

Company:		Vecta Oil & Gas LTD		Schlumberger	
Well:		Crestone			
Field:		Wildcat			
County:		Cheyenne		State: Colorado	
Platform Express  Microlog		County: Cheyenne		Field: Wildcat	
		Location: NWSE Sec 17, Twn 14s, Rng 47w		Well: Crestone	
		Company: Vecta Oil & Gas LTD		Location:	
		NWSE Sec 17, Twn 14s, Rng 47w SHL: 2156' FSL, 2099' FEL Lat 38.828900, Long -102.692470		Elev.: K.B. 4265.00 ft G.L. 4255.00 ft D.F. 4264.00 ft	
		Permanent Datum: Log Measured From: Drilling Measured From:		Ground Level Kelly Bushing Kelly Bushing	
Logging Date		API Serial No. 05-017-07717-0000		Section: 17 Township: 14S Range: 47W	
Run Number		Run 1			
Depth Driller		5468.00 ft			
Schlumberger Depth		5464.00 ft			
Bottom Log Interval		5456.00 ft			
Top Log Interval		432.00 ft			
Casing Driller Size @ Depth		8.625 in @ 434.00 ft			
Casing Schlumberger		432 ft			
Bit Size		7.875 in			
Type Fluid In Hole		Chemical Gel			
MUD	Density	9.3 lbm/gal	69 s		
	Fluid Loss	PH			
Source of Sample		Active Tank			
RM @ Meas Temp		1.1 ohm.m @ 68 degF			
RMF @ Meas Temp		1.82 ohm.m @ 86 degF			
RMC @ Meas Temp		1.65 ohm.m @ 86 degF			
Source RMF		Calculated	Calculated		
RM @ BHT		0.53 @ 148	1.09 @ 148		
Max Recorded Temperatures		148.95 degF			
Circulation Stopped		03-Nov-2012 10:30:00			
Logger on Bottom		03-Nov-2012 17:30:21			
Unit Number		2135			
Recorded By		Megan Leone			
Witnessed By		Ryan Scribner			

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 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.	

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Well Sketch

Driller Depth  
0.00 ft

434.00 ft

Casing 8.625in  
24lbm/ft

5468.00 ft

Open Hole 7.875in

## Borehole Size/Casing/Tubing Record

Bit						
Bit Size ( in )	7.875					
Top Driller ( ft )	434					
Top Logger ( ft )	432					
Bottom Driller ( ft )	5468					
Bottom Logger ( ft )	5464					
Casing						
Size ( in )	8.625					
Weight ( lbm/ft )	24					
Inner Diameter ( in )	8.099					
Top Driller ( ft )	0					
Top Logger ( ft )	0					
Bottom Driller ( ft )	434					
Bottom Logger ( ft )	432					

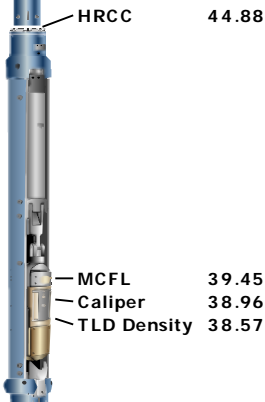
## Remarks and Equipment Summary

### Run 1: Toolstring

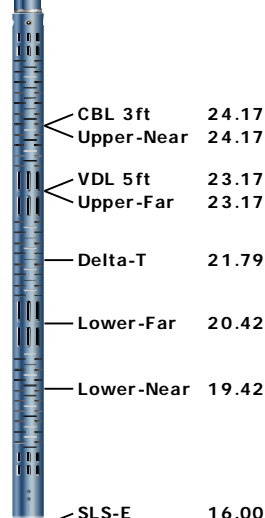
### Run 1: Remarks

Equip name	Length	MP name	Offset	This is the first run in hole
LEH-QT	64.21			Toolstring run as per tool sketch
LEH-QT				Limestone Matrix 2.71 g/cc
				Operators: Ian Derry and Troy Ocanas
DTCH-H	61.29	CTEM	60.39	
ECH-KC		HV	0.00	
DTCH-H				
		TelStatus	58.29	
		ToolStatus	58.29	
HGNS-H	58.29	Temperature	58.26	
HGNH:3823				
NPV-N		GR	57.55	
NSR-F:5215				
HACCZ-H:5736				
HMCA-H				
HGNS-H				
		CNL Porosity	51.21	
		HMCA	48.88	
		HGNS	48.88	
		Accelerometer	0.00	
HDRS-H	48.88			
ECH-MEB				
HRCC-H				
HRMS-H				

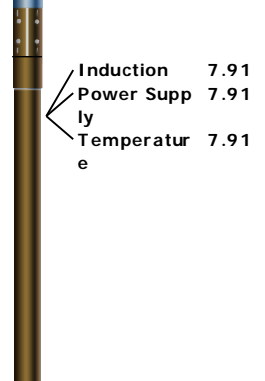
Long Spacing:28  
732  
Short Spacing:27  
634  
GSR-J:5240  
Backscatter  
GPV-Q  
HRGD-H:3816



DSLT-H:8318 36.64  
ECH-KH  
DSLCL-H:8318  
SLS-E:165



AIT-H:392 16.00  
AHIS:392  
AHRM:392



			
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Depth Summary

Depth Control Parameters		Run 1	
Conveyance Type		Wireline	
Log Sequence		This is the first run in the hole	
Stretch Correction ( ft )		4.00	
Rig Type		Land	
Depth Remark Parameters		Run 1	
Depth Remark 1		All Schlumberger depth control procedures followed	
Depth Remark 2		IDW primary depth control device. Z-chart secondary depth control device	
Depth Measuring Device		Run 1	
Type		IDW-B	
Wheel Correction 1		1	
Wheel Correction 2		0	
Tension Device		Run 1	
Type		CMTD-B/A	
Calibration Points		0	
Logging Cable		Run 1	
Type		7-46NT-XS	
Logging Cable Length ( ft )		24000.00	

Run 1

5" Micro Log

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
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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	
Computation	Description	Version	
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
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	3.1.9755.0	3.0
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	3.1.9755.0	2.0

Pass Summary

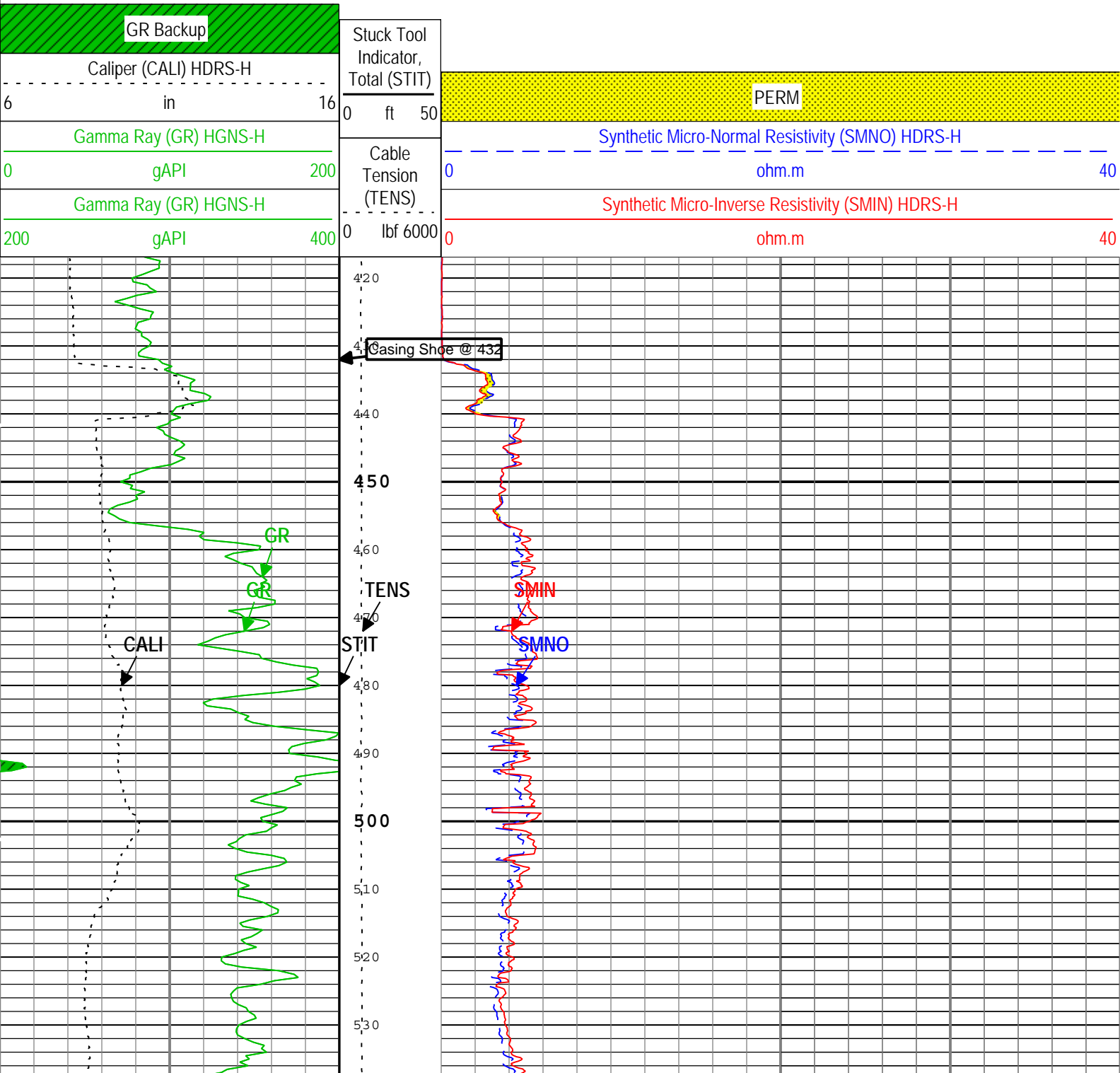
Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Depth Shift	Include Parallel Data
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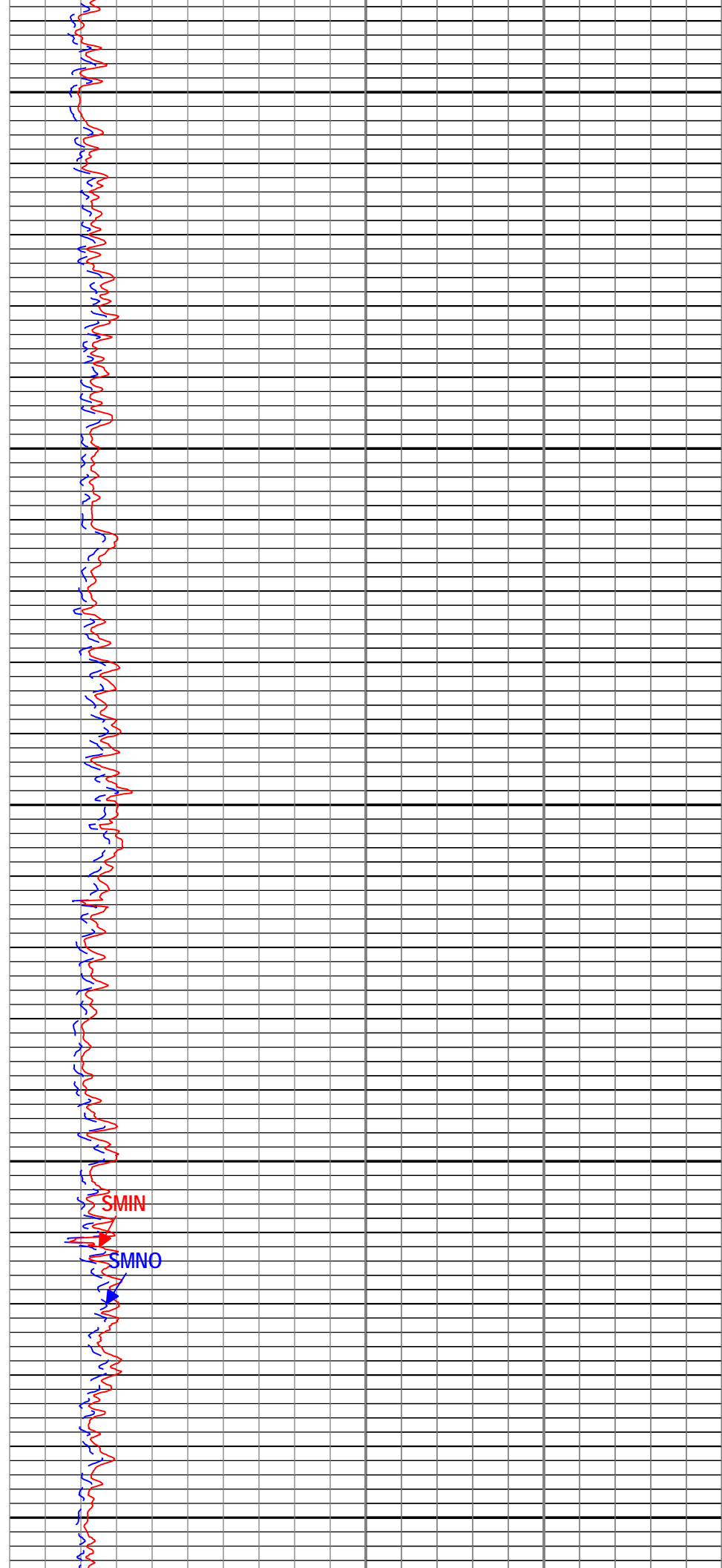
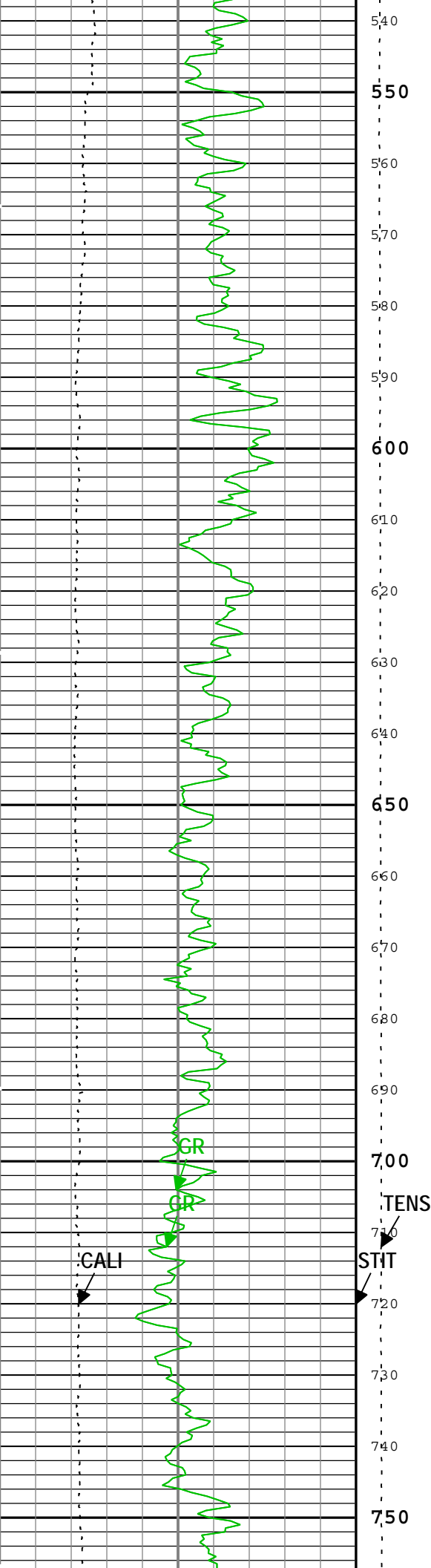
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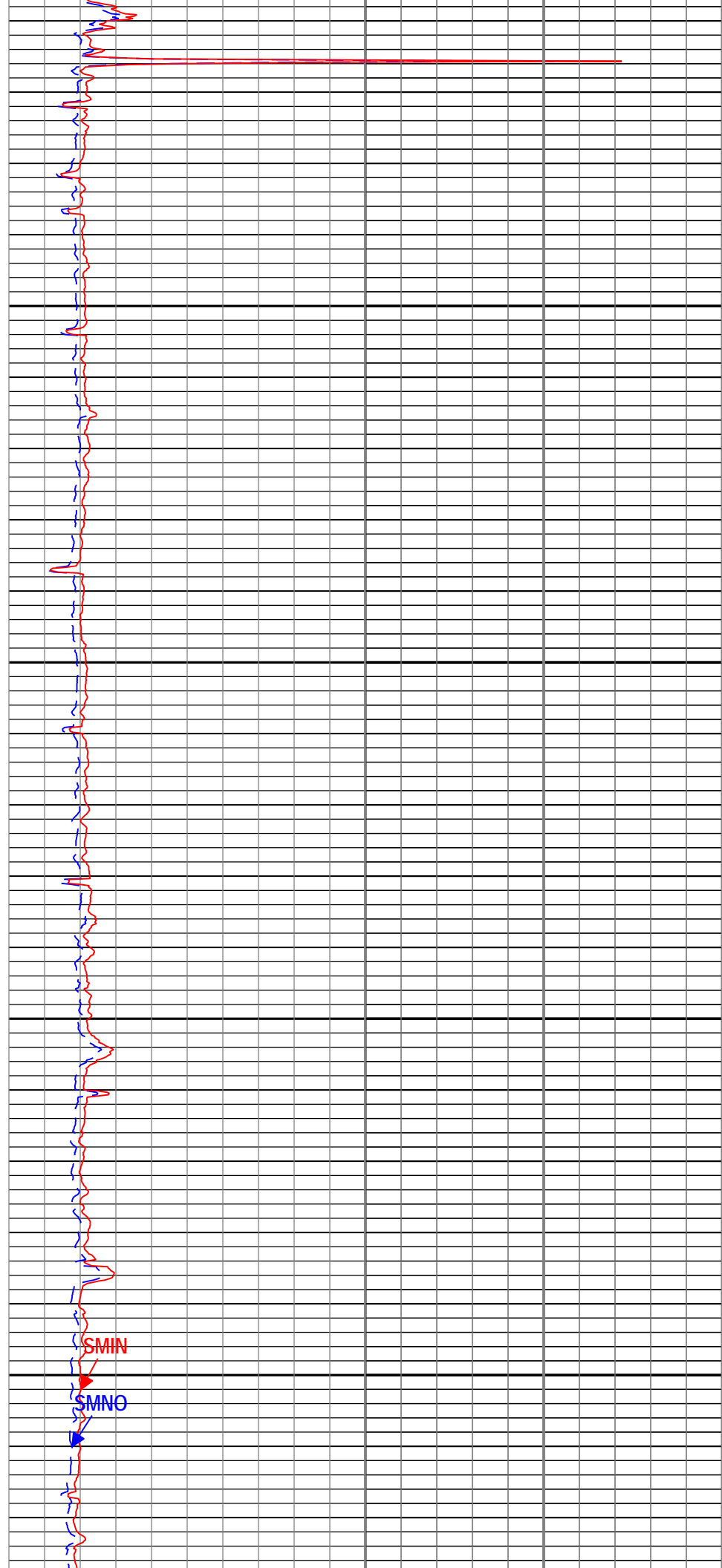
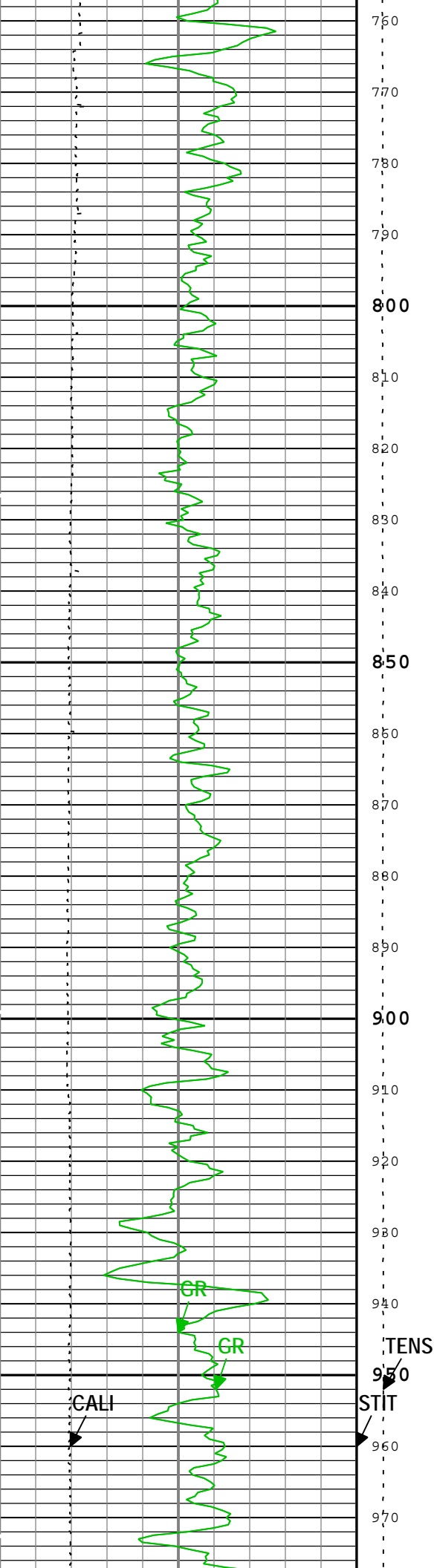
Description: MCFL processing for Platform Express    Format: Log ( EMD 5in Micro Log )    Index Scale: 5 in per 100 ft    Index Unit: ft    Index Type: Measured  
Depth    Creation Date: 03-Nov-2012 19:55:19

