

Company: Bayswater Exploration and Production

Well: Badger Creek 22 32B

Field: Badger Creek

County: Adams State: Colorado

Platform Express

Caliper

Cement Volume

County: Adams

Field: Badger Creek

Location: SHL: SWNE 1738' FNL & 2232' FEL

Well: Badger Creek 22 32B

Company: Bayswater Exploration and Production

Caliper

Cement Volume

API Serial No.	Section:	Township:	Range:	Location:	
				SHL: SWNE 1738' FNL & 2232' FEL	Elev.:
				Section 22, Township 2S, Range 57W	G.L.
				Lat: 39.866164, Long: -103.750266	D.F.
				Permanent Datum:	Elev.:
Log Measured From:	Kelly Bushing	12.00 ft	above Perm.Datum		
Drilling Measured From:	Kelly Bushing				
	</				

Logging Date			23-Nov-2013			
Run Number			Run 1			
Depth Driller			5525.00 ft			
Schlumberger Depth			5526.00 ft			
Bottom Log Interval			5526.00 ft			
Top Log Interval			320.00 ft			
Casing Driller Size @ Depth			8.625 in @ 315.00 ft			
Casing Schlumberger			320 ft			
Bit Size			7.875 in			
Type Fluid In Hole			Fresh Water			
MUD	Density	Viscosity	9.1 lbm/gal	39 s		
	Fluid Loss	PH	8 cm3	9.5		
	Source of Sample					
	RM @ Meas Temp	0.4 ohm.m @ 70 degF				
RMF @ Meas Temp			0.3 ohm.m @ 70 degF			
RMC @ Meas Temp			0.5 ohm.m @ 70 degF			
Source RMF		RMC	Calculated	Calculated		
RM @ BHT		RMF @ BHT	0.2 @ 145	0.15 @ 145		
Max Recorded Temperatures			145 degF			
Circulation Stopped			Time	23-Nov-2013 08:30:00		
Logger on Bottom			Time	23-Nov-2013 12:45:36		
Unit Number		Location:	2135	Fort Morgan, CO		
Recorded By			Max Pace			
Witnessed By			Pete Debenham			

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

315.00 ft

Casing 8.625in
23lbm/ft

5525.00 ft

Open Hole 7.875in

Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	7.875					
Top Driller (ft)	315					
Top Logger (ft)	315					
Bottom Driller (ft)	5525					
Bottom Logger (ft)	5526					
Casing						
Size (in)	8.625					
Weight (lbm/ft)	23					
Inner Diameter (in)	8.122					
Grade	N/A					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	315					
Bottom Logger (ft)	320					

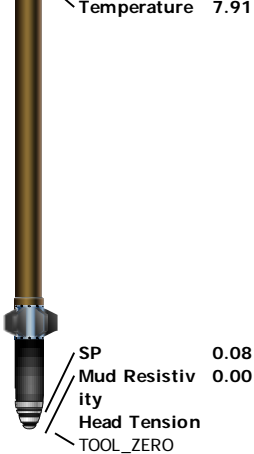
Borehole Fluids

Parameter(unit)	Run 1					
Fluid Type	Water					
Fluid Name	Fresh Water					
Max Recorded Temperatures (degF)	145					
Source of Sample	Active Tank					
Salinity (ppm)	0					
Density (lbm/gal)	9.1					
Funnel Viscosity (s)	39					
Fluid Loss (cm3)	8					
PH	9.5					
Date/Time Circulation Stopped	23-Nov-2013 08:30:00					
Date Logger on Bottom	23-Nov-2013					
Time Logger on Bottom	12:45:36					
Source RMF	Calculated					
RMC	Calculated					
RM @ Meas Temp (ohm.m@degF)	0.4 @ 70					
RMF @ Meas Temp (ohm.m@degF)	0.3 @ 70					

RMC @ Meas Temp (ohm.m@degF)	0.5 @ 70					
RM @ BHT (ohm.m@degF)	0.2 @ 145					
RMF @ BHT (ohm.m@degF)	0.15 @ 145					
RMC @ BHT (ohm.m@degF)	0.25 @ 145					
Total Solid (%)	5.8					
High Gravity Solids (%)						

Remarks and Equipment Summary

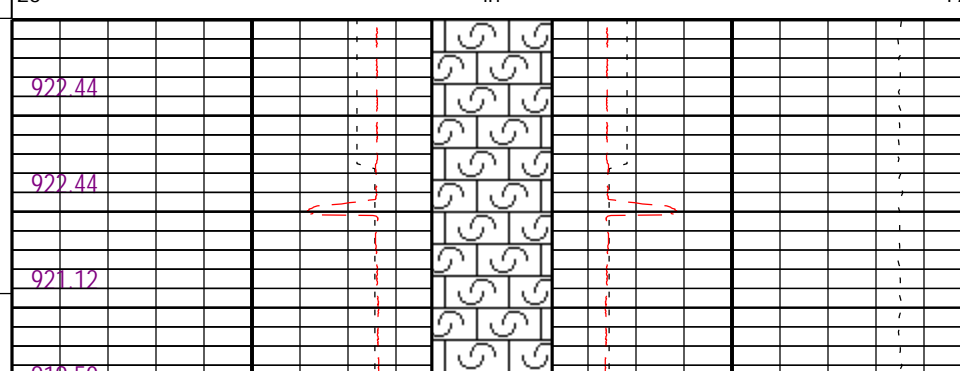
Run 1: Toolstring				Run 1: Remarks
Equip name	Length	MP name	Offset	This is the first run in hole All Schlumberger depth control procedures followed IDW used as primary depth device Z Chart used as secondary depth reference Sandstone matrix (2.65 density) from TD-5160 Limestone matrix (2.71 density) from 5160 to surface Tool string run as per tool sketch
LEH-QT LEH-QT	43.57			
DTC-H ECH-KC DTC-H	40.65	CTEM HV	39.75 0.00	
HGNS-H HGNH NSR-F:2554 NPV-N HGNS-H HMCA-H HACCZ-H:6991	37.65	ToolStatus TelStatus Temperature GR	37.65 37.65 37.62 36.91	
		CNL Porosity HMCA HGNS Acceleromete r	30.57 28.24 28.24 0.00	
HDRS-H ECH-MEB HRCC-H HRMS-H Backscatter Long Spacing:287 % GPV-Q Short Spacing HRGD-H:3989 GSR-J:5471	28.24	HRCC	24.24	
		MCFL Caliper TLD Density	18.81 18.33 17.94	
AIT-H:392 AHIS:392 AHRM:392	16.00			
		Power Supply Induction	7.91 7.91	

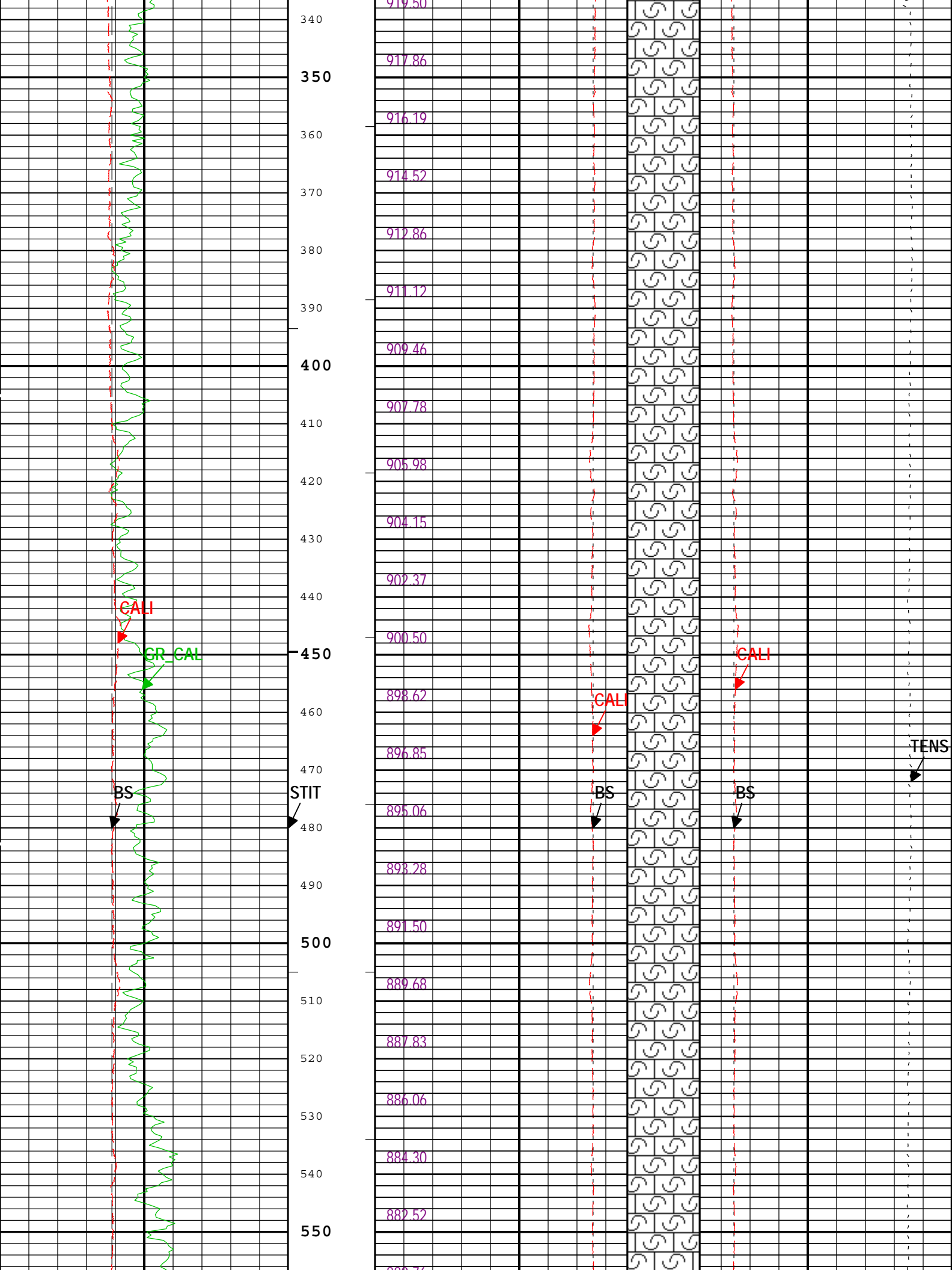
			
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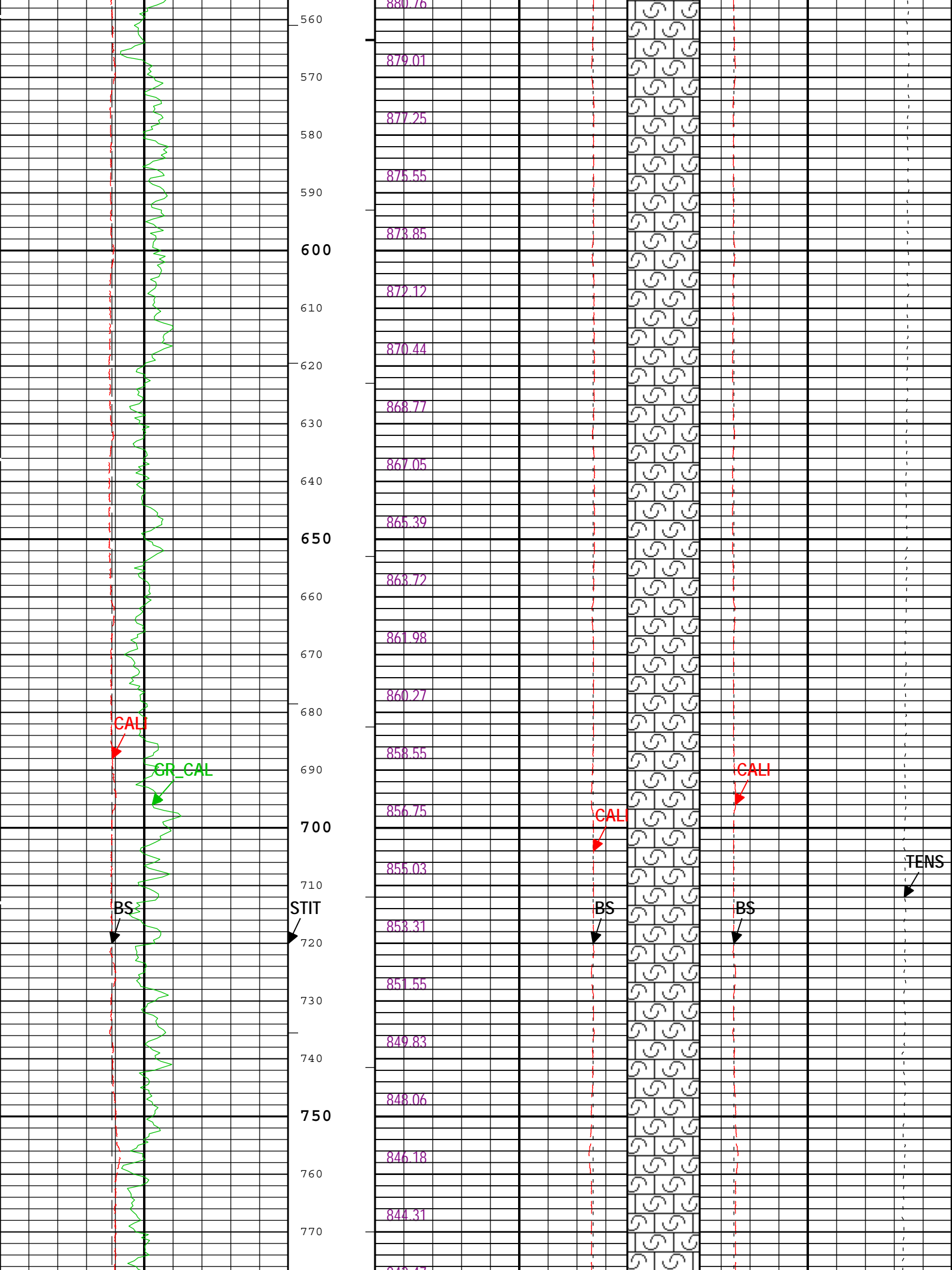
Depth Summary				
		Run 1		
Depth Measuring Device				
Type	IDW-B			
Serial Number				
Calibration Date				
Calibrator Serial Number				
Calibration Cable Type				
Wheel Correction 1	0			
Wheel Correction 2	0			
Tension Device				
Type	CMTD-B/A			
Serial Number				
Calibration Date				
Calibrator Serial Number				
Number of Calibration Points	0			
Logging Cable				
Type	7-46NT-XS			
Serial Number				
Length	24000.00 ft			
Conveyance Type	Wireline			
Rig Type	Land			
Run 1:Depth Control Parameters			Depth Control Remarks	
Log Sequence	First Log In the Well			
Rig Up Length At Surface				
Rig Up Length At Bottom				
Rig Up Length Correction				
Stretch Correction				
Tool Zero Check At Surface				
Run 1				

