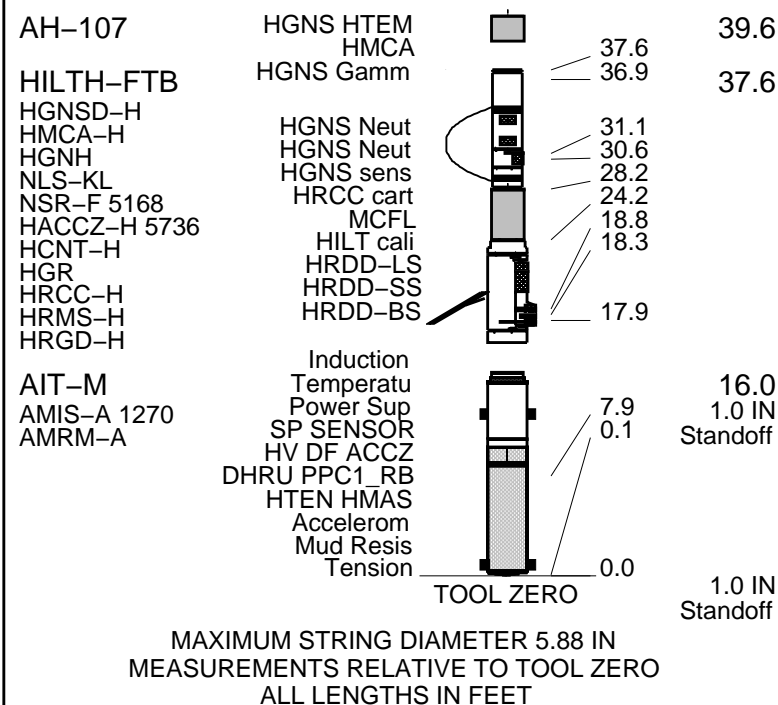


OTHER SERVICES1	OTHER SERVICES2
OS1: MSIP	OS1:
OS2: PPC	OS2:
OS3: GPIT	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
This is the first run in hole	
Toolstring run as per tool sketch	
Matrix: Sandstone (2.65 g/cc) from TD to 7821	
Sandstone (2.68 g/cc) from 7821 to Surface	

Bridged at 2700' on first attempt

ATTN-ION MAG
AH-NON MAG



Schlumberger

MAIN MICRO LOG 5" = 100'

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_IS_021LUP	FN:20	PRODUCER	22-Sep-2012 13:19	8155.5 FT	606.7 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_IS_031PUP	FN:30	PRODUCER	22-Sep-2012 16:44	8157.0 FT	608.0 FT
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Integrated Hole/Cement Volume Summary

Hole Volume = 13.08 F3

Cement Volume = 8.99 F3 (assuming 4.50 IN casing O.D.)

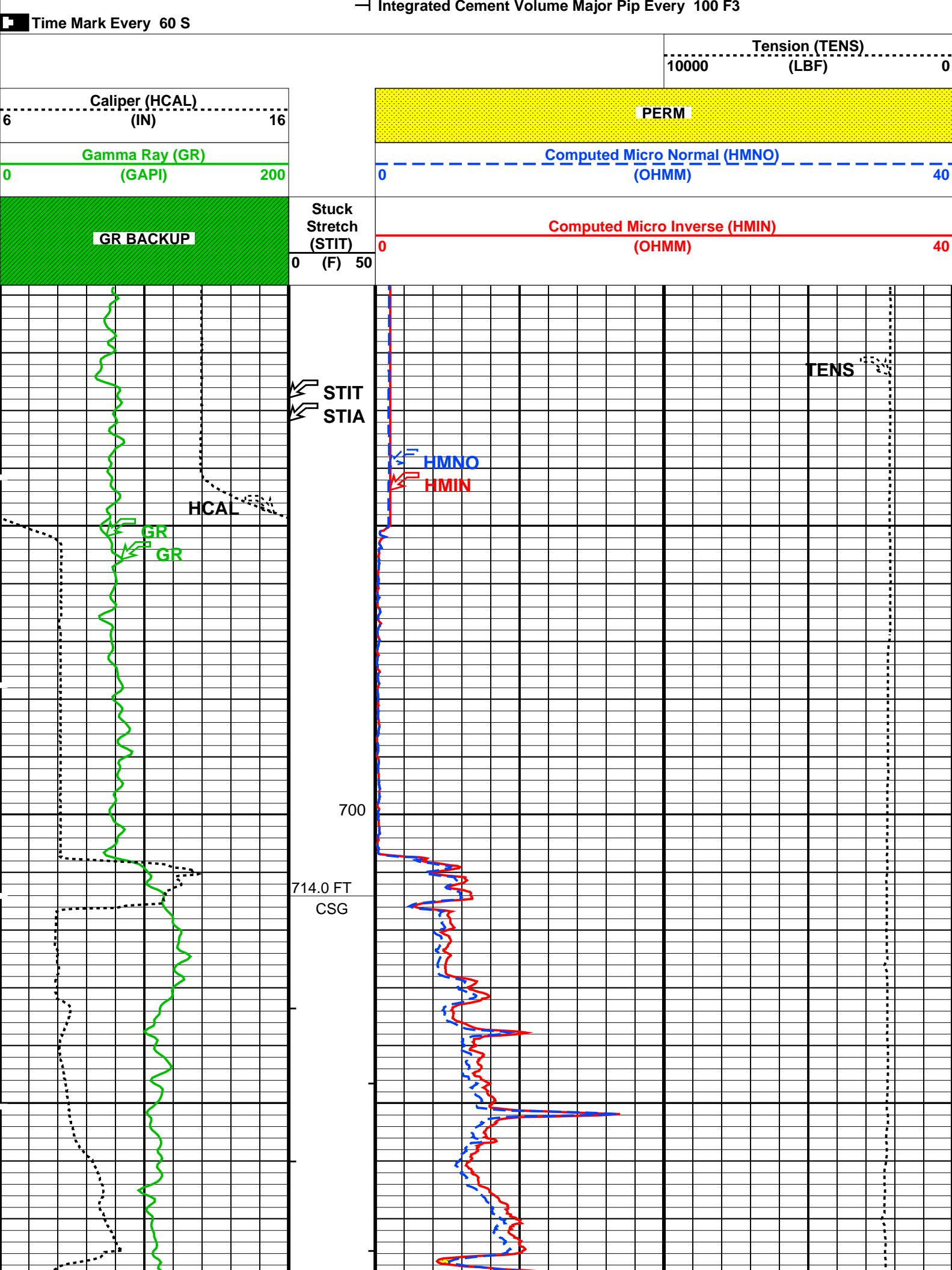
Computed from 8127.0 FT to 8090.5 FT using data channel(s) HCAL

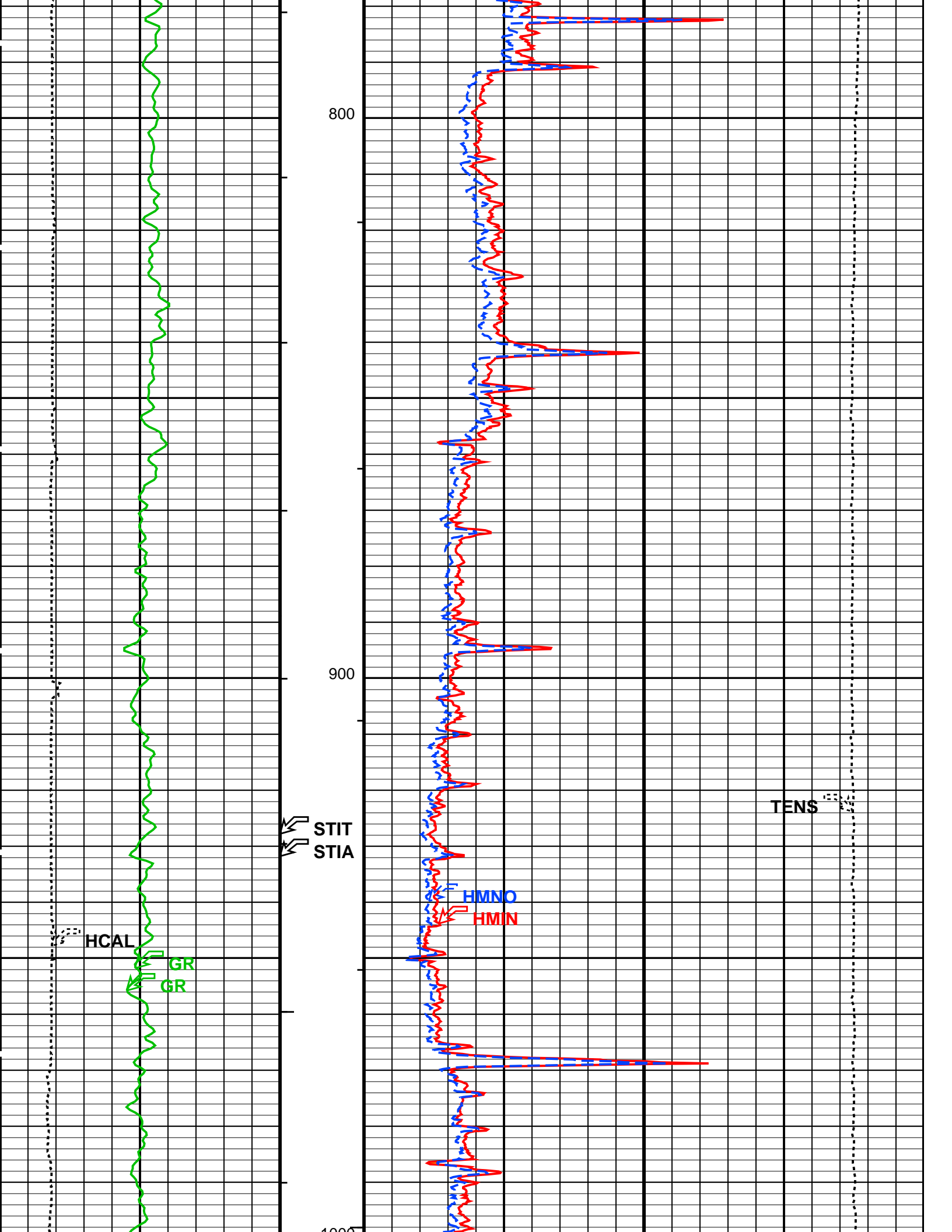
OP System Version: 19C1-222

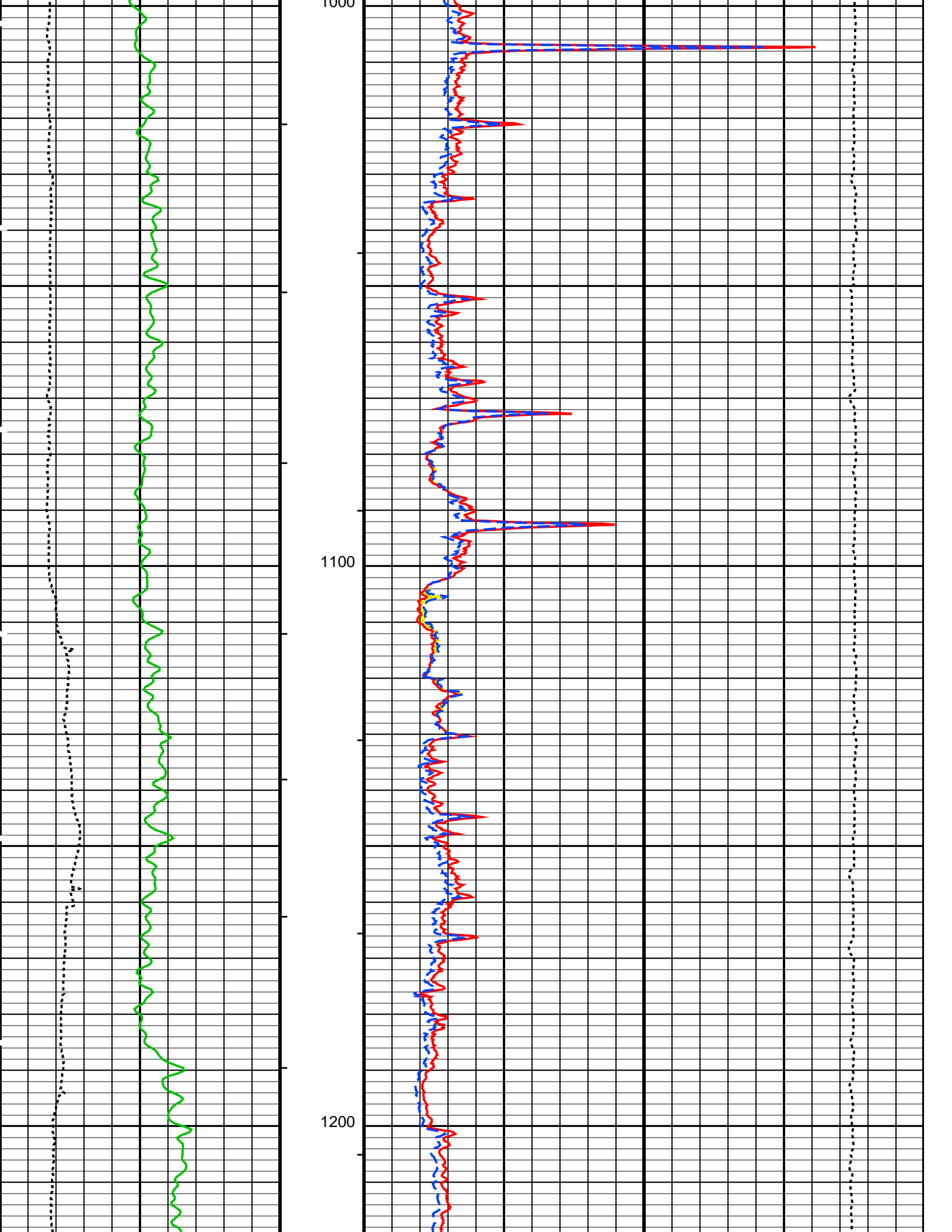
AIT-M	19C1-222	HILTH-FTB	19C1-222
GPIT-F	19C1-222	PPC1	19C1-222
MAXS-B	19C1-222	MAPC-B	19C1-222
EDTC-B	19C1-222		

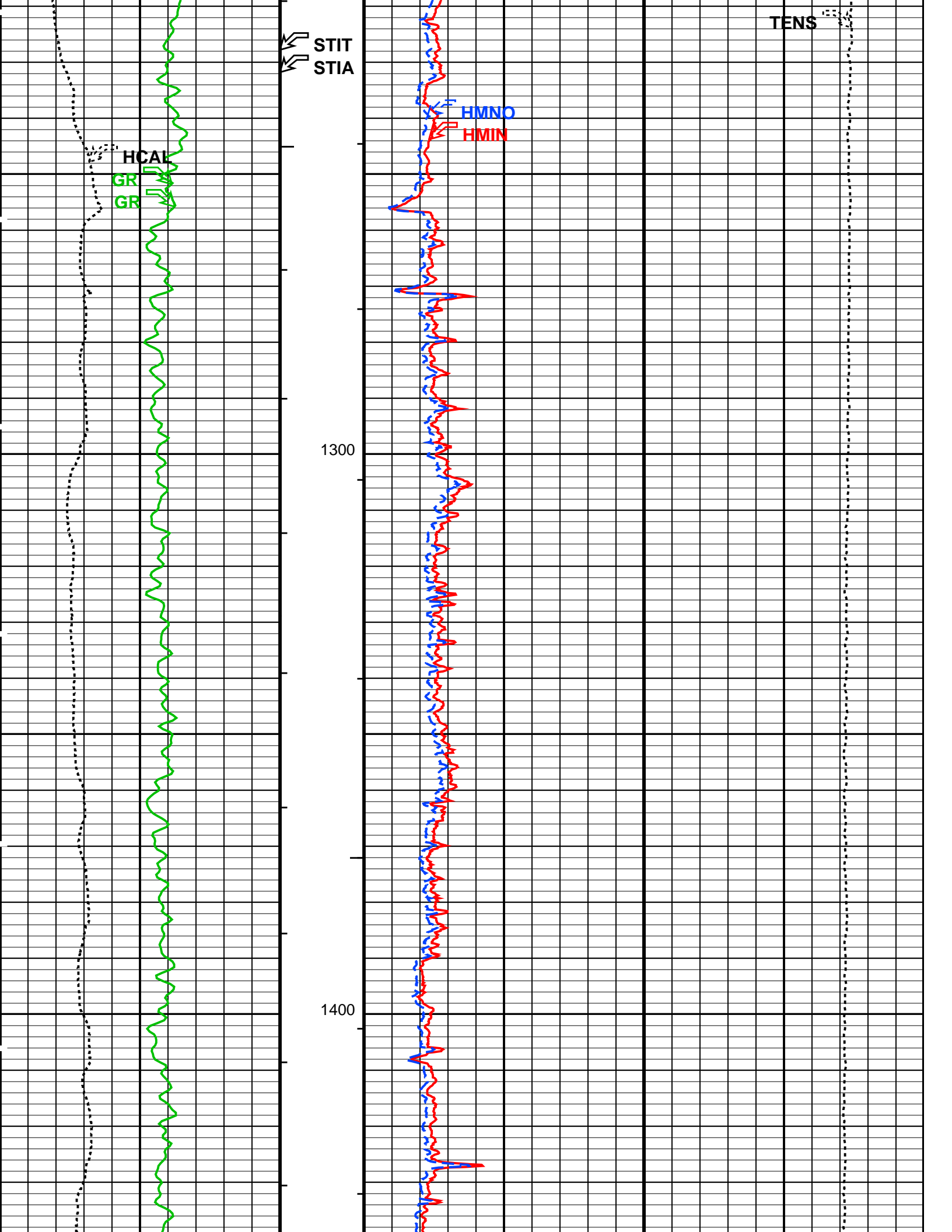
PIP SUMMARY

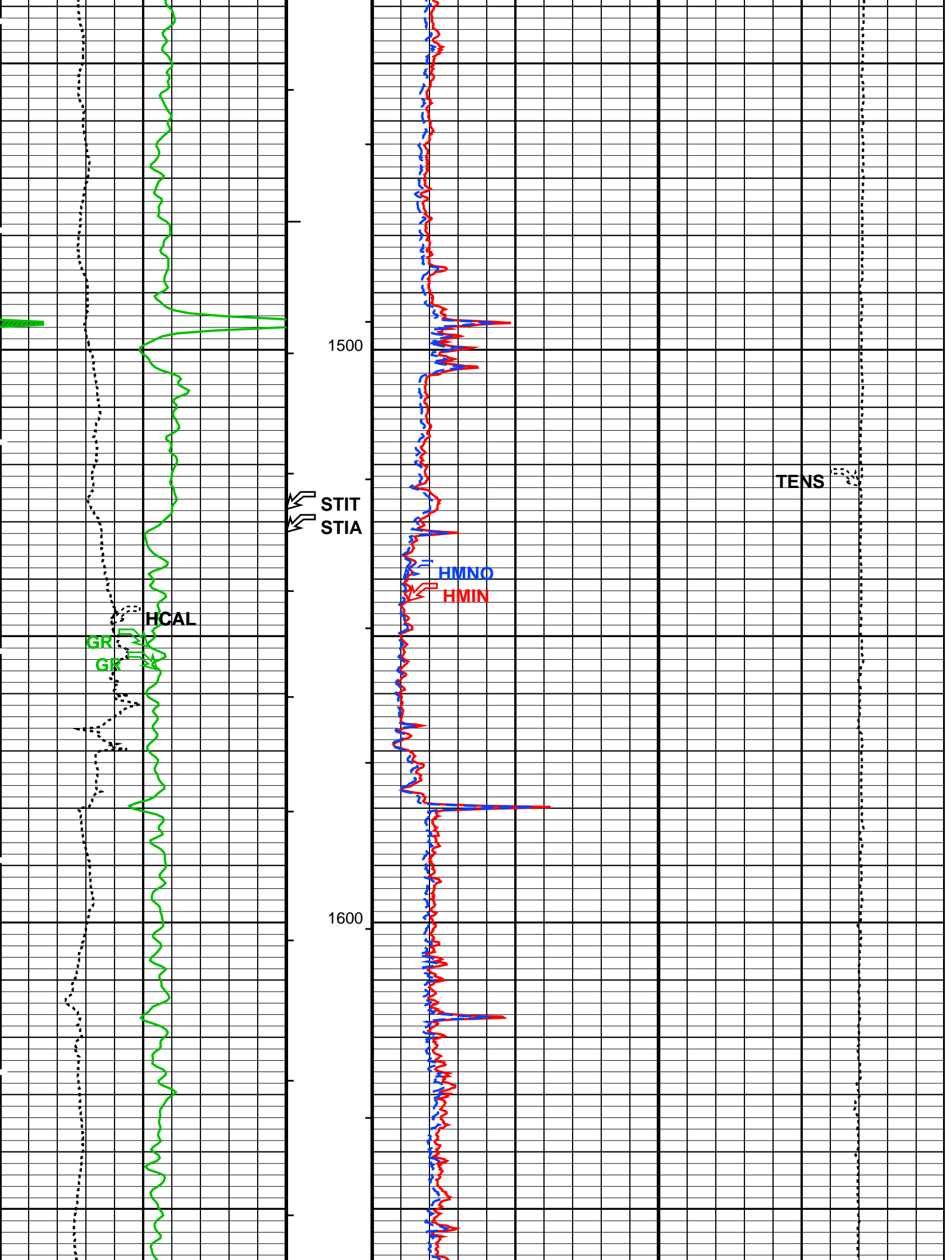
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3

