

Company: Noble Energy Inc
Well Name: Oscar Y10-77HN

API: 05-123-38198

Rig Id: Precision 828

State: Colorado

County/Parish: Weld

Country: USA

Survey Company: Ensign Directional

Job number: 207-P828-29

Company Man 1 Gary Stapleton

Directional Driller 1 Tyler Batchelder

Directional Driller 2 Matt Mason

MWD 1 Nick Jones

MWD 2 Damien Hunter

Log measurements: Gamma

Depth measured from: KB

Maximum temperature:

Depth Date
Start: 1168 ft 4/20/14
End: 14600 ft 4/28/14

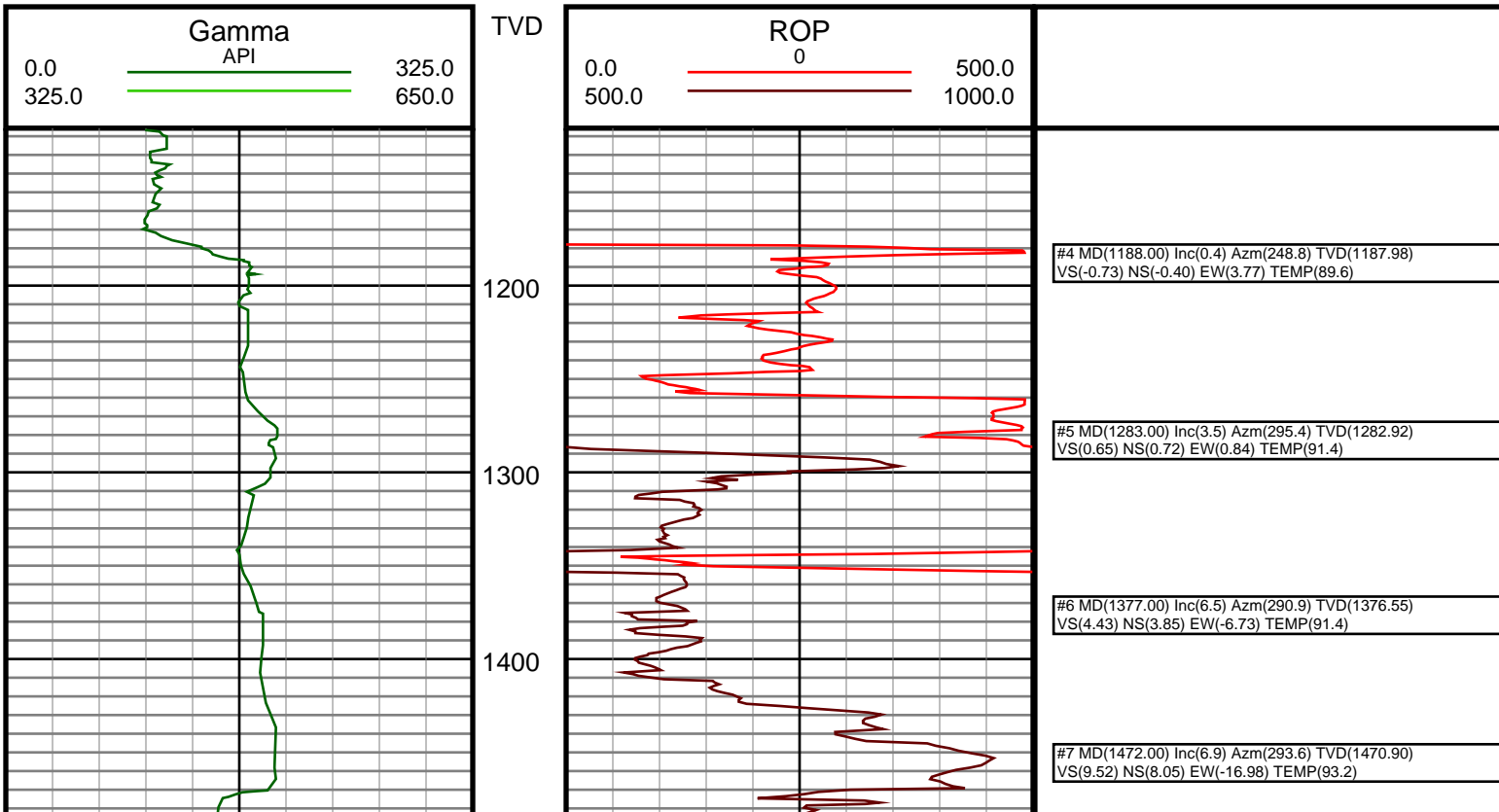
Casing Depth Size
Surface: 1168 9.625
Intermediate: 7343 7

