

Company: Cascade Petroleum

Well: Forristall State 36-11S-56W-02

Field: Wildcat

County: Lincoln State: CO

County: Lincoln		State: CO	
Well: Forristall State 36-11S-56W-02			
Field: Wildcat			
County: Lincoln			
Platform Express			
Triple Combo			
Location:			
SWNE: 2540' FNL, 2540' FEL		Elev. K.B. 5399.00 ft	
Permanent Datum:		Ground Level	
Log Measured From:		Kelly Bushing	
Drilling Measured From:		Kelly Bushing	
API Serial No.		Section: 36	
05-073-06497-00		Township: 11S	
		Range: 56W	
Logging Date		20-Feb-2013	
Run Number		1	
Depth Driller		8345.00 ft	
Schlumberger Depth		8348.00 ft	
Bottom Log Interval		8340.00 ft	
Top Log Interval		542.00 ft	
Casing Driller Size @ Depth		8.625 in @ 520.00 ft	
Casing Schlumberger		542 ft	
Bit Size		7.875 in	
Type Fluid In Hole		Water Based Mud	
Density		8.7 lbm/gal	
Viscosity		54 s	
Fluid Loss		PH	
Source of Sample		Active Tank	
RM @ Meas Temp		1.41 ohm.m @ 60.5 degF	
RMF @ Meas Temp		1.05 ohm.m @ 60.5 degF	
RMC @ Meas Temp		2.1 ohm.m @ 60.5 degF	
Source RMF		Calculated	
RM @ BHT		0.53 @ 172 0.4 @ 172	
Max Recorded Temperatures		172 degF	
Circulation Stopped		20-Feb-2013 15:00:00	
Logger on Bottom		21-Feb-2013 00:22:00	
Unit Number		2135	
Recorded By		P. Grant/ D. Kholin	
Witnessed By		Red Benge	

Disclaimer

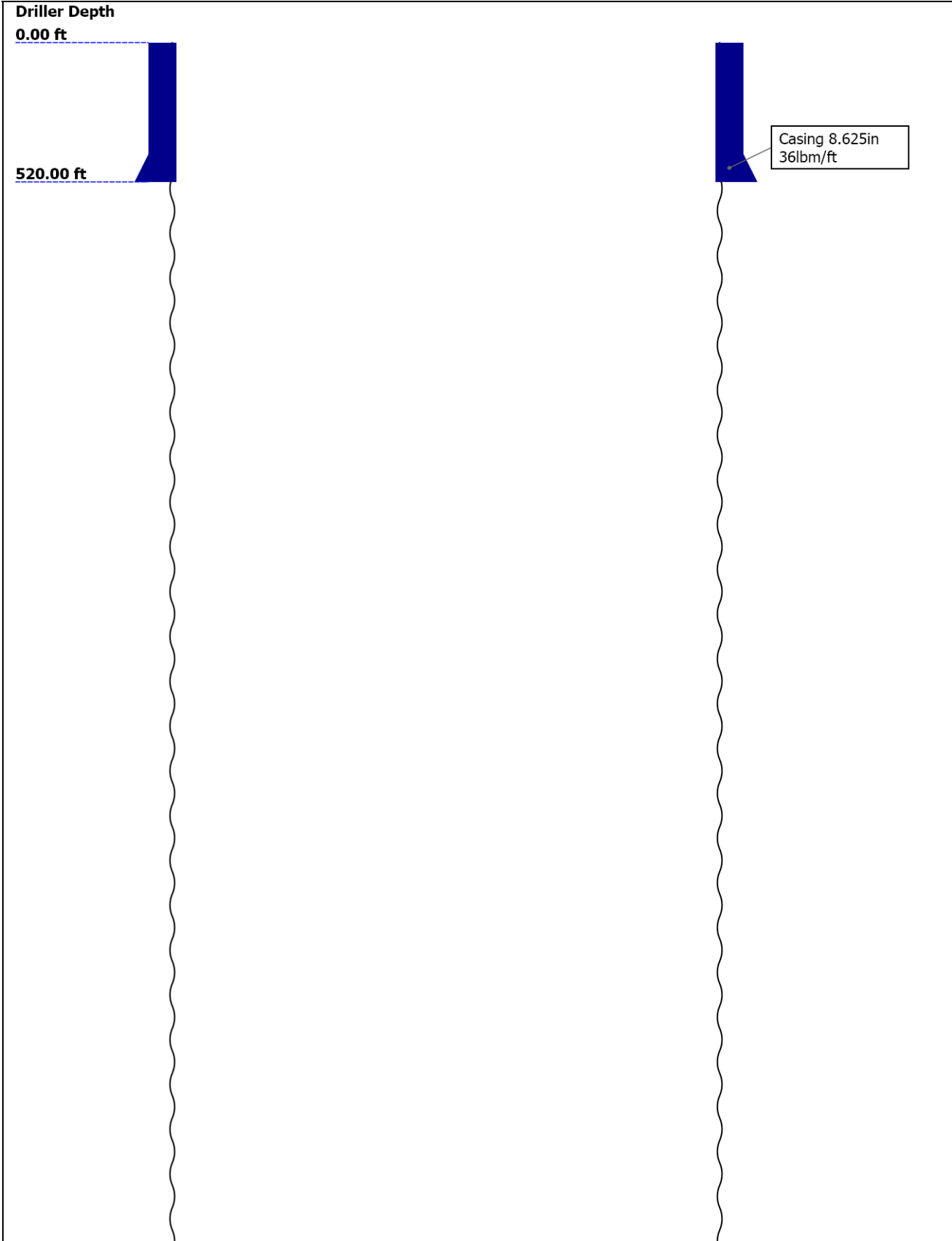
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Well Sketch



8345.00 ft

Open Hole 7.875in

## Borehole Size/Casing/Tubing Record

Bit						
Bit Size ( in )	7.875					
Top Driller ( ft )	0					
Top Logger ( ft )	0					
Bottom Driller ( ft )	8345					
Bottom Logger ( ft )	8348					
Casing						
Size ( in )	8.625					
Weight ( lbm/ft )	36					
Inner Diameter ( in )	7.823					
Grade	K55					
Top Driller ( ft )	0					
Top Logger ( ft )	0					
Bottom Driller ( ft )	520					
Bottom Logger ( ft )	542					

## Borehole Fluids

Parameter( unit )	1					
Fluid Type	Water					
Fluid Name	Water Based Mud					
Max Recorded Temperatures ( degF )	172					
Source of Sample	Active Tank					
Salinity ( ppm )	4734.71					
Density ( lbm/gal )	8.7					
Funnel Viscosity ( s )	54					
Fluid Loss ( cm3 )						
PH						
Date/Time Circulation Stopped	20-Feb-2013 15:00:00					
Date Logger on Bottom	21-Feb-2013					
Time Logger on Bottom	00:22:00					
Source RMF	Calculated					
RMC	Calculated					
RM @ Meas Temp ( ohm.m@degF )	1.41 @ 60.5					
RMF @ Meas Temp ( ohm.m@degF )	1.05 @ 60.5					

Ohm.m@degF )						
RMC @ Meas Temp ( ohm.m@degF )	2.1 @ 60.5					
RM @ BHT ( ohm.m@degF )	0.53 @ 172					
RMF @ BHT ( ohm.m@degF )	0.4 @ 172					
RMC @ BHT ( ohm.m@degF )	0.79 @ 172					
Total Solid ( % )						
High Gravity Solids ( % )						

Remarks and Equipment Summary

1: Toolstring				1: Remarks
<div> <div> <div>Equip name</div> <div>LEH-QT:6012</div> <div>LEH-QT:6012</div> </div> <div> <div>Length</div> <div>122.56</div> </div> </div> <div> <div>MP name</div> <div></div> </div> <div> <div>Offset</div> <div></div> </div>		Toolstring run as per tool sketch		
		Toolstring got stuck at 7261 ft.		
		Calipers were closed at 7261 ft.		
		Density data is not valid for the interval from 7249 to 7261 ft.		
<div> <div> <div>EDTC-B:1</div> <div>EDTH-B:8321</div> <div>EDTG-A</div> <div>EDTC-B:1</div> </div> <div> <div>Length</div> <div>119.64</div> </div> </div> <div> <div>MP name</div> <div></div> </div> <div> <div>Offset</div> <div></div> </div>		<div> <div>CTEM</div> <div>116.14</div> </div> <div> <div>ACCZ</div> <div>0.00</div> </div> <div> <div>HV</div> <div>0.00</div> </div> <div> <div>Gamma Ray</div> <div>114.27</div> </div> <div> <div>TelStatus</div> <div>113.14</div> </div>		
<div> <div> <div>MAST-B:8053</div> <div>ECH-SF:8151</div> <div>MAPC-BA:1</div> <div>MAMS-BA:8053</div> <div>MASS-BA:8358</div> <div>MAXS-BA:8183</div> </div> <div> <div>Length</div> <div>113.14</div> </div> </div> <div> <div>MP name</div> <div></div> </div> <div> <div>Offset</div> <div></div> </div>		<div> <div>MAMS</div> <div>97.7</div> </div>		



PPC-B:8733 71.86  
PPC-B:8733

MAXS 71.86

PPC-B Calipers 70.71

AH-184[2]:757 65.34

GPIT-F:1881 63.34  
GPIH-B:3713  
GPIC-F:1881  
DHRU-F:2705

GPIT-F Incl inometer 61.93

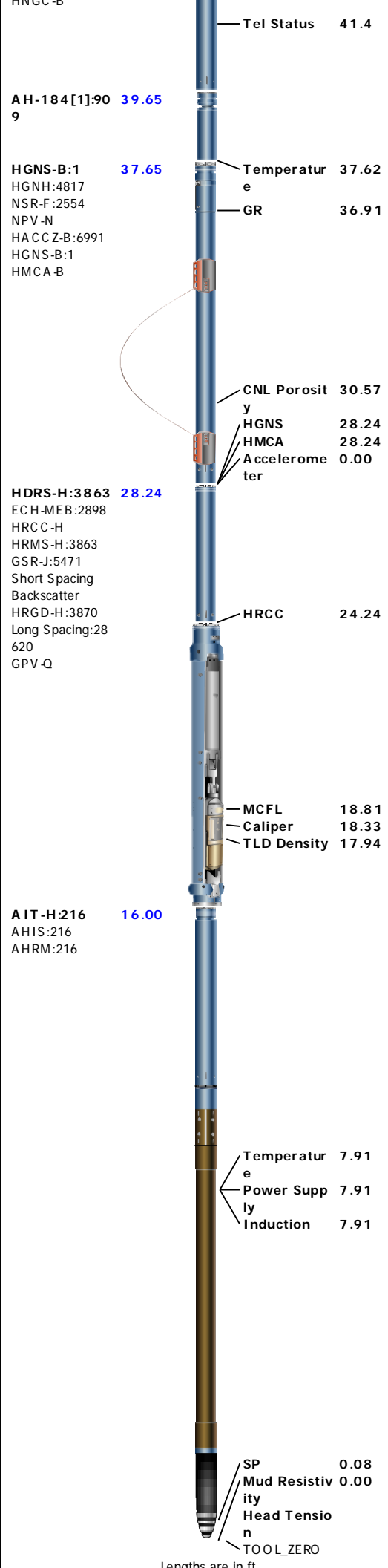
Adaptor\_Head:384 59.34

GPIT 0.00

HNGS-BA 51.34  
HEH-K:149  
HNGS-BA

GR 48.35

HNGC-B 43.15  
HNGH-A:87  
HNGC-B

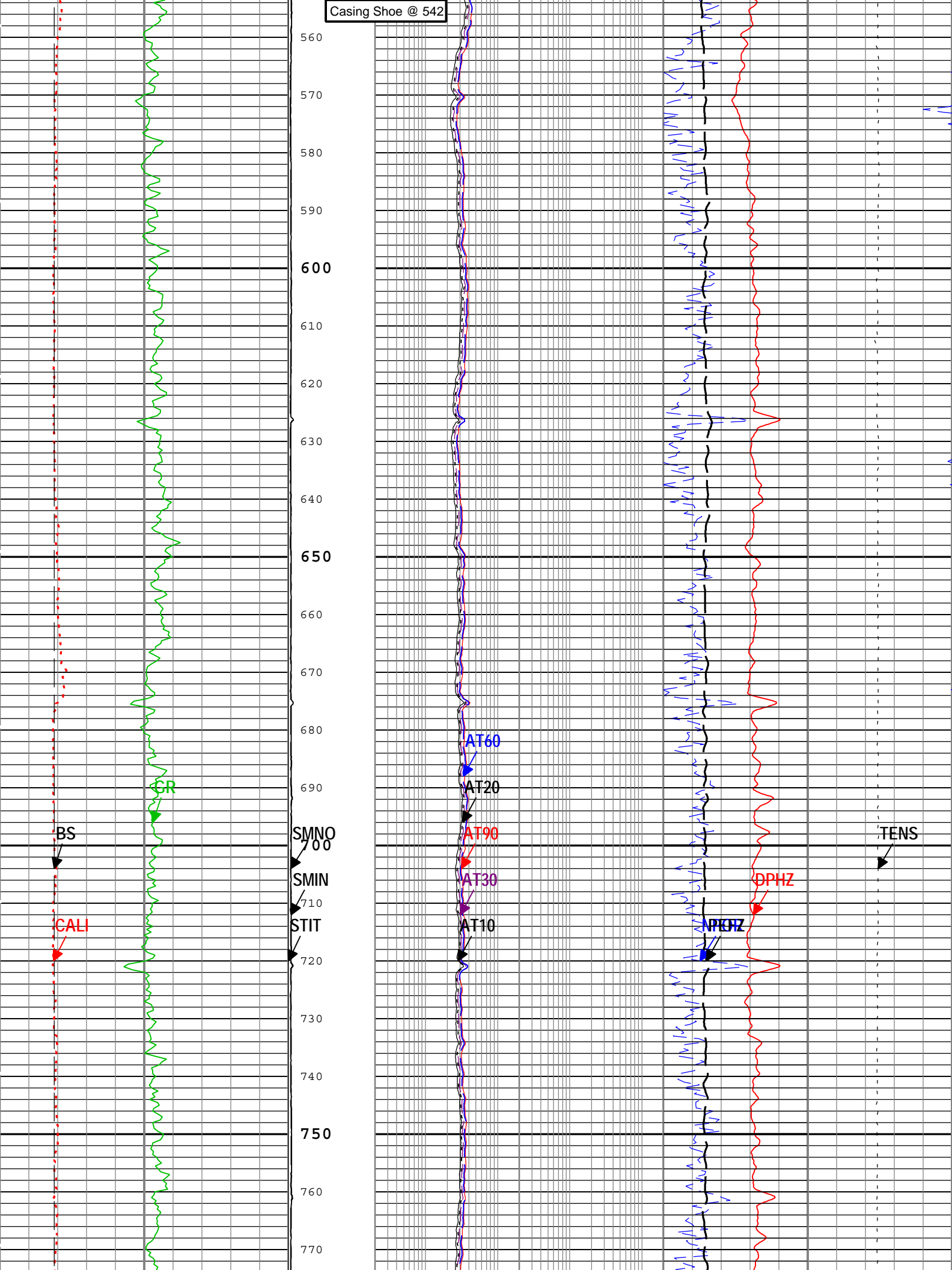


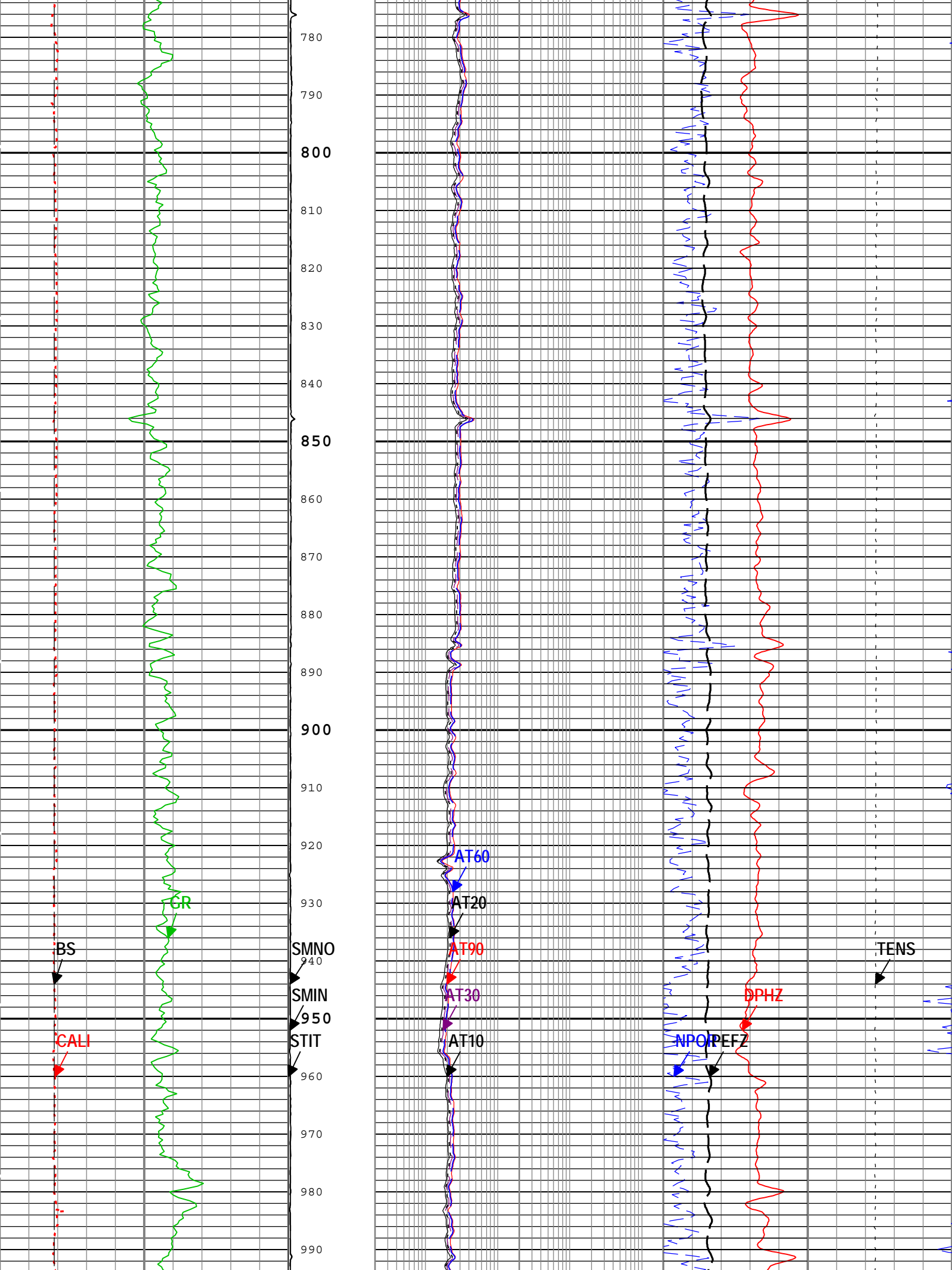
Lengths are in ft Maximum Outer Diameter = 4.700 in Line: Sensor Location, V alue: Gating O ffs et All measurements are relative to TOOL ZERO									
Depth Summary									
Depth Control Parameters		1							
Conveyance Type		Wireline							
Rig Type		Land							
Depth Measuring Device		1							
Type		IDW-B							
Serial Number		6515A							
Calibration Date		23-Oct-2012							
Calibration Cable Type		7-46PXS							
Wheel Correction 1		-7							
Wheel Correction 2		-5							
Tension Device		1							
Type		CMTD-B/A							
Serial Number		1649							
Calibration Date		09-Jan-2013							
Calibrator Serial Number		78140							
Calibration Points		10							
Calibration RMS		21							
Calibration Peak Error		13							
Logging Cable		1							
Type		7-46P-XS							
Logging Cable Length ( ft )		24000.00							
Main Pass									
5" Triple Combo									
Integration Summary									
Output Channel(s)		Output Description		Input Parameter		Output Value		Unit	
Software Version									
Acquisition System					Version				
MaxWell					3.1.9755.0				
Application Patch					SP-20120723-3.1.9755.1112				
					EXP_APL-MASTAXIS-3.1.9755.1221				
					EXP_APL-NEXTA-3.1.9755.1340				
					EXP_APL-NGI-3.1.9755.1136				
Computation		Description						Version	
Borehole		Borehole Ensemble provides common Borehole Parameters and Channels						3.1.9755.0	
HENVIR		Computation Ensemble for the HGNS Neutron environmental corrections						3.1.9755.0	
DepthCorrection		DepthCorrection						3.1.9755.0	
Tool Elements		Description			Software Version			Firmware Version	
HRCC-H		HILT High-Resolution Control Cartridge, 150 degC			3.1.9755.0			2.0	
AHIS		Array Induction Sonde - H			3.1.9755.1112				
HRGD-H		HILT Resistivity Gamma-Ray Density Device, 150 degC			3.1.9755.0			3.0	
HGNS-B		HILT Gamma-Ray and Neutron Sonde, 125 degC			3.1.9755.0			2.0	
Composite Summary									
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Depth Shift	Include Parallel	

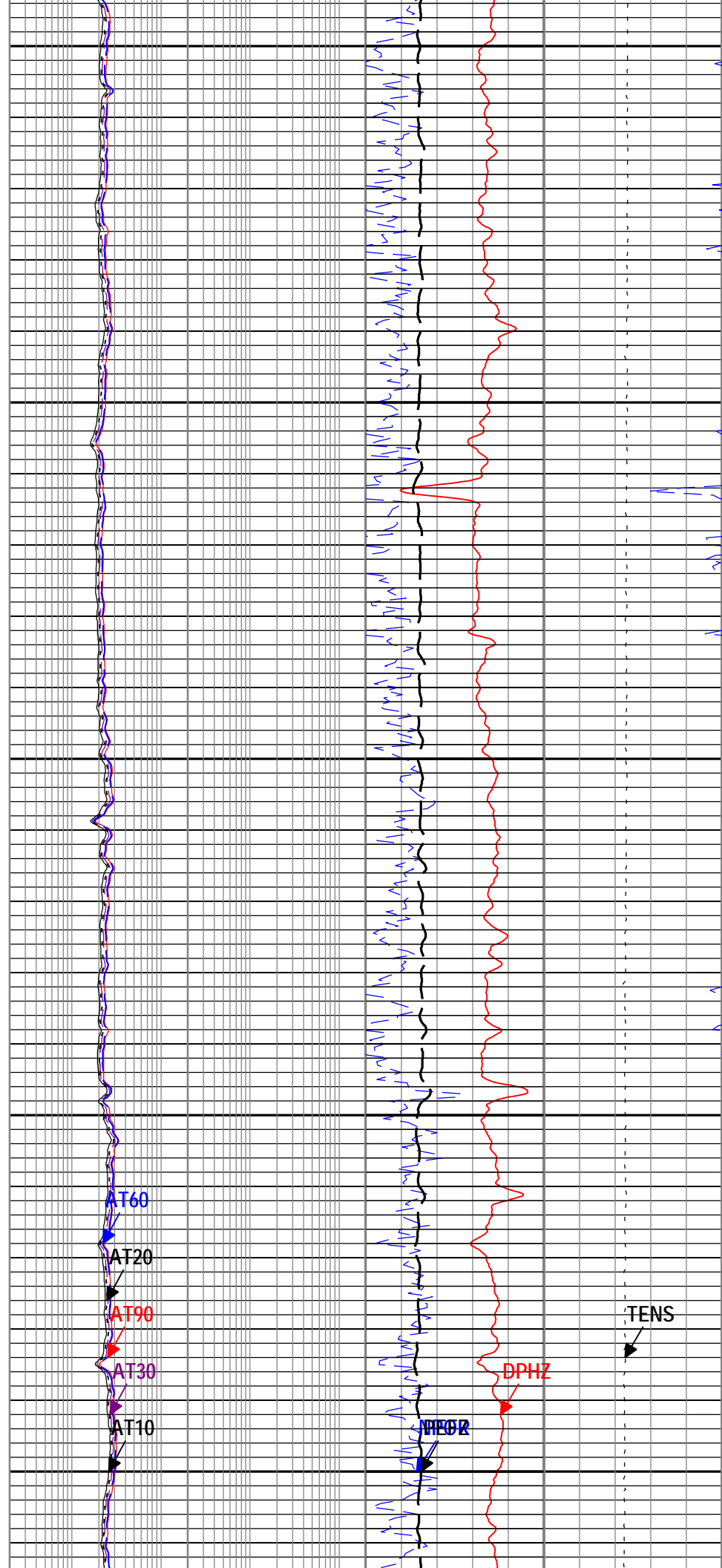
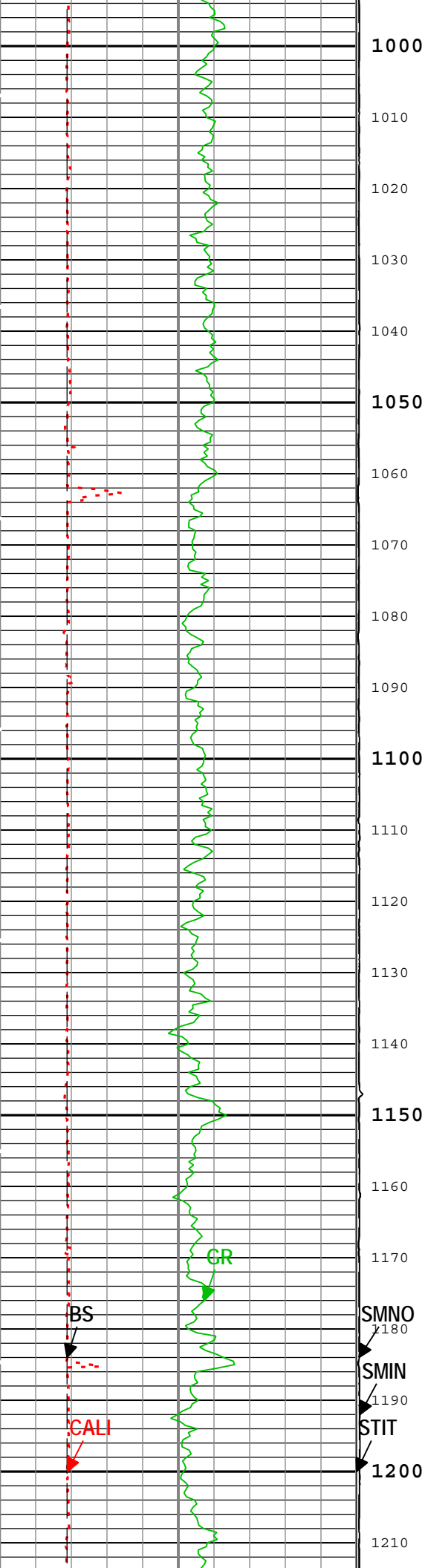
TIME_1900 - Time Marked every 60.00 (s)				
		Stuck Tool Indicator, Total (STIT) 0 ft 50	Array Induction Two Foot Resistivity A10 (AT10) AIT_SpliceGroup[1] 0.2 ohm.m 2000	Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS[1] 0 10
		Synthetic Micro-Inverse Resistivity (SMIN) HDRS[1] 0 100 ohm.m	Array Induction Two Foot Resistivity A30 (AT30) AIT_SpliceGroup[1] 0.2 ohm.m 2000	NPOR Backup
Gamma Ray Back up 6 in 16		Synthetic Micro-Normal Resistivity (SMNO) HDRS[1] 0 100 ohm.m	Array Induction Two Foot Resistivity A90 (AT90) AIT_SpliceGroup[1] 0.2 ohm.m 2000	Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS[1] 0.45 m3/m3 -0.15
Bit Size (BS) 6 in 16		Synthetic Micro-Inverse Resistivity (SMIN) HDRS[1] 0 100 ohm.m	Array Induction Two Foot Resistivity A20 (AT20) AIT_SpliceGroup[1] 0.2 ohm.m 2000	Standard Resolution Density Porosity (DPHZ) HDRS[1] 0.45 ft3/ft3 -0.15
Gamma Ray (GR) HGNS[1] 0 gAPI 200		Synthetic Micro-Inverse Resistivity (SMIN) HDRS[1] 0 100 ohm.m	Array Induction Two Foot Resistivity A60 (AT60) AIT_SpliceGroup[1] 0.2 ohm.m 2000	Cable Tension (TENS) 10000 lbf 0

