Grotheer 5-61 11B-2-3

MD
5":100'

Company: Bison Oil &Gas 2
Well Name: Grotheer 5-61 11B-2-3
API: 0512351440
County/Parish: Weld
State/Prov: Colorado
Country: US
Job #: RM-221157

Company: Bison Oil &Gas 2
Well Name: Grotheer 5-61 11B-2-3
API: 0512351440
County/Parish: Weld
State or Prov: Colorado
Country: US
Job number: RM-221157
Field: DJ Basin
Rig Identification: Patterson 345
Survey Company: Total Directional Services
Company Man Frank Kinney
Company Man Sam Mares
DD Days Juan Chaparro
DD Nights Alex Janorschke
MWD Days Clark Van Oerle
MWD Nights Mark Davidson
MWD 3 Blake Stacey
VSD 359.72

Log measurements: 4717
Depth measured from: KB ft
Maximum temperature: 250.7

Depth	Date
Start: 1976 ft	8-10-2022
End:16,253 ft	8-12-2022

Casing	Depth	Size
Surface:	1976 ft	9 5/8"
Intermediate:		

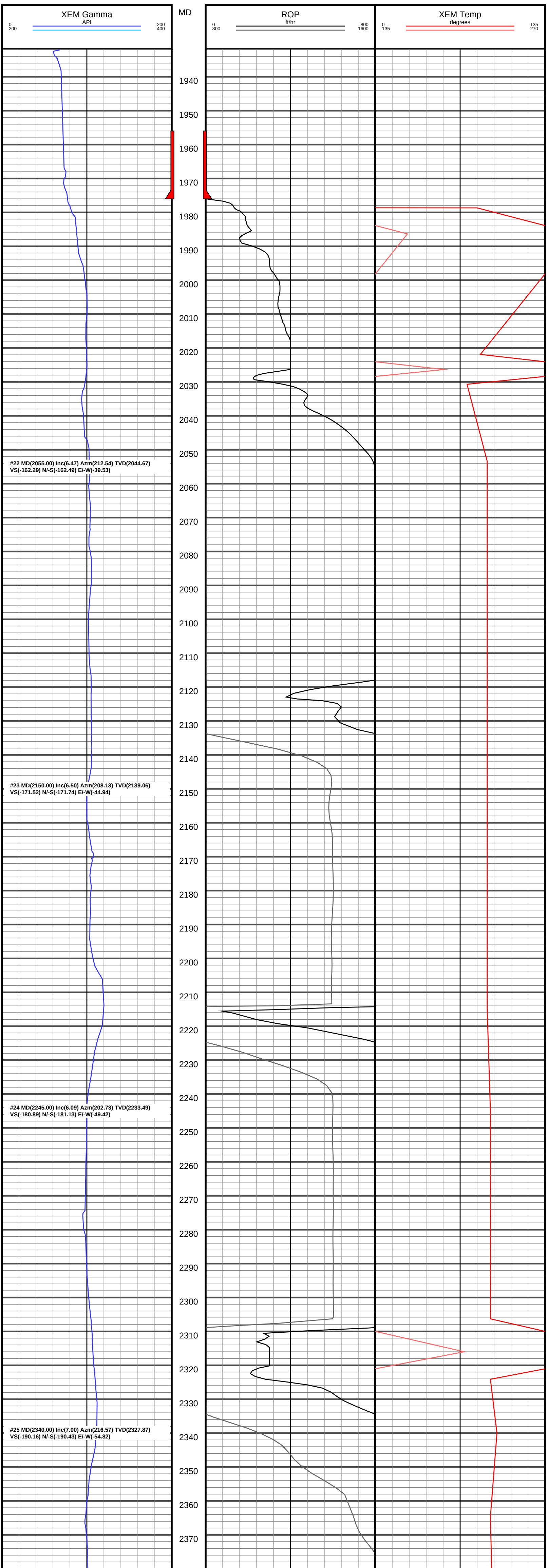
Mud type: OBM
Density: 10.0
Viscosity: 61
Rm:
Rmf:
Rmc:

Elevations	
KB:	4717
DF:	25
GL:	4692

Run	Bit Size	Gamma Factor	Offsets		Depths		Dates	
			Gamma	Survey	Start	End	Start	End
1	8.5"	0.513	45.00 ft	63.00 ft	1976 ft	16,253 ft	8-10-2022	8-12-2022
2								
3								
4								
5								
6								
7								
8								
9								
10								

API# 06-123-51440-00 WELL: Grotheer 5-61 11B-2-3 Type of Log:Gamma Logging started at 17:45 PM on 08/10/2022
Ending at 13:21 AM on 08/12/2022 Depth Relative to Rig Floor at 4,717 Ft Elevation
Logging Company: Total Directional Top of log: 1,976' Bottom of Log: 16,253'

Total Directional Services 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.

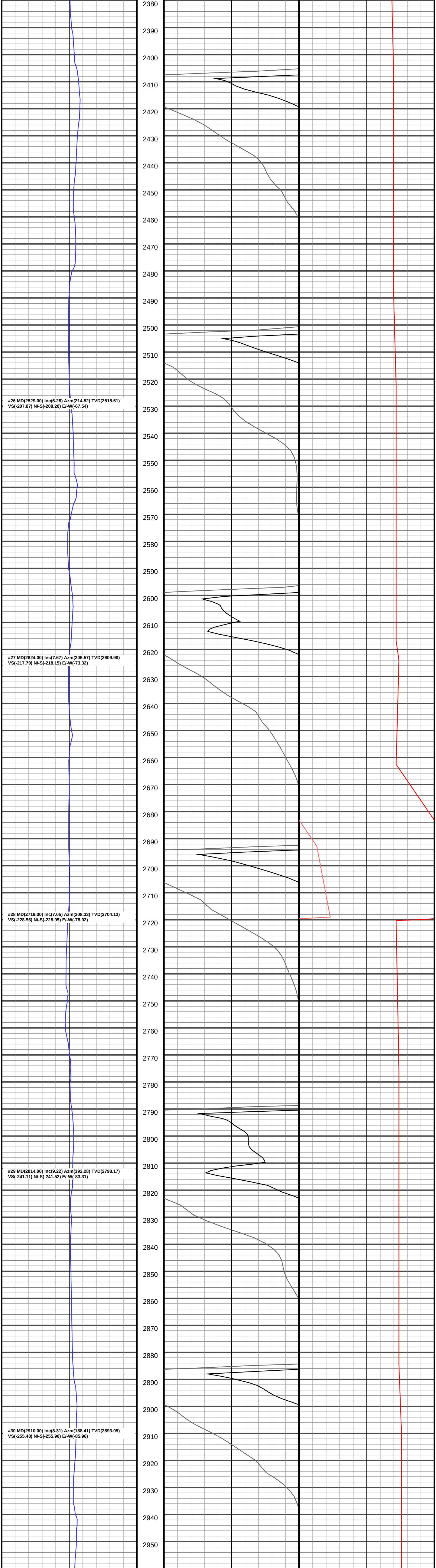


#22 MD(2055.00) Inc(6.47) Azm(212.54) TVD(2044.67)
VS(-162.29) N/-S(-162.49) E/-W(-39.53)

#23 MD(2150.00) Inc(6.50) Azm(208.13) TVD(2139.06)
VS(-171.52) N/-S(-171.74) E/-W(-44.94)

#24 MD(2245.00) Inc(6.09) Azm(202.73) TVD(2233.49)
VS(-180.89) N/-S(-181.13) E/-W(-49.42)

#25 MD(2340.00) Inc(7.00) Azm(216.57) TVD(2327.87)
VS(-190.16) N/-S(-190.43) E/-W(-54.82)