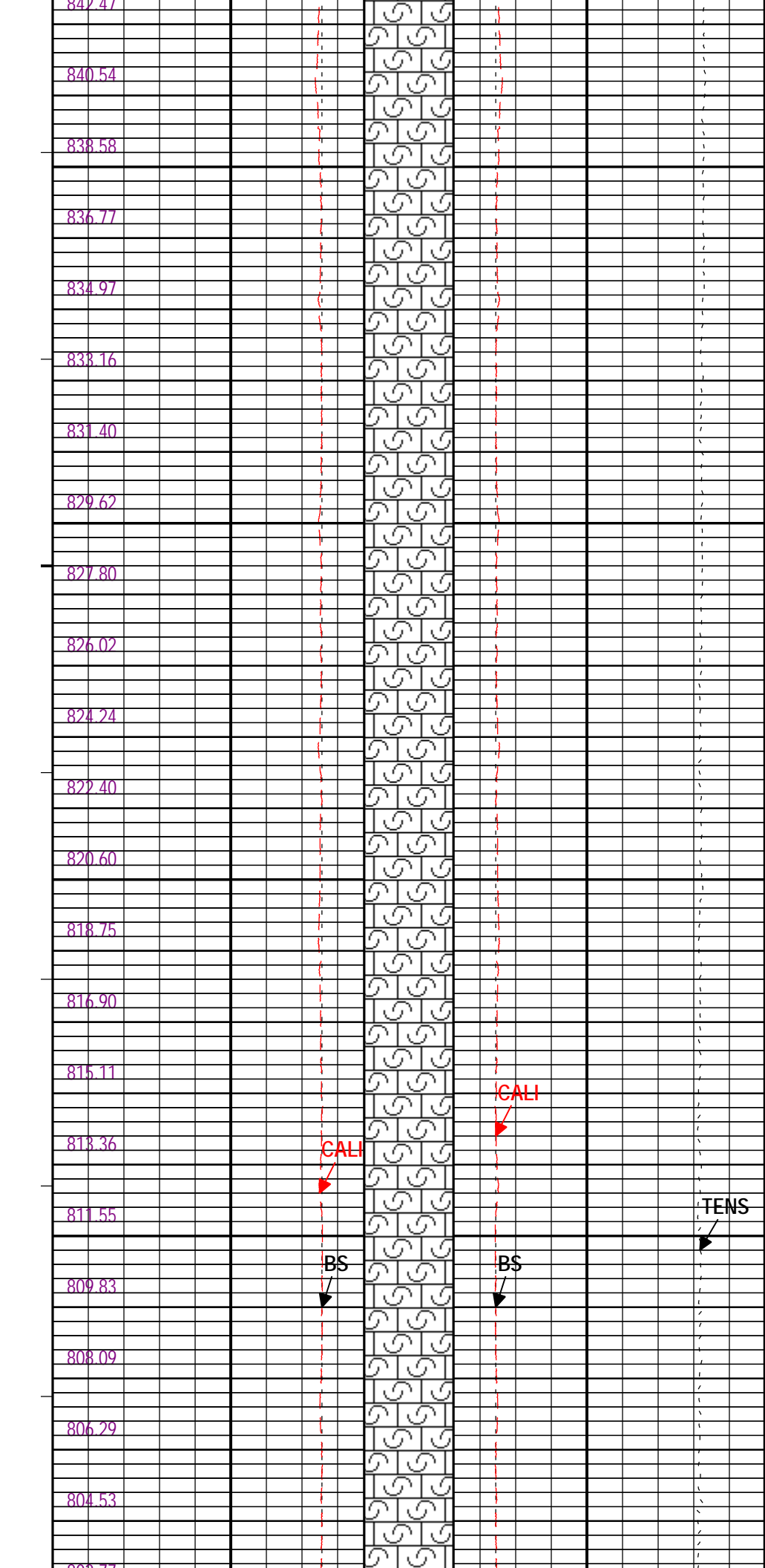
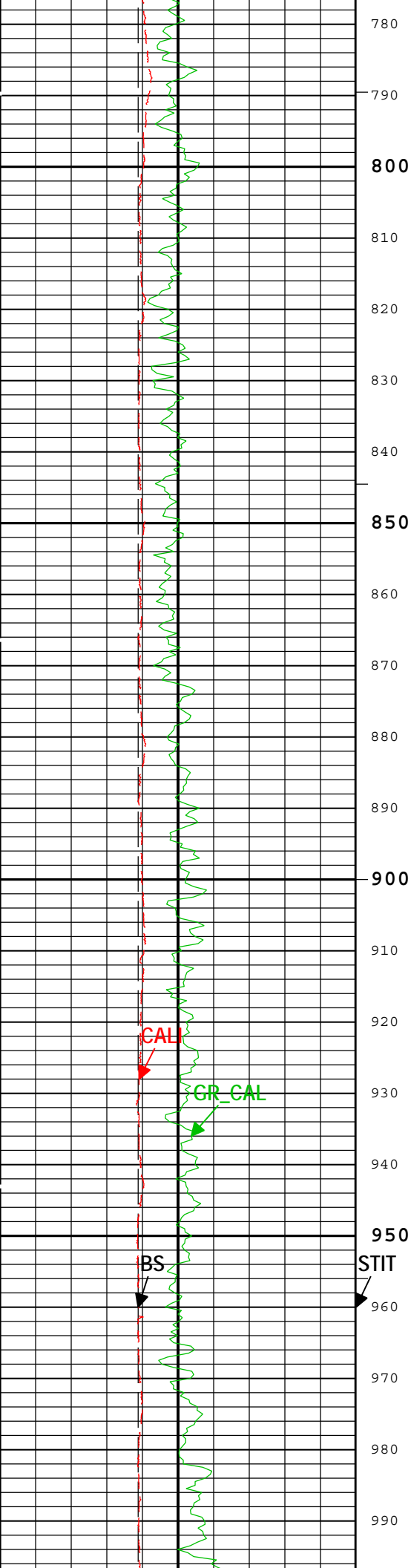
Integration Summary				
Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
ICV	Integrated Cement Volume	GCSE_UP_PASS, FCD	922.35	ft3
IHV	Integrated Hole Volume	GCSE_UP_PASS	1782.85	ft3

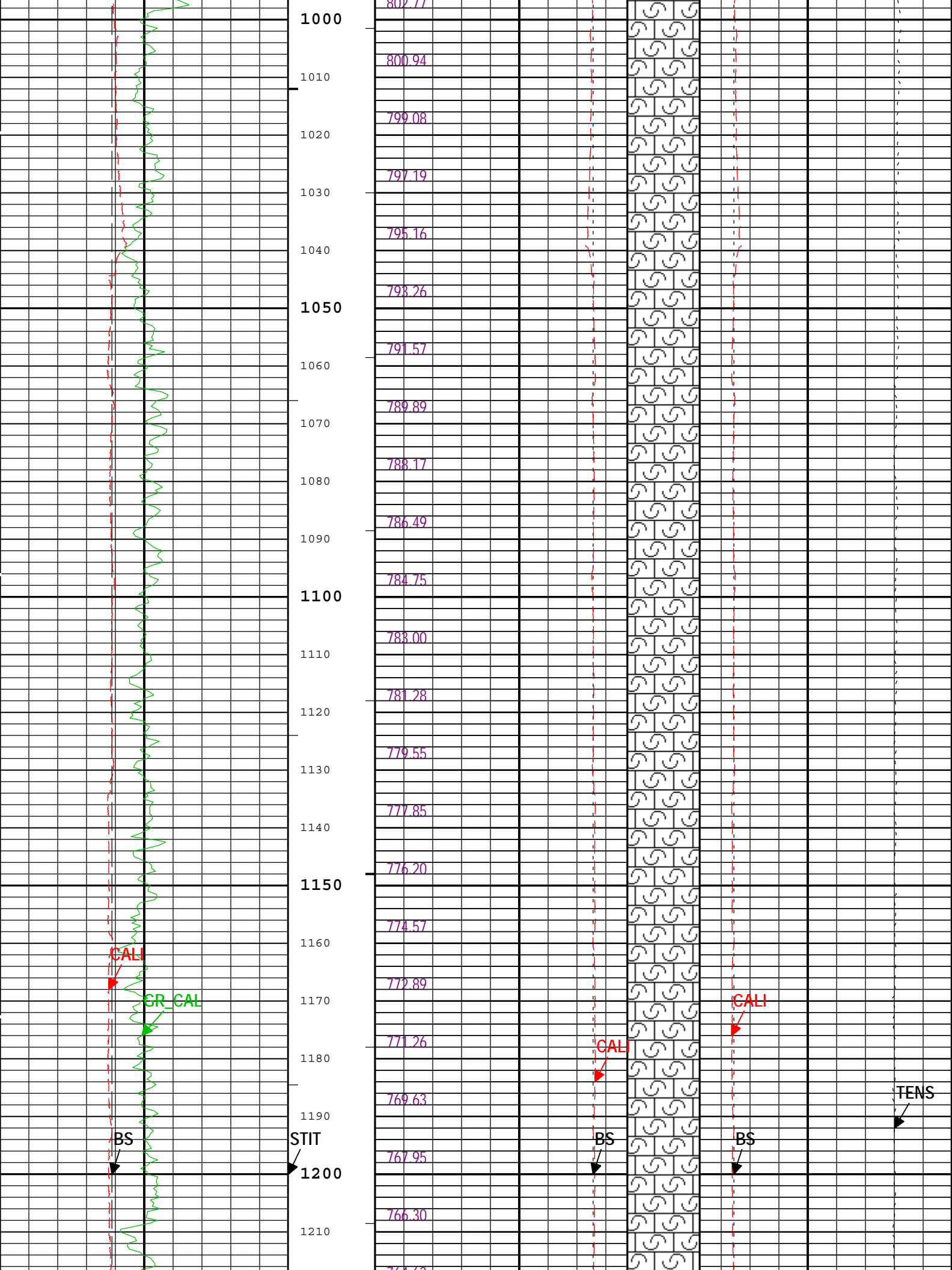
Software Version		
Acquisition System		Version

