

Company: ENI U&TS

Well: Regina 6 Dir B Foro 2

Field: Regina

Log: FSMT-E

Country: Italy

FSMT-E Formation Subsidence Monitoring Tool Interval from 1245 m to 1000 m

Log: **FSMT-E**
 Field: **Regina**
 Location: **Adriatic Sea**
 Well: **Regina 6 Dir B Foro 2**
 Company: **ENI U&TS**

LOCATION	
Adriatic Sea	Elev.: K.B. _____ G.L. -21.00 m D.F. 38.50 m
Permanent Datum: _____	MSL _____ Elev.: _____
Log Measured From: _____	DF _____ above Perm. Datum
Drilling Measured From: _____	DF _____

State: MAST	Max. Well Deviation 38.5 deg	Longitude 12° 50' 25.96"
		Latitude 44° 6' 15.434"

Logging Date	22-Dec-2018
Run Number	1
Depth Driller	2197 m
Schlumberger Depth	
Bottom Log Interval	1245 m
Top Log Interval	1000 m
Casing Fluid Type	Production Fluid
Salinity	
Density	0.7 g/cm3
Fluid Level	0 m
BIT/CASING/TUBING STRING	
Bit Size	8.500 in
From	1317 m
To	2197 m
Casing/Tubing Size	7.000 in
Weight	29 lbm/ft
Grade	L80
From	1270.73 m
To	2197 m
Maximum Recorded Temperatures	
Logger On Bottom	Time
Unit Number	Location
Recorded By	M. Civitarese
Witnessed By	G. Fornai

		Run 1	Run 2	Run 3
PVT DATA				
Oil Density				
Water Salinity				
Gas Gravity				
Bo				
Bw				
1/Bg				
Bubble Point Pressure				
Bubble Point Temperature				
Solution GOR				
Maximum Deviation	38.5 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: 18-FEB-2019 16:36:30

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-B Serial Number: 3807 Calibration Date: 25-sep-2017 Calibrator Serial Number: 15 Calibration Cable Type: 2-23ZT Wheel Correction 1: -3 Wheel Correction 2: 0	Type: CMTD-B/A Serial Number: 1739 Calibration Date: 7-SEP-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:	1
Reference Log Date:	30-dec-2017
Subsequent Trip Down Log Correction:	

Depth Control Remarks

1. All Schlumberger depth policy were applied
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 Subsidence by Time Laps Technique	
Log correlated with FSMT-E log performed by SLB on 30-Dec-1017	
RA bullets of 100 microcuries (Ce 137) shot by SLB n. 22 bullets	
Log performed on Long String	
Pass 1-2-3 performed @ 300 ft/hr 2:40 hrs each pass	
WHP= 45 bar. Elmar 10K used. Pressure test performed @ 3000 psi for 15 min	
Adapter flange: 2 9/16 5 Kpsi double	

RUN 1			RUN 2		
SERVICE ORDER #:		DYW3-000035	SERVICE ORDER #:		
PROGRAM VERSION:		19C2-270	PROGRAM VERSION:		
FLUID LEVEL:		0 m	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

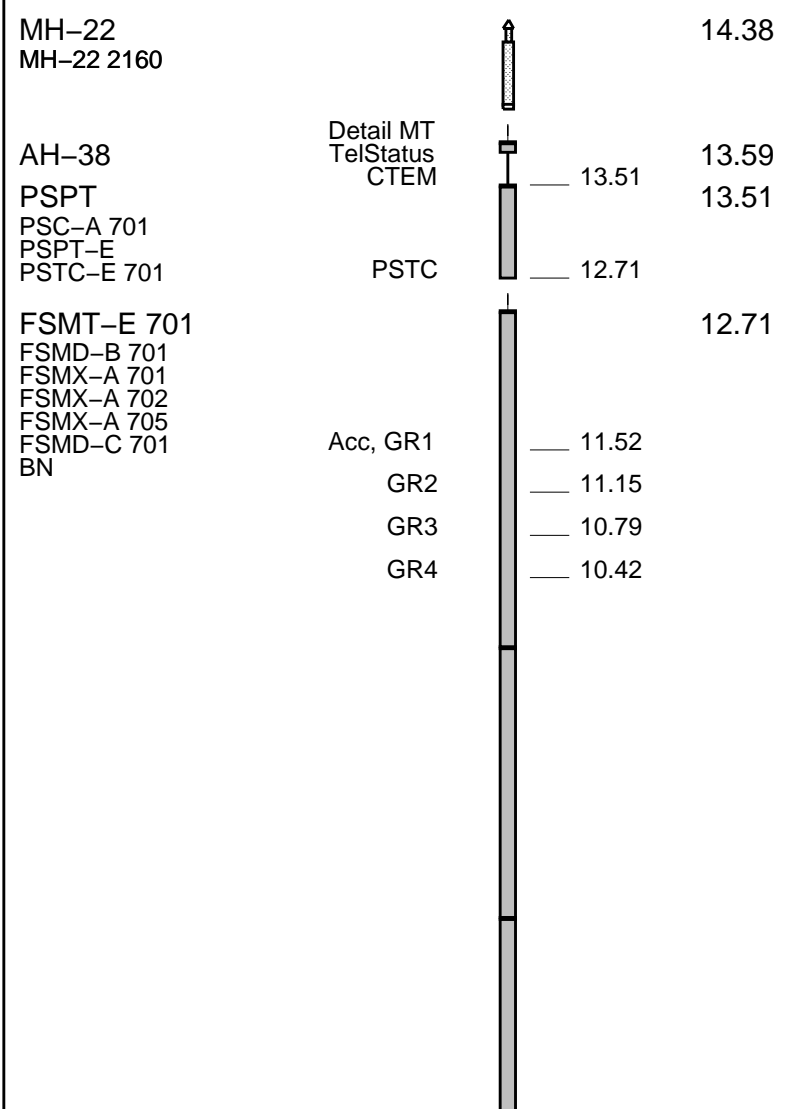
EQUIPMENT DESCRIPTION

RUN 1 RUN 2

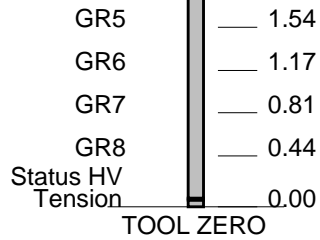
SURFACE EQUIPMENT

WITM-A
PSC_16MHZ

DOWNHOLE EQUIPMENT



RUN 2



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



FINAL RESULTS
1245 m – 1000 m

MAXIS Field Log

Well Name: Regina 6 Dir B Foro 2
 Run Date : 22-Dec-2018
 Zone Name: 1-2-3
 Tool String: FSMT-E S/N 701
 Reference Detector: DET1
 File 0: FSMT_29.fsf
 File 1: FSMT_30.fsf
 File 2: FSMT_31.fsf (Reference File)

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. (~21 Meas.)	Std Dev (3 passes)
- 0	1224.97		
1	1215.01	9.96349	0.79725
2	1205.00	10.00076	0.55319
3	1195.02	9.97202	0.45274
4	1185.06	9.97097	0.26425
5	1175.06	9.97892	0.69601
6	1165.02	10.03514	0.40907
7	1155.06	9.94831	1.01239
8	1145.01	10.03861	0.68983
9	1134.98	10.02596	0.54623
10	1125.06	9.94697	0.43835
11	1115.02	10.03732	2.99988
12	1105.00	9.99486	1.78655
13	1095.09	9.89455	0.53303
14	1085.01	10.10370	1.94133
15	1075.07	9.94877	0.71020
16	1065.16	9.91478	1.31250
17	1055.06	10.11193	2.65925
18	1045.05	9.99807	0.30987
19	1035.05	10.02979	2.03856
20	1025.08	9.95815	0.48196
- 21	1015.00	10.09218	0.02237

All Peaks were automatically detected with the following parameters:
 FSMT_FIT = GAUSSIAN
 FSMT_FILTER = 200
 FSMT_THRESHOLD = 120

