

Schlumberger

Company:	Cascade Petroleum LLC
Well:	Monks A11-9S-56W-01
Field:	Wildcat
County:	Lincoln
	State: Colorado

Well: **Monks A11-9S-56W-01**
Field: **Wildcat**
County: **Lincoln**
State: **Colorado**

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County: **Lincoln** State: **Colorado**

[illegible]

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				

[illegible]

DEPTH SUMMARY LISTING

Date Created: 9-MAY-2013 19:53:07

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-B	Type:	CMTD-B/A	Type:	7-46P-XS
Serial Number:	6515	Serial Number:	1919	Serial Number:	711057
Calibration Date:	23-Oct-2012	Calibration Date:	22-Apr-2013	Length:	24000 FT
Calibrator Serial Number:	1	Calibrator Serial Number:	78135	Conveyance Method: Wireline Rig Type: LAND	
Calibration Cable Type:	7-46P-XS	Number of Calibration Points:	10		
Wheel Correction 1:	-7	Calibration RMS:	10		
Wheel Correction 2:	-5	Calibration Peak Error:	16		

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:	2.00 FT
Tool Zero Check At Surface:	

Depth Control Remarks

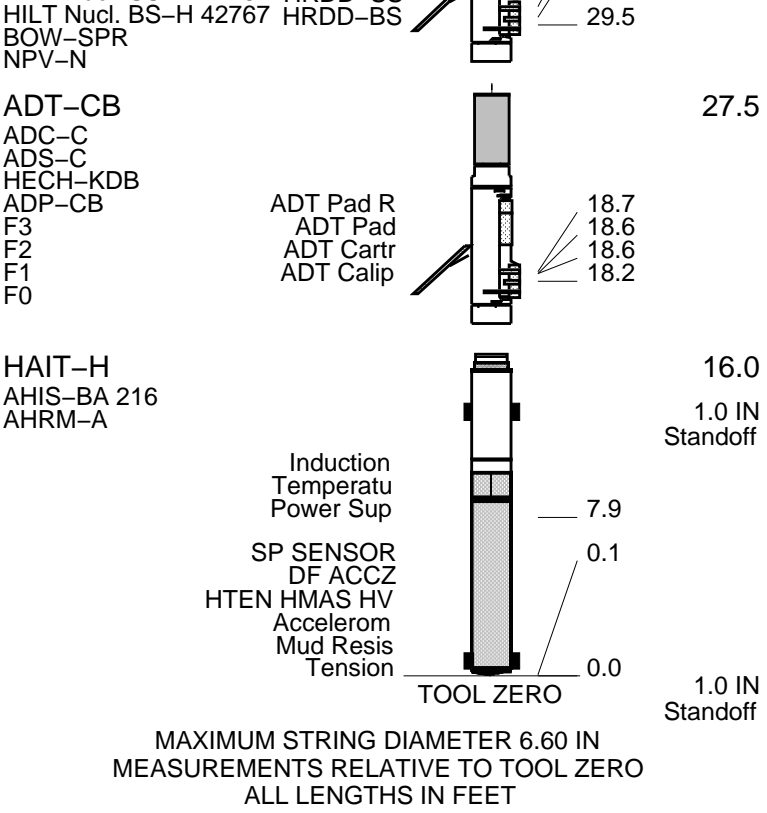
1. All Schlumberger Depth Control Procedures followed.
2. IDW used as Primary Depth Control.
3. Z-chart used as Secondary Depth Control.
- 4.
- 5.
- 6.

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: MSIP	OS1:
OS2: HNCS	OS2:
OS3: CMR	OS3:
OS4: Litho Scanner	OS4:
OS5: Dielectric Scanner	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
This is the first run in hole.	
Toolstring run as per toolsketch.	
Matrix: Limestone, 2.71 g/cc	
Bridged above TD at 8405' and logged out	

Rig: Patterson #189					
Crew: Alonzo Carrera, Ian Derry, Derrick Hunter					
RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
CCN1-00004 19C2-270 100 ft					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP
EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		
SURFACE EQUIPMENT WITM (EDTS)-A					
GSR-U/Y NCT-B CNB-AB NCS-VB					
DOWNHOLE EQUIPMENT					
LEH-QT LEH-QT		78.2			
EDTC-B EDTH-B EDTC-B EDTG-A/B	MDSB_EDTC Mud Tempe CTEM Gamma Ray EFTB DIAG TelStatus EDTCB Ele	75.3 71.8 69.9 68.8	75.3		
CMRT-B CMRH-AA CMRS-BA 220 CMRC-B 220 EME-F		68.8			
	CMR-B Raw CMR-B Sen CMR-B Dia	55.1 53.2			
AH-107 AH-107		53.2			
AH-107 AH-107	HGNS HTEM HMCA HGNS Gamm	49.2 48.4	51.2		
HILTH-FTB HGNSD-H HMCA-H HGNIH NLS-KL NSR-F 2554 HACCZ-H 6991 HCNT-H HGR HRCC-H HRMS-H HRGD-H GLS-VJ 5471 MCFL Device-H HILT Nucl. LS-H 28620 HILT Nucl. SS-H 42767	HGNS Neut HGNS Neut HGNS sens HRCC cart MCFL HILT cali HRDD-LS HRDD-SS	42.6 42.1 39.8 35.8 30.3 29.9	49.2		



Schlumberger

MAIN TRIPLE COMBO 5" = 100'

MAXIS Field Log

Company: Cascade Petroleum LLC Well: Monks A11-9S-56W-0

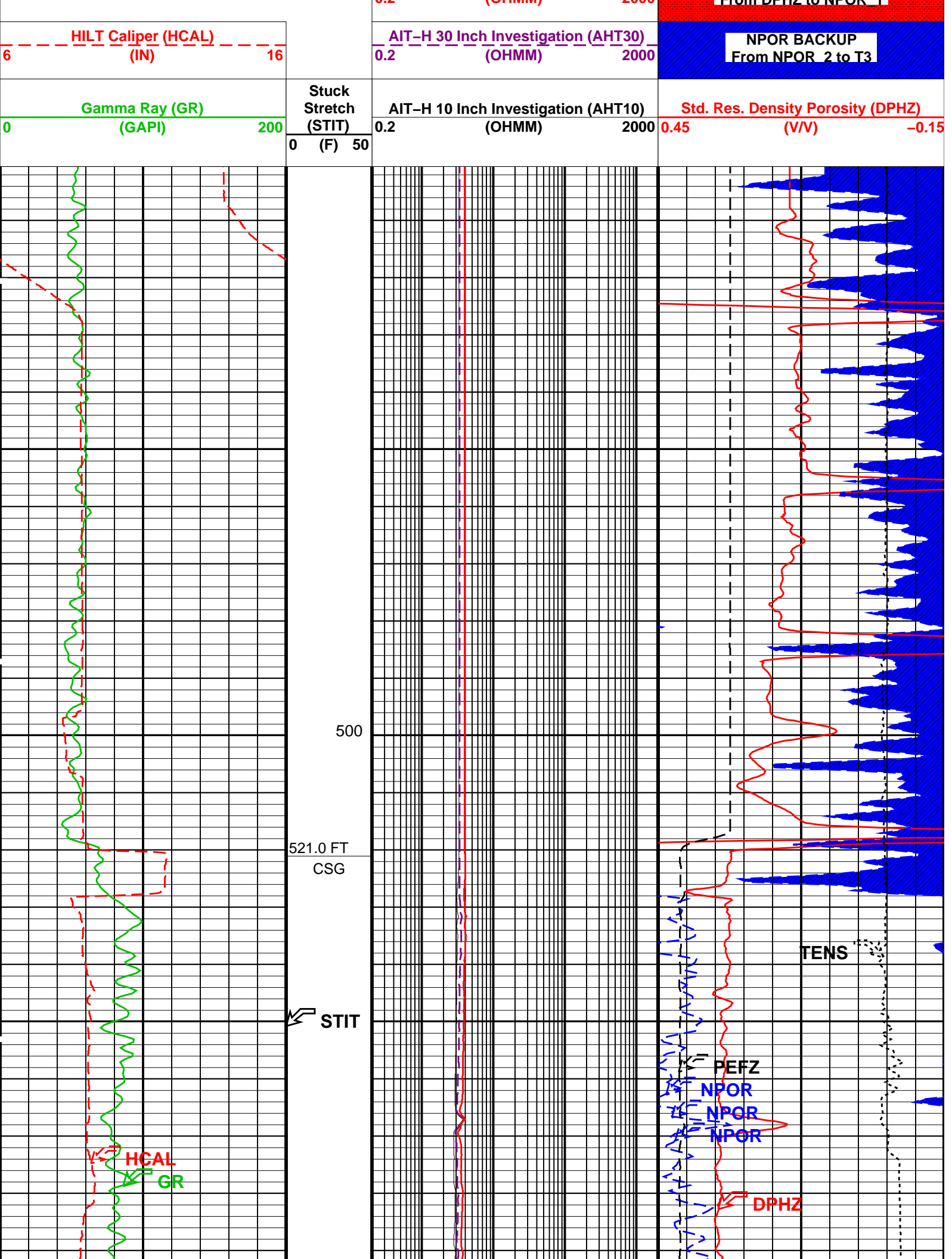
Output DLIS Files						
DEFAULT	AIT_ADT_TLD_MCFL_044LUP	FN:43	PRODUCER	09-May-2013 20:00	8412.0 FT	400.1 FT

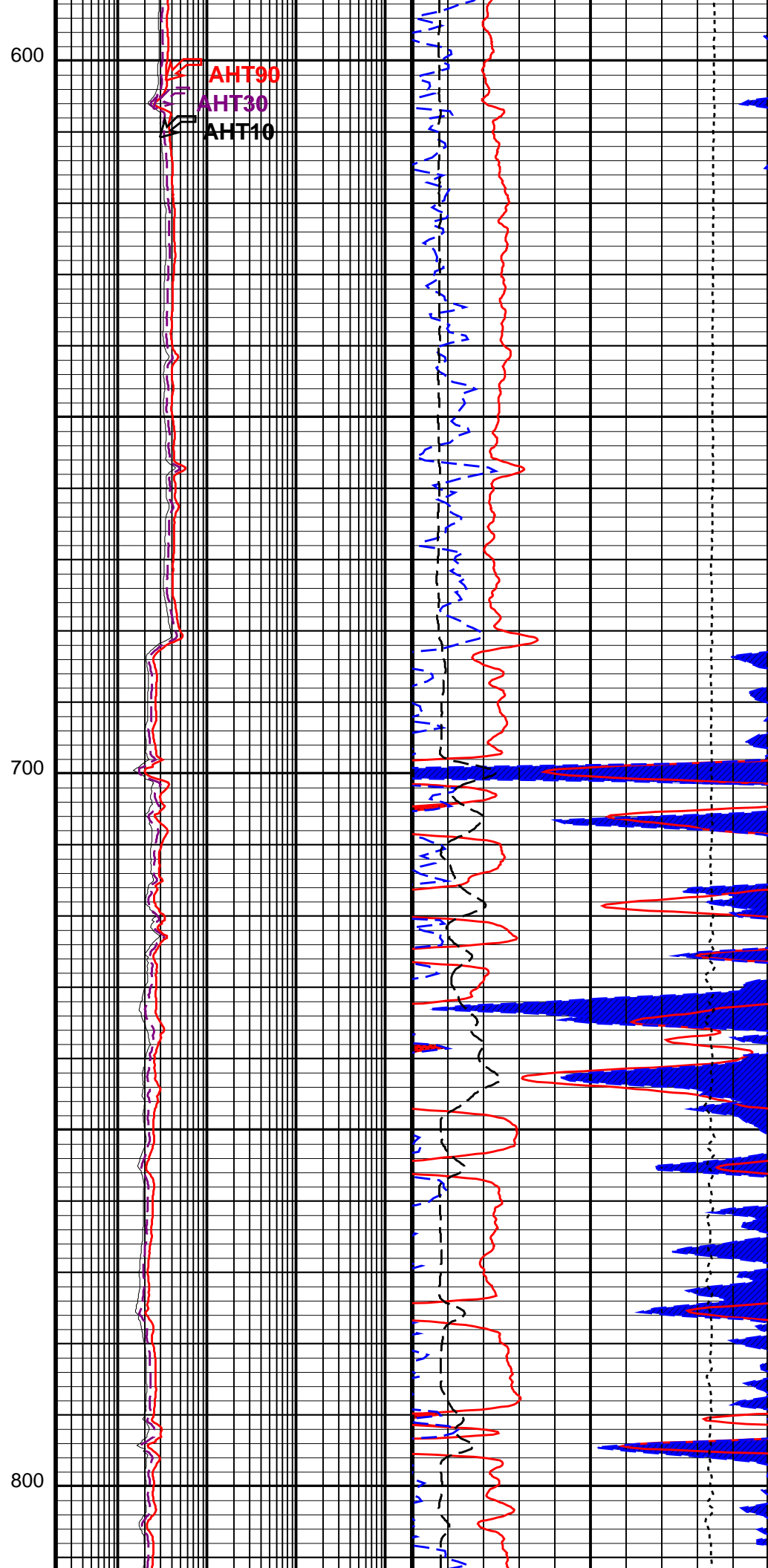
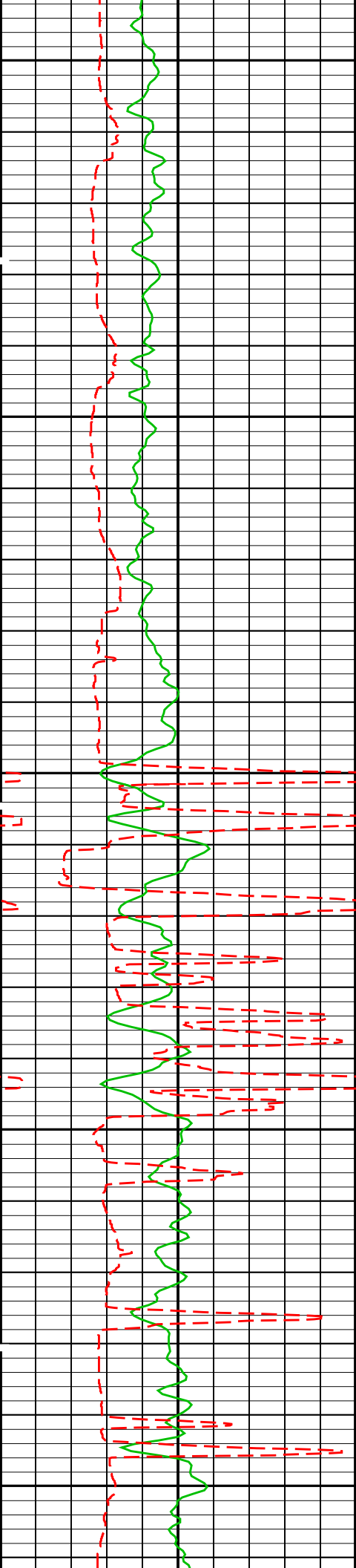
OP System Version: 19C2-270			
HAIT-H	19C2-270	ADT-CB	19C2-270
HILTH-FTB	19C2-270	CMRT-B	19C2-270
EDTC-B	19C2-270		

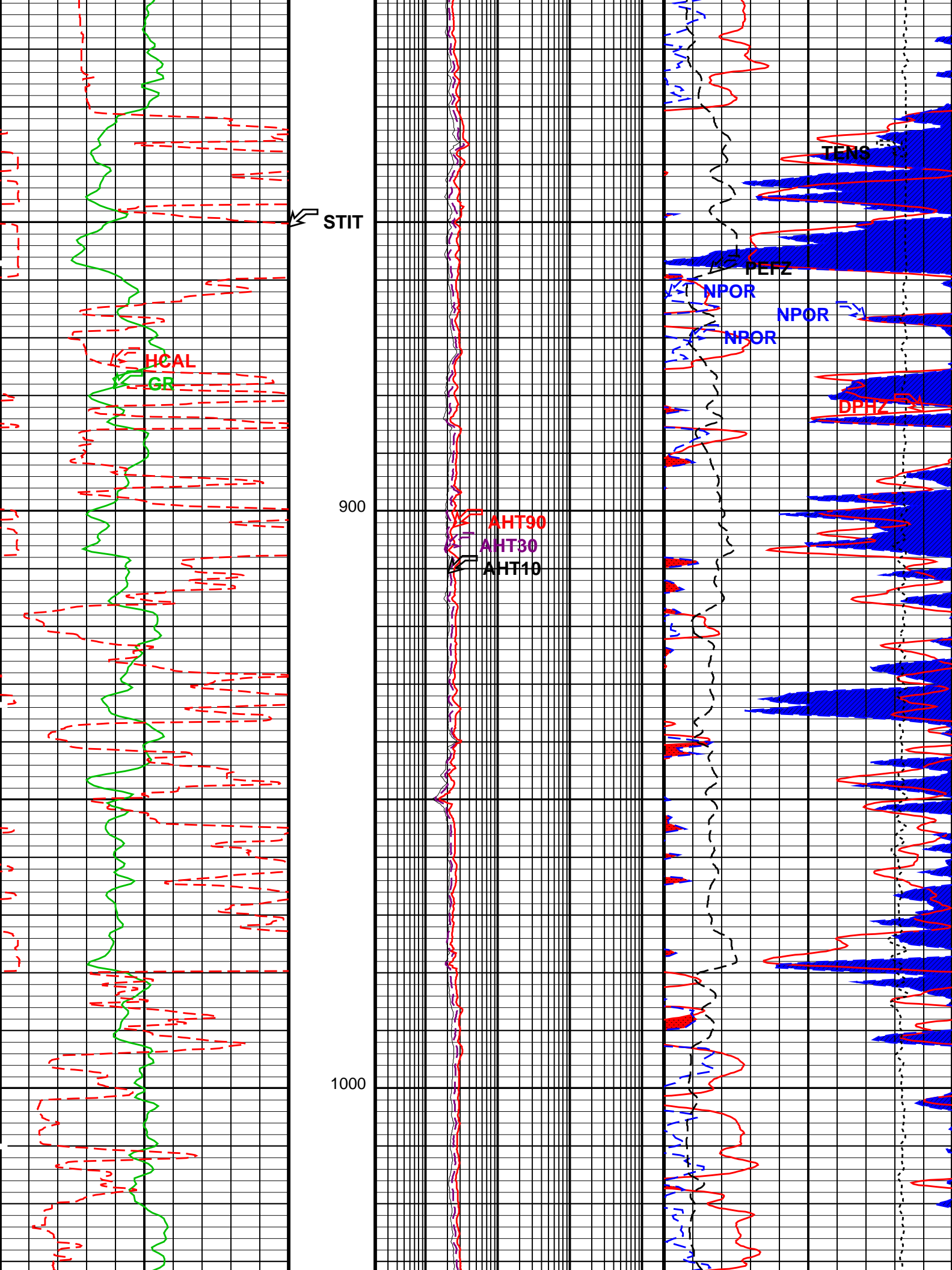
PIP SUMMARY	
<input checked="" type="checkbox"/> Time Mark Every 60 S	

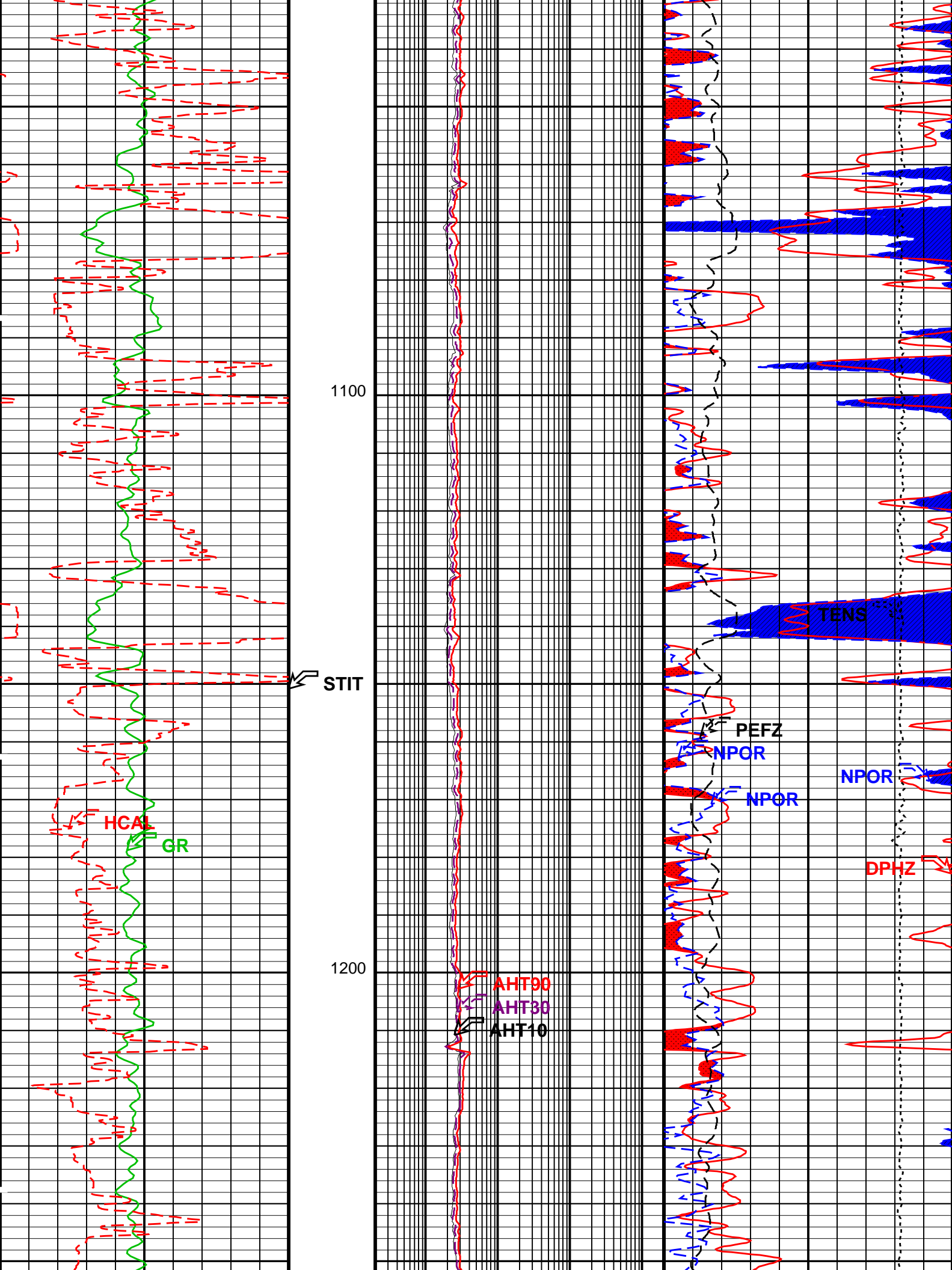
	Std. Res. Formation Pe (PEFZ) — — 0 — (----) — 20	
	Alpha Processed Neutron Porosity (NPOR) 0.45 — — — — — (V/V) — — — — — -0.15	
	Tension (TENS) 10000 — — — — — (LBF) — — — — — 0	