Channel	Source	Sampling
CALI	HDRS-H:HRCC-H:HRCC-H	1in
GR	HGNS-H:HGNS-H:HGNS-H	6in
SMIN	HDRS-H:HRMS-H:HRGD-H	2in
SMNO	HDRS-H:HRMS-H:HRGD-H	2in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

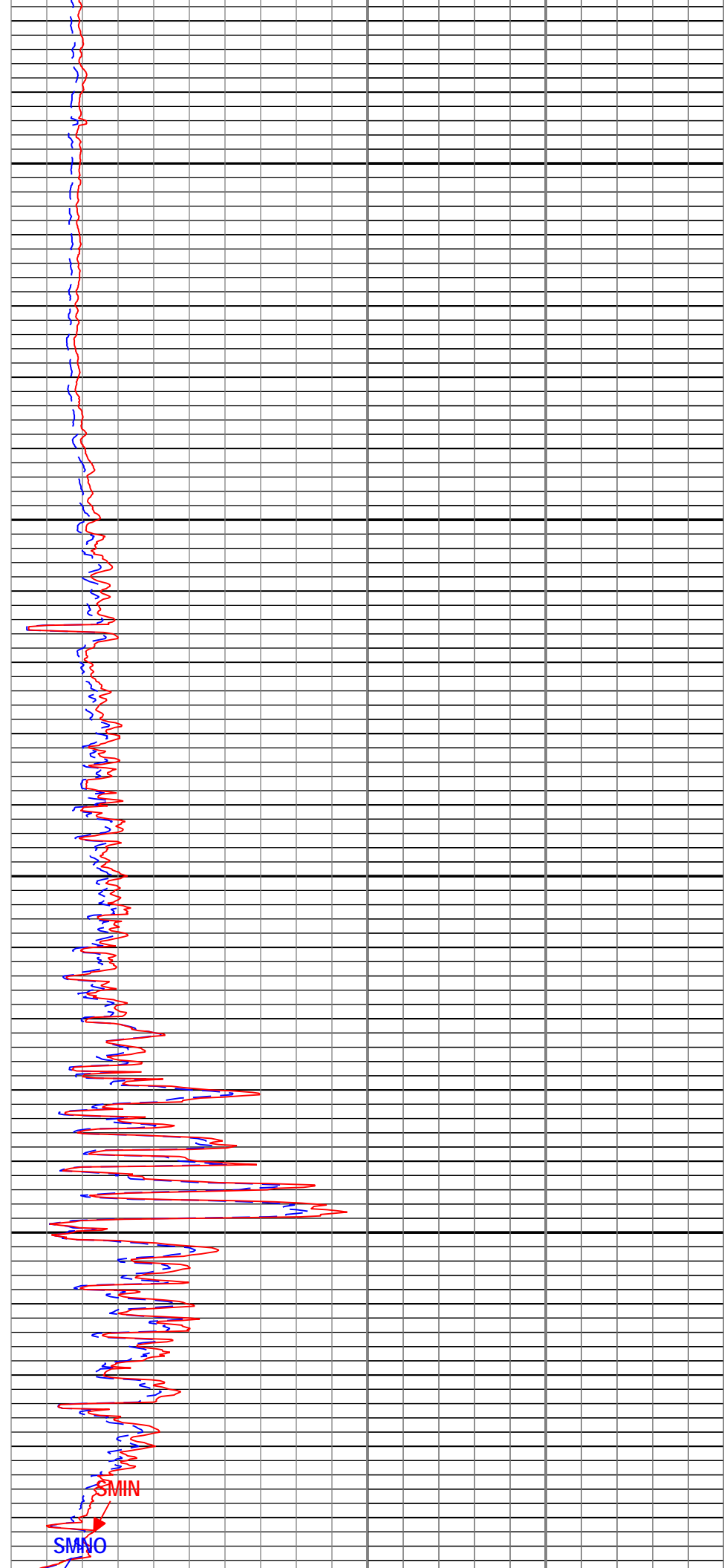
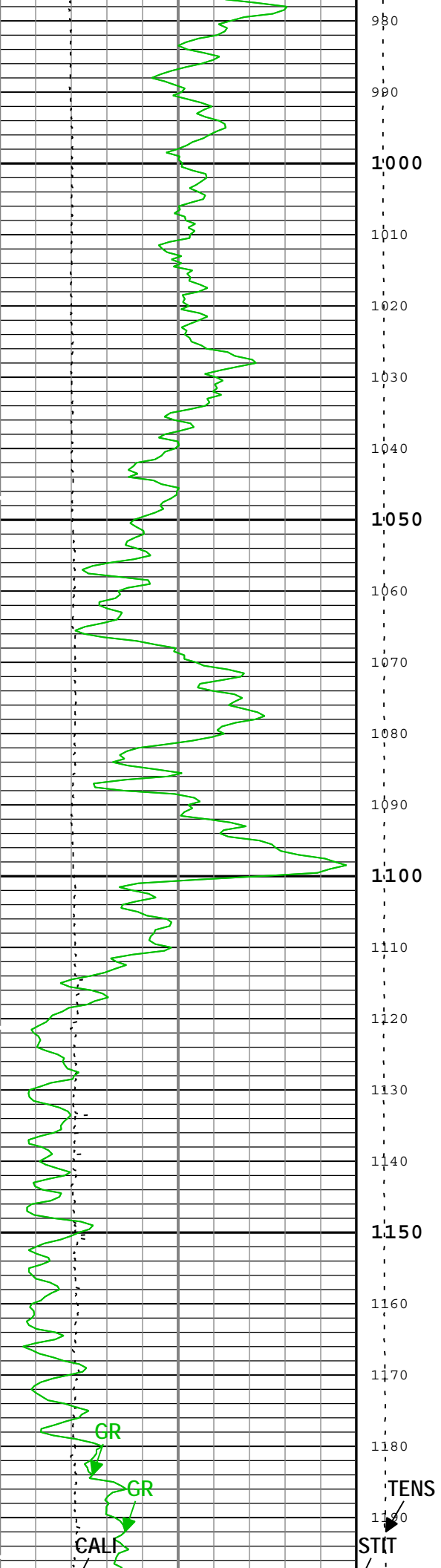
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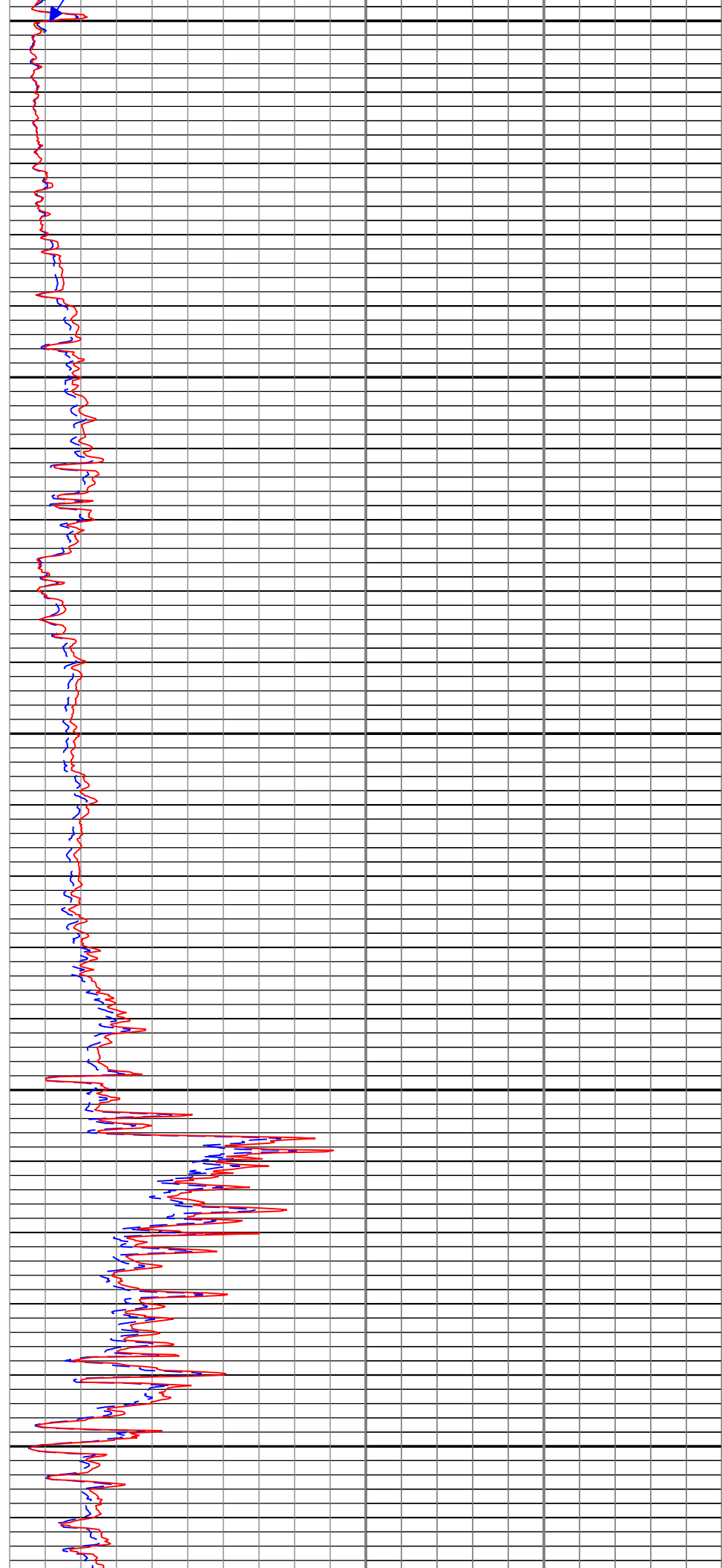
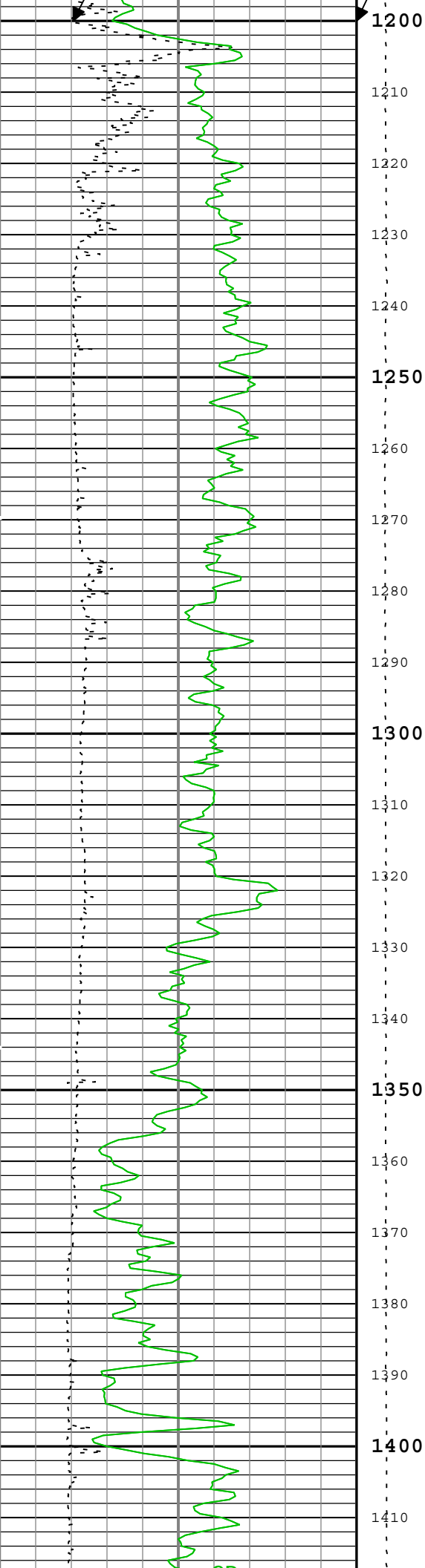


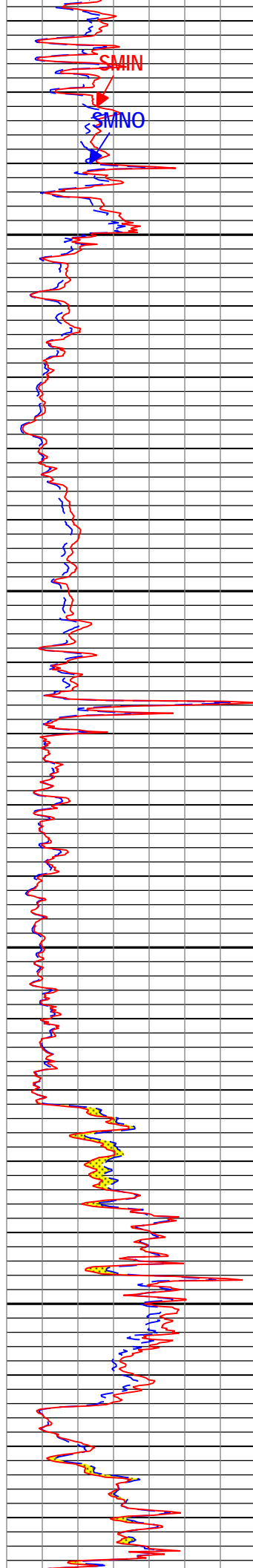
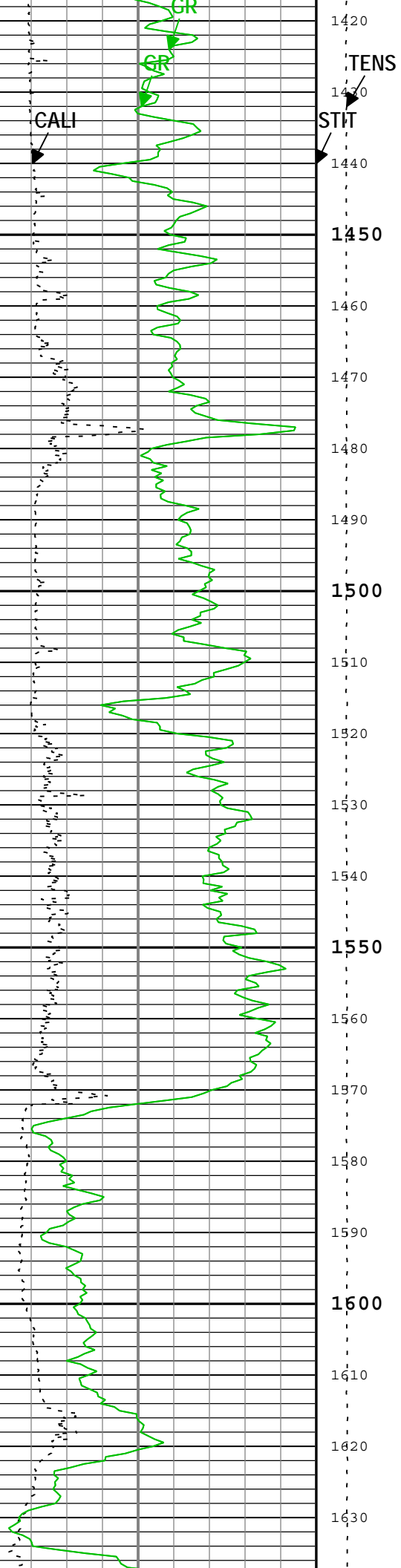


