

Company: ENI U&TS

Well: Bonaccia NW 1 Dir

Field: Bonaccia

Log: FSMT-E

Country: Italy

FSMT-E Formation Subsidence Monitoring Tool Interval from 1150m to 700m-LONG STRING

Log: FSMT-E
Field: Bonaccia
Location: Offshore Adriatic Sea
Well: Bonaccia NW 1 Dir
Company: ENI U&TS

LOCATION

Offshore Adriatic Sea		Elev.:	K.B.	31.50 m
N: 4827742.82			G.L.	-86.00 m
E: 2466380.47			D.F.	31.50 m
Permanent Datum:	MSL	Elev.:	0.00 m	
Log Measured From:	DF		31.50 m above Perm. Datum	
Drilling Measured From:	DF			
State: Italy	Max. Well Deviation 21.99 deg	Longitude 14° 20' 8.637"E	Latitude 43° 35' 59.717"N	

	Run 1	Run 2	Run 3
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	3-Oct-2022		
Run Number	6 FSMT		
Depth Driller	1365 m		
Schlumberger Depth	1170 m		
Bottom Log Interval	1170 m		
Top Log Interval	690 m		
Casing Fluid Type	Production Gas		
Salinity			
Density	0.03 g/cm3		
Fluid Level	0 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	P110		
From	0 m		
To	1121 m		
Maximum Recorded Temperatures			
Logger On Bottom	Time		
Unit Number	3832	ITPE	10:00
Recorded By	Luca Ciulli		
Witnessed By	Giampaolo Pintore		

Logging Date	3-Oct-2022		
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Depth Driller	1365 m		
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Casing Fluid Type	Production Gas		
Salinity			
Density	0.03 g/cm3		
Fluid Level	0 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	P110		
From	0 m		
To	1121 m		
Maximum Recorded Temperatures			
Logger On Bottom	Time		
Unit Number	3832	ITPE	10:00
Recorded By	Luca Ciulli		
Witnessed By	Giampaolo Pintore		

DEPTH SUMMARY LISTING

Date Created: 5-OCT-2022 16:08:49

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 6815 Calibration Date: 18-Jan-2021 Calibrator Serial Number: 46 Calibration Cable Type: 2-23ZT Wheel Correction 1: -3 Wheel Correction 2: -2	Type: CMTD-B/A Serial Number: 1924 Calibration Date: 16-Aug-2022 Calibrator Serial Number: 1924 Number of Calibration Points: 10 Calibration RMS: 9 Calibration Peak Error: 16	Type: 2-23ZT Serial Number: 212071 Length: 6000 M Conveyance Method: Wireline Rig Type: Rigless

Depth Control Parameters

Log Sequence:	Subsequent Trip To the Well
Reference Log Name:	FSMT-E Run#05
Reference Log Run Number:	5 FSMT
Reference Log Date:	13-Nov-2020
Subsequent Trip Down Log Correction:	

Depth Control Remarks

1. Schlumberger depth control procedures followed
2. IDW used as primary depth control system
3. Z-Chart used as secondary depth control system
4.
5.
6.

DISCLAIMER

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OTHER SERVICES1 OS1: 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 run #5 performed on 13-Nov-2020 by Schlumberger	
Toolstring run as per toolsketch	
Log performed on Long String	
3 passes @300 fh/hr 1170m-690m intervals	
All depth referred to original DF elevation (Key Manhattan rig / 31.5m)	
Previous FSMT acquisitions on 2015-2016-2017-2018-2019-2020	

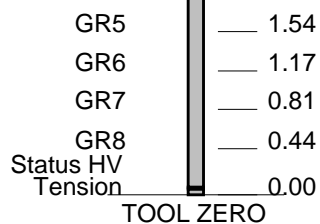
Gas – Liquid contact @ 840m MD (818m TVD), gas density 0.03g/cc – liquid density 1.02 g/cc	
Before Calibration performed on 20–Oct–2021	
After Calibration performed on 19–Oct–2022	
Rig floor to Tubing Spool 16.90m / Tool Trap to Tubing Spool 5.10m	
Tool zero bottom of tool @ Tool Trap = 11.80m	
Log performed on static condition with WHP = 51 bar – Pressure Test performed @ 2000 psi as per client request	
WHE config: 3 1/16 5k Flange, Pump in Sub, BOP, Tool Trap, 2.40m riser, QTS, 14.40m risers, HGT	

RUN 1			RUN 2		
SERVICE ORDER #:			SERVICE ORDER #:		
PROGRAM VERSION:		19C2–270	PROGRAM VERSION:		
FLUID LEVEL:		0 m	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1	RUN 2
SURFACE EQUIPMENT	
WITM–A PSC_16MHZ	

DOWNHOLE EQUIPMENT			
MH–22 MH–22		15.79	
AH–38	Detail MT TelStatus CTEM	15.23	15.31
PSPT		15.23	
PSC–A PSPT–B 3787 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 702 FSMX–A 706 FSMX–A 704 FSMX–A 702 FSMD–C 702 BN	Acc, GR1	11.52	
	GR2	11.15	
	GR3	10.79	
	GR4	10.42	



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
Rig Up Started	2-Oct-2022 9:00			
Descent 1: FSMT-E/PSPT				
Begin Descent	3-Oct-2022 9:00			
Log Pass (up)	3-Oct-2022 10:03	005:12	1169.8 - 693.0	FSMT_PSP_008LUP
Log Pass (up)	4-Oct-2022 10:44	005:14	1170.0 - 691.7	FSMT_PSP_014LUP
Log Pass (up)	5-Oct-2022 9:19	005:14	1169.8 - 692.2	FSMT_PSP_019LUP
Rig Down Completed	6-Oct-2022 16:00			



Final Result
1150m – 700m

```

Well Name: Bonaccia NW 1 Dir
Run Date : 03-Oct-2022
Zone Name: PASS 1-2-3 FINAL YES
Tool String: FSMT-E S/N 702
Reference Detector: DET1
File 0: FSMT_9.fsf
File 1: FSMT_15.fsf (Reference File)
File 2: FSMT_21.fsf

```

20-Oct-2021 : Calibrated Detector Spacings at 32.0°C (m):

```

D12 = 0.367571
D23 = 0.369169
D34 = 0.367972
D45 = 8.894547
D56 = 0.368242
D67 = 0.368480
D78 = 0.368651

```

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. (~21 Meas.)	Std Dev (3 passes)
- 0	1151.24		
1	1139.40	11.84235	1.81834
2	1128.89	10.49418	0.17554
3	1118.40	10.47193	1.40626
4	1107.89	10.47746	1.60930
5	1102.62	5.23384	7.68316
6	1092.10	10.51911	1.72072
7	1081.63	10.46499	1.05281
8	1070.97	10.51767	8.71339
9	1060.30	10.48202	8.89201
10	1049.84	10.47495	2.15171
11	1039.43	10.49530	3.12560
12	1028.82	10.50578	5.47985
13	1018.37	10.42445	10.22054
14	1007.99	10.51017	7.89377
15	997.98	10.15443	3.36146
16	992.74	5.25642	12.93018
17	987.43	10.53931	4.61426
18	982.18	10.53036	2.91557
19	976.93	10.49784	1.35899
20	971.69	10.48696	1.99234
21	966.45	10.47419	0.86682
22	961.17	10.53512	0.41577
23	955.94	10.52694	1.13292
24	950.68	10.47706	2.56113
25	940.18	10.48620	2.77868
26	934.94	5.23377	8.60341

27	929.64	10.53140	2.81788
28	924.41	10.52381	2.00275
29	913.97	10.42384	0.71069
30	908.75	5.22502	3.23209
31	898.23	10.50869	0.25915
32	892.97	5.25580	2.05088
33	887.71	10.50793	0.80176
34	882.45	10.51110	1.54392
35	877.20	10.50320	0.99258
36	871.94	10.50402	0.69303
37	866.69	10.51295	0.49063
38	861.42	10.52059	2.22722
39	856.23	10.45345	1.33488
40	850.89	10.52415	3.00808
41	845.71	10.50236	1.03506
42	840.41	10.40567	0.77613
43	829.83	10.53784	11.02212
44	824.66	5.16980	6.50358
45	814.13	10.52678	1.31463
46	803.56	10.54907	3.36242
47	793.09	10.46661	1.38889
48	782.56	10.52698	0.53217
49	772.09	10.46754	2.16872
50	761.64	10.43363	2.19007
51	751.13	10.50261	0.35815
52	740.63	10.49700	1.01373
53	730.14	10.50137	0.29067
54	719.61	10.50288	0.85400
- 55	709.25	10.34114	0.62795

All Peaks were automatically detected with the following parameters:

```
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200
FSMT_THRESHOLD = 120
```

Peak at depth 1028.82 m was processed using the following parameters

```
FSMT_PEAKTTYPE = SMALL_PEAKE
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200
```

Peak at depth 1007.99 m was processed using the following parameters

```
FSMT_PEAKTTYPE = SMALL_PEAKE
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200
```

Peak at depth 997.98 m was processed using the following parameters

```
FSMT_PEAKTTYPE = SMALL_PEAKE
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200
```

Peak at depth 992.74 m was processed using the following parameters

```
FSMT_PEAKTTYPE = SMALL_PEAKE
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200
```

Peak at depth 829.83 m was processed using the following parameters

```
FSMT_PEAKTTYPE = SMALL_PEAKE
FSMT_FIT = GAUSSIAN
FSMT_FILTER = 200
```



Pass #1
1150m – 700m

MAXIS Field Log

Company: ENI U&TS

Well: Bonaccia NW 1 Dir

Input DLIS Files

DEFAULT	FSMT_PSP_008LUP	FN:9	PRODUCER	03-Oct-2022 10:03	1169.8 M	693.0 M
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Output DLIS Files

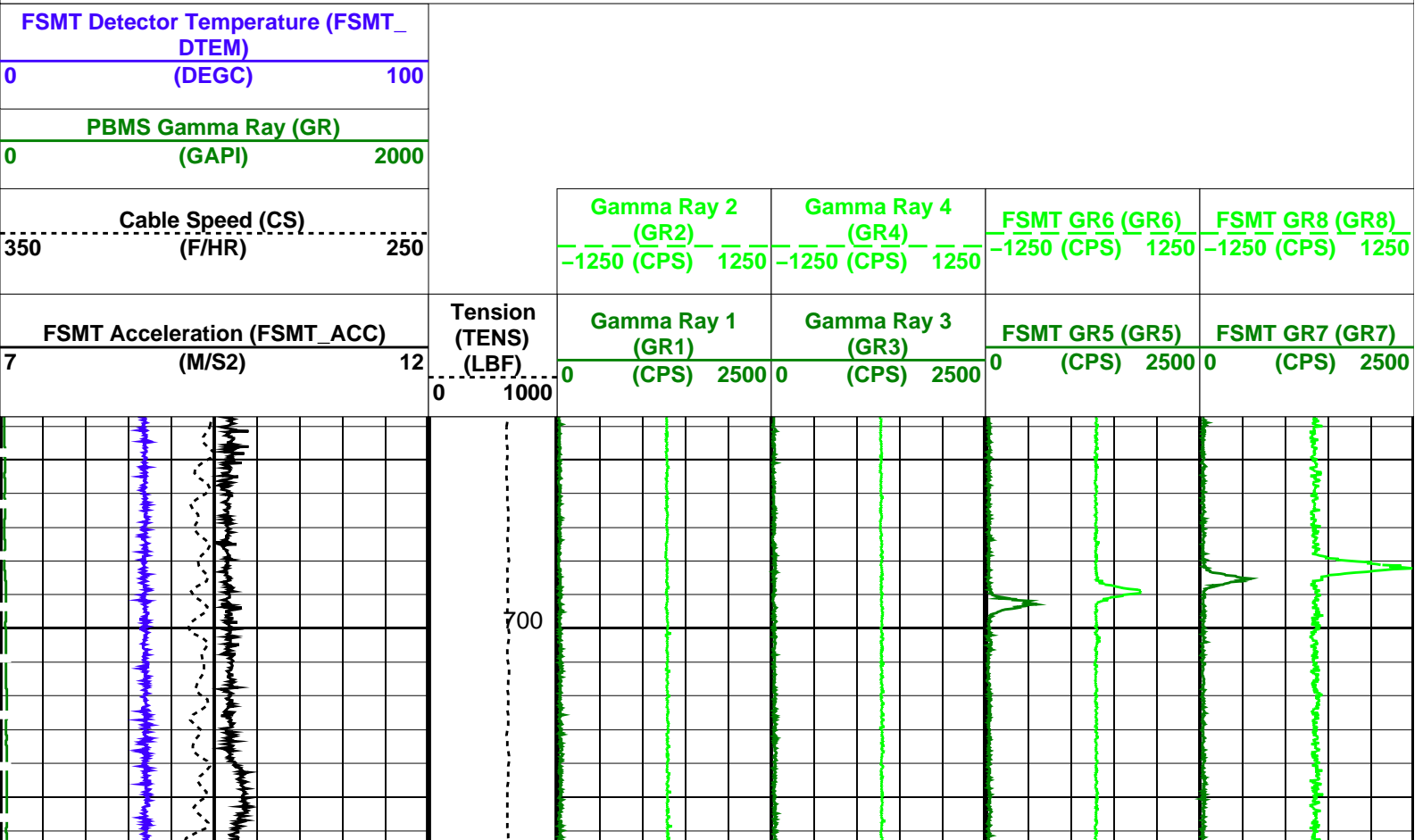
DEFAULT	FSMT_PSP_009PUP	FN:12	PRODUCER	03-Oct-2022 15:18	1170.6 M	693.7 M
CLIENT	FSMT_PSP_009PUC	FN:13	CUSTOMER	03-Oct-2022 15:18	1170.6 M	693.7 M
RTB	FSMT_PSP_009PUP	FN:14	PRODUCER	03-Oct-2022 15:18	1170.6 M	693.7 M

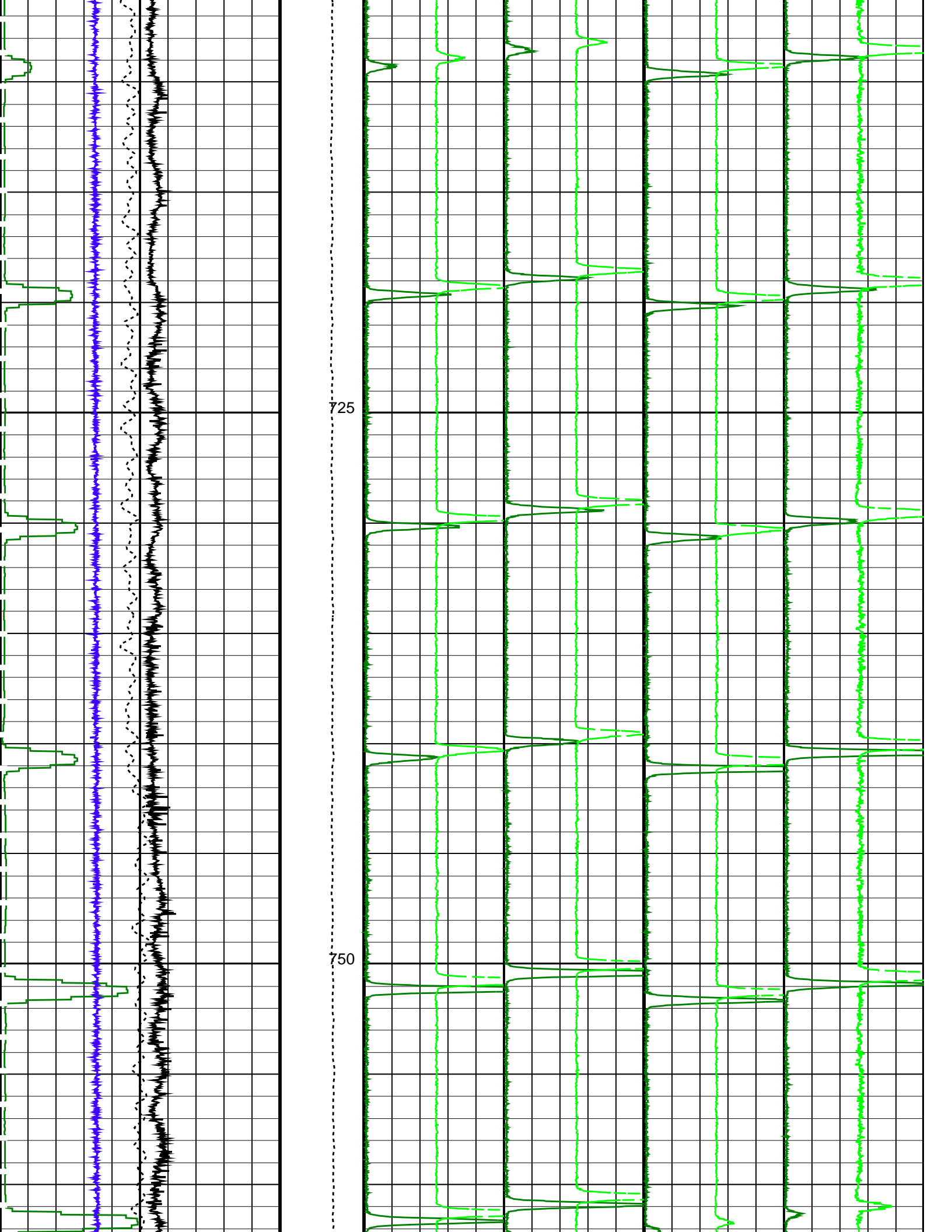
OP System Version: 19C2-270

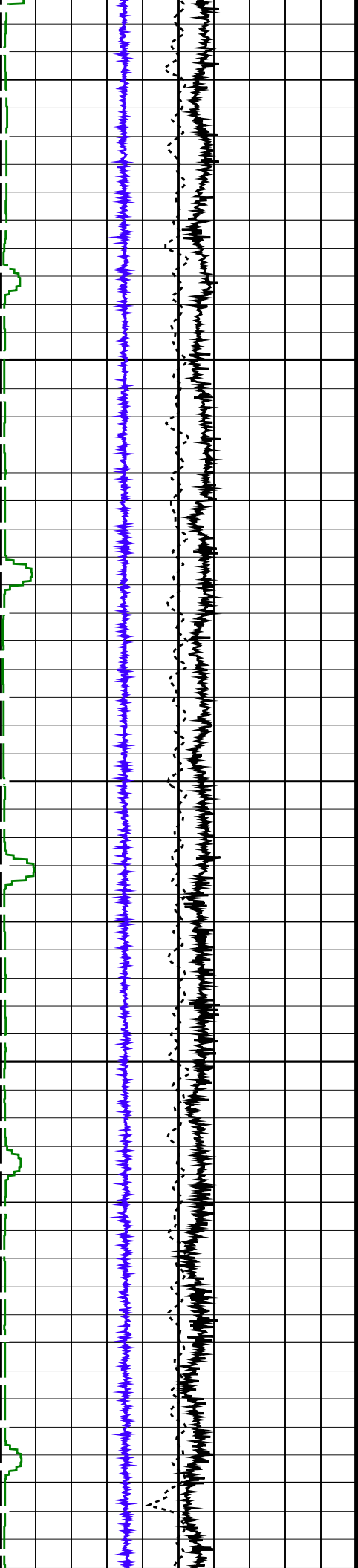
FSMT-E	SRPC-FSMTE-JUNE_2013_OP19C2H1	PSPT	19C2-270
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PIP SUMMARY