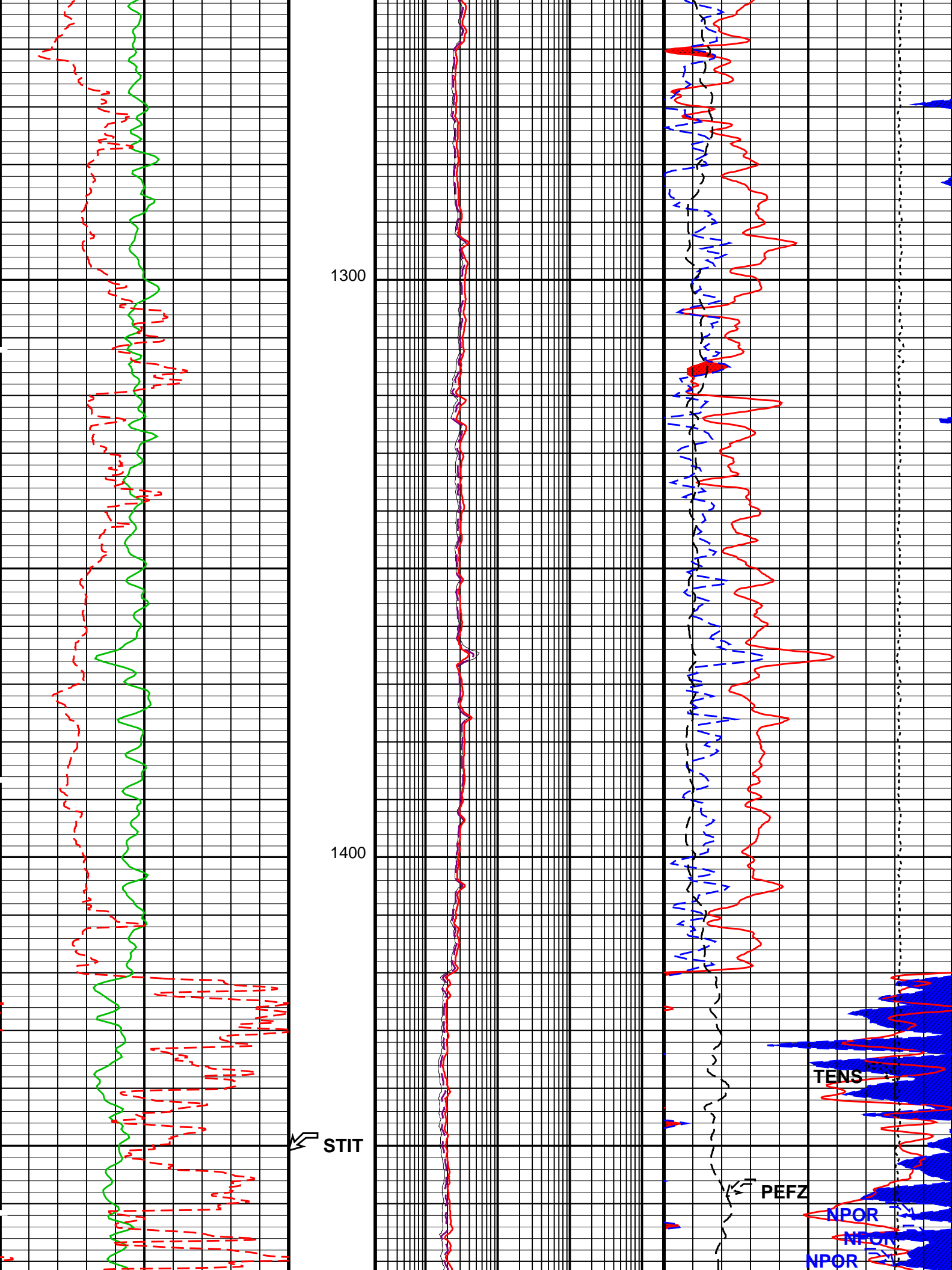
AIT-H 90 Inch Investigation (AHT90)		GAS EFFECT	
0.2	(OHMM)	2000	From DBH7 to NPOR 1

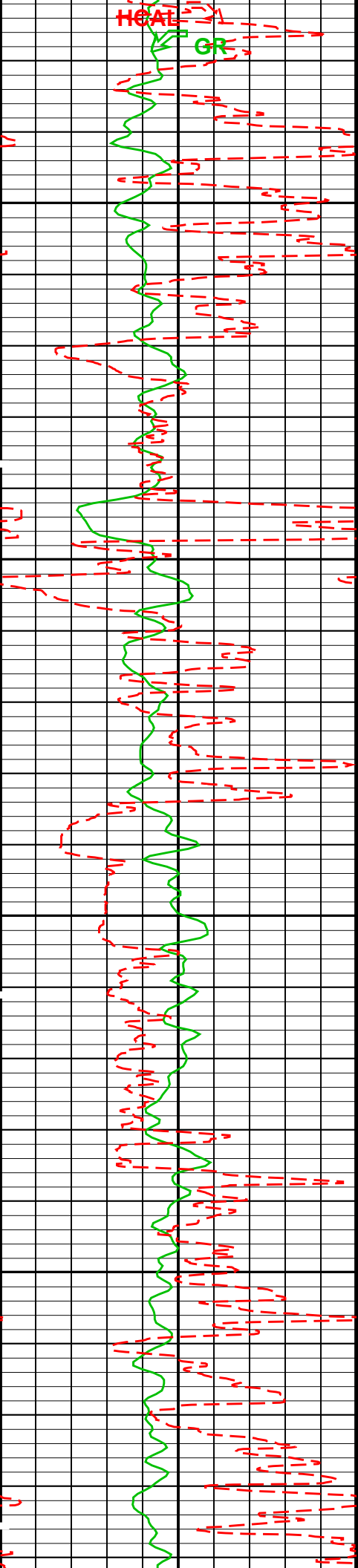








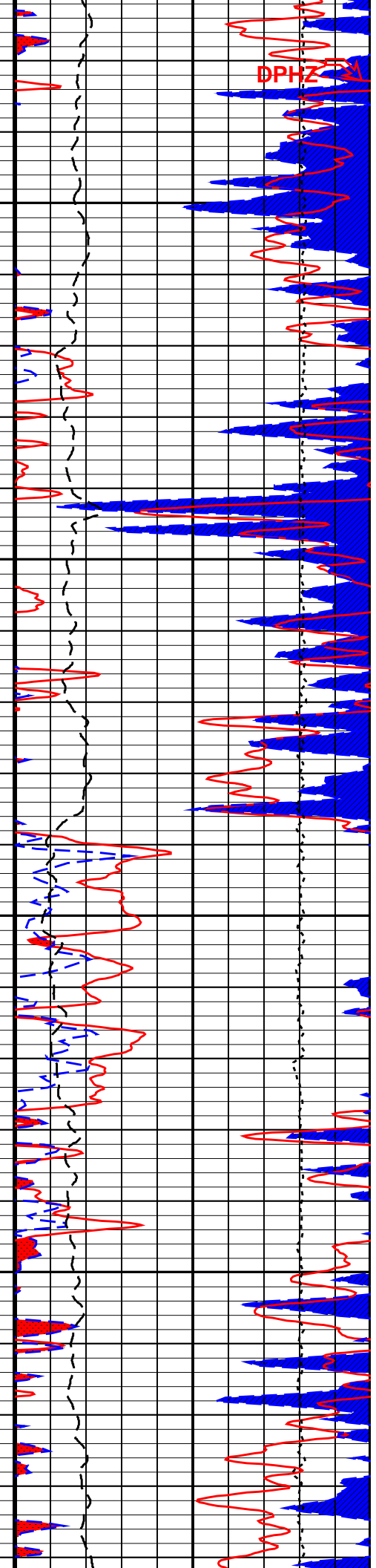




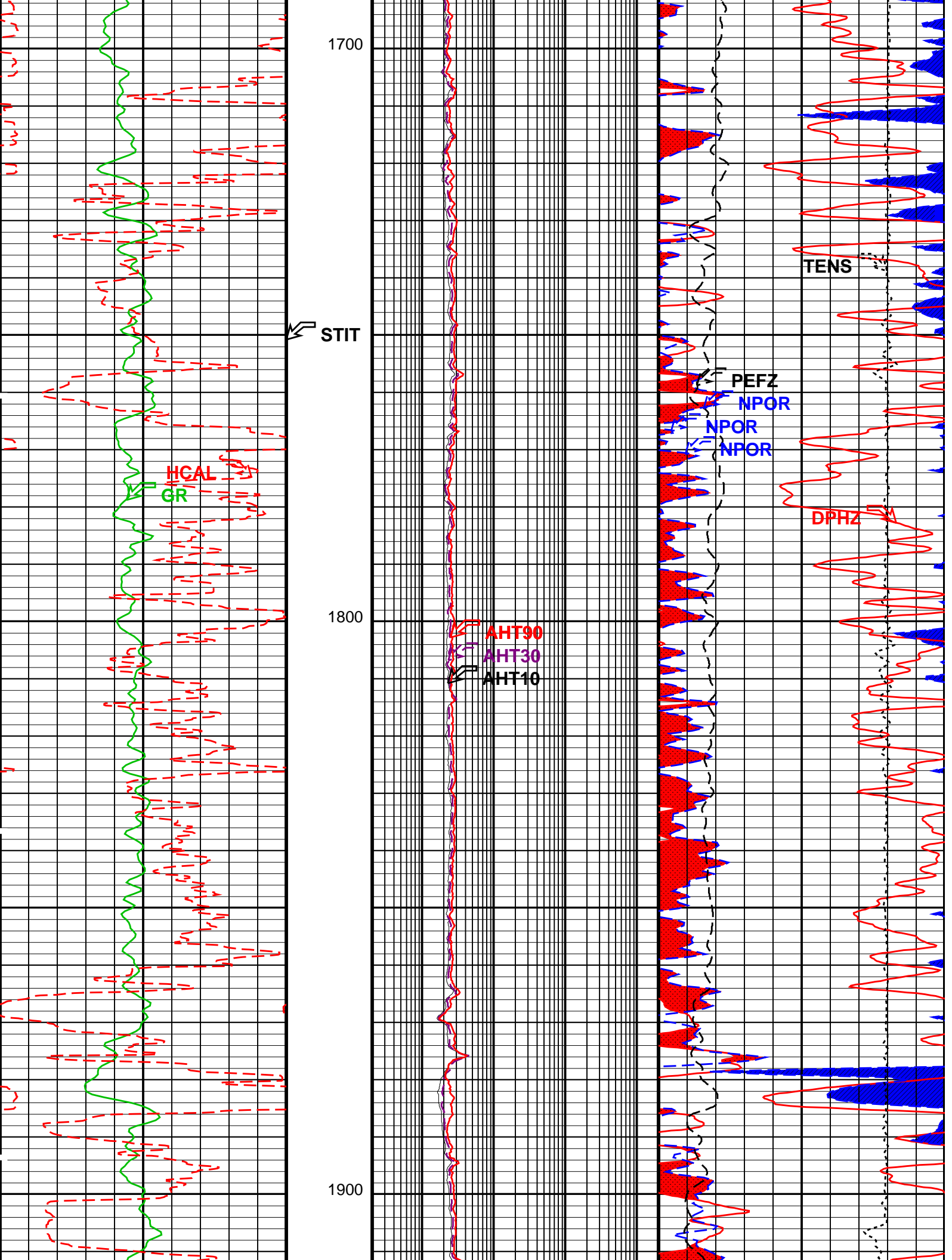
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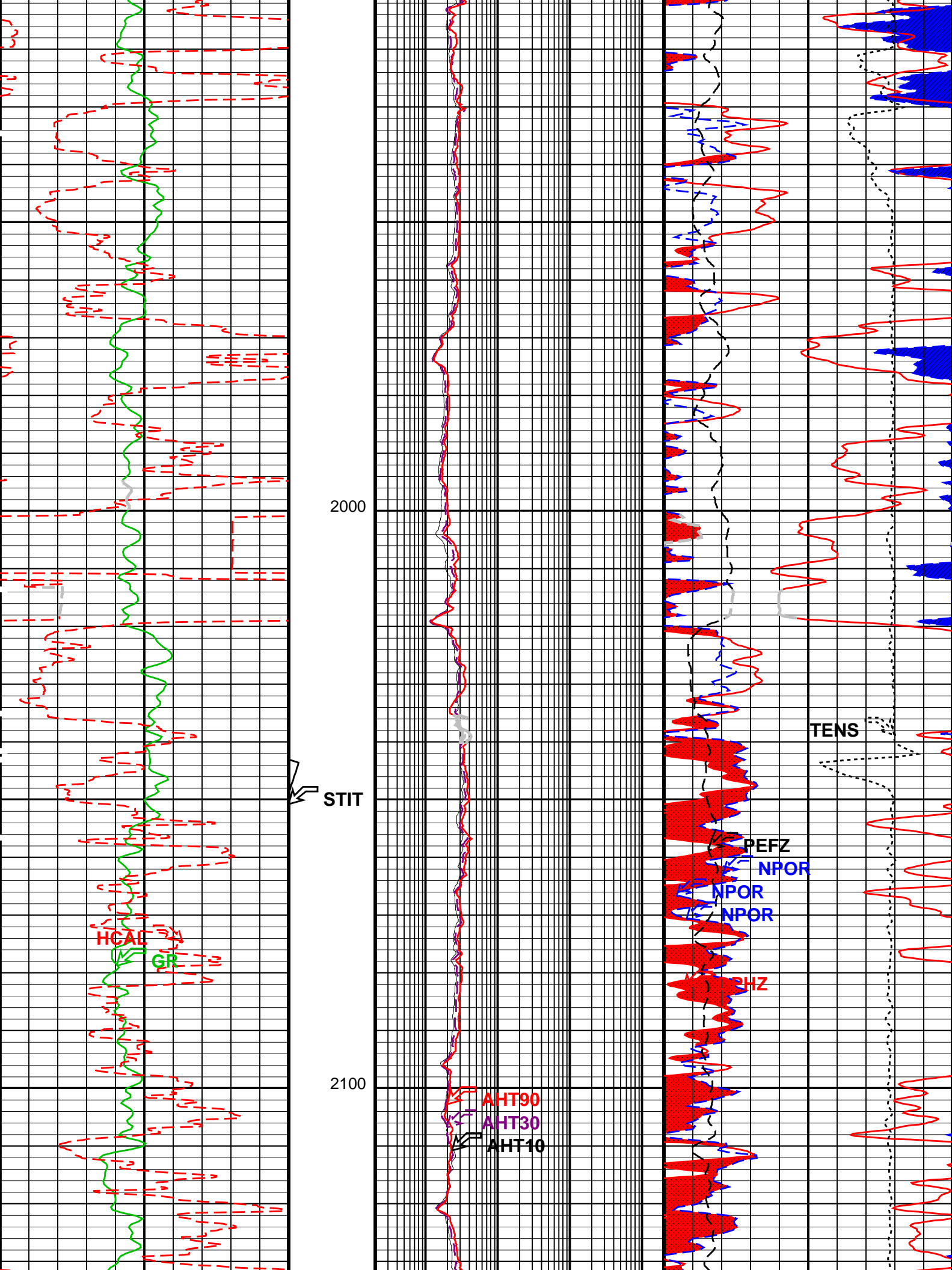
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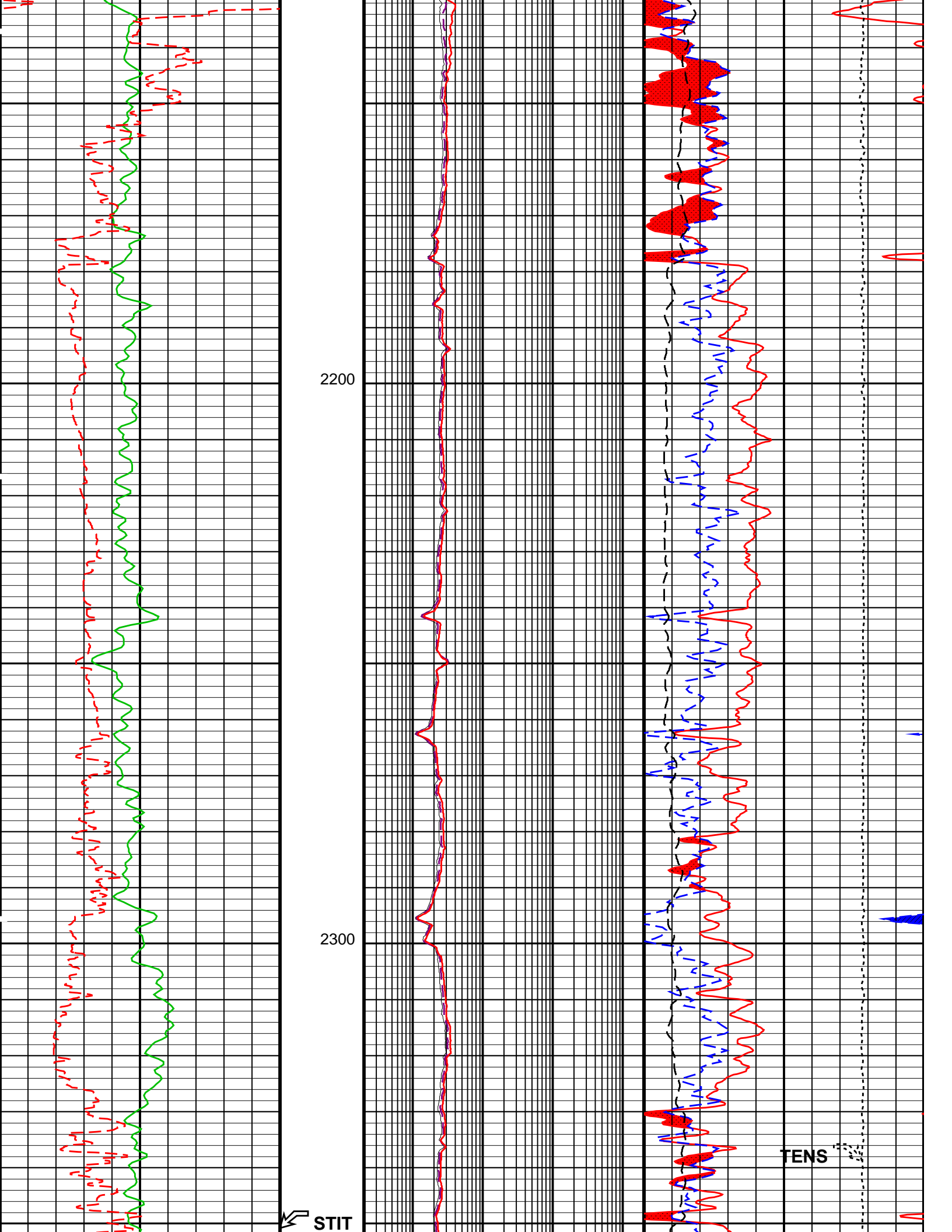
AHT90
AHT30
AHT10

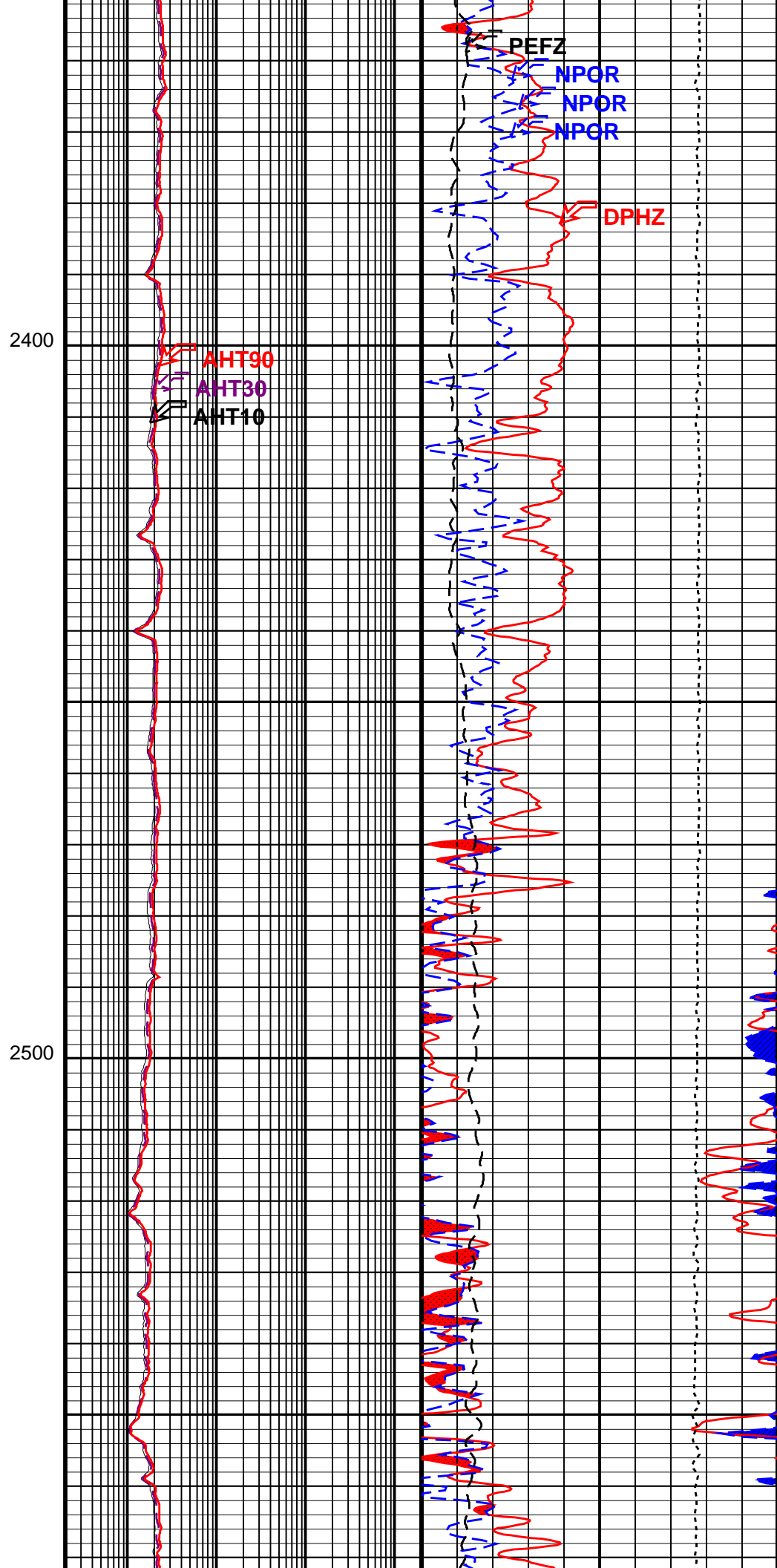
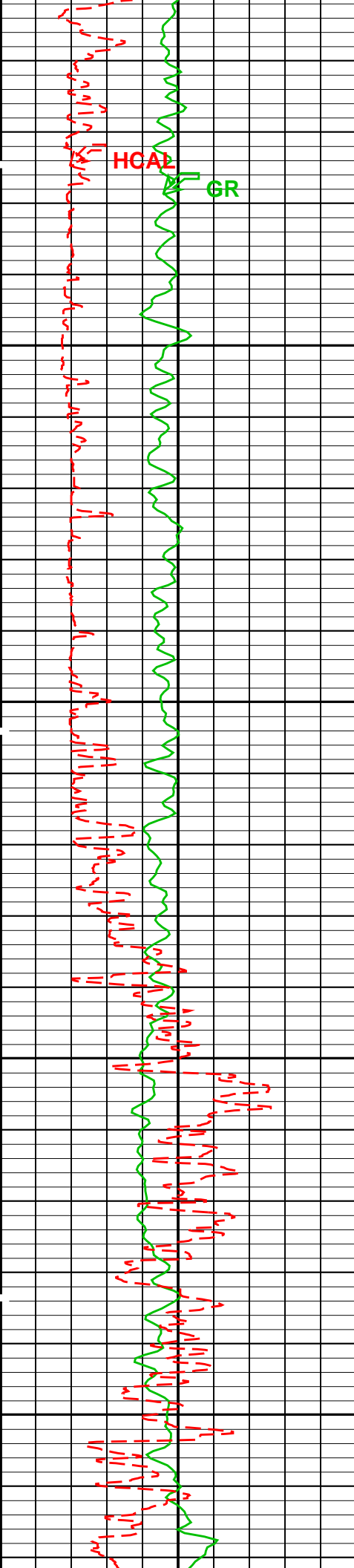


