

Company: ENI U&TS

Well: BONACCIA NW 1DIR

Field: BONACCIA

Log: FSMT-E

Country: Italy

FSMT-E Formation Subsidence Monitoring Tool 1150 – 700 m

Log: FSMT-E
Field: BONACCIA
Location: Offshore Adriatic Zona "A"
Well: BONACCIA NW 1DIR
Company: ENI U&TS

LOCATION	
Offshore Adriatic Zona "A"	Elev.: K.B.
X: 4822742.824 m	G.L. -86.00 m
Y: 2466380.473 m	D.F. 31.50 m
Permanent Datum: _____	MSL _____
Log Measured From: _____	DF _____
Drilling Measured From: _____	DF _____
State: _____	Max. Well Deviation _____
Rigless \MAST	21.99 deg

Logging Date	23-Nov-2018	Longitude	14°20'8.561" E	Latitude	34°35'59.751" N
Run Number	3 FSMT				
Depth Driller	1365 m				
Schlumberger Depth					
Bottom Log Interval	1150 m				
Top Log Interval	700 m				
Casing Fluid Type	Water				
Salinity					
Density	1.03 g/cm3				
Fluid Level	1105 m				
BIT/CASING/TUBING STRING					
Bit Size	12.250 in				
From	706 m				
To	1365 m				
Casing/Tubing Size	2.875 in				
Weight	6.4 lbn/ft				
Grade	P105				
From	0 m				
To	1121 m				
Maximum Recorded Temperatures	34 degC				
Logger On Bottom	Time				
Unit Number	729	ITPE			
Recorded By	M. Civitarese				
Witnessed By	L. Milia				

		Run 1	Run 2	Run 3
PVT DATA				
Oil Density				
Water Salinity				
Gas Gravity				
Bo				
Bw				
1/Bq				
Bubble Point Pressure				
Bubble Point Temperature				
Solution GOR				
Maximum Deviation	21.99 deg			
CEMENTING DATA				
Primary/Squeeze	Primary			
Casing String No				
Lead Cement Type				
Volume				
Density				
Water Loss				
Additives				
Tail Cement Type				
Volume				
Density				
Water Loss				
Additives				
Expected Cement Top				
Logging Date				
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Fluid Type				
Salinity				
Density				
Fluid Level				
BIT/CASING/TUBING STRING				
Bit Size				
From				
To				
Casing/Tubing Size				
Weight				
Grade				
From				
To				
Maximum Recorded Temperatures				
Logger On Bottom	Time			
Unit Number	Location			
Recorded By				
Witnessed By				

DEPTH SUMMARY LISTING

Date Created: 7-FEB-2019 9:39:34

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 6743 Calibration Date: 22-10-2017 Calibrator Serial Number: 15 Calibration Cable Type: 2-23ZT Wheel Correction 1: -3 Wheel Correction 2: 0	Type: CMTD-B/A Serial Number: 1080 Calibration Date: 7-9-2018 Calibrator Serial Number: 1080 Number of Calibration Points: 10 Calibration RMS: 9 Calibration Peak Error: 17	Type: 2-23ZT Serial Number: Length: 5000 M Conveyance Method: Wireline Rig Type: Rigless

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	FSMT-E
Reference Log Run Number:	
Reference Log Date:	25-12-2017
Subsequent Trip Down Log Correction:	

Depth Control Remarks

1. All SLB depth control procedure were followed
2. IDW used as primary depth control, Z-Chart as secondary
3.
4.
5.
6.

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1 OS1: PNX OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Log objective: Monitoring Formation Subsidence by time laps technique	
Log correlated with FSMT-E Run 1 performed by SLB on 20-Jan-2017	
Tool ID 1.69in, WP used Blue 1800-2150 lbf. Tool zero at bottom	
Pressure test performed @1500 psi, WHP 66 Bar	
Before calibration performed on 17-Oct-2018	
After calibration to be performed on Jan-2019	
Adapter Flange 3 1/16 10 Kpsi single	

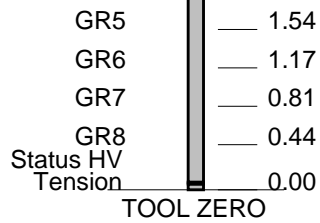
Nr.4 passes performed but 3 used for the final computation					

RUN 1			RUN 2		
SERVICE ORDER #:		DYW3-00033	SERVICE ORDER #:		
PROGRAM VERSION:		19C2-270	PROGRAM VERSION:		
FLUID LEVEL:		1106 m	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	
WITM-A PSC_13MHZ	

DOWNHOLE EQUIPMENT			
MH-22		↑	16.11
MH-22			
AH-38	Detail MT	-	15.31
	TelStatus	-	
	CTEM		15.23
PSPT-1705			15.23
PSC-A			
PSPT-B			
PSTC-A			
PBMS-B	GR		14.10
CQG_F_Mano			
RTD_Thermometer			
GR	Well_Temp		13.17
CCL	CQG Manom		13.06
PBMS	CCL		12.93
	PBMS PSTC		12.71
FSMT-E			12.71
FSMD-B 701			
FSMX-A 701			
FSMX-A 702			
FSMX-A 705	Acc, GR1		11.52
FSMD-C 701	GR2		11.15
BN	GR3		10.79
	GR4		10.42



MAXIMUM STRING DIAMETER 1.69 IN
 MEASUREMENTS RELATIVE TO TOOL ZERO
 ALL LENGTHS IN METERS



FINAL RESULTS

1150 m – 700 m

MAXIS Field Log

Well Name: BONACCIA NW 1DIR
 Run Date : 23-Nov-2018
 Zone Name: FINAL
 Tool String: FSMT-E S/N 701
 Reference Detector: DET1
 File 0: FSMT_3.fsf (Reference File)
 File 1: FSMT_4.fsf
 File 2: FSMT_5.fsf

17-10-2018 : Calibrated Detector Spacings at 22.0°C (m) :
 D12 = 0.369289
 D23 = 0.368878
 D34 = 0.368393
 D45 = 8.895258
 D56 = 0.368495
 D67 = 0.366835
 D78 = 0.370220

Marker spacings for each pass :
 Distance in m between a marker and the adjacent marker below
 Standard Deviation always in mm

Results on all 3 passes in m :
 # Depth Spacing Avg. Std Dev
 (~21 Meas.) (3 passes)

- 0	1151.21		
1	1139.36	11.84220	3.38811
2	1128.86	10.49620	1.09993
3	1118.38	10.47743	1.40605
4	1107.73	10.47926	0.38415
5	1102.45	5.25146	3.03718
6	1091.91	10.52689	2.92012
7	1081.44	10.47114	0.75327
8	1070.90	10.51578	3.18785
9	1060.36	10.49344	5.65499
10	1049.89	10.48442	1.23267
11	1039.42	10.49370	3.38898
12	1028.85	10.51532	4.00592
13	1018.47	10.43213	7.07376
14	1007.98	10.53194	6.67946
15	997.86	10.17560	6.01953
16	992.60	5.25546	8.40725
17	987.30	10.54254	2.22417
18	982.05	10.53333	2.96114
19	976.81	10.49732	2.85156
20	971.57	10.48726	2.73234
21	966.33	10.47613	0.10468
22	961.04	10.53812	1.90566
23	955.80	10.52579	1.22706
24	950.56	10.47988	2.65119
25	940.07	10.48637	2.46093
26	934.85	5.23191	1.28906
27	929.54	10.53222	1.17201
28	924.33	10.52352	0.18125
29	913.91	10.42623	0.71564
30	908.69	5.22118	1.93096
31	898.16	10.51015	0.33081
32	892.90	5.26064	1.37301
33	887.66	10.51049	0.26274
34	882.39	10.51010	1.68947
35	877.15	10.50701	0.50329
36	871.89	10.50768	1.01573
37	866.64	10.51435	0.34786
38	861.37	10.52262	1.39418
39	856.18	10.45554	0.67098
40	850.84	10.52797	4.74040
41	845.68	10.50314	1.23265
42	840.44	10.40497	3.11615
43	829.85	10.54032	1.33195
44	824.73	5.16587	6.00470
45	814.20	10.53266	0.47307
46	803.66	10.55135	2.36177
47	793.19	10.46503	3.35723
48	782.65	10.52956	1.11932
49	772.19	10.47013	1.47513
50	761.74	10.43557	0.62539
51	751.23	10.50467	0.52651
52	740.73	10.49944	0.95635
53	730.23	10.50234	0.16418
54	719.72	10.50265	0.38735
- 55	709.39	10.34213	0.69577

All Peaks were automatically detected with the following parameters:

FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200
FSMT_THRESHOLD = 120

Peak at depth 1028.85 m was processed using the following parameters

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

Peak at depth 1007.98 m was processed using the following parameters

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

Peak at depth 992.60 m was processed using the following parameters

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

Peak at depth 829.85 m was processed using the following parameters

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

Schlumberger

PASS#3
1150m – 700m

MAXIS Field Log

Company: ENI U&TS

Well: BONACCIA NW 1DIR

Input DLIS Files

DEFAULT	FSMT_PSP_032PUP	FN:67	PRODUCER	06-Feb-2019 15:26	1171.3 M	695.2 M
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Output DLIS Files

DEFAULT	FSMT_PSP_005PUP	FN:7	PRODUCER	06-Feb-2019 16:04	1171.3 M	695.2 M
CUSTOMER	FSMT_PSP_005PUC	FN:8	CUSTOMER	06-Feb-2019 16:04	1171.3 M	695.2 M

OP System Version: 19C2-270

FSMT-E	SRPC-FSMTE-JUNE_2013_OP19C2H1_b	PSPT-1705	19C2-270
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PIP SUMMARY

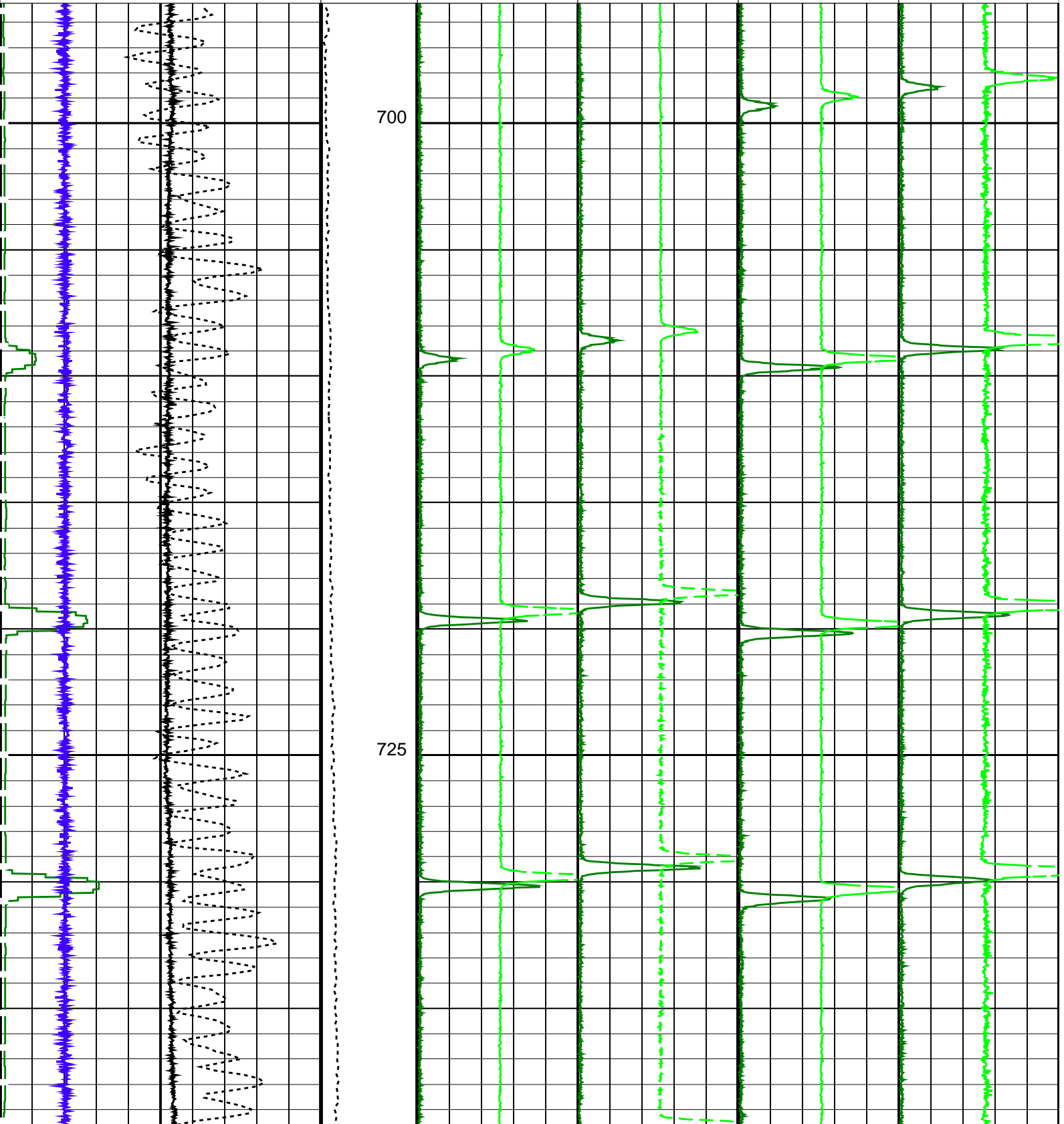
Time Mark Every 60 S

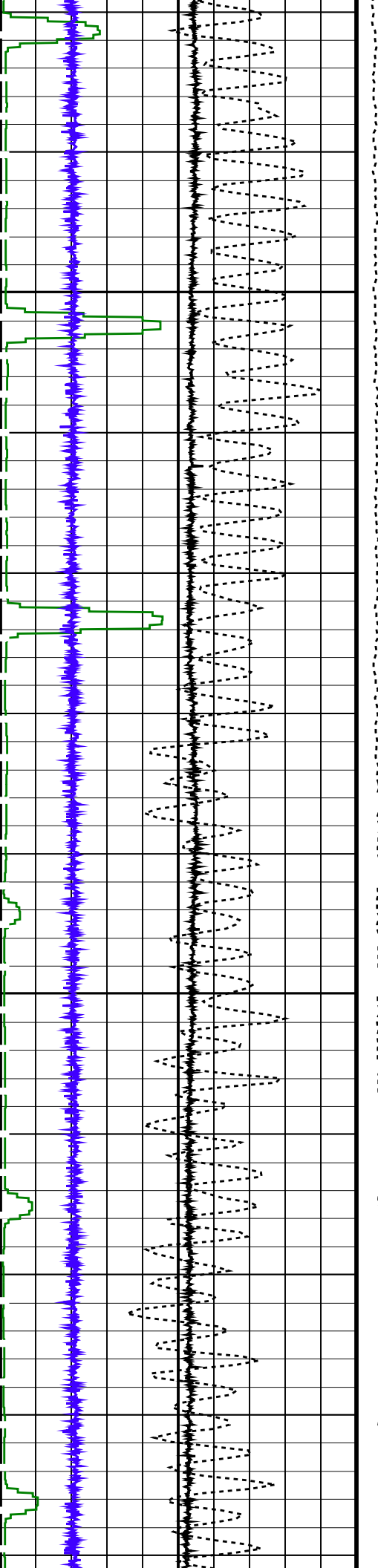
FSMT Detector Temperature (FSMT

0	DTEM) (DEGC)	100
0	PBMS Gamma Ray (GR) (GAPI)	2000
350	Cable Speed (CS) (F/HR)	250

7	FSMT Acceleration (FSMT_ACC) (M/S2)	12
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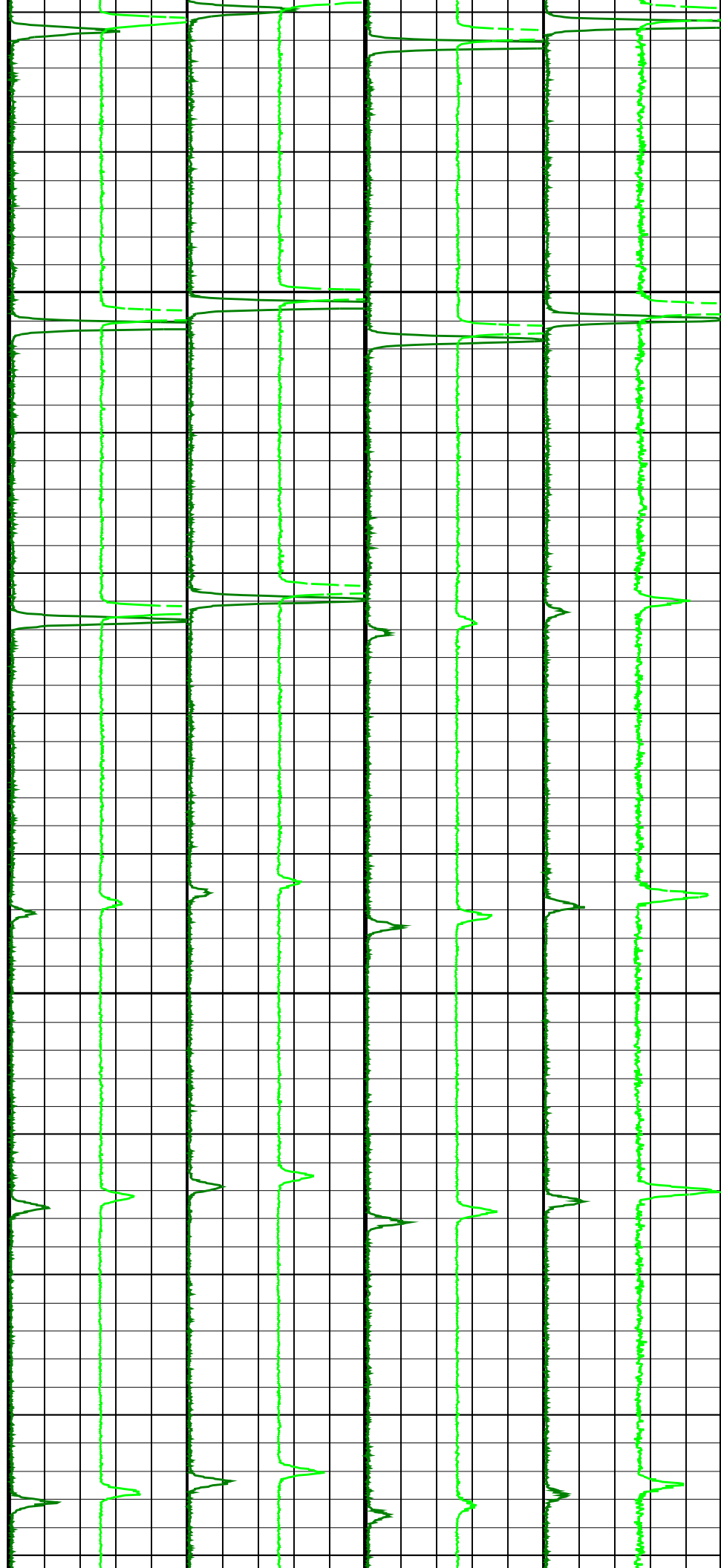
Tension (TENS) (LBF)	0	200	Gamma Ray 2 (GR2)	Gamma Ray 4 (GR4)	FSMT GR6 (GR6)	FSMT GR8 (GR8)
	0	2500	0	0	0	0

