

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

Longitude 14°20'8.561" E Latitude 34°35'59.751" N

	Run 1	Run 2	
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	13-Nov-2020	
Run Number	5 FSMT	
Depth Driller	1365 m	
Schlumberger Depth	1170 m	
Bottom Log Interval	1170 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	31 degC	
Logger On Bottom	Time	
Unit Number	Location	
Recorded By	M. Civitarese	
Witnessed By	V. Steven	

Logging Date	13-Nov-2020	
Run Number	5 FSMT	
Depth Driller	1365 m	
Schlumberger Depth	1170 m	
Bottom Log Interval	1170 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	
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Casing/Tubing Size	2.875 in	
Weight	6.4 lbn/ft	
Grade	P105	
From	0 m	
To	1121 m	
Maximum Recorded Temperatures	31 degC	
Logger On Bottom	Time	
Unit Number	Location	
Recorded By	M. Civitarese	
Witnessed By	V. Steven	

DEPTH SUMMARY LISTING

Date Created: 15-NOV-2020 8:58:50

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 4723 Calibration Date: 24-Sep-2017 Calibrator Serial Number: 15 Calibration Cable Type: 2-23ZT Wheel Correction 1: -2 Wheel Correction 2: -1	Type: CMTD-B/A Serial Number: 1798 Calibration Date: 05-NOV-2020 Calibrator Serial Number: 1755 Number of Calibration Points: 10 Calibration RMS: 2 Calibration Peak Error: 5	Type: 2-23ZT Serial Number: Length: 6000 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:	4 FSMT
Reference Log Date:	02-SEP-2019
Subsequent Trip Down Log Correction:	

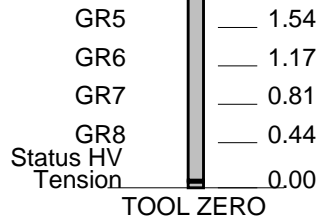
Depth Control Remarks

1. All SLB depth control procedure were followed
2. IDW used as primary depth control, Z-Chart used 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	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
Log objective: Monitoring Formation Subsidence by time laps technique	
Log correlated with FSMT-E Run 4 performed by SLB on 2-Sep-2019	
Tool ID 1.69in, WP used Blue 1800-2150 lbf. Tool zero at bottom	
Pressure test performed @2500 psi, WHP 60 Bar	
Before calibration performed on 8-Sep-2020	
After calibration performed on 2-Dec-2020	
Adapter Flange 3 1/16 10 Kpsi single	



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



JOB EVENT SUMMARY

MAXIS Field Log

Schlumberger Job Event Summary

	Time	Elapsed Time	Depth (M)	File
Log Pass (up)	12-Nov-2020 9:44	000:06	741.4 - 704.5	FSMT_PSP_006LUP
Log Pass (up)	12-Nov-2020 10:07	005:19	1170.9 - 694.6	FSMT_PSP_007LUP
Log Pass (up)	13-Nov-2020 9:07	005:18	1171.0 - 693.1	FSMT_PSP_012LUP
Log Pass (up)	14-Nov-2020 11:04	005:16	1172.1 - 693.4	FSMT_PSP_022LUP



FINAL RESULTS 1150m – 700m

MAXIS Field Log

Well Name: BONACCIA NW 1DIR
Run Date : 13-Nov-2020
Zone Name: FINAL1
Tool String: FSMT-E S/N 702
Reference Detector: DET1
File 0: FSMT_17.fsf
File 1: FSMT_18.fsf
File 2: FSMT_23.fsf (Reference File)

08-Sep-2020 : Calibrated Detector Spacings at 36.0°C (m):

D12 = 0.368003
D23 = 0.368625
D34 = 0.368818
D45 = 8.894343
D56 = 0.368219
D67 = 0.368618
D78 = 0.368181

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 Average (~21 Meas.)	Std Dev (3 passes)
0	1151.22808		
1	1139.38203	11.83814	4.65609
2	1128.87964	10.49547	1.62675
3	1118.39376	10.47545	0.93484
4	1107.90584	10.4736	7.3883
5	1102.65007	5.23481	3.6573
6	1092.10399	10.52226	1.35085
7	1081.63259	10.47292	3.03069
8	1071.07838	10.51733	2.93074
9	1060.43858	10.49558	6.83546
10	1049.96082	10.49108	1.88682
11	1039.50974	10.49426	0.57933
12	1028.9507	10.50882	8.51558
13	1018.55093	10.43682	4.15815
14	1008.11864	10.50451	15.0585
15	997.97261	10.14722	2.93847

15	997.97261	10.14732	3.83847
16	992.66426	5.27087	0.60815
17	987.38792	10.54192	1.36551
18	982.13114	10.52909	2.44288
19	976.8741	10.49756	1.63416
20	971.64119	10.48665	0.53487
21	966.41082	10.4744	0.61697
22	961.10807	10.53559	1.85015
23	955.87643	10.52702	2.48203
24	950.62447	10.47838	4.00899
25	940.12411	10.48406	2.08284
26	934.90746	5.22303	2.11386
27	929.59378	10.52932	2.08211
28	924.37357	10.52454	1.90403
29	913.95576	10.42531	0.46437
30	908.73454	5.22379	2.64645
31	898.22681	10.50817	0.89637
32	892.96139	5.26494	1.81506
33	887.71146	10.51008	1.54467
34	882.44909	10.5096	0.79494
35	877.20044	10.50295	1.0053
36	871.94035	10.50709	0.79525
37	866.68966	10.51397	0.3435
38	861.41992	10.52352	3.81595
39	856.23553	10.45418	2.20984
40	850.88553	10.52791	1.47858
41	845.73314	10.50229	0.99158
42	840.47966	10.40618	1.95744
43	829.93323	10.5404	4.68962
44	824.76188	5.17089	2.64442
45	814.22749	10.53013	0.98364

46	803.6875	10.55166	2.66114
47	793.22041	10.46605	3.16186
48	782.68551	10.52772	0.96674
49	772.21919	10.46811	2.04524
50	761.7714	10.43522	1.19095
51	751.26774	10.50438	0.49737
52	740.76916	10.49807	0.57336
53	730.27261	10.50104	0.62102
54	719.76463	10.50176	0.84546
55	709.42505	10.33882	1.05435

All Peaks were automatically detected with the following parameters:

```

FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200
FSMT_THRESHOLD = 120

```

Peak at depth 1028.95 m was processed using the following parameters

```

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

```

Peak at depth 1008.12 m was processed using the following parameters

```

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

```

Peak at depth 997.97 m was processed using the following parameters

```

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

```

Peak at depth 992.66 m was processed using the following parameters

```

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

```

Peak at depth 829.93 m was processed using the following parameters

```

FSMT_PEAKEYTYPE = SMALL_PEAK
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200

```

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

Input DLIS Files

DEFAULT	FSMT_PSP_007LUP	FN:12	PRODUCER	12-Nov-2020 10:07	1170.9 M	694.6 M
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Output DLIS Files

DEFAULT	FSMT_PSP_018PUP	FN:33	PRODUCER	13-Nov-2020 15:05	1171.3 M	695.1 M
CUSTOMER	FSMT_PSP_018PUC	FN:34	CUSTOMER	13-Nov-2020 15:05	1171.3 M	695.1 M
BACKUP	FSMT_PSP_018PUP	FN:35	PRODUCER	13-Nov-2020 15:02	1171.3 M	695.1 M

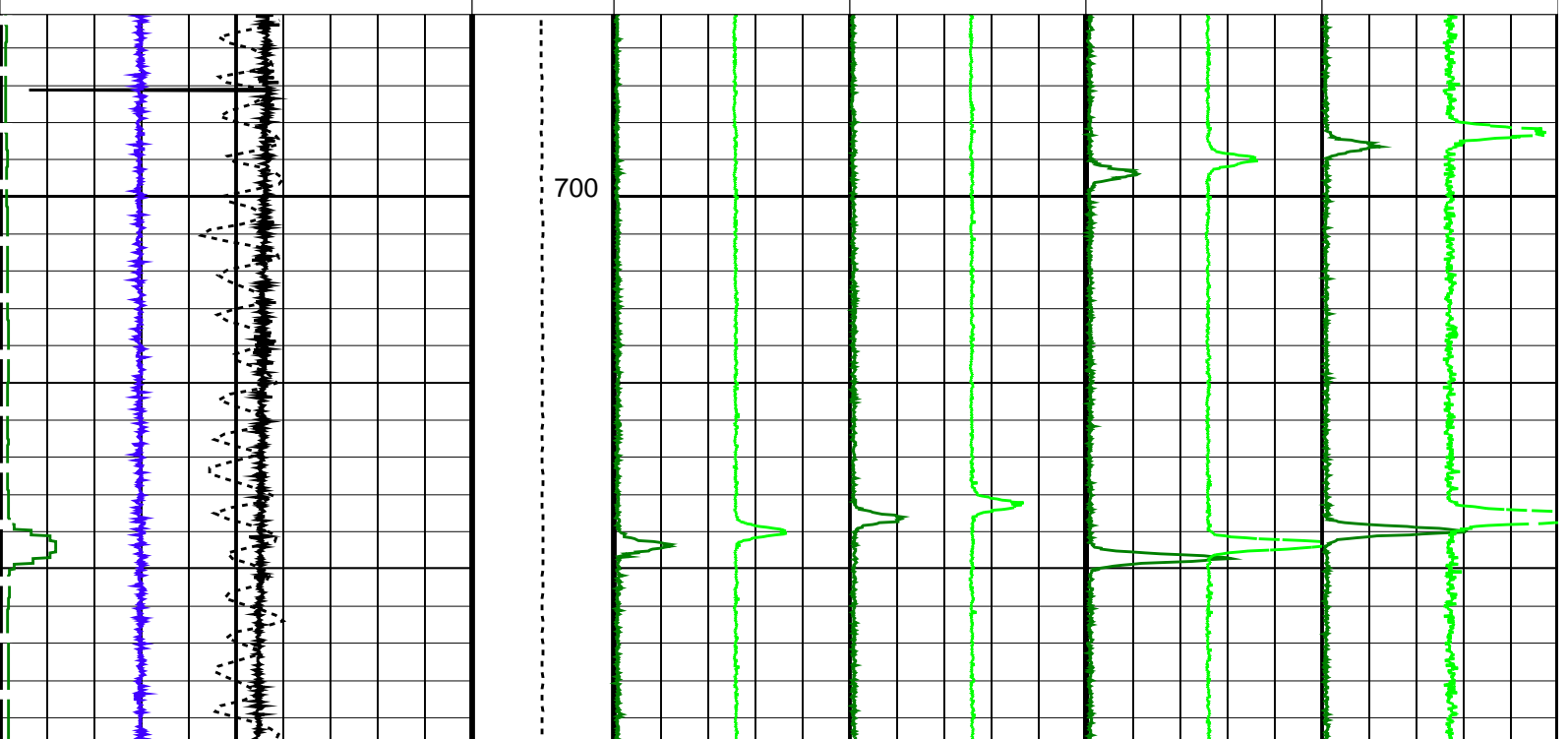
OP System Version: 19C2-270

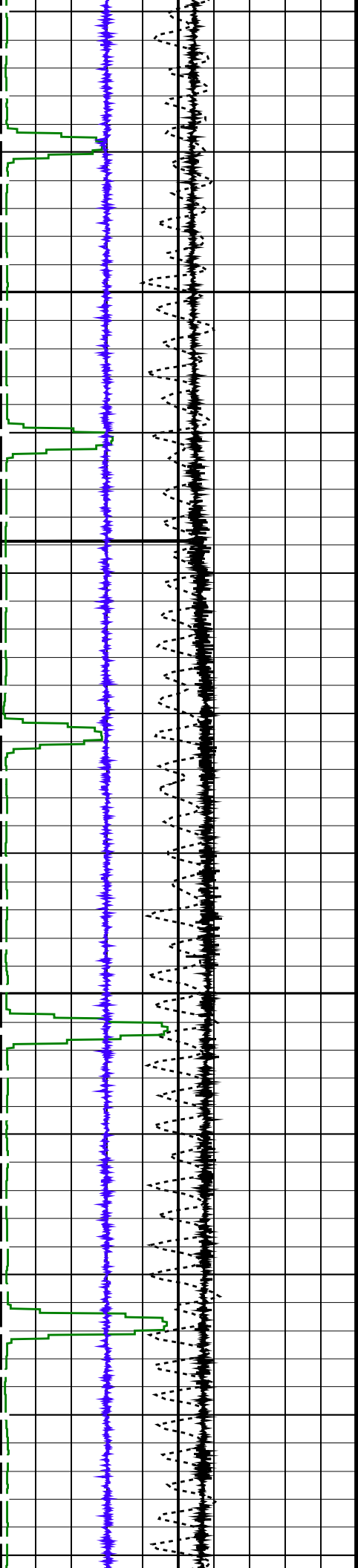
FSMT-E	19C2-270	PSPT	19C2-270
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PIP SUMMARY

Time Mark Every 60 S

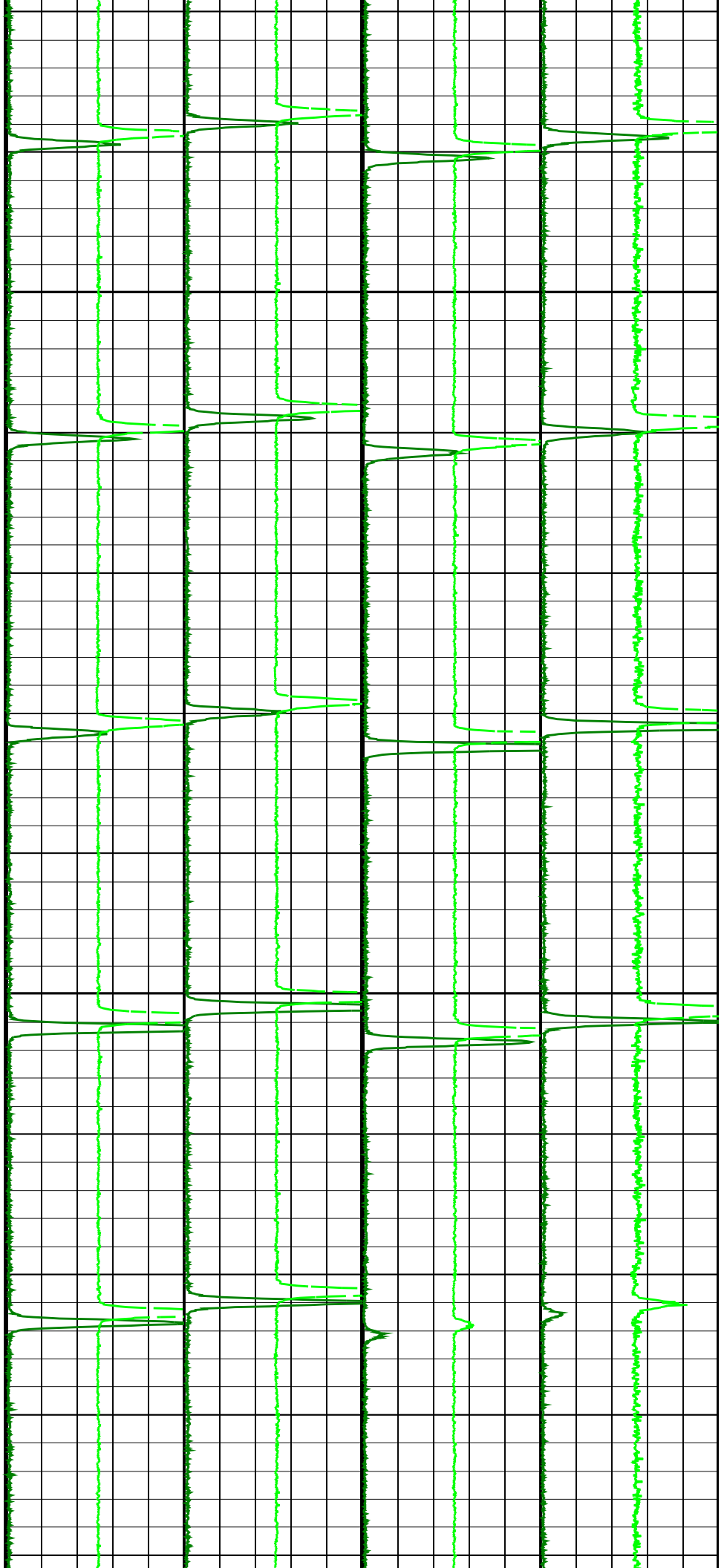
FSMT Detector Temperature (FSMT_DTEM) 0 (DEGC) 100						
PBMS Gamma Ray (GR) 0 (GAPI) 2000						
Cable Speed (CS) 350 (F/HR) 250		Gamma Ray 2 (GR2) -1250 (CPS) 1250	Gamma Ray 4 (GR4) -1250 (CPS) 1250	FSMT GR6 (GR6) -1250 (CPS) 1250	FSMT GR8 (GR8) -1250 (CPS) 1250	
FSMT Acceleration (FSMT_ACC) 7 (M/S2) 12		Tension (TENS) (LBF) 0 1000	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

