



## Build & Lateral

16191022

MD

## Well Site Information

Crestone Peak Resources

S4-T2N-R66W

DAVIS 1D-9H-G2666

API	05-123-46587-00
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Field	DJ BASIN
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State	CO
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Country	USA
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## Surface Coordinates

Horizontal

40° 9' 16 N

Longitude	104° 46' 40 W
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N / S Coordinates	1,299,979.94 us/ft
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E / W Coordinates	3,201,869.86 us/ft
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Azimuth Reference	True North
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**MWD Engineers**

Lead Hand	Bob Stahlecker
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Second Hand

Kyle Regan

Elevation

above perm datum.

02/2018

## End Depth

14,840.03 ft

## Bore Hole Record

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2,206.00 f

8.50 in	2,206.00 ft	14,840.00
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## Casing Record

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To

2,206.00 ft

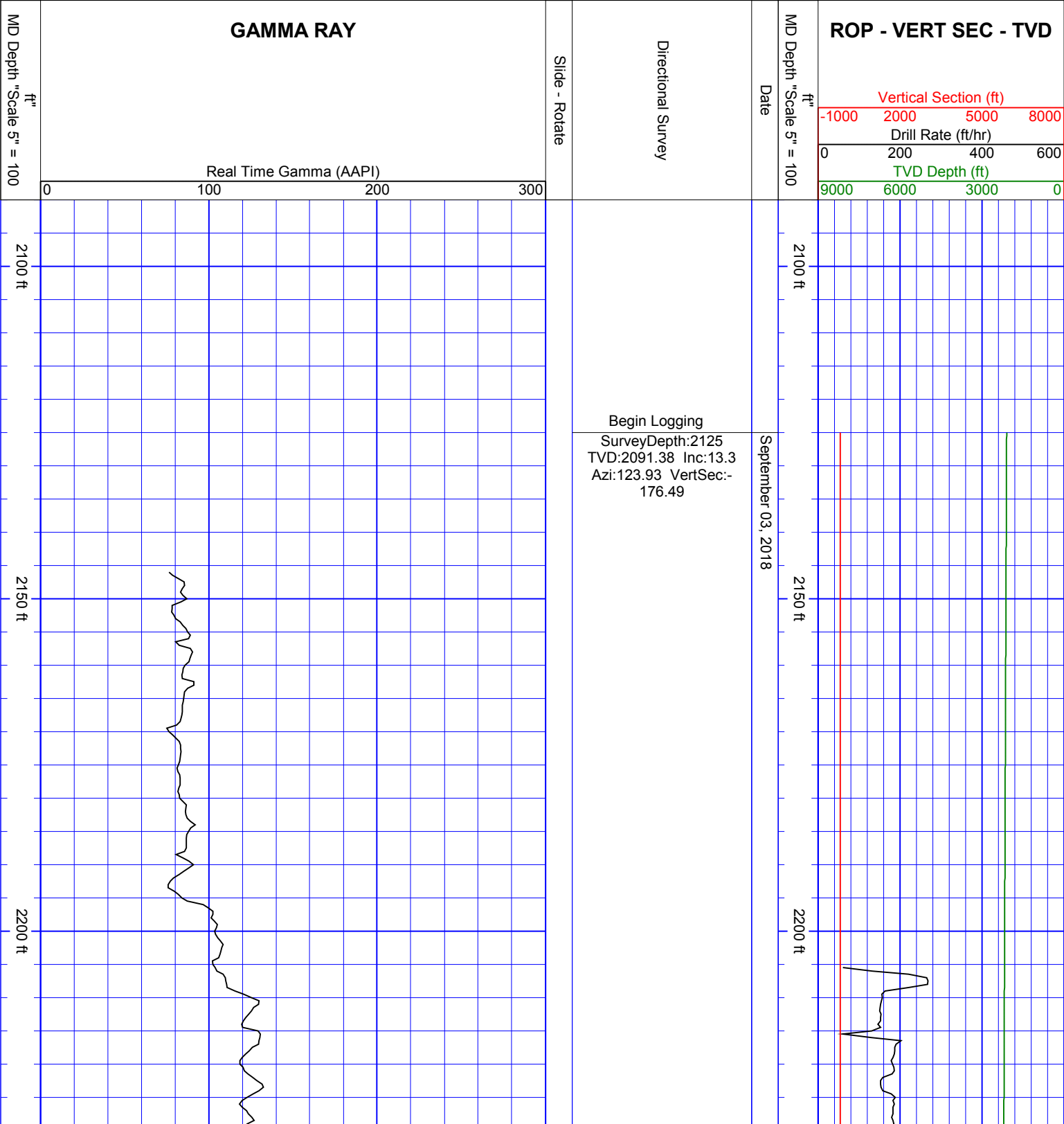
14,840.00 f

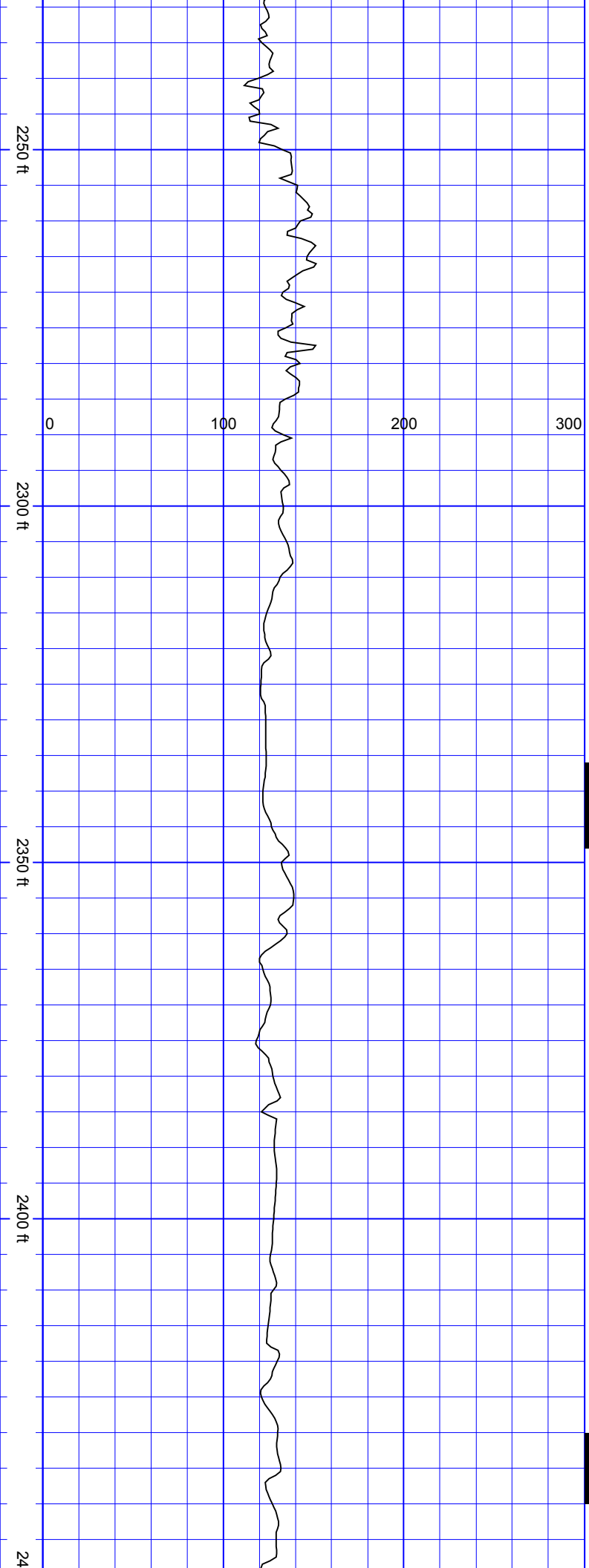
## Run Data

Run Data					
Bit Run Number	1	2			
Start Date & Time	Sep/02/2018 22:30:00	Sep/04/2018 21:00:00			
End Date & Time	Sep/04/2018 16:30:00	Sep/06/2018 16:30:00			
Run Hours	42.00	41.50			
Depth In	2,206.00 ft	9,257.00 ft			
Depth Out	9,257.00 ft	14,840.00 ft			
Total Gamma Correction	5.51	5.40			
Gamma to Bit	59.13 ft	56.77 ft			
Resistivity to Bit	-	-			
Mud Type	Oil Base	Oil Base			
Density	10.00 ppg	10.00 ppg			
Viscosity	49.00 sec/qt	49.00 sec/qt			
PH	-	-			
Fluid Loss	-	-			
K+ ppm	-	-			
CL- ppm	225,134.00 ppm	225,134.00 ppm			
Max Mud Temp	213.00 °F	253.00 °F			
Mud Report Depth	8,500.00 ft	12,557.00 ft			

## Remarks

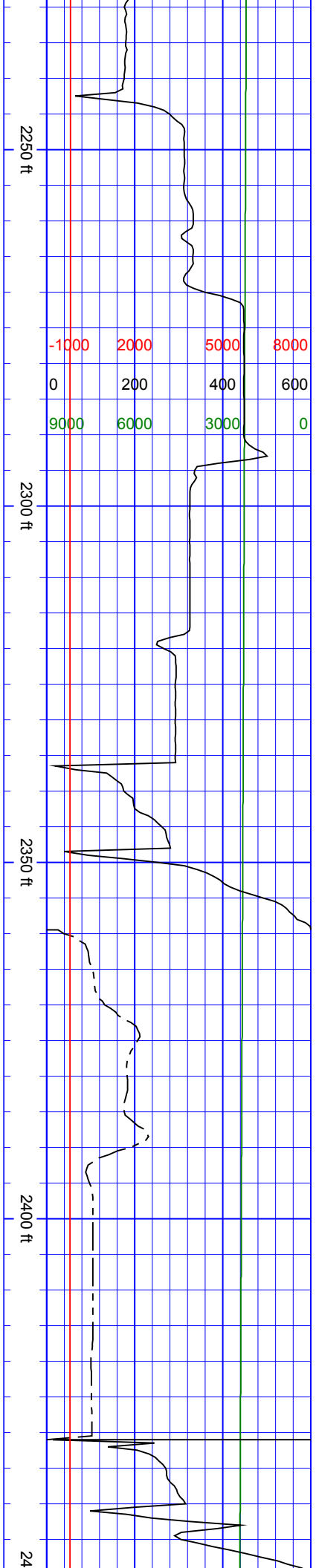
Interpretations of this data by Cathedral Energy Services will be of best judgment as to correctness. Cathedral Energy Services cannot and does not guarantee the accuracy or correctness of interpretations or any surveys derived therefrom. Cathedral Energy Services makes no warranties of performance, results, fitness or suitability for any particular purposes with respect to the goods being furnished under the terms and conditions. Cathedral Energy Services warrants that the equipment furnished will conform to Cathedral Energy Services published specifications in effect at the time and be in good working order.

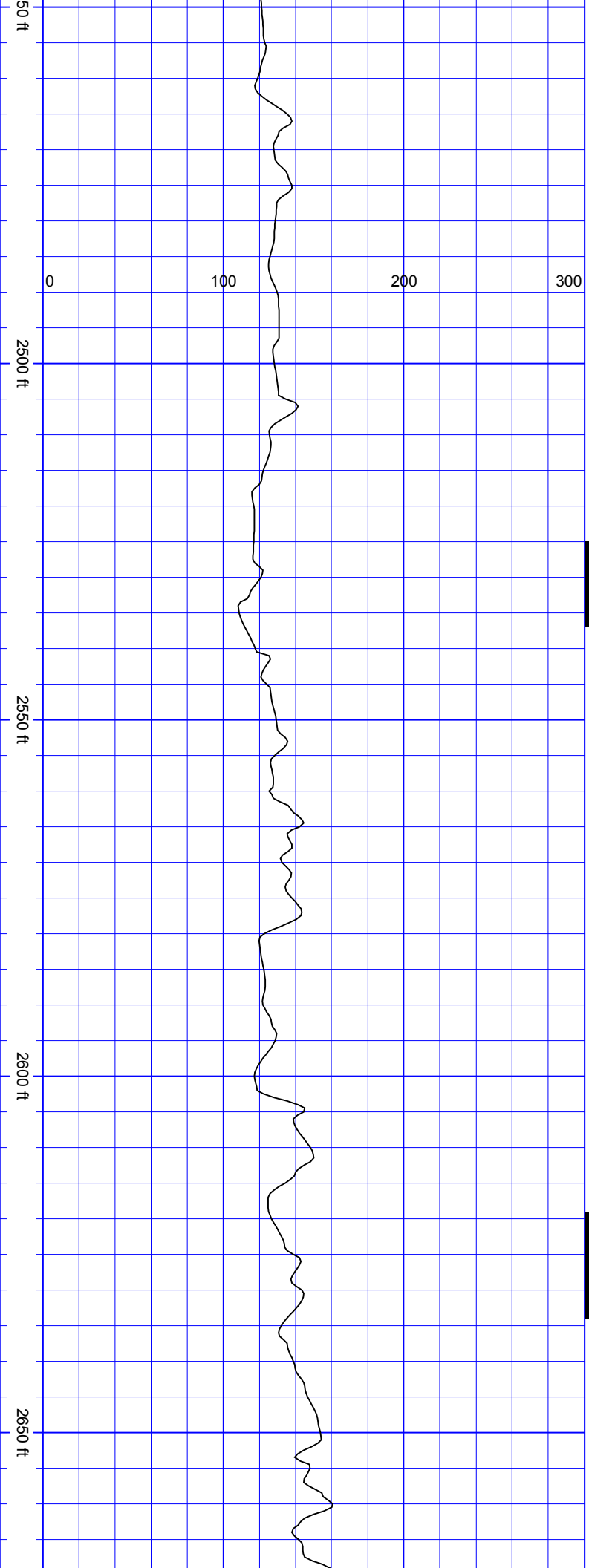




SurveyDepth:2272  
TVD:2234.67 Inc:12.52  
Azi:118.55 VertSec:-  
188.7

SurveyDepth:2366  
TVD:2326.44 Inc:12.48  
Azi:124.97 VertSec:-  
196.41





SurveyDepth:2461  
TVD:2419.27 Inc:12.09  
Azi:130.51 VertSec:-  
205.97

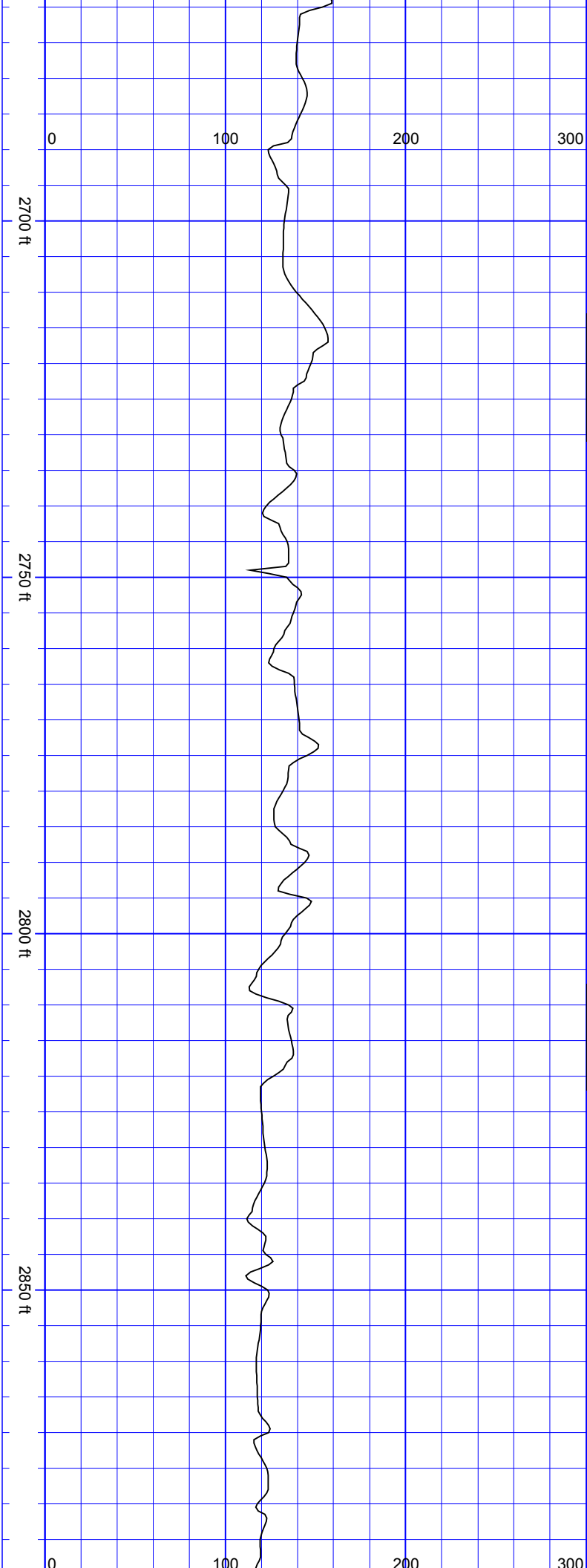
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TVD:2511.32 Inc:11.29  
Azi:134.02 VertSec:-  
216.27

SurveyDepth:2649  
TVD:2603.51 Inc:11.25  
Azi:131.47 VertSec:-  
226.35

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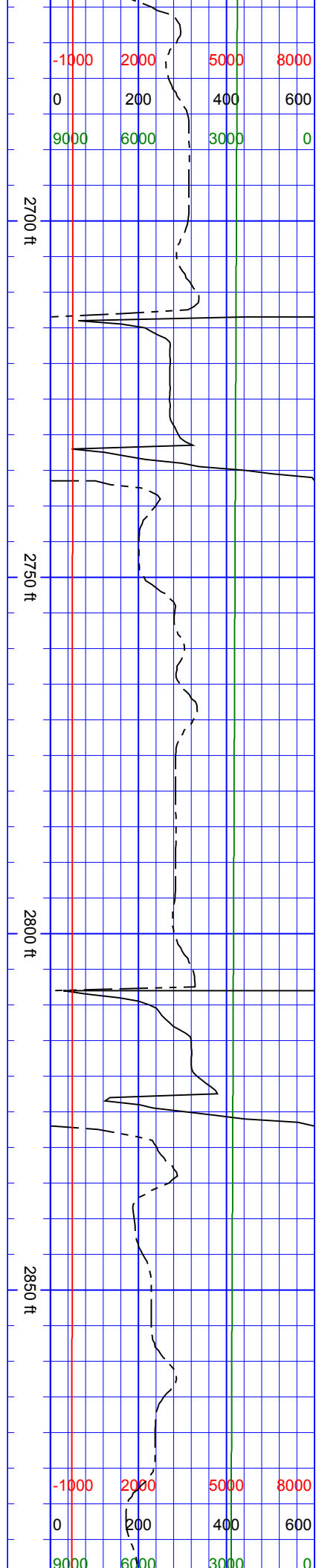


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SurveyDepth:2743  
TVD:2695.49 Inc:12.57  
Azi:135.87 VertSec:-  
237.29

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SurveyDepth:2838  
TVD:2788.08 Inc:13.32  
Azi:142.46 VertSec:-  
250.89



-1000 2000 5000 8000  
0 200 400 600  
9000 6000 3000 0

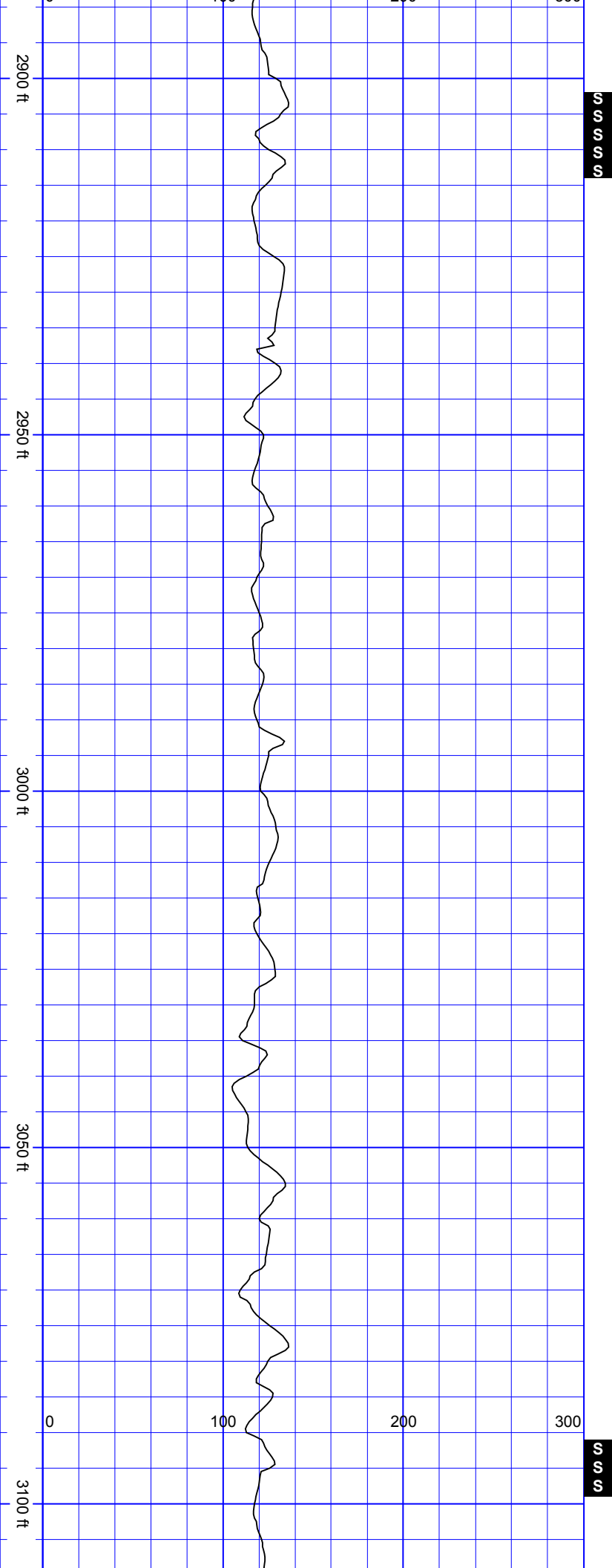
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SurveyDepth:2743  
TVD:2695.49 Inc:12.57  
Azi:135.87 VertSec:-  
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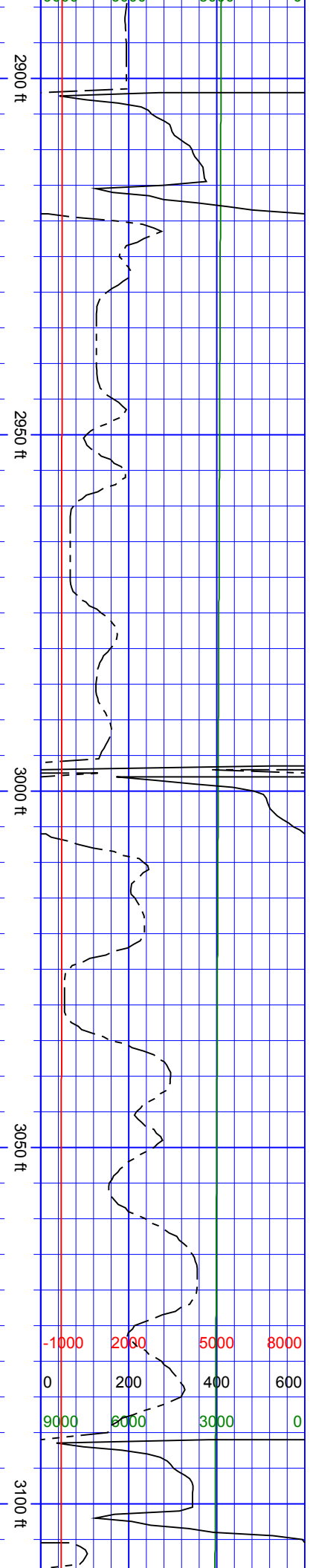
SurveyDepth:2838  
TVD:2788.08 Inc:13.32  
Azi:142.46 VertSec:-  
250.89

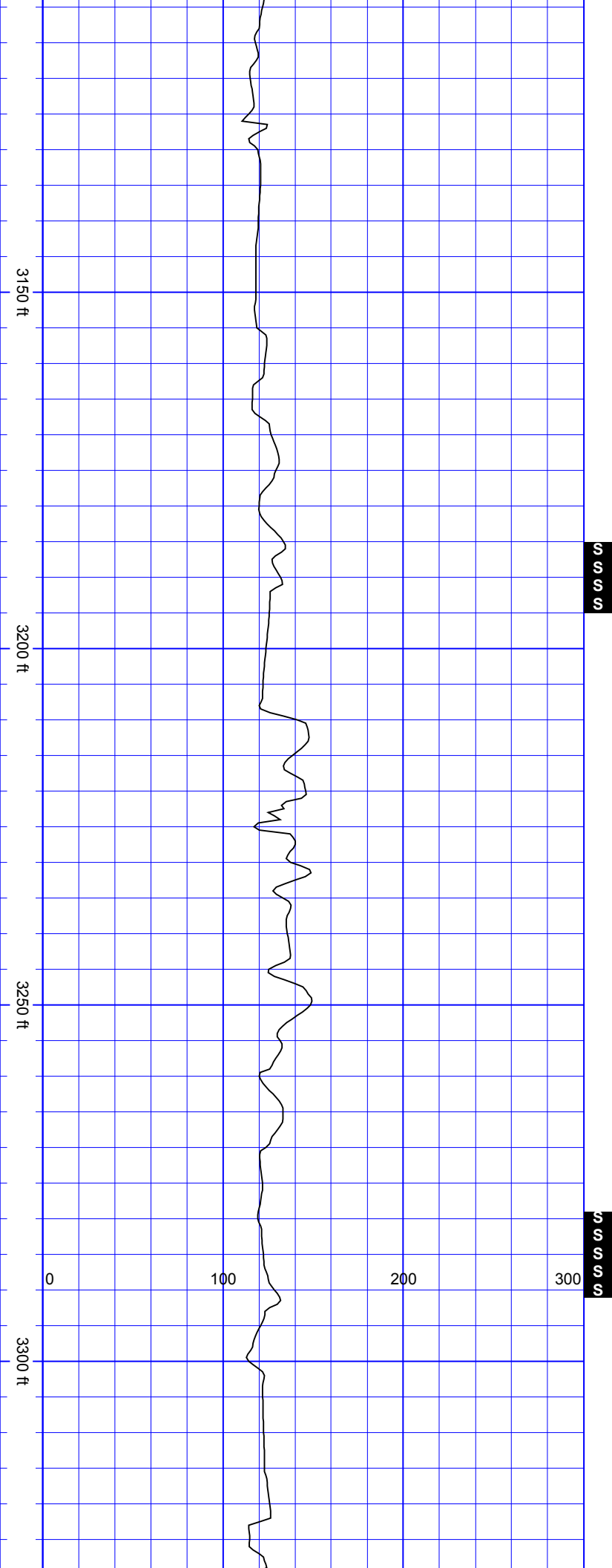
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0 200 400 600  
9000 6000 3000 0