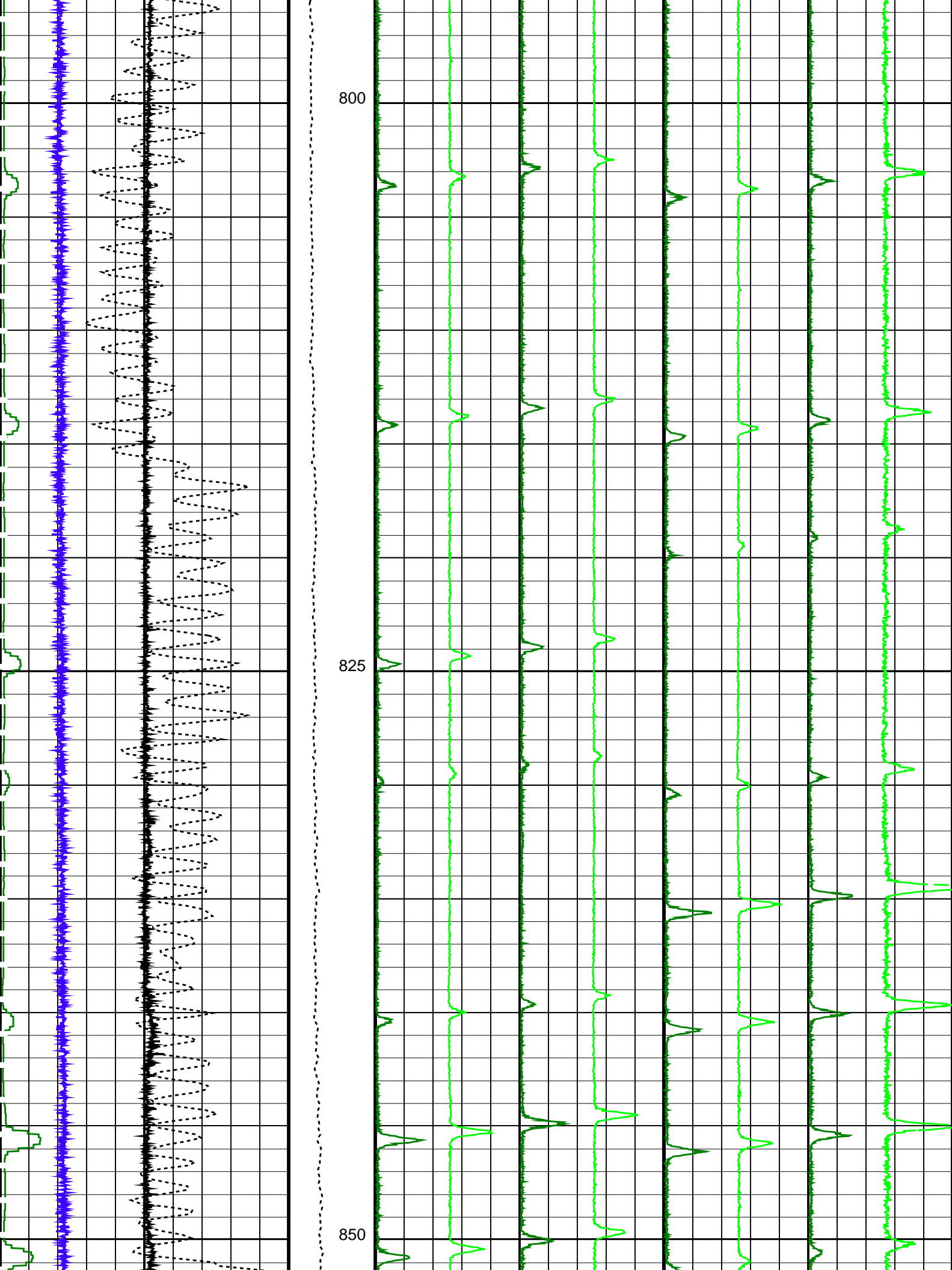


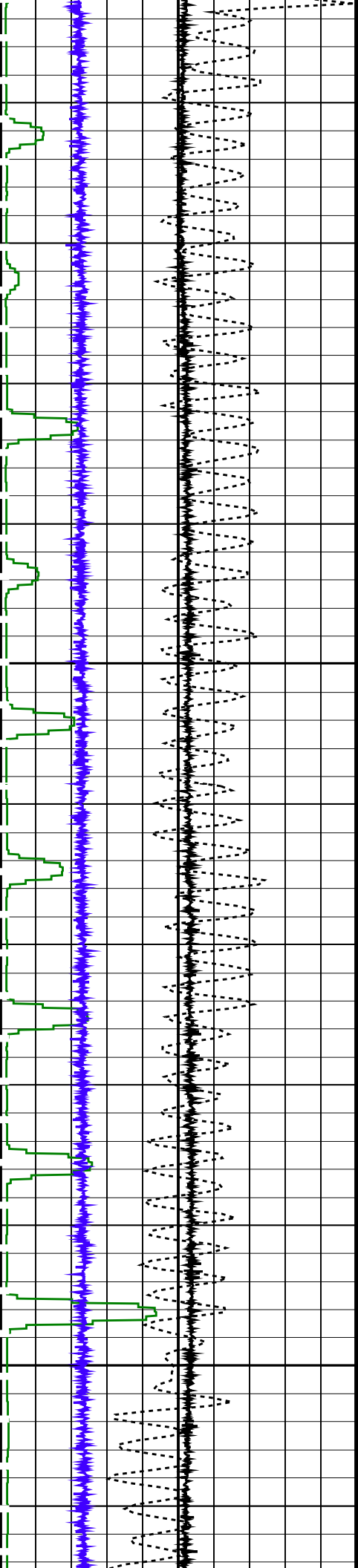


750

775

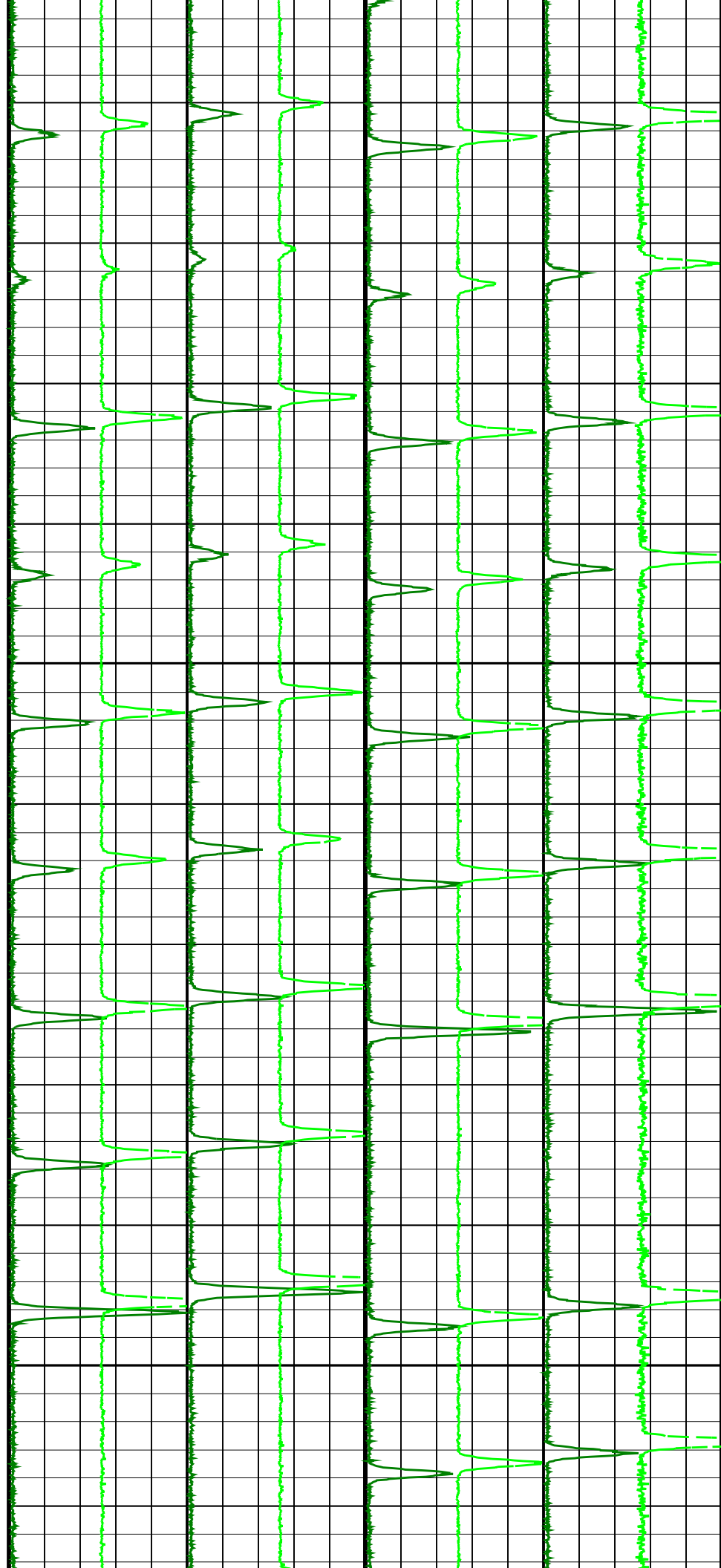


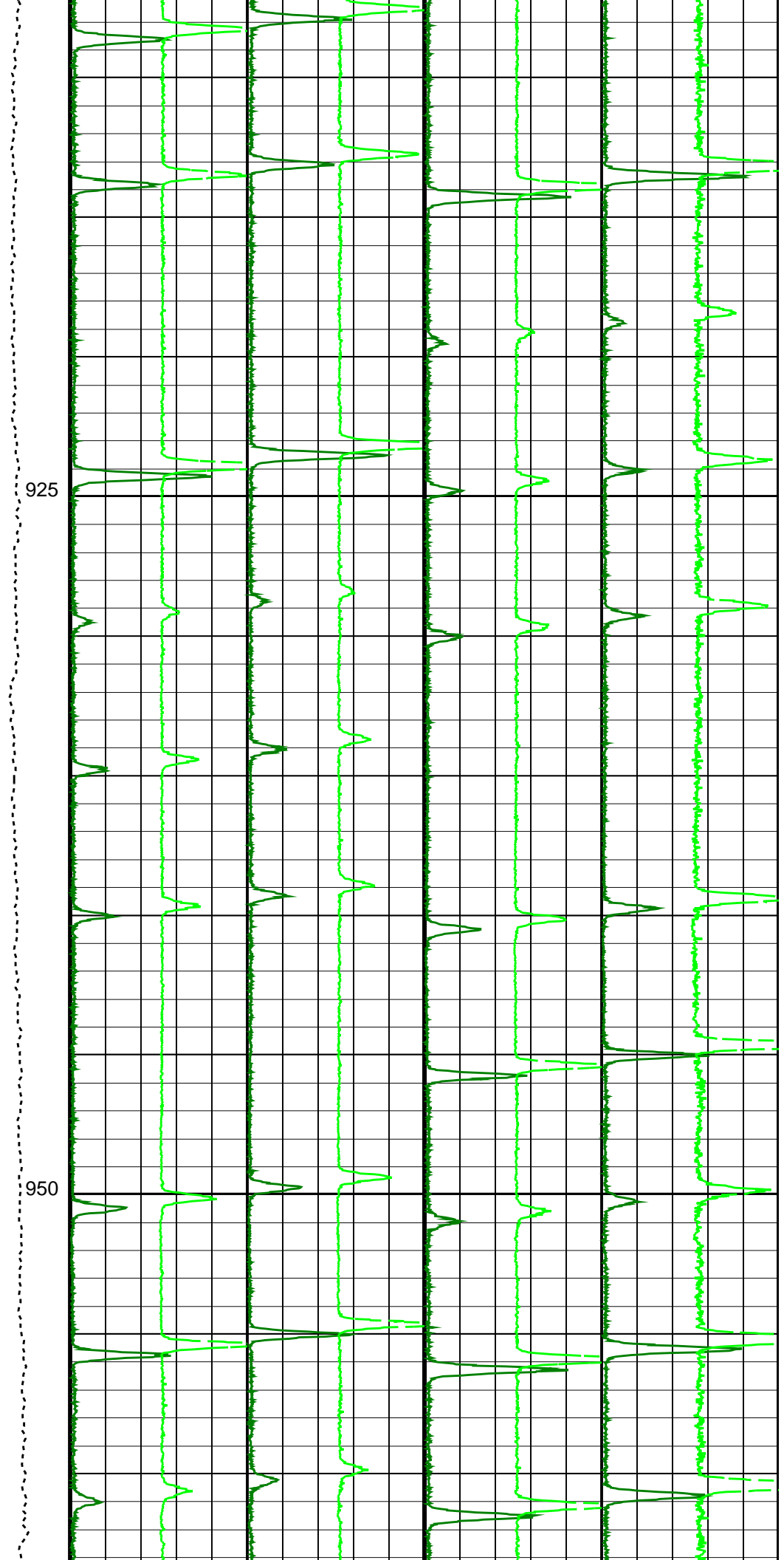
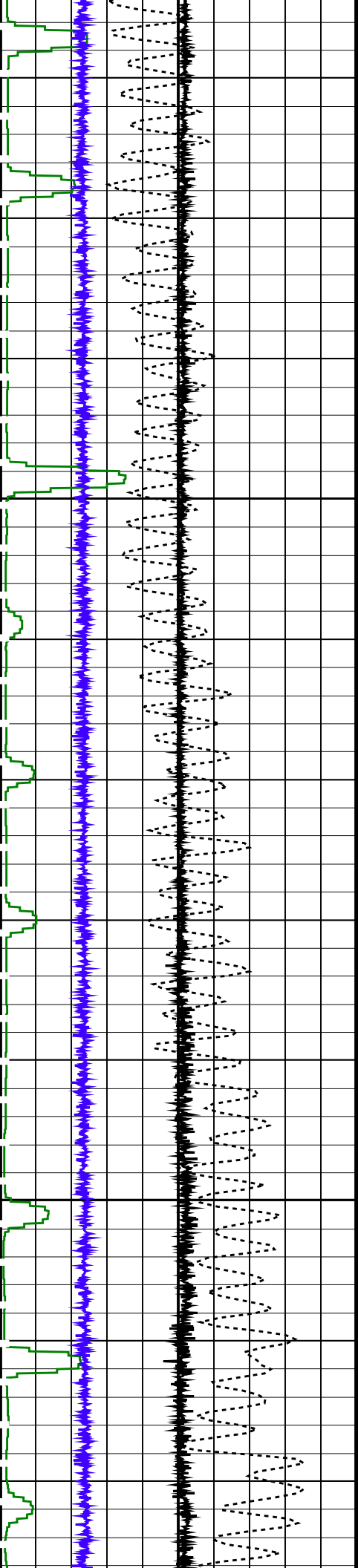


