

Schlumberger

Company: **Whiting Oil and Gas Corporation**

Well: **Wildhorse 16-13L**

Field: **Wildcat**

County: **Weld**

State: **Colorado**

Company:	Whiting Oil and Gas Corporation		
Well:	Wildhorse 16-13L		
Field:	Wildcat		
County:	Weld	State:	Colorado

Well: **Wildhorse 16-13L**
Field: **Wildcat**
County: **Weld** State: **Colorado**

Field: **Wildcat**
County: **Weld** State: **Colorado**

County: **Weld** State: **Colorado**

County:	Weld
Field:	Wildcat
Location:	NWSW Sec. 16, T9N, R59W
Well:	Wildhorse 16-13L
Company:	Whiting Oil and Gas Corporation

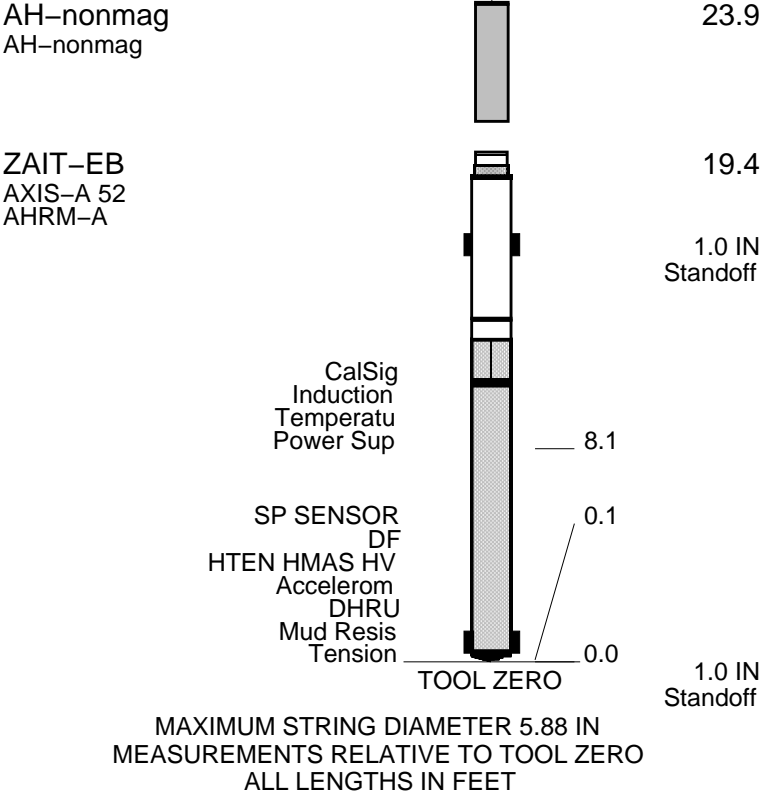
Platform Express Micro Log			
LOCATION			
NWSW Sec. 16, T9N, R59W	Elev.:	K.B.	5072.30 ft
SHL: 1954' FSL X 613' FWL		G.L.	5055.00 ft
		D.F.	5071.30 ft
Permanent Datum:	Ground Level	Elev.:	5055.00 ft
Log Measured From:	Kelly Bushing	17.30 ft	above Perm. Datum
Drilling Measured From:	Kelly Bushing		
API Serial No. 05-123-37374-000C	Section 16	Township 9N	Range 59W

[illegible]

Logging Date	2-Jul-2013				
Run Number	1				
Depth Driller	10060 ft				
Schlumberger Depth	10050 ft				
Bottom Log Interval	10042 ft				
Top Log Interval	1607 ft				
Casing Driller Size @ Depth	9.625 in @ 1608 ft			@	
Casing Schlumberger	1607 ft				
Bit Size	8.750 in				
Type Fluid In Hole	Water Based Mud				
Density	9.1 lbm/gal		45 s		
Fluid Loss	4.8 cm3		9		
Source Of Sample	Flowline				
RM @ Measured Temperature	1.150 ohm.m @ 130 degF		@		
RMF @ Measured Temperature	0.920 ohm.m @ 130 degF		@		
RMC @ Measured Temperature	1.380 ohm.m @ 130 degF		@		
Source RMF	Mud Press		Mud Press		
RM @ MRT	0.679 @ 225	0.543 @ 225	@		@
Maximum Recorded Temperatures	225 degF				
Circulation Stopped	2-Jul-2013		9:00		
Logger On Bottom	2-Jul-2013		19:55		
Unit Number	2135		Ft. Morgan, CO		
Recorded By	Tim Hoffman				
Witnessed By	Chris Blodgett				

Logging Date				
Run Number				
Depth Driller				
Schlumberger Depth				
Bottom Log Interval				
Top Log Interval				
Casing Driller Size @ Depth		@		
Casing Schlumberger				
Bit Size				
Type Fluid In Hole				
Density	Viscosity			
Fluid Loss	PH			
Source Of Sample				
RM @ Measured Temperature		@		
RMF @ Measured Temperature		@		
RMC @ Measured Temperature		@		
Source RMF	RMC			
RM @ MRT	RMF @ MRT	@		@
Maximum Recorded Temperatures				
Circulation Stopped	Time			
Logger On Bottom	Time			
Unit Number	Location			
Recorded By				
Witnessed By				

Rig: Cade 21					
Crew: Alonzo Carrera, David Marquez					
RUN 1			RUN 2		
SERVICE ORDER #:		CCN1-00014	SERVICE ORDER #:		
PROGRAM VERSION:		19C2-270	PROGRAM VERSION:		
FLUID LEVEL:		200 ft	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT					
WITM (DTS)-A					
GSR-U/Y NCT-B CNB-AB NCS-VB					
DOWNHOLE EQUIPMENT					



Schlumberger

MAIN MICRO LOG 5" = 100'

MAXIS Field Log

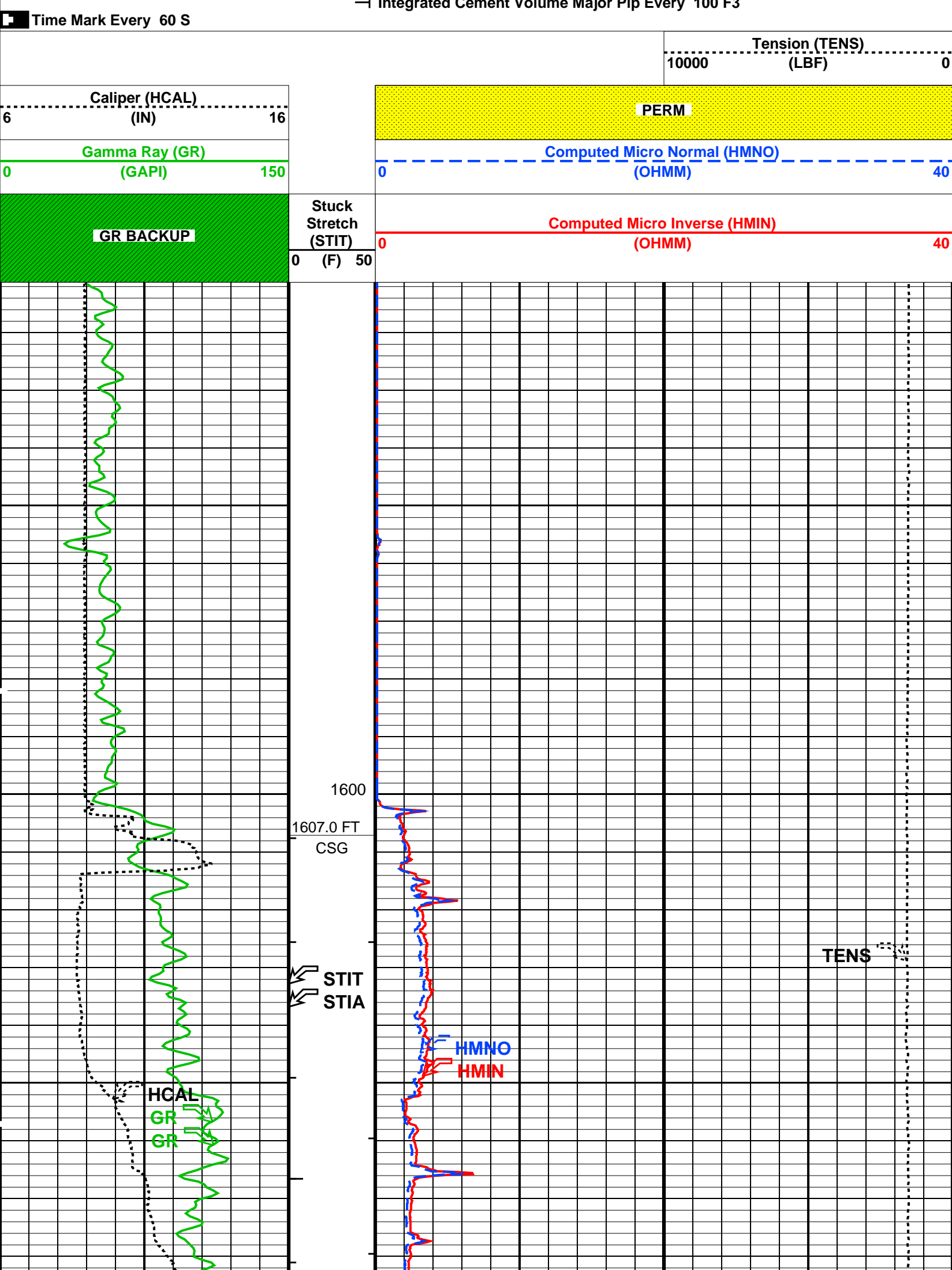
Input DLIS Files						
DEFAULT	AIT_IS_TLD_MCFL_CNL_012LUP	FN:11	PRODUCER	02-Jul-2013 19:58	10062.0 FT	1511.0 FT
Output DLIS Files						
DEFAULT	AIT_IS_TLD_MCFL_CNL_024PUP	FN:25	PRODUCER	02-Jul-2013 23:19	10062.0 FT	1511.0 FT
CUSTOMER	AIT_IS_TLD_MCFL_CNL_024PUC	FN:26	CUSTOMER	02-Jul-2013 23:19	10062.0 FT	1511.0 FT
Integrated Hole/Cement Volume Summary						
Hole Volume = 4330.51 F3						
Cement Volume = 2937.52 F3 (assuming 5.50 IN casing O.D.)						
Computed from 10050.0 FT to 1607.0 FT using data channel(s) HCAL						
OP System Version: 19C2-270						
ZAIT-EB	19C2-270		GPIT-F	19C2-270		
HILTH-FTB	19C2-270		DTC-H	19C2-270		

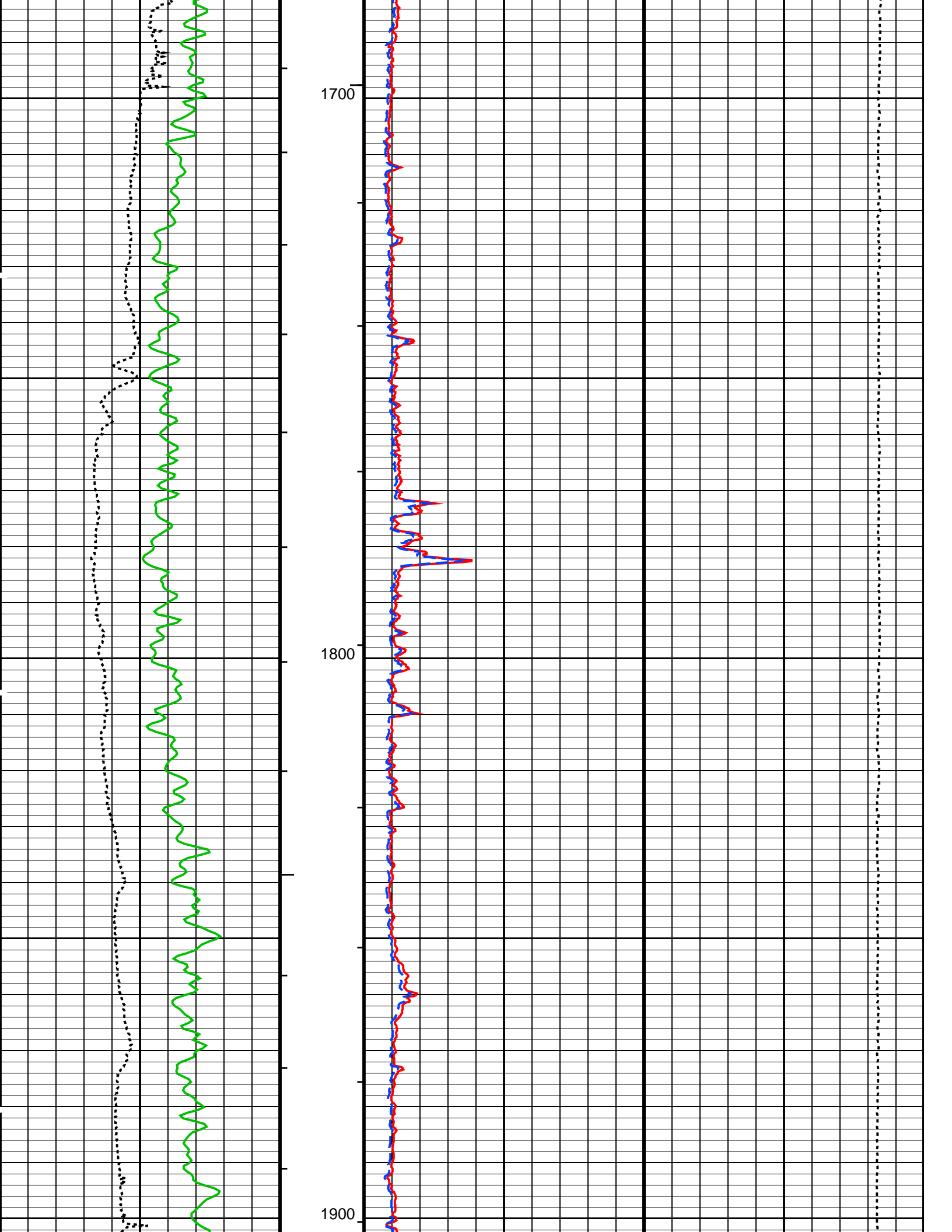
- PIP SUMMARY
- └ Integrated Hole Volume Minor Pip Every 10 F3

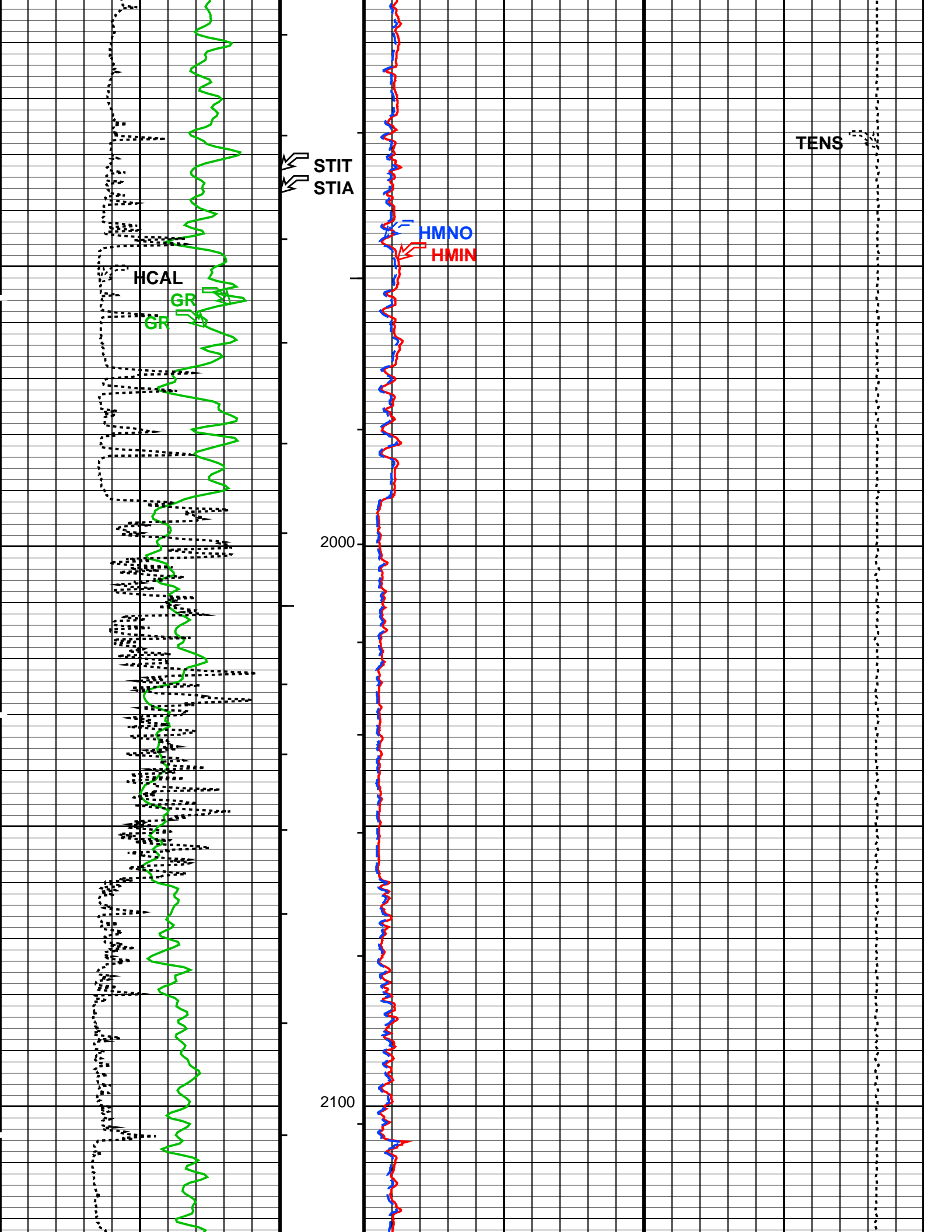
└ Integrated Hole Volume Major Pip Every 100 F3

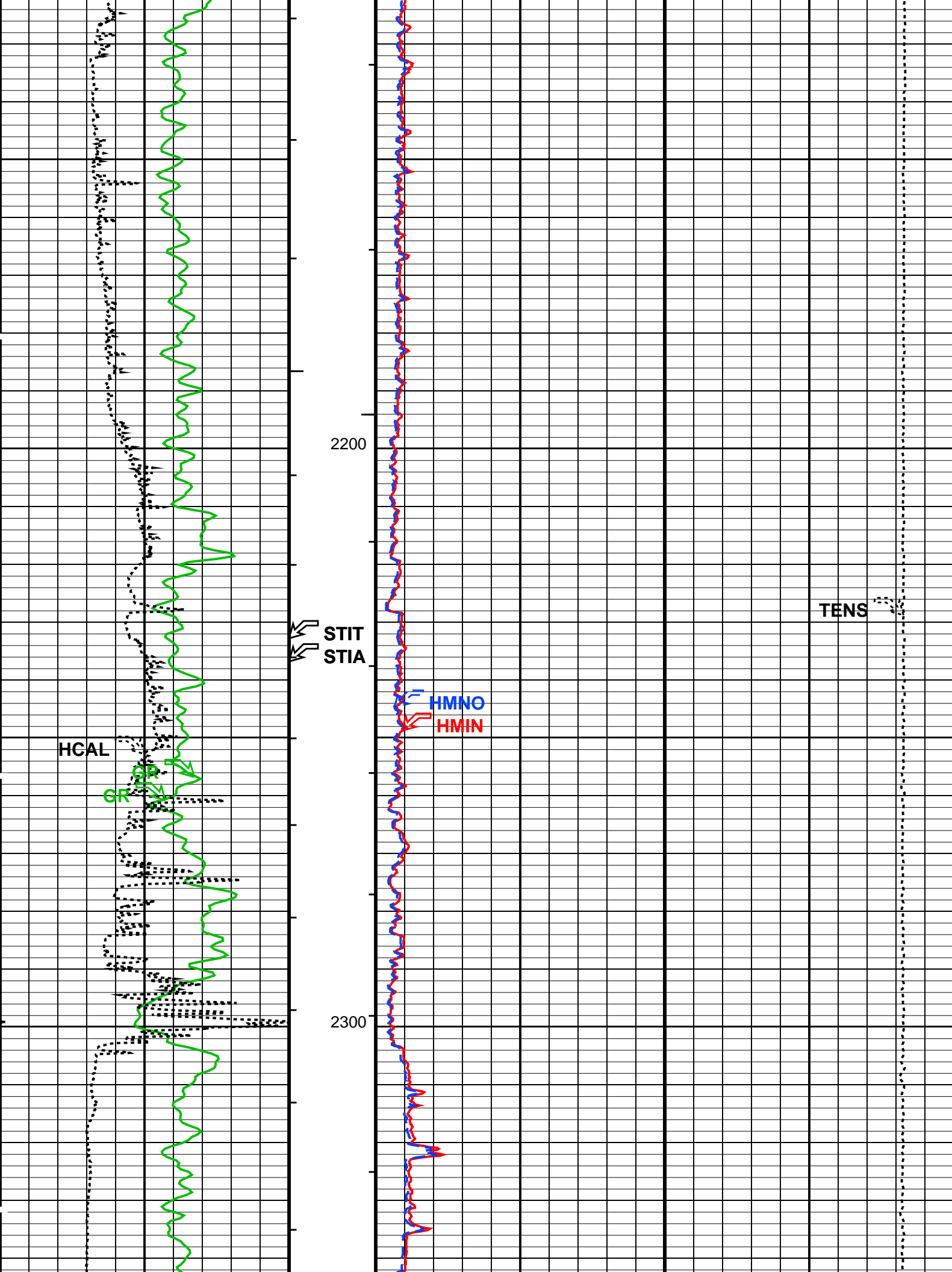
└ Integrated Cement Volume Minor Pip Every 10 F3

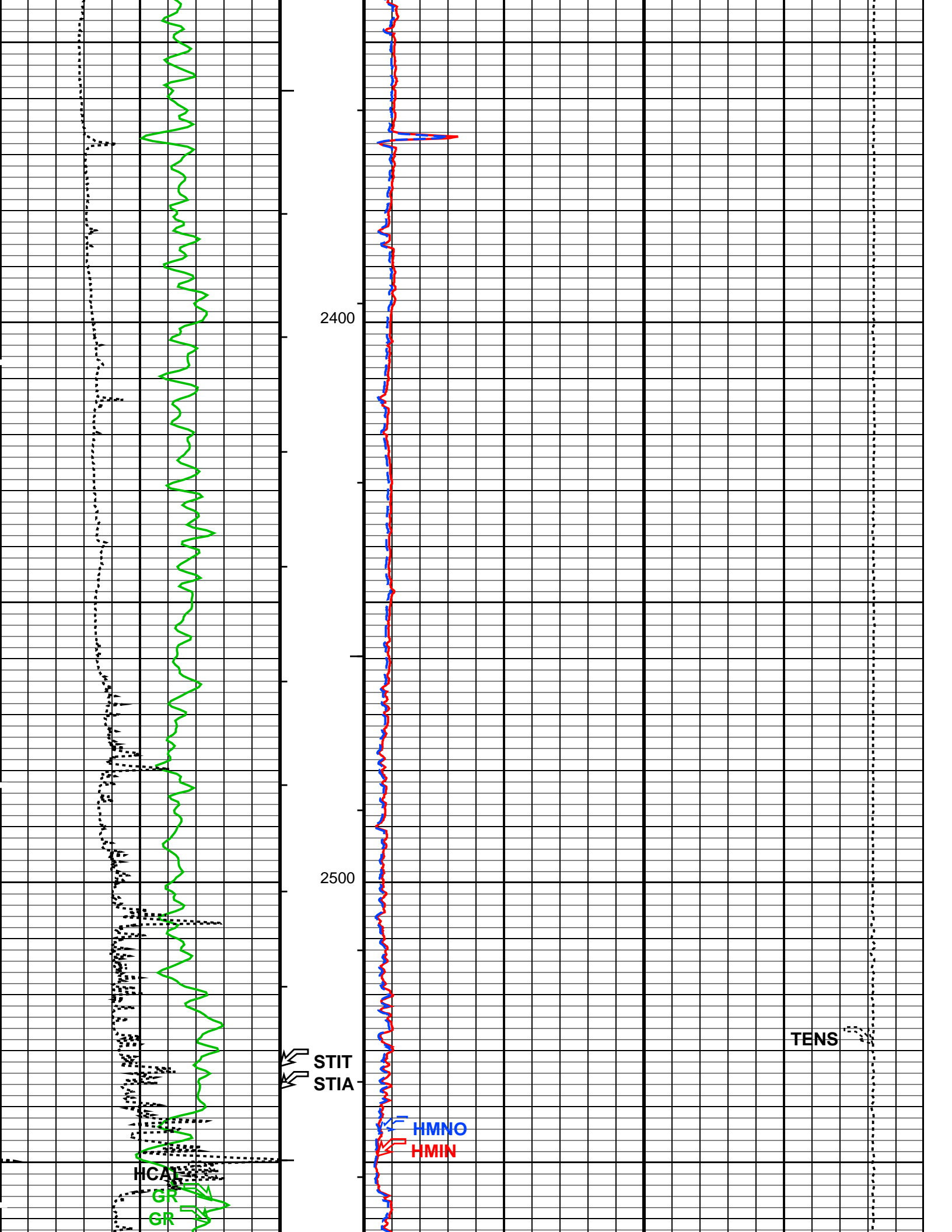
└ Integrated Cement Volume Major Pip Every 100 F3