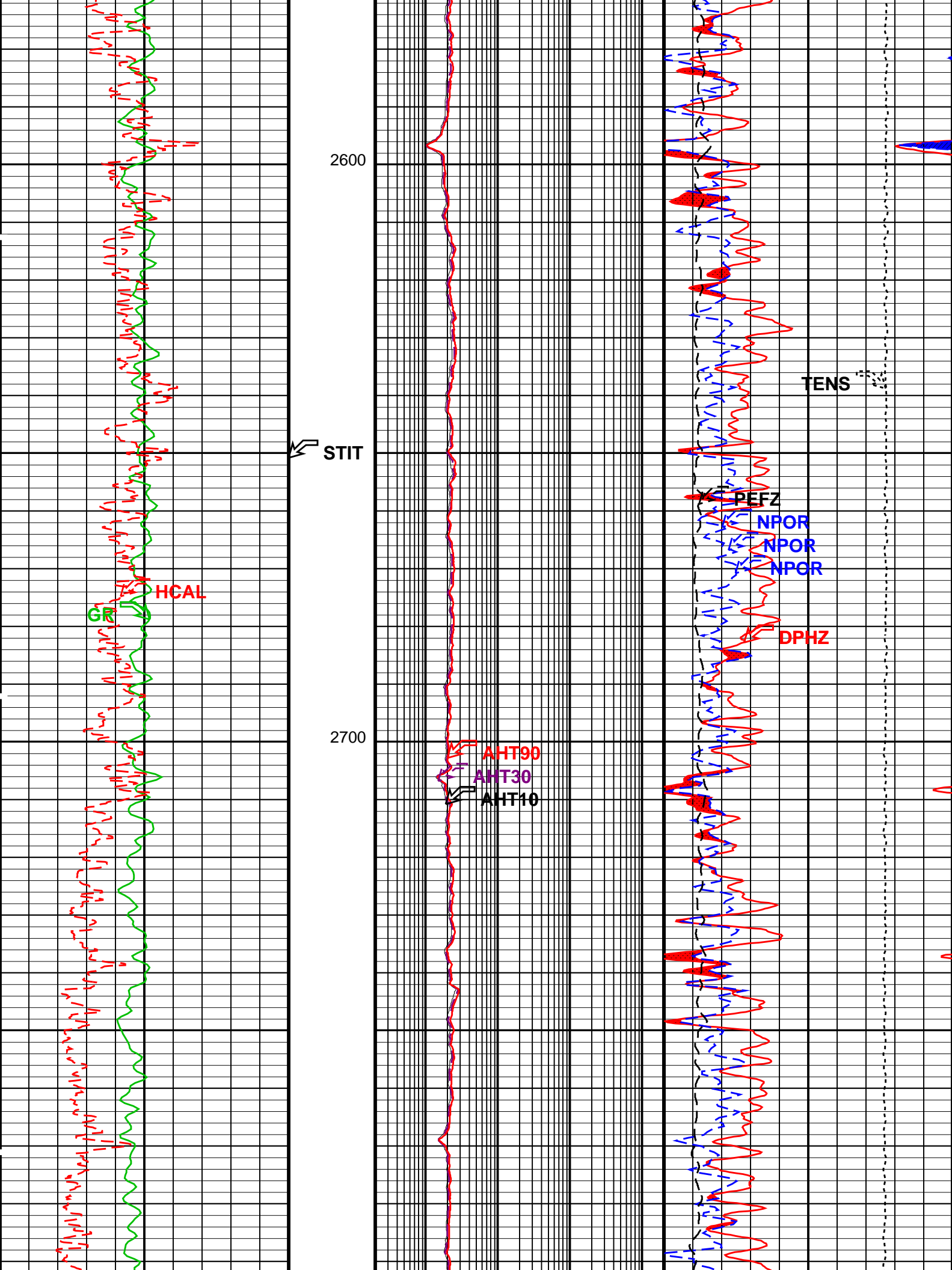
DPHZ

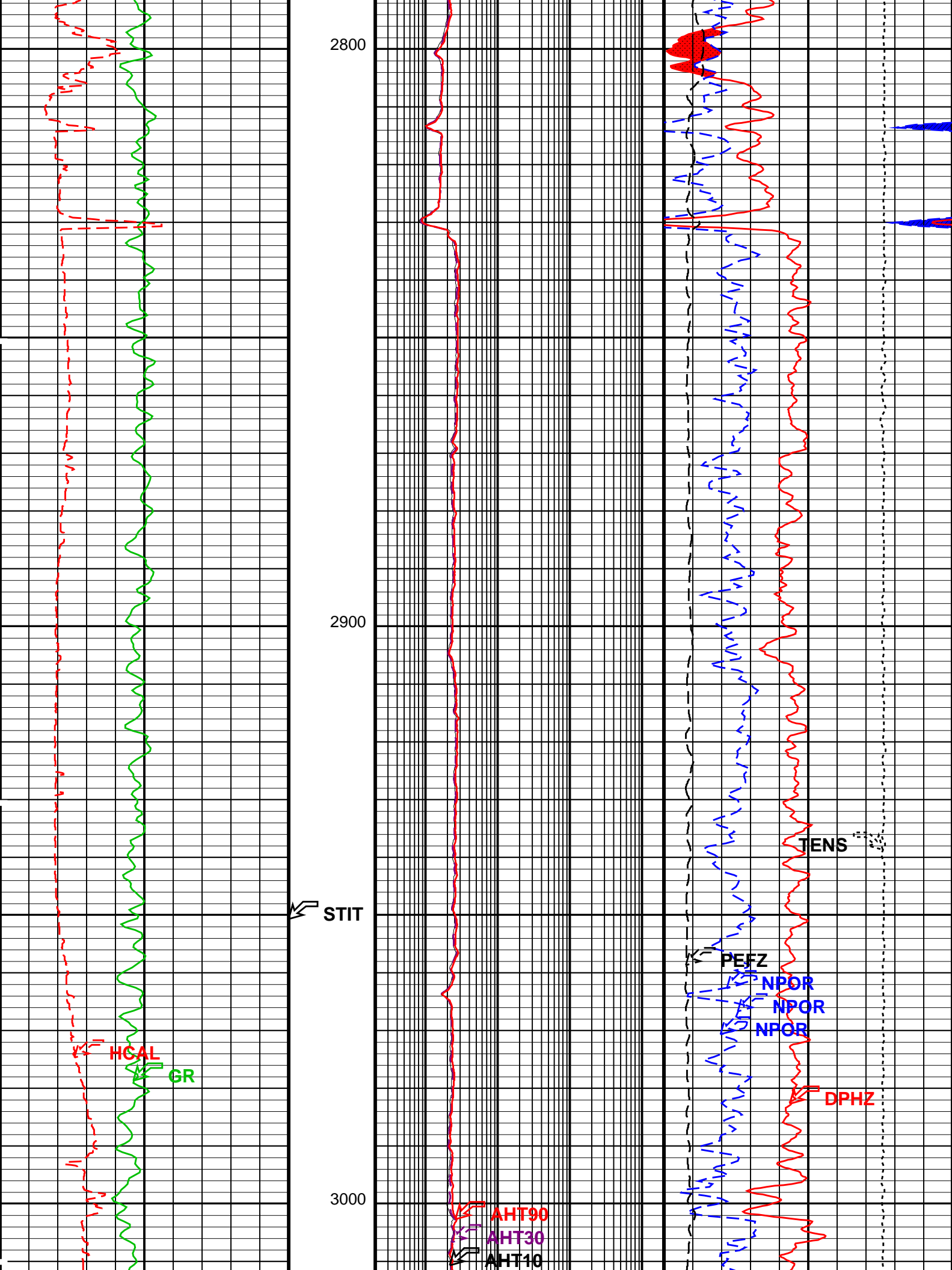


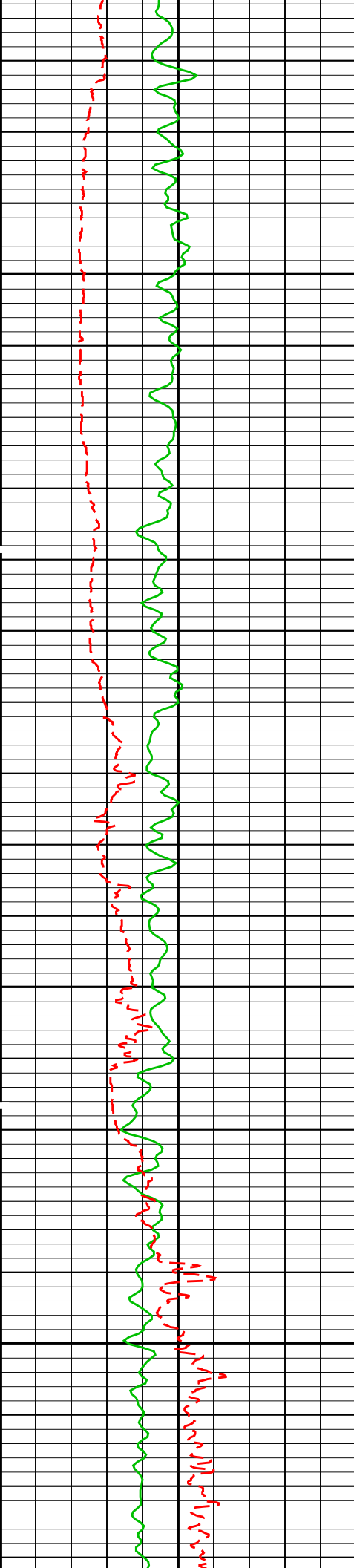






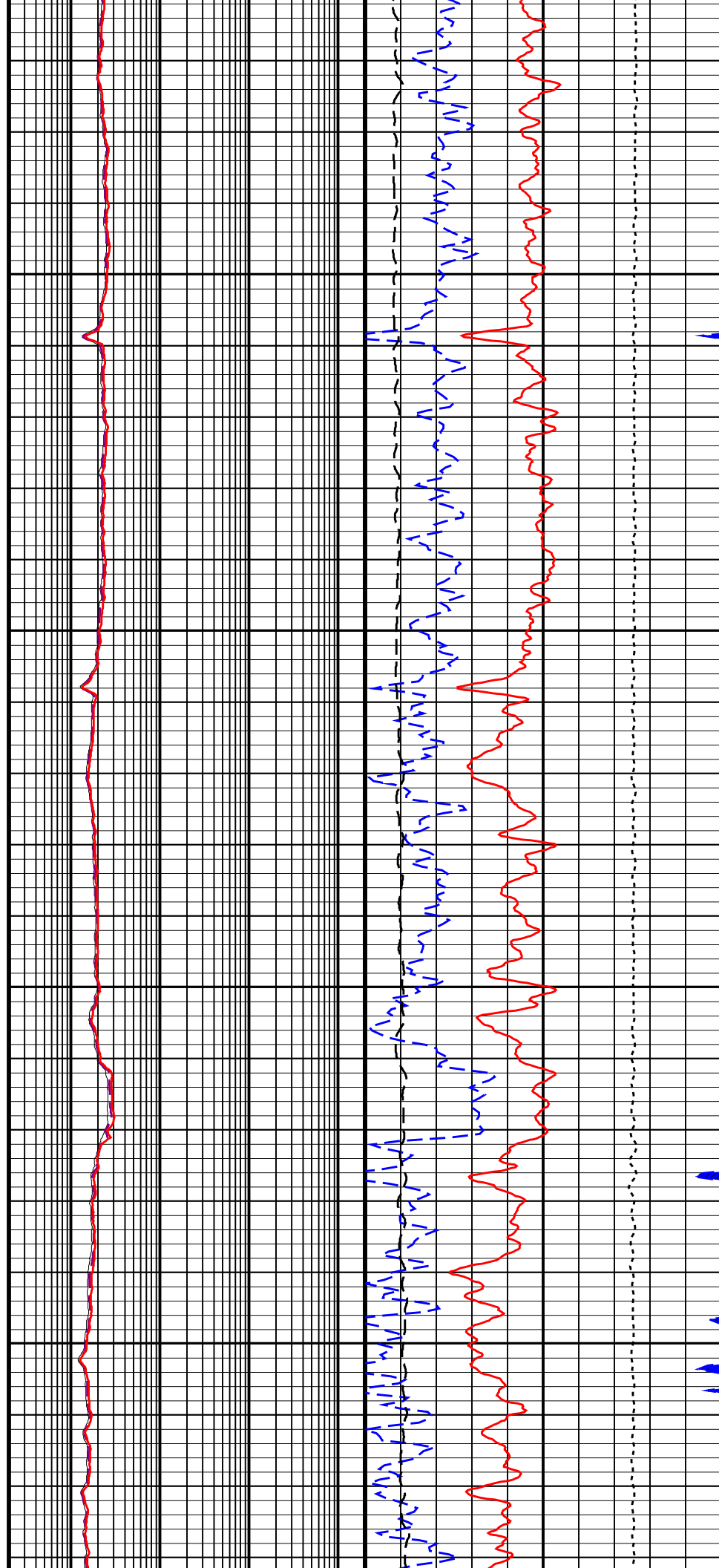


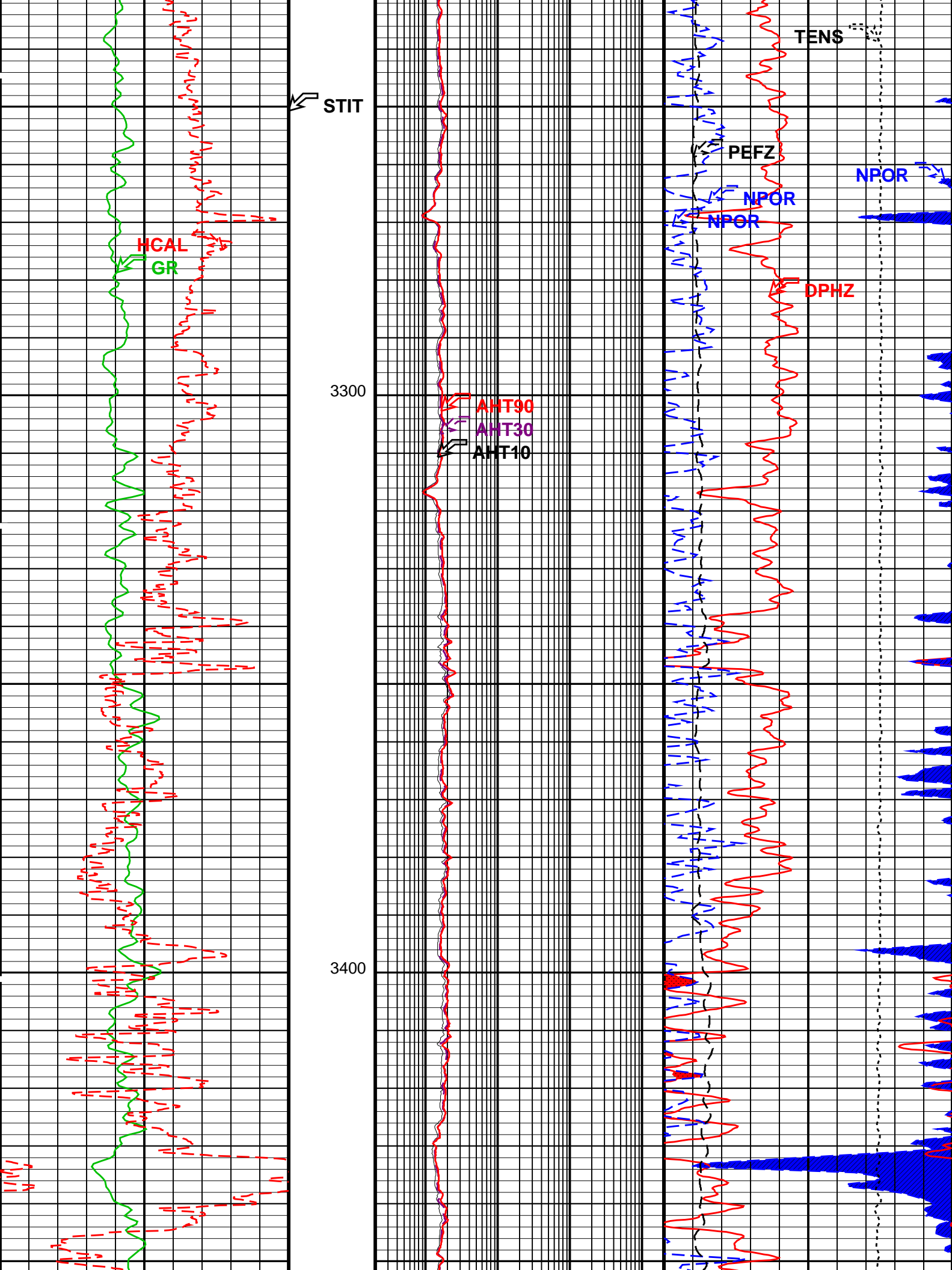


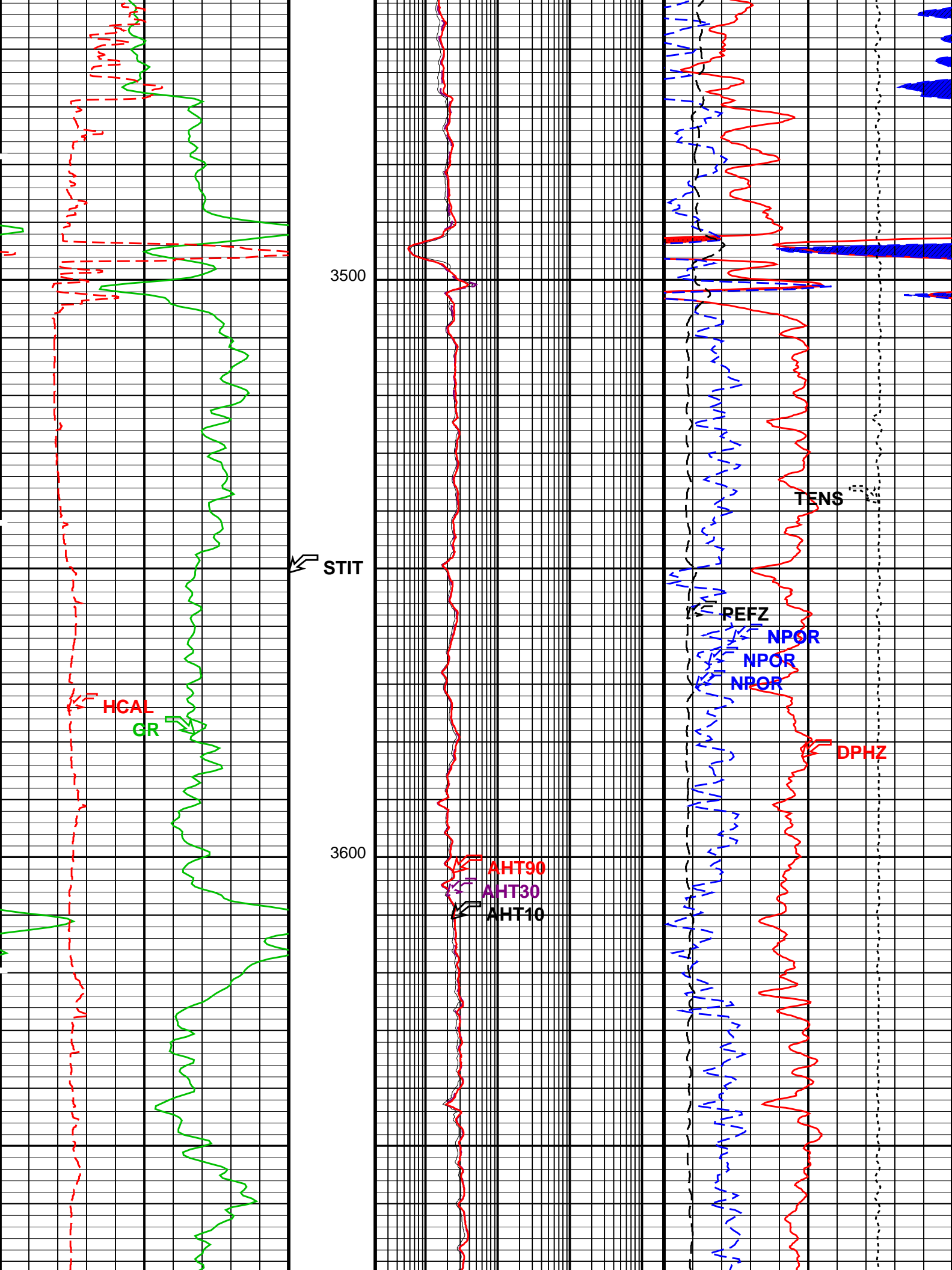


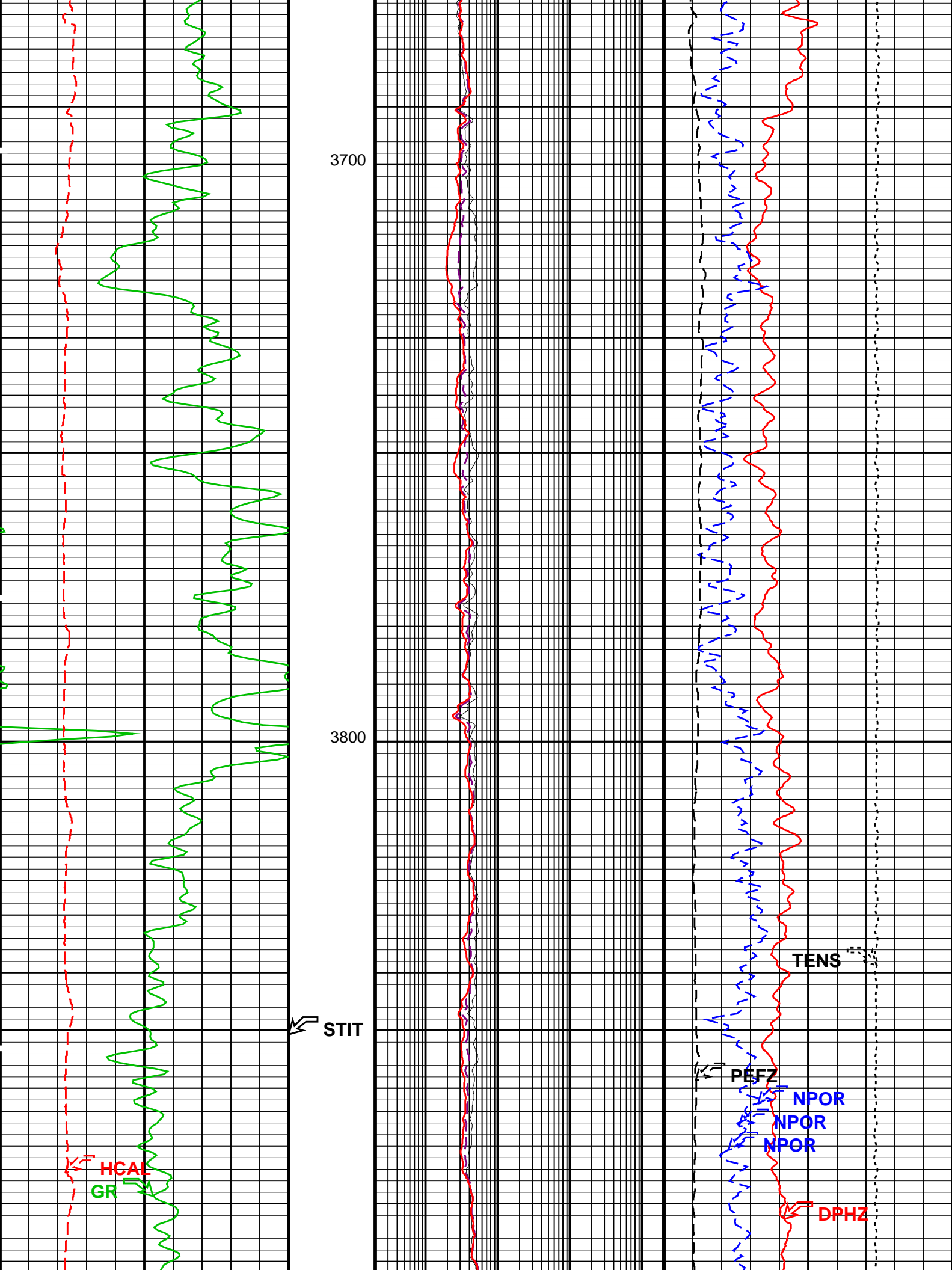
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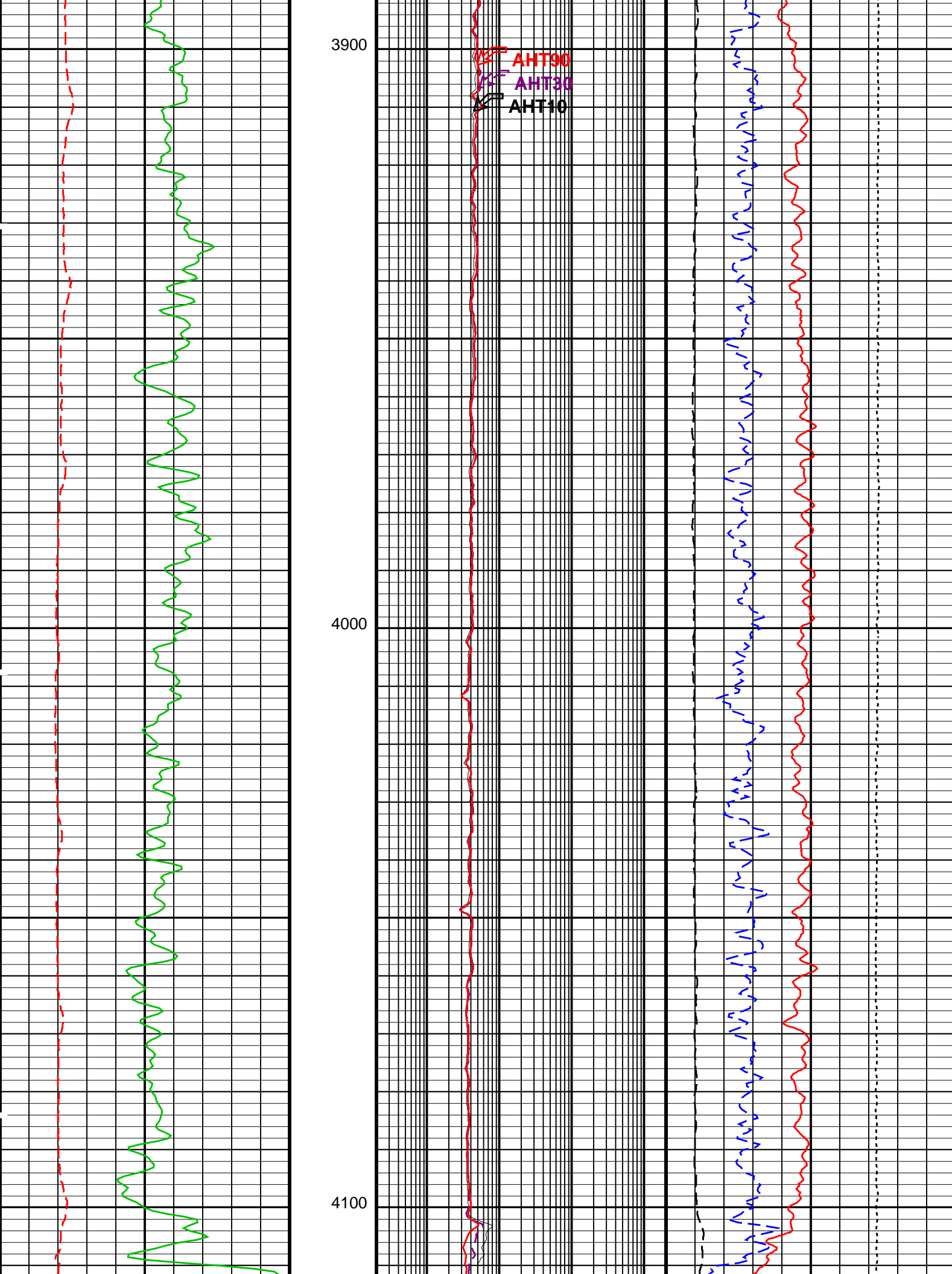
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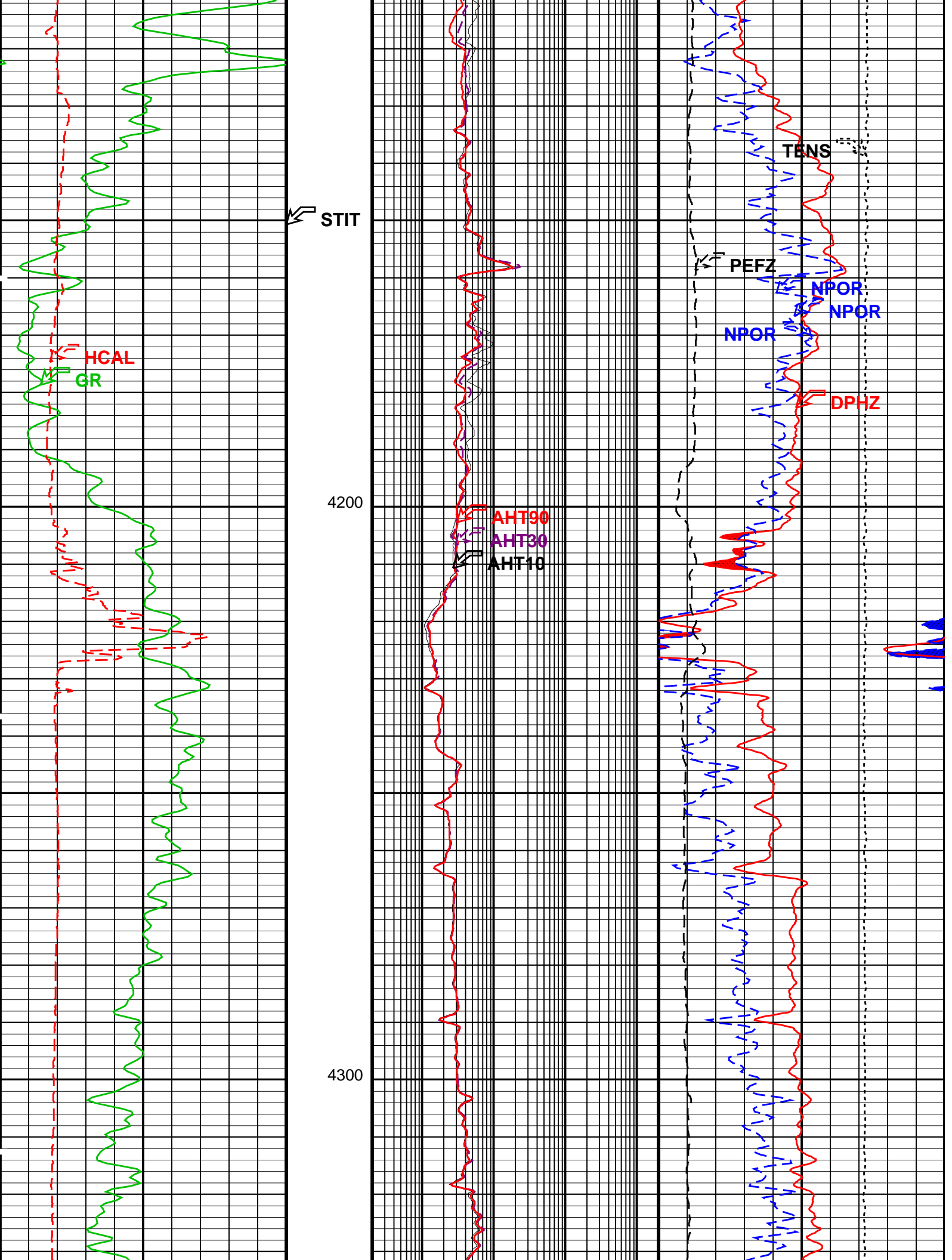