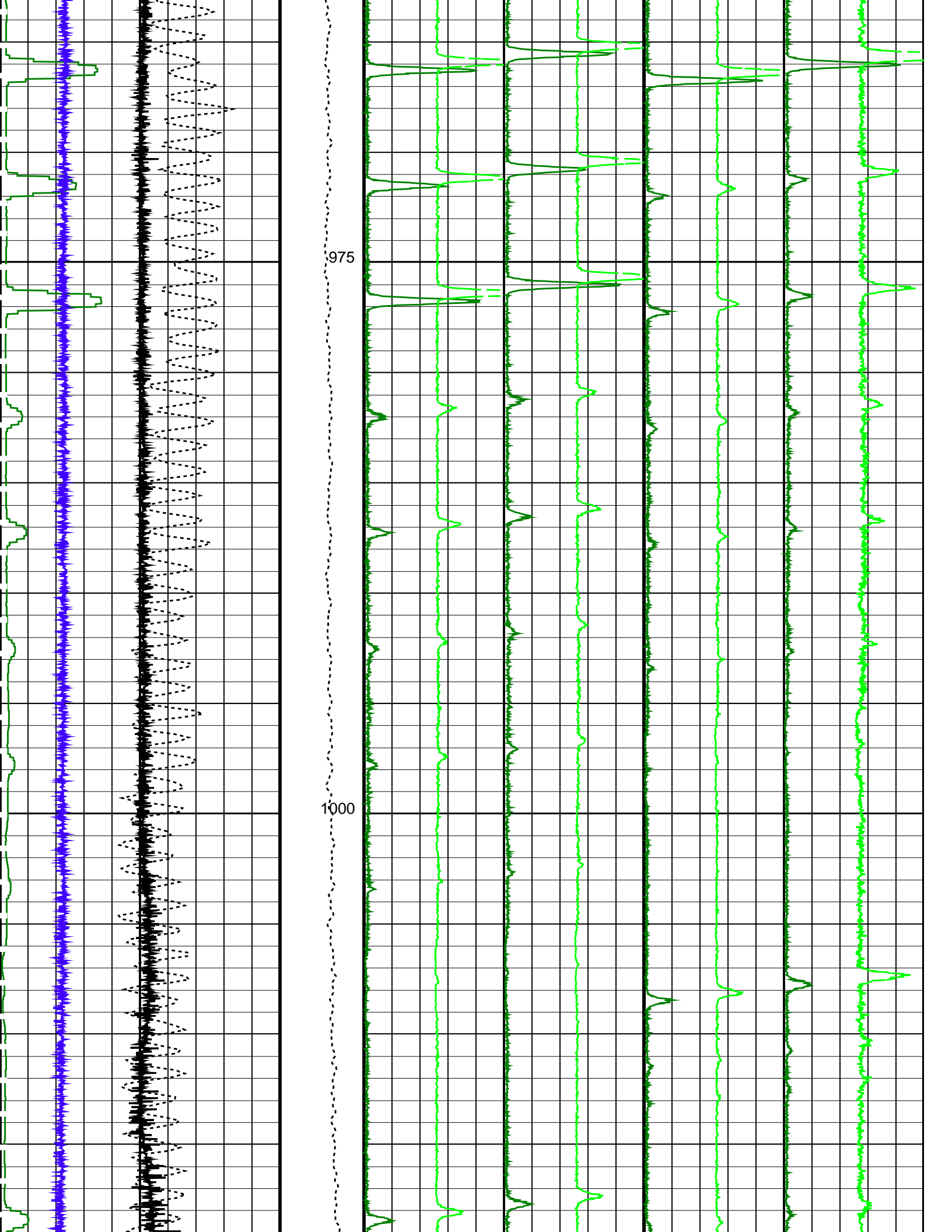


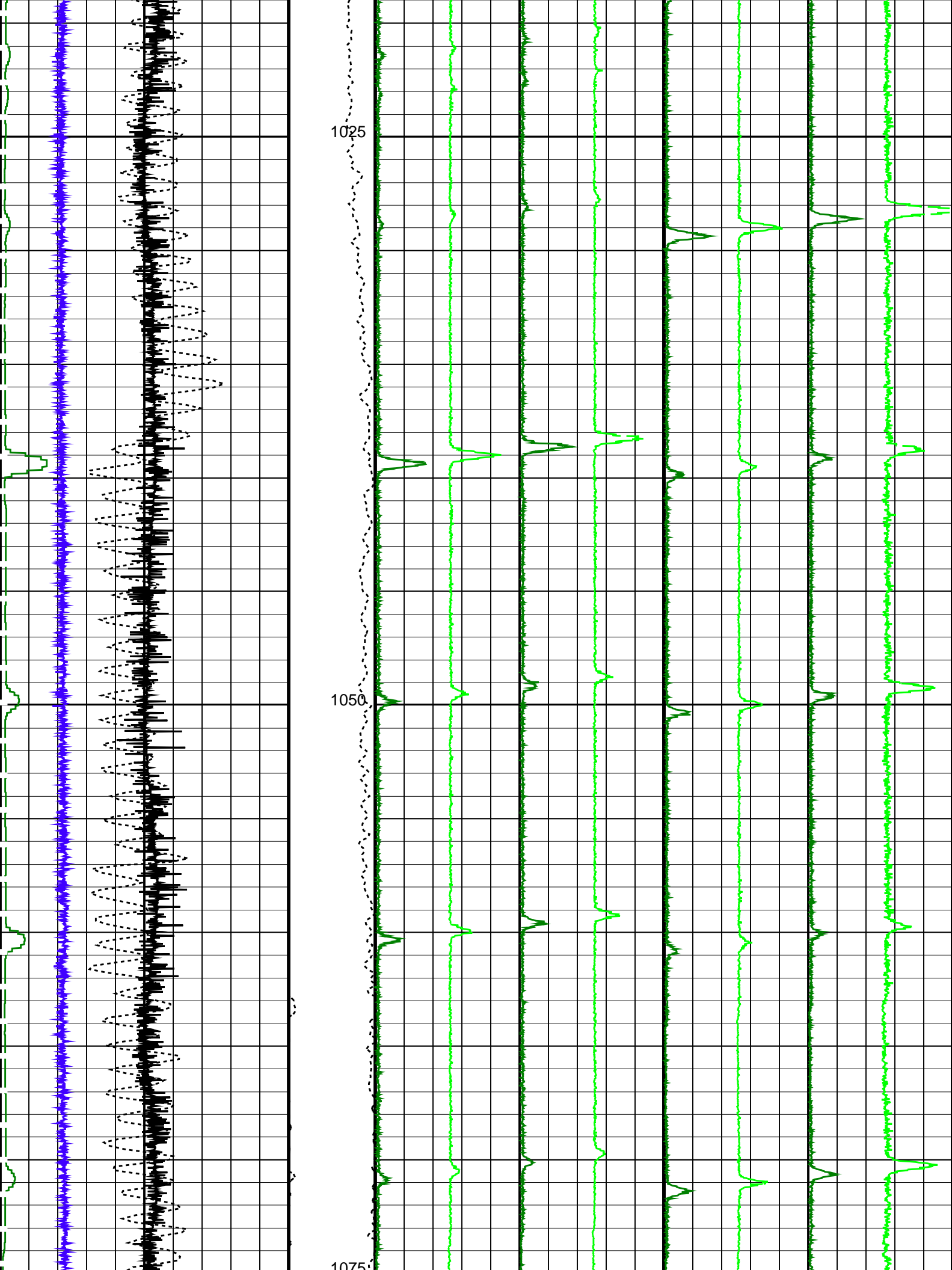
875

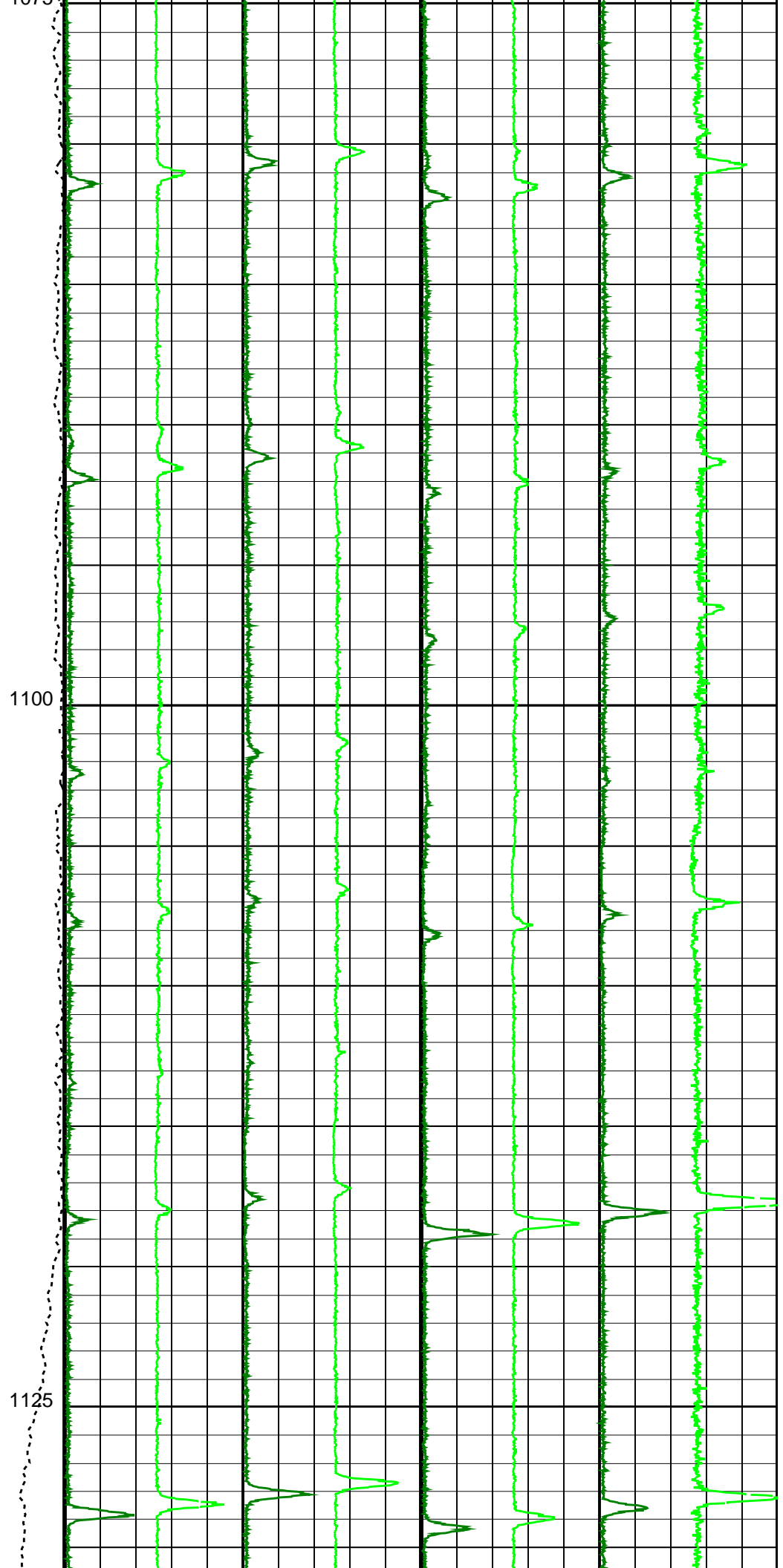
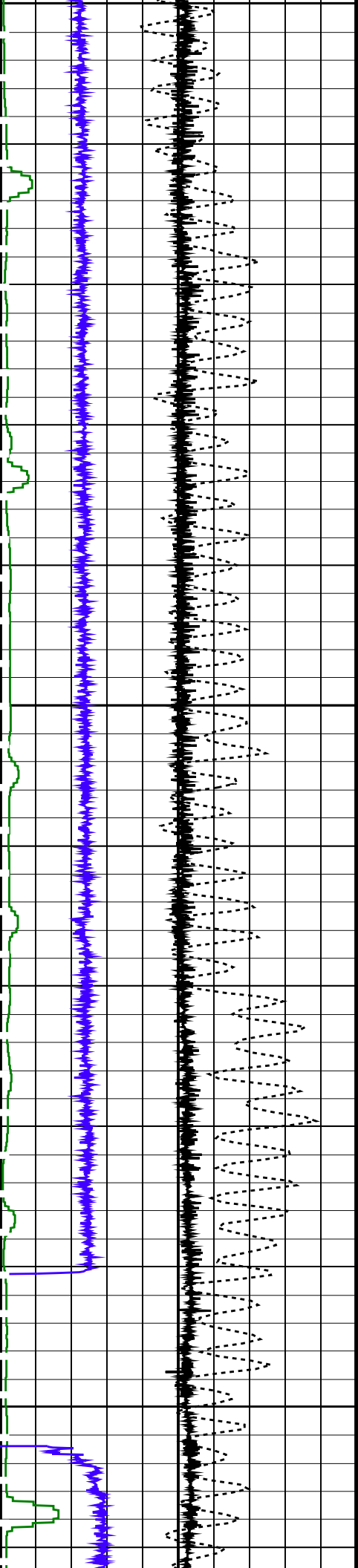
900

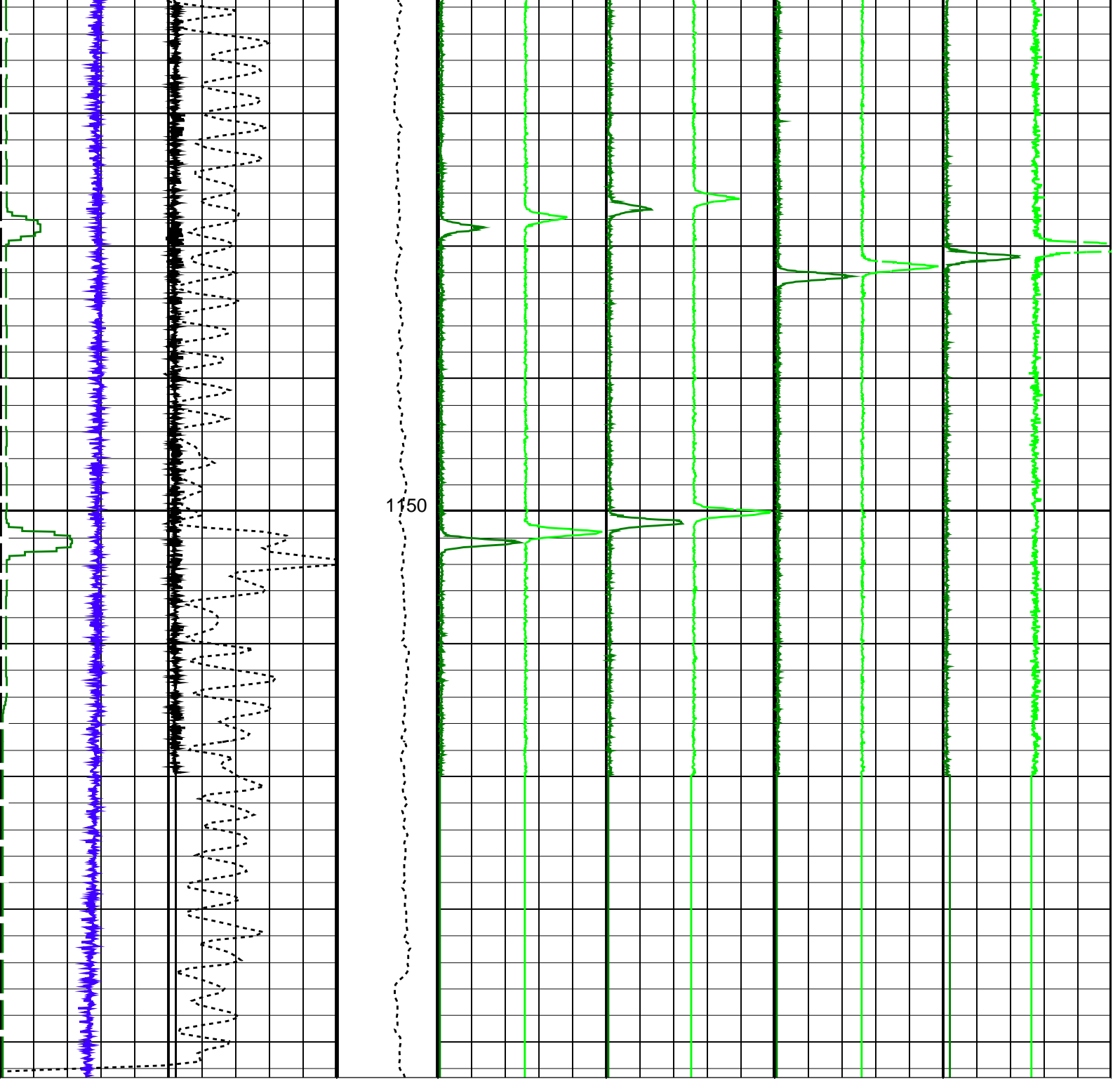












1150

FSMT Acceleration (FSMT_ACC) 7 (M/S ²) 12	Tension (TENS) (LBF) 0 200	Gamma Ray 1 (GR1) 0 (CPS) 2500	Gamma Ray 3 (GR3) 0 (CPS) 2500	FSMT GR5 (GR5) 0 (CPS) 2500	FSMT GR7 (GR7) 0 (CPS) 2500
Cable Speed (CS) (F/HR) 350 250		Gamma Ray 2 (GR2) -1250 (CPS) 1250	Gamma Ray 4 (GR4) -1250 (CPS) 1250	FSMT GR6 (GR6) -1250 (CPS) 1250	FSMT GR8 (GR8) -1250 (CPS) 1250
PBMS Gamma Ray (GR) (GAPI) 0 2000					
FSMT Detector Temperature (FSMT_DTEM) (DEGC) 0 100					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO PP	System and Miscellaneous Depth Offset for Playback Playback Processing	0.0 M RECOMPUTE

Format: FSMT_Basic Vertical Scale: 1:200 Graphics File Created: 06-Feb-2019 16:04

OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1_b PSPT-1705 19C2-270

Input DLIS Files

DEFAULT FSMT_PSP_032PUP FN:67 PRODUCER 06-Feb-2019 15:26 1171.3 M 695.2 M

Output DLIS Files

DEFAULT FSMT_PSP_005PUP FN:7 PRODUCER 06-Feb-2019 16:04
 CUSTOMER FSMT_PSP_005PUC FN:8 CUSTOMER 06-Feb-2019 16:04



PASS#2
1150m – 700m

MAXIS Field Log

Company: ENI U&TS Well: BONACCIA NW 1DIR

Input DLIS Files

DEFAULT FSMT_PSP_029PUP FN:58 PRODUCER 06-Feb-2019 15:26 1171.0 M 695.6 M

Output DLIS Files

DEFAULT FSMT_PSP_004PUP FN:5 PRODUCER 06-Feb-2019 15:59 1171.0 M 695.6 M
 CUSTOMER FSMT_PSP_004PUC FN:6 CUSTOMER 06-Feb-2019 15:59 1171.0 M 695.6 M

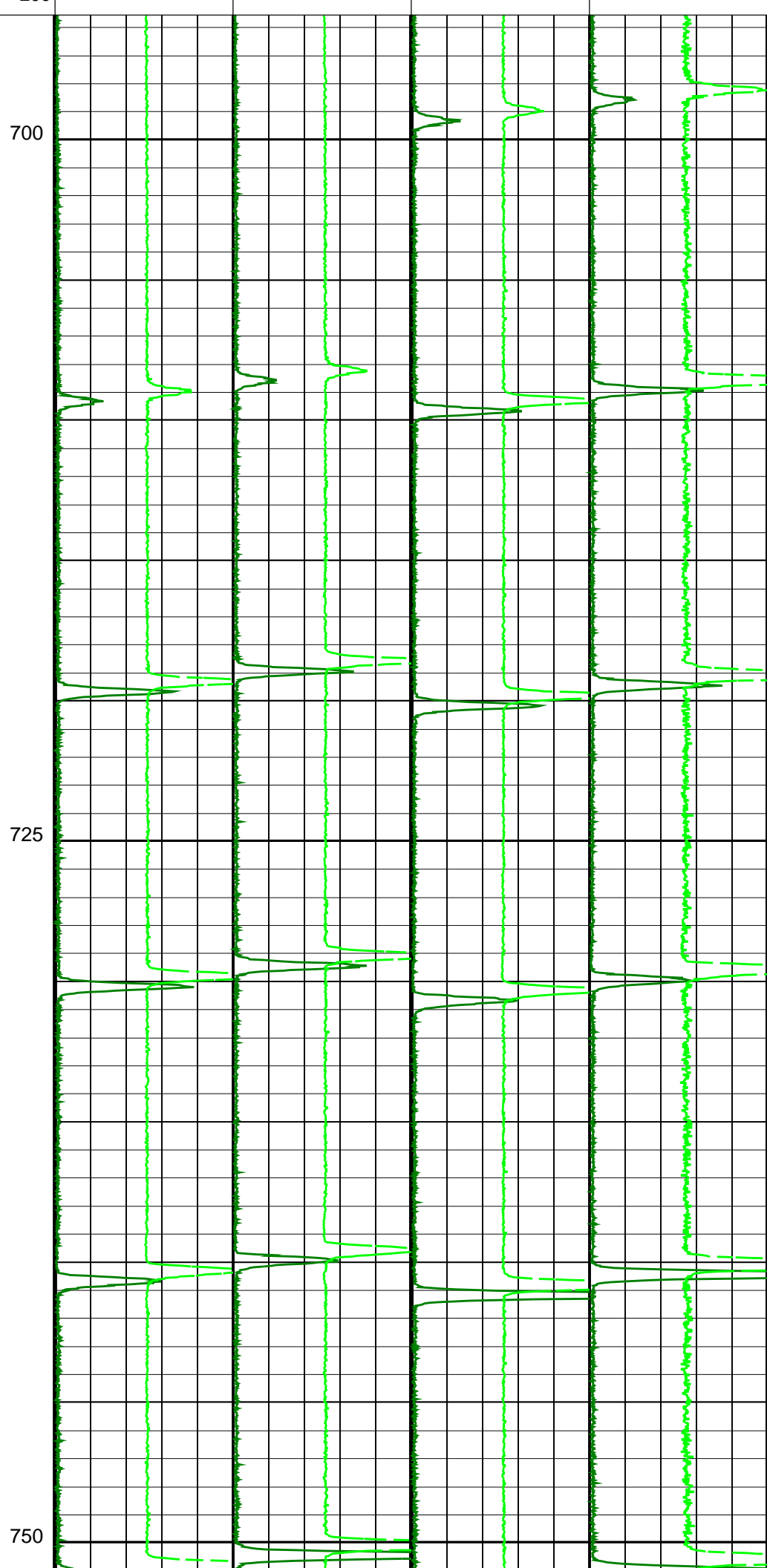
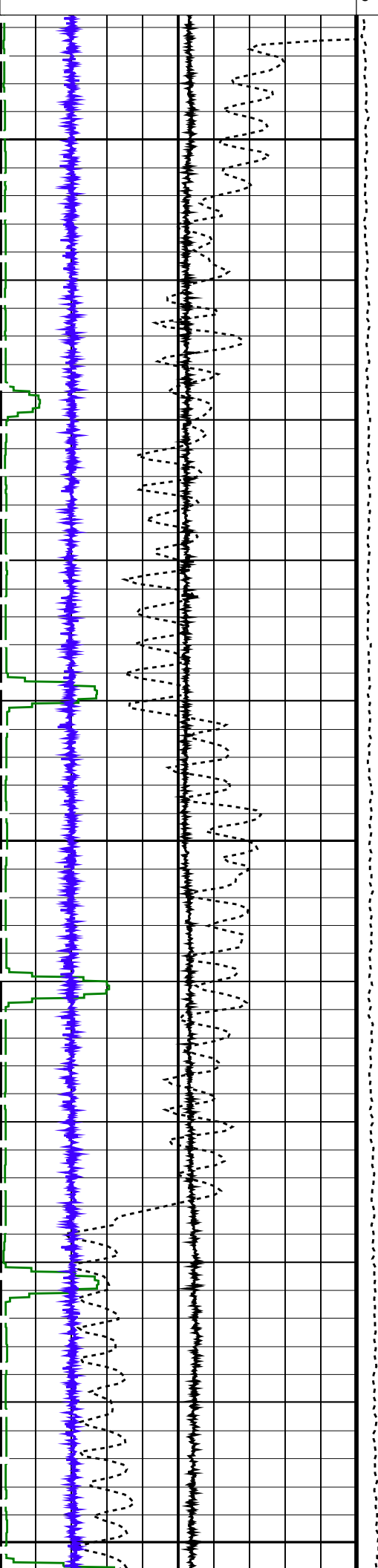
OP System Version: 19C2-270

