



Rico LC29-76-1HNA

MD
1":100'

Company: NOBLE ENERGY
Well Name: RICO LC29-76-1HNA
API: 05-123-38776
Rig Id: H&P 326
State: CO
County/Parish: WELD COUNTY
Country: USA
Survey Company: DrilTech L.L.C.
Job number: 2014-200-DCDT-CO

Log measurements:
Depth measured from: 641
Maximum temperature: 213.1

Depth Date
Start: 641 ft 5/10/14
End: 15506 ft 5/18/14

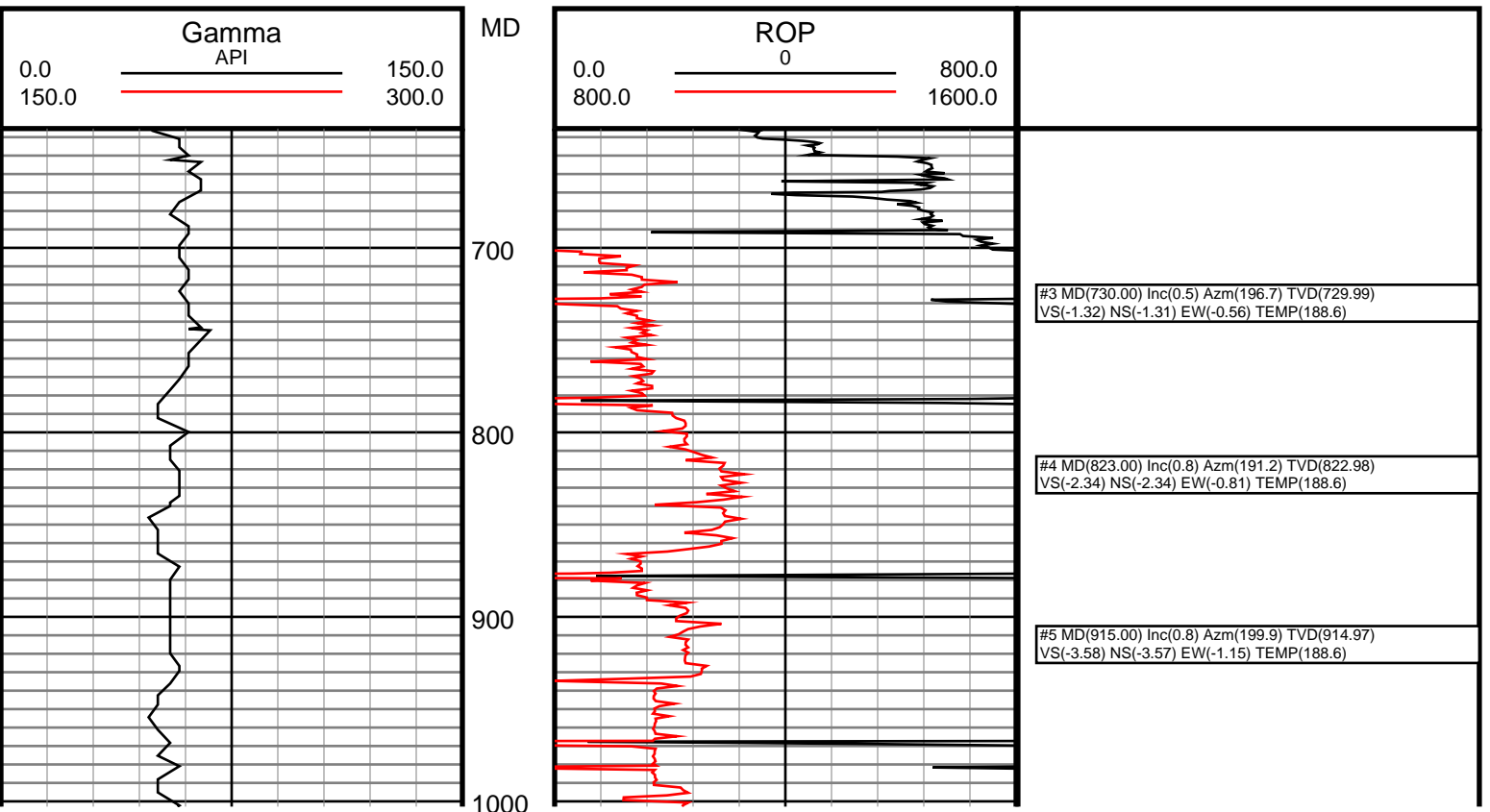
Casing Depth Size
Surface: 636 9 5/8
Intermediate: 6536 7

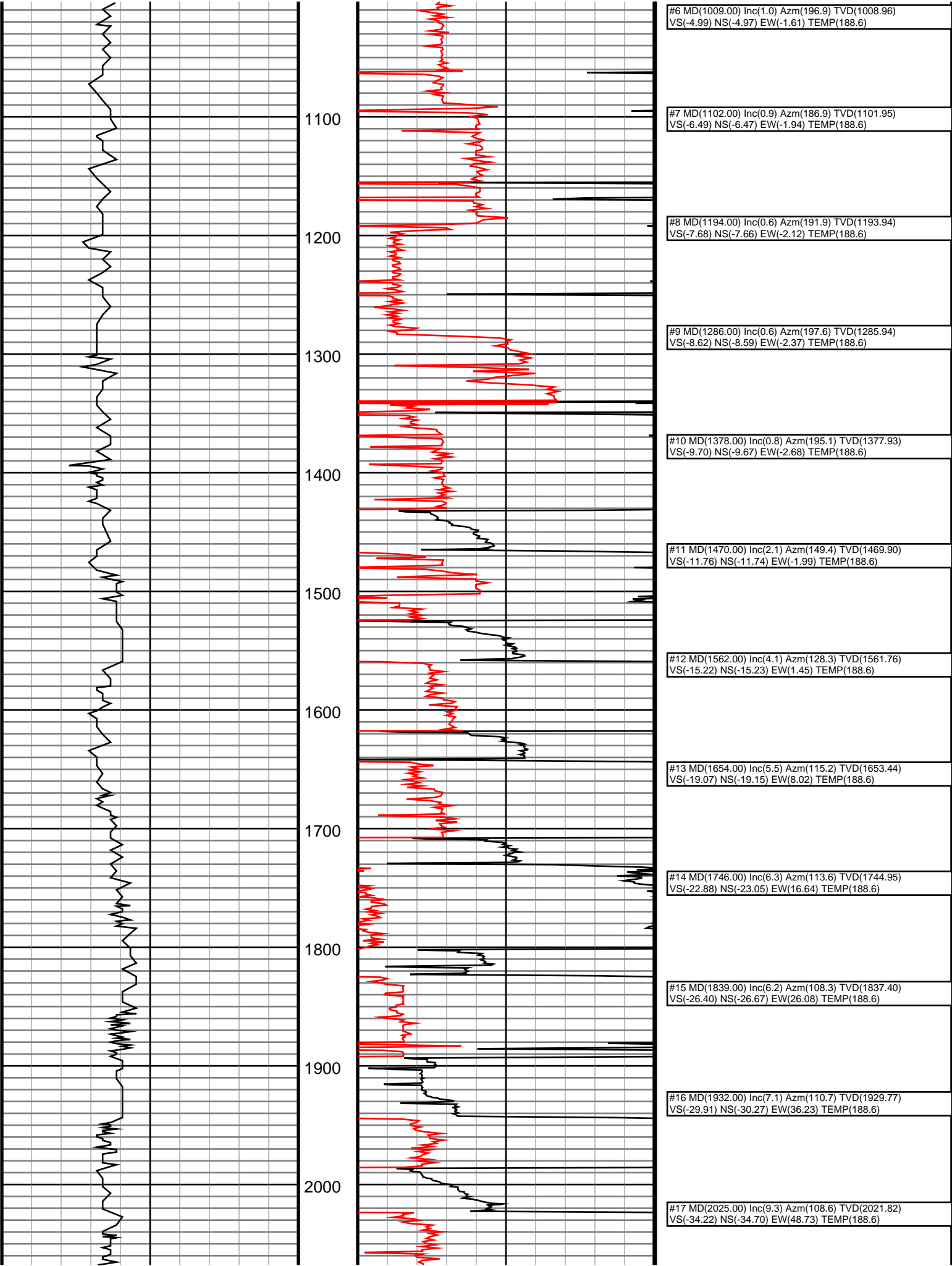
Mud Type: Water Base
Density: 10.15
Viscosity: 42
Rm: Rmf: Rmc:

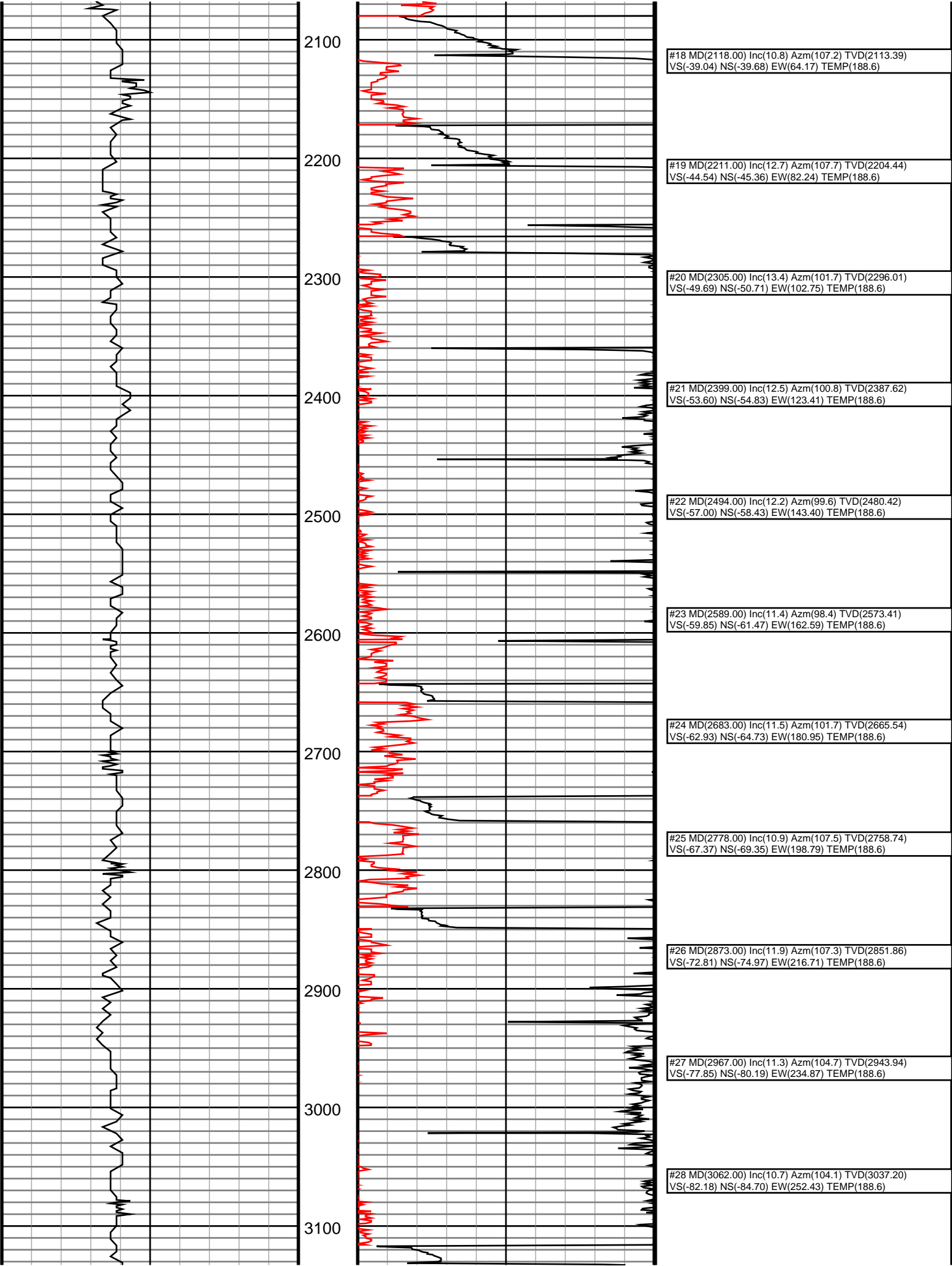
Elevations
KB:
GL:
DF: 30

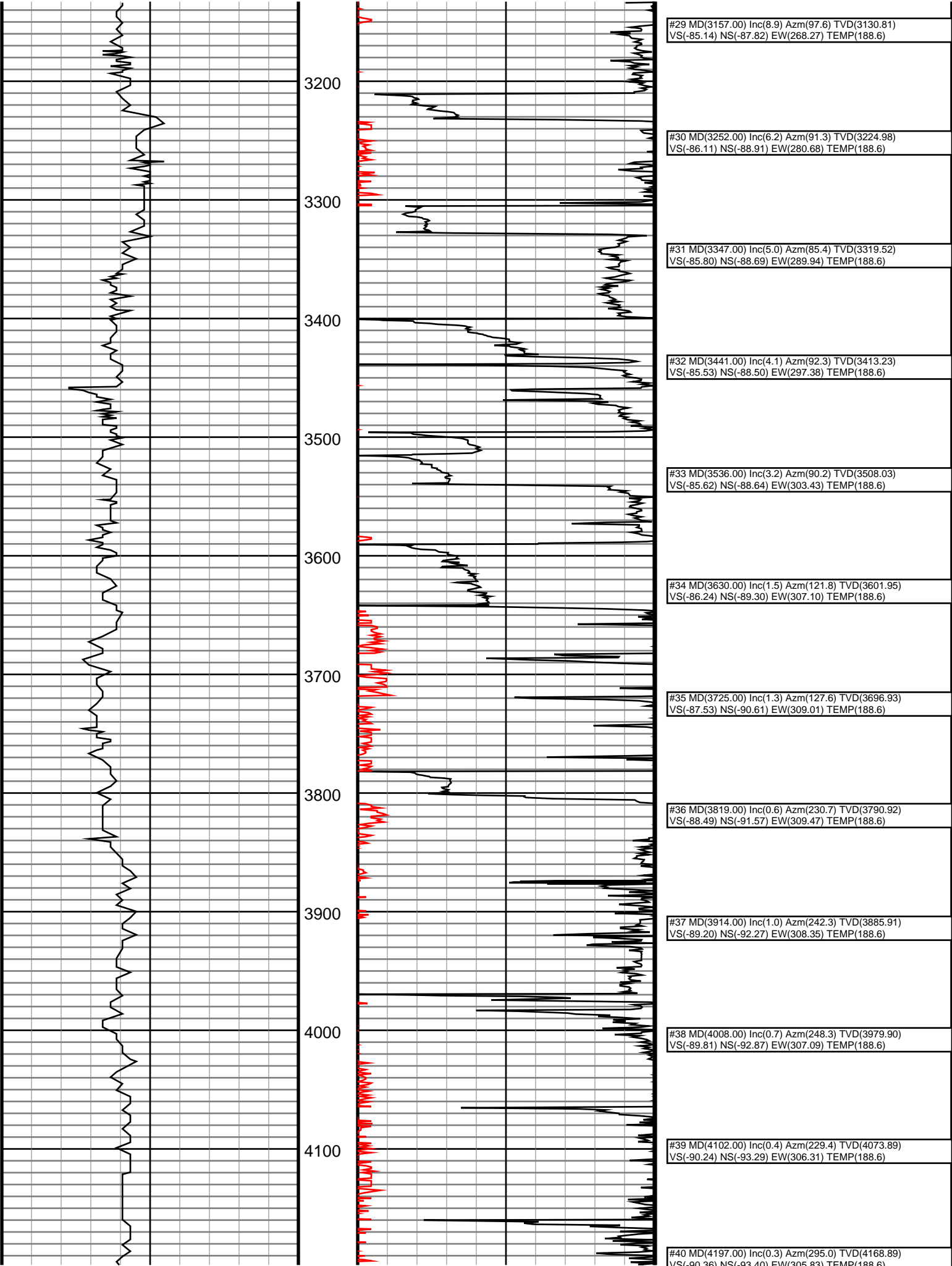
Run	Bit Size	Gamma	Survey	Start	End	Start	End
1	8 3/4	38.08	52.68	631	5366	5/10/14	5/11/14
2	8 3/4	46.98	61.58	5366	6546	5/11/14	5/12/14
3	6 1/8	55.40	69.50	6546	15506	5/13/14	5/18/14
4							
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8							
9							
10							

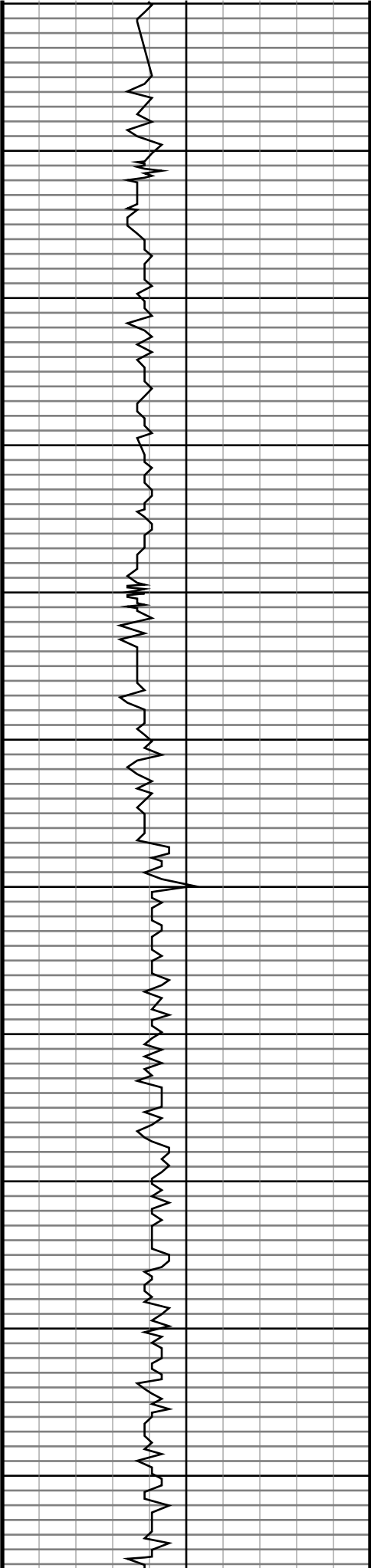
DrilTech L.L.C. uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.