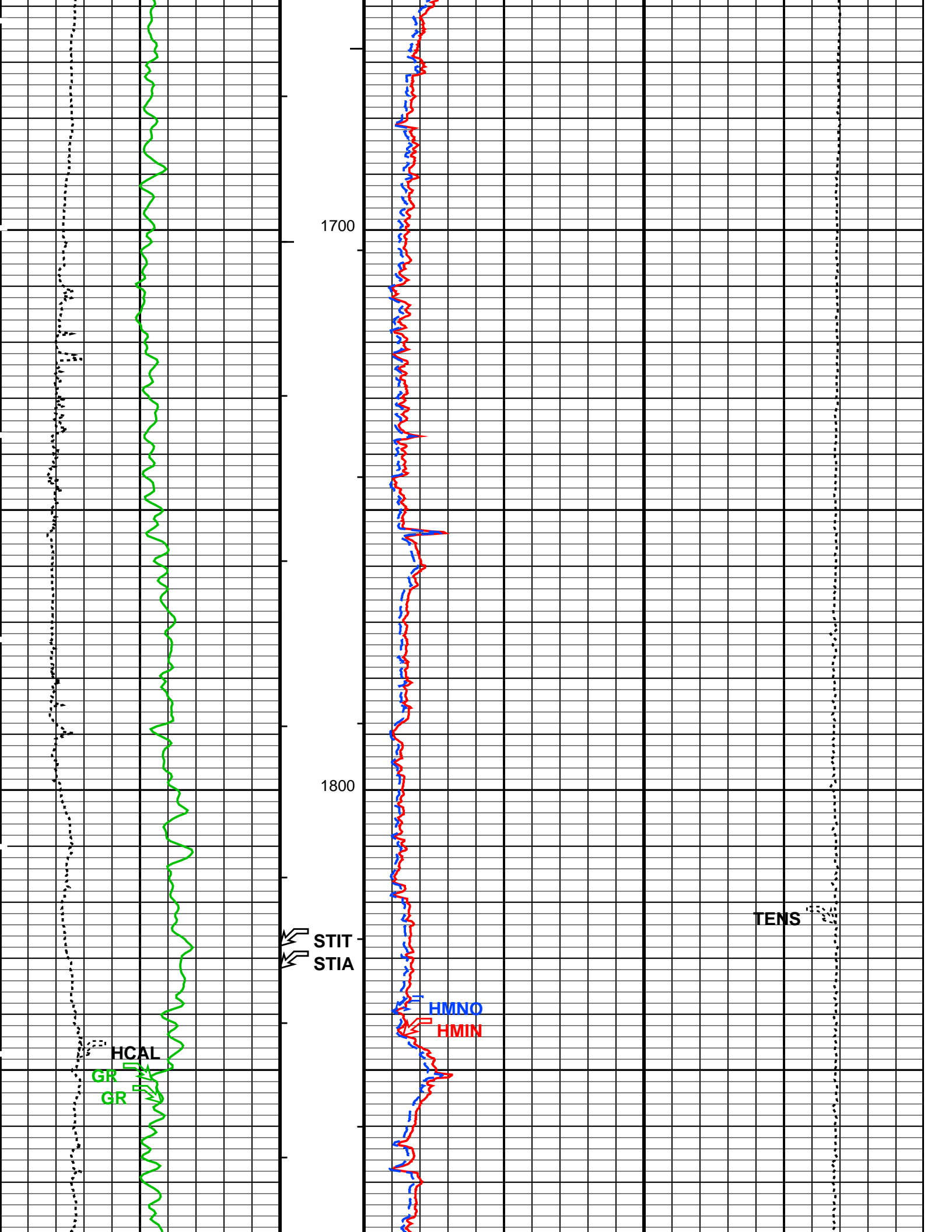


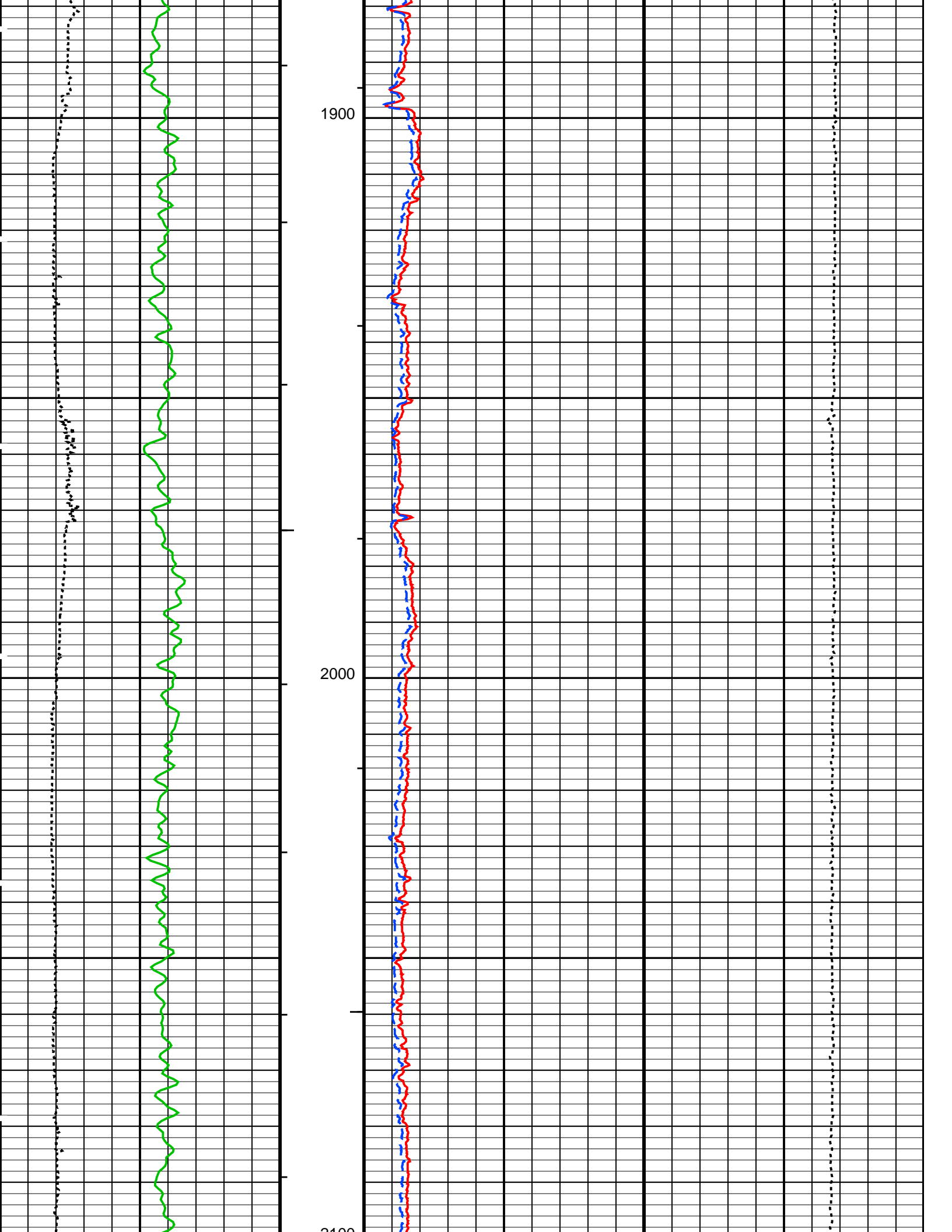


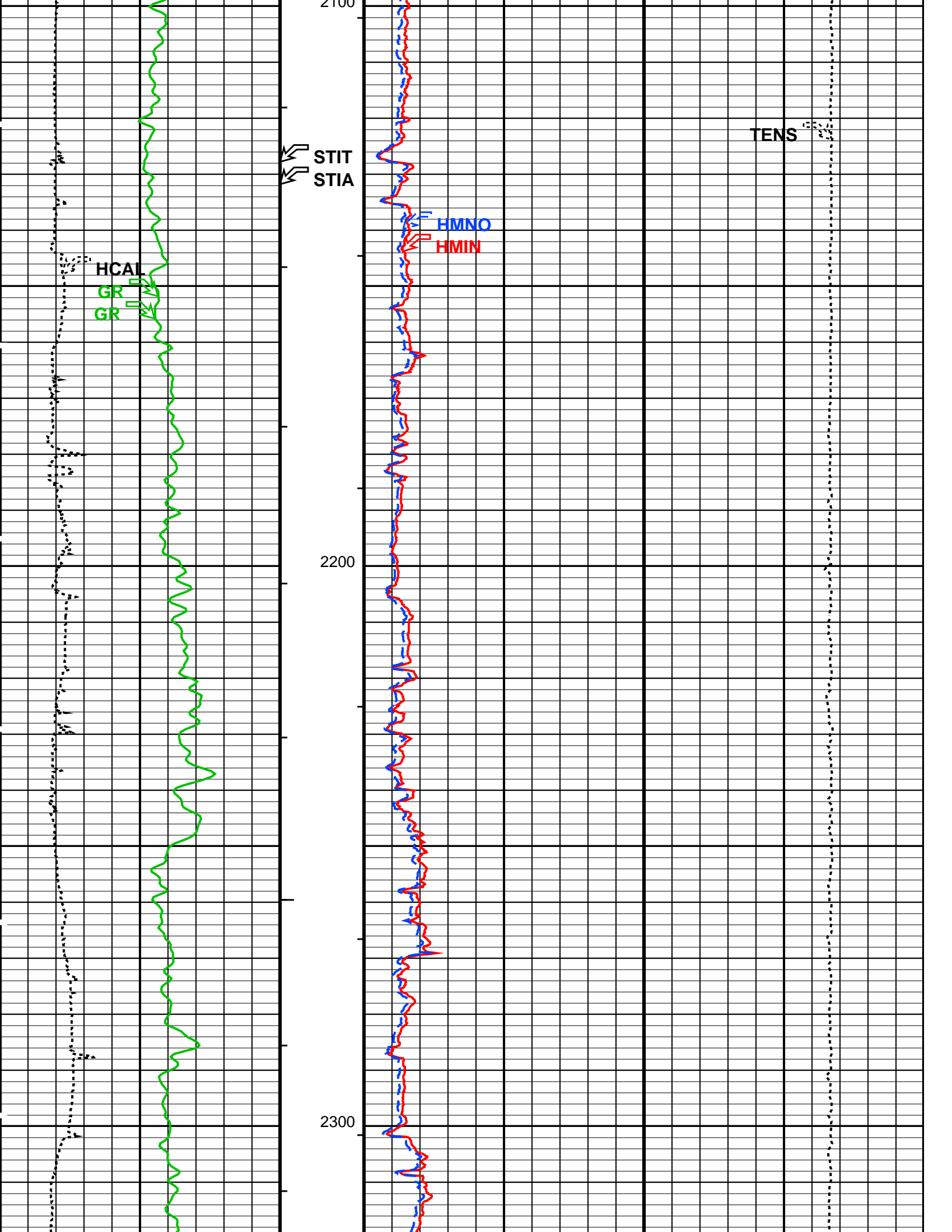


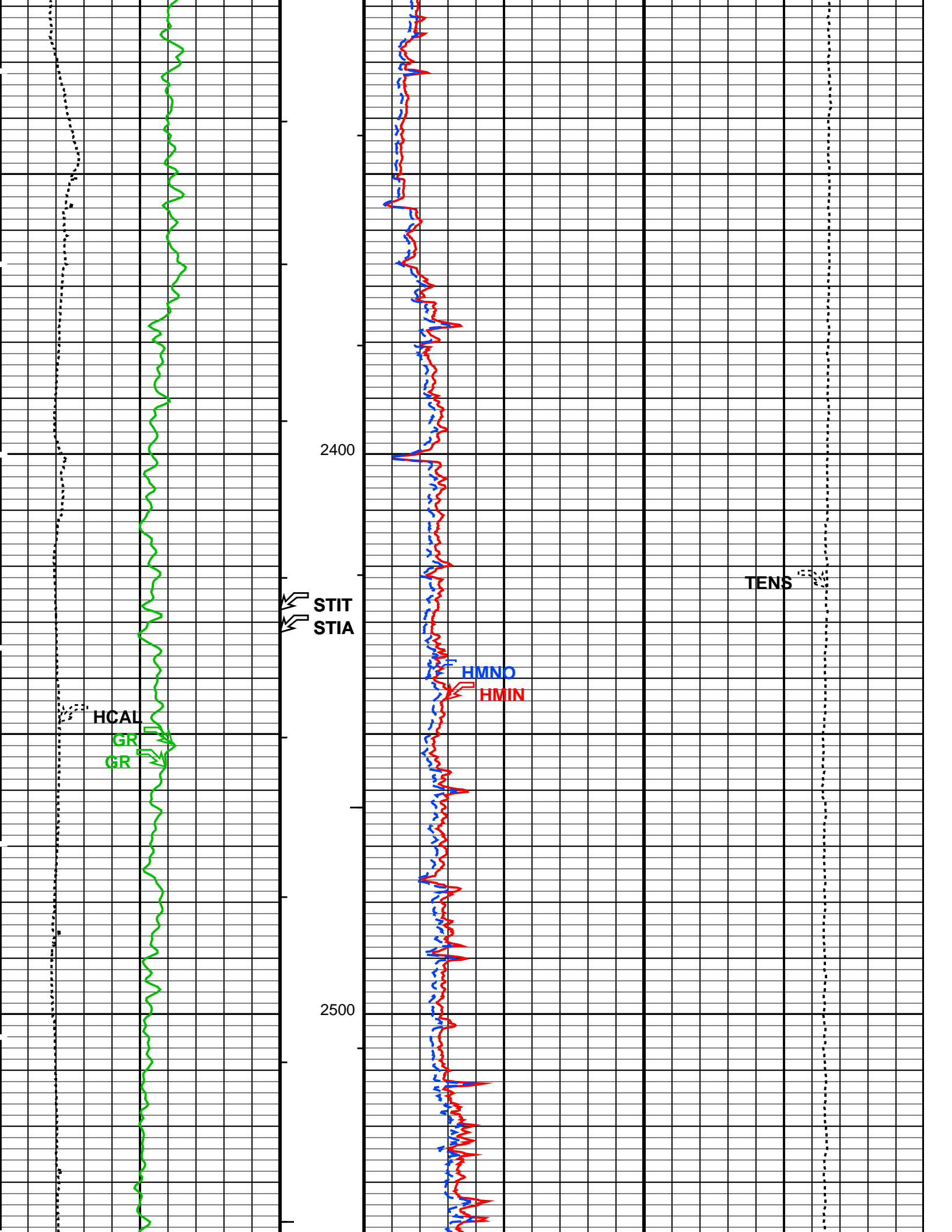


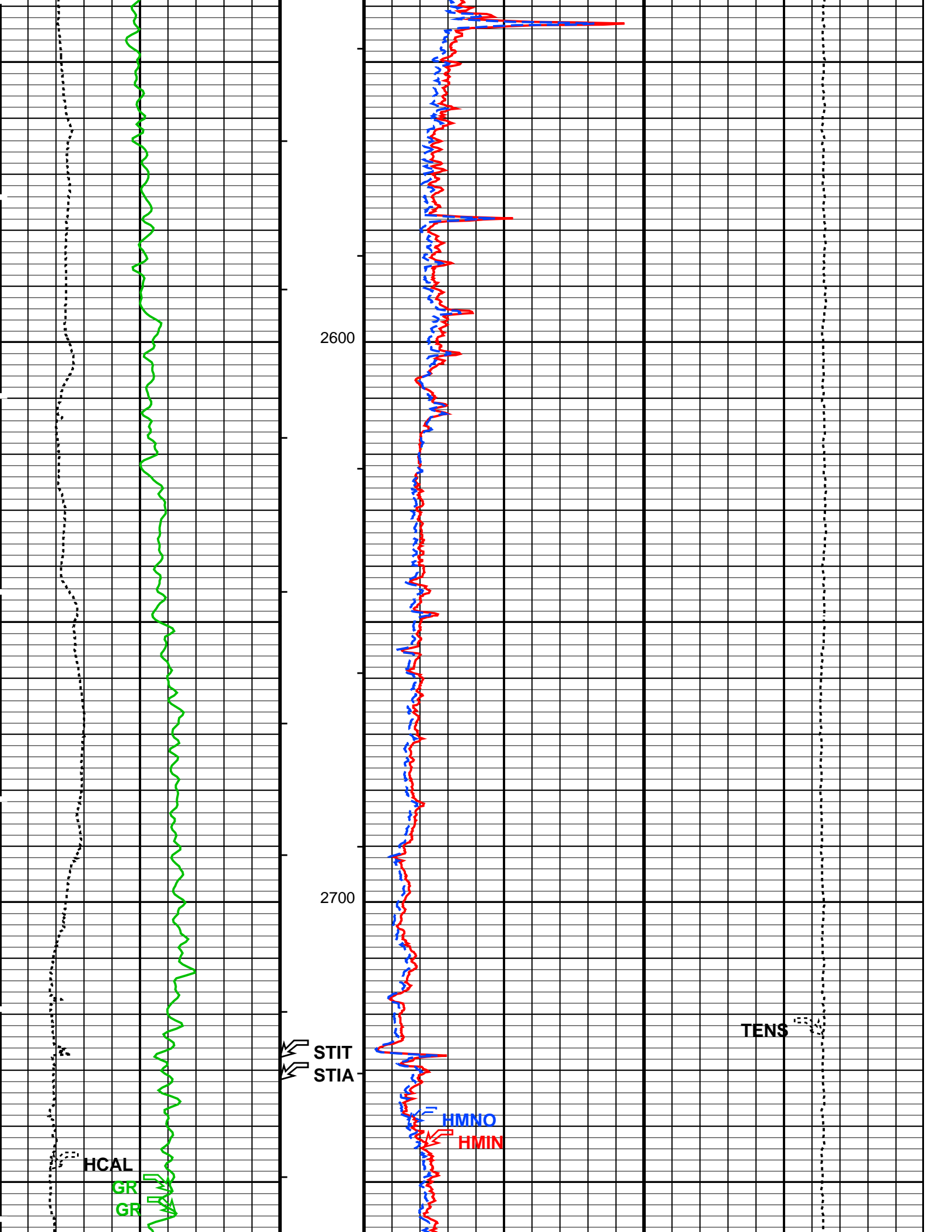


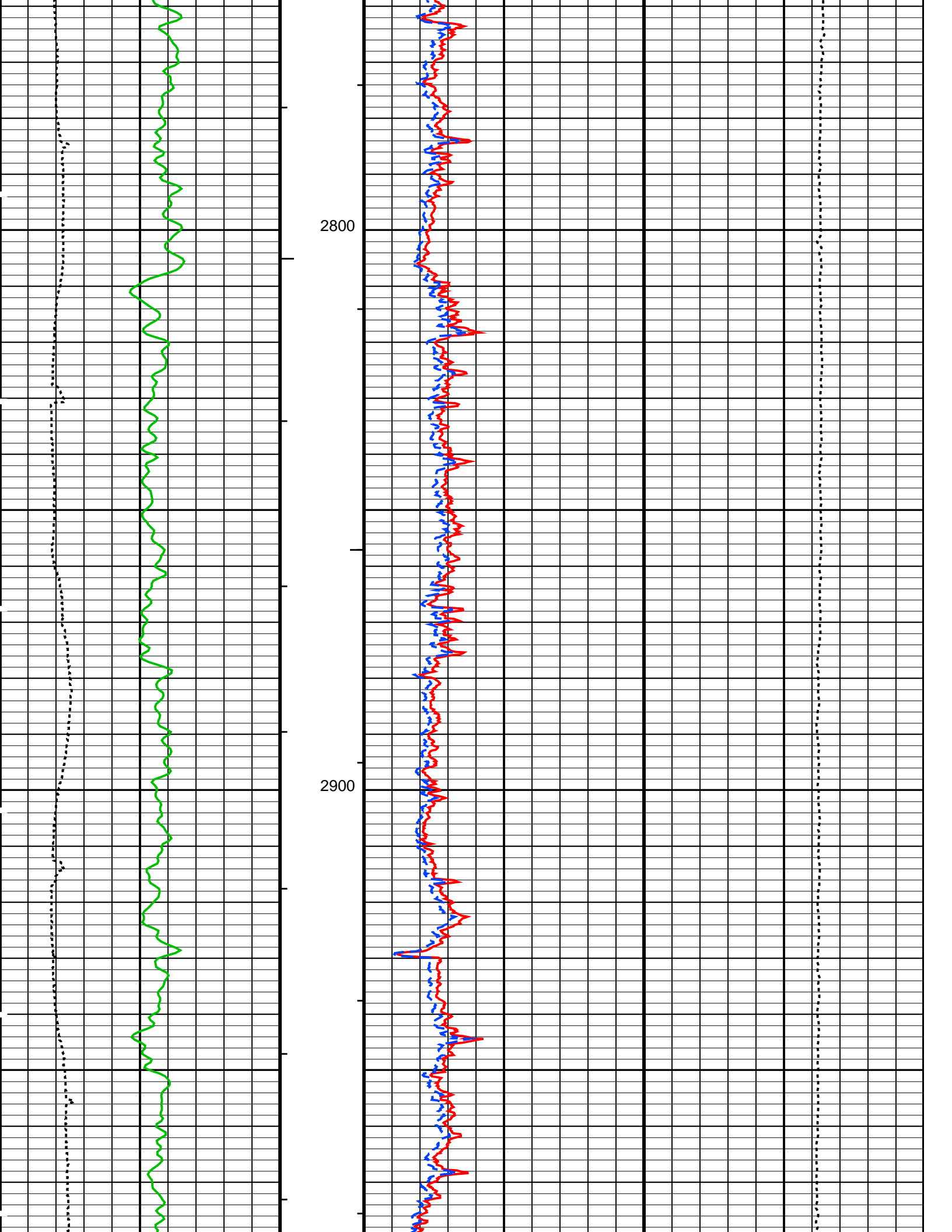


