



Precision Directional Services, Inc.

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

Bringelson Ranch 11-20-9-58

Scale 2":100' - MD

3/30/2014 11:09 PM

Oper. Company: Carrizo Oil & Gas, Inc.
Well: Bringelson Ranch 11-20-9-58
Field: Niobrara CONZ'83
Rig: Xtreme 19
Well ID: 05-123-38611-00
Job Number: DL2139
Notes:

State: Colorado
County: Weld
Country: USA

Start Date: 03/26/2014 20:00:00
End Date: 03/30/2014 23:30:00

Latitude: 40.7347361111111
Longitude: -103.895686111111

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

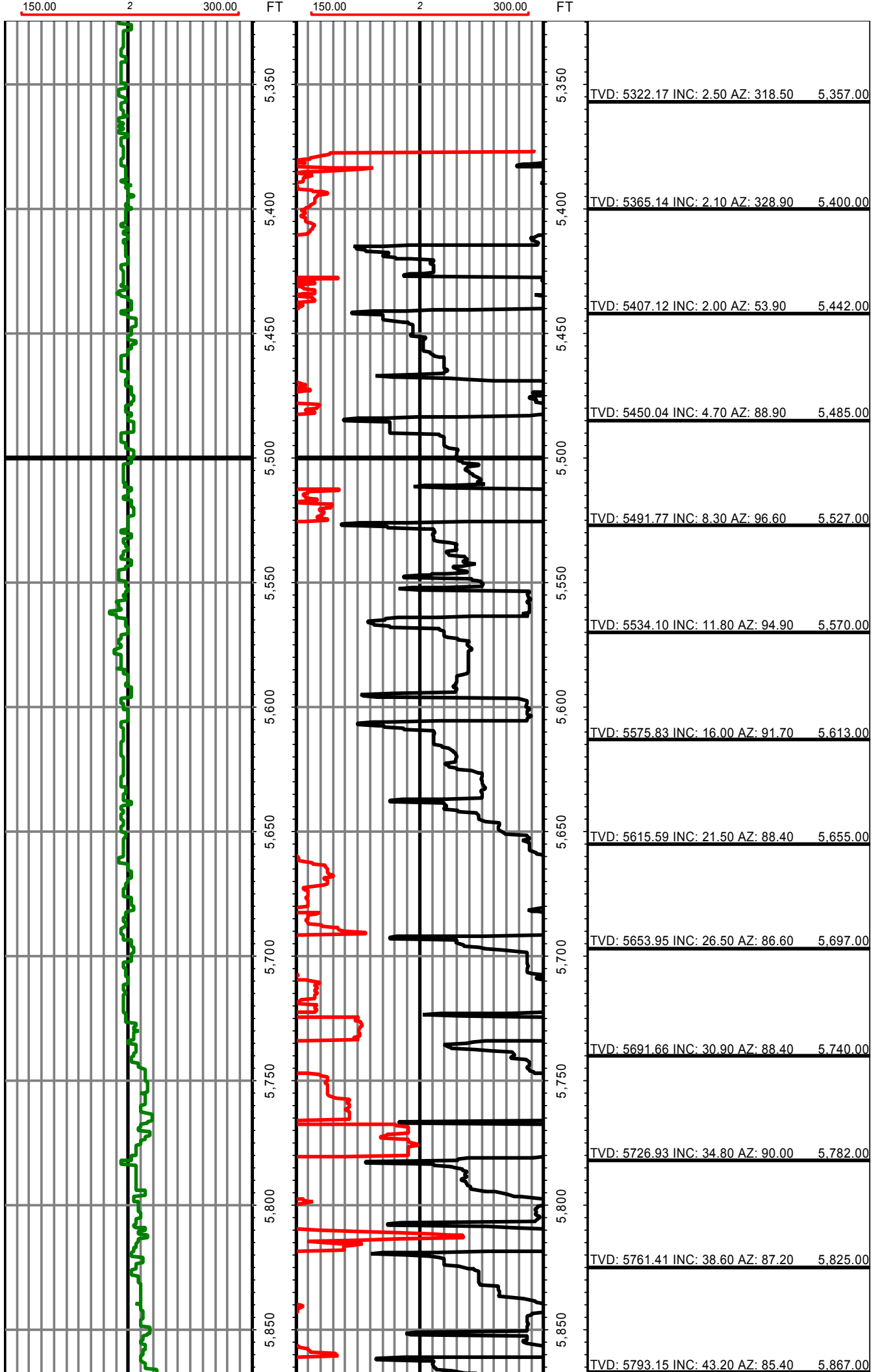
Notes:

