

Company: Whiting Oil and Gas Corporation

Well: Wolf 12L-0103

Field: Wildcat

County: Weld State: Colorado

Platform Express		MicroLog	
Location:		SWNNW, Sec. 12, T10N, R59W	Elev.: K.B. 4971.50 ft
SHL: 2558' FNL x 619' FWL			G.L. 4953.00 ft
Lat/Long: 40.852931/-103.934714			D.F. 4970.50 ft
Permanent Datum:	Ground Level	Elev.:	4953.00 f
Log Measured From:	Kelly Bushing	18.50 ft	above Perm.Datum
Drilling Measured From:	Kelly Bushing		
API Serial No.	Section: 12	Township: 10N	Range: 59W
05-123-39421-0000			
Logging Date	30-Aug-2014		
Run Number	One		
Depth Driller	6700.00 ft		
Schlumberger Depth	6624.00 ft		
Bottom Log Interval	6600.00 ft		
Top Log Interval	18.00 ft		
Casing Driller Size @ Depth	9.625 in @ 1792.00 ft		
Casing Schlumberger	1794 ft		
Bit Size	8.75 in		
Type Fluid In Hole	Polymer		
Density	Viscosity	44 s	
Fluid Loss	PH	8.5	
MUD			
Source of Sample			
RM @ Meas Temp	1.21 ohm.m @ 75.4 degF		
RMF @ Meas Temp	0.91 ohm.m @ 75.4 degF		
RMC @ Meas Temp	1.51 ohm.m @ 75.4 degF		
Source RMF	RMC	Calculated	
RM @ BHT	RMF @ BHT	0.38 @ 190	
Max Recorded Temperatures	190 degF		
Circulation Stopped	30-Aug-2014 15:00:00		
Logger on Bottom	30-Aug-2014 18:00:47		
Unit Number	Location:	9108	Fort Morgan, CO
Recorded By	Elizabeth Wilson		
Witnessed By	BJ Honeycutt / Matt Taylor		

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.

Contents

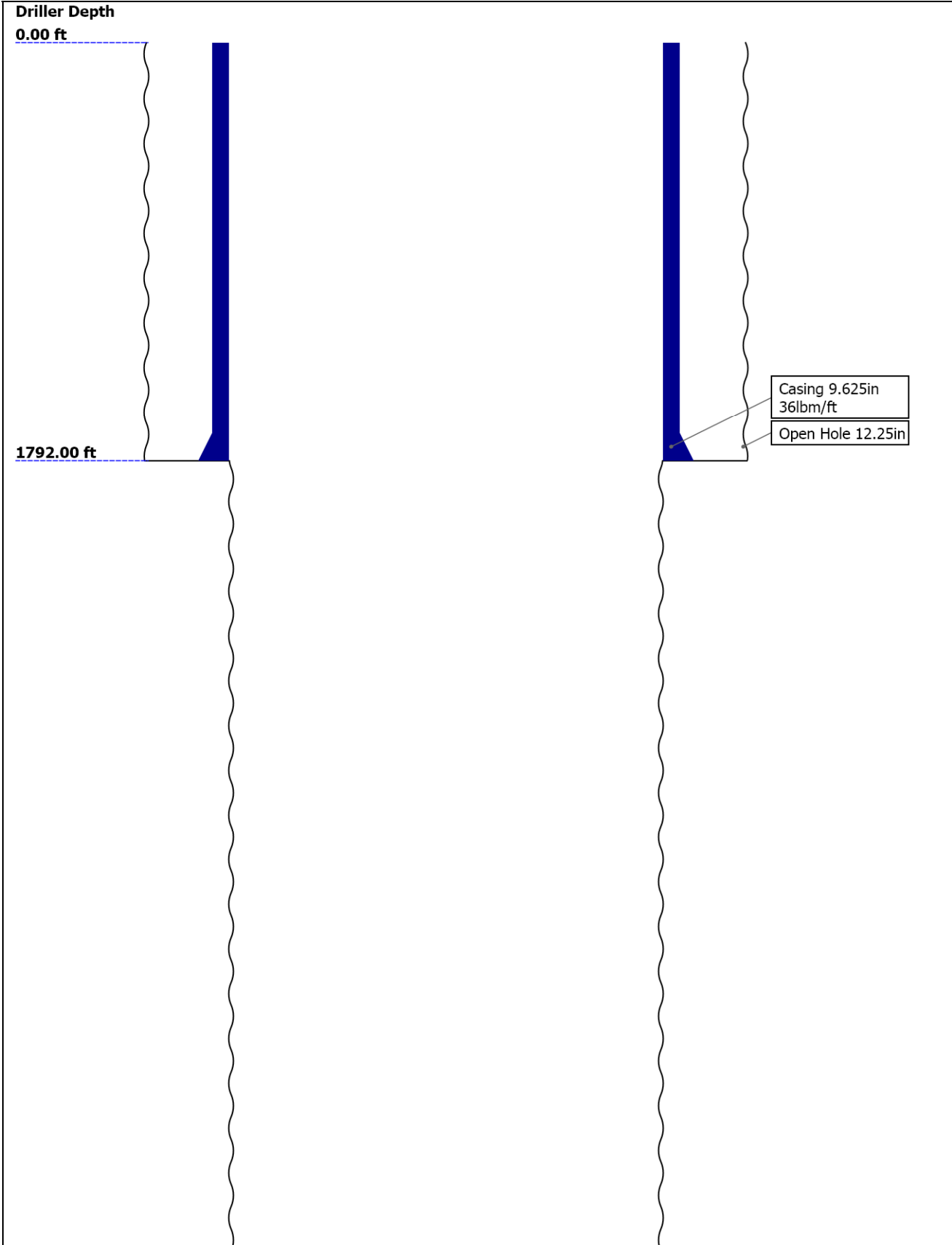
- 1. Header
- 2. Disclaimer
- 3. Contents
- 4. Well Sketch
- 5. Borehole Size/Casing/Tubing Record
- 6. Borehole Fluids
- 7. Remarks and Equipment Summary
- 8. Depth Summary
- 9. Survey Record
- 10. One 5" Micro Log
 - 10.1 Integration Summary
 - 10.2 Software Version
 - 10.3 Composite Summary
 - 10.4 Log (KM 5in Micro Log)
 - 10.5 Parameter Listing
- 11. One 5" Micro Log
 - 11.1 Composite Summary

11.2 Log (KM 5in Micro Log RA)

12. Calibration Report

13. Tail

Well Sketch





Borehole Size/Casing/Tubing Record


Bit						
Bit Size (in)	12.25	8.75				
Top Driller (ft)	0	1792				
Top Logger (ft)	0	1792				
Bottom Driller (ft)	1792	6700				
Bottom Logger (ft)	1792	6624				
Casing						
Size (in)	9.625					
Weight (lbm/ft)	36					
Inner Diameter (in)	8.921					
Grade	N/A					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	1792					
Bottom Logger (ft)	1794					

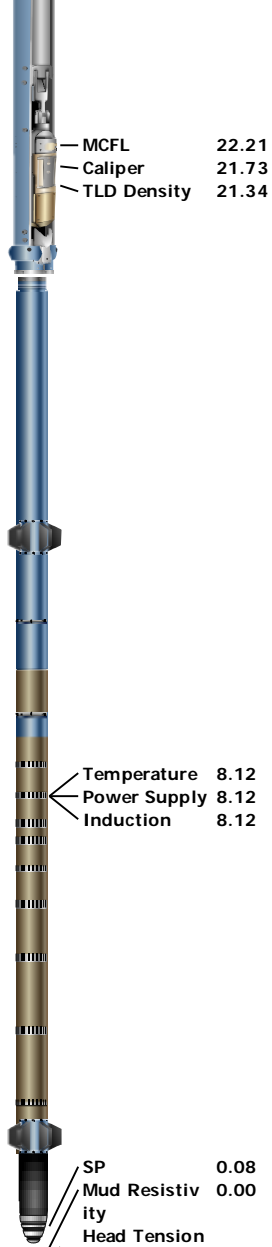
Borehole Fluids

Parameter(unit)	One					
Fluid Type	Water					
Fluid Name	Polymer					
Max Recorded Temperatures (degF)	190					
Source of Sample	Shale Shakers					
Salinity (ppm)	1000					
Density (lbm/gal)	9.3					
Funnel Viscosity (s)	44					
Fluid Loss (cm3)	6.8					
PH	8.5					
Date/Time Circulation Stopped	30-Aug-2014 15:00:00					
Date Logger on Bottom	30-Aug-2014					
Time Logger on Bottom	18:00:47					
Source RMF	Calculated					
RMC	Calculated					
RM @ Meas Temp (ohm.m@degF)	1.21 @ 75.4					
RMF @ Meas Temp (ohm.m@degF)	0.91 @ 75.4					

RMC @ Meas Temp (ohm.m@degF)	1.51 @ 75.4					
RM @ BHT (ohm.m@degF)	0.51 @ 190					
RMF @ BHT (ohm.m@degF)	0.38 @ 190					
RMC @ BHT (ohm.m@degF)	0.63 @ 190					
Total Solid (%)	5					
High Gravity Solids (%)						

Remarks and Equipment Summary

One: Toolstring				One: Remarks
Equip name	Length	MP name	Offset	Toolstring ran as per tool sketch
LEH-QT:2552 LEH-QT:2552	62.47			TLD caliper calibrated to casing ID of 8.921"
				Crew: Alonzo Carrera, David Marquez
				Thank you for choosing Schlumberger Wireline Services
EDTC-B:9296 EDTH-B:9347 EDTG-B:79498 EDTC-B:9296	59.55			
			CTEM 56.05 ACCZ 0.00 HV 0.00	
			Gamma Ray 54.18	
			TelStatus 53.05 3808	
Weight[2]	53.05			
GPIT-F:2953 GPIH-B DHRU-F:2953 GPIC-F:2953	49.05		GPIT-F Inclination 47.63 ometer	
			GPIT 0.00 3808	
Weight[1]	45.05			
HGNS-H:4810 HGNH:3912 NPV-N NSR-F:5069 HMCA-H HGNS-H:4810 HACCZ-H:6305	41.05		Temperature 41.02 GR 40.31	
			CNL Porosity 33.98 HGNS 31.64 HMCA 31.64 Accelerometer 0.00 r	
HDRS-H:3911 ECH-MEB:3949 HRCC-H:4923 HRMS-H:3911 Long Spacing:287 36 Short Spacing:287 36 GPV-Q Backscatter:2873 6 GSR-J:5094 HRGD-H:3933	31.64		HRCC 27.64	



Depth Summary

One

Depth Measuring Device

Type	IDW-JA
Serial Number	5916
Calibration Date	24-Mar-2014
Calibrator Serial Number	
Calibration Cable Type	7-46 PXS
Wheel Correction 1	-6
Wheel Correction 2	-3

Tension Device

Type	CMTD-B/A
Serial Number	1919
Calibration Date	28-Jul-2014
Calibrator Serial Number	78135A
Number of Calibration Points	10
Calibration Root Mean Square Error	17
Calibration Peak Error	26

Logging Cable

Logging Cable

Type	7-46A-XS		
Serial Number	U711142		
Length	21000.00 ft		
Conveyance Type	Wireline		
Rig Type	Land		
One:Depth Control Parameters		Depth Control Remarks	
Log Sequence	First Log In the Well	All Schlumberger depth policies and procedures followed	
Rig Up Length At Surface		IDW used as primary depth reference	
Rig Up Length At Bottom		Z-chart used as secondary depth reference	
Rig Up Length Correction			
Stretch Correction	7.00 ft		
Tool Zero Check At Surface			

Survey Record

Survey Calculation			
Method :	Minimum Radius of Curvature	DLS Method :	Lubinski
North Reference :	True North	Total Correction Formula :	Magnetic Dec

Rig Location			
Latitude :	40.873983 degrees	Longitude :	-103.93184 degrees
Tie In Point			
Measured Depth:	0.00 ft	Inclination:	0.00 deg
True Vertical Depth:	0.00 ft	North Displacement:	0.00 ft
		Azimuth:	0.00 deg
		East Displacement:	0.00 ft

Survey Quality Index	
9 : Manual	28 : Tie-In Point

Survey Correction Index	
0 : No correction	

Survey Description Index	
0 : Not Flagged Survey	

Seq	MD (ft)	Incl (deg)	Azim (deg)	Course (ft)	TVD (ft)	V Sec (ft)	N/ -S (ft)	E/ -W (ft)	Closure (ft)	at Azim (deg)	DLS deg/100ft	Tool Type	QI	CI	DI
1	0.00	0.00	0.00	- - - -	0.00	0.00	0.00	0.00	0.00	90.00	0.00	TIP	28	0	0
2	500.00	0.60	129.60	500.00	499.99	-1.67	-1.67	2.02	2.62	129.60	0.12	Other	9	0	0
3	972.00	0.80	146.60	472.00	971.96	-5.99	-5.99	5.74	8.30	136.27	0.06	Other	9	0	0
4	1530.00	1.10	176.70	558.00	1529.88	-14.59	-14.59	8.19	16.73	150.71	0.10	Other	9	0	0
5	1760.00	1.40	176.80	230.00	1759.83	-19.60	-19.60	8.47	21.36	156.63	0.13	Other	9	0	0
6	1811.00	1.30	168.40	51.00	1810.81	-20.79	-20.79	8.62	22.51	157.48	0.43	Other	9	0	0
7	1905.00	3.40	131.90	94.00	1904.73	-23.70	-23.70	10.91	26.08	155.28	2.64	Other	9	0	0
8	1999.00	5.30	125.30	94.00	1998.46	-28.07	-28.07	16.53	32.58	149.51	2.09	Other	9	0	0
9	2093.00	8.40	132.30	94.00	2091.78	-35.20	-35.20	25.15	43.27	144.45	3.41	Other	9	0	0
10	2187.00	10.90	123.80	94.00	2184.44	-44.77	-44.77	37.62	58.46	139.96	3.05	Other	9	0	0
11	2280.00	14.10	118.00	93.00	2275.23	-54.98	-54.98	54.93	77.72	135.02	3.69	Other	9	0	0
12	2374.00	13.30	118.70	94.00	2366.56	-65.55	-65.55	74.53	99.25	131.33	0.87	Other	9	0	0
13	2469.00	12.10	114.80	95.00	2459.23	-74.97	-74.97	93.15	119.59	128.83	1.55	Other	9	0	0
14	2563.00	14.50	119.30	94.00	2550.71	-84.87	-84.87	112.36	140.81	127.06	2.78	Other	9	0	0
15	2658.00	13.90	118.60	95.00	2642.80	-96.15	-96.15	132.75	163.91	125.91	0.66	Other	9	0	0
16	2753.00	13.50	117.30	95.00	2735.10	-106.70	-106.70	152.63	186.22	124.96	0.53	Other	9	0	0
17	2847.00	14.30	123.80	94.00	2826.35	-118.19	-118.19	172.02	208.73	124.49	1.87	Other	9	0	0
18	2942.00	14.00	125.30	95.00	2918.47	-131.36	-131.36	191.15	231.92	124.50	0.50	Other	9	0	0
19	3035.00	14.10	124.40	93.00	3008.69	-144.26	-144.26	209.68	254.49	124.53	0.26	Other	9	0	0
20	3130.00	14.10	122.60	95.00	3100.83	-157.03	-157.03	228.98	277.66	124.44	0.46	Other	9	0	0
21	3223.00	13.70	120.60	93.00	3191.10	-168.74	-168.74	248.00	299.97	124.23	0.67	Other	9	0	0
22	3317.00	14.70	131.10	94.00	3282.25	-182.25	-182.25	266.57	322.90	124.36	2.93	Other	9	0	0
23	3410.00	14.30	130.60	93.00	3372.28	-197.48	-197.48	284.18	346.06	124.80	0.45	Other	9	0	0
24	3503.00	14.10	131.10	93.00	3462.44	-212.40	-212.40	301.44	368.77	125.17	0.25	Other	9	0	0
25	3596.00	14.10	128.70	93.00	3552.64	-226.93	-226.93	318.82	391.34	125.44	0.63	Other	9	0	0