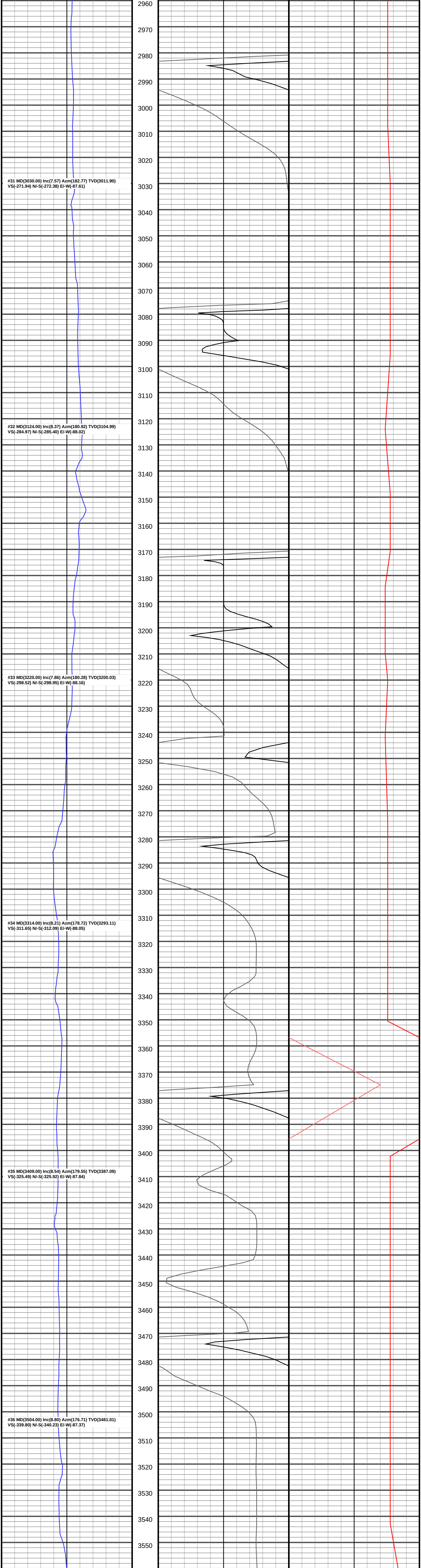
#26 MD(2529.00) Inc(6.28) Azm(214.52) TVD(2515.61)
VS(-207.87) N/-S(-208.20) E/-W(-67.54)

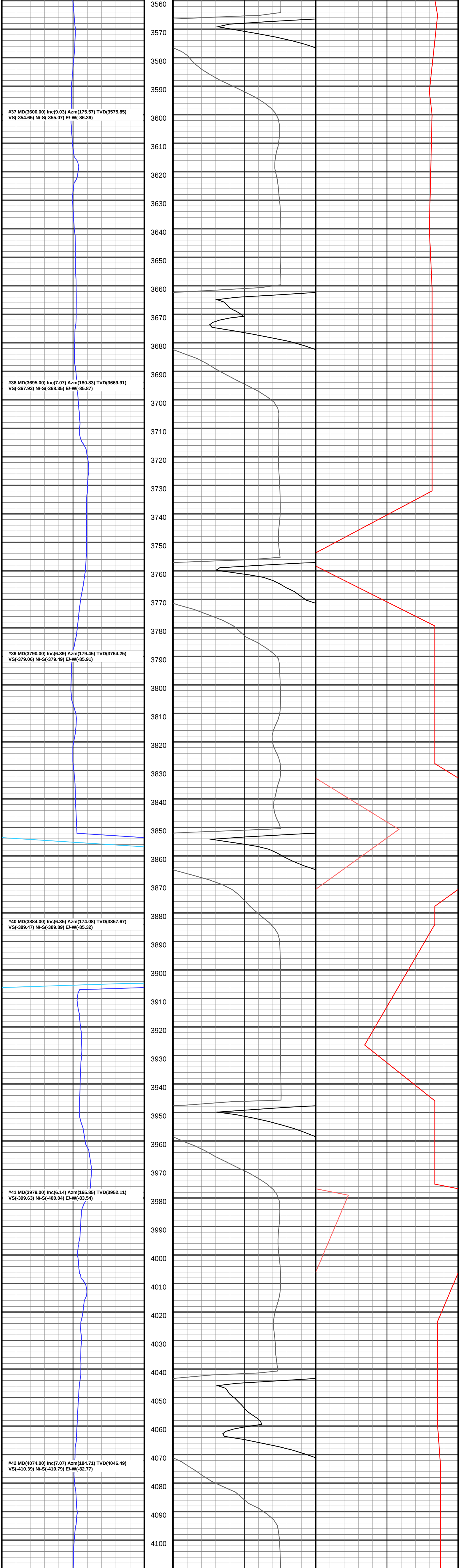
#27 MD(2624.00) Inc(7.67) Azm(206.57) TVD(2609.90)
VS(-217.79) N/-S(-218.15) E/-W(-73.32)

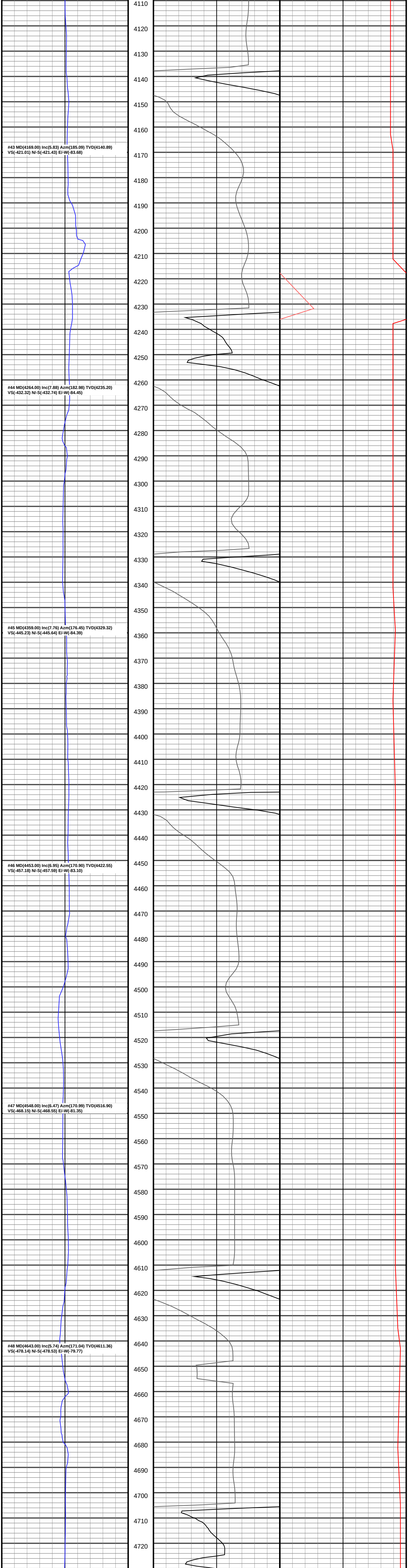
#28 MD(2719.00) Inc(7.05) Azm(208.33) TVD(2704.12)
VS(-228.56) N/-S(-228.95) E/-W(-78.92)

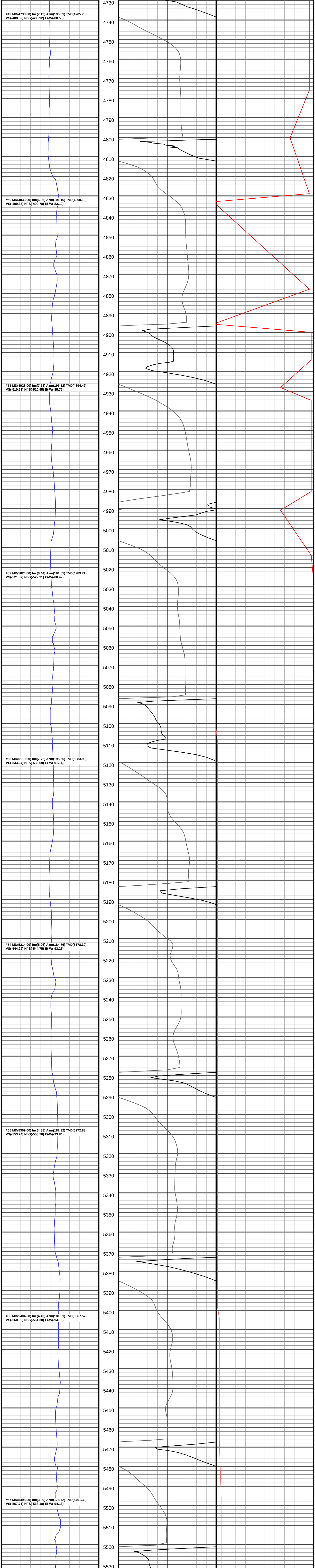
#29 MD(2814.00) Inc(9.22) Azm(192.28) TVD(2798.17)
VS(-241.11) N/-S(-241.52) E/-W(-83.31)

