Harold 6X-302

MD
2":100'

Company: Petroleum Development Corp.
Well Name: Harold 6X-302
API: 051234574900
County/Parish: Weld
State: Colorado
Country: United States
Job number: 161-154
Field: Wattenburg
Rig Id: Ensign 161
Survey Company: Ensign
Operator: Petroleum Development Corp.
Company Man: Brady Sharp / John Falton

Daylight DD: Zach Gentry
Swing Shift DD: Tony Callow
Night DD: Eric Mays
Daylight MWD: Ryan Prue
Night MWD: Paul Wilson

Log measurements: Gamma, ROP
Depth measured from: 1655 ft
Maximum temperature: 245.5

	Depth	Date
Start:	0 ft	12-8-2018
End:	17653 ft	12-13-2018

Casing	Depth	Size
Surface:	1664 ft	9 5/8"
Intermediate:		

Mud Type: H2O
Density:
Viscosity:
Rm: **Rmf:** **Rmc:**

Elevations
KB: 23 ft
GL: 4788 ft
DF: 4811 ft

		Offsets		Depths		Dates	
Run	**Bit Size**	**Gamma**	**Survey**	**Start**	**End**	**Start**	**End**
1	12.25"		70.00 ft	0 ft	1651 ft	12-8-2018	12-9-2018
2		62.80 ft	58.00 ft	1651 ft	17653 ft	12-10-2018	12-13-2018
3							
4							
5							
6							
7							
8							
9							
10							

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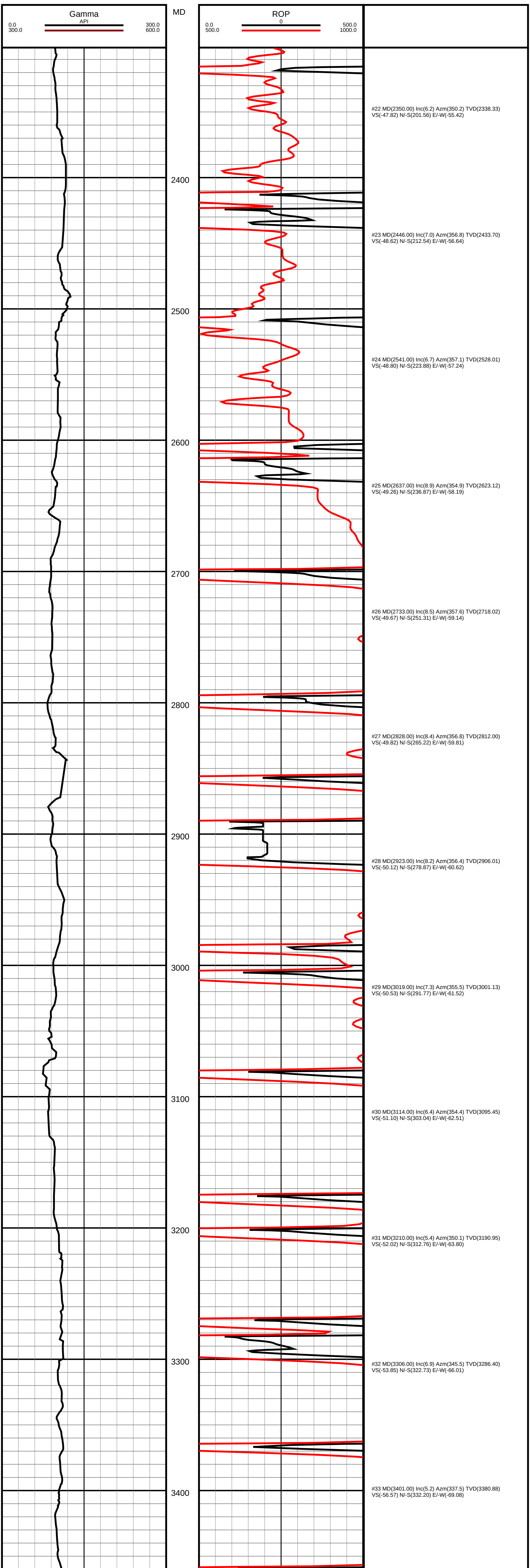