Peaks #4,10,11,14,15,16,18,20,21 computed on Pass 1-2

Schlumberger

PASS#3
1245 – 1000m

MAXIS Field Log

Company: ENI U&TS

Well: Regina 6 Dir B Foro 2

Input DLIS Files

DEFAULT FSMT_PSP_015PUP FN:24 PRODUCER 18-Feb-2019 14:00 1245.6 M 999.3 M

Output DLIS Files

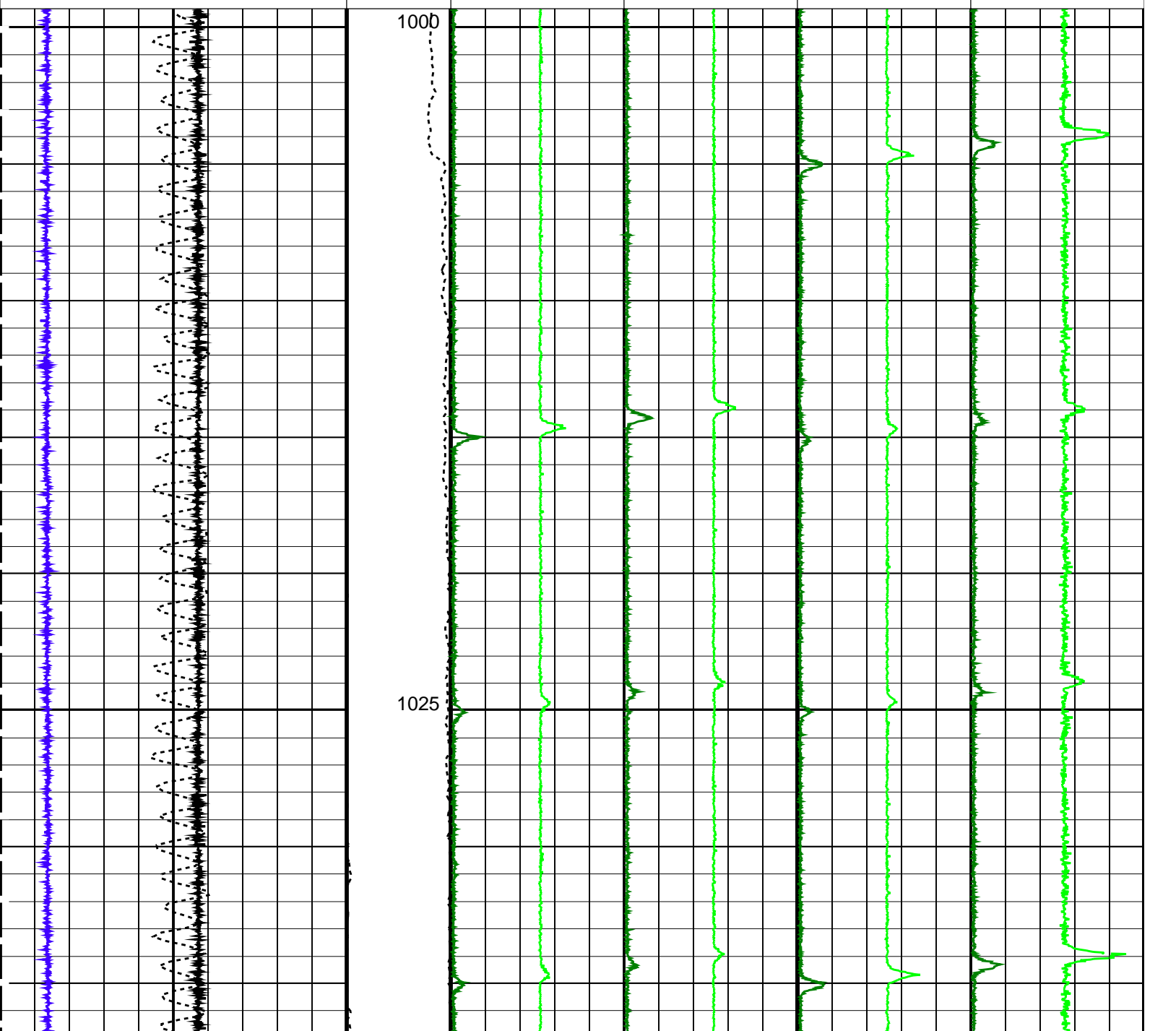
OP System Version: 19C2-270

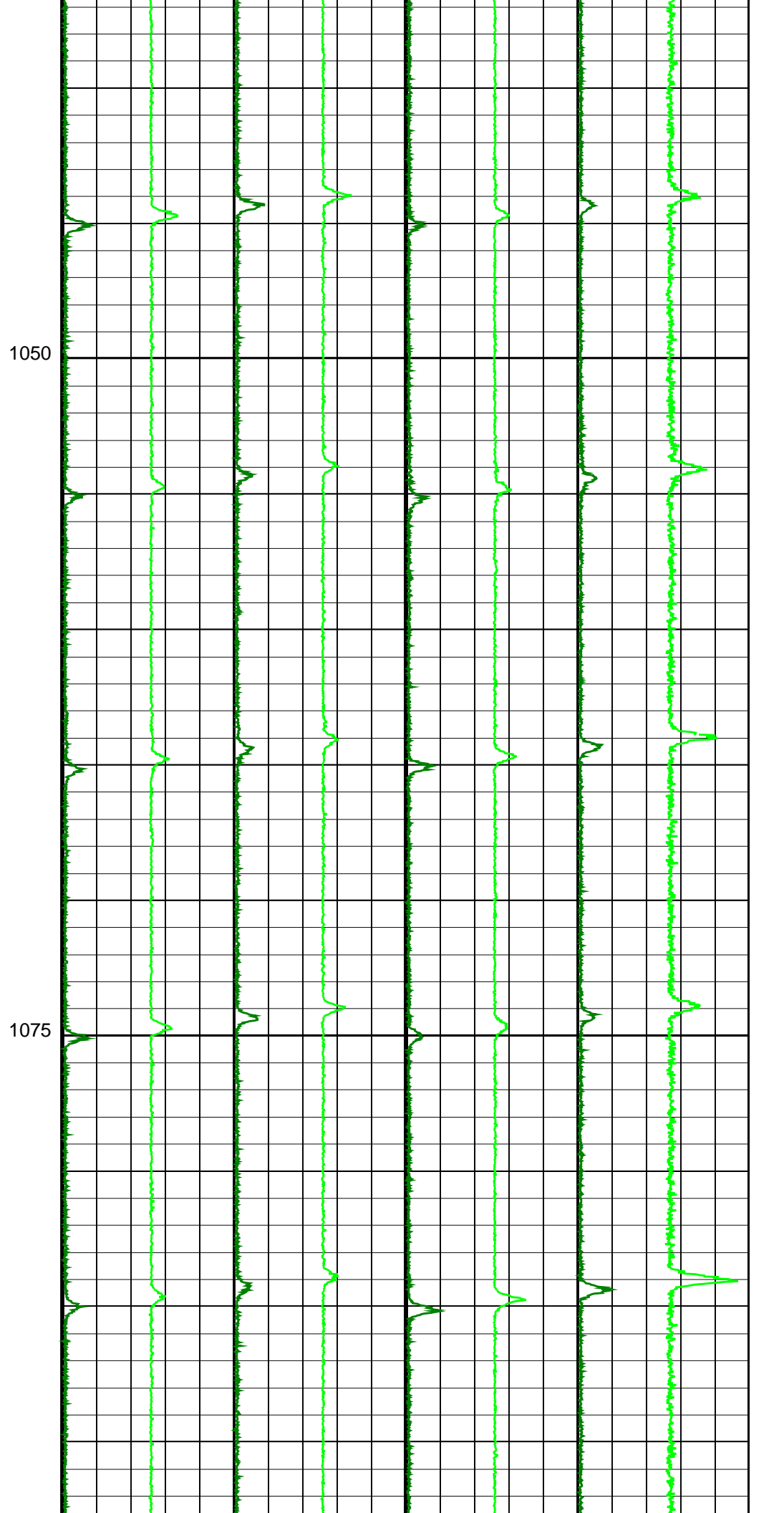
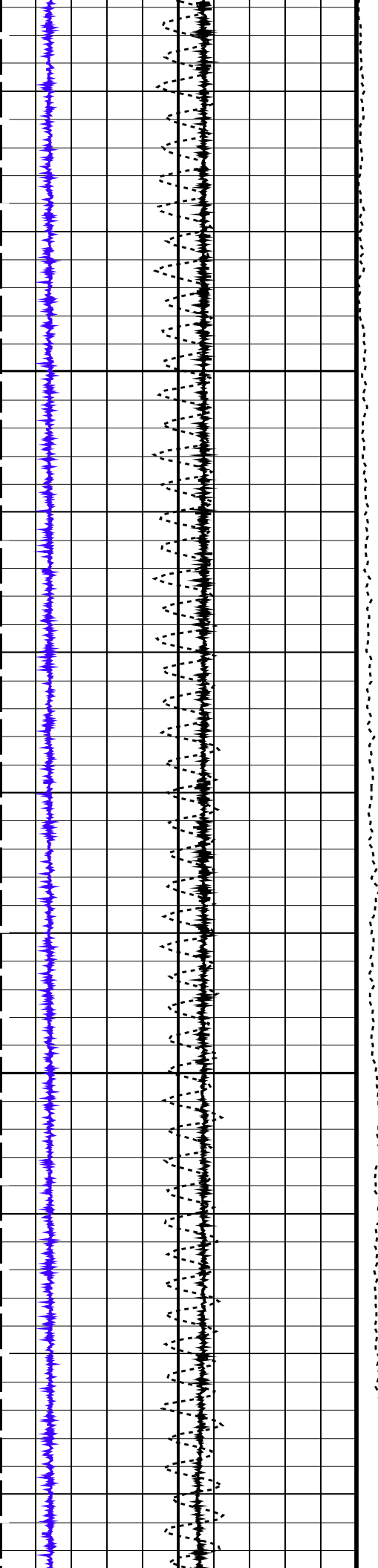
FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1_b PSPT 19C2-270

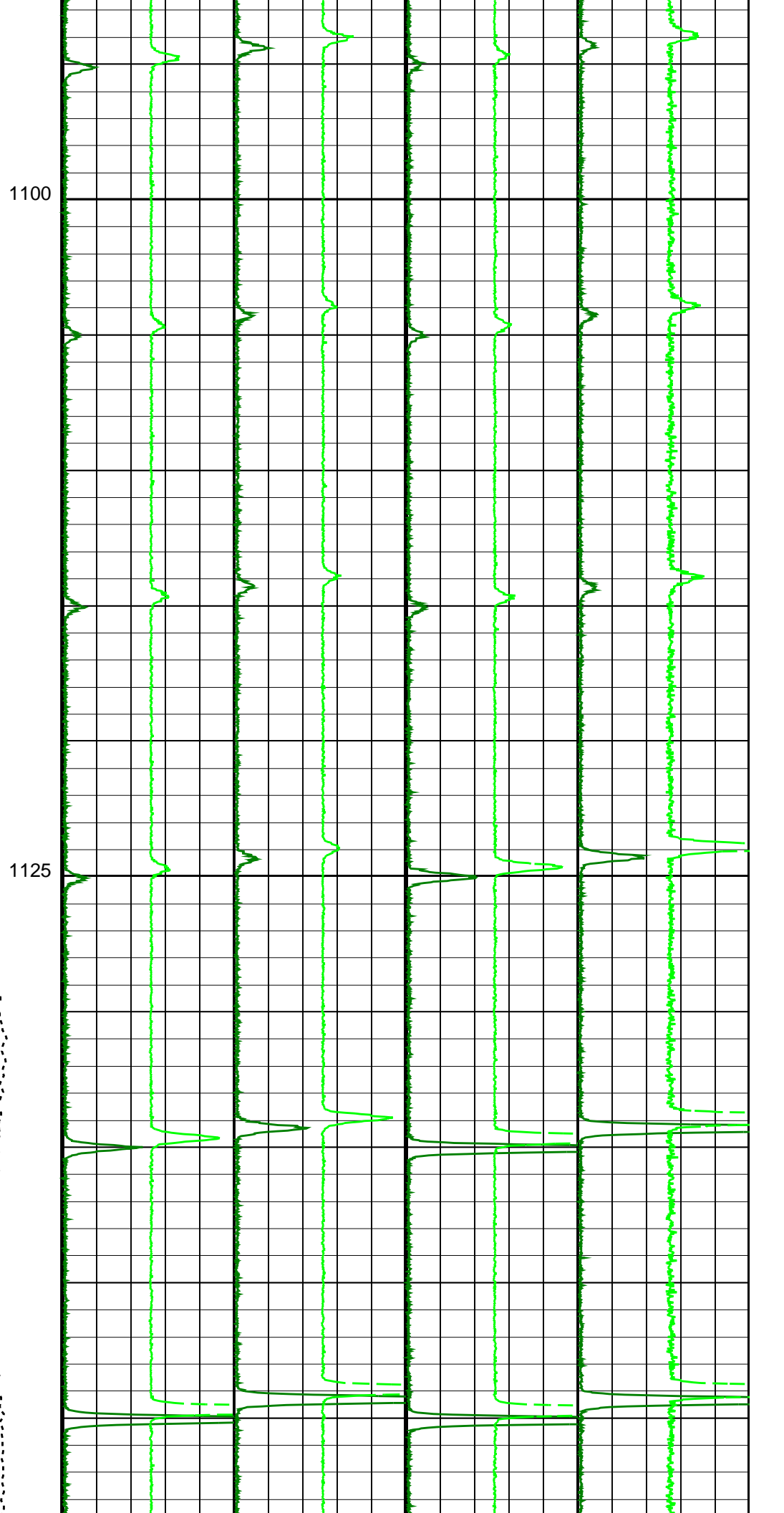
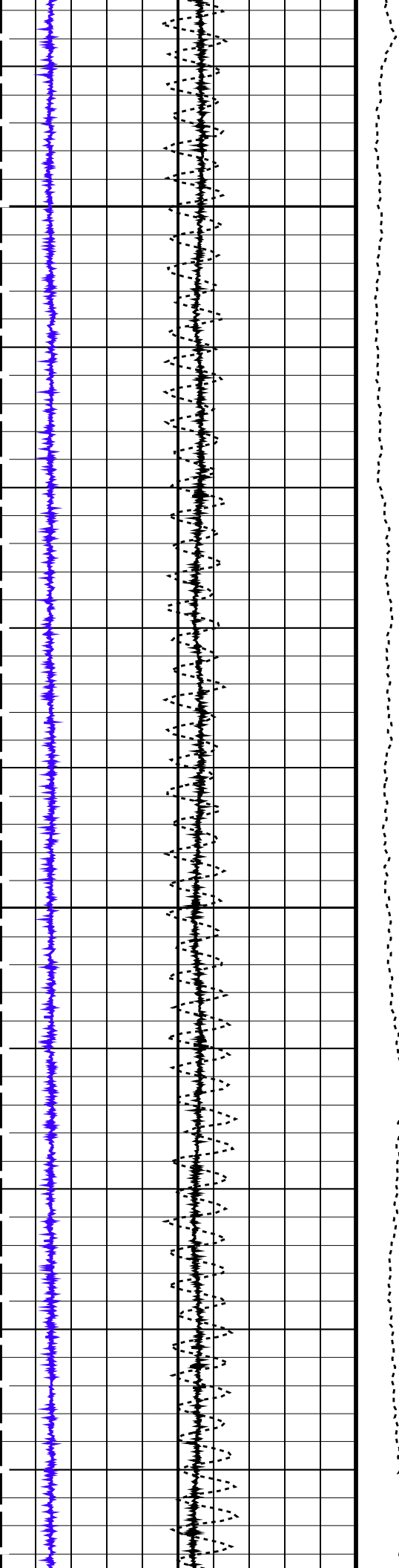
PIP SUMMARY

