



Precision Directional Services, Inc.

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

Bringelson Ranch 12-20-9-58

Scale 2":100' - MD

4/10/2014 7:38 AM

Oper. Company: Carrizo Oil & Gas, Inc.
Well: Bringelson Ranch 12-20-9-58
Field: Niobrara CONZ'83
Rig: Xtreme 19
Well ID: 05-123-39062-00
Job Number: DL2140
Notes:

State: Colorado
County: Weld
Country: USA

Start Date: 04/05/2014 12:00:00
End Date: 04/10/2014 07:30:00

Latitude: 40.7347611111111
Longitude: -103.895727777777

Elev KB: 17'
Elev DF: 4936'
Elev GL: 4919'

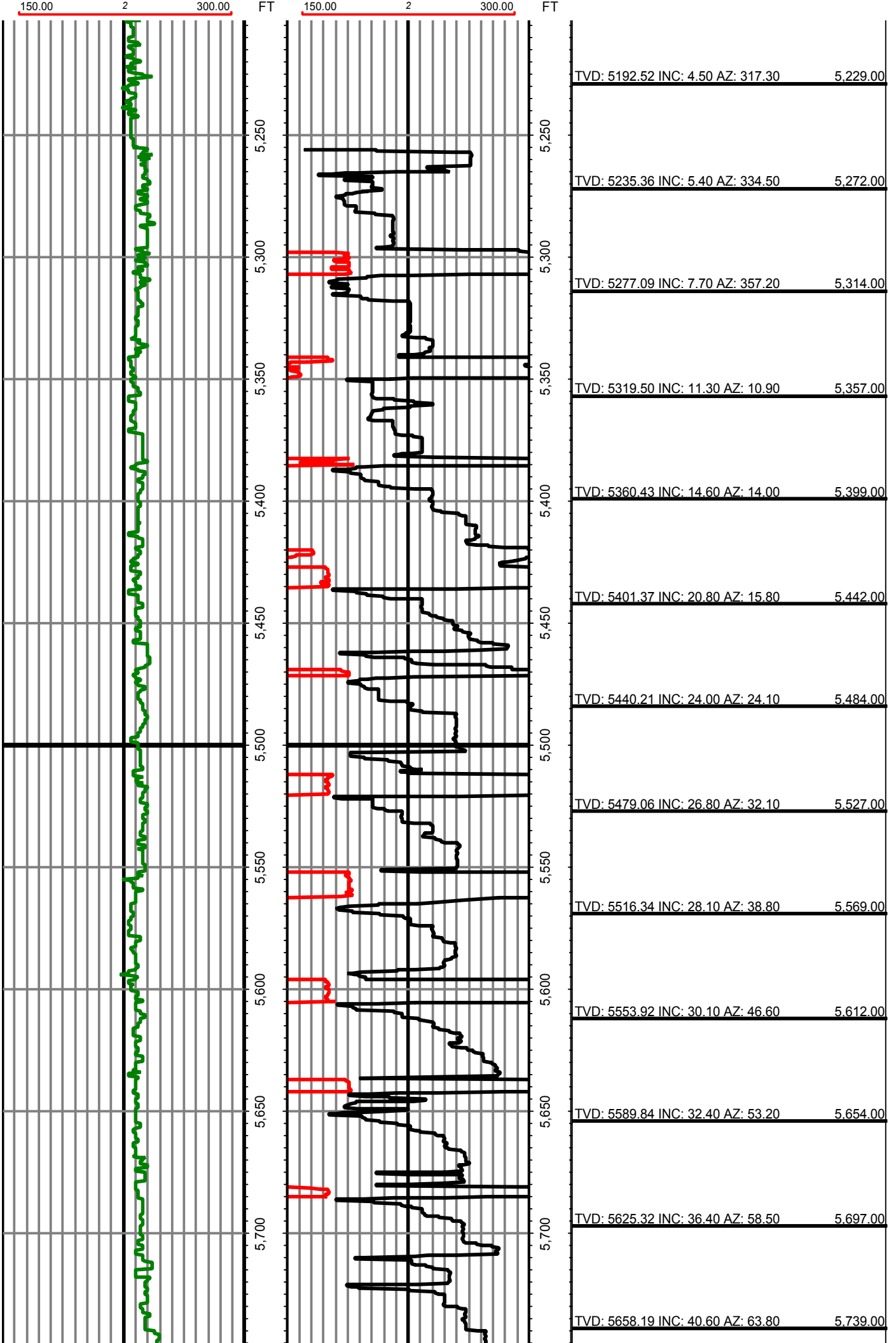
Notes:

