

# Bit Run Summary

Type		KCl/PHPA/Glycol	KCl/PHPA/Glycol	KCl/PHPA/Glycol	KCl/PHPA/Glycol	KCl/PHPA/Glycol					
Mud weight	ppg	9.55	9.4	9.55	9.55	9.45					
Solids	%wt	4.7	4.3	5.6	5.3	5.2					
Chlorides	mg/L	47,500	46,000	43,000	46,500	42,500					
Rm											
Rmf											
Rmc											
Potassium											
<b>Environmental data</b>											
<b>GR</b>											
Mud weight	ppg	9.55	9.4	9.55	9.55	9.45					
Bit size	in	8.5	8.5	8.5	8.5	8.5					
<b>Resistivity</b>											
<b>Neutron porosity</b>											
Hole Size											
Mud weight											
Temperature											
Mud salinity											
Formation salinity											
Recording rate 1	SEC										
Recording rate 2	SEC										
Filtering GR		3pt	3pt	3pt	3pt	3pt					
Filtering density											
Filtering Neutron											
Company representative		G.Campbell	B.Steel								
Anadrill personnel		J.Dolan	O.Radicevic	C.Soper	B.Manjenic	D.Hastie					

#### DISCLAIMER

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OTHER SERVICES FOR RUN1	OTHER SERVICES FOR RUN2	OTHER SERVICES FOR RUN3
Gamma Ray Directional Drilling Directional Surveys	Gamma Ray Directional Drilling Directional Surveys	Gamma Ray Directional Drilling Directional Surveys
REMARKS: RUN NUMBER 1 8-1/2 in. hole was drilled from 1362.6m to 2243.0m.  Depth is referenced to the Driller's Depth.  Gamma Ray is corrected for Tool Size, Bit Size, and Mud Weight.  Mud type is KCl/PHPA/Glycol.  Gamma Ray logged behind casing to 1351m.  POOH due to bit change.	REMARKS: RUN NUMBER 2 8-1/2 in. hole was drilled from 2243.0m to 2391.0m.  Depth is referenced to the Driller's Depth.  Gamma Ray is corrected for Tool Size, Bit Size, and Mud Weight.  Mud type is KCl/PHPA/Glycol.  POOH due to bit change.	REMARKS: RUN NUMBER 3 8-1/2 in. hole was drilled from 2391.0m to 2637.0m.  Depth is referenced to the Driller's Depth.  Gamma Ray is corrected for Tool Size, Bit Size, and Mud Weight.  Mud type is KCl/PHPA/Glycol.  POOH due to bit change.

EQUIPMENT DESCRIPTION

RUN1

RUN2

RUN3

DOWNHOLE EQ

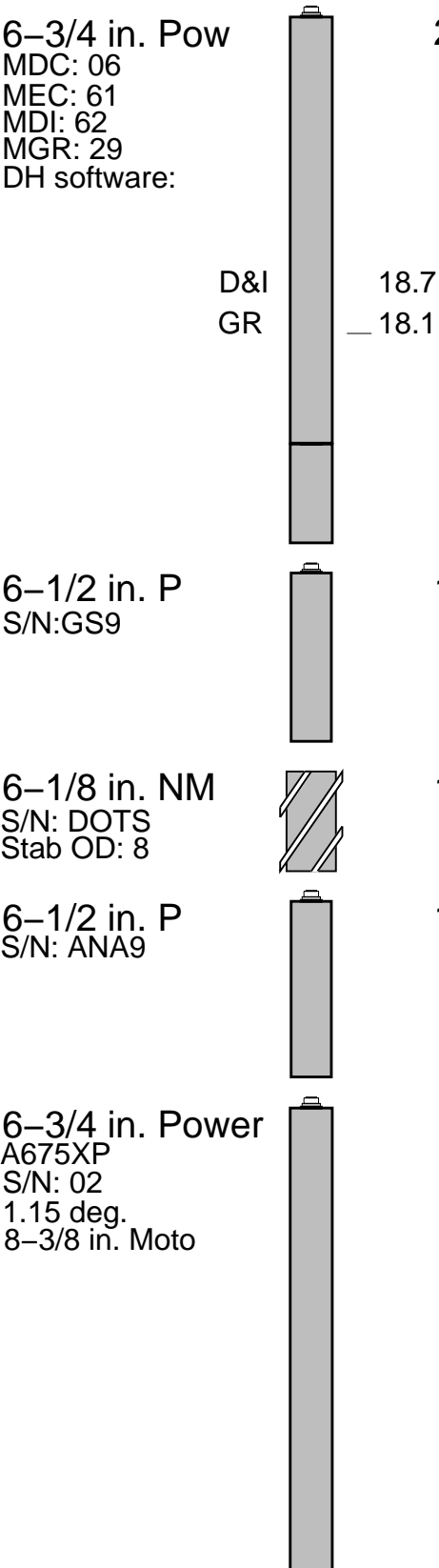
DOWNHOLE E

DOWNHOLE EQ

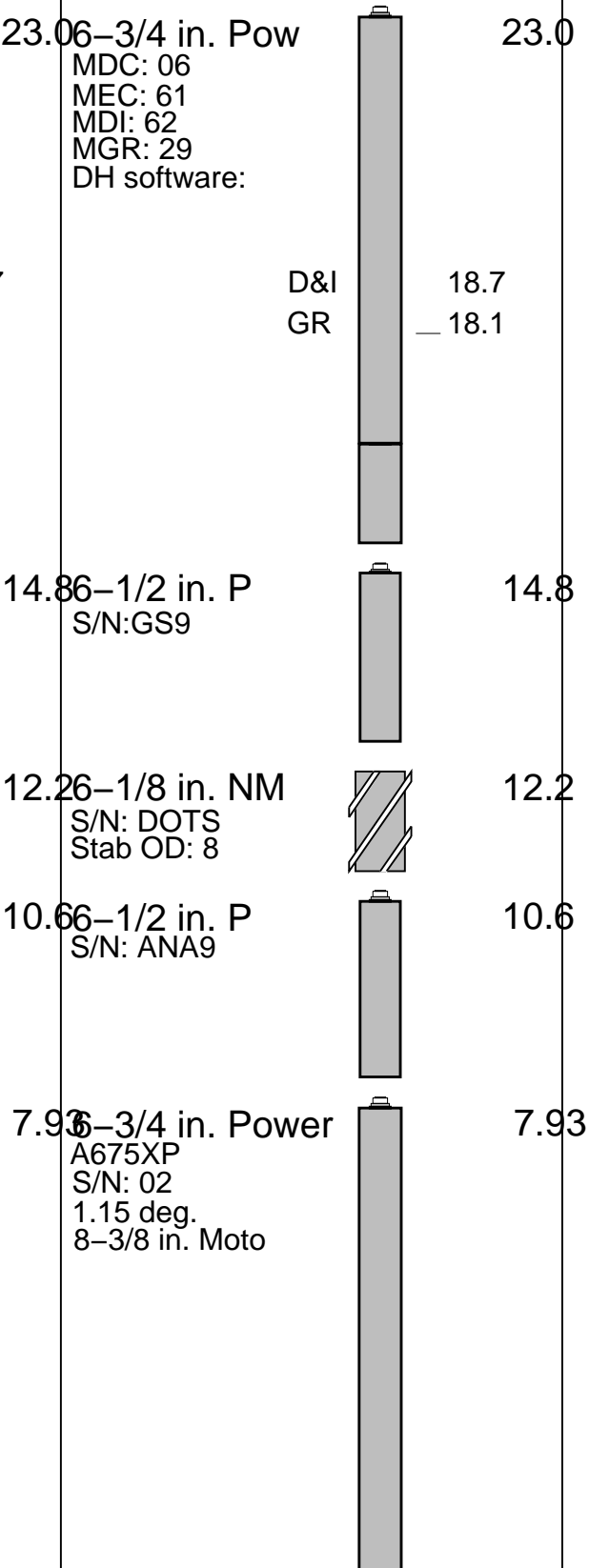
<div>6-3/4 in. Pow</div> <div>MDC: Z40</div> <div>MEC: 10</div> <div>MDI: 108</div> <div>MGR: 14</div> <div>DH Software:</div> <div>D&amp;I 18.6</div> <div>GR 18.0</div> <div></div>	<div>22.96-3/4 in. Pow</div> <div>MDC: Z40</div> <div>MEC: 10</div> <div>MDI: 108</div> <div>MGR: 14</div> <div>DH Software:</div> <div>D&amp;I 18.7</div> <div>GR 18.0</div> <div></div>	<div>23.06-3/4 in. Pow</div> <div>MDC: Z40</div> <div>MEC: 10</div> <div>MDI: 108</div> <div>MGR: 14</div> <div>DH Software:</div> <div>D&amp;I 18.7</div> <div>GR 18.0</div> <div></div>
<div>6-1/2 in. P</div> <div>S/N: GS9</div> <div></div>	<div>14.56-3/4 in. P</div> <div>S/N: GS9</div> <div></div>	<div>14.56-3/4 in. P</div> <div>S/N: GS9</div> <div></div>
<div>6-1/8 in. NM</div> <div>S/N: DOTS</div> <div>Stab OD: 8</div> <div></div>	<div>11.86-3/4 in. NM</div> <div>S/N: DOTS</div> <div>Stab OD: 8</div> <div></div>	<div>11.96-3/4 in. NM</div> <div>S/N: DOTS</div> <div>Stab OD: 8</div> <div></div>
<div>6-1/2 in. P</div> <div>S/N: ANA 9</div> <div></div>	<div>10.66-3/4 in. P</div> <div>S/N: ANA 9</div> <div></div>	<div>10.66-3/4 in. P</div> <div>S/N: ANA 9</div> <div></div>
<div>6-3/4 in. Power</div> <div>A675XP</div> <div>S/N: 02</div> <div>1.15 deg.</div> <div>8-3/8 in. Moto</div> <div></div>	<div>7.96-3/4 in. Power</div> <div>A675XP</div> <div>S/N: 02</div> <div>1.15 deg.</div> <div>8-3/8 in. Moto</div> <div></div>	<div>7.96-3/4 in. Power</div> <div>A675XP</div> <div>S/N: 02</div> <div>1.15 deg.</div> <div>8-3/8 in. Moto</div> <div></div>