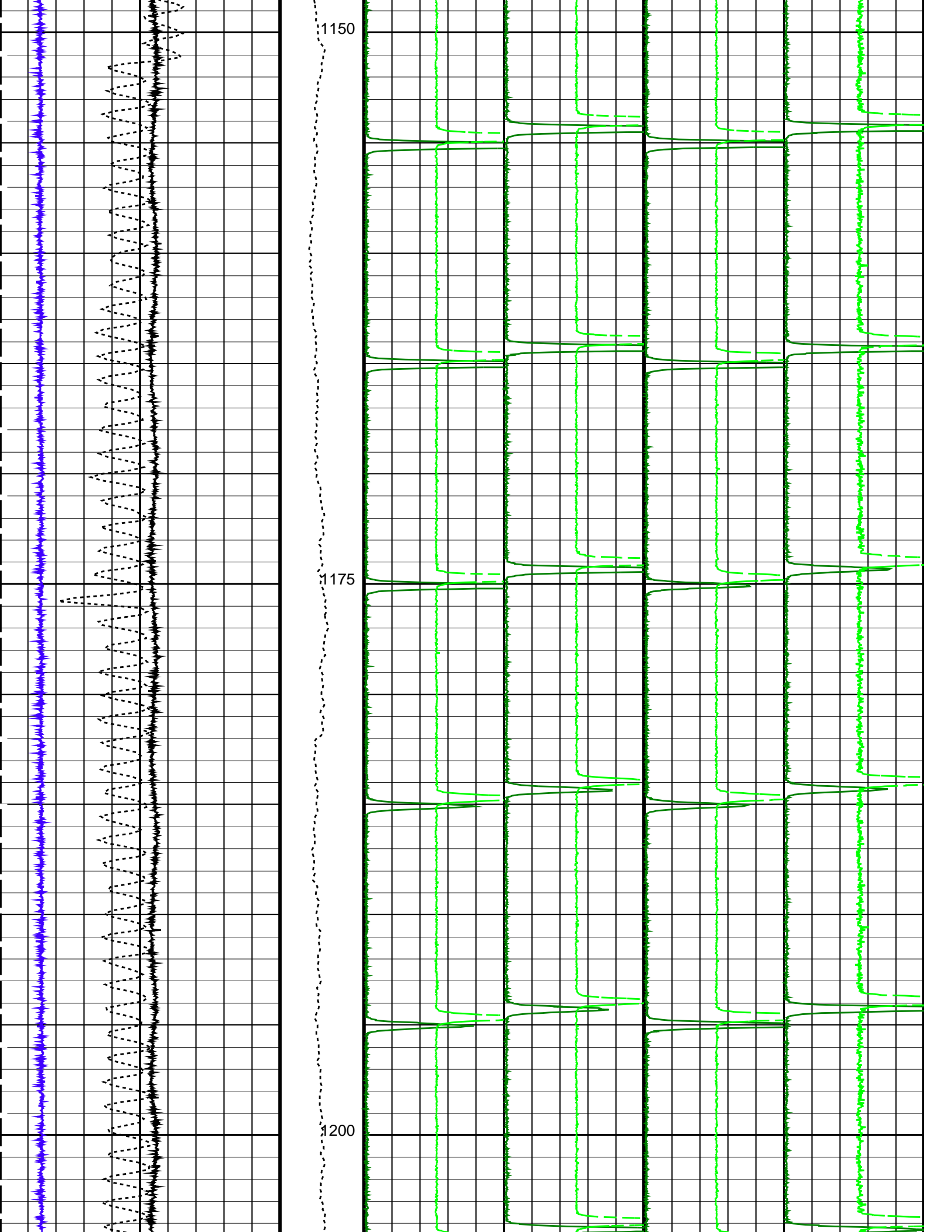
Time Mark Every 60 S

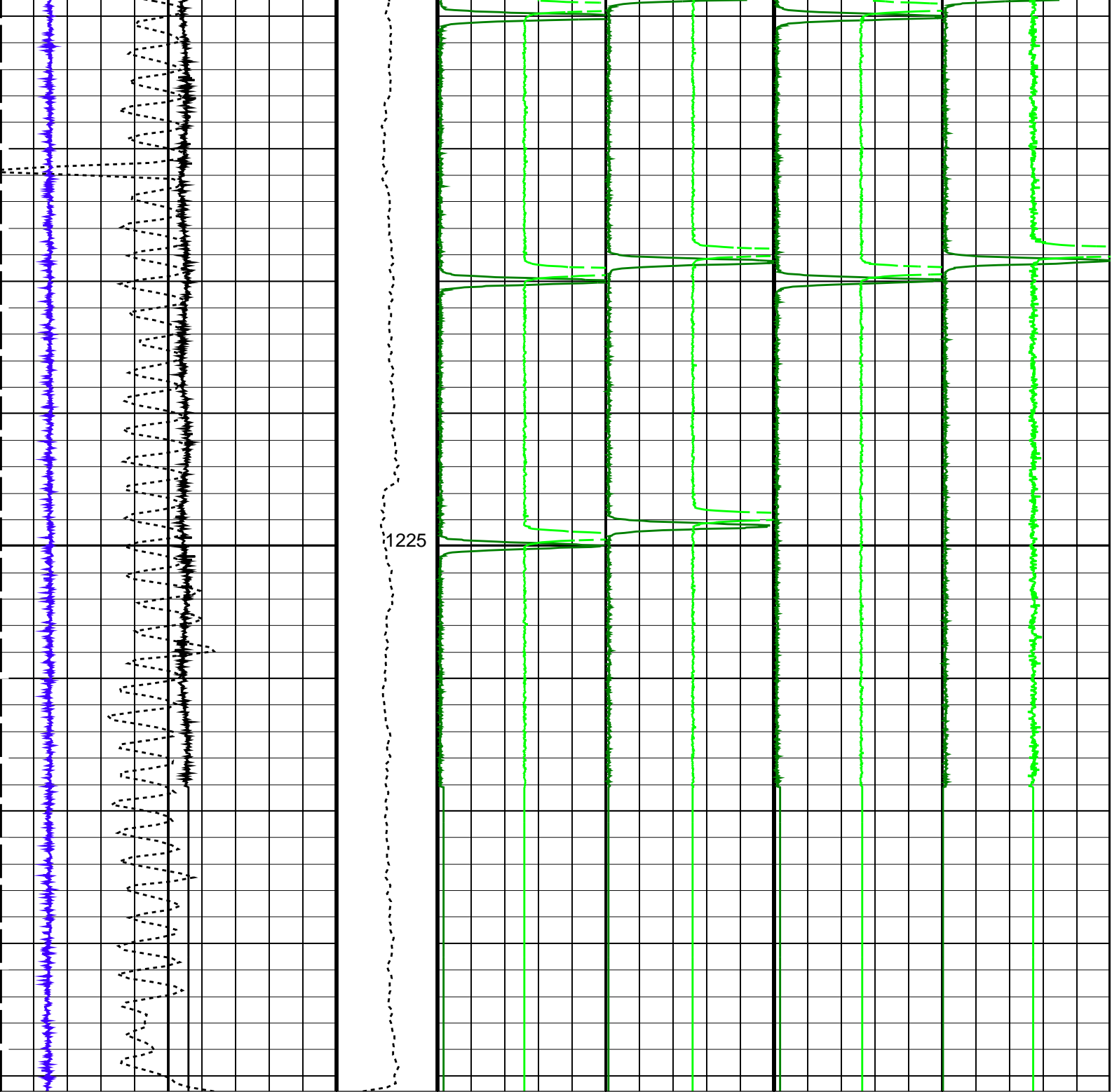
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">FSMT Detector Temperature (FSMT_DTEM) (DEGC)</td> <td style="text-align: center;">0</td> <td style="text-align: center;">200</td> </tr> <tr> <td style="text-align: center;">Cable Speed (CS) (F/HR)</td> <td style="text-align: center;">350</td> <td style="text-align: center;">250</td> </tr> <tr> <td style="text-align: center;">FSMT Acceleration (FSMT_ACC) (M/S2)</td> <td style="text-align: center;">7</td> <td style="text-align: center;">12</td> </tr> </table>	FSMT Detector Temperature (FSMT_DTEM) (DEGC)	0	200	Cable Speed (CS) (F/HR)	350	250	FSMT Acceleration (FSMT_ACC) (M/S2)	7	12	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Tension (TENS) (LBF)</td> <td style="text-align: center;">0</td> <td style="text-align: center;">200</td> </tr> </table>	Tension (TENS) (LBF)	0	200	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Gamma Ray 2 (GR2)</td> <td style="text-align: center;">Gamma Ray 4 (GR4)</td> <td style="text-align: center;">FSMT GR6 (GR6)</td> <td style="text-align: center;">FSMT GR8 (GR8)</td> </tr> <tr> <td style="text-align: center;">-1250 (CPS) 1250</td> <td style="text-align: center;">-1250 (CPS) 1250</td> <td style="text-align: center;">-1250 (CPS) 1250</td> <td style="text-align: center;">-1250 (CPS) 1250</td> </tr> </table>	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	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">Gamma Ray 1 (GR1)</td> <td style="text-align: center;">Gamma Ray 3 (GR3)</td> <td style="text-align: center;">FSMT GR5 (GR5)</td> <td style="text-align: center;">FSMT GR7 (GR7)</td> </tr> <tr> <td style="text-align: center;">0 (CPS) 2500</td> <td style="text-align: center;">0 (CPS) 2500</td> <td style="text-align: center;">0 (CPS) 2500</td> <td style="text-align: center;">0 (CPS) 2500</td> </tr> </table>	Gamma Ray 1 (GR1)	Gamma Ray 3 (GR3)	FSMT GR5 (GR5)	FSMT GR7 (GR7)	0 (CPS) 2500	0 (CPS) 2500	0 (CPS) 2500	0 (CPS) 2500
FSMT Detector Temperature (FSMT_DTEM) (DEGC)	0	200																													
Cable Speed (CS) (F/HR)	350	250																													
FSMT Acceleration (FSMT_ACC) (M/S2)	7	12																													
Tension (TENS) (LBF)	0	200																													
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																												
Gamma Ray 1 (GR1)	Gamma Ray 3 (GR3)	FSMT GR5 (GR5)	FSMT GR7 (GR7)																												
0 (CPS) 2500	0 (CPS) 2500	0 (CPS) 2500	0 (CPS) 2500																												