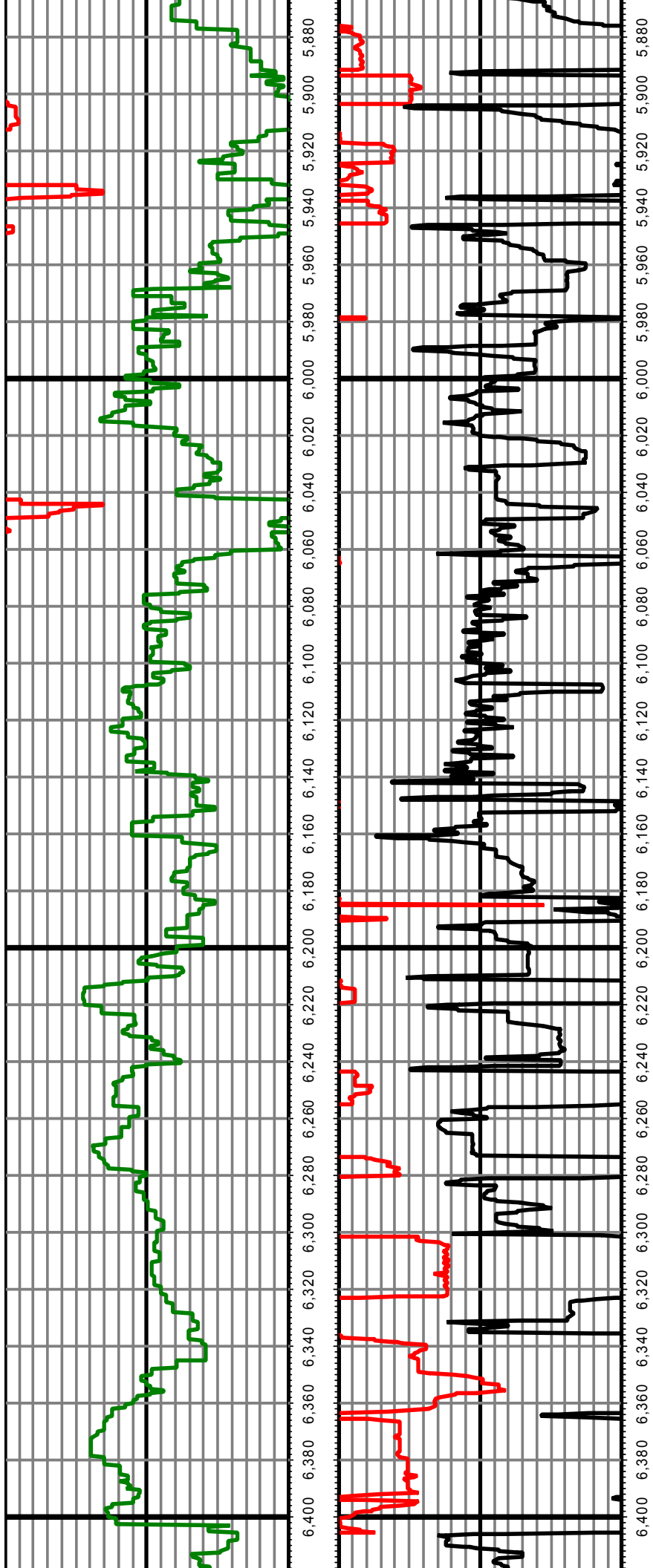
Operator 1: Paul Brown
Notes:

Operator 2: Skylar Thompson

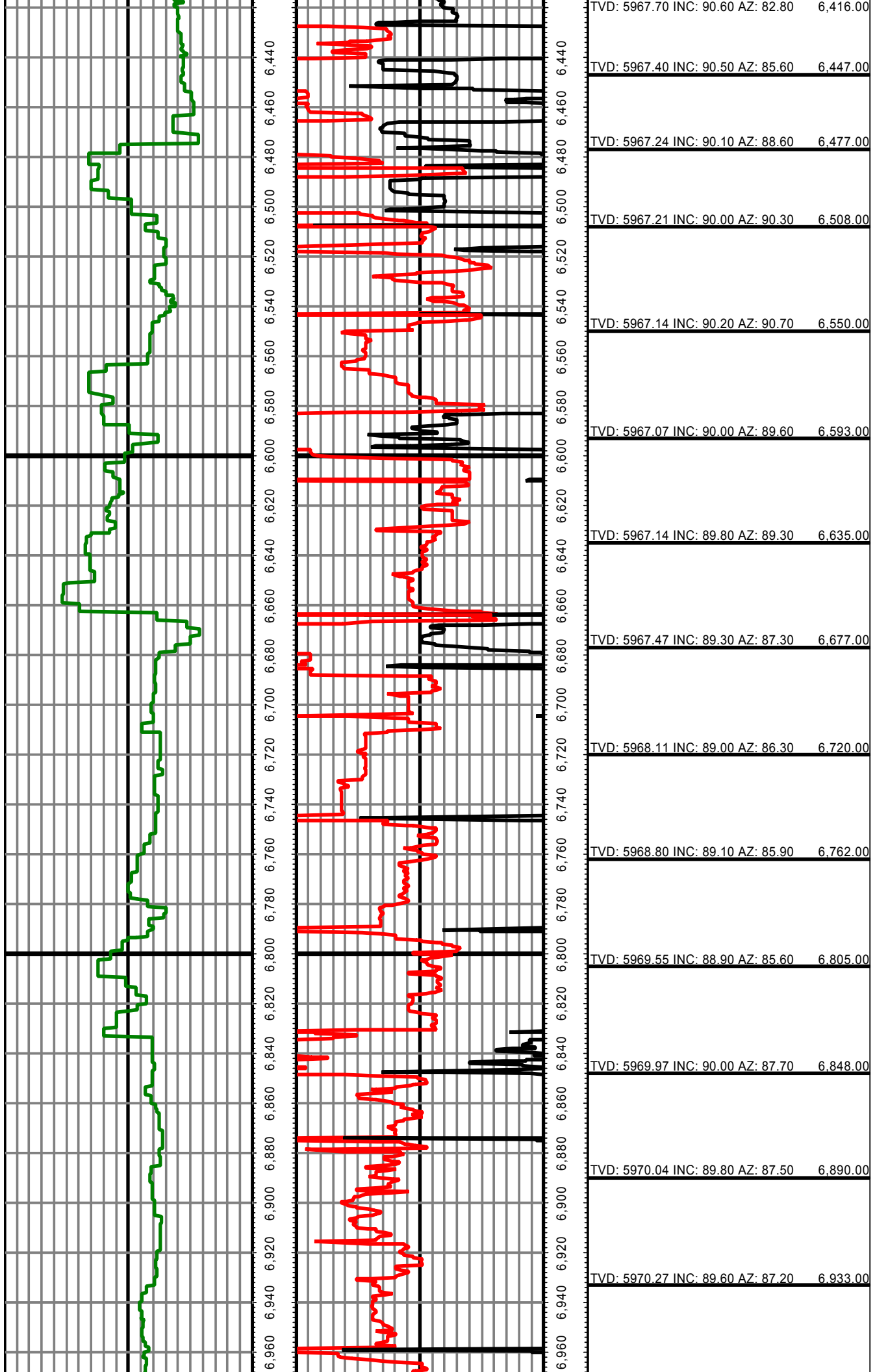
Tool Run Data	Run #1	Run #2	Run #3	Run #4	Run #5
Tool S/N	G1519	G2577			
Bit Size	8 3/4	6 1/8			
Cal Factor	2.89	1.31			
Gamma Offset	52.00	53.00			
Resistivity Offset	0.00	0.00			
Start Depth	5376.00	6160.00			
StartDate	3/26/2014	3/28/2014			
StartTime	3:30 PM	2:30 PM			
EndDepth	6160.00	10283.00			
EndDate	3/27/2014	3/30/2014			
EndTime	4:15 PM	11:30 PM			
Mud Type	WBM	WBM			
Mud Weight	9.5	9.6 - 9.7			
Funnel Viscosity	42	40 & 54			
Plastic Viscosity	11	8 - 9			
Yield Point	7 - 8	7 - 9			
Gel Strength	3 / 21-22	2 - 4 / 15 - 21			
Solids Content	6.3% - 6.4%	6.4% - 7.0%			
Sand Content	0.25%	0.25% - 0.5%			
Mud Alkalinity	0.2	0.6 - 0.7			
Filtrate Alkalinity	0.1 - 0.5	0.3 - 0.7			
Chlorides	600	1,000			
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	1460.00	9 5/8	0.00	1438.00
8 3/4	0.00	6160.00	7	0.00	6139.00
6 1/8	6160.00	10283.00	4.5	6139.00	10283.00

