



OTHER SERVICES1 OS1: FMI-Sonic Scanner OS2: OS3: OS4: OS5:	OTHER SERVICES2 OS1: OS2: OS3: OS4: OS5:
REMARKS: RUN NUMBER 1 This is the first run in hole.	REMARKS: RUN NUMBER 2
Tool run as per tool sketch.	
Repeat Matrix: Sandstone 2.65 Main Matrix: Limestone 2.71	



Induction  
Temperatu  
Power Sup

7.9

SP SENSOR  
HTEN HMAS  
Accelerom HV  
Mud Resis  
Tension

0.1

0.0

TOOL ZERO

MAXIMUM STRING DIAMETER 4.63 IN  
MEASUREMENTS RELATIVE TO TOOL ZERO  
ALL LENGTHS IN FEET

Production String

(in)

(ft)

OD

ID

MD

Well Schematic

(ft)

(in)

MD

OD

ID

Casing String

Casing String

Casing Shoe  
Borehole Segment

0.0

8.625

8.097

418.0

8.625

8.097

418.0

7.875

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All Depths are Drillers

Schlumberger

Main Micro Log 5" = 100'

MAXIS Field Log

Output DLIS Files

DEFAULT      AIT\_TLD\_MCFL\_CNL\_010LUP      FN:9      PRODUCER      07-Jan-2011 22:18      5544.0 FT      368.5 FT

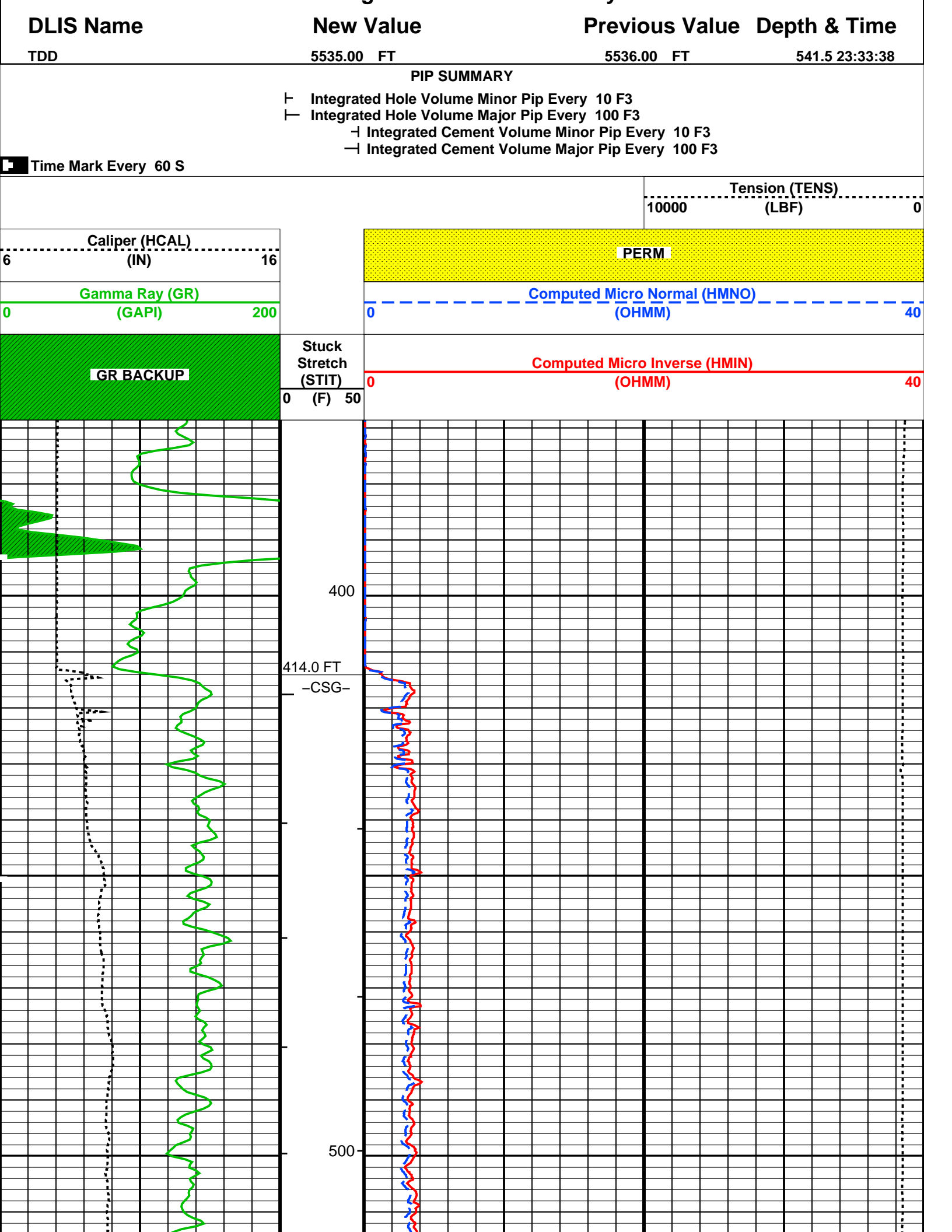
Integrated Hole/Cement Volume Summary

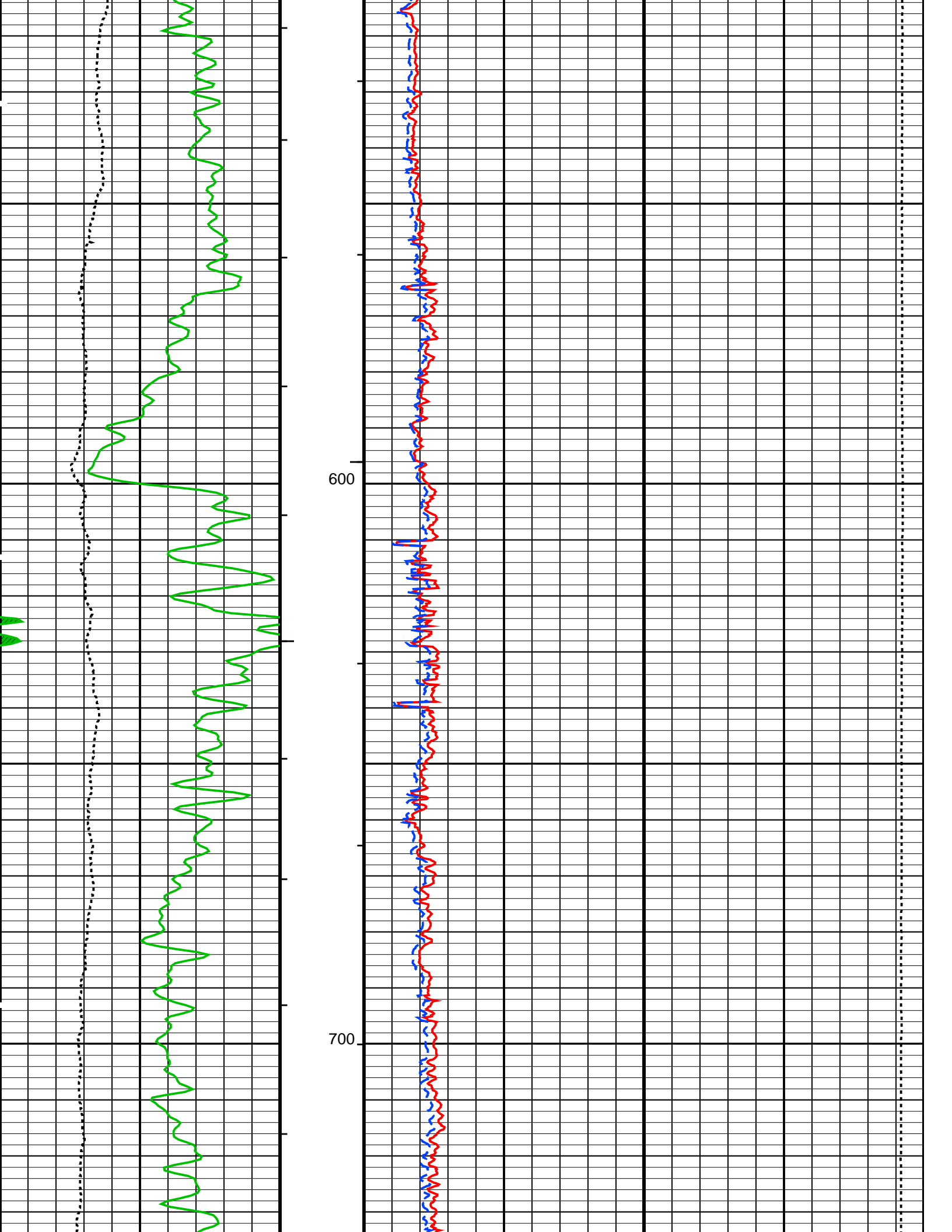
Hole Volume = 2001.65 F3  
Cement Volume = 1157.52 F3 (assuming 5.50 IN casing O.D.)  
Computed from 5530.0 FT to 414.0 FT using data channel(s) HCAL