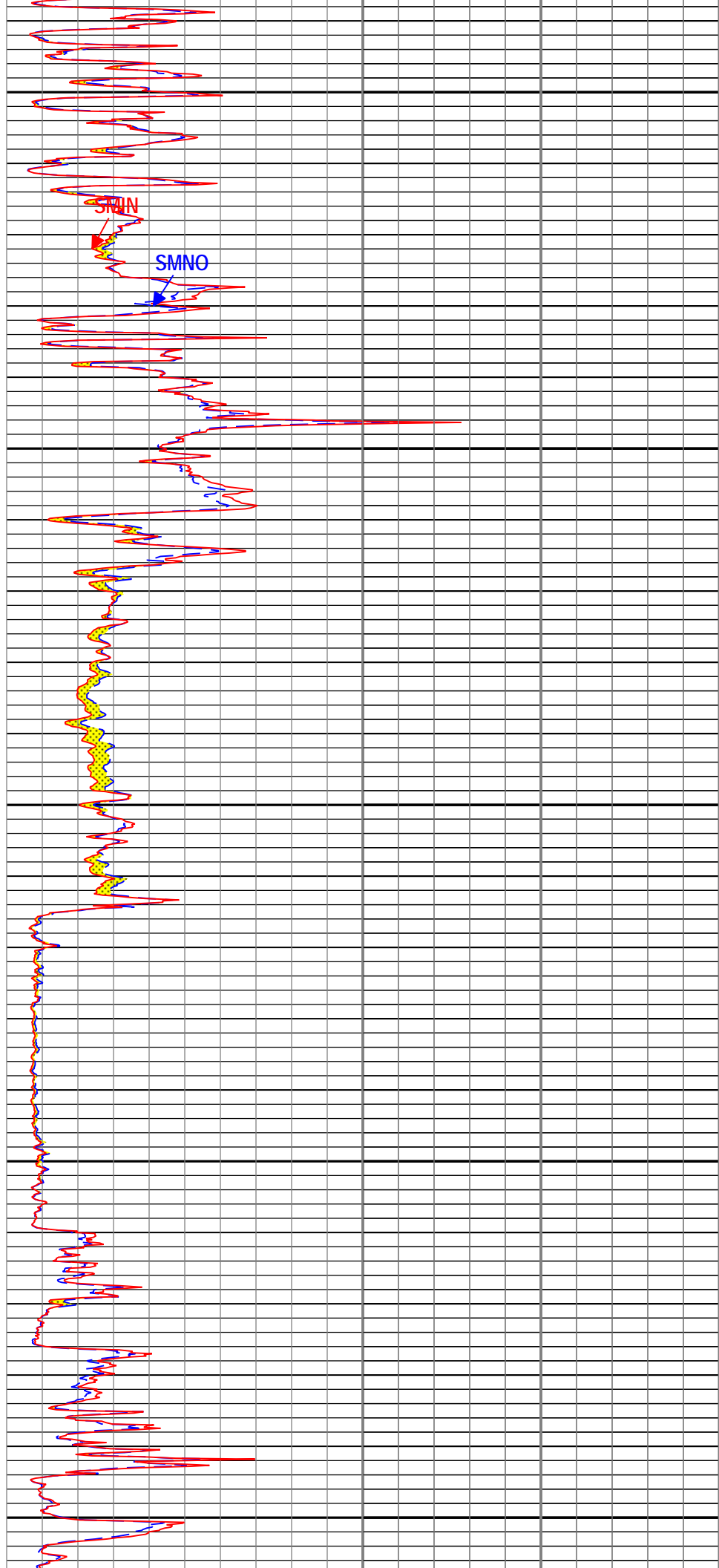
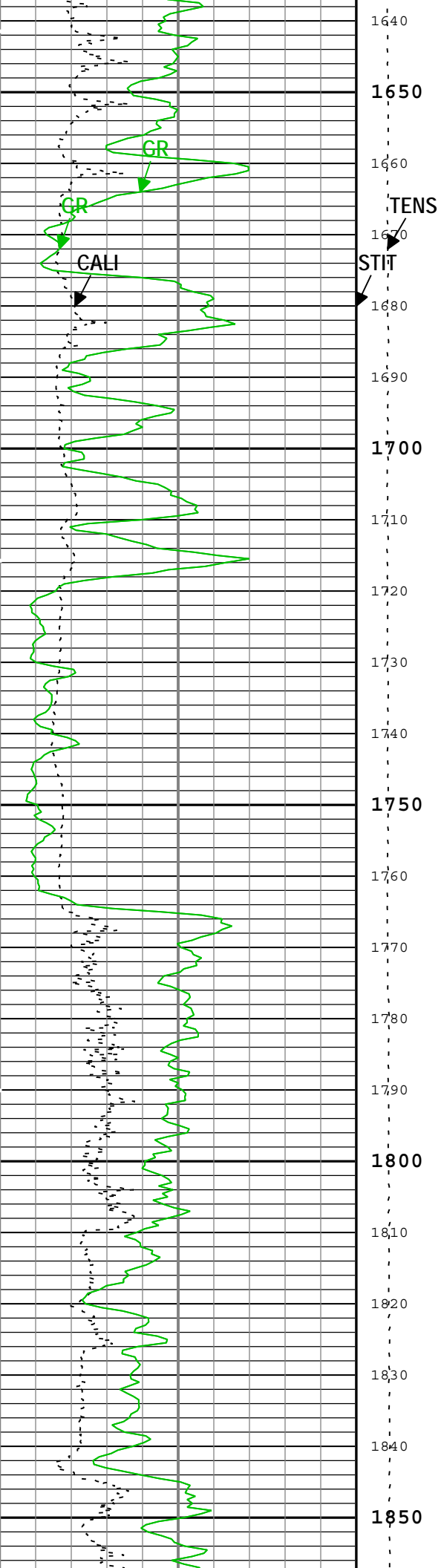


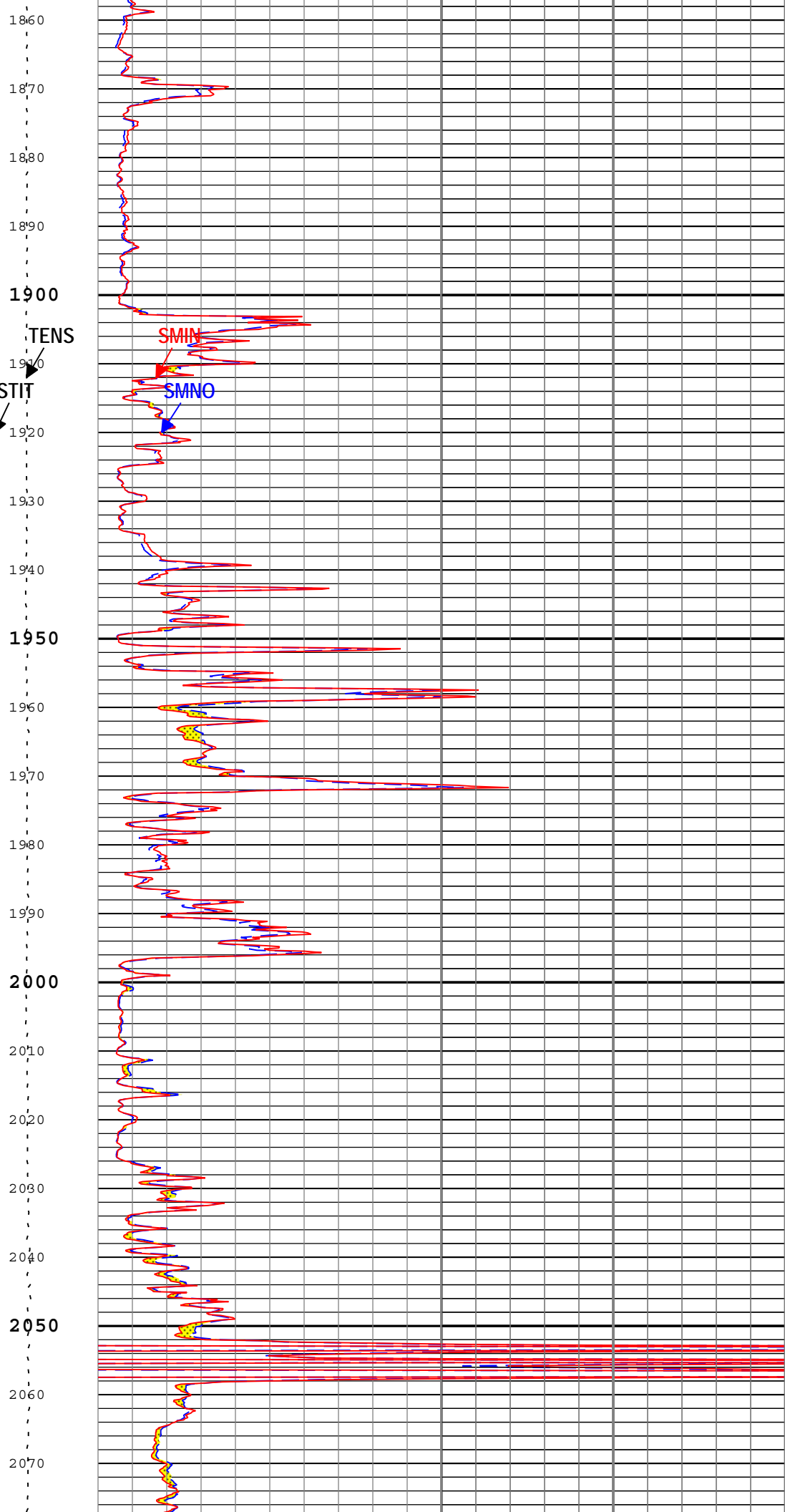
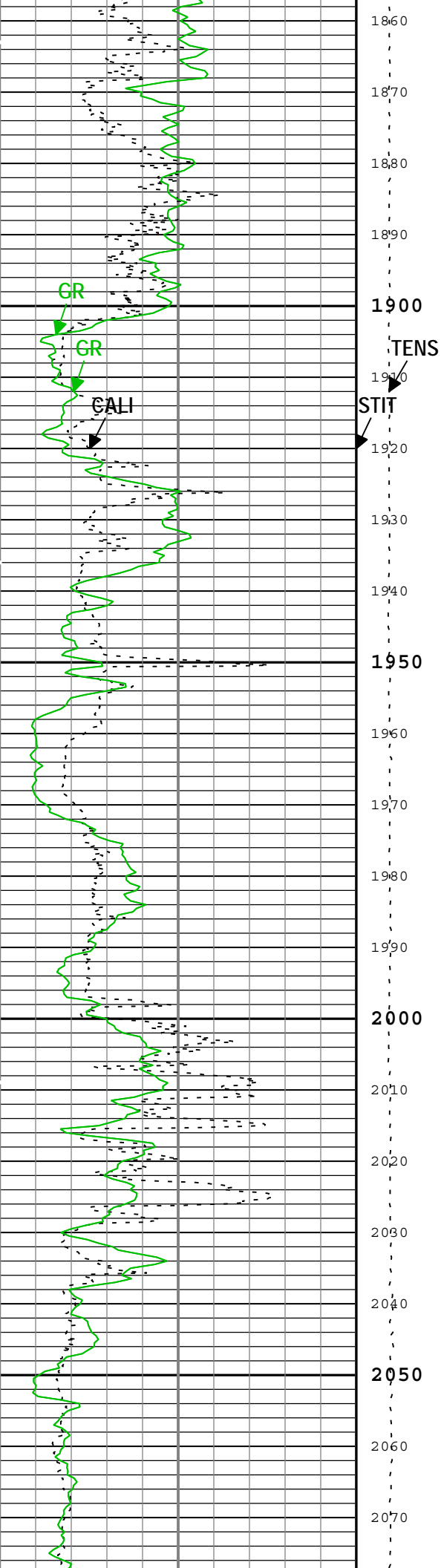


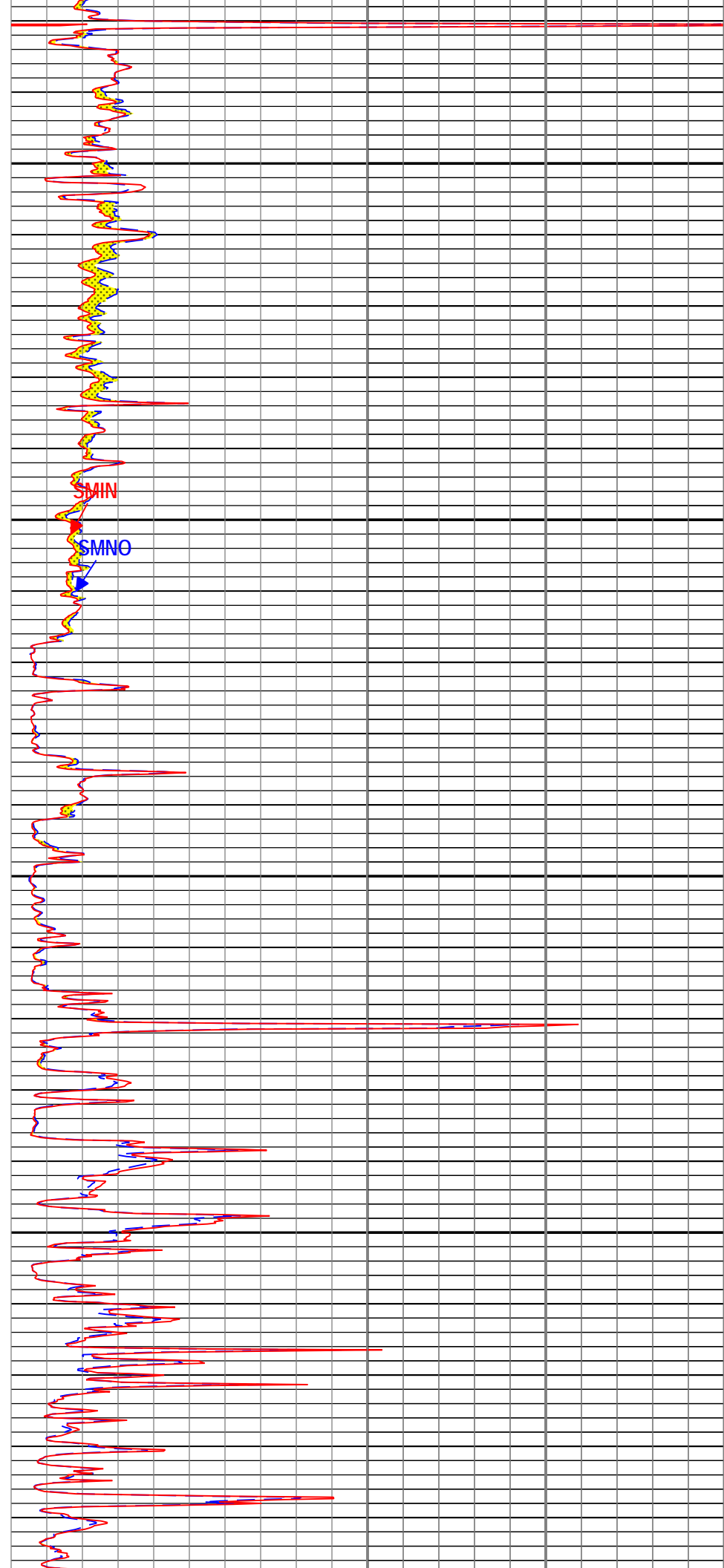
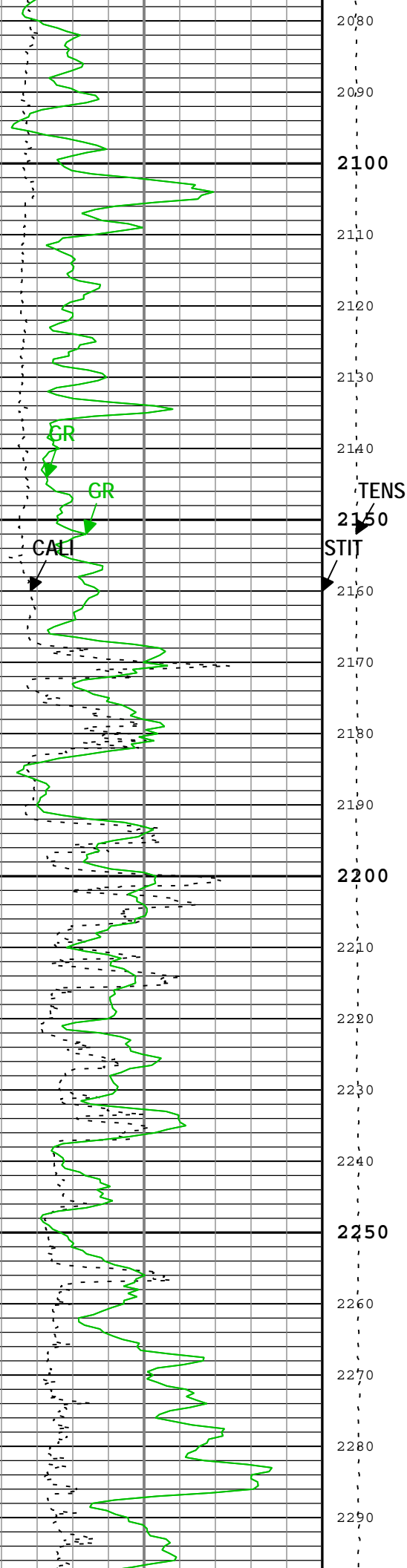


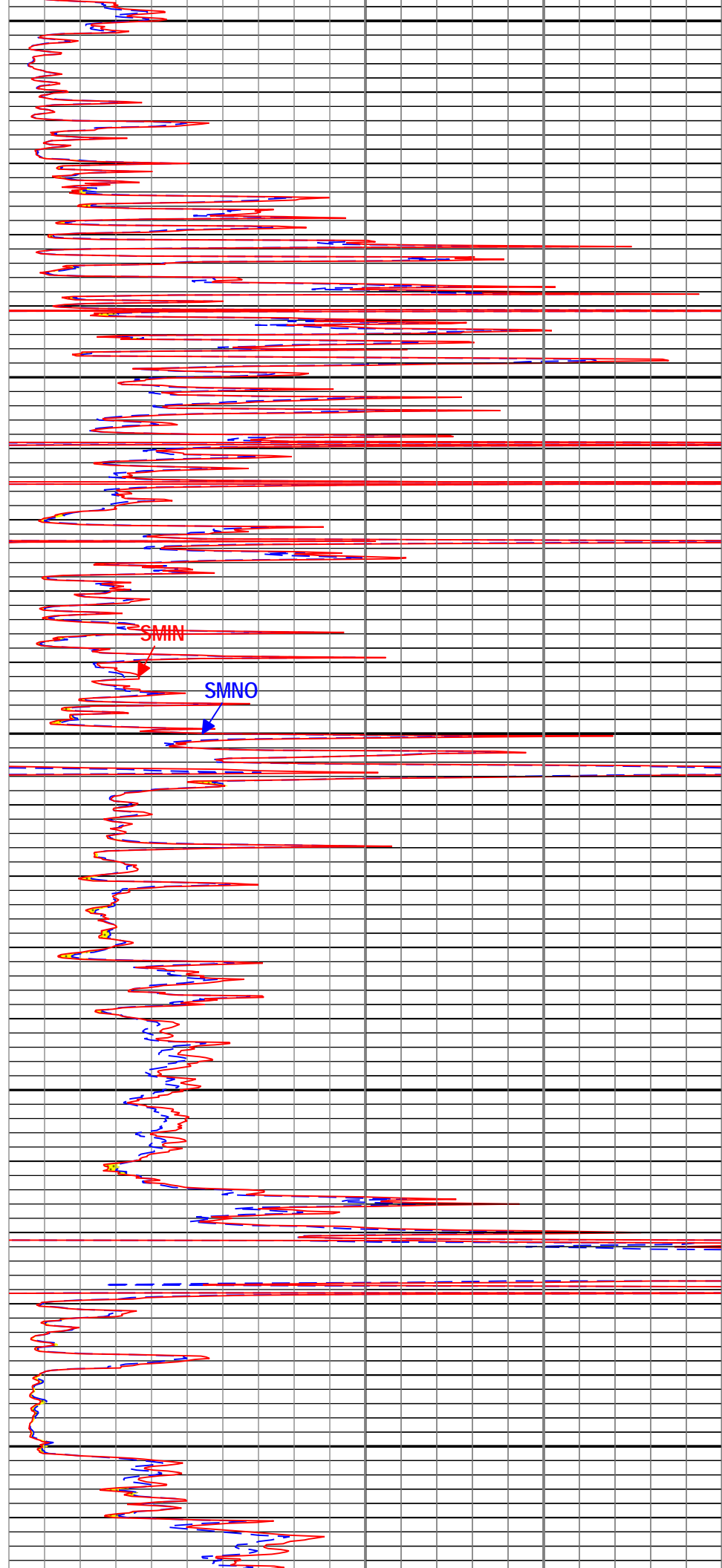
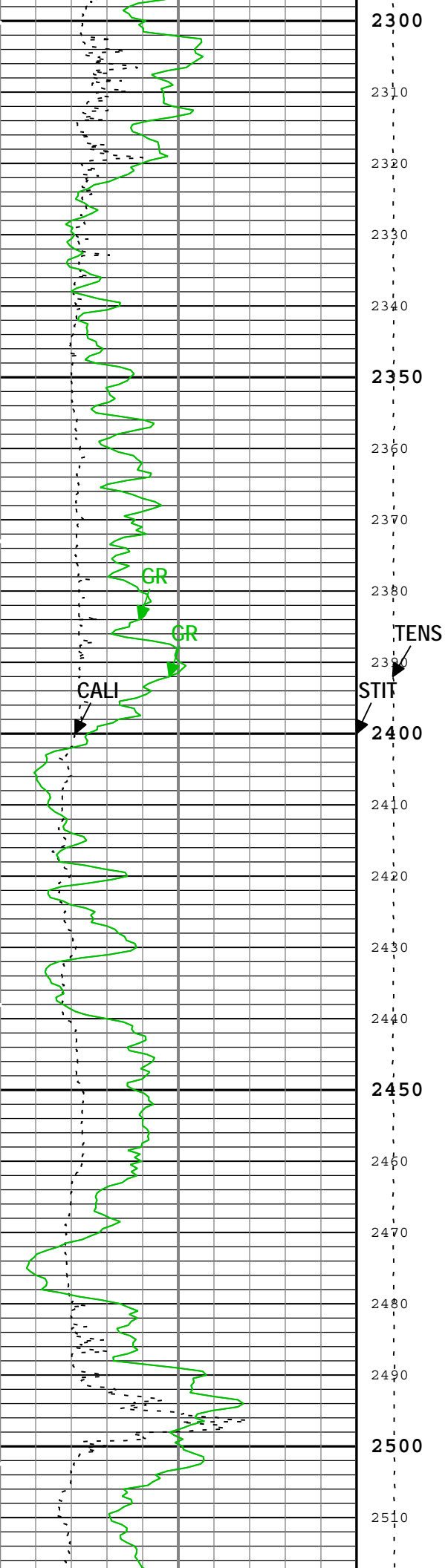


