

Con
Well
Field
Cou

County: Cheyenne
Field: Eureka Creek
Location: Sec 5, T12S, R47W

Logging
Run Nu
Depth L
Schlum
Bottom
Top Log
Casing
Casing
Bit Size
Type FI
Densit
Fluid L
MUD
Source
RM @ 1
RMF @
RMC @
Source
RM @ 1
Maximu
Circula
Logger
Unit Nu
Record
Witness

DEPTH SUMMARY LISTING

Date Created: 23-MAR-2010 14:06:28

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	7-39P LXS
Serial Number:	799	Serial Number:	1223	Serial Number:	708273
Calibration Date:	1-Oct-2009	Calibration Date:	11-Feb-10	Length:	16360 FT
Calibrator Serial Number:	33	Calibrator Serial Number:	100513	Conveyance Method: Wireline Rig Type: LAND	
Calibration Cable Type:	7-46P	Number of Calibration Points:	0		
Wheel Correction 1:	-4				
Wheel Correction 2:	-5				

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	0.00 FT
Rig Up Length At Bottom:	0.00 FT
Rig Up Length Correction:	0.00 FT
Stretch Correction:	0.00 FT
Tool Zero Check At Surface:	0.00 FT

Depth Control Remarks

1. All Schlumberger depth policy procedures applied
2. This is the primary depth reference
3.
4.
5.
6.

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

OTHER SERVICES1	OTHER SERVICES2
OS1: Sonnic Scanner	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
This is first run in hole	
Toolstring run as per tool sketch	
Toolstring run without bowspring and standoffs due to client request on deviated wells	
Matrix changes noted on porosity print	
Data affected by extreme hole rugosity between the depths: 3430-3390 ft, 3150-3050 ft, 2550, 2400 ft, 650, 550 ft	

0050 ft, 2350-2450 ft, 050-550 ft.					
Rig: Black Gold 69					
Crew: Jay Musgrave, Dave Marquez					
RUN 1			RUN 2		
SERVICE ORDER #:		BE0K-00001	SERVICE ORDER #:		
PROGRAM VERSION:		17C0-154	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

RUN 2

SURFACE EQUIPMENT

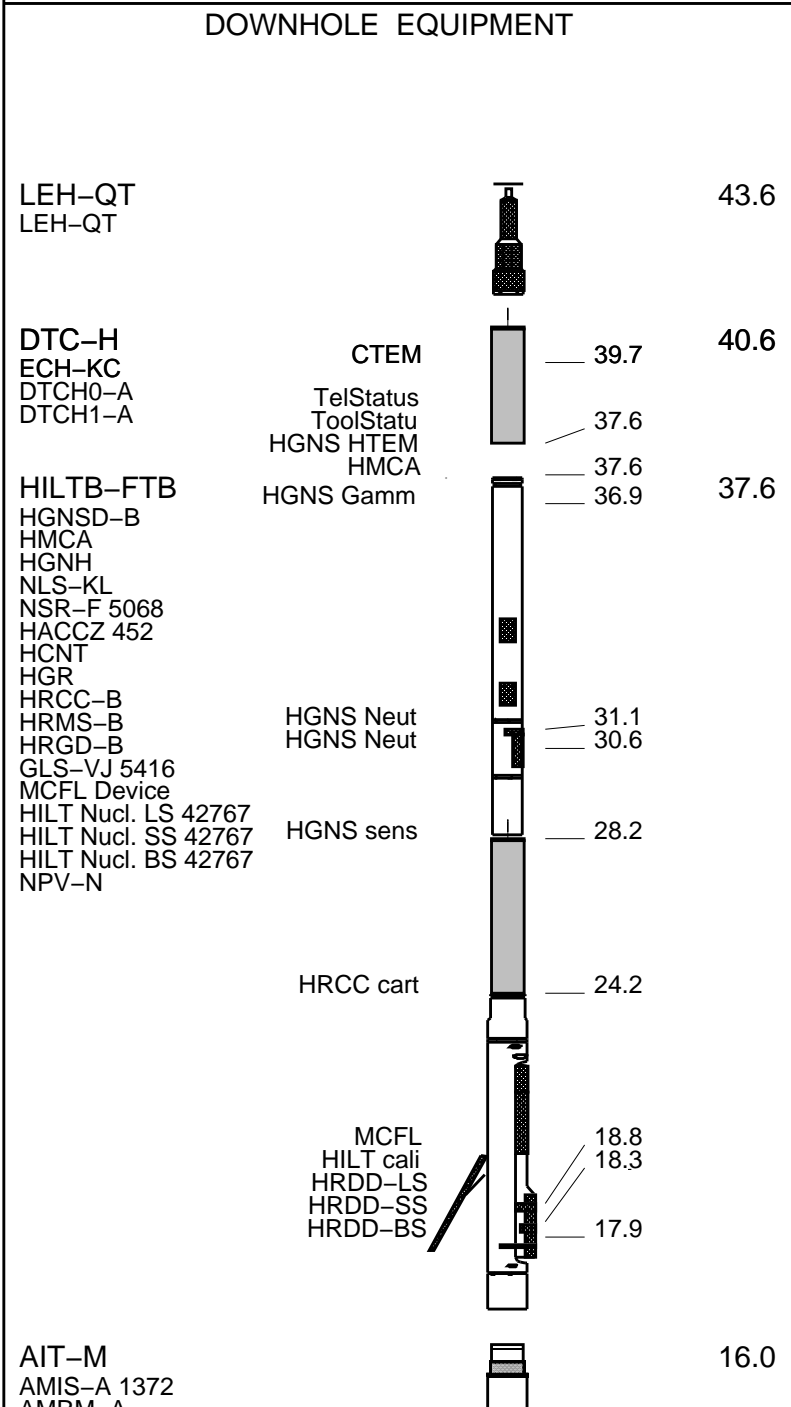
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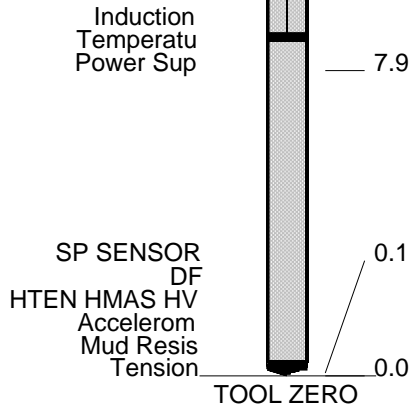
GSR-U/Y

NCT-B

CNB-AB

NCS-VB





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

Production String	(in)		(ft)	Well Schematic	(ft)	(in)		Casing String
	OD	ID	MD		MD	OD	ID	
					0.0	8.625		Casing String
					451.0	8.625		Casing Shoe
					451.0	7.875		Borehole Segment

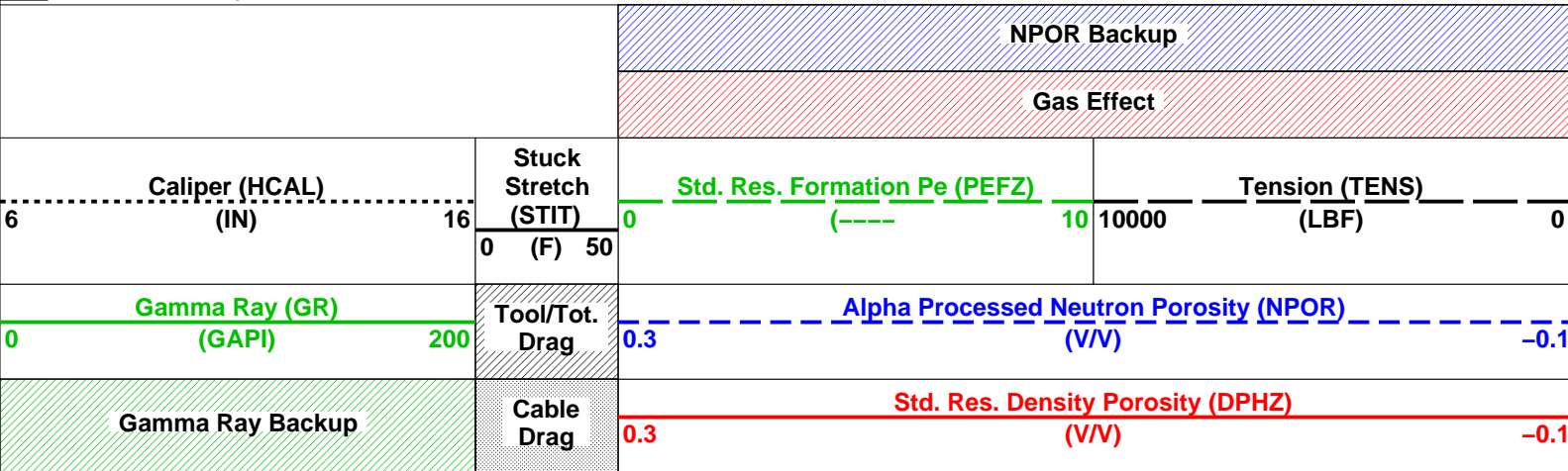
Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
MATR	LIMESTONE	SANDSTONE	5775.0 15:04:49
MDEN	SANDSTONE	LIMESTONE	5390.0 15:05:01
	2.71 G/C3	2.65 G/C3	5775.0 15:04:49
	2.65 G/C3	2.71 G/C3	5390.0 15:05:01

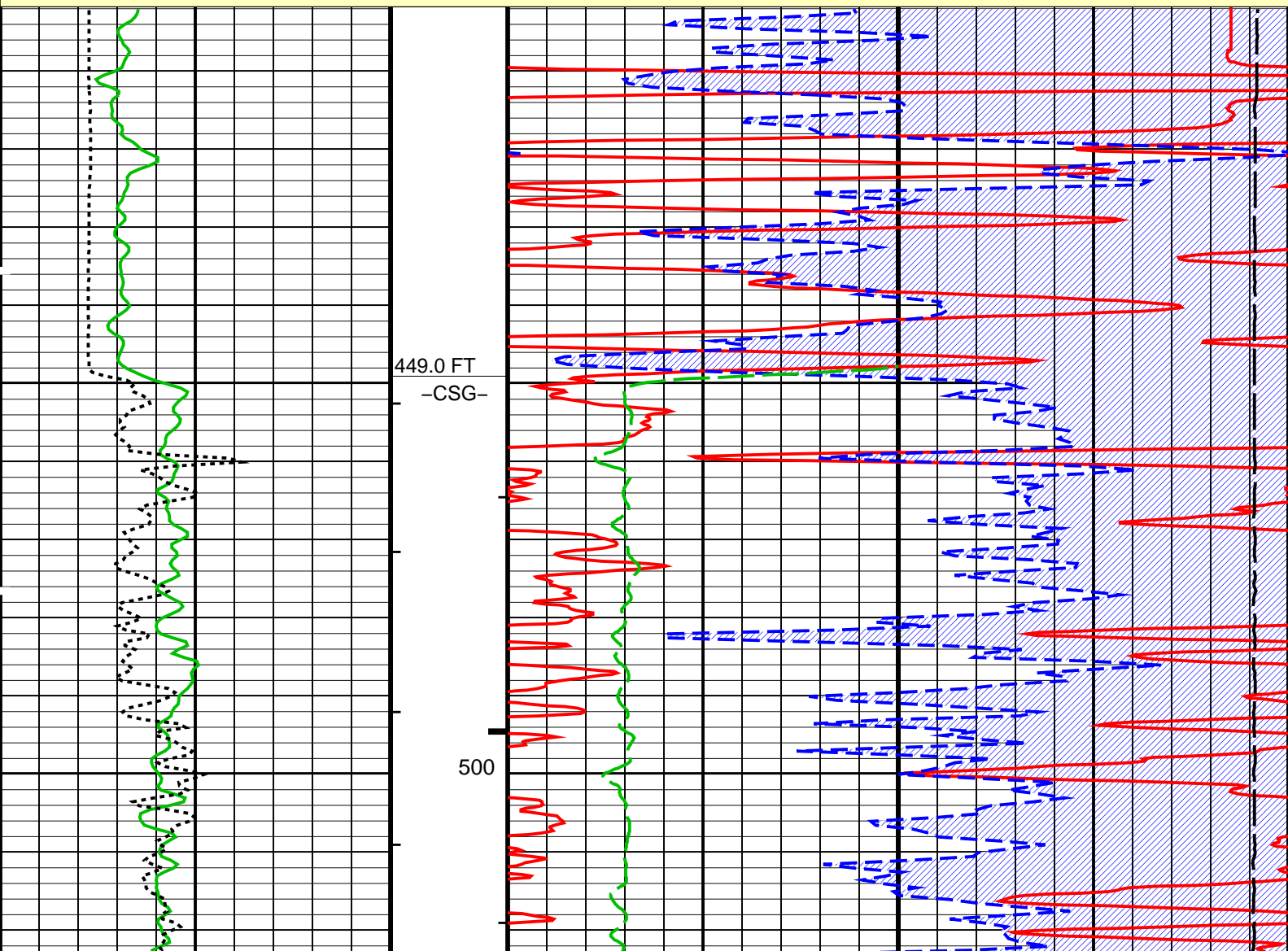
PIP SUMMARY

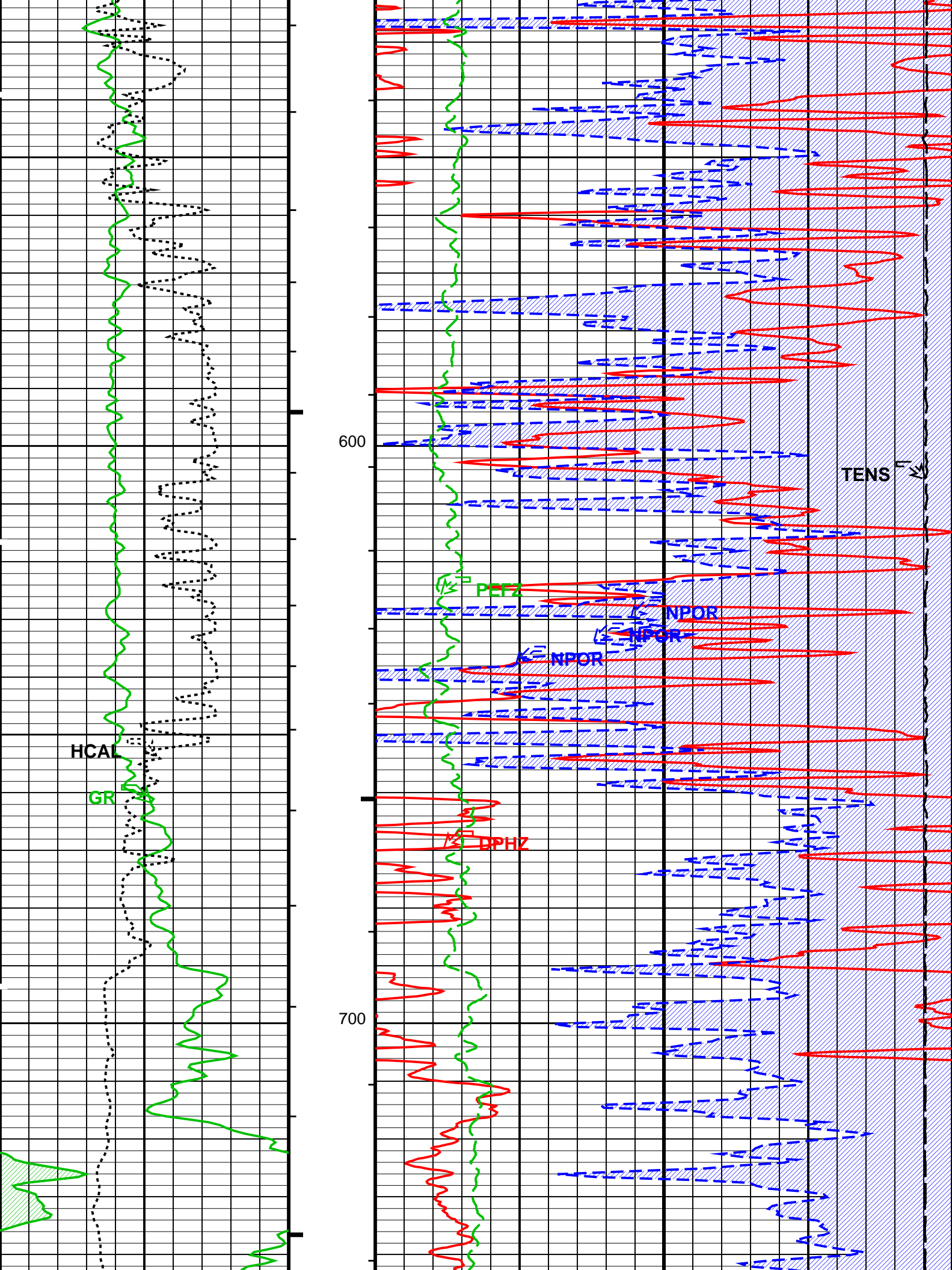
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

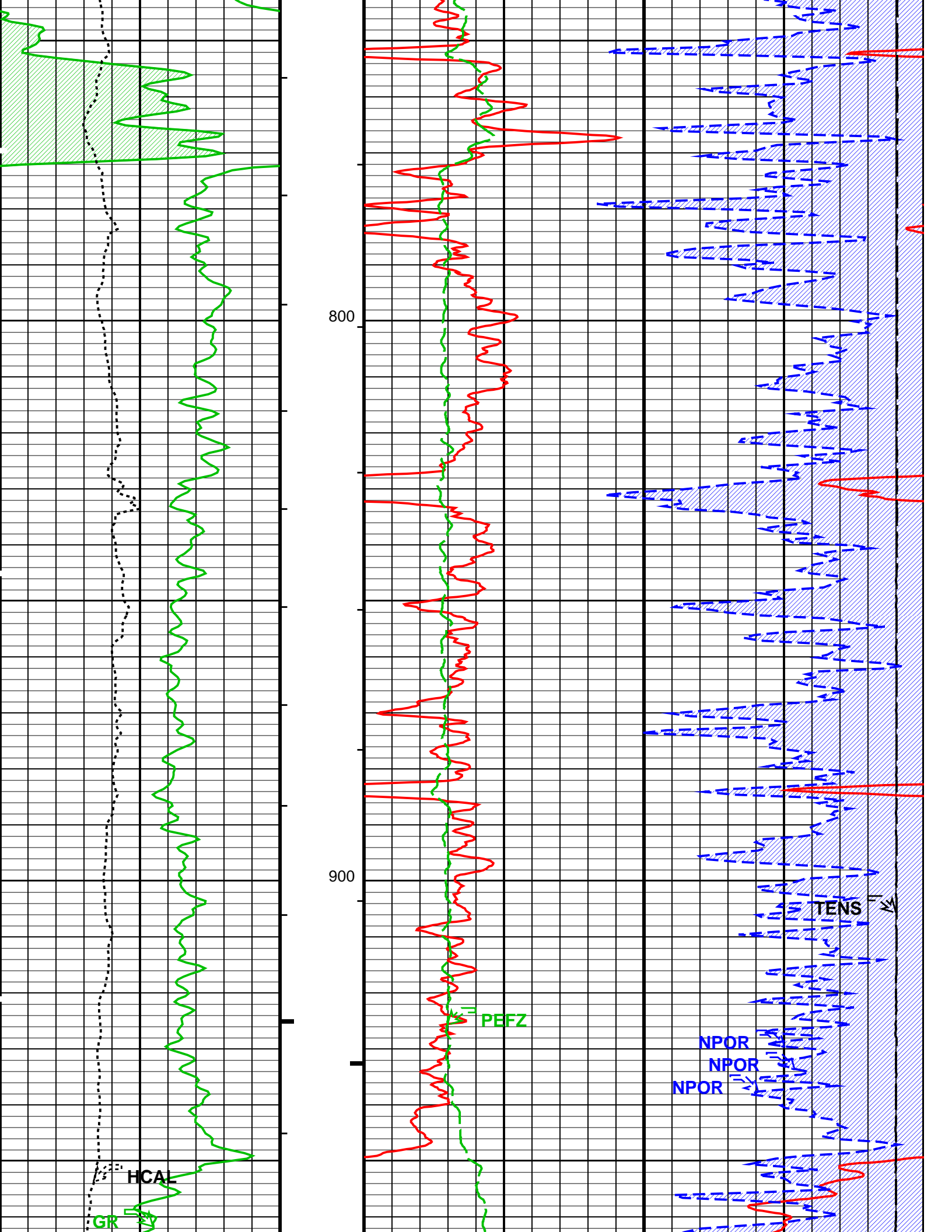
Time Mark Every 60 S

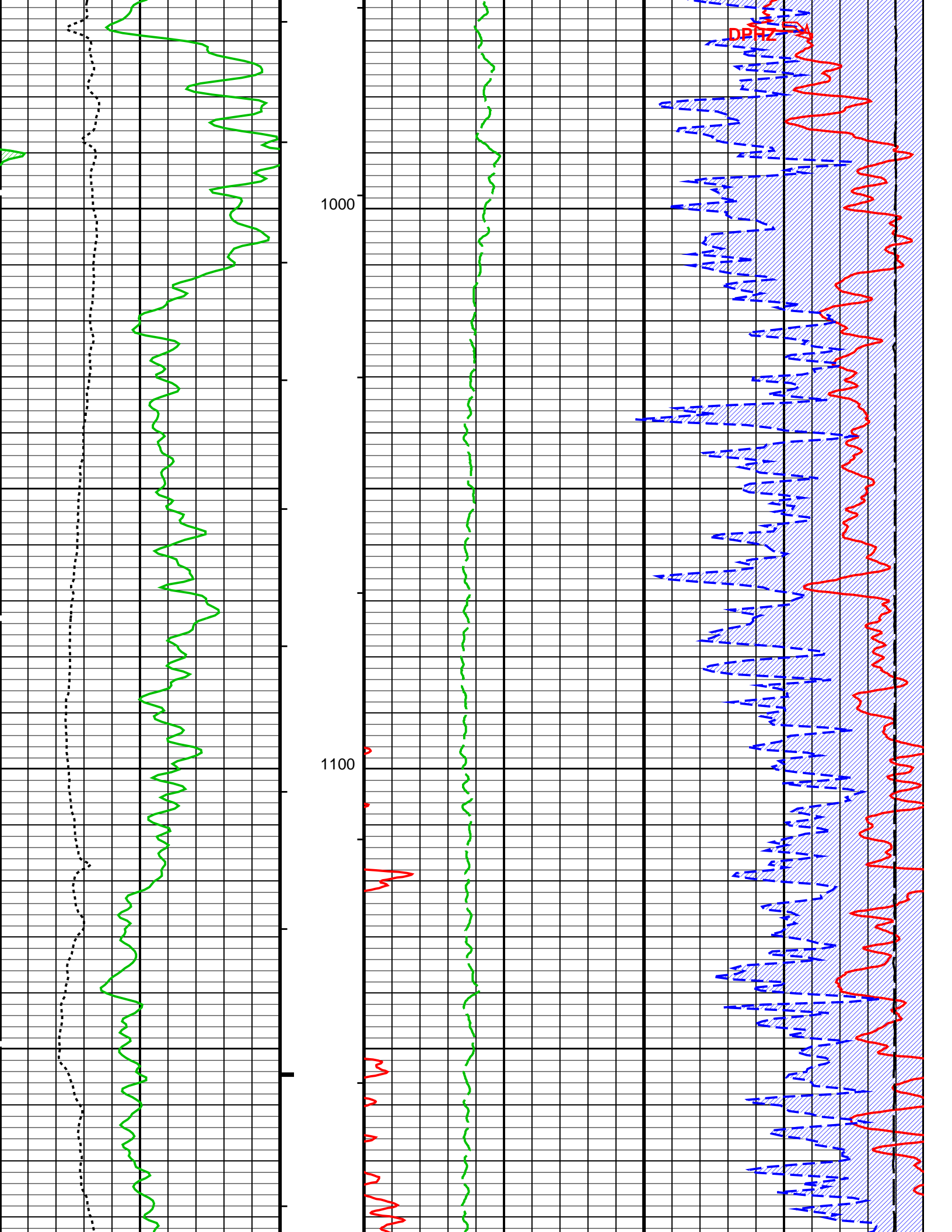


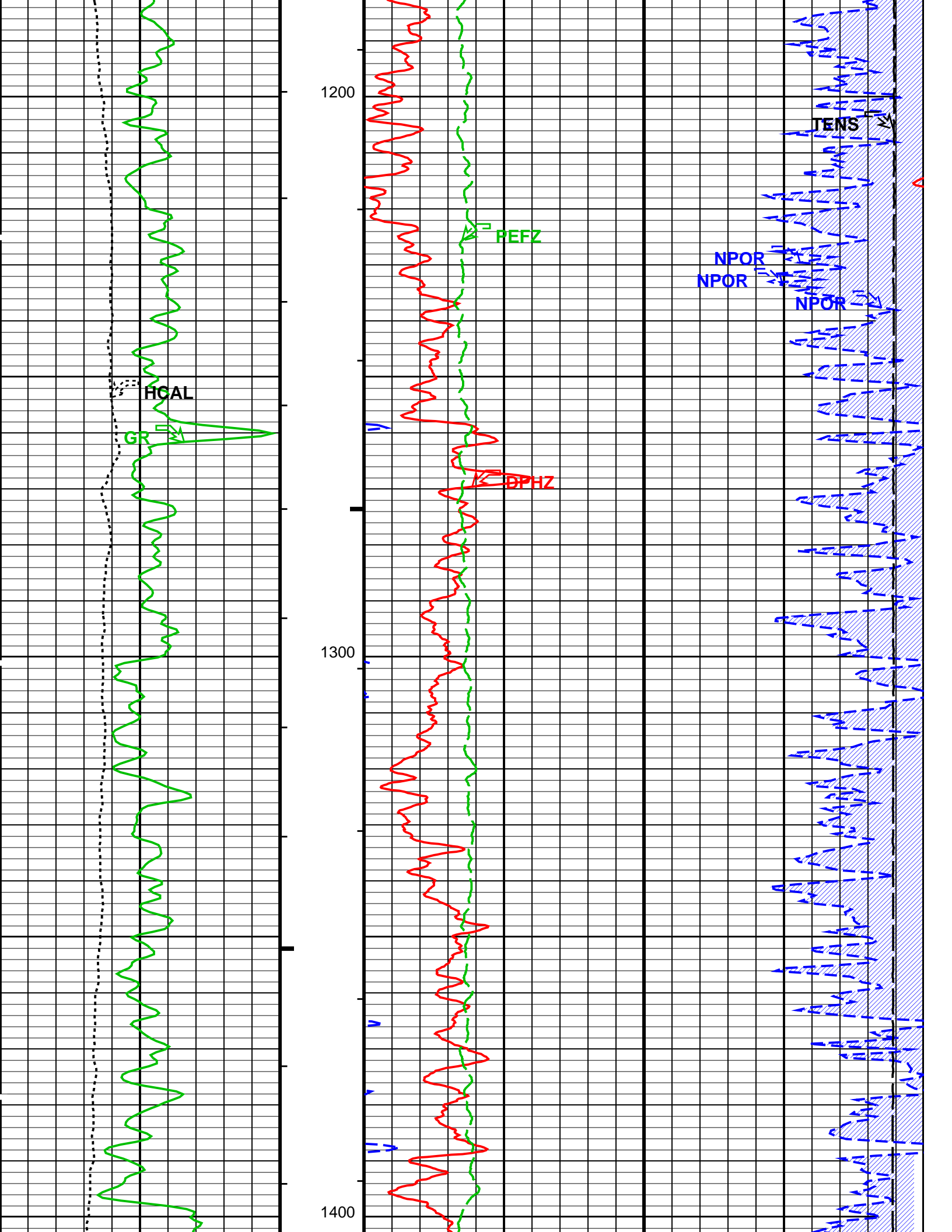
MAIN PASS: *** PLATFORM EXPRESS – NUCLEAR POROSITY ***

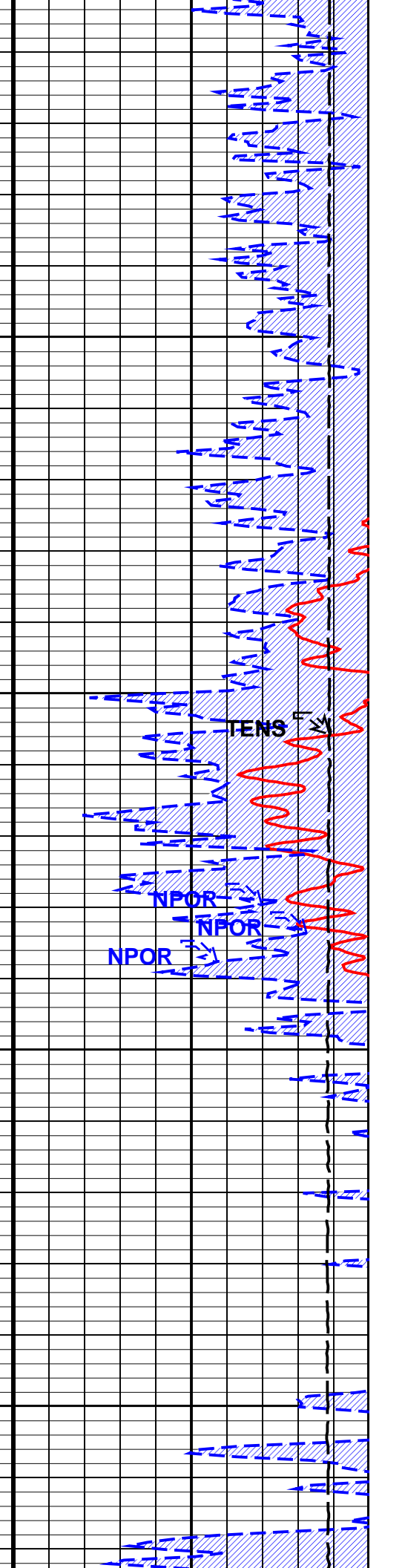
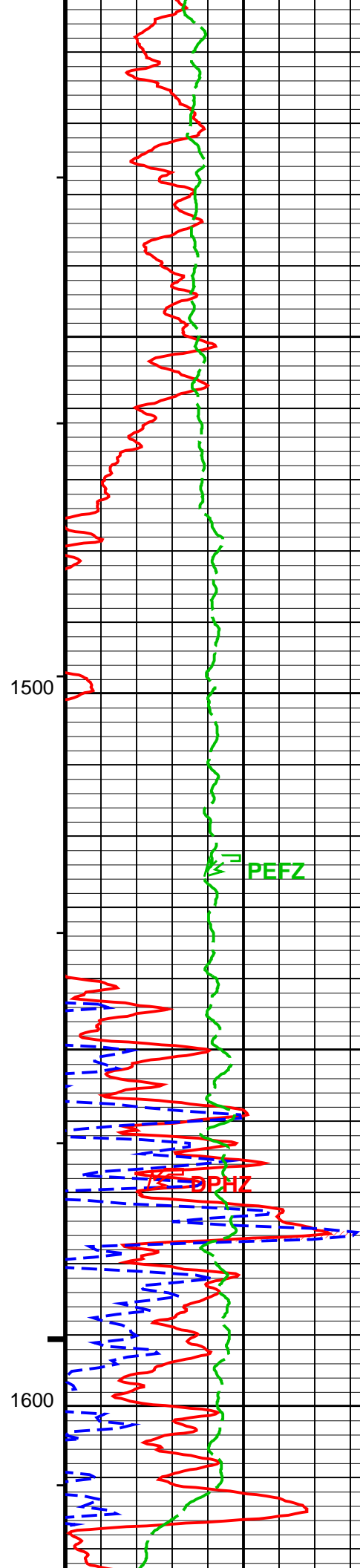
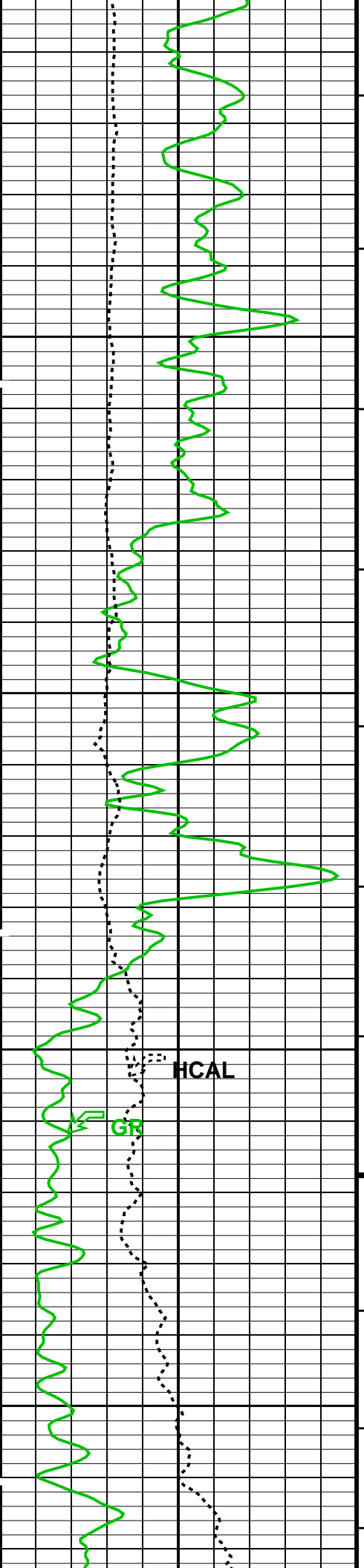


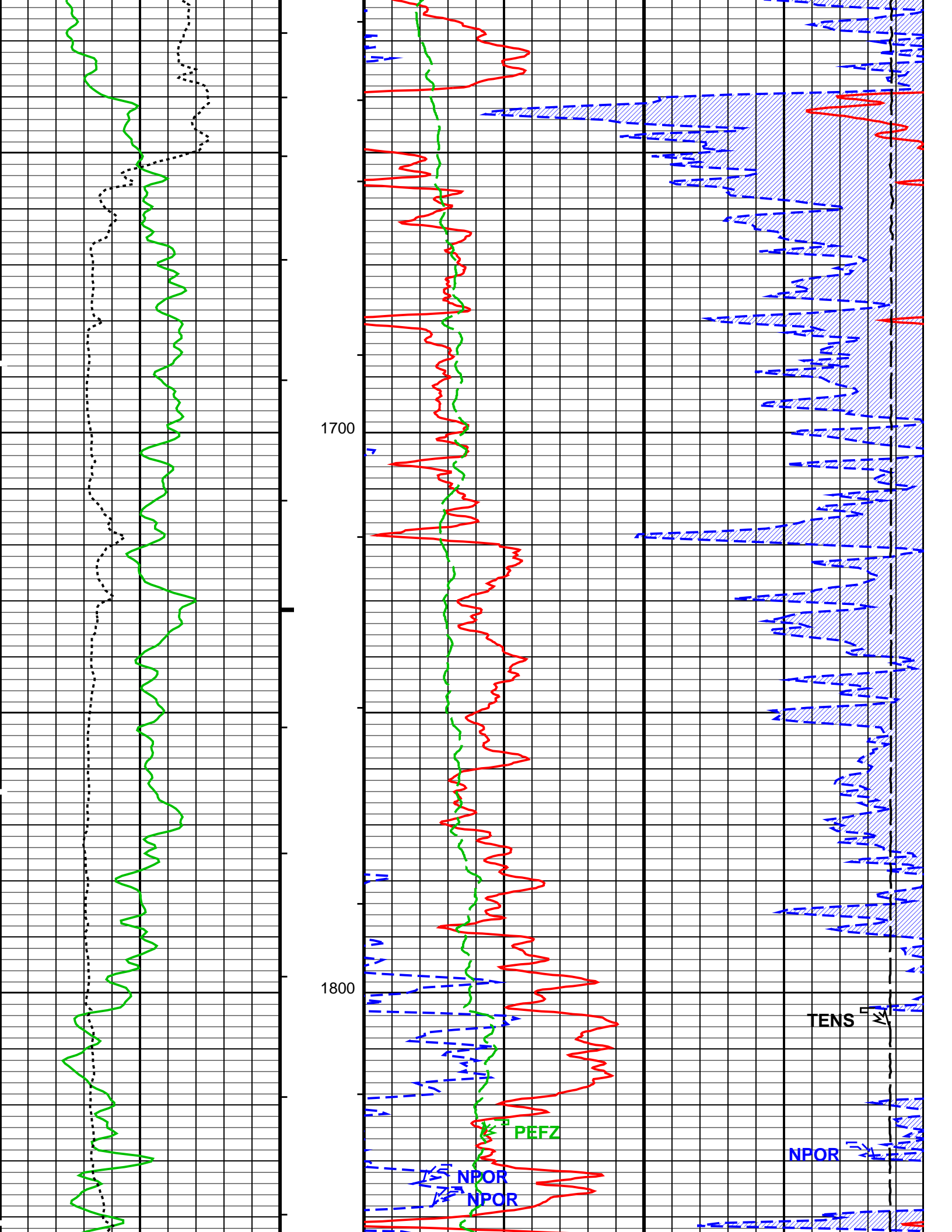


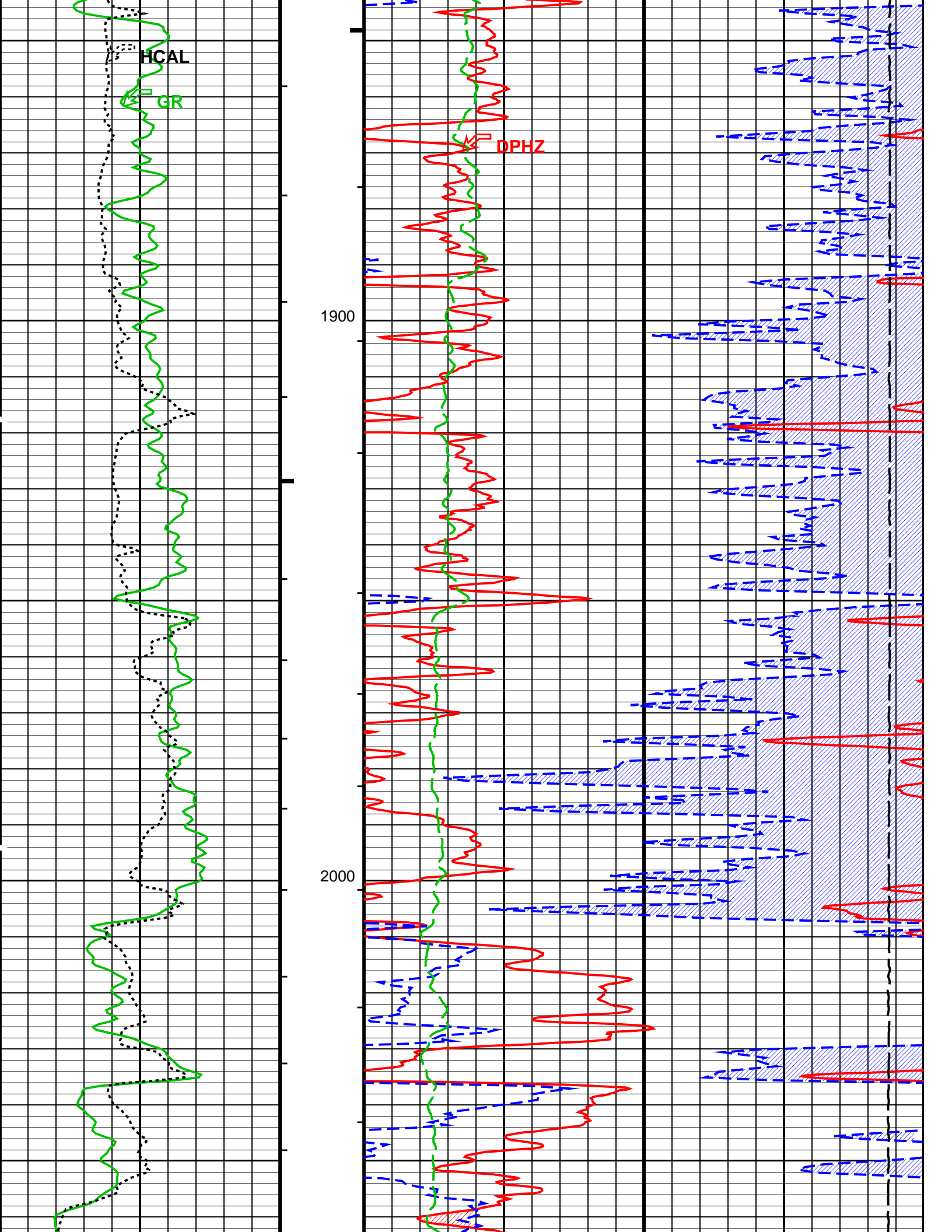


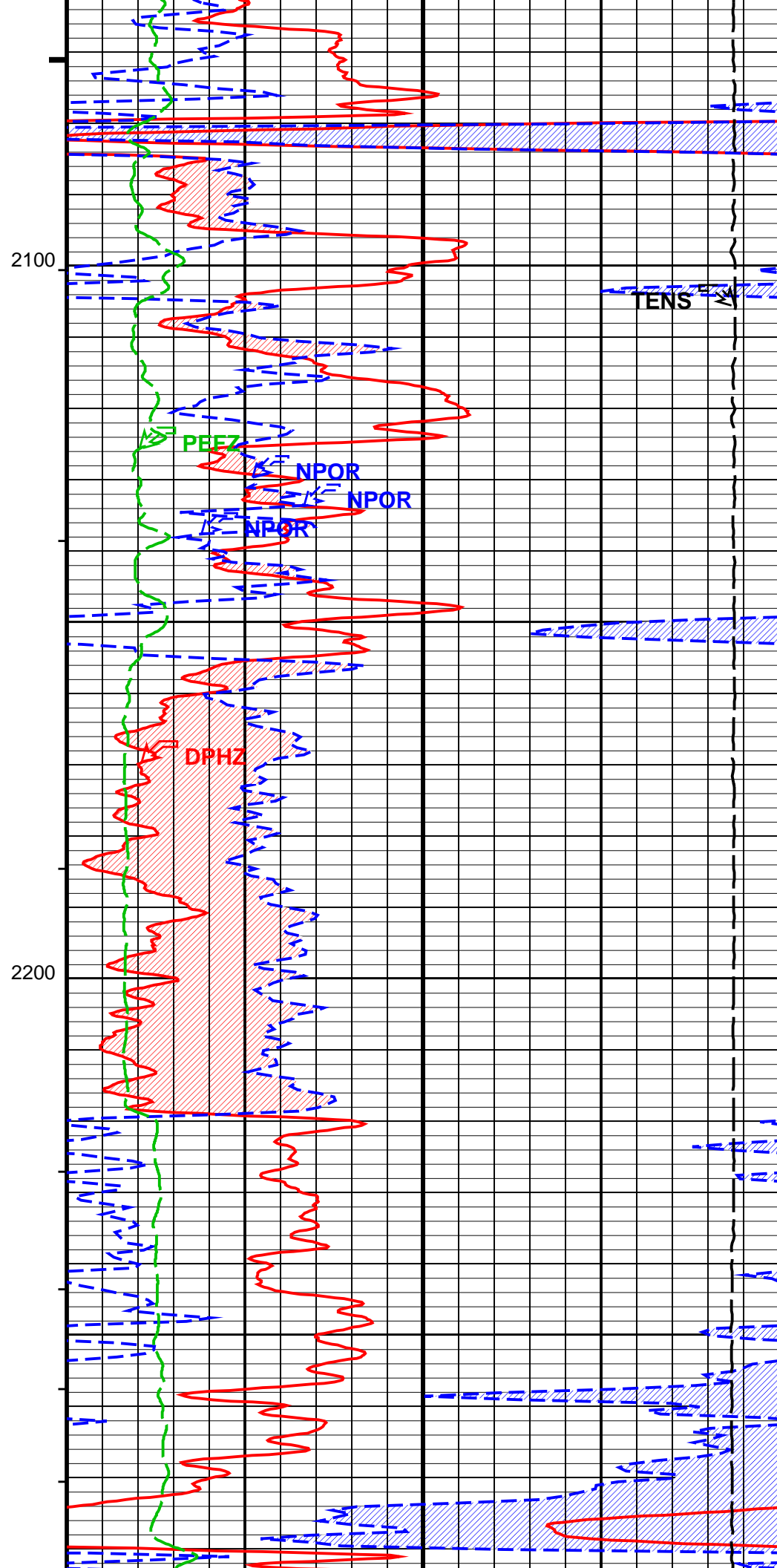
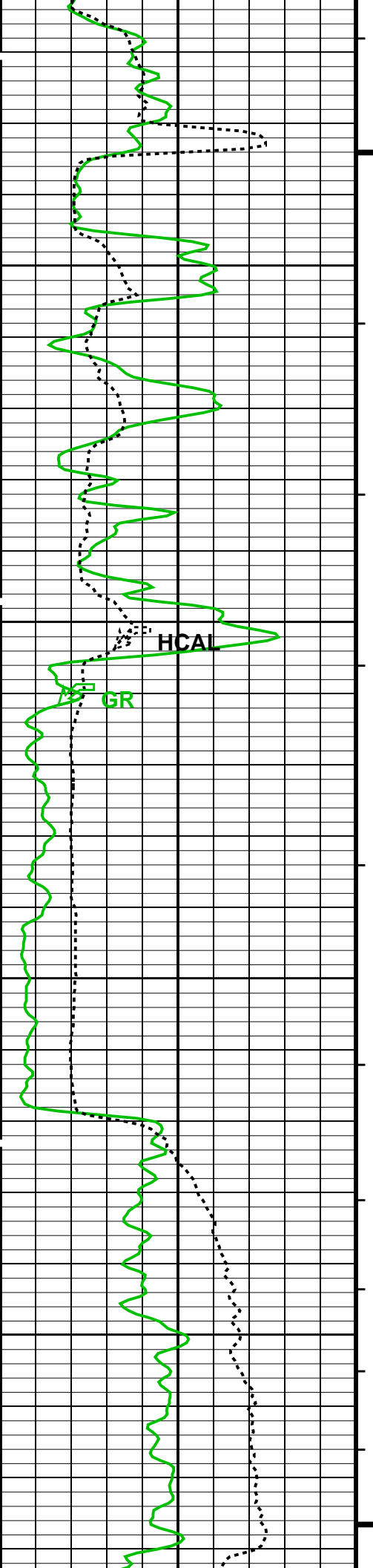


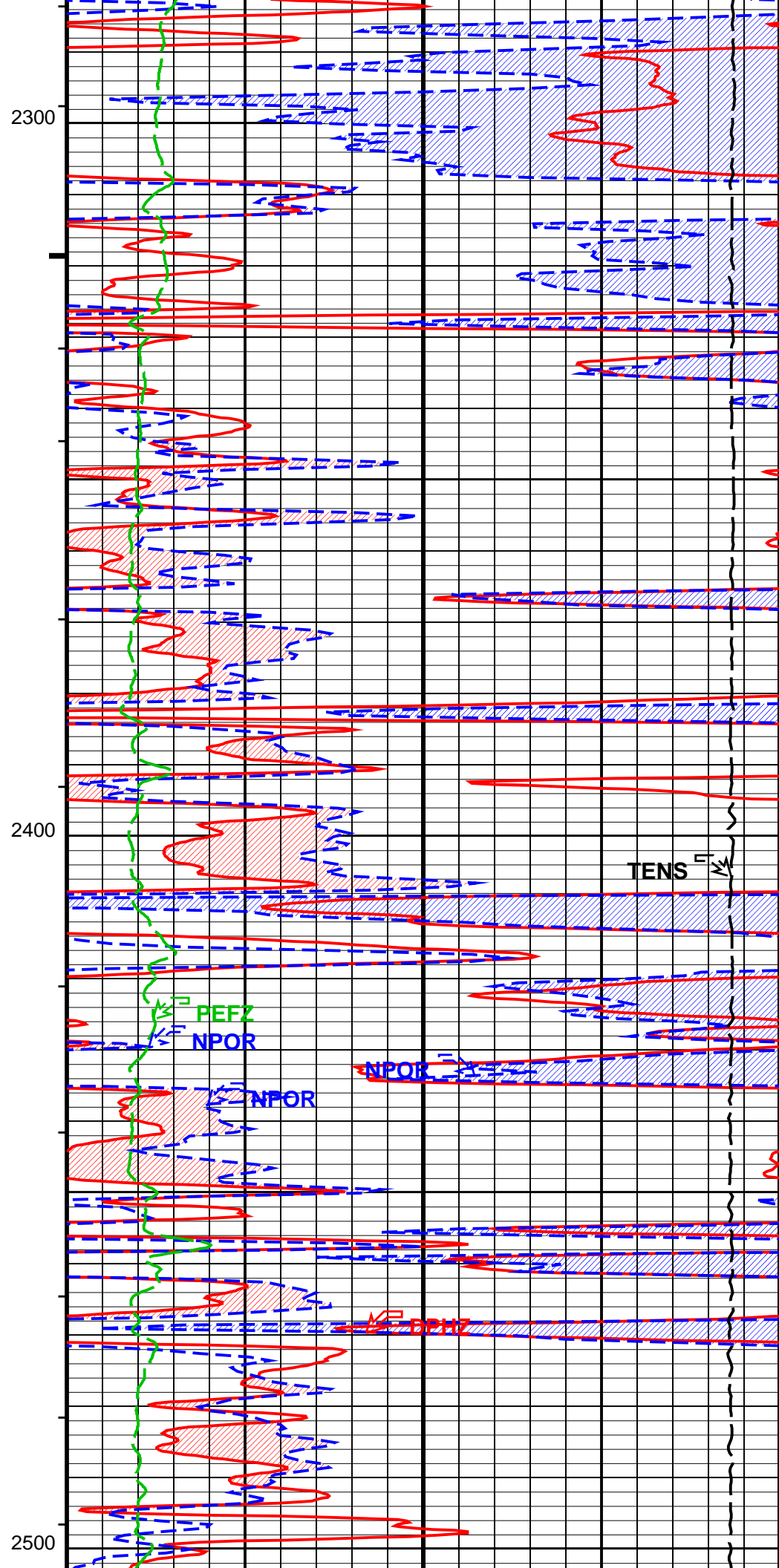
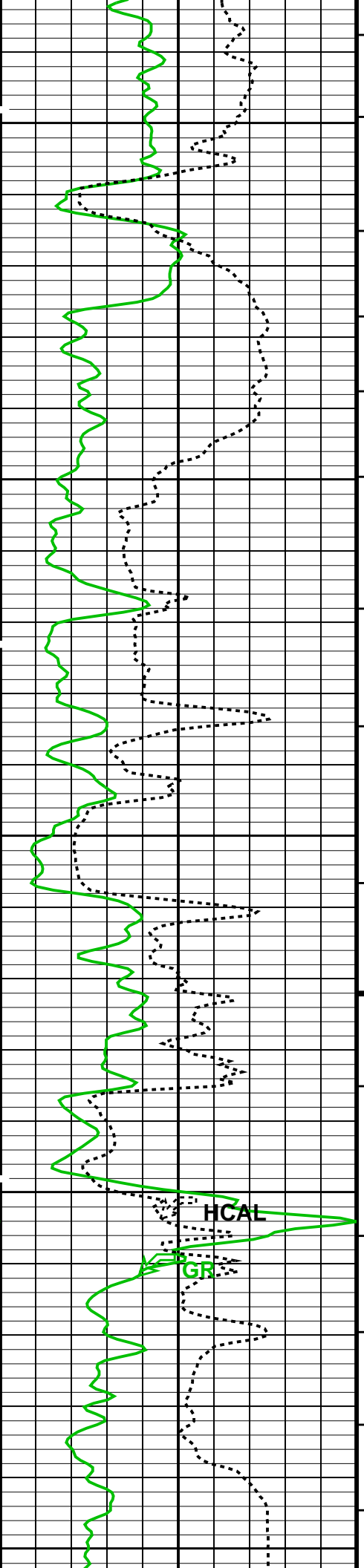


