



Premier Directional Drilling
12941 North Freeway Suite 400
Houston, Texas 77060
PH: #281-673-4000

Meguire 29N-16HZ
Scale 5":100' - MD
10/8/2015 11:28 AM

Oper. Company: Anadarko Petroleum Corporation

State: CO

Well: Meguire 29N-16HZ

County: Weld

Field: Niobrara

Country: USA

Rig: Precision 462

Location: 2N-65W-21

Well ID: 05123419750000

Start Date: 10/04/2015 09:51:15

Job Number: R15400

End Date: 10/07/2015 18:20:00

Notes: LWD RM Log
Gamma Correction Determined by Pipe ID & OD, Mud Weight & Bit Size

Latitude: 40.124762

Elev KB: 20'

Longitude: -104.670536

Elev DF: 4908'

Elev GL: 4888'

Notes: Datum: NAD1983 Map Zone: 13N (108 W to 102 W) Total Correction: 8.00° Grid Convergence: 0.21° (True North)

Operator 1: David Clancy

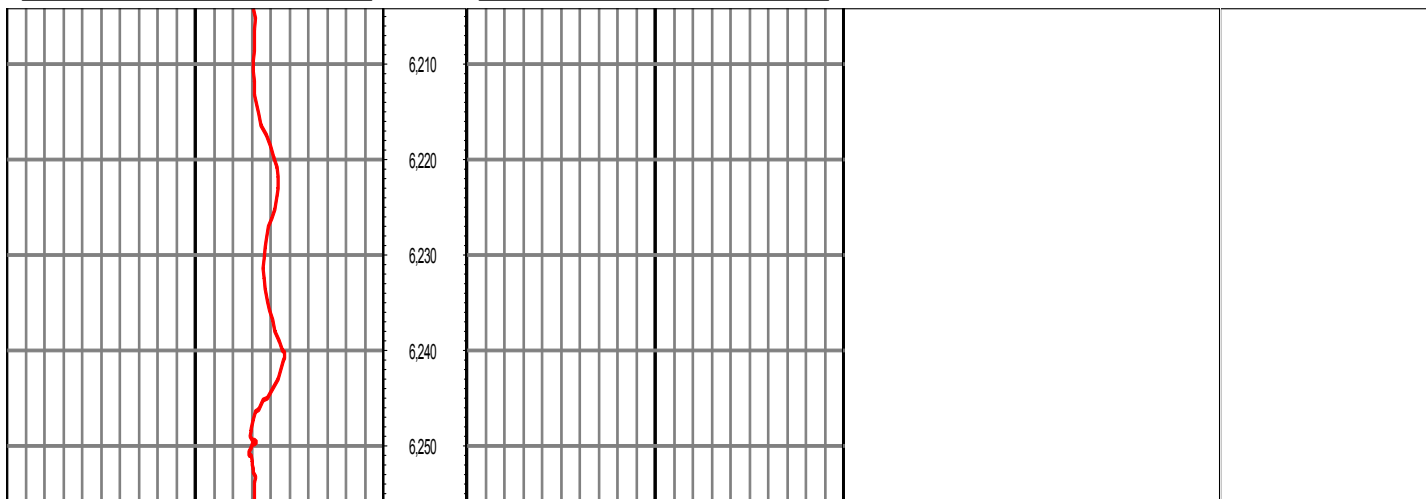
Operator 2: Justin Wallace

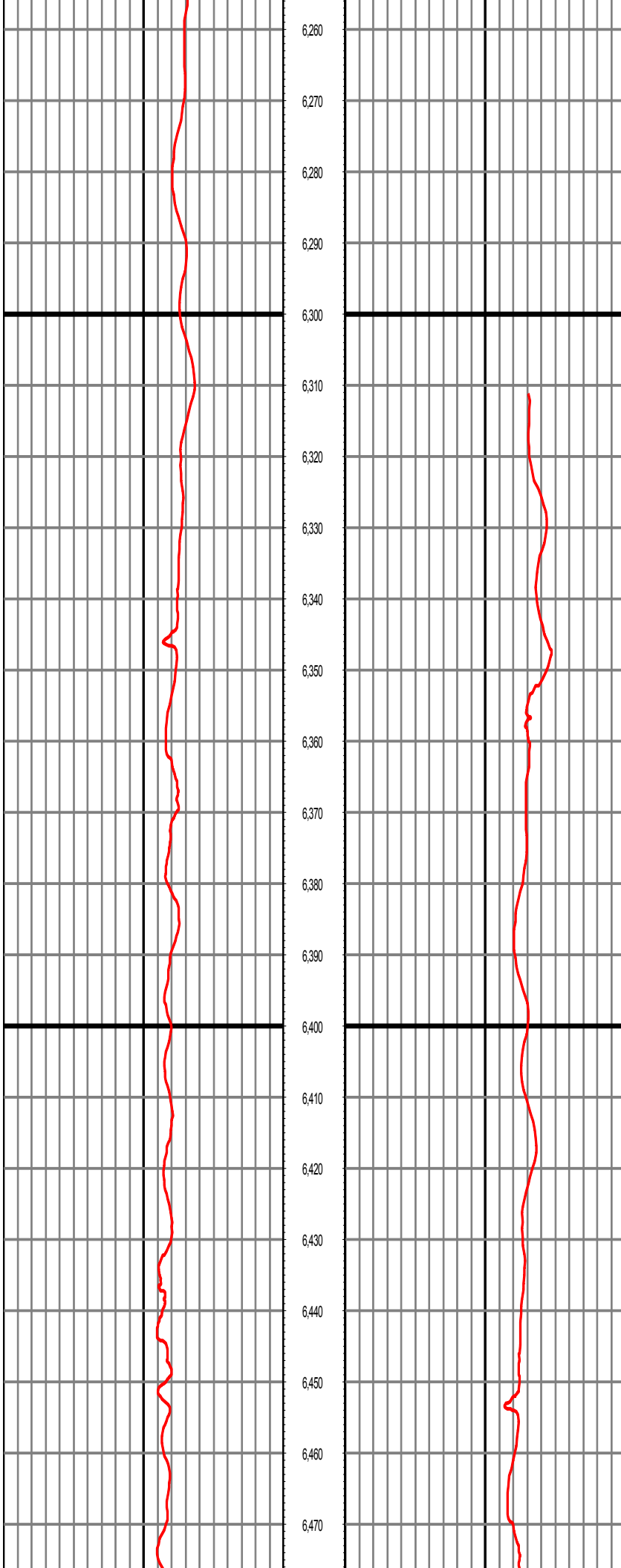
Notes: Smoothing: 7 Gap Fill: 10 Tool Type: Mud Pulse Calculation Method: Minimum Curvature

| Tool Run Data | Run #1 | Run #2 | Run #3 | Run #4 | Run #5 |
|--------------------|-----------|----------|-------------|--------|---------|
| Tool S/N | 173 | | | | |
| Bit Size | 8.5 | | | | |
| Cal Factor | 1.1872 | | | | |
| Survey Offset: | 69.00 | | | | |
| Gamma Offset | 63.92 | | | | |
| Resistivity Offset | 0.00 | | | | |
| Start Depth | 6310.00 | | | | |
| StartDate | 10/3/2015 | | | | |
| StartTime | 05:13 | | | | |
| EndDepth | 15236.00 | | | | |
| EndDate | 10/7/2015 | | | | |
| EndTime | 18:20 | | | | |
| Hole Data | | | Casing Data | | |
| Size | From | To | Size | From | To |
| 8.5 | 1858.00 | 15236.00 | 9 5/8 | 0.00 | 1858.00 |

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.

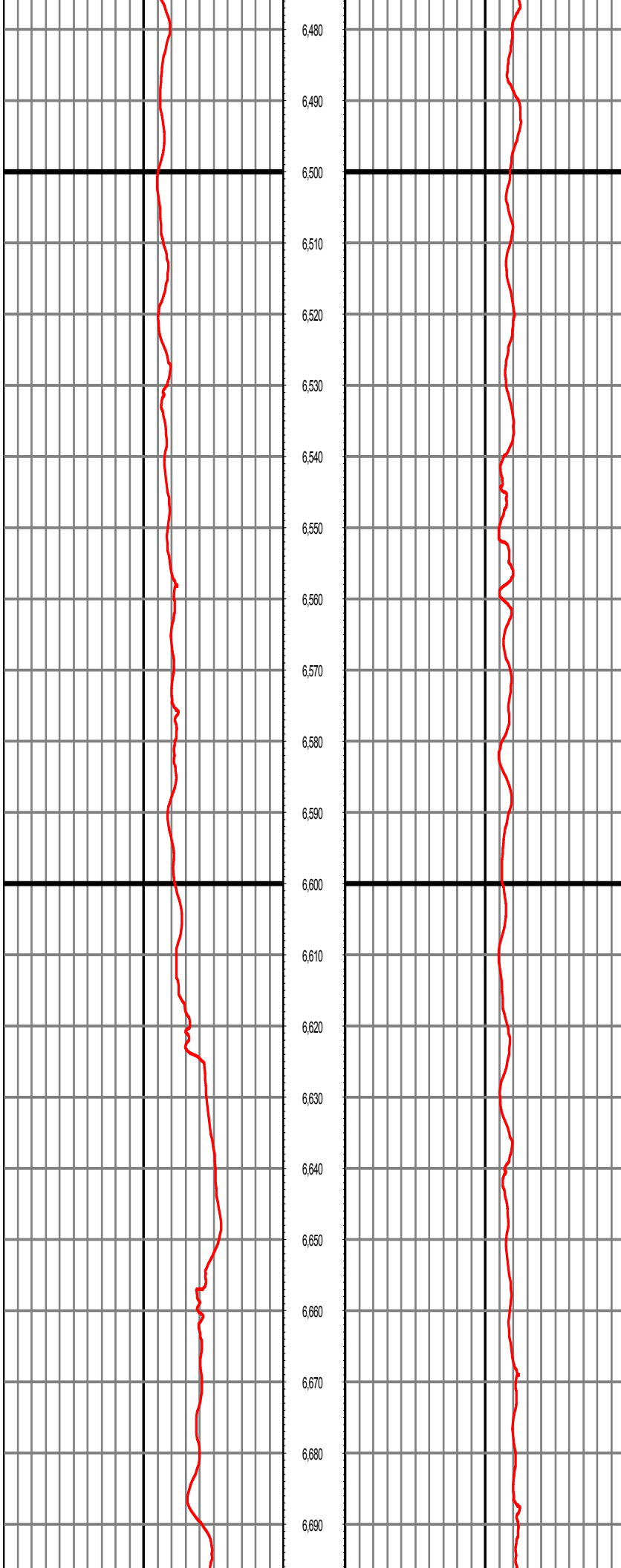
0.00 GR RM(API) on TVD 200.00 MD 0.00 GR RM(API) on MD 200.00 Surveys (MD/INC/AZ/TVD/VS)
200.00 2 400.00 FT 200.00 2 400.00





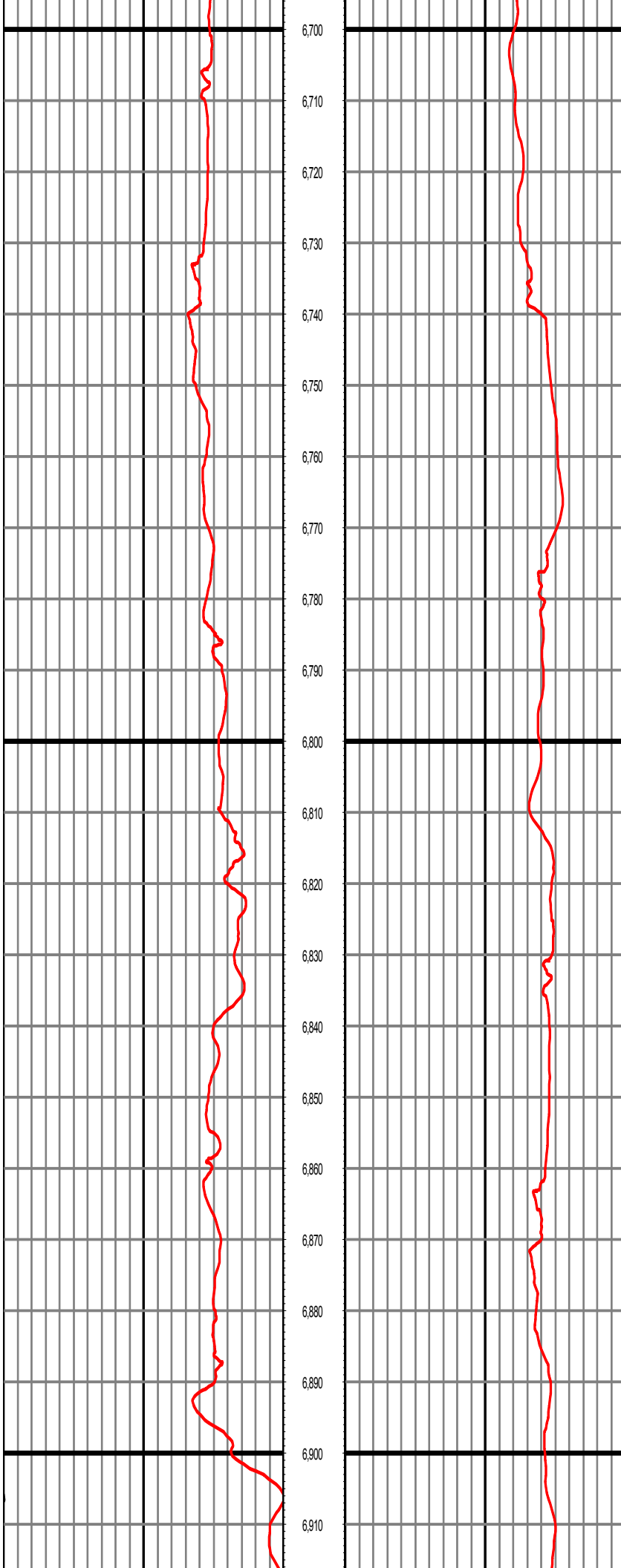
MD: 6351.00 INC: 4.91 AZ: 287.64 TVD: 6243.96 VS: -788.04

MD: 6446.00 INC: 4.28 AZ: 288.56 TVD: 6338.66 VS: -785.73



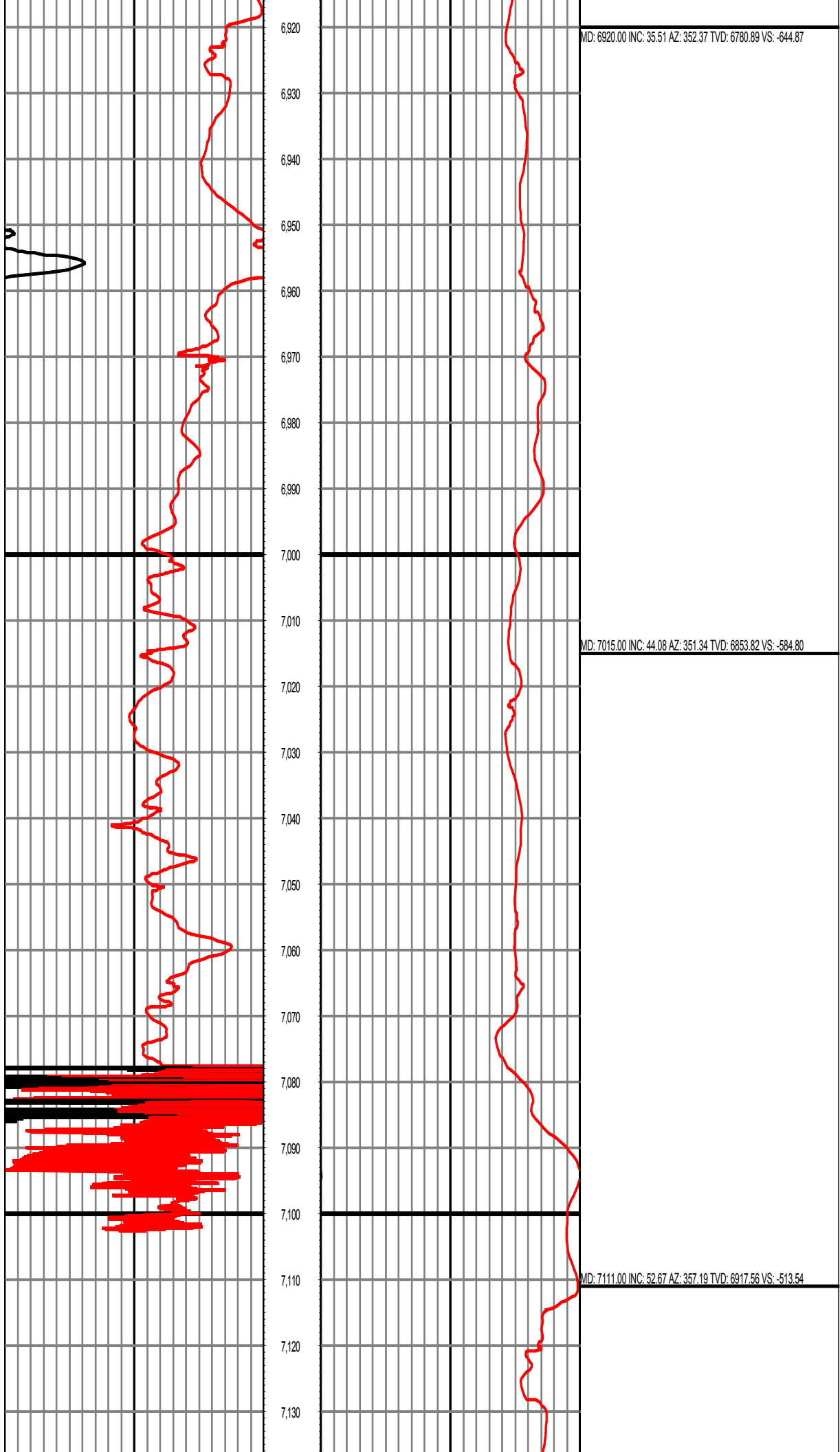
MD: 6541.00 INC: 4.42 AZ: 303.70 TVD: 6433.39 VS: -782.61