SurveyDepth:2932  
TVD:2879.2 Inc:15.07  
Azi:144.48 VertSec:-  
266.92

SurveyDepth:3027  
TVD:2971.06 Inc:14.5  
Azi:145.71 VertSec:-  
284.25

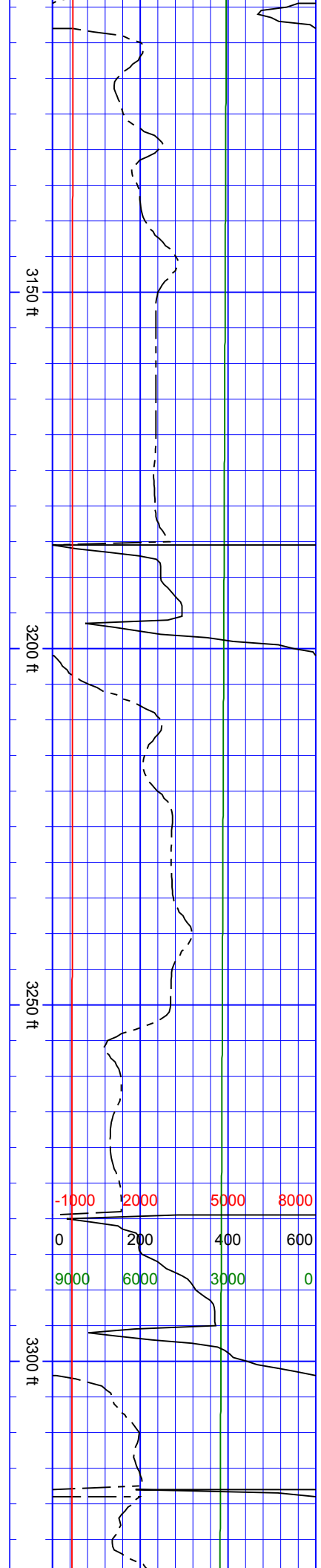


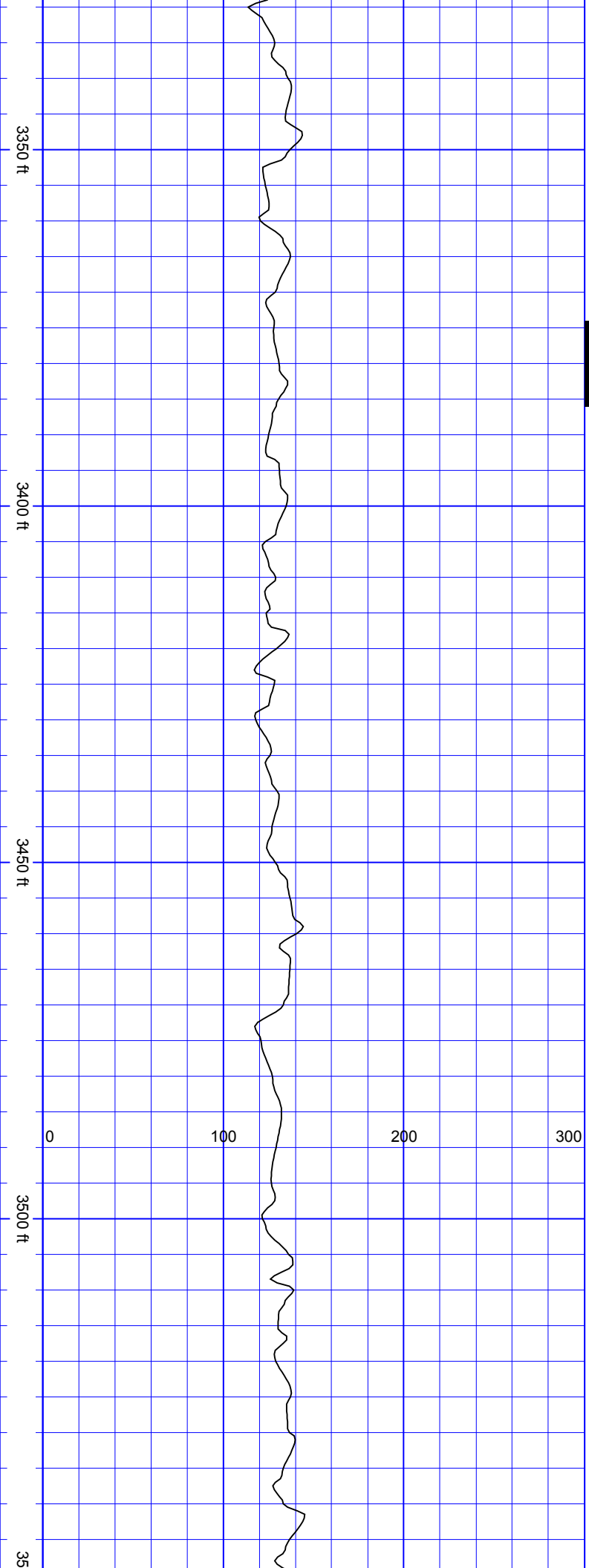


SurveyDepth:3121  
TVD:3062.25 Inc:13.58  
Azi:142.55 VertSec:-  
300.3

SurveyDepth:3215  
TVD:3153.73 Inc:13.05  
Azi:138.77 VertSec:-  
314.56

SurveyDepth:3310  
TVD:3246.12 Inc:13.84  
Azi:133.93 VertSec:-  
327.79

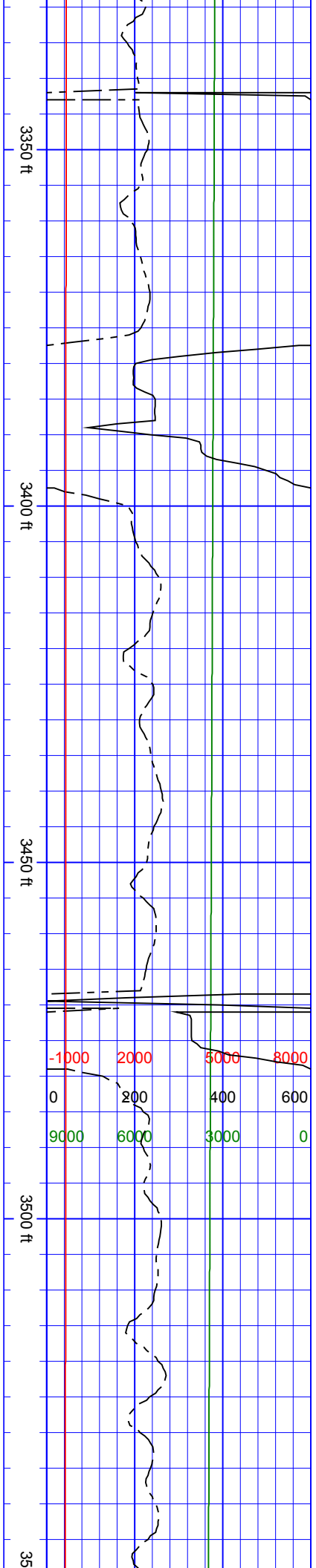




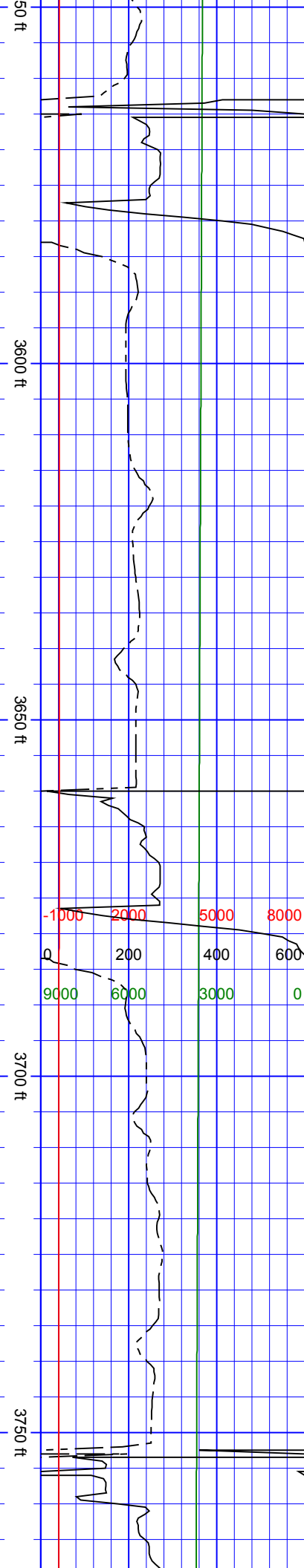
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SurveyDepth:3404  
TVD:3337.36 Inc:14.06  
Azi:127.25 VertSec:-339.48

SurveyDepth:3499  
TVD:3429.92 Inc:11.95  
Azi:125.94 VertSec:-349.25

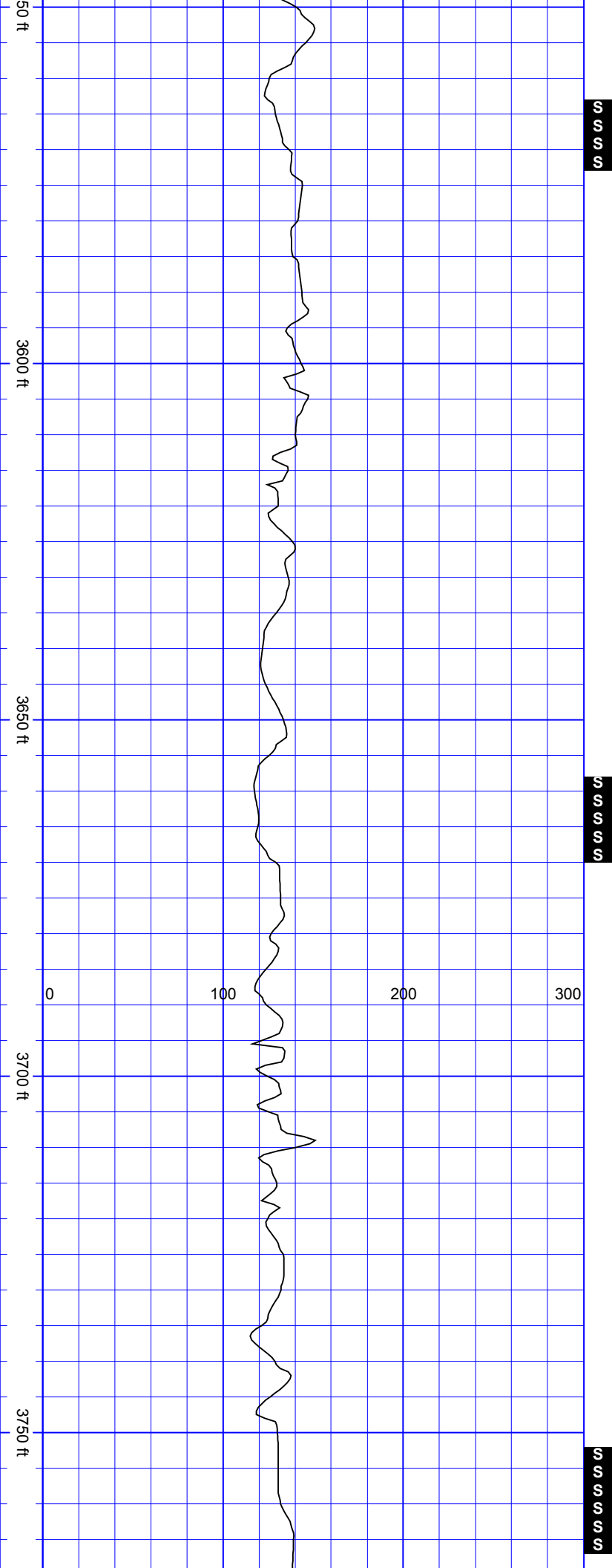


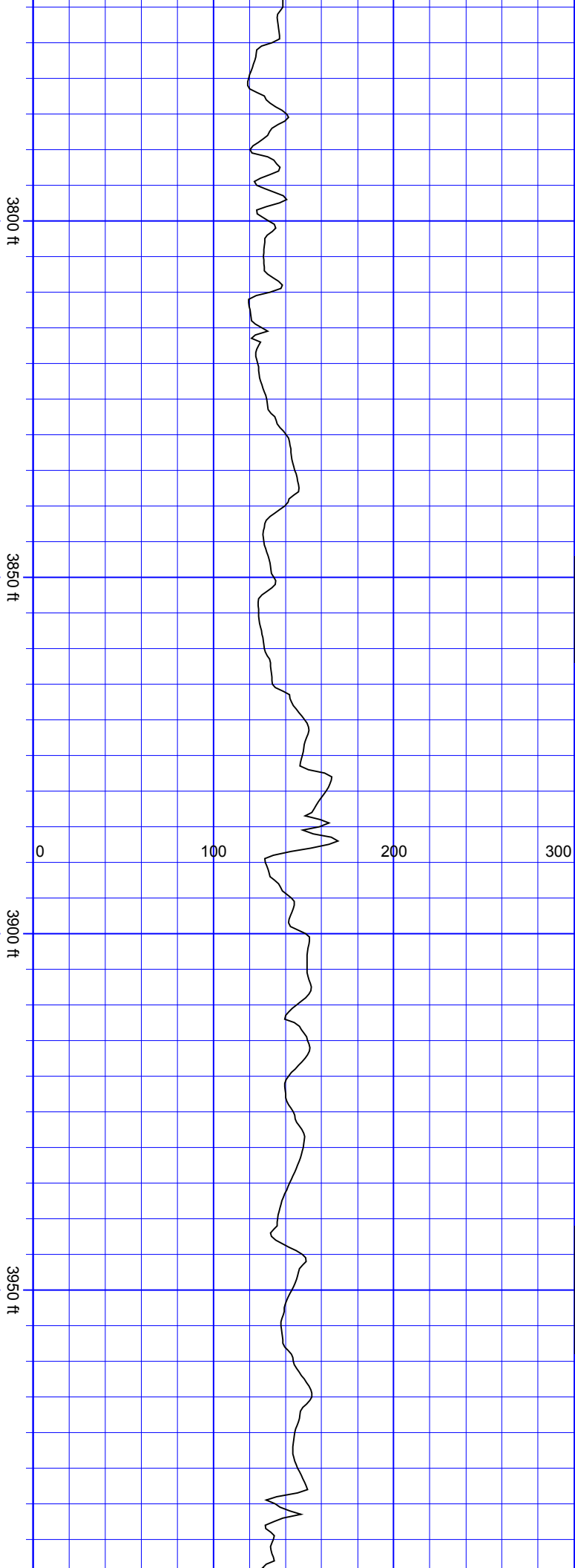




SurveyDepth:3594  
TVD:3522.95 Inc:11.43  
Azi:131.03 VertSec:-  
358.57

SurveyDepth:3688  
TVD:3615.03 Inc:11.73  
Azi:129.1 VertSec:-  
368.17

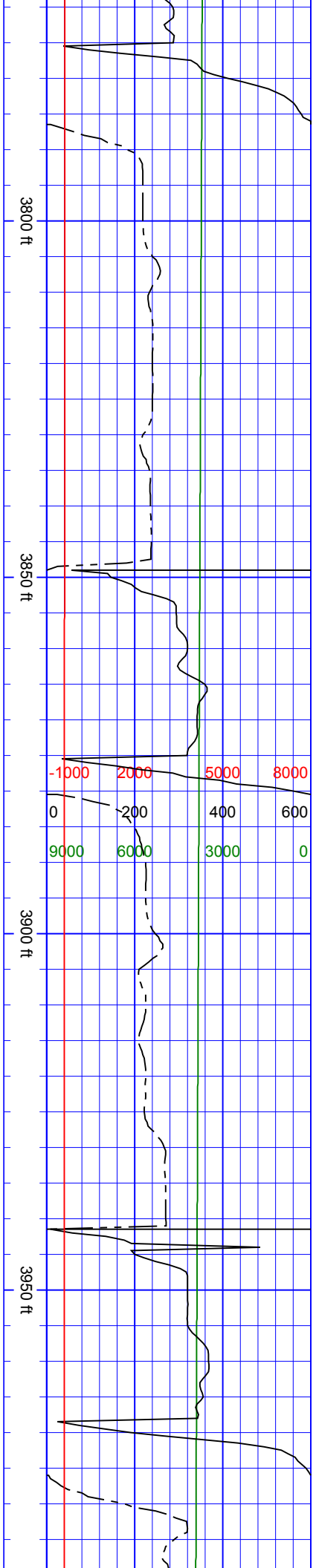


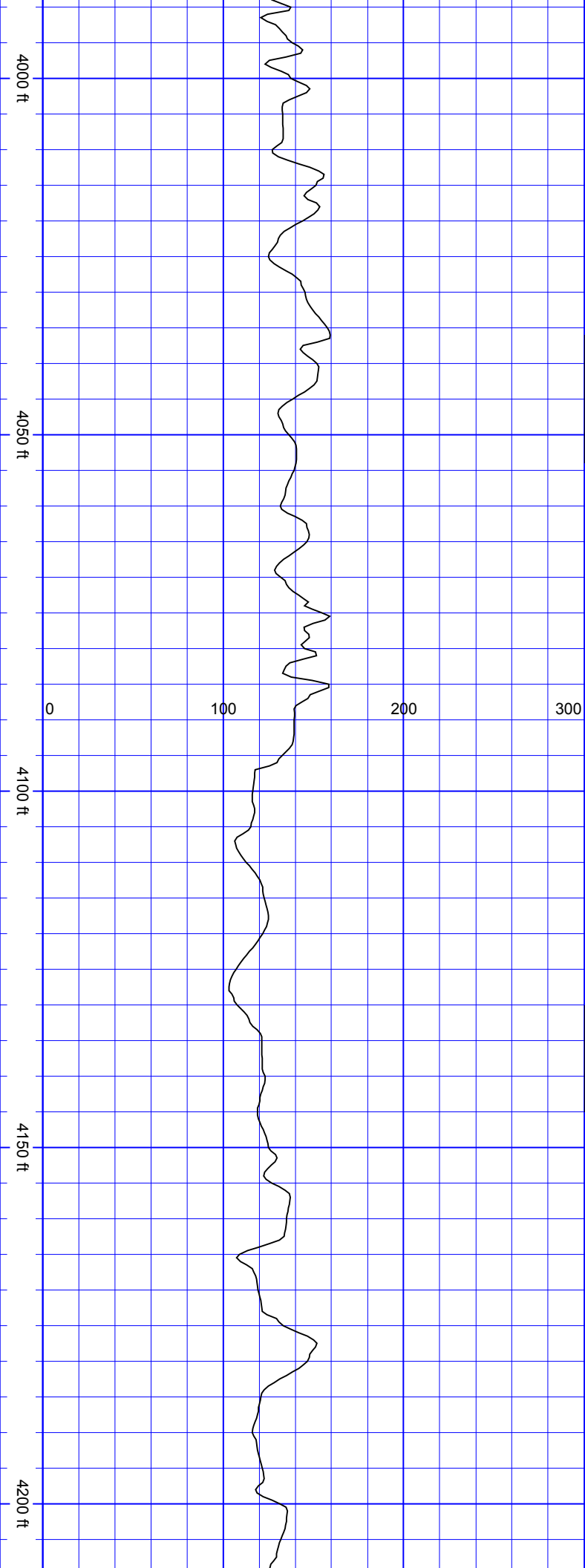


SurveyDepth:3783  
TVD:3708.02 Inc:11.91  
Azi:122.95 VertSec:-  
376.86

SurveyDepth:3877  
TVD:3800.05 Inc:11.65  
Azi:131.82 VertSec:-  
385.81

SurveyDepth:3972  
TVD:3892.98 Inc:12.35  
Azi:134.81 VertSec:-  
396.82



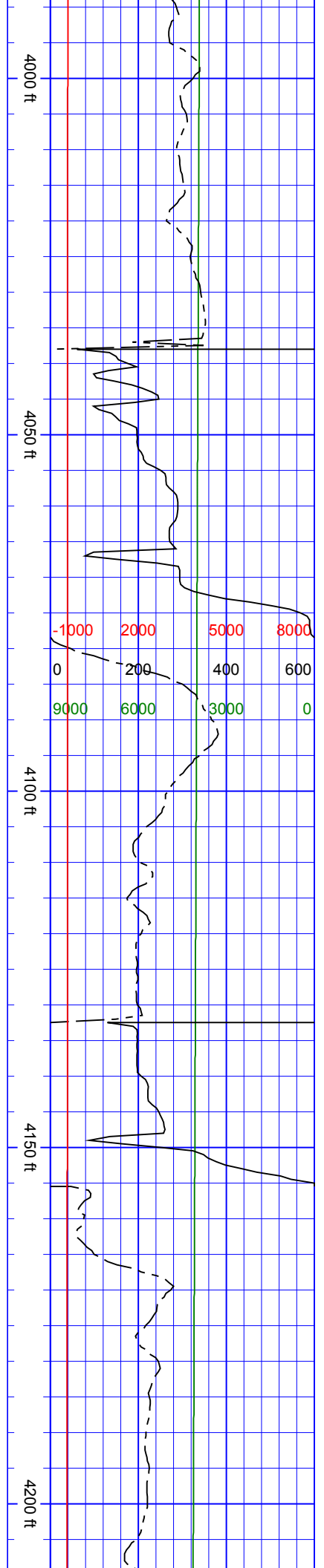


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SurveyDepth:4066  
TVD:3984.7 Inc:13.01  
Azi:124.18 VertSec:-  
407.07

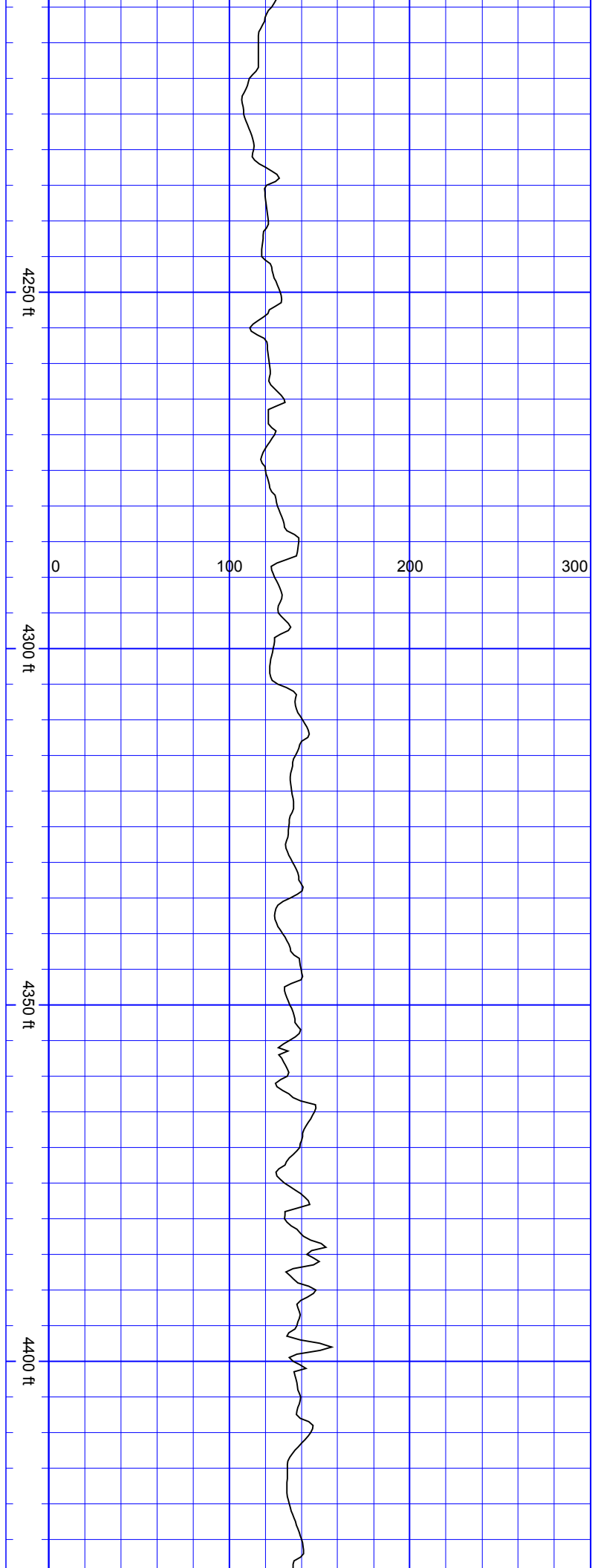
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SurveyDepth:4161  
TVD:4076.89 Inc:14.9  
Azi:126.11 VertSec:-  
417.02



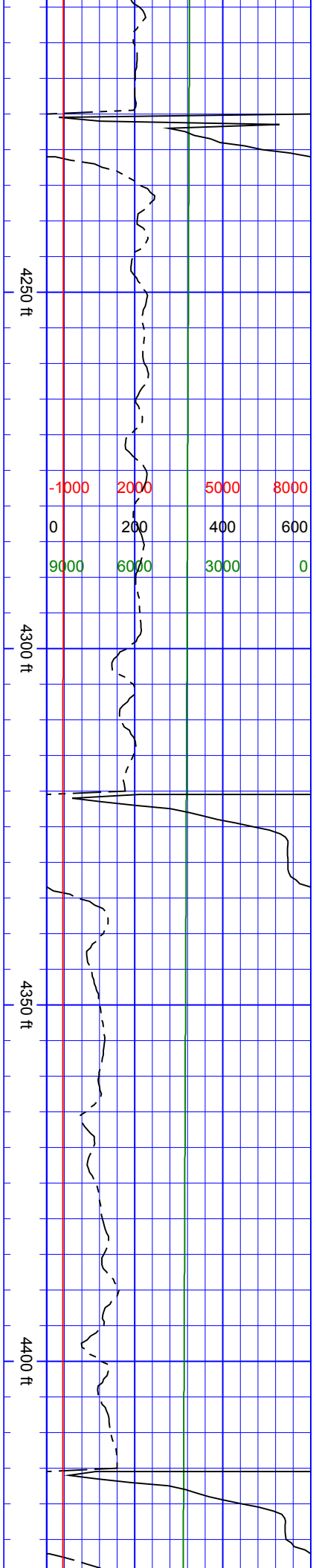
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SurveyDepth:4161  
TVD:4076.89 Inc:14.9  
Azi:126.11 VertSec:-  
417.02

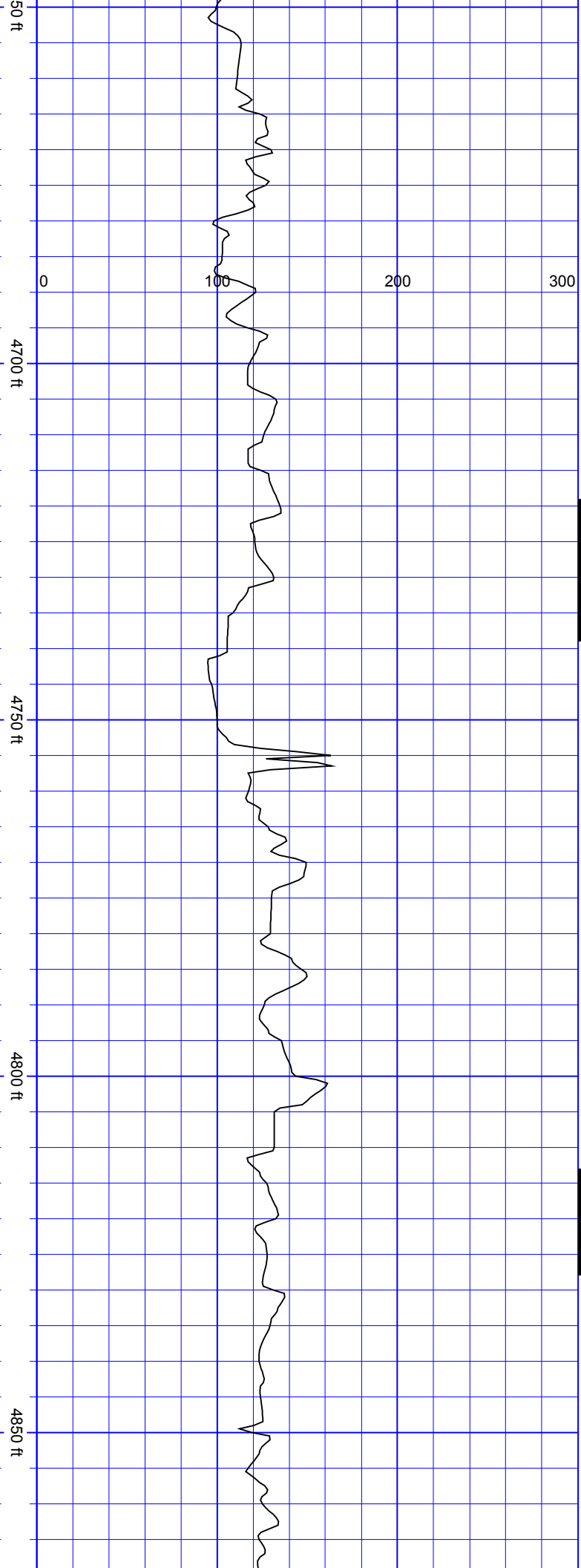


SurveyDepth:4255  
TVD:4167.91 Inc:14.02  
Azi:126.46 VertSec:-  
427.62

SurveyDepth:4371  
TVD:4280.96 Inc:11.87  
Azi:123.74 VertSec:-  
438.91



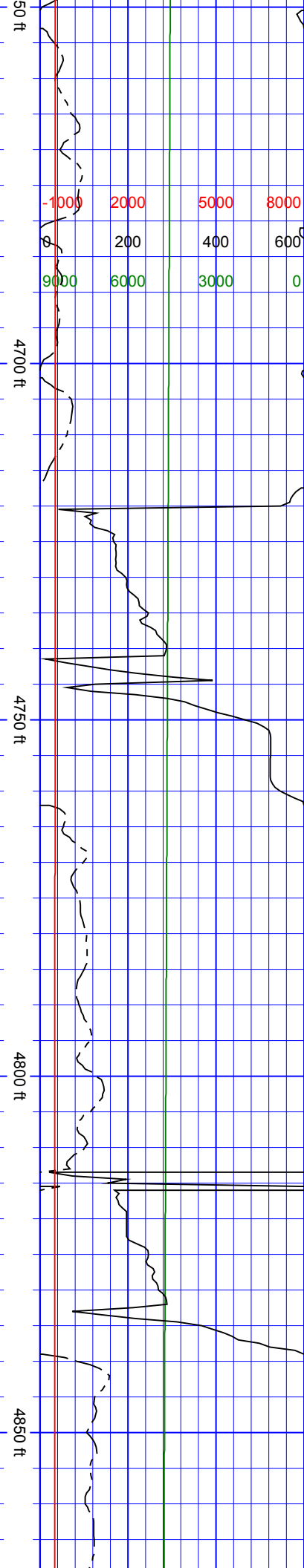


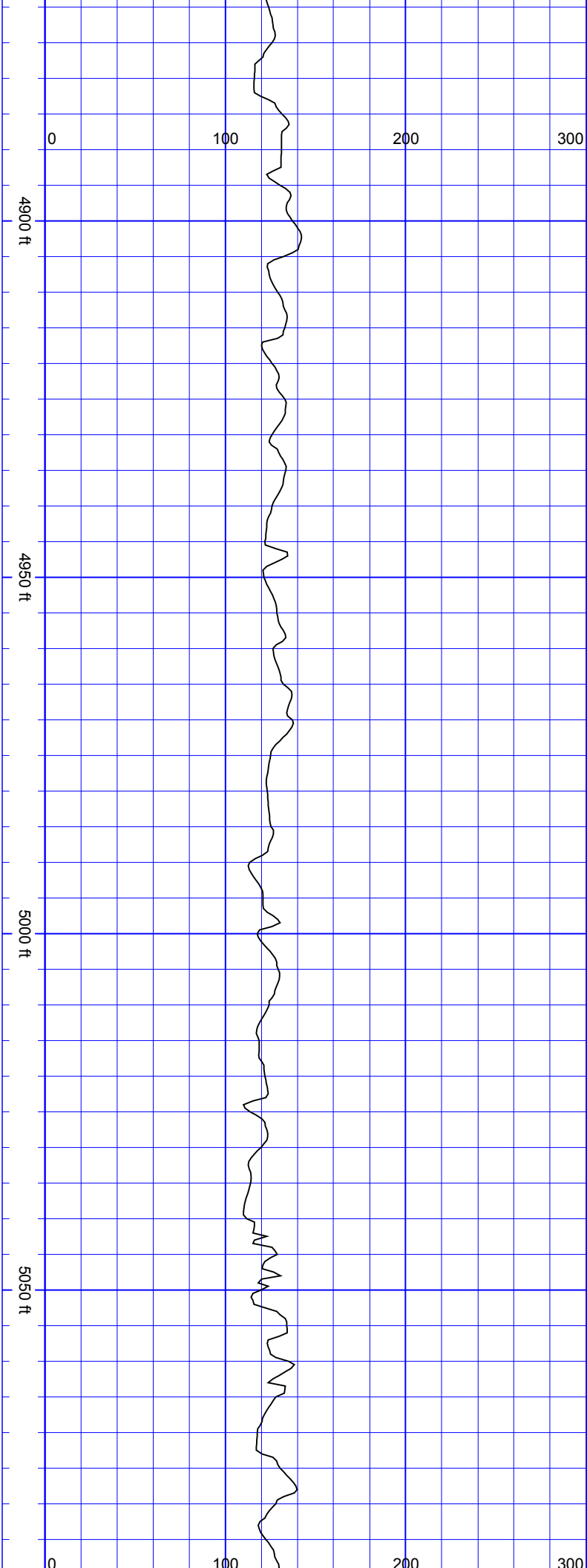


SurveyDepth:4655  
TVD:4558.19 Inc:11.25  
Azi:125.67 VertSec:-  
468.62

SurveyDepth:4749  
TVD:4650.27 Inc:12  
Azi:132.97 VertSec:-  
478.07

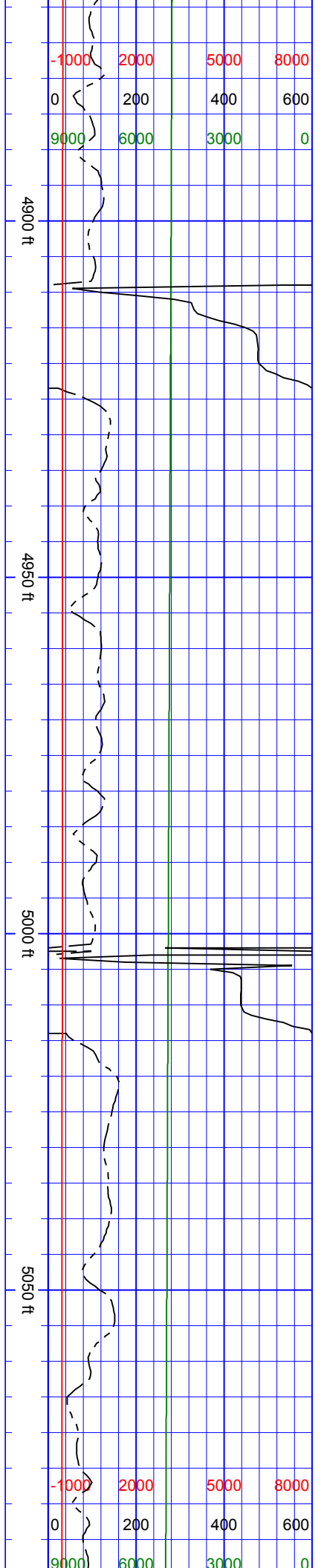
SurveyDepth:4843  
TVD:4742.07 Inc:12.88  
Azi:142.28 VertSec:-  
490.59