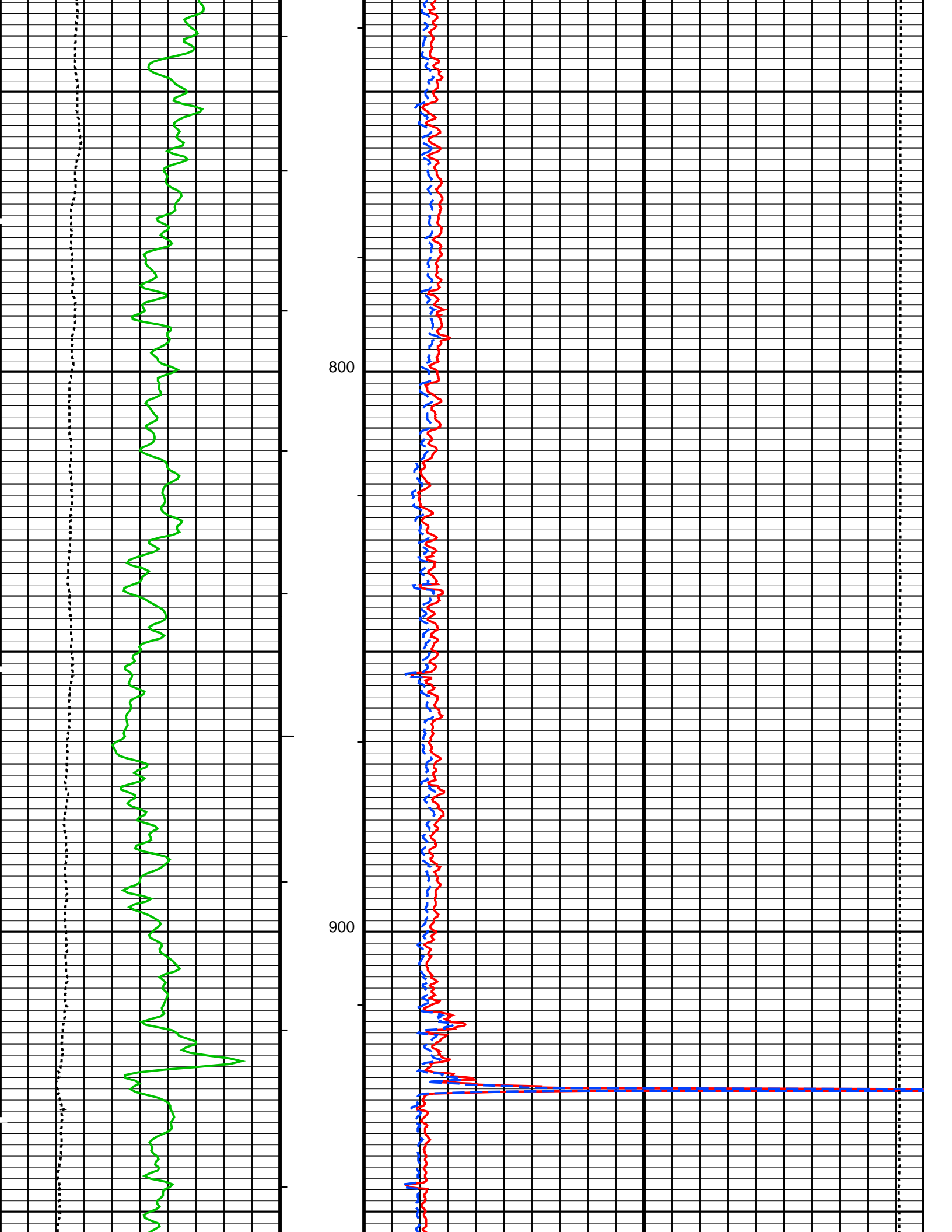
OP System Version: 18C0-147

HILTB-CTS      18C0-147

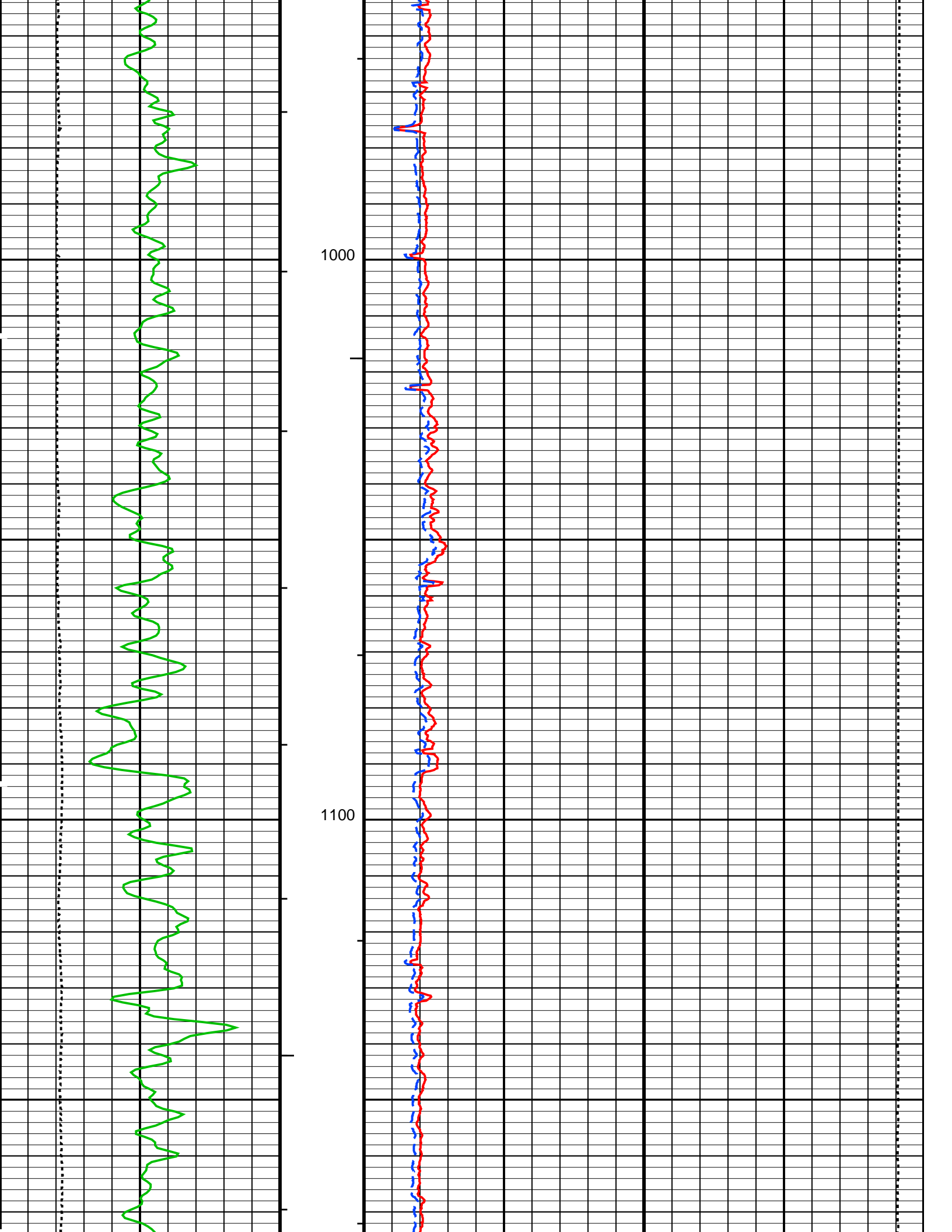
Changed Parameter Summary

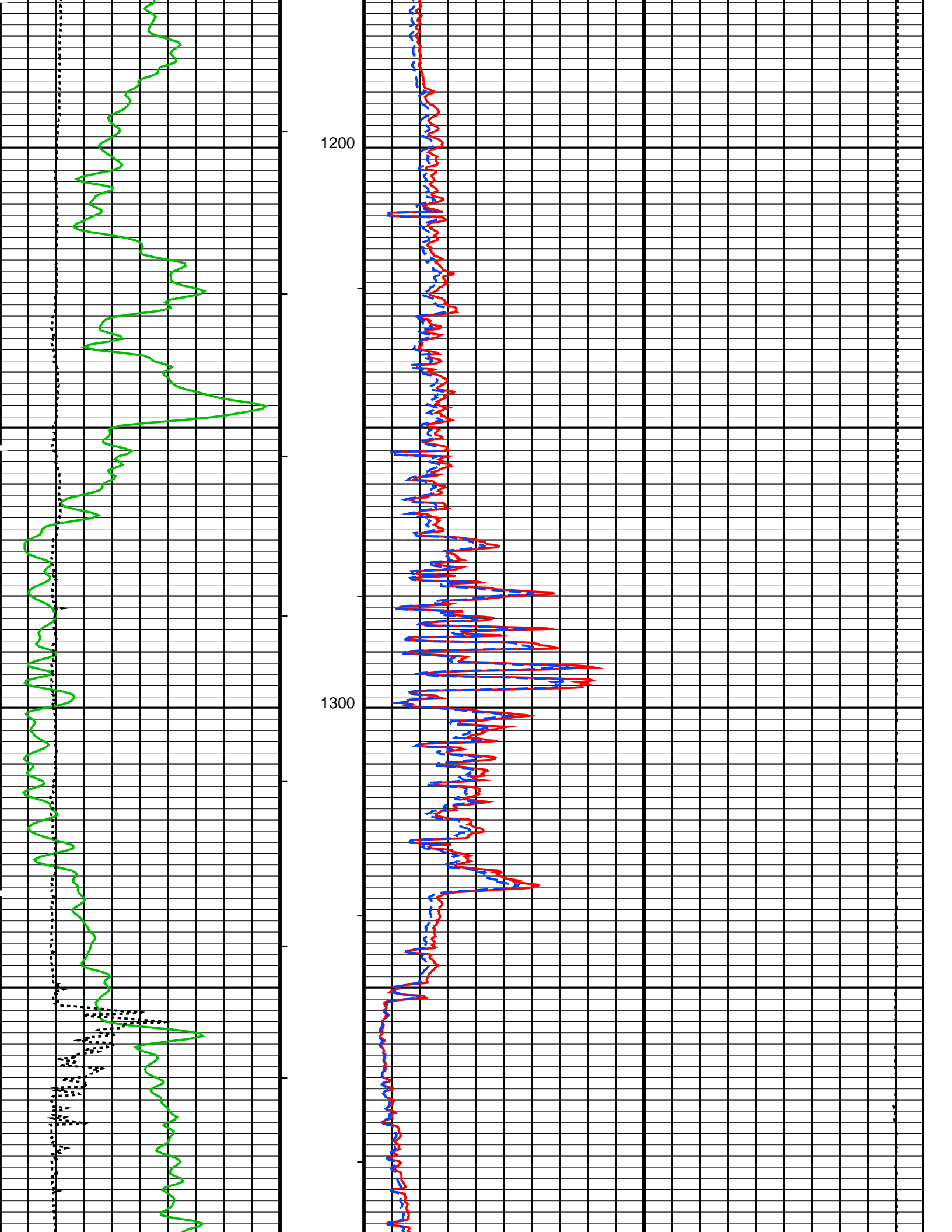


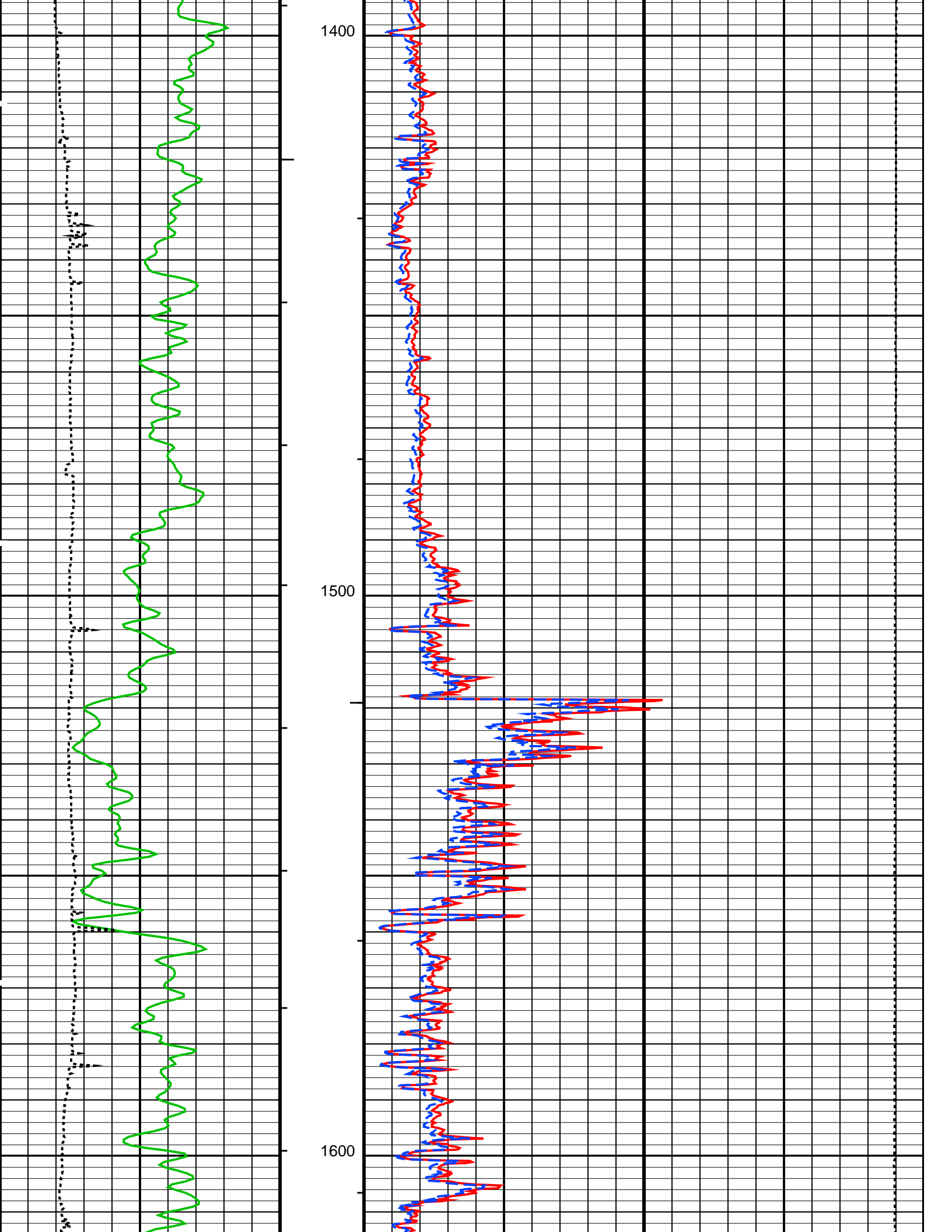


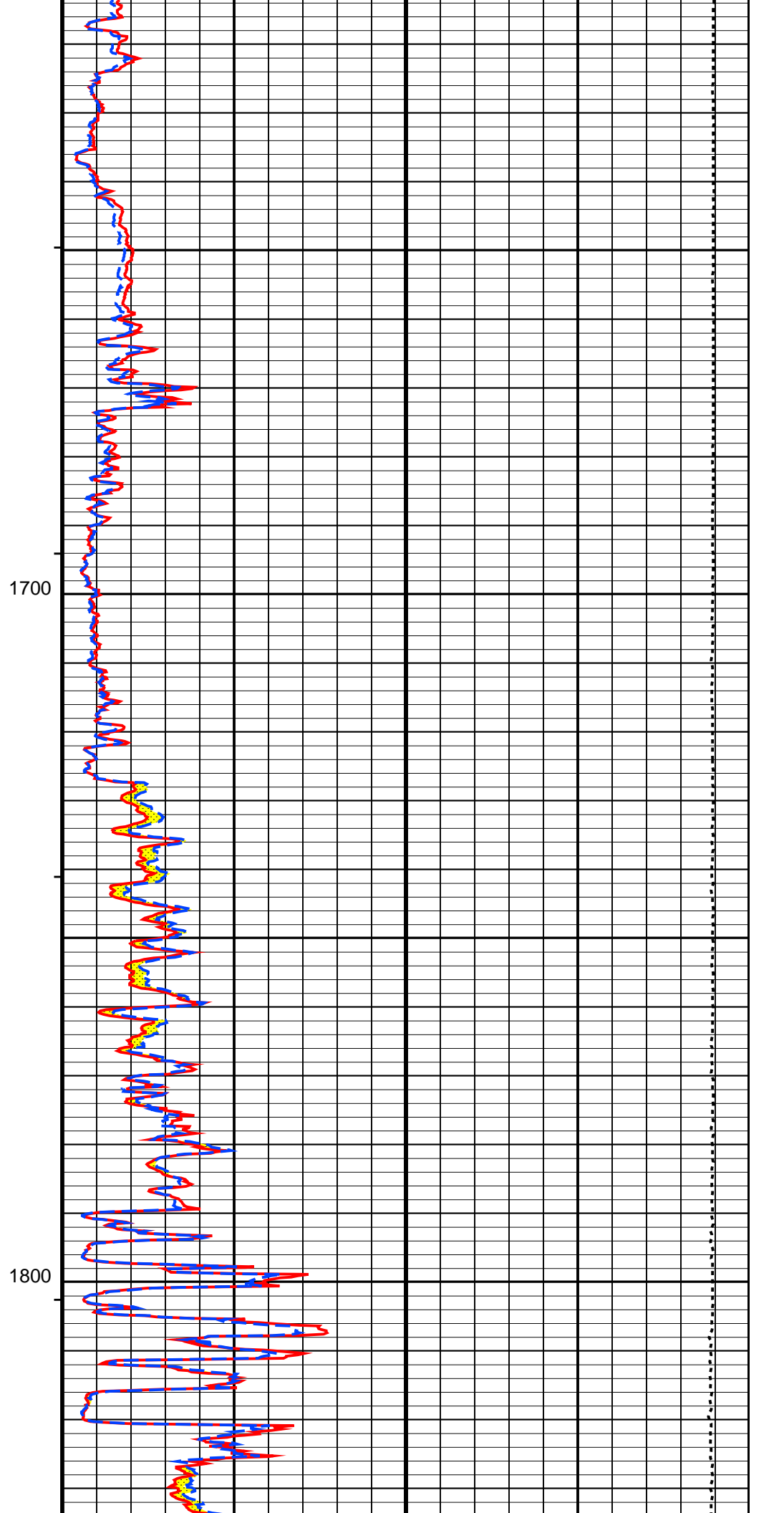
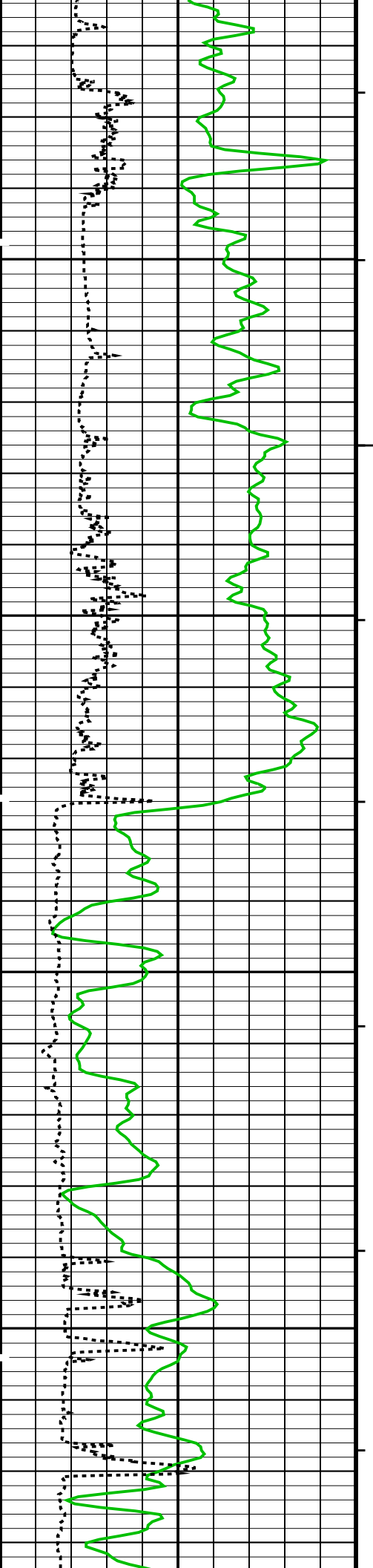


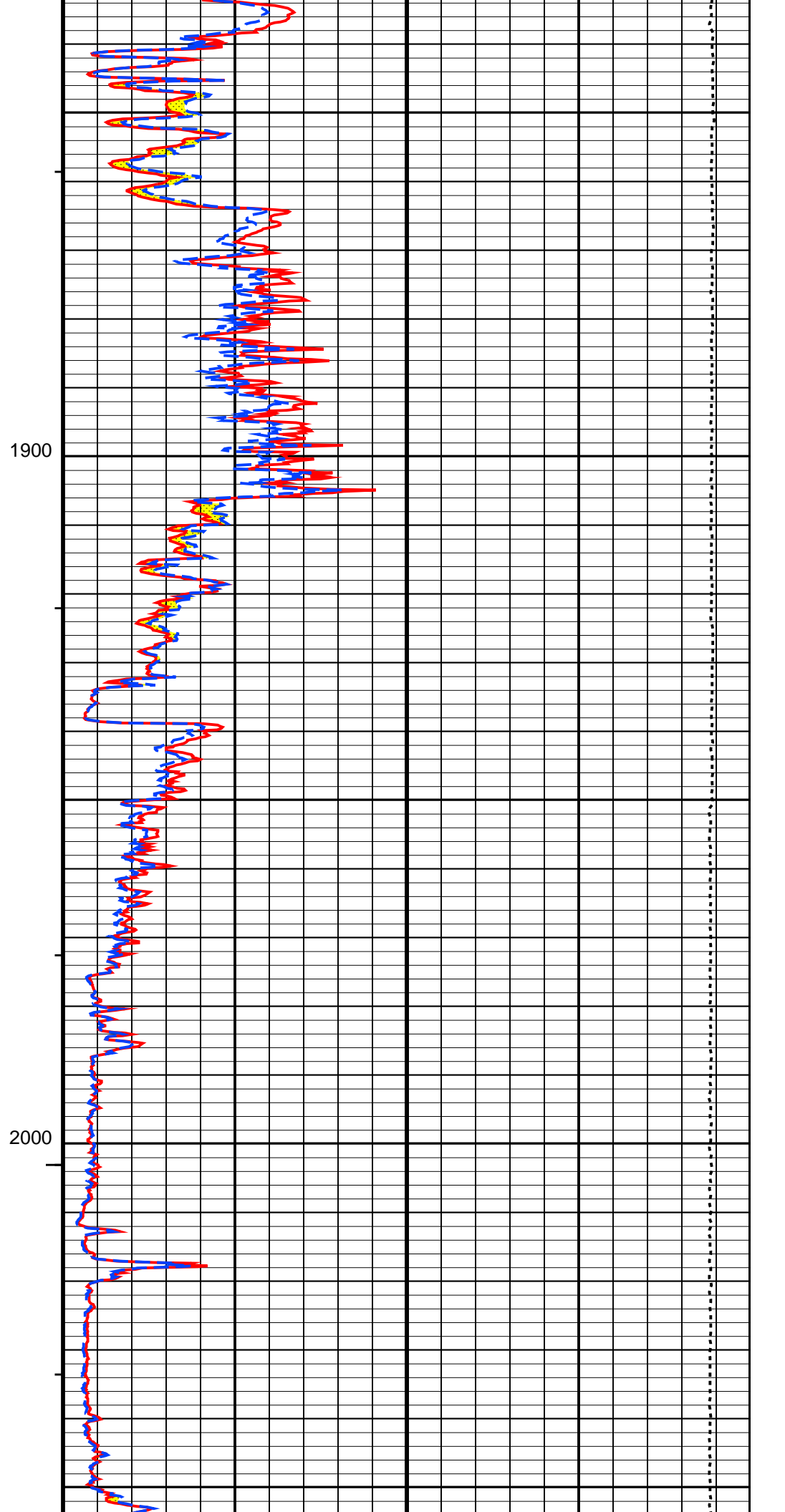
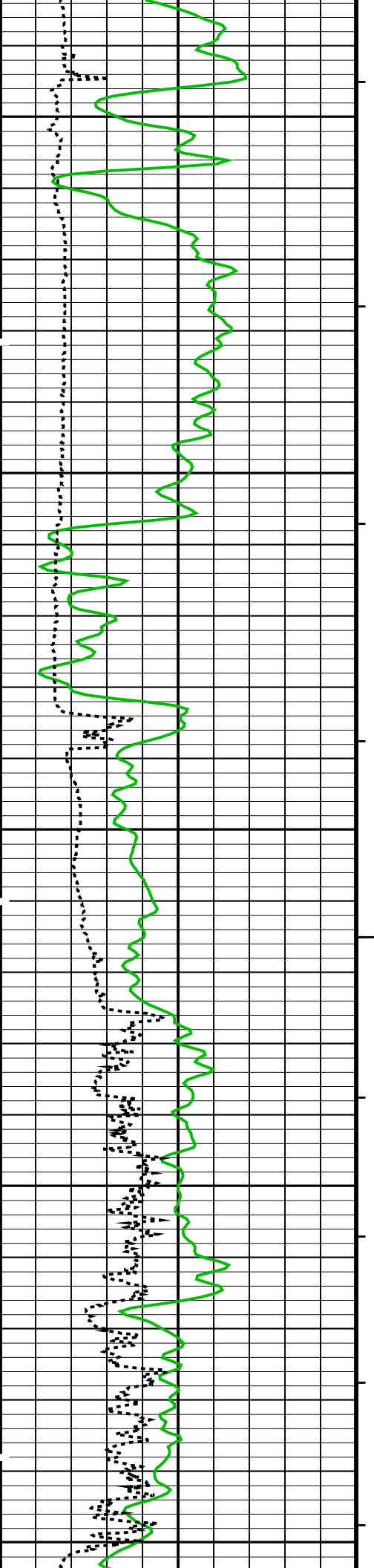


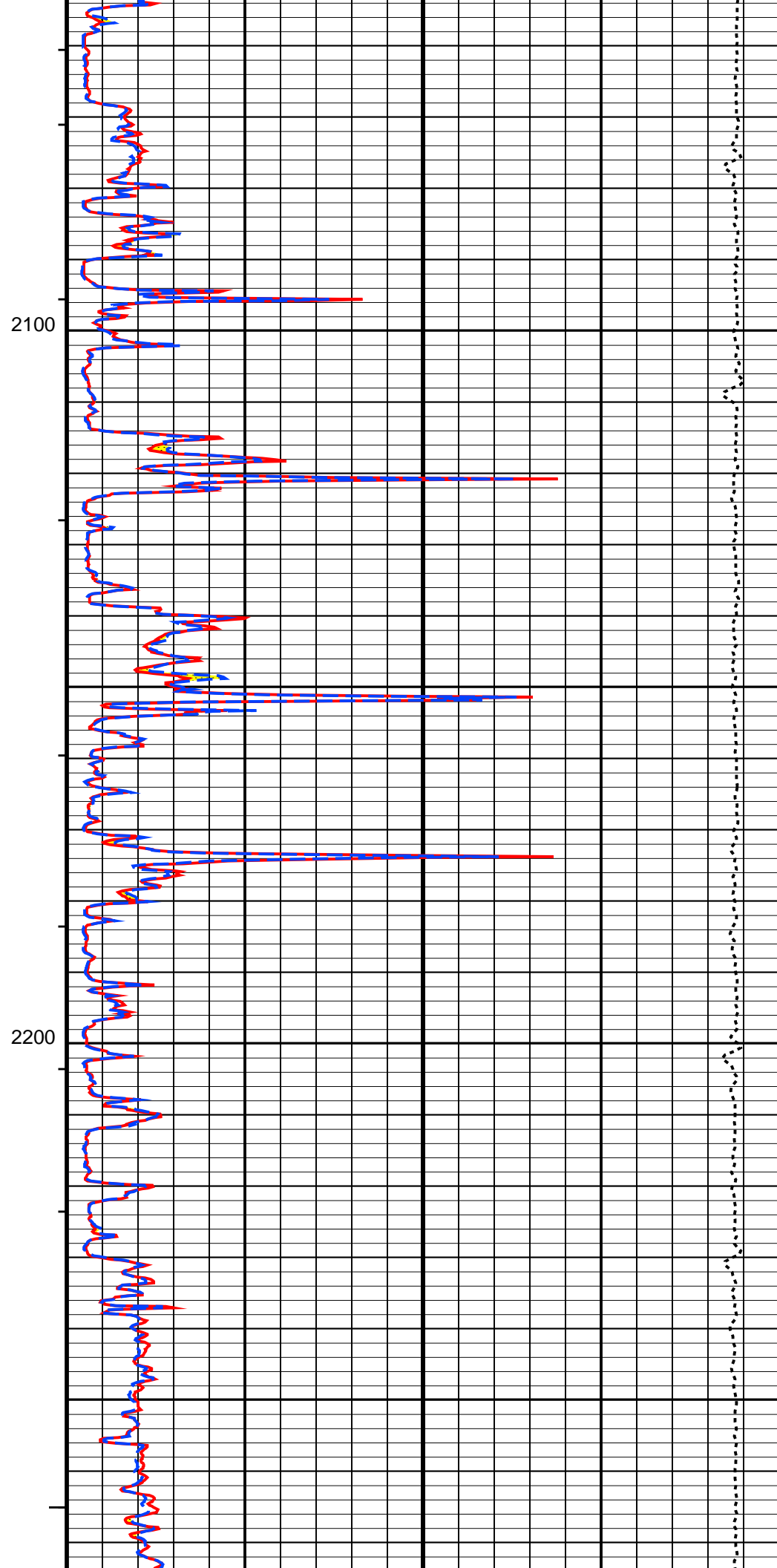
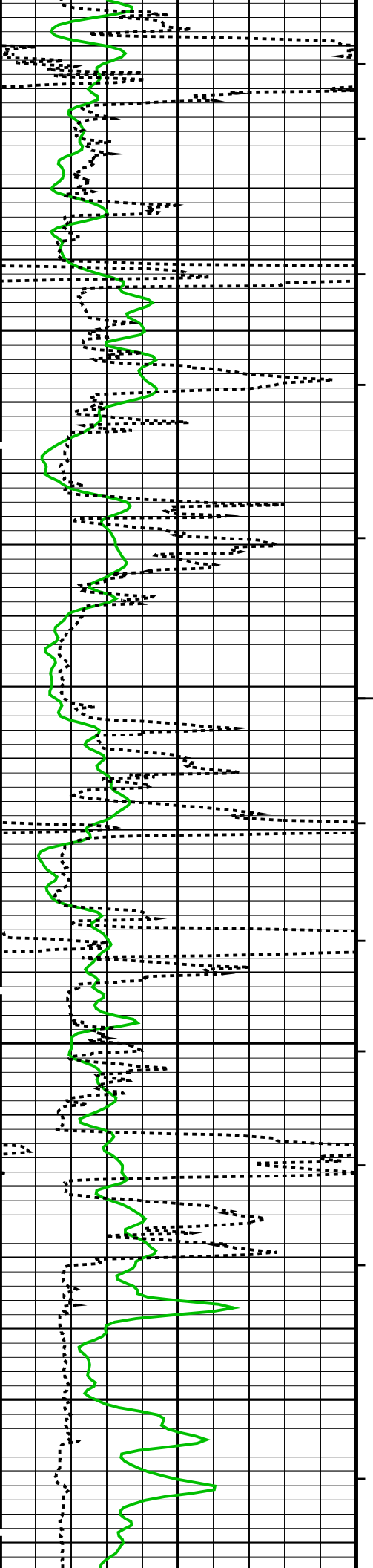