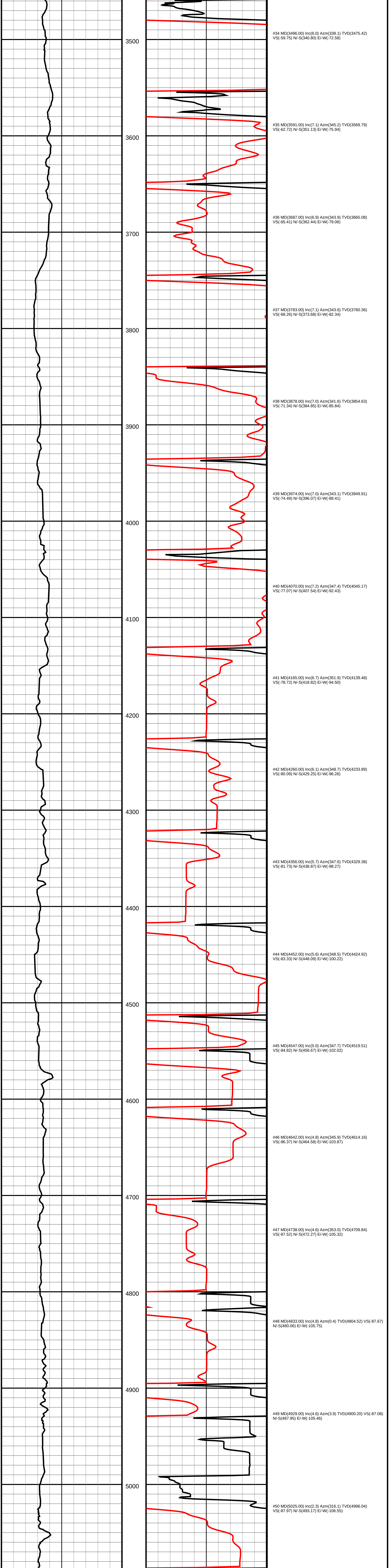

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VS(-62.72) N/-S(351.13) E/-W(-75.94)

#36 MD(3687.00) Inc(6.9) Azm(343.9) TVD(3665.08)
VS(-65.41) N/-S(362.44) E/-W(-79.06)

#37 MD(3783.00) Inc(7.1) Azm(343.6) TVD(3760.36)
VS(-68.26) N/-S(373.68) E/-W(-82.34)

#38 MD(3878.00) Inc(7.0) Azm(341.6) TVD(3854.63)
VS(-71.34) N/-S(384.85) E/-W(-85.84)

#39 MD(3974.00) Inc(7.0) Azm(343.1) TVD(3949.91)
VS(-74.49) N/-S(396.07) E/-W(-89.41)

#40 MD(4070.00) Inc(7.2) Azm(347.4) TVD(4045.17)
VS(-77.07) N/-S(407.54) E/-W(-92.43)

#41 MD(4165.00) Inc(6.7) Azm(351.9) TVD(4139.48)
VS(-78.72) N/-S(418.82) E/-W(-94.50)

#42 MD(4260.00) Inc(6.1) Azm(348.7) TVD(4233.89)
VS(-80.09) N/-S(429.25) E/-W(-96.26)

#43 MD(4356.00) Inc(5.7) Azm(347.6) TVD(4329.38)
VS(-81.73) N/-S(438.87) E/-W(-98.27)

#44 MD(4452.00) Inc(5.6) Azm(348.5) TVD(4424.92)
VS(-83.33) N/-S(448.09) E/-W(-100.22)

#45 MD(4547.00) Inc(5.0) Azm(347.7) TVD(4519.51)
VS(-84.82) N/-S(456.67) E/-W(-102.02)

#46 MD(4642.00) Inc(4.8) Azm(345.9) TVD(4614.16)
VS(-86.37) N/-S(464.58) E/-W(-103.87)

#47 MD(4738.00) Inc(4.6) Azm(353.0) TVD(4709.84)
VS(-87.52) N/-S(472.27) E/-W(-105.32)

#48 MD(4833.00) Inc(4.8) Azm(0.4) TVD(4804.52) VS(-87.67)
N/-S(480.06) E/-W(-105.75)

#49 MD(4929.00) Inc(4.6) Azm(3.9) TVD(4900.20) VS(-87.08)
N/-S(487.95) E/-W(-105.46)

#50 MD(5025.00) Inc(2.3) Azm(316.1) TVD(4996.04)
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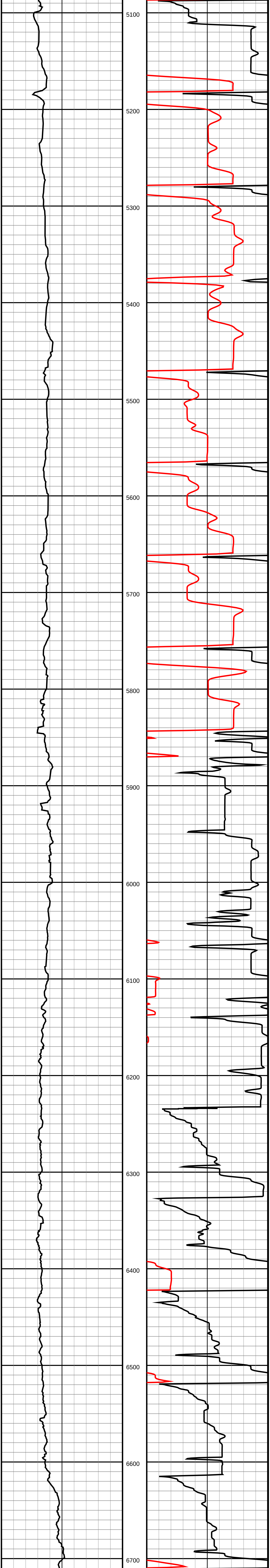

