

Five Rivers K07-62-1HN

MD
1" : 100'

Company: Noble Energy Inc
Well Name: Five Rivers K07-62-1HN

API: 05-123-38086

Rig Id: Precision 828

State: Colorado

County/Parish: Weld

Country: USA

Survey Company: Ensign Directional

Job number:

Company Man 1 Gary Stapleton

Directional Driller 1 Tyler Batchelder

Directional Driller 2 Matt Mason

MWD 1 Nick Jones

MWD 2 Andrew Keohan

Log measurements:

Depth measured from: KB

Maximum temperature:

Depth **Date**
Start: 634 ft 12/26/13
End: 16152 ft 1/11/14

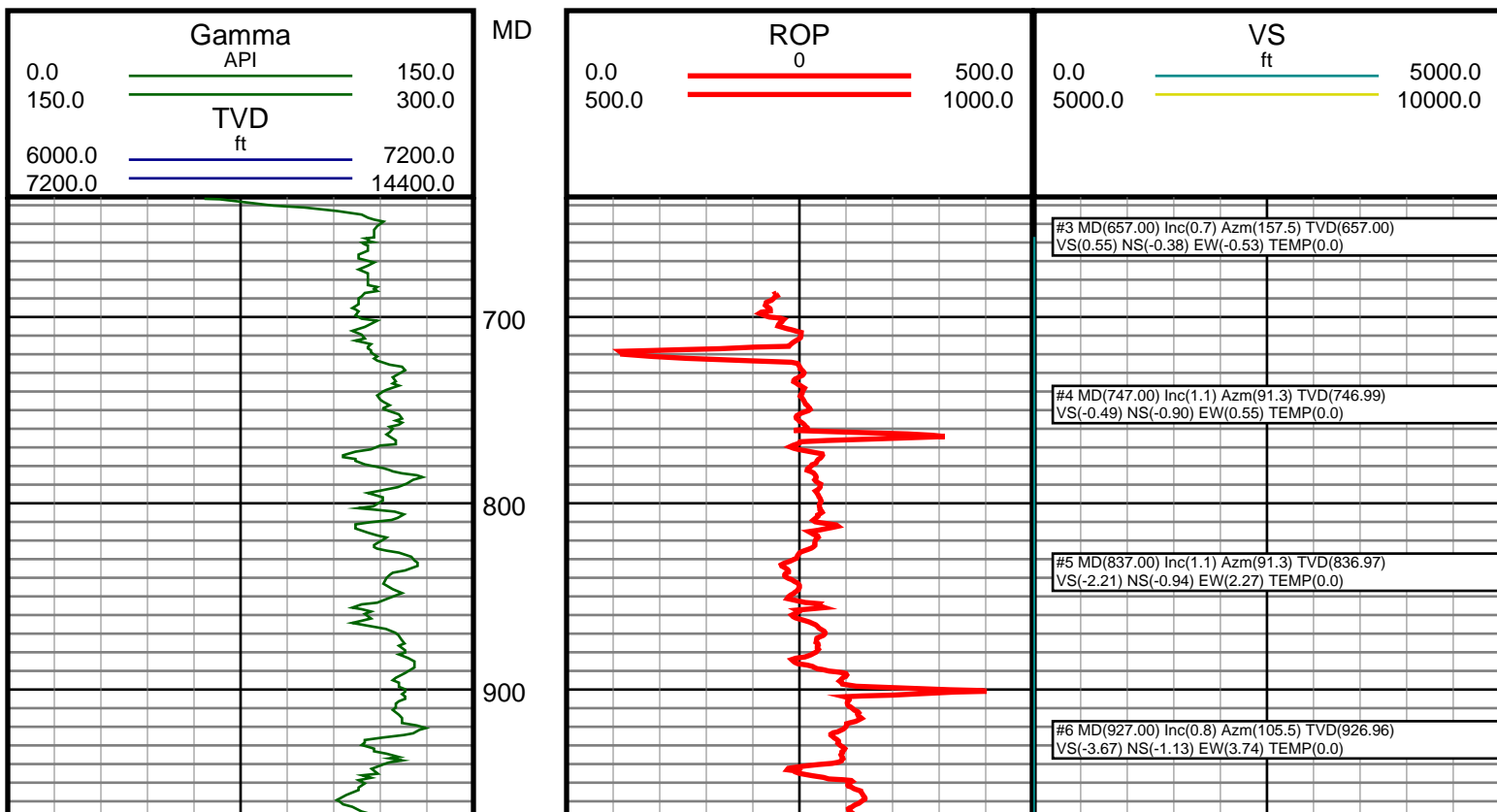
Casing **Depth** **Size**
Surface: 634 9.625
Intermediate: 7448 7

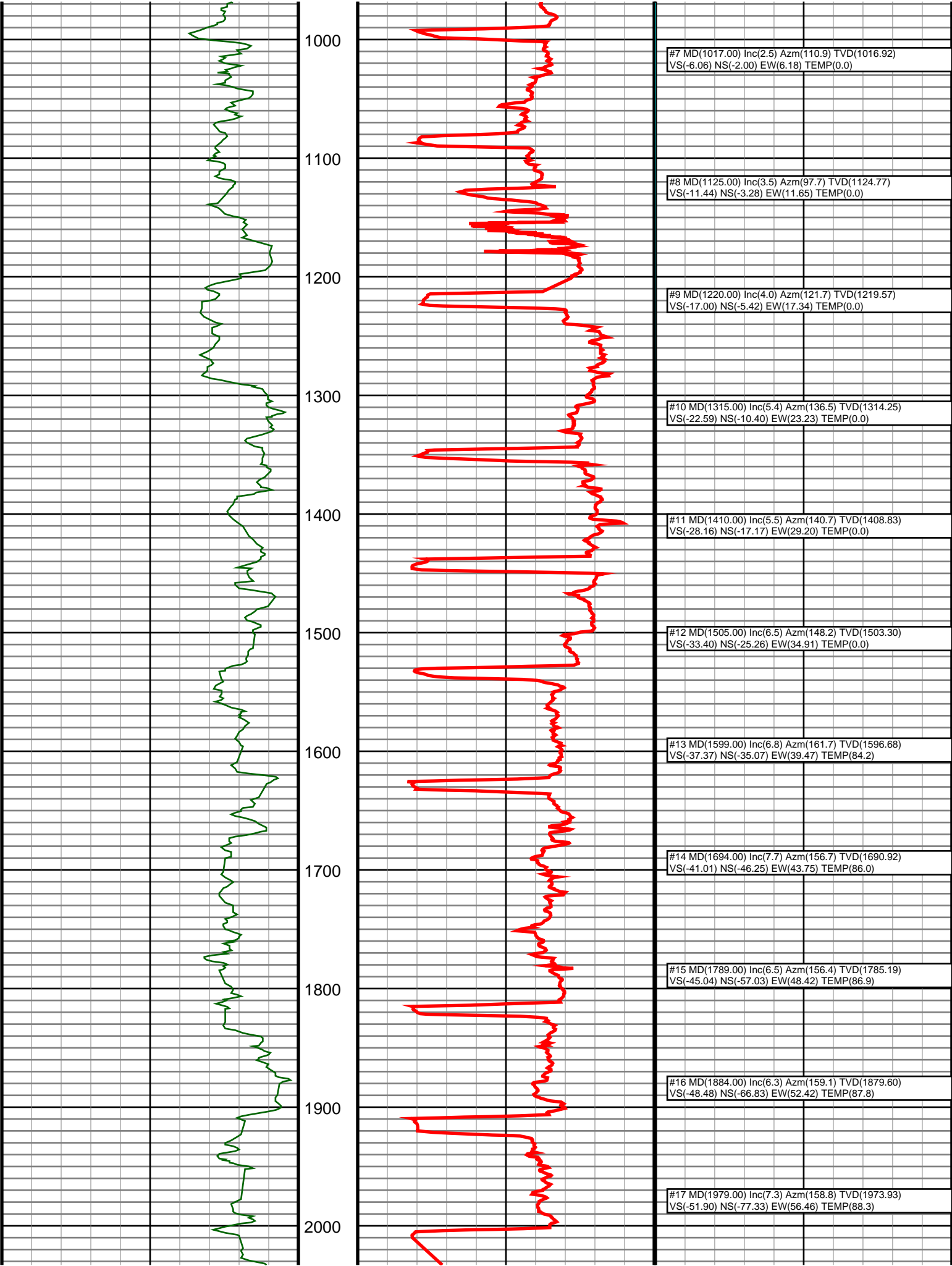
Mud Type:
Density:
Viscosity:
Rm: **Rmf:** **Rmc:**