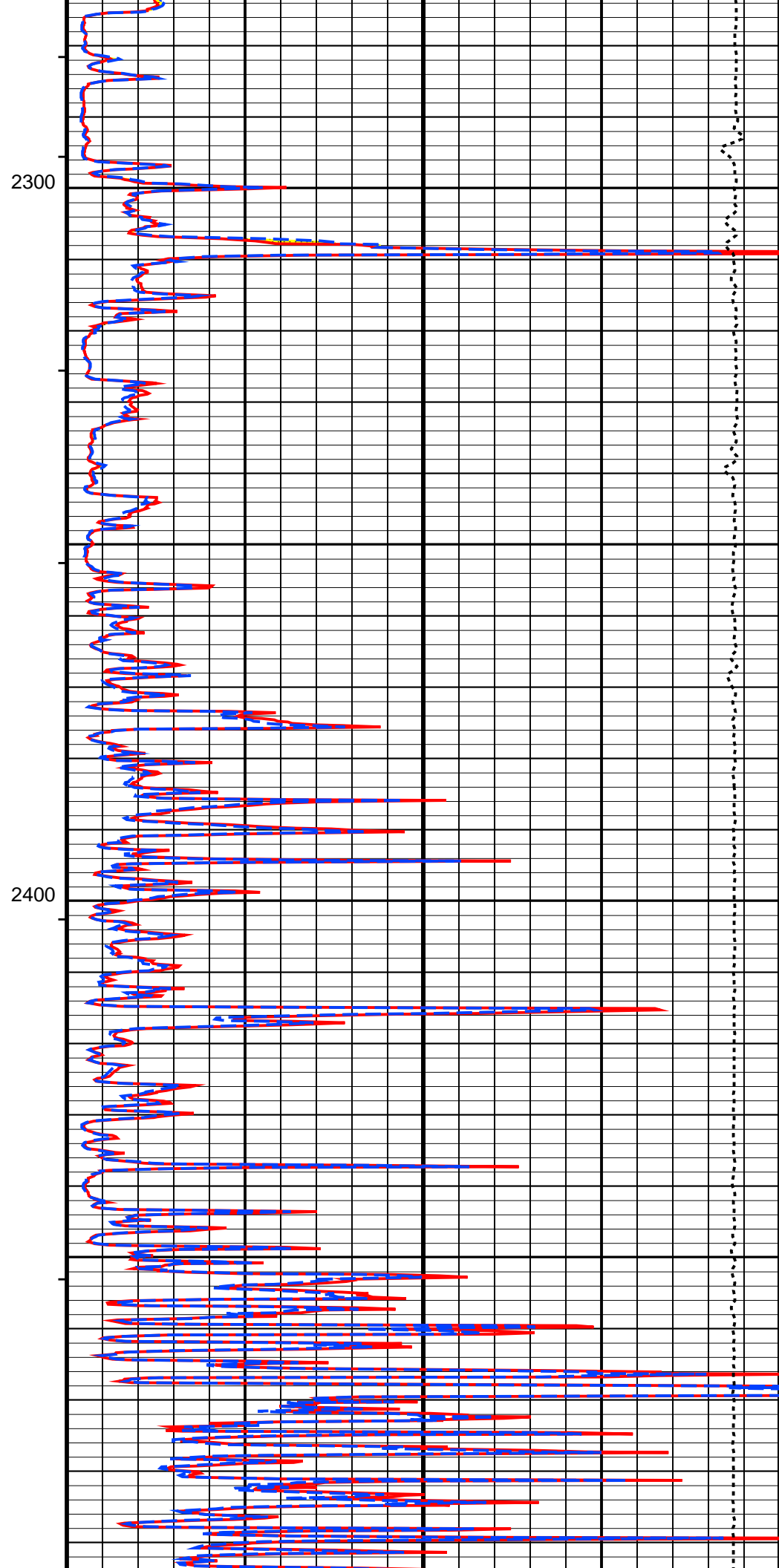
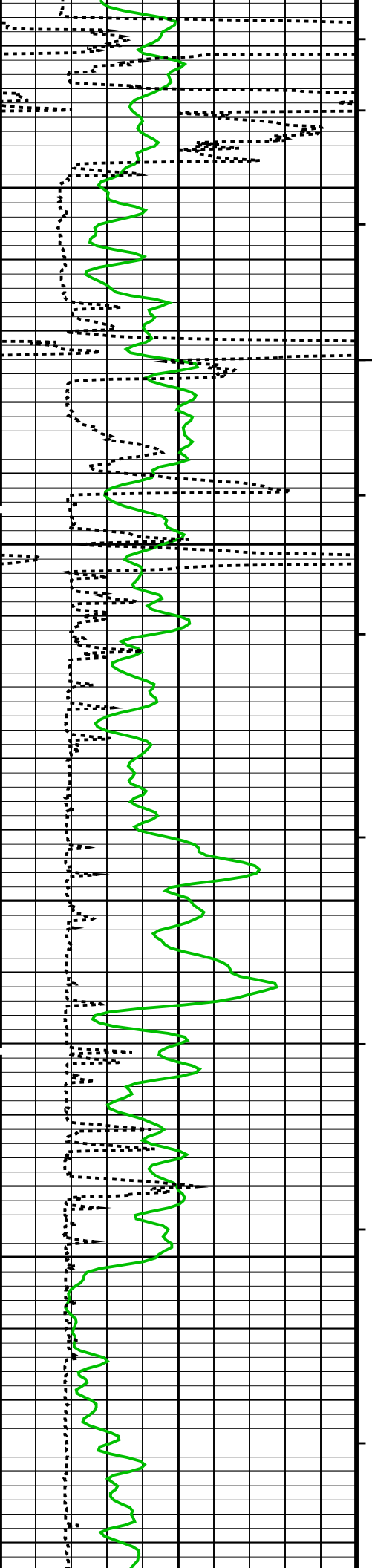


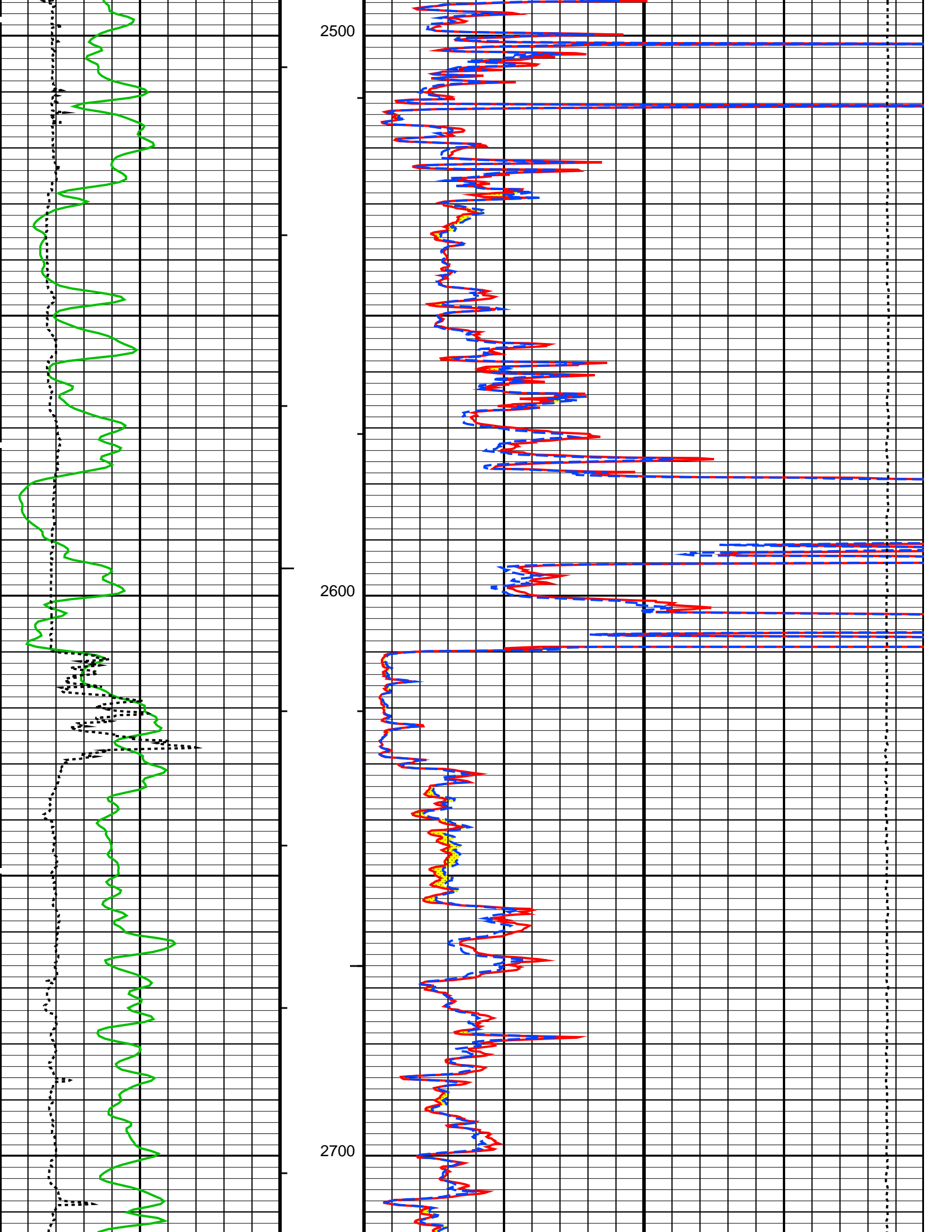




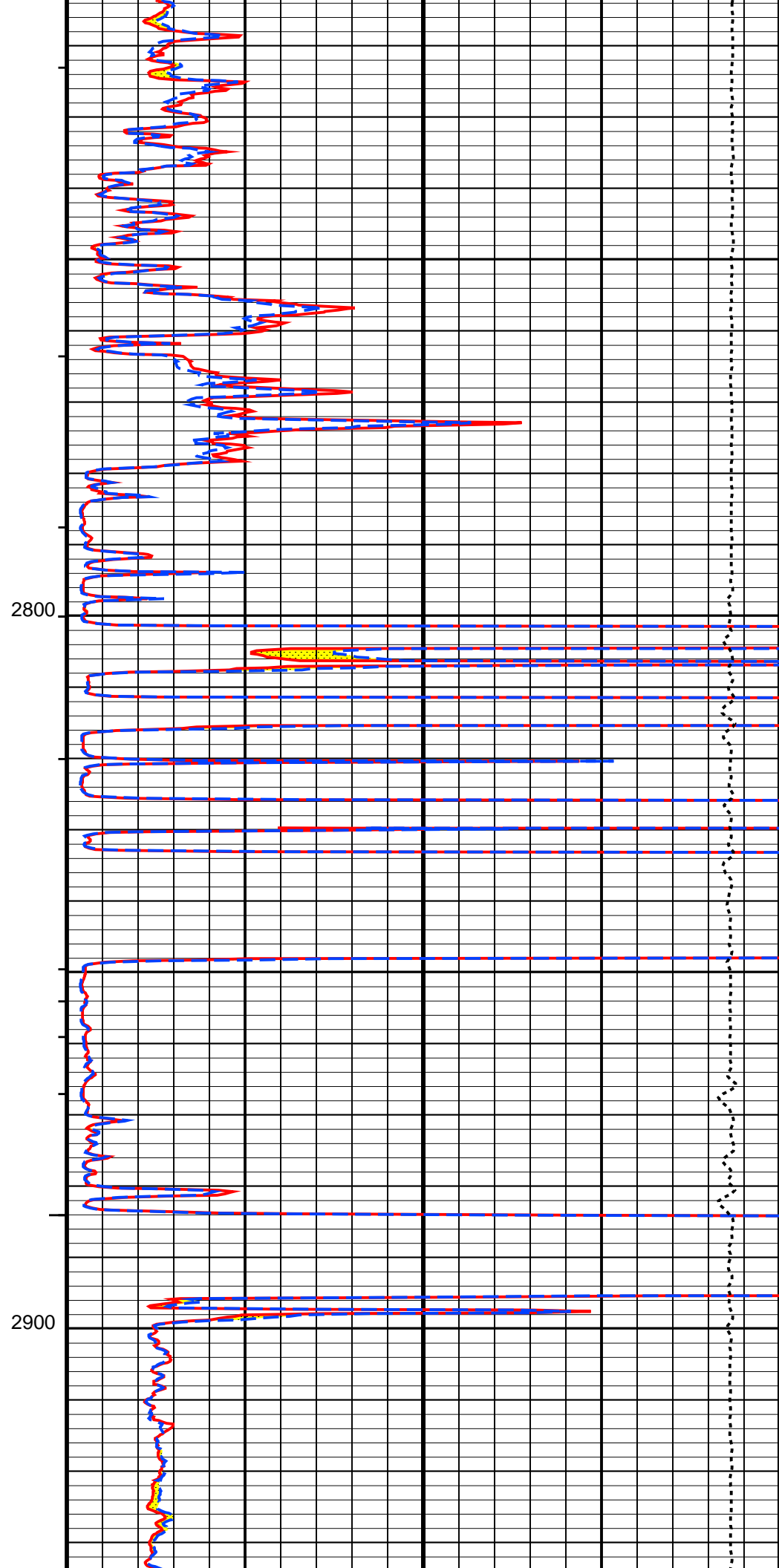
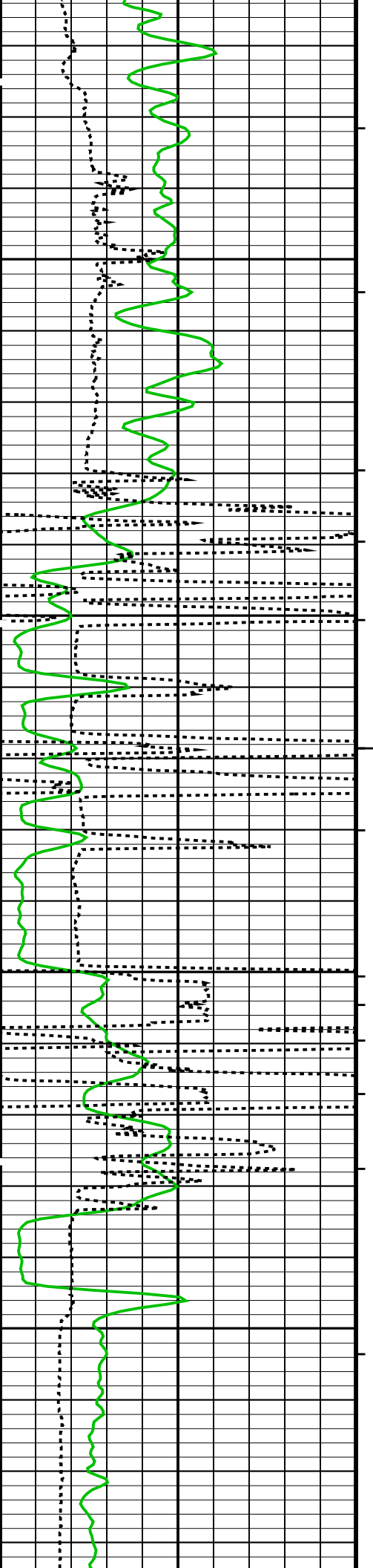