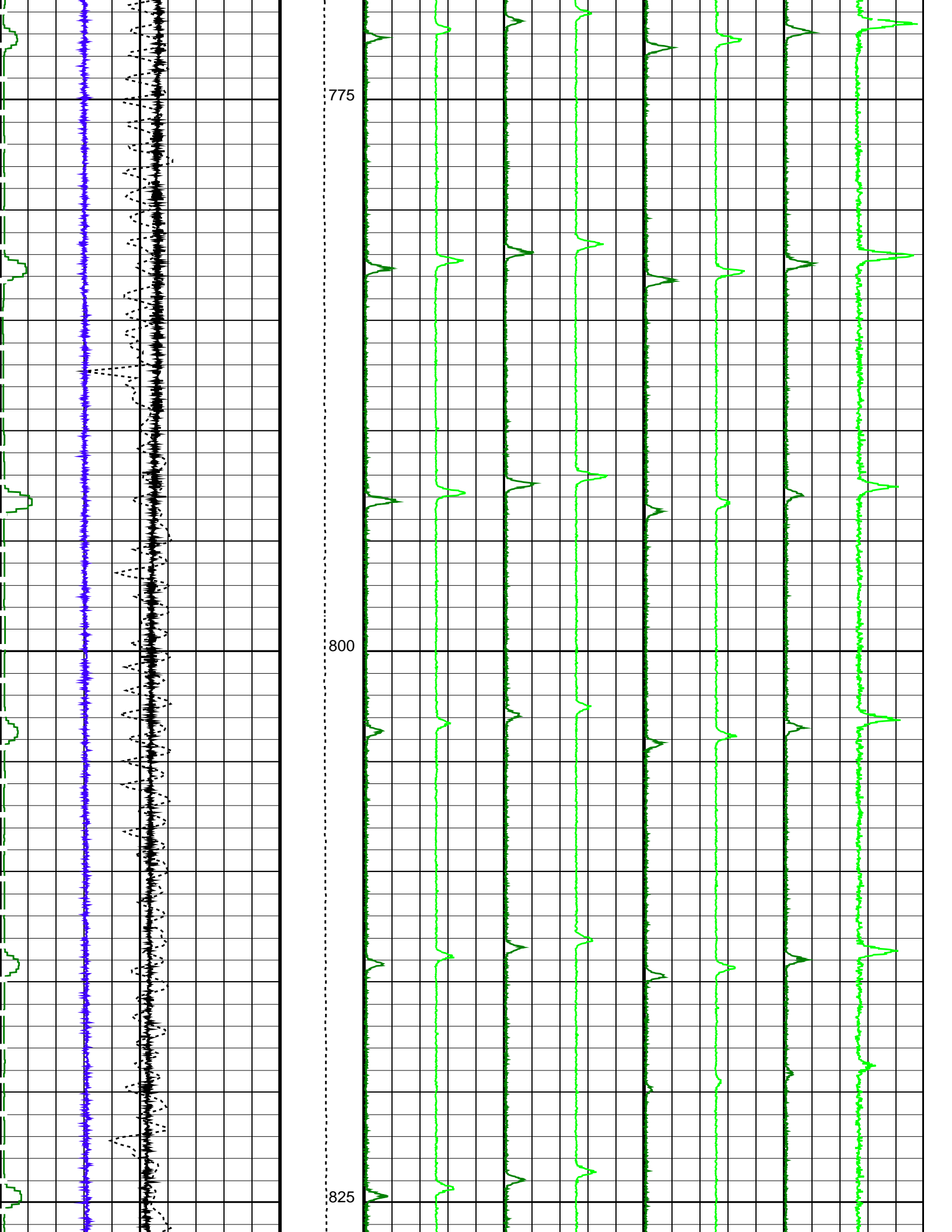


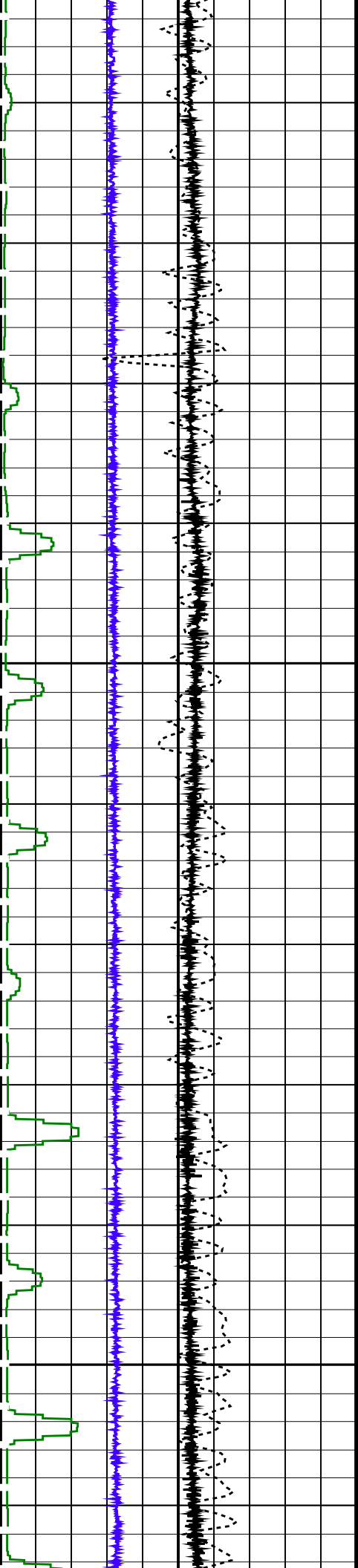


725

750

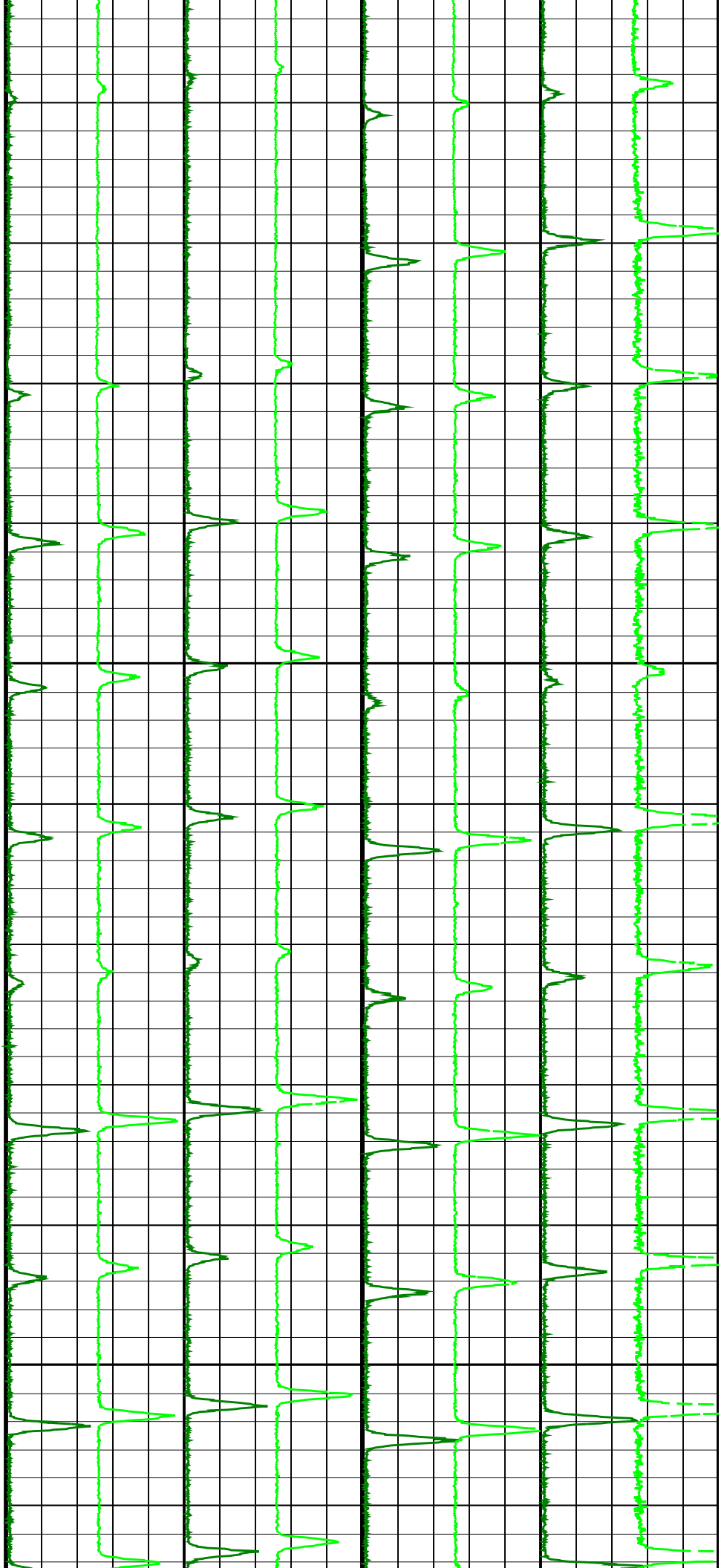


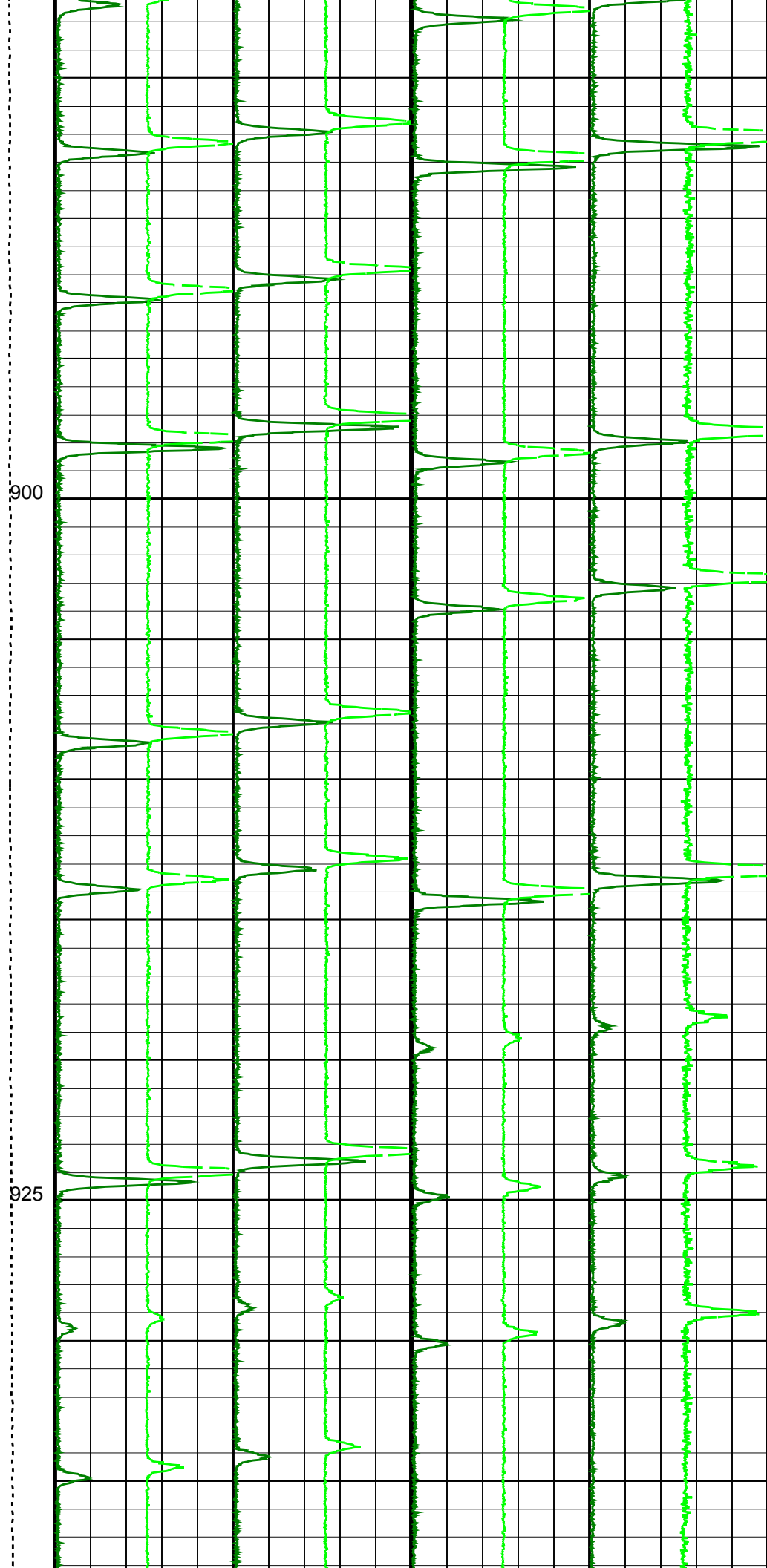
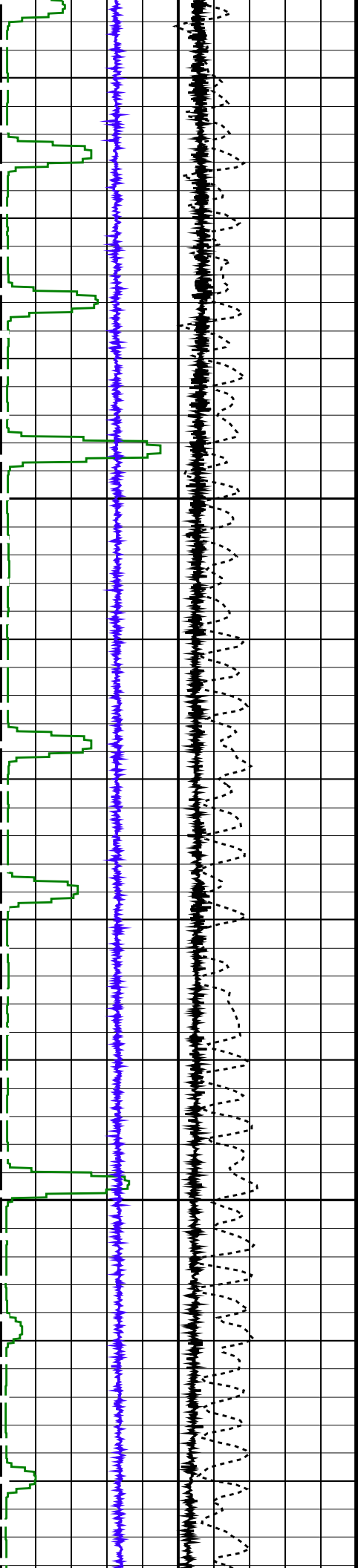


