		<b>Build &amp; Lateral</b>		
Job #:		185240	Well ID:	16190869
Scale:		5" = 100 ft	Type:	MD

<b>Well Site Information</b>		Crestone Peak Resources	
Oil Company			
Surface Location	S25-T1N-R66W		
Well Name	Sam 3A-25H-M166		
API	05-123-46125 00		
Field	DJ Basin		
State	Colorado		
Country	USA		

<b>Surface Coordinates</b>	
Well Type	Horizontal
Latitude	40° 1' 8 N
Longitude	140° 44' 2 W
N / S Coordinates	1,250656.75 usft
E / W Coordinates	3,214576.98 usft
Azimuth Reference	True North
Grid Convergence	0.51°

<b>MWD Engineers</b>	
Lead Hand	Aaron Clark
Second Hand	Paul Krueger

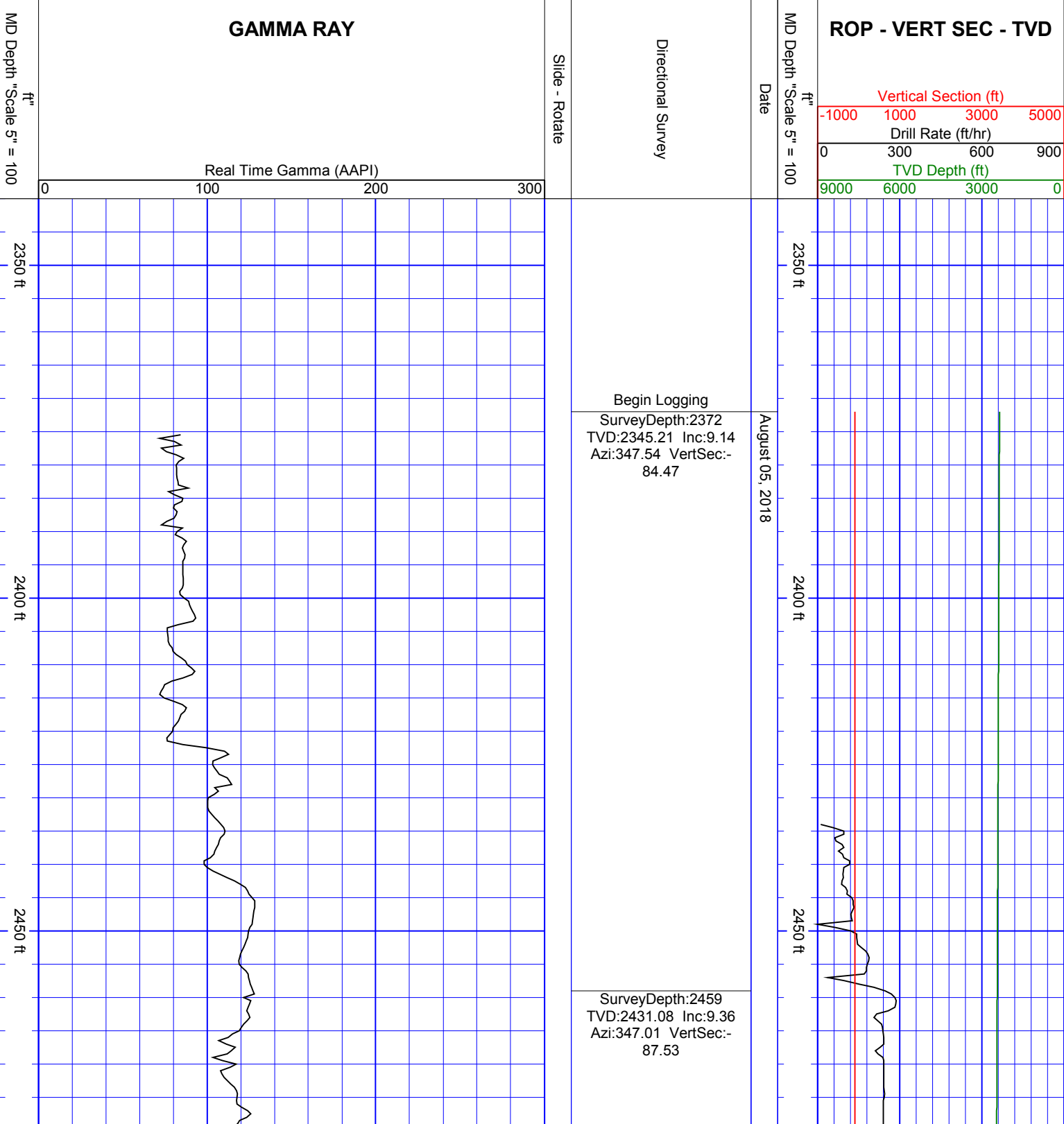
Perm Datum	Ground	Elevation	5,086.00 ft		
Log depth measured from KB is	23.00 ft	above perm datum.	KB = 5,109.00 ft		
Total Depth	11,930.00 ft	Spud Date	Aug/05/2018	End Date	Aug/11/2018
(MD) Log Interval	Start Depth	2,375.44 ft	End Depth	11,895.82 ft	

<b>Bore Hole Record</b>		<b>Casing Record</b>					
Hole Size	From	To	Type	Size	WGT	From	To
13.50 in	0.00 ft	2,434.00 ft	LT&C	9.63 in	40lb.	0.00 ft	2,419.00 ft
8.50 in	2,434.00 ft	11,930.00 ft	DWC/C-I-S	5.50 in	20lb.	0.00 ft	11,930.00 ft


Run Data					
Bit Run Number	1	2			
Start Date & Time	Aug/05/2018 19:00:00	Aug/10/2018 03:30:00			
End Date & Time	Aug/07/2018 18:00:00	Aug/11/2018 20:00:00			
Run Hours	47.00	88.30			
Depth In	2,434.00 ft	7,954.00 ft			
Depth Out	7,954.00 ft	11,930.00 ft			
Total Gamma Correction	5.72	5.28			
Gamma to Bit	58.64 ft	64.45 ft			
Resistivity to Bit	N/A	N/A			
Mud Type	Oil Base	Oil Base			
Density	9.80 ppg	9.90 ppg			
Viscosity	44.00 sec/qt	54.00 sec/qt			
PH	N/A	N/A			
Fluid Loss	N/A	N/A			
K+ ppm	N/A	N/A			
CL- ppm	30,000.00 mg/L	33,000.00 mg/L			
Max Mud Temp	194.00 °F	236.00 °F			
Mud Report Depth	7,954.00 ft	11,930.00 ft			

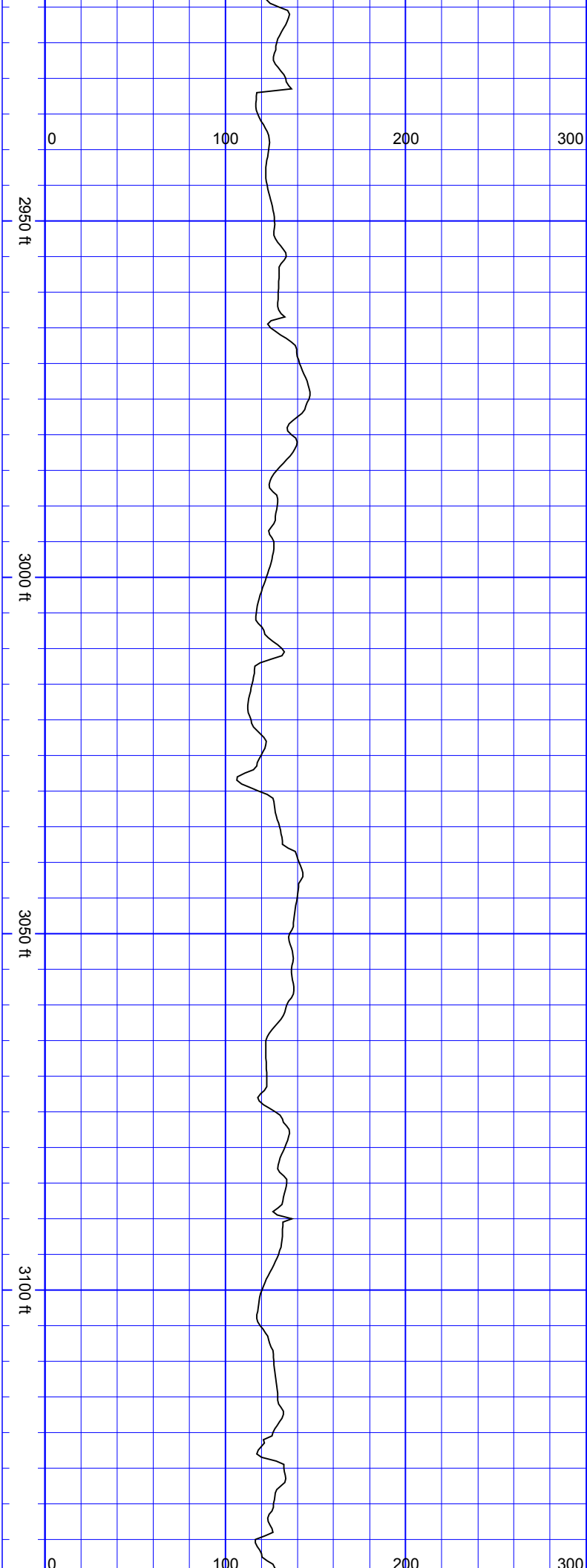
Remarks
---------

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.





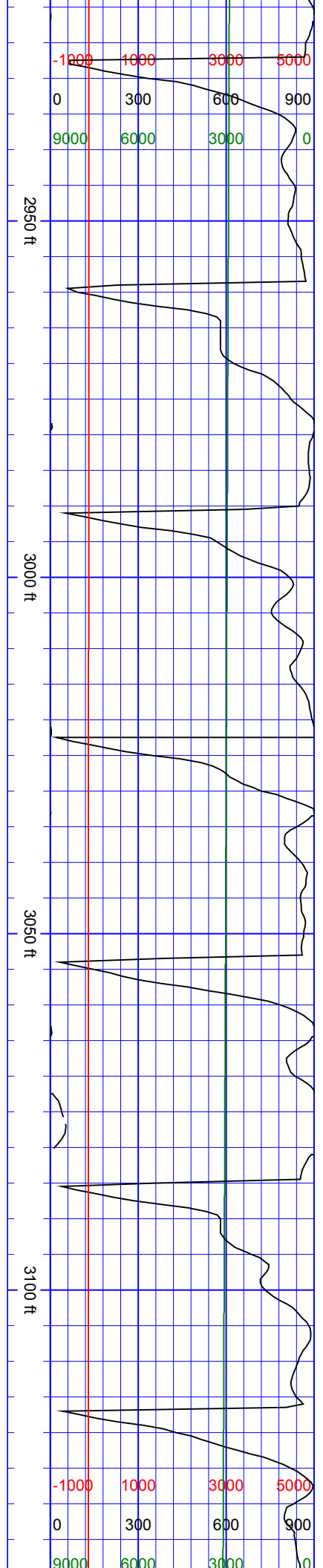


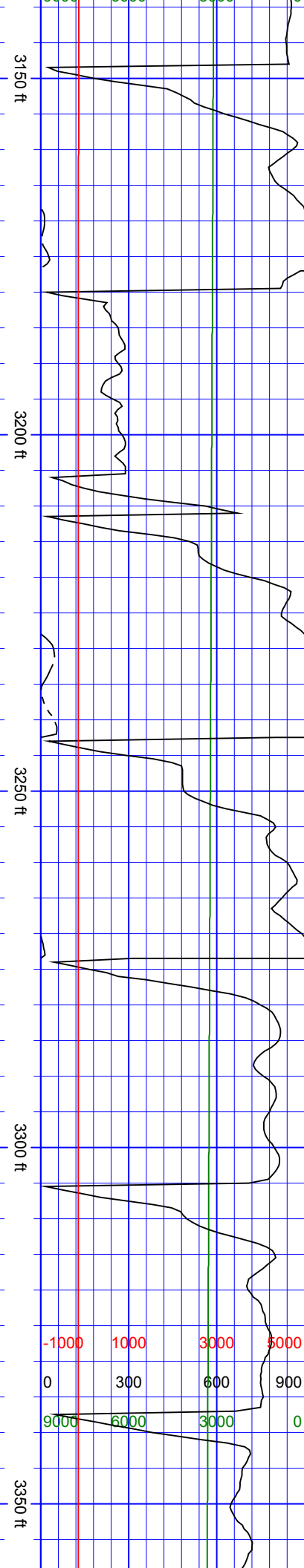


SurveyDepth:2931  
TVD:2895.04 Inc:10.68  
Azi:334.18 VertSec:-  
118.02

SurveyDepth:3025  
TVD:2987.54 Inc:9.84  
Azi:332.33 VertSec:-  
125.52

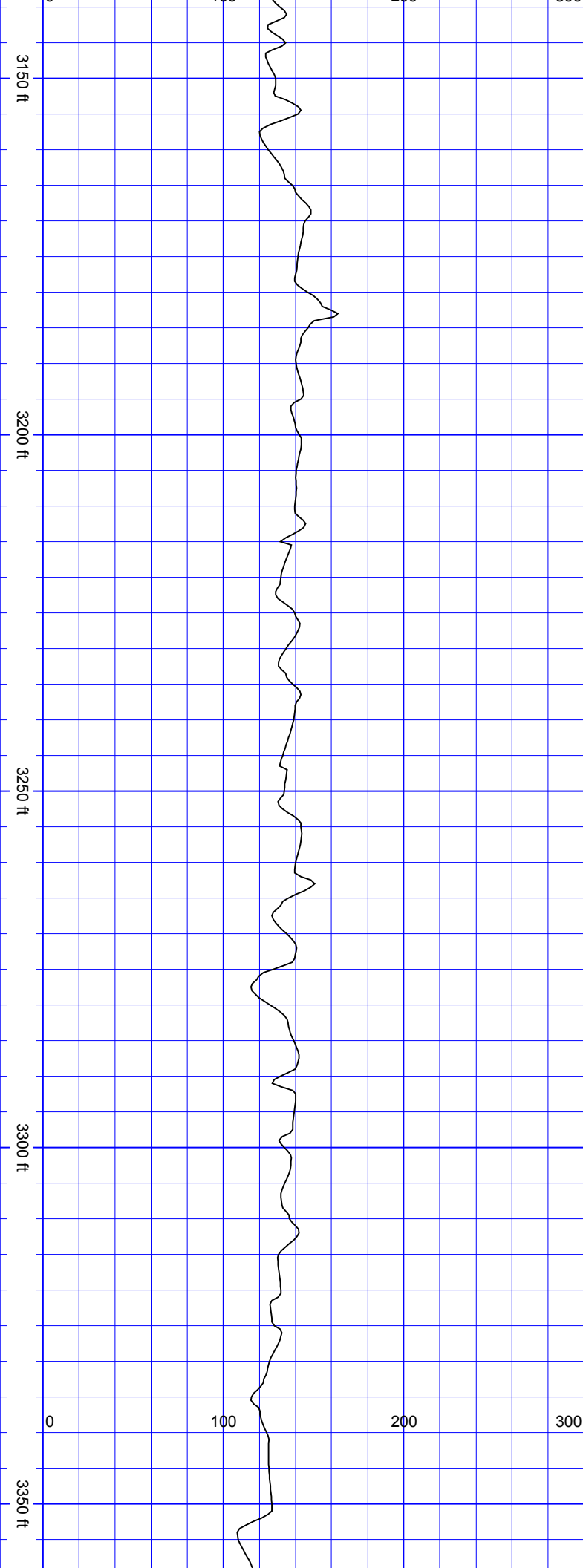
SurveyDepth:3120  
TVD:3081.28 Inc:8.88  
Azi:330.4 VertSec:-  
132.89

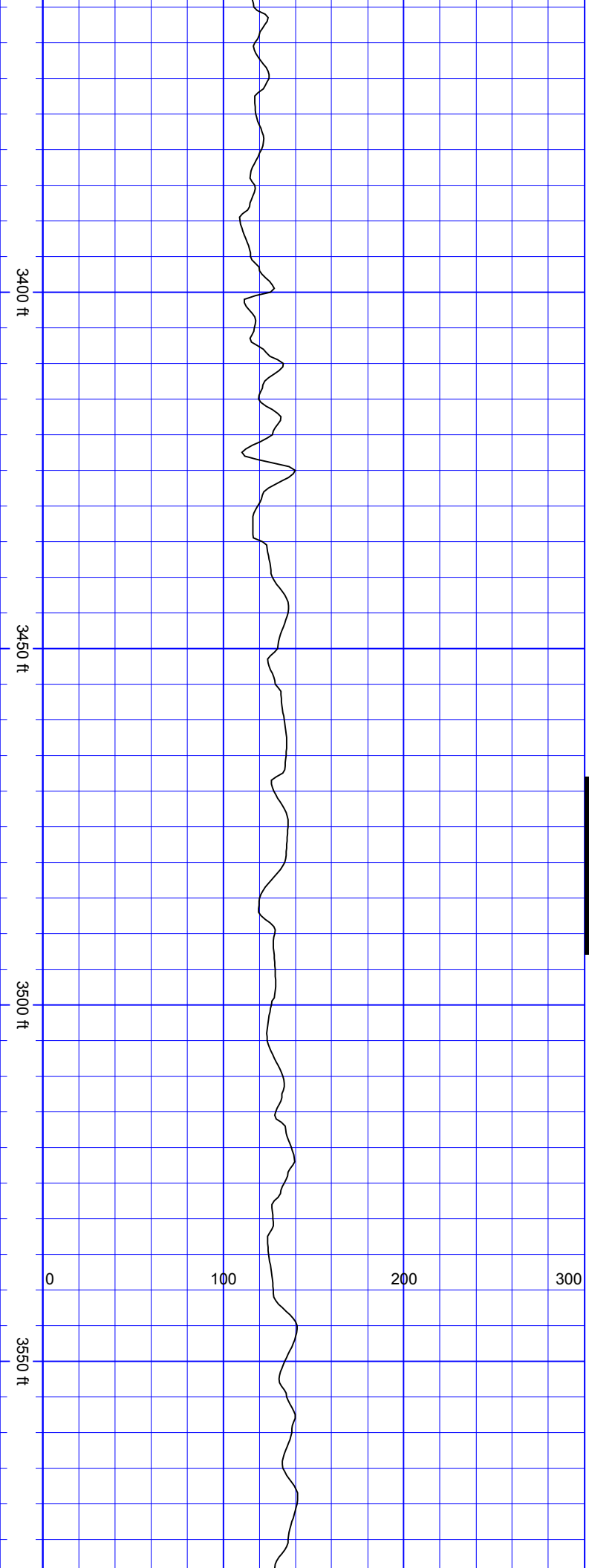




SurveyDepth:3214  
TVD:3174.06 Inc:9.67  
Azi:347.98 VertSec:-  
138.1

SurveyDepth:3309  
TVD:3267.83 Inc:8.83  
Azi:346.04 VertSec:-  
141.5

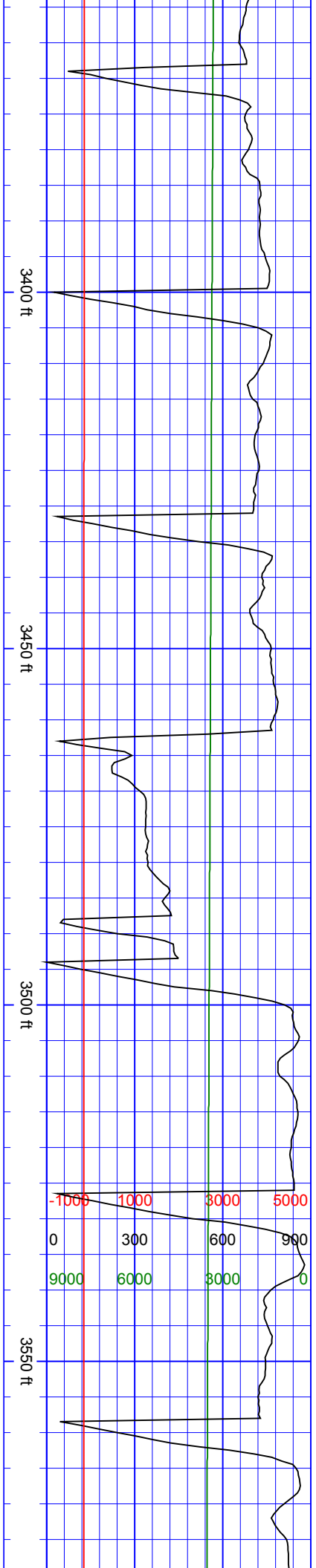




SurveyDepth:3404  
TVD:3361.75 Inc:8.44  
Azi:345.87 VertSec:-  
144.94

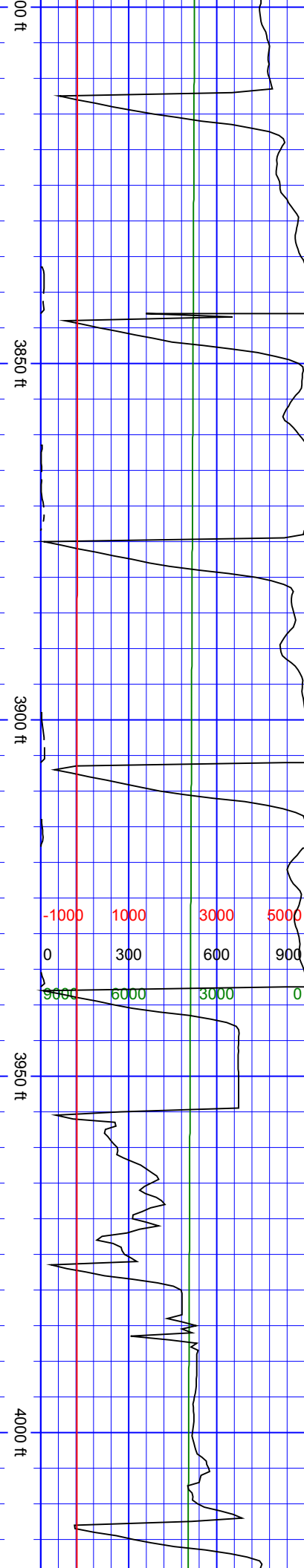
SurveyDepth:3499  
TVD:3455.31 Inc:11.51  
Azi:340.33 VertSec:-  
149.81