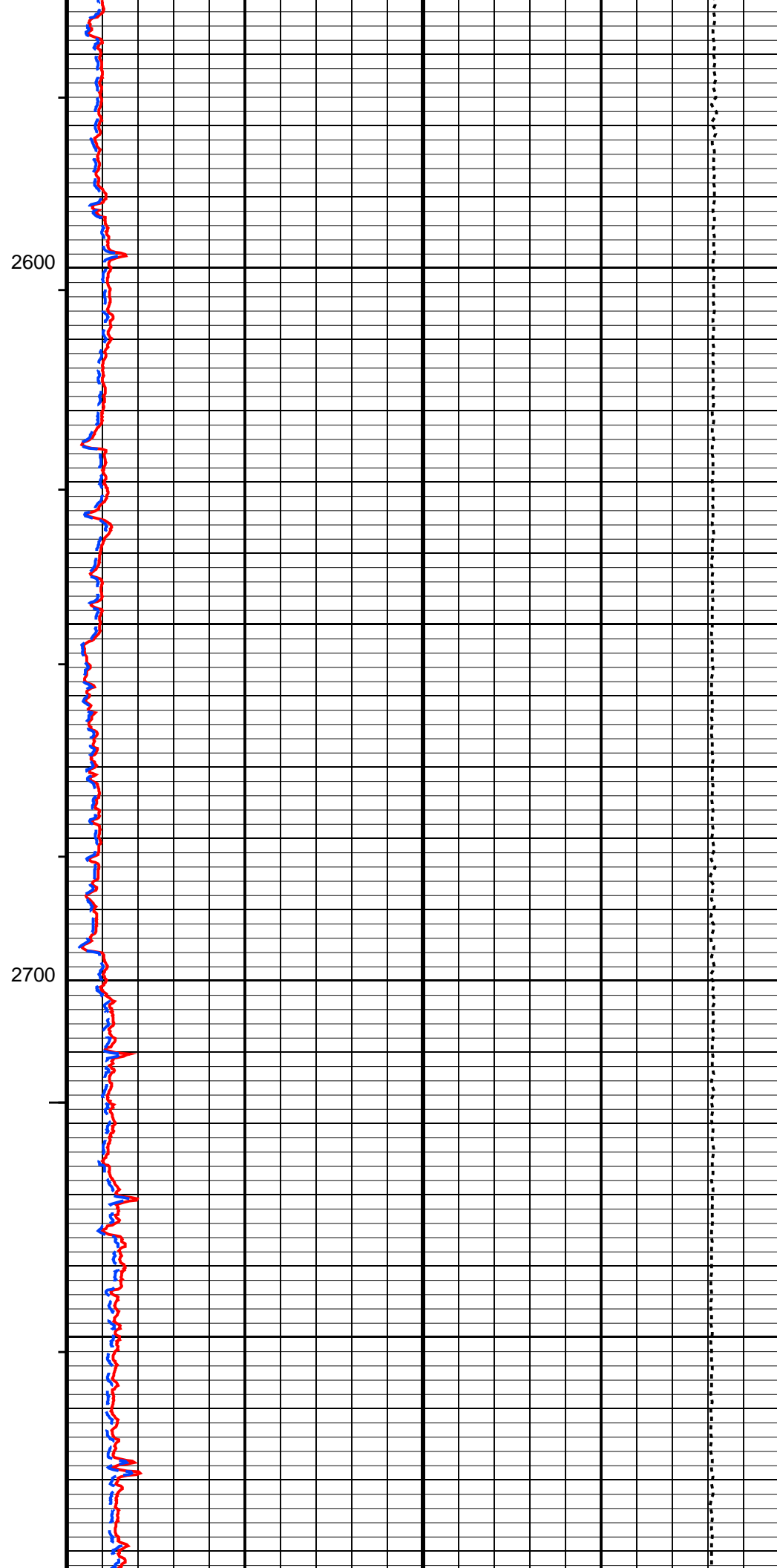
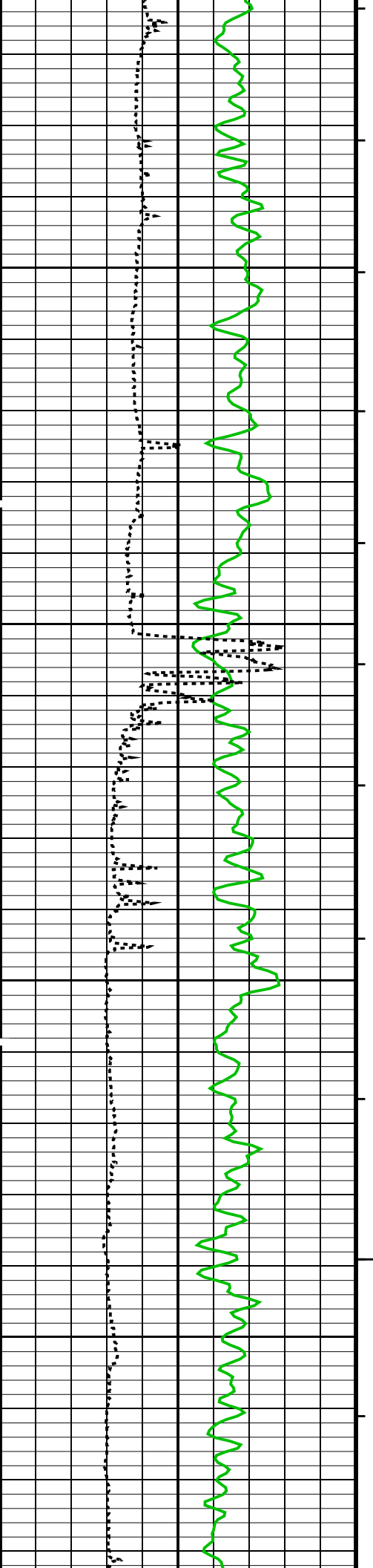


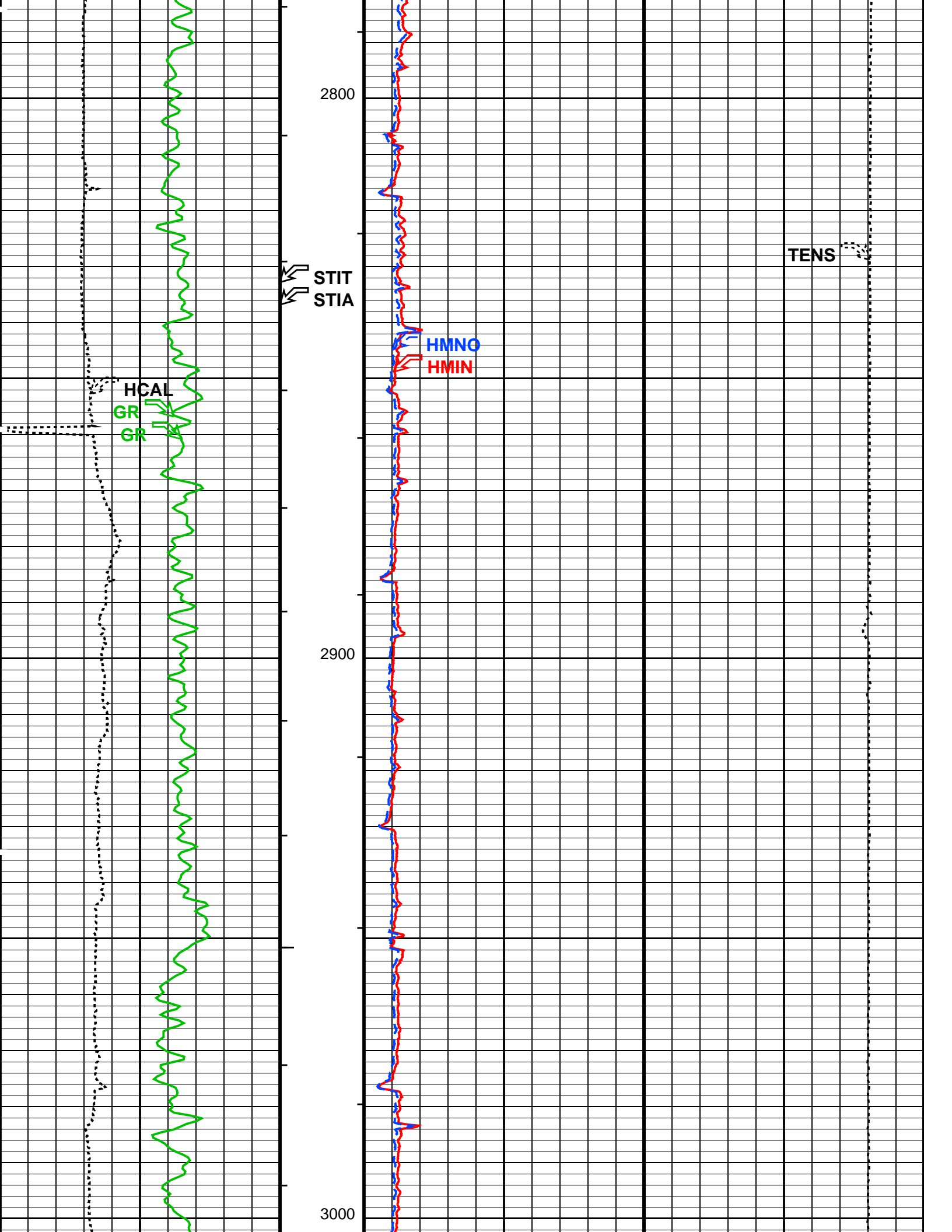


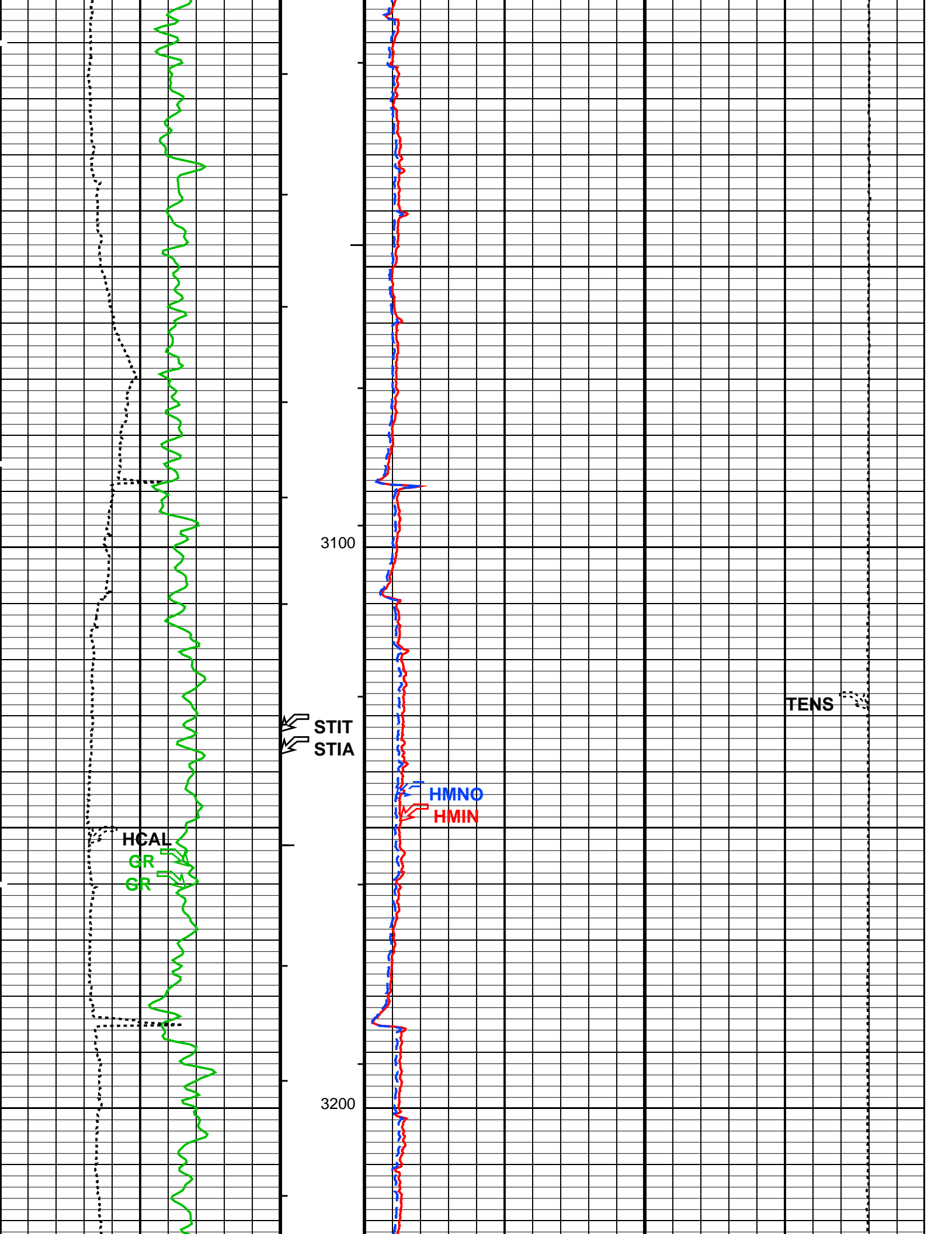


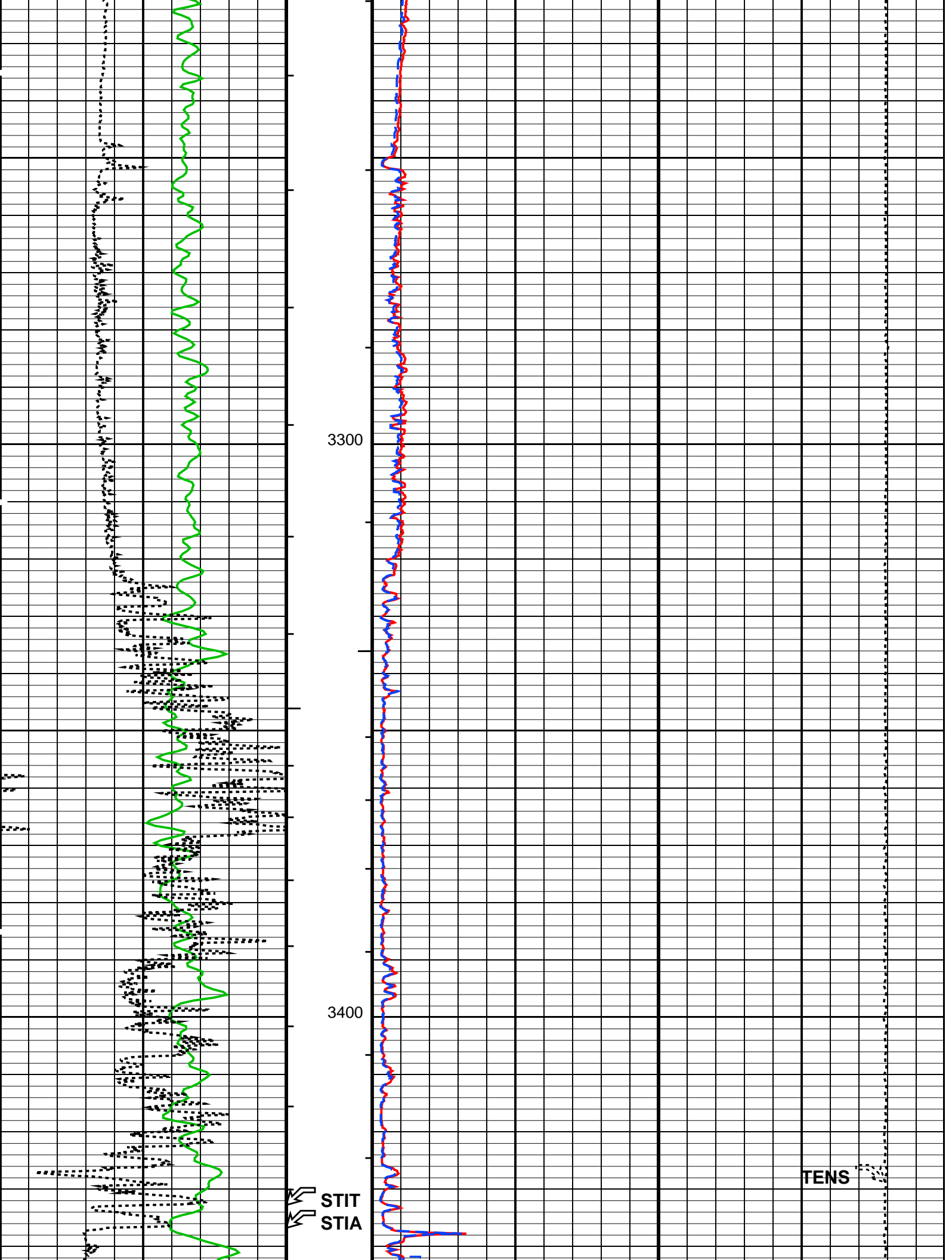


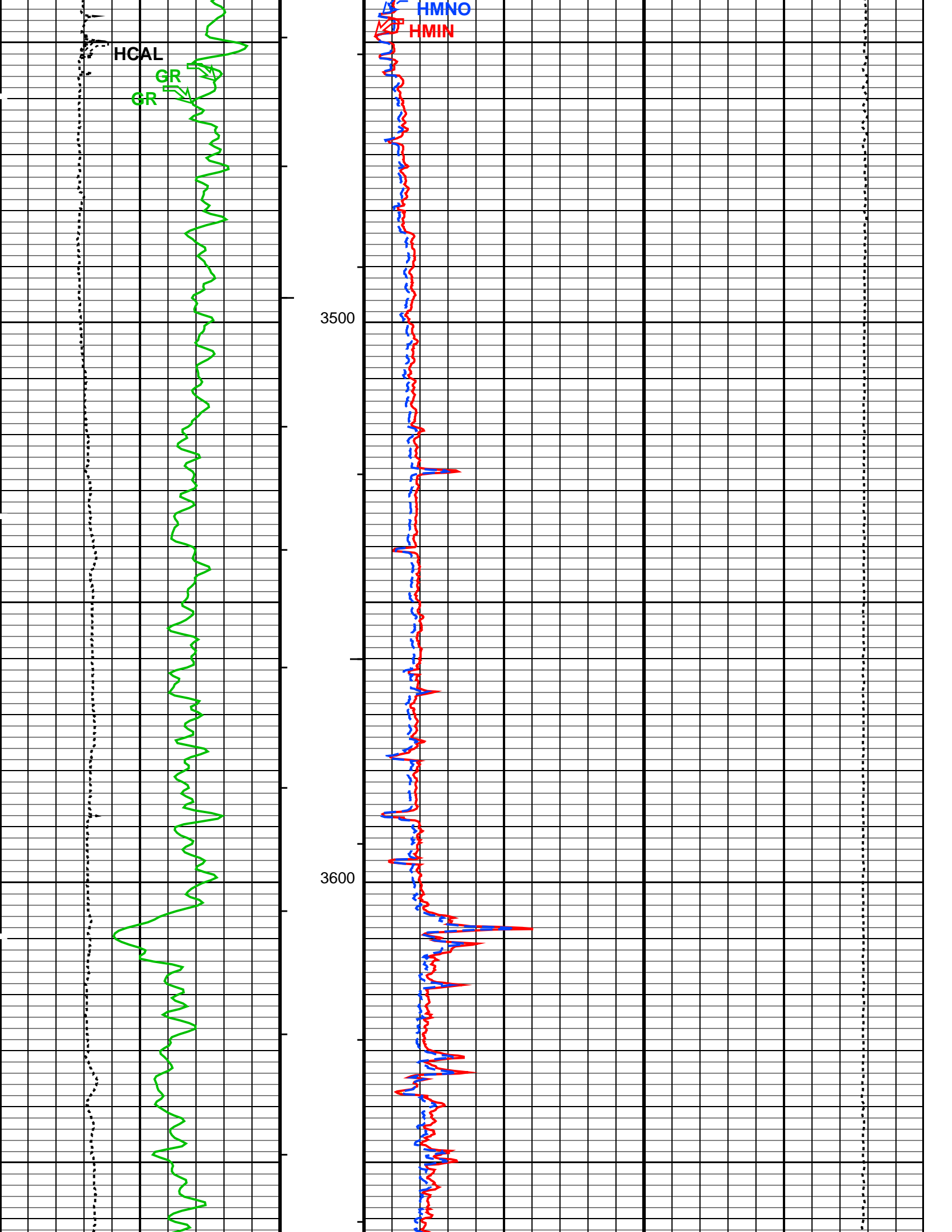


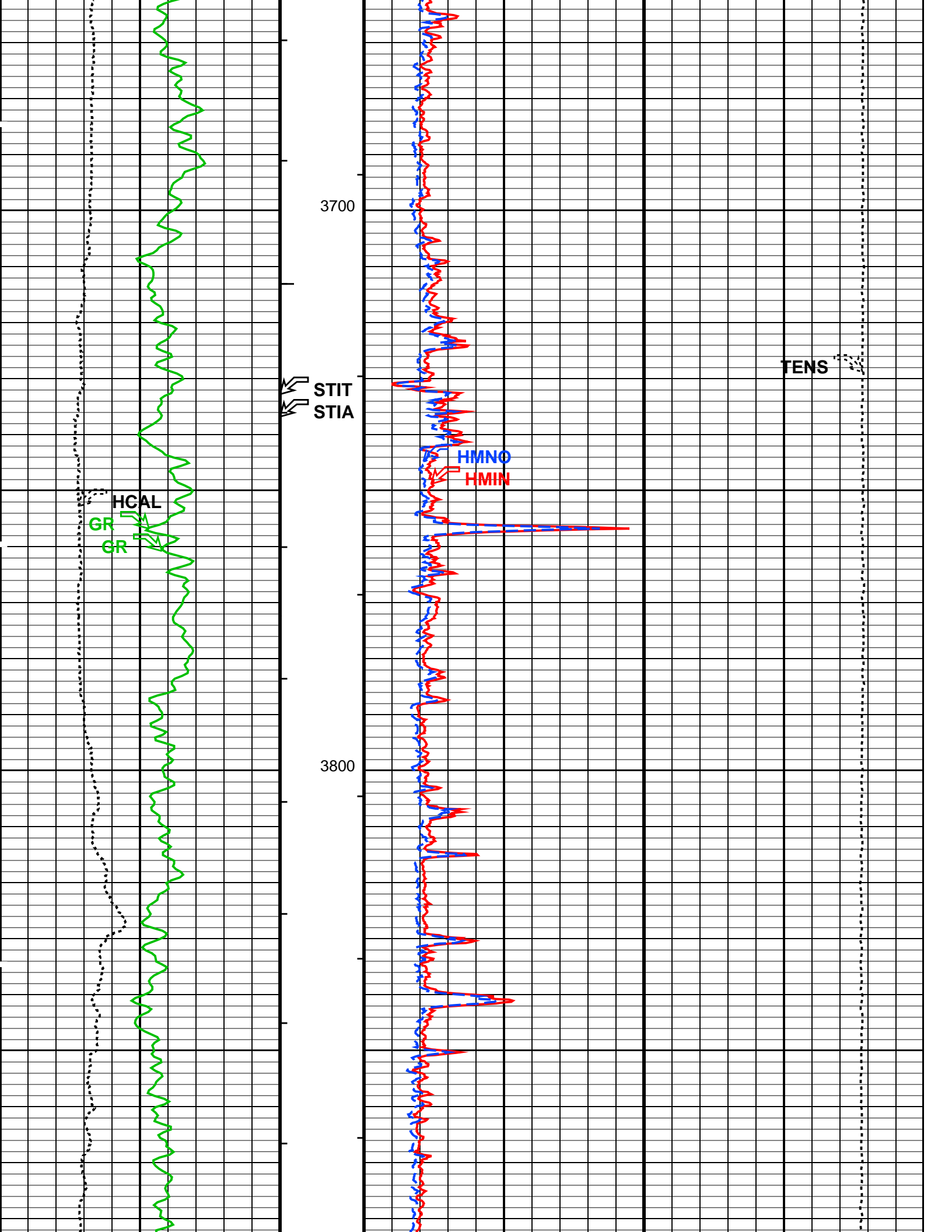


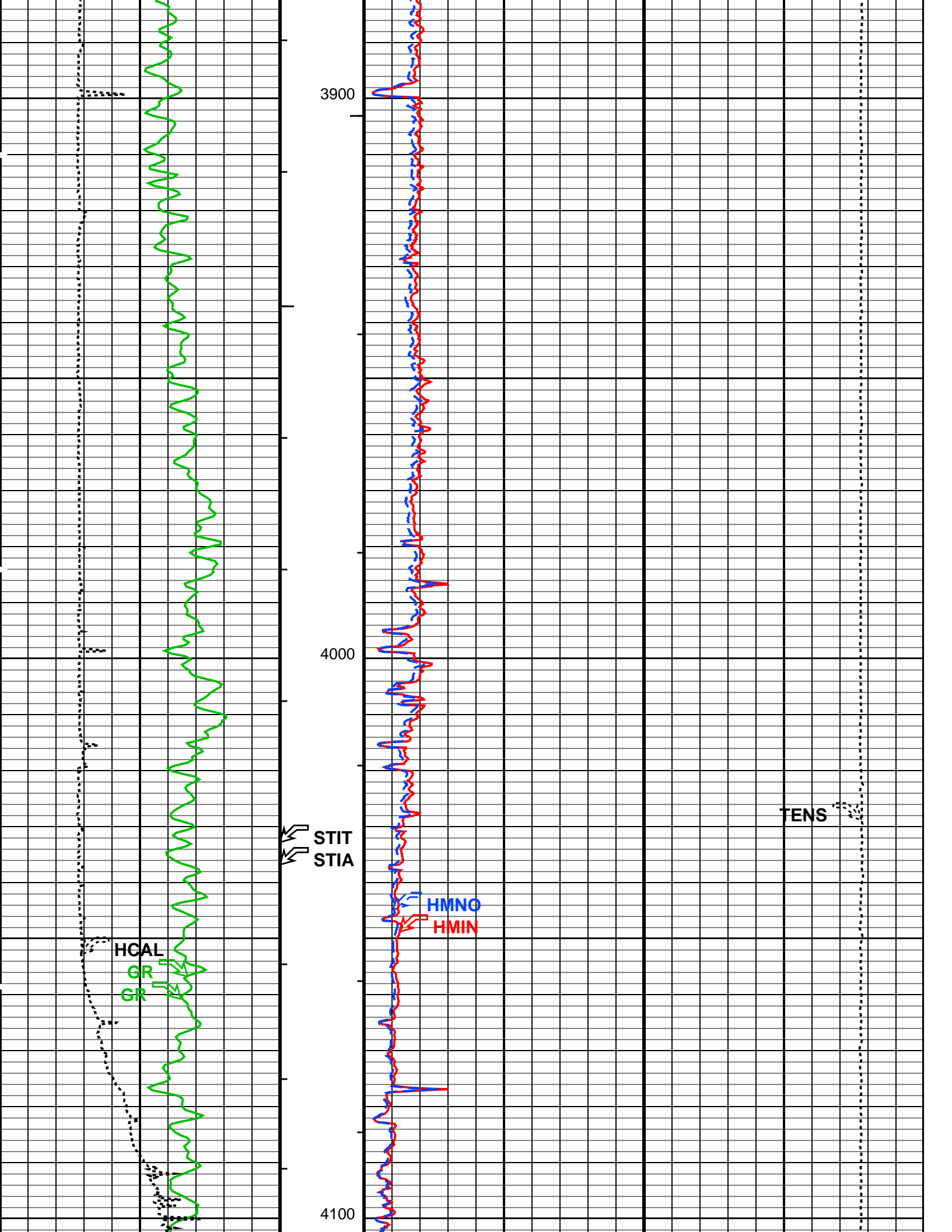


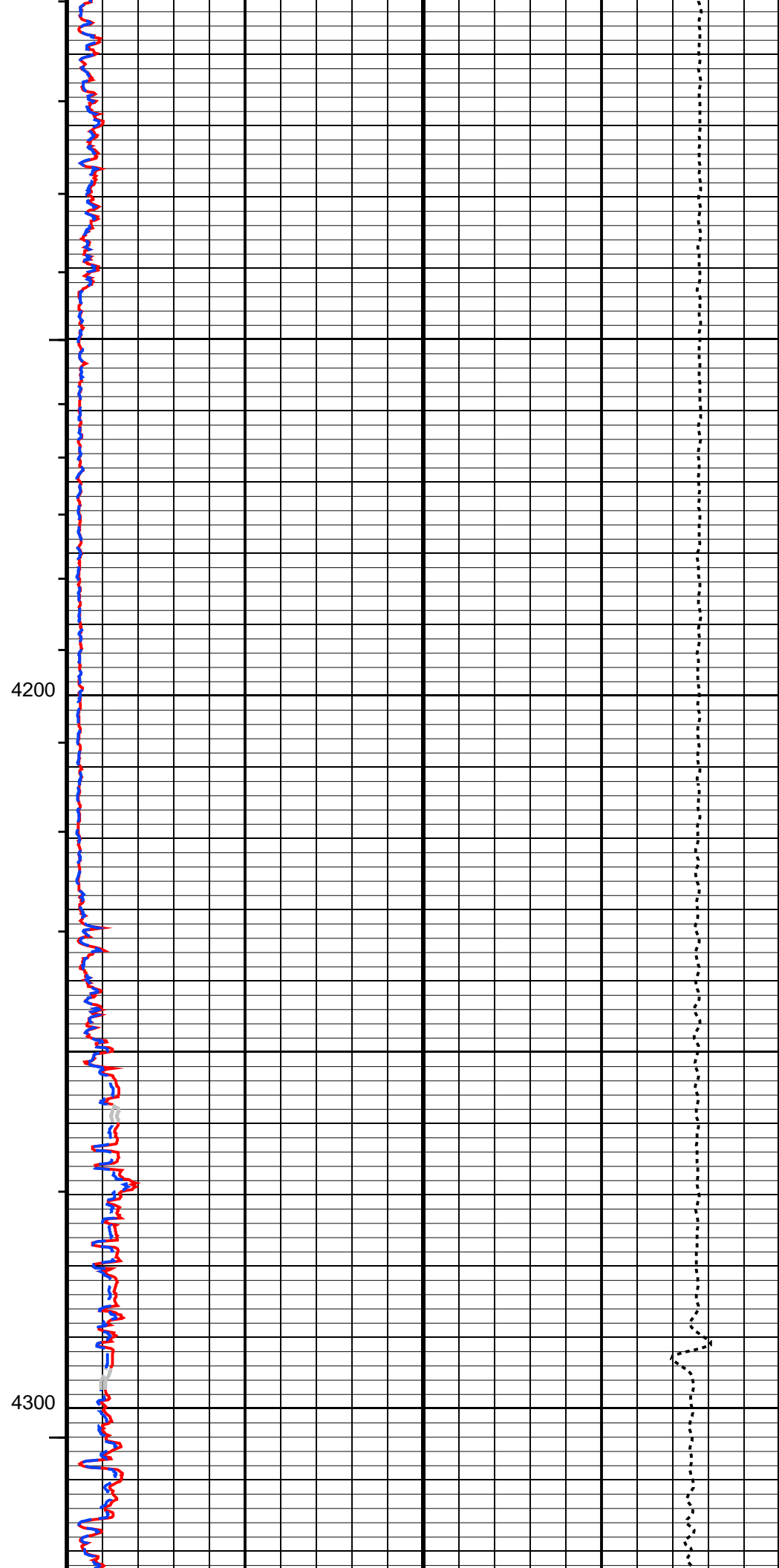
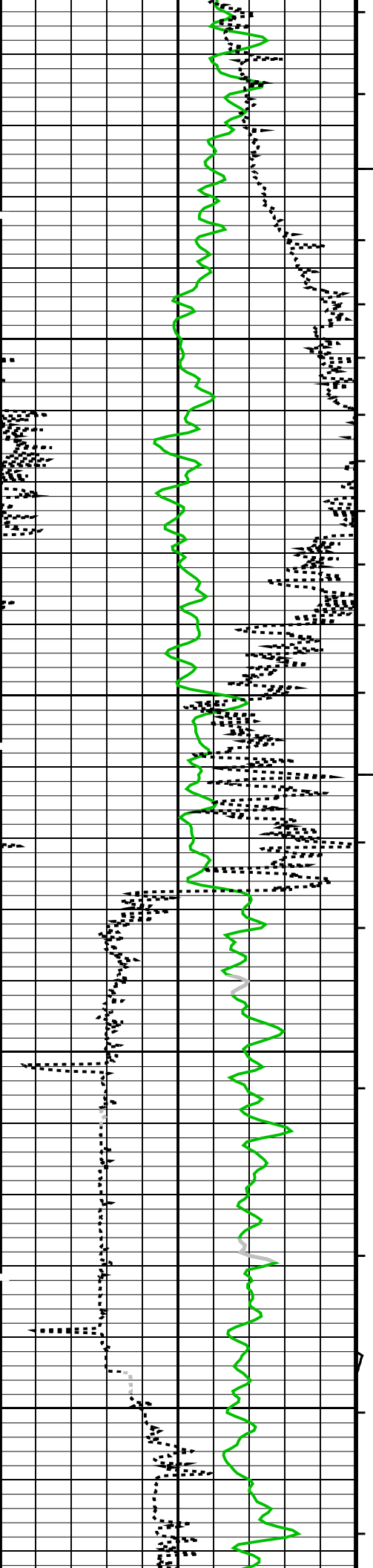