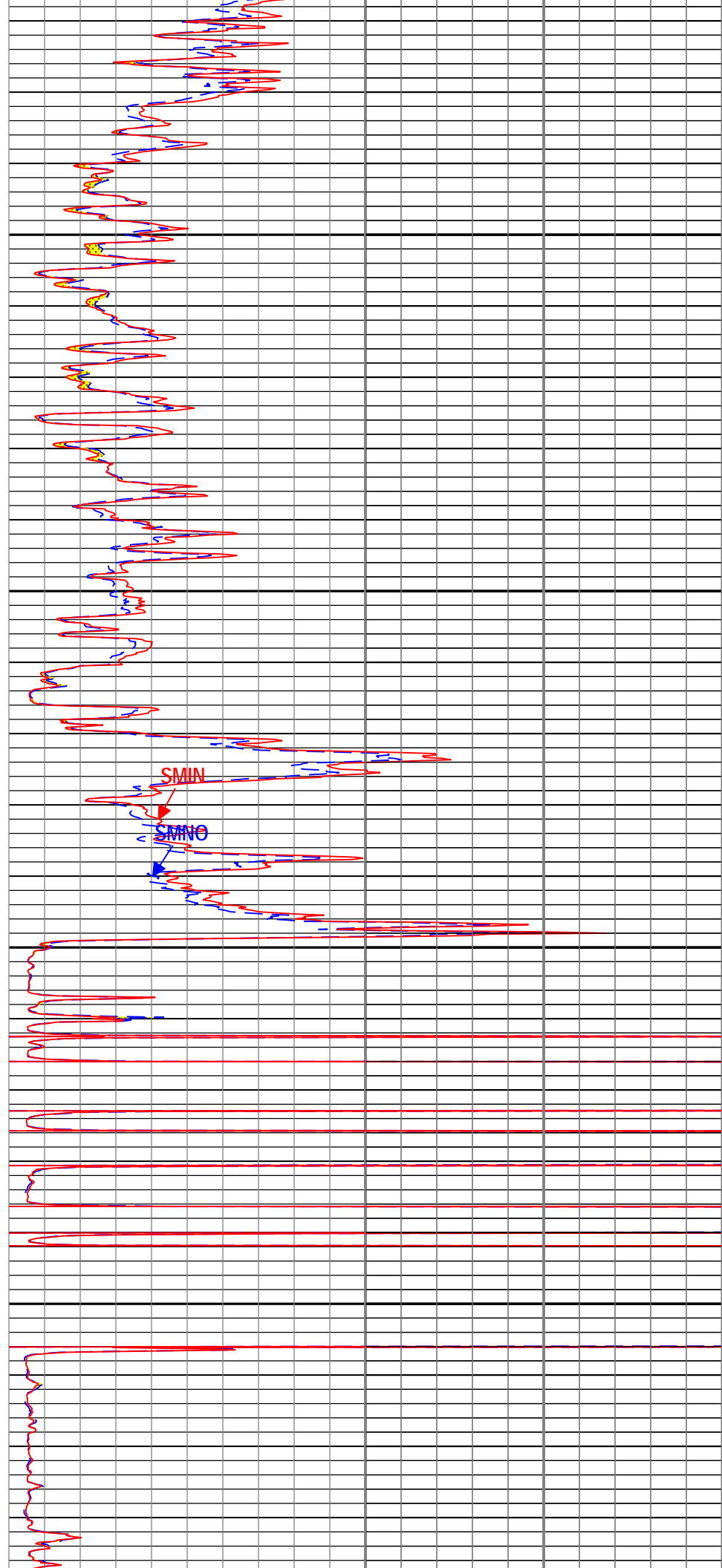
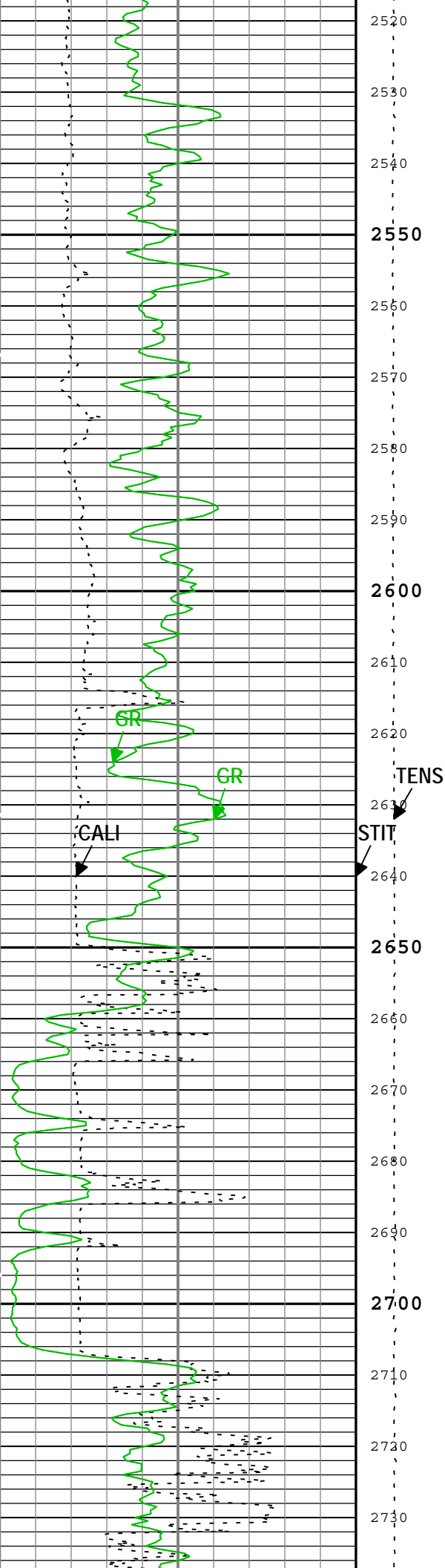




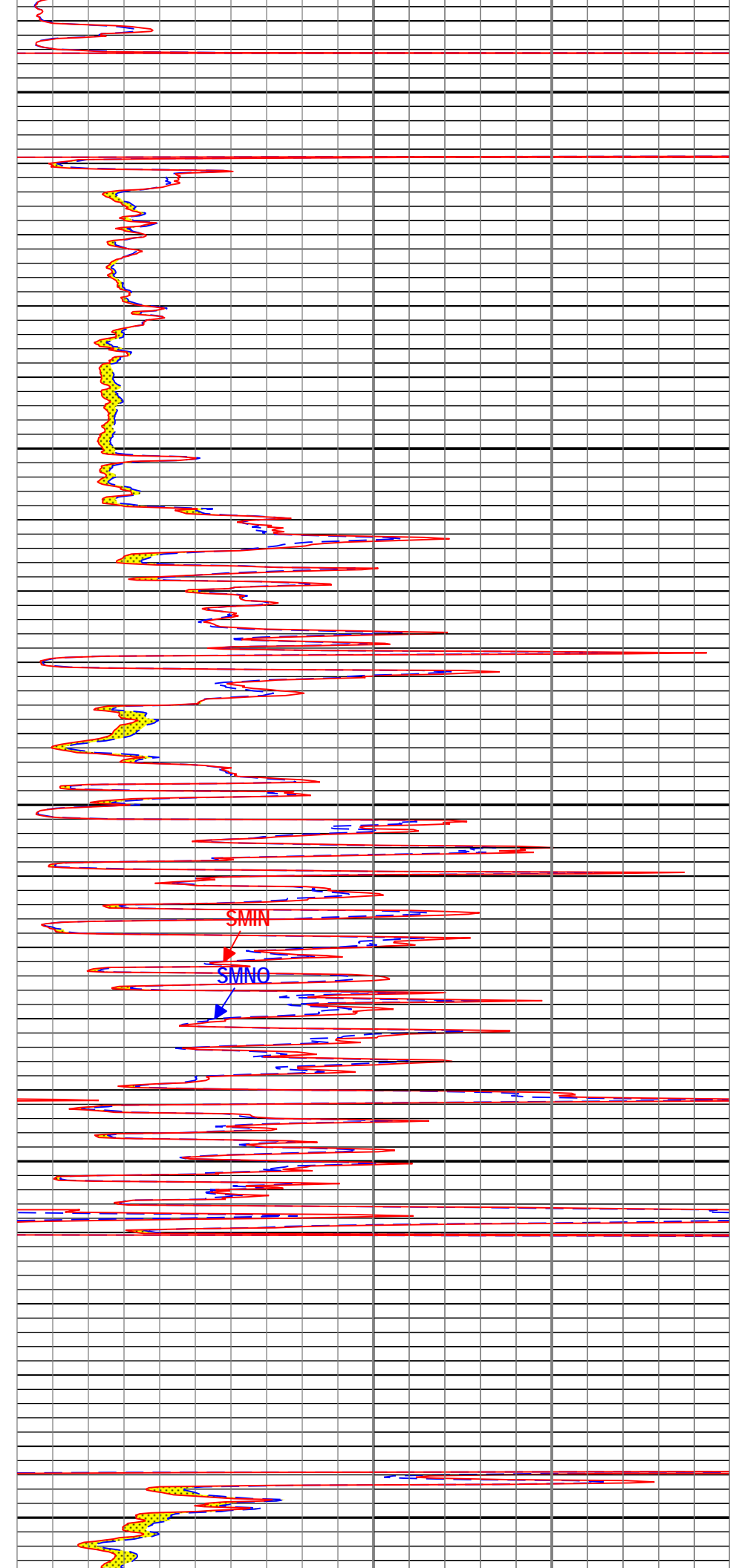
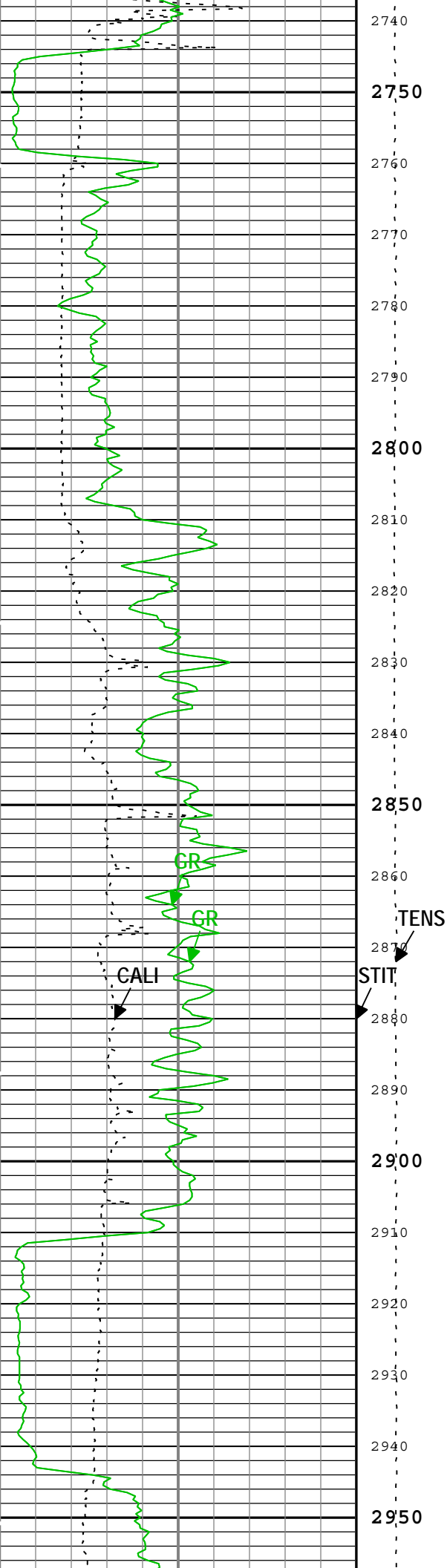


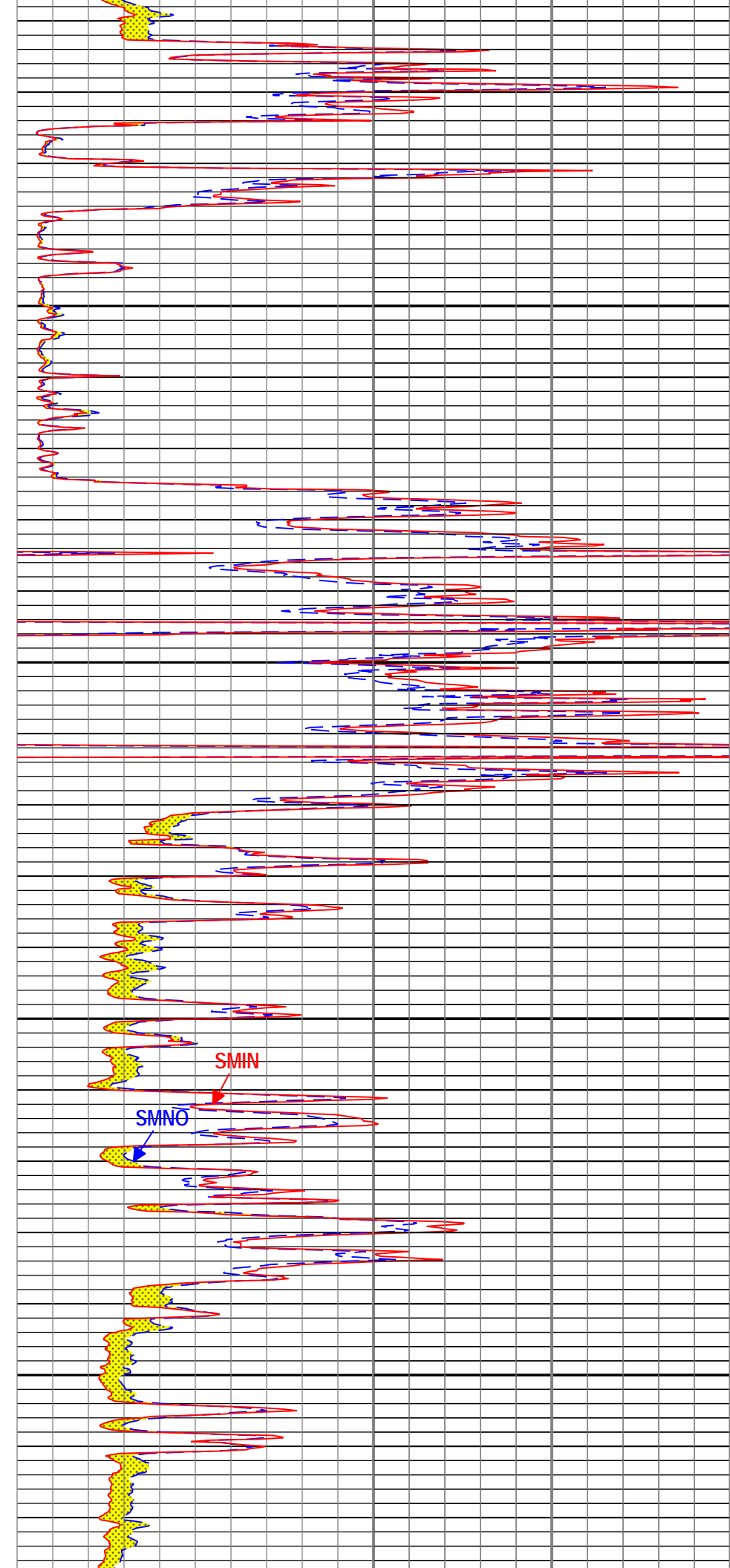
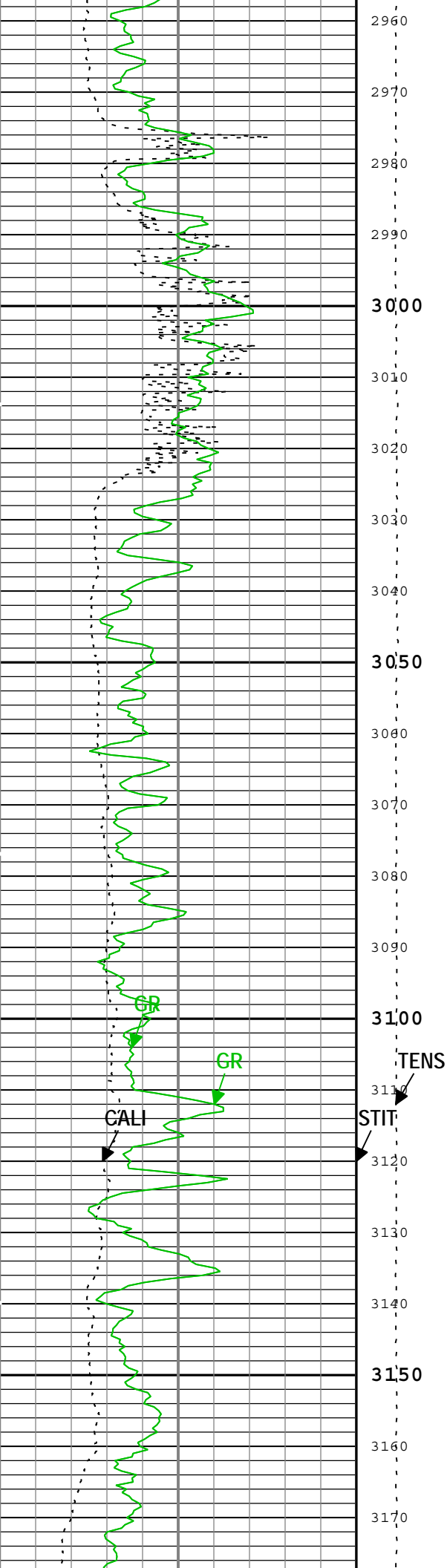