DOWNHOLE EQ



DOWNHOLE E



Smith Inse

8-1/2 in

FG20 S/N: M

Maximum string diam

All lengths in



0.00

0.25

Smith Inse

8-1/2 in

GF30 S/N: M

Maximum string diam

All lengths in



0.00

0.25

# FLA-A2a RT 1:500MD

IDEAL Version: ID8\_OC\_07 <MD> Vertical Scale: 1:500

Graphics File Created: 15-Sep-2003 14:54

## PIP SUMMARY

GR(TM) PIP

ROP\*5 (ROP5)  
(M/HR)

GR(TM) (GRM1)  
(GAPI)

200 0

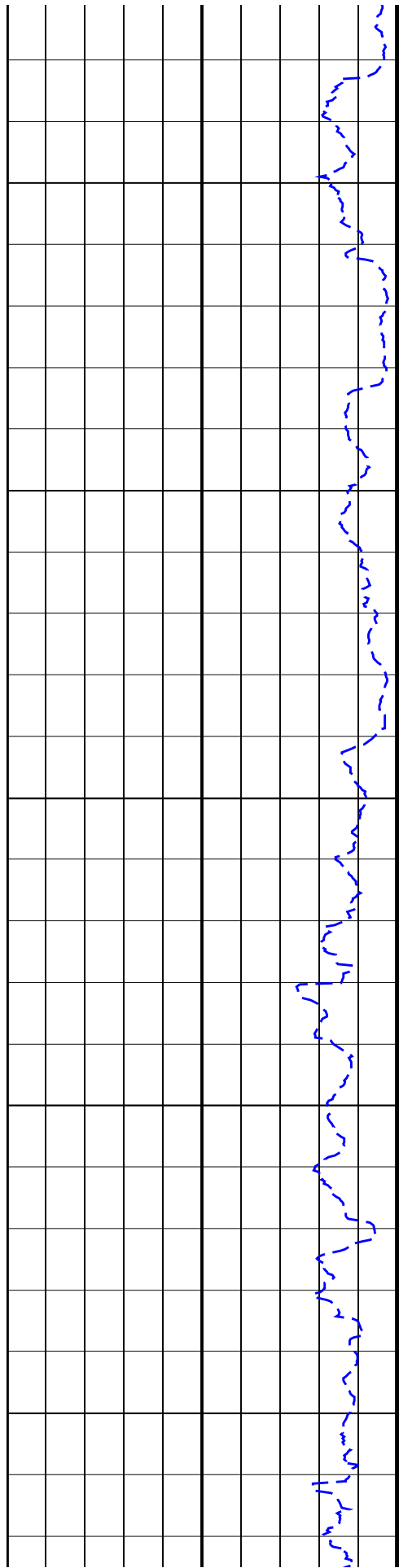
0 400

1350

1400

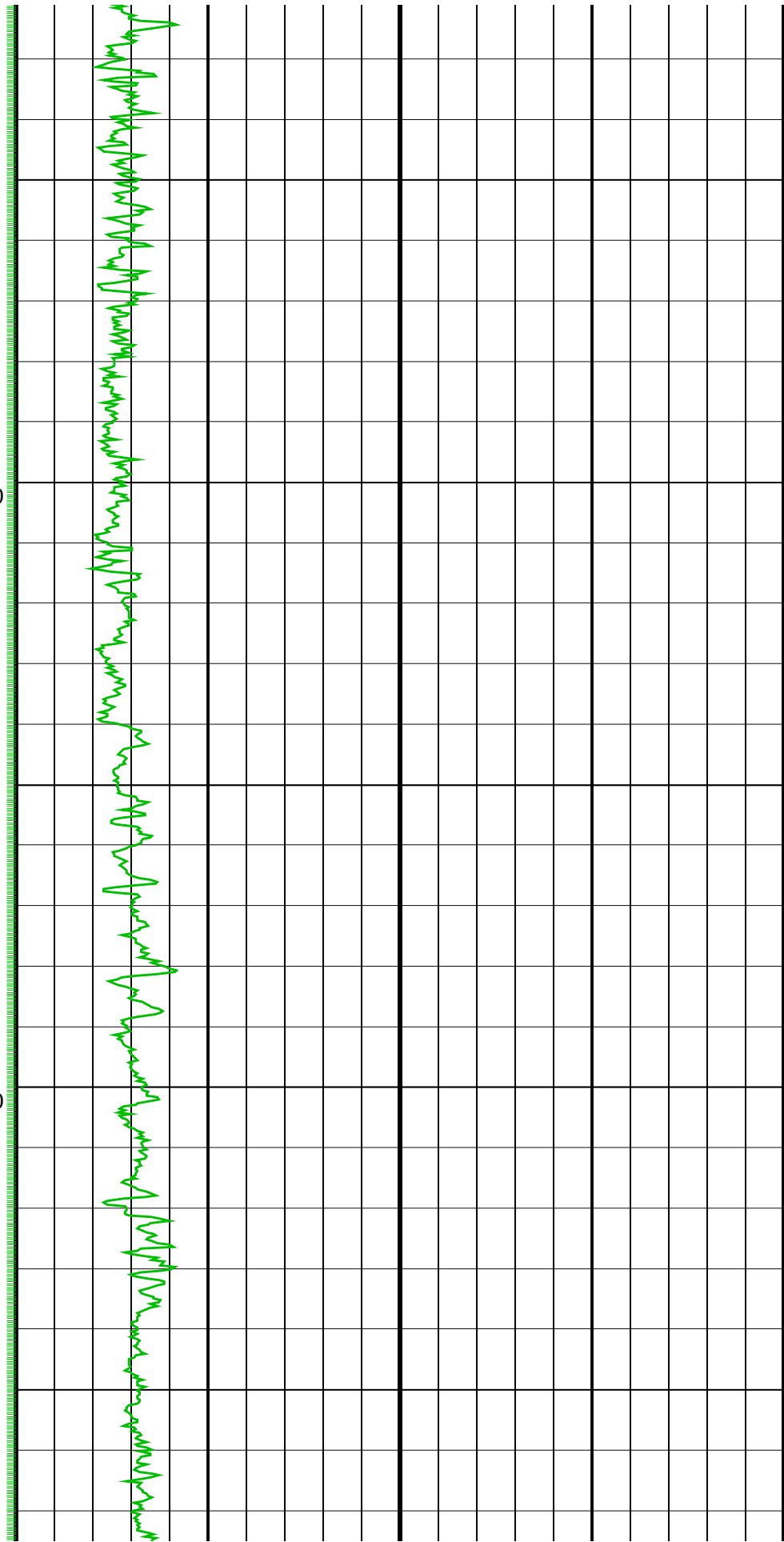
GR Logged behind casing to 1350m.