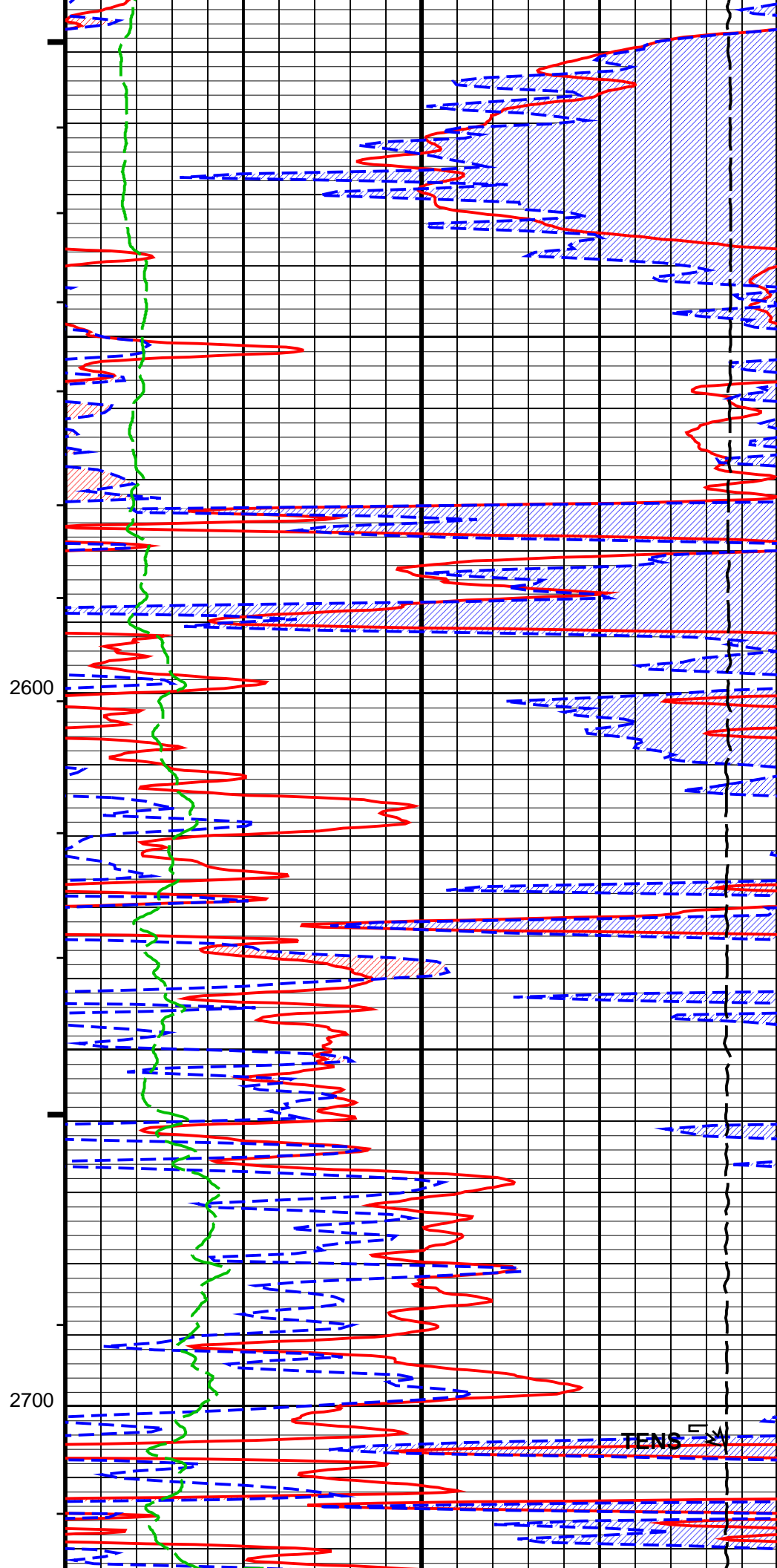
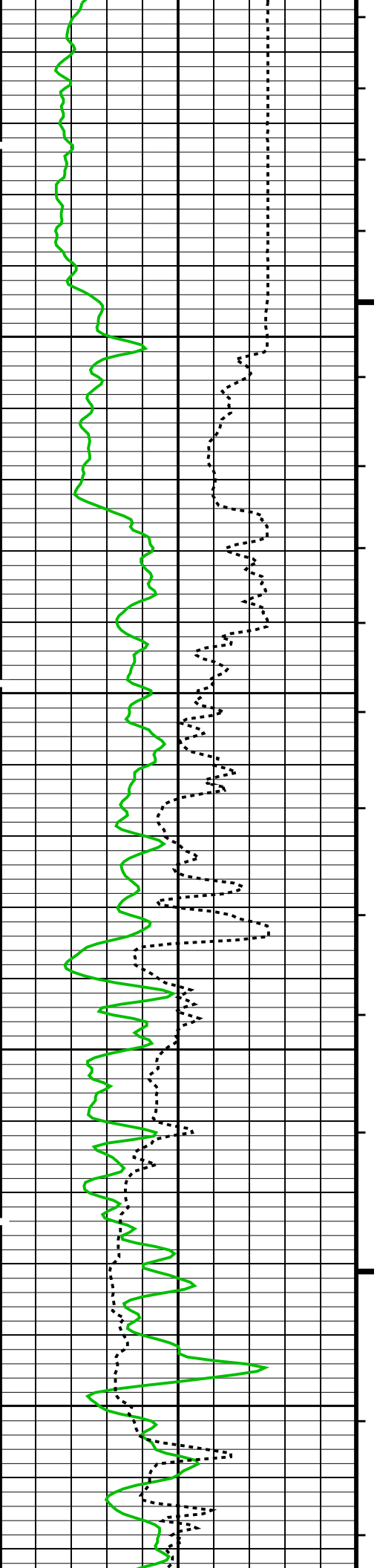


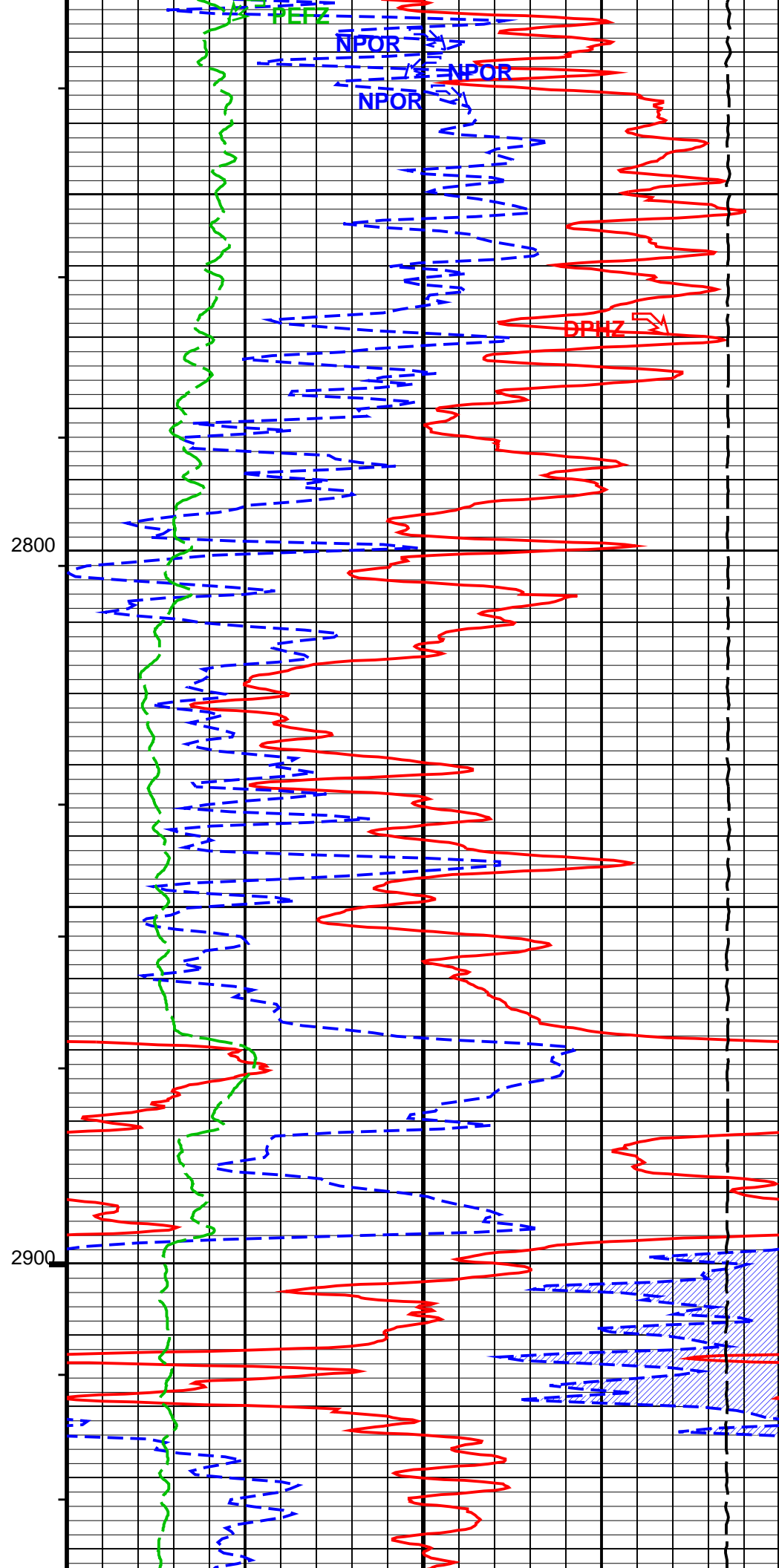
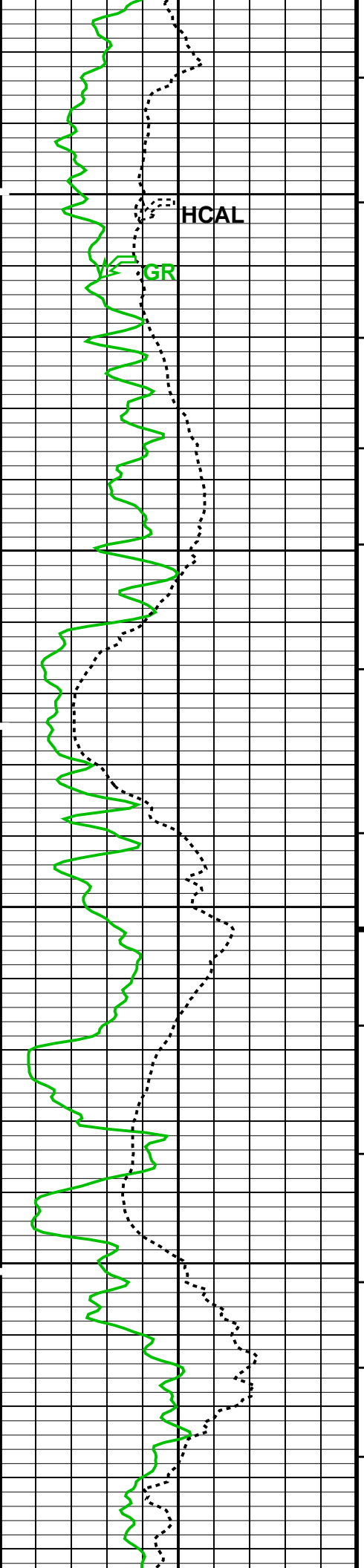


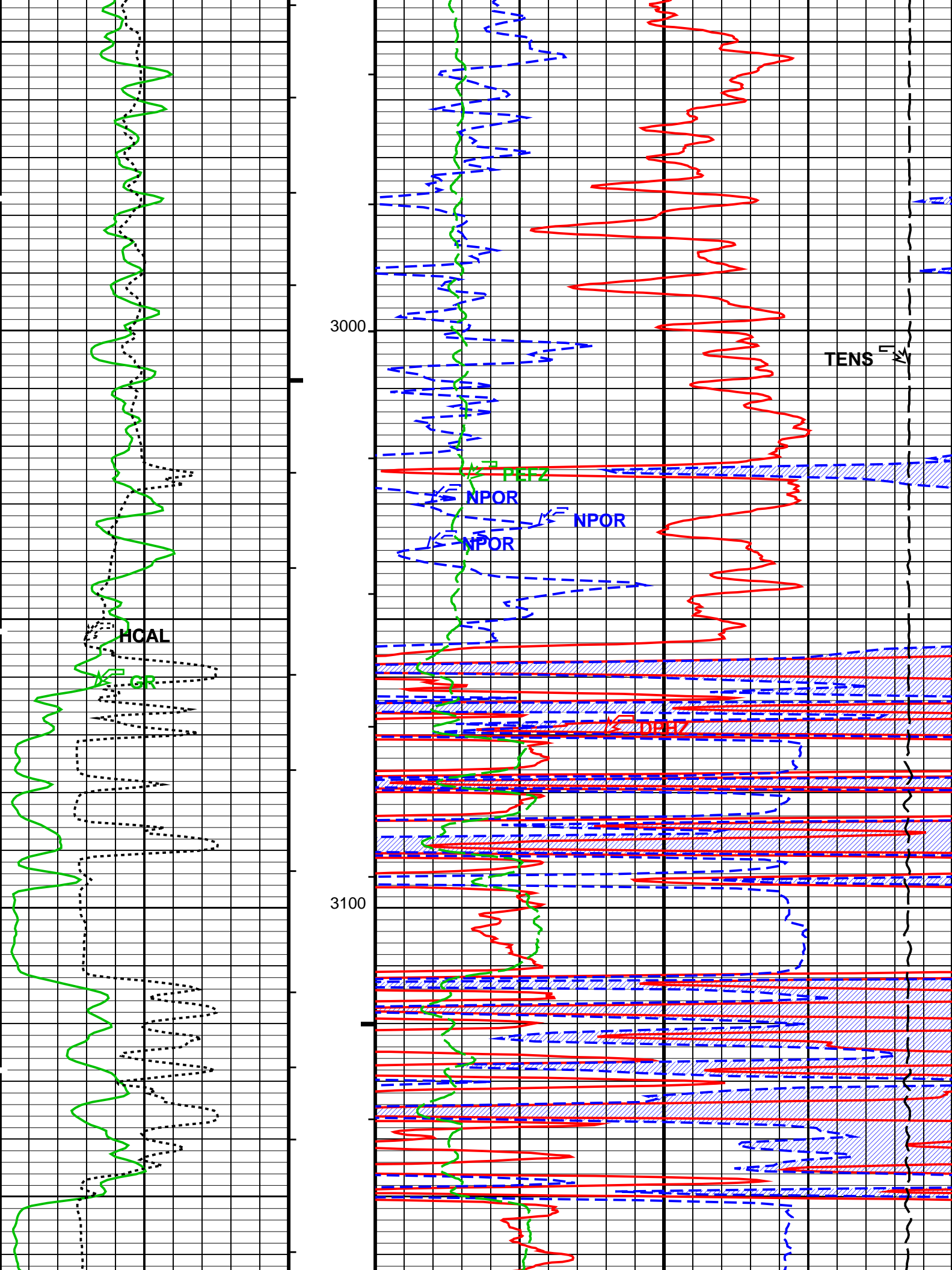


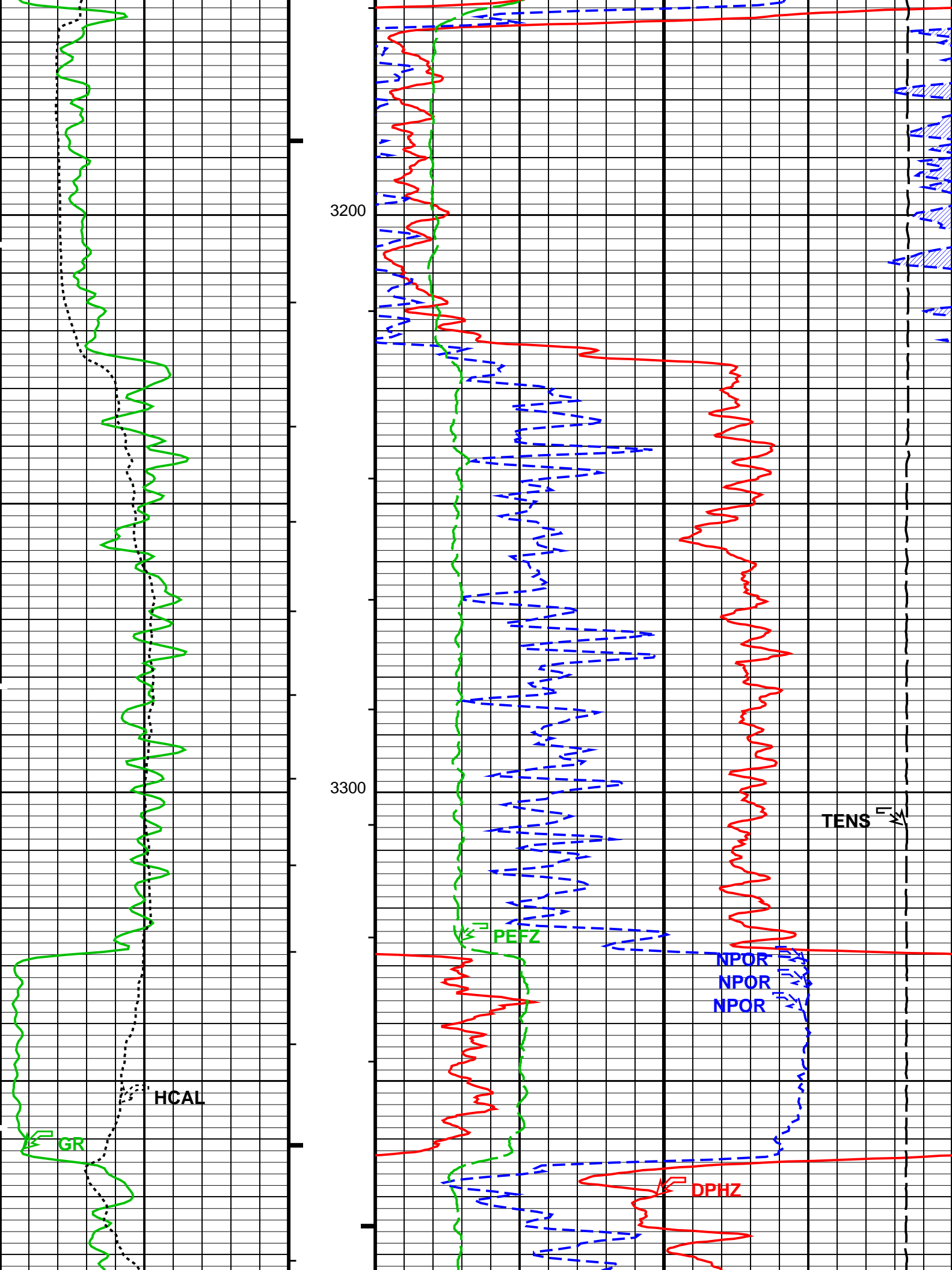


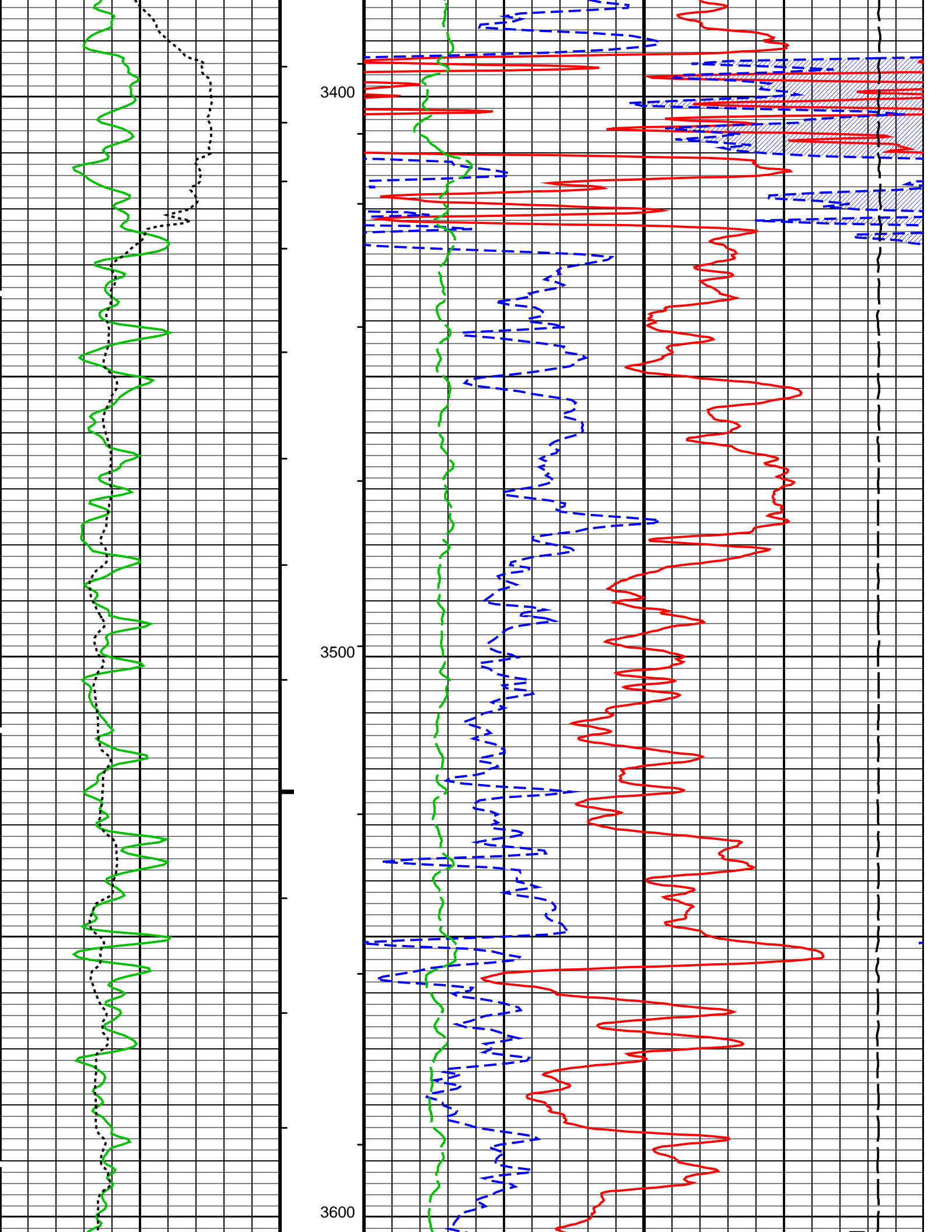


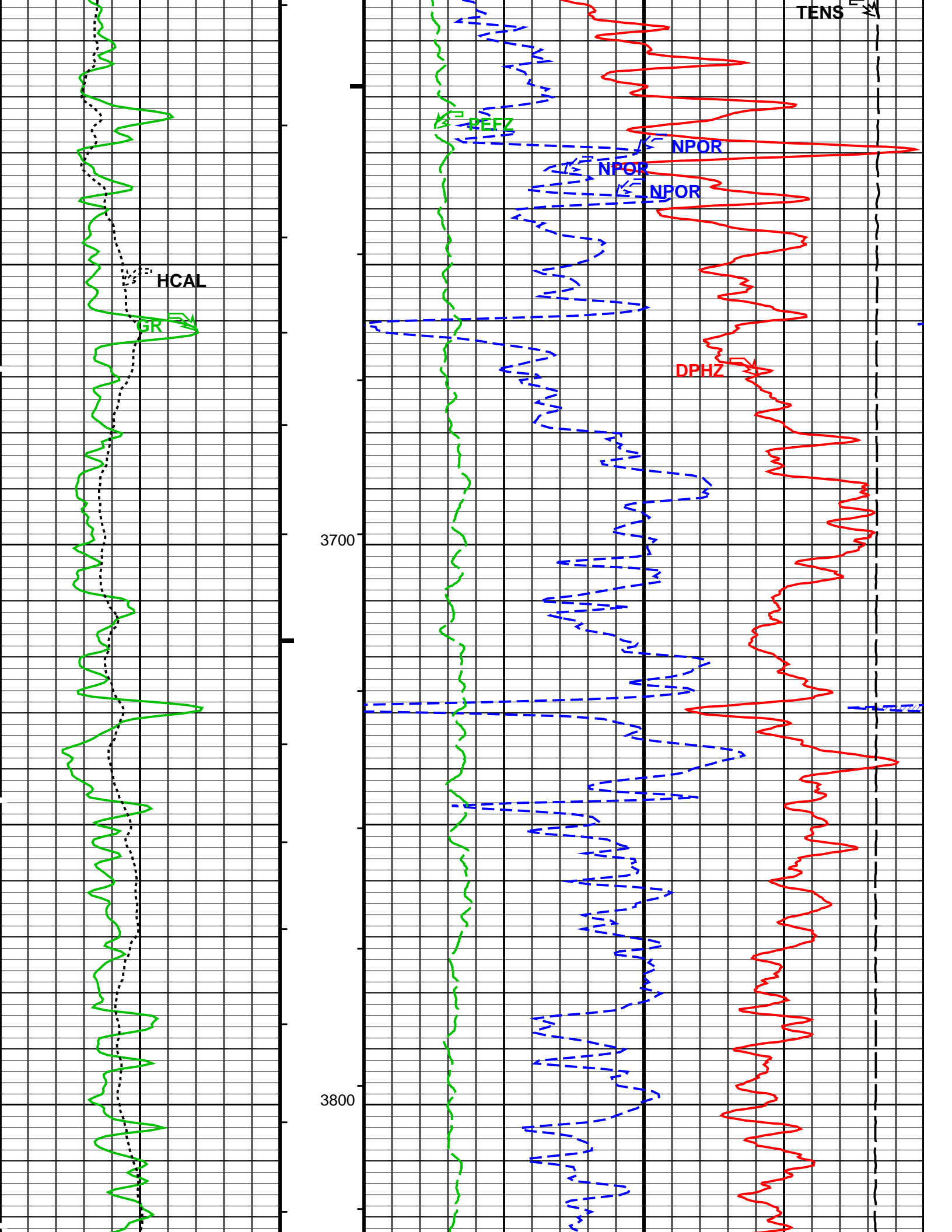


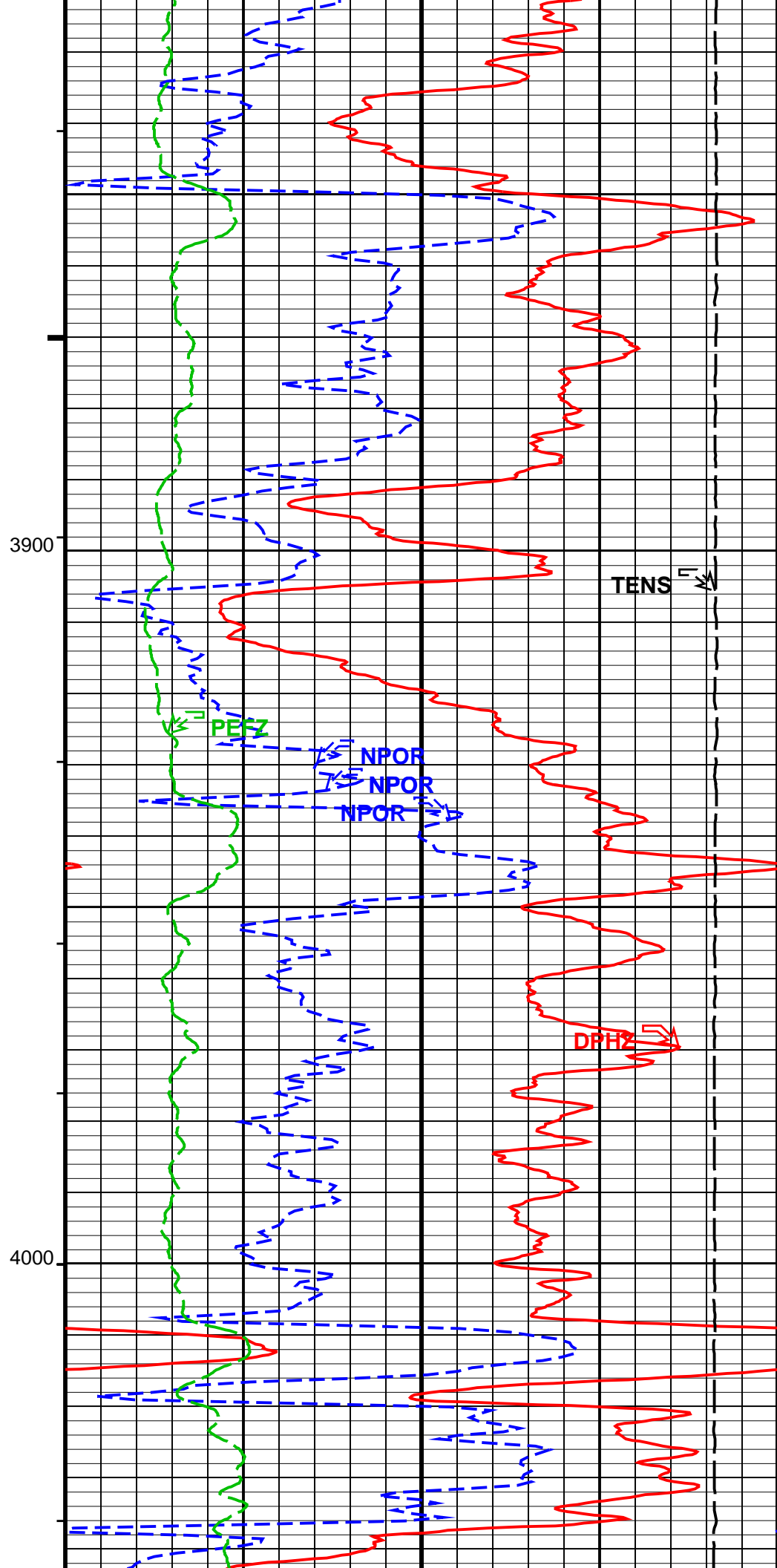
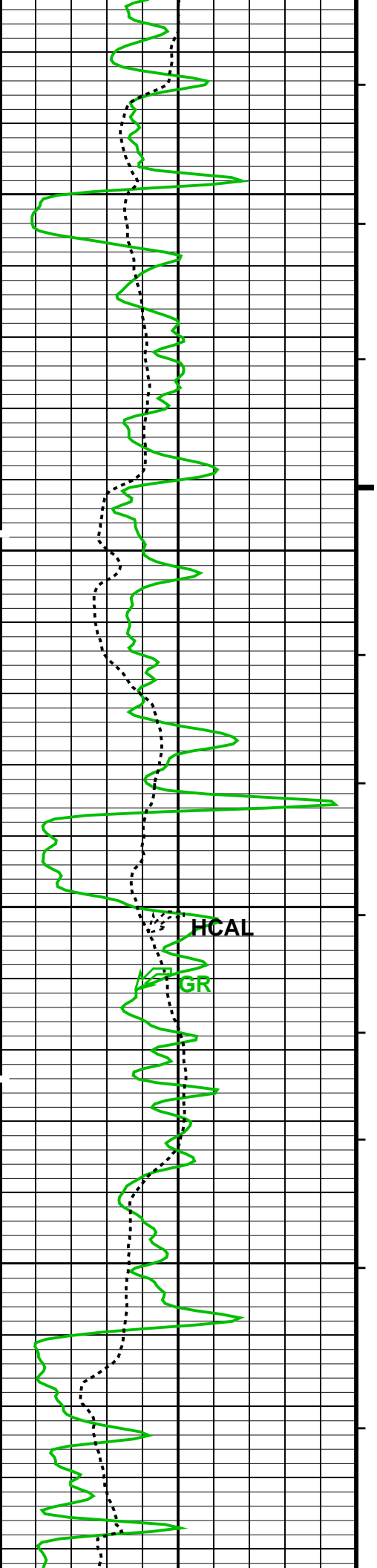


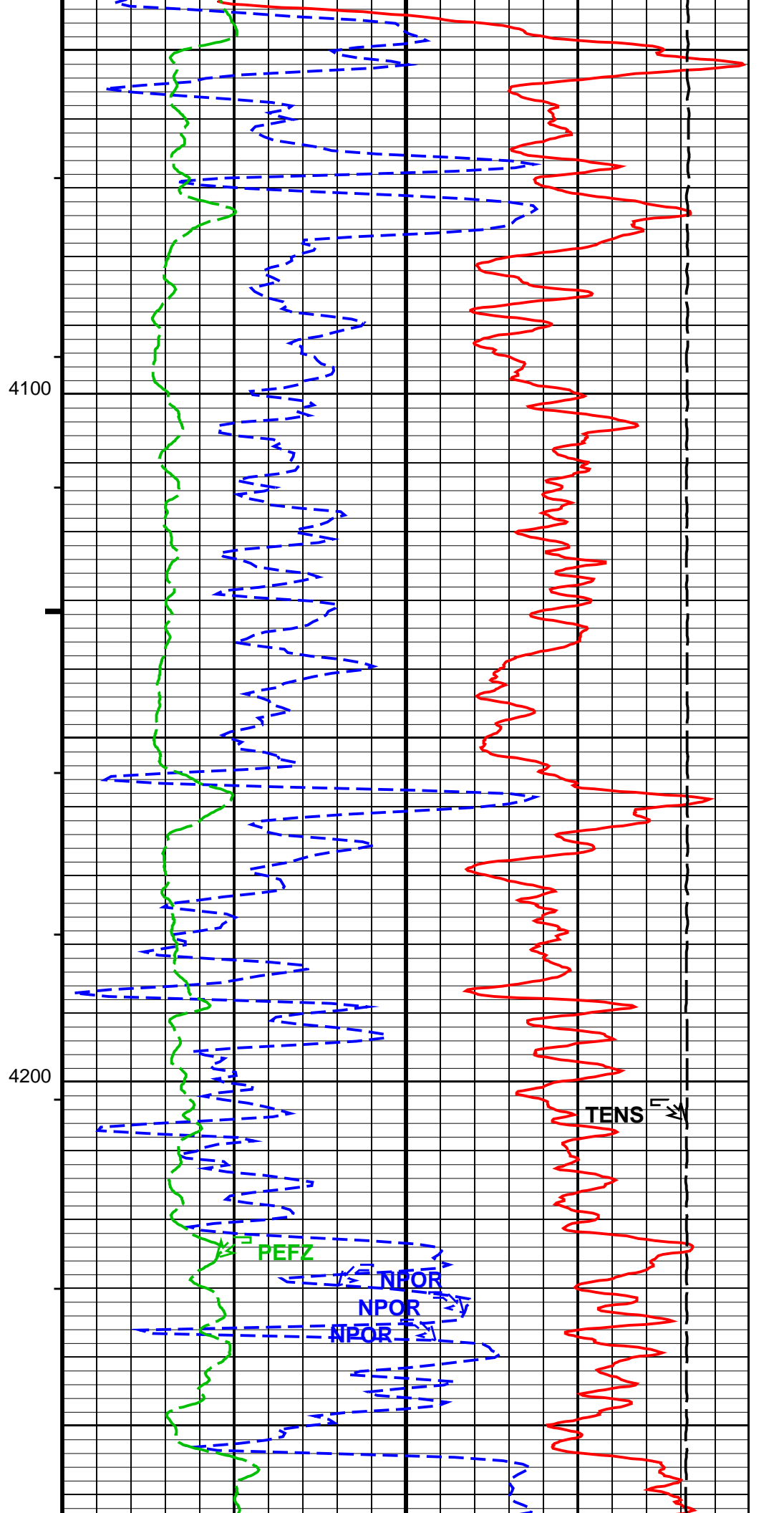
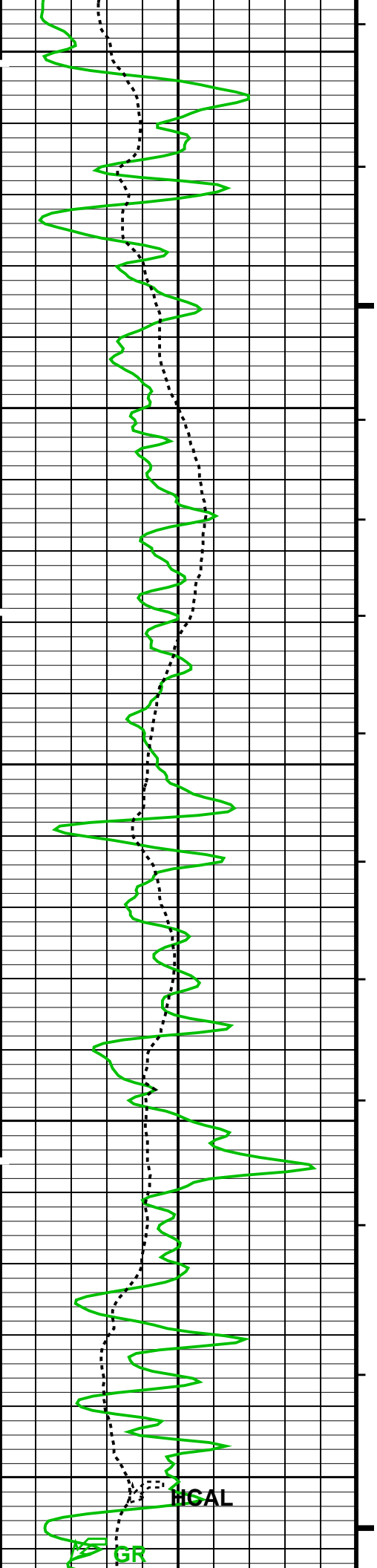


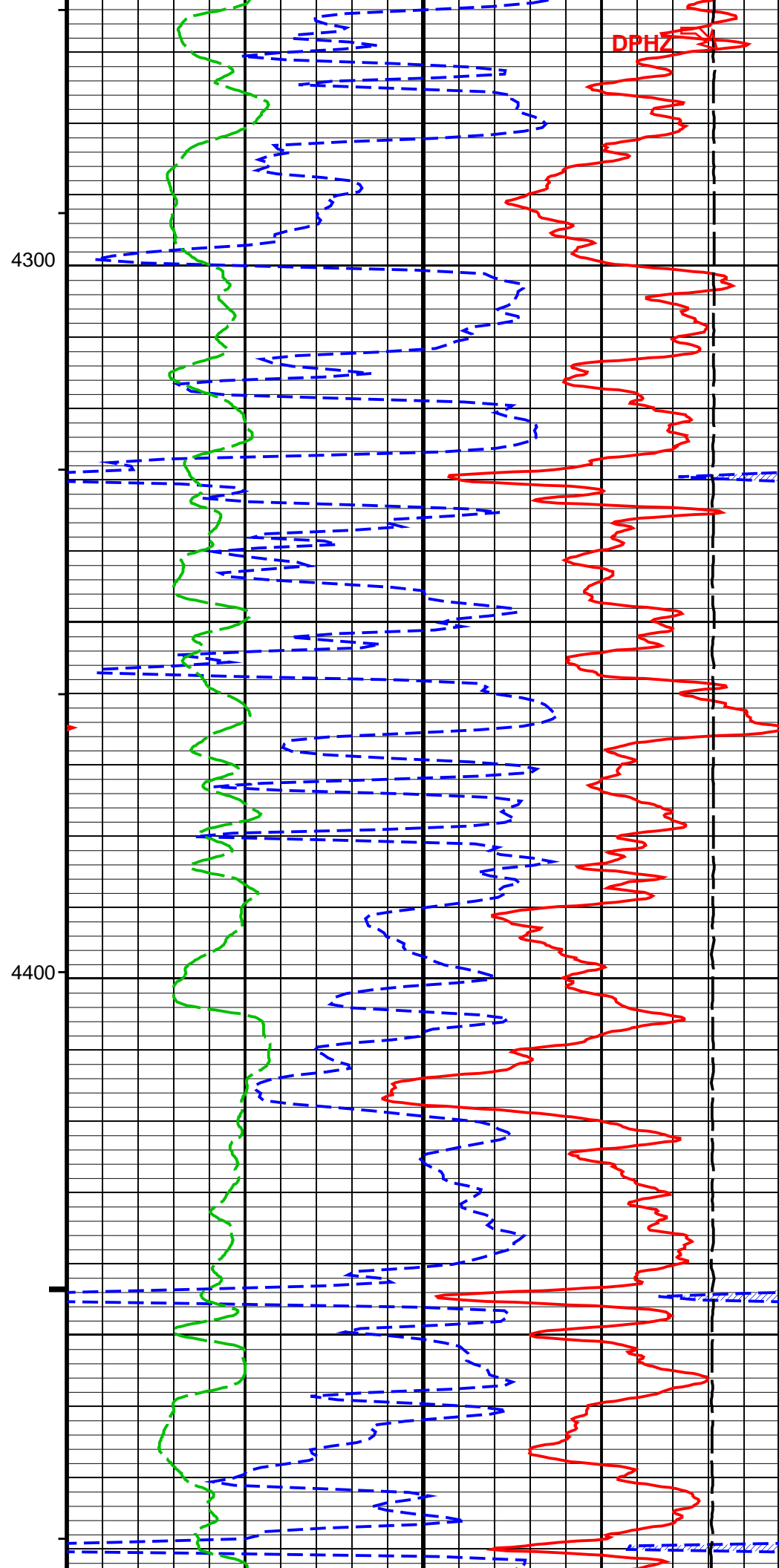
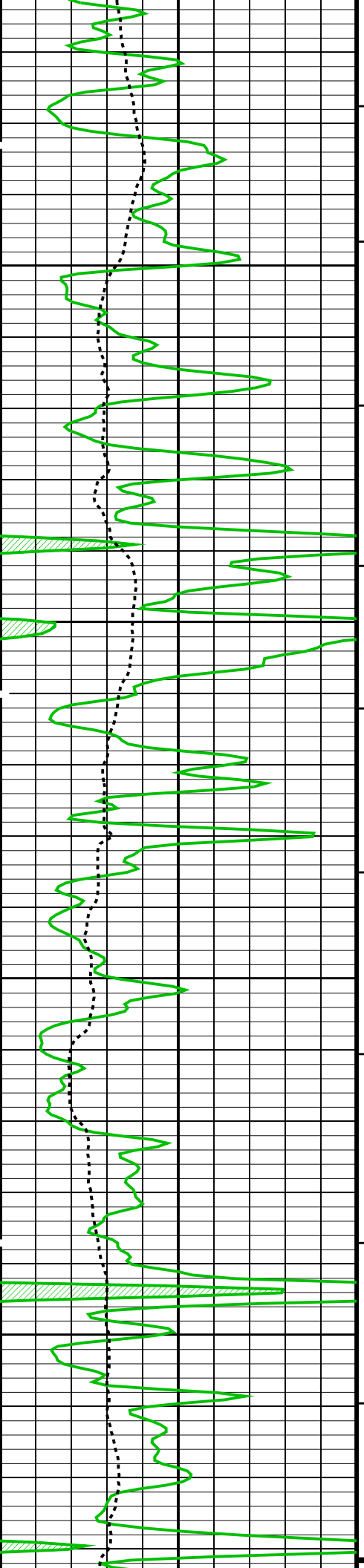