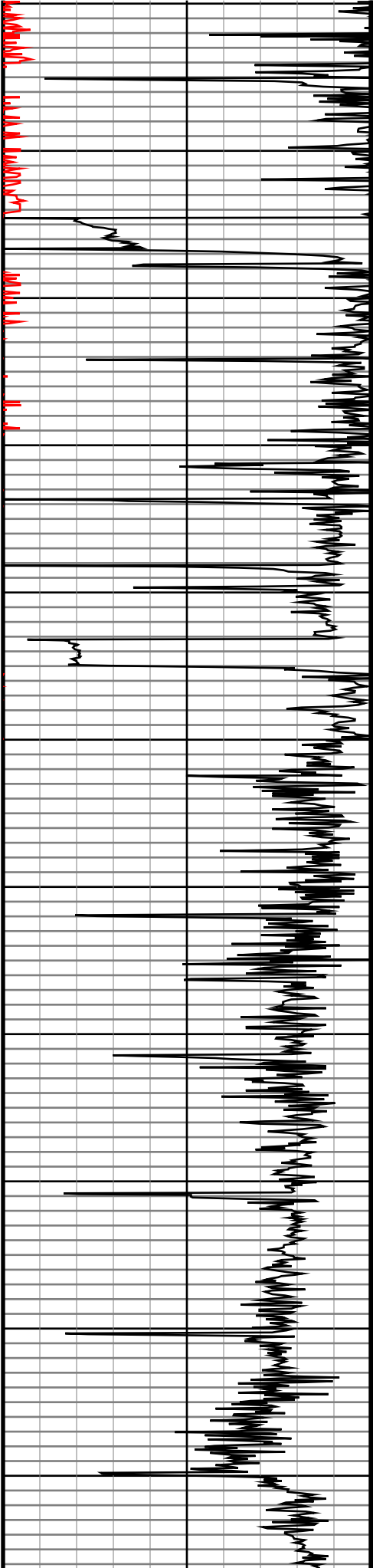




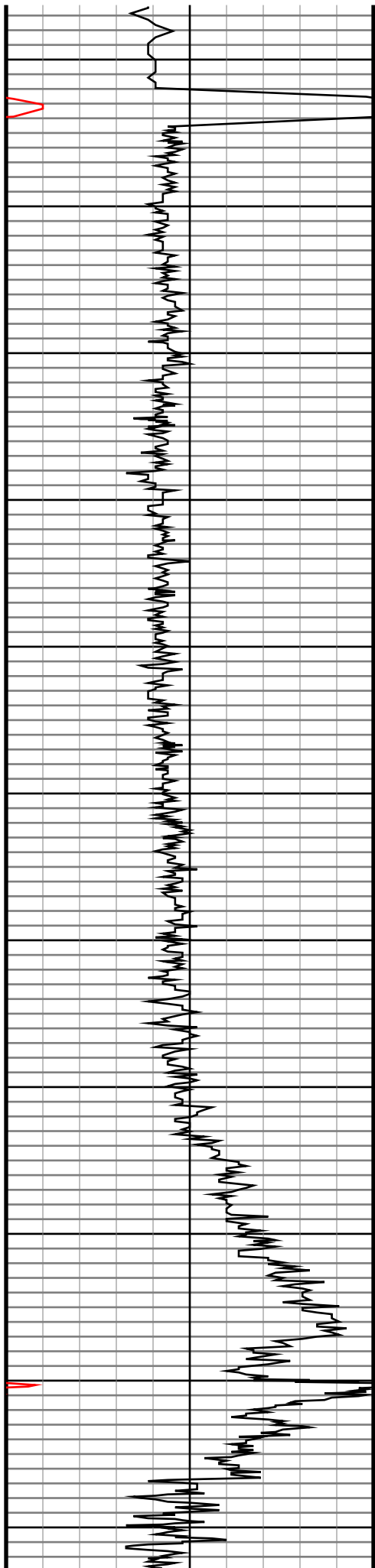




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#41 MD(4291.00) Inc(0.5) Azm(98.4) TVD(4262.89) VS(-90.31) NS(-93.36) EW(306.01) TEMP(188.6)
#42 MD(4386.00) Inc(1.1) Azm(276.4) TVD(4357.89) VS(-90.28) NS(-93.32) EW(305.52) TEMP(188.6)
#43 MD(4480.00) Inc(1.8) Azm(264.1) TVD(4451.86) VS(-90.35) NS(-93.37) EW(303.15) TEMP(188.6)
#44 MD(4575.00) Inc(1.7) Azm(272.4) TVD(4546.81) VS(-90.47) NS(-93.47) EW(300.26) TEMP(188.6)
#45 MD(4669.00) Inc(1.8) Azm(242.3) TVD(4640.77) VS(-91.13) NS(-94.09) EW(297.56) TEMP(188.6)
#46 MD(4764.00) Inc(2.0) Azm(230.8) TVD(4735.72) VS(-92.90) NS(-95.83) EW(294.96) TEMP(188.6)
#47 MD(4858.00) Inc(1.9) Azm(220.1) TVD(4829.66) VS(-95.15) NS(-98.06) EW(292.68) TEMP(188.6)
#48 MD(4953.00) Inc(1.4) Azm(193.2) TVD(4924.63) VS(-97.49) NS(-100.40) EW(291.40) TEMP(188.6)
#49 MD(5047.00) Inc(1.0) Azm(199.5) TVD(5018.61) VS(-99.39) NS(-102.29) EW(290.86) TEMP(188.6)
#50 MD(5142.00) Inc(0.7) Azm(199.9) TVD(5113.59) VS(-100.72) NS(-103.62) EW(290.39) TEMP(188.6)
#51 MD(5237.00) Inc(0.1) Azm(65.9) TVD(5208.59) VS(-101.23) NS(-104.13) EW(290.27) TEMP(188.6)



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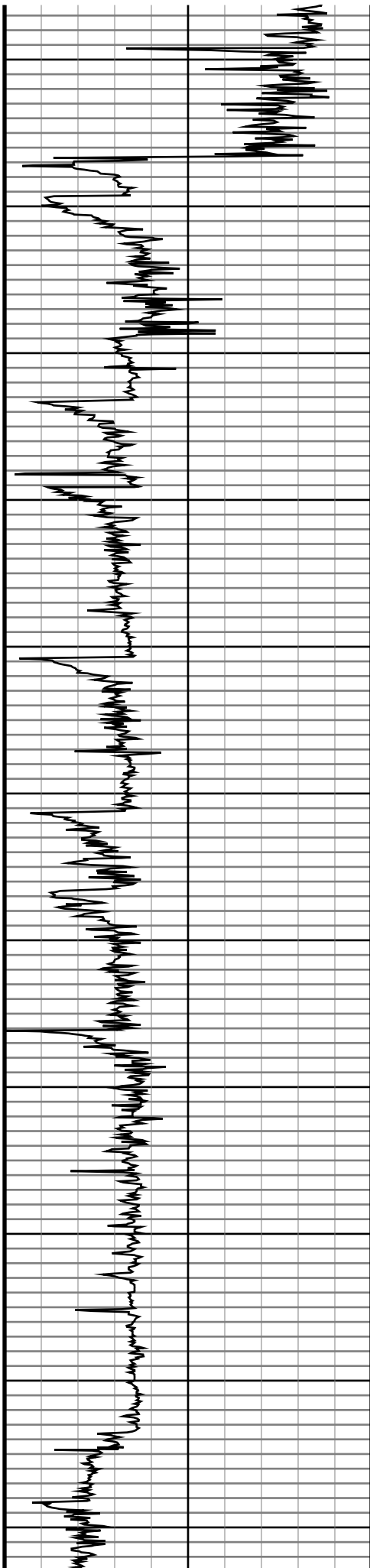
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#52 MD(5329.00) Inc(0.4) Azm(34.7) TVD(5300.59)
VS(-100.94) NS(-103.83) EW(290.52) TEMP(188.6)

#53 MD(5423.00) Inc(4.7) Azm(329.5) TVD(5394.48)
VS(-97.36) NS(-100.24) EW(288.76) TEMP(188.6)

#54 MD(5517.00) Inc(11.9) Azm(347.6) TVD(5487.45)
VS(-84.60) NS(-87.44) EW(284.71) TEMP(188.6)

#55 MD(5612.00) Inc(19.7) Azm(8.7) TVD(5578.86)
VS(-59.15) NS(-61.99) EW(285.03) TEMP(188.6)

#56 MD(5707.00) Inc(28.3) Azm(10.2) TVD(5665.57)
VS(-21.02) NS(-23.92) EW(291.46) TEMP(119.1)

#57 MD(5801.00) Inc(32.8) Azm(359.4) TVD(5746.56)
VS(26.46) NS(23.53) EW(295.14) TEMP(119.1)