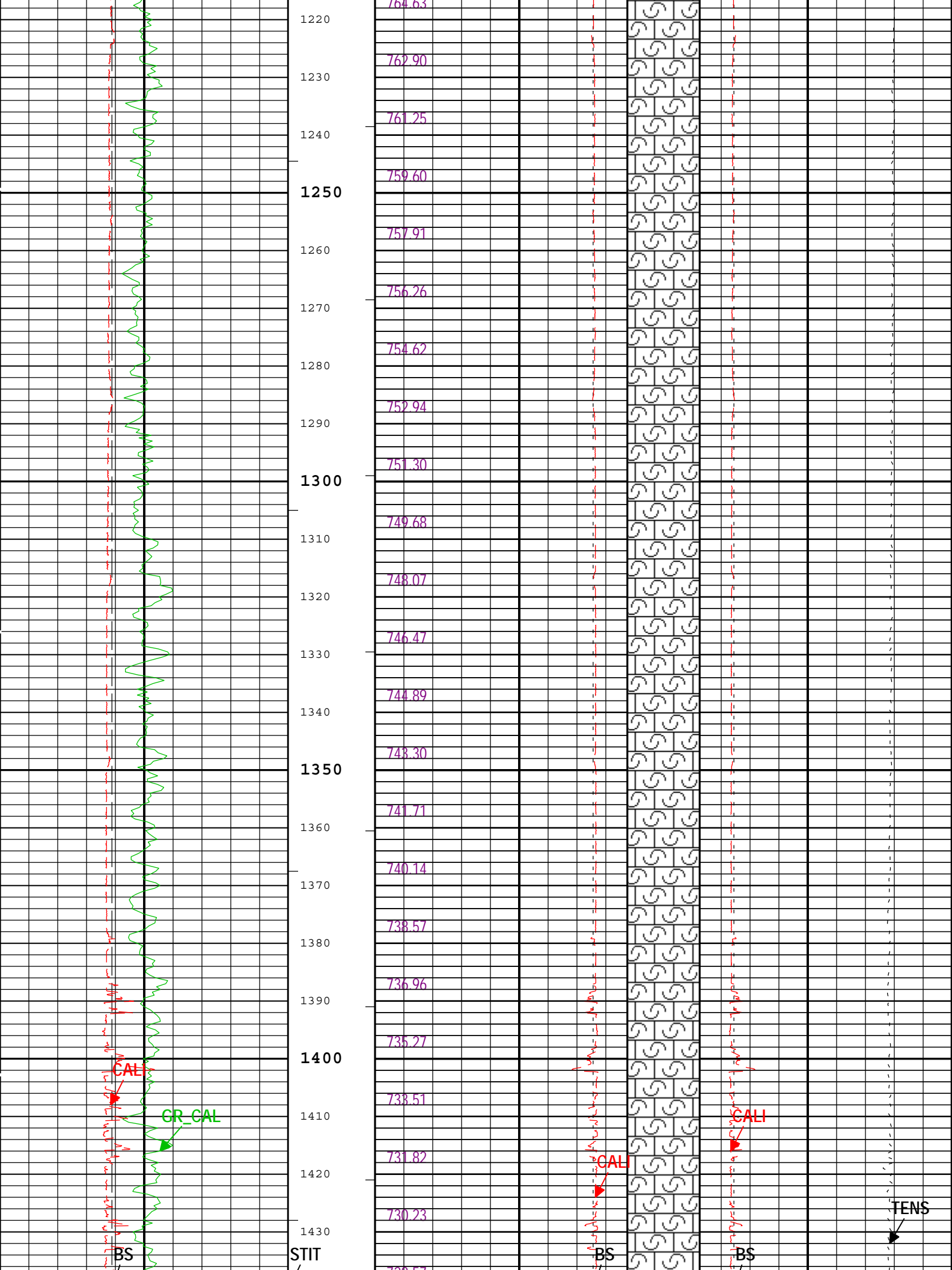


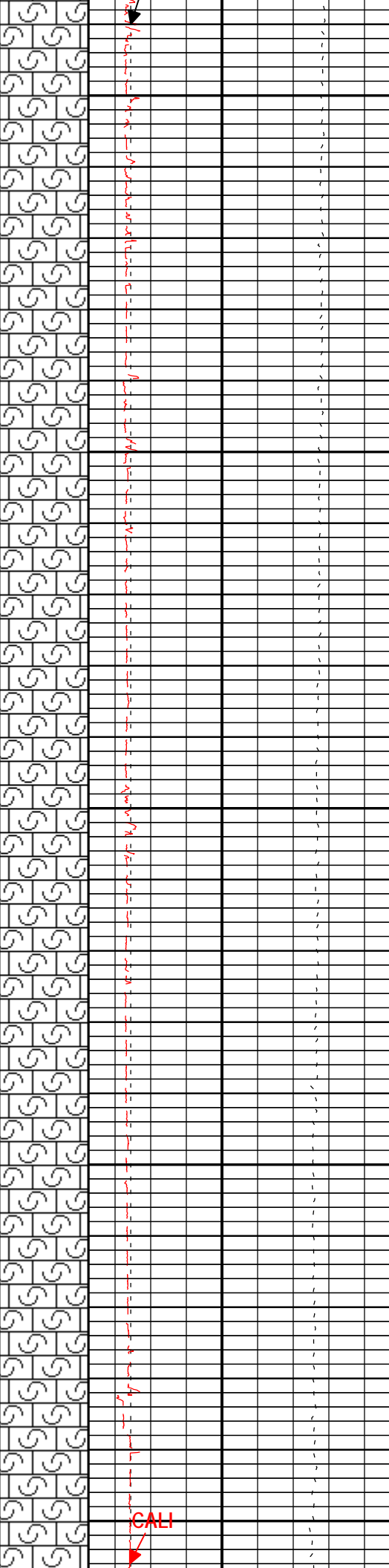
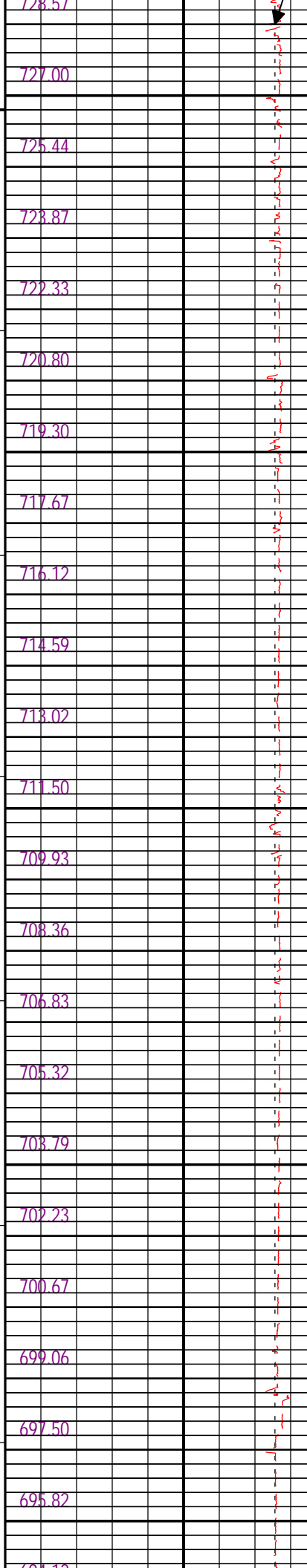
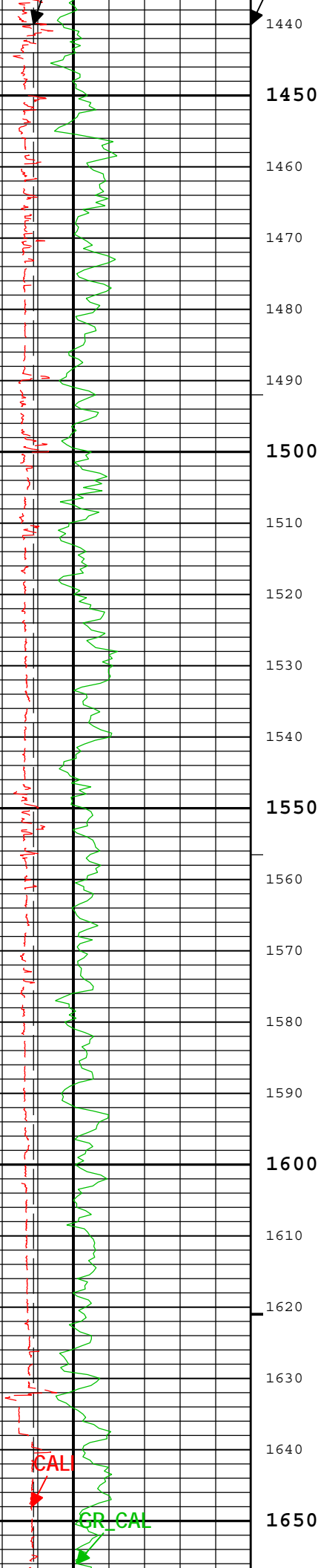


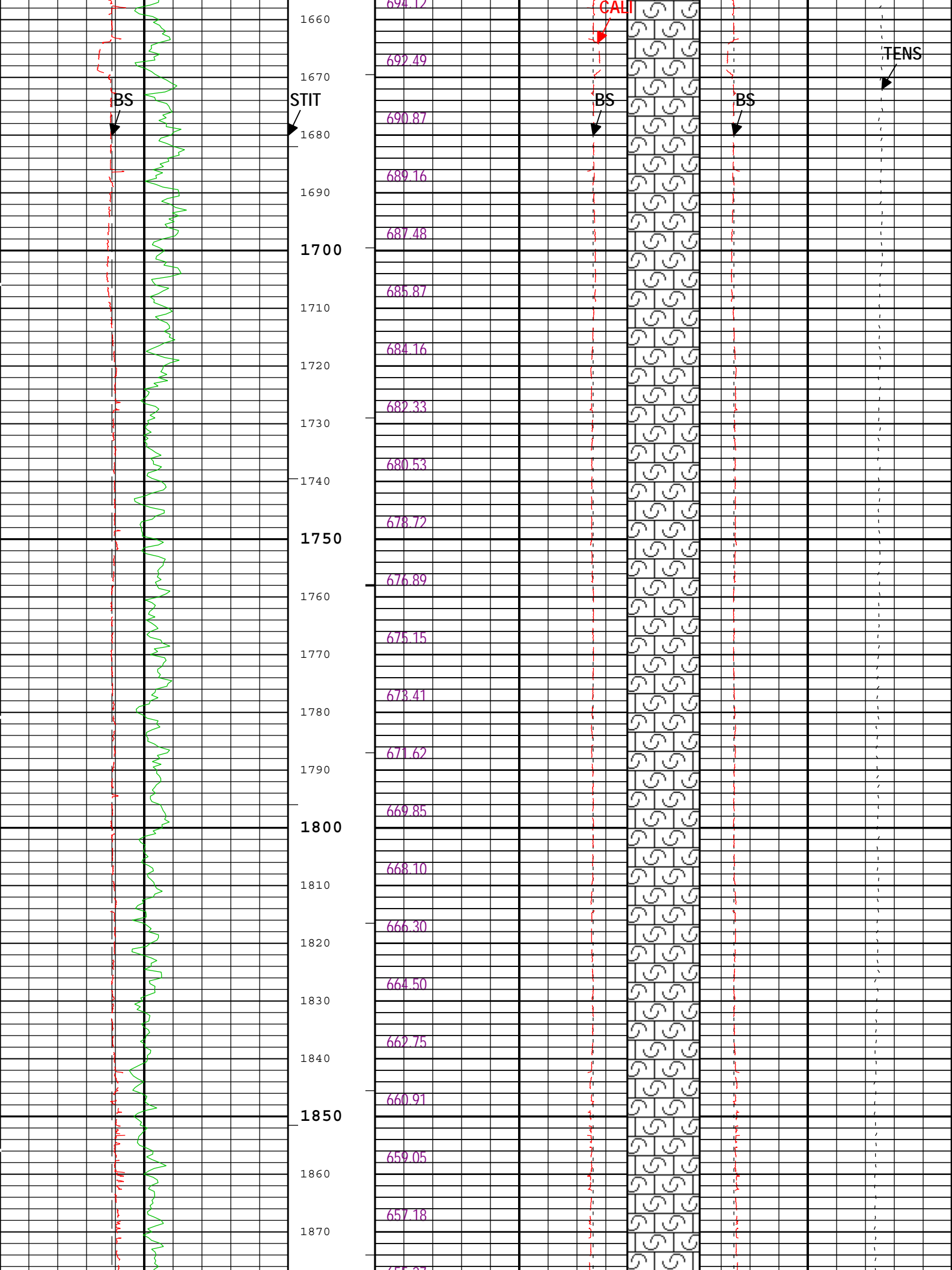


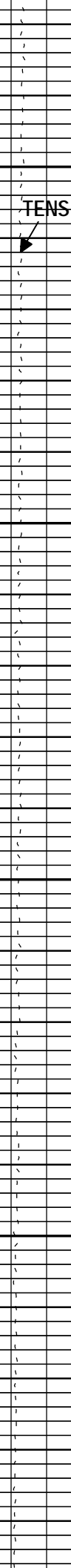
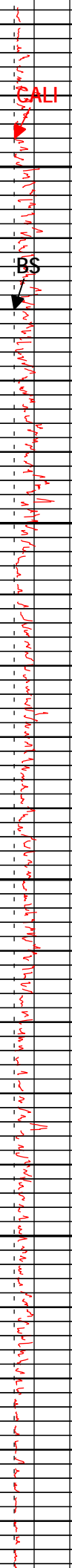
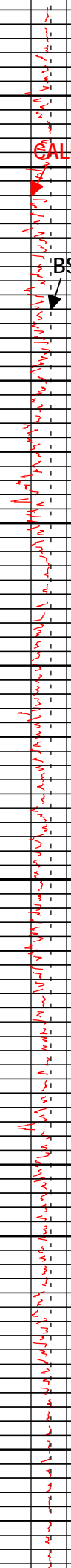
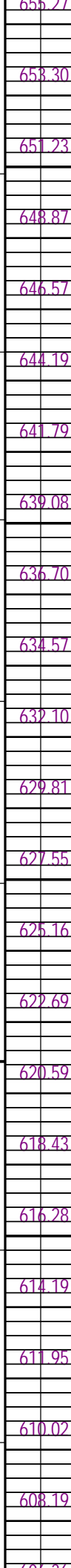
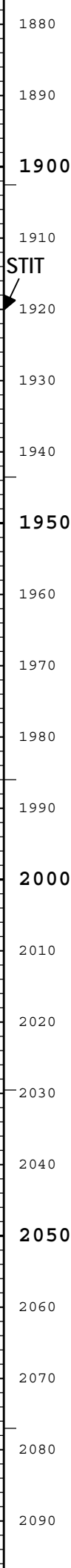
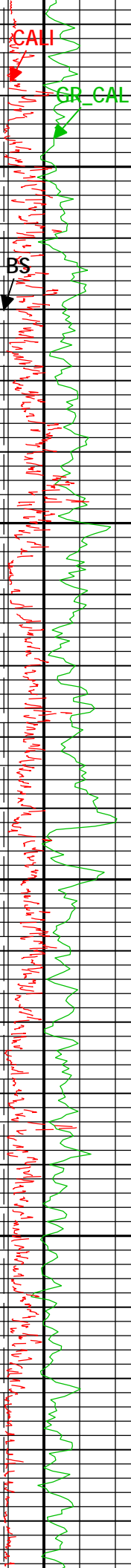