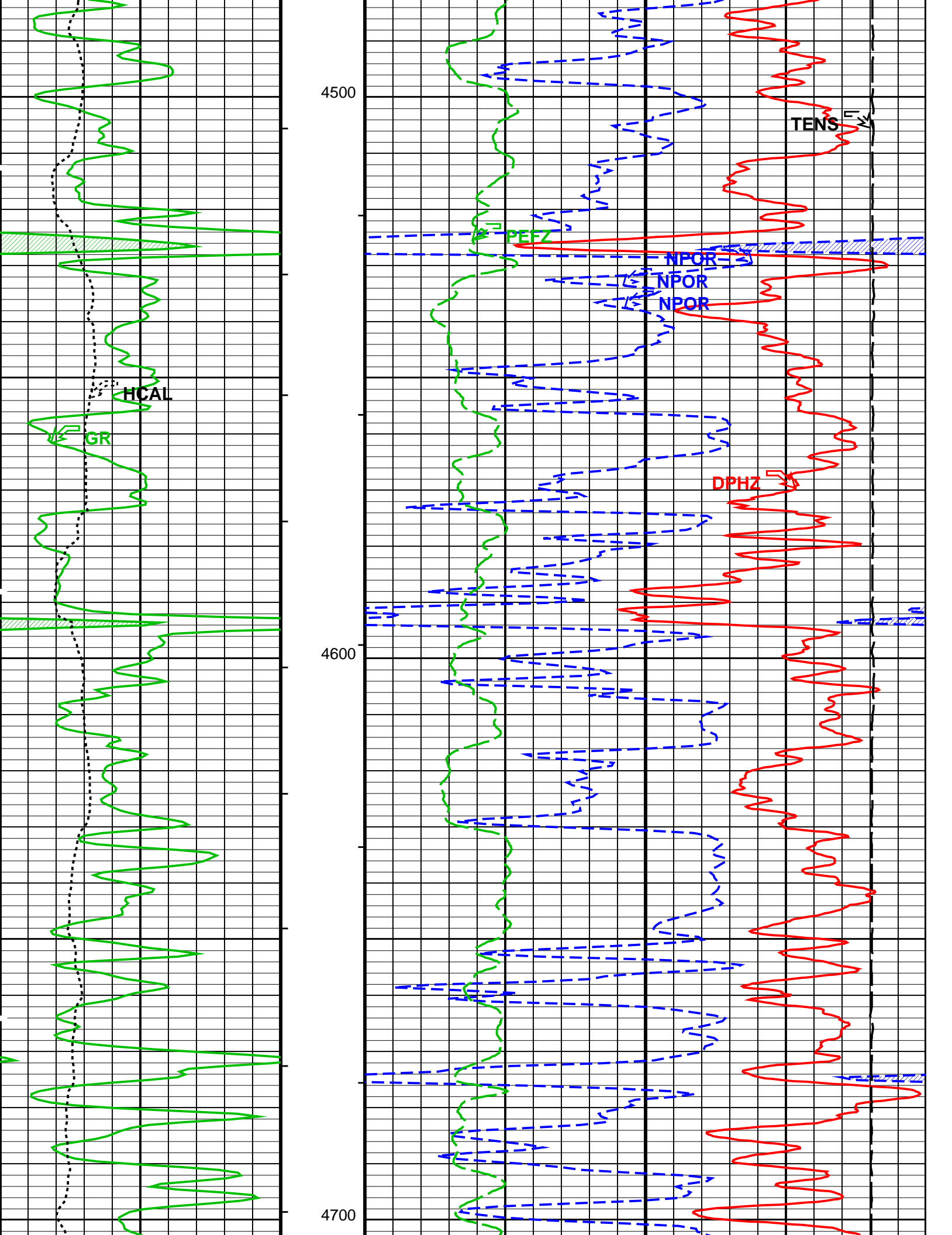


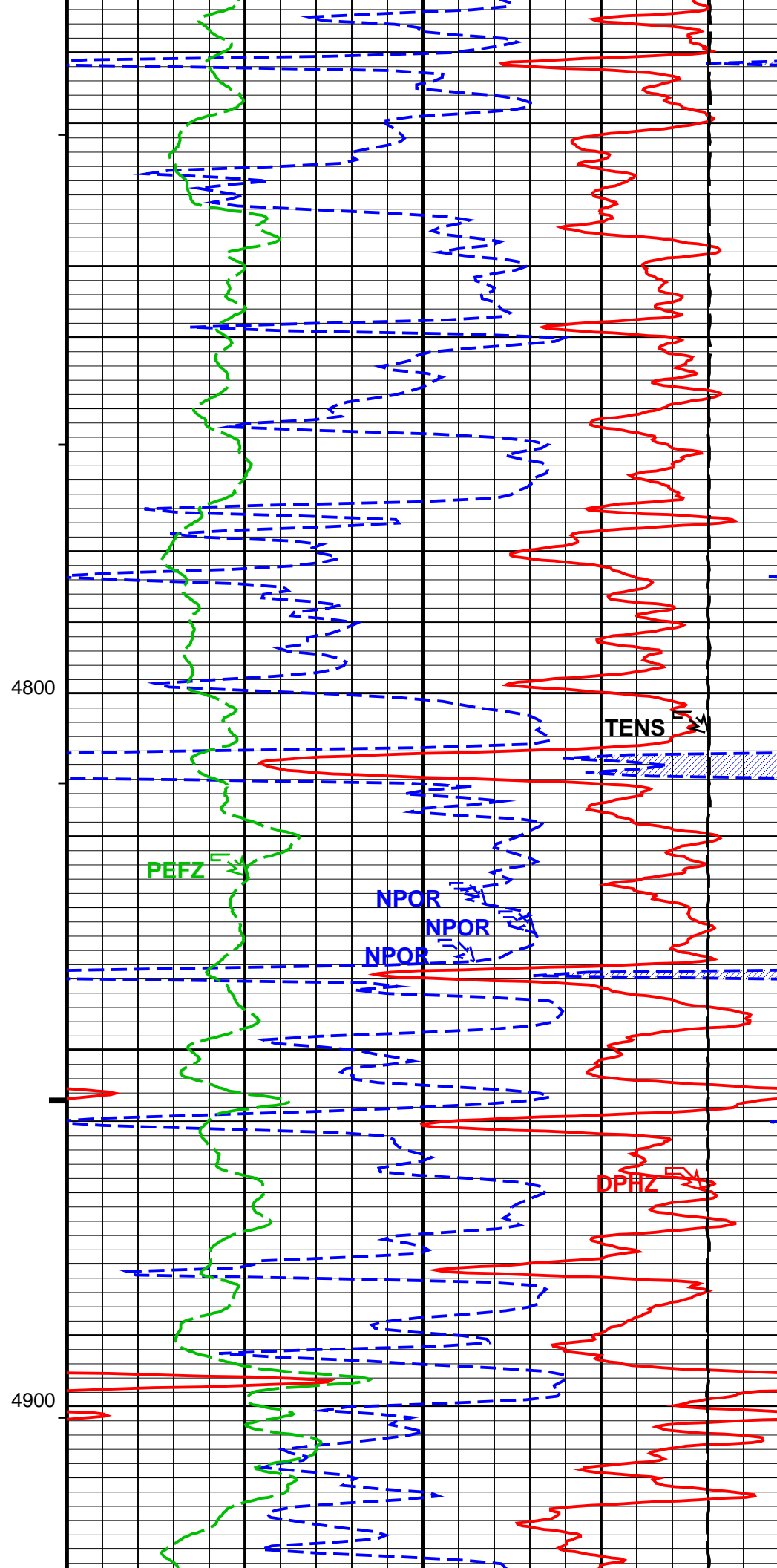
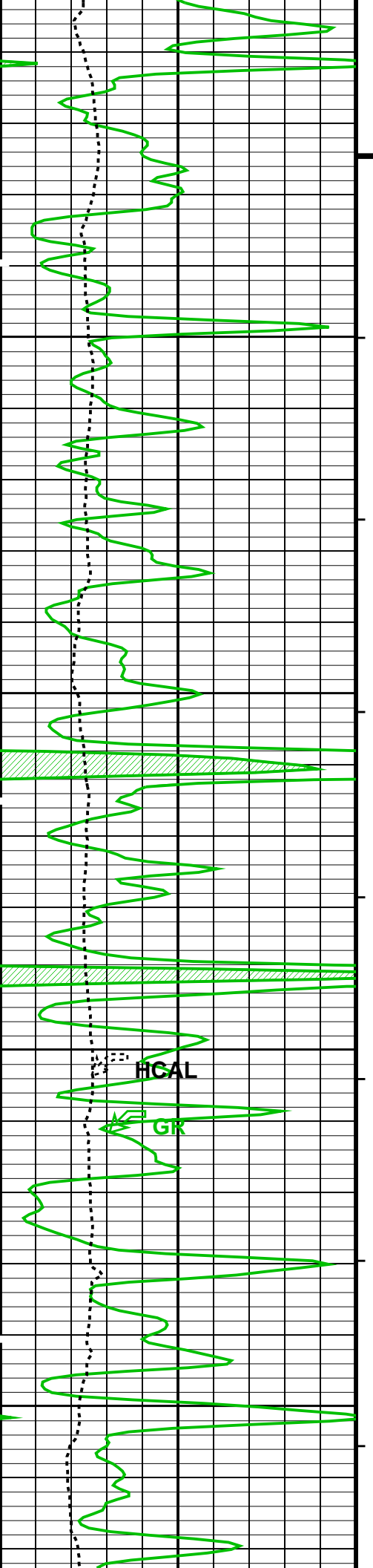


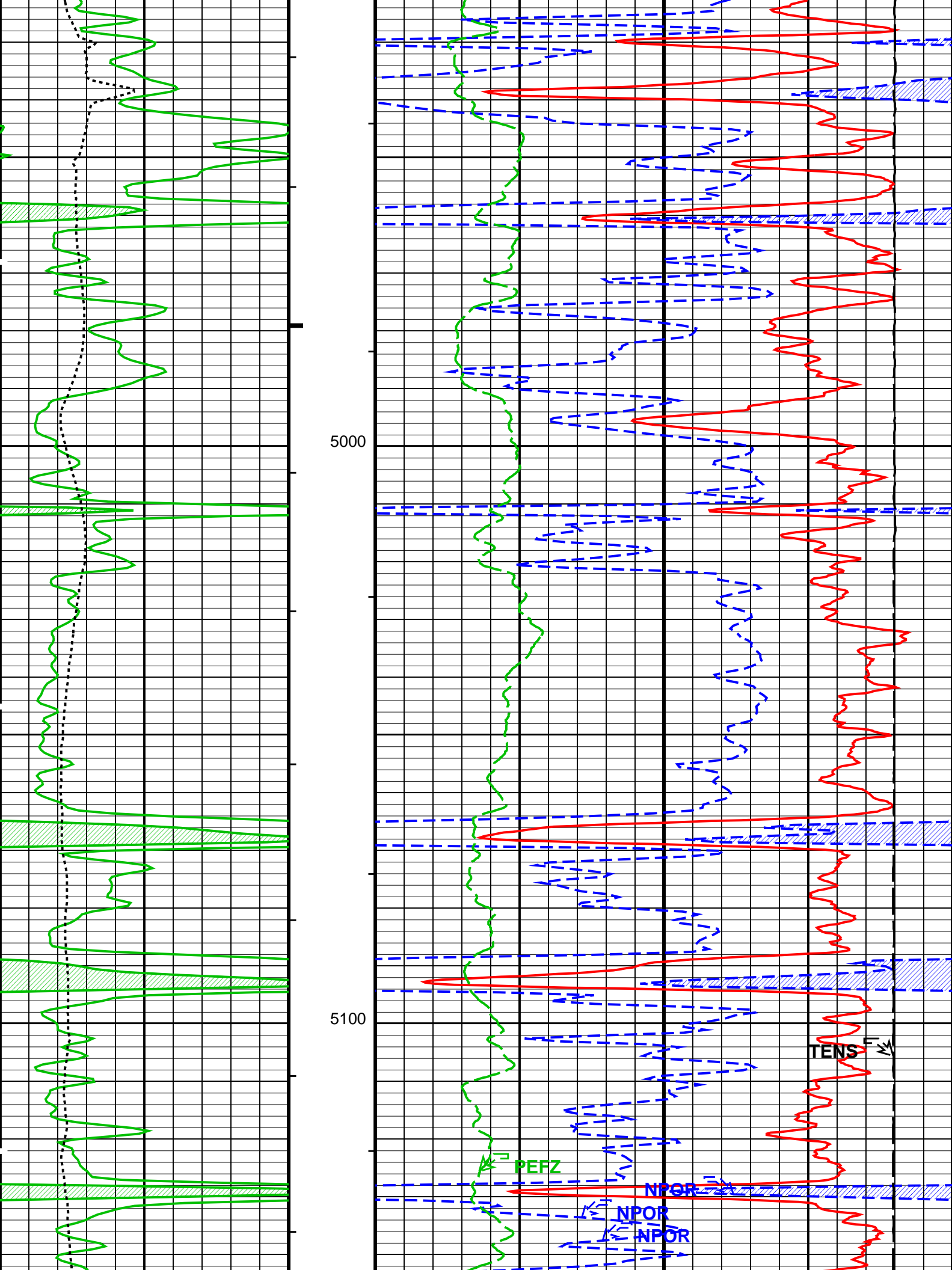


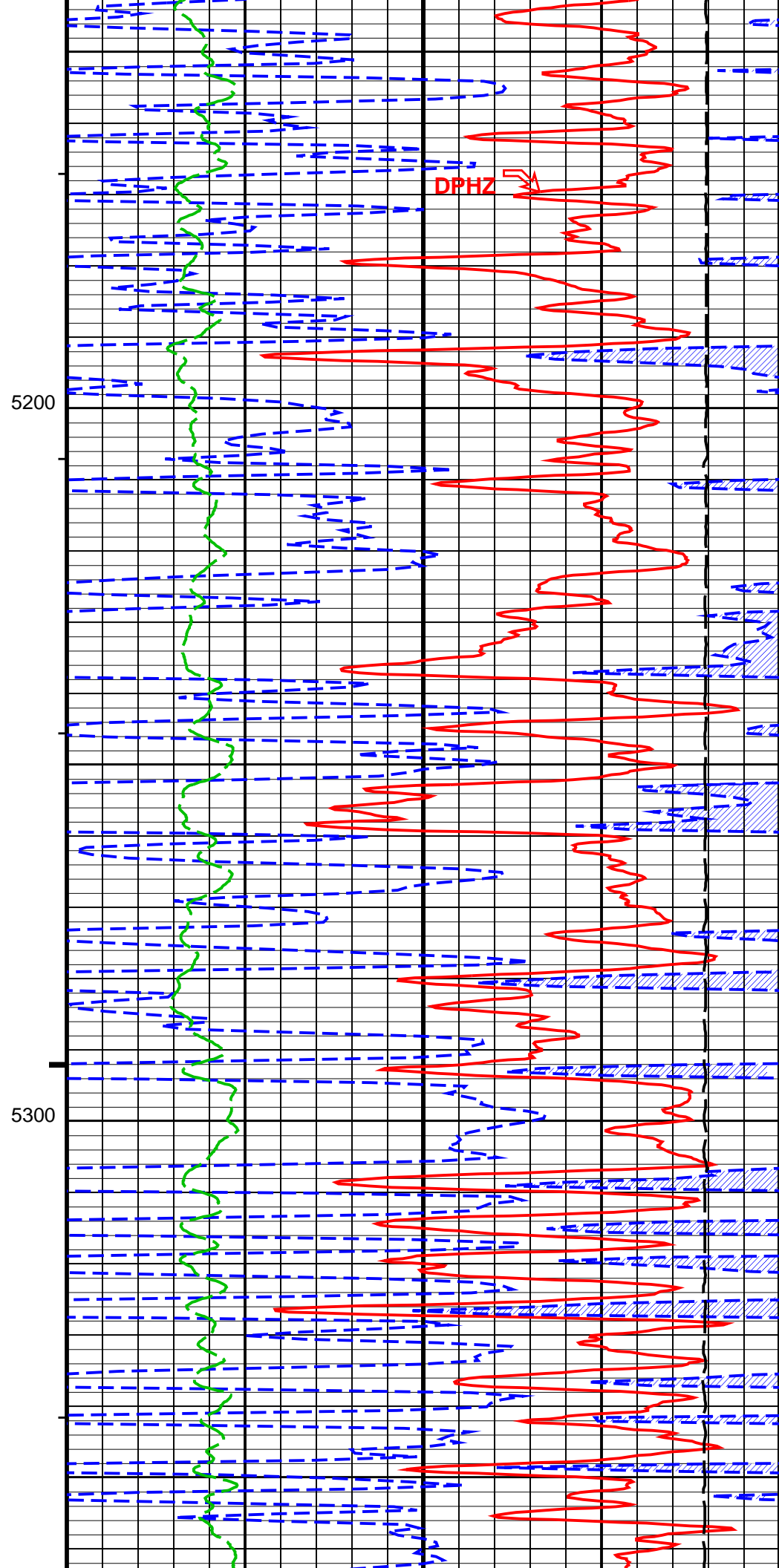
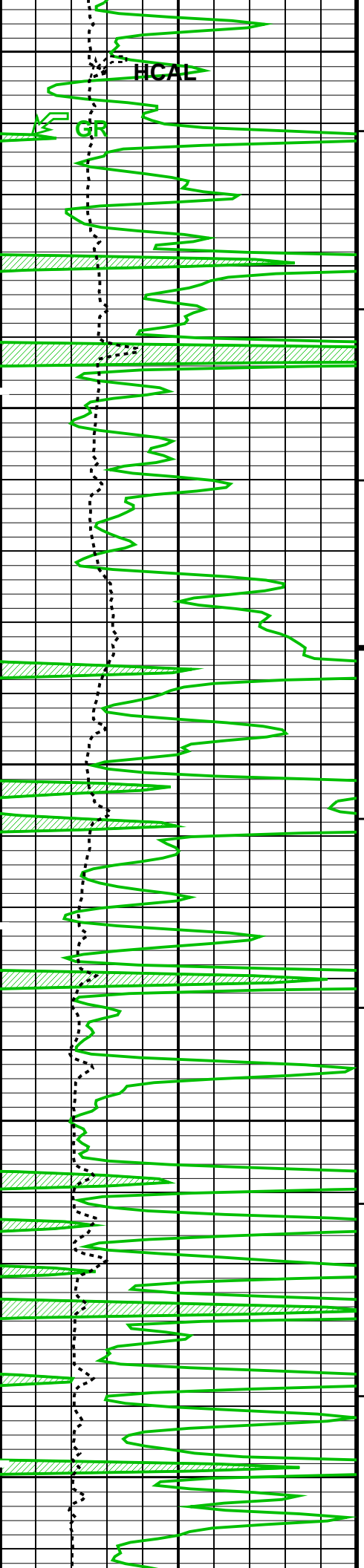


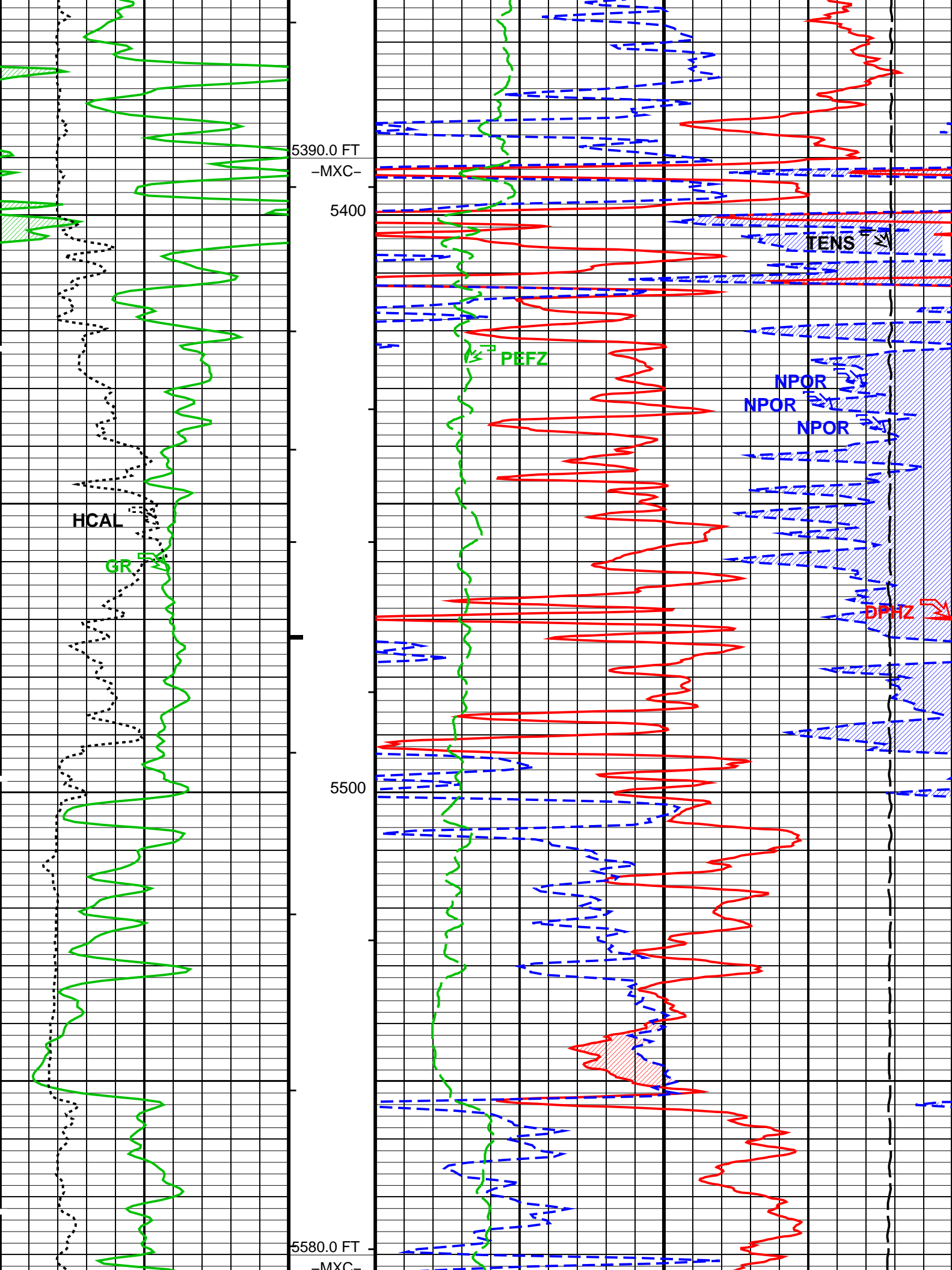


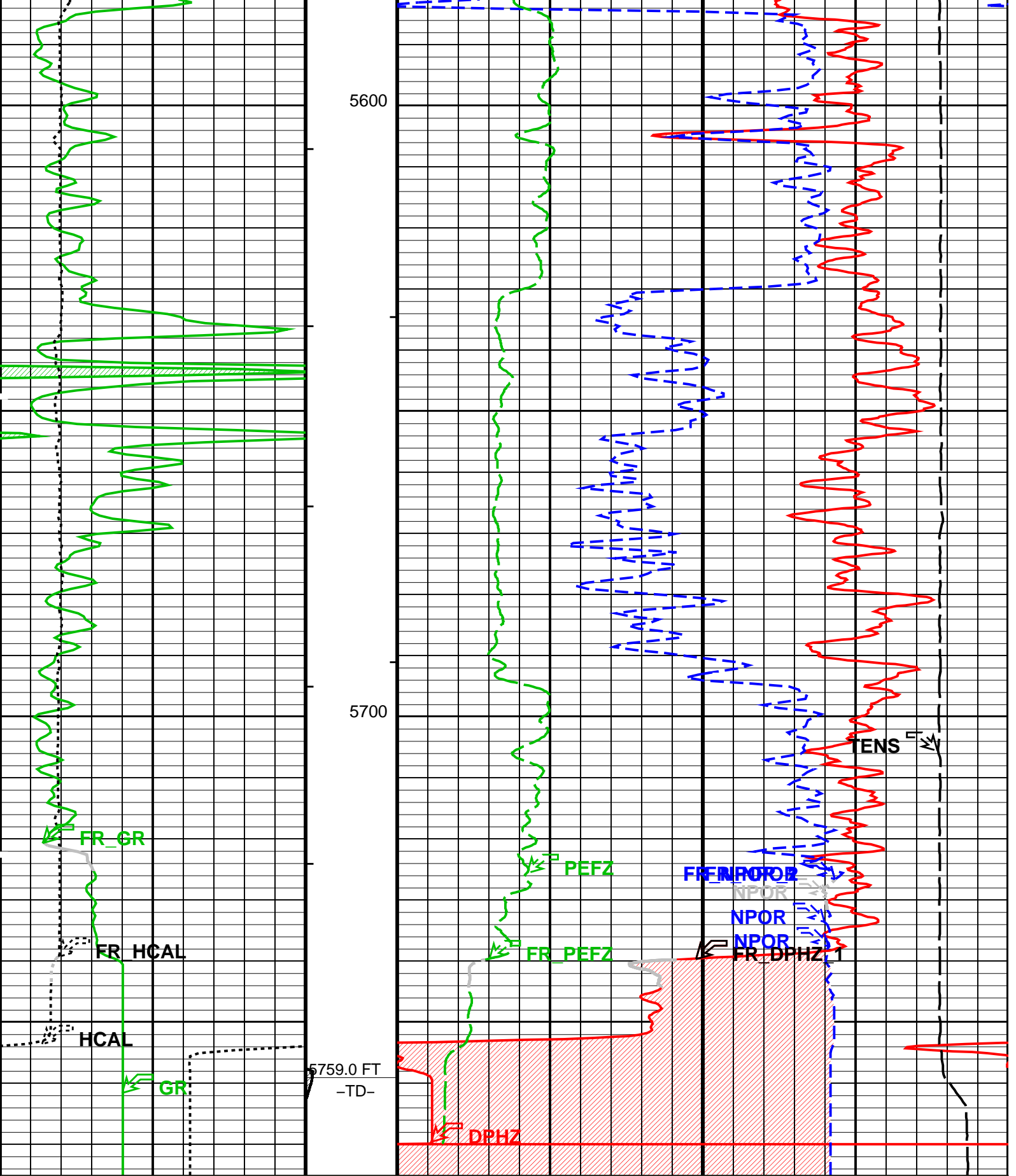












MAIN PASS: *** PLATFORM EXPRESS - NUCLEAR POROSITY ***

<p>Gamma Ray Backup</p>	<p>Cable Drag</p>	<p>Std. Res. Density Porosity (DPHZ)</p> <p>0.3 (V/V) -0.1</p>
<p>Gamma Ray (GR) (GAPI)</p> <p>0 200</p>	<p>Tool/Tot. Drag</p>	<p>Alpha Processed Neutron Porosity (NPOR)</p> <p>0.3 (V/V) -0.1</p>

Caliper (HCAL)		Stuck Stretch (STIT)	Std. Res. Formation Pe (PEFZ)		Tension (TENS)	
6	(IN)	16	0	(-----)	10	10000
		0 (F) 50				
			Gas Effect			
			NPOR Backup			

PIP SUMMARY						
<div> <div> <div></div> <div>Integrated Hole Volume Minor Pip Every 10 F3</div> </div> <div> <div></div> <div>Integrated Hole Volume Major Pip Every 100 F3</div> </div> <div> <div></div> <div>Integrated Cement Volume Minor Pip Every 10 F3</div> </div> <div> <div></div> <div>Integrated Cement Volume Major Pip Every 100 F3</div> </div> </div>						
<div> <div></div> <div>Time Mark Every 60 S</div> </div>						

Parameters				
DLIS Name	Description	Value		
AIT-M: Array Induction Tool – M				
BHS	Borehole Status	OPEN		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
SHT	Surface Hole Temperature	68	DEGF	
HILTB-FTB: High resolution Integrated Logging Tool-DTS				
BHFL	Borehole Fluid Type	WATER		
BHFL_TLD	HILT Nuclear Mud Base	WATER		
BHS	Borehole Status	OPEN		
BSCO	Borehole Salinity Correction Option	NO		
CCCO	Casing & Cement Thickness Correction Option	NO		
DHC	Density Hole Correction	BS		
FD	Fluid Density	1	G/C3	
FSAL	Formation Salinity	-50000	PPM	
FSCO	Formation Salinity Correction Option	NO		
GCLF	Germany Coal-like Formation Option	NO		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
HSCO	Hole Size Correction Option	YES		
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
MCCO	Mud Cake Correction Option	NO		
MCOR	Mud Correction	NATU		
MDEN	Matrix Density	2.65	G/C3	
MWCO	Mud Weight Correction Option	NO		
NAAC	HRDD APS Activation Correction	OFF		
NMT	HILT Nuclear Mud Type	NOBARITE		
NPRM	HRDD Processing Mode	HiRes		
NSAR	HRDD Depth Sampling Rate	1	IN	
PTCO	Pressure/Temperature Correction Option	NO		
SDAT	Standoff Data Source	SOCN		
SHT	Surface Hole Temperature	68	DEGF	
SOCN	Standoff Distance	0.125	IN	
SOCO	Standoff Correction Option	YES		
PERT: Preliminary Evaluation – Real Time				
BHS	Borehole Status	OPEN		
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
SHT	Surface Hole Temperature	68	DEGF	
STI: Stuck Tool Indicator				
LBFR	Trigger for MAXIS First Reading Label	STI		
STKT	STI Stuck Threshold	2.5	FT	
TDD	Total Depth – Driller	5760.00	FT	
TDL	Total Depth – Logger	5759.00	FT	
HOLEV: Integrated Hole/Cement Volume				
BHS	Borehole Status	OPEN		
FCD	Future Casing (Outer) Diameter	5.5	IN	
GCSE	Generalized Caliper Selection	HCAL		
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG	
GGRD	Geothermal Gradient	0.01	DF/F	
HVCS	Integrated Hole Volume Caliper Selection	HCAL		
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE		
SHT	Surface Hole Temperature	68	DEGF	
System and Miscellaneous				
BS	Bit Size	7.875	IN	
BSAL	Borehole Salinity	300.00	PPM	

CSIZ	Current Casing Size	8.625	IN
CWEI	Casing Weight	24.00	LB/F
DFD	Drilling Fluid Density	9.10	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	61.10	DEGF
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	1.2180	OHMM
TD	Total Depth	5759	FT

Format: PORO Vertical Scale: 5" per 100' Graphics File Created: 23-Mar-2010 15:04

OP System Version: 17C0-154

AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_008LUP	FN:7	PRODUCER	23-Mar-2010 13:43	5775.0 FT	401.5 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_017PUP	FN:16	PRODUCER	23-Mar-2010 15:04
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Schlumberger

High Resolution Pass

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_004LUP	FN:3	PRODUCER	23-Mar-2010 12:52	5770.5 FT	4563.5 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_016PUP	FN:15	PRODUCER	23-Mar-2010 15:02	5772.0 FT	4565.5 FT
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Integrated Hole/Cement Volume Summary

Hole Volume = 460.67 F3

Cement Volume = 263.77 F3 (assuming 5.50 IN casing O.D.)

Computed from 5759.0 FT to 4566.0 FT using data channel(s) HCAL

OP System Version: 17C0-154

AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

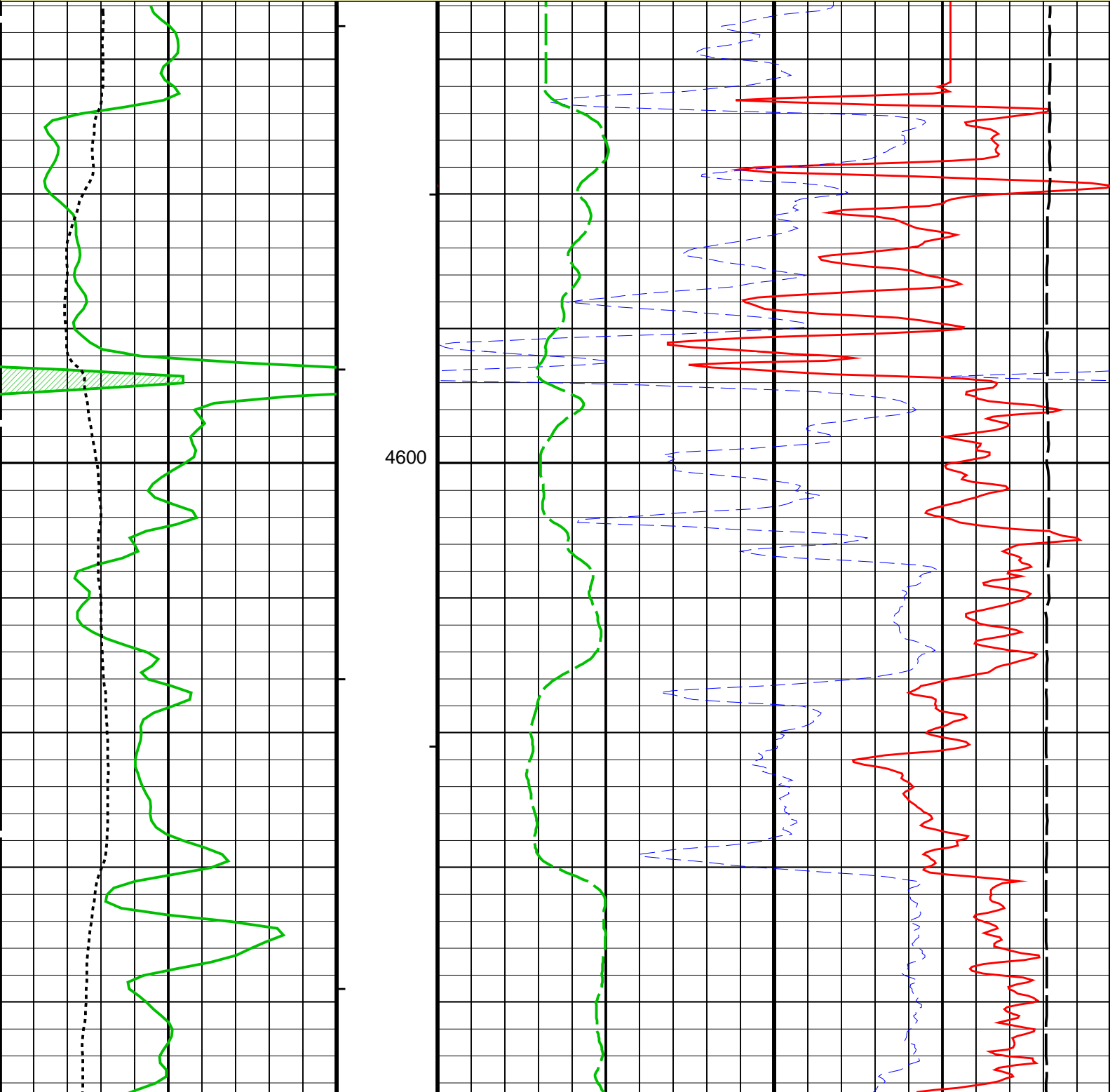
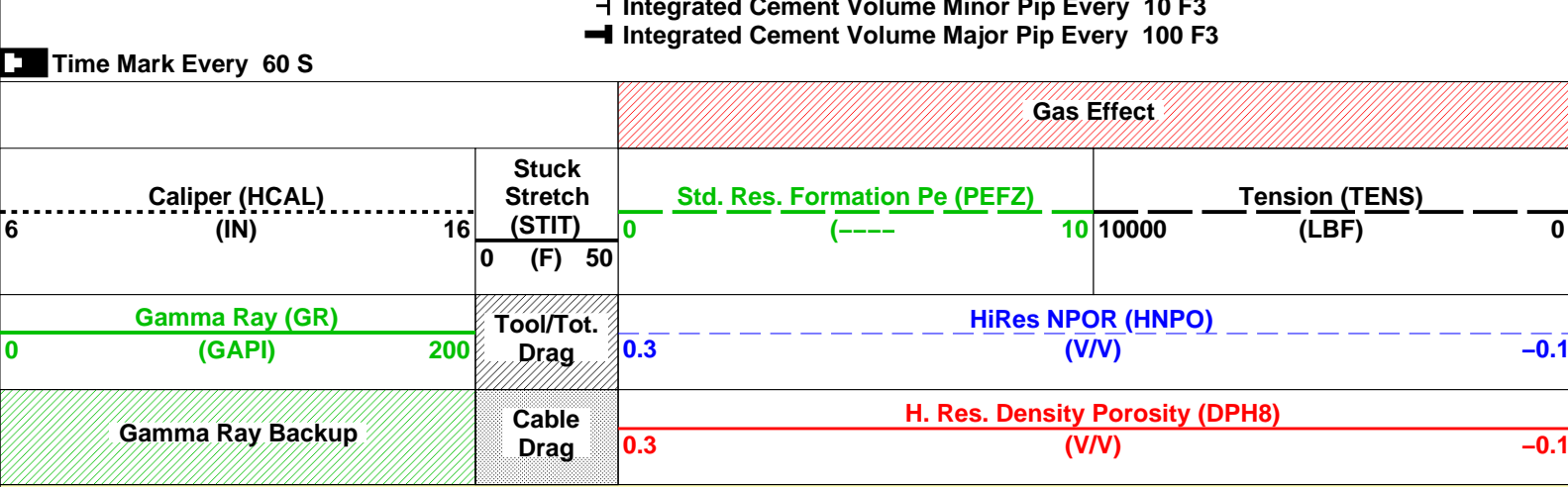
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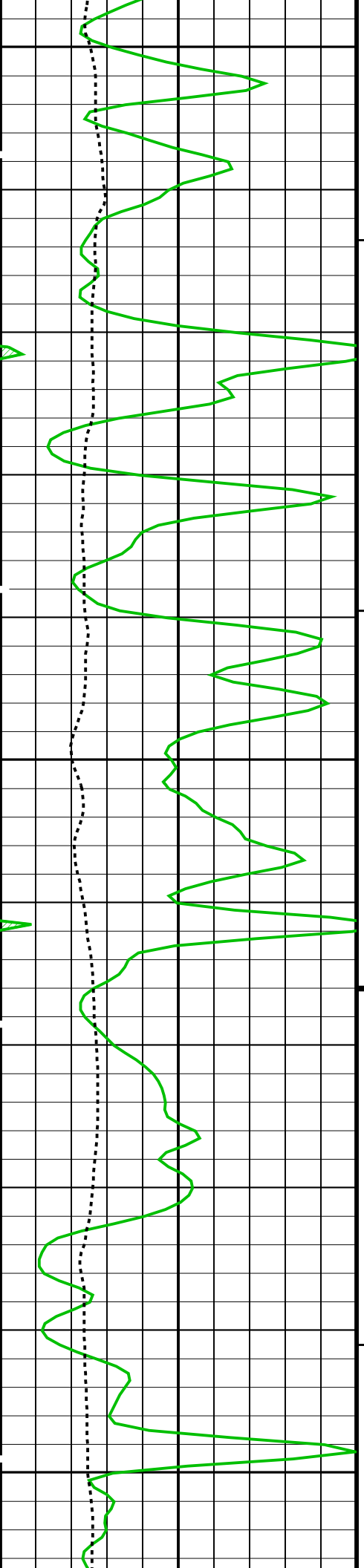
DLIS Name	New Value	Previous Value	Depth & Time
MATR	LIMESTONE	LIMESTONE	5772.0 15:03:10
	SANDSTONE	LIMESTONE	5390.0 15:03:22
MDEN	2.71 G/C3	2.71 G/C3	5772.0 15:03:10
	2.65 G/C3	2.71 G/C3	5390.0 15:03:22

PIP SUMMARY

└ Integrated Hole Volume Minor Pip Every 10 F3

└ Integrated Hole Volume Major Pip Every 100 F3

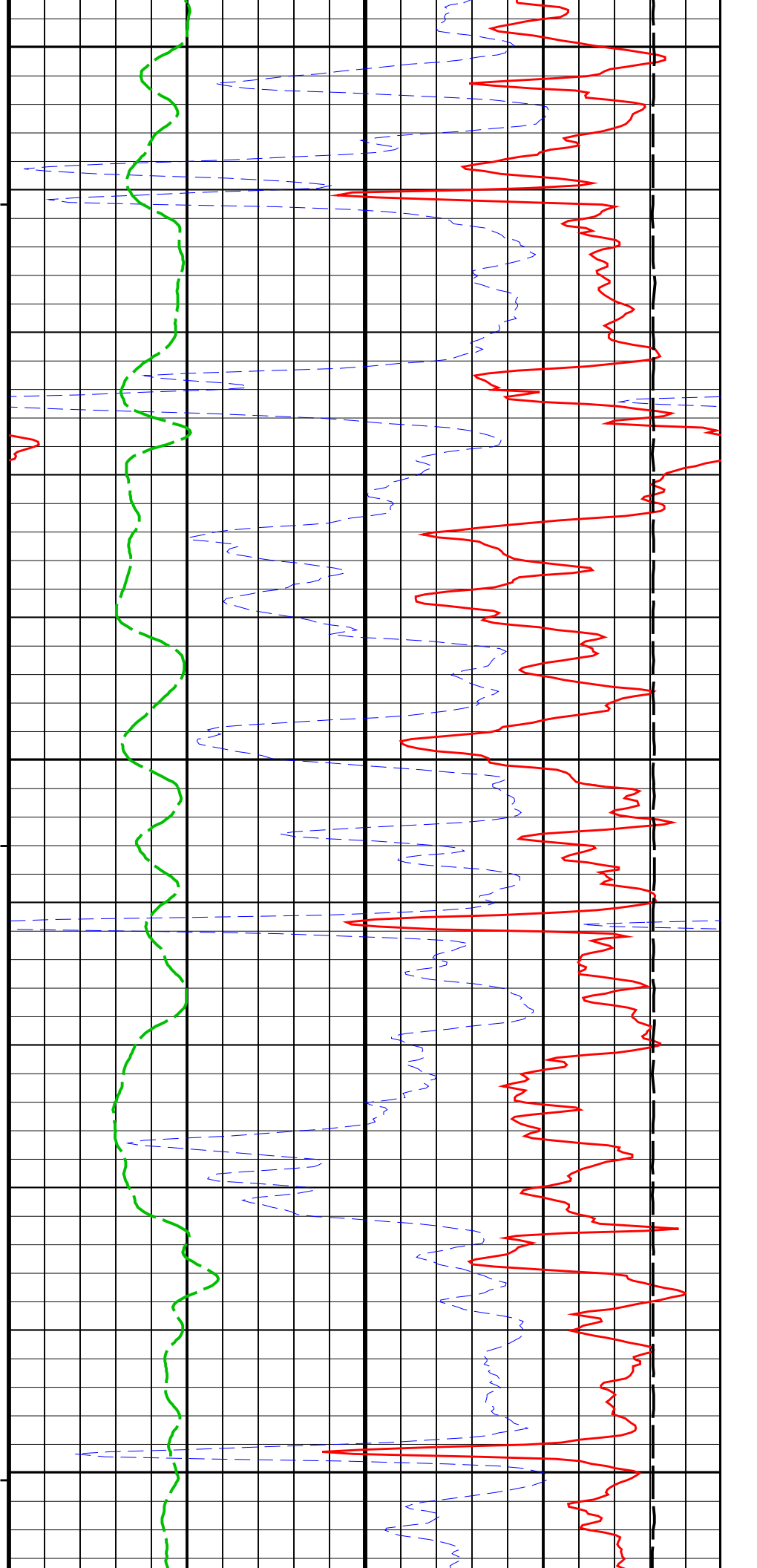


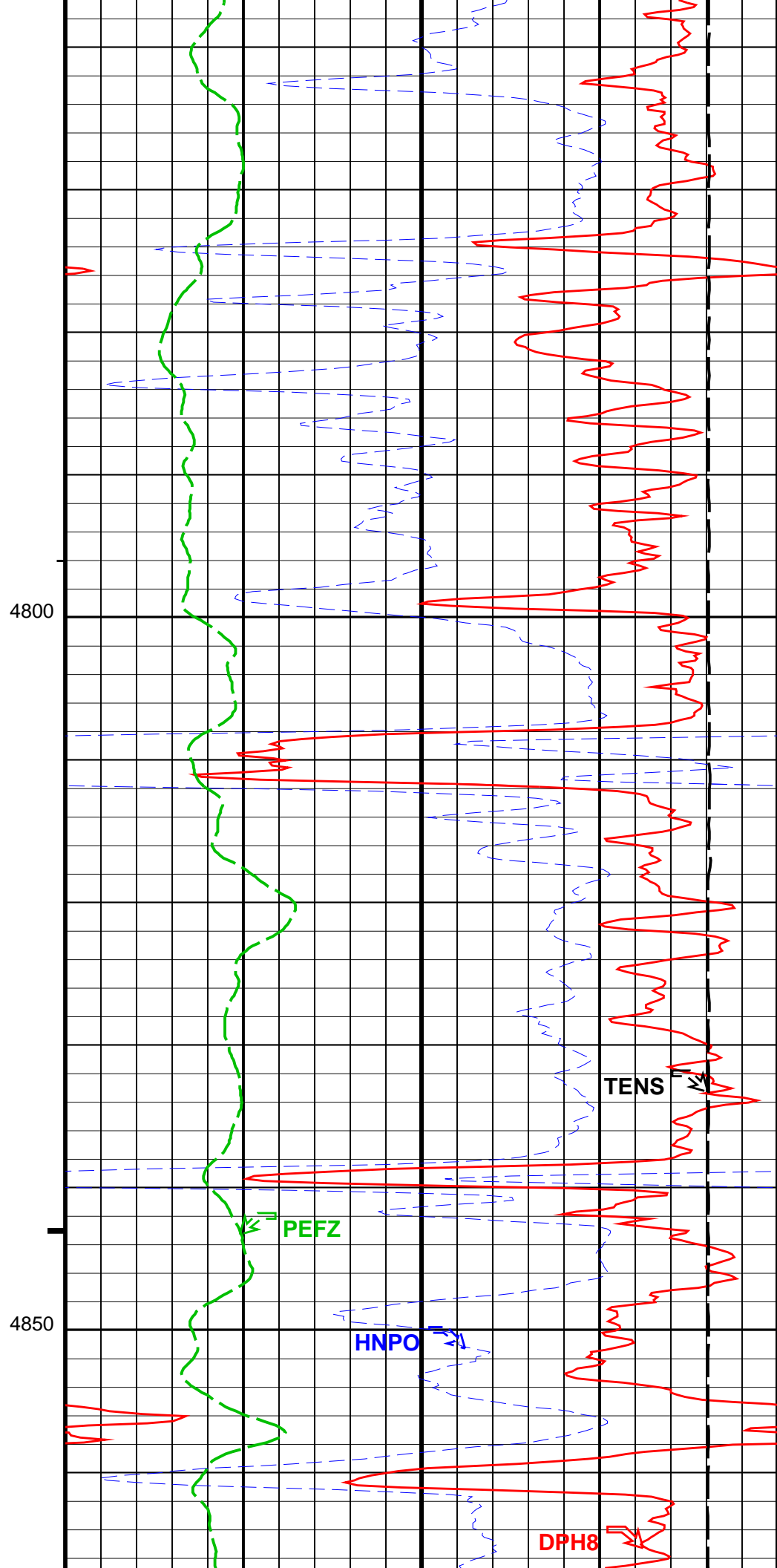
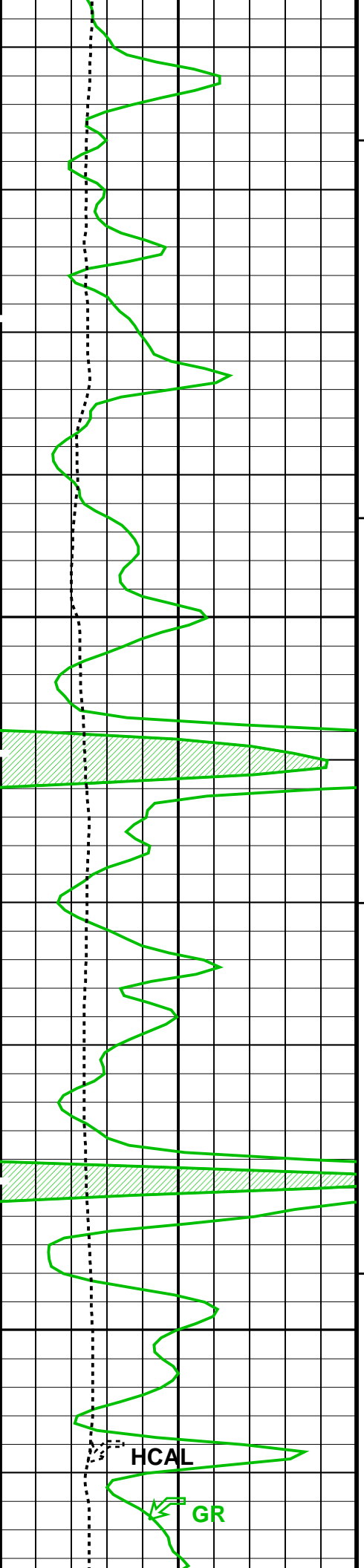


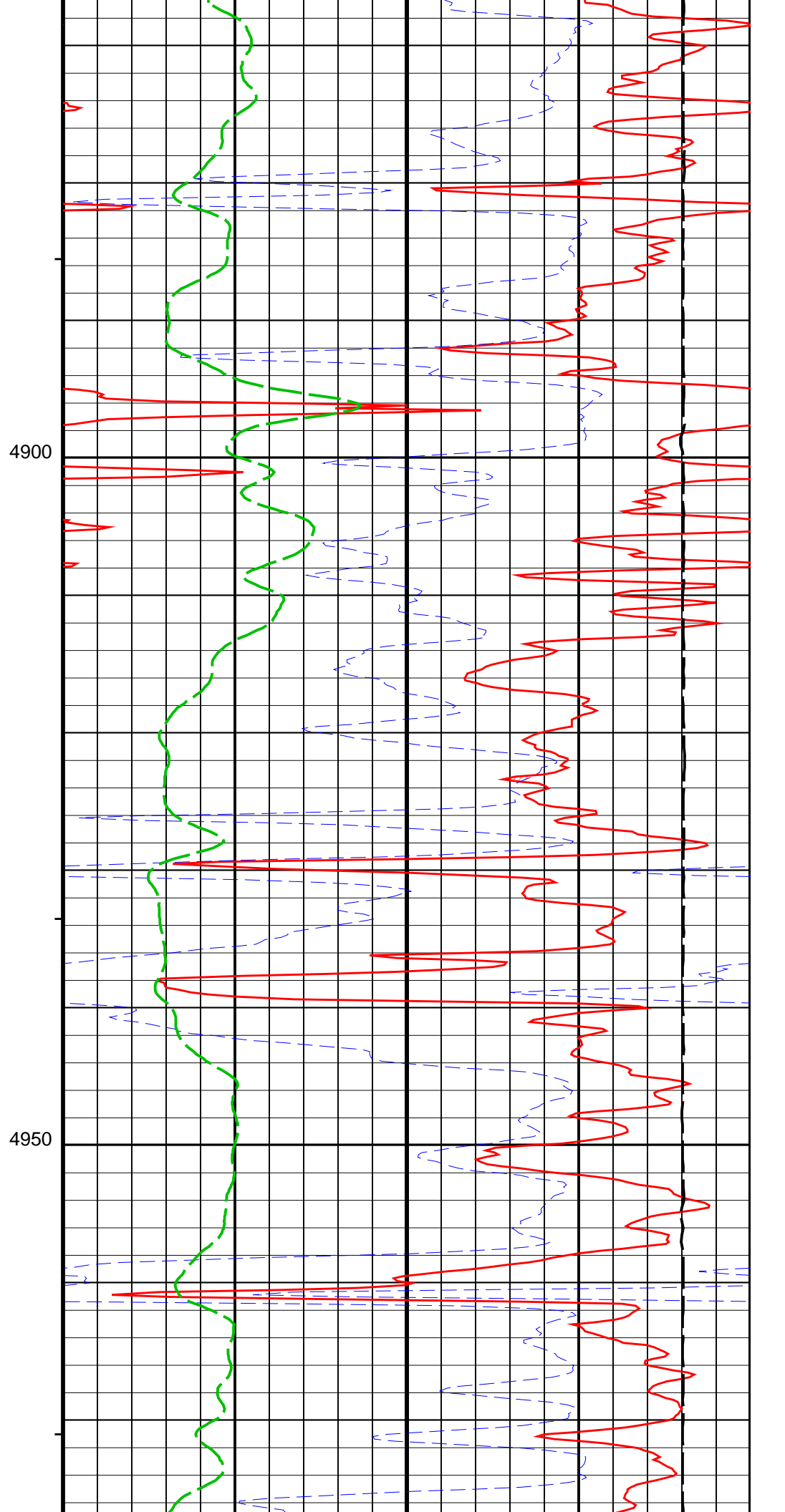
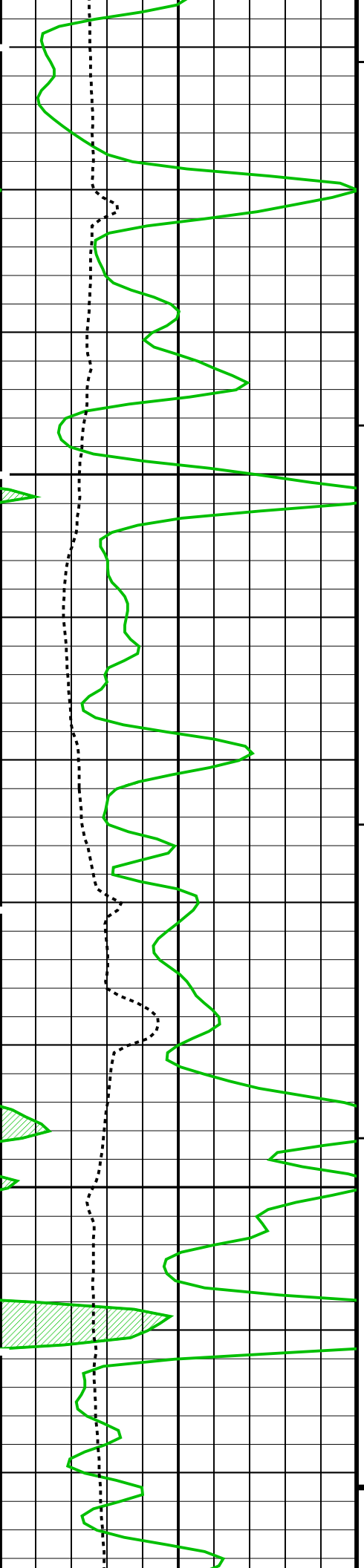
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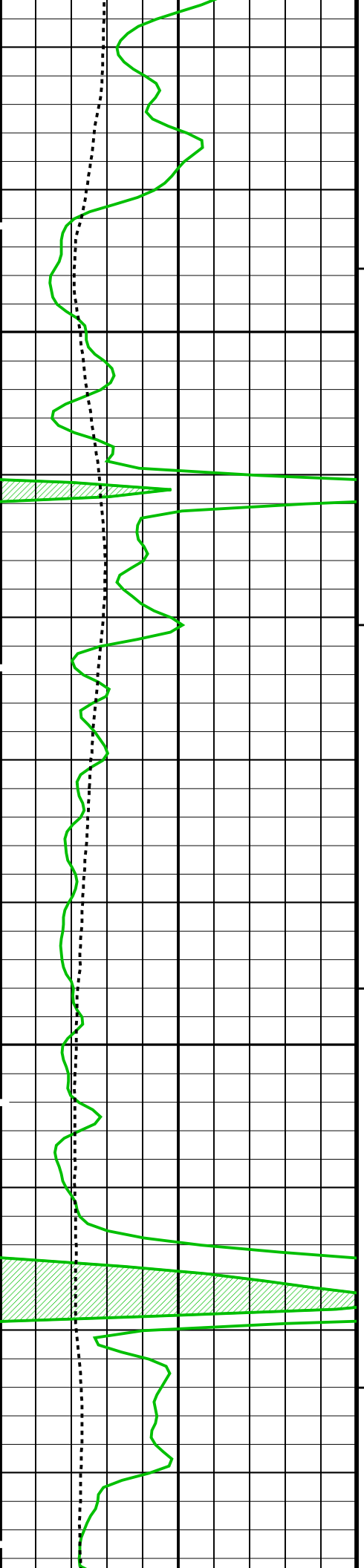
4700

