



Potassium	%	4	4										
<b>Environmental data</b>													
<b>GR</b>													
Mud weight	ppg	9.8	10.10										
Bit size	in.	8.5	8.5										
<b>Resistivity</b>													
<b>Neutron porosity</b>													
Hole Size													
Mud weight													
Temperature													
Mud salinity													
Formation salinity													
Recording rate 1	SEC	2.97											
Recording rate 2	SEC	N/A											
Filtering GR		3 pt.											
Filtering density		N/A											
Filtering Neutron		N/A											
Company representative		G. Campbell	B. Steel	J. McKinnon									
Schlumberger D&M Personnel		L. Johnston	R. Burns	C. Soper	L. Muskett	A. Qadar							

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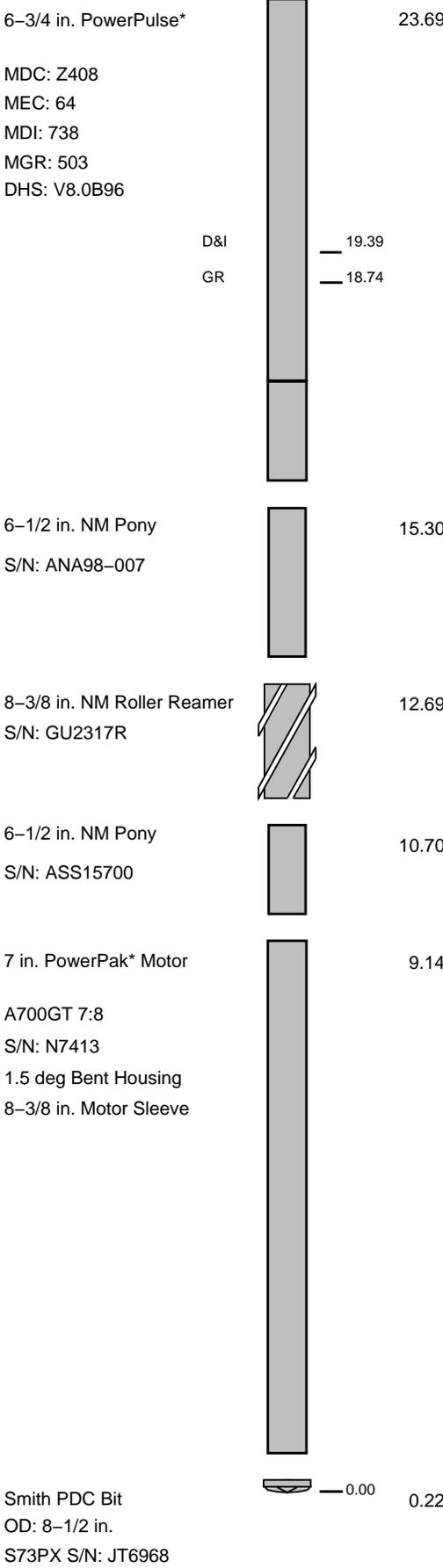
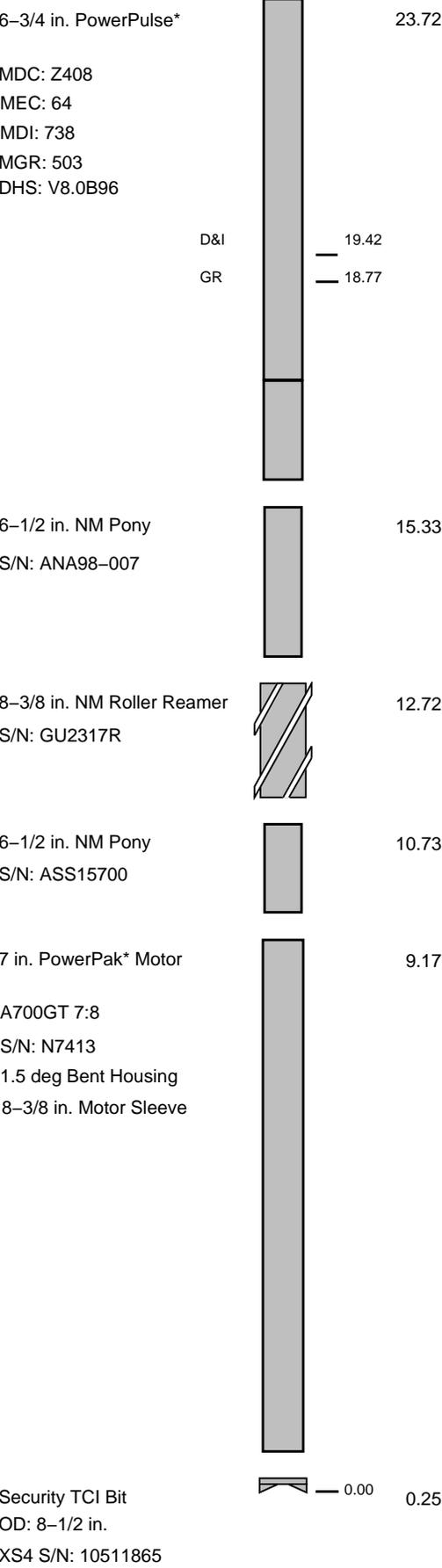
OTHER SERVICES FOR RUN2 Directional Drilling Directional Surveys	OTHER SERVICES FOR RUN3 Directional Drilling Directional Surveys	OTHER SERVICES FOR RUN
REMARKS: RUN NUMBER 2 Depth is referenced to Driller's Depth  All data presented is from Real-time transmission.  Environmental Corrections: – Gamma Ray was corrected for mud weight, tool and bit size. Gamma Ray is not corrected for Potassium.  8-1/2 in. hole was drilled from 1434.0 m to 1475.0 m MD.  POOH to change bit.	REMARKS: RUN NUMBER 3 Depth is referenced to Driller's Depth  All data presented is from Real-time transmission.  Environmental Corrections: – Gamma Ray was corrected for mud weight, tool and bit size. Gamma Ray is not corrected for Potassium.  8-1/2 in. hole was drilled from 1475.0 m to 2804.0 m MD.  Data loss between 2744m and 2749m due to downhole noise.	REMARKS: RUN NUMBER