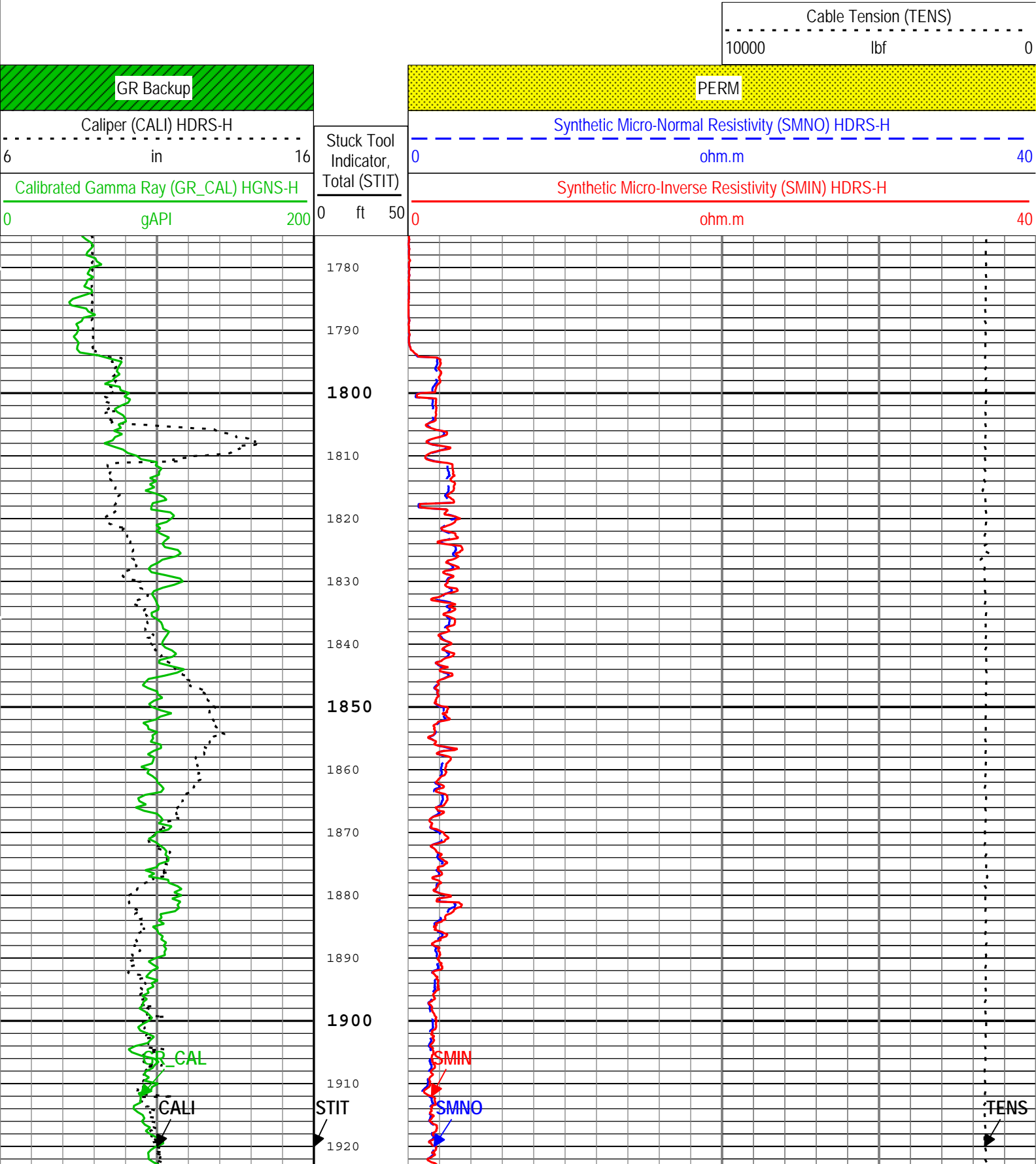
26	3690.00	14.90	126.60	94.00	3643.65	-241.29	-241.29	337.46	414.86	125.57	1.02	Other	9	0	0
27	3783.00	15.60	125.20	93.00	3733.37	-255.63	-255.63	357.27	439.30	125.58	0.85	Other	9	0	0
28	3875.00	16.60	125.00	92.00	3821.76	-270.30	-270.30	378.15	464.83	125.56	1.09	Other	9	0	0
29	3968.00	17.40	123.80	93.00	3910.70	-285.66	-285.66	400.59	491.99	125.49	0.94	Other	9	0	0
30	4062.00	17.50	123.00	94.00	4000.37	-301.17	-301.17	424.12	520.18	125.38	0.28	Other	9	0	0
31	4155.00	16.30	122.30	93.00	4089.35	-315.76	-315.76	446.88	547.18	125.24	1.31	Other	9	0	0
32	4250.00	16.10	121.70	95.00	4180.58	-329.81	-329.81	469.35	573.65	125.10	0.27	Other	9	0	0
33	4343.00	16.10	120.90	93.00	4269.94	-343.21	-343.21	491.39	599.38	124.93	0.24	Other	9	0	0
34	4437.00	16.00	120.20	94.00	4360.27	-356.42	-356.42	513.77	625.30	124.75	0.23	Other	9	0	0
35	4531.00	16.10	117.30	94.00	4450.61	-368.91	-368.91	536.55	651.15	124.51	0.86	Other	9	0	0
36	4623.00	15.90	113.20	92.00	4539.05	-379.73	-379.73	559.47	676.15	124.17	1.25	Other	9	0	0
37	4716.00	13.40	110.40	93.00	4629.02	-388.50	-388.50	581.28	699.15	123.76	2.79	Other	9	0	0
38	4809.00	12.20	112.80	93.00	4719.71	-396.07	-396.07	600.44	719.29	123.41	1.41	Other	9	0	0
39	4902.00	10.70	111.70	93.00	4810.85	-403.07	-403.07	617.52	737.43	123.13	1.63	Other	9	0	0
40	4996.00	10.40	112.00	94.00	4903.26	-409.47	-409.47	633.50	754.30	122.88	0.32	Other	9	0	0
41	5089.00	7.80	111.70	93.00	4995.09	-414.95	-414.95	647.15	768.77	122.67	2.80	Other	9	0	0
42	5182.00	7.40	91.40	93.00	5087.28	-417.43	-417.43	659.00	780.09	122.35	2.90	Other	9	0	0
43	5276.00	5.50	75.10	94.00	5180.69	-416.42	-416.42	669.41	788.35	121.88	2.79	Other	9	0	0
44	5369.00	4.10	59.50	93.00	5273.37	-413.59	-413.59	676.58	792.98	121.44	2.05	Other	9	0	0
45	5462.00	1.20	45.10	93.00	5366.26	-411.21	-411.21	680.13	794.78	121.16	3.18	Other	9	0	0
46	5555.00	1.20	20.40	93.00	5459.24	-409.61	-409.61	681.16	794.85	121.02	0.55	Other	9	0	0
47	5649.00	1.20	26.20	94.00	5553.22	-407.81	-407.81	681.94	794.59	120.88	0.13	Other	9	0	0
48	5742.00	1.80	39.30	93.00	5646.19	-405.80	-405.80	683.30	794.72	120.71	0.74	Other	9	0	0
49	5835.00	1.60	7.00	93.00	5739.15	-403.38	-403.38	684.38	794.42	120.52	1.04	Other	9	0	0
50	5928.00	1.60	352.00	93.00	5832.11	-400.81	-400.81	684.36	793.08	120.36	0.45	Other	9	0	0
51	5966.00	1.60	349.30	38.00	5870.10	-399.76	-399.76	684.18	792.42	120.30	0.20	Other	9	0	0
52	5984.00	1.50	351.10	18.00	5888.09	-399.28	-399.28	684.10	792.09	1					

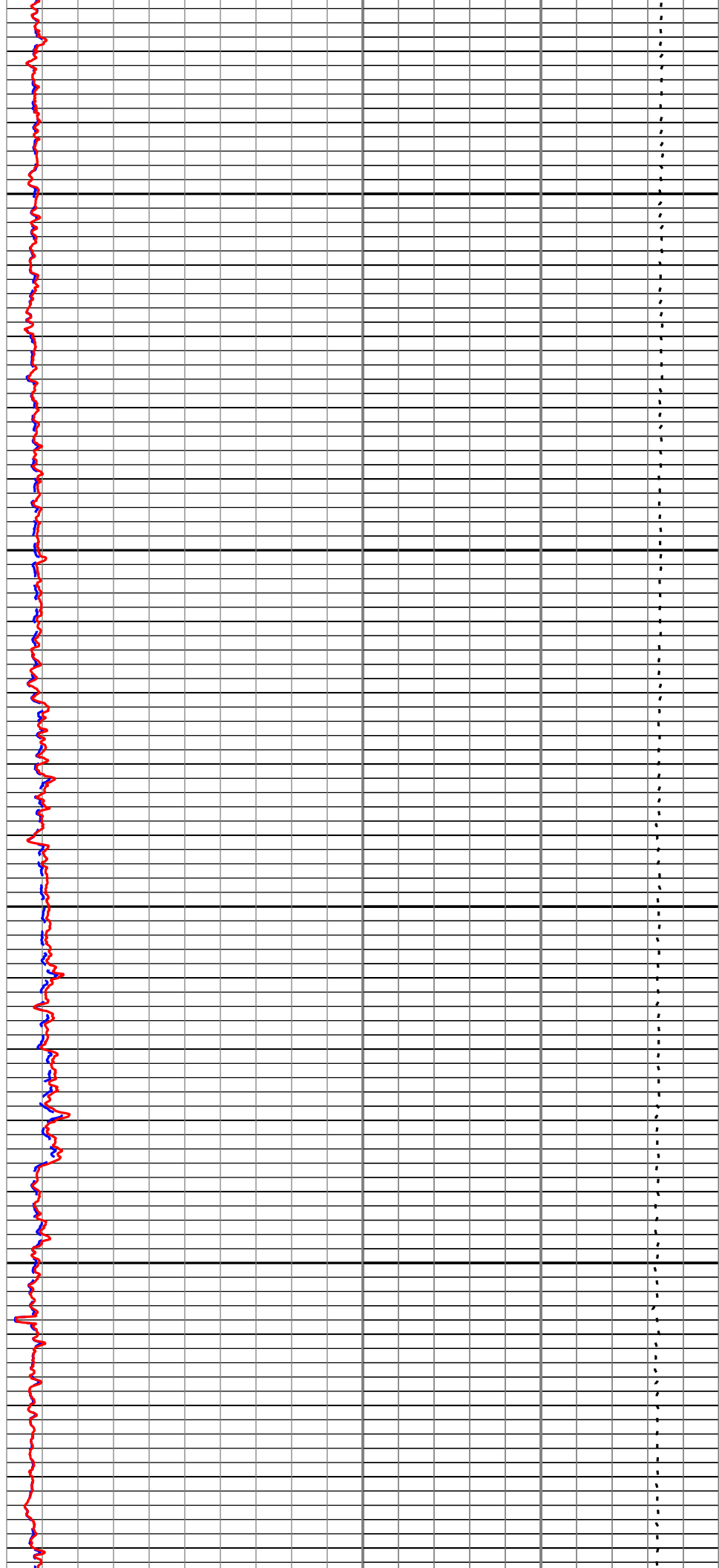
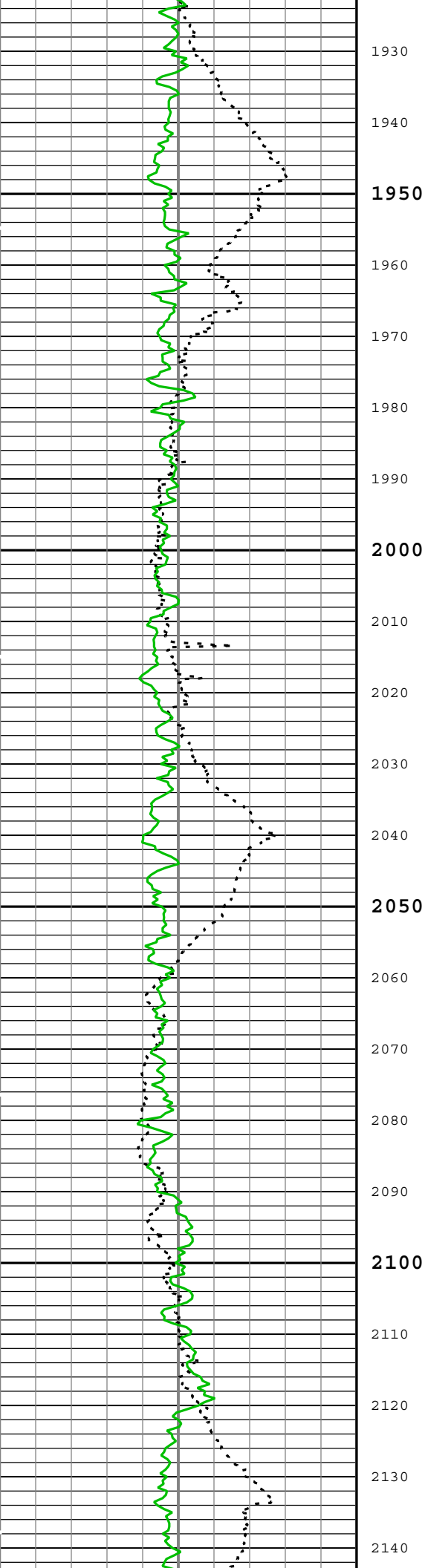
All depths are referenced to toolstring zero		
Log	Company:Whiting Oil and Gas Corporation	Well:Wolf 12L-0103 One: Log[3]:Up:S010

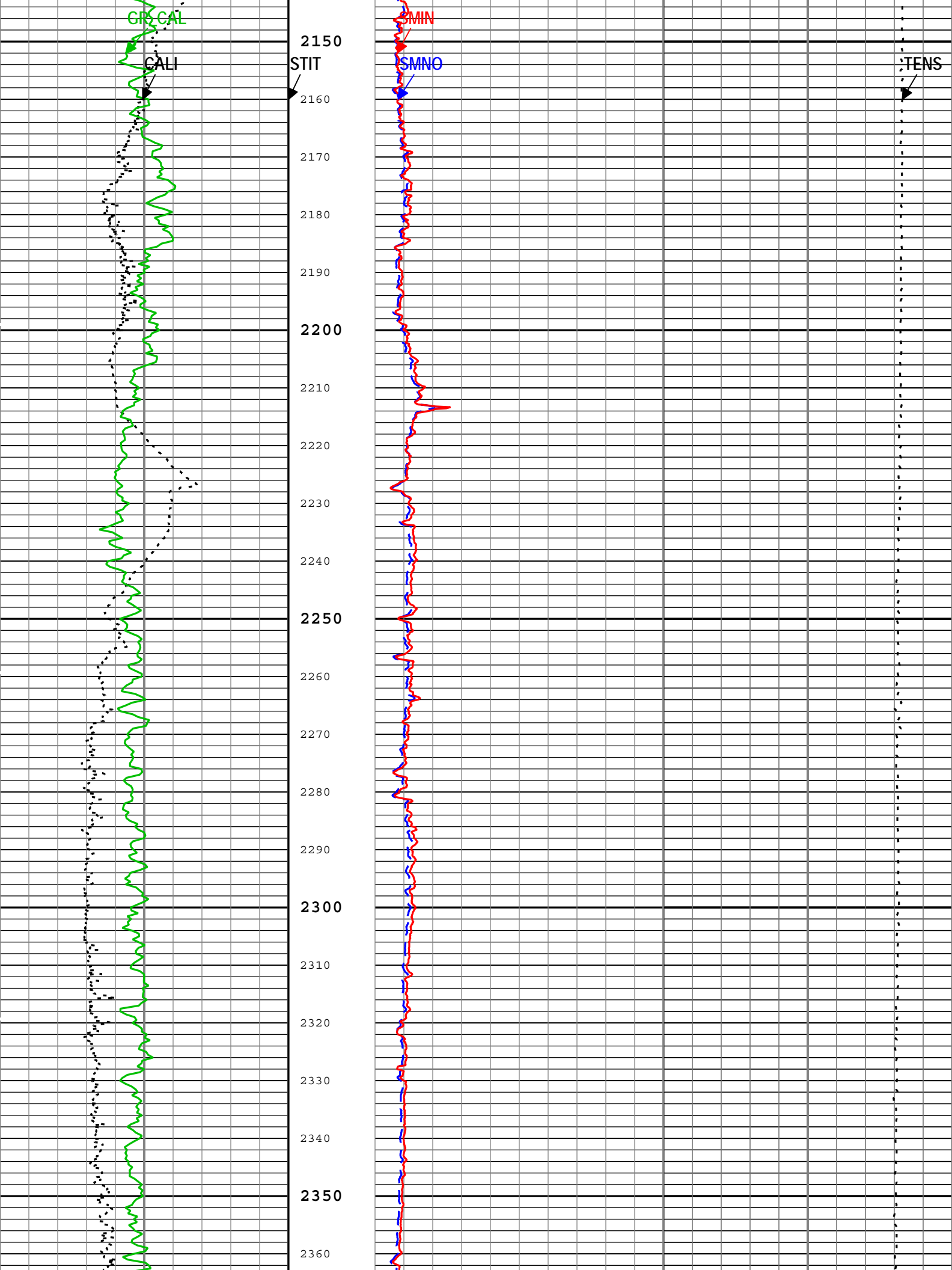
Description: MCFL processing for Platform Express					Format: Log (KM 5in Micro Log)					Index Scale: 5 in per 100 ft					Index Unit: ft					Index Type: Measured				
Depth					Creation Date: 31-Aug-2014 02:32:25																			
Channel					Source					Sampling														

