Polaris Guidance Systems LLC

Extraction_Patterson 901_Berthoud Farms 8E_10_7N

MD
5":100'

Company: Extraction Oil and Gas
Well Name: Berthoud Farms 8E-10-5N
API: 05-123-45720
County/Parish: Weld
State: CO
Country: US
Job number: 00014EX-CO
Field: DJ Basin
Rig Id: Patterson 901
Survey Company: Atlas Directional Services
Stephen Lebel Day Hand
Matt Fetterly Night Hand

Log measurements: Gamma
Depth measured from: RKB
Maximum temperature: 215

	Depth	Date
Start:	1605 ft	5/2/18
End:	10874 ft	5/4/18

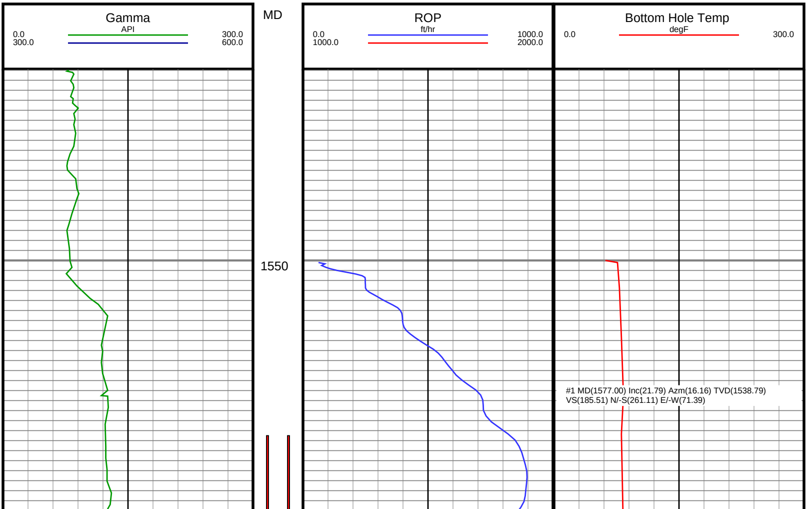
Casing	Depth	Casing Size	Hole Size
Surface:	1605 ft	9.625"	12.5"
Intermediate:			"

Mud Type: OBM
Density: 9.3
Viscosity: 45
Rm: N/A **Rmf:** N/A **Rmc:** N/A

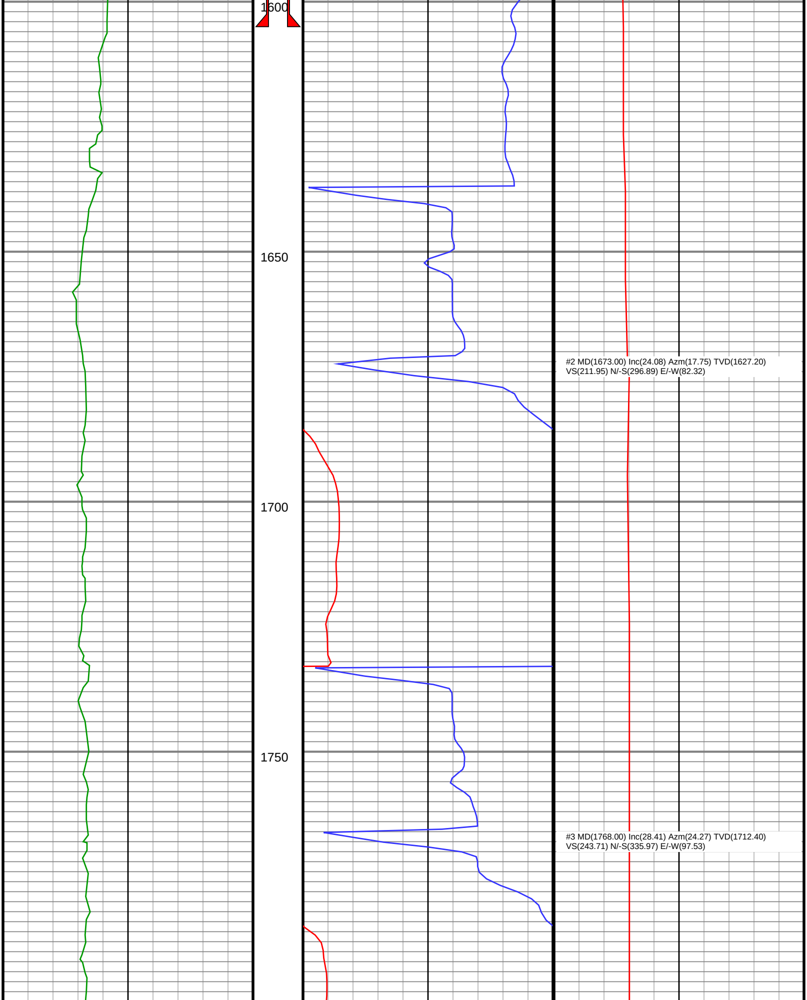
Elevations	
KB:	29 ft
DF:	5091 ft
GL:	5062 ft

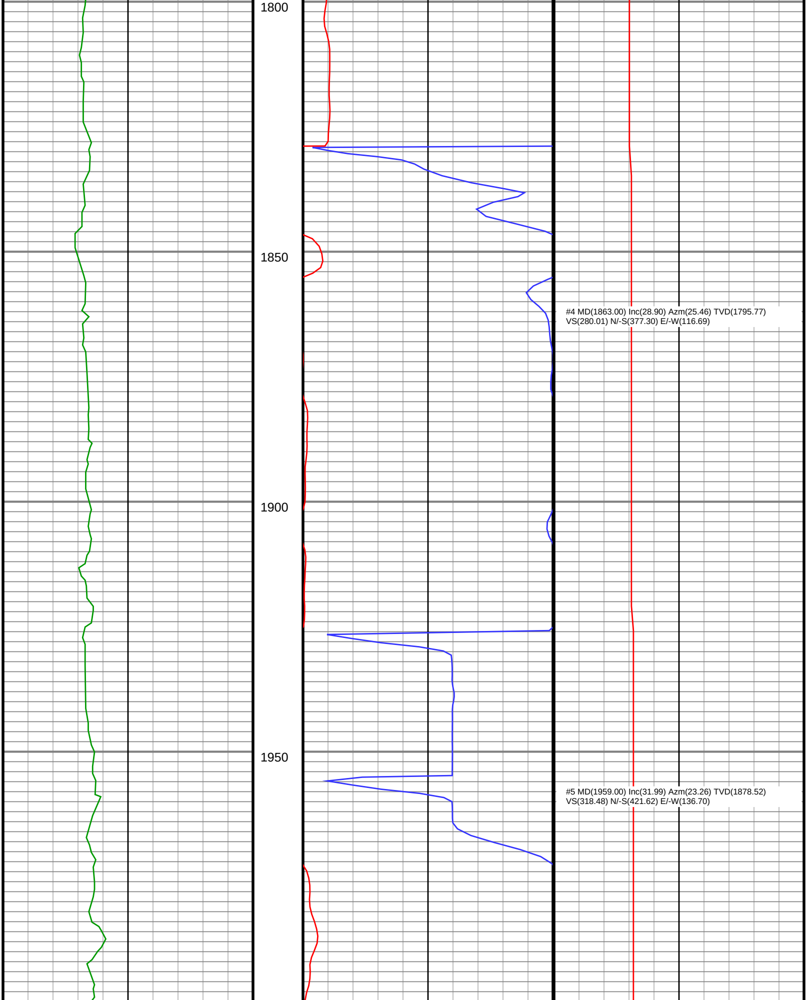
Run	Tool S/N	Gamma Cal	Bit Size	Offsets			Mud Data		Depths		Dates	
				Survey	Gamma	Resis	Type	Weight	Start	End	Start	End
1	XGM0664	7.249	7.875"	63.00 ft	38.30 ft	N/A ft	OBM	9.3	1605 ft	10790 ft	5/2/18	5/4/18
2												
3												
4												
5												
6												
7												
8												
9												
10												

