



Precision Directional Services, Inc.

27610 Commerce Oaks Drive
Oak Ridge North, TX 77385
713-435-6250

Hemberger 1-25-8-60

Scale 5":100' - MD

6/15/2014 1:17 AM

Oper. Company: Carrizo Oil & Gas, Inc.

Well: Hemberger 1-25-8-60

Field: Niobrara CONZ'83

Rig: Xtreme 19

Well ID: 05-123-39444-00

Job Number: DL2263

State: Colorado

County: Weld

Country: USA

Location: Briggsdale

Start Date: 06/10/2014 18:00:00

End Date: 06/15/2014 01:09:00

Latitude: 40.627110

Longitude: -104.046360

Elev KB: 4925'

Elev DF: 17'

Elev GL: 4909'

Operator 1: Kody Armajo

Operator 2: Paul Brown

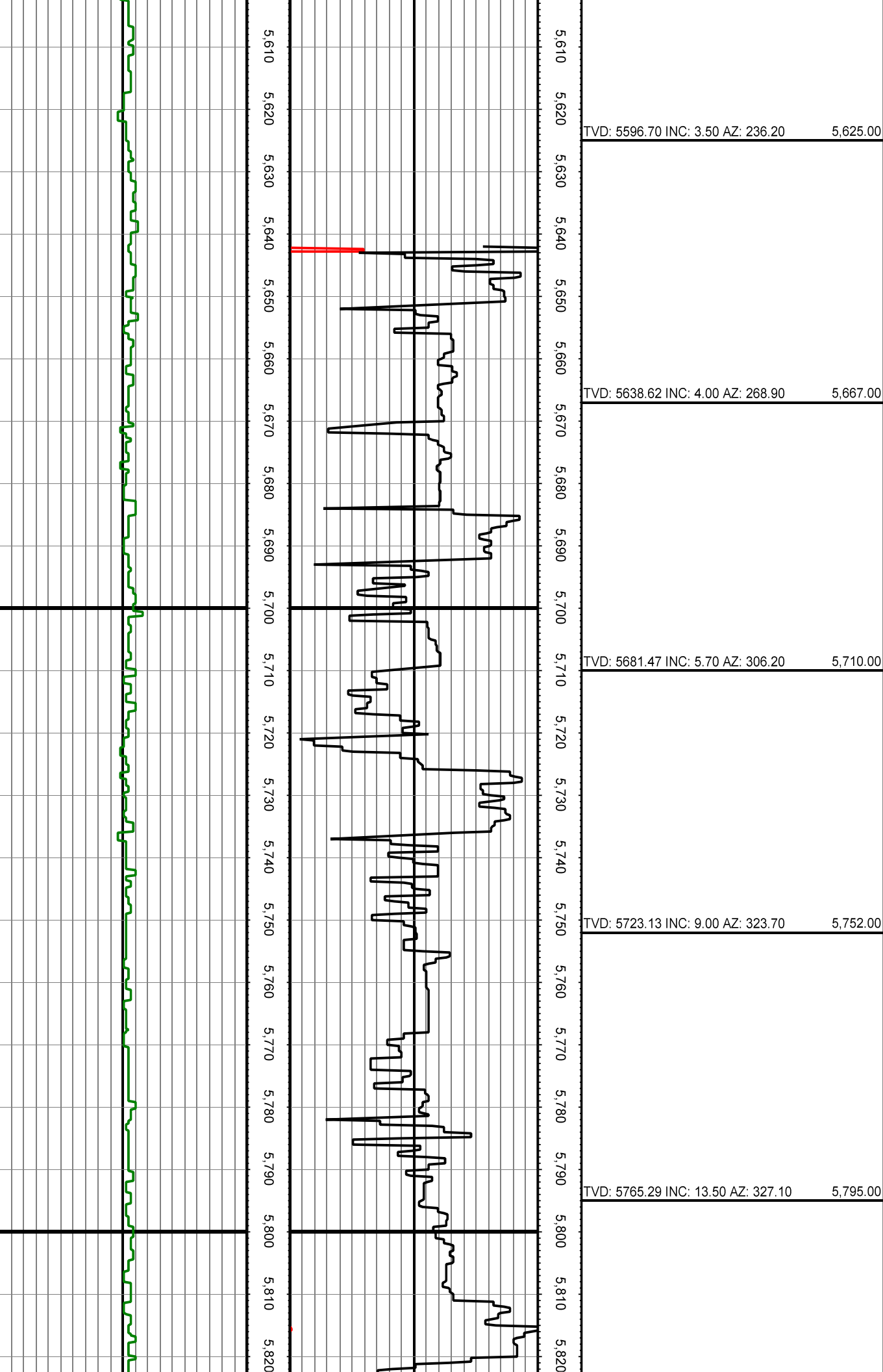
Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	G1713	G1713			
Bit Size	8 3/4	6 1/8			
Cal Factor	3.02	1.56			
Gamma Offset	42.00	42.00			
Resistivity Offset	0.00	0.00			
Start Depth	5647.00	6441.00			
StartDate	6/10/2014	6/12/2014			
StartTime	1:00 PM	12:00 PM			
EndDepth	6441.00	10591.00			
EndDate	6/11/2014	6/15/2014			
EndTime	4:00 PM	1:00 AM			
Mud Type	WBM	WBM			
Mud Weight	9.6	9.7 - 9.9			
Funnel Viscosity	39 - 40	41			
Plastic Viscosity	14 - 15	13 - 14			
Yield Point	11 - 12	12 - 15			
Gel Strength	5 - 7	7 - 13			
Solids Content	6.3	6.6 - 6.9			
Sand Content	0.5	0.5			
Mud Alkalinity	0.2 - 0.3	0.3 - 1.2			
Filtrate Alkalinity	0.1 - 0.8	1 - 2.1			
Chlorides	800	900			
Mud RM	N/A	N/A			
Mud RMF	N/A	N/A			
Mud RMC	N/A	N/A			
Mud RM at BHT	N/A	N/A			

Hole Data			Casing Data		
Size	From	To	Size	From	To
12 1/4	0.00	1449.00	9 5/8	0.00	1449.00
8 3/4	1449.00	6421.00	7	1449.00	6421.00
6 1/8	6421.00	10591.00	4.5	6421.00	10591.00

All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost damages or expenses incurred or sustained by anyone resulting from an interpretation made by any of our officers, agents, or employees.