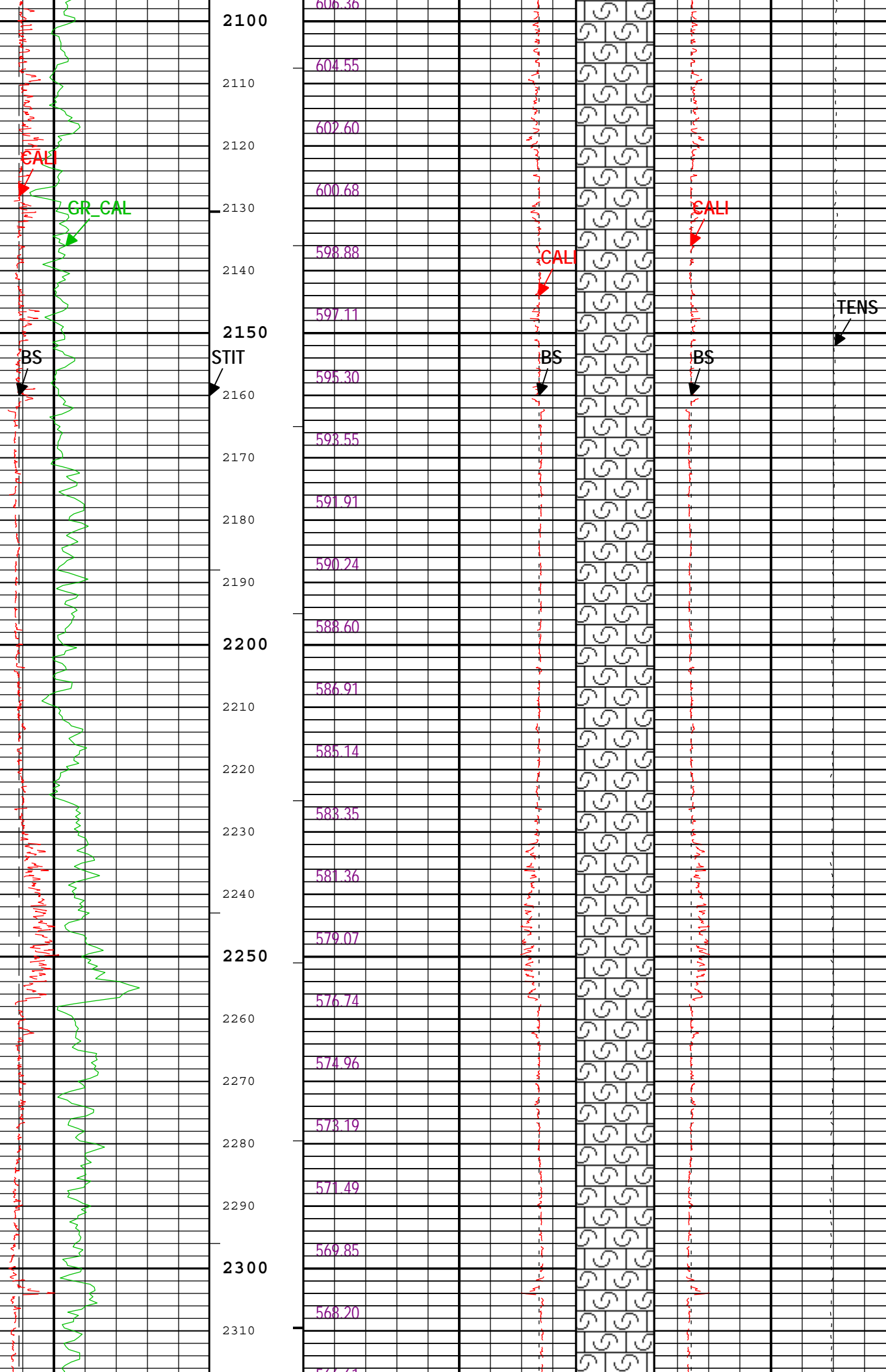


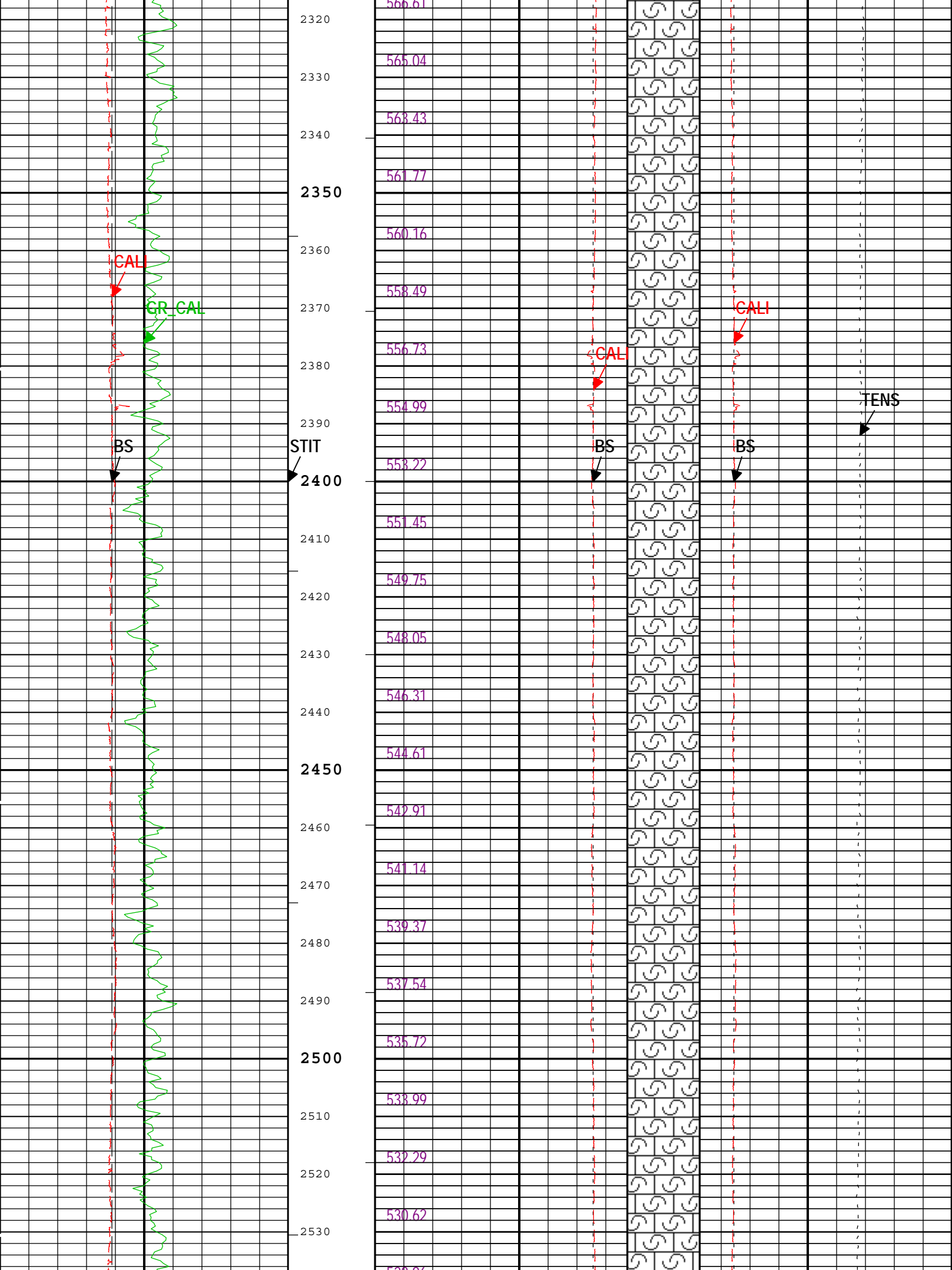


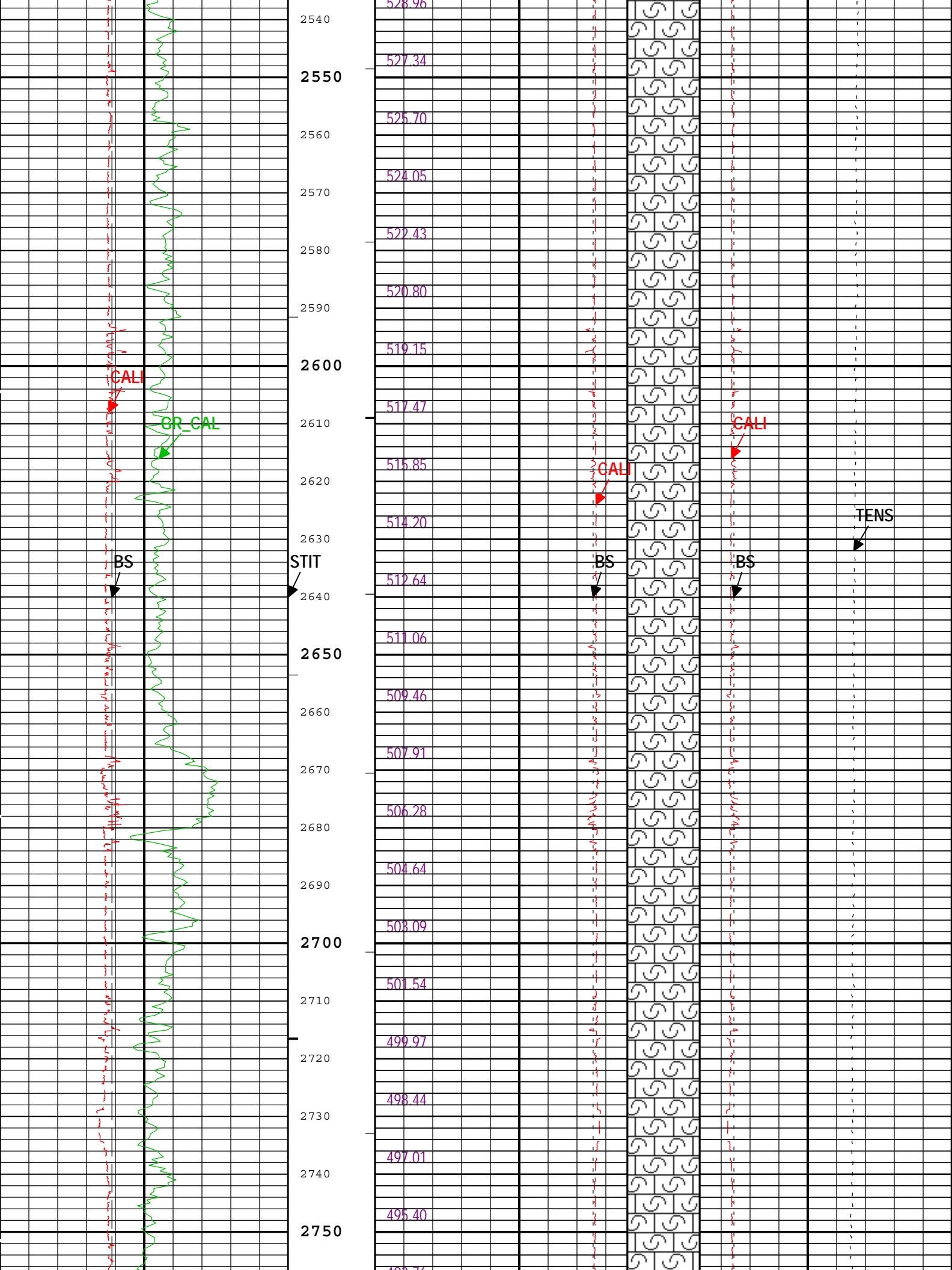


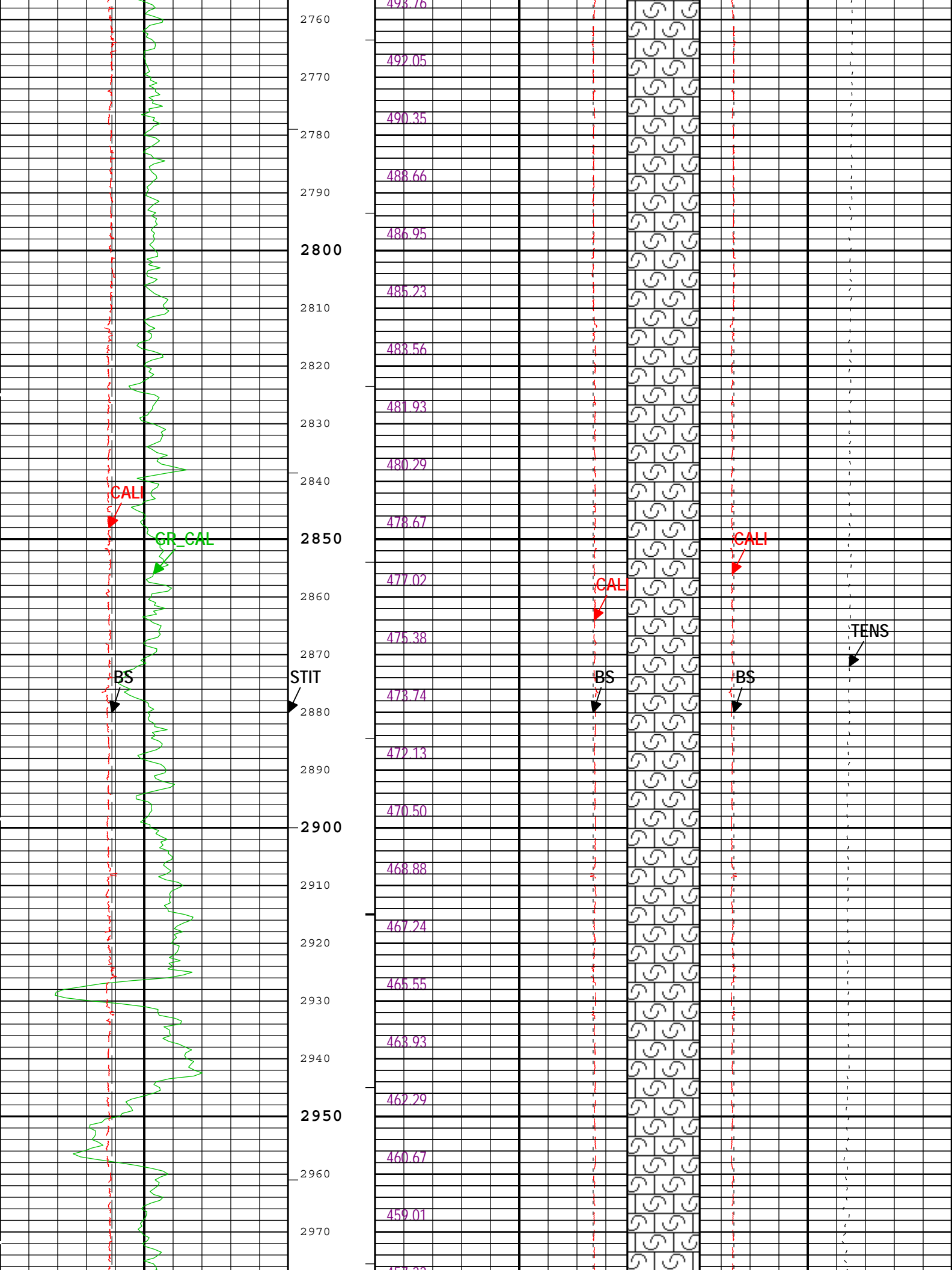


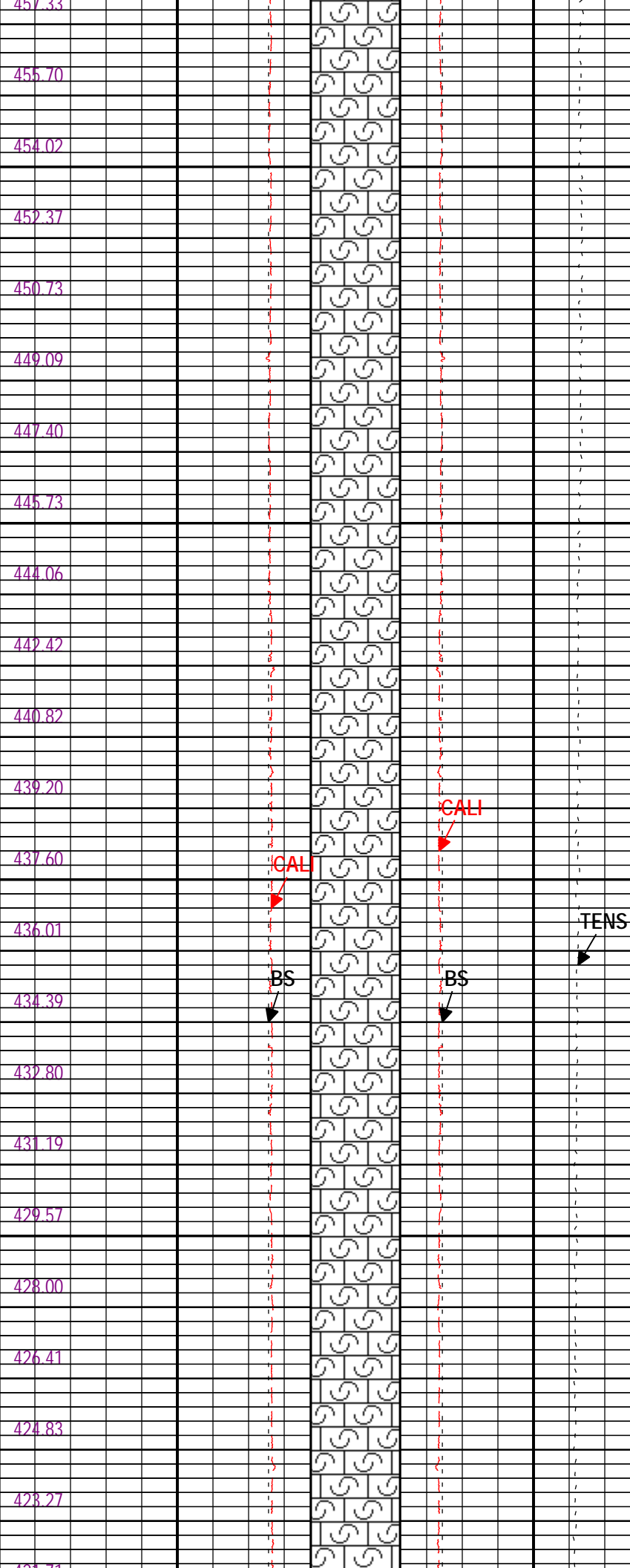
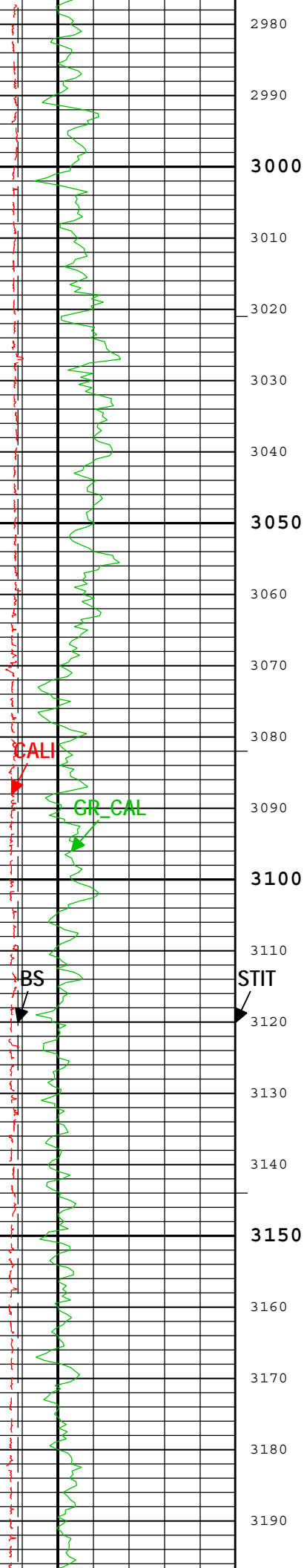