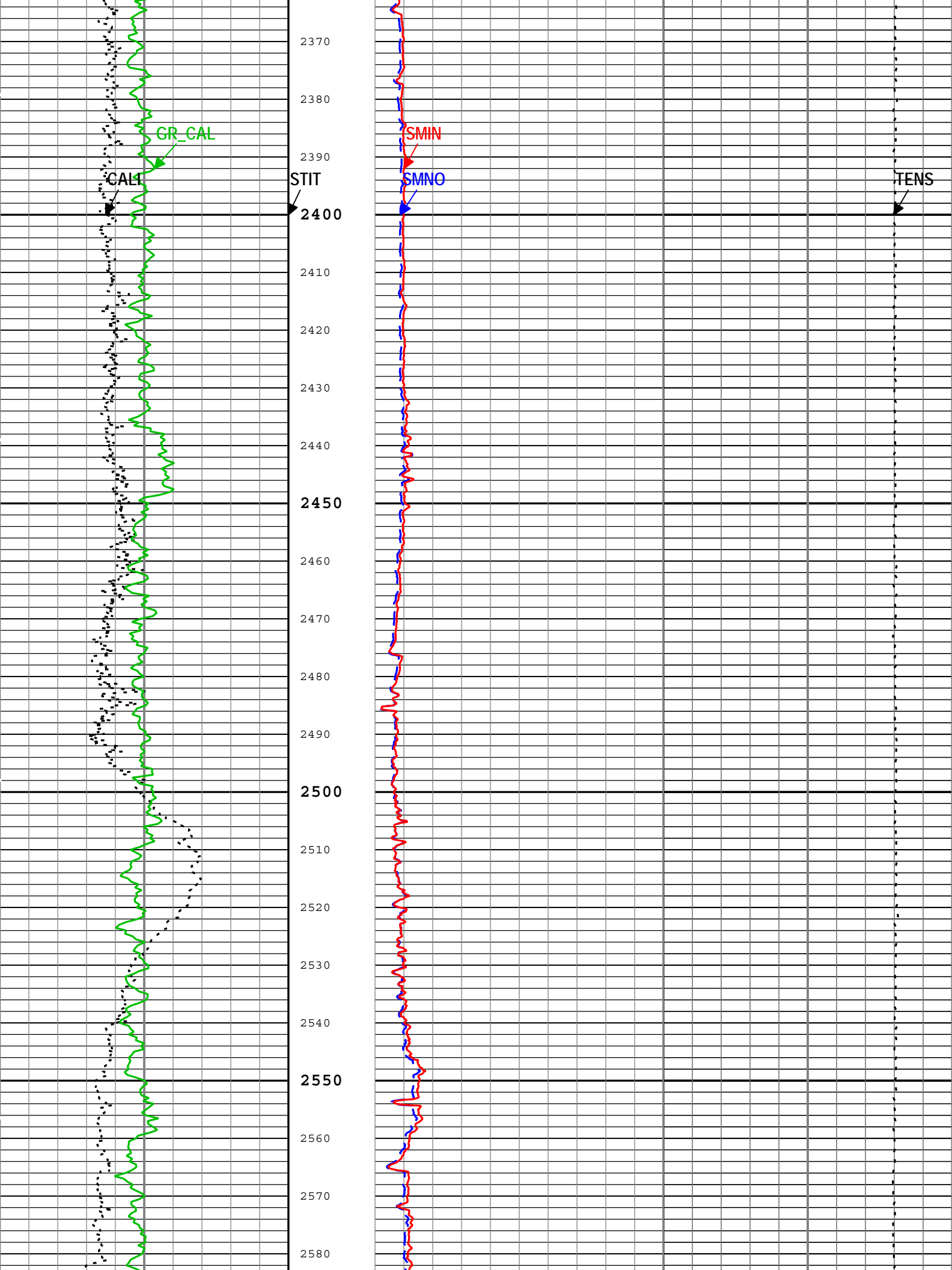
CALI	HDRS-H:HRCC-H:HRCC-H	1in
GR_CAL	HGNS-H:HGNS-H:HGNS-H	6in
SMIN	HDRS-H:HRMS-H:HRGD-H	2in
SMNO	HDRS-H:HRMS-H:HRGD-H	2in
STIT	DepthCorrection	6in
TENS	WLWorkflow	6in
TIME_1900	WLWorkflow	0.1in

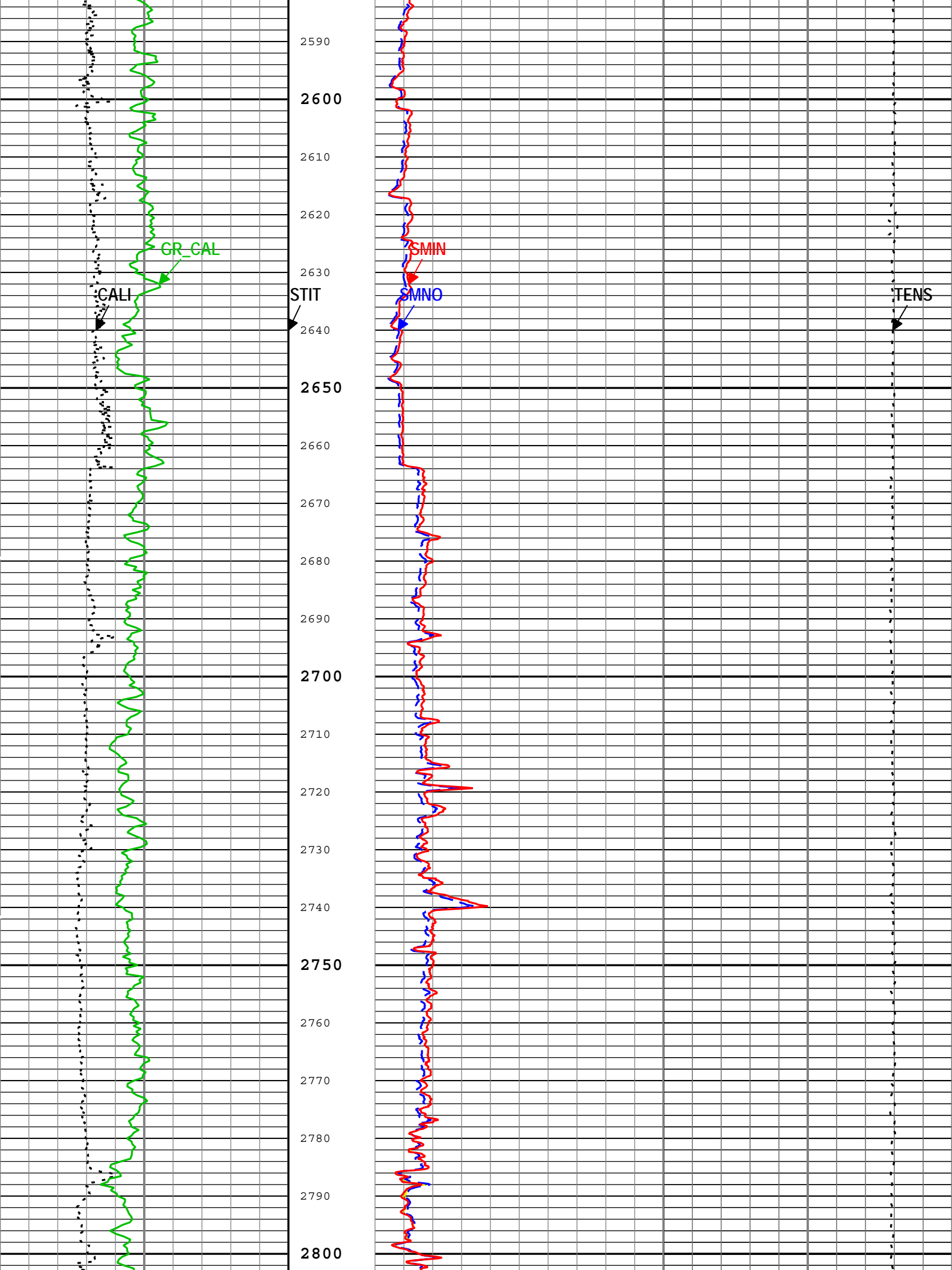
TIME_1900 - Time Marked every 60.00 (s)