Time Mark Every 60 S

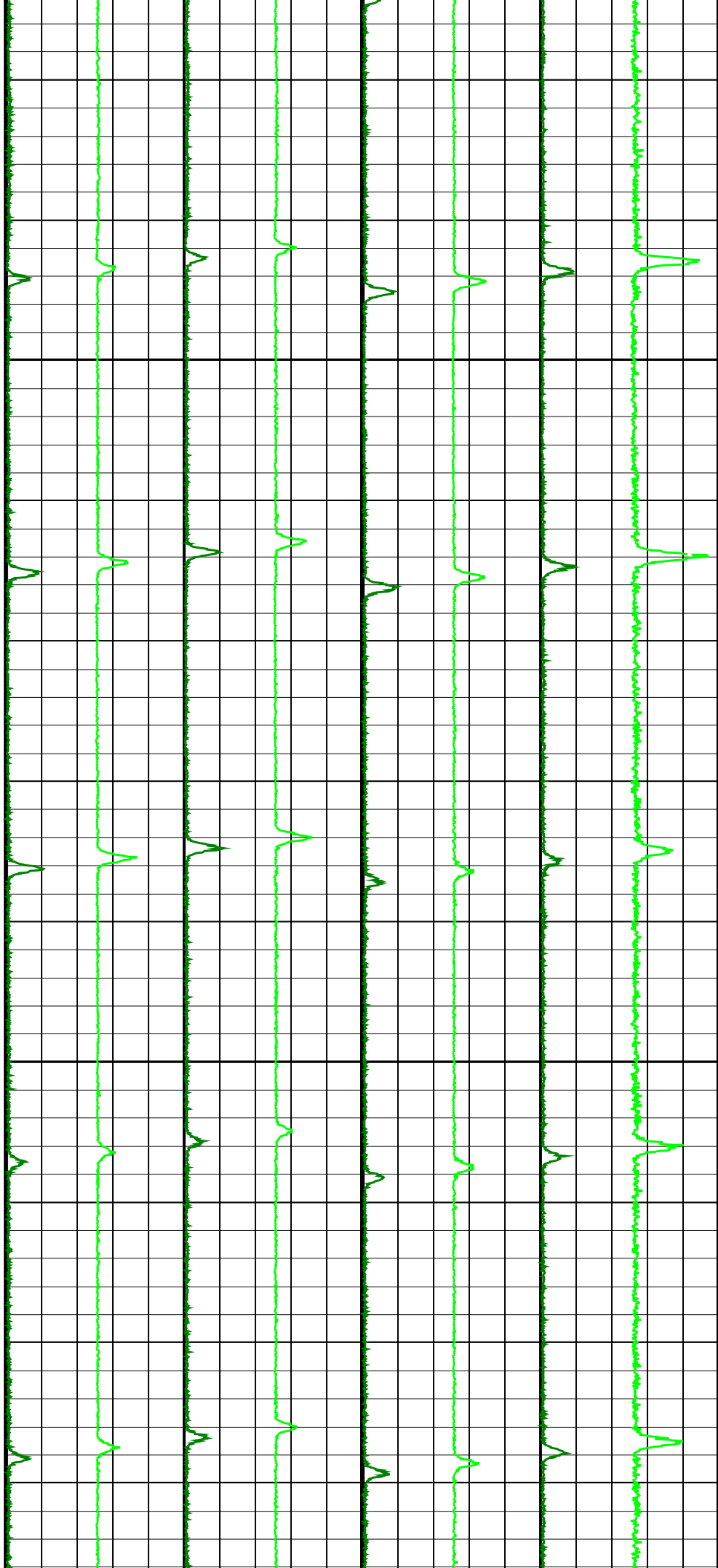


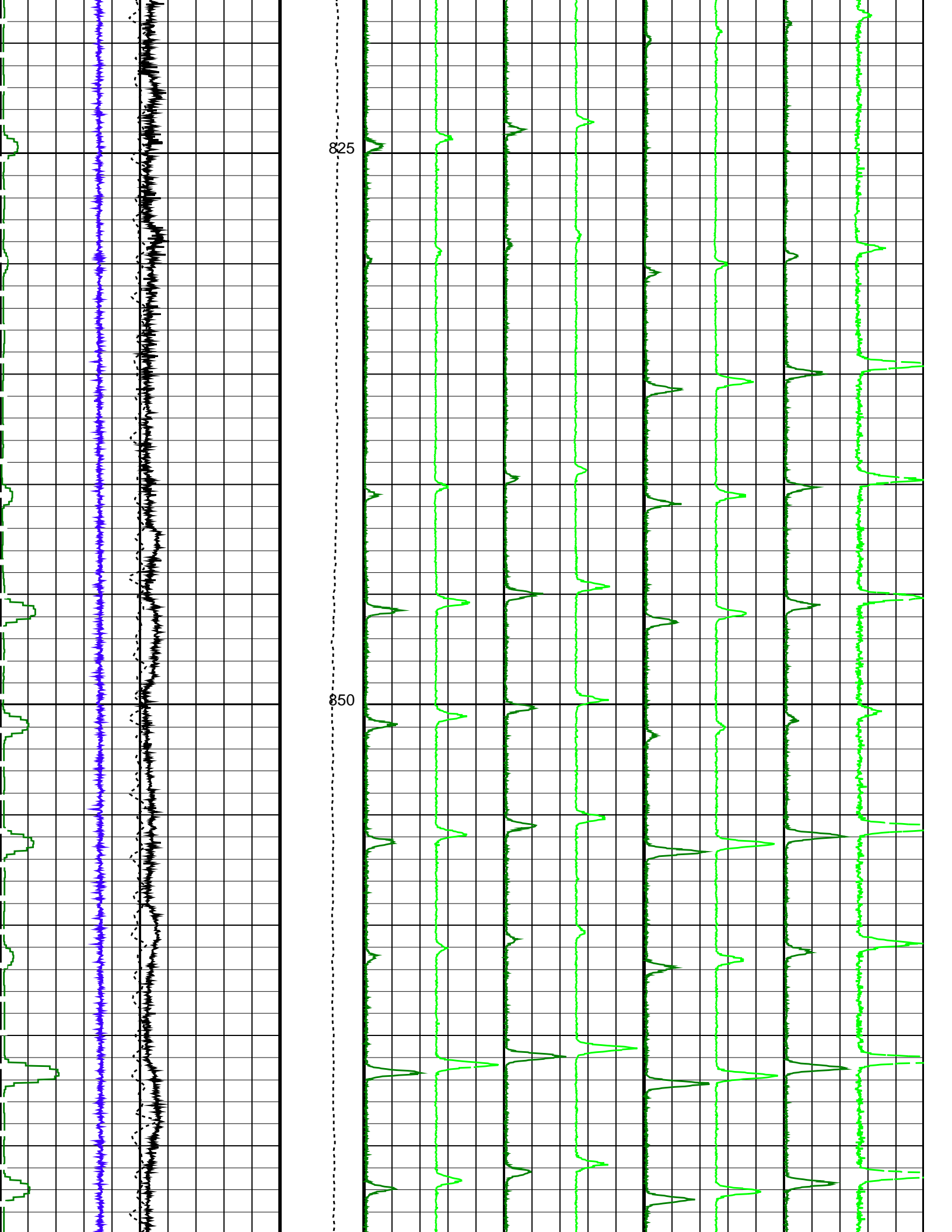


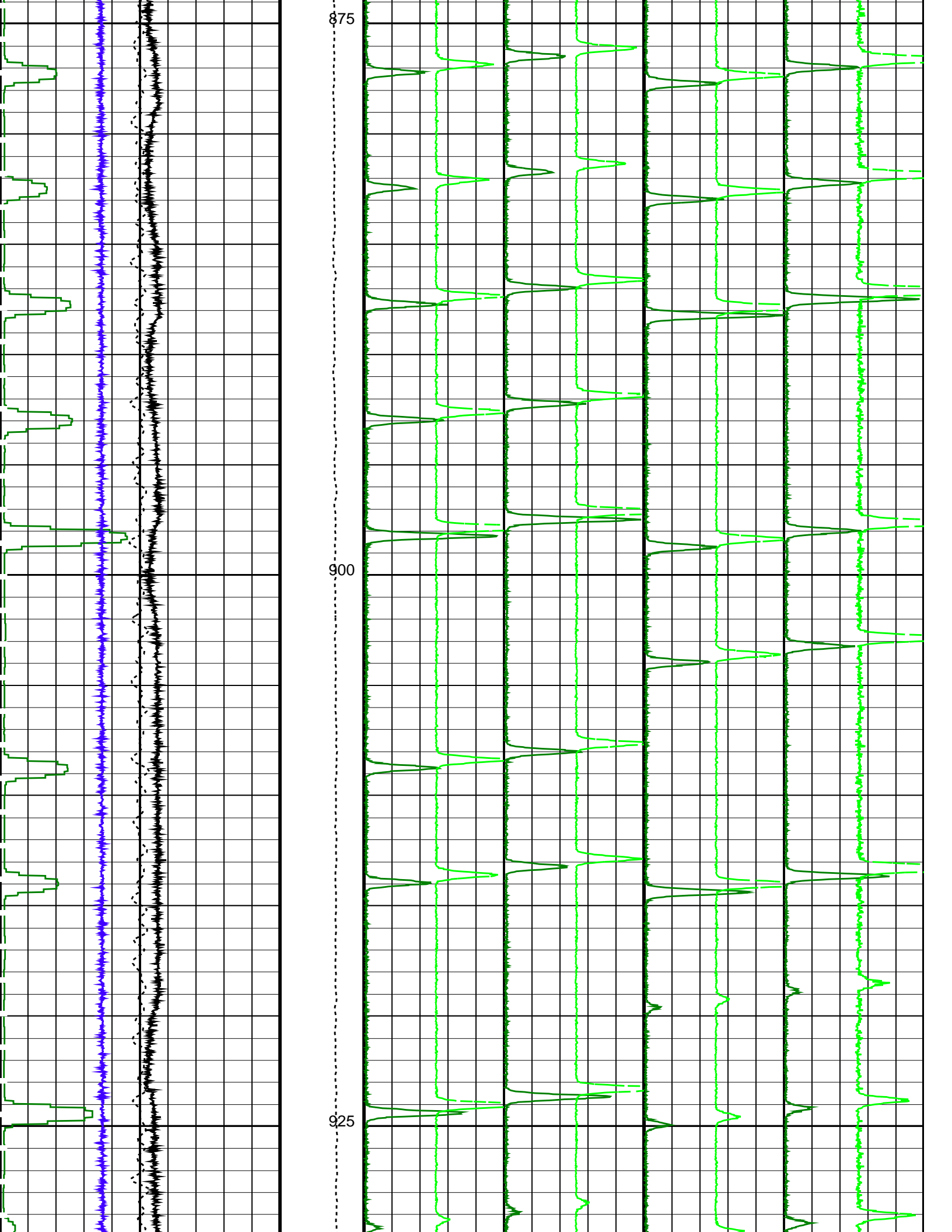


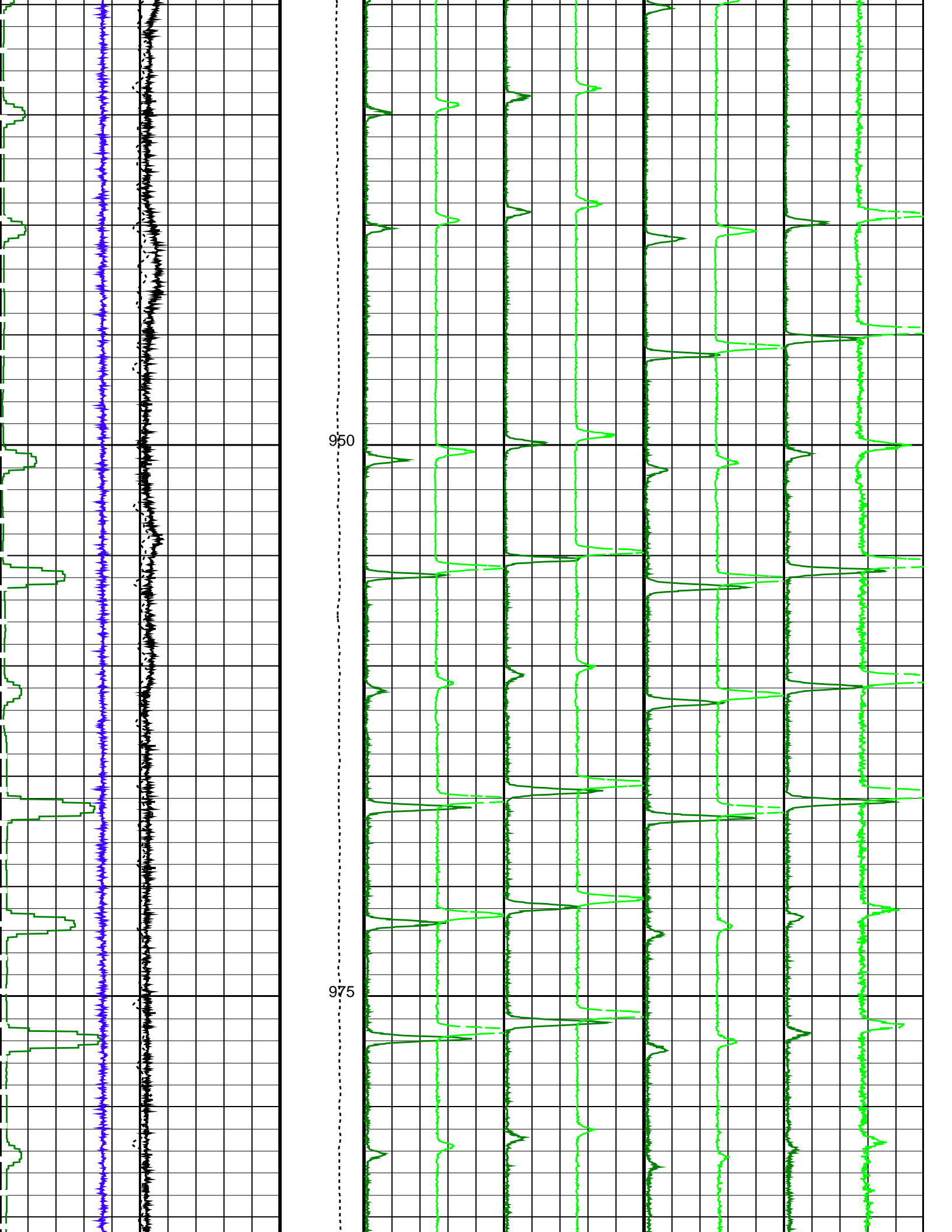
775

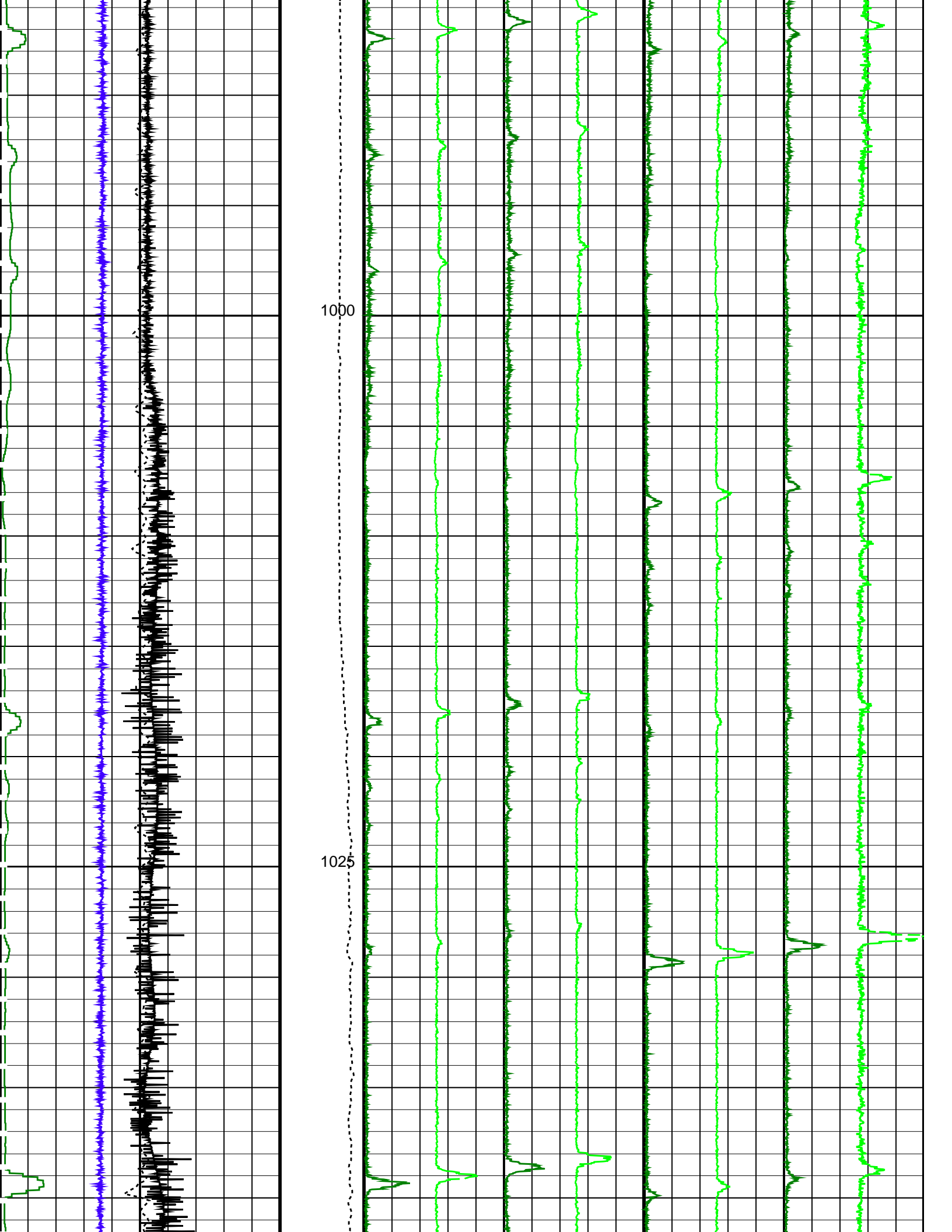
800

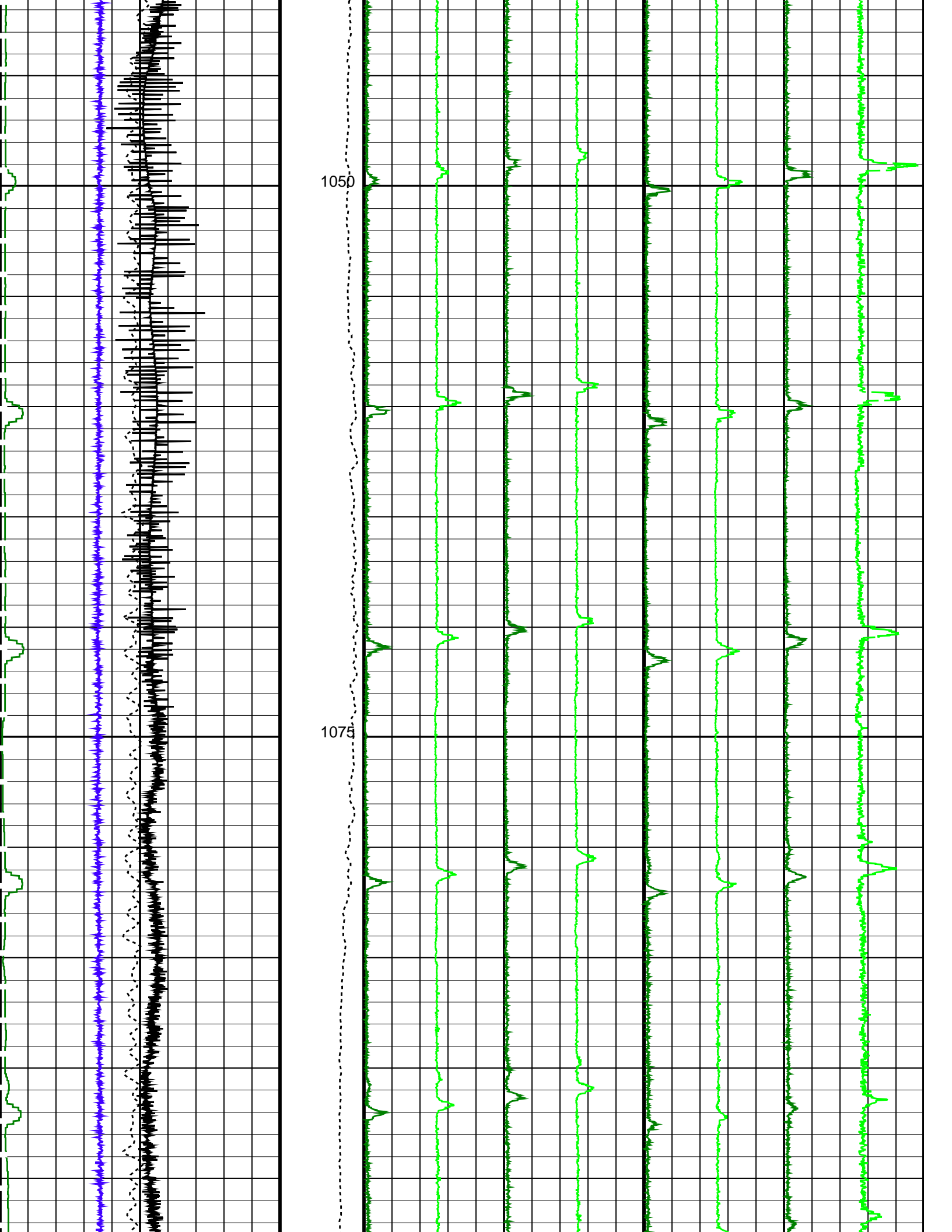


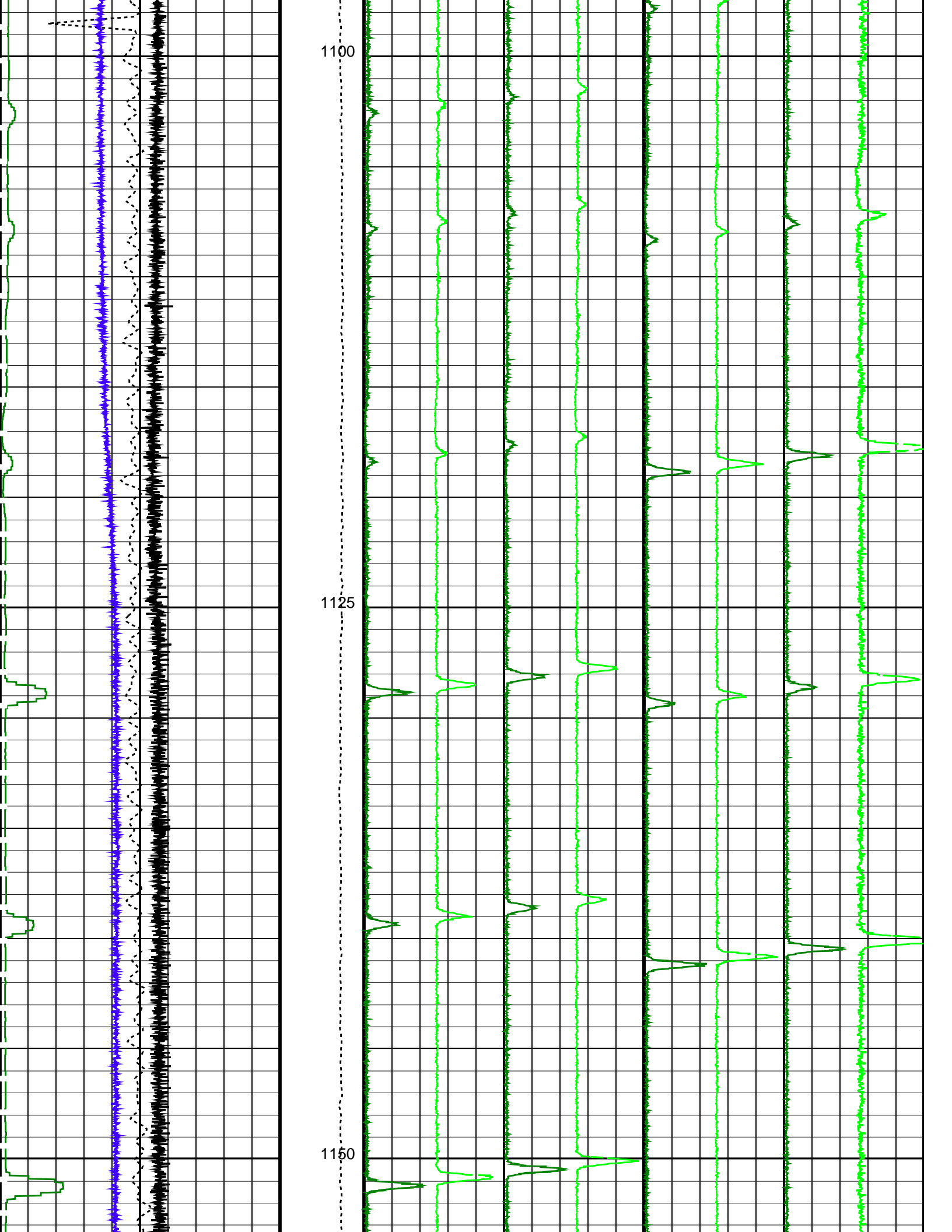


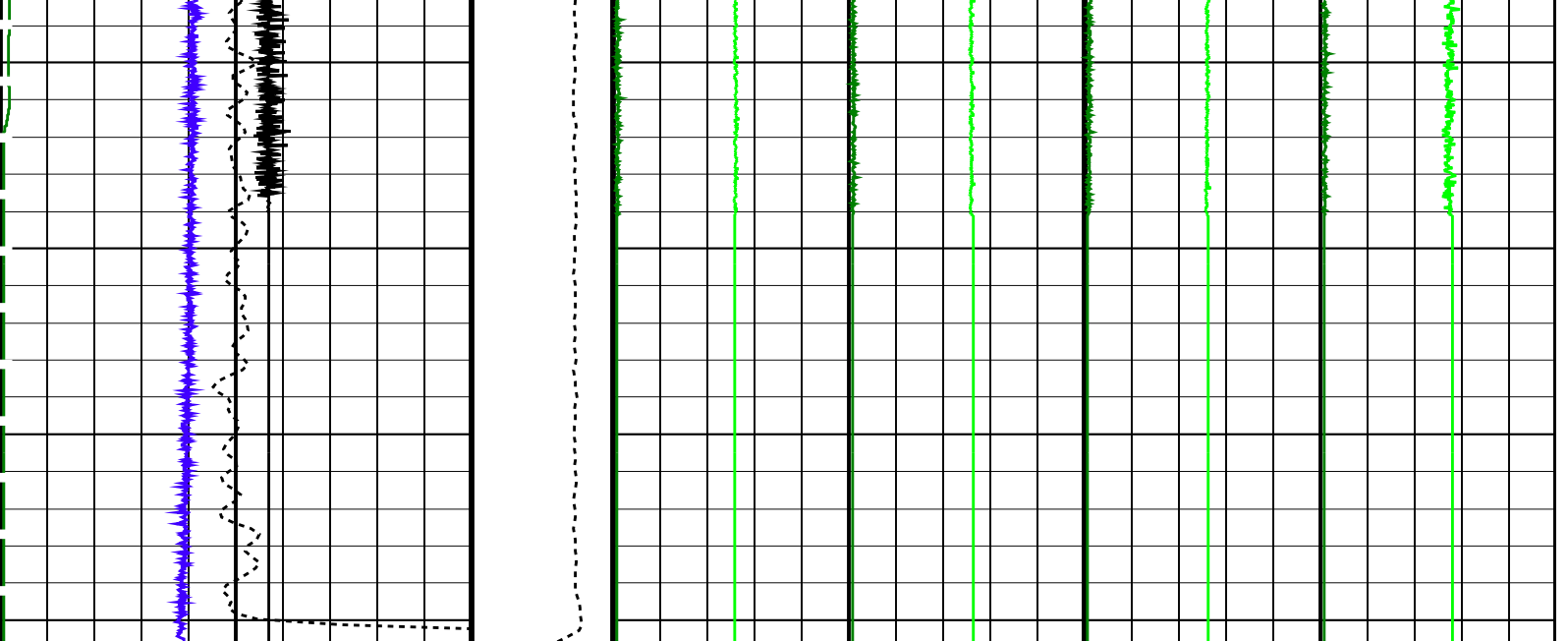












FSMT Acceleration (FSMT_ACC) (M/S2)	7	12	Tension (TENS) (LBF)	0	1000	Gamma Ray 1 (GR1) (CPS)	2500	Gamma Ray 3 (GR3) (CPS)	2500	FSMT GR5 (GR5) (CPS)	2500	FSMT GR7 (GR7) (CPS)	2500
Cable Speed (CS) (F/HR)	350	250				Gamma Ray 2 (GR2) (CPS)	-1250	Gamma Ray 4 (GR4) (CPS)	1250	FSMT GR6 (GR6) (CPS)	-1250	FSMT 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	0.7 M
PP	Depth Offset for Playback Playback Processing	NORMAL

Format: FSMT_Basic Vertical Scale: 1:200 Graphics File Created: 03-Oct-2022 15:18

OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1 PSPT 19C2-270

Input DLIS Files

DEFAULT	FSMT_PSP_008LUP	FN:9	PRODUCER	03-Oct-2022 10:03	1169.8 M	693.0 M
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Output DLIS Files

DEFAULT	FSMT_PSP_009PUP	FN:12	PRODUCER	03-Oct-2022 15:18		
CLIENT	FSMT_PSP_009PUC	FN:13	CUSTOMER	03-Oct-2022 15:18		
RTB	FSMT_PSP_009PUP	FN:14	PRODUCER	03-Oct-2022 15:18		

Company: ENI U&TS

Well: Bonaccia NW 1 Dir

Input DLIS Files

DEFAULT	FSMT_PSP_014LUP	FN:19	PRODUCER	04-Oct-2022 10:44	1170.0 M	691.7 M
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Output DLIS Files

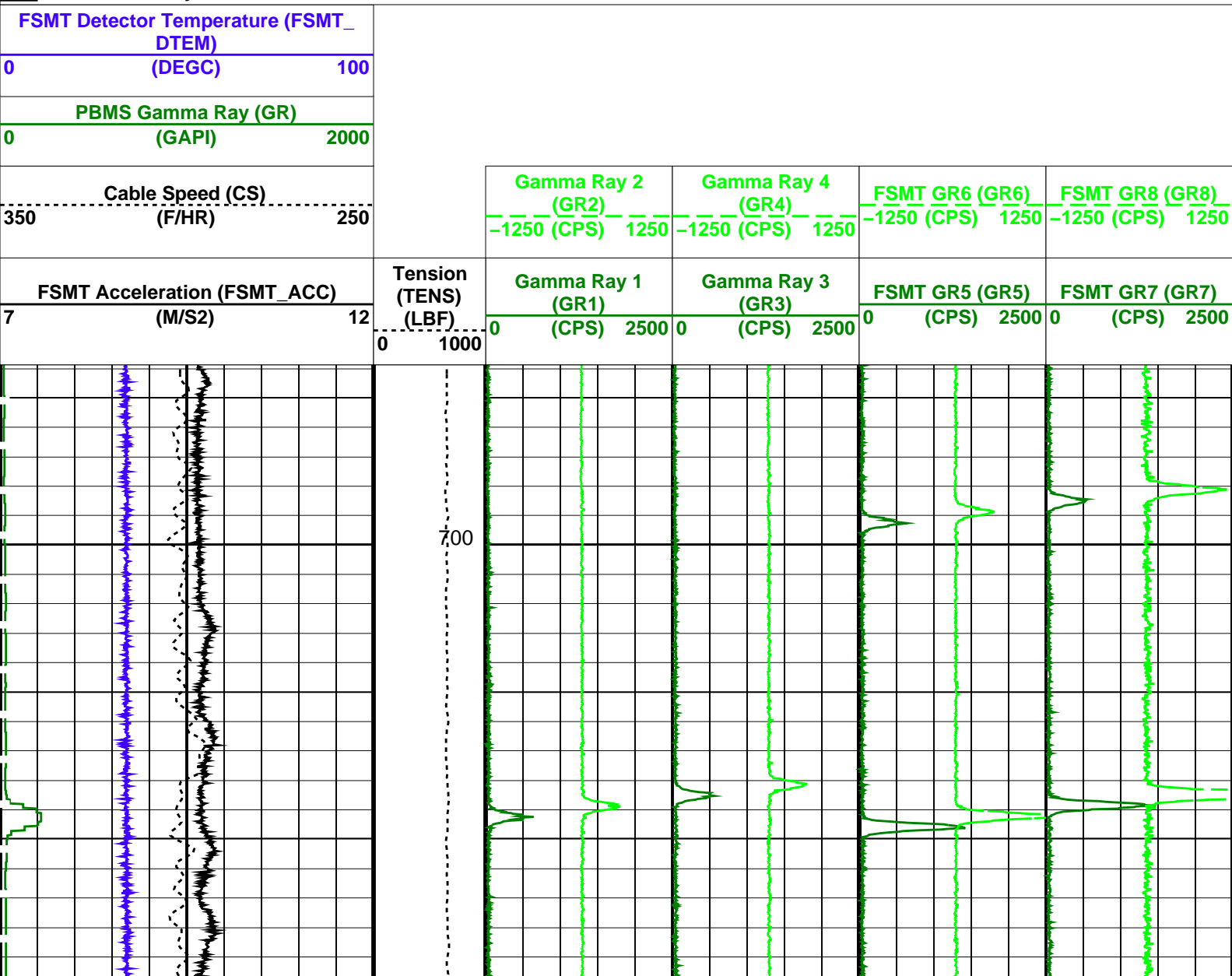
DEFAULT	FSMT_PSP_015PUP	FN:22	PRODUCER	04-Oct-2022 15:59	1172.1 M	693.9 M
CLIENT	FSMT_PSP_015PUC	FN:23	CUSTOMER	04-Oct-2022 15:59	1172.1 M	693.9 M
RTB	FSMT_PSP_015PUP	FN:24	PRODUCER	04-Oct-2022 15:59	1172.1 M	693.9 M