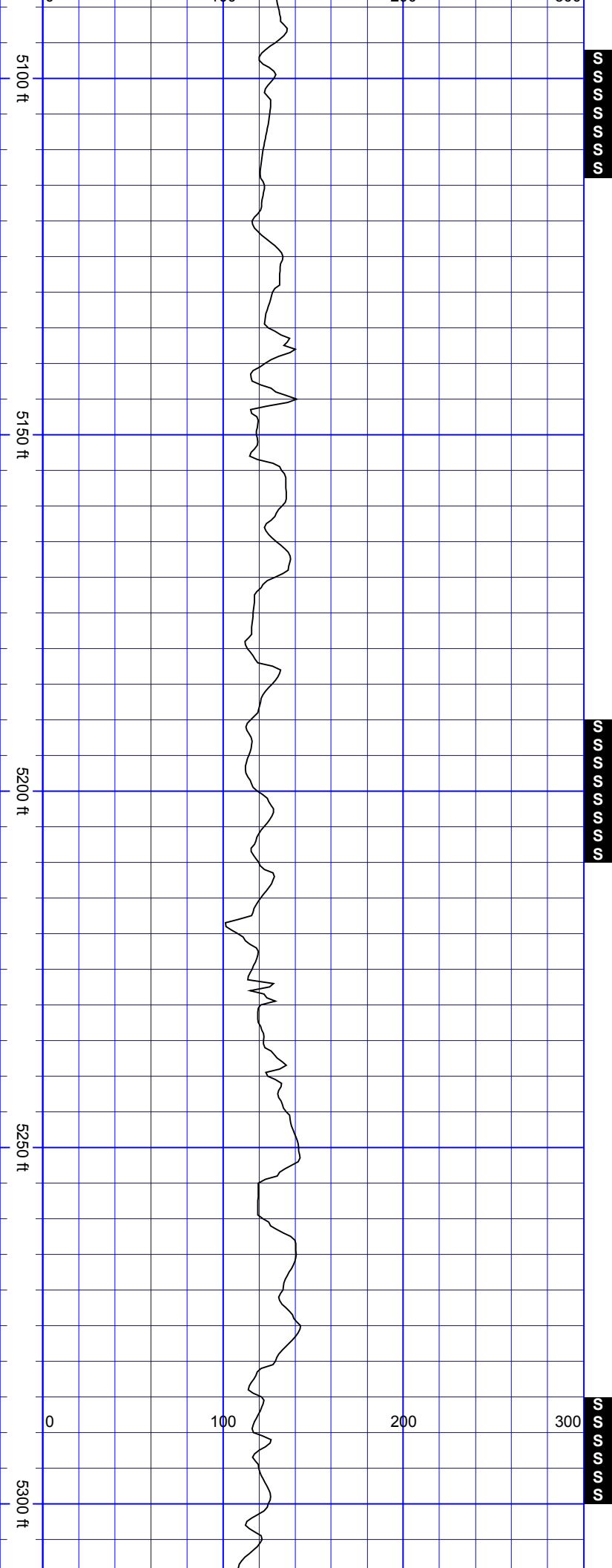




SurveyDepth:4938  
TVD:4834.89 Inc:11.69  
Azi:140.88 VertSec:-  
504.16

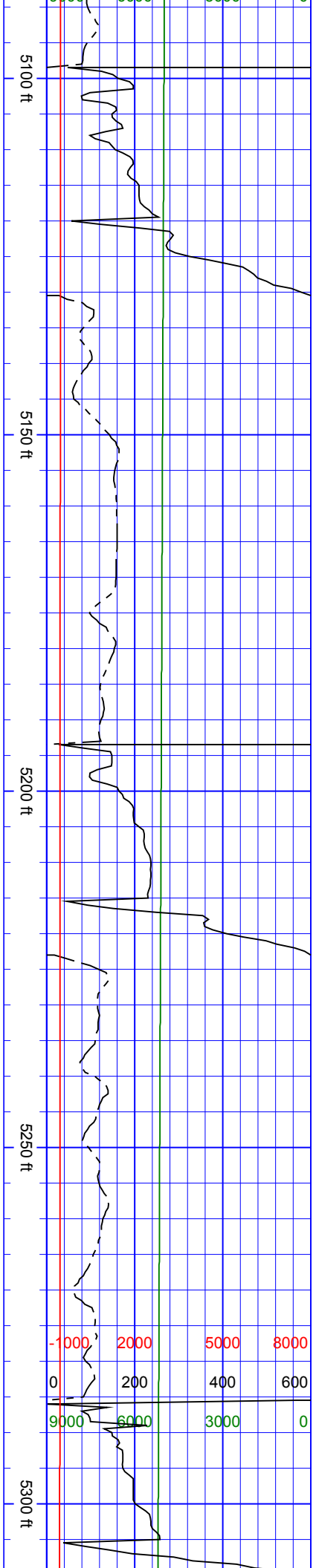
SurveyDepth:5032  
TVD:4927.2 Inc:10.06  
Azi:138.59 VertSec:-  
515.64





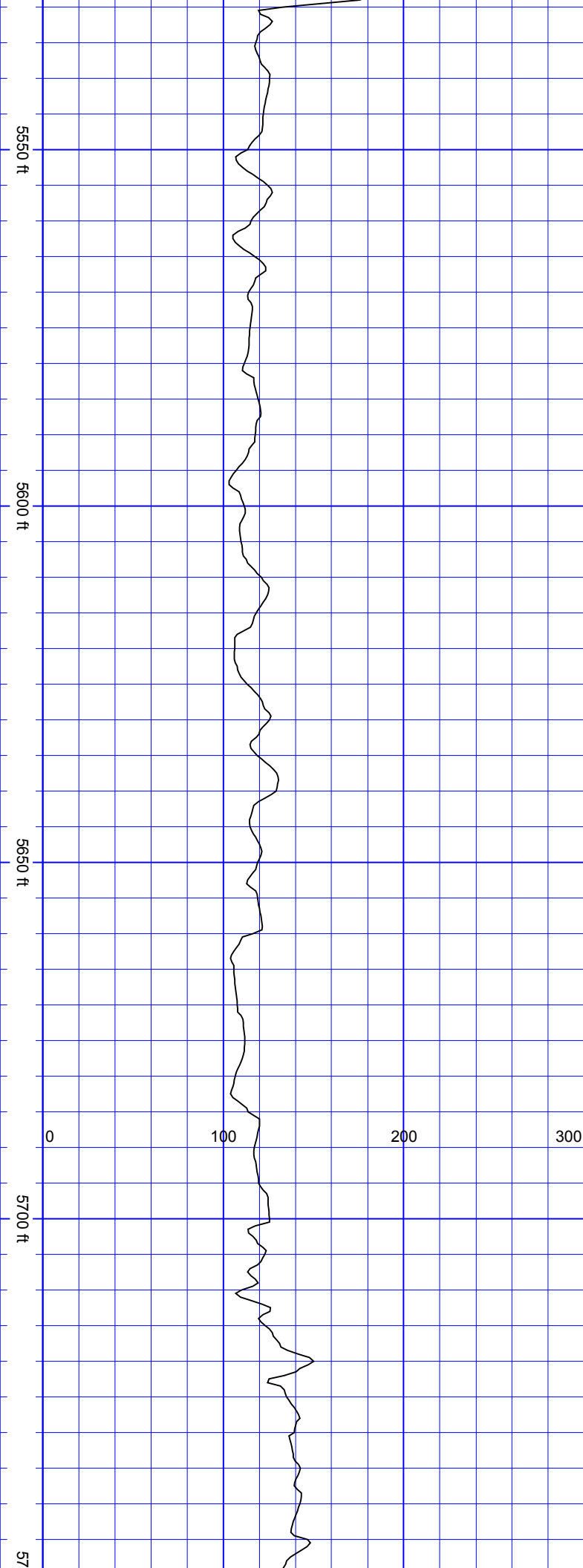
SurveyDepth:5126  
TVD:5019.65 Inc:10.77  
Azi:134.2 VertSec:-525.83

SurveyDepth:5221  
TVD:5112.7 Inc:12.48  
Azi:134.11 VertSec:-536.73



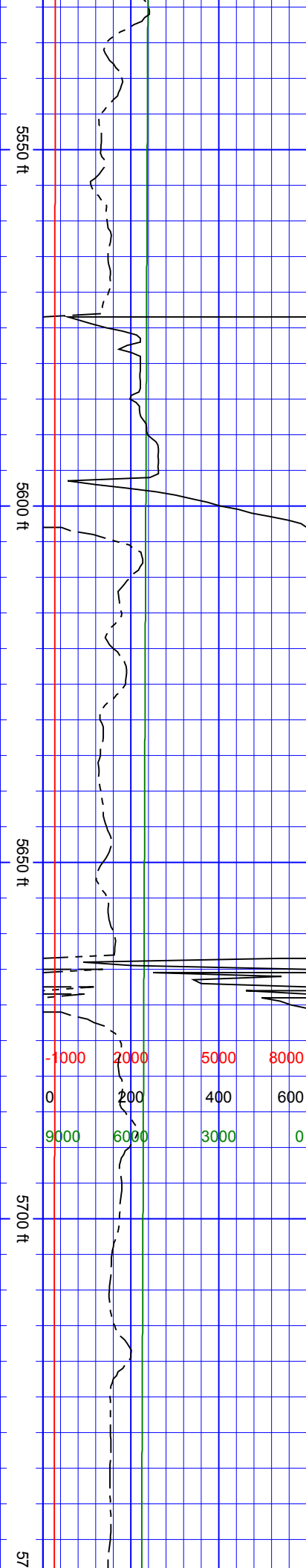


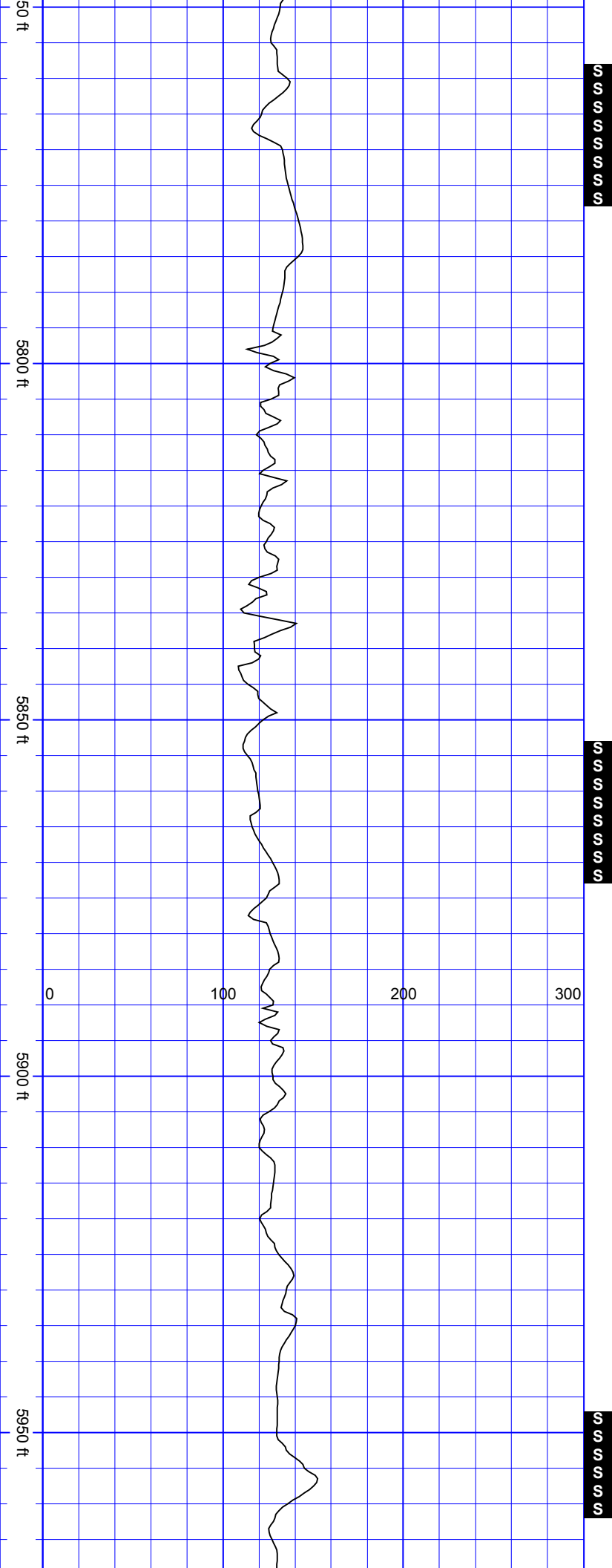




SurveyDepth:5599  
TVD:5480.58 Inc:14.46  
Azi:132.18 VertSec:-  
583.38

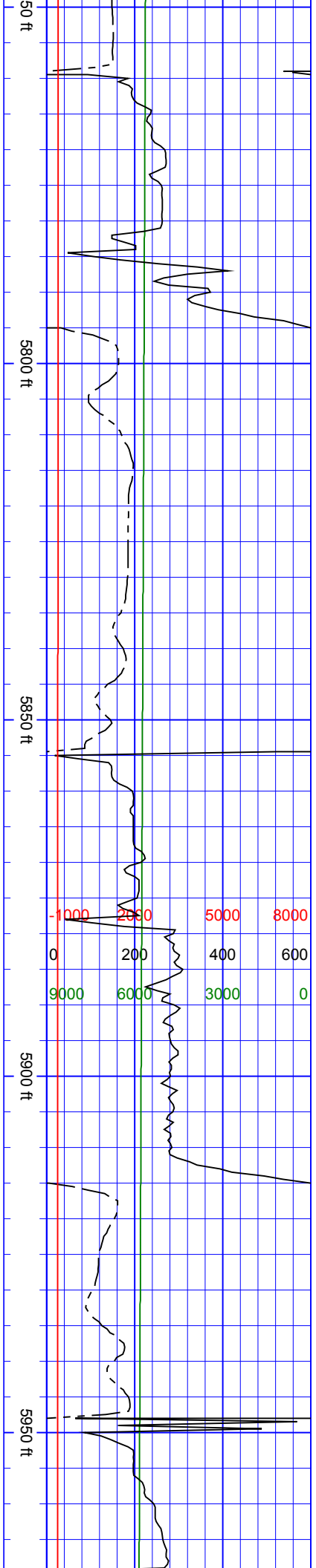
SurveyDepth:5694  
TVD:5573.03 Inc:12.09  
Azi:130.51 VertSec:-  
594.92





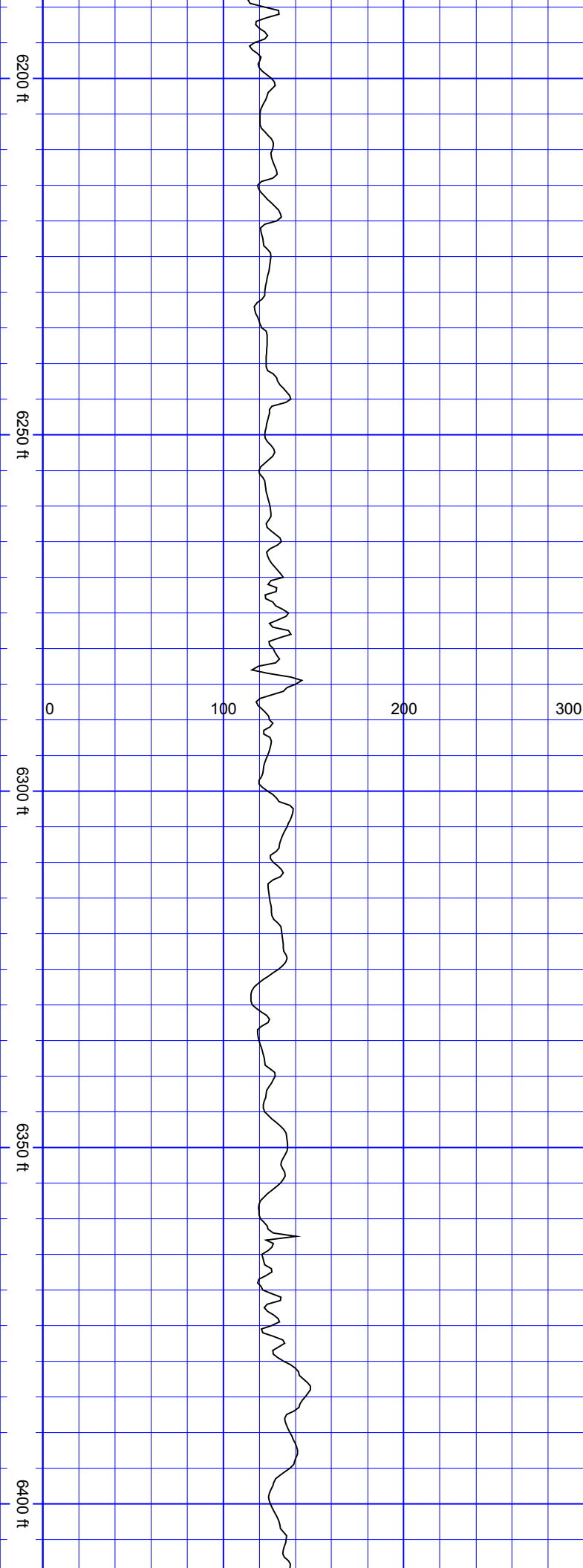
SurveyDepth:5789  
TVD:5666 Inc:11.69  
Azi:132.88 VertSec:-  
605.36

SurveyDepth:5883  
TVD:5757.81 Inc:13.1  
Azi:125.58 VertSec:-  
615.3



-1000	2000	5000	8000
0	200	400	600
9000	6000	3000	0



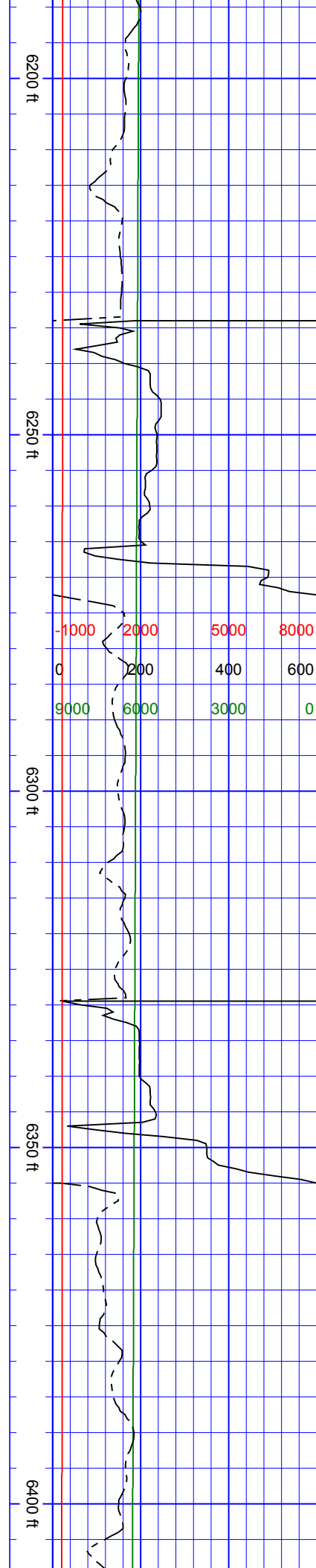


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SurveyDepth:6262  
TVD:6127.4 Inc:13.14  
Azi:134.46 VertSec:-  
659.64

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SurveyDepth:6356  
TVD:6218.95 Inc:13.1  
Azi:129.8 VertSec:-  
671.15



6450 ft

6500 ft

6550 ft

6600 ft

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SurveyDepth:6450  
TVD:6310.68 Inc:12.13  
Azi:132 VertSec:-681.85

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SurveyDepth:6545  
TVD:6403.54 Inc:12.22  
Azi:136.57 VertSec:-693.28

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6450 ft

6500 ft

6550 ft

6600 ft

-1000	2000	5000	8000
0	200	400	600
9000	8000	3000	0

6650 ft

0 100 200 300

6700 ft

6750 ft

6800 ft

68

SurveyDepth:6640  
TVD:6496.3 Inc:12.74  
Azi:129.28 VertSec:-  
704.56

SurveyDepth:6734  
TVD:6588.68 Inc:8.97  
Azi:97.72 VertSec:-709.5

SurveyDepth:6781  
TVD:6635.03 Inc:10.55  
Azi:65.56 VertSec:-  
706.99

SurveyDepth:6829  
TVD:6682.26 Inc:10.37  
Azi:43.14 VertSec:-  
700.94

6650 ft

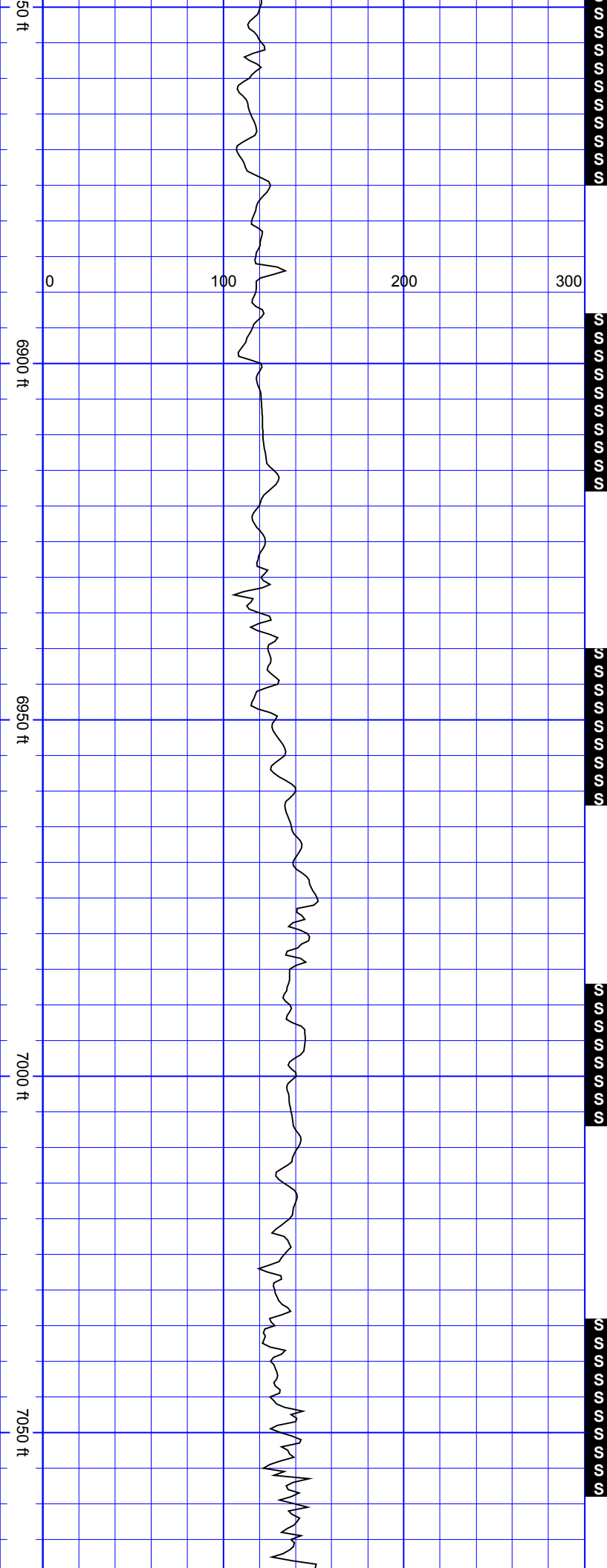
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6700 ft

6750 ft

6800 ft

68



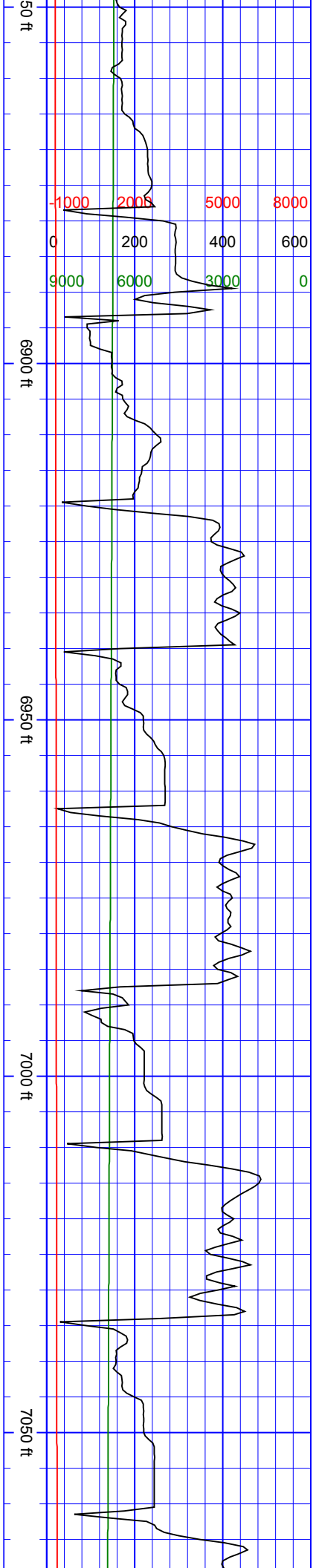
SurveyDepth:6876  
TVD:6728.34 Inc:12.52  
Azi:21.26 VertSec:-692.43

SurveyDepth:6923  
TVD:6774.02 Inc:14.77  
Azi:6.67 VertSec:-681.46

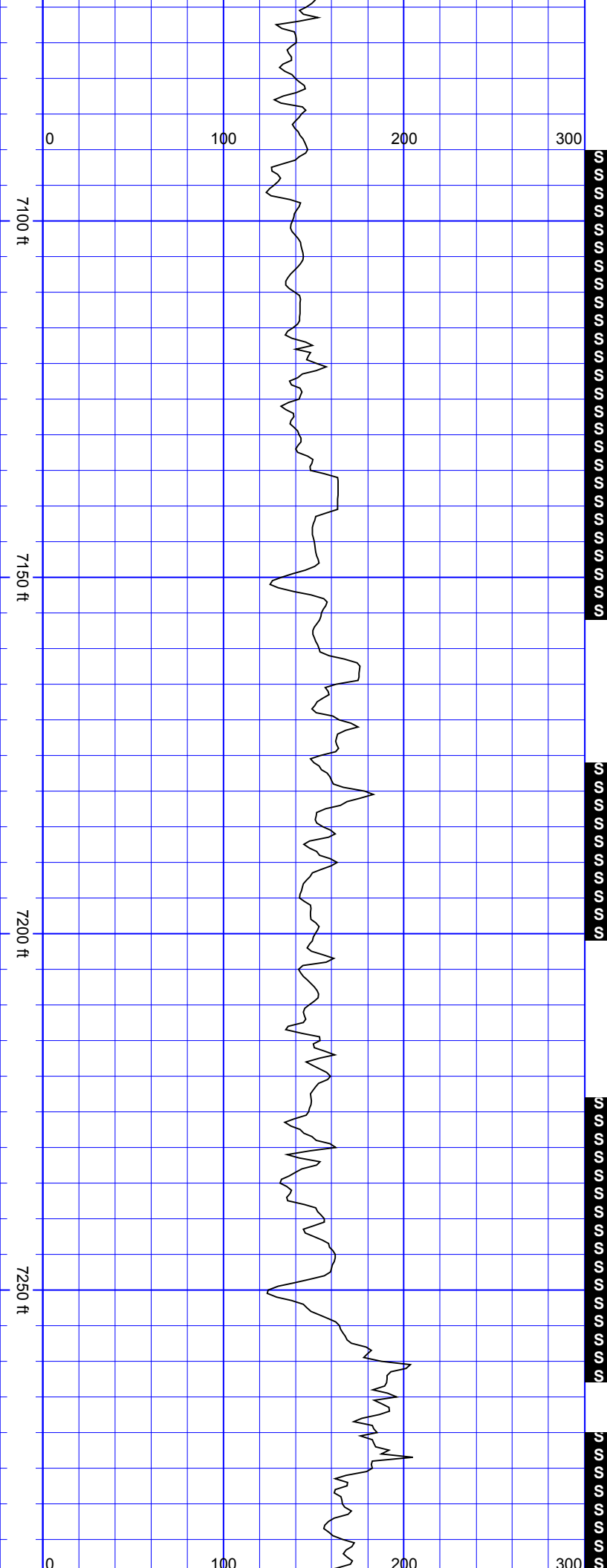
SurveyDepth:6970  
TVD:6819.26 Inc:16.7  
Azi:2.36 VertSec:-668.77