**EQUIPMENT DESCRIPTION**

RUN2	RUN3	RUN
DOWNHOLE EQUIPMENT	DOWNHOLE EQUIPMENT	

DOWNHOLE EQUIPMENT

DOWNHOLE EQUIPMENT



Maximum string diameter 8.50 in.  
 All lengths in Meters

Maximum string diameter 8.50 in.  
 All lengths in Meters

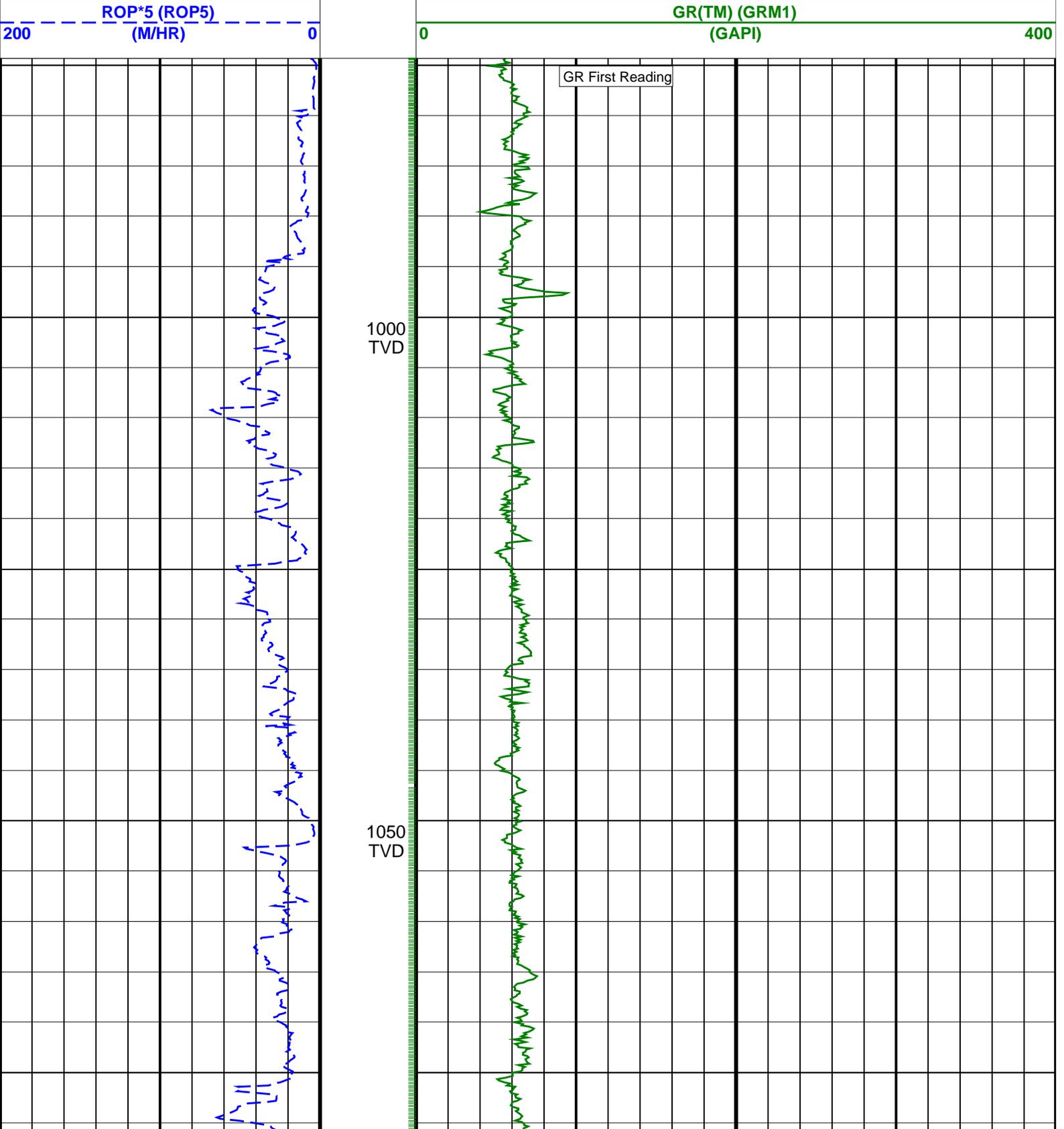
# BMA A19A RT 500TVD

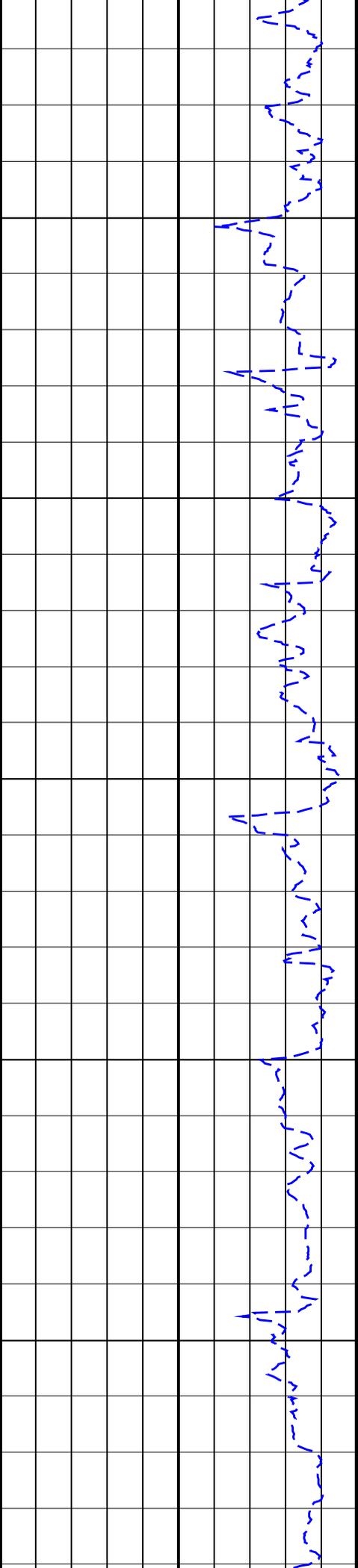
IDEAL Version: ID10\_2C\_01 <TVD> Vertical Scale: 1:500