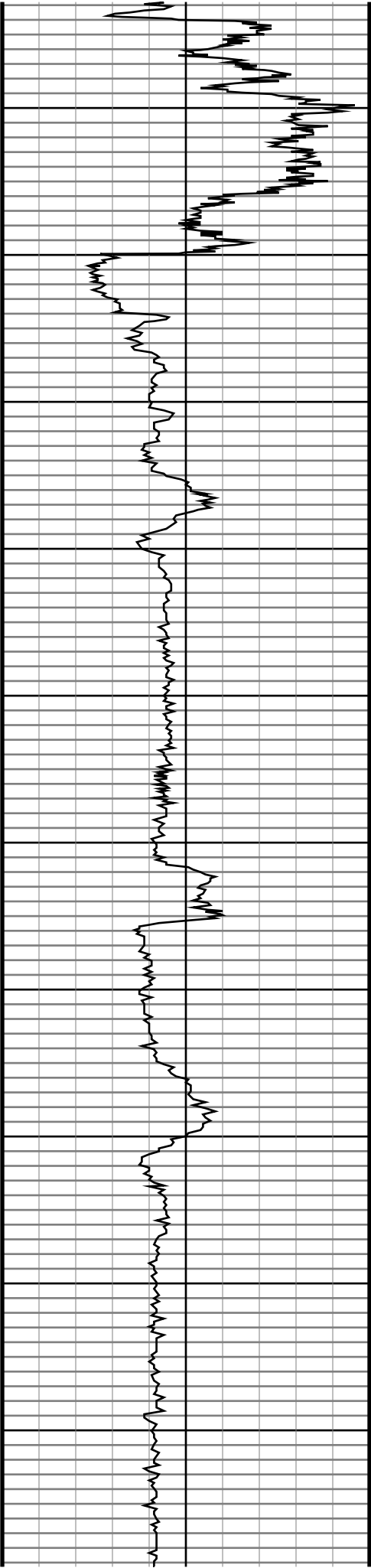
#58 MD(5896.00) Inc(39.9) Azm(349.8) TVD(5823.09)
VS(82.24) NS(79.36) EW(289.46) TEMP(126.3)

#59 MD(5991.00) Inc(54.8) Azm(350.8) TVD(5887.27)
VS(150.81) NS(148.05) EW(277.80) TEMP(129.9)

#60 MD(6085.00) Inc(65.0) Azm(351.0) TVD(5934.35)
VS(230.87) NS(228.25) EW(264.96) TEMP(133.6)

#61 MD(6180.00) Inc(64.8) Azm(350.1) TVD(5974.65)
VS(315.59) NS(313.11) EW(250.83) TEMP(137.2)

#62 MD(6274.00) Inc(64.9) Azm(349.6) TVD(6014.60)
VS(399.19) NS(396.86) EW(235.84) TEMP(137.2)



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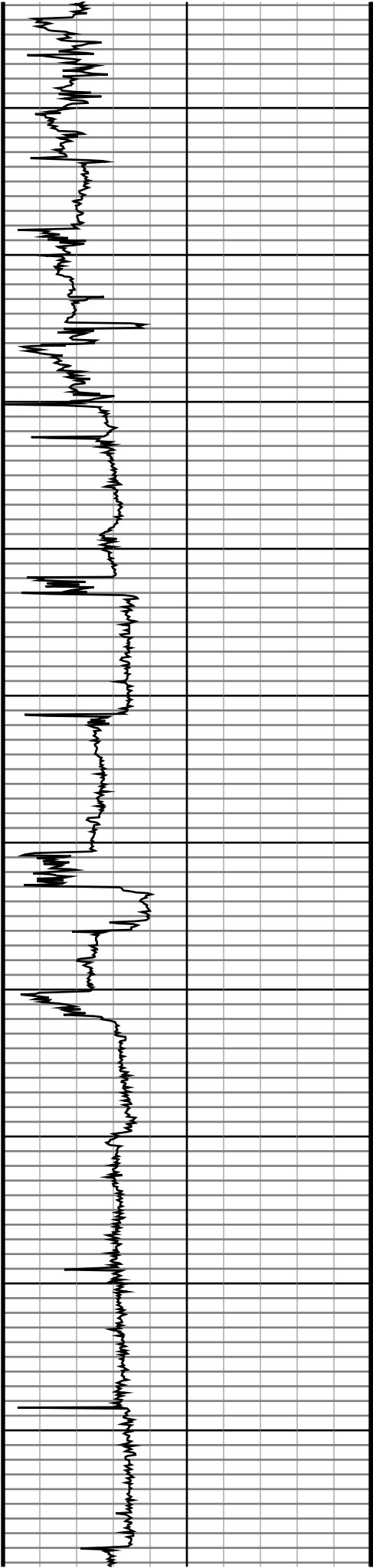
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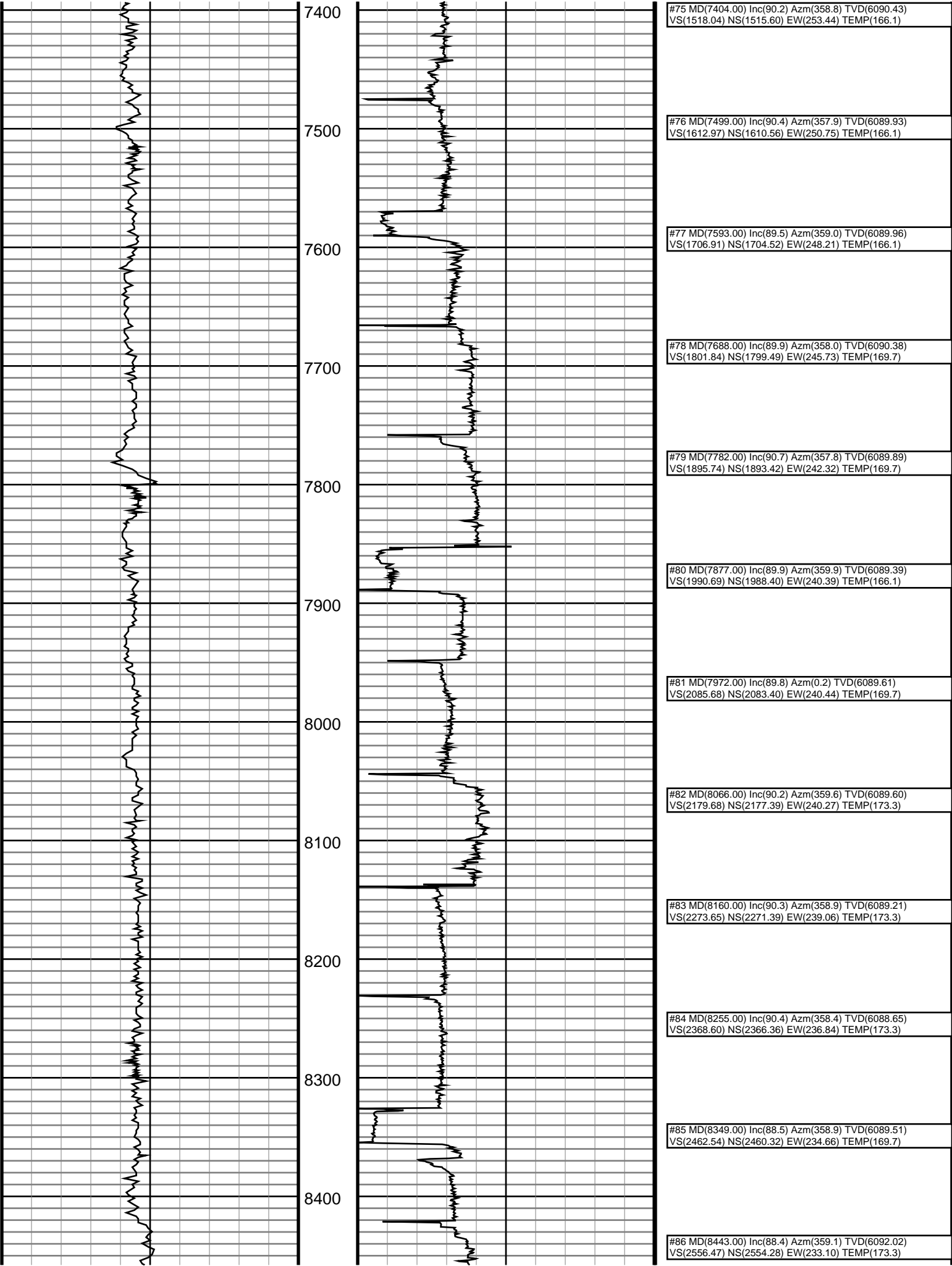
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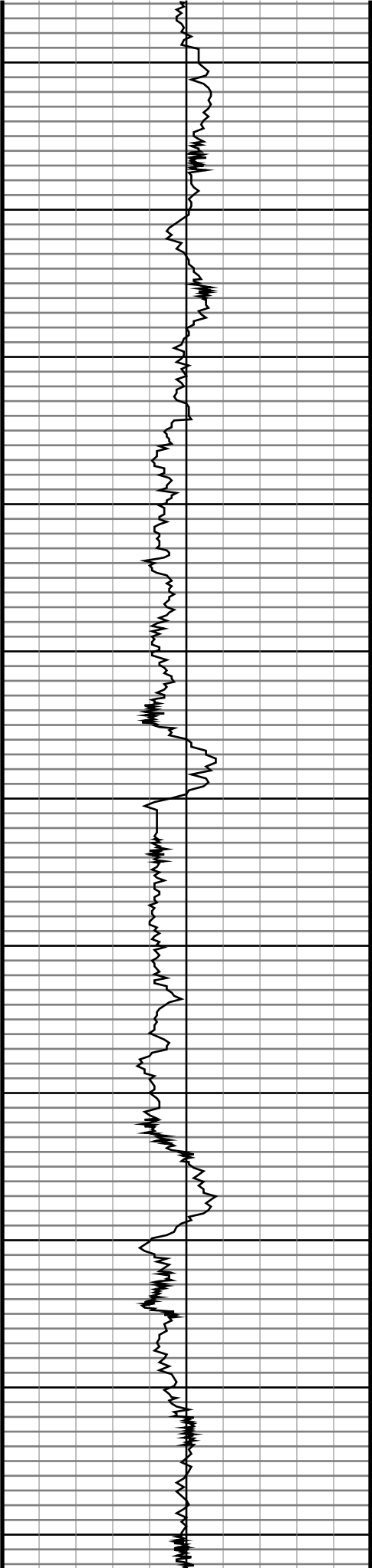
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#63 MD(6369.00) Inc(73.4) Azm(357.5) TVD(6048.43) VS(487.16) NS(484.93) EW(226.06) TEMP(137.2)
#65 MD(6482.00) Inc(82.2) Azm(1.9) TVD(6072.51) VS(597.41) NS(595.19) EW(226.45) TEMP(140.8)
#66 MD(6553.00) Inc(85.2) Azm(1.4) TVD(6080.30) VS(667.96) NS(665.72) EW(228.50) TEMP(148.0)
#67 MD(6648.00) Inc(88.1) Azm(4.2) TVD(6085.84) VS(762.71) NS(760.43) EW(233.15) TEMP(148.0)
#68 MD(6742.00) Inc(89.8) Azm(4.3) TVD(6087.52) VS(856.50) NS(854.15) EW(240.09) TEMP(148.0)
#69 MD(6836.00) Inc(90.5) Azm(4.6) TVD(6087.27) VS(950.28) NS(947.87) EW(247.38) TEMP(151.6)
#70 MD(6930.00) Inc(90.2) Azm(2.4) TVD(6086.76) VS(1044.15) NS(1041.69) EW(253.10) TEMP(151.6)
#71 MD(7025.00) Inc(89.2) Azm(0.9) TVD(6087.32) VS(1139.13) NS(1136.64) EW(255.84) TEMP(155.2)
#72 MD(7120.00) Inc(89.2) Azm(359.9) TVD(6088.66) VS(1234.12) NS(1231.63) EW(256.48) TEMP(158.9)
#73 MD(7214.00) Inc(89.3) Azm(359.6) TVD(6089.86) VS(1328.10) NS(1325.62) EW(256.08) TEMP(162.5)
#74 MD(7309.00) Inc(89.9) Azm(359.2) TVD(6090.51) VS(1423.08) NS(1420.61) EW(255.10) TEMP(162.5)





