ENSIGN Directional Services

Burton K25-67-1HN

TVD
5":100’

Company: Noble Energy
Well Name: Burton K25-67-1HN
API: 05-123-38366
Rig Id: Precision 829
State: Colorado
County/Parish: Weld
Country: USA
Survey Company: Ensign Directional
Job number: PD829-207-30
DD1 Zach Gentry
DD2 Colby Hansen
DD3 Tony Callow
MWD1 Andrew Demrow
MWD2 Buster Snider

Log measurements: Gama, ROP
Depth measured from:
Maximum temperature:

	Depth	**Date**
Start:	674 ft	11-19-2014
End:	ft	

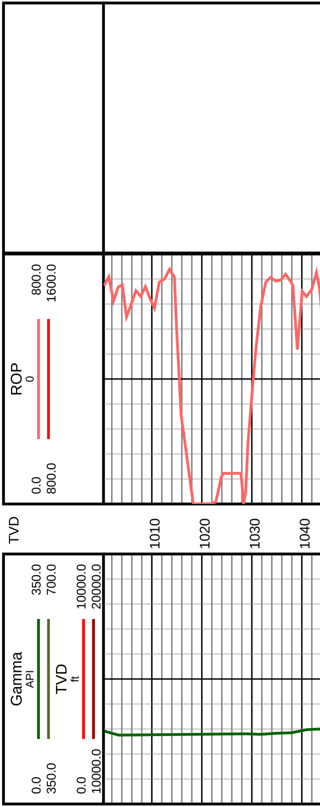
Casing	**Depth**	**Size**
Surface:	664	9 5/8
Intermediate:		7

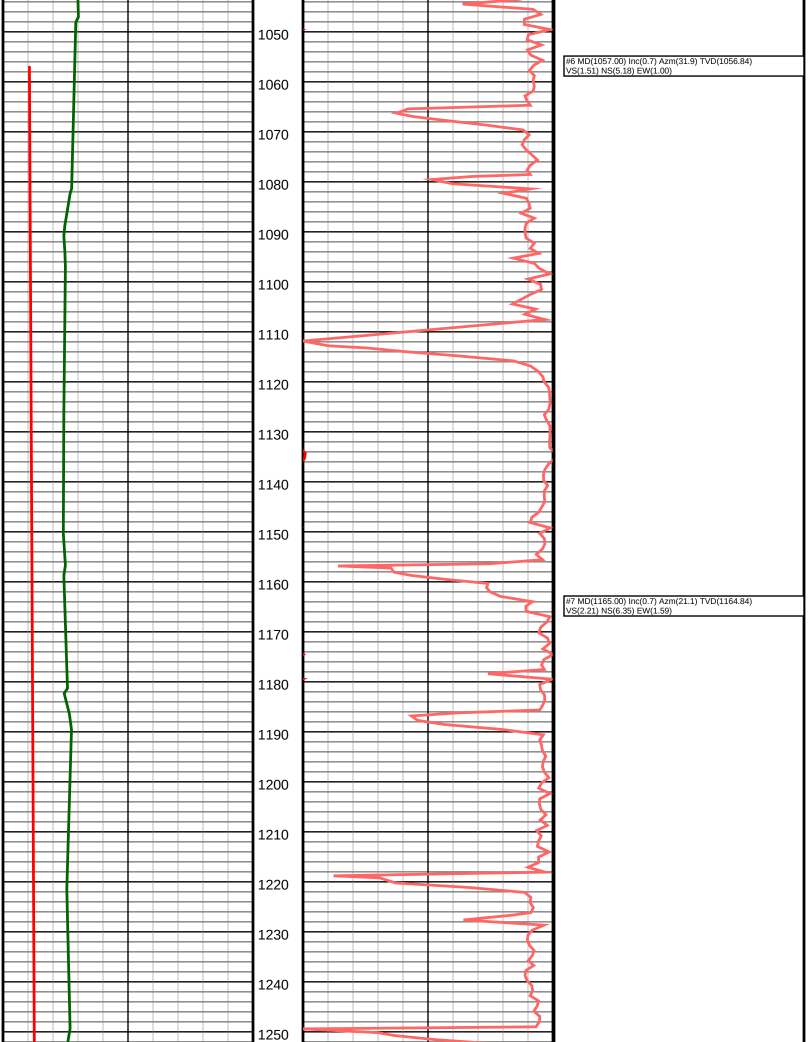
Mud Type:
Density:
Viscosity:
Rm: **Rmf:** **Rmc:**

Elevations
KB: 16
GL: 4775
DF: 4791

		Offsets		**Depths**		**Dates**	
Run	**Bit Size**	**Gamma**	**Survey**	**Start**	**End**	**Start**	**End**
1	13.5			0	674	11-18-2014	11-18-2014
2	8.75	59.45	54.45	674	7482	11-19-2014	11-22-2014
3							
4							
5							
6							
7							
8							
9							
10							

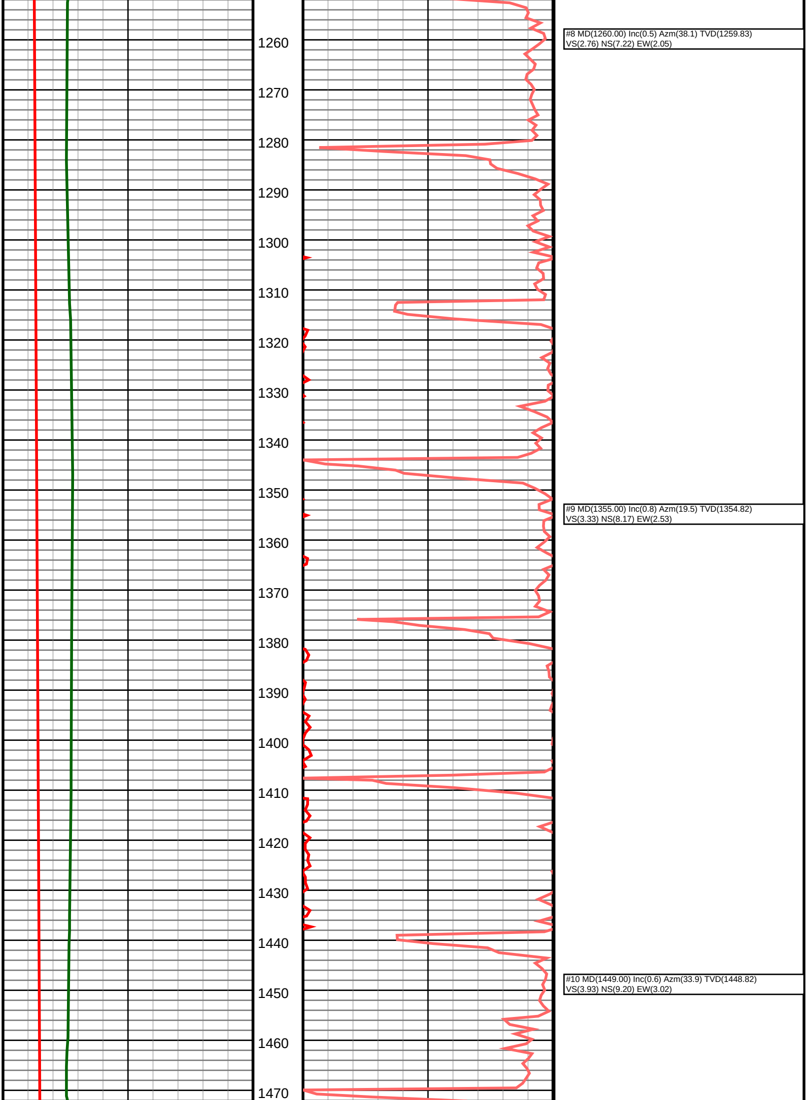
Ensign Directional uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.