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#53 MD(5312.00) Inc(0.4) Azm(196.8) TVD(5282.99)
VS(-91.14) N/-S(491.62) E/-W(-109.66)

#54 MD(5407.00) Inc(0.3) Azm(171.2) TVD(5377.99)
VS(-91.21) N/-S(491.05) E/-W(-109.71)

#55 MD(5502.00) Inc(0.5) Azm(102.8) TVD(5472.98)
VS(-90.78) N/-S(490.71) E/-W(-109.27)

#56 MD(5598.00) Inc(0.2) Azm(206.8) TVD(5568.98)
VS(-90.46) N/-S(490.47) E/-W(-108.94)

#57 MD(5693.00) Inc(0.4) Azm(212.4) TVD(5663.98)
VS(-90.73) N/-S(490.03) E/-W(-109.19)

#58 MD(5789.00) Inc(0.1) Azm(203.8) TVD(5759.98)
VS(-90.97) N/-S(489.66) E/-W(-109.41)

#59 MD(5885.00) Inc(0.2) Azm(356.6) TVD(5855.98)
VS(-91.01) N/-S(489.72) E/-W(-109.46)

#60 MD(5980.00) Inc(0.3) Azm(269.1) TVD(5950.98)
VS(-91.26) N/-S(489.87) E/-W(-109.72)

#61 MD(6076.00) Inc(0.4) Azm(270.6) TVD(6046.98)
VS(-91.83) N/-S(489.87) E/-W(-110.29)

#62 MD(6172.00) Inc(0.5) Azm(237.2) TVD(6142.98)
VS(-92.53) N/-S(489.63) E/-W(-110.97)

#63 MD(6267.00) Inc(6.2) Azm(92.4) TVD(6237.80) VS(-87.80)
N/-S(489.19) E/-W(-106.23)

#64 MD(6363.00) Inc(13.0) Azm(89.7) TVD(6332.40)
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#65 MD(6458.00) Inc(17.8) Azm(88.0) TVD(6423.96)
VS(-46.57) N/-S(489.61) E/-W(-64.98)

#66 MD(6554.00) Inc(24.9) Azm(90.8) TVD(6513.31)
VS(-11.65) N/-S(489.83) E/-W(-30.05)

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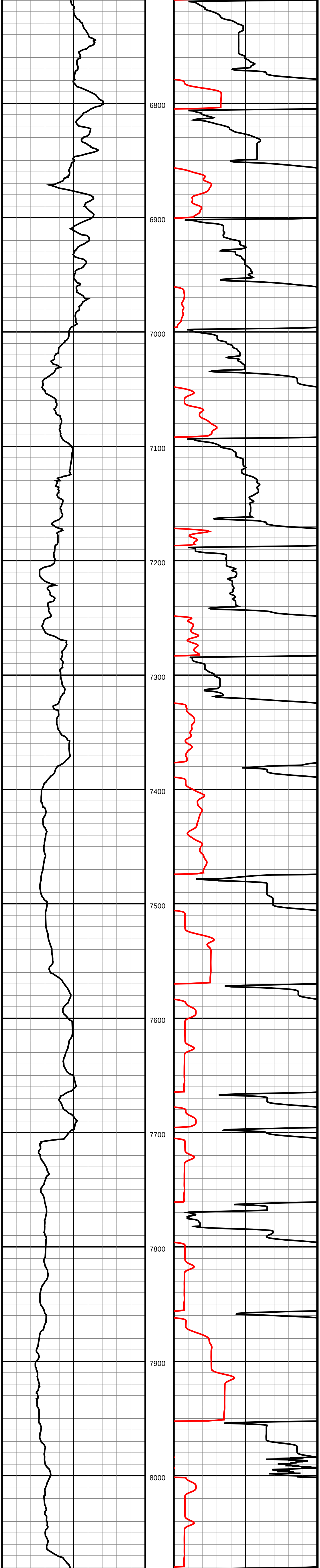

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VS(168.02) N/-S(483.27) E/-W(150.00)

#70 MD(6937.00) Inc(58.0) Azm(90.8) TVD(6788.33)
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#71 MD(7033.00) Inc(64.0) Azm(89.2) TVD(6834.86)
VS(330.16) N/-S(481.47) E/-W(312.32)

#72 MD(7129.00) Inc(70.9) Azm(87.2) TVD(6871.63)
VS(418.77) N/-S(484.34) E/-W(400.88)

#73 MD(7224.00) Inc(80.9) Azm(90.8) TVD(6894.69)
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#74 MD(7321.00) Inc(88.2) Azm(91.1) TVD(6903.82)
VS(607.13) N/-S(484.23) E/-W(589.38)

#75 MD(7416.00) Inc(88.8) Azm(90.5) TVD(6906.25)
VS(701.97) N/-S(482.87) E/-W(684.34)