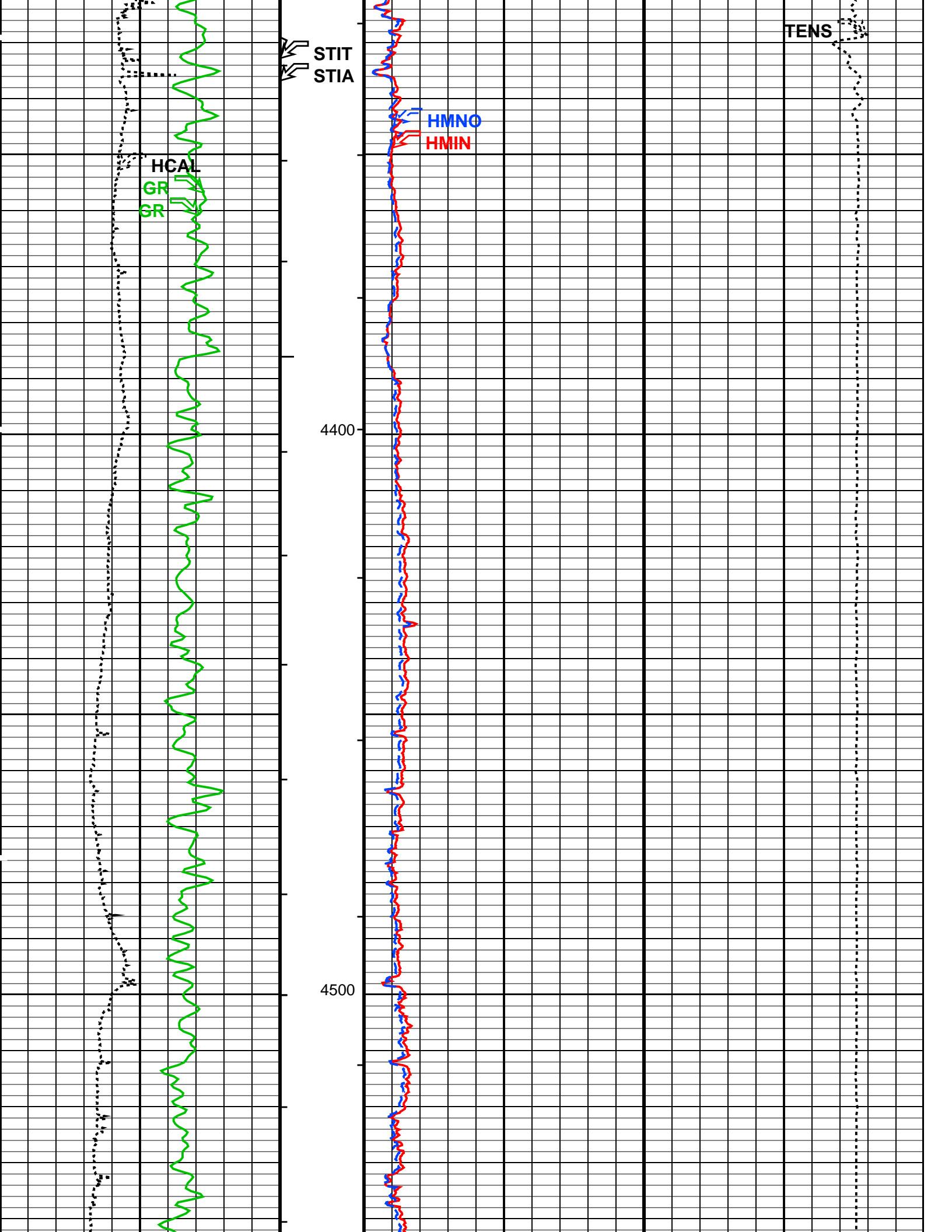


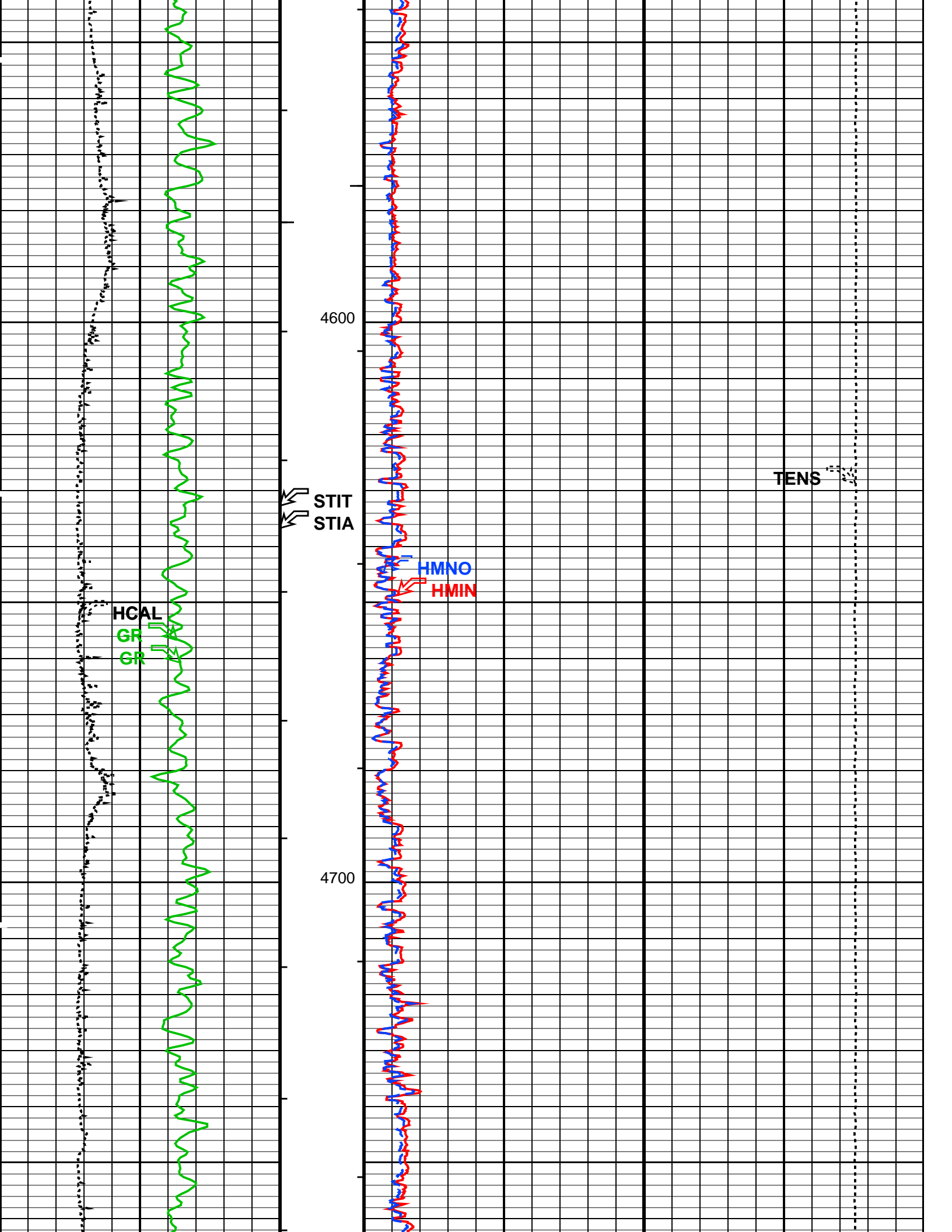


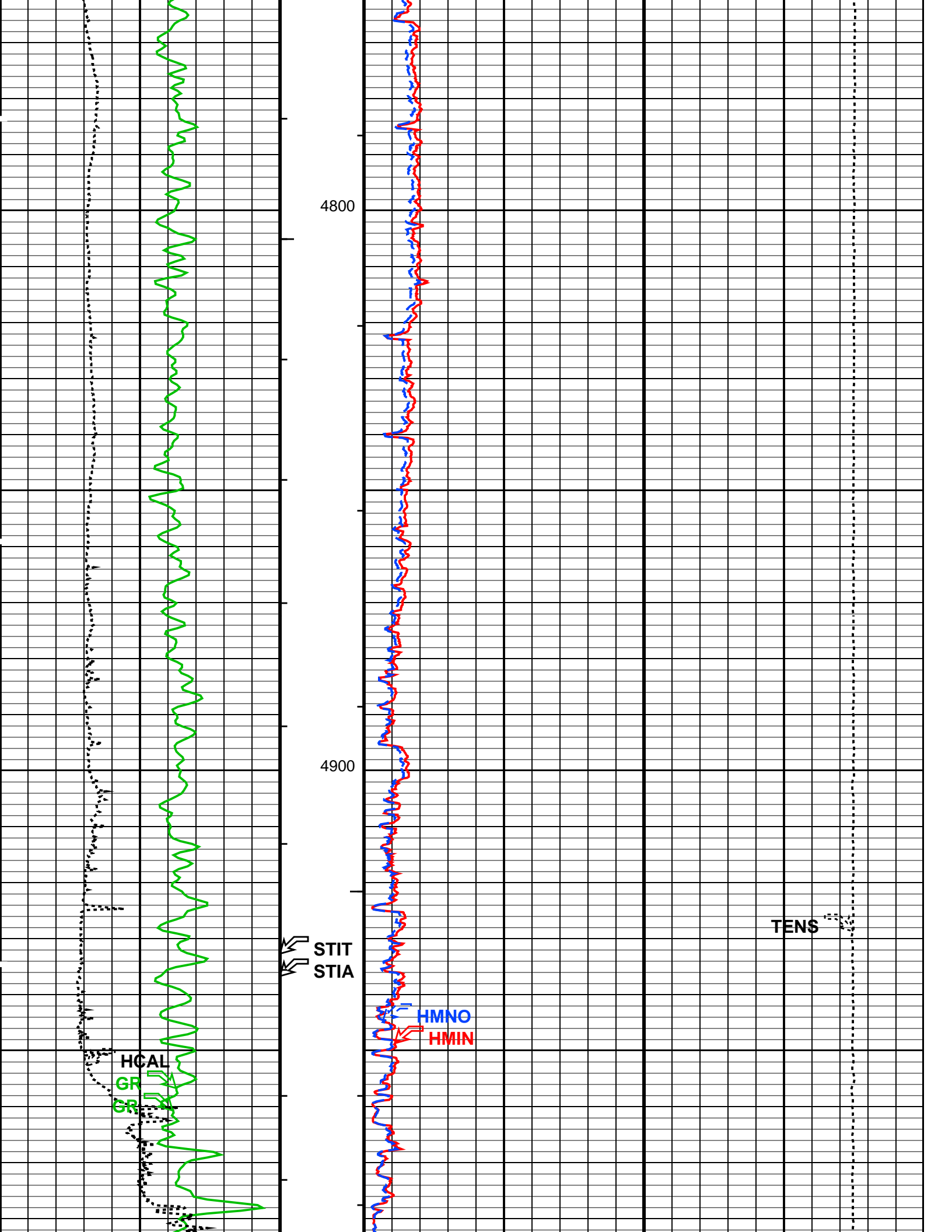


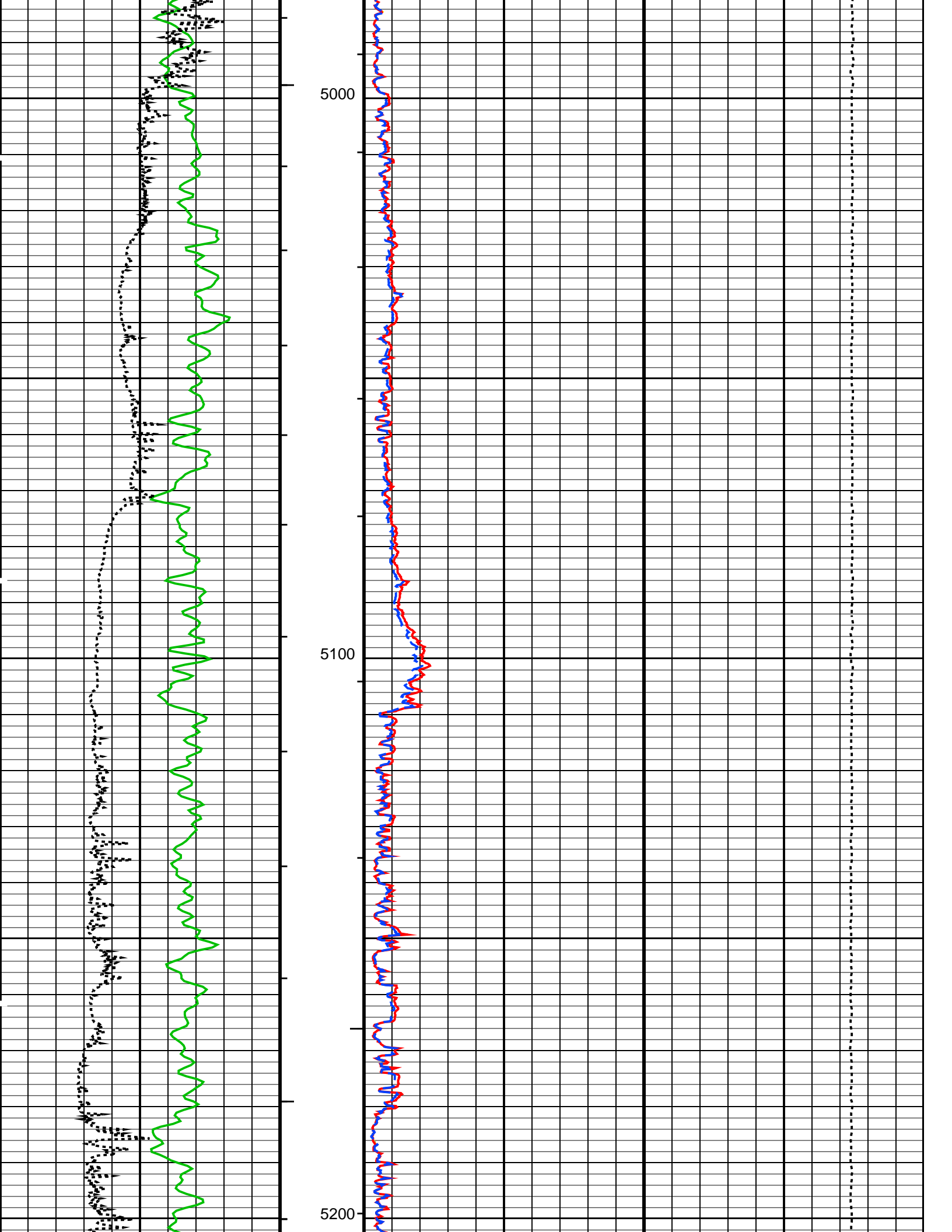


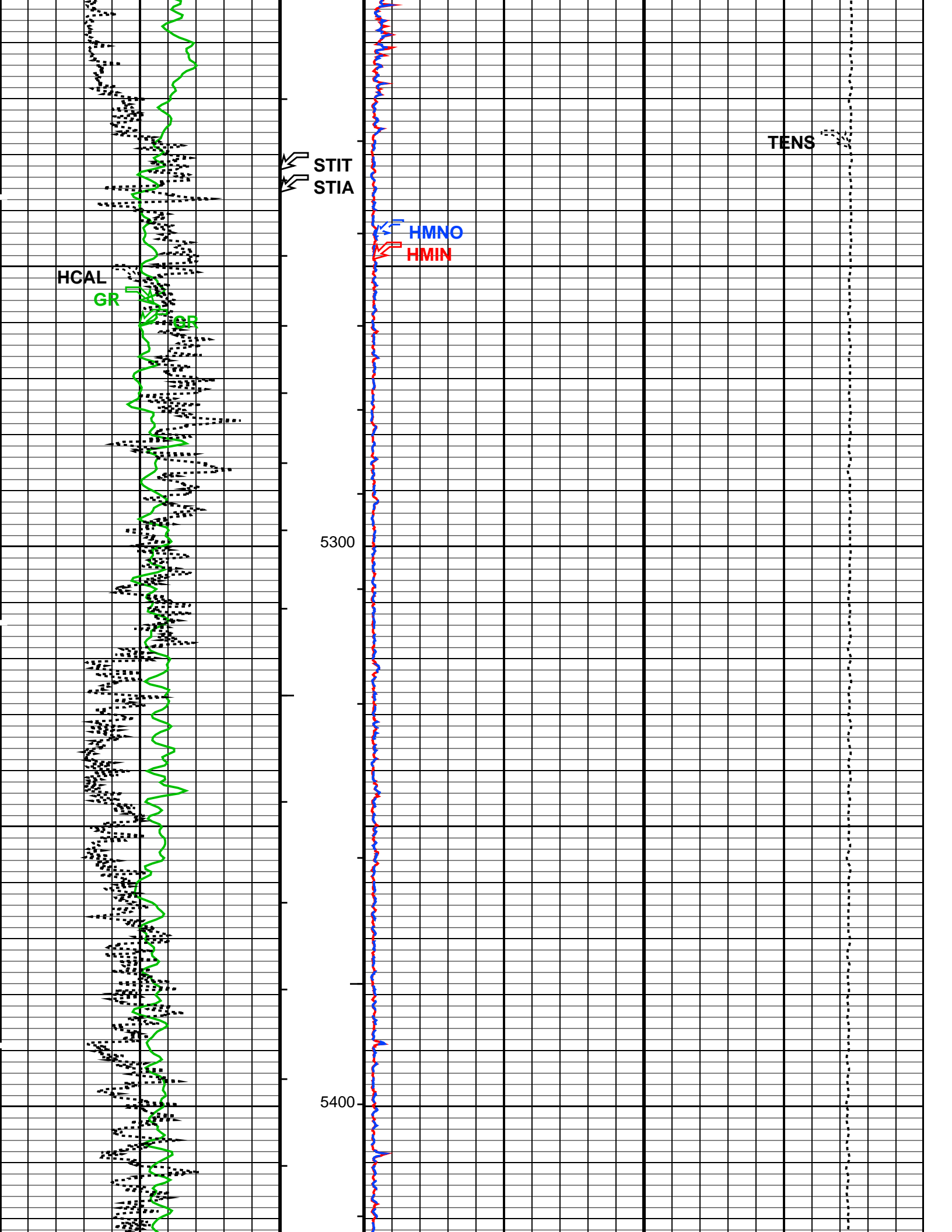


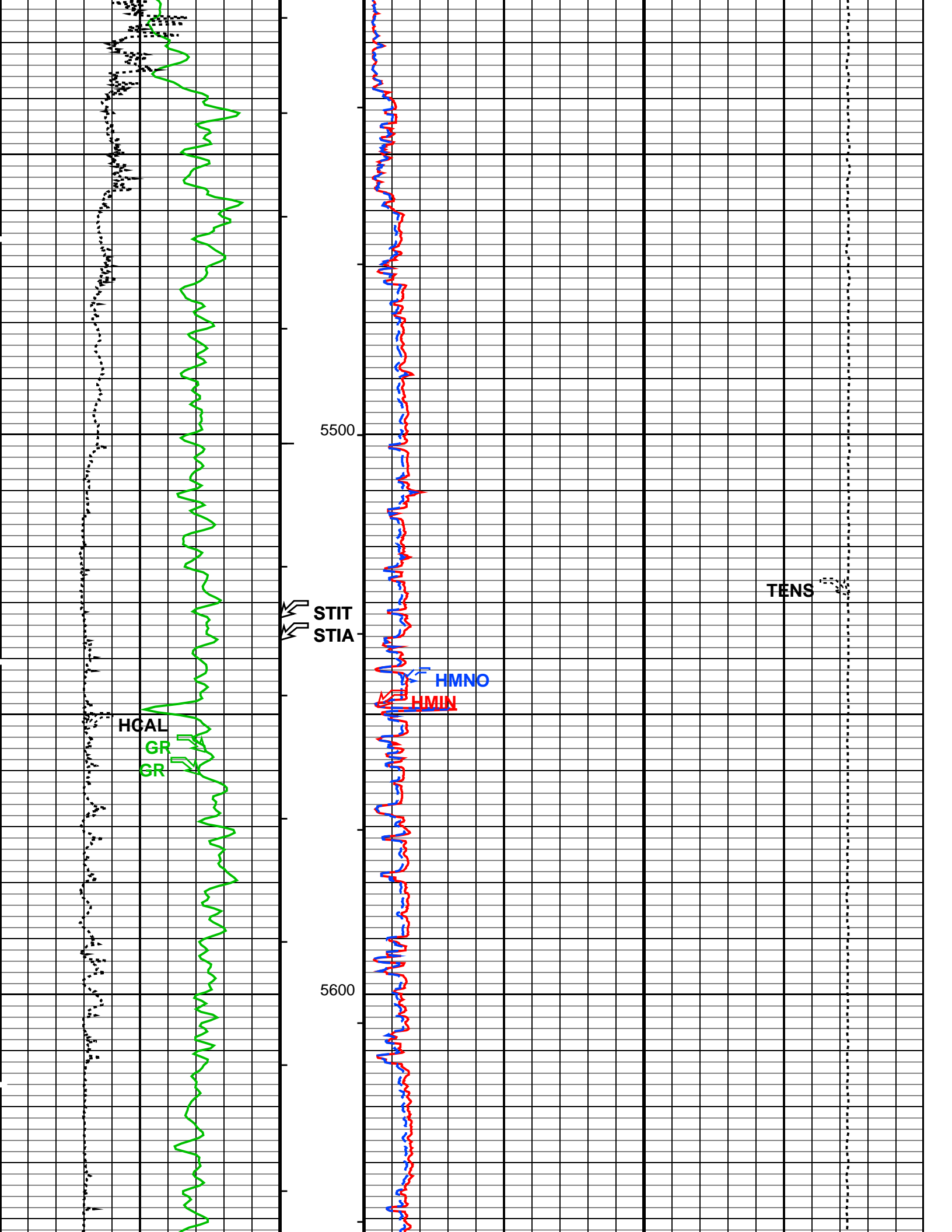


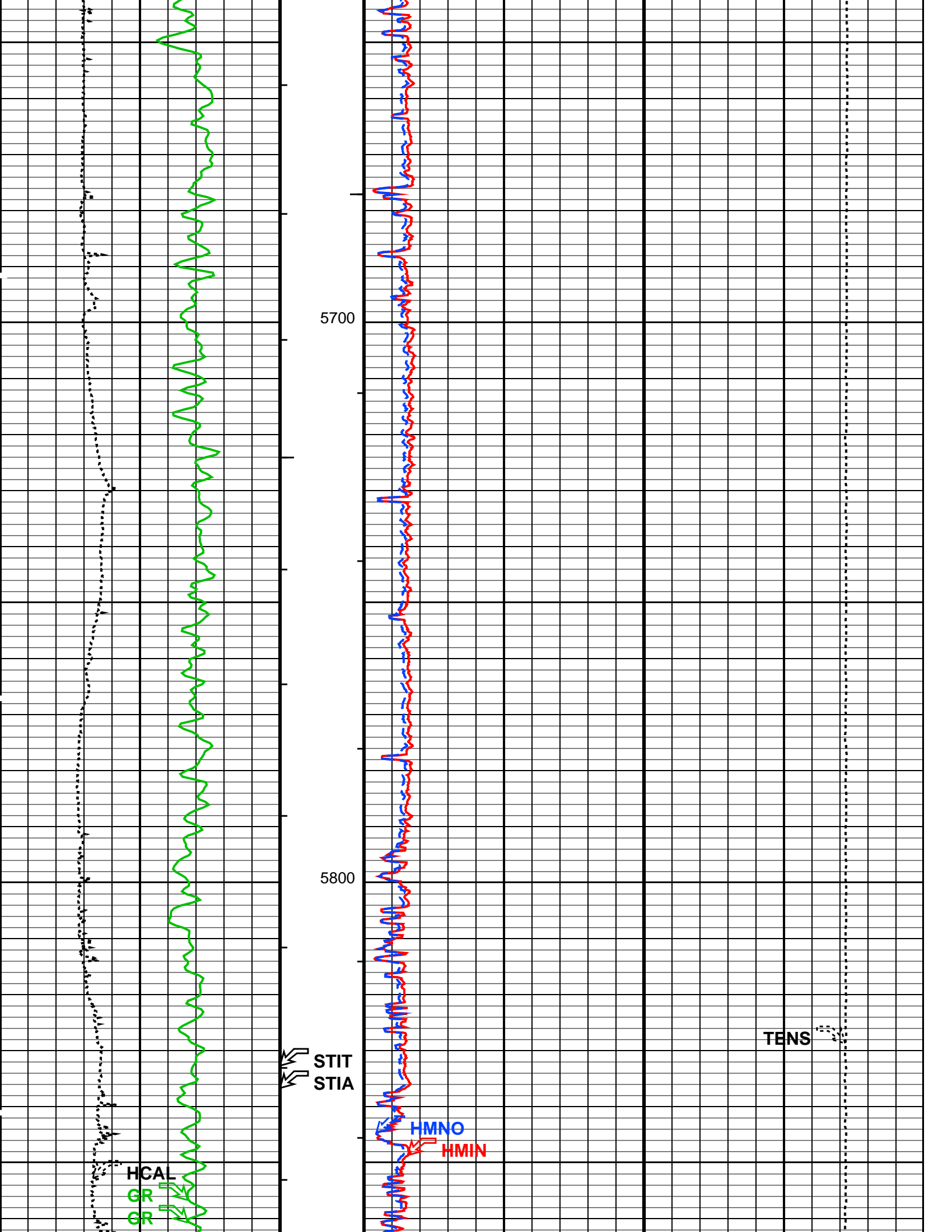


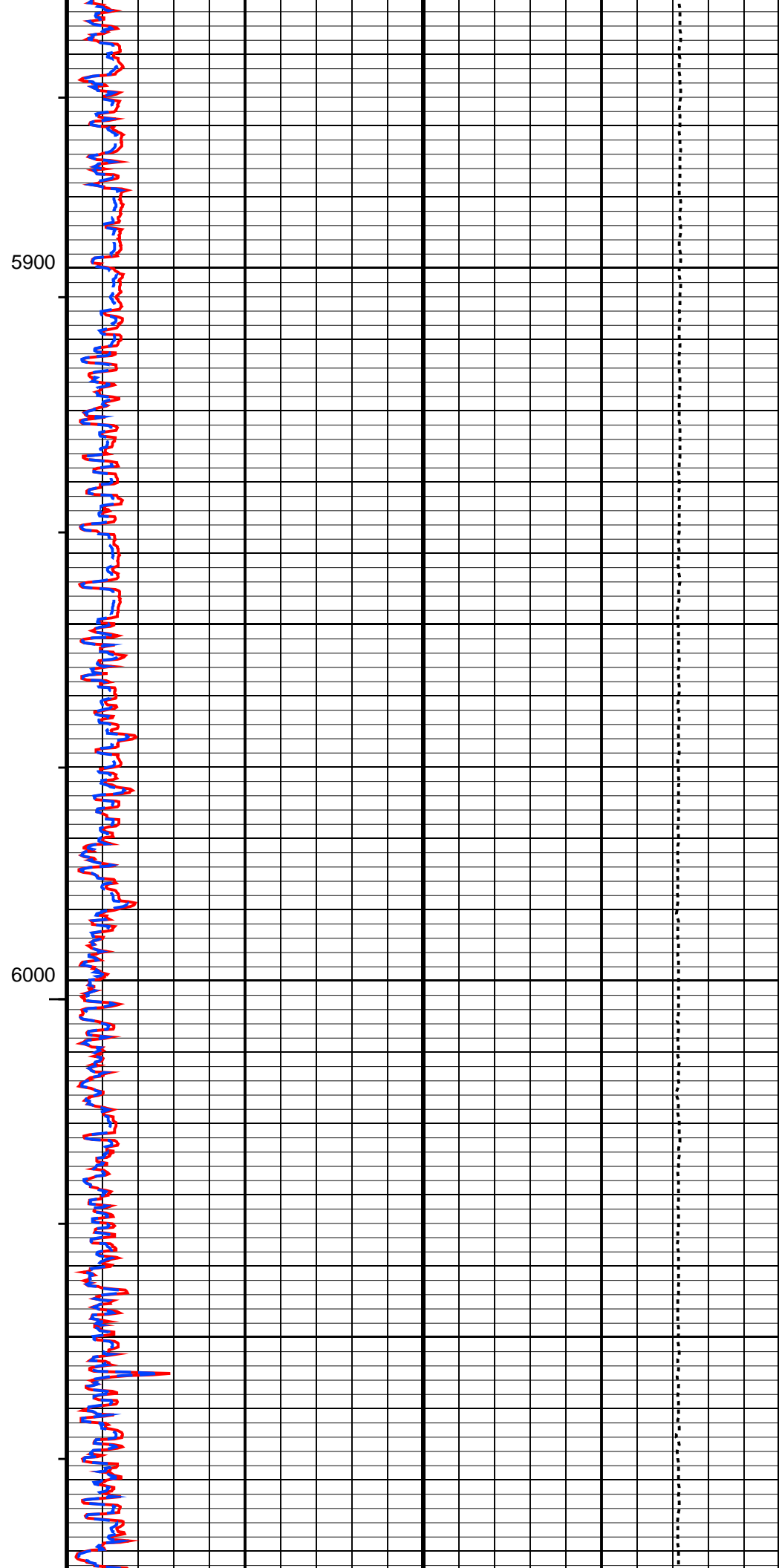