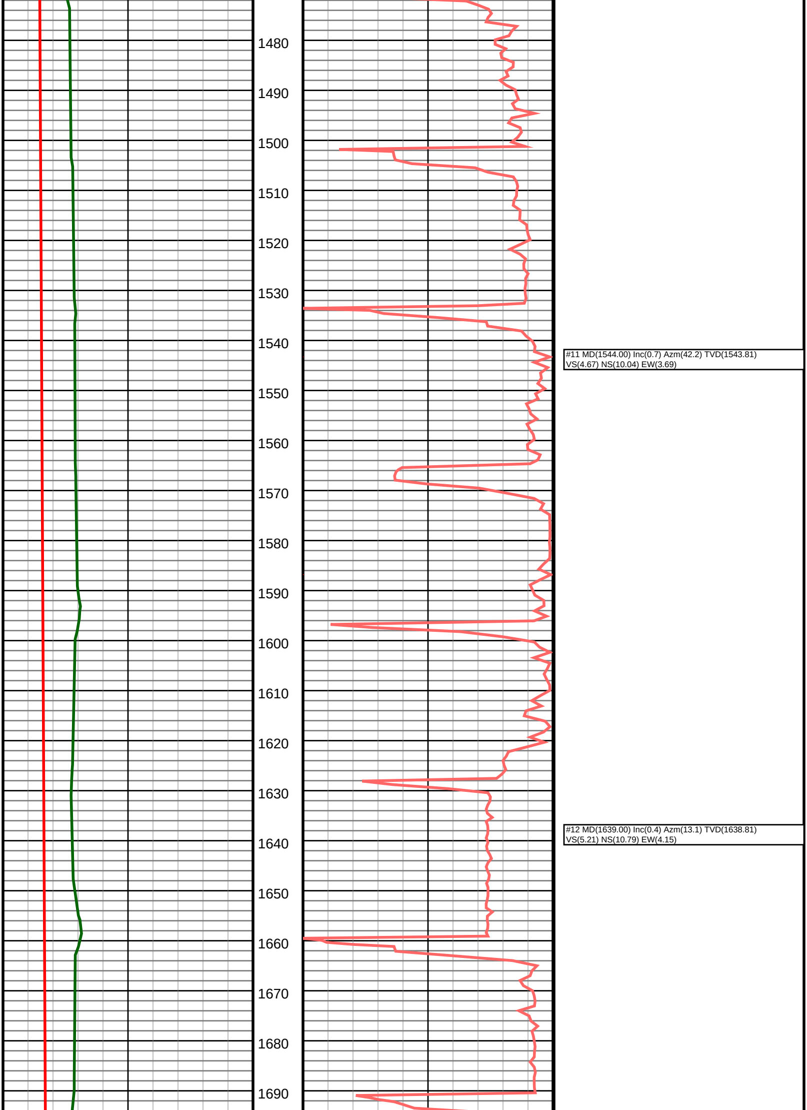




#6 MD(1057.00) Inc(0.7) Azm(31.9) TVD(1056.84)
VS(1.51) NS(5.18) EW(1.00)

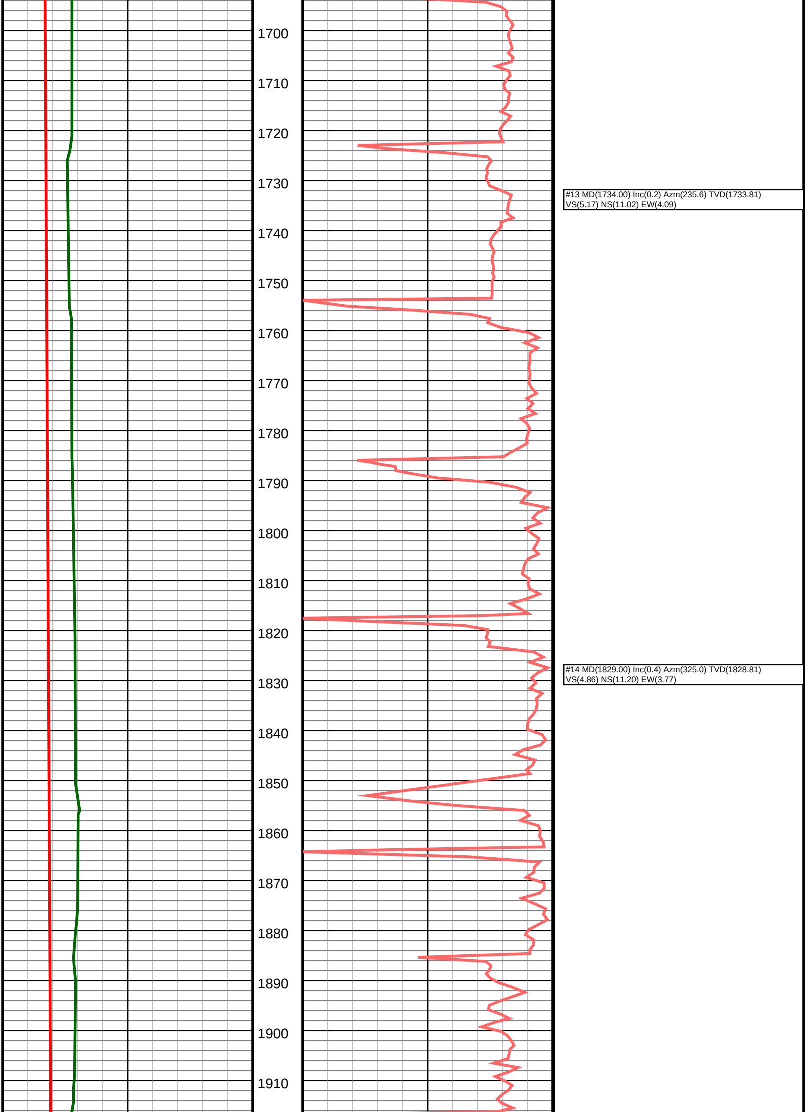
#7 MD(1165.00) Inc(0.7) Azm(21.1) TVD(1164.84)
VS(2.21) NS(6.35) EW(1.59)