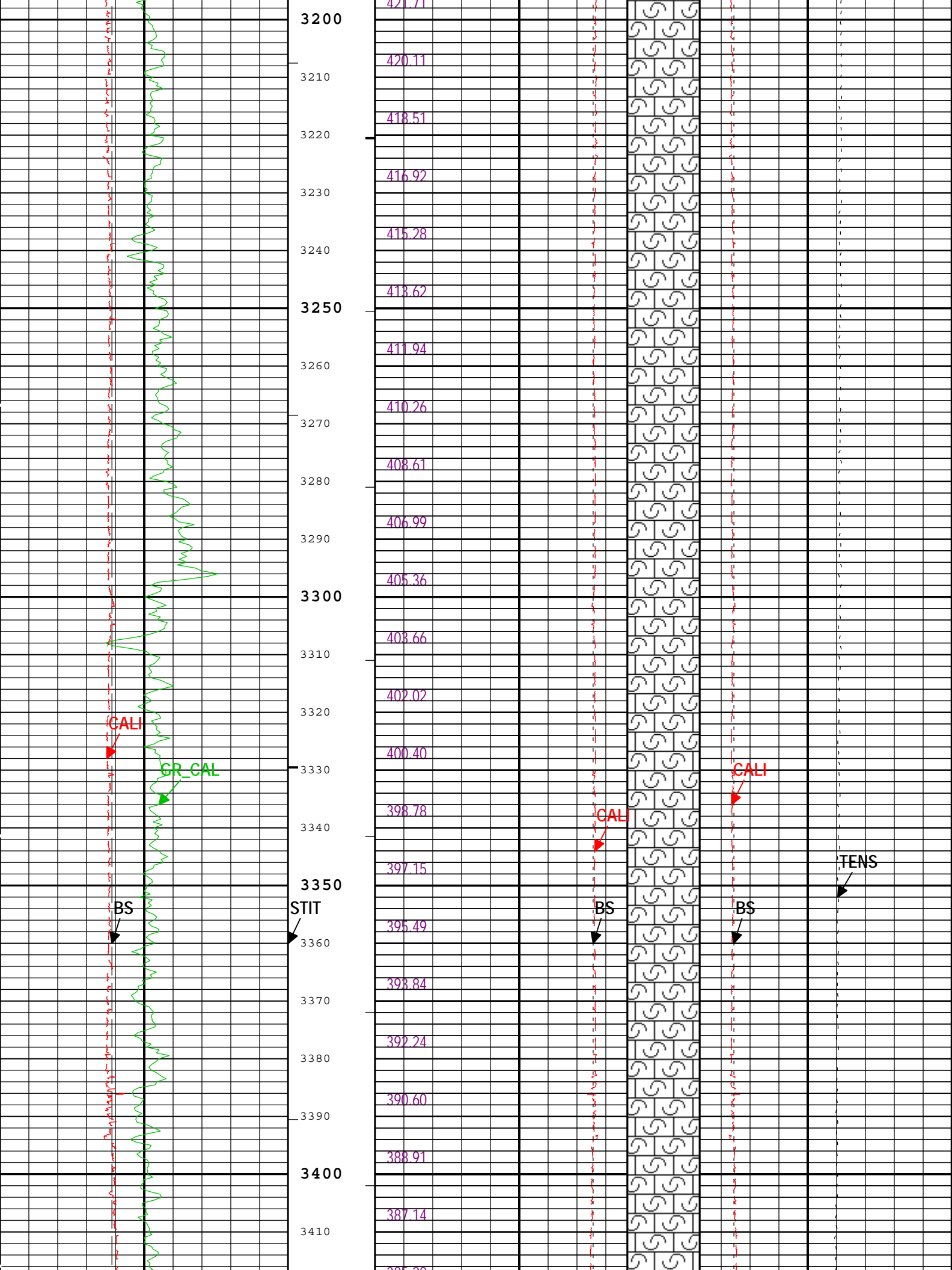


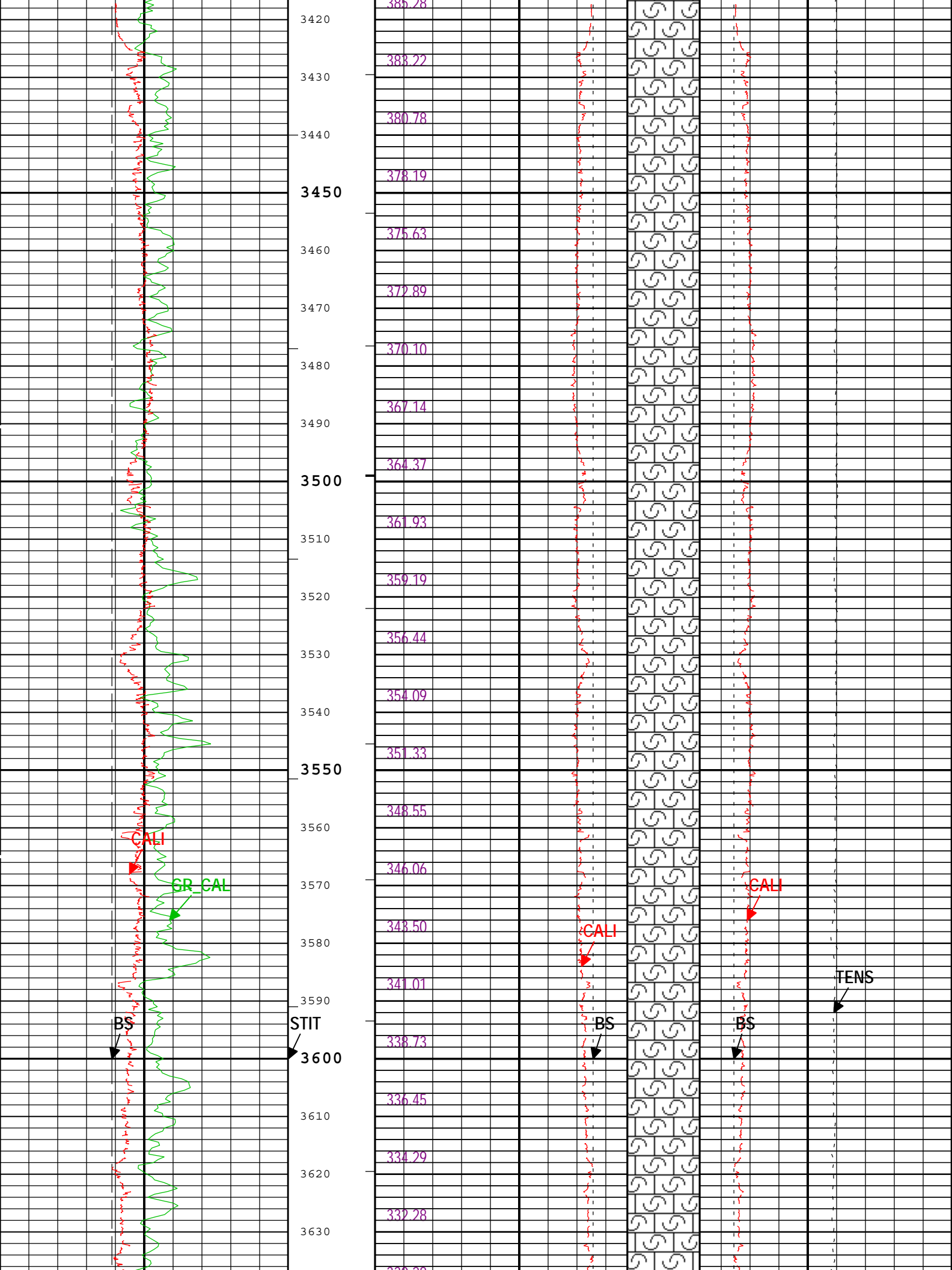


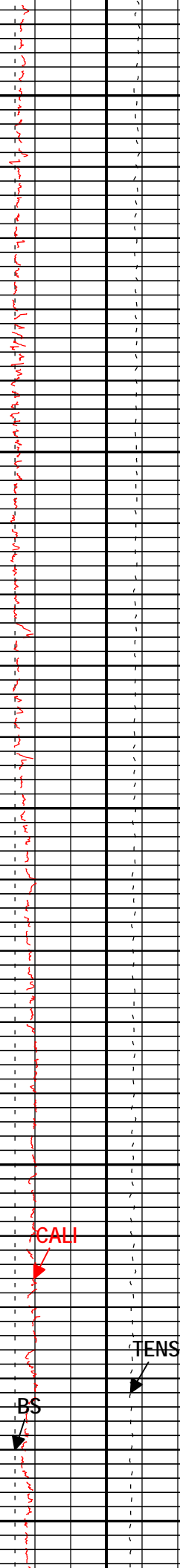
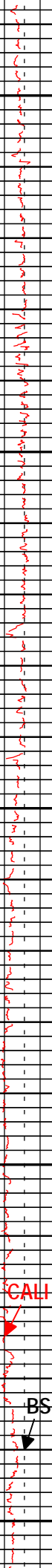
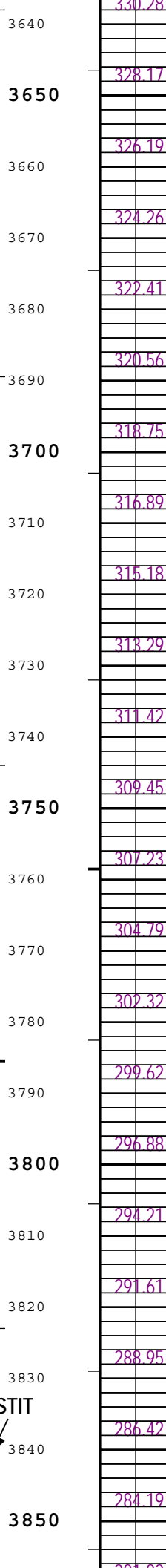
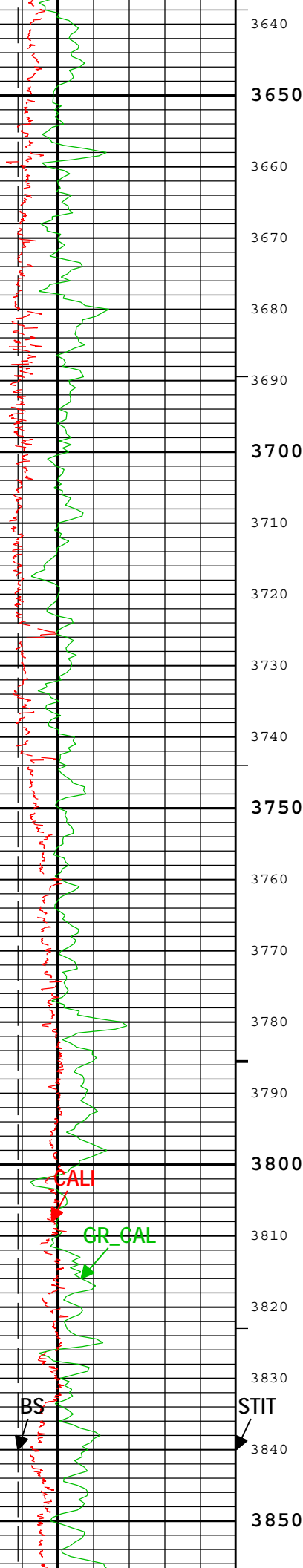