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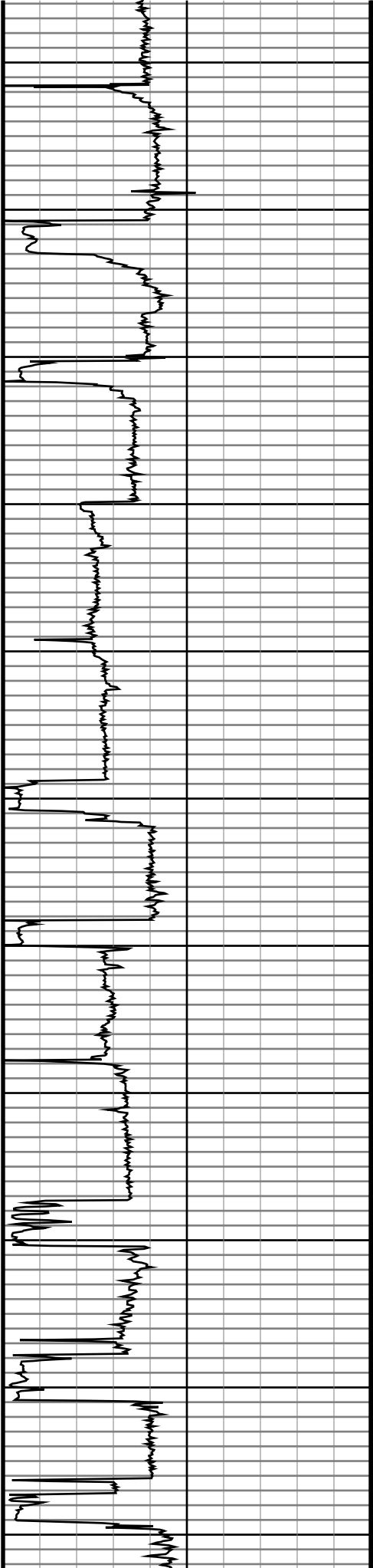
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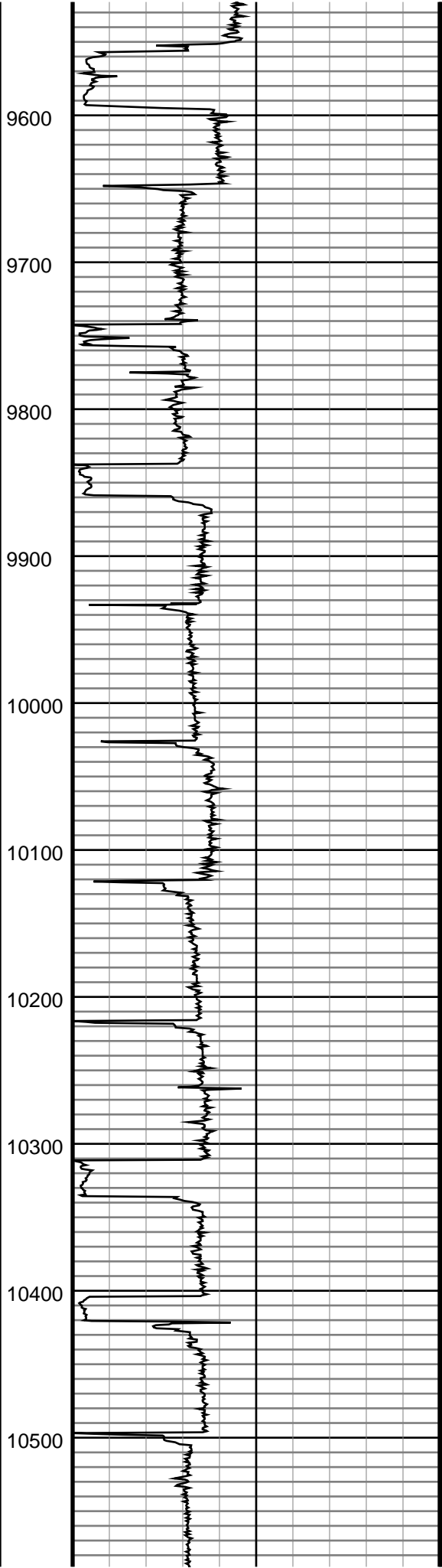
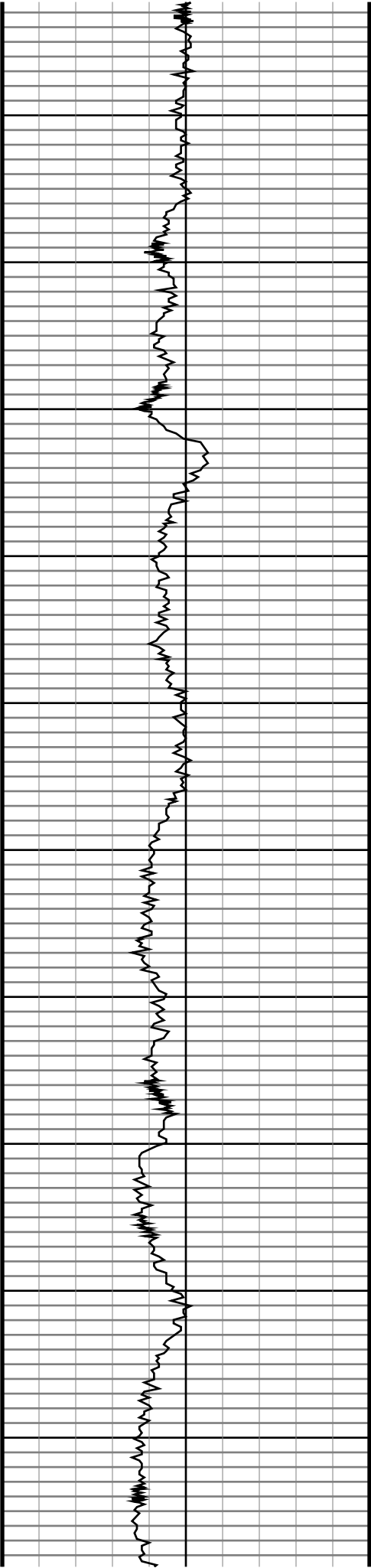
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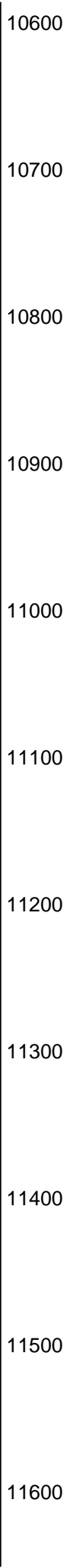
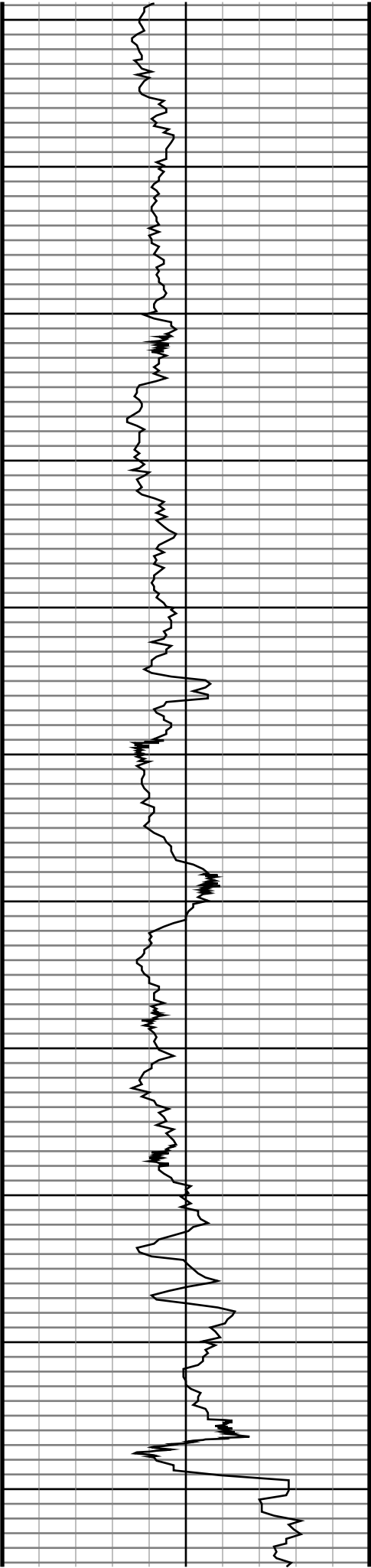
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#87 MD(8538.00) Inc(88.4) Azm(358.6) TVD(6094.66) VS(2651.39) NS(2649.22) EW(231.22) TEMP(176.9)
#88 MD(8633.00) Inc(91.4) Azm(359.8) TVD(6094.80) VS(2746.35) NS(2744.20) EW(229.87) TEMP(176.9)
#89 MD(8727.00) Inc(90.7) Azm(0.2) TVD(6093.09) VS(2840.33) NS(2838.18) EW(229.82) TEMP(176.9)
#90 MD(8822.00) Inc(91.1) Azm(359.6) TVD(6091.61) VS(2935.31) NS(2933.17) EW(229.66) TEMP(176.9)
#91 MD(8916.00) Inc(91.8) Azm(359.3) TVD(6089.23) VS(3029.26) NS(3027.14) EW(228.76) TEMP(180.5)
#92 MD(9011.00) Inc(90.6) Azm(359.0) TVD(6087.30) VS(3124.21) NS(3122.10) EW(227.36) TEMP(176.9)
#93 MD(9105.00) Inc(89.1) Azm(358.3) TVD(6087.57) VS(3218.15) NS(3216.07) EW(225.14) TEMP(176.9)
#94 MD(9200.00) Inc(88.6) Azm(356.9) TVD(6089.48) VS(3313.00) NS(3310.97) EW(221.09) TEMP(180.5)
#95 MD(9294.00) Inc(87.8) Azm(356.4) TVD(6092.40) VS(3406.73) NS(3404.76) EW(215.53) TEMP(176.9)
#96 MD(9388.00) Inc(88.7) Azm(357.6) TVD(6095.26) VS(3500.50) NS(3498.58) EW(210.61) TEMP(176.9)
#97 MD(9483.00) Inc(89.4) Azm(357.7) TVD(6096.87) VS(3595.36) NS(3593.49) EW(206.71) TEMP(176.9)