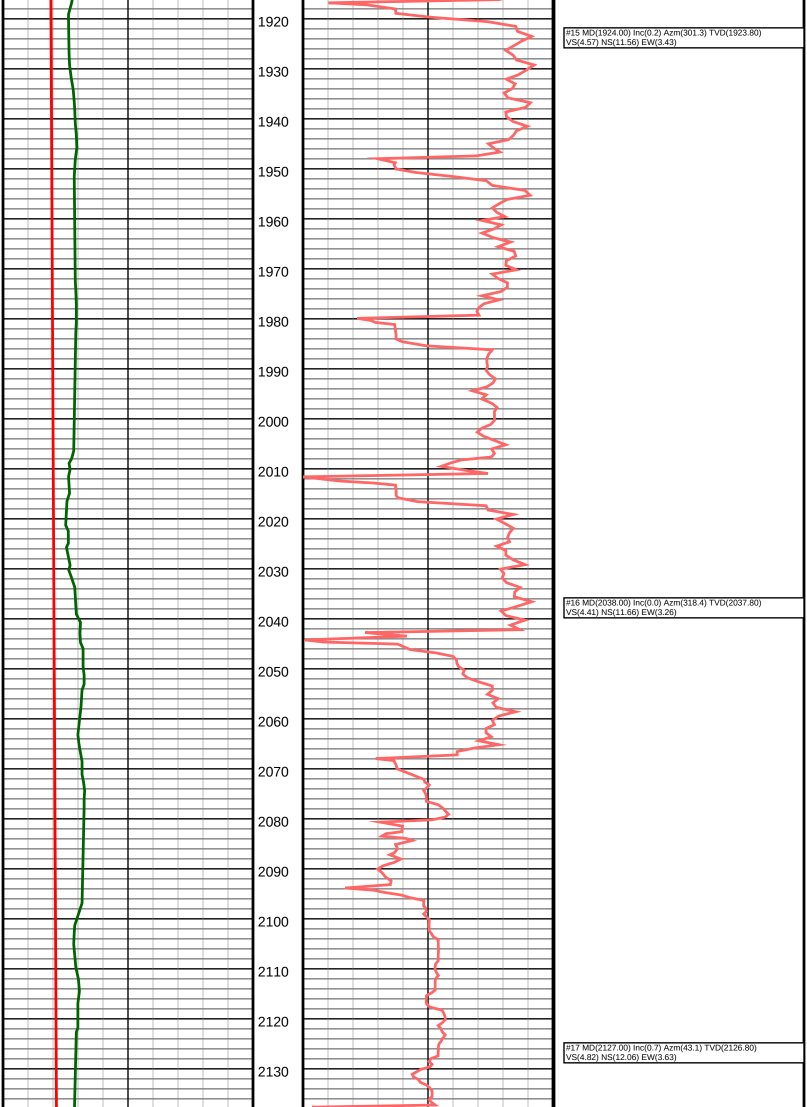




#11 MD(1544.00) Inc(0.7) Azm(42.2) TVD(1543.81)
VS(4.67) NS(10.04) EW(3.69)

#12 MD(1639.00) Inc(0.4) Azm(13.1) TVD(1638.81)
VS(5.21) NS(10.79) EW(4.15)

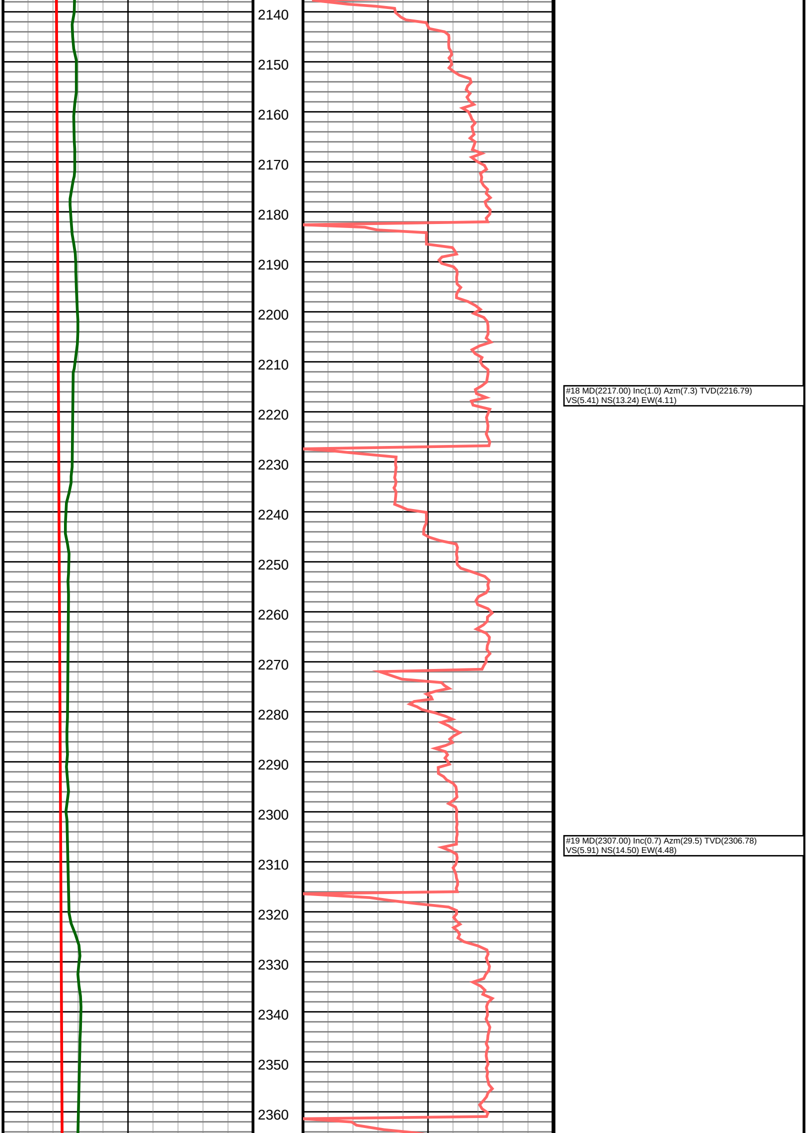




#15 MD(1924.00) Inc(0.2) Azm(301.3) TVD(1923.80)
VS(4.57) NS(11.56) EW(3.43)

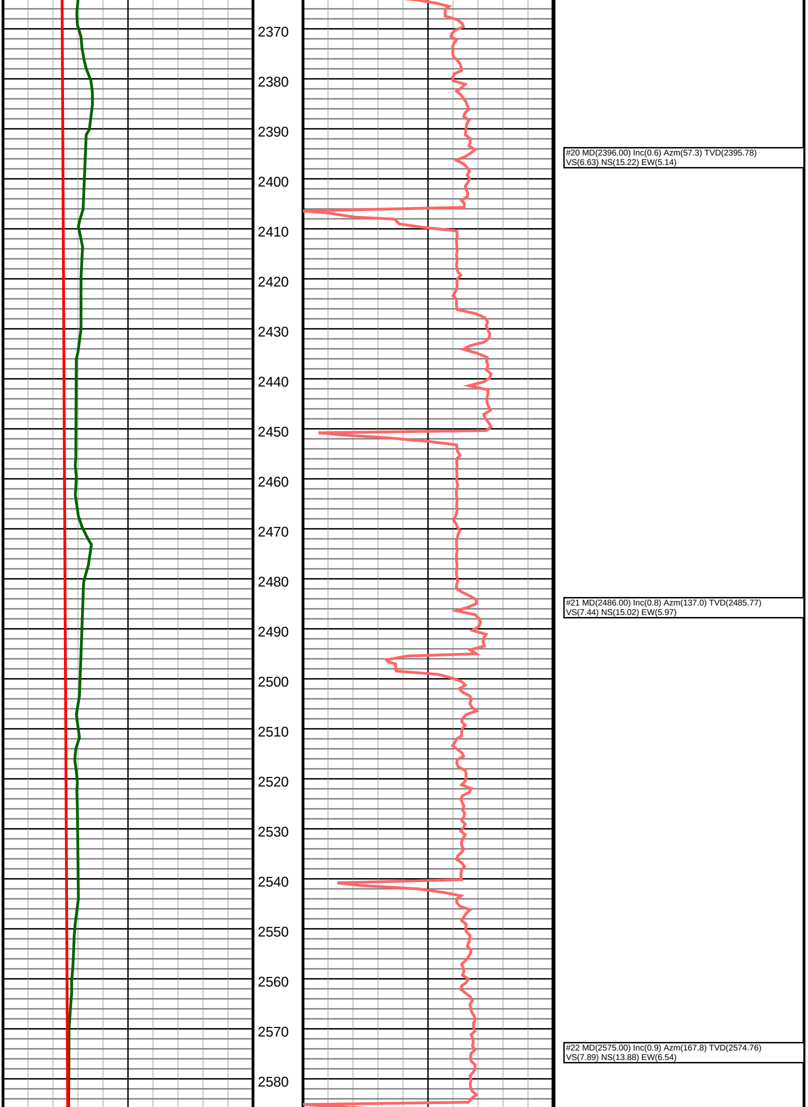
#16 MD(2038.00) Inc(0.0) Azm(318.4) TVD(2037.80)
VS(4.41) NS(11.66) EW(3.26)