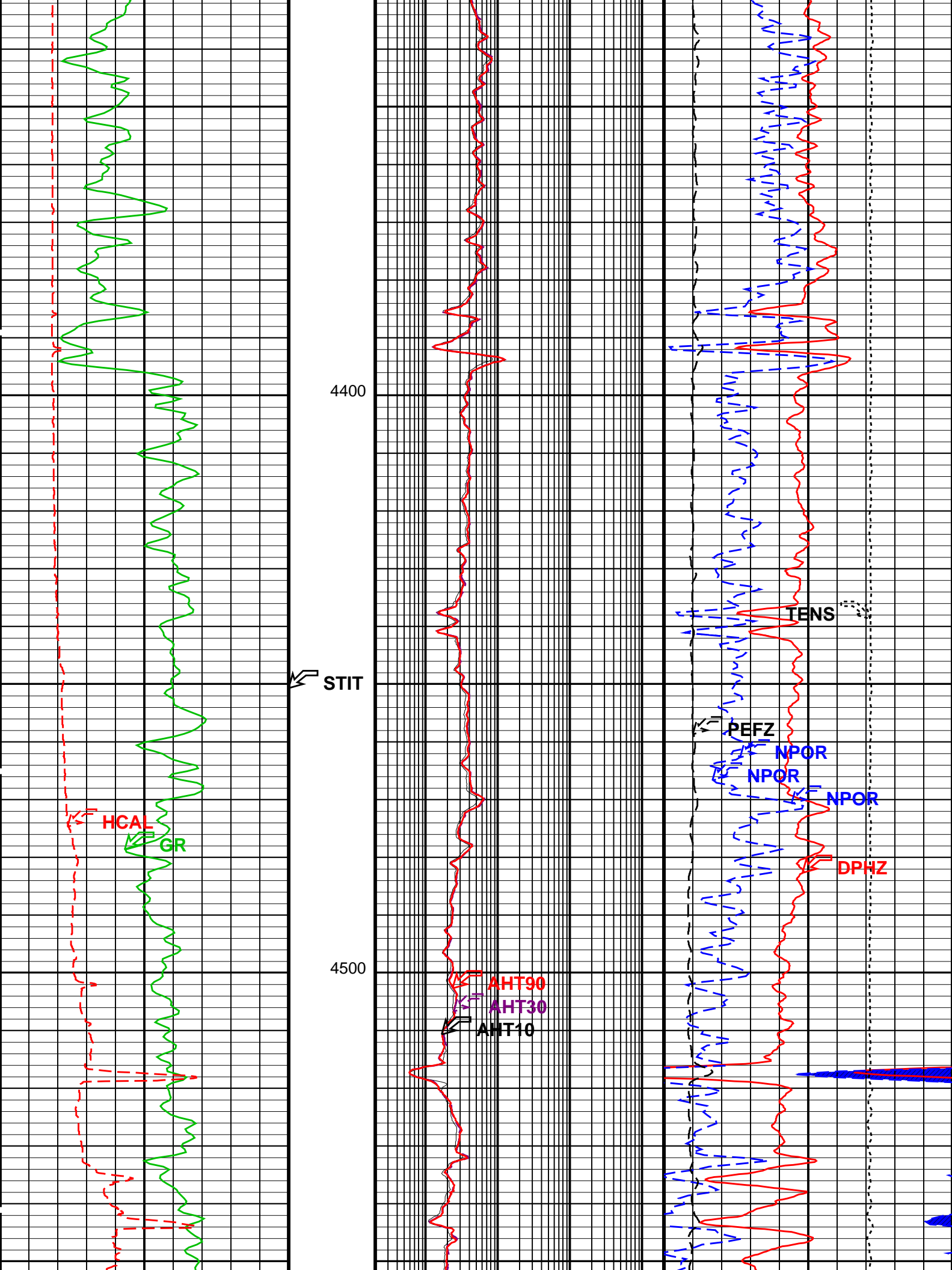


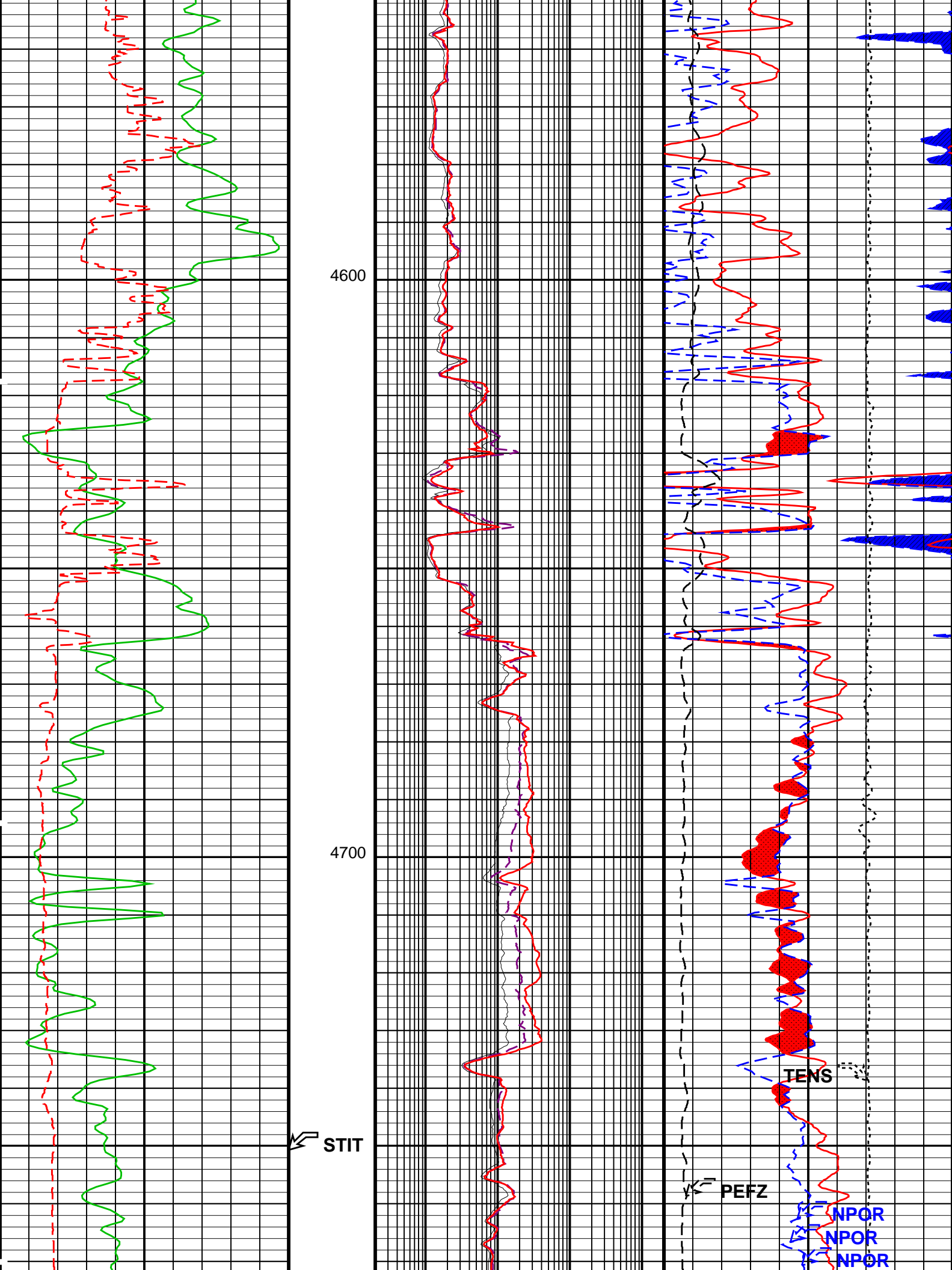


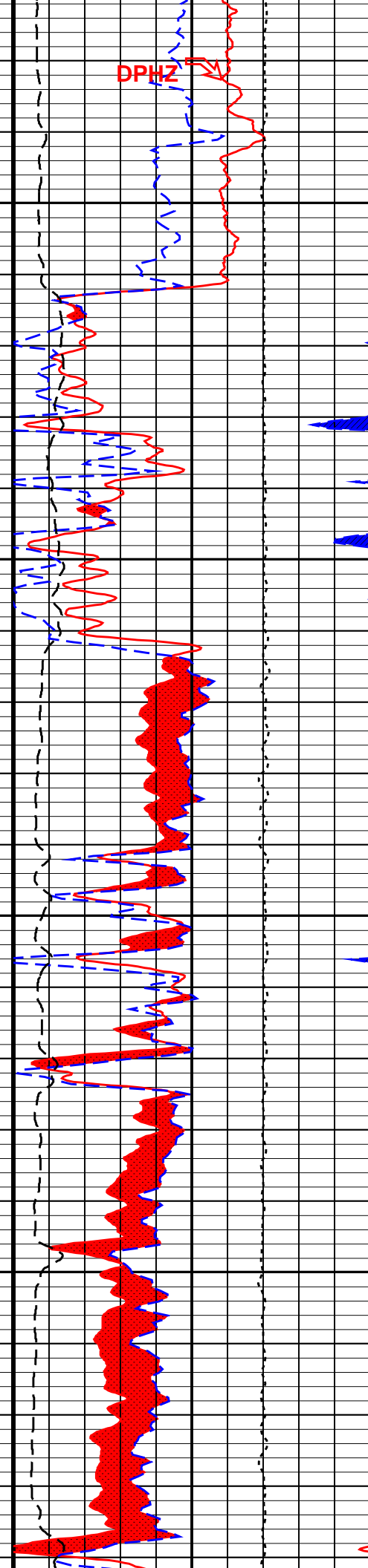
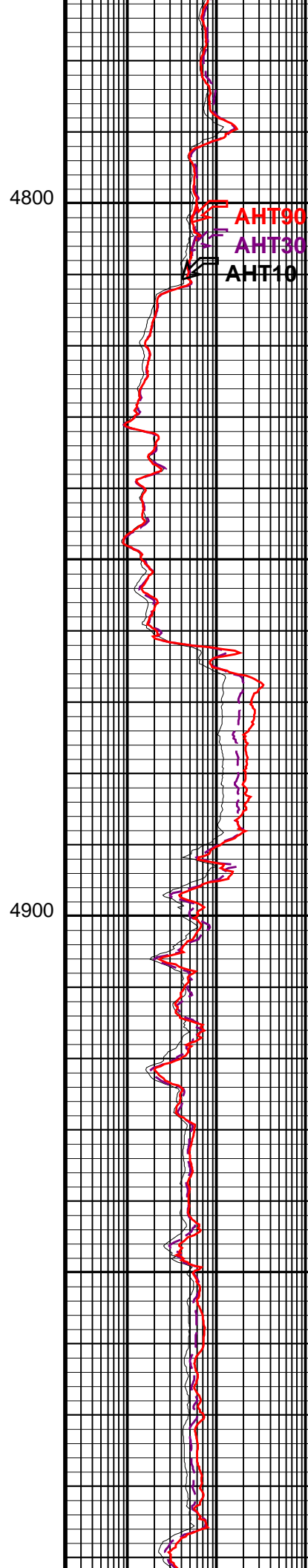
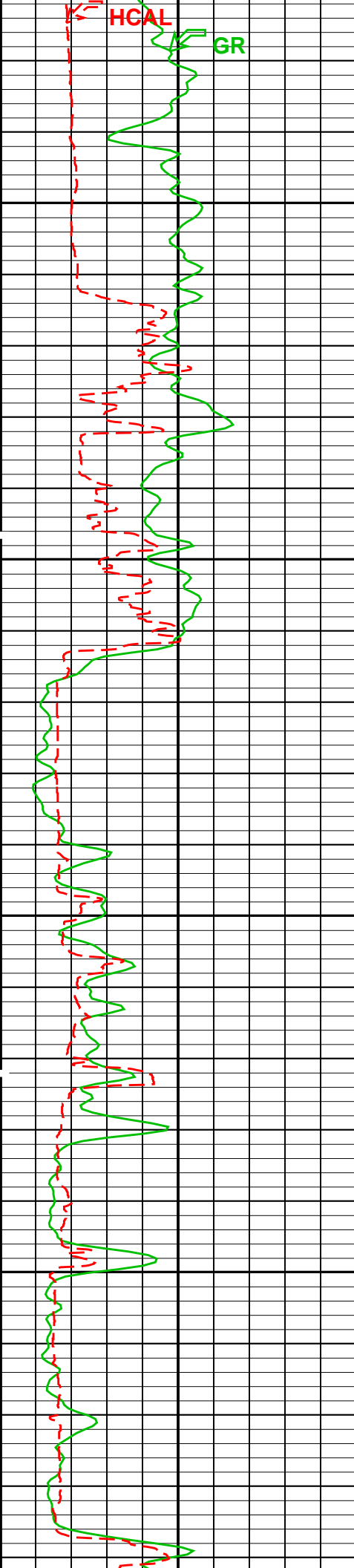