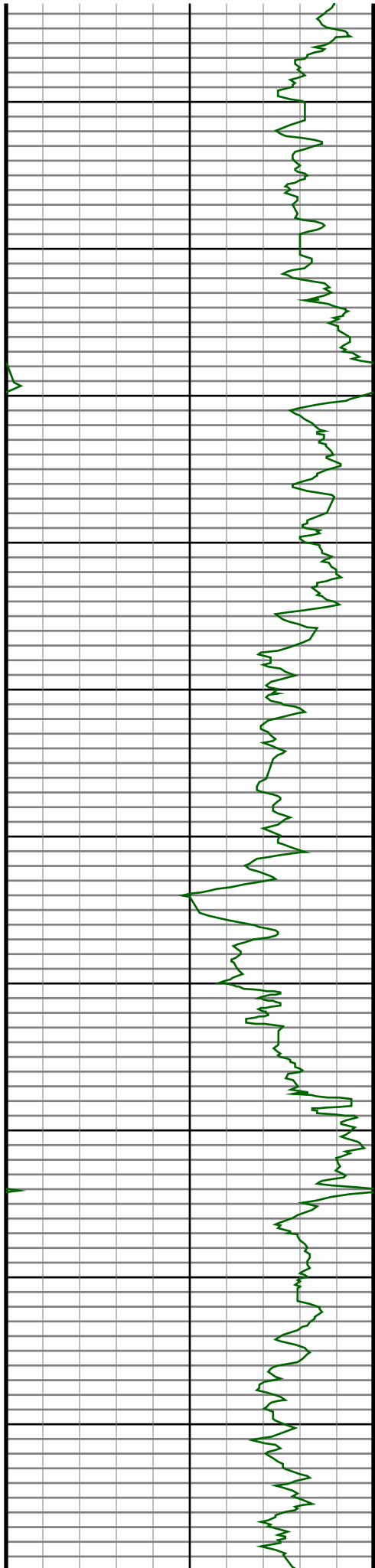
Elevations
KB: 4718
GL: 4702
DF: 4718

Run	Bit Size	Gamma	Survey	Start	End	Start	End
1	8.75	58.15	53.15	634	7448	12/26/13	12/30/2013
2	6.125	66.55	61.55	7448		01/01/2014	
3							
4							
5							
6							
7							
8							
9							
10							

Ensign Directional uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.