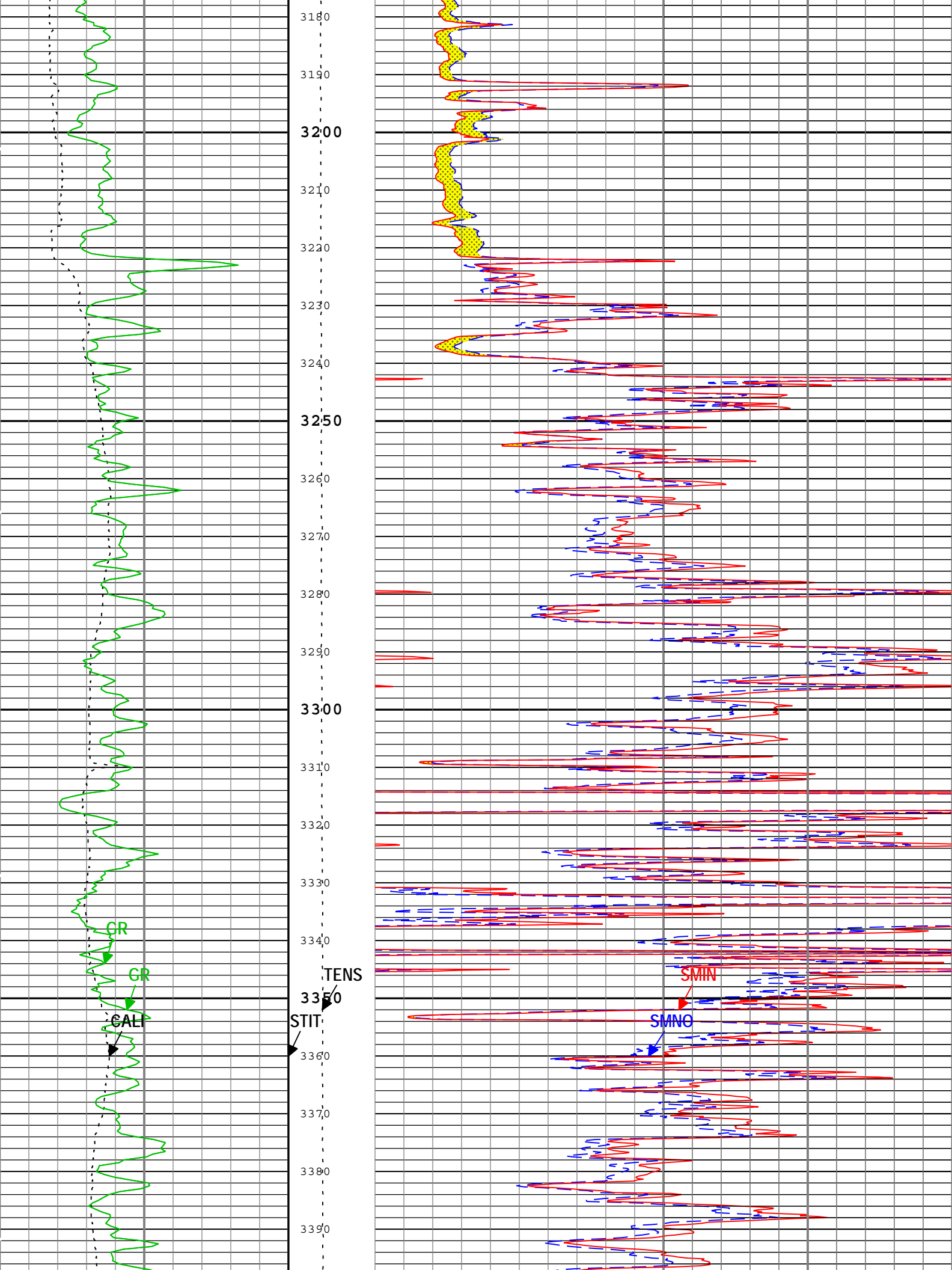


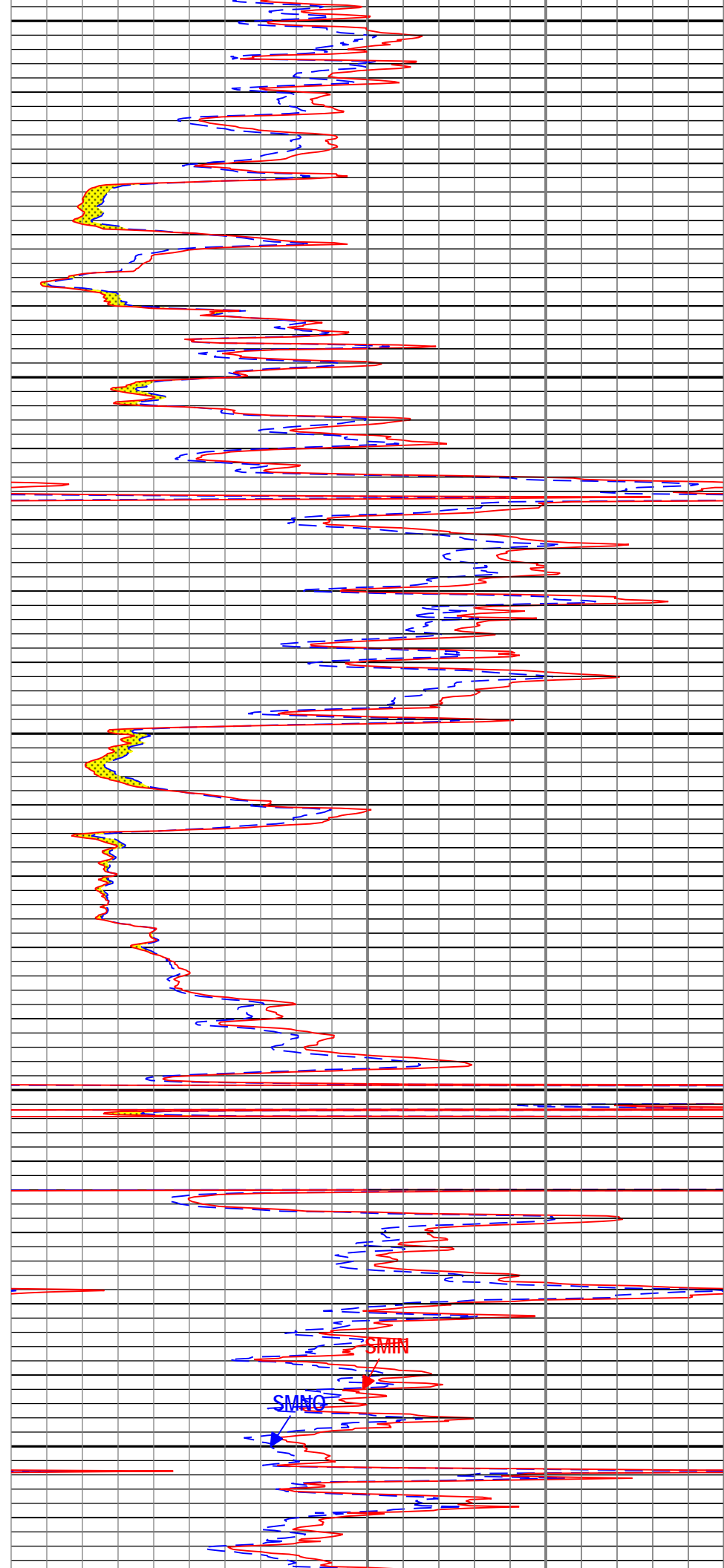
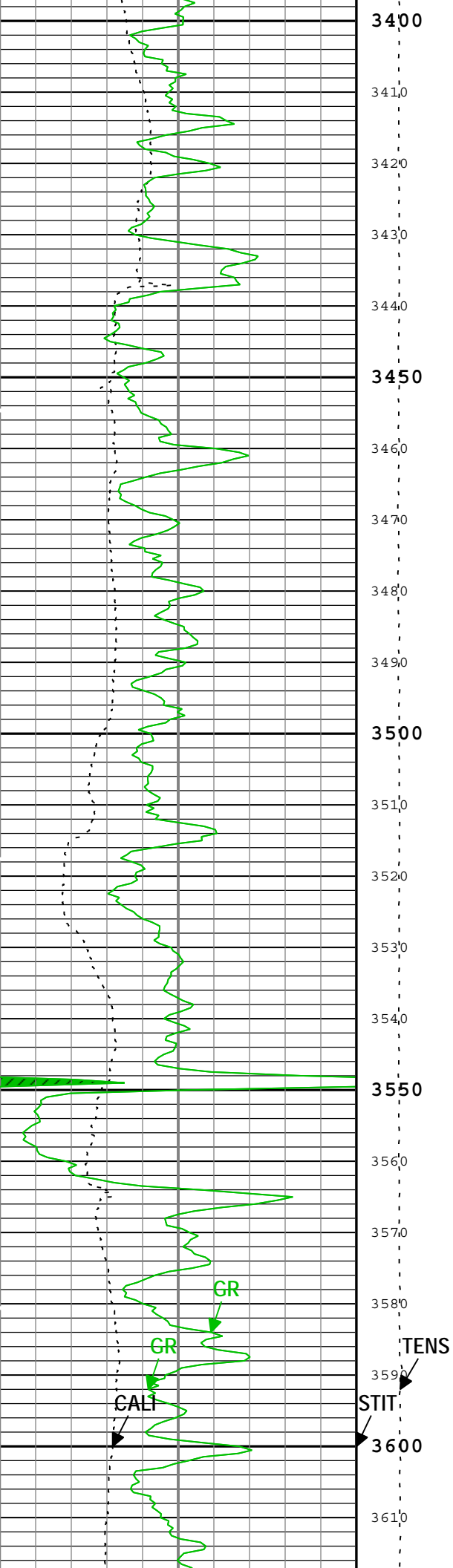


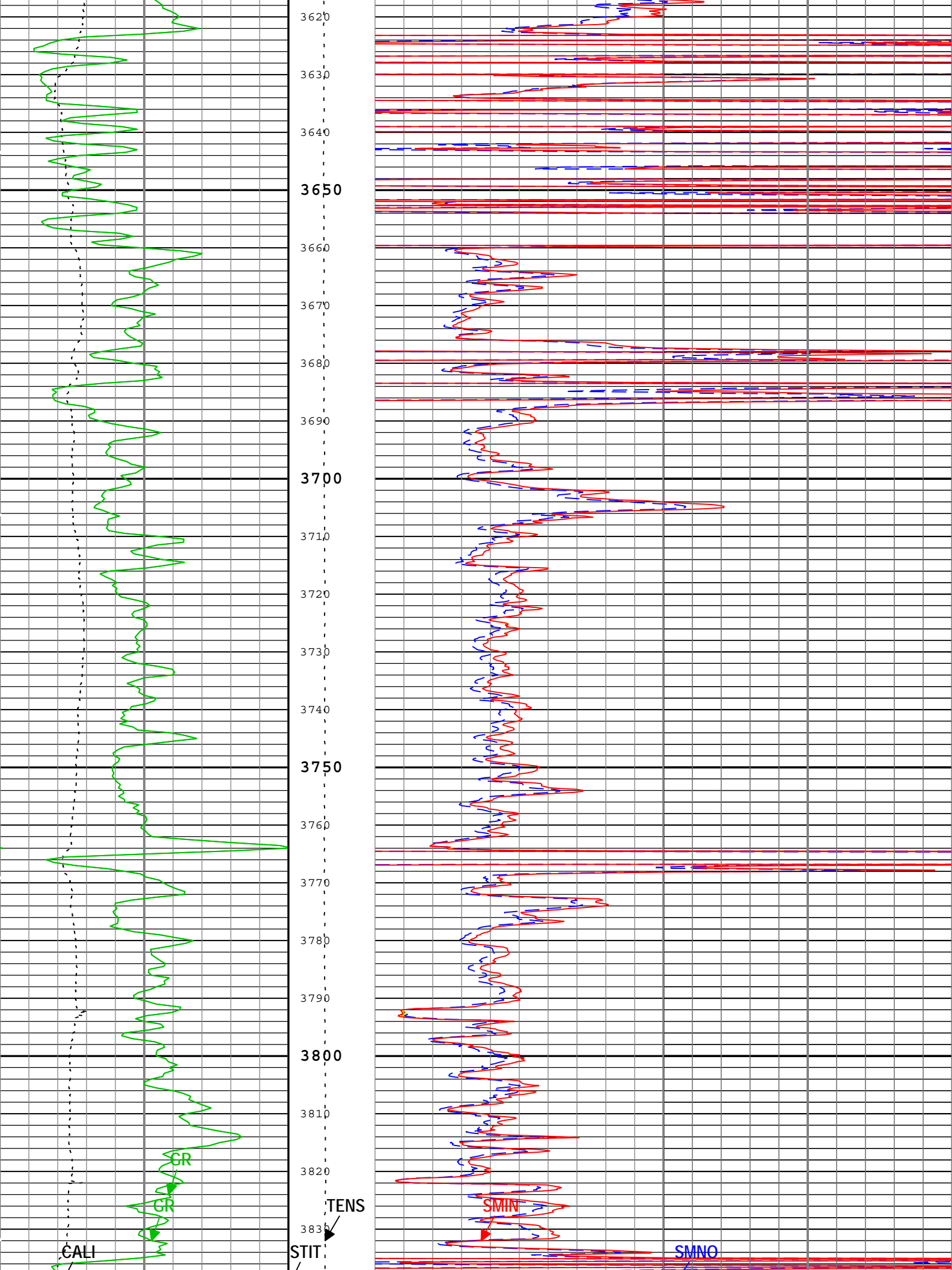


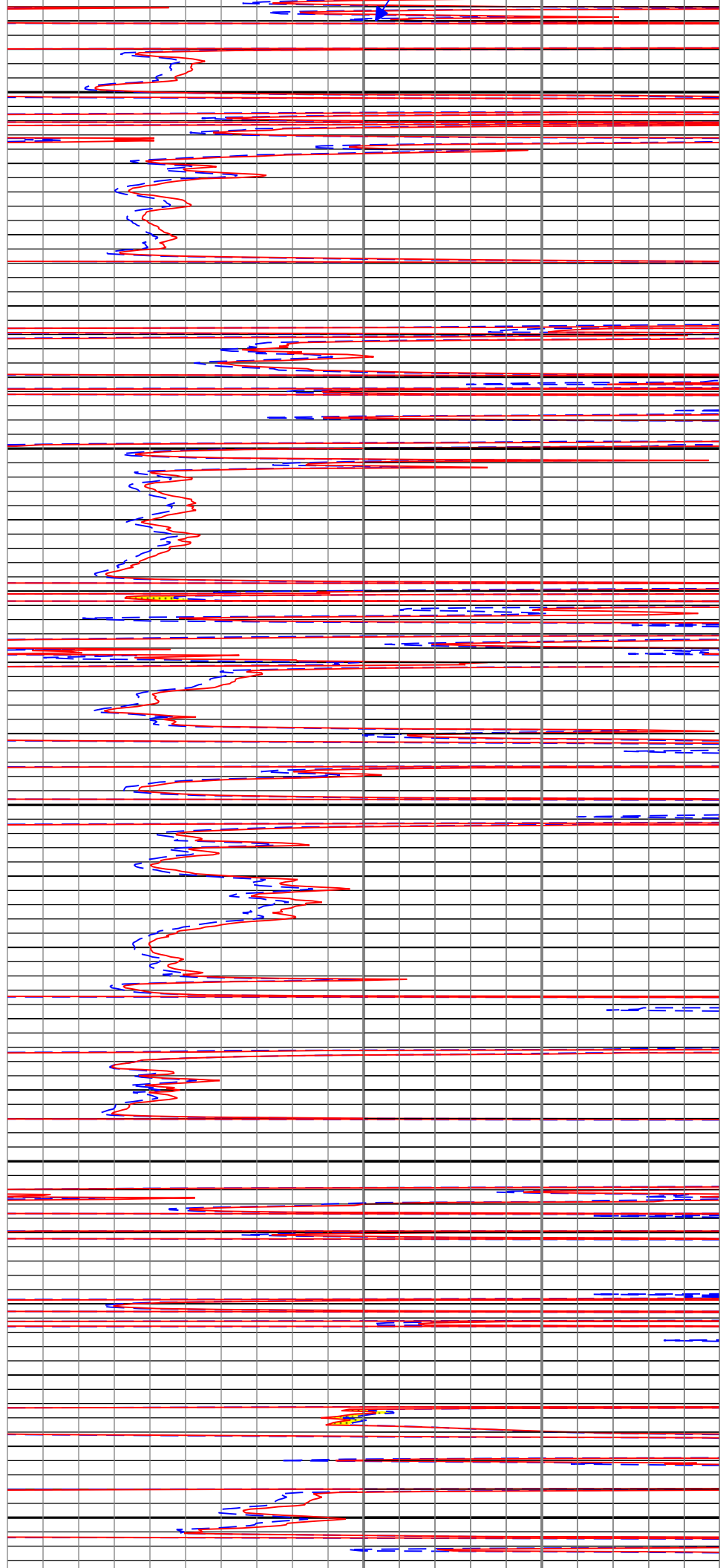
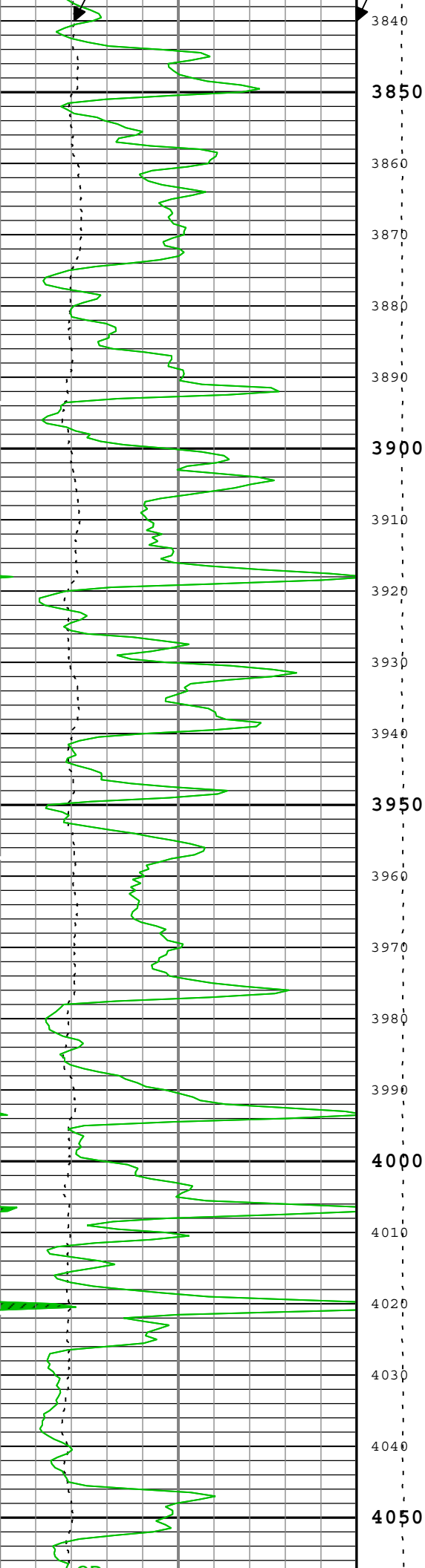