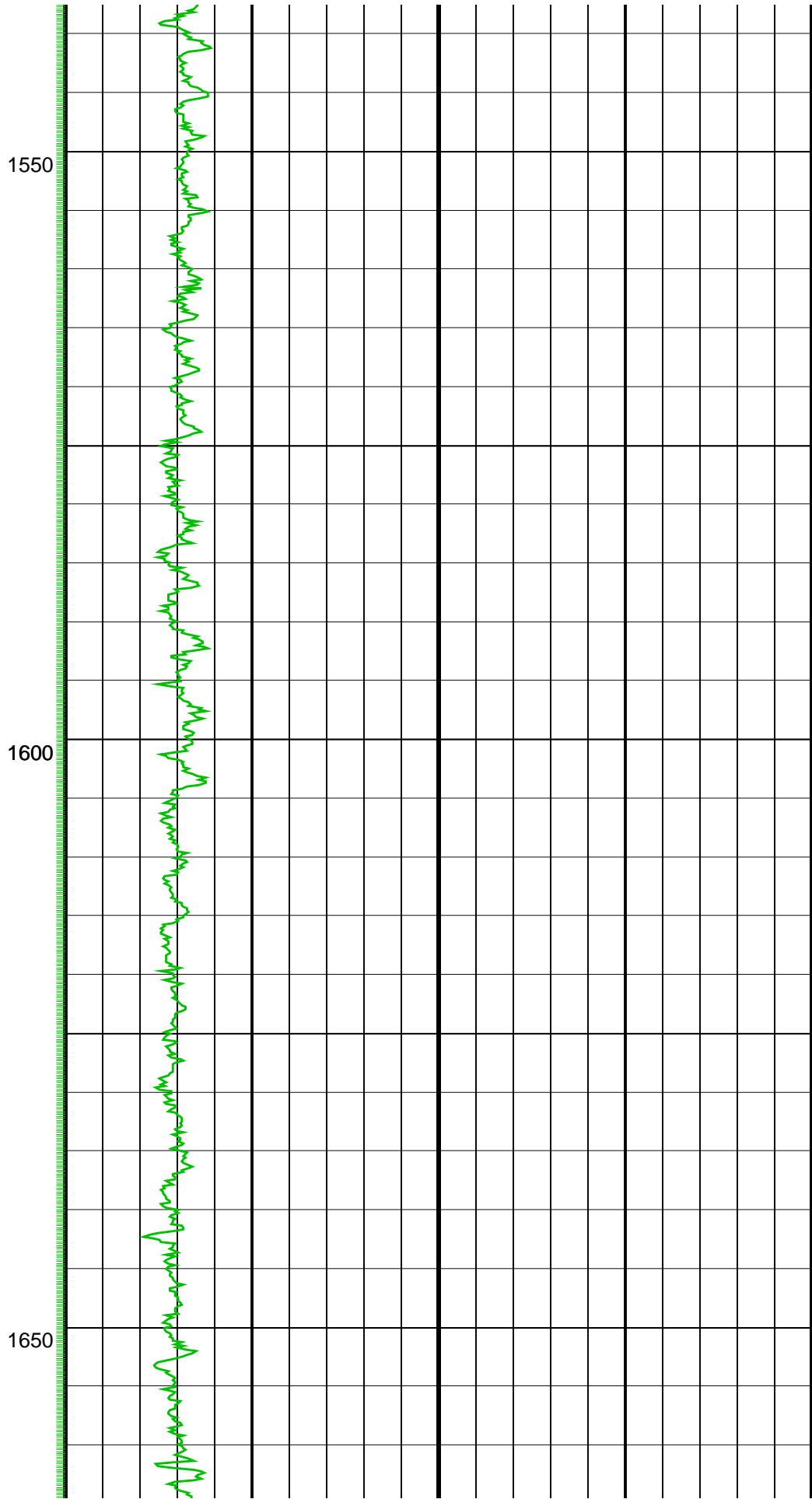
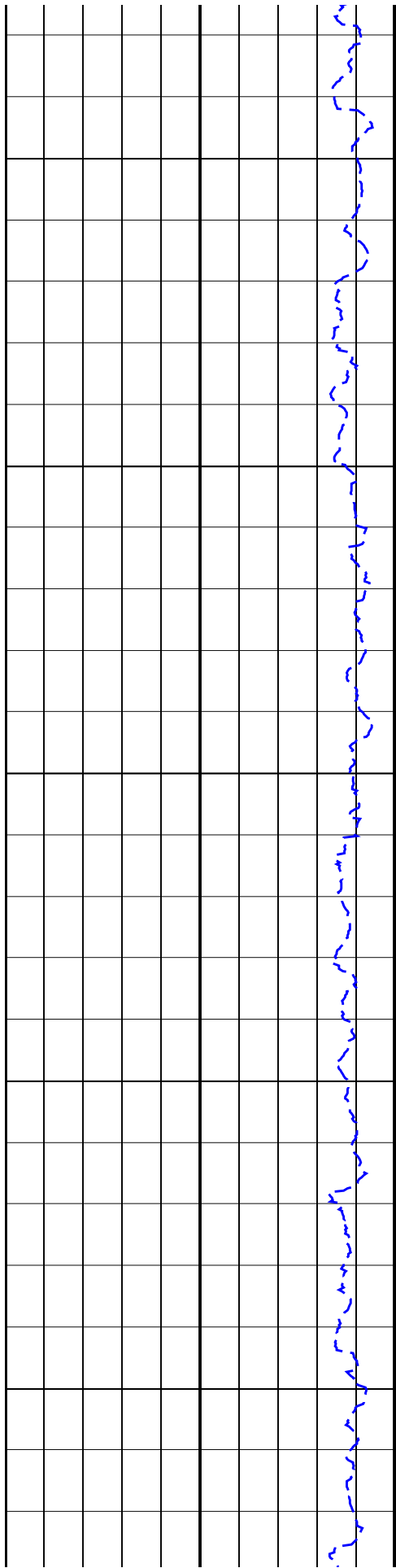
9-5/8 in. Casing shoe at 1350m



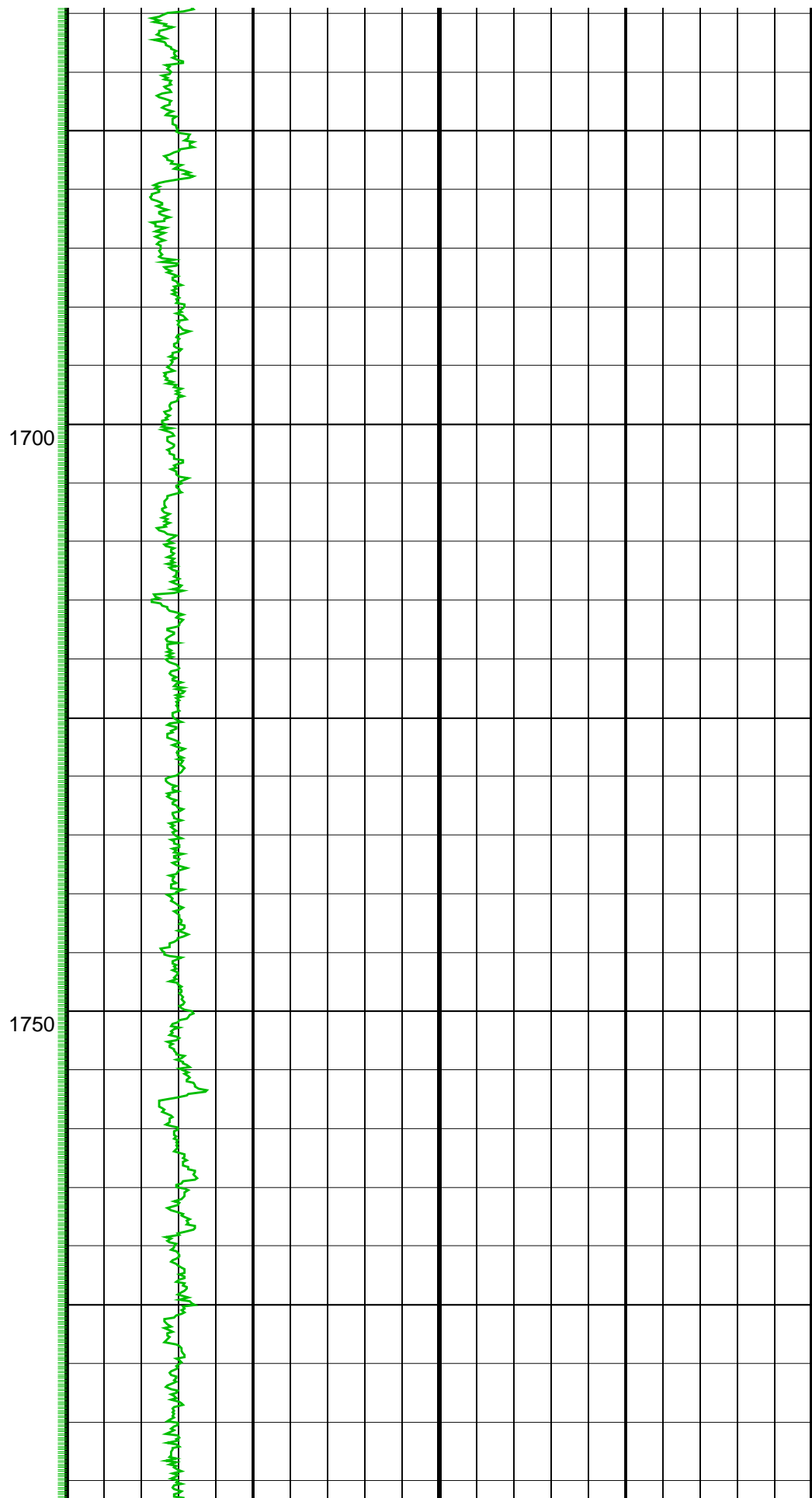
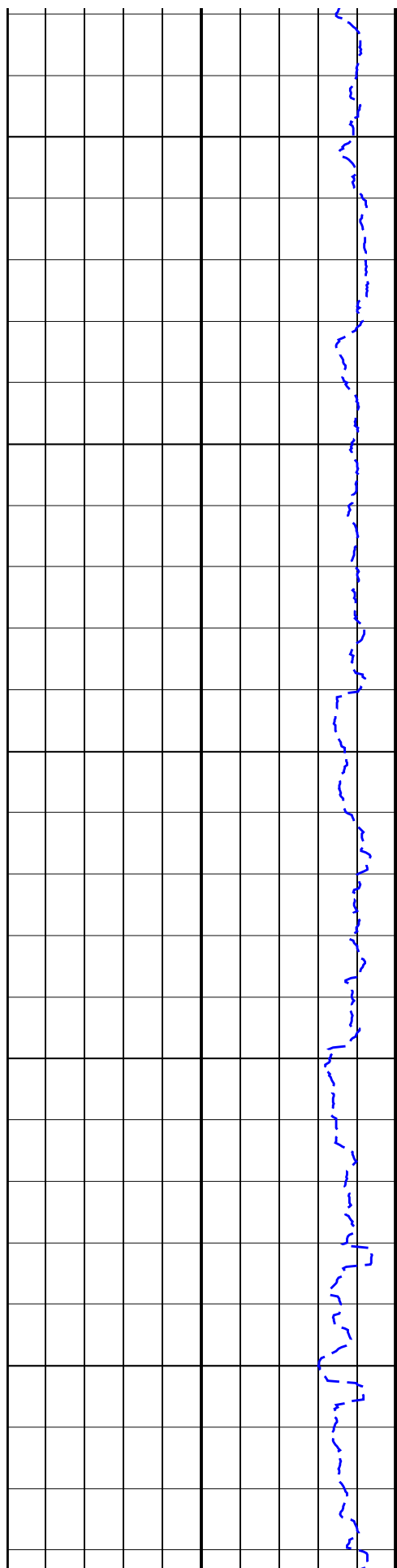
1450