2100

2200

2300

2400

2500

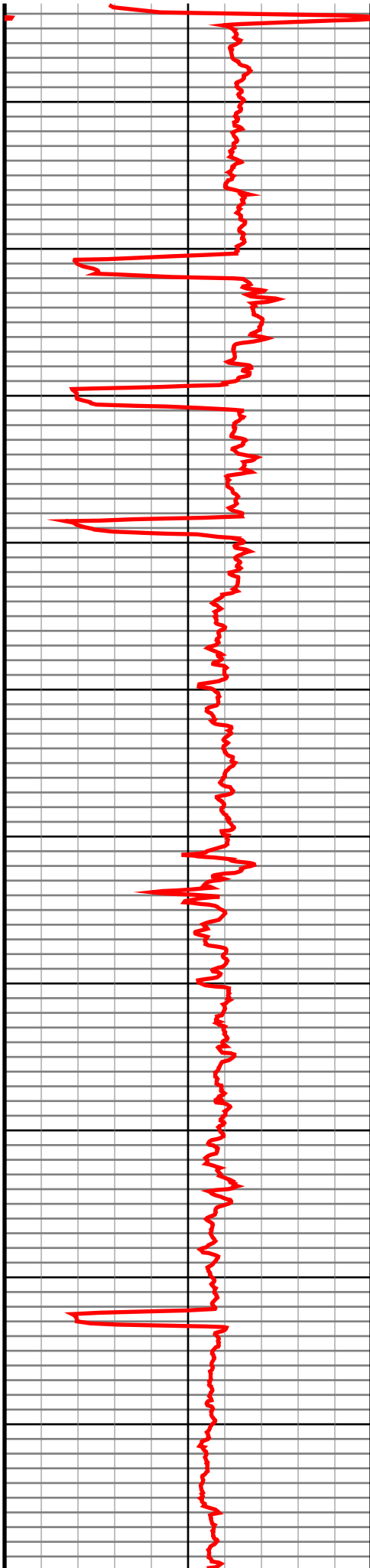
2600

2700

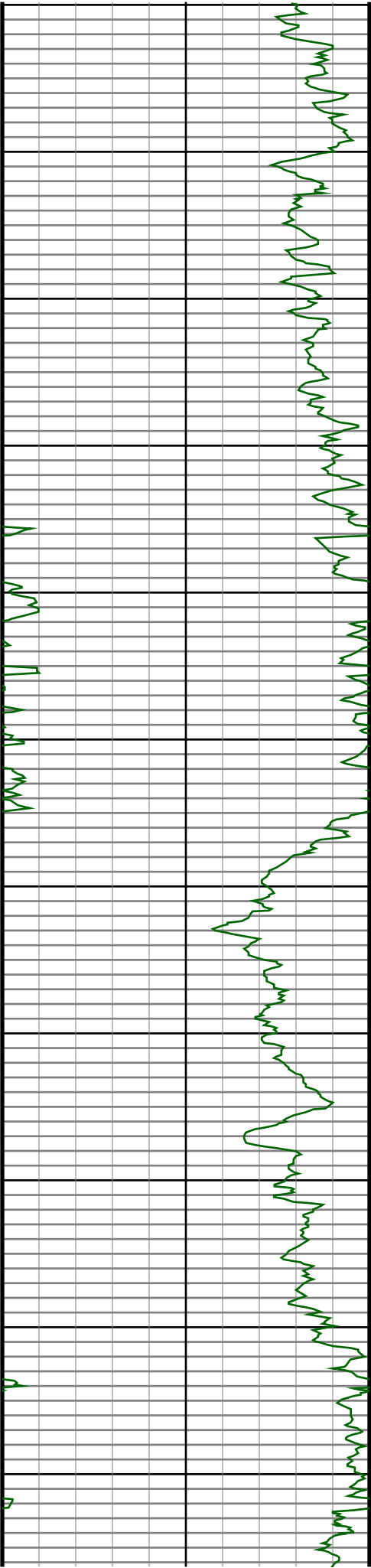
2800

2900

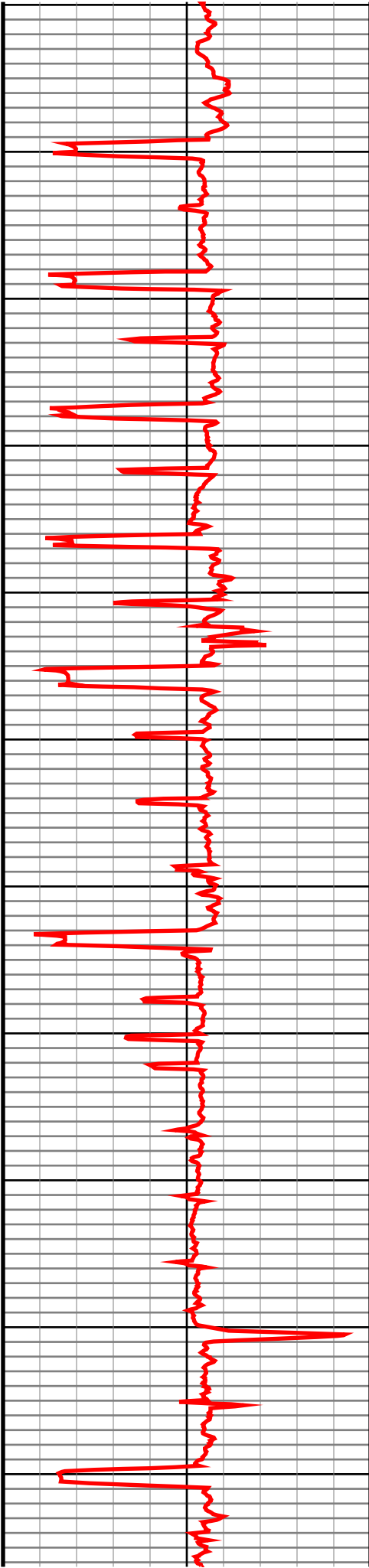
3000



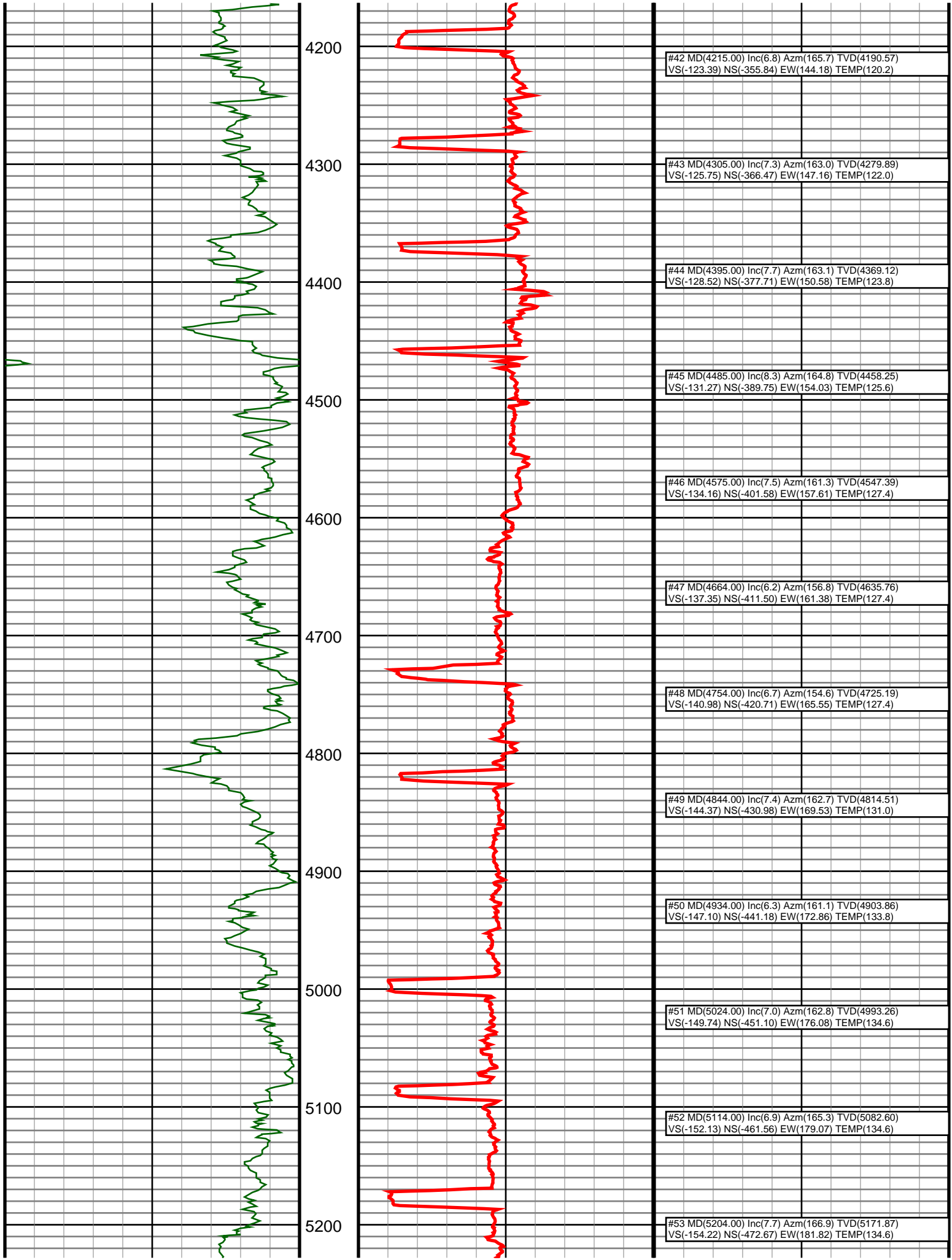
#18 MD(2059.00) Inc(8.3) Azm(160.9) TVD(2053.19) VS(-55.02) NS(-87.53) EW(60.18) TEMP(89.6)	
#19 MD(2148.00) Inc(7.0) Azm(152.6) TVD(2141.39) VS(-58.98) NS(-98.41) EW(64.77) TEMP(91.4)	
#20 MD(2238.00) Inc(7.1) Azm(158.4) TVD(2230.72) VS(-62.95) NS(-108.46) EW(69.33) TEMP(93.2)	
#21 MD(2328.00) Inc(7.9) Azm(160.7) TVD(2319.94) VS(-66.39) NS(-119.47) EW(73.41) TEMP(95.0)	
#22 MD(2418.00) Inc(8.4) Azm(166.4) TVD(2409.04) VS(-69.26) NS(-131.70) EW(76.99) TEMP(96.8)	
#23 MD(2508.00) Inc(8.1) Azm(165.9) TVD(2498.11) VS(-71.62) NS(-144.24) EW(80.08) TEMP(96.8)	
#24 MD(2597.00) Inc(8.1) Azm(163.9) TVD(2586.22) VS(-74.17) NS(-156.35) EW(83.34) TEMP(98.6)	
#25 MD(2687.00) Inc(8.1) Azm(164.9) TVD(2675.32) VS(-76.86) NS(-168.56) EW(86.74) TEMP(100.4)	
#26 MD(2777.00) Inc(7.8) Azm(162.4) TVD(2764.46) VS(-79.66) NS(-180.51) EW(90.23) TEMP(100.4)	
#27 MD(2867.00) Inc(7.5) Azm(162.8) TVD(2853.65) VS(-82.57) NS(-191.94) EW(93.81) TEMP(100.4)	
#28 MD(2957.00) Inc(8.4) Azm(167.8) TVD(2942.79) VS(-85.00) NS(-203.98) EW(96.93) TEMP(100.4)	
#29 MD(3047.00) Inc(8.3) Azm(166.5) TVD(3031.84) VS(-87.16) NS(-216.72) EW(99.84) TEMP(102.2)	