#98 MD(9577.00) Inc(90.9) Azm(359.5) TVD(6096.59) VS(3689.30) NS(3687.45) EW(204.37) TEMP(176.9)
#99 MD(9672.00) Inc(91.2) Azm(0.1) TVD(6094.84) VS(3784.27) NS(3782.43) EW(203.98) TEMP(184.1)
#100 MD(9766.00) Inc(91.7) Azm(359.4) TVD(6092.48) VS(3878.23) NS(3876.40) EW(203.50) TEMP(184.1)
#101 MD(9861.00) Inc(90.1) Azm(0.4) TVD(6090.99) VS(3973.21) NS(3971.38) EW(203.31) TEMP(180.5)
#102 MD(9956.00) Inc(89.9) Azm(0.3) TVD(6091.03) VS(4068.21) NS(4066.38) EW(203.88) TEMP(187.8)
#103 MD(10050.00) Inc(90.3) Azm(0.2) TVD(6090.86) VS(4162.21) NS(4160.38) EW(204.30) TEMP(187.8)
#104 MD(10145.00) Inc(90.5) Azm(359.3) TVD(6090.13) VS(4257.19) NS(4255.38) EW(203.94) TEMP(191.4)
#105 MD(10239.00) Inc(91.6) Azm(359.1) TVD(6088.40) VS(4351.15) NS(4349.35) EW(202.64) TEMP(191.4)
#106 MD(10333.00) Inc(90.7) Azm(0.9) TVD(6086.55) VS(4445.12) NS(4443.33) EW(202.68) TEMP(184.1)
#107 MD(10426.00) Inc(89.5) Azm(2.0) TVD(6086.40) VS(4538.11) NS(4536.29) EW(205.05) TEMP(184.1)
#108 MD(10518.00) Inc(89.8) Azm(1.9) TVD(6086.97) VS(4630.08) NS(4628.24) EW(208.17) TEMP(187.8)



#109 MD(10612.00) Inc(89.1) Azm(2.0) TVD(6087.89)
VS(4724.05) NS(4722.18) EW(211.34) TEMP(187.8)

#110 MD(10703.00) Inc(89.2) Azm(1.4) TVD(6089.24)
VS(4815.02) NS(4813.13) EW(213.98) TEMP(191.4)

#111 MD(10797.00) Inc(90.0) Azm(1.4) TVD(6089.91)
VS(4909.01) NS(4907.10) EW(216.22) TEMP(195.0)

#112 MD(10890.00) Inc(89.2) Azm(0.9) TVD(6090.61)
VS(5002.00) NS(5000.08) EW(218.10) TEMP(191.4)

#113 MD(10982.00) Inc(89.2) Azm(0.0) TVD(6091.88)
VS(5093.99) NS(5092.07) EW(218.89) TEMP(191.4)

#114 MD(11074.00) Inc(88.7) Azm(359.9) TVD(6093.57)
VS(5185.97) NS(5184.05) EW(218.82) TEMP(195.0)

#115 MD(11166.00) Inc(90.6) Azm(0.2) TVD(6094.15)
VS(5277.96) NS(5276.04) EW(218.91) TEMP(191.4)

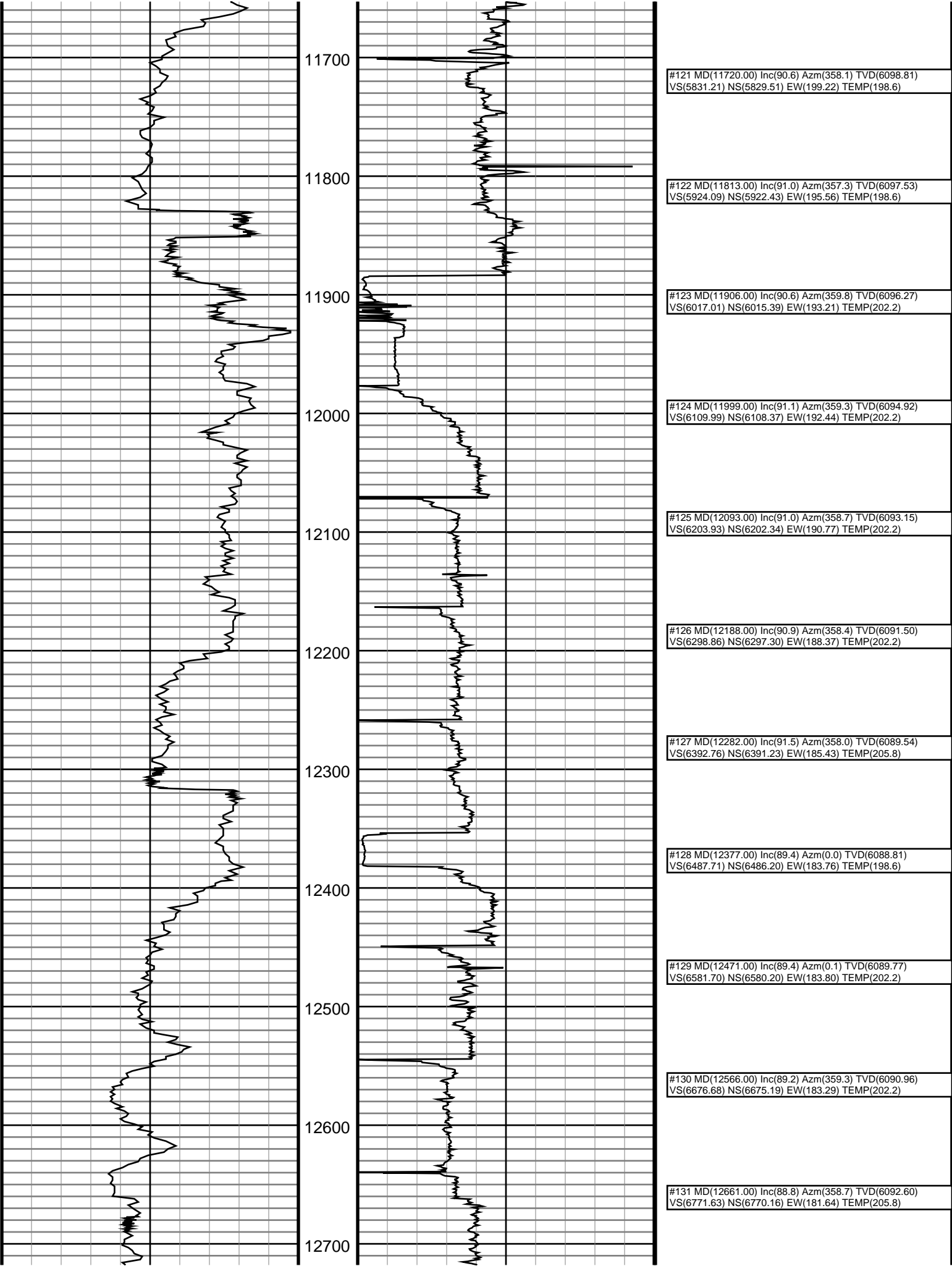
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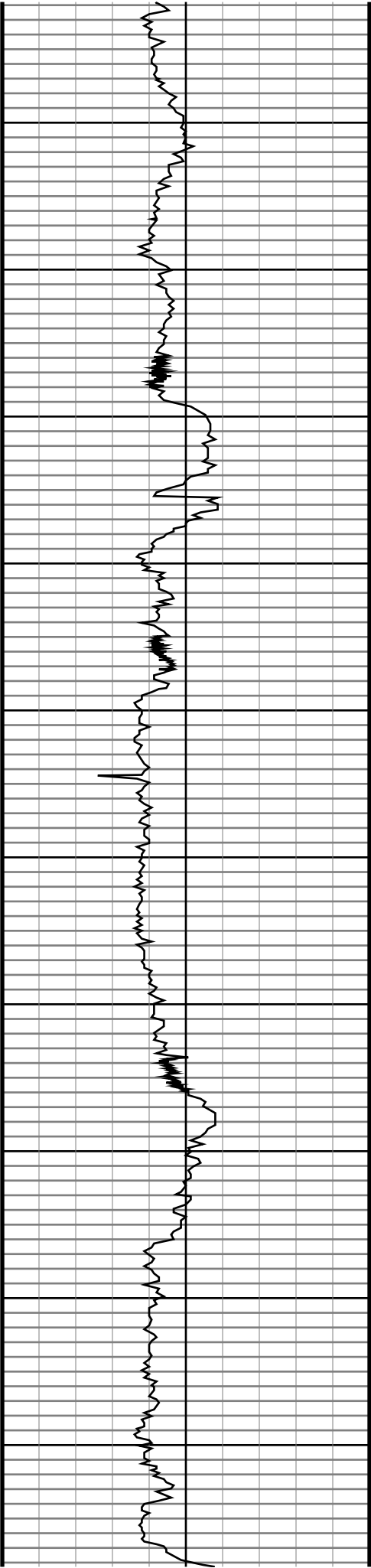
#117 MD(11350.00) Inc(89.9) Azm(358.6) TVD(6093.43)
VS(5461.89) NS(5460.01) EW(216.19) TEMP(191.4)