SSSSSSSSSS



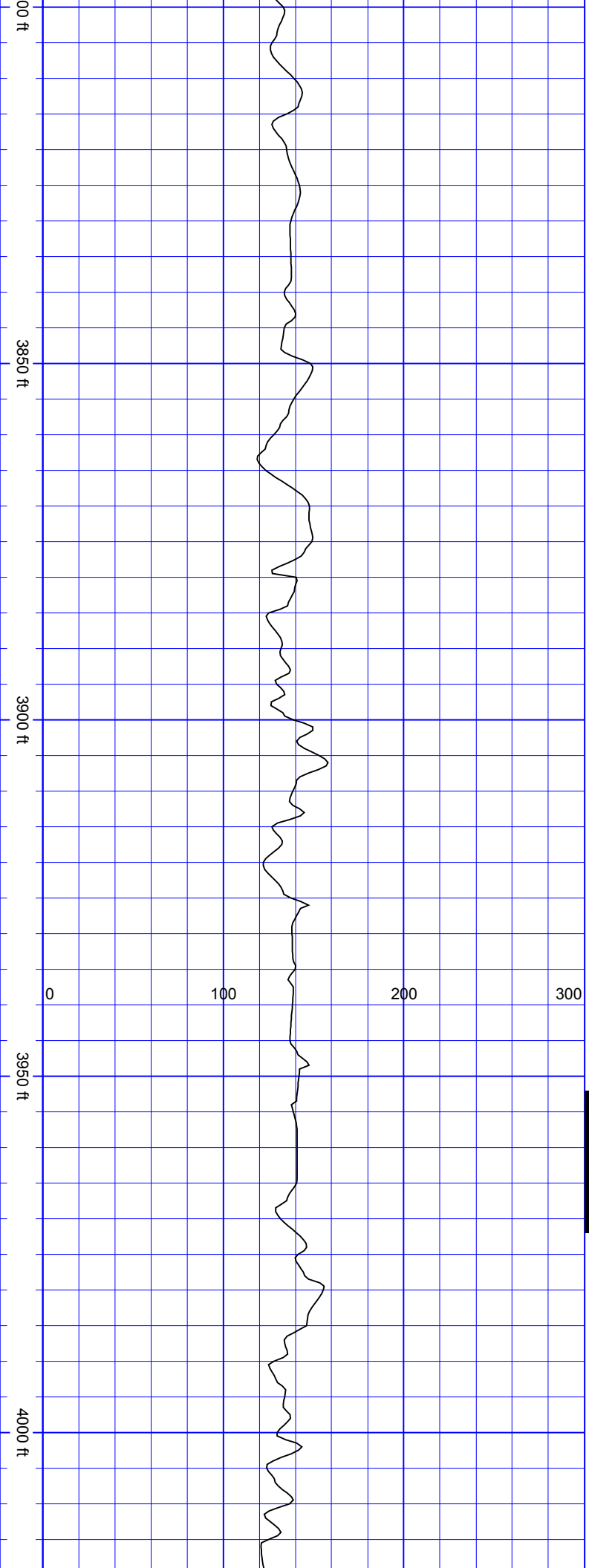




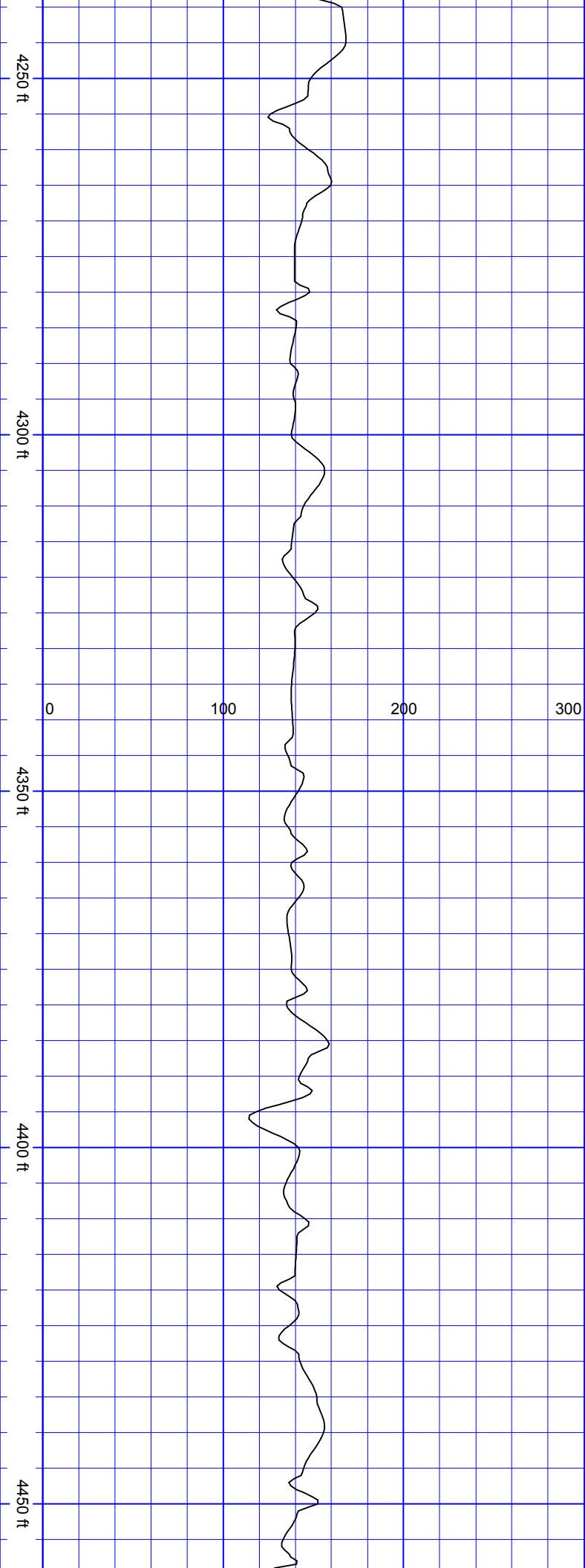


SurveyDepth:3888  
TVD:3838.45 Inc:7.95  
Azi:344.11 VertSec:-  
167.77

SurveyDepth:3982  
TVD:3931.67 Inc:6.81  
Azi:356.24 VertSec:-  
169.9



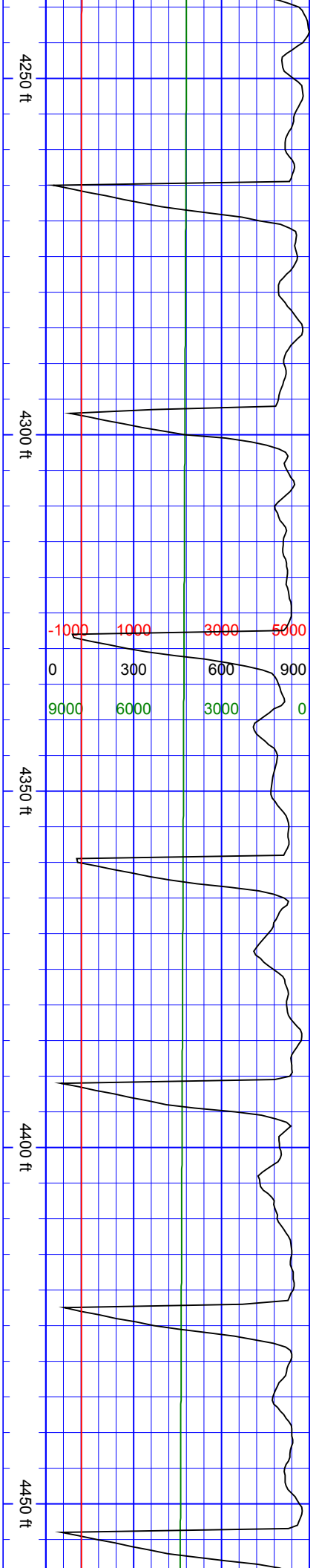




SurveyDepth:4266  
TVD:4211.14 Inc:10.72  
Azi:354.66 VertSec:-  
178.86

SurveyDepth:4361  
TVD:4304.64 Inc:9.62  
Azi:353.16 VertSec:-  
180.61

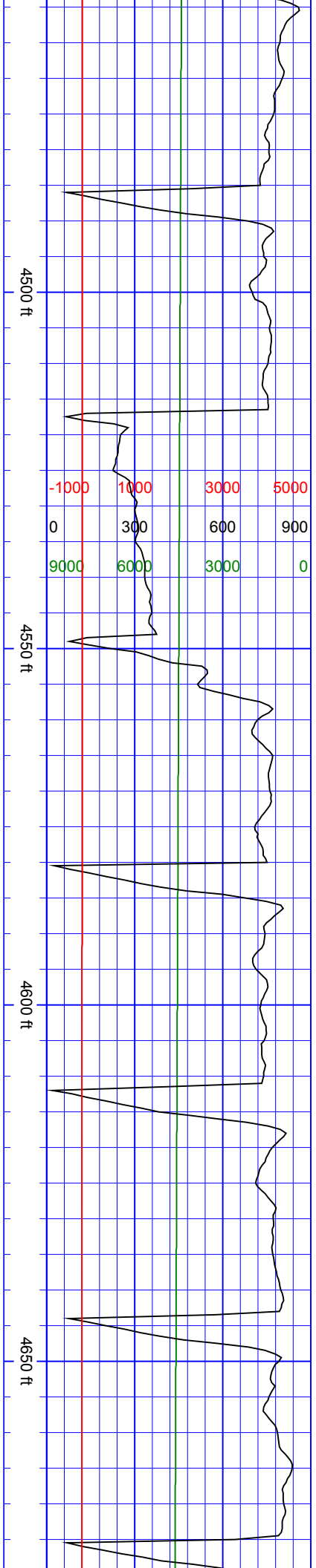
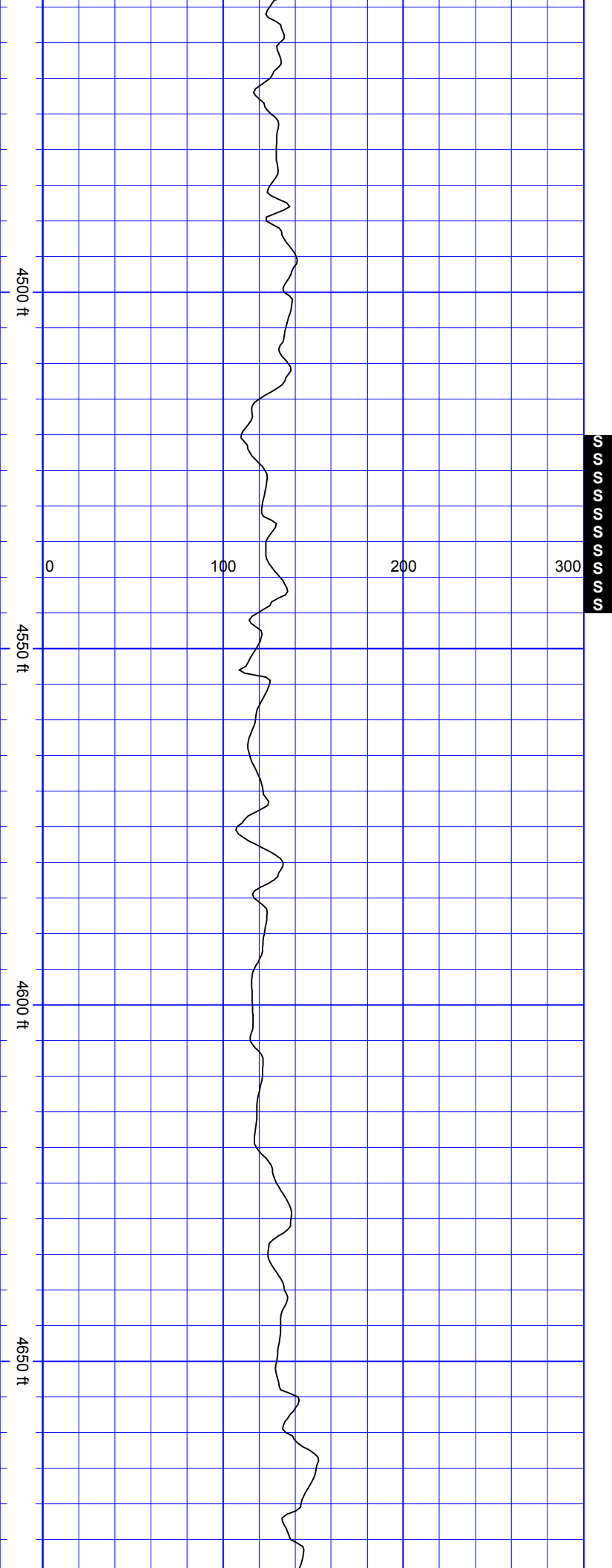
SurveyDepth:4456

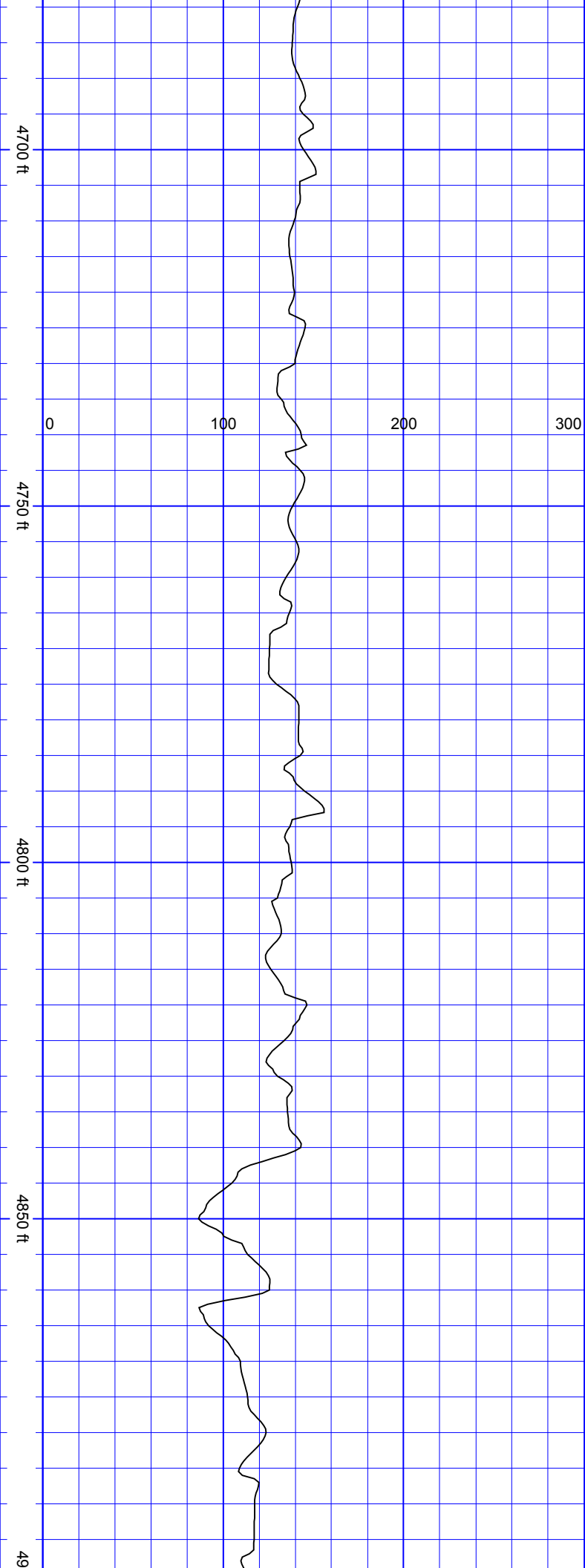


TVD:4398.47 Inc:8.39  
Azi:348.24 VertSec:-  
182.94

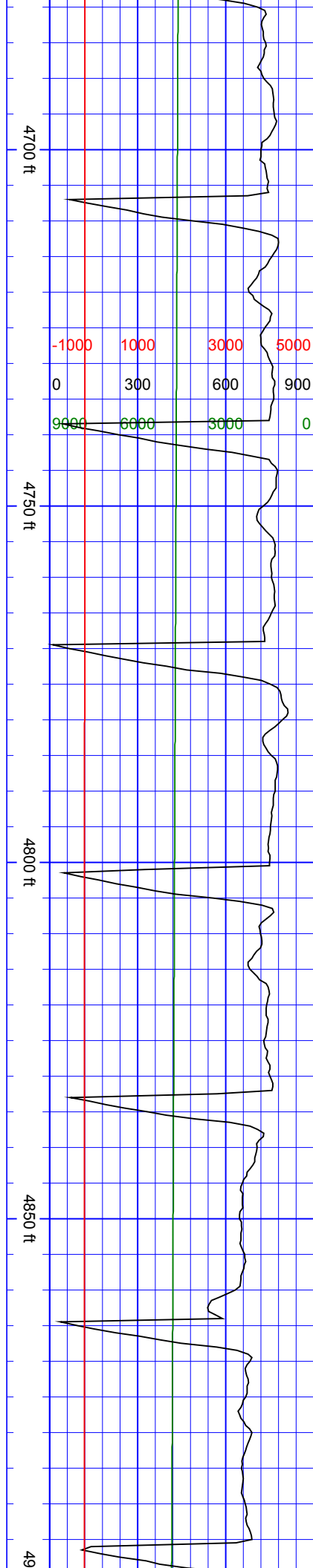
SurveyDepth:4550  
TVD:4490.83 Inc:12.88  
Azi:345.95 VertSec:-  
186.86

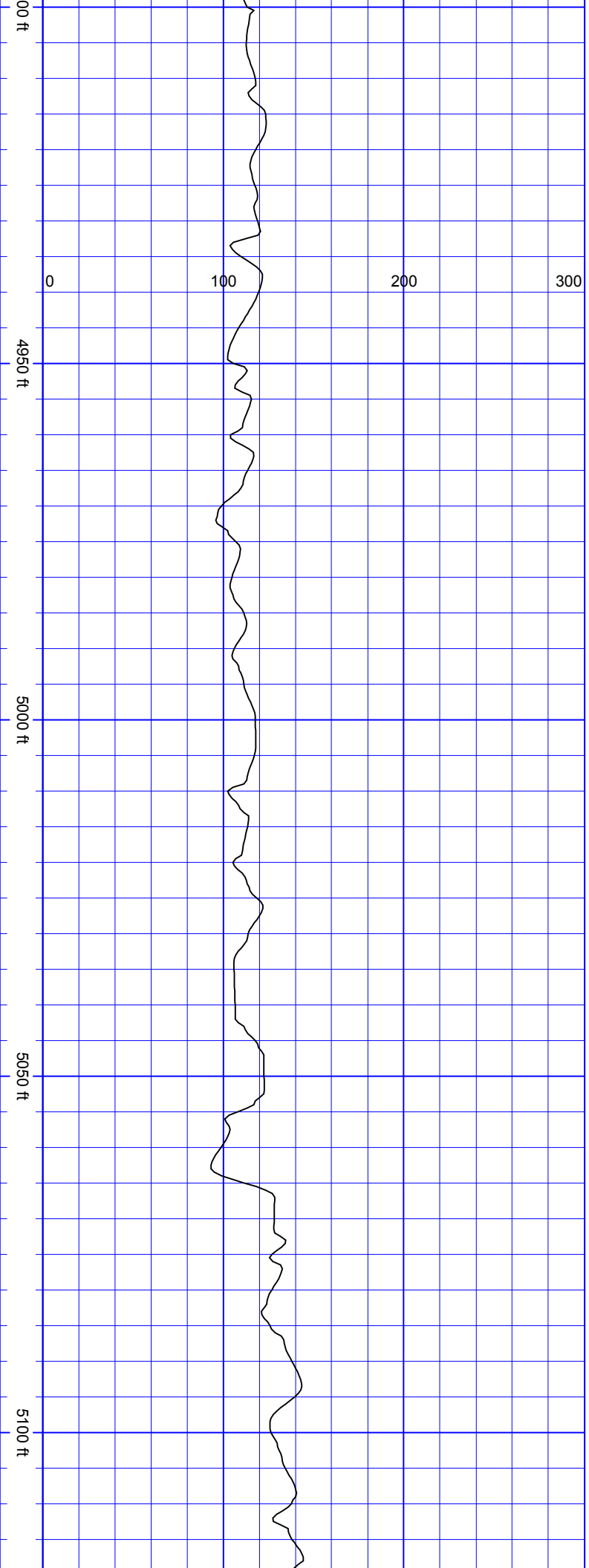
SurveyDepth:4644  
TVD:4582.51 Inc:12.66  
Azi:344.55 VertSec:-  
192.12





SurveyDepth:4739 TVD:4675.48 Inc:11.07 Azi:342.44 VertSec:- 197.62
SurveyDepth:4833 TVD:4767.92 Inc:9.8 Azi:340.15 VertSec:- 203.04