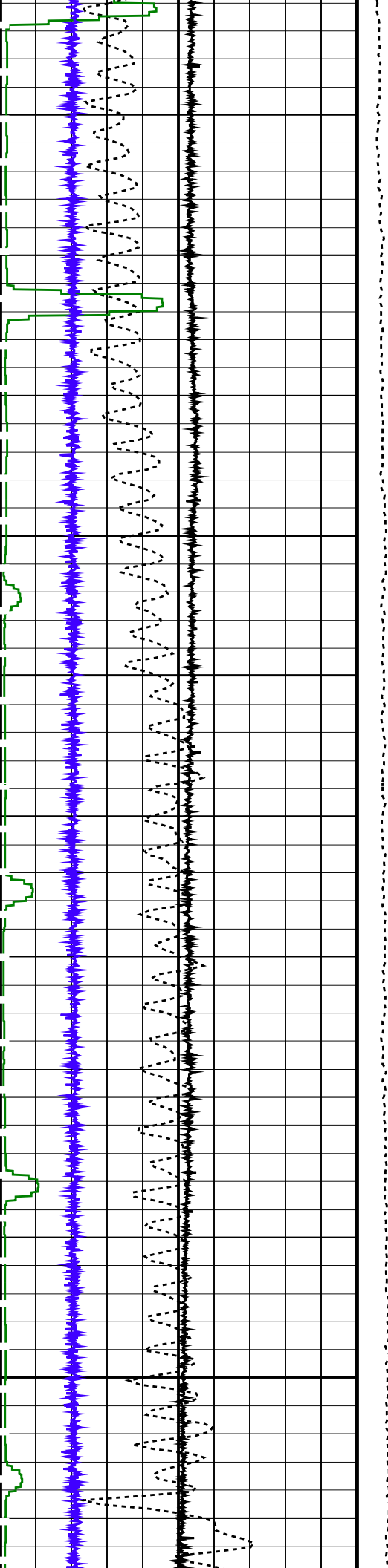
FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1_b PSPT-1705 19C2-270

PIP SUMMARY

Time Mark Every 60 S

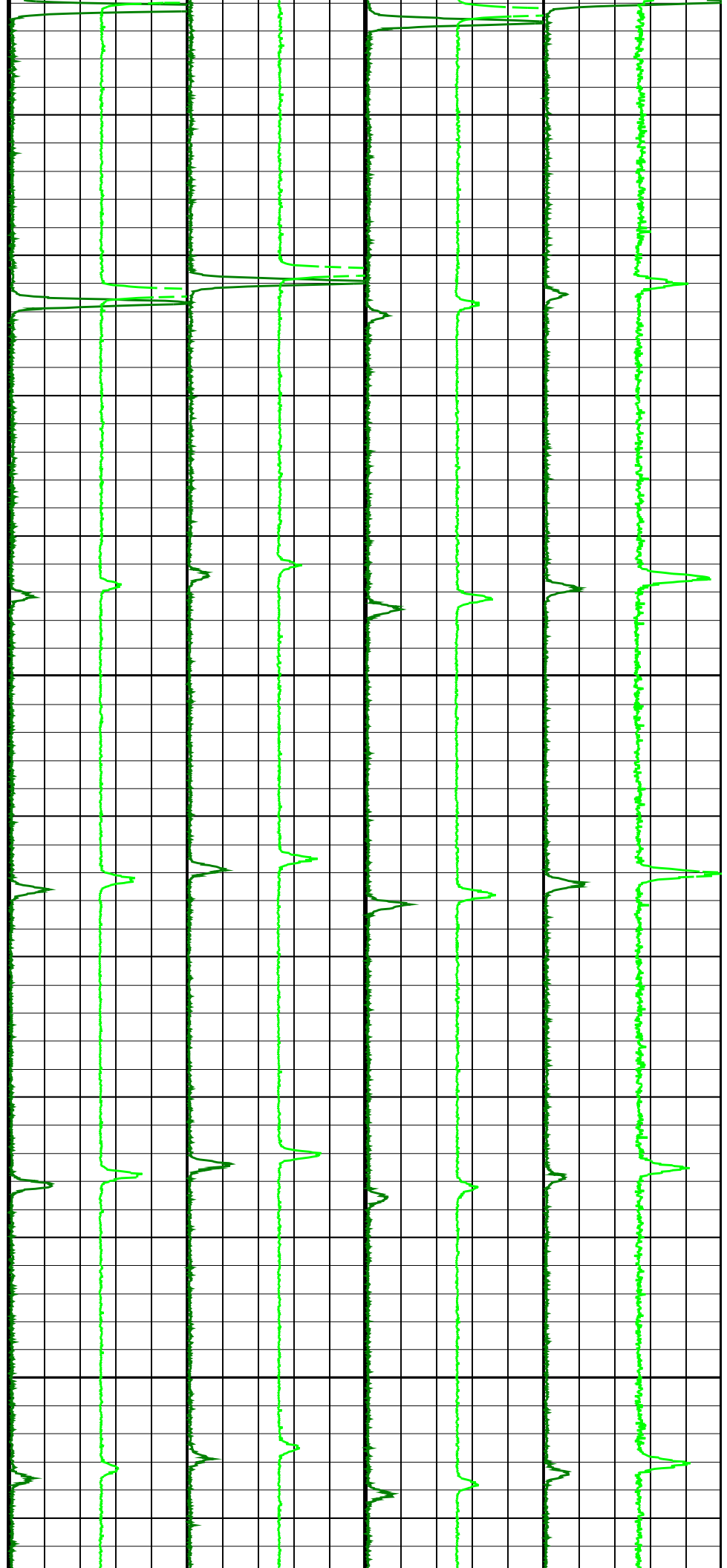
FSMT Detector Temperature (FSMT_DTEM) 0 (DEGC) 100					
PBMS Gamma Ray (GR) 0 (GAPI) 2000					
Cable Speed (CS) 350 (F/HR) 250		Gamma Ray 2 (GR2) -1250 (CPS) 1250	Gamma Ray 4 (GR4) -1250 (CPS) 1250	FSMT GR6 (GR6) -1250 (CPS) 1250	FSMT GR8 (GR8) -1250 (CPS) 1250
FSMT Acceleration (FSMT_ACC) 7 (M/S2) 12	Tension (TENS) (LBF) 0 200	Gamma Ray 1 (GR1) 0 (CPS) 2500	Gamma Ray 3 (GR3) 0 (CPS) 2500	FSMT GR5 (GR5) 0 (CPS) 2500	FSMT GR7 (GR7) 0 (CPS) 2500

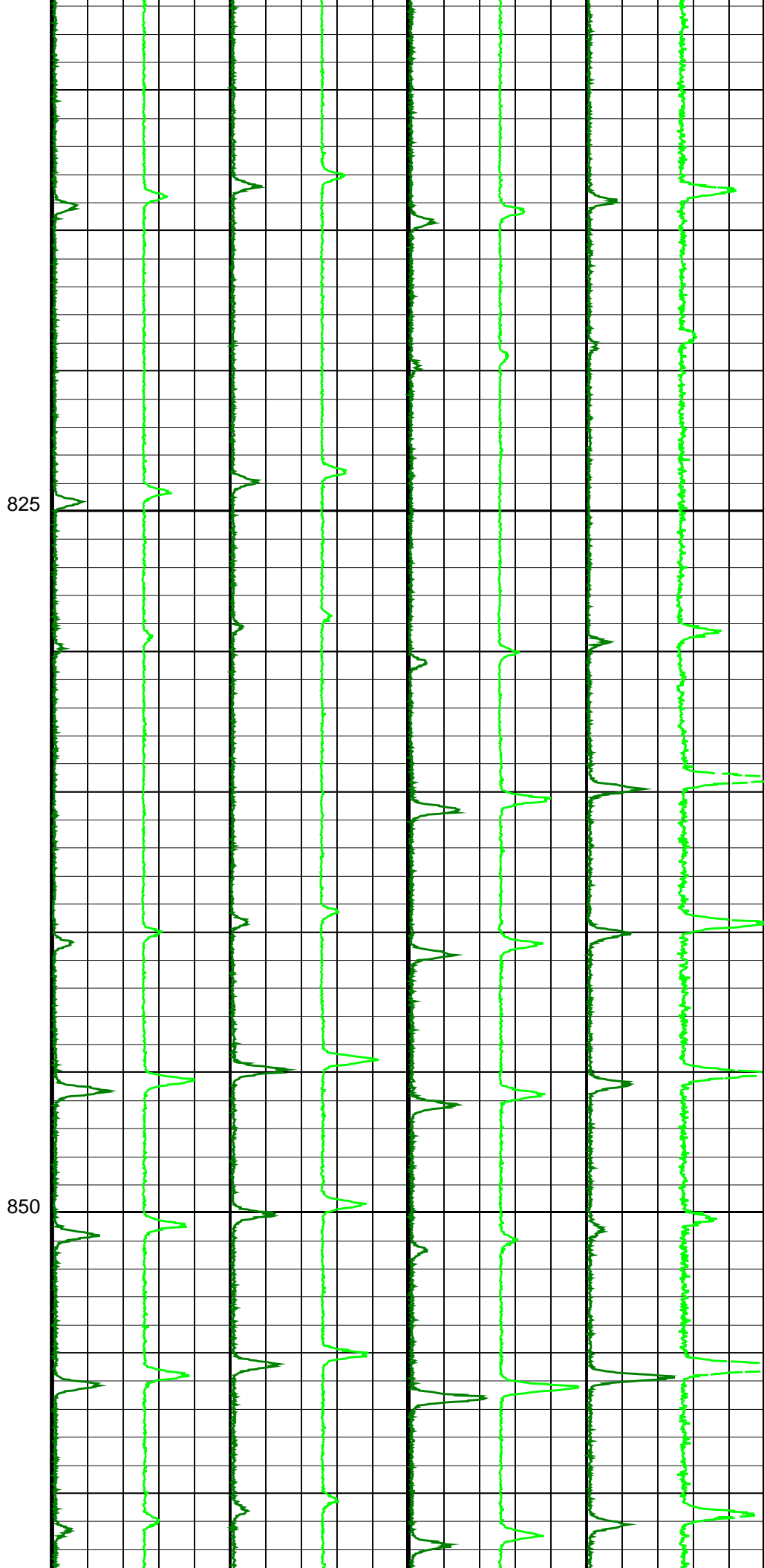
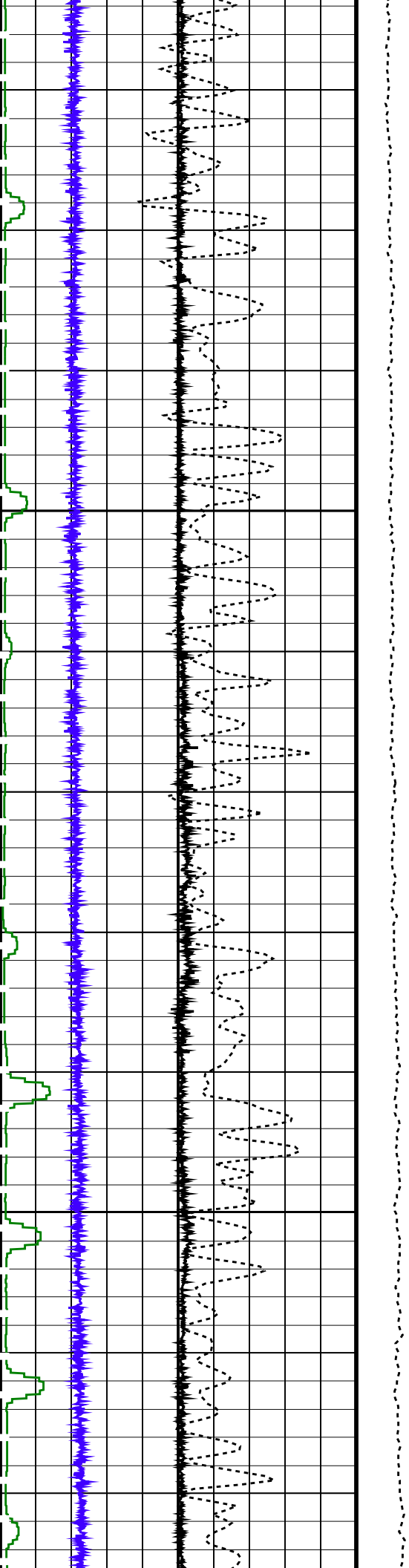




775

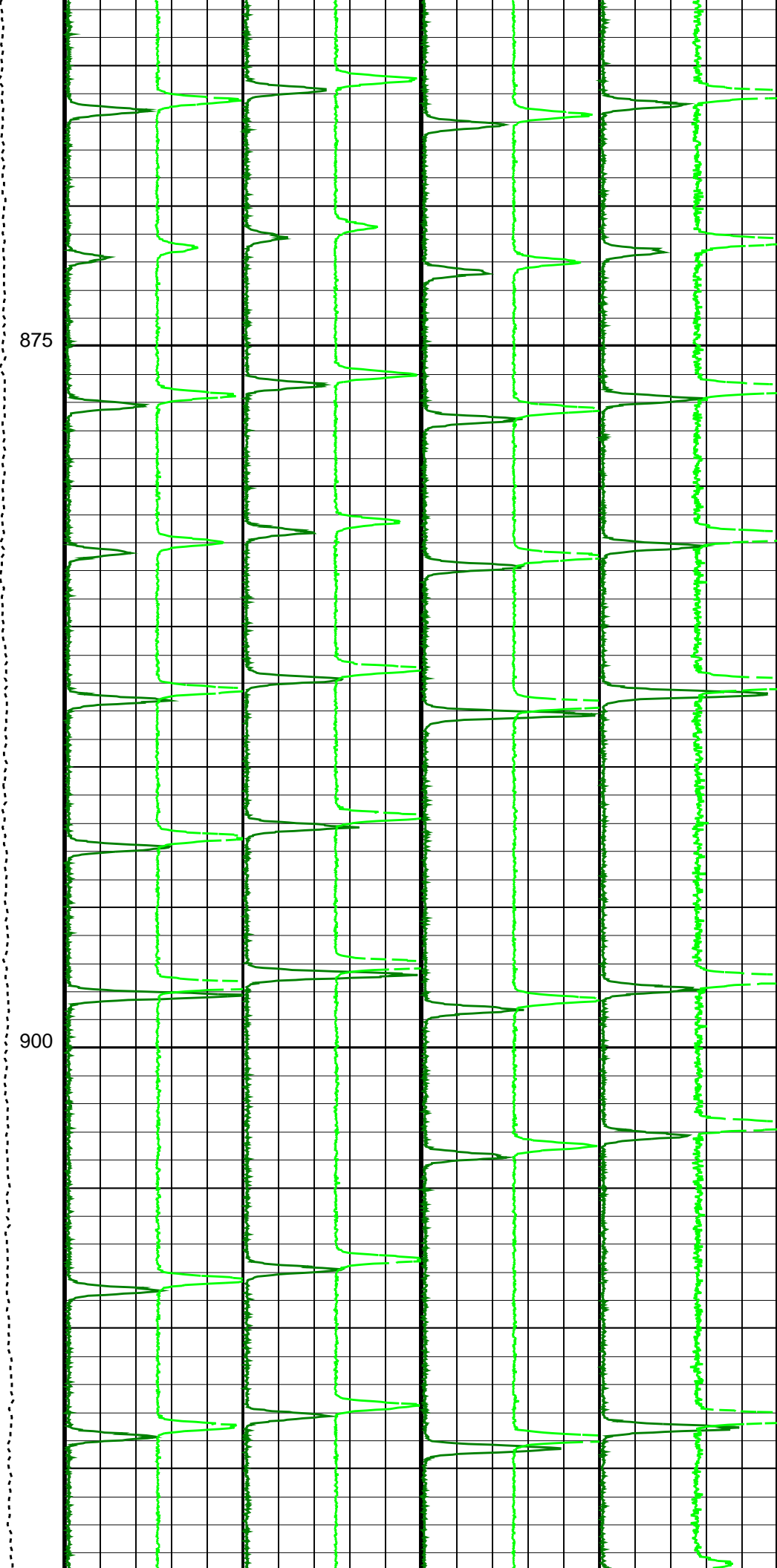
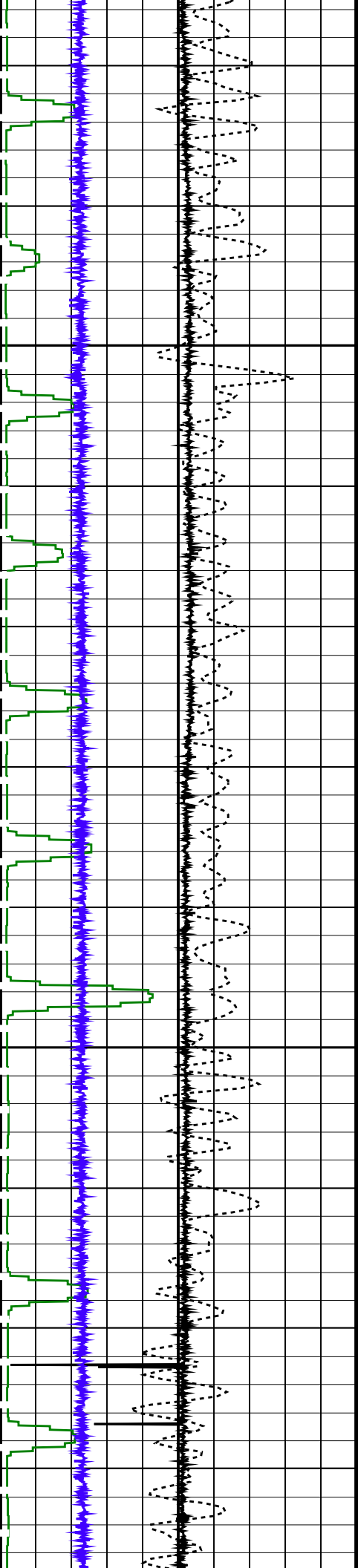
800