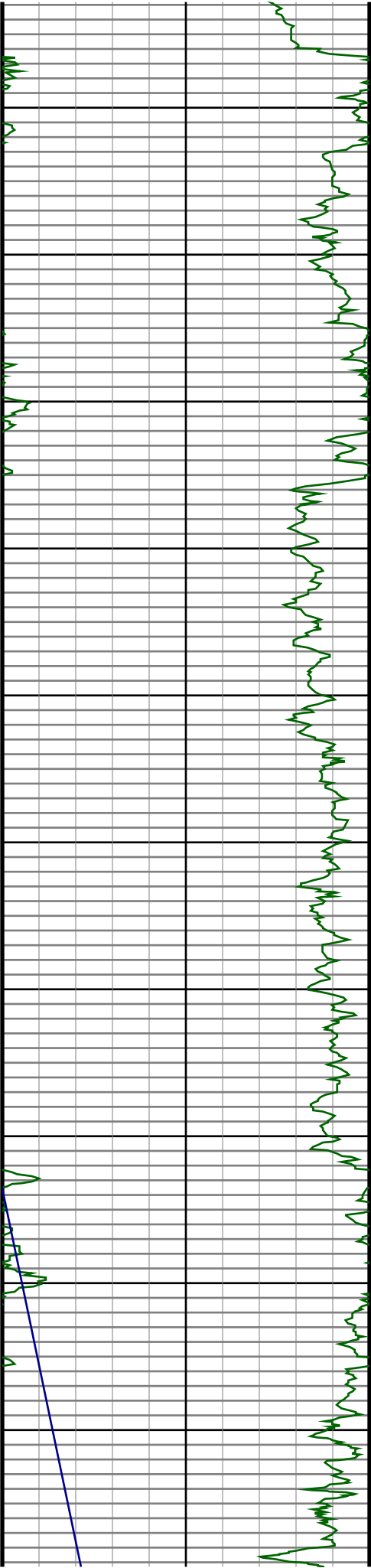


3100
3200
3300
3400
3500
3600
3700
3800
3900
4000
4100



#30 MD(3137.00) Inc(7.7) Azm(164.5) TVD(3120.96) VS(-89.58) NS(-228.85) EW(102.96) TEMP(102.2)
#31 MD(3226.00) Inc(7.4) Azm(167.5) TVD(3209.19) VS(-91.75) NS(-240.19) EW(105.79) TEMP(102.2)
#32 MD(3316.00) Inc(7.7) Azm(167.2) TVD(3298.41) VS(-93.67) NS(-251.73) EW(108.38) TEMP(104.0)
#33 MD(3406.00) Inc(7.9) Azm(157.5) TVD(3387.58) VS(-96.69) NS(-263.33) EW(112.08) TEMP(102.0)
#34 MD(3496.00) Inc(6.9) Azm(160.6) TVD(3476.83) VS(-100.22) NS(-274.14) EW(116.25) TEMP(104.0)
#35 MD(3586.00) Inc(7.3) Azm(164.8) TVD(3566.14) VS(-102.90) NS(-284.76) EW(119.54) TEMP(104.4)
#36 MD(3676.00) Inc(6.2) Azm(163.2) TVD(3655.51) VS(-105.22) NS(-294.93) EW(122.45) TEMP(105.8)
#37 MD(3766.00) Inc(7.6) Azm(160.2) TVD(3744.86) VS(-108.05) NS(-305.18) EW(125.88) TEMP(107.6)
#38 MD(3855.00) Inc(7.7) Azm(160.6) TVD(3833.07) VS(-111.38) NS(-316.34) EW(129.86) TEMP(109.0)
#39 MD(3945.00) Inc(7.7) Azm(160.0) TVD(3922.26) VS(-114.78) NS(-327.69) EW(133.93) TEMP(113.0)
#40 MD(4035.00) Inc(6.0) Azm(155.6) TVD(4011.61) VS(-118.21) NS(-337.64) EW(137.93) TEMP(118.8)
#41 MD(4125.00) Inc(5.9) Azm(161.2) TVD(4101.13) VS(-121.14) NS(-346.30) EW(141.37) TEMP(116.6)