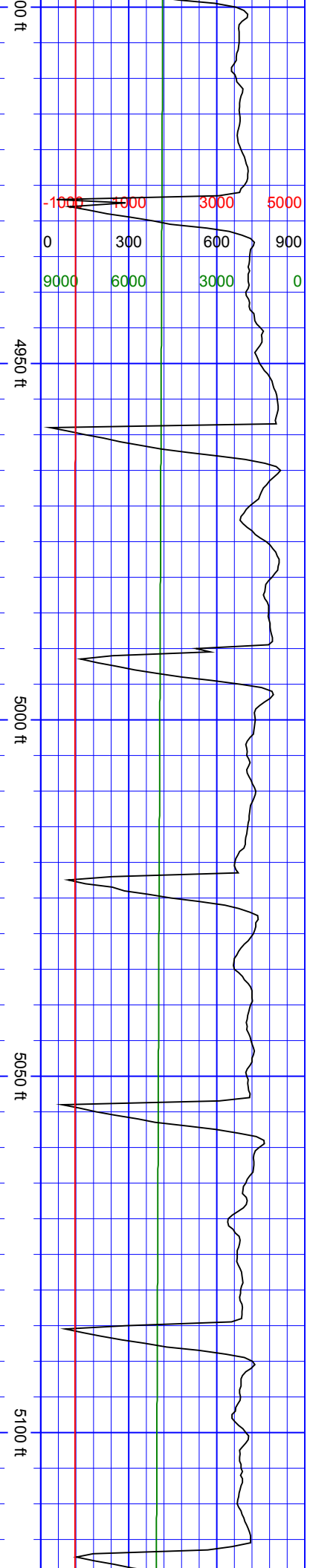




SurveyDepth:4927  
TVD:4860.58 Inc:9.58  
Azi:338.31 VertSec:-  
208.62

SurveyDepth:5022  
TVD:4954.33 Inc:9.05  
Azi:338.57 VertSec:-  
214.26

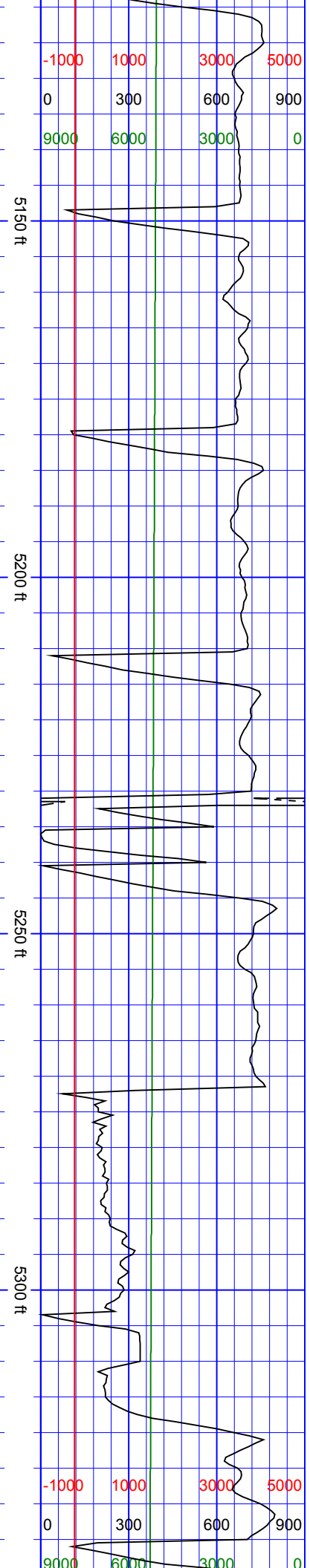
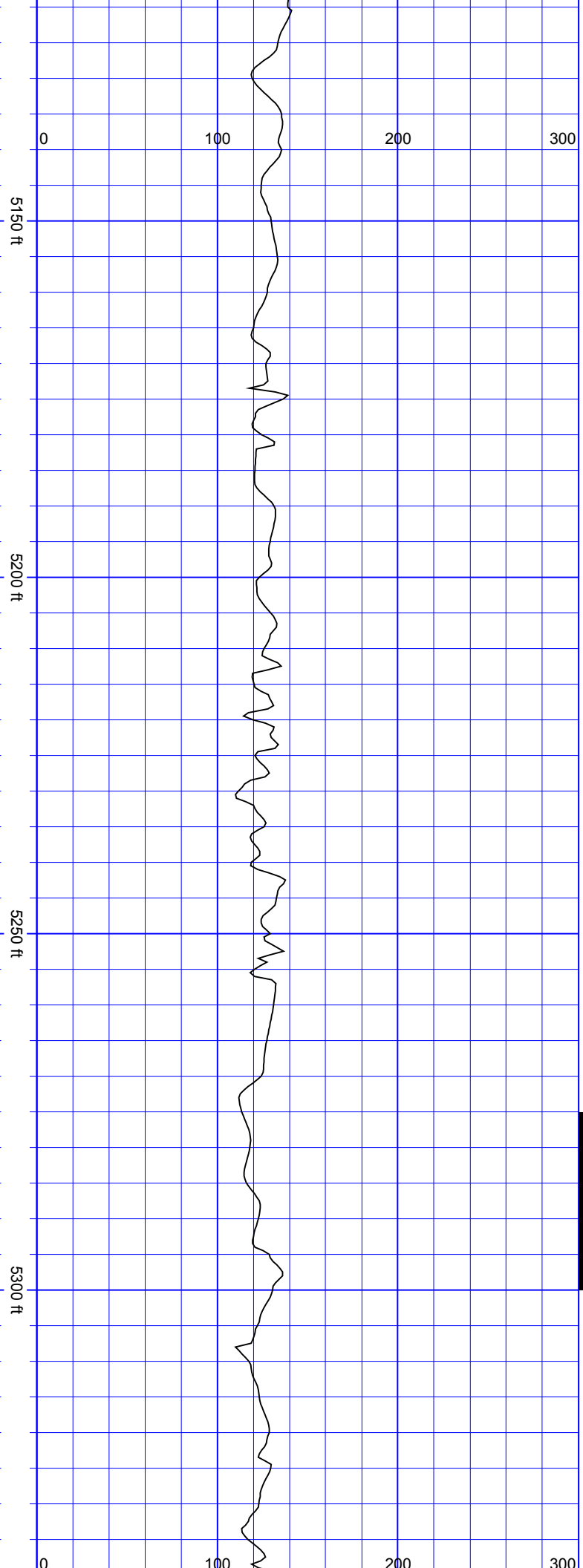
SurveyDepth:5116



TVD:5047.24 Inc:8.39  
Azi:335.67 VertSec:-  
219.76

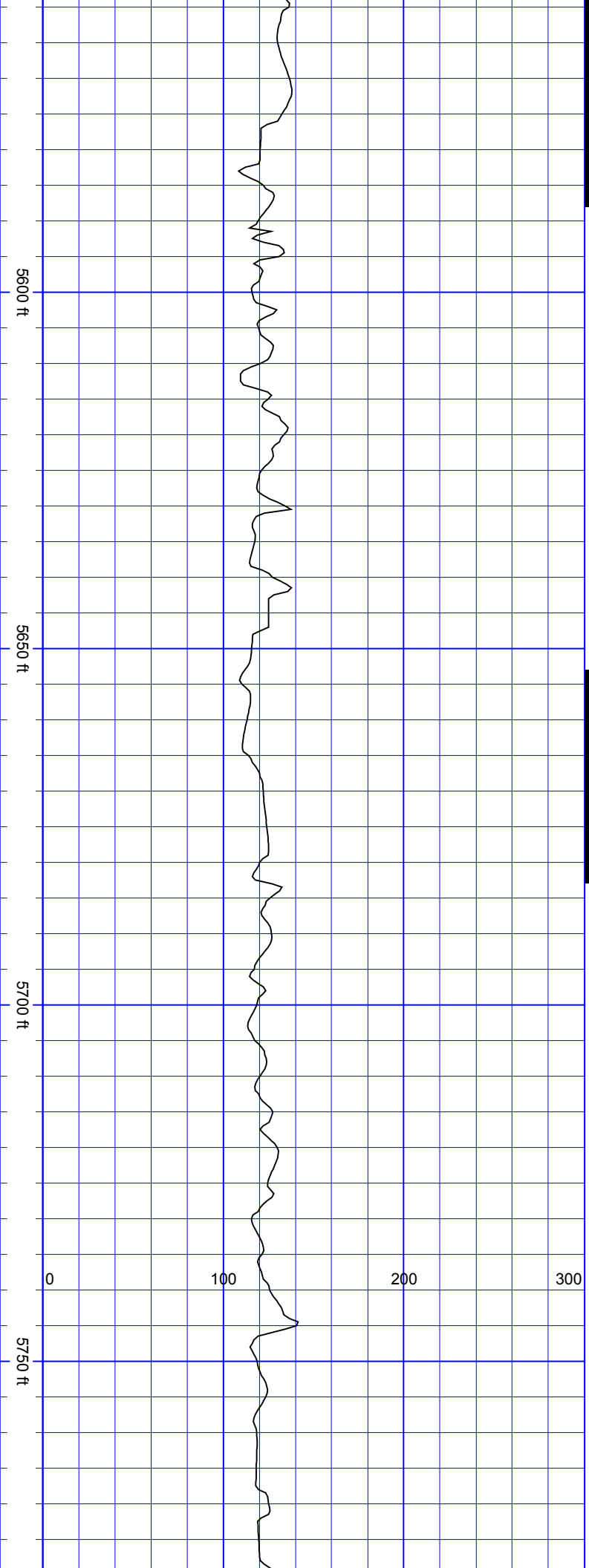
SurveyDepth:5211  
TVD:5141.3 Inc:7.78  
Azi:336.73 VertSec:-  
225.14

SurveyDepth:5306  
TVD:5235.2 Inc:9.62  
Azi:340.5 VertSec:-  
230.31



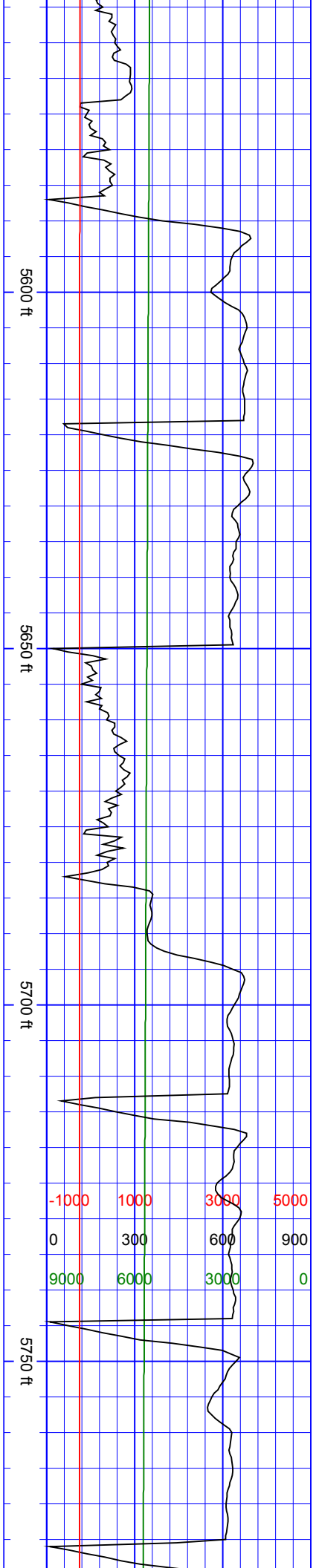


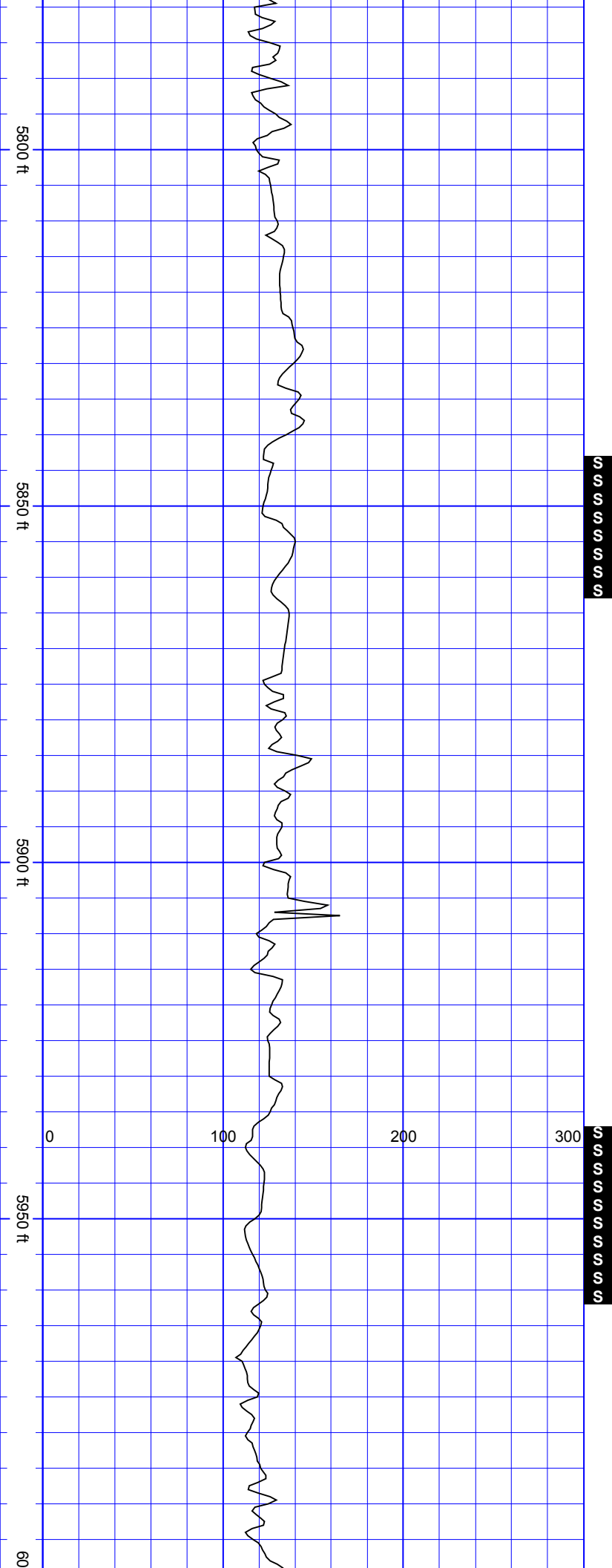




SurveyDepth:5589  
TVD:5515.46 Inc:8.53  
Azi:340.59 VertSec:-  
243.12

SurveyDepth:5684  
TVD:5609.1 Inc:10.85  
Azi:344.9 VertSec:-  
247.77

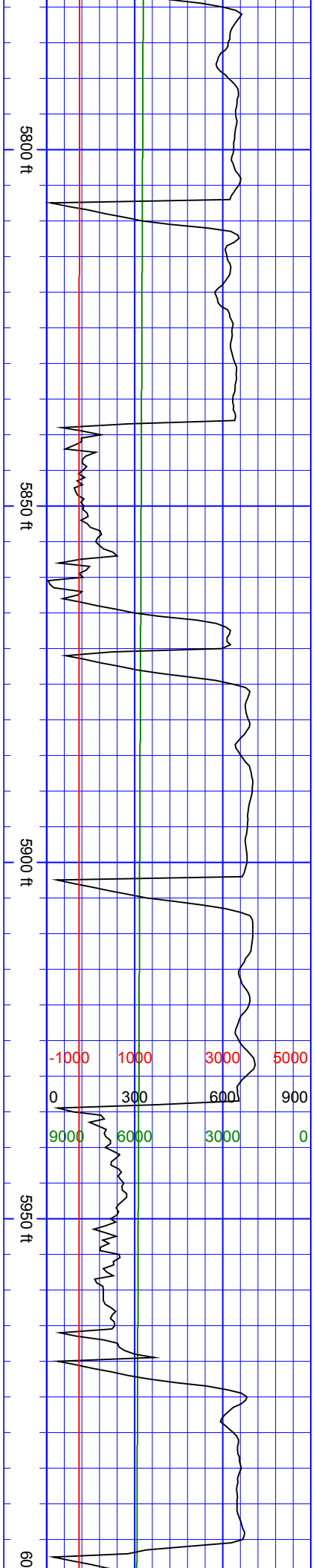
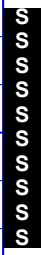


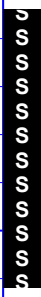
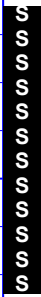
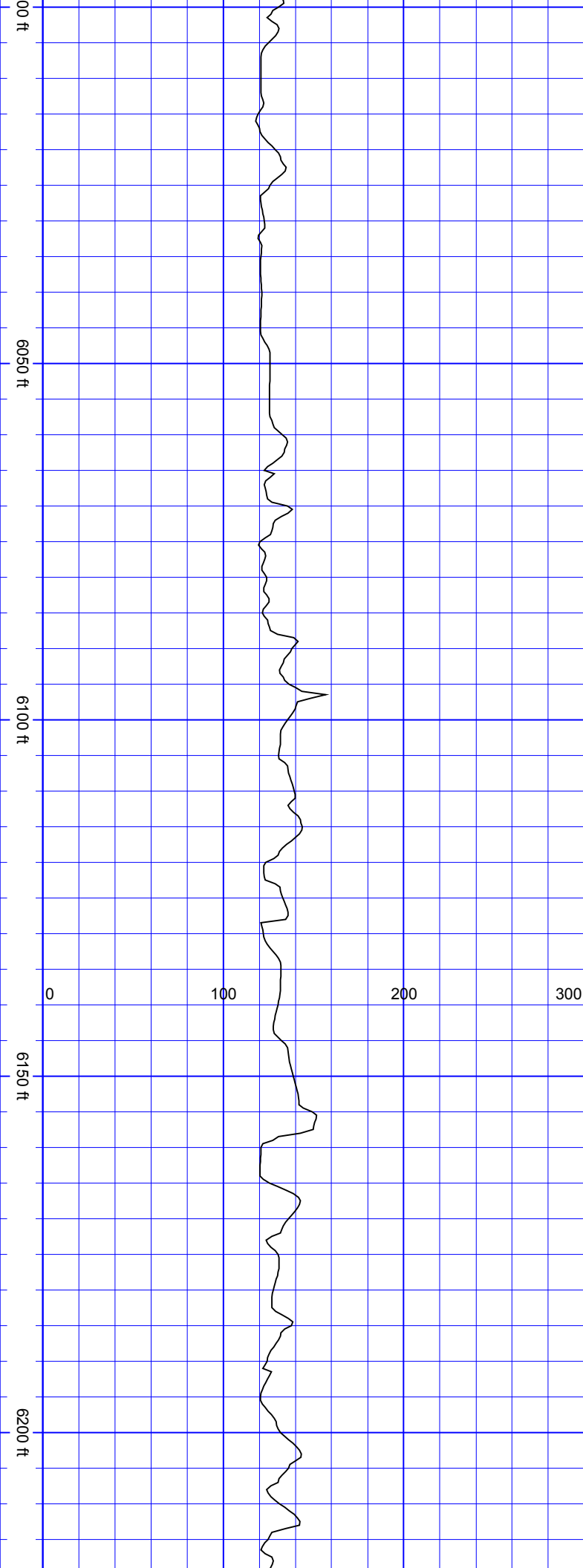


SurveyDepth:5779  
TVD:5702.6 Inc:9.54  
Azi:340.77 VertSec:-  
252.67

SurveyDepth:5873  
TVD:5795.41 Inc:8.79  
Azi:353.34 VertSec:-  
256.05

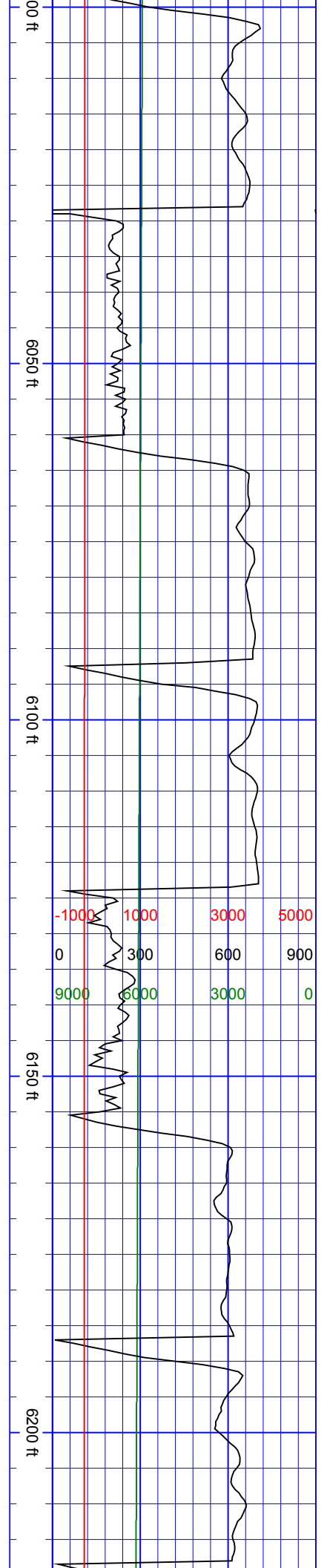
SurveyDepth:5968  
TVD:5889.33 Inc:8.57  
Azi:341.38 VertSec:-  
259.13

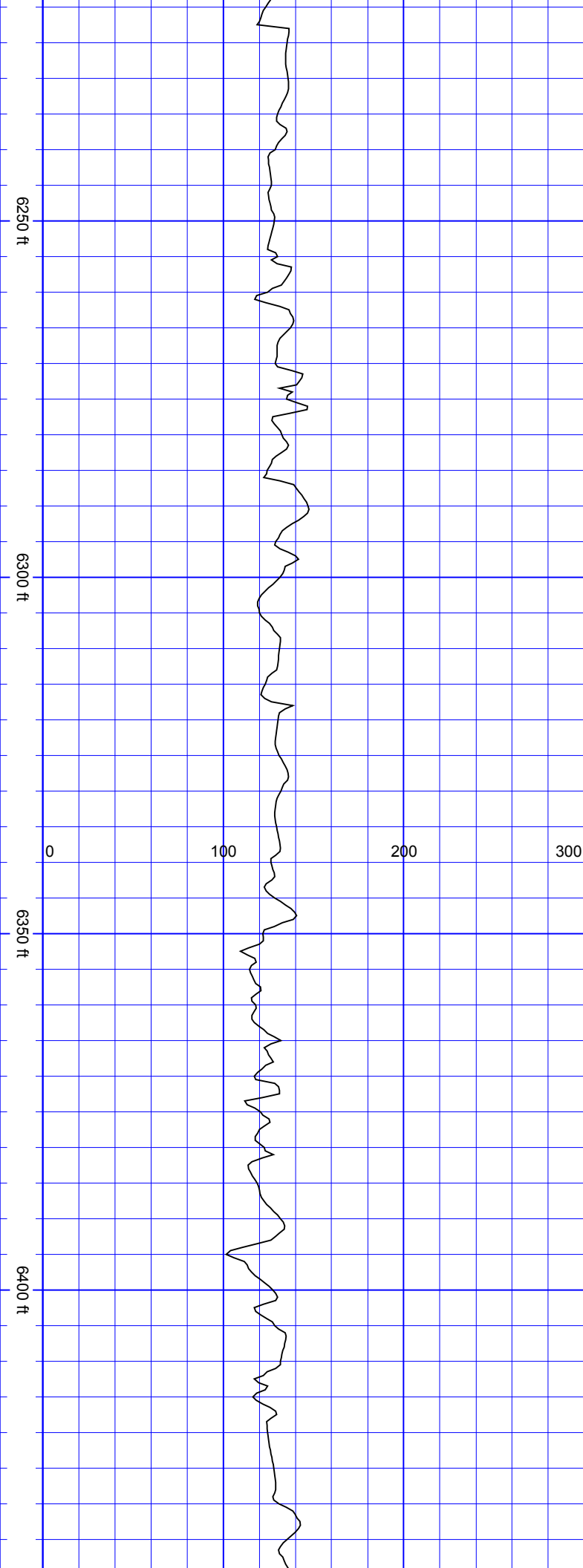




SurveyDepth:6063  
TVD:5982.95 Inc:10.94  
Azi:345.51 VertSec:-  
263.62

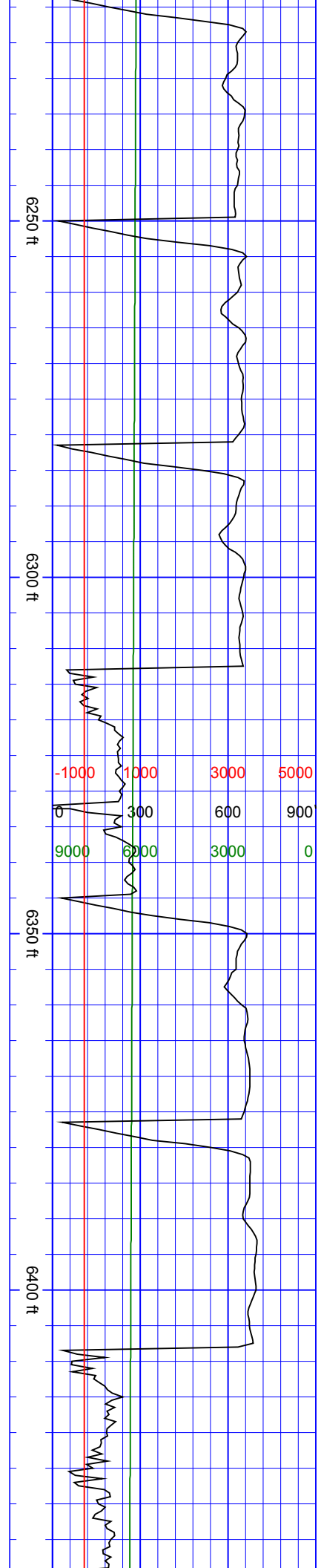
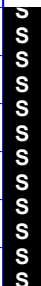
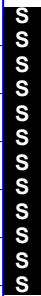
SurveyDepth:6157  
TVD:6075.28 Inc:10.68  
Azi:351.67 VertSec:-  
267.09