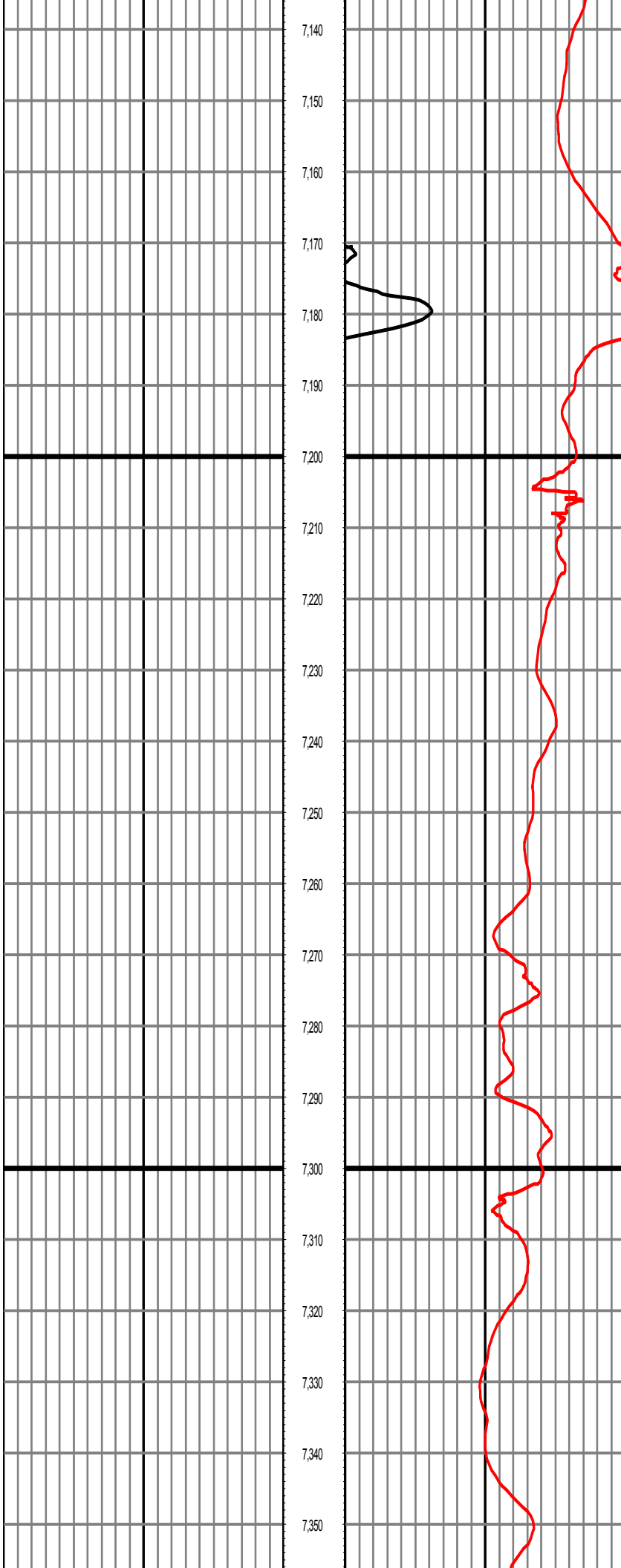
MD: 6636.00 INC: 14.90 AZ: 352.40 TVD: 6527.02 VS: -768.44



MD: 6730.00 INC: 23.68 AZ: 0.44 TVD: 6615.67 VS: -737.53

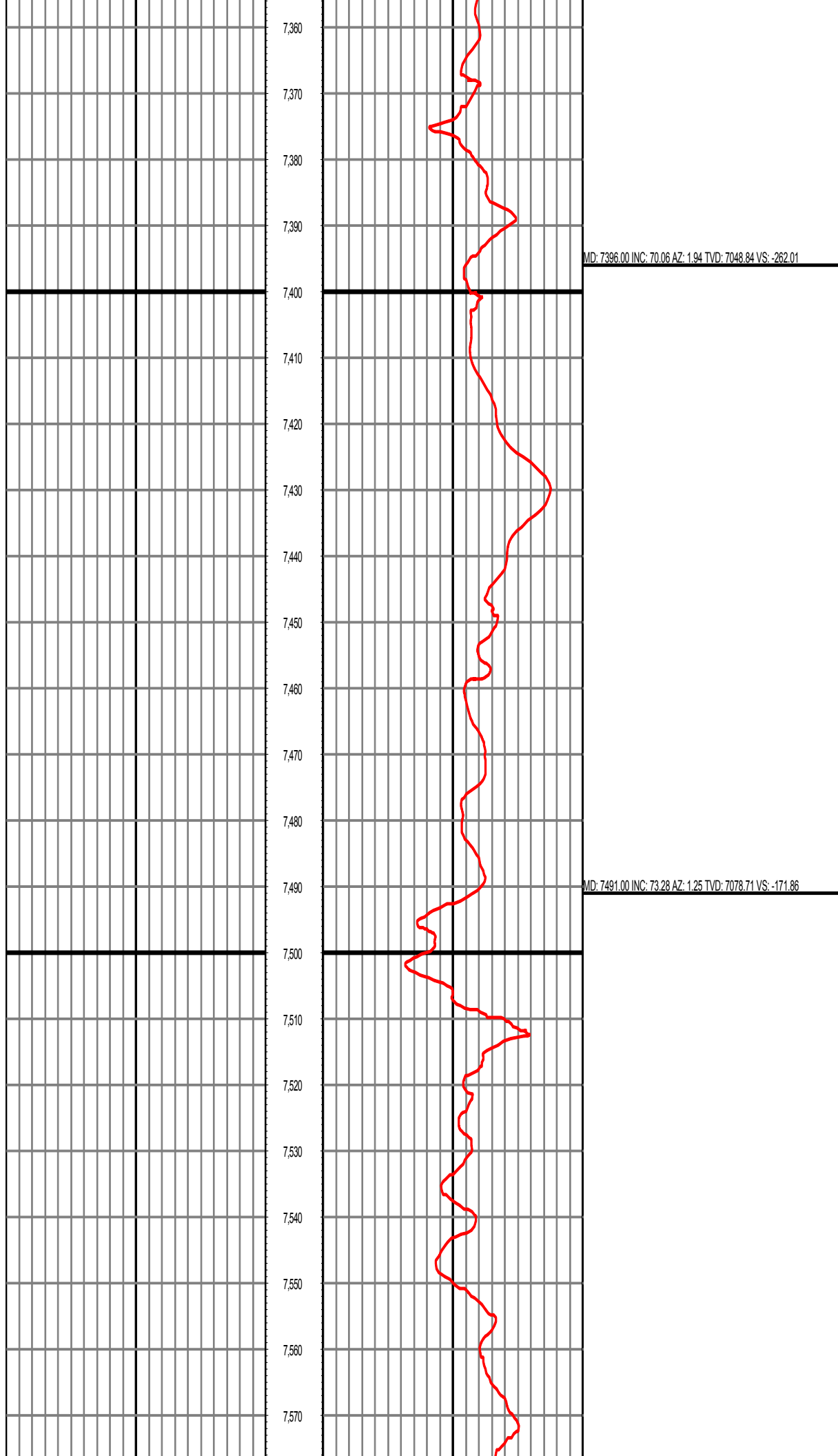
MD: 6825.00 INC: 29.24 AZ: 354.50 TVD: 6700.70 VS: -695.33

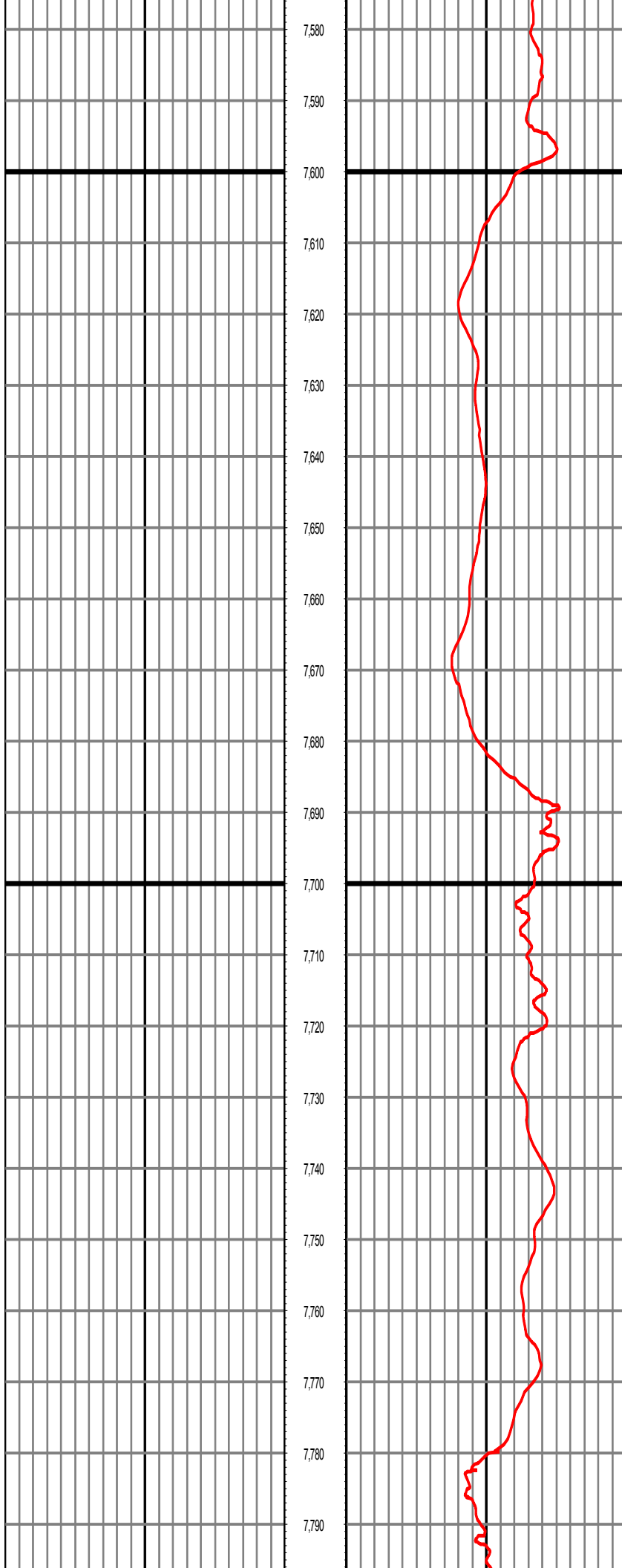




MD: 7205.00 INC: 59.61 AZ: 1.77 TVD: 6969.92 VS: -435.57

MD: 7300.00 INC: 66.25 AZ: 2.17 TVD: 7013.13 VS: -351.06



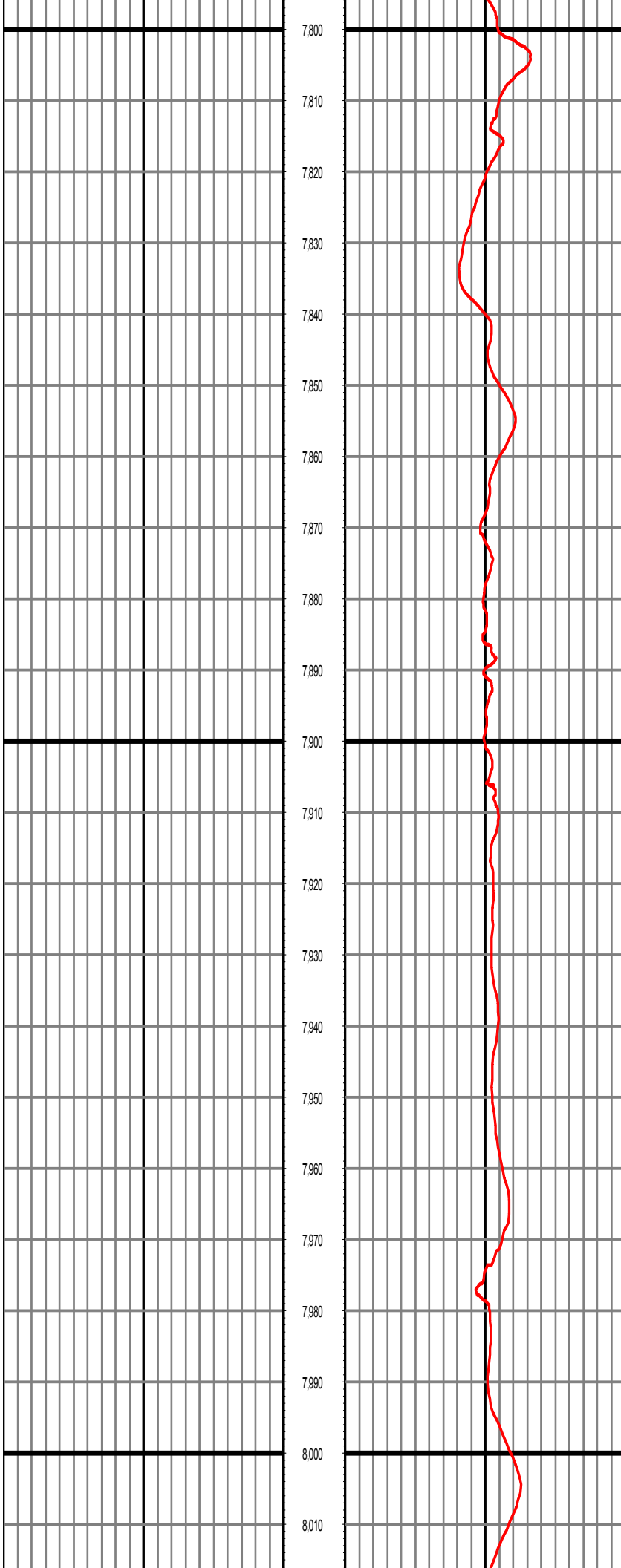


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7,740
7,750
7,760
7,770
7,780
7,790