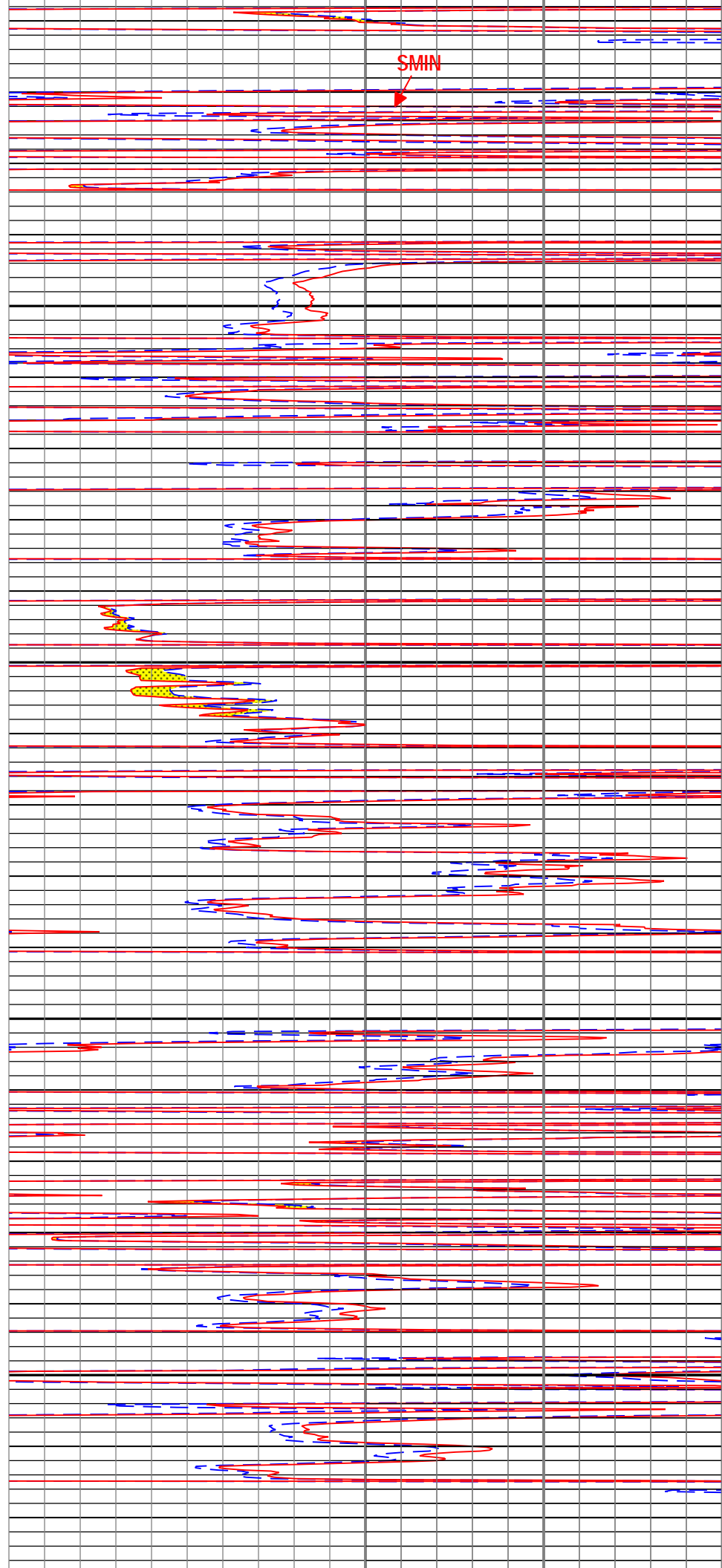
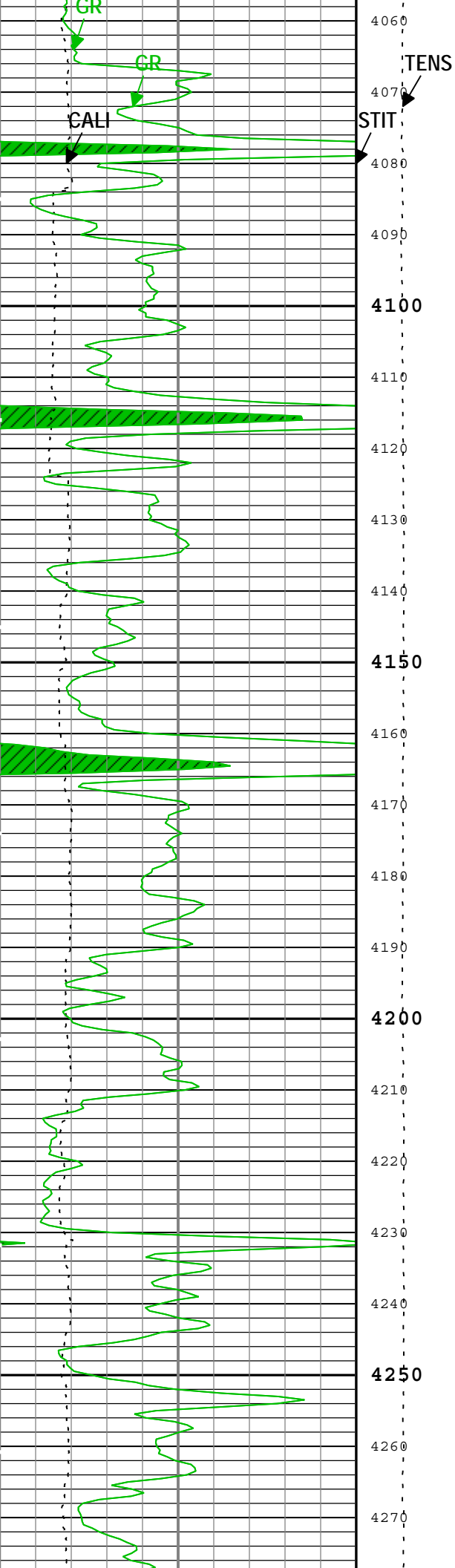


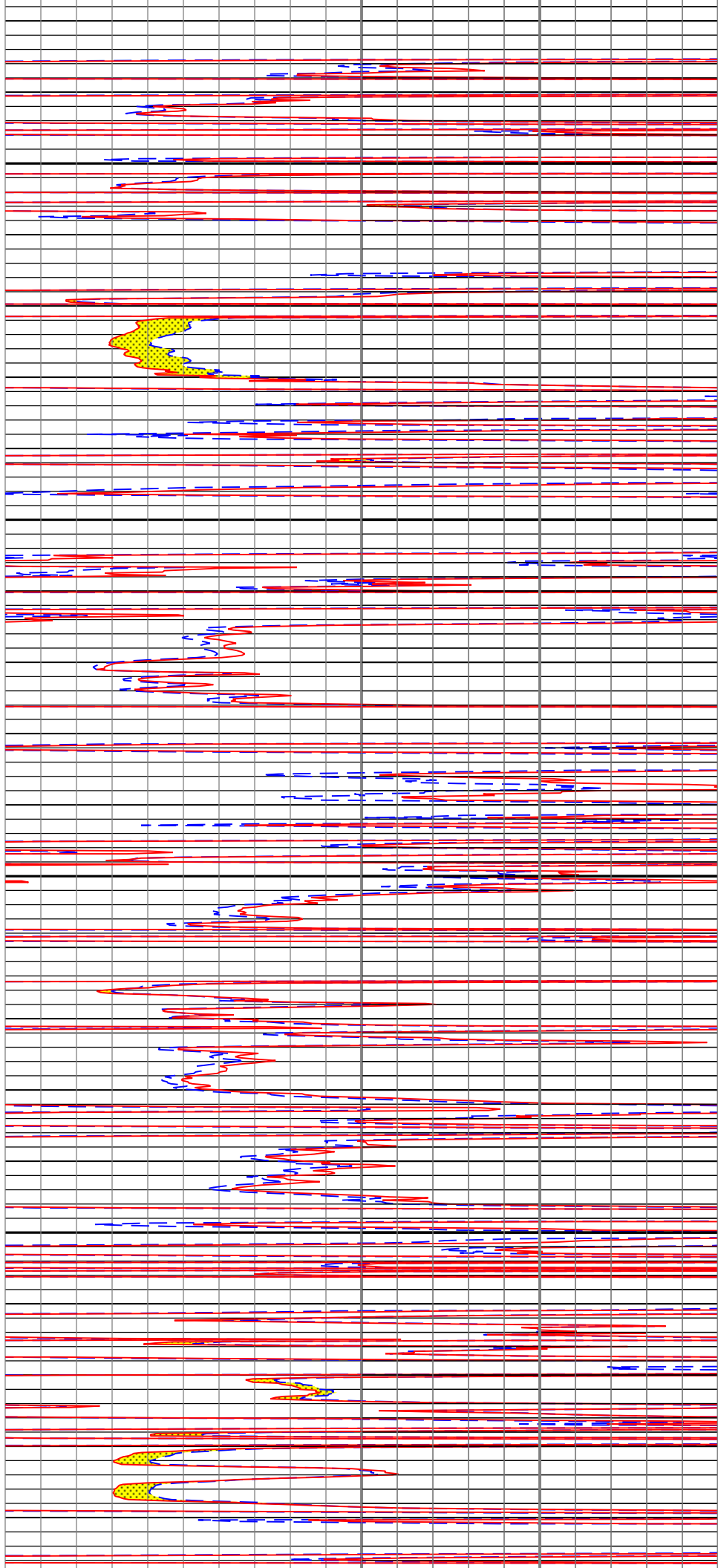
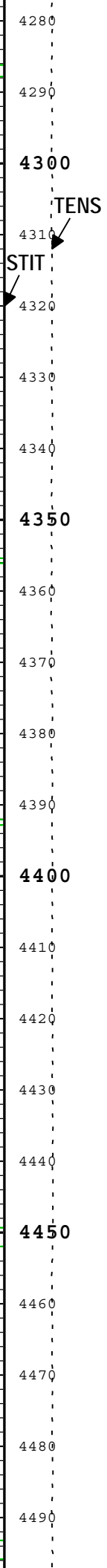
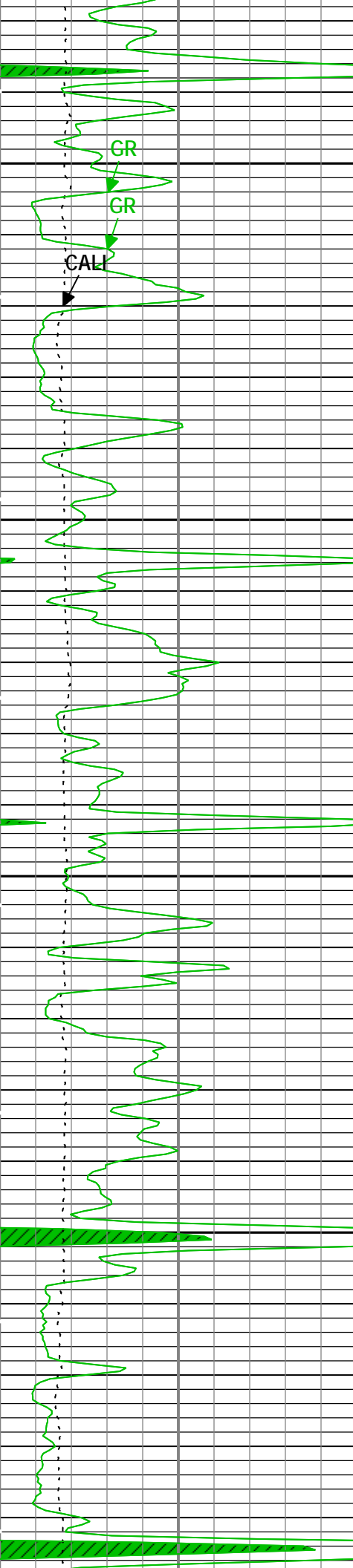




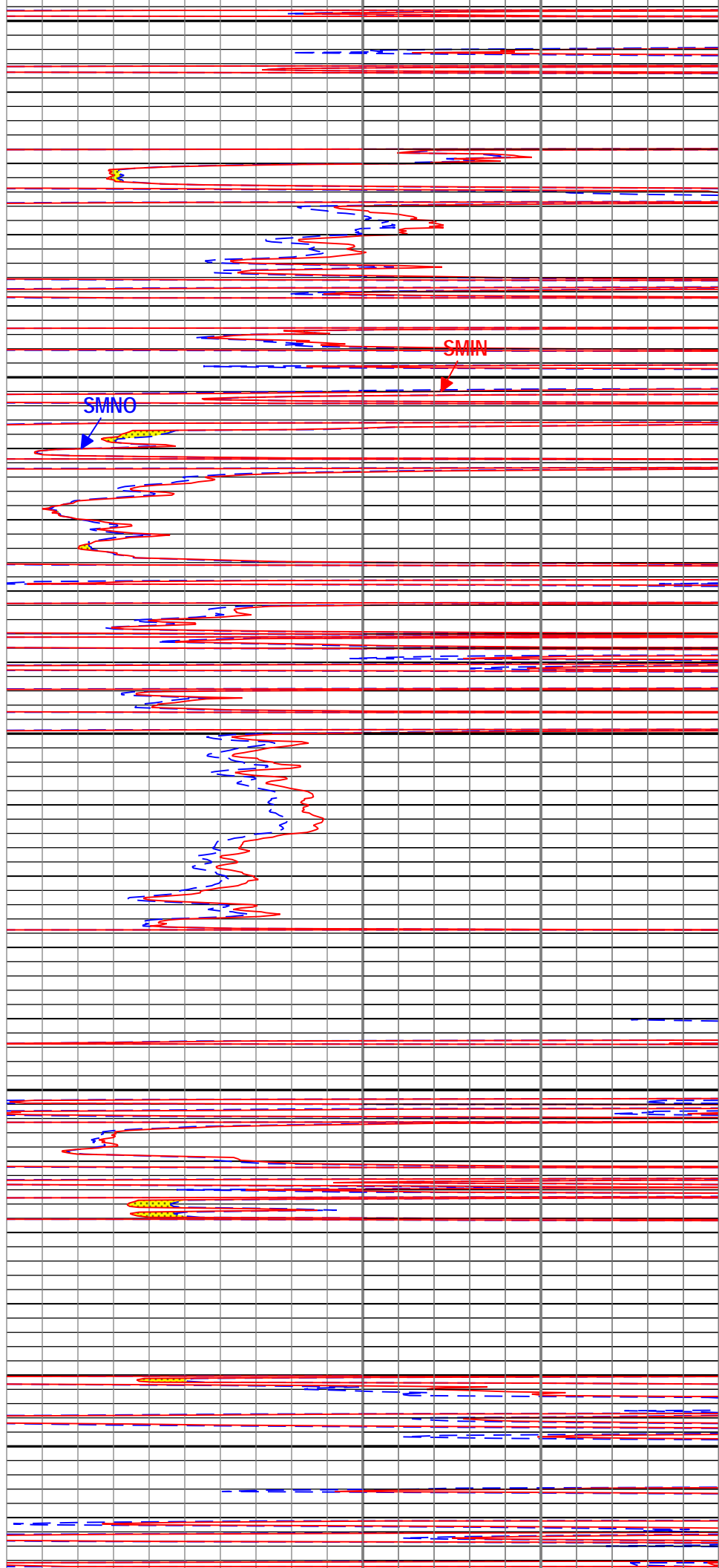
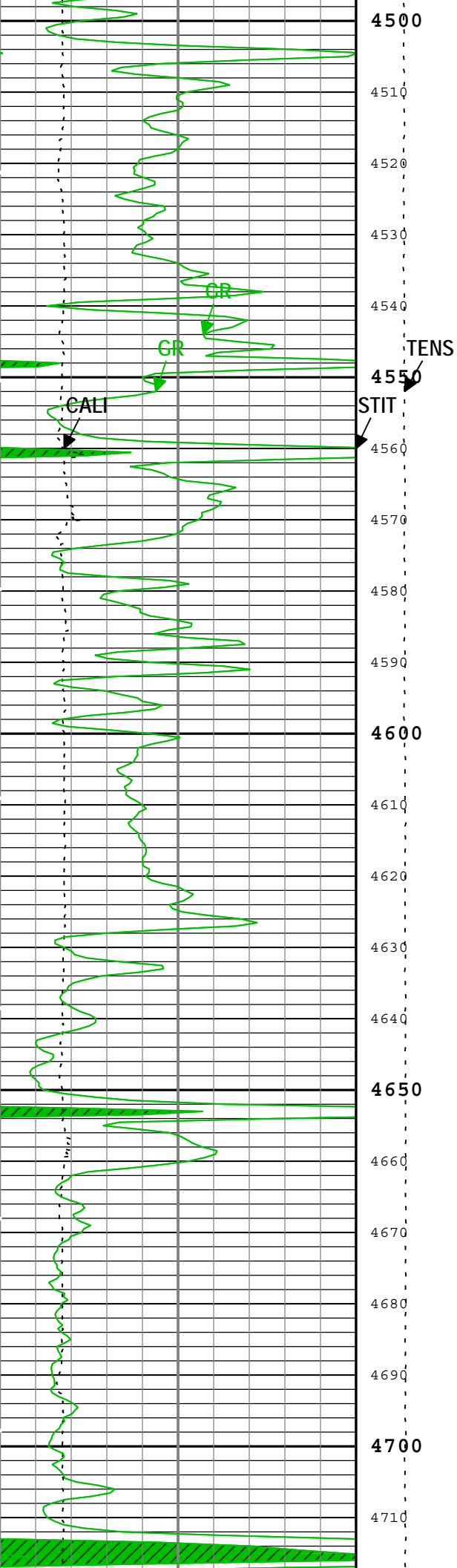