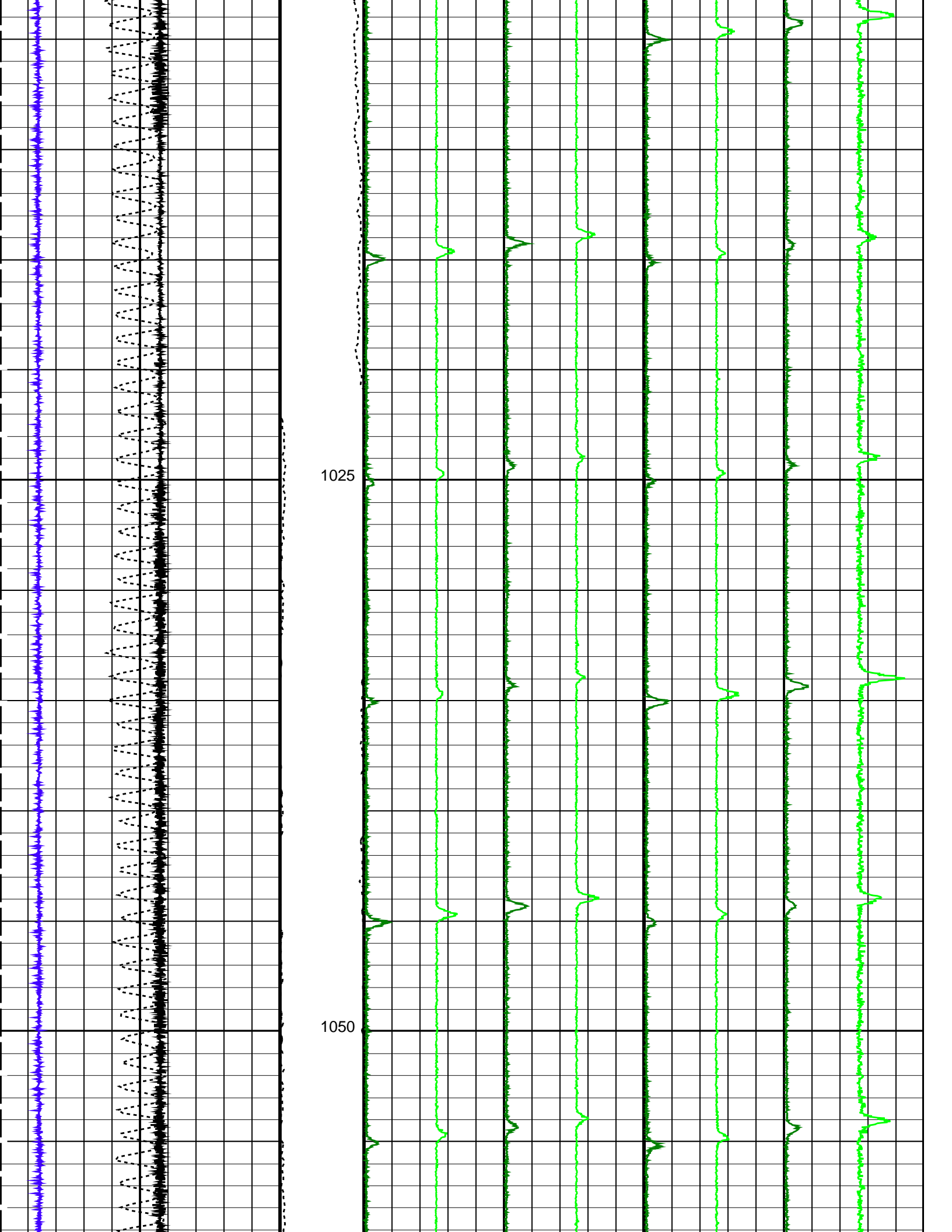
FSMT Acceleration (FSMT_ACC) (M/S ²)	Tension (TENS) (LBF)	Gamma Ray 1 (GR1) (CPS)	Gamma Ray 3 (GR3) (CPS)	FSMT GR5 (GR5) (CPS)	FSMT GR7 (GR7) (CPS)
7	0	0	0	0	0
12	200	2500	2500	2500	2500
Cable Speed (CS) (F/HR)	Gamma Ray 2 (GR2) (CPS)	Gamma Ray 4 (GR4) (CPS)	FSMT GR6 (GR6) (CPS)	FSMT GR8 (GR8) (CPS)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