SurveyDepth:6252  
TVD:6168.85 Inc:9.27  
Azi:348.33 VertSec:-  
269.9

SurveyDepth:6346  
TVD:6261.58 Inc:9.71  
Azi:7.66 VertSec:-270.35



-1000	1000	3000	5000
0	300	600	900
9000	6000	3000	0



6700 ft

6750 ft

6800 ft

6850 ft

SurveyDepth:6724  
TVD:6635.29 Inc:6.24  
Azi:344.02 VertSec:-  
279.4

SurveyDepth:6818  
TVD:6728.35 Inc:10.85  
Azi:38.86 VertSec:-  
275.23

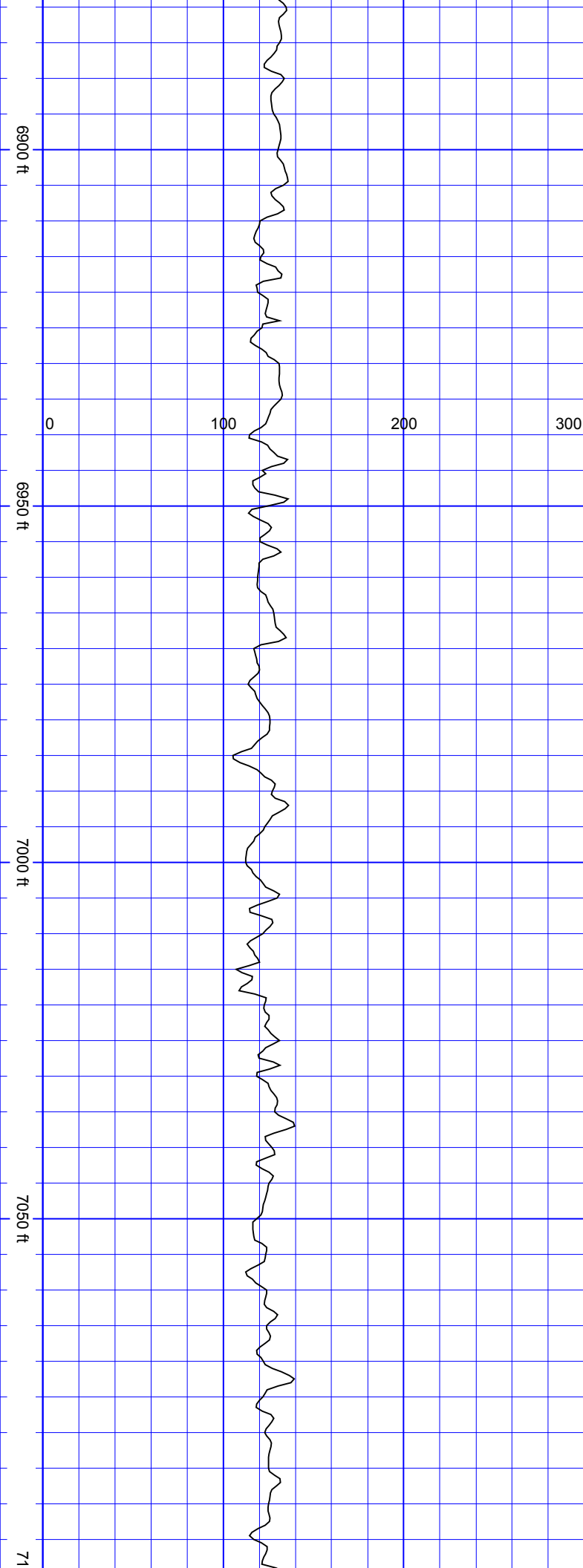
6700 ft

6750 ft

6800 ft

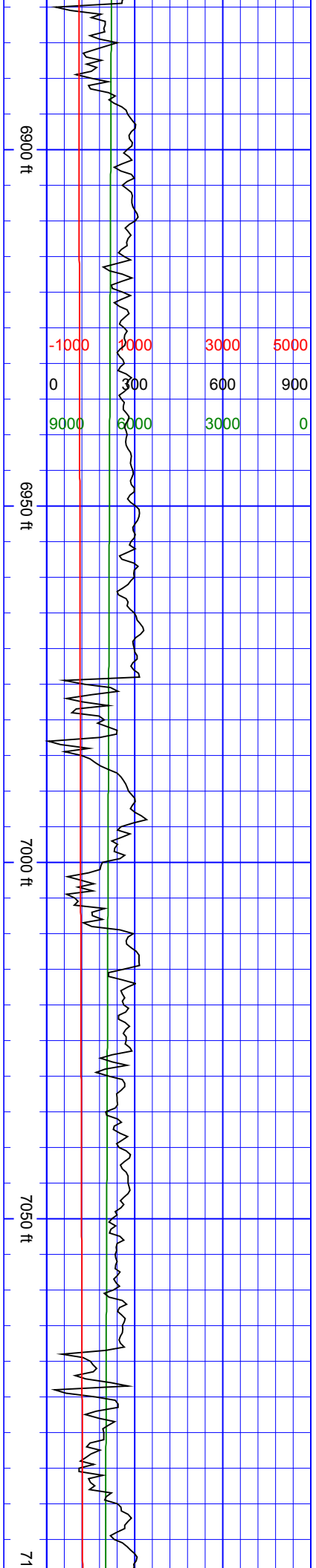
6850 ft

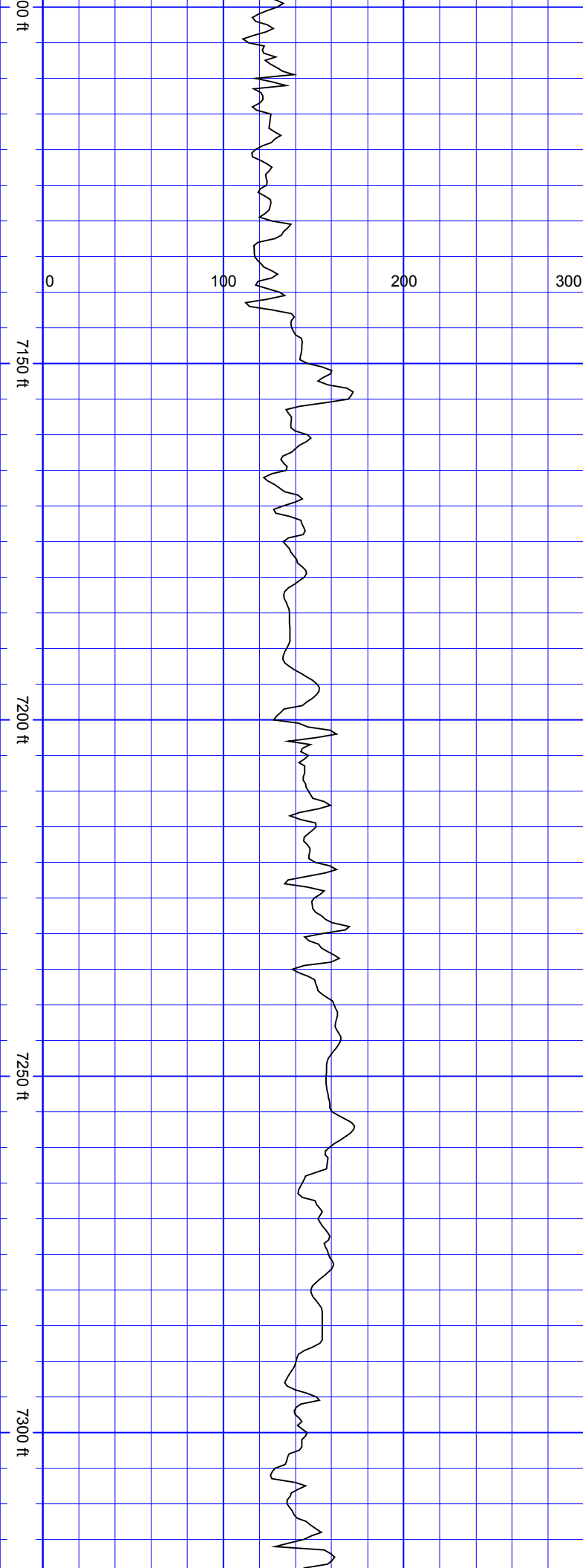
-1000	1000	3000	5000
0	300	600	900
9000	6000	3000	0



SurveyDepth:6912  
TVD:6819.26 Inc:18.85  
Azi:68.66 VertSec:-255.46

SurveyDepth:7008  
TVD:6908.52 Inc:24.43  
Azi:81.93 VertSec:-221.3

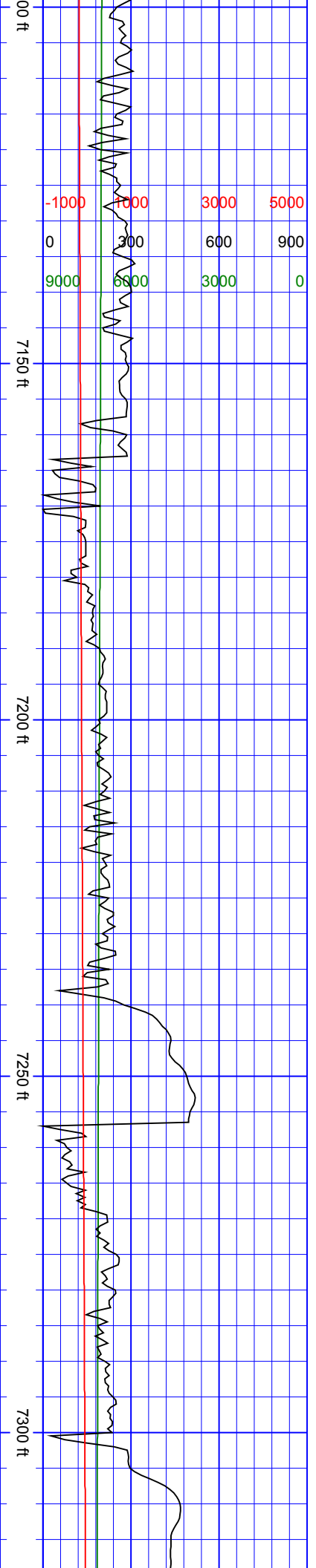




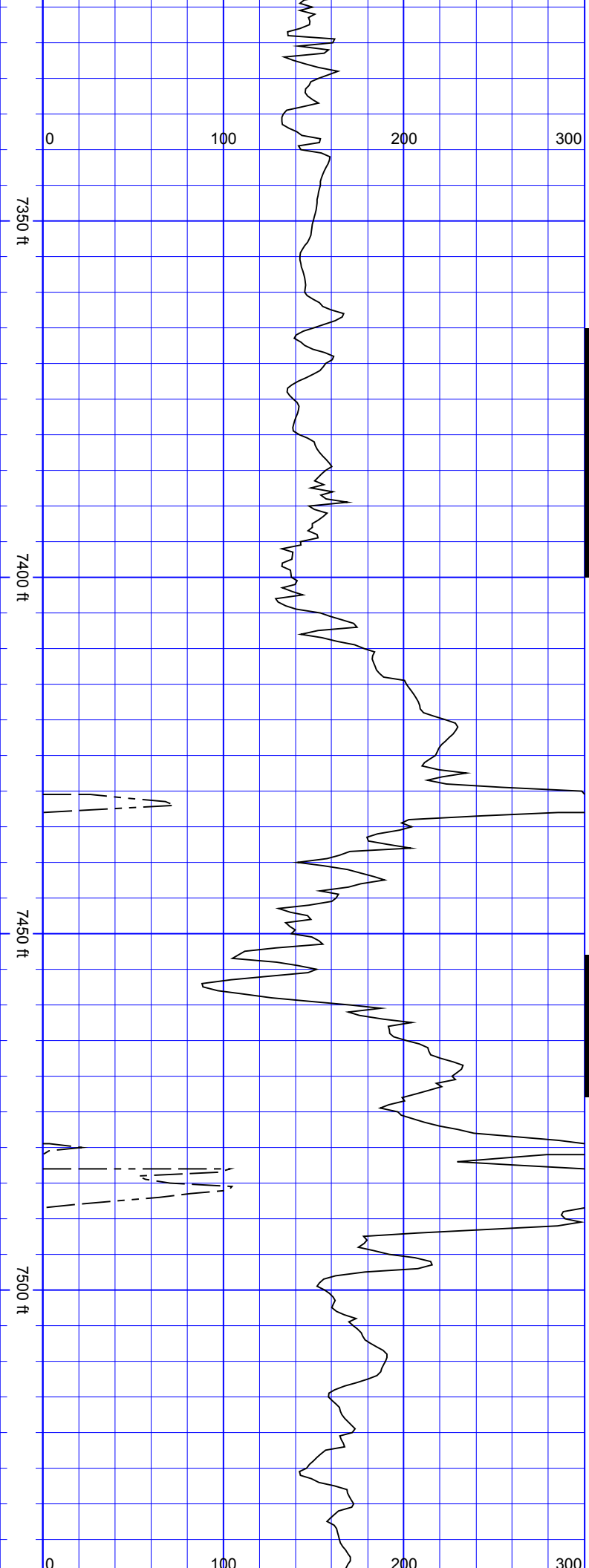
SurveyDepth:7102  
TVD:6990.91 Inc:32.92  
Azi:84.66 VertSec:-  
176.53

SurveyDepth:7197  
TVD:7066.05 Inc:42.41  
Azi:79.47 VertSec:-  
119.17

SurveyDepth:7292  
TVD:7129.97 Inc:52.87  
Azi:78.59 VertSec:-50.34

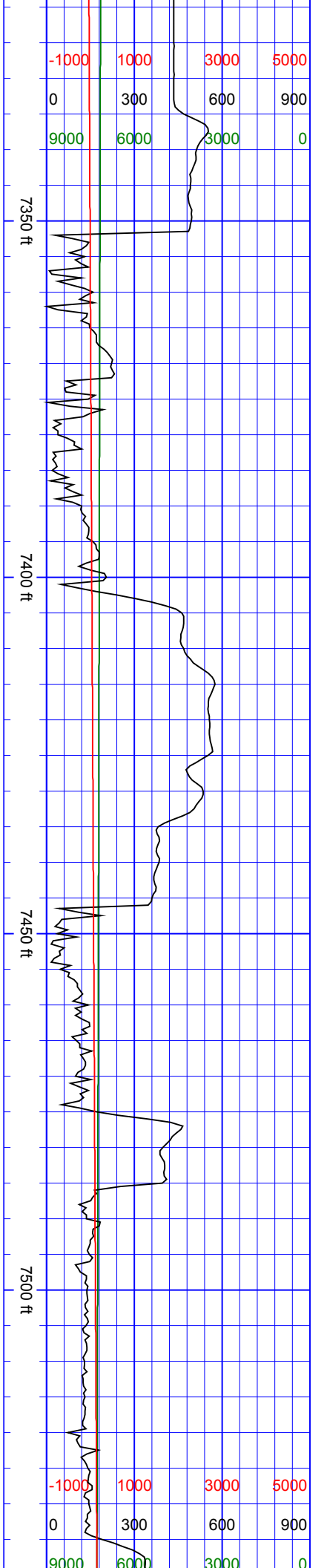


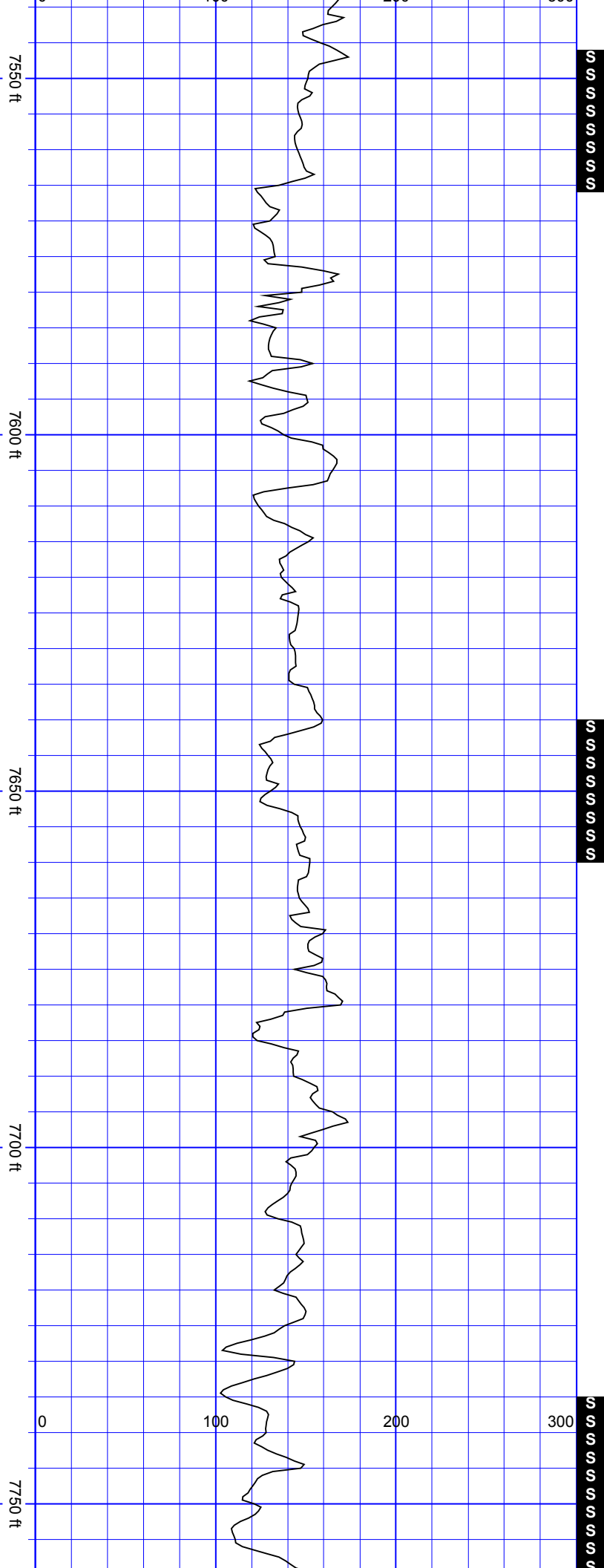




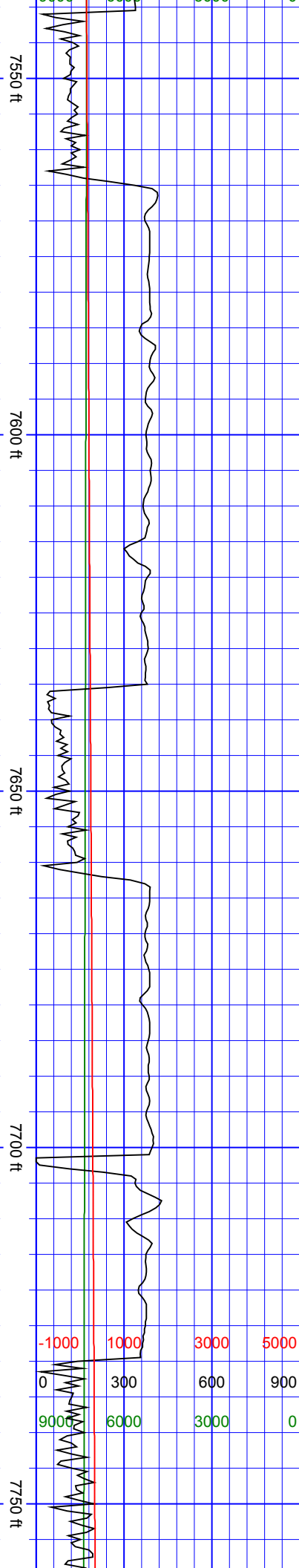
SurveyDepth:7386  
TVD:7185.51 Inc:54.71  
Azi:82.63 VertSec:24.48