SurveyDepth:7017  
TVD:6864.11 Inc:18.15  
Azi:3.86 VertSec:-654.78

SurveyDepth:7064  
TVD:6908.41 Inc:20.83







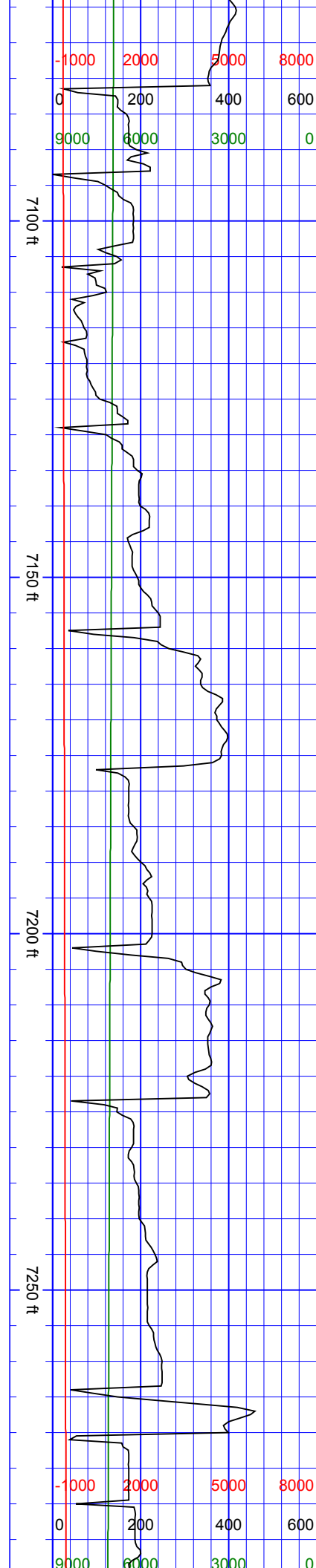
Azi:6.67 VertSec:-639.15

SurveyDepth:7112  
TVD:6952.9 Inc:23.25  
Azi:10.27 VertSec:-621.15

SurveyDepth:7159  
TVD:6995.57 Inc:26.32  
Azi:14.75 VertSec:-601.49

SurveyDepth:7206  
TVD:7037.18 Inc:29.09  
Azi:14.31 VertSec:-579.73

SurveyDepth:7253  
TVD:7077.45 Inc:32.92  
Azi:14.67 VertSec:-555.62





September 04, 2018

SurveyDepth:7537  
TVD:7282.08 Inc:56.38  
Azi:16.25 VertSec:-363.26

SurveyDepth:7585  
TVD:7307.19 Inc:60.56  
Azi:12.56 VertSec:-322.52

SurveyDepth:7632  
TVD:7328.38 Inc:65.83  
Azi:9.57 VertSec:-280.61

SurveyDepth:7679  
TVD:7346.18 Inc:69.65  
Azi:6.84 VertSec:-237.14

SurveyDepth:7726

7550 ft

7600 ft

7650 ft

7700 ft

0 100 200 300

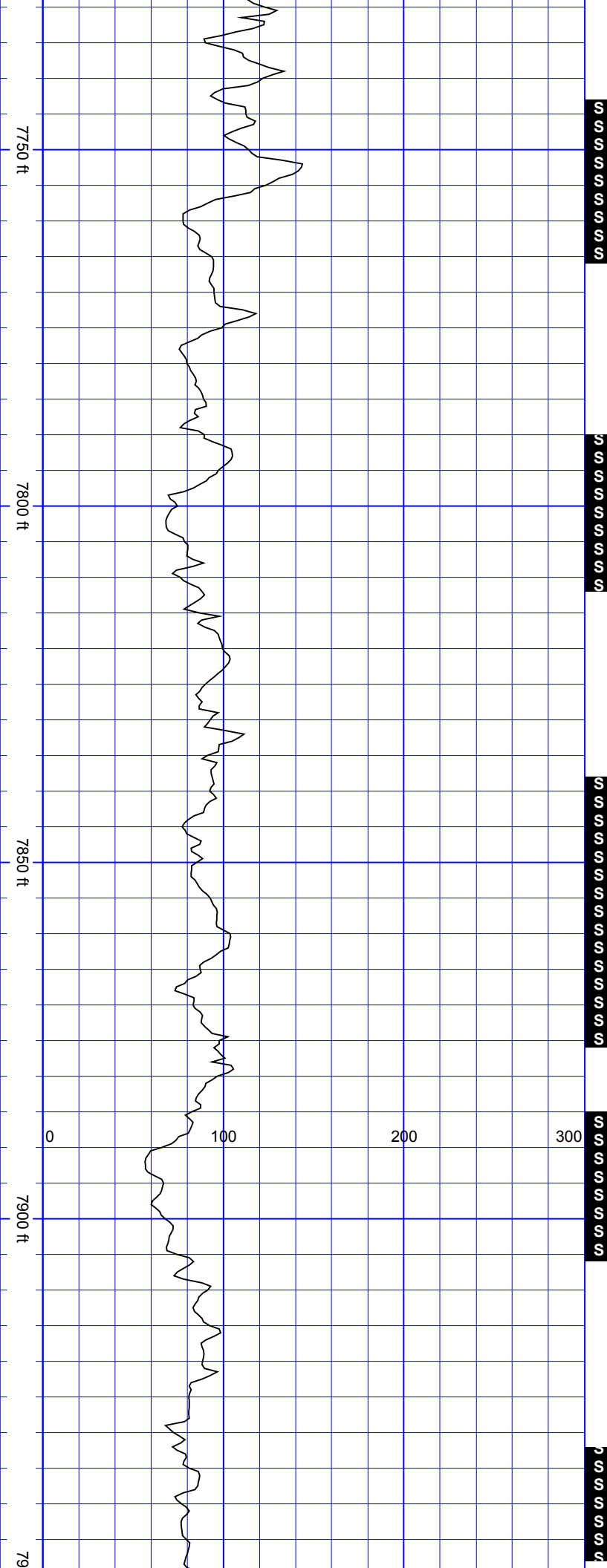
7550 ft

7600 ft

7650 ft

7700 ft

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9000 6000 3000 0



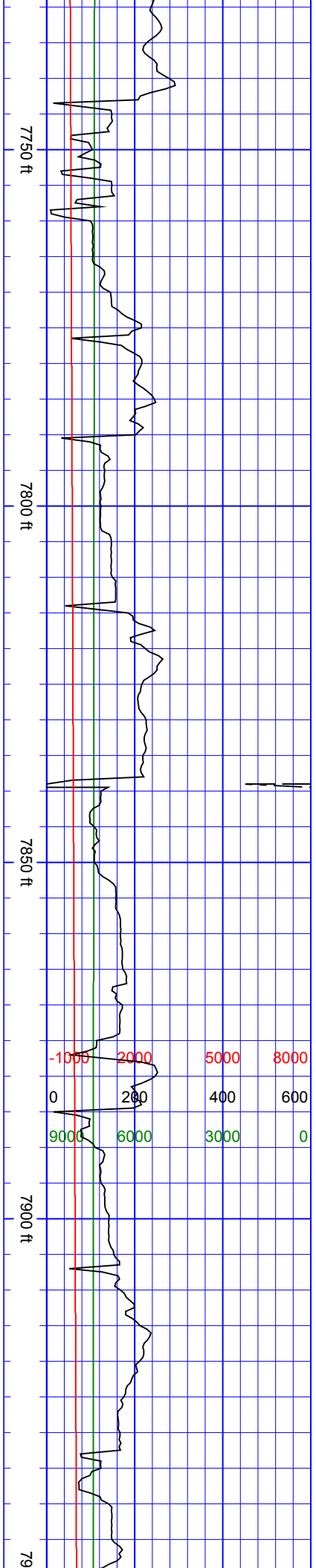
TVD:7360.99 Inc:73.61  
Azi:5.7 VertSec:-192.61

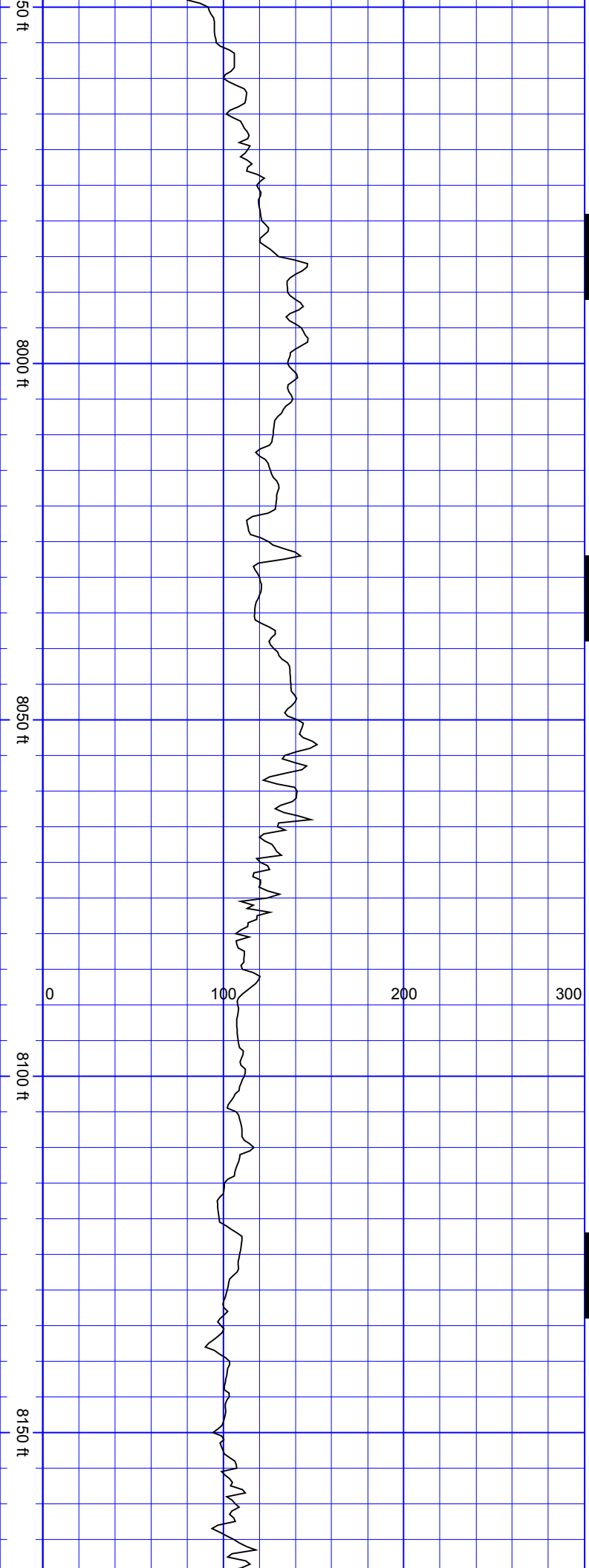
SurveyDepth:7774  
TVD:7374.34 Inc:74.09  
Azi:4.38 VertSec:-146.64

SurveyDepth:7821  
TVD:7386.01 Inc:77.17  
Azi:3.59 VertSec:-101.32

SurveyDepth:7868  
TVD:7394.83 Inc:81.17  
Azi:3.24 VertSec:-55.43

SurveyDepth:7915  
TVD:7400.62 Inc:84.68  
Azi:1.22 VertSec:-9.16

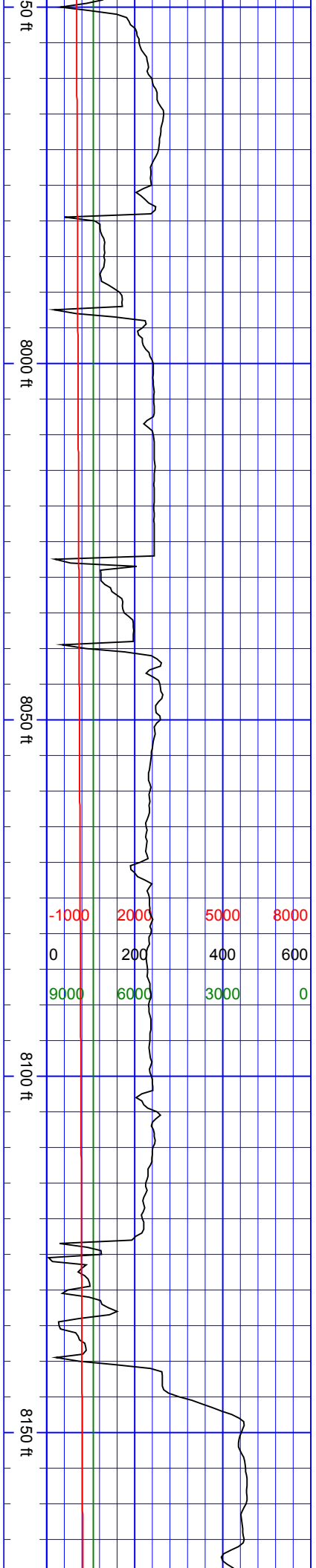


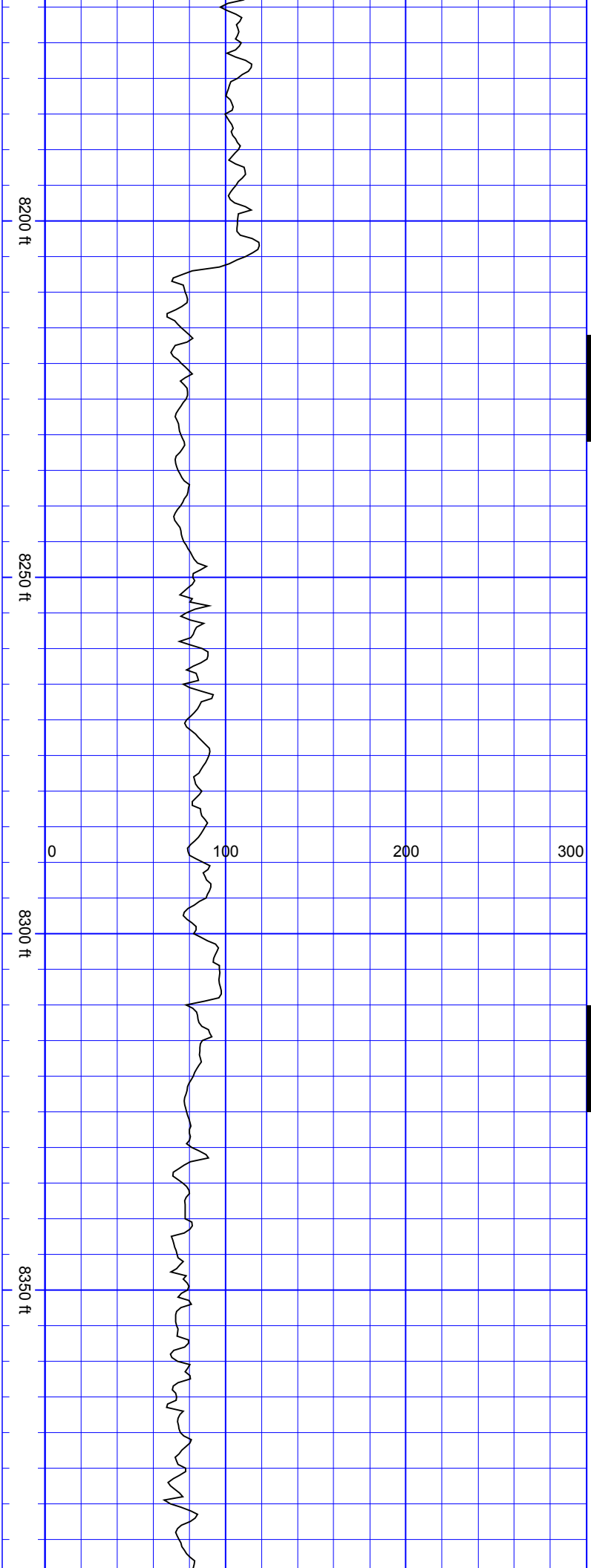


SurveyDepth:7963  
TVD:7404.06 Inc:87.1  
Azi:1.04 VertSec:38.2

SurveyDepth:8058  
TVD:7405.92 Inc:90.66  
Azi:357.53  
VertSec:131.67

SurveyDepth:8152  
TVD:7406.13 Inc:89.08  
Azi:355.86  
VertSec:223.34



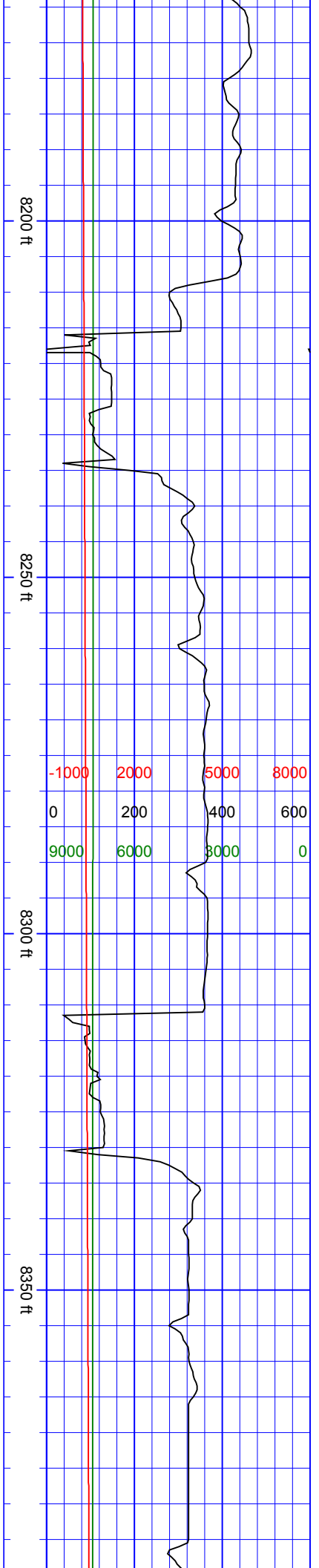


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SurveyDepth:8246  
TVD:7408.87 Inc:87.58  
Azi:356.91  
VertSec:314.86

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SurveyDepth:8340  
TVD:7413.06 Inc:87.32  
Azi:358.14  
VertSec:406.74





8650 ft

8700 ft

8750 ft

8800 ft

0 100 200 300

SurveyDepth:8624  
TVD:7413.77 Inc:90.35  
Azi:0.87 VertSec:687.02

SurveyDepth:8718  
TVD:7413.33 Inc:90.18  
Azi:0.16 VertSec:779.88

SurveyDepth:8812  
TVD:7413.22 Inc:89.96  
Azi:0.16 VertSec:872.65

8650 ft

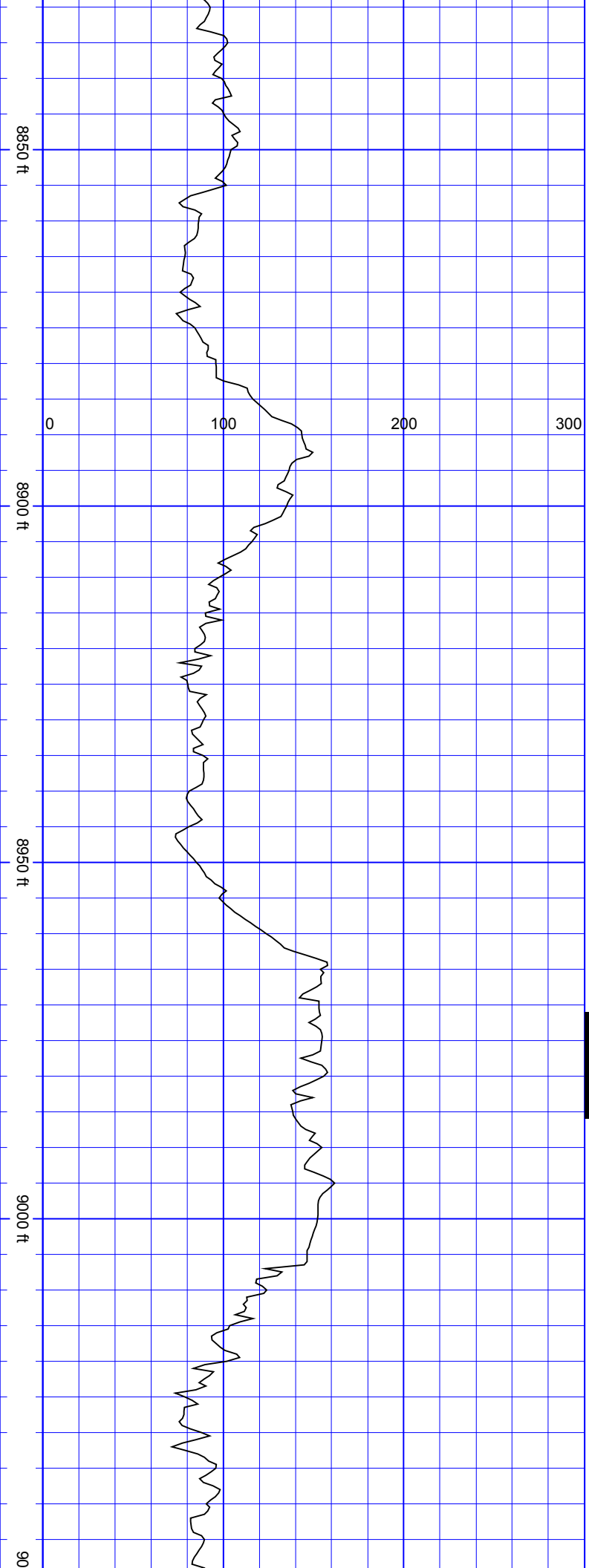
8700 ft

8750 ft

8800 ft

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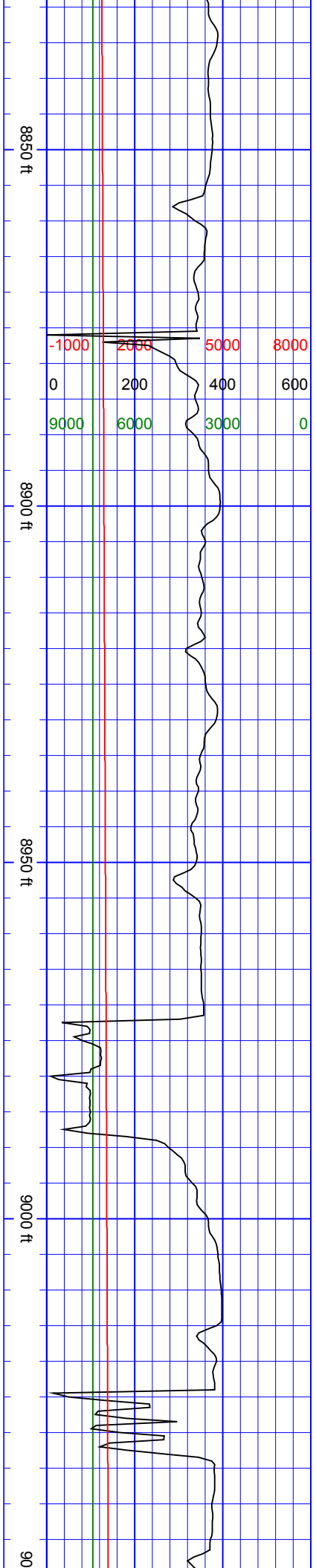


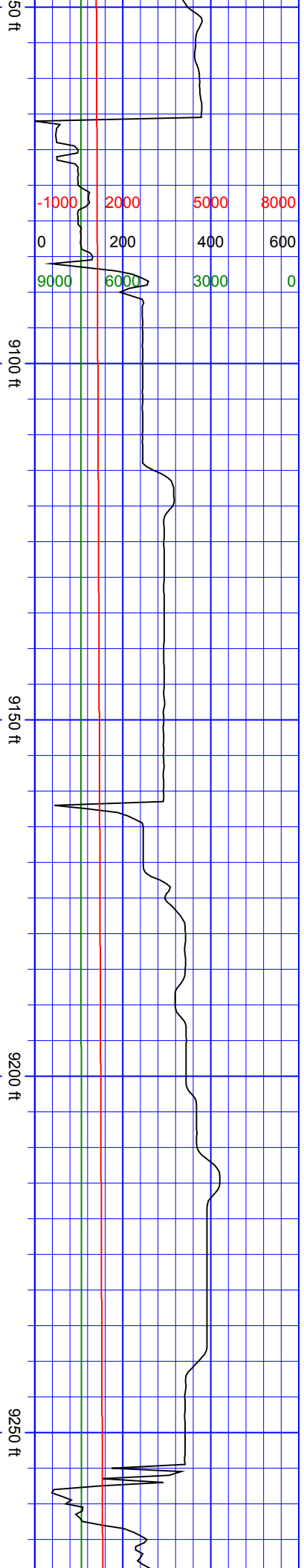


SurveyDepth:8907  
TVD:7413.94 Inc:89.17  
Azi:0.08 VertSec:966.39

SurveyDepth:9002  
TVD:7414.88 Inc:89.69  
Azi:1.13  
VertSec:1060.25

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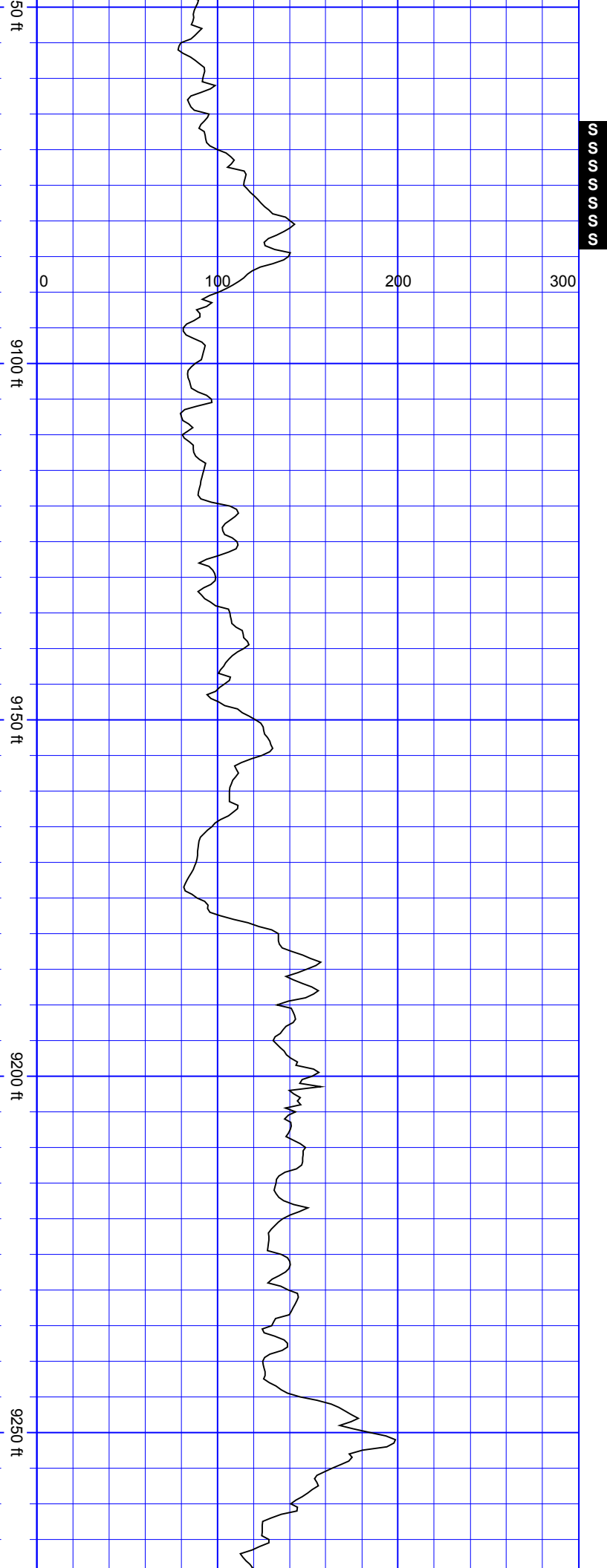