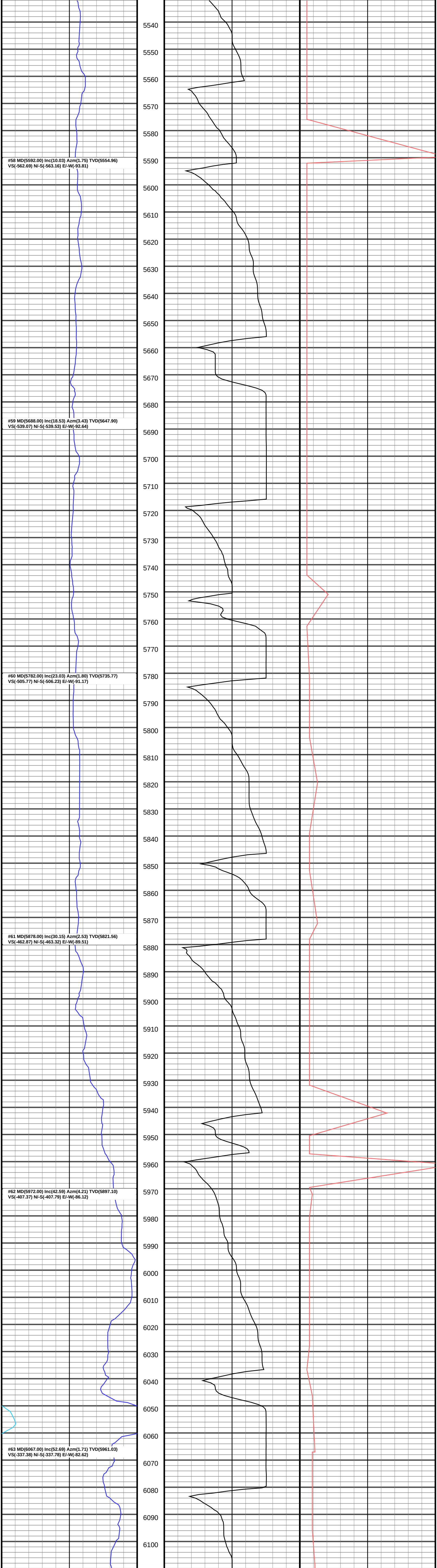
#30 MD(2910.00) Inc(8.31) Azm(188.41) TVD(2893.05)
VS(-255.48) N/-S(-255.90) E/-W(-85.96)

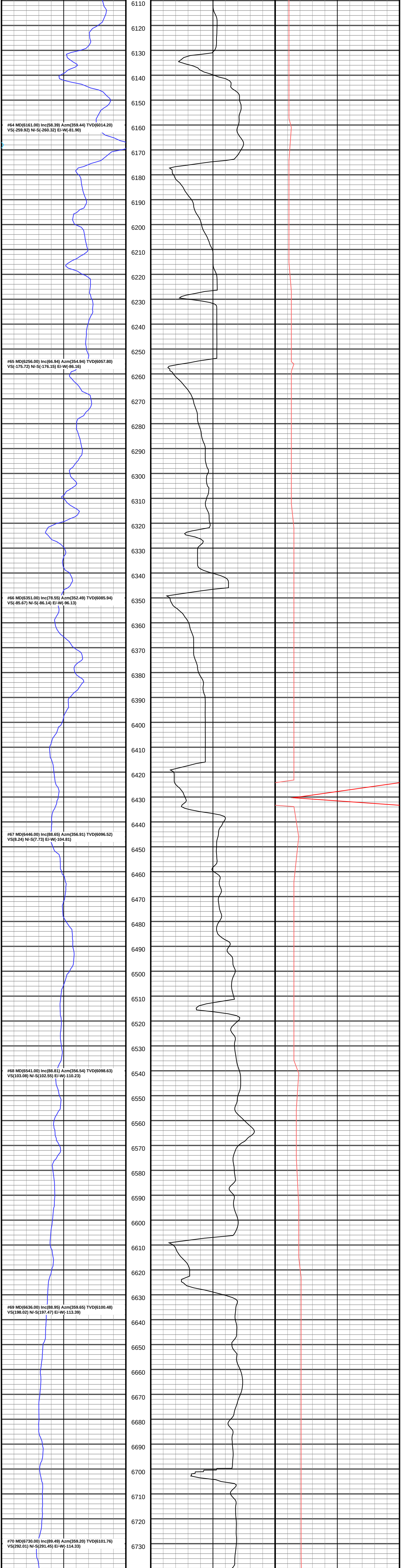












#64 MD(6161.00) Inc(58.39) Azm(359.44) TVD(6014.20)
VS(-259.92) N/-S(-260.32) E/-W(-81.90)

#65 MD(6256.00) Inc(66.94) Azm(354.94) TVD(6057.80)
VS(-175.72) N/-S(-176.15) E/-W(-86.16)

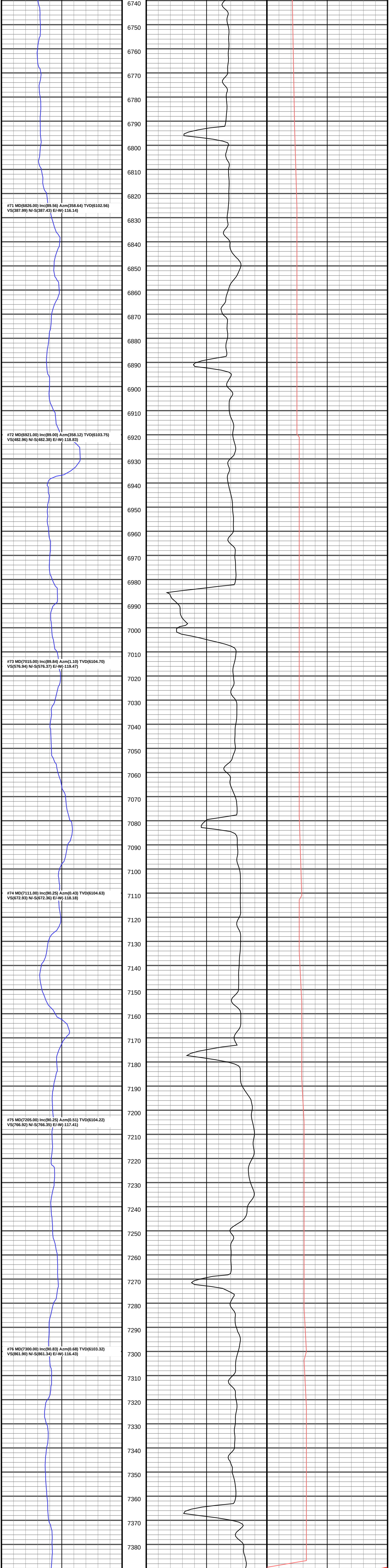
#66 MD(6351.00) Inc(78.55) Azm(352.49) TVD(6085.94)
VS(-85.67) N/-S(-86.14) E/-W(-96.13)