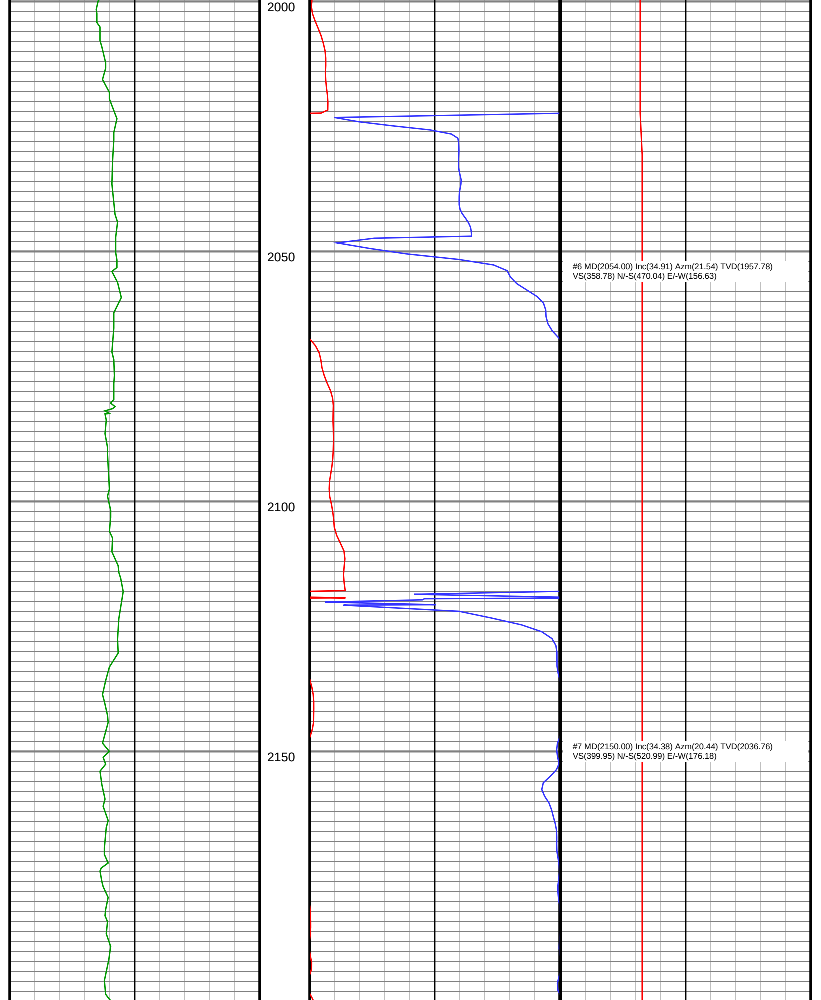
Atlas Directional Services uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.



#1 MD(1577.00) Inc(21.79) Azm(16.16) TVD(1538.79)
VS(185.51) N/-S(261.11) E/-W(71.39)

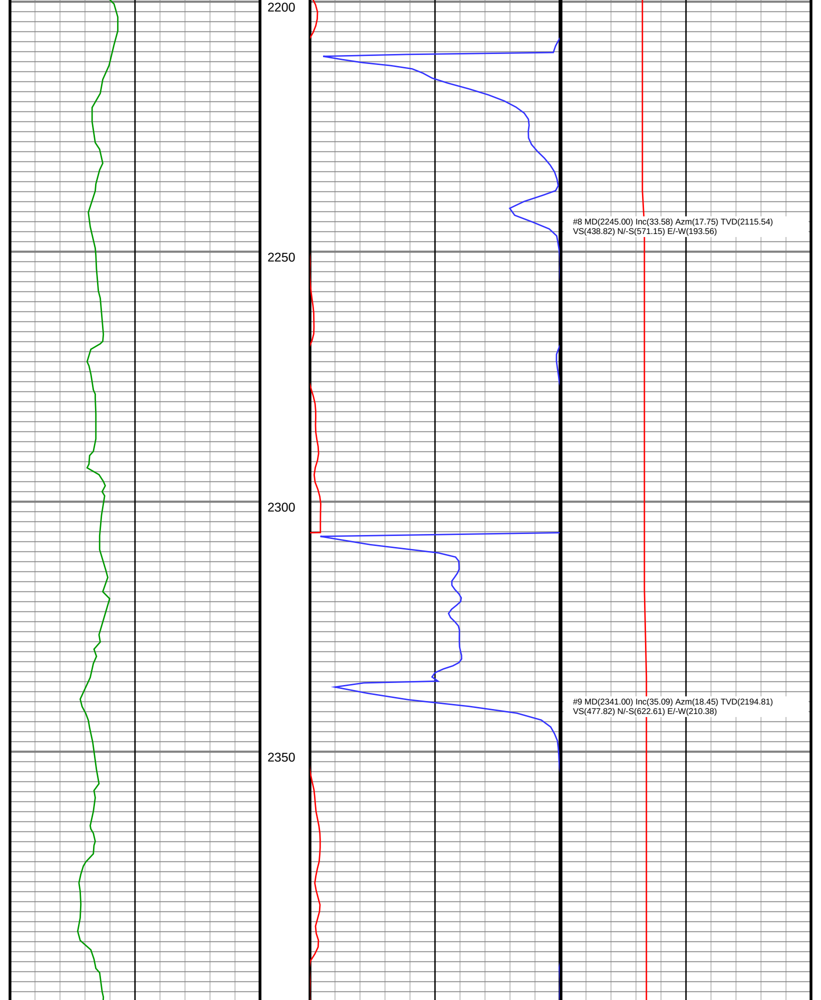






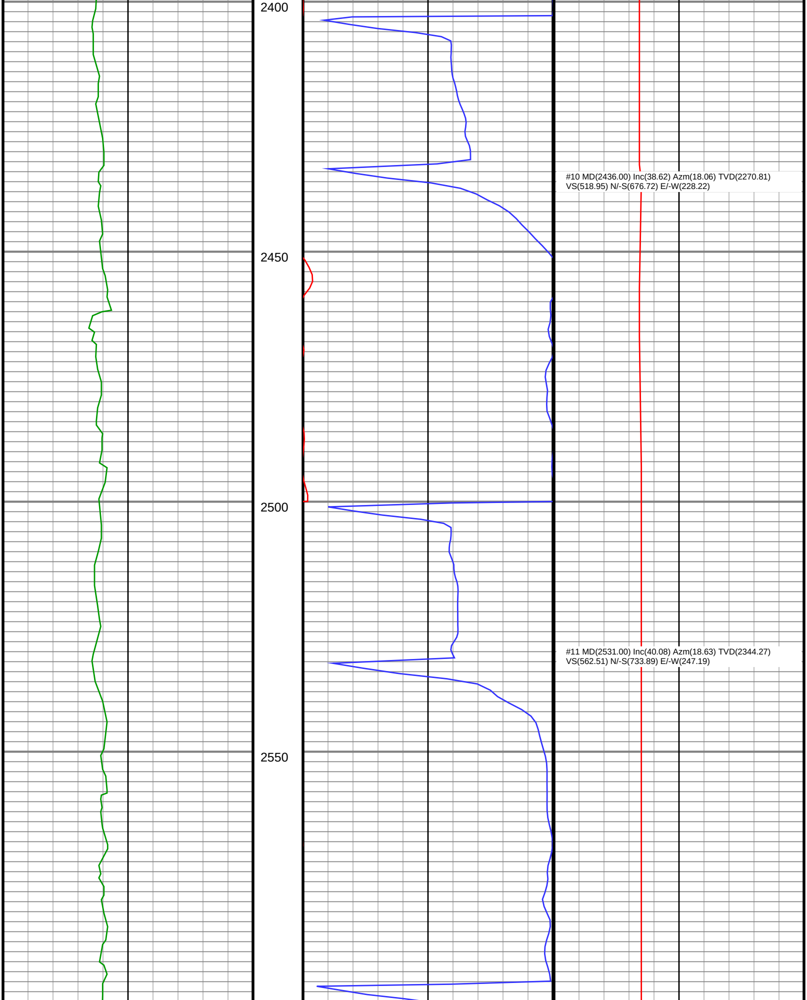
#6 MD(2054.00) Inc(34.91) Azm(21.54) TVD(1957.78)
VS(358.78) N/-S(470.04) E/-W(156.63)