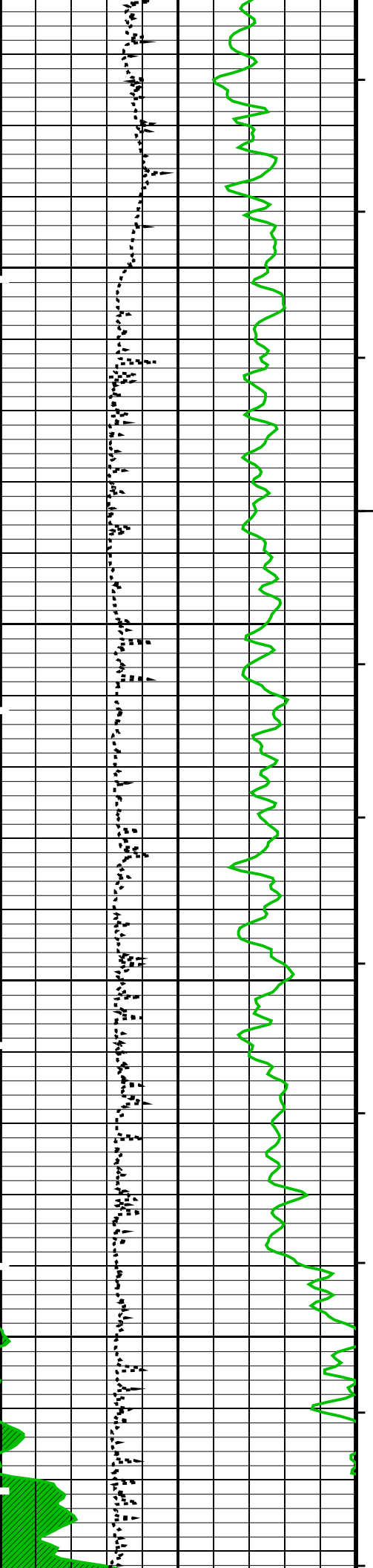


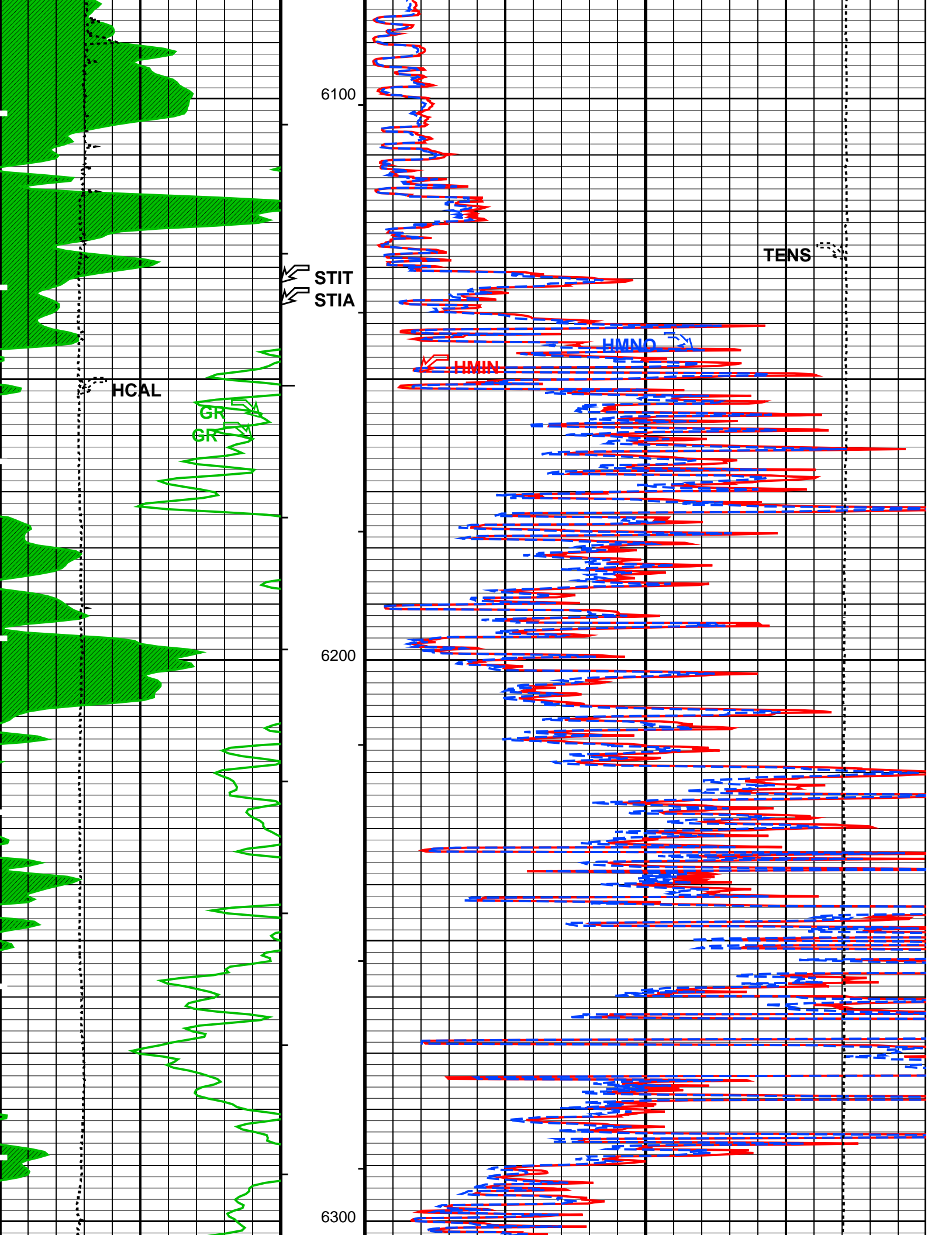


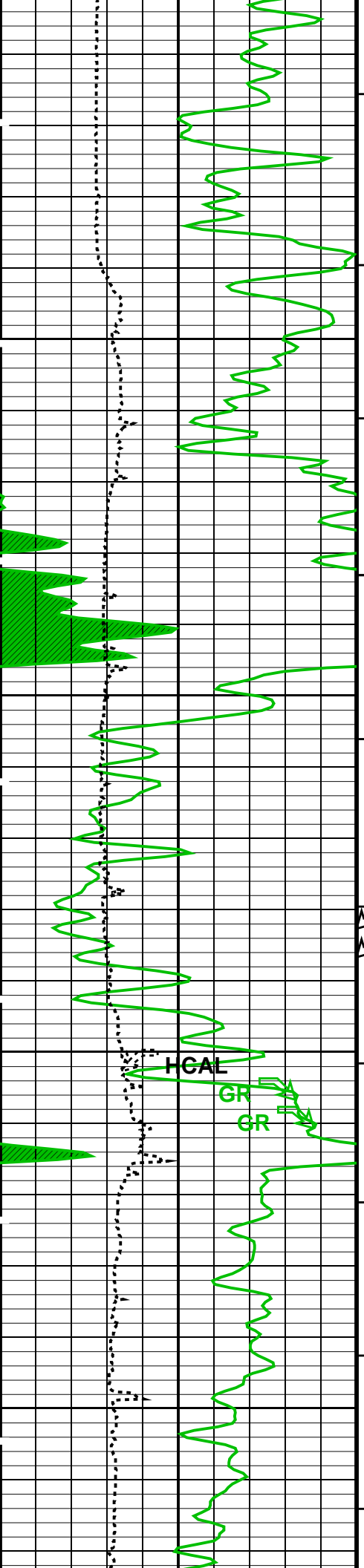












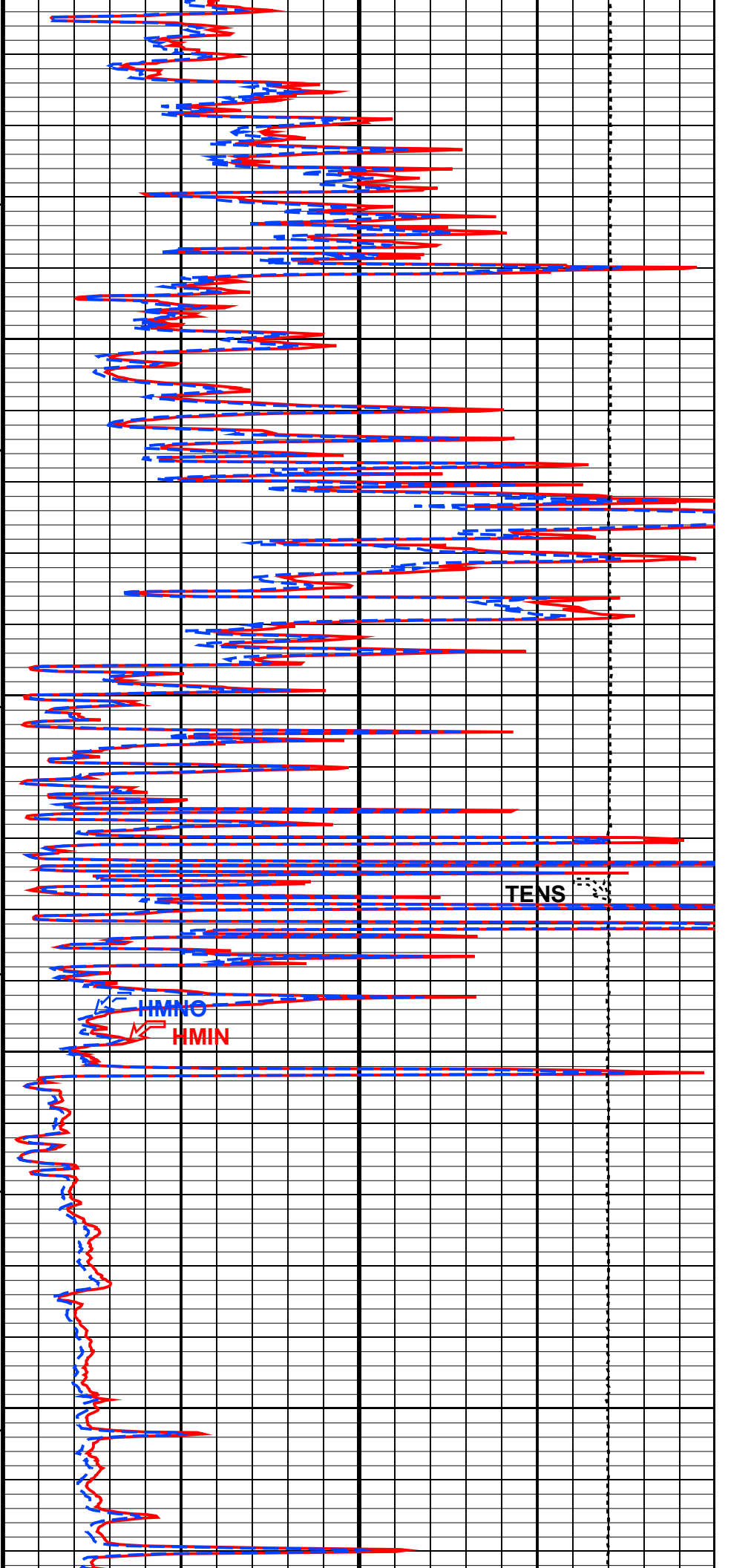
STIT
STIA

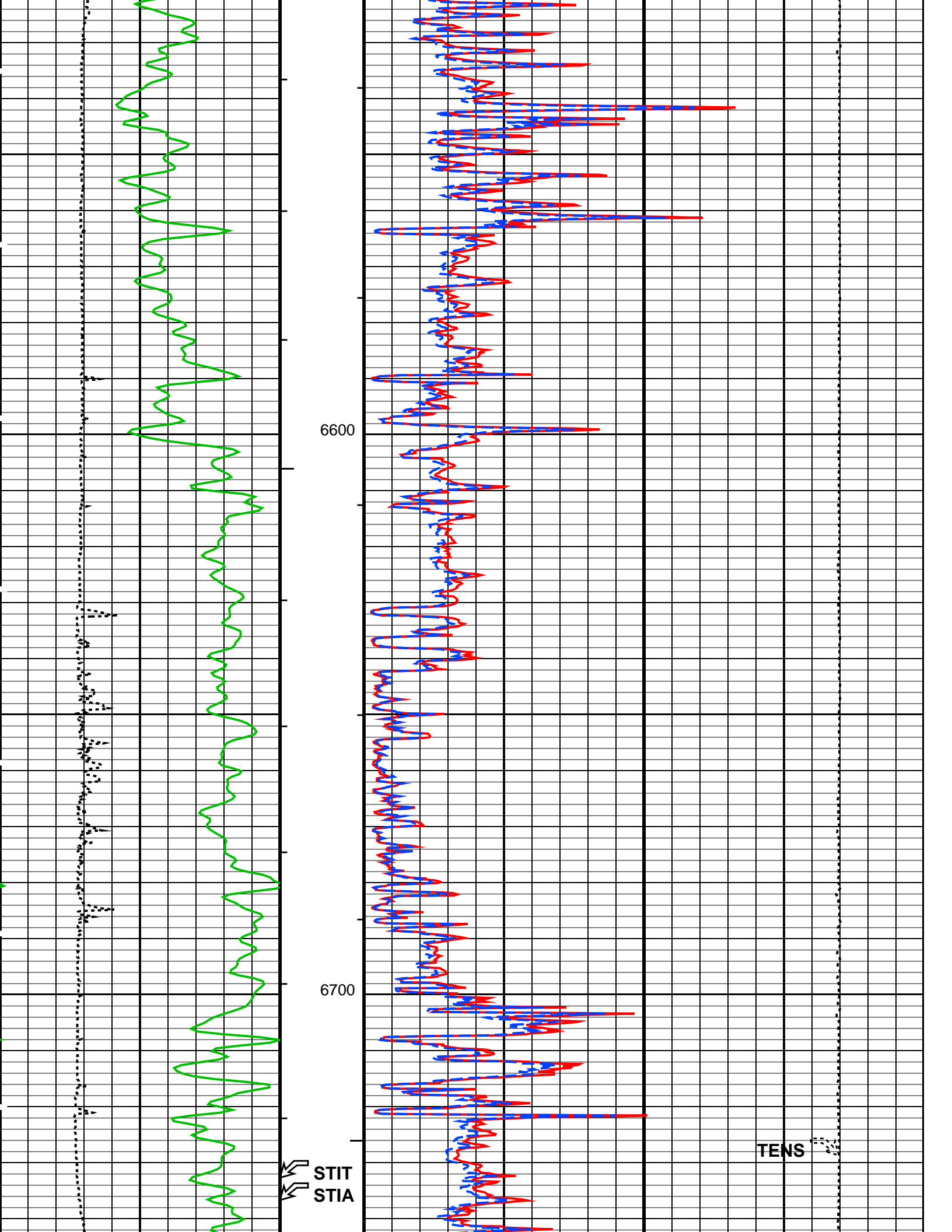
HCAL

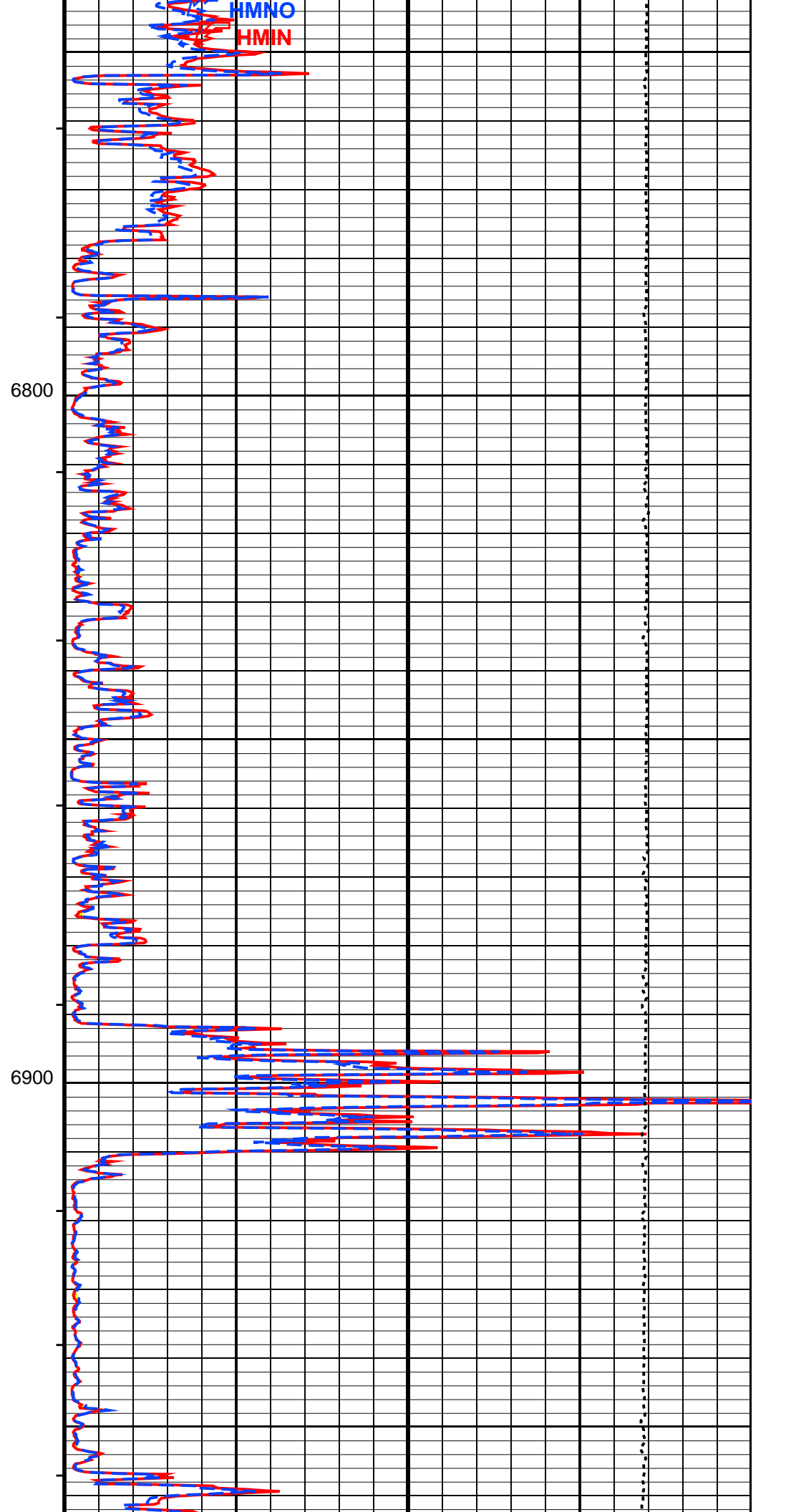
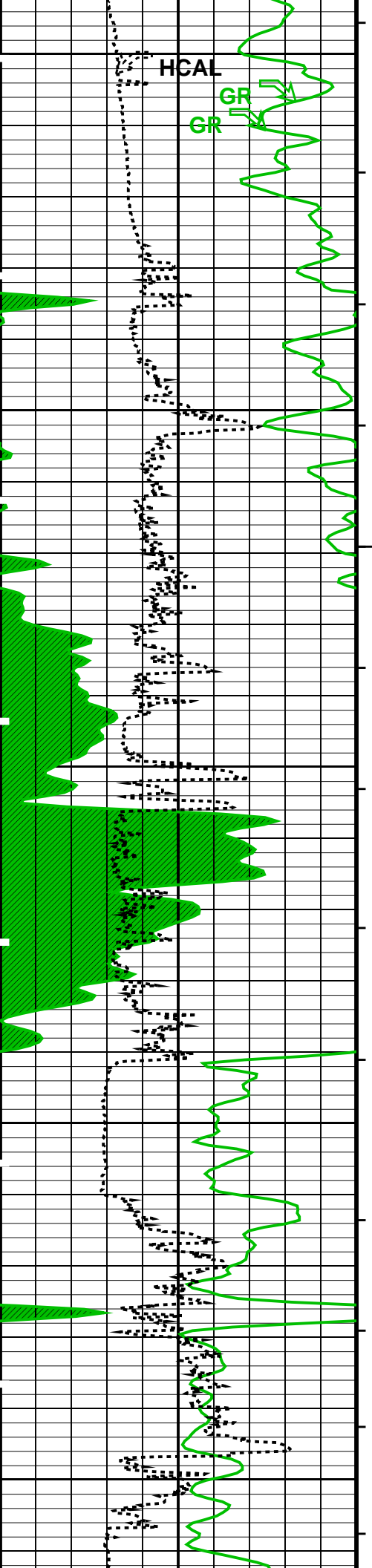
GR
GR