Graphics File Created: 30-Nov-2005 02:10

## PIP SUMMARY

GR(TM) PIP

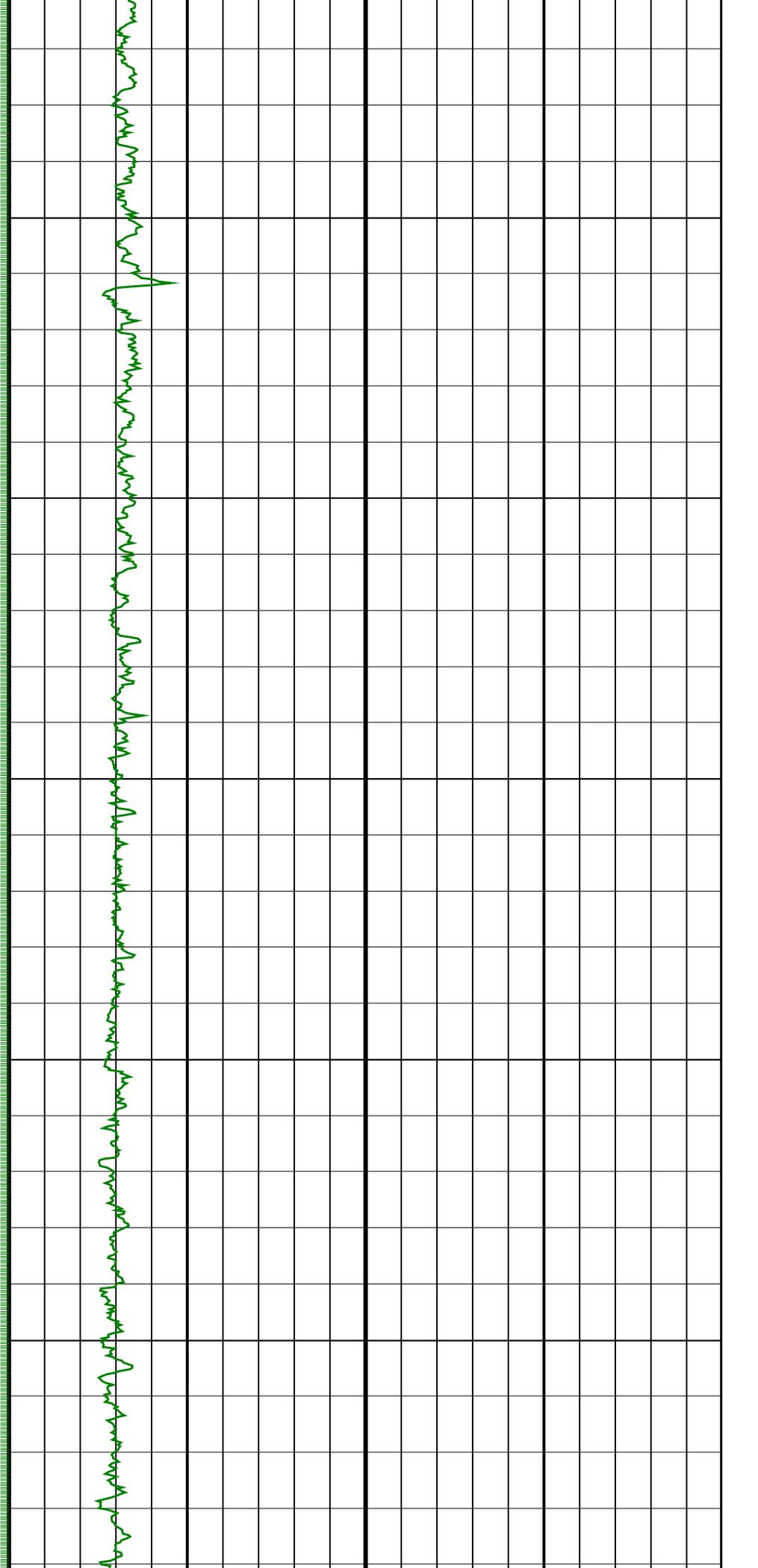


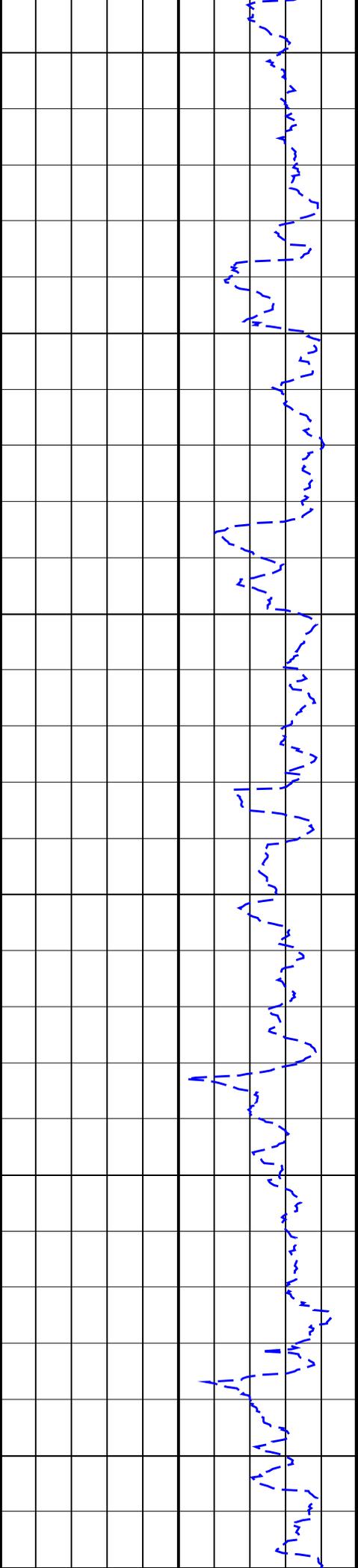


1100  
TVD

1150  
TVD

1200  
TVD

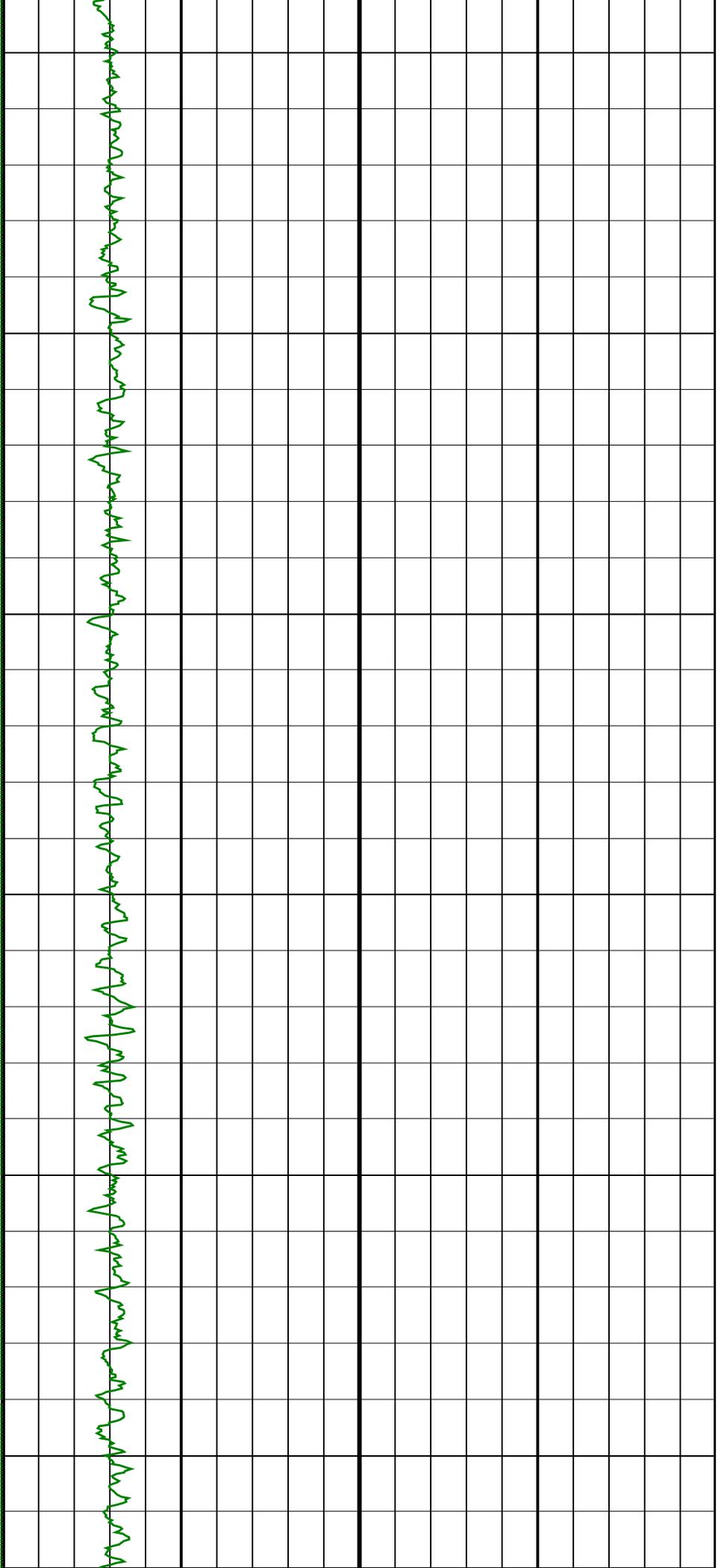


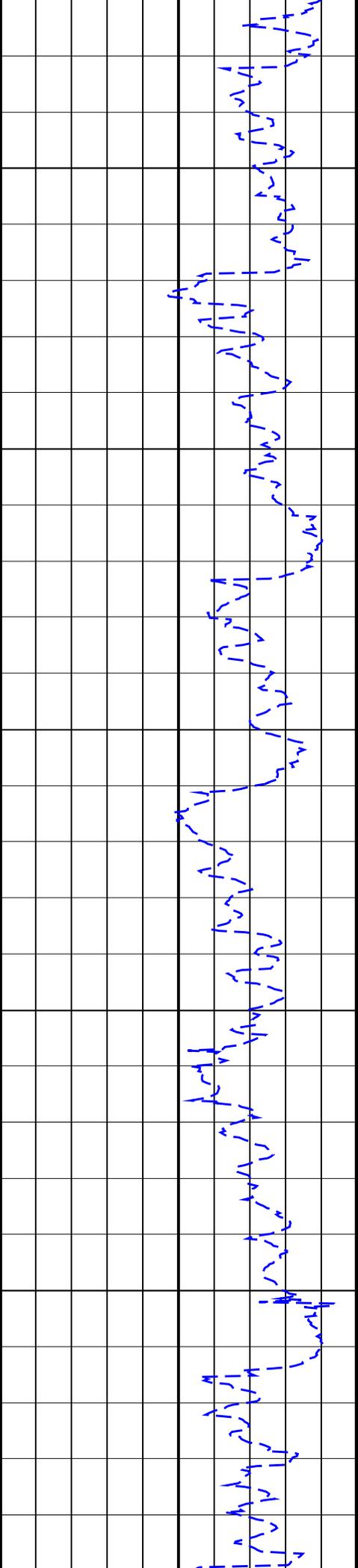


1250  
TVD

1300  
TVD

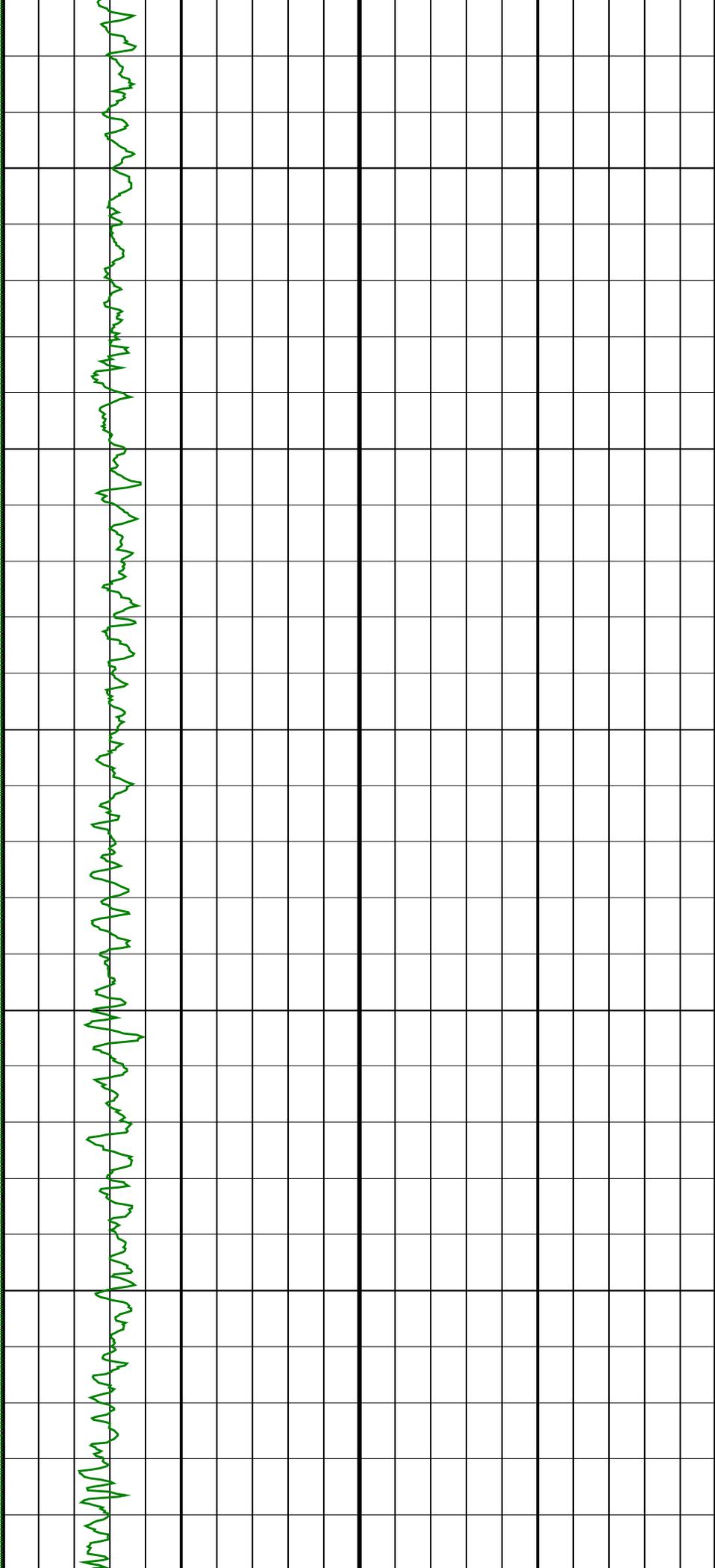
1350  
TVD

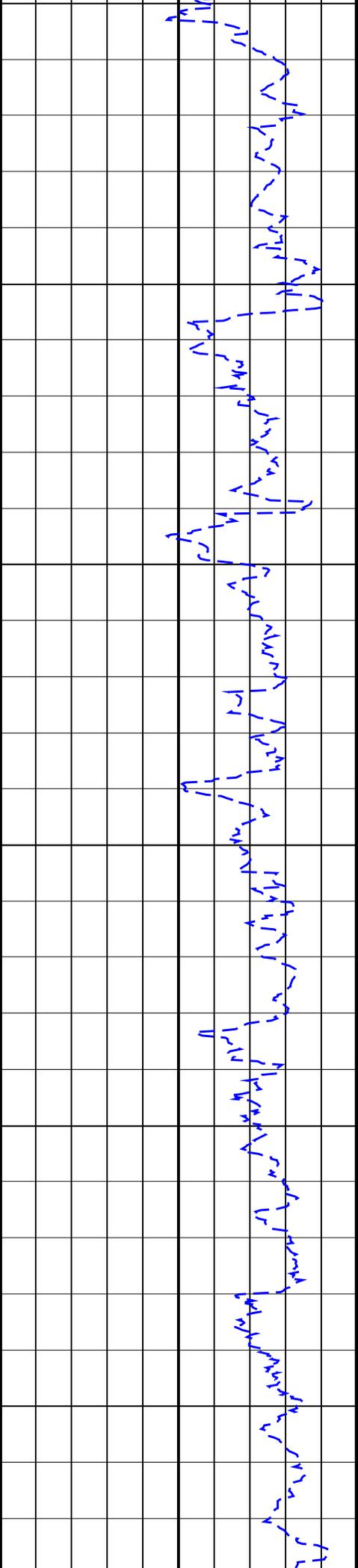




1400  
TVD

1450  
TVD

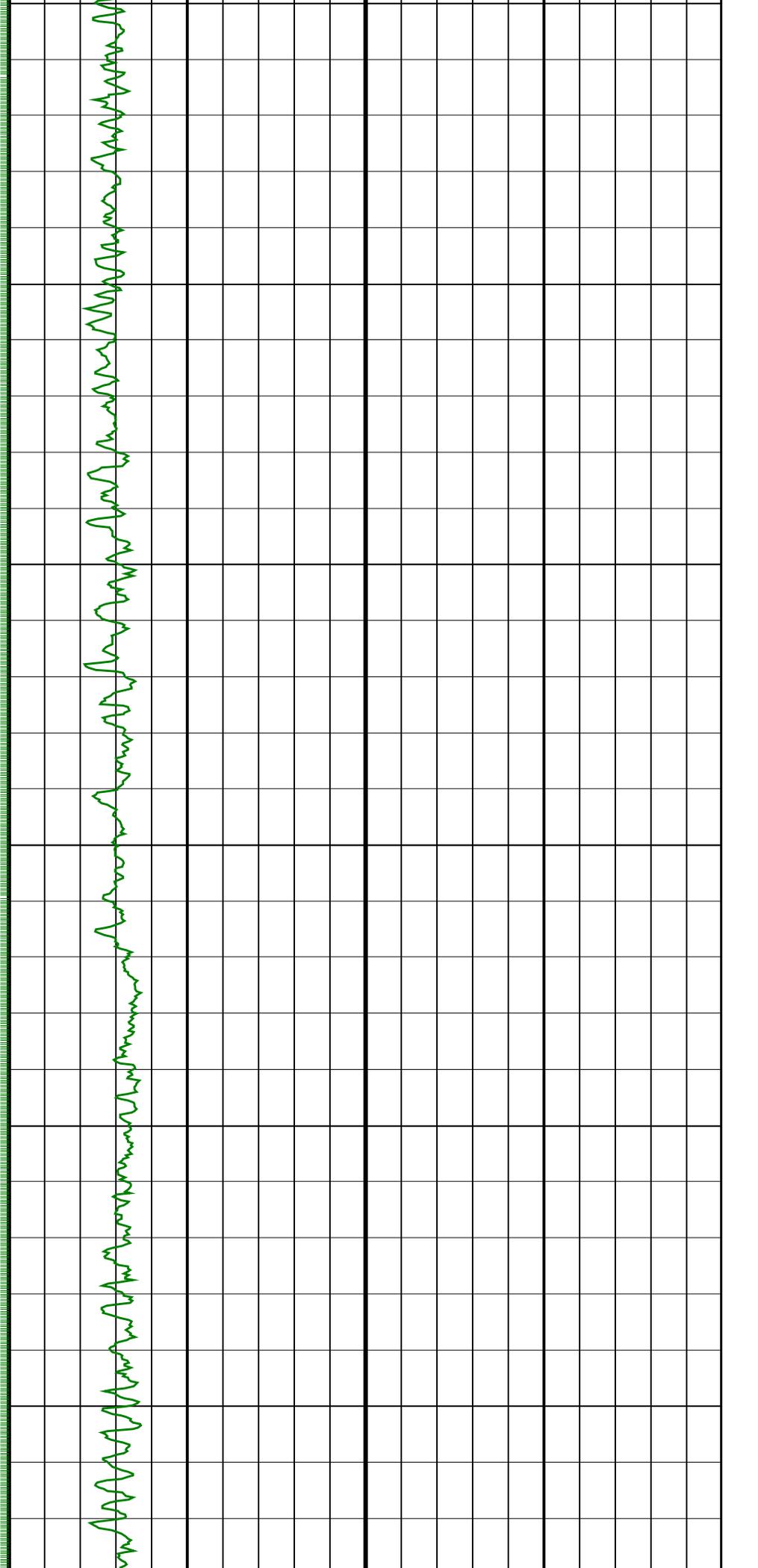