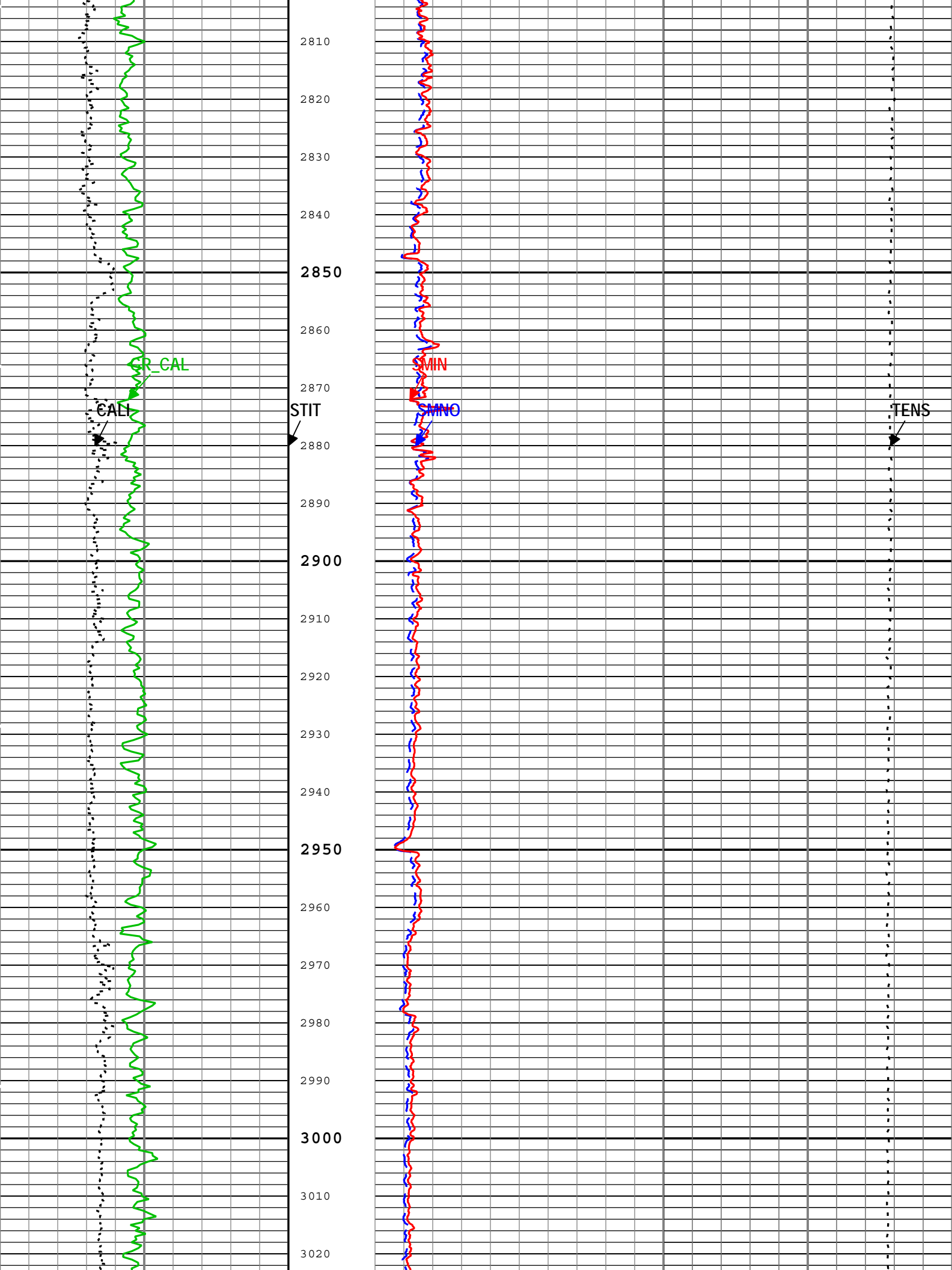


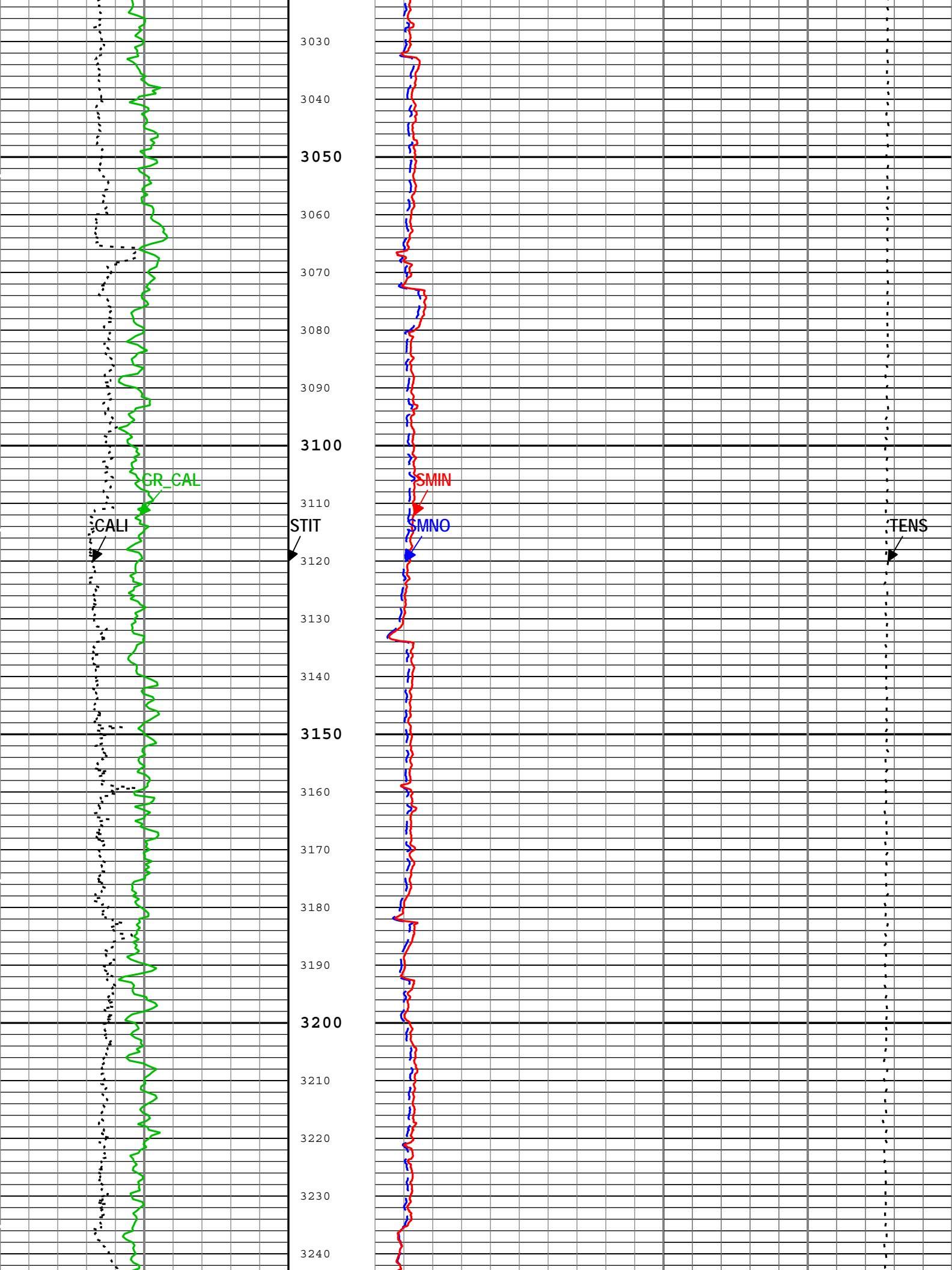


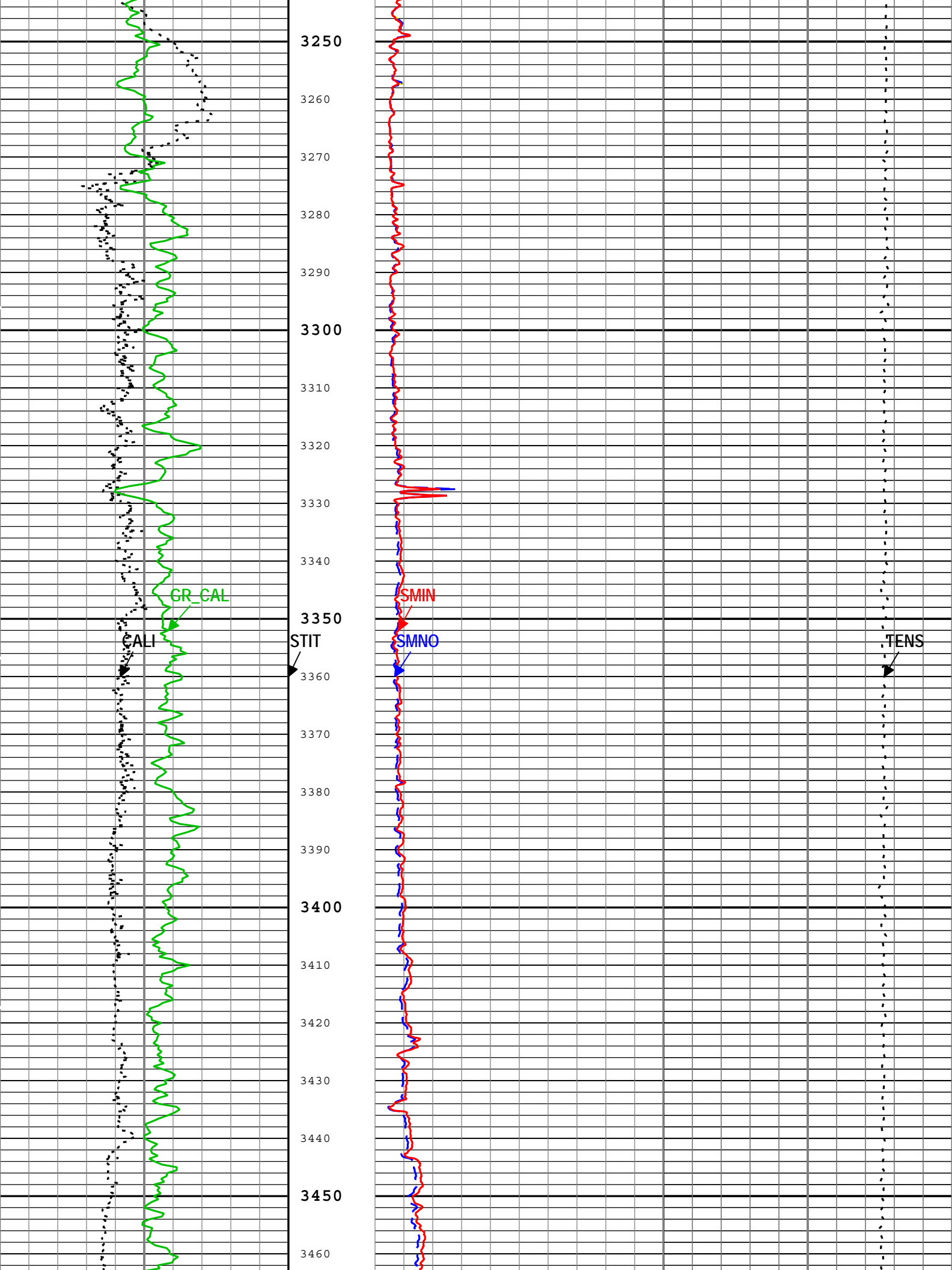


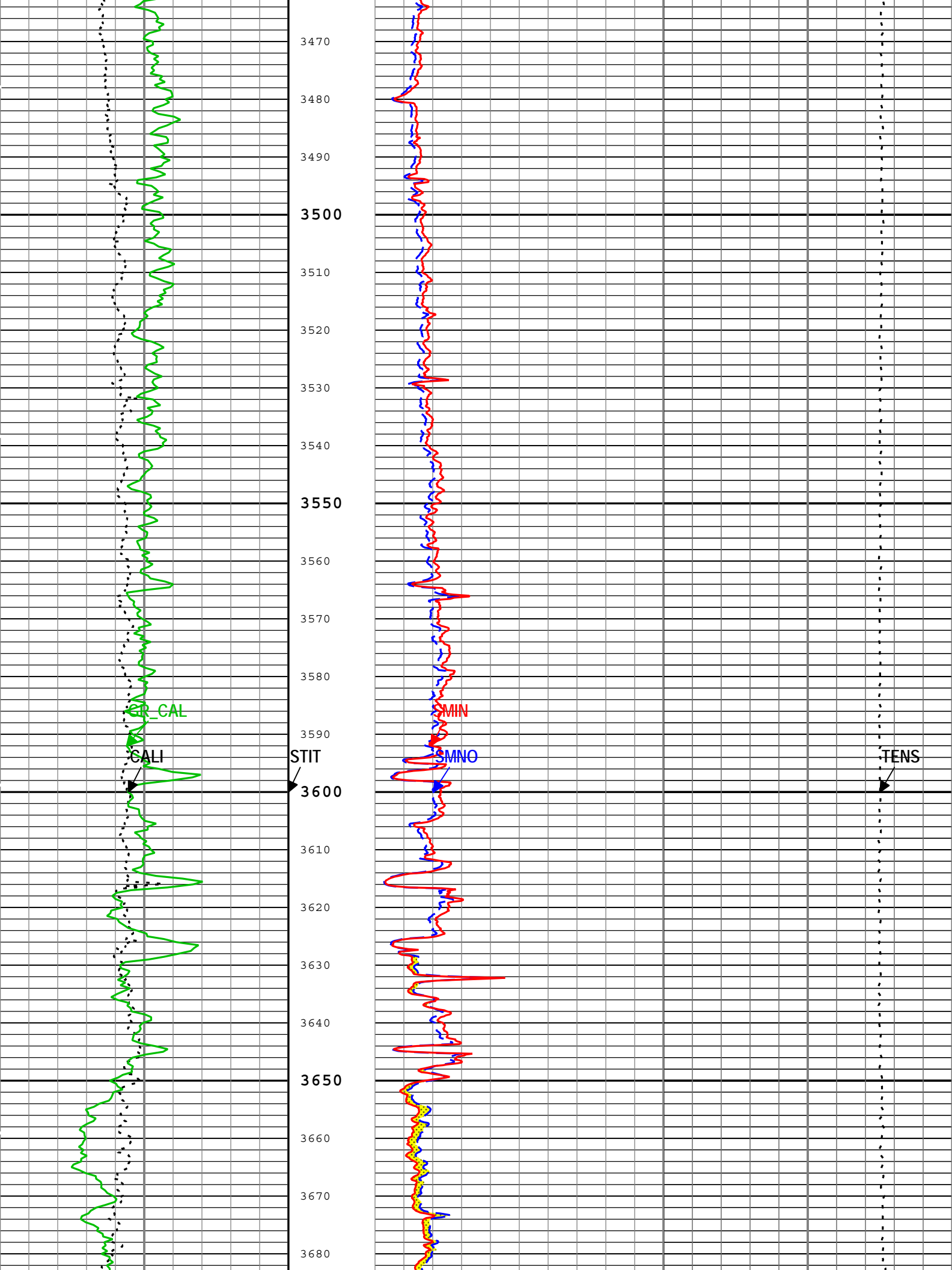


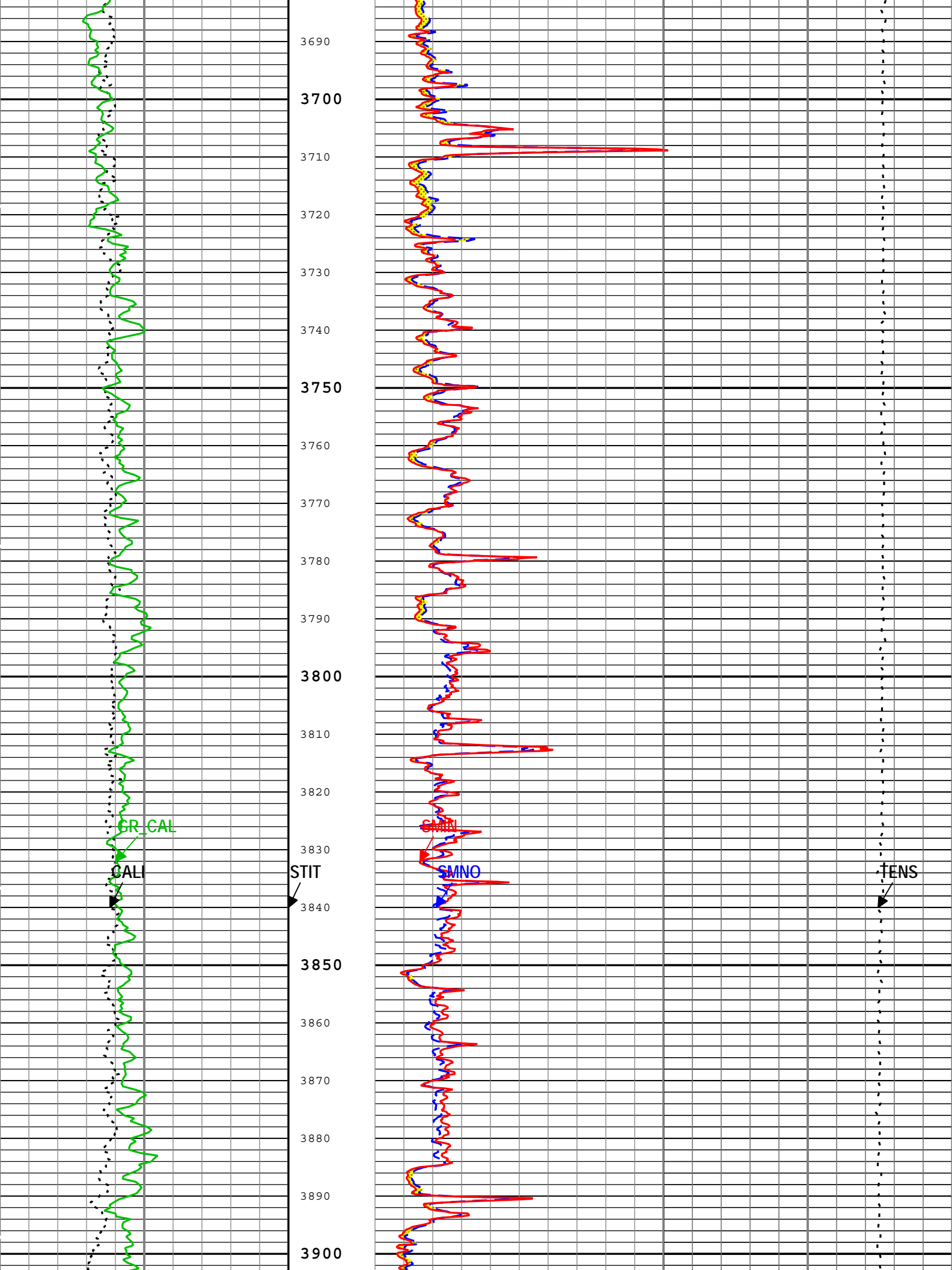