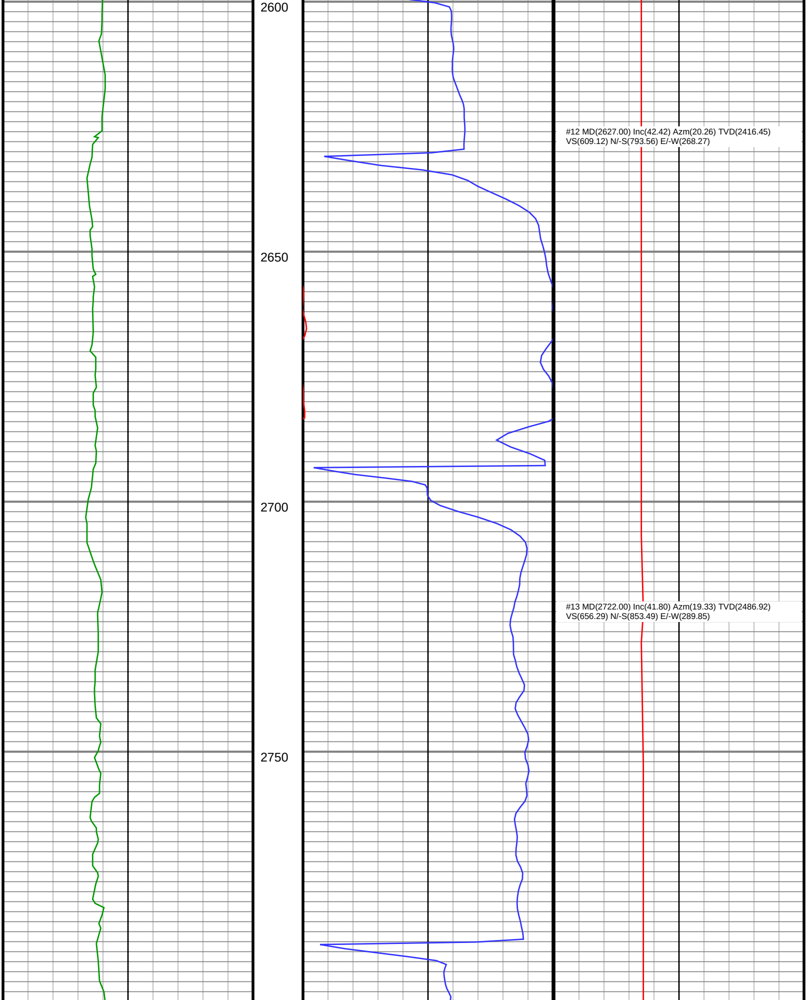
#7 MD(2150.00) Inc(34.38) Azm(20.44) TVD(2036.76)
VS(399.95) N/-S(520.99) E/-W(176.18)



#8 MD(2245.00) Inc(33.58) Azm(17.75) TVD(2115.54)
VS(438.82) N/-S(571.15) E/-W(193.56)

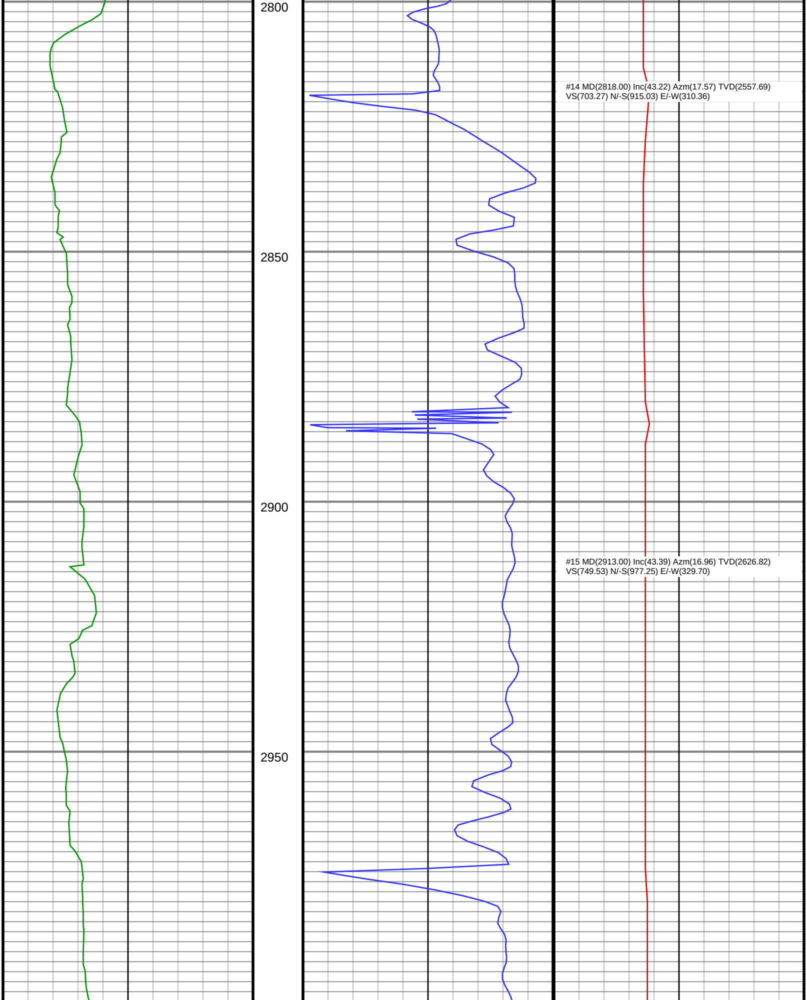
#9 MD(2341.00) Inc(35.09) Azm(18.45) TVD(2194.81)
VS(477.82) N/-S(622.61) E/-W(210.38)