MD: 7586.00 INC: 81.25 AZ: 1.84 TVD: 7099.64 VS: -79.30

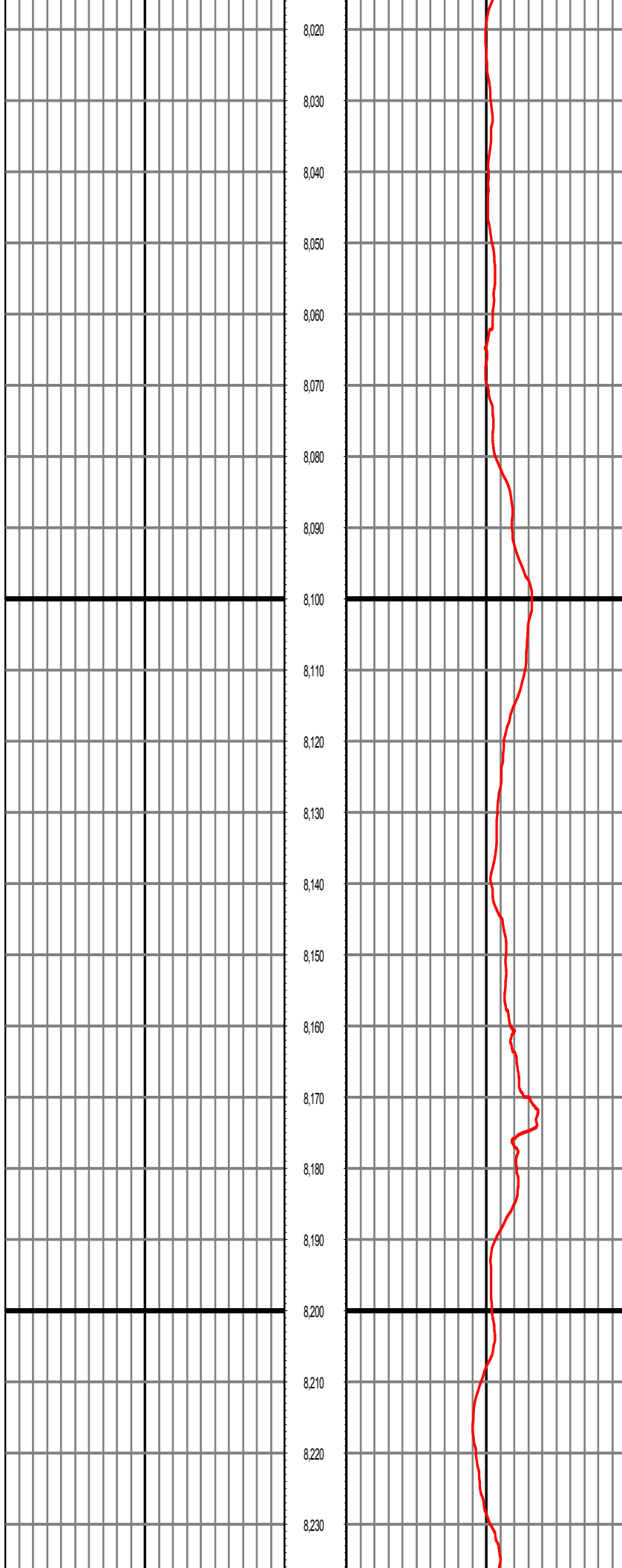
MD: 7682.00 INC: 95.24 AZ: 1.84 TVD: 7102.57 VS: 16.39

MD: 7777.00 INC: 94.19 AZ: 2.22 TVD: 7094.76 VS: 111.02



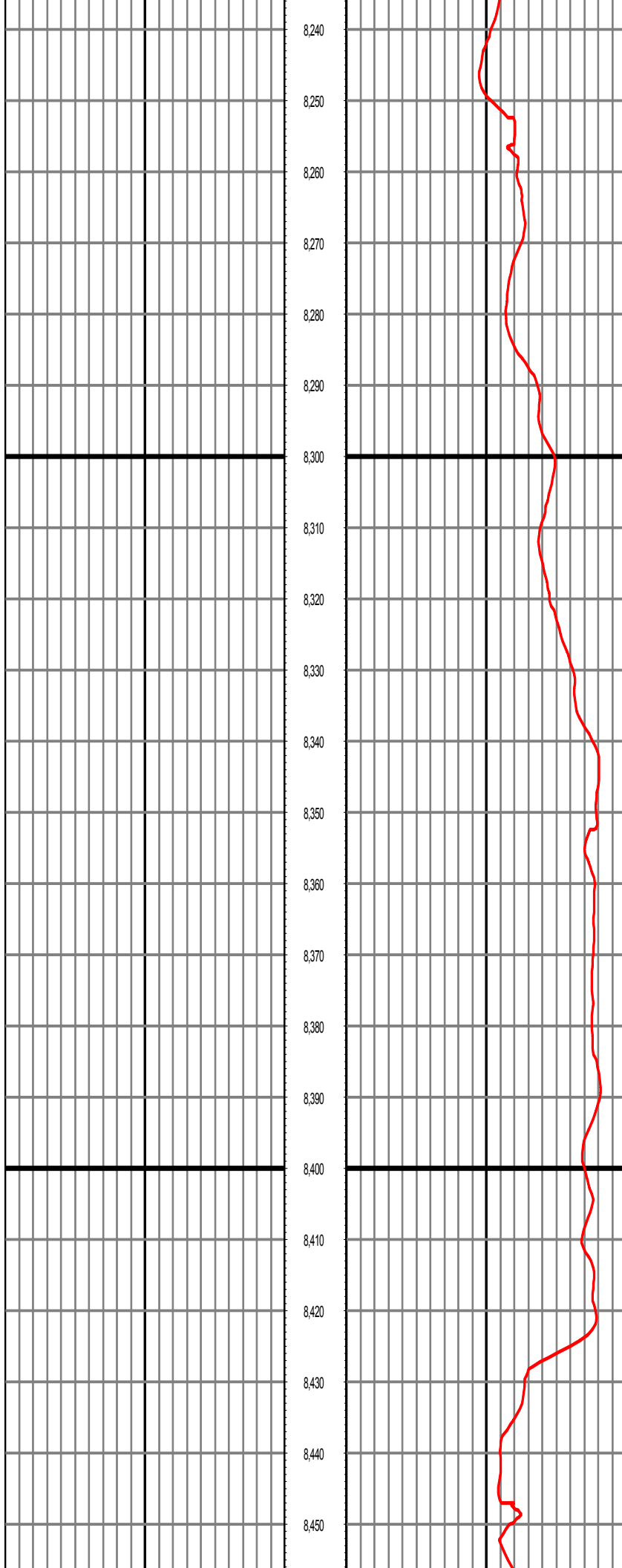
MD: 7872.00 INC: 91.48 AZ: 2.35 TVD: 7090.06 VS: 205.84

MD: 7968.00 INC: 88.51 AZ: 2.63 TVD: 7090.07 VS: 301.77



MD: 8063.00 INC: 89.52 AZ: 2.87 TVD: 7091.71 VS: 396.67

MD: 8158.00 INC: 89.74 AZ: 2.50 TVD: 7092.32 VS: 491.58

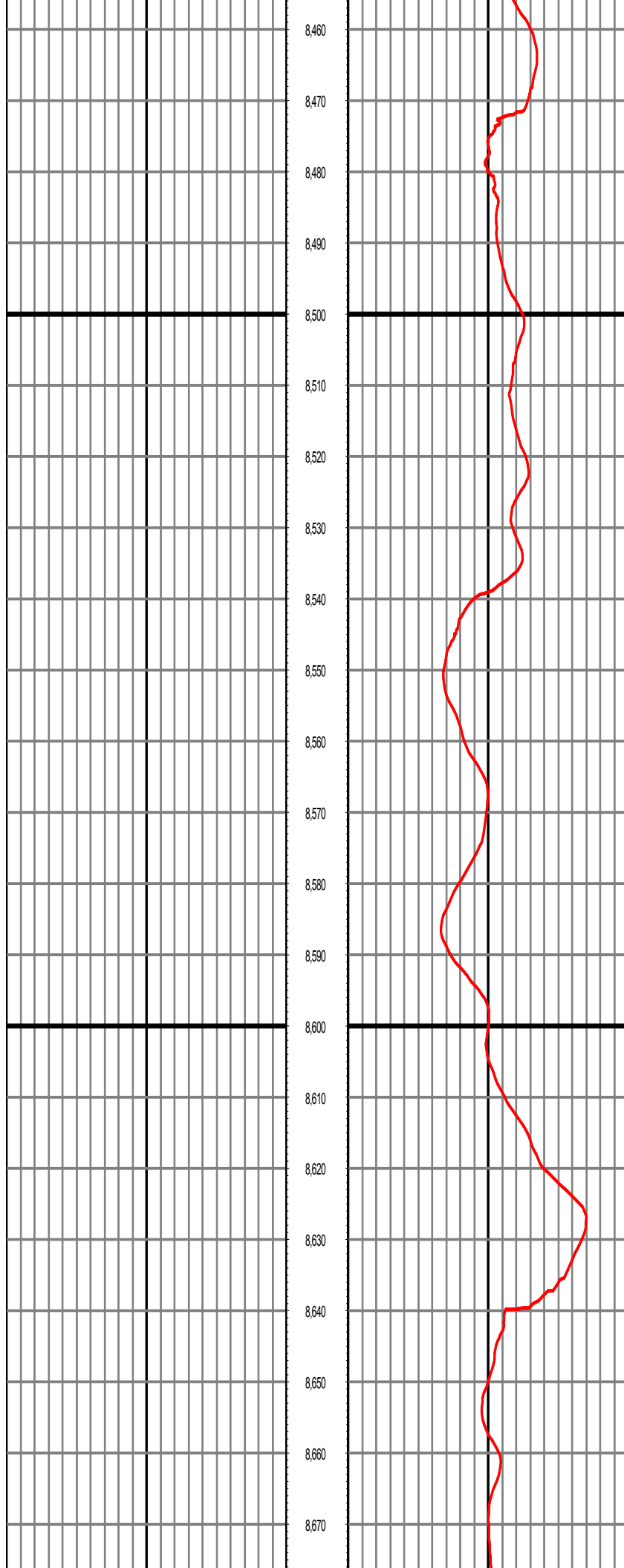


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8,360
8,370
8,380
8,390
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8,430
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MD: 8253.00 INC: 89.35 AZ: 2.53 TVD: 7093.07 VS: 586.51

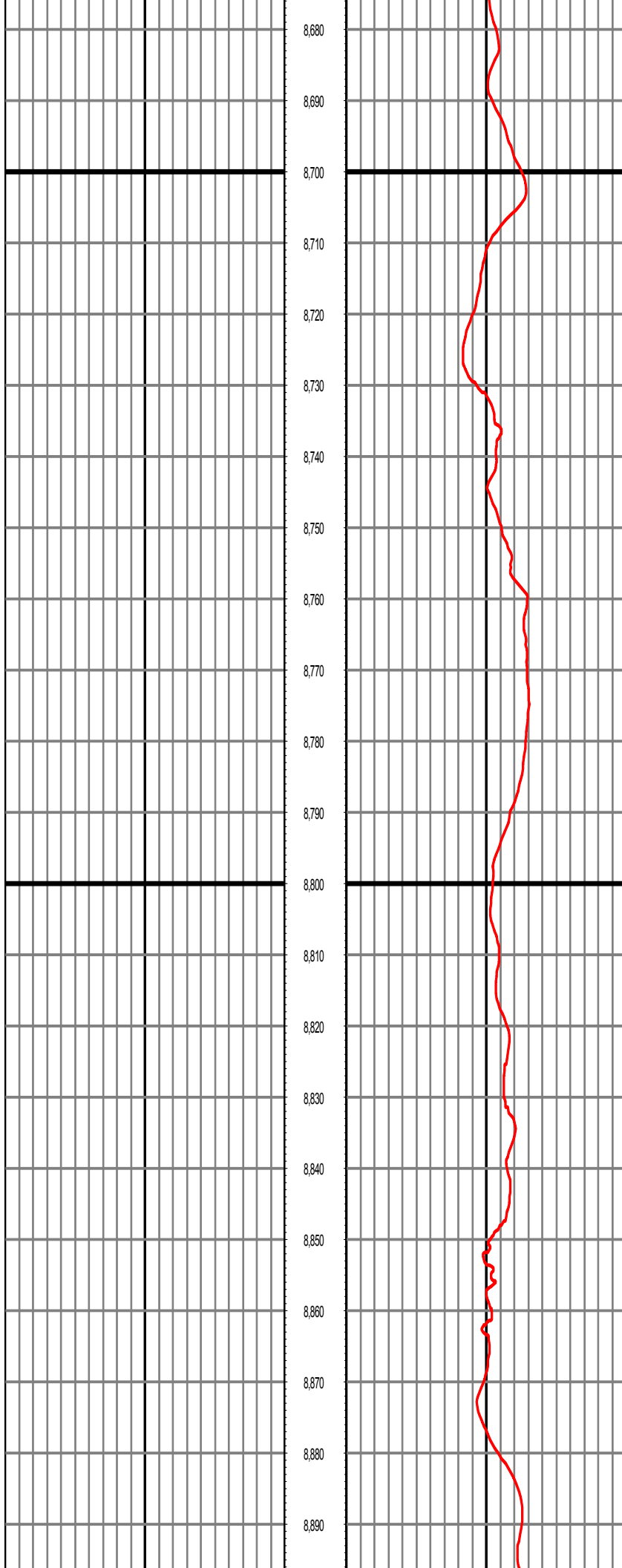
MD: 8348.00 INC: 89.43 AZ: 2.59 TVD: 7094.09 VS: 681.44

MD: 8444.00 INC: 89.81 AZ: 2.39 TVD: 7094.72 VS: 777.37



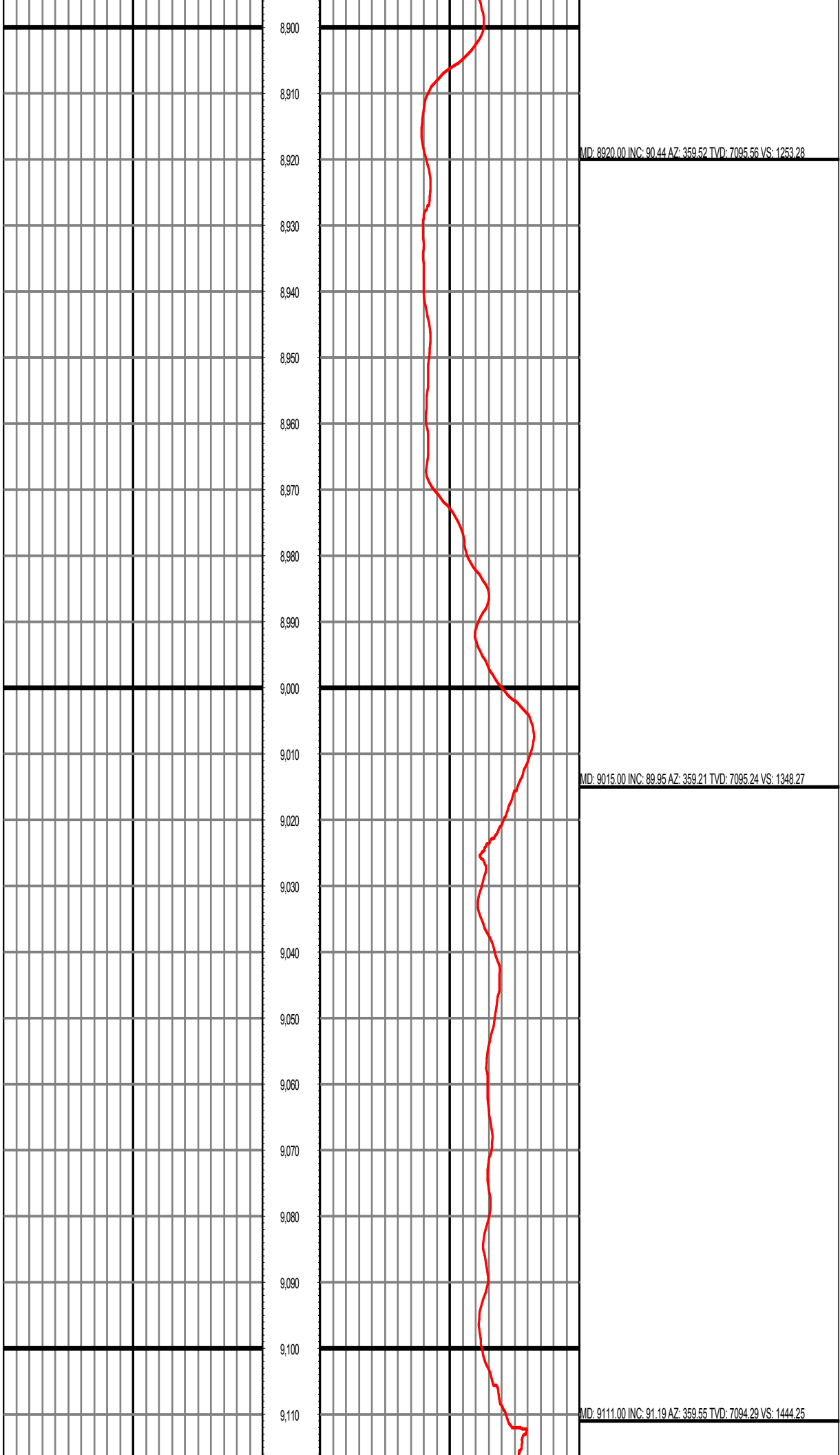
MD: 8539.00 INC: 89.43 AZ: 1.61 TVD: 7095.35 VS: 872.32