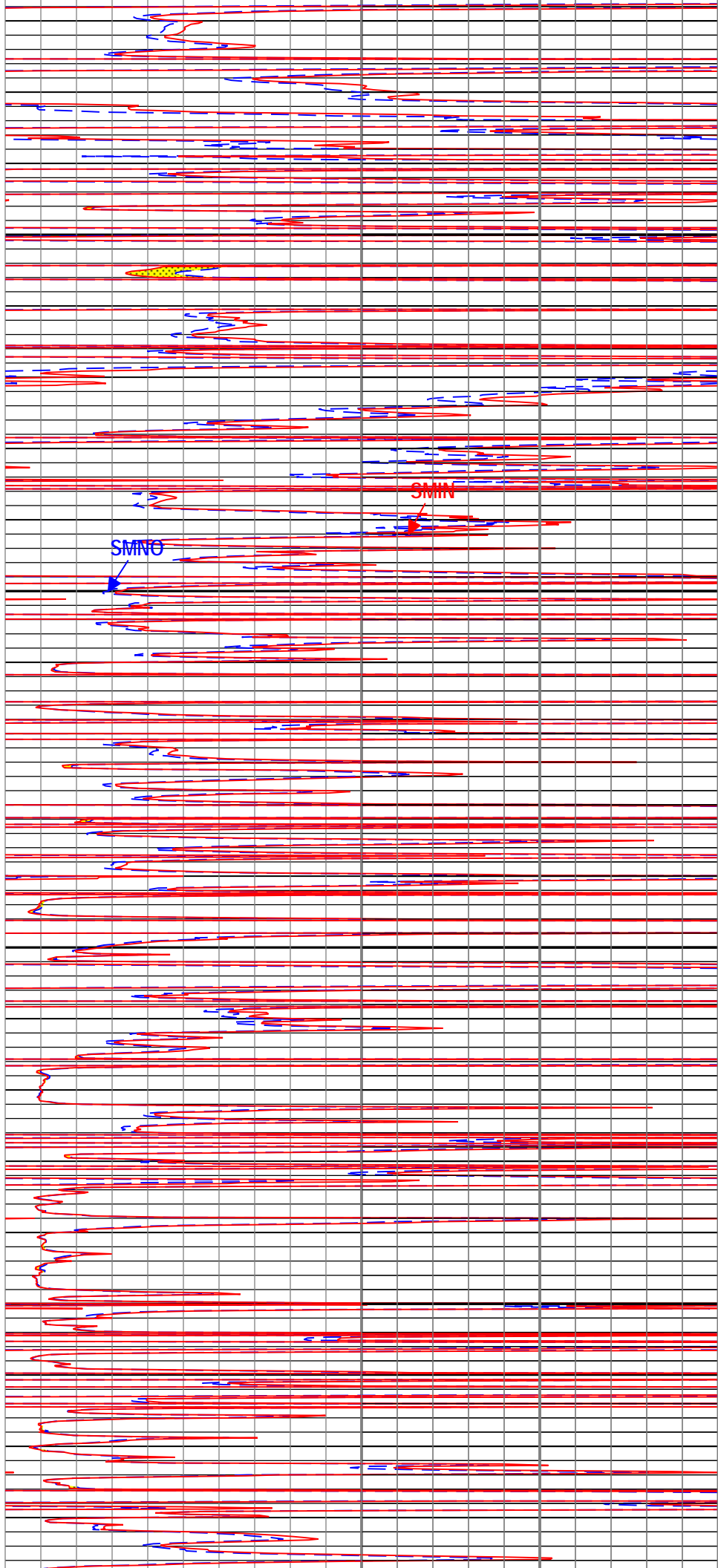
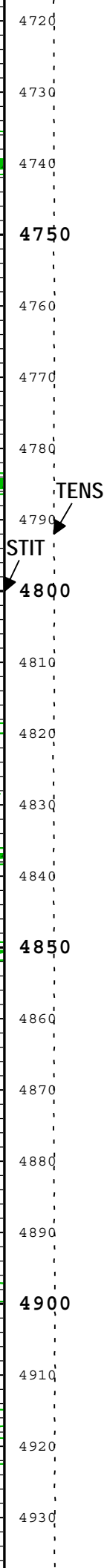
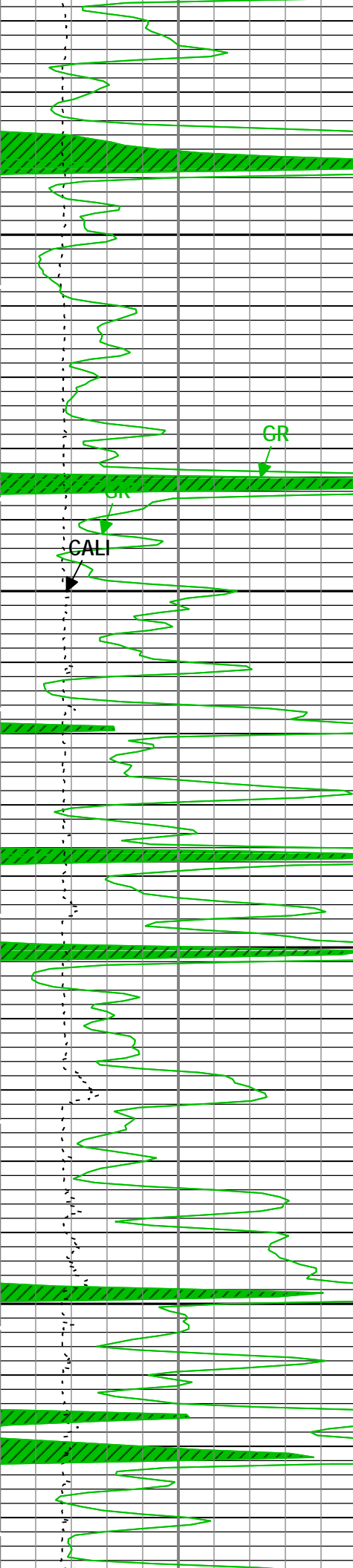


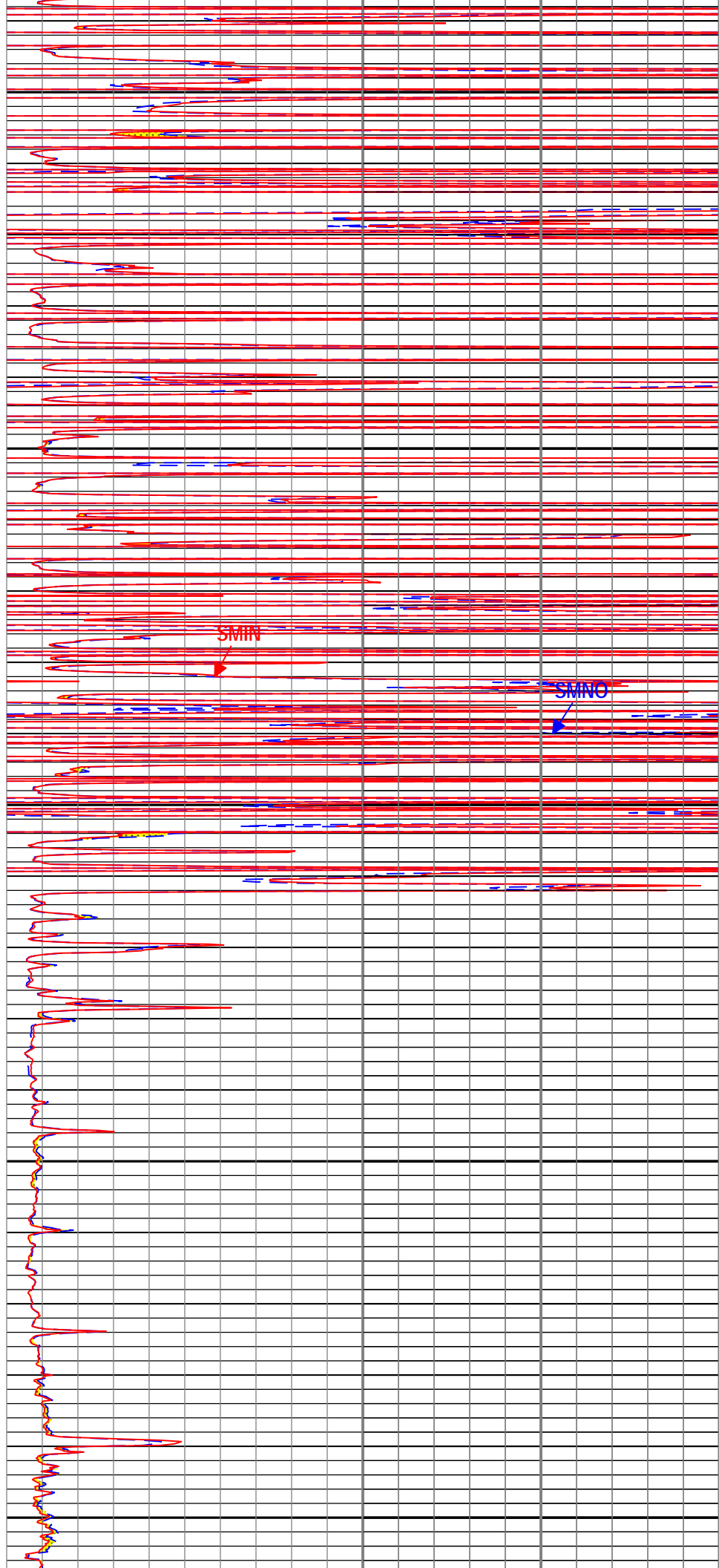
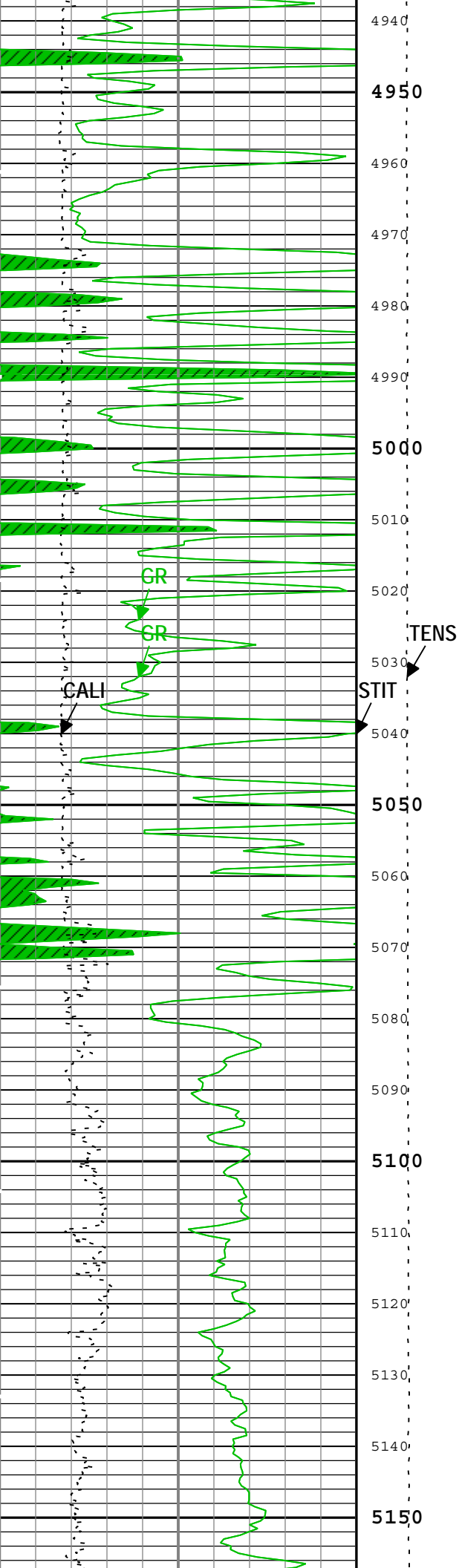


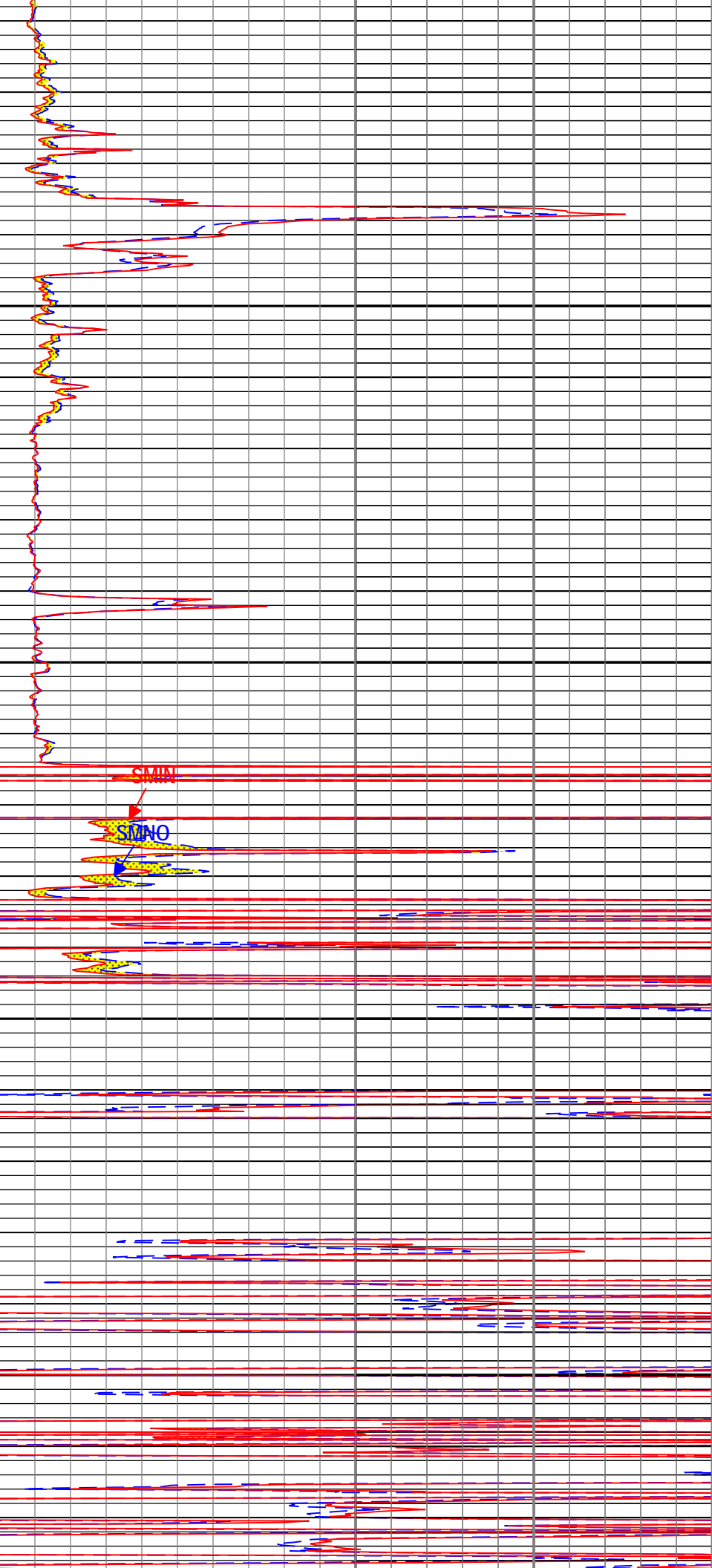
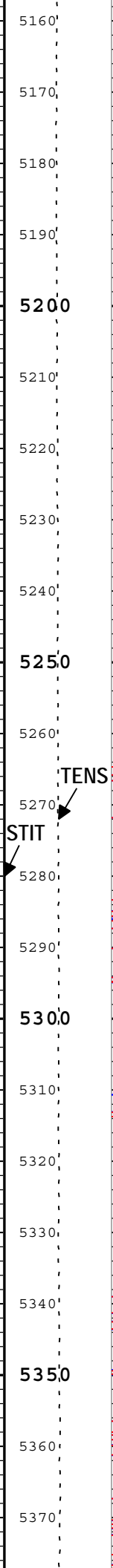
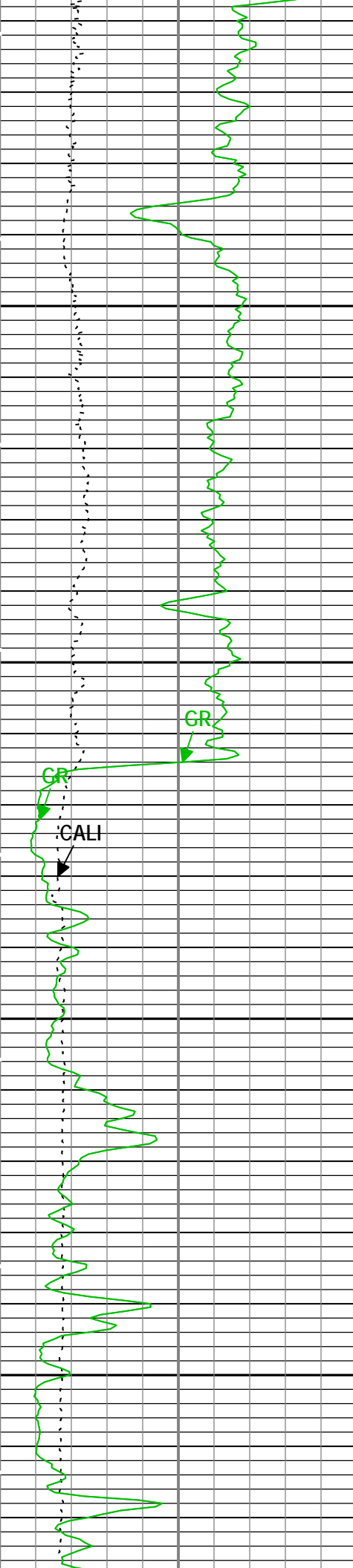


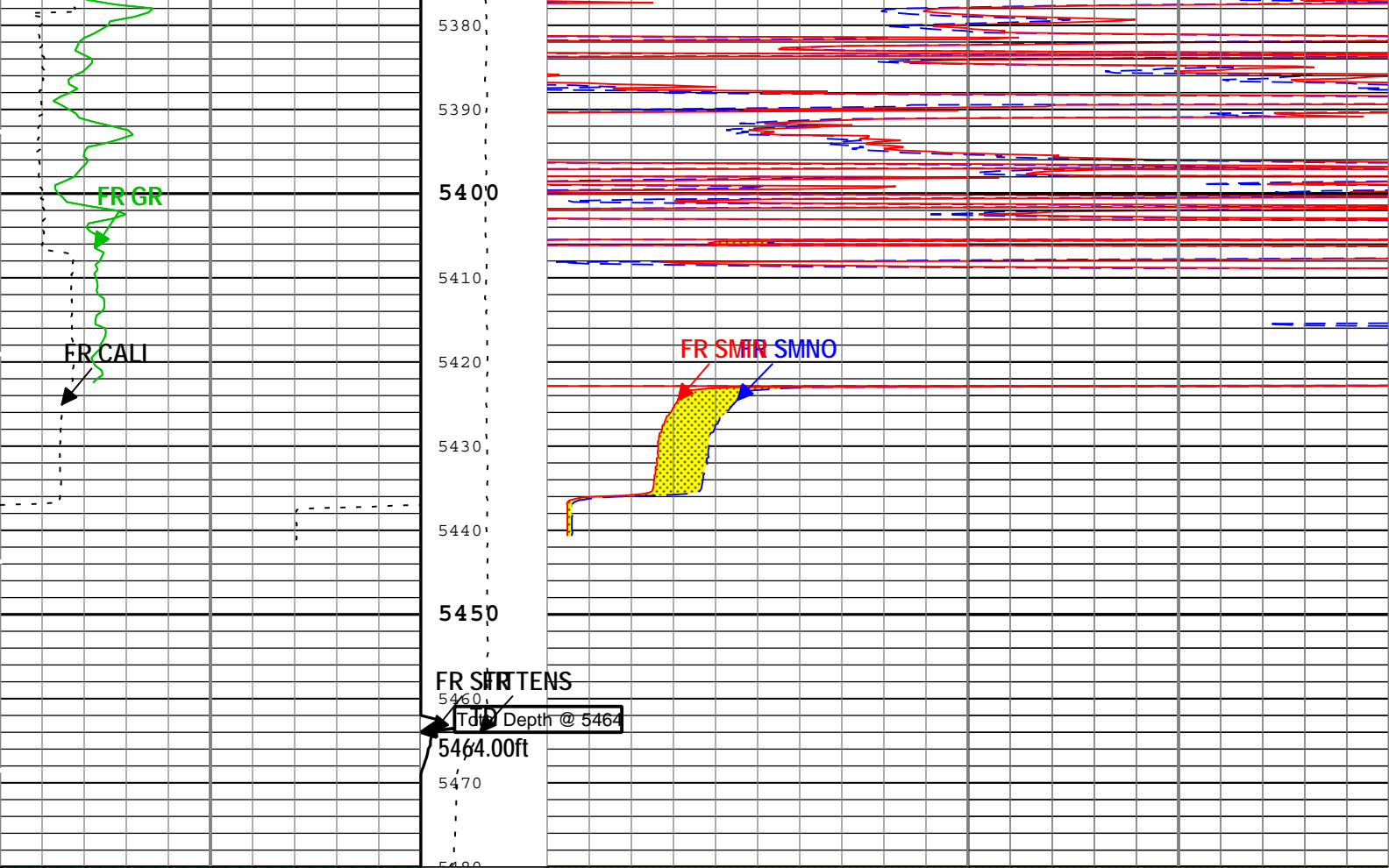












GR Backup			Stuck Tool Indicator, Total (STIT)			PERM		
Caliper (CALI) HDRS-H			0 ft 50			Synthetic Micro-Normal Resistivity (SMNO) HDRS-H		
6	in	16	0	ft	50	0	ohm.m	40
Gamma Ray (GR) HGNS-H			Cable Tension (TENS)			Synthetic Micro-Inverse Resistivity (SMIN) HDRS-H		
0	gAPI	200	0 lbf 6000			0	ohm.m	40
Gamma Ray (GR) HGNS-H								
200	gAPI	400						

TIME\_1900 - Time Marked every 60.00 (s)

Description: MCFL processing for Platform Express Format: Log ( EMD 5in Micro Log ) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 03-Nov-2012 19:55:19

Channel Processing Parameters				
Parameter	Description	Tool	Value	Unit
BARI	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	Depth Zoned	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0	in
CBLO	Casing Bottom (Logger)	WLSESSION	432	ft
CDEN	Cement Density	HGNS-H	2	g/cm3
DFD	Drilling Fluid Density	Borehole	9.3	lbm/gal
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	
SOCO	Standoff Correction Option	HGNS-H	Yes	
TD	Total Measured Depth	Borehole	5464	ft

Depth Zone Parameters

# Depth Zone Parameters

Parameter	Value	Start ( ft )	Stop ( ft )
BS	0	417	432
BS	7.875	432	5480

All depth are actual.