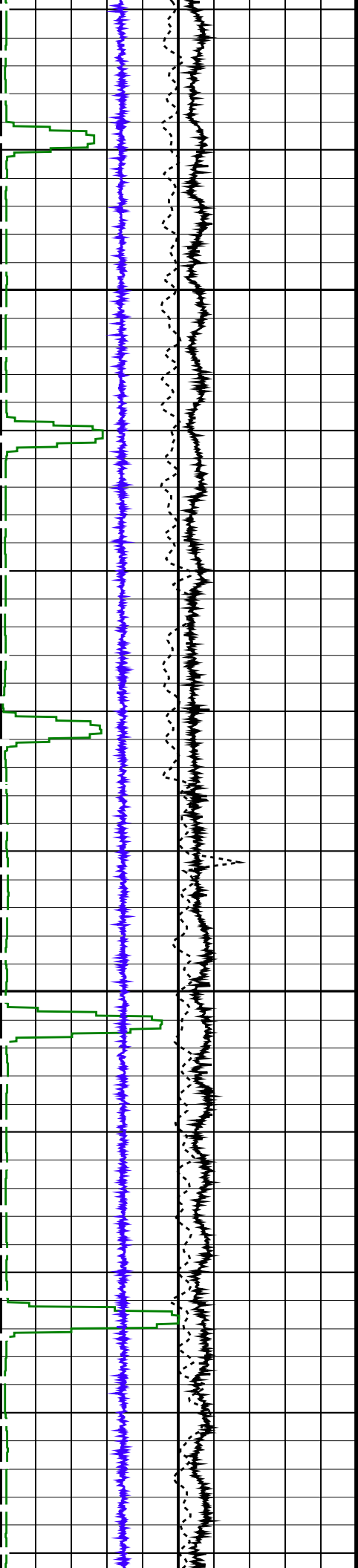
OP System Version: 19C2-270

FSMT-E	SRPC-FSMTE-JUNE_2013_OP19C2H1	PSPT	19C2-270
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PIP SUMMARY

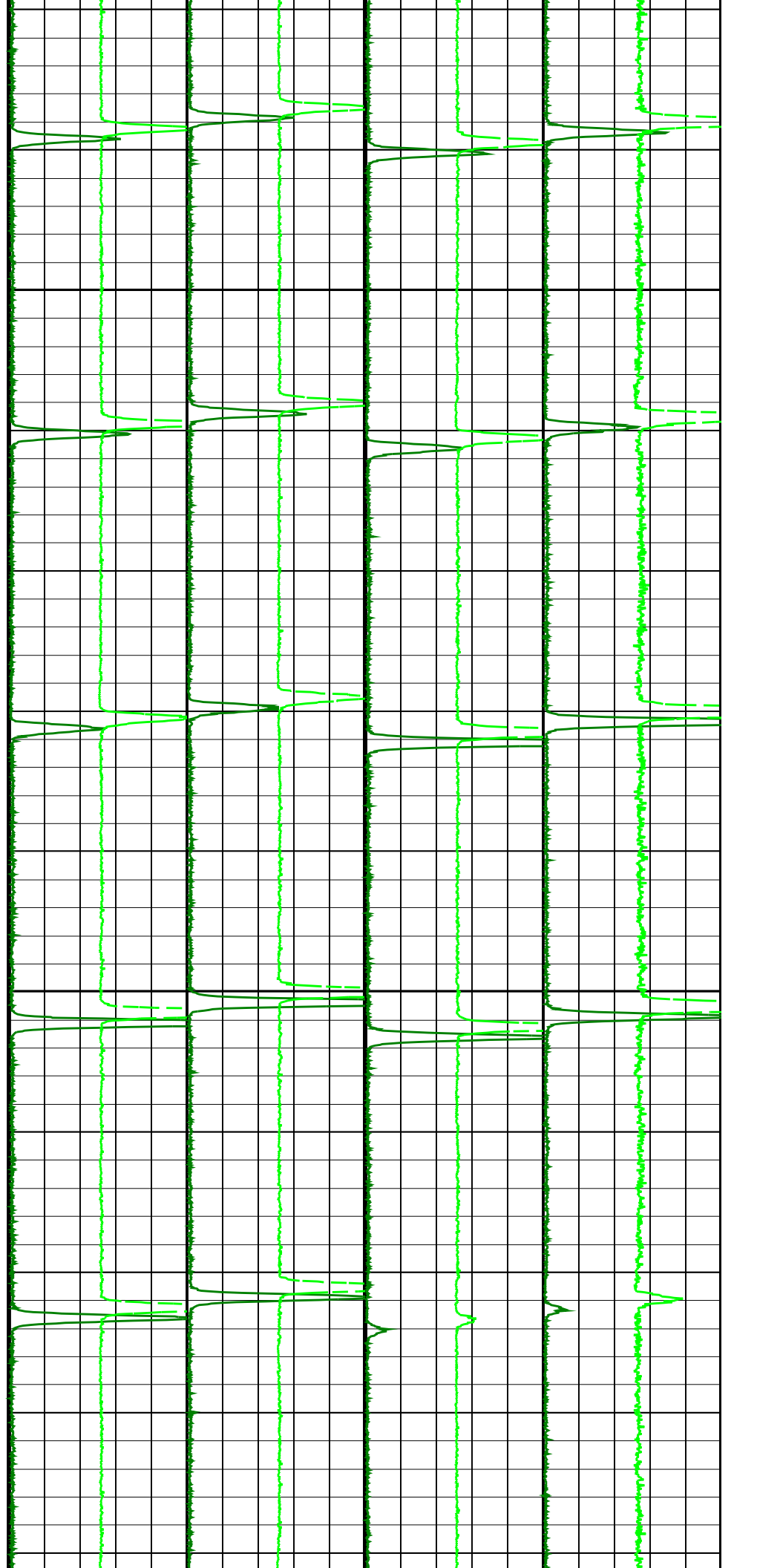
Time Mark Every 60 S

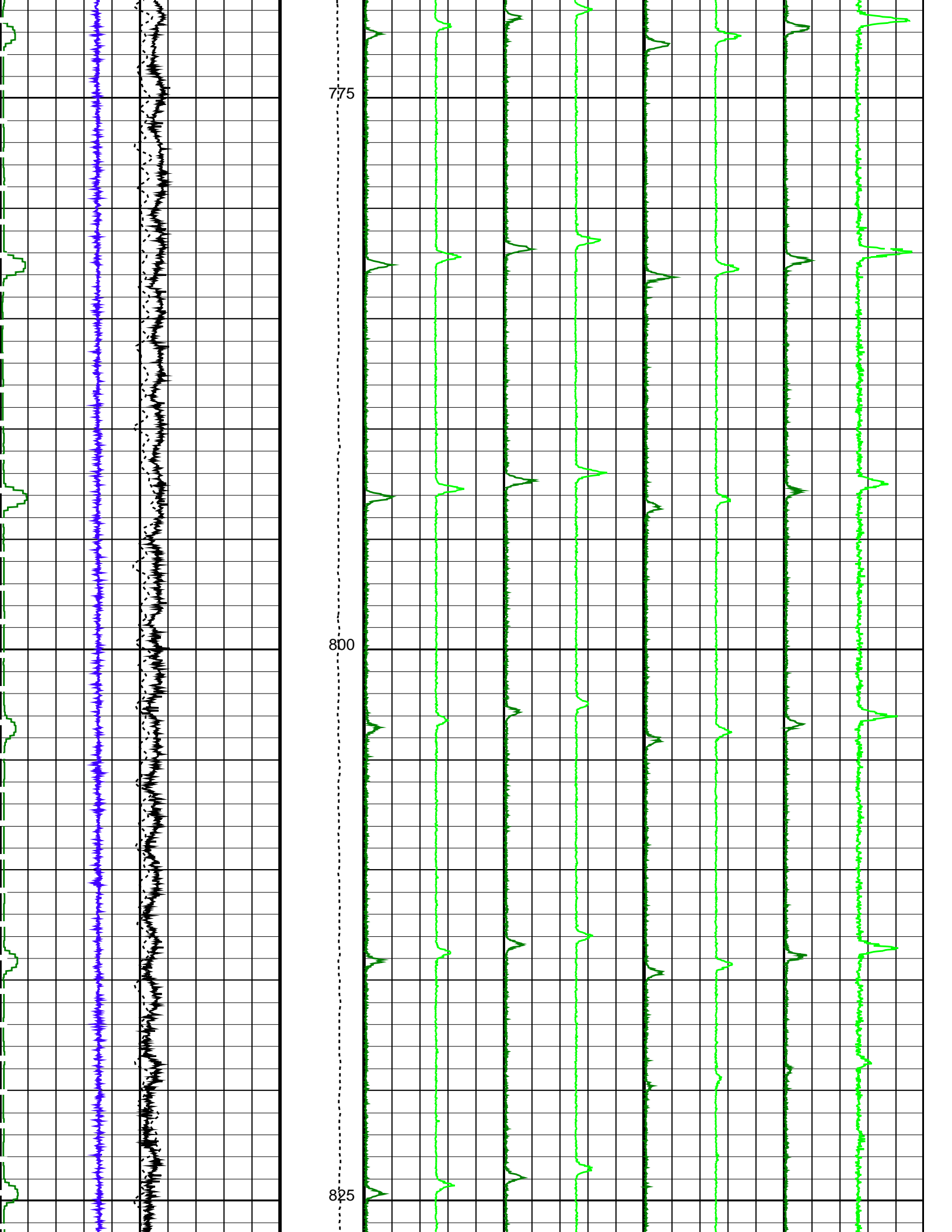