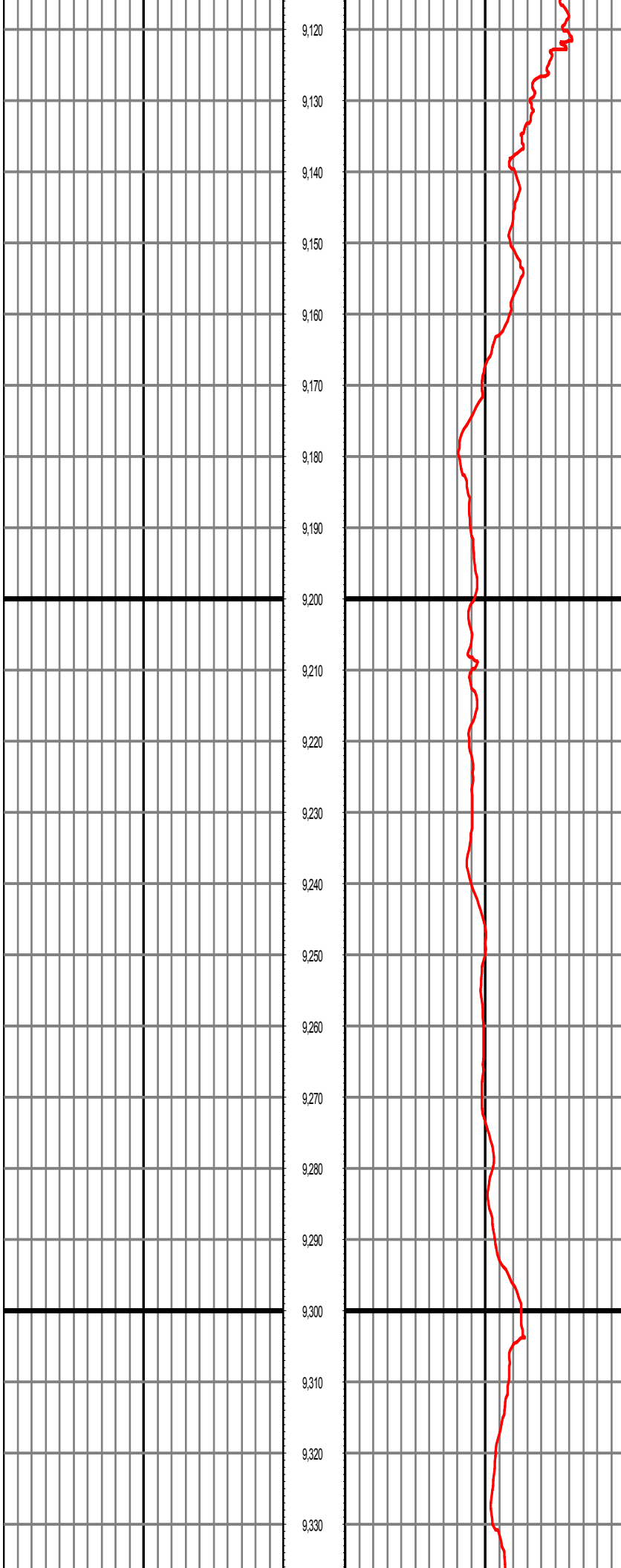
MD: 8634.00 INC: 89.28 AZ: 0.96 TVD: 7096.42 VS: 967.30



MD: 8729.00 INC: 89.76 AZ: 0.76 TVD: 7097.22 VS: 1062.30

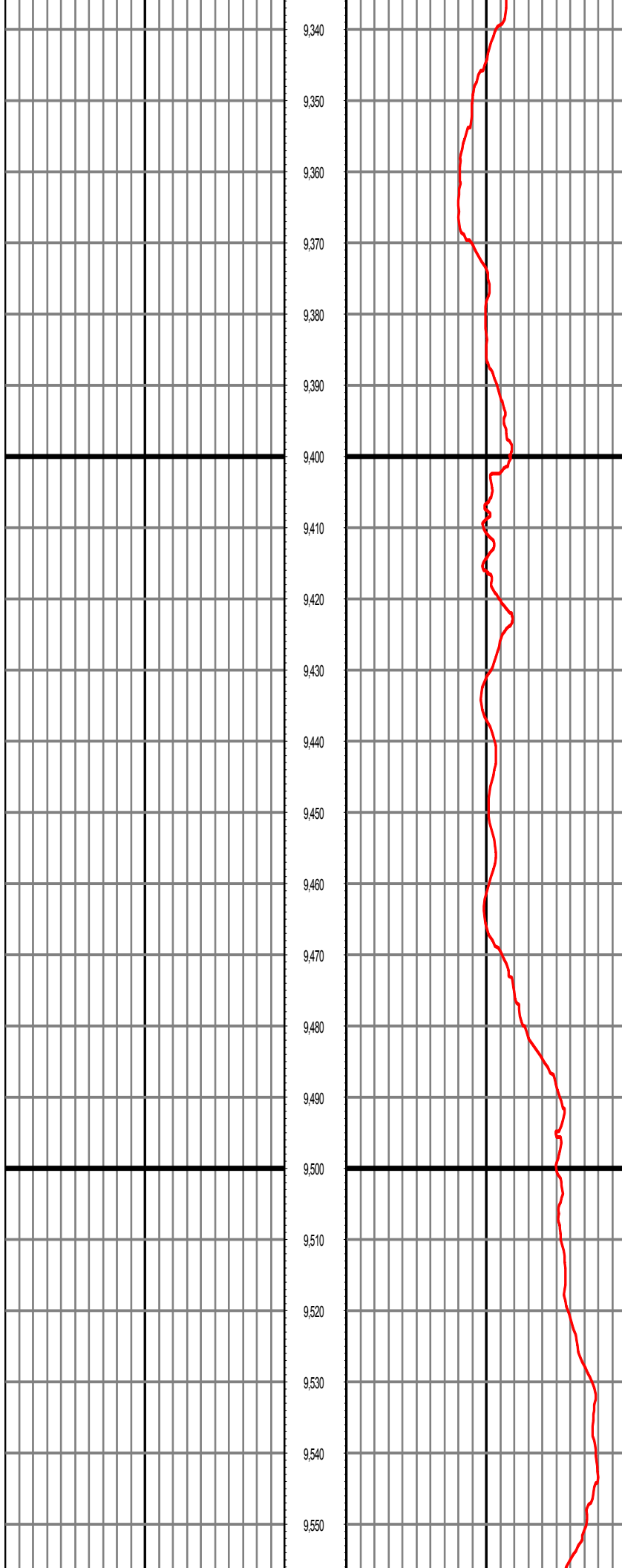
MD: 8824.00 INC: 90.89 AZ: 0.63 TVD: 7096.68 VS: 1157.29





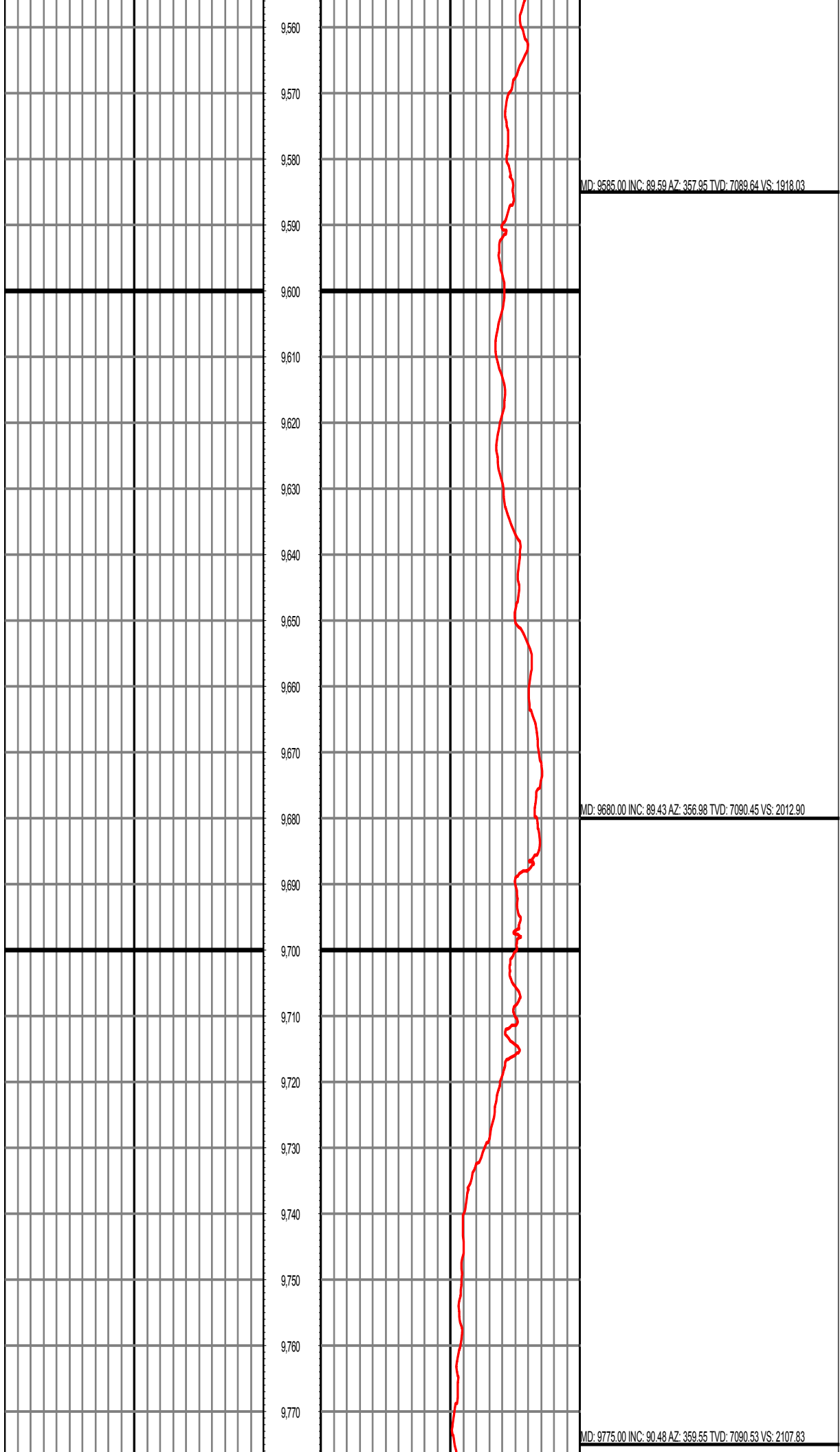
MD: 9206.00 INC: 90.08 AZ: 359.16 TVD: 7093.23 VS: 1539.23

MD: 9301.00 INC: 90.79 AZ: 359.15 TVD: 7092.51 VS: 1634.20



MD: 9396.00 INC: 91.58 AZ: 358.63 TVD: 7090.55 VS: 1729.15

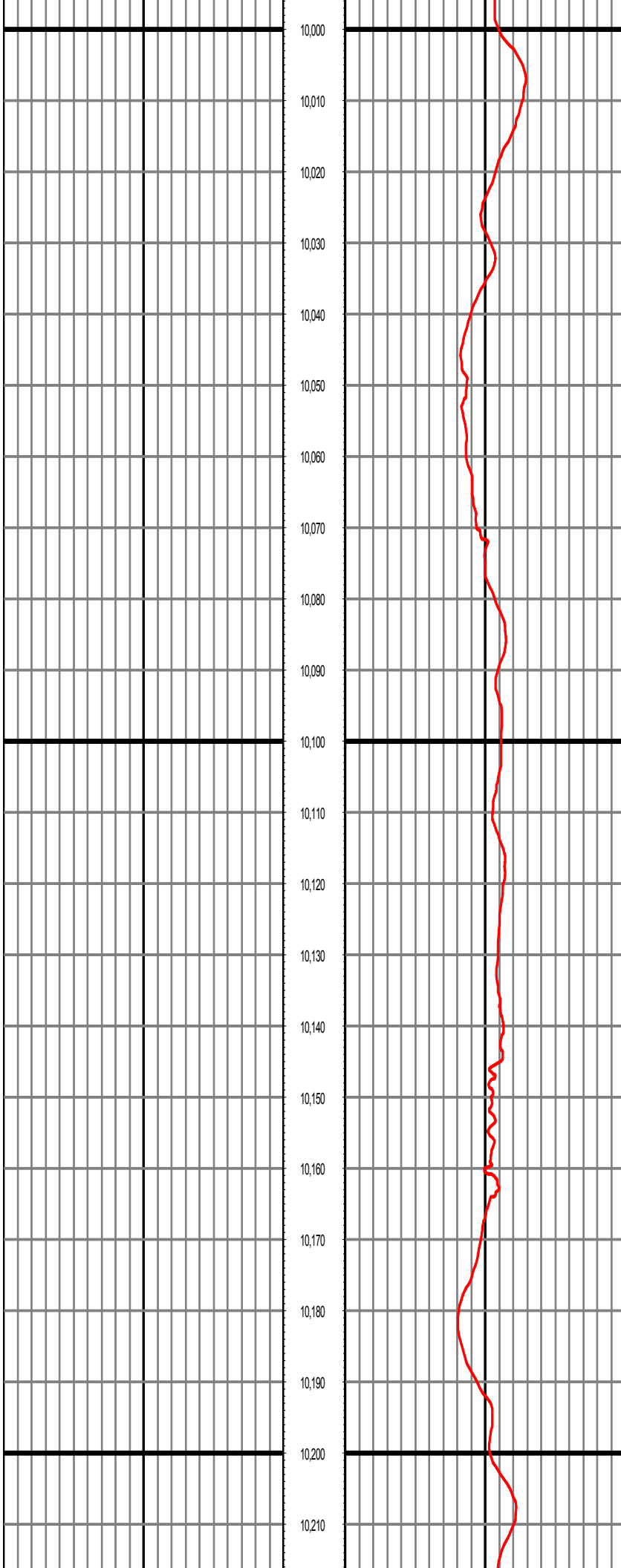
MD: 9490.00 INC: 89.97 AZ: 358.46 TVD: 7089.28 VS: 1823.09



MD: 9775.00 INC: 90.48 AZ: 359.55 IVD: 7090.53 VS: 2107.83

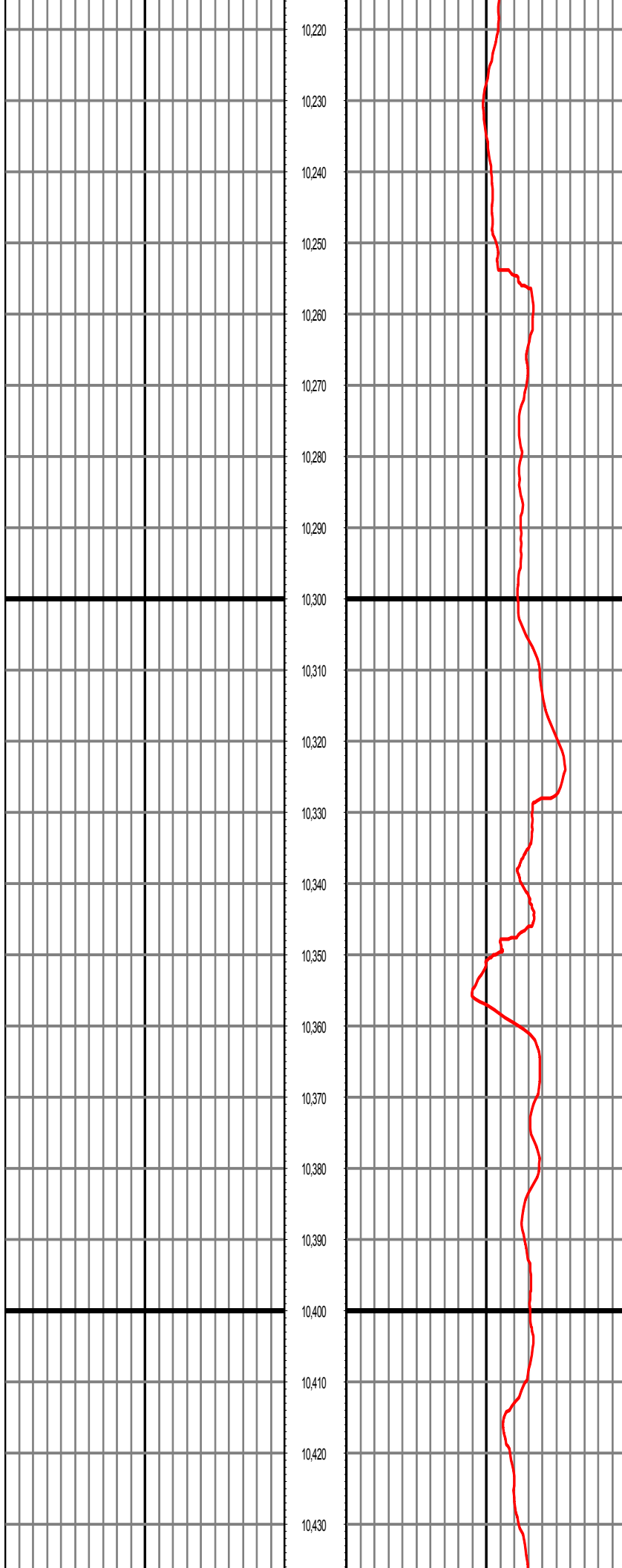
MD: 9871.00 INC: 91.19 AZ: 359.97 TVD: 7089.13 VS: 2203.81

