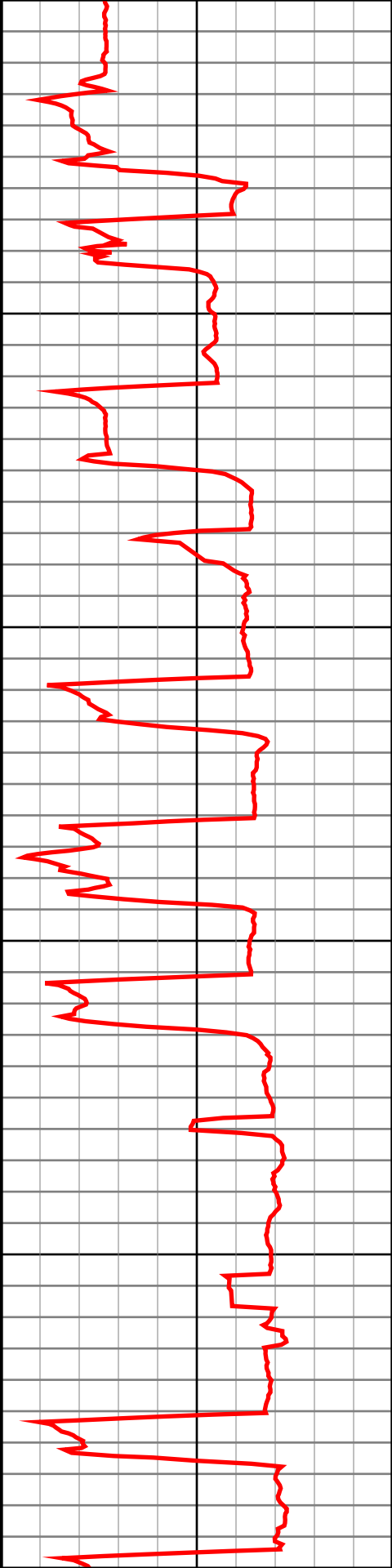
6300

6400

6500

6600

6700



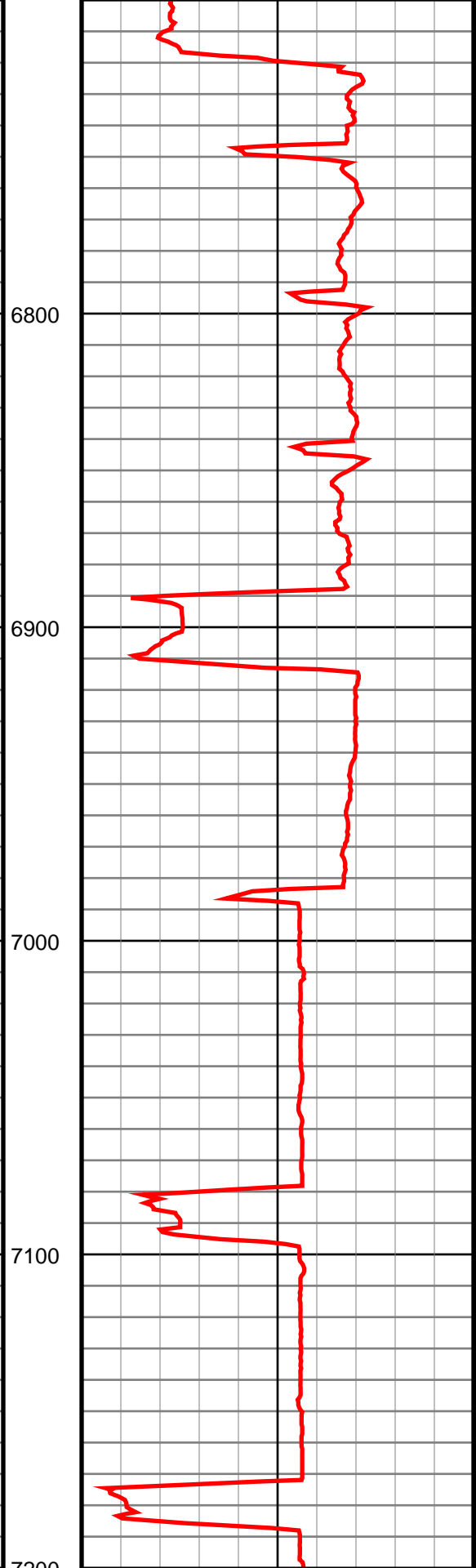
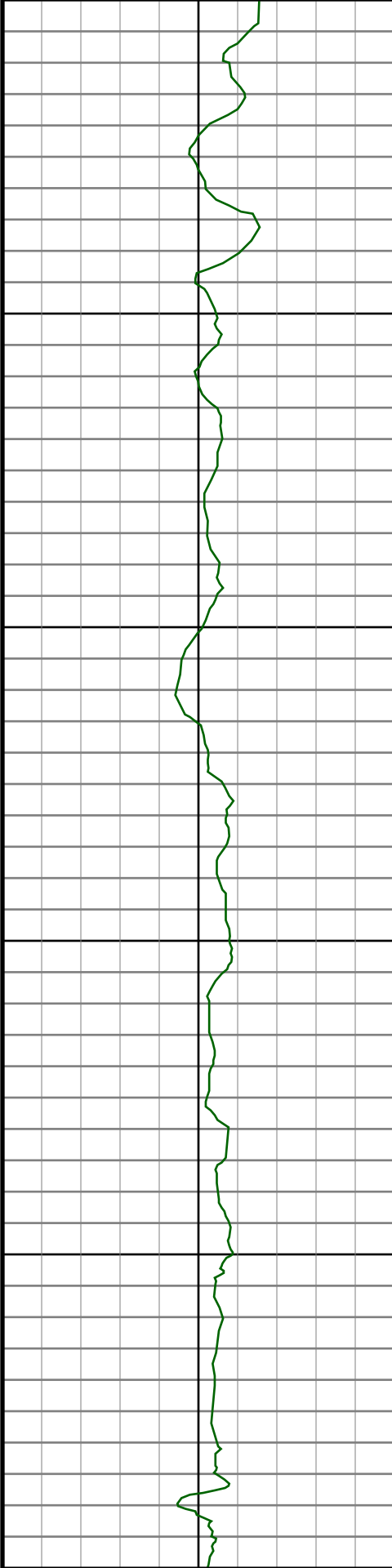
#58 MD(6252.00) Inc(94.8) Azm(178.2) TVD(5656.99)  
VS(718.41) NS(-718.21) EW(18.37)

#59 MD(6345.00) Inc(92.0) Azm(177.1) TVD(5651.48)  
VS(811.23) NS(-810.96) EW(22.18)

#60 MD(6439.00) Inc(92.4) Azm(176.8) TVD(5647.87)  
VS(905.15) NS(-904.76) EW(27.18)

#61 MD(6534.00) Inc(93.2) Azm(177.8) TVD(5643.23)  
VS(1000.03) NS(-999.54) EW(31.65)

#62 MD(6629.00) Inc(92.9) Azm(178.9) TVD(5638.17)  
VS(1094.89) NS(-1094.36) EW(34.38)



#63 MD(6724.00) Inc(89.3) Azm(176.4) TVD(5636.35)  
VS(1189.85) NS(-1189.24) EW(38.27)