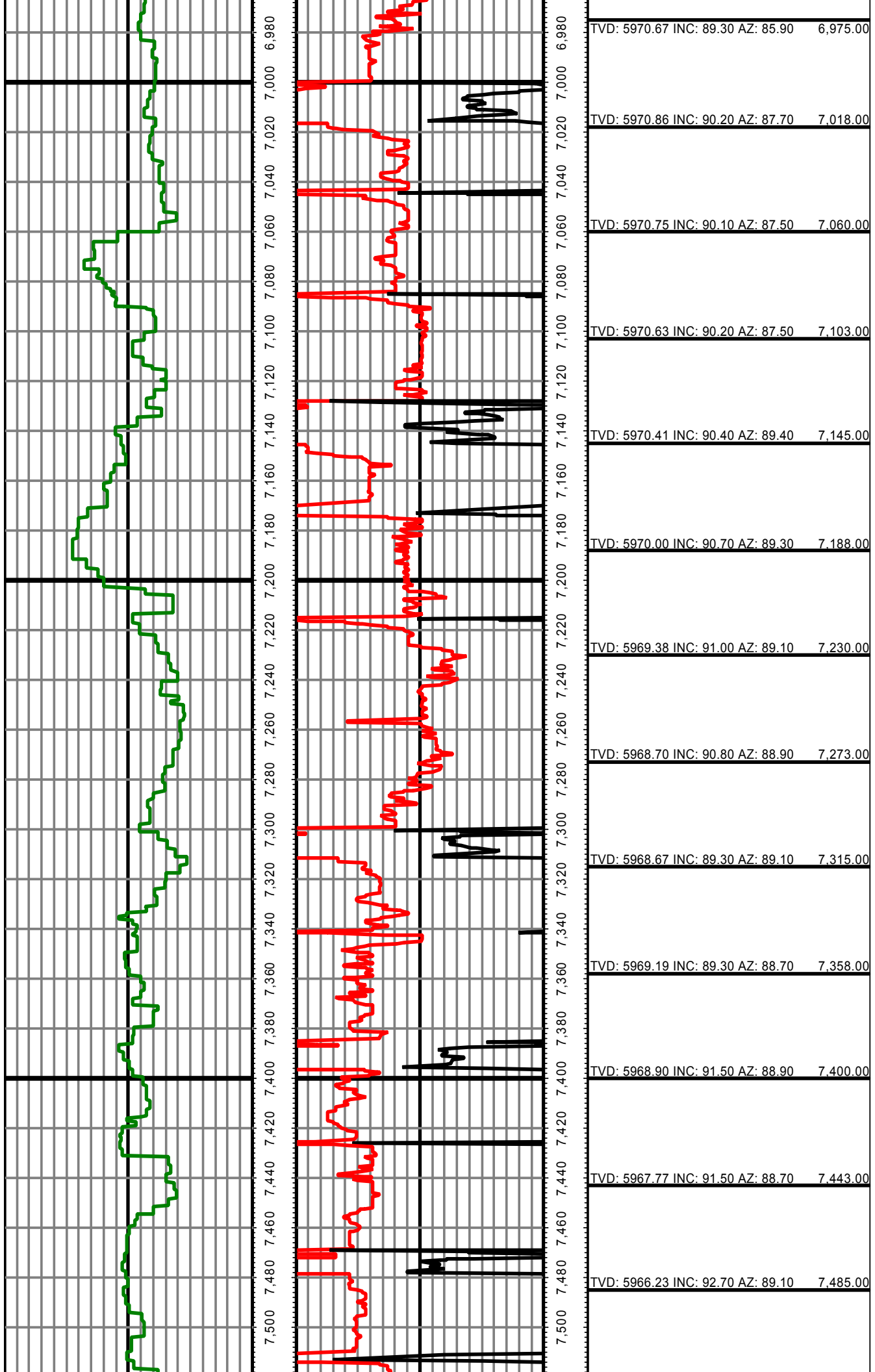
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not except in the case of gross or willful negligence on our part, be liable or responsible for any loss, cost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