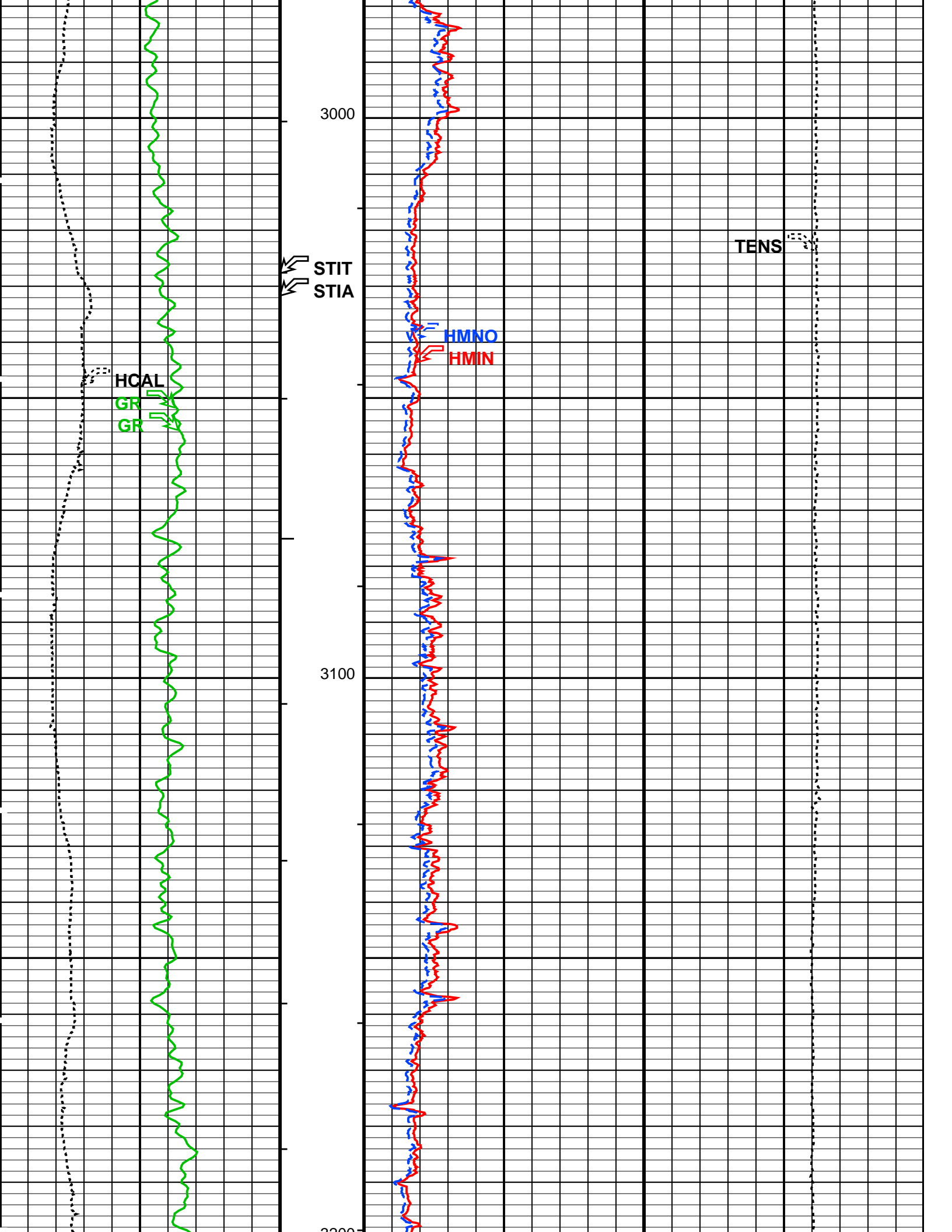


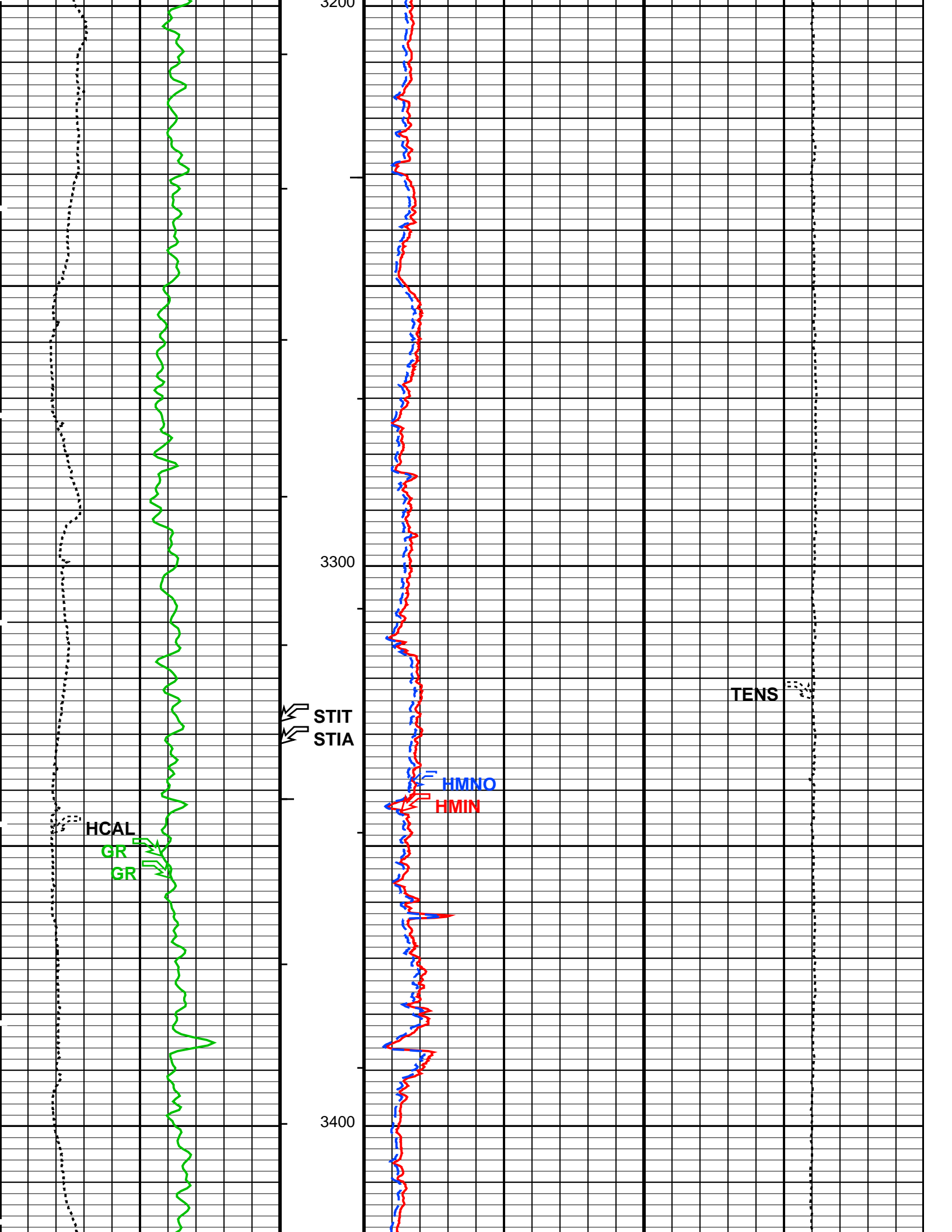


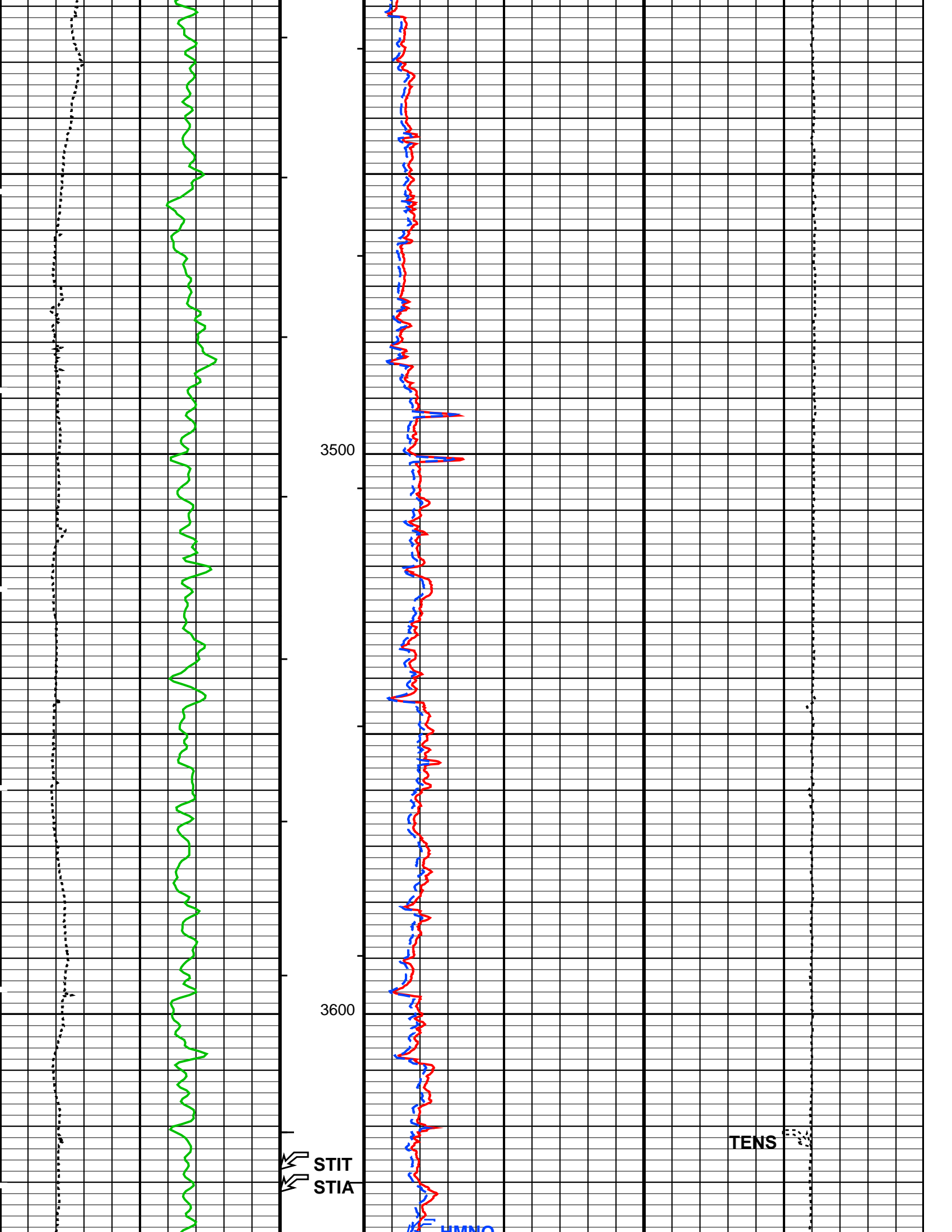


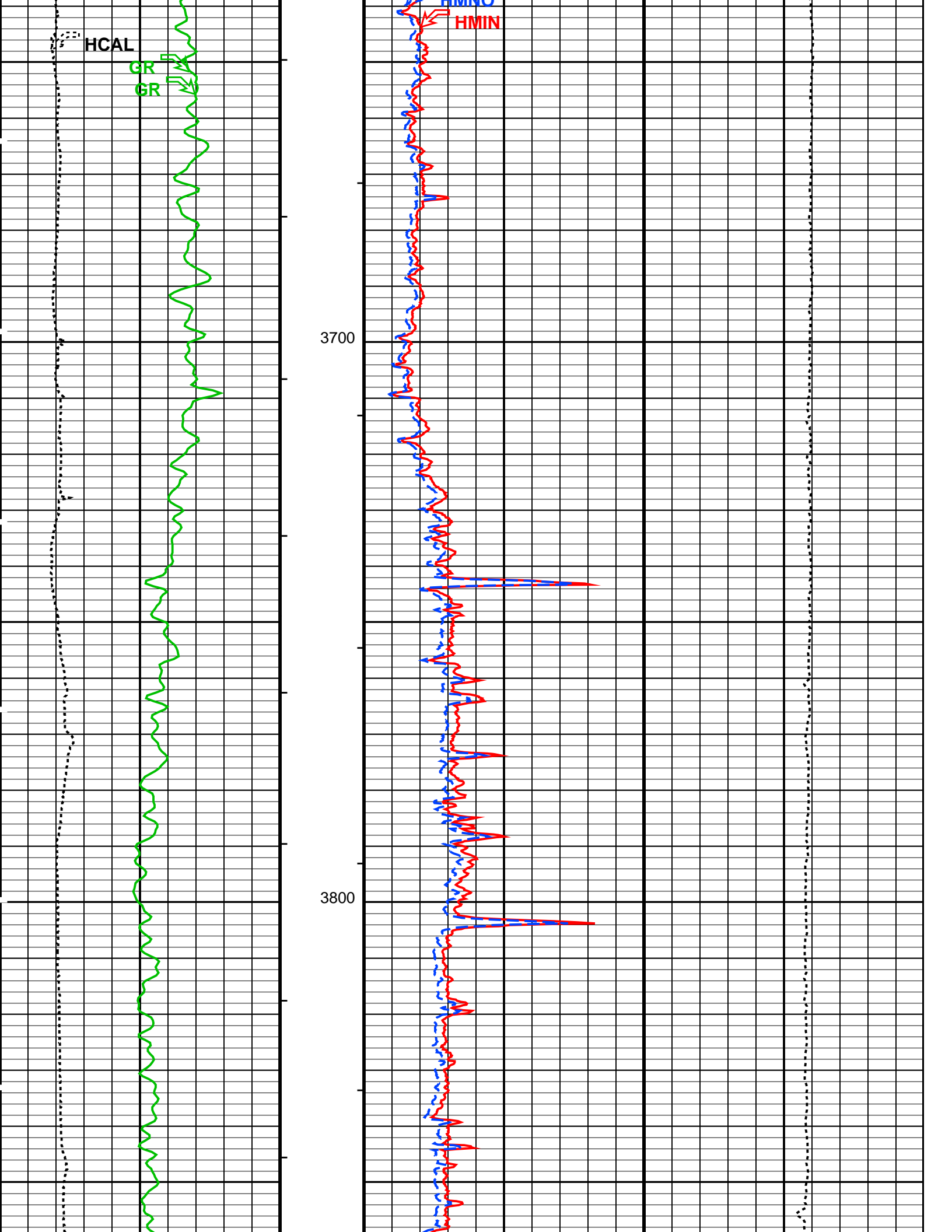


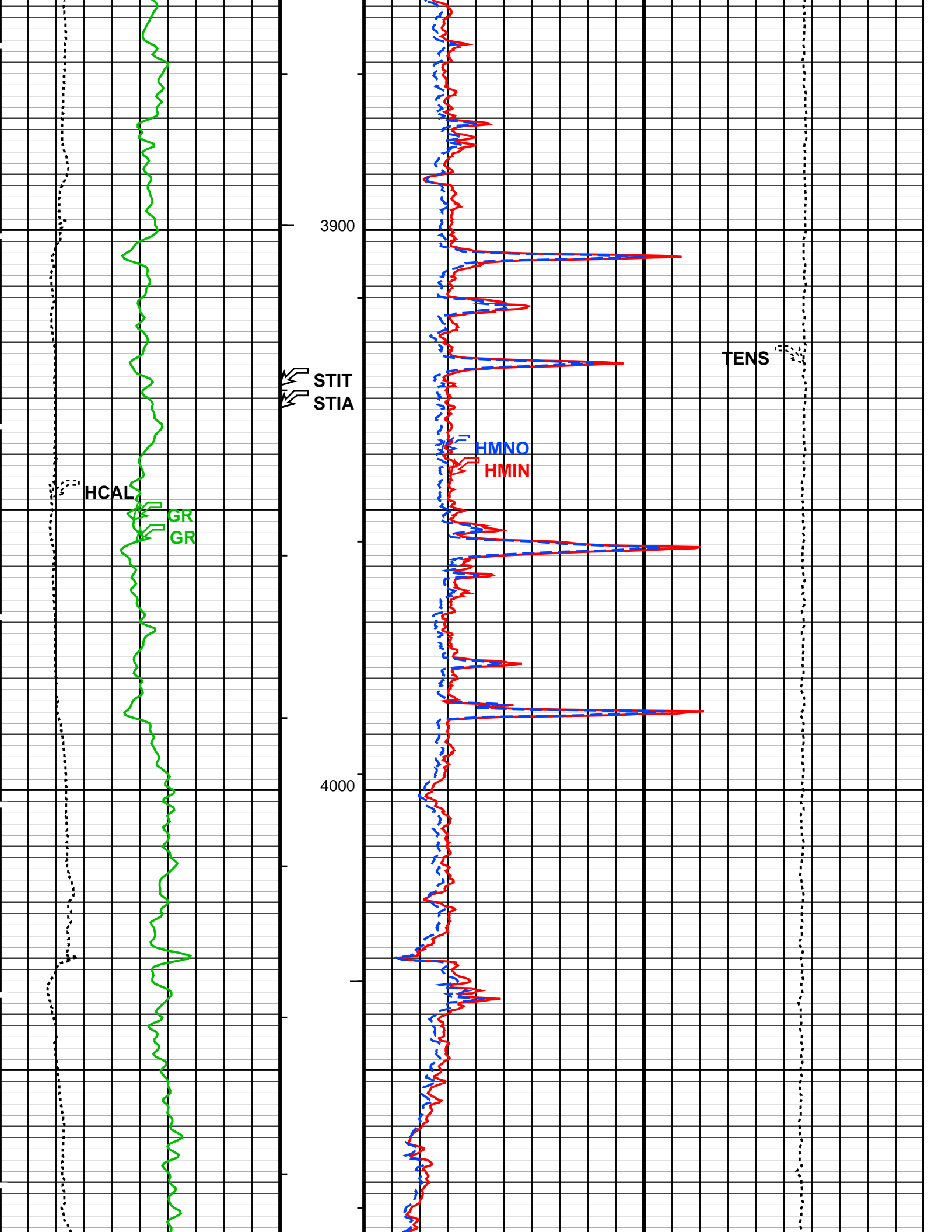


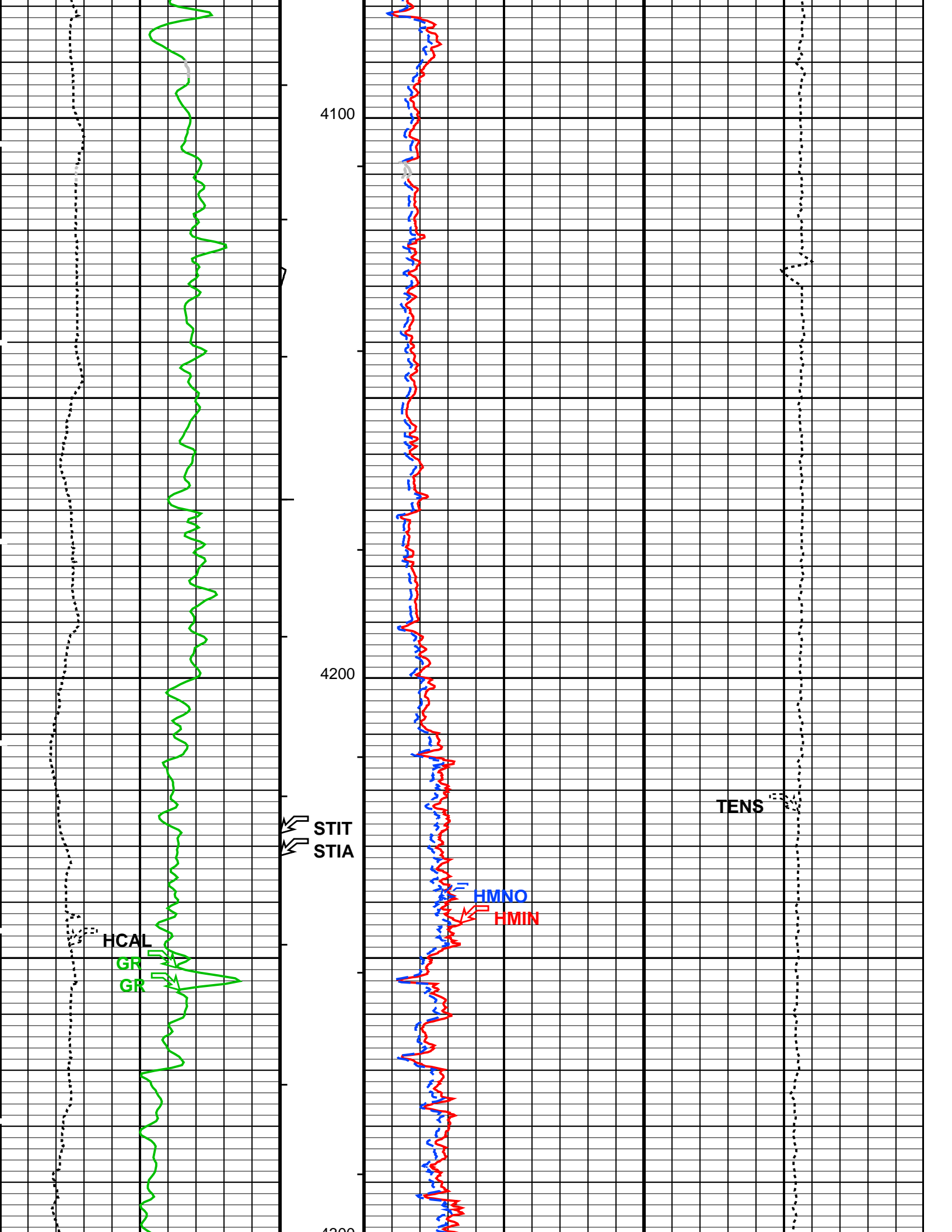