#17 MD(2127.00) Inc(0.7) Azm(43.1) TVD(2126.80)
VS(4.82) NS(12.06) EW(3.63)



#18 MD(2217.00) Inc(1.0) Azm(7.3) TVD(2216.79)
VS(5.41) NS(13.24) EW(4.11)

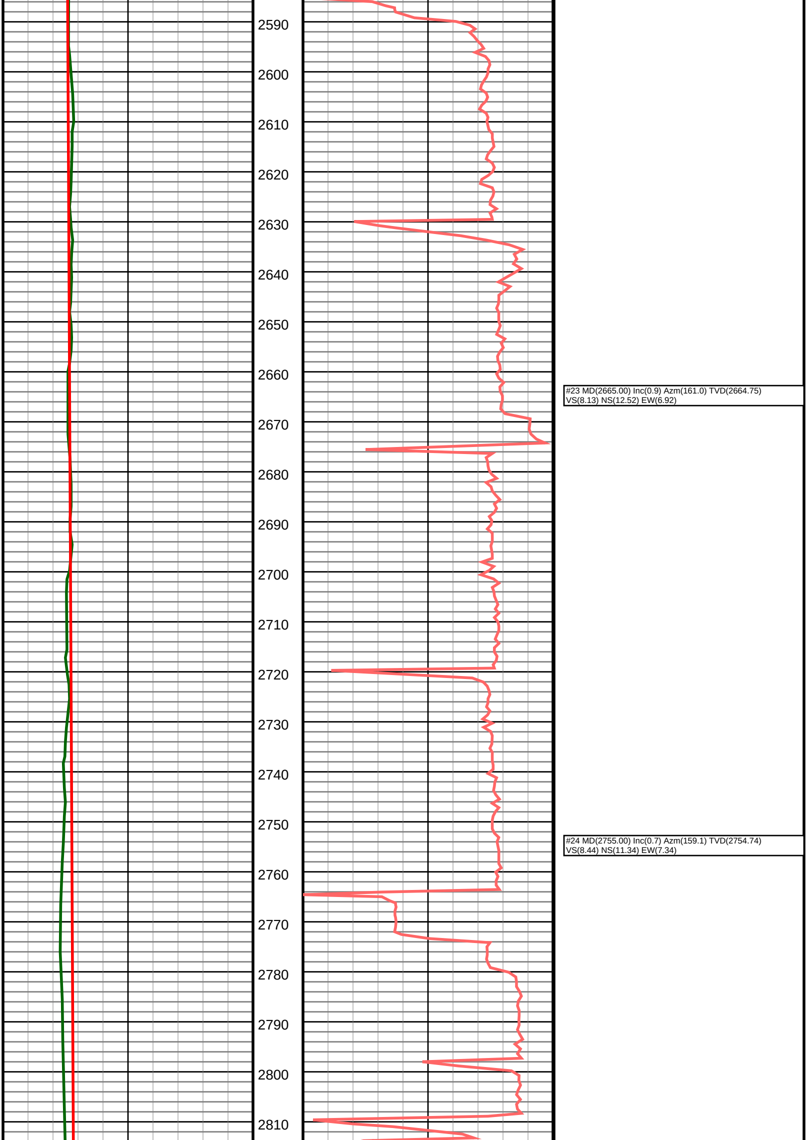
#19 MD(2307.00) Inc(0.7) Azm(29.5) TVD(2306.78)
VS(5.91) NS(14.50) EW(4.48)



#20 MD(2396.00) Inc(0.6) Azm(57.3) TVD(2395.78)
VS(6.63) NS(15.22) EW(5.14)

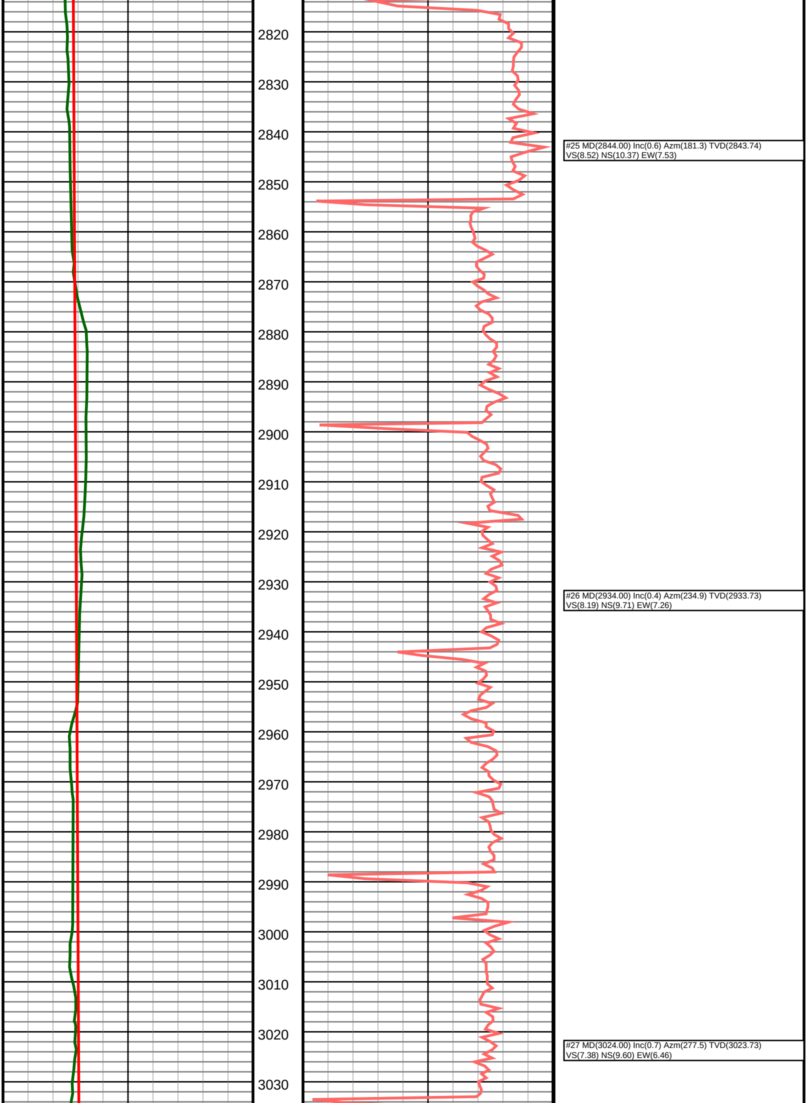
#21 MD(2486.00) Inc(0.8) Azm(137.0) TVD(2485.77)
VS(7.44) NS(15.02) EW(5.97)