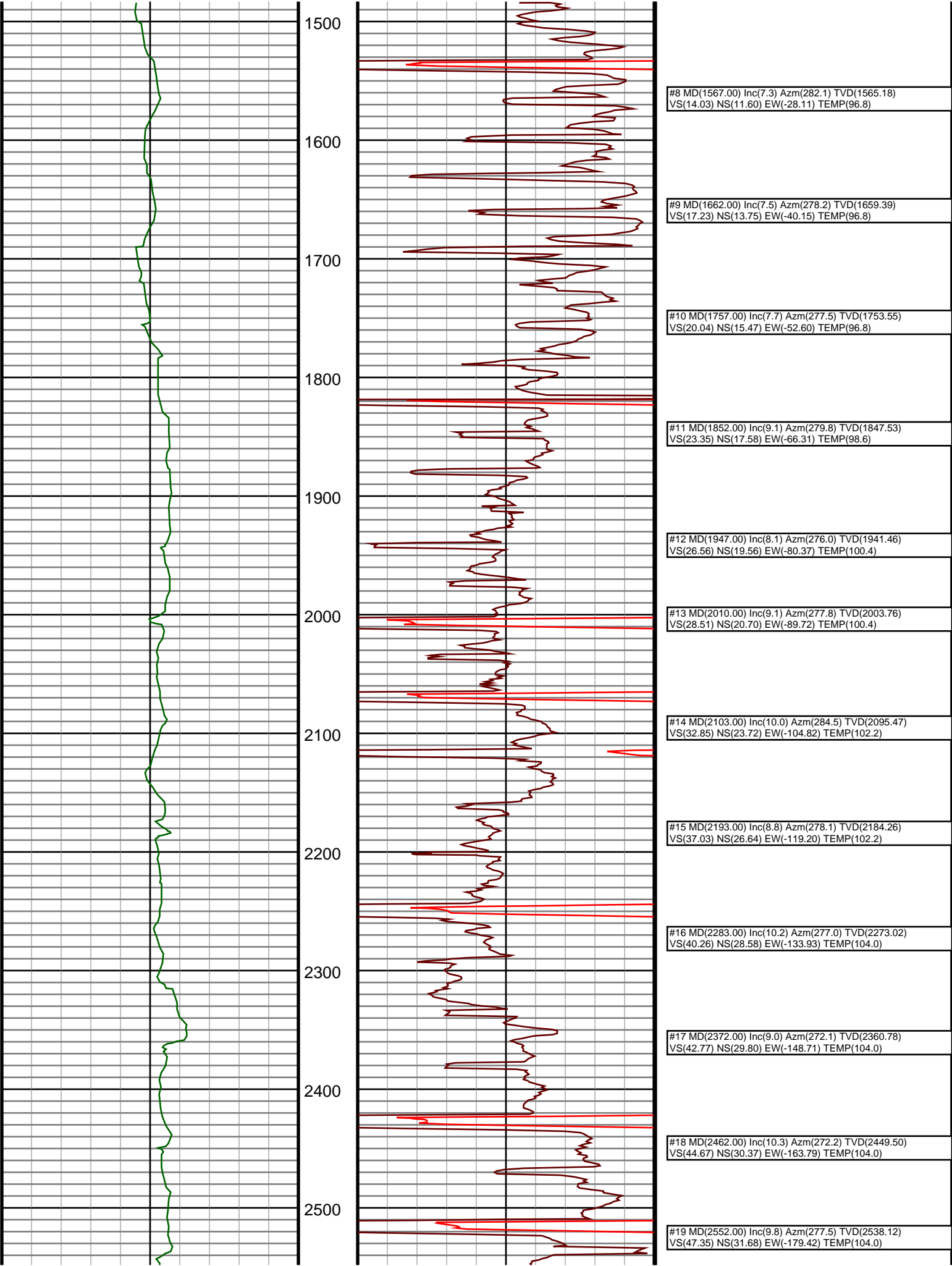
Mud Type: Water Based
Density:
Viscosity:
Rm: Rmf: Rmc:

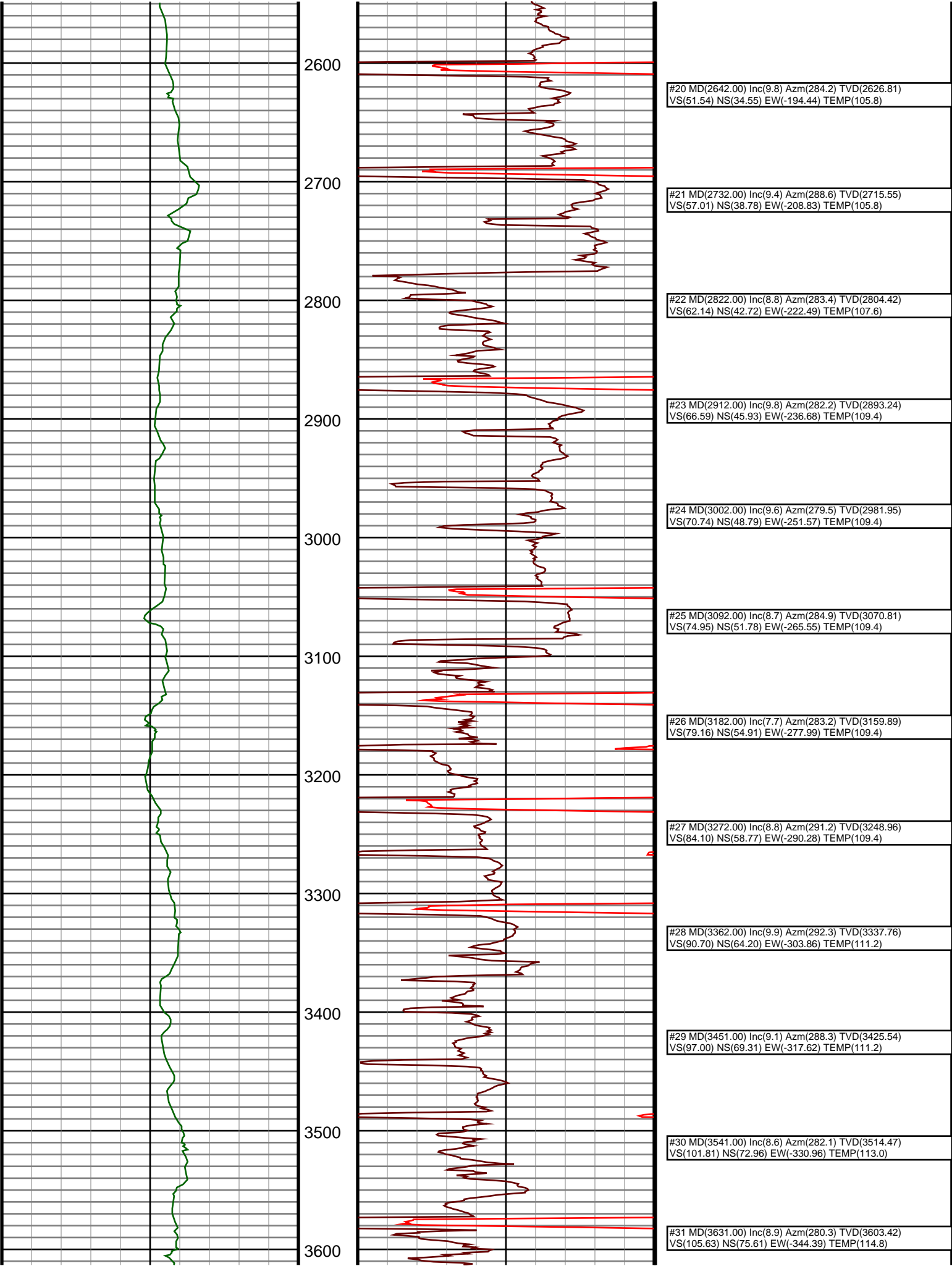
Elevations
KB: 4946
GL: 4930
DF: 4946

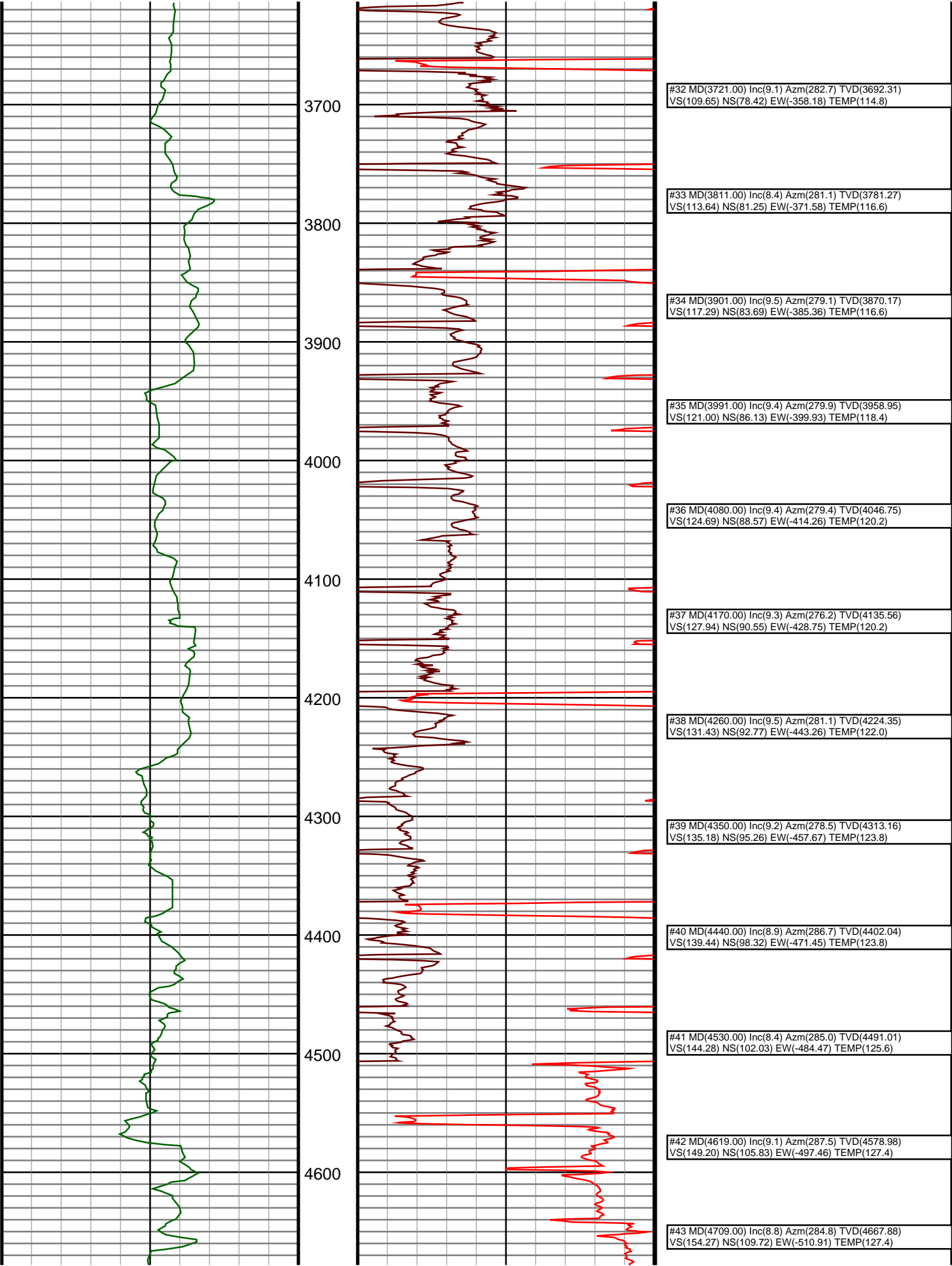
Run	Bit Size	Offsets		Start	Depths		Dates	
		Gamma	Survey		End	Start	End	
1	8 3/4	62.31	57.31	1168	7353	4/20/14	4/22/14	
2	6 1/8	65.59	60.59	7353		4/23/14		
3								
4								
5								
6								
7								
8								
9								
10								