4750



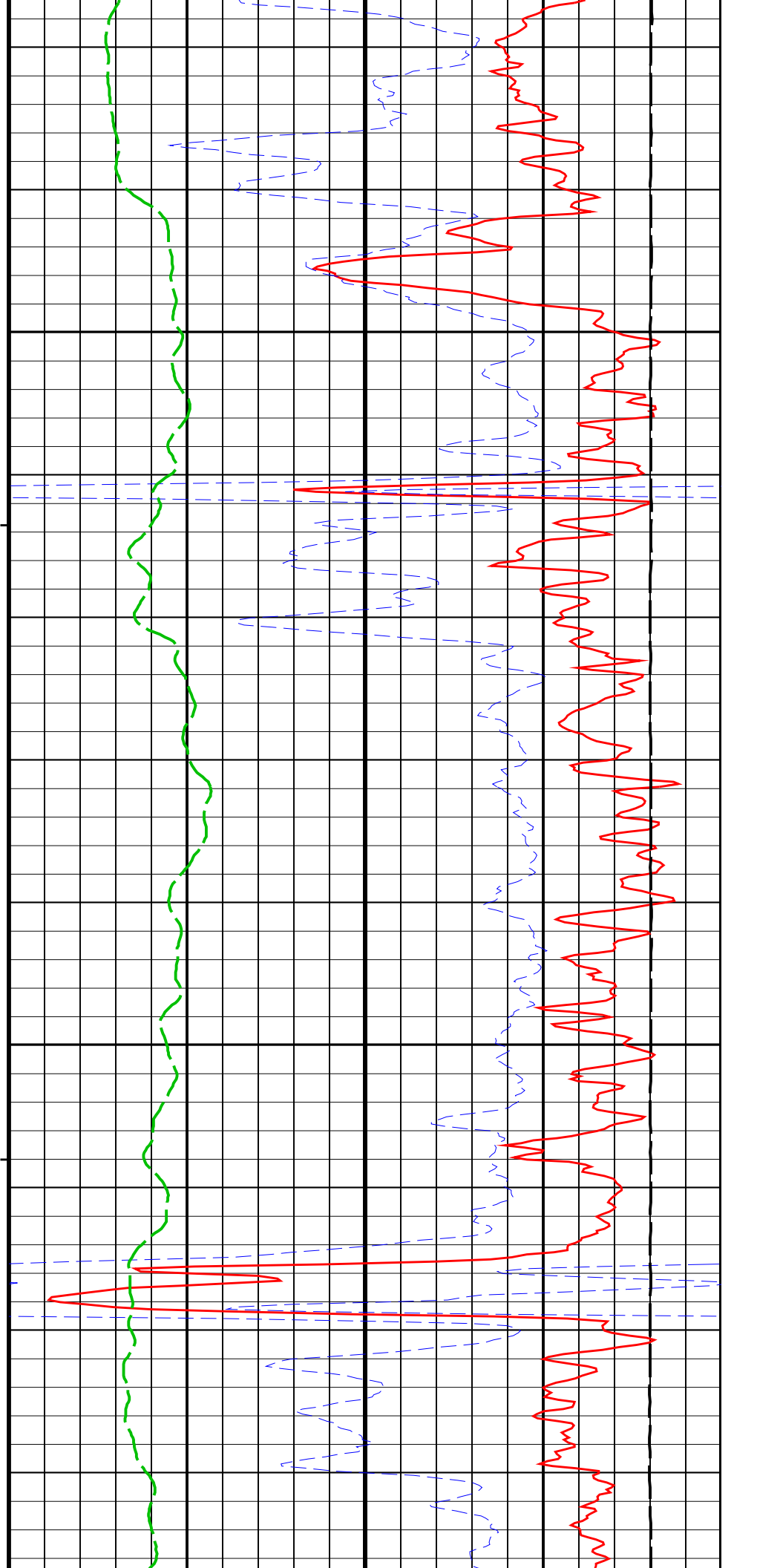


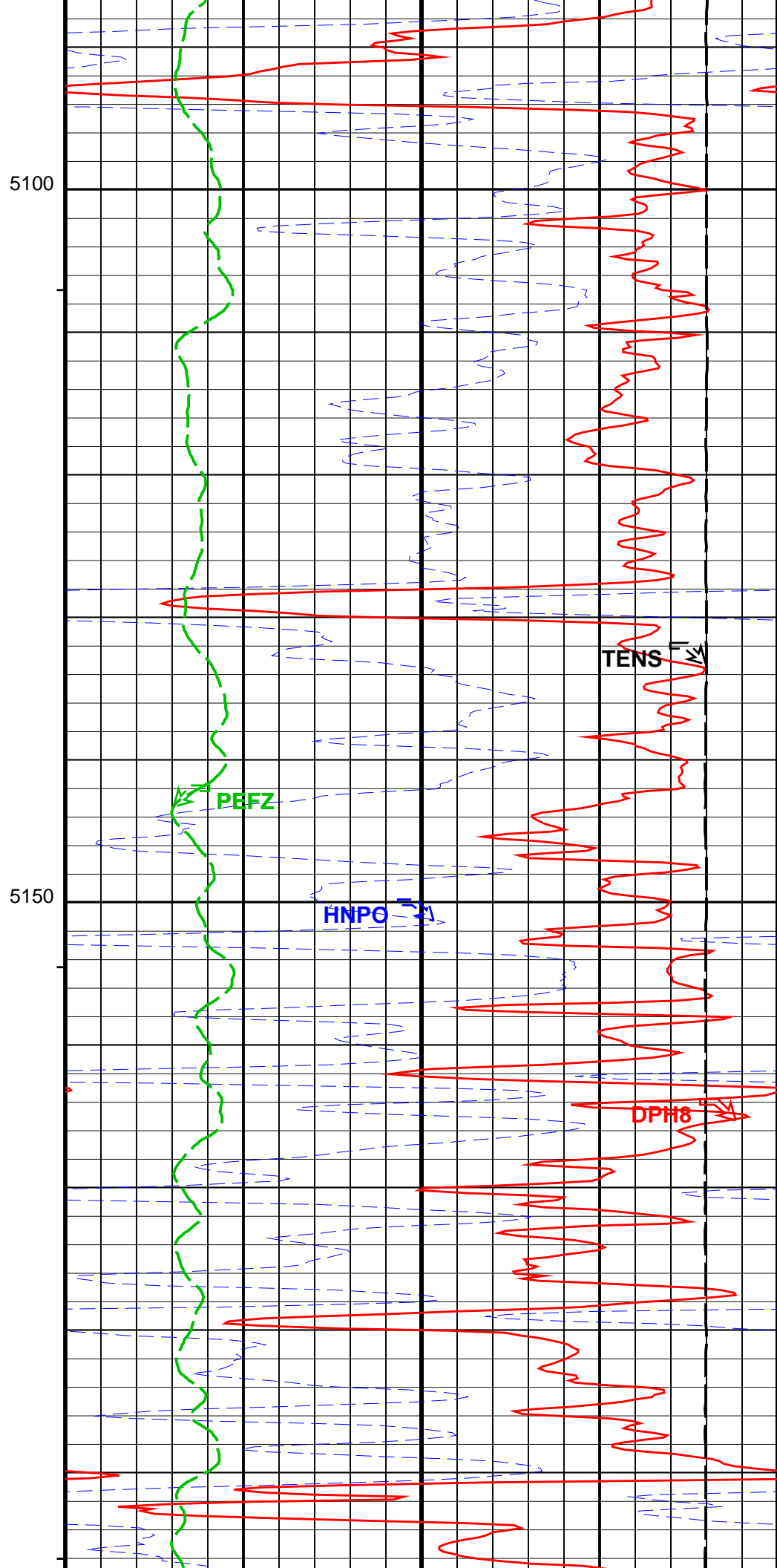
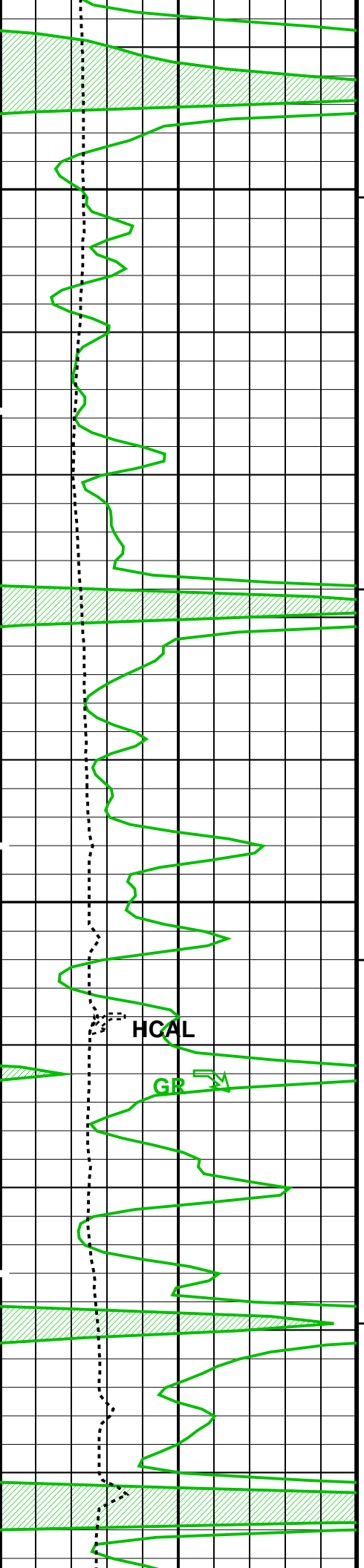


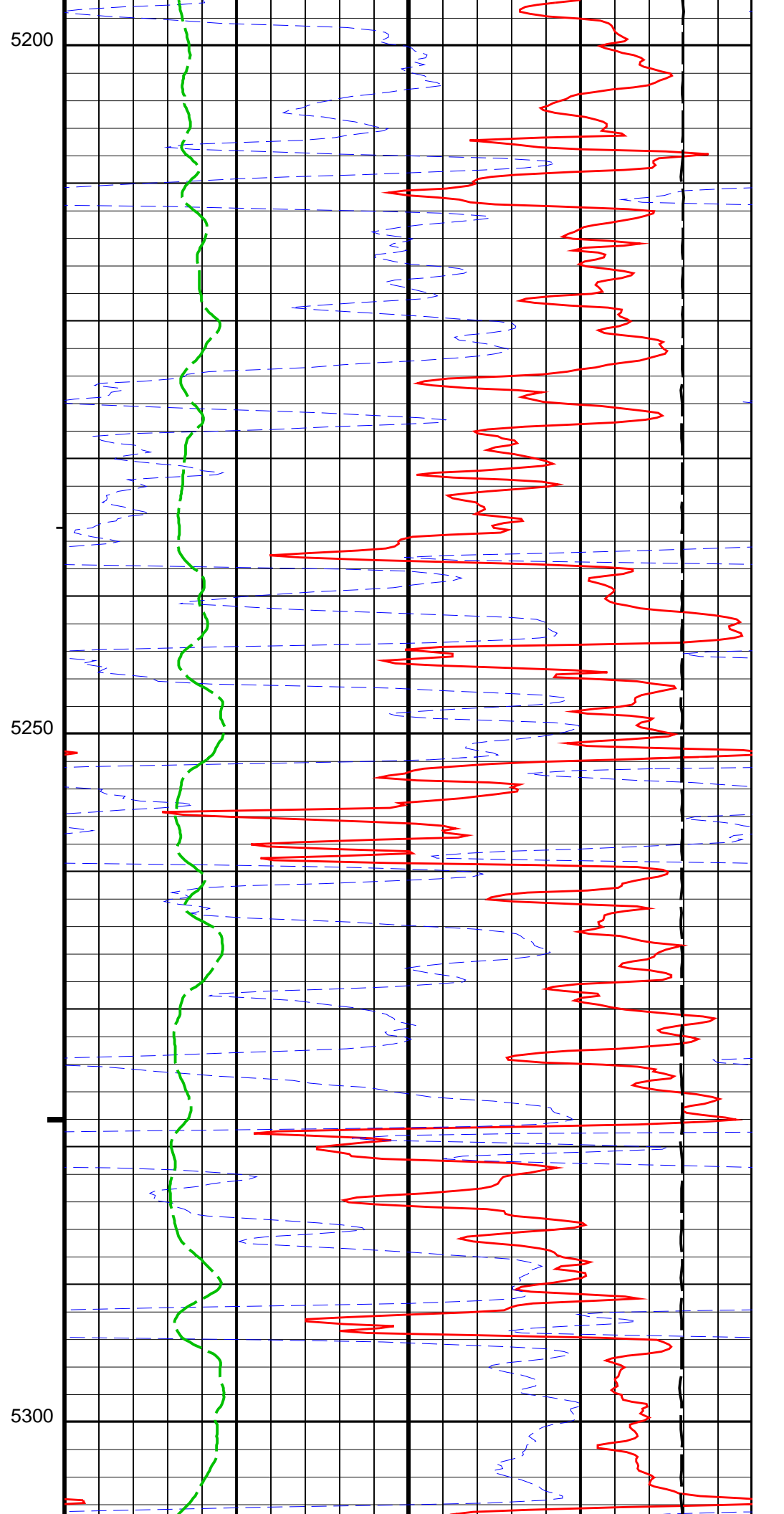
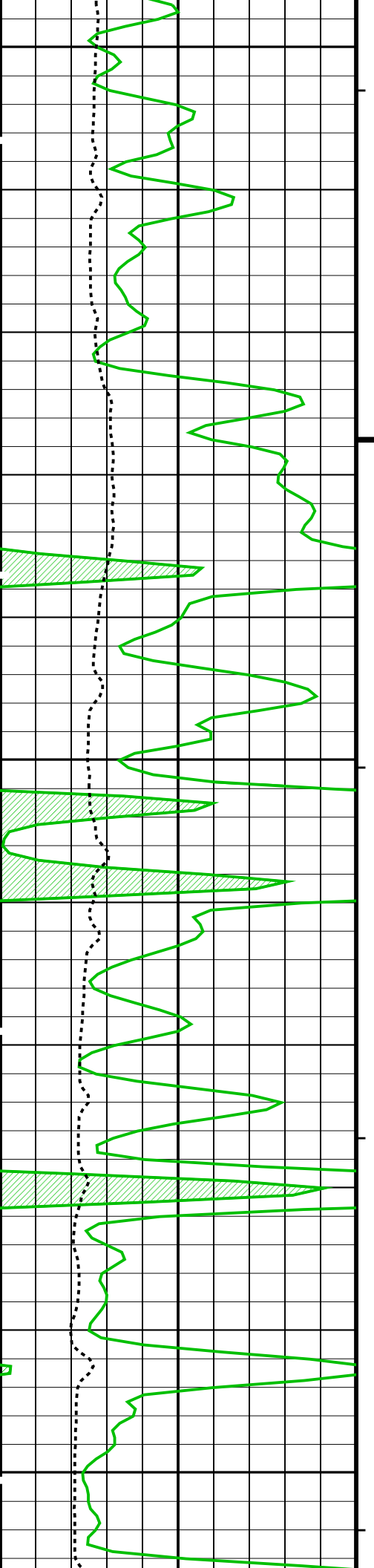


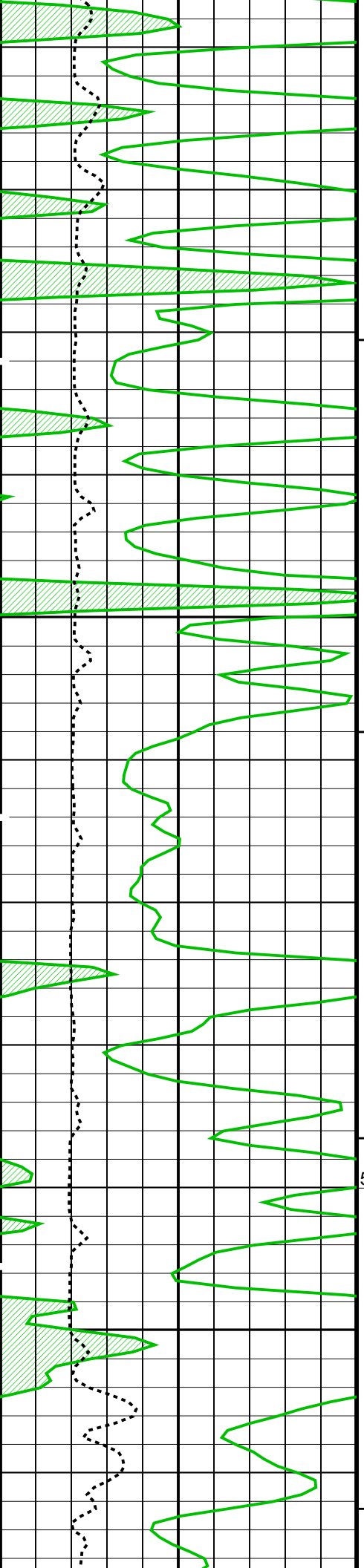
5000

5050





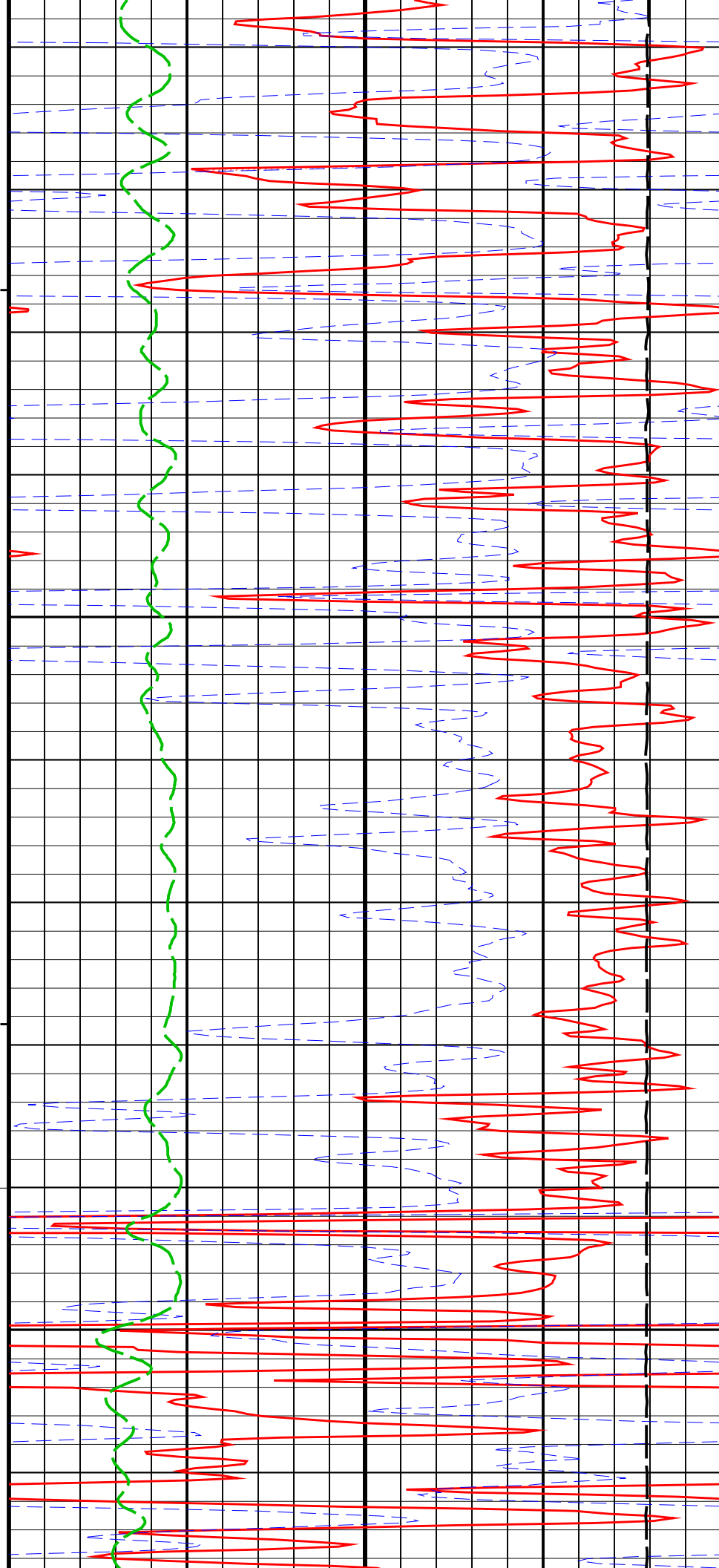


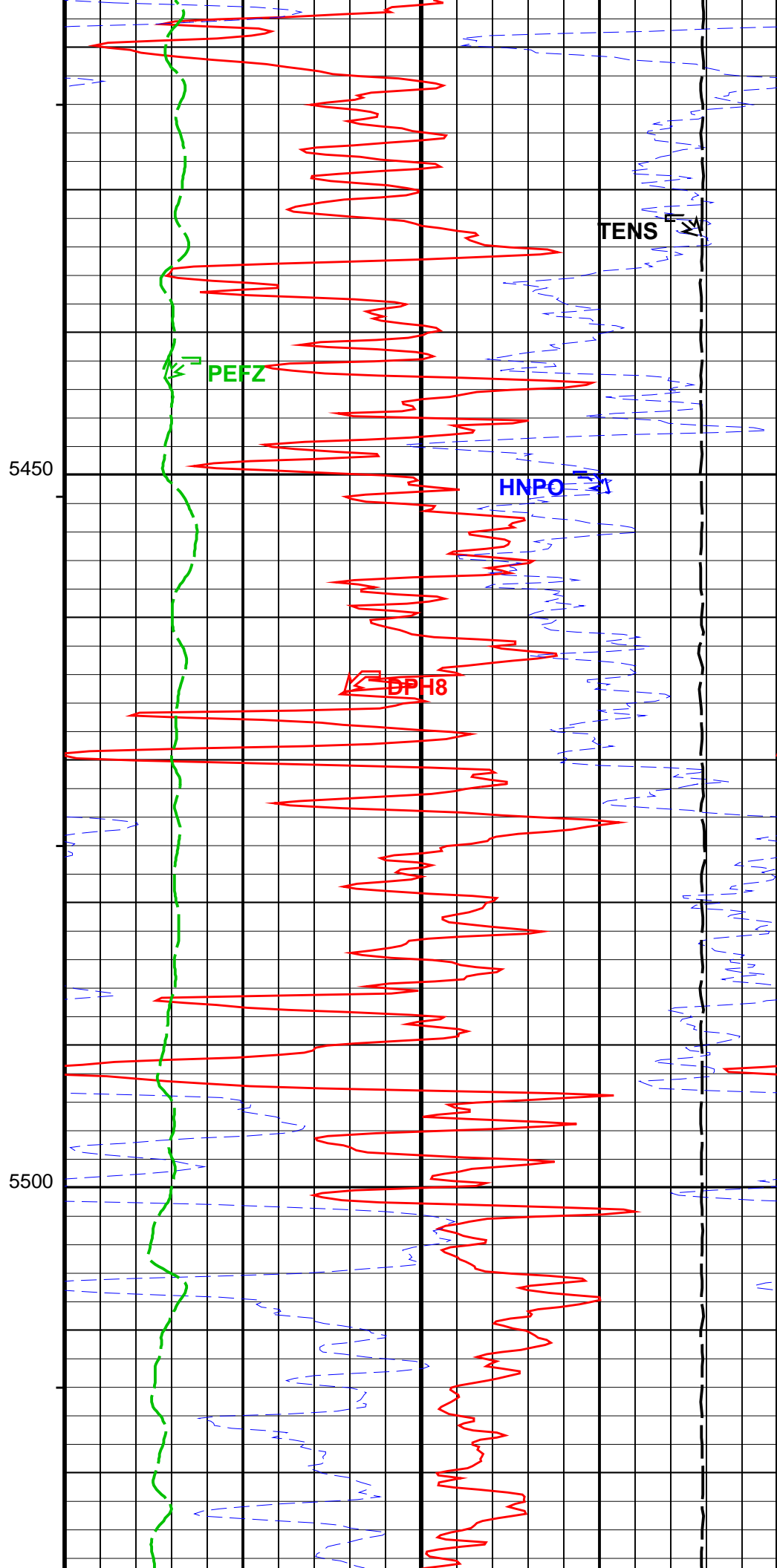
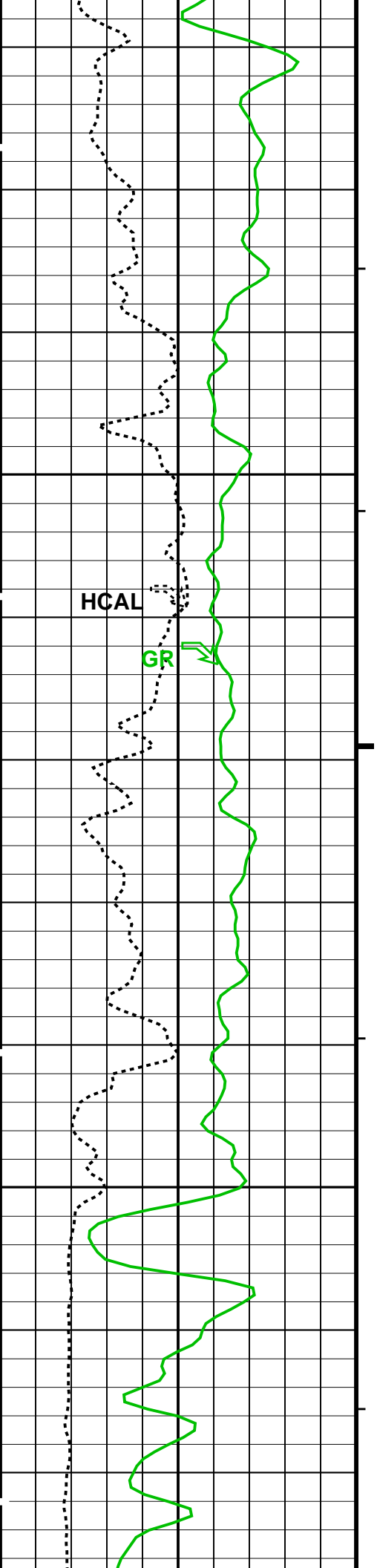


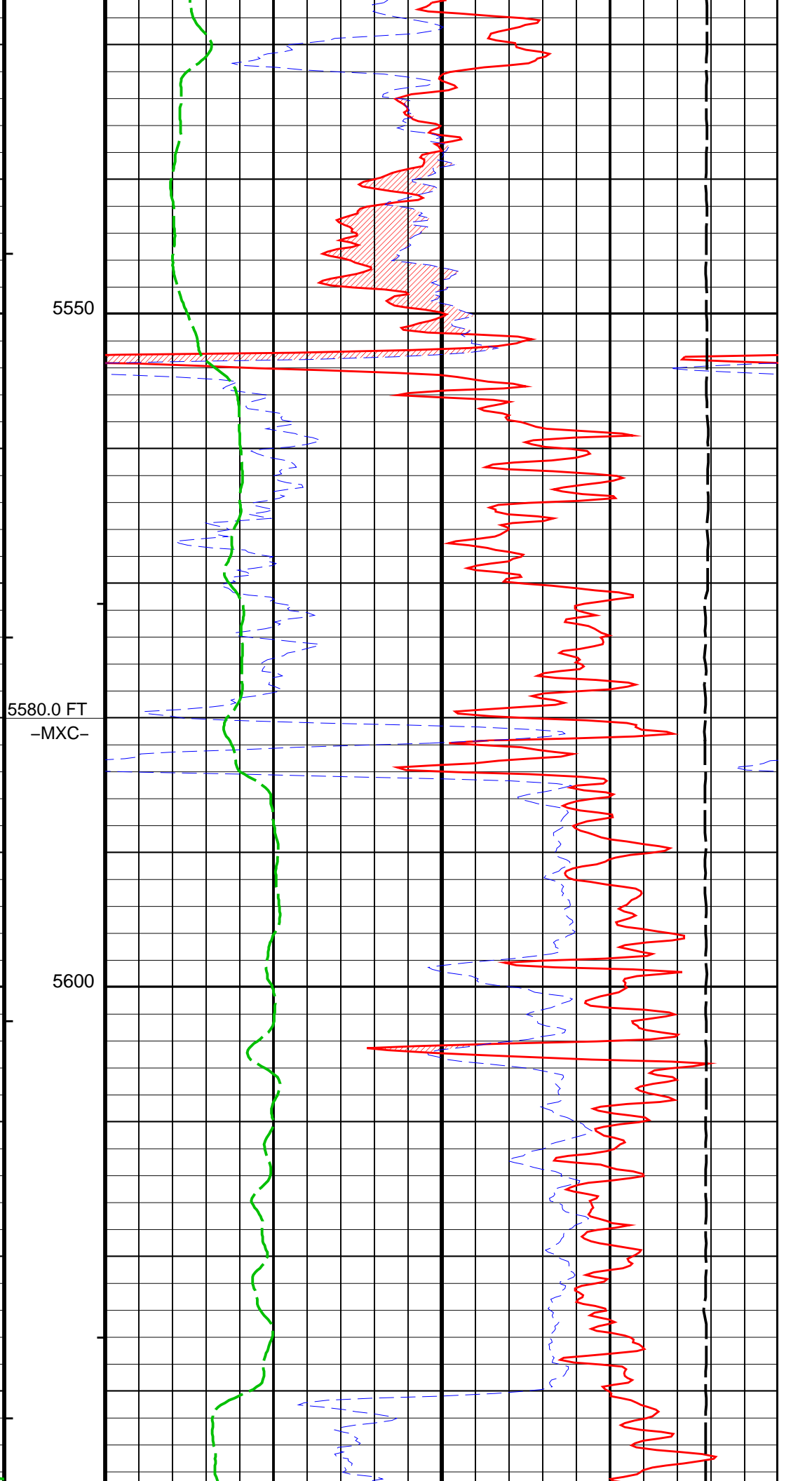
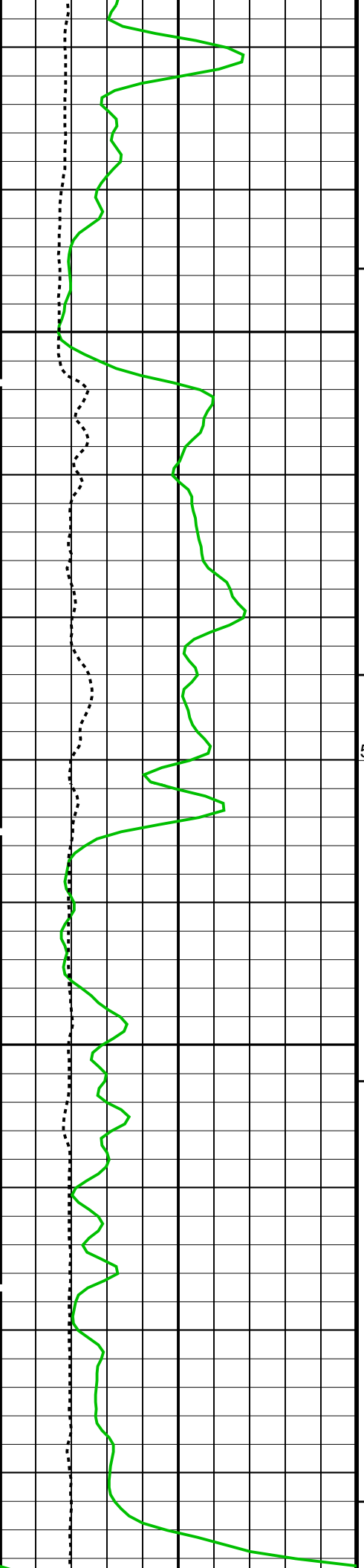
5350

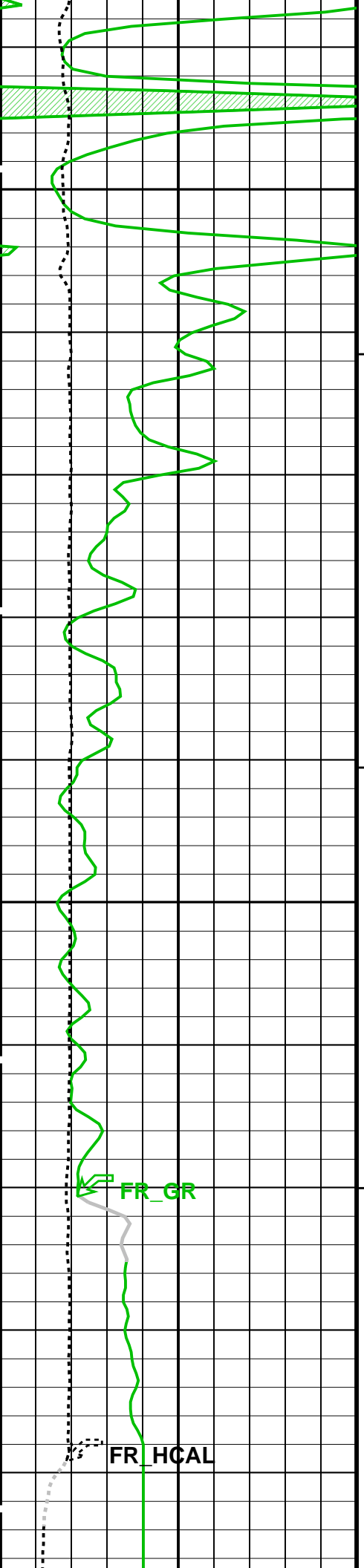
5390.0 FT
-MXC-

5400



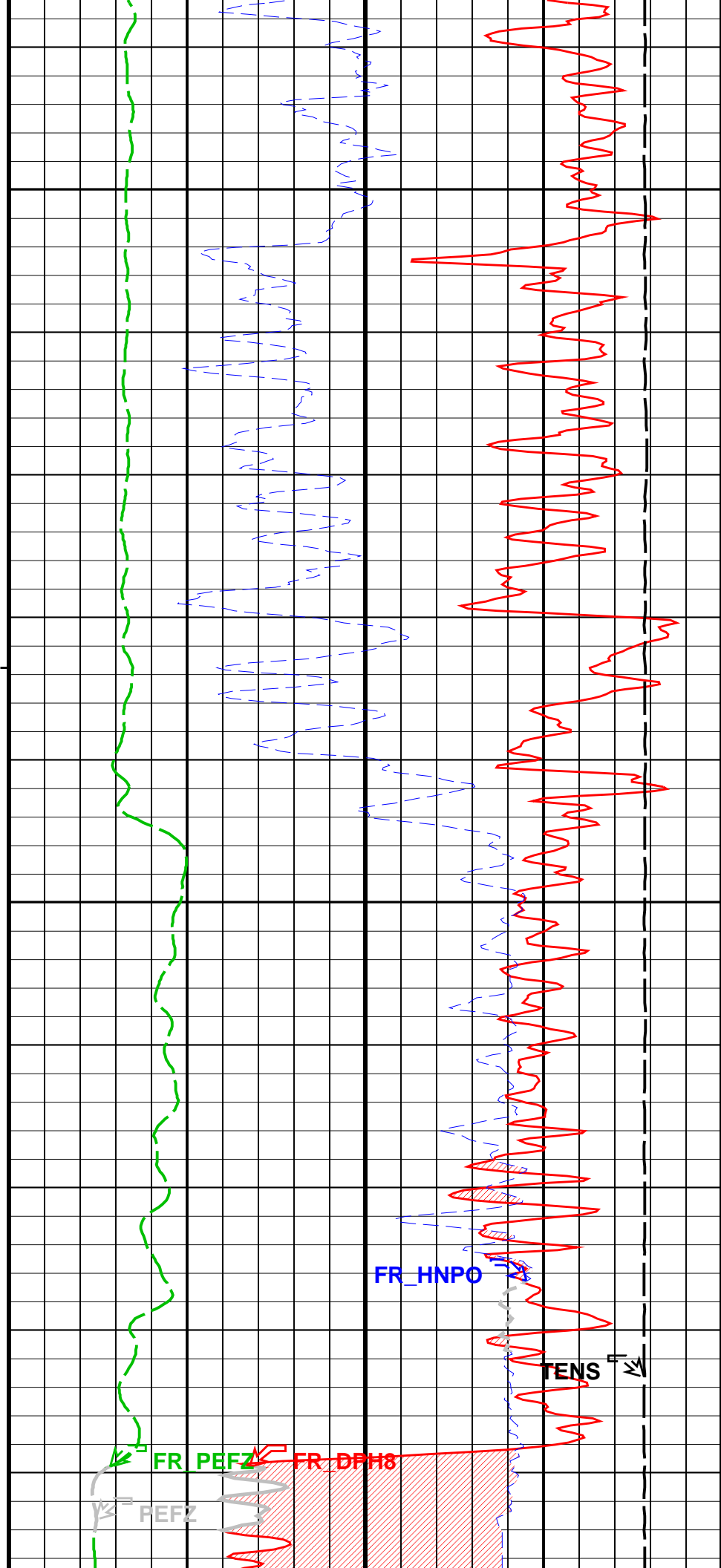


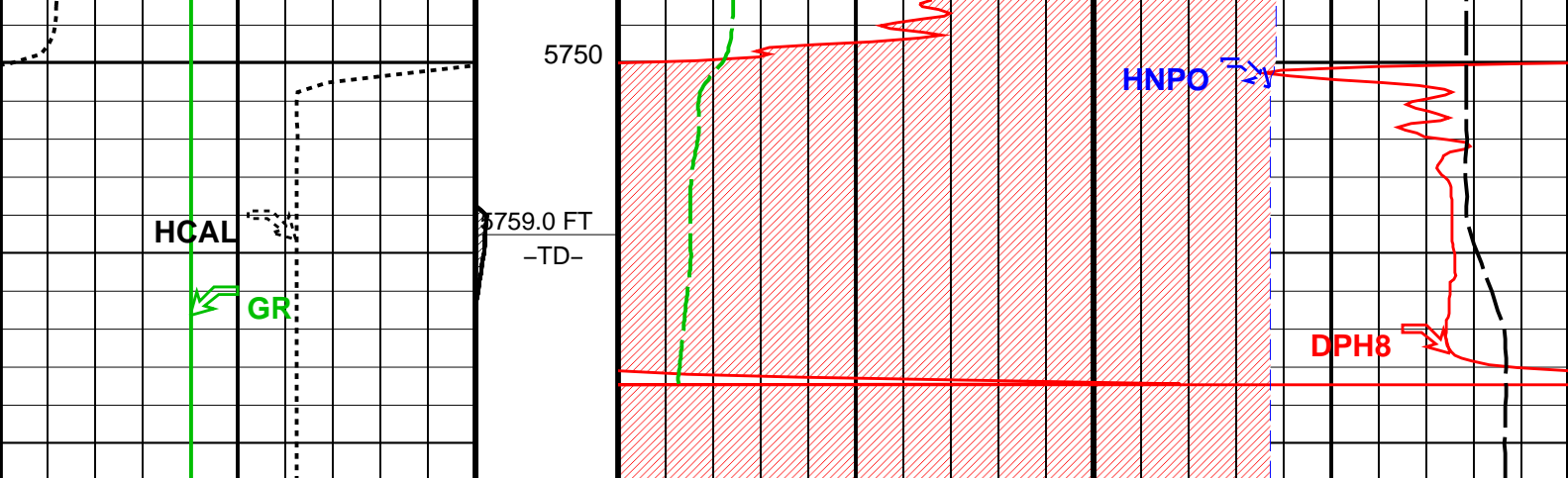




5650

5700





MAIN PASS: *** PLATFORM EXPRESS - NUCLEAR POROSITY ***

Gamma Ray Backup	Cable Drag	H. Res. Density Porosity (DPH8)	
		0.3	(V/V) -0.1
Gamma Ray (GR)	Tool/Tot. Drag	HiRes NPOR (HNPO)	
0 (GAPI) 200		0.3	(V/V) -0.1
Caliper (HCAL)	Stuck Stretch (STIT)	Std. Res. Formation Pe (PEFZ)	
6 (IN) 16	0 (F) 50	0	10 10000
		Tension (TENS)	
			(LBF) 0
		Gas Effect	

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	
AIT-M: Array Induction Tool – M			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	–50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.71	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	

SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	5760.00	FT
TDL	Total Depth – Logger	5759.00	FT
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	300.00	PPM
CSIZ	Current Casing Size	8.625	IN
CWEI	Casing Weight	24.00	LB/F
DFD	Drilling Fluid Density	9.10	LB/G
DO	Depth Offset for Playback	2.0	FT
MST	Mud Sample Temperature	61.10	DEGF
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	1.2180	OHMM
TD	Total Depth	5759	FT

Format: PORO_HIRES Vertical Scale: 10" per 100' Graphics File Created: 23-Mar-2010 15:03

OP System Version: 17C0-154

AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_004LUP	FN:3	PRODUCER	23-Mar-2010 12:52	5770.5 FT	4563.5 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_016PUP	FN:15	PRODUCER	23-Mar-2010 15:02		
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Schlumberger

Repeat Analysis

MAXIS Field Log

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_008LUP	FN:7	PRODUCER	23-Mar-2010 13:43	5775.0 FT	401.5 FT
DEFAULT	AIT_TLD_MCFL_CNL_016PUP	FN:15	PRODUCER	23-Mar-2010 15:02	5772.0 FT	4565.5 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_017PUP	FN:16	PRODUCER	23-Mar-2010 15:04		
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OP System Version: 17C0-154

AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

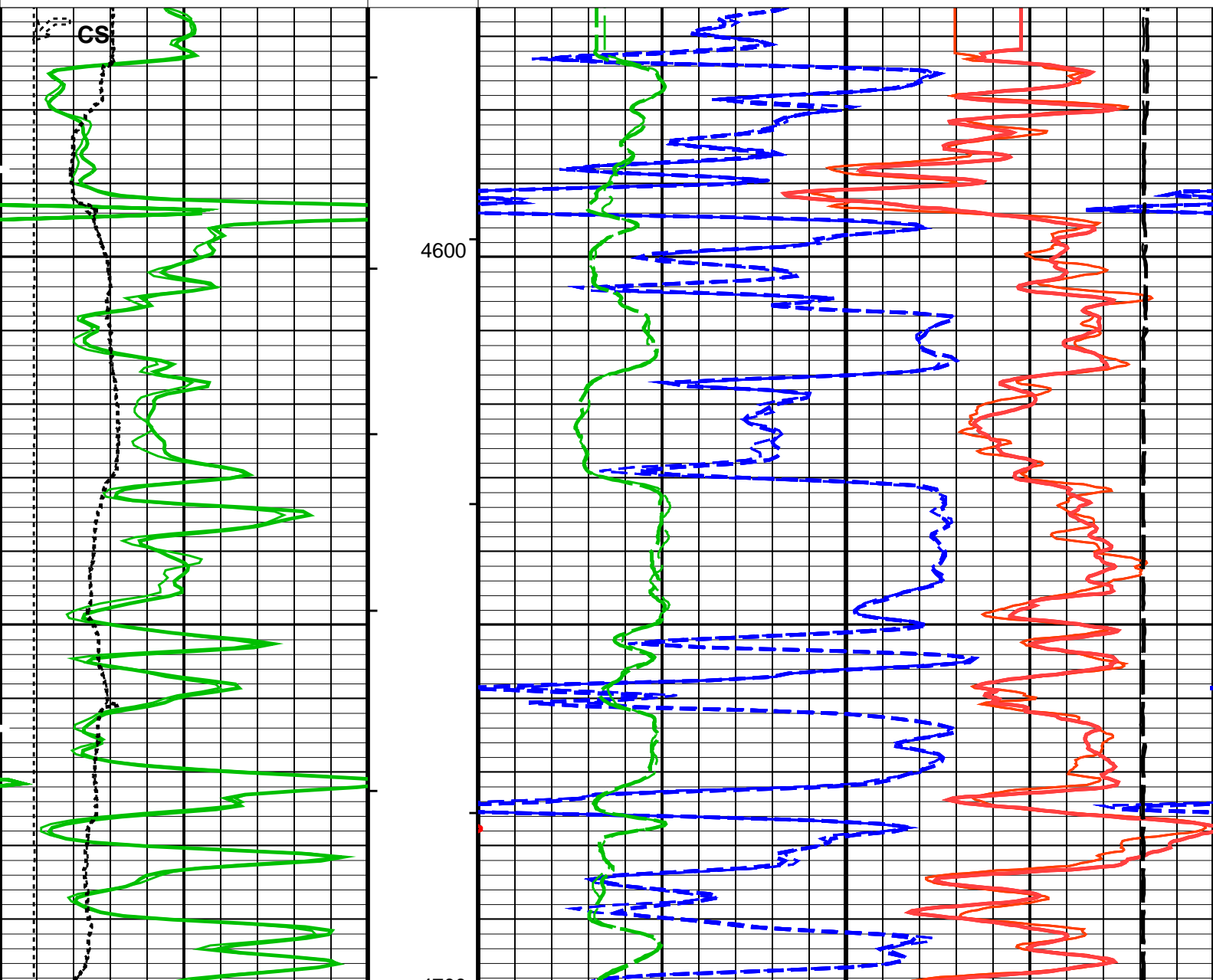
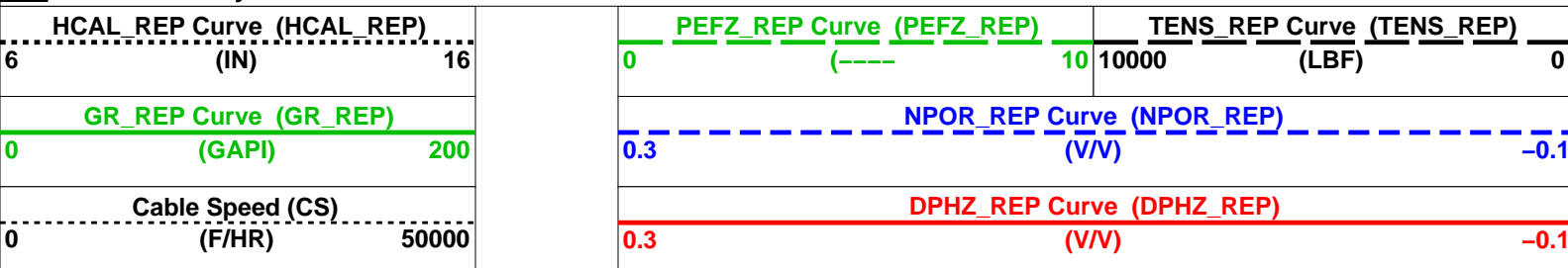
Changed Parameter Summary