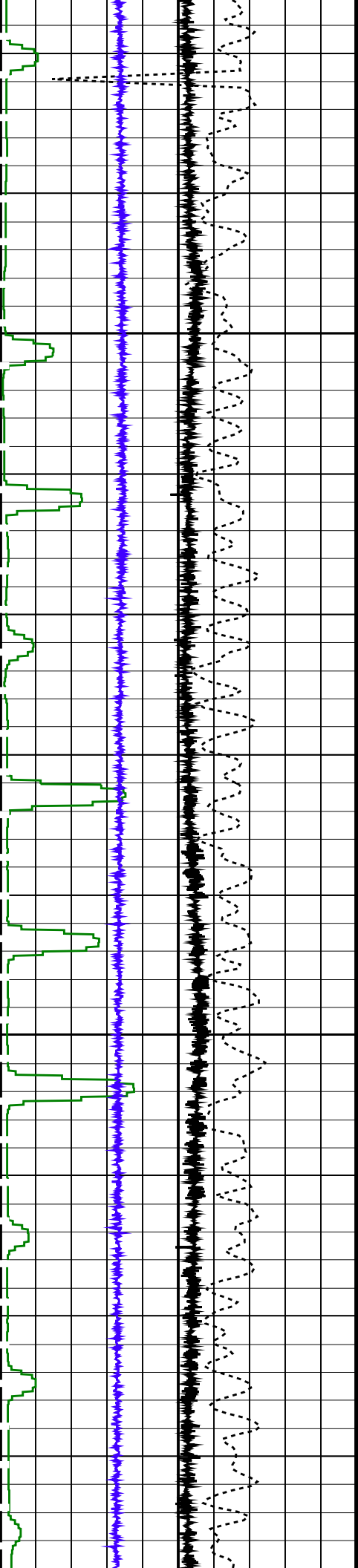


850

875

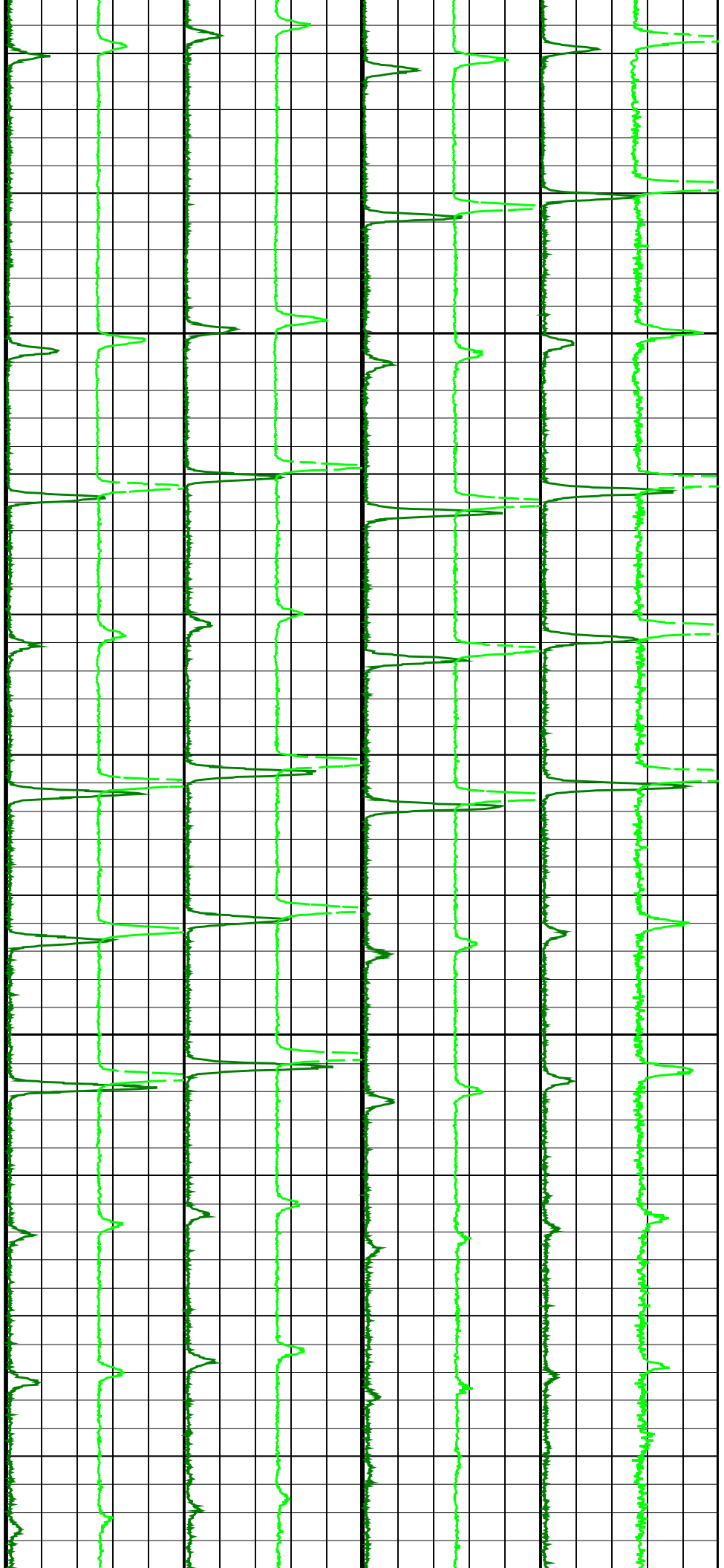


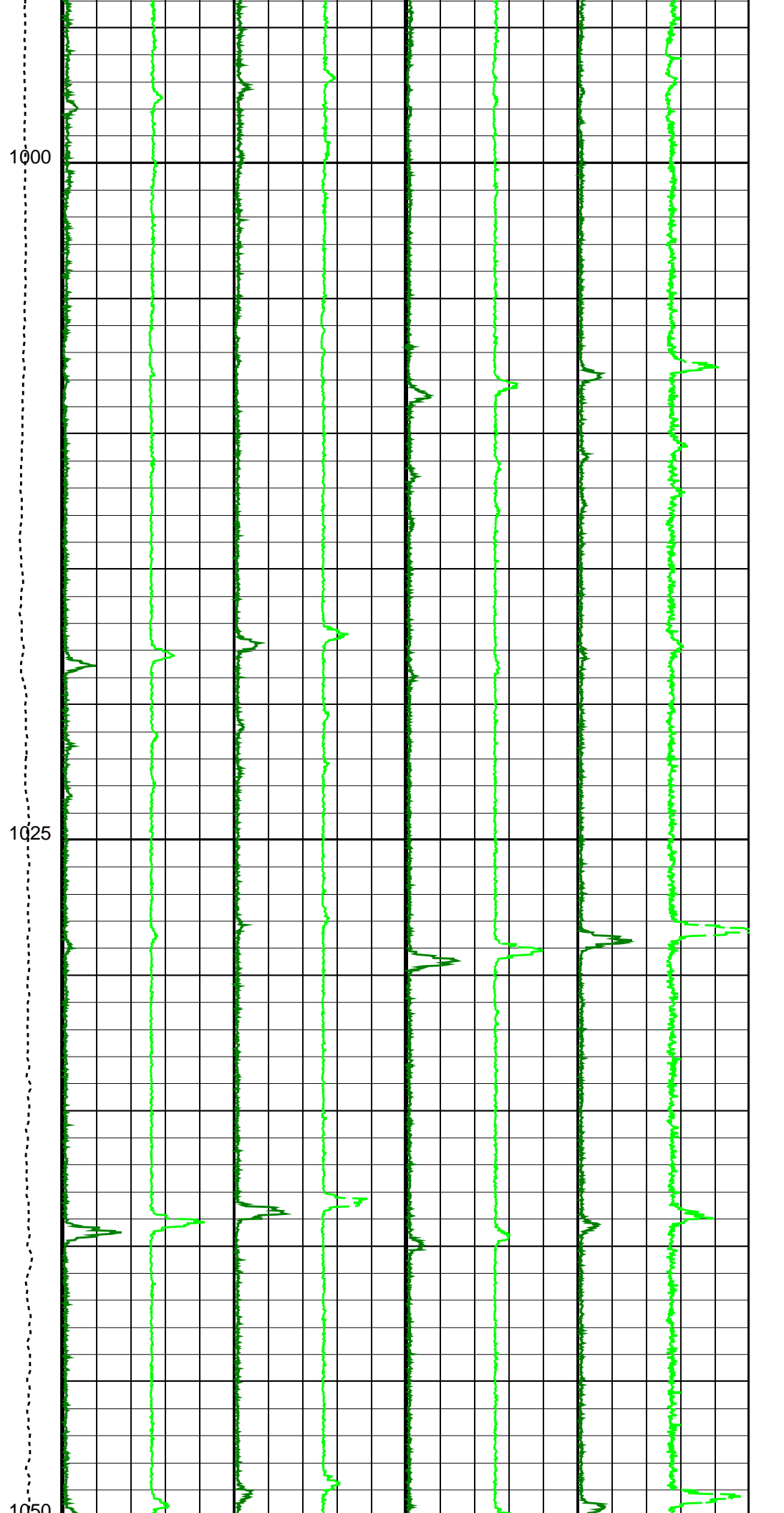
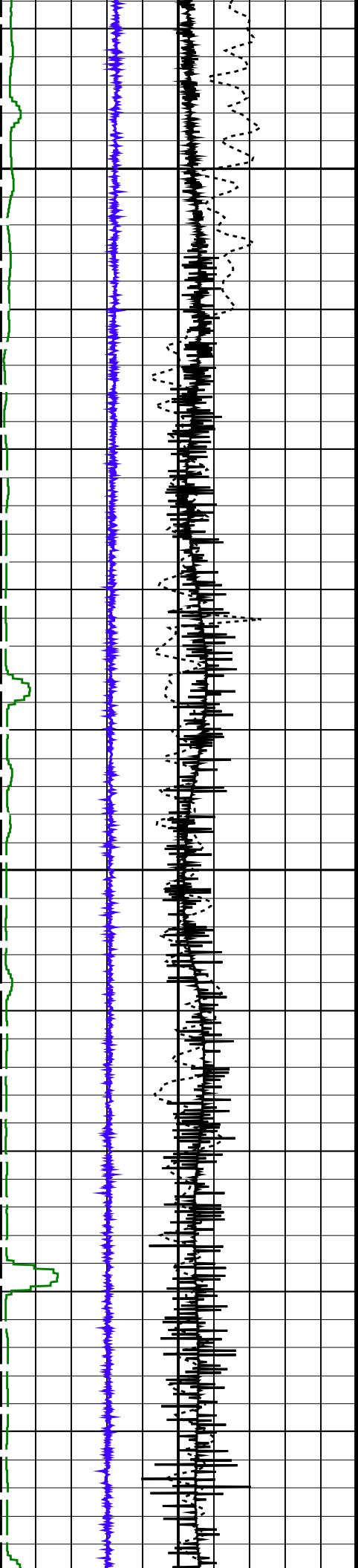


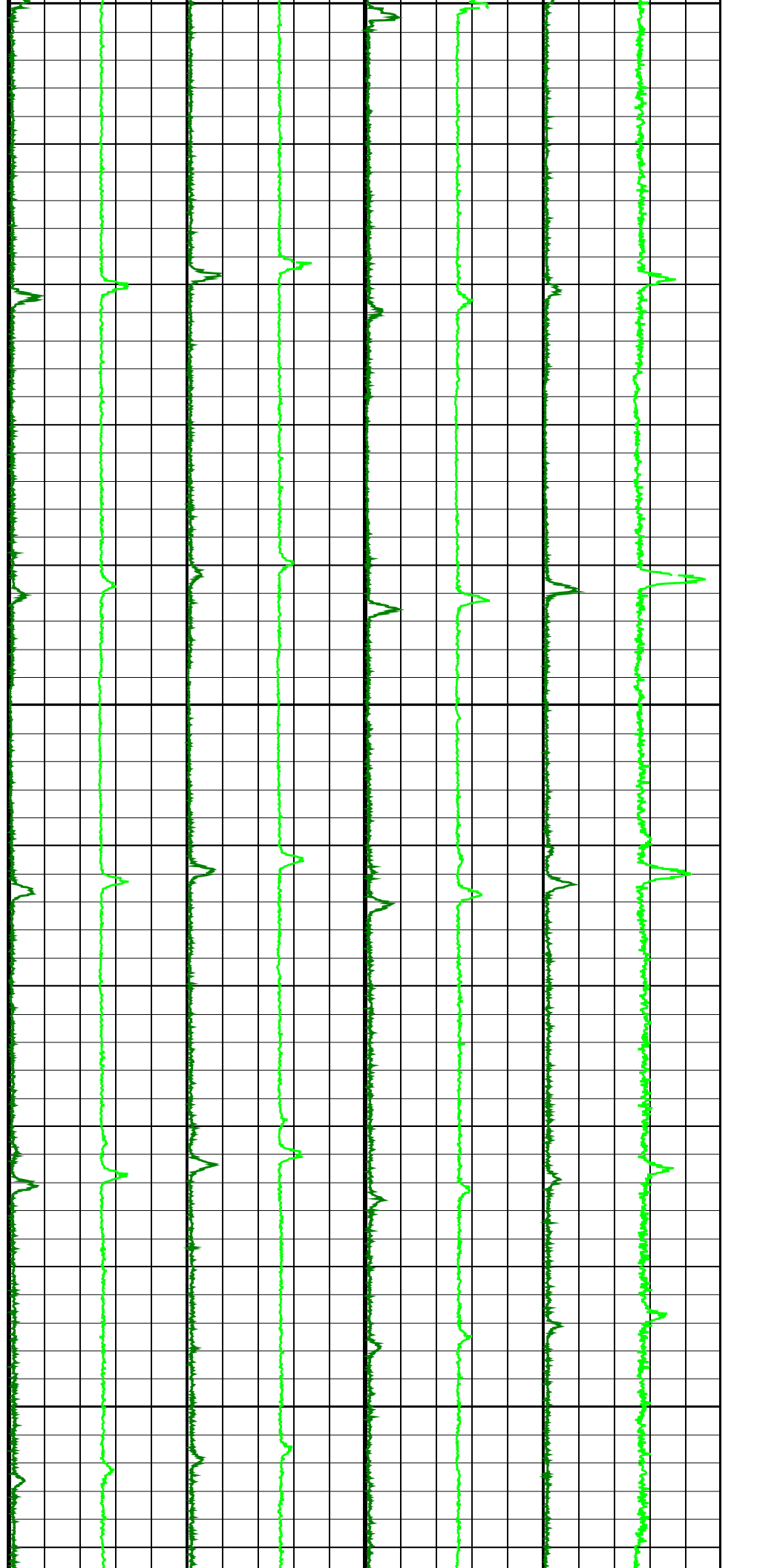
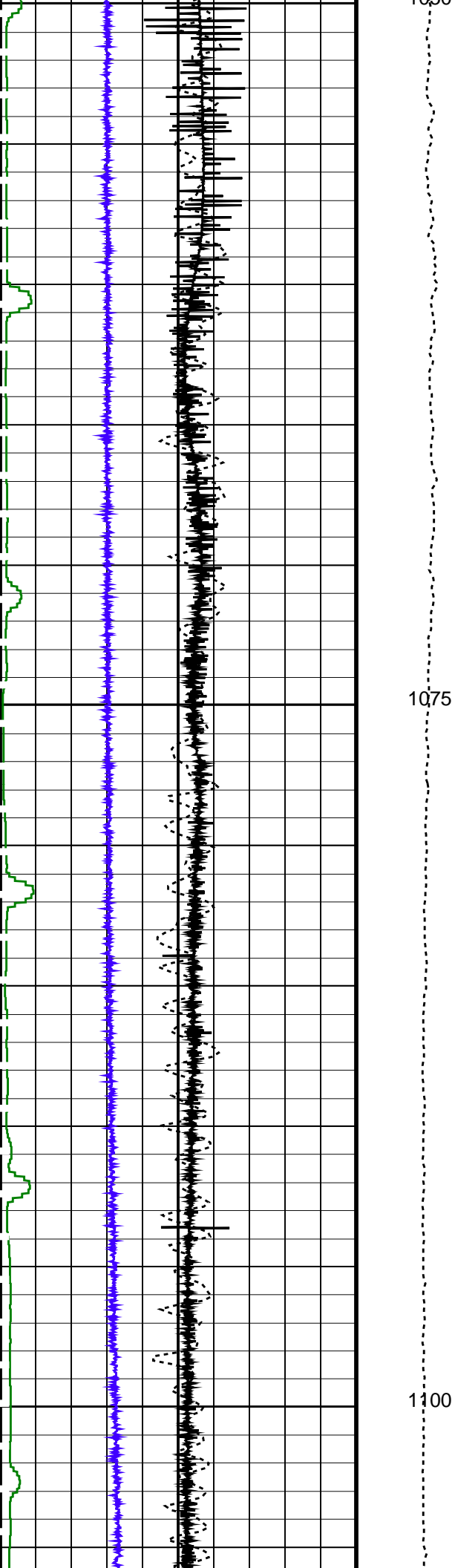


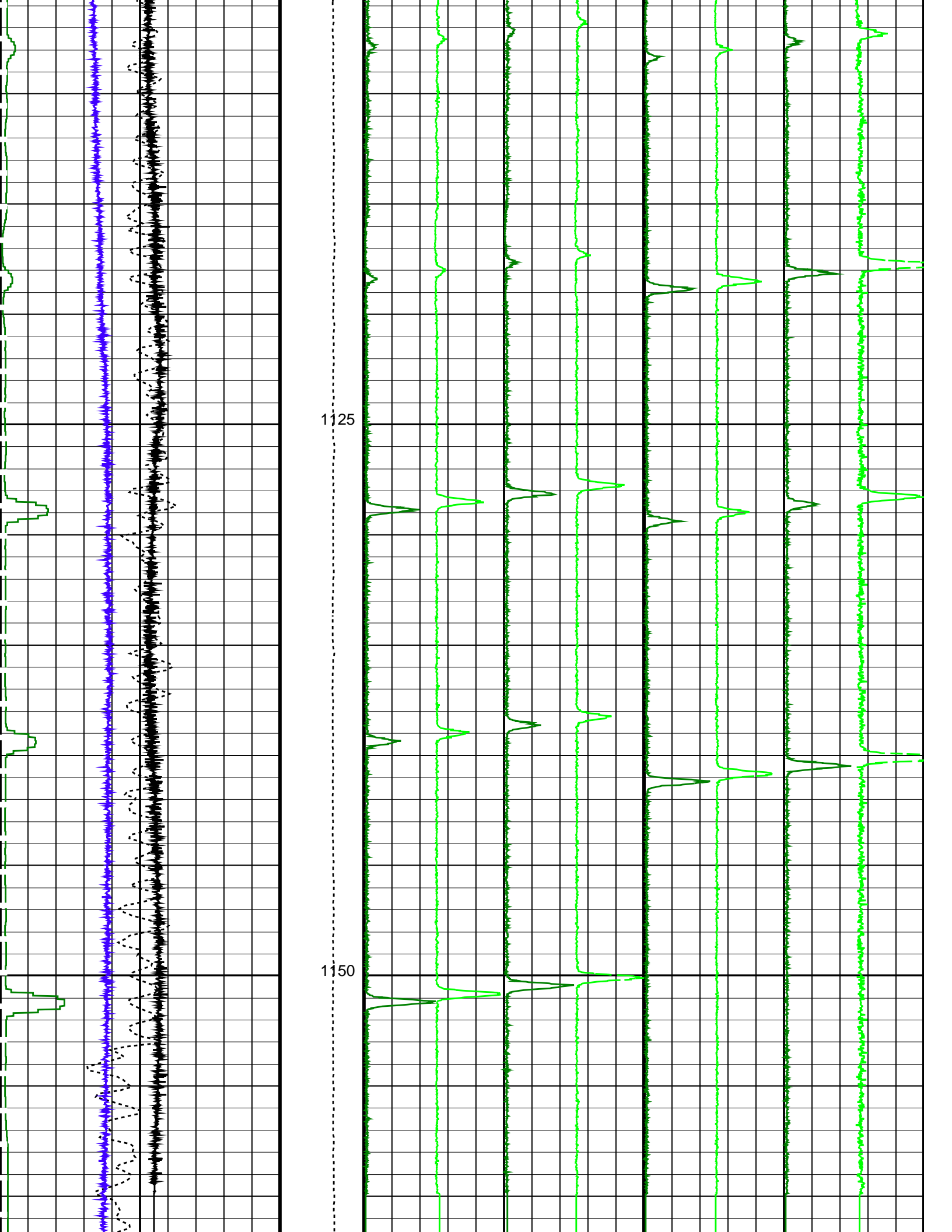
950

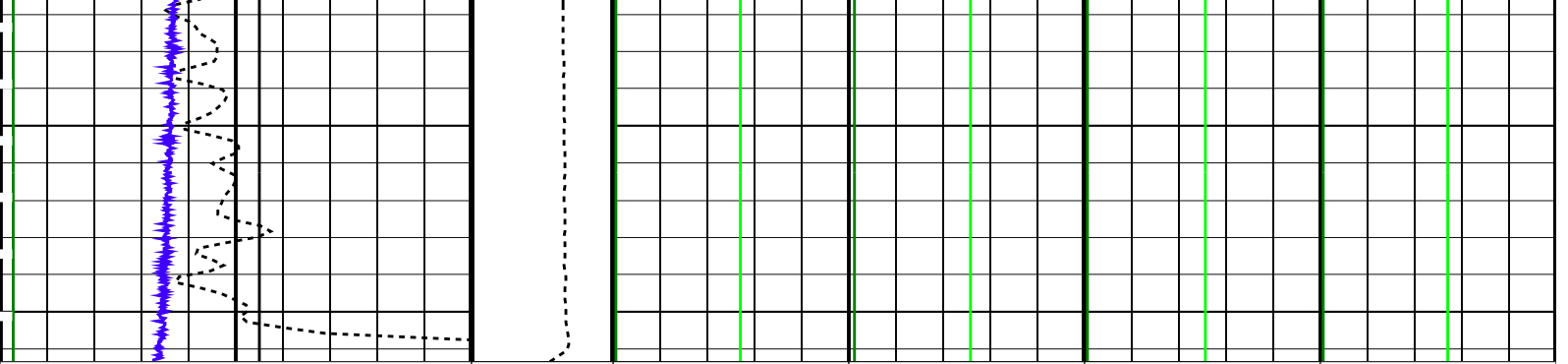
975











FSMT Acceleration (FSMT_ACC) (M/S2)	7	12	Tension (TENS) (LBF)	0	1000	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	0.4 M
PP	Depth Offset for Playback Playback Processing	NORMAL

Format: FSMT_Basic Vertical Scale: 1:200 Graphics File Created: 13-Nov-2020 15:05

OP System Version: 19C2-270

FSMT-E	19C2-270	PSPT	19C2-270
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Input DLIS Files

DEFAULT	FSMT_PSP_007LUP	FN:12	PRODUCER	12-Nov-2020 10:07	1170.9 M	694.6 M
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Output DLIS Files