5300

5400

5500

5600

5700

5800

5900

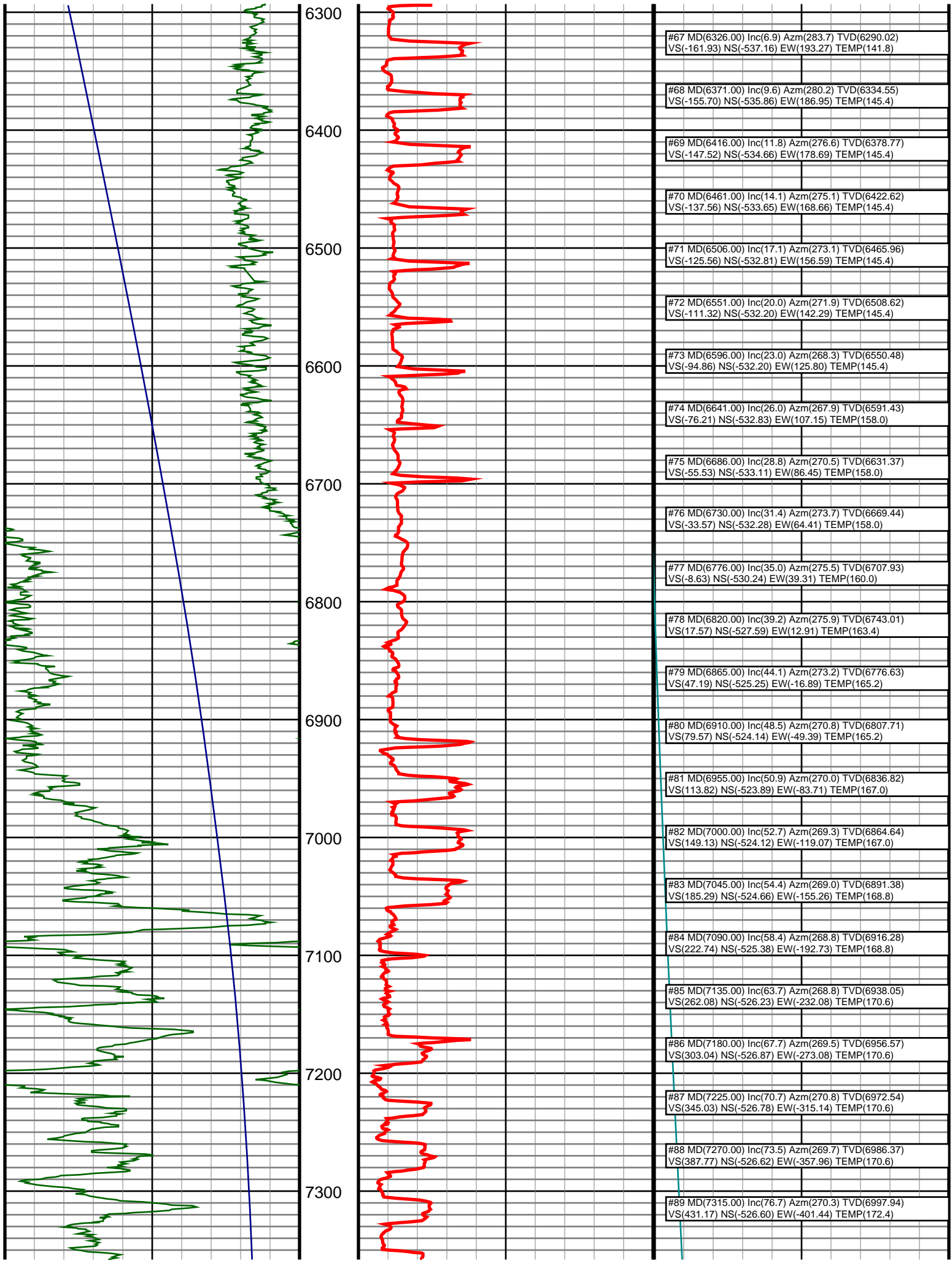
6000

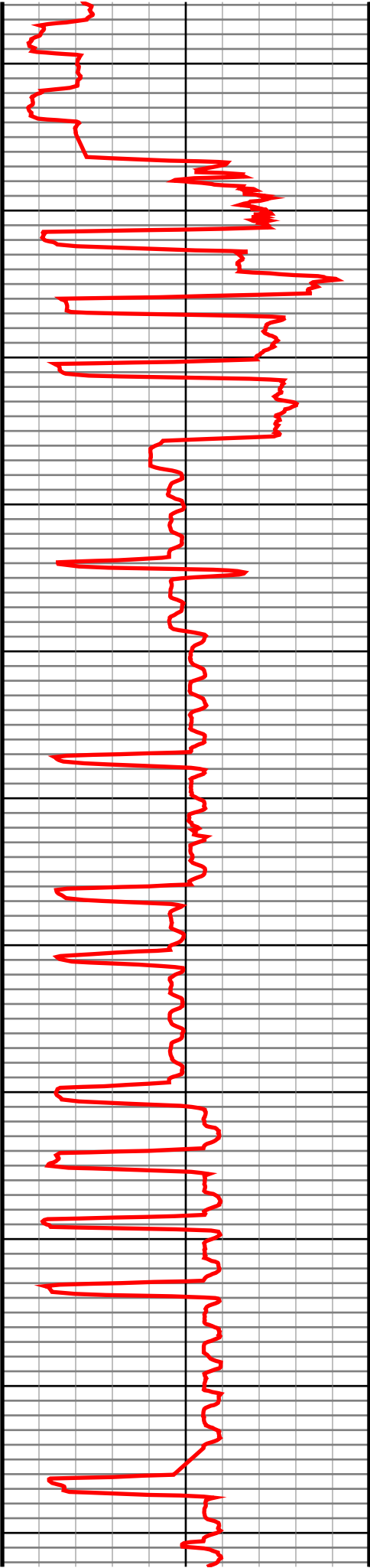
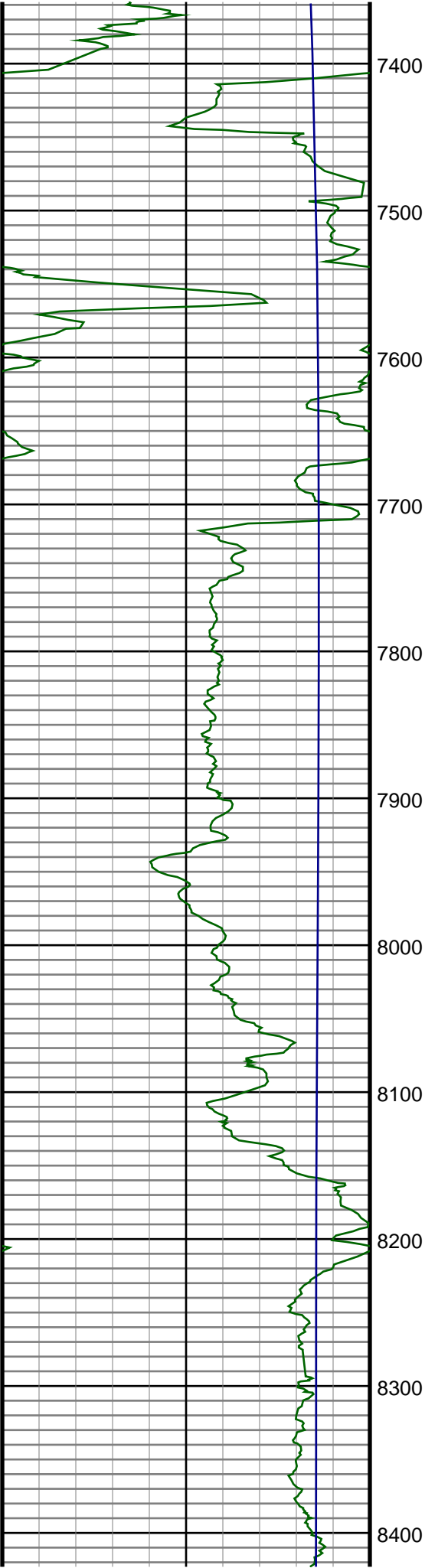
6100