#22 MD(2575.00) Inc(0.9) Azm(167.8) TVD(2574.76)
VS(7.89) NS(13.88) EW(6.54)



#23 MD(2665.00) Inc(0.9) Azm(161.0) TVD(2664.75)
VS(8.13) NS(12.52) EW(6.92)

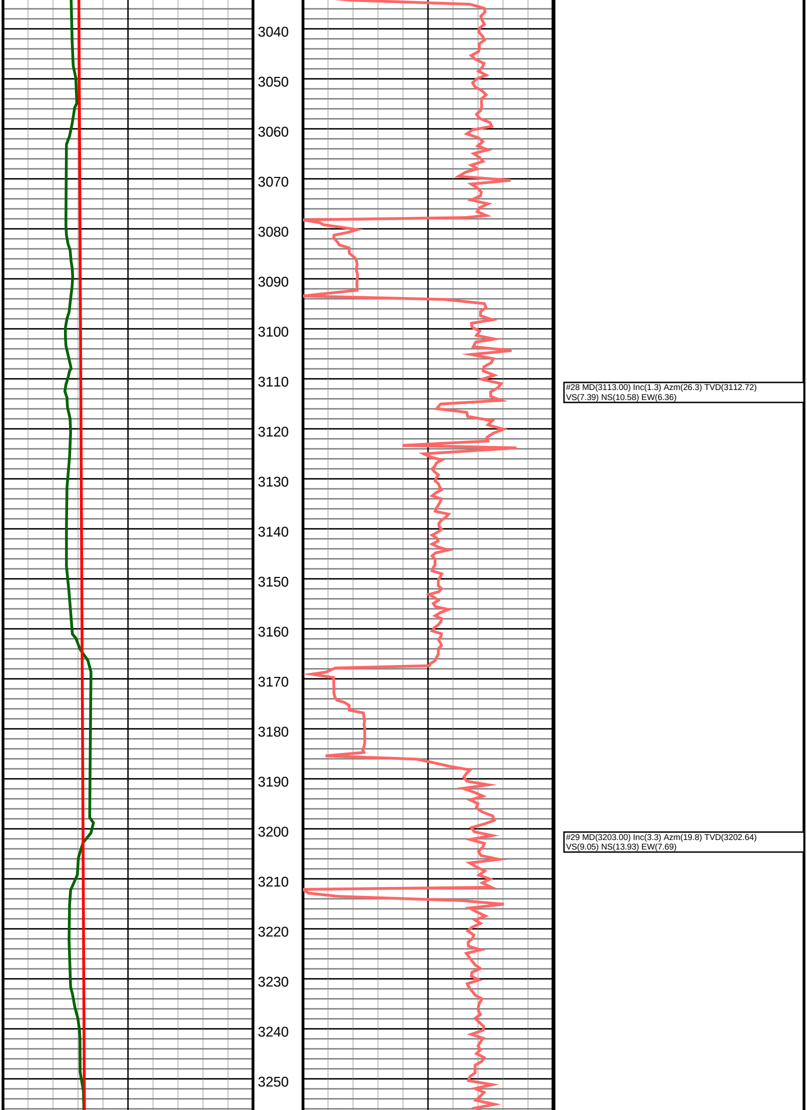
#24 MD(2755.00) Inc(0.7) Azm(159.1) TVD(2754.74)
VS(8.44) NS(11.34) EW(7.34)



#25 MD(2844.00) Inc(0.6) Azm(181.3) TVD(2843.74)
VS(8.52) NS(10.37) EW(7.53)

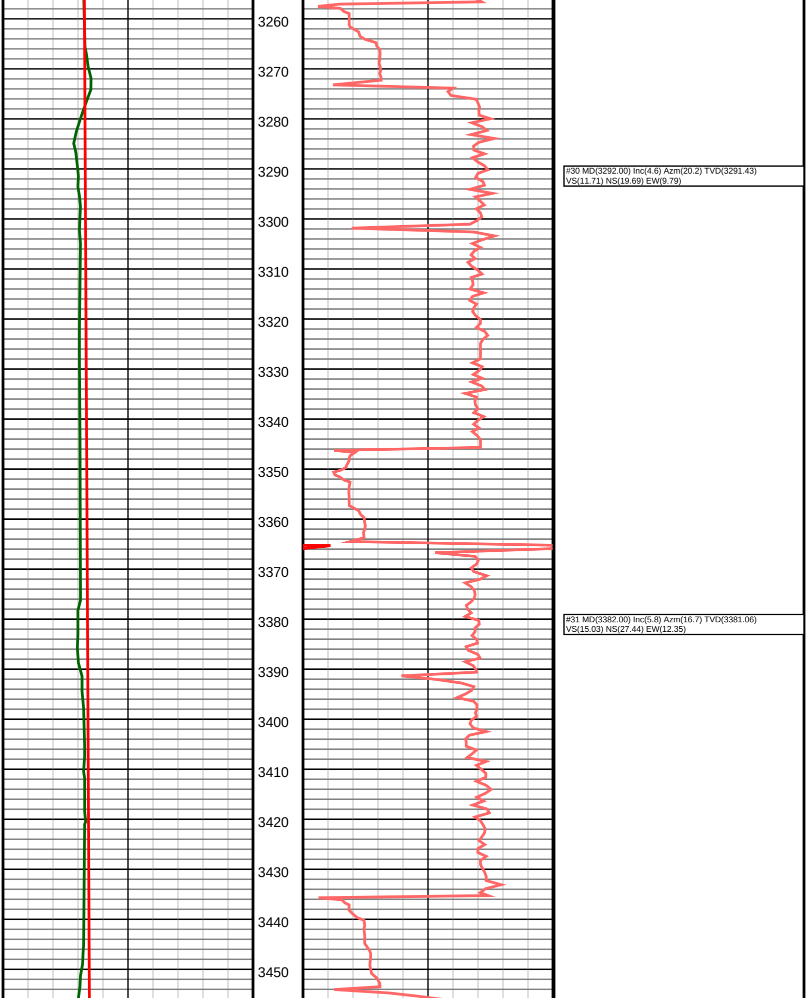
#26 MD(2934.00) Inc(0.4) Azm(234.9) TVD(2933.73)
VS(8.19) NS(9.71) EW(7.26)