1500

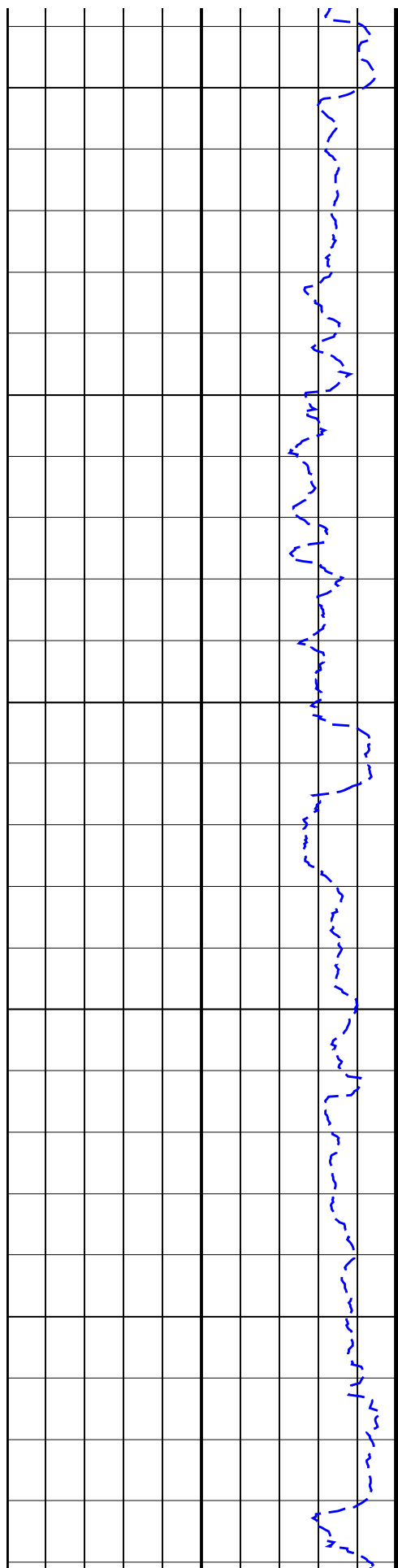






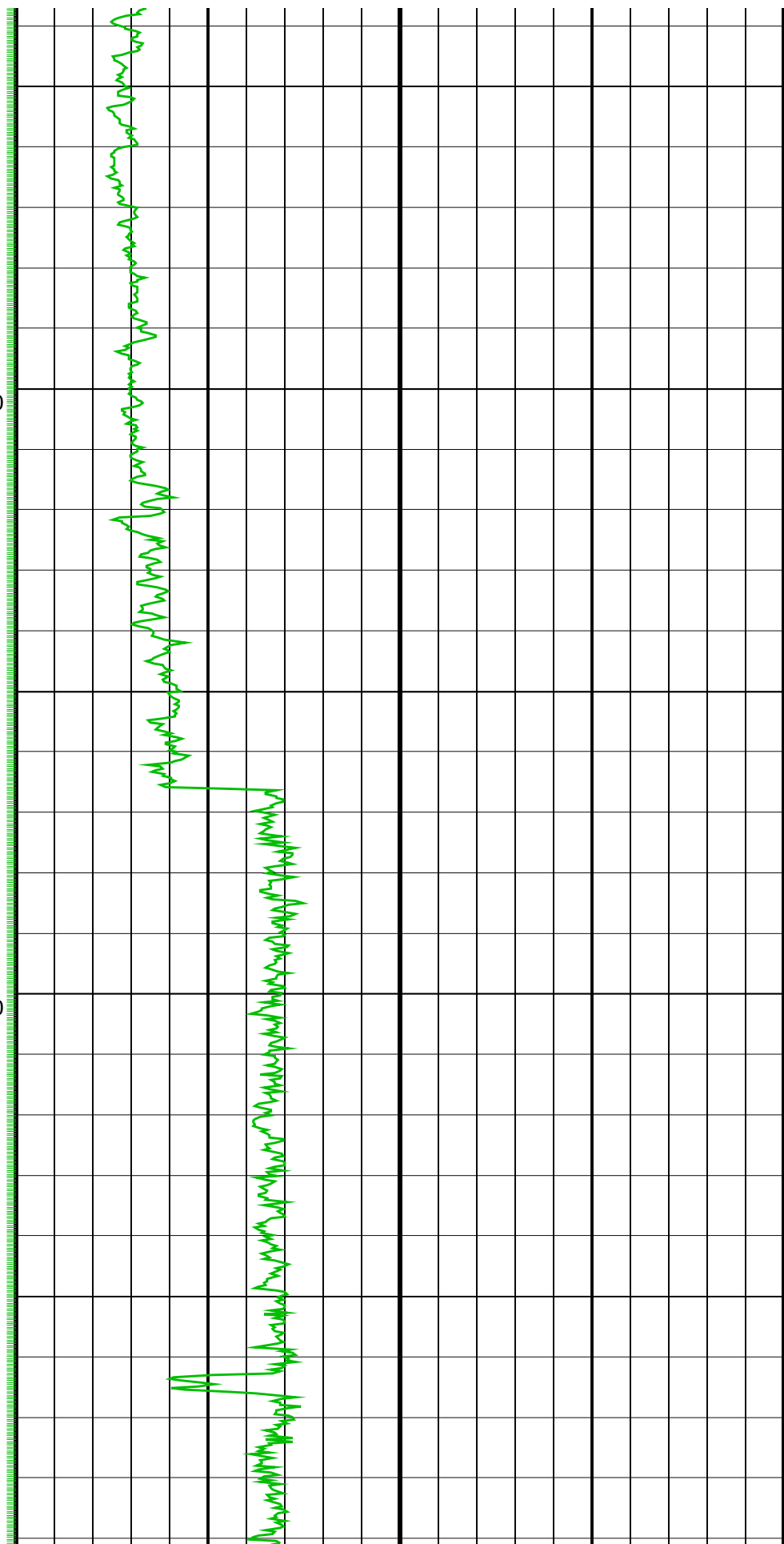


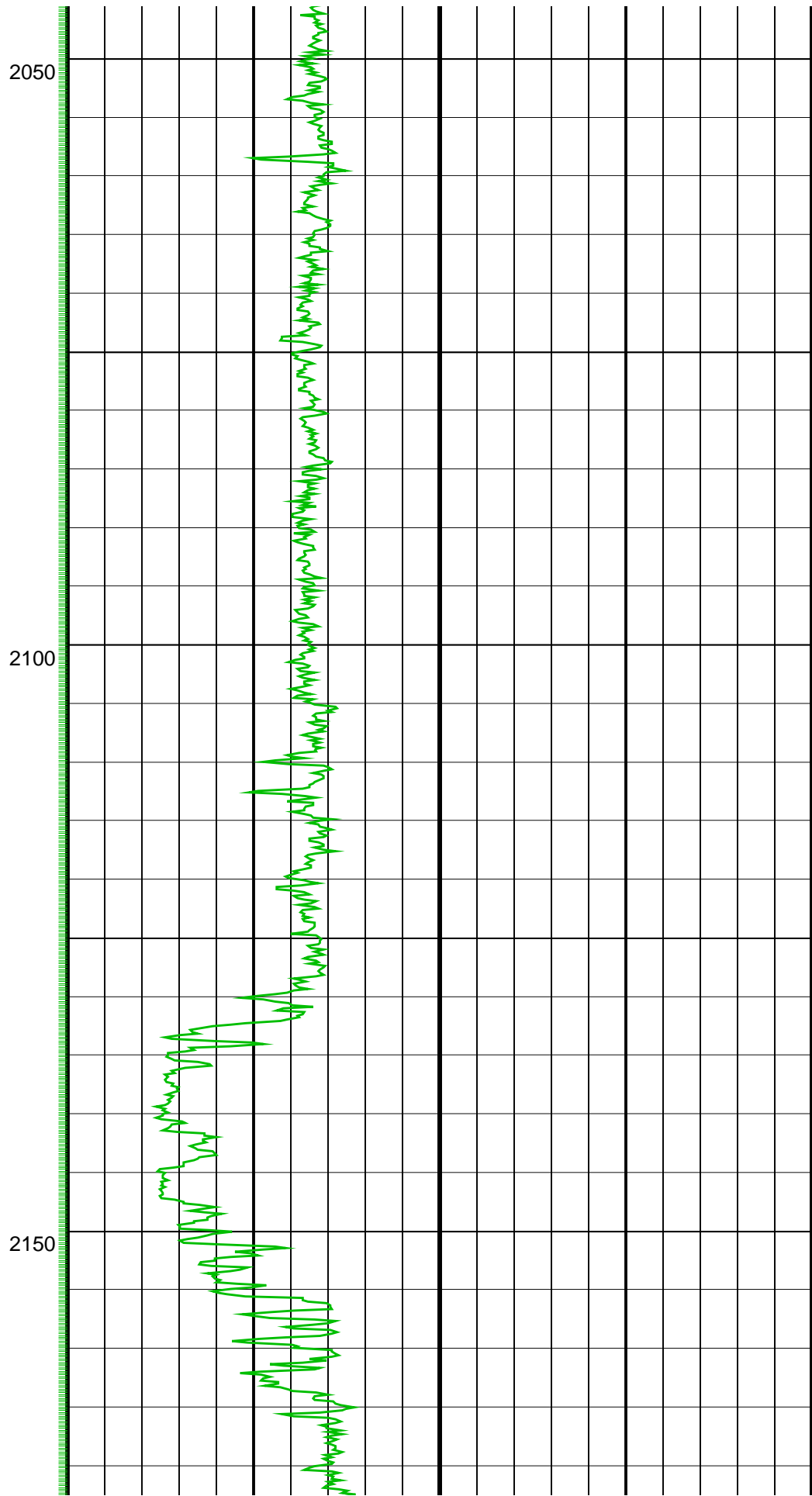
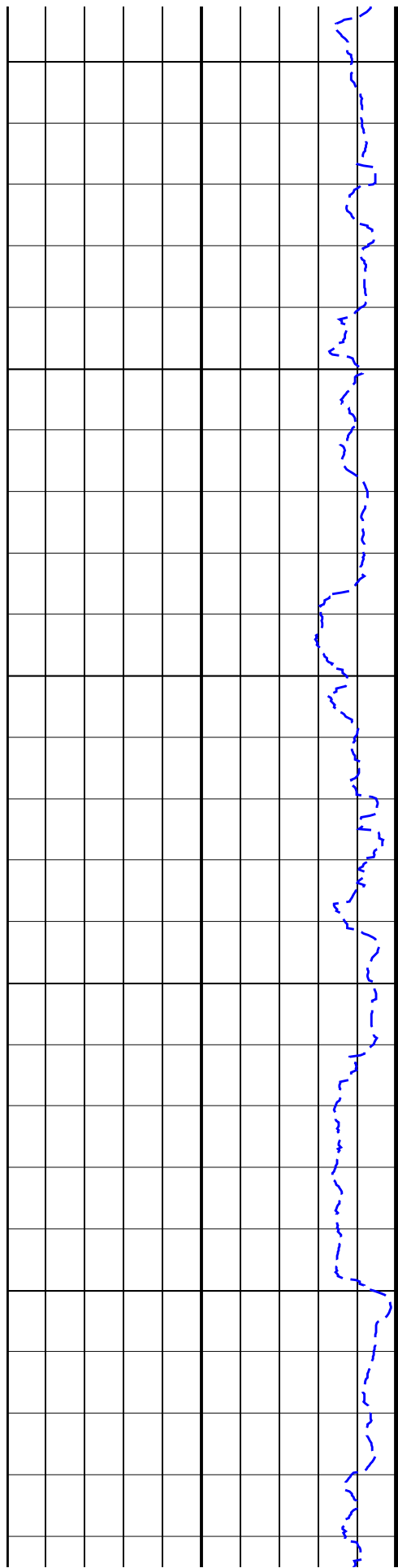