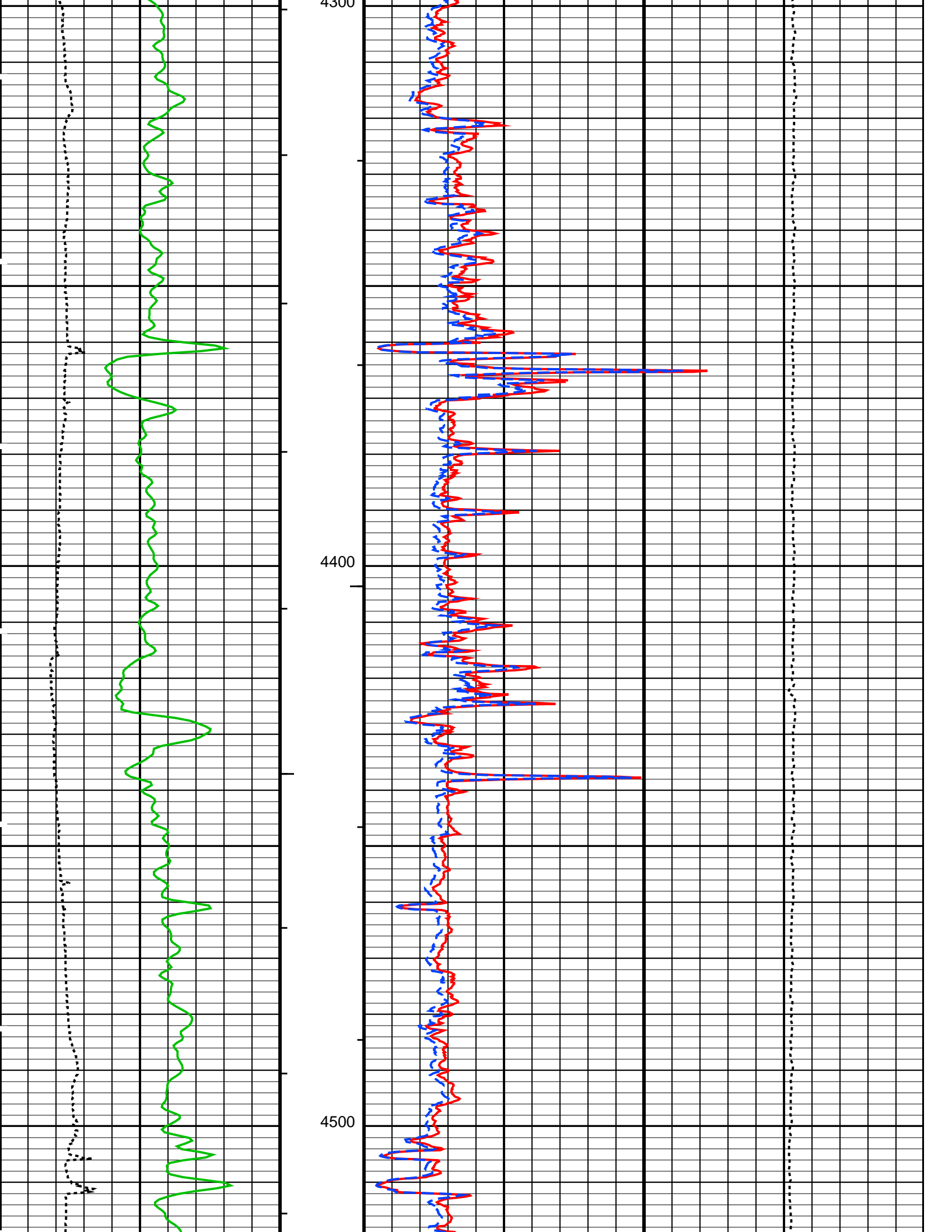


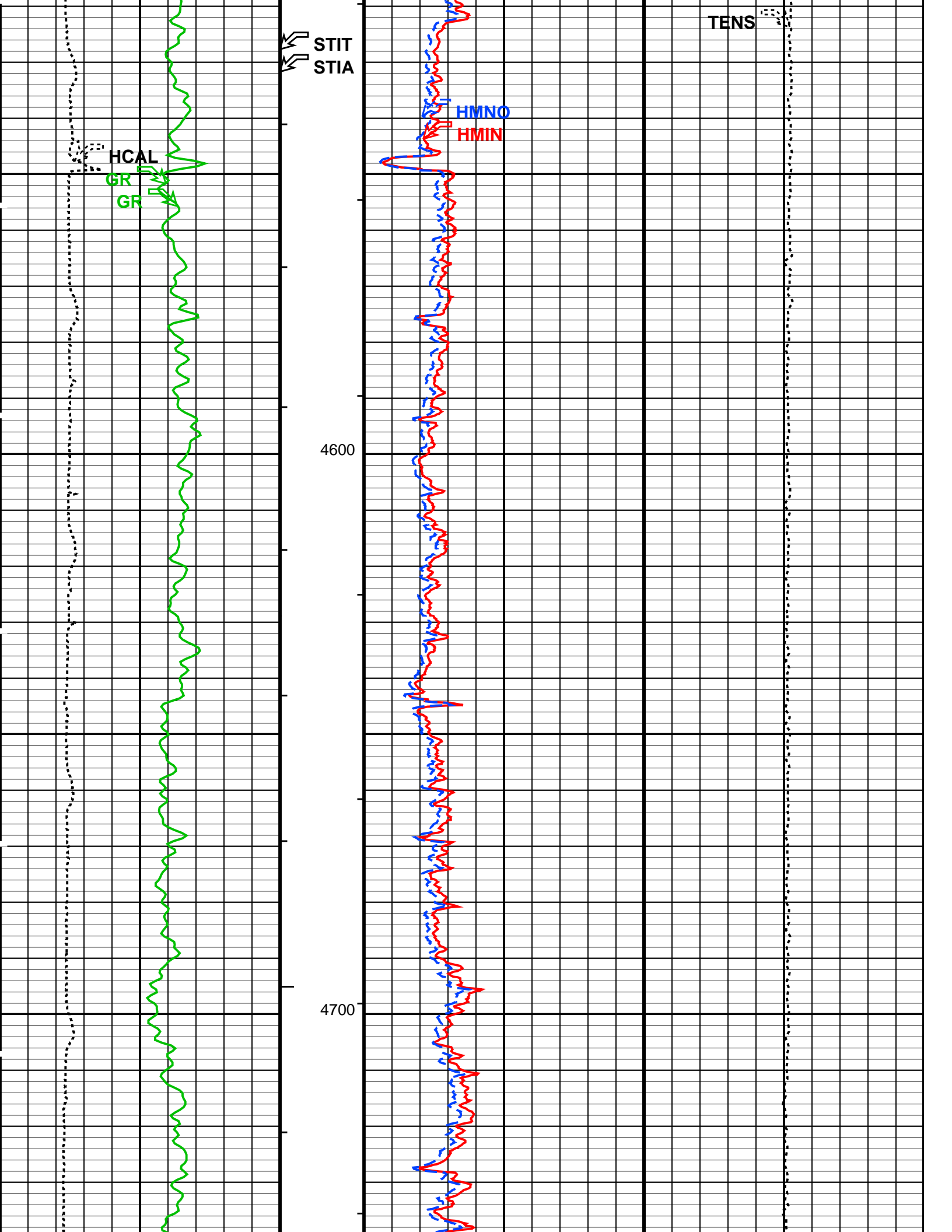


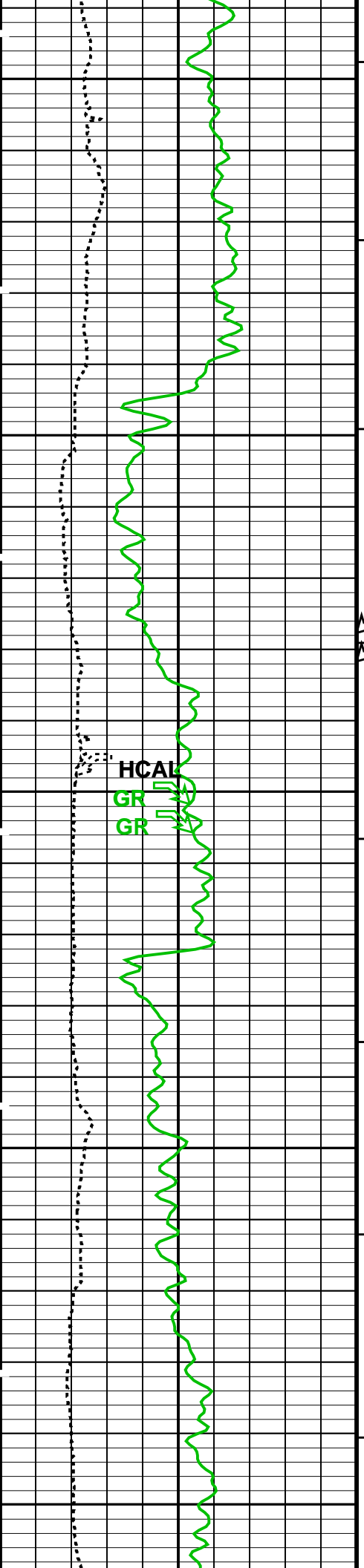










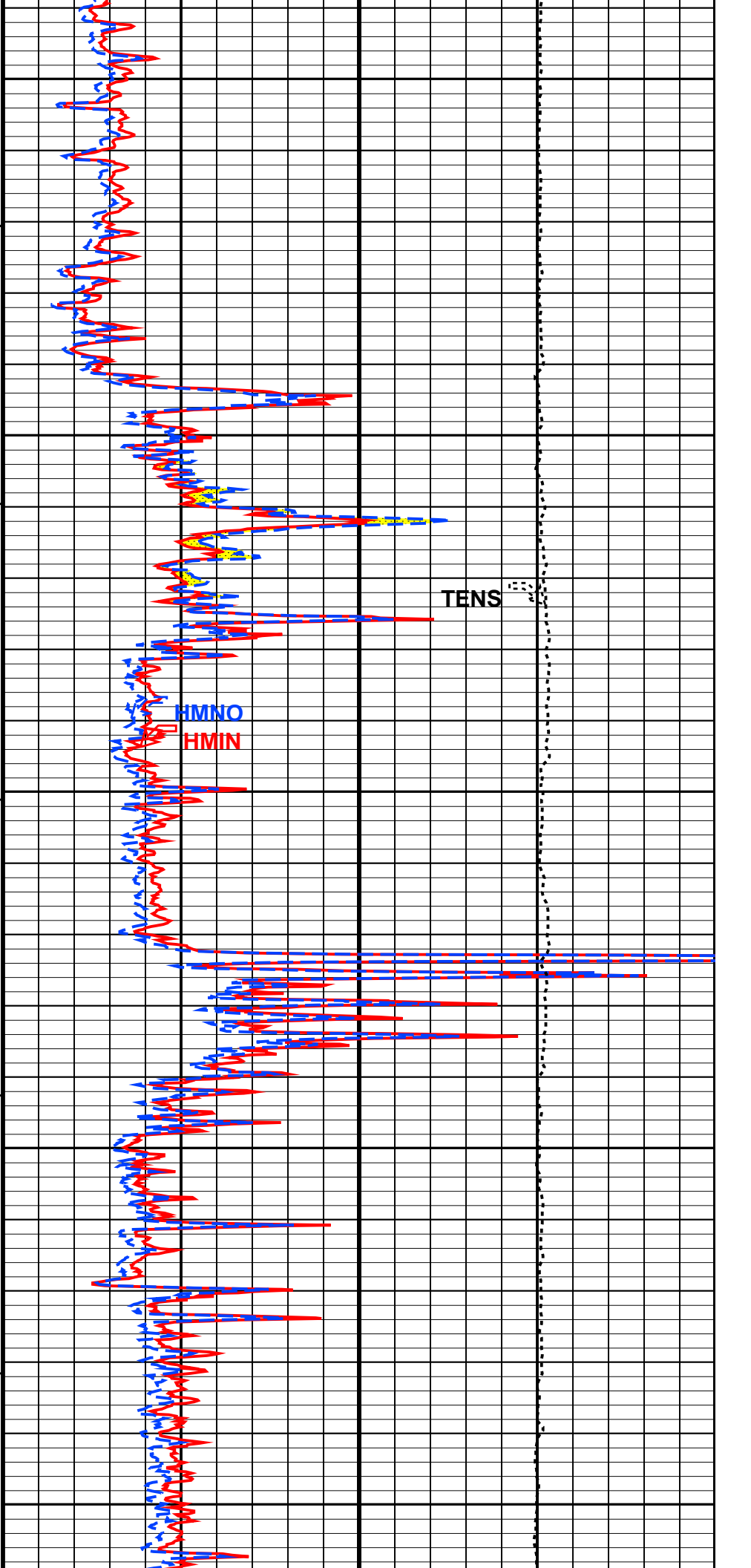


HCAL
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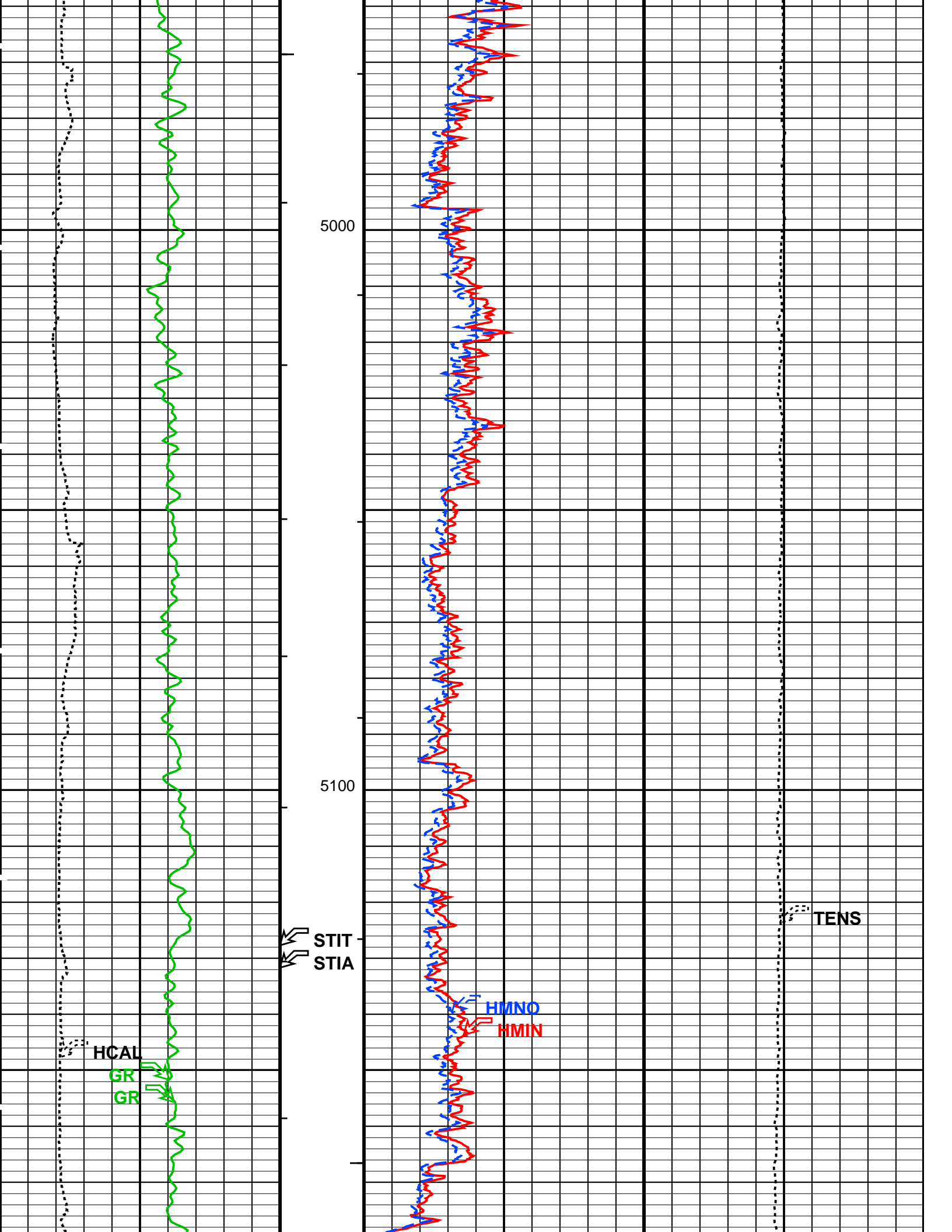
4800