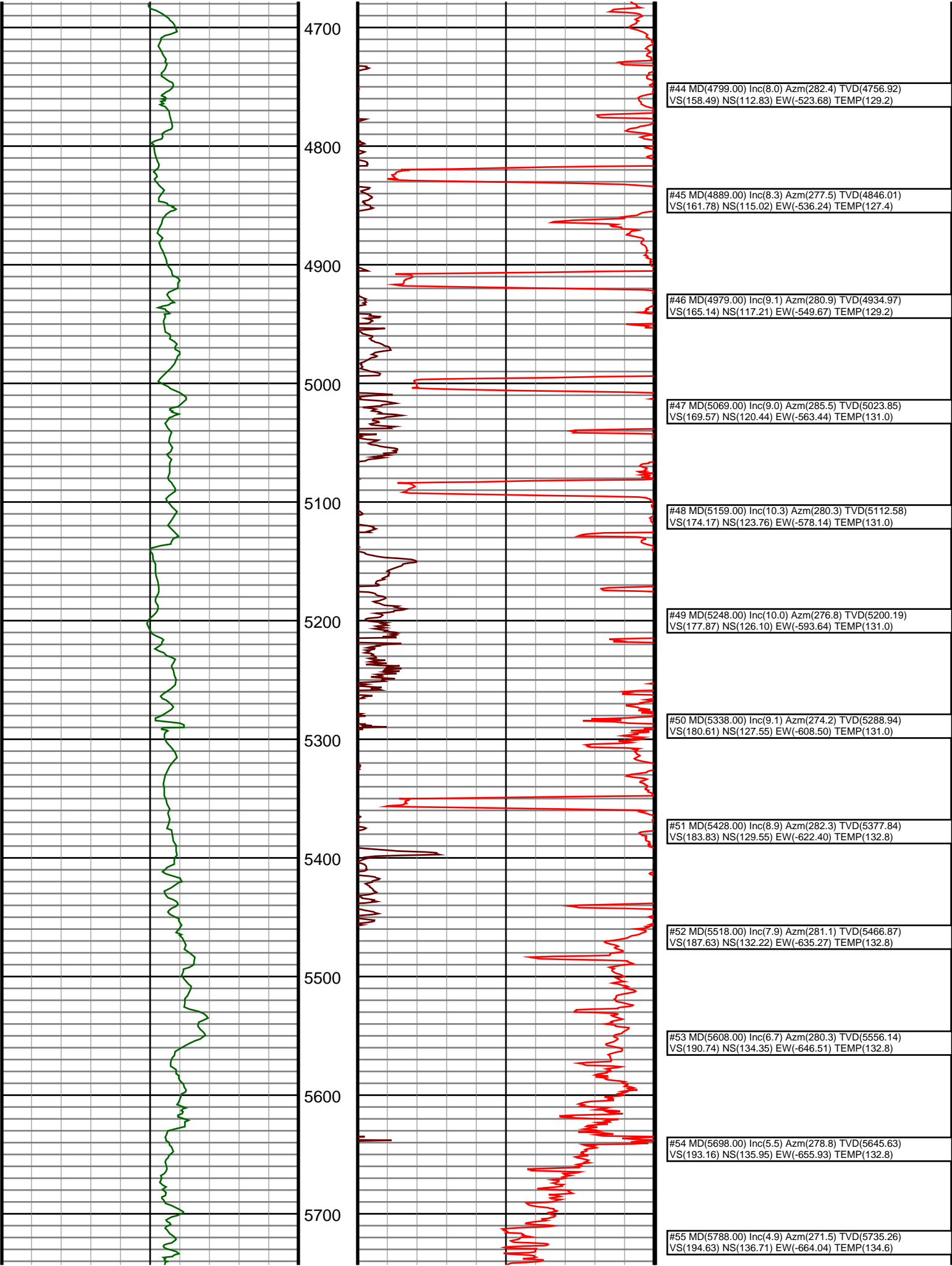
Ensign Directional uses its best efforts to provide its customers with accurate information and interpretations in conjunction with services performed but will not be held liable or responsible for the accuracy of such information or interpretation.