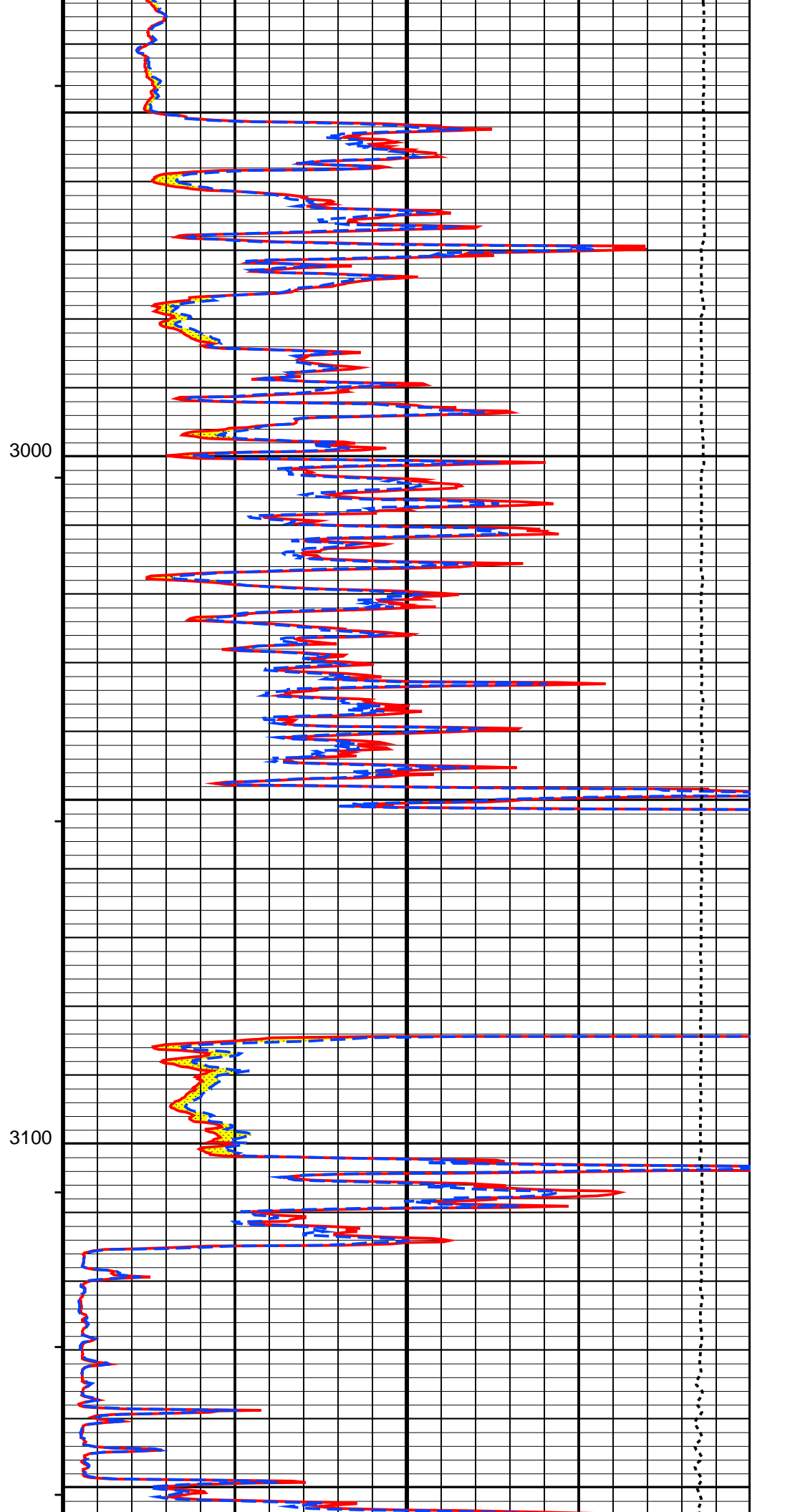
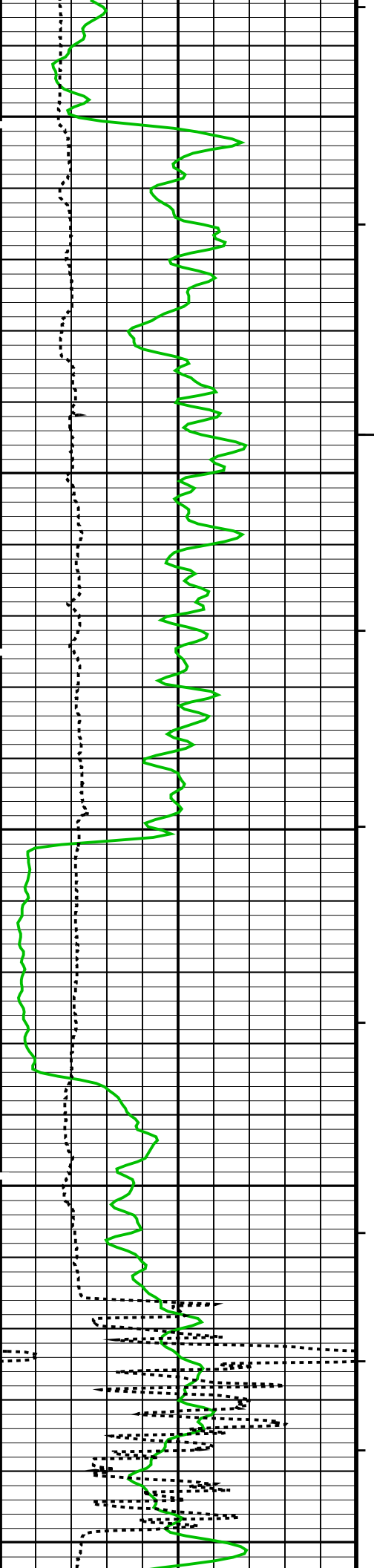