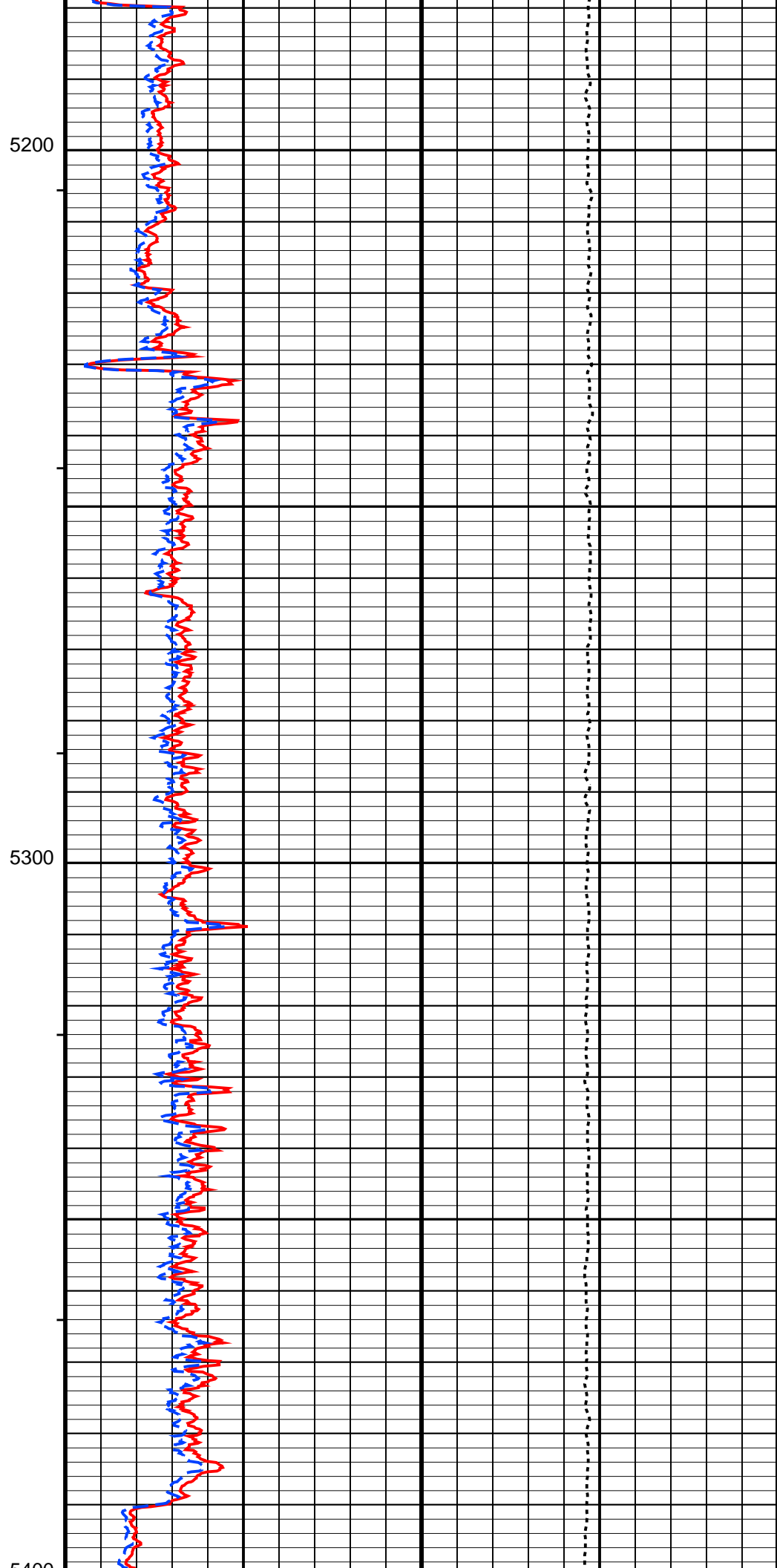
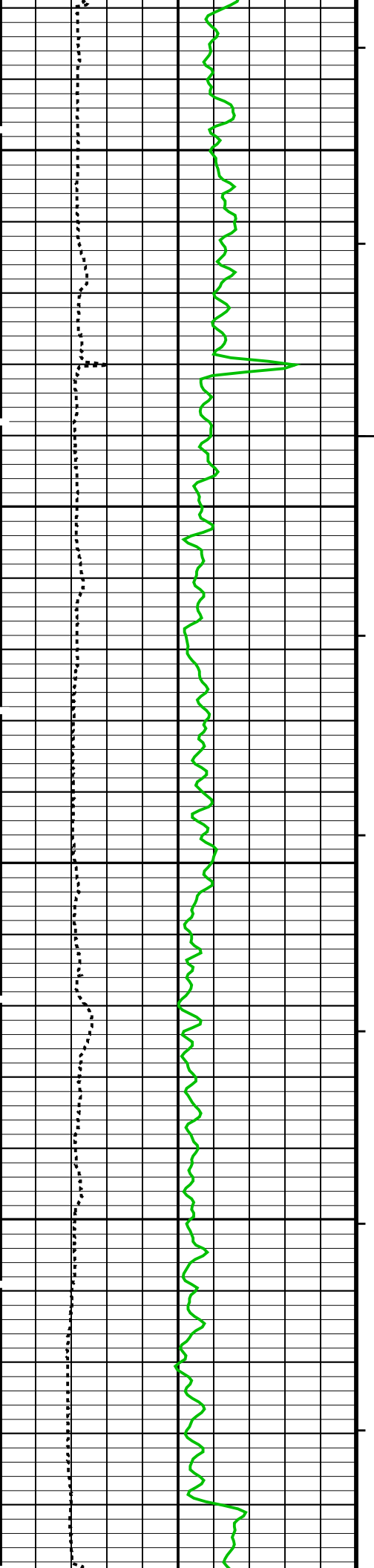
4900