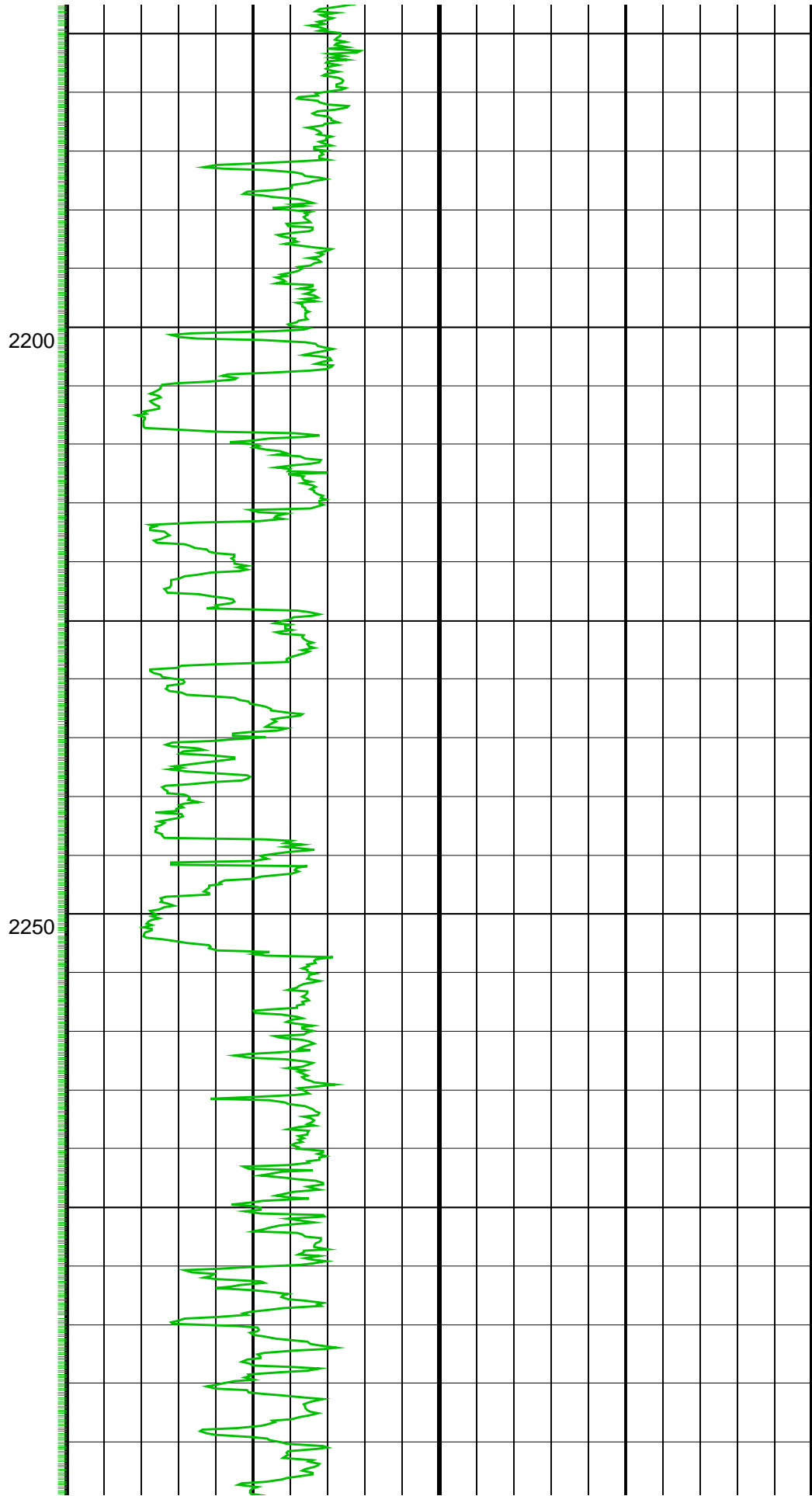
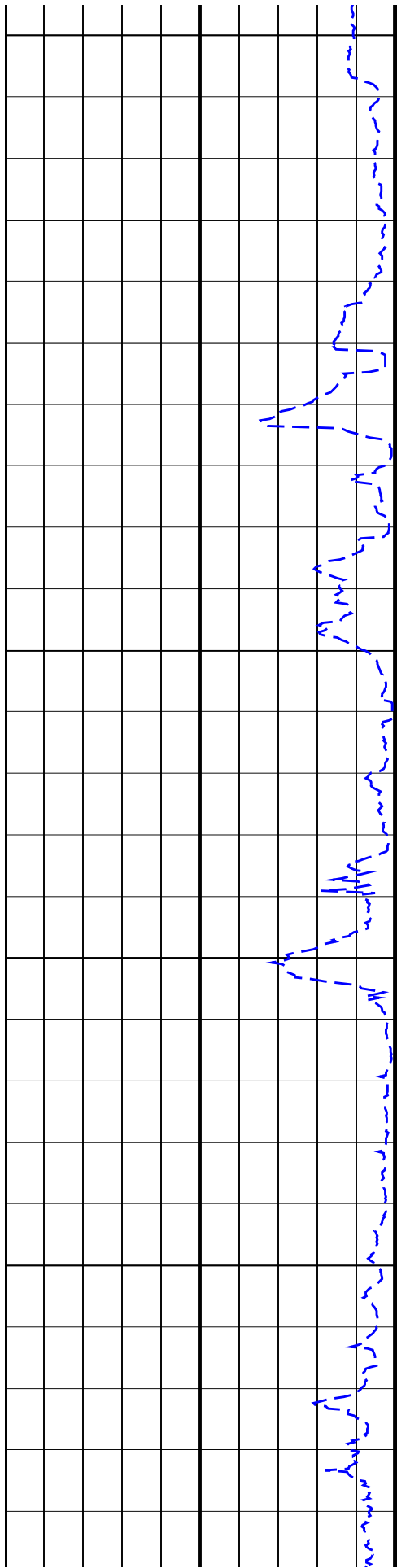