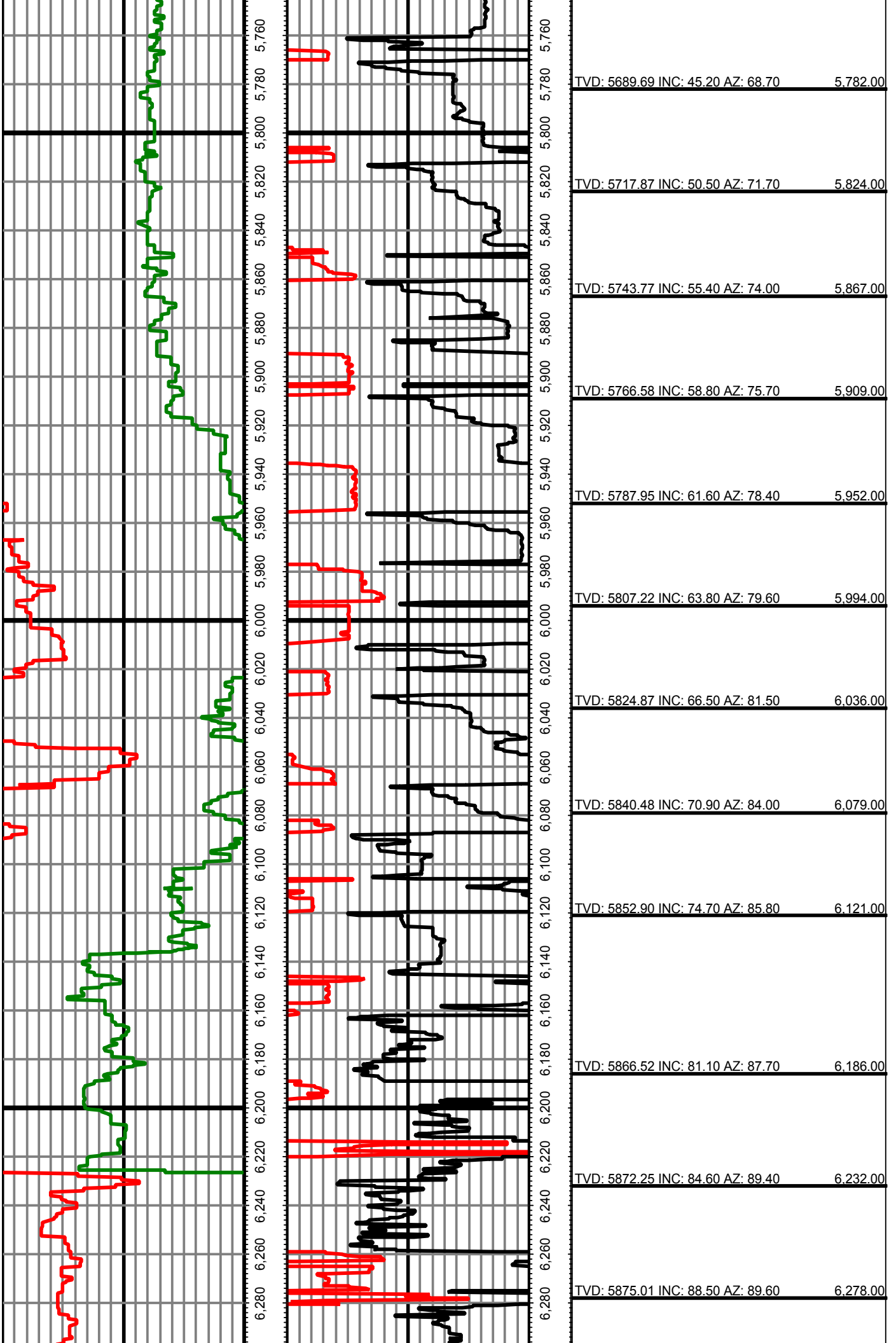
Operator 1: Paul Brown
Notes:

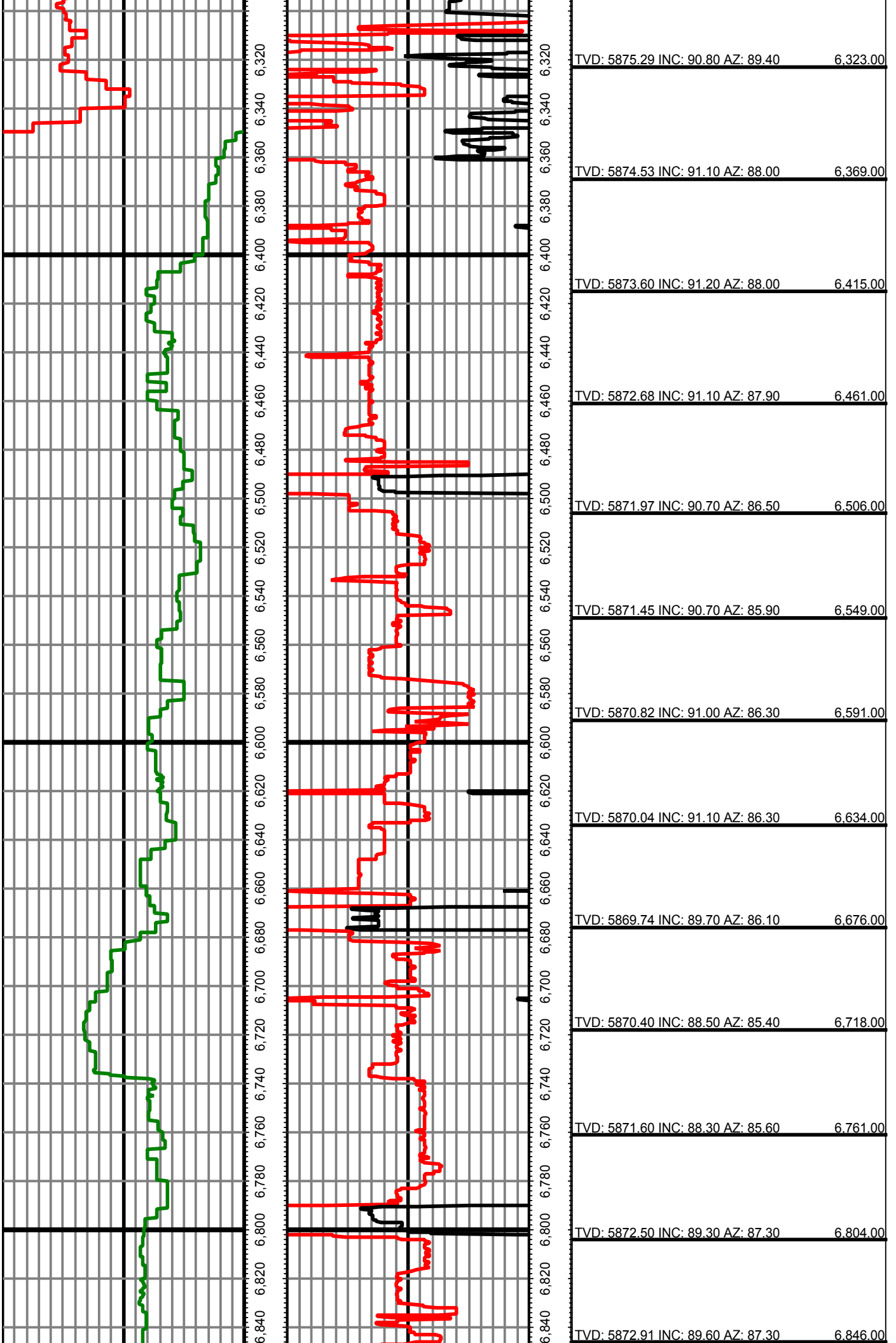
Operator 2: Skylar Thompson

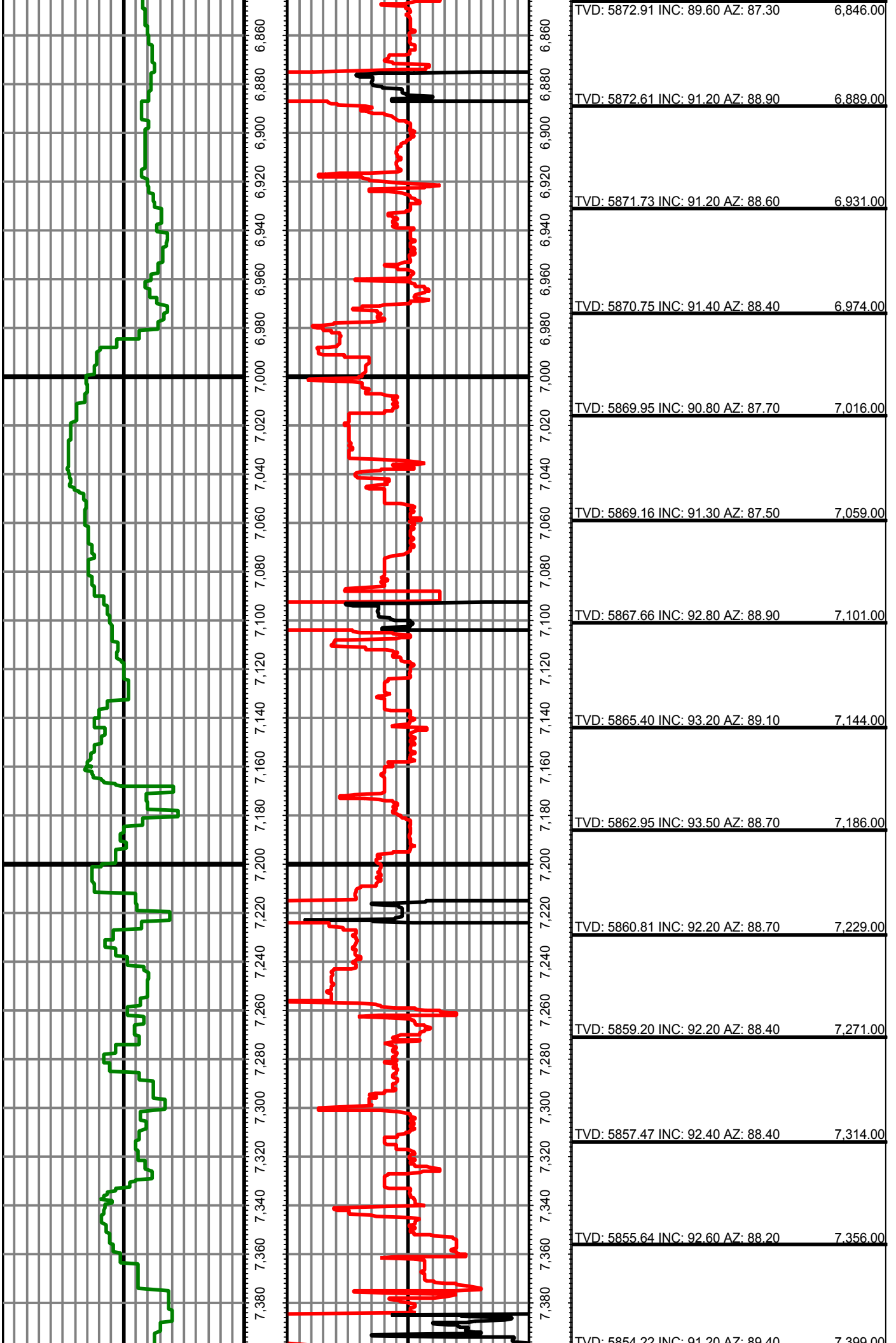
Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	G2577	G1519			
Bit Size	8 3/4	8 3/4			
Cal Factor	2.94	1.29			
Gamma Offset	52.00	55.00			
Resistivity Offset	0.00	0.00			
Start Depth	5247.00	6189.00			
StartDate	4/5/2014	4/7/2014			
StartTime	7:30 AM	11:45 AM			
EndDepth	6189.00	10150.00			
EndDate	4/6/2014	4/3/2014			
EndTime	1:45 PM	7:30 AM			
Mud Type	WBM	WBM			
Mud Weight	9.6	9.5 - 9.7			
Funnel Viscosity	44 - 45	43 - 44			
Plastic Viscosity	15 - 16	13			
Yield Point	11	10 - 11			
Gel Strength	4 / 9	18 / 20			
Solids Content	6%	6.0% - 6.2%			
Sand Content	0.5%	0.25%			
Mud Alkalinity	0.7 - 0.75	0.75 - 0.8			
Filtrate Alkalinity	0.5 - 1.2	0.5 - 1.2			
Chlorides	800	800			
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	1497.00	9 5/8	0.00	1477.00
8 3/4	1497.00	6189.00	7	0.00	6139.00
6 1/8	6189.00	10150.00	4.5	6139.00	10150.00