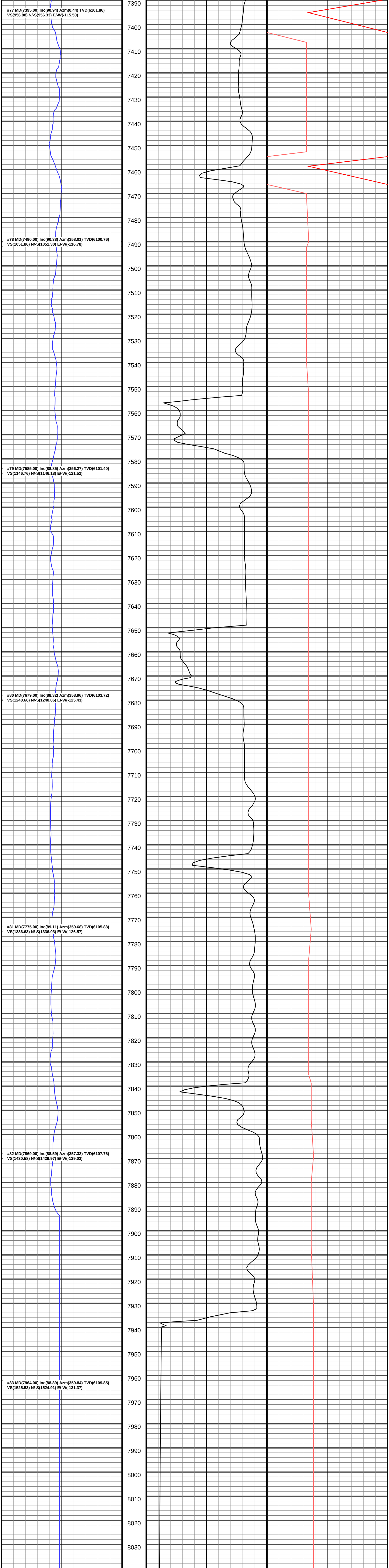
#67 MD(6446.00) Inc(88.65) Azm(356.91) TVD(6096.52)
VS(8.24) N/-S(7.73) E/-W(-104.81)

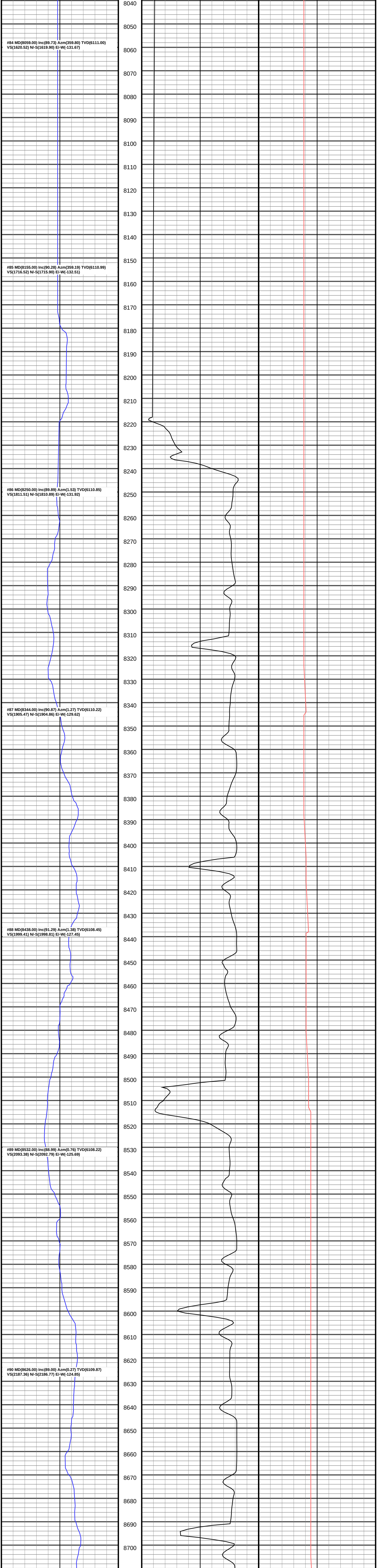
#68 MD(6541.00) Inc(88.81) Azm(356.54) TVD(6098.63)
VS(103.08) N/-S(102.55) E/-W(-110.23)

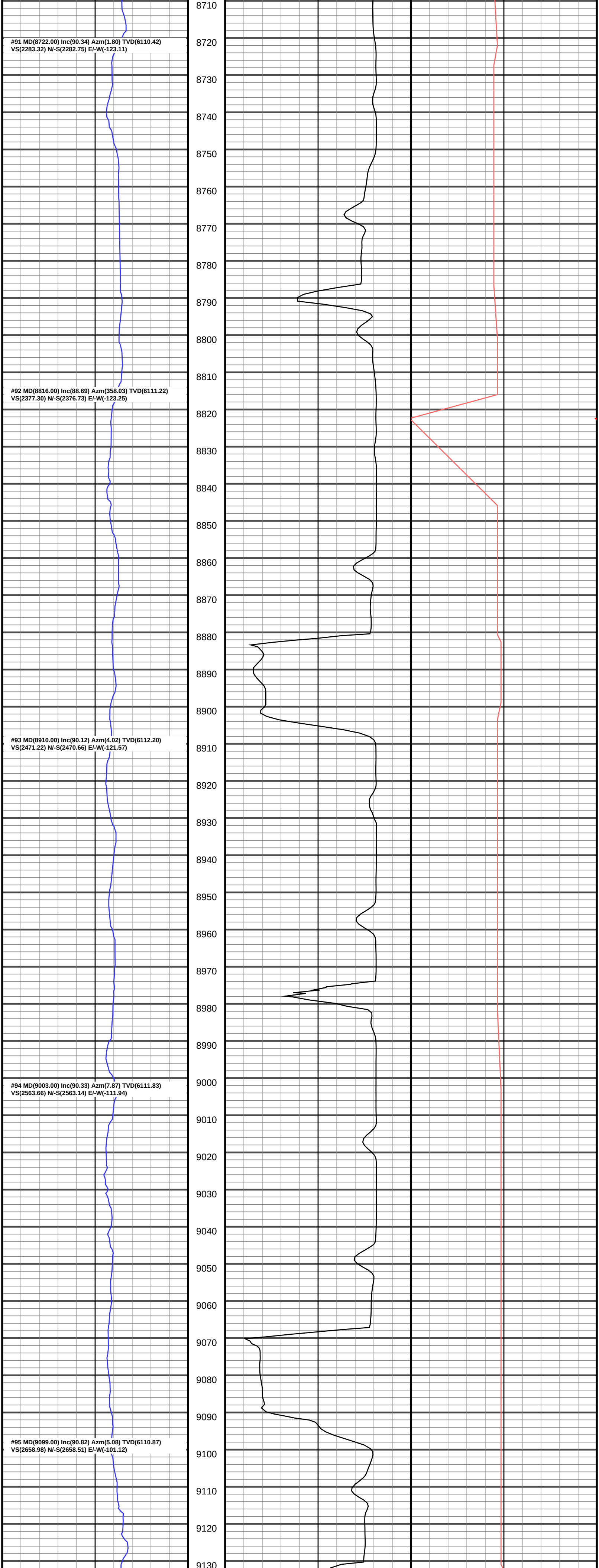
#69 MD(6636.00) Inc(88.95) Azm(359.65) TVD(6100.48)
VS(198.02) N/-S(197.47) E/-W(-113.39)