#118 MD(11442.00) Inc(88.2) Azm(357.0) TVD(6095.00)
VS(5553.77) NS(5551.93) EW(212.67) TEMP(195.0)

#119 MD(11534.00) Inc(87.8) Azm(356.9) TVD(6098.24)
VS(5645.52) NS(5643.74) EW(207.73) TEMP(198.6)

#120 MD(11627.00) Inc(90.5) Azm(357.2) TVD(6099.66)
VS(5738.33) NS(5736.59) EW(202.96) TEMP(195.0)





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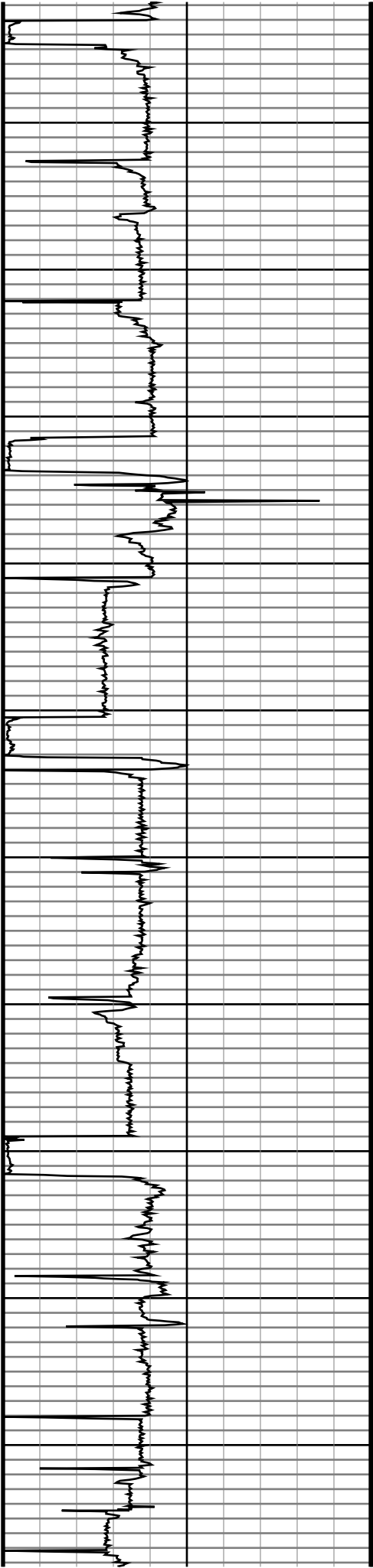
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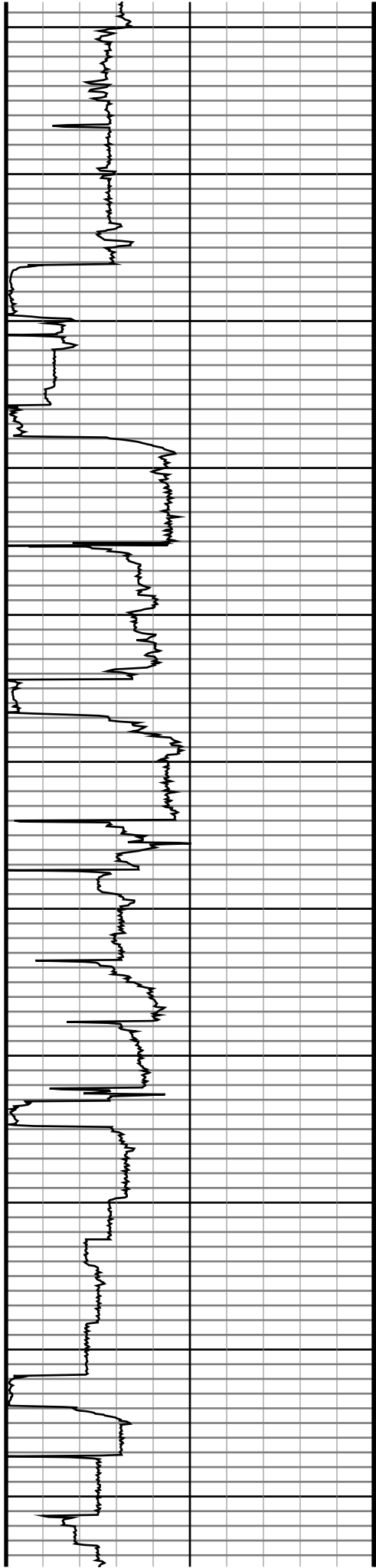
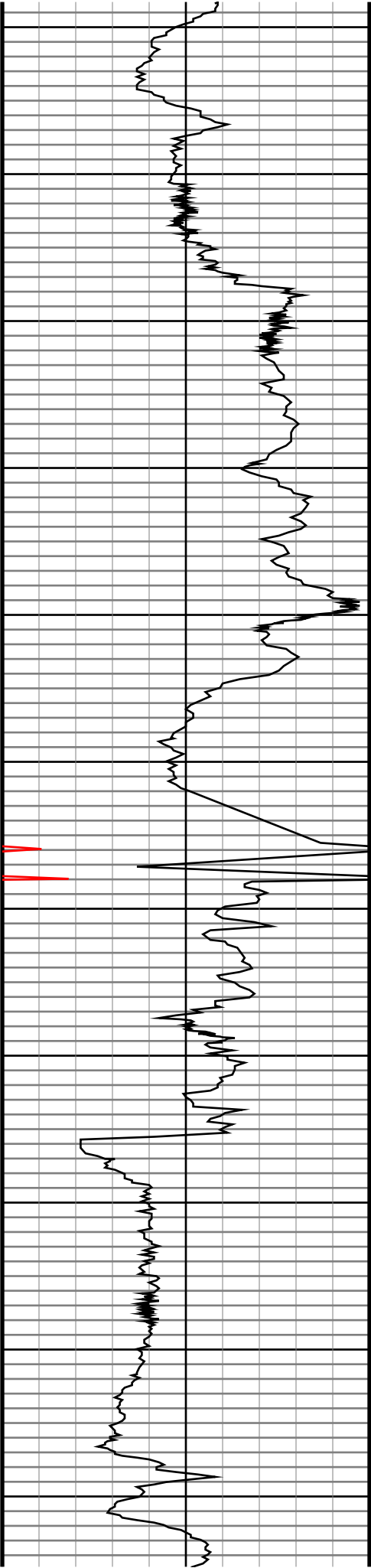
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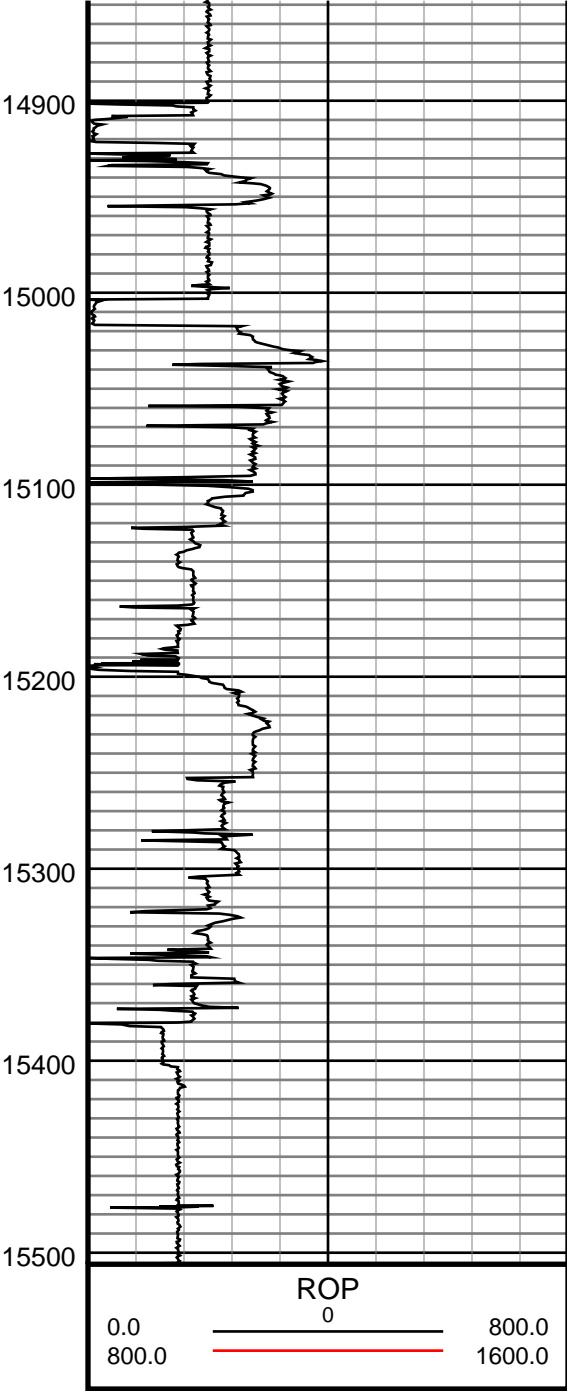
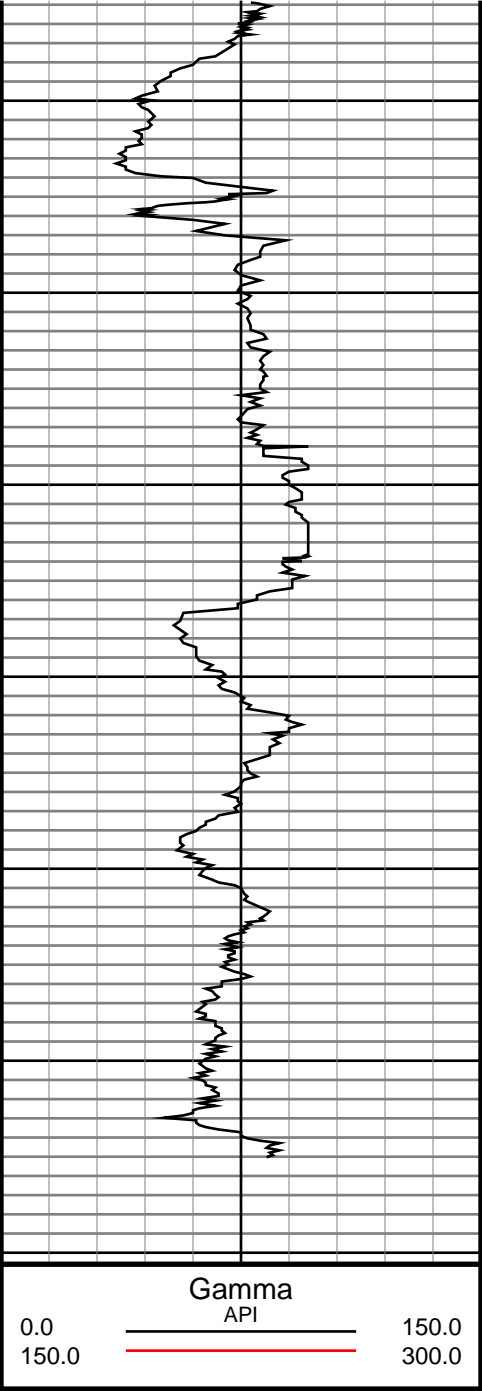
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#132 MD(12755.00) Inc(90.3) Azm(358.6) TVD(6093.32) VS(6865.57) NS(6864.13) EW(179.39) TEMP(202.2)
#133 MD(12850.00) Inc(90.5) Azm(358.6) TVD(6092.72) VS(6960.51) NS(6959.10) EW(177.06) TEMP(205.8)
#134 MD(12945.00) Inc(90.4) Azm(357.1) TVD(6092.03) VS(7055.40) NS(7054.02) EW(173.51) TEMP(205.8)
#135 MD(13039.00) Inc(90.6) Azm(358.9) TVD(6091.24) VS(7149.30) NS(7147.96) EW(170.24) TEMP(202.2)
#136 MD(13134.00) Inc(90.9) Azm(357.2) TVD(6090.02) VS(7244.20) NS(7242.90) EW(167.05) TEMP(205.8)
#137 MD(13229.00) Inc(89.2) Azm(359.4) TVD(6089.92) VS(7339.12) NS(7337.85) EW(164.29) TEMP(202.2)
#138 MD(13323.00) Inc(89.2) Azm(358.4) TVD(6091.19) VS(7433.07) NS(7431.82) EW(162.49) TEMP(209.4)
#139 MD(13418.00) Inc(89.9) Azm(357.7) TVD(6091.93) VS(7527.97) NS(7526.76) EW(159.22) TEMP(209.4)
#140 MD(13513.00) Inc(89.4) Azm(0.2) TVD(6092.56) VS(7622.92) NS(7621.73) EW(157.43) TEMP(205.8)
#141 MD(13607.00) Inc(89.3) Azm(358.8) TVD(6093.65) VS(7716.89) NS(7715.72) EW(156.56) TEMP(209.4)
#142 MD(13702.00) Inc(90.1) Azm(358.6) TVD(6094.14) VS(7811.84) NS(7810.69) EW(154.38) TEMP(213.1)