DEFAULT	FSMT_PSP_018PUP	FN:33	PRODUCER	13-Nov-2020 15:05		
CUSTOMER	FSMT_PSP_018PUC	FN:34	CUSTOMER	13-Nov-2020 15:05		
BACKUP	FSMT_PSP_018PUP	FN:35	PRODUCER	13-Nov-2020 15:02		



PASS#2
1150m - 700m

Input DLIS Files

DEFAULT	FSMT_PSP_012LUP	FN:23	PRODUCER	13-Nov-2020 09:07	1171.0 M	693.1 M
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Output DLIS Files

DEFAULT	FSMT_PSP_017PUP	FN:30	PRODUCER	13-Nov-2020 14:38	1171.8 M	693.9 M
CUSTOMER	FSMT_PSP_017PUC	FN:31	CUSTOMER	13-Nov-2020 14:38	1171.8 M	693.9 M
BACKUP	FSMT_PSP_017PUP	FN:32	PRODUCER	13-Nov-2020 14:35	1171.8 M	693.9 M

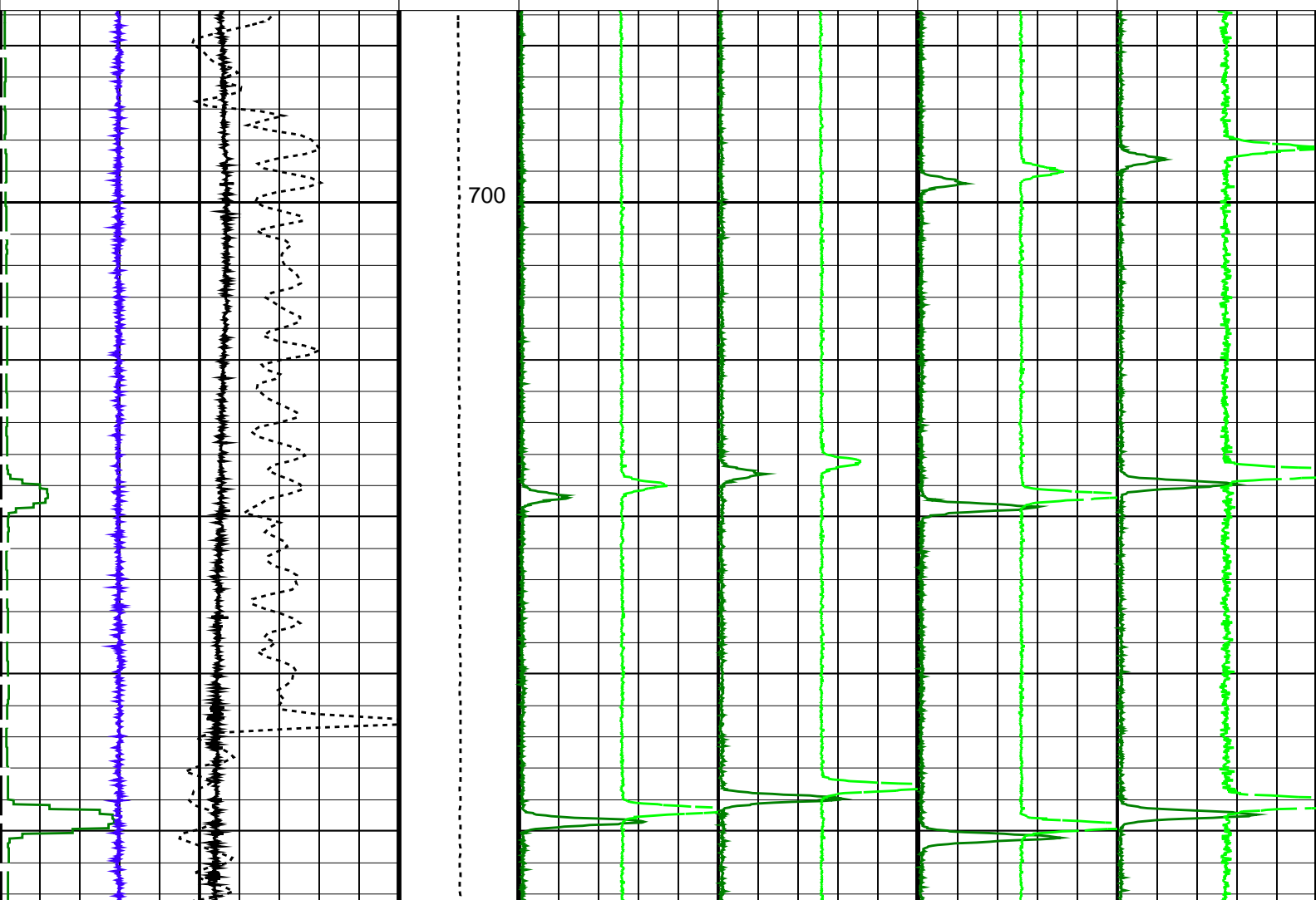
OP System Version: 19C2-270

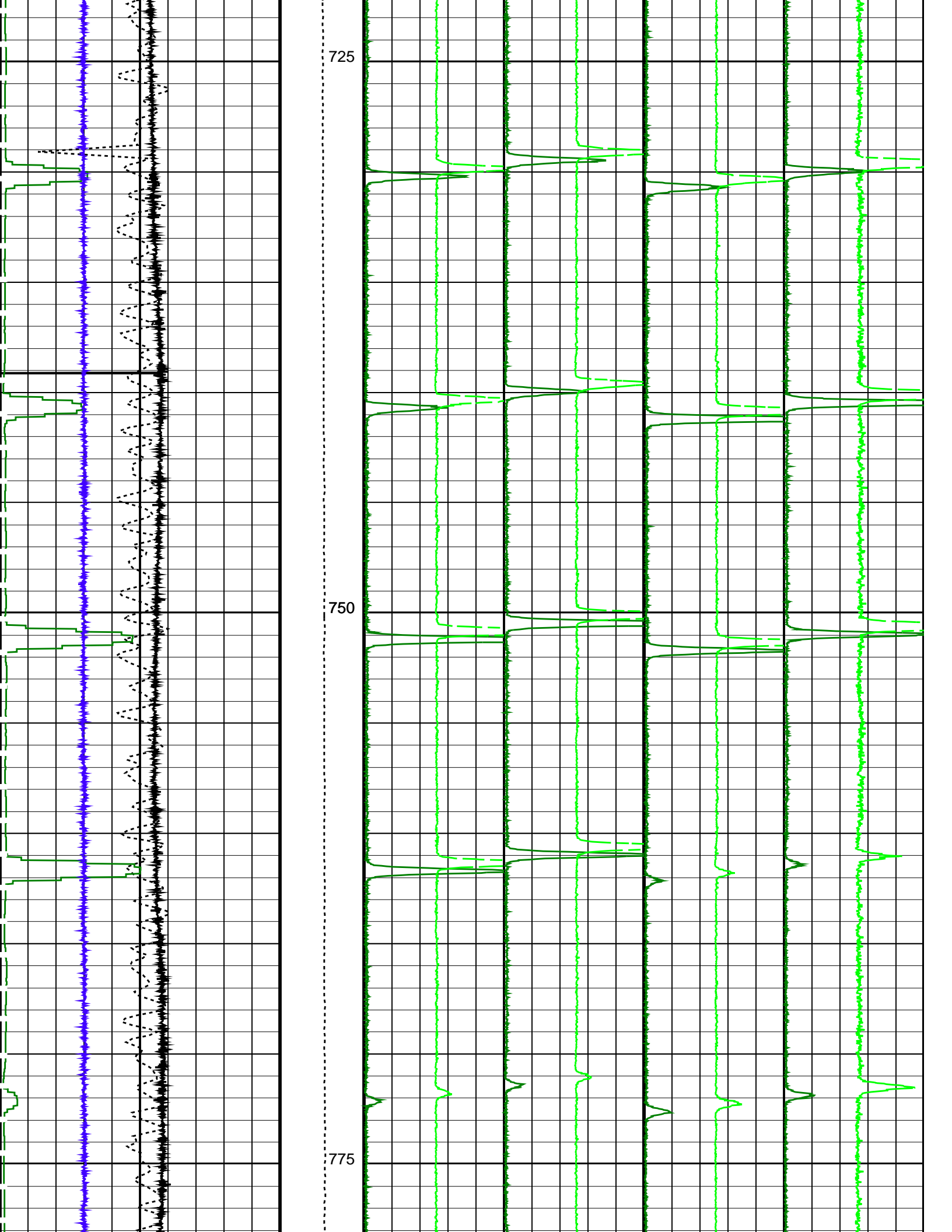
FSMT-E	19C2-270	PSPT	19C2-270
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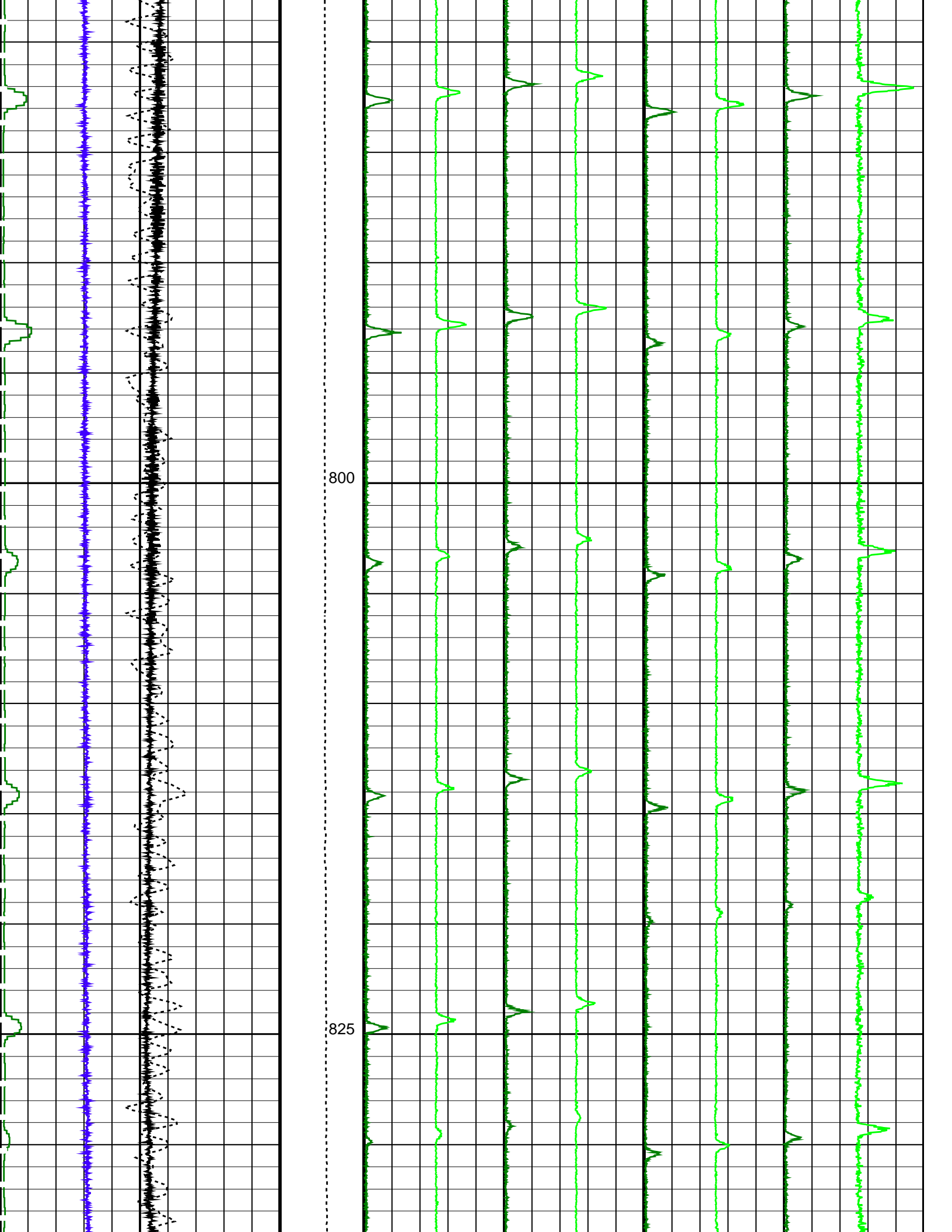
PIP SUMMARY

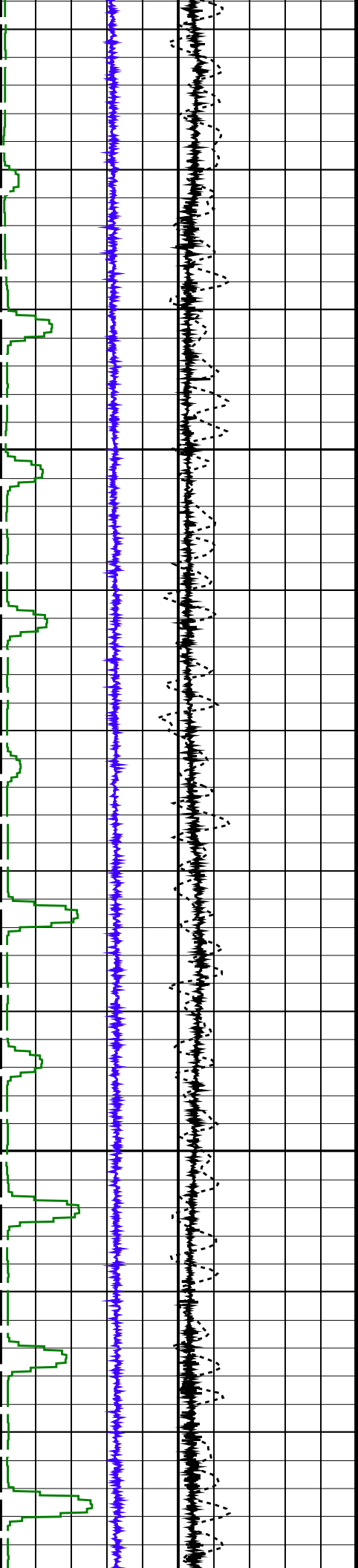
Time Mark Every 60 S

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		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
Tension (TENS) (LBF) 0 1000					