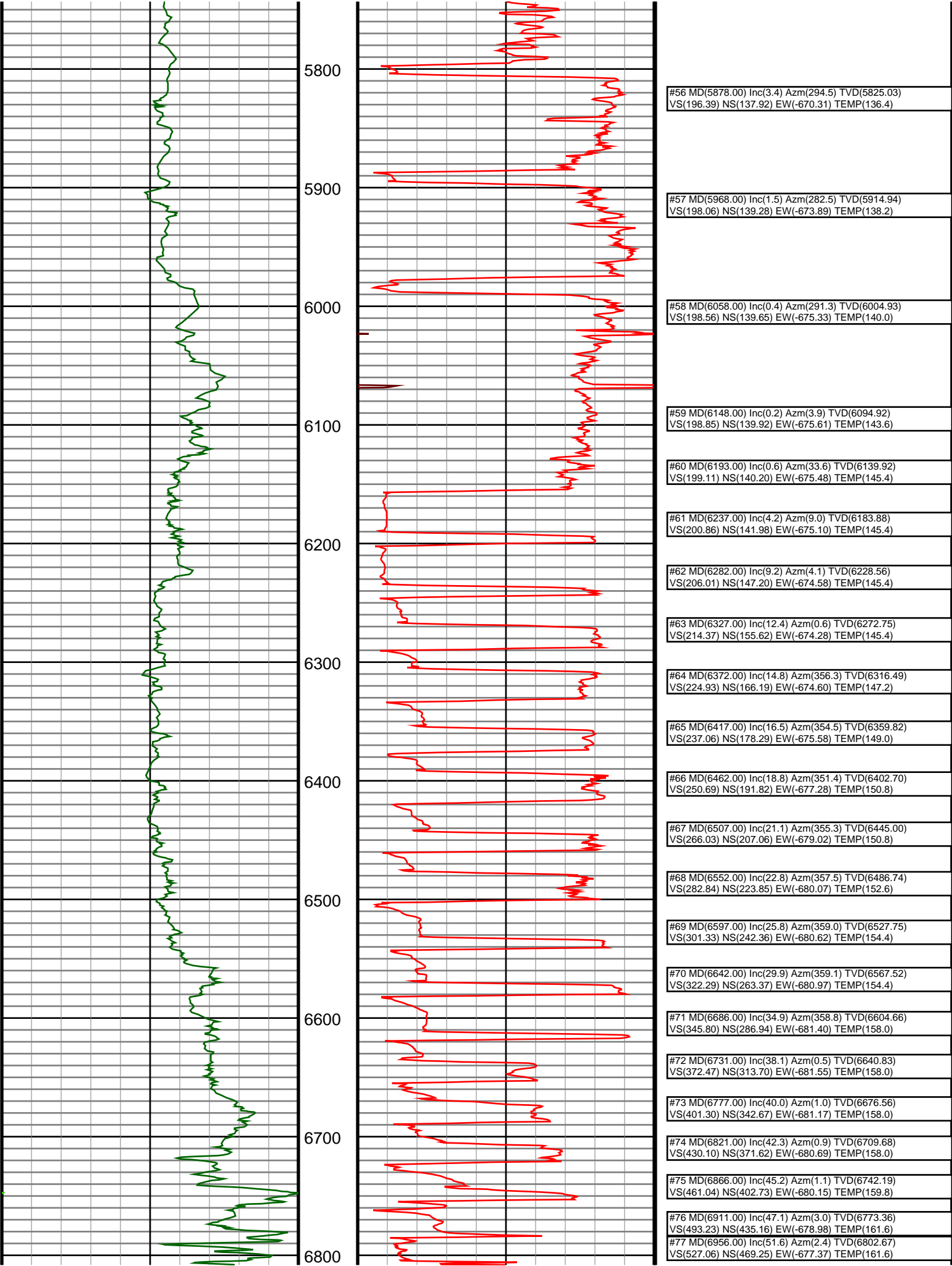


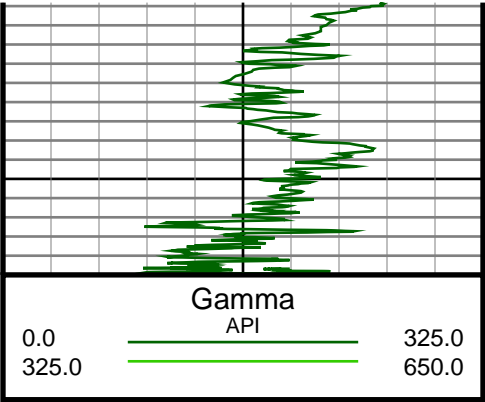




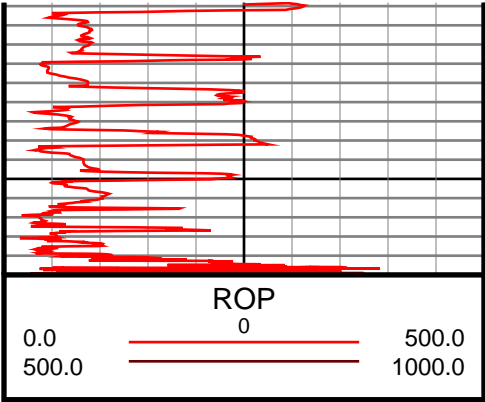








6900



#78 MD(7001.00) Inc(55.7) Azm(0.6) TVD(6829.34) VS(563.05) NS(505.47) EW(-676.44) TEMP(161.6)
#79 MD(7046.00) Inc(59.6) Azm(358.9) TVD(6853.41) VS(600.93) NS(543.48) EW(-676.62) TEMP(161.6)
#80 MD(7091.00) Inc(62.5) Azm(358.1) TVD(6875.19) VS(640.23) NS(582.84) EW(-677.65) TEMP(163.4)
#82 MD(7181.00) Inc(71.1) Azm(356.1) TVD(6910.98) VS(722.66) NS(665.20) EW(-682.21) TEMP(161.6)
#92 MD(7928.00) Inc(91.7) Azm(359.0) TVD(6947.93) VS(1464.45) NS(1408.19) EW(-701.21) TEMP(183.2)