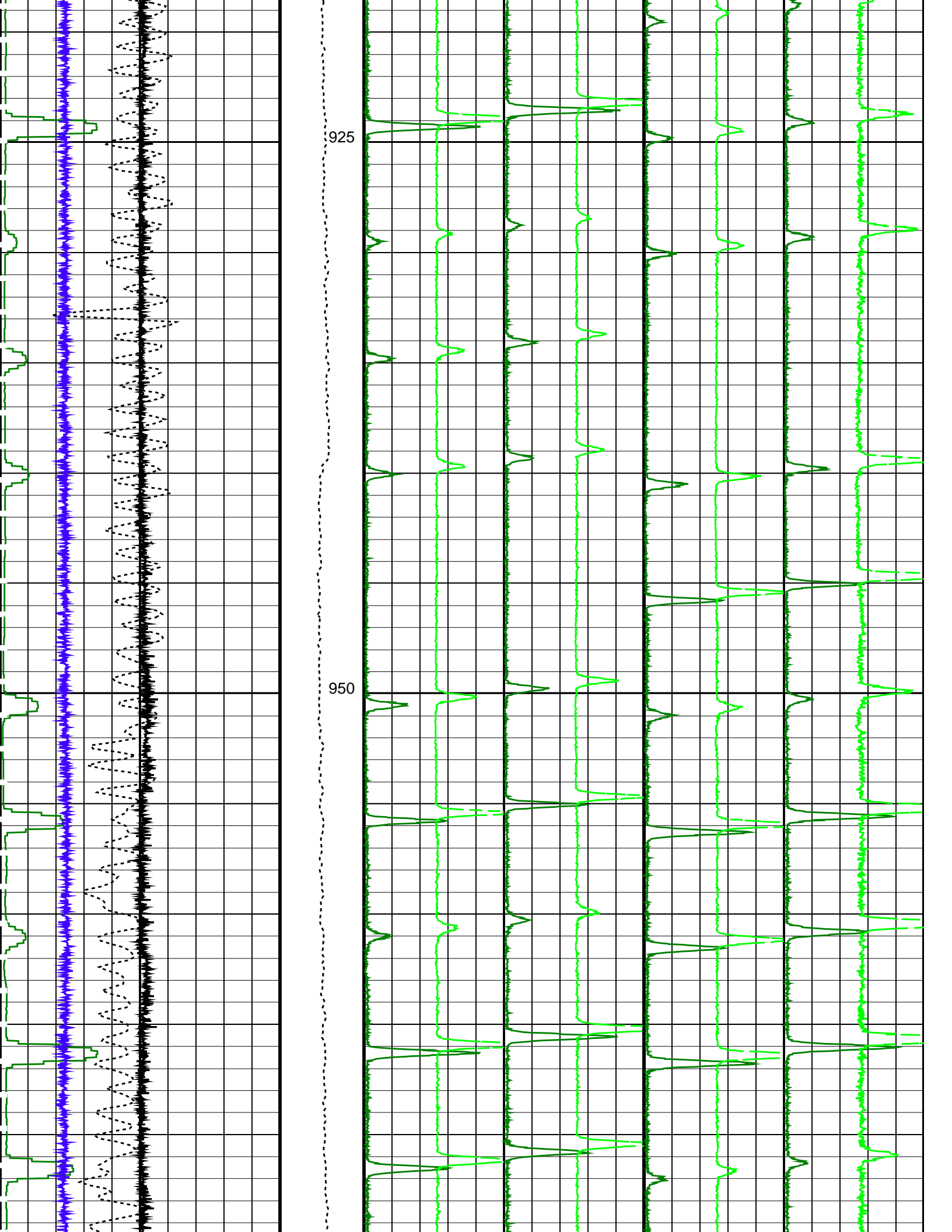
825

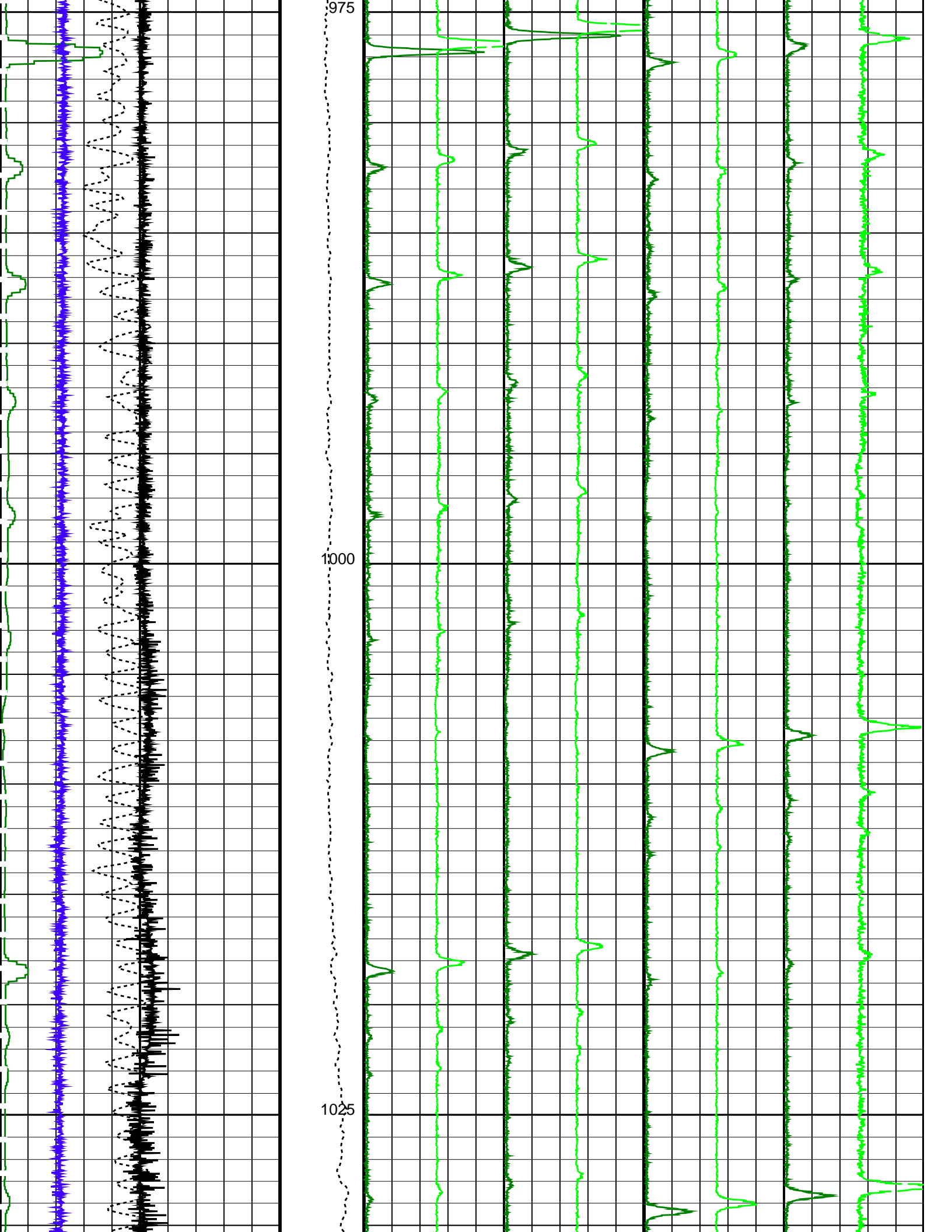
850

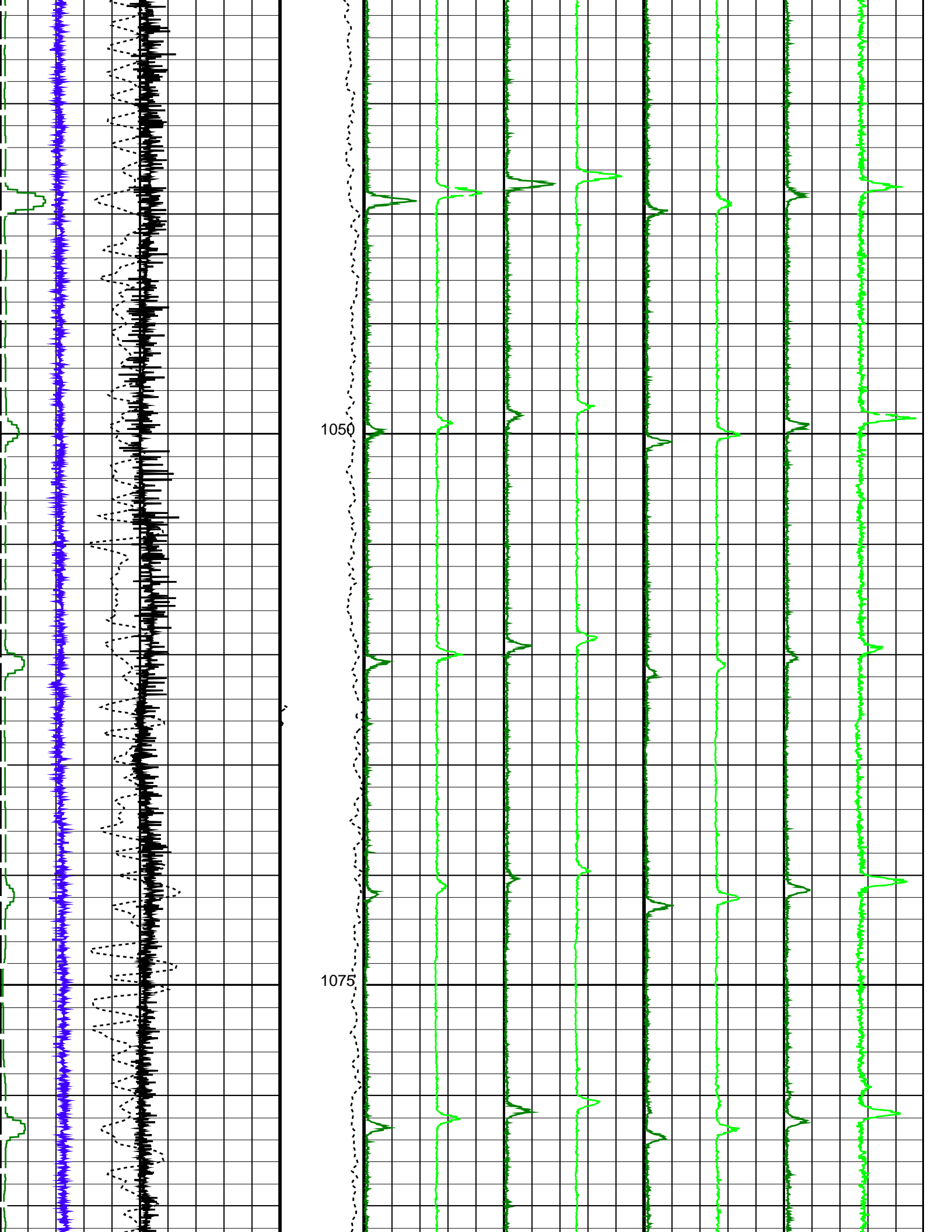


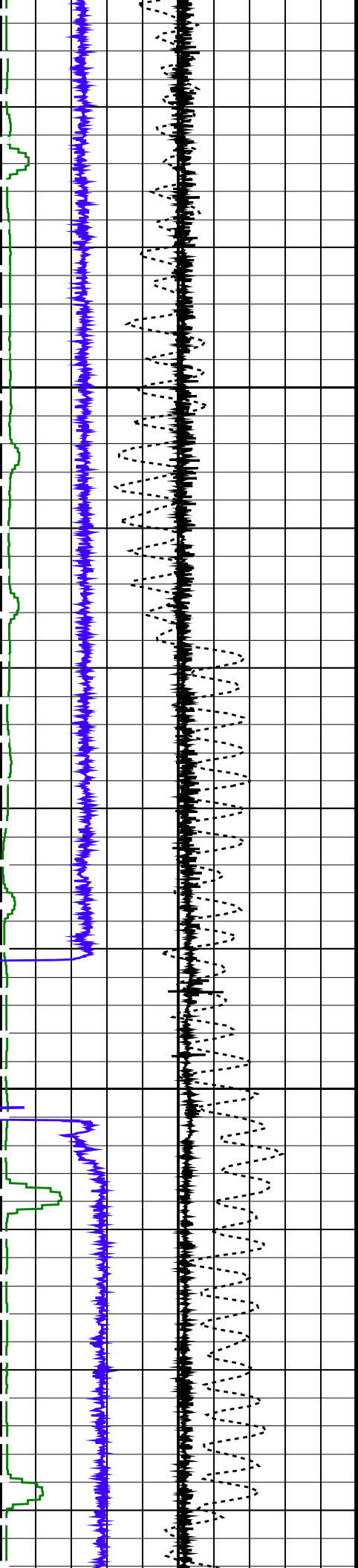
875

900



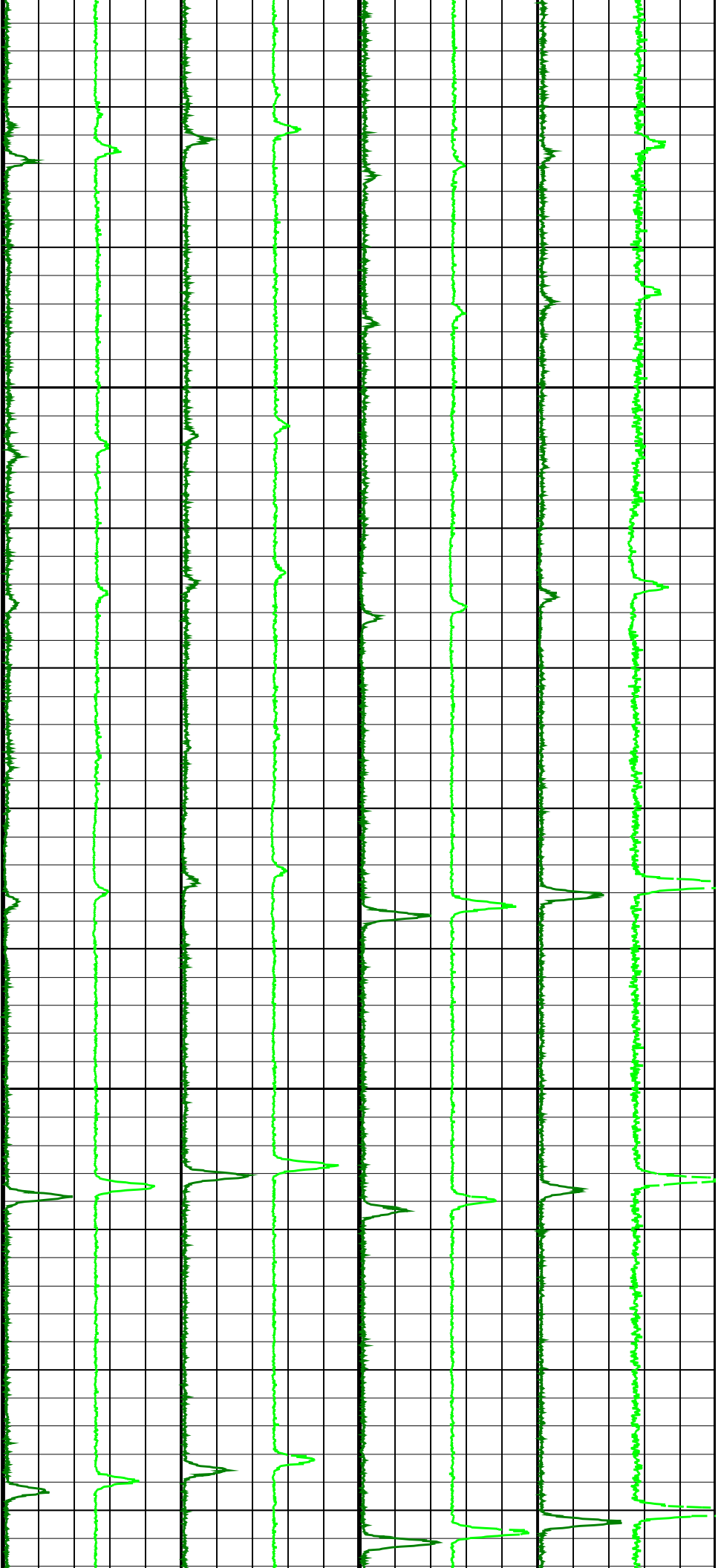


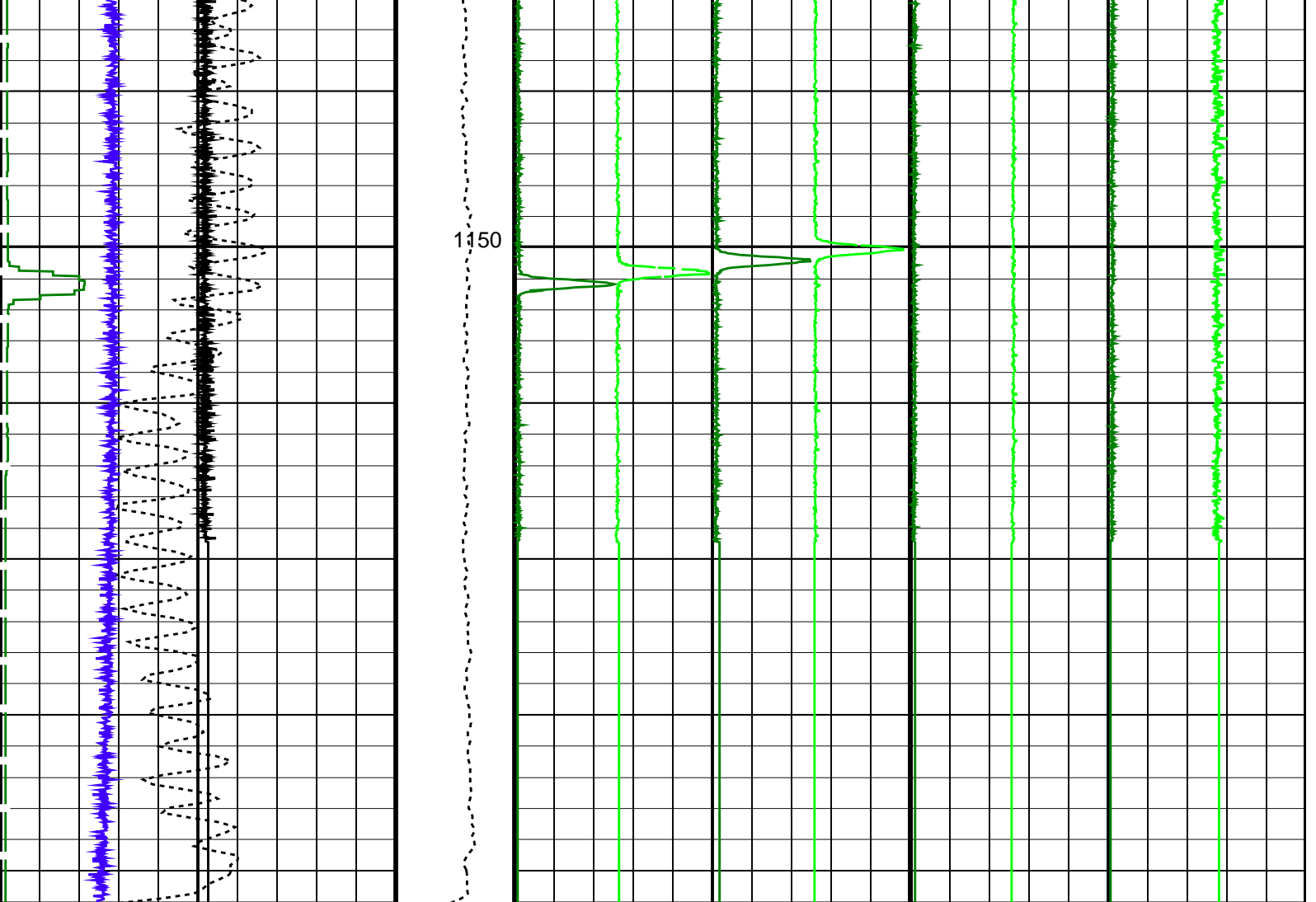




1100

1125





FSMT Acceleration (FSMT_ACC) (M/S ²)	Tension (TENS) (LBF)	Gamma Ray 1 (GR1) (CPS)	Gamma Ray 3 (GR3) (CPS)	FSMT GR5 (GR5) (CPS)	FSMT GR7 (GR7) (CPS)
7	0	0	0	0	0
12	200	2500	2500	2500	2500
Cable Speed (CS) (F/HR)		Gamma Ray 2 (GR2) (CPS)	Gamma Ray 4 (GR4) (CPS)	FSMT GR6 (GR6) (CPS)	FSMT GR8 (GR8) (CPS)
350		-1250	-1250	-1250	-1250
250		1250	1250	1250	1250
PBMS Gamma Ray (GR) (GAPI)					
0					
2000					
FSMT Detector Temperature (FSMT_DTEM) (DEGC)					
0					
100					