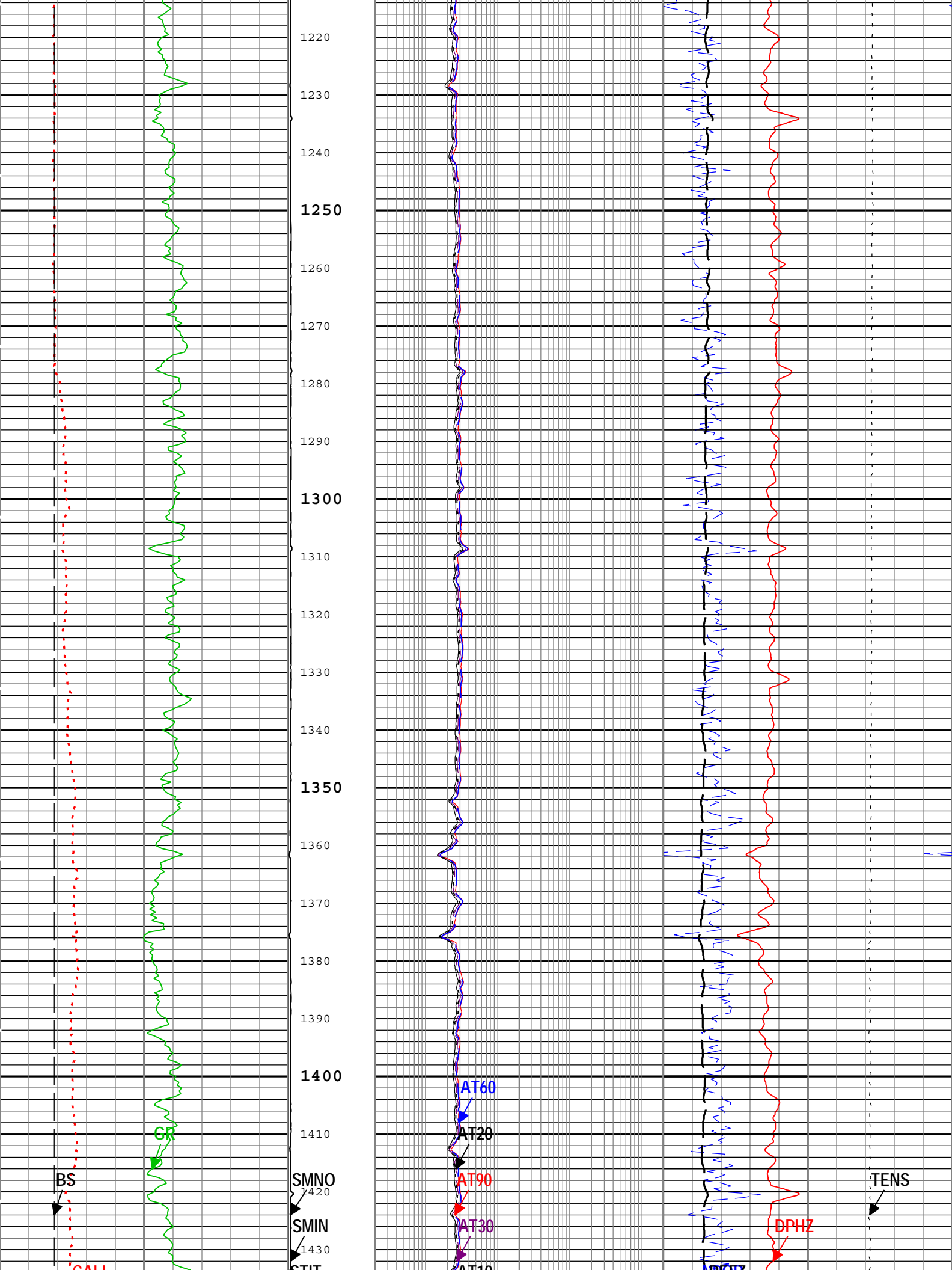


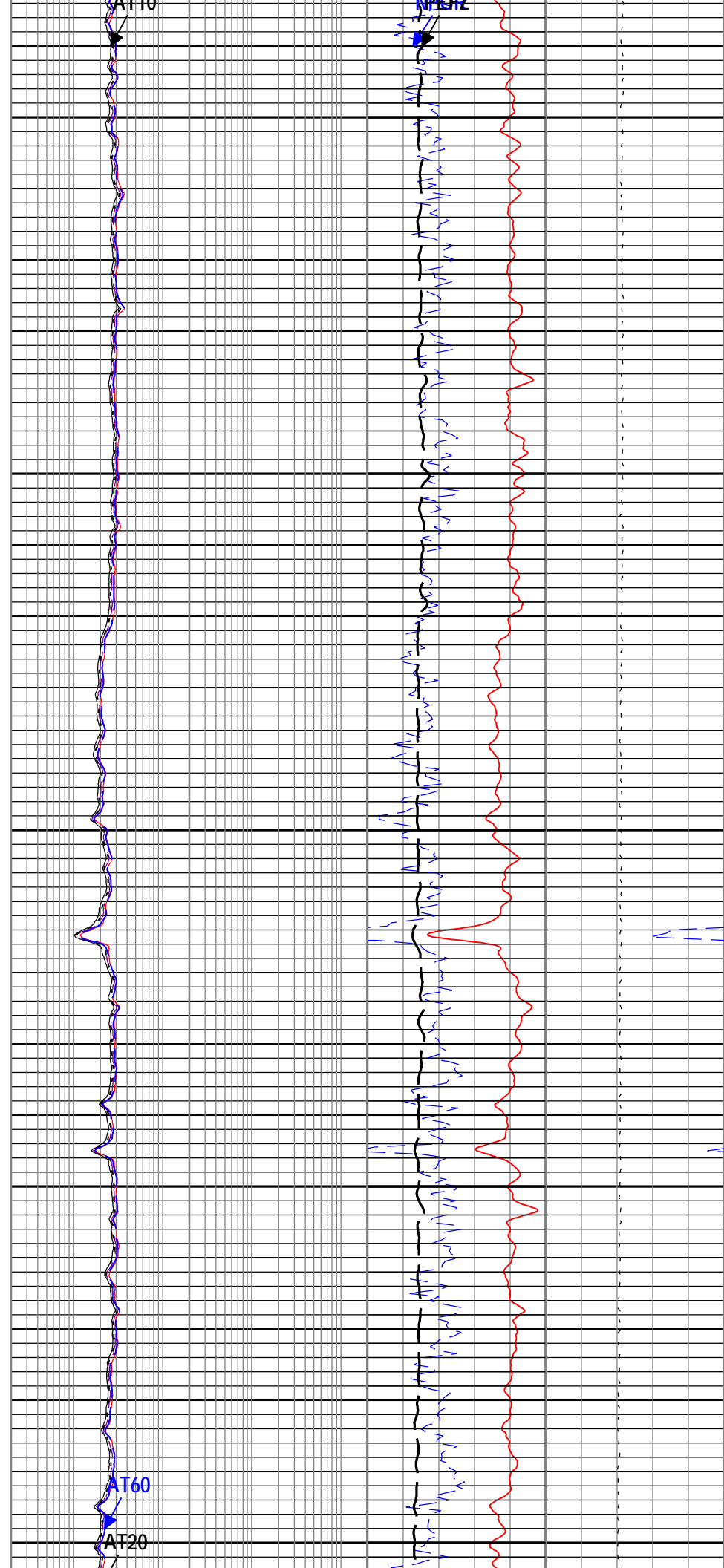
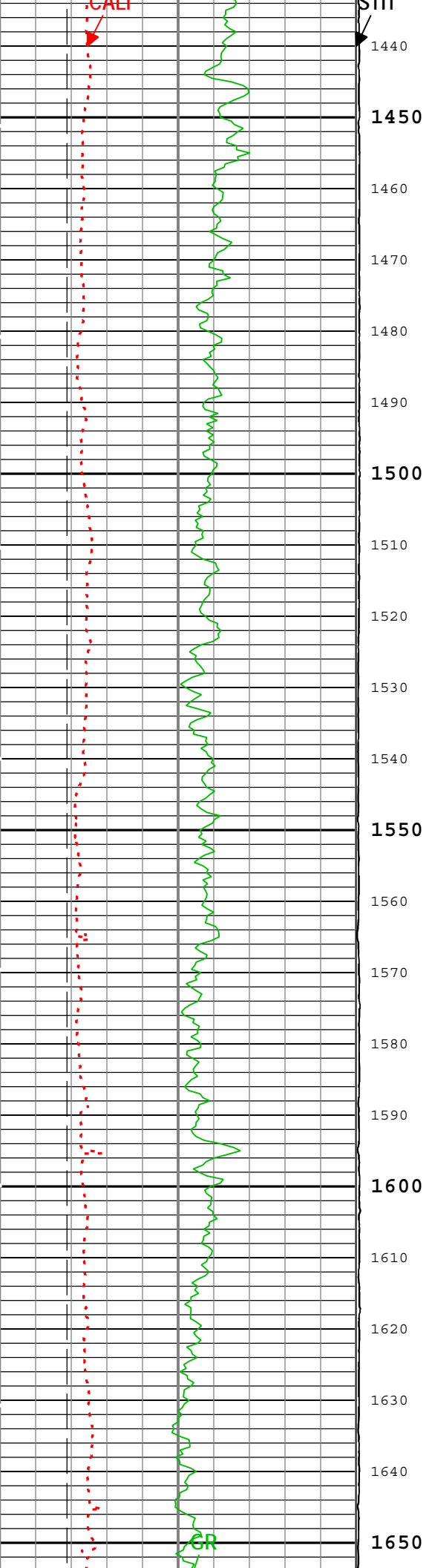
Casing Shoe @ 542

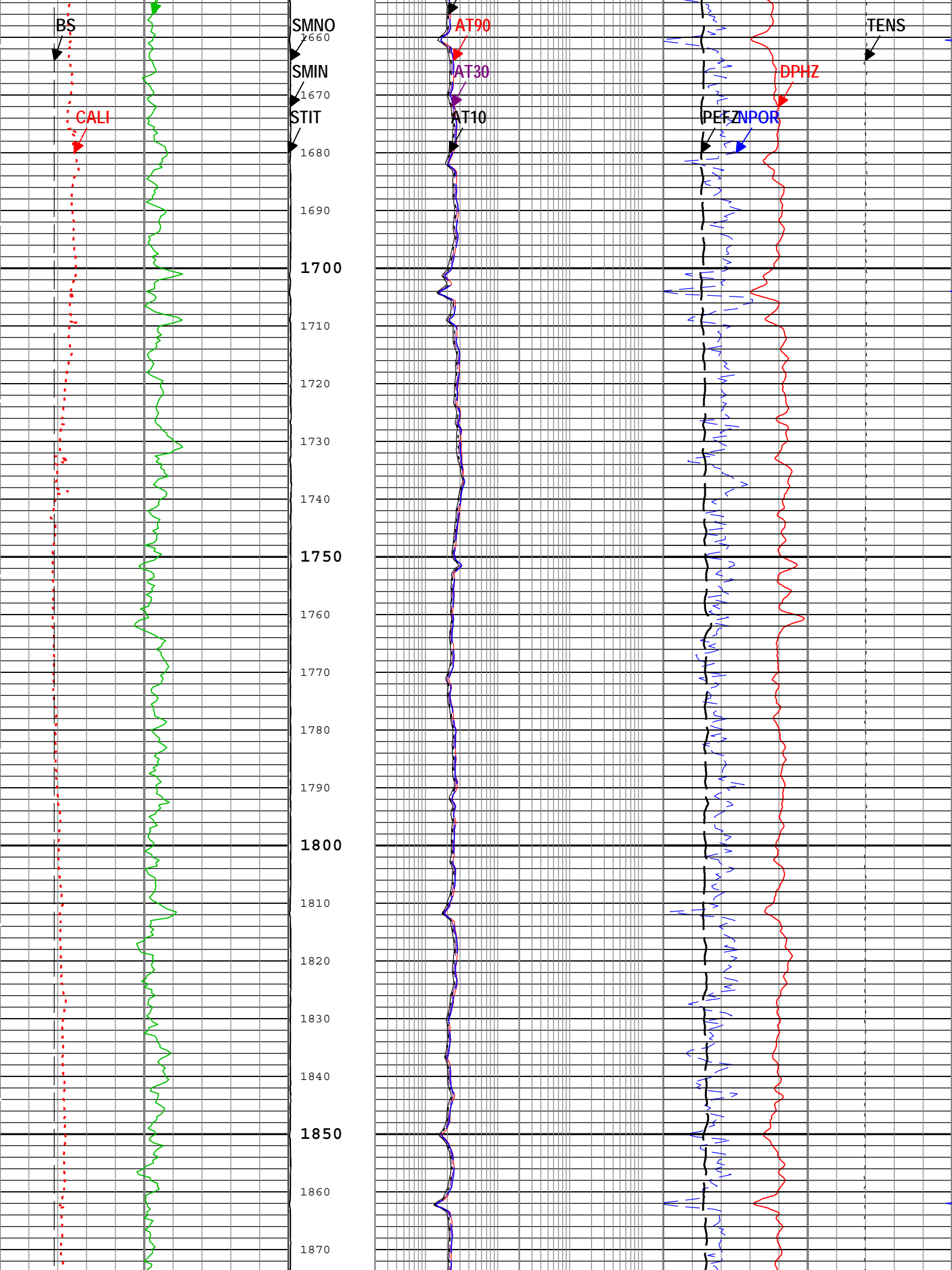


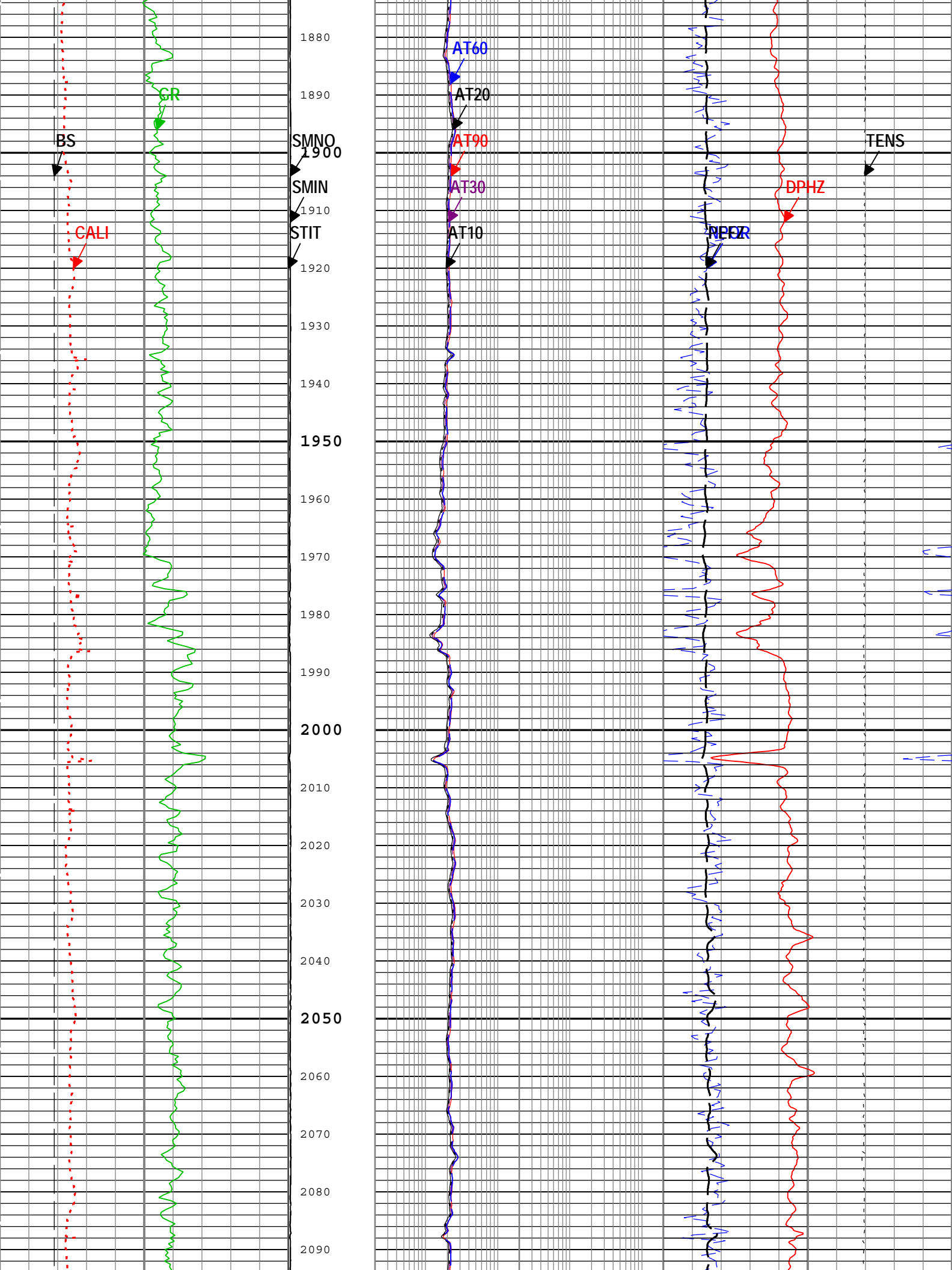


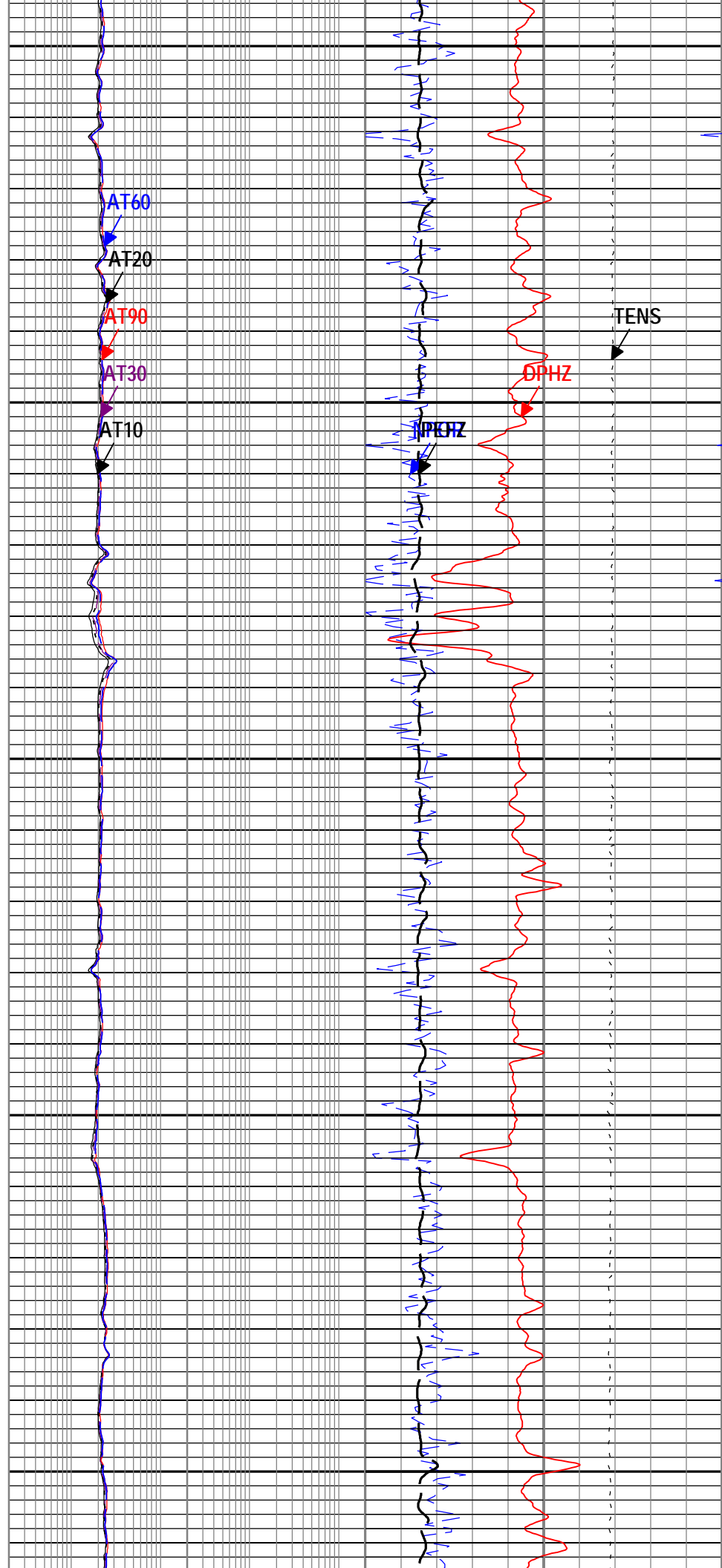
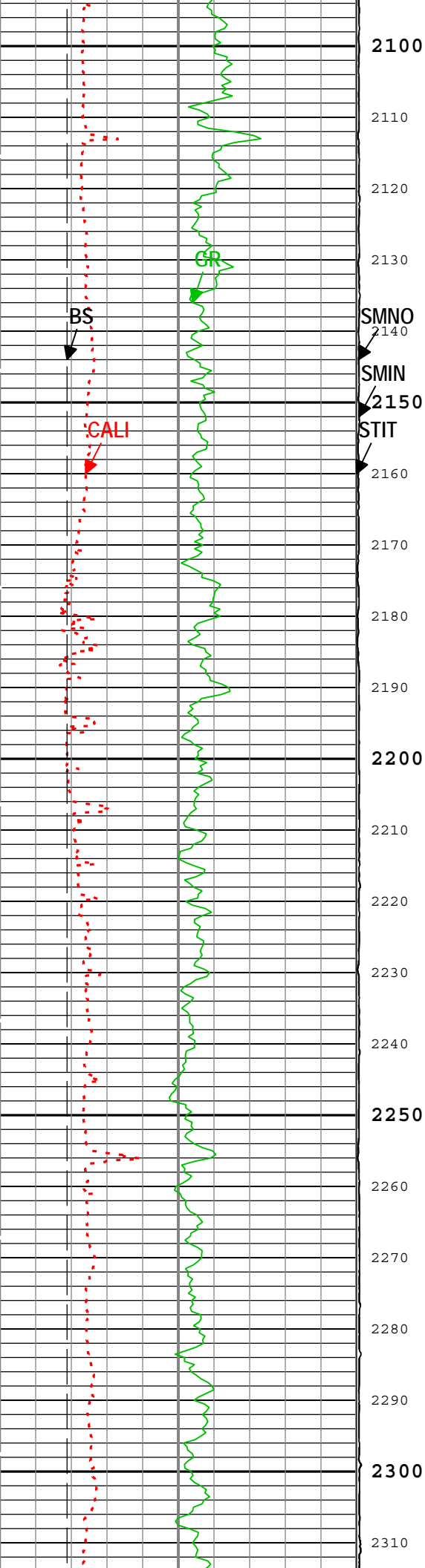