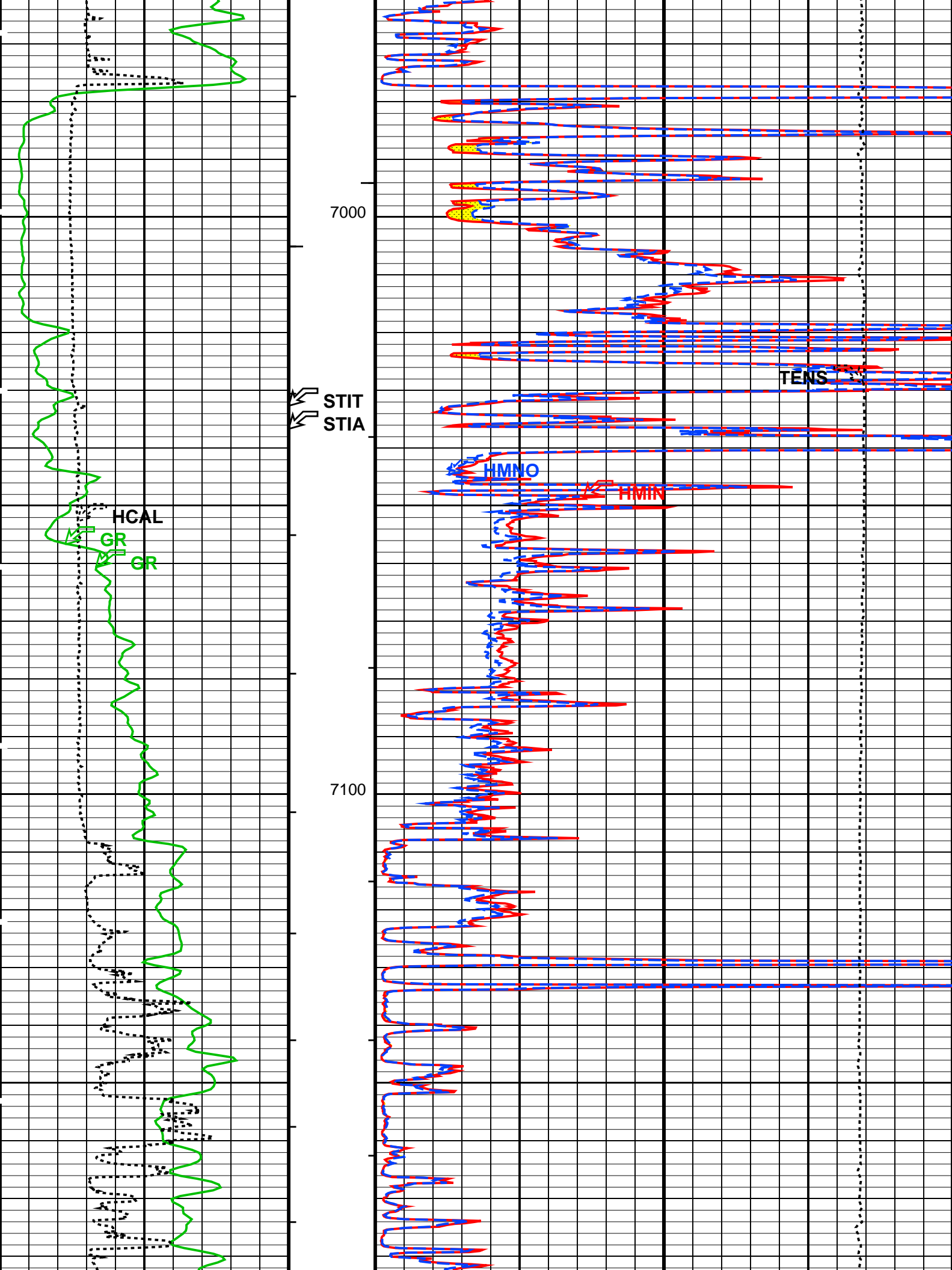
6400

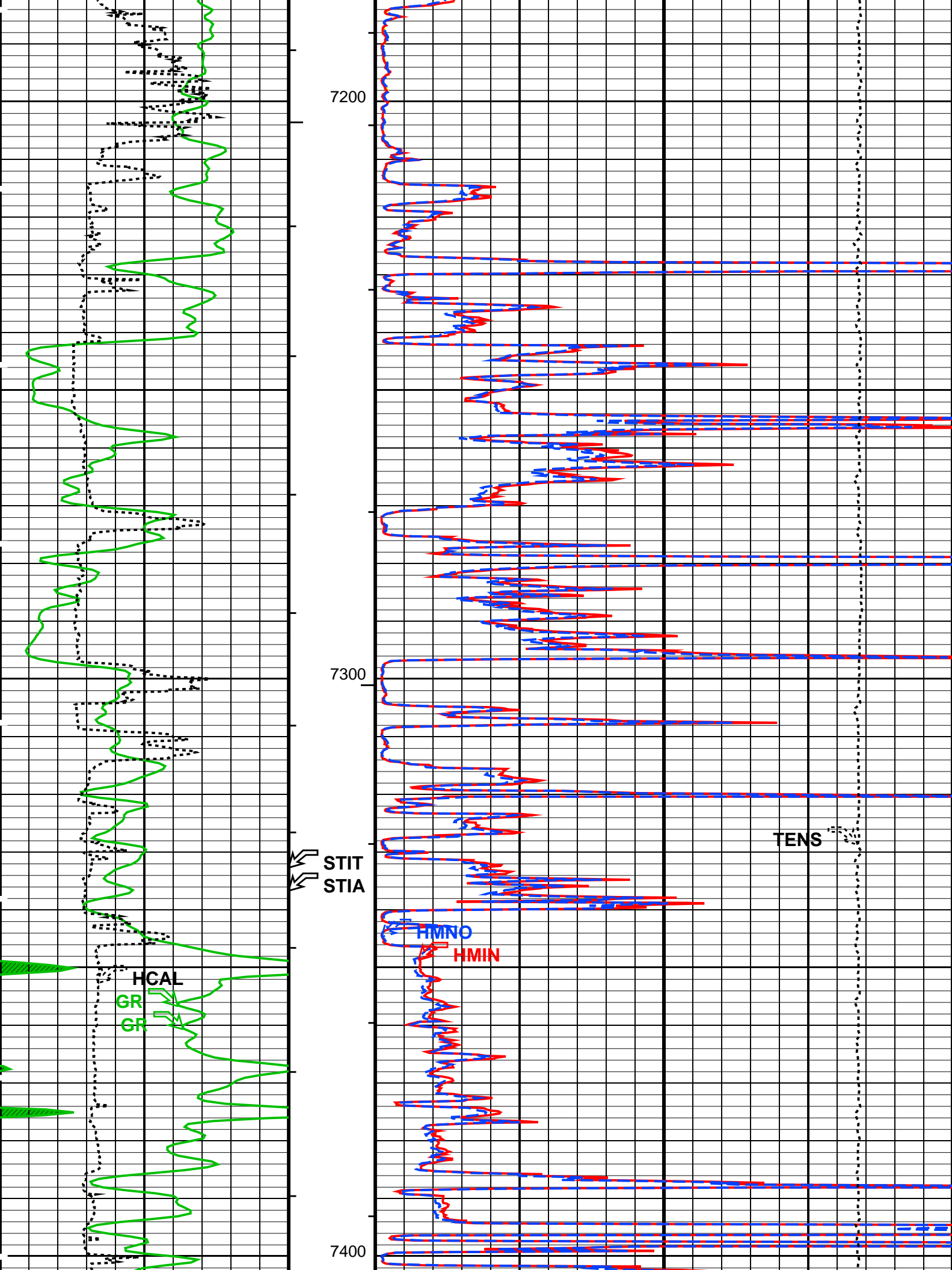
6500

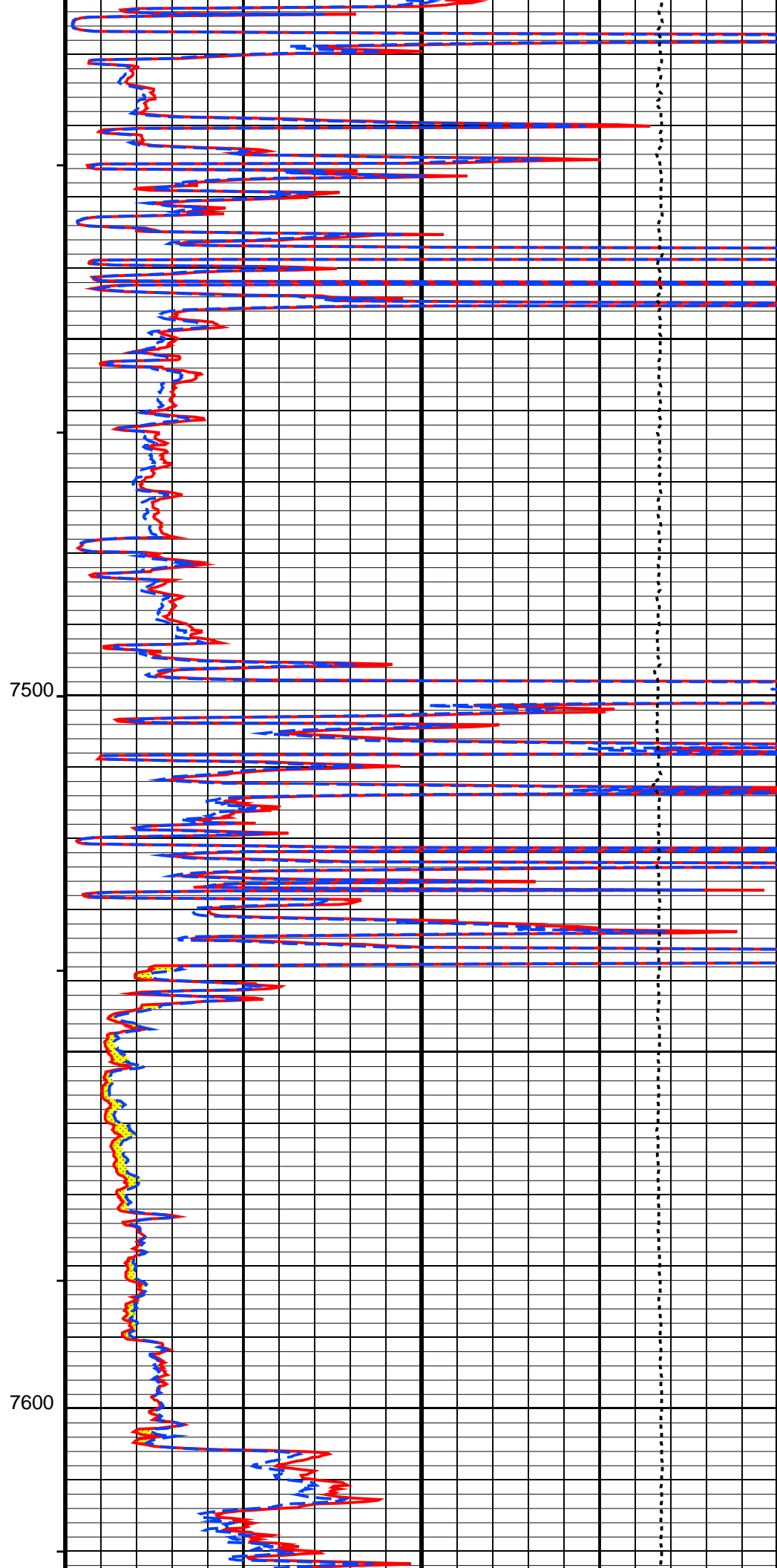
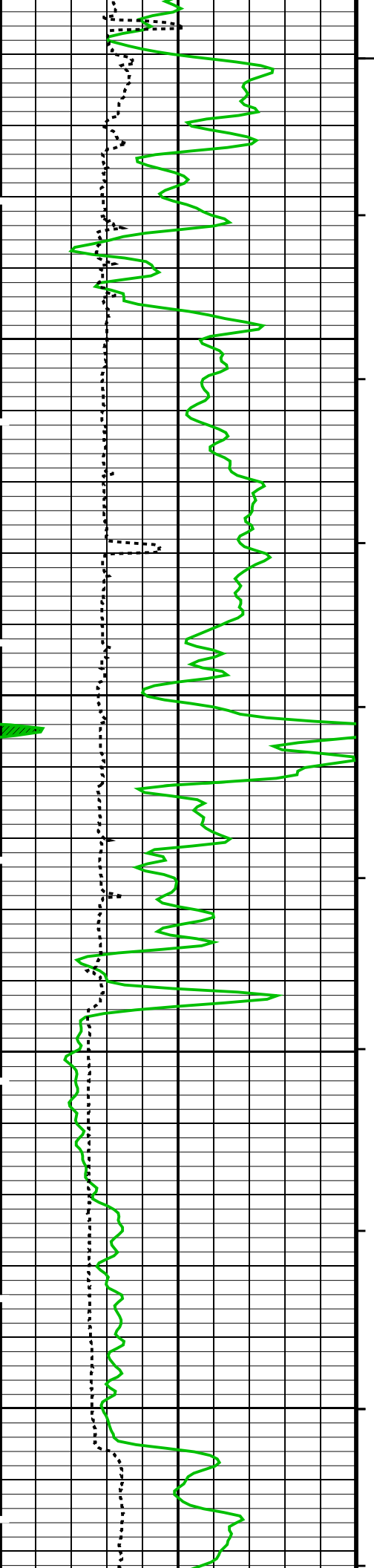