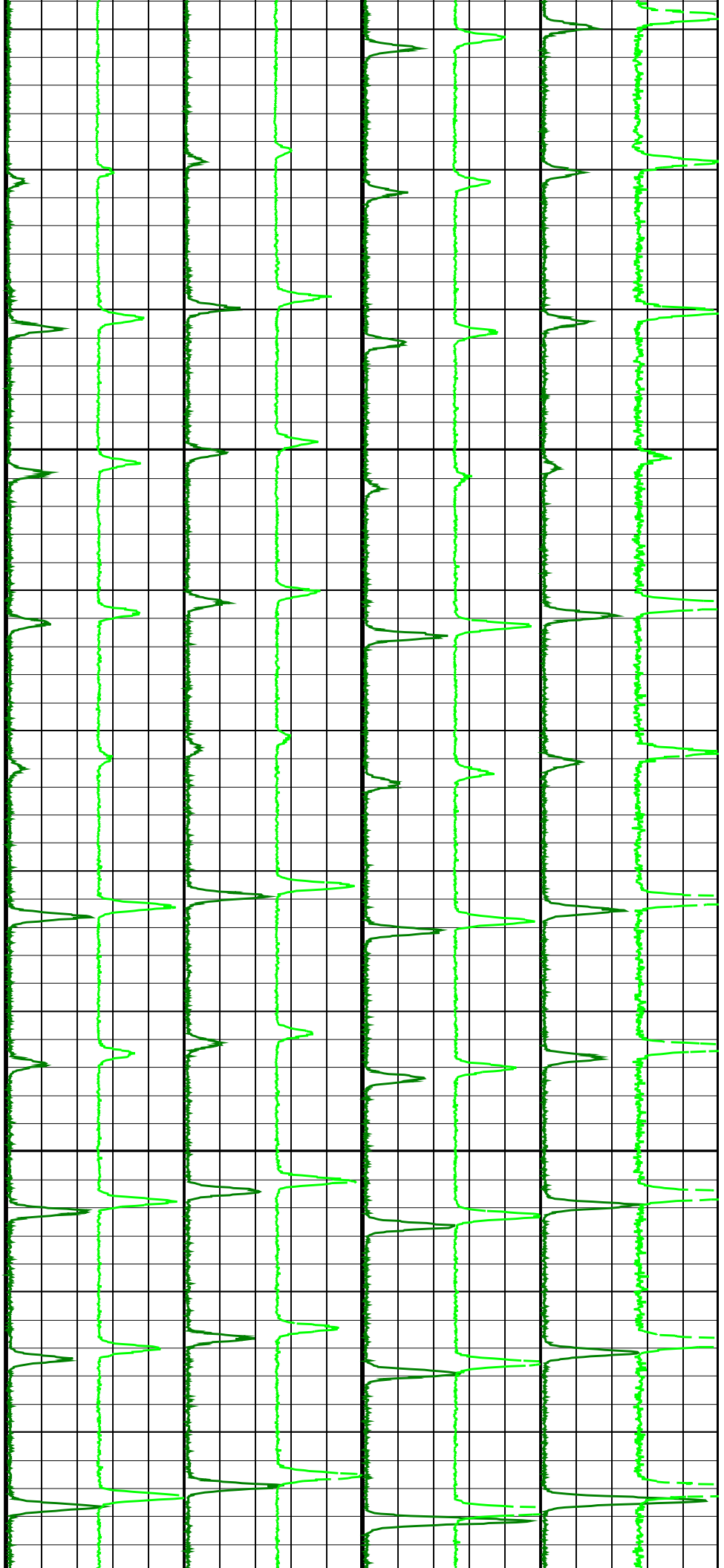


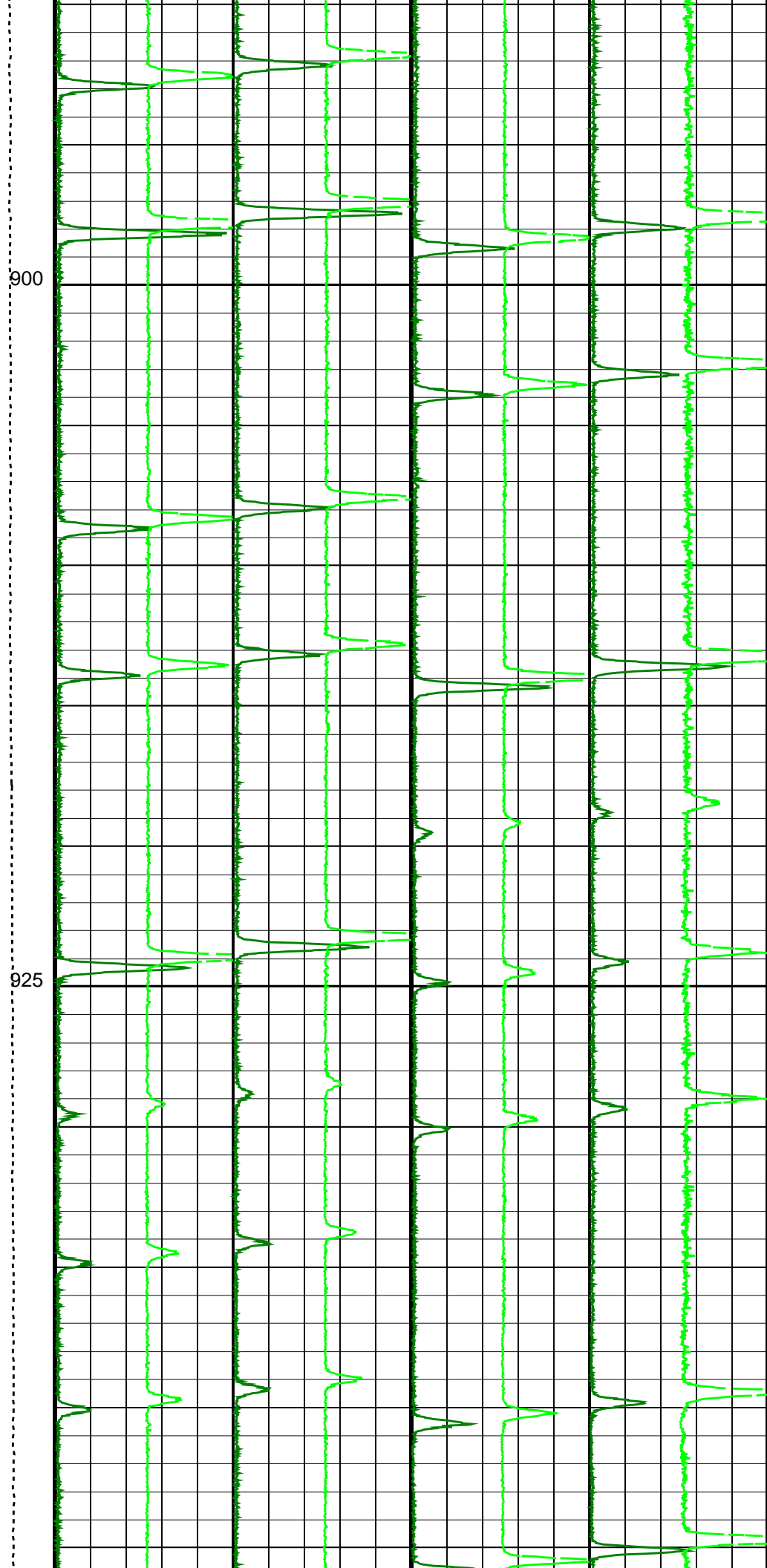
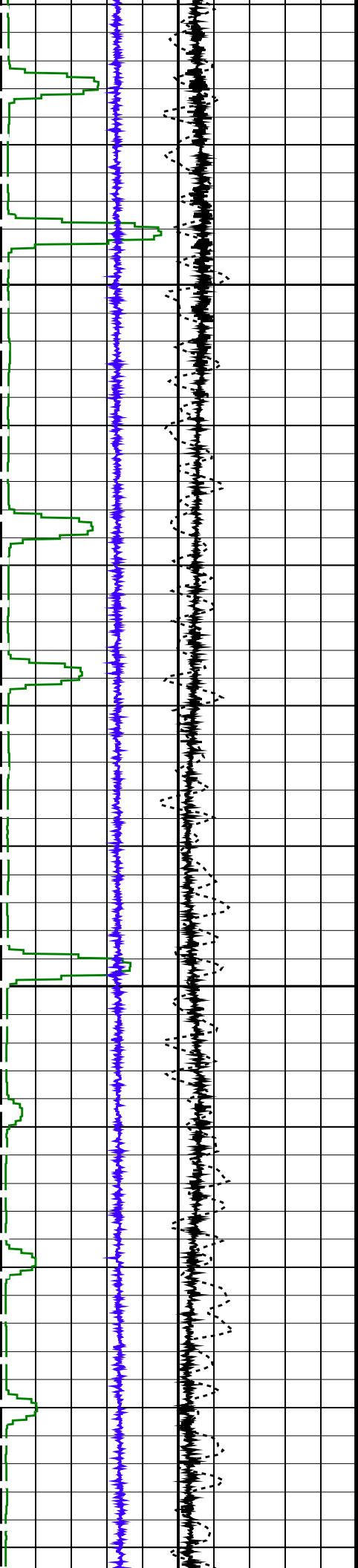


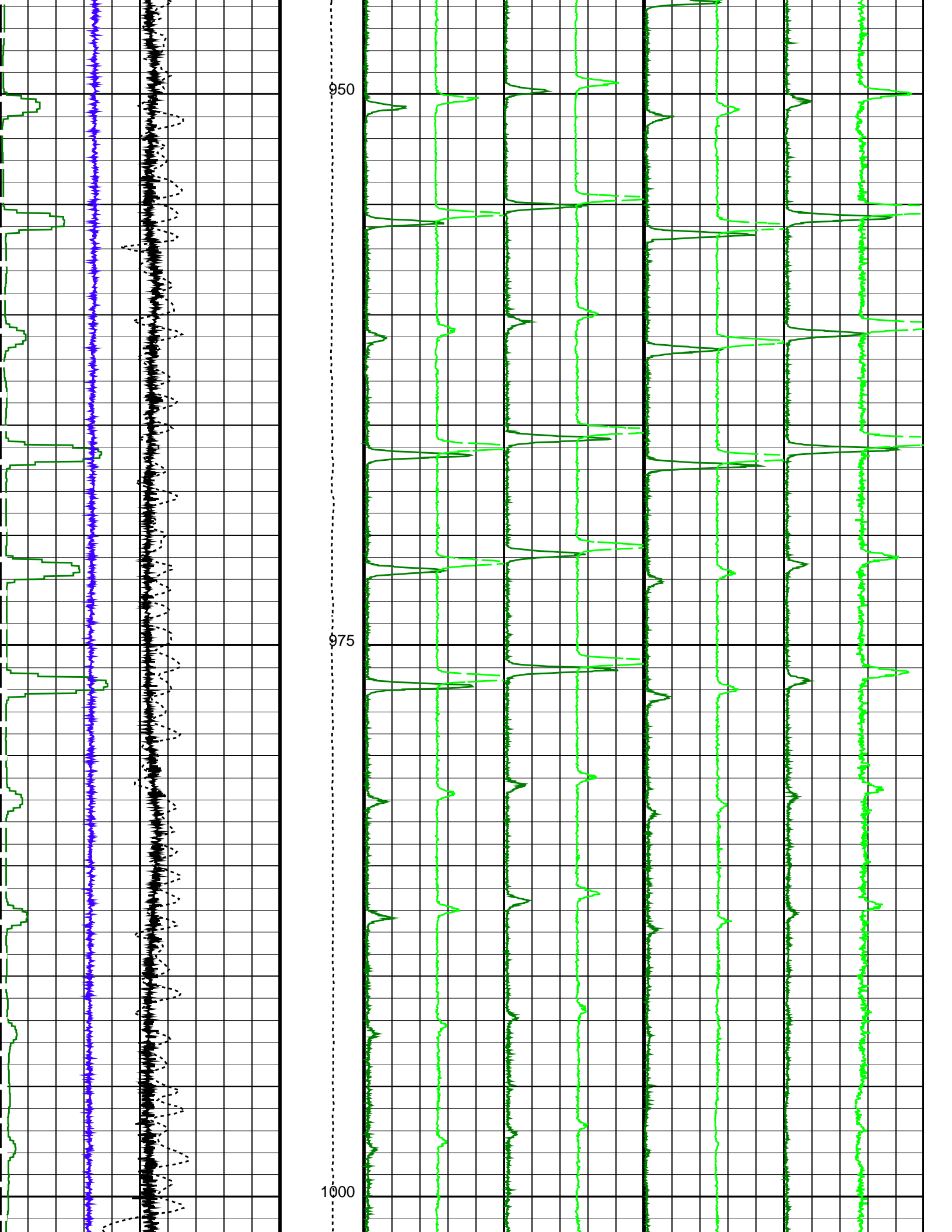


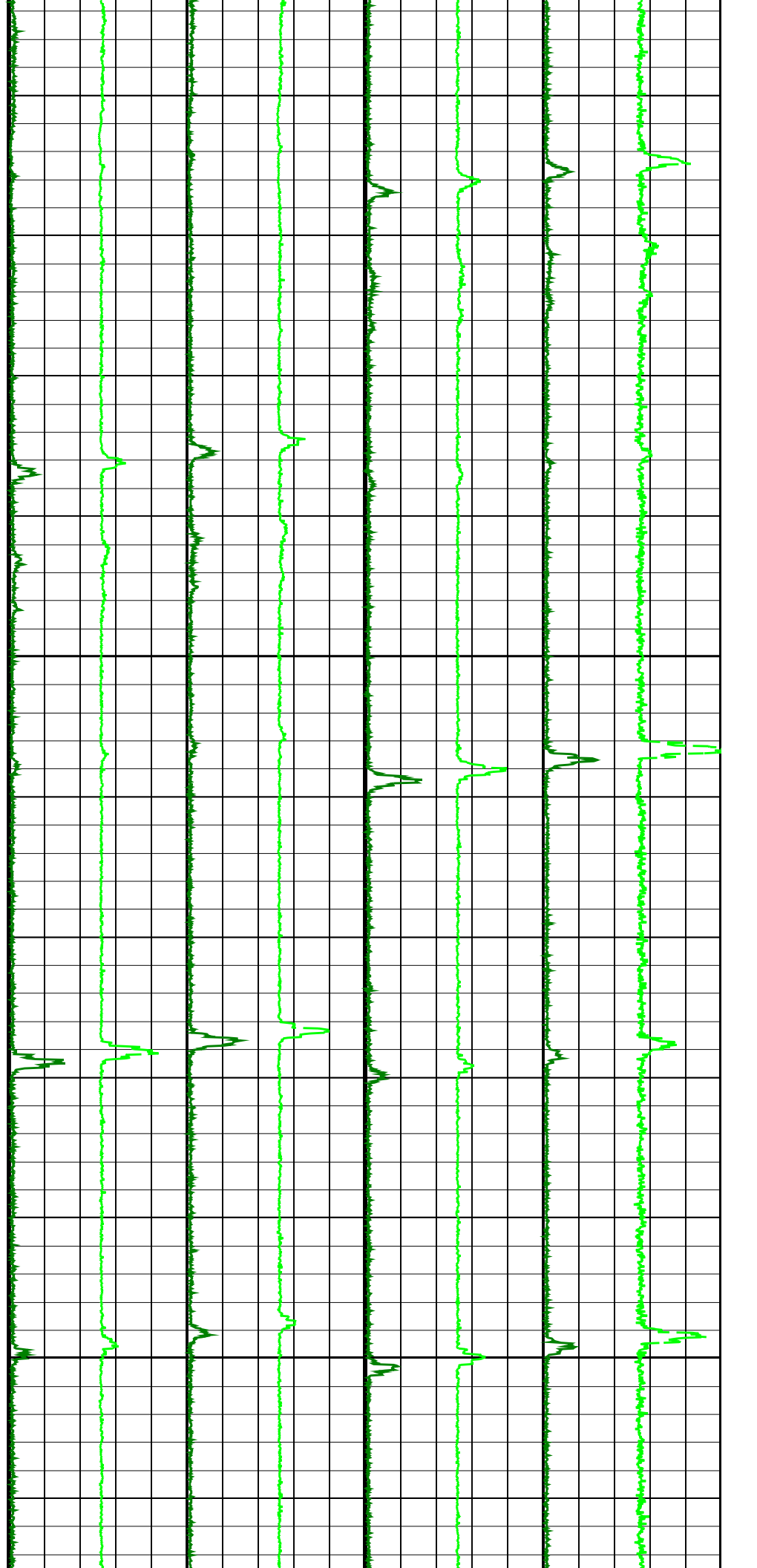
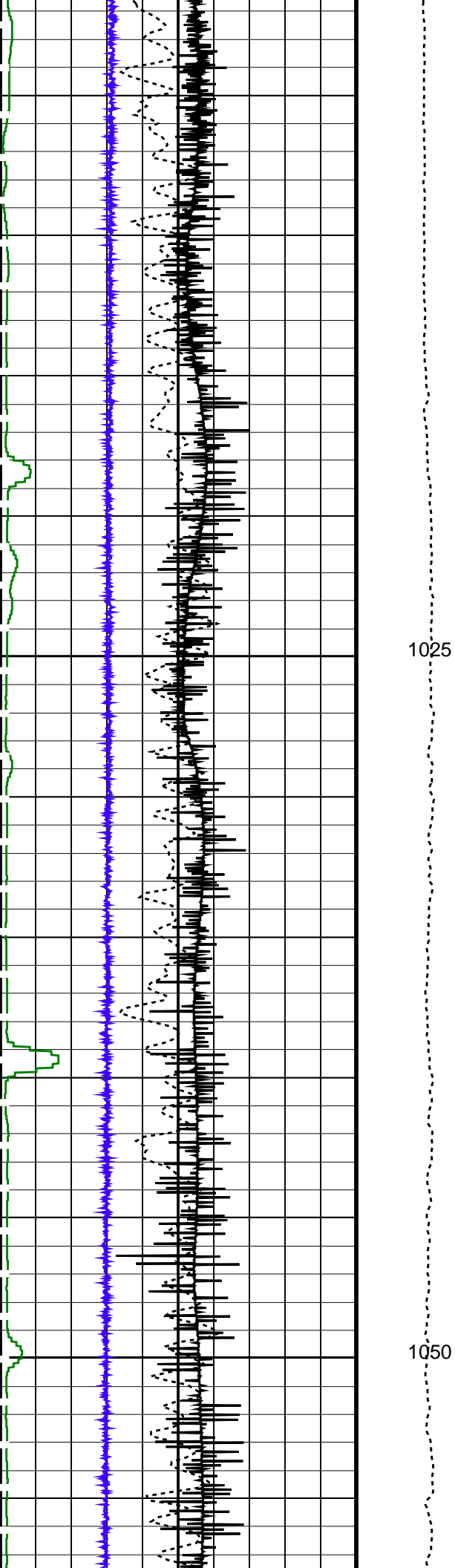
850