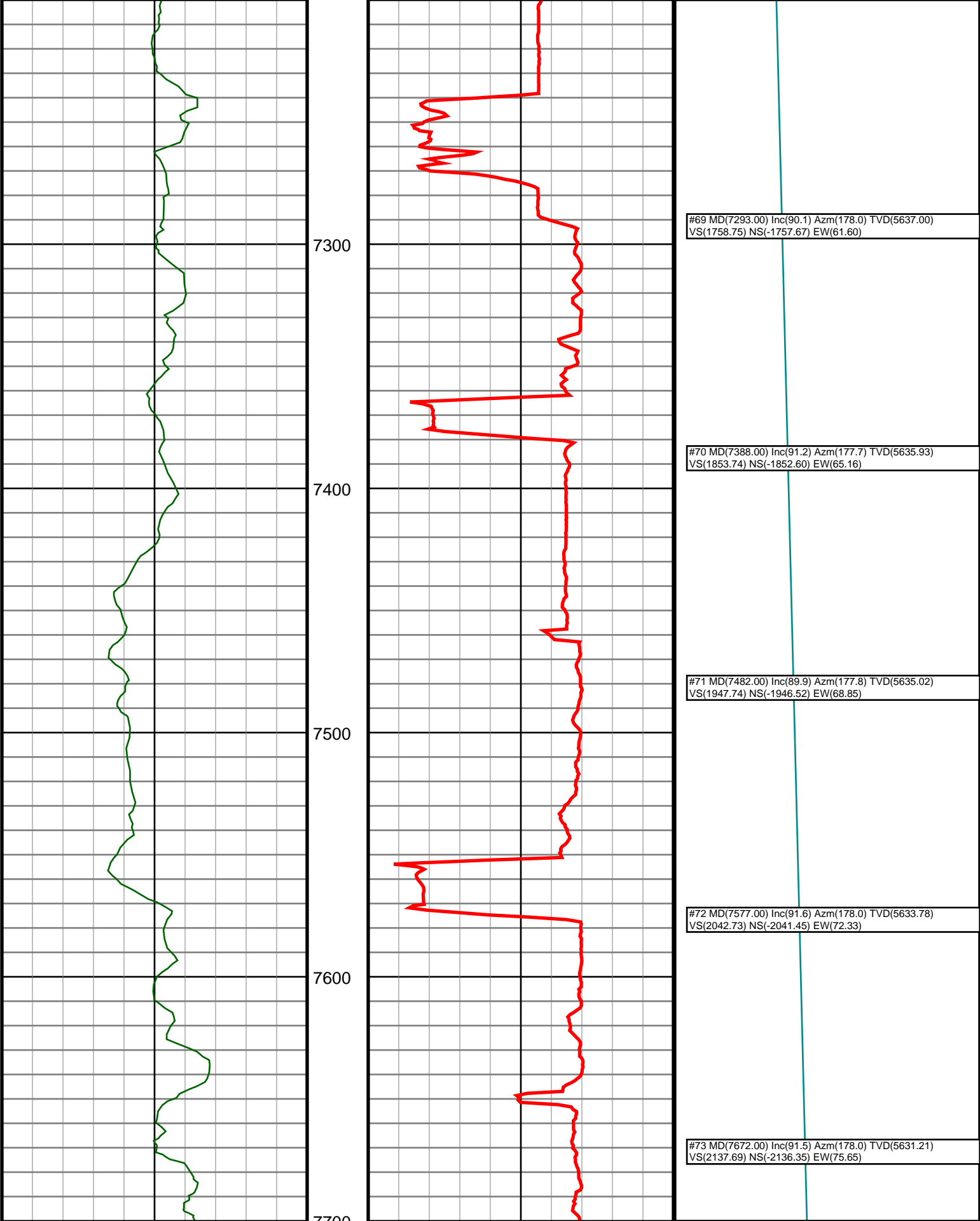
#64 MD(6819.00) Inc(88.5) Azm(176.6) TVD(5638.17)  
VS(1284.80) NS(-1284.05) EW(44.07)