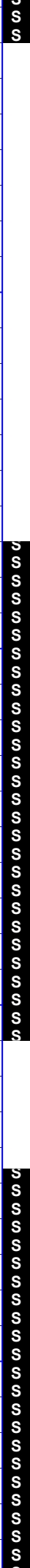
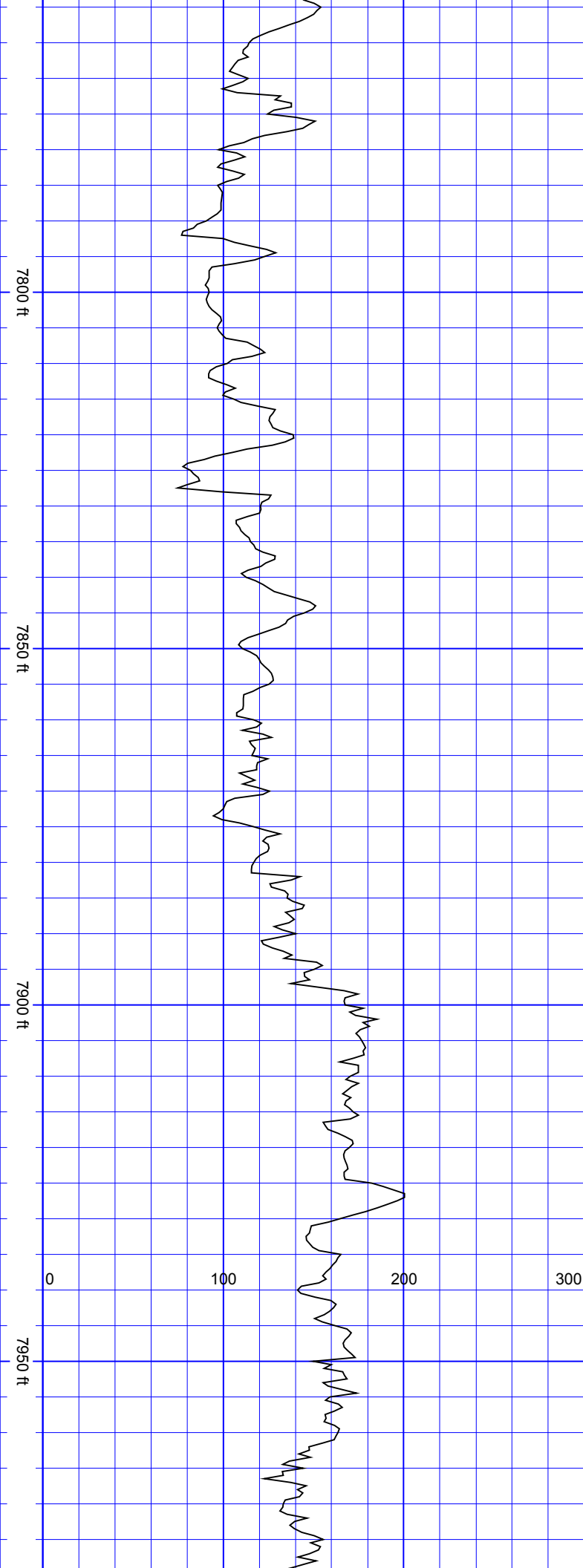
SurveyDepth:7482  
TVD:7238.35 Inc:58.49  
Azi:82.81  
VertSec:103.98





SurveyDepth:7576  
TVD:7285.84 Inc:60.82  
Azi:82.63  
VertSec:184.45



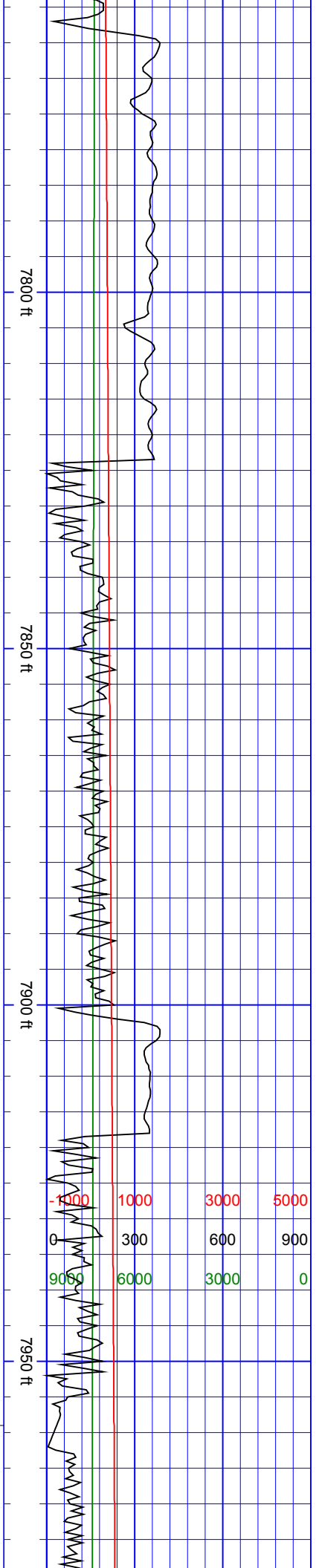


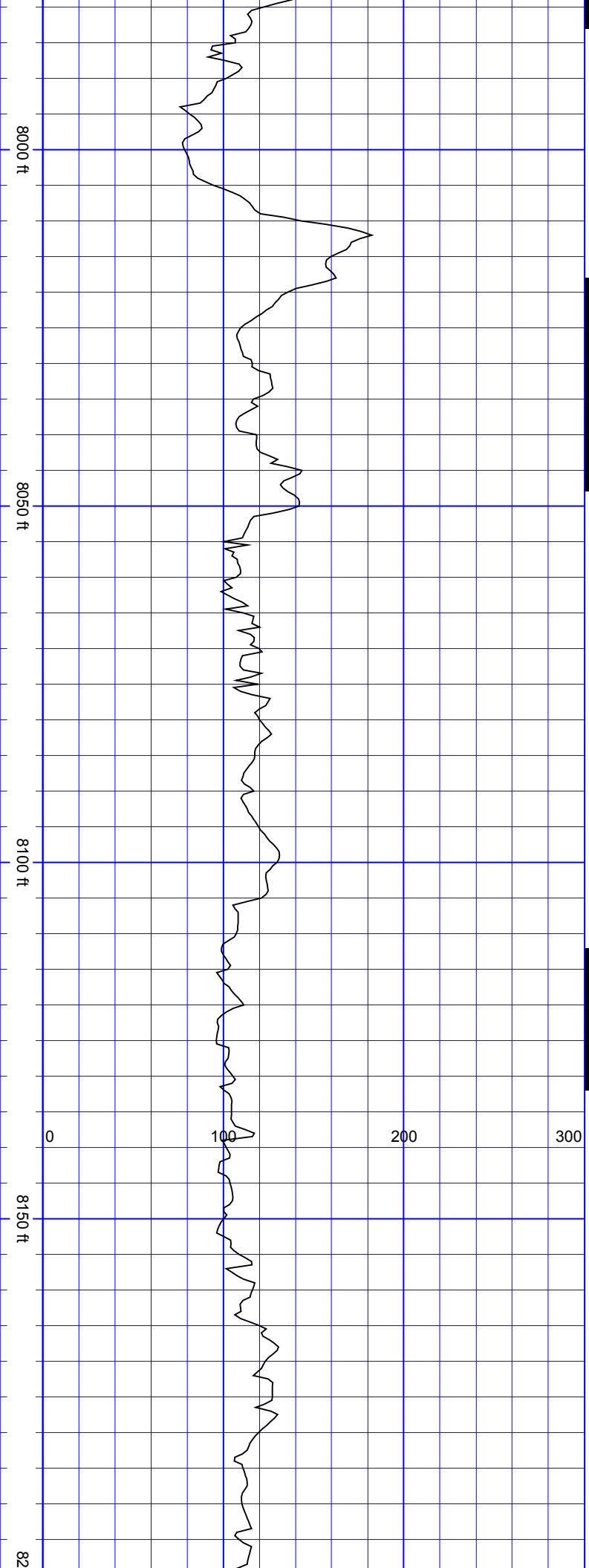
SurveyDepth:7765  
TVD:7369.08 Inc:67.1  
Azi:83.25  
VertSec:352.23

SurveyDepth:7859  
TVD:7404.29 Inc:68.91  
Azi:85.71  
VertSec:438.98

SurveyDepth:7948  
TVD:7428.23 Inc:79.85  
Azi:89.23  
VertSec:524.47

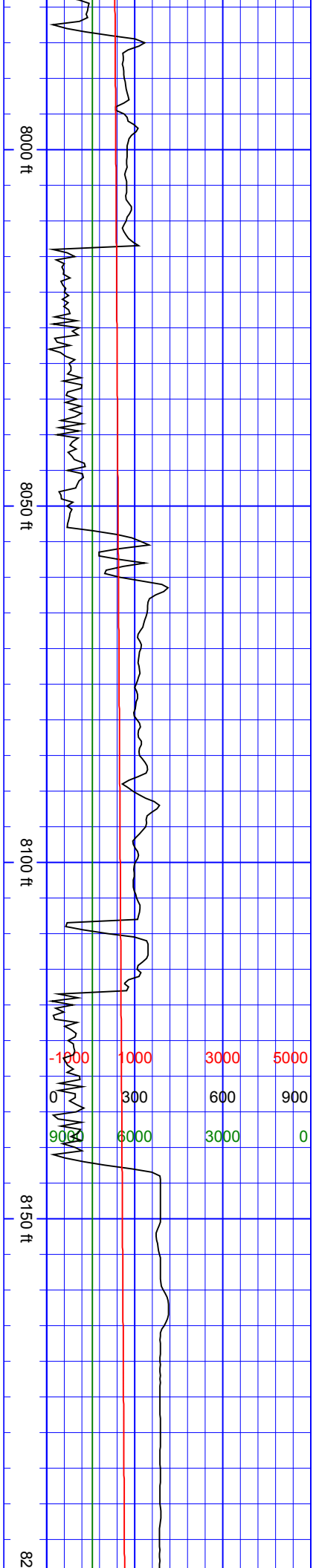
August 10, 2018

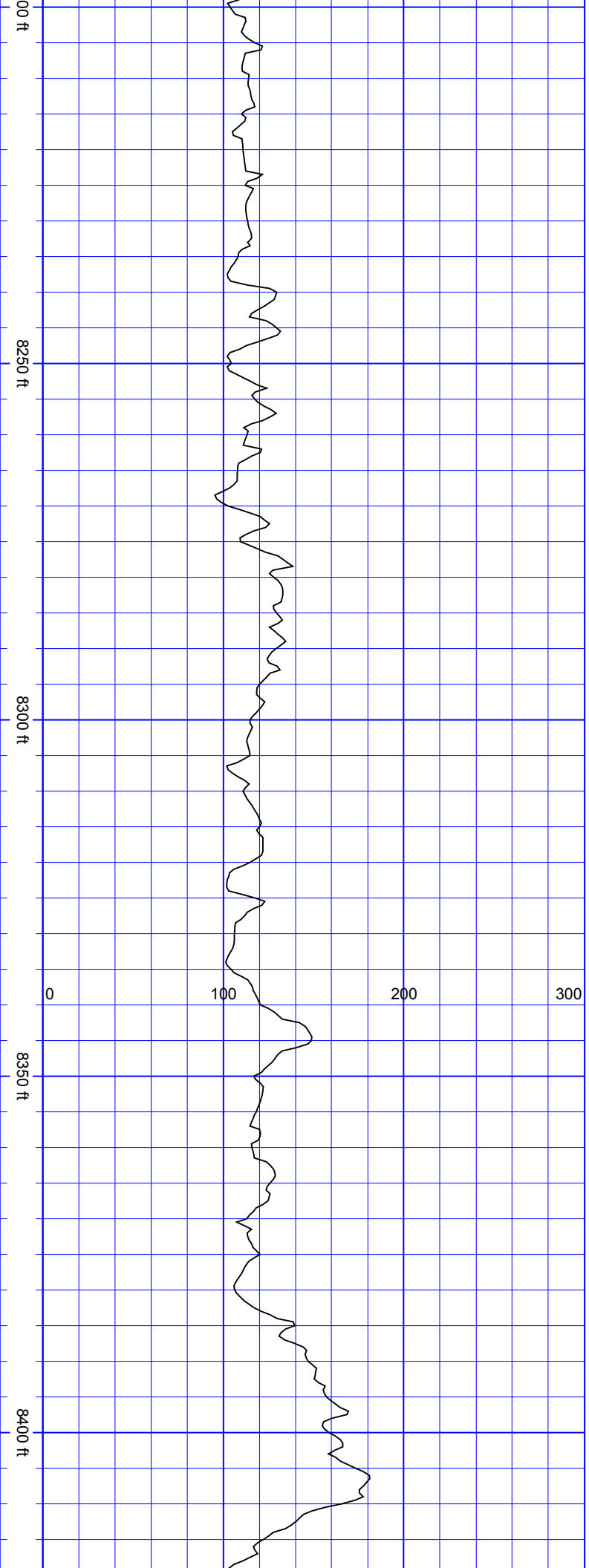




SurveyDepth:8042  
TVD:7439.26 Inc:86.66  
Azi:91.07  
VertSec:617.76

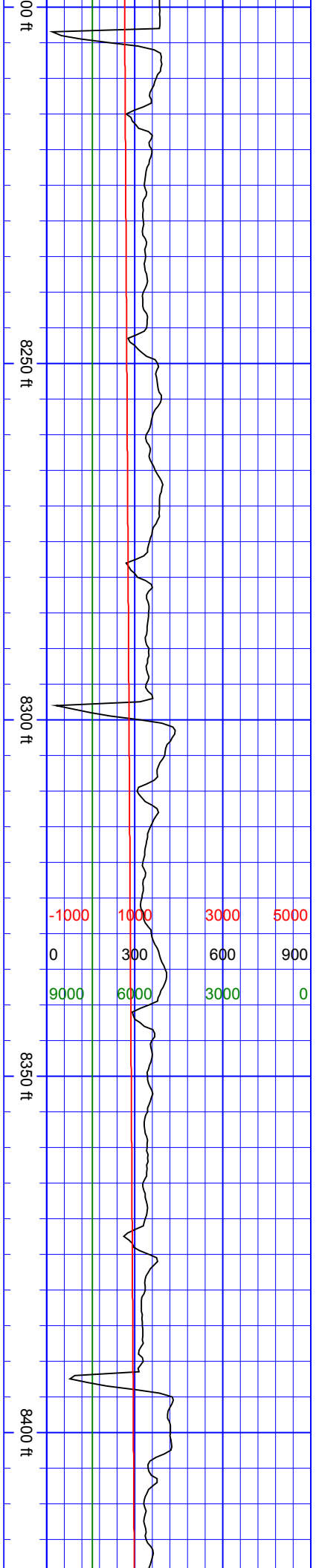
SurveyDepth:8137  
TVD:7441.81 Inc:90.26  
Azi:90.63 VertSec:712.7

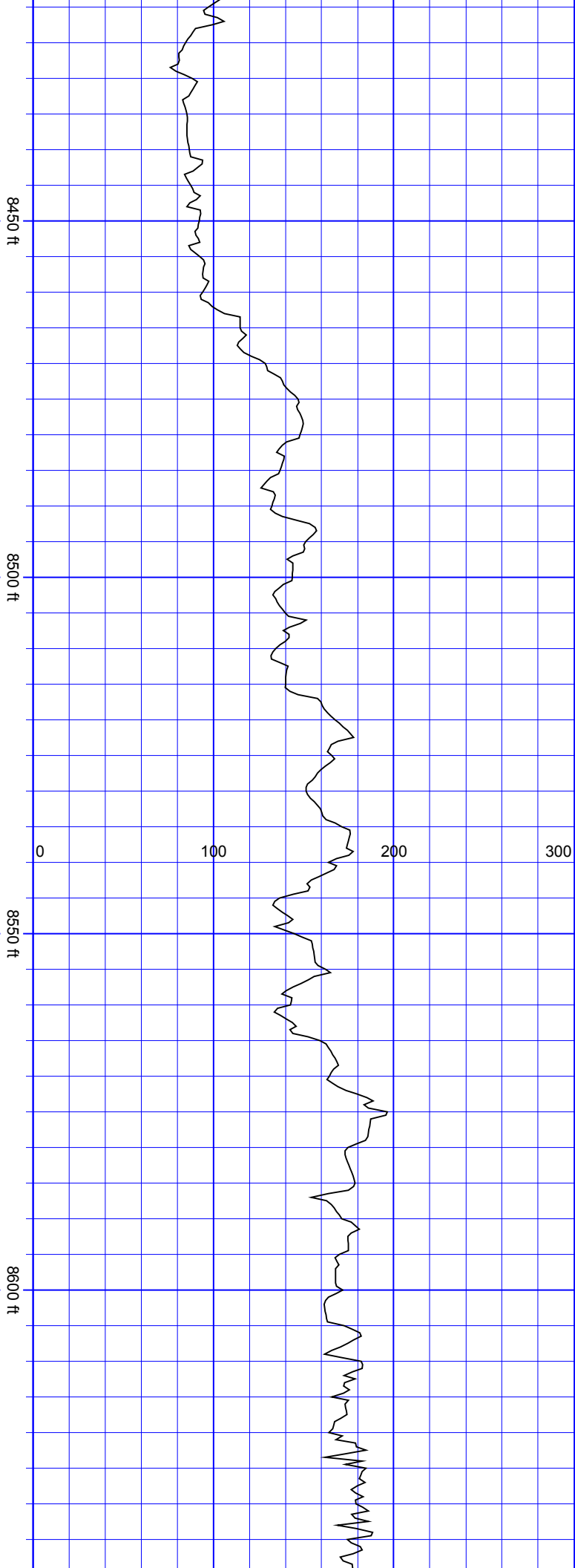




SurveyDepth:8231  
TVD:7440.99 Inc:90.75  
Azi:90.19  
VertSec:806.69

SurveyDepth:8325  
TVD:7440.12 Inc:90.31  
Azi:89.4 VertSec:900.69

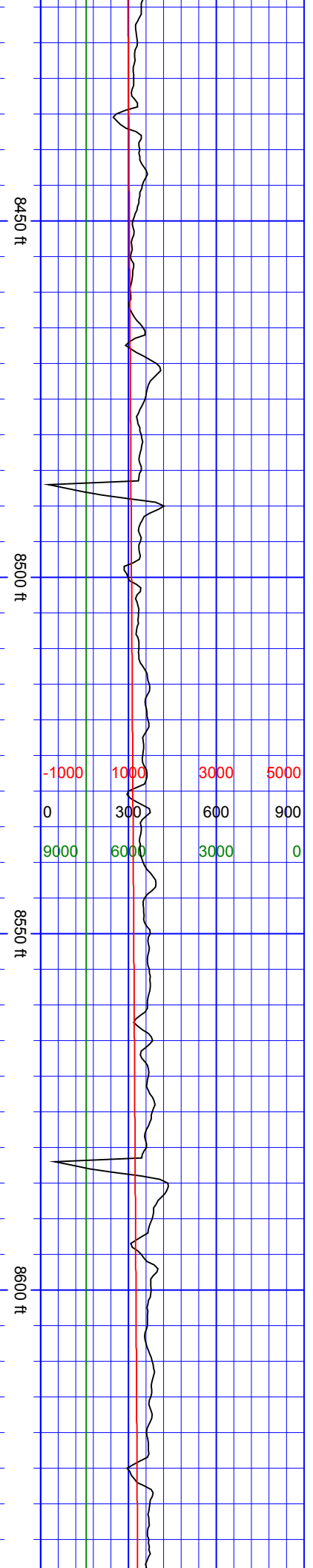




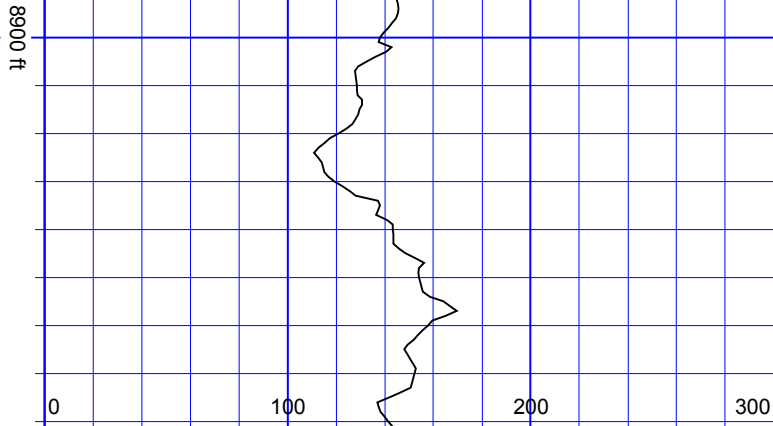
SurveyDepth:8420  
TVD:7439.42 Inc:90.53  
Azi:89.14  
VertSec:995.68

SurveyDepth:8514  
TVD:7438.23 Inc:90.92  
Azi:88.7  
VertSec:1089.66

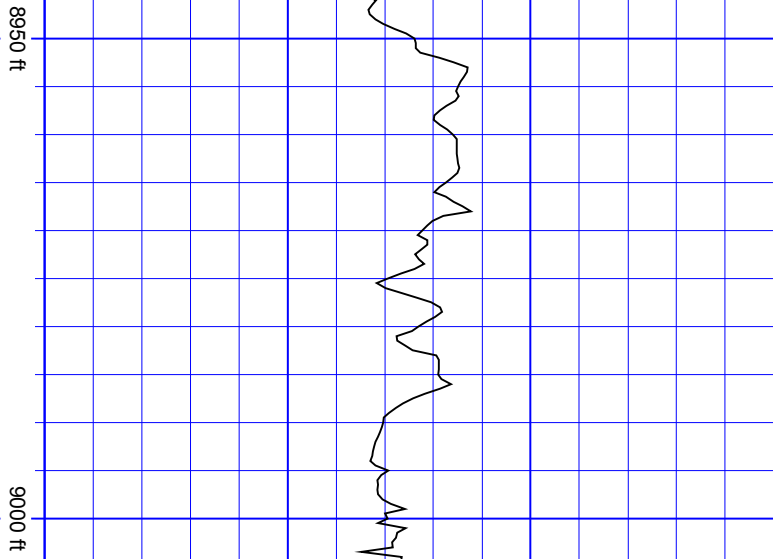
SurveyDepth:8608  
TVD:7436.5 Inc:91.19  
Azi:88.61  
VertSec:1183.62



