Red Cloud 1N

MD
2":100'

Company: PDC Energy Inc
Well Name: Red Cloud 1N
API: 05-123-49450-00
County/Parish: WELD
State: COLORADO
Country: USA
Job number: 152-206
Field: Wattenberg
Rig Id: Ensign 152
Survey Company: Ensign Directional
DD1 Jesus Gallego
DD2 Dan Hanson
DD3 Eric Cherry
MWD1 Bobby Blevins
MWD2 Collin Randall

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

	Depth	Date
Start:	0 ft	06-04-2019
End:	16793 ft	6-9-2019

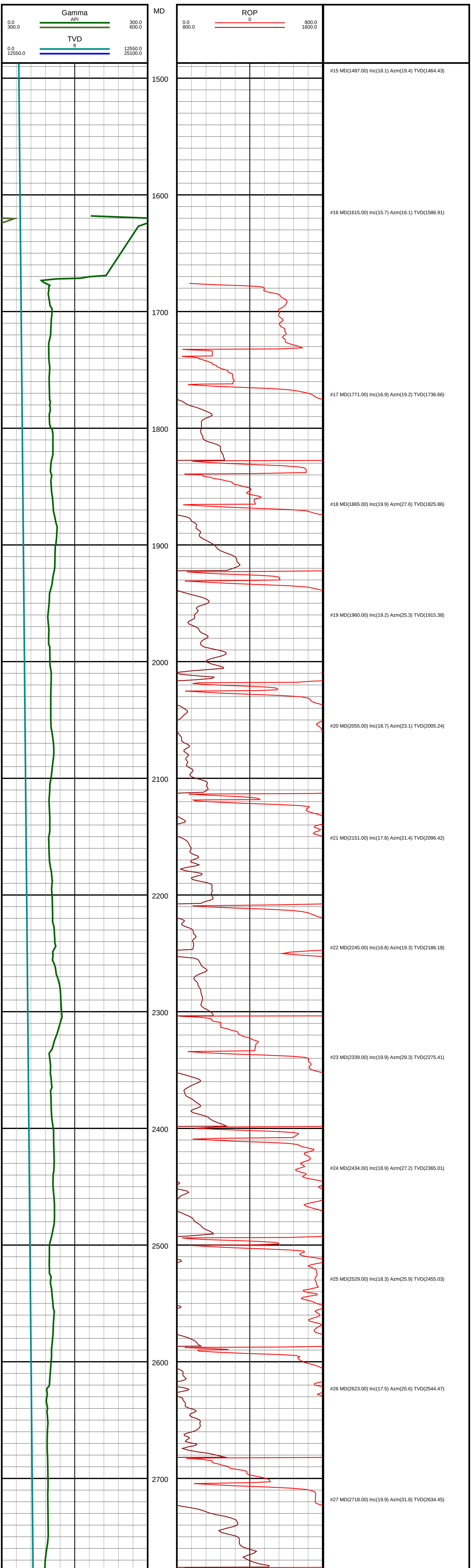
Casing	Depth	Size
Surface:	1668 ft	9 5/8"
Intermediate:		

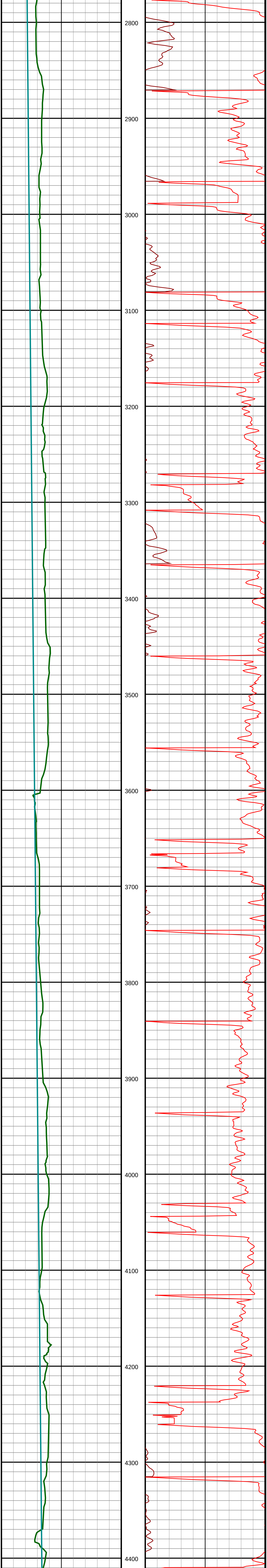
Mud Type: Water
Density:
Viscosity:
Rm: **Rmf:** **Rmc:**