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback	0.0 M
	Playback Processing	RECOMPUTE

Format: FSMT_Basic Vertical Scale: 1:200 Graphics File Created: 06-Feb-2019 15:59

OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1_b PSPT-1705 19C2-270

Input DLIS Files

DEFAULT	FSMT_PSP_029PUP	FN:58	PRODUCER	06-Feb-2019 15:26	1171.0 M	695.6 M
Output DLIS Files						
DEFAULT	FSMT_PSP_004PUP	FN:5	PRODUCER	06-Feb-2019 15:59		
CUSTOMER	FSMT_PSP_004PUC	FN:6	CUSTOMER	06-Feb-2019 15:59		



PASS#1
1150m – 700m

MAXIS Field Log

Company: ENI U&TS Well: BONACCIA NW 1DIR

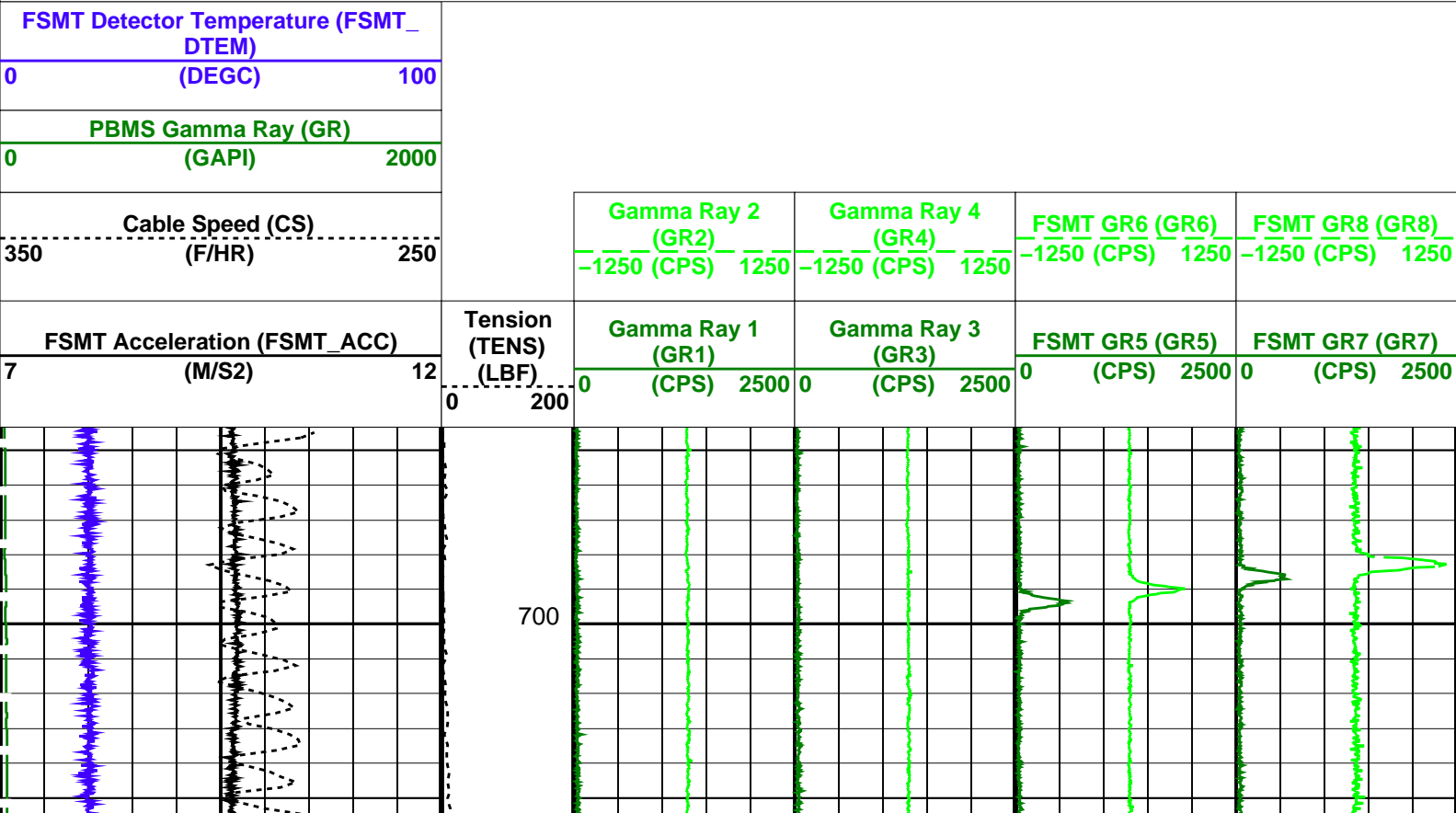
Input DLIS Files						
DEFAULT	FSMT_PSP_018LUP	FN:29	PRODUCER	06-Feb-2019 15:26	1171.0 M	694.3 M
Output DLIS Files						
DEFAULT	FSMT_PSP_003PUP	FN:3	PRODUCER	06-Feb-2019 15:42	1171.0 M	694.3 M
CUSTOMER	FSMT_PSP_003PUC	FN:4	CUSTOMER	06-Feb-2019 15:42	1171.0 M	694.3 M

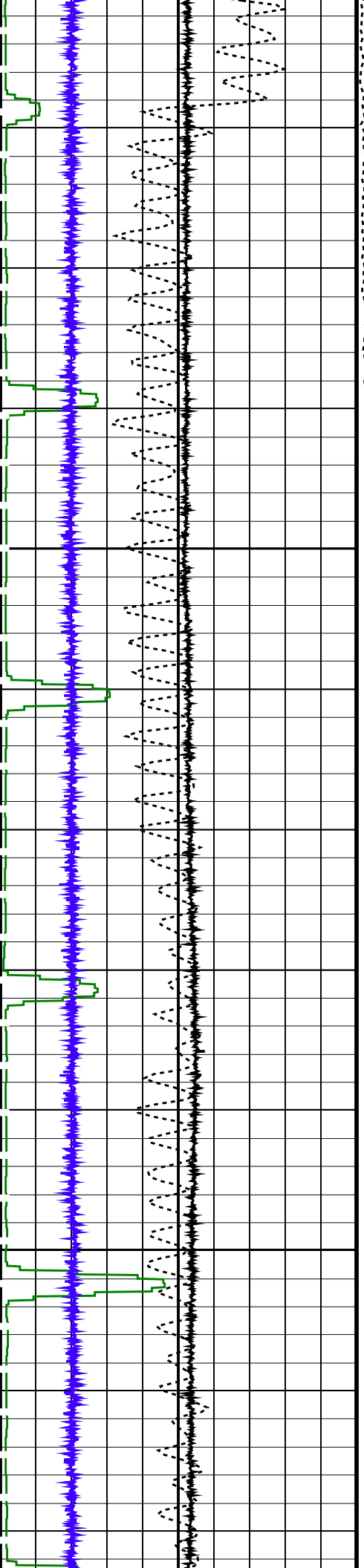
OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1_b PSPT-1705 19C2-270