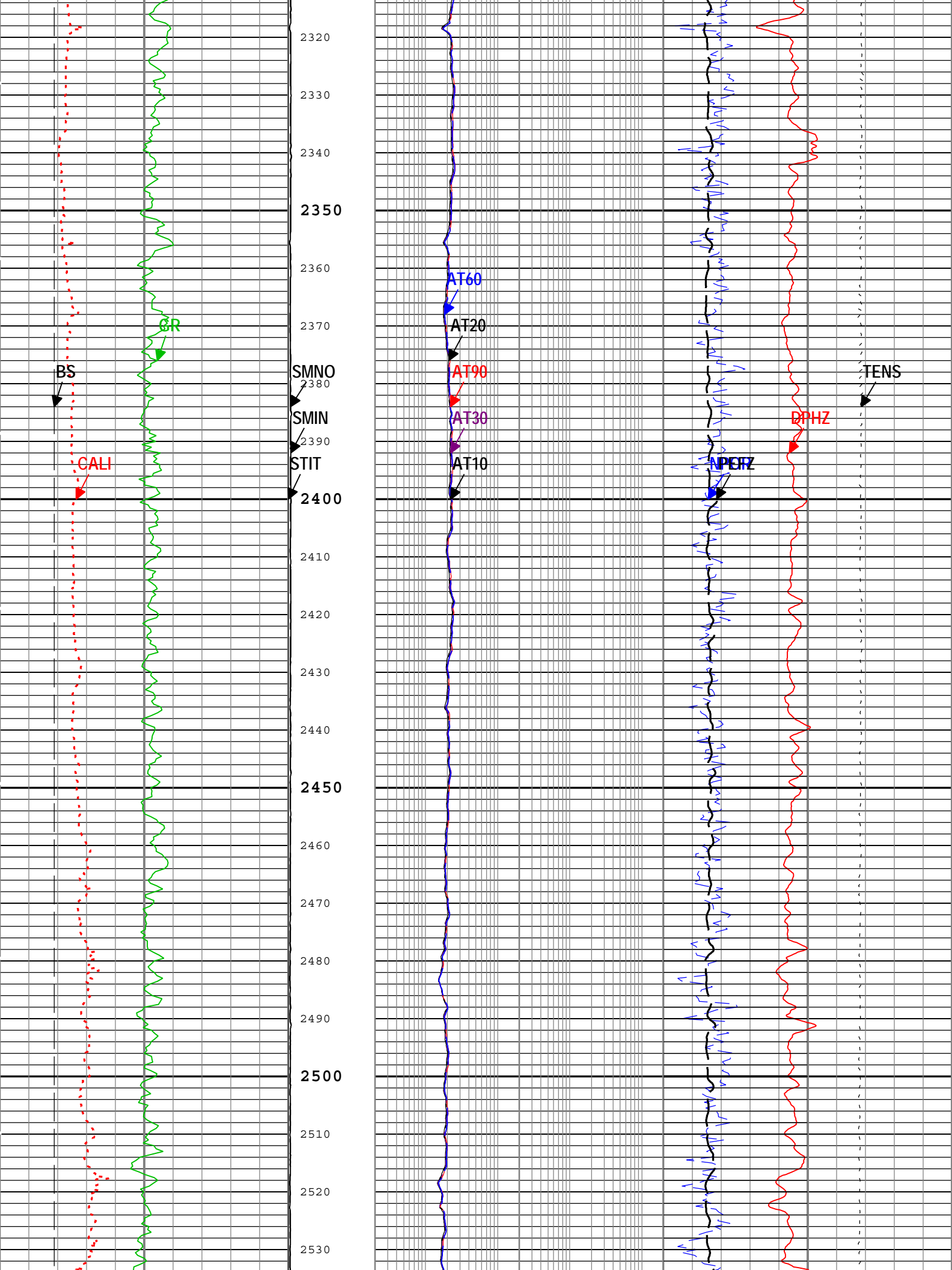


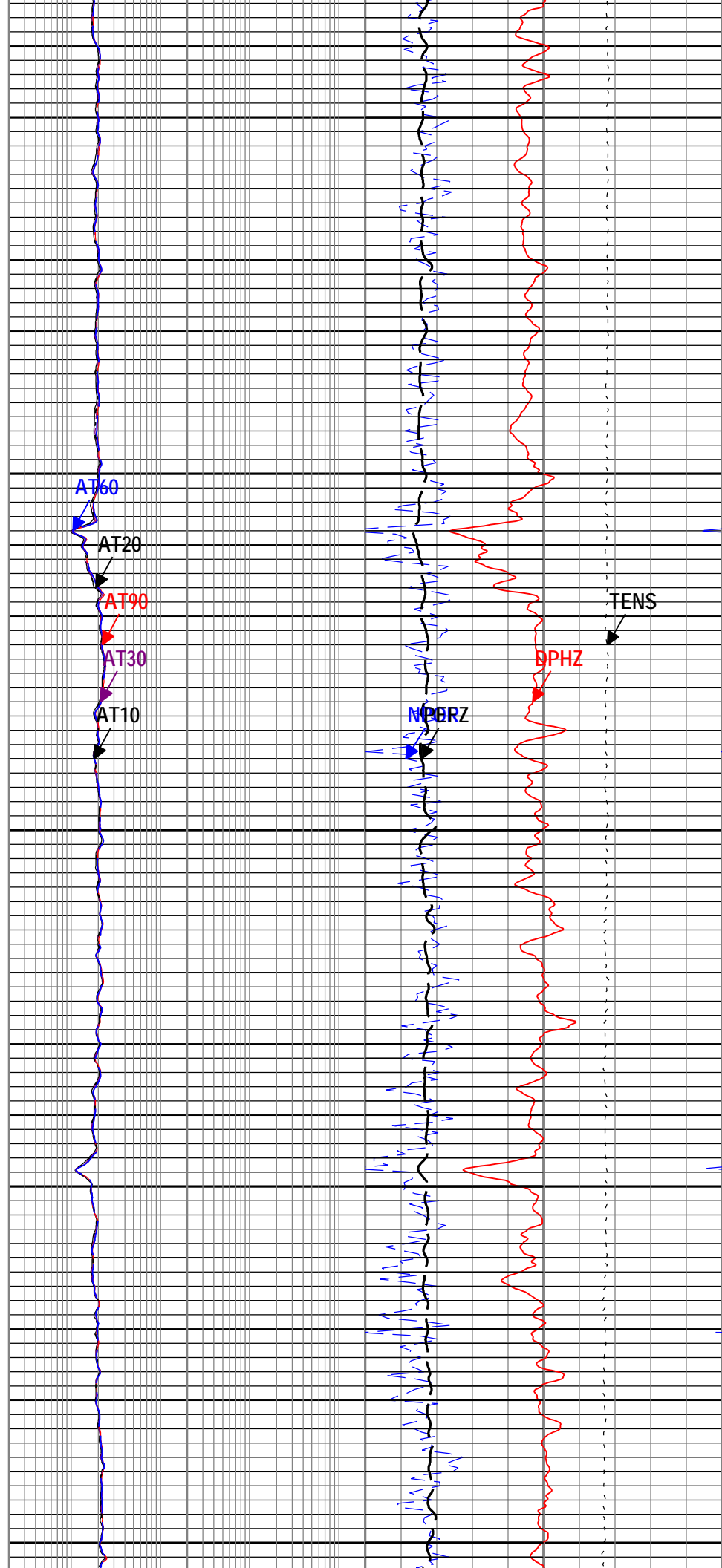
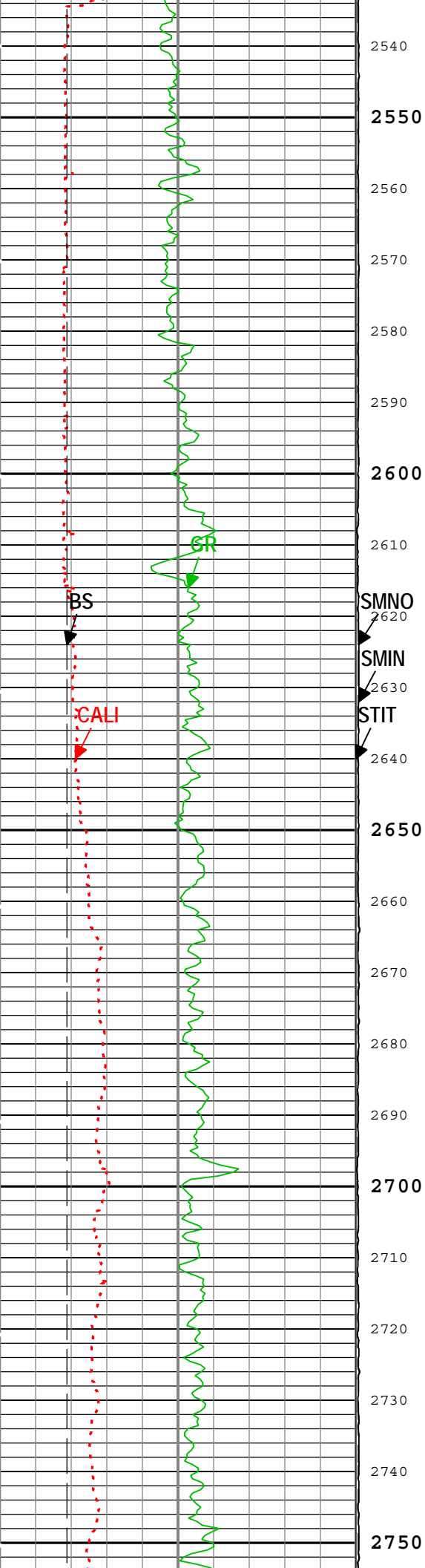


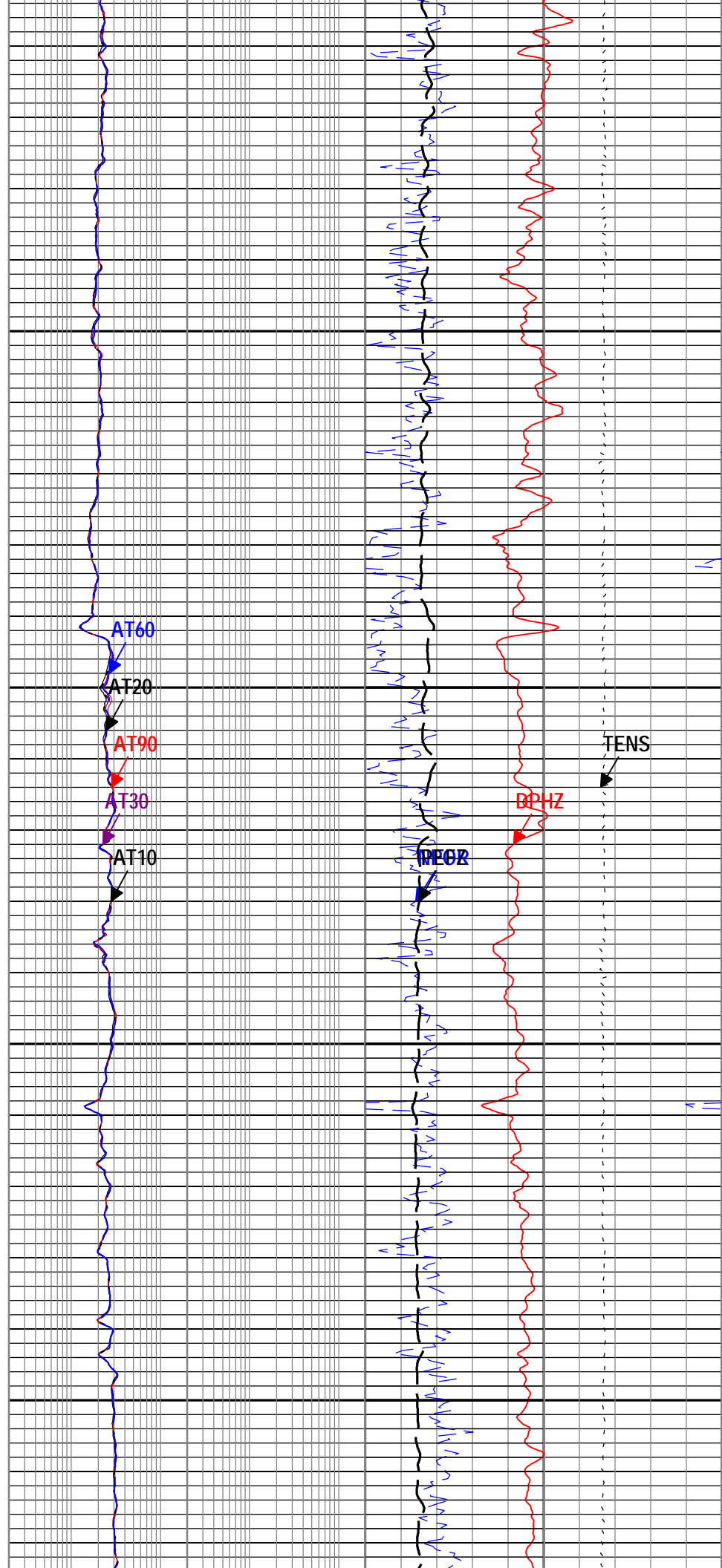
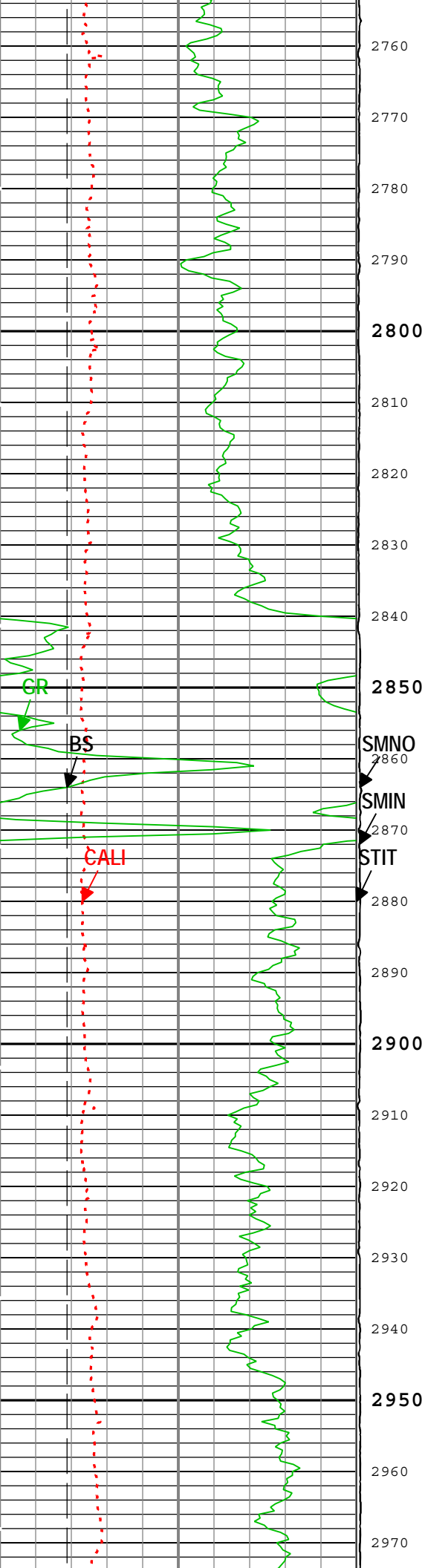


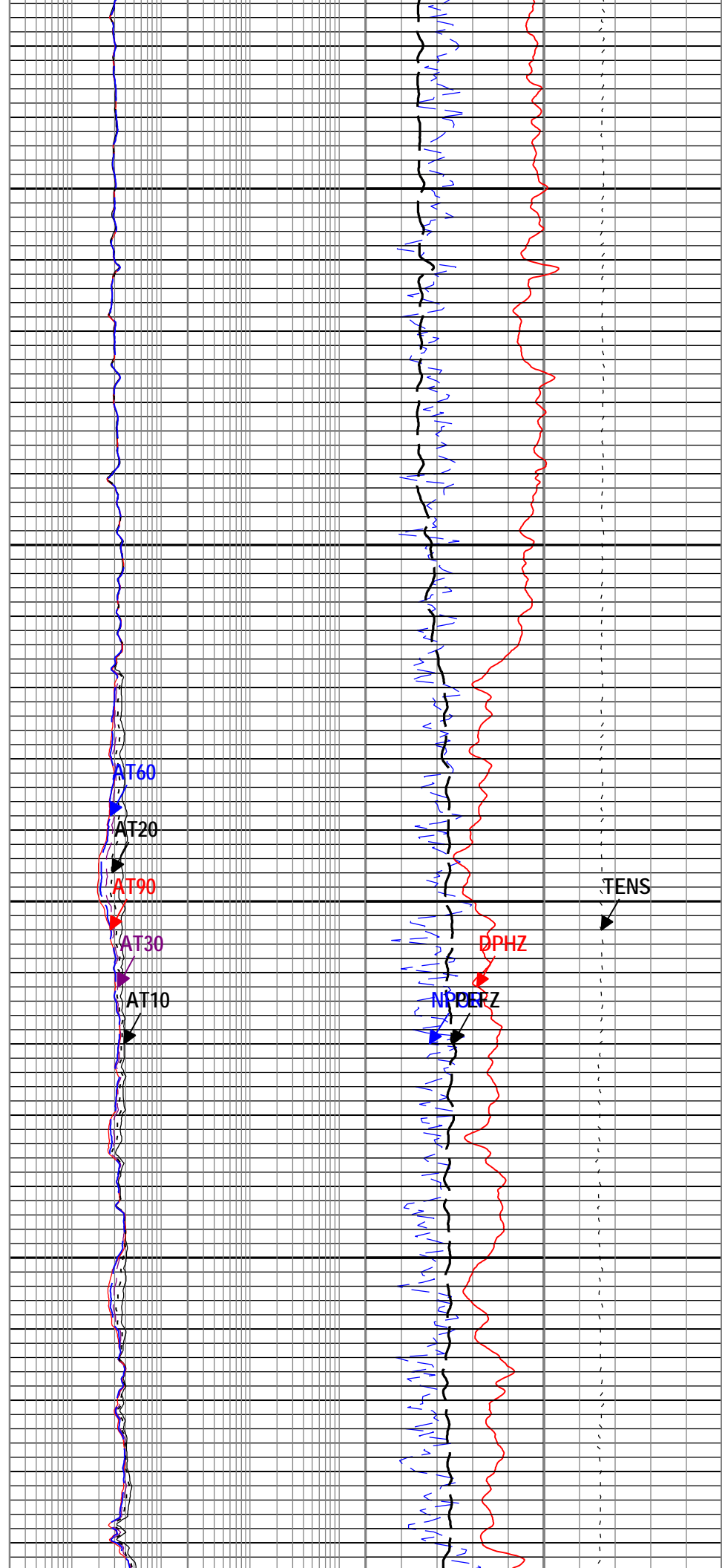
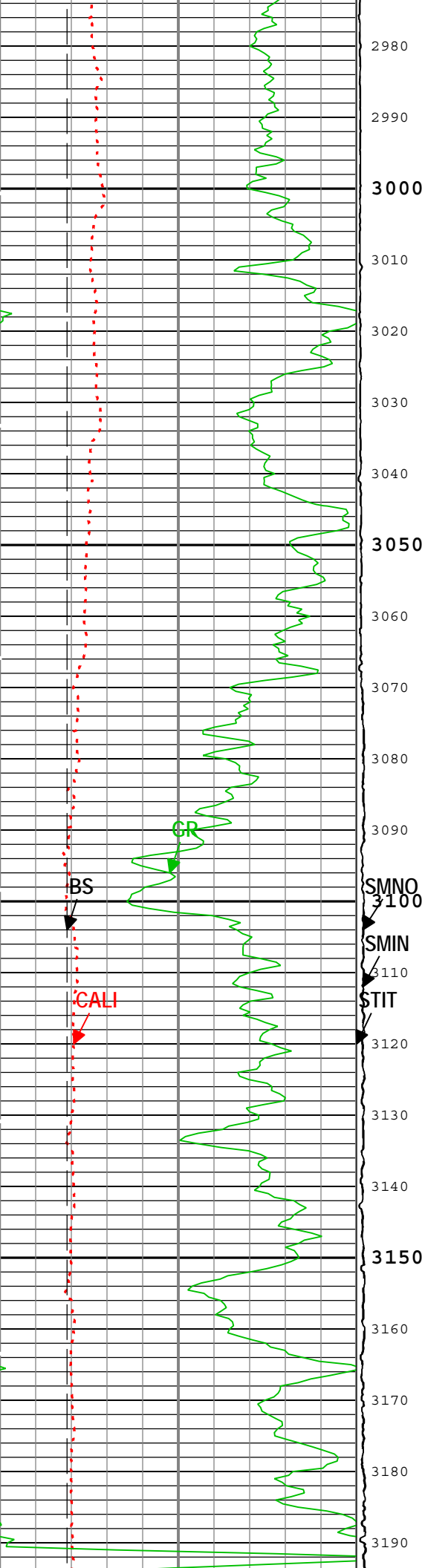


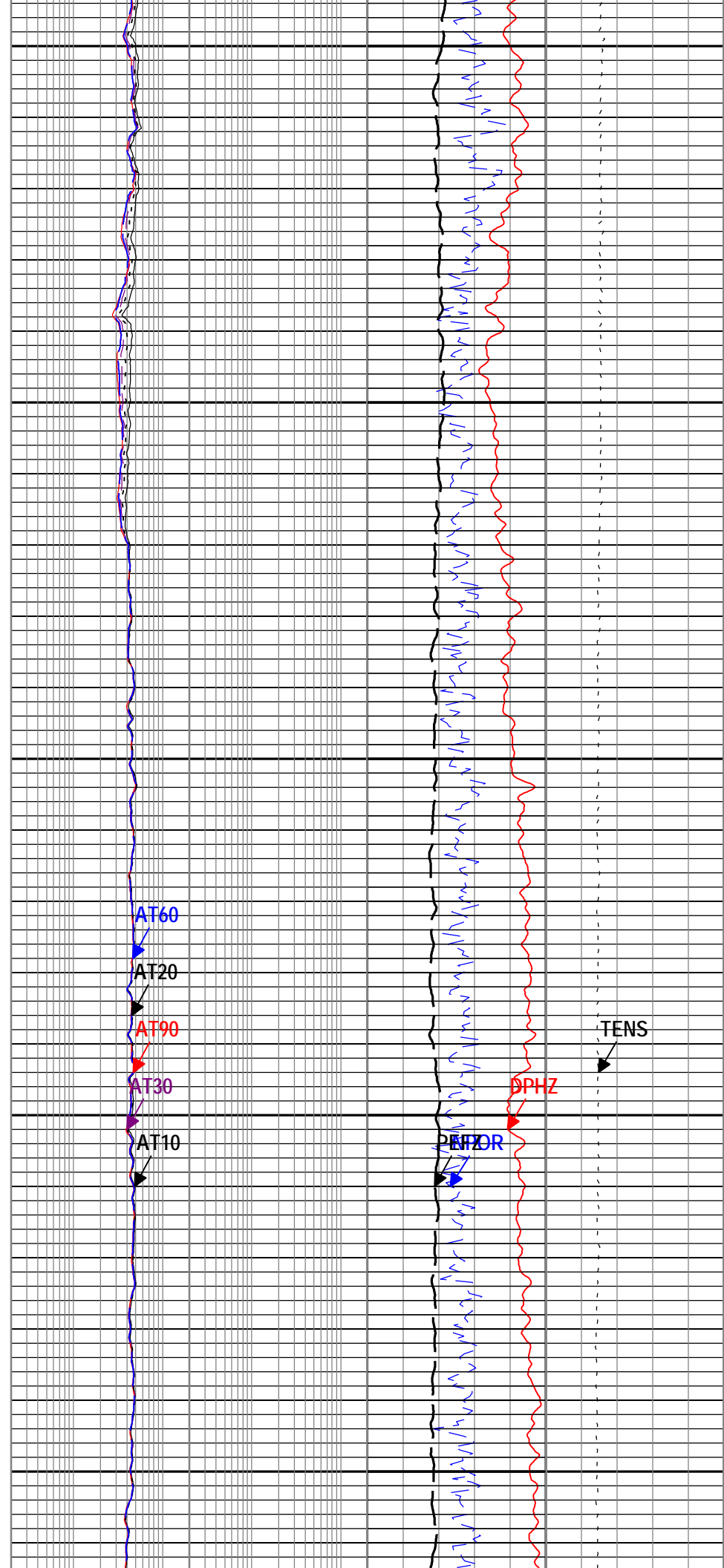
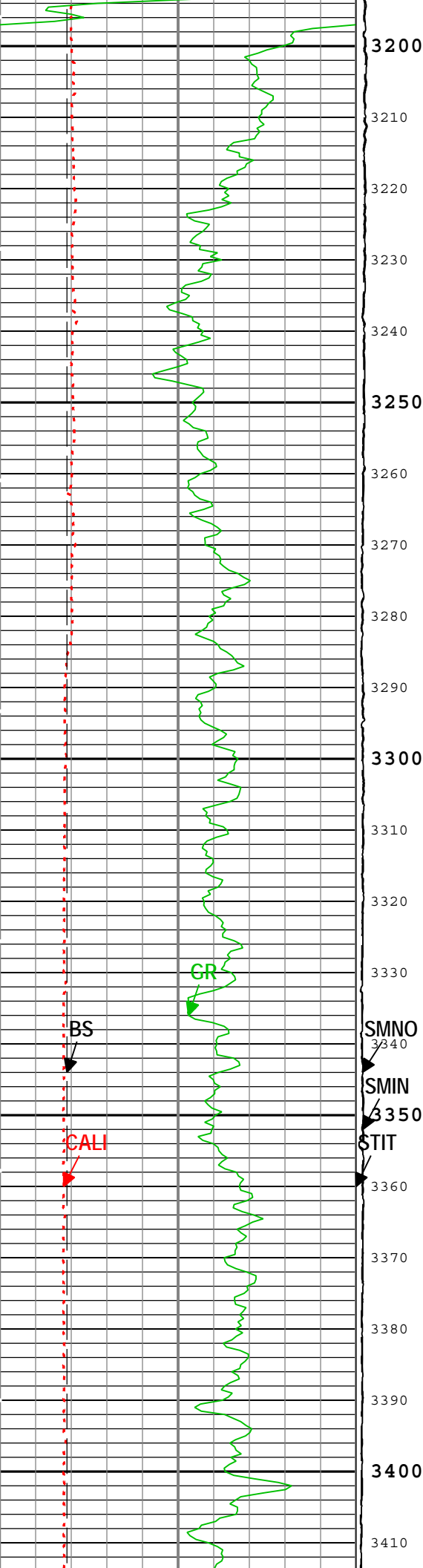