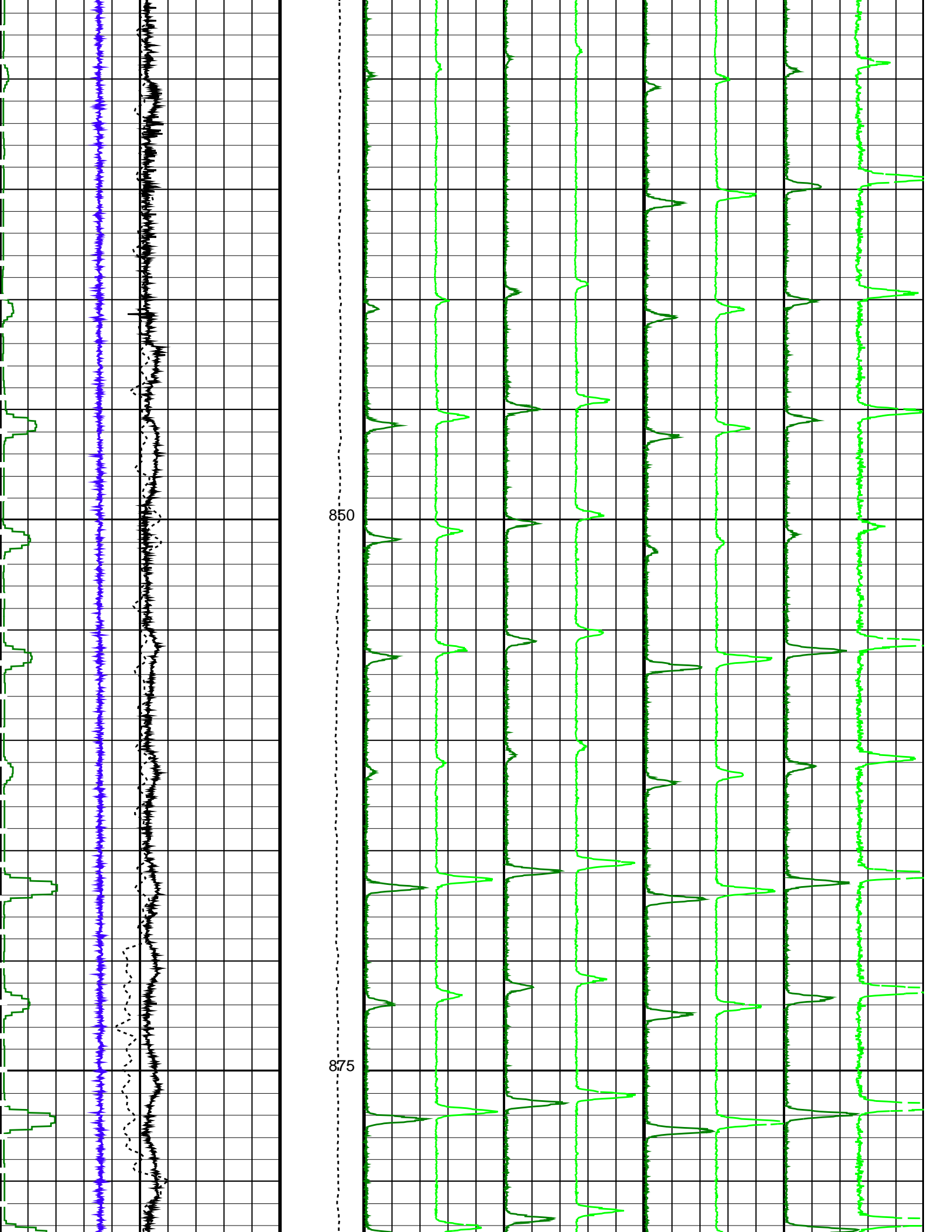


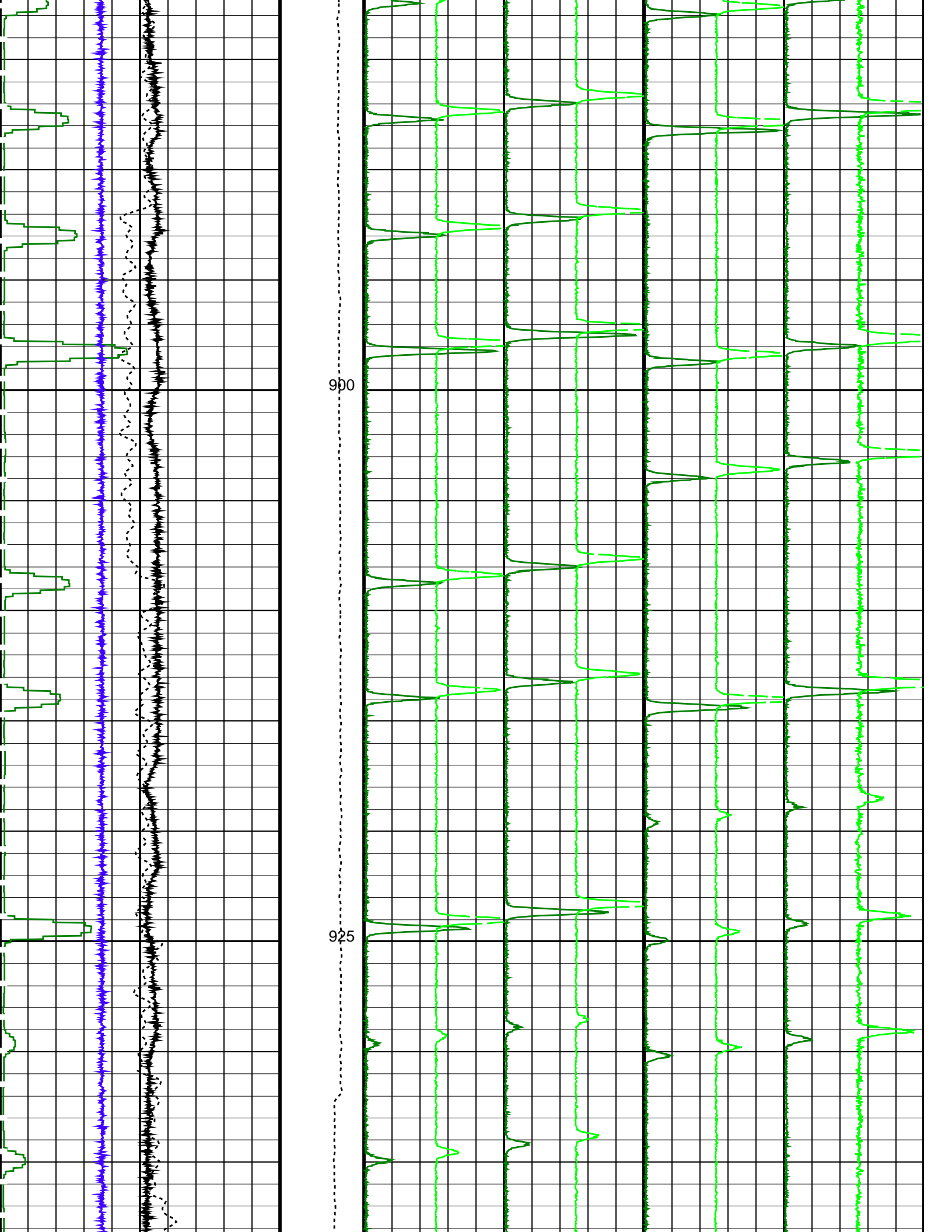
725

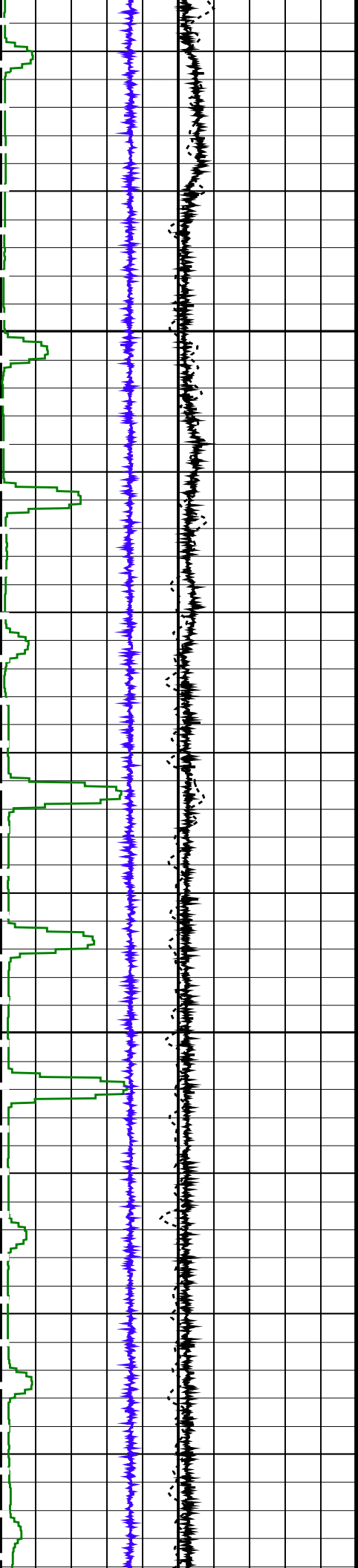
750





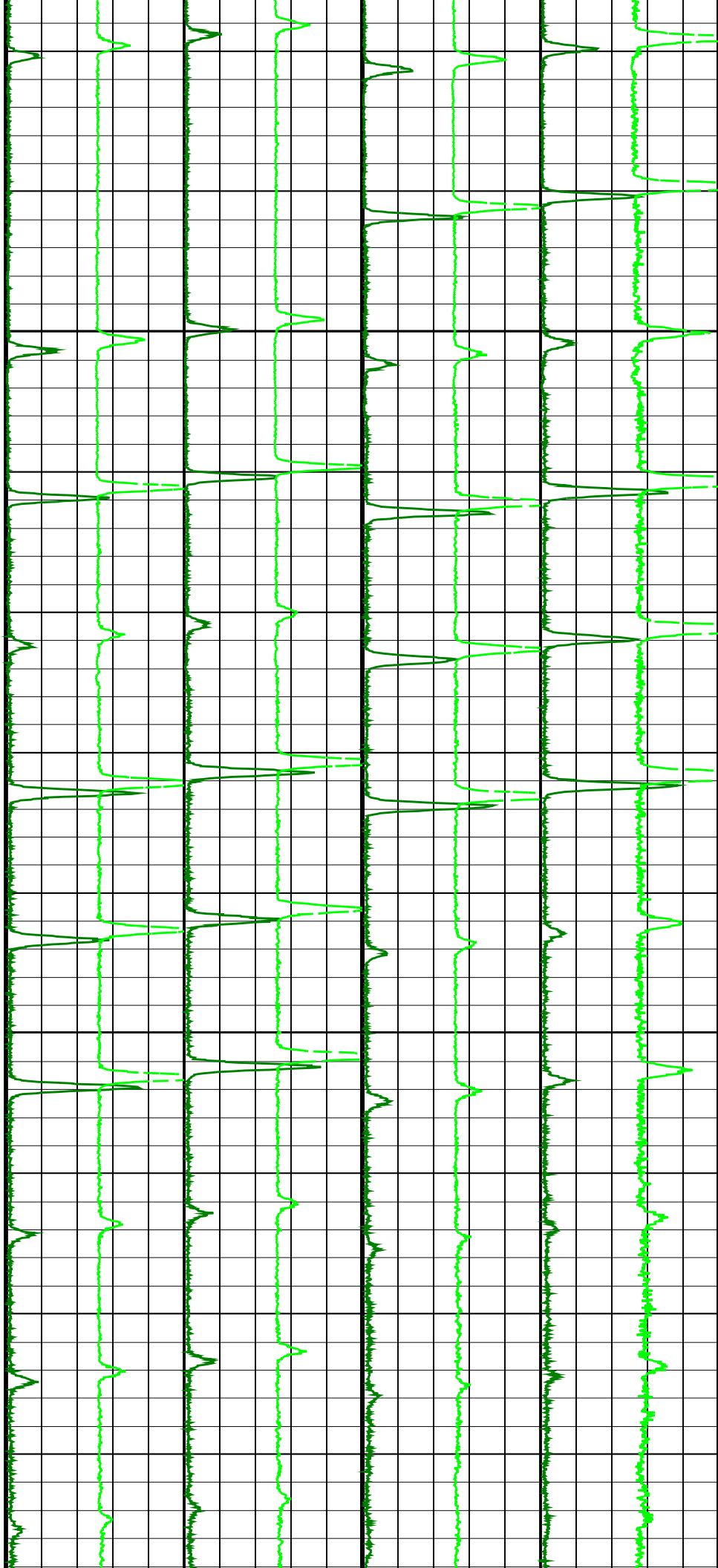


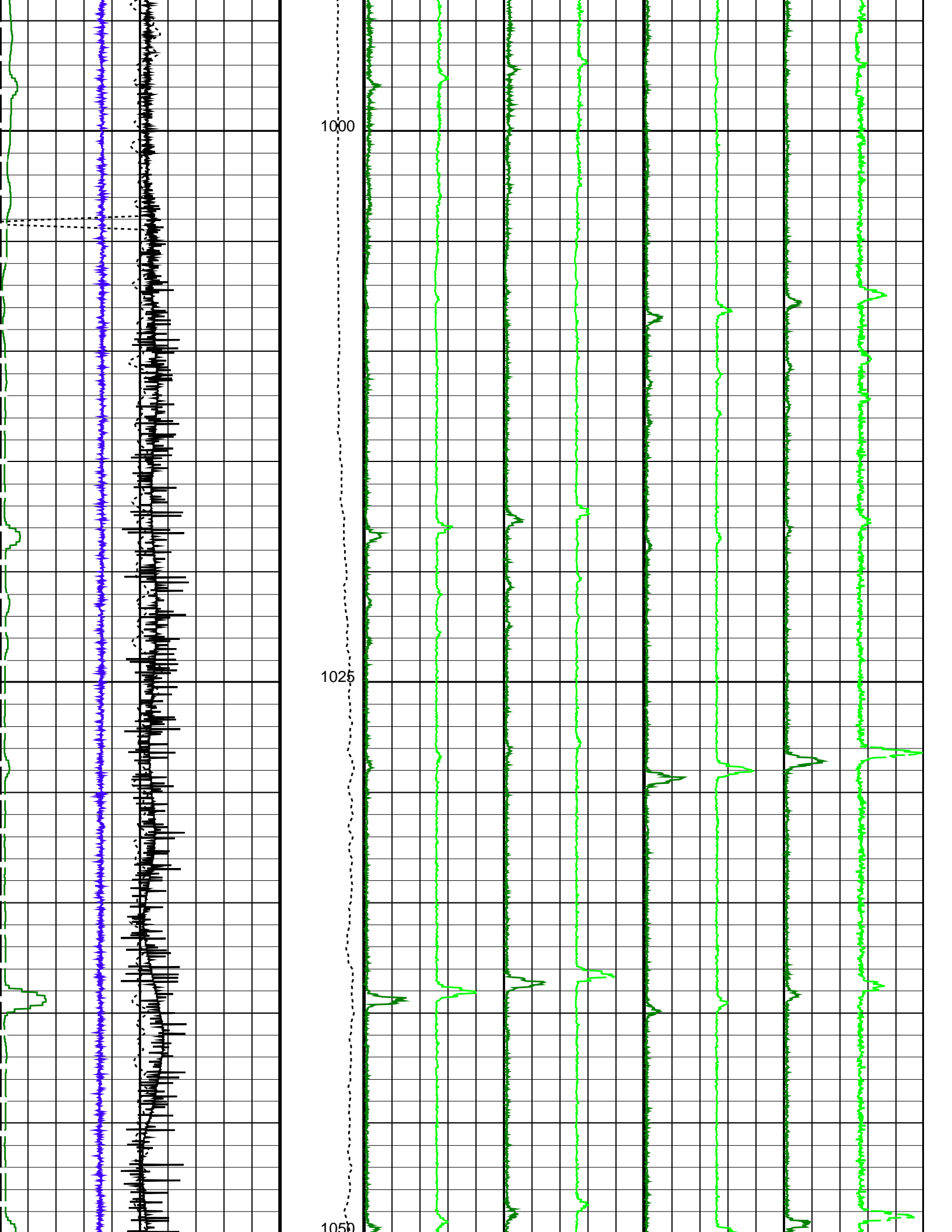


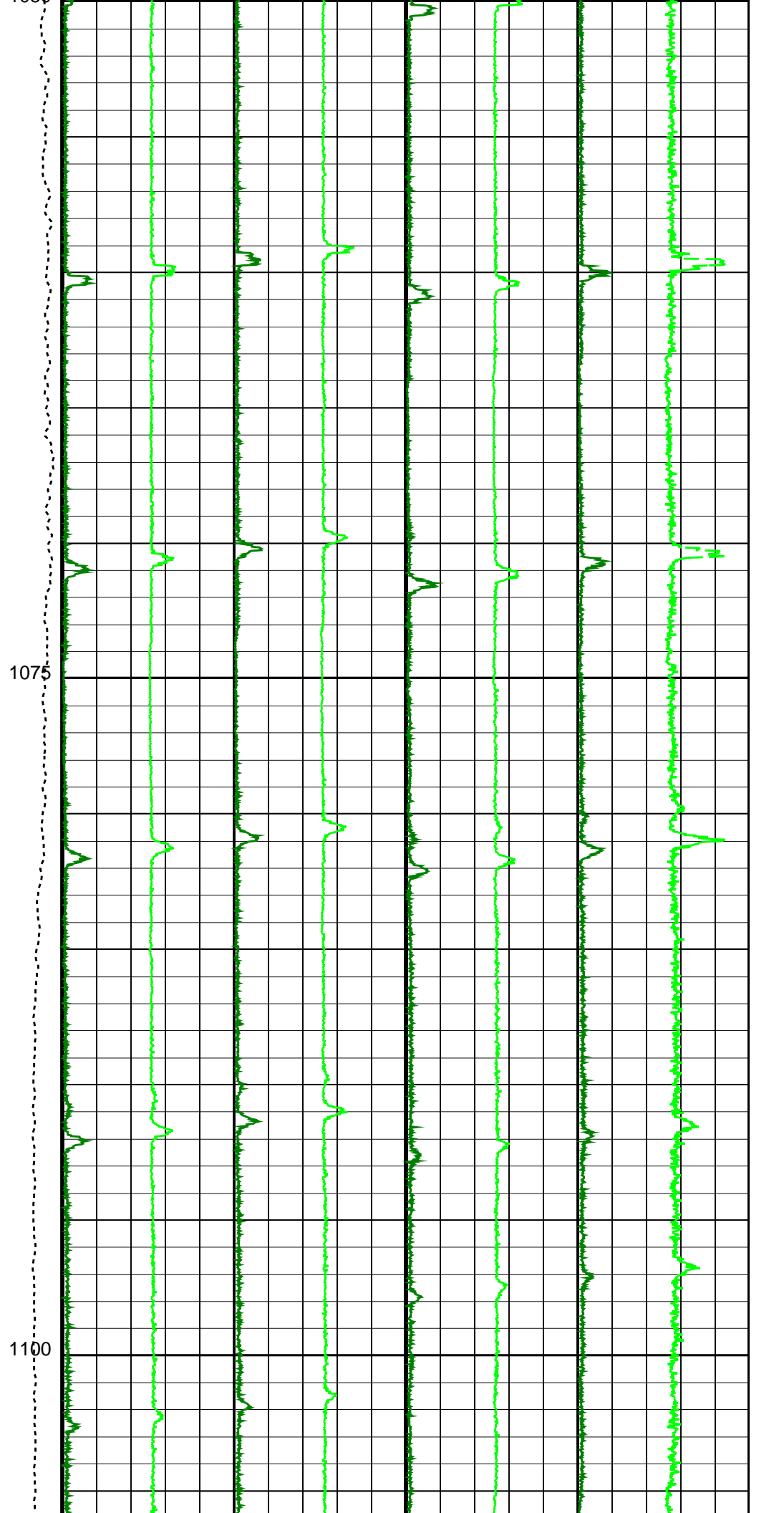
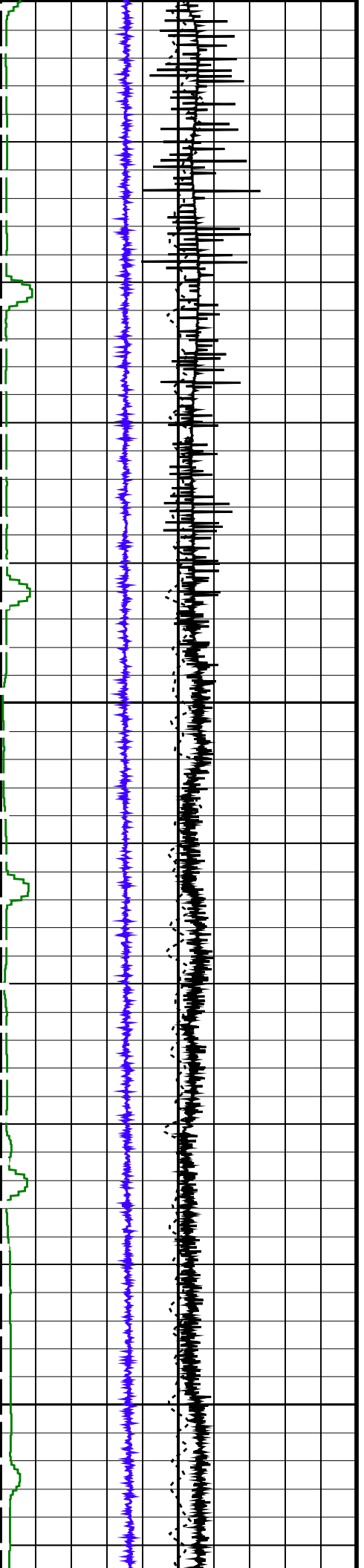