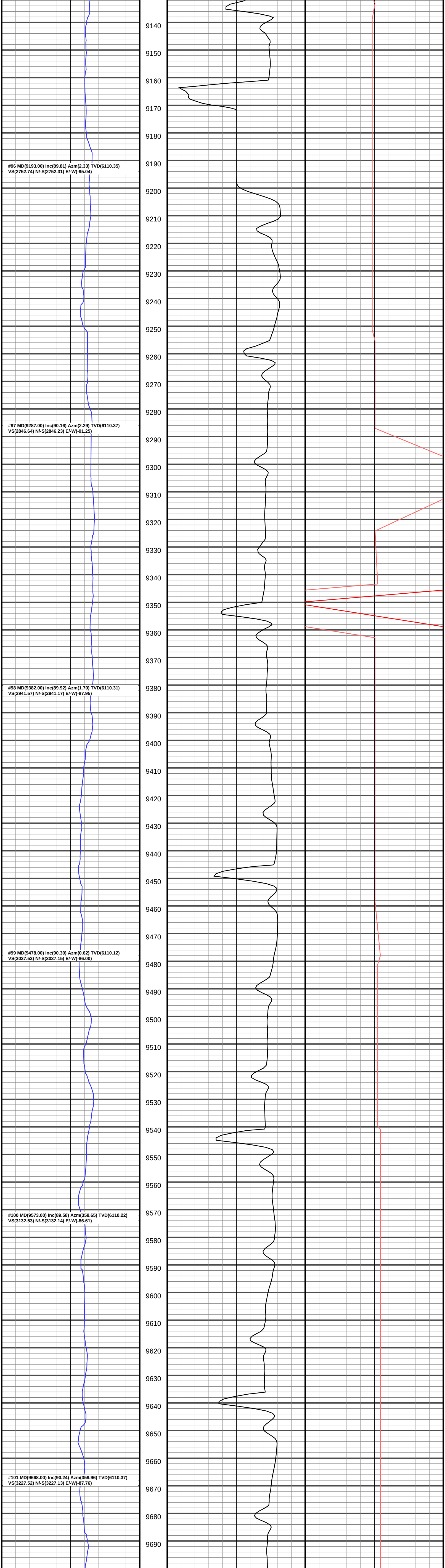
#70 MD(6730.00) Inc(89.49) Azm(359.20) TVD(6101.76)
VS(292.01) N/-S(291.45) E/-W(-114.33)

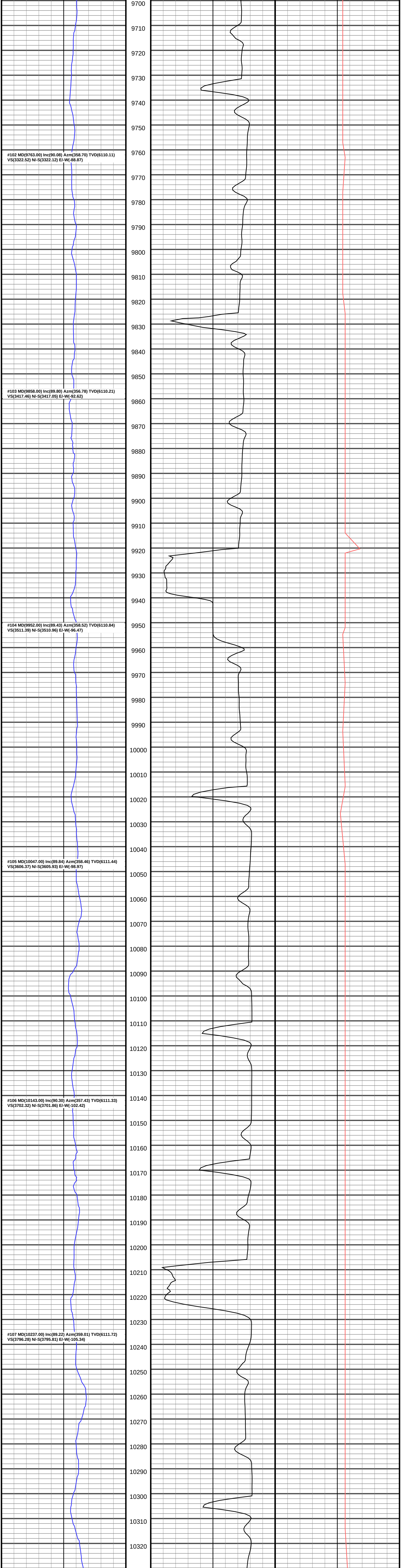


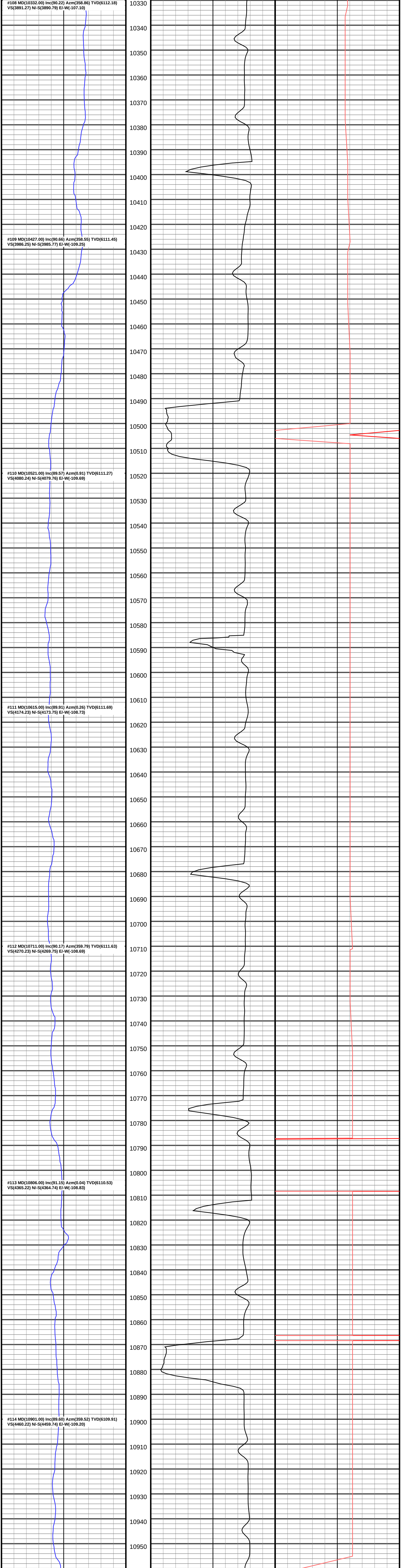


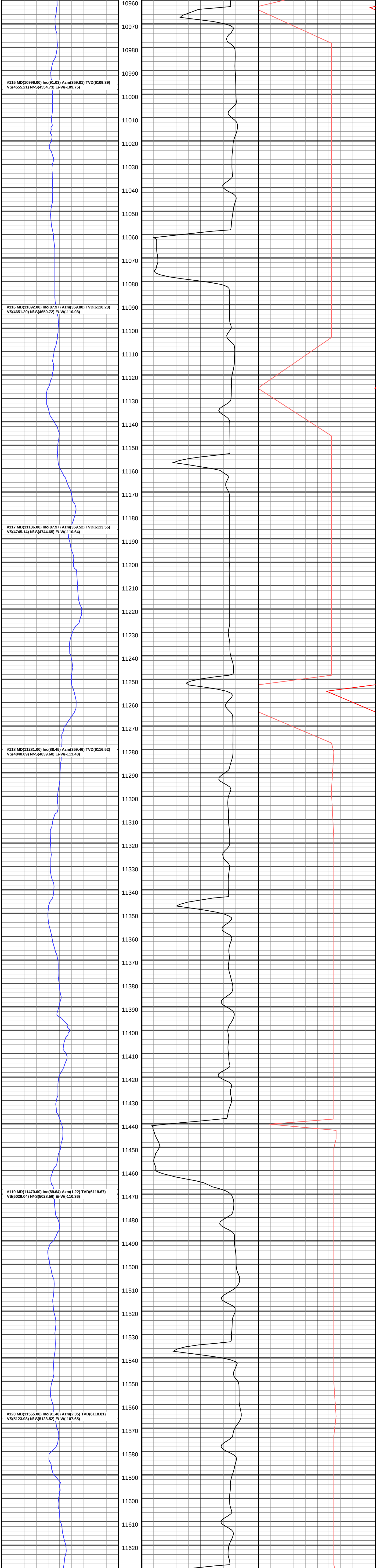












#115 MD(10996.00) Inc(91.03) Azm(359.81) TVD(6109.39)
VS(4555.21) N/-S(4554.73) E/-W(-109.75)