Elevations
KB: 23 ft
GL: 4602 ft
DF: 4625 ft

Run	Bit Size	Offsets Gamma	Offsets Survey	Depths Start	Depths End	Dates Start	Dates End
1	12 1/4"		60.00 ft	0 ft	1668 ft	06-04-2019	06-05-2019
2	8 1/2"		58.00 ft	1668 ft	12152 ft	06-05-2019	6-7-2019
3	8.5"	60.46 ft	57.96 ft	12152 ft	16793 ft	6-8-2019	6-9-2019
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.





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#29 MD(2907.00) Inc(19.9) Azm(29.6) TVD(2812.23)

#30 MD(3024.00) Inc(19.3) Azm(28.1) TVD(2922.46)

#31 MD(3119.00) Inc(18.6) Azm(24.1) TVD(3012.31)

#32 MD(3213.00) Inc(17.4) Azm(19.6) TVD(3101.73)

#33 MD(3308.00) Inc(19.9) Azm(26.6) TVD(3191.76)

#34 MD(3403.00) Inc(19.0) Azm(23.4) TVD(3281.34)

#35 MD(3498.00) Inc(17.8) Azm(19.6) TVD(3371.48)

#36 MD(3593.00) Inc(17.3) Azm(20.3) TVD(3462.06)

#37 MD(3688.00) Inc(18.8) Azm(23.1) TVD(3552.39)

#38 MD(3783.00) Inc(19.0) Azm(21.7) TVD(3642.27)

#39 MD(3879.00) Inc(19.4) Azm(21.8) TVD(3732.91)

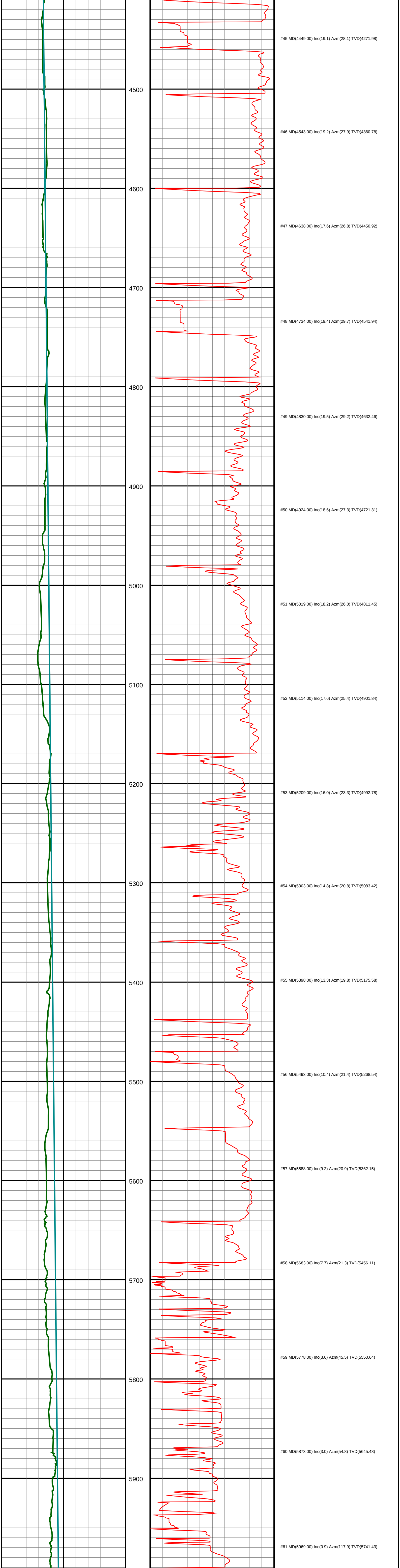
#40 MD(3974.00) Inc(18.2) Azm(20.5) TVD(3822.83)