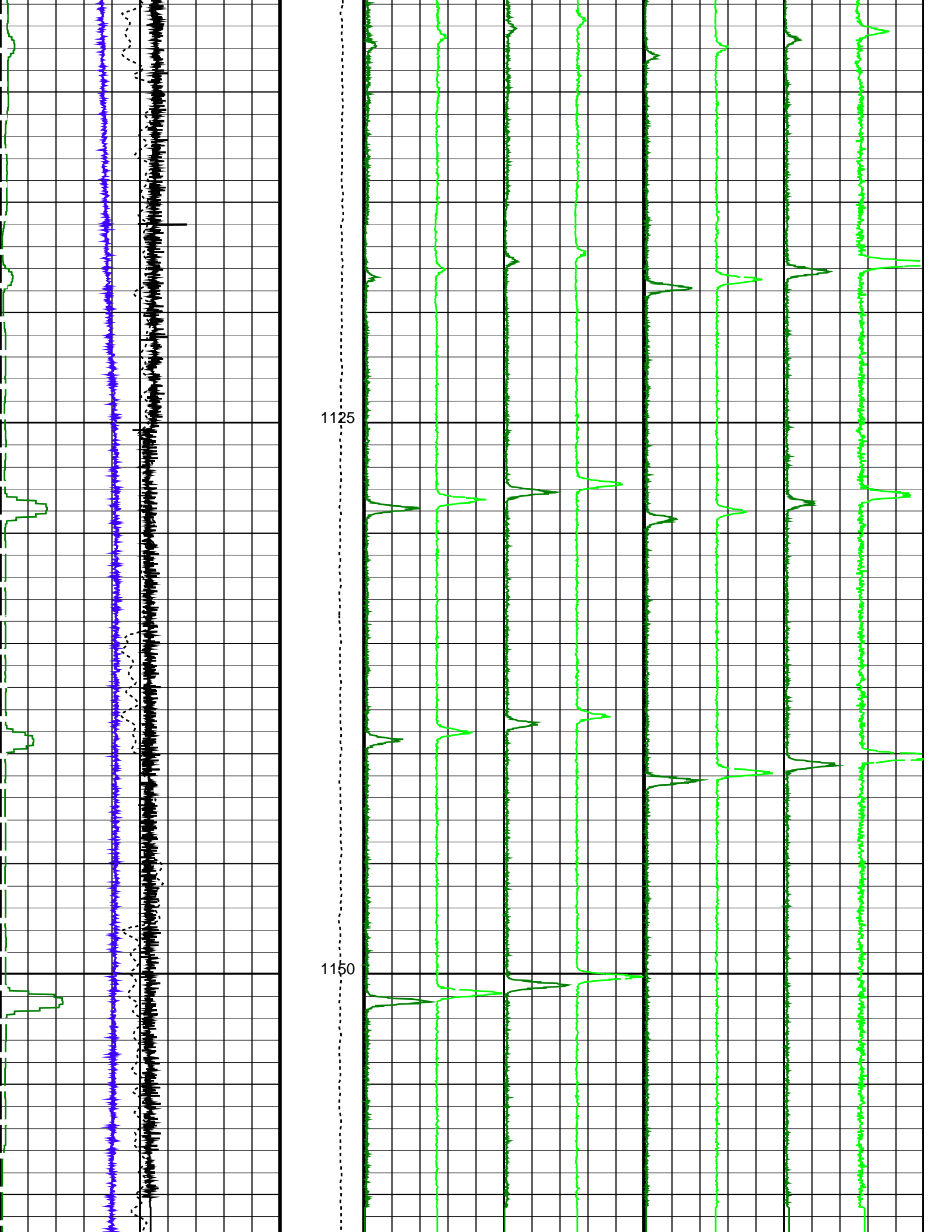
950

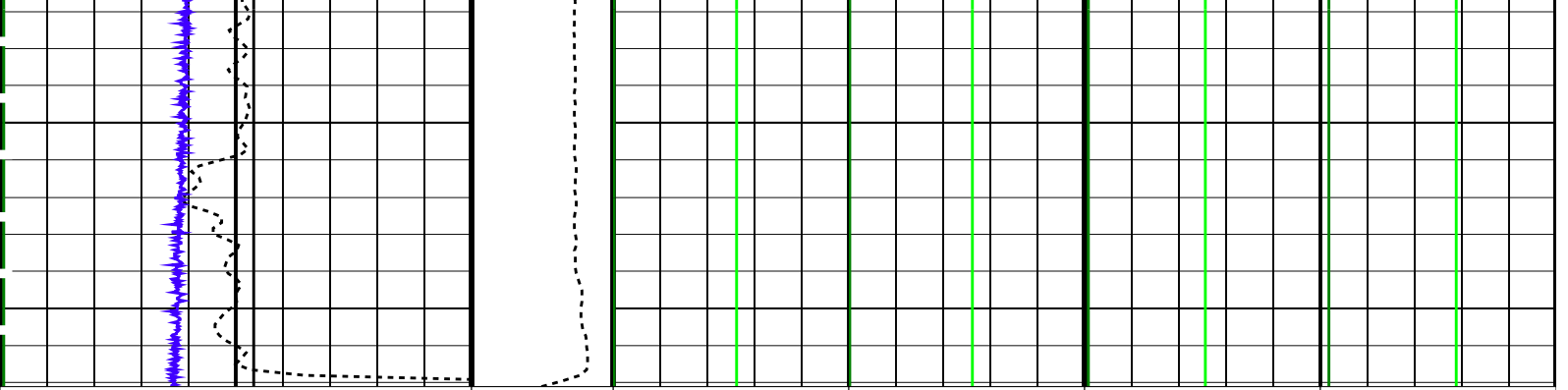
975











FSMT Acceleration (FSMT_ACC) (M/S ²)	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	2.1 M
PP	Depth Offset for Playback Playback Processing	NORMAL

Format: FSMT_Basic Vertical Scale: 1:200 Graphics File Created: 04-Oct-2022 15:59

OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1 PSPT 19C2-270

Input DLIS Files

DEFAULT	FSMT_PSP_014LUP	FN:19	PRODUCER	04-Oct-2022 10:44	1170.0 M	691.7 M
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Output DLIS Files

DEFAULT	FSMT_PSP_015PUP	FN:22	PRODUCER	04-Oct-2022 15:59		
CLIENT	FSMT_PSP_015PUC	FN:23	CUSTOMER	04-Oct-2022 15:59		
RTB	FSMT_PSP_015PUP	FN:24	PRODUCER	04-Oct-2022 15:59		



Pass #3
1150m - 700m

Input DLIS Files

DEFAULT	FSMT_PSP_019LUP	FN:28	PRODUCER	05-Oct-2022 09:19	1169.8 M	692.2 M
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Output DLIS Files

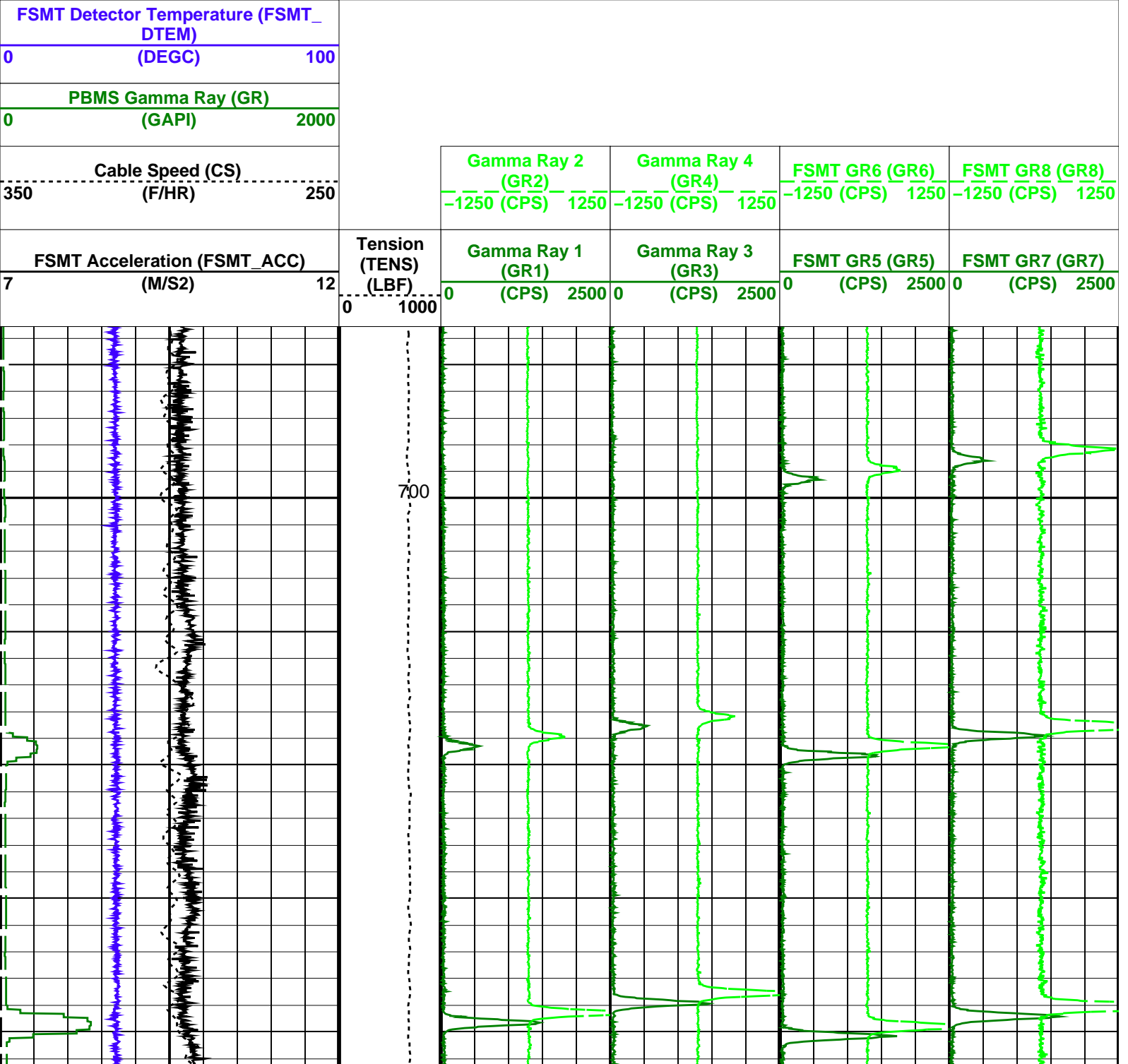
DEFAULT	FSMT_PSP_021PUP	FN:34	PRODUCER	05-Oct-2022 14:38	1171.2 M	693.6 M
CLIENT	FSMT_PSP_021PUC	FN:35	CUSTOMER	05-Oct-2022 14:38	1171.2 M	693.6 M
RTB	FSMT_PSP_021PUP	FN:36	PRODUCER	05-Oct-2022 14:38	1171.2 M	693.6 M

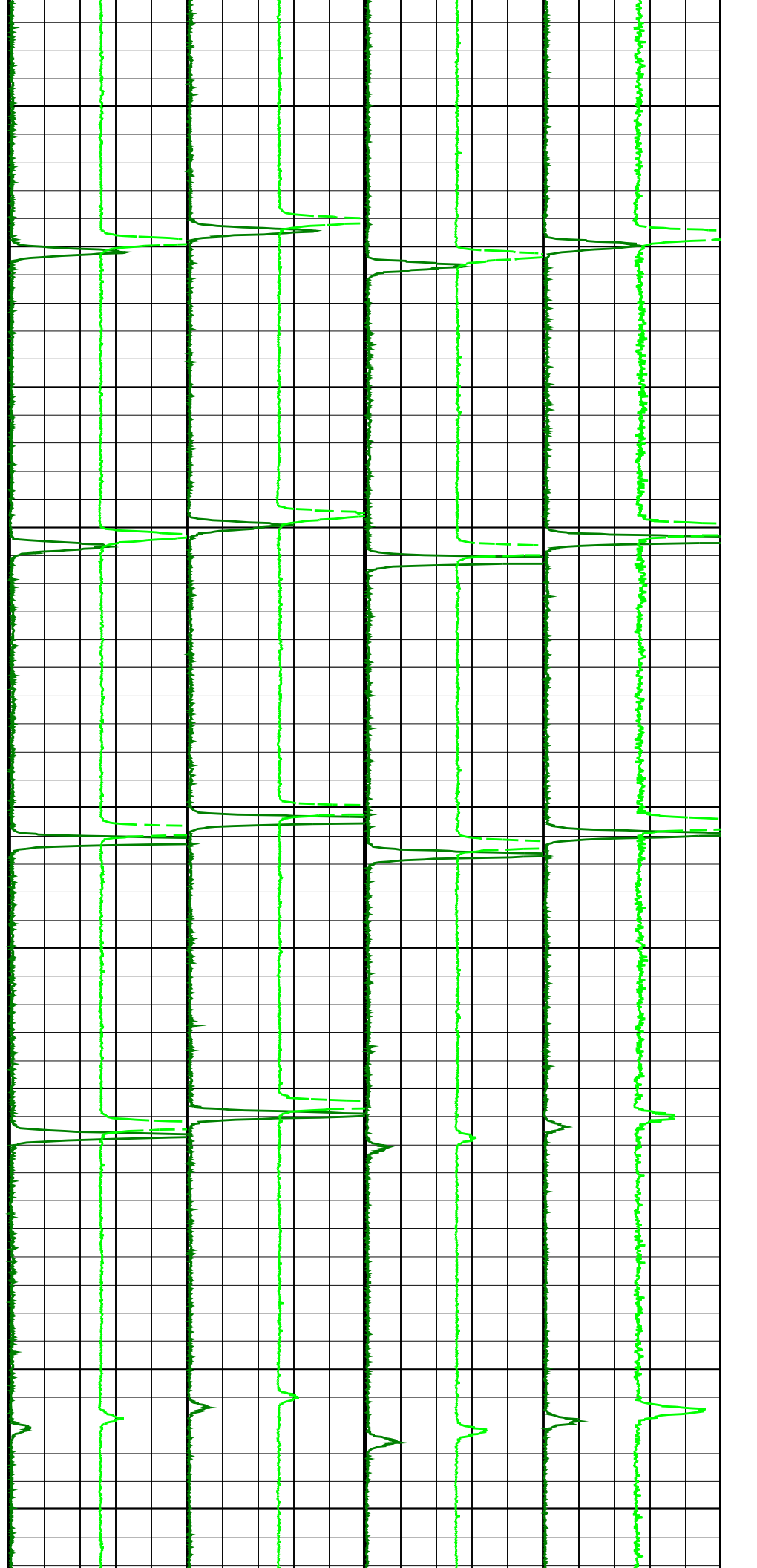
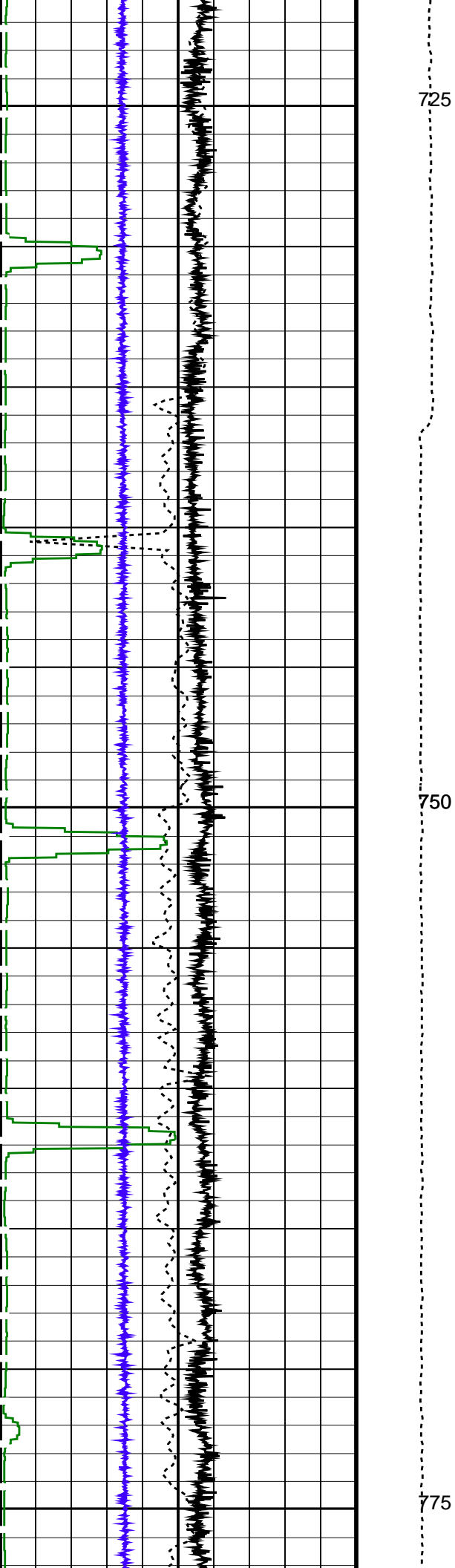
OP System Version: 19C2-270