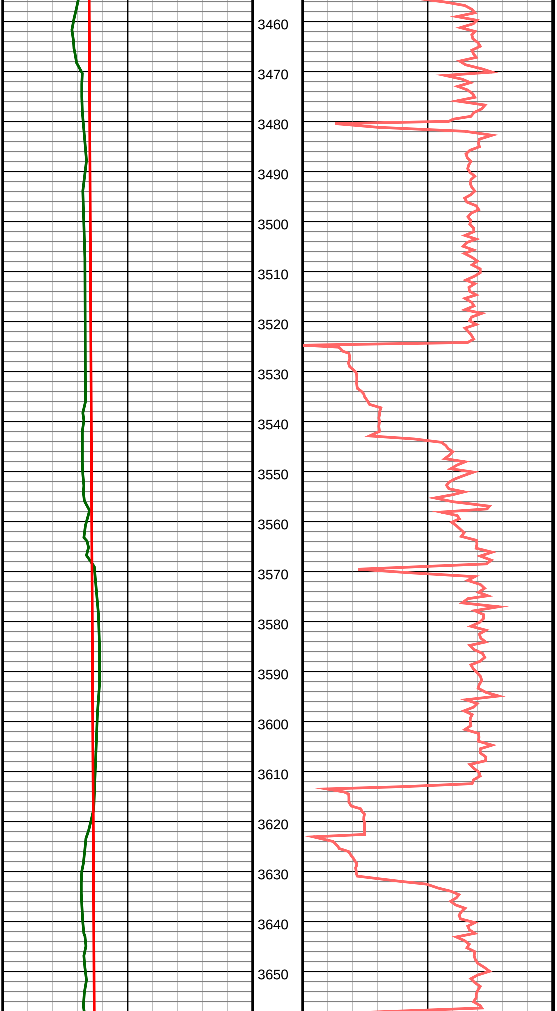
#27 MD(3024.00) Inc(0.7) Azm(277.5) TVD(3023.73)
VS(7.38) NS(9.60) EW(6.46)



#28 MD(3113.00) Inc(1.3) Azm(26.3) TVD(3112.72)
VS(7.39) NS(10.58) EW(6.36)

#29 MD(3203.00) Inc(3.3) Azm(19.8) TVD(3202.64)
VS(9.05) NS(13.93) EW(7.69)

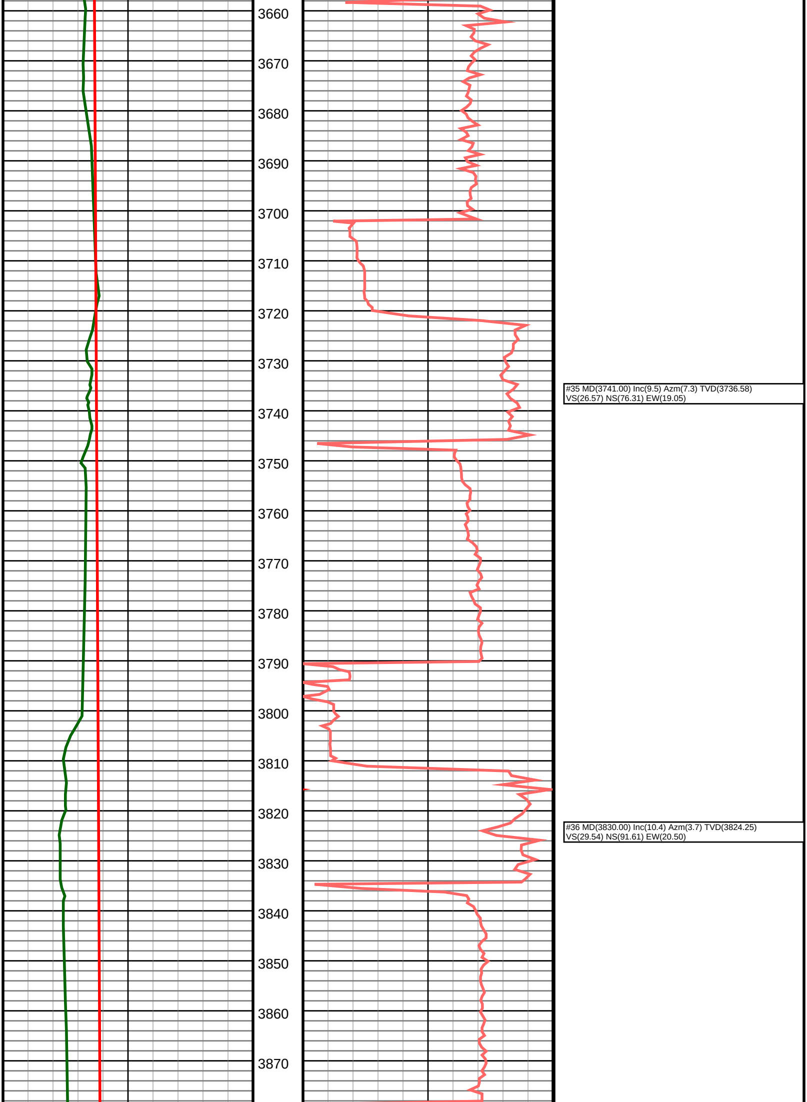




#32 MD(3472.00) Inc(7.5) Azm(14.8) TVD(3470.45)
VS(18.82) NS(37.47) EW(15.16)

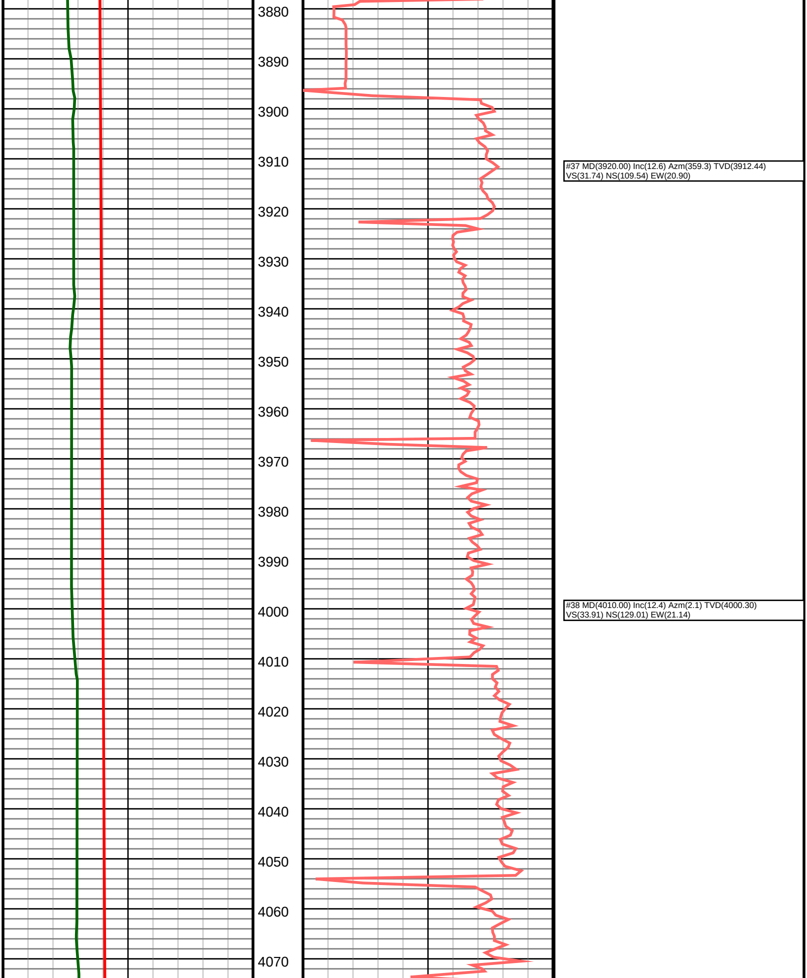
#33 MD(3561.00) Inc(8.3) Azm(5.3) TVD(3558.61)
VS(22.09) NS(49.48) EW(17.23)

#34 MD(3651.00) Inc(8.3) Azm(1.2) TVD(3647.67)
VS(24.11) NS(62.45) EW(17.97)