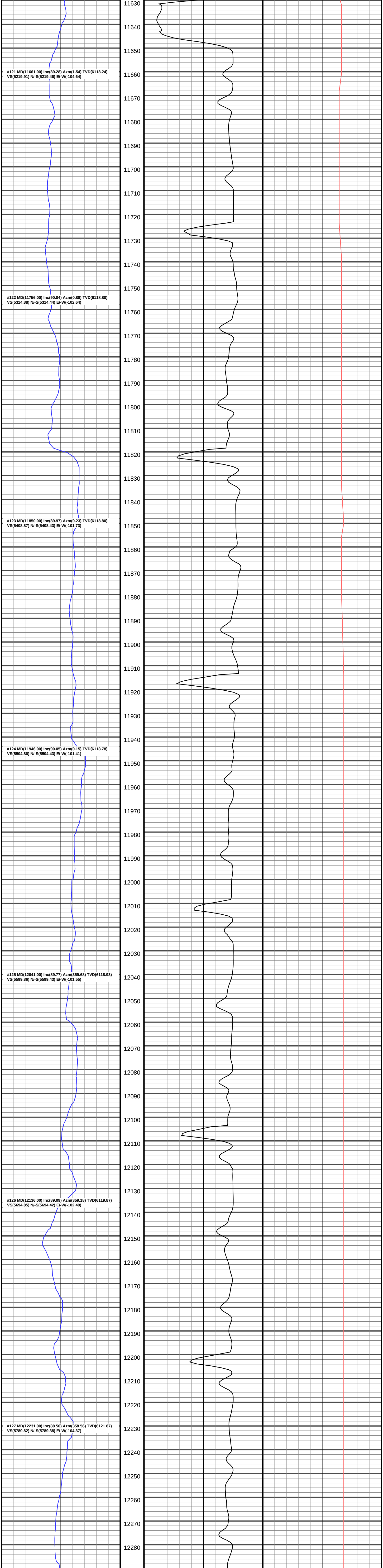
#116 MD(11092.00) Inc(87.97) Azm(359.80) TVD(6110.23)
VS(4651.20) N/-S(4650.72) E/-W(-110.08)

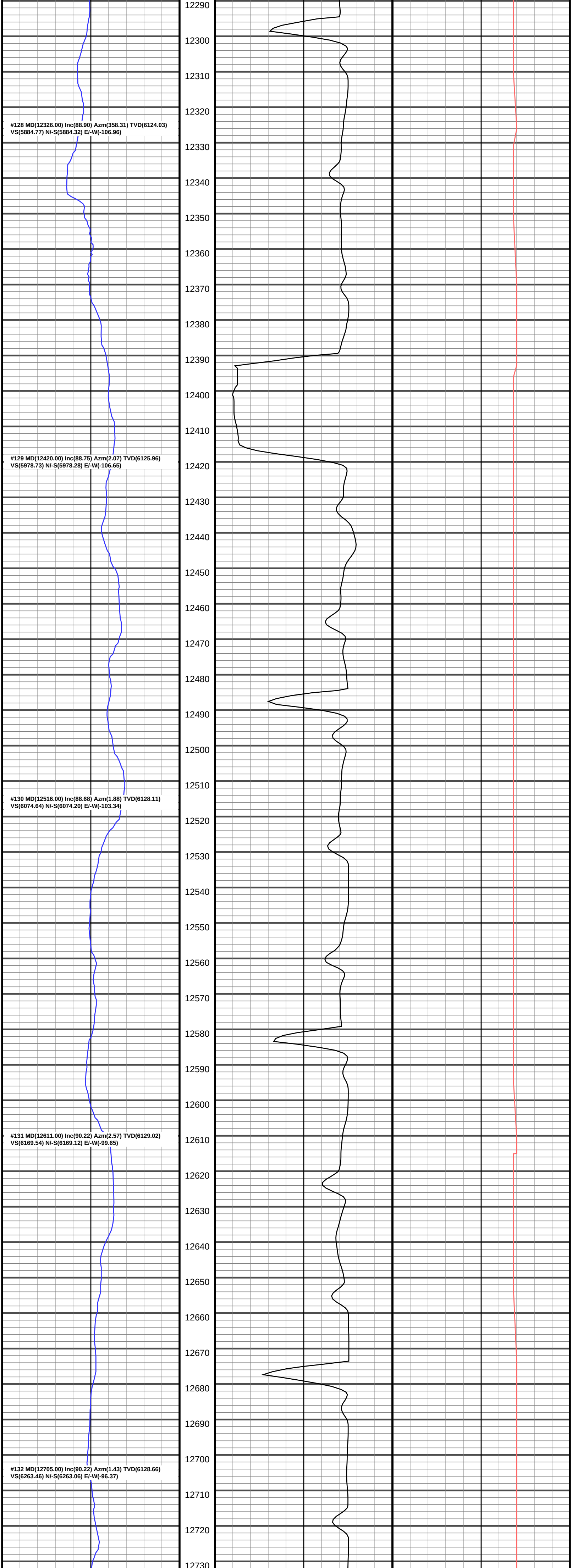
#117 MD(11186.00) Inc(87.97) Azm(359.52) TVD(6113.55)
VS(4745.14) N/-S(4744.65) E/-W(-110.64)

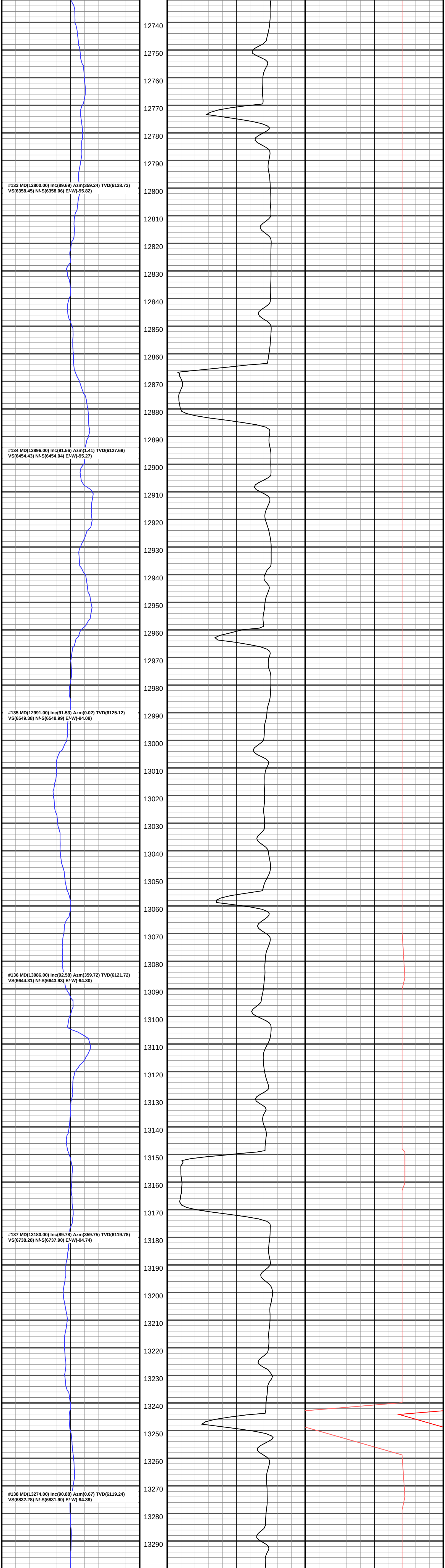
#118 MD(11281.00) Inc(88.45) Azm(359.46) TVD(6116.52)
VS(4840.09) N/-S(4839.60) E/-W(-111.48)