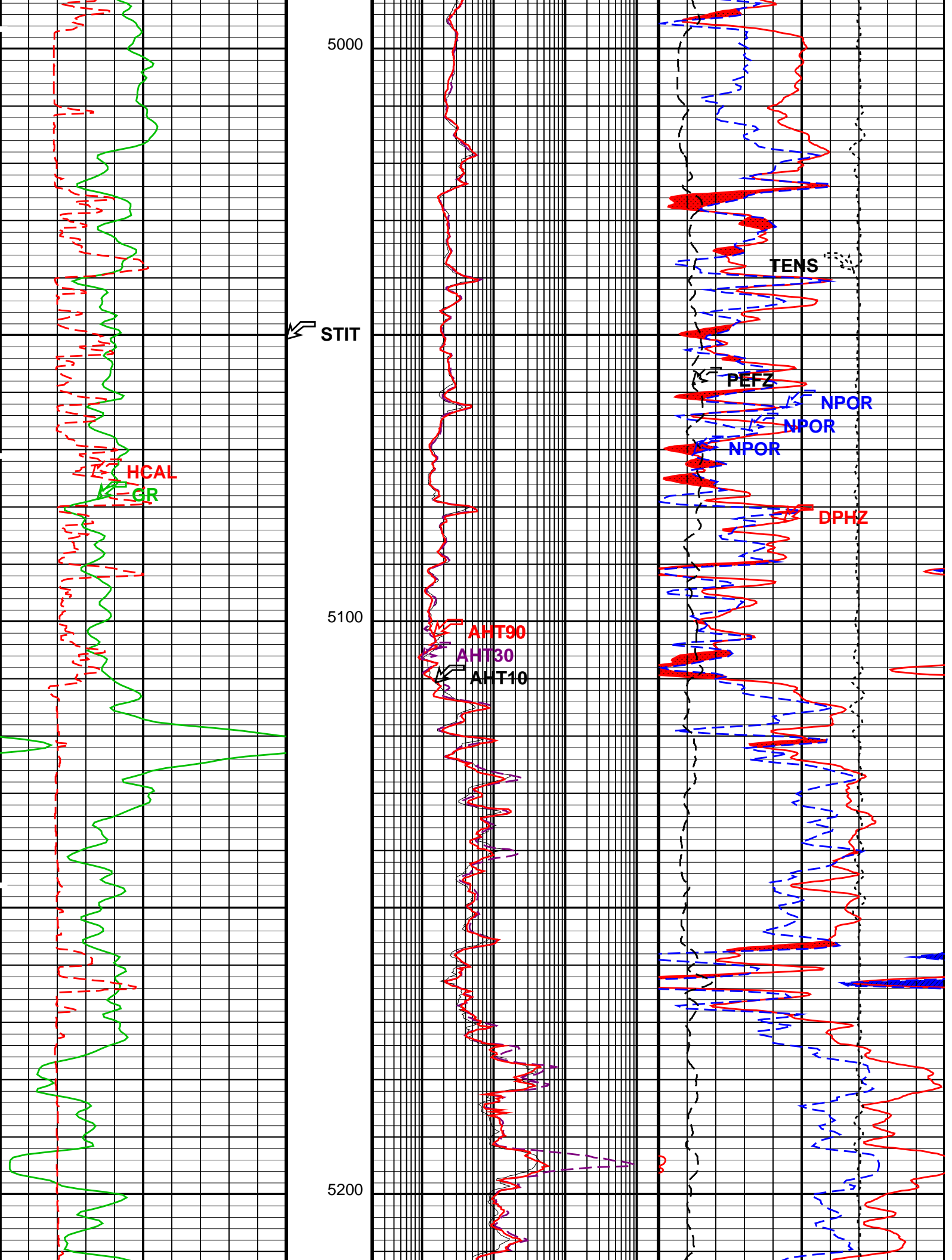


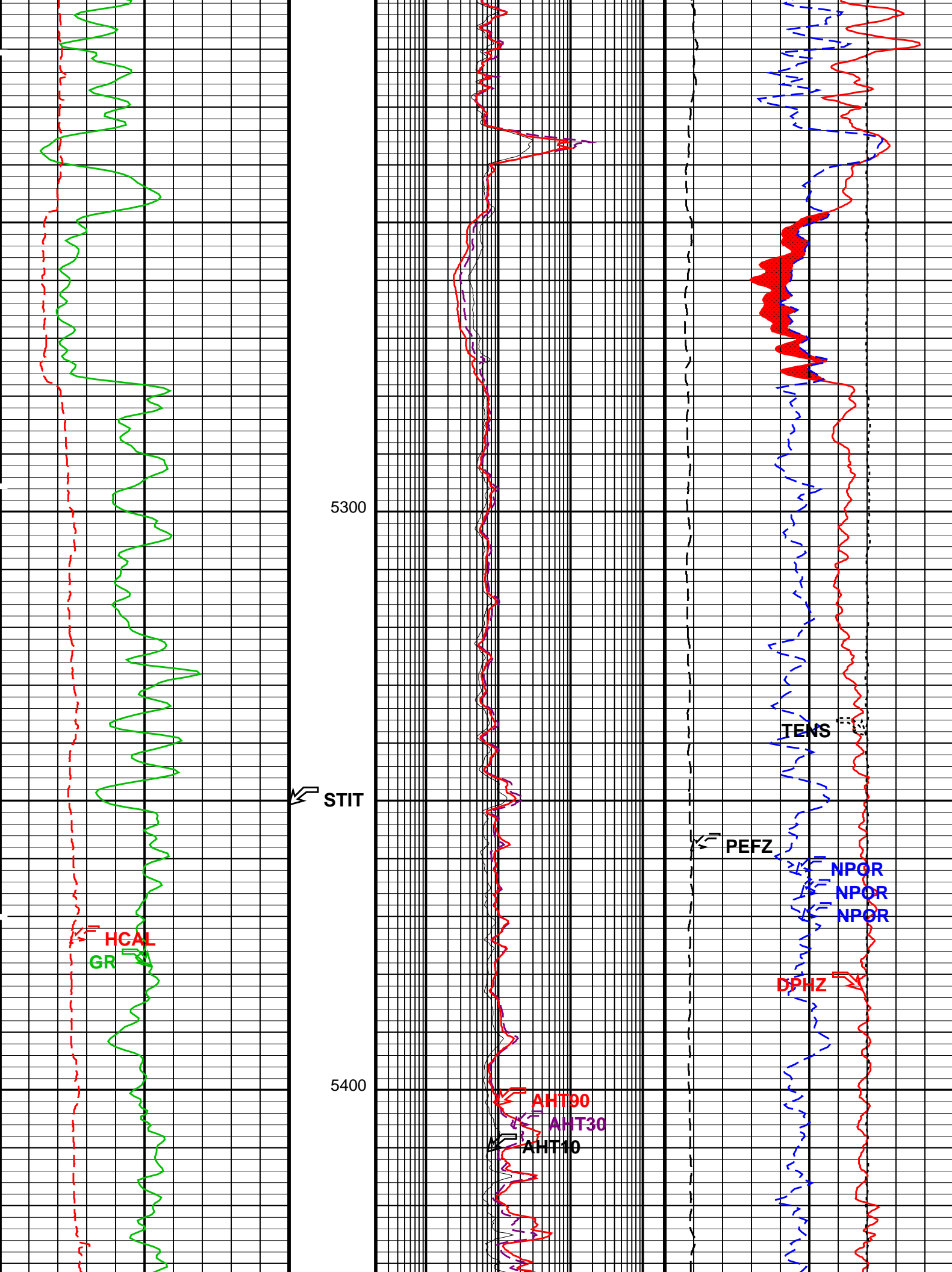


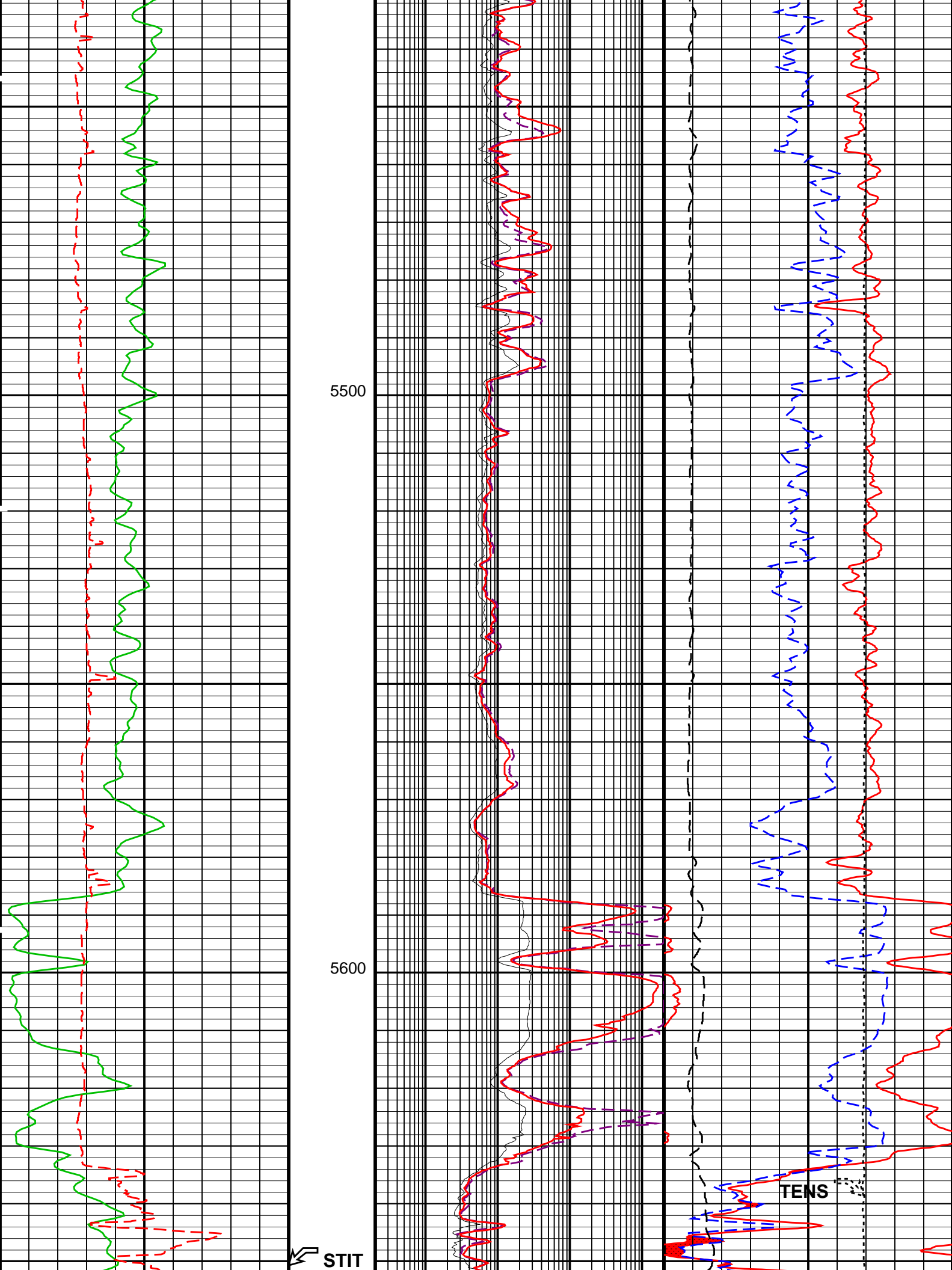


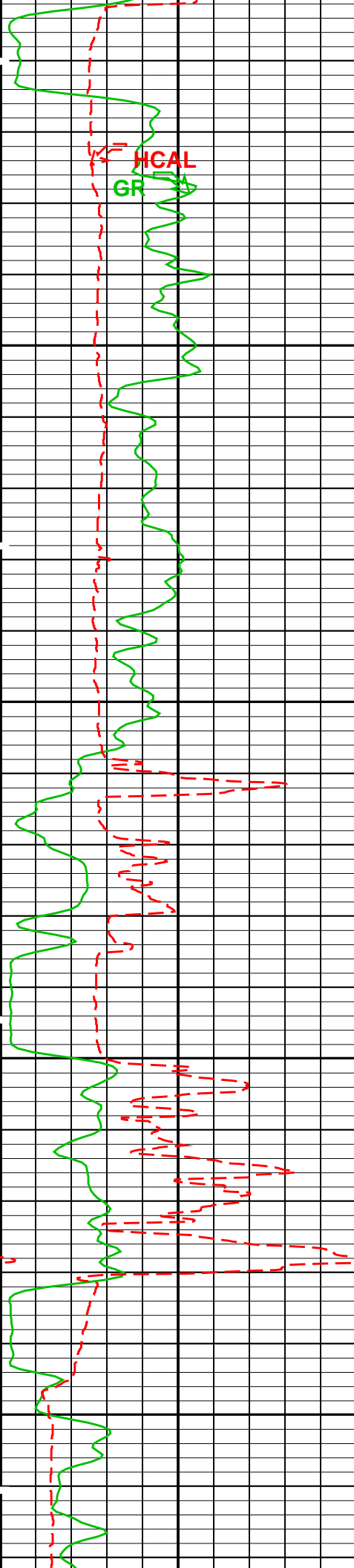






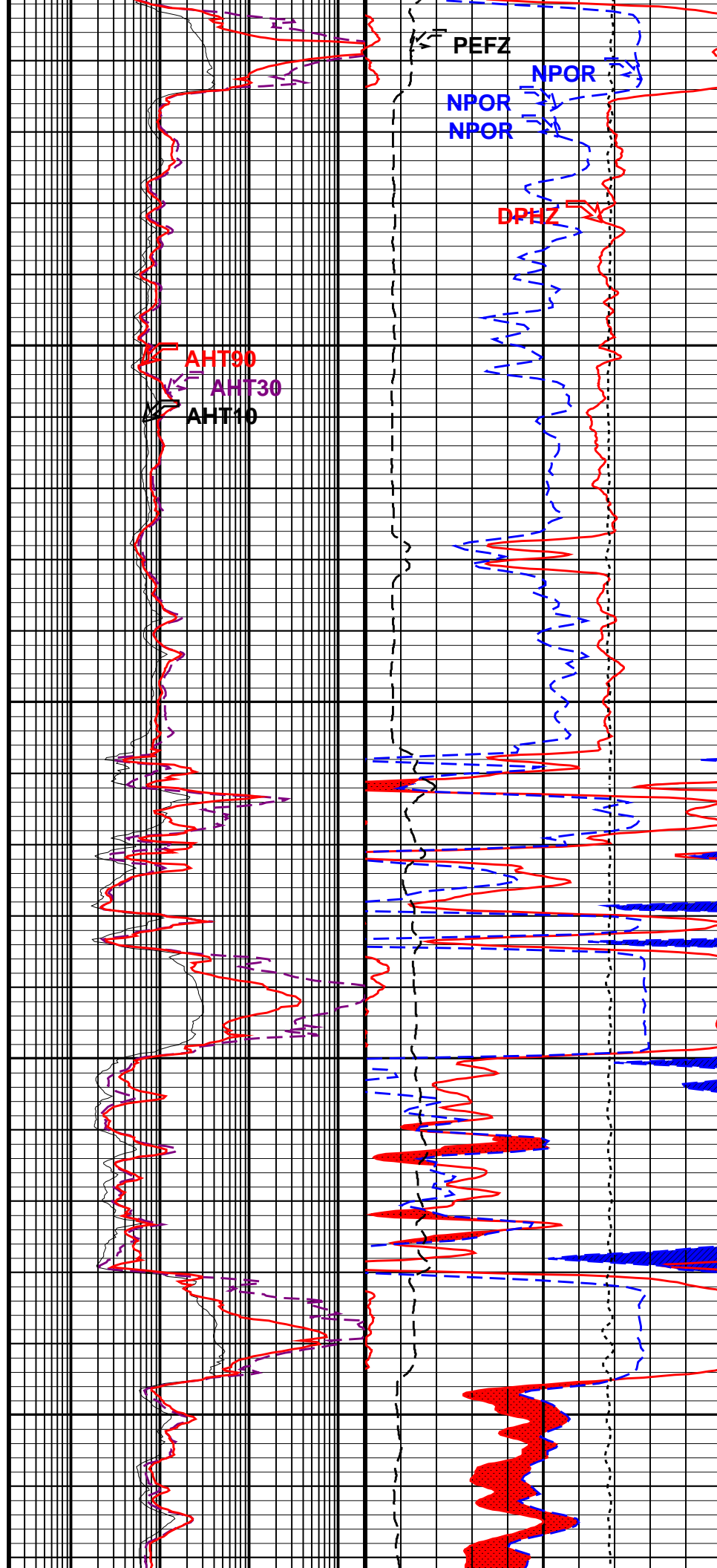


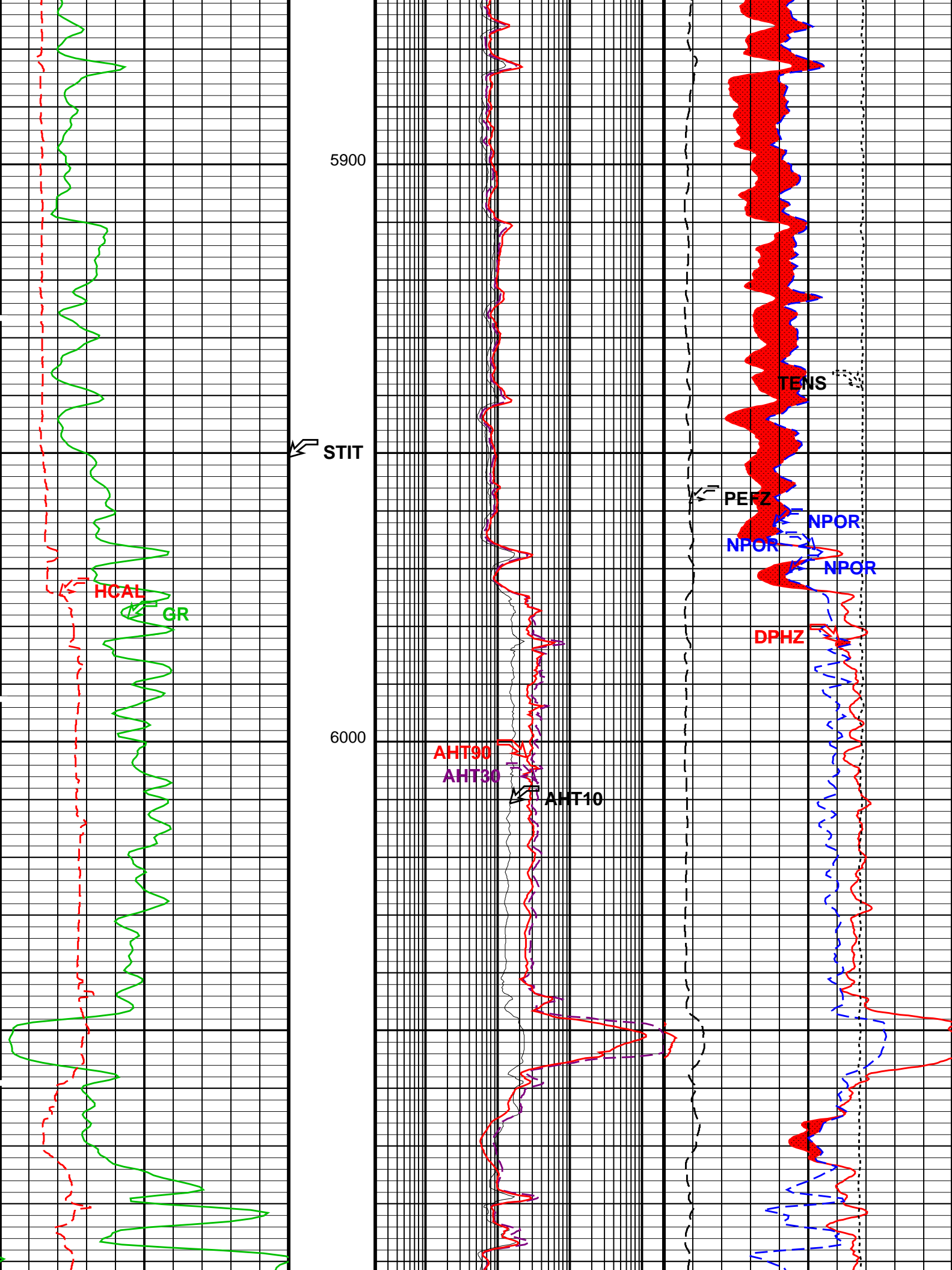


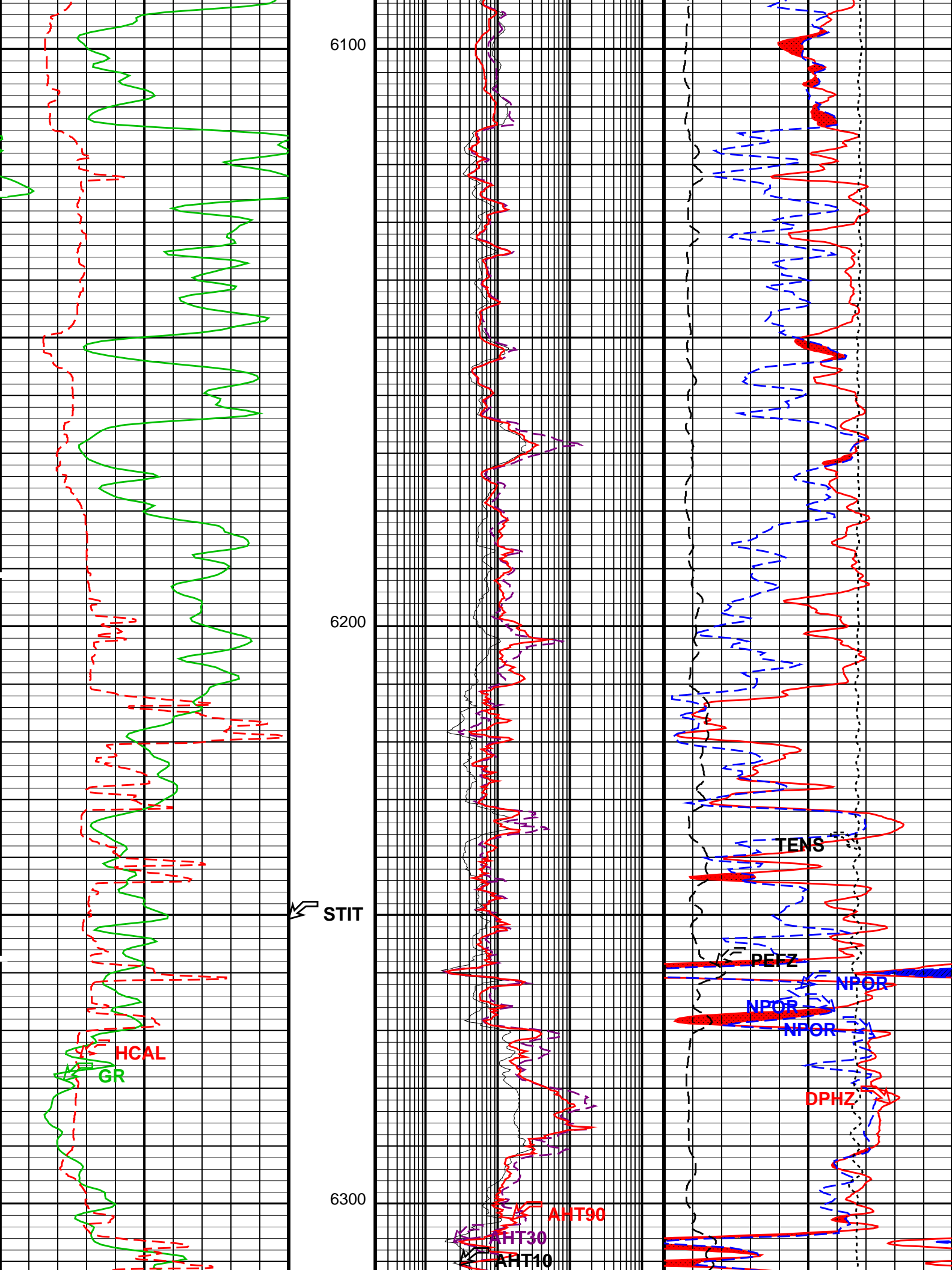


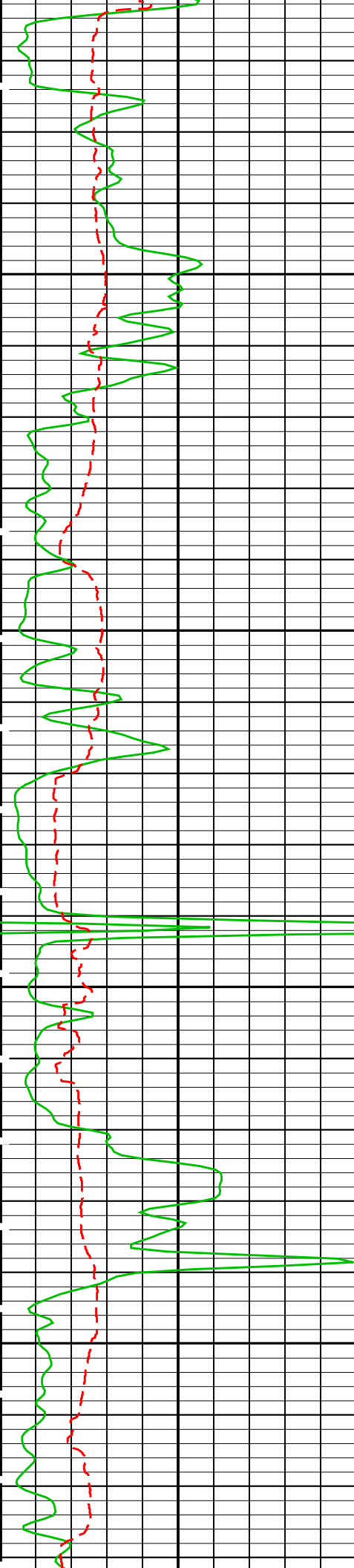
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5800