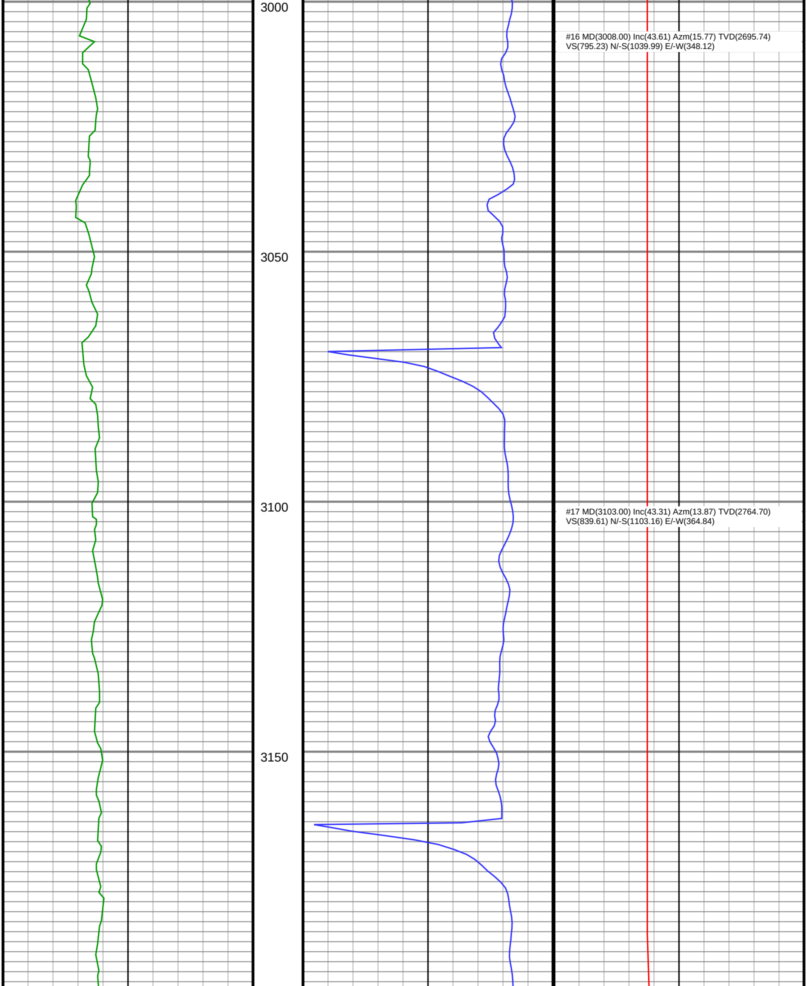
#12 MD(2627.00) Inc(42.42) Azm(20.26) TVD(2416.45)
VS(609.12) N-S(793.56) E-W(268.27)

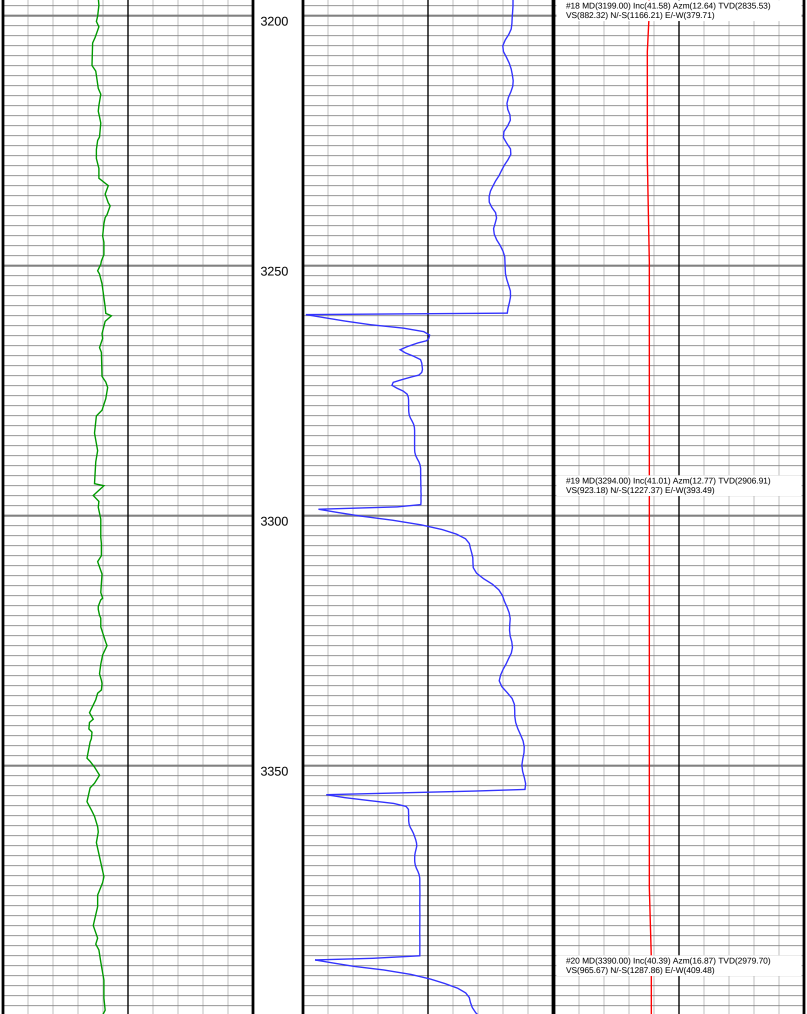
#13 MD(2722.00) Inc(41.80) Azm(19.33) TVD(2486.92)
VS(656.29) N-S(853.49) E-W(289.85)



#14 MD(2818.00) Inc(43.22) Azm(17.57) TVD(2557.69)
VS(703.27) N/-S(915.03) E/-W(310.36)

#15 MD(2913.00) Inc(43.39) Azm(16.96) TVD(2626.82)
VS(749.53) N/-S(977.25) E/-W(329.70)