0.00 GR(API) 150.00 MD 0.00 ROP(FT/HR) 150.00 MD Surveys (TVD/INC/AZ)
150.00 2 300.00 FT 150.00 2 300.00 FT





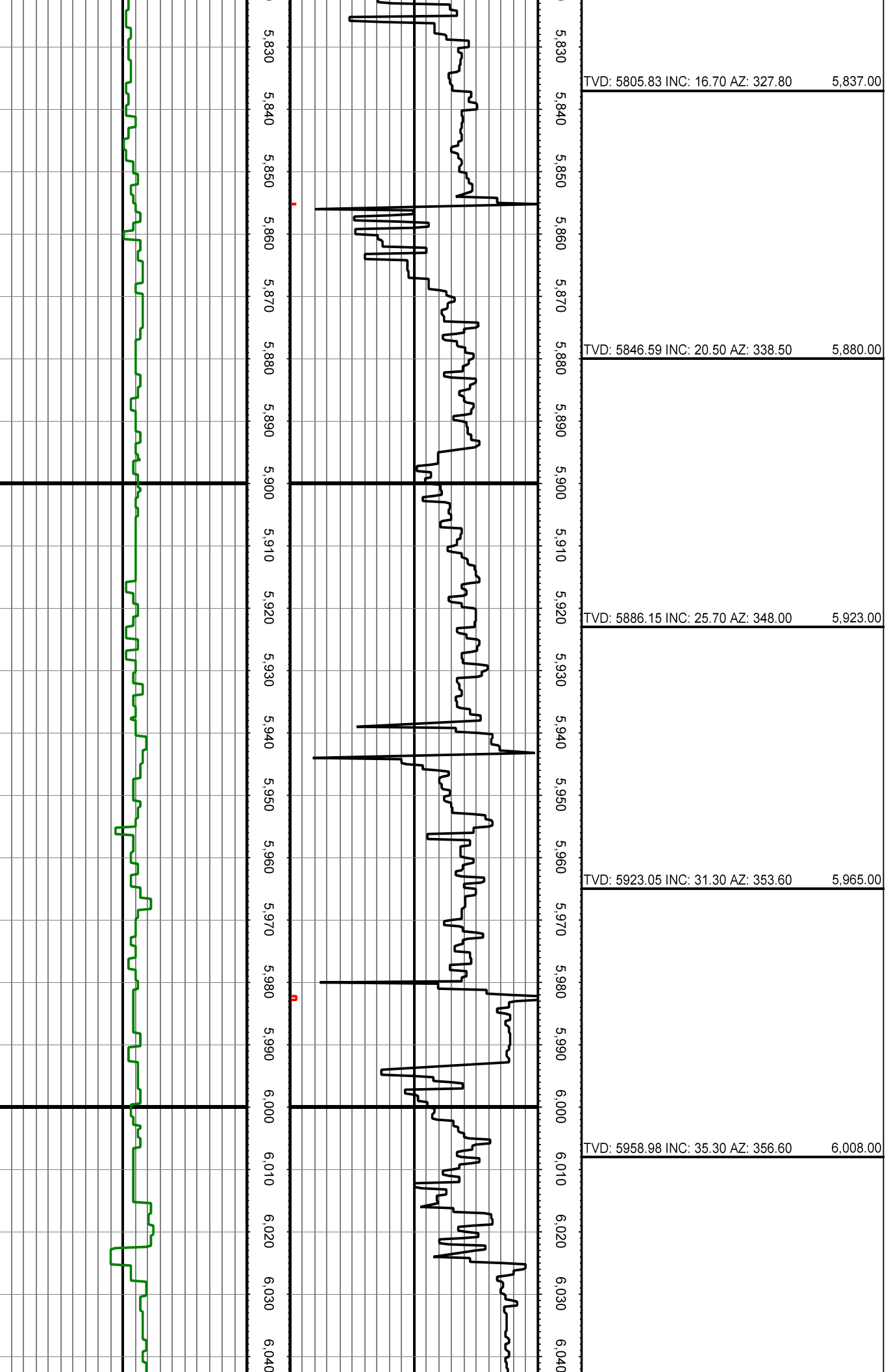
TVD: 5596.70 INC: 3.50 AZ: 236.20 5,625.00

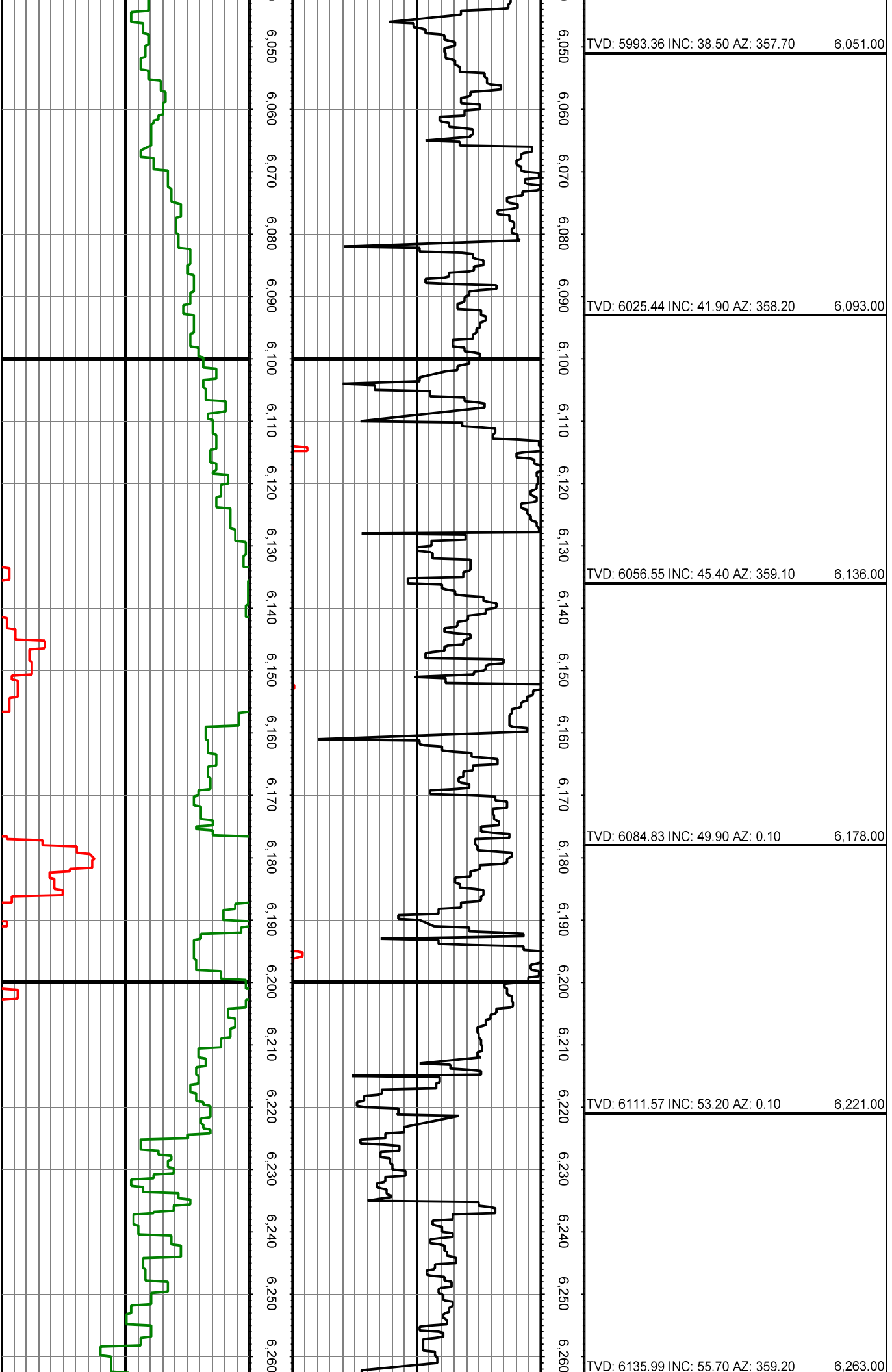
TVD: 5638.62 INC: 4.00 AZ: 268.90 5,667.00