PIP SUMMARY

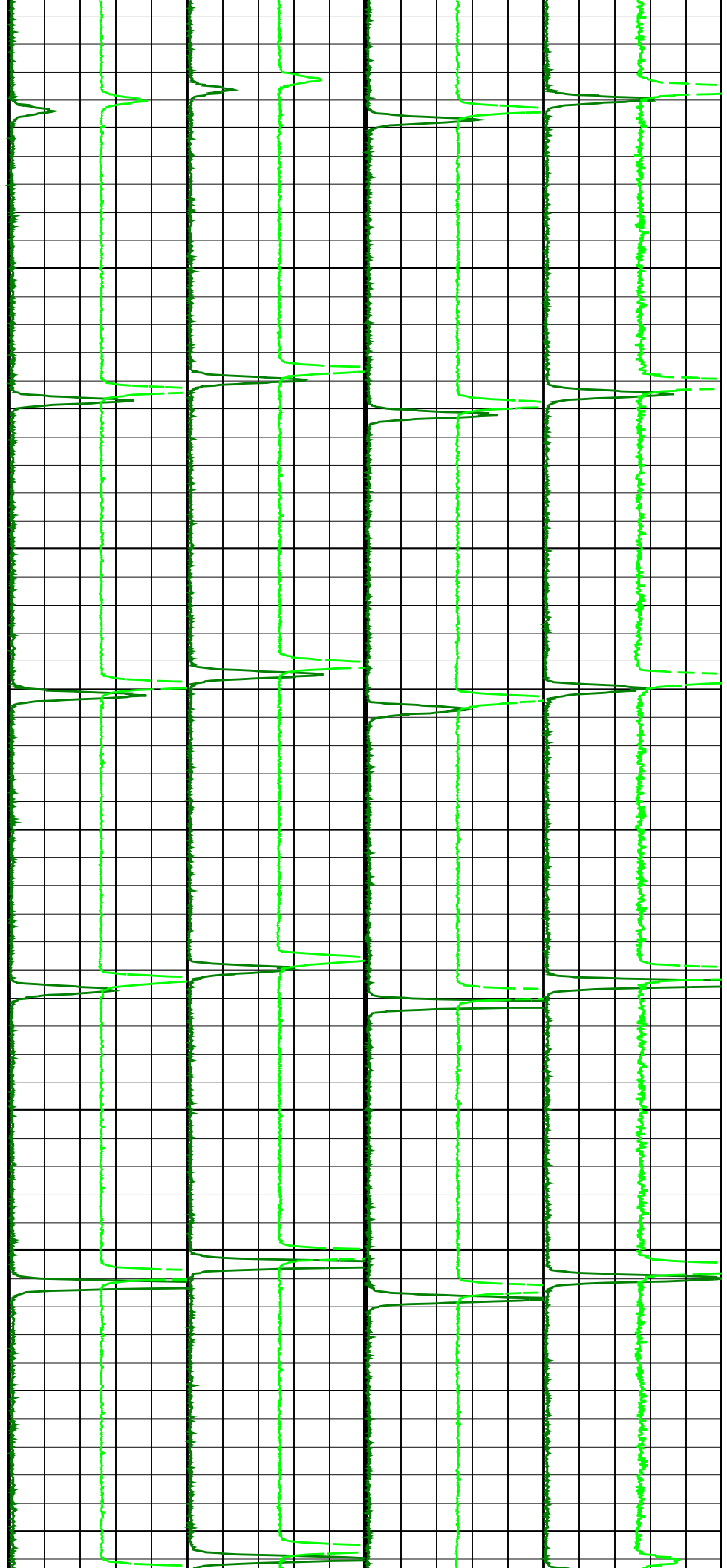
Time Mark Every 60 S

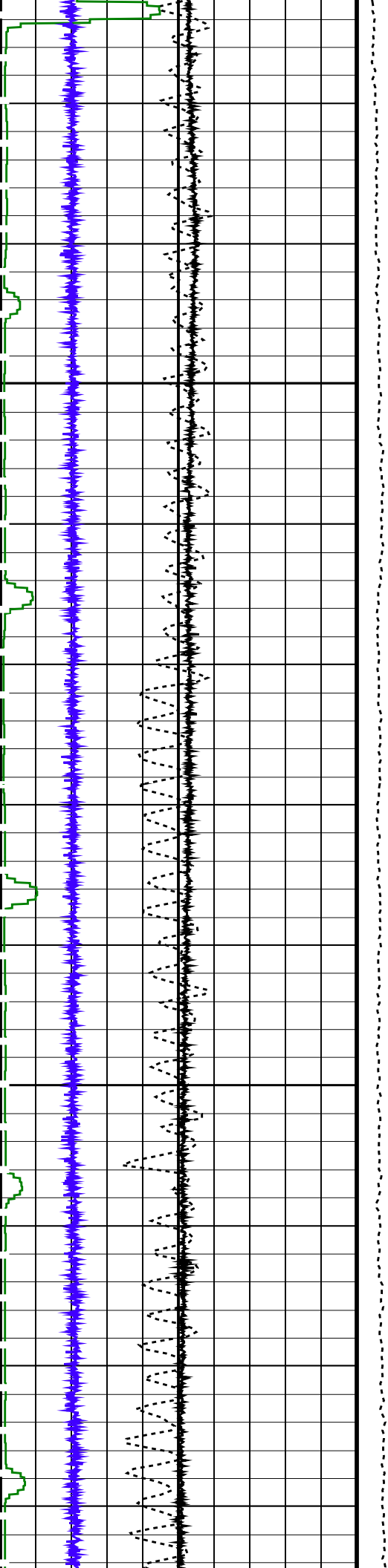




725

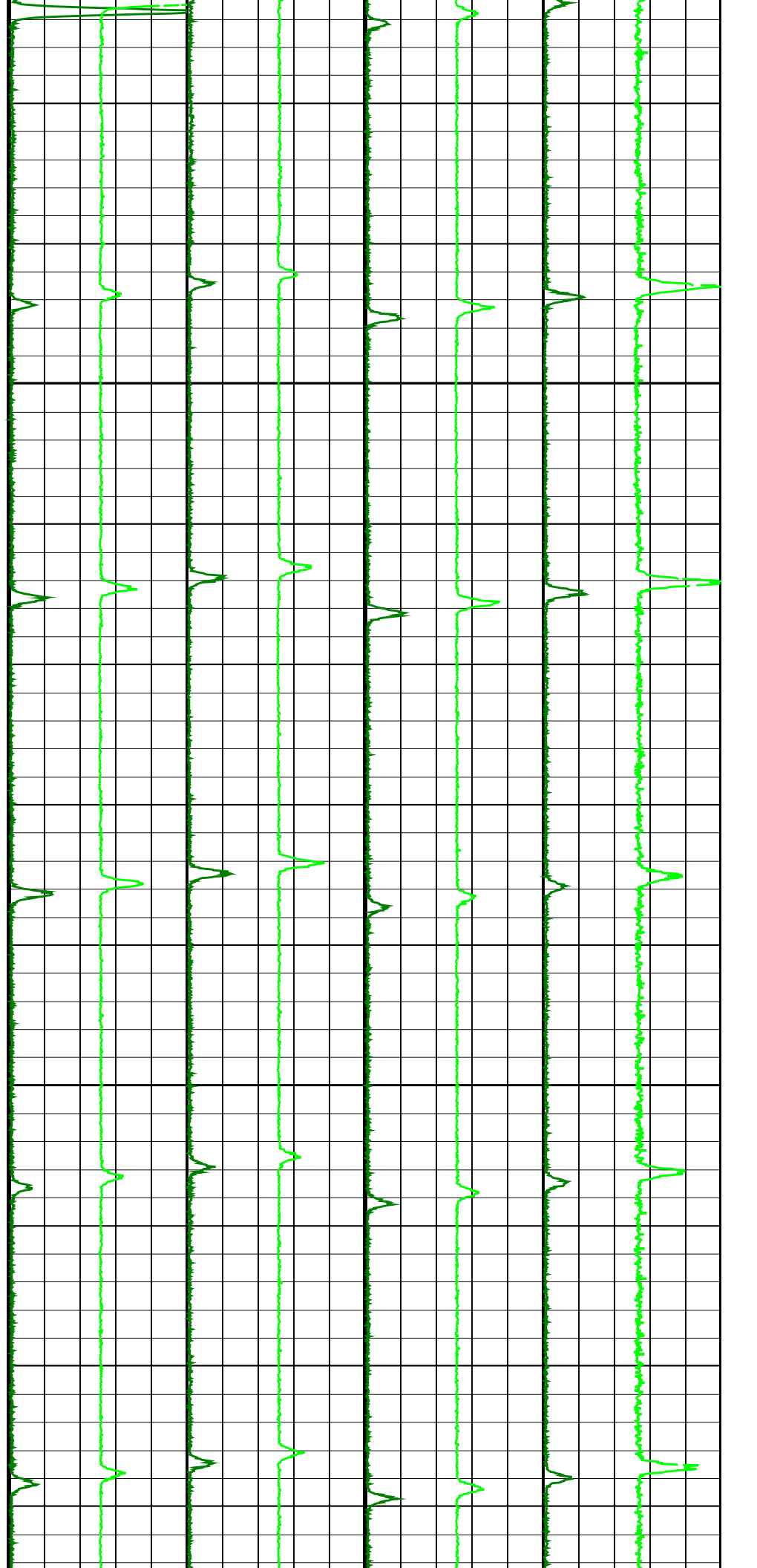
750

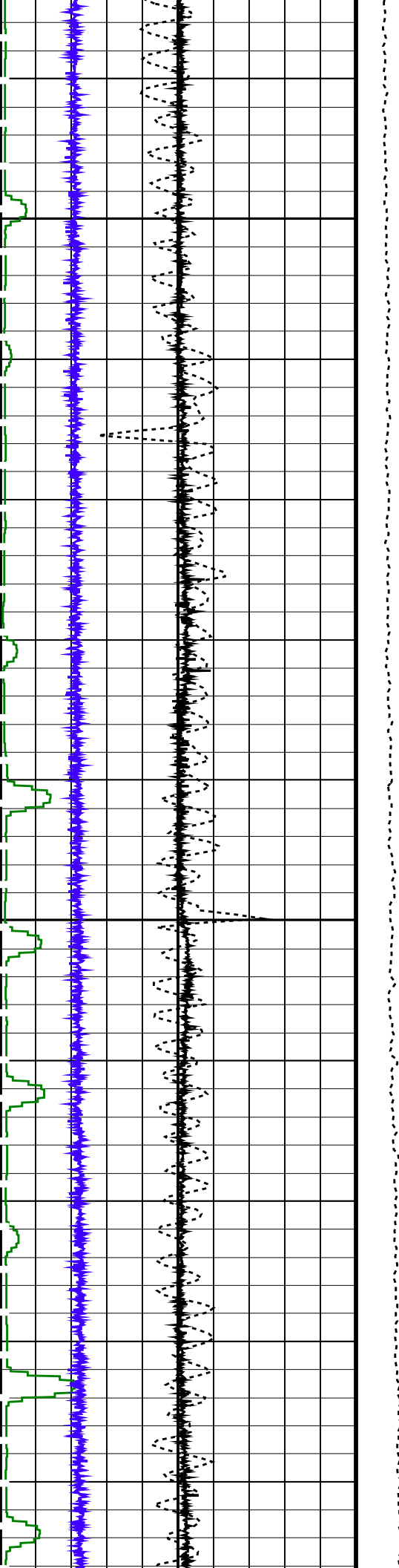




775

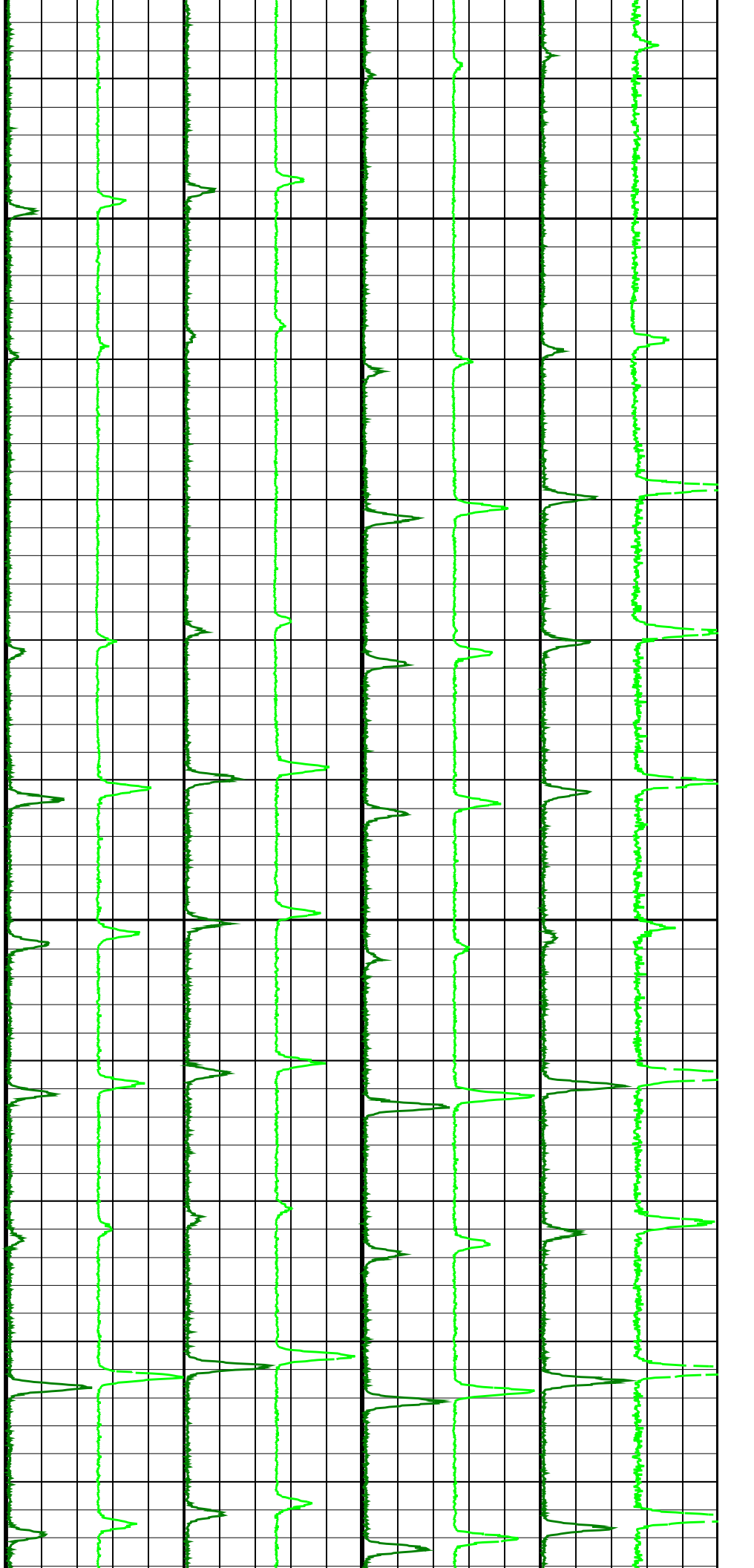
800

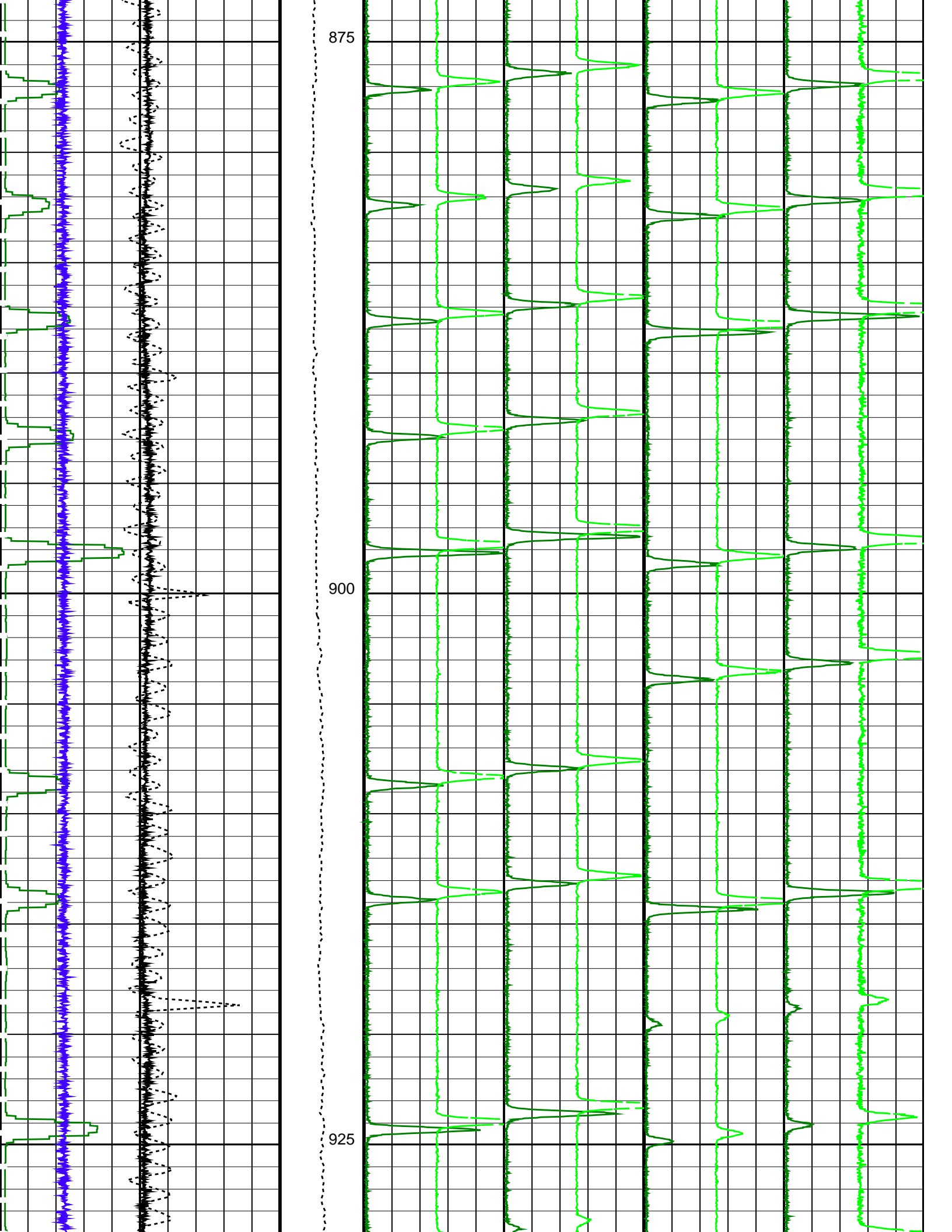


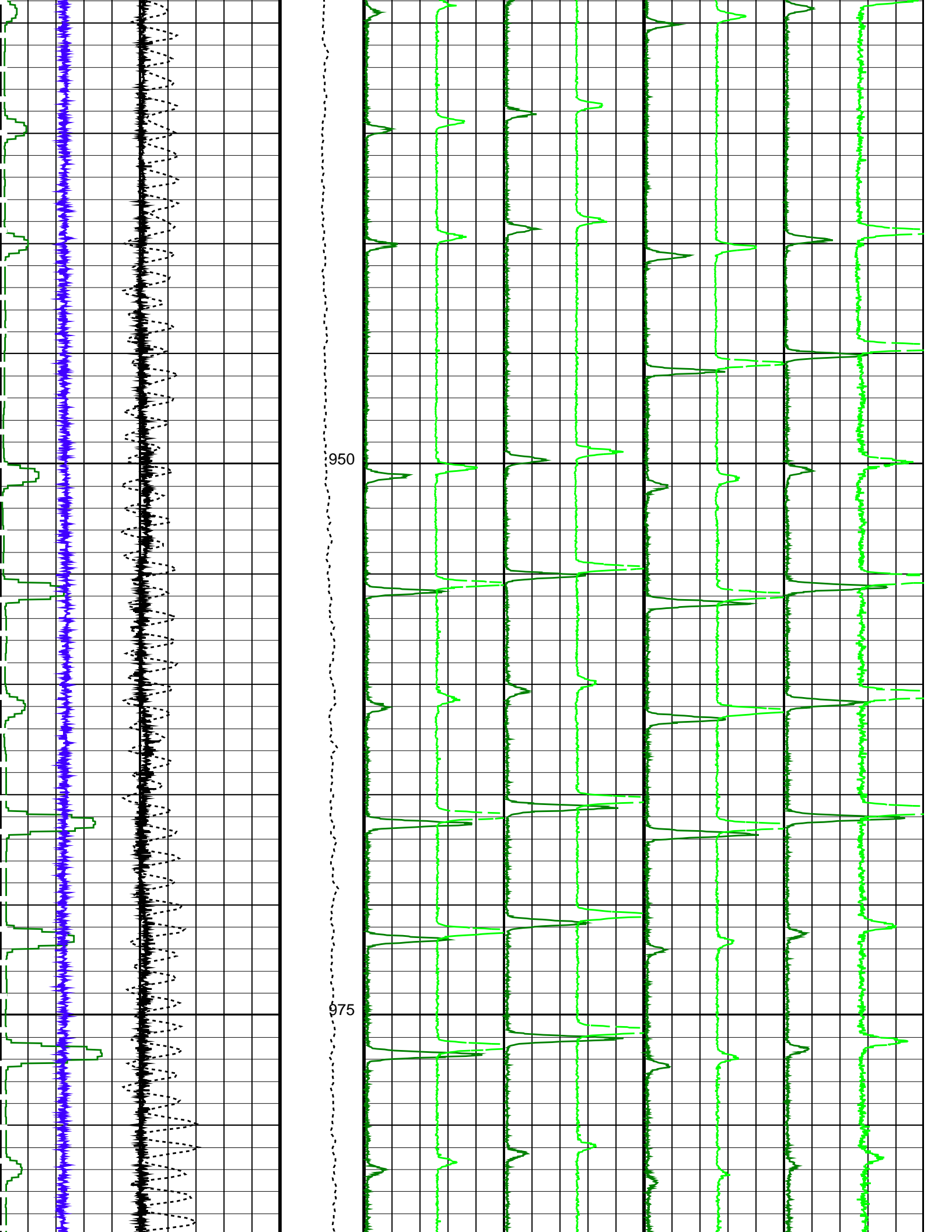


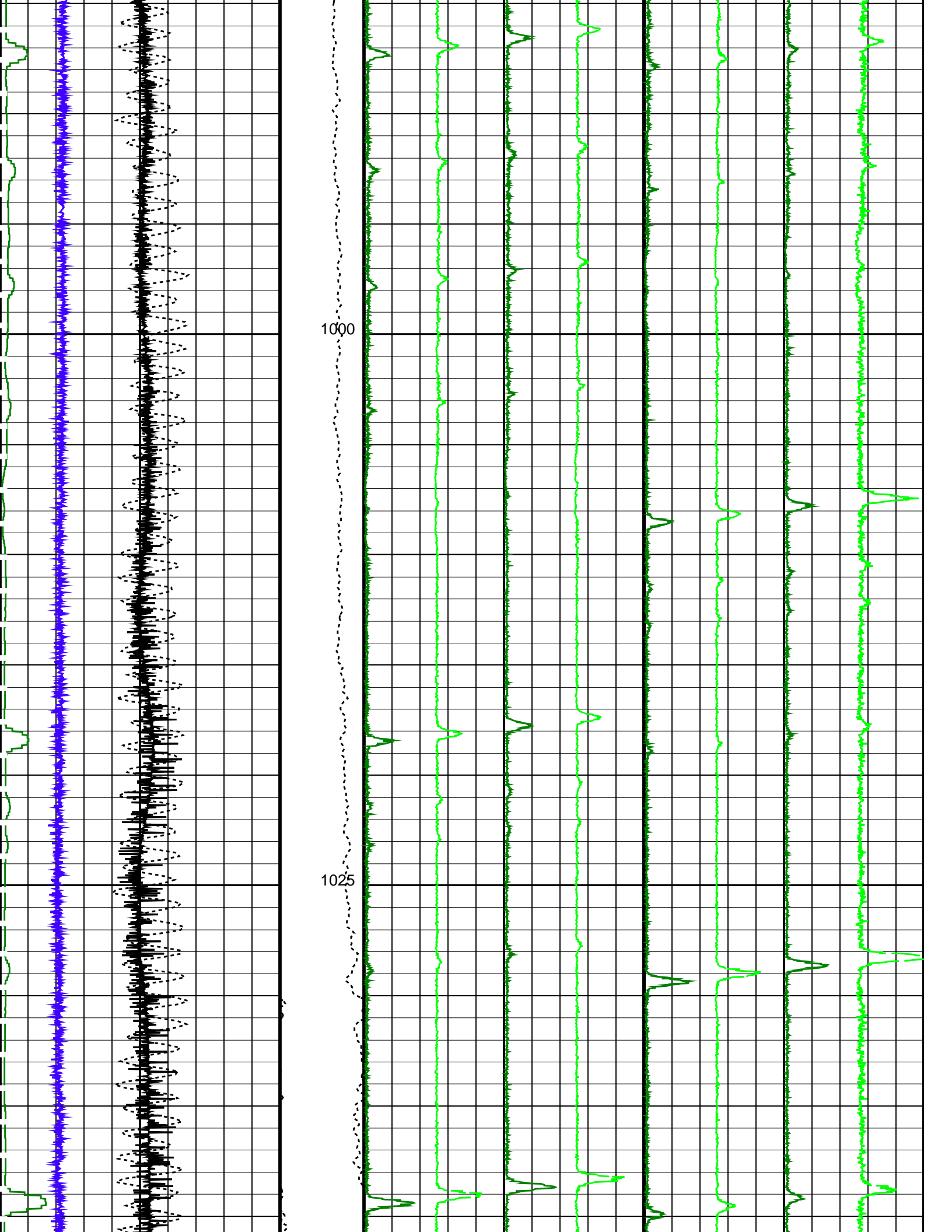
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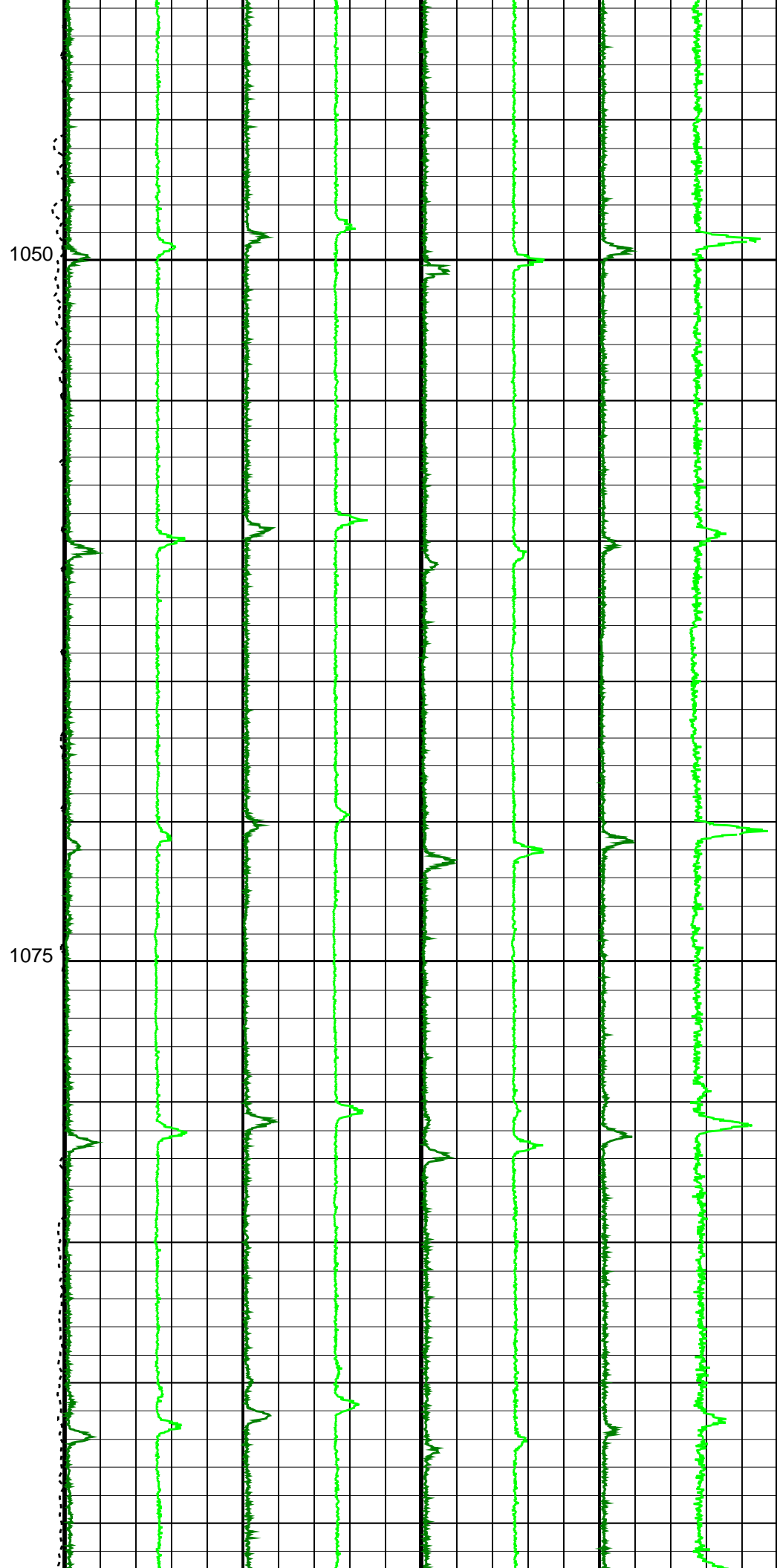
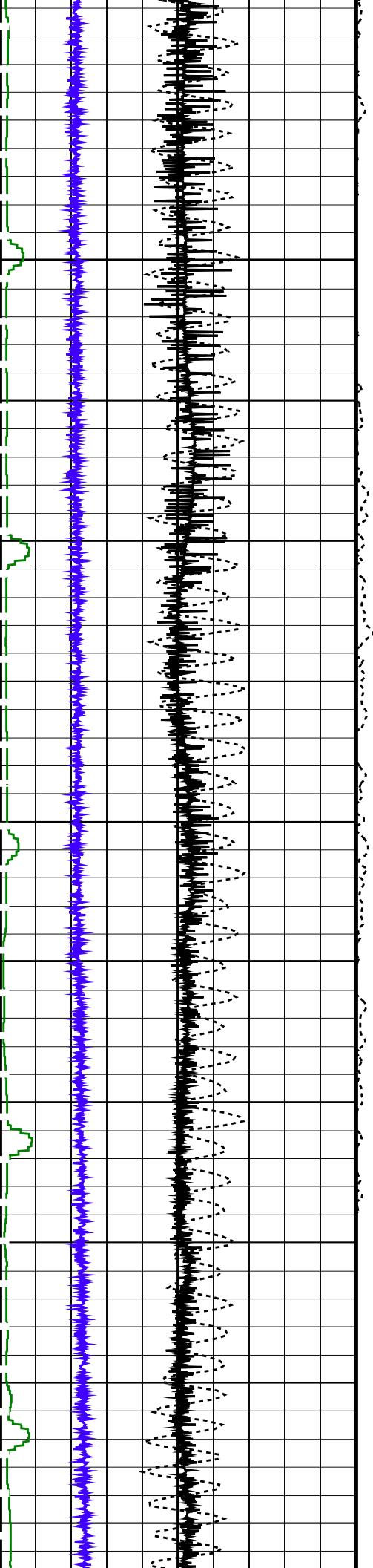
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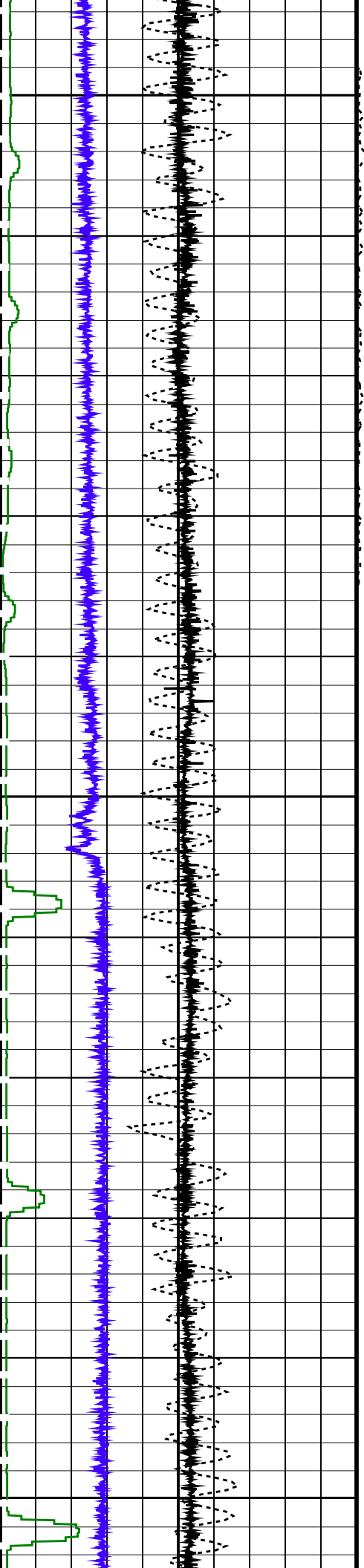