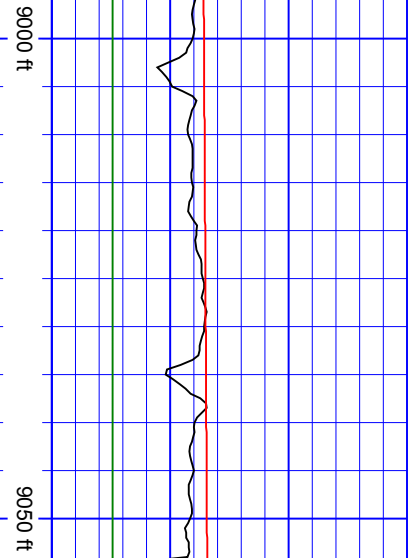
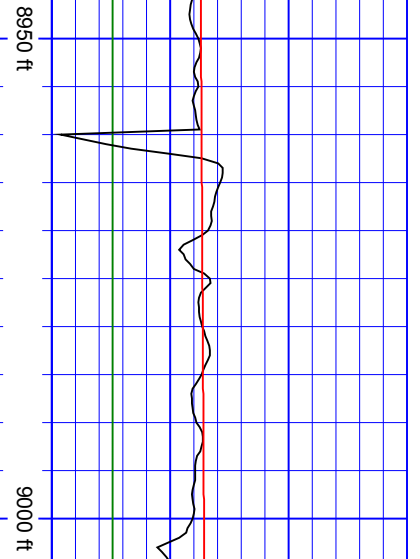
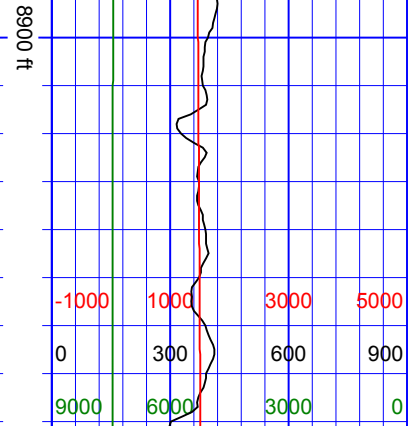
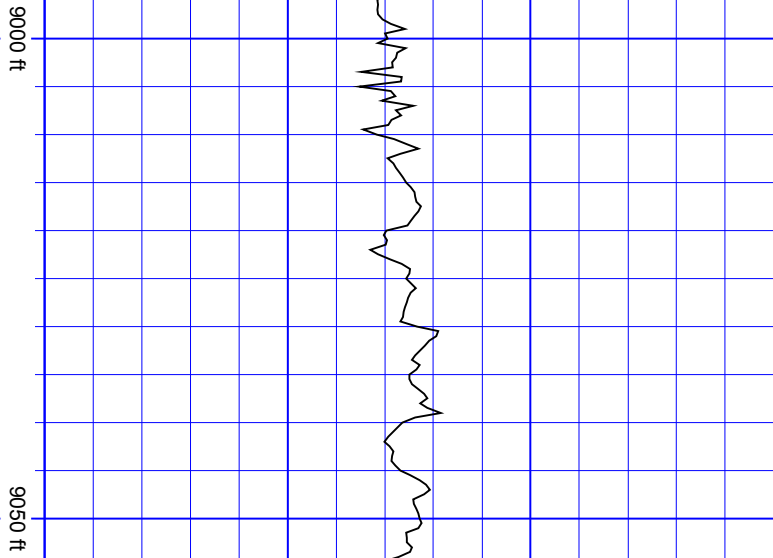




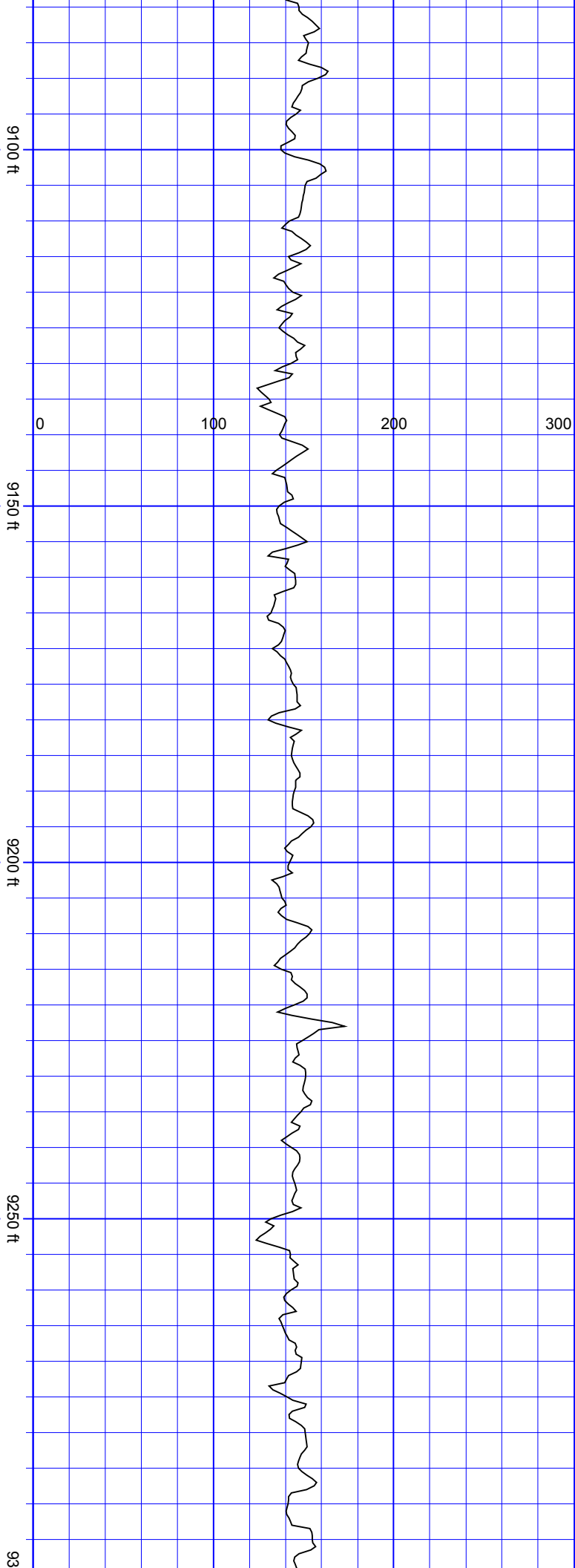
SurveyDepth:8893  
TVD:7442.95 Inc:88.33  
Azi:87.56  
VertSec:1468.44



SurveyDepth:8987  
TVD:7445.29 Inc:88.81  
Azi:87.03  
VertSec:1562.31



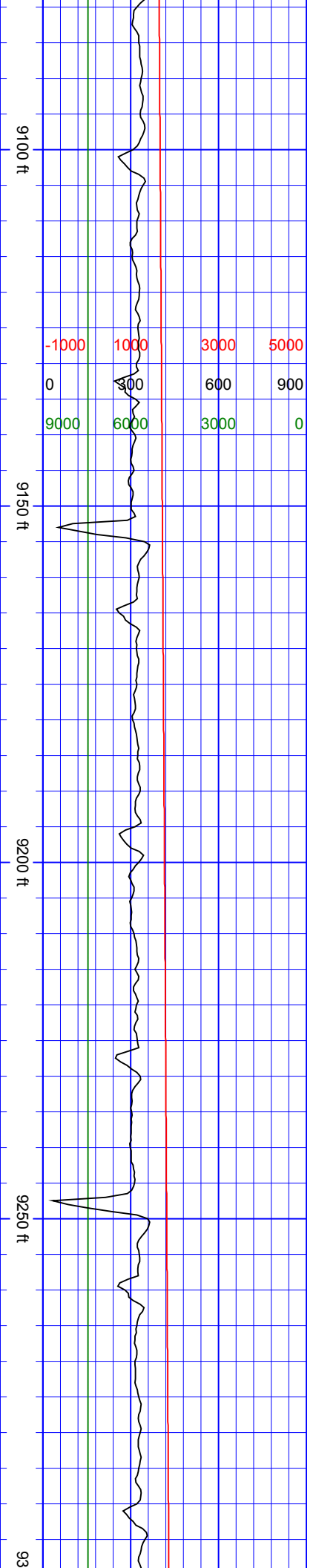


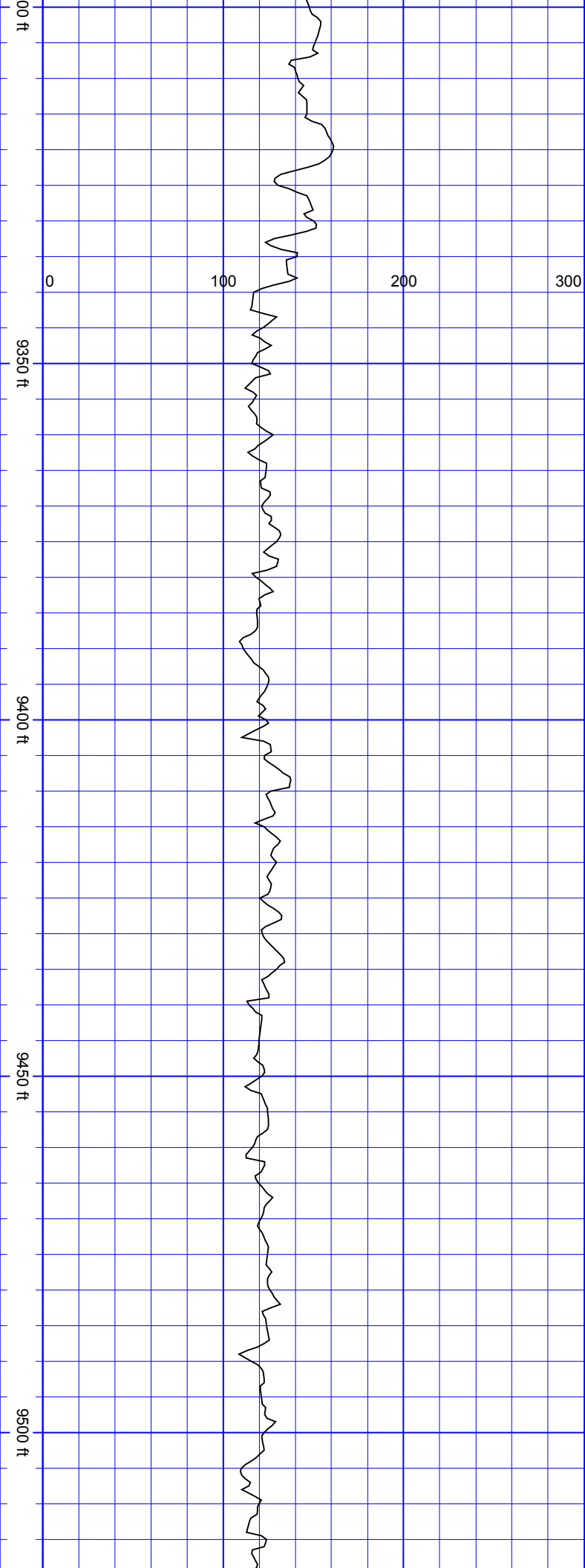


SurveyDepth:9082  
TVD:7446.25 Inc:90.04  
Azi:89.4  
VertSec:1657.25

SurveyDepth:9177  
TVD:7446.06 Inc:90.18  
Azi:89.14  
VertSec:1752.24

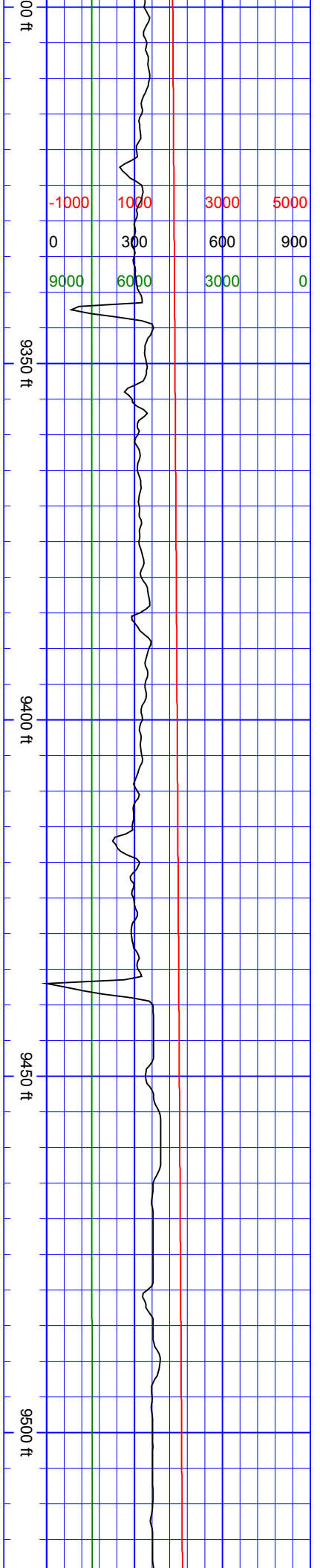
SurveyDepth:9271  
TVD:7445.55 Inc:90.44  
Azi:89.75  
VertSec:1846.24

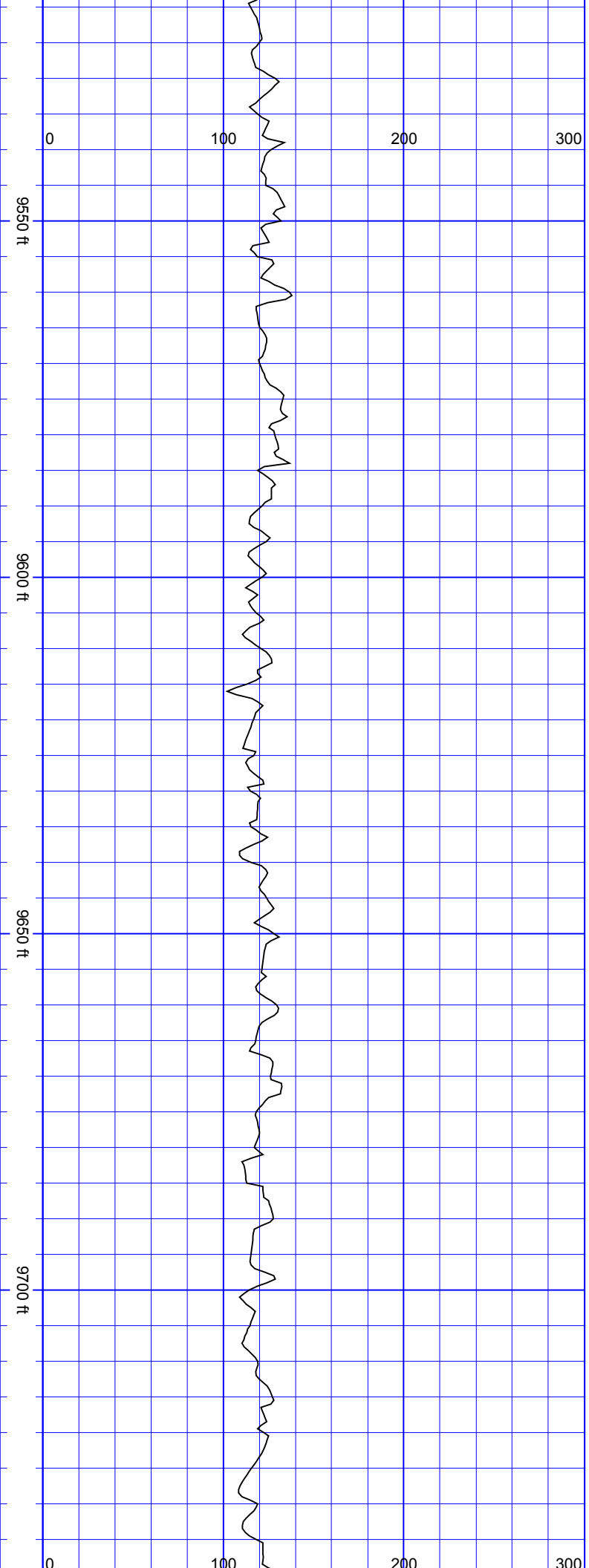




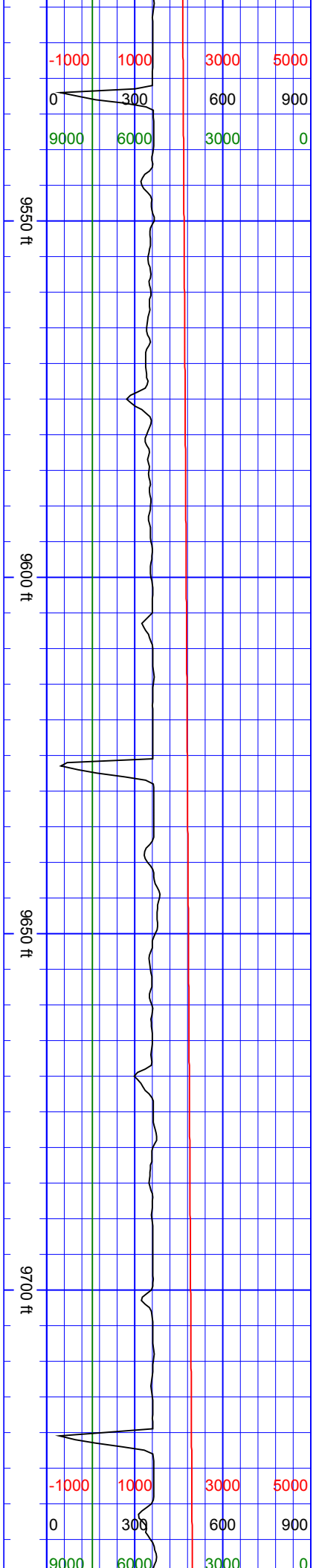
SurveyDepth:9367  
TVD:7444.67 Inc:90.62  
Azi:89.67  
VertSec:1942.24

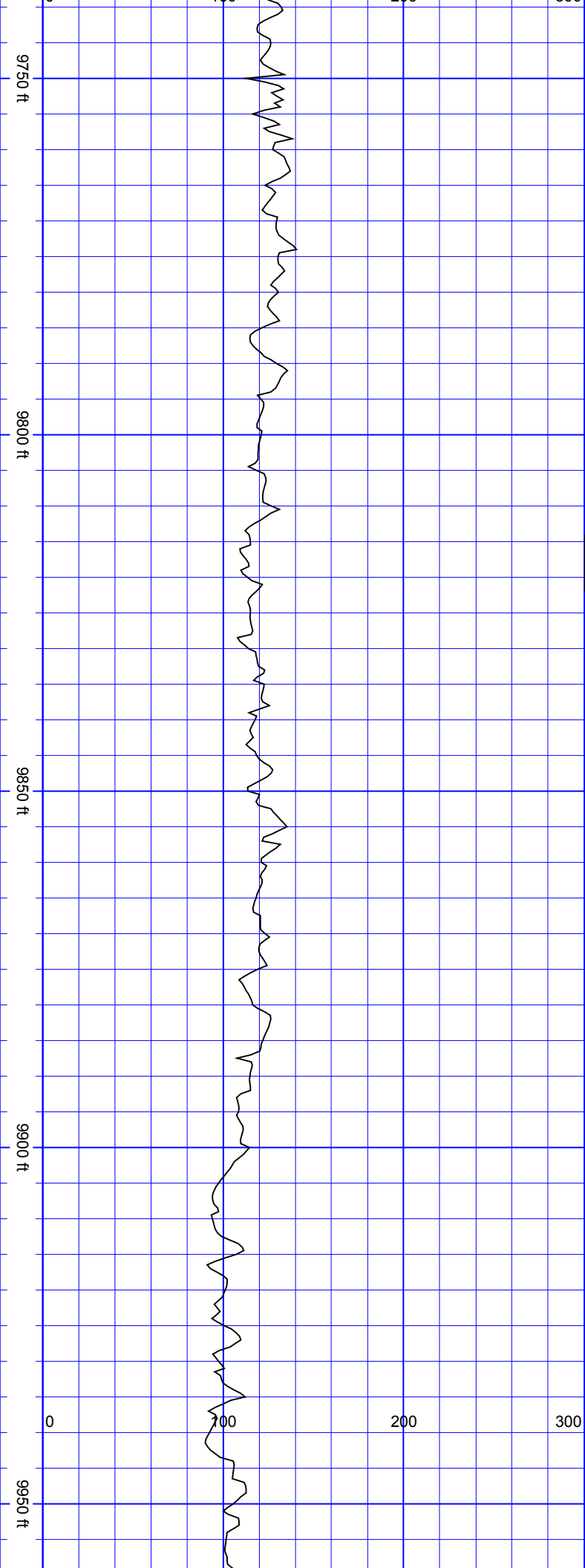
SurveyDepth:9461  
TVD:7443.51 Inc:90.79  
Azi:90.02  
VertSec:2036.23





SurveyDepth:9556 TVD:7442.42 Inc:90.53 Azi:89.67 VertSec:2131.22	SurveyDepth:9650 TVD:7441.83 Inc:90.18 Azi:90.28 VertSec:2225.22
---	---

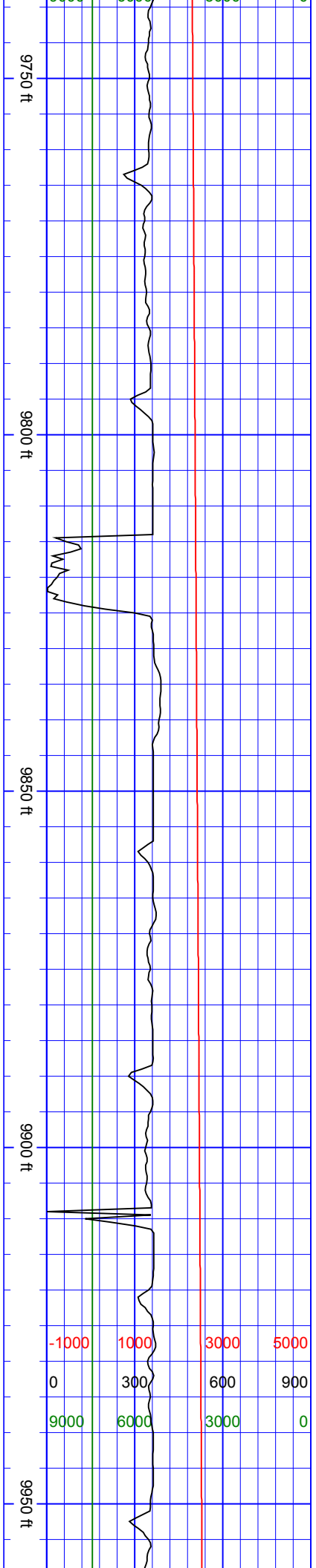




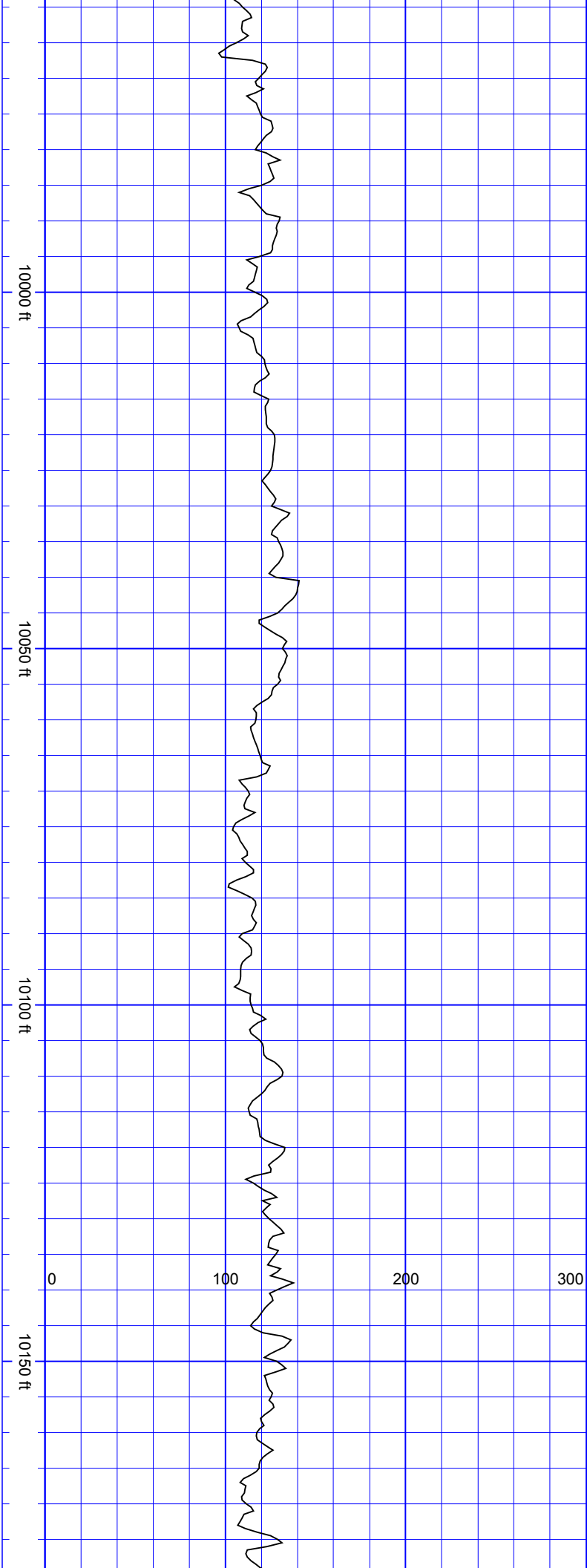
SurveyDepth:9744  
TVD:7441.25 Inc:90.53  
Azi:91.86  
VertSec:2319.19