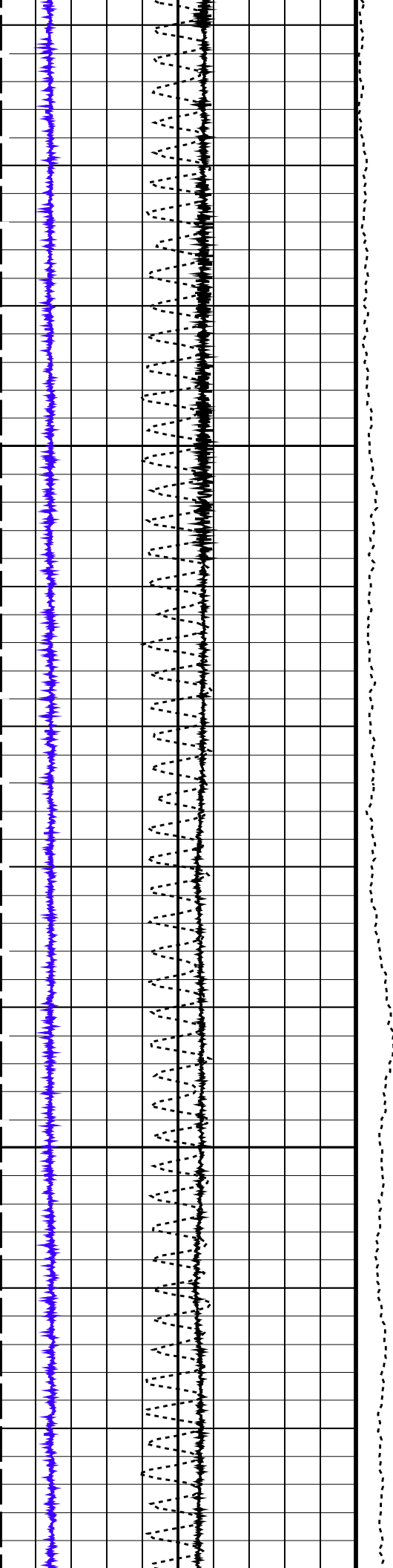
PIP SUMMARY

Time Mark Every 60 S

Parameters

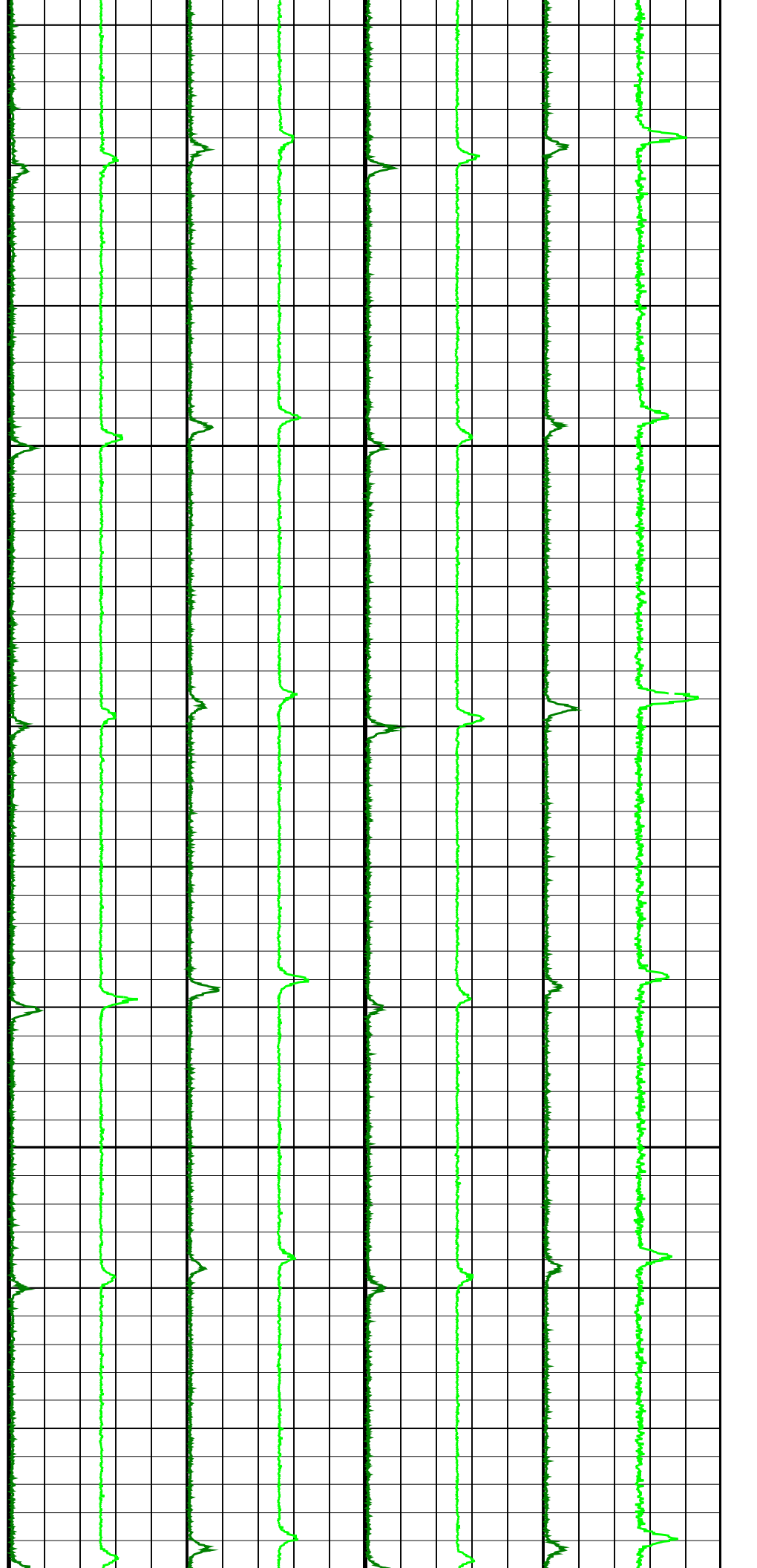
DI IS Name	Description	Value
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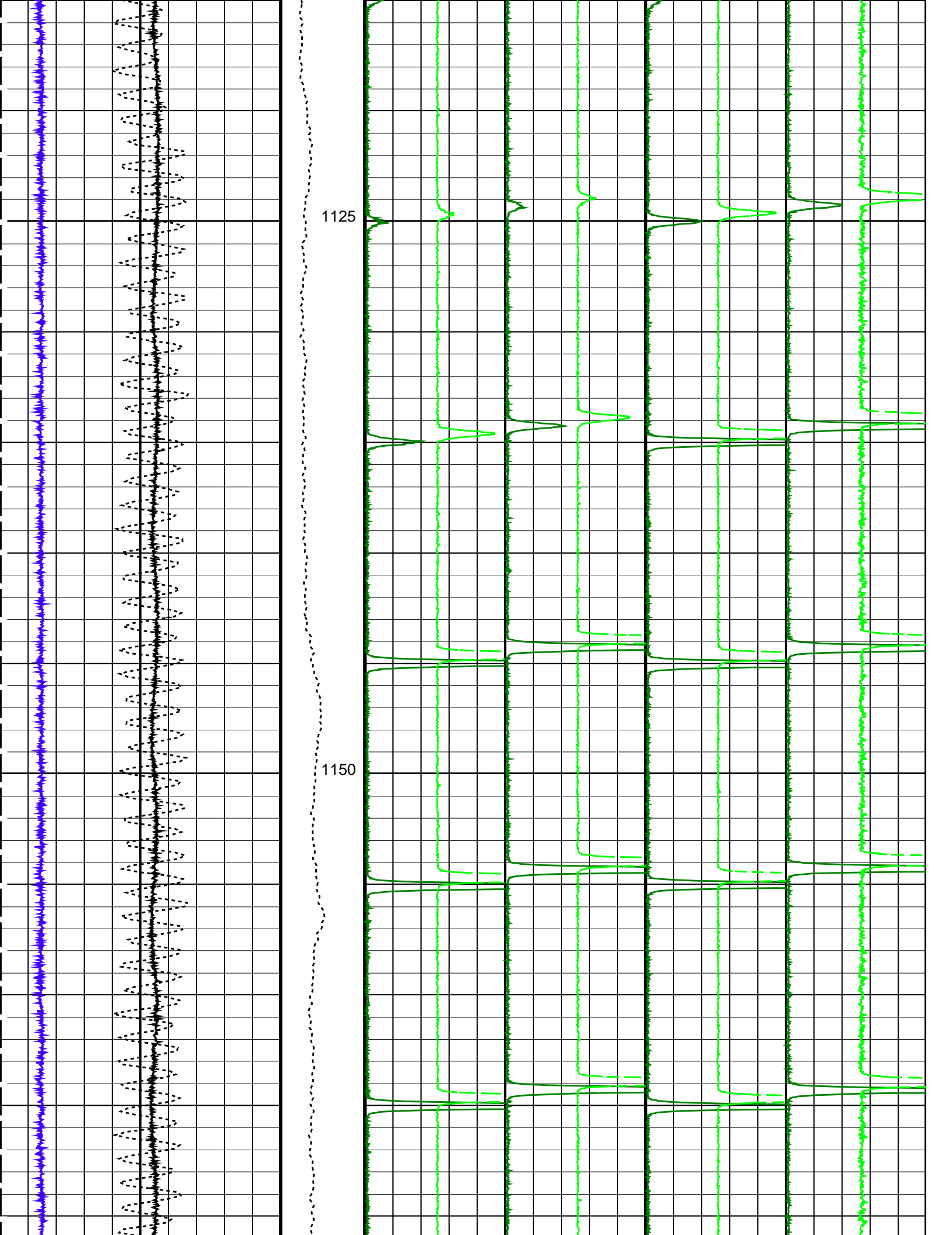




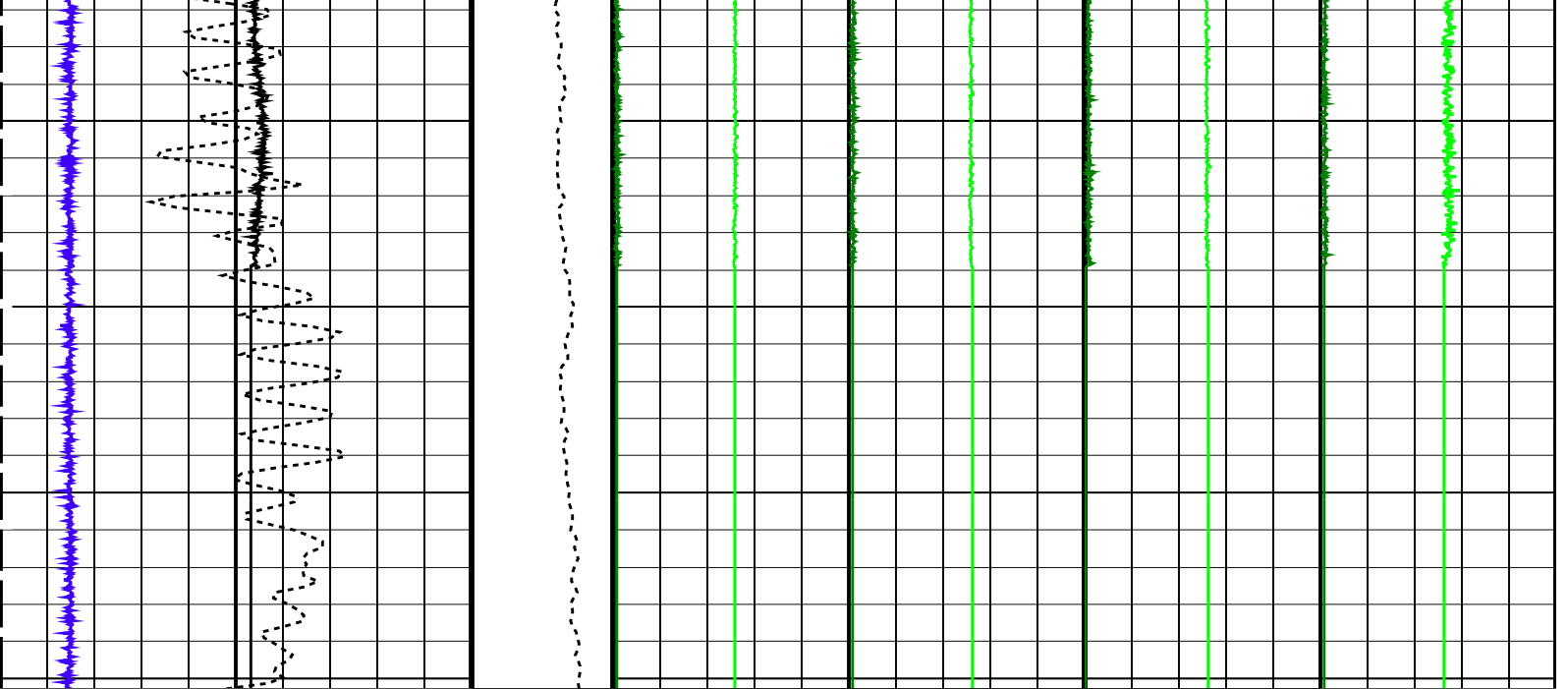
1075

1100









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) 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 Detector Temperature (FSMT_DTEM) 0 (DEGC) 200					

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: 18-Feb-2019 14:28

OP System Version: 19C2-270

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

Input DLIS Files

DEFAULT FSMT_PSP_020PUP FN:33 PRODUCER 18-Feb-2019 14:00 1245.3 M 999.6 M

Output DLIS Files

DEFAULT FSMT_PSP_030PUP FN:5 PRODUCER 18-Feb-2019 14:28
 CUSTOMER FSMT_PSP_030PUC FN:6 CUSTOMER 18-Feb-2019 14:28



PASS#1
1245 - 1000m

Company: ENI U&TS

Well: Regina 6 Dir B Foro 2

Input DLIS Files

DEFAULT	FSMT_PSP_024PUP	FN:43	PRODUCER	18-Feb-2019 14:00	1246.2 M	998.4 M
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Output DLIS Files