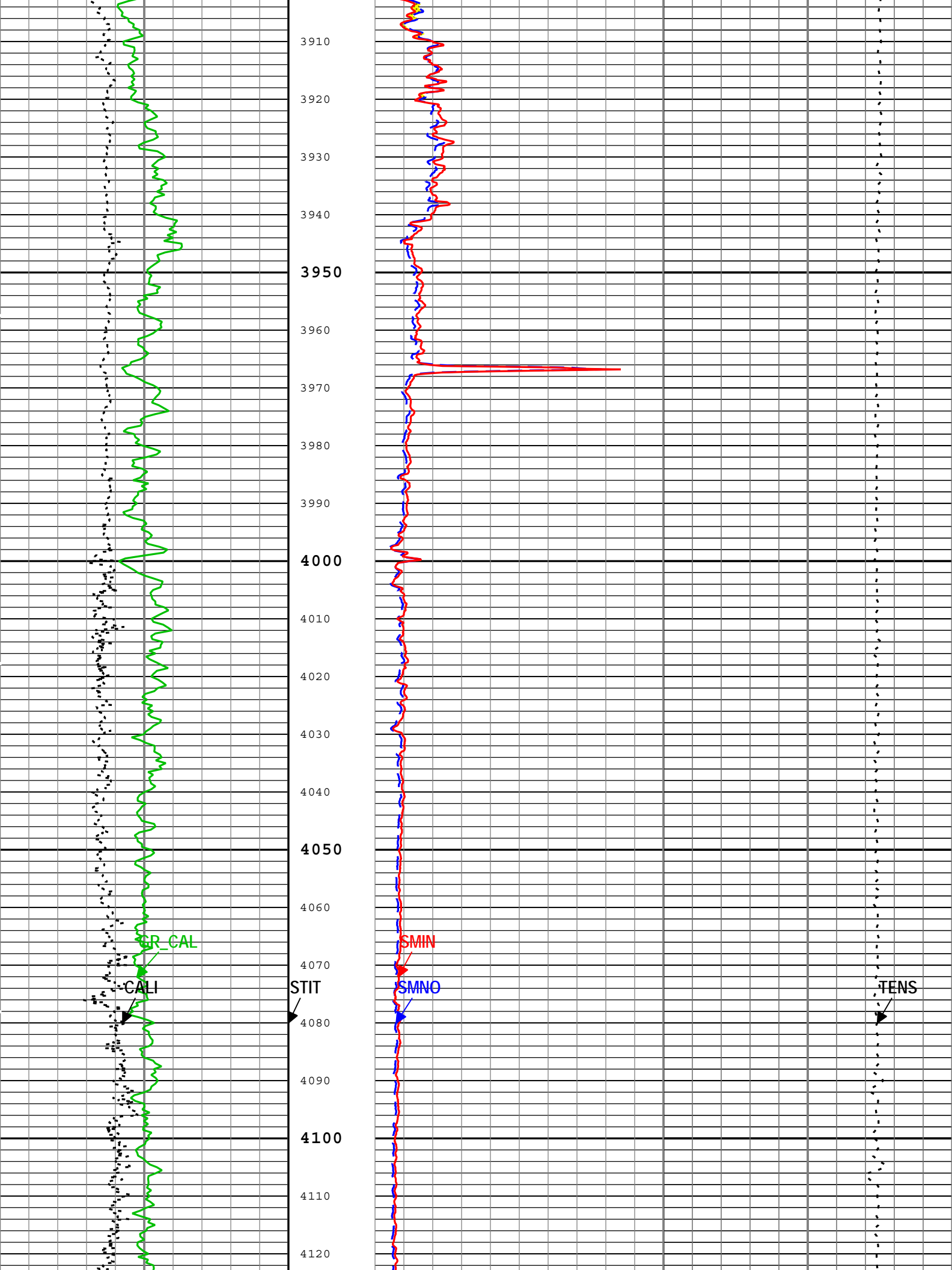


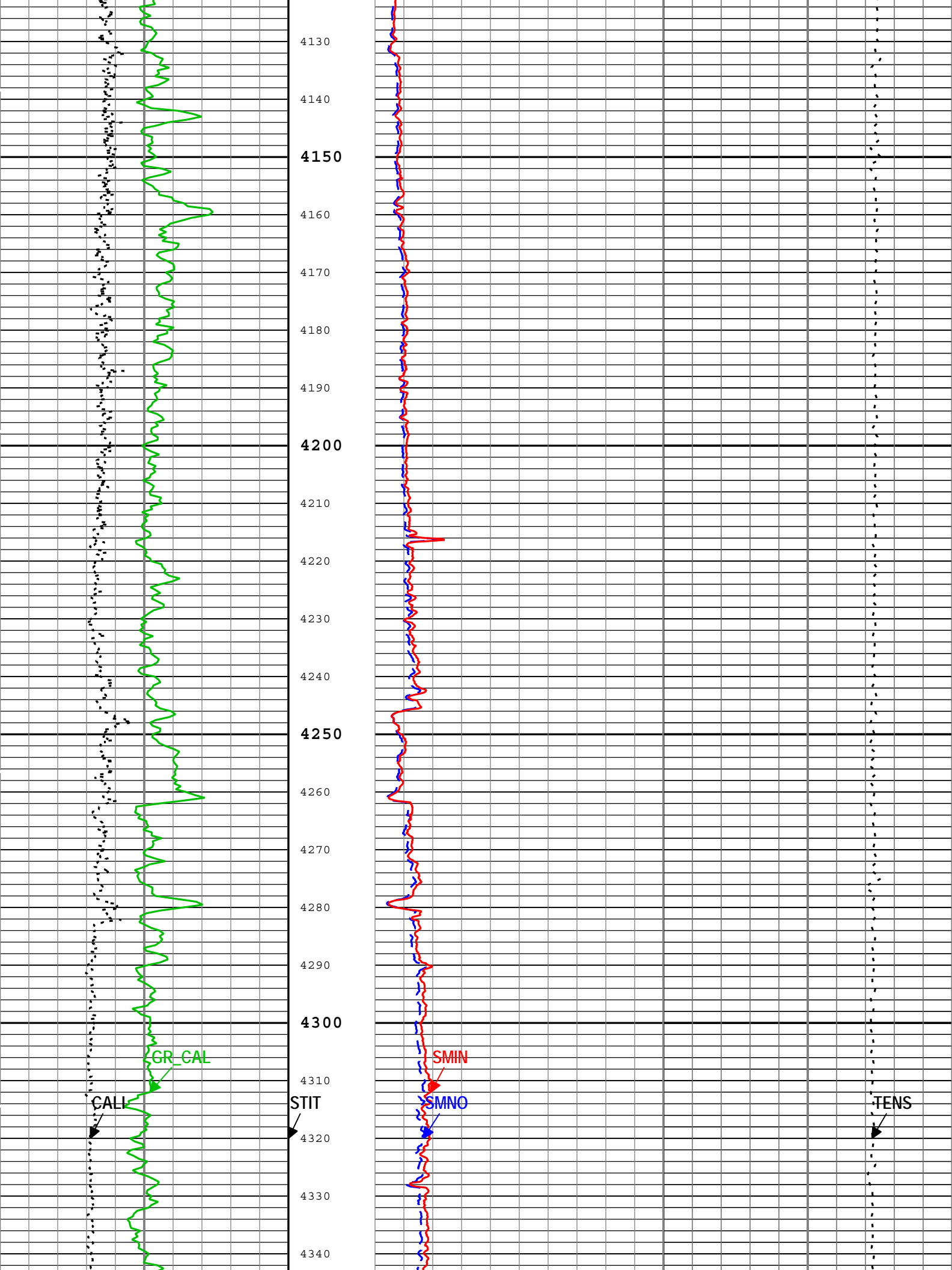


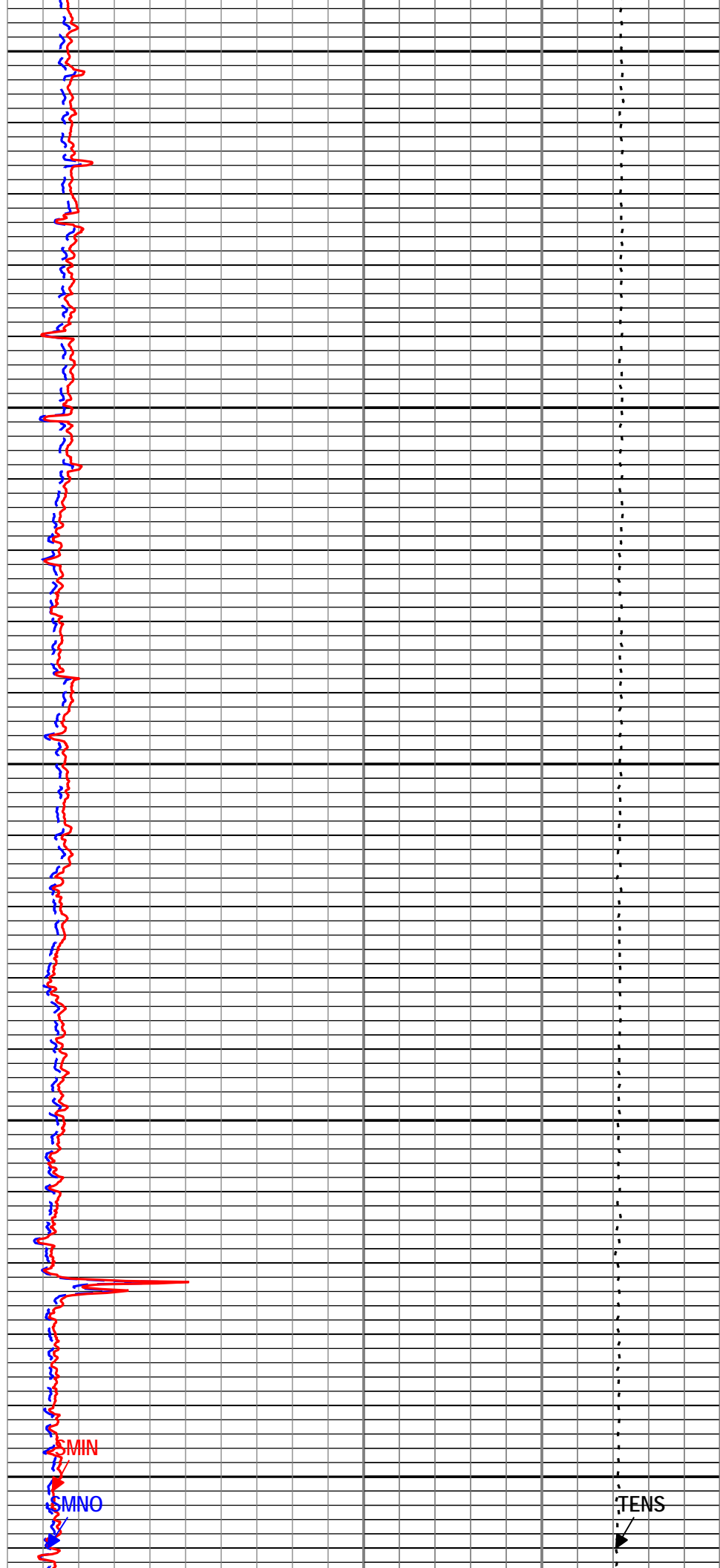
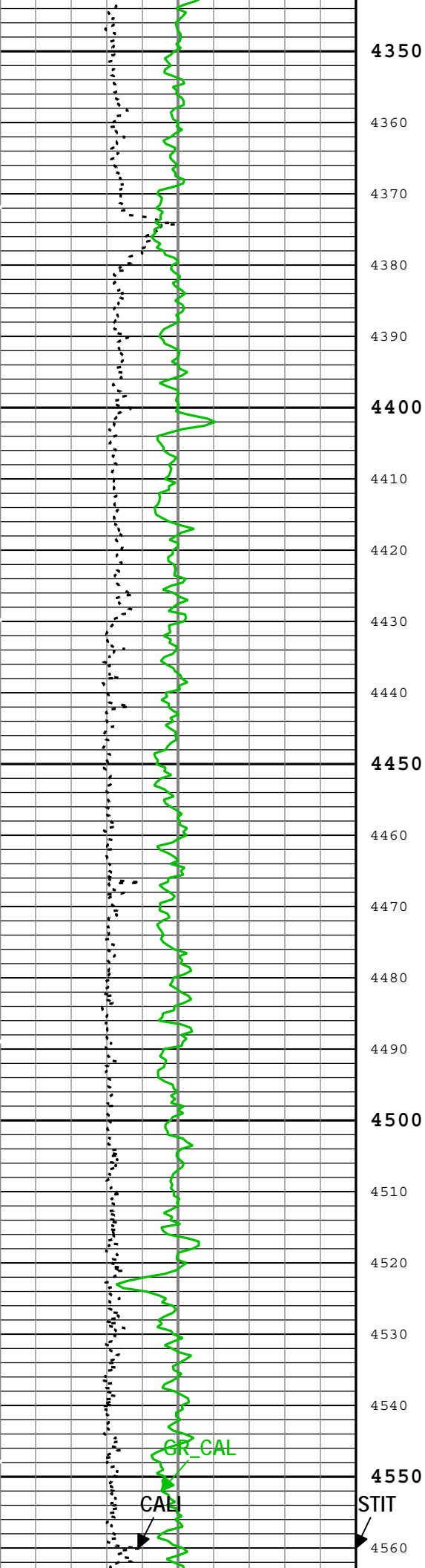