SurveyDepth:9838  
TVD:7440.78 Inc:90.04  
Azi:90.72  
VertSec:2413.16

SurveyDepth:9933  
TVD:7441.04 Inc:89.65  
Azi:90.46  
VertSec:2508.16

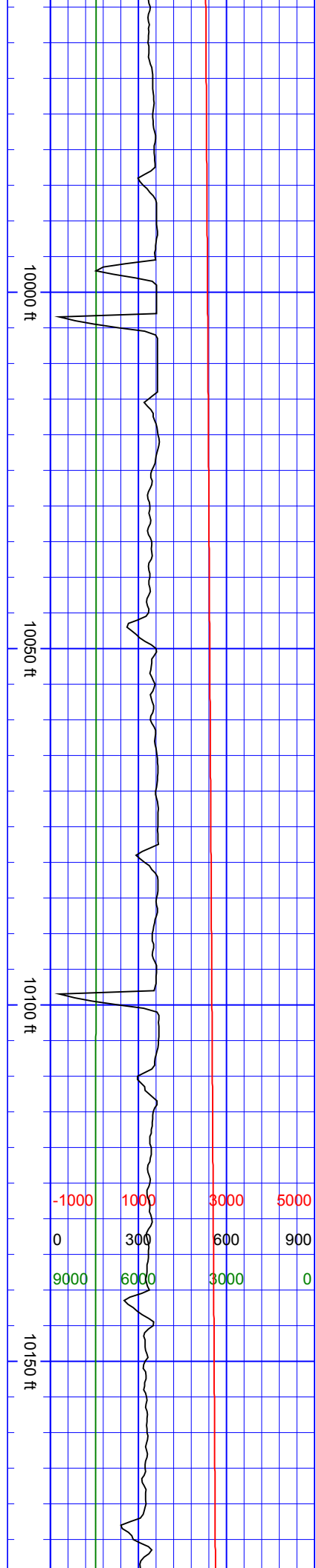


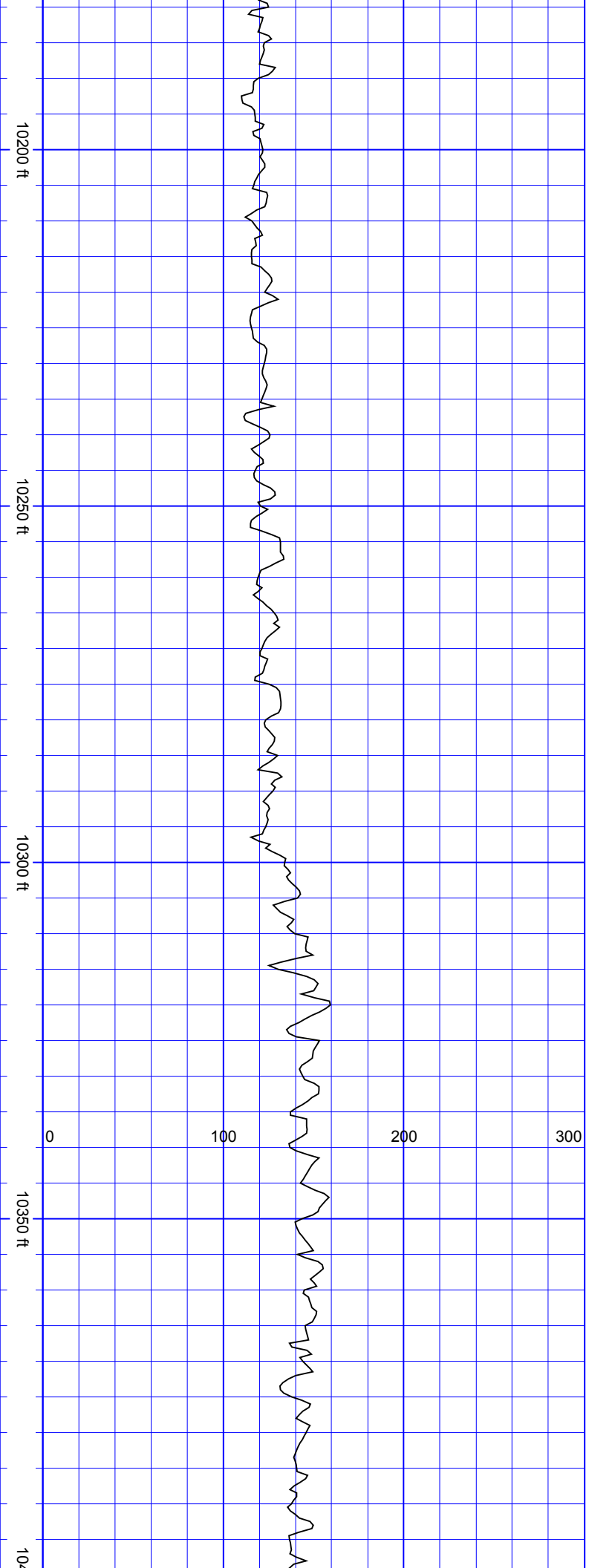
-1000	1000	3000	5000
0	300	600	900
9000	6000	3000	0



SurveyDepth:10028  
TVD:7442.02 Inc:89.17  
Azi:90.54  
VertSec:2603.15

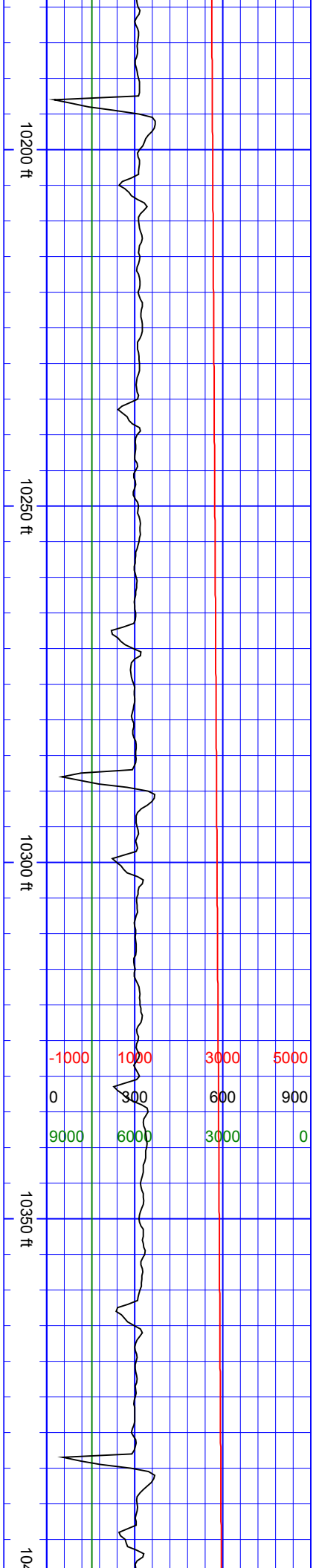
SurveyDepth:10122  
TVD:7443.53 Inc:88.99  
Azi:91.25  
VertSec:2697.12

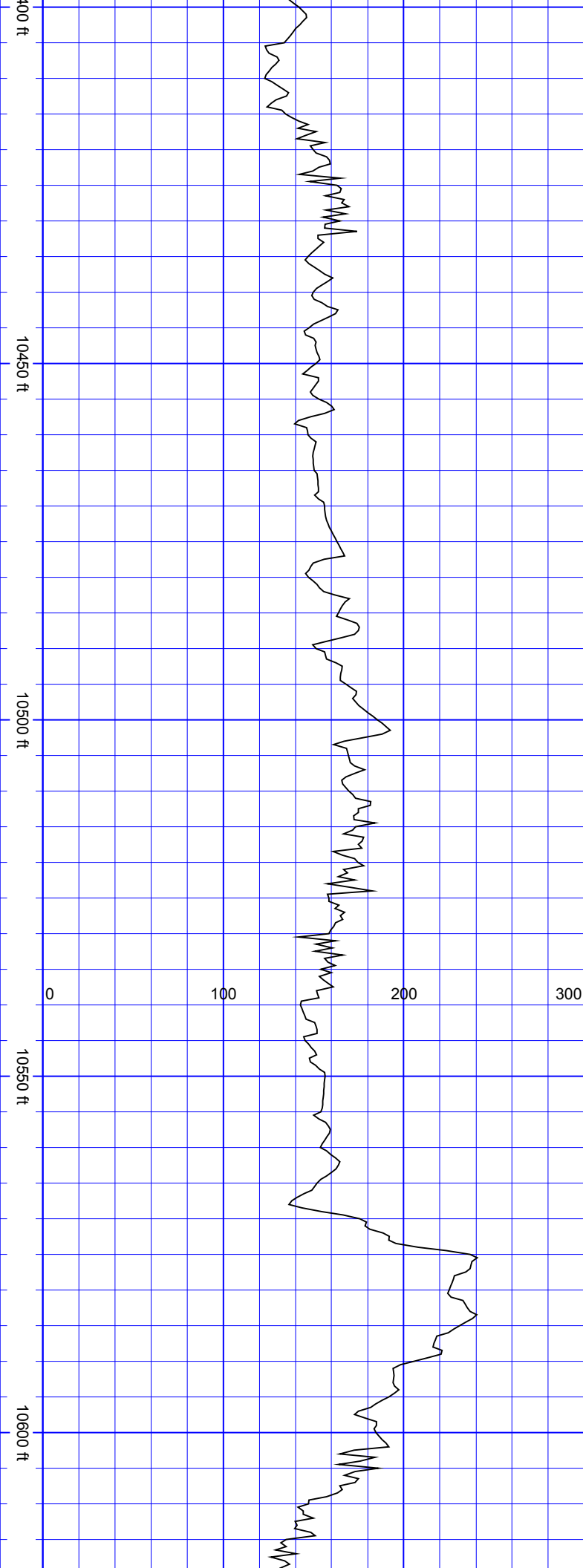




SurveyDepth:10217  
TVD:7445.13 Inc:89.08  
Azi:91.25  
VertSec:2792.08

SurveyDepth:10312  
TVD:7447.24 Inc:88.37  
Azi:91.95  
VertSec:2887.02





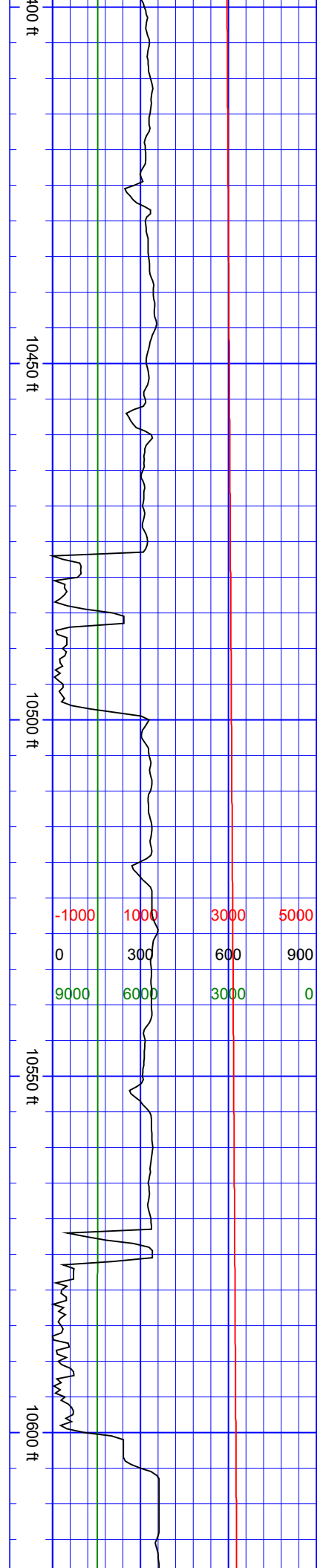
S  
S  
S

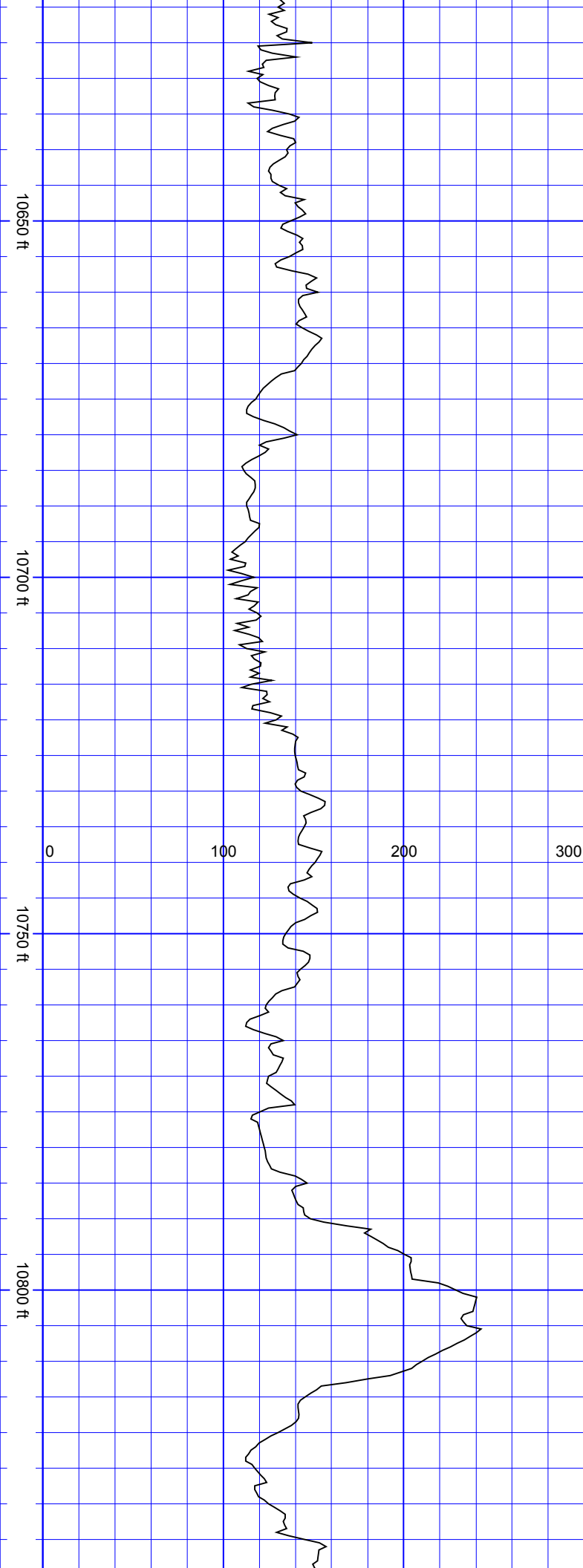
S  
S  
S  
S

SurveyDepth:10407  
TVD:7450.34 Inc:87.89  
Azi:92.21  
VertSec:2981.9

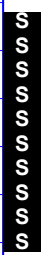
SurveyDepth:10501  
TVD:7454.66 Inc:86.84  
Azi:91.86  
VertSec:3075.73

SurveyDepth:10596  
TVD:7460.59 Inc:86  
Azi:92.04  
VertSec:3170.49

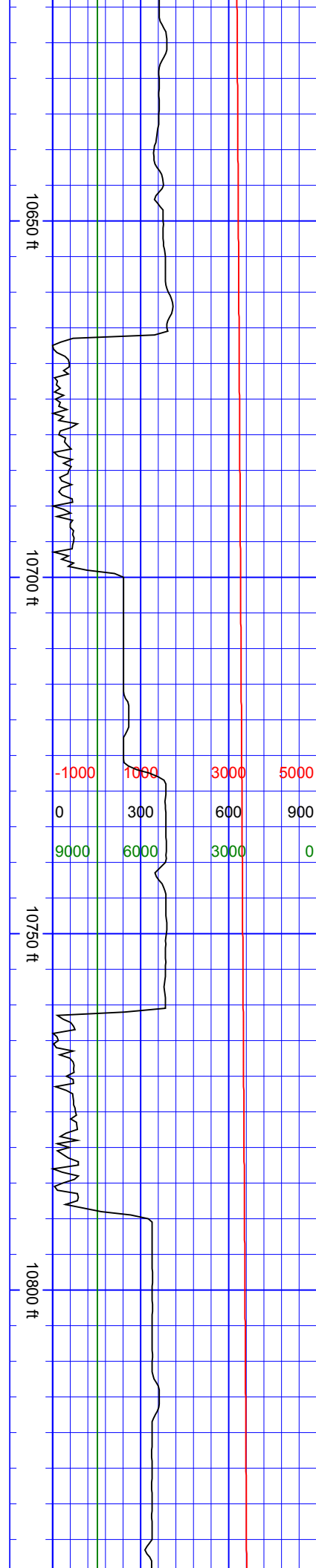




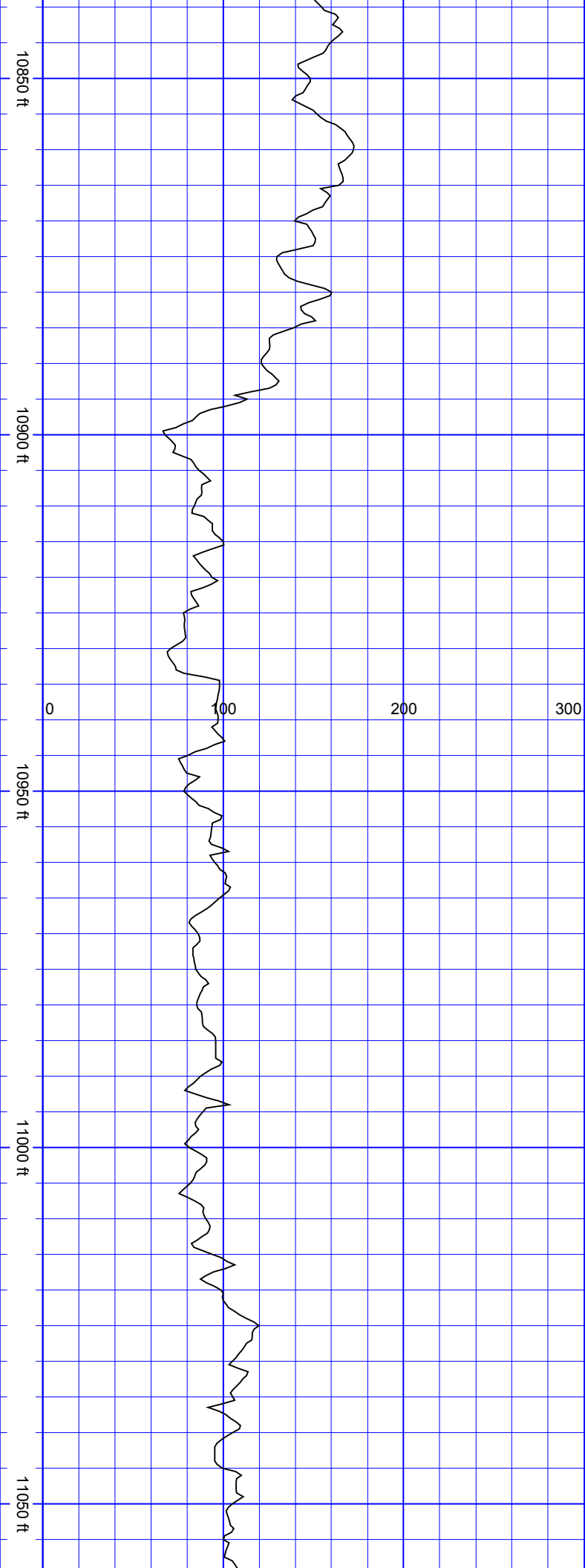
SurveyDepth:10691  
TVD:7465.69 Inc:87.85  
Azi:91.34  
VertSec:3265.3