#76 MD(7512.00) Inc(89.1) Azm(90.6) TVD(6907.99)
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#77 MD(7607.00) Inc(88.9) Azm(90.6) TVD(6909.65)
VS(892.72) N/-S(480.88) E/-W(875.30)

#78 MD(7702.00) Inc(88.8) Azm(90.4) TVD(6911.63)
VS(987.60) N/-S(480.03) E/-W(970.27)

#79 MD(7798.00) Inc(90.8) Azm(91.1) TVD(6911.96)
VS(1083.47) N/-S(478.75) E/-W(1066.26)

#80 MD(7923.00) Inc(91.1) Azm(90.9) TVD(6909.79)
VS(1208.26) N/-S(476.56) E/-W(1191.22)

#81 MD(8019.00) Inc(91.8) Azm(90.3) TVD(6907.34)
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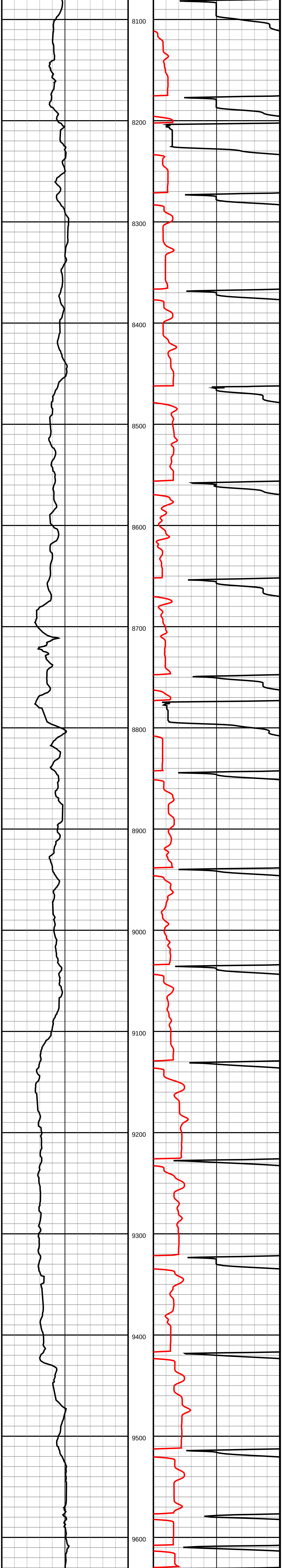

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#83 MD(8210.00) Inc(91.1) Azm(90.9) TVD(6900.42)
VS(1494.80) N/-S(474.36) E/-W(1478.05)

#84 MD(8306.00) Inc(90.0) Azm(90.3) TVD(6899.47)
VS(1590.69) N/-S(473.41) E/-W(1574.03)

#85 MD(8401.00) Inc(89.7) Azm(89.9) TVD(6899.74)
VS(1685.62) N/-S(473.30) E/-W(1669.03)

#86 MD(8497.00) Inc(89.3) Azm(89.9) TVD(6900.63)
VS(1781.55) N/-S(473.50) E/-W(1765.03)

#87 MD(8593.00) Inc(88.7) Azm(89.7) TVD(6902.36)
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#88 MD(8688.00) Inc(88.4) Azm(90.0) TVD(6904.81)
VS(1972.39) N/-S(474.17) E/-W(1955.98)

#89 MD(8784.00) Inc(89.9) Azm(90.3) TVD(6906.22)
VS(2068.30) N/-S(473.90) E/-W(2051.97)

#90 MD(8879.00) Inc(90.6) Azm(90.5) TVD(6905.76)
VS(2163.20) N/-S(473.16) E/-W(2146.96)

#91 MD(8975.00) Inc(90.9) Azm(90.3) TVD(6904.51)
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#92 MD(9071.00) Inc(90.9) Azm(90.2) TVD(6903.04)
VS(2355.00) N/-S(472.03) E/-W(2338.94)

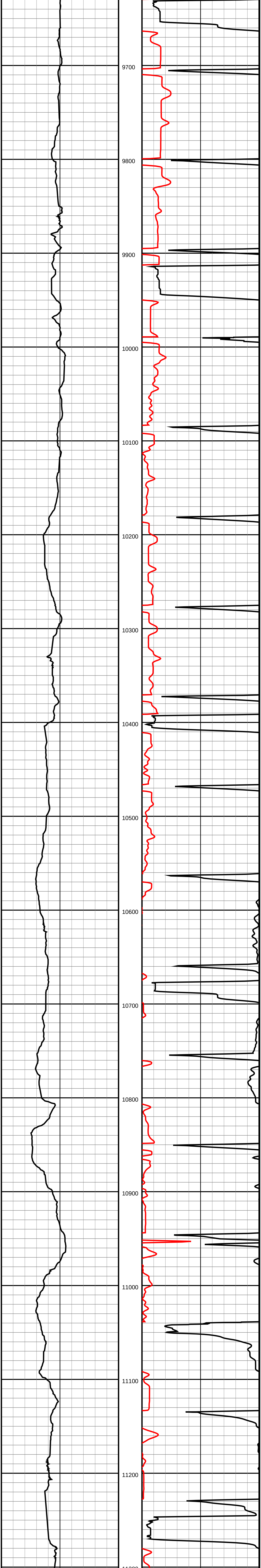
#93 MD(9166.00) Inc(91.0) Azm(89.9) TVD(6901.45)
VS(2449.92) N/-S(471.95) E/-W(2433.93)