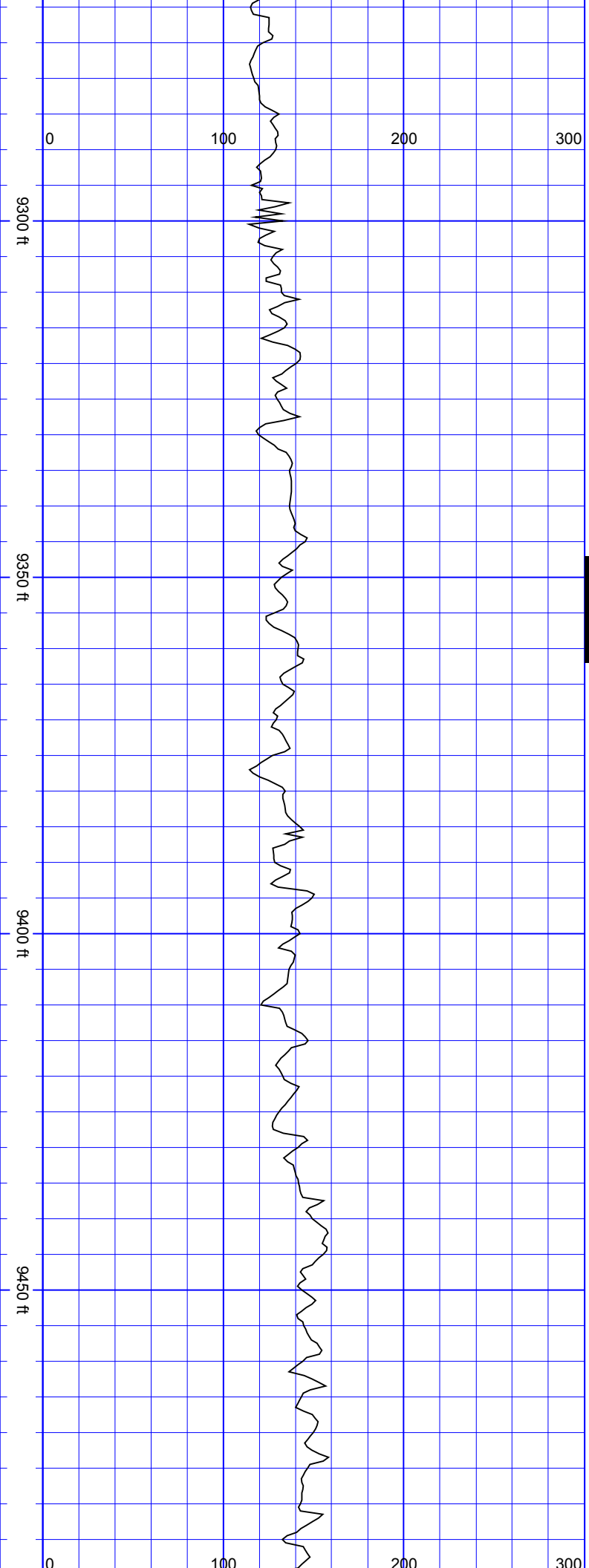


SurveyDepth:9096  
TVD:7413.8 Inc:91.63  
Azi:0.69 VertSec:1153.2

SurveyDepth:9191  
TVD:7410.96 Inc:91.8  
Azi:359.9  
VertSec:1246.94

September 05



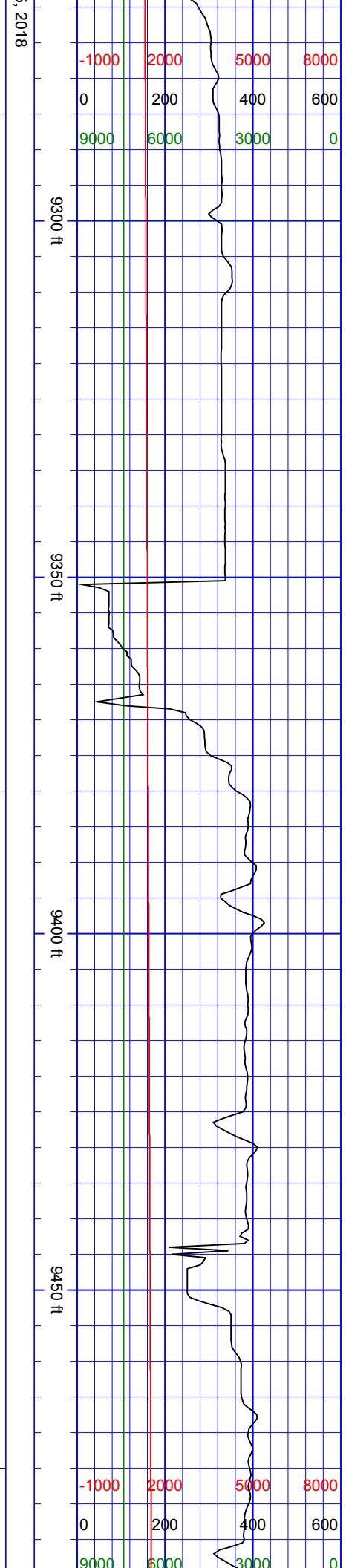


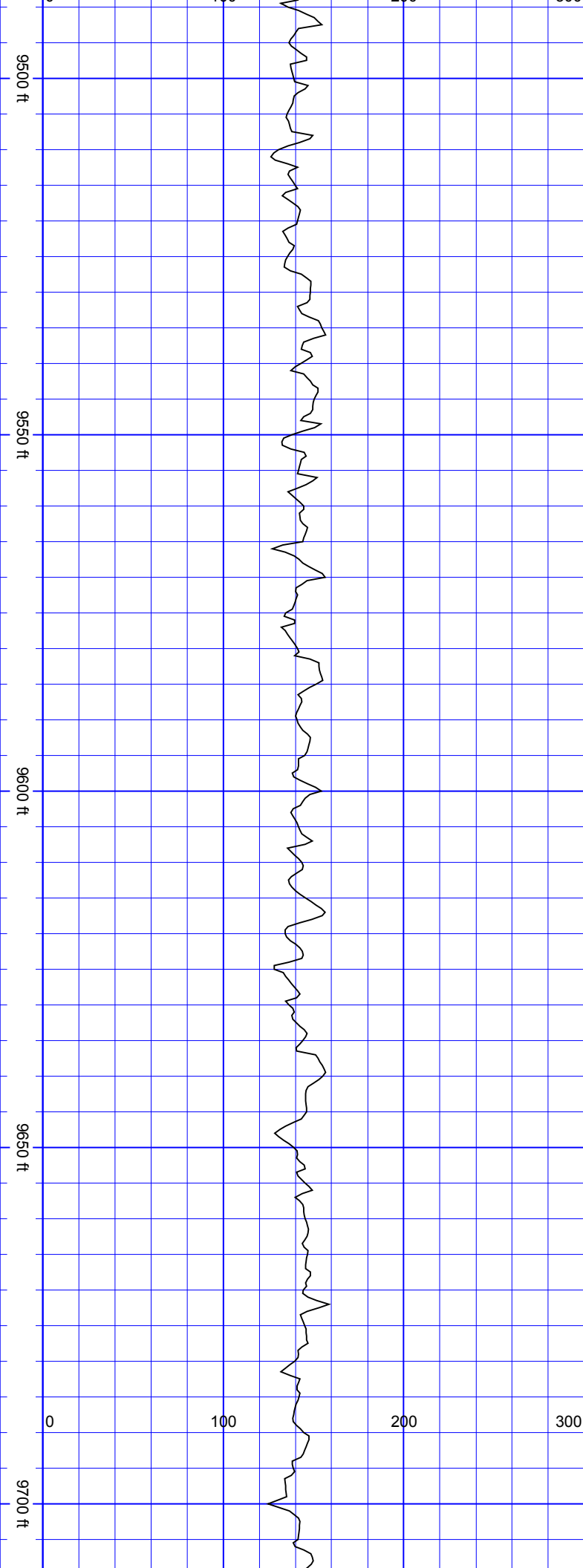
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SurveyDepth:9285  
TVD:7407.9 Inc:91.93  
Azi:359.81  
VertSec:1339.58

SurveyDepth:9380  
TVD:7406.08 Inc:90.26  
Azi:0.34  
VertSec:1433.29

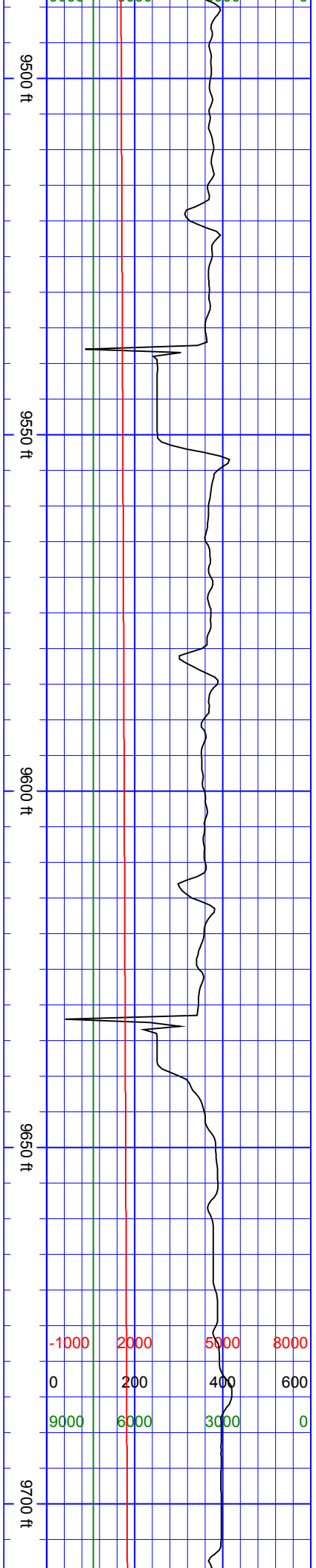
SurveyDepth:9475  
TVD:7405.65 Inc:90.26  
Azi:0.16  
VertSec:1527.07

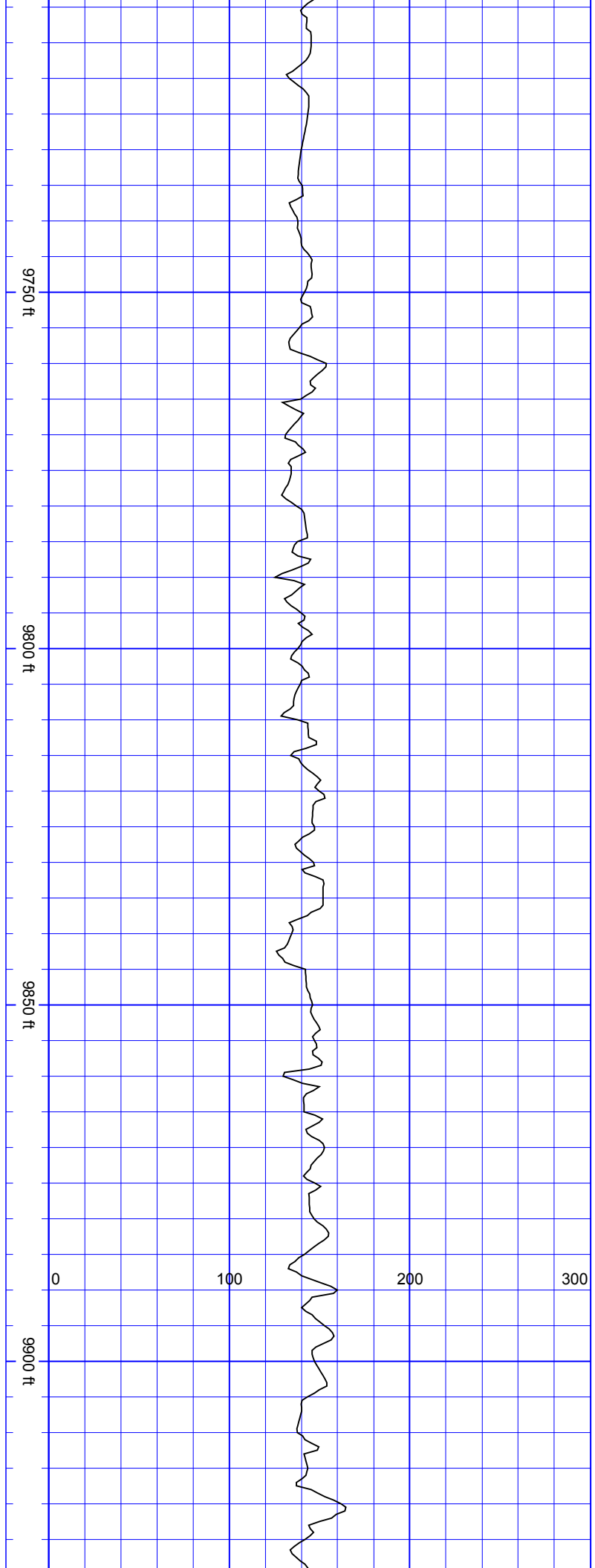




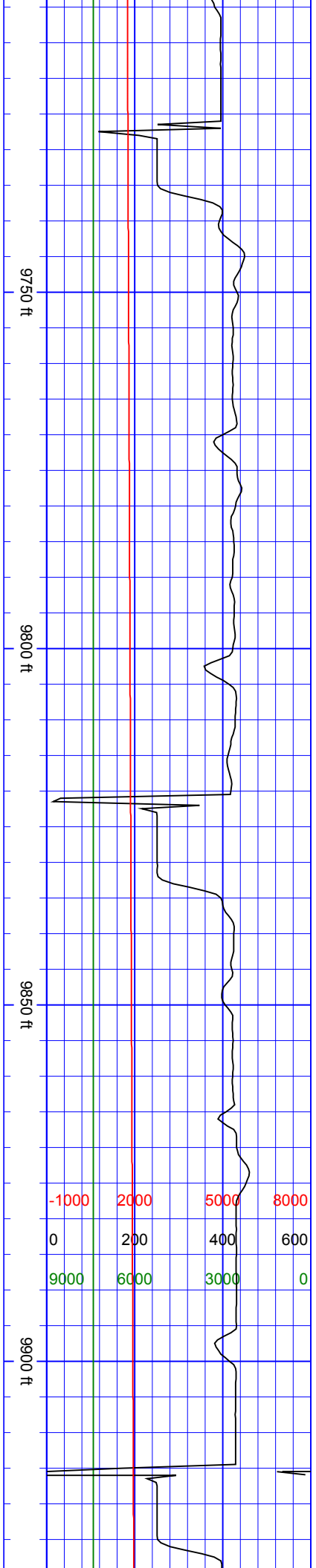
SurveyDepth:9570  
TVD:7405.36 Inc:90.09  
Azi:359.37  
VertSec:1620.71

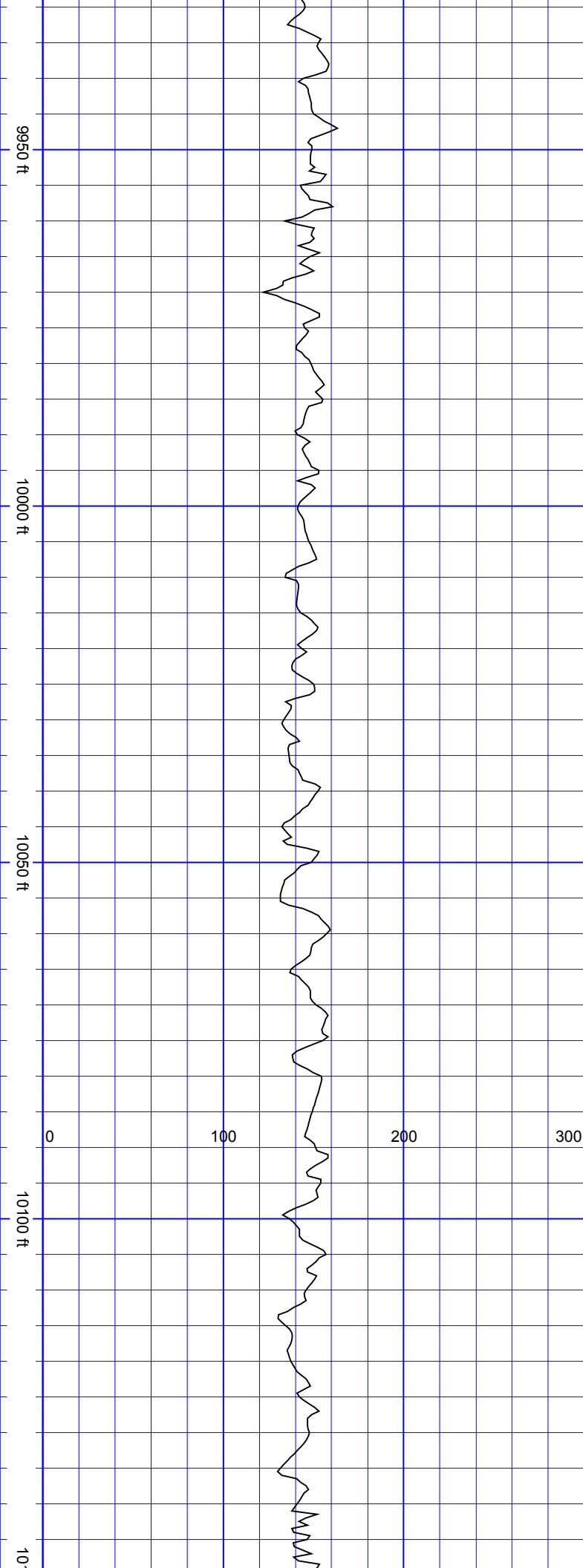
SurveyDepth:9664  
TVD:7405.07 Inc:90.26  
Azi:359.29  
VertSec:1713.25





SurveyDepth:9759 TVD:7404.68 Inc:90.22 Azi:0.52 VertSec:1806.93
SurveyDepth:9853 TVD:7404.39 Inc:90.13 Azi:0.34 VertSec:1899.77



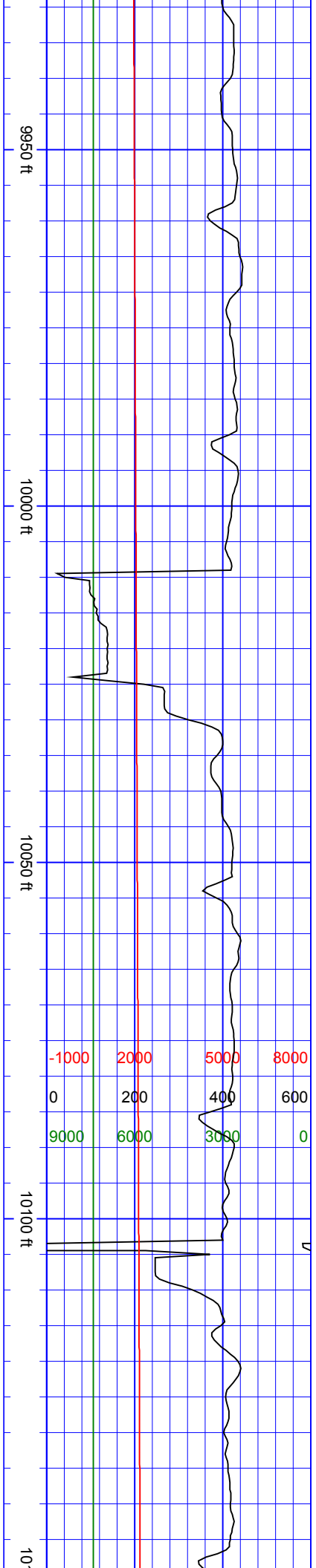


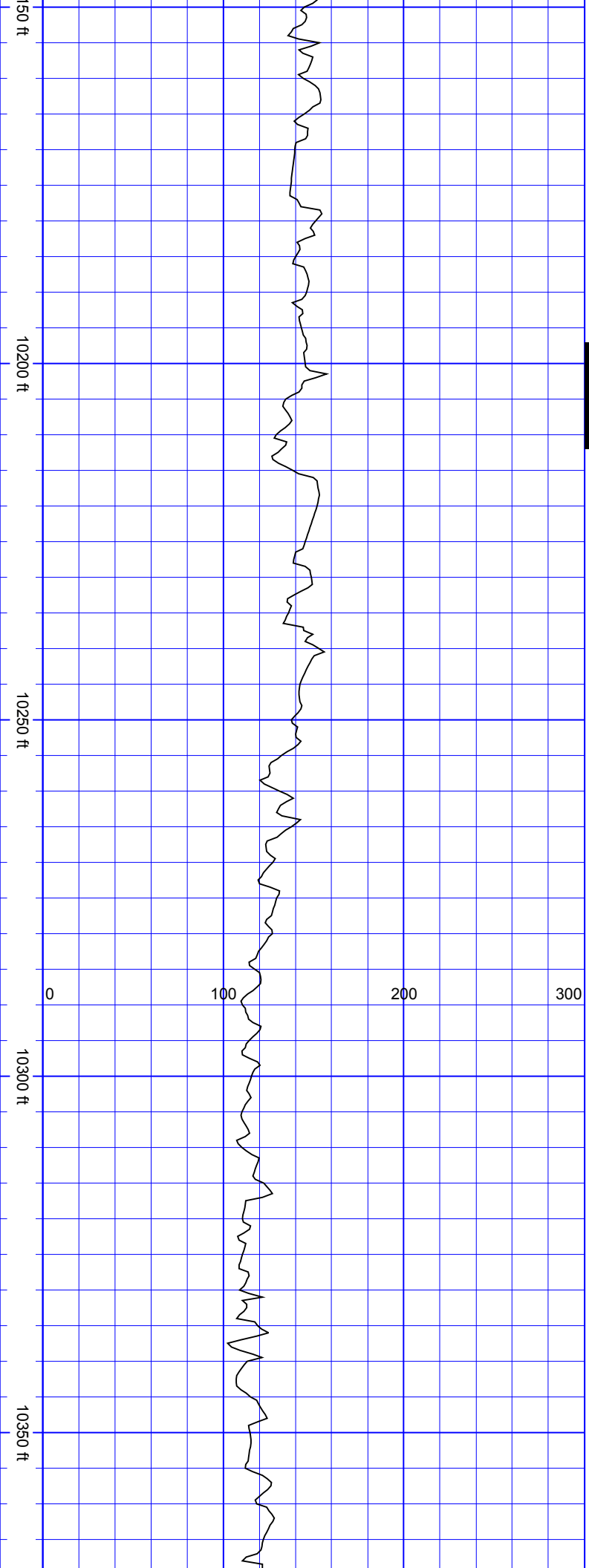
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SurveyDepth:9947  
TVD:7404.64 Inc:89.56  
Azi:1.04  
VertSec:1992.67

SurveyDepth:10041  
TVD:7404.54 Inc:90.57  
Azi:0.25  
VertSec:2085.56

SurveyDepth:10135  
TVD:7403.89 Inc:90.22  
Azi:1.48 VertSec:2178.5

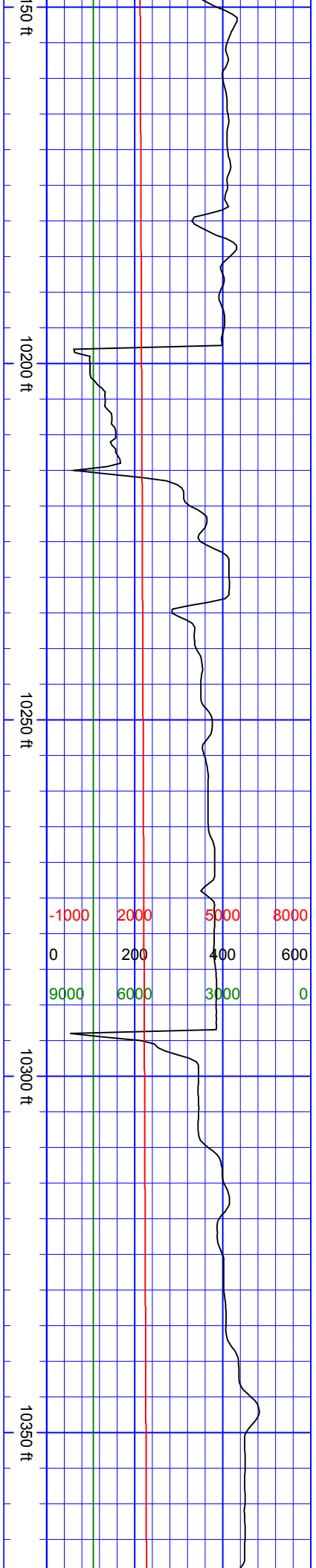


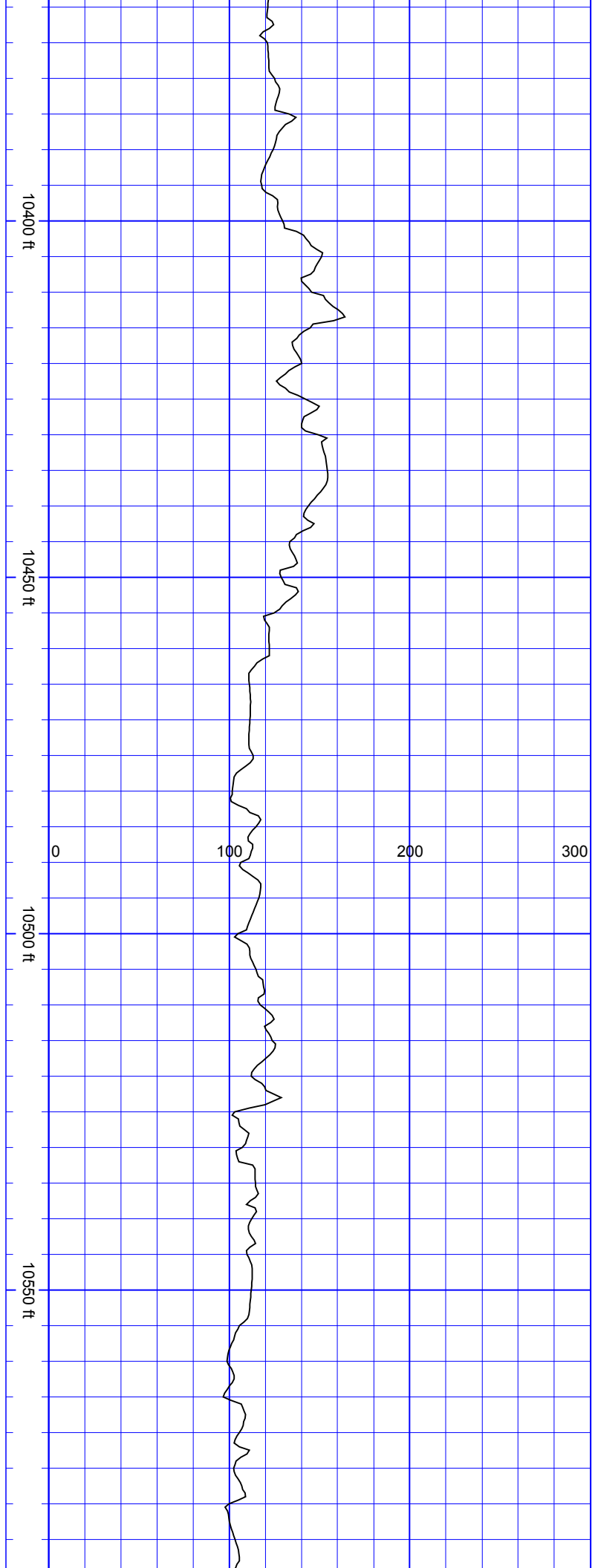


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SurveyDepth: 10230  
TVD: 7402.5 Inc: 91.45  
Azi: 359.64  
VertSec: 2272.35

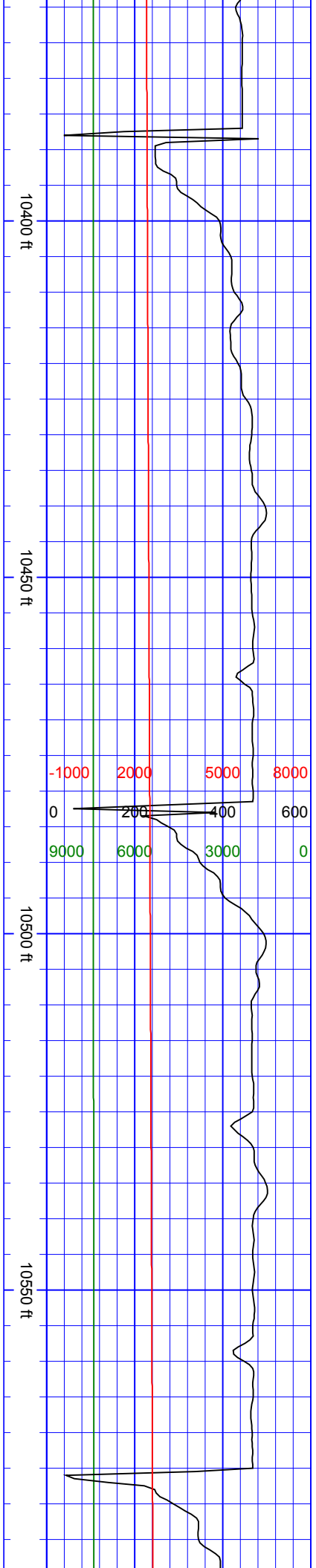
SurveyDepth: 10325  
TVD: 7400.1 Inc: 91.45  
Azi: 359.37  
VertSec: 2365.89