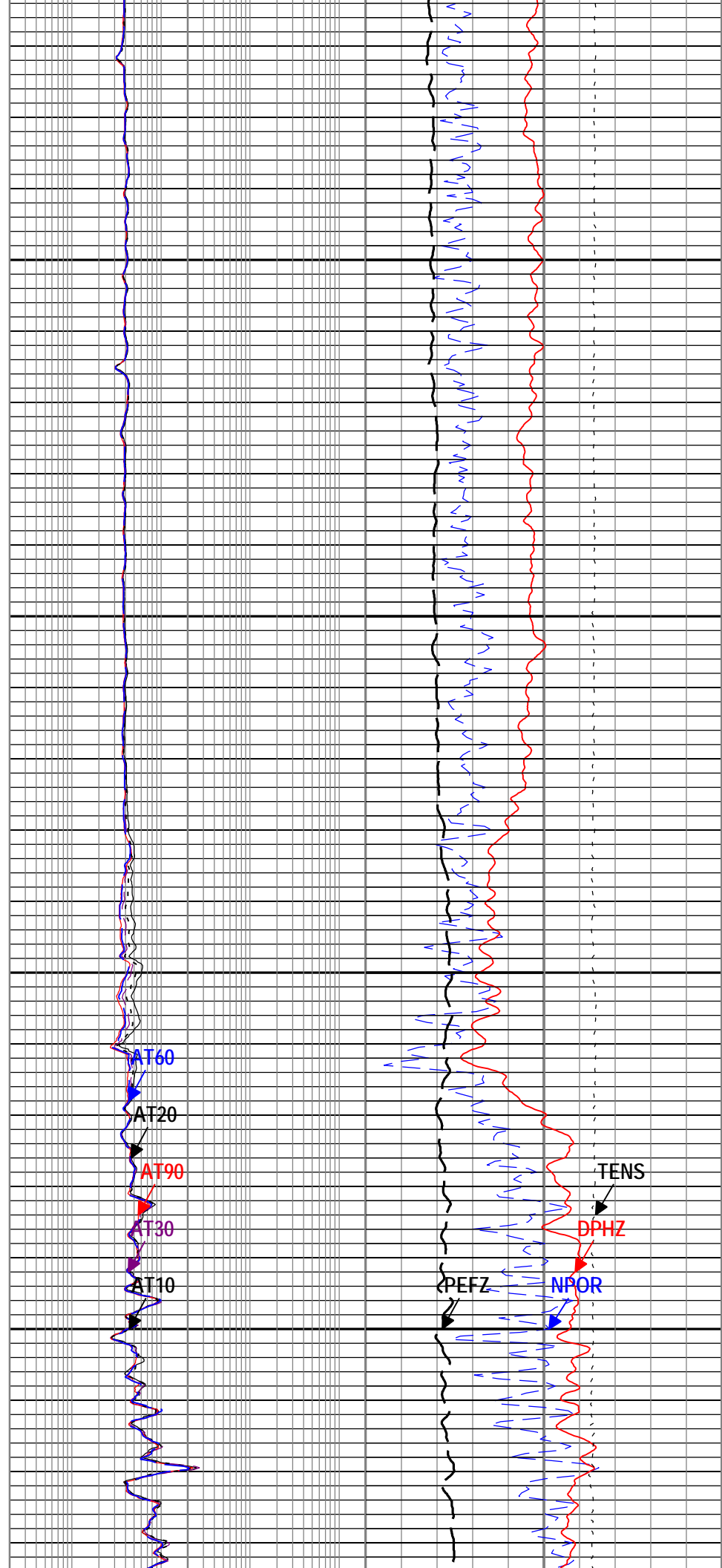
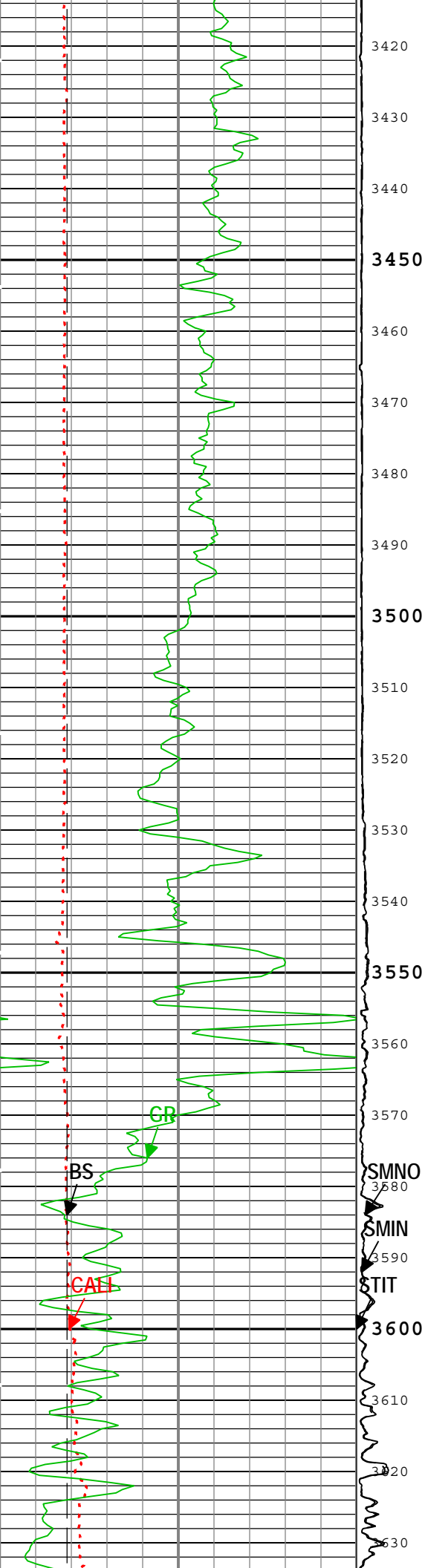


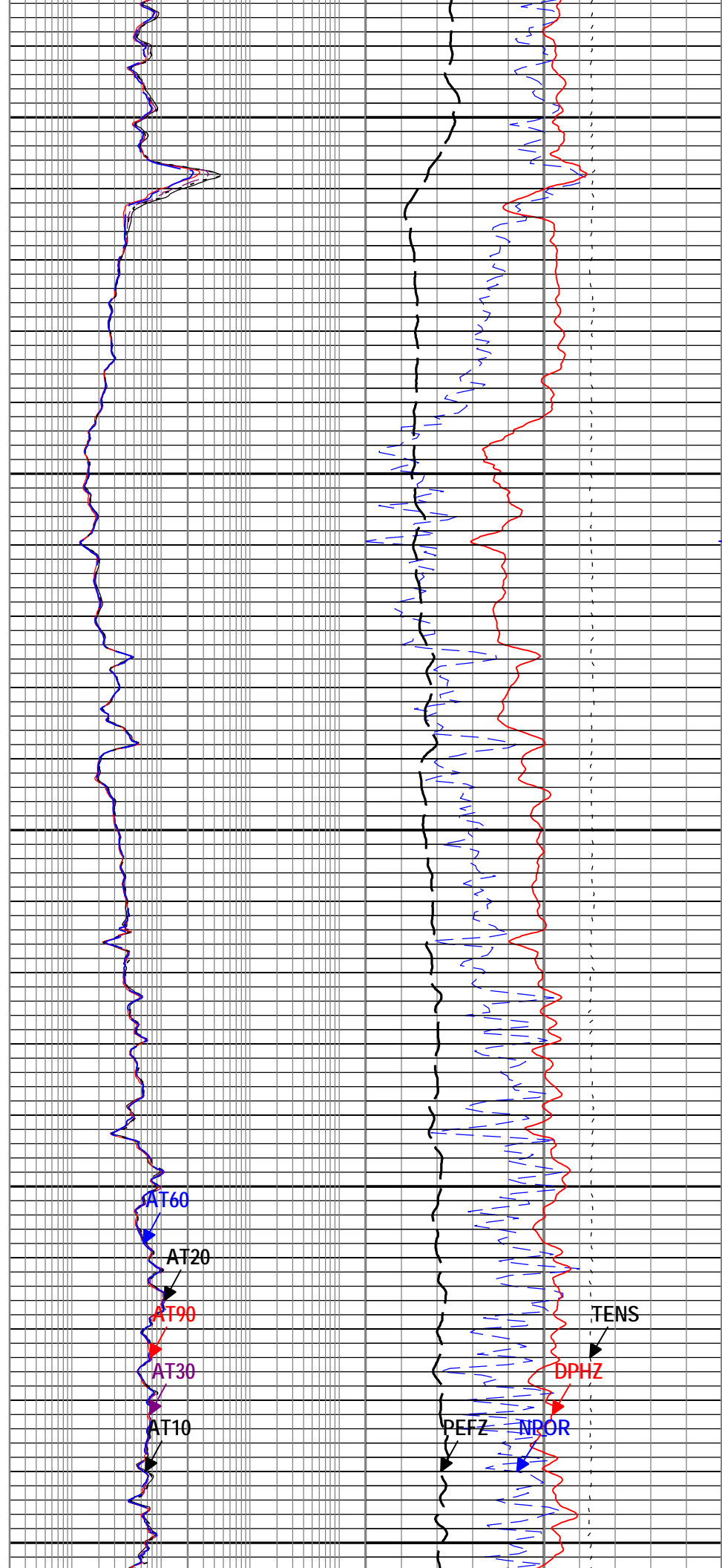
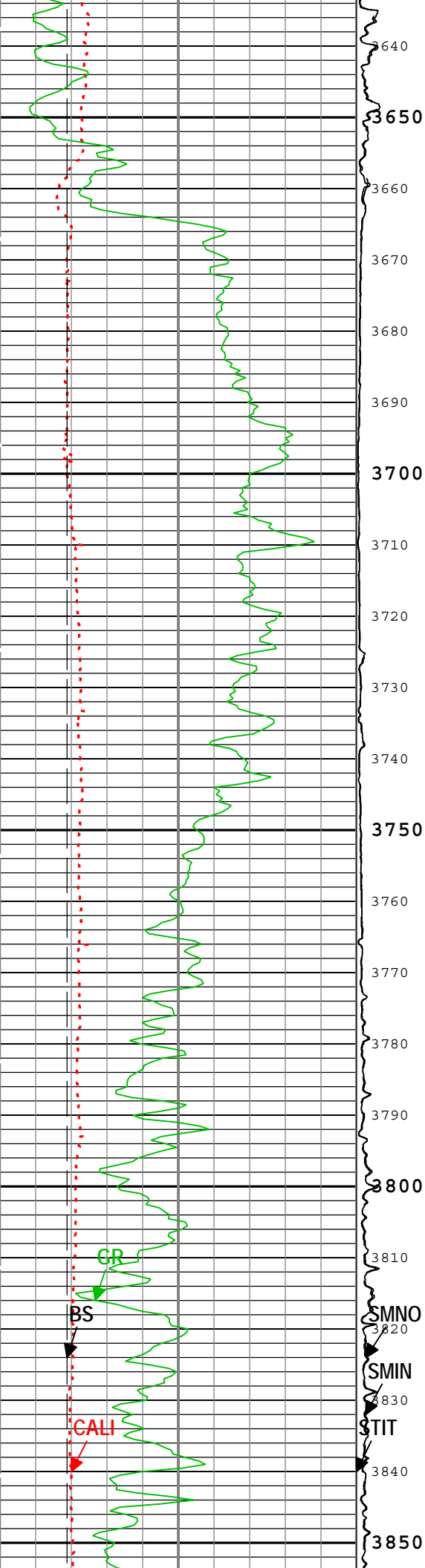


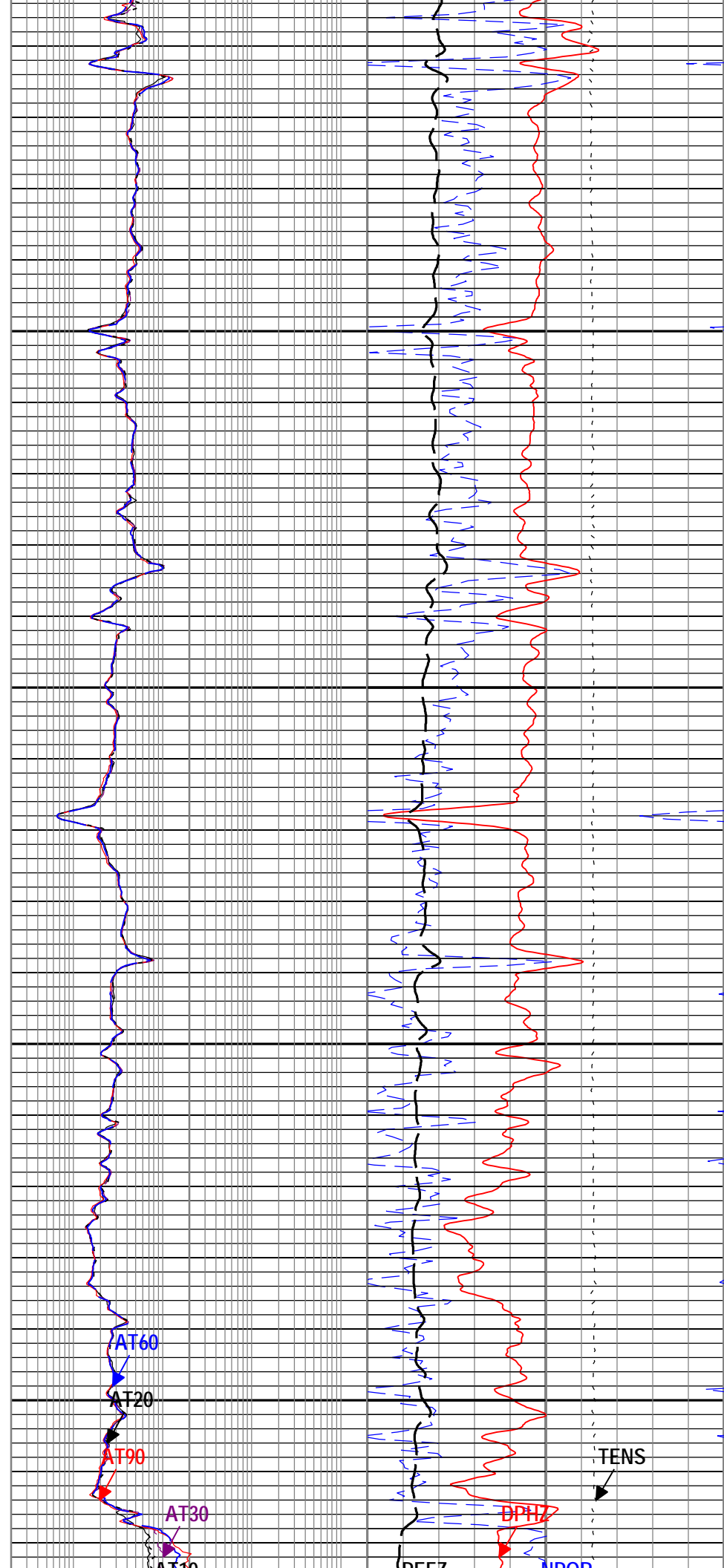
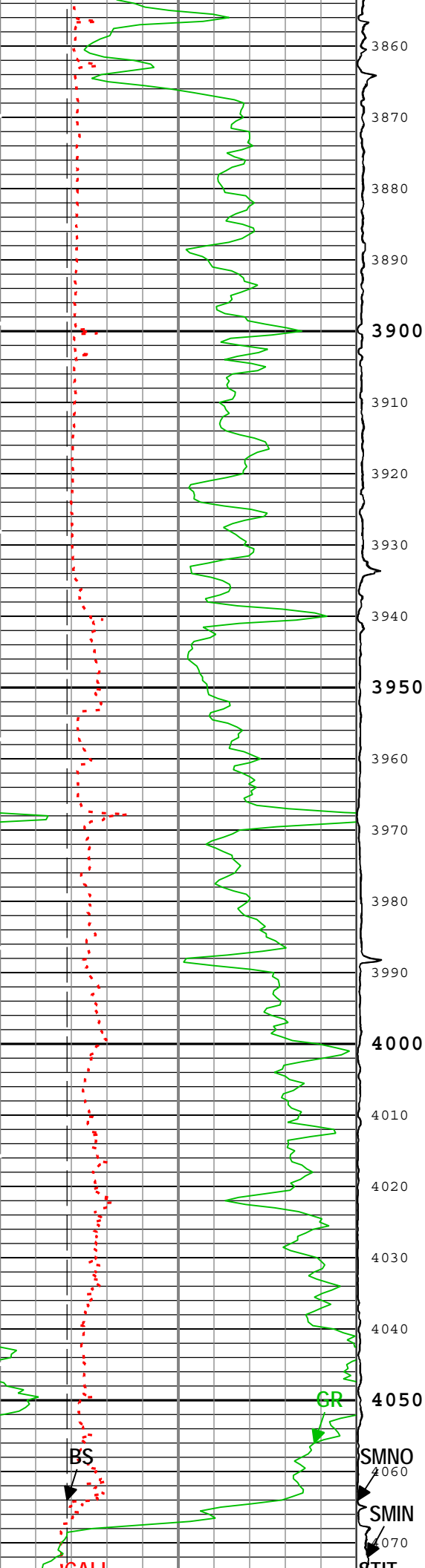






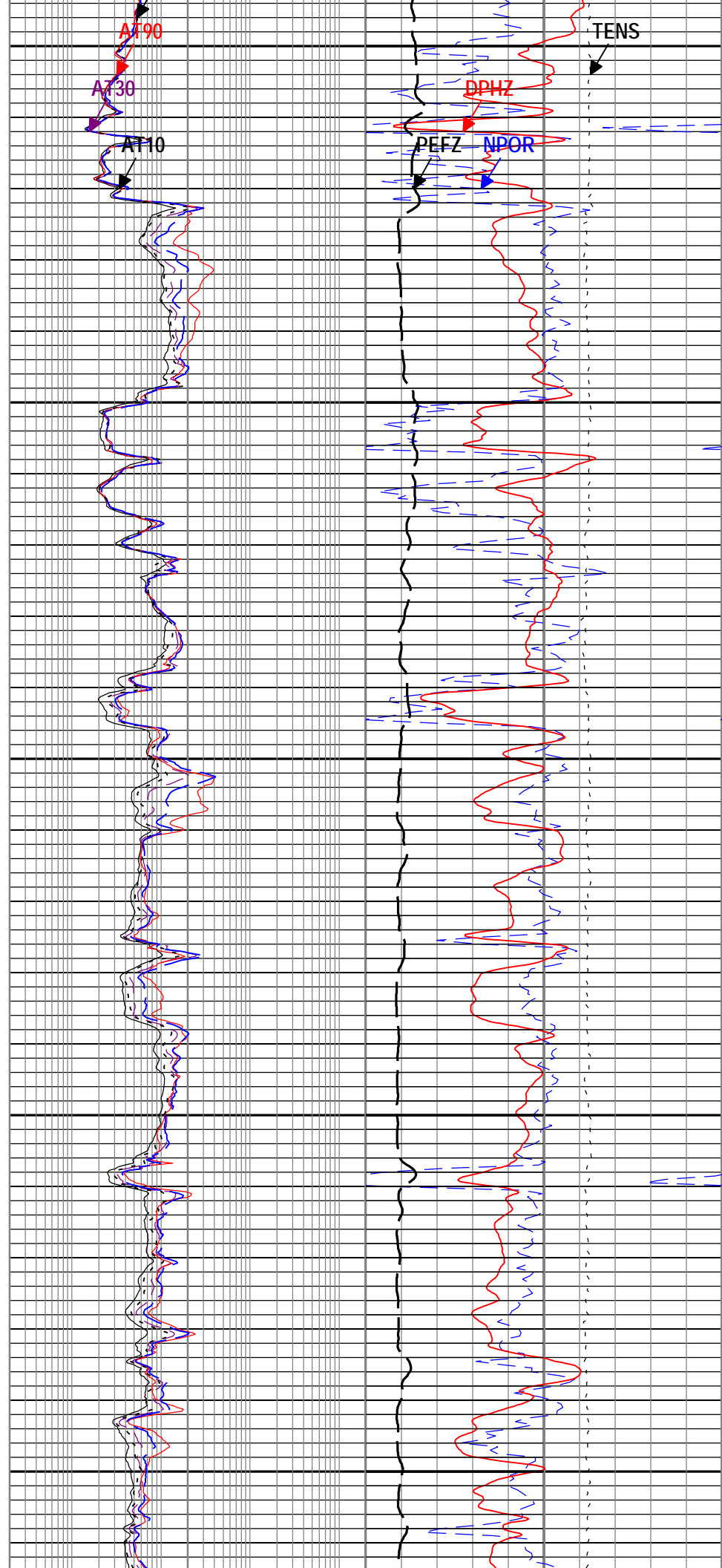
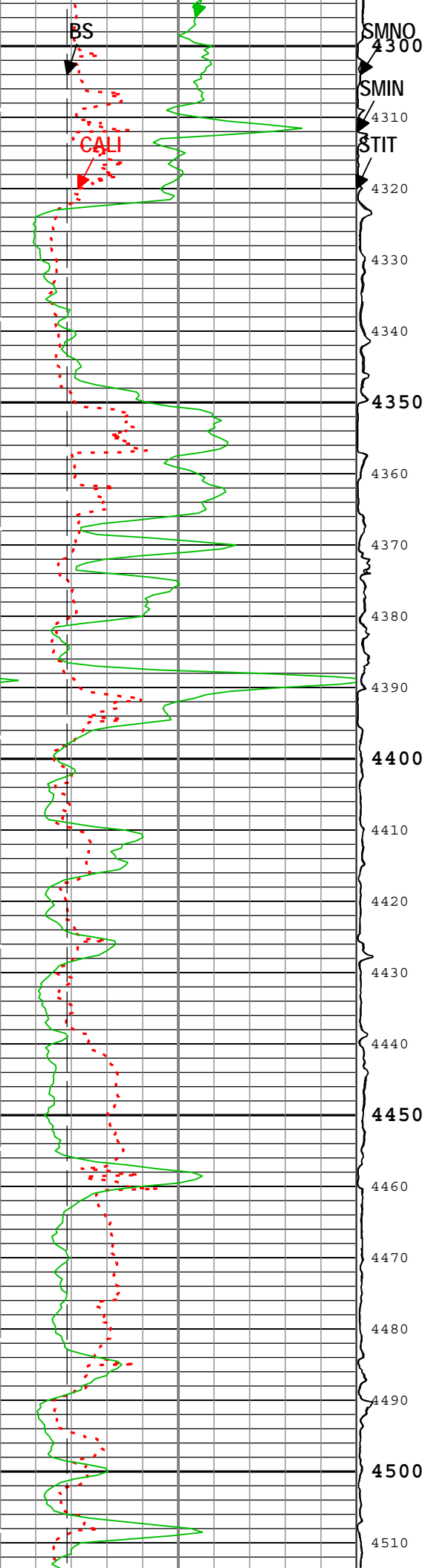


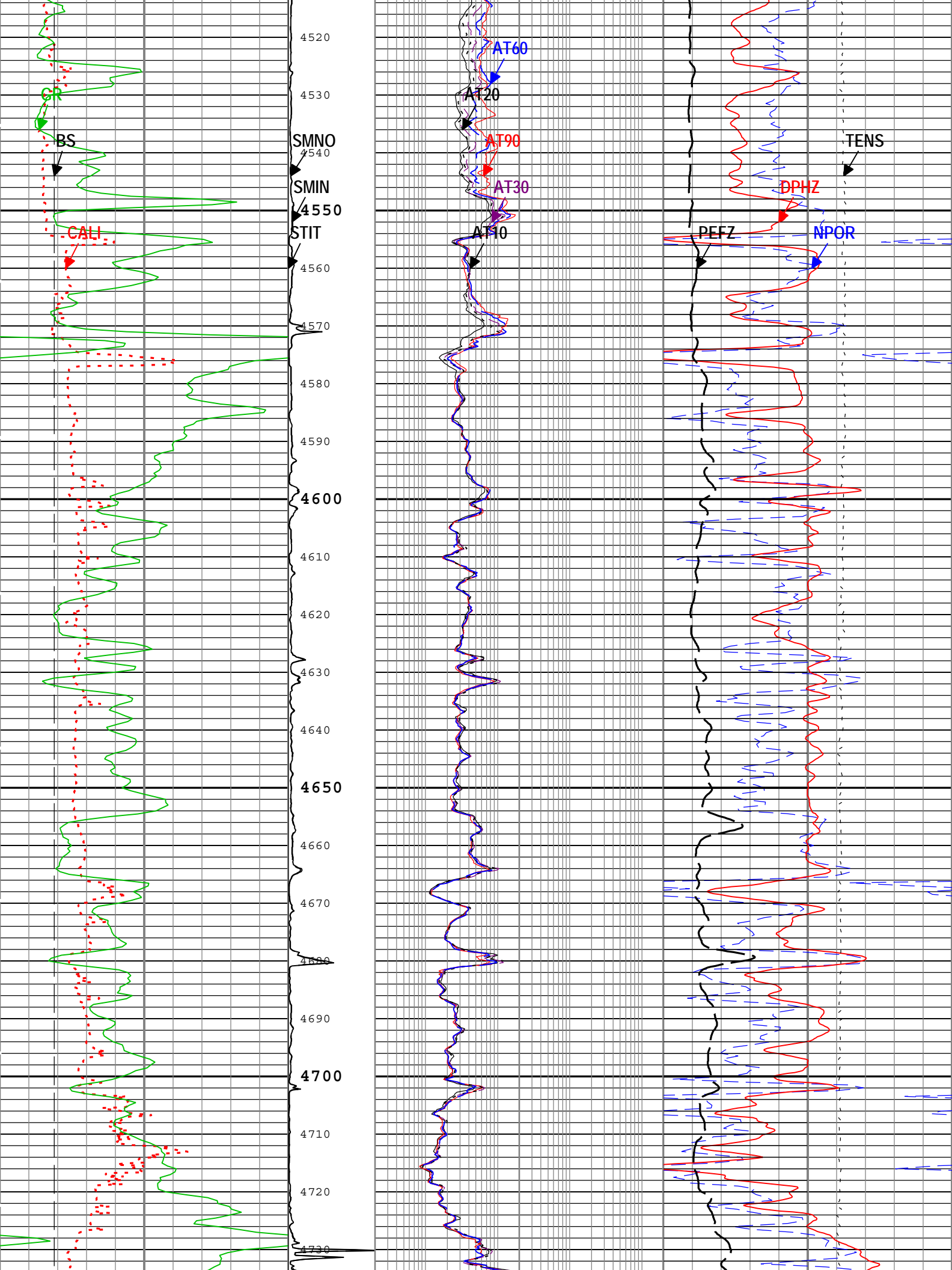


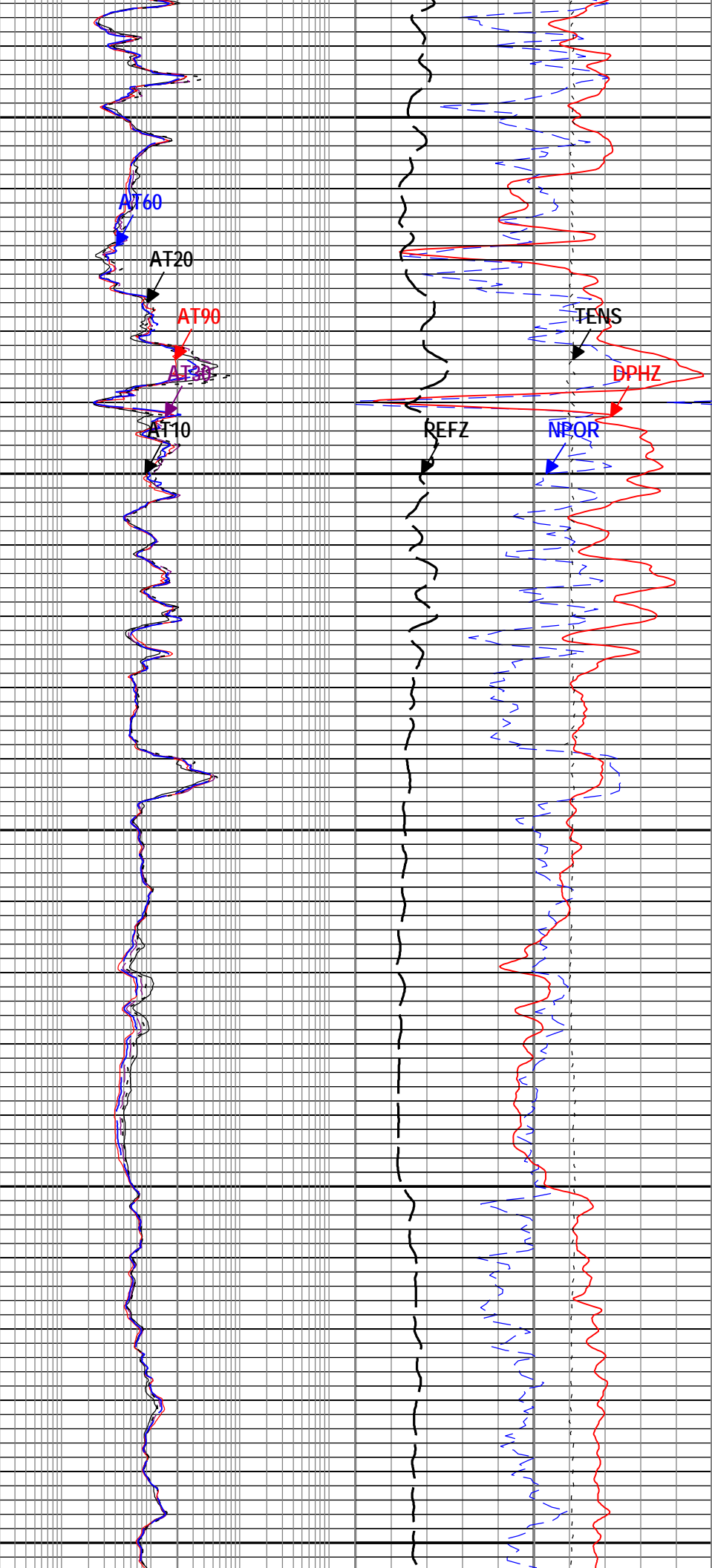
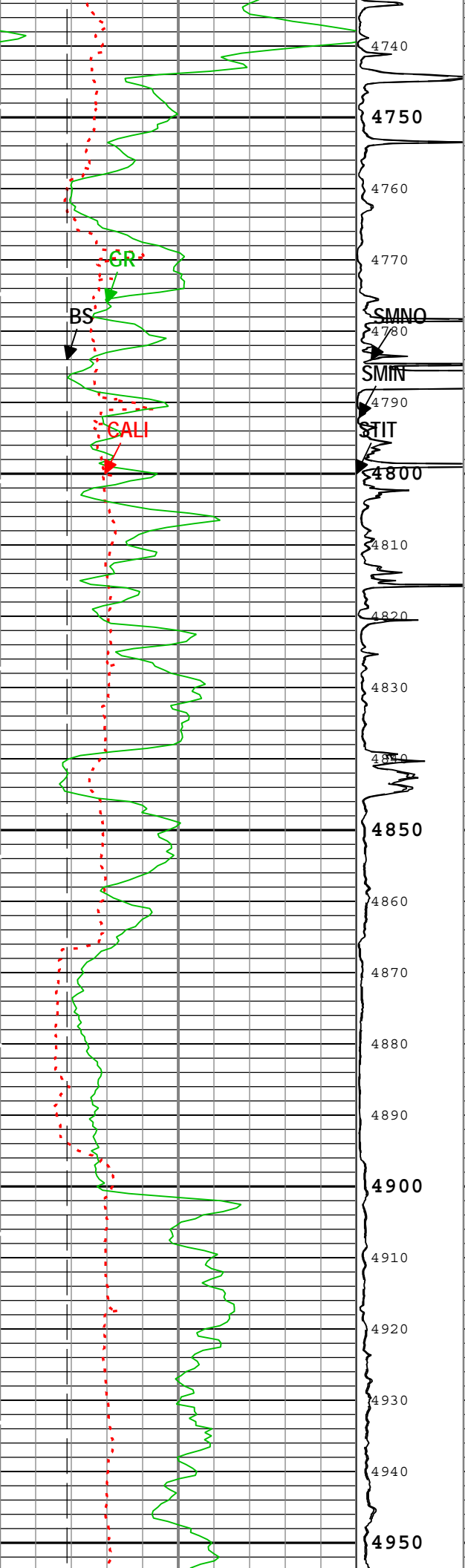