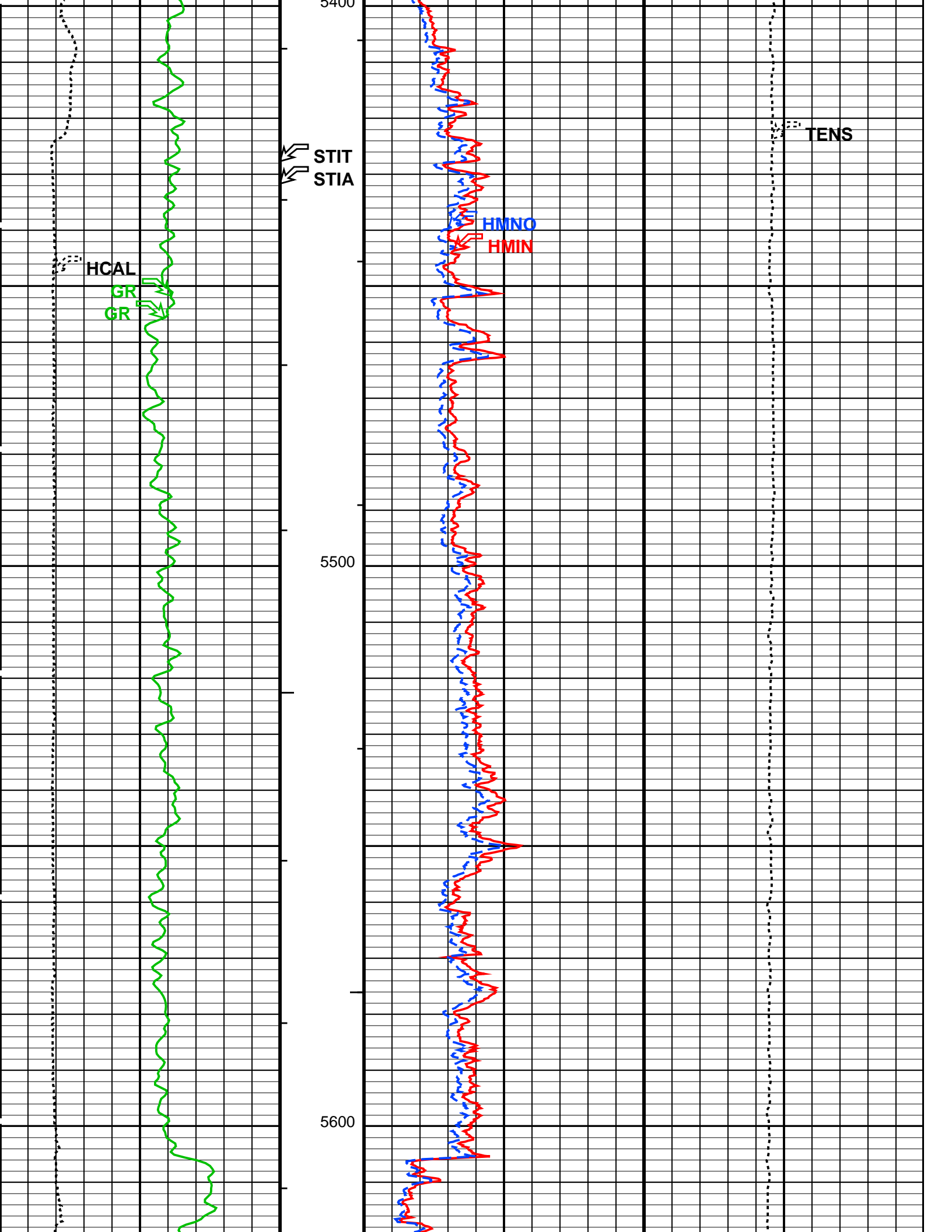


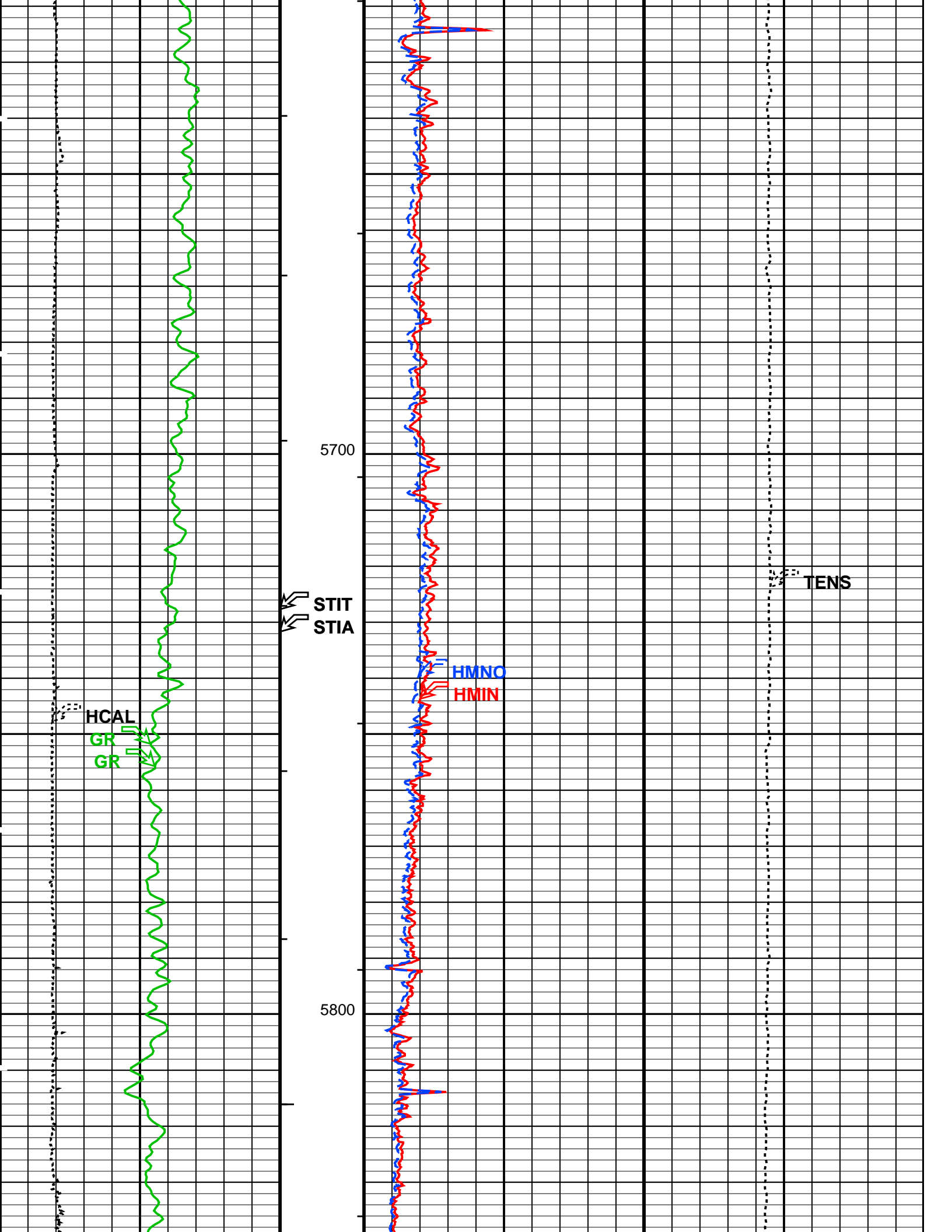
HMNO
HMIN

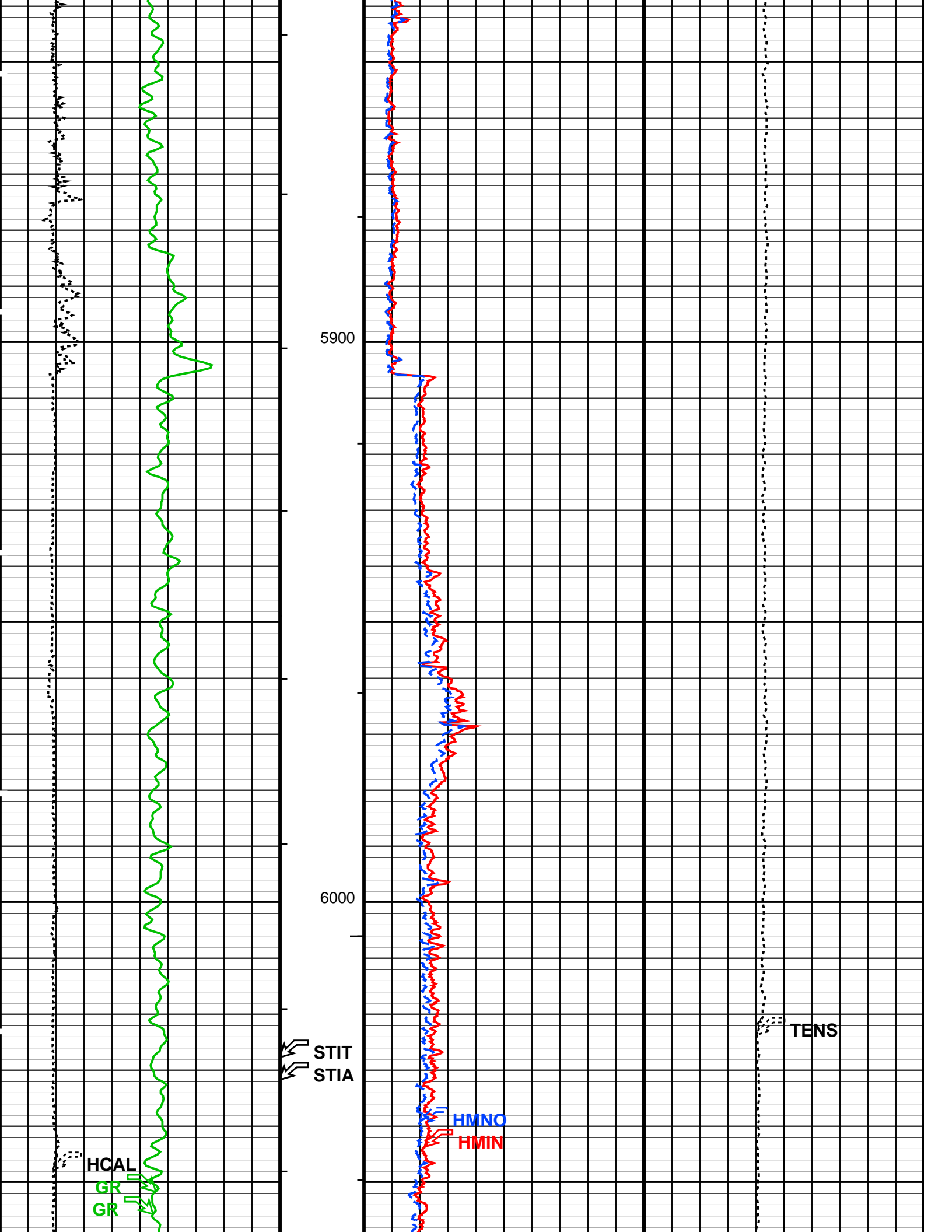
TENS

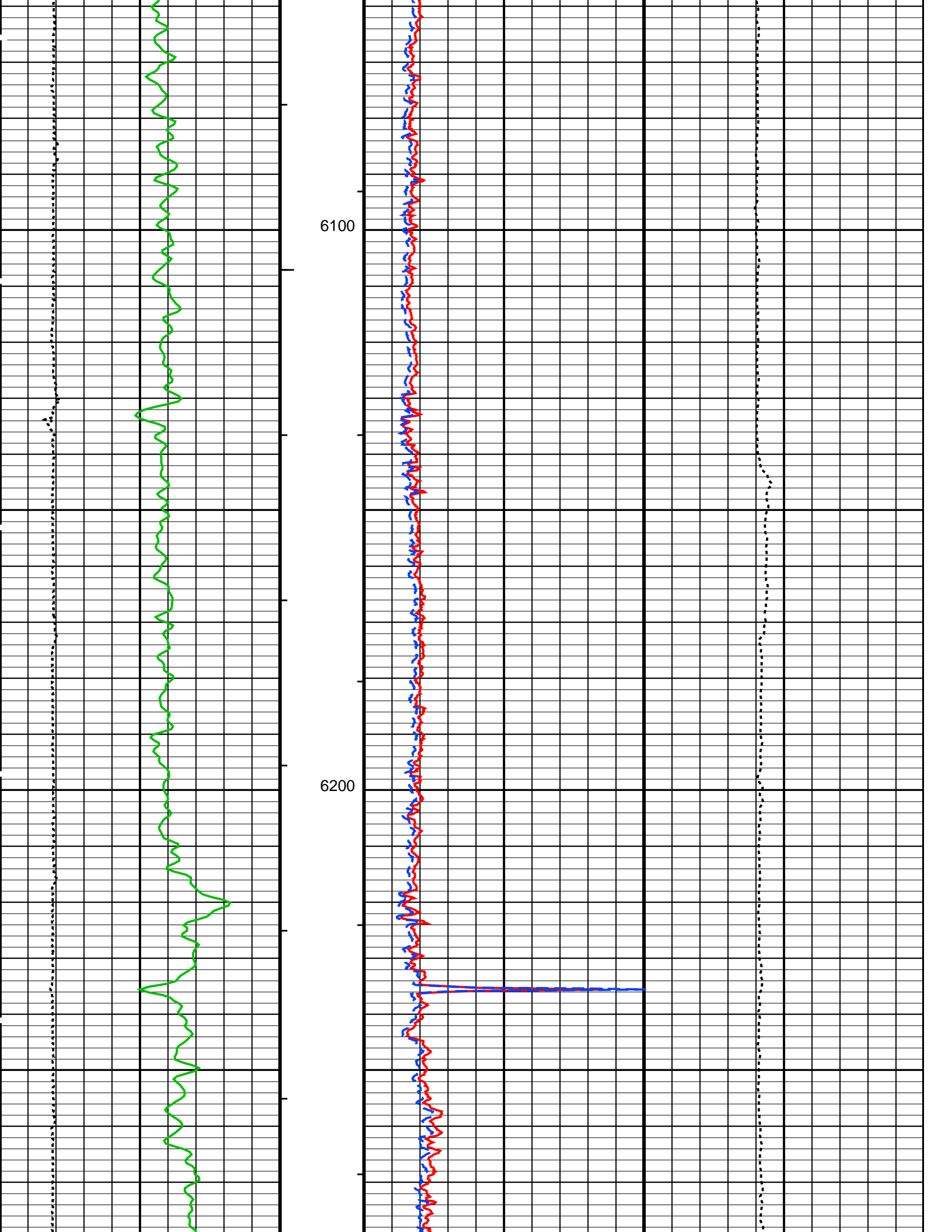


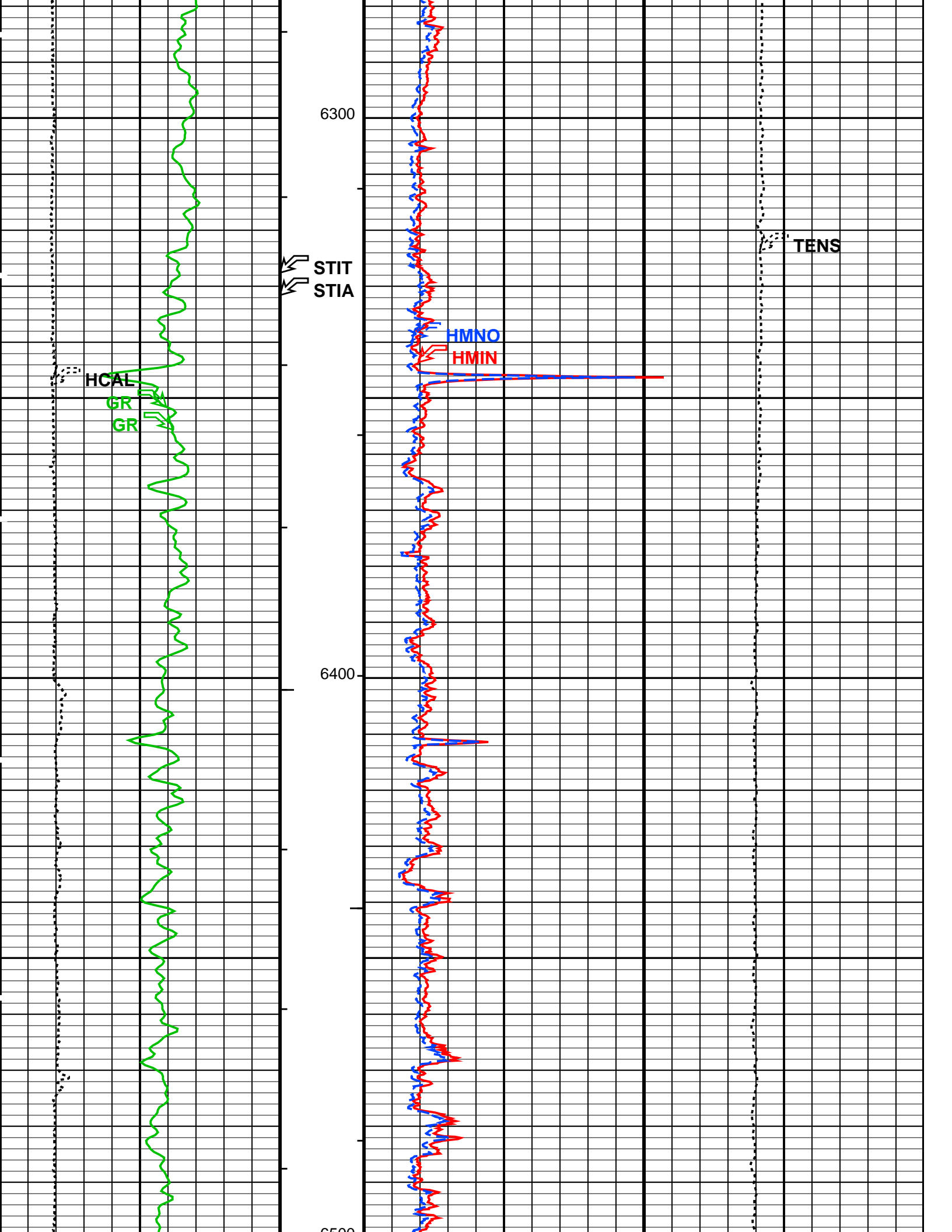


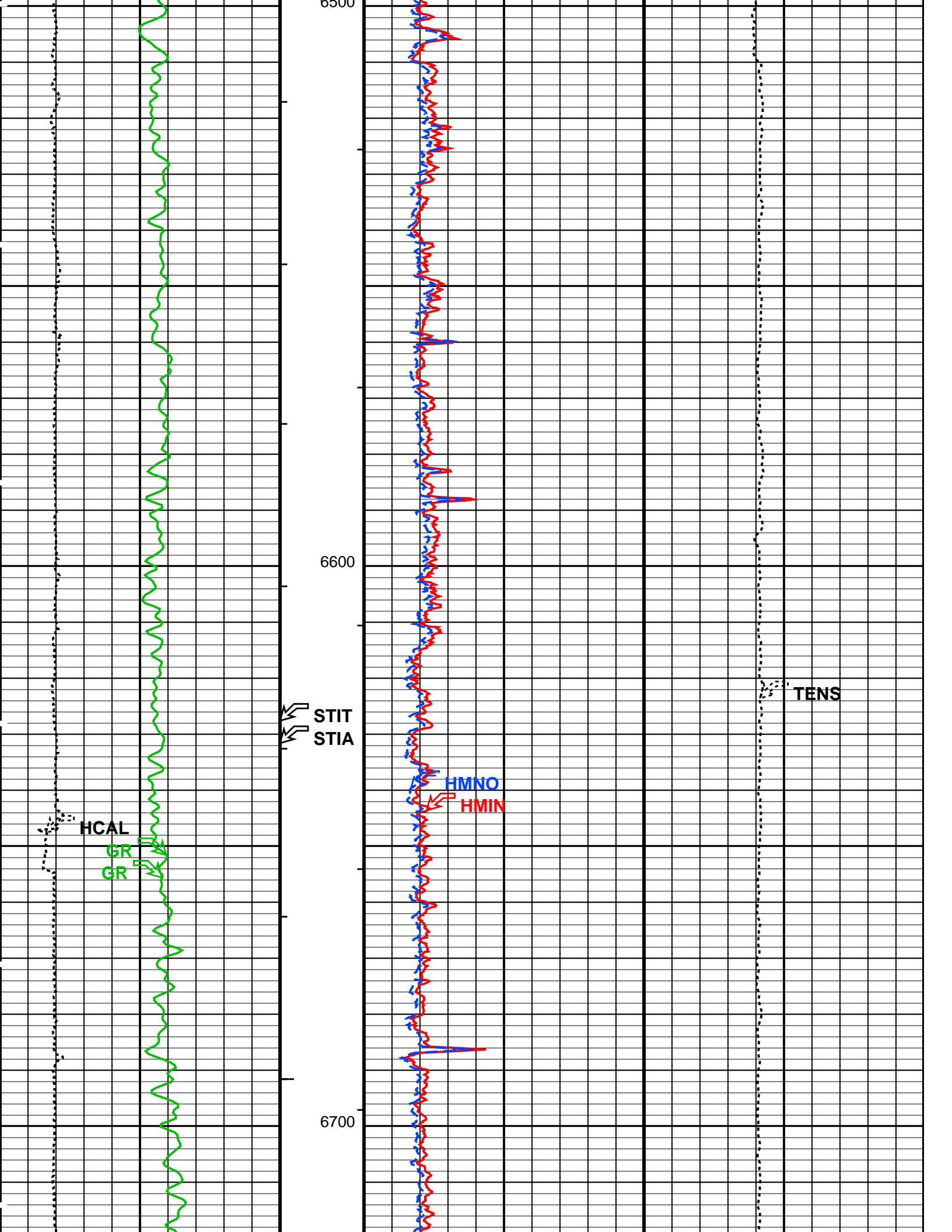


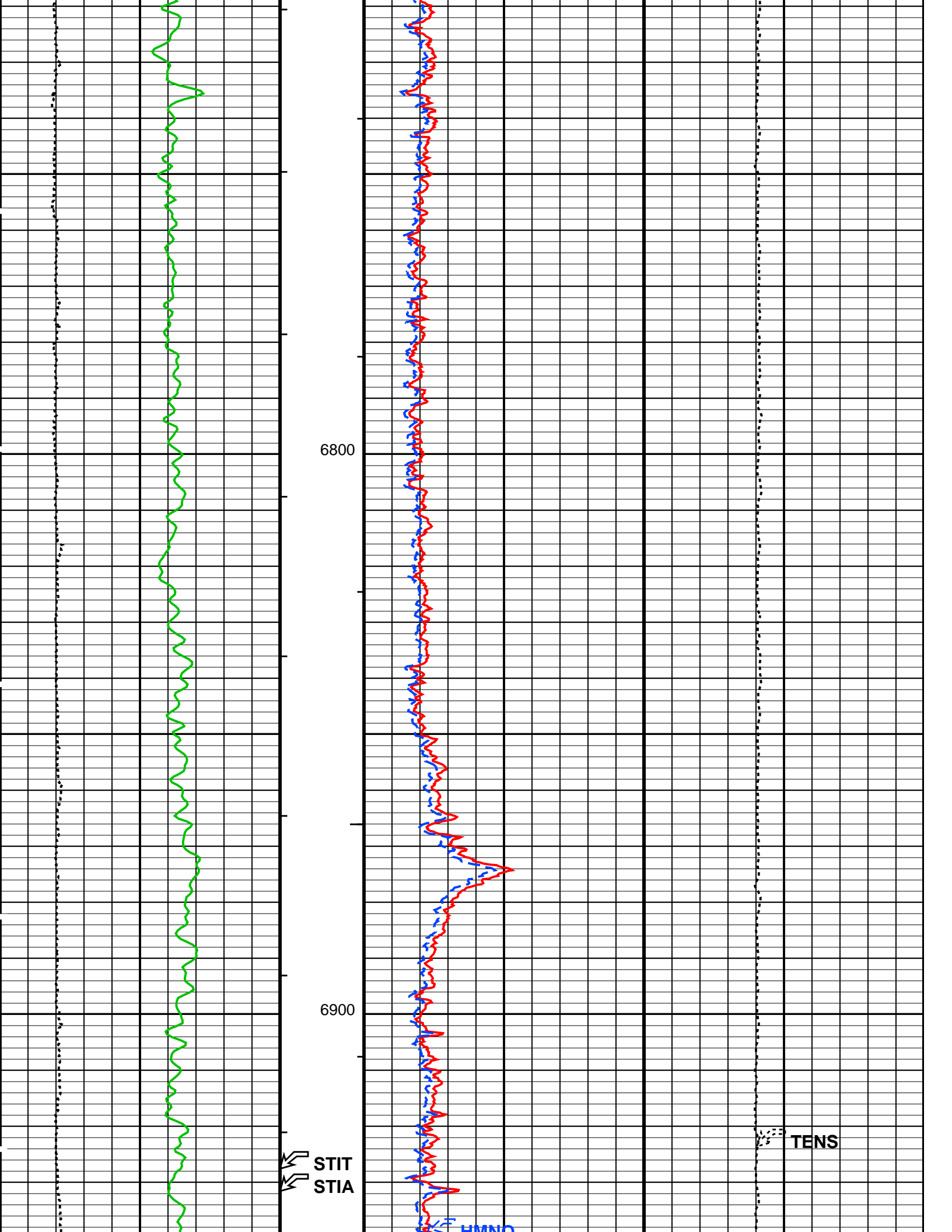


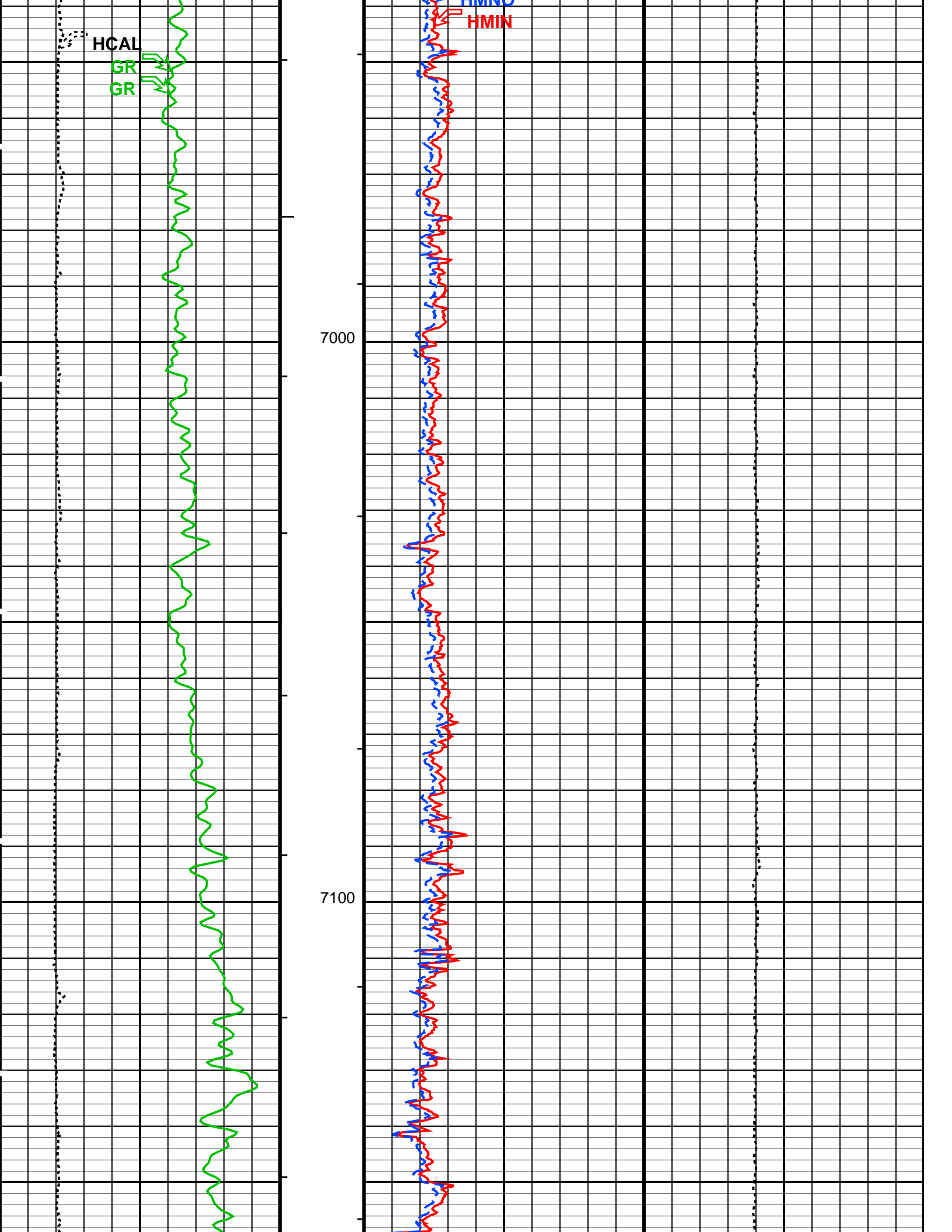


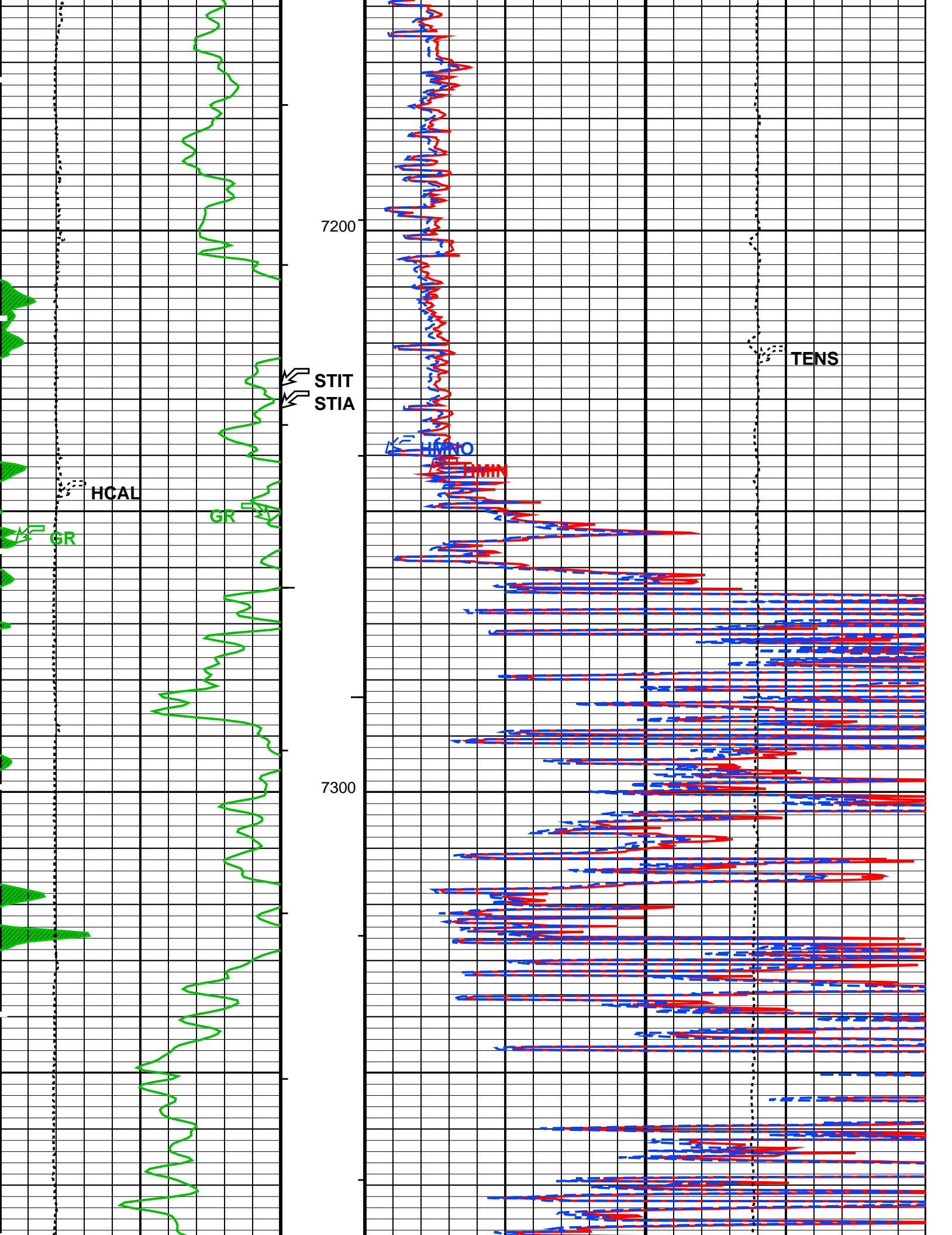


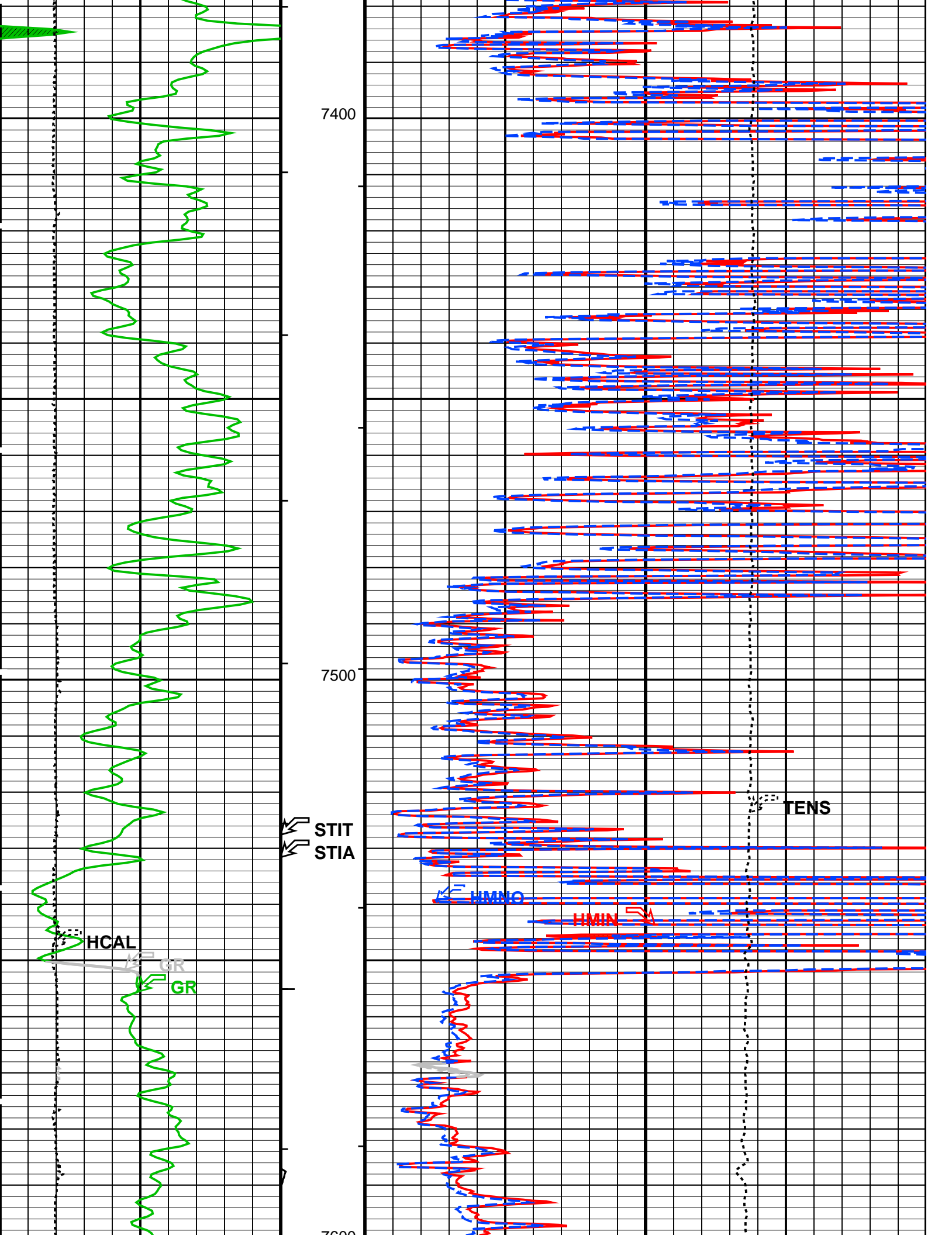


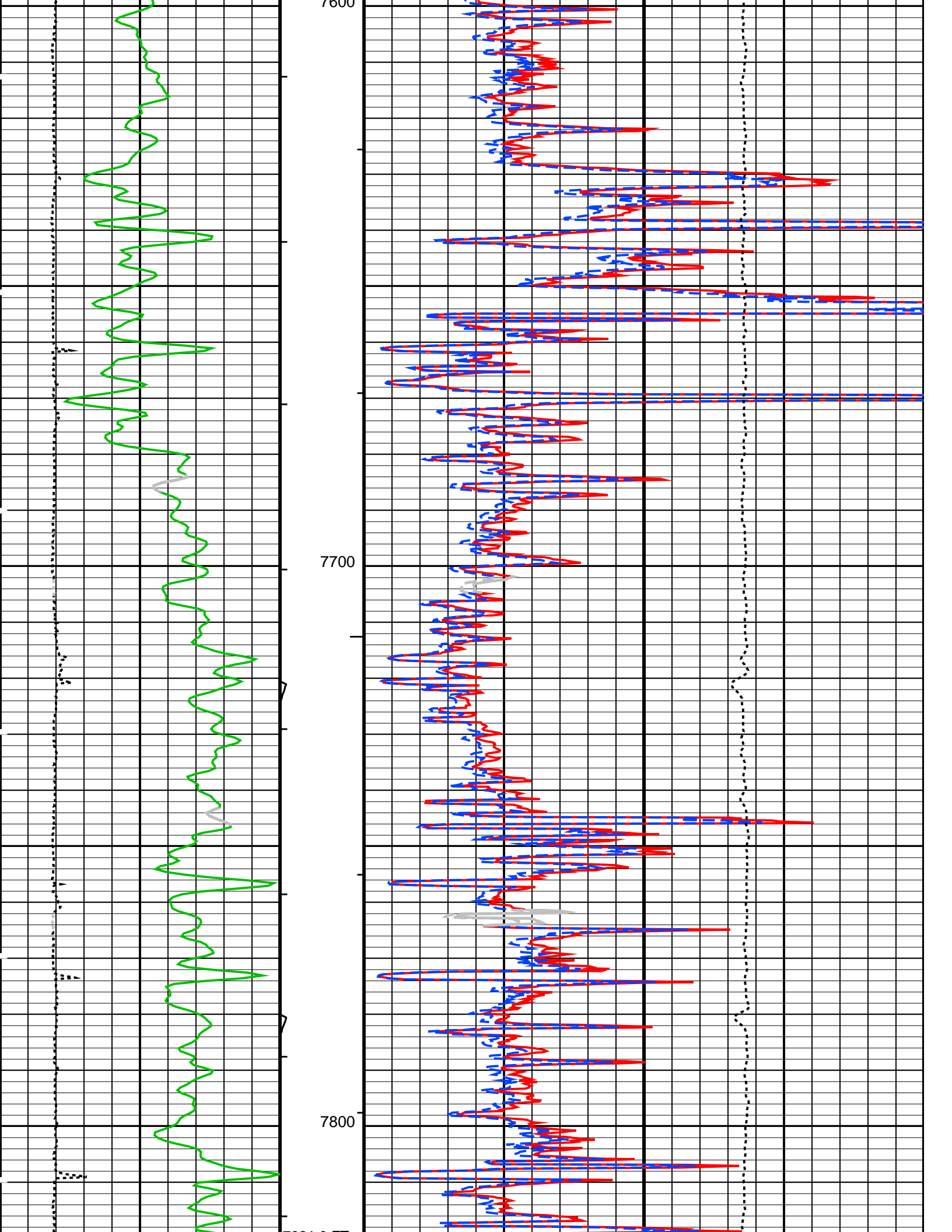


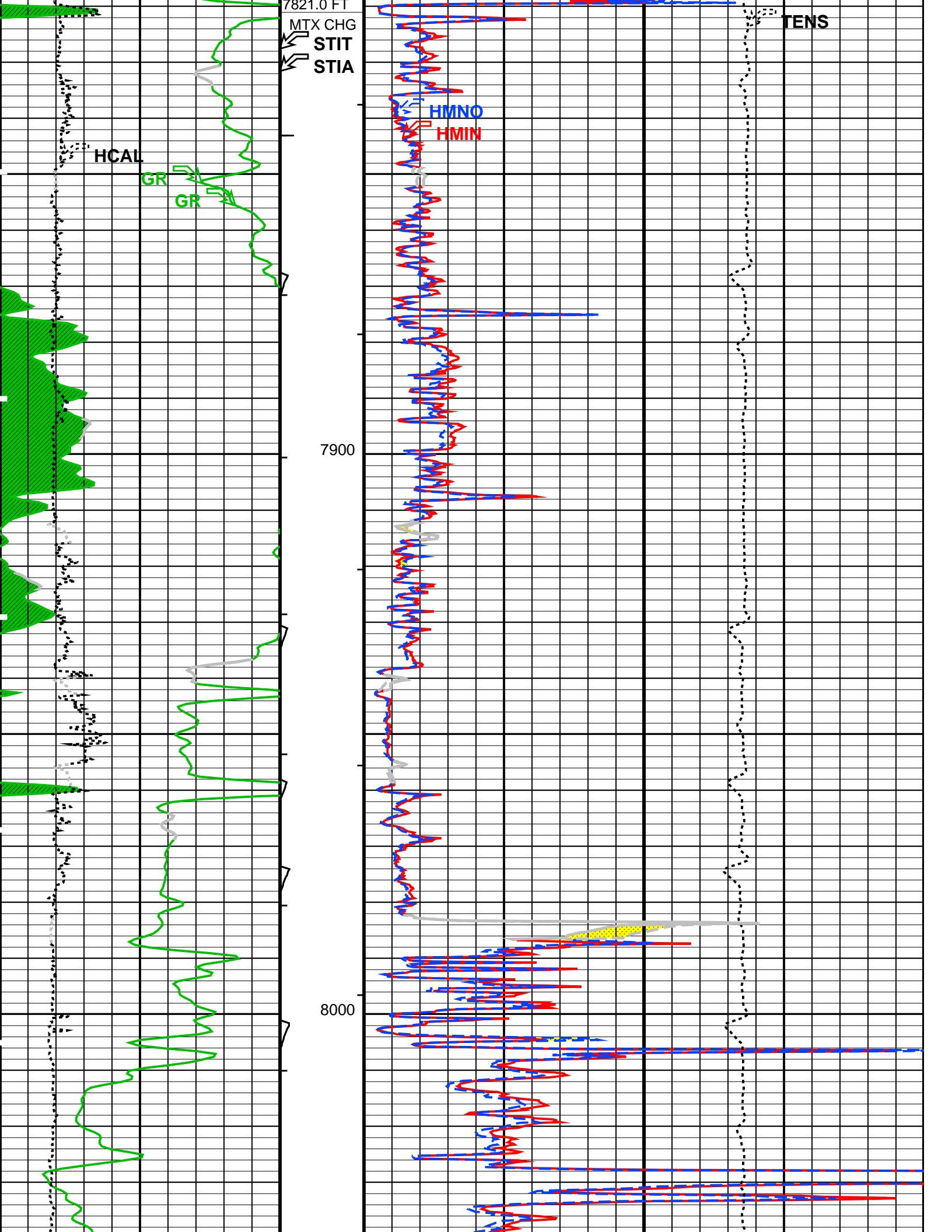


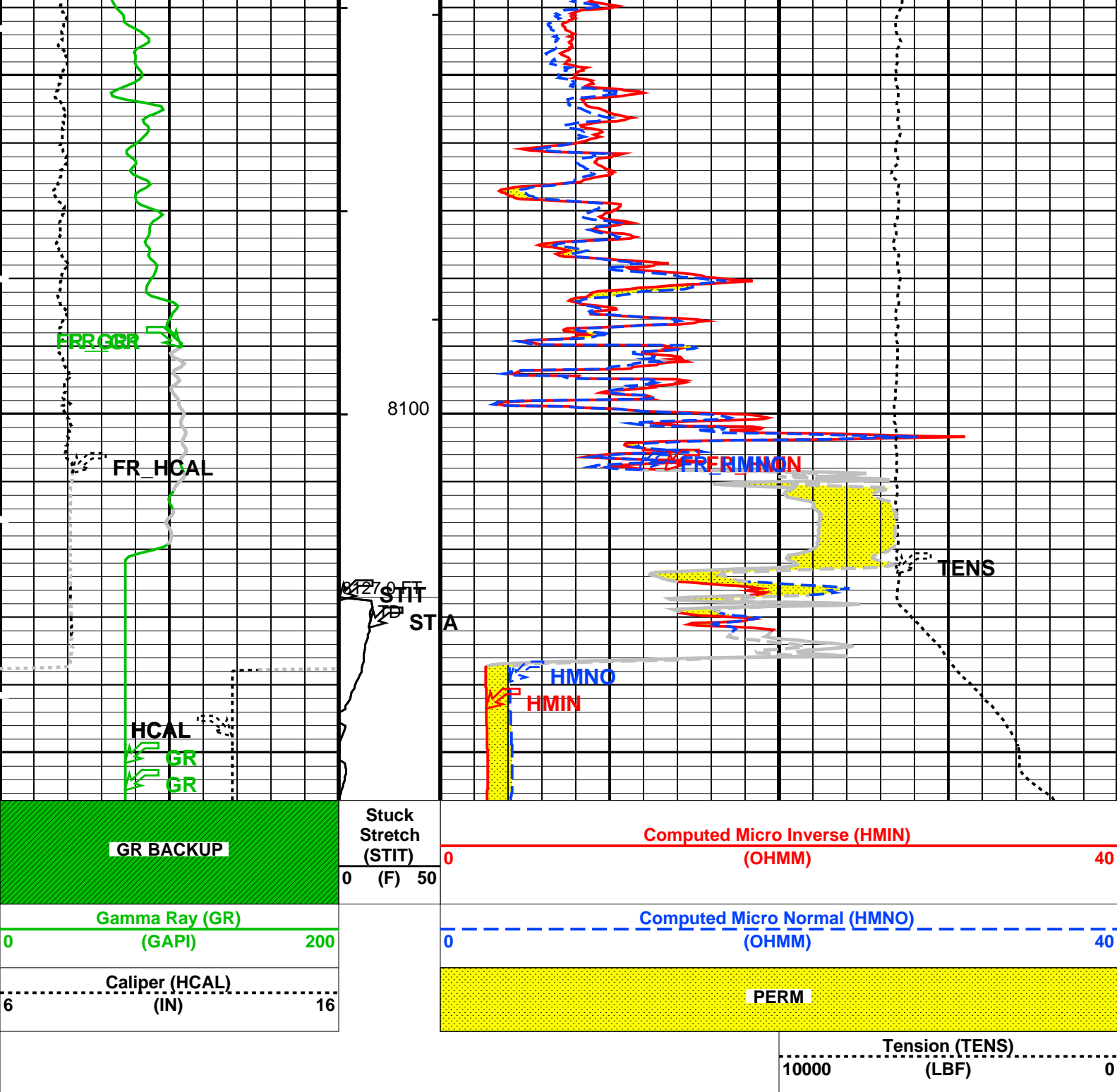












PIP SUMMARY

- └ 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	HILTH-FTB: High resolution Integrated Logging Tool-DTS MCFL Processing Operation Mode	ON	
BS	MAPC-B: Multimode Array Sonic Power Cartridge Bit Size	7.875	IN
SPVD	DIR: Directional Survey Computation TVD of Starting Point	0	FT
TIMD	Along-hole depth of Tie-in Point	0	FT
TIVD	TVD of Tie-in Point	0	FT
HOLEV: Integrated Hole/Cement Volume			

FCD	Future Casing (Outer) Diameter	4.5	IN
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	8153.00	FT
TDL	Total Depth – Logger	8127.00	FT
	System and Miscellaneous		
DO	Depth Offset for Playback	1.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	OFF	