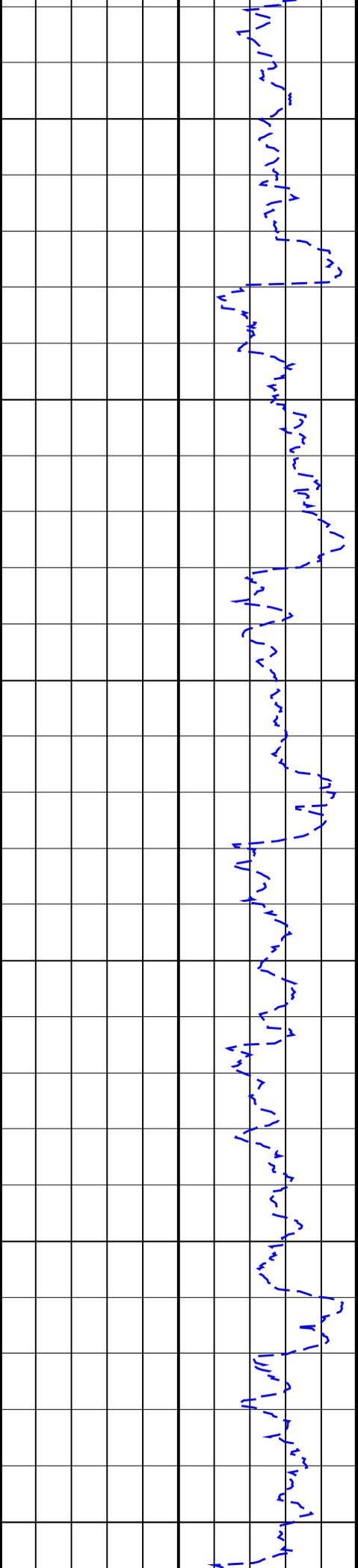


1500  
TVD

1550  
TVD

1600  
TVD

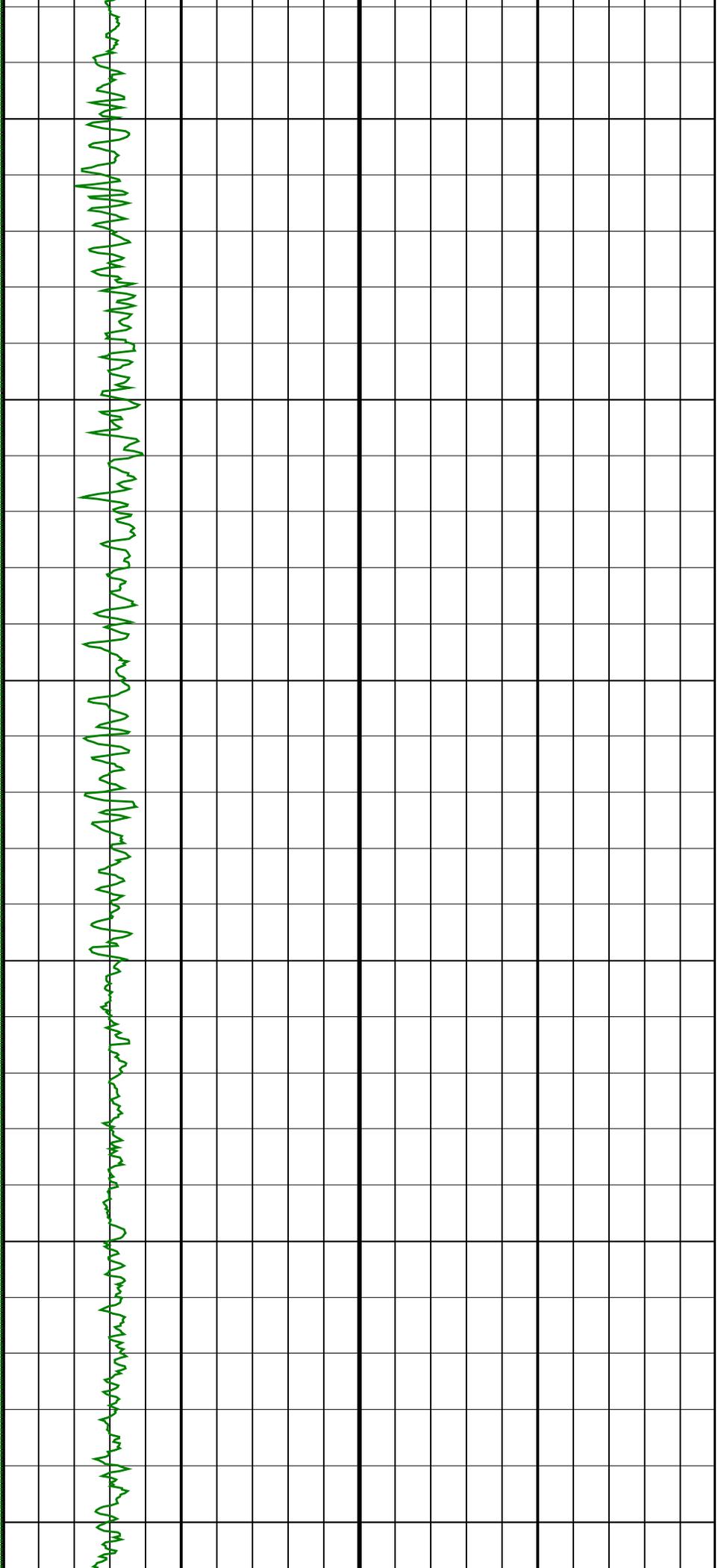


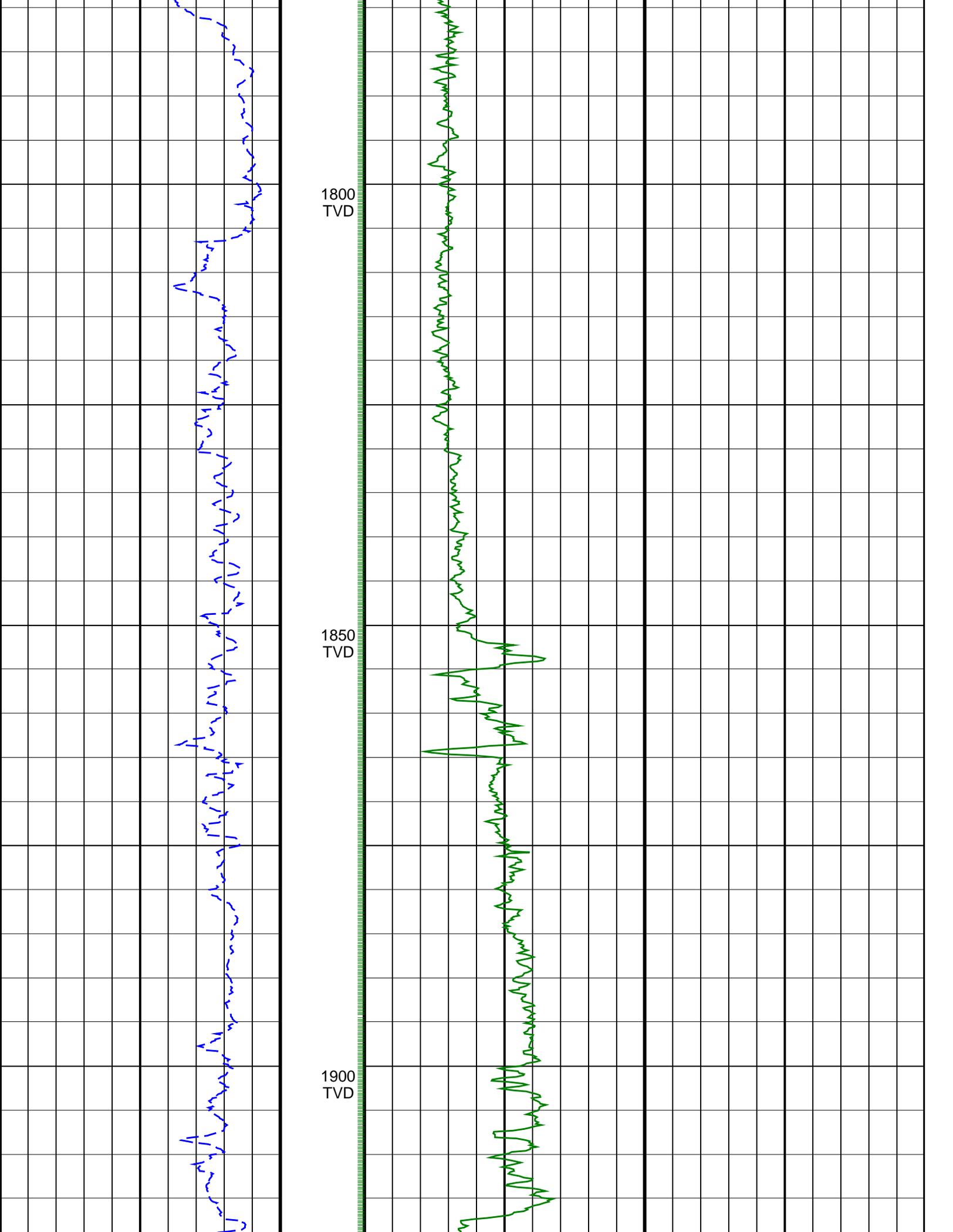


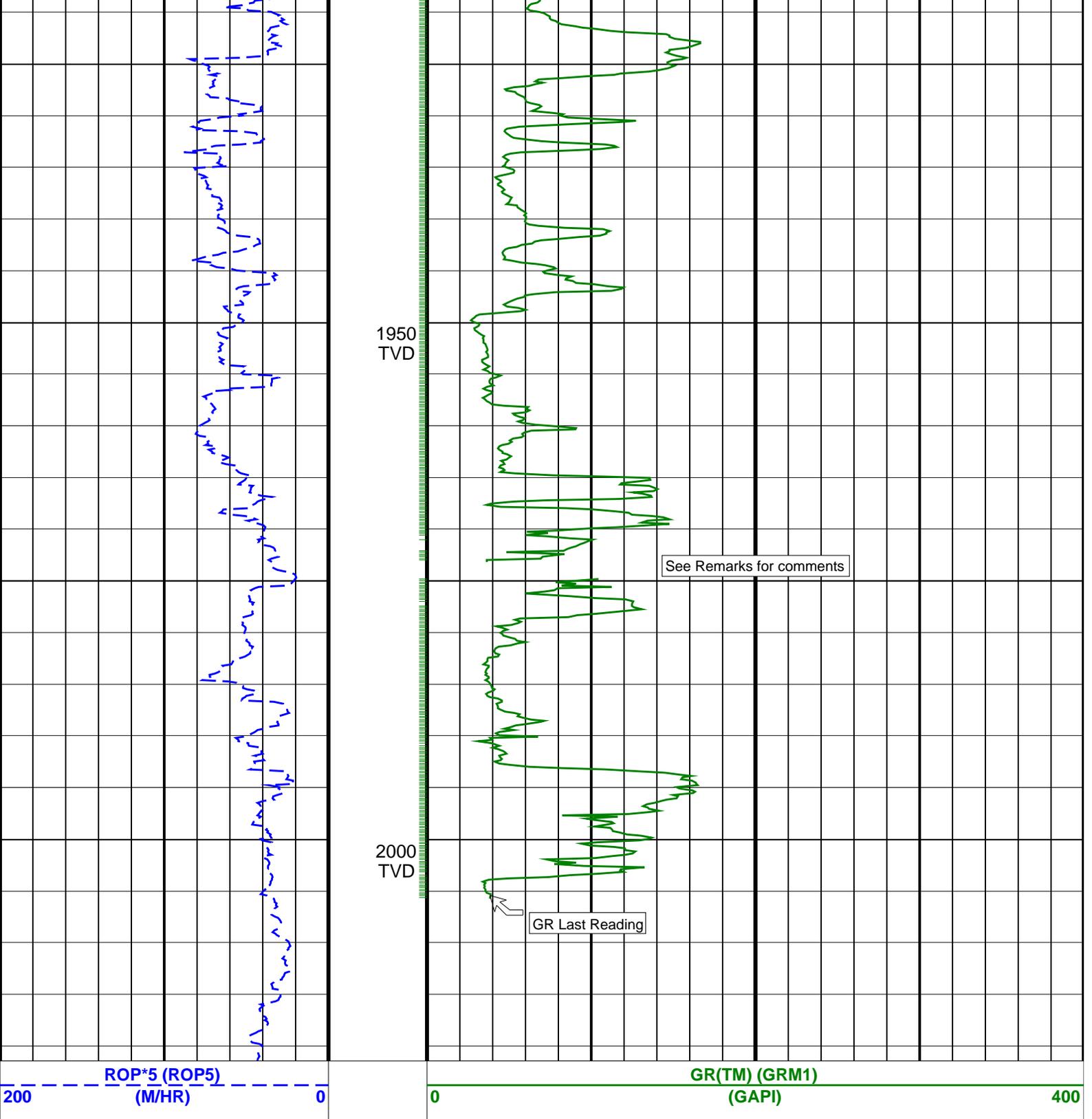
1650  
TVD

1700  
TVD

1750  
TVD







PIP SUMMARY

+ GR(TM) PIP

SCHLUMBERGER

Survey report

29-Nov-2005 00:50:21

Page 1 of 3

Client.....: ESSO Australia  
 Field.....: Bream

Well.....: BMA A19A  
 API number.....:  
 Engineer.....: L. Johnston, R. Burns