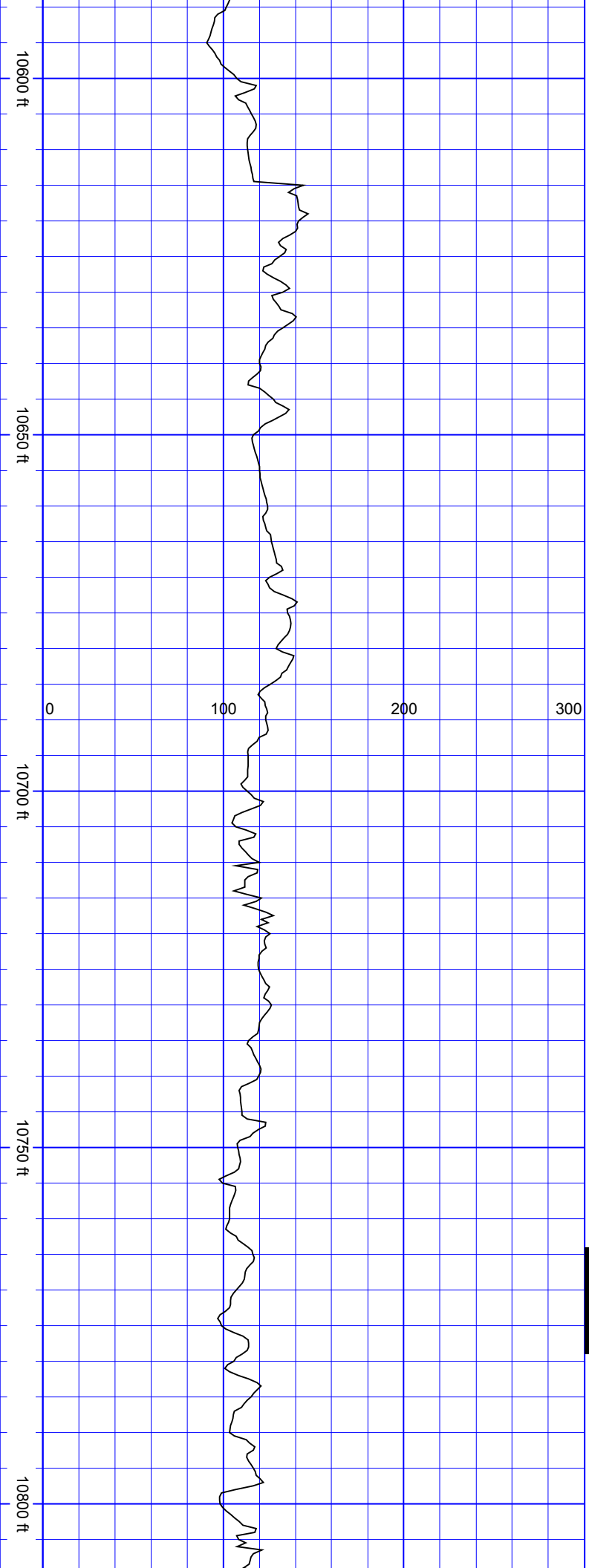


SurveyDepth:10420  
TVD:7397.48 Inc:91.71  
Azi:359.11  
VertSec:2459.35

SurveyDepth:10514  
TVD:7394.82 Inc:91.54  
Azi:358.06  
VertSec:2551.63





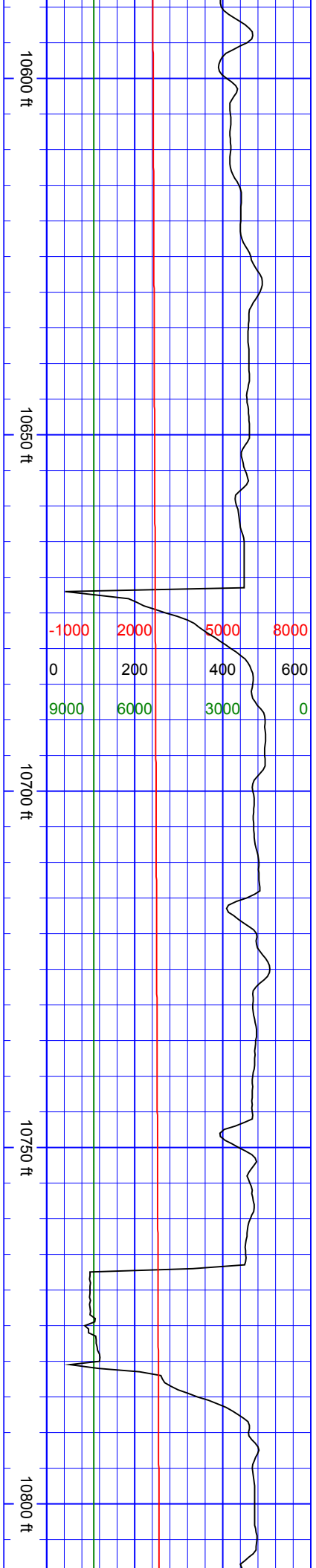


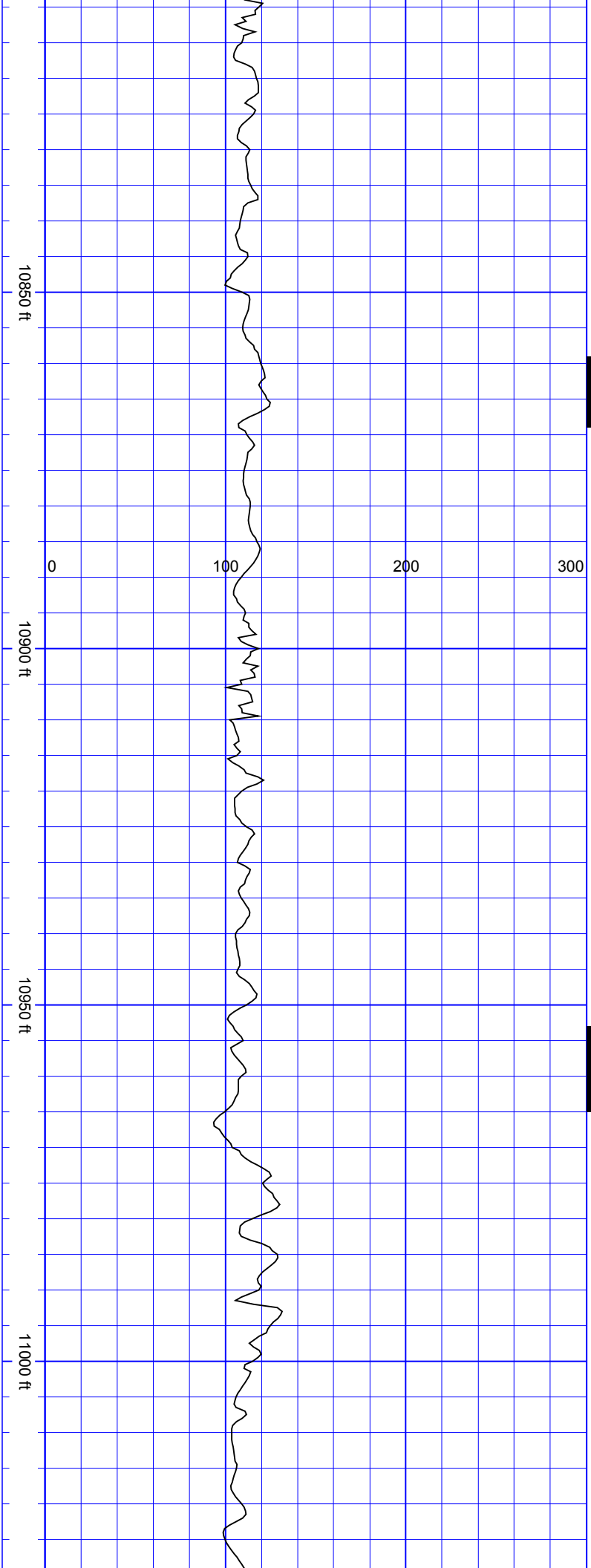
SurveyDepth:10608  
TVD:7392.51 Inc:91.27  
Azi:358.41  
VertSec:2643.8

SurveyDepth:10702  
TVD:7390.31 Inc:91.41  
Azi:357.79  
VertSec:2735.94

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SurveyDepth:10797  
TVD:7389.51 Inc:89.56  
Azi:358.85  
VertSec:2829.14



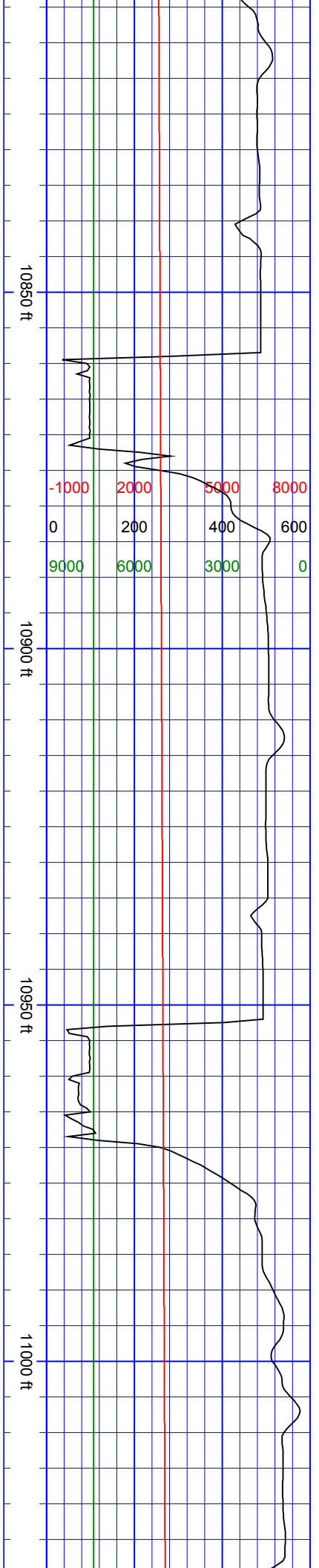


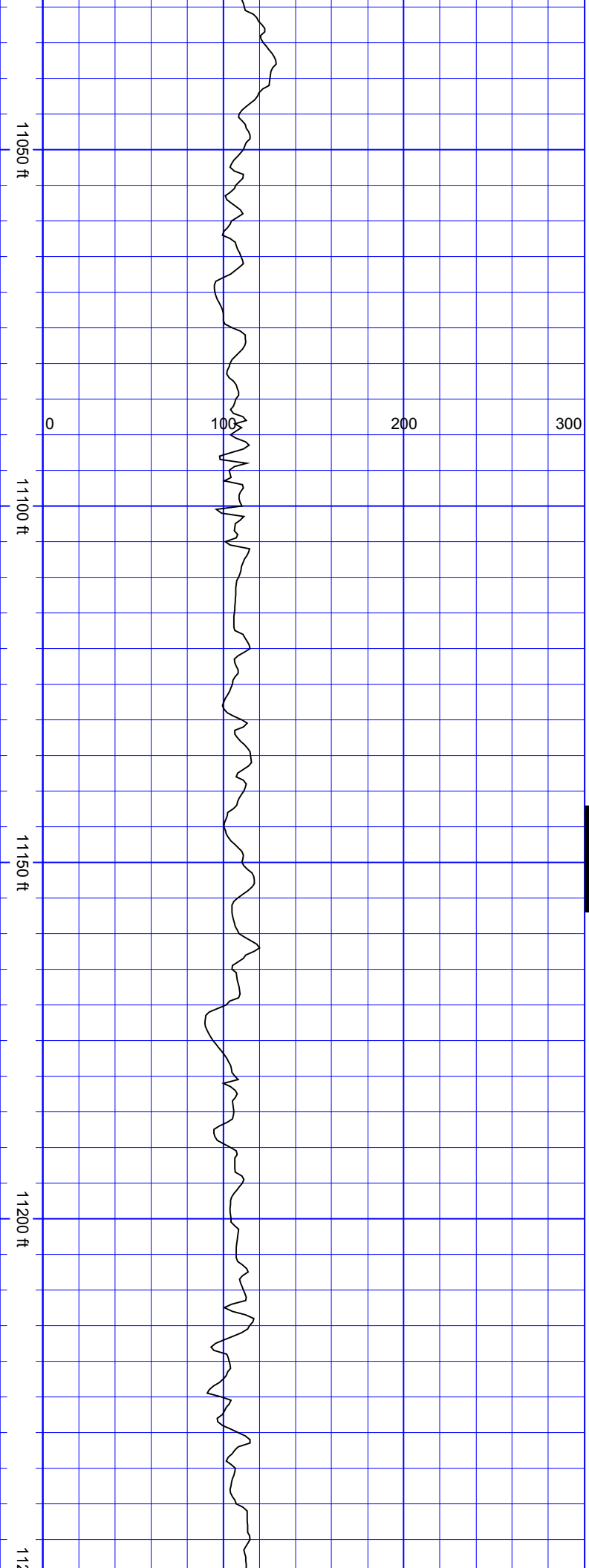
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SurveyDepth:10891  
TVD:7390.85 Inc:88.81  
Azi:359.29  
VertSec:2921.59

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SurveyDepth:10986  
TVD:7392.34 Inc:89.39  
Azi:0.78 VertSec:3015.3

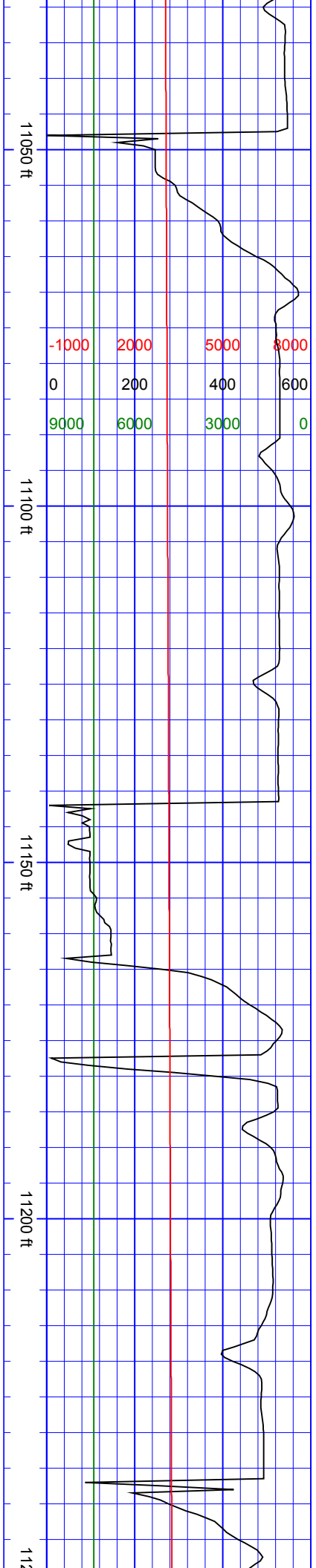




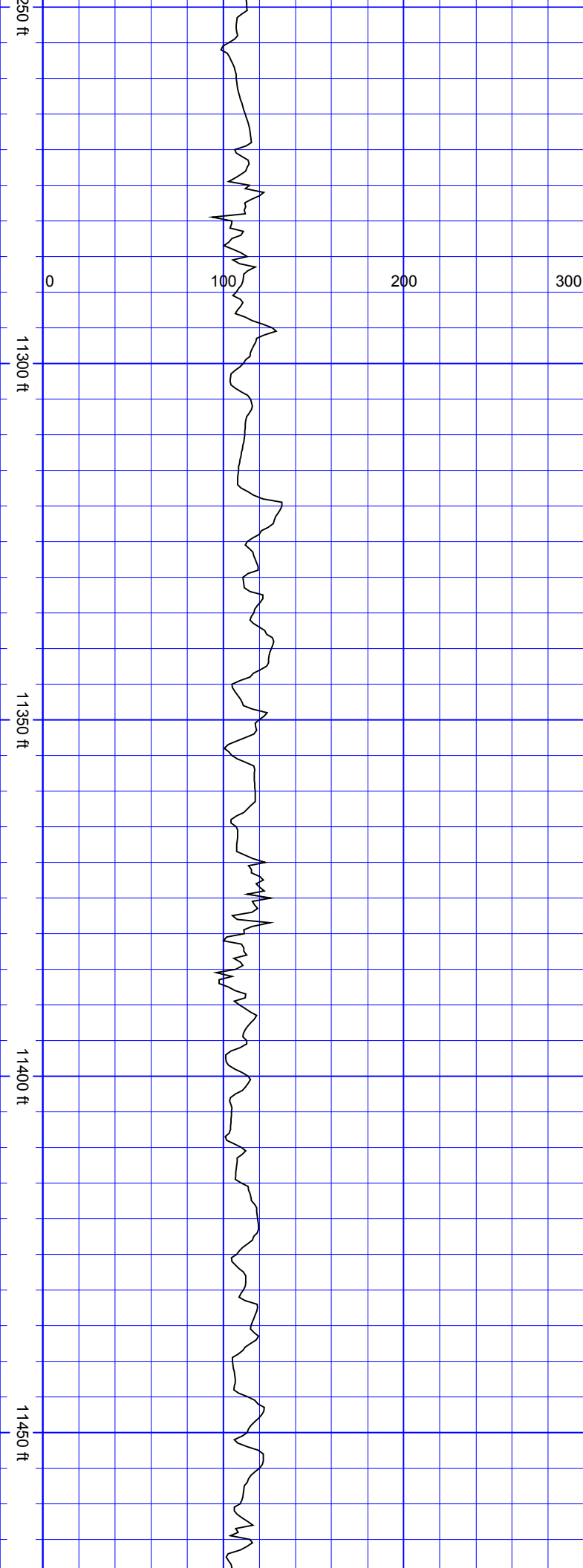
SurveyDepth:11080  
TVD:7393.74 Inc:88.9  
Azi:358.93  
VertSec:3107.97

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SurveyDepth:11175  
TVD:7394.54 Inc:90.13  
Azi:2.27  
VertSec:3201.82

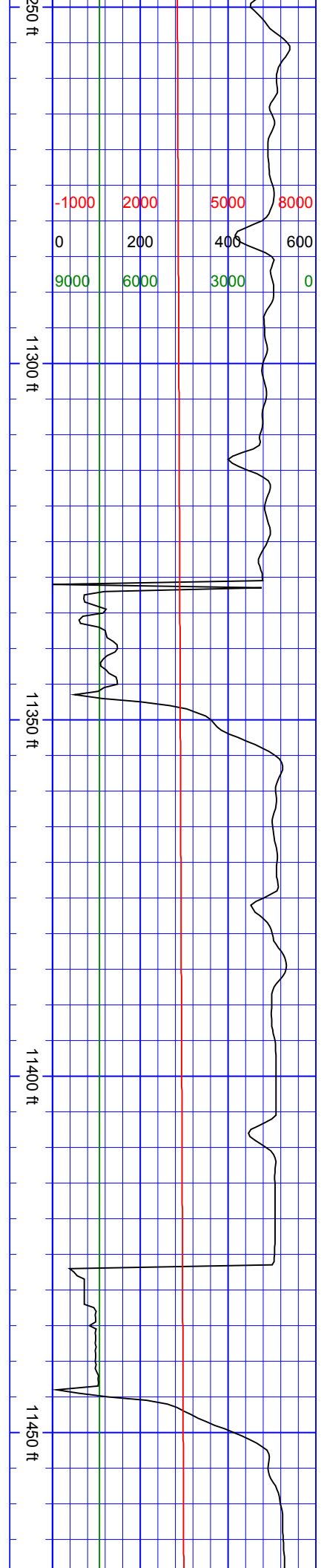


SurveyDepth:11269  
TVD:7394.29 Inc:90.18  
Azi:2.45 VertSec:3295.1



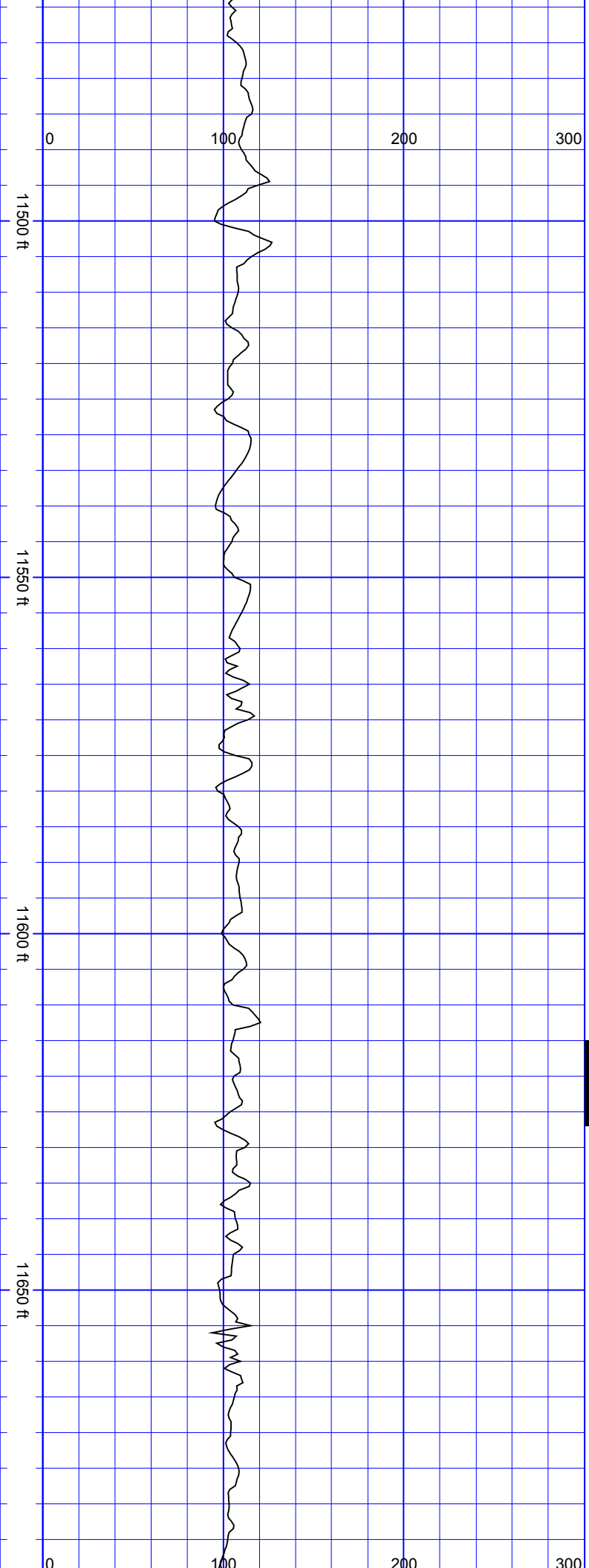
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SurveyDepth:11364  
TVD:7392.28 Inc:92.24  
Azi:3.24  
VertSec:3389.44



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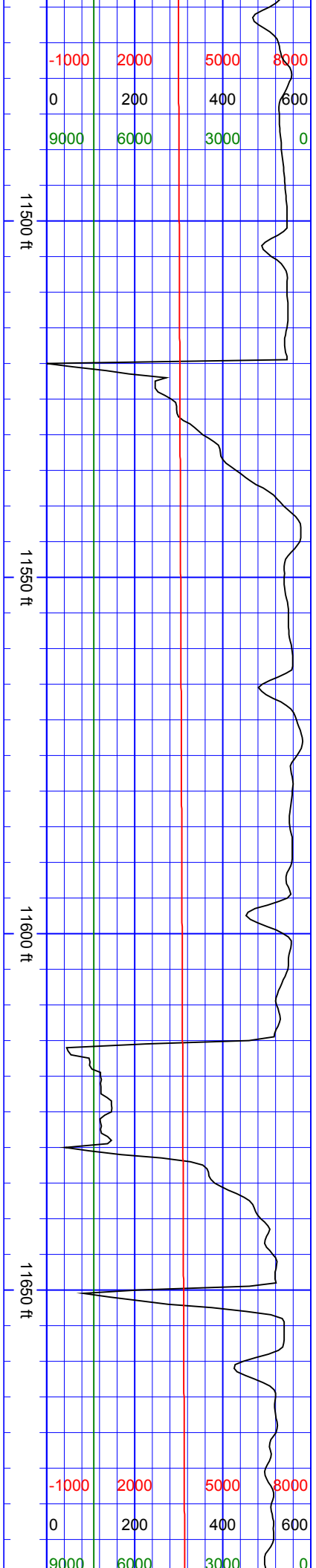
SurveyDepth:11458  
TVD:7389.65 Inc:90.97  
Azi:0.34  
VertSec:3482.56

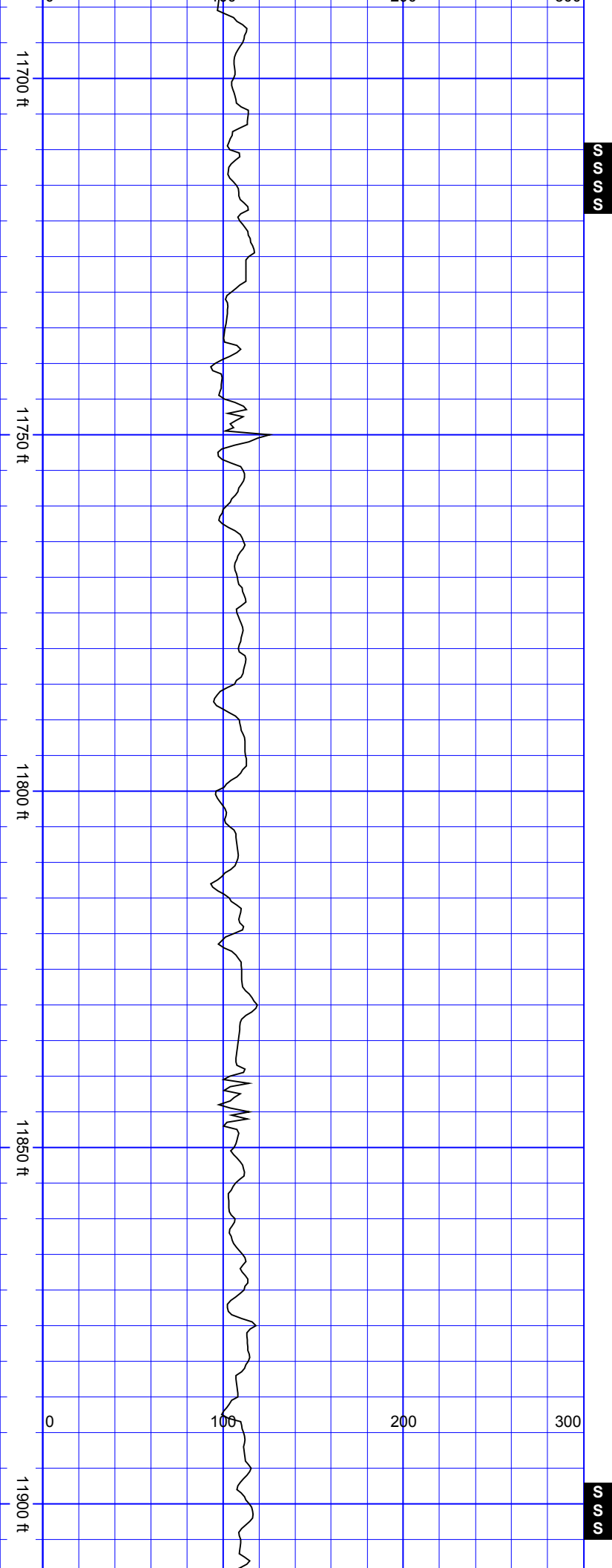


SurveyDepth:11553  
TVD:7388.01 Inc:91.01  
Azi:0.69  
VertSec:3576.39

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SurveyDepth:11647  
TVD:7386.82 Inc:90.44  
Azi:358.41  
VertSec:3668.98



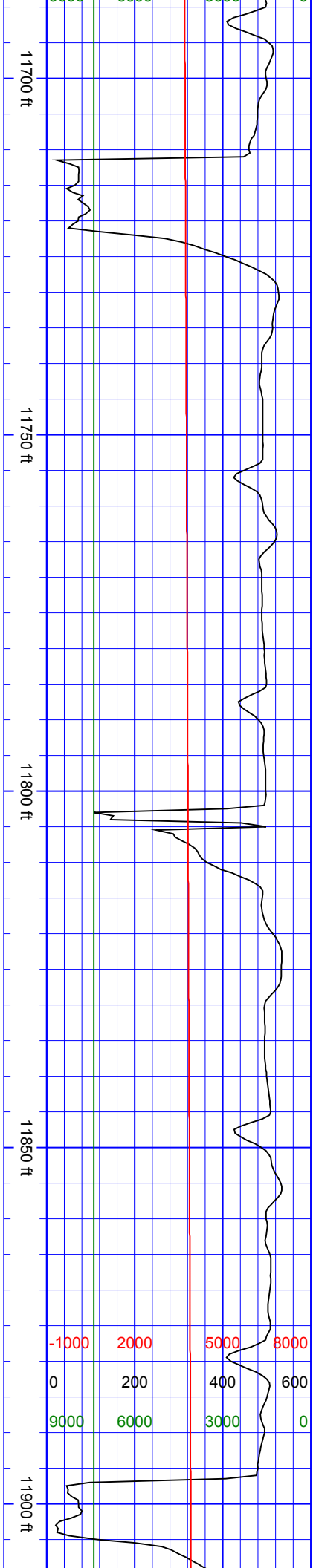


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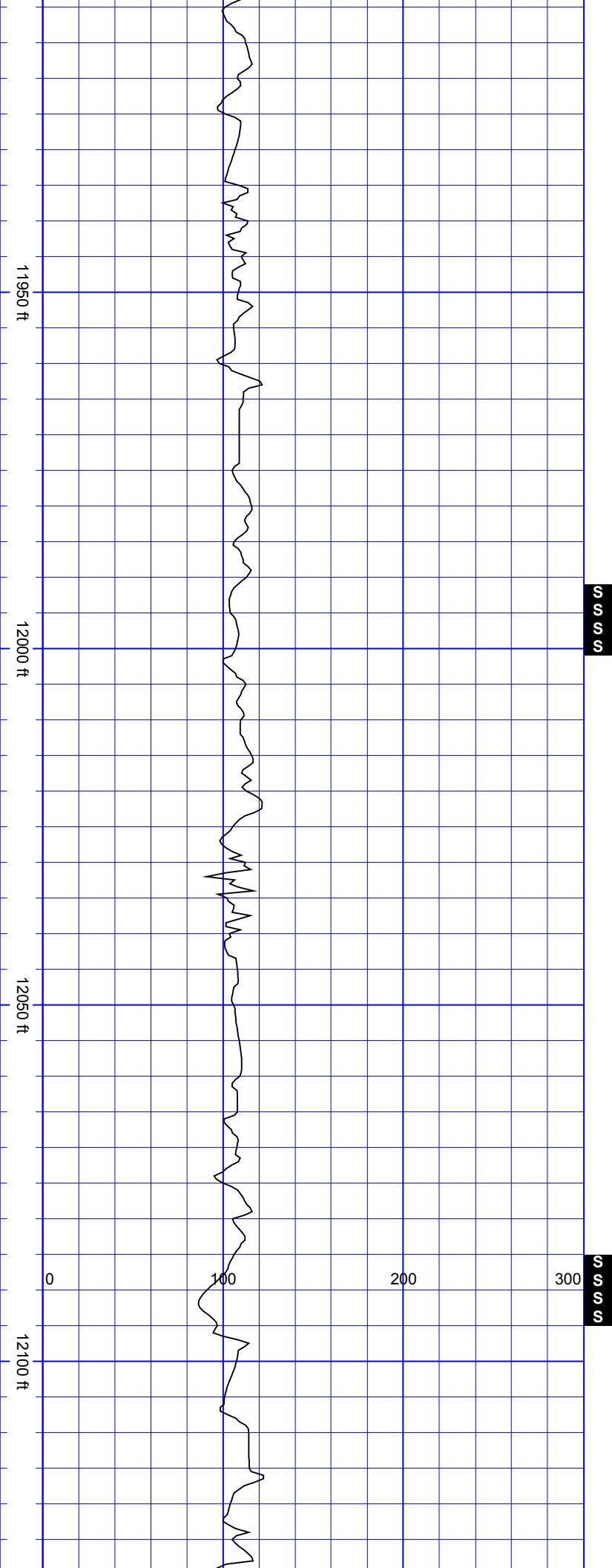
SurveyDepth:11741  
TVD:7387.07 Inc:89.25  
Azi:359.99  
VertSec:3761.47