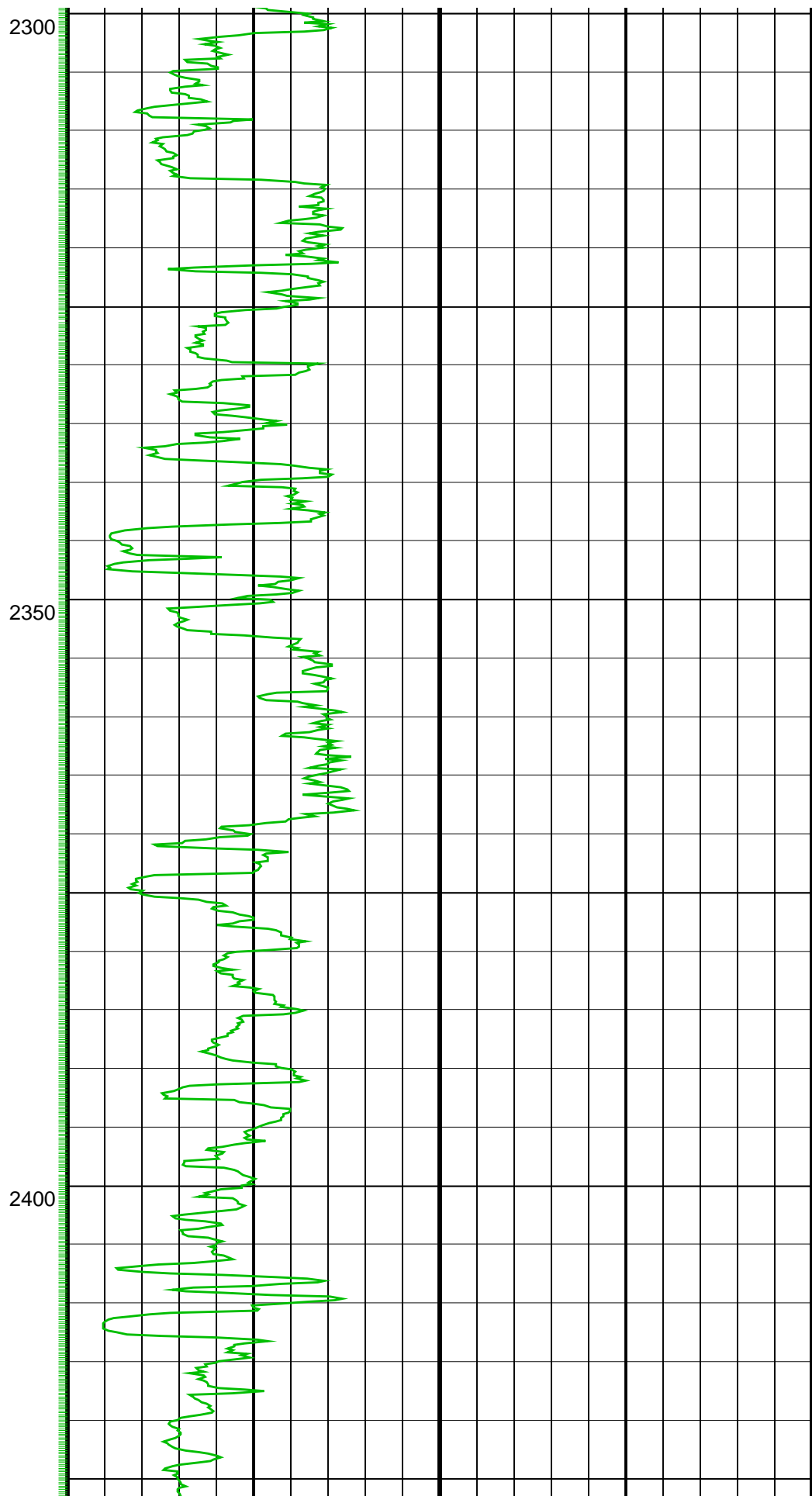
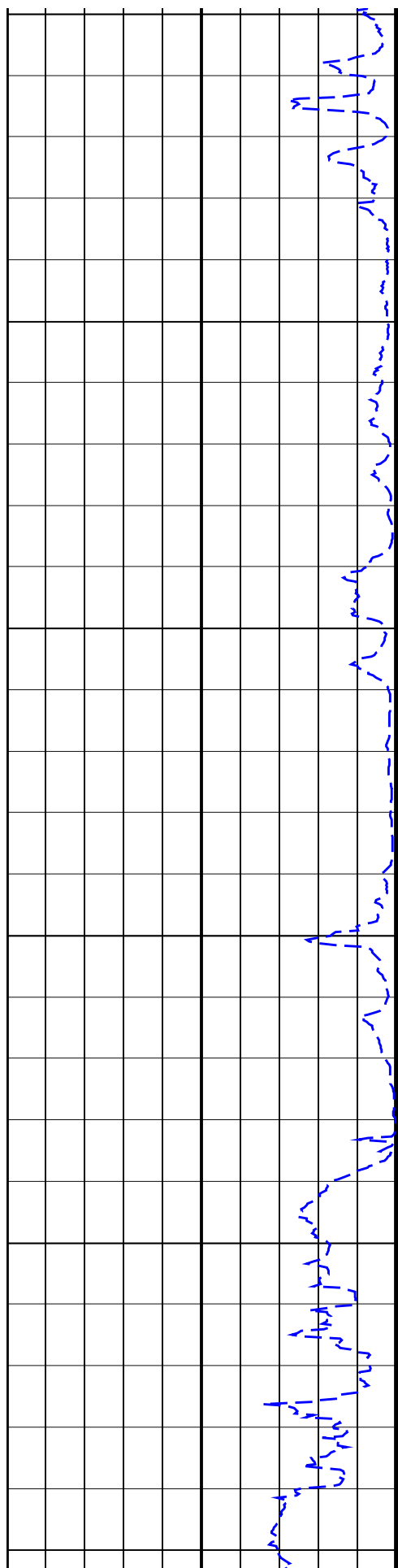
1950

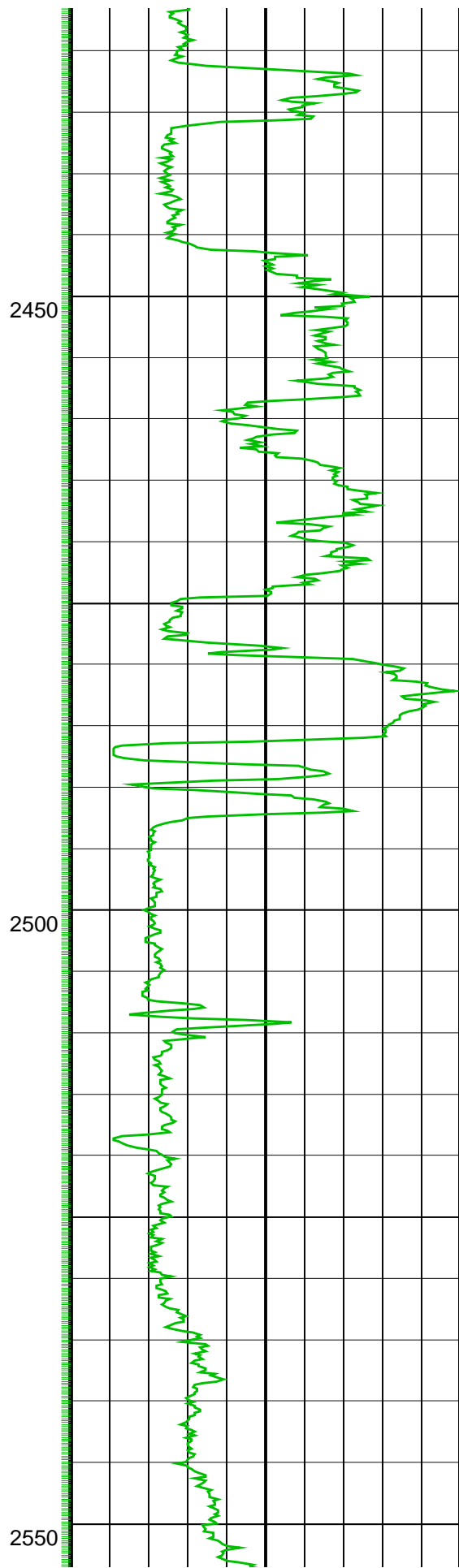
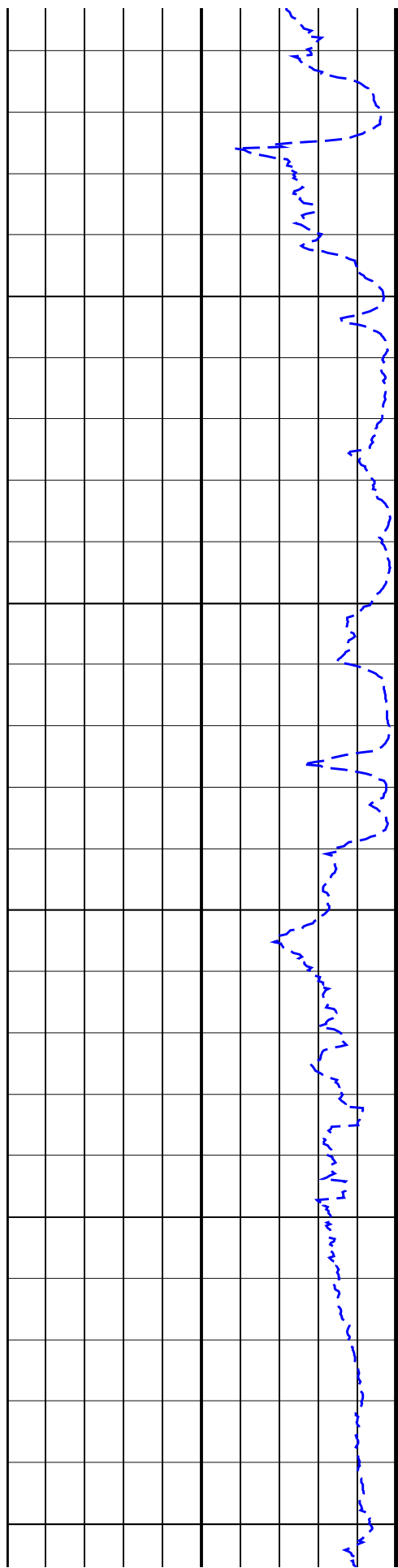
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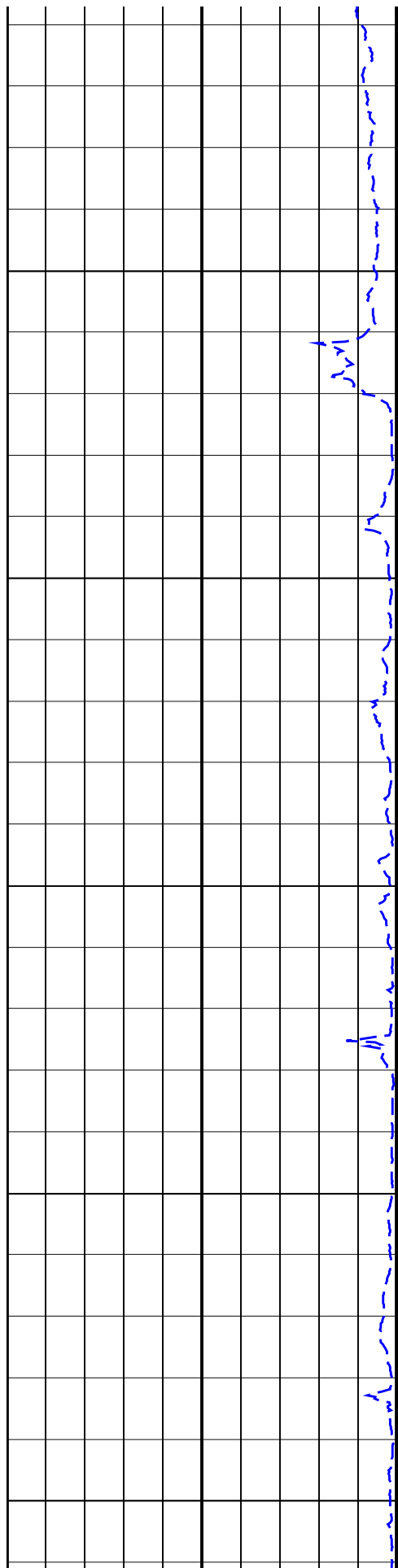