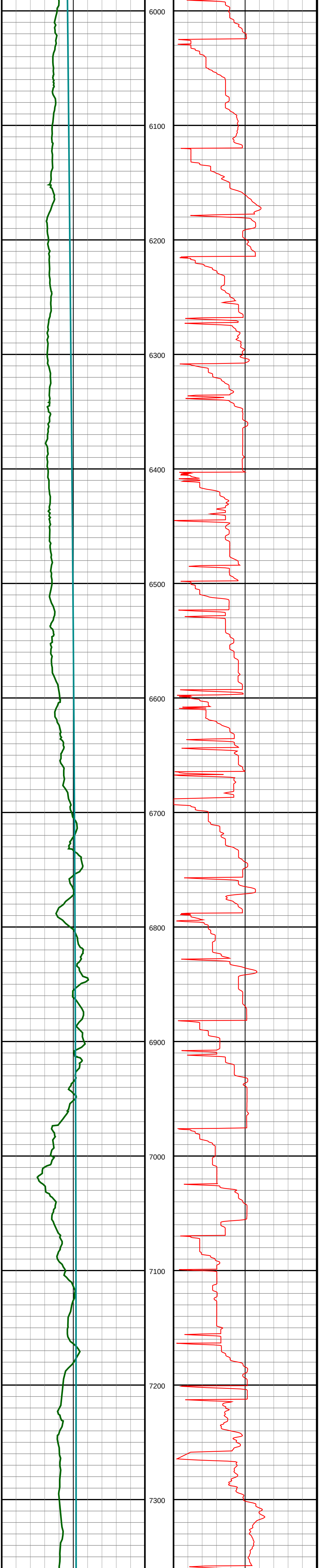
#41 MD(4069.00) Inc(19.5) Azm(25.5) TVD(3912.75)

#42 MD(4163.00) Inc(18.9) Azm(24.6) TVD(4001.55)

#43 MD(4258.00) Inc(19.9) Azm(25.8) TVD(4091.18)

#44 MD(4354.00) Inc(18.1) Azm(25.5) TVD(4181.95)





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#63 MD(6159.00) Inc(16.1) Azm(256.6) TVD(5929.73)

#64 MD(6254.00) Inc(21.6) Azm(255.0) TVD(6019.59)

#65 MD(6350.00) Inc(24.7) Azm(258.7) TVD(6107.85)

#66 MD(6445.00) Inc(29.6) Azm(270.6) TVD(6192.43)

#67 MD(6540.00) Inc(39.2) Azm(273.0) TVD(6270.71)

#68 MD(6635.00) Inc(50.3) Azm(274.7) TVD(6338.09)

#69 MD(6729.00) Inc(61.0) Azm(276.5) TVD(6391.06)

#70 MD(6824.00) Inc(67.8) Azm(272.8) TVD(6432.08)

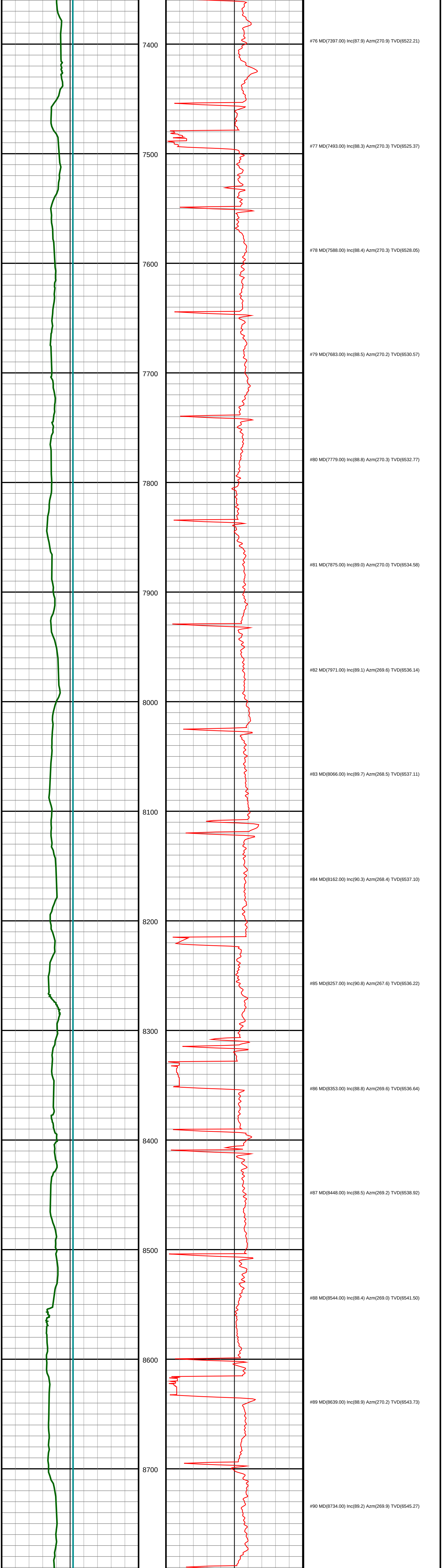
#71 MD(6920.00) Inc(71.7) Azm(270.5) TVD(6465.36)