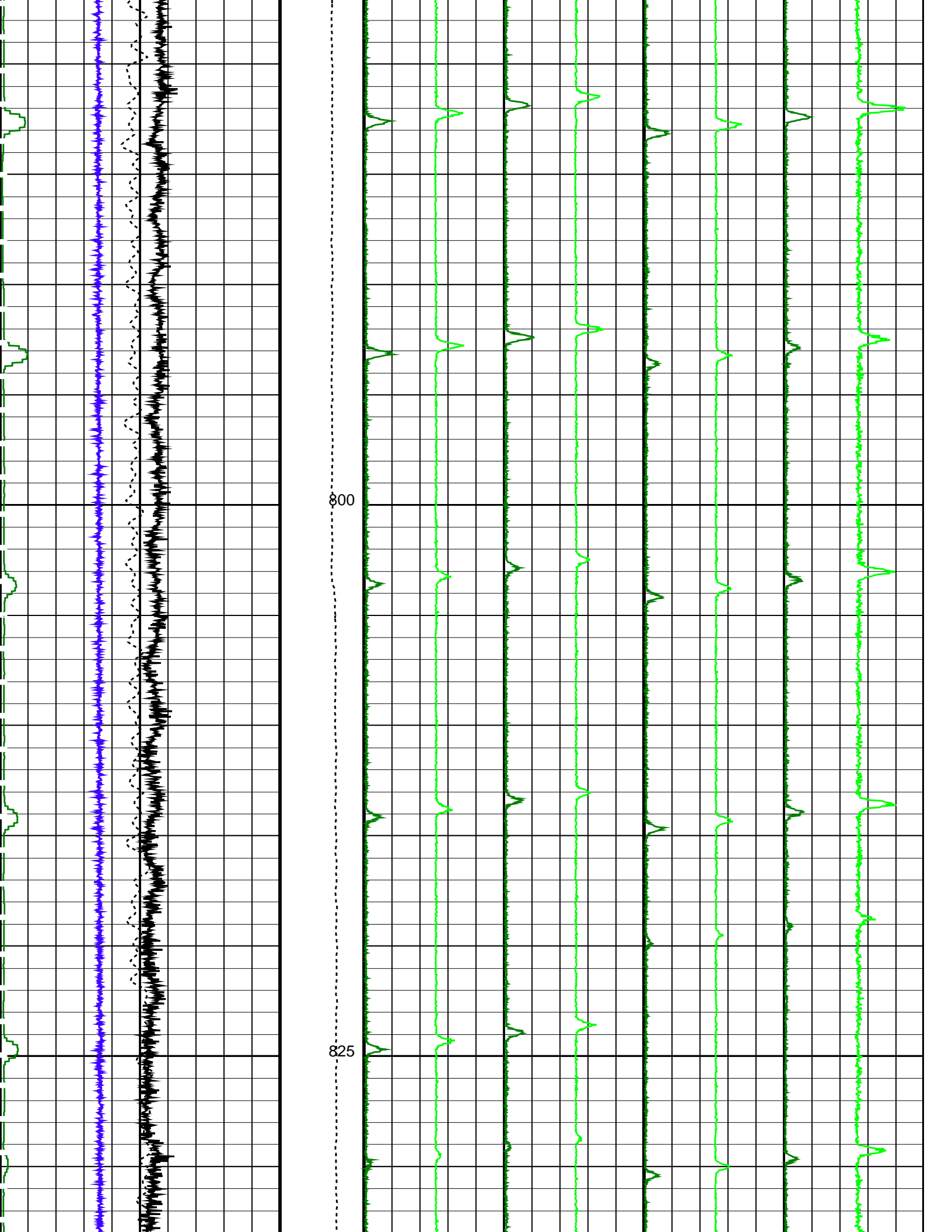
FSMT-E	SRPC-FSMTE-JUNE_2013_OP19C2H1	PSPT	19C2-270
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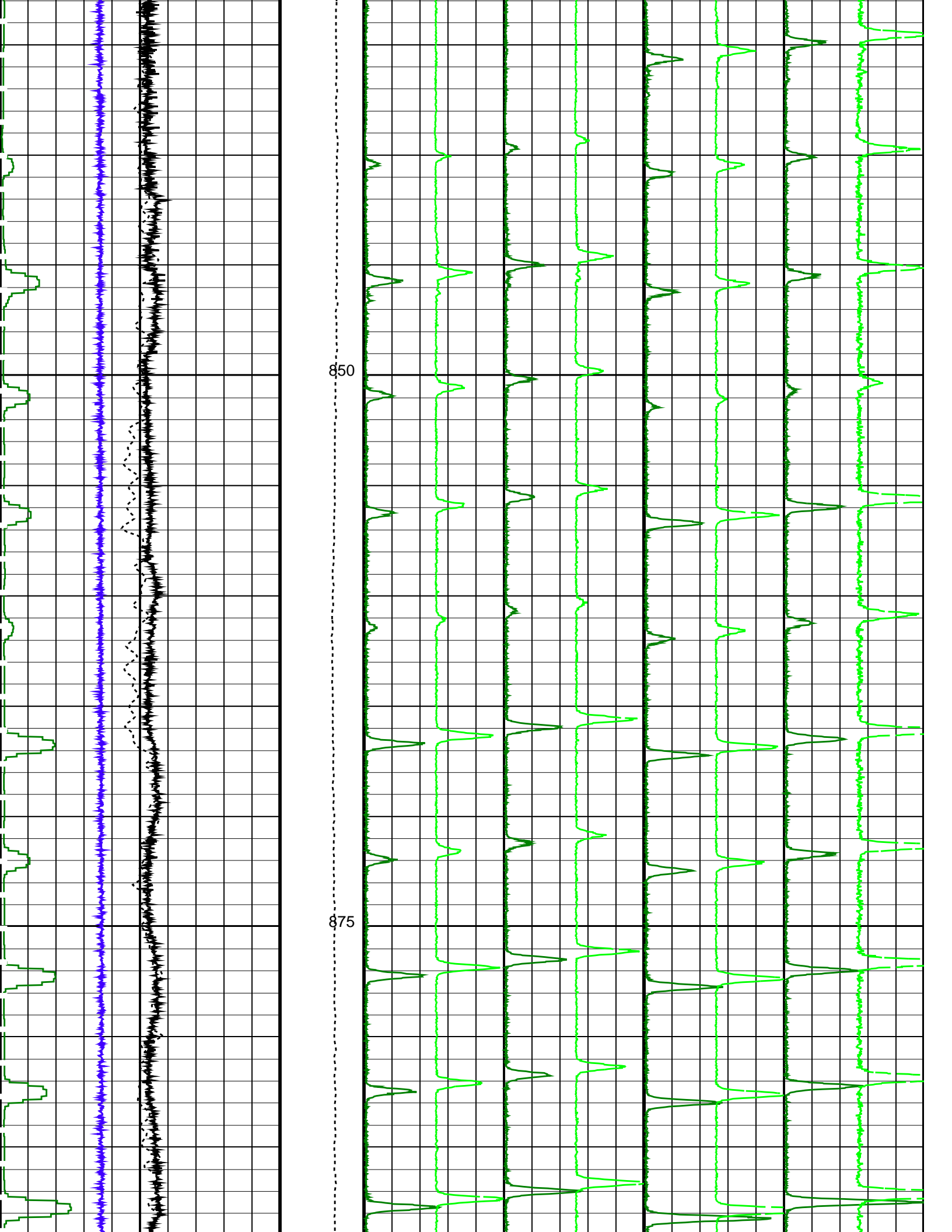
PIP SUMMARY