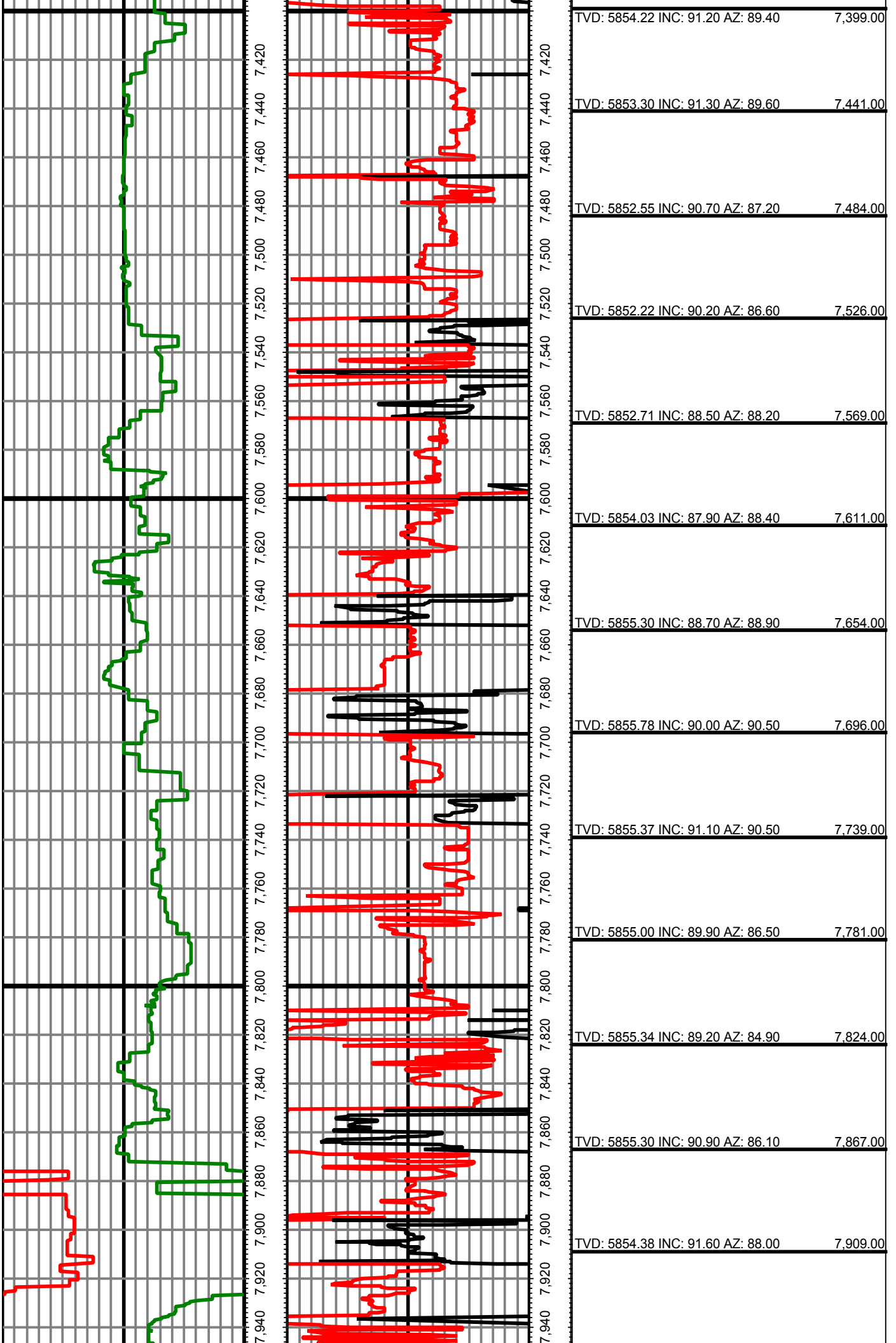
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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