#72 MD(7015.00) Inc(76.4) Azm(269.1) TVD(6491.46)

#73 MD(7110.00) Inc(82.6) Azm(269.2) TVD(6508.77)

#74 MD(7206.00) Inc(88.5) Azm(271.4) TVD(6516.20)

#75 MD(7301.00) Inc(88.2) Azm(271.3) TVD(6518.91)



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#78 MD(7588.00) Inc(88.4) Azm(270.3) TVD(6528.05)

#79 MD(7683.00) Inc(88.5) Azm(270.2) TVD(6530.57)

#80 MD(7779.00) Inc(88.8) Azm(270.3) TVD(6532.77)

#81 MD(7875.00) Inc(89.0) Azm(270.0) TVD(6534.58)

#82 MD(7971.00) Inc(89.1) Azm(269.6) TVD(6536.14)

#83 MD(8066.00) Inc(89.7) Azm(268.5) TVD(6537.11)

#84 MD(8162.00) Inc(90.3) Azm(268.4) TVD(6537.10)

#85 MD(8257.00) Inc(90.8) Azm(267.6) TVD(6536.22)

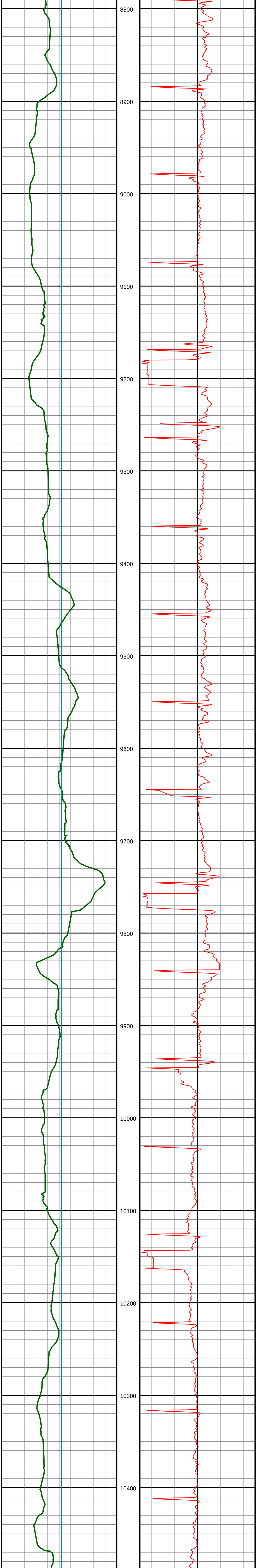
#86 MD(8353.00) Inc(88.8) Azm(269.6) TVD(6536.64)

#87 MD(8448.00) Inc(88.5) Azm(269.2) TVD(6538.92)

#88 MD(8544.00) Inc(88.4) Azm(269.0) TVD(6541.50)

#89 MD(8639.00) Inc(88.9) Azm(270.2) TVD(6543.73)

#90 MD(8734.00) Inc(89.2) Azm(269.9) TVD(6545.27)



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#93 MD(9020.00) Inc(89.9) Azm(268.5) TVD(6547.84)

#94 MD(9116.00) Inc(90.8) Azm(268.6) TVD(6547.26)

#95 MD(9211.00) Inc(90.8) Azm(272.2) TVD(6545.97)

#96 MD(9306.00) Inc(91.0) Azm(271.7) TVD(6544.46)

#97 MD(9402.00) Inc(91.3) Azm(271.9) TVD(6542.54)

#98 MD(9497.00) Inc(91.3) Azm(271.3) TVD(6540.43)

#99 MD(9593.00) Inc(91.1) Azm(271.3) TVD(6538.47)

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#103 MD(9975.00) Inc(90.0) Azm(271.4) TVD(6536.77)

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#105 MD(10166.00) Inc(88.9) Azm(271.0) TVD(6536.30)

#106 MD(10261.00) Inc(88.8) Azm(270.8) TVD(6538.17)

#107 MD(10357.00) Inc(89.5) Azm(269.9) TVD(6539.57)