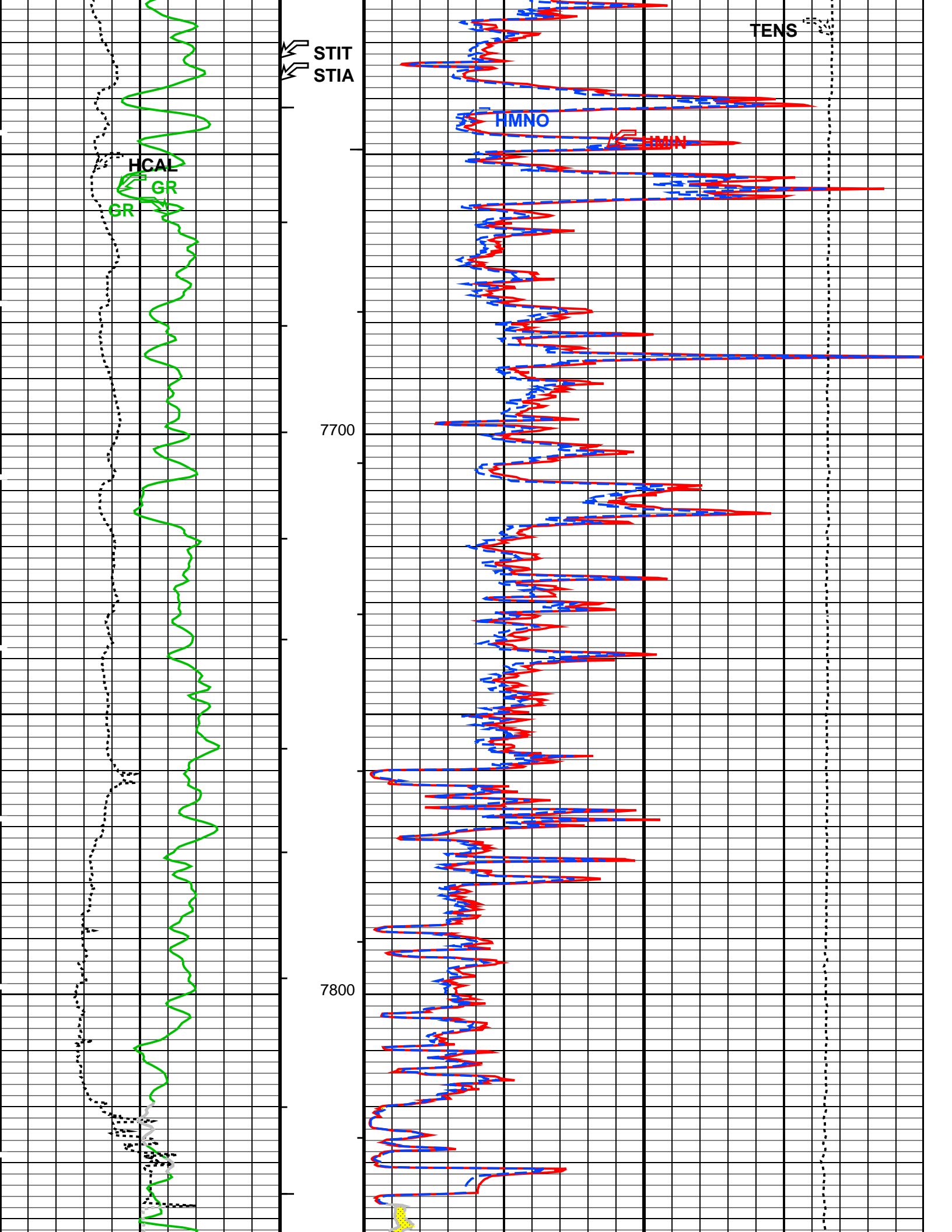


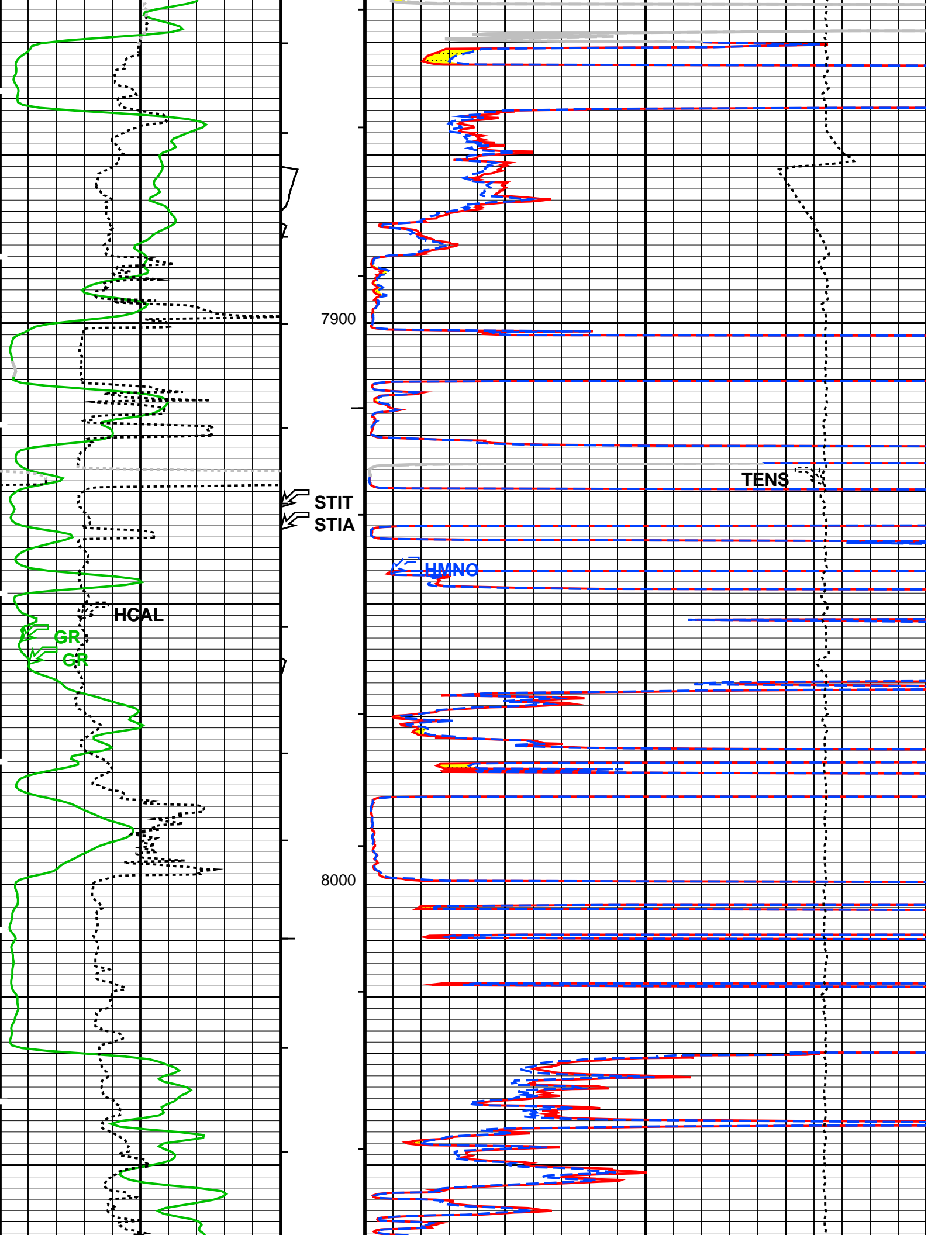


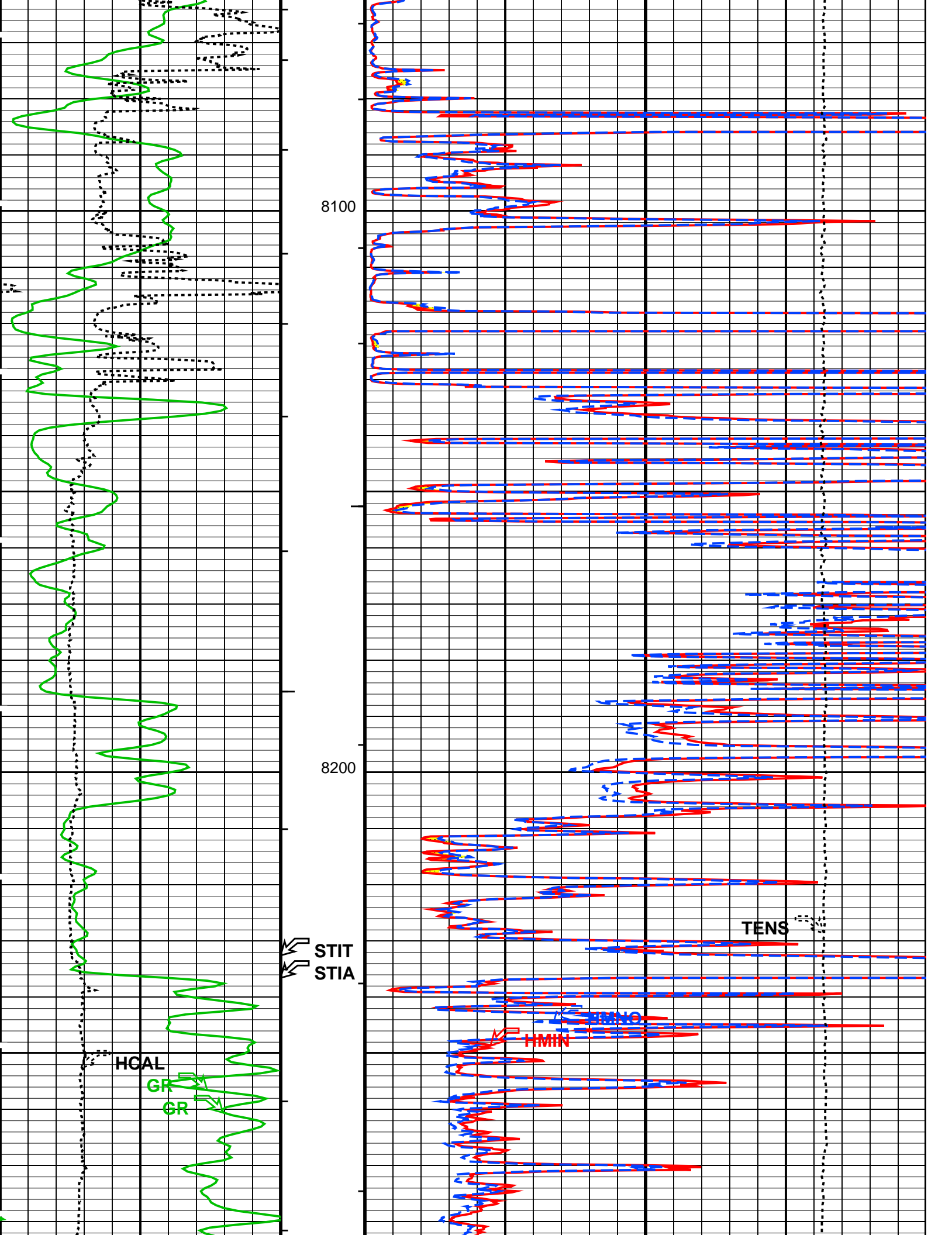


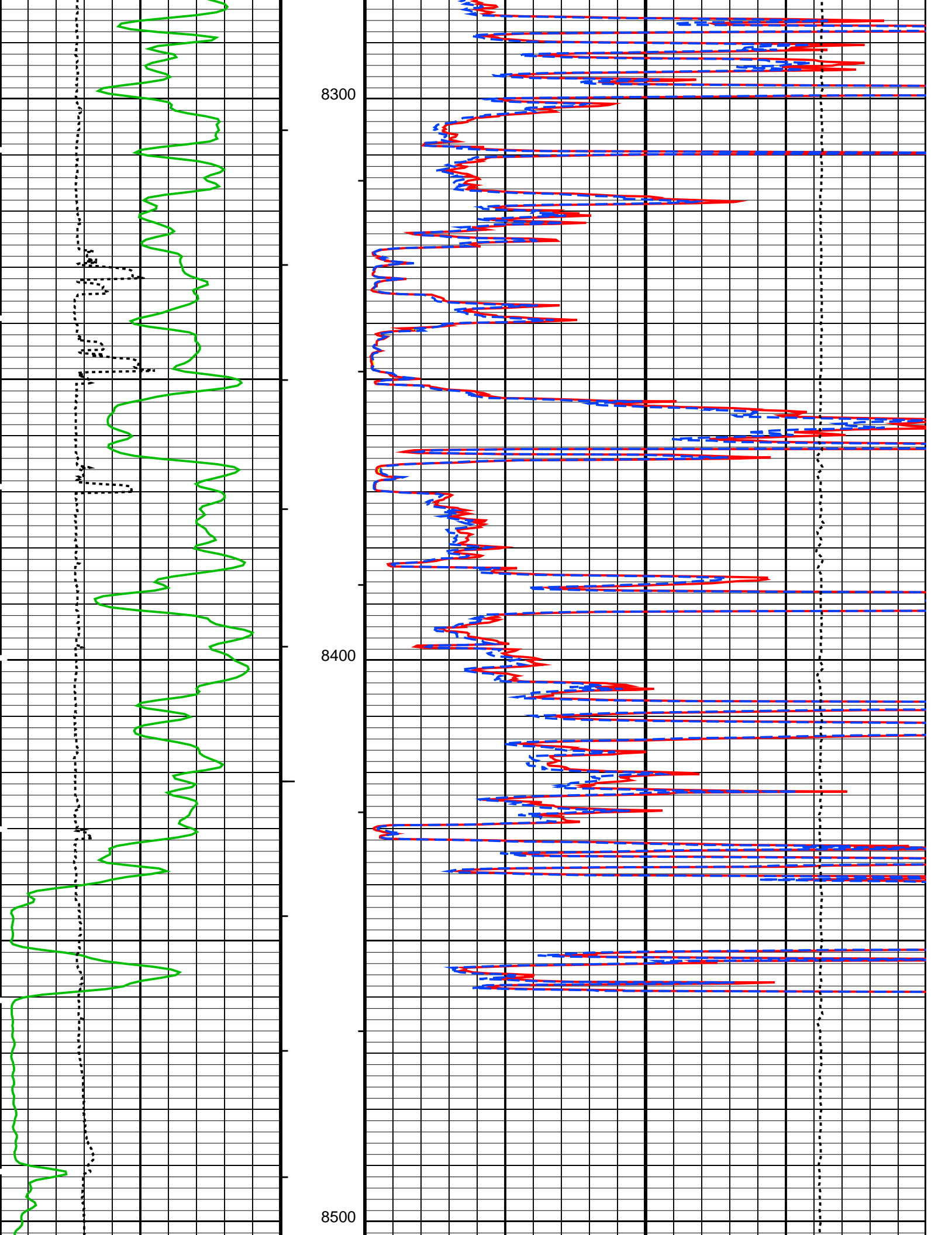


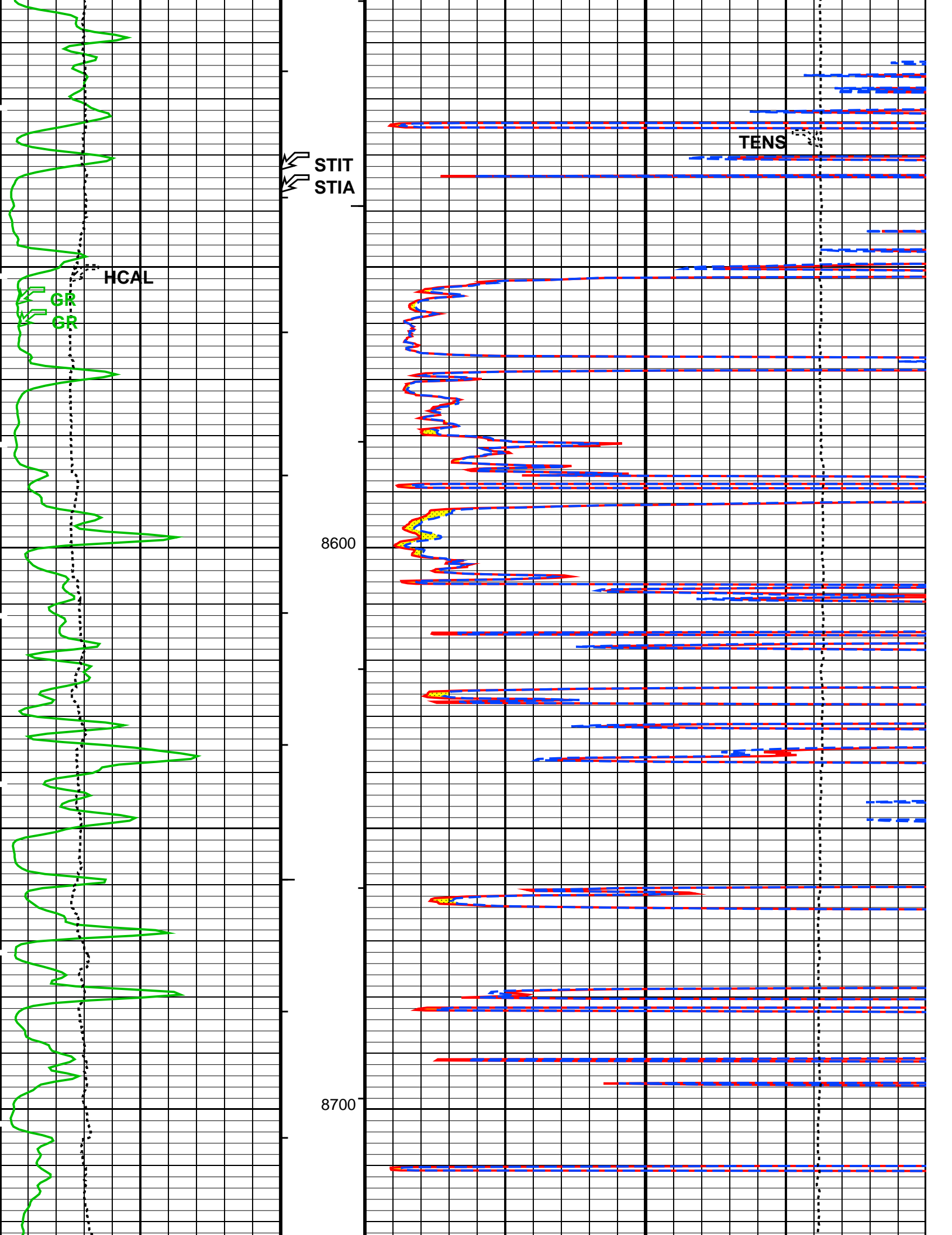


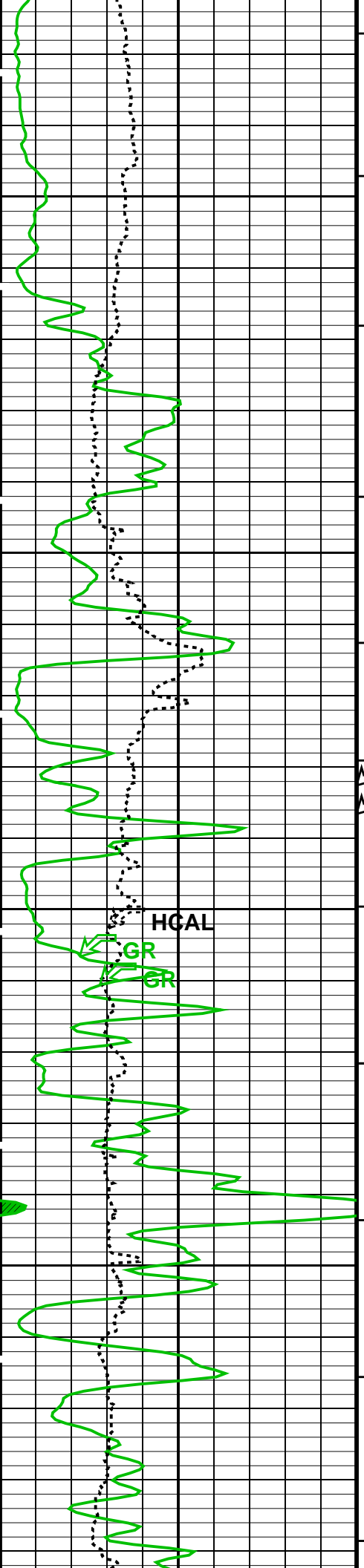












STIT
STIA

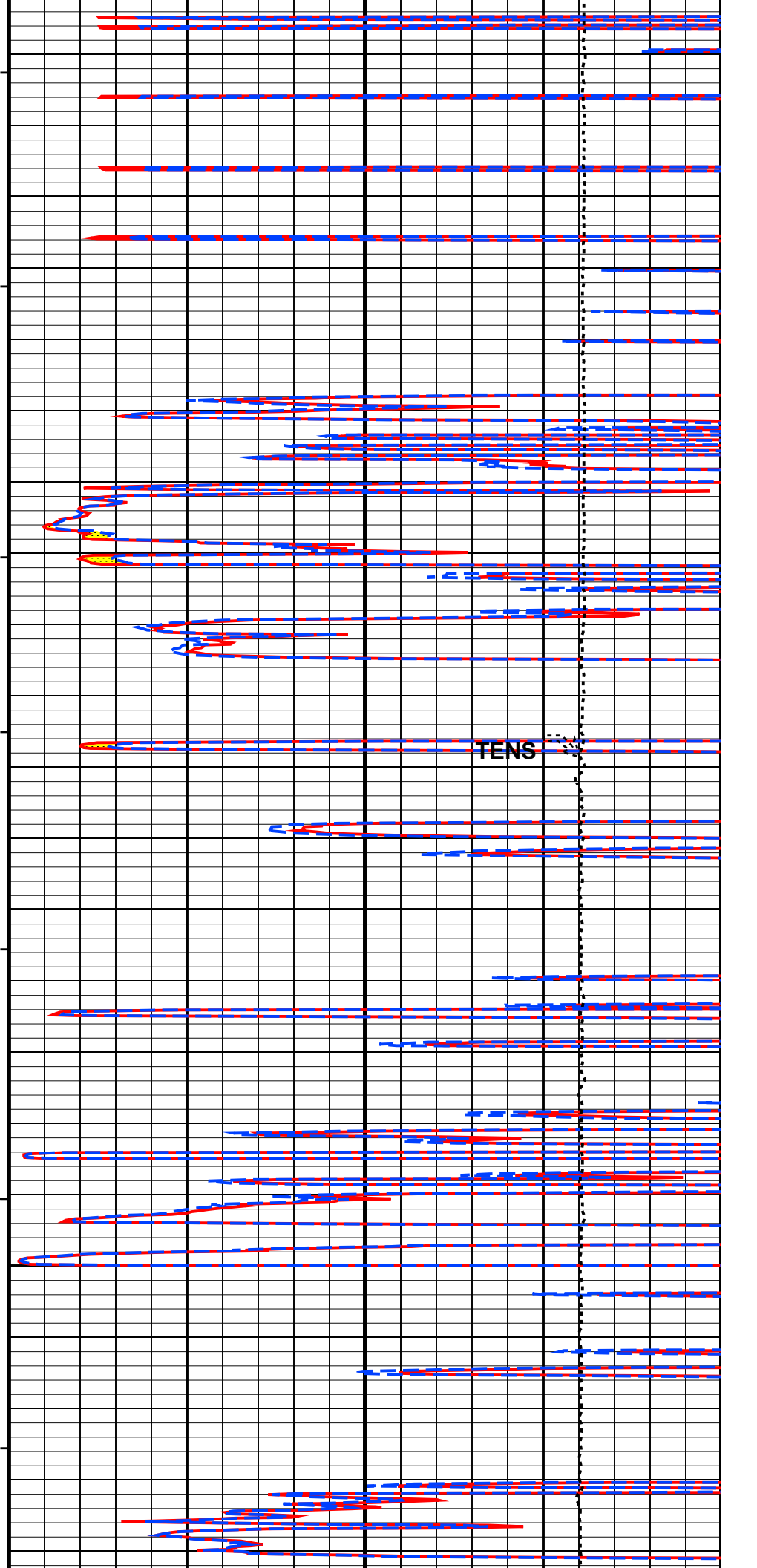
HCAL

GR

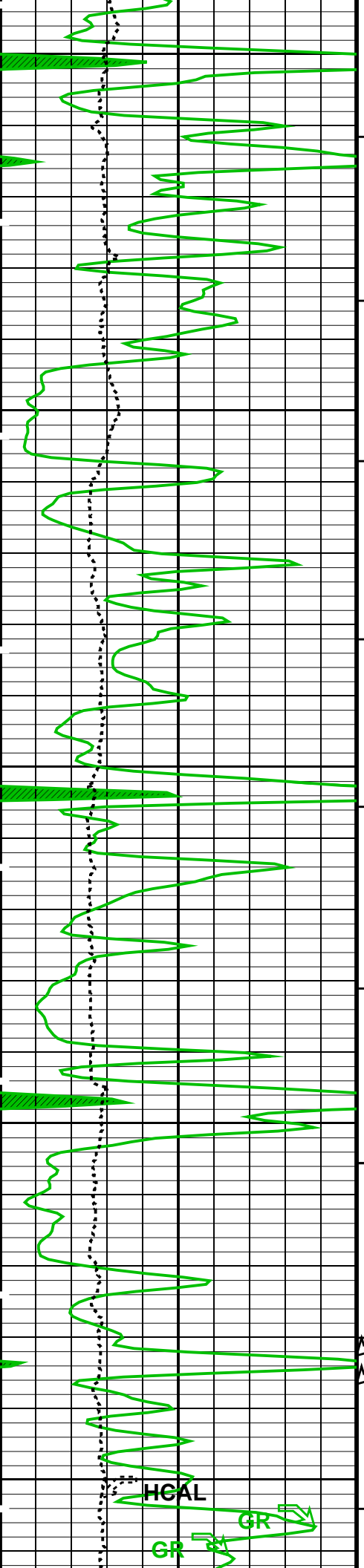
GR

8800

8900



TENS



9000

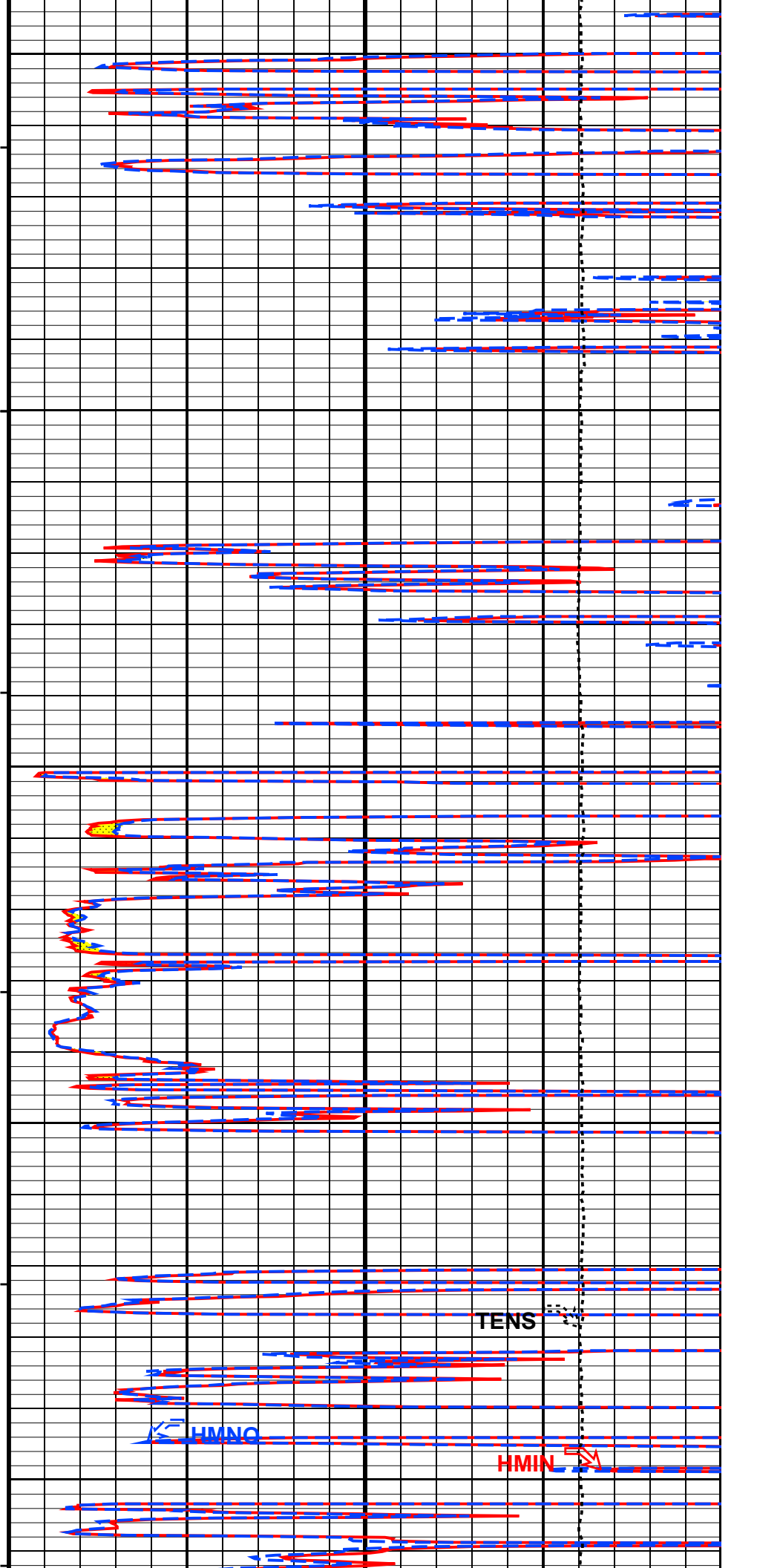
9100

STIT
STIA

HCAL

GR

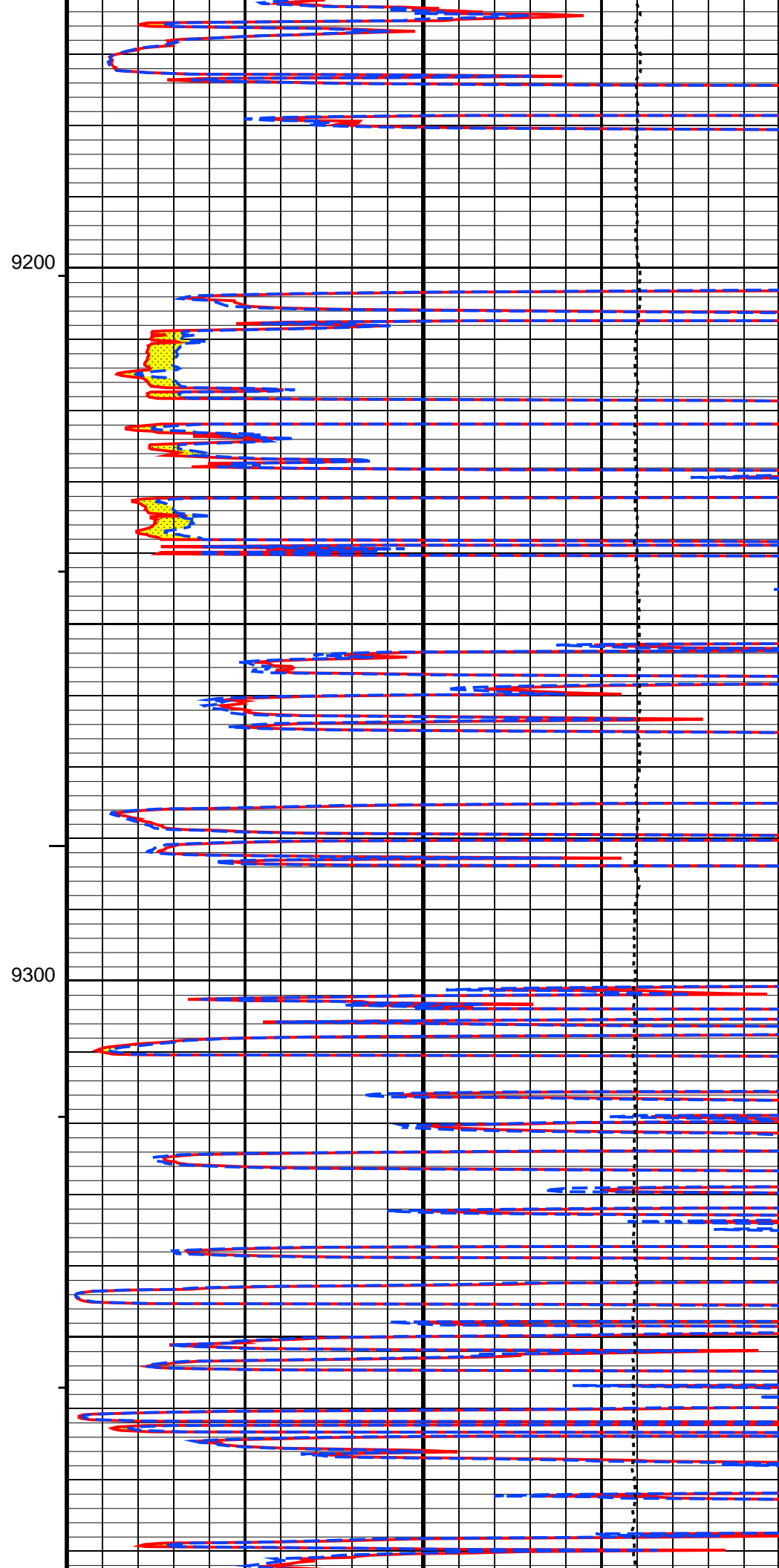
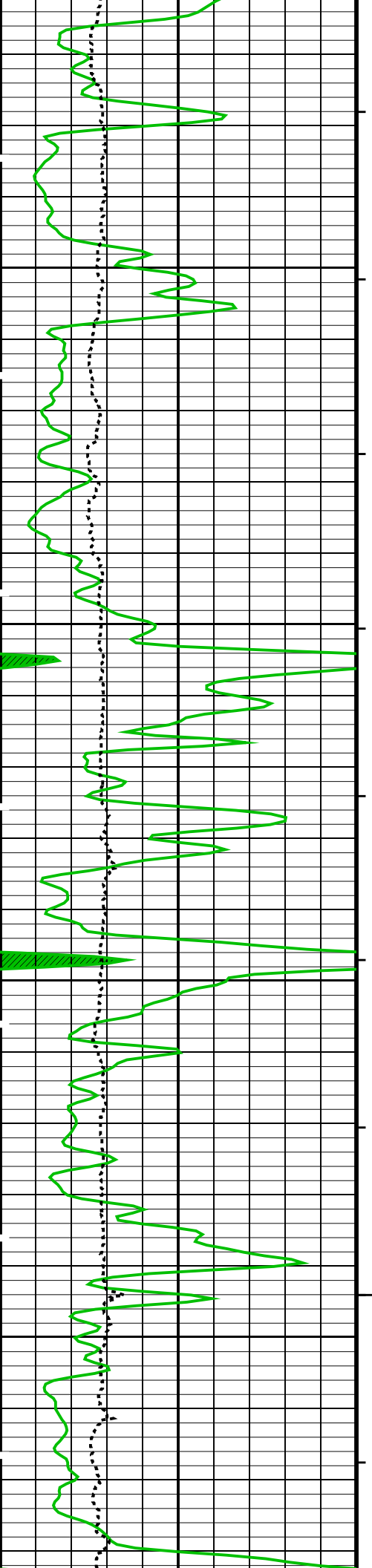
GR