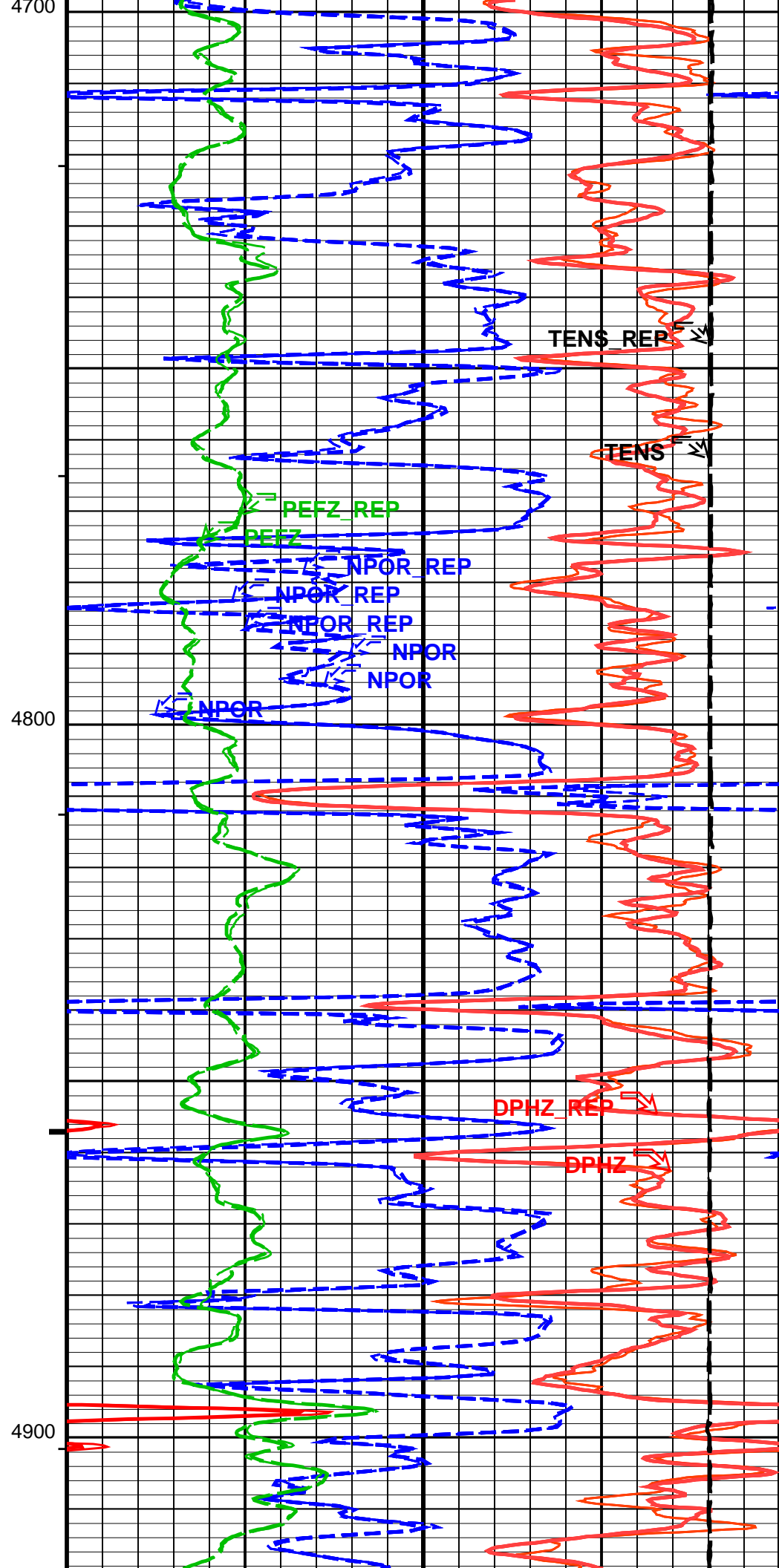
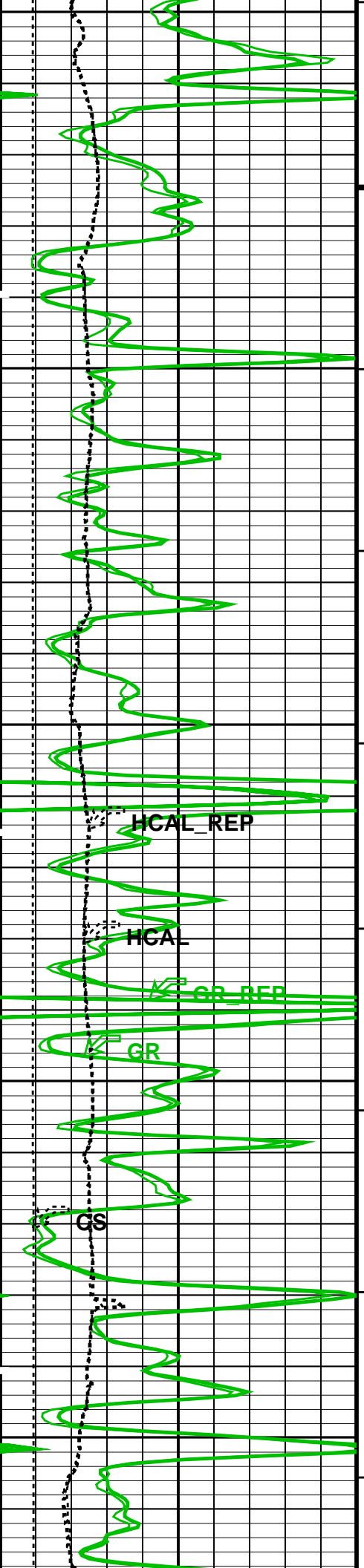
DLIS Name	New Value	Previous Value	Depth & Time
MATR	LIMESTONE	SANDSTONE	5775.0 15:04:49
	SANDSTONE	LIMESTONE	5390.0 15:05:01
MDEN	2.71 G/C3	2.65 G/C3	5775.0 15:04:49
	2.65 G/C3	2.71 G/C3	5390.0 15:05:01

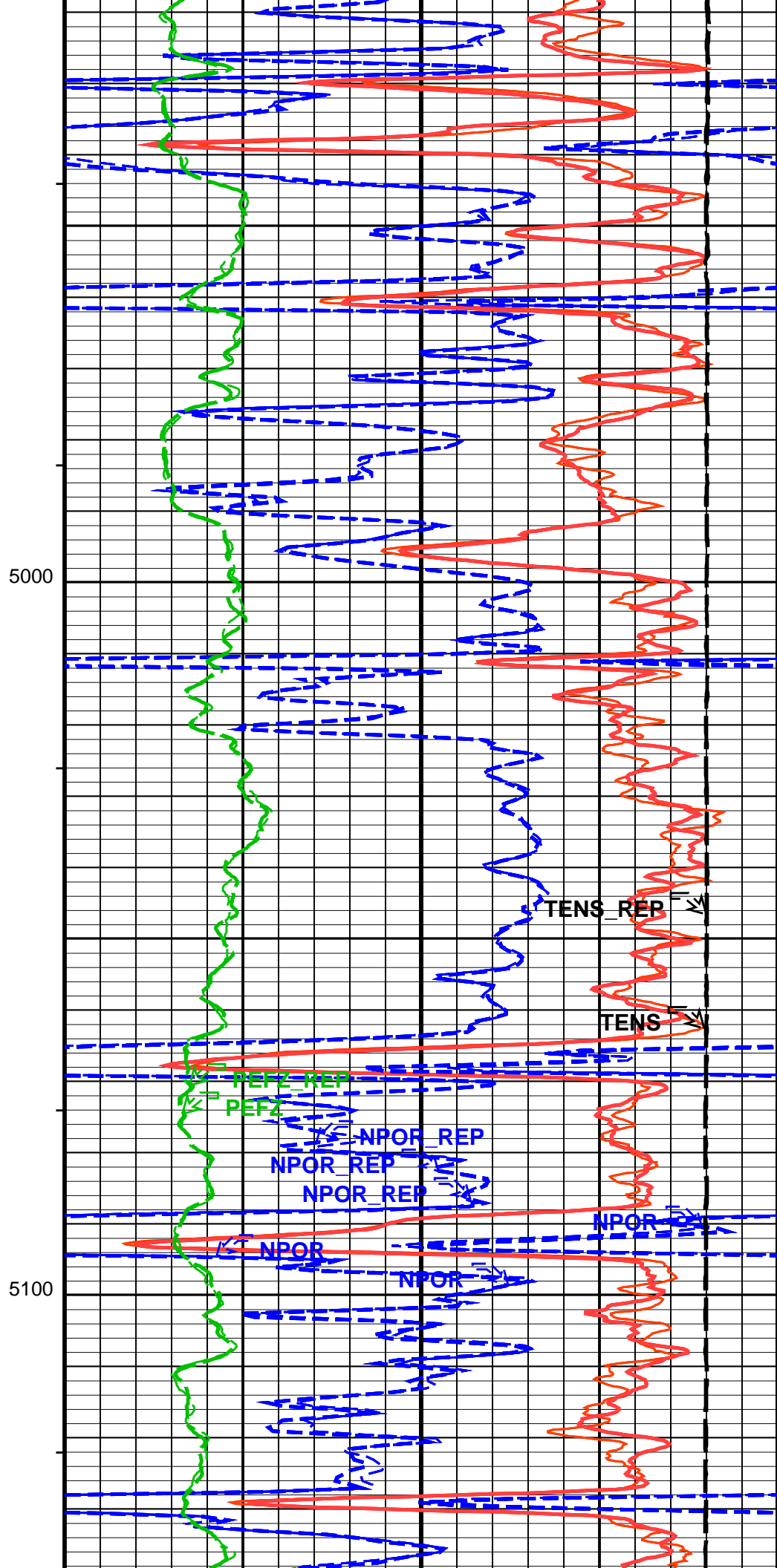
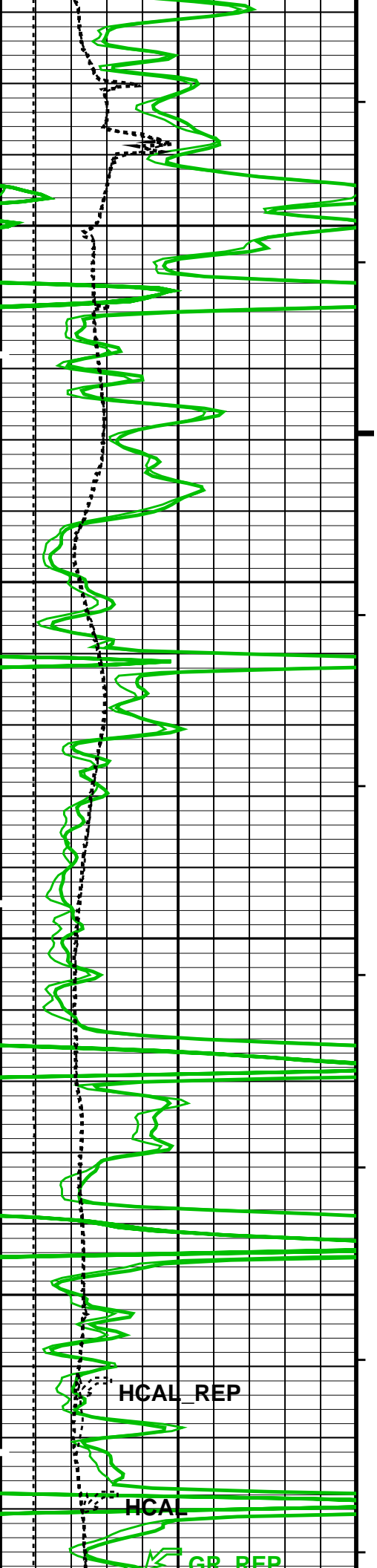
PIP SUMMARY

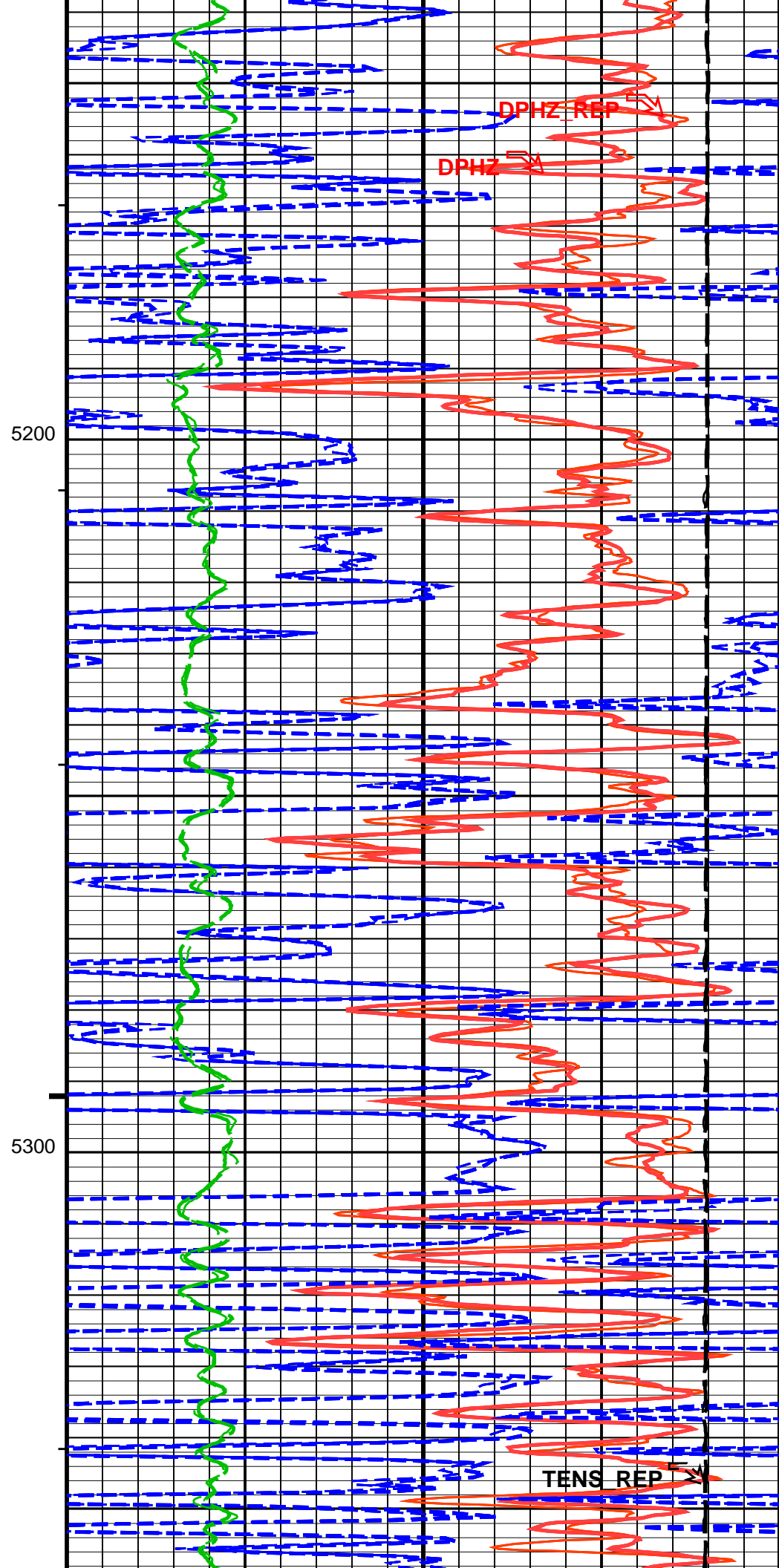
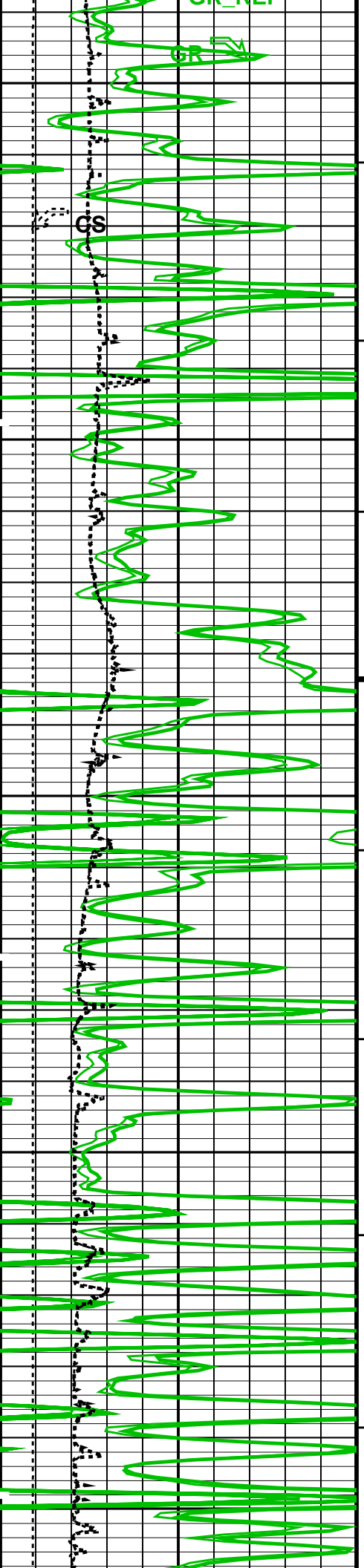
- └ Integrated Hole Volume Minor Pip Every 10 F3
- └ Integrated Hole Volume Major Pip Every 100 F3
- └ Integrated Cement Volume Minor Pip Every 10 F3
- └ Integrated Cement Volume Major Pip Every 100 F3

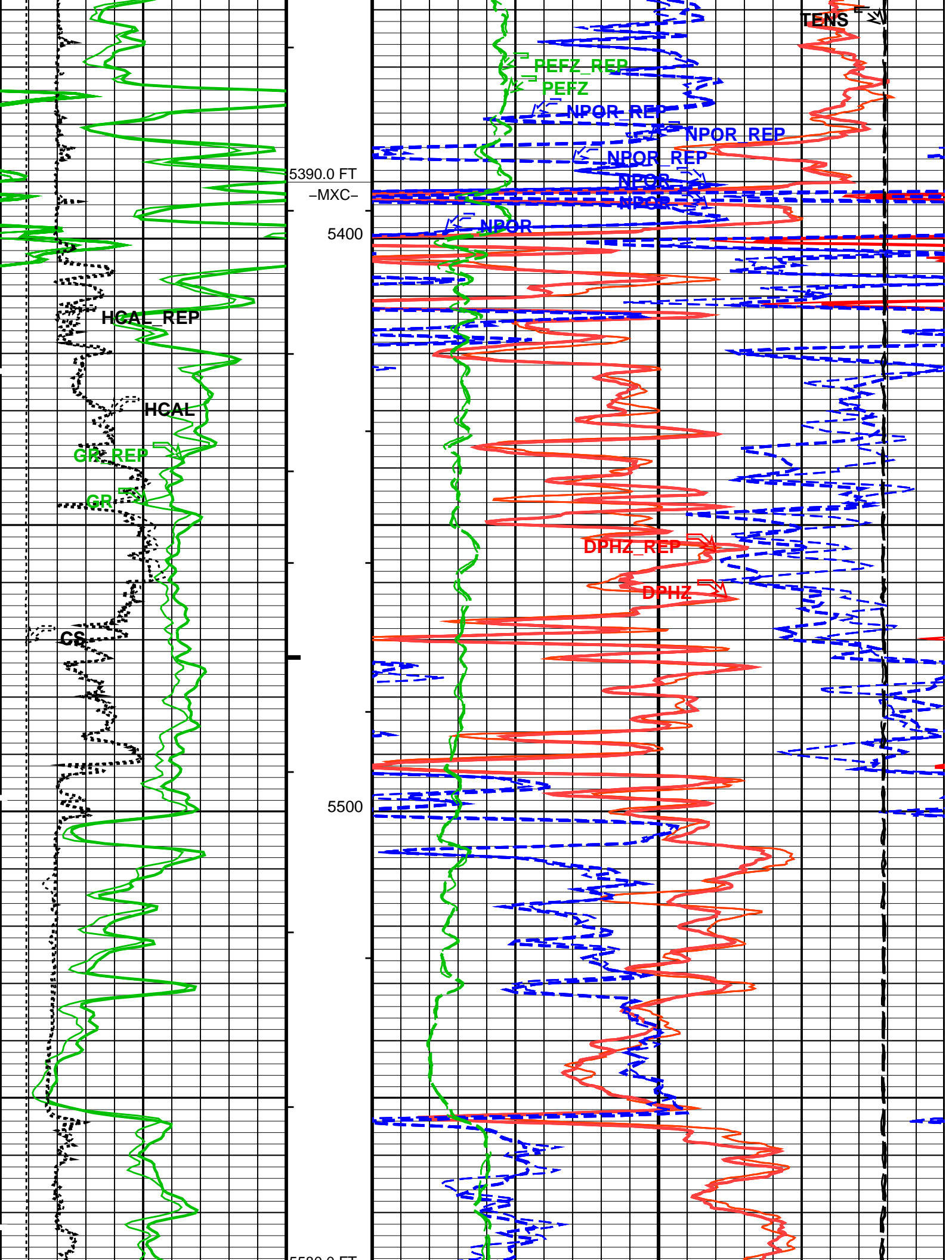
Time Mark Every 60 S

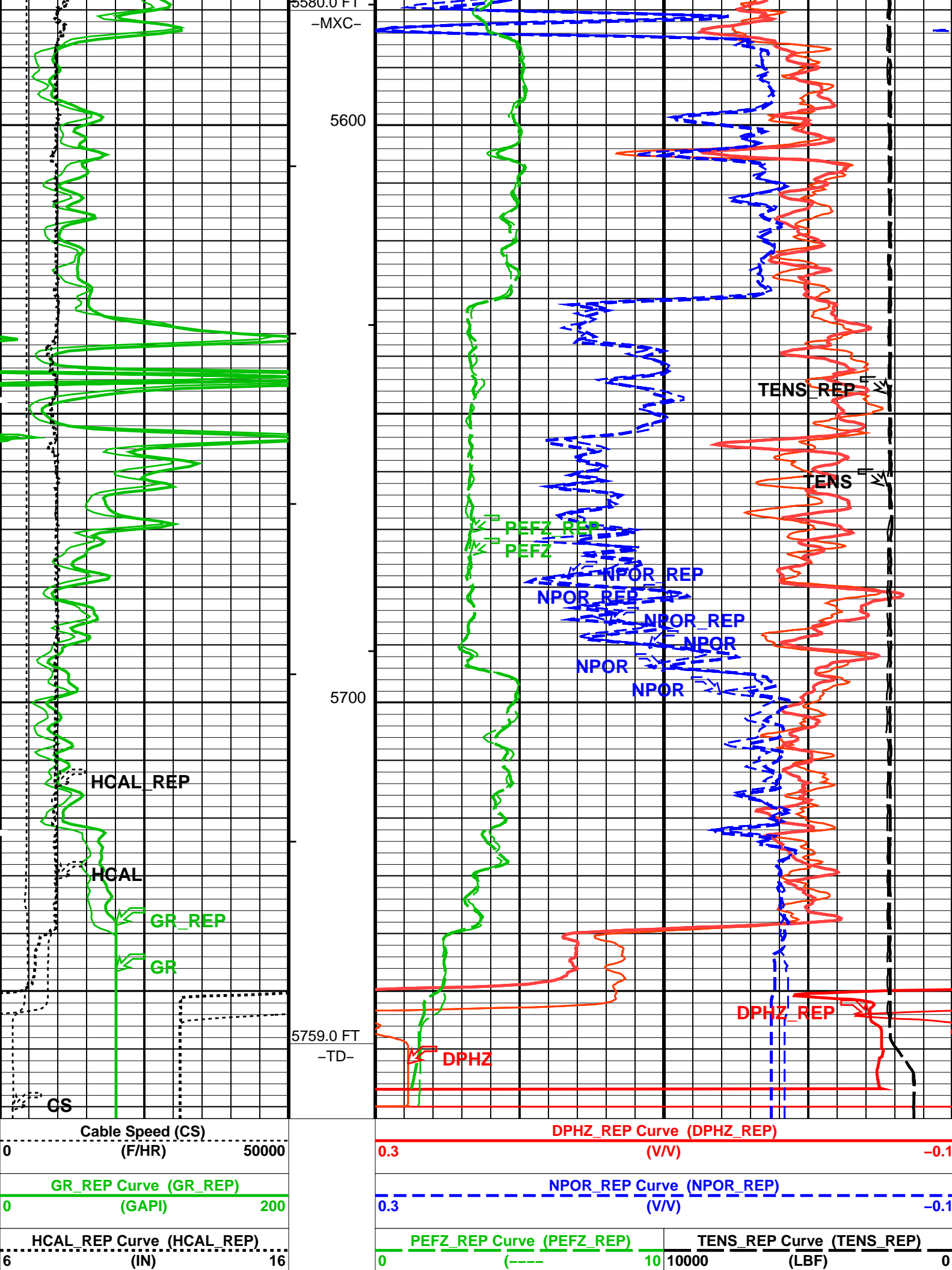












PIP SUMMARY

- └ 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	
AIT-M: Array Induction Tool – M			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FSAL	Formation Salinity	–50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.65	G/C3
MWCO	Mud Weight Correction Option	NO	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	68	DEGF
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
TDL	Total Depth – Logger	5759.00	FT
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
FCD	Future Casing (Outer) Diameter	5.5	IN
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
HVCS	Integrated Hole Volume Caliper Selection	HCAL	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	300.00	PPM
CSIZ	Current Casing Size	8.625	IN
CWEI	Casing Weight	24.00	LB/F
DFD	Drilling Fluid Density	9.10	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
MST	Mud Sample Temperature	61.10	DEGF
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	1.2180	OHMM
TD	Total Depth	5759	FT

Format: PORO_REP Vertical Scale: 5" per 100'

Graphics File Created: 23-Mar-2010 15:04

AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_008LUP	FN:7	PRODUCER	23-Mar-2010 13:43	5775.0 FT	401.5 FT
DEFAULT	AIT_TLD_MCFL_CNL_016PUP	FN:15	PRODUCER	23-Mar-2010 15:02	5772.0 FT	4565.5 FT

Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_017PUP	FN:16	PRODUCER	23-Mar-2010 15:04		
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Schlumberger

Main Pass

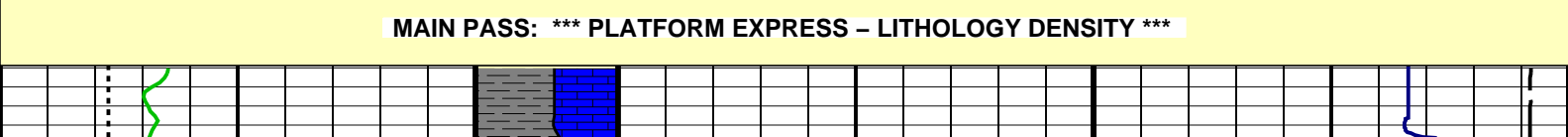
MAXIS Field Log

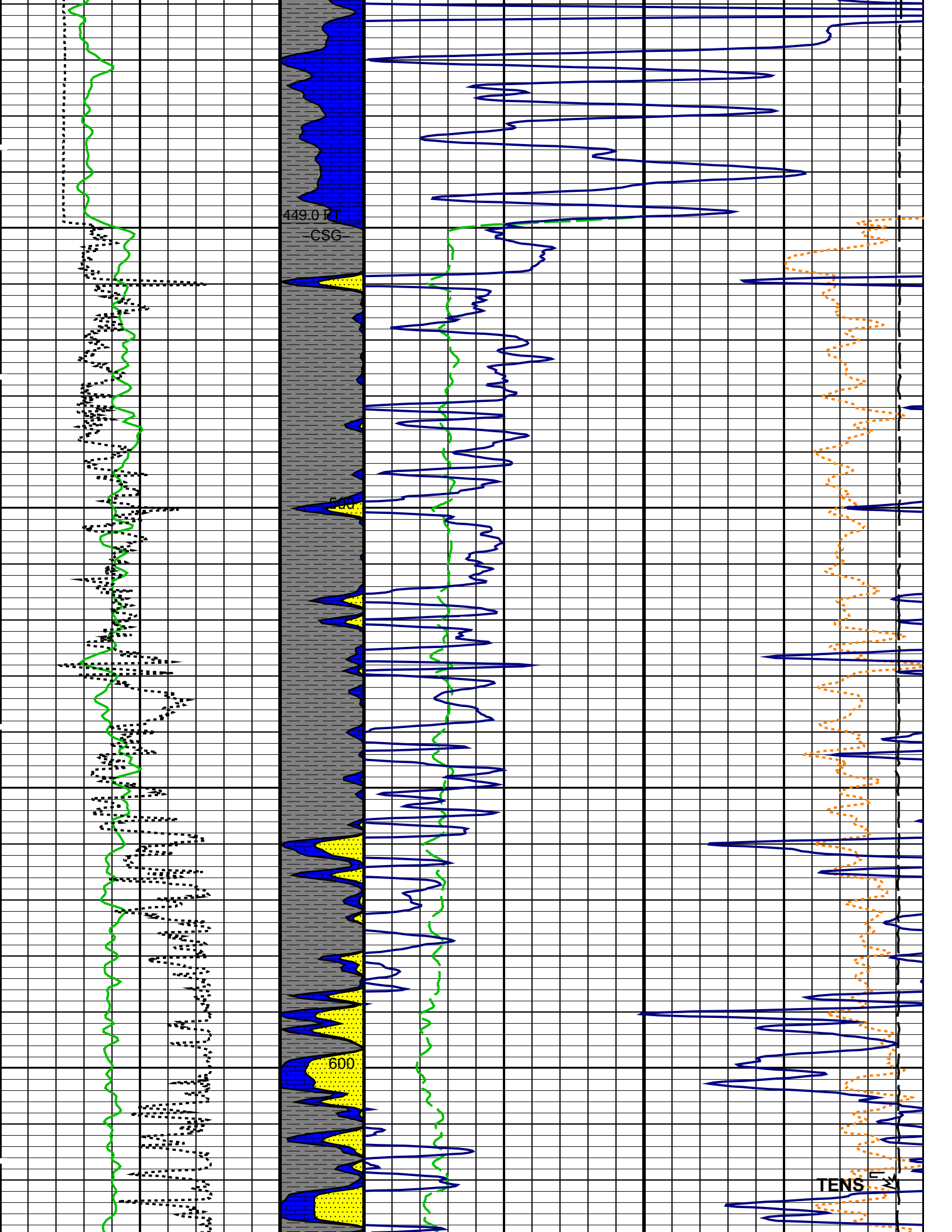
Input DLIS Files						
DEFAULT	AIT_TLD_MCFL_CNL_008LUP	FN:7	PRODUCER	23-Mar-2010 13:43	5775.0 FT	401.5 FT
Output DLIS Files						
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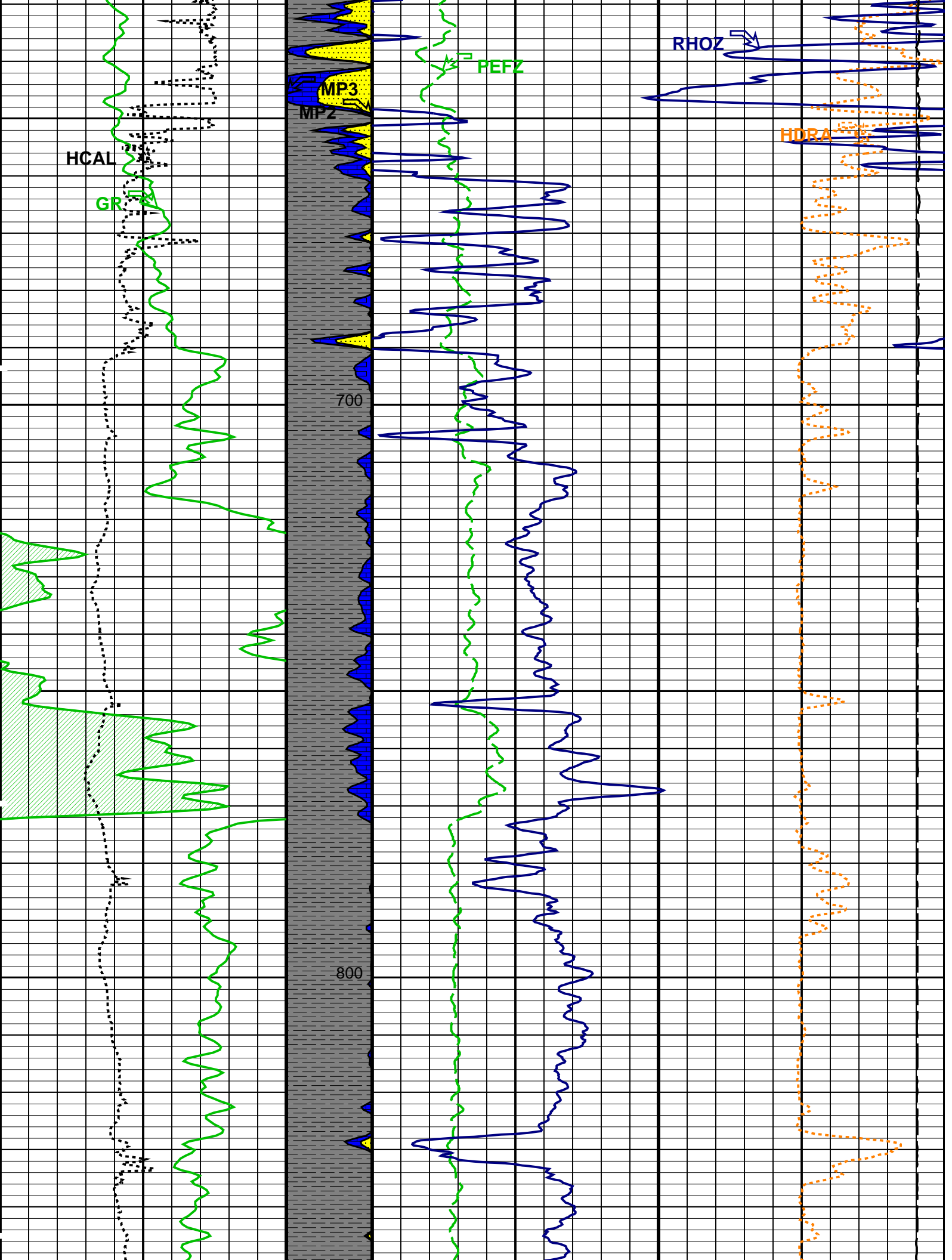
OP System Version: 17C0-154			
AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

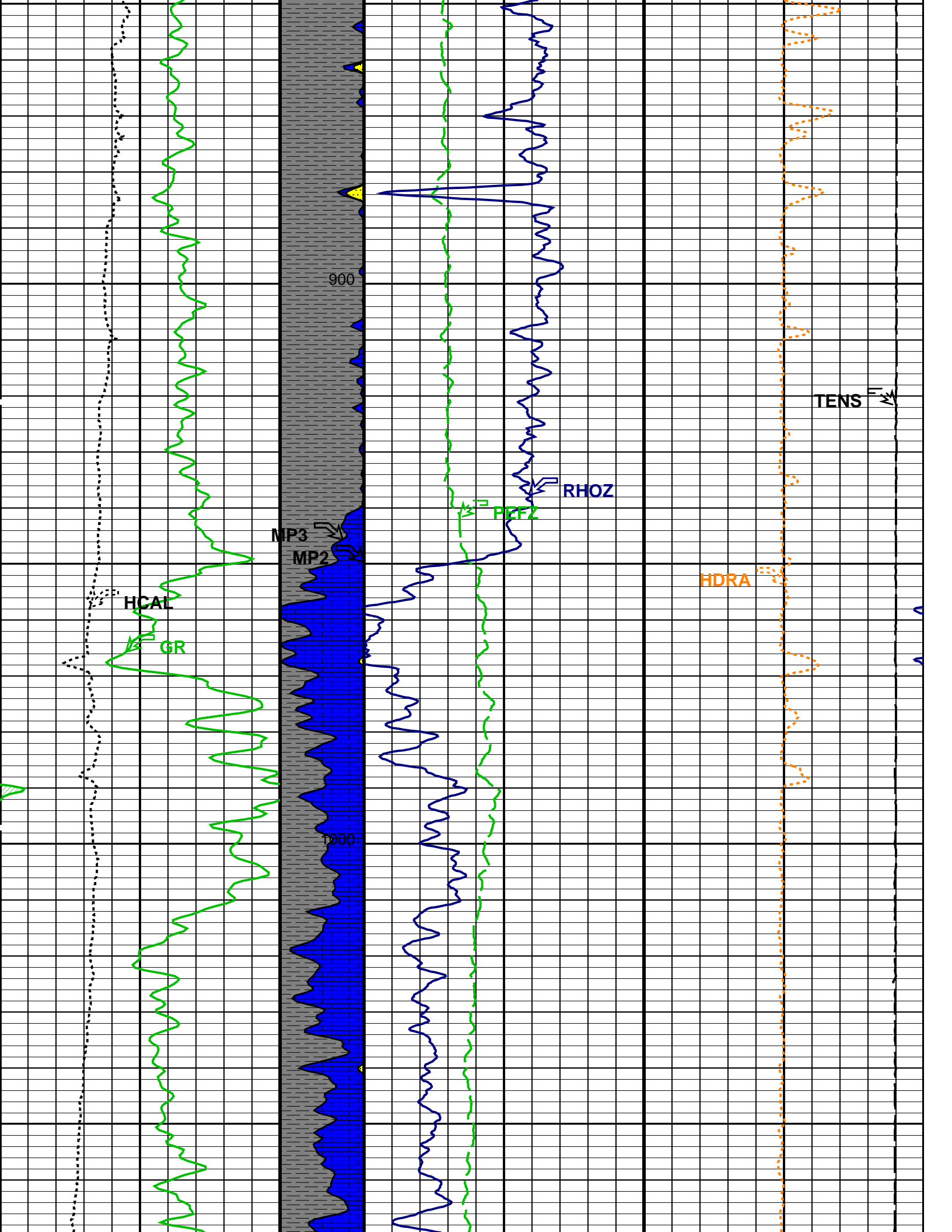
Changed Parameter Summary			
DLIS Name	New Value	Previous Value	Depth & Time
MATR	LIMESTONE	SANDSTONE	5775.0 15:04:49
	SANDSTONE	LIMESTONE	5390.0 15:05:01
POUT	LIMESTONE	SANDSTONE	5775.0 15:04:49
	SANDSTONE	LIMESTONE	5390.0 15:05:01

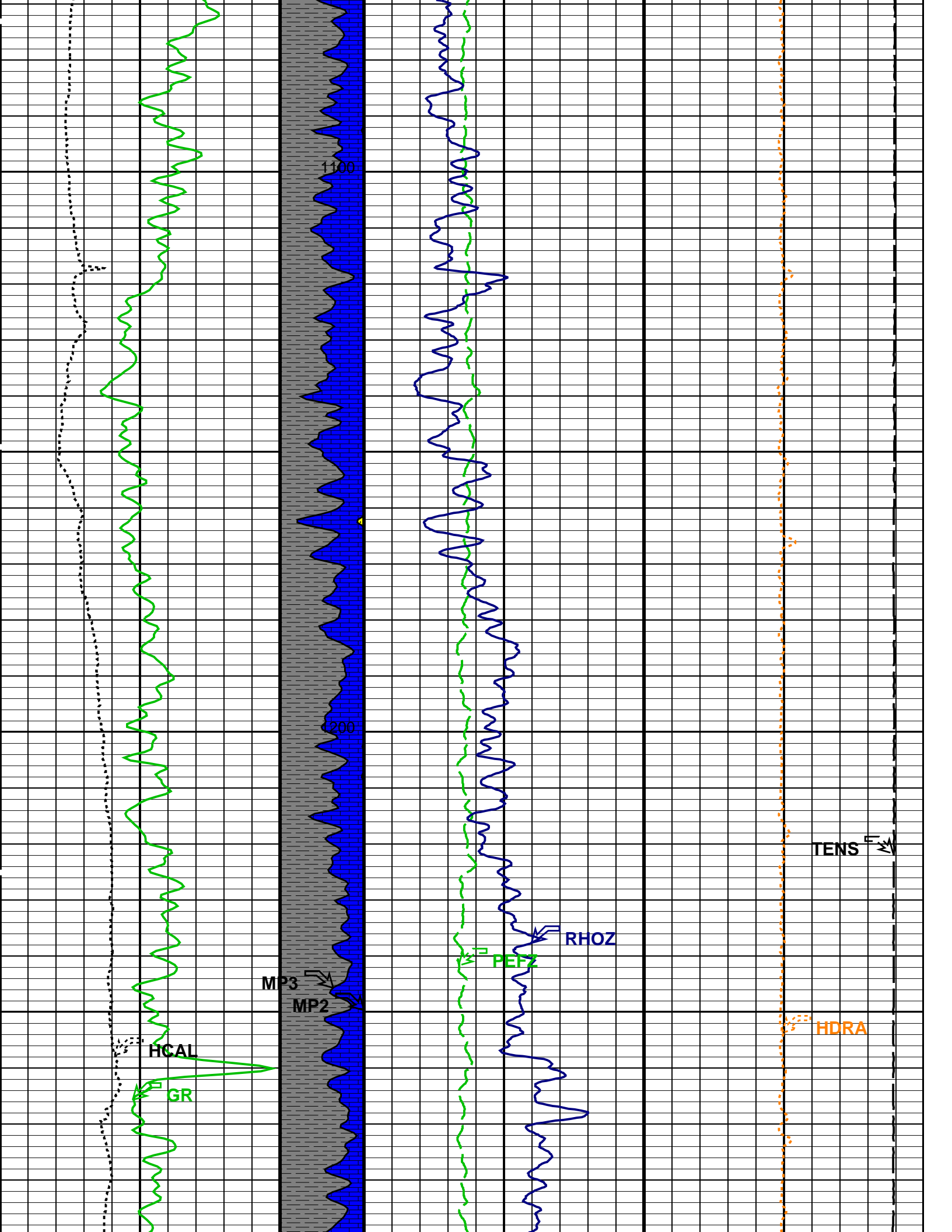
PIP SUMMARY			
Time Mark Every 60 S			
	SHALE		
Caliper (HCAL) (IN)	SAND	Tension (TENS) (LBF)	
6	16	10000	0
Gamma Ray (GR) (GAPI)	LIME	Std. Res. Formation Density (RHOZ) (G/C3)	
0	200	2	3
Gamma Ray Backup	Stuck Stretch (STIT)	Std. Res. Formation Pe (PEFZ) (----	Density Correction (HDRA) (G/C3)
	0 (F) 50	0 10	-0.25 0.25
MAIN PASS: *** PLATFORM EXPRESS - LITHOLOGY DENSITY ***			