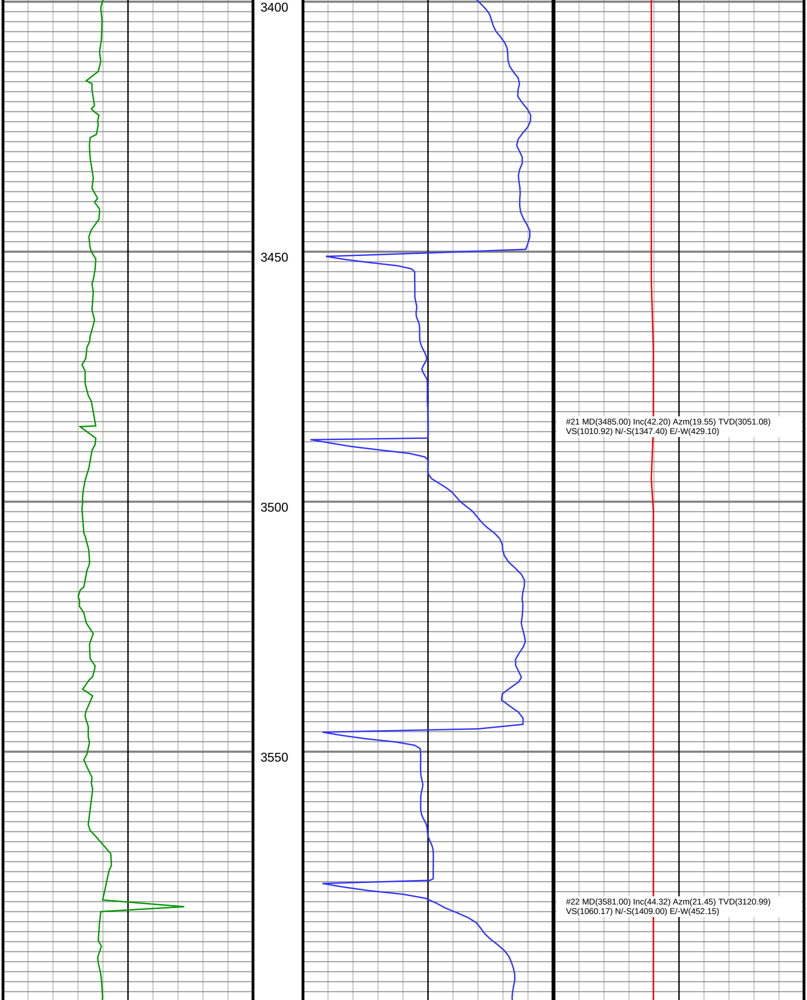


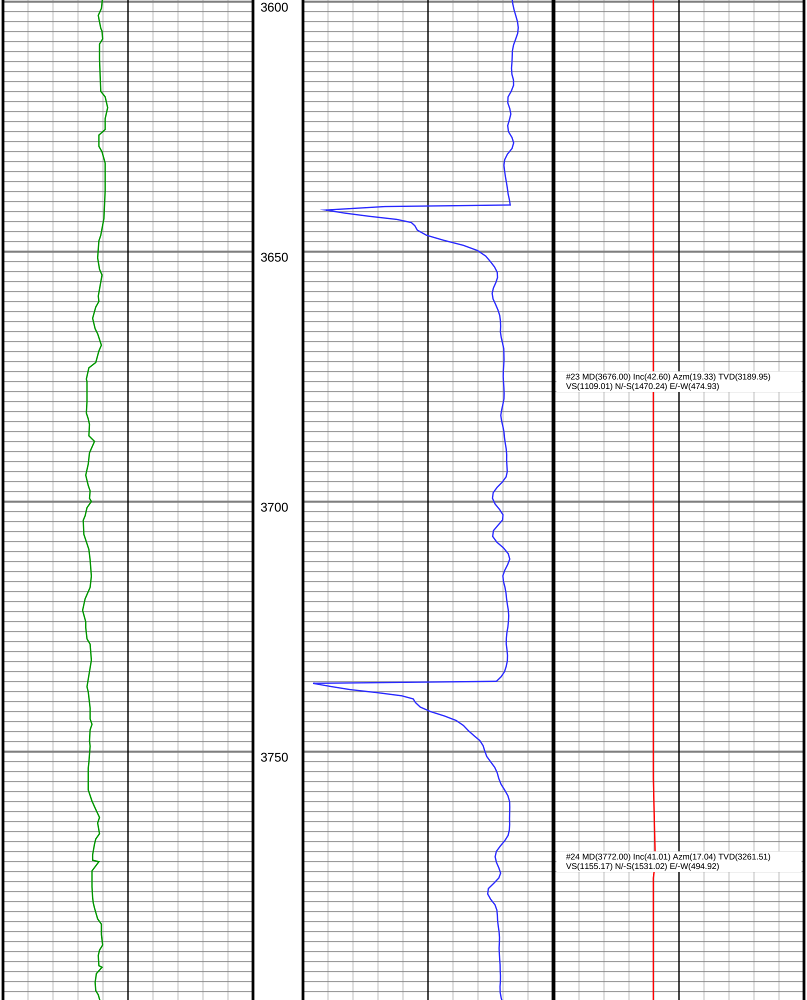


#18 MD(3199.00) Inc(41.58) Azm(12.64) TVD(2835.53)
VS(882.32) N/-S(1166.21) E/-W(379.71)

#19 MD(3294.00) Inc(41.01) Azm(12.77) TVD(2906.91)
VS(923.18) N/-S(1227.37) E/-W(393.49)

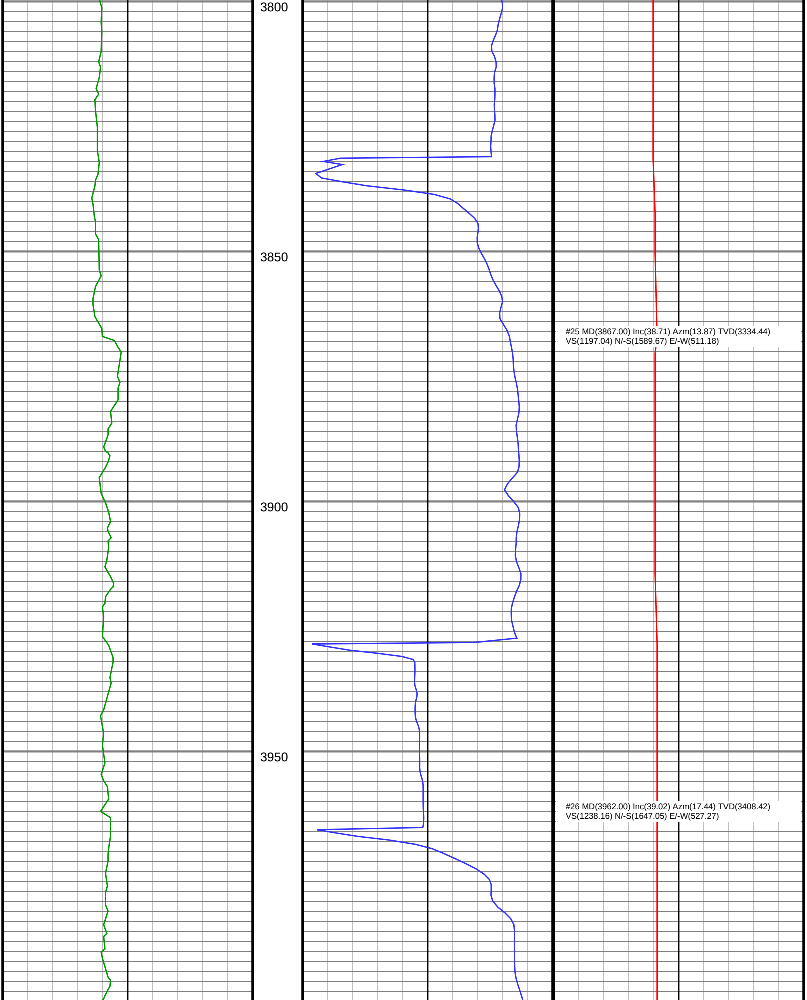
#20 MD(3390.00) Inc(40.39) Azm(16.87) TVD(2979.70)
VS(965.67) N/-S(1287.86) E/-W(409.48)