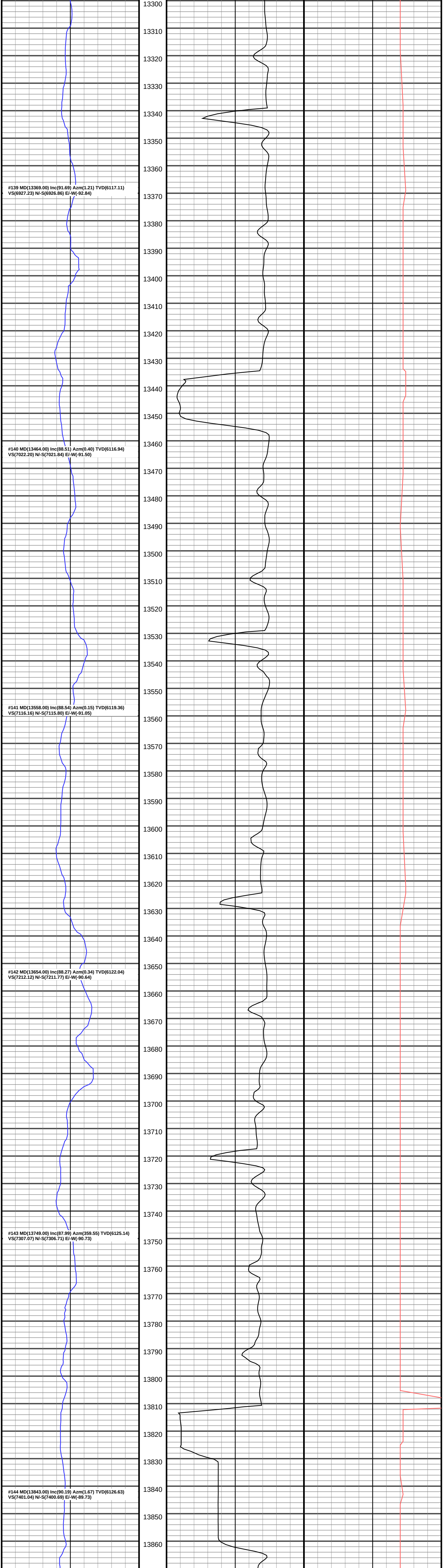
#119 MD(11470.00) Inc(89.64) Azm(1.22) TVD(6119.67)
VS(5029.04) N/-S(5028.56) E/-W(-110.36)

#120 MD(11565.00) Inc(91.40) Azm(2.05) TVD(6118.81)
VS(5123.98) N/-S(5123.52) E/-W(-107.65)









#139 MD(13369.00) Inc(91.69) Azm(1.21) TVD(6117.11)
VS(6927.23) N/-S(6926.86) E/-W(-92.84)

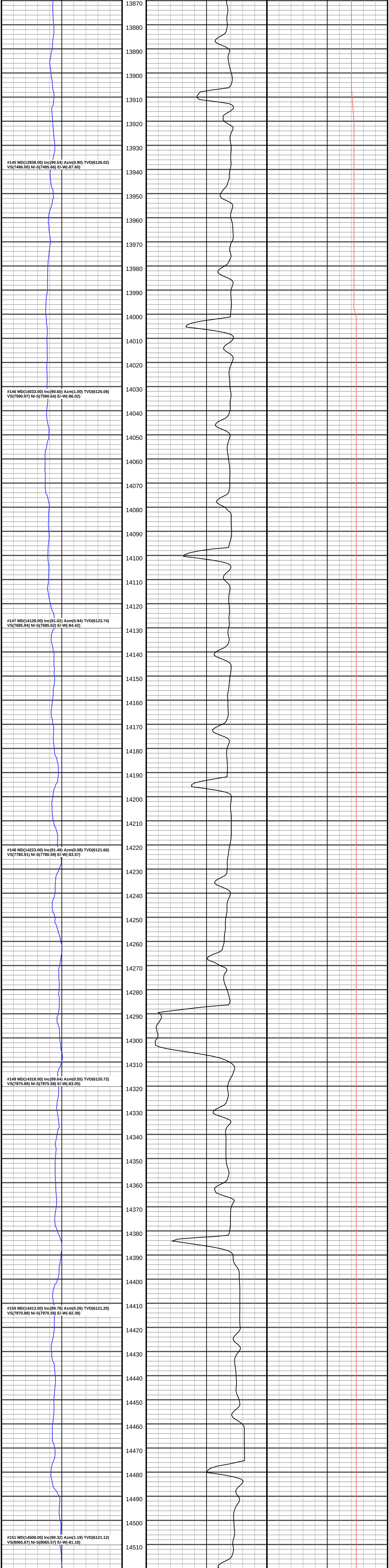
#140 MD(13464.00) Inc(88.51) Azm(0.40) TVD(6116.94)
VS(7022.20) N/-S(7021.84) E/-W(-91.50)

#141 MD(13558.00) Inc(88.54) Azm(0.15) TVD(6119.36)
VS(7116.16) N/-S(7115.80) E/-W(-91.05)

#142 MD(13654.00) Inc(88.27) Azm(0.34) TVD(6122.04)
VS(7212.12) N/-S(7211.77) E/-W(-90.64)

#143 MD(13749.00) Inc(87.99) Azm(359.55) TVD(6125.14)
VS(7307.07) N/-S(7306.71) E/-W(-90.73)

#144 MD(13843.00) Inc(90.19) Azm(1.67) TVD(6126.63)
VS(7401.04) N/-S(7400.69) E/-W(-89.73)



#145 MD(13938.00) Inc(90.54) Azm(0.90) TVD(6126.02)
VS(7496.00) N/-S(7495.66) E/-W(-87.60)

#146 MD(14033.00) Inc(90.60) Azm(1.00) TVD(6125.08)
VS(7590.97) N/-S(7590.64) E/-W(-86.02)

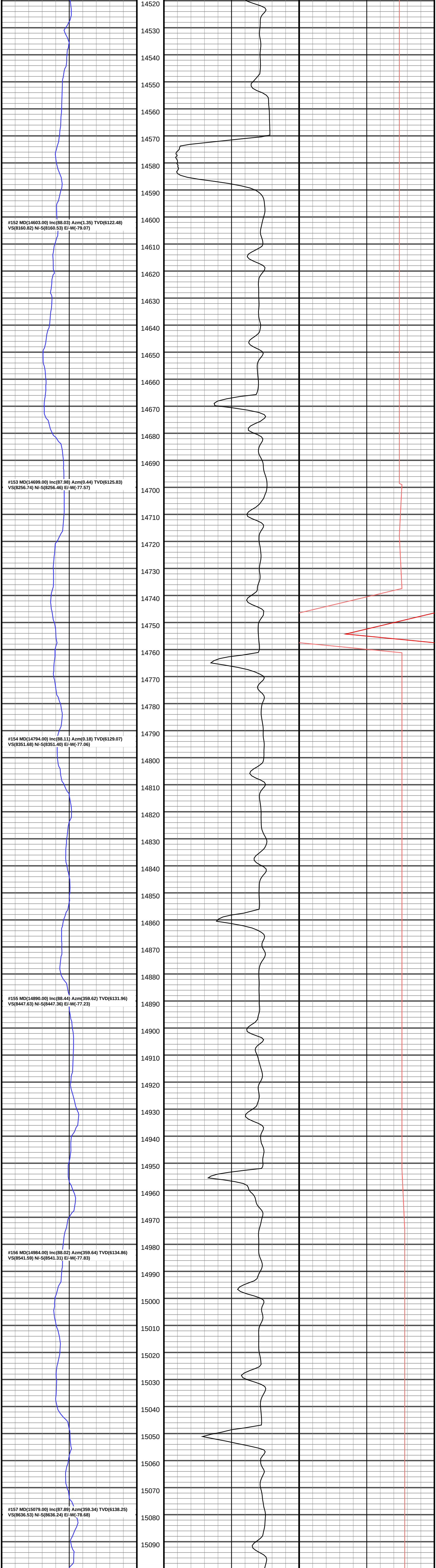
#147 MD(14128.00) Inc(91.02) Azm(0.94) TVD(6123.74)
VS(7685.94) N/-S(7685.62) E/-W(-84.42)