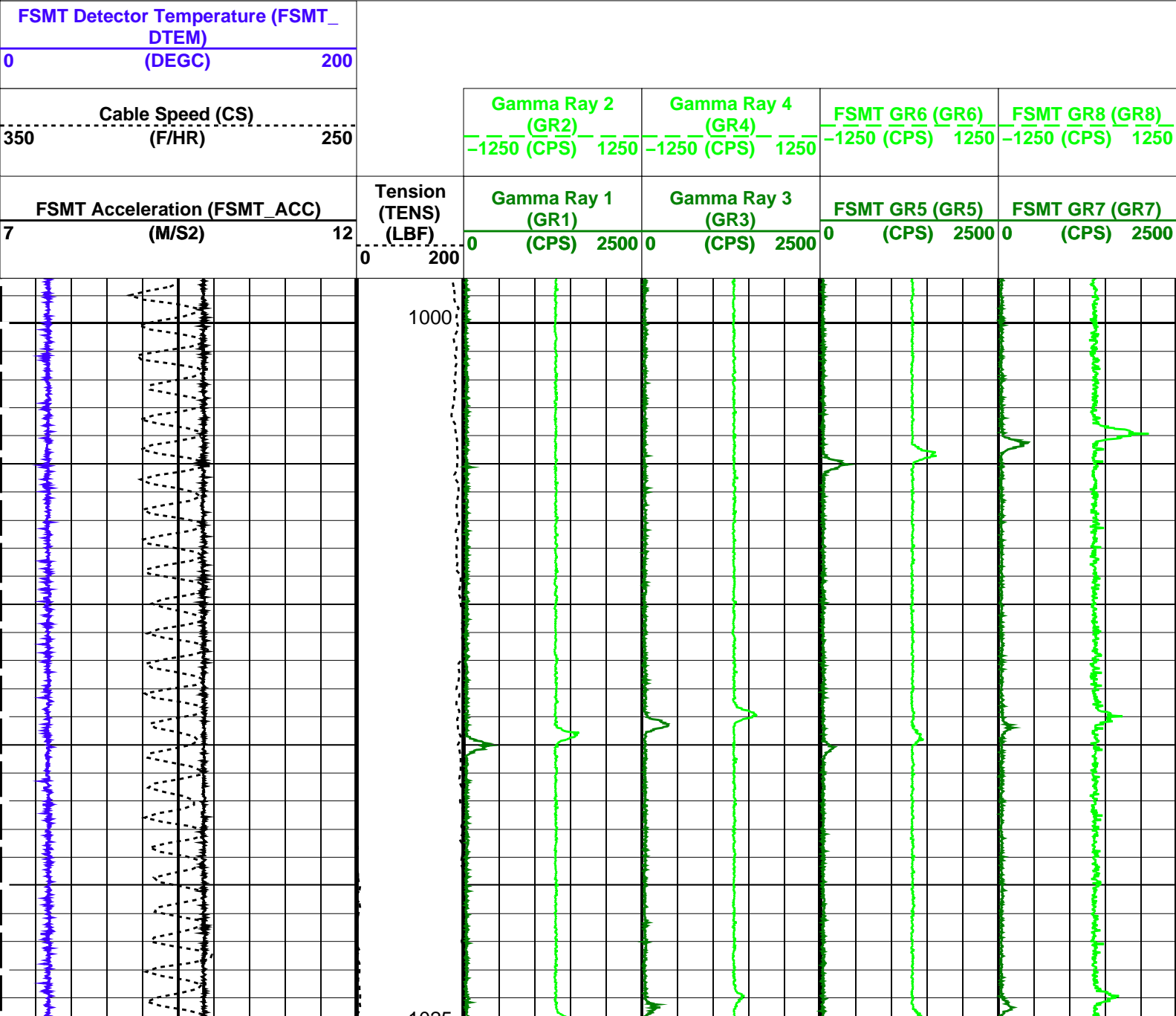
DEFAULT	FSMT_PSP_031PUP	FN:7	PRODUCER	18-Feb-2019 14:42	1246.2 M	998.4 M
CUSTOMER	FSMT_PSP_031PUC	FN:8	CUSTOMER	18-Feb-2019 14:42	1246.2 M	998.4 M

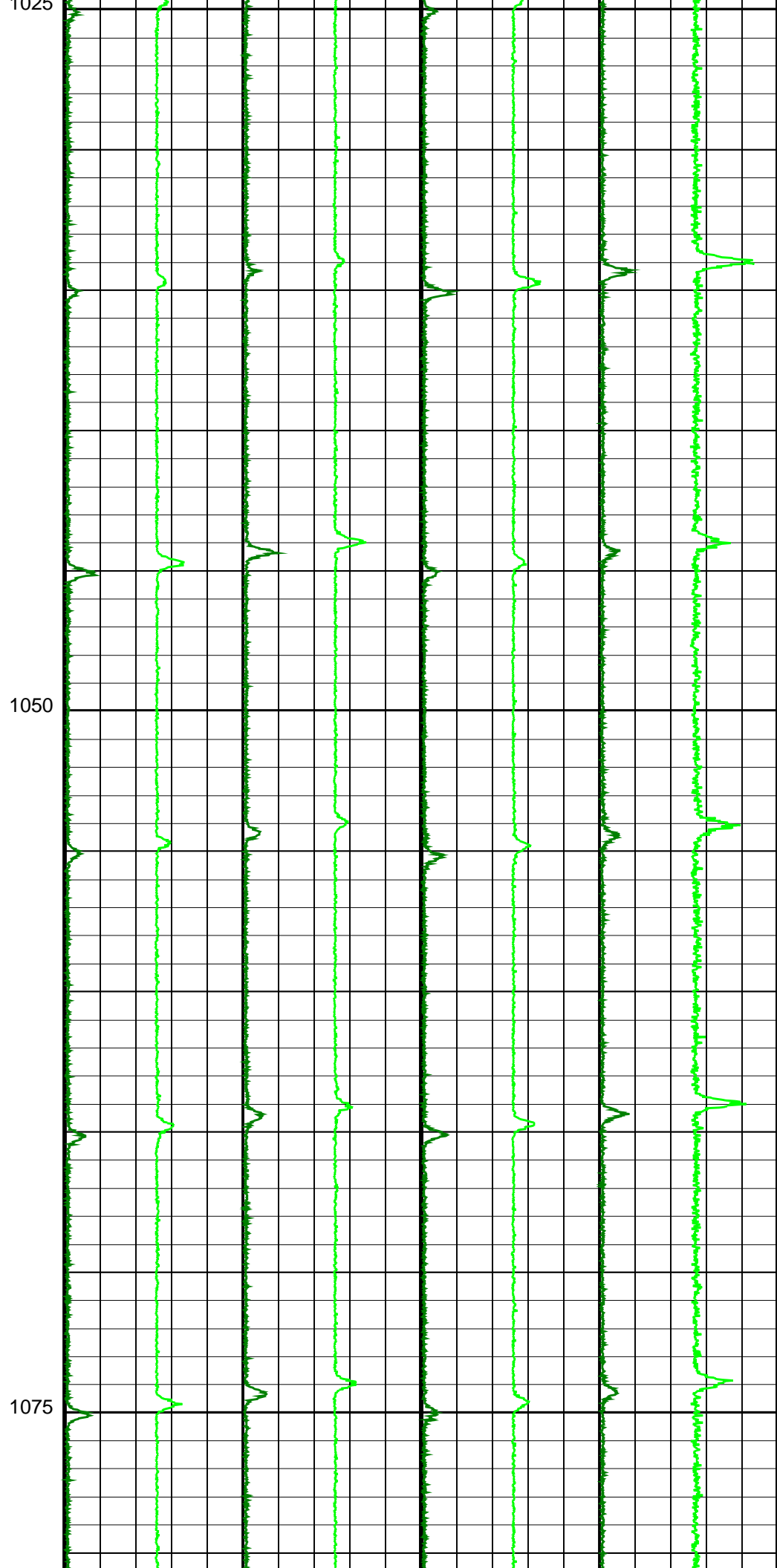
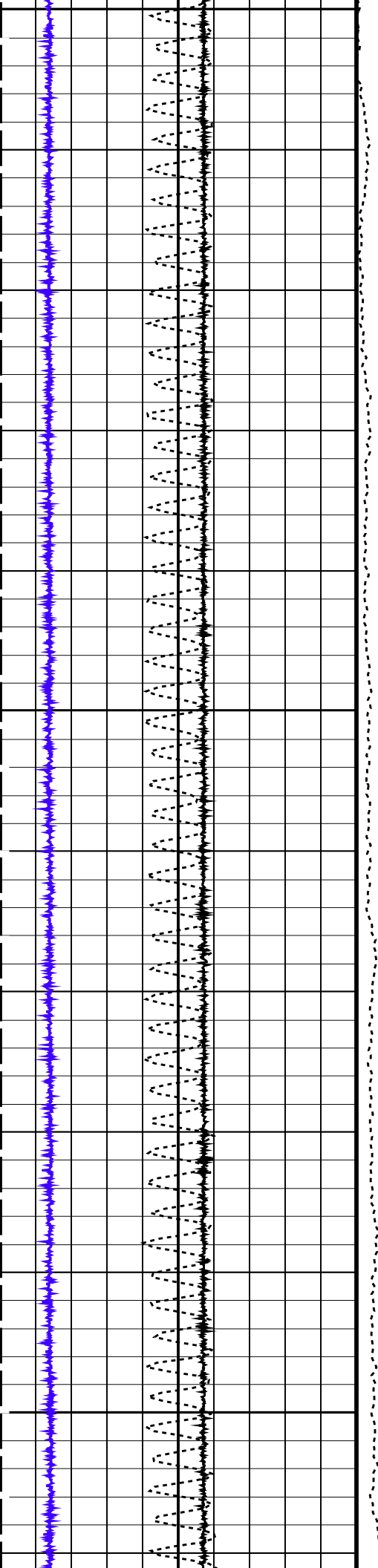
OP System Version: 19C2-270

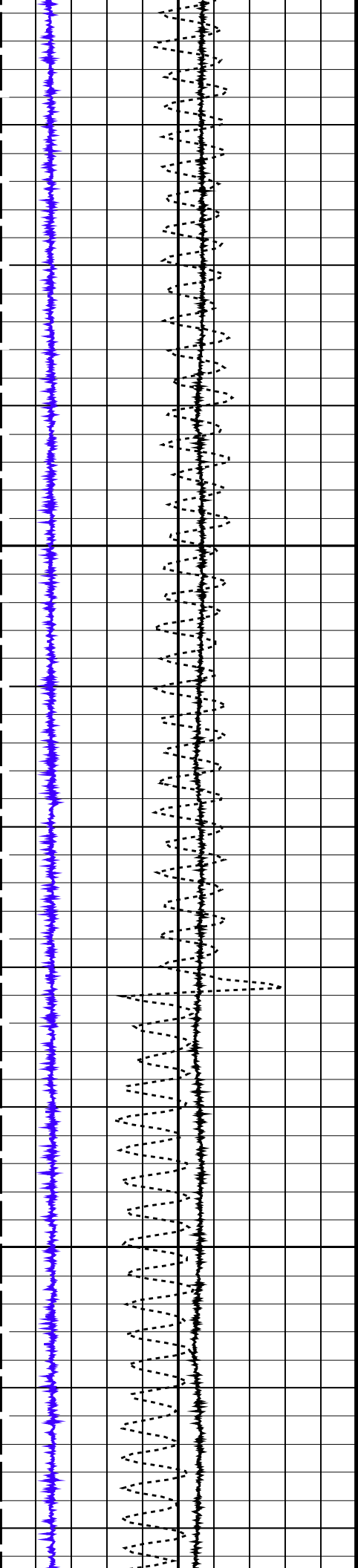
FSMT-E SRPC-FSMTE-JUNE_2013_OP19C2H1_b PSPT 19C2-270