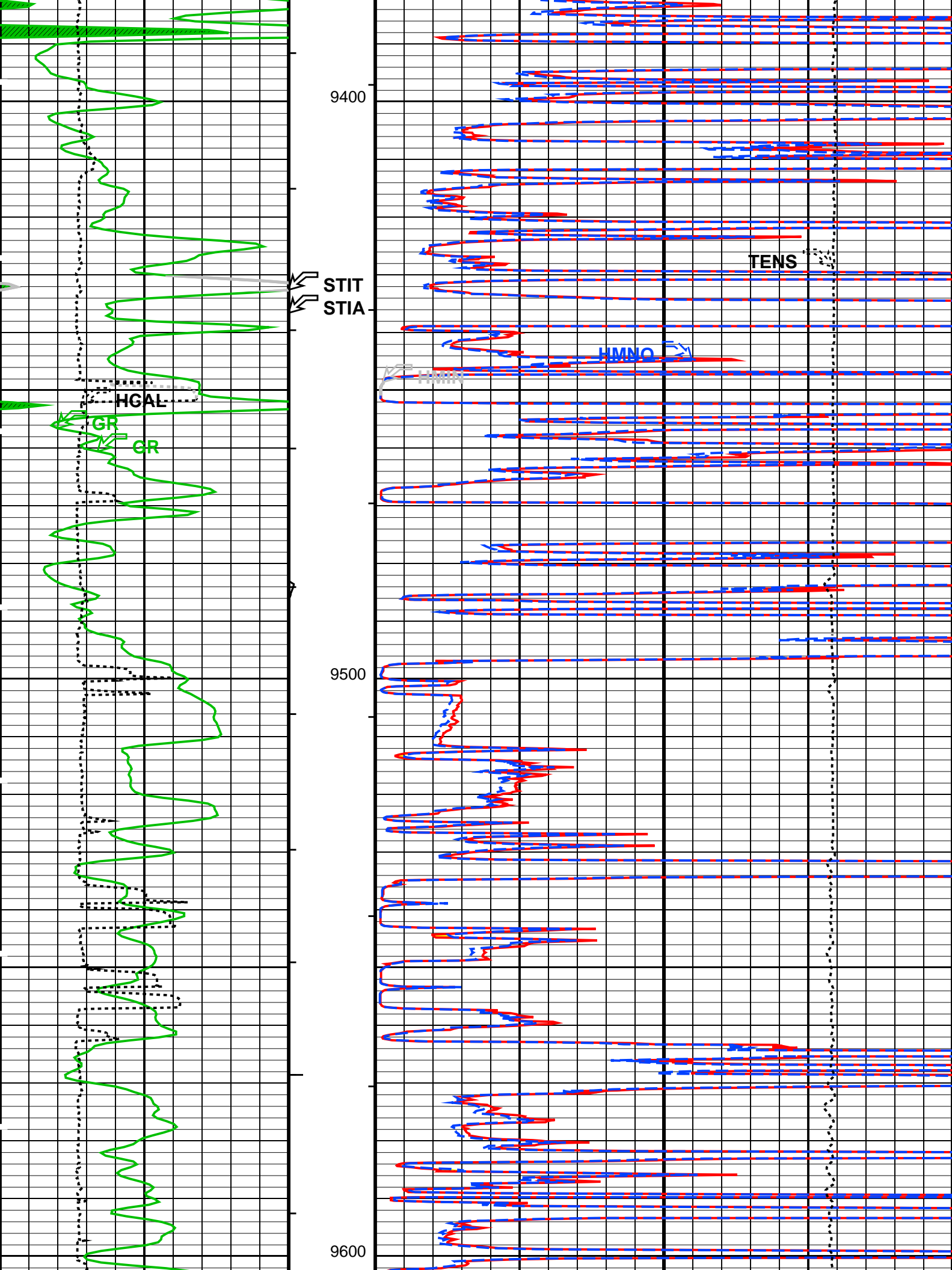


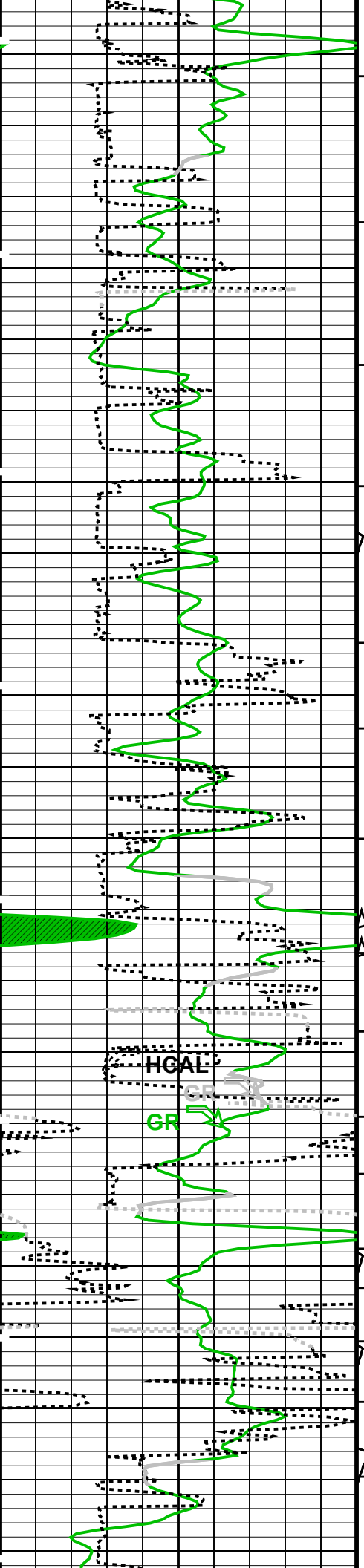
TENS

HMNO

HMIN







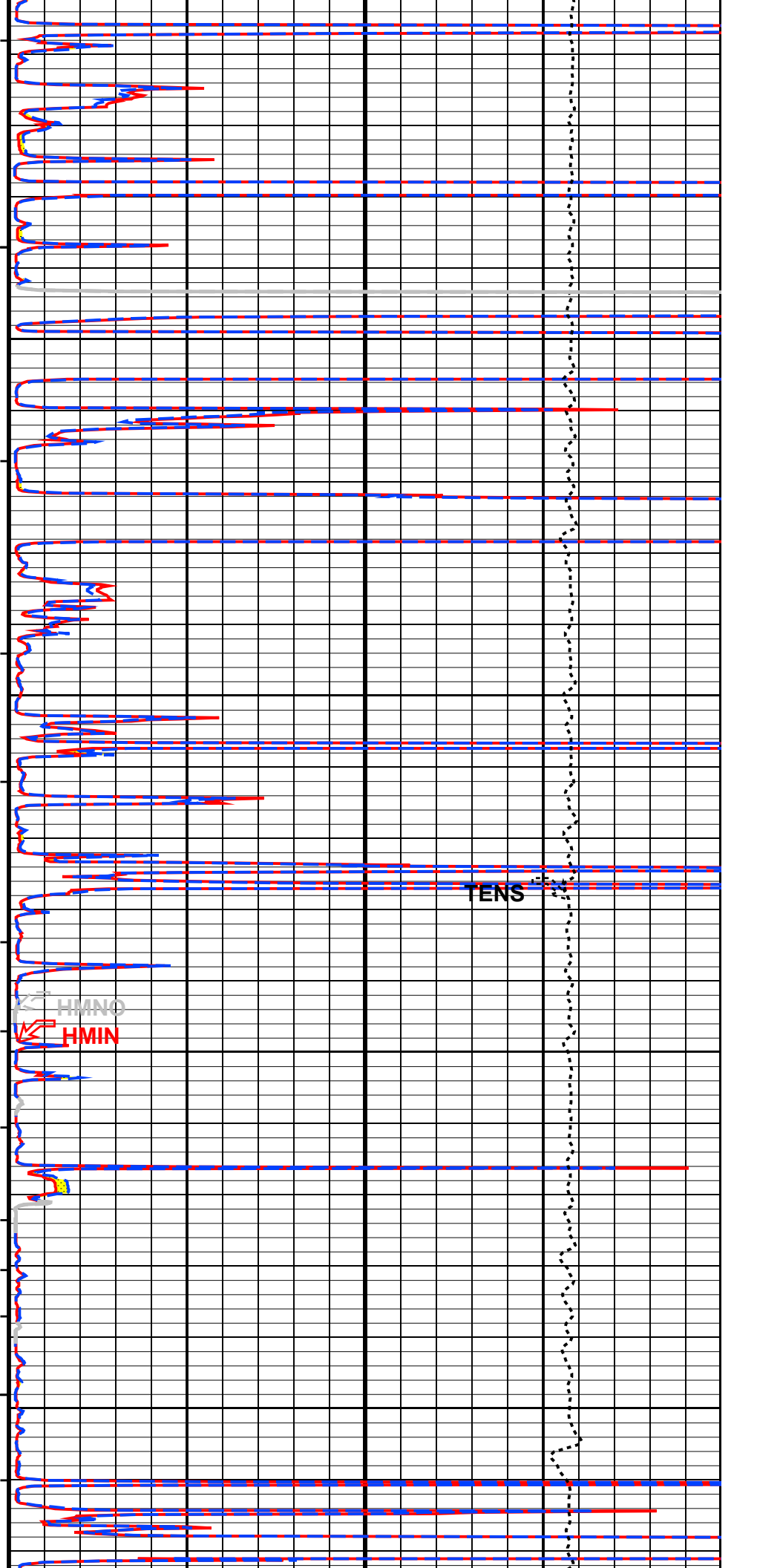
STIT
STIA

HGAL

GR

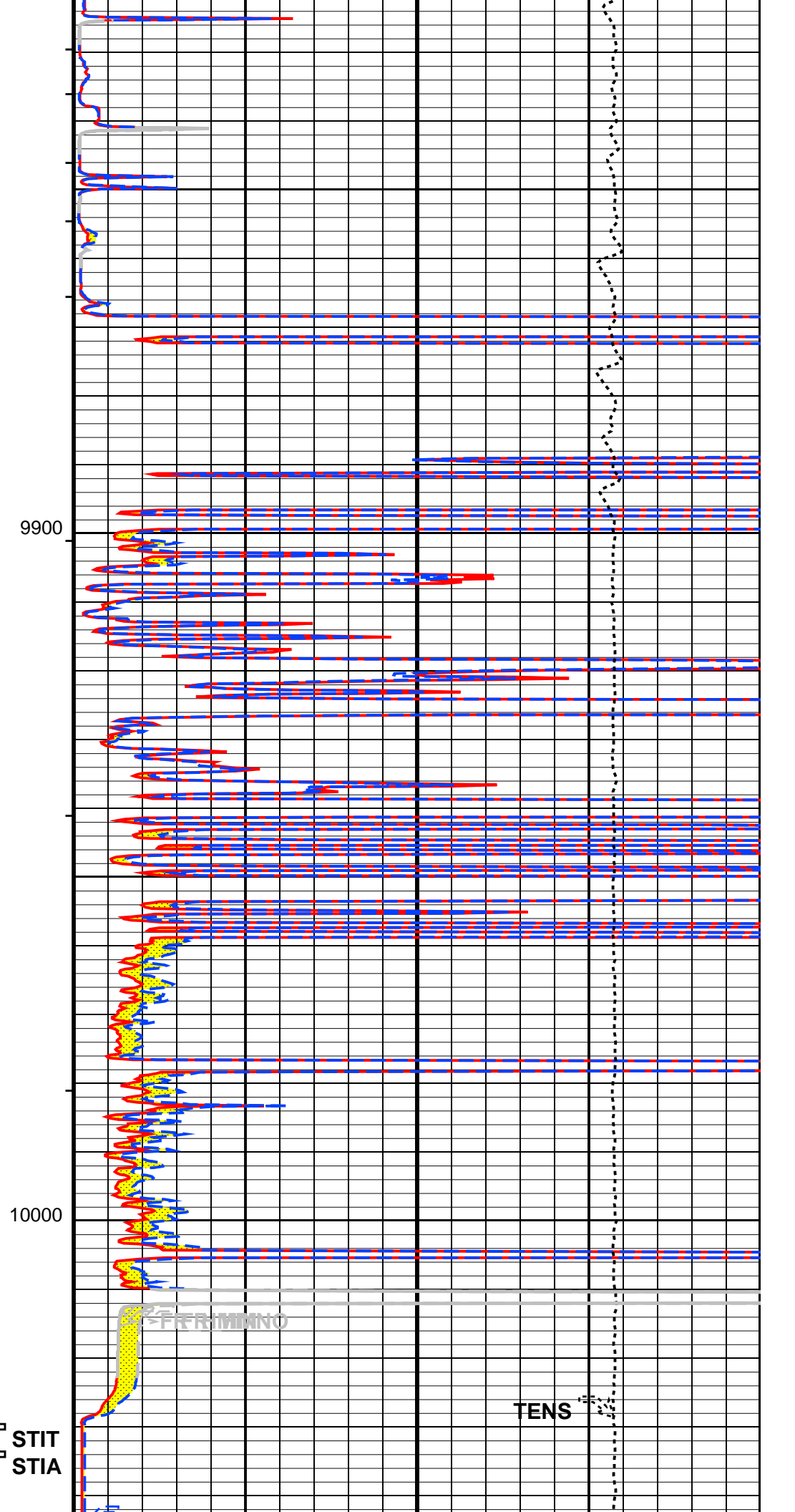
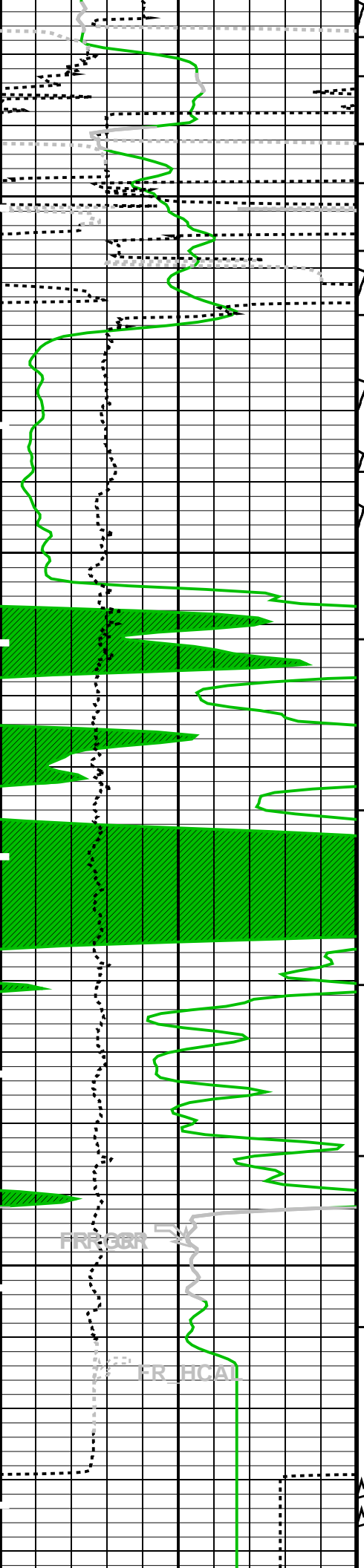
9800

9700



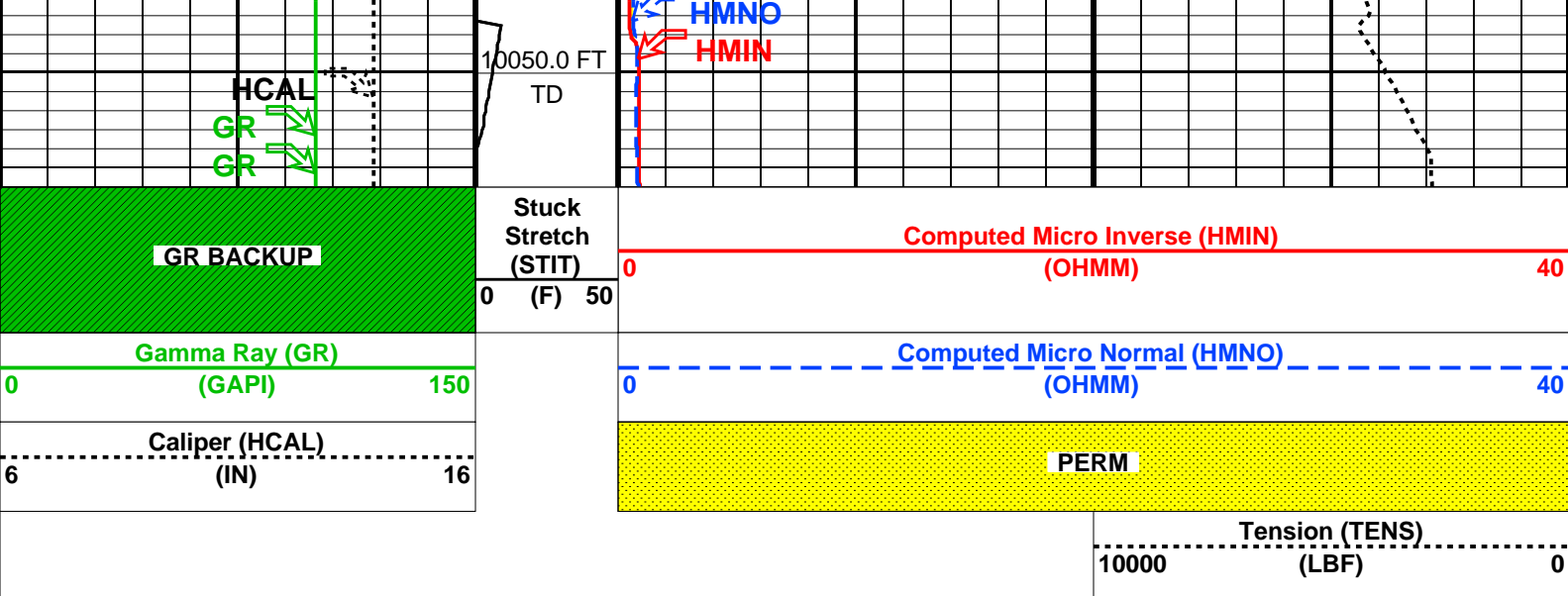
TENS

HMINO
HMIN



STIT
STIA

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
TR11DV	3D 1D Code Version Number	315
TRIBHV	Array Induction Borehole Correction Code Version Number	168
TRIRT	3D Rotation Selector	North
MPOF	HILTH-FTB: High resolution Integrated Logging Tool-DTS MCFL Processing Operation Mode	ON
DIR	Directional Survey Computation	
SPVD	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	5.5 IN
HVCS	Integrated Hole Volume Caliper Selection	AUTOMATIC
STI	Stuck Tool Indicator	
LBFR	Trigger for MAXIS First Reading Label	TDL
STKT	STI Stuck Threshold	2.5 FT
TDD	Total Depth - Driller	10060.00 FT
TDL	Total Depth - Logger	10050.00 FT
	System and Miscellaneous	
BS	Bit Size	8.750 IN
DO	Depth Offset for Playback	0.0 FT
DORL	Depth Offset for Repeat Analysis	0.0 FT
PP	Playback Processing	RECOMPUTE
TD	Total Depth	10050 FT

Format: MLT Vertical Scale: 5" per 100'

Graphics File Created: 02-Jul-2013 23:19

OP System Version: 19C2-270

ZAIT-EB	19C2-270	GPIT-F	19C2-270
HILTH-FTB	19C2-270	DTC-H	19C2-270

Input DLIS Files

DEFAULT	AIT_IS_TLD_MCFL_CNL_012LUP	FN:11	PRODUCER	02-Jul-2013 19:58	10062.0 FT	1511.0 FT
---------	----------------------------	-------	----------	-------------------	------------	-----------

Output DLIS Files

DEFAULT	AIT_IS_TLD_MCFL_CNL_024PUP	FN:25	PRODUCER	02-Jul-2013 23:19
CUSTOMER	AIT_IS_TLD_MCFL_CNL_024PUC	FN:26	CUSTOMER	02-Jul-2013 23:19

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
3-D Array Induction Tool – ZAIT–EB Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase							
Master: 17-Jul-2012 17:34 Before: 2-Jul-2013 10:17							
Thru Cal Magnitude – 0	0	1.484	1.490	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 1	0	1.499	1.502	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 2	0	1.453	1.453	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 3	0	3.417	3.433	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 4	0	3.451	3.461	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 5	0	3.345	3.349	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 6	0	2.740	2.753	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 7	0	2.768	2.776	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 8	0	2.683	2.685	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 9	0	1.903	1.907	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 10	0	1.904	1.919	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 11	0	1.886	1.899	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 12	0	3.577	3.593	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 13	0	3.612	3.623	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 14	0	3.501	3.504	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 15	0	3.051	3.057	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 16	0	3.052	3.077	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 17	0	3.024	3.045	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 18	0	0.9467	0.9512	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 19	0	0.9554	0.9584	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 20	0	0.9259	0.9270	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 21	0	4.055	4.063	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 22	0	4.056	4.090	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 23	0	4.019	4.047	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 24	0	1.375	1.383	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 25	0	1.388	1.393	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 26	0	1.345	1.348	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 27	0	4.055	4.063	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 28	0	4.056	4.090	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 29	0	4.019	4.047	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 30	0	1.375	1.383	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 31	0	1.388	1.393	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 32	0	1.345	1.348	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 33	0	1.176	1.178	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 34	0	1.175	1.185	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 35	0	1.164	1.172	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 36	0	1.631	1.638	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 37	0	1.646	1.651	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 38	0	1.595	1.597	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 39	0	1.412	1.415	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 40	0	1.411	1.423	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 41	0	1.398	1.408	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 42	0	2.353	2.365	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 43	0	2.375	2.383	N/A	N/A	N/A	MM/M
Thru Cal Magnitude – 44	0	2.302	2.305	N/A	N/A	N/A	MM/M
Thru Cal Phase – 0	0	11.77	14.70	N/A	N/A	N/A	DEG
Thru Cal Phase – 1	0	10.92	13.01	N/A	N/A	N/A	DEG
Thru Cal Phase – 2	0	0.9479	3.005	N/A	N/A	N/A	DEG
Thru Cal Phase – 3	0	7.740	10.47	N/A	N/A	N/A	DEG
Thru Cal Phase – 4	0	6.902	8.792	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	-3.072	-1.214	N/A	N/A	N/A	DEG
Thru Cal Phase – 6	0	12.23	15.26	N/A	N/A	N/A	DEG
Thru Cal Phase – 7	0	11.38	13.58	N/A	N/A	N/A	DEG
Thru Cal Phase – 8	0	1.382	3.547	N/A	N/A	N/A	DEG
Thru Cal Phase – 9	0	4.955	5.868	N/A	N/A	N/A	DEG
Thru Cal Phase – 10	0	3.432	4.653	N/A	N/A	N/A	DEG
Thru Cal Phase – 11	0	1.881	3.333	N/A	N/A	N/A	DEG

Thru Cal Phase – 12	0	11.80	14.70	N/A	N/A	N/A	DEG
Thru Cal Phase – 13	0	10.94	13.05	N/A	N/A	N/A	DEG
Thru Cal Phase – 14	0	0.9918	3.047	N/A	N/A	N/A	DEG
Thru Cal Phase – 15	0	4.963	5.865	N/A	N/A	N/A	DEG
Thru Cal Phase – 16	0	3.453	4.664	N/A	N/A	N/A	DEG
Thru Cal Phase – 17	0	1.901	3.343	N/A	N/A	N/A	DEG
Thru Cal Phase – 18	0	11.73	14.68	N/A	N/A	N/A	DEG
Thru Cal Phase – 19	0	10.89	13.02	N/A	N/A	N/A	DEG
Thru Cal Phase – 20	0	0.9383	3.020	N/A	N/A	N/A	DEG
Thru Cal Phase – 21	0	2.954	3.793	N/A	N/A	N/A	DEG
Thru Cal Phase – 22	0	1.440	2.586	N/A	N/A	N/A	DEG
Thru Cal Phase – 23	0	-0.1098	1.269	N/A	N/A	N/A	DEG
Thru Cal Phase – 24	0	7.739	10.44	N/A	N/A	N/A	DEG
Thru Cal Phase – 25	0	6.899	8.807	N/A	N/A	N/A	DEG
Thru Cal Phase – 26	0	-3.054	-1.203	N/A	N/A	N/A	DEG
Thru Cal Phase – 27	0	2.946	3.780	N/A	N/A	N/A	DEG
Thru Cal Phase – 28	0	1.436	2.579	N/A	N/A	N/A	DEG
Thru Cal Phase – 29	0	-0.1156	1.258	N/A	N/A	N/A	DEG
Thru Cal Phase – 30	0	7.731	10.46	N/A	N/A	N/A	DEG
Thru Cal Phase – 31	0	6.901	8.806	N/A	N/A	N/A	DEG
Thru Cal Phase – 32	0	-3.060	-1.205	N/A	N/A	N/A	DEG
Thru Cal Phase – 33	0	5.438	6.434	N/A	N/A	N/A	DEG
Thru Cal Phase – 34	0	3.941	5.236	N/A	N/A	N/A	DEG
Thru Cal Phase – 35	0	2.370	3.907	N/A	N/A	N/A	DEG
Thru Cal Phase – 36	0	12.25	15.25	N/A	N/A	N/A	DEG
Thru Cal Phase – 37	0	11.41	13.62	N/A	N/A	N/A	DEG
Thru Cal Phase – 38	0	1.459	3.614	N/A	N/A	N/A	DEG
Thru Cal Phase – 39	0	5.416	6.412	N/A	N/A	N/A	DEG
Thru Cal Phase – 40	0	3.920	5.223	N/A	N/A	N/A	DEG
Thru Cal Phase – 41	0	2.363	3.896	N/A	N/A	N/A	DEG
Thru Cal Phase – 42	0	12.20	15.25	N/A	N/A	N/A	DEG
Thru Cal Phase – 43	0	11.37	13.60	N/A	N/A	N/A	DEG
Thru Cal Phase – 44	0	1.404	3.579	N/A	N/A	N/A	DEG

3-D Array Induction Tool – ZAIT–EB Wellsite Calibration – Electronics Calibration Check – Auxilliary

Master: 17-Jul-2012 17:34 Before: 2-Jul-2013 10:17

Array Induction SPA Plus	0.8360	0.8425	0.8425	N/A	N/A	N/A	V
Array Induction SPA Zero	0	-0.0008885	-0.0008893	N/A	N/A	N/A	V
Array Induction Temperature PI	0.9798	0.9891	0.9893	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	-0.001770	-0.001760	N/A	N/A	N/A	V
Array Induction CalSig Plus	5.000	5.013	5.013	N/A	N/A	N/A	V
Array Induction CalSig Zero	0	-0.01264	-0.01272	N/A	N/A	N/A	V
Array Induction Volt Plus	5.000	5.013	5.013	N/A	N/A	N/A	V
Array Induction Volt Zero	0	-0.01264	-0.01272	N/A	N/A	N/A	V

3-D Array Induction Tool – ZAIT–EB Wellsite Calibration – Field Check Sonde Error

Master: 17-Jul-2012 17:34

R Sonde Error Check – 0	0	0.8768	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 1	0	-8.460	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 2	0	-0.2346	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 3	0	0.1586	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 4	0	-2.006	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 5	0	-0.1444	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 6	0	0.09356	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 7	0	-0.7344	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 8	0	0.02038	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 9	0	-0.2112	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 10	0	0.06952	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 11	0	0.1413	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 12	0	-0.1485	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 13	0	-0.2748	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 14	0	-1.459	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 15	0	0.1561	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 16	0	0.3288	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 17	0	0.01729	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 18	0	0.009476	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 19	0	0.07878	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 20	0	-0.05011	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 21	0	-0.00004578	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 22	0	-0.01636	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 23	0	-0.4070	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 24	0	-0.06665	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 25	0	0.009807	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 26	0	-0.0003009	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 27	0	0.2296	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 28	0	0.1653	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 29	0	0.1038	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 30	0	-0.03671	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 31	0	0.2608	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 32	0	-0.8507	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 33	0	-0.3072	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 34	0	0.1051	N/A	N/A	N/A	N/A	MM/M

R Sonde Error Check – 34	0	0.1051	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 35	0	0.06393	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 36	0	0.06533	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 37	0	0.07103	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 38	0	–0.06642	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 39	0	0.06441	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 40	0	–0.1331	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 41	0	–0.1926	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 42	0	–0.08327	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 43	0	–0.03356	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 44	0	0.01292	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 45	0	0.1815	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 46	0	–0.03699	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 47	0	0.3481	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 48	0	0.02344	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 49	0	–0.2052	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 50	0	–0.3714	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 51	0	0.04171	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 52	0	–0.02857	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 53	0	–0.008003	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 54	0	–0.04964	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 55	0	0.001317	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 56	0	0.004580	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 57	0	–0.007983	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 58	0	–0.03270	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 59	0	–0.007650	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 60	0	–0.02358	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 61	0	–0.003514	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 62	0	0.02410	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 63	0	0.06746	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 64	0	0.01019	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 65	0	–0.2117	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 66	0	0.05021	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 67	0	–0.4624	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 68	0	–0.1547	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 69	0	–0.1594	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 70	0	0.1116	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 71	0	–0.03944	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 72	0	0.04089	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 73	0	–0.01481	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 74	0	–0.0006365	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 75	0	0.01118	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 76	0	–0.004654	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 77	0	–0.1062	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 78	0	–0.01381	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 79	0	–0.1139	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 80	0	0.02617	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 81	0	0.2853	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 82	0	0.1240	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 83	0	0.1245	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 84	0	0.05487	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 85	0	–0.07480	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 86	0	–0.4918	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 87	0	0.2648	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 88	0	–0.06360	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 89	0	–0.06884	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 90	0	0.03490	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 91	0	–0.01005	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 92	0	0.05603	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 93	0	–0.03578	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 94	0	0.07159	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 95	0	–0.2276	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 96	0	–0.03868	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 97	0	–0.01046	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 98	0	–0.001964	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 99	0	–0.01048	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 100	0	0.3691	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 101	0	0.2172	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 102	0	0.1826	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 103	0	0.5148	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 104	0	0.2807	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 105	0	0.04119	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 106	0	–0.1157	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 107	0	0.3458	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 108	0	0.04482	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 109	0	–0.01942	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 110	0	–0.03776	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 111	0	–0.01619	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 112	0	–0.01419	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 113	0	0.04691	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 114	0	–0.03978	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Check – 115	0	–0.07626	N/A	N/A	N/A	N/A	MM/M

R Sonde Error Check – 116	0	-0.001239	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 0	0	3.648	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 1	0	-0.9678	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 2	0	-0.1396	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 3	0	-0.5683	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 4	0	0.2455	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 5	0	0.1829	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 6	0	-0.06827	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 7	0	-0.05511	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 8	0	0.01085	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 9	0	-0.4440	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 10	0	0.1240	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 11	0	1.072	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 12	0	-0.3848	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 13	0	-0.3294	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 14	0	-0.05670	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 15	0	1.247	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 16	0	-2.885	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 17	0	0.01416	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 18	0	-0.3017	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 19	0	-0.06738	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 20	0	0.3876	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 21	0	-0.2283	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 22	0	-0.1021	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 23	0	-0.1892	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 24	0	0.7020	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 25	0	-1.372	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 26	0	-0.04074	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 27	0	0.1987	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 28	0	0.2310	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 29	0	0.6383	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 30	0	-0.1242	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 31	0	-7.783	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 32	0	0.7845	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 33	0	3.155	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 34	0	-0.6987	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 35	0	-0.09846	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 36	0	0.1699	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 37	0	0.09726	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 38	0	0.3790	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 39	0	-0.1294	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 40	0	0.06270	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 41	0	0.2822	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 42	0	1.536	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 43	0	-0.3995	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 44	0	-0.07822	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 45	0	0.6924	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 46	0	0.4965	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 47	0	-0.1383	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 48	0	-0.1485	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 49	0	0.8258	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 50	0	0.3601	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 51	0	0.8813	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 52	0	-0.5822	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 53	0	-0.2641	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 54	0	0.1011	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 55	0	0.02788	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 56	0	-0.006073	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 57	0	-0.09327	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 58	0	0.06207	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 59	0	0.2796	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 60	0	0.4424	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 61	0	-0.2170	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 62	0	-0.06397	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 63	0	-0.01039	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 64	0	-0.1392	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 65	0	-0.2752	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 66	0	-0.05826	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 67	0	-0.04993	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 68	0	0.7906	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 69	0	1.136	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 70	0	0.3809	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 71	0	-0.02920	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 72	0	0.1115	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 73	0	0.02747	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 74	0	-0.2118	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 75	0	-0.07761	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 76	0	-0.01807	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 77	0	0.3138	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 78	0	0.5158	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 79	0	0.1849	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 80	0	0.00000	N/A	N/A	N/A	N/A	MM/M

X Sonde Error Check – 80	0	0.009218	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 81	0	-0.009415	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 82	0	0.02902	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 83	0	0.1291	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 84	0	0.06401	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 85	0	0.7413	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 86	0	0.07848	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 87	0	3.524	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 88	0	0.4426	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 89	0	0.1112	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 90	0	-0.05607	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 91	0	-0.02539	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 92	0	-0.1392	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 93	0	-0.005074	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 94	0	-0.1803	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 95	0	0.1059	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 96	0	-0.1494	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 97	0	0.07344	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 98	0	-0.02630	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 99	0	-0.2696	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 100	0	0.2863	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 101	0	-0.4351	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 102	0	-0.2593	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 103	0	-0.1073	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 104	0	0.1513	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 105	0	0.2367	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 106	0	0.2122	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 107	0	-0.2288	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 108	0	-0.02660	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 109	0	-0.03287	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 110	0	-0.1143	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 111	0	-0.02131	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 112	0	0.1427	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 113	0	0.1387	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 114	0	0.08228	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 115	0	0.1218	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Check – 116	0	0.01759	N/A	N/A	N/A	N/A	MM/M

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

Before: 2–Jul–2013 10:18

BS Window Ratio	0.7389	N/A	0.7373	N/A	N/A	N/A	
BS Window Sum	25840	N/A	25940	N/A	N/A	N/A	CPS
SS Window Ratio	0.4833	N/A	0.4838	N/A	N/A	N/A	
SS Window Sum	11530	N/A	11500	N/A	N/A	N/A	CPS
LS Window Ratio	0.3002	N/A	0.3017	N/A	N/A	N/A	
LS Window Sum	1345	N/A	1342	N/A	N/A	N/A	CPS

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

Before: 2–Jul–2013 10:18

BS PM High Voltage (Command)	1315	N/A	1312	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1905	N/A	1907	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1302	N/A	1308	N/A	N/A	N/A	V

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

Before: 2–Jul–2013 10:18

BS Crystal Resolution	11.93	N/A	11.92	N/A	N/A	N/A	%
SS Crystal Resolution	10.34	N/A	10.35	N/A	N/A	N/A	%
LS Crystal Resolution	8.558	N/A	8.539	N/A	N/A	N/A	%

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

Before: 2–Jul–2013 10:11

Raw B0 Resistivity	3875	N/A	3854	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3789	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3809	N/A	N/A	N/A	OHMM

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

Before: 2–Jul–2013 10:05

HILT Caliper Zero Measurement	8.000	N/A	8.314	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.49	N/A	N/A	N/A	IN

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

Before: 2–Jul–2013 10:05

Gamma Ray Background	30.00	N/A	90.48	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	169.8	N/A	N/A	15.00	GAPI

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

Master: 17–May–2013 14:28 Before: 2–Jul–2013 10:06

CNTC Background	27.37	27.37	27.45	N/A	N/A	4.106	CPS
CFTC Background	27.33	27.33	27.94	N/A	N/A	4.100	CPS

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

Master: 17–May–2013 14:28

Thermal Near Corr. (Tank)	5800	5686	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2326	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.445	N/A	N/A	N/A	N/A	

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

Before: 2–Jul–2013 18:57

Z–Axis Acceleration	32.19	N/A	32.09	N/A	N/A	N/A	F/S2
---------------------	-------	-----	-------	-----	-----	-----	------

The GLS–VJ source activity is acceptable.