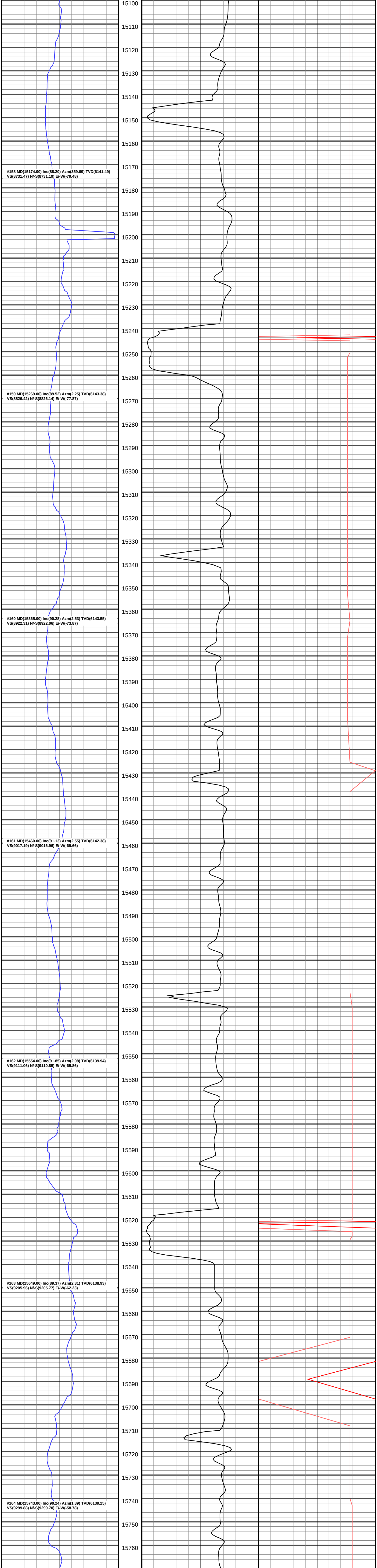
#148 MD(14223.00) Inc(91.49) Azm(0.08) TVD(6121.66)
VS(7780.91) N/-S(7780.59) E/-W(-83.57)

#149 MD(14318.00) Inc(89.64) Azm(0.55) TVD(6120.72)
VS(7875.89) N/-S(7875.58) E/-W(-83.05)

#150 MD(14413.00) Inc(89.78) Azm(0.26) TVD(6121.20)
VS(7970.88) N/-S(7970.58) E/-W(-82.38)

#151 MD(14508.00) Inc(90.32) Azm(1.19) TVD(6121.12)
VS(8065.87) N/-S(8065.57) E/-W(-81.18)





#158 MD(15174.00) Inc(88.20) Azm(359.69) TVD(6141.49)
VS(8731.47) N/-S(8731.19) E/-W(-79.48)

#159 MD(15269.00) Inc(89.52) Azm(2.25) TVD(6143.38)
VS(8826.42) N/-S(8826.14) E/-W(-77.87)

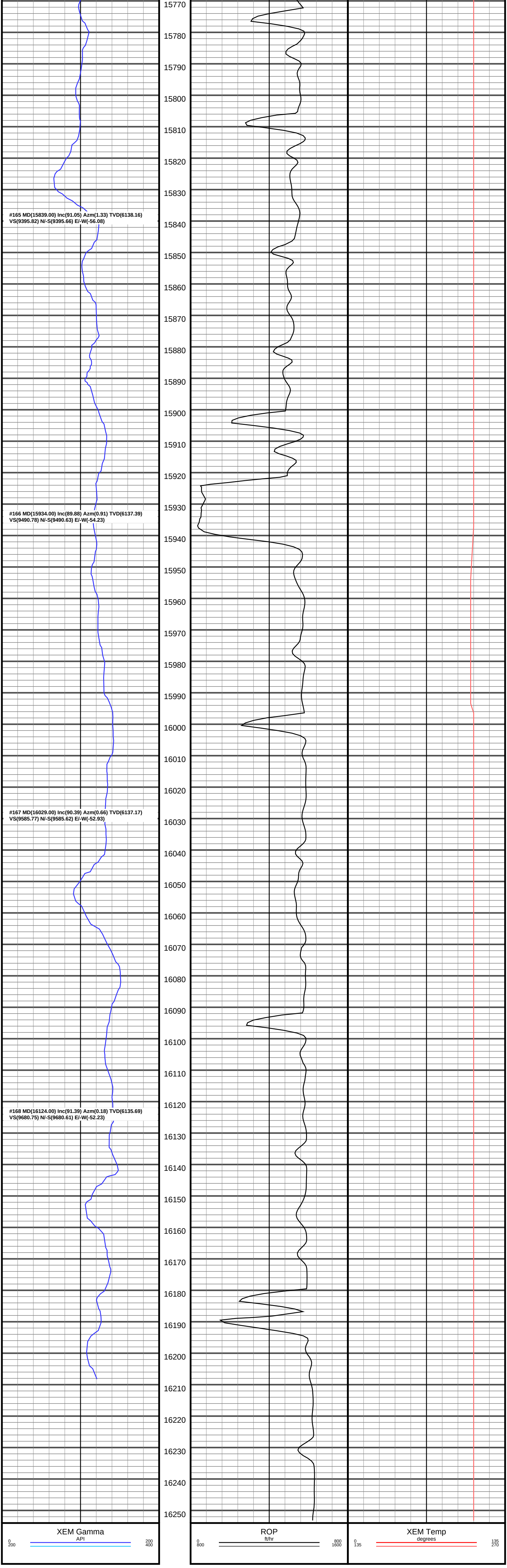
#160 MD(15365.00) Inc(90.28) Azm(2.53) TVD(6143.55)
VS(8922.31) N/-S(8922.06) E/-W(-73.87)

#161 MD(15460.00) Inc(91.13) Azm(2.55) TVD(6142.38)
VS(9017.19) N/-S(9016.96) E/-W(-69.66)

#162 MD(15554.00) Inc(91.85) Azm(2.08) TVD(6139.94)
VS(9111.06) N/-S(9110.85) E/-W(-65.86)

#163 MD(15649.00) Inc(89.37) Azm(2.31) TVD(6138.93)
VS(9205.96) N/-S(9205.77) E/-W(-62.23)

#164 MD(15743.00) Inc(90.24) Azm(1.89) TVD(6139.25)
VS(9299.88) N/-S(9299.70) E/-W(-58.78)


15770
15780
15790
15800
15810
15820
15830
#165 MD(15839.00) Inc(91.05) Azm(1.33) TVD(6138.16)
VS(9395.82) N/-S(9395.66) E/-W(-56.08)
15840
15850
15860
15870
15880
15890
15900
15910
15920
15930
#166 MD(15934.00) Inc(89.88) Azm(0.91) TVD(6137.39)
VS(9490.78) N/-S(9490.63) E/-W(-54.23)
15940
15950
15960
15970
15980
15990
16000
16010
16020
#167 MD(16029.00) Inc(90.39) Azm(0.66) TVD(6137.17)
VS(9585.77) N/-S(9585.62) E/-W(-52.93)
16030
16040
16050
16060
16070
16080
16090
16100
16110
16120
#168 MD(16124.00) Inc(91.39) Azm(0.18) TVD(6135.69)
VS(9680.75) N/-S(9680.61) E/-W(-52.23)
16130
16140
16150
16160
16170
16180
16190
16200
16210
16220
16230
16240
16250
XEM Gamma
API
0
200
200
400
ROP
ft/hr
0
800
800
1600
XEM Temp
degrees
0
135
135
270