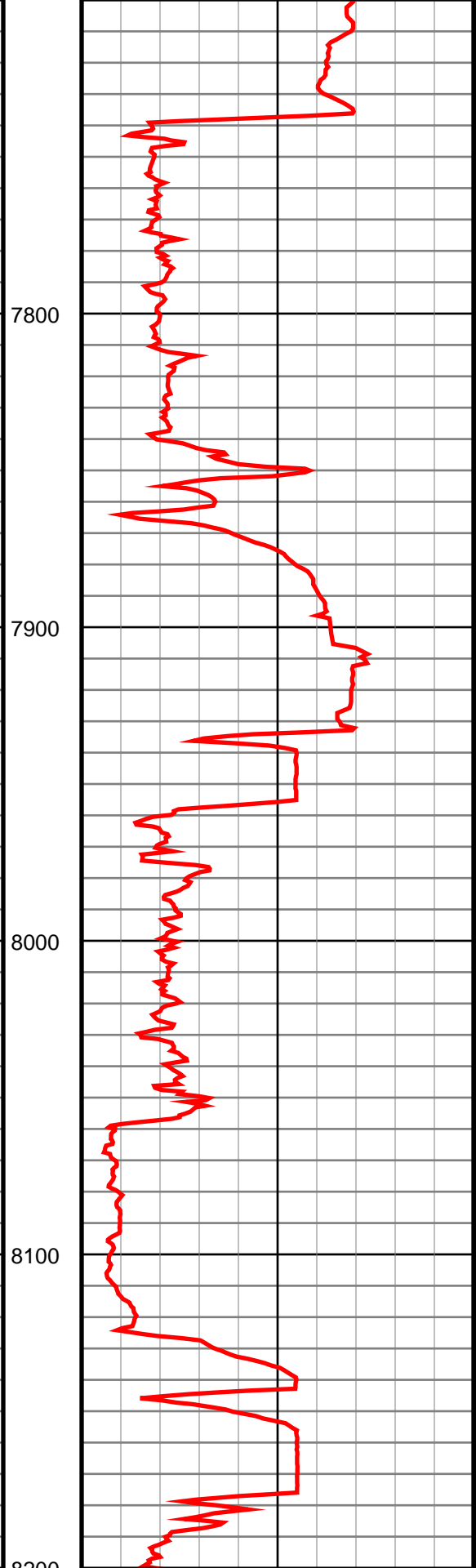
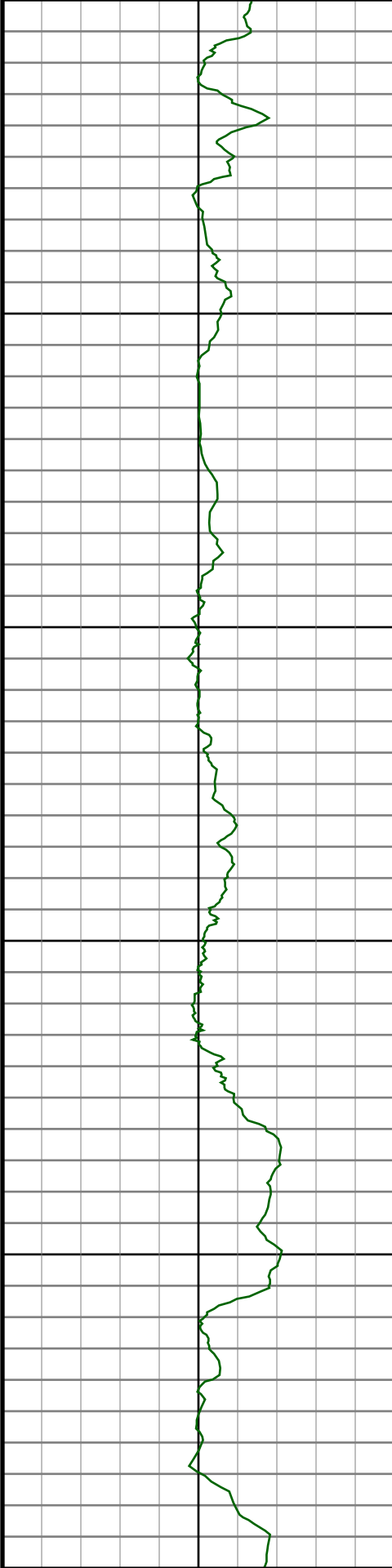
#65 MD(6913.00) Inc(90.4) Azm(178.5) TVD(5639.08)  
VS(1378.78) NS(-1377.95) EW(48.09)

#66 MD(7008.00) Inc(89.4) Azm(178.7) TVD(5639.24)  
VS(1473.78) NS(-1472.92) EW(50.41)

#67 MD(7103.00) Inc(90.5) Azm(177.1) TVD(5639.32)  
VS(1568.77) NS(-1567.85) EW(53.89)

#68 MD(7198.00) Inc(91.1) Azm(177.8) TVD(5638.00)  
VS(1663.76) NS(-1662.74) EW(58.12)