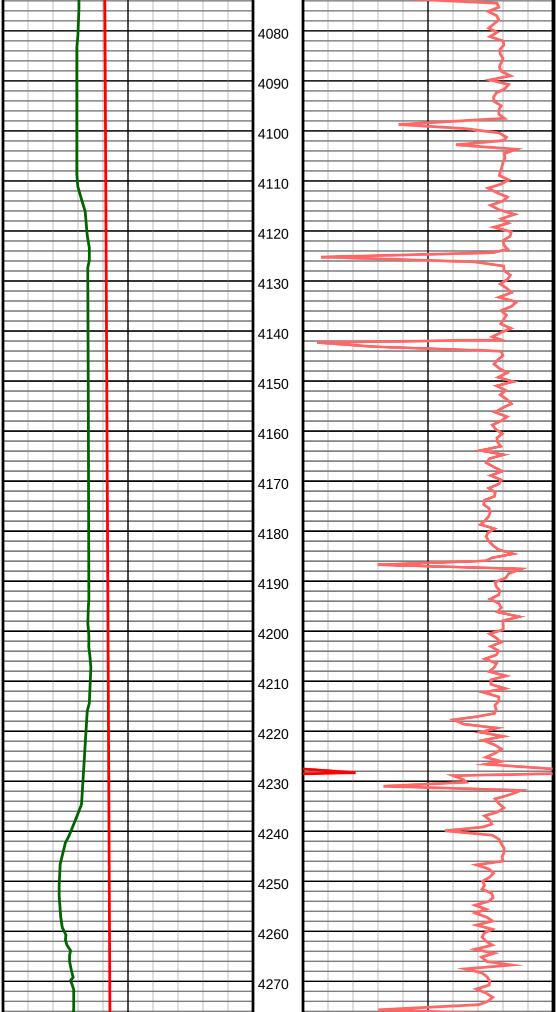
#35 MD(3741.00) Inc(9.5) Azm(7.3) TVD(3736.58)
VS(26.57) NS(76.31) EW(19.05)

#36 MD(3830.00) Inc(10.4) Azm(3.7) TVD(3824.25)
VS(29.54) NS(91.61) EW(20.50)



#37 MD(3920.00) Inc(12.6) Azm(359.3) TVD(3912.44)
VS(31.74) NS(109.54) EW(20.90)

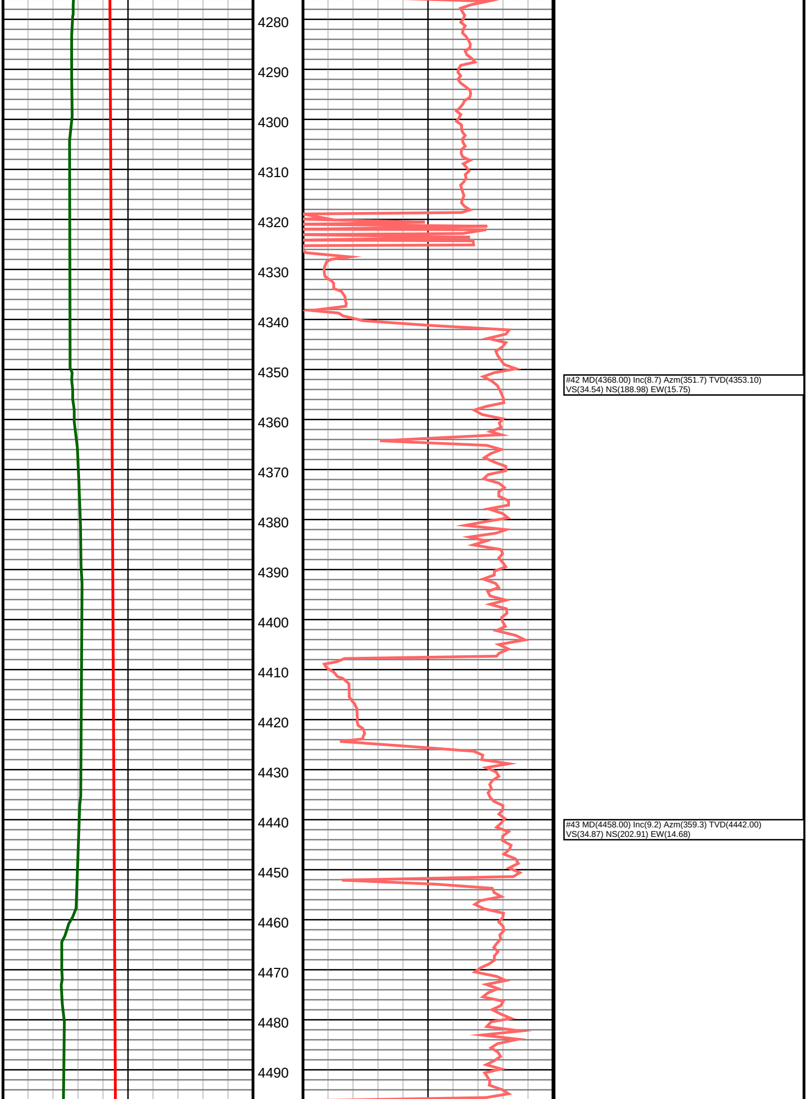
#38 MD(4010.00) Inc(12.4) Azm(2.1) TVD(4000.30)
VS(33.91) NS(129.01) EW(21.14)

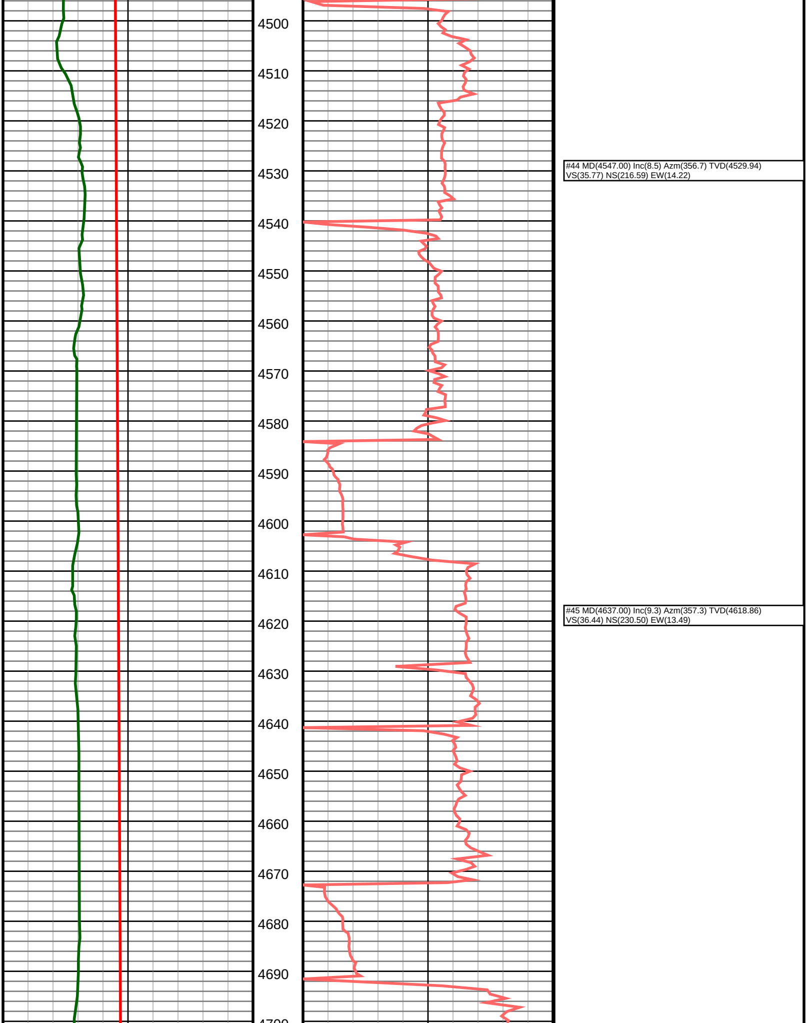


#39 MD(4099.00) Inc(10.7) Azm(357.2) TVD(4087.50)
VS(35.64) NS(146.81) EW(21.09)