MD: 9965.00 INC: 89.47 AZ: 359.55 TVD: 7088.59 VS: 2297.80



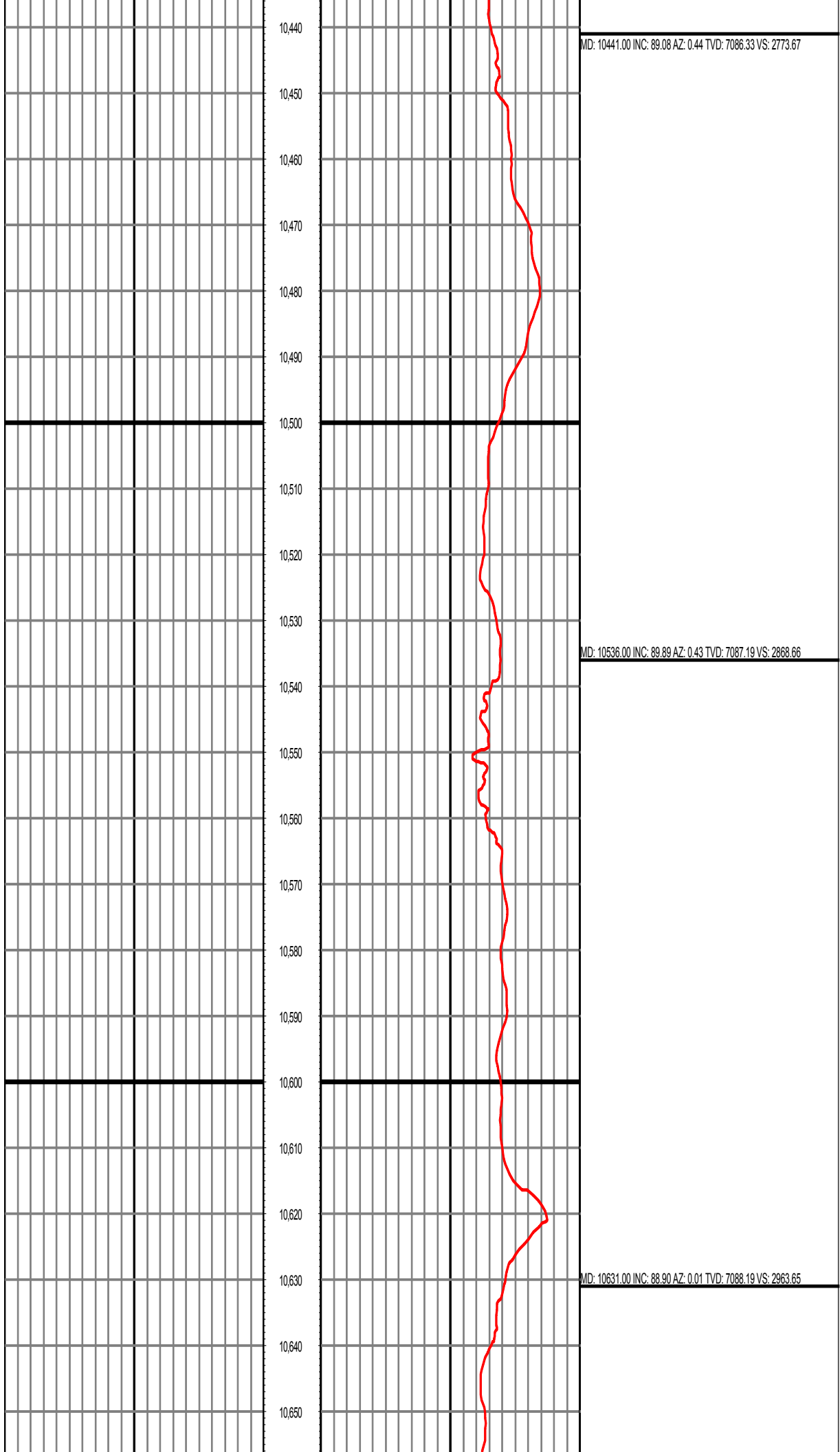
MD: 10061.00 INC: 89.45 AZ: 358.83 TVD: 7089.49 VS: 2393.78

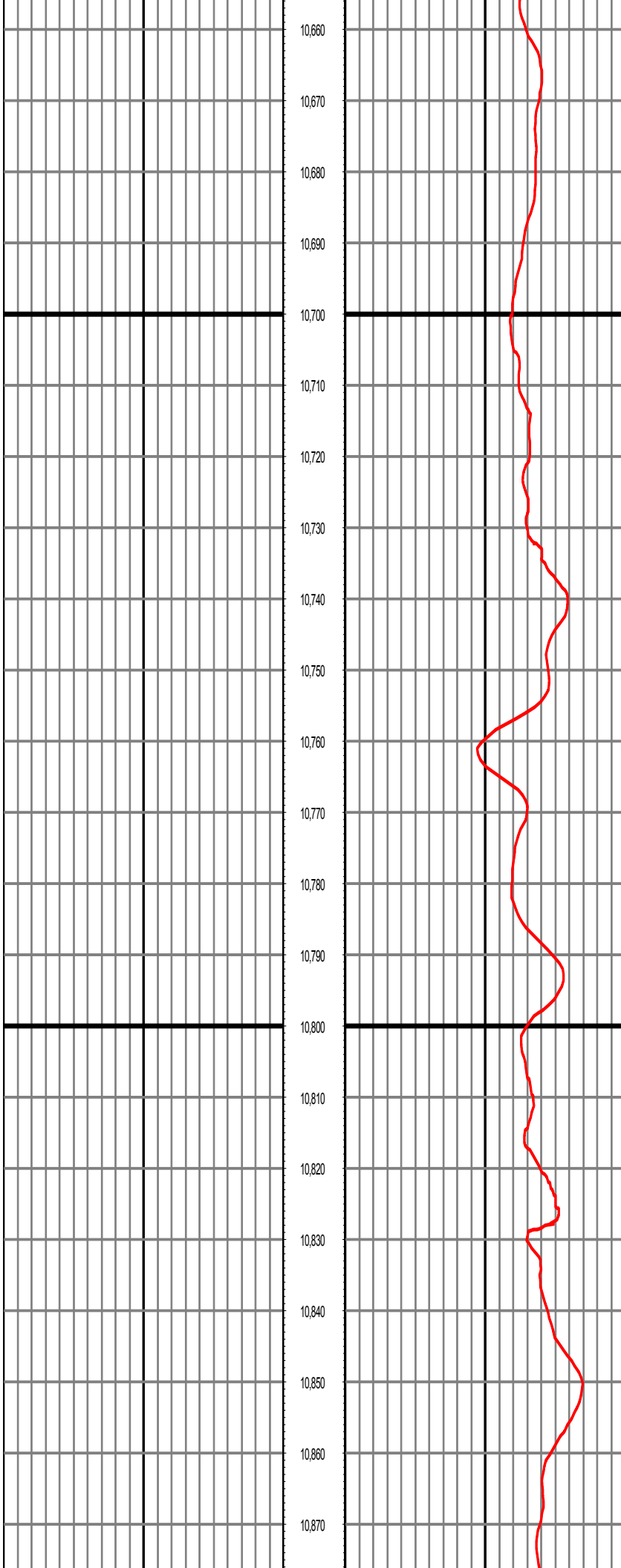
MD: 10156.00 INC: 90.00 AZ: 358.53 TVD: 7089.95 VS: 2488.74



MD: 10251.00 INC: 90.89 AZ: 1.51 TVD: 7089.21 VS: 2583.72

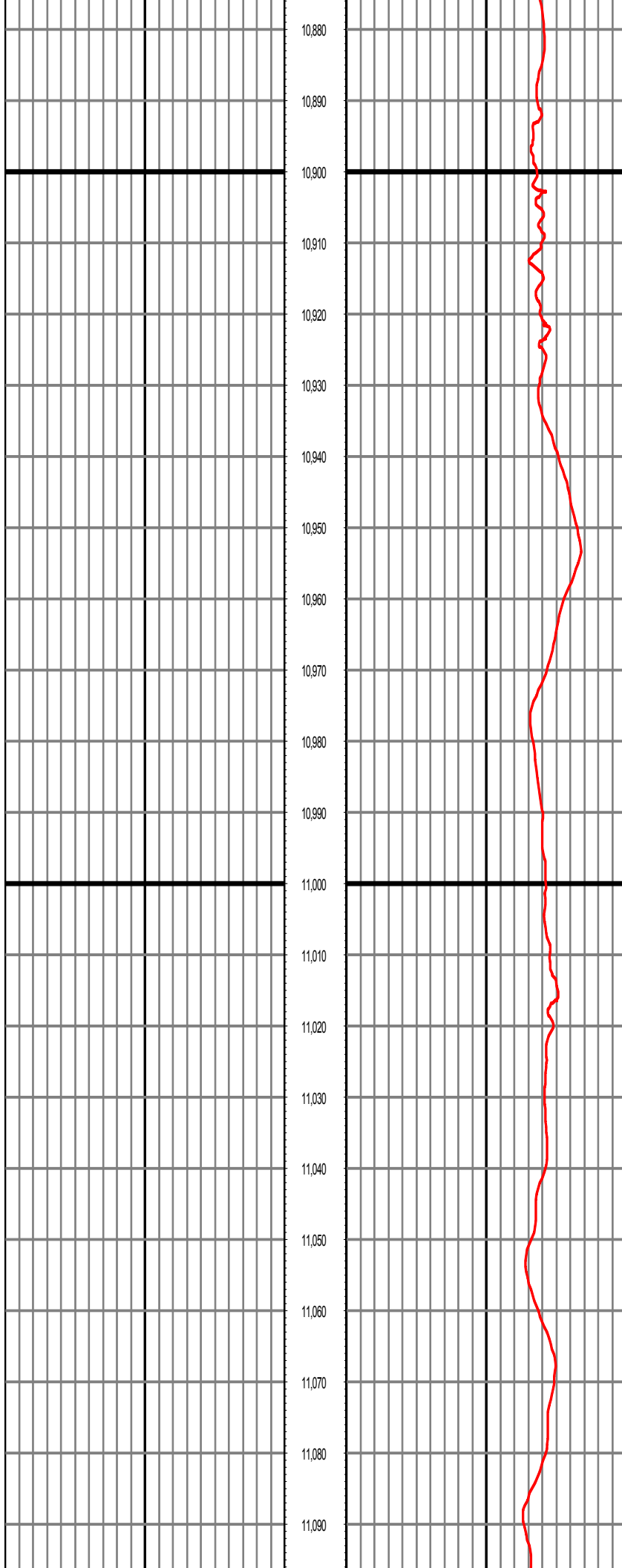
MD: 10346.00 INC: 91.75 AZ: 1.17 TVD: 7087.02 VS: 2678.68





MD: 10726.00 INC: 89.34 AZ: 359.62 TVD: 7089.65 VS: 3058.64

MD: 10821.00 INC: 90.02 AZ: 358.77 TVD: 7090.18 VS: 3153.62



10,880

10,890

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10,970

10,980

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11,060

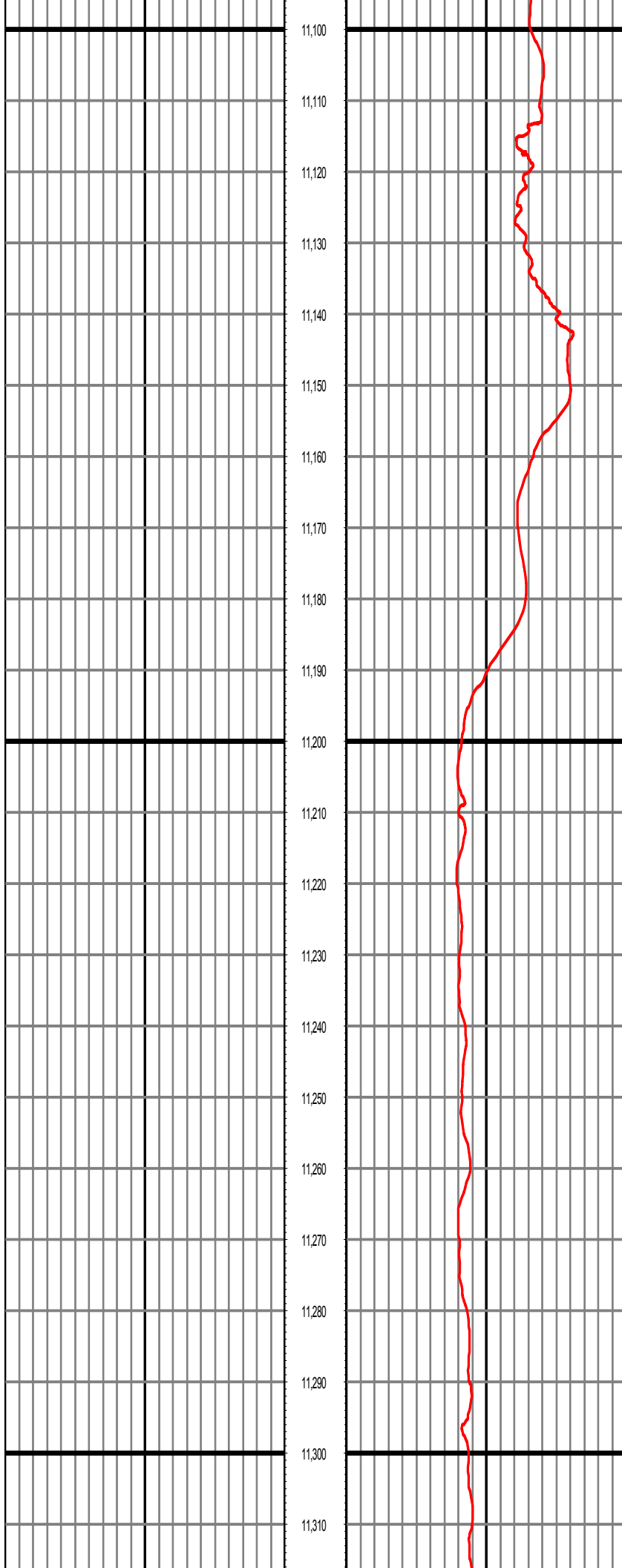
11,070

11,080

11,090

MD: 10916.00 INC: 90.84 AZ: 358.38 TVD: 7089.47 VS: 3248.57

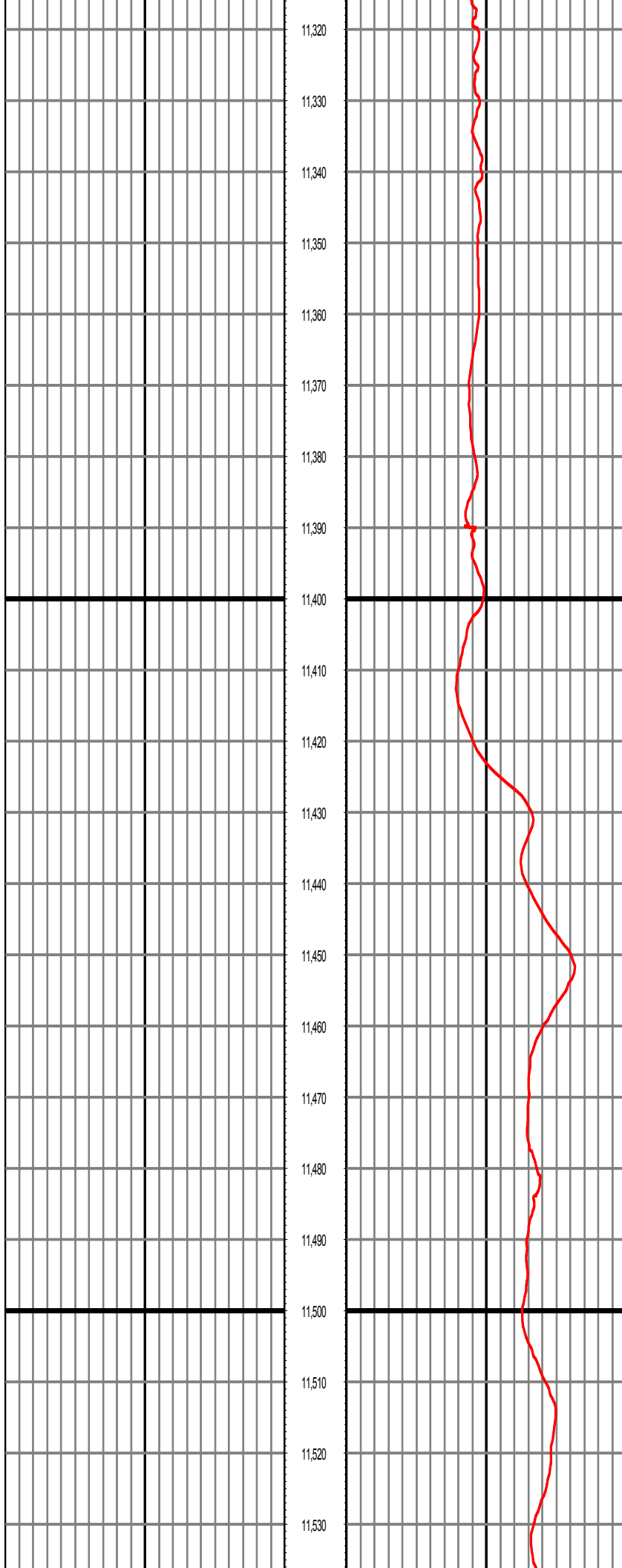
MD: 11009.00 INC: 89.38 AZ: 0.75 TVD: 7089.29 VS: 3341.55