RIG.....: ISDL 453  
 STATE.....: Victoria

Spud date.....: 24-Nov-05  
 Last survey date.....: 28-Nov-05  
 Total accepted surveys...: 48  
 MD of first survey.....: 1436.00 m  
 MD of last survey.....: 2804.00 m

----- Survey calculation methods-----

----- Geomagnetic data -----

----- Depth reference -----  
 Permanent datum.....: Mean Sea Level  
 Depth reference.....: Drill Floor  
 GL above permanent.....: -59.40 m  
 KB above permanent.....: Top Drive  
 DF above permanent.....: 32.82 m

----- MWD survey Reference Criteria -----  
 Reference G.....: 1000.05 mGal  
 Reference H.....: 1202.83 HCNT  
 Reference Dip.....: -69.04 degrees  
 Tolerance of G.....: (+/-) 2.50 mGal  
 Tolerance of H.....: (+/-) 6.00 HCNT  
 Tolerance of Dip.....: (+/-) 0.45 degrees

----- Vertical section origin-----  
 Latitude (+N/S-).....: 0.00 m  
 Departure (+E/W-).....: 0.00 m

----- Corrections -----  
 Magnetic dec (+E/W-).....: 13.07 degrees  
 Grid convergence (+E/W-)..: -0.48 degrees  
 Total az corr (+E/W-)....: 13.55 degrees  
 (Total az corr = magnetic dec - grid conv)

----- Platform reference point-----  
 Latitude (+N/S-).....: 0.00 m  
 Departure (+E/W-).....: 0.00 m

Survey Correction Type ...:  
 I=Sag Corrected Inclination  
 M=Schlumberger Magnetic Correction  
 S=Shell Magnetic Correction  
 F=Failed Axis Correction  
 R=Magnetic Resonance Tool Correction  
 D=Dmag Magnetic Correction