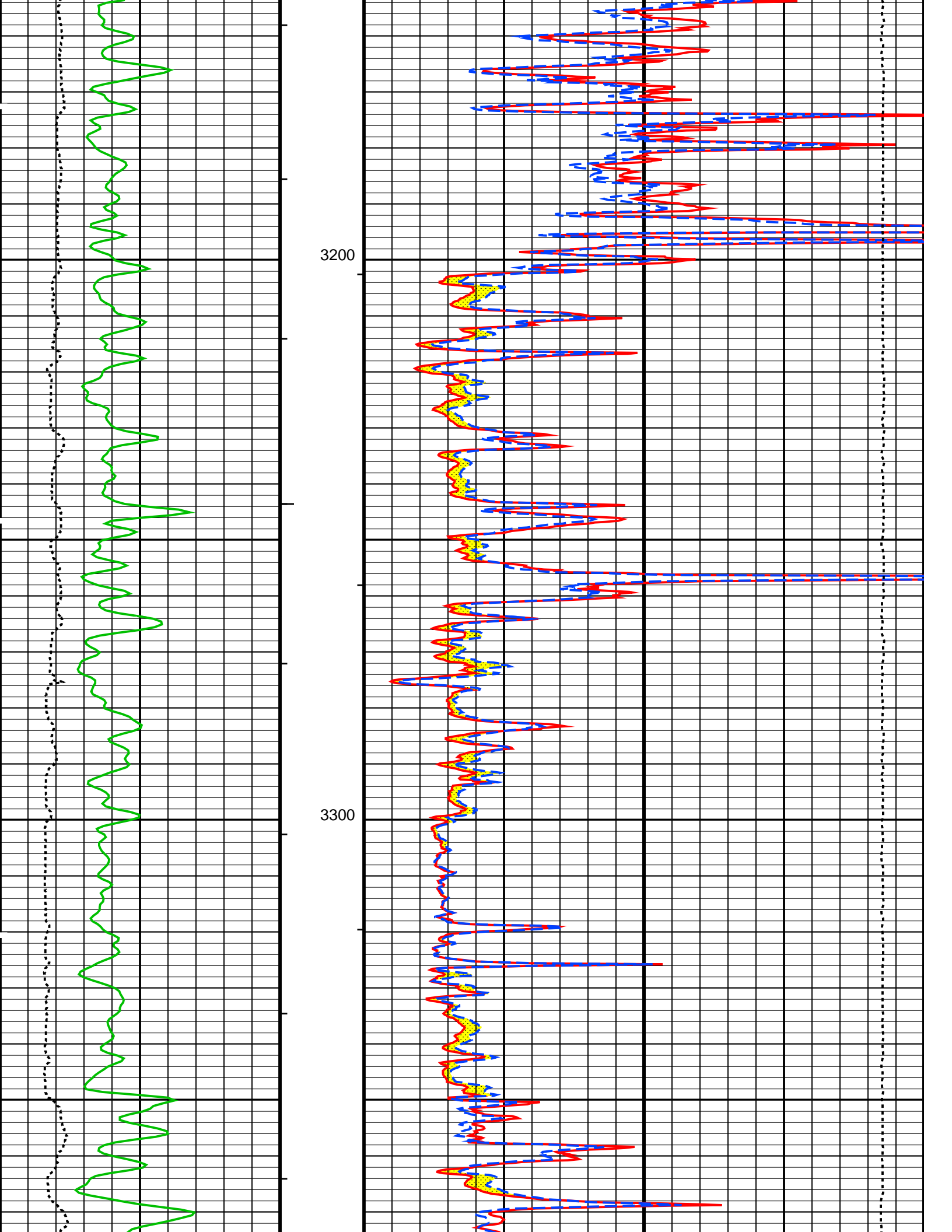


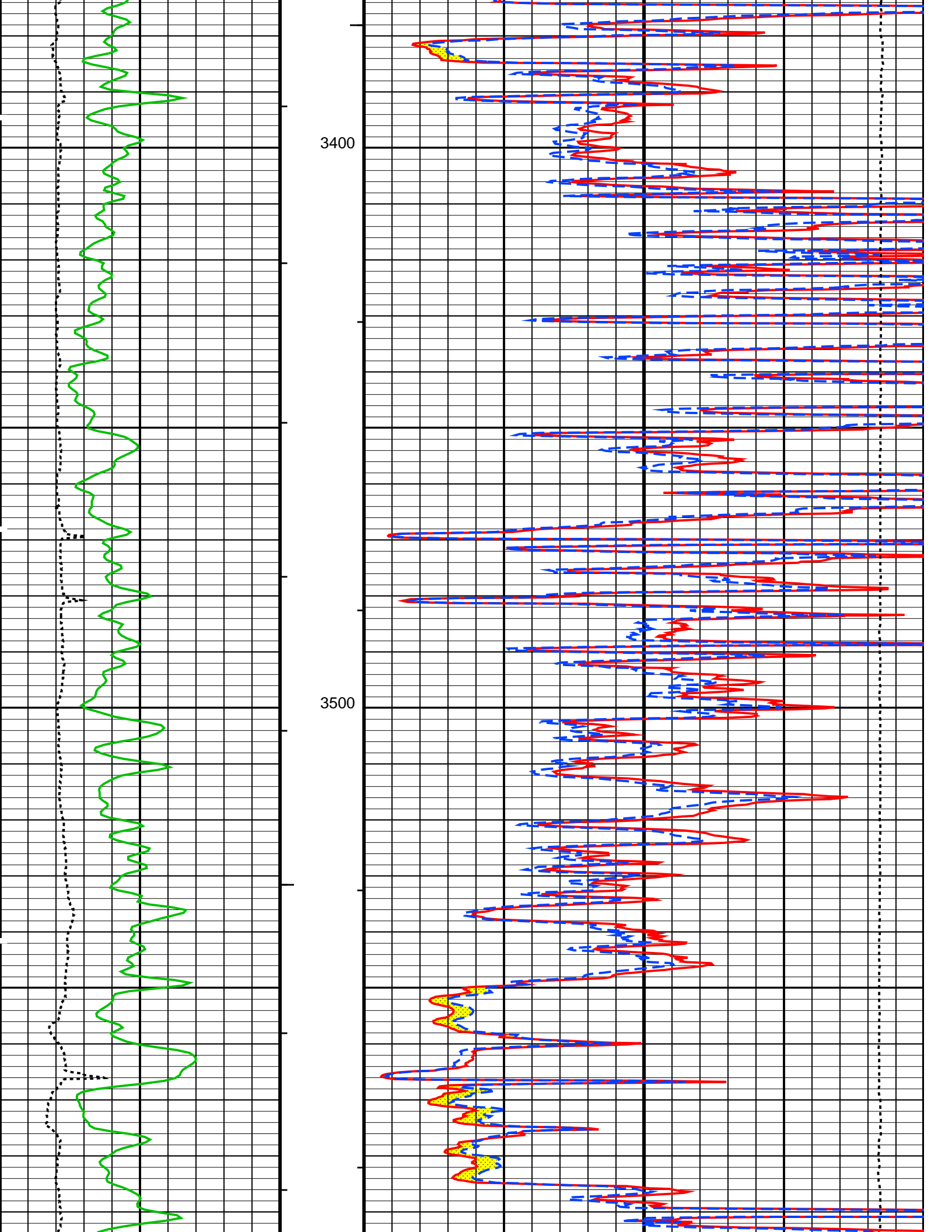


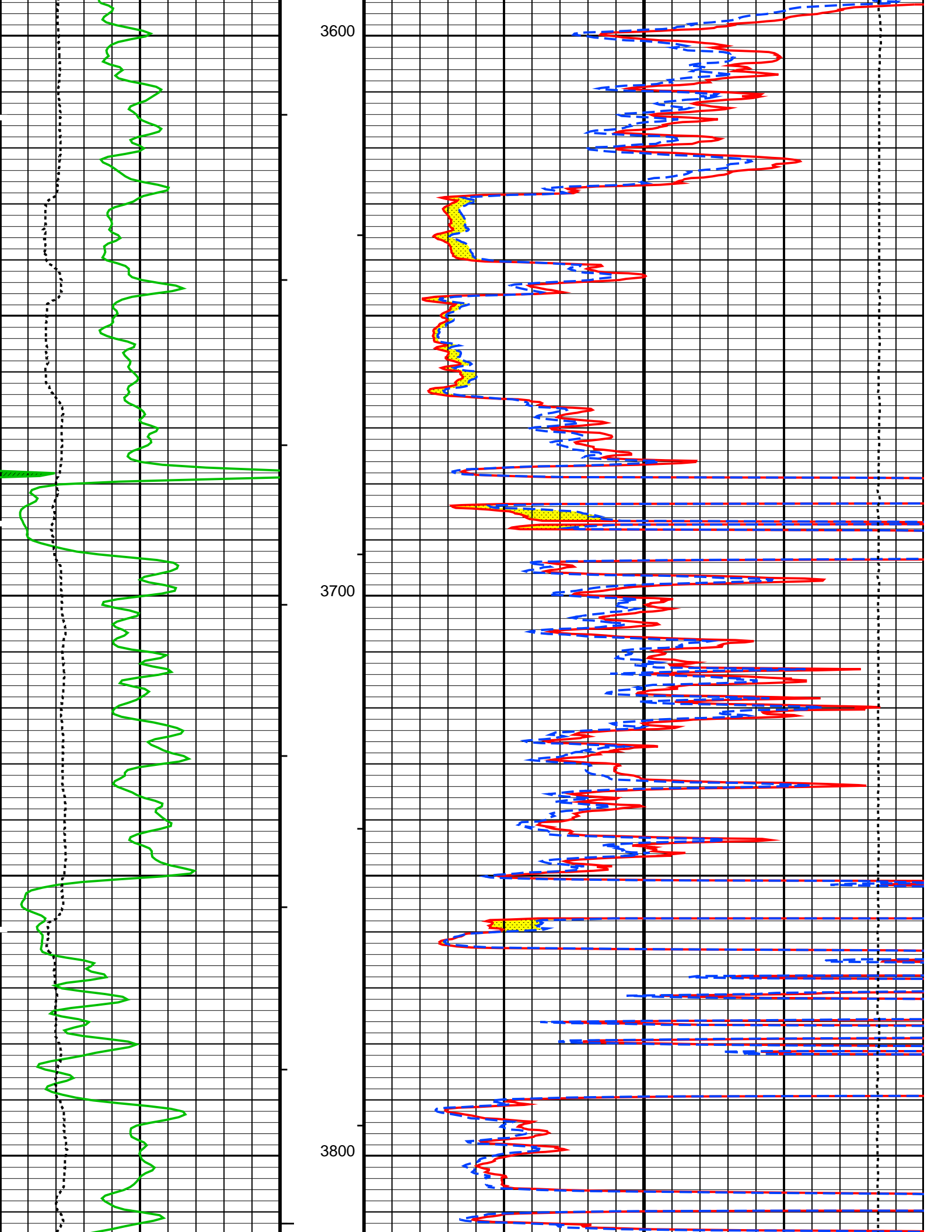


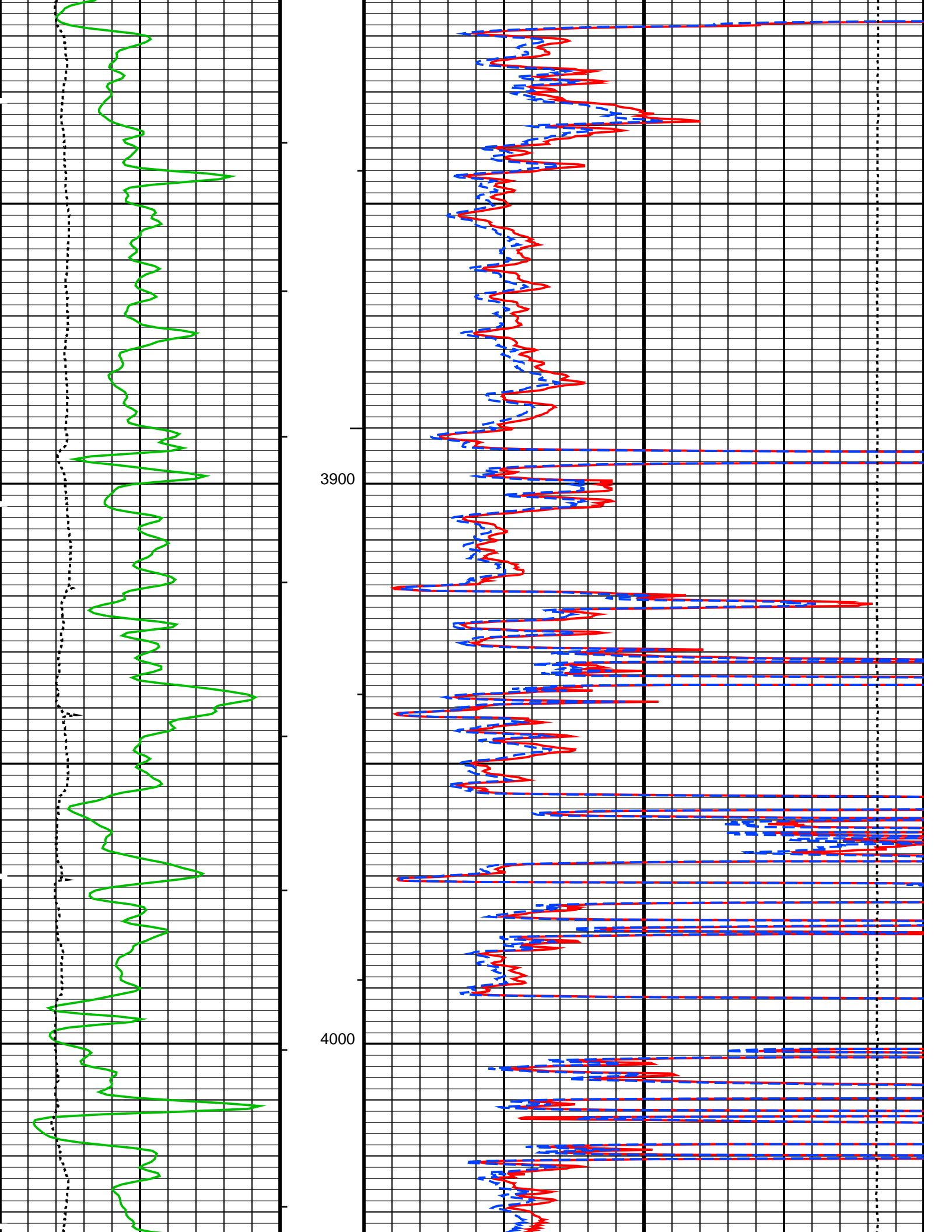


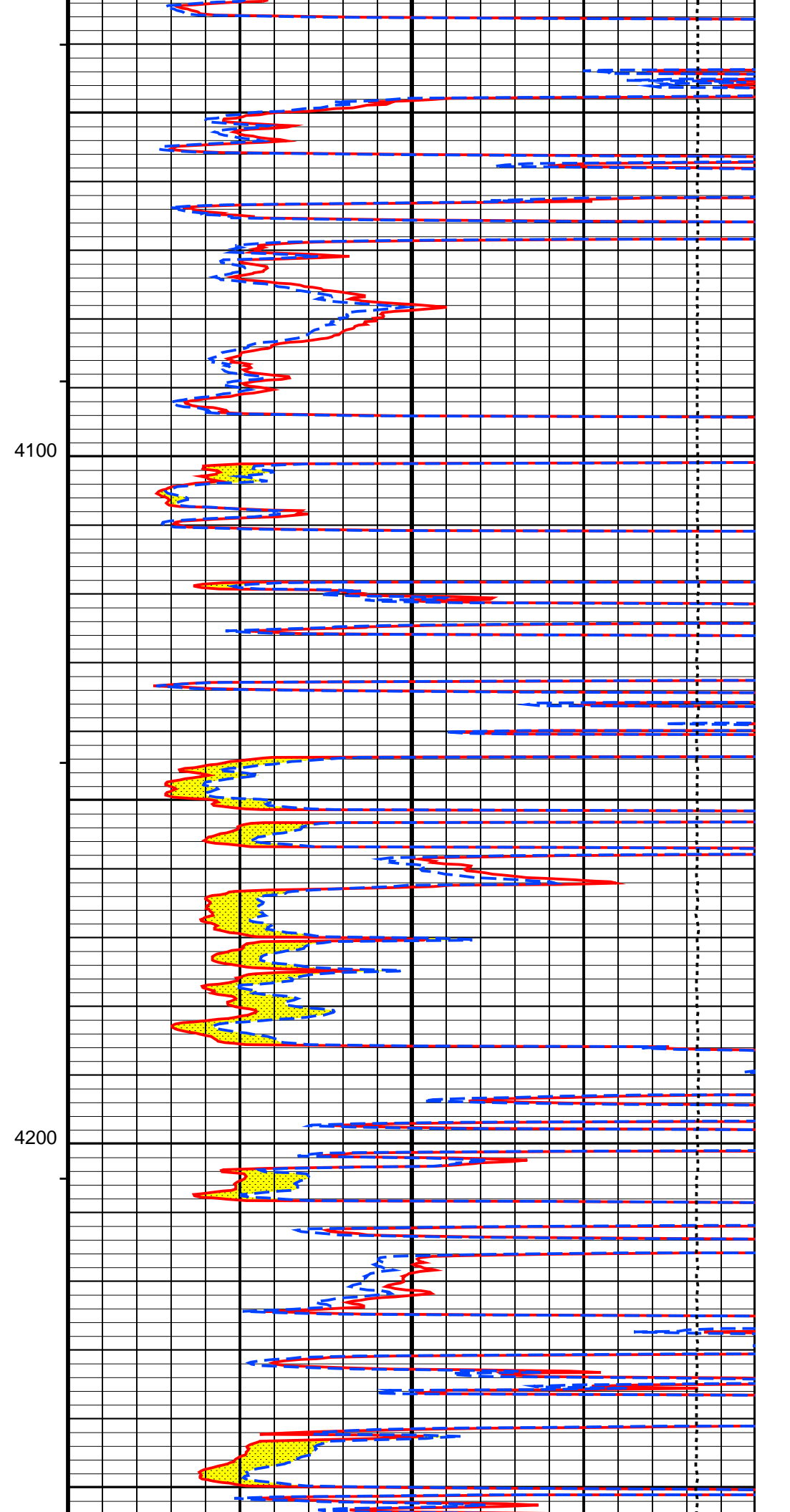
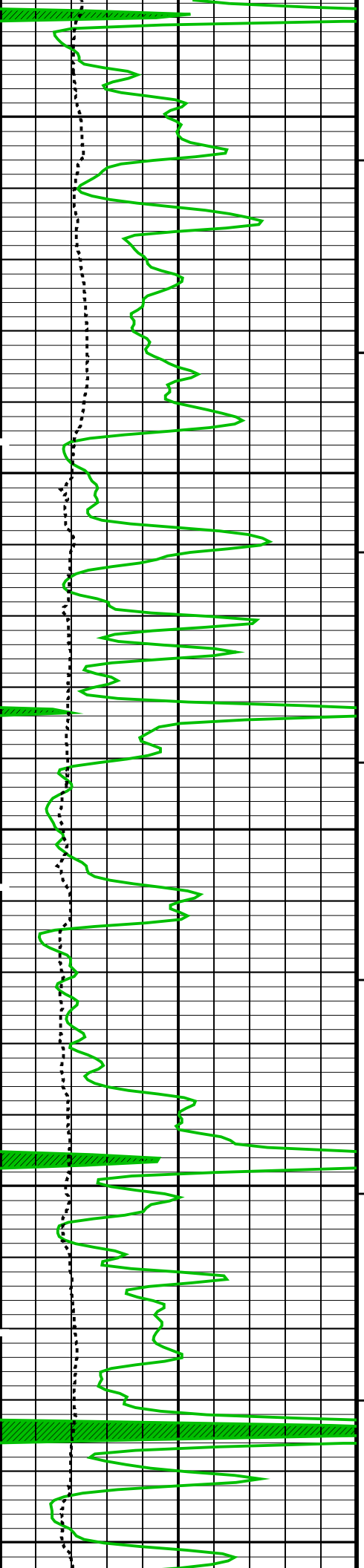


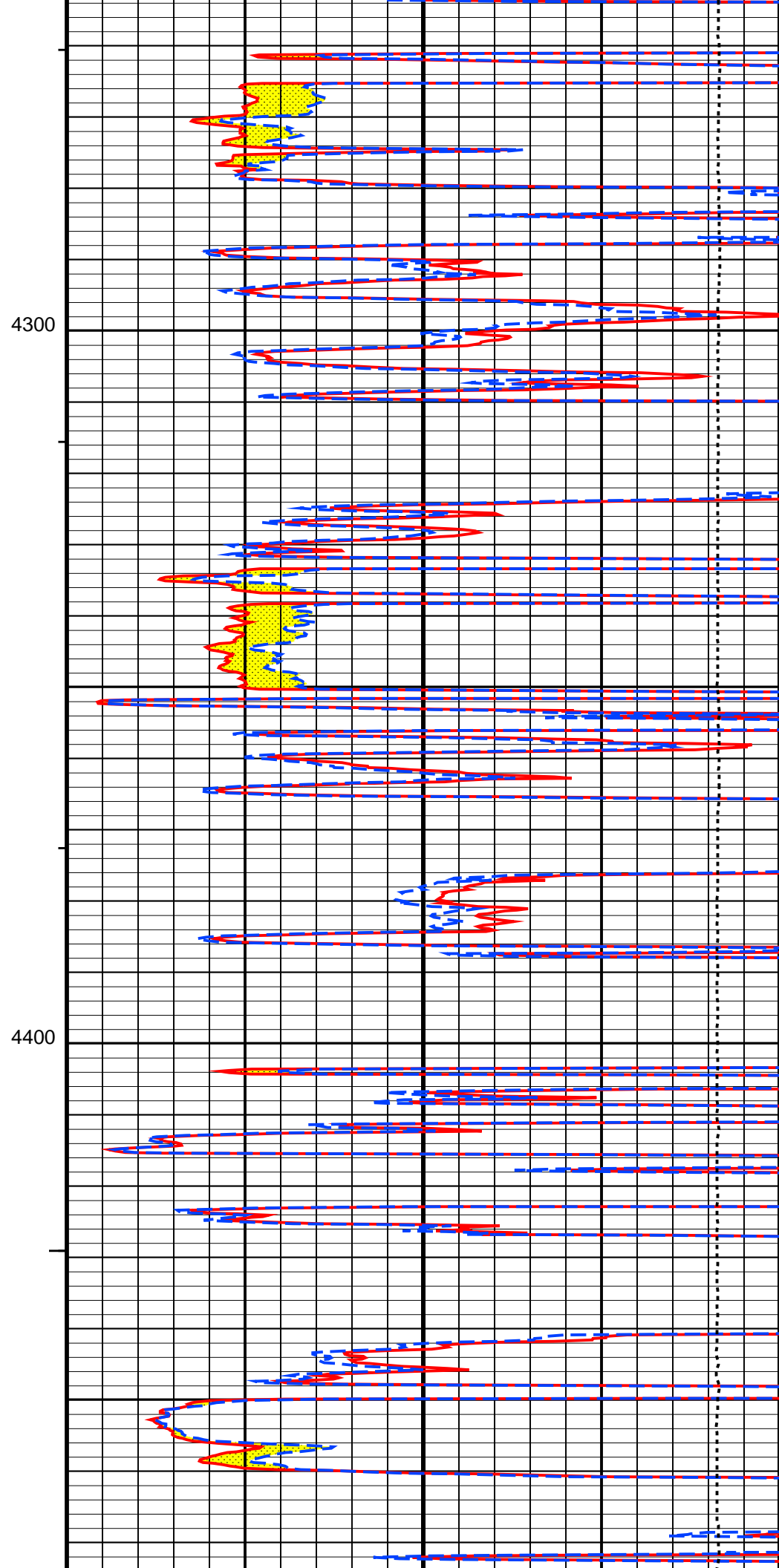
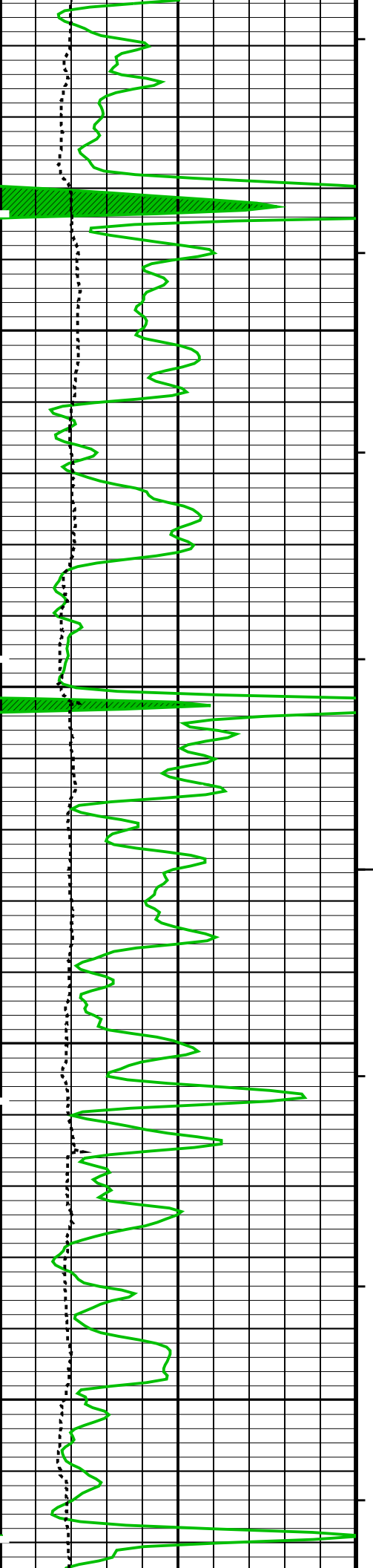




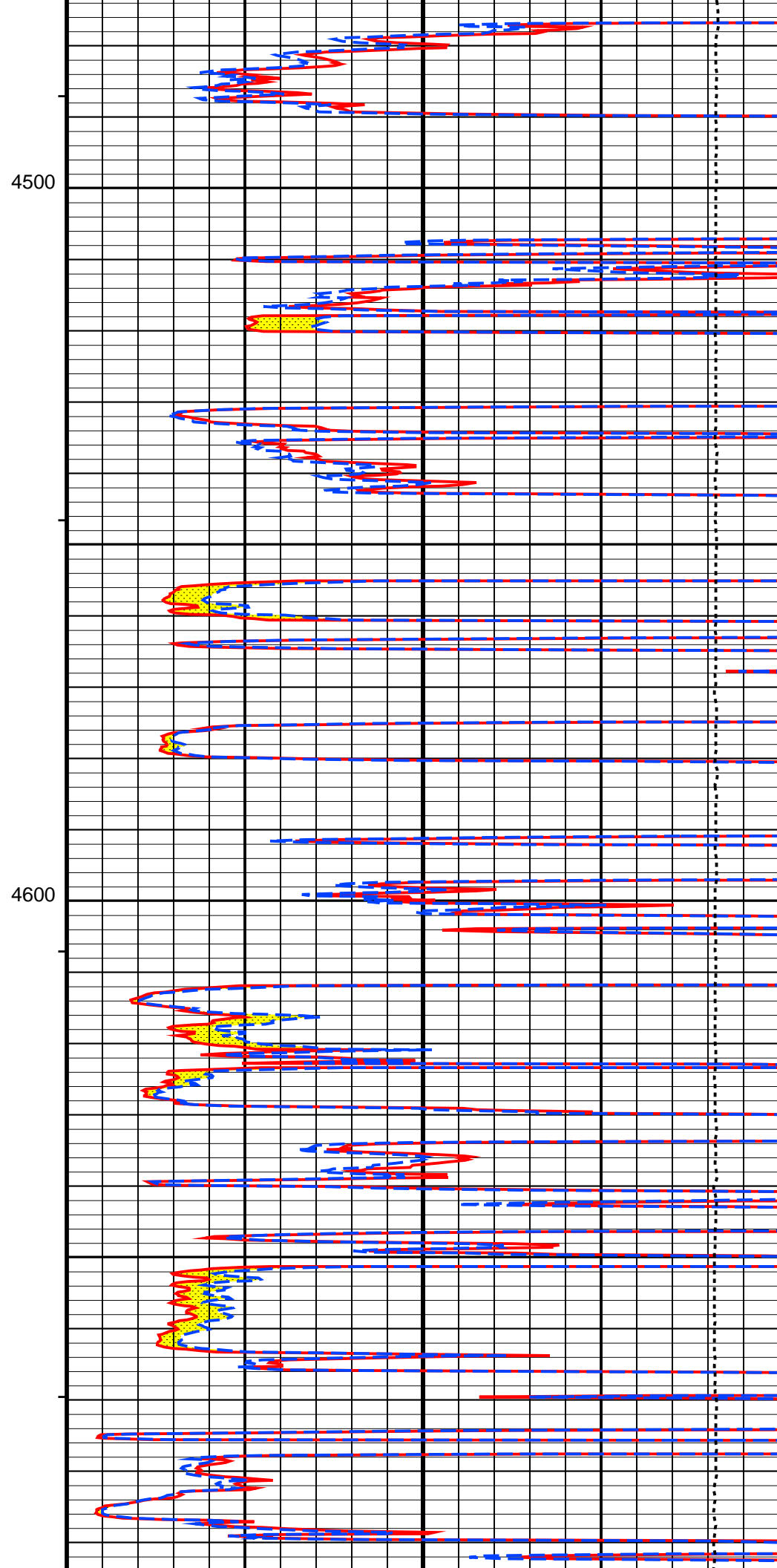
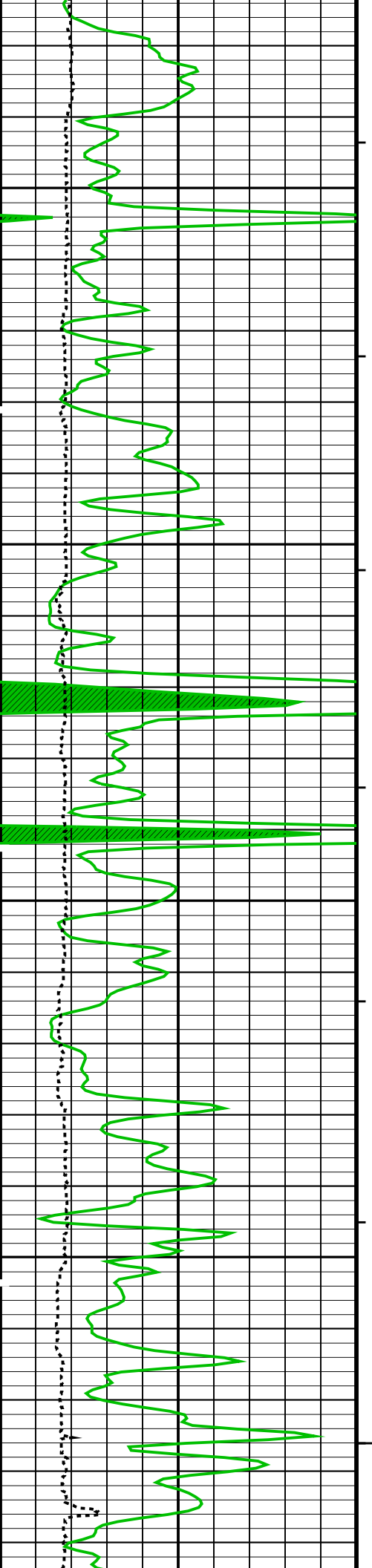