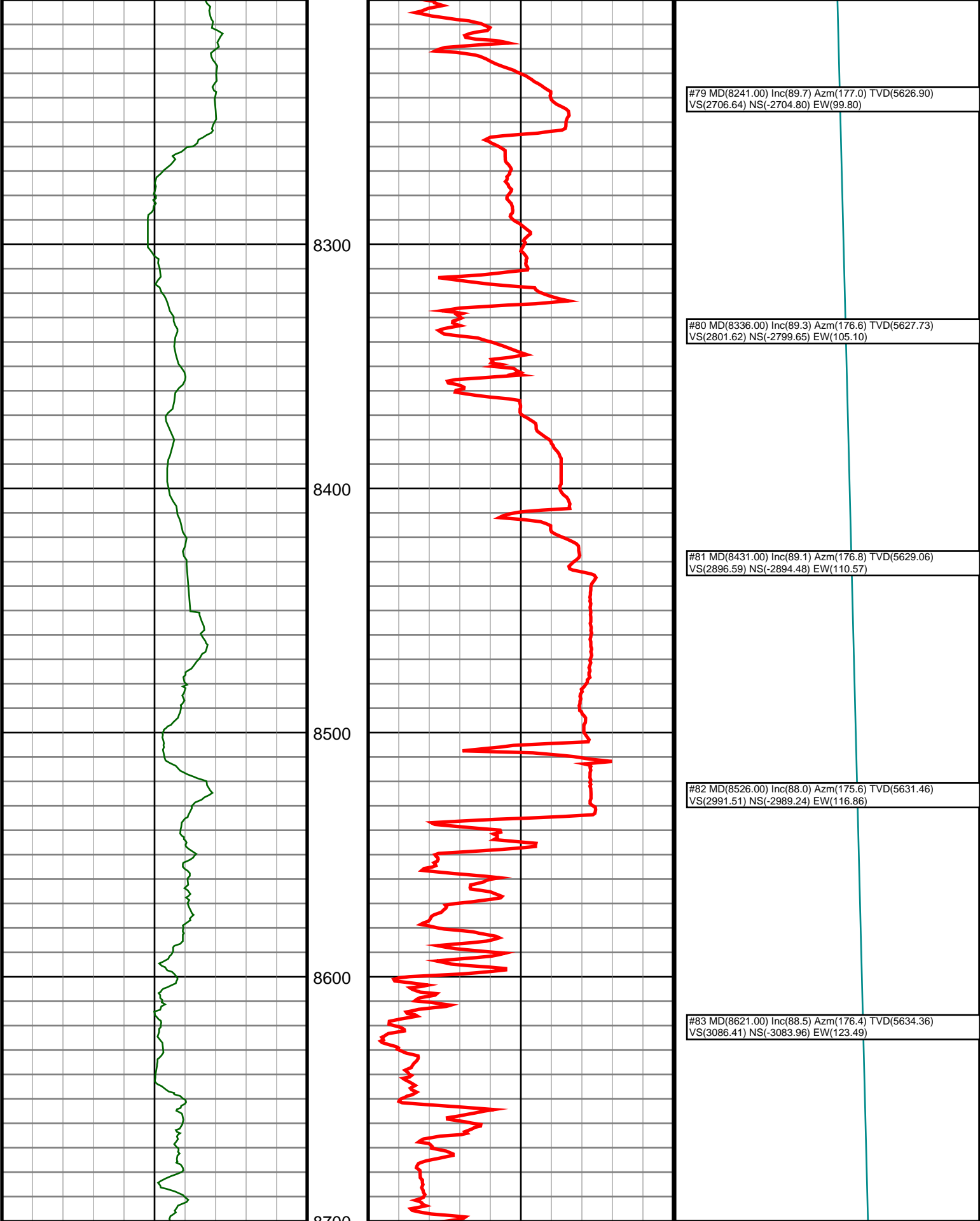
#74 MD(7767.00) Inc(90.8) Azm(177.8) TVD(5629.30)  
VS(2232.67) NS(-2231.27) EW(79.13)

#75 MD(7862.00) Inc(90.6) Azm(177.7) TVD(5628.14)  
VS(2327.66) NS(-2326.19) EW(82.86)