6200

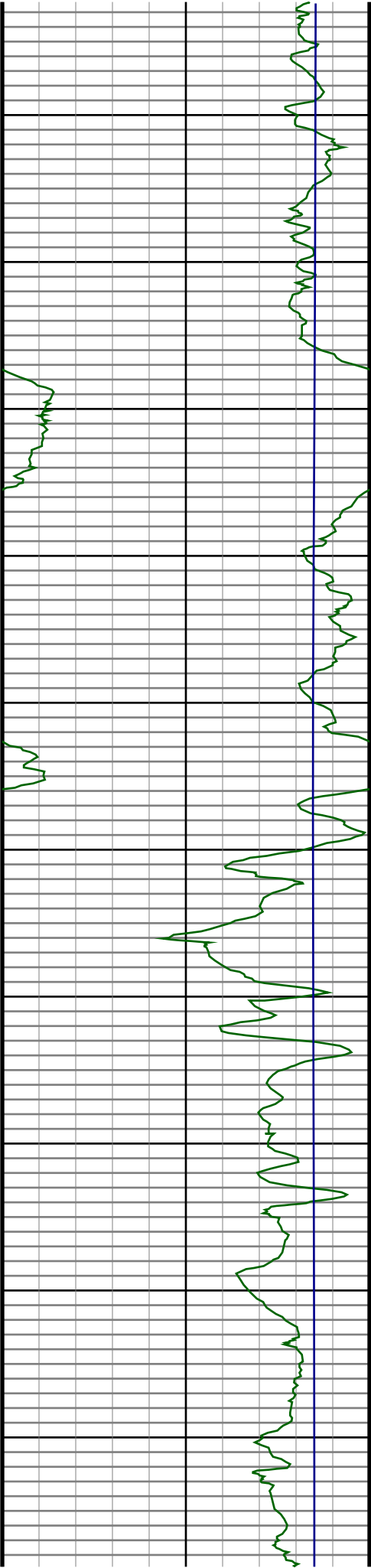


#54 MD(5294.00) Inc(7.8) Azm(167.0) TVD(5261.05) VS(-156.28) NS(-484.49) EW(184.56) TEMP(136.4)
#55 MD(5384.00) Inc(6.5) Azm(159.5) TVD(5350.35) VS(-158.80) NS(-495.21) EW(187.71) TEMP(136.4)
#56 MD(5474.00) Inc(5.8) Azm(161.7) TVD(5439.83) VS(-161.48) NS(-504.30) EW(190.92) TEMP(138.2)
#57 MD(5564.00) Inc(5.5) Azm(167.5) TVD(5529.39) VS(-163.35) NS(-512.83) EW(193.28) TEMP(140.0)
#58 MD(5653.00) Inc(6.1) Azm(155.4) TVD(5617.94) VS(-165.74) NS(-521.30) EW(196.17) TEMP(140.0)
#59 MD(5743.00) Inc(4.5) Azm(153.7) TVD(5707.55) VS(-168.85) NS(-528.81) EW(199.72) TEMP(141.8)
#60 MD(5833.00) Inc(2.7) Azm(150.6) TVD(5797.37) VS(-171.16) NS(-533.83) EW(202.32) TEMP(143.6)
#61 MD(5923.00) Inc(1.1) Azm(178.7) TVD(5887.32) VS(-172.07) NS(-536.54) EW(203.38) TEMP(143.6)
#62 MD(6013.00) Inc(0.8) Azm(261.7) TVD(5977.31) VS(-171.41) NS(-537.49) EW(202.78) TEMP(145.4)
#63 MD(6102.00) Inc(0.9) Azm(268.3) TVD(6066.30) VS(-170.09) NS(-537.60) EW(201.47) TEMP(145.4)
#64 MD(6192.00) Inc(0.7) Azm(260.7) TVD(6156.29) VS(-168.84) NS(-537.71) EW(200.22) TEMP(145.4)
#65 MD(6236.00) Inc(1.2) Azm(246.2) TVD(6200.28) VS(-168.14) NS(-537.94) EW(199.53) TEMP(145.4)
#66 MD(6281.00) Inc(4.1) Azm(275.9) TVD(6245.23) VS(-166.11) NS(-537.97) EW(197.50) TEMP(140.0)





#90 MD(7360.00) Inc(79.6) Azm(270.5) TVD(7007.18) VS(475.12) NS(-526.29) EW(-445.47) TEMP(174.2)				
#91 MD(7393.00) Inc(81.8) Azm(270.6) TVD(7012.52) VS(507.61) NS(-525.98) EW(-478.04) TEMP(174.2)				
#92 MD(7538.00) Inc(86.2) Azm(269.9) TVD(7027.67) VS(651.50) NS(-525.37) EW(-622.20) TEMP(167.0)				
#93 MD(7628.00) Inc(88.6) Azm(269.8) TVD(7031.75) VS(741.26) NS(-525.58) EW(-712.10) TEMP(167.0)				
#94 MD(7718.00) Inc(89.6) Azm(269.3) TVD(7033.17) VS(831.14) NS(-526.28) EW(-802.09) TEMP(167.0)				
#95 MD(7808.00) Inc(90.4) Azm(268.5) TVD(7033.17) VS(921.07) NS(-528.04) EW(-892.07) TEMP(167.0)				
#96 MD(7897.00) Inc(91.1) Azm(267.9) TVD(7032.00) VS(1010.03) NS(-530.83) EW(-981.02) TEMP(168.8)				
#97 MD(7987.00) Inc(91.6) Azm(267.9) TVD(7029.88) VS(1099.99) NS(-534.14) EW(-1070.93) TEMP(170.6)				
#98 MD(8077.00) Inc(91.7) Azm(268.8) TVD(7027.29) VS(1189.94) NS(-538.35) EW(-1160.79) TEMP(172.4)				
#99 MD(8167.00) Inc(91.0) Azm(268.9) TVD(7025.17) VS(1279.89) NS(-541.79) EW(-1250.70) TEMP(176.0)				
#100 MD(8257.00) Inc(89.8) Azm(271.2) TVD(7024.54) VS(1369.73) NS(-537.76) EW(-1340.69) TEMP(113.0)				
#101 MD(8346.00) Inc(90.2) Azm(273.9) TVD(7024.54) VS(1458.26) NS(-537.76) EW(-1429.59) TEMP(181.4)				