#40 MD(4189.00) Inc(9.2) Azm(353.3) TVD(4176.14)
VS(35.94) NS(162.30) EW(19.84)

#41 MD(4278.00) Inc(8.4) Azm(350.0) TVD(4264.10)
VS(35.34) NS(175.77) EW(17.88)





#44 MD(4547.00) Inc(8.5) Azm(356.7) TVD(4529.94)
VS(35.77) NS(216.59) EW(14.22)

#45 MD(4637.00) Inc(9.3) Azm(357.3) TVD(4618.86)
VS(36.44) NS(230.50) EW(13.49)

#46 MD(4726.00) Inc(9.8) Azm(359.0) TVD(4706.63) VS(37.44) NS(245.25) EW(13.02)

#47 MD(4816.00) Inc(11.3) Azm(359.5) TVD(4795.10) VS(38.88) NS(261.73) EW(12.81)

#48 MD(4905.00) Inc(11.4) Azm(1.6) TVD(4882.36) VS(40.80) NS(279.24) EW(12.98)

#49 MD(4995.00) Inc(10.4) Azm(357.8) TVD(4970.74) VS(42.43) NS(296.25) EW(12.92)

#50 MD(5084.00) Inc(9.8) Azm(351.1) TVD(5058.36) VS(42.51) NS(311.76) EW(11.44)

#51 MD(5174.00) Inc(8.2) Azm(347.4) TVD(5147.25) VS(41.32) NS(325.59) EW(8.85)

#52 MD(5264.00) Inc(9.4) Azm(354.1) TVD(5236.19) VS(40.53) NS(339.17) EW(6.70)

#53 MD(5353.00) Inc(9.8) Azm(354.6) TVD(5323.95) VS(40.55) NS(353.94) EW(5.24)

#54 MD(5443.00) Inc(10.0) Azm(355.8) TVD(5412.61) VS(40.80) NS(369.36) EW(3.94)

#55 MD(5533.00) Inc(9.4) Azm(3.5) TVD(5501.32) VS(42.19) NS(384.49) EW(3.82)

#56 MD(5622.00) Inc(9.4) Azm(4.0) TVD(5589.13) VS(44.58) NS(398.99) EW(4.77)

#57 MD(5712.00) Inc(9.3) Azm(7.6) TVD(5677.93) VS(47.50) NS(413.53) EW(6.24)

#58 MD(5802.00) Inc(10.3) Azm(0.3) TVD(5766.62) VS(50.02) NS(428.79) EW(7.25)

#59 MD(5891.00) Inc(10.5) Azm(6.2) TVD(5854.16) VS(52.54) NS(444.81) EW(8.17)

#60 MD(5981.00) Inc(11.4) Azm(1.1) TVD(5942.52) VS(55.29) NS(461.85) EW(9.22)

#61 MD(6070.00) Inc(11.6) Azm(356.7) TVD(6029.74) VS(56.71) NS(479.58) EW(8.88)

#62 MD(6160.00) Inc(11.0) Azm(358.0) TVD(6117.99) VS(57.66) NS(497.20) EW(8.06)

#63 MD(6250.00) Inc(9.5) Azm(2.0) TVD(6206.56) VS(59.21) NS(513.20) EW(8.02)

#64 MD(6340.00) Inc(11.7) Azm(353.6) TVD(6295.02) VS(60.11) NS(529.70) EW(7.26)

#65 MD(6429.00) Inc(13.1) Azm(356.6) TVD(6381.94) VS(60.41) NS(548.73) EW(5.65)

#66 MD(6474.00) Inc(12.7) Azm(9.3) TVD(6425.82) VS(61.90) NS(558.71) EW(6.15)

#67 MD(6519.00) Inc(13.3) Azm(25.2) TVD(6469.68) VS(65.85) NS(568.28) EW(9.15)

#68 MD(6563.00) Inc(13.4) Azm(45.2) TVD(6512.51) VS(72.41) NS(576.45) EW(14.93)

#69 MD(6608.00) Inc(14.0) Azm(53.9) TVD(6556.24) VS(81.15) NS(583.33) EW(23.03)

#70 MD(6653.00) Inc(14.5) Azm(59.5) TVD(6599.85) VS(90.97) NS(589.40) EW(32.28)

#71 MD(6698.00) Inc(16.4) Azm(67.6) TVD(6643.23) VS(102.17) NS(594.68) EW(43.01)

#72 MD(6743.00) Inc(18.3) Azm(75.2) TVD(6686.19) VS(115.23) NS(598.91) EW(55.72)

#73 MD(6787.00) Inc(21.9) Azm(76.4) TVD(6727.50) VS(130.19) NS(602.60) EW(70.38)

#74 MD(6832.00) Inc(25.8) Azm(75.0) TVD(6768.65) VS(148.17) NS(607.11) EW(88.00)

#75 MD(6877.00) Inc(29.4) Azm(75.5) TVD(6808.52) VS(168.76) NS(612.41) EW(108.16)

#76 MD(6922.00) Inc(32.8) Azm(76.4) TVD(6847.05) VS(191.76) NS(618.05) EW(130.71)

#77 MD(6967.00) Inc(36.0) Azm(79.6) TVD(6884.18) VS(217.02) NS(623.30) EW(155.57)

#78 MD(7011.00) Inc(40.0) Azm(81.6) TVD(6918.84) VS(244.05) NS(627.71) EW(182.29)

#79 MD(7056.00) Inc(44.8) Azm(82.1) TVD(6952.06) VS(274.36) NS(632.00) EW(212.32)

#80 MD(7101.00) Inc(49.6) Azm(82.4) TVD(6982.63) VS(307.34) NS(636.45) EW(245.03)

#81 MD(7146.00) Inc(54.5) Azm(82.6) TVD(7010.30) VS(342.80) NS(641.08) EW(280.20)

#82 MD(7191.00) Inc(59.9) Azm(83.1) TVD(7034.66) VS(380.60) NS(645.78) EW(317.71)

#83 MD(7236.00) Inc(62.2) Azm(84.4) TVD(7056.44) VS(419.97) NS(650.06) EW(356.85)

#84 MD(7280.00) Inc(65.3) Azm(84.9) TVD(7075.90) VS(459.43) NS(653.74) EW(396.14)

#85 MD(7325.00) Inc(70.7) Azm(85.6) TVD(7092.75) VS(501.13) NS(657.18) EW(437.70)

#86 MD(7370.00) Inc(76.0) Azm(86.6) TVD(7105.64) VS(544.21) NS(660.11) EW(480.70)

#87 MD(7415.00) Inc(80.8) Azm(86.7) TVD(7114.69) VS(588.24) NS(662.69) EW(524.69)