PIP SUMMARY

Time Mark Every 60 S

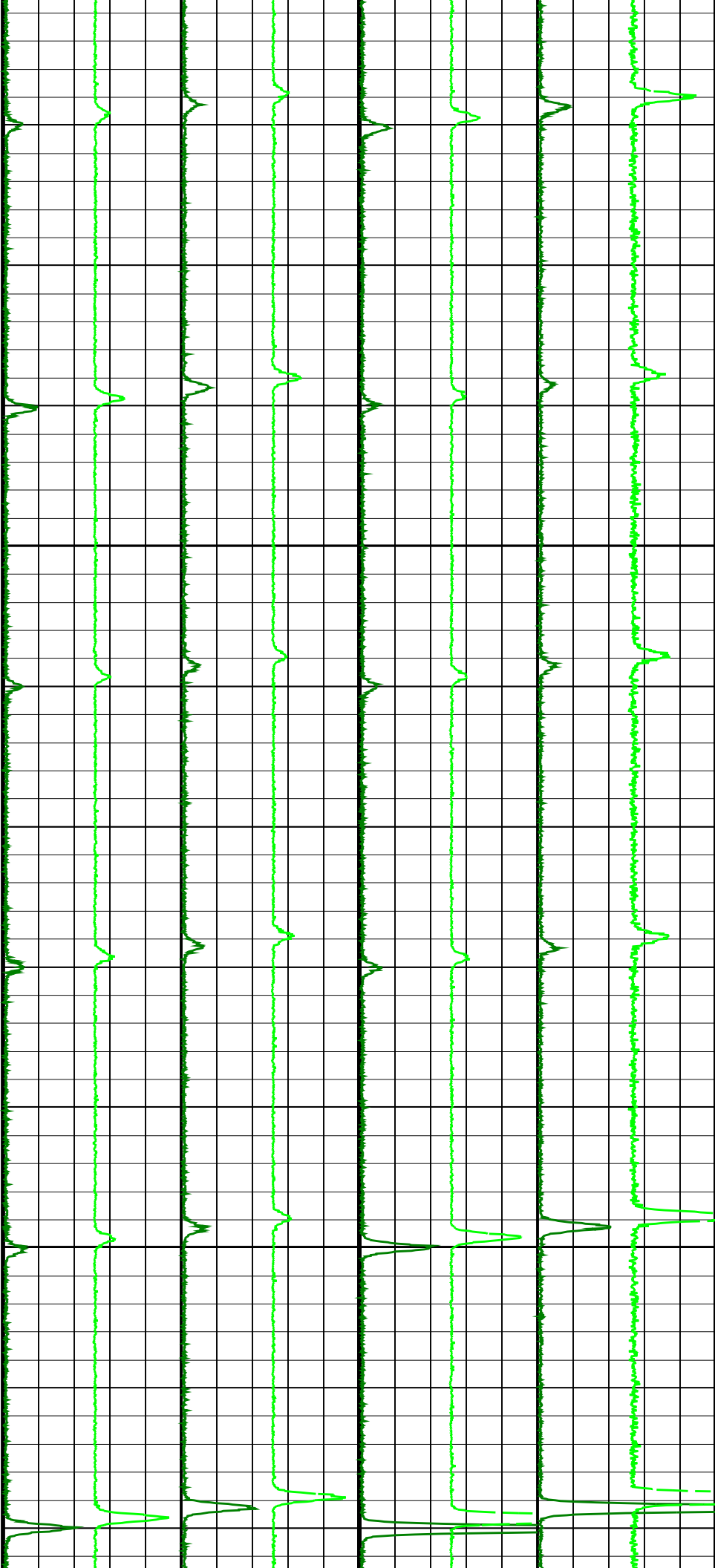


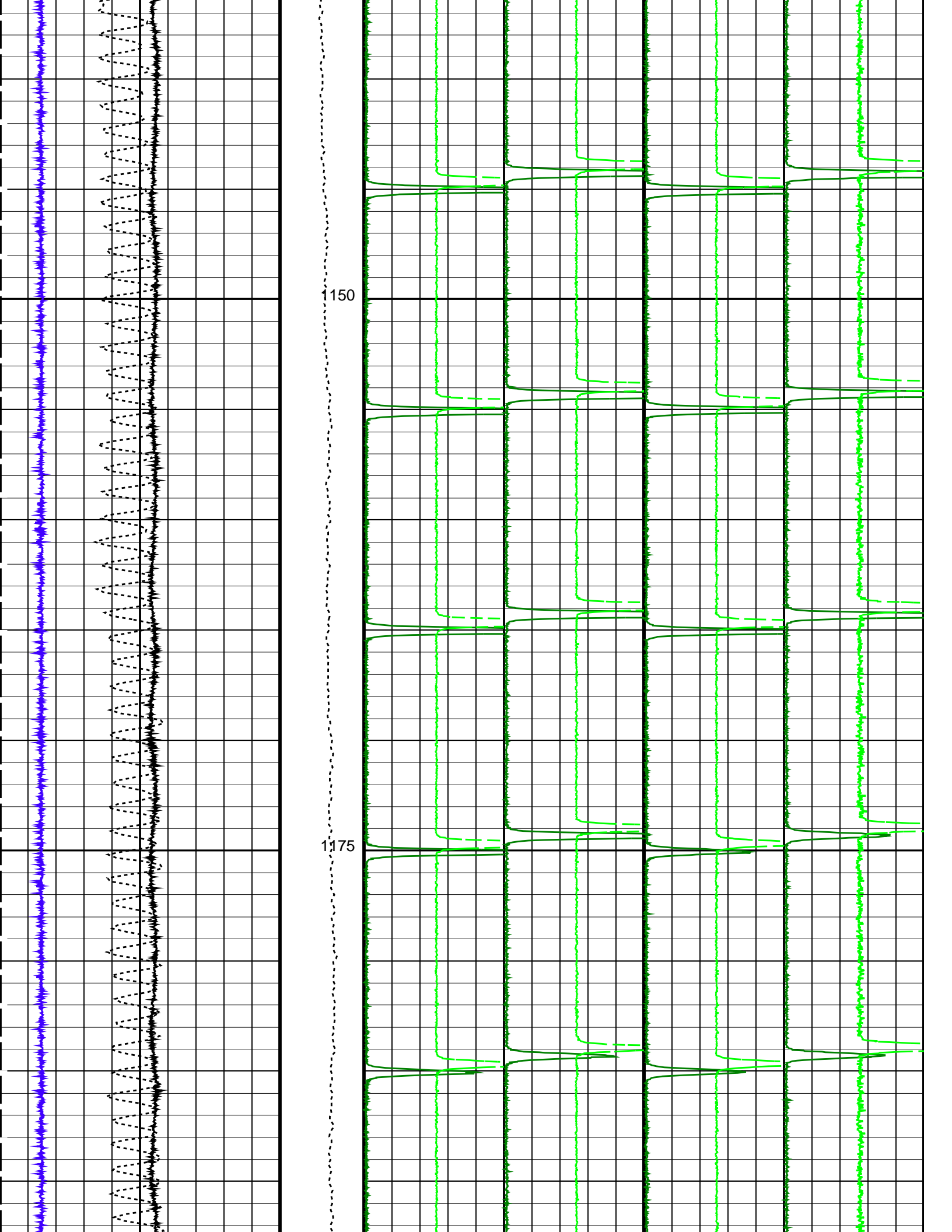


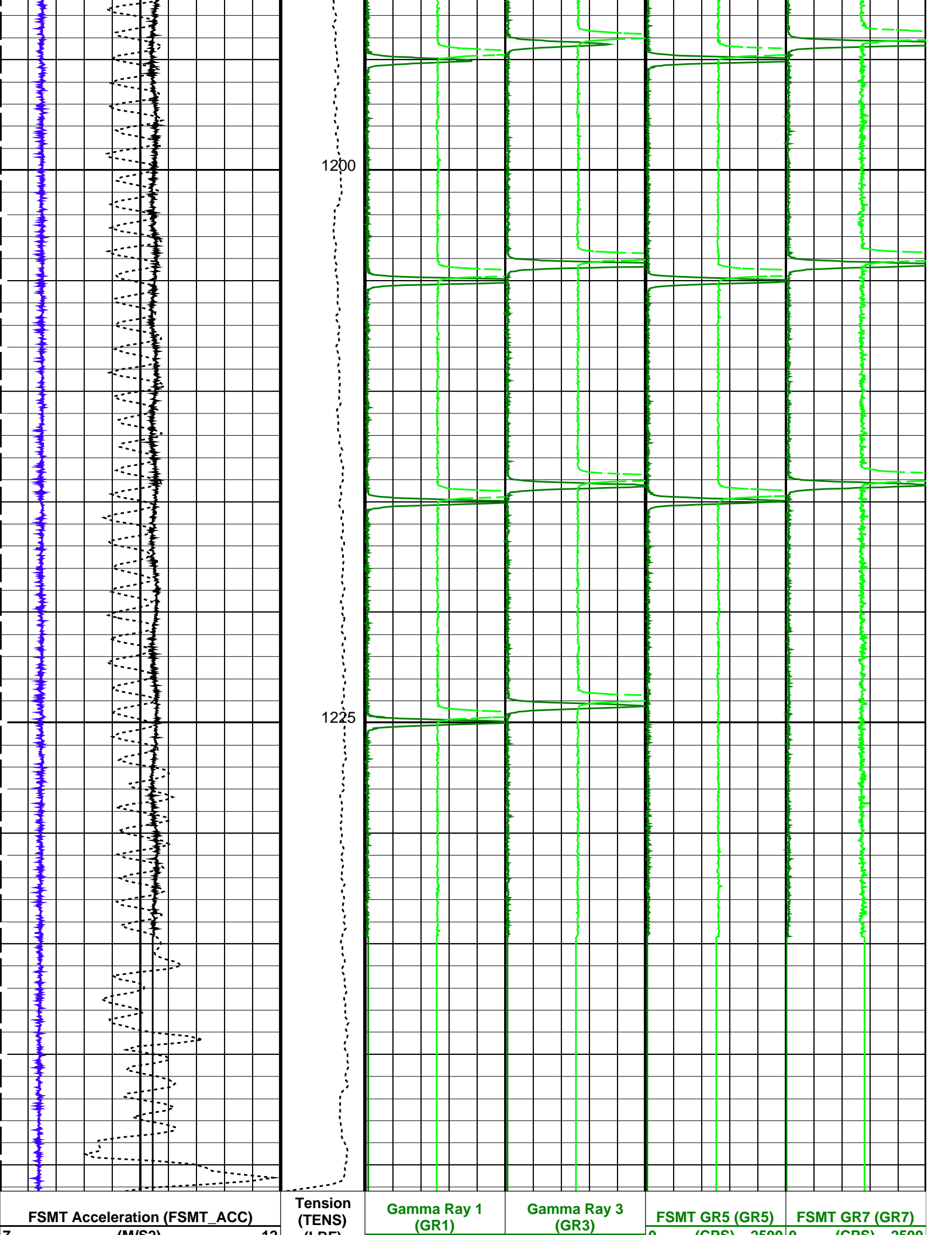


1100

1125







(M/SZ)	12	(LBF)	0	200	0	(CPS)	2500	0	(CPS)	2500	0	(CPS)	2500	
Cable Speed (CS) (F/HR)	350	250	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
FSMT Detector Temperature (FSMT_DTEM) (DEGC)	0	200												