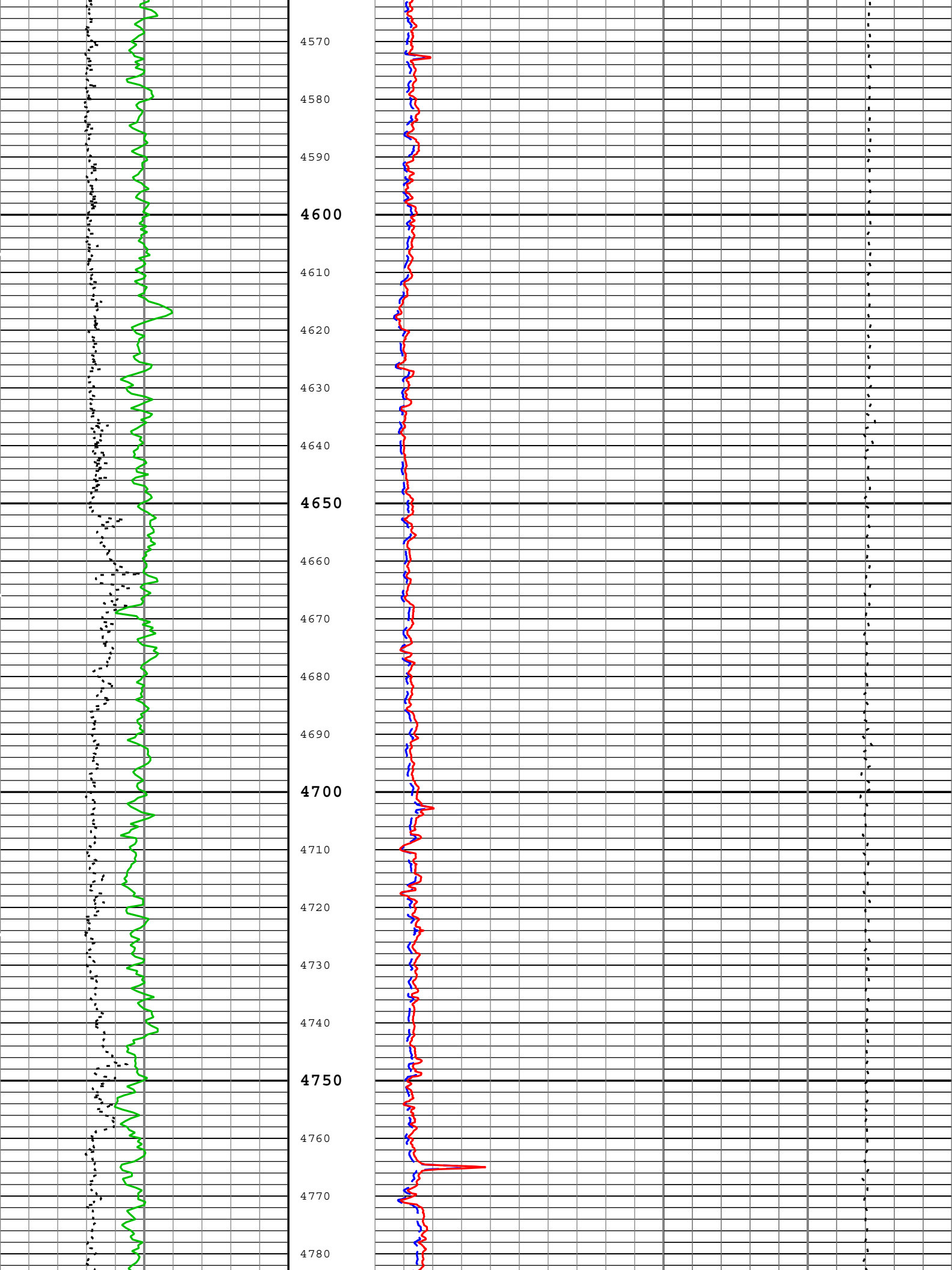


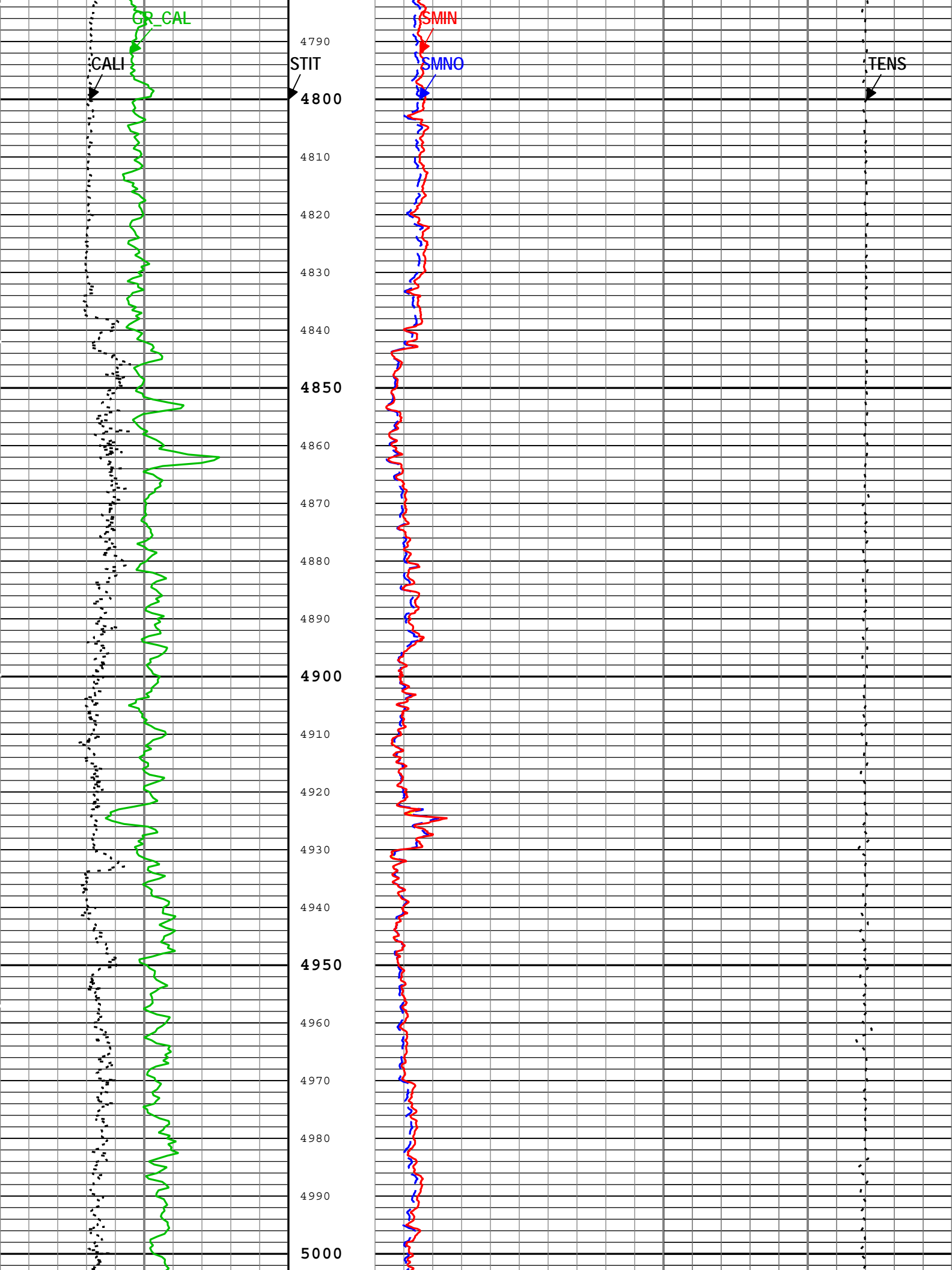


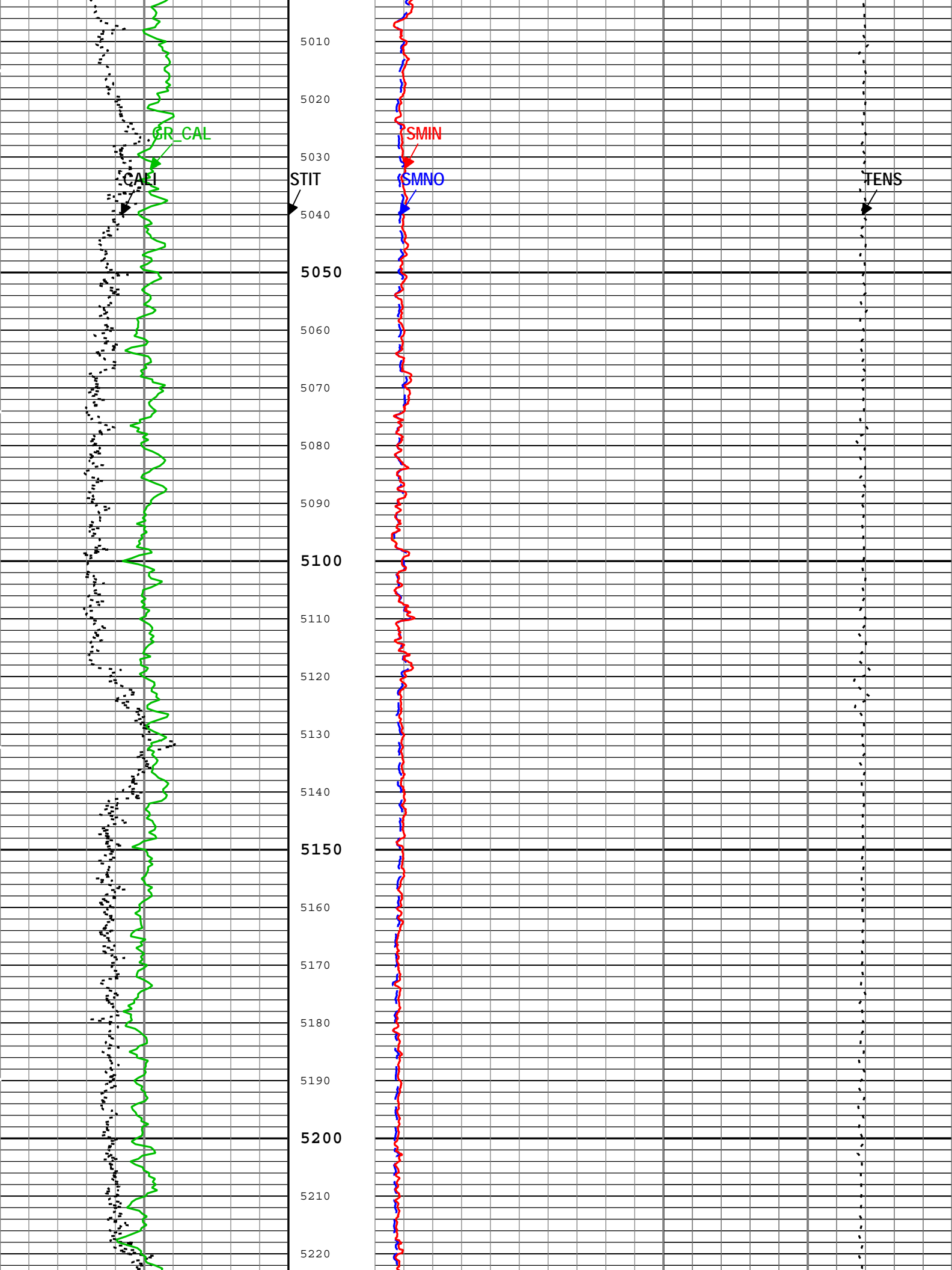


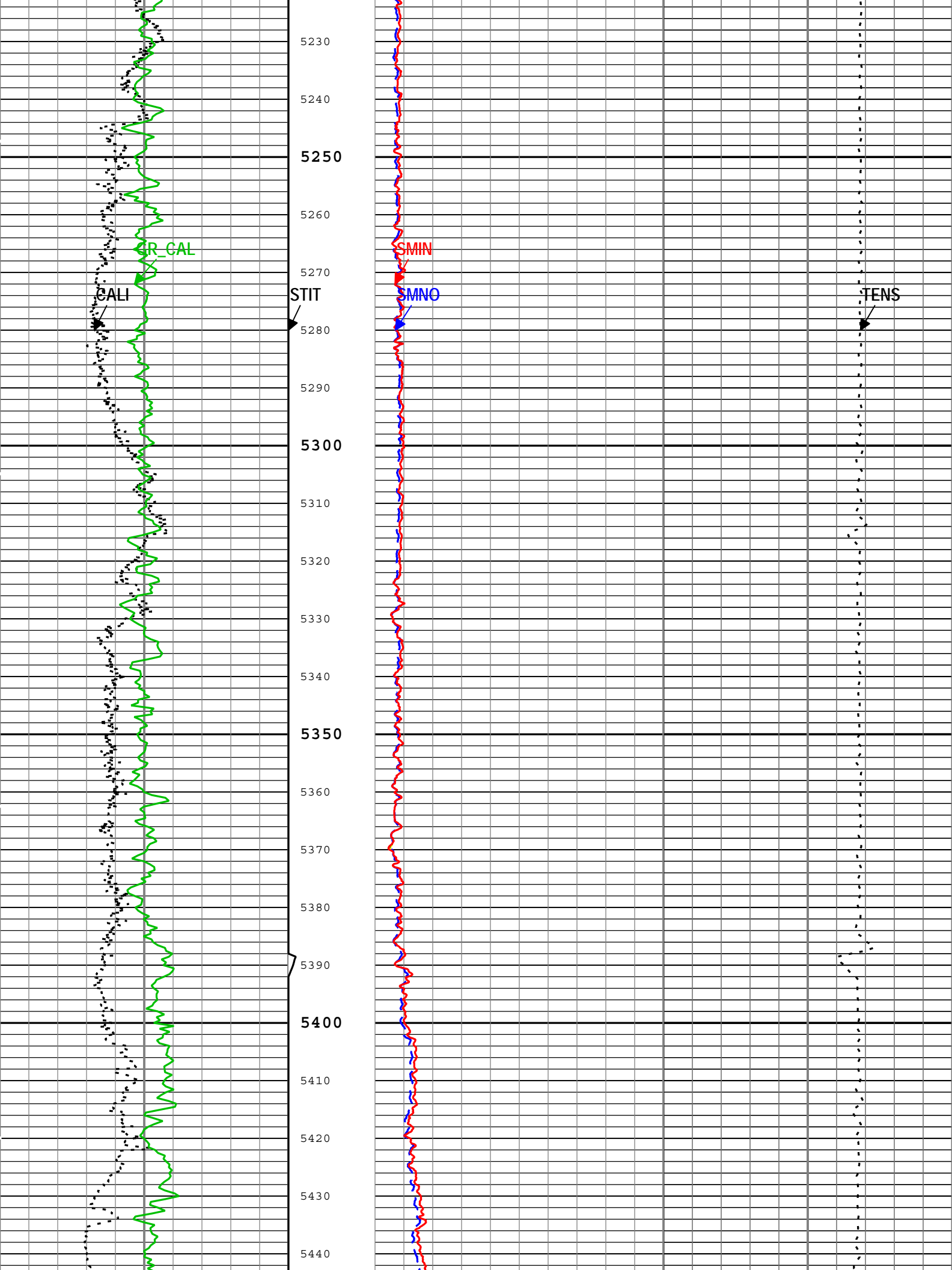
STIT

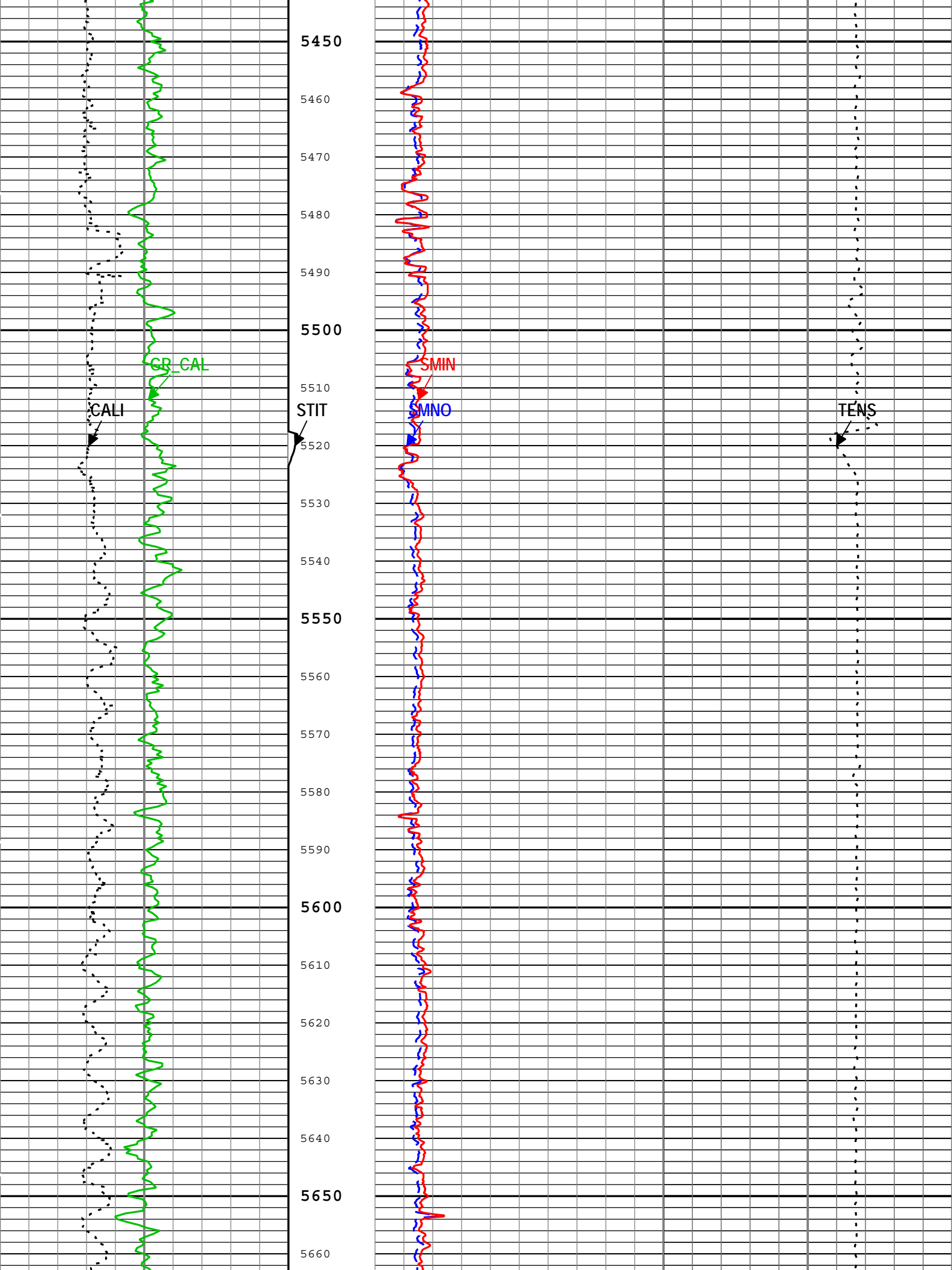
TENS

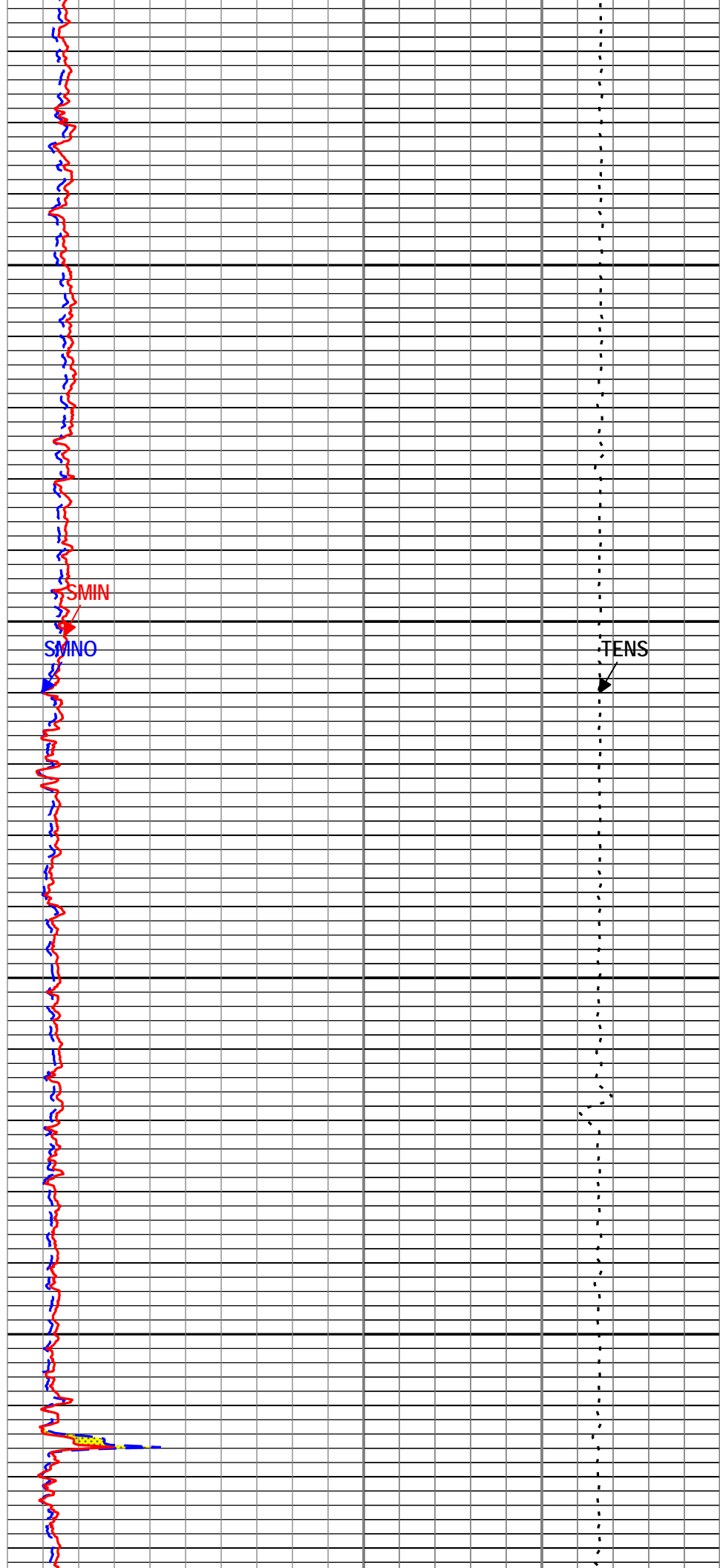
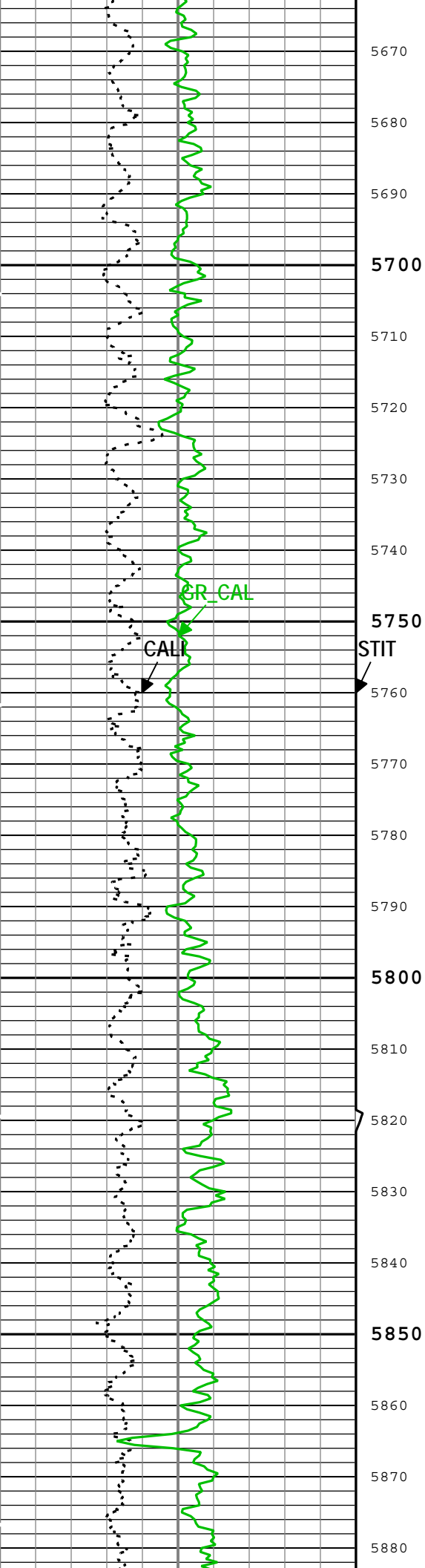