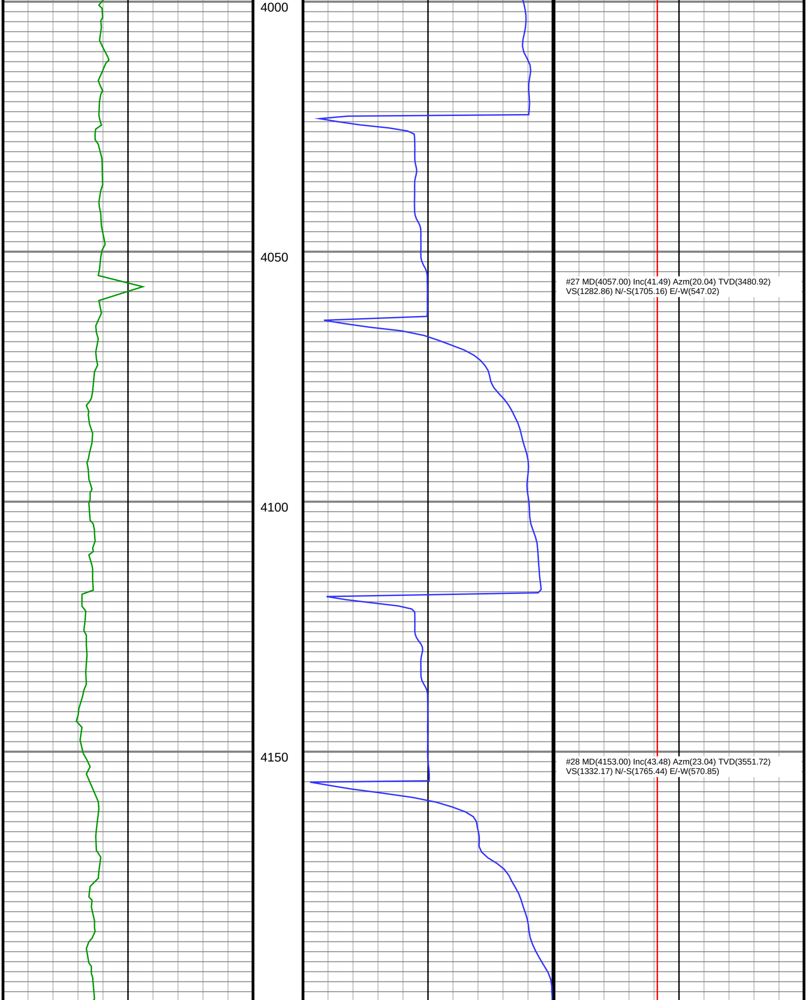




#23 MD(3676.00) Inc(42.60) Azm(19.33) TVD(3189.95)
VS(1109.01) N/-S(1470.24) E/-W(474.93)

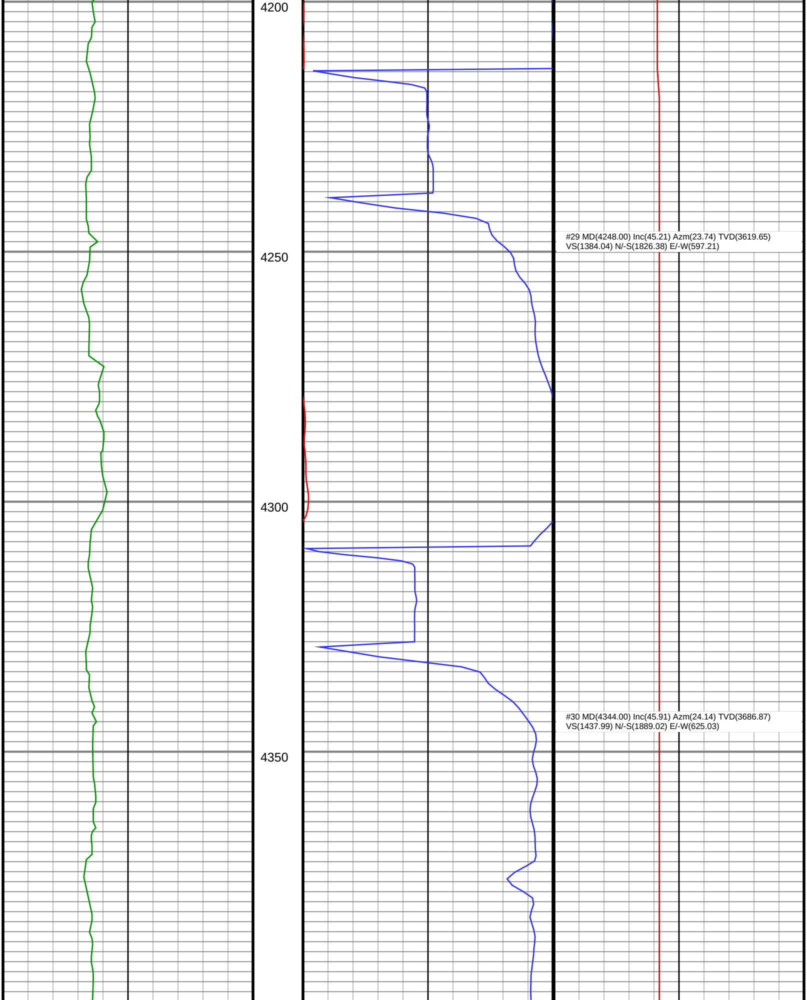
#24 MD(3772.00) Inc(41.01) Azm(17.04) TVD(3261.51)
VS(1155.17) N/-S(1531.02) E/-W(494.92)