TVD: 5681.47 INC: 5.70 AZ: 306.20 5,710.00

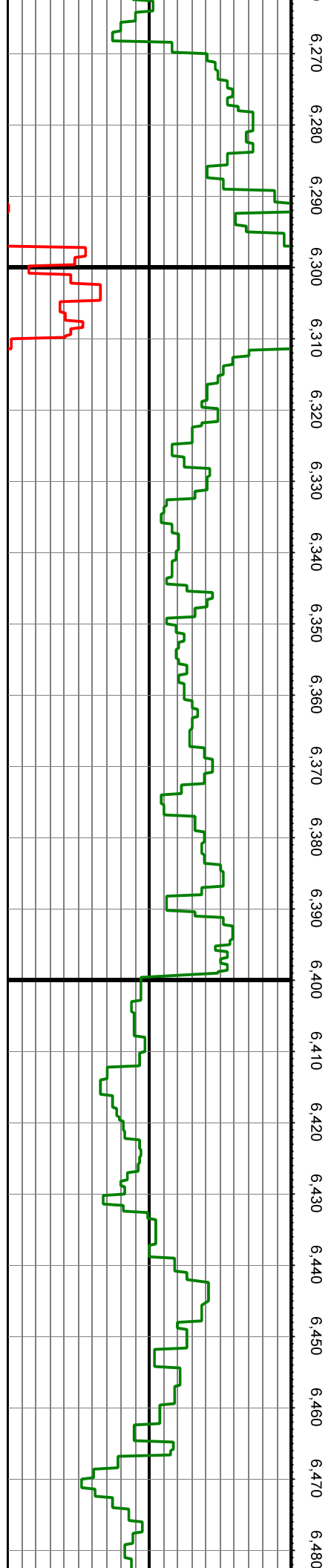
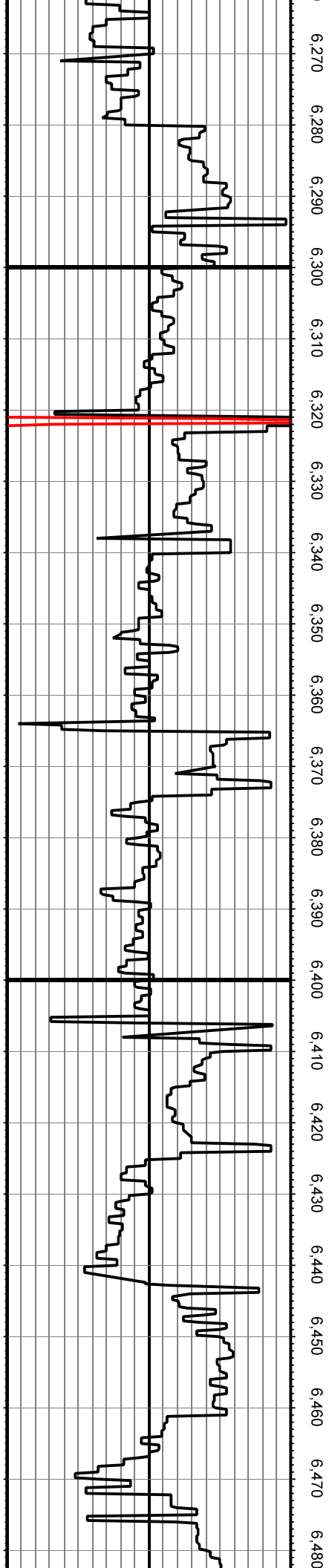
TVD: 5723.13 INC: 9.00 AZ: 323.70 5,752.00

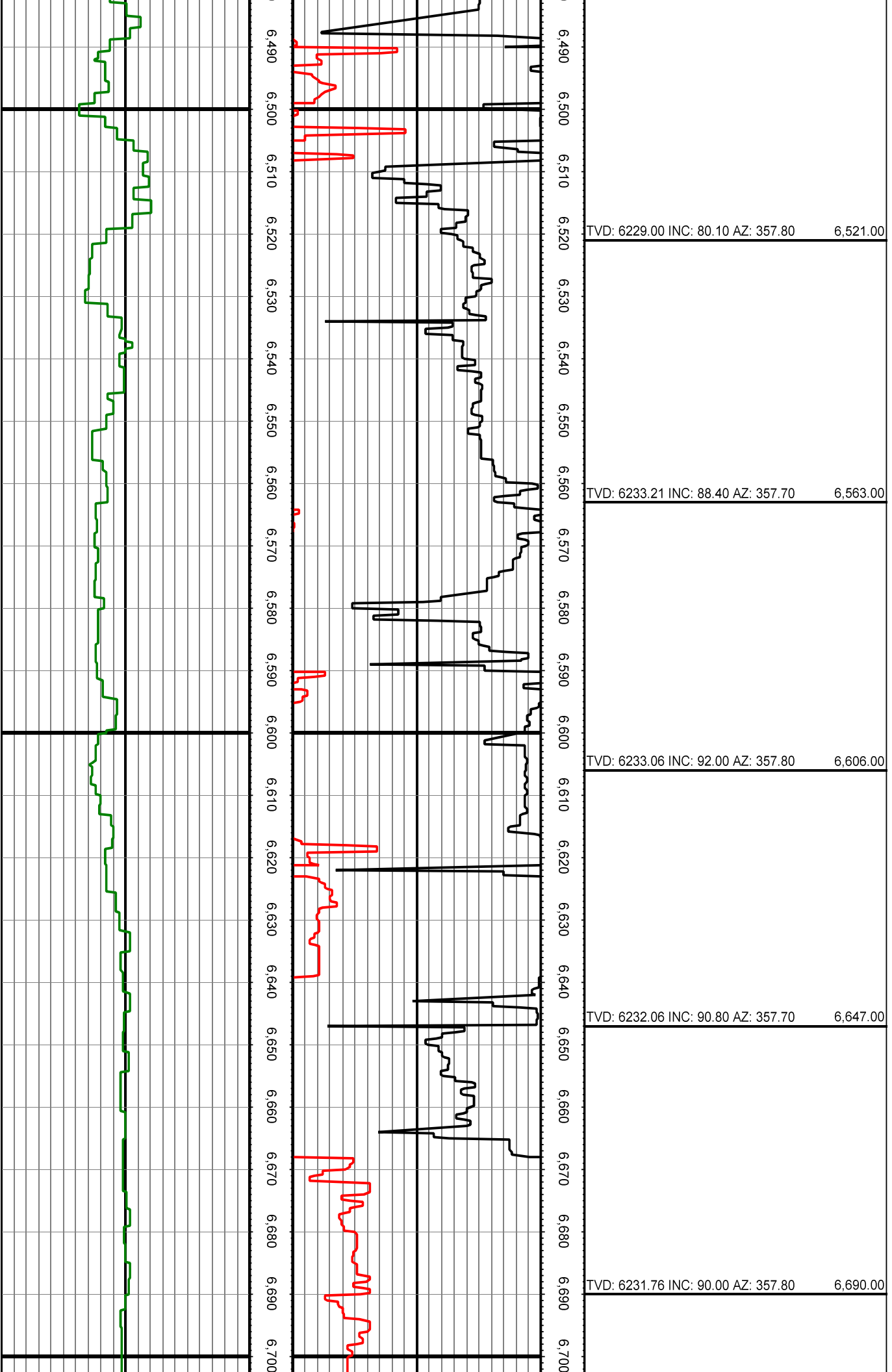
TVD: 5765.29 INC: 13.50 AZ: 327.10 5,795.00