#94 MD(9262.00) Inc(90.7) Azm(89.1) TVD(6899.98)
VS(2545.86) N/-S(472.77) E/-W(2529.91)

#95 MD(9357.00) Inc(90.5) Azm(88.4) TVD(6899.00)
VS(2640.85) N/-S(474.85) E/-W(2624.88)

#96 MD(9452.00) Inc(90.6) Azm(87.6) TVD(6898.08)
VS(2735.84) N/-S(478.21) E/-W(2719.82)

#97 MD(9548.00) Inc(90.3) Azm(87.3) TVD(6897.28)
VS(2831.84) N/-S(482.47) E/-W(2815.72)



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VS(3021.83) N/-S(488.55) E/-W(3005.62)

#100 MD(9834.00) Inc(89.5) Azm(88.0) TVD(6897.58)
VS(3117.83) N/-S(491.72) E/-W(3101.56)

#101 MD(9928.00) Inc(89.7) Azm(91.6) TVD(6898.28)
VS(3211.75) N/-S(492.02) E/-W(3195.54)

#102 MD(10024.00) Inc(89.6) Azm(92.7) TVD(6898.86)
VS(3307.48) N/-S(488.42) E/-W(3291.47)

#103 MD(10119.00) Inc(89.5) Azm(92.7) TVD(6899.59)
VS(3402.14) N/-S(483.97) E/-W(3386.37)

#104 MD(10213.00) Inc(88.9) Azm(92.7) TVD(6900.94)
VS(3495.80) N/-S(479.61) E/-W(3480.25)

#105 MD(10309.00) Inc(88.6) Azm(91.8) TVD(6903.02)
VS(3591.49) N/-S(475.84) E/-W(3576.16)

#106 MD(10404.00) Inc(90.1) Azm(91.0) TVD(6904.07)
VS(3686.30) N/-S(473.48) E/-W(3671.12)

#107 MD(10500.00) Inc(89.9) Azm(90.4) TVD(6904.06)
VS(3782.18) N/-S(472.29) E/-W(3767.11)

#108 MD(10596.00) Inc(90.0) Azm(90.1) TVD(6904.09)
VS(3878.09) N/-S(471.83) E/-W(3863.11)

#109 MD(10691.00) Inc(91.2) Azm(89.8) TVD(6903.06)
VS(3973.02) N/-S(471.93) E/-W(3958.10)

#110 MD(10787.00) Inc(91.5) Azm(89.2) TVD(6900.84)
VS(4068.95) N/-S(472.77) E/-W(4054.07)

#111 MD(10882.00) Inc(91.6) Azm(88.7) TVD(6898.28)
VS(4163.90) N/-S(474.51) E/-W(4149.02)

#112 MD(10978.00) Inc(91.6) Azm(88.1) TVD(6895.56)
VS(4259.86) N/-S(477.22) E/-W(4244.94)

#113 MD(11073.00) Inc(91.9) Azm(87.5) TVD(6892.63)
VS(4354.81) N/-S(480.86) E/-W(4339.83)

#114 MD(11169.00) Inc(92.0) Azm(87.0) TVD(6889.39)
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#115 MD(11265.00) Inc(89.7) Azm(88.2) TVD(6887.95)
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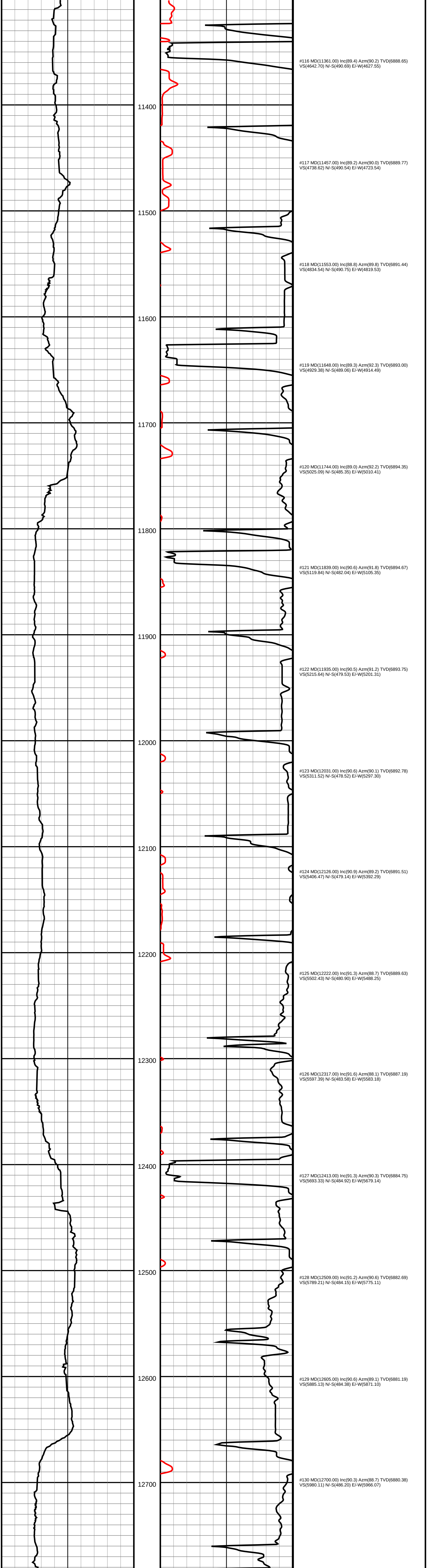