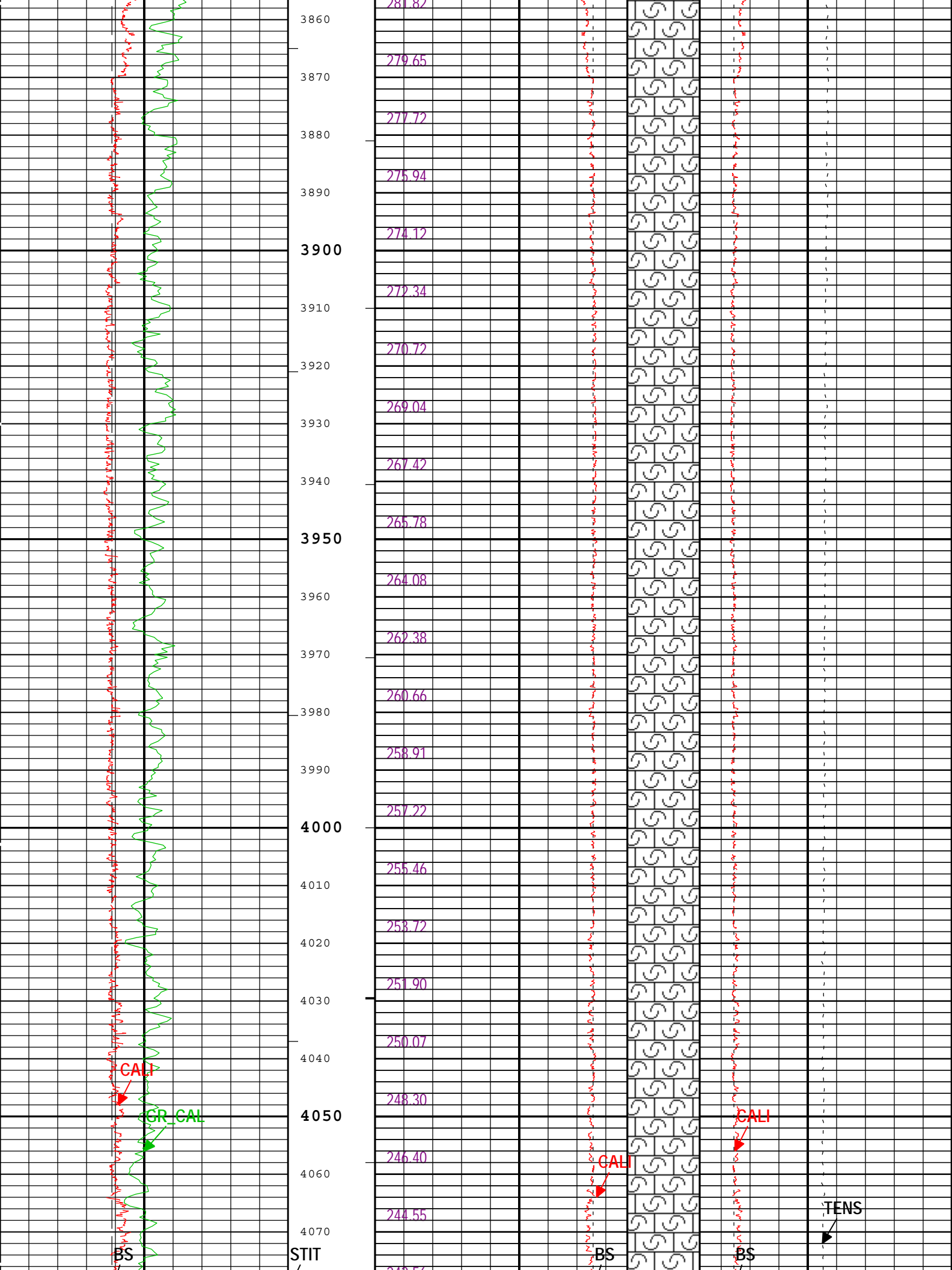


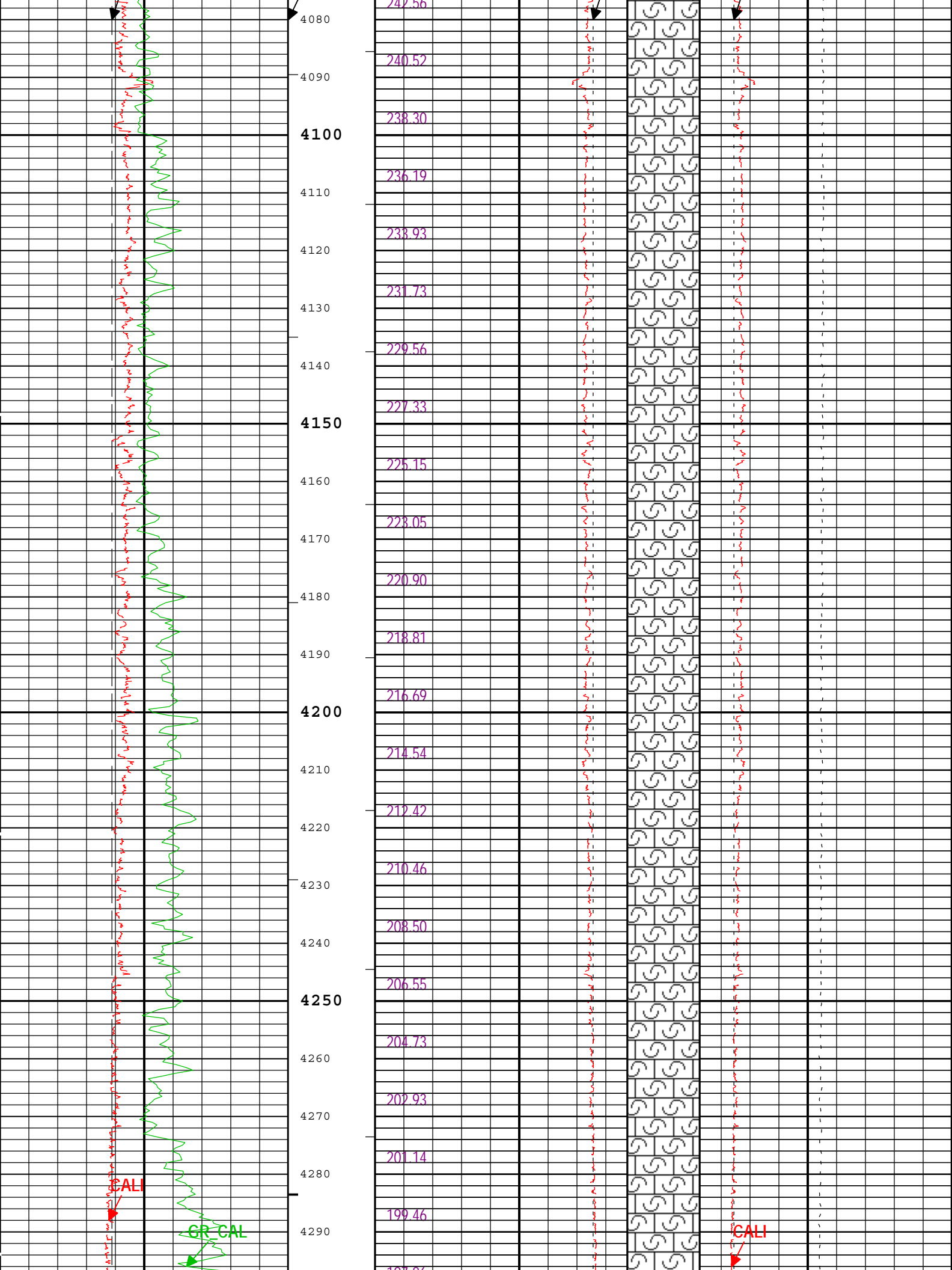


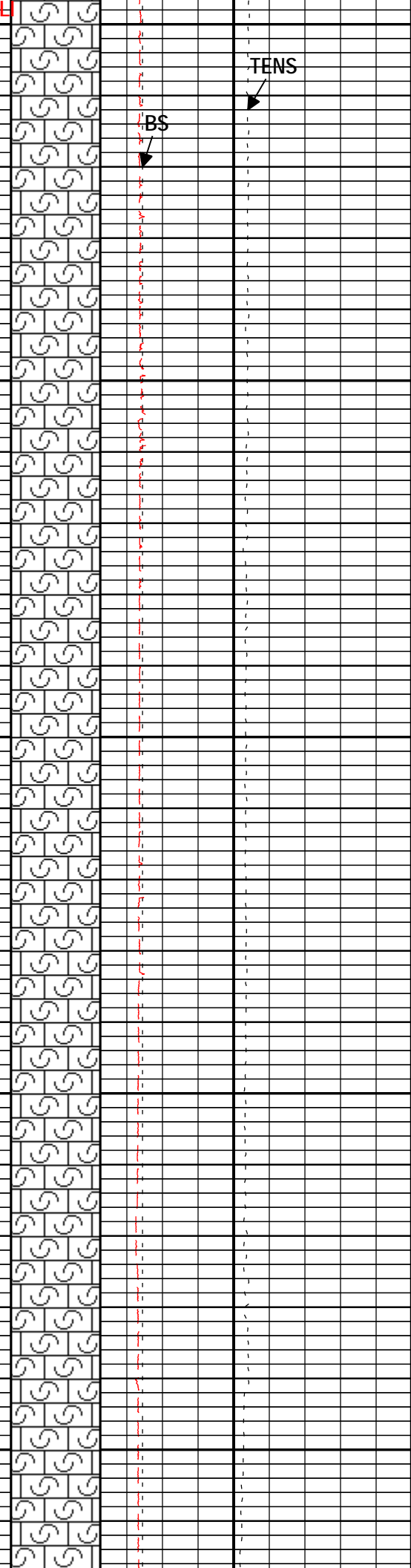
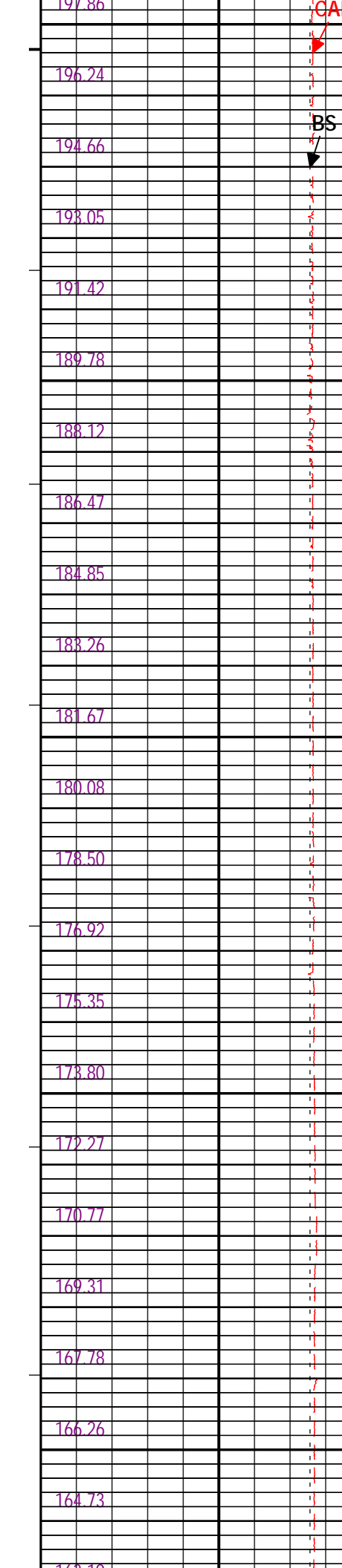
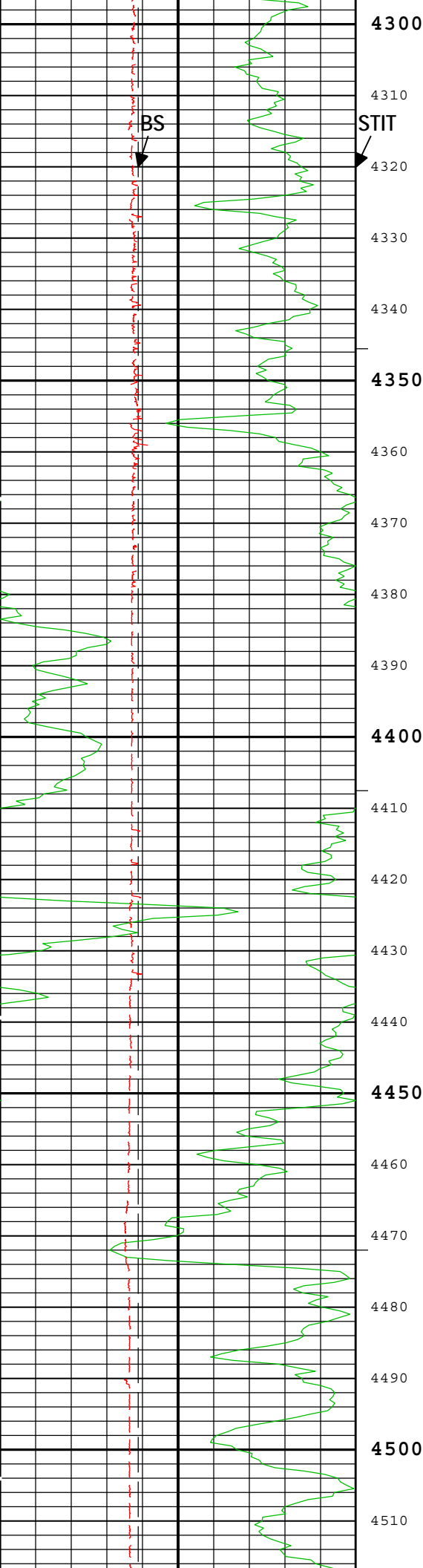