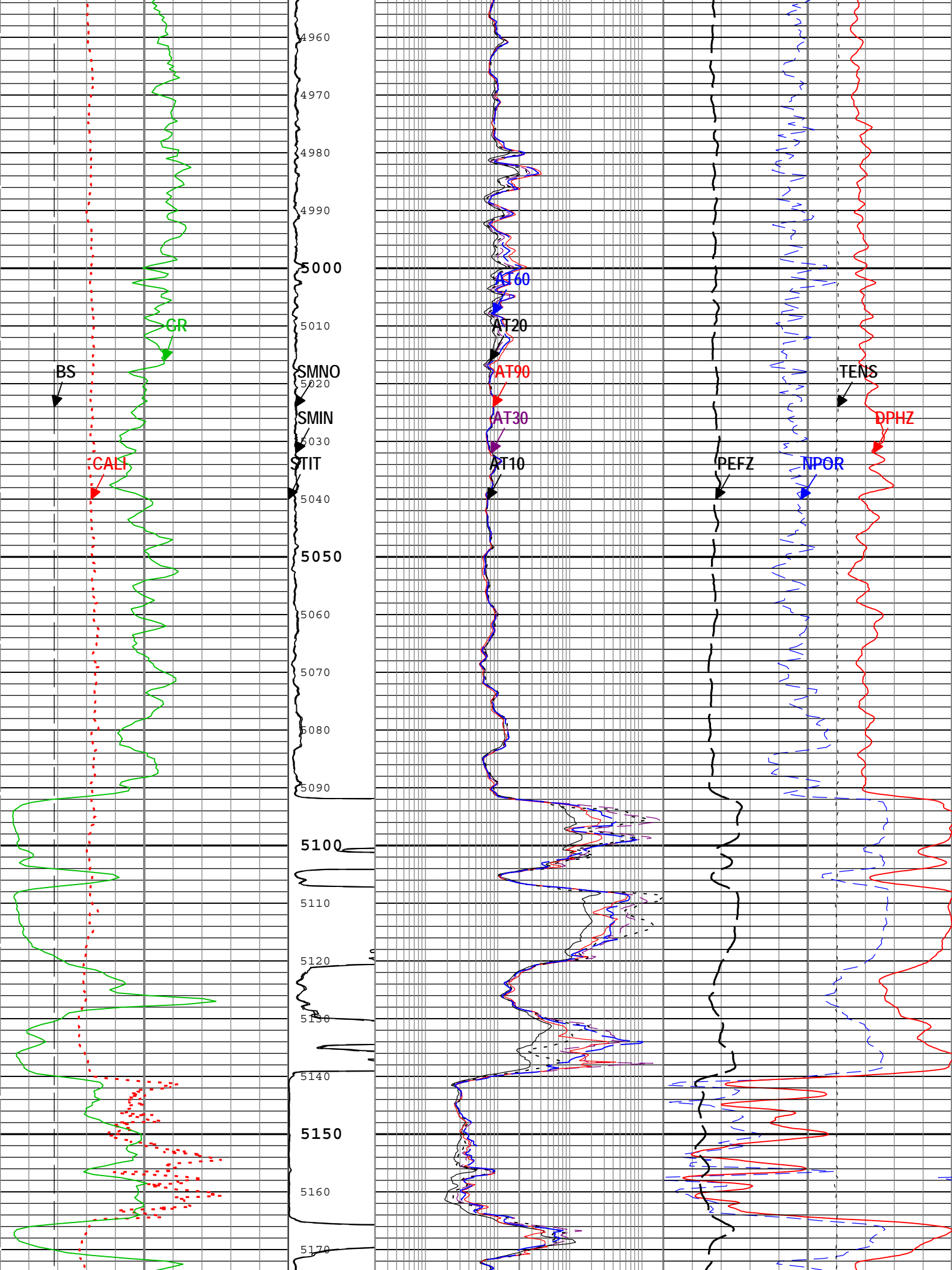


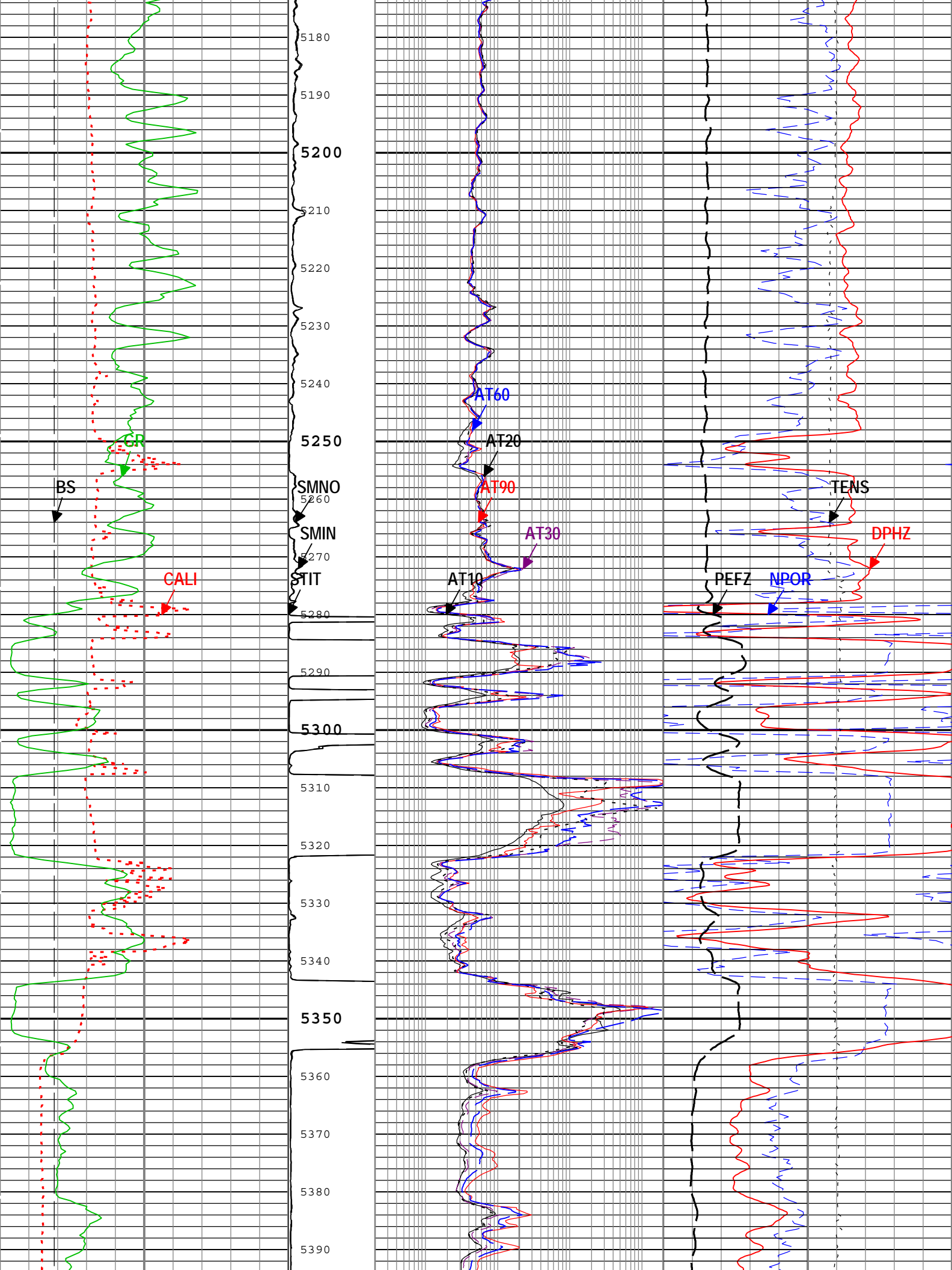


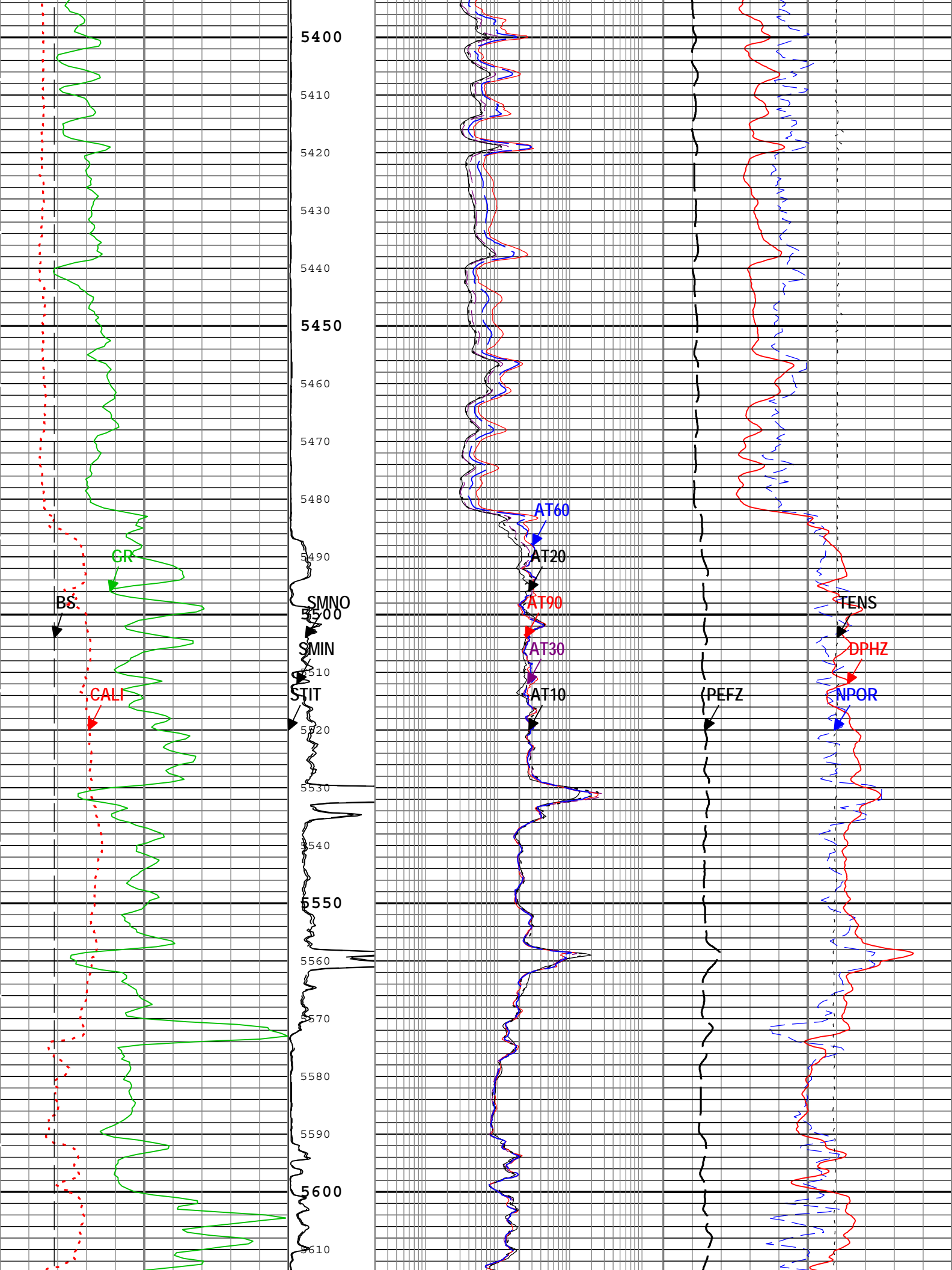




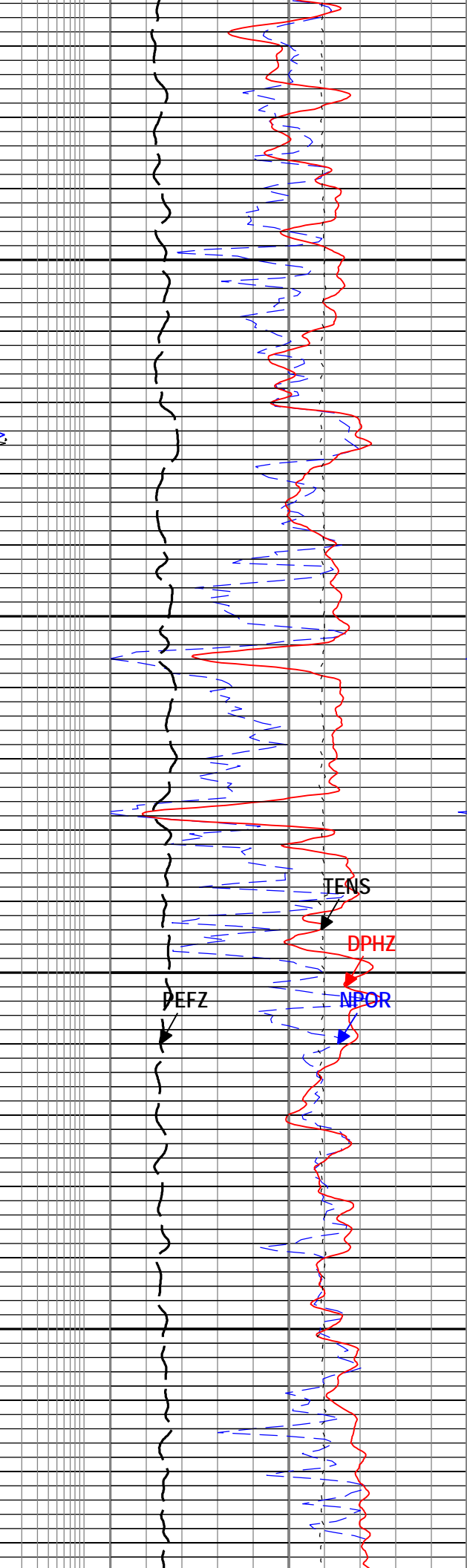
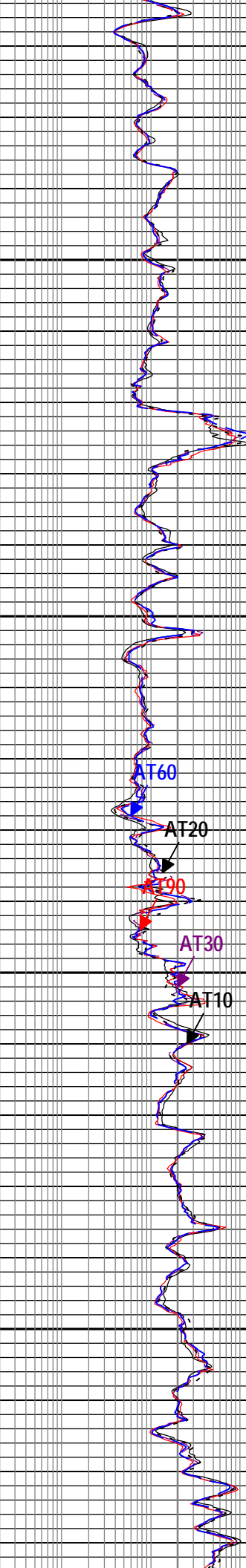
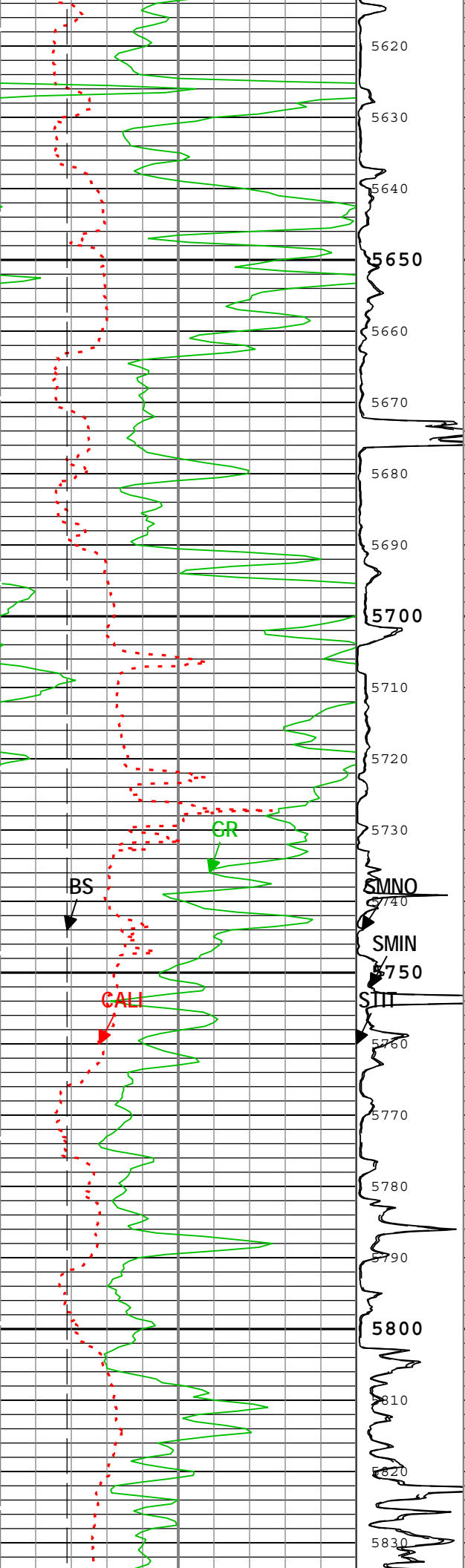