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SurveyDepth:11835  
TVD:7388.16 Inc:89.43  
Azi:0.16  
VertSec:3854.21



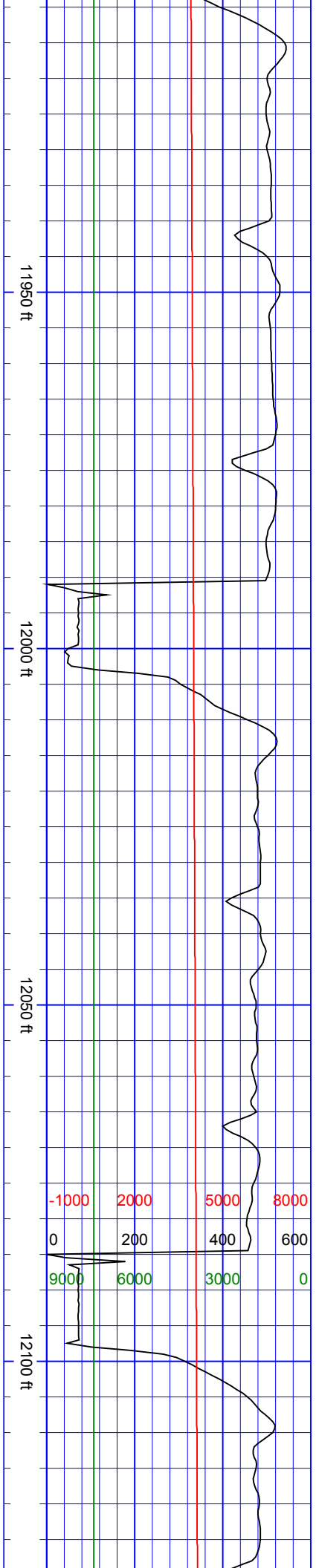
-1000	2000	5000	8000
0	200	400	600
9000	6000	3000	0

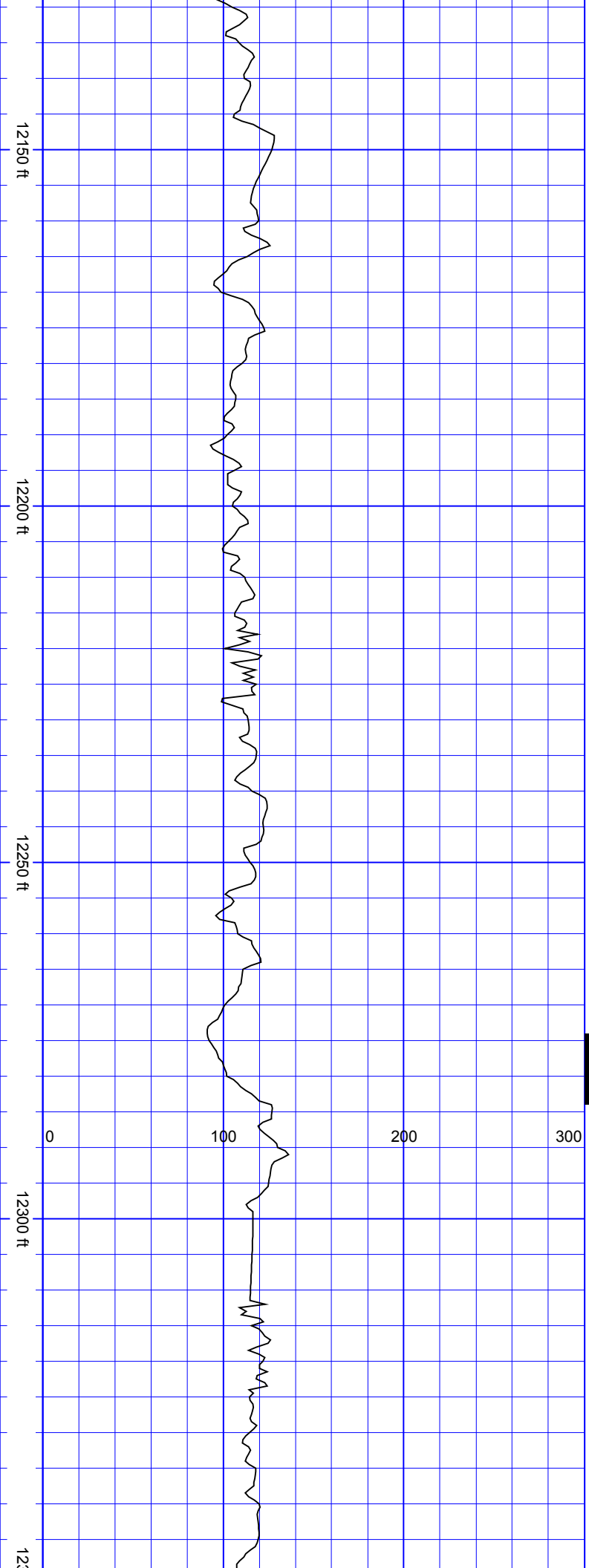


SurveyDepth:11929  
TVD:7389.35 Inc:89.12  
Azi:0.08  
VertSec:3946.96

SurveyDepth:12023  
TVD:7390.61 Inc:89.34  
Azi:359.37  
VertSec:4039.6

SurveyDepth:12118  
TVD:7392.69 Inc:88.15  
Azi:358.14  
VertSec:4132.92

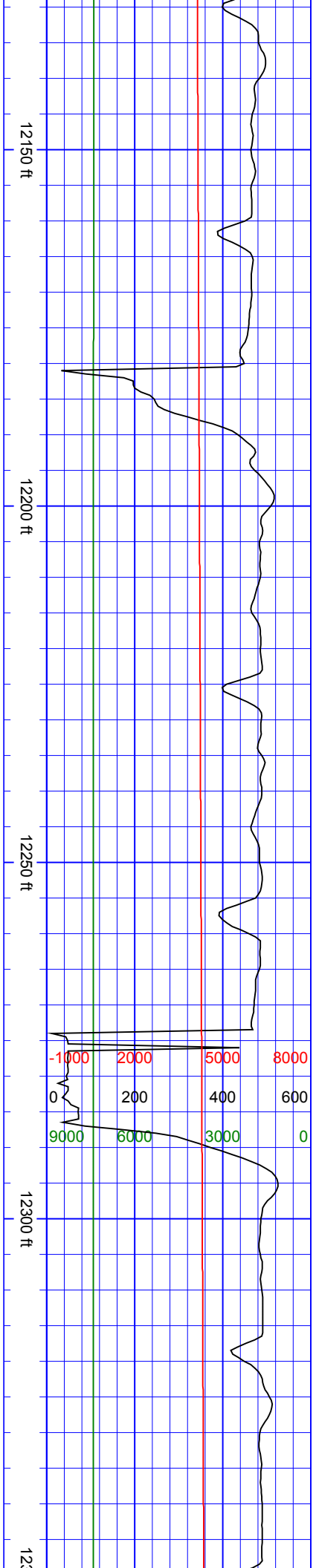




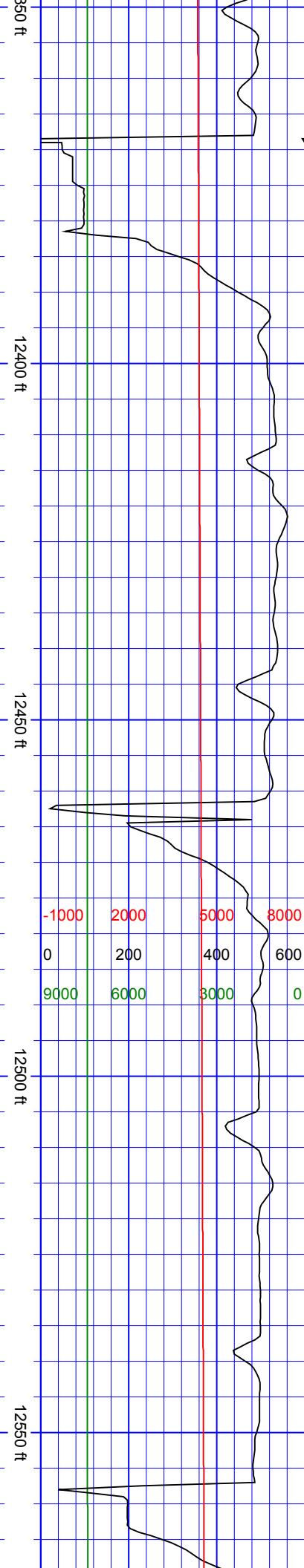
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SurveyDepth:12212  
TVD:7395.73 Inc:88.15  
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VertSec:4225.19

SurveyDepth:12306  
TVD:7398.07 Inc:88.99  
Azi:358.32  
VertSec:4317.5

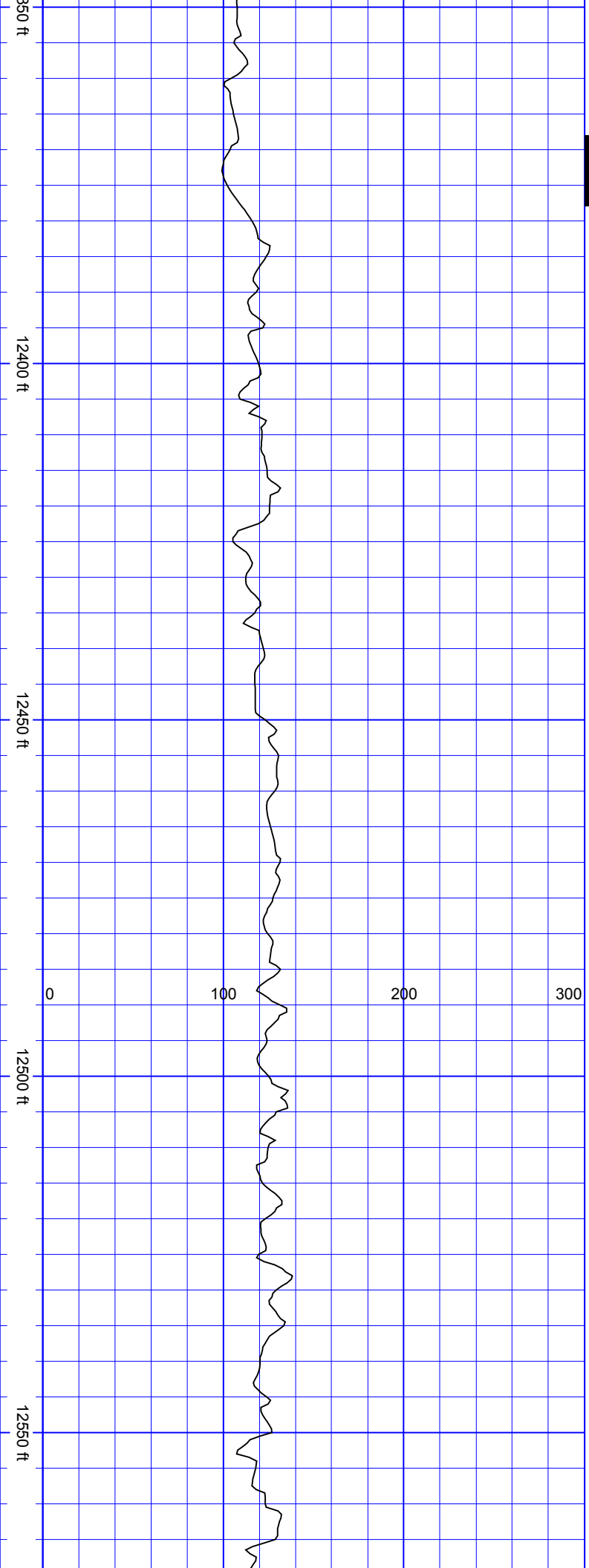


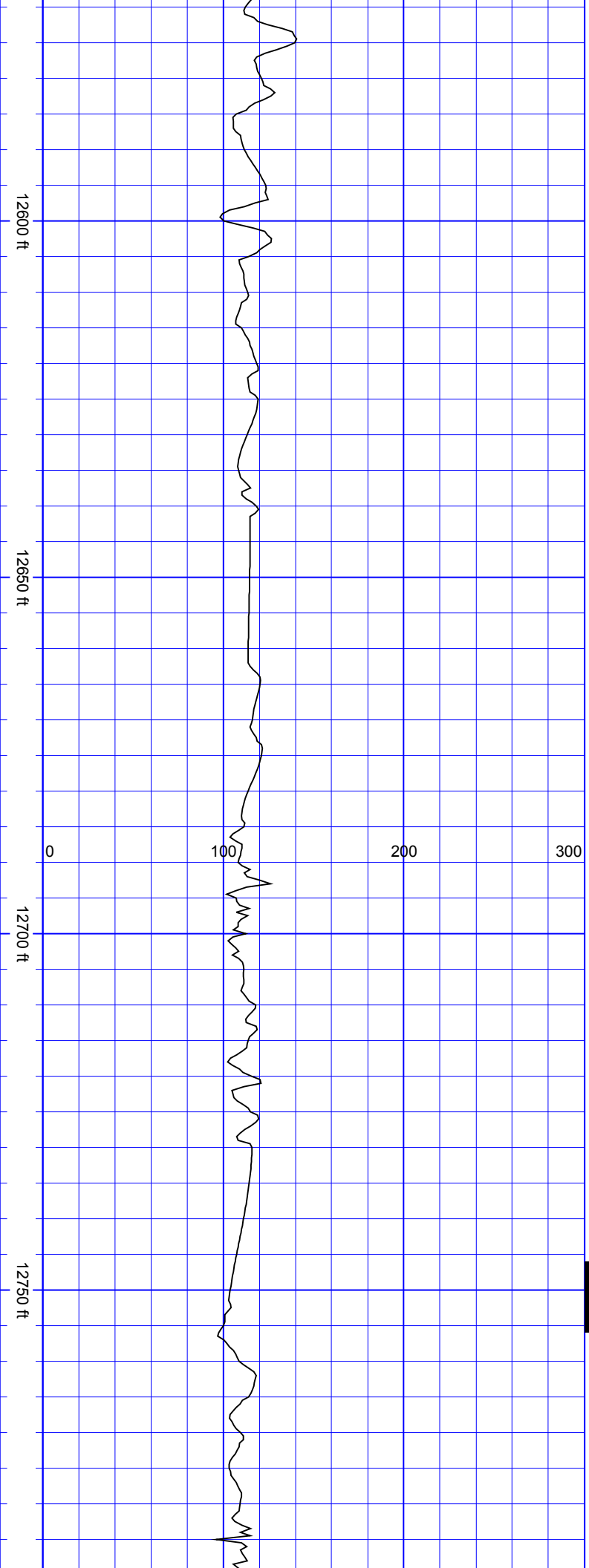




SurveyDepth:12400  
TVD:7397.96 Inc:91.14  
Azi:359.73  
VertSec:4409.94

SurveyDepth:12494  
TVD:7396.02 Inc:91.23  
Azi:359.2  
VertSec:4502.49



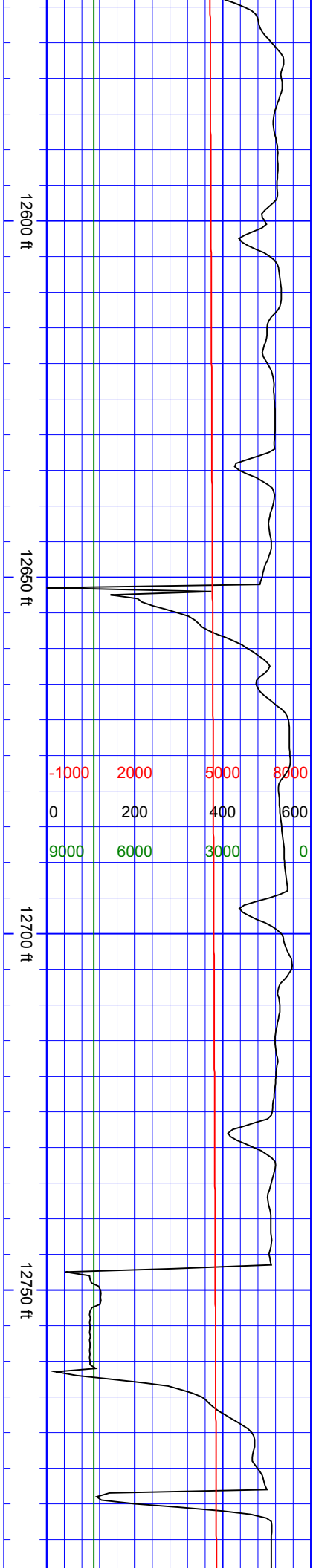


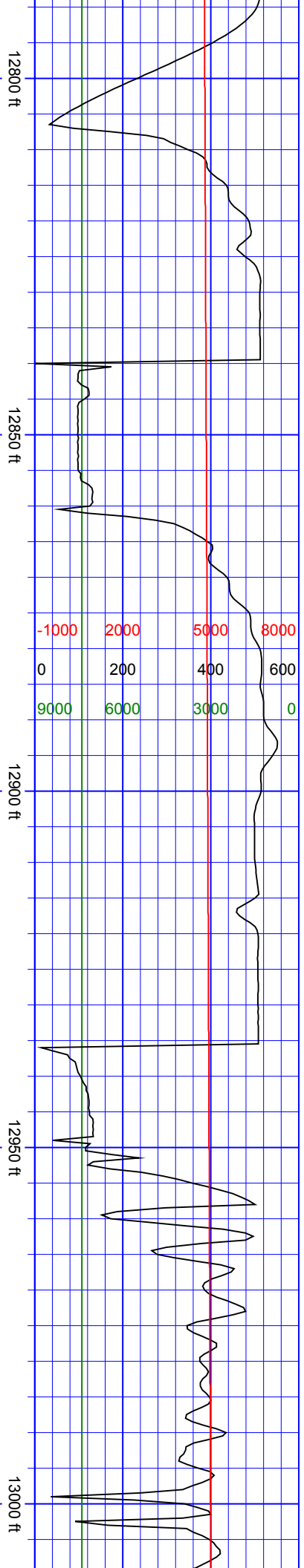
SurveyDepth:12589  
TVD:7393.98 Inc:91.23  
Azi:359.55  
VertSec:4596.01

SurveyDepth:12684  
TVD:7391.58 Inc:91.67  
Azi:0.43  
VertSec:4689.68

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SurveyDepth:12778  
TVD:7388.69 Inc:91.85  
Azi:359.37  
VertSec:4782.34



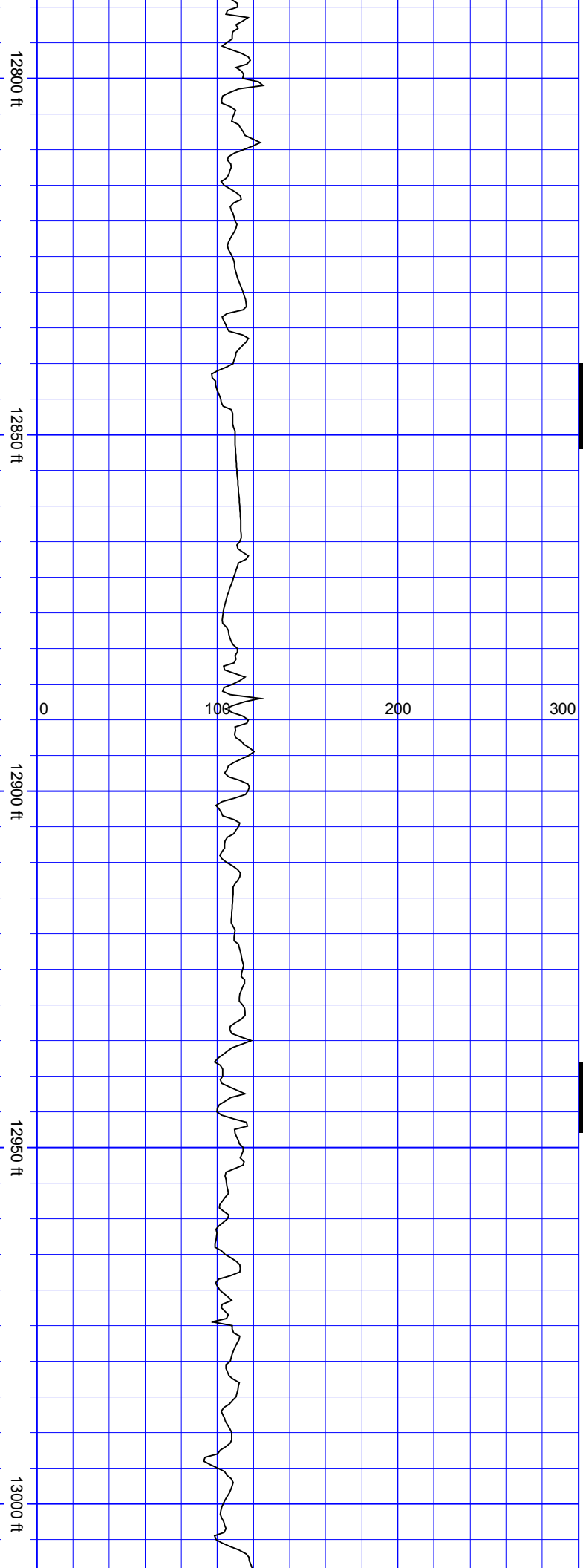


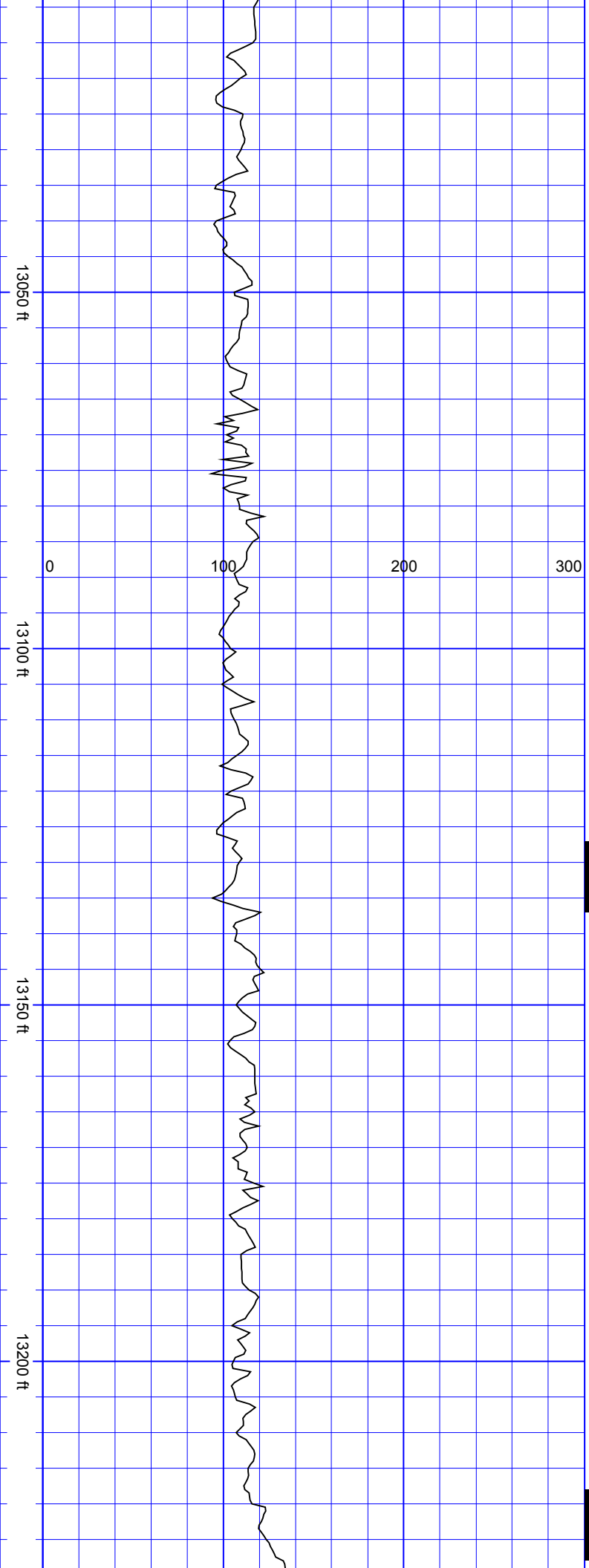
SurveyDepth:12873  
TVD:7386.64 Inc:90.62  
Azi:358.49  
VertSec:4875.72

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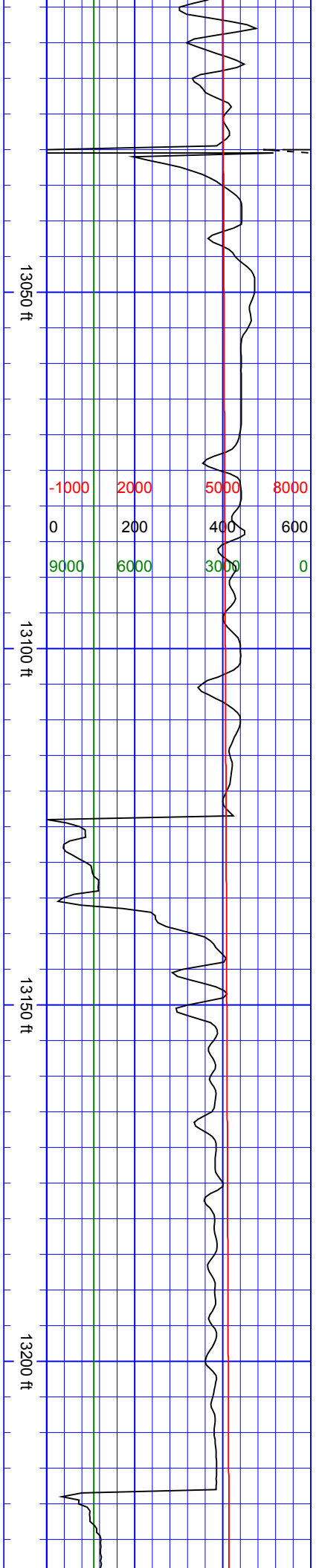
SurveyDepth:12967  
TVD:7387.18 Inc:88.73  
Azi:356.74  
VertSec:4967.71

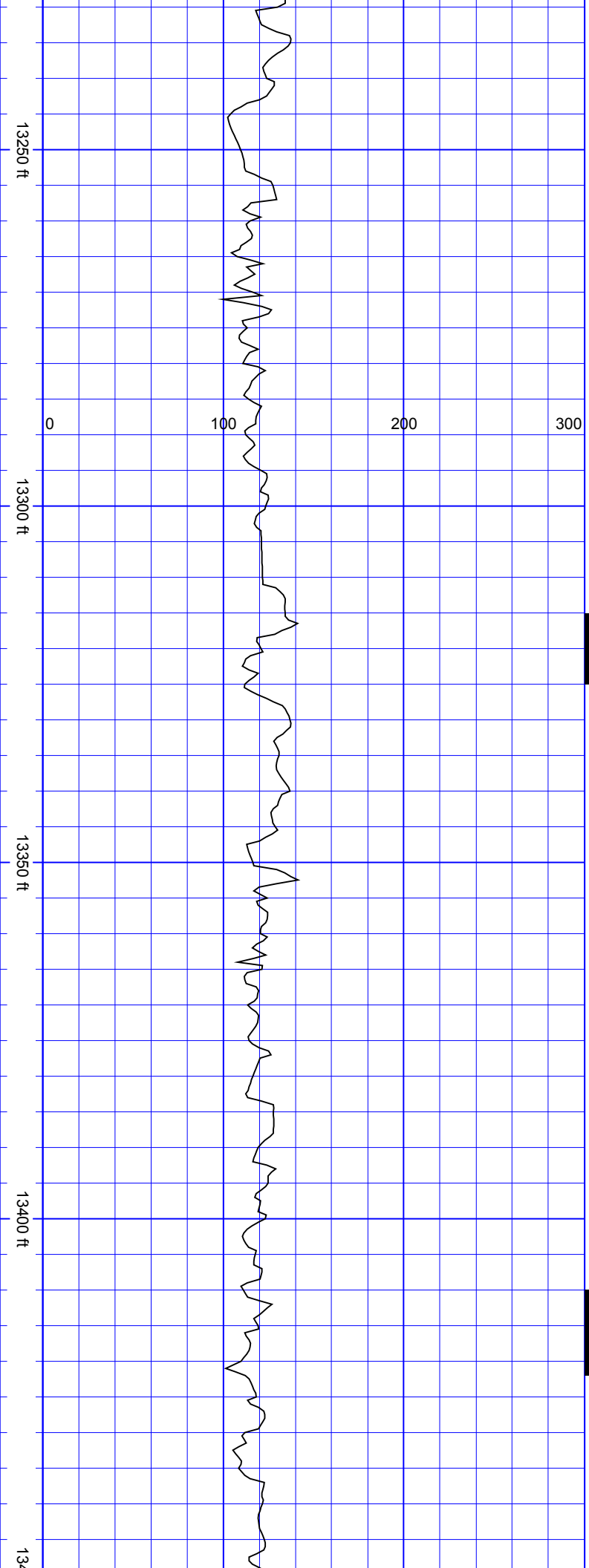




SurveyDepth:13062  
TVD:7389.36 Inc:88.64  
Azi:356.74  
VertSec:5060.36

SurveyDepth:13156  
TVD:7391.45 Inc:88.81  
Azi:357.97  
VertSec:5152.24





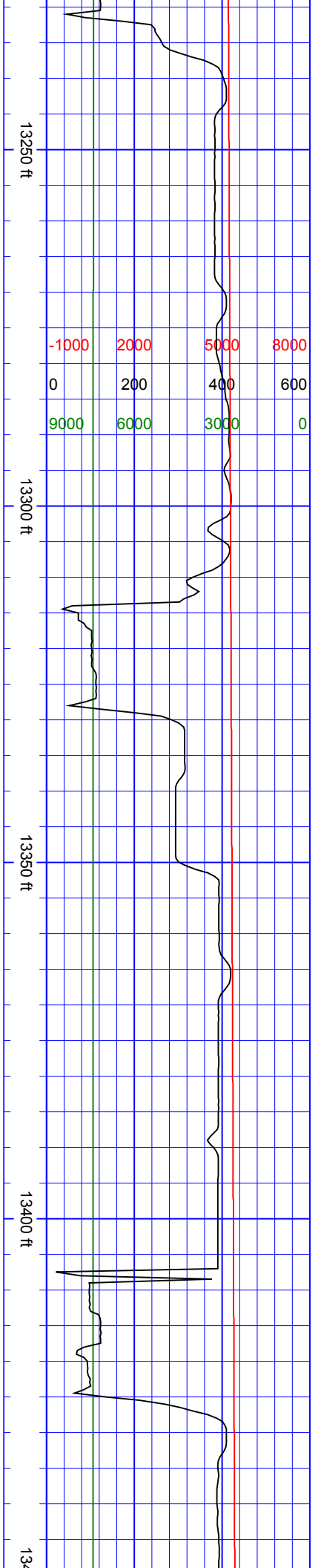
SurveyDepth:13250  
TVD:7393.97 Inc:88.11  
Azi:358.76  
VertSec:5244.46