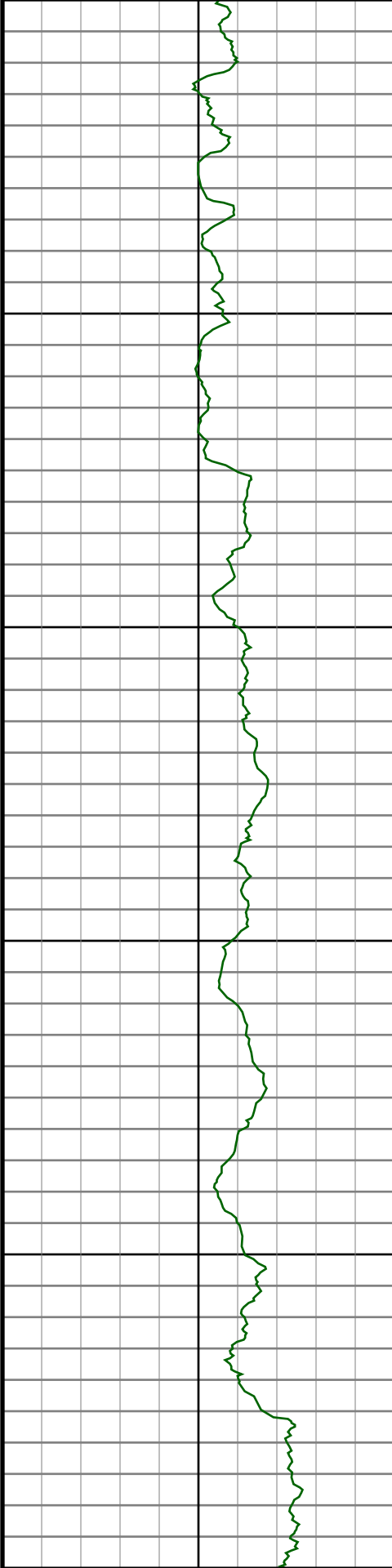
#76 MD(7957.00) Inc(90.4) Azm(177.7) TVD(5627.31)  
VS(2422.66) NS(-2421.11) EW(86.67)

#77 MD(8052.00) Inc(90.2) Azm(177.7) TVD(5626.82)  
VS(2517.66) NS(-2516.03) EW(90.48)

#78 MD(8146.00) Inc(90.0) Azm(177.0) TVD(5626.65)  
VS(2611.65) NS(-2609.93) EW(94.83)







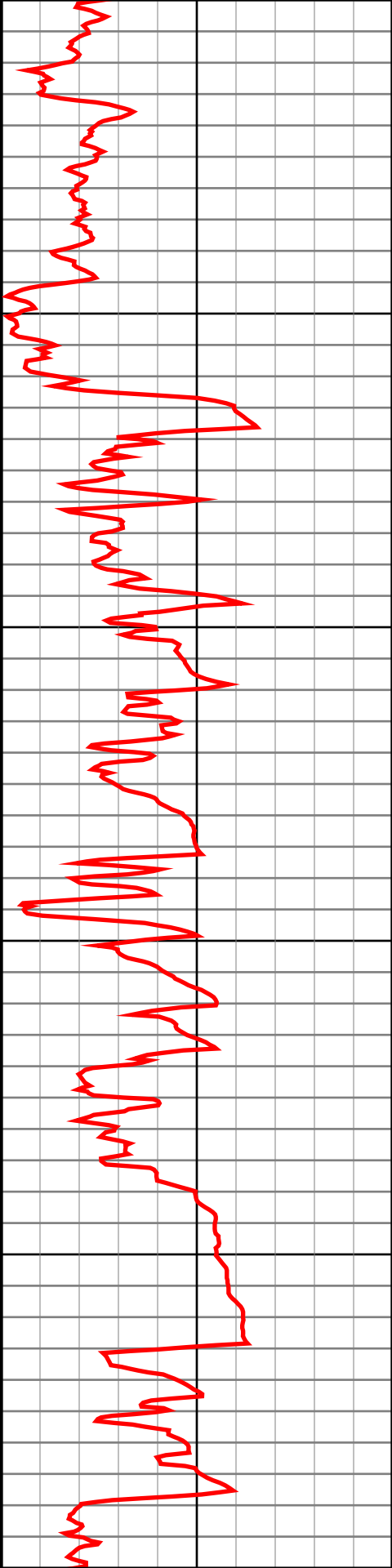
8800

8900

9000

9100

9200



#84 MD(8716.00) Inc(89.6) Azm(176.8) TVD(5635.94)  
VS(3181.37) NS(-3178.78) EW(129.12)