TD	Total Depth	8127	FT

Format: MLT Vertical Scale: 5" per 100' Graphics File Created: 22-Sep-2012 16:44

OP System Version: 19C1-222

AIT-M	19C1-222	HILTH-FTB	19C1-222
GPIT-F	19C1-222	PPC1	19C1-222
MAXS-B	19C1-222	MAPC-B	19C1-222
EDTC-B	19C1-222		

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_IS_021LUP FN:20 PRODUCER 22-Sep-2012 13:19 8155.5 FT 606.7 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_IS_031PUP FN:30 PRODUCER 22-Sep-2012 16:44

Schlumberger

REPEAT ANALYSIS

MAXIS Field Log

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_IS_021LUP FN:20 PRODUCER 22-Sep-2012 13:19 8155.5 FT 606.7 FT
 DEFAULT AIT_TLD_MCFL_CNL_IS_018PUP FN:17 PRODUCER 22-Sep-2012 13:16 8146.5 FT 7731.5 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_IS_031PUP FN:30 PRODUCER 22-Sep-2012 16:44

Integrated Hole/Cement Volume Summary

Hole Volume = 13.08 F3

Cement Volume = 8.99 F3 (assuming 4.50 IN casing O.D.)

Computed from 8127.0 FT to 8090.5 FT using data channel(s) HCAL

OP System Version: 19C1-222

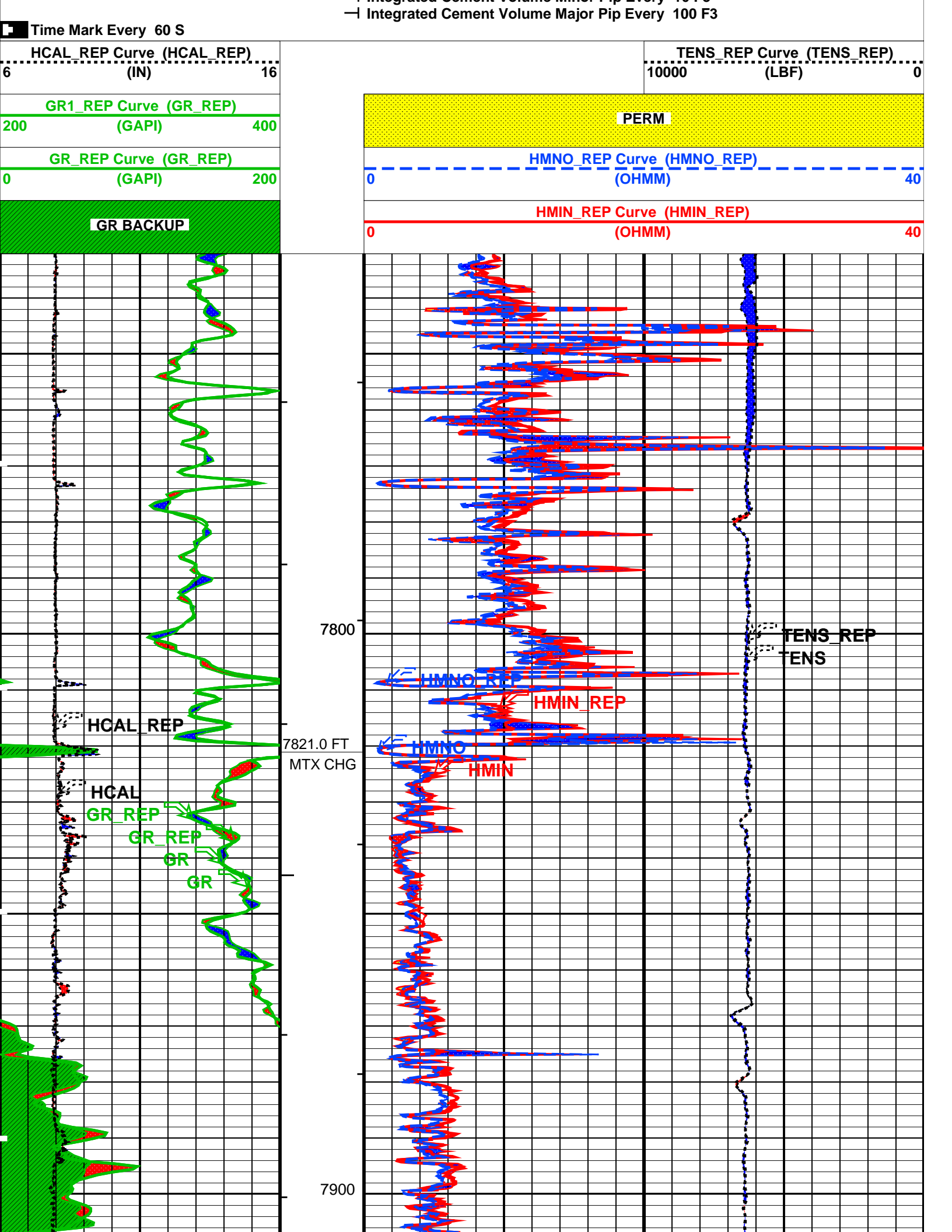
AIT-M	19C1-222	HILTH-FTB	19C1-222
GPIT-F	19C1-222	PPC1	19C1-222
MAXS-B	19C1-222	MAPC-B	19C1-222
EDTC-B	19C1-222		

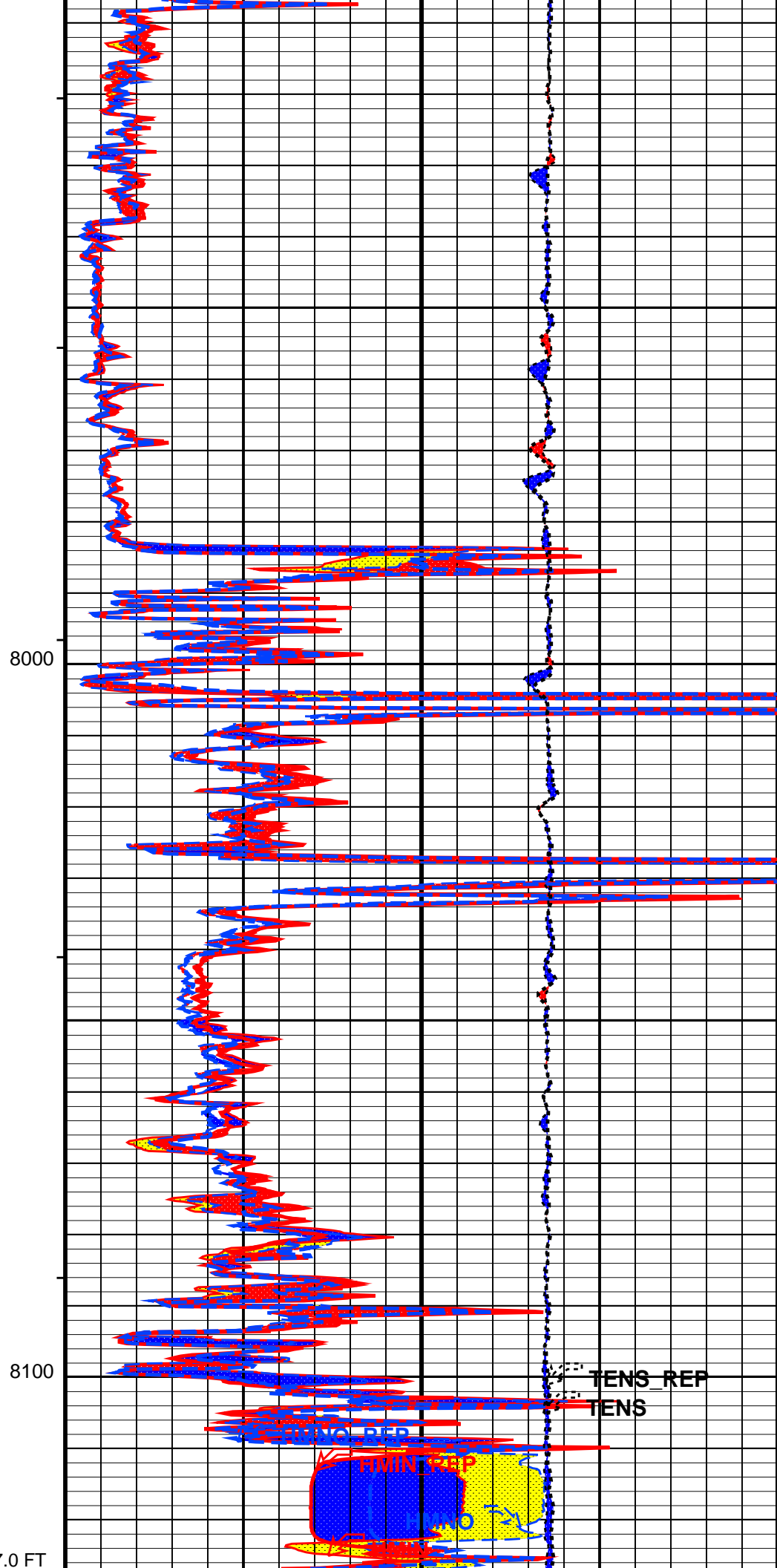
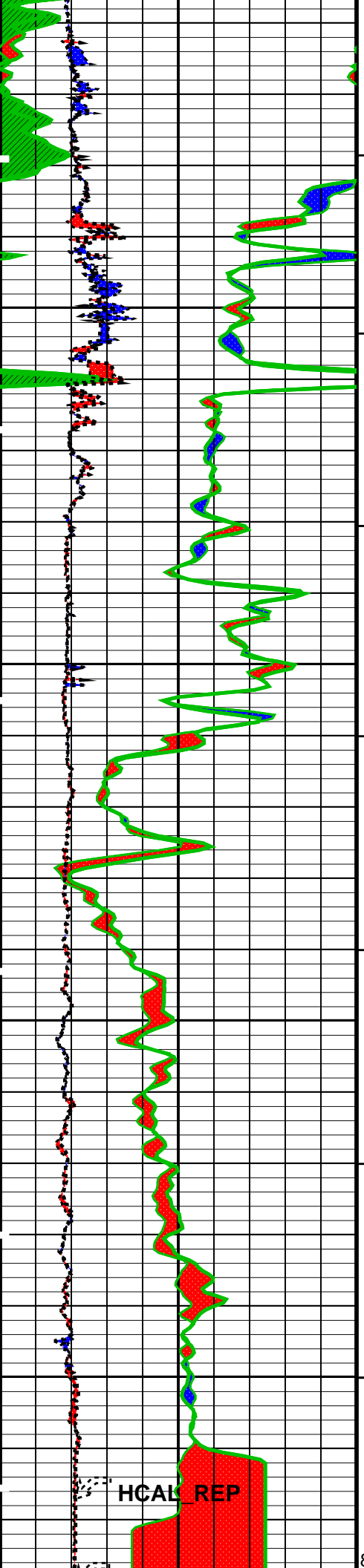
PIP SUMMARY