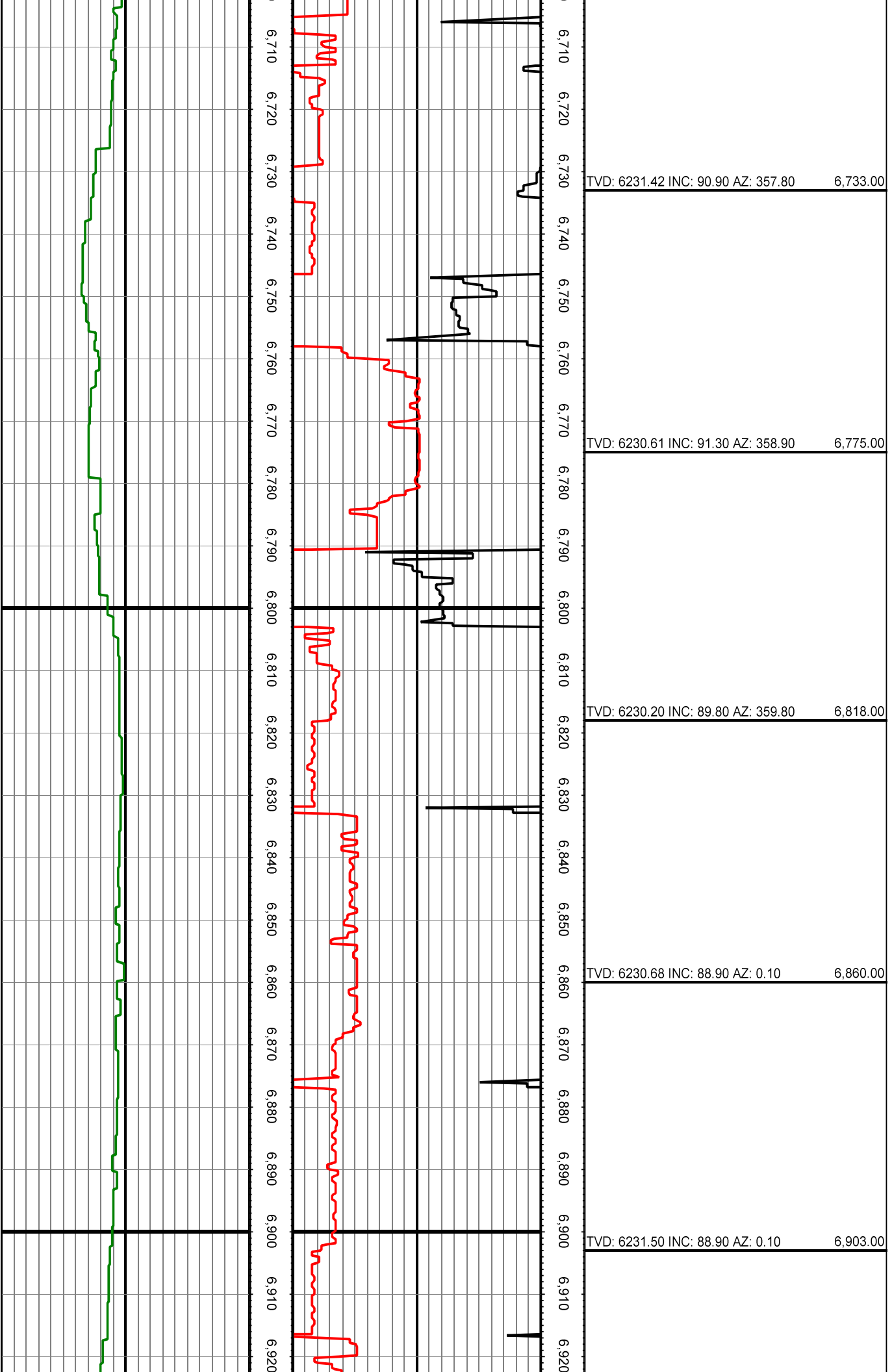


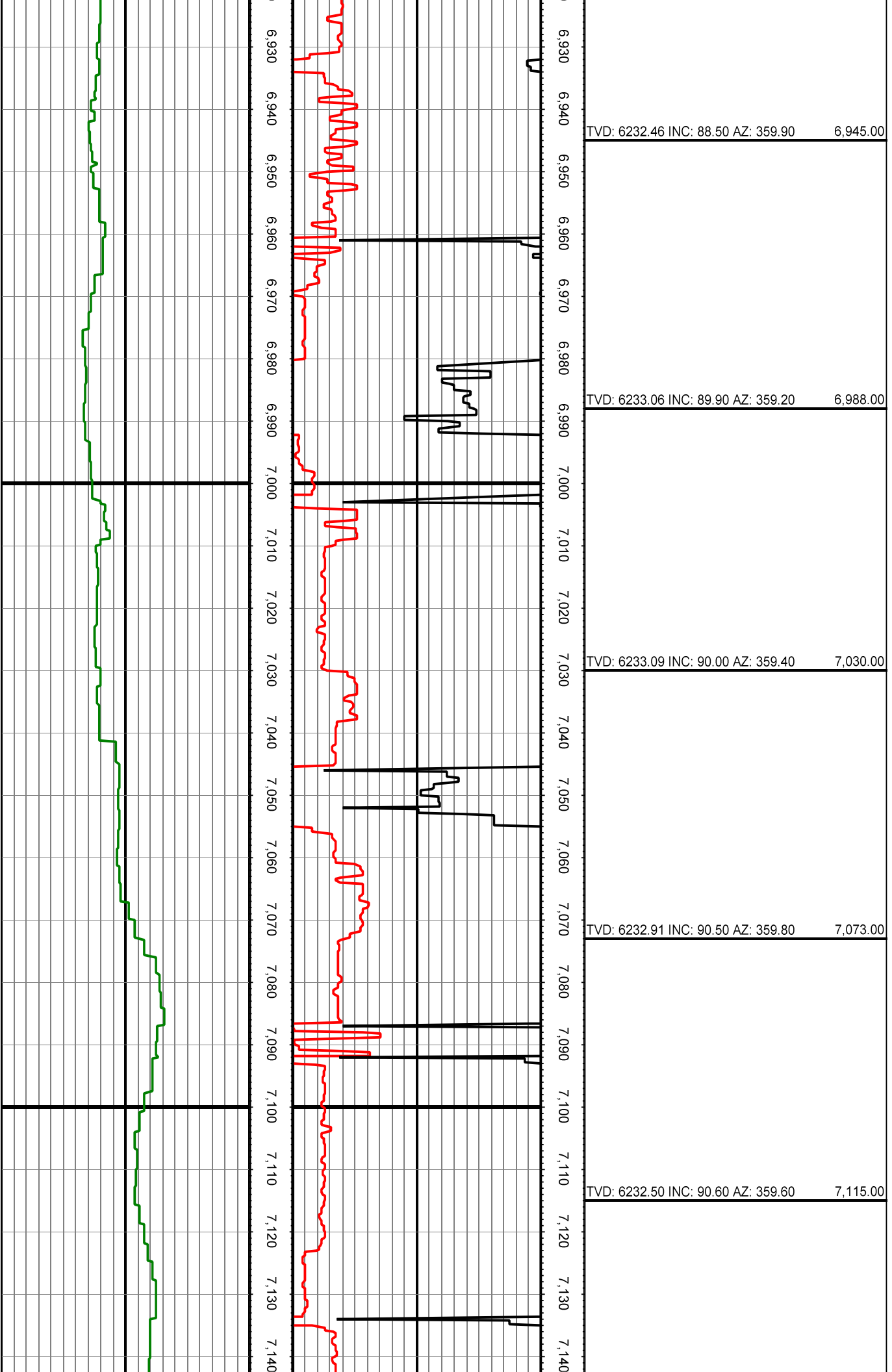


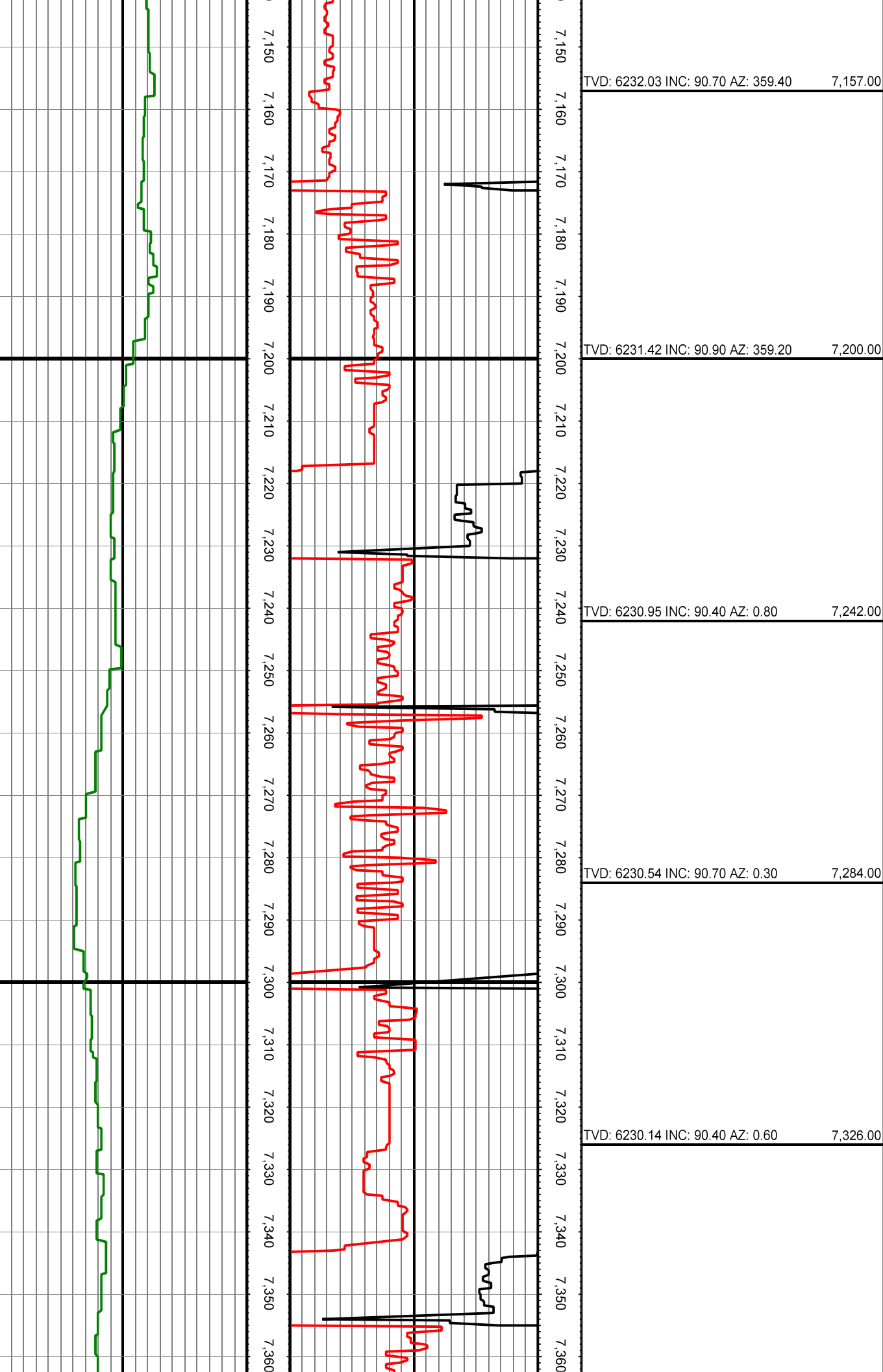
TVD: 6158.86 INC: 60.00 AZ: 358.206,306.00			
TVD: 6178.88 INC: 64.50 AZ: 358.006,349.00			
TVD: 6192.30 INC: 69.00 AZ: 357.706,383.00			
TVD: 6219.64 INC: 76.40 AZ: 358.406,475.00			