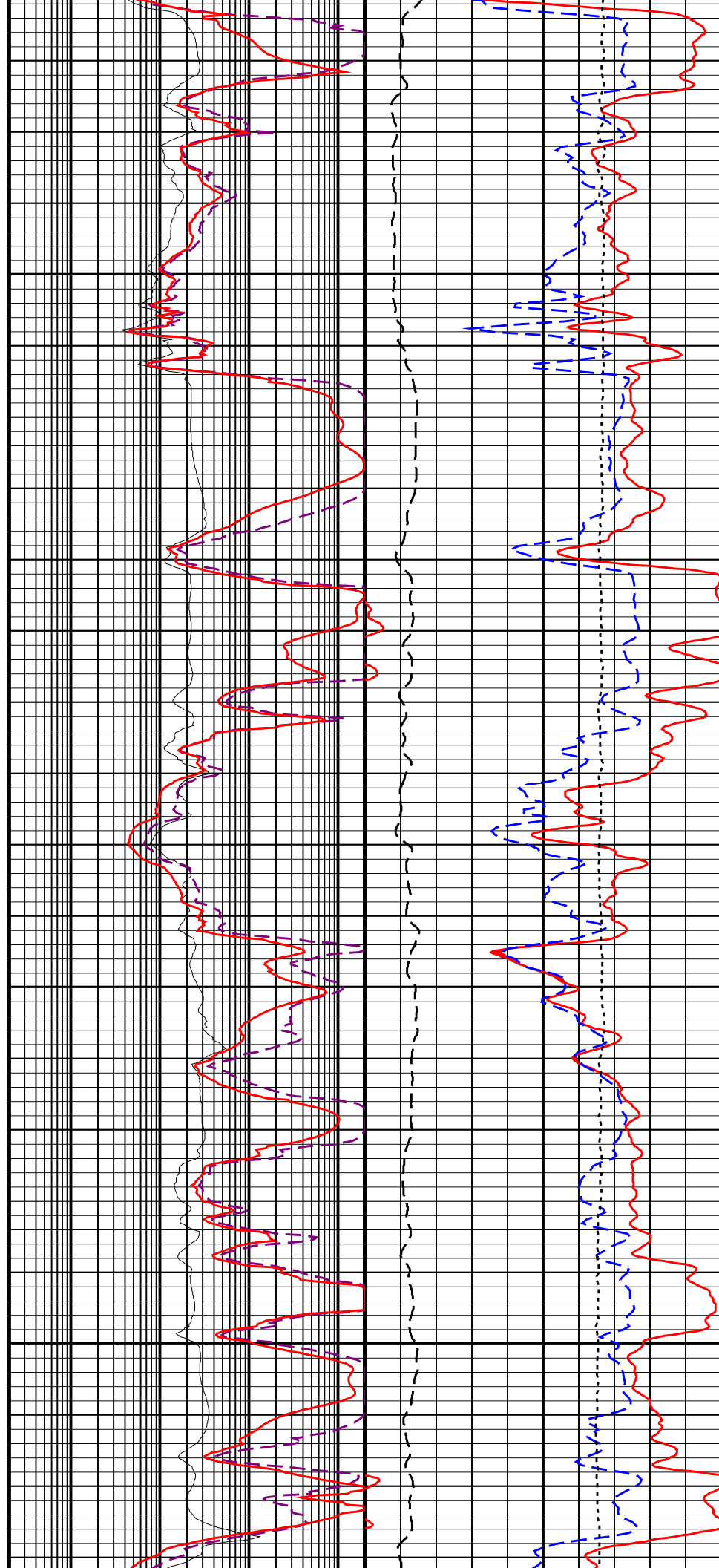


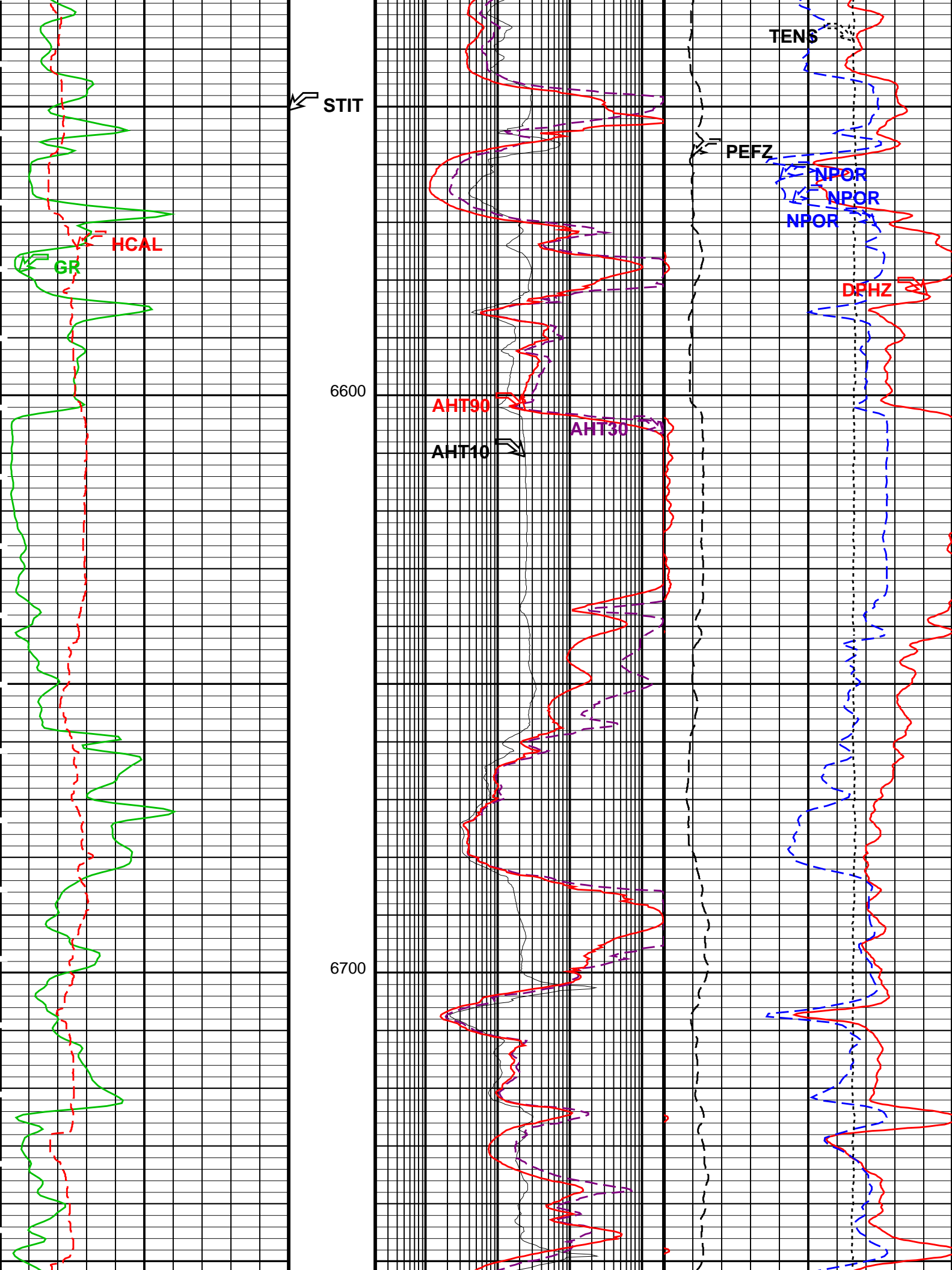


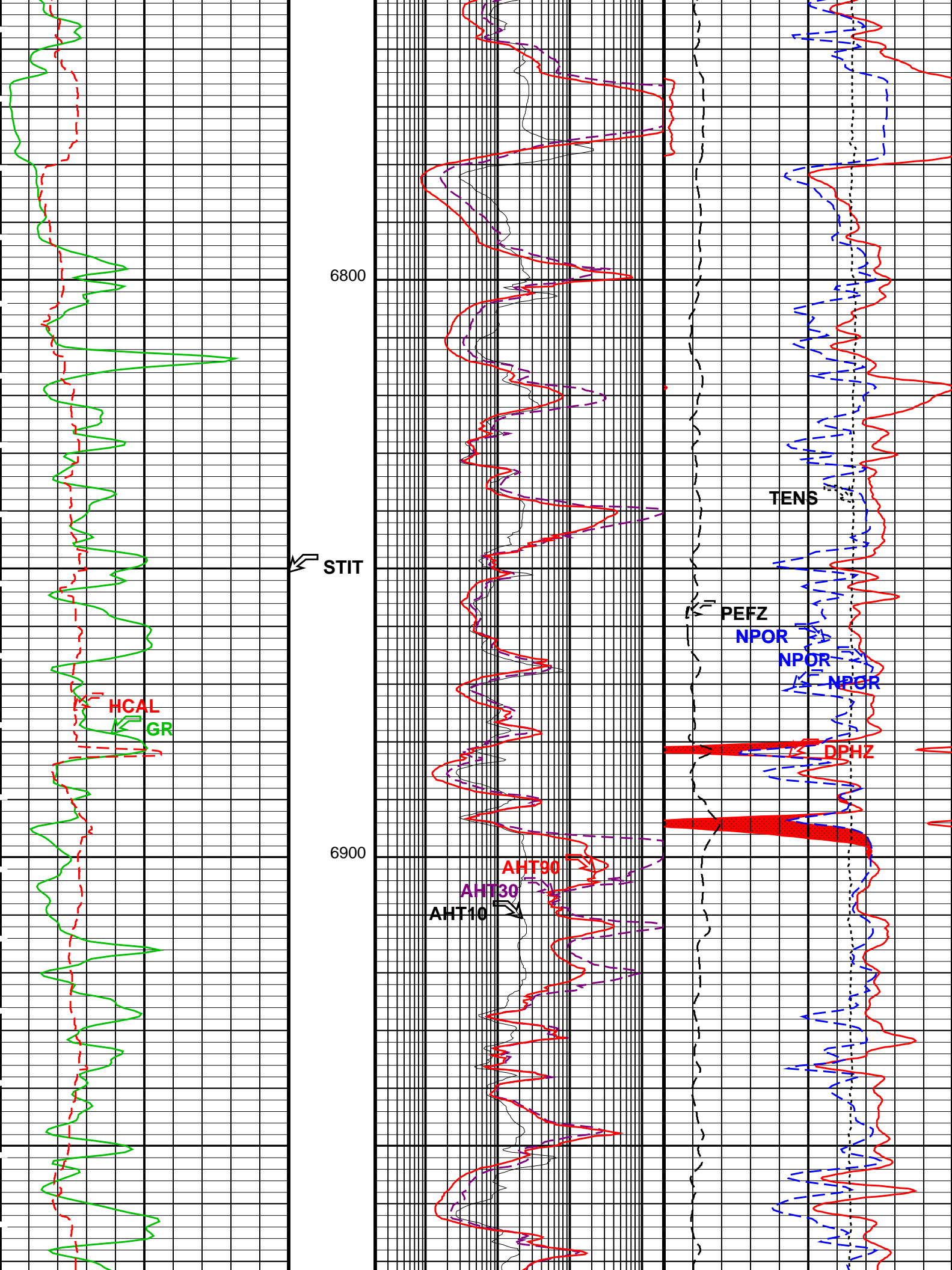


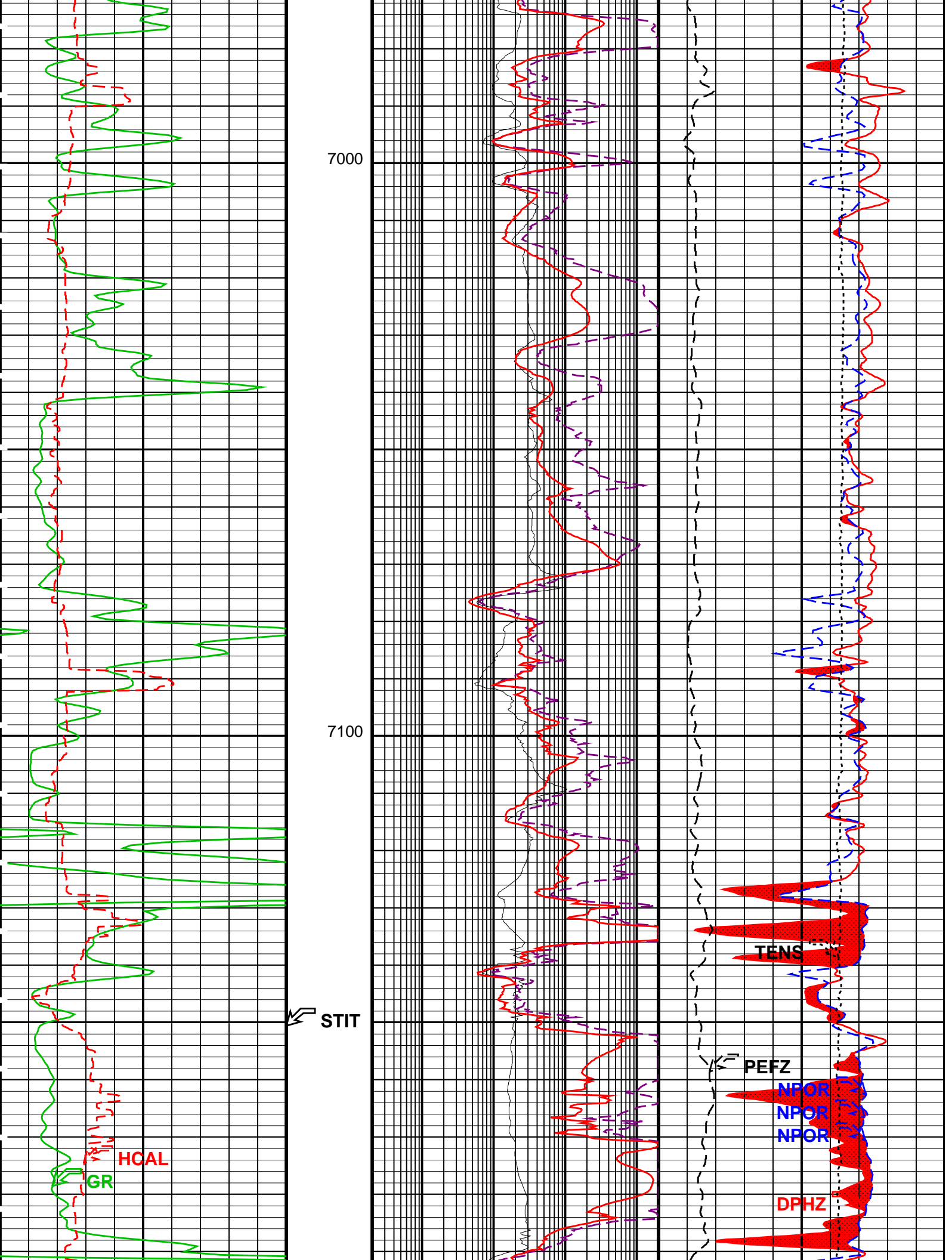
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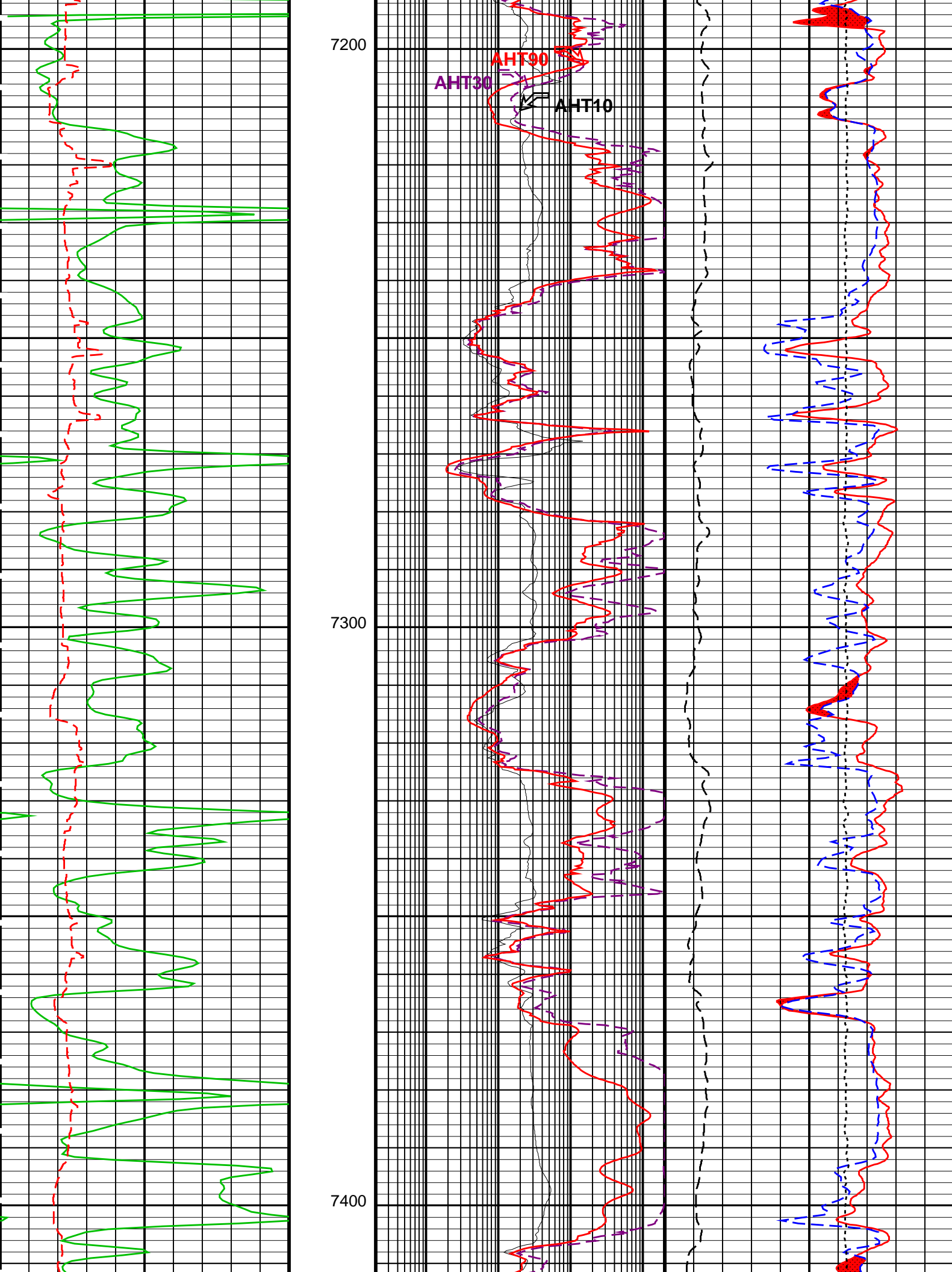
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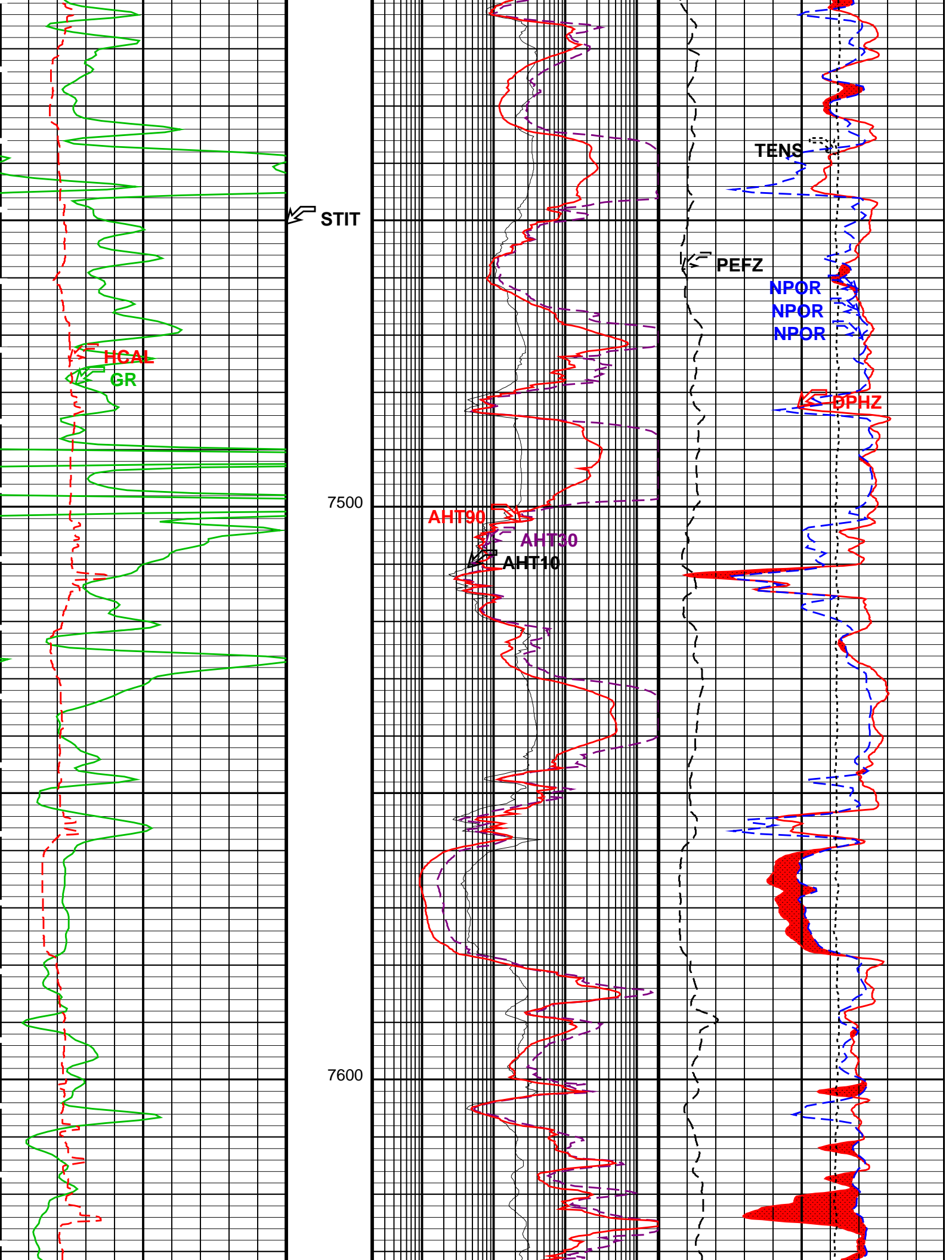


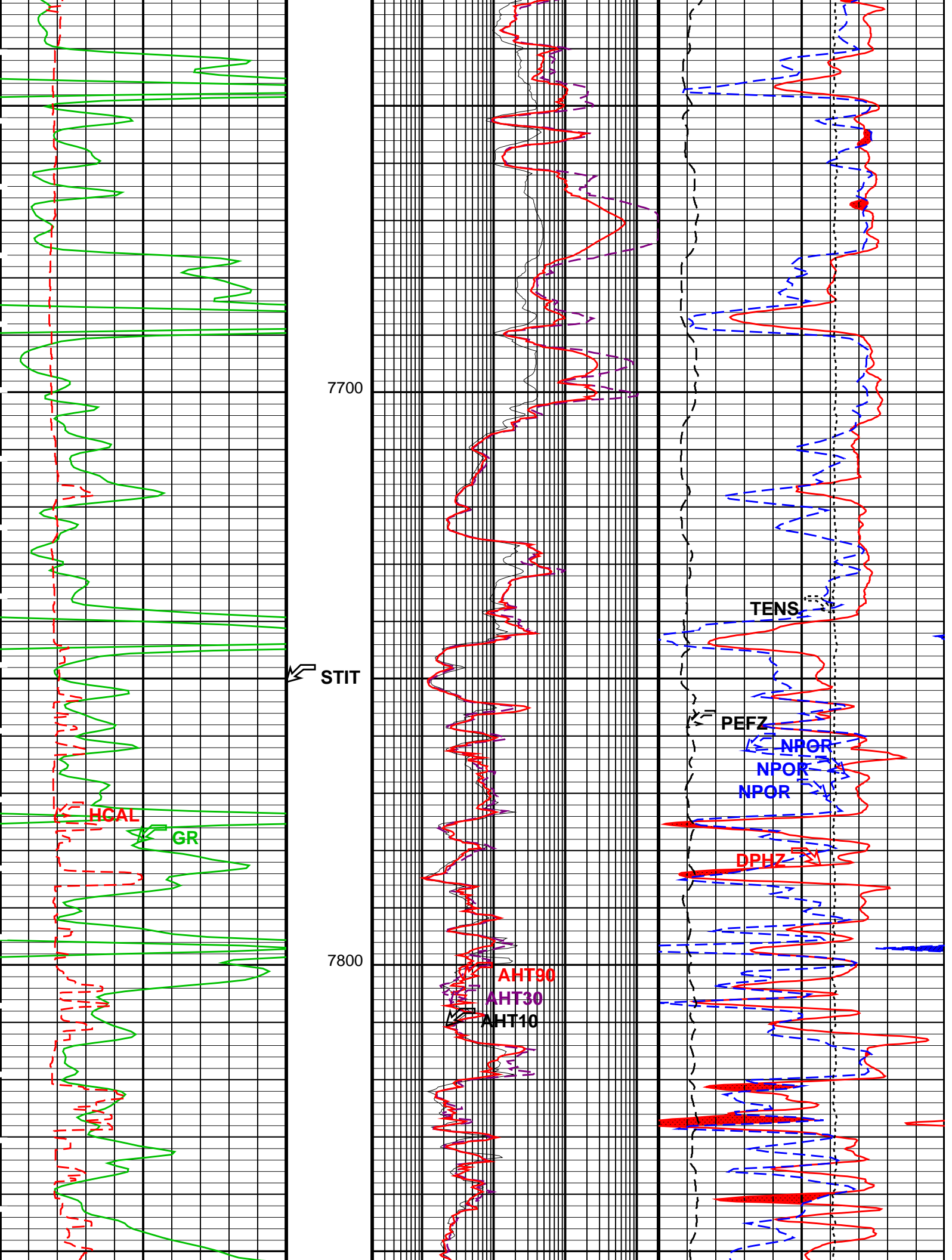


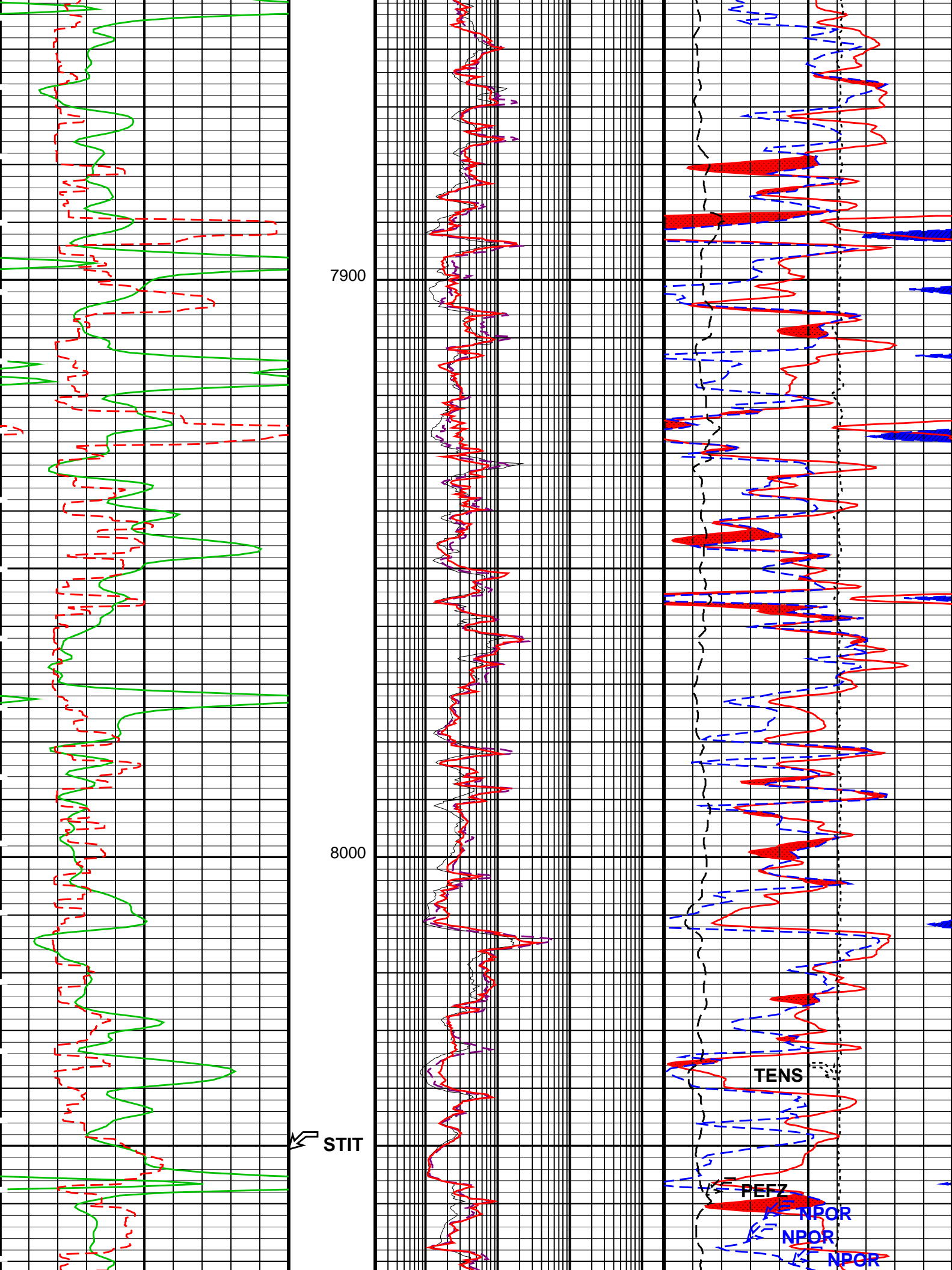


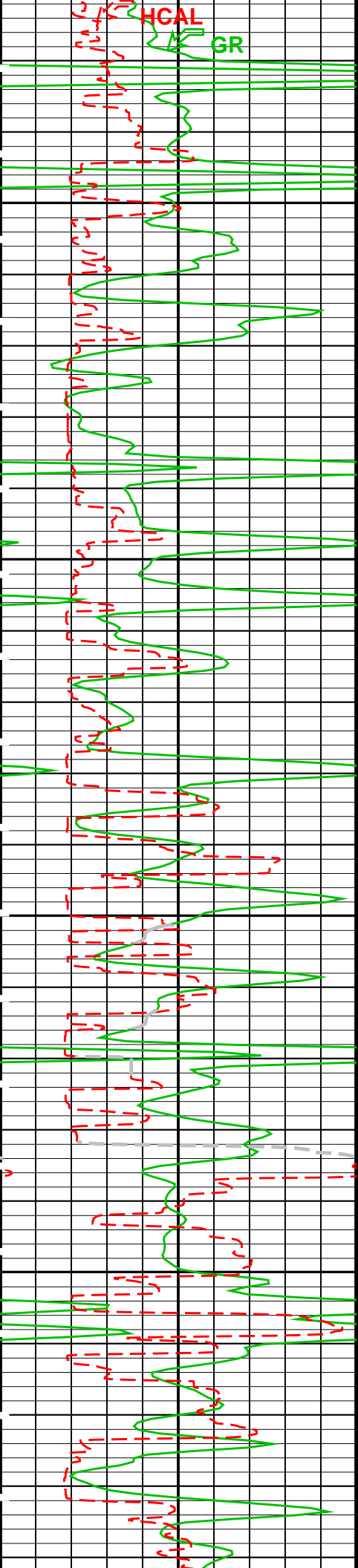






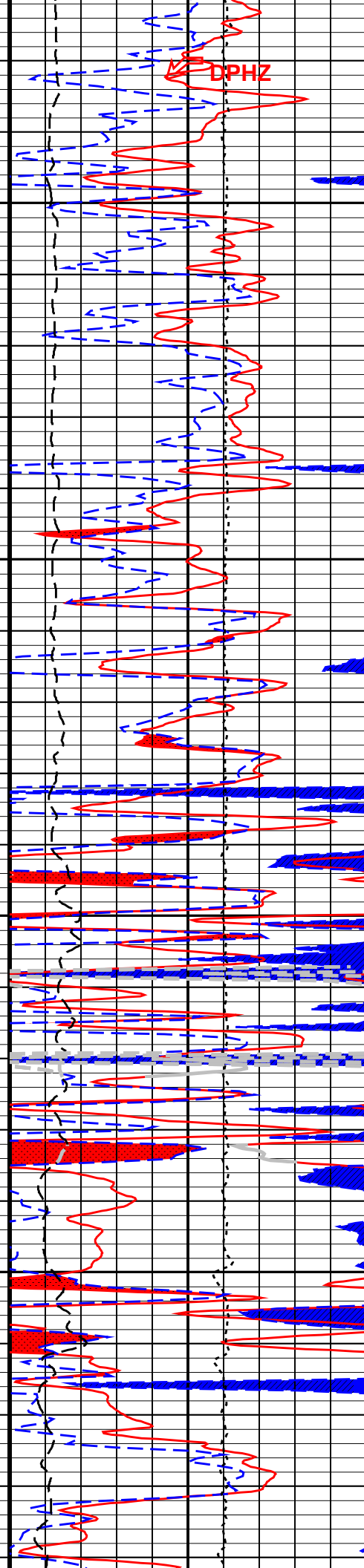
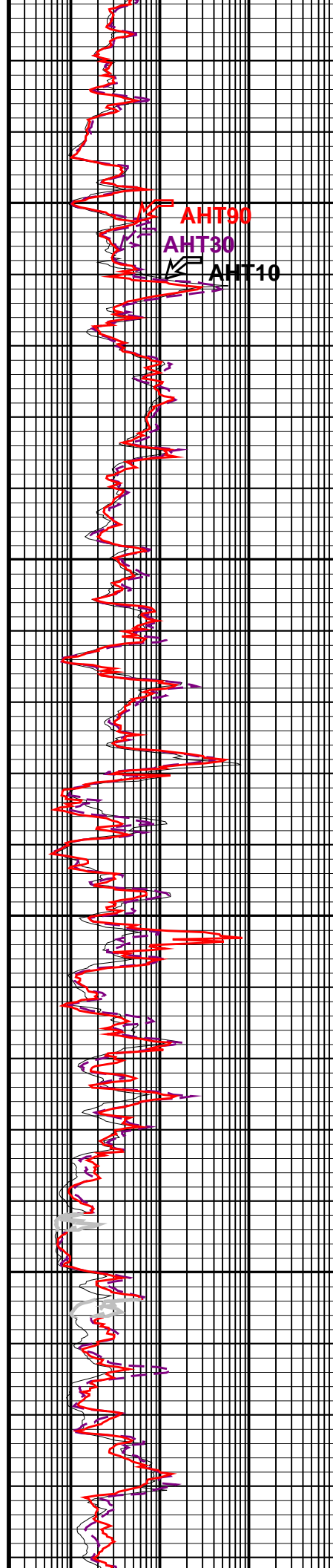