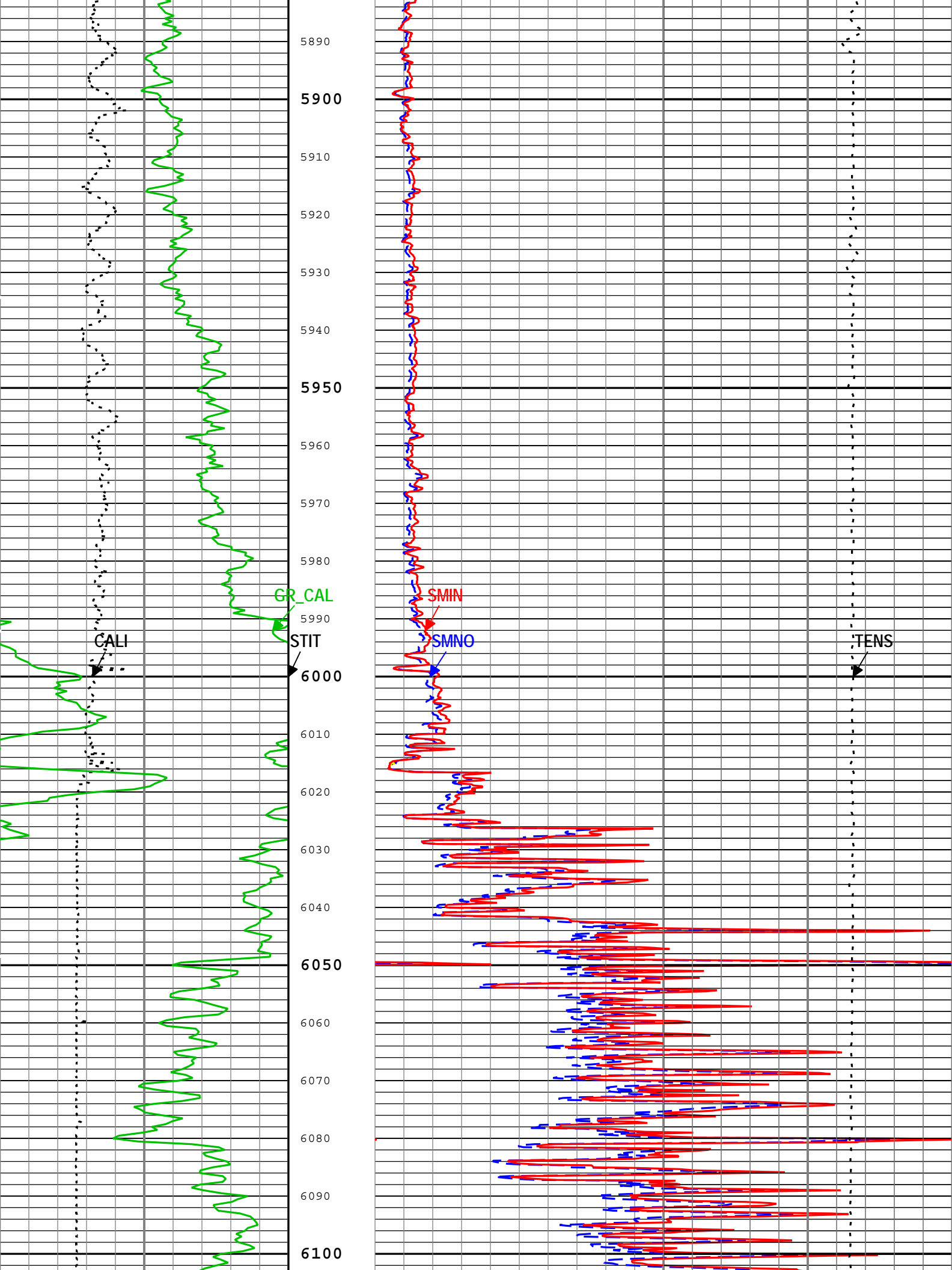


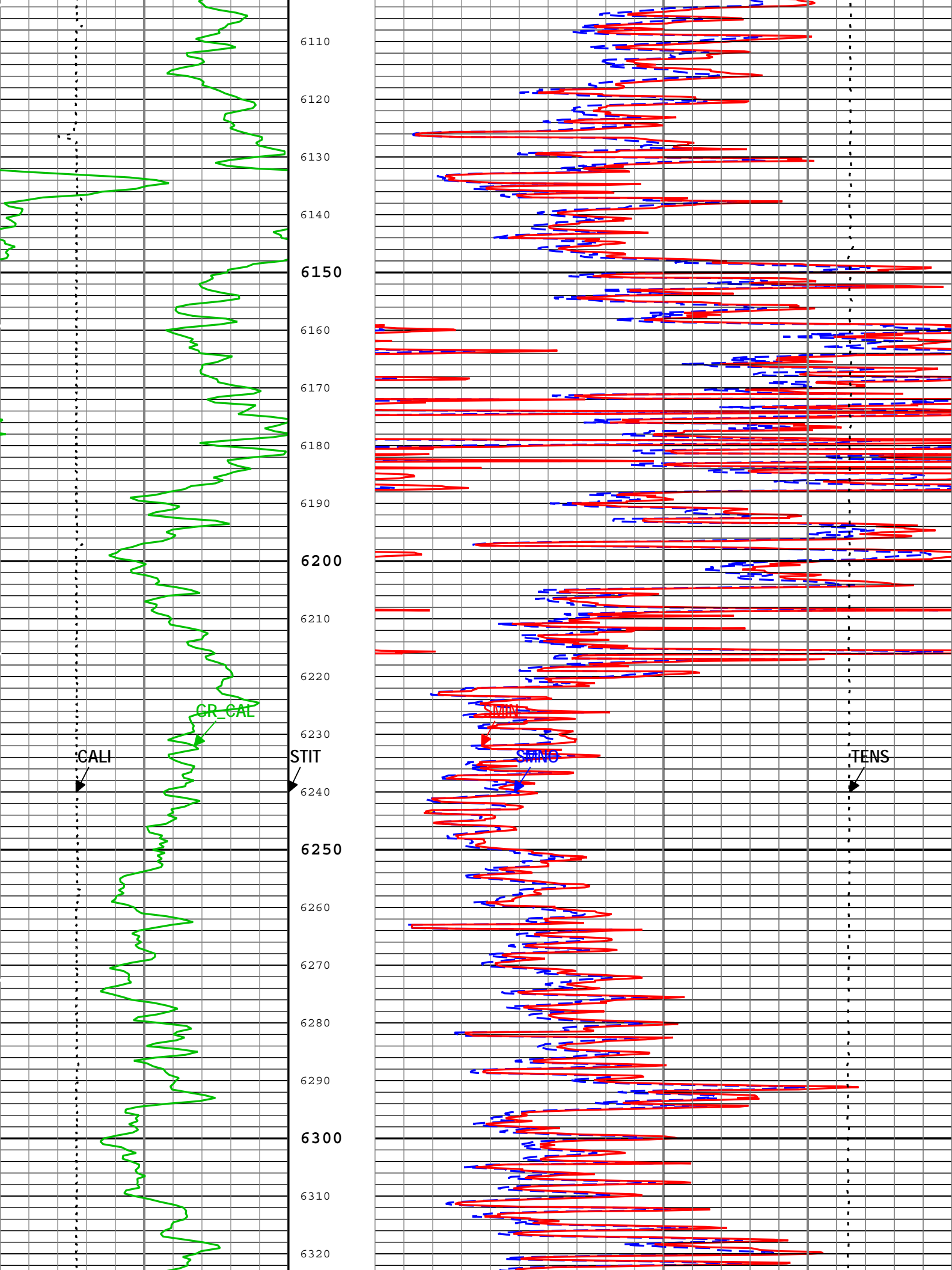


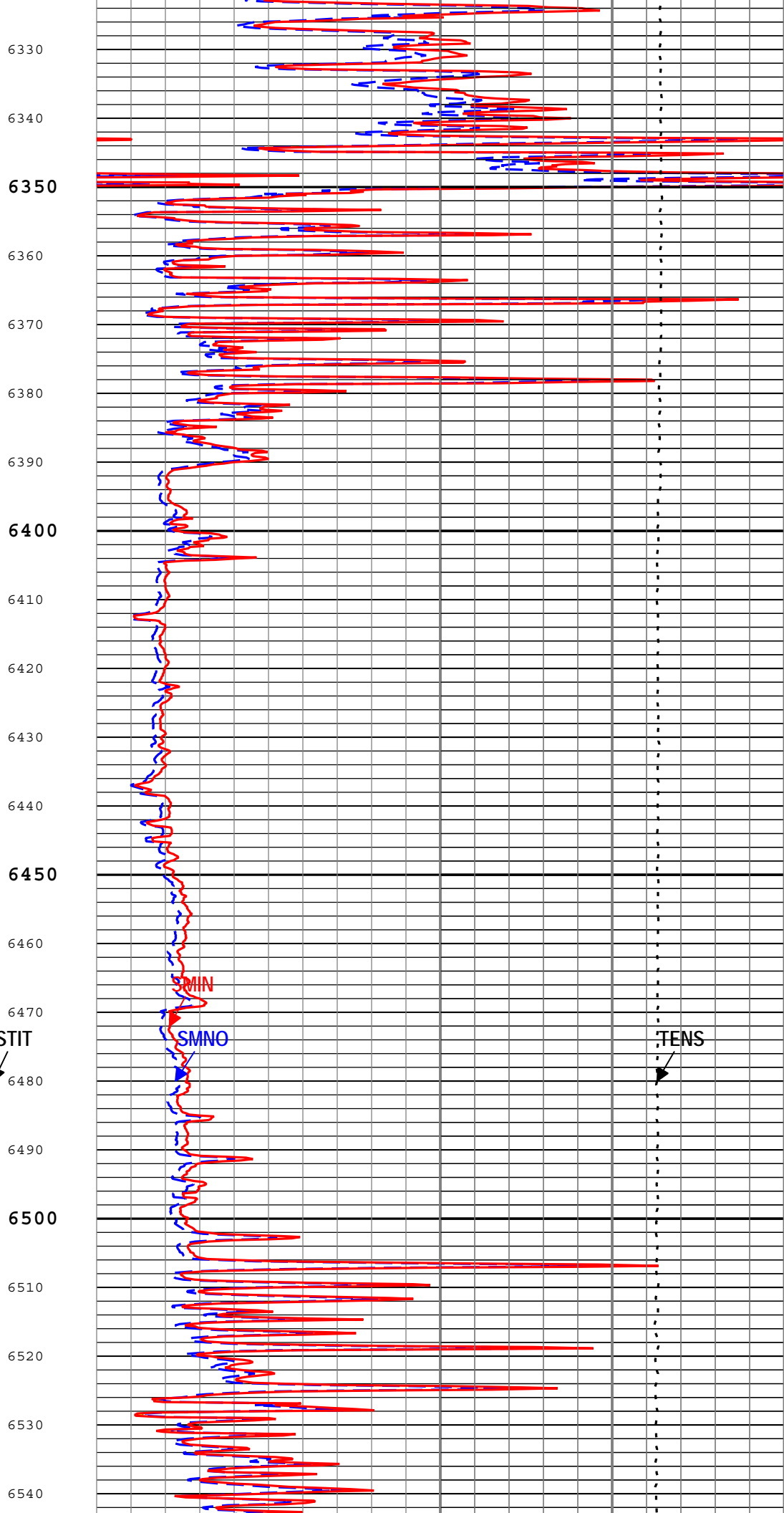
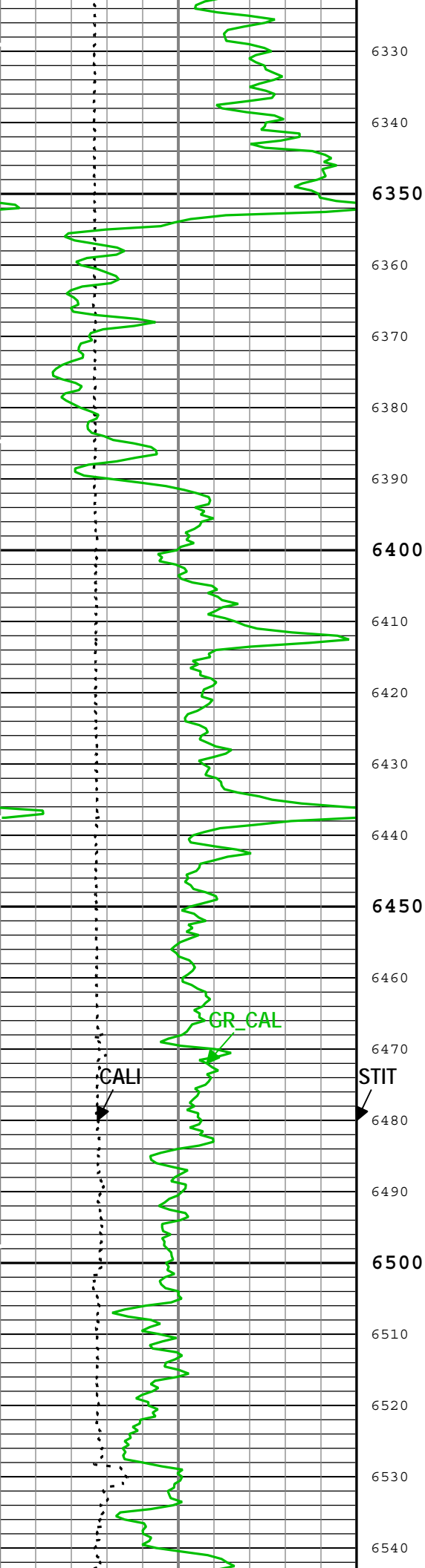


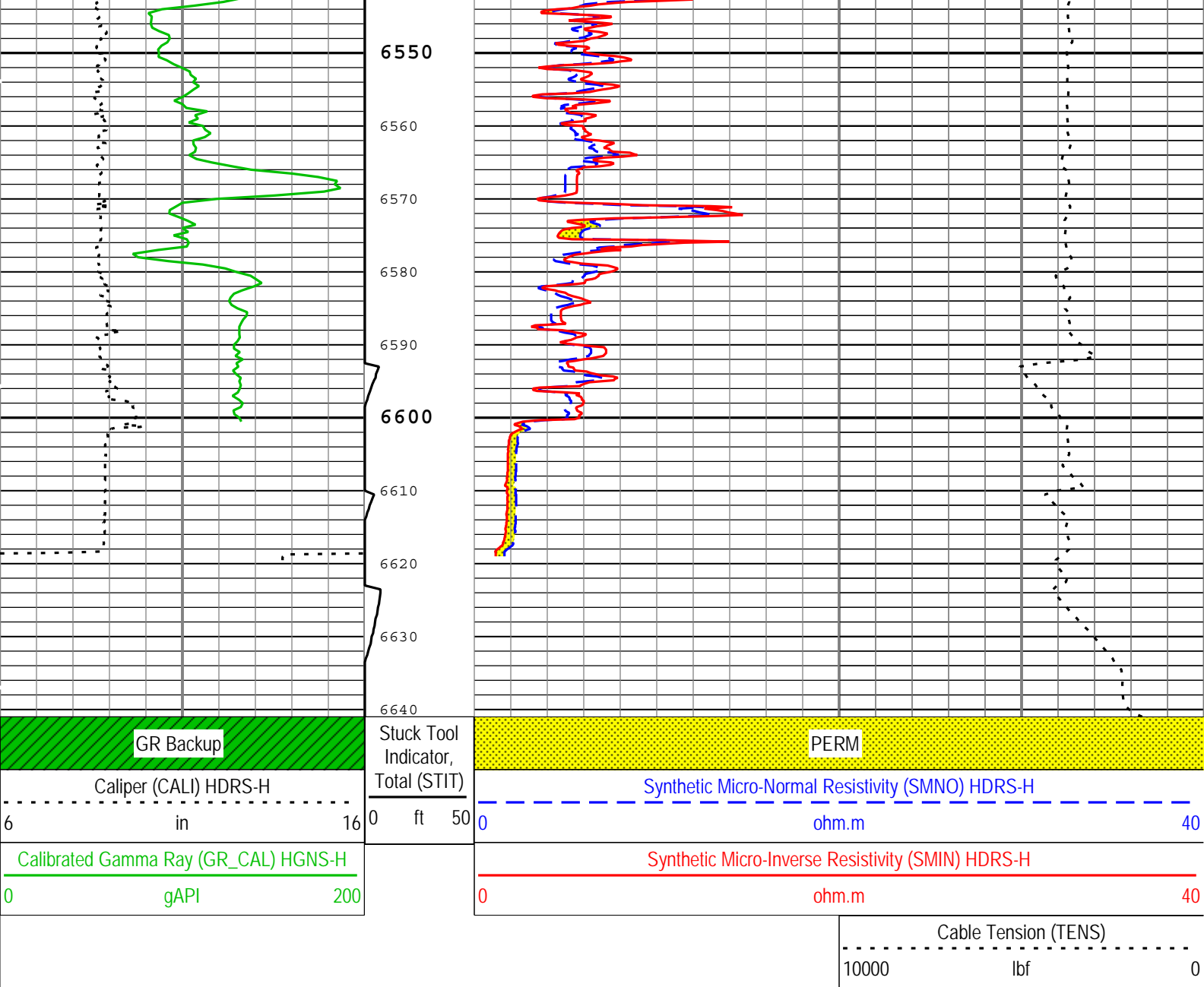












Channel Processing Parameters				
Parameter	Description	Tool	Value	Unit
BS	Bit Size	WLSESSION	Depth Zoned	in
CALI_SHIFT	CALI Supplementary Offset	HDRS-H	0.198	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	AMF	
TD	Total Measured Depth	Borehole	6618	ft

Depth Zone Parameters			
Parameter	Value	Start (ft)	Stop (ft)
BS	12.25	1775	1792
BS	8.75	1792	6624
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	3600	ft/h
---------------	----------------------------------	-----------	------	------

One

5" Micro Log

Pass Summary	
--------------	--

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Repeat[2]:Up	Up	6322.01 ft	6646.28 ft	30-Aug-2014 6:11:02 PM	30-Aug-2014 6:18:13 PM	ON	5.99 ft	No
One	Log[3]:Up	Up	59.61 ft	6641.24 ft	30-Aug-2014 6:23:41 PM	30-Aug-2014 8:11:43 PM	ON	6.77 ft	No

All depths are referenced to toolstring zero

Log	Company:Whiting Oil and Gas Corporation	Well:Wolf 12L-0103
		One: Log[3]:Up:S010