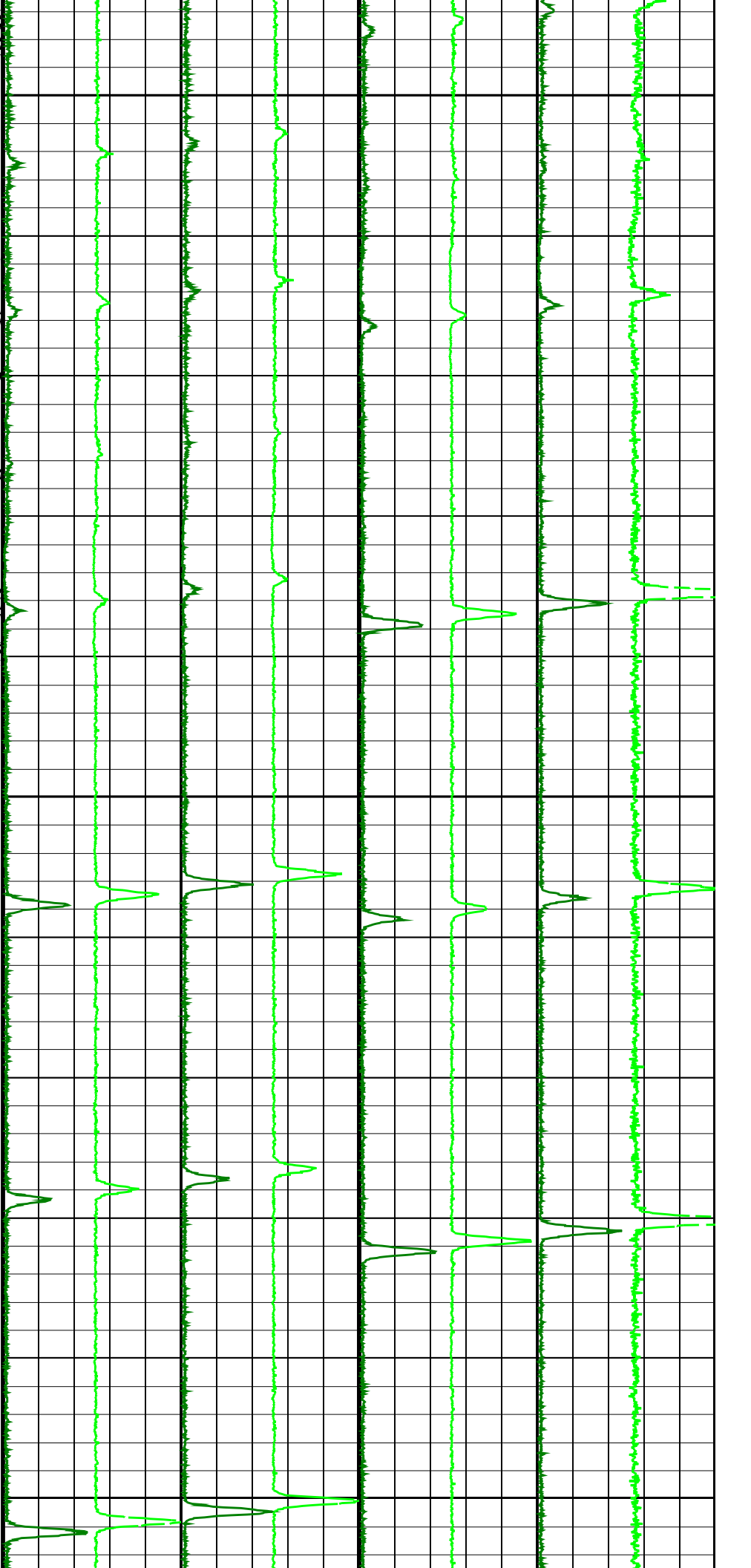


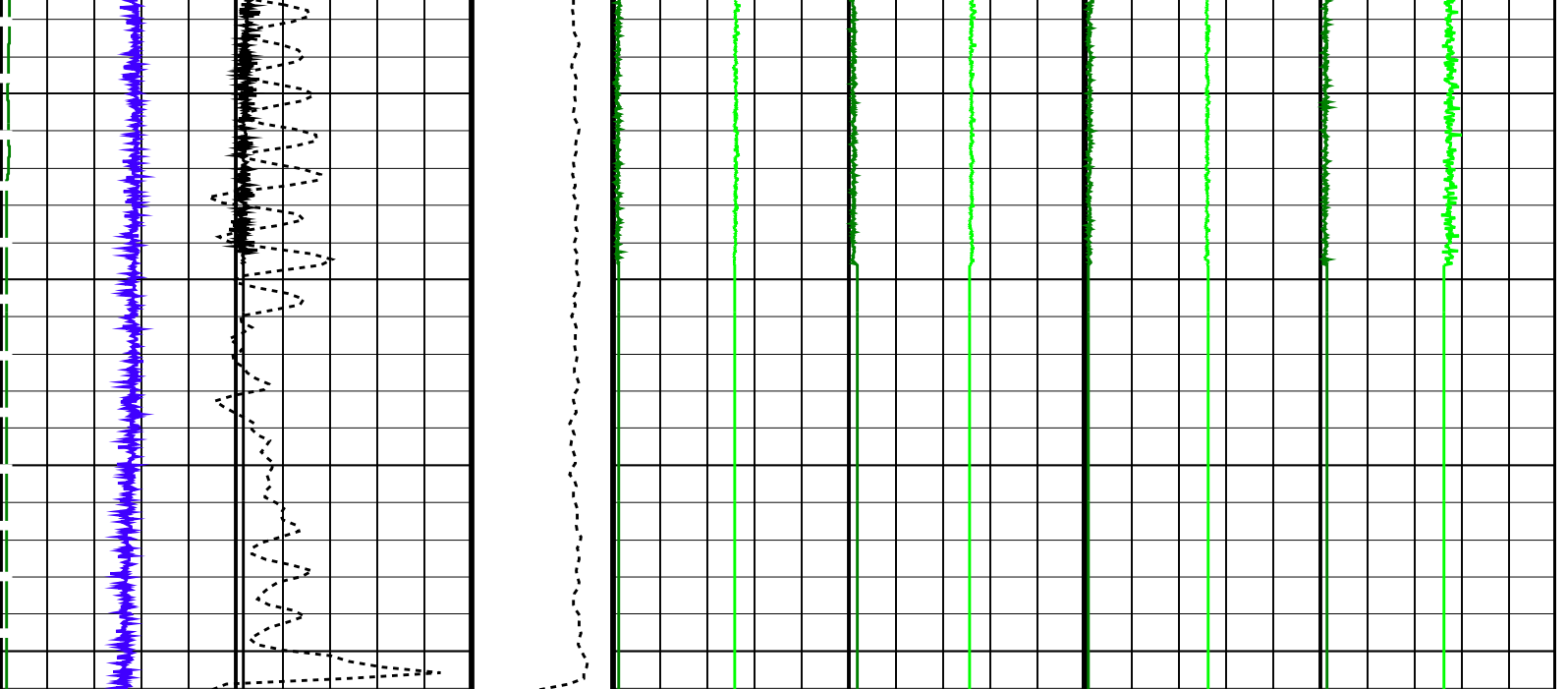


1100

1125

1150





FSMT Acceleration (FSMT_ACC) (M/S ²)	7	12	Tension (TENS) (LBF)	0	200	Gamma Ray 1 (GR1) (CPS) 2500	Gamma Ray 3 (GR3) (CPS) 2500	FSMT GR5 (GR5) (CPS) 2500	FSMT GR7 (GR7) (CPS) 2500
Cable Speed (CS) (F/HR)	350	250				Gamma Ray 2 (GR2) (CPS) 1250	Gamma Ray 4 (GR4) (CPS) 1250	FSMT GR6 (GR6) (CPS) 1250	FSMT GR8 (GR8) (CPS) 1250
PBMS Gamma Ray (GR) (GAPI)	0	2000							
FSMT Detector Temperature (FSMT_DTEM) (DEGC)	0	100							

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	0.0 M
PP	Depth Offset for Playback Playback Processing	RECOMPUTE

Format: FSMT_Basic Vertical Scale: 1:200 Graphics File Created: 06-Feb-2019 15:42

OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1_b PSPT-1705 19C2-270

Input DLIS Files

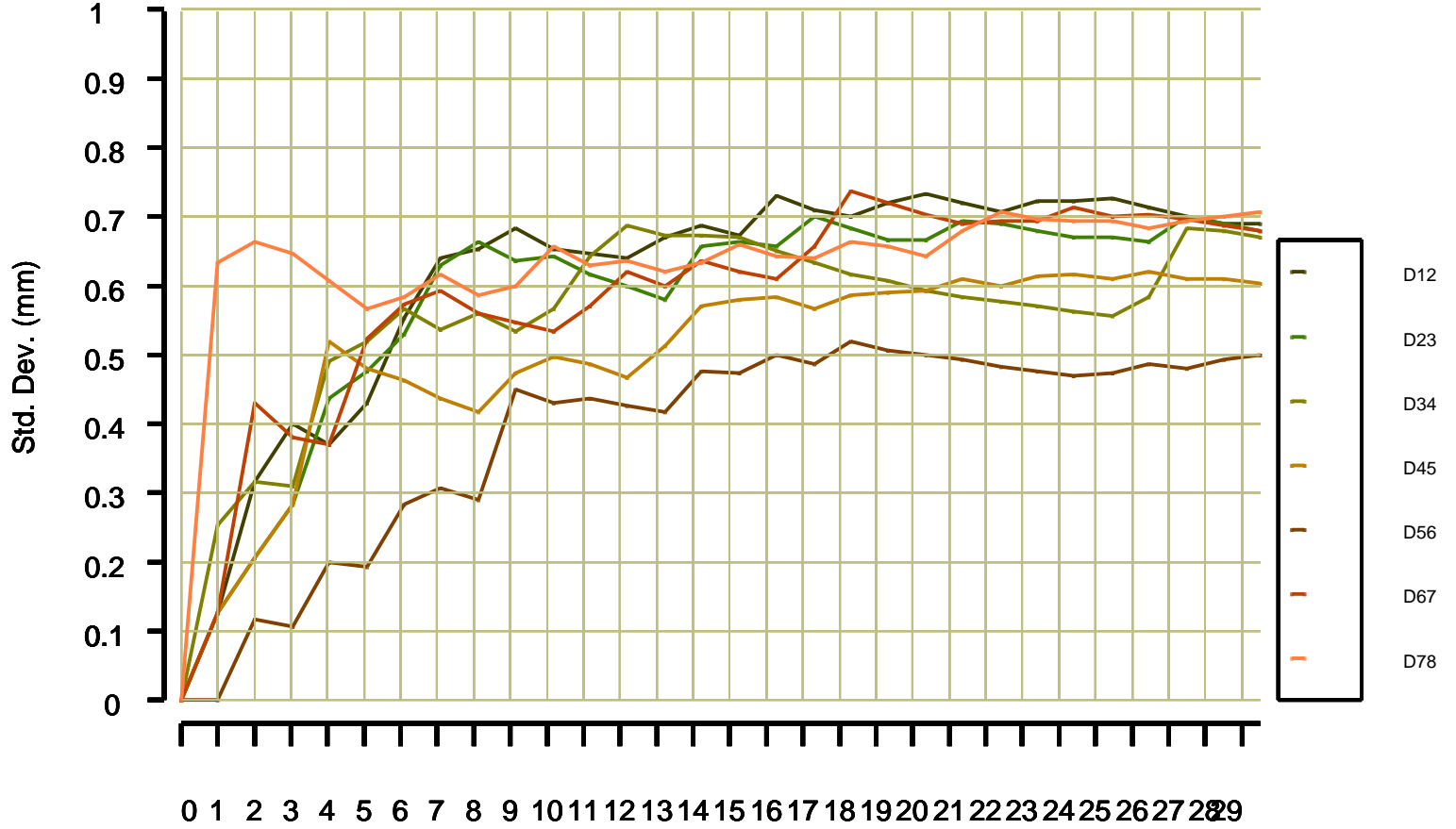
DEFAULT	FSMT_PSP_018LUP	FN:29	PRODUCER	06-Feb-2019 15:26	1171.0 M	694.3 M
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Output DLIS Files

DEFAULT	FSMT_PSP_003PUP	FN:3	PRODUCER	06-Feb-2019 15:42
CUSTOMER	FSMT_PSP_003PUC	FN:4	CUSTOMER	06-Feb-2019 15:42

MAXIS Field Log

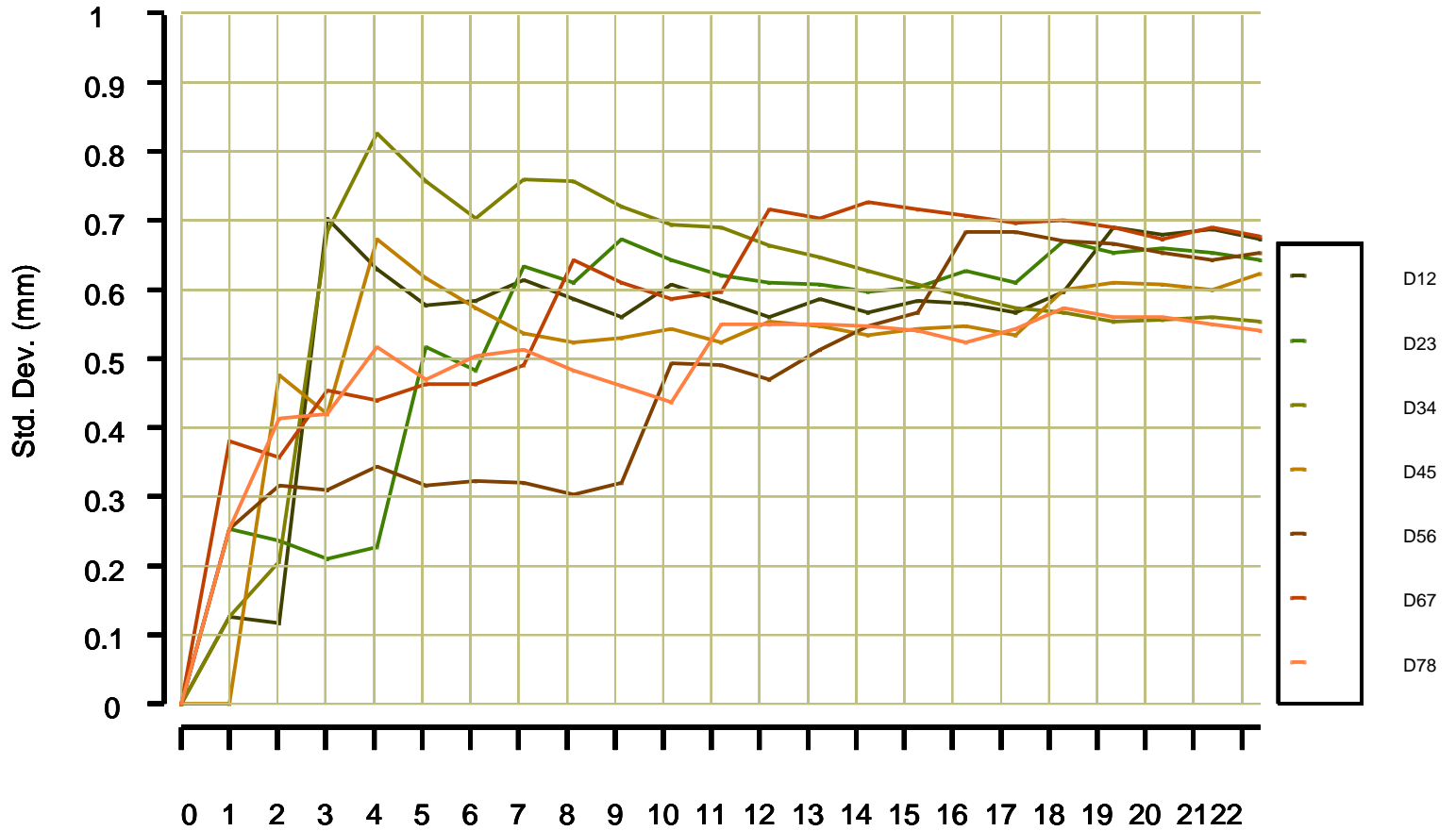
17-Oct-2018 – FSMT-E SN 701 – Cumulative Standard Deviation (at -1.3°C)



Calibration passes

- DET12 = 0.369289 m (± 0.69 mm)
- DET23 = 0.368878 m (± 0.68 mm)
- DET34 = 0.368393 m (± 0.67 mm)
- DET45 = 8.895258 m (± 0.61 mm)
- DET56 = 0.368495 m (± 0.50 mm)
- DET67 = 0.366835 m (± 0.68 mm)
- DET78 = 0.370220 m (± 0.71 mm)

14-Jan-2019 – FSMT-E SN 701 – Cumulative Standard Deviation (at 1.5°C)



Calibration passes

- DET12 = 0.369369 m (± 0.67 mm)
- DET23 = 0.368321 m (± 0.64 mm)
- DET34 = 0.368410 m (± 0.55 mm)
- DET45 = 8.895102 m (± 0.63 mm)
- DET56 = 0.368399 m (± 0.66 mm)
- DET67 = 0.366334 m (± 0.68 mm)
- DET78 = 0.370619 m (± 0.54 mm)

Company: ENI U&TS



Well: BONACCIA NW 1DIR

Field: BONACCIA

Log: FSMT-E

Country: Italy

FSMT-E
Formation Subsidence Monitoring Tool

1150 - 700 m