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: 18-Feb-2019 14:42

OP System Version: 19C2-270

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

Input DLIS Files

DEFAULT	FSMT_PSP_024PUP	FN:43	PRODUCER	18-Feb-2019 14:00	1246.2 M	998.4 M
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Output DLIS Files

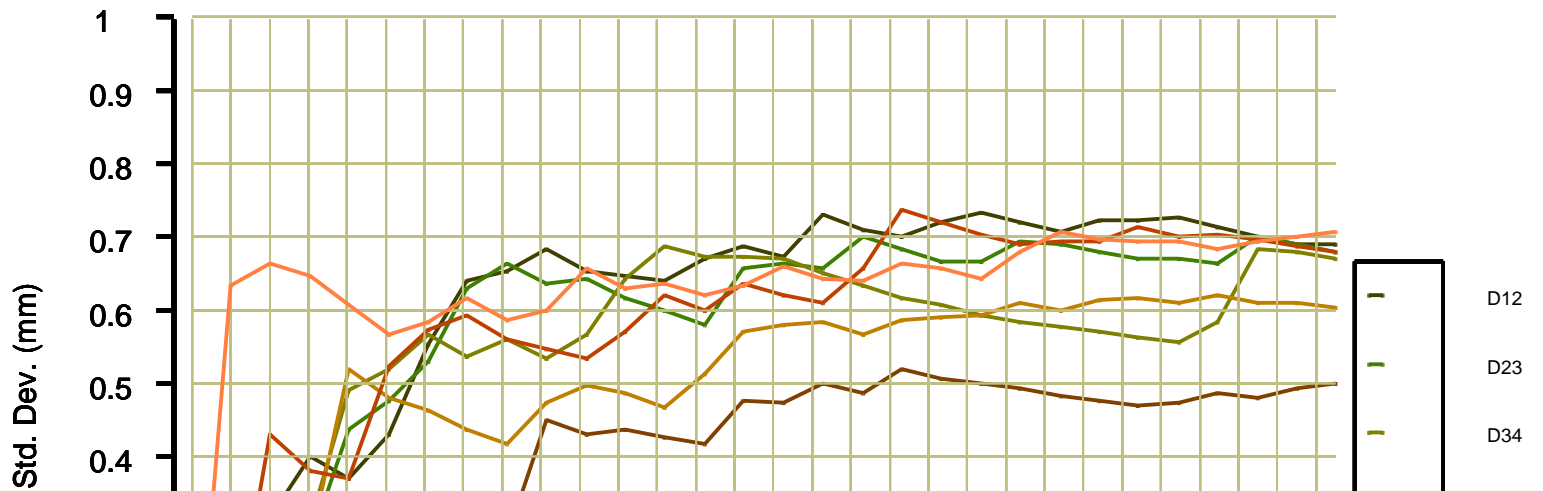
DEFAULT	FSMT_PSP_031PUP	FN:7	PRODUCER	18-Feb-2019 14:42
CUSTOMER	FSMT_PSP_031PUC	FN:8	CUSTOMER	18-Feb-2019 14:42

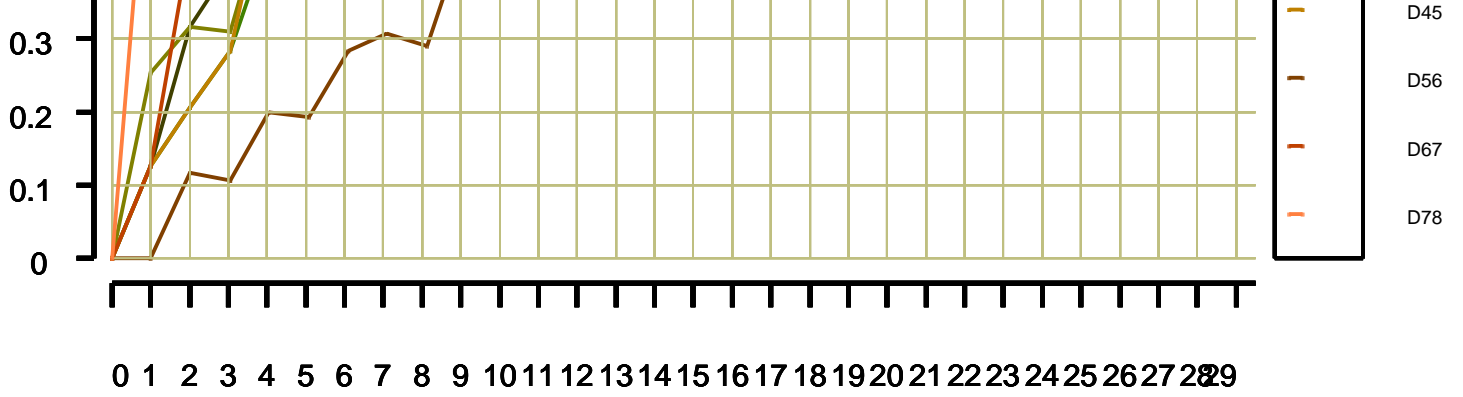


BEFORE CALIBRATION

MAXIS Field Log

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





Calibration passes

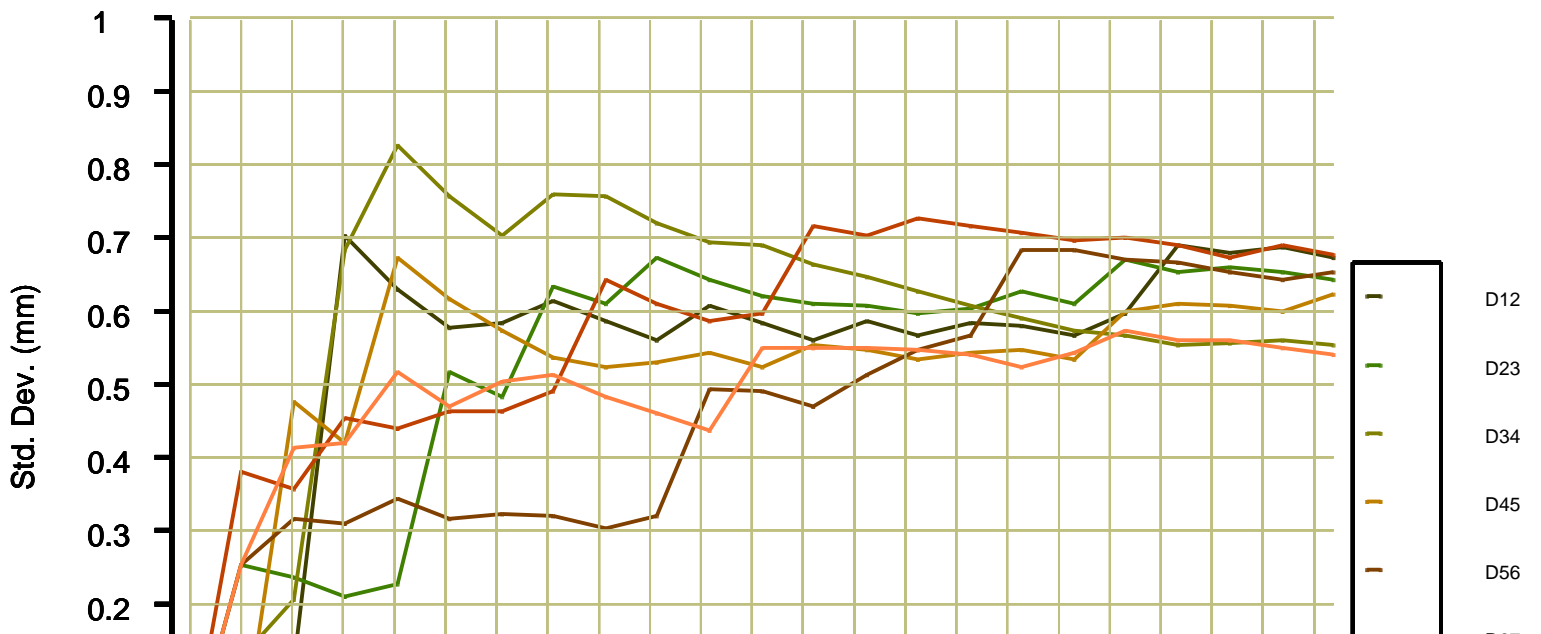
DET12 = 0.369289 m (± 0.69 mm)
 DET23 = 0.368878 m (± 0.68 mm)
 DET34 = 0.368393 m (± 0.67 mm)
 DET45 = 8.895258 m (± 0.61 mm)
 DET56 = 0.368495 m (± 0.50 mm)
 DET67 = 0.366835 m (± 0.68 mm)
 DET78 = 0.370220 m (± 0.71 mm)

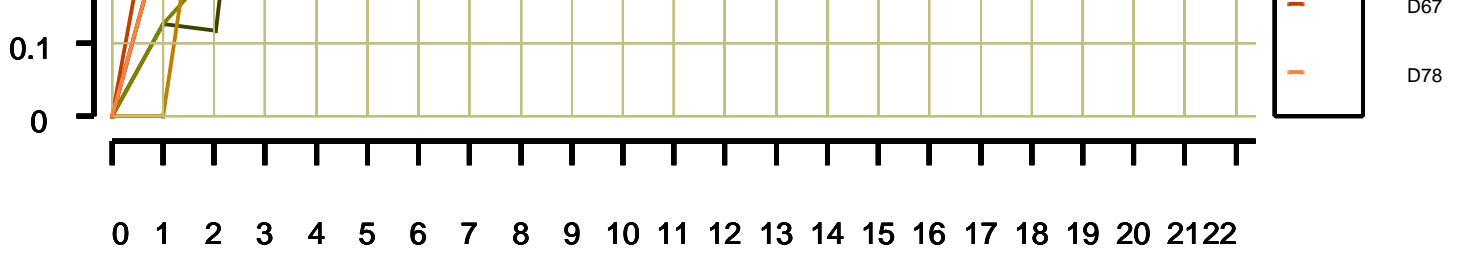


AFTER CALIBRATION

MAXIS Field Log

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**

Schlumberger

Well: **Regina 6 Dir B Foro 2**

Field: **Regina**

Log: **FSMT-E**

Country: **Italy**

FSMT-E

Formation Subsidence Monitoring Tool

Interval from 1245 m to 1000 m