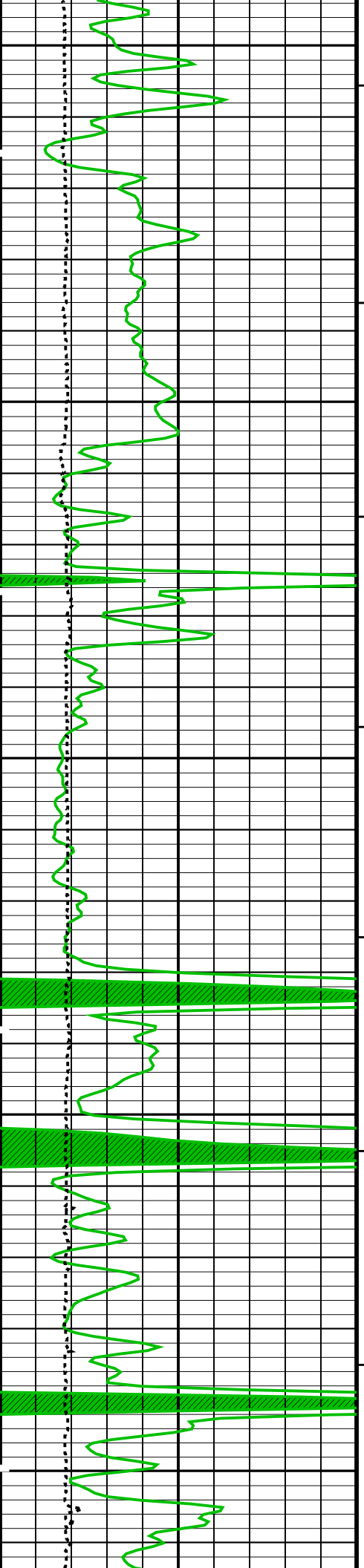








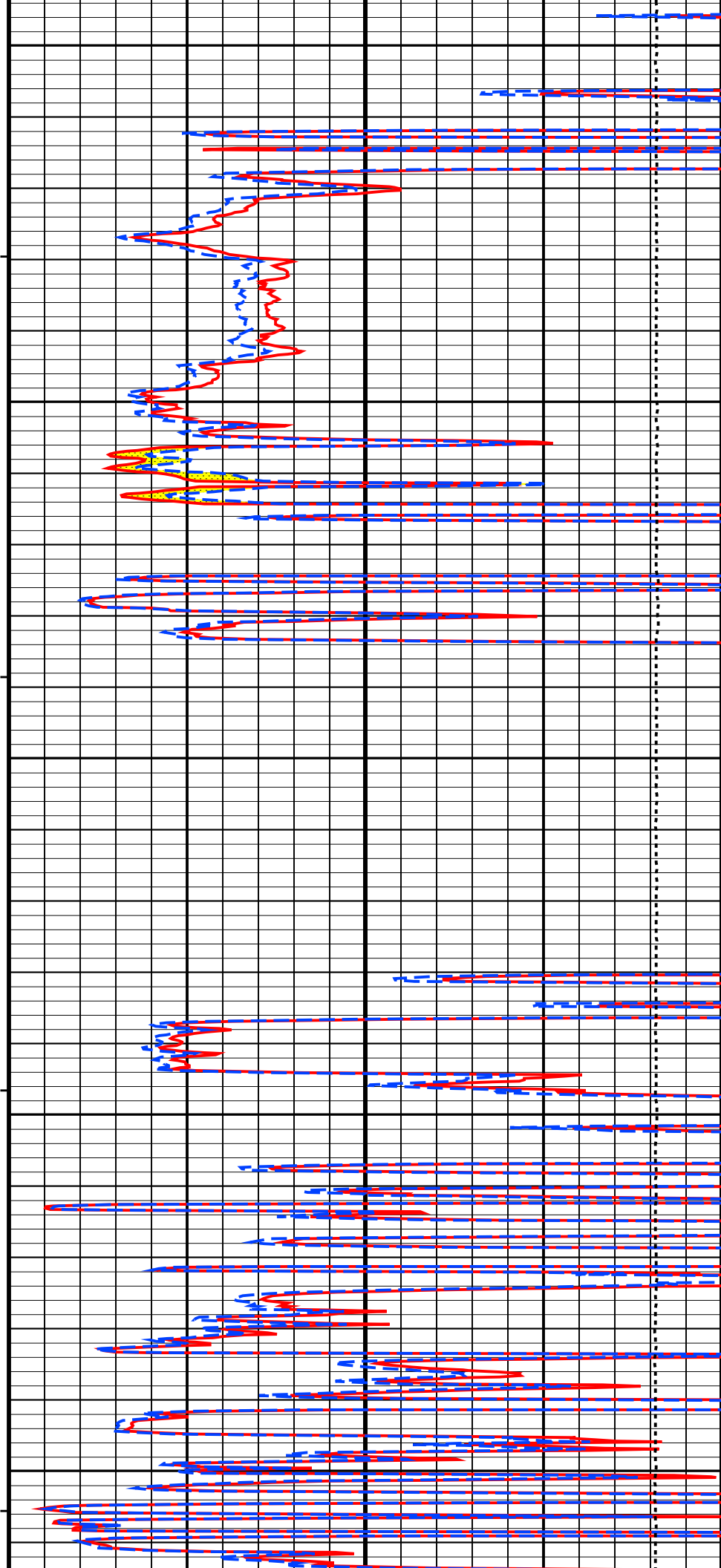


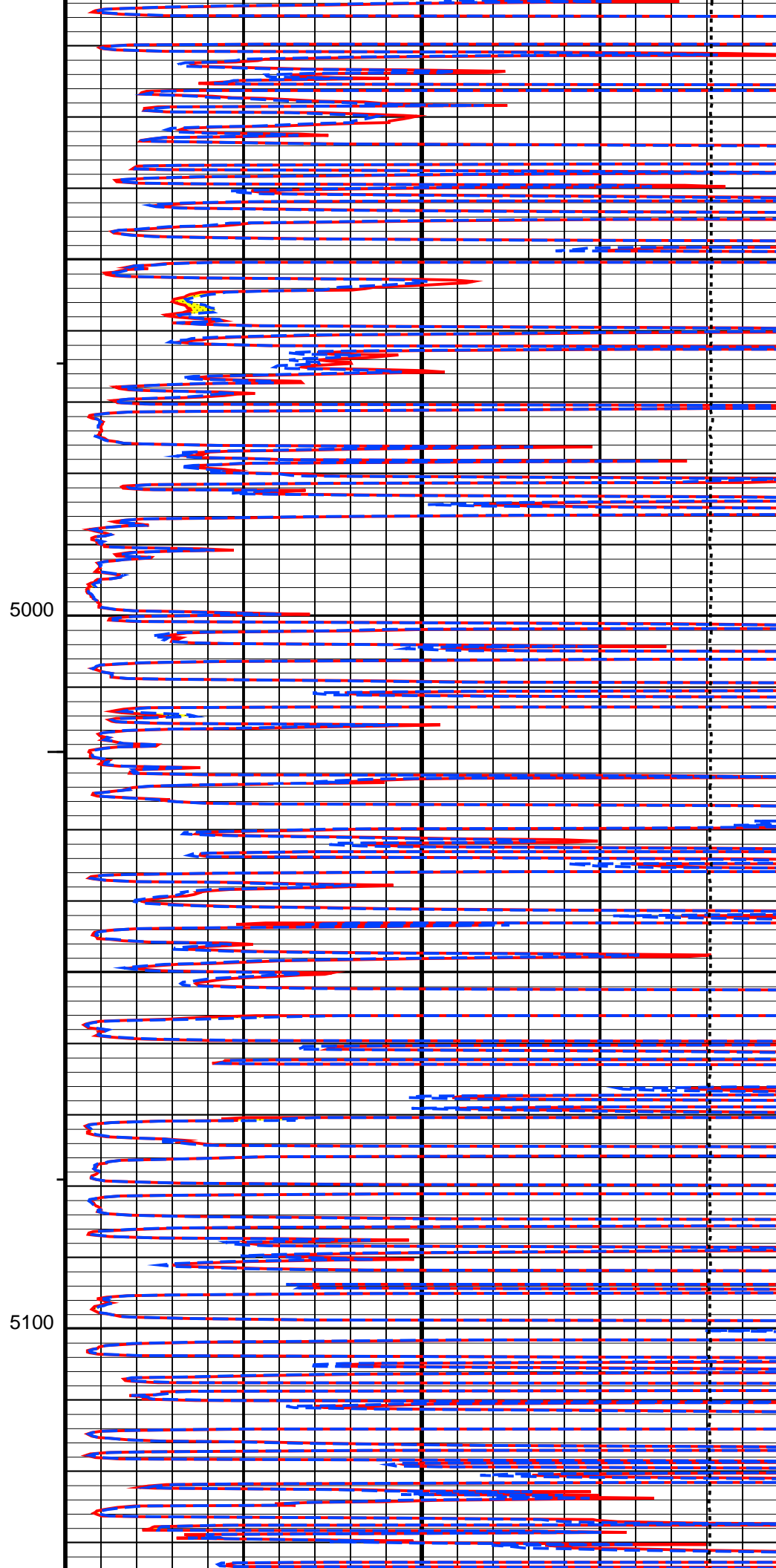
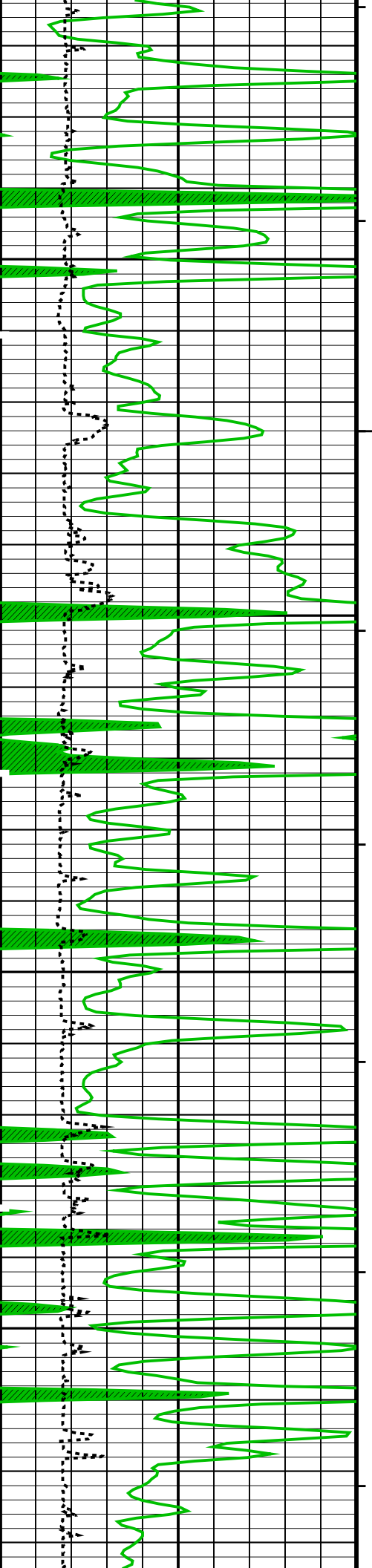


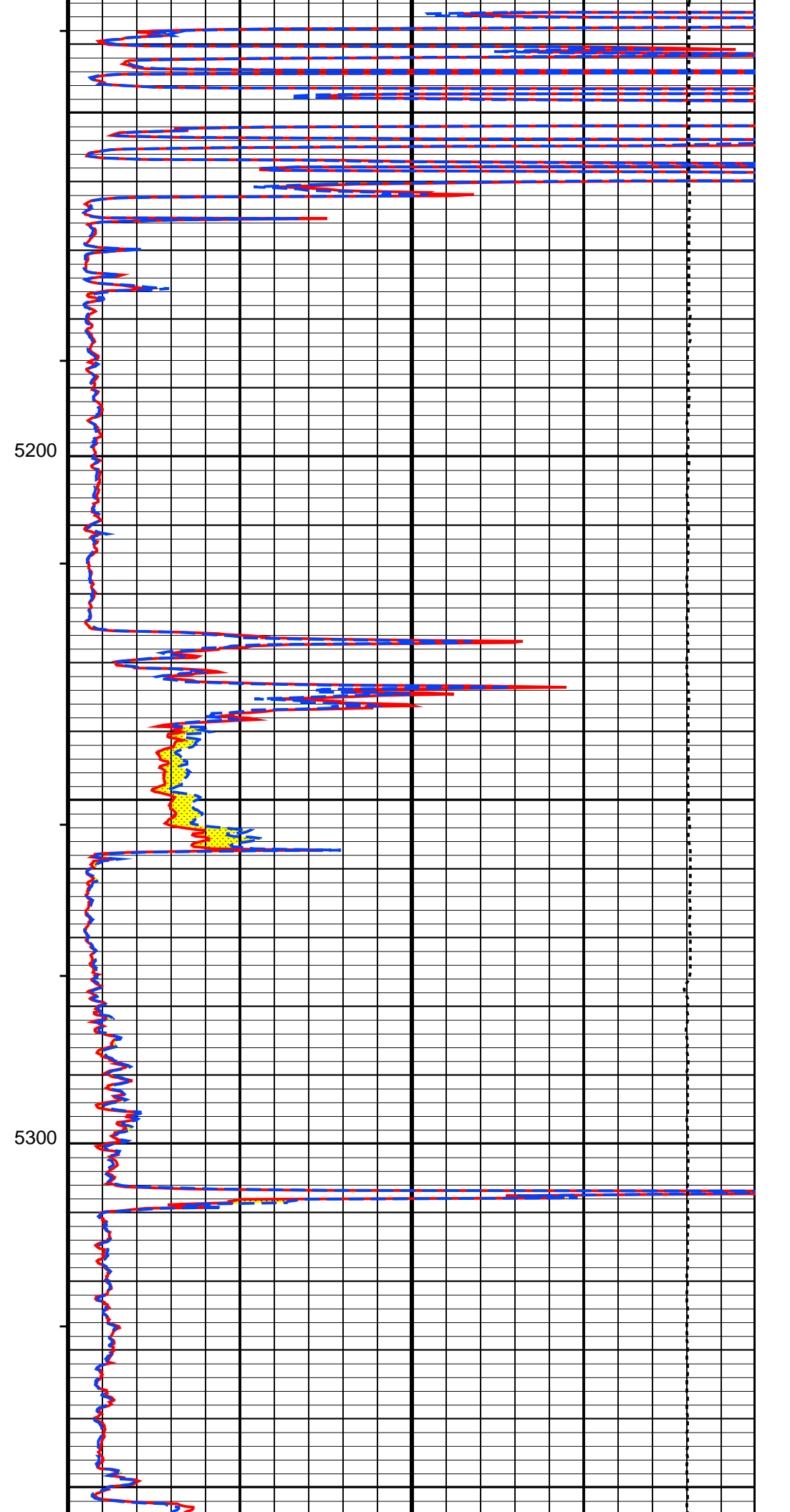
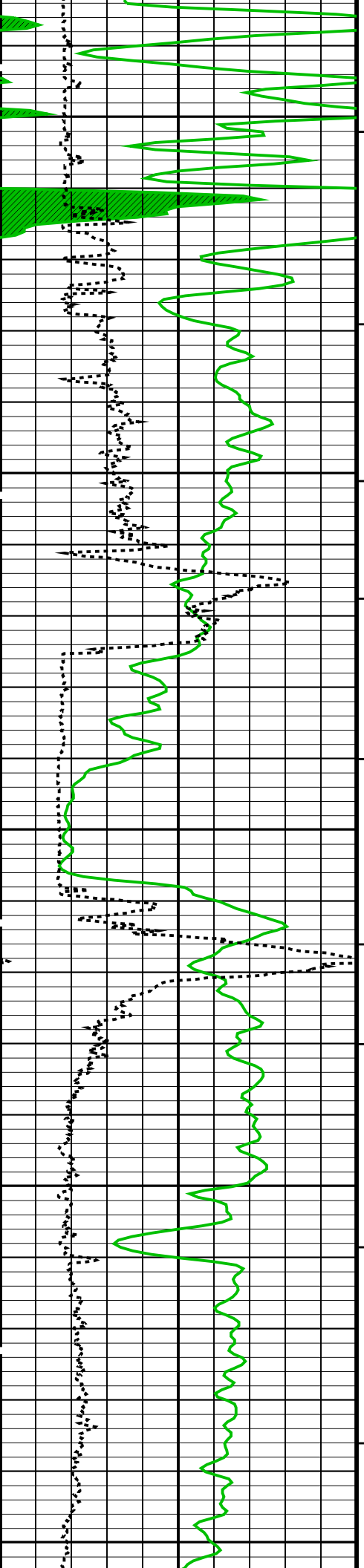
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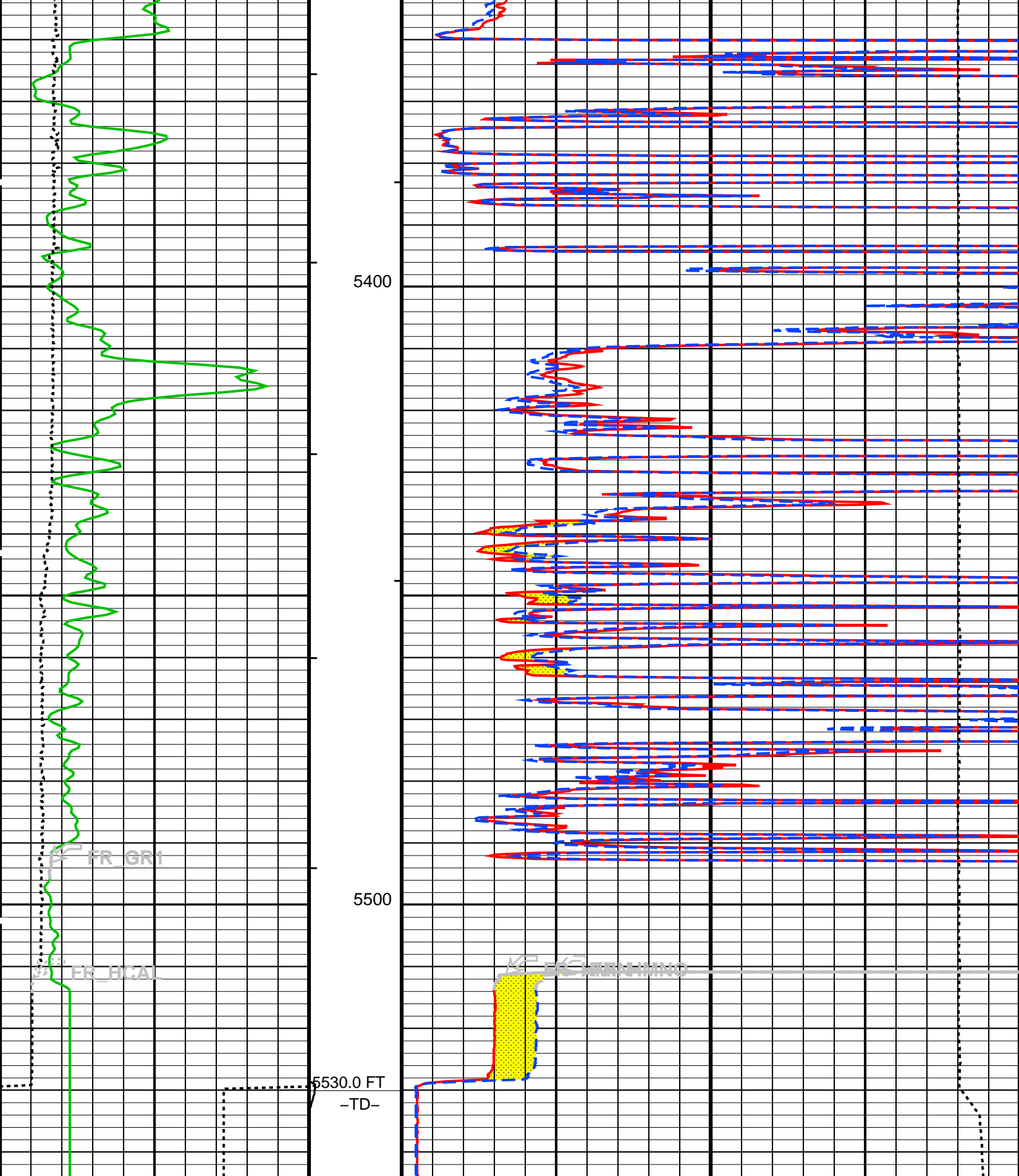
4800

4900









<div>GR BACKUP</div> <div>Gamma Ray (GR) (GAPI)</div> <div>Caliper (HCAL)</div>	Stuck Stretch (STIT)	Computed Micro Inverse (HMIN) (OHMM)	Computed Micro Normal (HMNO) (OHMM)	PERM
	0 (F) 50	0 40	0 40	

(IN)

16

PERM

Tension (TENS)

10000

(LBF)

0

PIP SUMMARY

└ Integrated Hole Volume Minor Pip Every 10 F3

└ Integrated Hole Volume Major Pip Every 100 F3

└ Integrated Cement Volume Minor Pip Every 10 F3

└ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
MPOF	HILTB-CTS: High resolution Integrated Logging Tool-CTS	ON
	MCFL Processing Operation Mode	
	STI: Stuck Tool Indicator	
LBFR	Trigger for MAXIS First Reading Label	TDL
STKT	STI Stuck Threshold	2.5 FT
TDD	Total Depth - Driller	5536.00 FT
TDL	Total Depth - Logger	5530.00 FT
	HOLEV: Integrated Hole/Cement Volume	
FCD	Future Casing (Outer) Diameter	5.5 IN
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC
	System and Miscellaneous	
BS	Bit Size	7.875 IN
DORL	Depth Offset for Repeat Analysis	0.0 FT
TD	Total Depth	5530 FT

Format: MLT

Vertical Scale: 5" per 100'