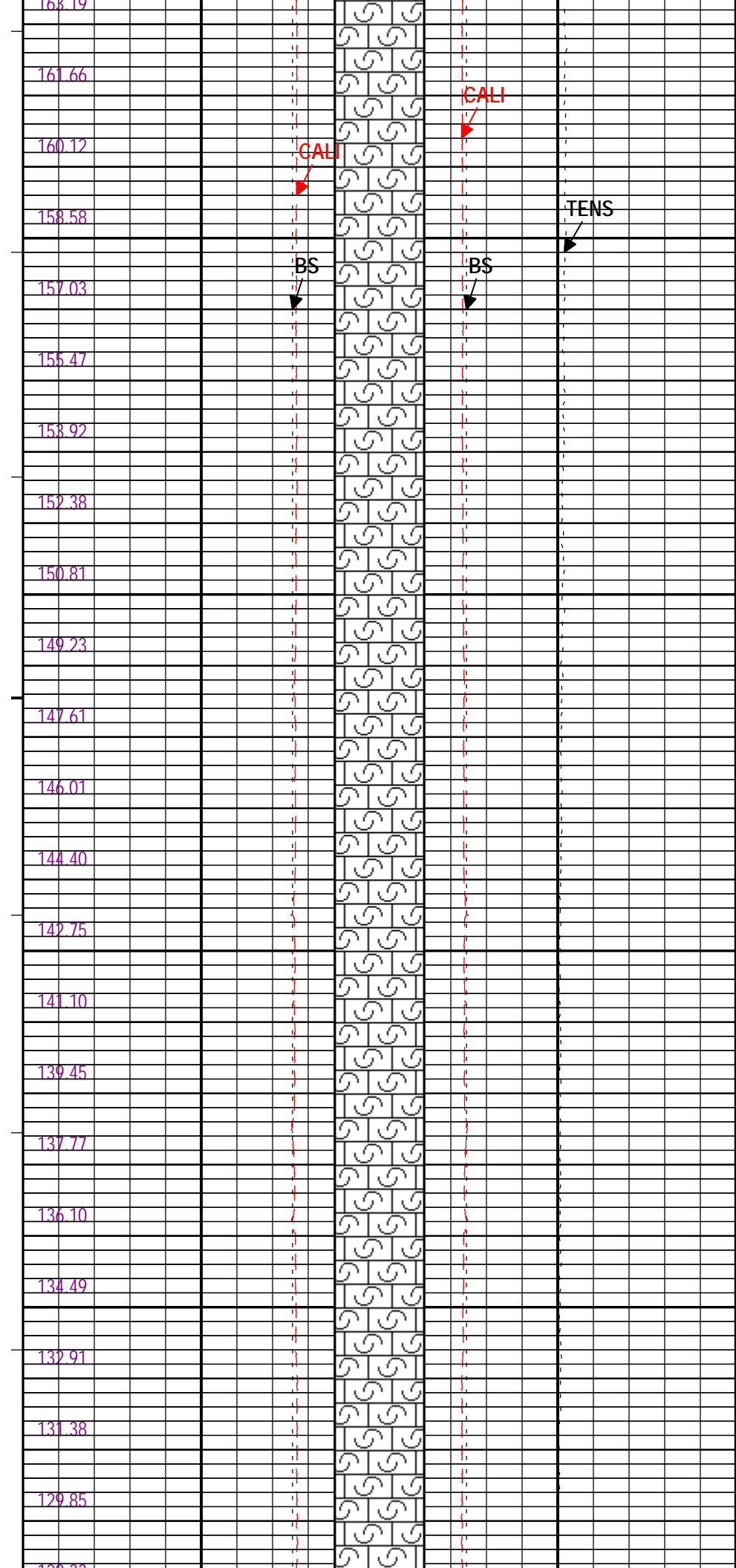
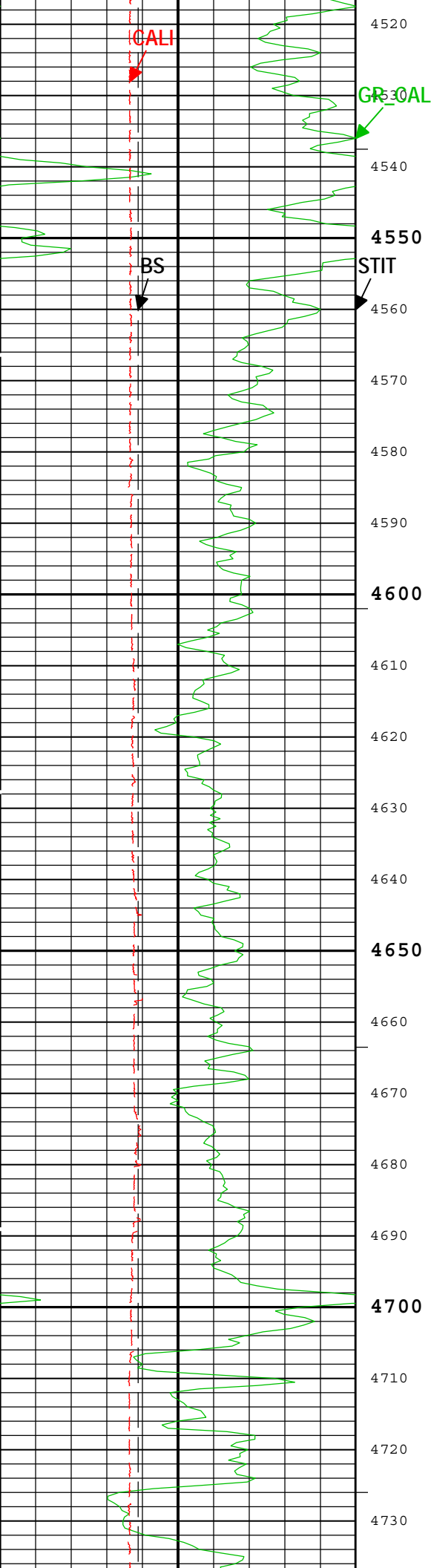


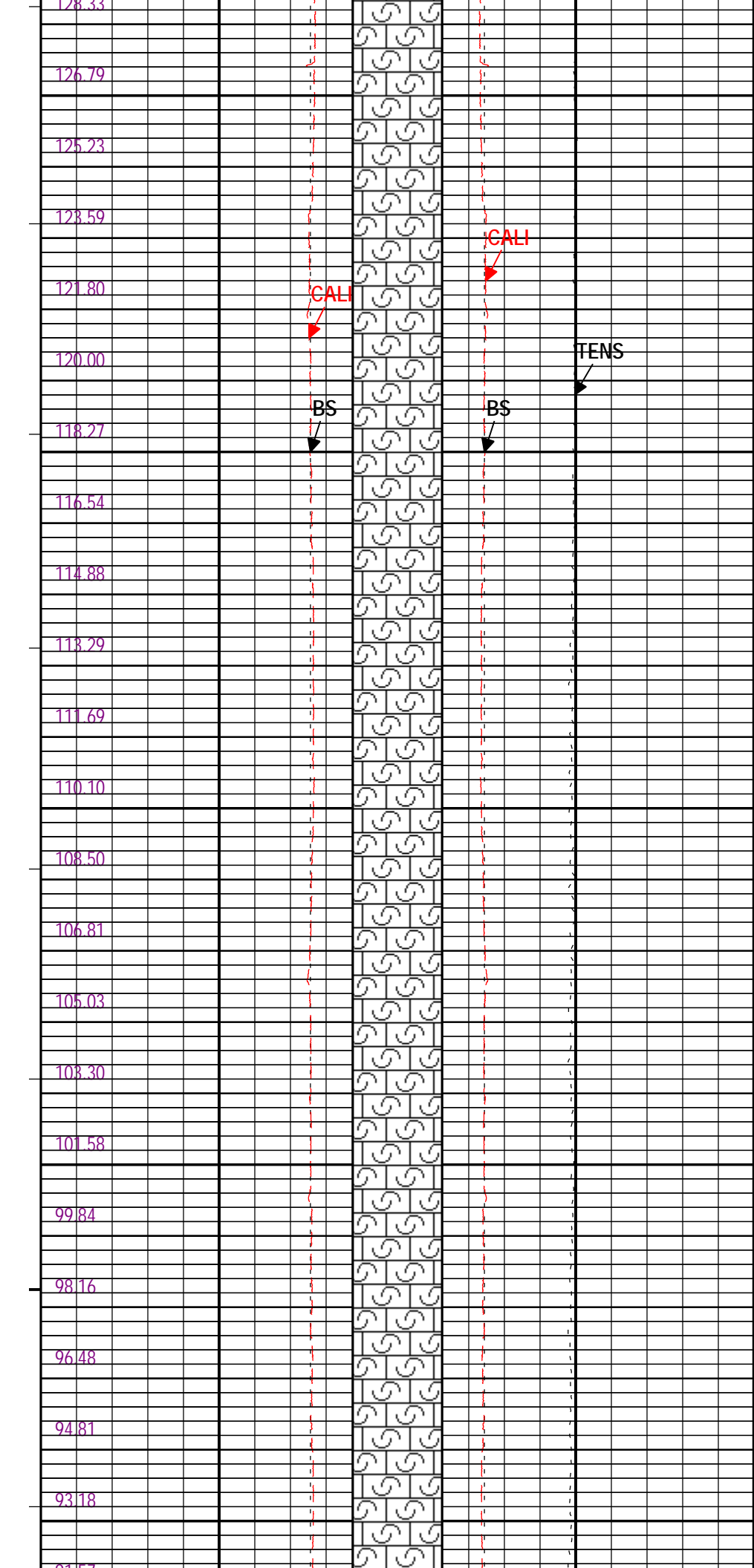
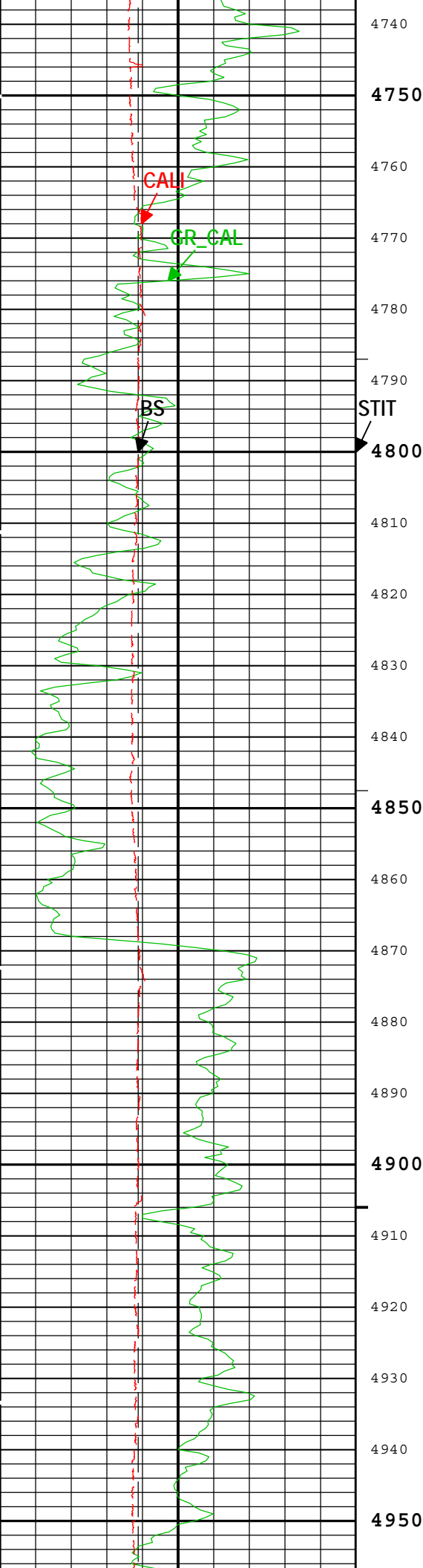