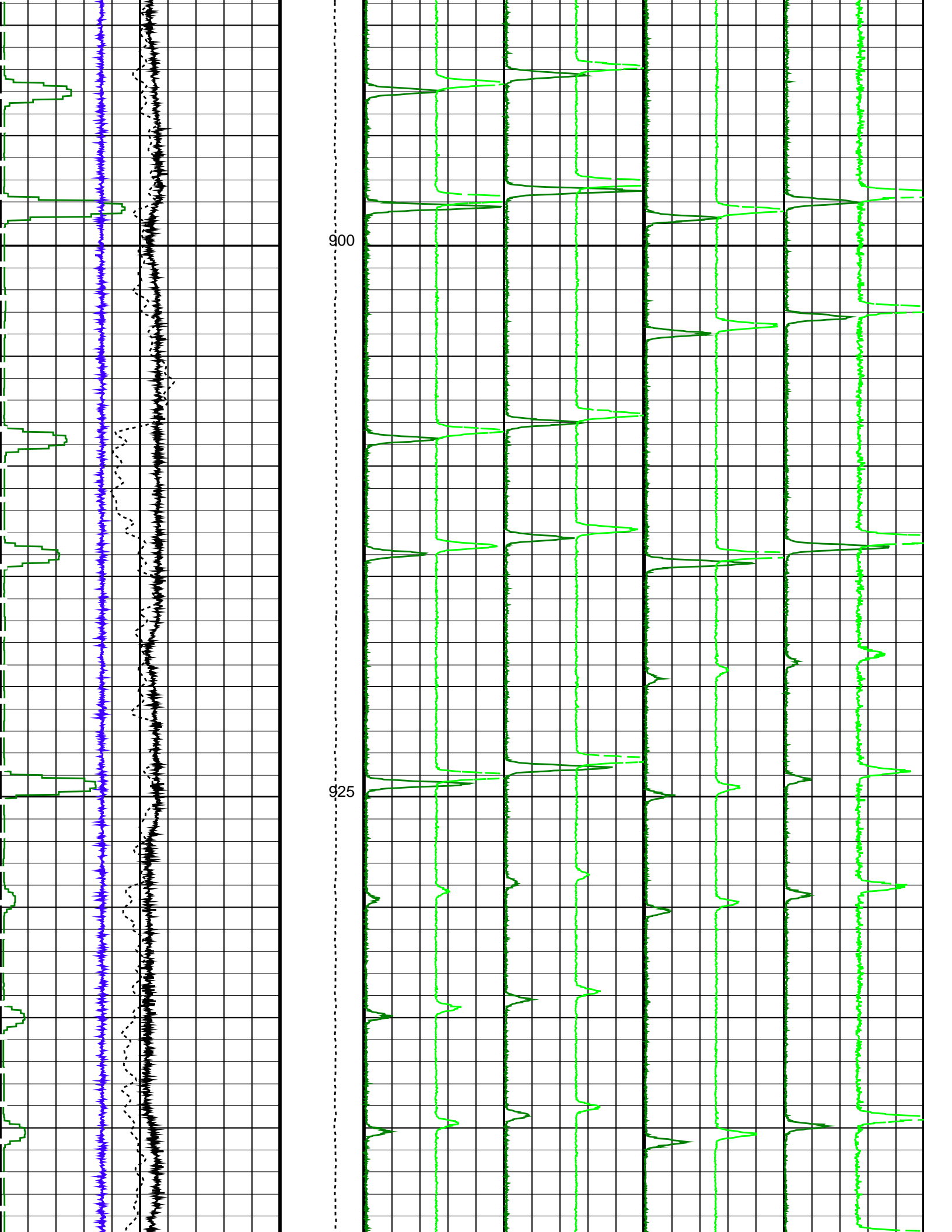
Time Mark Every 60 S

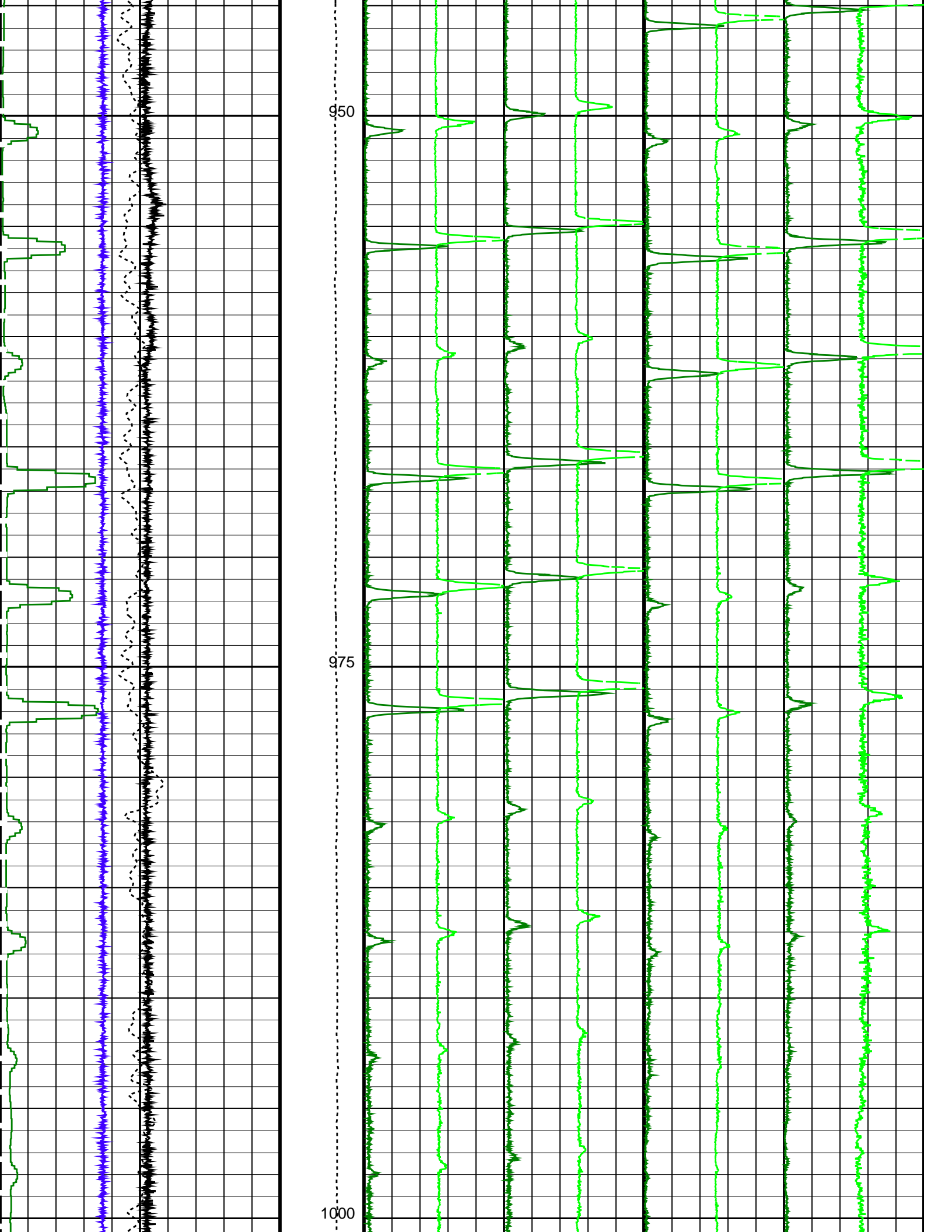


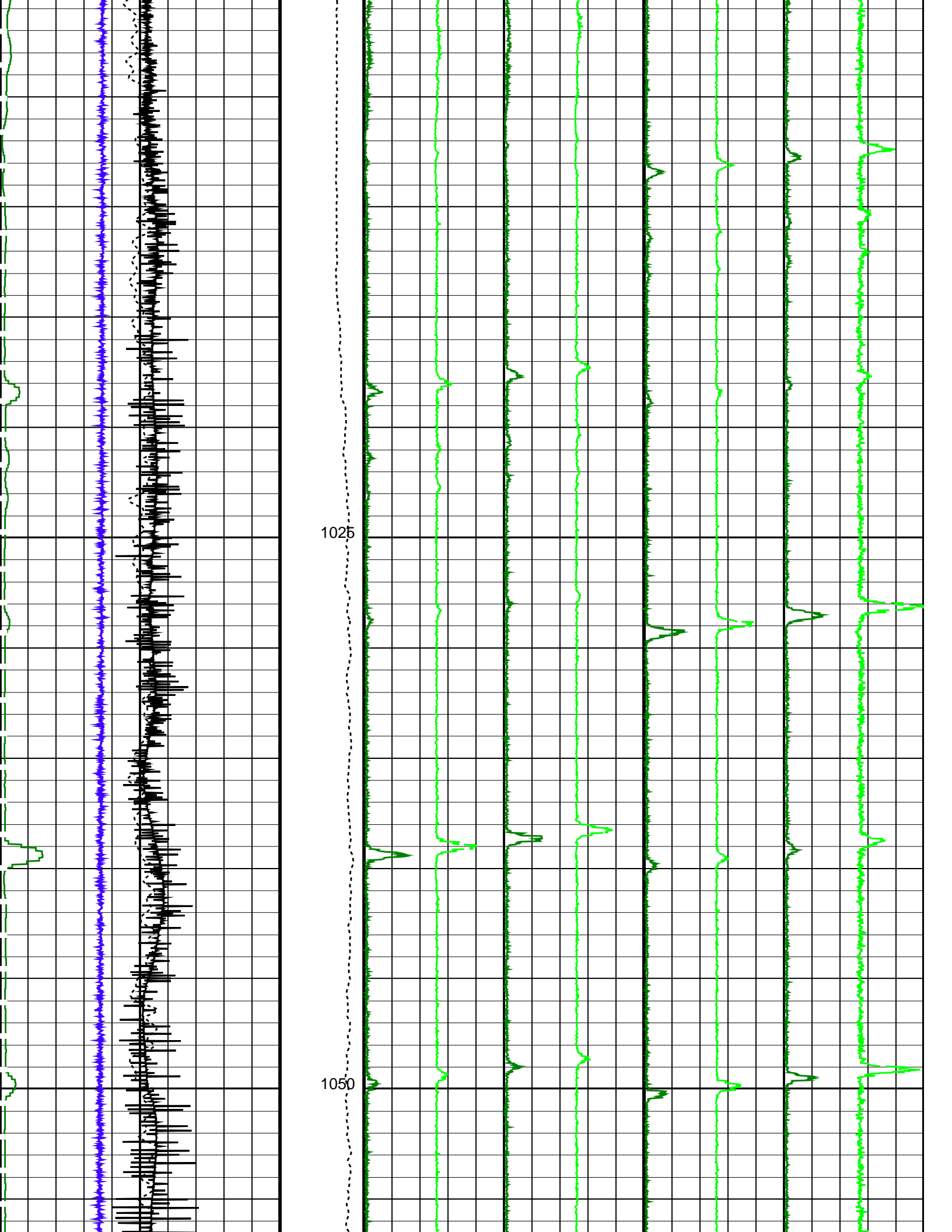


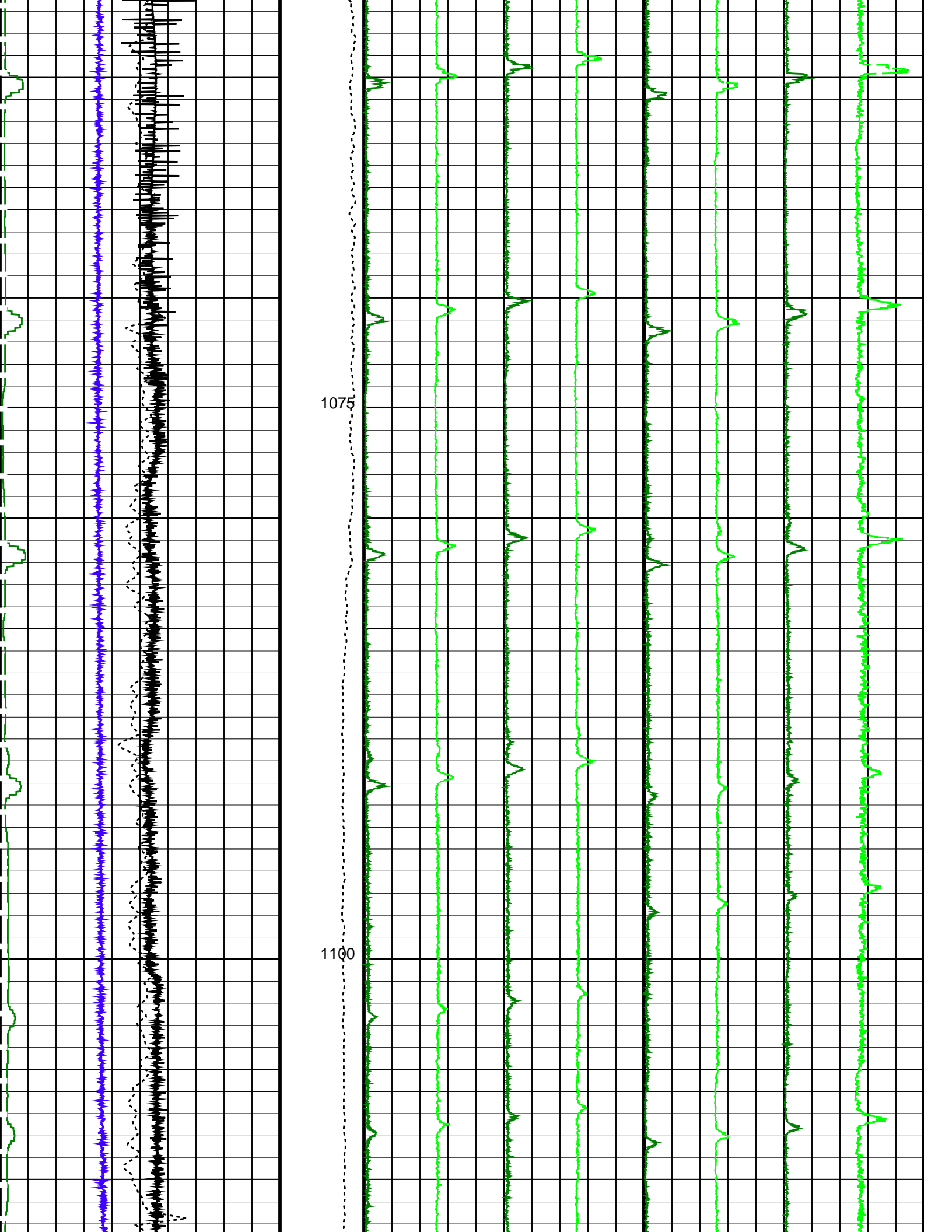


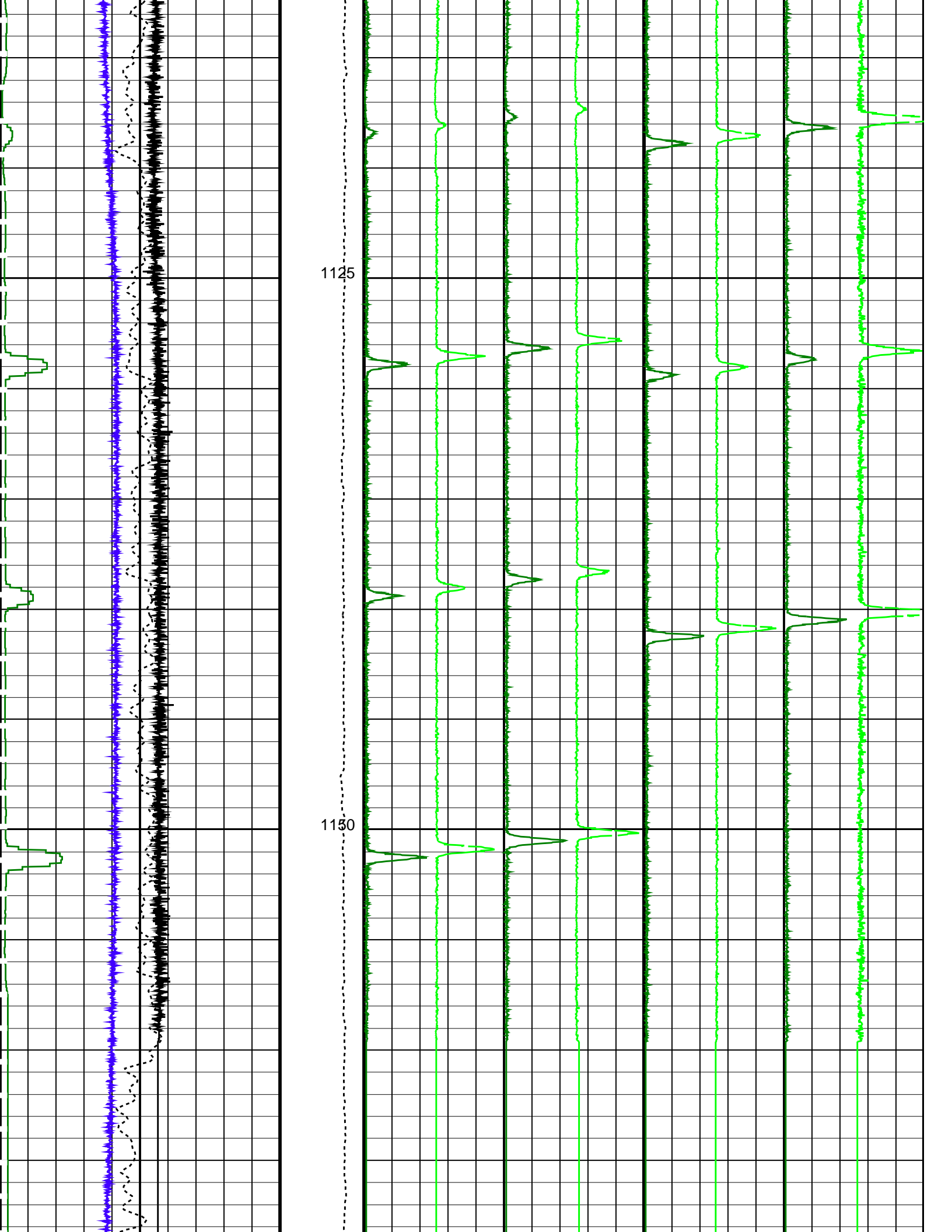












FSMT Acceleration (FSMT_ACC) (M/S2)		Tension (TENS) (LBF)	Gamma Ray 1 (GR1) (CPS) 2500		Gamma Ray 3 (GR3) (CPS) 2500		FSMT GR5 (GR5) (CPS) 2500		FSMT GR7 (GR7) (CPS) 2500	
7	12		0	2500	0	2500	0	2500	0	2500
Cable Speed (CS) (F/HR)			Gamma Ray 2 (GR2) (CPS) 1250		Gamma Ray 4 (GR4) (CPS) 1250		FSMT GR6 (GR6) (CPS) 1250		FSMT GR8 (GR8) (CPS) 1250	
350	250		-1250	1250	-1250	1250	-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 Playback Processing	1.3 M NORMAL

Format: FSMT_Basic Vertical Scale: 1:200 Graphics File Created: 05-Oct-2022 14:38

OP System Version: 19C2-270

FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1 PSPT 19C2-270

Input DLIS Files

DEFAULT	FSMT_PSP_019LUP	FN:28	PRODUCER	05-Oct-2022 09:19	1169.8 M	692.2 M
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Output DLIS Files

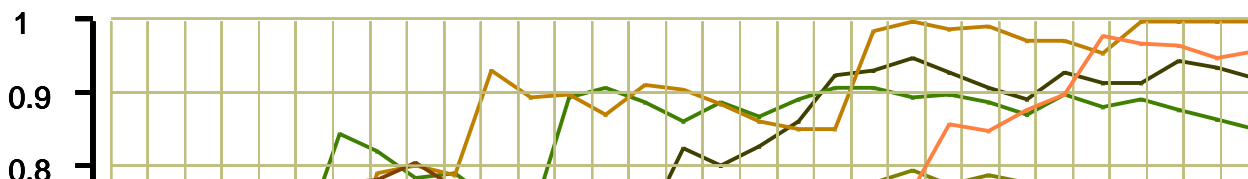
DEFAULT	FSMT_PSP_021PUP	FN:34	PRODUCER	05-Oct-2022 14:38		
CLIENT	FSMT_PSP_021PUC	FN:35	CUSTOMER	05-Oct-2022 14:38		
RTB	FSMT_PSP_021PUP	FN:36	PRODUCER	05-Oct-2022 14:38		

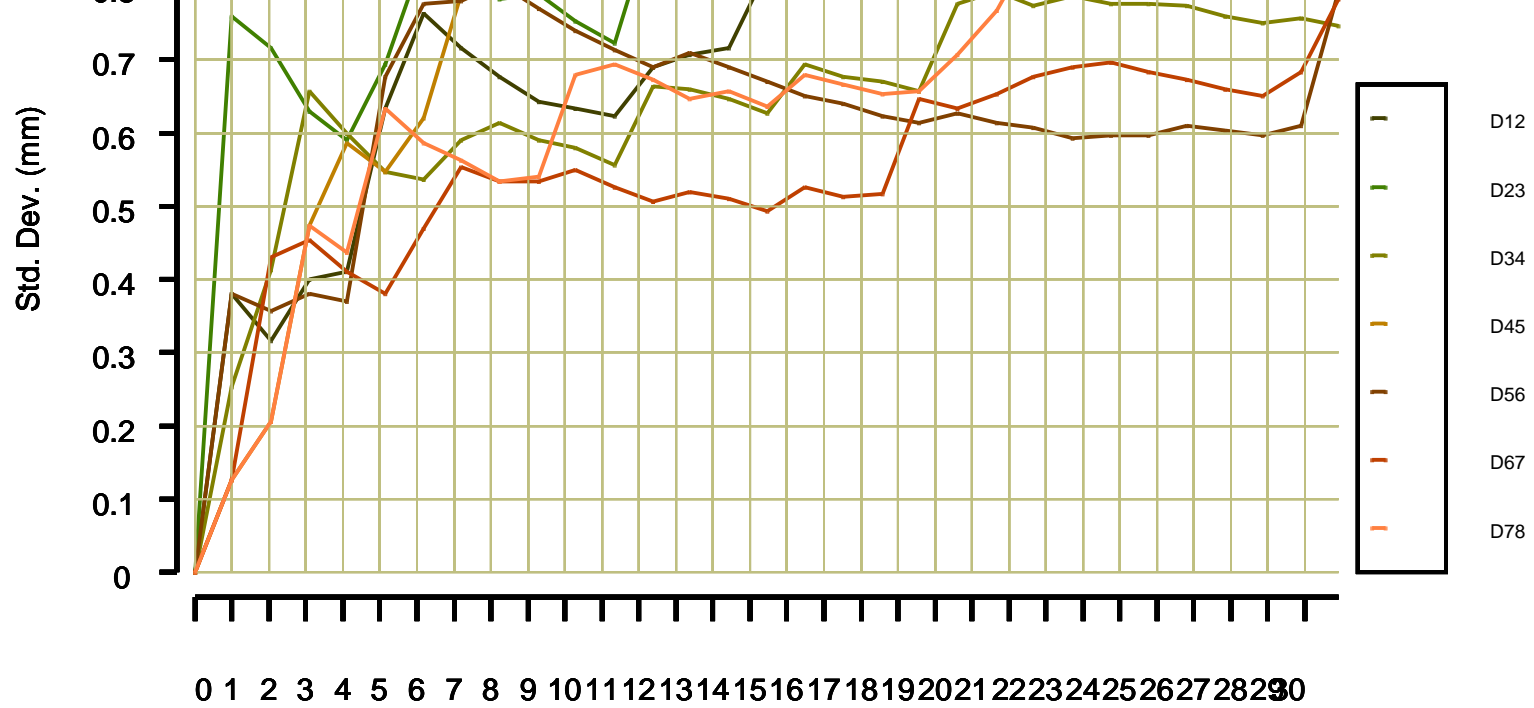


Before Calibration

MAXIS Field Log

20-Oct-2021 - FSMT-E SN 702 - Cumulative Standard Deviation (at 32.0°C)





Calibration passes

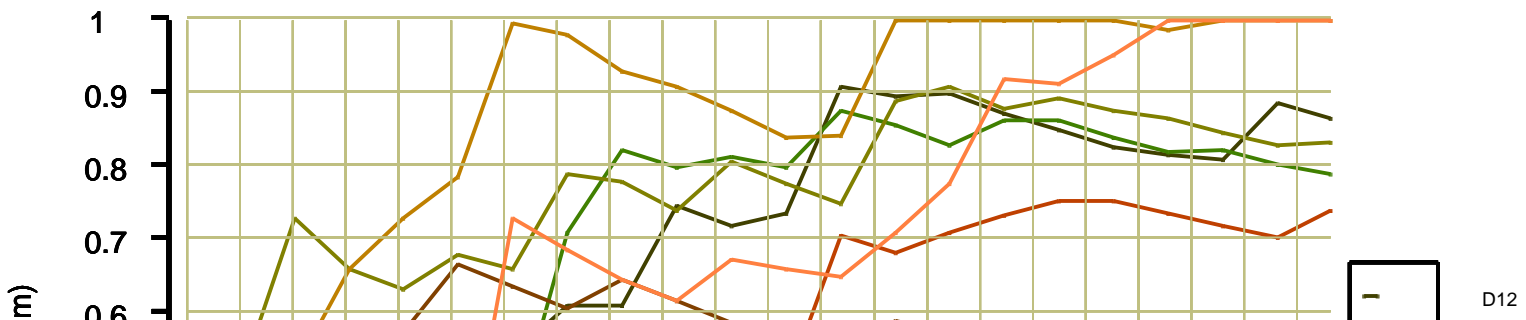
- DET12 = 0.367571 m (± 0.92 mm)
- DET23 = 0.369168 m (± 0.85 mm)
- DET34 = 0.367972 m (± 0.75 mm)
- DET45 = 8.894547 m (± 1.01 mm)
- DET56 = 0.368243 m (± 0.79 mm)
- DET67 = 0.368481 m (± 0.78 mm)
- DET78 = 0.368651 m (± 0.96 mm)

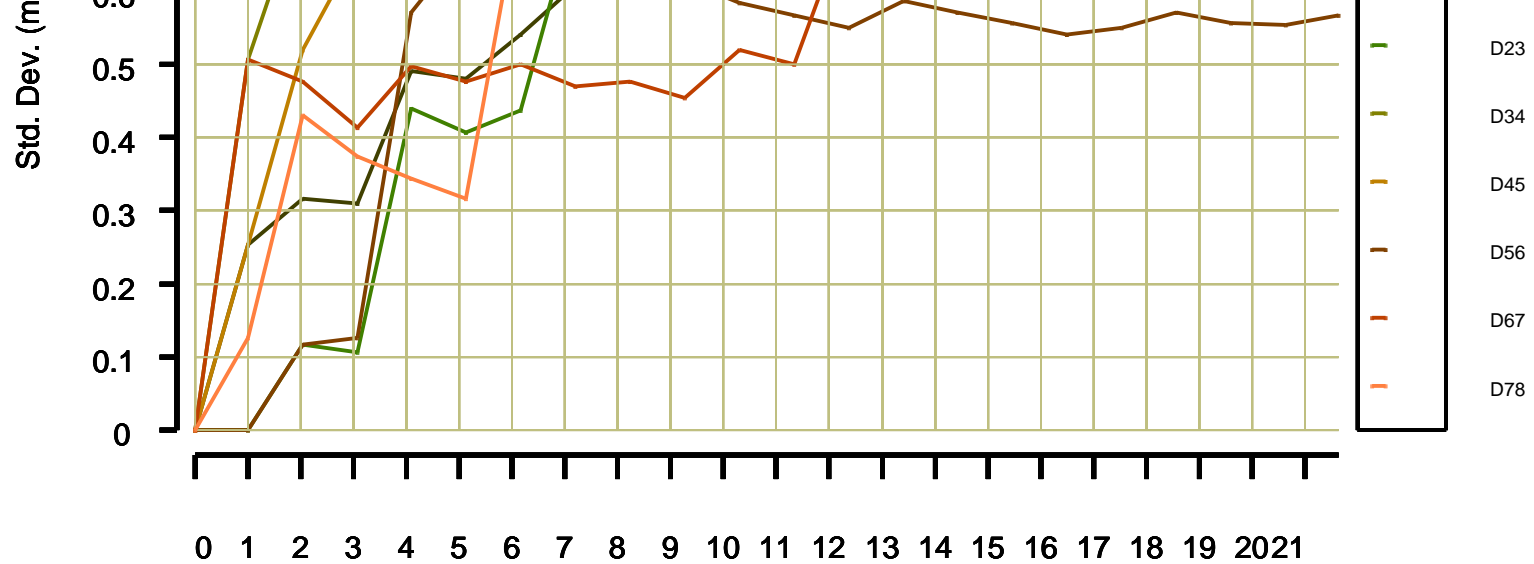


After Calibration

MAXIS Field Log

19-Oct-2022 – FSMT-E SN 702 – Cumulative Standard Deviation (at 26.9°C)





Calibration passes

DET12 = 0.367806 m (± 0.87 mm)

DET23 = 0.368923 m (± 0.79 mm)

DET34 = 0.367965 m (± 0.83 mm)

DET45 = 8.894653 m (± 1.03 mm)

DET56 = 0.368081 m (± 0.57 mm)

DET67 = 0.368577 m (± 0.74 mm)

DET78 = 0.368727 m (± 1.00 mm)

Company: **ENI U&TS**

Schlumberger

Well: **Bonaccia NW 1 Dir**

Field: **Bonaccia**

Log: **FSMT-E**

Country: **Italy**

FSMT-E

Formation Subsidence Monitoring Tool

Interval from 1150m to 700m-LONG STRING