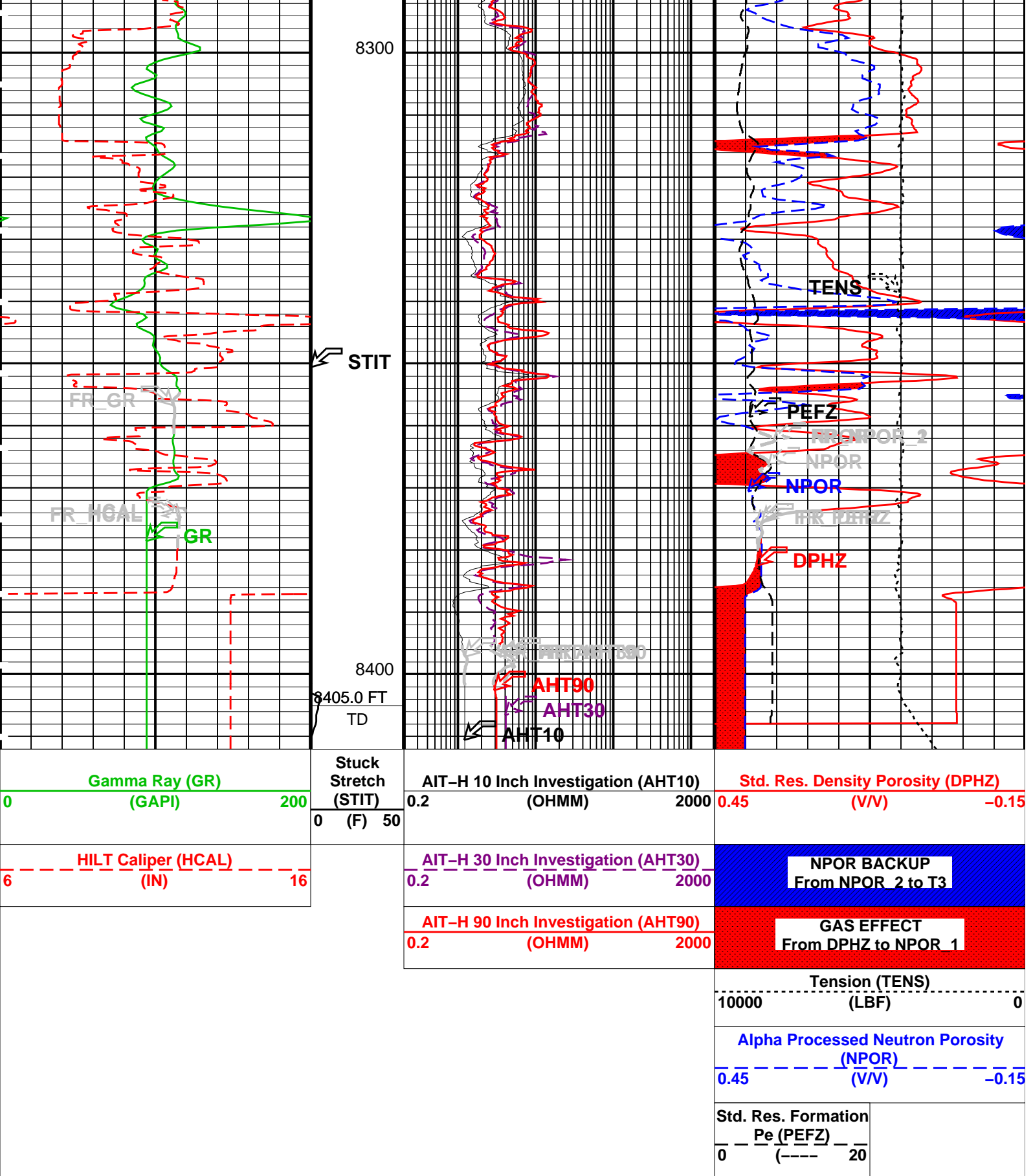




8100

8200





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HAIT-H	Array Induction Tool - H	
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff
AHBHV	Array Induction Borehole Correction Code Version Number	900

AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four	
AHBLV	Array Induction Basic Logs Code Version Number	223	
AHCDE	Array Induction Casing Detection Enable	Yes	
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered	
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20	
AHMRF	Array Induction Mud Resistivity Factor	1	
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20	
AHRFV	Array Induction Radial Profiling Code Version Number	701	
AHRPV	Array Induction Radial Parametrization Code Version Number	232	
AHSTA	Array Induction Tool Standoff	1.125	IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
ADT-CB: Array Dielectric Tool			
ADT_MEPS	Matrix Dielectric Permittivity	4.65	
MUDFILTSALMAX	Maximum Mud Filtrate Salinity	71.4286	PPK
MUDFILTSALMIN	Minimum Mud Filtrate Salinity	0	PPK
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
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
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
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	StdRes	
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	
CMRT-B: Combinable Magnetic Resonance Tool - B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
EDTC-B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	

MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NO	
MWCO	Mud Weight Correction Option	NO	
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	
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation – Real Time			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
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	TDL	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth – Driller	8677.00	FT
TDL	Total Depth – Logger	8405.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	-50000.00	PPM
CWEI	Casing Weight	36.00	LB/F
DFD	Drilling Fluid Density	9.30	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	100.00	FT
MST	Mud Sample Temperature	86.00	DEGF
RMFS	Resistivity of Mud Filtrate Sample	1.0950	OHMM
TD	Total Depth	8405	FT

Format: COMBO Vertical Scale: 5" per 100' Graphics File Created: 09-May-2013 20:00

OP System Version: 19C2-270

HAIT-H	19C2-270	ADT-CB	19C2-270
HILTH-FTB	19C2-270	CMRT-B	19C2-270
EDTC-B	19C2-270		

Output DLIS Files

DEFAULT	AIT_ADT_TLD_MCFL_044LUP	FN:43	PRODUCER	09-May-2013 20:00
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Schlumberger

REPEAT ANALYSIS

MAXIS Field Log

Output DLIS Files

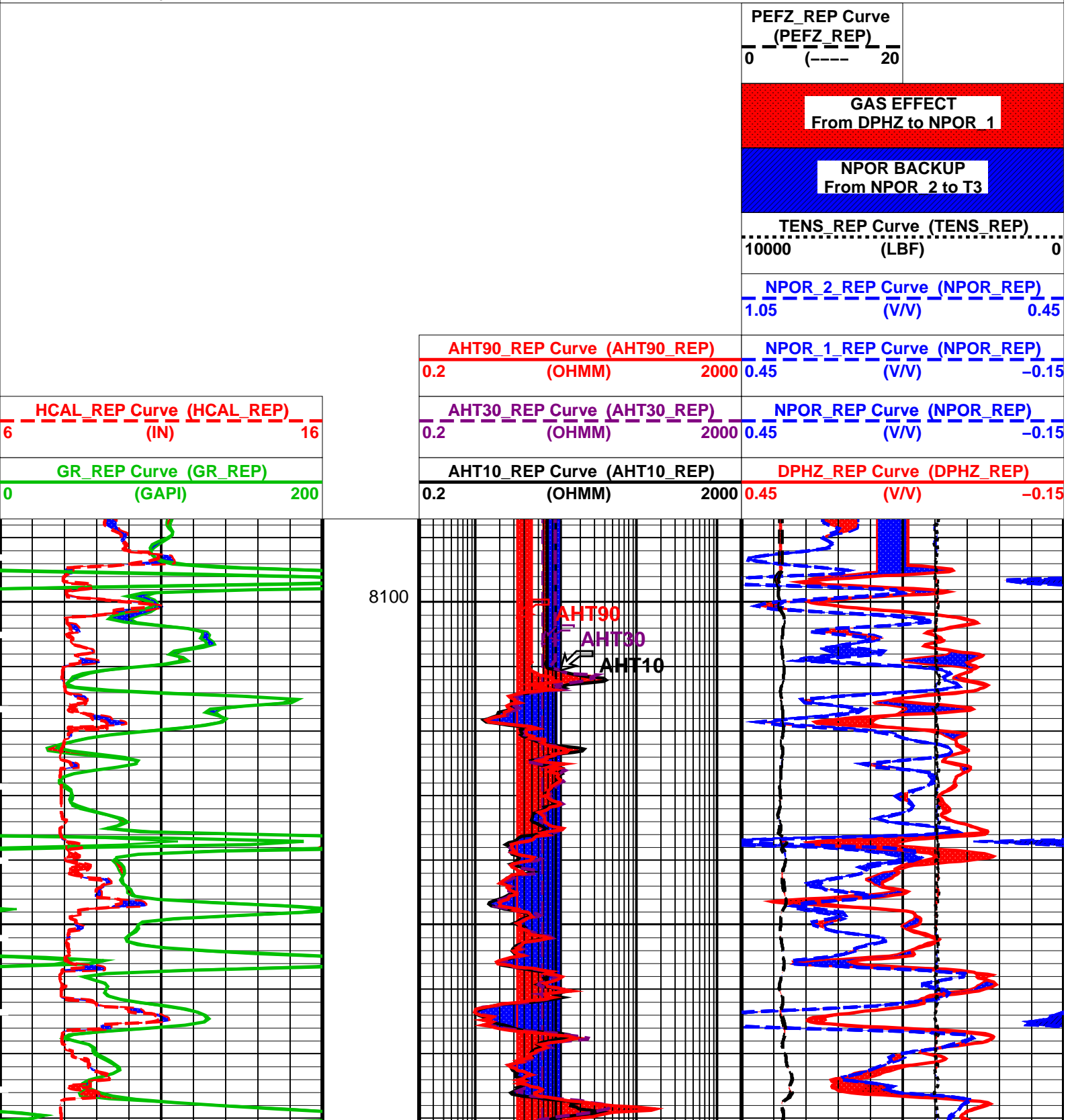
DEFAULT AIT_ADT_TLD_MCFL_044LUP FN:43 PRODUCER 09-May-2013 20:00

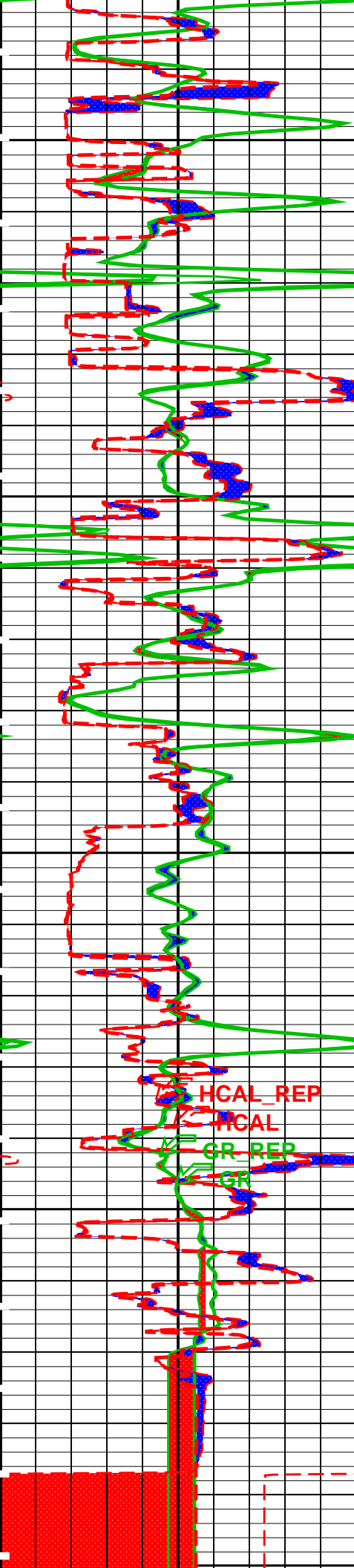
OP System Version: 19C2-270

HAIT-H	19C2-270	ADT-CB	19C2-270
HILTH-FTB	19C2-270	CMRT-B	19C2-270
EDTC-B	19C2-270		

PIP SUMMARY

Time Mark Every 60 S

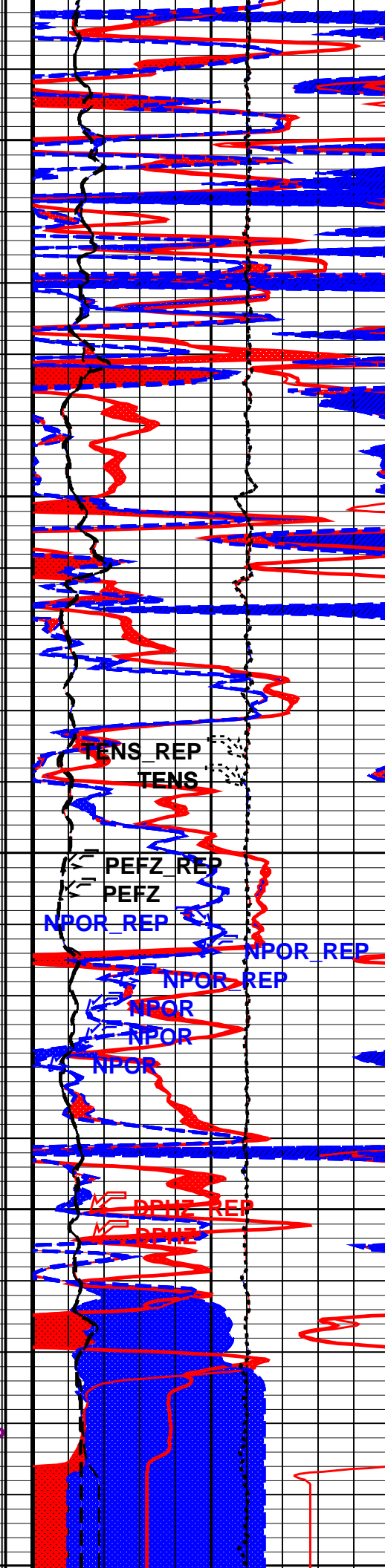
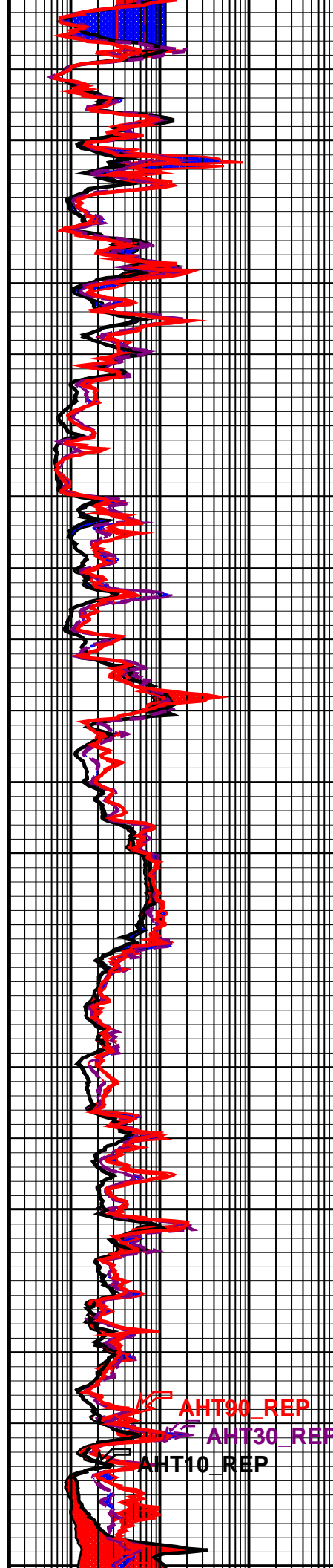


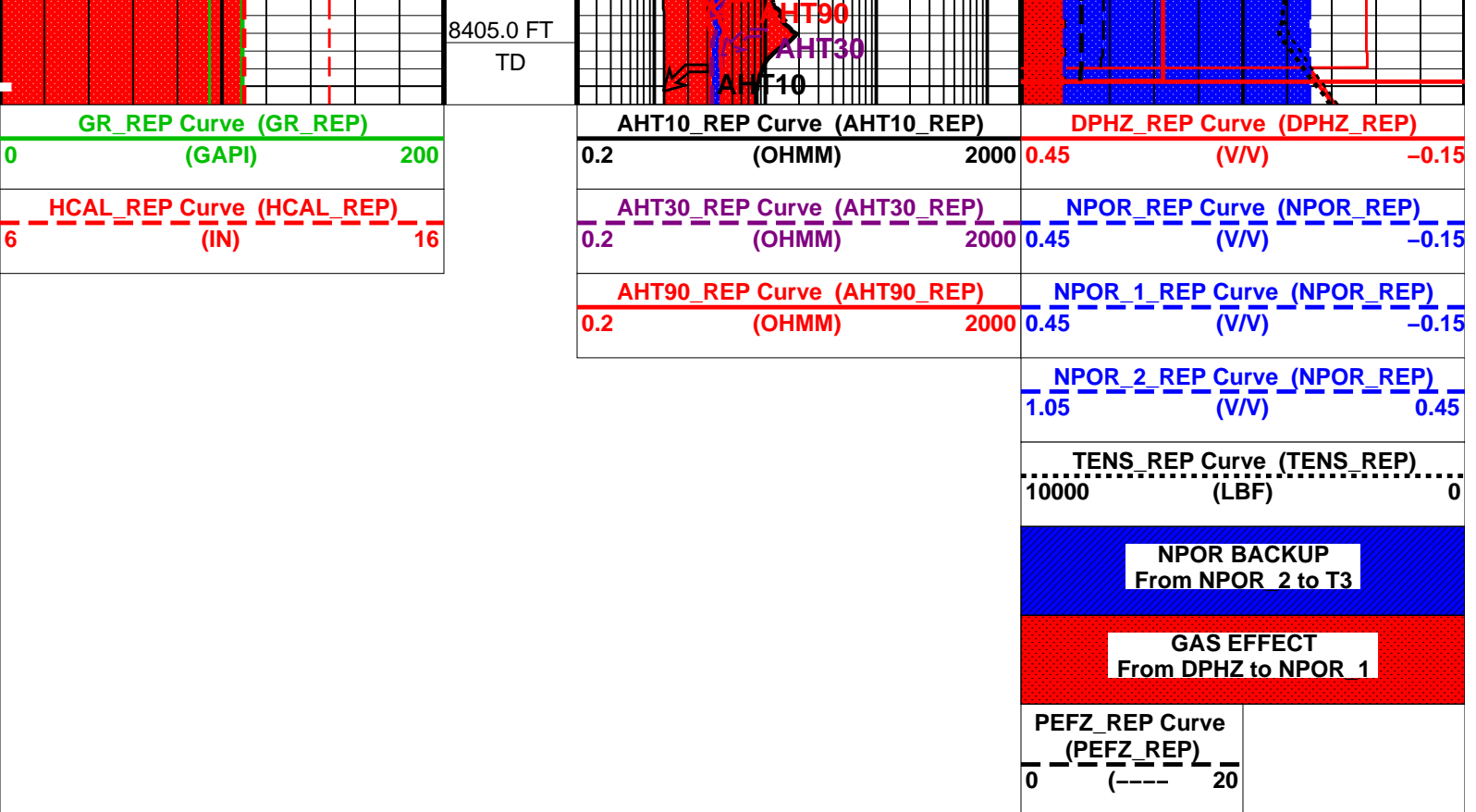


8200

8300

8400





PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value
HAIT-H: Array Induction Tool - H		
AHBHM	Array Induction Borehole Correction Mode	2_ComputeStandoff
AHBHV	Array Induction Borehole Correction Code Version Number	900
AHBLM	Array Induction Basic Logs Mode	6_One_Two_and_Four
AHBLV	Array Induction Basic Logs Code Version Number	223
AHCDE	Array Induction Casing Detection Enable	Yes
AHCEN	Array Induction Tool Centering Flag (in Borehole)	Eccentered
AHFRSV	Array Induction Response Set Version for Four ft Resolution	41.70.24.20
AHMRF	Array Induction Mud Resistivity Factor	1
AHORSV	Array Induction Response Set Version for One ft Resolution	41.70.24.20
AHRFV	Array Induction Radial Profiling Code Version Number	701
AHRPV	Array Induction Radial Parametrization Code Version Number	232
AHSTA	Array Induction Tool Standoff	1.125 IN
AHTRSV	Array Induction Response Set Version for Two ft Resolution	41.70.24.20
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	180 DEGF
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
GCSE	Generalized Caliper Selection	HCAL
GDEV	Average Angular Deviation of Borehole from Normal	0 DEG
GGRD	Geothermal Gradient	0.01 DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST
GTSE	Generalized Temperature Selection	HSTS_HTEM
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE
SHT	Surface Hole Temperature	68 DEGF
ADT-CB: Array Dielectric Tool		
ADT_MEPS	Matrix Dielectric Permittivity	4.65
MUDFILTSALMAX	Maximum Mud Filtrate Salinity	71.4286 PPK
MUDFILTSALMIN	Minimum Mud Filtrate Salinity	0 PPK
HILTH-FTB: High resolution Integrated Logging Tool-DTS		
BHFL	Borehole Fluid Type	WATER
BHFL_TLD	HILT Nuclear Mud Base	WATER
BHS	Borehole Status	OPEN
BHT	Bottom Hole Temperature (used in calculations)	180 DEGF
BSCO	Borehole Salinity Correction Option	NO
CCCO	Casing & Cement Thickness Correction Option	NO
DHC	Density Hole Correction	BS
FD	Fluid Density	1 G/C3
FEXP	Form Factor Exponent	2
FNUM	Form Factor Numerator	1
ESAL	Formation Salinity	50000 RPM