8500

8600

8700

8800

8900

9000

9100

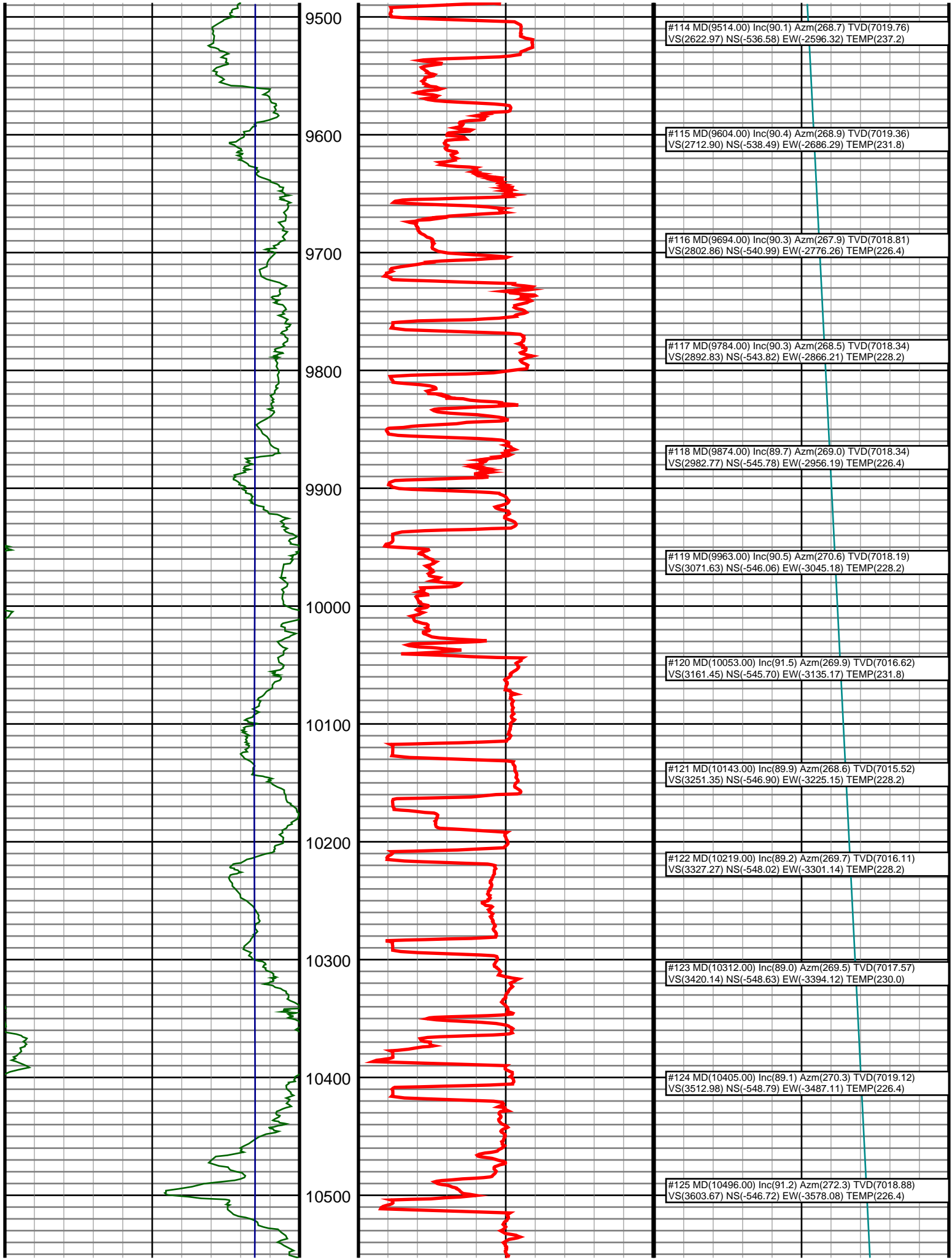
9200

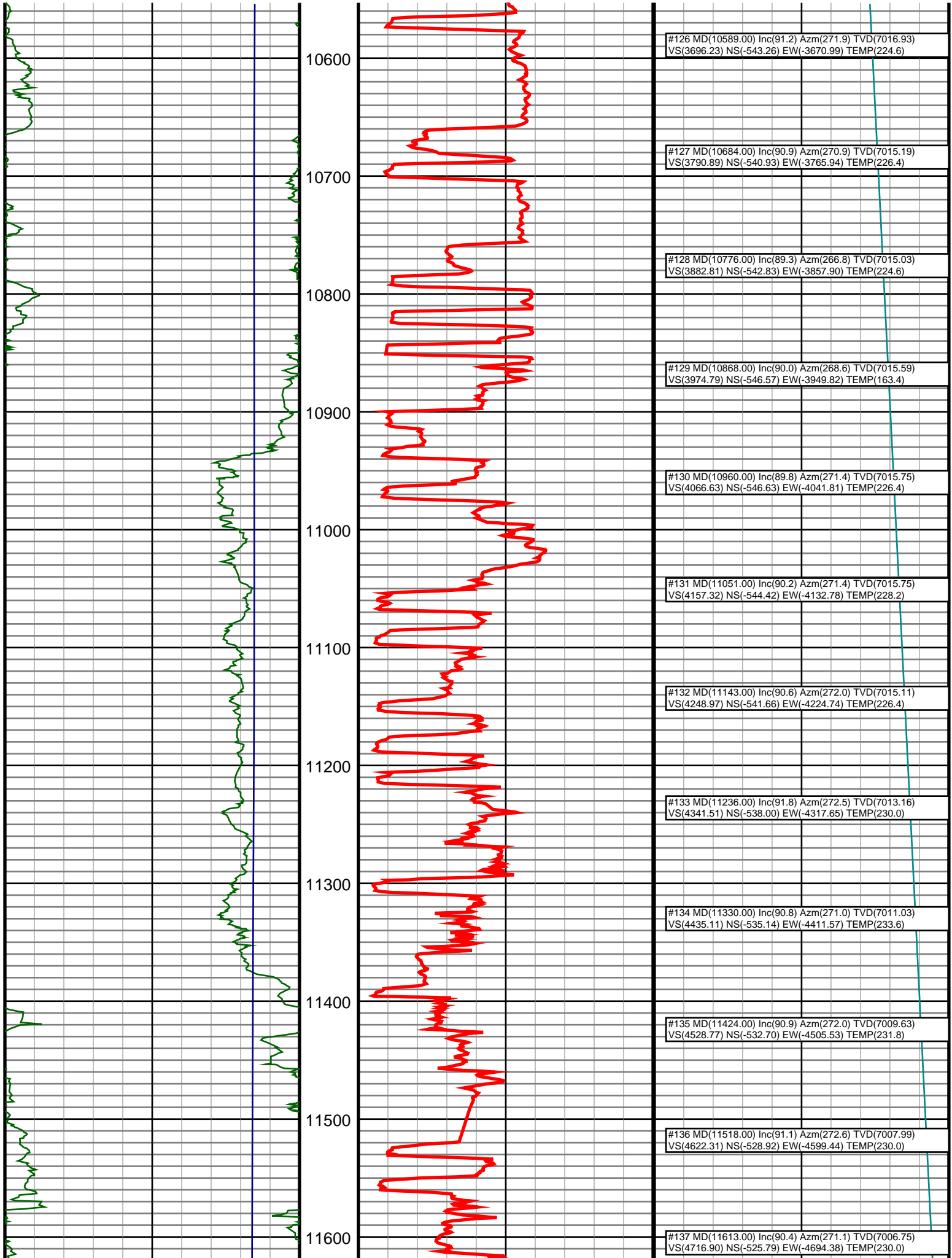
9300

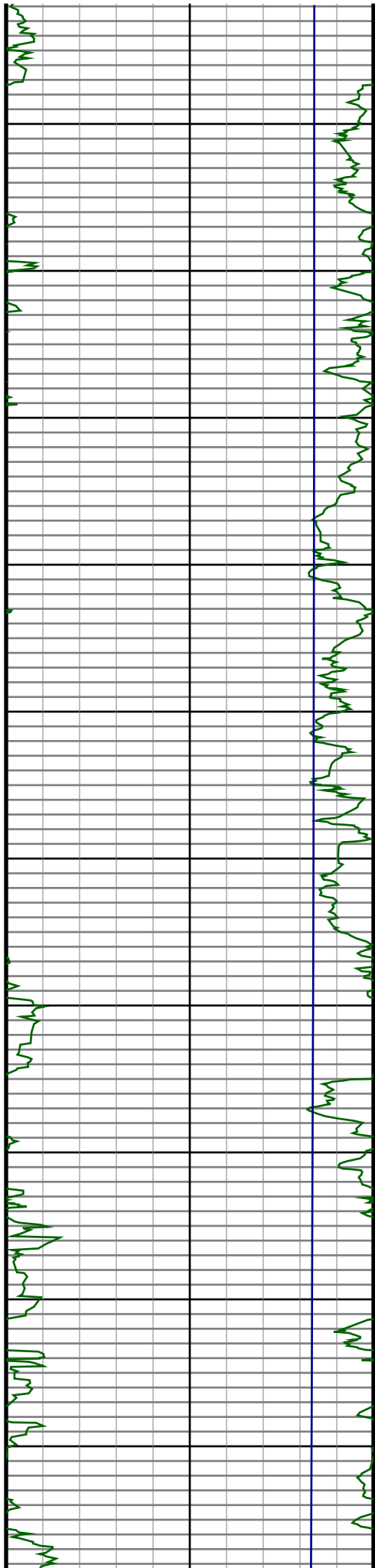
9400



#102 MD(8436.00) Inc(90.5) Azm(274.8) TVD(7023.99) VS(1547.45) NS(-530.96) EW(-1519.33) TEMP(183.2)		
#103 MD(8526.00) Inc(90.6) Azm(273.0) TVD(7023.13) VS(1636.74) NS(-524.85) EW(-1609.12) TEMP(185.0)		
#104 MD(8616.00) Inc(90.9) Azm(274.6) TVD(7021.95) VS(1726.03) NS(-518.88) EW(-1698.91) TEMP(186.8)		
#105 MD(8705.00) Inc(91.5) Azm(270.8) TVD(7020.08) VS(1814.51) NS(-514.73) EW(-1787.77) TEMP(188.6)		
#106 MD(8795.00) Inc(91.5) Azm(269.9) TVD(7017.73) VS(1904.30) NS(-514.22) EW(-1877.74) TEMP(190.4)		
#107 MD(8885.00) Inc(91.1) Azm(268.0) TVD(7015.69) VS(1994.20) NS(-515.87) EW(-1967.70) TEMP(192.4)		
#108 MD(8975.00) Inc(89.4) Azm(267.9) TVD(7015.29) VS(2084.18) NS(-519.10) EW(-2057.64) TEMP(195.8)		
#109 MD(9065.00) Inc(89.7) Azm(267.5) TVD(7016.00) VS(2174.16) NS(-522.70) EW(-2147.56) TEMP(197.6)		
#110 MD(9155.00) Inc(89.1) Azm(268.9) TVD(7016.94) VS(2264.12) NS(-525.48) EW(-2237.51) TEMP(199.4)		
#111 MD(9244.00) Inc(89.4) Azm(267.5) TVD(7018.11) VS(2353.08) NS(-528.24) EW(-2326.46) TEMP(201.2)		
#112 MD(9334.00) Inc(89.3) Azm(268.1) TVD(7019.13) VS(2443.05) NS(-531.68) EW(-2416.39) TEMP(203.0)		