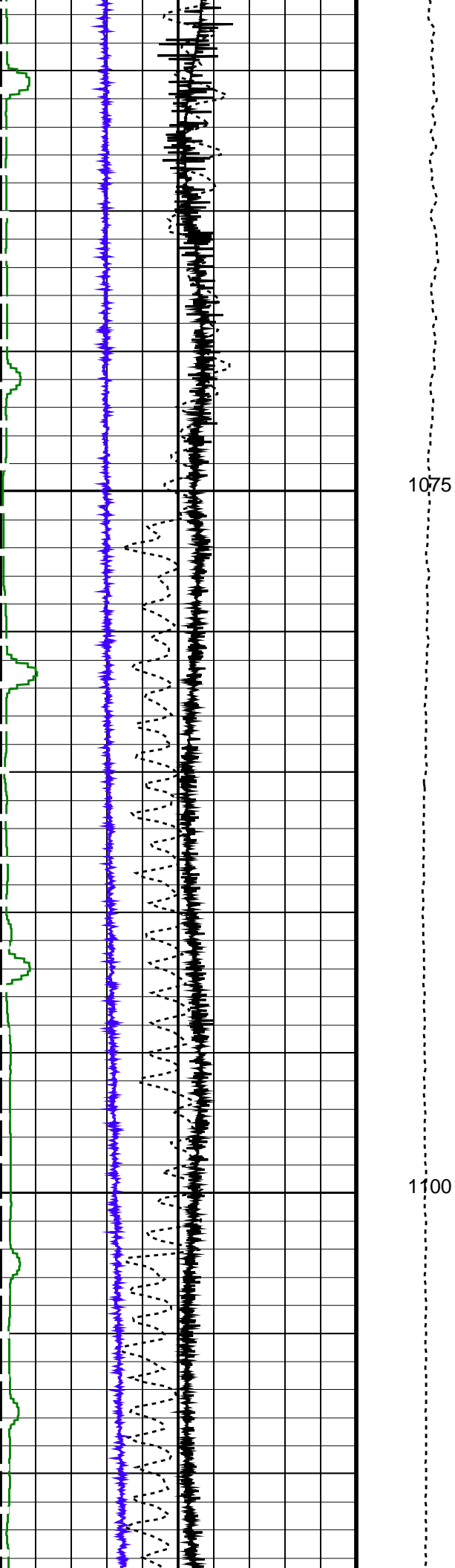
875





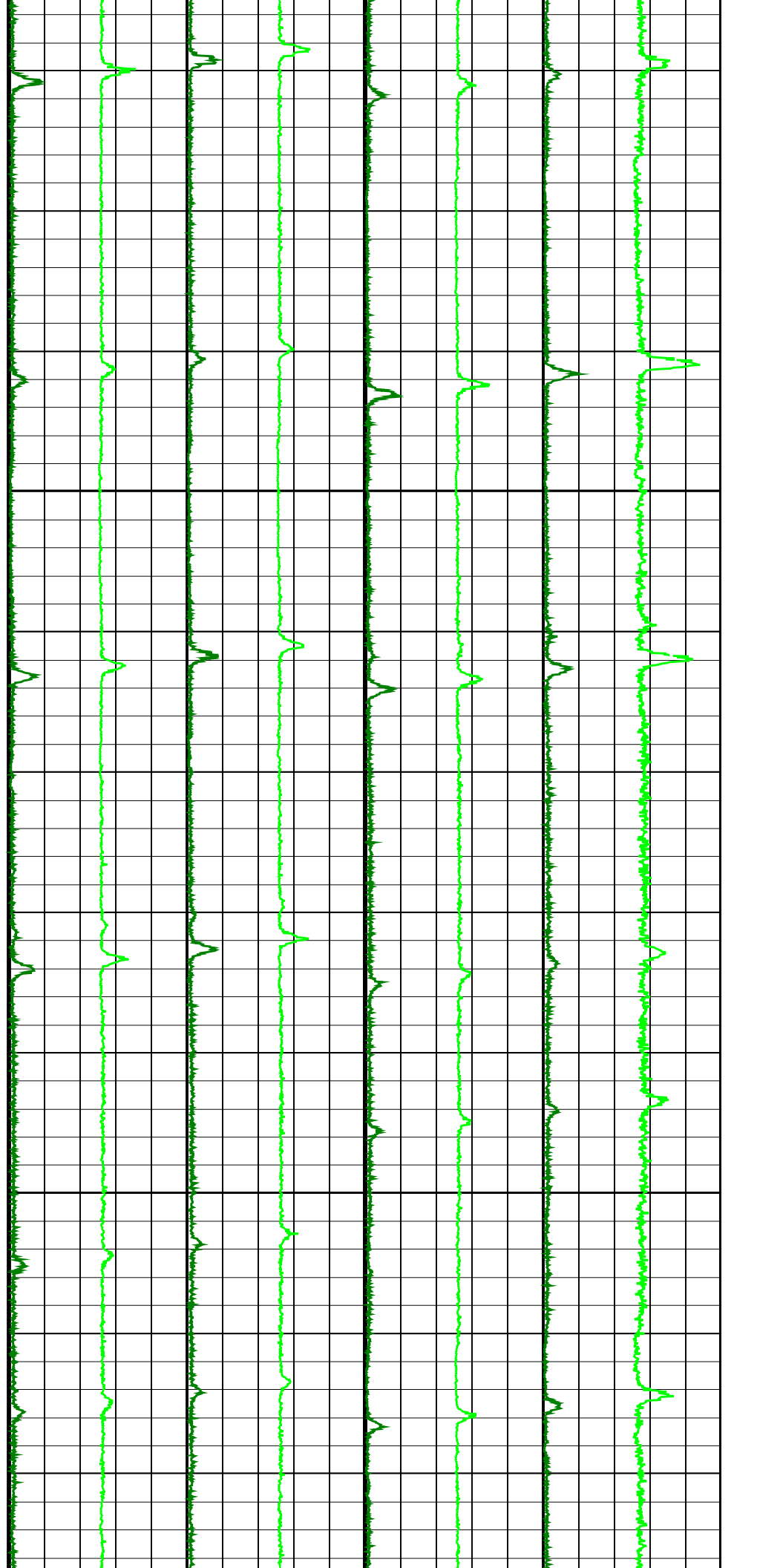


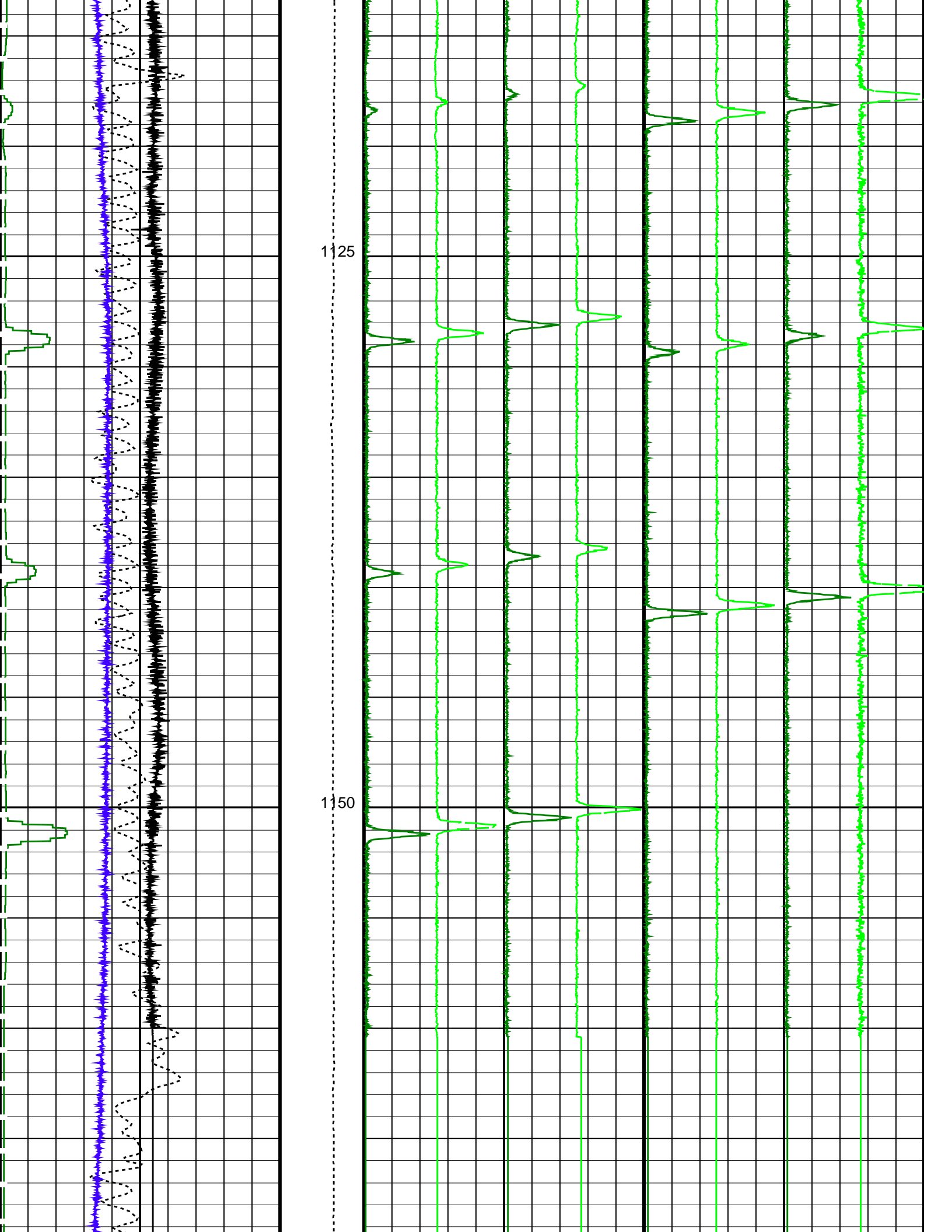




1075

1100





		Tension (TENS) (LBF) 0 1000	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
FSMT Acceleration (FSMT_ACC) 7 (M/S2) 12			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
Cable Speed (CS) 350 (F/HR) 250						
PBMS Gamma Ray (GR) 0 (GAPI) 2000						
FSMT Detector Temperature (FSMT_DTEM) 0 (DEGC) 100						

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	0.8 M
PP	Depth Offset for Playback Playback Processing	NORMAL

Format: FSMT_Basic Vertical Scale: 1:200

Graphics File Created: 13-Nov-2020 14:38

OP System Version: 19C2-270

FSMT-E 19C2-270 PSPT 19C2-270

Input DLIS Files

DEFAULT FSMT_PSP_012LUP FN:23 PRODUCER 13-Nov-2020 09:07 1171.0 M 693.1 M

Output DLIS Files

DEFAULT FSMT_PSP_017PUP FN:30 PRODUCER 13-Nov-2020 14:38
 CUSTOMER FSMT_PSP_017PUC FN:31 CUSTOMER 13-Nov-2020 14:38
 BACKUP FSMT_PSP_017PUP FN:32 PRODUCER 13-Nov-2020 14:35



PASS#3
1150m - 700m

MAXIS Field Log

Company: ENI U&TS

Well: BONACCIA NW 1DIR

Input DLIS Files

DEFAULT FSMT_PSP_022LUP FN:43 PRODUCER 14-Nov-2020 11:04 1172.1 M 693.4 M

Output DLIS Files

DEFAULT FSMT_PSP_023PUP FN:46 PRODUCER 14-Nov-2020 16:29 1173.5 M 694.8 M
 BACKUP FSMT_PSP_023PUP FN:47 PRODUCER 14-Nov-2020 16:26 1173.5 M 694.8 M

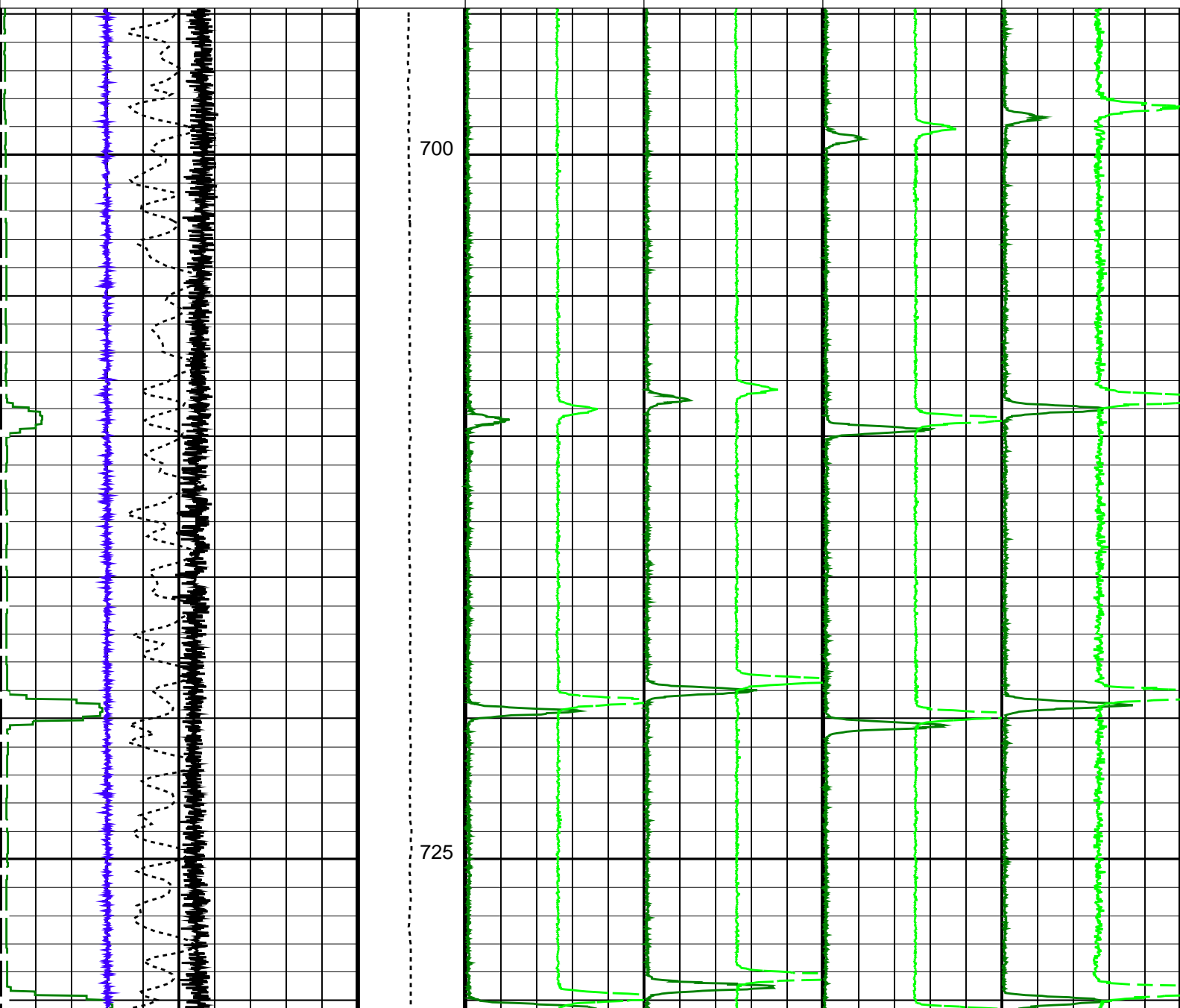
OP System Version: 19C2-270

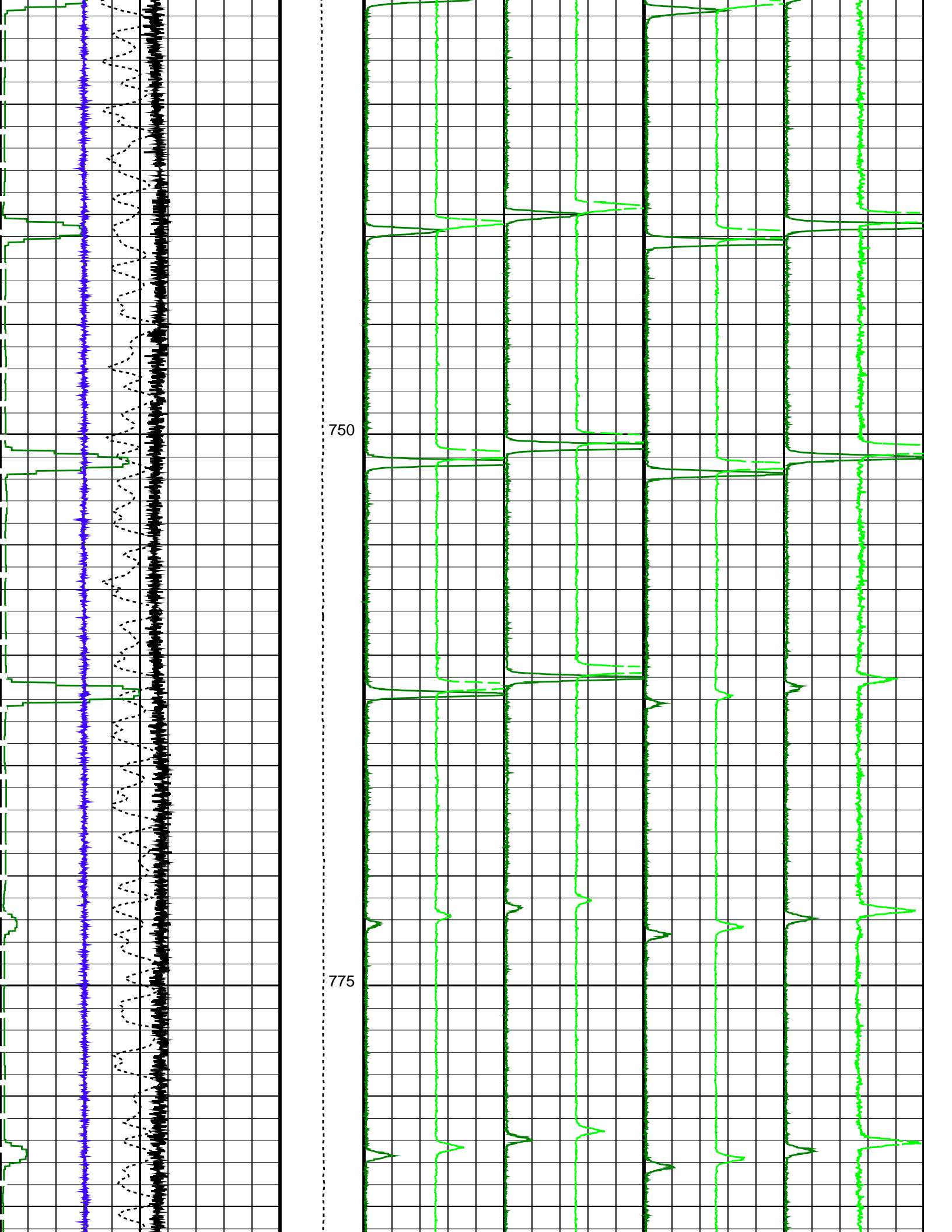
FSMT-E	19C2-270	PSPT	19C2-270
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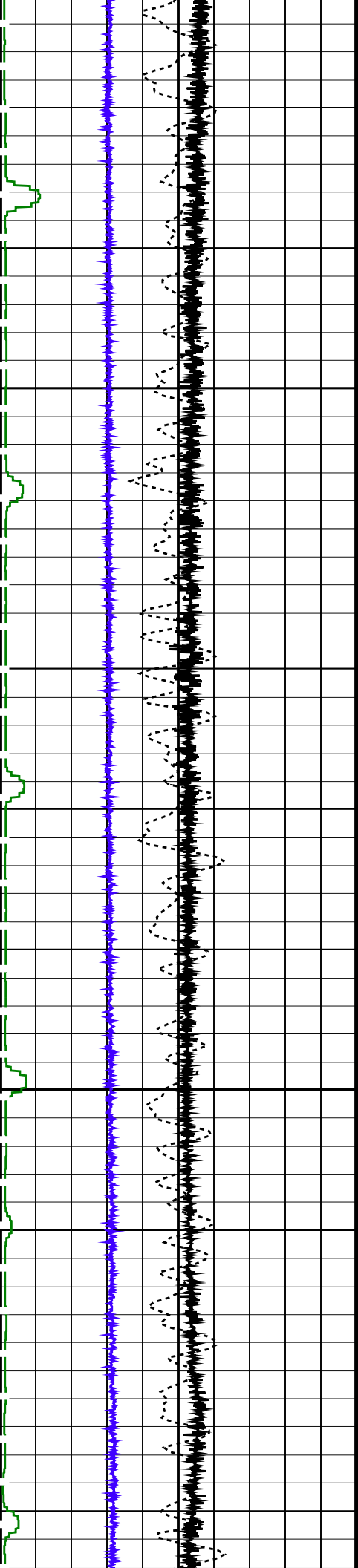
PIP SUMMARY

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	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
Tension (TENS) (LBF) 0 1000				