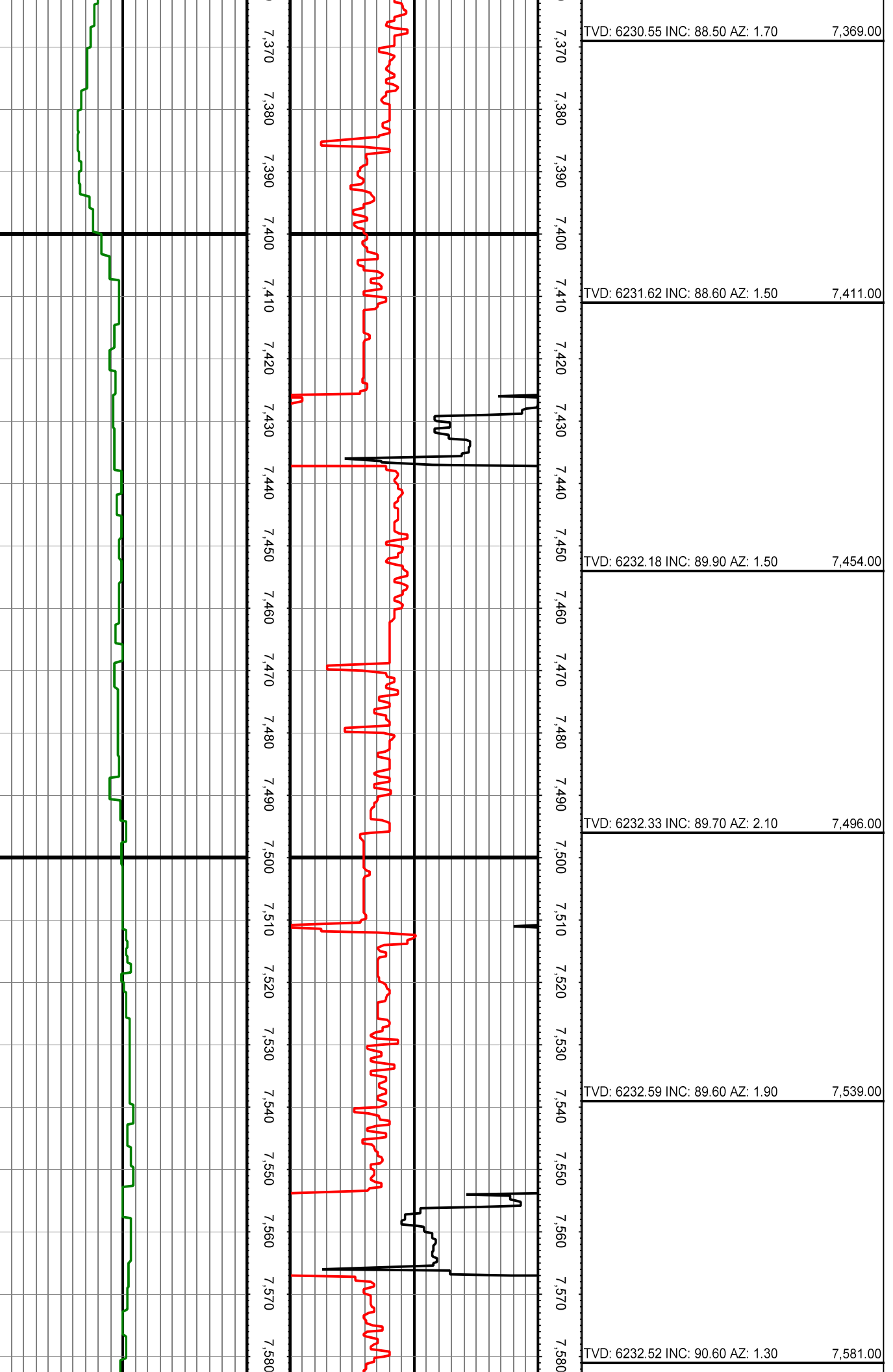


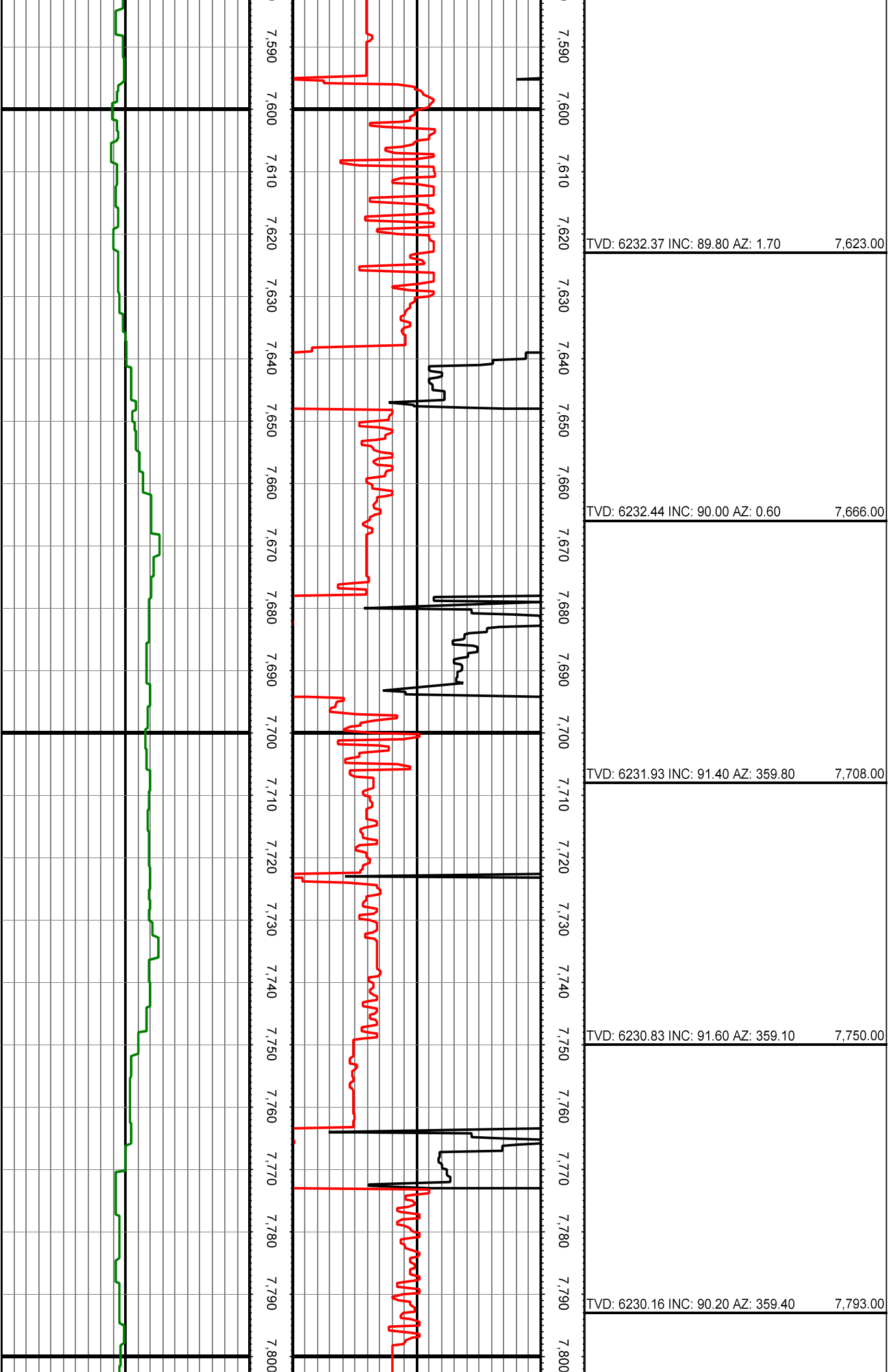


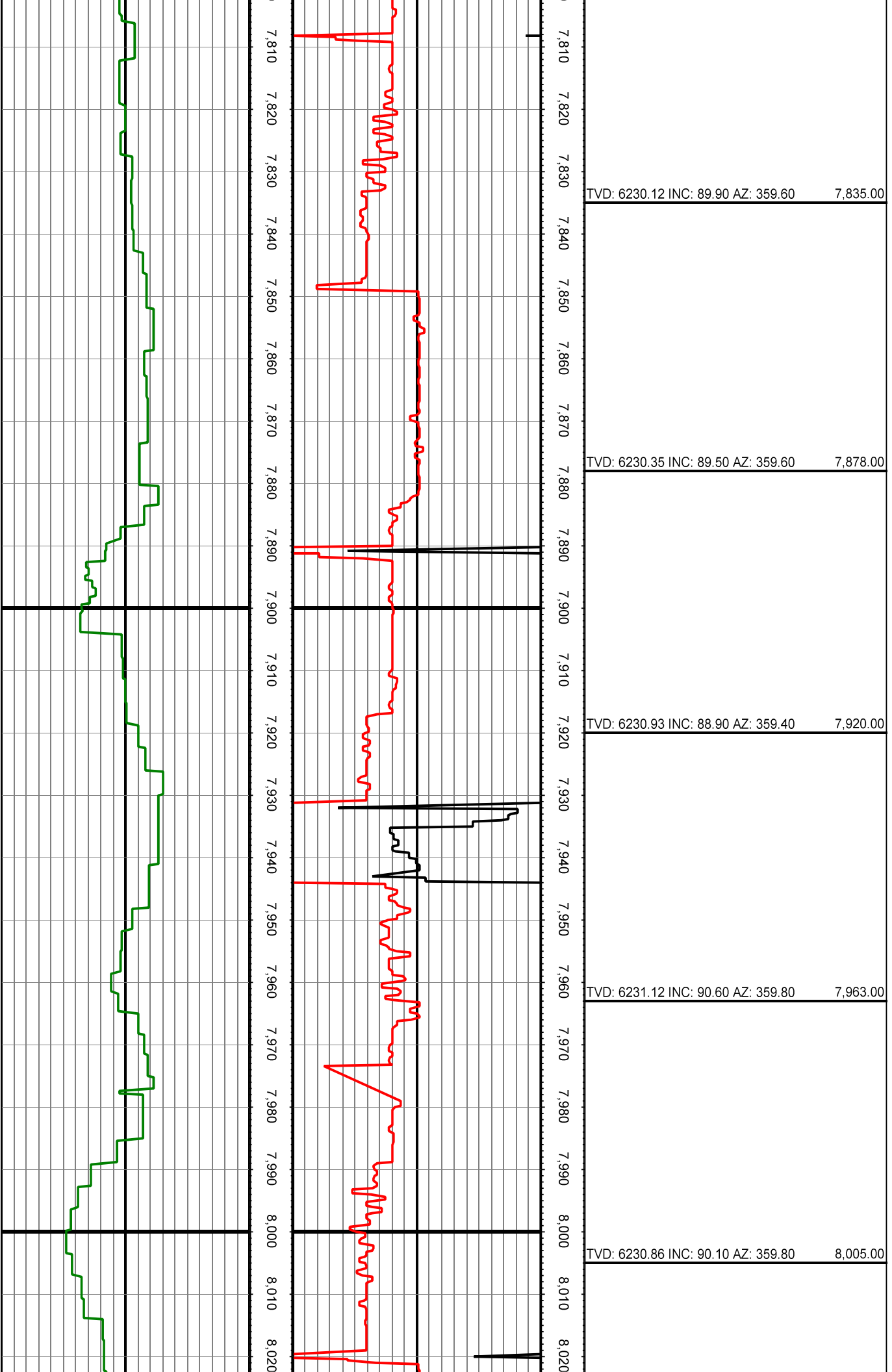


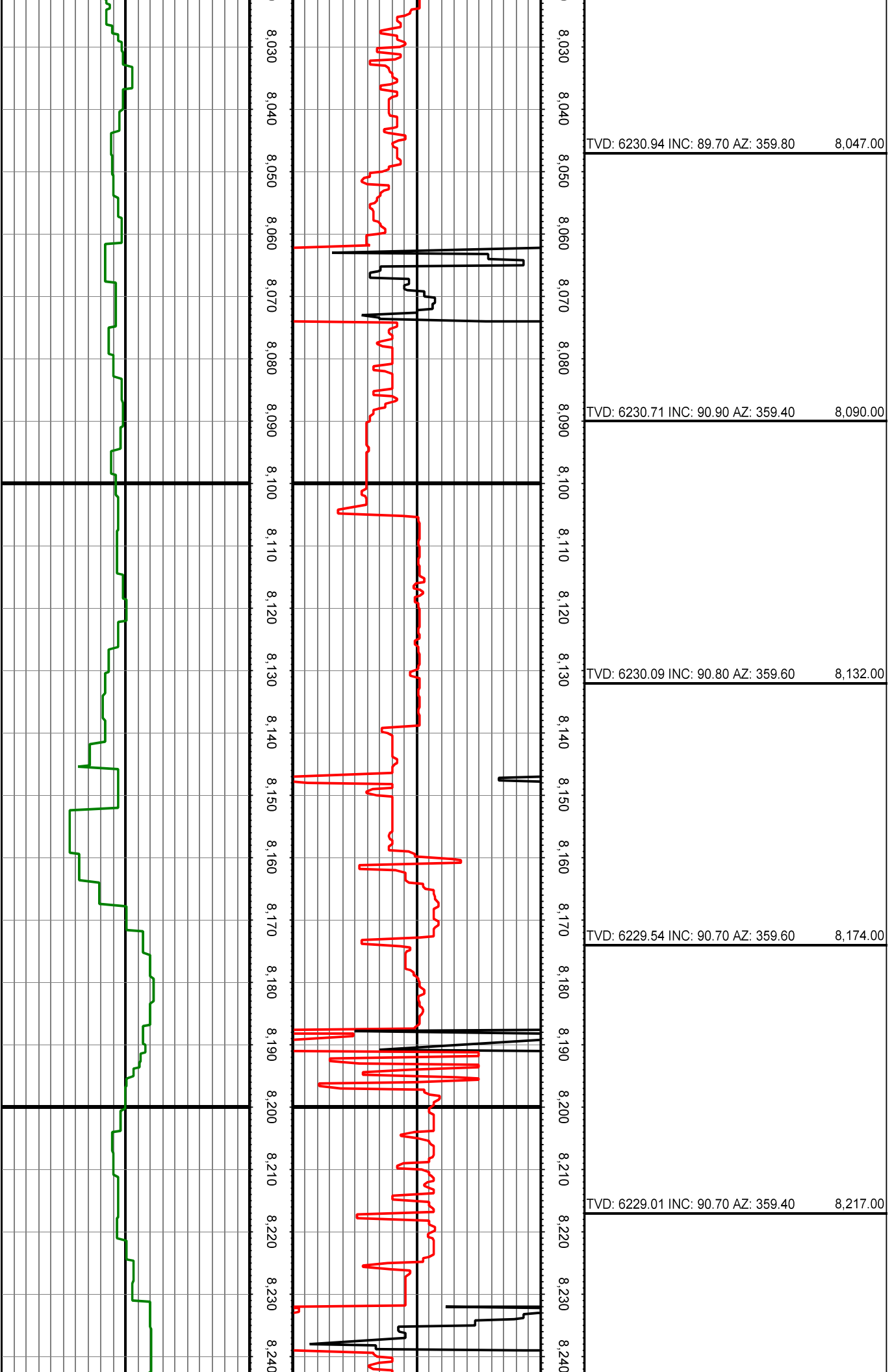