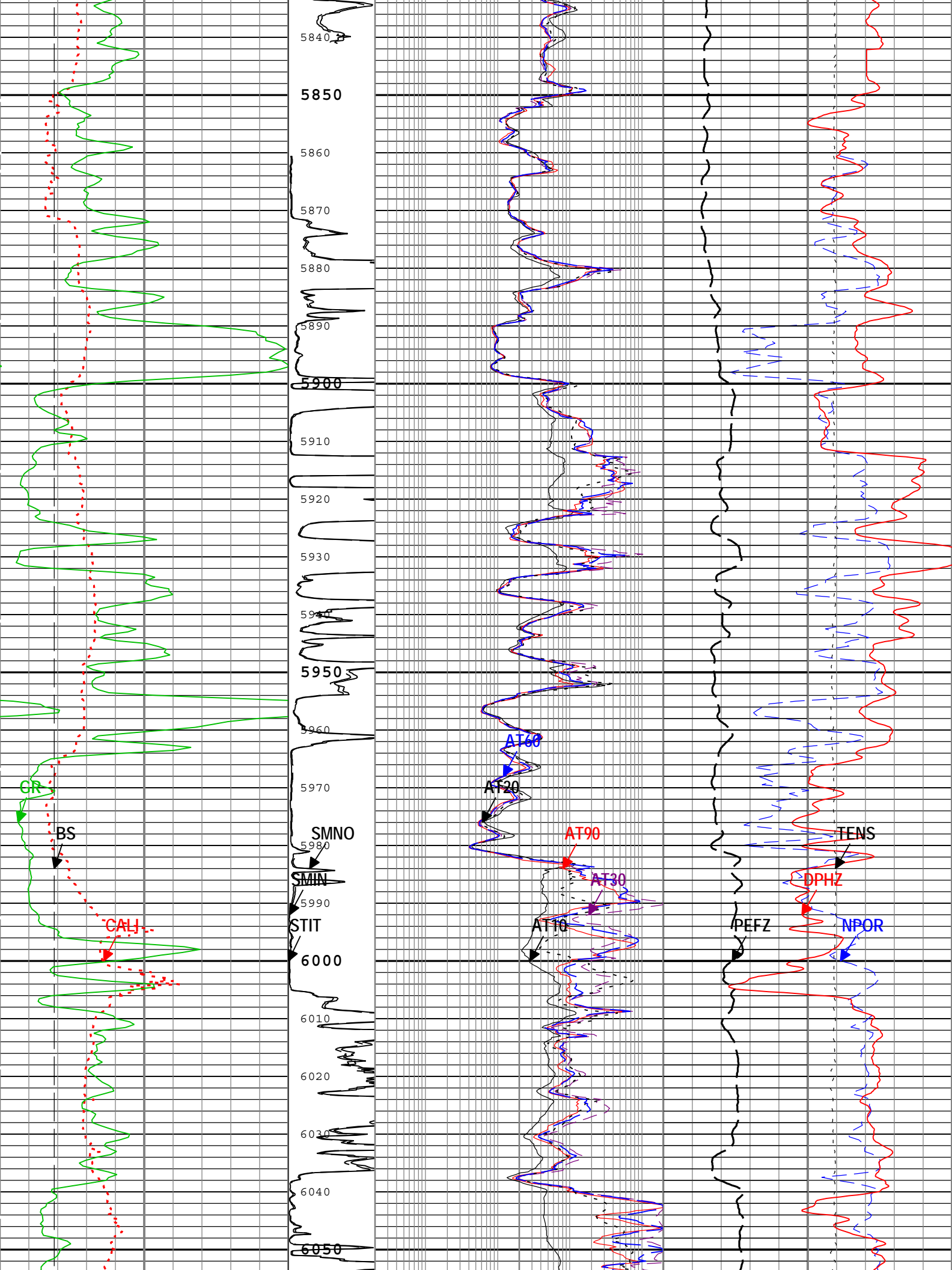


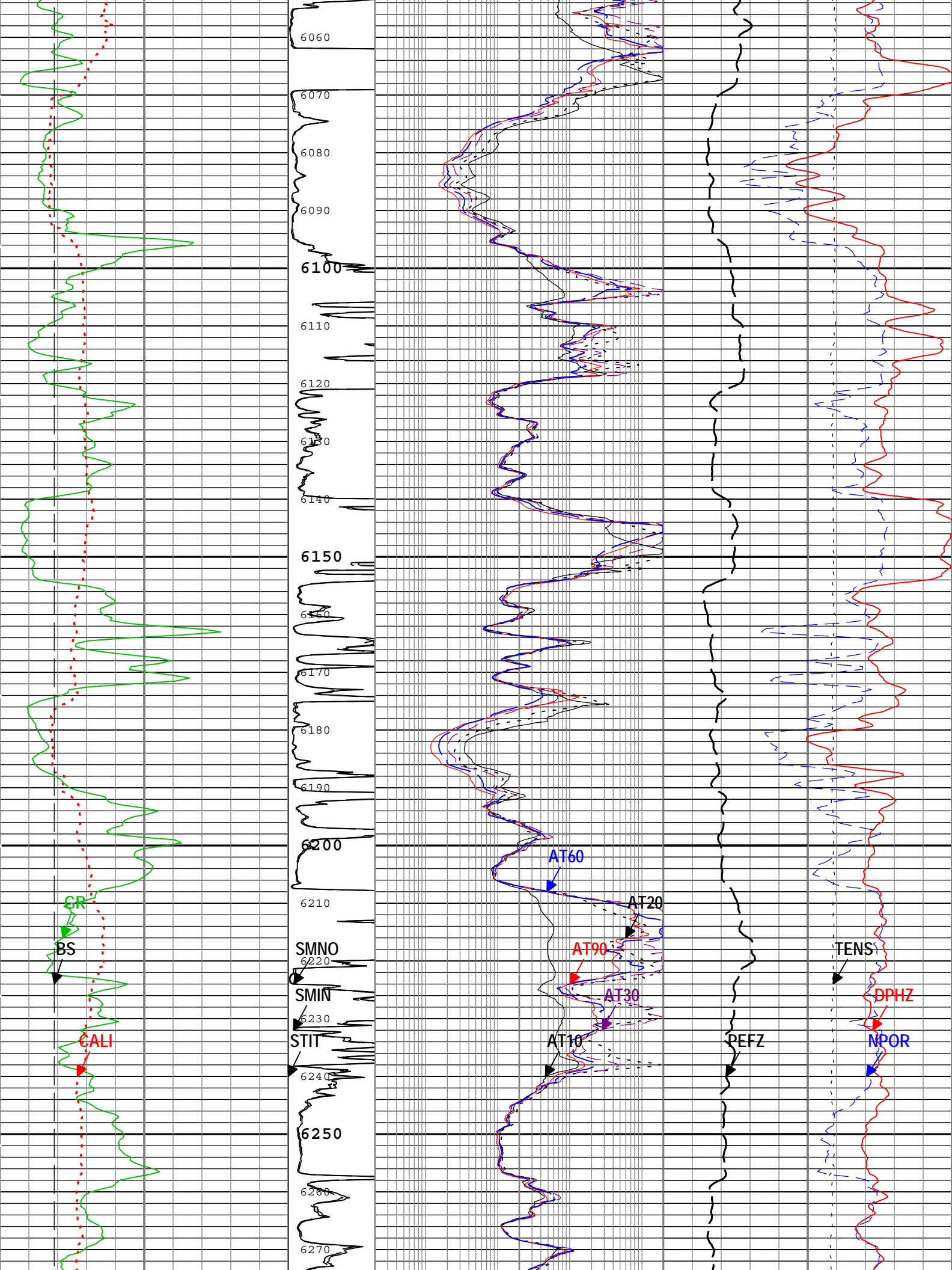


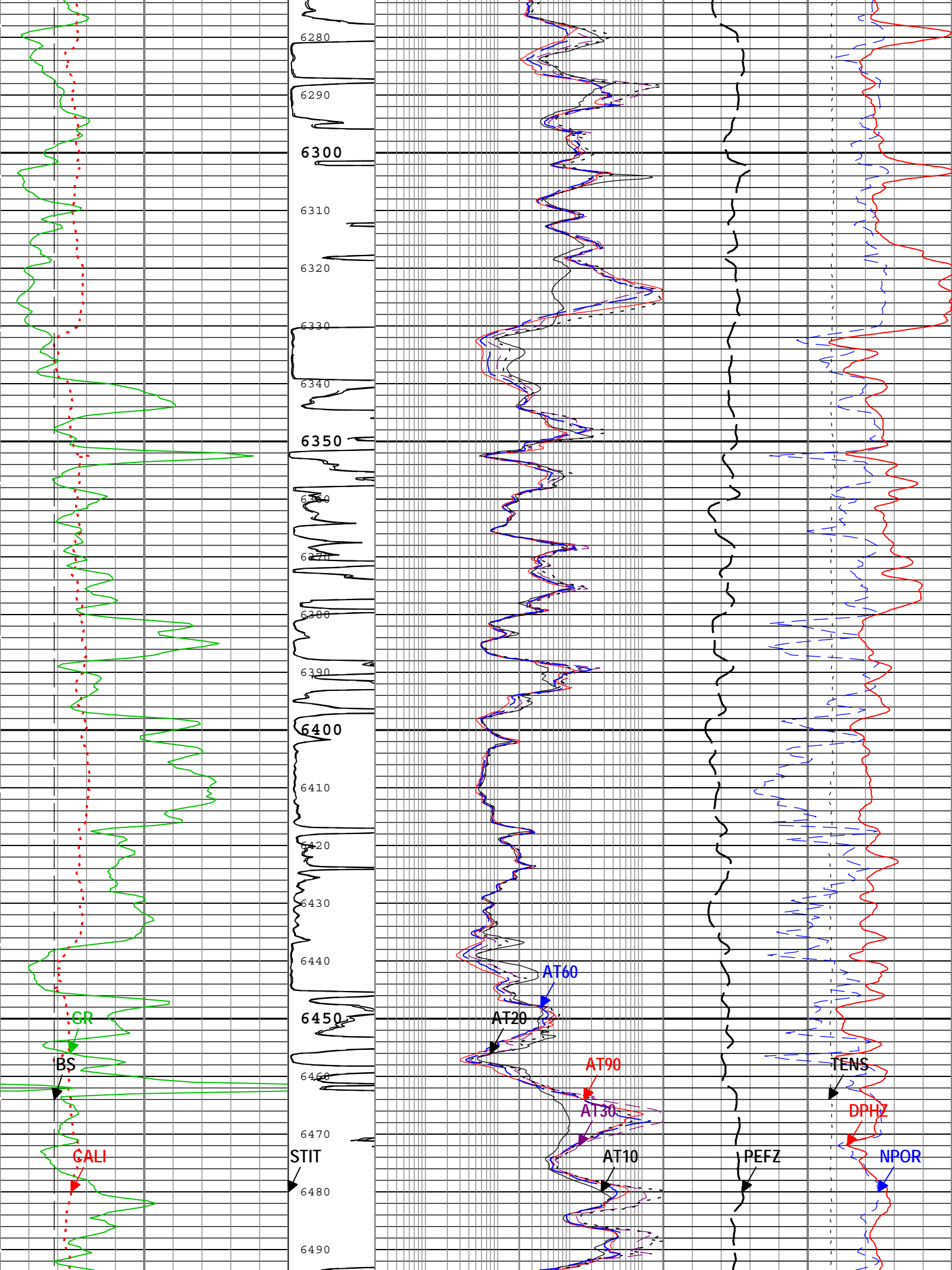


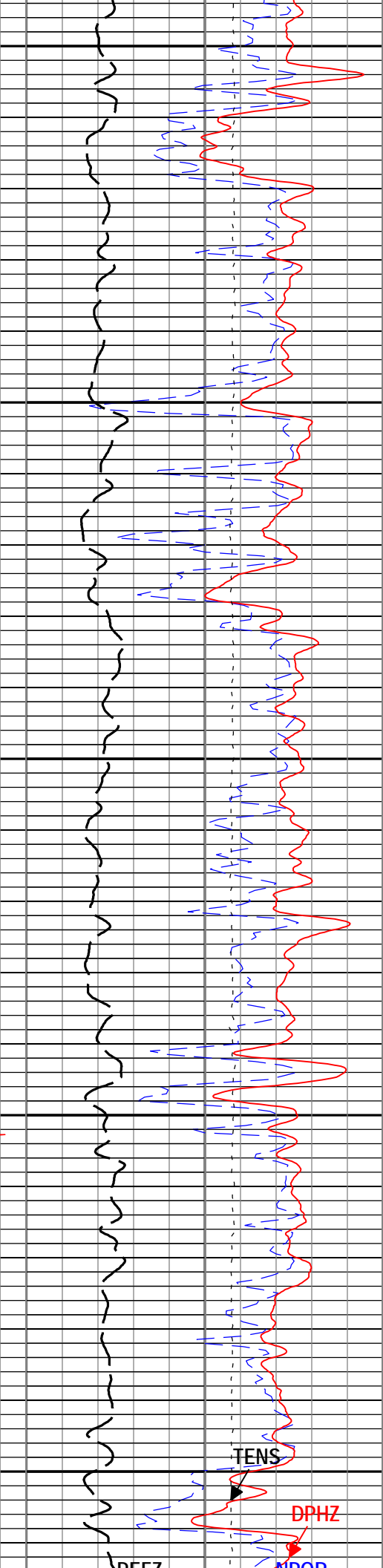
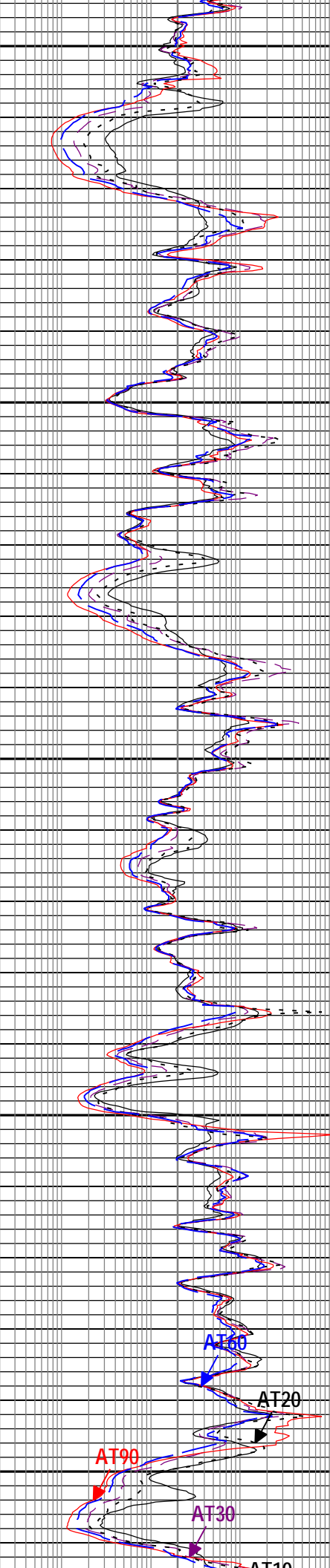
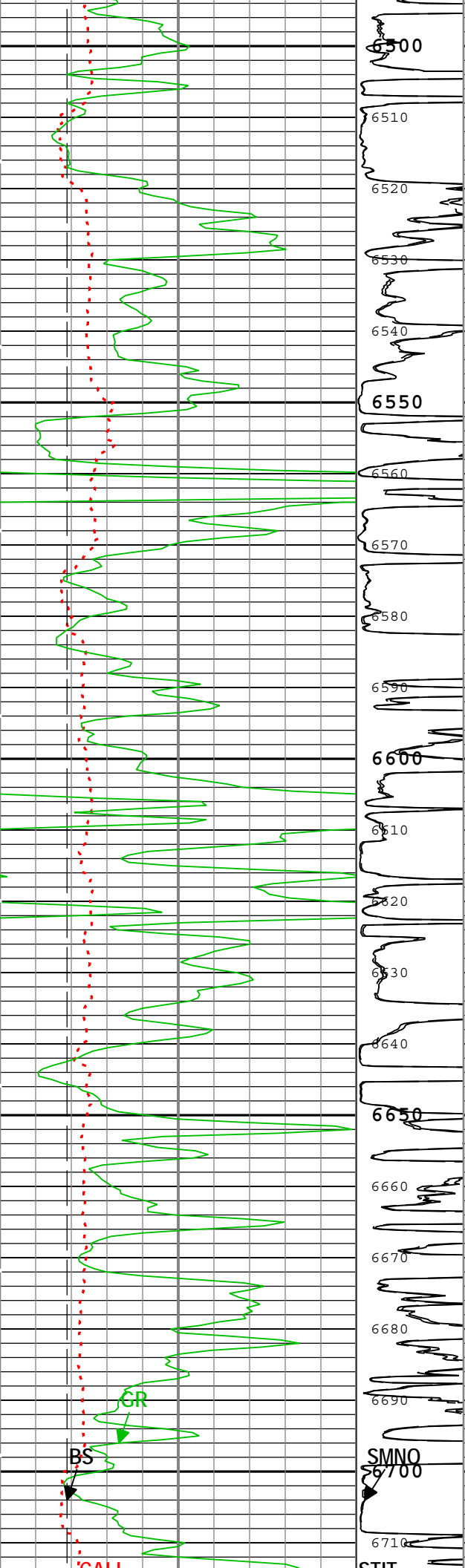