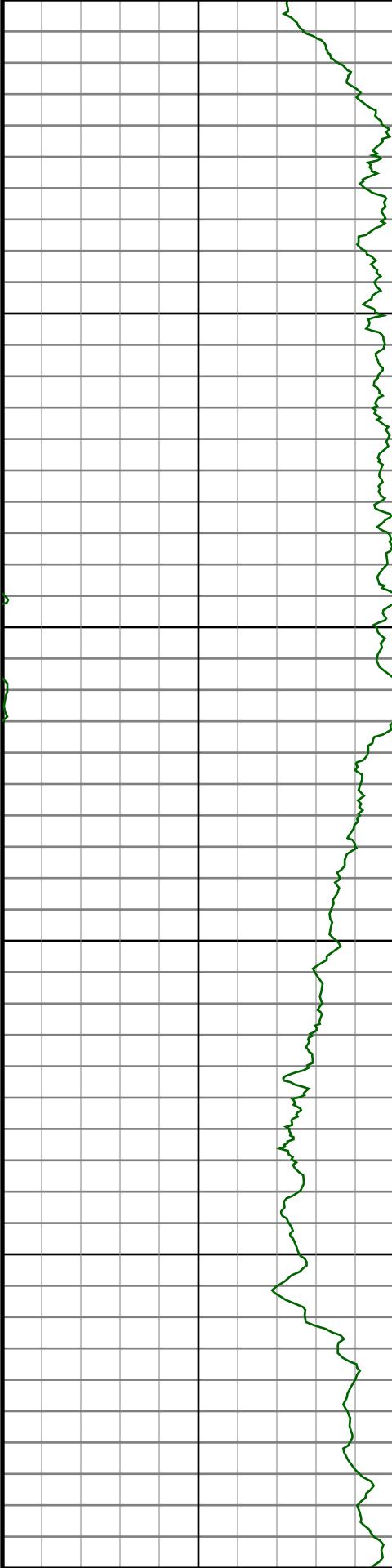
#85 MD(8810.00) Inc(92.0) Azm(177.0) TVD(5634.62)  
VS(3275.34) NS(-3272.63) EW(134.20)

#86 MD(8905.00) Inc(91.5) Azm(177.1) TVD(5631.72)  
VS(3370.29) NS(-3367.45) EW(139.09)

#87 MD(9000.00) Inc(91.5) Azm(177.0) TVD(5629.24)  
VS(3465.24) NS(-3462.30) EW(143.98)

#88 MD(9095.00) Inc(91.2) Azm(177.0) TVD(5627.00)  
VS(3560.21) NS(-3557.14) EW(148.95)

#89 MD(9190.00) Inc(91.0) Azm(176.1) TVD(5625.17)  
VS(3655.16) NS(-3651.95) EW(154.66)