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

NCT–B Water Temperature 120.0 DEGF.

Thermal Housing Size 3.373 IN.

NSR–F serial number 2554

3–D Array Induction Tool – ZAIT–EB / Equipment Identification

Primary Equipment:

Rm/SP Bottom Nose













































3–D Array Induction Sonde

AHRM – A

AXIS – A

















52

Auxiliary Equipment:























3–D Array Induction Tool – ZAIT–EB Wellsite Calibration								
Electronics Calibration Check – Thru Cal Mag. & Phase								
Idx	Phase	Value	Thru Cal Magnitude MM/M	Nominal	Value	Thru Cal Phase DEG	Nominal	
0	Master	1.484		1.456	11.77		0	
	Before	1.490			14.70			
1	Master	1.499		1.456	10.92		0	
	Before	1.502			13.01			
2	Master	1.453		1.456	0.9479		0	
	Before	1.453			3.005			
3	Master	3.417		3.352	7.740		0	
	Before	3.433			10.47			
4	Master	3.451		3.352	6.902		0	
	Before	3.461			8.792			
5	Master	3.345		3.352	–3.072		0	
	Before	3.349			–1.214			
6	Master	2.740		2.680	12.23		0	
	Before	2.753			15.26			
7	Master	2.768		2.680	11.38		0	
	Before	2.776			13.58			
8	Master	2.683		2.680	1.382		0	
	Before	2.685			3.547			
9	Master	1.903		1.956	4.955		0	
	Before	1.907			5.868			
10	Master	1.904		1.956	3.432		0	
	Before	1.919			4.653			
11	Master	1.886		1.956	1.881		0	
	Before	1.899			3.333			













































12	Master	3.577			3.537	11.80		0
	Before	3.593				14.70		
13	Master	3.612			3.537	10.94		0
	Before	3.623				13.05		
14	Master	3.501			3.537	0.9918		0
	Before	3.504				3.047		
15	Master	3.051			3.100	4.963		0
	Before	3.057				5.865		
16	Master	3.052			3.100	3.453		0
	Before	3.077				4.664		
17	Master	3.024			3.100	1.901		0
	Before	3.045				3.343		
18	Master	0.9467			0.9359	11.73		0
	Before	0.9512				14.68		
19	Master	0.9554			0.9359	10.89		0
	Before	0.9584				13.02		
20	Master	0.9259			0.9359	0.9383		0
	Before	0.9270				3.020		
21	Master	4.055			4.081	2.954		0
	Before	4.063				3.793		
22	Master	4.056			4.081	1.440		0
	Before	4.090				2.586		
23	Master	4.019			4.081	-0.1098		0
	Before	4.047				1.269		
24	Master	1.375			1.362	7.739		0
	Before	1.383				10.44		
25	Master	1.388			1.362	6.899		0
	Before	1.393				8.807		
26	Master	1.345			1.362	-3.054		0
	Before	1.348				-1.203		
27	Master	4.055			4.081	2.946		0
	Before	4.063				3.780		
28	Master	4.056			4.081	1.436		0
	Before	4.090				2.579		
29	Master	4.019			4.081	-0.1156		0
	Before	4.047				1.258		
30	Master	1.375			1.362	7.731		0
	Before	1.383				10.46		
31	Master	1.388			1.362	6.901		0
	Before	1.393				8.806		
32	Master	1.345			1.362	-3.060		0
	Before	1.348				-1.205		
33	Master	1.176			1.220	5.438		0
	Before	1.178				6.434		

34	Master	1.175			1.220	3.941			0
	Before	1.185				5.236			
35	Master	1.164			1.220	2.370			0
	Before	1.172				3.907			
36	Master	1.631			1.635	12.25			0
	Before	1.638				15.25			
37	Master	1.646			1.635	11.41			0
	Before	1.651				13.62			
38	Master	1.595			1.635	1.459			0
	Before	1.597				3.614			
39	Master	1.412			1.464	5.416			0
	Before	1.415				6.412			
40	Master	1.411			1.464	3.920			0
	Before	1.423				5.223			
41	Master	1.398			1.464	2.363			0
	Before	1.408				3.896			
42	Master	2.353			2.353	12.20			0
	Before	2.365				15.25			
43	Master	2.375			2.353	11.37			0
	Before	2.383				13.60			
44	Master	2.302			2.353	1.404			0
	Before	2.305				3.579			
		50.00 %		150.0 %		Nom -85.00		Nom + 85.00	
		(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)	
Master: 17-Jul-2012 17:34					Before: 2-Jul-2013 10:17				













































3-D Array Induction Tool – ZAIT-EB Wellsite Calibration							
Electronics Calibration Check – Auxilliary							
Phase	Array Induction SPA Plus V		Value	Phase	Array Induction SPA Zero V		Value
Master			0.8425	Master			-0.0008885
Before			0.8425	Before			-0.0008893
0.7570 (Minimum) 0.8360 (Nominal) 0.9150 (Maximum)				-0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)			
Phase	Array Induction Temperature Plus V		Value	Phase	Array Induction Temperature Zero V		Value
Master			0.9891	Master			-0.001770
Before			0.9893	Before			-0.001760
0.8800 (Minimum) 0.9798 (Nominal) 1.076 (Maximum)				-0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)			
Phase	Array Induction CalSig Plus V		Value	Phase	Array Induction CalSig Zero V		Value
Master			5.013	Master			-0.01264
Before			5.013	Before			-0.01272
4.500 (Minimum) 5.000 (Nominal) 5.500 (Maximum)				-0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)			
Phase	Array Induction Volt Plus V		Value	Phase	Array Induction Volt Zero V		Value
Master			5.013	Master			-0.01264
Before			5.013	Before			-0.01272
4.500 (Minimum) 5.000 (Nominal) 5.500 (Maximum)				-0.05000 (Minimum) 0 (Nominal) 0.05000 (Maximum)			
Master: 17-Jul-2012 17:34				Before: 2-Jul-2013 10:17			

3-D Array Induction Tool – ZAIT-EB Wellsite Calibration			
Field Check Sonde Error			
Idx	Value	R Sonde Error Check MM/M	X Sonde Error Check MM/M

0	0.8768		
	-1422 (Minimum)	0 (Nominal)	1422 (Maximum)
1	-8.460		
	-1422 (Minimum)	0 (Nominal)	1422 (Maximum)
2	-0.2346		
	-58.96 (Minimum)	0 (Nominal)	58.96 (Maximum)
3	0.1586		
	-278.1 (Minimum)	0 (Nominal)	278.1 (Maximum)
4	-2.006		
	-278.1 (Minimum)	0 (Nominal)	278.1 (Maximum)
5	-0.1444		
	-22.33 (Minimum)	0 (Nominal)	22.33 (Maximum)
6	0.09356		
	-93.73 (Minimum)	0 (Nominal)	93.73 (Maximum)
7	-0.7344		
	-93.73 (Minimum)	0 (Nominal)	93.73 (Maximum)
8	0.02038		
	-12.70 (Minimum)	0 (Nominal)	12.70 (Maximum)
9	-0.2112		
	-38.43 (Minimum)	0 (Nominal)	38.43 (Maximum)
10	0.06952		
	-322.0 (Minimum)	0 (Nominal)	322.0 (Maximum)
11	0.1413		
	-183.7 (Minimum)	0 (Nominal)	183.7 (Maximum)
12	-0.1485		
	-322.0 (Minimum)	0 (Nominal)	322.0 (Maximum)
13	-0.2748		
	-38.43 (Minimum)	0 (Nominal)	38.43 (Maximum)
14	-1.459		
	-183.7 (Minimum)	0 (Nominal)	183.7 (Maximum)
15	0.1561		
	-131.2 (Minimum)	0 (Nominal)	131.2 (Maximum)
16	0.3288		
	-131.2 (Minimum)	0 (Nominal)	131.2 (Maximum)
17	0.01729		
	-10.52 (Minimum)	0 (Nominal)	10.52 (Maximum)
18	0.009476		
	-38.65 (Minimum)	0 (Nominal)	38.65 (Maximum)
19	0.07878		
	-120.8 (Minimum)	0 (Nominal)	120.8 (Maximum)
20	-0.05011		
	-56.45 (Minimum)	0 (Nominal)	56.45 (Maximum)
21	-4.578E-00		
	-120.8 (Minimum)	0 (Nominal)	120.8 (Maximum)

22	−0.01636		0 (Nominal)	38.65 (Maximum)	−0.1021		0 (Nominal)	259.4 (Maximum)
23	−0.4070		0 (Nominal)	56.45 (Maximum)	−0.1892		0 (Nominal)	3970 (Maximum)
24	−0.06665		0 (Nominal)	71.00 (Maximum)	0.7020		0 (Nominal)	5119 (Maximum)
25	0.009807		0 (Nominal)	71.00 (Maximum)	−1.372		0 (Nominal)	5119 (Maximum)
26	−0.0003009		0 (Nominal)	4.790 (Maximum)	−0.04074		0 (Nominal)	55.66 (Maximum)
27	0.2296		0 (Nominal)	30.00 (Maximum)	0.1987		0 (Nominal)	352.9 (Maximum)
28	0.1653		0 (Nominal)	159.9 (Maximum)	0.2310		0 (Nominal)	6825 (Maximum)
29	0.1038		0 (Nominal)	69.24 (Maximum)	0.6383		0 (Nominal)	2661 (Maximum)
30	−0.03671		0 (Nominal)	159.9 (Maximum)	−0.1242		0 (Nominal)	6825 (Maximum)
31	0.2608		0 (Nominal)	30.00 (Maximum)	−7.783		0 (Nominal)	352.9 (Maximum)
32	−0.8507		0 (Nominal)	69.24 (Maximum)	0.7845		0 (Nominal)	2661 (Maximum)
33	−0.3072		0 (Nominal)	58.94 (Maximum)	3.155		0 (Nominal)	2491 (Maximum)
34	0.1051		0 (Nominal)	58.94 (Maximum)	−0.6987		0 (Nominal)	2491 (Maximum)
35	0.06393		0 (Nominal)	8.280 (Maximum)	−0.09846		0 (Nominal)	9138 (Maximum)
36	0.06533		0 (Nominal)	30.00 (Maximum)	0.1699		0 (Nominal)	175.1 (Maximum)
37	0.07103		0 (Nominal)	50.66 (Maximum)	0.09726		0 (Nominal)	3387 (Maximum)
38	−0.06642		0 (Nominal)	22.87 (Maximum)	0.3790		0 (Nominal)	1332 (Maximum)
39	0.06441		0 (Nominal)	50.66 (Maximum)	−0.1294		0 (Nominal)	3387 (Maximum)
40	−0.1331		0 (Nominal)	30.00 (Maximum)	0.06270		0 (Nominal)	175.1 (Maximum)
41	−0.1926		0 (Nominal)	22.87 (Maximum)	0.2822		0 (Nominal)	1332 (Maximum)
42	−0.08327		0 (Nominal)	46.71 (Maximum)	1.536		0 (Nominal)	1250 (Maximum)
43	−0.03356		0 (Nominal)	46.71 (Maximum)	−0.3995		0 (Nominal)	1250 (Maximum)

66	0.05021	<div><div></div></div>			−0.05826	<div><div></div></div>		
	−43.67 (Minimum)	0 (Nominal)	43.67 (Maximum)		−1646 (Minimum)	0 (Nominal)	1646 (Maximum)	
67	−0.4624	<div><div></div></div>			−0.04993	<div><div></div></div>		
	−12.07 (Minimum)	0 (Nominal)	12.07 (Maximum)		−90.68 (Minimum)	0 (Nominal)	90.68 (Maximum)	
68	−0.1547	<div><div></div></div>			0.7906	<div><div></div></div>		
	−24.50 (Minimum)	0 (Nominal)	24.50 (Maximum)		−477.7 (Minimum)	0 (Nominal)	477.7 (Maximum)	
69	−0.1594	<div><div></div></div>			1.136	<div><div></div></div>		
	−12.43 (Minimum)	0 (Nominal)	12.43 (Maximum)		−622.5 (Minimum)	0 (Nominal)	622.5 (Maximum)	
70	0.1116	<div><div></div></div>			0.3809	<div><div></div></div>		
	−12.43 (Minimum)	0 (Nominal)	12.43 (Maximum)		−622.5 (Minimum)	0 (Nominal)	622.5 (Maximum)	
71	−0.03944	<div><div></div></div>			−0.02920	<div><div></div></div>		
	−3.560 (Minimum)	0 (Nominal)	3.560 (Maximum)		−10.29 (Minimum)	0 (Nominal)	10.29 (Maximum)	
72	0.04089	<div><div></div></div>			0.1115	<div><div></div></div>		
	−8.900 (Minimum)	0 (Nominal)	8.900 (Maximum)		−50.09 (Minimum)	0 (Nominal)	50.09 (Maximum)	
73	−0.01481	<div><div></div></div>			0.02747	<div><div></div></div>		
	−8.150 (Minimum)	0 (Nominal)	8.150 (Maximum)		−815.4 (Minimum)	0 (Nominal)	815.4 (Maximum)	
74	−0.0006365	<div><div></div></div>			−0.2118	<div><div></div></div>		
	−12.27 (Minimum)	0 (Nominal)	12.27 (Maximum)		−242.1 (Minimum)	0 (Nominal)	242.1 (Maximum)	
75	0.01118	<div><div></div></div>			−0.07761	<div><div></div></div>		
	−8.150 (Minimum)	0 (Nominal)	8.150 (Maximum)		−815.4 (Minimum)	0 (Nominal)	815.4 (Maximum)	
76	−0.004654	<div><div></div></div>			−0.01807	<div><div></div></div>		
	−8.900 (Minimum)	0 (Nominal)	8.900 (Maximum)		−50.09 (Minimum)	0 (Nominal)	50.09 (Maximum)	
77	−0.1062	<div><div></div></div>			0.3138	<div><div></div></div>		
	−12.27 (Minimum)	0 (Nominal)	12.27 (Maximum)		−242.1 (Minimum)	0 (Nominal)	242.1 (Maximum)	
78	−0.01381	<div><div></div></div>			0.5158	<div><div></div></div>		
	−6.910 (Minimum)	0 (Nominal)	6.910 (Maximum)		−309.5 (Minimum)	0 (Nominal)	309.5 (Maximum)	
79	−0.1139	<div><div></div></div>			0.1849	<div><div></div></div>		
	−6.910 (Minimum)	0 (Nominal)	6.910 (Maximum)		−309.5 (Minimum)	0 (Nominal)	309.5 (Maximum)	
80	0.02617	<div><div></div></div>			0.009218	<div><div></div></div>		
	−2.270 (Minimum)	0 (Nominal)	2.270 (Maximum)		−5.950 (Minimum)	0 (Nominal)	5.950 (Maximum)	
81	0.2853	<div><div></div></div>			−0.009415	<div><div></div></div>		
	−14.82 (Minimum)	0 (Nominal)	14.82 (Maximum)		−41.94 (Minimum)	0 (Nominal)	41.94 (Maximum)	
82	0.1240	<div><div></div></div>			0.02902	<div><div></div></div>		
	−26.75 (Minimum)	0 (Nominal)	26.75 (Maximum)		−1114 (Minimum)	0 (Nominal)	1114 (Maximum)	
83	0.1245	<div><div></div></div>			0.1291	<div><div></div></div>		
	−22.91 (Minimum)	0 (Nominal)	22.91 (Maximum)		−425.6 (Minimum)	0 (Nominal)	425.6 (Maximum)	
84	0.05487	<div><div></div></div>			0.06401	<div><div></div></div>		
	−26.75 (Minimum)	0 (Nominal)	26.75 (Maximum)		−1114 (Minimum)	0 (Nominal)	1114 (Maximum)	
85	−0.07480	<div><div></div></div>			0.7413	<div><div></div></div>		
	−14.82 (Minimum)	0 (Nominal)	14.82 (Maximum)		−41.94 (Minimum)	0 (Nominal)	41.94 (Maximum)	
86	−0.4918	<div><div></div></div>			0.07848	<div><div></div></div>		
	−22.91 (Minimum)	0 (Nominal)	22.91 (Maximum)		−425.6 (Minimum)	0 (Nominal)	425.6 (Maximum)	
87	0.2648	<div><div></div></div>			3.524	<div><div></div></div>		
	−17.62 (Minimum)	0 (Nominal)	17.62 (Maximum)		−619.3 (Minimum)	0 (Nominal)	619.3 (Maximum)	

88	−0.06360		0	17.62	0.4426		
	−17.62 (Minimum)		0 (Nominal)	17.62 (Maximum)	−619.3 (Minimum)	0 (Nominal)	619.3 (Maximum)
89	−0.06884		0	3.910	0.1112		
	−3.910 (Minimum)		0 (Nominal)	3.910 (Maximum)	−9.470 (Minimum)	0 (Nominal)	9.470 (Maximum)
90	0.03490		0	11.24	−0.05607		
	−11.24 (Minimum)		0 (Nominal)	11.24 (Maximum)	−18.45 (Minimum)	0 (Nominal)	18.45 (Maximum)
91	−0.01005		0	6.130	−0.02539		
	−6.130 (Minimum)		0 (Nominal)	6.130 (Maximum)	−563.2 (Minimum)	0 (Nominal)	563.2 (Maximum)
92	0.05603		0	13.75	−0.1392		
	−13.75 (Minimum)		0 (Nominal)	13.75 (Maximum)	−215.6 (Minimum)	0 (Nominal)	215.6 (Maximum)
93	−0.03578		0	6.130	−0.005074		
	−6.130 (Minimum)		0 (Nominal)	6.130 (Maximum)	−563.2 (Minimum)	0 (Nominal)	563.2 (Maximum)
94	0.07159		0	11.24	−0.1803		
	−11.24 (Minimum)		0 (Nominal)	11.24 (Maximum)	−18.45 (Minimum)	0 (Nominal)	18.45 (Maximum)
95	−0.2276		0	13.75	0.1059		
	−13.75 (Minimum)		0 (Nominal)	13.75 (Maximum)	−215.6 (Minimum)	0 (Nominal)	215.6 (Maximum)
96	−0.03868		0	9.770	−0.1494		
	−9.770 (Minimum)		0 (Nominal)	9.770 (Maximum)	−316.9 (Minimum)	0 (Nominal)	316.9 (Maximum)
97	−0.01046		0	9.770	0.07344		
	−9.770 (Minimum)		0 (Nominal)	9.770 (Maximum)	−316.9 (Minimum)	0 (Nominal)	316.9 (Maximum)
98	−0.001964		0	2.110	−0.02630		
	−2.110 (Minimum)		0 (Nominal)	2.110 (Maximum)	−7.370 (Minimum)	0 (Nominal)	7.370 (Maximum)
99	−0.01048		0	15.93	−0.2696		
	−15.93 (Minimum)		0 (Nominal)	15.93 (Maximum)	−35.54 (Minimum)	0 (Nominal)	35.54 (Maximum)
100	0.3691		0	22.00	0.2863		
	−22.00 (Minimum)		0 (Nominal)	22.00 (Maximum)	−562.7 (Minimum)	0 (Nominal)	562.7 (Maximum)
101	0.2172		0	29.21	−0.4351		
	−29.21 (Minimum)		0 (Nominal)	29.21 (Maximum)	−209.9 (Minimum)	0 (Nominal)	209.9 (Maximum)
102	0.1826		0	22.00	−0.2593		
	−22.00 (Minimum)		0 (Nominal)	22.00 (Maximum)	−562.7 (Minimum)	0 (Nominal)	562.7 (Maximum)
103	0.5148		0	15.93	−0.1073		
	−15.93 (Minimum)		0 (Nominal)	15.93 (Maximum)	−35.54 (Minimum)	0 (Nominal)	35.54 (Maximum)
104	0.2807		0	29.21	0.1513		
	−29.21 (Minimum)		0 (Nominal)	29.21 (Maximum)	−209.9 (Minimum)	0 (Nominal)	209.9 (Maximum)
105	0.04119		0	23.81	0.2367		
	−23.81 (Minimum)		0 (Nominal)	23.81 (Maximum)	−232.8 (Minimum)	0 (Nominal)	232.8 (Maximum)
106	−0.1157		0	23.81	0.2122		
	−23.81 (Minimum)		0 (Nominal)	23.81 (Maximum)	−232.8 (Minimum)	0 (Nominal)	232.8 (Maximum)
107	0.3458		0	10.69	−0.2288		
	−10.69 (Minimum)		0 (Nominal)	10.69 (Maximum)	−19.32 (Minimum)	0 (Nominal)	19.32 (Maximum)
108	0.04482		0	9.300	−0.02660		
	−9.300 (Minimum)		0 (Nominal)	9.300 (Maximum)	−21.95 (Minimum)	0 (Nominal)	21.95 (Maximum)
109	−0.01942		0	8.990	−0.03287		
	−8.990 (Minimum)		0 (Nominal)	8.990 (Maximum)	−293.9 (Minimum)	0 (Nominal)	293.9 (Maximum)

110	-0.03776			-0.1143		
	-16.85 (Minimum)	0 (Nominal)	16.85 (Maximum)	-94.98 (Minimum)	0 (Nominal)	94.98 (Maximum)
111	-0.01619			-0.02131		
	-8.990 (Minimum)	0 (Nominal)	8.990 (Maximum)	-293.9 (Minimum)	0 (Nominal)	293.9 (Maximum)
112	-0.01419			0.1427		
	-9.300 (Minimum)	0 (Nominal)	9.300 (Maximum)	-21.95 (Minimum)	0 (Nominal)	21.95 (Maximum)
113	0.04691			0.1387		
	-16.85 (Minimum)	0 (Nominal)	16.85 (Maximum)	-94.98 (Minimum)	0 (Nominal)	94.98 (Maximum)
114	-0.03978			0.08228		
	-14.21 (Minimum)	0 (Nominal)	14.21 (Maximum)	-112.1 (Minimum)	0 (Nominal)	112.1 (Maximum)
115	-0.07626			0.1218		
	-14.21 (Minimum)	0 (Nominal)	14.21 (Maximum)	-112.1 (Minimum)	0 (Nominal)	112.1 (Maximum)
116	-0.001239			0.01759		
	-1.760 (Minimum)	0 (Nominal)	1.760 (Maximum)	-10.88 (Minimum)	0 (Nominal)	10.88 (Maximum)

Master: 17-Jul-2012 17:34

General Purpose Inclinometer / Equipment Identification

Primary Equipment:
GPIT Cartridge – F

GPIC – F

Auxiliary Equipment:
GPIT Housing – F

GPIH – B

High resolution Integrated Logging Tool–DTS / Equipment Identification

Primary Equipment:

HILT high–Resolution Mechanical Sonde
HILT Rxo Gamma–ray Device
HILT Micro Cylindrically Focused Log Dev
GR Logging Source
HILT High Res. Control Cartridge
HILT Gamma–Ray Neutron Sonde–DTS
HGNS Gamma–Ray Device
HGNS Neutron Detector with Alpha Source

HRMS – H
HRGD – H
MCFL – H
GLS – VJ
HRCC – H
HGNS – H
HGR –
HCNT – H

5240

Auxiliary Equipment:

Neutron Calibration Tank
Gamma Source Radioactive
HGNS Housing

NCT – B
GSR – U/Y
HGNH –

High resolution Integrated Logging Tool–DTS Wellsite Calibration

Stab Measurement Summary

Phase	BS Window Ratio		Value	Phase	SS Window Ratio		Value	Phase	LS Window Ratio		Value
Before			0.7373	Before			0.4838	Before			0.3017
	0.7020 (Minimum)	0.7389 (Nominal)	0.7759 (Maximum)		0.4591 (Minimum)	0.4833 (Nominal)	0.5074 (Maximum)		0.2852 (Minimum)	0.3002 (Nominal)	0.3152 (Maximum)
Phase	BS Window Sum CPS		Value	Phase	SS Window Sum CPS		Value	Phase	LS Window Sum CPS		Value
Before			25940	Before			11500	Before			1342
	24550 (Minimum)	25840 (Nominal)	27130 (Maximum)		10950 (Minimum)	11530 (Nominal)	12110 (Maximum)		1277 (Minimum)	1345 (Nominal)	1412 (Maximum)




Before: 2-Jul-2013 10:18

High resolution Integrated Logging Tool–DTS 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			1312	Before			1907	Before			1308
	1215 (Minimum)	1315 (Nominal)	1415 (Maximum)		1805 (Minimum)	1905 (Nominal)	2005 (Maximum)		1202 (Minimum)	1302 (Nominal)	1402 (Maximum)



Before: 2-Jul-2013 10:18

High resolution Integrated Logging Tool-DTS Wellsite Calibration											
Crystal Quality Resolutions Calibration											
Phase	BS Crystal Resolution %		Value	Phase	SS Crystal Resolution %		Value	Phase	LS Crystal Resolution %		Value
Before			11.92	Before			10.35	Before			8.539
	10.93 (Minimum)	11.93 (Nominal)	12.93 (Maximum)		9.339 (Minimum)	10.34 (Nominal)	11.34 (Maximum)		7.558 (Minimum)	8.558 (Nominal)	9.558 (Maximum)
Before: 2-Jul-2013 10:18											



Before: 2-Jul-2013 10:18

High resolution Integrated Logging Tool–DTS 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				3789	Before				3809
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			
Before: 2-Jul-2013 10:11														





Before: 2-Jul-2013 10:11

High resolution Integrated Logging Tool–DTS Wellsite Calibration									
HILT Caliper Calibration									
Phase	HILT Caliper Zero Measurement IN			Value	Phase	HILT Caliper Plus Measurement IN			Value
Before				8.314	Before				12.49
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)			9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)	
Before: 2-Jul-2013 10:05									

Before: 2-Jul-2013 10:05



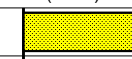
High resolution Integrated Logging Tool–DTS Wellsite Calibration							
Detector Calibration							
Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig – Bkgd) GAPI		Value
Before			90.48	Before			169.8
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		157.1 (Minimum)	165.0 (Nominal)	206.3 (Maximum)
Before: 2–Jul-2013 10:05							

Before: 2-Jul-2013 10:05


High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			27.37	Master			27.33
Before			27.45	Before			27.94
5.000 (Minimum) 27.37 (Nominal) 40.00 (Maximum)				5.000 (Minimum) 27.33 (Nominal) 40.00 (Maximum)			
Master: 17-May-2013 14:28				Before: 2-Jul-2013 10:06			

Master: 17-May-2013 14:28

Before: 2-Jul-2013 10:06

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				5686	Master				2326	Master				2.445
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)			2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	
Master: 17 - Max: 2013 14:28														

Master: 17-May-2013 14:28

High resolution Integrated Logging Tool-DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z-Axis Acceleration F/S2	Value
Before		32.09
	31.53 (Minimum)	32.19 (Nominal)
		32.84 (Maximum)
Before: 2-Jul-2013 18:57		

Before: 2-Jul-2013 18:57

DTS Telemetry Tool / Equipment Identification

Primary Equipment:
DTC-H Auxiliary Cartridge

DTCH - A

DTC-H Telemetry Cartridge

DTCH – A

Auxiliary Equipment:

DTCH Telemetry Cartridge Housing

ECH – KC

Company: **Whiting Oil and Gas Corporation**

Schlumberger

Well: **Wildhorse 16-13L**

Field: **Wildcat**

County: **Weld**

State: **Colorado**

Platform Express

Micro Log