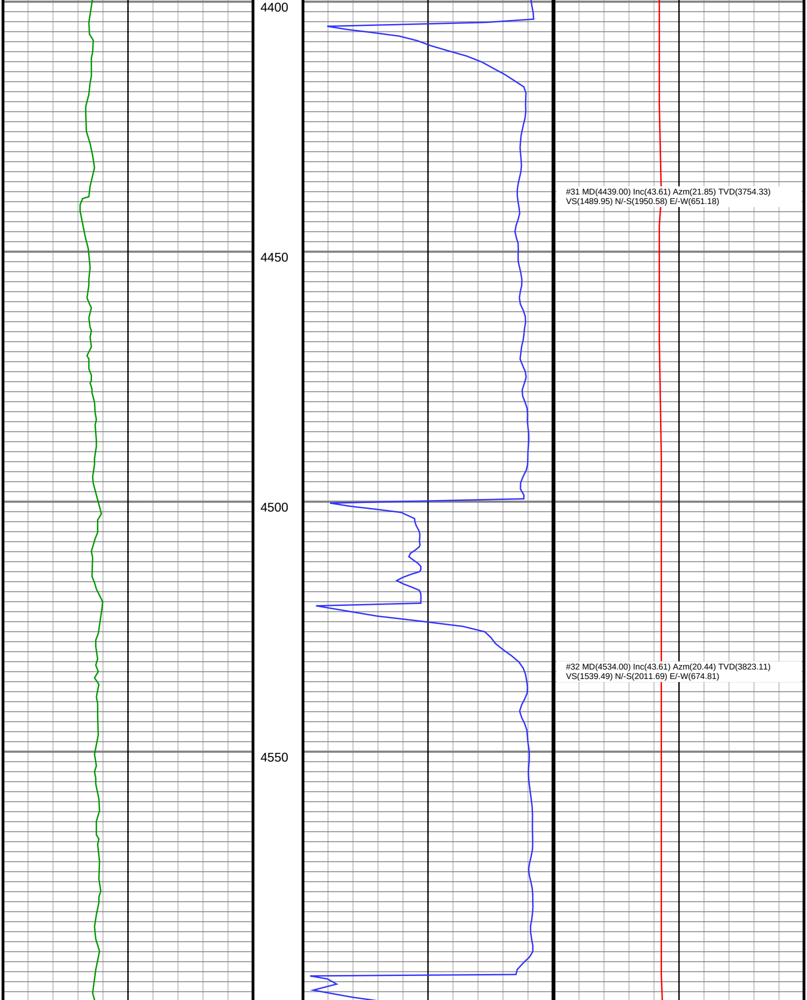


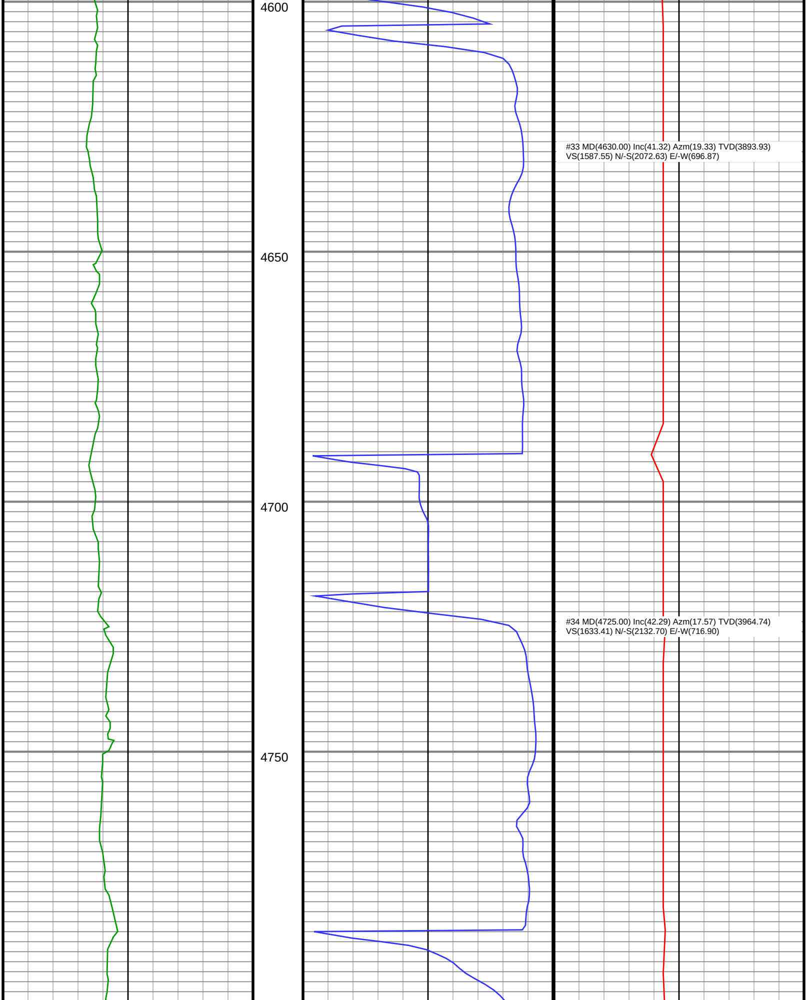


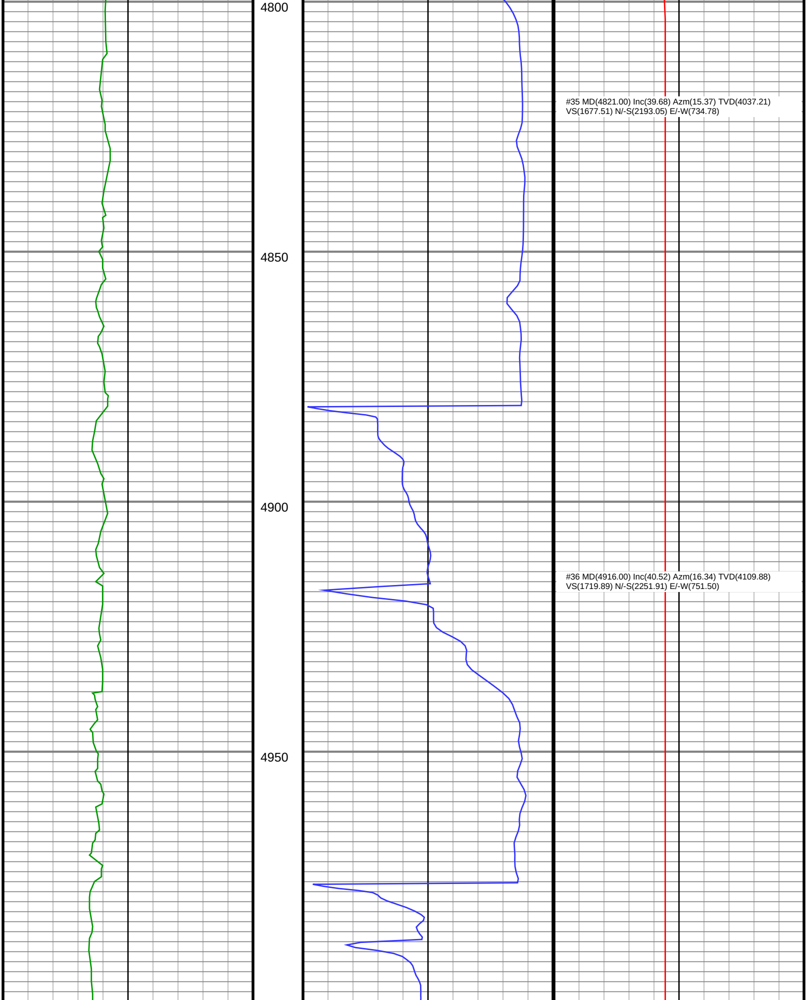
#27 MD(4057.00) Inc(41.49) Azm(20.04) TVD(3480.92)
VS(1282.86) N/-S(1705.16) E/-W(547.02)

#28 MD(4153.00) Inc(43.48) Azm(23.04) TVD(3551.72)
VS(1332.17) N/-S(1765.44) E/-W(570.85)



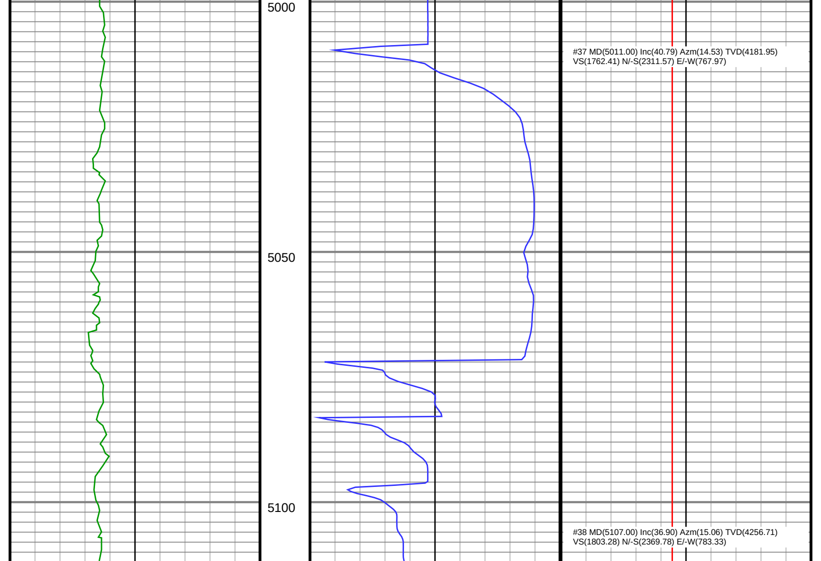






#35 MD(4821.00) Inc(39.68) Azm(15.37) TVD(4037.21)
VS(1677.51) N/-S(2193.05) E/-W(734.78)

#36 MD(4916.00) Inc(40.52) Azm(16.34) TVD(4109.88)
VS(1719.89) N/-S(2251.91) E/-W(751.50)