MD: 11104.00 INC: 90.96 AZ: 0.36 TVD: 7089.01 VS: 3436.55

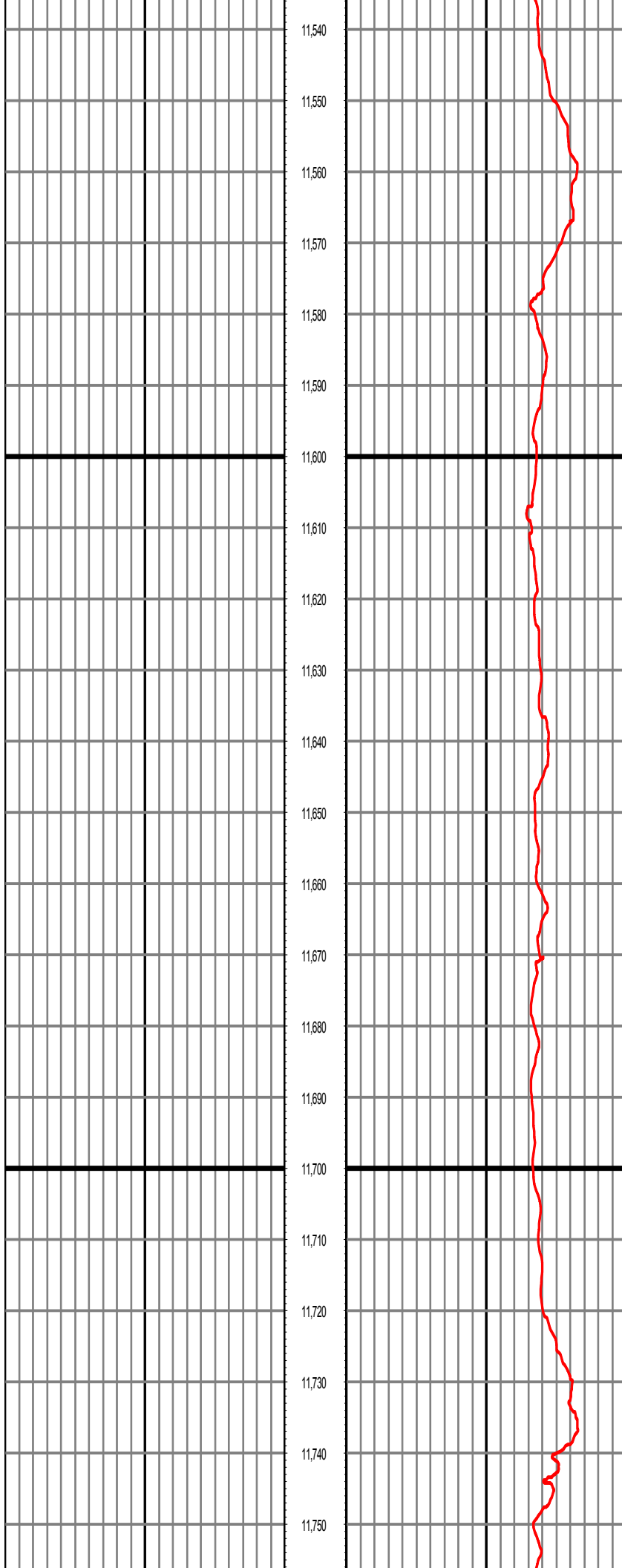
MD: 11199.00 INC: 90.40 AZ: 1.27 TVD: 7087.88 VS: 3531.53

MD: 11294.00 INC: 90.52 AZ: 0.68 TVD: 7087.12 VS: 3626.53



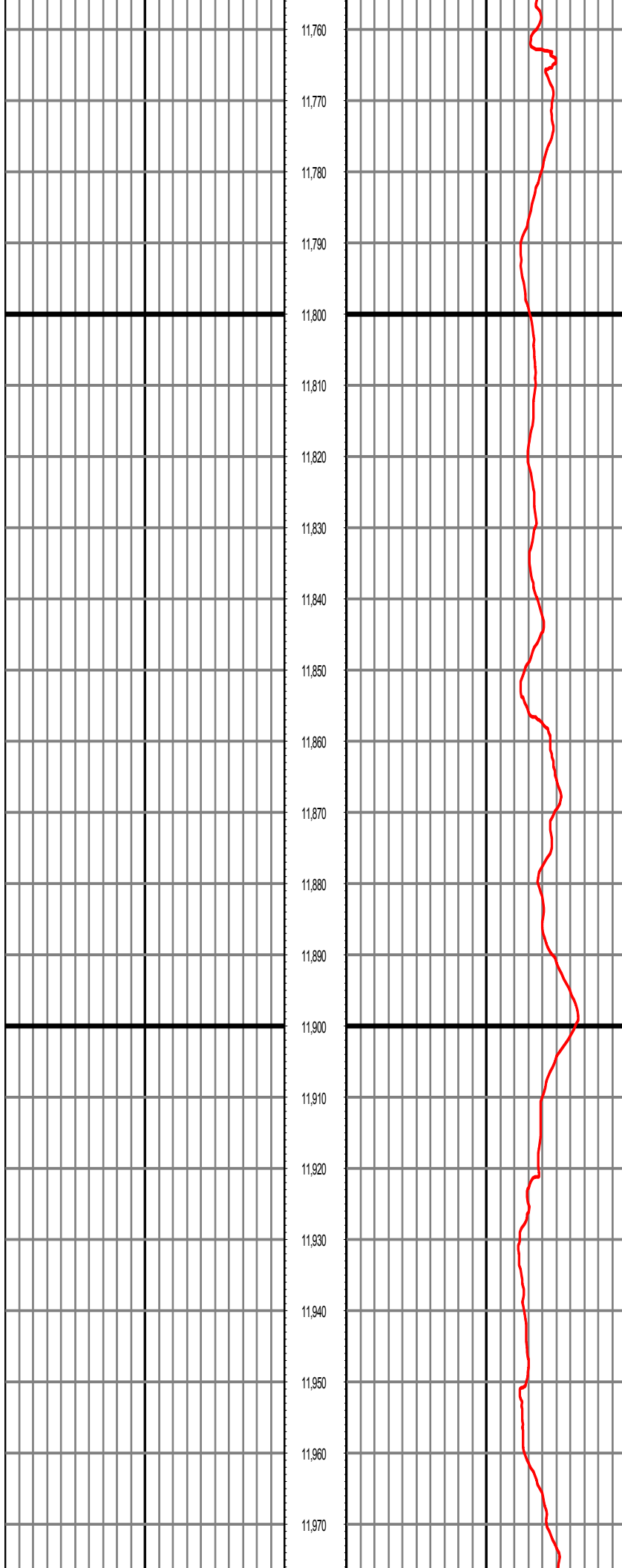
MD: 11388.00 INC: 89.80 AZ: 359.99 TVD: 7086.85 VS: 3720.52

MD: 11480.00 INC: 88.35 AZ: 0.23 TVD: 7088.34 VS: 3812.51



MD: 11573.00 INC: 89.42 AZ: 359.94 TVD: 7090.15 VS: 3905.49

MD: 11665.00 INC: 90.50 AZ: 359.77 TVD: 7090.21 VS: 3997.48



11,760

11,770

11,780

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11,900

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11,920

11,930

11,940

11,950

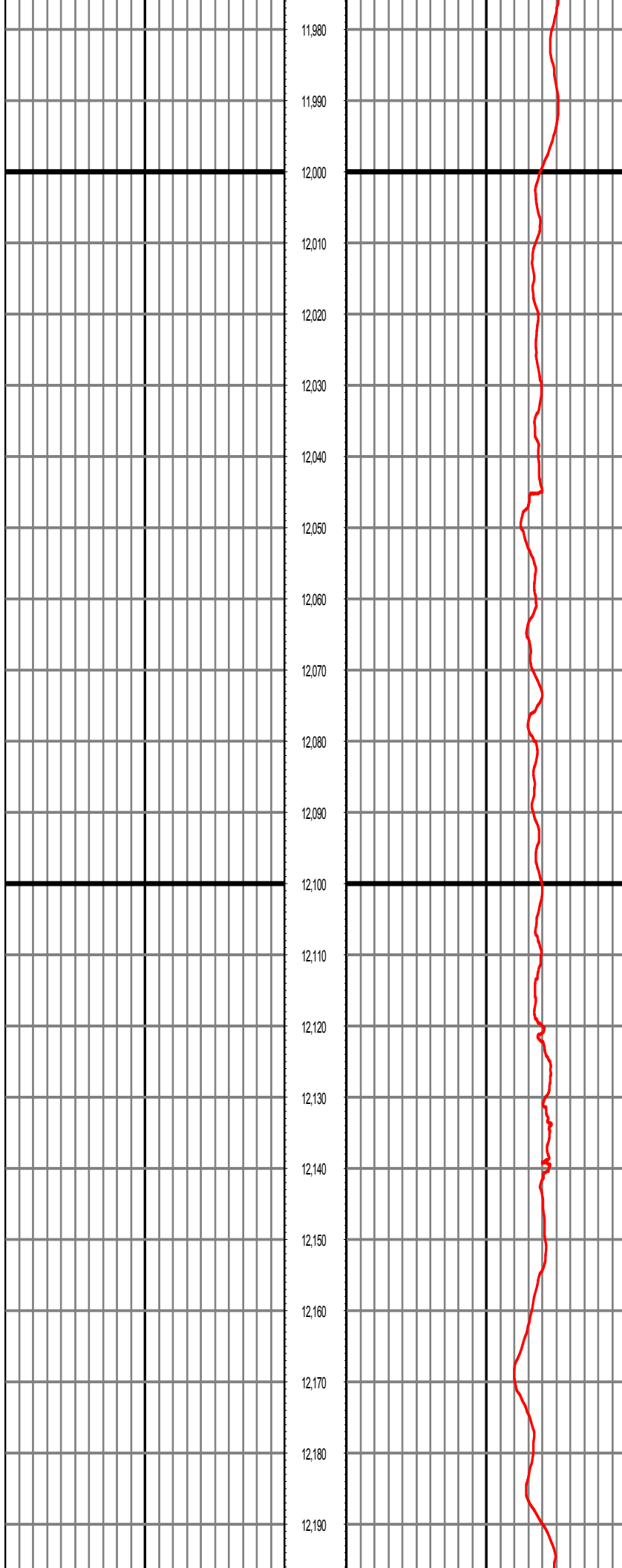
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11,970