Azimuth from Vsect Origin to target: 283.75 degrees

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 SCHLUMBERGER Survey Report

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/D/M)	Srvy tool type	Tool Corr (deg)
1	1436.00	60.30	253.28	0.00	974.07	728.63	-359.90	-838.19	912.19	246.76	0.00	TIP	None
2	1478.37	60.56	264.30	42.37	995.03	761.96	-367.04	-874.26	948.18	247.23	0.23	MWD	None
3	1512.44	57.35	266.35	34.07	1012.60	789.65	-369.43	-903.34	975.96	247.76	0.11	MWD	None
4	1541.14	55.51	267.56	28.70	1028.47	812.54	-370.70	-927.22	998.58	248.21	0.07	MWD	None
5	1570.44	53.70	273.57	29.30	1045.45	835.77	-370.48	-951.08	1020.69	248.72	0.18	MWD	None
6	1599.11	52.97	278.07	28.67	1062.57	858.54	-368.16	-973.95	1041.21	249.29	0.13	MWD	None
7	1628.05	52.08	282.48	28.94	1080.19	881.45	-364.07	-996.54	1060.96	249.93	0.12	MWD	None
8	1656.34	48.28	281.71	28.29	1098.30	903.17	-359.51	-1017.78	1079.41	250.55	0.14	MWD	None
9	1685.20	48.06	281.14	28.86	1117.55	924.65	-355.25	-1038.86	1097.92	251.12	0.02	MWD	None
10	1713.81	44.58	282.85	28.61	1137.30	945.33	-350.96	-1059.10	1115.73	251.67	0.13	MWD	None
11	1742.37	42.09	285.32	28.56	1158.08	964.92	-346.20	-1078.11	1132.33	252.20	0.11	MWD	None
12	1771.22	38.18	285.68	28.85	1180.13	983.51	-341.23	-1096.02	1147.92	252.71	0.14	MWD	None
13	1800.06	37.61	285.36	28.84	1202.89	1001.21	-336.49	-1113.09	1162.84	253.18	0.02	MWD	None
14	1828.75	36.76	285.25	28.69	1225.74	1018.55	-331.92	-1129.82	1177.56	253.63	0.03	MWD	None
15	1857.65	35.84	284.67	28.90	1249.03	1035.65	-327.50	-1146.35	1192.21	254.06	0.03	MWD	None
16	1886.53	35.35	284.85	28.88	1272.52	1052.46	-323.22	-1162.60	1206.69	254.46	0.02	MWD	None
17	1914.92	34.36	283.85	28.39	1295.82	1068.68	-319.19	-1178.32	1220.79	254.84	0.04	MWD	None
18	1943.71	34.09	283.70	28.79	1319.62	1084.87	-315.34	-1194.04	1234.98	255.21	0.01	MWD	None
19	1972.67	35.57	283.88	28.96	1343.39	1101.41	-311.40	-1210.11	1249.53	255.57	0.05	MWD	None
20	2001.00	36.77	284.06	28.33	1366.26	1118.13	-307.36	-1226.33	1264.26	255.93	0.04	MWD	None
21	2030.15	35.97	284.06	29.15	1389.73	1135.42	-303.16	-1243.10	1279.53	256.29	0.03	MWD	None
22	2058.86	37.03	282.95	28.71	1412.81	1152.50	-299.17	-1259.71	1294.74	256.64	0.04	MWD	None
23	2087.65	36.42	282.11	28.79	1435.89	1169.71	-295.44	-1276.51	1310.25	256.97	0.03	MWD	None
24	2116.29	35.54	282.13	28.64	1459.06	1186.53	-291.90	-1292.96	1325.50	257.28	0.03	MWD	None
25	2144.67	37.23	281.79	28.38	1481.91	1203.35	-288.42	-1309.43	1340.82	257.58	0.06	MWD	None
26	2173.44	36.14	281.59	28.77	1504.98	1220.53	-284.93	-1326.26	1356.52	257.87	0.04	MWD	None
27	2202.11	37.77	280.77	28.67	1527.89	1237.75	-281.60	-1343.17	1372.37	258.16	0.06	MWD	None
28	2231.11	37.02	281.20	29.00	1550.93	1255.34	-278.24	-1360.46	1388.62	258.44	0.03	MWD	None
29	2259.75	36.36	281.38	28.64	1573.90	1272.43	-274.89	-1377.24	1404.41	258.71	0.02	MWD	None
30	2288.58	36.30	281.60	28.83	1597.12	1289.50	-271.49	-1393.98	1420.17	258.98	0.00	MWD	None

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 SCHLUMBERGER Survey Report

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Seq #	Measured depth (m)	Incl angle (deg)	Azimuth angle (deg)	Course length (m)	TVD depth (m)	Vertical section (m)	Displ +N/S- (m)	Displ +E/W- (m)	Total displ (m)	At Azim (deg)	DLS (deg/D/M)	Srvy tool type	Tool Corr (deg)
31	2317.40	35.51	281.06	28.82	1620.47	1306.39	-268.17	-1410.55	1435.81	259.24	0.03	MWD	None
32	2346.23	34.94	282.32	28.83	1644.02	1323.00	-264.80	-1426.83	1451.20	259.49	0.03	MWD	None
33	2374.98	34.42	282.31	28.75	1667.66	1339.36	-261.31	-1442.81	1466.29	259.73	0.02	MWD	None
34	2403.55	35.11	282.88	28.57	1691.13	1355.64	-257.76	-1458.71	1481.31	259.98	0.03	MWD	None
35	2432.17	36.05	282.98	28.62	1714.41	1372.29	-254.03	-1474.94	1496.66	260.23	0.03	MWD	None
36	2460.56	35.22	283.04	28.39	1737.48	1388.83	-250.31	-1491.06	1511.92	260.47	0.03	MWD	None
37	2489.45	36.11	283.93	28.89	1760.95	1405.68	-246.38	-1507.44	1527.44	260.72	0.04	MWD	None
38	2518.32	35.25	284.65	28.87	1784.40	1422.51	-242.22	-1523.75	1542.89	260.97	0.03	MWD	None
39	2546.76	36.00	283.55	28.44	1807.52	1439.08	-238.19	-1539.82	1558.13	261.21	0.03	MWD	None
40	2575.01	35.10	283.73	28.25	1830.50	1455.50	-234.32	-1555.78	1573.33	261.44	0.03	MWD	None
41	2603.28	34.42	283.46	28.27	1853.73	1471.62	-230.53	-1571.45	1588.27	261.65	0.02	MWD	None
42	2632.06	33.78	283.24	28.78	1877.56	1487.76	-226.80	-1587.15	1603.27	261.87	0.02	MWD	None
43	2661.17	33.44	283.32	29.11	1901.80	1503.87	-223.10	-1602.83	1618.28	262.08	0.01	MWD	None
44	2690.17	33.53	282.75	29.00	1925.99	1519.87	-219.49	-1618.42	1633.23	262.28	0.01	MWD	None
45	2718.85	33.87	282.07	28.68	1949.85	1535.78	-216.07	-1633.96	1648.18	262.47	0.02	MWD	None
46	2747.40	33.61	281.49	28.55	1973.59	1551.62	-212.83	-1649.48	1663.16	262.65	0.01	MWD	None
47	2775.84	33.17	280.75	28.44	1997.34	1567.26	-209.81	-1664.84	1678.01	262.82	0.02	MWD	None
48	2804.00	32.90	280.50	28.16	2020.94	1582.59	-206.98	-1679.93	1692.63	262.98	0.01	Projection to TD	

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**Company: ESSO Australia Pty. Ltd.**

**Schlumberger**

**Well: BMA A19A**

**Field: Bream**

**Rig: ISDL 453**

**State: Victoria**

**Gamma Ray Service  
1:500 True Vertical Depth  
Real Time Log**