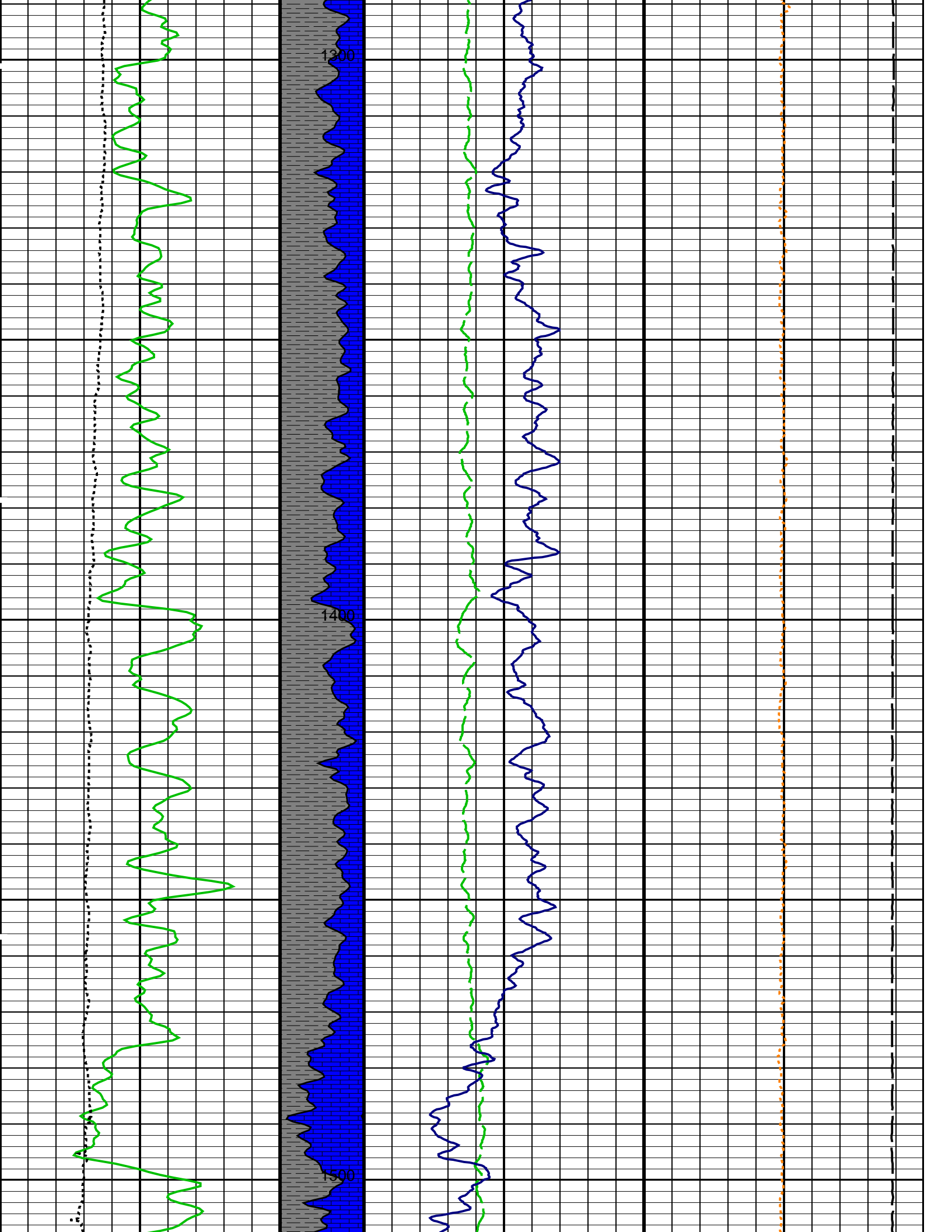


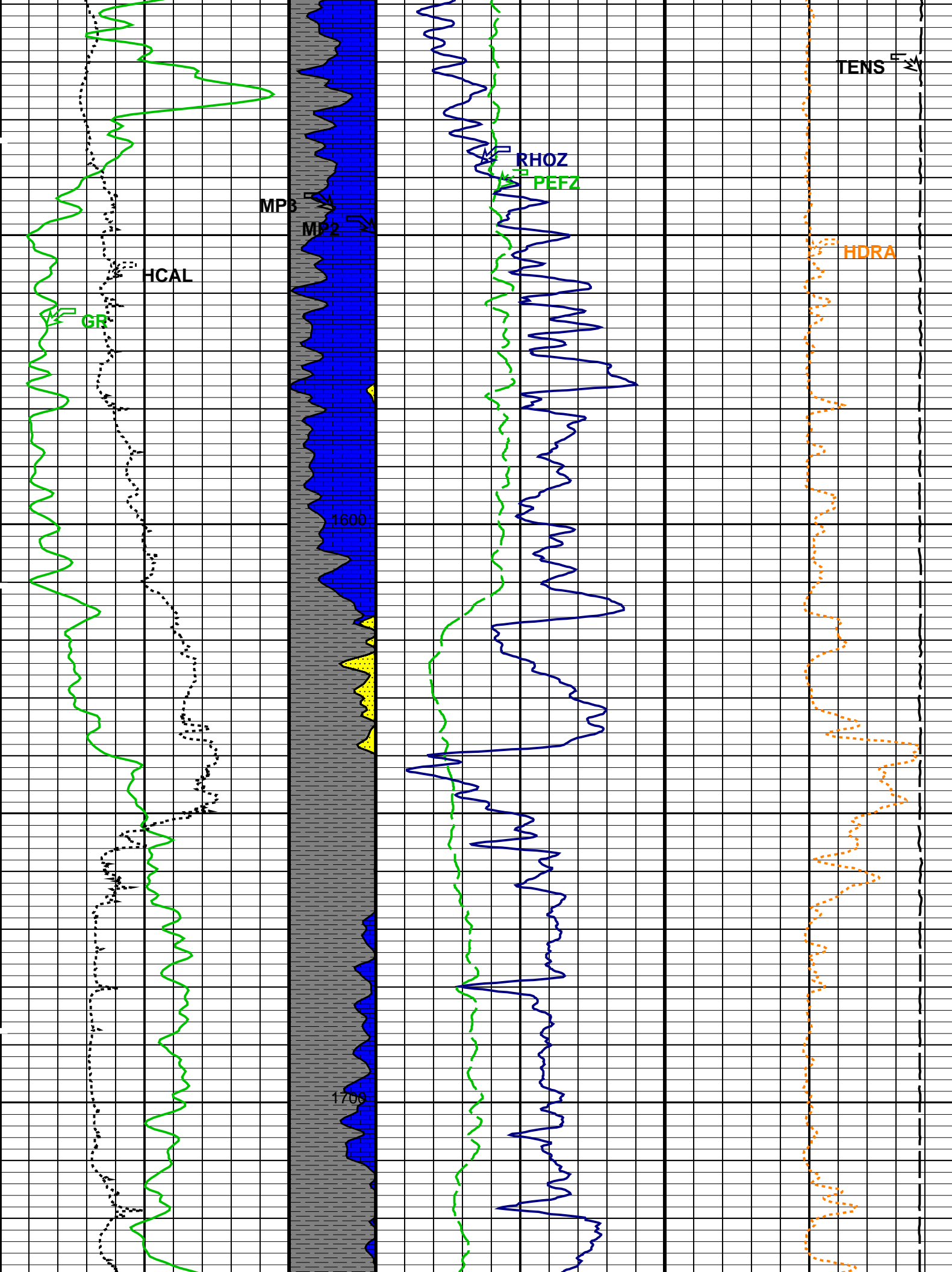


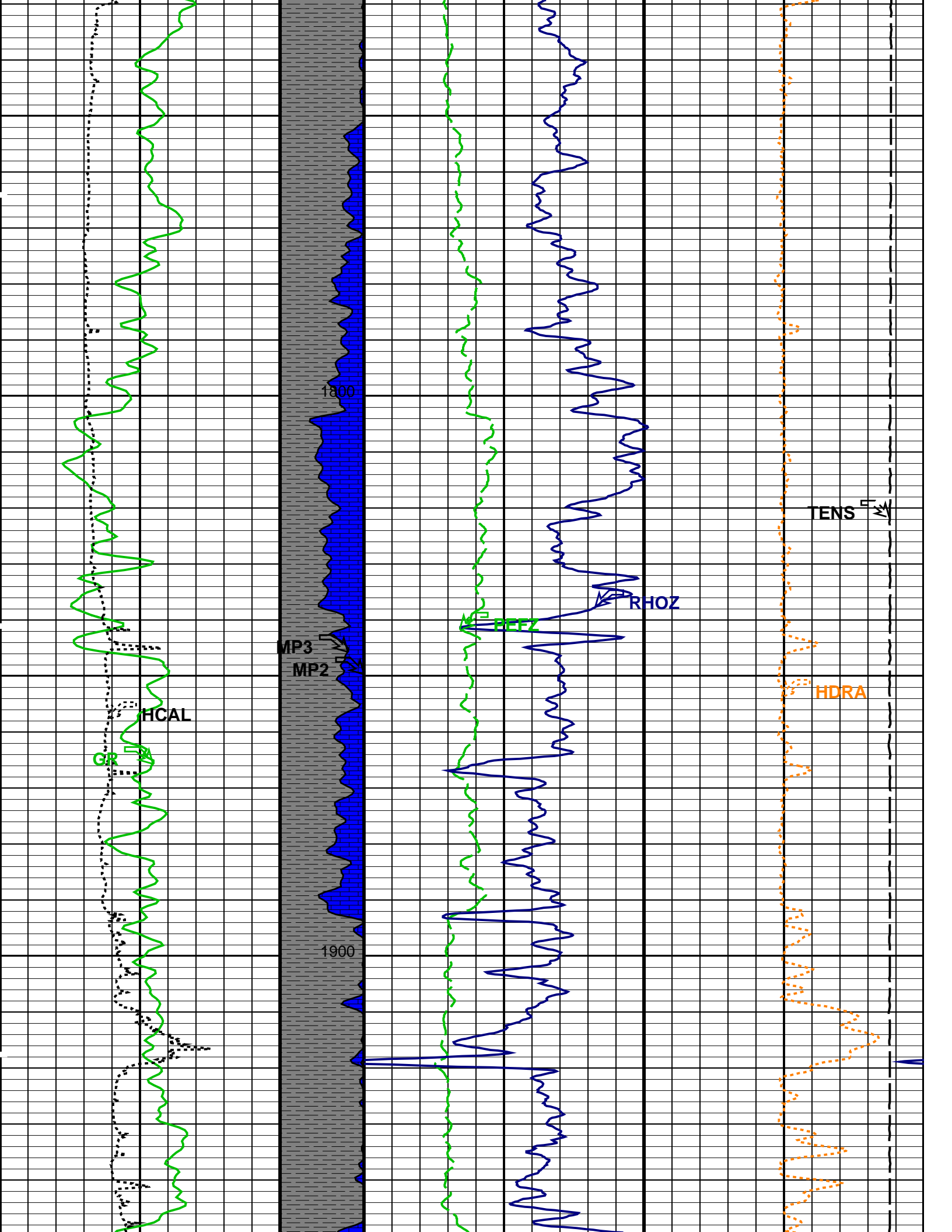


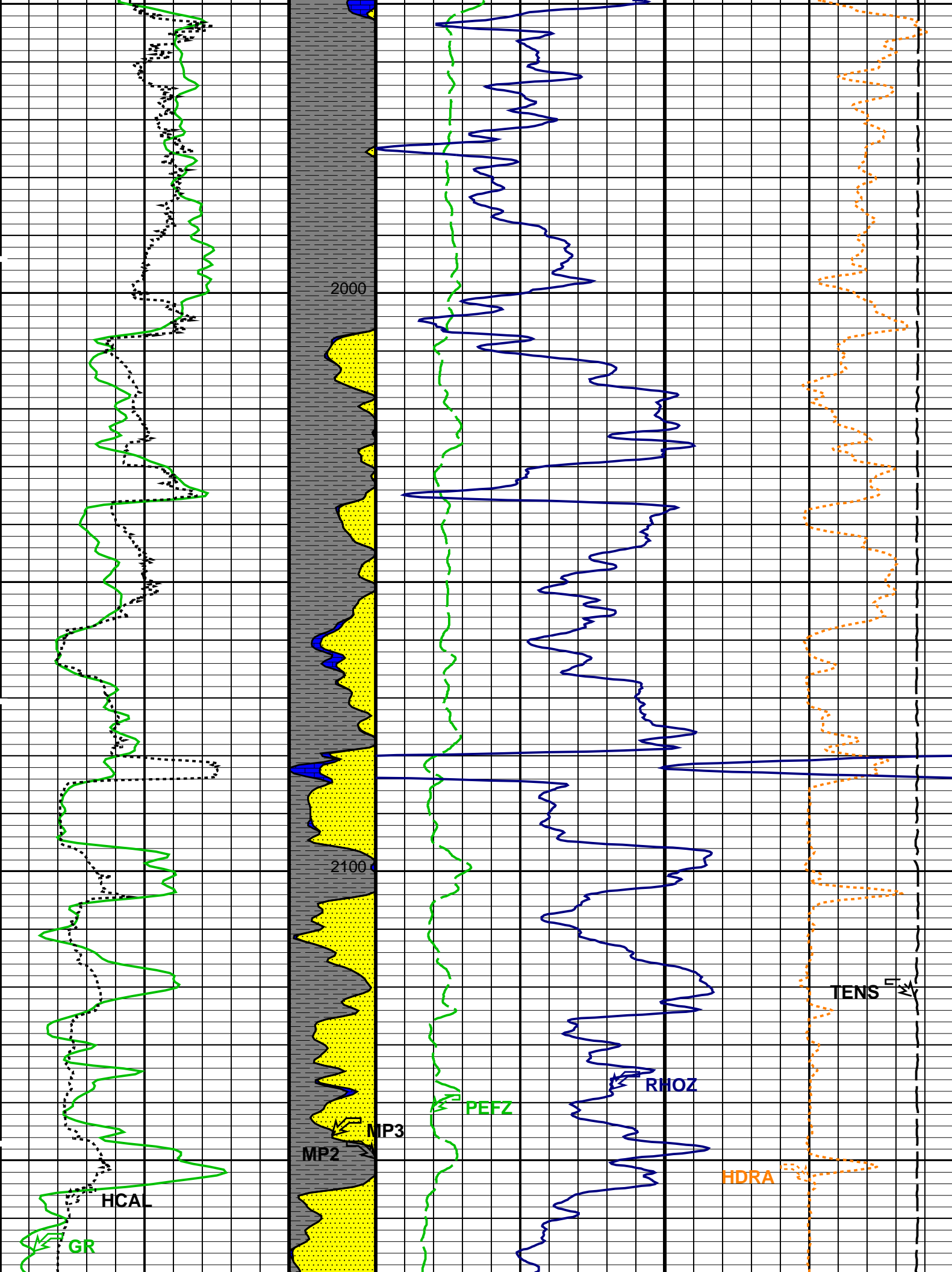


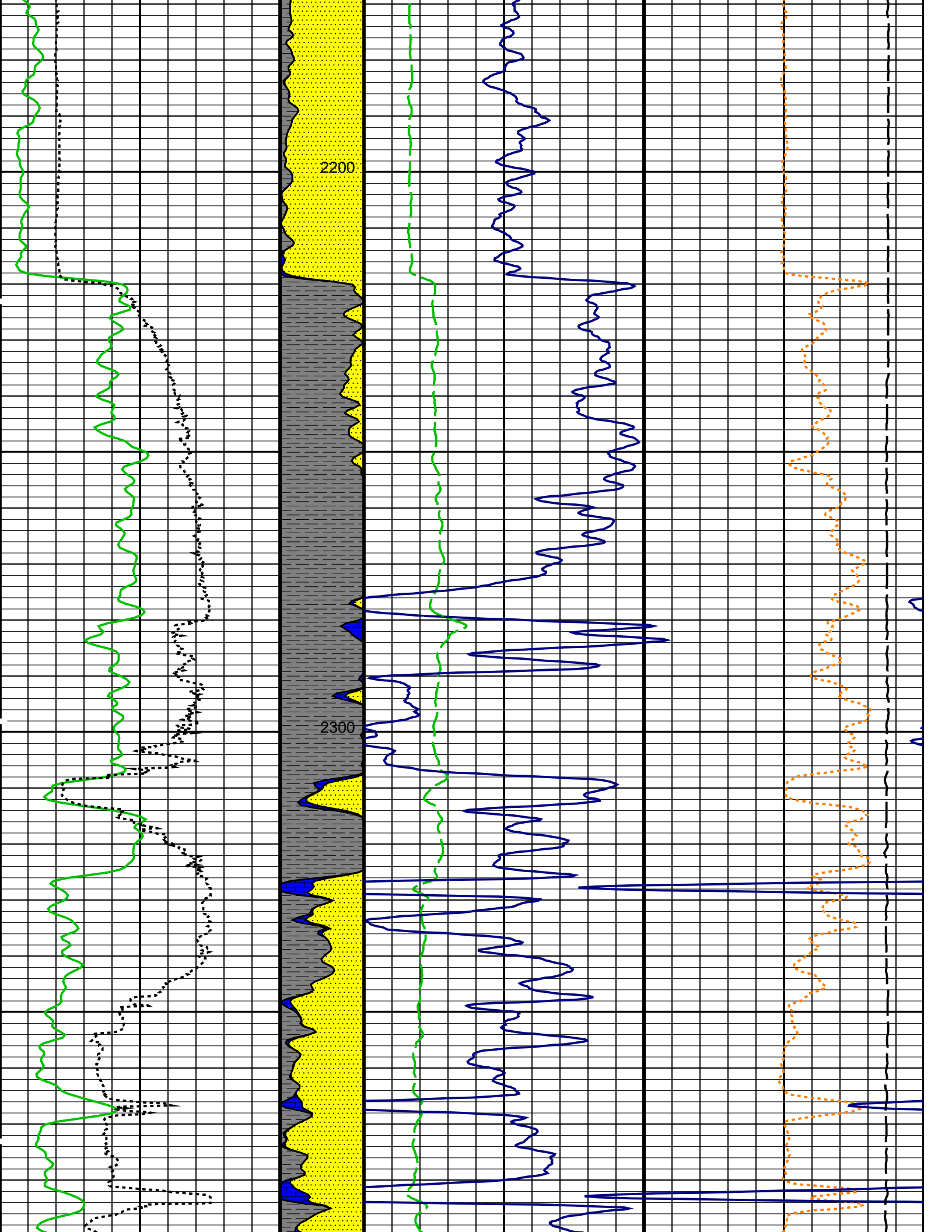


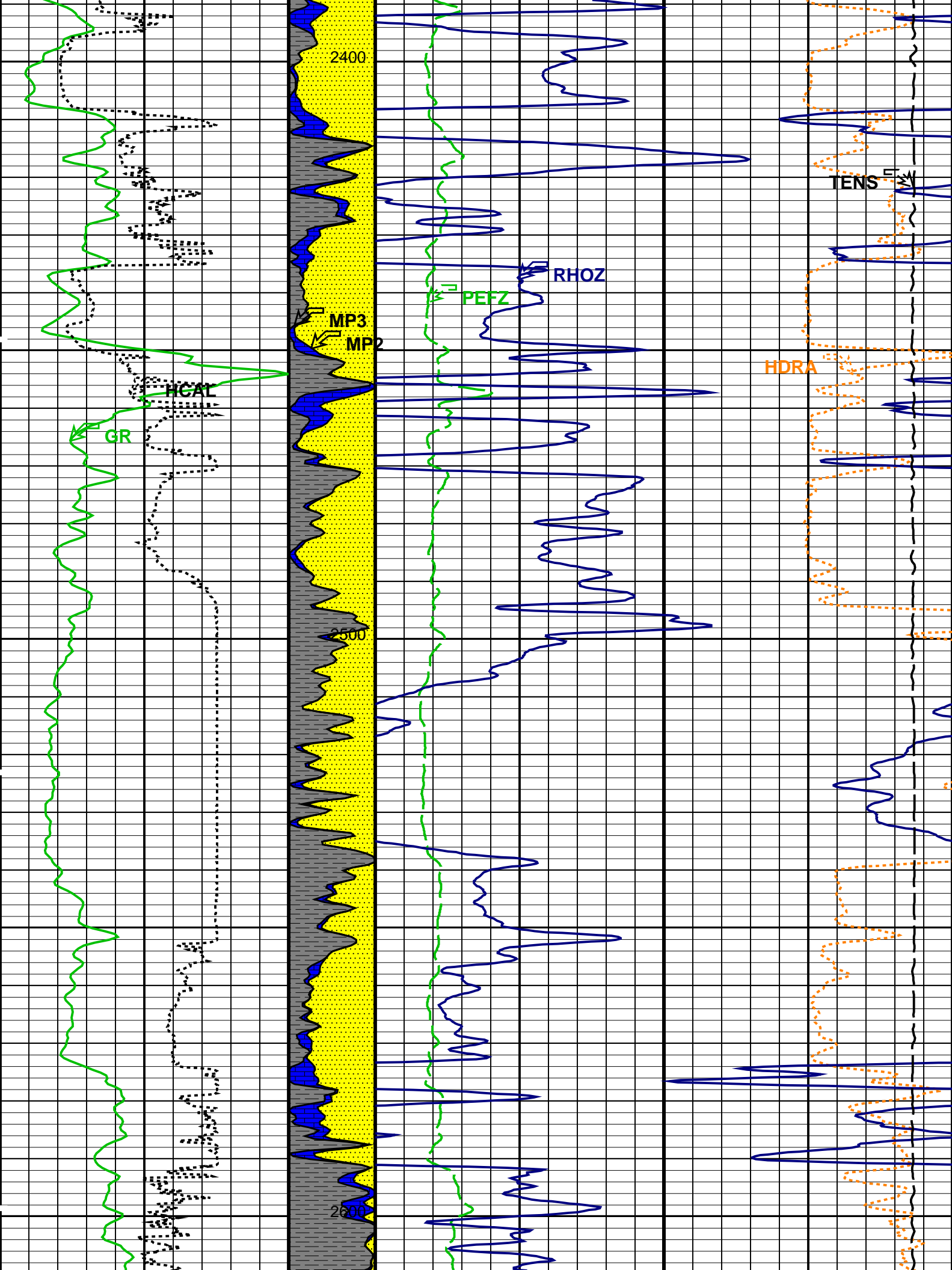


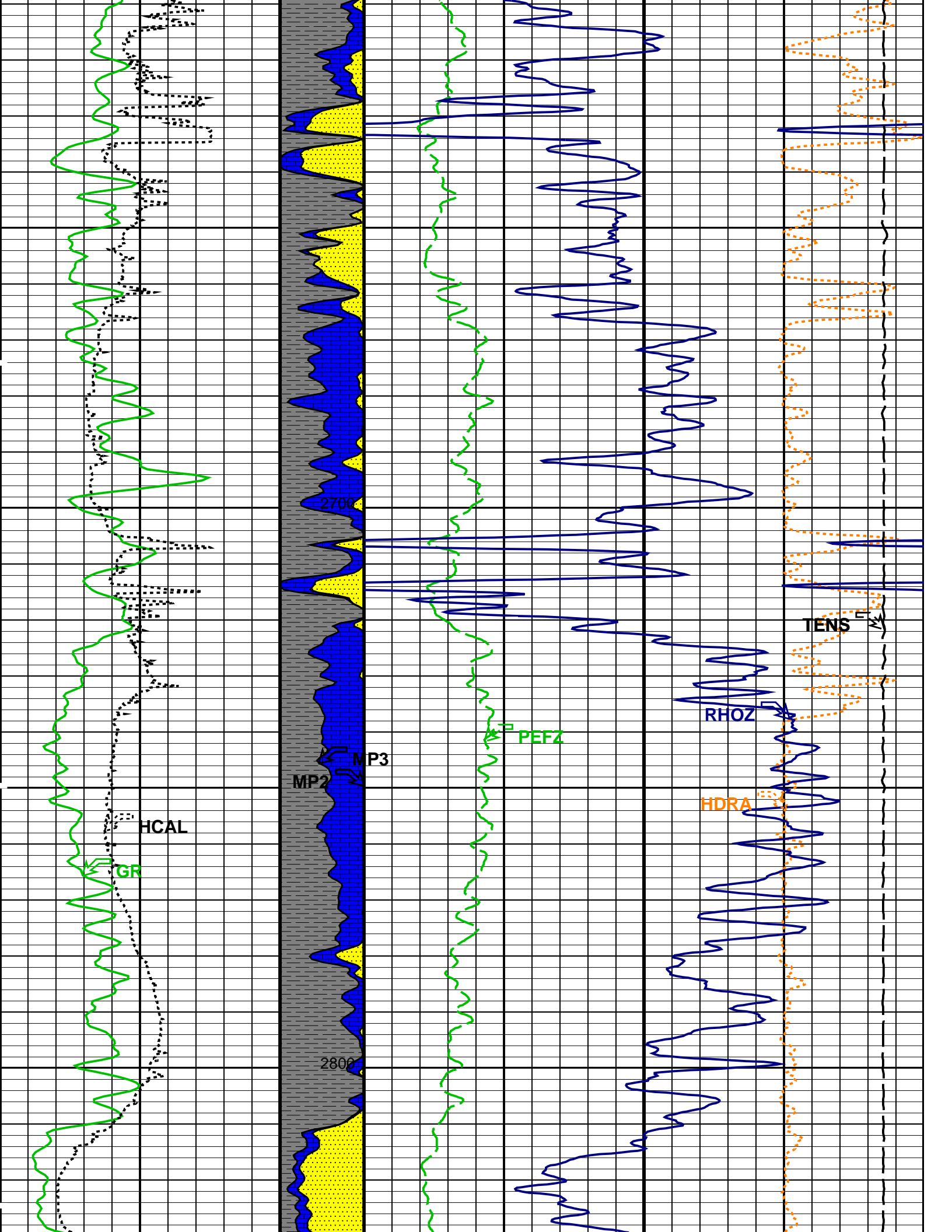


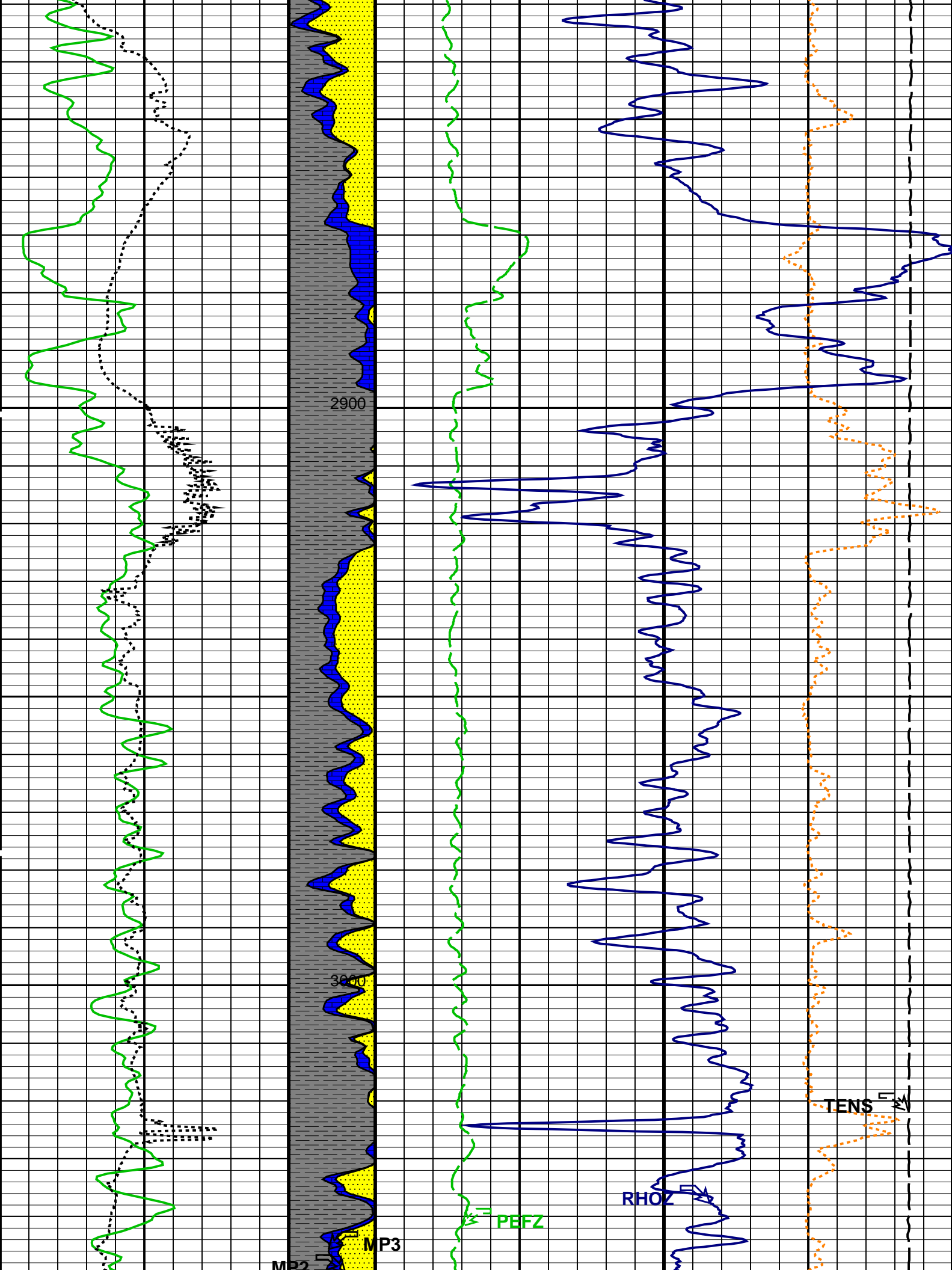


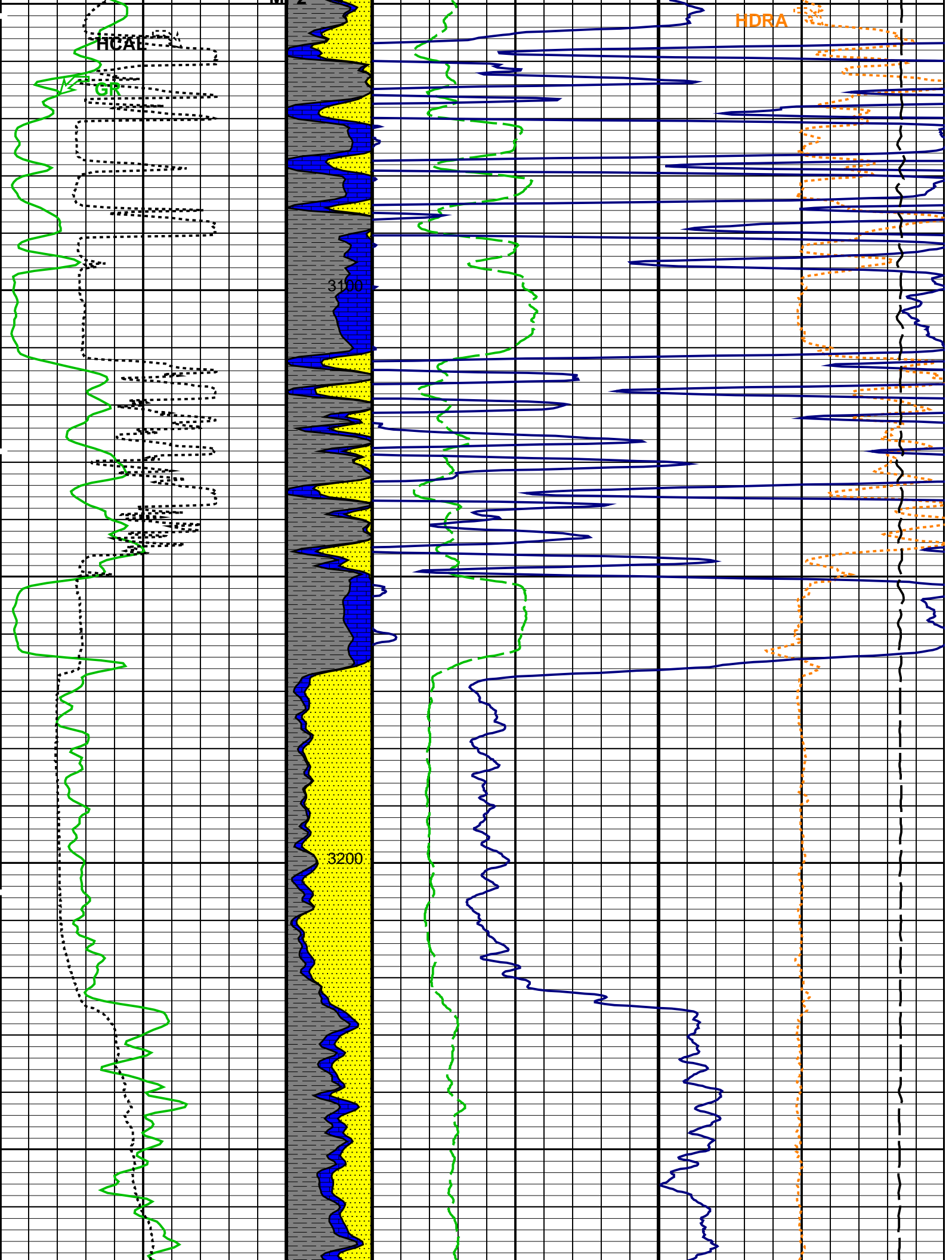


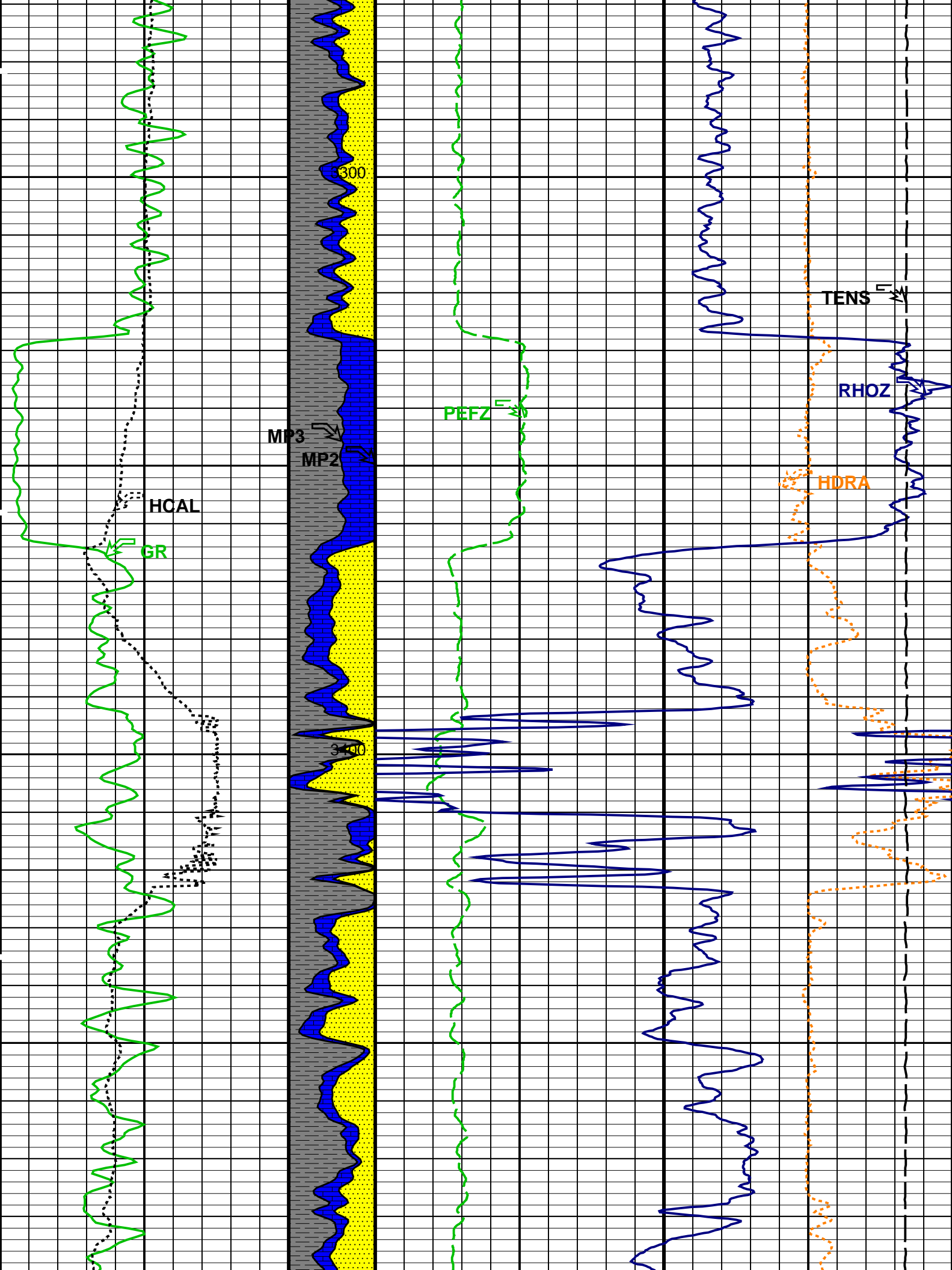


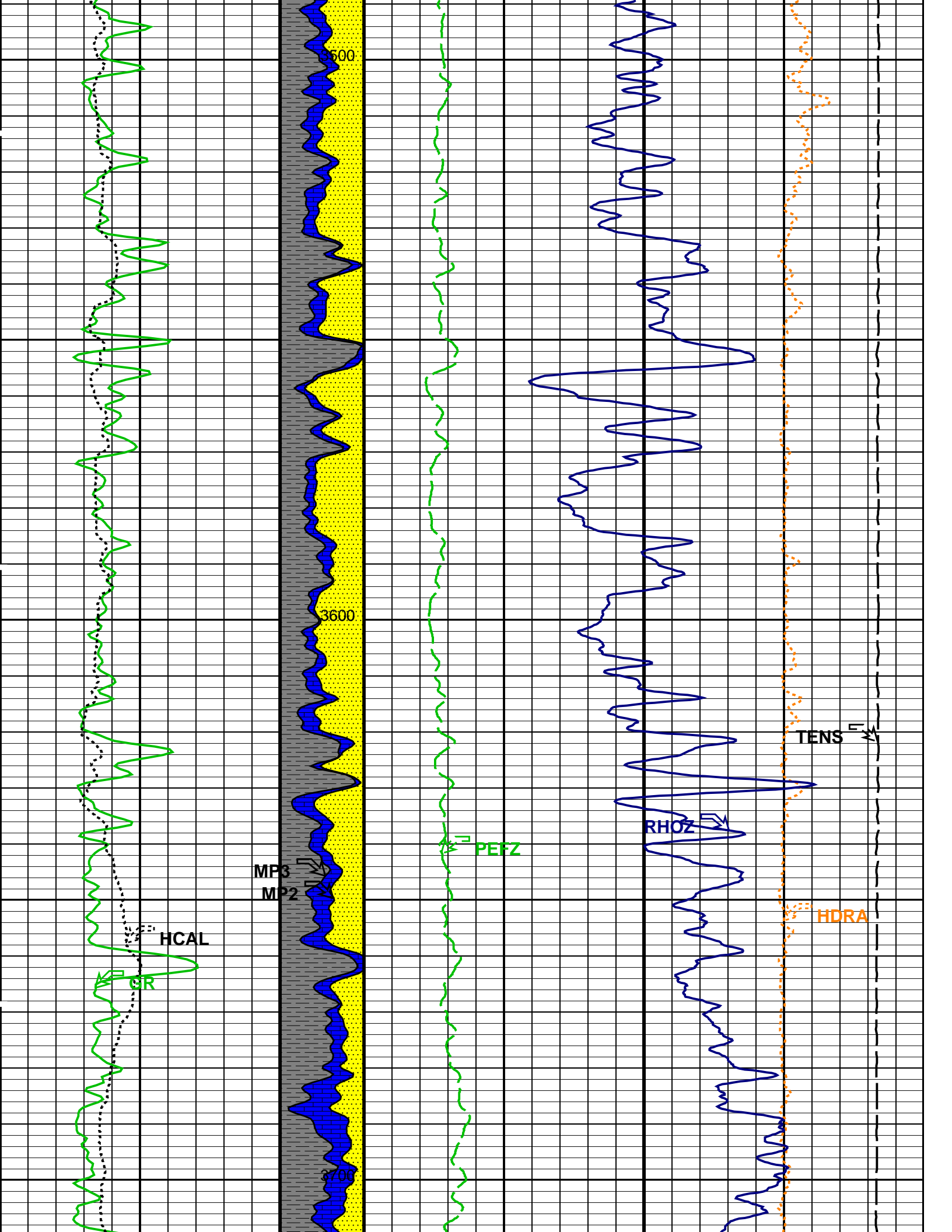


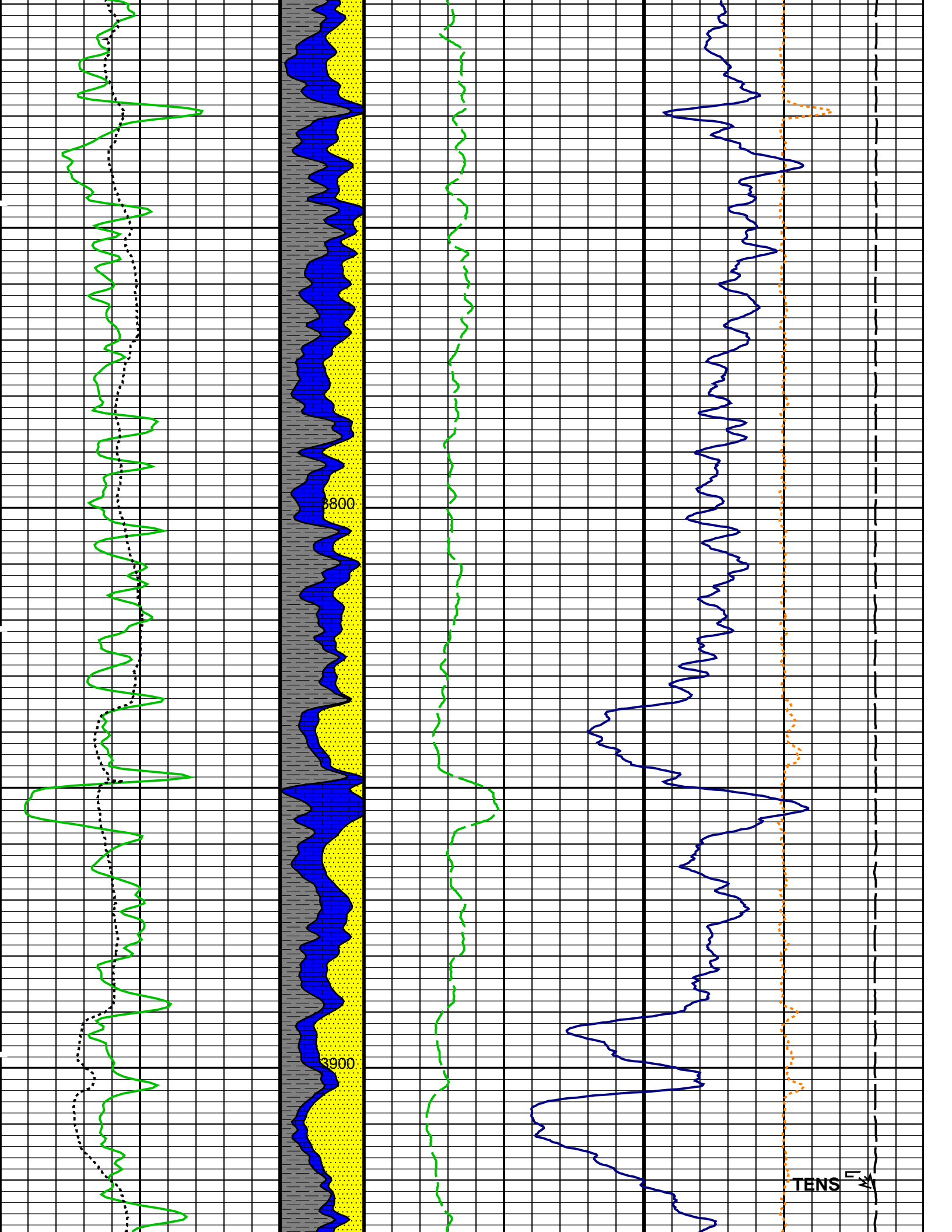


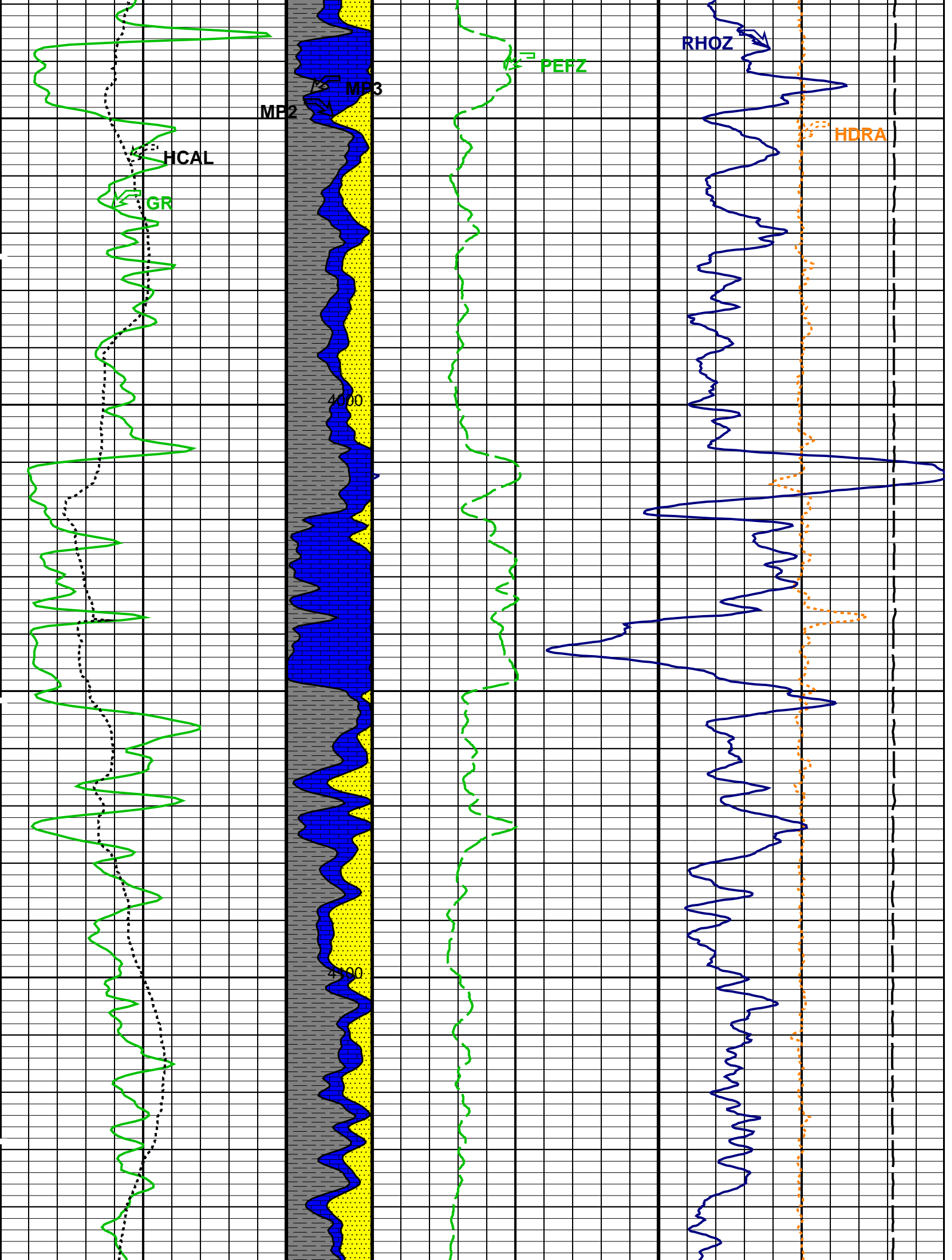


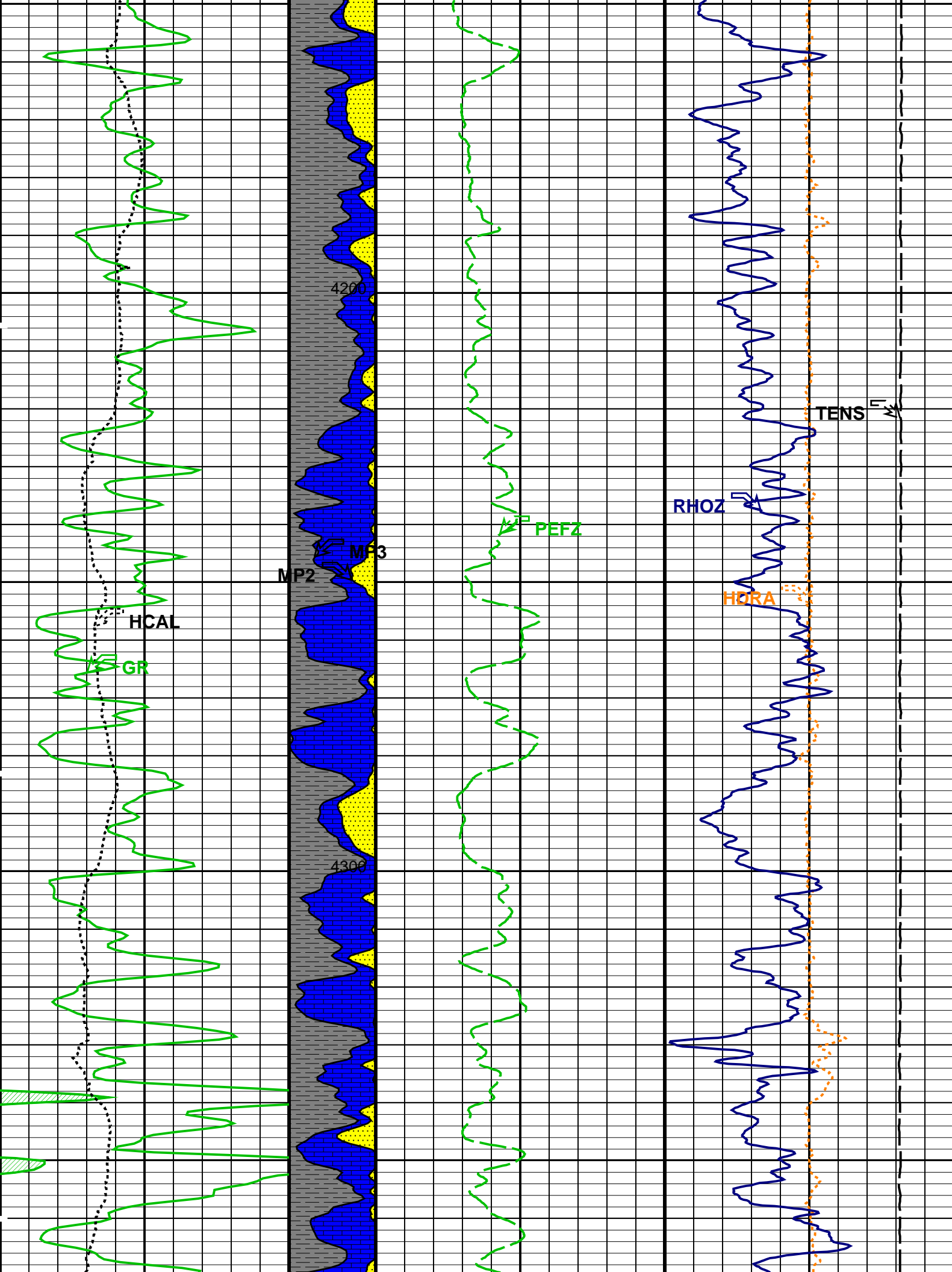


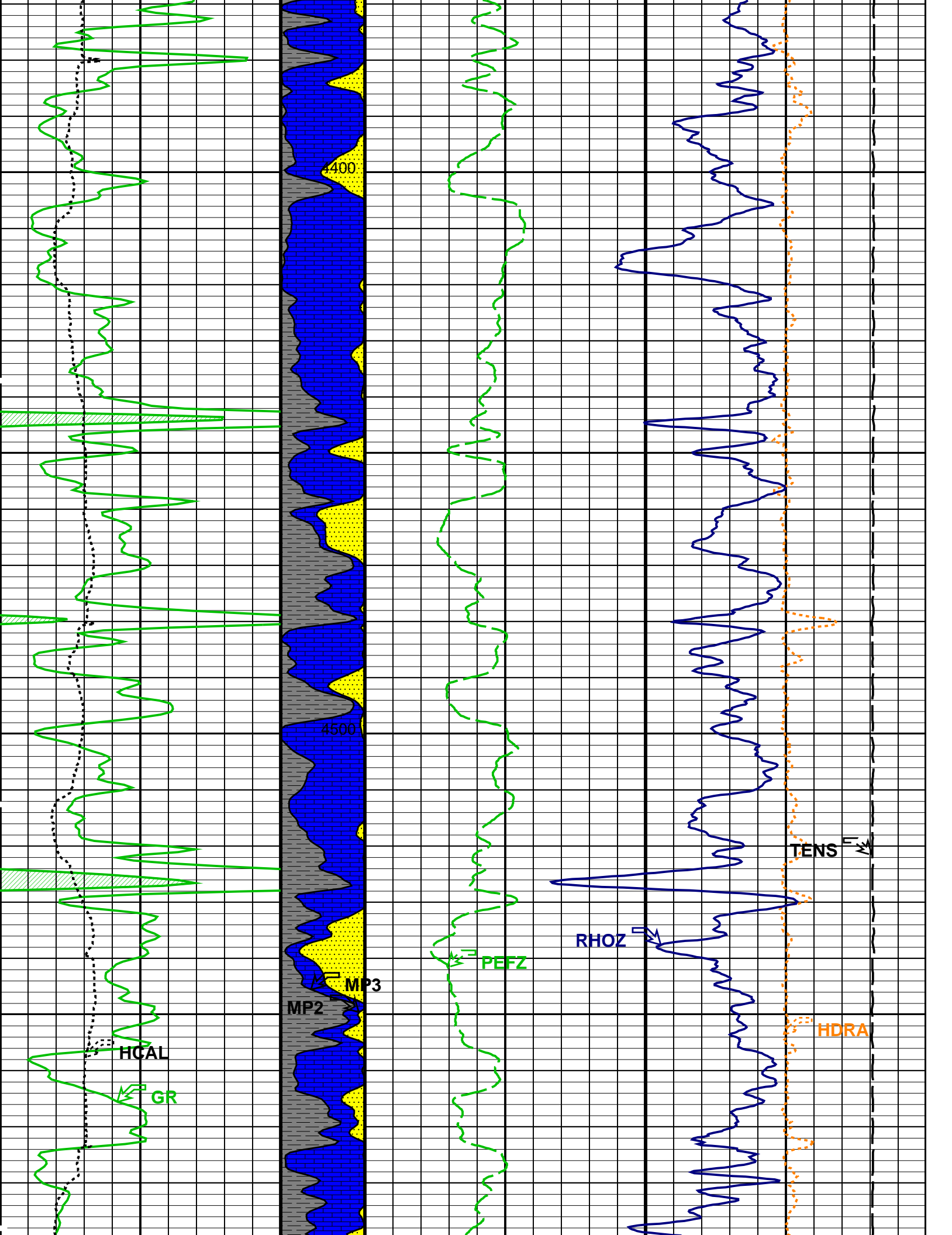


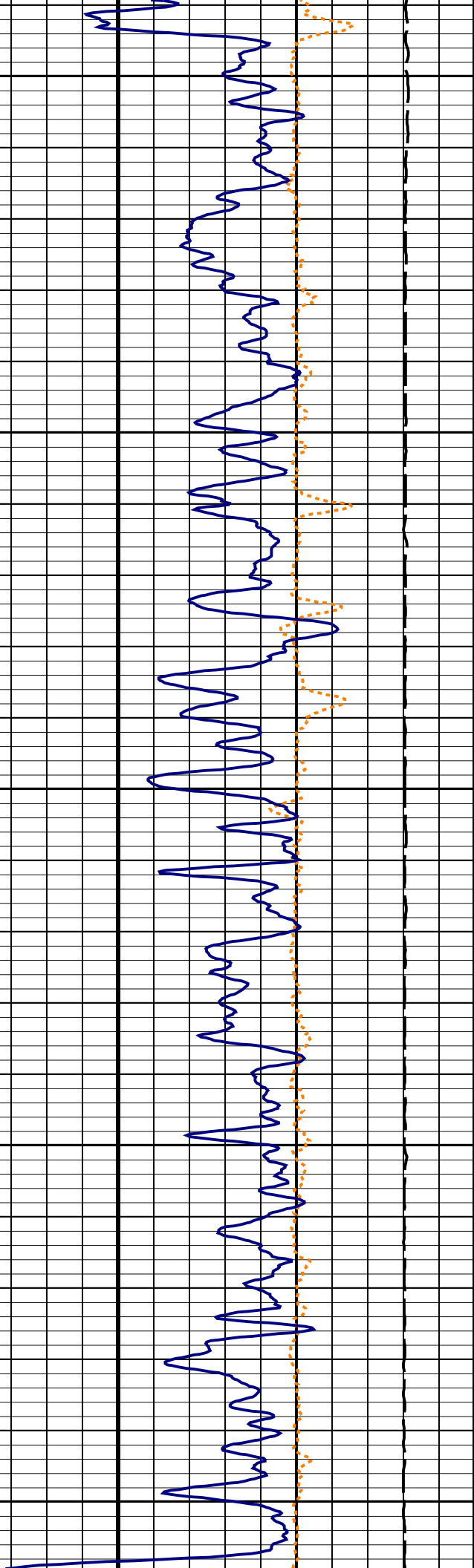
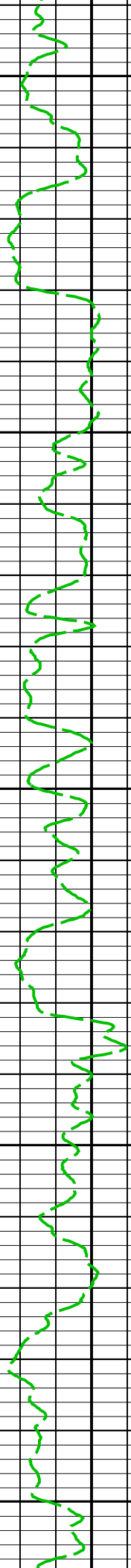
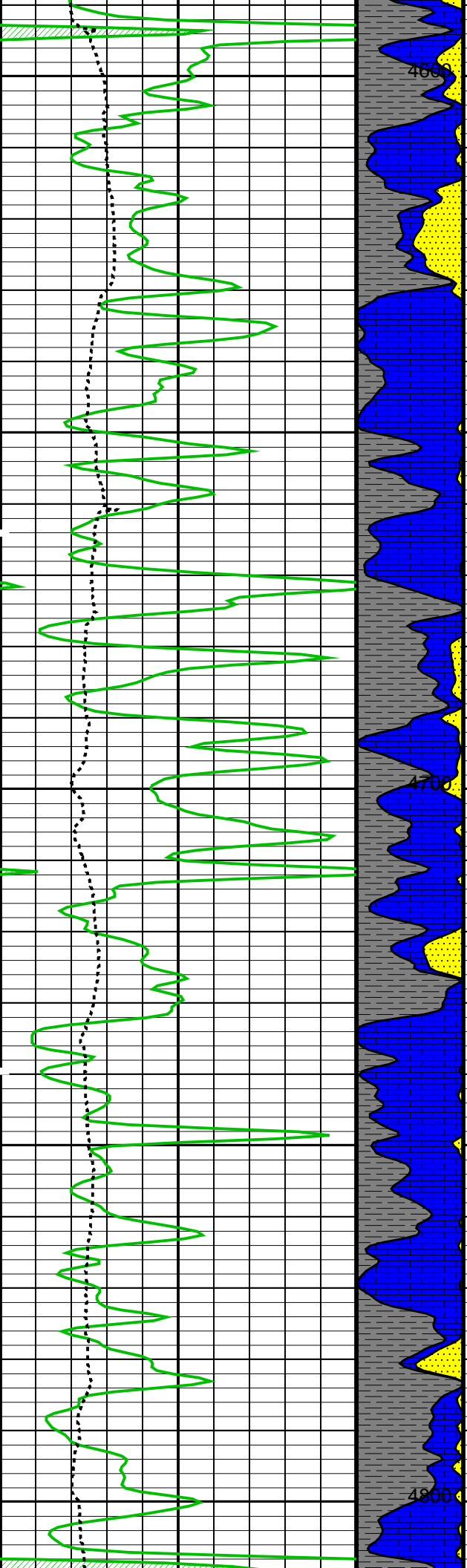