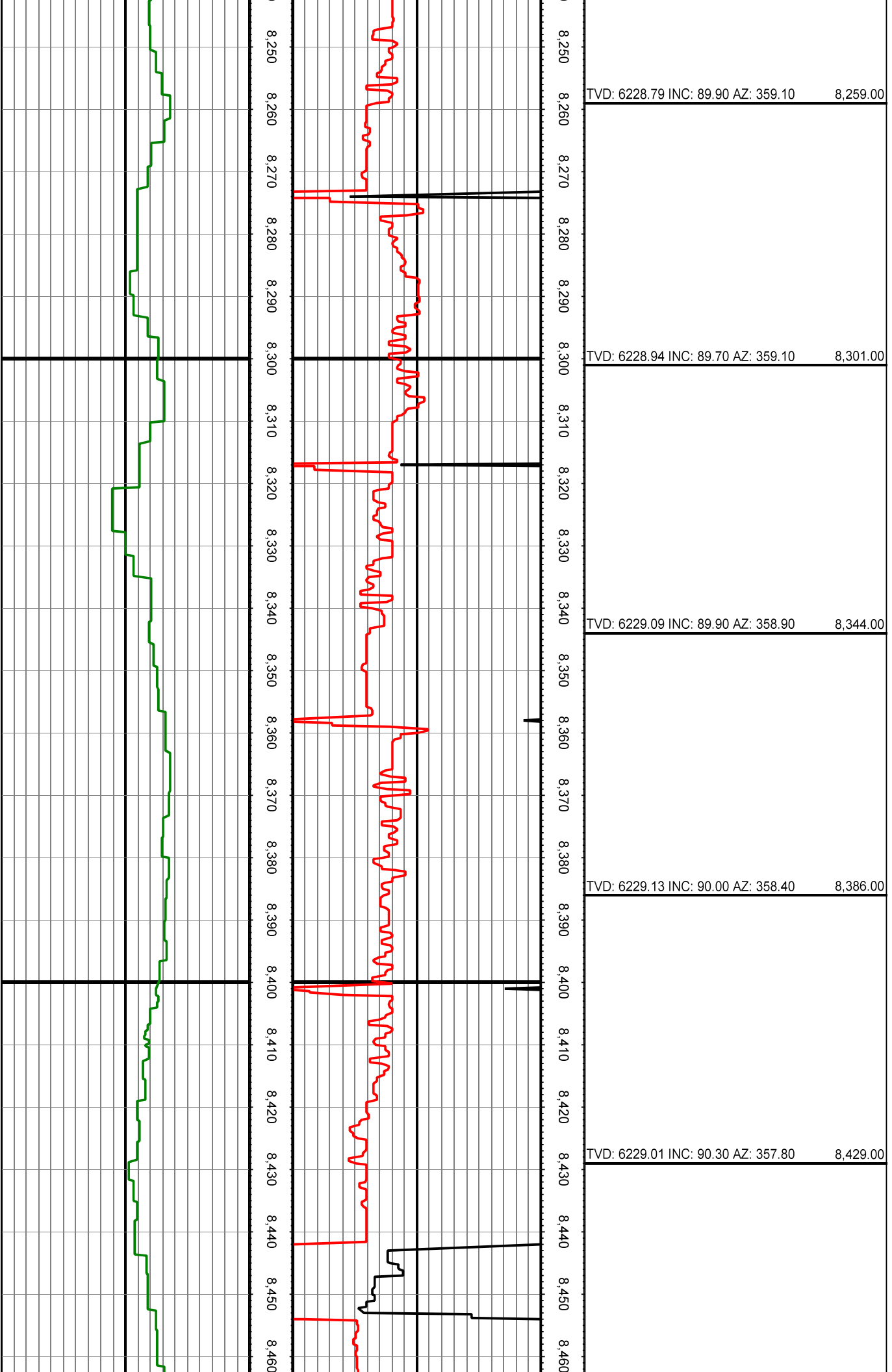


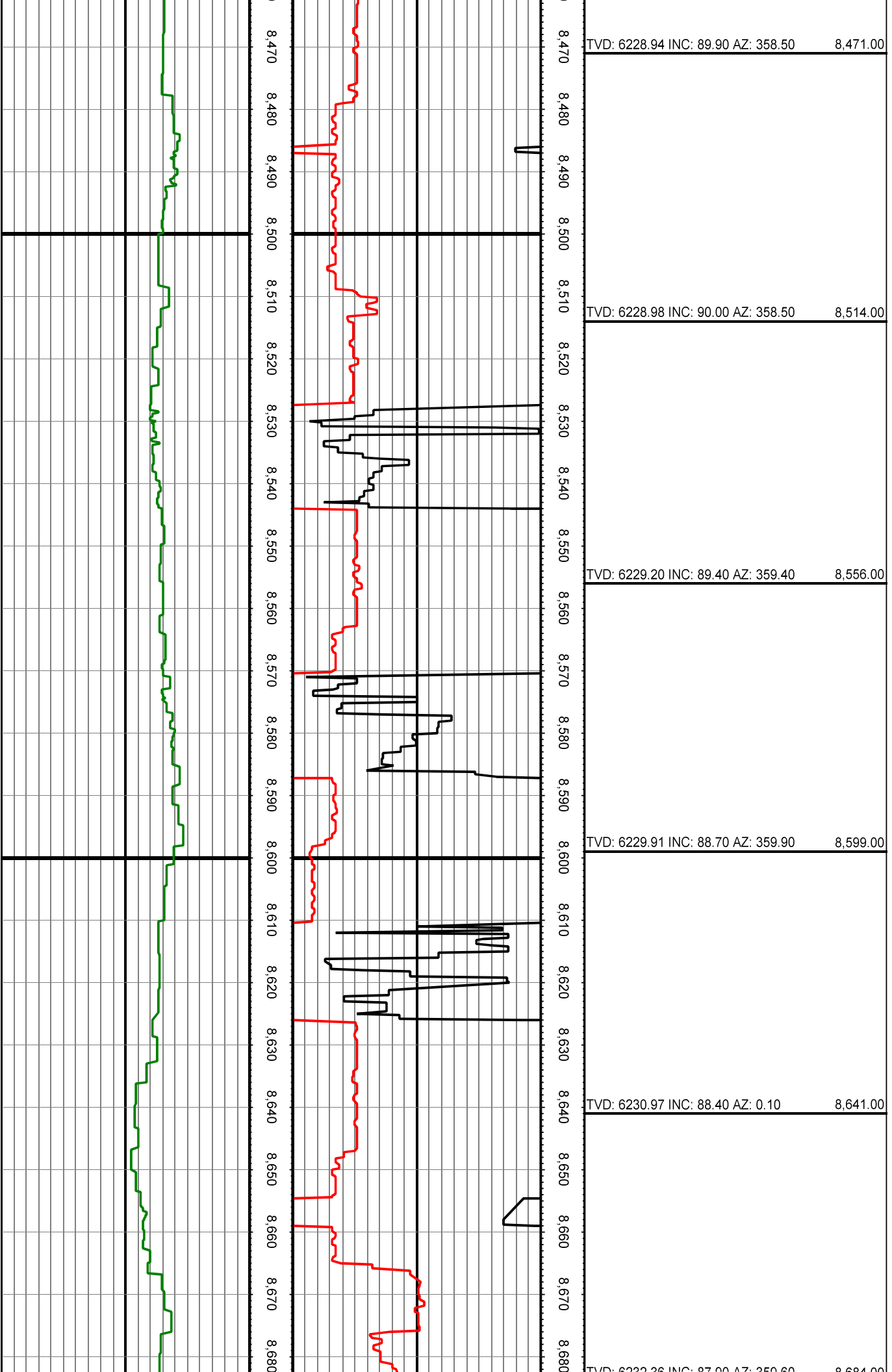












TVD: 6232.36 INC: 87.90 AZ: 359.80			8,684.00
TVD: 6233.94 INC: 87.80 AZ: 359.80			8,726.00
TVD: 6235.29 INC: 88.60 AZ: 1.00			8,769.00
TVD: 6236.00 INC: 89.50 AZ: 4.20			8,812.00
TVD: 6236.44 INC: 89.30 AZ: 4.00			8,854.00
TVD: 6236.84 INC: 89.60 AZ: 2.10			8,896.00