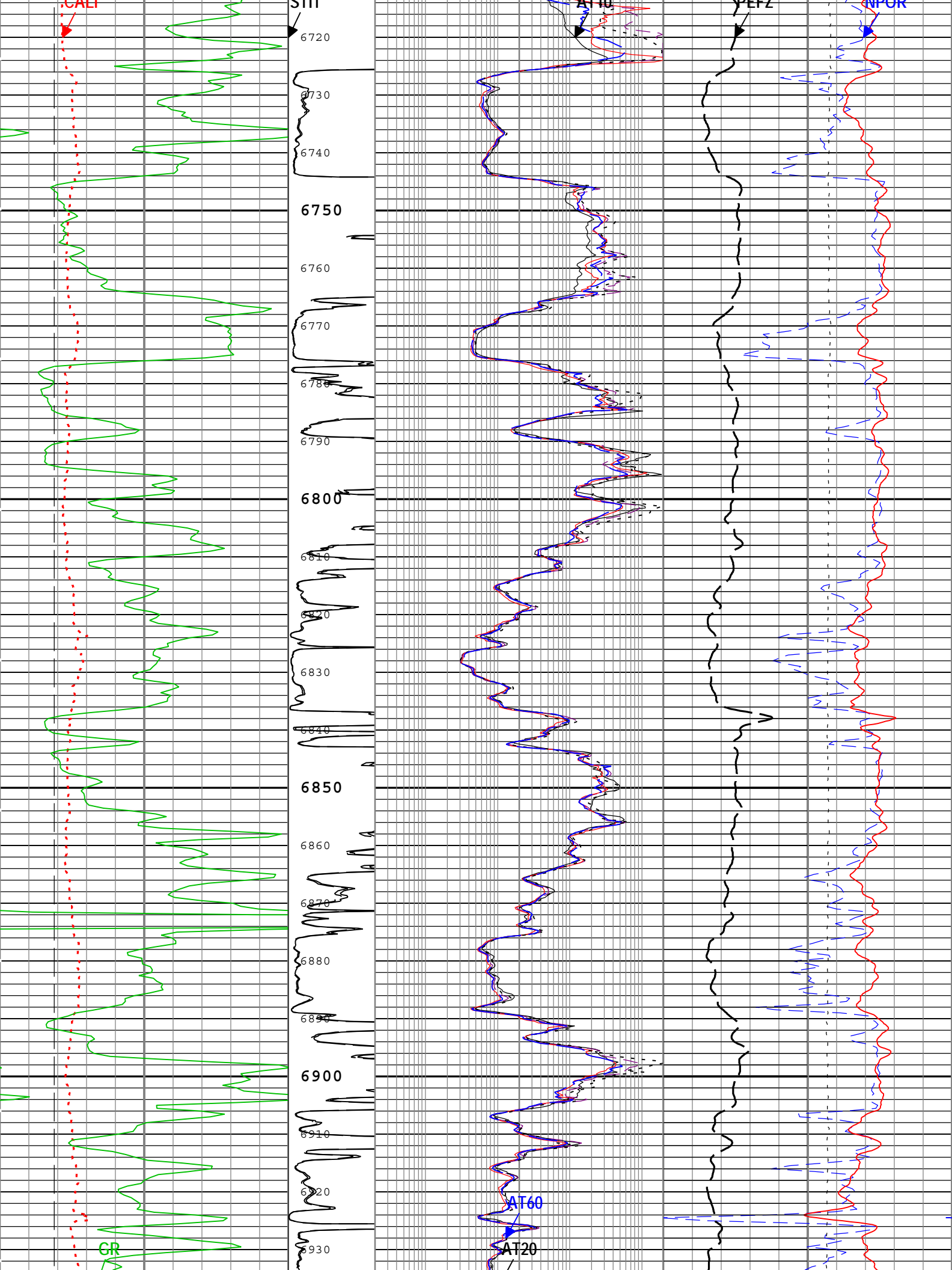


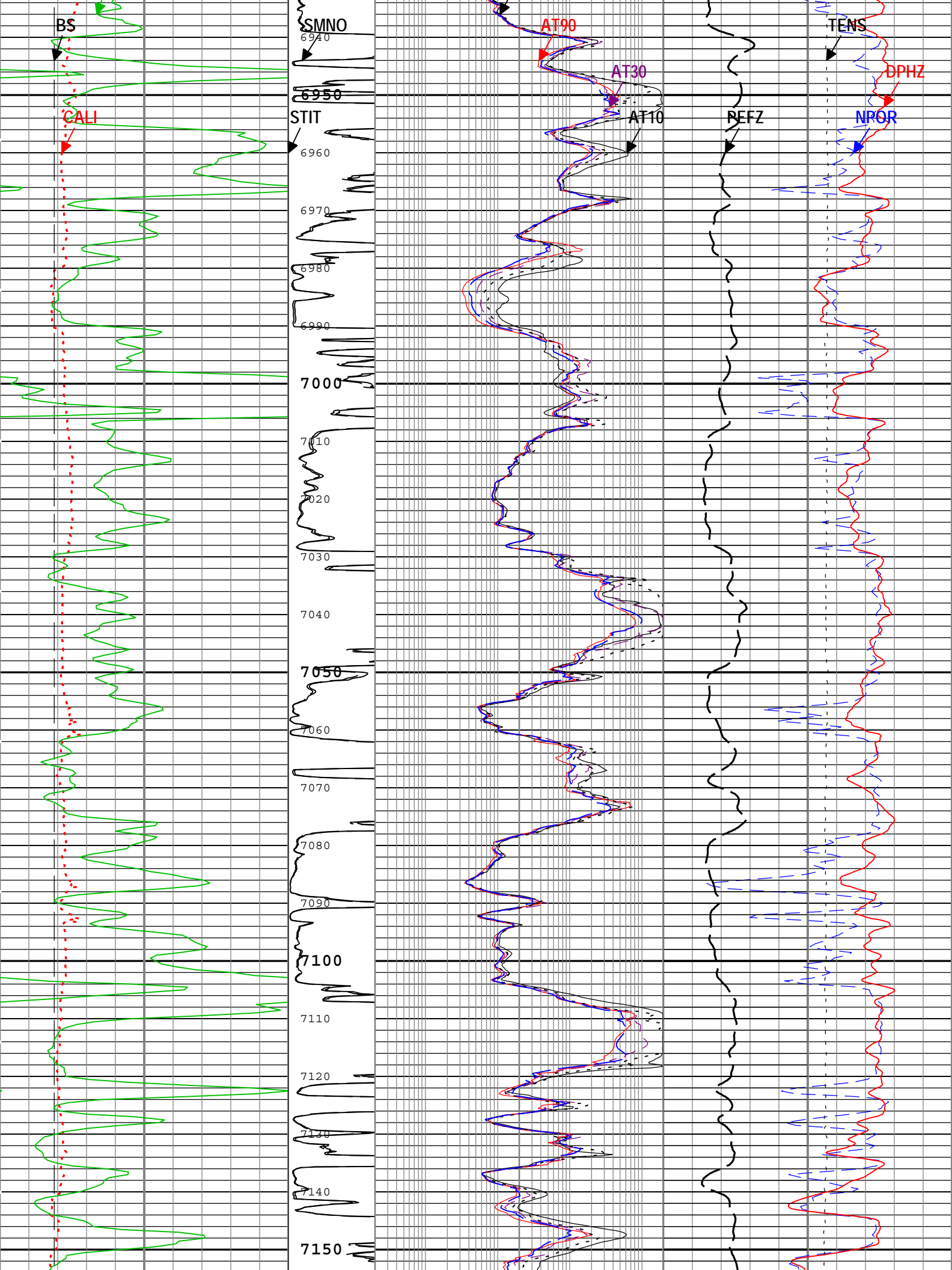




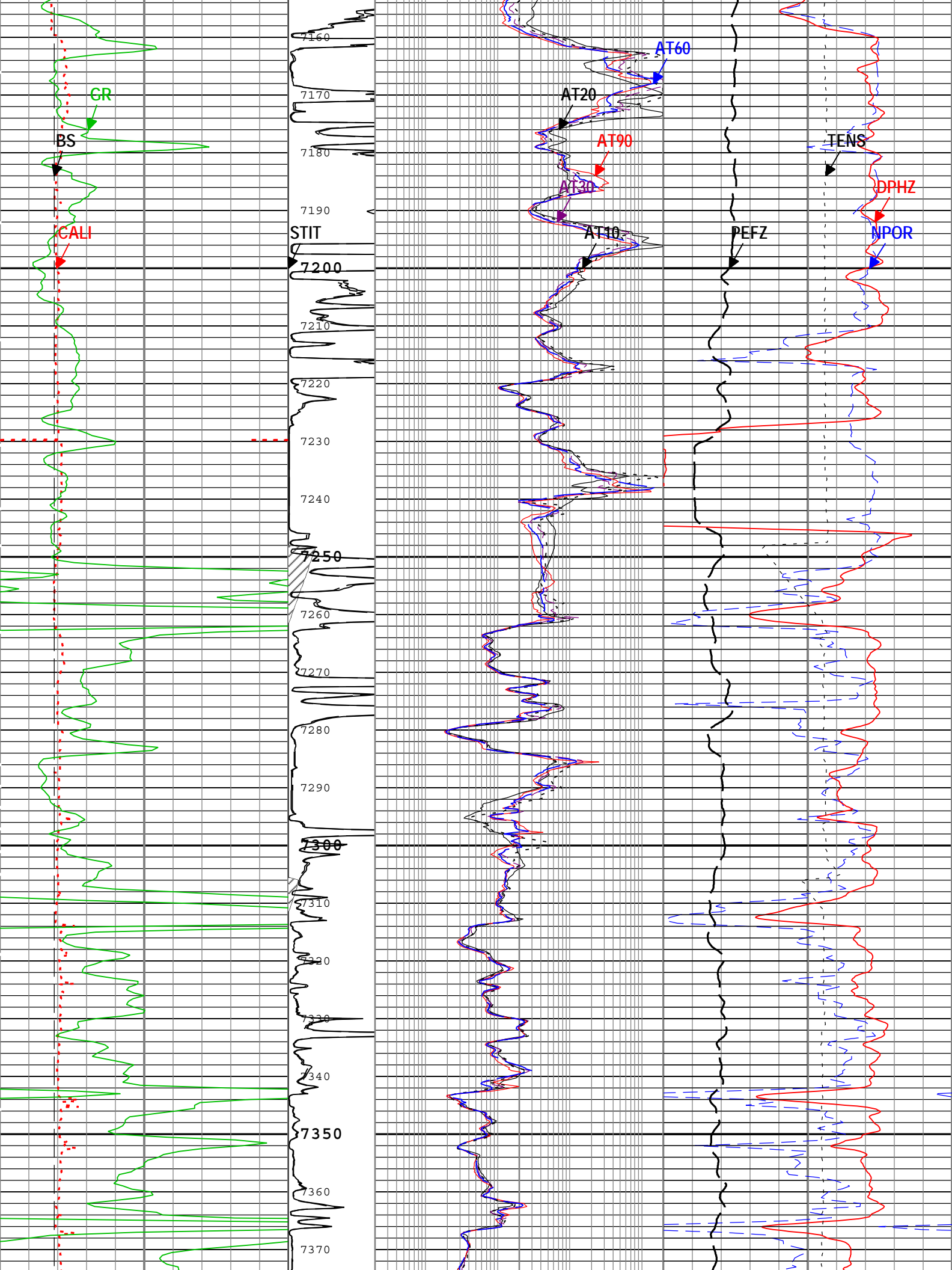


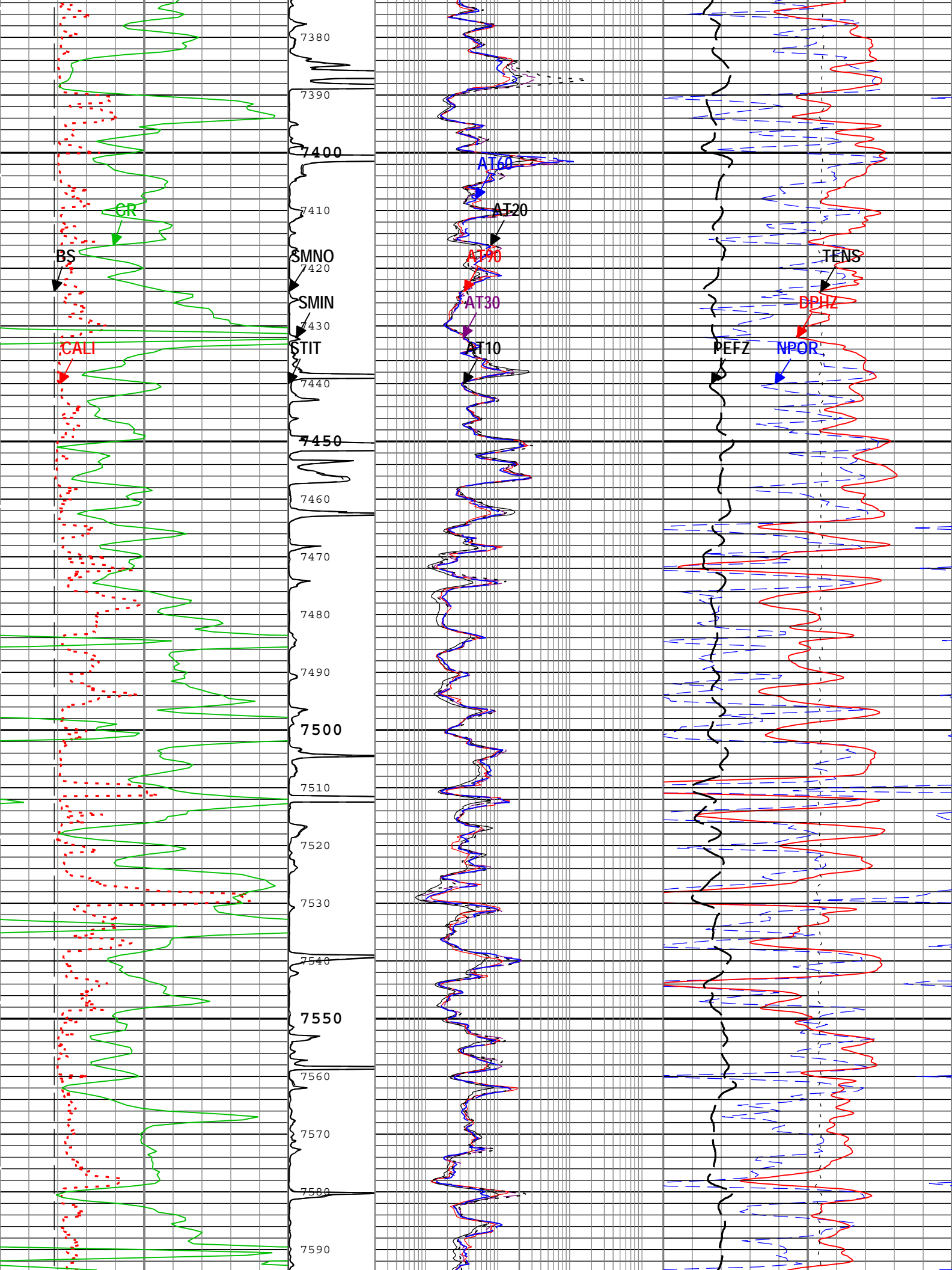




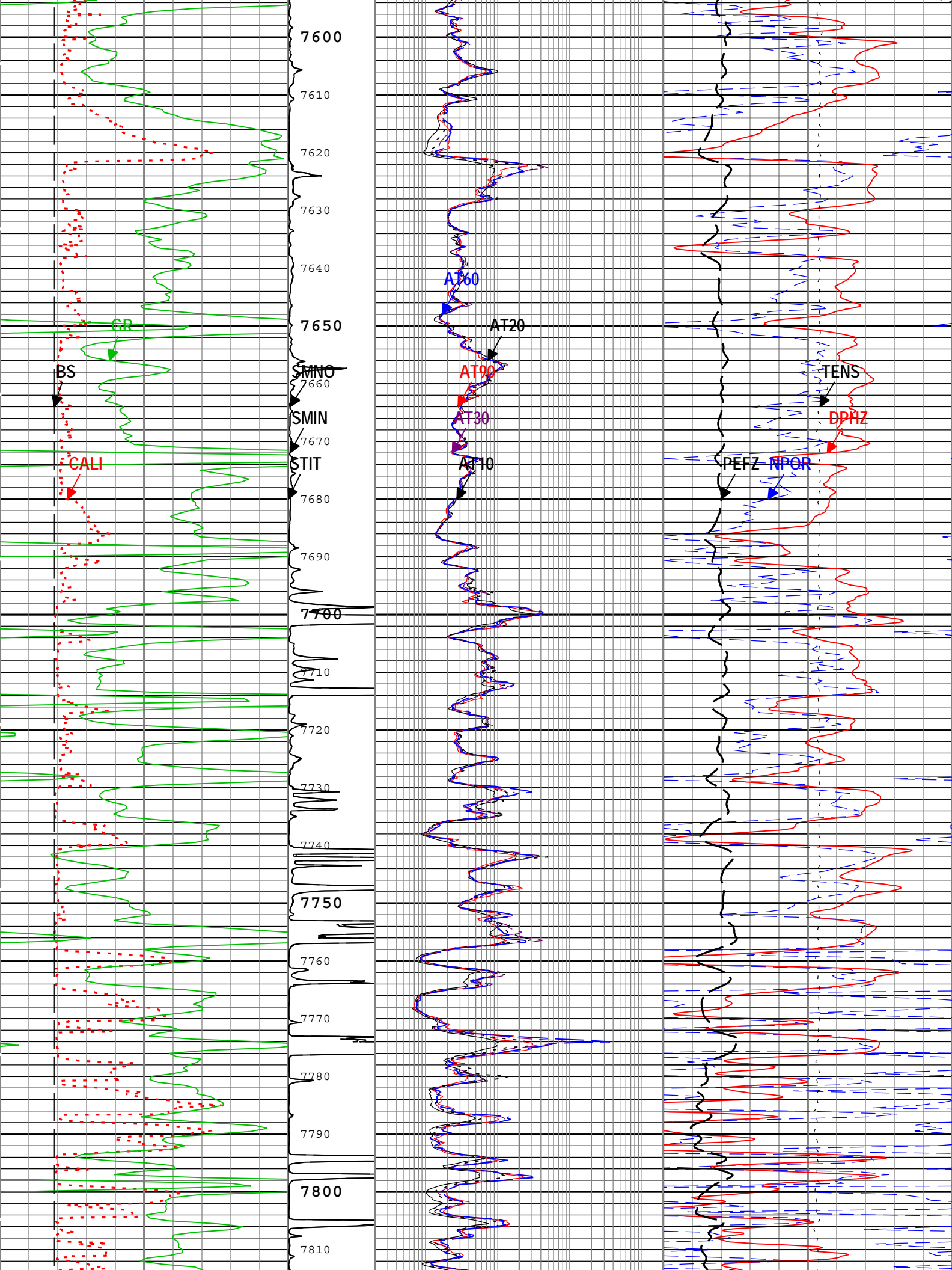


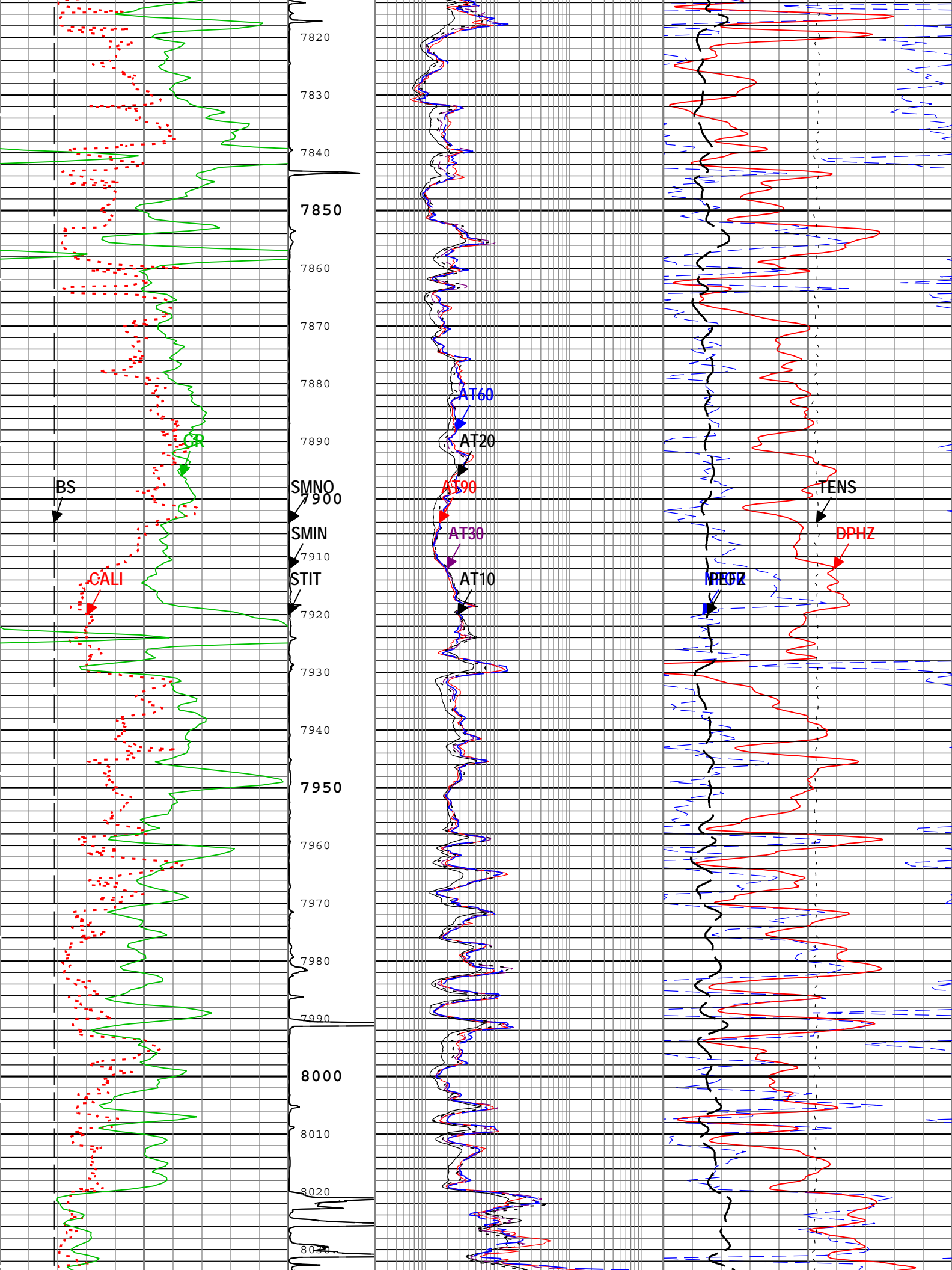


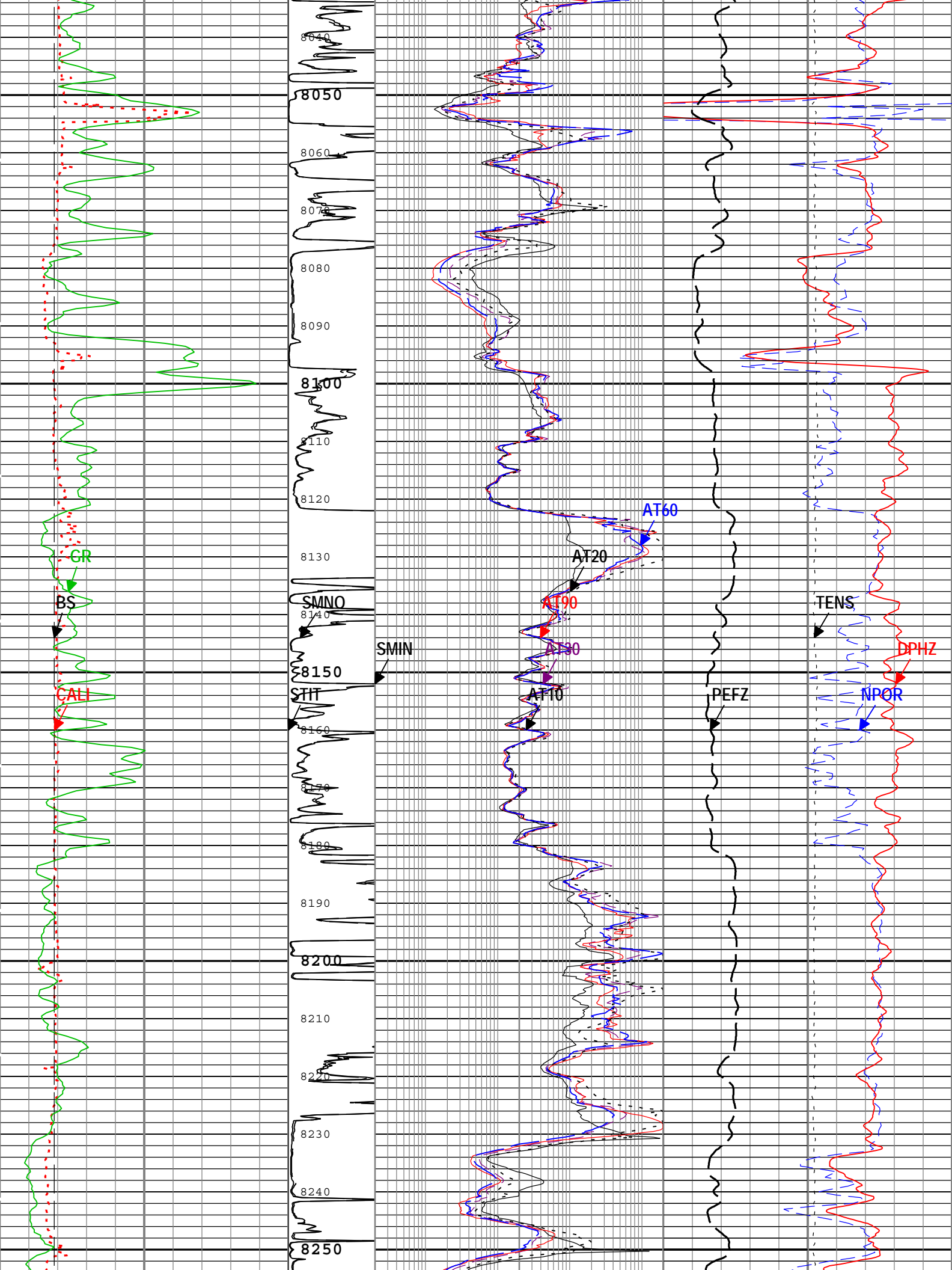


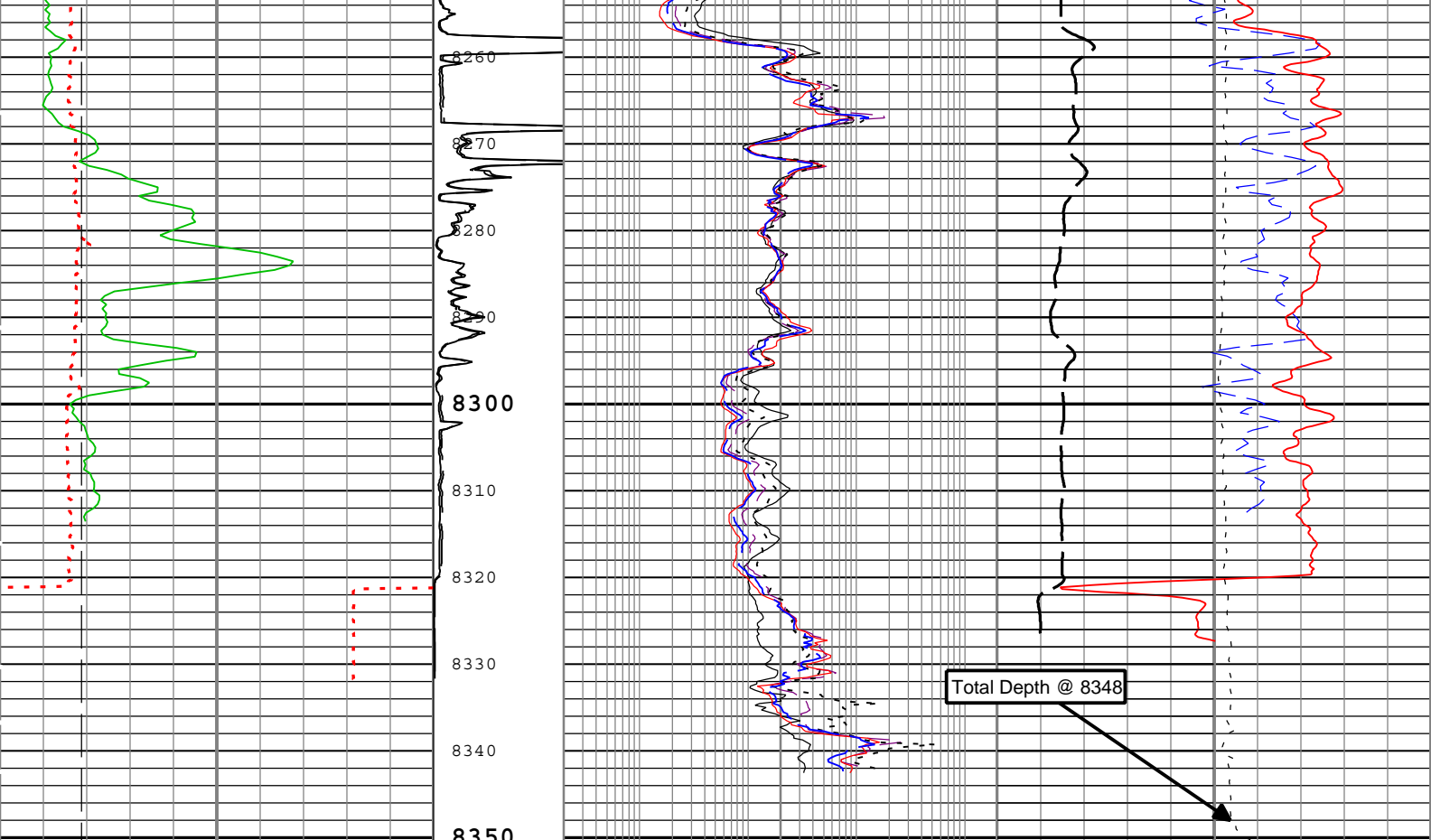












Gamma Ray Back up			Stuck Tool Indicator, Total (STIT)	Array Induction Two Foot Resistivity A10 (AT10) AIT_SpliceGroup[1]			NPOR Backup						
Caliper (CALI) HDRS[1]				0.2	ohm.m		2000	Enhanced Thermal Neutron Porosity in Selected Lithology (NPOR) HGNS[1]					
6	in		16	0	ft		50	0.45	m3/m3		-0.15		
Bit Size (BS)			Synthetic Micro-Inverse Resistivity (SMIN) HDRS[1]	Array Induction Two Foot Resistivity A30 (AT30) AIT_SpliceGroup[1]			Standard Resolution Density Porosity (DPHZ) HDRS[1]						
6	in			16	0.2	ohm.m		2000	0.45			ft3/ft3	-0.15
Gamma Ray (GR) HGNS[1]				Array Induction Two Foot Resistivity A90 (AT90) AIT_SpliceGroup[1]			0.45			ft3/ft3			-0.15
0	gAPI		200	0	100 ohm.m		0.2	ohm.m		2000	Cable Tension (TENS)		
			Synthetic Micro-Normal Resistivity (SMNO) HDRS[1]	Array Induction Two Foot Resistivity A20 (AT20) AIT_SpliceGroup[1]			10000			lbf		0	
				Array Induction Two Foot Resistivity A60 (AT60) AIT_SpliceGroup[1]			Standard Resolution Formation Photoelectric Factor (PEFZ) HDRS[1]						
				0			100 ohm.m		0			10	

TIME\_1900 - Time Marked every 60.00 (s)

Description: HGNS standard resolution porosities for Platform Express    Format: Log ( Import of Kerr McGee 5in Triple Combo )    Index Scale: 5 in per 100 ft  
Index Unit: ft    Index Type: Measured Depth    Creation Date: 28-Feb-2013 11:16:49

## Channel Processing Parameters

### 1: Parameters

Parameter	Description	Tool	Value	Unit
ABHM	Array Induction Borehole Correction Mode	AIT-H	Compute Standoff	
ABLM	Array Induction Basic Logs Mode	AIT-H	Normal	
ACDE	Array Induction Casing Detection Enable	AIT-H	Yes	
ASTA	Array Induction Tool Standoff	AIT-H	1.5	in
ATSE	Array Induction Tool Standoff Enable	AIT-H	False	

ATSE	Array Induction Temperature Selection(Sonde Error Correction)	ATI-H	External	
BARI	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	7.875	in
BSAL	Borehole Salinity	Borehole	4734.71	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0	in
CBLO	Casing Bottom (Logger)	WLSESSION	542	ft
CDEN	Cement Density	HGNS-B	2	g/cm3
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	8.7	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Water Based Mud	
DHC	Density Hole Correction	HDRS-H	Bit Size	
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HSCO	Hole Size Correction Option	HGNS-B	Yes	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.71	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	60.5	degF
RMFS	Resistivity of Mud Filtrate Sample	Borehole	1.05	ohm.m
SOCO	Standoff Correction Option	HGNS-B	Yes	

## Tool Control Parameters

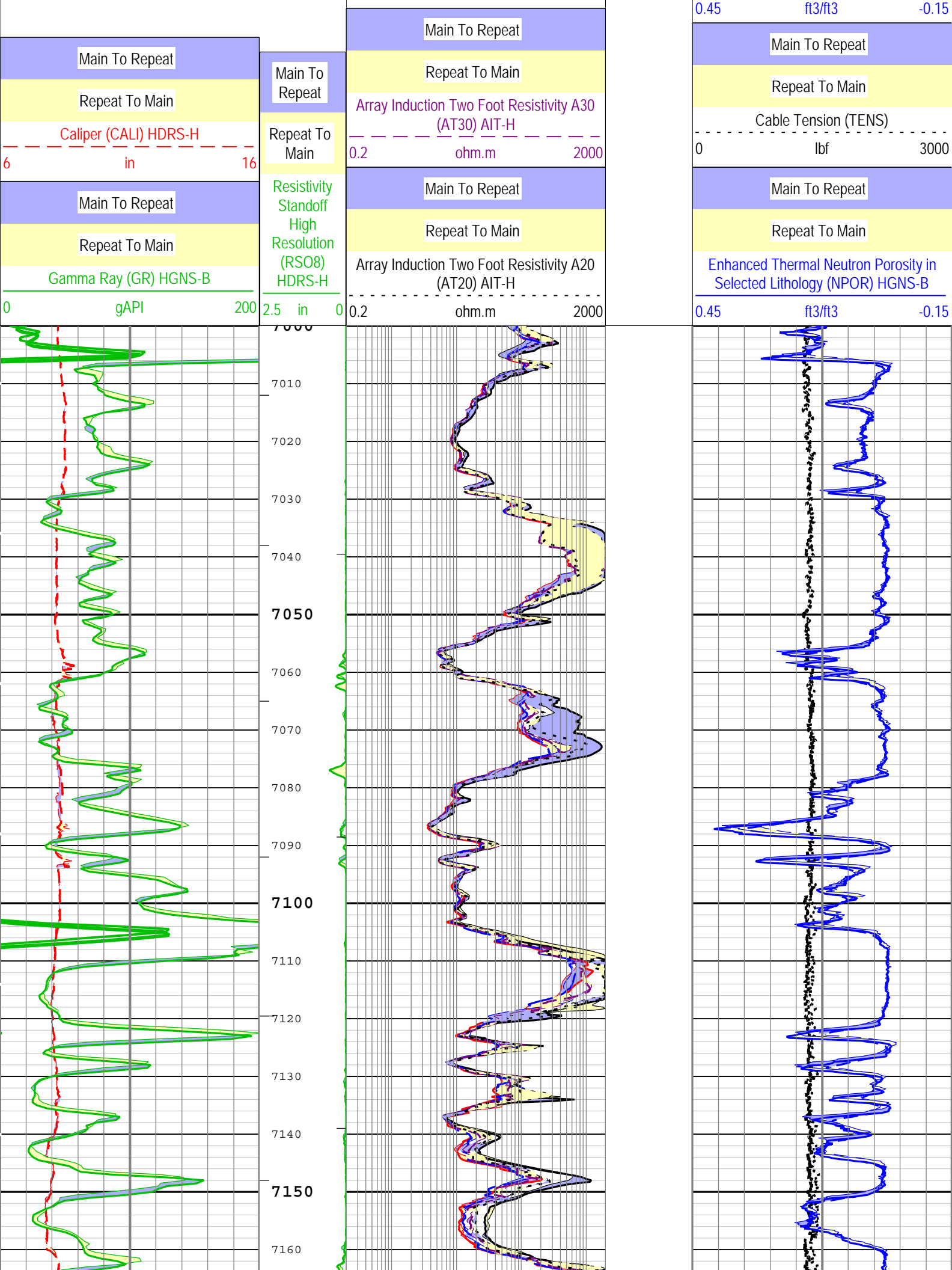
1: Parameters				
Parameter	Description	Tool	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-B	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	Time Zoned	ft/h

## 1Time Zoned Parameters

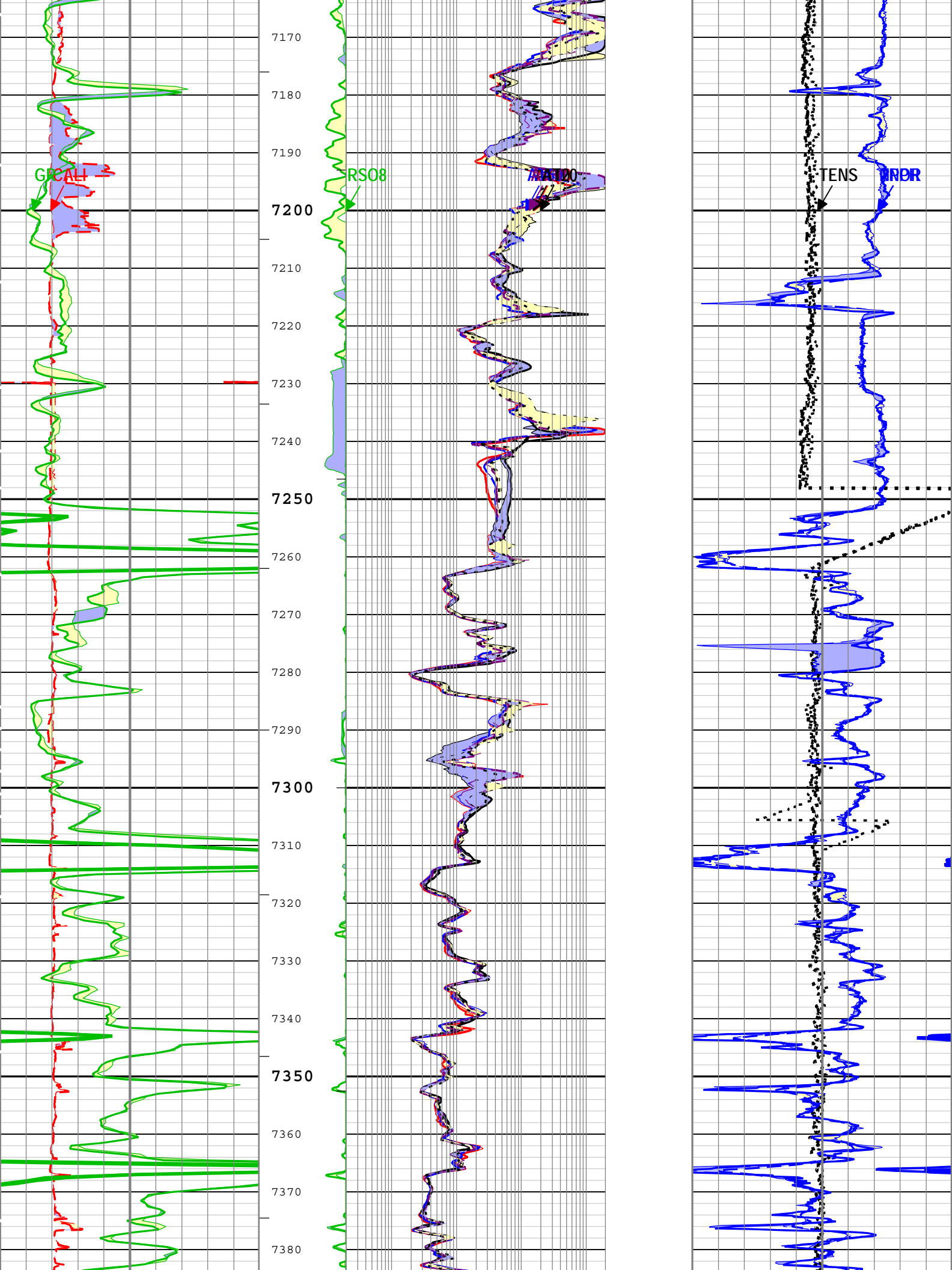
Pass Main[2]:Up					
Parameter	Value	Start Time	Stop Time	Start Depth ( ft )	Stop Depth ( ft )
MAX_LOG_SPEED	1630	21-Feb-2013 00:22:50	21-Feb-2013 00:36:34	8350.62	8101.41
MAX_LOG_SPEED	1730	21-Feb-2013 00:36:34	21-Feb-2013 00:37:35	8101.41	8072.99
MAX_LOG_SPEED	1800	21-Feb-2013 00:37:35	21-Feb-2013 00:57:00	8072.99	7518.44
MAX_LOG_SPEED	1711	21-Feb-2013 00:57:00	21-Feb-2013 01:09:16	7518.44	7288.68
MAX_LOG_SPEED	1600	21-Feb-2013 01:09:16	21-Feb-2013 02:20:03	7288.68	5939.81
MAX_LOG_SPEED	1712	21-Feb-2013 02:20:03	21-Feb-2013 02:23:07	5939.81	5860.1

Pass Log[3]:Up					
MAX_LOG_SPEED	1610	21-Feb-2013 02:51:24	21-Feb-2013 04:10:40	6136.95	5936.82
MAX_LOG_SPEED	1706	21-Feb-2013 04:10:40	21-Feb-2013 04:26:01	5936.82	5539.03
MAX_LOG_SPEED	1800	21-Feb-2013 04:26:01	21-Feb-2013 04:30:07	5539.03	5430.61
MAX_LOG_SPEED	1700	21-Feb-2013 04:30:07	21-Feb-2013 04:31:08	5430.61	5403.49
MAX_LOG_SPEED	1800	21-Feb-2013 04:31:08	21-Feb-2013 04:39:19	5403.49	5187.52