MD: 11758.00 INC: 91.57 AZ: 359.70 TVD: 7088.53 VS: 4090.46

MD: 11851.00 INC: 88.02 AZ: 359.80 TVD: 7088.87 VS: 4183.44

MD: 11945.00 INC: 88.72 AZ: 359.53 TVD: 7091.54 VS: 4277.40



11,980

11,990

12,000

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12,150

12,160

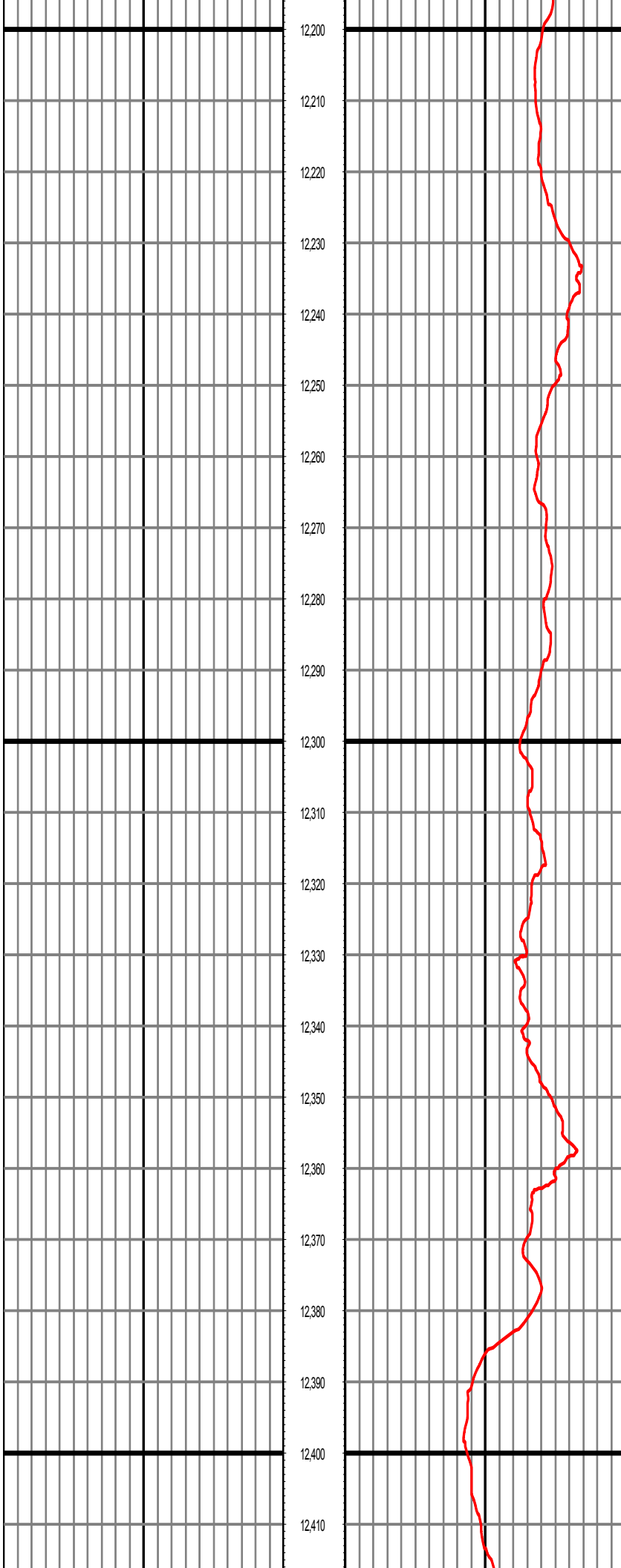
12,170

12,180

12,190

MD: 12038.00 INC: 89.94 AZ: 359.66 TVD: 7092.63 VS: 4370.38

MD: 12133.00 INC: 91.27 AZ: 359.96 TVD: 7091.62 VS: 4465.37



12,200

12,210

12,220

12,230

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12,340

12,350

12,360

12,370

12,380

12,390

12,400

12,410

MD: 12227.00 INC: 91.31 AZ: 0.34 TVD: 7089.51 VS: 4559.34

MD: 12320.00 INC: 91.99 AZ: 359.87 TVD: 7086.83 VS: 4652.30

MD: 12416.00 INC: 91.90 AZ: 1.47 TVD: 7083.57 VS: 4748.24

MD: 12416.00 INC: 91.90 AZ: 1.47 TVD: 7083.57 VS: 4748.24

12,420

12,430

12,440

12,450

12,460

12,470

12,480

12,490

12,500

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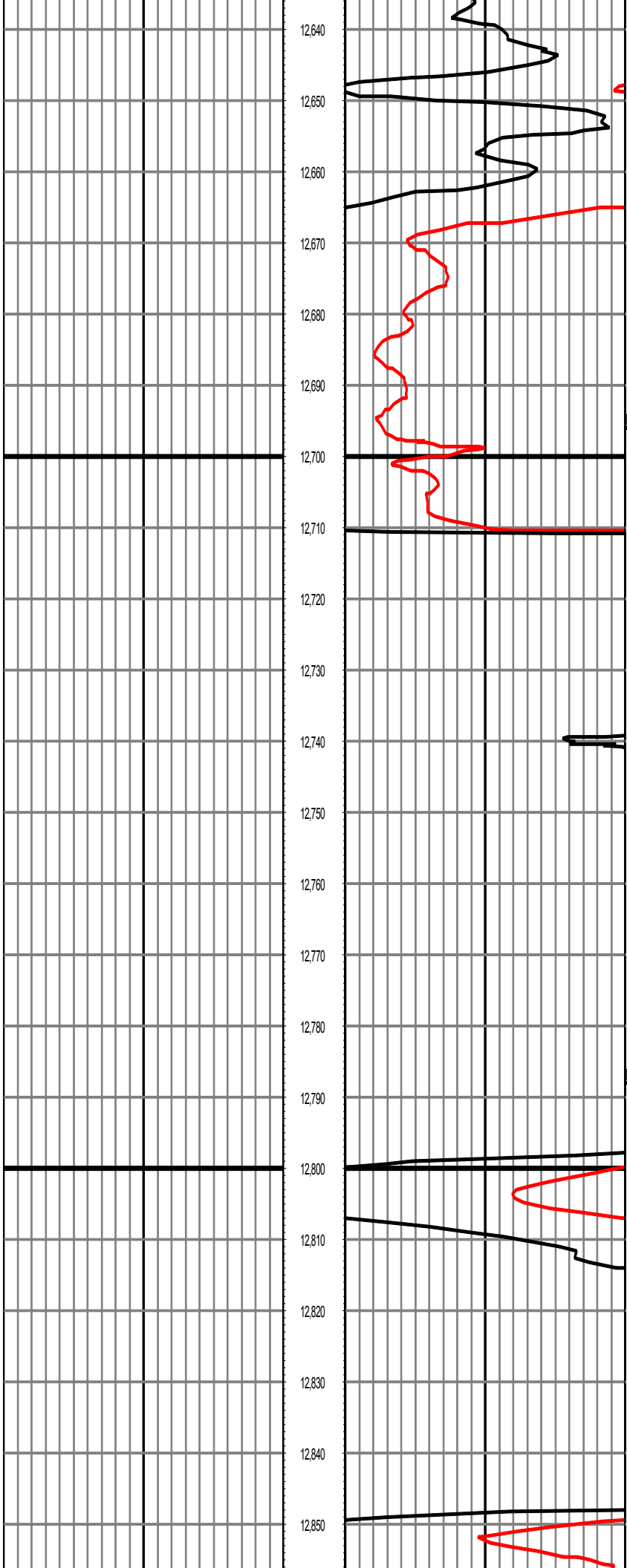
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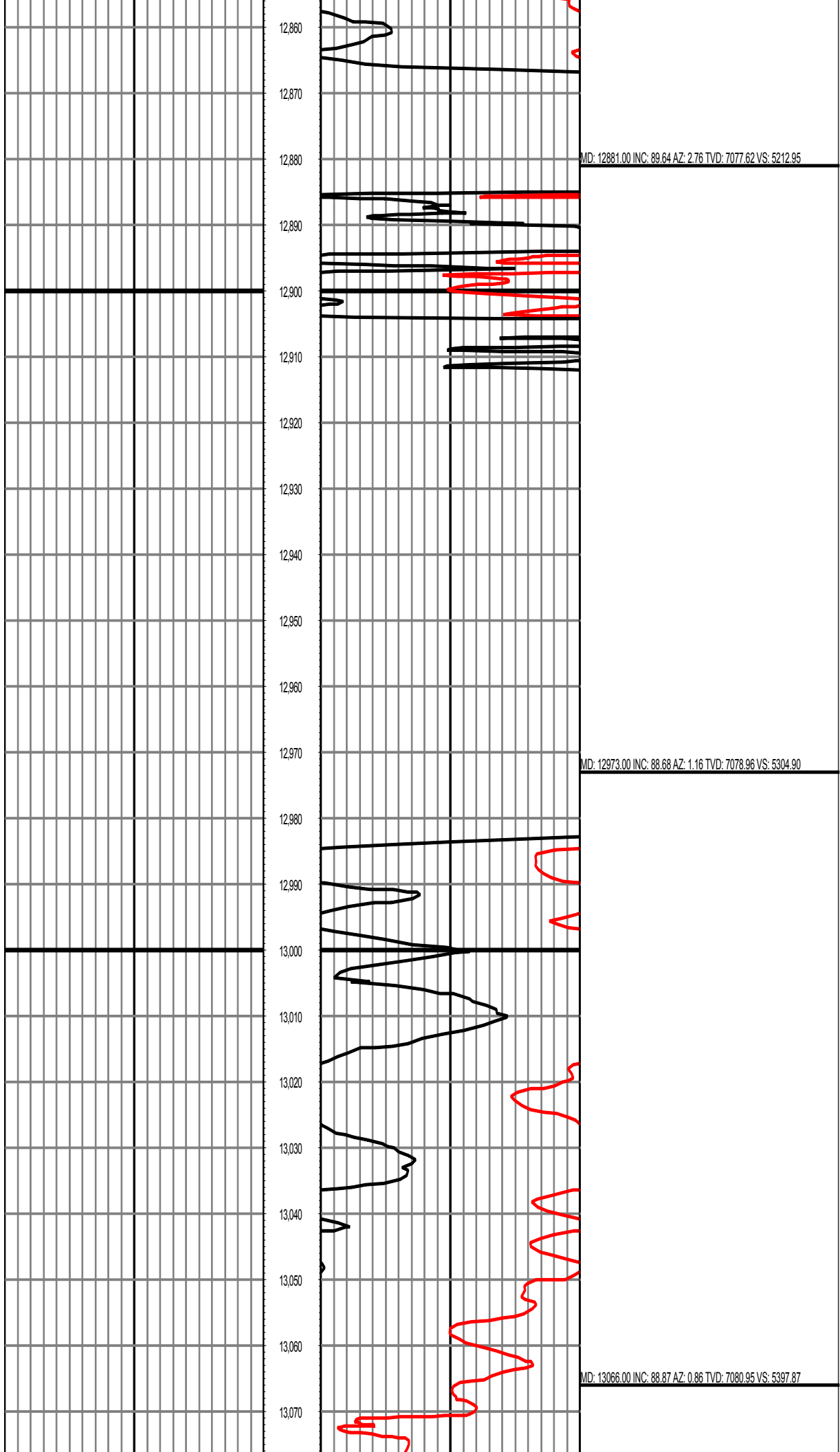
MD: 12510.00 INC: 91.53 AZ: 2.30 TVD: 7080.76 VS: 4842.17

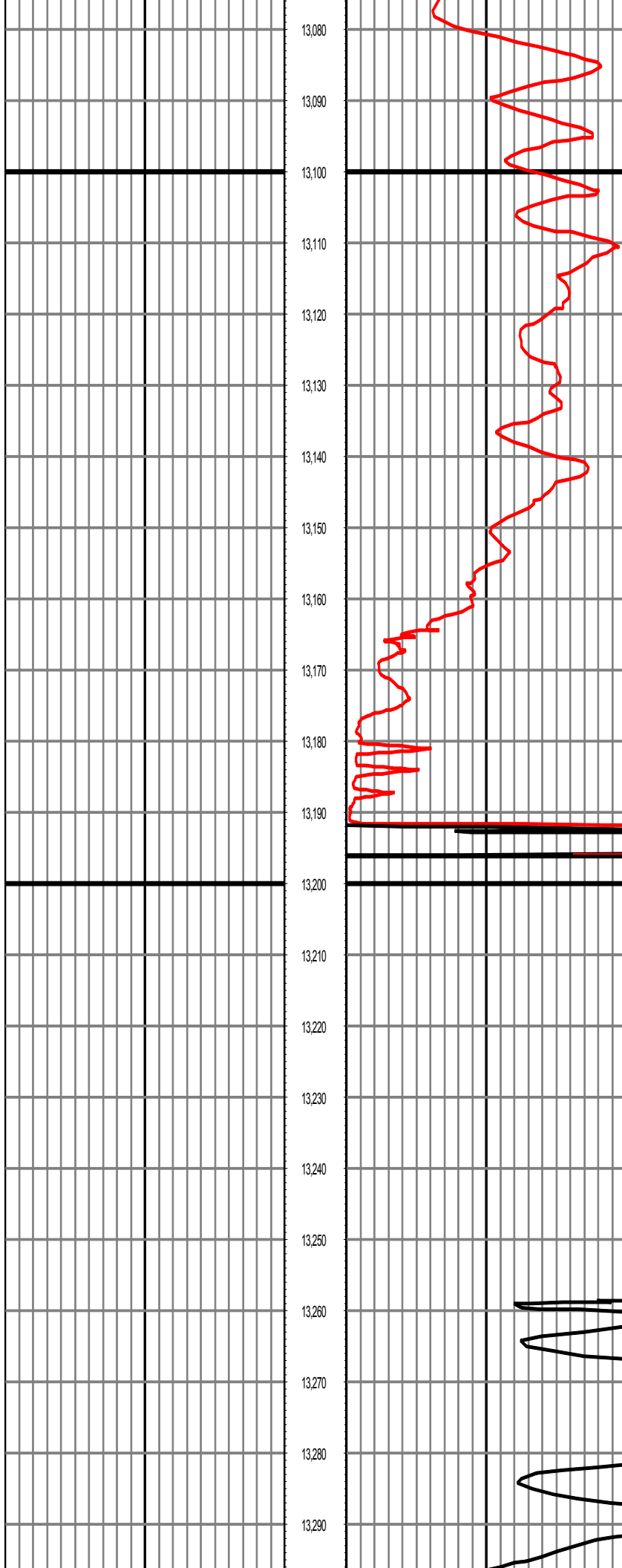
MD: 12603.00 INC: 89.76 AZ: 2.43 TVD: 7079.71 VS: 4935.10



MD: 12696.00 INC: 90.78 AZ: 1.87 TVD: 7079.27 VS: 5028.05

MD: 12788.00 INC: 90.82 AZ: 1.95 TVD: 7077.99 VS: 5120.01





13,080

13,090

13,100

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13,180

13,190

13,200

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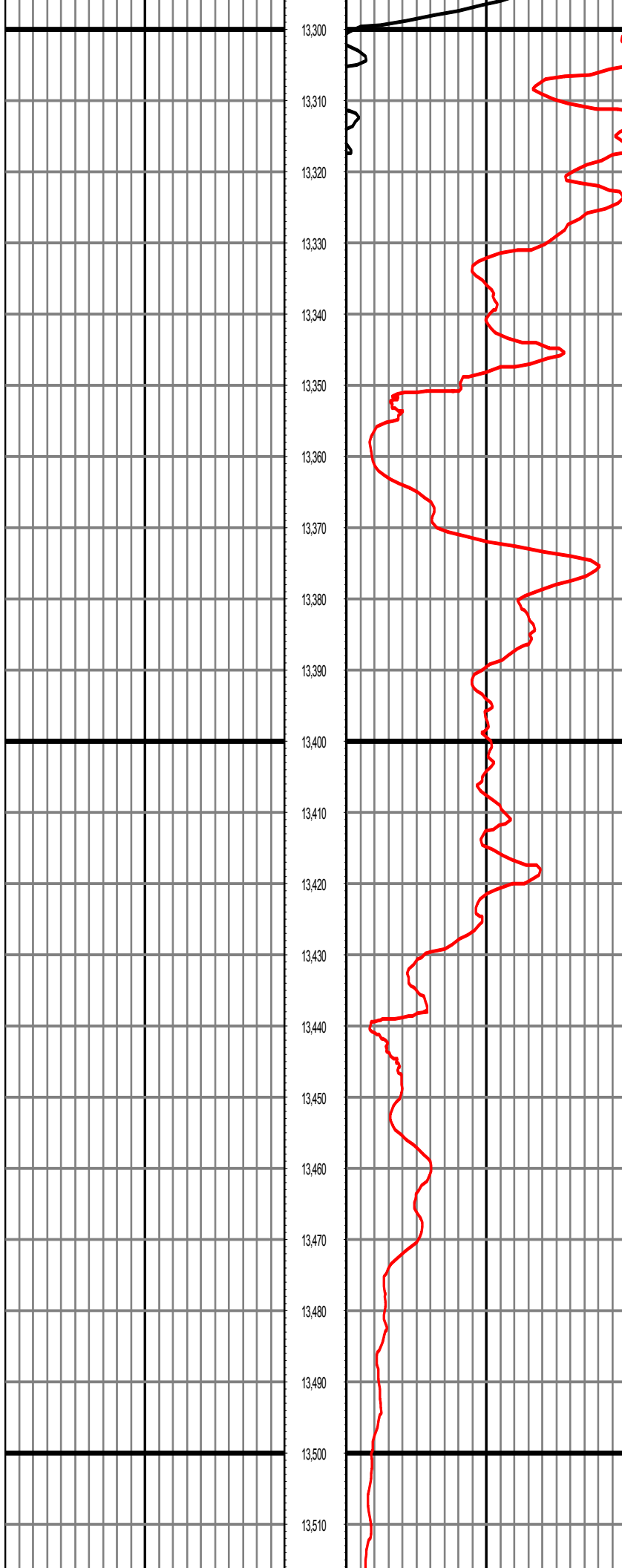
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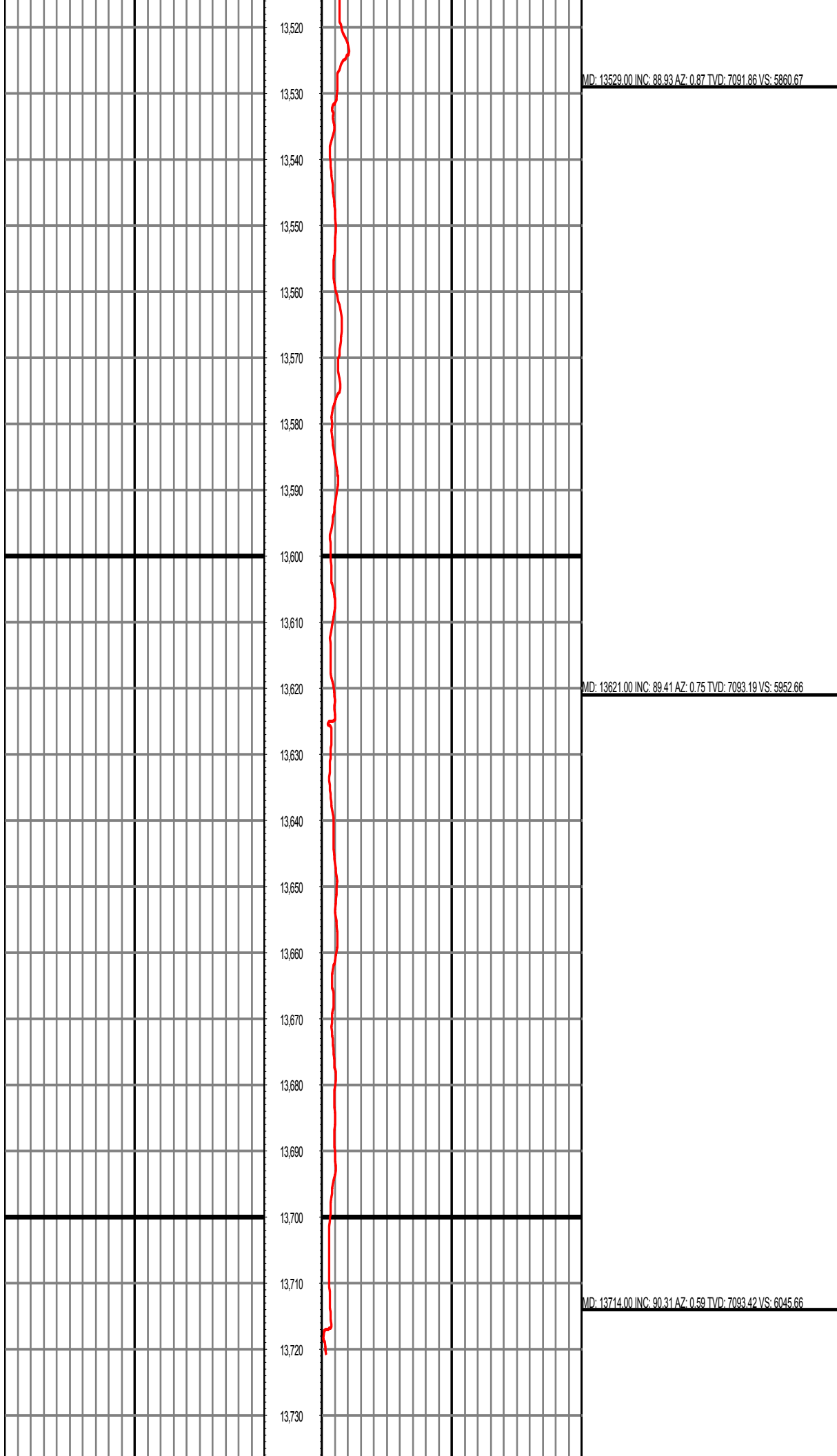
MD: 13158.00 INC: 89.63 AZ: 0.90 TVD: 7082.16 VS: 5489.86