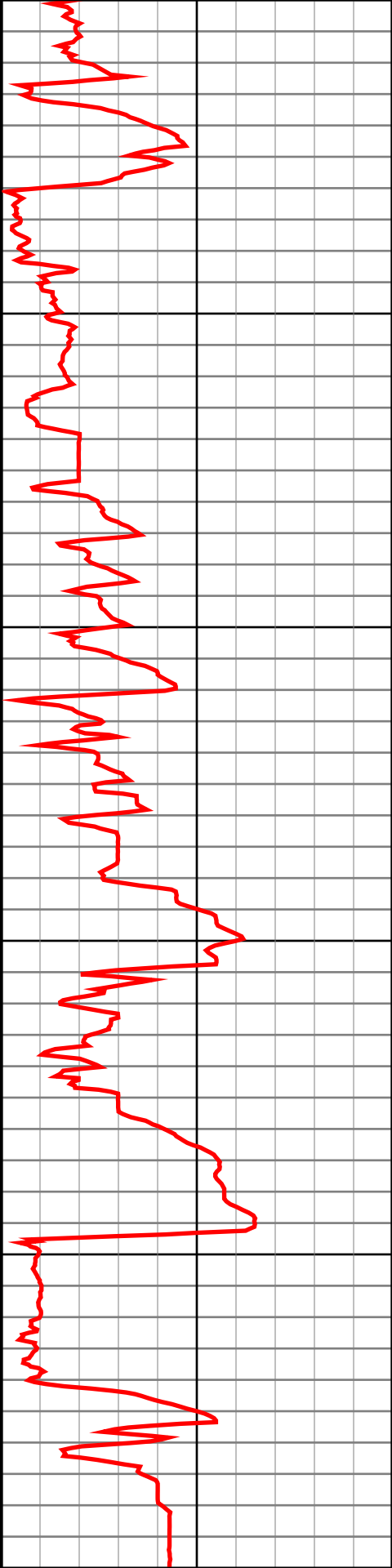
9300

9400

9500

9600

9700



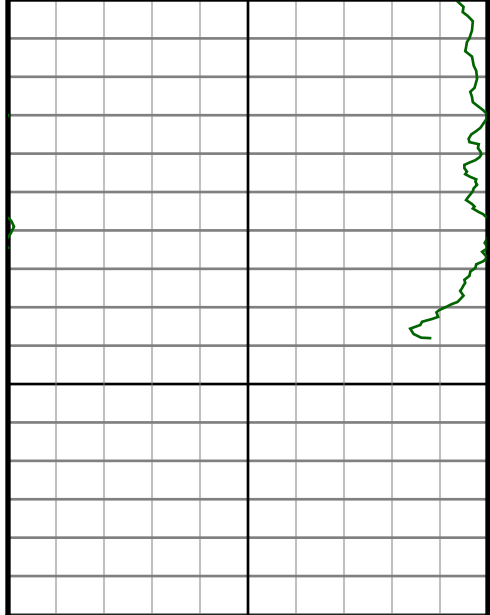
#90 MD(9285.00) Inc(89.9) Azm(177.8) TVD(5624.43)  
VS(3750.14) NS(-3746.81) EW(159.72)

#91 MD(9379.00) Inc(89.9) Azm(176.6) TVD(5624.59)  
VS(3844.13) NS(-3840.69) EW(164.31)

#92 MD(9474.00) Inc(90.0) Azm(177.1) TVD(5624.68)  
VS(3939.11) NS(-3935.55) EW(169.53)

#93 MD(9569.00) Inc(89.8) Azm(177.3) TVD(5624.84)  
VS(4034.11) NS(-4030.44) EW(174.17)

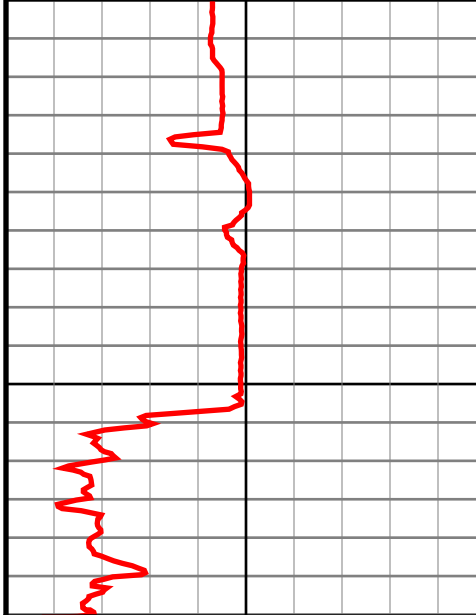
#94 MD(9664.00) Inc(89.5) Azm(176.6) TVD(5625.42)  
VS(4129.09) NS(-4125.30) EW(179.22)



9800

Gamma  
API

0.0 250.0  
250.0 500.0



ROP

0

0.0 500.0  
500.0 1000.0

#95 MD(9759.00) Inc(88.9) Azm(175.7) TVD(5626.75)  
VS(4224.03) NS(-4220.07) EW(185.60)

#96 MD(9791.00) Inc(88.9) Azm(175.4) TVD(5627.36)  
VS(4256.00) NS(-4251.97) EW(188.09)

9850.0:Bit Projection @9861' INC: 88.9 AZM: 175.4  
TVD: 5628.71 VS: 4325.92

VS

ft

0.0 5000.0  
5000.0 10000.0