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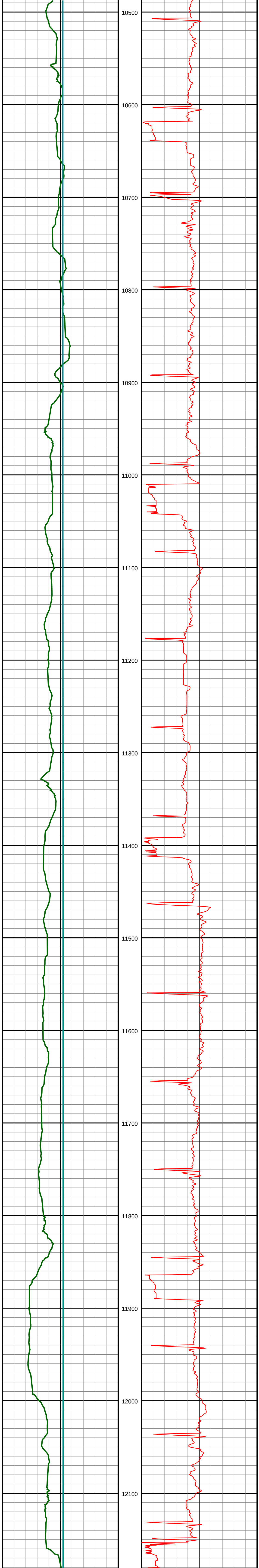

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#115 MD(11121.00) Inc(87.9) Azm(270.6) TVD(6546.31)

#116 MD(11217.00) Inc(87.6) Azm(269.8) TVD(6550.04)

#117 MD(11313.00) Inc(87.2) Azm(269.4) TVD(6554.37)

#118 MD(11408.00) Inc(88.4) Azm(269.9) TVD(6557.98)

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#123 MD(11885.00) Inc(90.0) Azm(270.1) TVD(6568.59)

#124 MD(11981.00) Inc(91.4) Azm(270.5) TVD(6567.41)

#125 MD(12076.00) Inc(91.7) Azm(270.9) TVD(6564.84)

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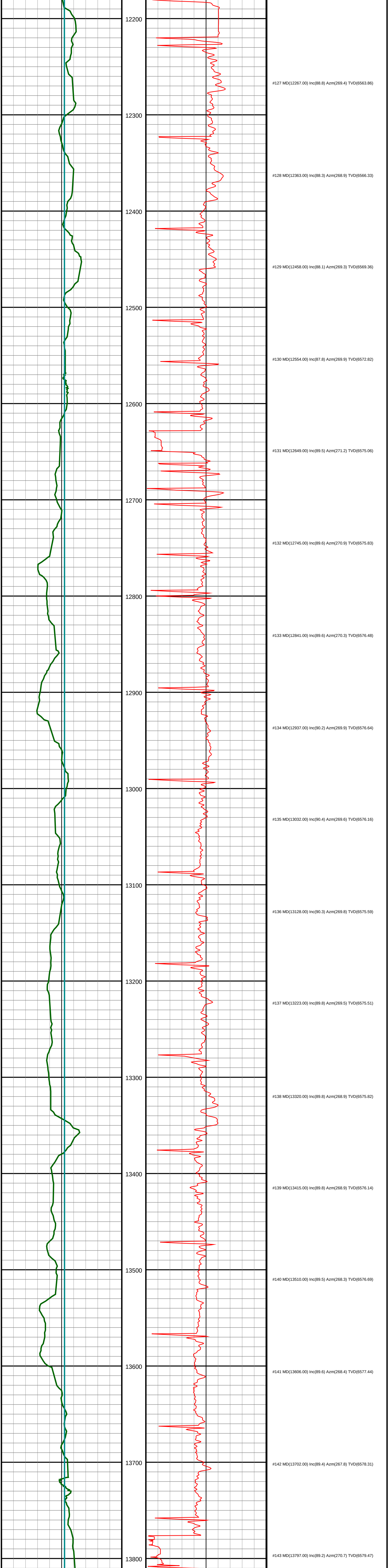