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VS(1843.65) N/-S(2426.52) E/-W(798.91)
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#40 MD(5298.00) Inc(42.82) Azm(17.26) TVD(4404.49)
VS(1887.07) N/-S(2485.99) E/-W(816.50)
#41 MD(5322.00) Inc(44.90) Azm(19.33) TVD(4421.80)
VS(1899.09) N/-S(2501.77) E/-W(821.72)
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#42 MD(5417.00) Inc(44.41) Azm(18.85) TVD(4489.38)
VS(1947.97) N/-S(2564.87) E/-W(843.56)
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#43 MD(5512.00) Inc(44.72) Azm(17.13) TVD(4557.06)
VS(1995.89) N/-S(2628.27) E/-W(864.14)
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#44 MD(5608.00) Inc(46.00) Azm(15.77) TVD(4624.52)
VS(2043.69) N/-S(2693.78) E/-W(883.48)
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#45 MD(5703.00) Inc(44.81) Azm(18.37) TVD(4691.22)
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#46 MD(5798.00) Inc(46.09) Azm(34.67) TVD(4758.09)
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#48 MD(5989.00) Inc(51.88) Azm(55.95) TVD(4884.09)
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#49 MD(6085.00) Inc(58.11) Azm(67.94) TVD(4939.27)
VS(2360.46) N/-S(2957.32) E/-W(1102.19)
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#50 MD(6180.00) Inc(63.99) Azm(78.43) TVD(4985.33)
VS(2441.77) N/-S(2981.10) E/-W(1181.63)
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#51 MD(6276.00) Inc(68.80) Azm(83.23) TVD(5023.78)
VS(2524.97) N/-S(2995.05) E/-W(1268.42)
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#52 MD(6371.00) Inc(70.08) Azm(88.65) TVD(5057.16)
VS(2606.24) N/-S(3001.32) E/-W(1357.11)
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VS(2765.88) N/-S(3002.00) E/-W(1537.51)
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VS(2845.13) N/-S(2993.23) E/-W(1631.89)
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#56 MD(6753.00) Inc(88.20) Azm(93.54) TVD(5138.06)
VS(2924.51) N/-S(2984.57) E/-W(1726.37)
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#57 MD(6848.00) Inc(88.38) Azm(90.64) TVD(5140.90)
VS(3006.68) N/-S(2981.10) E/-W(1821.25)
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#58 MD(6944.00) Inc(85.99) Azm(88.83) TVD(5145.62)
VS(3091.56) N/-S(2981.55) E/-W(1917.12)
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#59 MD(7040.00) Inc(84.89) Azm(88.26) TVD(5153.25)
VS(3177.19) N/-S(2983.98) E/-W(2012.79)
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#60 MD(7135.00) Inc(83.78) Azm(88.74) TVD(5162.62)
VS(3261.82) N/-S(2986.45) E/-W(2107.29)
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#61 MD(7231.00) Inc(81.31) Azm(86.85) TVD(5175.08)
VS(3347.53) N/-S(2990.11) E/-W(2202.40)
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#62 MD(7327.00) Inc(77.51) Azm(87.55) TVD(5192.72)
VS(3432.92) N/-S(2994.72) E/-W(2296.63)
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#63 MD(7422.00) Inc(76.89) Azm(86.45) TVD(5213.77)
VS(3516.90) N/-S(2999.57) E/-W(2389.14)
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#64 MD(7517.00) Inc(77.91) Azm(88.83) TVD(5234.49)
VS(3600.49) N/-S(3003.38) E/-W(2481.77)
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VS(3683.27) N/-S(3002.14) E/-W(2576.15)
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VS(3764.01) N/-S(2997.71) E/-W(2669.93)
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#68 MD(7898.00) Inc(80.60) Azm(91.03) TVD(5296.68)
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#69 MD(7994.00) Inc(80.20) Azm(90.46) TVD(5312.69)
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#70 MD(8090.00) Inc(80.51) Azm(90.77) TVD(5328.78)
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VS(4175.01) N/-S(2988.08) E/-W(3140.39)
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VS(4257.68) N/-S(2988.40) E/-W(3233.83)
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#73 MD(8376.00) Inc(76.01) Azm(89.53) TVD(5382.59)
VS(4340.65) N/-S(2989.06) E/-W(3327.42)
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#74 MD(8472.00) Inc(75.39) Azm(89.05) TVD(5406.30)
VS(4423.34) N/-S(2990.21) E/-W(3420.43)
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#75 MD(8567.00) Inc(76.49) Azm(89.14) TVD(5429.38)
VS(4505.40) N/-S(2991.66) E/-W(3512.57)
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#76 MD(8663.00) Inc(76.32) Azm(88.83) TVD(5451.95)
VS(4588.57) N/-S(2993.32) E/-W(3605.87)

#77 MD(8758.00) Inc(76.32) Azm(88.65) TVD(5474.42)
VS(4671.03) N/-S(2995.35) E/-W(3698.15)

#78 MD(8853.00) Inc(76.32) Azm(87.95) TVD(5496.88)
VS(4753.80) N/-S(2998.09) E/-W(3790.42)

#79 MD(8949.00) Inc(74.50) Azm(87.86) TVD(5521.07)
VS(4837.39) N/-S(3001.48) E/-W(3883.25)

#80 MD(9044.00) Inc(74.59) Azm(87.33) TVD(5546.38)
VS(4919.99) N/-S(3005.32) E/-W(3974.74)

#81 MD(9140.00) Inc(74.59) Azm(86.23) TVD(5571.89)
VS(5004.03) N/-S(3010.52) E/-W(4067.14)

#82 MD(9235.00) Inc(74.19) Azm(86.05) TVD(5597.46)
VS(5087.55) N/-S(3016.68) E/-W(4158.43)

#83 MD(9331.00) Inc(73.80) Azm(85.74) TVD(5623.92)
VS(5171.94) N/-S(3023.29) E/-W(4250.47)

#84 MD(9426.00) Inc(74.90) Azm(87.46) TVD(5649.55)
VS(5255.12) N/-S(3028.71) E/-W(4341.78)

#85 MD(9522.00) Inc(74.50) Azm(87.07) TVD(5674.88)
VS(5338.88) N/-S(3033.13) E/-W(4434.27)

#86 MD(9617.00) Inc(74.68) Azm(86.54) TVD(5700.13)
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#87 MD(9713.00) Inc(74.81) Azm(85.83) TVD(5725.39)
VS(5506.55) N/-S(3044.39) E/-W(4618.13)

#88 MD(9808.00) Inc(72.78) Azm(88.56) TVD(5751.90)
VS(5589.11) N/-S(3048.87) E/-W(4709.23)

#89 MD(9904.00) Inc(72.91) Azm(88.26) TVD(5780.22)
VS(5671.28) N/-S(3051.41) E/-W(4800.92)

#90 MD(9999.00) Inc(73.22) Azm(88.04) TVD(5807.89)
VS(5752.88) N/-S(3054.35) E/-W(4891.75)

#91 MD(10095.00) Inc(73.22) Azm(88.17) TVD(5835.61)
VS(5835.44) N/-S(3057.39) E/-W(4983.62)

#92 MD(10190.00) Inc(73.49) Azm(87.77) TVD(5862.82)
VS(5917.29) N/-S(3060.61) E/-W(5074.58)

#93 MD(10286.00) Inc(71.41) Azm(87.64) TVD(5891.76)
VS(5999.78) N/-S(3064.28) E/-W(5166.03)

#94 MD(10381.00) Inc(69.51) Azm(87.64) TVD(5923.54)
VS(6080.51) N/-S(3067.96) E/-W(5255.48)

#95 MD(10476.00) Inc(69.29) Azm(87.64) TVD(5956.96)
VS(6160.70) N/-S(3071.62) E/-W(5344.33)

#96 MD(10572.00) Inc(67.92) Azm(91.96) TVD(5992.00)
VS(6239.77) N/-S(3071.95) E/-W(5433.68)

#97 MD(10668.00) Inc(69.82) Azm(92.35) TVD(6026.60)
VS(6317.21) N/-S(3068.58) E/-W(5523.16)

#98 MD(10763.00) Inc(69.11) Azm(91.56) TVD(6059.93)
VS(6394.31) N/-S(3065.55) E/-W(5612.07)