Graphics File Created: 07-Jan-2011 22:18

OP System Version: 18C0-147

HILTB-CTS

18C0-147

Output DLIS Files

DEFAULT

AIT\_TLD\_MCFL\_CNL\_010LUP

FN:9

PRODUCER

07-Jan-2011 22:18

Schlumberger

Repeat Analysis

MAXIS Field Log

Input DLIS Files

DEFAULT

AIT\_TLD\_MCFL\_CNL\_009PUP

FN:8

PRODUCER

07-Jan-2011 22:15

5547.0 FT

4846.0 FT

Output DLIS Files

DEFAULT

AIT\_TLD\_MCFL\_CNL\_010LUP

FN:9

PRODUCER

07-Jan-2011 22:18

OP System Version: 18C0-147

HILTB-CTS

18C0-147

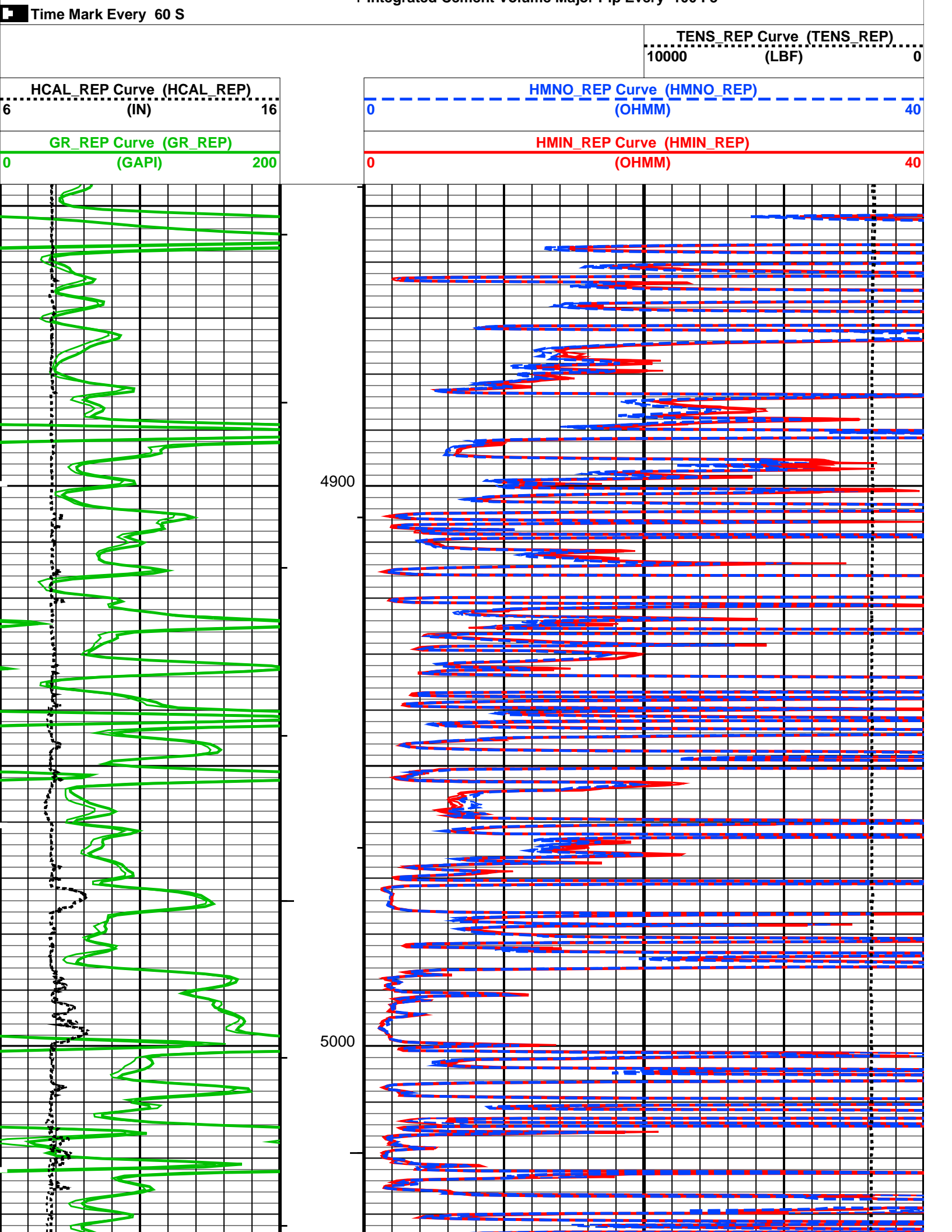
PIP SUMMARY

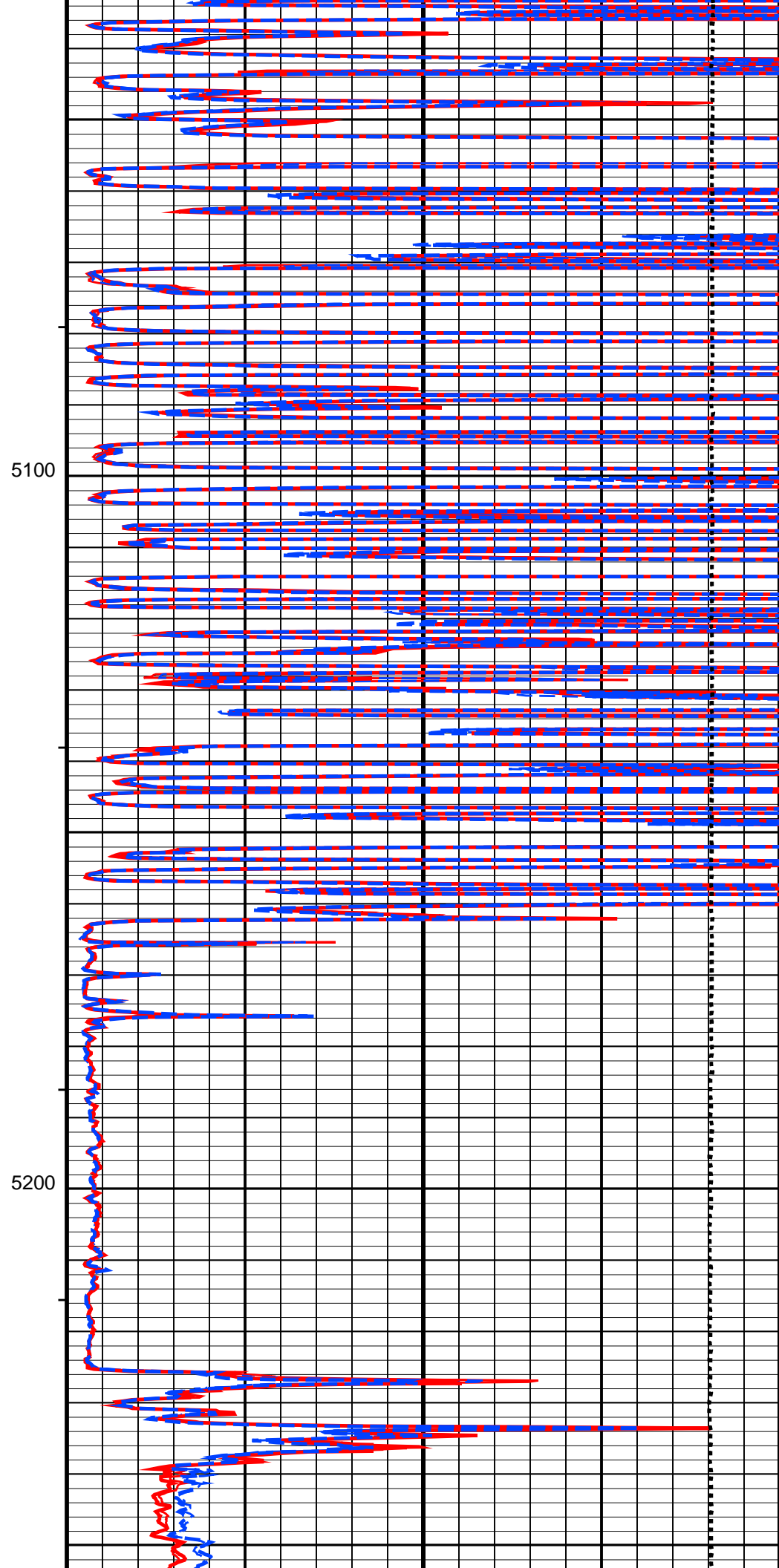
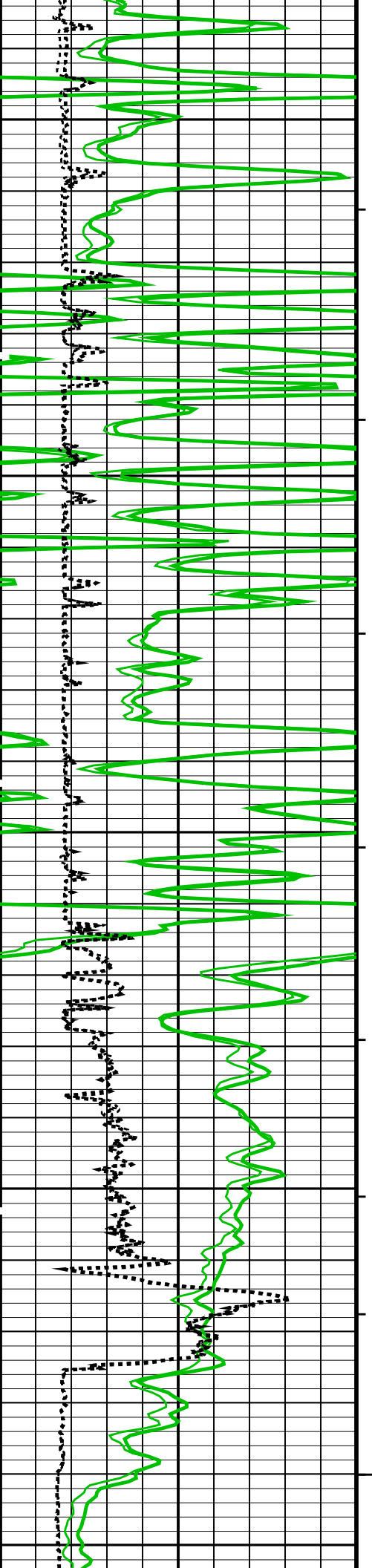
└ Integrated Hole Volume Minor Pip Every 10 F3

└ Integrated Hole Volume Major Pip Every 100 F3

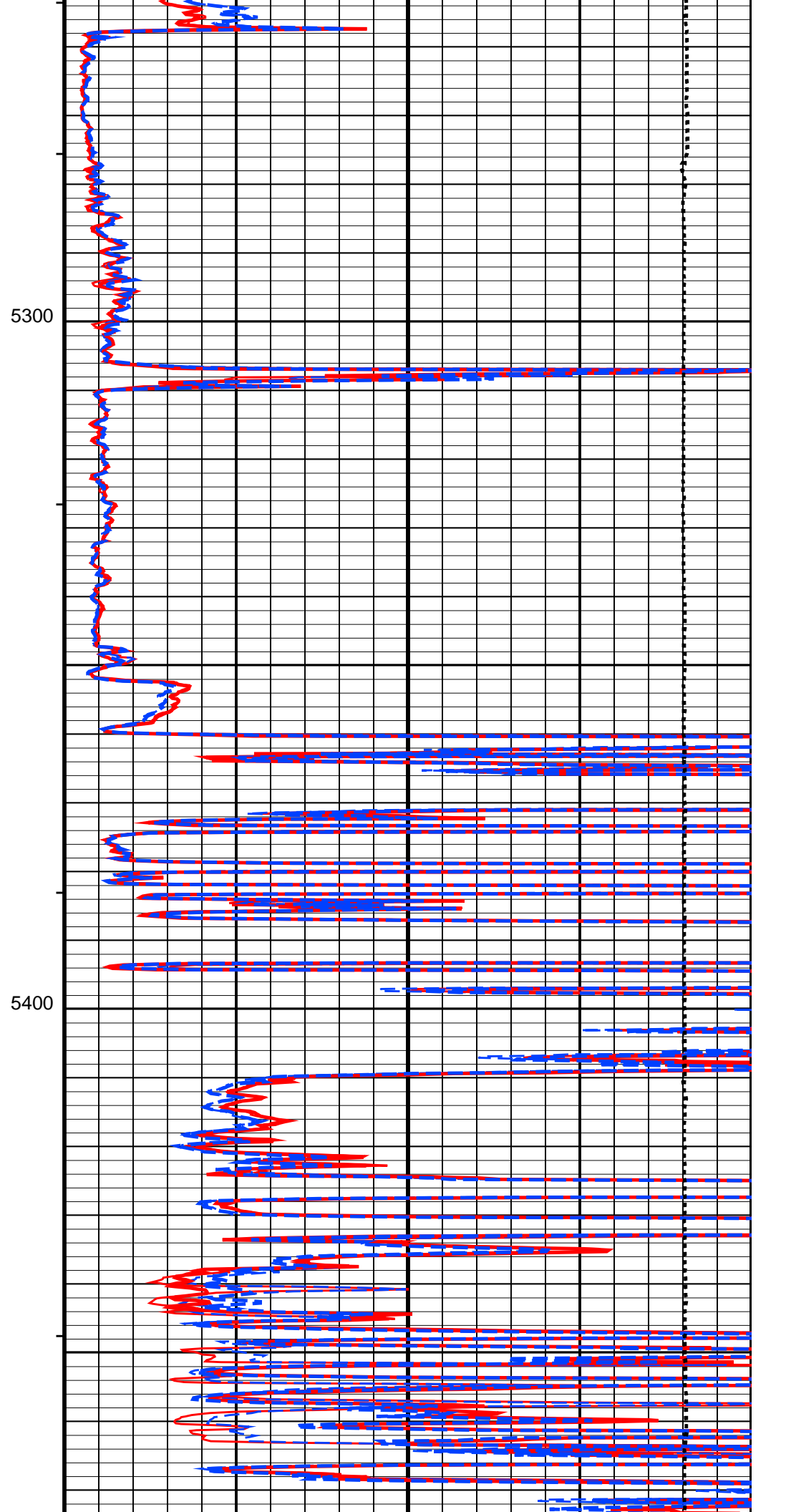
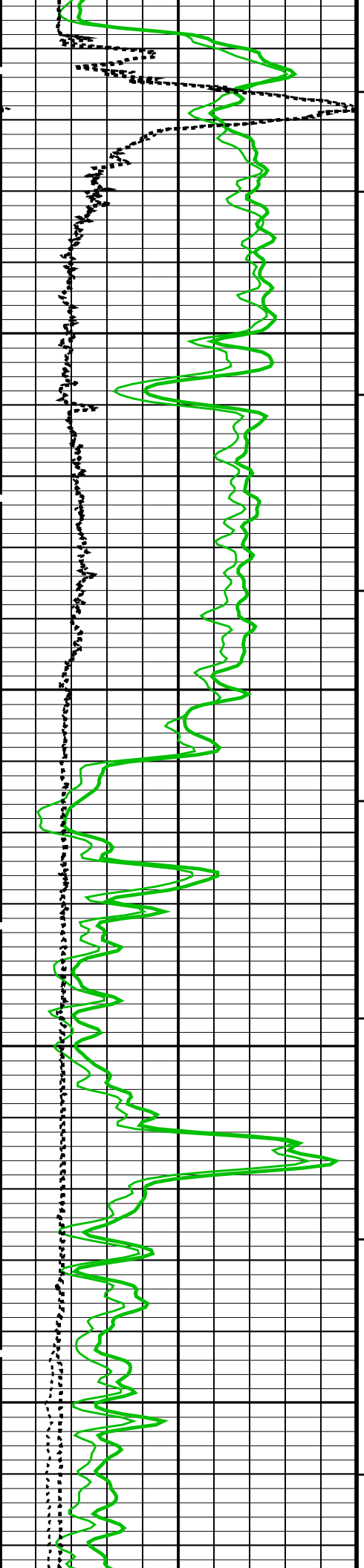
└ Integrated Cement Volume Minor Pip Every 10 F3

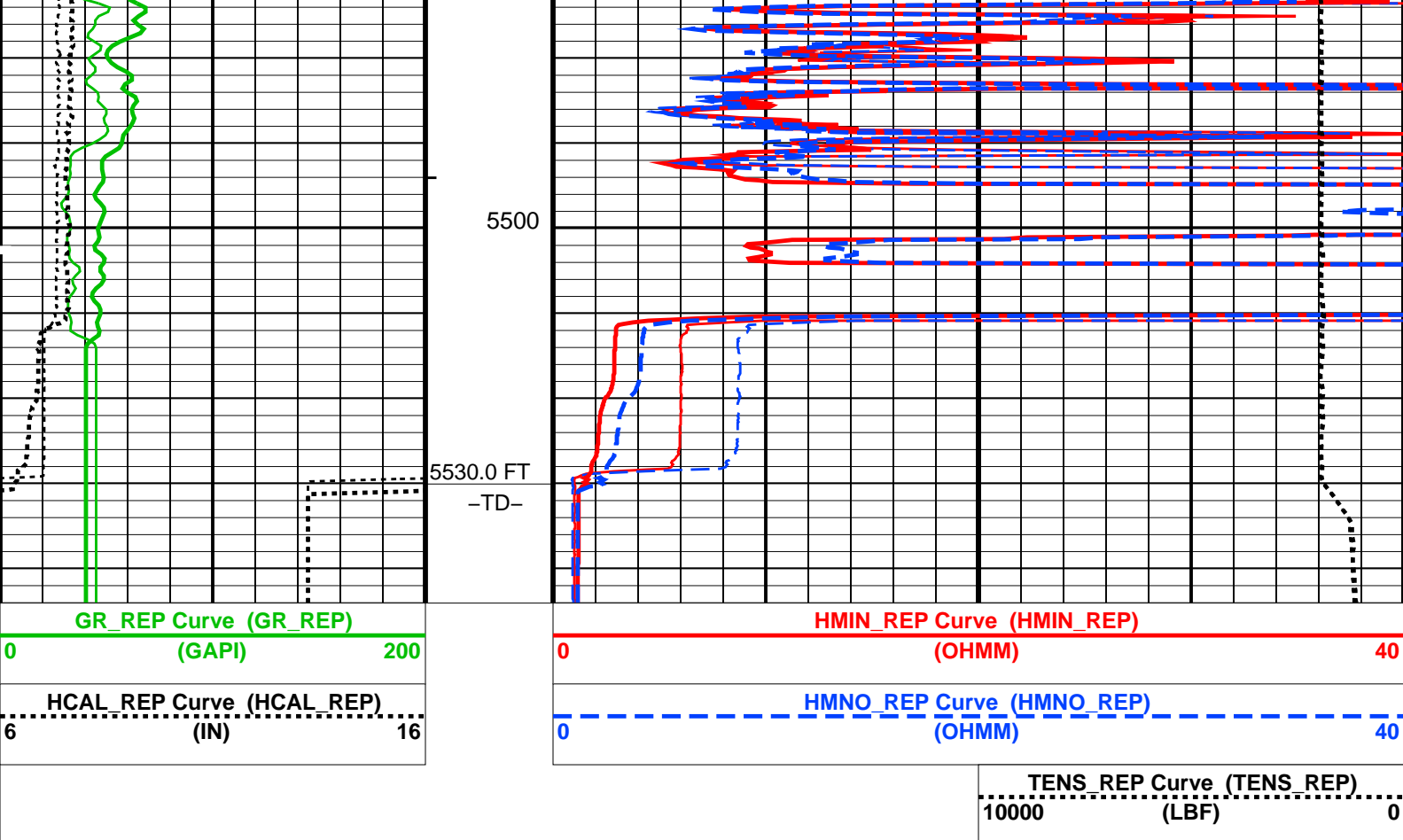
└ Integrated Cement Volume Major Pip Every 100 F3











#### PIP SUMMARY

- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
  - └ Integrated Cement Volume Minor Pip Every 10 F3
  - └ Integrated Cement Volume Major Pip Every 100 F3

Time Mark Every 60 S

#### Parameters

DLIS Name	Description	Value
MPOF	HILTB-CTS: High resolution Integrated Logging Tool-CTS MCFL Processing Operation Mode	ON
FCD	HOLEV: Integrated Hole/Cement Volume	5.5 IN
HVCS	Future Casing (Outer) Diameter Integrated Hole Volume Caliper Selection	AUTOMATIC
BS	System and Miscellaneous Bit Size	7.875 IN
DORL	Depth Offset for Repeat Analysis	0.0 FT
TD	Total Depth	5530 FT

Format: MLT\_REP Vertical Scale: 5" per 100'

Graphics File Created: 07-Jan-2011 22:18

#### OP System Version: 18C0-147

HILTB-CTS 18C0-147

#### Input DLIS Files

DEFAULT AIT\_TLD\_MCFL\_CNL\_009PUP FN:8 PRODUCER 07-Jan-2011 22:15 5547.0 FT 4846.0 FT

#### Output DLIS Files

DEFAULT AIT\_TLD\_MCFL\_CNL\_010LUP FN:9 PRODUCER 07-Jan-2011 22:18

## MAXIS Field Log

## Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
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## High resolution Integrated Logging Tool–CTS Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. &amp; Phase