FSCAL	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
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
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	StdRes	
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	
CMRT-B: Combinable Magnetic Resonance Tool - B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
EDTC-B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
HSCO	Hole Size Correction Option	YES	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
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	
FEQL: Formation Evaluation Quick Look			
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
HOLEV: Integrated Hole/Cement Volume			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
PERT: Preliminary Evaluation - Real Time			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	180	DEGF
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
GCSE	Generalized Caliper Selection	HCAL	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	AITH_RESIST	
GTSE	Generalized Temperature Selection	HSTS_HTEM	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	68	DEGF
STI: Stuck Tool Indicator			
TDL	Total Depth - Logger	8405.00	FT
System and Miscellaneous			
BS	Bit Size	7.875	IN
BSAL	Borehole Salinity	-50000.00	PPM

CWEI	Casing Weight	36.00	LB/F
DFD	Drilling Fluid Density	9.30	LB/G
DORL	Depth Offset for Repeat Analysis	0.0	FT
FLEV	Fluid Level	100.00	FT
MST	Mud Sample Temperature	86.00	DEGF
RMFS	Resistivity of Mud Filtrate Sample	1.0950	OHMM
TD	Total Depth	8405	FT

Format: COMBO_REP Vertical Scale: 5" per 100' Graphics File Created: 09-May-2013 20:00

OP System Version: 19C2-270

HAIT-H	19C2-270	ADT-CB	19C2-270
HILTH-FTB	19C2-270	CMRT-B	19C2-270
EDTC-B	19C2-270		

Input DLIS Files

DEFAULT	AIT_ADT_TLD_MCFL_043PUP	FN:42	PRODUCER	09-May-2013 19:58	8413.5 FT	8087.0 FT
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Output DLIS Files

DEFAULT	AIT_ADT_TLD_MCFL_044LUP	FN:43	PRODUCER	09-May-2013 20:00
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Schlumberger

BEFORE CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Array Induction Tool – H Wellsite Calibration – Electronics Calibration Check – Thru Cal Mag. & Phase							
Master: 14-Mar-2013 12:07 Before: 6-May-2013 10:10							
Thru Cal Magnitude – 0	0	0.6286	0.6288	N/A	N/A	N/A	V
Thru Cal Magnitude – 1	0	1.288	1.288	N/A	N/A	N/A	V
Thru Cal Magnitude – 2	0	0.6385	0.6389	N/A	N/A	N/A	V
Thru Cal Magnitude – 3	0	0.7216	0.7218	N/A	N/A	N/A	V
Thru Cal Magnitude – 4	0	1.357	1.358	N/A	N/A	N/A	V
Thru Cal Magnitude – 5	0	1.970	1.970	N/A	N/A	N/A	V
Thru Cal Magnitude – 6	0	1.969	1.969	N/A	N/A	N/A	V
Thru Cal Magnitude – 7	0	1.409	1.408	N/A	N/A	N/A	V
Phase – 0	0	51.96	51.75	N/A	N/A	N/A	DEG
Phase – 1	0	50.94	50.73	N/A	N/A	N/A	DEG
Phase – 2	0	47.18	46.95	N/A	N/A	N/A	DEG
Phase – 3	0	46.39	46.17	N/A	N/A	N/A	DEG
Phase – 4	0	40.03	39.78	N/A	N/A	N/A	DEG
Phase – 5	0	38.13	37.87	N/A	N/A	N/A	DEG
Phase – 6	0	38.12	37.87	N/A	N/A	N/A	DEG
Phase – 7	0	34.38	34.00	N/A	N/A	N/A	DEG
Array Induction Tool – H Wellsite Calibration – Electronics Calibration Check – Auxilliary							
Master: 14-Mar-2013 12:07 Before: 6-May-2013 10:10							
Array Induction SPA Plus	990.5	993.7	993.1	N/A	N/A	N/A	MV
Array Induction SPA Zero	0	-0.03691	-0.03207	N/A	N/A	N/A	MV
Array Induction Temperature PI	0.9150	0.9218	0.9213	N/A	N/A	N/A	V
Array Induction Temperature Ze	0	-0.00004175	-0.00003206	N/A	N/A	N/A	V
Array Induction Tool – H Wellsite Calibration – Test Loop Gain Correction							
Master: 14-Mar-2013 12:07							
Test Loop Gain Magnitude – 0	0	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 1	0	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 2	0	1.011	N/A	N/A	N/A	N/A	V

Test Loop Gain Magnitude – 3	0	1.012	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 4	0	0.9951	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 5	0	0.9887	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 6	0	0.9902	N/A	N/A	N/A	N/A	V
Test Loop Gain Magnitude – 7	0	0.9816	N/A	N/A	N/A	N/A	V
Phase – 0	0	0.5617	N/A	N/A	N/A	N/A	DEG
Phase – 1	0	1.066	N/A	N/A	N/A	N/A	DEG
Phase – 2	0	–0.1344	N/A	N/A	N/A	N/A	DEG
Phase – 3	0	0.1594	N/A	N/A	N/A	N/A	DEG
Phase – 4	0	–0.3571	N/A	N/A	N/A	N/A	DEG
Phase – 5	0	–0.2522	N/A	N/A	N/A	N/A	DEG
Phase – 6	0	1.211	N/A	N/A	N/A	N/A	DEG
Phase – 7	0	–0.5708	N/A	N/A	N/A	N/A	DEG

Array Induction Tool – H Wellsite Calibration – Sonde Error Correction

Master: 14–Mar–2013 12:07

R Sonde Error Correction – 0	0	–89.89	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 1	0	166.0	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 2	0	113.5	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 3	0	59.91	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 4	0	25.90	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 5	0	14.16	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 6	0	10.47	N/A	N/A	N/A	N/A	MM/M
R Sonde Error Correction – 7	0	–3.198	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 0	0	–191.4	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 1	0	2.040	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 2	0	–171.3	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 3	0	–46.88	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 4	0	–18.47	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 5	0	–16.69	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 6	0	–3.050	N/A	N/A	N/A	N/A	MM/M
X Sonde Error Correction – 7	0	–0.6505	N/A	N/A	N/A	N/A	MM/M

Array Induction Tool – H Wellsite Calibration – Mud Gain Correction

Master: 14–Mar–2013 12:07

Coarse – Mag, Real, Imag – 0	0	0.8212	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 1	0	0.8212	N/A	N/A	N/A	N/A
Coarse – Mag, Real, Imag – 2	0	0.8212	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 0	0	0.8276	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 1	0	0.8276	N/A	N/A	N/A	N/A
Fine – Mag, Real, Imag – 2	0	0.8276	N/A	N/A	N/A	N/A

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

Before: 6–May–2013 10:12

BS Window Ratio	0.7416	N/A	0.7404	N/A	N/A	N/A	
BS Window Sum	24360	N/A	24540	N/A	N/A	N/A	CPS
SS Window Ratio	0.4941	N/A	0.4910	N/A	N/A	N/A	
SS Window Sum	13960	N/A	13930	N/A	N/A	N/A	CPS
LS Window Ratio	0.3015	N/A	0.3019	N/A	N/A	N/A	
LS Window Sum	1257	N/A	1255	N/A	N/A	N/A	CPS

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

Before: 6–May–2013 10:12

BS PM High Voltage (Command)	1660	N/A	1647	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1715	N/A	1706	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1327	N/A	1328	N/A	N/A	N/A	V

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

Before: 6–May–2013 10:12

BS Crystal Resolution	11.45	N/A	11.41	N/A	N/A	N/A	%
SS Crystal Resolution	10.32	N/A	10.35	N/A	N/A	N/A	%
LS Crystal Resolution	8.259	N/A	8.209	N/A	N/A	N/A	%

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

Before: 6–May–2013 10:13

Raw B0 Resistivity	3875	N/A	3913	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3856	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3872	N/A	N/A	N/A	OHMM

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

Before: 6–May–2013 10:08

HILT Caliper Zero Measurement	8.000	N/A	7.763	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.23	N/A	N/A	N/A	IN

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

Before: 6–May–2013 10:08

Gamma Ray Background	30.00	N/A	81.21	N/A	N/A	N/A	GAPI
Gamma Ray (Jig – Bkgd)	165.0	N/A	179.4	N/A	N/A	15.00	GAPI

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

Master: 5–Feb–2013 22:07 Before: 6–May–2013 10:09

CNTC Background	28.32	28.32	27.09	N/A	N/A	4.248	CPS
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CFTC Background	28.09	28.09	27.11	N/A	N/A	4.214	CPS
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Ratio Measurement							
Master: 5–Feb–2013 22:07							
Thermal Near Corr. (Tank)	5800	5734	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	2366	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.423	N/A	N/A	N/A	N/A	
High resolution Integrated Logging Tool–DTS Wellsite Calibration – Accelerometer Calibration							
Before: 7–May–2013 3:41							
Z–Axis Acceleration	32.19	N/A	32.08	N/A	N/A	N/A	F/S2
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check							
Master: 6–May–2013 10:03 Before: 6–May–2013 10:18							
Na 511 Peak Loc	40.00	38.47	38.71	N/A	N/A	1.000	
Na 511 Peak Res	15.50	14.50	14.97	N/A	N/A	2.000	%
High Voltage	1150	1032	1033	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	138.7	138.3	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	10.10	9.076	N/A	N/A	2.000	%
Temperature	59.90	63.61	63.68	N/A	N/A	N/A	DEGF
Na Count Rate	45.00	12.00	11.53	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: 6–May–2013 10:03 Before: 6–May–2013 10:18							
Na 511 Peak Loc	40.00	39.68	39.60	N/A	N/A	1.000	
Na 511 Peak Res	15.50	14.82	16.44	N/A	N/A	2.000	%
High Voltage	1150	979.6	980.6	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	141.5	142.5	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	8.859	8.839	N/A	N/A	2.000	%
Temperature	59.90	65.41	65.44	N/A	N/A	N/A	DEGF
Na Count Rate	45.00	11.83	11.49	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2							
Master: 6–May–2013 10:03 Before: 6–May–2013 10:18							
Coincidence Count Rate Ratio	1.000	1.010	0.9964	N/A	N/A	0.05000	
Powered Positioning Device/Caliper 1 Wellsite Calibration – PPC1 Caliper Calibration							
Before: 1–Jan–1970 0:00							
PPC1 Radius 1 Raw Small Radius	3.500	N/A	4.084	N/A	N/A	0.5000	IN
PPC1 Radius 1 Raw Large Radius	8.000	N/A	8.459	N/A	N/A	0.5000	IN
PPC1 Radius 2 Raw Small Radius	3.500	N/A	3.592	N/A	N/A	0.5000	IN
PPC1 Radius 2 Raw Large Radius	8.000	N/A	8.006	N/A	N/A	0.5000	IN
PPC1 Radius 3 Raw Small Radius	3.500	N/A	3.947	N/A	N/A	0.5000	IN
PPC1 Radius 3 Raw Large Radius	8.000	N/A	8.354	N/A	N/A	0.5000	IN
PPC1 Radius 4 Raw Small Radius	3.500	N/A	3.602	N/A	N/A	0.5000	IN
PPC1 Radius 4 Raw Large Radius	8.000	N/A	7.990	N/A	N/A	0.5000	IN
Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration							
Before: 7–May–2013 3:41							
EDTC Z–Axis Acceleration	32.19	N/A	32.05	N/A	N/A	N/A	F/S2
Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration							
Before: 6–May–2013 10:08							
Gamma Ray (Jig – Bkg)	160.2	N/A	160.2	N/A	N/A	14.57	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI
The GLS–VJ source activity is acceptable.							
The HGNS Neutron Master Calibration was done with the following parameters :							
NCT–B Water Temperature	51.4	DEGF.					
Thermal Housing Size	3.375	IN.					
NSR–F serial number	2554						

Array Induction Tool – H / Equipment Identification

































Primary Equipment:
Rm/SP Bottom Nose
Array Induction Sonde









AHRM – A
AHIS – BA













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Auxiliary Equipment:

Array Induction Tool – H Wellsite Calibration

















Electronics Calibration Check – Thru Cal Mag. & Phase							
Idx	Phase	Value	Thru Cal Magnitude V	Nominal	Value	Phase DEG	Nominal
0	Master	0.6286		0.6050	51.96		71.00
	Before	0.6288			51.75		
1	Master	1.288		1.270	50.94		70.00
	Before	1.288			50.73		
2	Master	0.6385		0.6230	47.18		66.00
	Before	0.6389			46.95		
3	Master	0.7216		0.7040	46.39		65.00
	Before	0.7218			46.17		
4	Master	1.357		1.337	40.03		59.00
	Before	1.358			39.78		
5	Master	1.970		1.955	38.13		57.00
	Before	1.970			37.87		
6	Master	1.969		1.955	38.12		57.00
	Before	1.969			37.87		
7	Master	1.409		1.415	34.38		53.00
	Before	1.408			34.00		
		60.00 % (Minimum)	(Nominal)	140.0 % (Maximum)	Nom -60.00 (Minimum)	(Nominal)	Nom + 60.00 (Maximum)
Master: 14-Mar-2013 12:07				Before: 6-May-2013 10:10			

Array Induction Tool – H Wellsite Calibration						
Electronics Calibration Check – Auxilliary						
Phase	Array Induction SPA Plus MV	Value	Phase	Array Induction SPA Zero MV	Value	
Master		993.7	Master		-0.03691	
Before		993.1	Before		-0.03207	
	941.0 (Minimum)	990.5 (Nominal)	1040 (Maximum)	-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)
Phase	Array Induction Temperature Plus V	Value	Phase	Array Induction Temperature Zero V	Value	
Master		0.9218	Master		-4.175E-00	
Before		0.9213	Before		-3.206E-00	
	0.8700 (Minimum)	0.9150 (Nominal)	0.9600 (Maximum)	-0.05000 (Minimum)	0 (Nominal)	0.05000 (Maximum)
Master: 14-Mar-2013 12:07			Before: 6-May-2013 10:10			

Array Induction Tool – H Wellsite Calibration							
Test Loop Gain Correction							
Idx	Value	Test Loop Gain Magnitude V			Value	Phase DEG	
0	1.012				0.5617		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
1	1.012				1.066		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
2	1.011				-0.1344		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
3	1.012				0.1594		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
4	0.9951				-0.3571		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)
5	0.9887				-0.2522		
		0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)







	(Minimum)	(Nominal)	(Maximum)		(Minimum)	(Nominal)	(Maximum)
6	0.9902			1.211			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	
7	0.9816			-0.5708			
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)	-3.000 (Minimum)	0 (Nominal)	3.000 (Maximum)	

Master: 14-Mar-2013 12:07

Array Induction Tool – H Wellsite Calibration								
Sonde Error Correction								
Idx	Value	R Sonde Error Correction MM/M			Value	X Sonde Error Correction MM/M		
0	-89.89				-191.4			
	-231.0 (Minimum)	-56.00 (Nominal)	119.0 (Maximum)		-2250 (Minimum)	0 (Nominal)	2250 (Maximum)	
1	166.0				2.040			
	114.0 (Minimum)	159.0 (Nominal)	204.0 (Maximum)		-625.0 (Minimum)	0 (Nominal)	625.0 (Maximum)	
2	113.5				-171.3			
	66.00 (Minimum)	111.0 (Nominal)	156.0 (Maximum)		-350.0 (Minimum)	0 (Nominal)	350.0 (Maximum)	
3	59.91				-46.88			
	39.00 (Minimum)	64.00 (Nominal)	89.00 (Maximum)		-250.0 (Minimum)	0 (Nominal)	250.0 (Maximum)	
4	25.90				-18.47			
	15.00 (Minimum)	25.00 (Nominal)	35.00 (Maximum)		-63.00 (Minimum)	0 (Nominal)	63.00 (Maximum)	
5	14.16				-16.69			
	4.000 (Minimum)	14.00 (Nominal)	24.00 (Maximum)		-50.00 (Minimum)	0 (Nominal)	50.00 (Maximum)	
6	10.47				-3.050			
	5.000 (Minimum)	10.00 (Nominal)	15.00 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)	
7	-3.198				-0.6505			
	-5.000 (Minimum)	0 (Nominal)	5.000 (Maximum)		-30.00 (Minimum)	0 (Nominal)	30.00 (Maximum)	

Master: 14-Mar-2013 12:07

Master: 14-Mar-2013 12:07

Array Induction Tool – H Wellsite Calibration								
Mud Gain Correction								
Idx	Value	Coarse – Mag, Real, Imag			Value	Fine – Mag, Real, Imag		
0	0.8212				0.8276			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
1	0.8212				0.8276			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
2	0.8212				0.8276			
		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)		0.8000 (Minimum)	1.000 (Nominal)	1.200 (Maximum)
Master: 14–Mar–2013 12:07								

Master: 14-Mar-2013 12:07

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



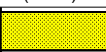
HRMS – H
HRGD – H
MCFL – H
GLS – VJ
HRCC – H
HGNS – H
HGR –
HCNT – H


5471

Auxiliary Equipment:

Neutron Calibration Tank
Gamma Source Radioactive
HGNS Housing

NCT – B
GSR – U/Y
HGNNH –













Phase	Thermal Near Corr. (Tank) CPS		Value	Phase	Thermal Far Corr. (Tank) CPS		Value	Phase	CNTC/CFTC (Tank)		Value
Master			5734	Master			2366	Master			2.423
	4700 (Minimum)	5800 (Nominal)	6900 (Maximum)		1900 (Minimum)	2400 (Nominal)	2900 (Maximum)		2.120 (Minimum)	2.159 (Nominal)	2.540 (Maximum)
Master: 5-Feb-2013 22:07											






High resolution Integrated Logging Tool-DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z-Axis Acceleration F/S2	Value
Before		32.08
	31.53 (Minimum)	32.19 (Nominal)
		32.84 (Maximum)
Before: 7-May-2013 3:41		

Hostile Natural Gamma Ray Cartridge – B / Equipment Identification		
Primary Equipment: HNGC Cartridge	HNGC – B	250
Auxiliary Equipment: HNGC Housing	HNGH – A	87

Hostile Natural Gamma Ray Sonde / Equipment Identification		
Primary Equipment: HNGS Sonde	HNGS – BA	152
Auxiliary Equipment: HNGS Sonde Housing	HNSH – BA	149
Gamma Source Radioactive	GSR – U	410



Hostile Natural Gamma Ray Sonde Wellsite Calibration												
Detector 1 Check												
Phase	Na 511 Peak Loc		Value	Phase	Na 511 Peak Res %		Value	Phase	High Voltage V		Value	
Master	<div><div></div></div>		38.47	Master	<div><div></div></div>		14.50	Master	<div><div></div></div>		1032	
Before	<div><div></div></div>		38.71	Before	<div><div></div></div>		14.97	Before	<div><div></div></div>		1033	
37.50 (Minimum)			40.00 (Nominal)	12.00 (Minimum)			15.50 (Nominal)	850.0 (Minimum)			1150 (Nominal)	1600 (Maximum)
43.50 (Maximum)				19.00 (Maximum)				1600 (Maximum)				
Phase	Na 1785 Peak Loc		Value	Phase	Na 1785 Peak Res %		Value	Phase	Temperature DEGF		Value	
Master	<div><div></div></div>		138.7	Master	<div><div></div></div>		10.10	Master	<div><div></div></div>		63.61	
Before	<div><div></div></div>		138.3	Before	<div><div></div></div>		9.076	Before	<div><div></div></div>		63.68	
135.0 (Minimum)			142.6 (Nominal)	7.000 (Minimum)			8.500 (Nominal)	-20.00 (Minimum)			59.90 (Nominal)	140.0 (Maximum)
150.3 (Maximum)				11.00 (Maximum)				140.0 (Maximum)				
Phase	Na Count Rate CPS		Value									
Master	<div><div></div></div>		12.00									
Before	<div><div></div></div>		11.53									
10.00 (Minimum)			45.00 (Nominal)									100.0 (Maximum)
Master: 6-May-2013 10:03 Before: 6-May-2013 10:18												

Hostile Natural Gamma Ray Sonde Wellsite Calibration																
Detector 2 Check																
Phase	Na 511 Peak Loc		Value	Phase	Na 511 Peak Res %		Value	Phase	High Voltage V		Value					
Master			39.68	Master			14.82	Master			979.6					
Before			39.60	Before			16.44	Before			980.6					
37.50 (Minimum)			40.00 (Nominal)	43.50 (Maximum)			12.00 (Minimum)			15.50 (Nominal)	19.00 (Maximum)	850.0 (Minimum)			1150 (Nominal)	1600 (Maximum)
Phase	Na 1785 Peak Loc		Value	Phase	Na 1785 Peak Res %		Value	Phase	Temperature DEGF		Value					
Master			141.5	Master			8.859	Master			65.41					
Before			142.5	Before			8.829	Before			65.44					

Before		142.5	Before		8.839	Before		65.44
135.0 (Minimum)	142.6 (Nominal)	150.3 (Maximum)	7.000 (Minimum)	8.500 (Nominal)	11.00 (Maximum)	-20.00 (Minimum)	59.90 (Nominal)	140.0 (Maximum)
Phase	Na Count Rate CPS		Value					
Master			11.83					
Before			11.49					
10.00 (Minimum)	45.00 (Nominal)	100.0 (Maximum)						
Master: 6-May-2013 10:03			Before: 6-May-2013 10:18					

Master: 6-May-2013 10:03

Before: 6-May-2013 10:18

Hostile Natural Gamma Ray Sonde Wellsite Calibration			
Ratio Of Detector 1 To Detector 2			
Phase	Coincidence Count Rate Ratio	Value	
Master		1.010	
Before		0.9964	
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)
Master: 6-May-2013 10:03			
Before: 6-May-2013 10:18			

General Purpose Inclinator / Equipment Identification

Primary Equipment:
GPIT Cartridge – F

GPIC – F

Auxiliary Equipment:
GPIT Housing – F









GPIH – B

Powered Positioning Device/Caliper 1 / Equipment Identification

Primary Equipment:
PPC Powered Positioning Device/Caliper
PPC1 Caliper Standard

PPC1 – B
PPC_ –

Auxiliary Equipment:

Powered Positioning Device/Caliper 1 Wellsite Calibration						
PPC1 Caliper Calibration						
Phase	PPC1 Radius 1 Raw Small Radius IN	Value	Phase	PPC1 Radius 1 Raw Large Radius IN	Value	
Before		4.084	Before		8.459	
	1.200 (Minimum)	3.500 (Nominal)	5.600 (Maximum)	6.100 (Minimum)	8.000 (Nominal)	9.700 (Maximum)
Phase	PPC1 Radius 2 Raw Small Radius IN	Value	Phase	PPC1 Radius 2 Raw Large Radius IN	Value	
Before		3.592	Before		8.006	
	1.200 (Minimum)	3.500 (Nominal)	5.600 (Maximum)	6.100 (Minimum)	8.000 (Nominal)	9.700 (Maximum)
Phase	PPC1 Radius 3 Raw Small Radius IN	Value	Phase	PPC1 Radius 3 Raw Large Radius IN	Value	
Before		3.947	Before		8.354	
	1.200 (Minimum)	3.500 (Nominal)	5.600 (Maximum)	6.100 (Minimum)	8.000 (Nominal)	9.700 (Maximum)
Phase	PPC1 Radius 4 Raw Small Radius IN	Value	Phase	PPC1 Radius 4 Raw Large Radius IN	Value	
Before		3.602	Before		7.990	
	1.200 (Minimum)	3.500 (Nominal)	5.600 (Maximum)	6.100 (Minimum)	8.000 (Nominal)	9.700 (Maximum)
Before: 1-Jan-1970 0:00						

Before: 1-Jan-1970 0:00

Multimode Array Sonic Power Cartridge / Equipment Identification

Primary Equipment:
Multimode Array Sonic Minimum Service So
Multimode Array Sonic Control Cartridge

MAMS – BA
MAPC – BA

Auxiliary Equipment:
Electronics Cartridge Housing

ECH – SE

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:


EDTC Gamma Ray Detector
Enhanced DTS Cartridge




EDTG - A/B
EDTC - B

Auxiliary Equipment:

EDTC Housing

EDTH - B

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration F/S2	Value
Before		32.05
	31.53 (Minimum) 32.19 (Nominal) 32.84 (Maximum)	
Before: 7-May-2013 3:41		

Enhanced DTS Cartridge Wellsite Calibration														
Detector Calibration														
Phase	Gamma Ray Background		GAPI	Value	Phase	Gamma Ray (Jig – Bkg)		GAPI	Value	Phase	Gamma Ray (Calibrated)		GAPI	Value
Before				74.20	Before				160.2	Before				165.0
	0 (Minimum)	30.00 (Nominal)		120.0 (Maximum)		145.7 (Minimum)	160.2 (Nominal)		174.8 (Maximum)		150.0 (Minimum)	165.0 (Nominal)		180.0 (Maximum)
Before: 6-May-2013 10:08														

Company: **Cascade Petroleum LLC****Schlumberger**Well: **Monks A11-9S-56W-01**Field: **Wildcat**County: **Lincoln**State: **Colorado**

Platform Express
Triple Combo