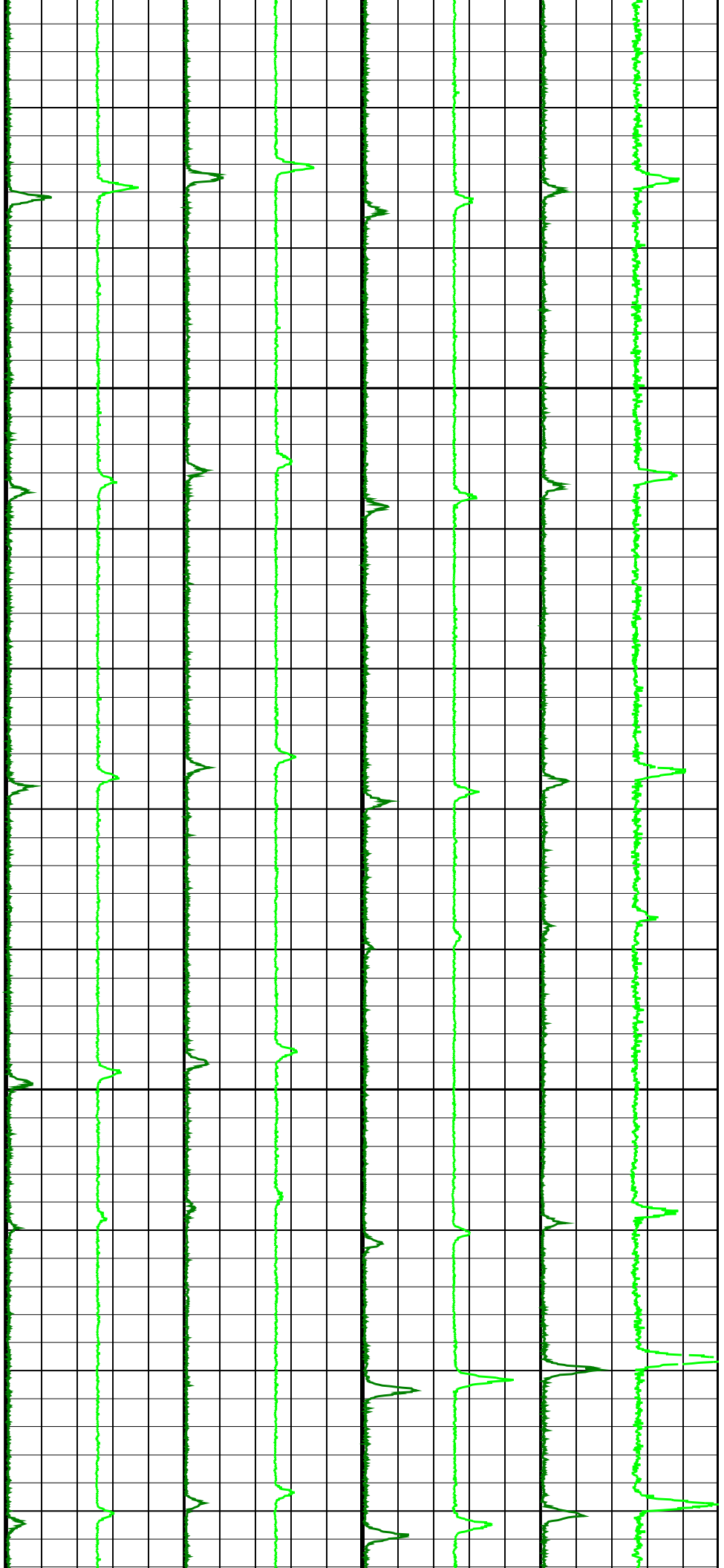


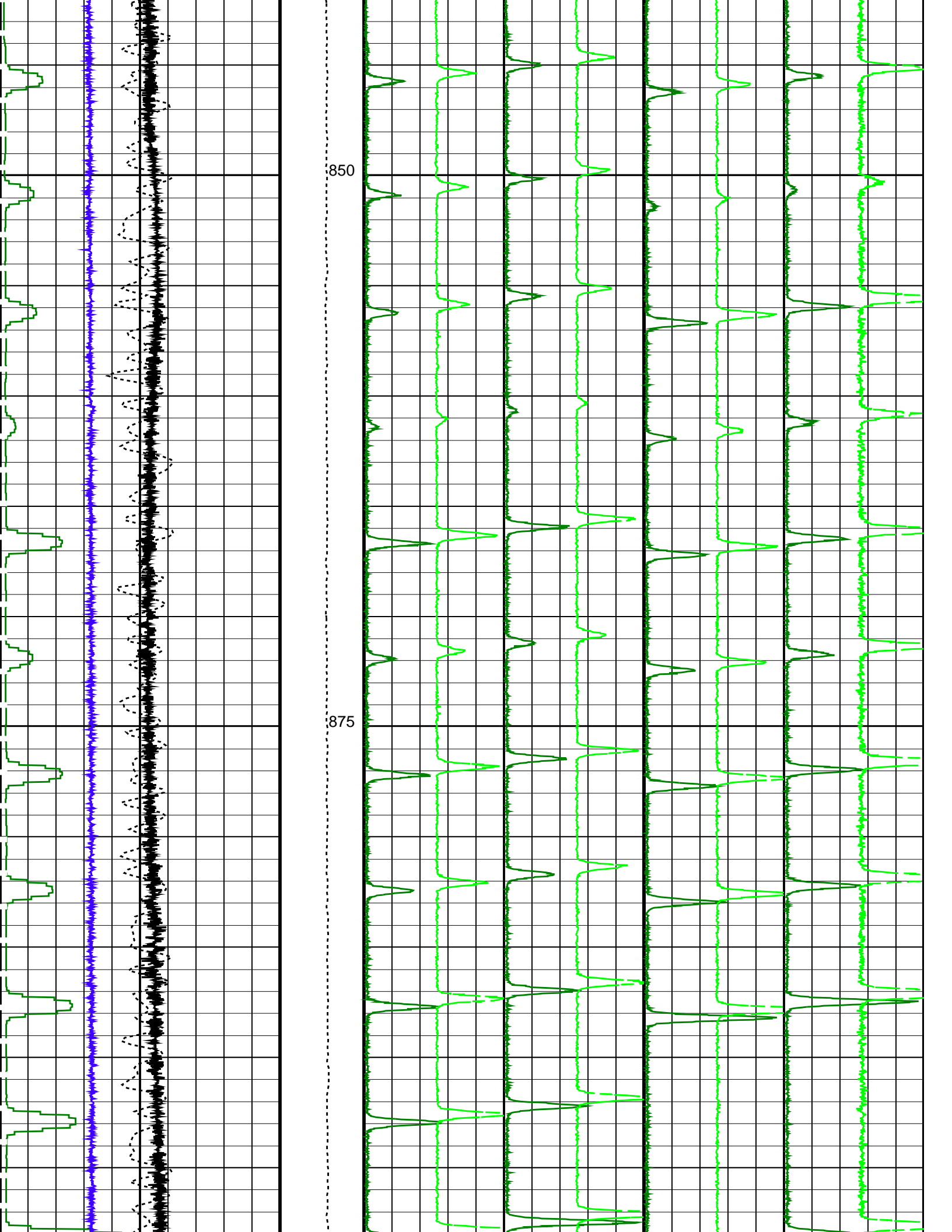


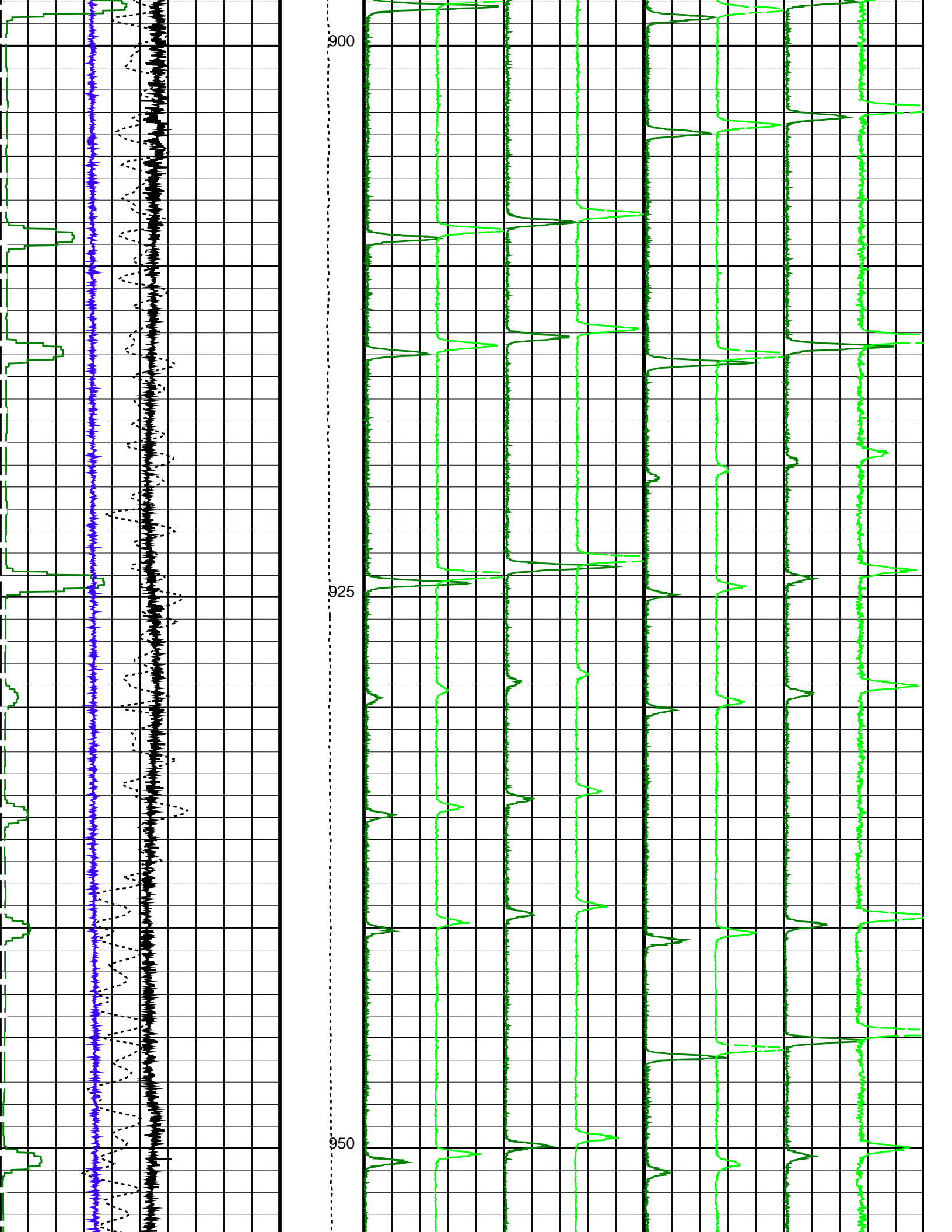


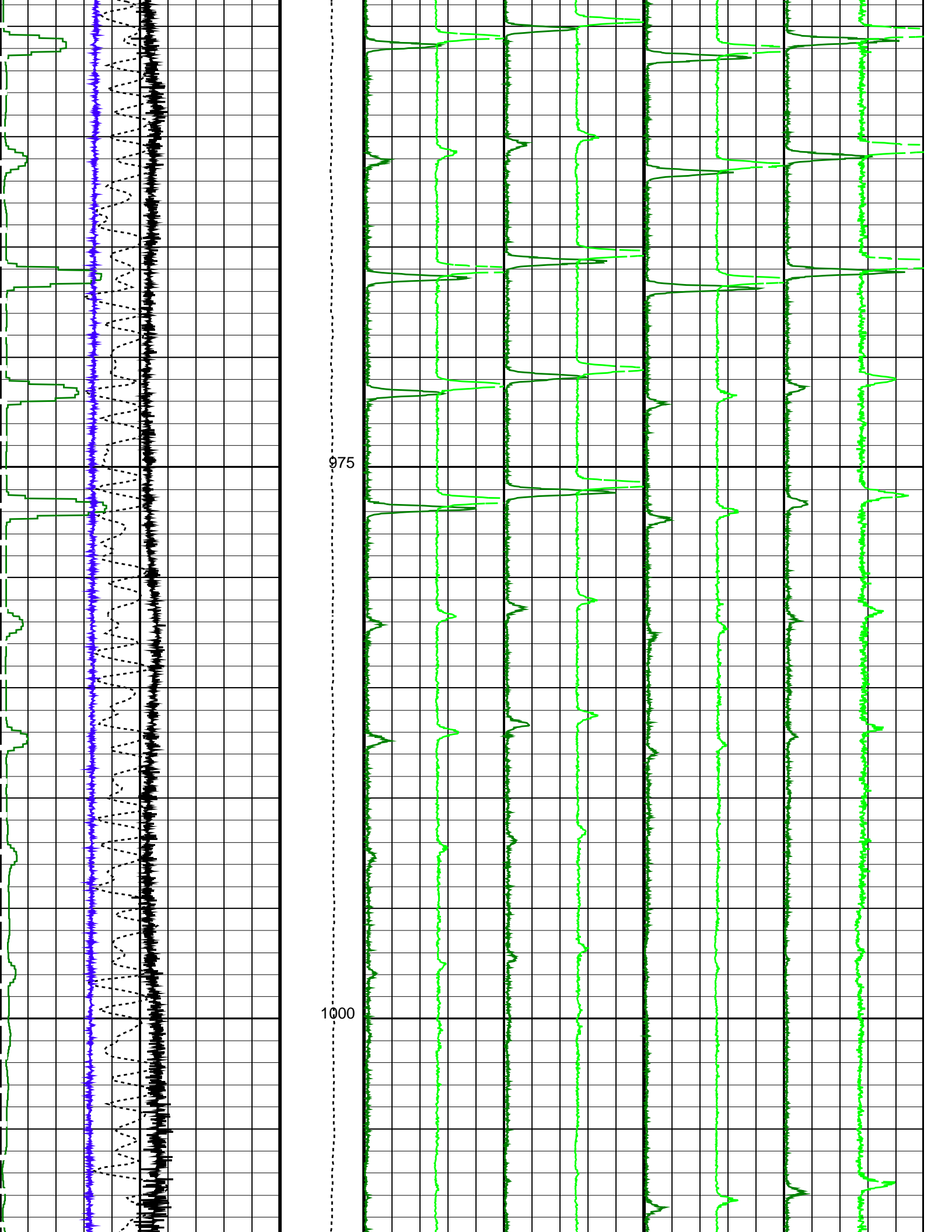
800

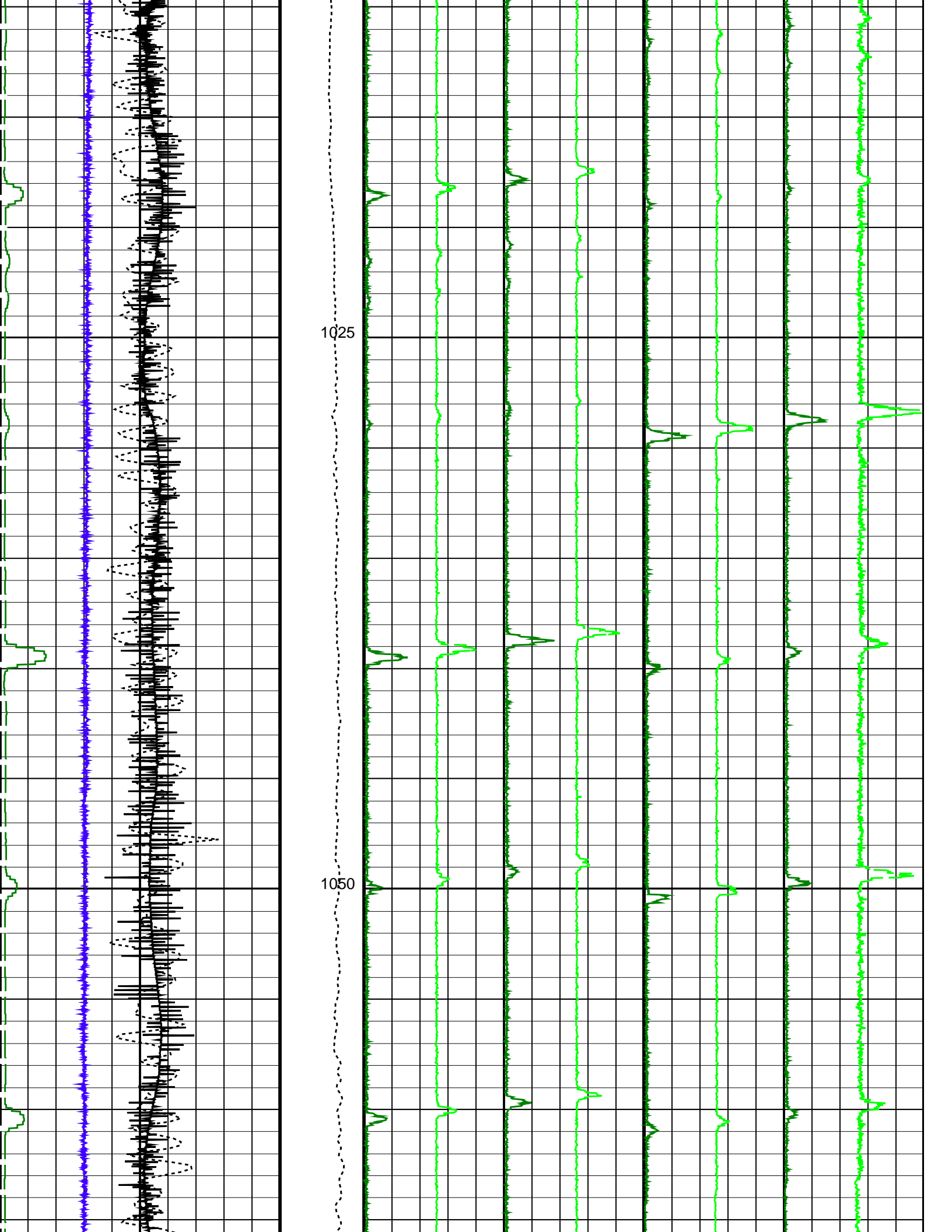
825

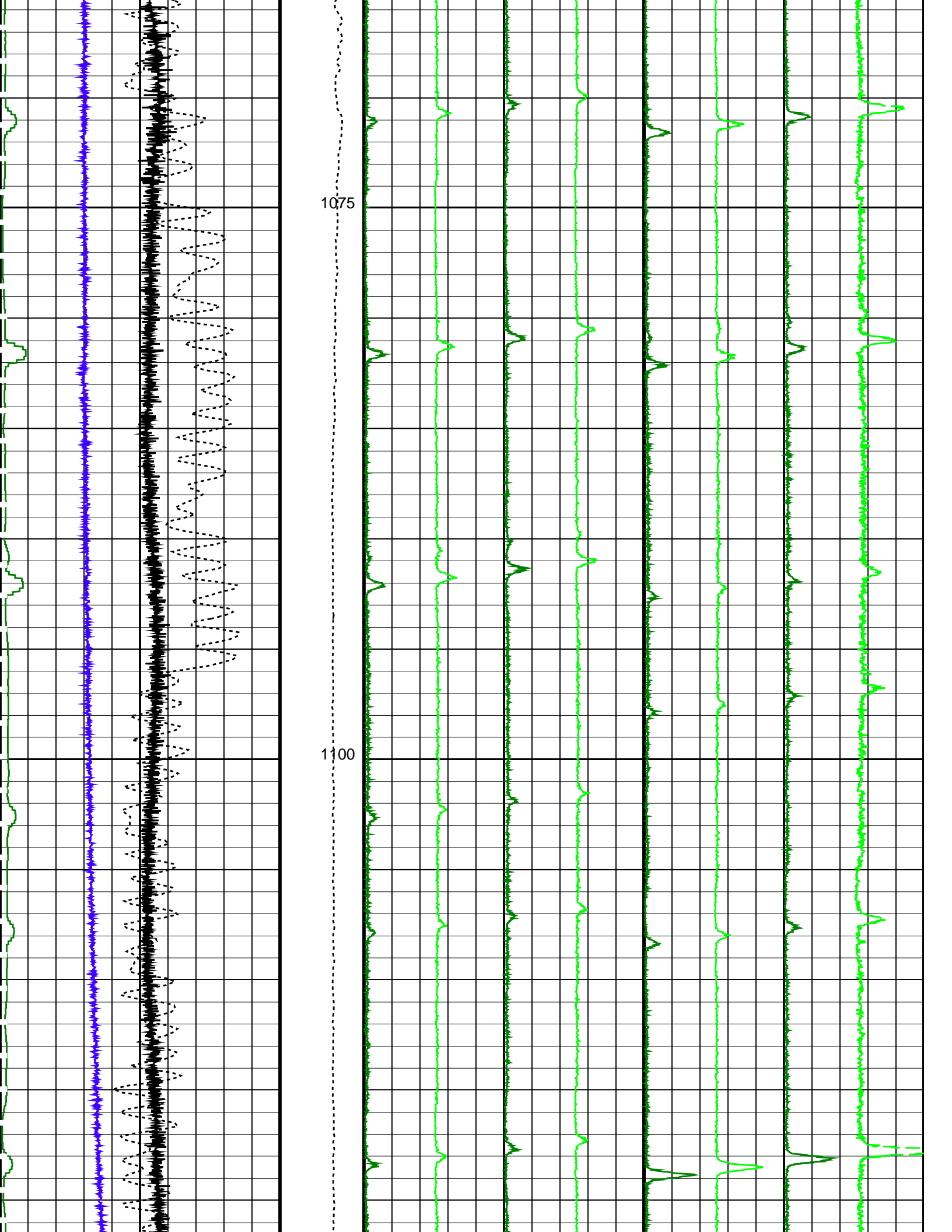


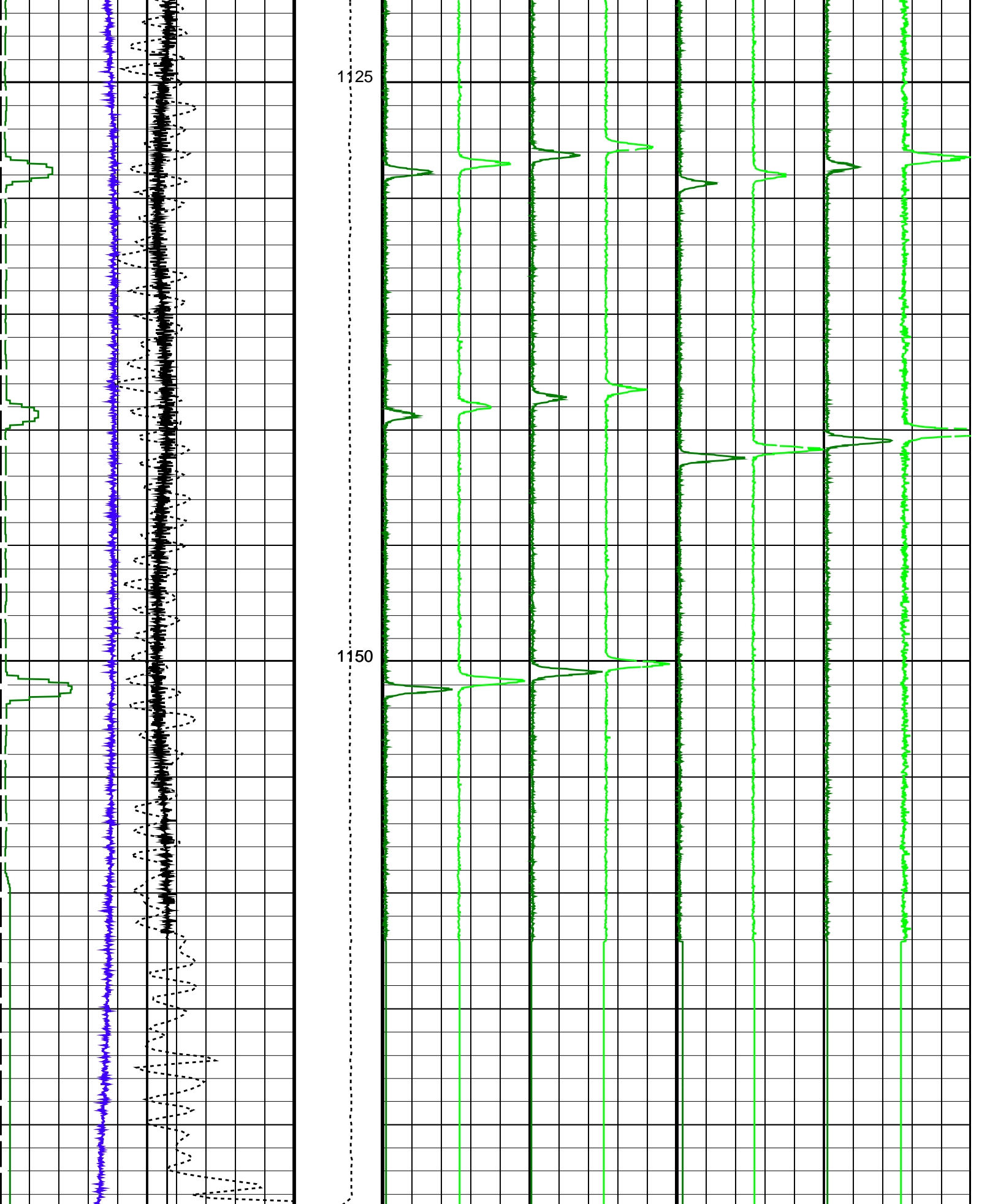












FSMT Acceleration (FSMT_ACC) (M/S ²)	Tension (TENS) (LBF)	Gamma Ray 1 (GR1) (CPS)	Gamma Ray 3 (GR3) (CPS)	FSMT GR5 (GR5) (CPS)	FSMT GR7 (GR7) (CPS)
7	0	0	0	0	0
12	1000	2500	2500	2500	2500

Cable Speed (CS)	(F/HR)	250
PBMS Gamma Ray (GR)		
(GAPI)		2000
FSMT Detector Temperature (FSMT_ DTEM)		
(DEGC)		100

Gamma Ray 2 (GR2)	Gamma Ray 4 (GR4)	FSMT GR6 (GR6)	FSMT GR8 (GR8)
-1250 (CPS) 1250	-1250 (CPS) 1250	-1250 (CPS) 1250	-1250 (CPS) 1250

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
DO	System and Miscellaneous	
PP	Depth Offset for Playback Playback Processing	1.4 M NORMAL

Format: FSMT_Basic Vertical Scale: 1:200 Graphics File Created: 14-Nov-2020 16:29

OP System Version: 19C2-270

FSMT-E	19C2-270	PSPT	19C2-270
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Input DLIS Files

DEFAULT	FSMT_PSP_022LUP	FN:43	PRODUCER	14-Nov-2020 11:04	1172.1 M	693.4 M
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Output DLIS Files