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#118 MD(11553.00) Inc(88.8) Azm(89.8) TVD(6891.44)
VS(4834.54) N/-S(490.75) E/-W(4819.53)

#119 MD(11648.00) Inc(89.3) Azm(92.3) TVD(6893.00)
VS(4929.38) N/-S(489.06) E/-W(4914.49)

#120 MD(11744.00) Inc(89.0) Azm(92.2) TVD(6894.35)
VS(5025.09) N/-S(485.35) E/-W(5010.41)

#121 MD(11839.00) Inc(90.6) Azm(91.8) TVD(6894.67)
VS(5119.84) N/-S(482.04) E/-W(5105.35)

#122 MD(11935.00) Inc(90.5) Azm(91.2) TVD(6893.75)
VS(5215.64) N/-S(479.53) E/-W(5201.31)

#123 MD(12031.00) Inc(90.6) Azm(90.1) TVD(6892.78)
VS(5311.52) N/-S(478.52) E/-W(5297.30)

#124 MD(12126.00) Inc(90.9) Azm(89.2) TVD(6891.51)
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#125 MD(12222.00) Inc(91.3) Azm(88.7) TVD(6889.63)
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#126 MD(12317.00) Inc(91.6) Azm(88.1) TVD(6887.19)
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#127 MD(12413.00) Inc(91.3) Azm(90.3) TVD(6884.75)
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#128 MD(12509.00) Inc(91.2) Azm(90.6) TVD(6882.69)
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#129 MD(12605.00) Inc(90.6) Azm(89.1) TVD(6881.19)
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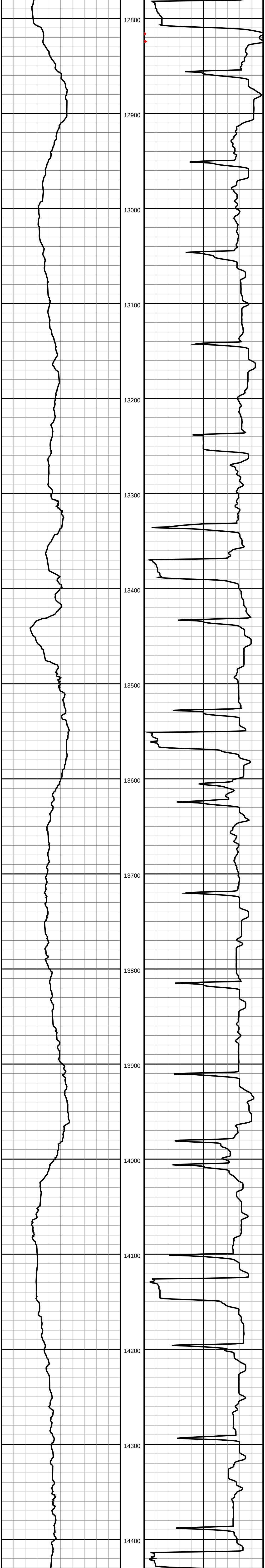

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VS(6171.81) N/-S(483.95) E/-W(6157.99)

#133 MD(12988.00) Inc(91.2) Azm(90.8) TVD(6874.01)
VS(6267.62) N/-S(481.93) E/-W(6253.94)

#134 MD(13083.00) Inc(91.6) Azm(90.2) TVD(6871.69)
VS(6362.49) N/-S(481.08) E/-W(6348.91)

#135 MD(13178.00) Inc(91.4) Azm(89.9) TVD(6869.26)
VS(6457.38) N/-S(480.97) E/-W(6443.88)

#136 MD(13275.00) Inc(91.5) Azm(89.4) TVD(6866.87)
VS(6554.31) N/-S(481.53) E/-W(6540.84)

#137 MD(13371.00) Inc(90.7) Azm(89.7) TVD(6865.09)
VS(6650.25) N/-S(482.27) E/-W(6636.82)