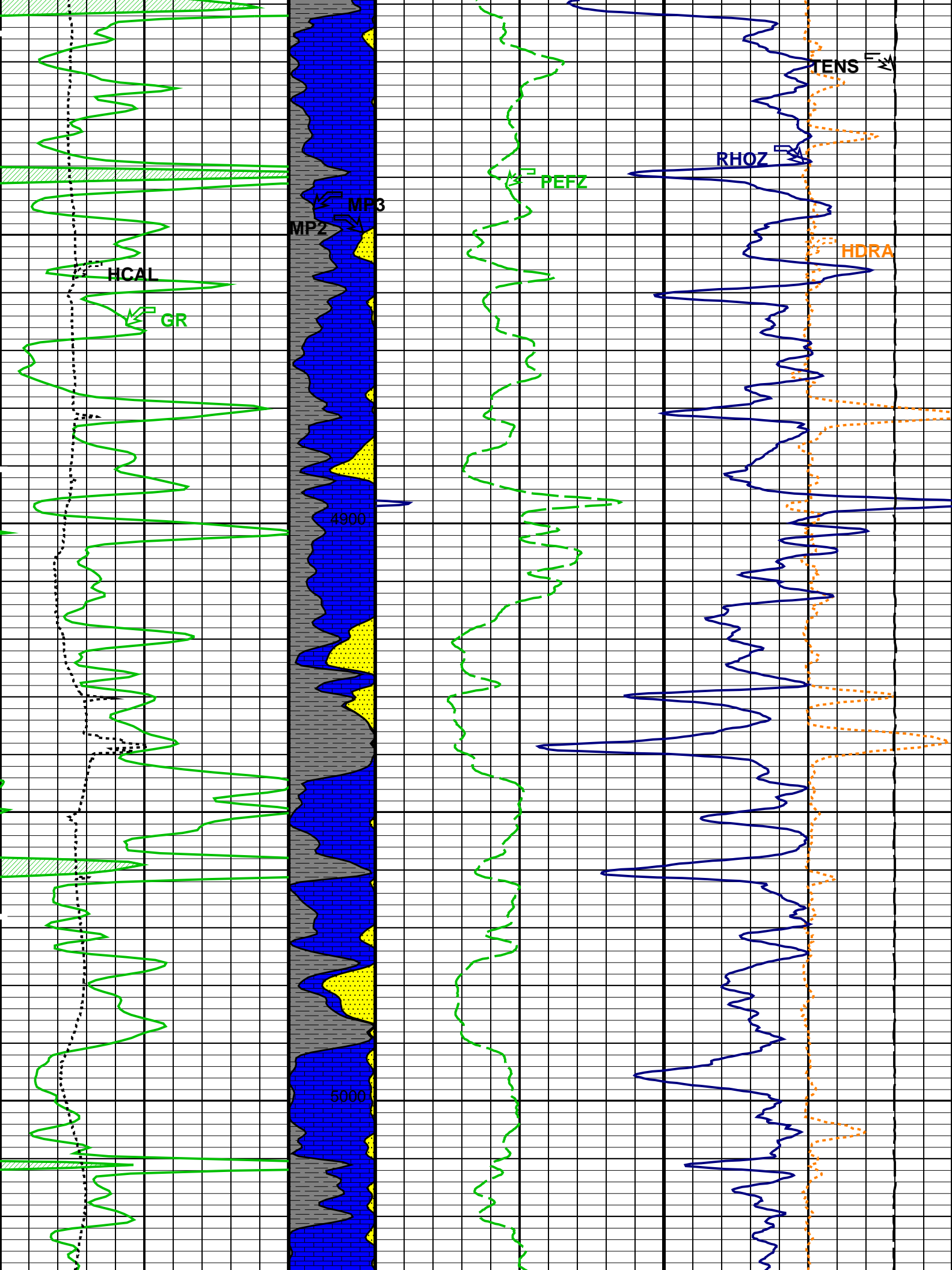


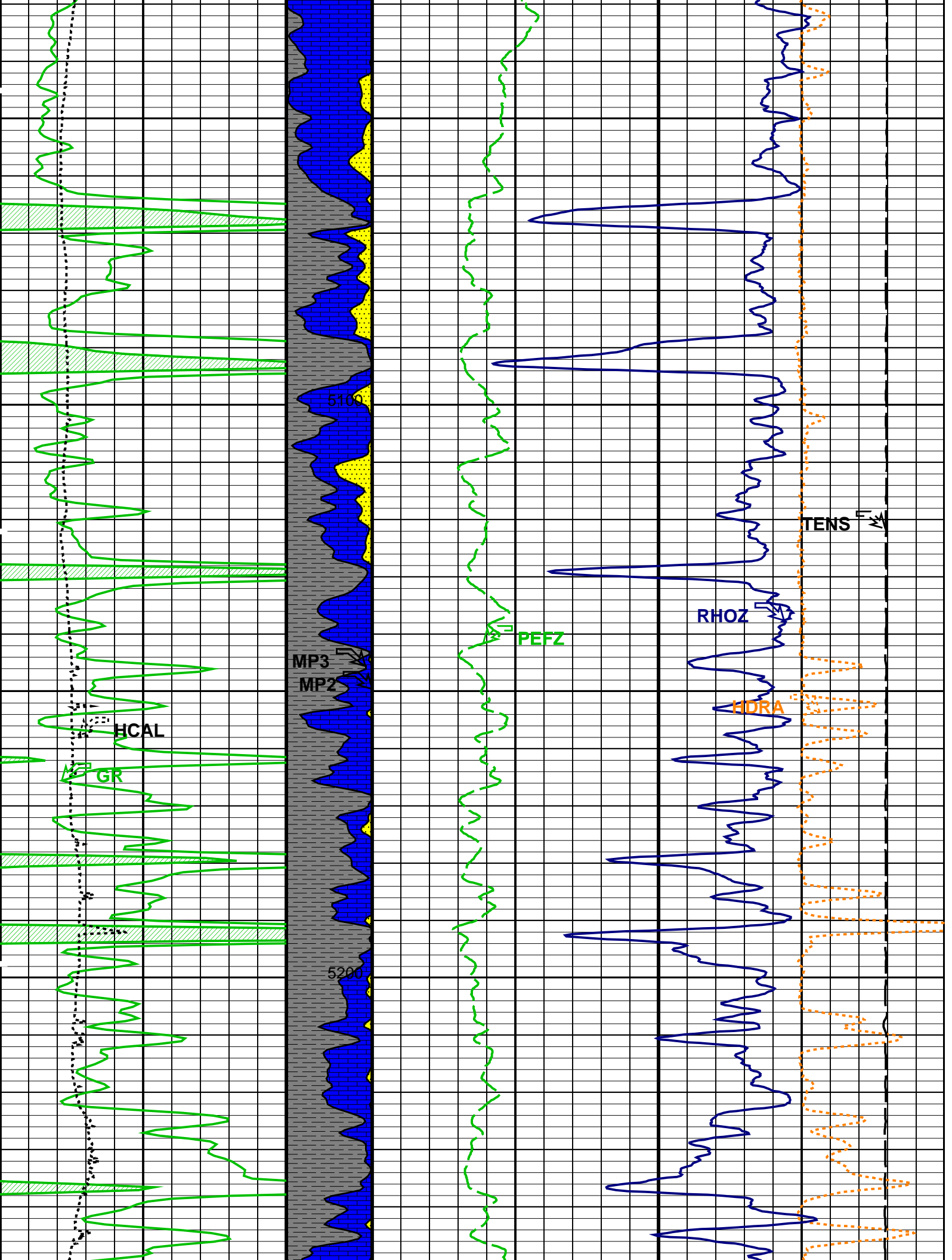


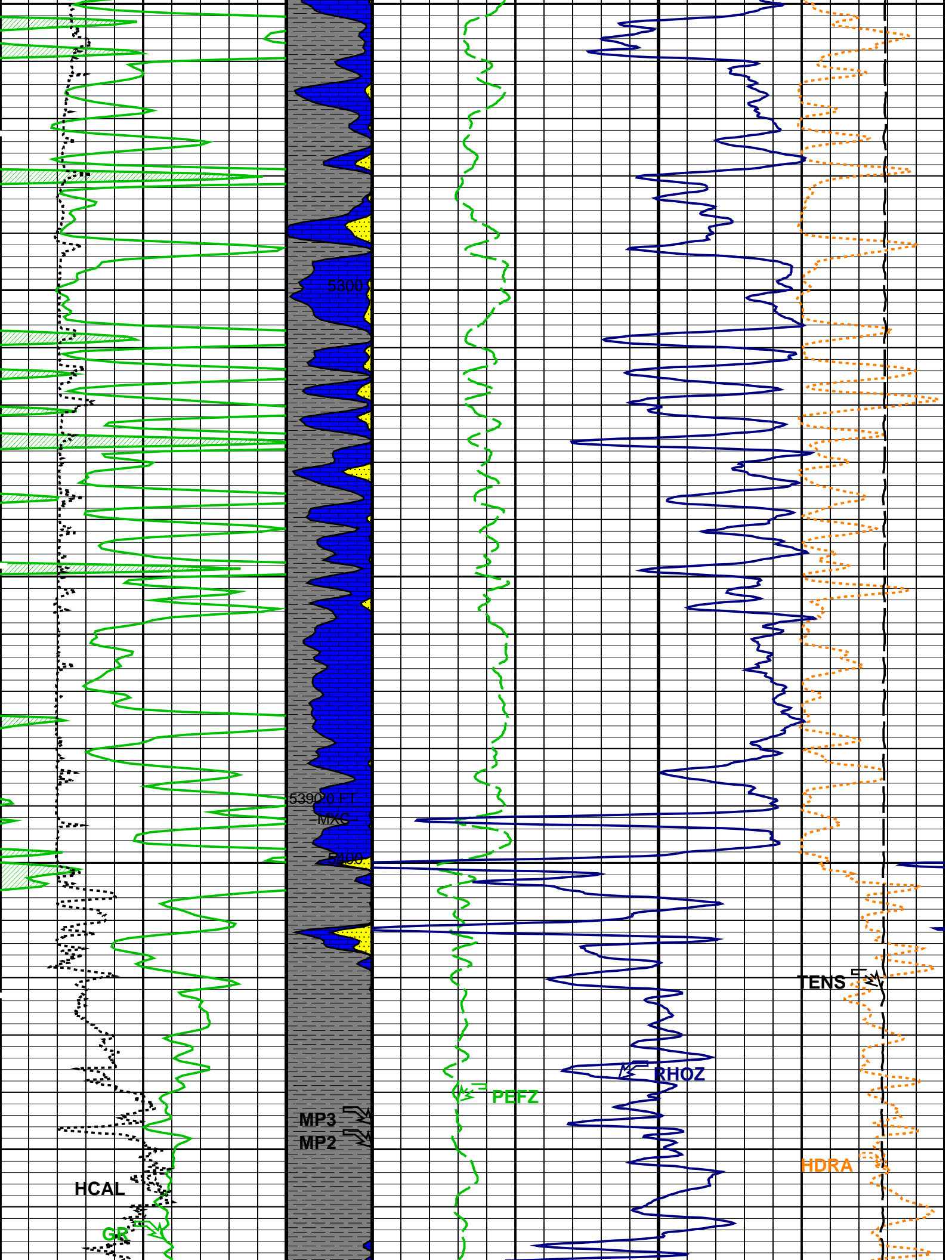


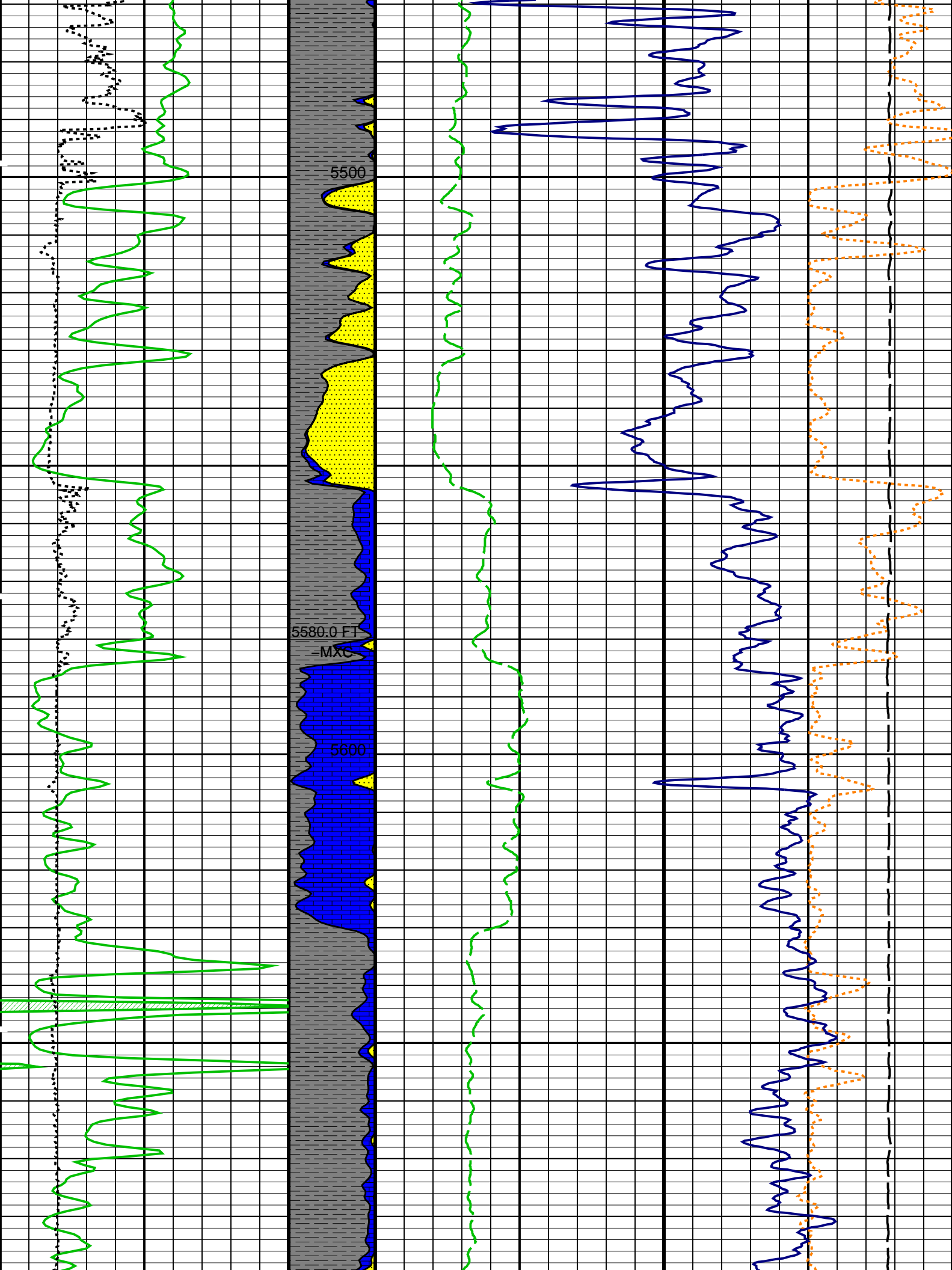


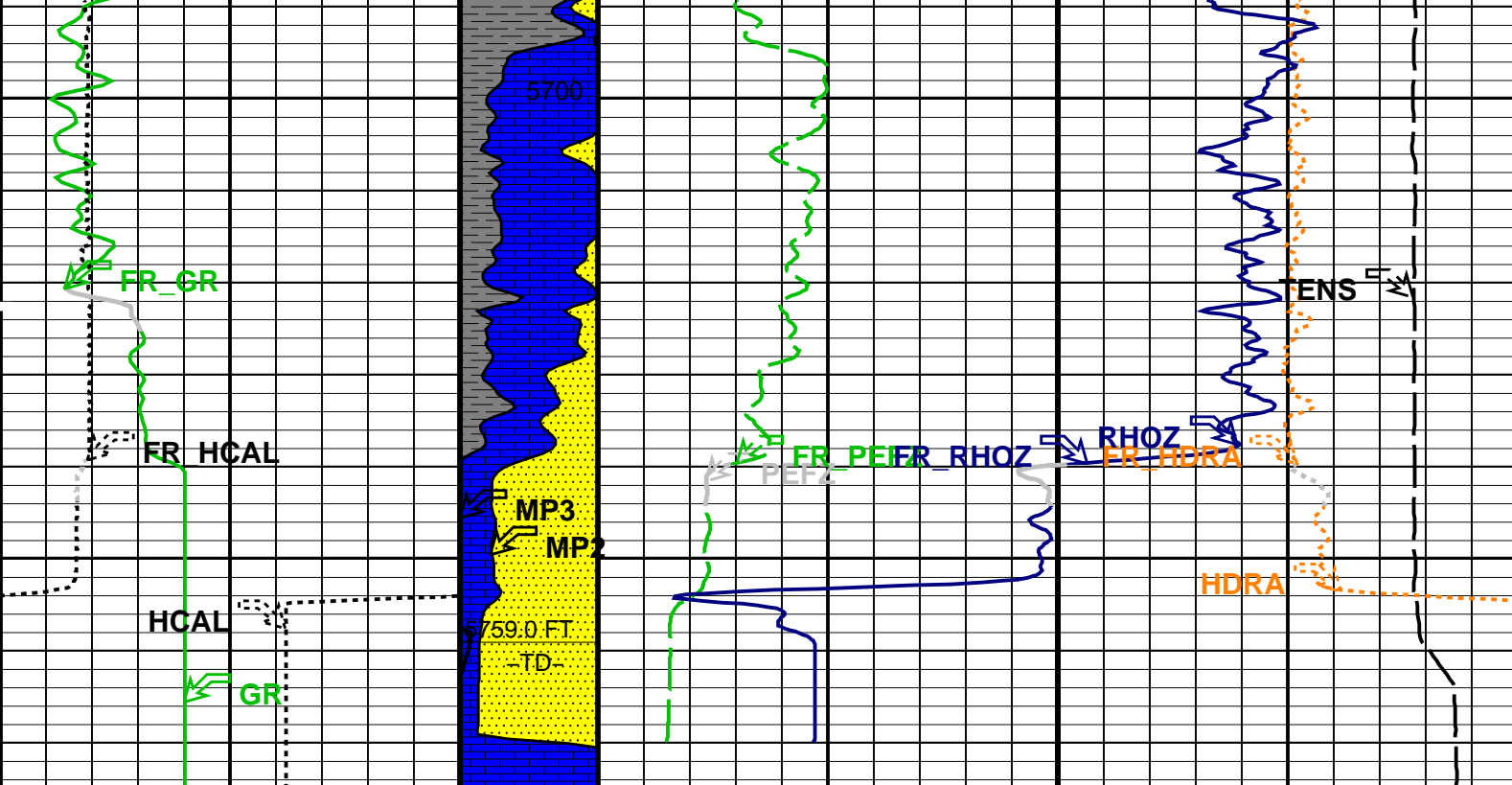




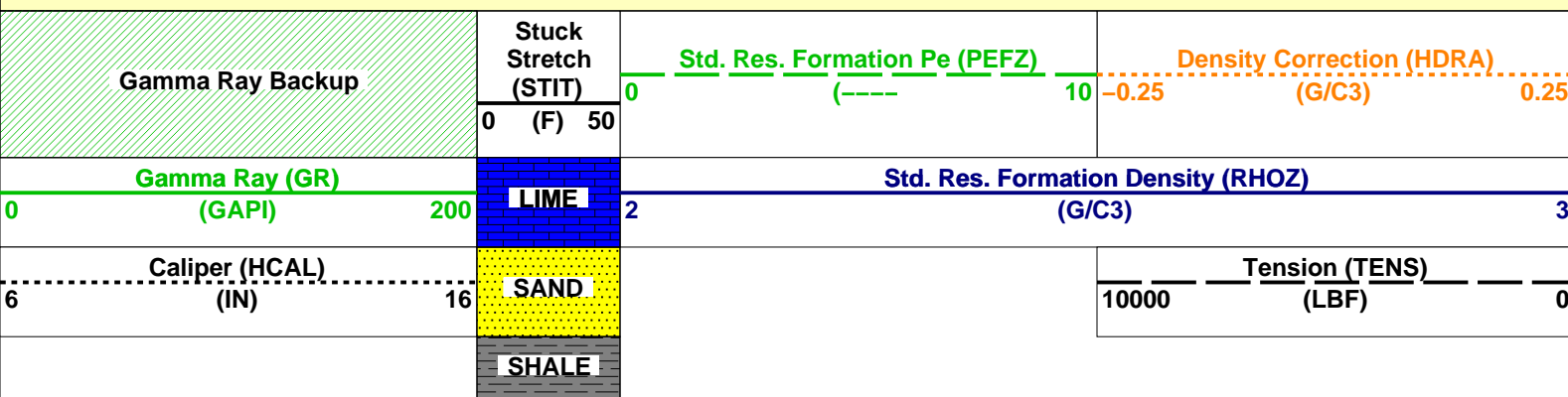








MAIN PASS: *** PLATFORM EXPRESS - LITHOLOGY DENSITY ***



PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
AIT-M: Array Induction Tool - M		
BHT	Bottom Hole Temperature (used in calculations)	134 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GGRD	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
SHT	Surface Hole Temperature	68 DEGF
HILTB-FTB: High resolution Integrated Logging Tool-DTS		
BHFL_TLD	HILT Nuclear Mud Base	WATER
BHT	Bottom Hole Temperature (used in calculations)	134 DEGF
DHC	Density Hole Correction	BS
FD	Fluid Density	1 G/C3
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCLF	Germany Coal-like Formation Option	NO
GGRD	Geothermal Gradient	0.01 DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE
NAAC	HRDD APS Activation Correction	OFF
NMT	HILT Nuclear Mud Type	NOBARITE
NPRM	HRDD Processing Mode	HiRes
NSAR	HRDD Depth Sampling Rate	1 IN
SHT	Surface Hole Temperature	68 DEGF

BDPS	Bulk Density Processing Selector	Standard	
BHT	Bottom Hole Temperature (used in calculations)	134	DEGF
CLIM	Caliper Limit for Bad Hole	999	IN
CNPS	Corrected Neutron Porosity Selector	NPHI	
DRUL	DRHO Upper Limit	999	G/C3
FCAL	Caliper Presence Flag	PRESENT	
FCGR	CGR Presence Flag	PRESENT	
FEXP	Form Factor Exponent	2	
FLDT	Bulk Density Presence Flag	PRESENT	
FNUM	Form Factor Numerator	1	
FSON	Sonic Presence Flag	ABSENT	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
PMAX	PHI Maximum	0.5	CFCF
POUT	Porosity Output Lithology	SANDSTONE	
RG21	RHO Grain (2-Mineral Model, Min-1)	2.71	G/C3
RG22	RHO Grain (2-Mineral Model, Min-2)	2.644	G/C3
RG23	RHO Grain (2-Mineral Model, Min-3)	2.877	G/C3
RG31	RHO Grain (3-Mineral Model, Min-1)	2.71	G/C3
RG32	RHO Grain (3-Mineral Model, Min-2)	2.644	G/C3
RG33	RHO Grain (3-Mineral Model, Min-3)	2.877	G/C3
RTLF	RT Limit Flag	NO_LIMIT	
RWF	Resistivity of Free Water	0.02	OHMM
SHT	Surface Hole Temperature	68	DEGF
UF	U Fluid	0.398	
UM21	U Matrix (2-Mineral Model, Min-1)	13.77	
UM22	U Matrix (2-Mineral Model, Min-2)	4.779	
UM23	U Matrix (2-Mineral Model, Min-3)	8.997	
UM31	U Matrix (3-Mineral Model, Min-1)	13.77	
UM32	U Matrix (3-Mineral Model, Min-2)	4.779	
UM33	U Matrix (3-Mineral Model, Min-3)	8.997	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	5760.00	FT
TDL	Total Depth - Logger	5759.00	FT
HOLEV: Integrated Hole/Cement Volume			
BHT	Bottom Hole Temperature (used in calculations)	134	DEGF
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	SANDSTONE	
SHT	Surface Hole Temperature	68	DEGF
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
System and Miscellaneous			
BS	Bit Size	7.875	IN
DFD	Drilling Fluid Density	9.10	LB/G
DO	Depth Offset for Playback	0.0	FT
DORL	Depth Offset for Repeat Analysis	0.0	FT
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	1.2180	OHMM
TD	Total Depth	5759	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: DENS Vertical Scale: 5" per 100' Graphics File Created: 23-Mar-2010 15:04

OP System Version: 17C0-154

AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Input DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_008LUP	FN:7	PRODUCER	23-Mar-2010 13:43	5775.0 FT	401.5 FT
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Output DLIS Files

DEFAULT	AIT_TLD_MCFL_CNL_017PUP	FN:16	PRODUCER	23-Mar-2010 15:04
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Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_004LUP FN:3 PRODUCER 23-Mar-2010 12:52 5770.5 FT 4563.5 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016PUP FN:15 PRODUCER 23-Mar-2010 15:02 5772.0 FT 4565.5 FT

OP System Version: 17C0-154

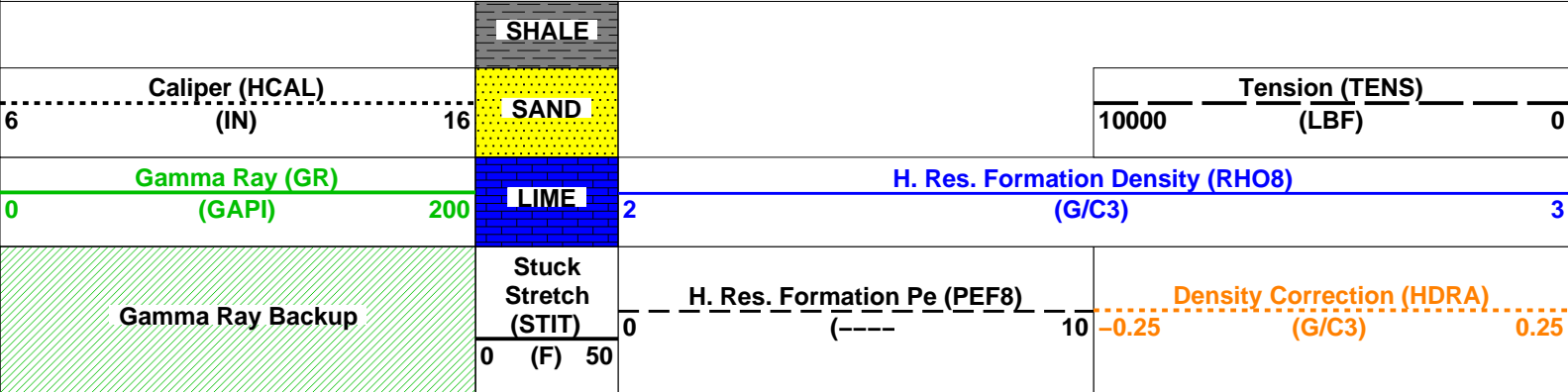
AIT-M 17C0-154 HILTB-FTB 17C0-154
DTC-H 17C0-154

Changed Parameter Summary

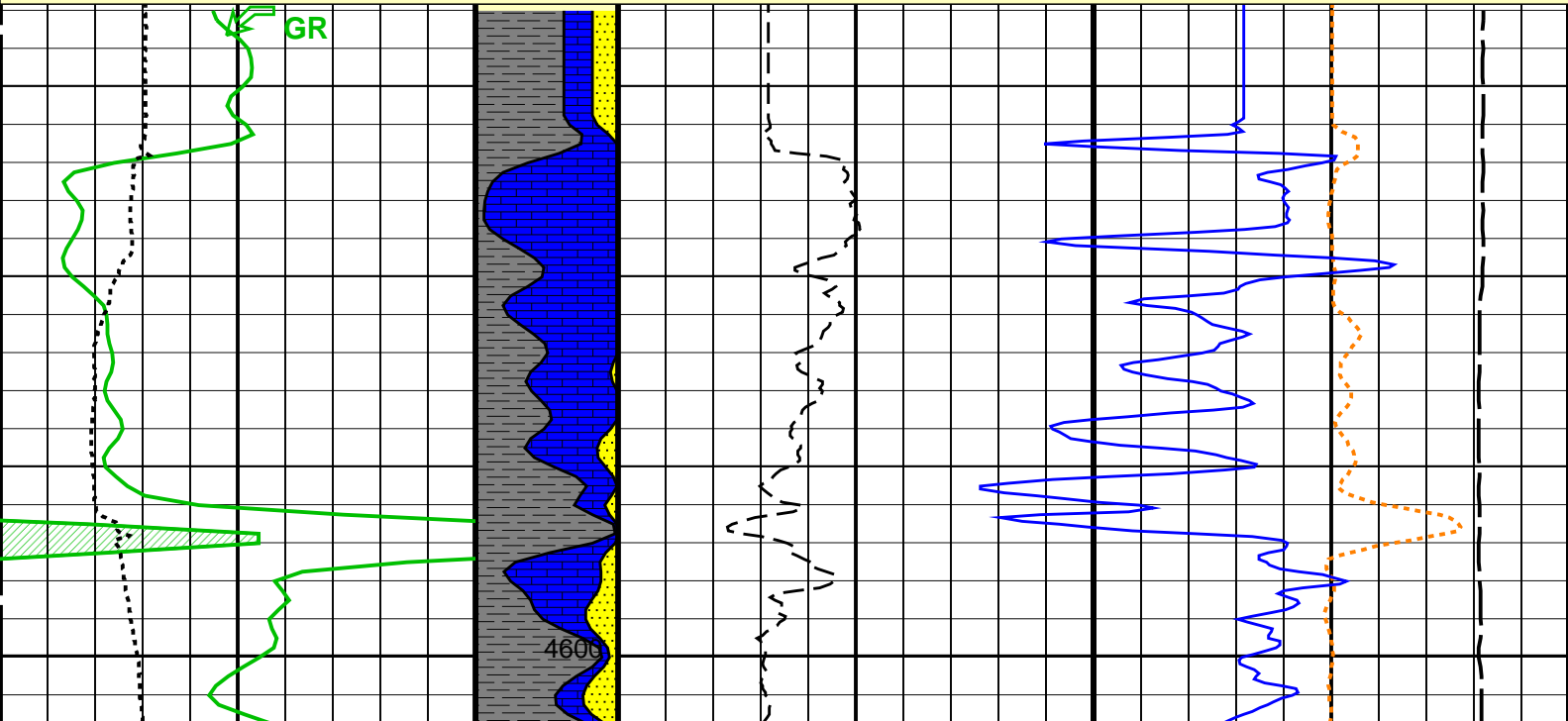
DLIS Name	New Value	Previous Value	Depth & Time
MATR	LIMESTONE	LIMESTONE	5772.0 15:03:10
	SANDSTONE	LIMESTONE	5390.0 15:03:22
POUT	LIMESTONE	LIMESTONE	5772.0 15:03:10
	SANDSTONE	LIMESTONE	5390.0 15:03:22

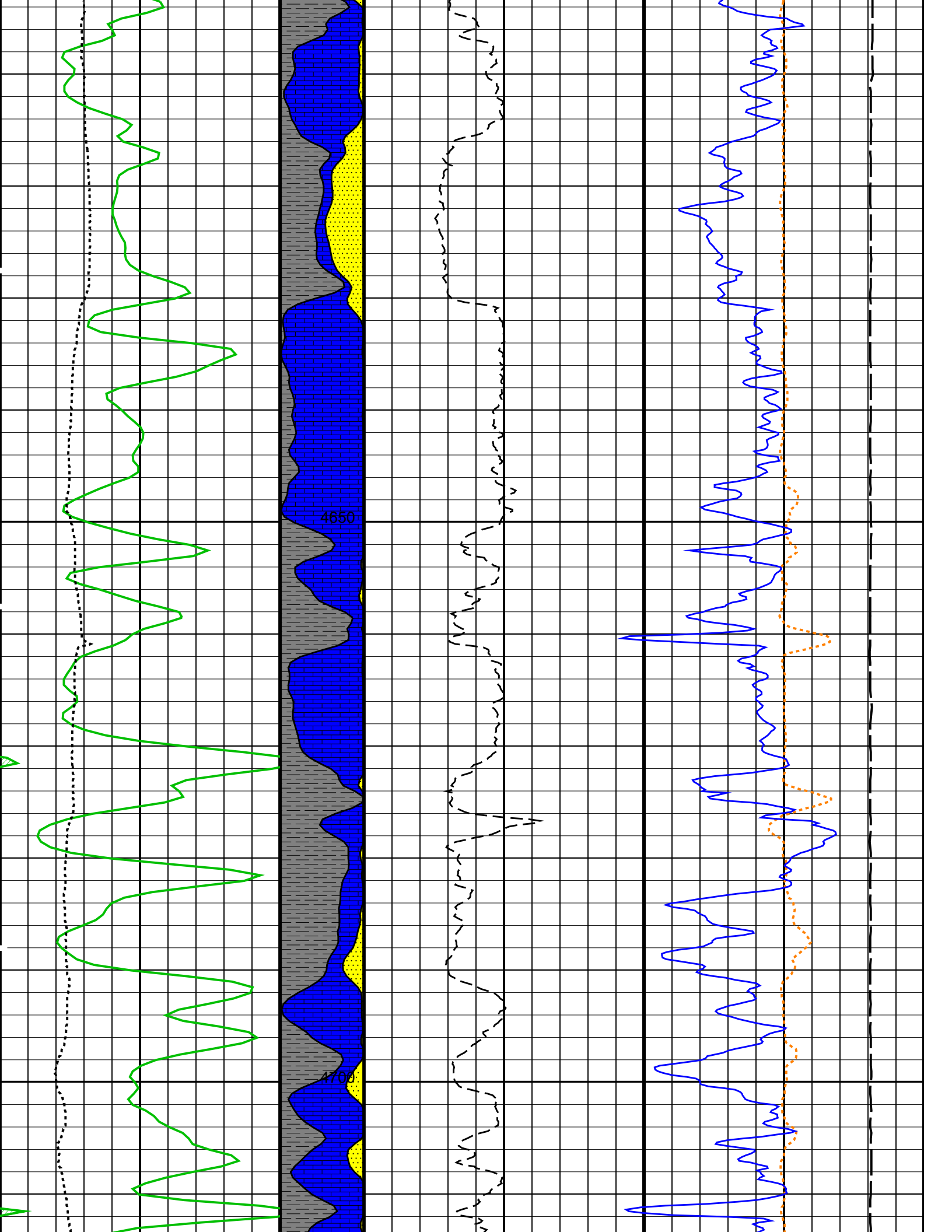
PIP SUMMARY

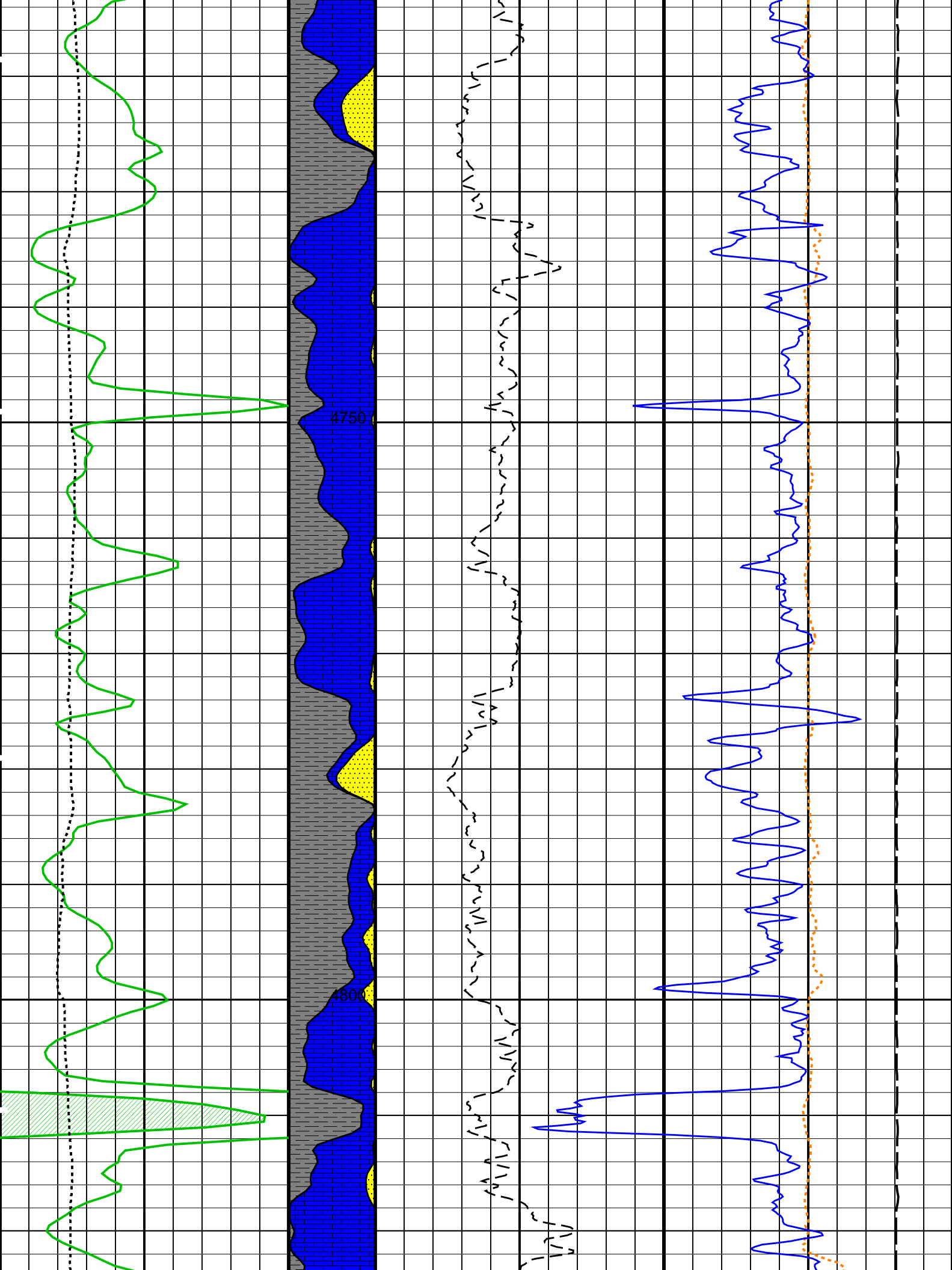
Time Mark Every 60 S

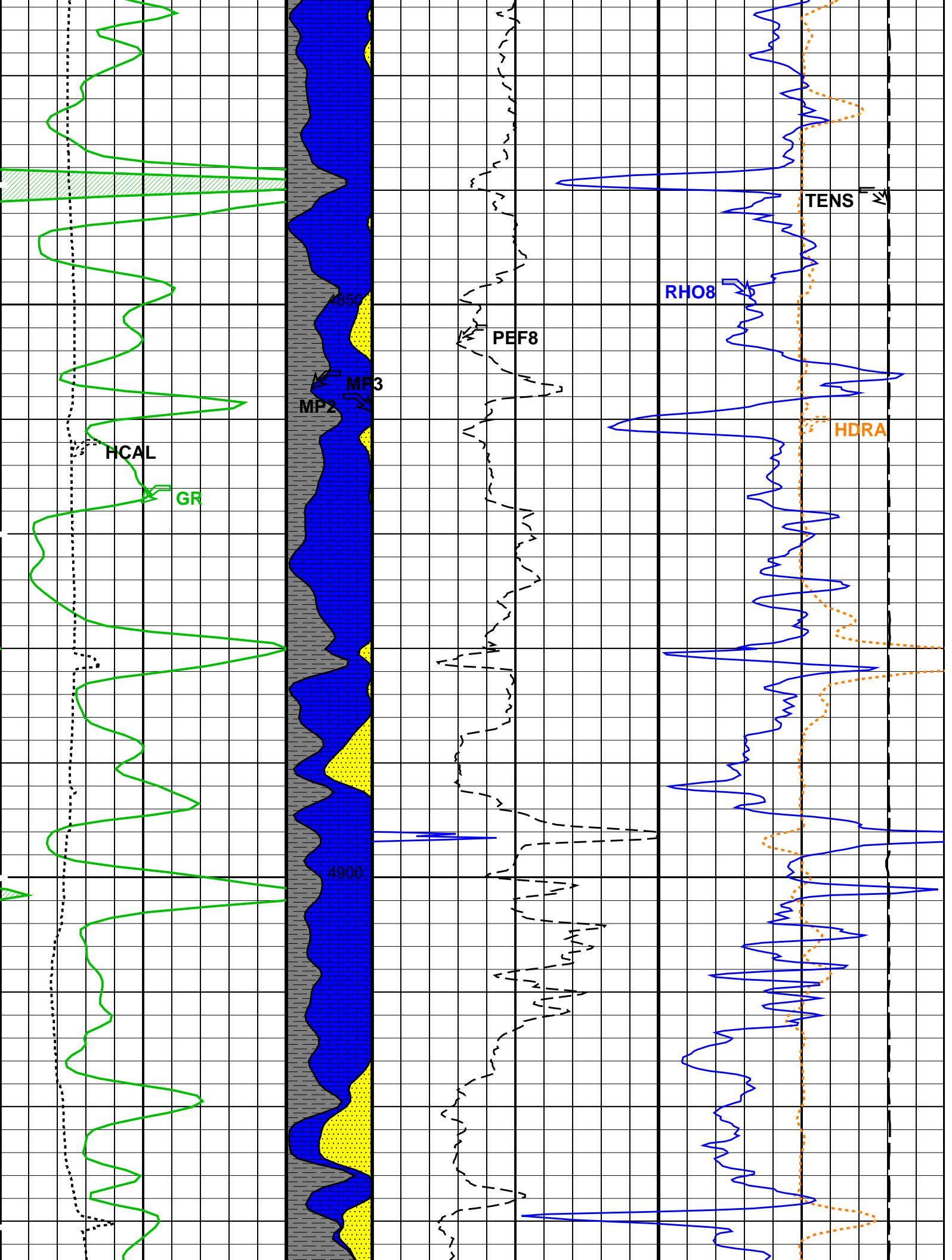


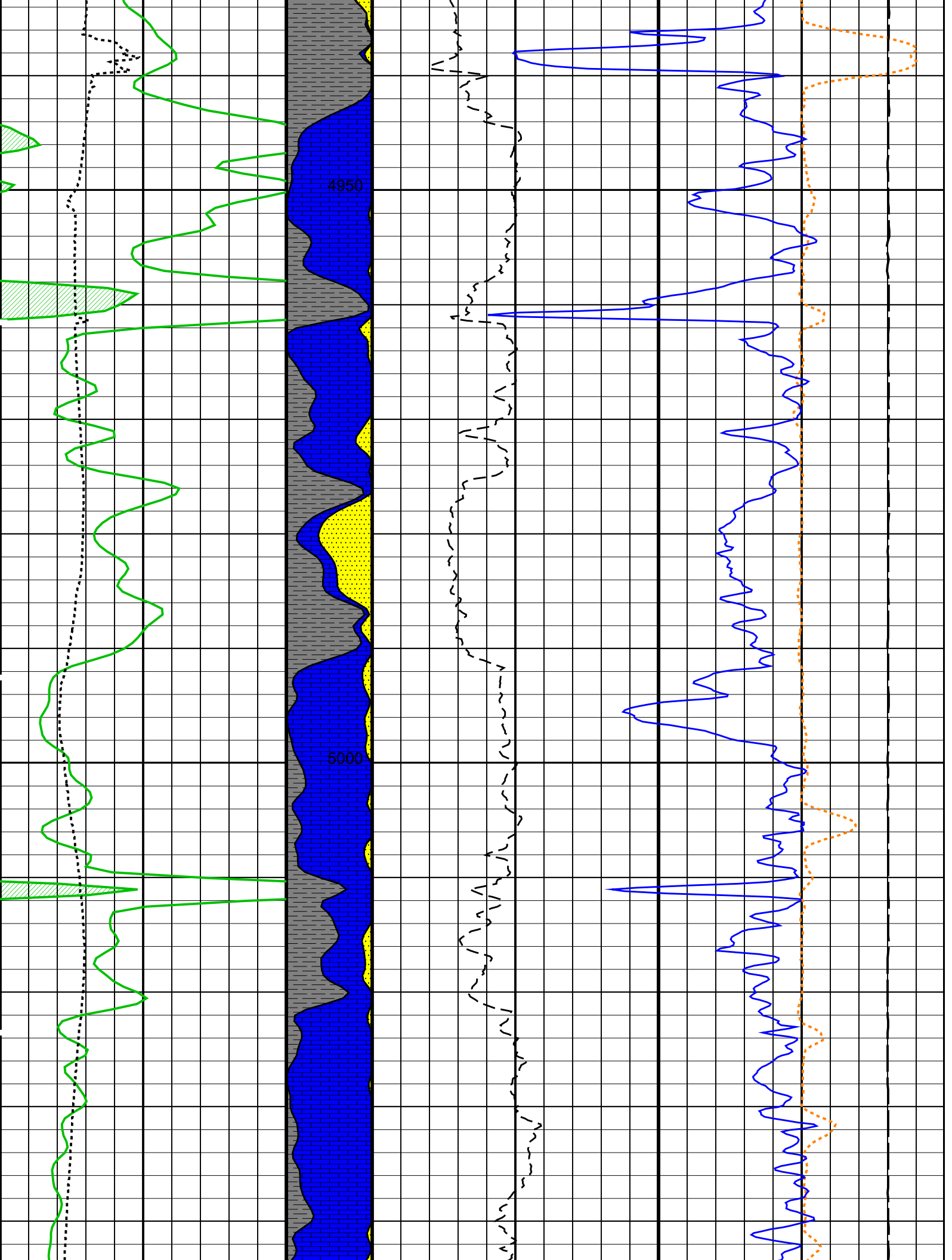
MAIN PASS: *** PLATFORM EXPRESS - LITHOLOGY DENSITY ***