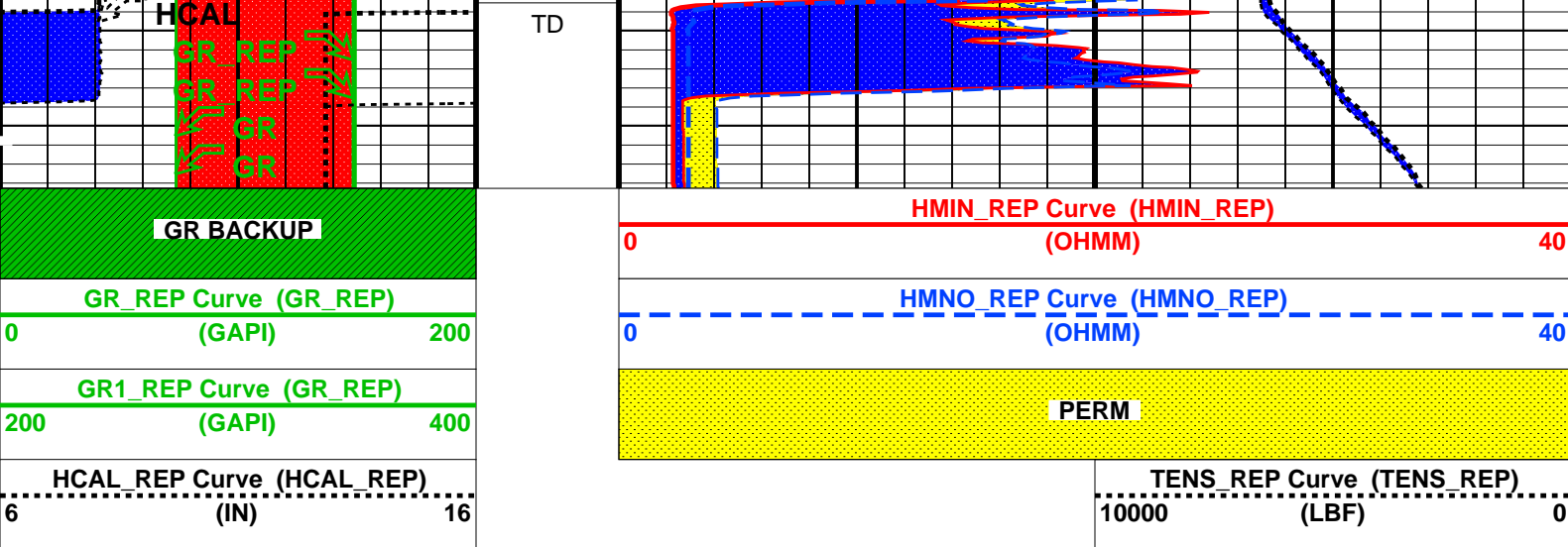
└ Integrated Hole Volume Minor Pip Every 10 F3

└ Integrated Hole Volume Major Pip Every 100 F3

└ Integrated Cement Volume Minor Pip Every 10 F3







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	HILTH-FTB: High resolution Integrated Logging Tool-DTS MCFL Processing Operation Mode	ON	
BS	MAPC-B: Multimode Array Sonic Power Cartridge Bit Size	7.875	IN
SPVD	DIR: Directional Survey Computation TVD of Starting Point	0	FT
TIMD	Along-hole depth of Tie-in Point	0	FT
TIVD	TVD of Tie-in Point	0	FT
FCD	HOLEV: Integrated Hole/Cement Volume Future Casing (Outer) Diameter	4.5	IN
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
DO	System and Miscellaneous Depth Offset for Playback	1.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	OFF	
TD	Total Depth	8127	FT

Format: MLT_REP Vertical Scale: 5" per 100' Graphics File Created: 22-Sep-2012 16:44

OP System Version: 19C1-222

AIT-M	19C1-222	HILTH-FTB	19C1-222
GPIT-F	19C1-222	PPC1	19C1-222
MAXS-B	19C1-222	MAPC-B	19C1-222
EDTC-B	19C1-222		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_IS_021LUP	FN:20	PRODUCER	22-Sep-2012 13:19	8155.5 FT	606.7 FT
DEFAULT	AIT_TLD_MCFL_CNL_IS_018PUP	FN:17	PRODUCER	22-Sep-2012 13:16	8146.5 FT	7731.5 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_IS_031PUP	FN:30	PRODUCER	22-Sep-2012 16:44
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Schlumberger

BEFORE CALIBRATIONS

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
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Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase

Master: 15-Jul-2012 19:16 Before: 20-Sep-2012 13:30

Thru Cal Magnitude – 0	0	0.6033	0.6062	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.234	1.241	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6147	0.6180	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.6930	0.6968	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.300	1.307	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.896	1.906	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.897	1.906	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.378	1.386	N/A	N/A	N/A	V
Thru Cal Phase – 0	0	194.3	194.8	N/A	N/A	N/A	DEG
Thru Cal Phase – 1	0	193.2	193.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 2	0	189.6	190.2	N/A	N/A	N/A	DEG
Thru Cal Phase – 3	0	188.9	189.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 4	0	182.8	183.3	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	181.1	181.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 6	0	181.1	181.6	N/A	N/A	N/A	DEG
Thru Cal Phase – 7	0	180.1	180.7	N/A	N/A	N/A	DEG

Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Auxiliary

Master: 15-Jul-2012 19:16 Before: 20-Sep-2012 13:30

Array Induction SPA Plus	991.0	992.6	992.7	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	0.6386	0.6478	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9170	0.9194	0.9195	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	0.0006423	0.0006534	N/A	N/A	N/A	V

Array Induction Tool – M Wellsite Calibration – Test Loop Gain Correction

Master: 15-Jul-2012 19:16

Test Loop Gain Correctio – 0	0	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 1	0	1.013	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 2	0	1.016	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 3	0	1.009	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 4	0	1.002	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 5	0	0.9877	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 6	0	0.9969	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 7	0	1.008	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 0	0	0.5595	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 1	0	0.6066	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 2	0	-0.01398	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 3	0	0.1665	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 4	0	0.07510	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 5	0	-0.1712	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 6	0	0.2118	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 7	0	-0.1268	N/A	N/A	N/A	N/A	DEG

Array Induction Tool – M Wellsite Calibration – Sonde Error Correction

Master: 15-Jul-2012 19:16

R Sonde Error Correction – 0	0	-111.9	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	158.9	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	115.6	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	64.22	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	26.91	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	13.32	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	9.680	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	-2.031	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	-133.0	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	-138.5	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	-69.80	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	-61.65	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	2.367	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	-2.232	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	3.238	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	-0.8541	N/A	N/A	N/A	N/A	MM/M

Array Induction Tool – M Wellsite Calibration – Mud Gain Correction

Master: 15-Jul-2012 19:16

Coarse – Mag, Real, Imag – 0	0	0.8639	N/A	N/A	N/A	N/A	
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Coarse – Mag, Real, Imag – 1	0	0.8639	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 2	0	0.8639	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 0	0	0.8718	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 1	0	0.8719	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 2	0	0.8719	N/A	N/A	N/A	N/A

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Stab Measurement Summary

Before: 20–Sep–2012 13:32

BS Window Ratio	0.7499	N/A	0.7495	N/A	N/A	N/A	CPS
BS Window Sum	25950	N/A	26230	N/A	N/A	N/A	
SS Window Ratio	0.4795	N/A	0.4827	N/A	N/A	N/A	CPS
SS Window Sum	10350	N/A	10320	N/A	N/A	N/A	
LS Window Ratio	0.3019	N/A	0.3038	N/A	N/A	N/A	CPS
LS Window Sum	1212	N/A	1209	N/A	N/A	N/A	

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Photo–multiplier High Voltages Calibrations

Before: 20–Sep–2012 13:32

BS PM High Voltage (Command)	1618	N/A	1616	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1405	N/A	1410	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1210	N/A	1220	N/A	N/A	N/A	V

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Crystal Quality Resolutions Calibration

Before: 20–Sep–2012 13:32

BS Crystal Resolution	11.39	N/A	11.43	N/A	N/A	N/A	%
SS Crystal Resolution	9.837	N/A	9.950	N/A	N/A	N/A	%
LS Crystal Resolution	8.074	N/A	8.228	N/A	N/A	N/A	%

High resolution Integrated Logging Tool–DTS Wellsite Calibration – MCFL Calibration

Before: 20–Sep–2012 13:33

Raw B0 Resistivity	3875	N/A	3881	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3816	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3820	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool–DTS Wellsite Calibration – HILT Caliper Calibration

Before: 20–Sep–2012 13:30

HILT Caliper Zero Measurement	8.000	N/A	8.809	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	13.13	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Detector Calibration

Before: 20–Sep–2012 13:28

Gamma Ray Background	30.00	N/A	79.67	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	168.5	N/A	N/A	15.00	GAPI

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Zero Measurement

Master: 10–Jul–2012 11:55 Before: 20–Sep–2012 13:29

CNTC Background	25.17	25.17	25.39	N/A	N/A	3.776	CPS
CFTC Background	28.42	28.42	28.16	N/A	N/A	4.263	CPS

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement

Master: 10–Jul–2012 11:55

Thermal Near Corr. (Tank)	5800	5227	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2158	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.422	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration

Before: 21–Sep–2012 20:47

Z–Axis Acceleration	32.19	N/A	32.06	N/A	N/A	N/A	F/S2
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Powered Positioning Device/Caliper 1 Wellsite Calibration – PPC1 Caliper Calibration

Before: 1–Jan–1970 0:00

PPC1 Radius 1 Raw Small Radius	3.500	N/A	4.307	N/A	N/A	0.5000	IN
PPC1 Radius 1 Raw Large Radius	8.000	N/A	8.547	N/A	N/A	0.5000	IN
PPC1 Radius 2 Raw Small Radius	3.500	N/A	3.148	N/A	N/A	0.5000	IN
PPC1 Radius 2 Raw Large Radius	8.000	N/A	7.669	N/A	N/A	0.5000	IN
PPC1 Radius 3 Raw Small Radius	3.500	N/A	4.266	N/A	N/A	0.5000	IN
PPC1 Radius 3 Raw Large Radius	8.000	N/A	8.652	N/A	N/A	0.5000	IN
PPC1 Radius 4 Raw Small Radius	3.500	N/A	3.242	N/A	N/A	0.5000	IN
PPC1 Radius 4 Raw Large Radius	8.000	N/A	7.677	N/A	N/A	0.5000	IN

Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 21–Sep–2012 20:47

EDTC Z–Axis Acceleration	32.19	N/A	31.99	N/A	N/A	N/A	F/S2
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Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 20–Sep–2012 13:38

Gamma Ray (Jig – Bkg)	145.8	N/A	145.8	N/A	N/A	13.26	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

The GLS-VJ source activity is acceptable.

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

NCT-B Water Temperature 71.8 DEGF.
Thermal Housing Size 3.370 IN.
NSR-F serial number 5168

Array Induction Tool – M / Equipment Identification

Primary Equipment:
Rm/SP Bottom Nose
Array Induction Sonde
AMRM – A
AMIS – A
1270

Auxiliary Equipment:

















Array Induction Tool – M Wellsite Calibration							
Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Thru Cal Phase DEG	Nominal
0	Master	0.6033		0.6100	194.3		197.0
	Before	0.6062			194.8		
1	Master	1.234		1.270	193.2		196.0
	Before	1.241			193.7		
2	Master	0.6147		0.6200	189.6		192.0
	Before	0.6180			190.2		
3	Master	0.6930		0.7000	188.9		191.0
	Before	0.6968			189.4		
4	Master	1.300		1.340	182.8		185.0
	Before	1.307			183.3		
5	Master	1.896		1.960	181.1		182.0
	Before	1.906			181.6		
6	Master	1.897		1.960	181.1		181.0
	Before	1.906			181.6		
7	Master	1.378		1.410	180.1		175.0
	Before	1.386			180.7		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 15-Jul-2012 19:16				Before: 20-Sep-2012 13:30			

Array Induction Tool – M Wellsite Calibration									
Electronics Calibration Check – Auxiliary									
Phase	Array Induction SPA Plus MV		Value	Phase	Array Induction SPA Zero MV		Value		
Master			992.6	Master			0.6386		
Before			992.7	Before			0.6478		
941.0 (Minimum)			991.0 (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				0.9194	Master				0.0006423
Before				0.9195	Before				0.0006534
0.8710 (Minimum)			0.9170 (Nominal)	0.9630 (Maximum)	-0.05000 (Minimum)			0 (Nominal)	0.05000 (Maximum)
Master: 15-Jul-2012 19:16					Before: 20-Sep-2012 13:30				







Array Induction Tool – M Wellsite Calibration					
Test Loop Gain Correction					
Idx	Value	Test Loop Gain Correction Magnitude V	Value	Test Loop Gain Correction Phase DEG	

0	1.012		0.5595			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.013		0.6066			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.016		-0.01398			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.009		0.1665			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	1.002		0.07510			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9877		-0.1712			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9969		0.2118			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.008		-0.1268			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)



Master: 15-Jul-2012 19:16





Array Induction Tool – M Wellsite Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M	
0	-111.9				-133.0		
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal) 2250 (Maximum)
1	158.9				-138.5		
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal) 625.0 (Maximum)
2	115.6				-69.80		
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal) 350.0 (Maximum)
3	64.22				-61.65		
		39.00 (Minimum)	64.00 (Nominal)	89.30 (Maximum)		-250.0 (Minimum)	0 (Nominal) 250.0 (Maximum)
4	26.91				2.367		
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal) 63.00 (Maximum)
5	13.32				-2.232		
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal) 50.00 (Maximum)
6	9.680				3.238		
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal) 30.00 (Maximum)
7	-2.031				-0.8541		
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal) 30.00 (Maximum)




Master: 15-Jul-2012 19:16


Array Induction Tool – M Wellsite Calibration							
Mud Gain Correction							
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag	
0	0.8639				0.8718		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)
1	0.8639				0.8719		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)
2	0.8639				0.8719		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)

High resolution Integrated Logging Tool–DTS Wellsite Calibration
Detector Calibration

Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig – Bkgd) GAPI		Value
Before			79.67	Before			168.5
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		157.1 (Minimum)	165.0 (Nominal)	206.3 (Maximum)
Before: 20-Sep-2012 13:28							







High resolution Integrated Logging Tool–DTS Wellsite Calibration							
Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			25.17	Master			28.42
Before			25.39	Before			28.16
	5.000 (Minimum)	25.17 (Nominal)	40.00 (Maximum)		5.000 (Minimum)	28.42 (Nominal)	40.00 (Maximum)
Master: 10-Jul-2012 11:55				Before: 20-Sep-2012 13:29			



High resolution Integrated Logging Tool–DTS Wellsite Calibration														
Ratio Measurement														
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)			Value
Master				5227	Master				2158	Master				2.422
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)			2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	
Master: 10–Jul–2012 11:55														

High resolution Integrated Logging Tool–DTS Wellsite Calibration			
Accelerometer Calibration			
Phase	Z–Axis Acceleration F/S2	Value	
Before		32.06	
	31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)
Before: 21–Sep–2012 20:47			

General Purpose Inclinerometer / Equipment Identification	
Primary Equipment: GPIT Cartridge – F	GPIC – F
Auxiliary Equipment: GPIT Housing – F	GPIH – B

Powered Positioning Device/Caliper 1 / Equipment Identification	
Primary Equipment: PPC Powered Positioning Device/Caliper PPC1 Caliper Standard	PPC1 – B PPC_ –
Auxiliary Equipment:	

Powered Positioning Device/Caliper 1 Wellsite Calibration							
PPC1 Caliper Calibration							
Phase	PPC1 Radius 1 Raw Small Radius IN		Value	Phase	PPC1 Radius 1 Raw Large Radius IN		Value
Before			4.307	Before			8.547
	1.200 (Minimum)	3.500 (Nominal)	5.600 (Maximum)		6.100 (Minimum)	8.000 (Nominal)	9.700 (Maximum)
Phase	PPC1 Radius 2 Raw Small Radius IN		Value	Phase	PPC1 Radius 2 Raw Large Radius IN		Value
Before			3.148	Before			7.669
	1.200 (Minimum)	3.500 (Nominal)	5.600 (Maximum)		6.100 (Minimum)	8.000 (Nominal)	9.700 (Maximum)
Phase	PPC1 Radius 3 Raw Small Radius IN		Value	Phase	PPC1 Radius 3 Raw Large Radius IN		Value
Before			4.266	Before			8.652
	1.200 (Minimum)	3.500 (Nominal)	5.600 (Maximum)		6.100 (Minimum)	8.000 (Nominal)	9.700 (Maximum)
Phase	PPC1 Radius 4 Raw Small Radius IN		Value	Phase	PPC1 Radius 4 Raw Large Radius IN		Value

Before		3.242	Before		7.677
1.200 (Minimum)	3.500 (Nominal)	5.600 (Maximum)	6.100 (Minimum)	8.000 (Nominal)	9.700 (Maximum)
Before: 1-Jan-1970 0:00					

Multimode Array Sonic Power Cartridge / Equipment Identification

Primary Equipment:

Multimode Array Sonic Minimum Service So
Multimode Array Sonic Control Cartridge

MAMS – BA
MAPC – BA

Auxiliary Equipment:

Electronics Cartridge Housing

ECH – SF

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:


EDTC Gamma Ray Detector
Enhanced DTS Cartridge




EDTG – A/B
EDTC – B

Auxiliary Equipment:

EDTC Housing

EDTH – B

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration F/S2	Value
Before		31.99
0 (Minimum)	32.19 (Nominal)	32.84 (Maximum)
Before: 21-Sep-2012 20:47		

Enhanced DTS Cartridge Wellsite Calibration														
Detector Calibration														
Phase	Gamma Ray Background		GAPI	Value	Phase	Gamma Ray (Jig – Bkg)		GAPI	Value	Phase	Gamma Ray (Calibrated)		GAPI	Value
Before				73.97	Before				145.8	Before				165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)			132.6 (Minimum)	145.8 (Nominal)	159.1 (Maximum)			150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)		
Before: 20-Sep-2012 13:38														

Company: **Encana Oil& Gas (USA) Inc**

Schlumberger

Well: **Peppler Farms 4-2-4**

Field: **Wattenberg**

County: **Weld**

State: **Colorado**

Platform Express
Micro Log