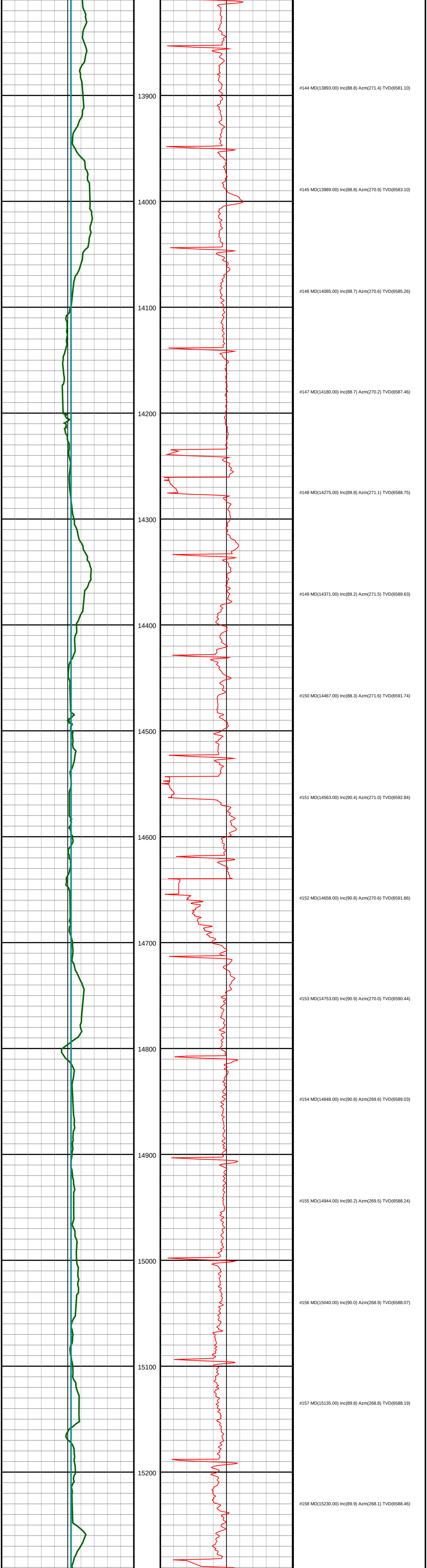

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#148 MD(14275.00) Inc(89.8) Azm(271.1) TVD(6588.75)

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#153 MD(14753.00) Inc(90.9) Azm(270.0) TVD(6590.44)

#154 MD(14848.00) Inc(90.8) Azm(269.6) TVD(6589.03)

#155 MD(14944.00) Inc(90.2) Azm(269.5) TVD(6588.24)

#156 MD(15040.00) Inc(90.0) Azm(268.9) TVD(6588.07)

#157 MD(15135.00) Inc(89.8) Azm(268.8) TVD(6588.19)

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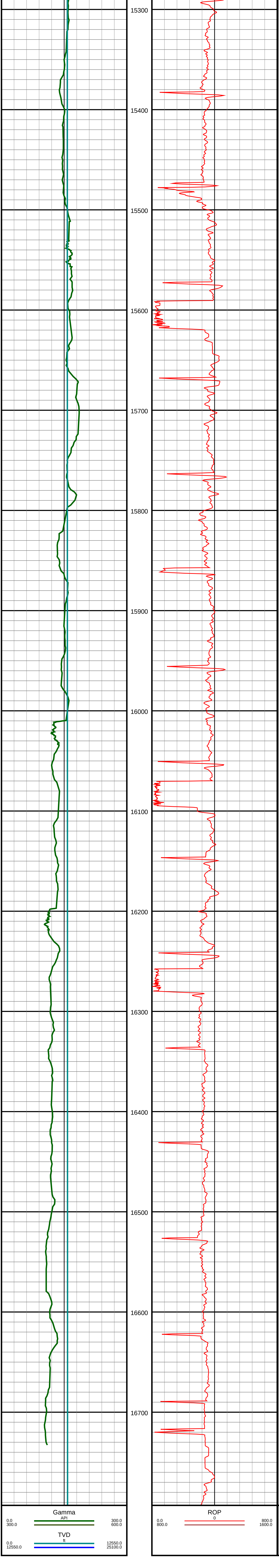

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#162 MD(15611.00) Inc(89.0) Azm(269.3) TVD(6591.32)

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#164 MD(15802.00) Inc(89.3) Azm(268.8) TVD(6594.23)

#165 MD(15992.00) Inc(88.5) Azm(268.4) TVD(6597.86)

#166 MD(16088.00) Inc(88.2) Azm(271.4) TVD(6600.62)

#167 MD(16184.00) Inc(87.6) Azm(271.1) TVD(6604.13)

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