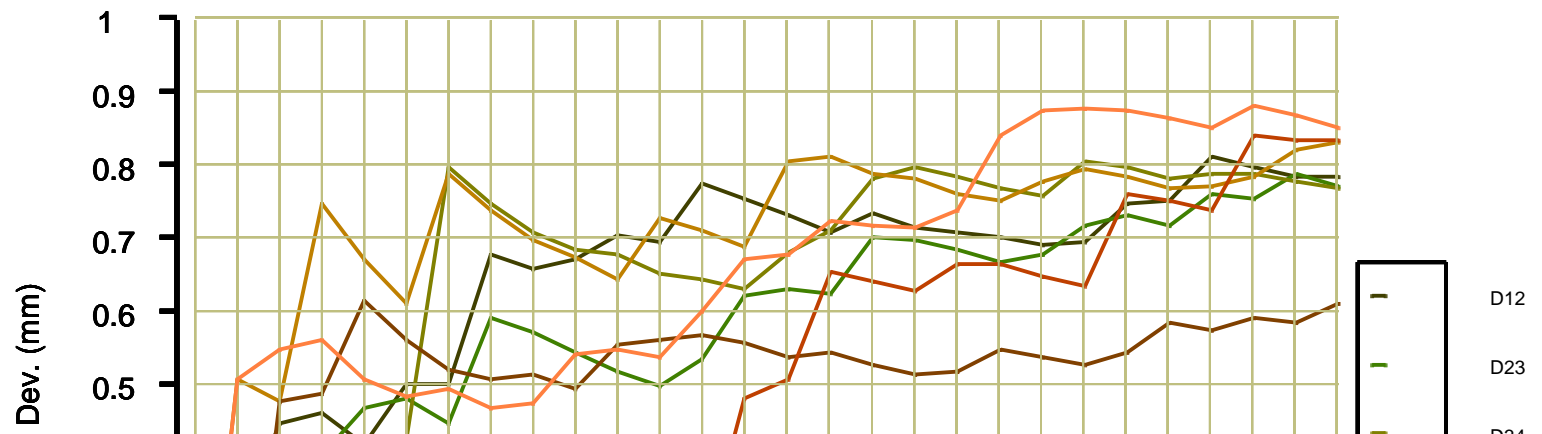
DEFAULT	FSMT_PSP_023PUP	FN:46	PRODUCER	14-Nov-2020 16:29
BACKUP	FSMT_PSP_023PUP	FN:47	PRODUCER	14-Nov-2020 16:26
CUSTOMER	FSMT_PSP_023PUC	FN:48	CUSTOMER	14-Nov-2020 16:29

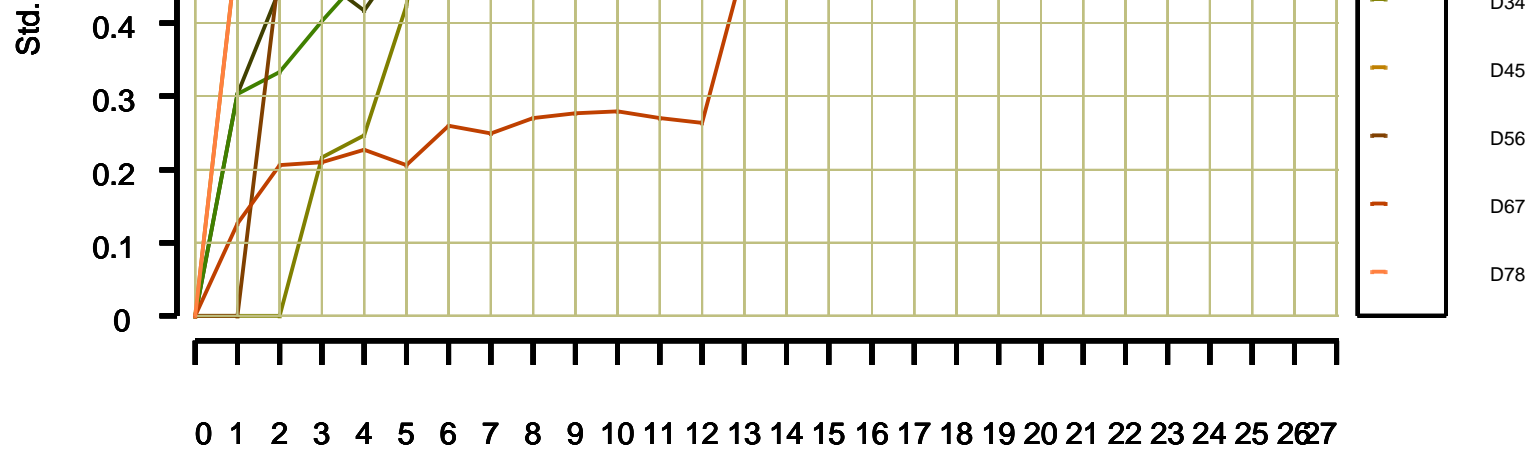


BEFORE CALIBRATION

MAXIS Field Log

08-Sep-2020 - FSMT-E SN 702 - Cumulative Standard Deviation (at 36.0°C)





Calibration passes

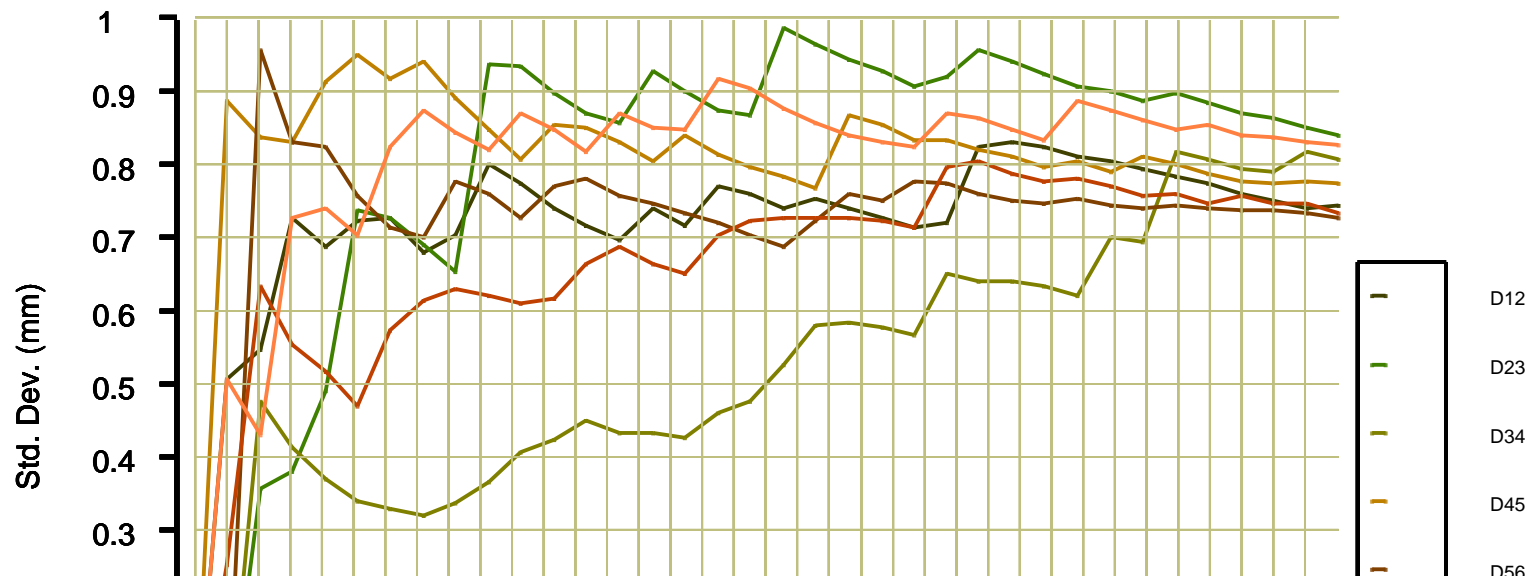
- DET12 = 0.368003 m (± 0.79 mm)
- DET23 = 0.368624 m (± 0.77 mm)
- DET34 = 0.368817 m (± 0.77 mm)
- DET45 = 8.894355 m (± 0.83 mm)
- DET56 = 0.368218 m (± 0.61 mm)
- DET67 = 0.368618 m (± 0.84 mm)
- DET78 = 0.368180 m (± 0.85 mm)

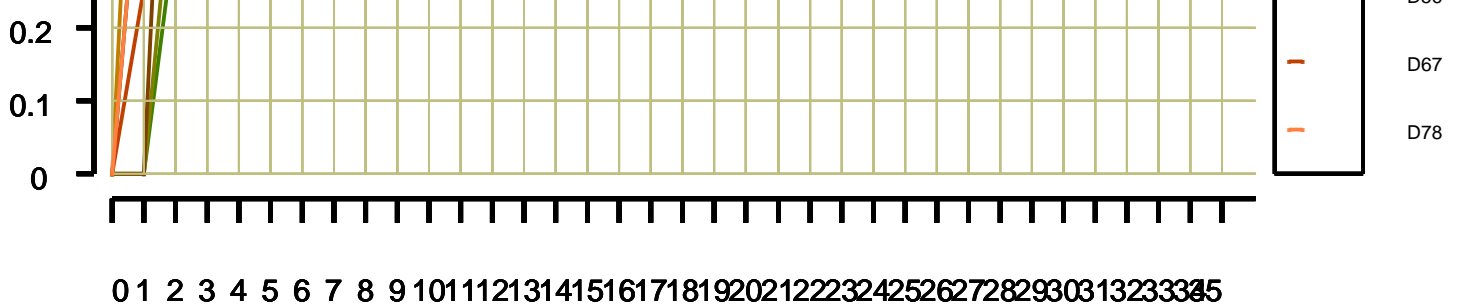


AFTER CALIBRATION

MAXIS Field Log

02-Dec-2020 – FSMT-E SN 702 – Cumulative Standard Deviation (at 7.4°C)





Calibration passes

- DET12 = 0.368222 m (± 0.74 mm)
- DET23 = 0.368737 m (± 0.84 mm)
- DET34 = 0.368187 m (± 0.81 mm)
- DET45 = 8.894431 m (± 0.77 mm)
- DET56 = 0.368194 m (± 0.73 mm)
- DET67 = 0.368254 m (± 0.74 mm)
- DET78 = 0.366013 m (± 0.83 mm)

Company: **ENI U&TS**

Schlumberger

Well: **BONACCIA NW 1DIR**

Field: **BONACCIA**

Log: **FSMT-E**

Country: **Italy**

FSMT-E
 Formation Subsidence Monitoring Tool
 1150 – 700 m