#138 MD(13467.00) Inc(89.8) Azm(89.5) TVD(6864.68)
VS(6746.20) N/-S(482.95) E/-W(6732.82)

#139 MD(13563.00) Inc(89.1) Azm(91.6) TVD(6865.57)
VS(6842.08) N/-S(482.04) E/-W(6828.81)

#140 MD(13658.00) Inc(89.0) Azm(91.2) TVD(6867.17)
VS(6936.89) N/-S(479.77) E/-W(6923.77)

#141 MD(13753.00) Inc(88.9) Azm(90.5) TVD(6868.94)
VS(7031.75) N/-S(478.41) E/-W(7018.74)

#142 MD(13848.00) Inc(88.9) Azm(89.9) TVD(6870.74)
VS(7126.65) N/-S(478.06) E/-W(7113.72)

#143 MD(13944.00) Inc(88.6) Azm(88.7) TVD(6872.80)
VS(7222.59) N/-S(479.24) E/-W(7209.69)

#144 MD(14040.00) Inc(89.0) Azm(88.6) TVD(6874.80)
VS(7318.56) N/-S(481.53) E/-W(7305.64)

#145 MD(14136.00) Inc(89.6) Azm(90.4) TVD(6875.99)
VS(7414.51) N/-S(482.33) E/-W(7401.63)

#146 MD(14232.00) Inc(89.6) Azm(91.1) TVD(6876.68)
VS(7510.38) N/-S(481.01) E/-W(7497.61)

#147 MD(14327.00) Inc(89.5) Azm(90.5) TVD(6877.45)
VS(7605.25) N/-S(479.64) E/-W(7592.60)

#148 MD(14423.00) Inc(90.4) Azm(91.0) TVD(6877.51)
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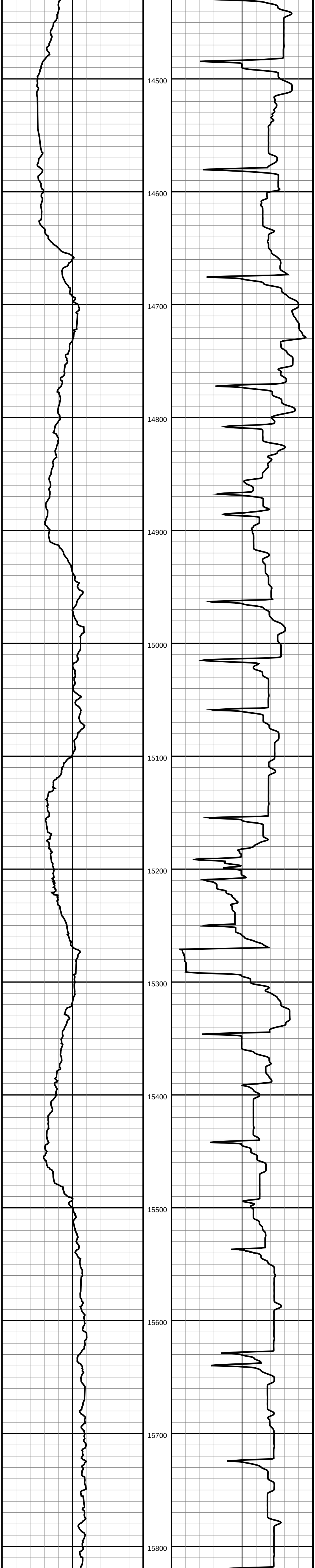

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#150 MD(14615.00) Inc(91.2) Azm(90.2) TVD(6874.97)
VS(7892.86) N/-S(475.97) E/-W(7880.56)

#151 MD(14710.00) Inc(91.1) Azm(89.3) TVD(6873.06)
VS(7987.79) N/-S(476.40) E/-W(7975.53)

#152 MD(14806.00) Inc(90.9) Azm(90.1) TVD(6871.41)
VS(8083.73) N/-S(476.95) E/-W(8071.52)

#153 MD(14902.00) Inc(90.5) Azm(90.1) TVD(6870.25)
VS(8179.65) N/-S(476.78) E/-W(8167.51)

#154 MD(14998.00) Inc(90.4) Azm(89.4) TVD(6869.45)
VS(8275.59) N/-S(477.19) E/-W(8263.51)

#155 MD(15093.00) Inc(90.6) Azm(88.7) TVD(6868.59)
VS(8370.56) N/-S(478.78) E/-W(8358.49)

#156 MD(15188.00) Inc(90.6) Azm(88.2) TVD(6867.59)
VS(8465.55) N/-S(481.36) E/-W(8453.45)

#157 MD(15283.00) Inc(90.0) Azm(91.2) TVD(6867.08)
VS(8560.49) N/-S(481.85) E/-W(8548.43)