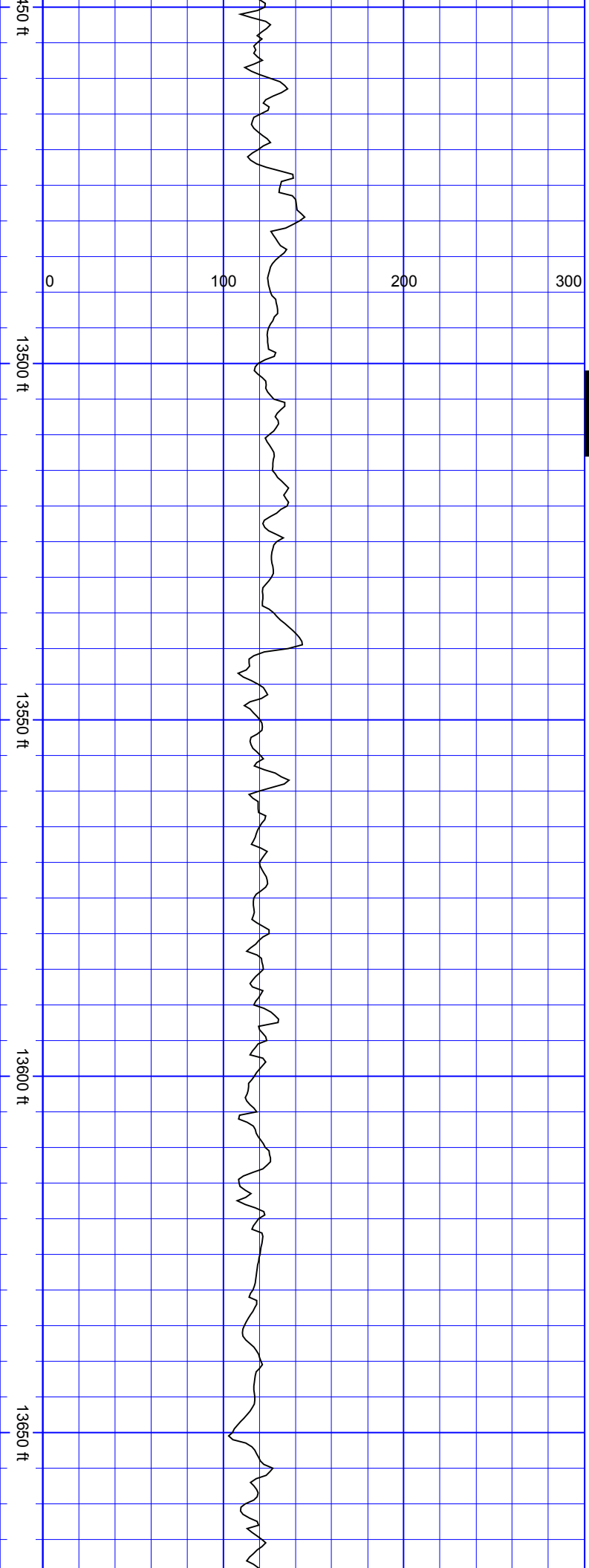
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SurveyDepth:13345  
TVD:7396.92 Inc:88.33  
Azi:359.37  
VertSec:5337.85

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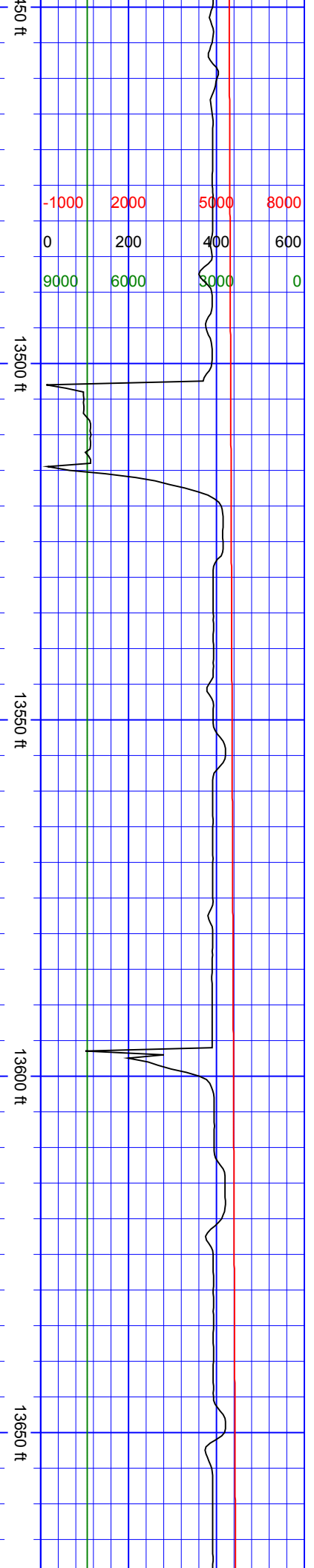
SurveyDepth:13439  
TVD:7398.84 Inc:89.34  
Azi:0.34  
VertSec:5430.52

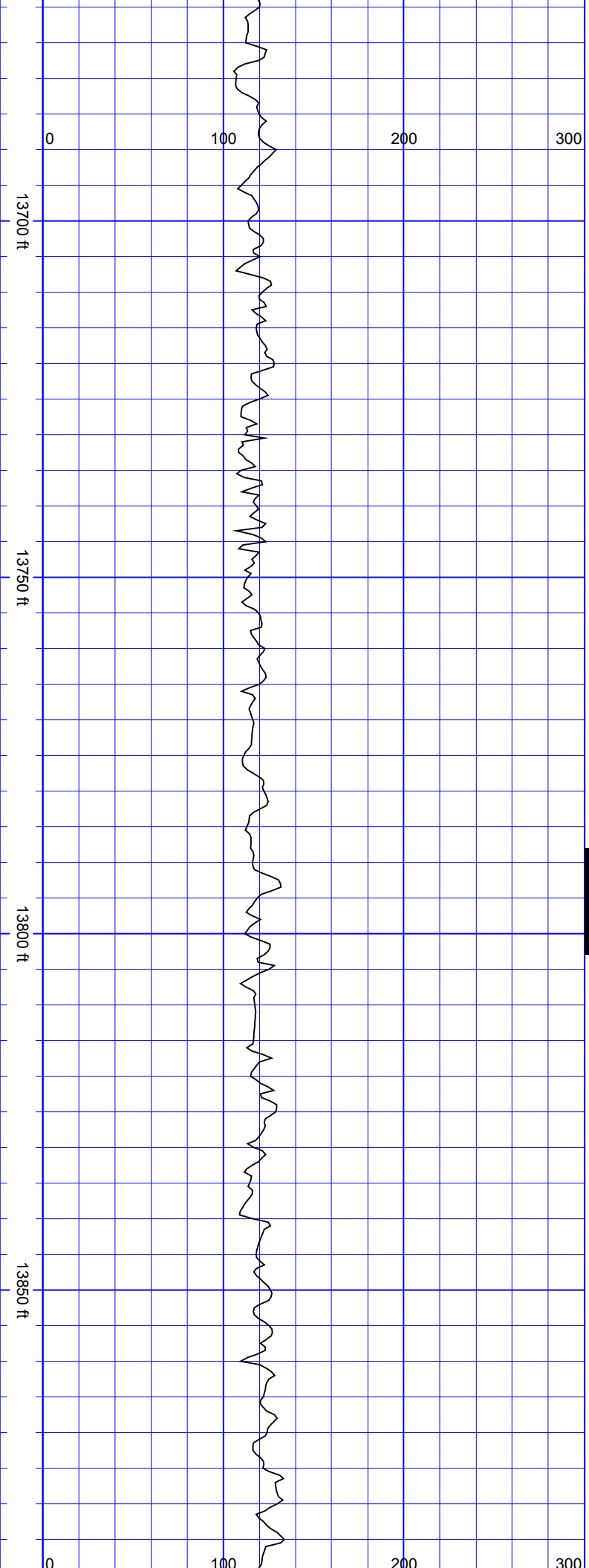




SurveyDepth:13534  
TVD:7398.91 Inc:90.57  
Azi:1.66  
VertSec:5524.48

SurveyDepth:13628  
TVD:7397.9 Inc:90.66  
Azi:1.75  
VertSec:5617.62

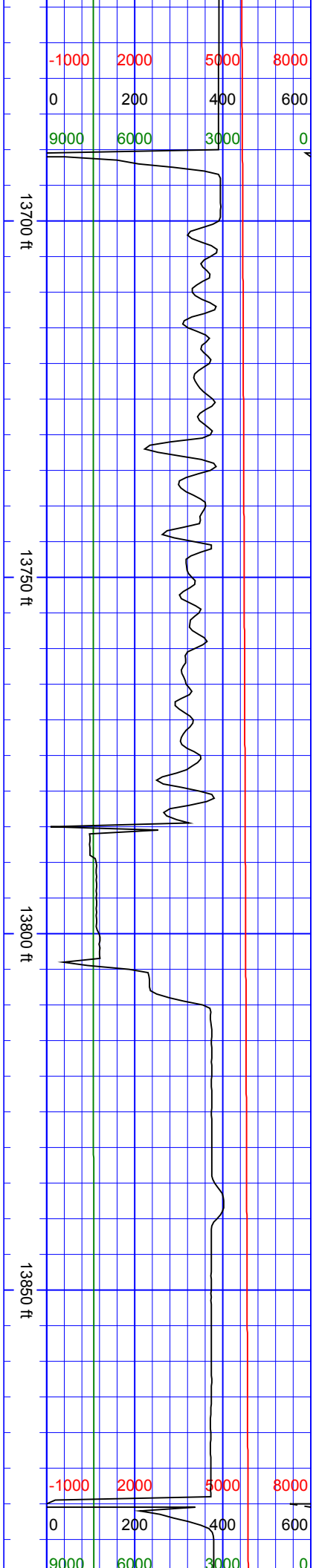


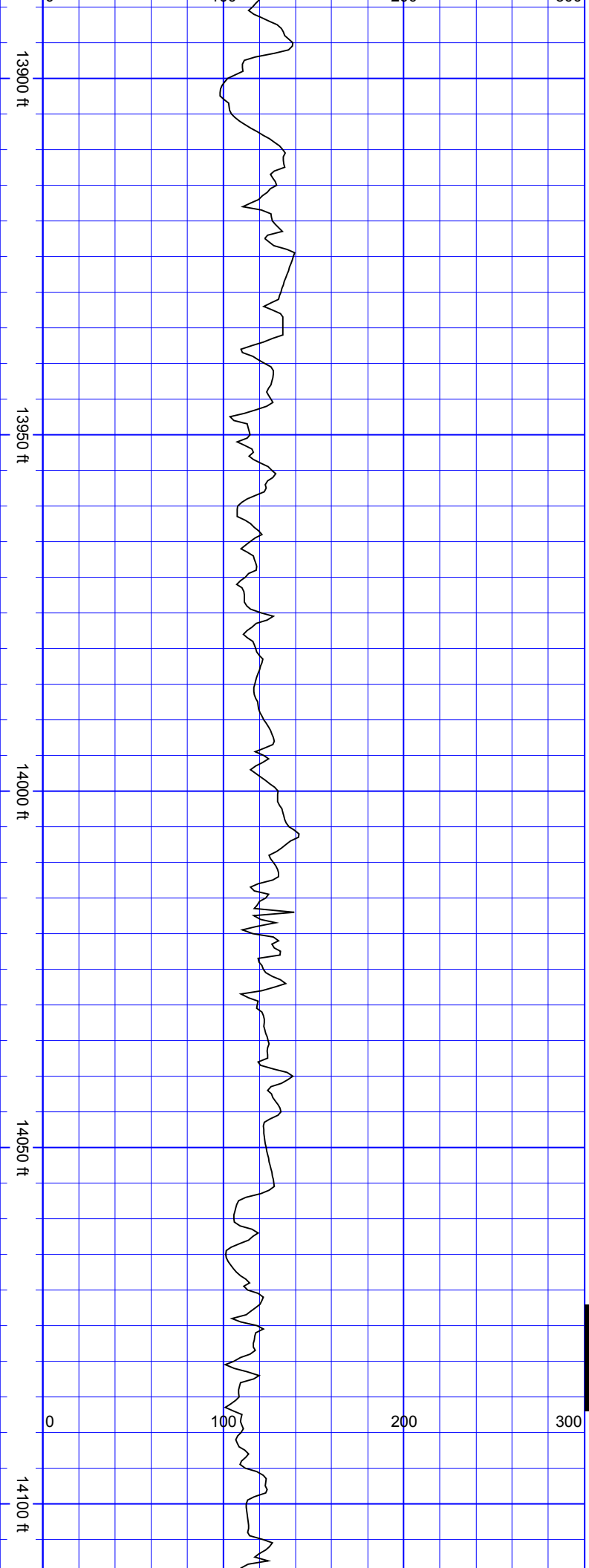


SurveyDepth:13723  
TVD:7396.52 Inc:91.01  
Azi:2.8 VertSec:5711.86

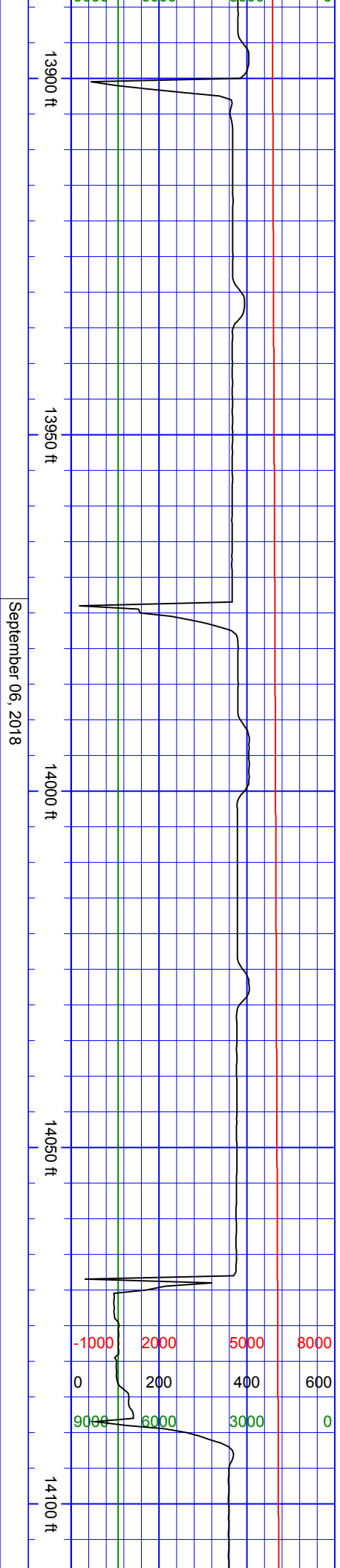
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SurveyDepth:13817  
TVD:7394.89 Inc:90.97  
Azi:1.04  
VertSec:5805.04



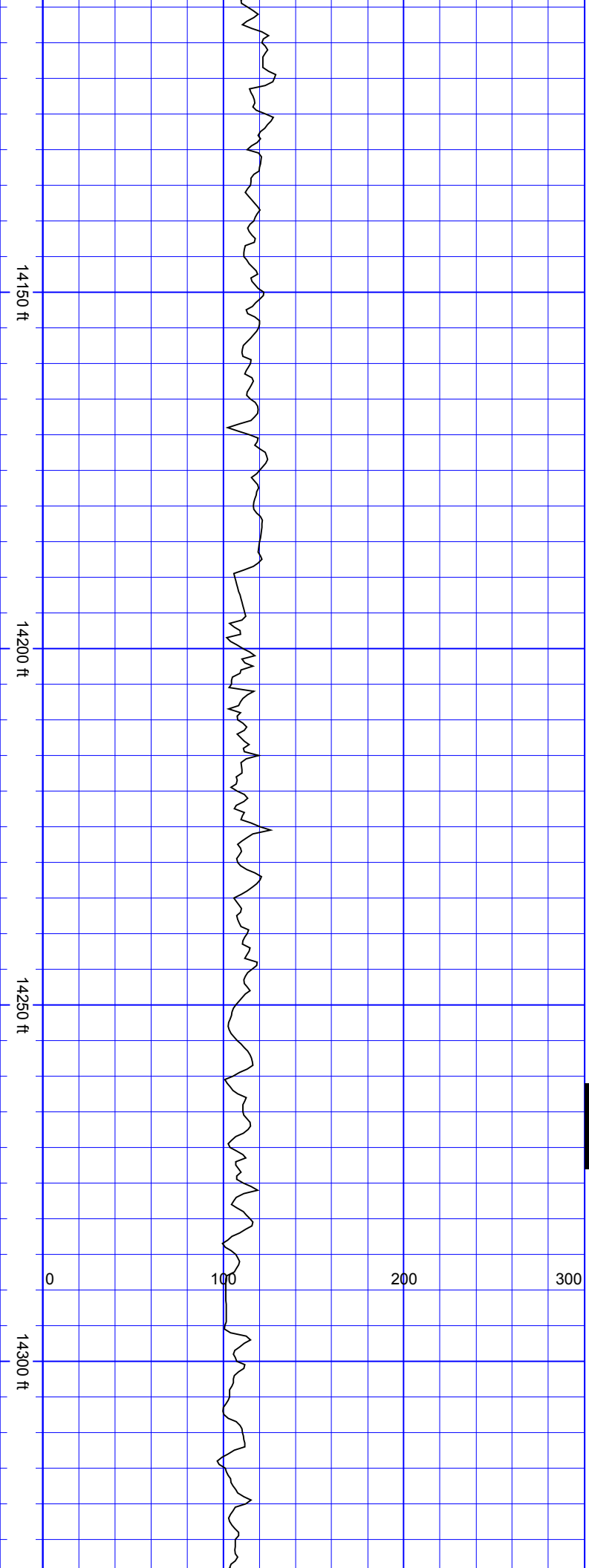


SurveyDepth:13911 TVD:7392.94 Inc:91.41 Azi:0.69 VertSec:5897.96	SurveyDepth:14006 TVD:7390.39 Inc:91.67 Azi:1.83 VertSec:5991.96	SurveyDepth:14100 TVD:7388.12 Inc:91.1 Azi:358.58 VertSec:6084.7
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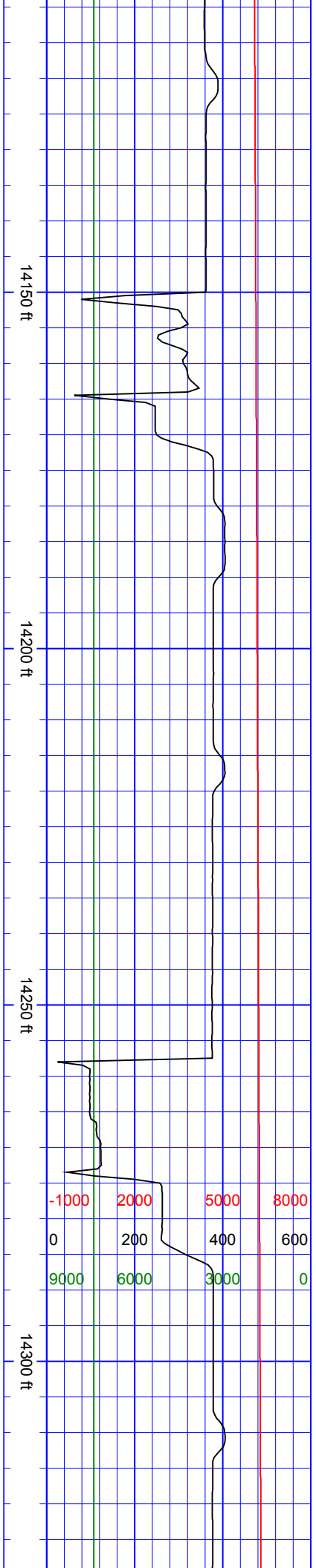
VertSec:6004.7

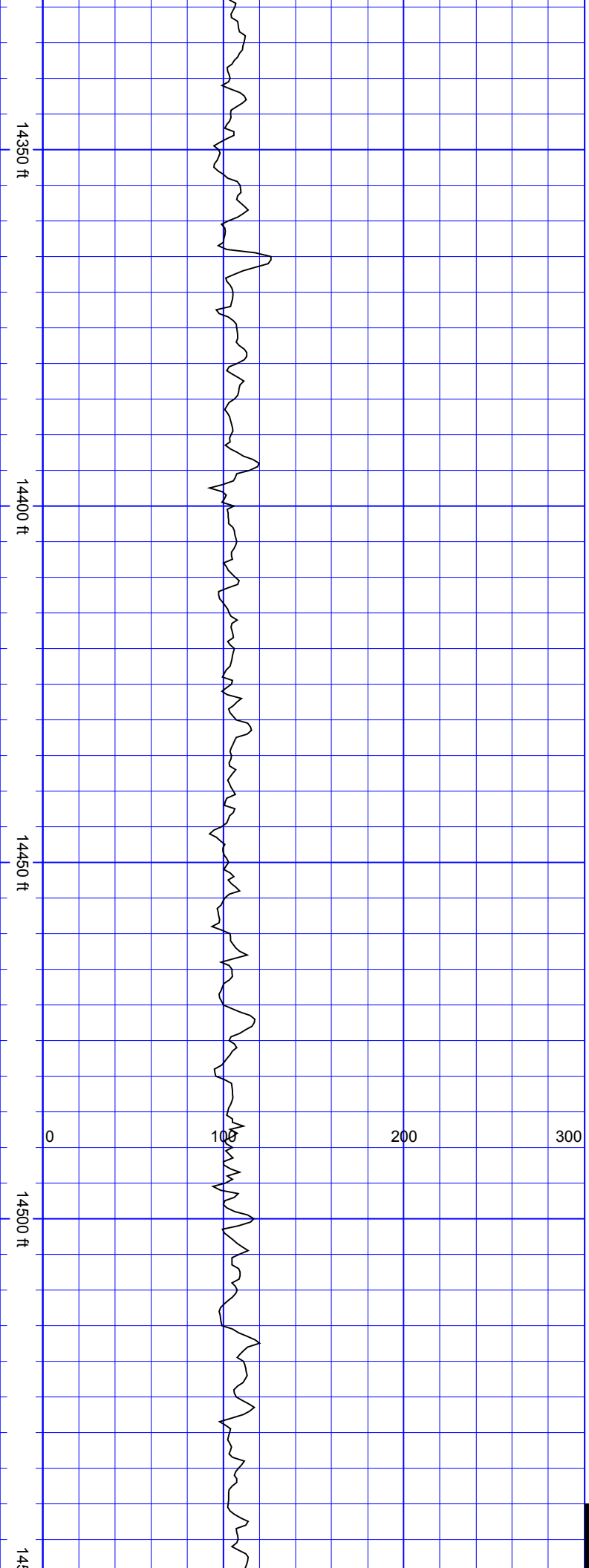


SurveyDepth:14195  
TVD:7385.71 Inc:91.8  
Azi:359.37  
VertSec:6178.08

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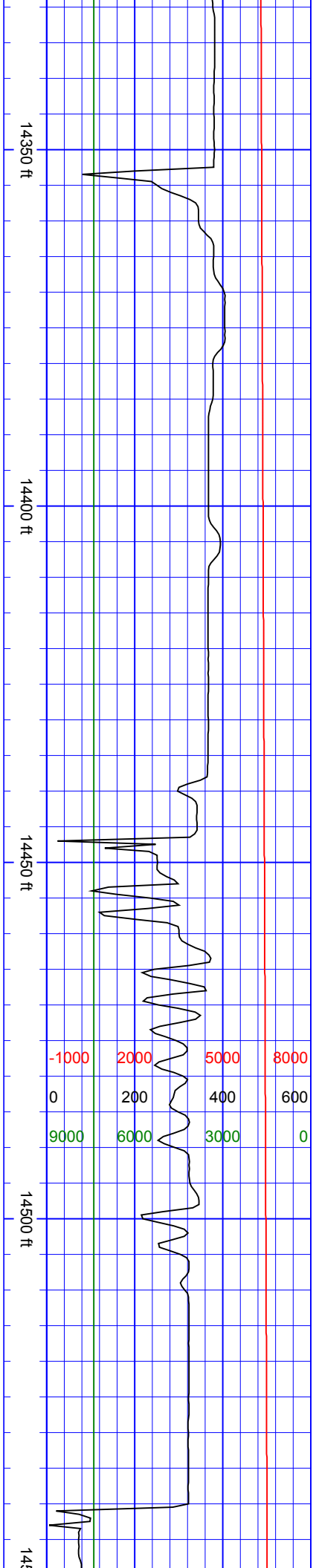
SurveyDepth:14290  
TVD:7383.7 Inc:90.62  
Azi:358.41  
VertSec:6271.45

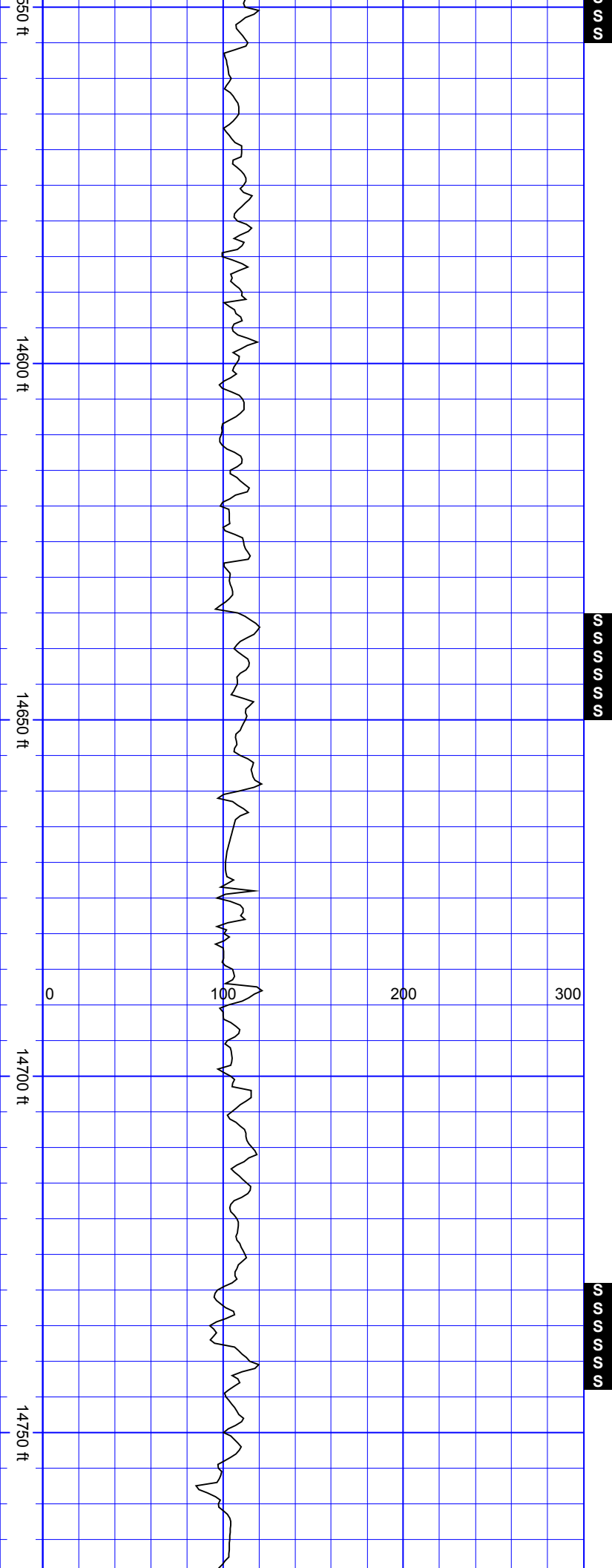




SurveyDepth:14384  
TVD:7382.62 Inc:90.7  
Azi:357.62  
VertSec:6363.58

SurveyDepth:14478  
TVD:7383.39 Inc:88.37  
Azi:354.28  
VertSec:6454.96





SurveyDepth:14573  
TVD:7385.94 Inc:88.55  
Azi:353.13  
VertSec:6546.36

SurveyDepth:14667  
TVD:7387.49 Inc:89.56  
Azi:354.72  
VertSec:6636.91

SurveyDepth:14762  
TVD:7387.75 Inc:90.13  
Azi:355.68