#143 MD(13796.00) Inc(91.0) Azm(358.3) TVD(6093.20) VS(7905.77) NS(7904.65) EW(151.85) TEMP(213.1)
#144 MD(13891.00) Inc(91.6) Azm(356.5) TVD(6091.00) VS(8000.60) NS(7999.53) EW(147.57) TEMP(213.1)
#145 MD(13985.00) Inc(90.2) Azm(359.2) TVD(6089.56) VS(8094.47) NS(8093.44) EW(144.03) TEMP(209.4)
#146 MD(14080.00) Inc(90.0) Azm(0.1) TVD(6089.44) VS(8189.46) NS(8188.43) EW(143.43) TEMP(176.9)
#147 MD(14174.00) Inc(90.5) Azm(359.4) TVD(6089.03) VS(8283.44) NS(8282.43) EW(143.03) TEMP(213.1)
#148 MD(14269.00) Inc(88.4) Azm(0.5) TVD(6089.95) VS(8378.43) NS(8377.42) EW(142.98) TEMP(209.4)
#149 MD(14363.00) Inc(88.9) Azm(359.4) TVD(6092.16) VS(8472.39) NS(8471.39) EW(142.92) TEMP(209.4)
#150 MD(14458.00) Inc(89.5) Azm(359.3) TVD(6093.45) VS(8567.36) NS(8566.38) EW(141.85) TEMP(213.1)
#151 MD(14553.00) Inc(89.0) Azm(358.4) TVD(6094.71) VS(8662.31) NS(8661.35) EW(139.88) TEMP(213.1)
#152 MD(14647.00) Inc(87.7) Azm(356.5) TVD(6097.49) VS(8756.12) NS(8755.20) EW(135.66) TEMP(216.7)
#153 MD(14742.00) Inc(89.7) Azm(357.4) TVD(6099.69) VS(8850.90) NS(8850.04) EW(130.57) TEMP(213.1)
#154 MD(14836.00) Inc(90.4) Azm(357.0) TVD(6099.65) VS(8944.73) NS(8943.92) EW(125.95) TEMP(216.7)



#155 MD(14931.00) Inc(90.2) Azm(357.9) TVD(6099.18)
VS(9039.59) NS(9038.83) EW(121.71) TEMP(216.7)

#156 MD(15026.00) Inc(89.9) Azm(357.0) TVD(6099.13)
VS(9134.45) NS(9133.73) EW(117.50) TEMP(213.1)

#157 MD(15120.00) Inc(90.5) Azm(356.3) TVD(6098.84)
VS(9228.23) NS(9227.57) EW(112.02) TEMP(213.1)

#158 MD(15215.00) Inc(91.4) Azm(354.6) TVD(6097.29)
VS(9322.83) NS(9322.25) EW(104.47) TEMP(216.7)

#159 MD(15310.00) Inc(91.7) Azm(354.3) TVD(6094.75)
VS(9417.25) NS(9416.77) EW(95.25) TEMP(220.3)

#160 MD(15405.00) Inc(92.4) Azm(354.2) TVD(6091.39)
VS(9511.61) NS(9511.23) EW(85.74) TEMP(220.3)

#161 MD(15436.00) Inc(92.6) Azm(353.6) TVD(6090.04)
VS(9542.38) NS(9542.03) EW(82.45) TEMP(220.3)

#162 MD(15506.00) Inc(92.6) Azm(353.6) TVD(6086.82)
VS(9611.78) NS(9611.31) EW(74.61) TEMP(220.3)