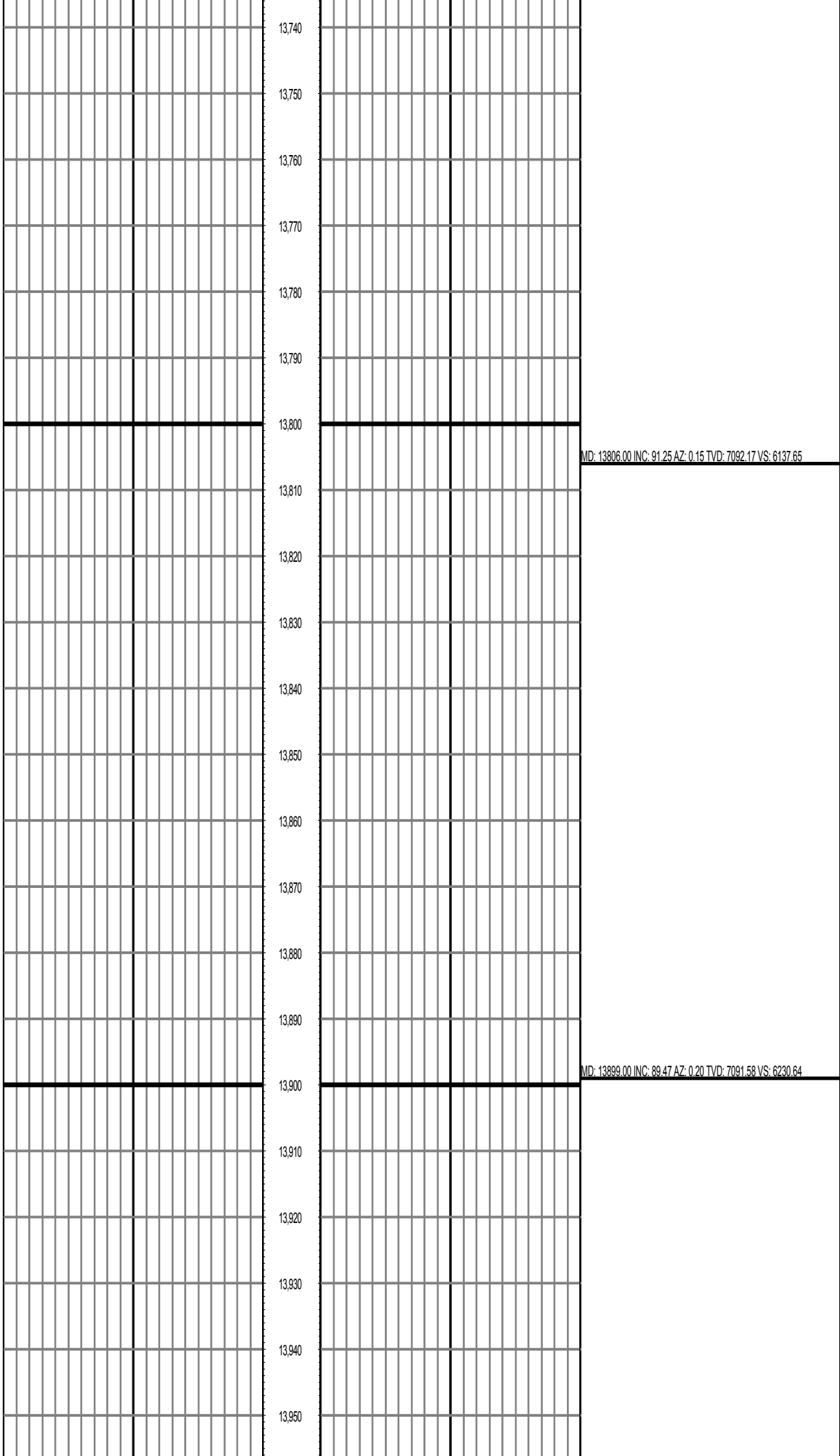
MD: 13251.00 INC: 88.30 AZ: 1.48 TVD: 7083.84 VS: 5582.83



MD: 13344.00 INC: 87.94 AZ: 1.31 TVD: 7086.89 VS: 5675.76

MD: 13436.00 INC: 88.48 AZ: 1.31 TVD: 7089.76 VS: 5767.70





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|--|--------|---|--|
| | 13,960 | | |
| | 13,970 | | |
| | 13,980 | | |
| | 13,990 | MD: 13991.00 INC: 90.25 AZ: 359.82 TVD: 7091.81 VS: 6322.64 | |
| | 14,000 | | |
| | 14,010 | | |
| | 14,020 | | |
| | 14,030 | | |
| | 14,040 | | |
| | 14,050 | | |
| | 14,060 | | |
| | 14,070 | | |
| | 14,080 | MD: 14084.00 INC: 89.50 AZ: 359.92 TVD: 7092.01 VS: 6415.63 | |
| | 14,090 | | |
| | 14,100 | | |
| | 14,110 | | |
| | 14,120 | | |
| | 14,130 | | |
| | 14,140 | | |
| | 14,150 | | |
| | 14,160 | | |
| | 14,170 | MD: 14176.00 INC: 89.87 AZ: 360.00 TVD: 7092.52 VS: 6507.63 | |

MD: 14176.00 INC: 89.87 AZ: 360.00 TVD: 7092.52 VS: 6507.63

14,180

14,190

14,200

14,210

14,220

14,230

14,240

14,250

14,260

MD: 14269.00 INC: 90.60 AZ: 359.41 TVD: 7092.14 VS: 6600.62

14,270

14,280

14,290

14,300

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MD: 14362.00 INC: 90.24 AZ: 0.87 TVD: 7091.46 VS: 6693.62

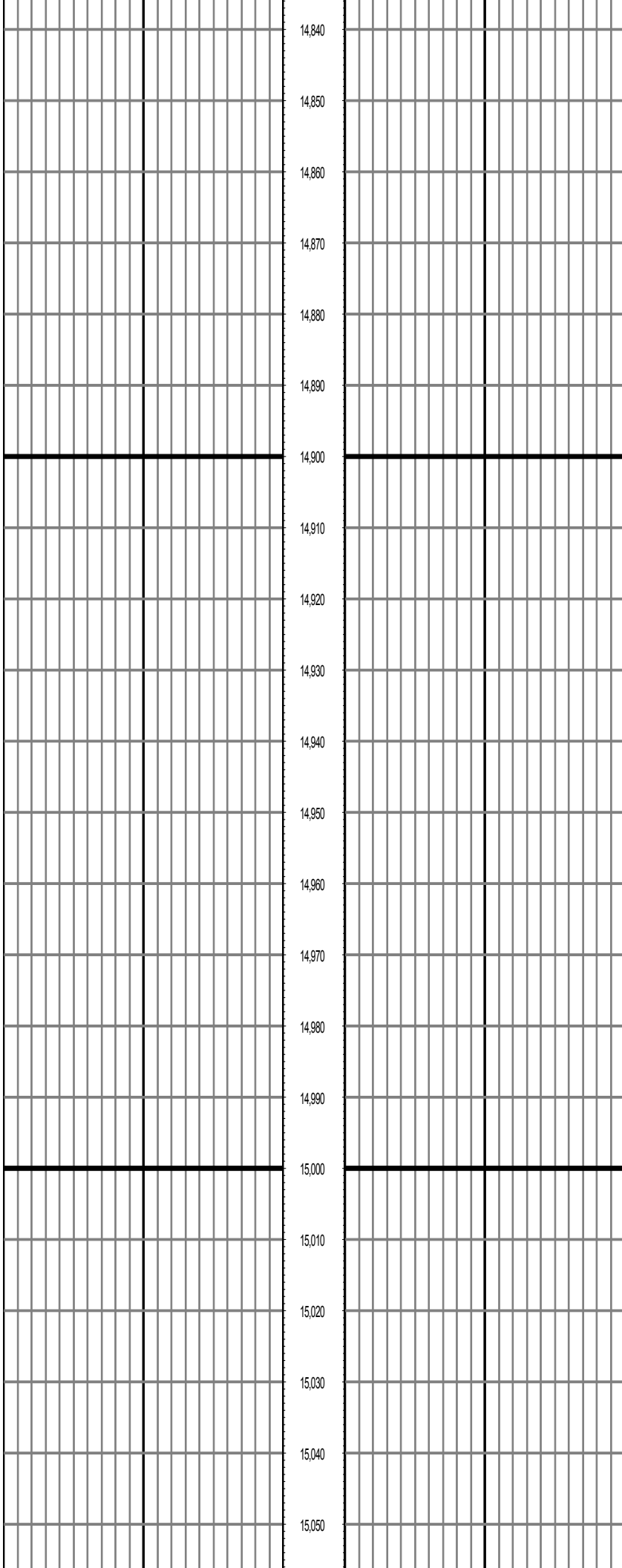
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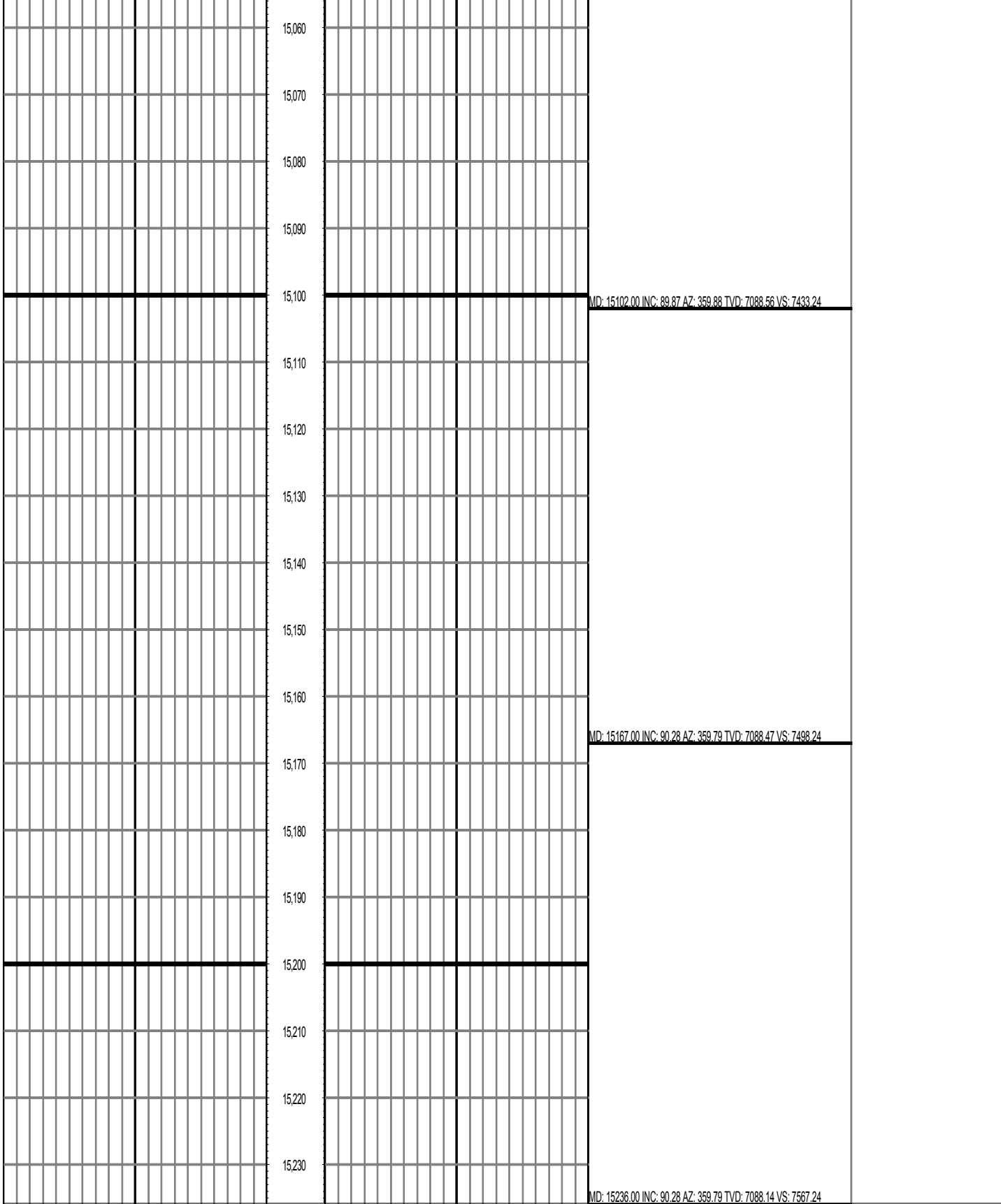
| | | | | |
|--|--|--------|--|---|
| | | 14,400 | | |
| | | 14,410 | | |
| | | 14,420 | | |
| | | 14,430 | | |
| | | 14,440 | | |
| | | 14,450 | | MD: 14454.00 INC: 88.54 AZ: 3.06 TVD: 7092.44 VS: 6785.57 |
| | | 14,460 | | |
| | | 14,470 | | |
| | | 14,480 | | |
| | | 14,490 | | |
| | | 14,500 | | |
| | | 14,510 | | |
| | | 14,520 | | |
| | | 14,530 | | |
| | | 14,540 | | MD: 14547.00 INC: 89.12 AZ: 2.37 TVD: 7094.33 VS: 6878.46 |
| | | 14,550 | | |
| | | 14,560 | | |
| | | 14,570 | | |
| | | 14,580 | | |
| | | 14,590 | | |
| | | 14,600 | | |
| | | 14,610 | | |

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|--|--|--------|--|--|---|
| | | 14,620 | | | |
| | | 14,630 | | | |
| | | 14,640 | | | MD: 14639.00 INC: 89.95 AZ: 2.52 TVD: 7095.08 VS: 6970.40 |
| | | 14,650 | | | |
| | | 14,660 | | | |
| | | 14,670 | | | |
| | | 14,680 | | | |
| | | 14,690 | | | |
| | | 14,700 | | | |
| | | 14,710 | | | |
| | | 14,720 | | | |
| | | 14,730 | | | MD: 14732.00 INC: 90.77 AZ: 2.14 TVD: 7094.50 VS: 7063.34 |
| | | 14,740 | | | |
| | | 14,750 | | | |
| | | 14,760 | | | |
| | | 14,770 | | | |
| | | 14,780 | | | |
| | | 14,790 | | | |
| | | 14,800 | | | |
| | | 14,810 | | | |
| | | 14,820 | | | MD: 14824.00 INC: 90.93 AZ: 1.36 TVD: 7093.13 VS: 7155.30 |
| | | 14,830 | | | |



MD: 14917.00 INC: 91.58 AZ: 0.90 TVD: 7091.09 VS: 7248.27

MD: 15009.00 INC: 90.85 AZ: 0.50 TVD: 7089.14 VS: 7340.25



| | | | | | | | | | |
|--------|----|----------------|--------|----|--------|----|---------------|--------|----------------------------|
| 0.00 | GR | RM(API) on TVD | 200.00 | MD | 0.00 | GR | RM(API) on MD | 200.00 | Surveys (MD/INC/AZ/TVD/VS) |
| 200.00 | | 2 | 400.00 | FT | 200.00 | | 2 | 400.00 | |