Master: 15–Oct–2010 18:37 Before: 7–Jan–2011 9:20

Thru Cal Magnitude – 0	0	0.6273	0.6271	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.286	1.285	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6373	0.6369	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.7236	0.7235	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.349	1.349	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.948	1.948	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.944	1.944	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.380	1.383	N/A	N/A	N/A	V
Phase – 0	0	74.27	74.90	N/A	N/A	N/A	DEG
Phase – 1	0	73.26	73.89	N/A	N/A	N/A	DEG
Phase – 2	0	69.06	69.72	N/A	N/A	N/A	DEG
Phase – 3	0	68.16	68.82	N/A	N/A	N/A	DEG
Phase – 4	0	61.18	61.87	N/A	N/A	N/A	DEG
Phase – 5	0	59.00	59.73	N/A	N/A	N/A	DEG
Phase – 6	0	59.07	59.79	N/A	N/A	N/A	DEG
Phase – 7	0	53.37	54.34	N/A	N/A	N/A	DEG

## High resolution Integrated Logging Tool–CTS Wellsite Calibration – Electronics Calibration Check – Auxilliary

Master: 15–Oct–2010 18:37 Before: 7–Jan–2011 9:20

Array Induction SPA Plus	990.5	992.7	993.6	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	–0.03691	–0.08047	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9150	0.9196	0.9204	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	–0.00004114	–0.00007260	N/A	N/A	N/A	V

## High resolution Integrated Logging Tool–CTS Wellsite Calibration – Test Loop Gain Correction

Master: 15–Oct–2010 18:37

Test Loop Gain Magnitude – 0	0	1.022	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 1	0	1.035	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 2	0	1.021	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 3	0	1.020	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 4	0	1.000	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 5	0	0.9901	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 6	0	0.9987	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 7	0	1.016	N/A	N/A	N/A	N/A	V
Phase – 0	0	0.4239	N/A	N/A	N/A	N/A	DEG
Phase – 1	0	0.5409	N/A	N/A	N/A	N/A	DEG
Phase – 2	0	–0.06263	N/A	N/A	N/A	N/A	DEG
Phase – 3	0	0.03454	N/A	N/A	N/A	N/A	DEG
Phase – 4	0	–0.1758	N/A	N/A	N/A	N/A	DEG
Phase – 5	0	–0.1320	N/A	N/A	N/A	N/A	DEG
Phase – 6	0	0.1953	N/A	N/A	N/A	N/A	DEG
Phase – 7	0	–0.2054	N/A	N/A	N/A	N/A	DEG

## High resolution Integrated Logging Tool–CTS Wellsite Calibration – Sonde Error Correction

Master: 15–Oct–2010 18:37

R Sonde Error Correction – 0	0	–84.06	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	173.5	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	115.0	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	60.64	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	24.06	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	15.52	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	12.66	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	–3.102	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	52.00	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	170.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	39.80	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	45.14	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	–10.30	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	3.750	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	7.097	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	3.539	N/A	N/A	N/A	N/A	MM/M

High resolution Integrated Logging Tool–CTS Wellsite Calibration – Mud Gain Correction							
Master: 15–Oct–2010 18:37							
Coarse – Mag, Real, Imag – 0	0	0.9207	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 1	0	0.9208	N/A	N/A	N/A	N/A	
Coarse – Mag, Real, Imag – 2	0	0.9208	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 0	0	0.9207	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 1	0	0.9207	N/A	N/A	N/A	N/A	
Fine – Mag, Real, Imag – 2	0	0.9207	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–CTS Wellsite Calibration – Stab Measurement Summary							
Before: 7–Jan–2011 9:35							
BS Window Ratio	0.7136	N/A	0.7128	N/A	N/A	N/A	
BS Window Sum	8411	N/A	8415	N/A	N/A	N/A	CPS
SS Window Ratio	0.4935	N/A	0.4907	N/A	N/A	N/A	
SS Window Sum	9506	N/A	9508	N/A	N/A	N/A	CPS
LS Window Ratio	0.2934	N/A	0.2928	N/A	N/A	N/A	
LS Window Sum	998.6	N/A	994.9	N/A	N/A	N/A	CPS
High resolution Integrated Logging Tool–CTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations							
Before: 7–Jan–2011 9:35							
BS PM High Voltage (Command)	1511	N/A	1510	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1731	N/A	1725	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1489	N/A	1491	N/A	N/A	N/A	V
High resolution Integrated Logging Tool–CTS Wellsite Calibration – Crystal Quality Resolutions Calibration							
Before: 7–Jan–2011 9:35							
BS Crystal Resolution	10.34	N/A	10.41	N/A	N/A	N/A	%
SS Crystal Resolution	10.04	N/A	9.975	N/A	N/A	N/A	%
LS Crystal Resolution	10.26	N/A	10.13	N/A	N/A	N/A	%
High resolution Integrated Logging Tool–CTS Wellsite Calibration – MCFL Calibration							
Before: 7–Jan–2011 9:36							
Raw B0 Resistivity	3875	N/A	3854	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3794	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3793	N/A	N/A	N/A	OHMM
High resolution Integrated Logging Tool–CTS Wellsite Calibration – HILT Caliper Calibration							
Before: 7–Jan–2011 9:19							
HILT Caliper Zero Measurement	8.000	N/A	8.080	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.23	N/A	N/A	N/A	IN
High resolution Integrated Logging Tool–CTS Wellsite Calibration – Detector Calibration							
Before: 7–Jan–2011 9:19							
Gamma Ray Background	30.00	N/A	78.81	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	177.7	N/A	N/A	15.00	GAPI
High resolution Integrated Logging Tool–CTS Wellsite Calibration – Zero Measurement							
Master: 27–Dec–2010 15:55 Before: 7–Jan–2011 9:20							
CNTC Background	26.75	26.75	27.83	N/A	N/A	4.013	CPS
CFTC Background	26.84	26.84	26.39	N/A	N/A	4.026	CPS
High resolution Integrated Logging Tool–CTS Wellsite Calibration – Ratio Measurement							
Master: 27–Dec–2010 15:55							
Thermal Near Corr. (Tank)	5800	5587	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2310	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.419	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–CTS Wellsite Calibration – Accelerometer Calibration							
Before: 7–Jan–2011 21:31							
Z–Axis Acceleration	32.19	N/A	31.81	N/A	N/A	N/A	F/S2
High resolution Integrated Logging Tool–CTS Master Calibration – Inversion results							
Master: 3–Jan–2011 12:29							
Rho Aluminum	2.596	2.601	---	---	---	---	G/C3
Rho Magnesium	1.686	1.688	---	---	---	---	G/C3
Pe Aluminum	2.570	2.549	---	---	---	---	
Pe Magnesium	2.650	2.625	---	---	---	---	
High resolution Integrated Logging Tool–CTS Master Calibration – Deviation Summary							
Master: 3–Jan–2011 12:29							
BS Average Deviation	0	0.4353	---	---	---	---	%
BS Max Deviation	0	0.8132	---	---	---	---	%
SS Average Deviation	0	0.3792	---	---	---	---	%
SS Max Deviation	0	1.774	---	---	---	---	%
LS Average Deviation	0	0.6869	---	---	---	---	%
LS Max Deviation	0	1.567	---	---	---	---	%

The GLS-VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT-B Water Temperature    48.7    DEGF.  
Thermal Housing Size        3.362 IN.  
NSR-F serial number        5068

































High resolution Integrated Logging Tool-CTS / Equipment Identification









Primary Equipment:

















Array Induction Tool – H  
Rm/SP Bottom Nose  
Array Induction Sonde  
HILT high-Resolution Mechanical Sonde  
HILT Rxo Gamma-ray Device  
HILT Micro Cylindrically Focused Log Dev  
GR Logging Source  
HILT High Res. Control Cartridge

AIT – H  
AHRM – A  
AHIS – BA        398  
HRMS – B  
HRGD – B  
MCFL –  
GLS – VJ        5416  
HRCC – B

Auxiliary Equipment:

















High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6273		0.6050	74.27		71.00
	Before	0.6271			74.90		
1	Master	1.286		1.270	73.26		70.00
	Before	1.285			73.89		
2	Master	0.6373		0.6230	69.06		66.00
	Before	0.6369			69.72		
3	Master	0.7236		0.7040	68.16		65.00
	Before	0.7235			68.82		
4	Master	1.349		1.337	61.18		59.00
	Before	1.349			61.87		
5	Master	1.948		1.955	59.00		57.00
	Before	1.948			59.73		
6	Master	1.944		1.955	59.07		57.00
	Before	1.944			59.79		
7	Master	1.380		1.415	53.37		53.00
	Before	1.383			54.34		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 15-Oct-2010 18:37				Before: 7-Jan-2011 9:20			

High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Electronics Calibration Check – Auxilliary							
Phase	Array Induction SPA Plus MV		Value	Phase	Array Induction SPA Zero MV		Value
Master			992.7	Master			-0.03691
Before			993.6	Before			-0.08047
941.0 (Minimum)			990.5 (Nominal)	1040 (Maximum)	-50.00 (Minimum)      0 (Nominal)      50.00 (Maximum)		
Phase	Array Induction Temperature Plus V		Value	Phase	Array Induction Temperature Zero V		Value
Master			0.9196	Master			-4.114E-00
Before			0.9204	Before			-7.260E-00
0.8700 (Minimum)			0.9150 (Nominal)	0.9600 (Maximum)	-0.05000 (Minimum)      0 (Nominal)      0.05000 (Maximum)		



High resolution Integrated Logging Tool—CTS Wellsite Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude V			Value	Phase DEG	
0	1.022				0.4239		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.035				0.5409		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.021				-0.06263		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.020				0.03454		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.000				-0.1758		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9901				-0.1320		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9987				0.1953		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.016				-0.2054		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)





Master: 15-Oct-2010 18:37

Master: 15-Oct-2010 18:37

High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M	
0	-84.06				52.00		
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal) 2250 (Maximum)
1	173.5				170.3		
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal) 625.0 (Maximum)
2	115.0				39.80		
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal) 350.0 (Maximum)
3	60.64				45.14		
		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		-250.0 (Minimum)	0 (Nominal) 250.0 (Maximum)
4	24.06				-10.30		
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal) 63.00 (Maximum)
5	15.52				3.750		
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal) 50.00 (Maximum)
6	12.66				7.097		
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal) 30.00 (Maximum)
7	-3.102				3.539		
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal) 30.00 (Maximum)







Master: 15-Oct-2010 18:37

High resolution Integrated Logging Tool—CTS Wellsite Calibration								
Mud Gain Correction								
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag		
0	0.9207				0.9207			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)




1	0.9208		0.9207			
	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.9208		0.9207			
	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)	0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 15-Oct-2010 18:37

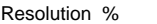
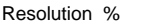
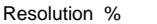
Master: 15-Oct-2010 18:37

High resolution Integrated Logging Tool-CTS Wellsite Calibration														
Stab Measurement Summary														
Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value	Phase	LS Window Ratio			Value
Before				0.7128	Before				0.4907	Before				0.2928
	0.6779 (Minimum)	0.7136 (Nominal)	0.7492 (Maximum)		0.4689 (Minimum)	0.4935 (Nominal)	0.5182 (Maximum)			0.2787 (Minimum)	0.2934 (Nominal)	0.3081 (Maximum)		
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value	Phase	LS Window Sum CPS			Value
Before				8415	Before				9508	Before				994.9
	7991 (Minimum)	8411 (Nominal)	8832 (Maximum)		9030 (Minimum)	9506 (Nominal)	9981 (Maximum)			948.7 (Minimum)	998.6 (Nominal)	1049 (Maximum)		
Before: 7-Jan-2011 9:35														




Before: 7-Jan-2011 9:35

High resolution Integrated Logging Tool—CTS Wellsite Calibration														
Photo-multiplier High Voltages Calibrations														
Phase	BS PM High Voltage (Command) V			Value	Phase	SS PM High Voltage (Command) V			Value	Phase	LS PM High Voltage (Command) V			Value
Before				1510	Before				1725	Before				1491
	1411 (Minimum)	1511 (Nominal)	1611 (Maximum)		1631 (Minimum)	1731 (Nominal)	1831 (Maximum)			1389 (Minimum)	1489 (Nominal)	1589 (Maximum)		
Before: 7-Jan-2011 9:35														



Before: 7-Jan-2011 9:35

High resolution Integrated Logging Tool-CTS Wellsite Calibration											
Crystal Quality Resolutions Calibration											
Phase	BS Crystal Resolution %		Value	Phase	SS Crystal Resolution %		Value	Phase	LS Crystal Resolution %		Value
Before			10.41	Before			9.975	Before			10.13
	9.344 (Minimum)	10.34 (Nominal)	11.34 (Maximum)		9.038 (Minimum)	10.04 (Nominal)	11.04 (Maximum)		9.264 (Minimum)	10.26 (Nominal)	11.26 (Maximum)
Before: 7-Jan-2011 9:35											

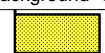

Before: 7-Jan-2011 9:35

High resolution Integrated Logging Tool—CTS Wellsite Calibration														
MCFL Calibration														
Phase	Raw B0 Resistivity OHMM			Value	Phase	Raw B1 Resistivity OHMM			Value	Phase	Raw B2 Resistivity OHMM			Value
Before				3854	Before				3794	Before				3793
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		
Before: 7-Jan-2011 9:36														





Before: 7-Jan-2011 9:36

High resolution Integrated Logging Tool-CTS Wellsite Calibration							
HILT Caliper Calibration							
Phase	HILT Caliper Zero Measurement IN		Value	Phase	HILT Caliper Plus Measurement IN		Value
Before			8.080	Before			12.23
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 7-Jan-2011 9:19							

Before: 7-Jan-2011 9:19


High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Detector Calibration									
Phase	Gamma Ray Background GAPI			Value	Phase	Gamma Ray (Jig – Bkgd) GAPI			Value
Before				78.81	Before				177.7
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)			157.1 (Minimum)	165.0 (Nominal)	206.3 (Maximum)	
Before: 7-Jan-2011 9:19									

Before: 7-Jan-2011 9:19





High resolution Integrated Logging Tool-CTS Wellsite Calibration							
Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			26.75	Master			26.84
							

Before		27.83	Before		26.39
5.000 (Minimum)	26.75 (Nominal)	40.00 (Maximum)	5.000 (Minimum)	26.84 (Nominal)	40.00 (Maximum)
Master: 27-Dec-2010 15:55			Before: 7-Jan-2011 9:20		

High resolution Integrated Logging Tool-CTS Wellsite Calibration									
Ratio Measurement									
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value
Master				5587	Master				2310
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)	
					Master				2.419
						2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	
Master: 27-Dec-2010 15:55									

High resolution Integrated Logging Tool-CTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z-Axis Acceleration F/S2	Value
Before		31.81
	31.53 (Minimum)	32.19 (Nominal)
		32.84 (Maximum)
Before: 7-Jan-2011 21:31		

















High resolution Integrated Logging Tool-CTS Master Calibration							
Electronics Calibration Check - Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6273		0.6050	74.27		71.00
1	Master	1.286		1.270	73.26		70.00
2	Master	0.6373		0.6230	69.06		66.00
3	Master	0.7236		0.7040	68.16		65.00
4	Master	1.349		1.337	61.18		59.00
5	Master	1.948		1.955	59.00		57.00
6	Master	1.944		1.955	59.07		57.00
7	Master	1.380		1.415	53.37		53.00
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 15-Oct-2010 18:37							







High resolution Integrated Logging Tool-CTS Master Calibration									
Electronics Calibration Check – Auxilliary									
Phase	Array Induction SPA Plus MV			Value	Phase	Array Induction SPA Zero MV			Value
Master				992.7	Master				-0.03691
	941.0 (Minimum)	990.5 (Nominal)	1040 (Maximum)	-50.00 (Minimum)		0 (Nominal)	50.00 (Maximum)		
Phase	Array Induction Temperature Plus V			Value	Phase	Array Induction Temperature Zero V			Value
Master				0.9196	Master				-4.114E-00
	0.8700 (Minimum)	0.9150 (Nominal)	0.9600 (Maximum)	-0.05000 (Minimum)		0 (Nominal)	0.05000 (Maximum)		
Master: 15-Oct-2010 18:37									

High resolution Integrated Logging Tool—CTS Master Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude V		Value	Phase DEG		
0	1.022			0.4239			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.035			0.5409			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.021			-0.06263			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.020			0.03454			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)






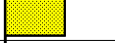
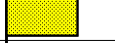
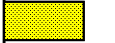
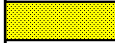
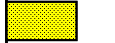
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.000				-0.1758		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9901				-0.1320		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9987				0.1953		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.016				-0.2054		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
Master: 15-Oct-2010 18:37							



High resolution Integrated Logging Tool-CTS Master Calibration								
Sonde Error Correction								
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	-84.06				52.00			
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	173.5				170.3			
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	115.0				39.80			
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	60.64				45.14			
		39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	24.06				-10.30			
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	15.52				3.750			
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	12.66				7.097			
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-3.102				3.539			
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
Master: 15-Oct-2010 18:37								




High resolution Integrated Logging Tool–CTS Master Calibration								
Mud Gain Correction								
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag		
0	0.9207				0.9207			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	0.9208				0.9207			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.9208				0.9207			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
Master: 15-Oct-2010 18:37								

High resolution Integrated Logging Tool—CTS Master Calibration									
Inversion results									
Phase	Rho Aluminum G/C3			Value	Phase	Rho Magnesium G/C3			Value
Master	<div><div></div></div>			2.601	Master	<div><div></div></div>			1.688
	2.586 (Minimum)	2.596 (Nominal)	2.606 (Maximum)			1.676 (Minimum)	1.686 (Nominal)	1.696 (Maximum)	
Phase	Pe Aluminum			Value	Phase	Pe Magnesium			Value

Master		2.549	Master		2.625
2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)	2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)
Master: 3-Jan-2011 12:29					

High resolution Integrated Logging Tool-CTS Master Calibration																										
Deviation Summary																										
Phase	BS Average Deviation %			Value	Phase	SS Average Deviation %			Value	Phase	LS Average Deviation %			Value												
Master				0.4353	Master				0.3792	Master				0.6869												
-0.6000 (Minimum)				0 (Nominal)	0.6000 (Maximum)				-1.000 (Minimum)				0 (Nominal)	1.000 (Maximum)				-1.500 (Minimum)				0 (Nominal)	1.500 (Maximum)			
Phase	BS Max Deviation %			Value	Phase	SS Max Deviation %			Value	Phase	LS Max Deviation %			Value												
Master				0.8132	Master				1.774	Master				1.567												
-1.600 (Minimum)				0 (Nominal)	1.600 (Maximum)				-2.500 (Minimum)				0 (Nominal)	2.500 (Maximum)				-3.500 (Minimum)				0 (Nominal)	3.500 (Maximum)			
Master: 3-Jan-2011 12:29																										

High resolution Integrated Logging Tool-CTS Master Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				26.75	Master				26.84
5.000 (Minimum)		26.75 (Nominal)		40.00 (Maximum)	5.000 (Minimum)		26.84 (Nominal)		40.00 (Maximum)
Master: 27-Dec-2010 15:55									

High resolution Integrated Logging Tool—CTS Master Calibration														
Tank Measurement														
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)			Value
Master				5587	Master				2310	Master				2.419
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)			2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	
Master: 27-Dec-2010 15:55														

Company: **Vecta Oil & Gas LTD**

**Schlumberger**

Well: **Torreys 44-33**

Field: **Wildcat**

County: **Cheyenne**

State: **Colorado**

Platform Express  
Micro Log