#113 MD(9424.00) Inc(89.9) Azm(268.5) TVD(7019.76) VS(2533.01) NS(-534.35) EW(-2506.34) TEMP(203.0)		







11700

11800

11900

12000

12100

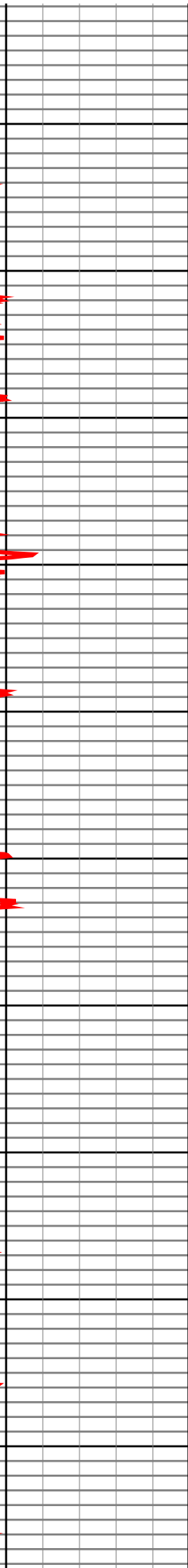
12200

12300

12400

12500

12600



#138 MD(11706.00) Inc(90.1) Azm(270.4) TVD(7006.34) VS(4809.66) NS(-524.51) EW(-4787.37) TEMP(296.6)	
#139 MD(11801.00) Inc(89.9) Azm(270.3) TVD(7006.34) VS(4904.47) NS(-523.89) EW(-4882.36) TEMP(231.8)	
#140 MD(11895.00) Inc(90.2) Azm(269.3) TVD(7006.26) VS(4998.33) NS(-524.18) EW(-4976.36) TEMP(233.6)	
#141 MD(11989.00) Inc(90.5) Azm(268.4) TVD(7005.69) VS(5092.26) NS(-526.04) EW(-5070.34) TEMP(237.2)	
#142 MD(12084.00) Inc(90.5) Azm(267.1) TVD(7004.86) VS(5187.23) NS(-529.76) EW(-5165.26) TEMP(239.0)	
#143 MD(12178.00) Inc(90.2) Azm(267.2) TVD(7004.29) VS(5281.23) NS(-534.46) EW(-5259.14) TEMP(233.6)	
#144 MD(12272.00) Inc(91.0) Azm(269.8) TVD(7003.30) VS(5375.17) NS(-536.93) EW(-5353.10) TEMP(239.0)	
#145 MD(12367.00) Inc(91.2) Azm(269.1) TVD(7001.48) VS(5470.04) NS(-537.86) EW(-5448.07) TEMP(239.0)	
#146 MD(12461.00) Inc(90.7) Azm(270.1) TVD(6999.92) VS(5563.91) NS(-538.53) EW(-5542.06) TEMP(237.2)	
#147 MD(12556.00) Inc(90.9) Azm(270.0) TVD(6998.59) VS(5658.73) NS(-538.44) EW(-5637.05) TEMP(238.0)	
#148 MD(12650.00) Inc(91.3) Azm(270.2) TVD(6996.79) VS(5752.55) NS(-538.29) EW(-5731.03) TEMP(239.0)	