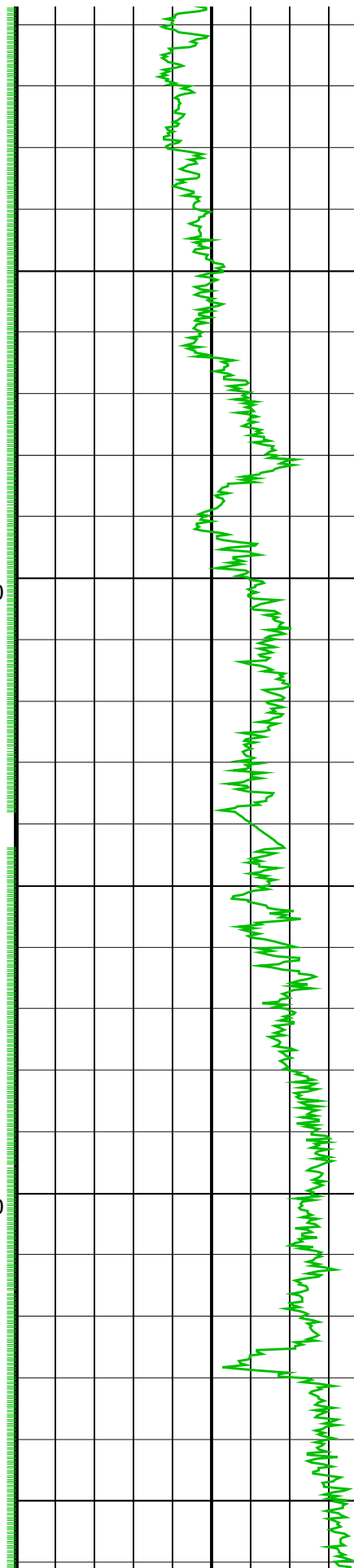






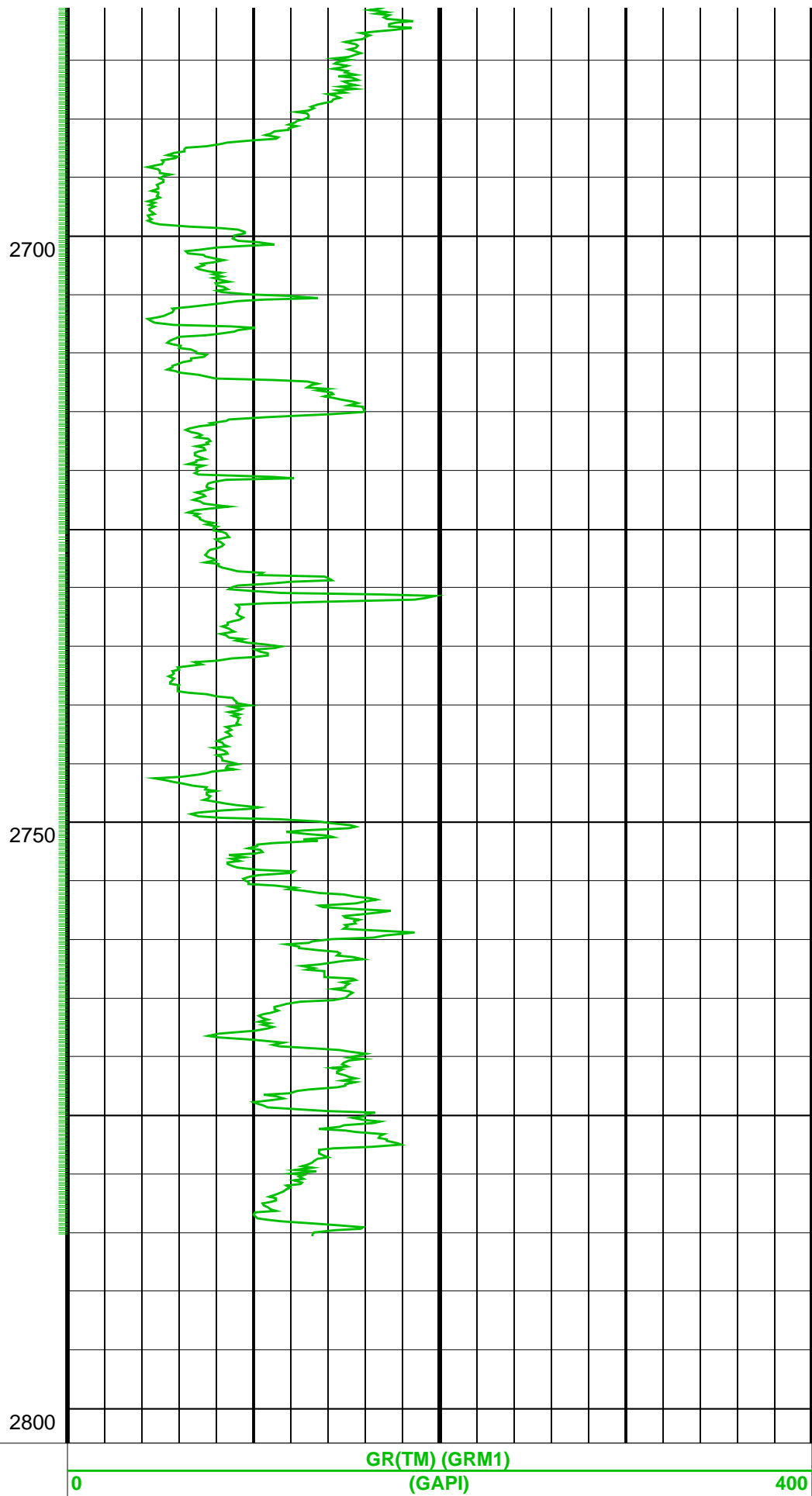
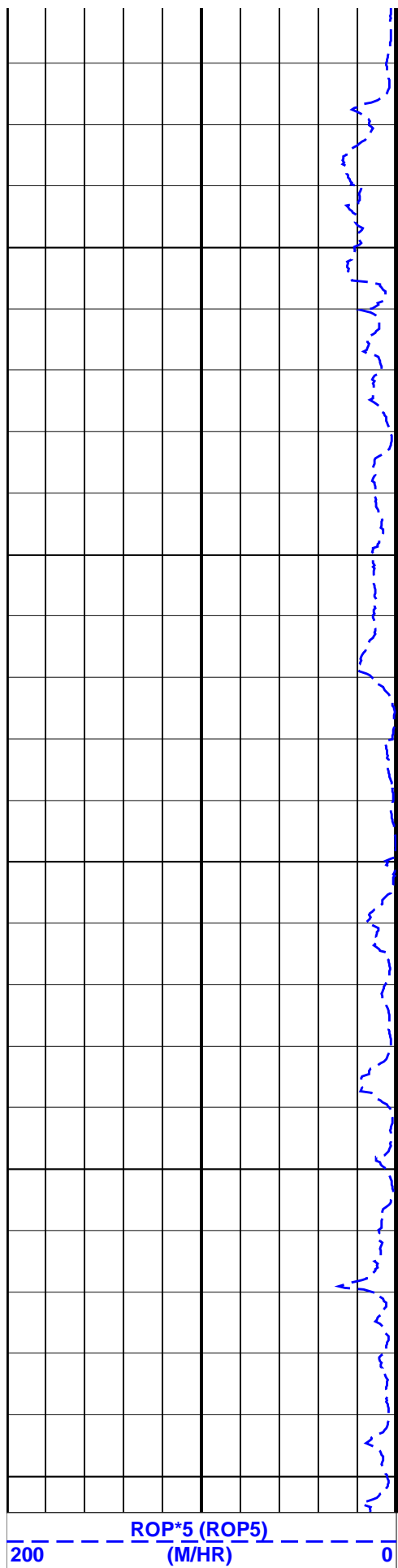
2600

2650



See Remarks for Run 4





# PIP SUMMARY

GR(TM) PIP

## SCHLUMBERGER

Survey report 15-Sep-2003 11:02:46 Page 1 of 3

Client.....: ESSO Australia  
Field.....: FLA GDA 94

Well.....: FLA-A2a Spud date.....: 03-Sep-03  
API number.....: Last survey date.....: 15-Sep-03  
Engineer.....: J.Dolan/O.Radicevic/D.Hastie Total accepted surveys....: 54  
MD of first survey.....: 1350.00 m  
RIG.....: ISDL 453 MD of last survey.....: 2803.00 m  
STATE.....: VICTORIA