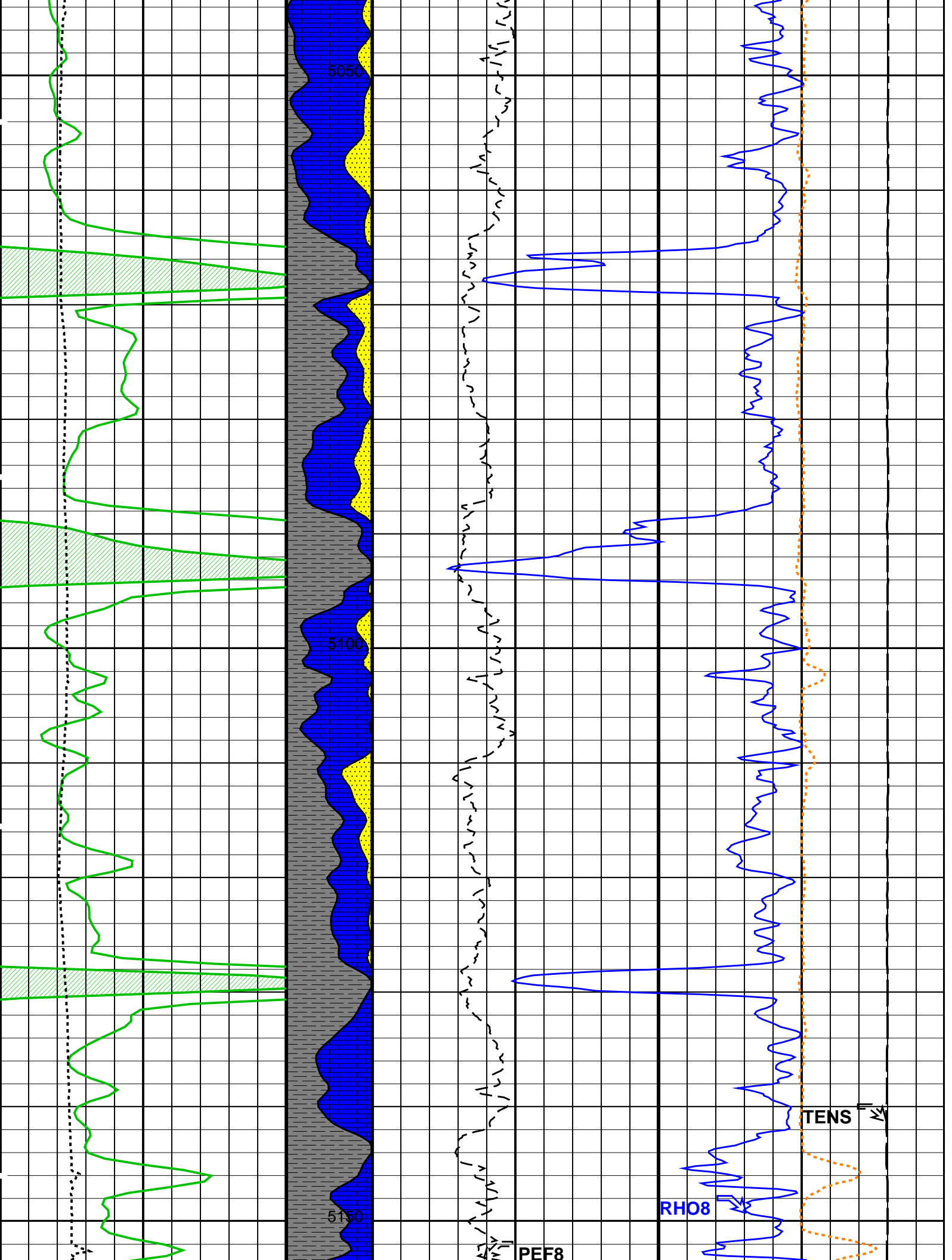


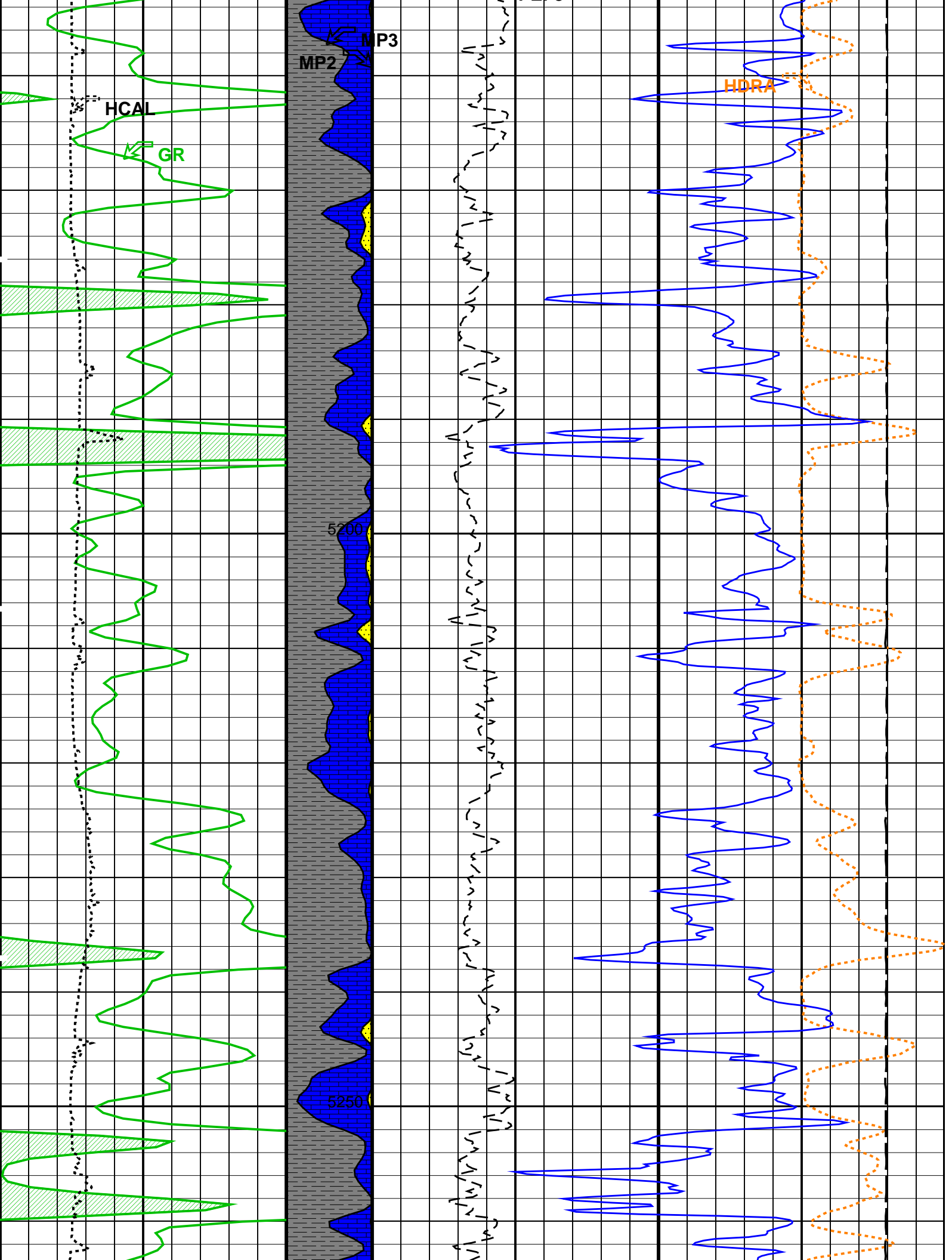


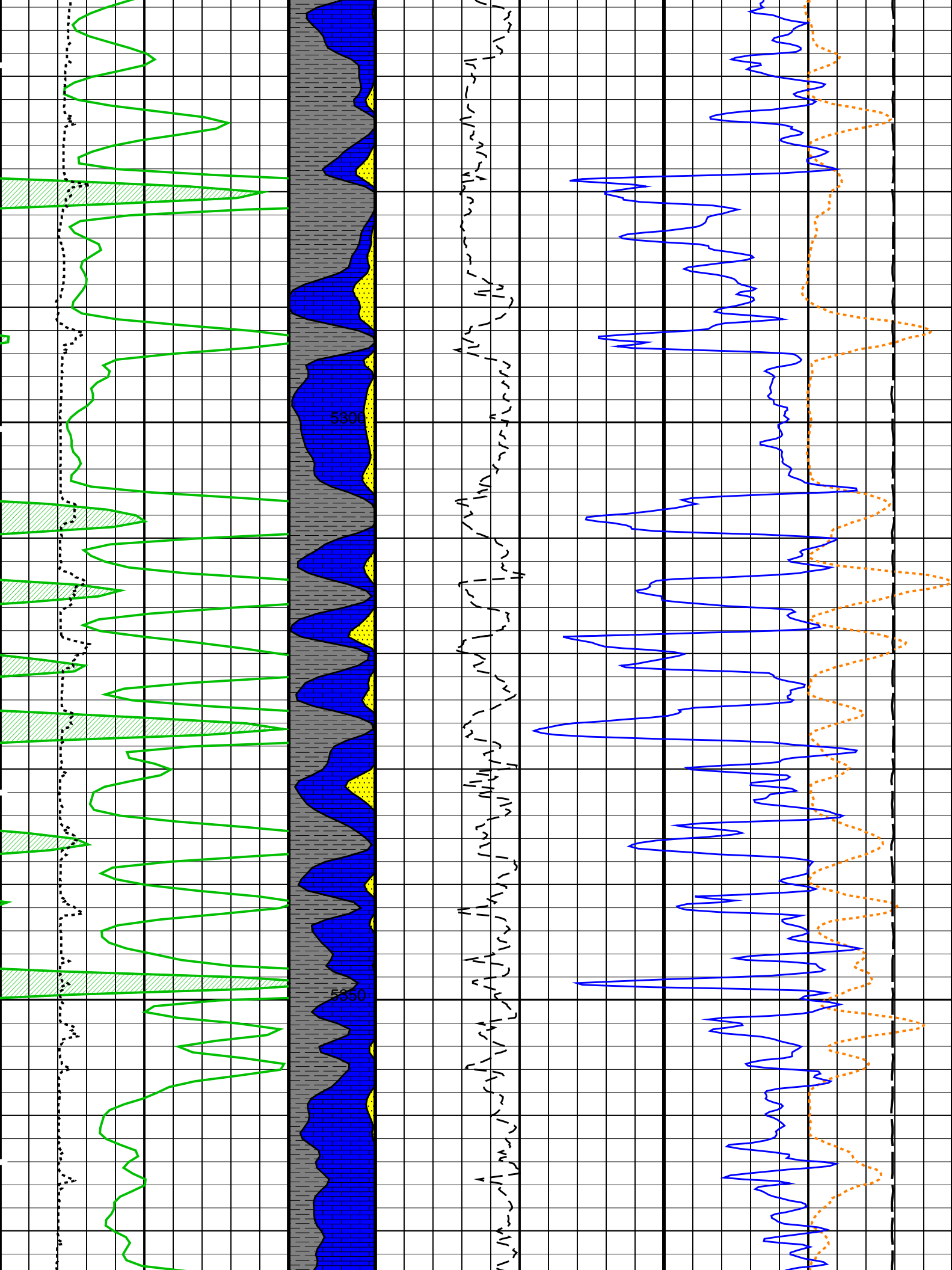


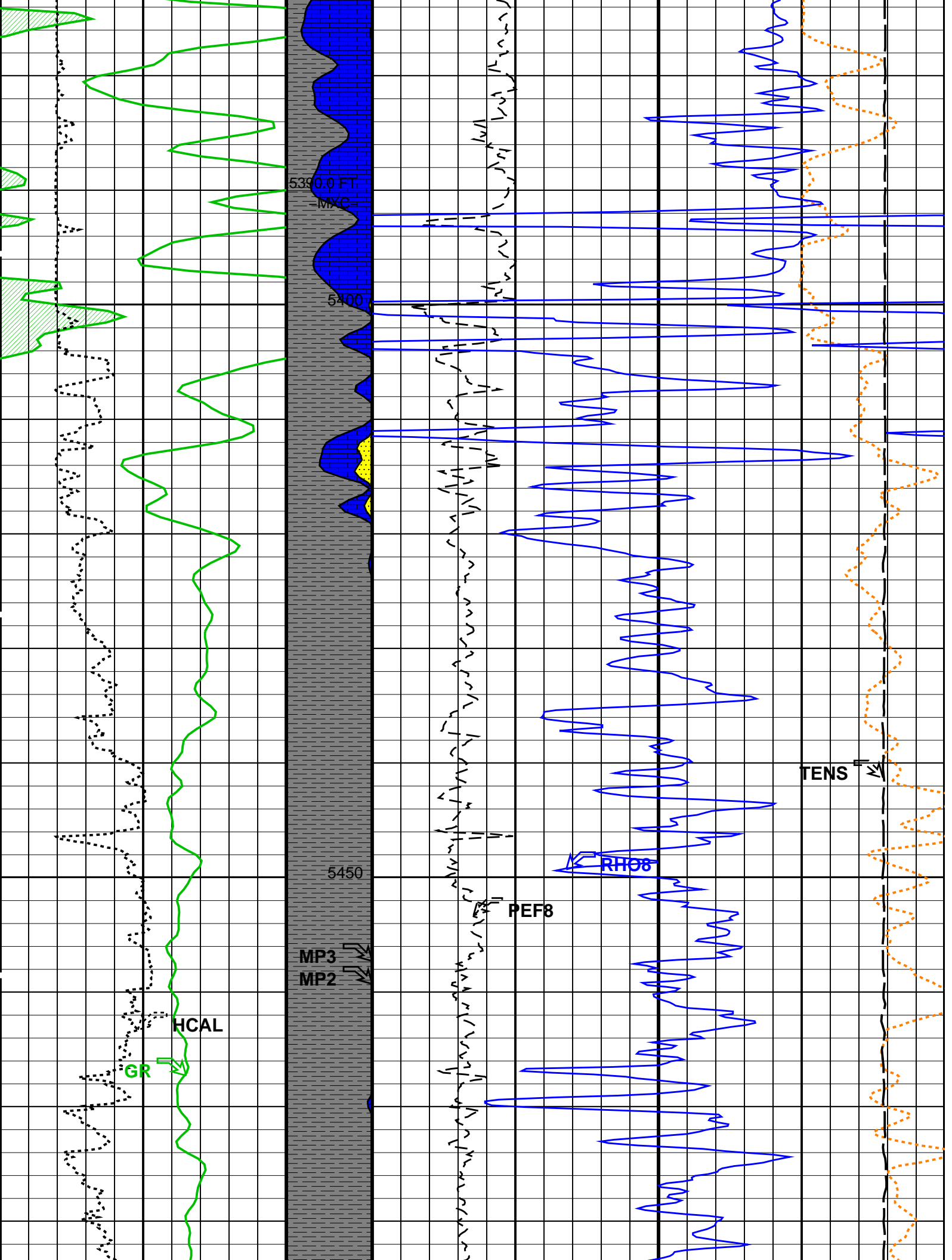


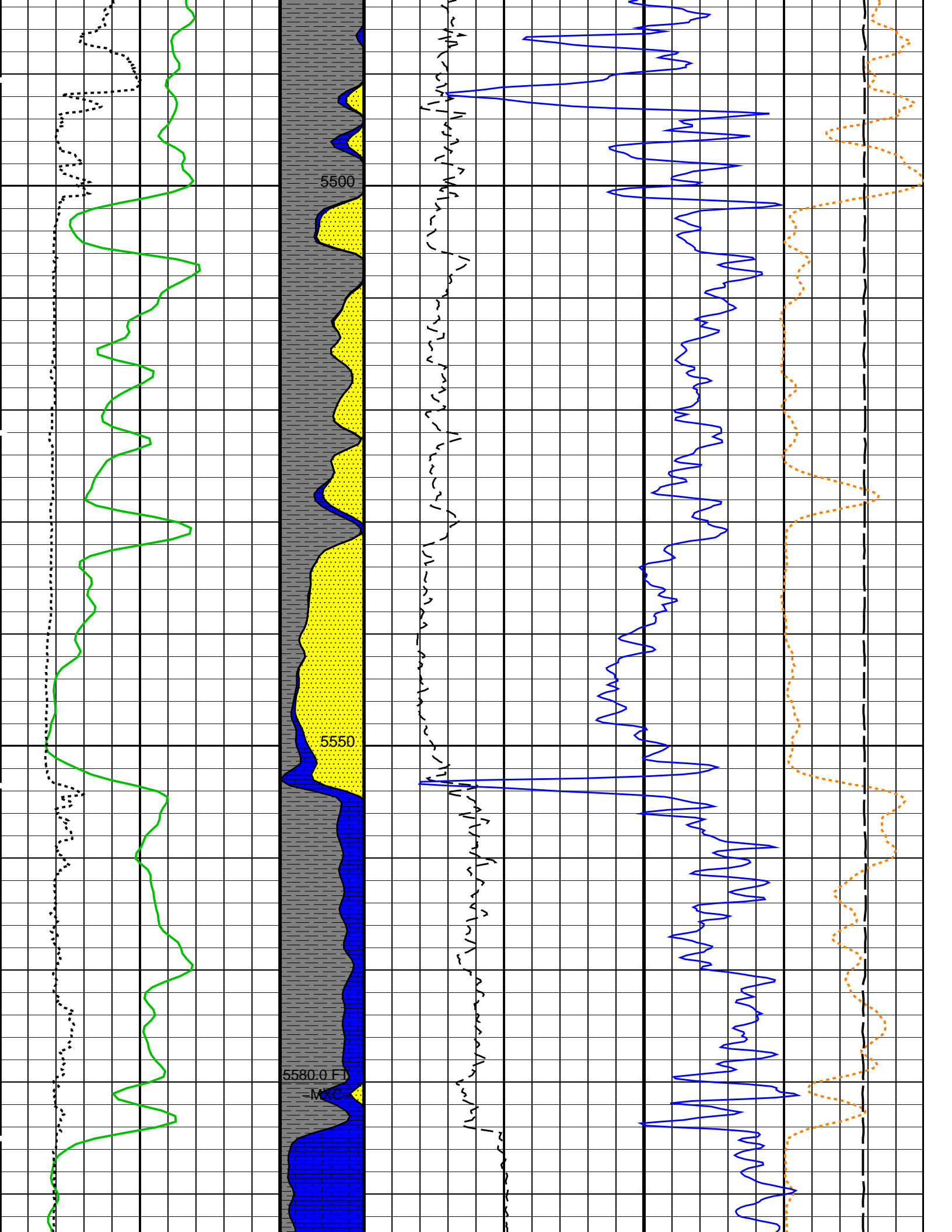


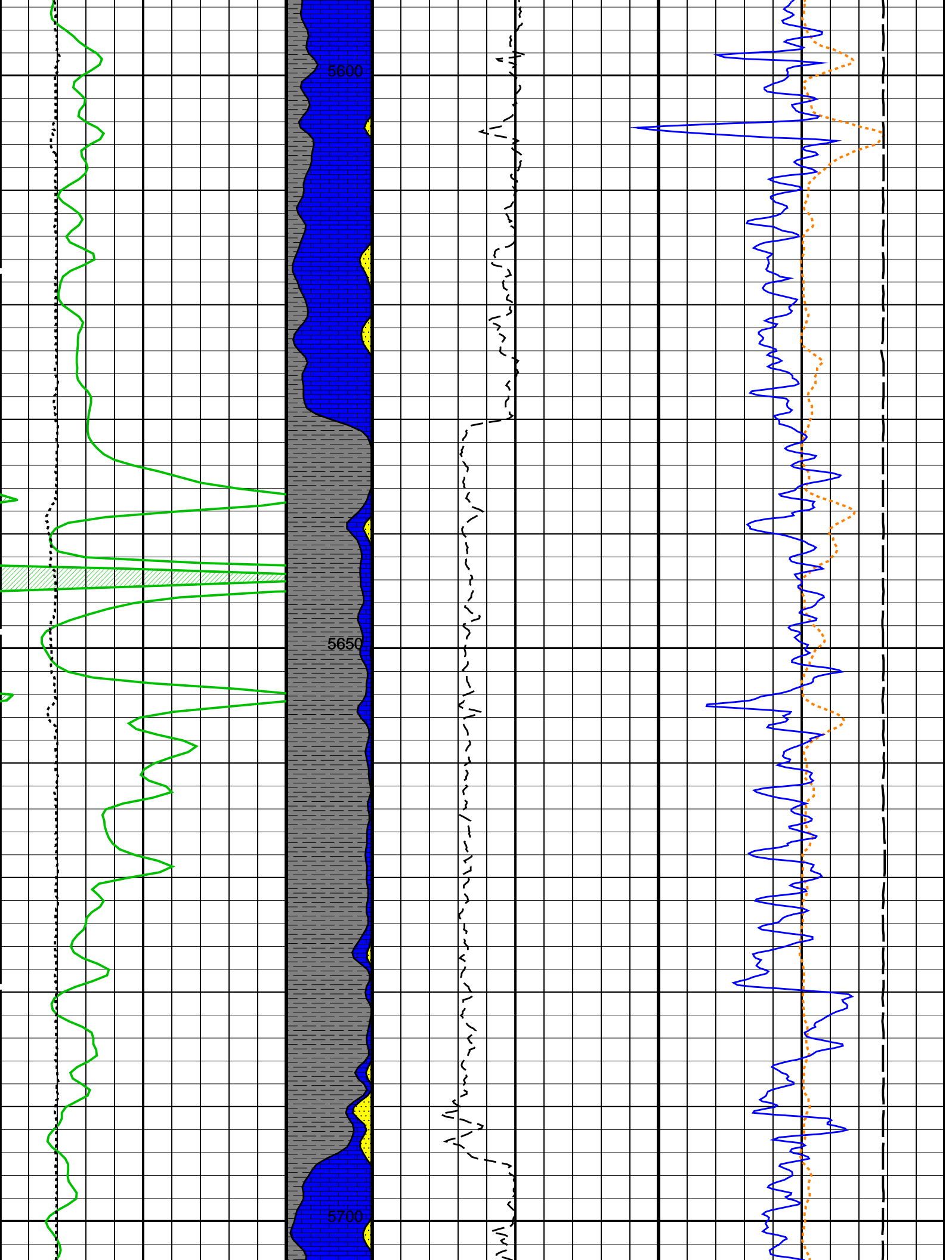


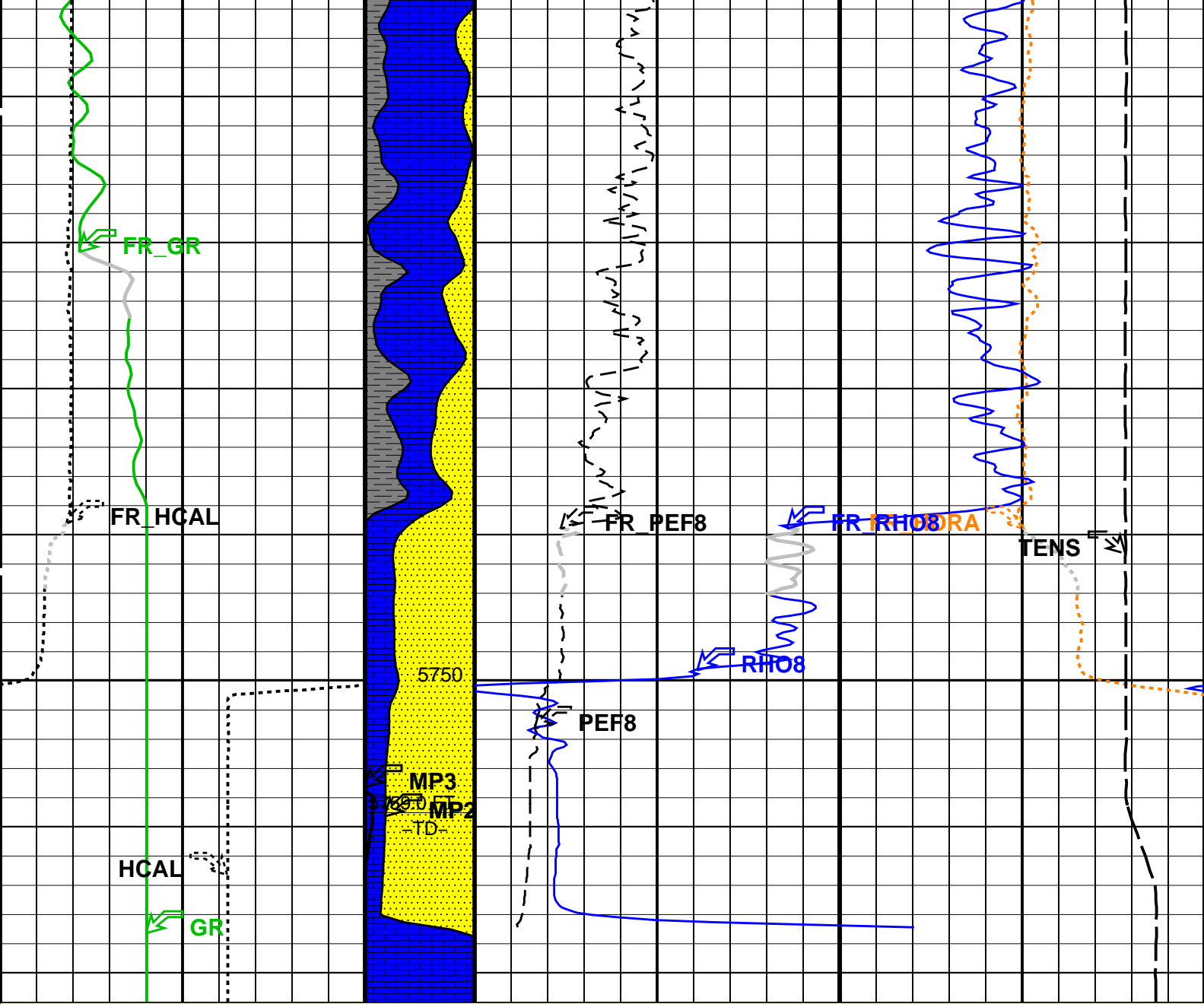












MAIN PASS: *** PLATFORM EXPRESS – LITHOLOGY DENSITY ***

Gamma Ray Backup	Stuck Stretch (STIT)	H. Res. Formation Pe (PEF8)		Density Correction (HDRA)	
	0 (F) 50	0	10	-0.25	0.25
Gamma Ray (GR) (GAPI)	LIME	H. Res. Formation Density (RHO8)			
0 200		2		(G/C3)	3
Caliper (HCAL) (IN)	SAND	Tension (TENS)			
6 16		10000		(LBF)	0
	SHALE				

PIP SUMMARY

Time Mark Every 60 S

Parameters		
DLIS Name	Description	Value
AIT-M: Array Induction Tool – M		
BHT	Bottom Hole Temperature (used in calculations)	134 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GGPD	Geothermal Gradient	0.01 DE/F

GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
HILTB-FTB: High resolution Integrated Logging Tool-DTS			
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHT	Bottom Hole Temperature (used in calculations)	134	DEGF
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCLF	Germany Coal-like Formation Option	NO	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	HiRes	
NSAR	HRDD Depth Sampling Rate	1	IN
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation - Real Time			
BDPS	Bulk Density Processing Selector	Standard	
BHT	Bottom Hole Temperature (used in calculations)	134	DEGF
CLIM	Caliper Limit for Bad Hole	999	IN
CNPS	Corrected Neutron Porosity Selector	NPHI	
DRUL	DRHO Upper Limit	999	G/C3
FCAL	Caliper Presence Flag	PRESENT	
FCGR	CGR Presence Flag	PRESENT	
FEXP	Form Factor Exponent	2	
FLDT	Bulk Density Presence Flag	PRESENT	
FNUM	Form Factor Numerator	1	
FSON	Sonic Presence Flag	ABSENT	
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PMAX	PHI Maximum	0.5	CFCF
POUT	Porosity Output Lithology	LIMESTONE	
RG21	RHO Grain (2-Mineral Model, Min-1)	2.71	G/C3
RG22	RHO Grain (2-Mineral Model, Min-2)	2.644	G/C3
RG23	RHO Grain (2-Mineral Model, Min-3)	2.877	G/C3
RG31	RHO Grain (3-Mineral Model, Min-1)	2.71	G/C3
RG32	RHO Grain (3-Mineral Model, Min-2)	2.644	G/C3
RG33	RHO Grain (3-Mineral Model, Min-3)	2.877	G/C3
RTLF	RT Limit Flag	NO_LIMIT	
RWF	Resistivity of Free Water	0.02	OHMM
SHT	Surface Hole Temperature	68	DEGF
UF	U Fluid	0.398	
UM21	U Matrix (2-Mineral Model, Min-1)	13.77	
UM22	U Matrix (2-Mineral Model, Min-2)	4.779	
UM23	U Matrix (2-Mineral Model, Min-3)	8.997	
UM31	U Matrix (3-Mineral Model, Min-1)	13.77	
UM32	U Matrix (3-Mineral Model, Min-2)	4.779	
UM33	U Matrix (3-Mineral Model, Min-3)	8.997	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	5760.00	FT
TDL	Total Depth - Logger	5759.00	FT
HOLEV: Integrated Hole/Cement Volume			
BHT	Bottom Hole Temperature (used in calculations)	134	DEGF
GGRD	Geothermal Gradient	0.01	DF/F
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
System and Miscellaneous			
BS	Bit Size	7.875	IN
DFD	Drilling Fluid Density	9.10	LB/G
DO	Depth Offset for Playback	2.0	FT
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	1.2180	OHMM
TD	Total Depth	5759	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

Format: DENS_HIRES Vertical Scale: 10" per 100' Graphics File Created: 23-Mar-2010 15:03

OP System Version: 17C0-154

AIT-M	17C0-154	HILTB-FTB	17C0-154
DTC-H	17C0-154		

Input DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_004LUP FN:3 PRODUCER 23-Mar-2010 12:52 5770.5 FT 4563.5 FT

Output DLIS Files

DEFAULT AIT_TLD_MCFL_CNL_016PUP FN:15 PRODUCER 23-Mar-2010 15:02



BEFORE CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase							
Master: 17-Mar-2010 8:50 Before: 22-Mar-2010 22:03							
Thru Cal Magnitude – 0	0	0.6194	0.6193	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.269	1.269	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6307	0.6306	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.7118	0.7117	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.332	1.332	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.950	1.950	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.946	1.946	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.418	1.417	N/A	N/A	N/A	V
Thru Cal Phase – 0	0	180.0	179.9	N/A	N/A	N/A	DEG
Thru Cal Phase – 1	0	178.9	178.8	N/A	N/A	N/A	DEG
Thru Cal Phase – 2	0	175.3	175.3	N/A	N/A	N/A	DEG
Thru Cal Phase – 3	0	174.6	174.5	N/A	N/A	N/A	DEG
Thru Cal Phase – 4	0	168.4	168.4	N/A	N/A	N/A	DEG
Thru Cal Phase – 5	0	166.7	166.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 6	0	166.8	166.7	N/A	N/A	N/A	DEG
Thru Cal Phase – 7	0	165.9	165.9	N/A	N/A	N/A	DEG
Array Induction Tool – M Wellsite Calibration – Electronics Calibration Check – Auxiliary							
Master: 17-Mar-2010 8:50 Before: 22-Mar-2010 22:03							
Array Induction SPA Plus	991.0	983.6	983.5	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	-0.2001	-0.1835	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9170	0.9114	0.9115	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	-0.0002014	-0.0001035	N/A	N/A	N/A	V
Array Induction Tool – M Wellsite Calibration – Test Loop Gain Correction							
Master: 17-Mar-2010 8:50							
Test Loop Gain Correctio – 0	0	1.015	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 1	0	1.012	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	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 4	0	0.9937	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 5	0	0.9890	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 6	0	0.9937	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 7	0	1.006	N/A	N/A	N/A	N/A	V
Test Loop Gain Correctio – 0	0	0.3332	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 1	0	0.6161	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 2	0	0.1287	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 3	0	0.1700	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 4	0	0.1124	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 5	0	-0.06042	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 6	0	0.2973	N/A	N/A	N/A	N/A	DEG
Test Loop Gain Correctio – 7	0	-0.06541	N/A	N/A	N/A	N/A	DEG
Array Induction Tool – M Wellsite Calibration – Sonde Error Correction							
Master: 17-Mar-2010 8:50							
R Sonde Error Correction – 0	0	-65.75	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	176.6	N/A	N/A	N/A	N/A	MM/M

R Sonde Error Correction – 1	0	178.8	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	119.4	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	66.51	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	27.71	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	12.62	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	9.430	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	-1.425	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	-316.9	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	108.6	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	44.39	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	-31.03	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	20.82	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	-16.06	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	-4.953	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	-11.76	N/A	N/A	N/A	N/A	MM/M

Array Induction Tool – M Wellsite Calibration – Mud Gain Correction

Master: 17-Mar-2010 8:50

Coarse – Mag, Real, Imag – 0	0	0.8486	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 1	0	0.8487	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 2	0	0.8487	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 0	0	0.8511	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 1	0	0.8512	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 2	0	0.8512	N/A	N/A	N/A	N/A

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

Before: 22-Mar-2010 22:07

BS Window Ratio	0.7392	N/A	0.7378	N/A	N/A	N/A	
BS Window Sum	10690	N/A	10700	N/A	N/A	N/A	CPS
SS Window Ratio	0.4732	N/A	0.4735	N/A	N/A	N/A	
SS Window Sum	10190	N/A	10190	N/A	N/A	N/A	CPS
LS Window Ratio	0.2975	N/A	0.2981	N/A	N/A	N/A	
LS Window Sum	1166	N/A	1163	N/A	N/A	N/A	CPS

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

Before: 22-Mar-2010 22:07

BS PM High Voltage (Command)	1509	N/A	1533	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1777	N/A	1786	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1896	N/A	1904	N/A	N/A	N/A	V

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

Before: 22-Mar-2010 22:07

BS Crystal Resolution	11.23	N/A	11.26	N/A	N/A	N/A	%
SS Crystal Resolution	11.03	N/A	11.11	N/A	N/A	N/A	%
LS Crystal Resolution	9.873	N/A	9.632	N/A	N/A	N/A	%

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

Before: 22-Mar-2010 22:08

Raw B0 Resistivity	3875	N/A	3858	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3808	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3821	N/A	N/A	N/A	OHMM

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

Before: 22-Mar-2010 22:03

HILT Caliper Zero Measurement	8.000	N/A	9.711	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	13.84	N/A	N/A	N/A	IN

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

Before: 22-Mar-2010 21:59

Gamma Ray Background	30.00	N/A	77.67	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkg)	177.2	N/A	177.2	N/A	N/A	16.11	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

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

Master: 20-Mar-2010 17:38 Before: 22-Mar-2010 22:05

CNTC Background	28.30	28.30	26.87	N/A	N/A	4.245	CPS
CFTC Background	26.92	26.92	28.29	N/A	N/A	4.038	CPS

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

Master: 20-Mar-2010 17:38

Thermal Near Corr. (Tank)	5800	5716	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2390	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.392	N/A	N/A	N/A	N/A	

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

Before: 23-Mar-2010 12:28

Z-Axis Acceleration	32.19	N/A	31.78	N/A	N/A	N/A	F/S2
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

























High resolution Integrated Logging Tool–DTS Master Calibration – Inversion results





Master: 22-Mar-2010 21:20

Rho Aluminum	2.596	2.602	--	--	--	--	G/C3
Rho Magnesium	1.686	1.688	--	--	--	--	G/C3

Pe Aluminum	2.570	2.565	--	--	--	--
Pe Magnesium	2.650	2.609	--	--	--	--
High resolution Integrated Logging Tool-DTS Master Calibration – Deviation Summary						
Master: 22-Mar-2010 21:20						
BS Average Deviation	0	0.3292	--	--	--	%
BS Max Deviation	0	0.6568	--	--	--	%
SS Average Deviation	0	0.4057	--	--	--	%
SS Max Deviation	0	1.954	--	--	--	%
LS Average Deviation	0	0.8119	--	--	--	%
LS Max Deviation	0	1.606	--	--	--	%
The GLS-VJ source activity is acceptable.						
The HGNS Neutron Master Calibration was done with the following parameters :						
NCT-B Water Temperature	61.6	DEGF.				
Thermal Housing Size	3.380	IN.				
NSR-F serial number	5068					

Array Induction Tool – M / Equipment Identification		
Primary Equipment:		
Rm/SP Bottom Nose	AMRM – A	
Array Induction Sonde	AMIS – A	1372
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	0.6194		0.6100	180.0		197.0
	Before	0.6193			179.9		
1	Master	1.269		1.270	178.9		196.0
	Before	1.269			178.8		
2	Master	0.6307		0.6200	175.3		192.0
	Before	0.6306			175.3		
3	Master	0.7118		0.7000	174.6		191.0
	Before	0.7117			174.5		
4	Master	1.332		1.340	168.4		185.0
	Before	1.332			168.4		
5	Master	1.950		1.960	166.7		182.0
	Before	1.950			166.7		
6	Master	1.946		1.960	166.8		181.0
	Before	1.946			166.7		
7	Master	1.418		1.410	165.9		175.0
	Before	1.417			165.9		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 17-Mar-2010 8:50				Before: 22-Mar-2010 22:03			

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		983.6	Master		-0.2001
Before		983.5	Before		-0.1835

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		
Master			0.9114	Master		-0.0002014
Before			0.9115	Before		-0.0001035
0.8710 (Minimum)	0.9170 (Nominal)	0.9630 (Maximum)		-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)
Master: 17-Mar-2010 8:50				Before: 22-Mar-2010 22:03		

















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	1.015				0.3332			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.012				0.6161			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.016				0.1287			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.012				0.1700			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	0.9937				0.1124			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9890				-0.06042			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9937				0.2973			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.006				-0.06541			
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
Master: 17-Mar-2010 8:50								

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	-65.75				-316.9			
		-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	176.6				108.6			
		114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	119.4				44.39			
		66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	66.51				-31.03			
		39.00 (Minimum)	64.00 (Nominal)	89.30 (Maximum)		-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	27.71				20.82			
		15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	12.62				-16.06			
		4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	9.430				-4.953			
		5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-1.425				-11.76			
		-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)





Array Induction Tool – M Wellsite Calibration							
Mud Gain Correction							
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag	
0	0.8486				0.8511		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)
1	0.8487				0.8512		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)
2	0.8487				0.8512		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal) 1.200 (Maximum)

Master: 17–Mar–2010 8:50













Master: 17-Mar-2010 8:50

Array Induction Tool – M Master Calibration									
Electronics Calibration Check – Thru Cal Mag. & Phase									
Idx	Phase	Value	Thru Cal Magnitude V		Nominal	Value	Thru Cal Phase DEG		Nominal
0	Master	0.6194			0.6100	180.0			197.0
1	Master	1.269			1.270	178.9			196.0
2	Master	0.6307			0.6200	175.3			192.0
3	Master	0.7118			0.7000	174.6			191.0
4	Master	1.332			1.340	168.4			185.0
5	Master	1.950			1.960	166.7			182.0
6	Master	1.946			1.960	166.8			181.0
7	Master	1.418			1.410	165.9			175.0
		60.00 % (Minimum)	(Nominal)		140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)	
Master: 17-Mar-2010 8:50									

Master: 17-Mar-2010 8:50

















Array Induction Tool – M Master Calibration							
Electronics Calibration Check – Auxiliary							
Phase	Array Induction SPA Plus MV		Value	Phase	Array Induction SPA Zero MV		Value
Master			983.6	Master			-0.2001
	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			0.9114	Master			-0.0002014
	0.8710 (Minimum)	0.9170 (Nominal)	0.9630 (Maximum)		-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)
Master: 17-Mar-2010 8:50							

Master: 17-Mar-2010 8:50

Array Induction Tool – M Master Calibration						
Test Loop Gain Correction						
Idx	Value	Test Loop Gain Correction Magnitude V			Value	Test Loop Gain Correction Phase DEG
0	1.015				0.3332	
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
1	1.012				0.6161	
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
2	1.016				0.1287	
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
3	1.012				0.1700	
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
4	0.9937				0.1124	
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)		-3.000 (Minimum) 0 (Nominal) 3.000 (Maximum)
5	0.9890				-0.06042	

	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
6	0.9937			0.2973		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
7	1.006			-0.06541		
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)

Master: 17-Mar-2010 8:50

Array Induction Tool – M Master Calibration							
Sonde Error Correction							
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M	
0	-65.75				-316.9		
	-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)
1	176.6				108.6		
	114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)
2	119.4				44.39		
	66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)
3	66.51				-31.03		
	39.00 (Minimum)	64.00 (Nominal)	89.30 (Maximum)		-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)
4	27.71				20.82		
	15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)
5	12.62				-16.06		
	4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
6	9.430				-4.953		
	5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)
7	-1.425				-11.76		
	-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)

Master: 17-Mar-2010 8:50

Array Induction Tool – M Master Calibration								
Mud Gain Correction								
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag		
0	0.8486	<div><div></div></div>			0.8511	<div><div></div></div>		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	0.8487	<div><div></div></div>			0.8512	<div><div></div></div>		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.8487	<div><div></div></div>			0.8512	<div><div></div></div>		
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)

Master: 17-Mar-2010 8:50

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 – B
HRGD – B
MCFL –
GLS – VJ
HRCC – B
HGNS – B
HGR –
HCNT –

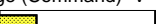
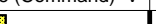
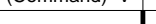
5416




Auxiliary Equipment:




Neutron Calibration Tank
Gamma Source Radioactive



NCT – B
GSR – U/V



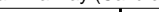
High resolution Integrated Logging Tool-DTS Wellsite Calibration														
Stab Measurement Summary														
Phase	BS Window Ratio			Value	Phase	SS Window Ratio			Value	Phase	LS Window Ratio			Value
Before				0.7378	Before				0.4735	Before				0.2981
	0.7022 (Minimum)	0.7392 (Nominal)	0.7762 (Maximum)			0.4496 (Minimum)	0.4732 (Nominal)	0.4969 (Maximum)			0.2827 (Minimum)	0.2975 (Nominal)	0.3124 (Maximum)	
Phase	BS Window Sum CPS			Value	Phase	SS Window Sum CPS			Value	Phase	LS Window Sum CPS			Value
Before				10700	Before				10190	Before				1163
	10160 (Minimum)	10690 (Nominal)	11230 (Maximum)			9680 (Minimum)	10190 (Nominal)	10700 (Maximum)			1108 (Minimum)	1166 (Nominal)	1224 (Maximum)	
Before: 22-Mar-2010 22:07														





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				1533	Before				1786	Before				1904
	1409 (Minimum)	1509 (Nominal)	1609 (Maximum)		1677 (Minimum)	1777 (Nominal)	1877 (Maximum)		1796 (Minimum)	1896 (Nominal)	1996 (Maximum)			
Before: 22-Mar-2010 22:07														

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			11.26	Before			11.11	Before			9.632
	10.23 (Minimum)	11.23 (Nominal)	12.23 (Maximum)		10.03 (Minimum)	11.03 (Nominal)	12.03 (Maximum)		8.873 (Minimum)	9.873 (Nominal)	10.87 (Maximum)
Before: 22-Mar-2010 22:07											




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				3858	Before				3808	Before				3821
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)			
Before: 22-Mar-2010 22:08														

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			9.711	Before			13.84
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)
Before: 22-Mar-2010 22:03							


High resolution Integrated Logging Tool-DTS Wellsite Calibration											
Detector Calibration											
Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig – Bkg) GAPI		Value	Phase	Gamma Ray (Calibrated) GAPI		Value
Before			77.67	Before			177.2	Before			165.0
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		161.1 (Minimum)	177.2 (Nominal)	193.3 (Maximum)		150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)
Before: 22-Mar-2010 21:59											

High resolution Integrated Logging Tool–DTS Wellsite Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				28.30	Master				26.92
Before				26.87	Before				28.29
5.000 28.30 40.00 (Minimum) (Nominal) (Maximum)					5.000 26.92 40.00 (Minimum) (Nominal) (Maximum)				
Master: 20–Mar–2010 17:38					Before: 22–Mar–2010 22:05				





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				5716	Master				2390	Master				2.392
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)			2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	







Master: 20-Mar-2010 17:38

High resolution Integrated Logging Tool-DTS Wellsite Calibration			
Accelerometer Calibration			
Phase	Z-Axis Acceleration F/S2	Value	
Before		31.78	
	31.53 (Minimum)	32.19 (Nominal)	32.84 (Maximum)
Before: 23-Mar-2010 12:28			



Before: 23-Mar-2010 12:28

High resolution Integrated Logging Tool—DTS Master Calibration							
Inversion results							
Phase	Rho Aluminum G/C3		Value	Phase	Rho Magnesium G/C3		Value
Master			2.602	Master			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			2.565	Master			2.609
	2.470 (Minimum)	2.570 (Nominal)	2.670 (Maximum)		2.550 (Minimum)	2.650 (Nominal)	2.750 (Maximum)
Master: 22—Mar—2010 21:20							




Master: 22-Mar-2010 21:20

High resolution Integrated Logging Tool-DTS Master Calibration														
Deviation Summary														
Phase	BS Average Deviation %			Value	Phase	SS Average Deviation %			Value	Phase	LS Average Deviation %			Value
Master				0.3292	Master				0.4057	Master				0.8119
	-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				0.6568	Master				1.954	Master				1.606
	-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: 22-Mar-2010 21:20														

Master: 22-Mar-2010 21:20

High resolution Integrated Logging Tool—DTS Master Calibration									
Zero Measurement									
Phase	CNTC Background CPS			Value	Phase	CFTC Background CPS			Value
Master				28.30	Master				26.92
	5.000 (Minimum)	28.30 (Nominal)	40.00 (Maximum)			5.000 (Minimum)	26.92 (Nominal)	40.00 (Maximum)	
Master: 20–Mar–2010 17:38									

Master: 20-Mar-2010 17:38

High resolution Integrated Logging Tool-DTS Master Calibration														
Tank Measurement														
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)			Value
Master				5716	Master				2390	Master				2.392
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)			1900 (Minimum)	2400 (Nominal)	2900 (Maximum)			2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)	
Master: 20-Mar-2010 17:38														

Master: 20-Mar-2010 17:38

DTS Telemetry Tool / Equipment Identification

Primary Equipment:

DTC-H Auxiliary Cartridge
DTC-H Telemetry Cartridge

DTCH - A
DTCH - A

Auxiliary Equipment:

DTCH Telemetry Cartridge Housing

ECH - KC

Company: Vecta Oil & Gas, LTD.

Schlumberger

Well: Red Cloud 44–5

Field: Eureka Creek

County: Cheyenne

State: Colorado

Platform Express
Compensated Neutron
Density Lithology