## Tool Control Parameters

Parameter	Description	Tool	Value	Unit
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	1800	ft/h

## Calibration Report

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

Primary Equipment :			
Array Induction Sonde - H	AHIS	392	
Auxiliary Equipment :			
AITH Rm/SP Bottom Nose	AHRM	392	

### AIT Sonde Calibration - Test Loop Gain

Master (EEPROM):		16:00:26 25-Oct-2012					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Test Loop Gain - 0		Master	1.000	0.950	1.011	1.050	
Test Loop Phase - 0	deg	Master	0	-3.000	0.278	3.000	
Test Loop Gain - 1		Master	1.000	0.950	1.011	1.050	
Test Loop Phase - 1	deg	Master	0	-3.000	0.501	3.000	
Test Loop Gain - 2		Master	1.000	0.950	1.020	1.050	
Test Loop Phase - 2	deg	Master	0	-3.000	0.020	3.000	
Test Loop Gain - 3		Master	1.000	0.950	1.010	1.050	
Test Loop Phase - 3	deg	Master	0	-3.000	0.015	3.000	
Test Loop Gain - 4		Master	1.000	0.950	0.997	1.050	
Test Loop Phase - 4	deg	Master	0	-3.000	-0.018	3.000	
Test Loop Gain - 5		Master	1.000	0.950	0.990	1.050	
Test Loop Phase - 5	deg	Master	0	-3.000	-0.170	3.000	
Test Loop Gain - 6		Master	1.000	0.950	1.000	1.050	
Test Loop Phase - 6	deg	Master	0	-3.000	0.148	3.000	
Test Loop Gain - 7		Master	1.000	0.950	0.995	1.050	
Test Loop Phase - 7	deg	Master	0	-3.000	-0.296	3.000	

### AIT Sonde Calibration - Sonde Error Correction

Master (EEPROM):		16:00:26 25-Oct-2012					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Sonde Error Correction Real - 0	mS/m	Master	-----	-231.000	-81.800	119.000	
Sonde Error Correction Quad - 0		Master	-----	-2250.000	-332.860	2250.000	
Sonde Error Correction Real - 1	mS/m	Master	-----	114.000	188.030	204.000	
Sonde Error Correction Quad - 1		Master	-----	-625.000	-104.997	625.000	
Sonde Error Correction Real - 2	mS/m	Master	-----	66.000	107.809	156.000	
Sonde Error Correction Quad - 2		Master	-----	-350.000	-112.075	350.000	
Sonde Error Correction Real - 3	mS/m	Master	-----	39.000	64.783	89.000	
Sonde Error Correction Quad - 3		Master	-----	-250.000	37.536	250.000	
Sonde Error Correction Real - 4	mS/m	Master	-----	15.000	25.356	35.000	
Sonde Error Correction Quad - 4		Master	-----	-63.000	-42.081	63.000	
Sonde Error Correction Real - 5	mS/m	Master	-----	4.000	13.811	24.000	
Sonde Error Correction Quad - 5		Master	-----	-50.000	4.249	50.000	
Sonde Error Correction Real - 6	mS/m	Master	-----	5.000	10.072	15.000	
Sonde Error Correction Quad - 6		Master	-----	-30.000	-4.592	30.000	
Sonde Error Correction Real - 7	mS/m	Master	-----	-5.000	-0.281	5.000	
Sonde Error Correction Quad - 7		Master	-----	-30.000	-5.939	30.000	

### AIT Mud Calibration - Mud Calibration Gain

Master (EEPROM):		16:00:26 25-Oct-2012					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Coarse Gain		Master	1.000	0.800	1.099	1.200	
Fine Gain		Master	1.000	0.800	1.100	1.200	

AIT Electronics Check - Thru Calibration Check

Master (EEPROM):

16:00:26 25-Oct-2012

Before (Measured):

16:25:44 01-Nov-2012  
Expired by 1 days

After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div></div>
Thru Cal Mag - 0	V	Master	----	0.363	0.618	0.847	<div></div>
		Before	----	0.363	0.618	0.847	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	0.000	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Phase - 0	deg	Master	----	11.000	73.112	131.000	<div></div>
		Before	----	11.000	73.068	131.000	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	-0.044	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Mag - 1	V	Master	----	0.762	1.263	1.778	<div></div>
		Before	----	0.762	1.263	1.778	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	0.000	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Phase - 1	deg	Master	----	10.000	72.006	130.000	<div></div>
		Before	----	10.000	71.958	130.000	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	-0.048	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Mag - 2	V	Master	----	0.374	0.630	0.872	<div></div>
		Before	----	0.374	0.630	0.872	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	0.000	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Phase - 2	deg	Master	----	6.000	68.269	126.000	<div></div>
		Before	----	6.000	68.220	126.000	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	-0.049	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Mag - 3	V	Master	----	0.422	0.712	0.986	<div></div>
		Before	----	0.422	0.712	0.986	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	0.000	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Phase - 3	deg	Master	----	5.000	67.481	125.000	<div></div>
		Before	----	5.000	67.429	125.000	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	-0.052	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Mag - 4	V	Master	----	0.802	1.327	1.872	<div></div>
		Before	----	0.802	1.327	1.872	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	0.000	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Phase - 4	deg	Master	----	-1.000	61.213	119.000	<div></div>
		Before	----	-1.000	61.154	119.000	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	-0.059	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Mag - 5	V	Master	----	1.173	1.933	2.737	<div></div>
		Before	----	1.173	1.933	2.737	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	0.000	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Phase - 5	deg	Master	----	-3.000	59.316	117.000	<div></div>
		Before	----	-3.000	59.251	117.000	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	-0.065	----	<div></div>
		After-Before	----	----	----	----	<div></div>
Thru Cal Mag - 6	V	Master	----	1.173	1.932	2.737	<div></div>
		Before	----	1.173	1.932	2.737	<div></div>
		After	----	----	----	----	<div></div>
		Before-Master	----	----	0.000	----	<div></div>
		After-Before	----	----	----	----	<div></div>

		Before-Master After-Before	----- -----	----- -----	0.000 -----	----- -----	<div></div>
Thru Cal Phase - 6	deg	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-3.000 -3.000 ----- ----- -----	59.327 59.264 ----- -0.063 -----	117.000 117.000 ----- ----- -----	<div><div></div></div>
Thru Cal Mag - 7	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	0.849 0.849 ----- ----- -----	1.381 1.380 ----- -0.001 -----	1.981 1.981 ----- ----- -----	<div><div></div></div>
Thru Cal Phase - 7	deg	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-7.000 -7.000 ----- ----- -----	55.850 55.732 ----- -0.118 -----	113.000 113.000 ----- ----- -----	<div><div></div></div>
SPA Zero	mV	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-50.000 -50.000 ----- ----- -----	-0.201 -0.217 ----- -0.016 -----	50.000 50.000 ----- ----- -----	<div><div></div></div>
SPA Plus	mV	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	941.000 941.000 ----- ----- -----	991.790 992.062 ----- 0.272 -----	1040.000 1040.000 ----- ----- -----	<div><div></div></div>
Temperature Zero	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	-0.050 -0.050 ----- ----- -----	0.000 0.000 ----- 0.000 -----	0.050 0.050 ----- ----- -----	<div><div></div></div>
Temperature Plus	V	Master Before After Before-Master After-Before	----- ----- ----- ----- -----	0.870 0.870 ----- ----- -----	0.919 0.919 ----- 0.000 -----	0.960 0.960 ----- ----- -----	<div><div></div></div>

## DSLT-H (Digitizing Sonic Logging Tool - H) Calibration - Run 1

Primary Equipment :	Sonic Logging Sonde E supports 3'-5'BHC DT and CBL/VDL	SLS-E	165
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## CBL Normalization - CBL Accumulations

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div></div>
Upper Far Amplitude - 0		Master	-----	-----	-----	-----	<div></div>
Upper Near Raw Amplitude - 0	mV	Master	-----	-----	-----	-----	<div></div>
Lower Far Amplitude - 0		Master	-----	-----	-----	-----	<div></div>
Lower Near Raw Amplitude - 0	mV	Master	-----	-----	-----	-----	<div></div>

## CBL Normalization - CBL/VDL Coefficients

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div></div>
CBL Correction Factor for UT		Master	3.500	2.700	NOT DONE	4.300	<div></div>
CBL Correction Factor for LT		Master	2.500	1.700	NOT DONE	4.300	<div></div>
VDL Ratio between UT and LT for CBLB Mode		Master	1.000		NOT DONE		<div></div>

## CBL Free Pipe Adjustment - Free Pipe Measurement

Before:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div></div>
CBL Amplitude - 0	mV	Before	-----	-----	-----	-----	<div></div>
CBL Reference Amplitude (CBRA) - 0	mV	Before	-----	-----	-----	-----	<div></div>
Measurement Depth - 0	ft	Before	-----	-----	-----	-----	<div></div>

## CBL Free Pipe Adjustment - CBL Amplitude Coefficient

Before:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	<div></div>



CBL Adjustment Factor		Before	1.000	0.200	NOT DONE	5.000	
Depth of Before Calibration	ft	Before			NOT DONE		

## 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	3816

### Auxiliary Equipment :

HRDD Backscatter Detector	Backscatter	
HRDD Long Spacing Detector	Long Spacing	28732
HRDD Short Spacing Detector	Short Spacing	27634
Cesium 137 Gamma-Ray Logging Source	GSR-J	5240
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	

### 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): 16:23:18 01-Nov-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Small Ring	in	Before	8.00	6.00	8.74	10.00	
Large Ring	in	Before	12.00	9.00	13.10	15.00	

## HDRS Density Calibration - Inversion Results

Master (EEPROM): 12:02:16 27-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.599	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.685	1.696	
Pe Aluminum		Master	2.570	2.470	2.534	2.670	
Pe Magnesium		Master	2.650	2.550	2.642	2.750	

## HDRS Density Calibration - Deviation Summary

Master (EEPROM): 12:02:16 27-Oct-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.5313	0.6000	
BS Max Deviation	%	Master	0	-1.6000	1.0019	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.3341	1.0000	
SS Max Deviation	%	Master	0	-2.5000	1.1387	2.5000	
LS Average Deviation	%	Master	0	-1.5000	0.7415	1.5000	
LS Max Deviation	%	Master	0	-3.5000	2.3181	3.5000	

## HDRS Density Calibration - Background Summary

Master (EEPROM): 12:02:16 27-Oct-2012 Before (Measured): 16:24:27 01-Nov-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7507		
		Before	0.7507	0.7131	0.7495	0.7882	
		Before-Master	----	----	-0.0012	----	
BS Window Sum	1/s	Master	1		26052		
		Before	26052	24749	26225	27355	
		Before-Master	----	----	173	----	
SS Window Ratio		Master	1.0000		0.4792		
		Before	0.4792	0.4552	0.4825	0.5031	
		Before-Master	----	----	0.0033	----	
SS Window Sum	1/s	Master	1		10312		
		Before	10312	9797	10298	10828	
		Before-Master	----	----	-14	----	
LS Window Ratio		Master	1.0000		0.3034		
		Before	0.3034	0.2882	0.3033	0.3186	
		Before-Master	----	----	-0.0001	----	
LS Window Sum	1/s	Master	1		1214		
		Before	1214	1153	1201	1275	
		Before-Master	----	----	-13	----	

HDRS Density Calibration - Photo-multiplier High Voltages							
Master (EEPROM):		12:02:16 27-Oct-2012		Before (Measured):		16:24:27 01-Nov-2012 Expired by 1 days	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master		1000	1580	2400	
		Before		1000	1584	2400	
		Before-Master	-----	-100	4	100	
SS PM High Voltage	V	Master		1000	1401	2400	
		Before		1000	1407	2400	
		Before-Master	-----	-100	6	100	
LS PM High Voltage	V	Master		1000	1216	2400	
		Before		1000	1225	2400	
		Before-Master	-----	-100	9	100	

HDRS Density Calibration - Crystal Quality Resolutions							
Master (EEPROM):		12:02:16 27-Oct-2012		Before (Measured):		16:24:27 01-Nov-2012 Expired by 1 days	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master		5.00	11.79	25.00	
		Before		5.00	11.88	25.00	
		Before-Master	-----	-1.00	0.09	1.00	
SS Crystal Resolution	%	Master		5.00	9.89	20.00	
		Before		5.00	10.02	20.00	
		Before-Master	-----	-1.00	0.13	1.00	
LS Crystal Resolution	%	Master		5.00	8.16	20.00	
		Before		5.00	8.23	20.00	
		Before-Master	-----	-1.00	0.07	1.00	

HDRS MCFL Calibration - MCFL Accumulations							
Before (Measured):		16:25:07 01-Nov-2012 Expired by 1 days					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3877	4185	
Deep Resistivity	ohm.m	Before	3830	3524	3826	4136	
Shallow Resistivity	ohm.m	Before	3830	3524	3829	4136	

HGNS-H (HILT Gamma-Ray and Neutron Sonde, 150 degC) Calibration - Run 1			
Primary Equipment :			
HILT Gamma-Ray and Neutron Sonde, 150 degC		HGNS-H	
Auxiliary Equipment :			
HGNS Accelerometer, 150 degC		HACCZ-H	5736
AmBe Neutron Logging Source		NSR-F	5215
Calibration Parameter :			
Water Temperature			
Housing Size			
JIG-BKG (Jig minus background reference)		165	

HGNS Accelerometer Calibration - Accelerometer Accumulations							
Before (Measured):		17:09:28 03-Nov-2012					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.1	32.8	

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read							
Master (EEPROM):		00:00:00 15-Mar-2006					
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	-----	-----	8084.000	-----	
Accelerometer Coefficients - 1		Master	-----	-----	-8.467	-----	
Accelerometer Coefficients - 2		Master	-----	-----	0.009	-----	
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 4		Master	-----	-----	2.722	-----	
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----	
Accelerometer Coefficients - 7		Master	-----	-----	0.000	-----	

Accelerometer Coefficients - 8		Master	----	----	298.700	----	
Accelerometer Coefficients - 9		Master	----	----	0.995	----	

## HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM):	10:52:24 11-Oct-2012	Before (Measured):	16:23:03 01-Nov-2012 Expired by 1 days	After:	
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Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	5.0	25.2	40.0	
		Before	0	5.0	25.2	40.0	
		After	----	----	----	----	
		Before-Master	----	-3.8	0.0	3.8	
		After-Before	----	----	----	----	
Far Zero Measurement	1/s	Master	0	5.0	28.4	40.0	
		Before	0	5.0	27.8	40.0	
		After	----	----	----	----	
		Before-Master	----	-4.3	-0.6	4.3	
		After-Before	----	----	----	----	
Near Plus Measurement - 0	1/s	Master	6031.0	4700.0	5278.0	6900.0	
		Before	----	----	----	----	
		After	----	----	----	----	
		Before-Master	----	----	----	----	
		After-Before	----	----	----	----	
Far Plus Measurement - 0	1/s	Master	2793.0	1900.0	2189.0	2900.0	
		Before	----	----	----	----	
		After	----	----	----	----	
		Before-Master	----	----	----	----	
		After-Before	----	----	----	----	
Near Corrected Plus Measurement - 0	1/s	Master		4700.0	5228.0	6900.0	
		Before	----	----	----	----	
		After	----	----	----	----	
		Before-Master	----	----	----	----	
		After-Before	----	----	----	----	
Far Corrected Plus Measurement - 0	1/s	Master		1900.0	2143.0	2900.0	
		Before	----	----	----	----	
		After	----	----	----	----	
		Before-Master	----	----	----	----	
		After-Before	----	----	----	----	

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

Before (Measured):	16:23:53 01-Nov-2012	Expired by 1 days	After:	
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Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	76.9	120.0	
		After	----	----	----	----	
		After-Before	----	----	----	----	
RGR Plus Measurement	gAPI	Before	185.4	157.1	177.6	206.3	
		After	----	----	NOT DONE	----	
		After-Before	----	----	----	----	
GR Calibration Gain		Before	0.89	0.80	0.93	1.05	
		After	----	----	----	----	
		After-Before	----	----	----	----	

## LEH-QT (Logging Equipment Head - QT, 3-3/8 inch 31 pin HPHT with Tension Sensor) Calibration - Run 1

Primary Equipment :	Logging Equipment Head - QT, 3-3/8 inch 31 pin HPHT with Tension Sensor	LEH-QT
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## HTEN Master Calibration - HTEN Master Calibration

Master:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
HTEN Shop Gain		Master	1.000	0.800	NOT DONE	4.500	
HTEN Shop Offset	lbf	Master	0	-1000.000	NOT DONE	1000.000	

## HTEN Before Calibration - HTEN Before Calibration

Before:								
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit		
RHTE Zero Measurement - 0	lbf	Before	-----	-----	-----	-----		
RHTE Plus Measurement - 0	lbf	Before	-----	-----	-----	-----		
HTEN Gain - 0		Before						

HTEN Gain - 0		Before	----	----	----	----	
HTEN Offset - 0	lbf	Before	----	----	----	----	

Company:	Vecta Oil & Gas LTD	Schlumberger
Well:	Crestone	
Field:	Wildcat	
County:	Cheyenne	
State:	Colorado	
Platform Express		
Microlog		