----- Survey calculation methods ----- Geomagnetic data -----  
Method for positions.....: Minimum curvature Magnetic model.....: BGM version 2002  
Method for DLS.....: Mason & Taylor Magnetic date.....: 02-Sep-2003  
Magnetic field strength...: 1200.85 HCNT  
----- Depth reference ----- Magnetic dec (+E/W-).....: 13.22 degrees  
Permanent datum.....: Mean Sea Level Magnetic dip.....: -68.76 degrees  
Depth reference.....: Driller's Pipe Tally  
GL above permanent.....: -93.00 m ----- MWD survey Reference Criteria -----  
KB above permanent.....: -15240.00 m Reference G.....: 1000.03 mGal  
DF above permanent.....: 33.85 m Reference H.....: 1200.85 HCNT  
Reference Dip.....: -68.76 degrees  
Tolerance of G.....: (+/-) 2.50 mGal  
Tolerance of H.....: (+/-) 6.00 HCNT  
Tolerance of Dip.....: (+/-) 0.45 degrees  
----- Corrections -----  
Magnetic dec (+E/W-).....: 13.22 degrees  
Grid convergence (+E/W-)..: -0.89 degrees  
Total az corr (+E/W-).....: 14.11 degrees  
Azimuth from rotary table to target: 297.15 degrees (Total az corr = magnetic dec - grid conv)  
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

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SCHLUMBERGER Survey Report

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Seq	Measured	Incl	Azimuth	Course	TVD	Vertical	Displ	Displ	Total	At	DLS	Srvy	Tool
#	depth	angle	angle	length	depth	section	+N/S-	+E/W-	displ	Azim	(deg/	tool	Corr
-	(m)	(deg)	(deg)	(m)	(m)	(m)	(m)	(m)	(deg)	10m)	type	(deg)	
1	1350.00	16.46	221.99	0.00	1307.62	62.86	-215.88	-179.26	280.60	219.71	1.57	TIP	None
2	1374.40	13.55	232.15	24.40	1331.19	64.95	-220.20	-183.83	286.85	219.86	4.81	GYR	None
3	1411.73	9.13	256.70	37.33	1367.80	69.06	-223.57	-190.17	293.51	220.38	5.19	MWD	None
4	1440.12	8.96	275.09	28.39	1395.85	72.82	-223.90	-194.57	296.62	220.99	3.05	MWD	None
5	1469.06	9.09	292.17	28.94	1424.43	77.19	-222.83	-198.93	298.71	221.76	2.77	MWD	None
6	1497.91	8.97	296.87	28.85	1452.92	81.71	-220.95	-203.05	300.08	222.58	0.78	MWD	None
7	1526.50	10.31	309.60	28.59	1481.11	86.44	-218.32	-207.01	300.86	223.48	2.63	MWD	None
8	1555.14	11.41	326.61	28.64	1509.25	91.41	-214.32	-210.54	300.43	224.49	3.53	MWD	None
9	1584.00	11.80	331.76	28.86	1537.52	96.32	-209.33	-213.51	299.01	225.57	1.15	MWD	None
10	1612.87	11.87	331.37	28.87	1565.77	101.21	-204.13	-216.33	297.43	226.66	0.11	MWD	None
11	1641.74	11.93	331.51	28.87	1594.02	106.12	-198.90	-219.18	295.97	227.78	0.07	MWD	None
12	1670.80	11.79	331.23	29.06	1622.46	111.06	-193.66	-222.04	294.62	228.91	0.16	MWD	None
13	1699.15	11.74	330.47	28.35	1650.22	115.87	-188.61	-224.85	293.48	230.01	0.17	MWD	None
14	1728.09	11.53	329.93	28.94	1678.56	120.76	-183.54	-227.75	292.51	231.14	0.25	MWD	None
15	1757.04	11.41	329.44	28.95	1706.94	125.62	-178.57	-230.66	291.71	232.25	0.16	MWD	None
16	1785.60	11.25	327.87	28.56	1734.94	130.40	-173.78	-233.58	291.13	233.35	0.36	MWD	None
17	1814.31	11.16	332.62	28.71	1763.10	135.07	-168.94	-236.34	290.52	234.44	0.97	MWD	None
18	1843.05	11.19	331.76	28.74	1791.30	139.63	-164.02	-238.94	289.82	235.53	0.18	MWD	None
19	1871.62	11.06	331.55	28.57	1819.33	144.17	-159.16	-241.56	289.28	236.62	0.14	MWD	None
20	1900.06	10.82	332.11	28.44	1847.25	148.61	-154.41	-244.11	288.84	237.69	0.28	MWD	None
21	1928.69	11.77	330.34	28.63	1875.33	153.26	-149.49	-246.81	288.55	238.80	1.06	MWD	None

22	1957.49	11.60	329.37	28.80	1903.53	158.17	-144.45	-249.74	288.51	239.95	0.27	MWD	None
23	1986.11	12.40	330.46	28.62	1931.53	163.17	-139.30	-252.72	288.57	241.14	0.87	MWD	None
24	2015.06	12.13	330.42	28.95	1959.82	168.31	-133.95	-255.75	288.71	242.36	0.28	MWD	None
25	2043.78	13.10	330.59	28.72	1987.84	173.55	-128.49	-258.84	288.98	243.60	1.01	MWD	None
26	2072.44	14.31	331.30	28.66	2015.68	179.19	-122.56	-262.14	289.37	244.94	1.28	MWD	None
27	2101.06	14.00	330.94	28.62	2043.44	184.99	-116.43	-265.52	289.92	246.32	0.34	MWD	None
28	2129.96	15.19	332.71	28.90	2071.40	190.98	-110.00	-268.95	290.58	247.75	1.32	MWD	None
29	2159.25	18.21	334.37	29.29	2099.46	197.75	-102.47	-272.69	291.31	249.41	3.13	MWD	None
30	2187.25	21.60	334.98	28.00	2125.78	205.30	-93.85	-276.77	292.24	251.27	3.64	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 (deg)	At Azim (deg)	DLS (deg)	Srvy Tool	Tool Corr
31	2215.89	24.11	332.81	28.64	2152.17	214.22	-83.87	-281.67	293.89	253.42	2.77	MWD	None
32	2244.50	26.55	331.20	28.61	2178.03	224.27	-73.06	-287.42	296.56	255.74	2.66	MWD	None
33	2272.84	28.75	329.07	28.34	2203.13	235.30	-61.67	-293.98	300.37	258.15	2.55	MWD	None
34	2301.31	32.66	329.75	28.47	2227.60	247.59	-49.15	-301.37	305.35	260.74	4.14	MWD	None
35	2329.86	36.22	329.93	28.55	2251.15	261.18	-35.19	-309.48	311.47	263.51	3.74	MWD	None
36	2359.02	38.38	330.45	29.16	2274.34	275.99	-19.86	-318.26	318.88	266.43	2.25	MWD	None
37	2371.48	38.87	333.19	12.46	2284.07	282.50	-13.10	-322.11	322.19	267.69	1.24	MWD	None
38	2388.13	38.50	329.86	16.65	2297.07	291.24	-4.09	-327.31	326.91	269.32	0.76	MWD	None
39	2416.83	42.45	331.83	28.70	2318.90	306.73	12.18	-336.37	336.18	272.12	4.34	MWD	None
40	2445.44	43.87	331.98	28.61	2339.77	322.78	29.47	-345.55	346.44	274.91	1.52	MWD	None
41	2474.07	38.51	335.08	28.63	2361.31	337.94	46.34	-353.93	356.64	277.50	5.95	MWD	None
42	2502.61	38.45	335.48	28.54	2383.65	351.91	62.48	-361.36	366.41	279.85	0.27	MWD	None
43	2531.19	39.29	335.30	28.58	2405.90	365.99	78.78	-368.82	376.85	282.10	0.89	MWD	None
44	2559.97	39.87	335.27	28.78	2428.08	380.42	95.44	-376.49	388.12	284.26	0.60	MWD	None
45	2589.01	38.93	335.13	29.04	2450.52	394.93	112.17	-384.22	399.99	286.31	0.98	MWD	None
46	2616.01	39.31	334.73	27.00	2471.47	408.40	127.60	-391.44	411.45	288.09	0.51	MWD	None
47	2643.54	39.80	334.52	27.53	2492.70	422.31	143.44	-398.95	423.70	289.81	0.51	MWD	None
48	2675.58	40.05	334.10	32.04	2517.27	438.70	161.97	-407.87	438.61	291.70	0.34	MWD	None
49	2704.02	40.51	333.56	28.44	2538.97	453.44	178.47	-415.98	452.41	293.26	0.61	MWD	None
50	2726.90	40.71	333.58	22.88	2556.33	465.43	191.81	-422.61	463.87	294.45	0.26	MWD	None
51	2733.21	40.62	333.55	6.31	2561.12	468.74	195.49	-424.44	467.06	294.77	0.44	MWD	None
52	2761.16	39.98	333.49	27.95	2582.44	483.29	211.67	-424.44	481.30	296.12	0.69	MWD	None
53	2783.99	38.26	333.88	22.83	2600.15	494.87	224.58	-438.88	492.79	297.14	2.28	MWD	None
54	2803.00	37.00	334.20	19.01	2615.20	504.15	235.02	-443.97	502.12	297.93	2.01	Projection to TD	

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Company: **EESO Australia Pty. Ltd.**

**Schlumberger**

Well: **FLA-A2a**

Field: **Flounder GDA 94**

Rig: **ISDL 453**

State: **VICTORIA**

**Gamma Ray Service  
1:500 Measured Depth  
Real Time Log**