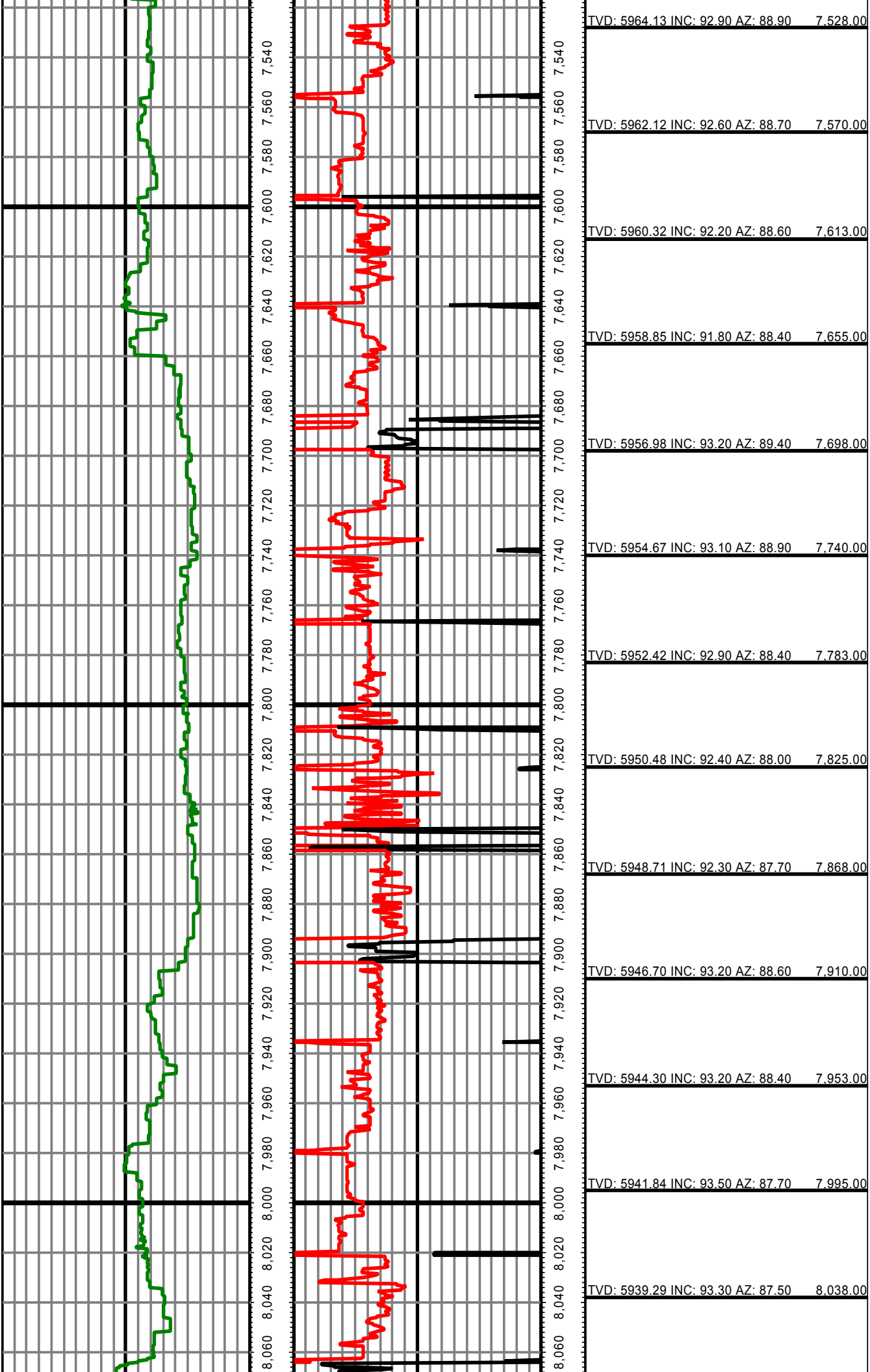




TVD: 5793.15 INC: 43.20 AZ: 85.40	5,867.00
TVD: 5823.39 INC: 47.40 AZ: 83.80	5,910.00
TVD: 5850.66 INC: 51.60 AZ: 82.80	5,952.00
TVD: 5876.38 INC: 54.90 AZ: 82.60	5,995.00
TVD: 5899.56 INC: 58.10 AZ: 81.70	6,037.00
TVD: 5920.53 INC: 63.50 AZ: 82.40	6,080.00
TVD: 5925.70 INC: 65.50 AZ: 82.80	6,092.00
TVD: 5951.37 INC: 77.00 AZ: 81.40	6,172.00
TVD: 5957.68 INC: 79.50 AZ: 80.70	6,203.00
TVD: 5962.45 INC: 82.20 AZ: 79.60	6,233.00
TVD: 5965.93 INC: 84.90 AZ: 79.40	6,264.00
TVD: 5967.74 INC: 88.20 AZ: 80.10	6,294.00
TVD: 5968.28 INC: 89.80 AZ: 80.80	6,325.00
TVD: 5968.23 INC: 90.40 AZ: 80.50	6,355.00
TVD: 5967.98 INC: 90.50 AZ: 80.10	6,386.00
TVD: 5967.70 INC: 90.60 AZ: 82.80	6,416.00







TVD: 5964.13 INC: 92.90 AZ: 88.90 7,528.00

TVD: 5962.12 INC: 92.60 AZ: 88.70 7,570.00

TVD: 5960.32 INC: 92.20 AZ: 88.60 7,613.00

TVD: 5958.85 INC: 91.80 AZ: 88.40 7,655.00

TVD: 5956.98 INC: 93.20 AZ: 89.40 7,698.00

TVD: 5954.67 INC: 93.10 AZ: 88.90 7,740.00

TVD: 5952.42 INC: 92.90 AZ: 88.40 7,783.00

TVD: 5950.48 INC: 92.40 AZ: 88.00 7,825.00

TVD: 5948.71 INC: 92.30 AZ: 87.70 7,868.00

TVD: 5946.70 INC: 93.20 AZ: 88.60 7,910.00

TVD: 5944.30 INC: 93.20 AZ: 88.40 7,953.00

TVD: 5941.84 INC: 93.50 AZ: 87.70 7,995.00

TVD: 5939.29 INC: 93.30 AZ: 87.50 8,038.00