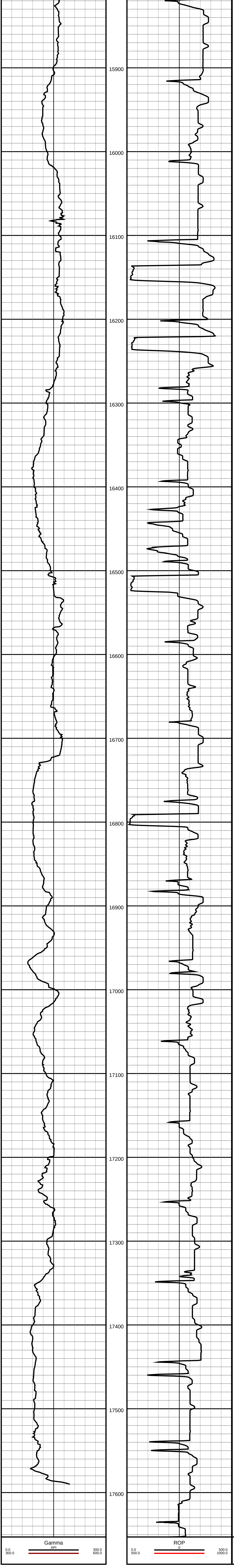
#158 MD(15378.00) Inc(90.3) Azm(92.5) TVD(6866.80)
VS(8655.26) N/-S(478.79) E/-W(8643.38)

#159 MD(15474.00) Inc(90.1) Azm(92.5) TVD(6866.47)
VS(8750.94) N/-S(474.60) E/-W(8739.29)

#160 MD(15569.00) Inc(90.2) Azm(91.7) TVD(6866.24)
VS(8845.68) N/-S(471.09) E/-W(8834.22)

#161 MD(15665.00) Inc(90.3) Azm(90.9) TVD(6865.79)
VS(8941.50) N/-S(468.92) E/-W(8930.20)

#162 MD(15760.00) Inc(90.5) Azm(89.8) TVD(6865.12)
VS(9036.41) N/-S(468.34) E/-W(9025.19)



#163 MD(15855.00) Inc(90.5) Azm(89.6) TVD(6864.33)
VS(9131.36) N/-S(468.86) E/-W(9120.19)

#164 MD(15951.00) Inc(90.4) Azm(88.0) TVD(6863.61)
VS(9227.34) N/-S(470.86) E/-W(9216.16)

#165 MD(16046.00) Inc(90.3) Azm(86.5) TVD(6863.00)
VS(9322.33) N/-S(475.40) E/-W(9311.05)

#166 MD(16142.00) Inc(90.5) Azm(88.1) TVD(6862.32)
VS(9418.32) N/-S(479.93) E/-W(9406.93)

#167 MD(16237.00) Inc(90.3) Azm(90.5) TVD(6861.63)
VS(9513.27) N/-S(481.05) E/-W(9501.92)

#168 MD(16332.00) Inc(90.1) Azm(89.4) TVD(6861.28)
VS(9608.21) N/-S(481.09) E/-W(9596.91)

#169 MD(16428.00) Inc(89.8) Azm(88.8) TVD(6861.39)
VS(9704.18) N/-S(482.62) E/-W(9692.90)

#170 MD(16524.00) Inc(90.7) Azm(91.4) TVD(6861.02)
VS(9800.10) N/-S(482.51) E/-W(9788.89)

#171 MD(16619.00) Inc(90.5) Azm(90.2) TVD(6860.04)
VS(9894.97) N/-S(481.18) E/-W(9883.88)

#172 MD(16714.00) Inc(90.7) Azm(89.1) TVD(6859.04)
VS(9989.91) N/-S(481.72) E/-W(9978.87)

#173 MD(16810.00) Inc(90.5) Azm(90.7) TVD(6858.00)
VS(10085.84) N/-S(481.86) E/-W(10074.86)

#174 MD(16905.00) Inc(90.6) Azm(90.0) TVD(6857.04)
VS(10180.75) N/-S(481.23) E/-W(10169.85)

#175 MD(17000.00) Inc(90.6) Azm(89.5) TVD(6856.07)
VS(10275.69) N/-S(481.60) E/-W(10264.84)

#176 MD(17096.00) Inc(90.9) Azm(88.1) TVD(6854.86)
VS(10371.66) N/-S(483.60) E/-W(10360.81)

#177 MD(17191.00) Inc(91.0) Azm(88.4) TVD(6853.30)
VS(10466.65) N/-S(486.47) E/-W(10455.76)

#178 MD(17286.00) Inc(90.9) Azm(87.8) TVD(6851.73)
VS(10561.63) N/-S(489.56) E/-W(10550.69)

#179 MD(17382.00) Inc(91.4) Azm(87.2) TVD(6849.78)
VS(10657.61) N/-S(493.68) E/-W(10646.59)

#180 MD(17476.00) Inc(91.9) Azm(86.7) TVD(6847.08)
VS(10751.56) N/-S(498.63) E/-W(10740.42)

#181 MD(17593.00) Inc(92.5) Azm(86.1) TVD(6842.64)
VS(10868.44) N/-S(505.95) E/-W(10857.10)