SurveyDepth:10786  
TVD:7466.09 Inc:91.67  
Azi:88.7  
VertSec:3360.27

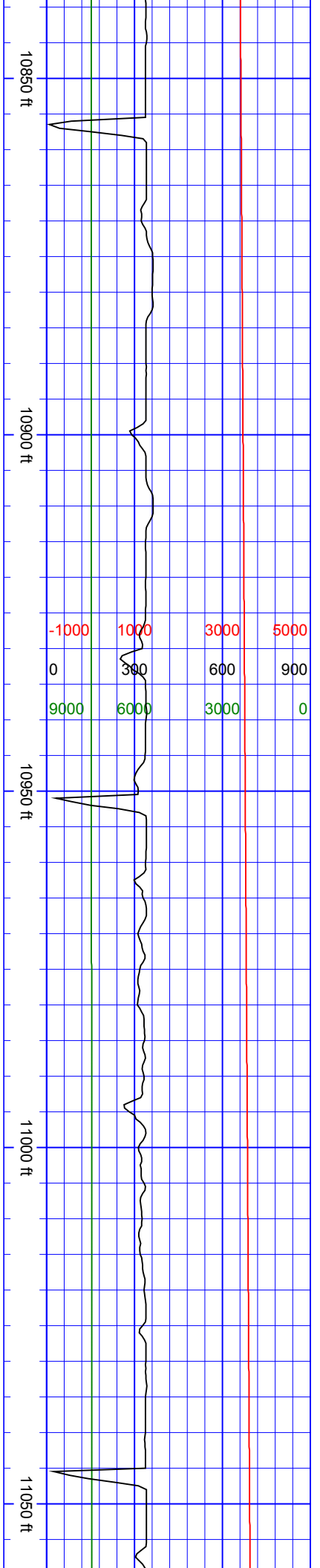


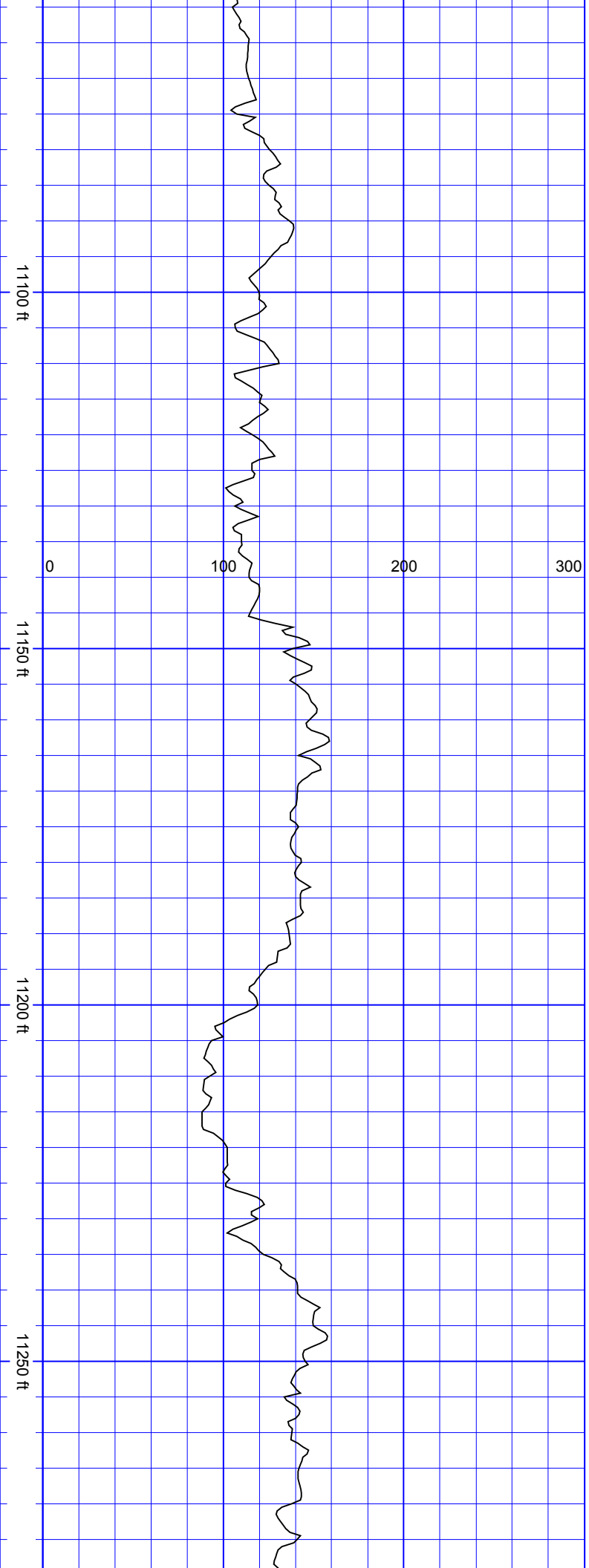




SurveyDepth:10880  
TVD:7462.96 Inc:92.15  
Azi:89.14  
VertSec:3454.21

SurveyDepth:10975  
TVD:7459.42 Inc:92.11  
Azi:89.23  
VertSec:3549.13

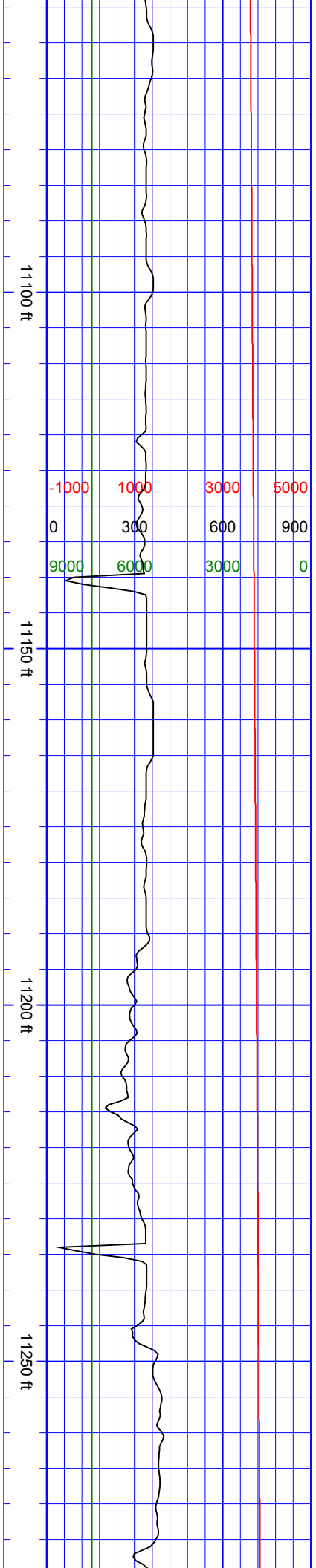


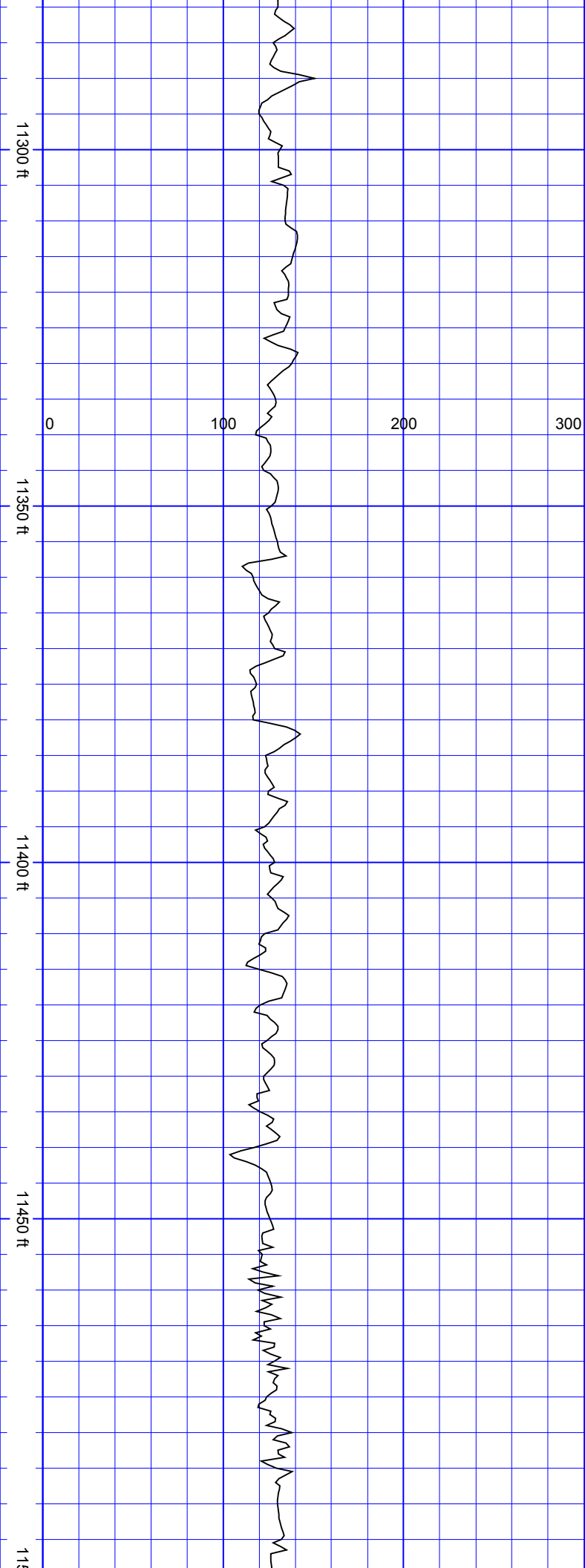


SurveyDepth:11069  
TVD:7456.36 Inc:91.63  
Azi:89.4  
VertSec:3643.08

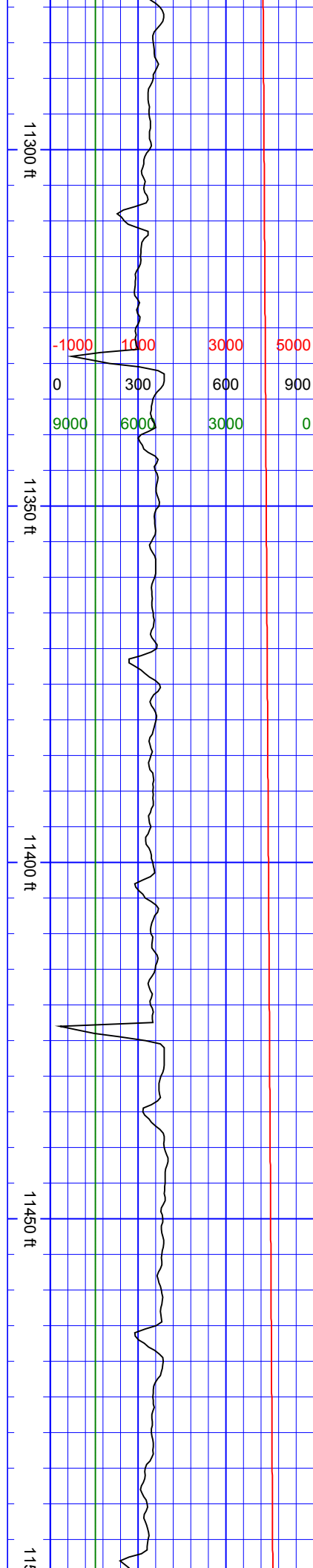
SurveyDepth:11164  
TVD:7453.47 Inc:91.85  
Azi:89.23  
VertSec:3738.03

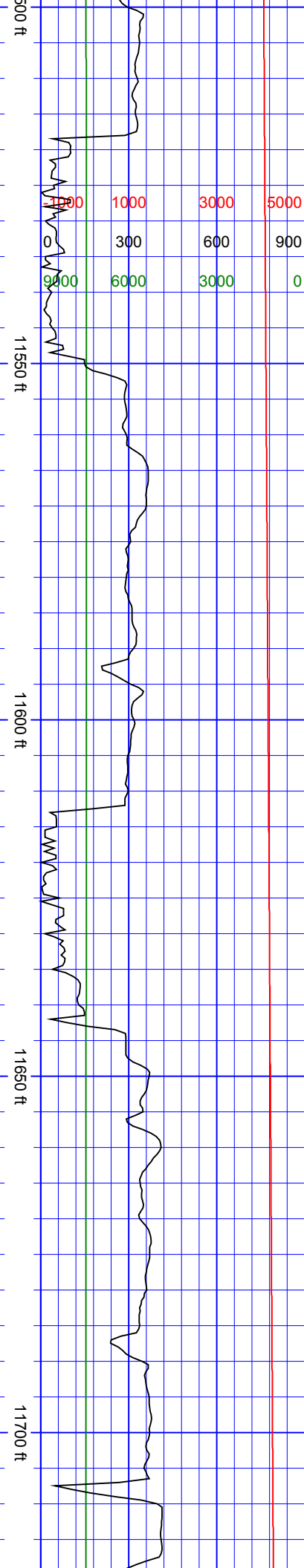
SurveyDepth:11259  
TVD:7450.45 Inc:91.8  
Azi:89.4  
VertSec:3832.98



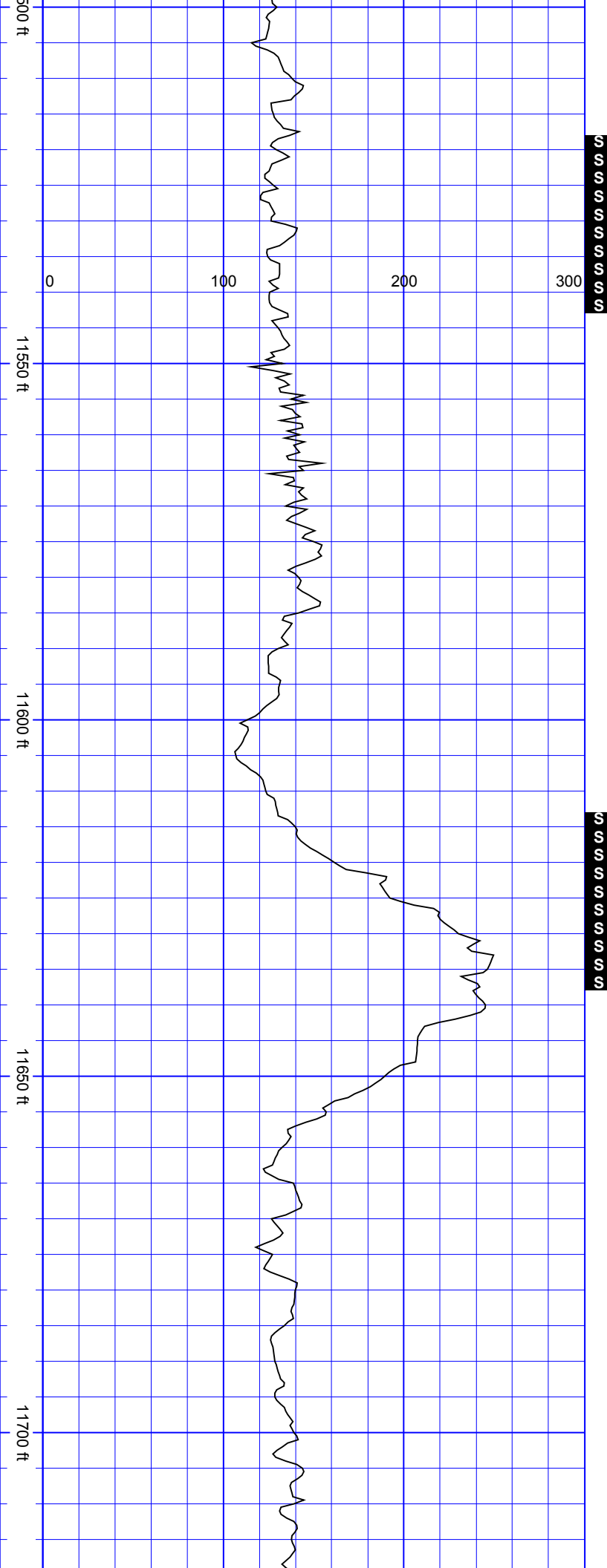


SurveyDepth:11353 TVD:7447.53 Inc:91.76 Azi:89.93 VertSec:3926.93
SurveyDepth:11448 TVD:7444.43 Inc:91.98 Azi:94.5 VertSec:4021.78

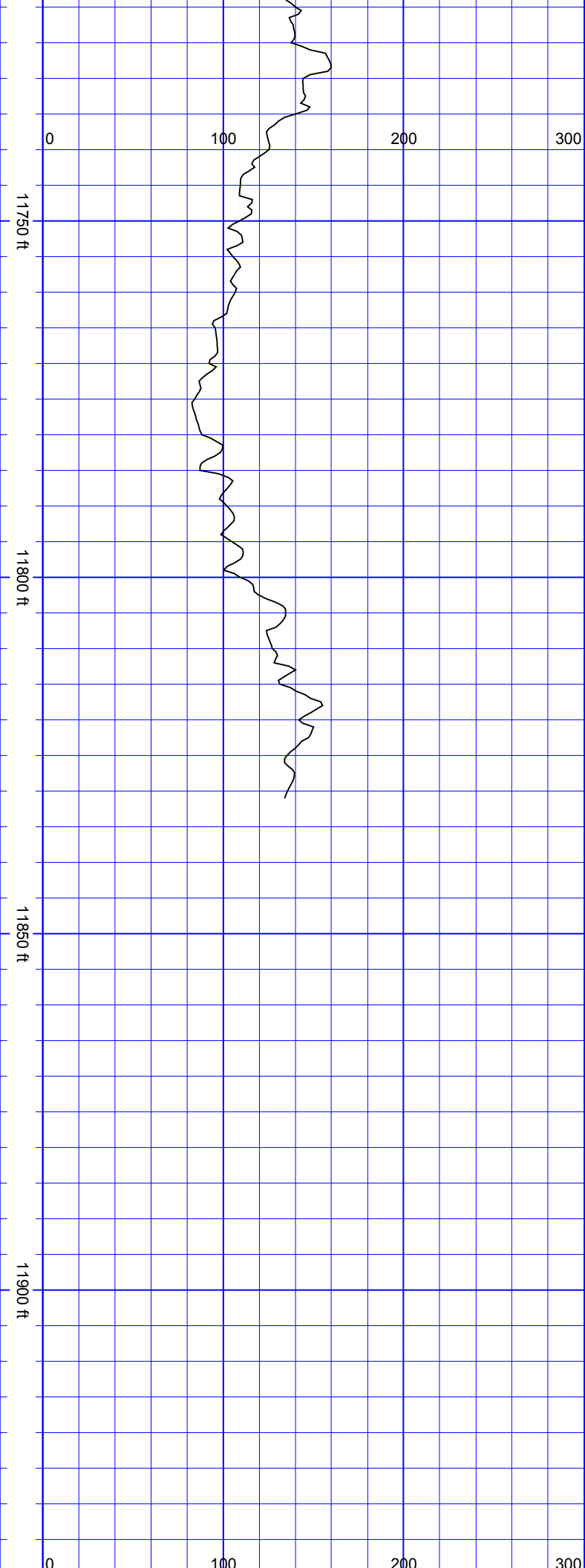




SurveyDepth:11543  
TVD:7442.53 Inc:90.31  
Azi:93.36  
VertSec:4116.52



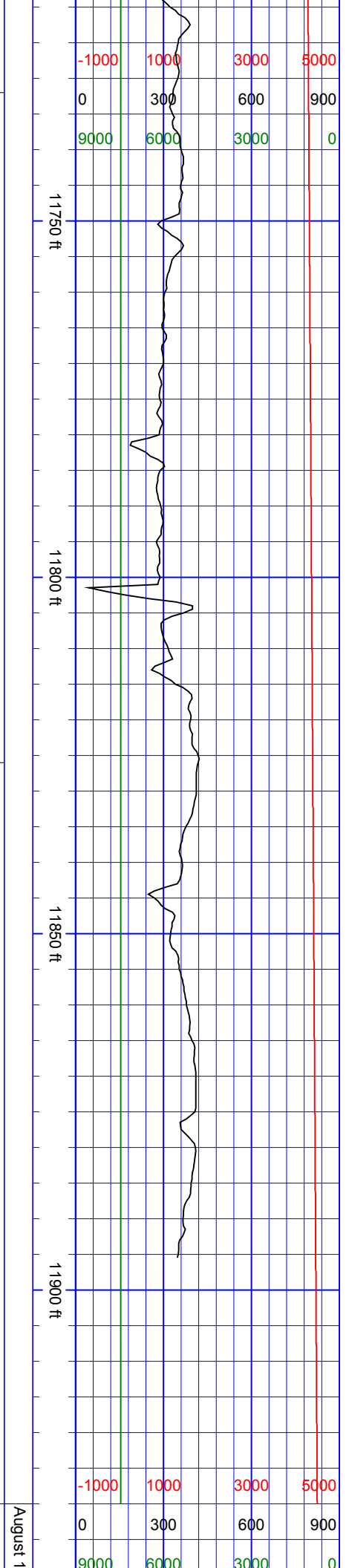
SurveyDepth:11638  
TVD:7443.18 Inc:88.9  
Azi:87.82  
VertSec:4211.47

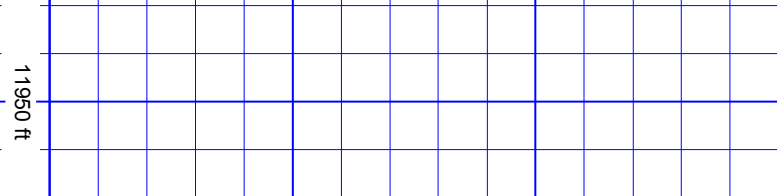

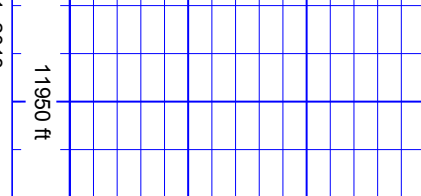

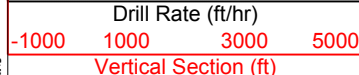


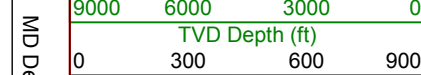
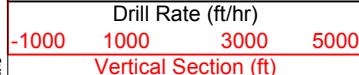


SurveyDepth:11732  
TVD:7445.24 Inc:88.59  
Azi:87.73  
VertSec:4305.38

SurveyDepth:11826  
TVD:7448.02 Inc:88.02  
Azi:87.56  
VertSec:4399.27

Extrapolation to Bit  
SurveyDepth:11930  
TVD:7451.62 Inc:88.02  
Azi:87.56  
VertSec:4503.12



 <p>11950 ft</p> <p>0 100 200 300</p> <p>Real Time Gamma (AAPI)</p> <p>Slide - Rotate</p> <p><b>GAMMA RAY</b></p>	 <p>Directional Survey</p>	 <p>Vertical Section</p>	 <p>9000 6000 3000 0</p> <p>TVD Depth (ft)</p> <p>0 300 600 900</p>
			 <p>Drill Rate (ft/hr)</p> <p>-1000 1000 3000 5000</p> <p>Vertical Section (ft)</p> <p><b>ROP - VERT SEC - TVD</b></p>
 <p>MD Depth "Scale 5" = 100</p> <p>ft"</p>	 <p>Date</p> <p>ft"</p>	 <p>1, 2018</p> <p>ft"</p>	 <p>MD Depth "Scale 5" = 100</p> <p>ft"</p>