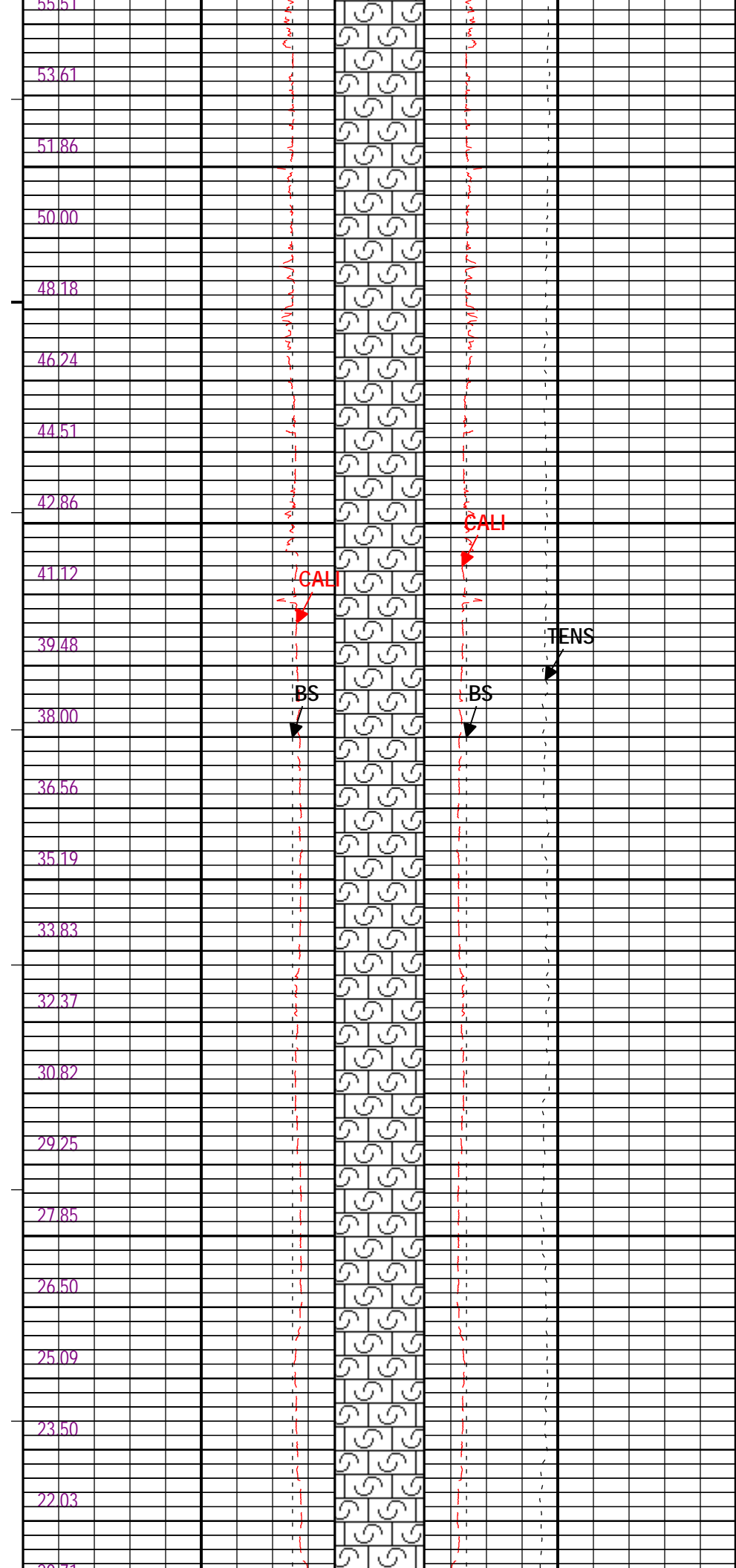
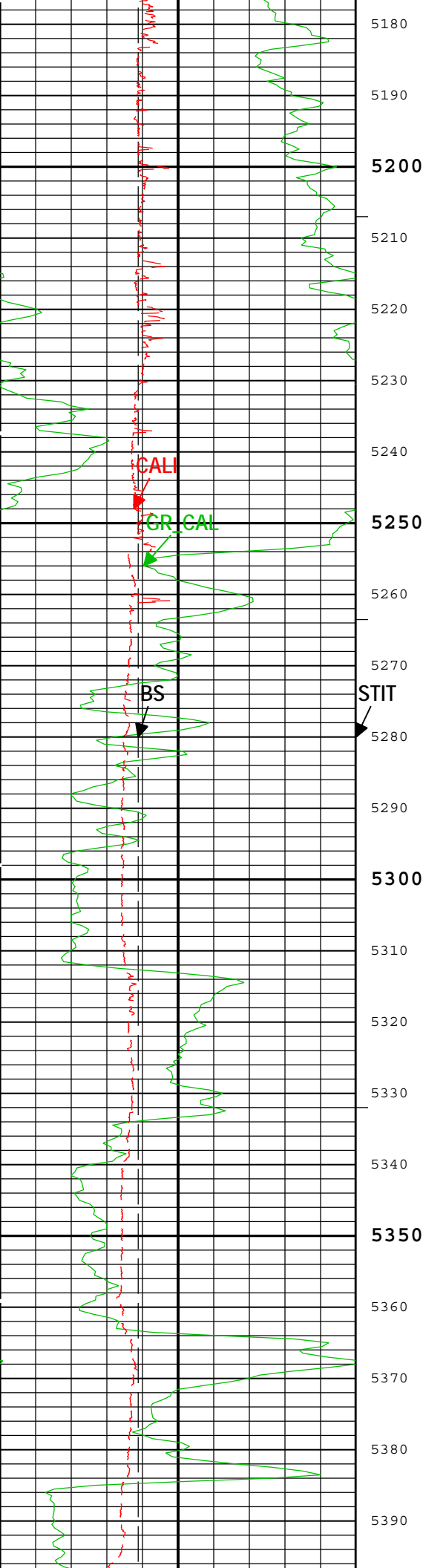


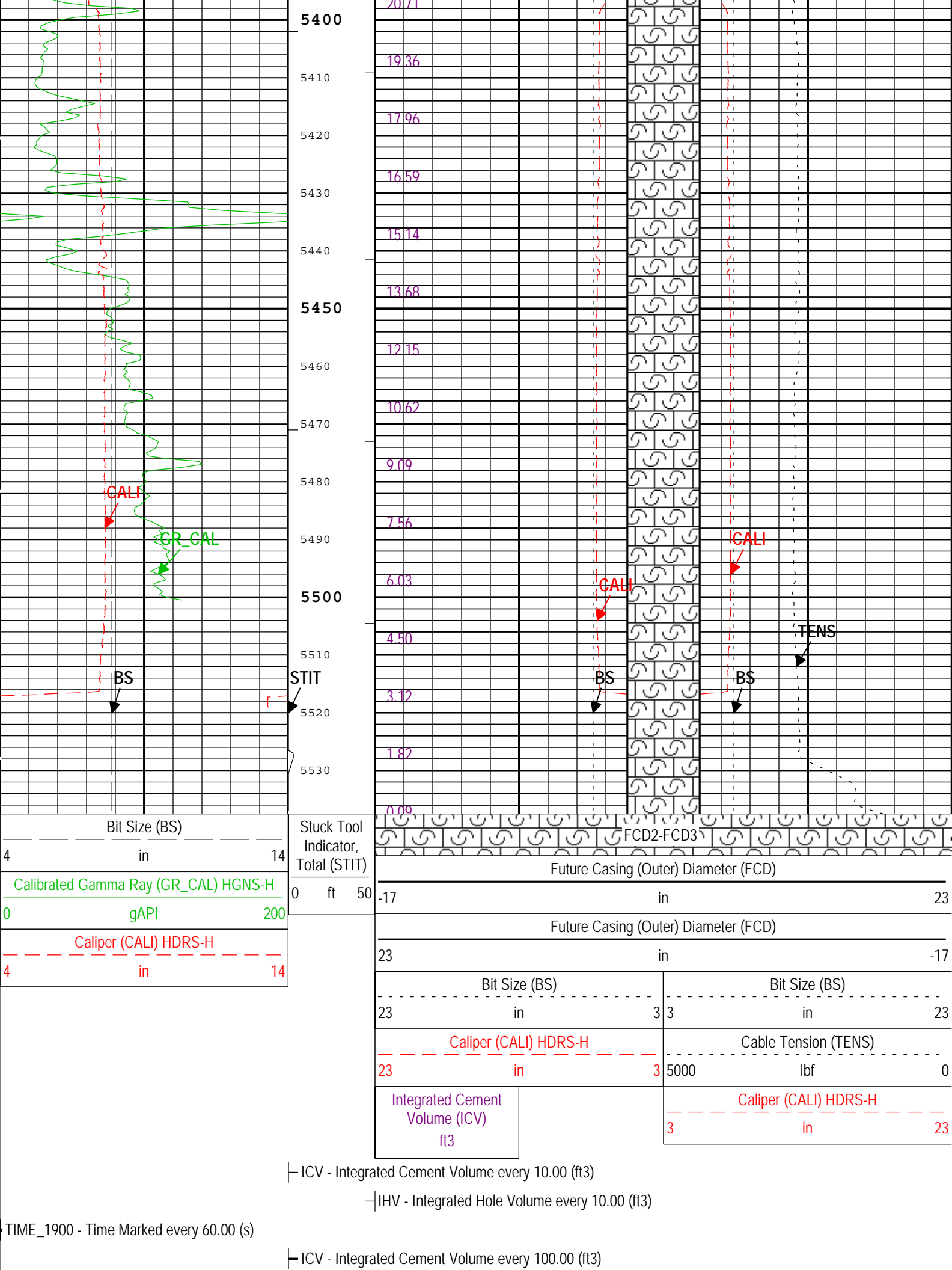












Description: Format: Log (Noble East Caliper) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 23-Nov-2013 14:04:17

Channel Processing Parameters

Parameter	Description	Tool	Value	Unit
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	7.875	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0	in
CBLO	Casing Bottom (Logger)	WLSESSION	320	ft
CSODDRL	Casing Outer Diameter - Zoned along driller depths	WLSESSION	8.625	in
FCD	Future Casing (Outer) Diameter	WLSESSION	5.5	in
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	
TD	Total Measured Depth	Borehole	5525	ft

Tool Control Parameters

Parameter	Description	Tool	Value	Unit
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLSESSION	3600	ft/h

Calibration Report

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	3989

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): 06:58:47 23-Nov-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Small Ring	in	Before	8.00	6.00	7.96	10.00	
Large Ring	in	Before	12.00	9.00	12.29	15.00	

HDRS Density Calibration - Background Summary

Before (Measured): 07:07:20 23-Nov-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Before	0.7419	0.7048	0.7422	0.7790	
BS Window Sum	1/s	Before	26633	25301	26664	27965	
SS Window Ratio		Before	0.4836	0.4594	0.4810	0.5078	
SS Window Sum	1/s	Before	10667	10133	10654	11200	
LS Window Ratio		Before	0.3023	0.2872	0.3693	0.3174	
LS Window Sum	1/s	Before	1309	1243	1285	1374	

HDRS Density Calibration - Photo-multiplier High Voltages

Before (Measured): 07:07:20 23-Nov-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Before		1000	1366	2400	
SS PM High Voltage	V	Before		1000	1872	2400	
LS PM High Voltage	V	Before		1000	1375	2400	

HDRS Density Calibration - Crystal Quality Resolutions

Before (Measured): 07:07:20 23-Nov-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Before		5.00	10.49	25.00	
SS Crystal Resolution	%	Before		5.00	10.13	20.00	
LS Crystal Resolution	%	Before		5.00	8.27	20.00	

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured): 06:58:57 23-Nov-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3860	4185	
Deep Resistivity	ohm.m	Before	3830	3524	3798	4136	
Shallow Resistivity	ohm.m	Before	3830	3524	3815	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 :

Calibration Parameter :

Water Temperature

Housing Size

JIG-BKG (Jig minus background reference)

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HGNS Accelerometer Calibration - Accelerometer Accumulations

Before (Measured): 12:13:28 23-Nov-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement	ft/s2	Before	32.2	31.5	32.1	32.8	

HGNS Neutron Calibration - HGNS Neutron Accumulations

Before (Measured): 06:57:40 23-Nov-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Before	0	5.0	26.7	40.0	
Far Zero Measurement	1/s	Before	0	5.0	27.6	40.0	
Near Plus Measurement - 0	1/s	Before	----	----	----	----	
Far Plus Measurement - 0	1/s	Before	----	----	----	----	
Near Corrected Plus Measurement - 0	1/s	Before	----	----	----	----	
Far Corrected Plus Measurement - 0	1/s	Before	----	----	----	----	

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured): 06:59:25 23-Nov-2013

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	73.1	120.0	
RGR Plus Measurement	gAPI	Before	185.4	157.1	180.4	206.3	
GR Calibration Gain		Before	0.89	0.80	0.91	1.05	

Company:	Bayswater Exploration and Production	Schlumberger
Well:	Badger Creek 22 32B	
Field:	Badger Creek	
County:	Adams	
State:	Colorado	
Platform Express		
Caliper		
Cement Volume		