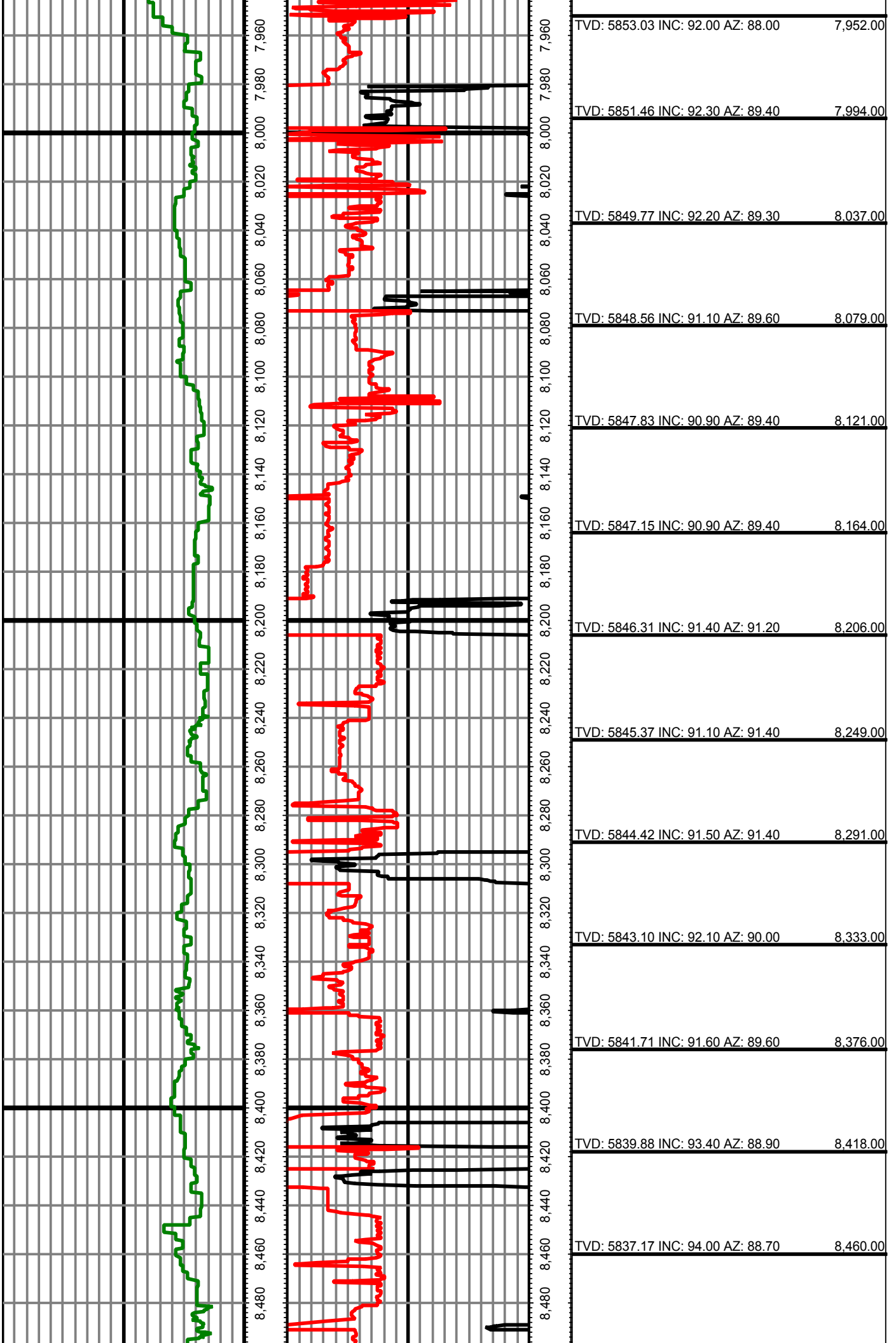


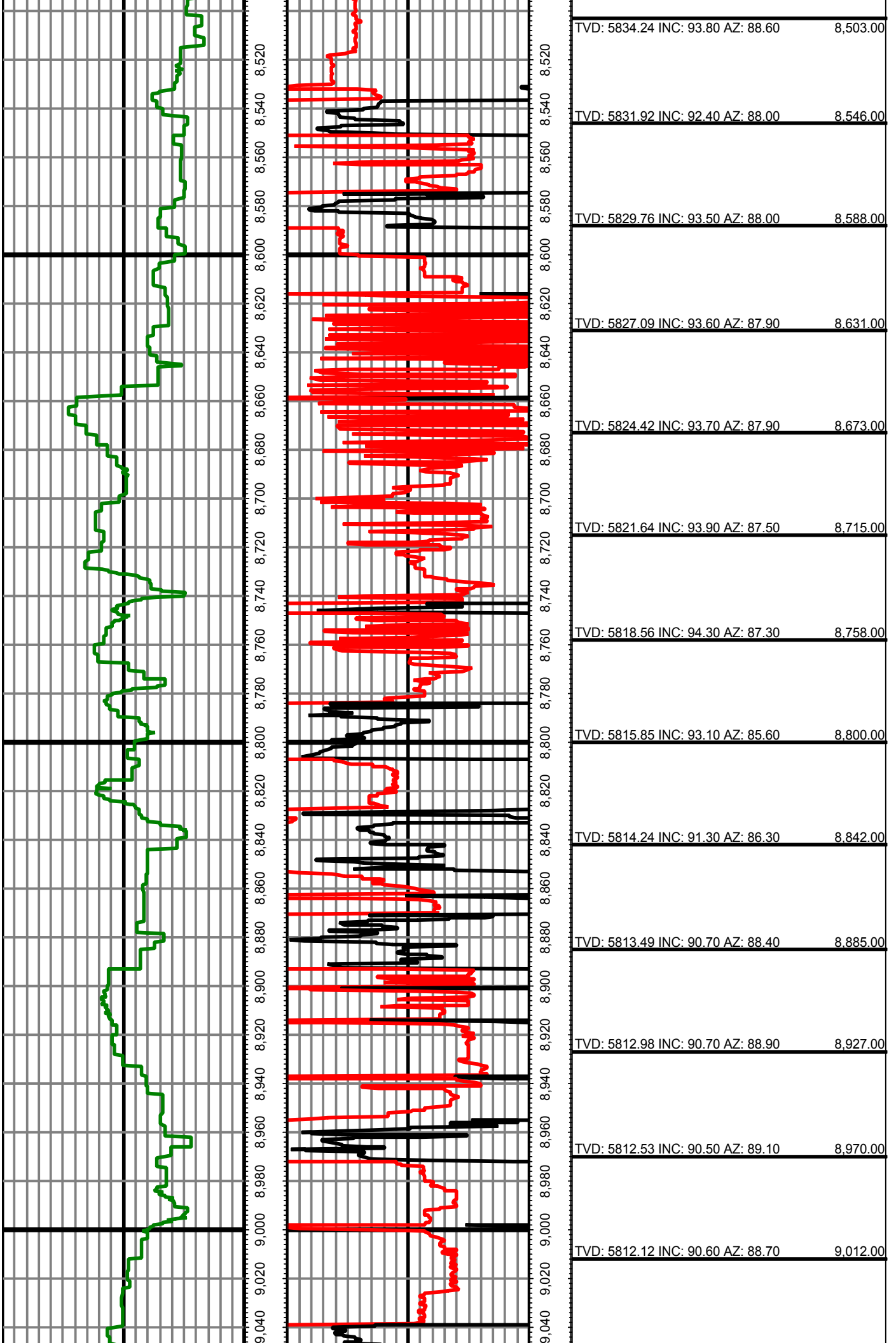


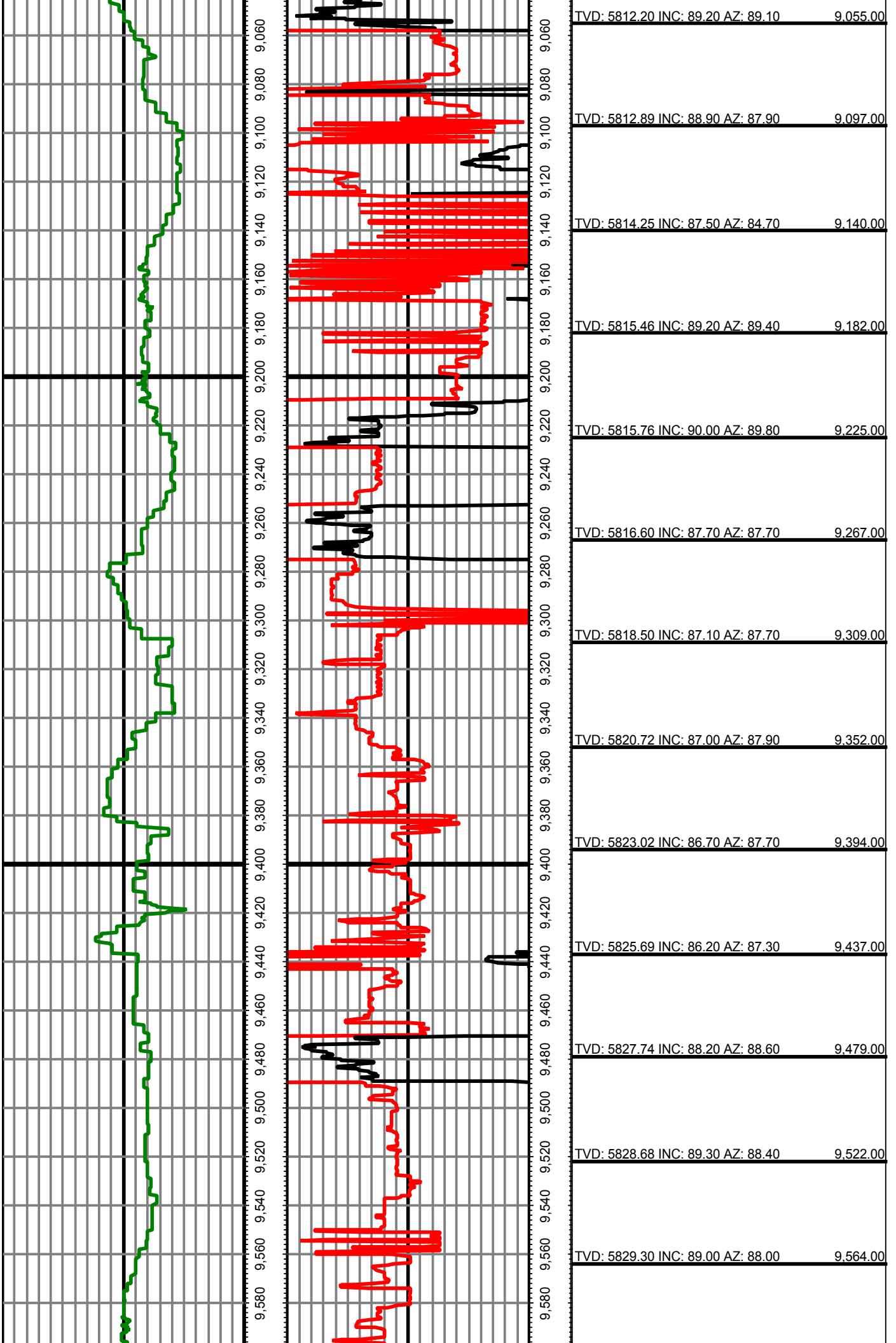


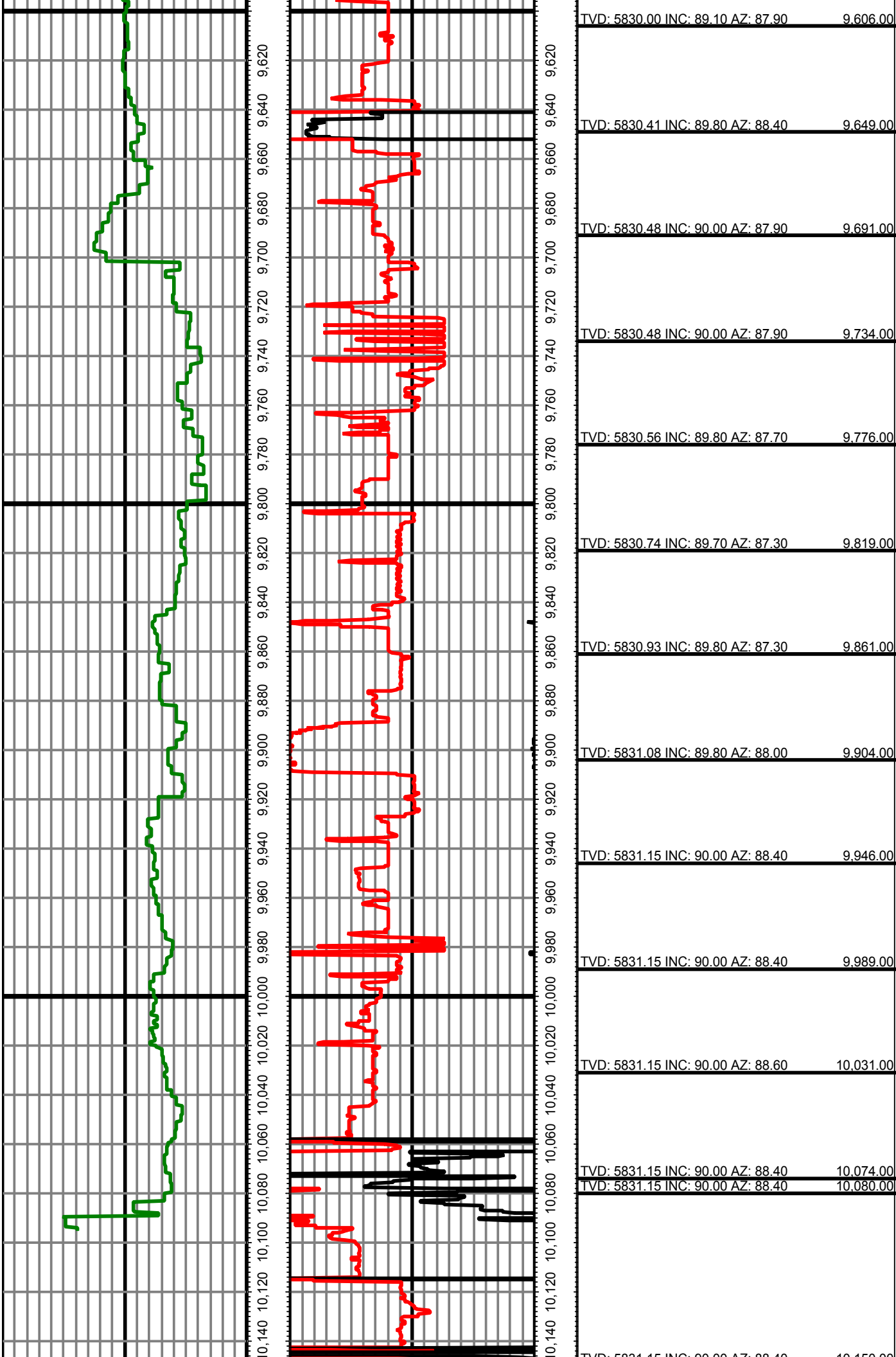












TVD: 5830.00 INC: 89.10 AZ: 87.90 9.606.00

TVD: 5830.41 INC: 89.80 AZ: 88.40 9.649.00

TVD: 5830.48 INC: 90.00 AZ: 87.90 9.691.00

TVD: 5830.48 INC: 90.00 AZ: 87.90 9.734.00

TVD: 5830.56 INC: 89.80 AZ: 87.70 9.776.00

TVD: 5830.74 INC: 89.70 AZ: 87.30 9.819.00

TVD: 5830.93 INC: 89.80 AZ: 87.30 9.861.00

TVD: 5831.08 INC: 89.80 AZ: 88.00 9.904.00

TVD: 5831.15 INC: 90.00 AZ: 88.40 9.946.00

TVD: 5831.15 INC: 90.00 AZ: 88.40 9.989.00

TVD: 5831.15 INC: 90.00 AZ: 88.60 10.031.00

TVD: 5831.15 INC: 90.00 AZ: 88.40 10.074.00

TVD: 5831.15 INC: 90.00 AZ: 88.40 10.080.00

TVD: 5831.15 INC: 90.00 AZ: 88.40 10.150.00