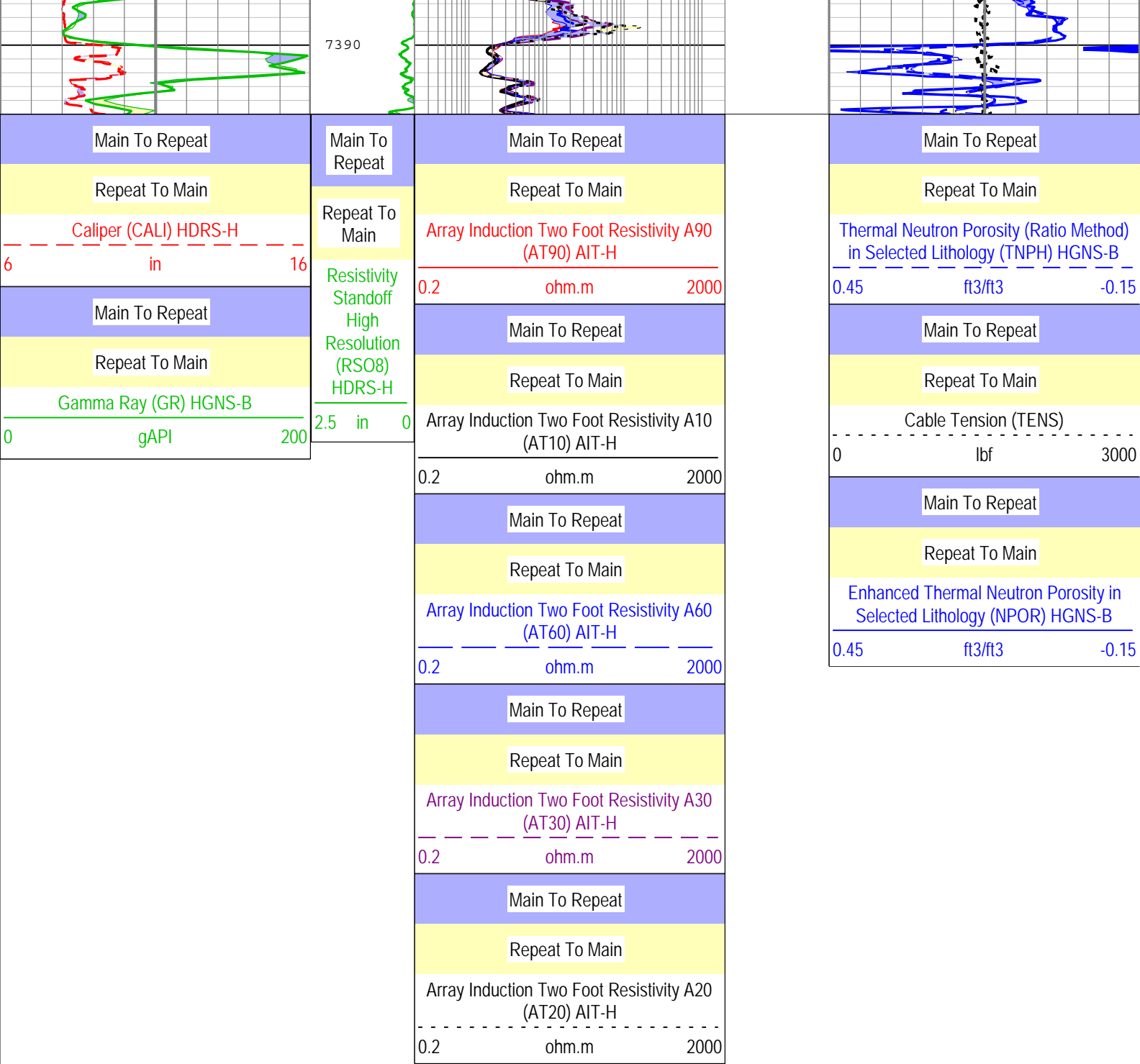












TIME\_1900 - Time Marked every 60.00 (s)

— IHV - Integrated Hole Volume every 100.00 (ft3)

— IHV - Integrated Hole Volume every 10.00 (ft3)

— ICV - Integrated Cement Volume every 100.00 (ft3)

— ICV - Integrated Cement Volume every 10.00 (ft3)

Description: Triple Combo high resolution template for Platform Express    Format: Log ( PEX Triple Combo HiRes RA )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured Depth    Creation Date: 28-Feb-2013 11:16:54

## Calibration Report

### AIT-H (Array Induction Tool - H) Calibration - Run 1

Primary Equipment :

Array Induction Sonde - H

AHIS

216

Auxiliary Equipment :

AITH Rm/SP Bottom Nose

AHRM

216

### AIT Sonde Calibration - Test Loop Gain

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Test Loop Gain - 0		Master	1.000	0.950	1.012	1.050	
Test Loop Phase - 0	deg	Master	0	-3.000	0.555	3.000	
Test Loop Gain - 1		Master	1.000	0.950	1.009	1.050	
Test Loop Phase - 1	deg	Master	0	-3.000	0.353	3.000	
Test Loop Gain - 2		Master	1.000	0.950	1.011	1.050	
Test Loop Phase - 2	deg	Master	0	-3.000	-0.040	3.000	
Test Loop Gain - 3		Master	1.000	0.950	1.010	1.050	
Test Loop Phase - 3	deg	Master	0	-3.000	0.091	3.000	
Test Loop Gain - 4		Master	1.000	0.950	0.993	1.050	
Test Loop Phase - 4	deg	Master	0	-3.000	-0.048	3.000	
Test Loop Gain - 5		Master	1.000	0.950	0.986	1.050	
Test Loop Phase - 5	deg	Master	0	-3.000	-0.240	3.000	
Test Loop Gain - 6		Master	1.000	0.950	0.988	1.050	
Test Loop Phase - 6	deg	Master	0	-3.000	1.333	3.000	
Test Loop Gain - 7		Master	1.000	0.950	0.999	1.050	
Test Loop Phase - 7	deg	Master	0	-3.000	-0.235	3.000	

### AIT Sonde Calibration - Sonde Error Correction

Master (EEPROM): 14:05:49 10-Dec-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Sonde Error Correction Real - 0	mS/m	Master	-----	-231.000	-92.597	119.000	
Sonde Error Correction Quad - 0		Master	-----	-2250.000	-167.839	2250.000	
Sonde Error Correction Real - 1	mS/m	Master	-----	114.000	165.455	204.000	
Sonde Error Correction Quad - 1		Master	-----	-625.000	0.770	625.000	
Sonde Error Correction Real - 2	mS/m	Master	-----	66.000	114.233	156.000	
Sonde Error Correction Quad - 2		Master	-----	-350.000	-176.552	350.000	
Sonde Error Correction Real - 3	mS/m	Master	-----	39.000	59.629	89.000	
Sonde Error Correction Quad - 3		Master	-----	-250.000	-64.057	250.000	
Sonde Error Correction Real - 4	mS/m	Master	-----	15.000	26.319	35.000	
Sonde Error Correction Quad - 4		Master	-----	-63.000	-12.336	63.000	
Sonde Error Correction Real - 5	mS/m	Master	-----	4.000	14.027	24.000	
Sonde Error Correction Quad - 5		Master	-----	-50.000	-14.788	50.000	
Sonde Error Correction Real - 6	mS/m	Master	-----	5.000	10.456	15.000	
Sonde Error Correction Quad - 6		Master	-----	-30.000	-4.003	30.000	
Sonde Error Correction Real - 7	mS/m	Master	-----	-5.000	-0.491	5.000	
Sonde Error Correction Quad - 7		Master	-----	-30.000	1.926	30.000	

### AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM): 14:05:49 10-Dec-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Coarse Gain		Master	1.000	0.800	0.850	1.200	
Fine Gain		Master	1.000	0.800	0.849	1.200	

### AIT Electronics Check - Thru Calibration Check

Master (EEPROM): 14:05:49 10-Dec-2012 Before (Measured): 15:24:19 19-Feb-2013 After:

Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Thru Cal Mag - 0	V	Master	-----	0.363	0.628	0.847	
		Before	-----	0.363	0.629	0.847	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.001	-----	
		After-Before	-----	-----	-----	-----	
Thru Cal Phase - 0	deg	Master	-----	11.000	51.537	131.000	
		Before	-----	11.000	52.082	131.000	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.545	-----	
		After-Before	-----	-----	-----	-----	
Thru Cal Mag - 1	V	Master	-----	0.762	1.288	1.778	
		Before	-----	0.762	1.288	1.778	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.000	-----	
		After-Before	-----	-----	-----	-----	
Thru Cal Phase - 1	deg	Master	-----	10.000	50.510	130.000	
		Before	-----	10.000	51.060	130.000	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.550	-----	

		Before-Master After-Before	-----	-----	0.330	-----	
Thru Cal Mag - 2	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	0.374 0.374 ----- ----- -----	0.639 0.638 ----- -0.001 -----	0.872 0.872 ----- ----- -----	
Thru Cal Phase - 2	deg	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	6.000 6.000 ----- ----- -----	46.742 47.308 ----- 0.566 -----	126.000 126.000 ----- ----- -----	
Thru Cal Mag - 3	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	0.422 0.422 ----- ----- -----	0.721 0.722 ----- 0.001 -----	0.986 0.986 ----- ----- -----	
Thru Cal Phase - 3	deg	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	5.000 5.000 ----- ----- -----	45.953 46.518 ----- 0.565 -----	125.000 125.000 ----- ----- -----	
Thru Cal Mag - 4	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	0.802 0.802 ----- ----- -----	1.357 1.357 ----- 0.000 -----	1.872 1.872 ----- ----- -----	
Thru Cal Phase - 4	deg	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-1.000 -1.000 ----- ----- -----	39.574 40.166 ----- 0.592 -----	119.000 119.000 ----- ----- -----	
Thru Cal Mag - 5	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	1.173 1.173 ----- ----- -----	1.970 1.970 ----- 0.000 -----	2.737 2.737 ----- ----- -----	
Thru Cal Phase - 5	deg	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-3.000 -3.000 ----- ----- -----	37.668 38.277 ----- 0.609 -----	117.000 117.000 ----- ----- -----	
Thru Cal Mag - 6	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	1.173 1.173 ----- ----- -----	1.969 1.970 ----- 0.001 -----	2.737 2.737 ----- ----- -----	
Thru Cal Phase - 6	deg	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-3.000 -3.000 ----- ----- -----	37.662 38.267 ----- 0.605 -----	117.000 117.000 ----- ----- -----	
Thru Cal Mag - 7	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	0.849 0.849 ----- ----- -----	1.408 1.410 ----- 0.002 -----	1.981 1.981 ----- ----- -----	
Thru Cal Phase - 7	deg	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-7.000 -7.000 ----- ----- -----	33.836 34.585 ----- 0.749 -----	113.000 113.000 ----- ----- -----	
SPA Zero	mV	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-50.000 -50.000 ----- ----- -----	-0.041 -0.045 ----- -0.004 -----	50.000 50.000 ----- ----- -----	
SPA Plus	mV	Master	-----	941.000	993.255	1040.000	

		Before	-----	941.000	993.635	1040.000	
		Before-Master	-----	-----	0.380	-----	
		After-Before	-----	-----	-----	-----	
Temperature Zero	V	Master		-0.050	0.000	0.050	
		Before		-0.050	0.000	0.050	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.000	-----	
		After-Before	-----	-----	-----	-----	
Temperature Plus	V	Master		0.870	0.921	0.960	
		Before		0.870	0.922	0.960	
		After	-----	-----	-----	-----	
		Before-Master	-----	-----	0.001	-----	
		After-Before	-----	-----	-----	-----	

## HDRS-H (HILT Density and Rxo Sonde, 150 degC) Calibration - Run 1

Primary Equipment :		
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	
HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H	3870
Auxiliary Equipment :		
HRDD Backscatter Detector	Backscatter	
HRDD Long Spacing Detector	Long Spacing	28620
HRDD Short Spacing Detector	Short Spacing	
Cesium 137 Gamma-Ray Logging Source	GSR-J	5471
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	3863
Calibration Parameter :		
Small Ring Size (Caliper Calibration Small Ring)	8.00	
Large Ring Size (Caliper Calibration Large Ring)	12.00	

## HDRS Caliper Calibration - Caliper Accumulations

Before (Measured):								15:34:15 19-Feb-2013 Expired by 1 days			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div></div>				
Small Ring	in	Before	8.00	6.00	7.80	10.00	<div><div></div></div>				
Large Ring	in	Before	12.00	9.00	13.04	15.00	<div><div></div></div>				

## HDRS Density Calibration - Inversion Results

Master (EEPROM):		14:19:08 07-Feb-2013					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div></div>
Rho Aluminum	g/cm3	Master	2.596	2.586	2.597	2.606	<div><div></div><div></div><div></div><div></div></div>
Rho Magnesium	g/cm3	Master	1.686	1.676	1.686	1.696	<div><div></div><div></div><div></div><div></div></div>
Pe Aluminum		Master	2.570	2.470	2.541	2.670	<div><div></div><div></div><div></div><div></div></div>
Pe Magnesium		Master	2.650	2.550	2.643	2.750	<div><div></div><div></div><div></div><div></div></div>

## HDRS Density Calibration - Deviation Summary

Master (EEPROM):		14:19:08 07-Feb-2013					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div></div>
BS Average Deviation	%	Master	0	-0.6000	0.5100	0.6000	<div><div></div></div>
BS Max Deviation	%	Master	0	-1.6000	0.8481	1.6000	<div><div></div></div>
SS Average Deviation	%	Master	0	-1.0000	0.3245	1.0000	<div><div></div></div>
SS Max Deviation	%	Master	0	-2.5000	0.6746	2.5000	<div><div></div></div>
LS Average Deviation	%	Master	0	-1.5000	0.7139	1.5000	<div><div></div></div>
LS Max Deviation	%	Master	0	-3.5000	1.8488	3.5000	<div><div></div></div>

## HDRS Density Calibration - Background Summary

Master (EEPROM):		14:19:08 07-Feb-2013		Before (Measured):		15:26:44 19-Feb-2013 Expired by 1 days	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div></div>
BS Window Ratio		Master	1.0000		0.7429		<div><div></div><div></div></div>
		Before	0.7429	0.7058	0.7394	0.7801	<div><div></div><div></div><div></div></div>
		Before-Master	----	----	-0.0035	----	<div><div></div><div></div><div></div><div></div></div>
BS Window Sum	1/s	Master	1		24454		<div><div></div><div></div></div>
		Before	24454	23231	24461	25677	<div><div></div><div></div><div></div><div></div></div>
		Before-Master	----	----	7	----	<div><div></div><div></div><div></div><div></div></div>

SS Window Ratio		Master Before Before-Master	1.0000 0.4910 -----	0.4665 -----	0.4910 0.4898 -0.0012	0.5156 -----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
SS Window Sum	1/s	Master Before Before-Master	1 14026 -----	13325 -----	14026 13991 -35	14727 -----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
LS Window Ratio		Master Before Before-Master	1.0000 0.3062 -----	0.2909 -----	0.3062 0.3034 -0.0028	0.3215 -----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
LS Window Sum	1/s	Master Before Before-Master	1 1260 -----	1197 -----	1260 1253 -7	1323 -----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

### HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM): 14:19:08 07-Feb-2013		Before (Measured): 15:26:44 19-Feb-2013		Expired by 1 days			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
BS PM High Voltage	V	Master		1000	1599	2400	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before		1000	1607	2400	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before-Master	-----	-100	8	100	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
SS PM High Voltage	V	Master		1000	1682	2400	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before		1000	1692	2400	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before-Master	-----	-100	10	100	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
LS PM High Voltage	V	Master		1000	1326	2400	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before		1000	1329	2400	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before-Master	-----	-100	3	100	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

### HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM): 14:19:08 07-Feb-2013		Before (Measured): 15:26:44 19-Feb-2013		Expired by 1 days			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
BS Crystal Resolution	%	Master		5.00	11.32	25.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before		5.00	11.26	25.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before-Master	-----	-1.00	-0.06	1.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
SS Crystal Resolution	%	Master		5.00	10.46	20.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before		5.00	10.47	20.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before-Master	-----	-1.00	0.01	1.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
LS Crystal Resolution	%	Master		5.00	8.22	20.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before		5.00	8.31	20.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
		Before-Master	-----	-1.00	0.09	1.00	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

### HDRS MCFL Calibration - MCFL Accumulations

Before:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Main Resistivity - 0	ohm.m	Before	-----	-----	-----	-----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Deep Resistivity - 0	ohm.m	Before	-----	-----	-----	-----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
Shallow Resistivity - 0	ohm.m	Before	-----	-----	-----	-----	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

### HGNS-B (HILT Gamma-Ray and Neutron Sonde, 125 degC) Calibration - Run 1

Primary Equipment :			
HILT Gamma-Ray and Neutron Sonde, 125 degC		HGNS-B	1
Auxiliary Equipment :			
HGNS Accelerometer, 125 degC		HACCZ-B	6991
AmBe Neutron Logging Source		NSR-F	2554
Calibration Parameter :			
Water Temperature			
Housing Size			
JIG-BKG (Jig minus background reference)		165	

### HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured): 23:38:04 20-Feb-2013							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.1	32.8	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div>

### HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM): 00:00:00 15-May-2007							
---------------------------------------	--	--	--	--	--	--	--

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Accelerometer Manufacturer		Master			QAT_160		
Accelerometer Reference Temperature	degF	Master		30.2	77.0	122.0	
Accelerometer Coefficients - 0		Master	----	----	-4298.000	----	
Accelerometer Coefficients - 1		Master	----	----	50.180	----	
Accelerometer Coefficients - 2		Master	----	----	-0.002	----	
Accelerometer Coefficients - 3		Master	----	----	0.000	----	
Accelerometer Coefficients - 4		Master	----	----	2.754	----	
Accelerometer Coefficients - 5		Master	----	----	0.000	----	
Accelerometer Coefficients - 6		Master	----	----	0.000	----	
Accelerometer Coefficients - 7		Master	----	----	0.000	----	
Accelerometer Coefficients - 8		Master	----	----	300.500	----	
Accelerometer Coefficients - 9		Master	----	----	0.994	----	

## HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM): 22:07:24 05-Feb-2013 Before (Measured): 15:24:38 19-Feb-2013 After:  
Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	5.0	28.3	40.0	
		Before	0	5.0	28.7	40.0	
		After	----	----	----	----	
		Before-Master	----	-4.2	0.4	4.2	
		After-Before	----	----	----	----	
Far Zero Measurement	1/s	Master	0	5.0	28.1	40.0	
		Before	0	5.0	28.7	40.0	
		After	----	----	----	----	
		Before-Master	----	-4.2	0.6	4.2	
		After-Before	----	----	----	----	
Near Plus Measurement - 0	1/s	Master	6031.0	4700.0	5629.0	6900.0	
		Before	----	----	----	----	
		After	----	----	----	----	
		Before-Master	----	----	----	----	
		After-Before	----	----	----	----	
Far Plus Measurement - 0	1/s	Master	2793.0	1900.0	2309.0	2900.0	
		Before	----	----	----	----	
		After	----	----	----	----	
		Before-Master	----	----	----	----	
		After-Before	----	----	----	----	
Near Corrected Plus Measurement - 0	1/s	Master		4700.0	5734.0	6900.0	
		Before	----	----	----	----	
		After	----	----	----	----	
		Before-Master	----	----	----	----	
		After-Before	----	----	----	----	
Far Corrected Plus Measurement - 0	1/s	Master		1900.0	2366.0	2900.0	
		Before	----	----	----	----	
		After	----	----	----	----	
		Before-Master	----	----	----	----	
		After-Before	----	----	----	----	

## HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured): 15:41:44 19-Feb-2013 Expired by 1 days After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	92.8	120.0	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RGR Plus Measurement	gAPI	Before	185.4	157.1	170.2	206.3	
		After	----	----	NOT DONE	----	
		After-Before	----	----	----	----	
GR Calibration Gain		Before	0.89	0.80	0.97	1.05	
		After	----	----	----	----	
		After-Before	----	----	----	----	

## PPC-B (Powered Positioning device and Caliper.) Calibration - Run 1

Primary Equipment :

PPC-B Element is used for usual logging at wellsite and check/diagnostics.

PPC-B

8733

# Auxiliary Equipment :

PPC-B Element is used for usual logging at wellsite and check/diagnostics.

PPC-B

8733

## Calibration Parameter :

ZERO\_REF (Small Size Ring)

3.500

PLUS\_REF (Large Size Ring)

8.000

## Equipment Properties :

Caliper Arm Equipment Type for PPC

PPC\_CAL\_STD

## PPC Check - Downhole Electronics Test

Before (Measured): 15:00:50 19-Feb-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Positive Analog Voltage	V	Before		7	8.72959	9	
Minus Analog Voltage	V	Before		-9	-8.74805	-7	
Digital Voltage	V	Before		3.15	3.38257	3.45	
Digital Voltage for Analog Digital Converter	V	Before		4.5	5.04609	5.5	
Status Word of Analog Digital Converter Offset		Before		-8	0	8	

## PPC Check - Cartridge Temperature Test

Before (Measured): 15:00:50 19-Feb-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Cartridge Temperature	degF	Before		-58	53.6845	482	

## PPC Check - Power Control LVDT Test

Before (Measured): 15:00:50 19-Feb-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
LVDT5 Caliper Open Position	in	Before			-1.3009		
LVDT5 Full Power Position	in	Before			1.4187		

## PPC Diagnostics - Arm Close Position Test

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Caliper-arm 1, radius raw - 0	in	Master	----	----	----	----	
Caliper-arm 2, radius raw - 0	in	Master	----	----	----	----	
Caliper-arm 3, radius raw - 0	in	Master	----	----	----	----	
Caliper-arm 4, radius raw - 0	in	Master	----	----	----	----	
Power Control LVDT - 0	in	Master	----	----	----	----	
LVDT excitation - 0	V	Master	----	----	----	----	

## PPC Diagnostics - Downhole Electronics Test

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Positive Analog Voltage - 0	V	Master	----	----	----	----	
Minus Analog Voltage - 0	V	Master	----	----	----	----	
Digital Voltage - 0	V	Master	----	----	----	----	
Digital Voltage for Analog Digital Converter - 0	V	Master	----	----	----	----	
Status Word of Analog Digital Converter Offset - 0		Master	----	----	----	----	

## PPC Diagnostics - RBS Test

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Relative Bearing - 0	deg	Master	----	----	----	----	
Potentiometer Excitation - 0	V	Master	----	----	----	----	

## PPC Diagnostics - Cartridge Temperature Test

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Cartridge Temperature - 0	degF	Master	----	----	----	----	

## PPC Diagnostics - Power Control LVDT Test

Master:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
LVDT5 Caliper Open Position - 0	in	Master	----	----	----	----	
LVDT5 Full Power Position - 0	in	Master	----	----	----	----	

## PPC LVDT5 Master Calibration - PPC CaliCoefficients

Master (EEPROM): 15:35:00 19-Feb-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
-------------	------	-------	---------	-----------	--------	------------	--

CCS	in	Master	-1.51		-1.4751		
COP	in	Master	-1.31		-1.3009		
CPW	in	Master	1.41		1.4187		

## PPC Caliper Calibration - PPC CaliCoefficients

Before (Measured):		15:33:08 19-Feb-2013		After:			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RD1_GAIN		Before	1	0.85	1.05454	1.15	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RD2_GAIN		Before	1	0.85	1.0241	1.15	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RD3_GAIN		Before	1	0.85	1.03926	1.15	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RD4_GAIN		Before	1	0.85	1.05395	1.15	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RD1_OFFSET	in	Before	0	-2.2	-0.724484	2.6	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RD2_OFFSET	in	Before	0	-2.2	-0.133782	2.6	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RD3_OFFSET	in	Before	0	-2.2	-0.534459	2.6	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RD4_OFFSET	in	Before	0	-2.2	-0.248001	2.6	
		After	----	----	----	----	
		After-Before	----	----	----	----	

## PPC Caliper Calibration - PPC Accumulations

Before (Measured):		15:33:08 19-Feb-2013		After:			
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Caliper 1 Zero Radius	in	Before	3.5	1.2	4.00602	5.6	
		After	----	----	----	----	
		After-Before	----	----	----	----	
Caliper 2 Zero Radius	in	Before	3.5	1.2	3.54827	5.6	
		After	----	----	----	----	
		After-Before	----	----	----	----	
Caliper 3 Zero Radius	in	Before	3.5	1.2	3.88203	5.6	
		After	----	----	----	----	
		After-Before	----	----	----	----	
Caliper 4 Zero Radius	in	Before	3.5	1.2	3.55616	5.6	
		After	----	----	----	----	
		After-Before	----	----	----	----	
Caliper 1 Plus Radius	in	Before	8	6.1	8.2733	9.7	
		After	----	----	----	----	
		After-Before	----	----	----	----	
Caliper 2 Plus Radius	in	Before	8	6.1	7.94237	9.7	
		After	----	----	----	----	
		After-Before	----	----	----	----	
Caliper 3 Plus Radius	in	Before	8	6.1	8.21202	9.7	
		After	----	----	----	----	
		After-Before	----	----	----	----	
Caliper 4 Plus Radius	in	Before	8	6.1	7.82583	9.7	
		After	----	----	----	----	
		After-Before	----	----	----	----	

## EDTC-B (Enhanced Digital Telemetry Cartridge - Version B) Calibration - Run 1

Primary Equipment :			Enhanced Digital Telemetry Cartridge - B		EDTC-B	1
Calibration Parameter :			Plus Reference			



EDTC-B Accelerometer Calibration - EDTC-B Accelerometer Calibration											
Before (Measured):		23:36:54 20-Feb-2013									
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
AZ Vertical Measurement	ft/s2	Before	32.19	31.53	32.00	32.84	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
EDTC-B Memory Data - EDTC-B Memory Data											
Master (EEPROM):		02:48:46 21-Feb-2013									
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Initial PMT HV	V	Master			1434.000		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Serial Number		Master			390		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 0		Master	----	----	2.894	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 1		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 2		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 3		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 4		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 5		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 6		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 7		Master	----	----	-0.005	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 8		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 9		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 10		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Accelerometer Coefficients - 11		Master	----	----	0.000	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Gamma-Ray Detector Serial Number		Master			7240		<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
EDTC-B Gamma-Ray Calibration - Gamma Ray Coefficients											
Before (Measured):		09:54:05 20-Feb-2013		After:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
Gamma Ray Gain - 0		Before	----	----	----	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
After	----	----	----	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>						
After-Before	----	----	----	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>						
EDTC-B Gamma-Ray Calibration - Gamma Ray Accumulations											
Before (Measured):		09:54:05 20-Feb-2013		After:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
RGR Zero Measurement	gAPI	Before		0	79.328	120.000	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
		After	----	----	----	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
After-Before	----	----	----	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>						
RGR Plus Measurement - 0	gAPI	Before	----	----	----	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
		After	----	----	NOT DONE	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>				
After-Before	----	----	----	----	<table><tr><td></td><td></td></tr><tr><td></td><td></td></tr></table>						

Company:	Cascade Petroleum	Schlumberger
Well:	Forristall State 36-11S-56W-02	
Field:	Wildcat	
County:	Lincoln	
State:	CO	
Platform Express		
Triple Combo		