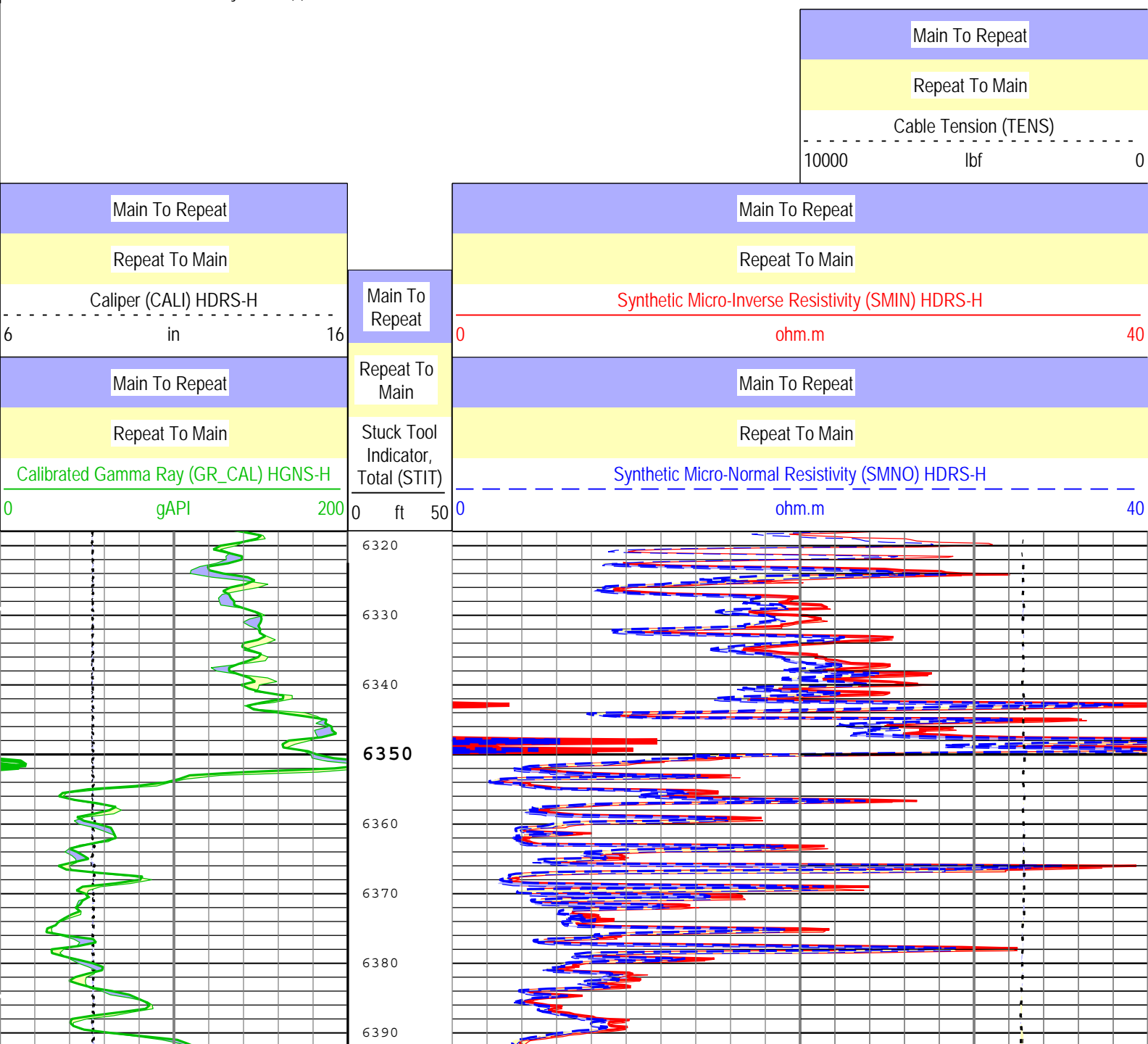
Well:Wolf 12L-0103

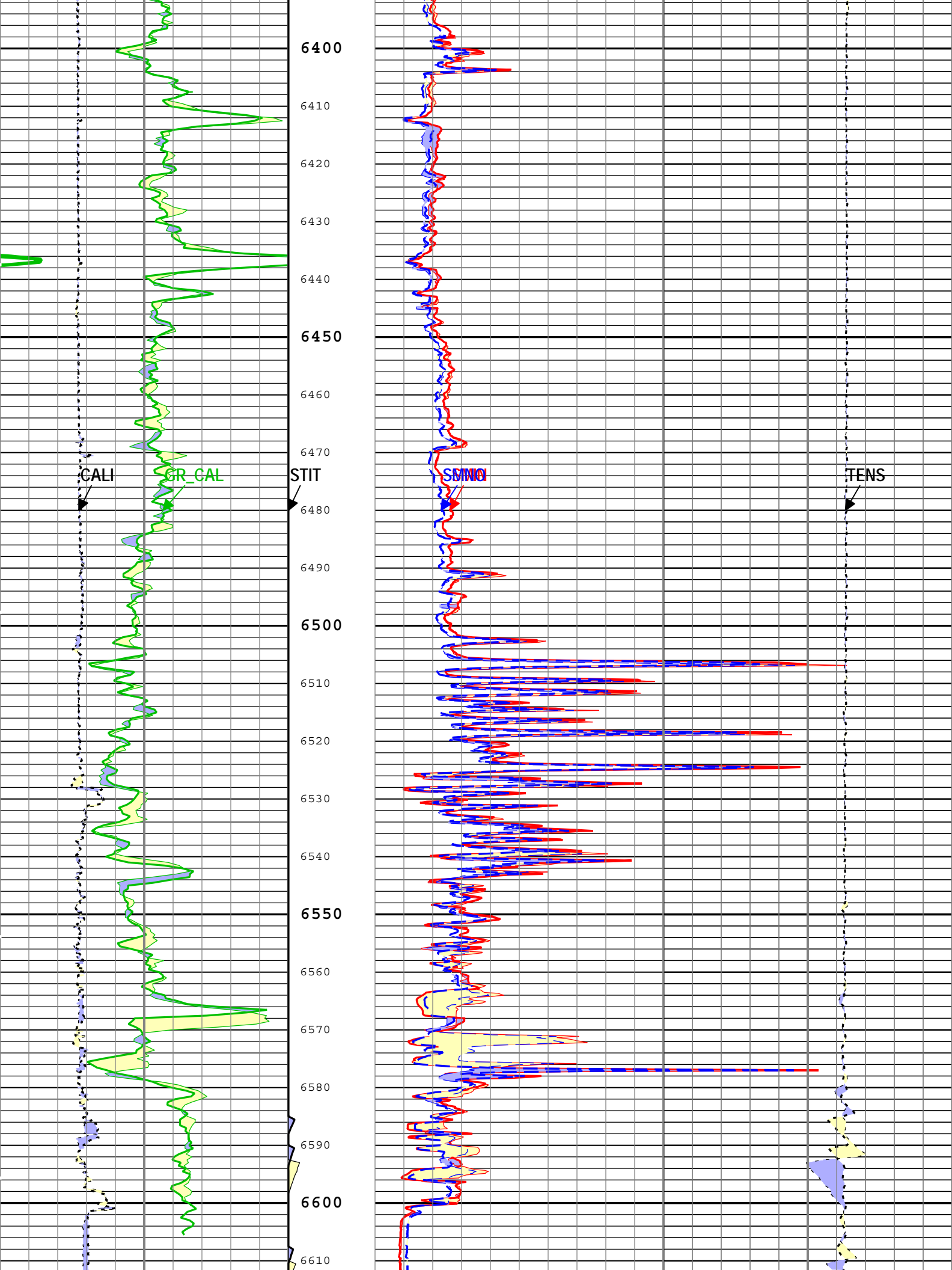
One: Log[3]:Up:S010

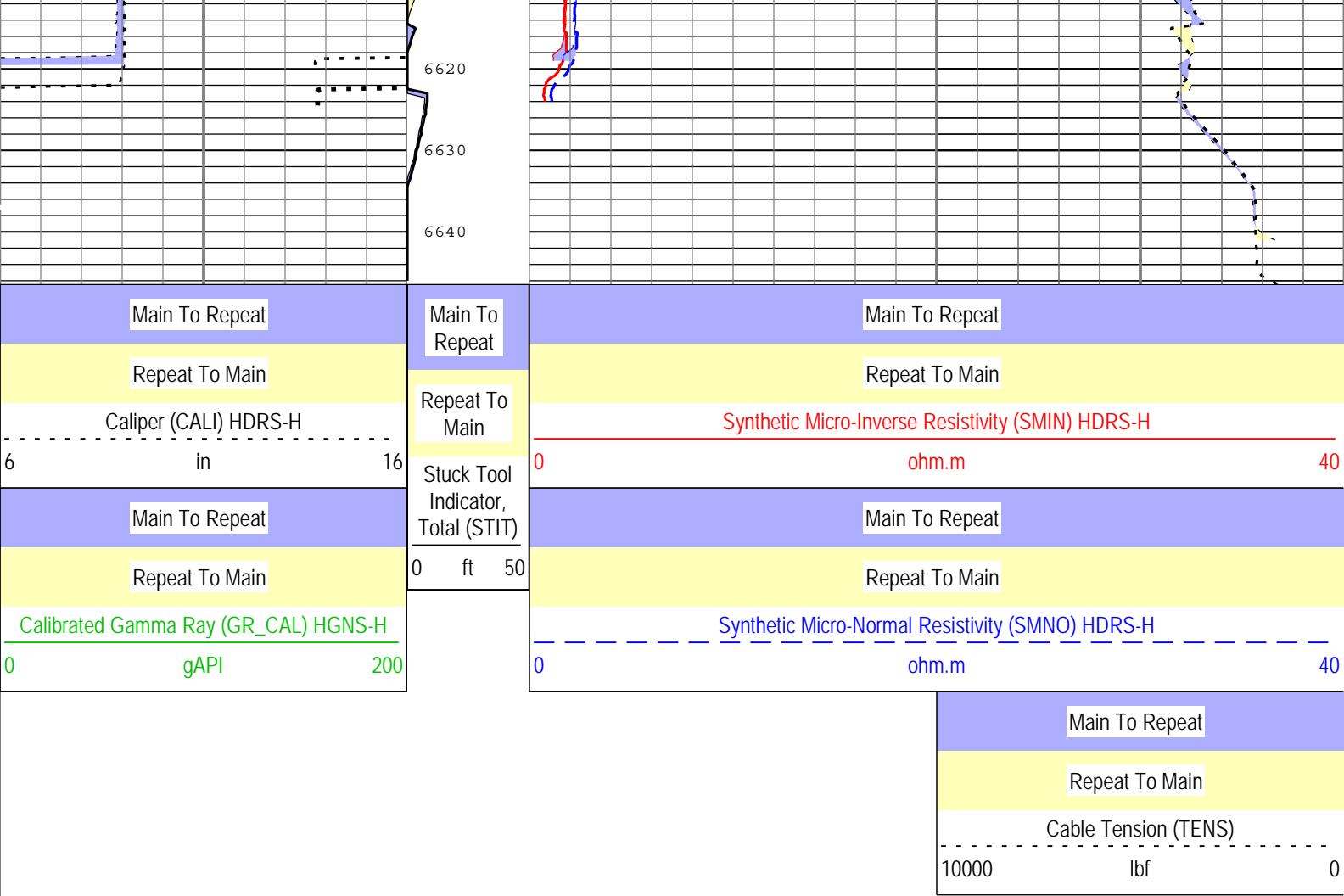
Description: MCFL processing for Platform Express Format: Log (KM 5in Micro Log RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type:

Measured Depth Creation Date: 31-Aug-2014 02:32:27

TIME_1900 - Time Marked every 60.00 (s)







TIME_1900 - Time Marked every 60.00 (s)

Description: MCFL processing for Platform Express Format: Log (KM 5in Micro Log RA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 31-Aug-2014 02:32:27

Calibration Report

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

Primary Equipment :

HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	4923
HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H	3933

Auxiliary Equipment :

HRDD Backscatter Detector	Backscatter	28736
HRDD Long Spacing Detector	Long Spacing	28736
HRDD Short Spacing Detector	Short Spacing	28736
Cesium 137 Gamma-Ray Logging Source	GSR-J	5094
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	4923
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	3911

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): 18:44:55 29-Aug-2014

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Small Ring	in	Before	8.00	6.00	7.56	10.00	
Large Ring	in	Before	12.00	9.00	11.79	15.00	

HDRS Density Calibration - Inversion Results

Master (EEPROM): 11:18:48 06-Aug-2014

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

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Rho Aluminum	g/cm3	Master	2.596	2.586	2.597	2.606	
Rho Magnesium	g/cm3	Master	1.686	1.676	1.688	1.696	
Pe Aluminum		Master	2.570	2.470	2.538	2.670	
Pe Magnesium		Master	2.650	2.550	2.617	2.750	

HDRS Density Calibration - Deviation Summary

Master (EEPROM):		11:18:48 06-Aug-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Average Deviation	%	Master	0	-0.6000	0.2920	0.6000	
BS Max Deviation	%	Master	0	-1.6000	0.6112	1.6000	
SS Average Deviation	%	Master	0	-1.0000	0.4157	1.0000	
SS Max Deviation	%	Master	0	-2.5000	1.0245	2.5000	
LS Average Deviation	%	Master	0	-1.5000	0.6722	1.5000	
LS Max Deviation	%	Master	0	-3.5000	2.5071	3.5000	

HDRS Density Calibration - Background Summary

Master (EEPROM):		11:18:48 06-Aug-2014		Before (Measured):		17:53:42 29-Aug-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Window Ratio		Master	1.0000		0.7465		
		Before	1.0000	0.9500	0.7485	1.0500	
		Before-Master	-----	-----	0.0020	-----	
BS Window Sum	1/s	Master	1		23422		
		Before	0	0	23394	0	
		Before-Master	-----	-----	-28	-----	
SS Window Ratio		Master	1.0000		0.4876		
		Before	1.0000	0.9500	0.4875	1.0500	
		Before-Master	-----	-----	-0.0001	-----	
SS Window Sum	1/s	Master	1		10990		
		Before	0	0	10965	0	
		Before-Master	-----	-----	-25	-----	
LS Window Ratio		Master	1.0000		0.2980		
		Before	1.0000	0.9500	0.2993	1.0500	
		Before-Master	-----	-----	0.0013	-----	
LS Window Sum	1/s	Master	1		1200		
		Before	0	0	1199	0	
		Before-Master	-----	-----	-1	-----	

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM):		11:18:48 06-Aug-2014		Before (Measured):		17:53:42 29-Aug-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS PM High Voltage	V	Master		1000	1586	2400	
		Before		1000	1595	2400	
		Before-Master	-----	-100	9	100	
SS PM High Voltage	V	Master		1000	1495	2400	
		Before		1000	1487	2400	
		Before-Master	-----	-100	-8	100	
LS PM High Voltage	V	Master		1000	1285	2400	
		Before		1000	1275	2400	
		Before-Master	-----	-100	-10	100	

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM):		11:18:48 06-Aug-2014		Before (Measured):		17:53:42 29-Aug-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
BS Crystal Resolution	%	Master		5.00	10.86	25.00	
		Before		5.00	10.92	25.00	
		Before-Master	-----	-1.00	0.06	1.00	
SS Crystal Resolution	%	Master		5.00	9.40	20.00	
		Before		5.00	9.57	20.00	
		Before-Master	-----	-1.00	0.17	1.00	
LS Crystal Resolution	%	Master		5.00	7.90	20.00	
		Before		5.00	8.03	20.00	
		Before-Master	-----	-1.00	0.13	1.00	

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured):		18:49:36 29-Aug-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Main Resistivity	ohm.m	Before	3875	3565	3880	4185	
Deep Resistivity	ohm.m	Before	3830	3524	3811	4136	

HGNS-H (HILT Gamma-Ray and Neutron Sonde, 150 degC) Calibration - Run One

Primary Equipment :			
HILT Gamma-Ray and Neutron Sonde, 150 degC	HGNS-H	4810	
Auxiliary Equipment :			
HGNS Accelerometer, 150 degC	HACCZ-H	6305	
AmBe Neutron Logging Source	NSR-F	5069	
Calibration Parameter :			
Water Temperature			
Housing Size			
JIG-BKG (Jig minus background reference)	165		

HGNS Accelerometer Calibration - Accelerometer Accumulations

Before:							
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
AZ Vertical Measurement - 0	ft/s2	Before	----	----	----	----	

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM):		00:00:00 15-Feb-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	----	----	-1557.100	----	
Accelerometer Coefficients - 1		Master	----	----	29.260	----	
Accelerometer Coefficients - 2		Master	----	----	-0.015	----	
Accelerometer Coefficients - 3		Master	----	----	0.000	----	
Accelerometer Coefficients - 4		Master	----	----	2.740	----	
Accelerometer Coefficients - 5		Master	----	----	0.000	----	
Accelerometer Coefficients - 6		Master	----	----	0.000	----	
Accelerometer Coefficients - 7		Master	----	----	0.000	----	
Accelerometer Coefficients - 8		Master	----	----	298.600	----	
Accelerometer Coefficients - 9		Master	----	----	1.000	----	

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM):		15:20:00 23-Jul-2014		Before (Measured):		18:41:44 29-Aug-2014	
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Near Zero Measurement	1/s	Master	0	5.0	25.5	40.0	
		Before	0	5.0	25.7	40.0	
		Before-Master	----	-3.8	0.2	3.8	
Far Zero Measurement	1/s	Master	0	5.0	24.3	40.0	
		Before	0	5.0	26.8	40.0	
		Before-Master	----	-3.6	2.5	3.6	
Near Plus Measurement	1/s	Master	6031.0	4700.0	4963.0	6900.0	
		Before	----	----	----	----	
		Before-Master	----	----	----	----	
Far Plus Measurement	1/s	Master	2793.0	1900.0	2102.0	2900.0	
		Before	----	----	----	----	
		Before-Master	----	----	----	----	
Near Corrected Plus Measurement	1/s	Master		4700.0	4837.0	6900.0	
		Before	----	----	----	----	
		Before-Master	----	----	----	----	
Far Corrected Plus Measurement	1/s	Master		1900.0	2008.0	2900.0	
		Before	----	----	----	----	
		Before-Master	----	----	----	----	

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured):		18:49:47 29-Aug-2014					
Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RGR Zero Measurement	gAPI	Before	30.0	0	82.9	120.0	
RGR Plus Measurement	gAPI	Before	185.4	157.1	177.0	206.3	
GR Calibration Gain		Before	0.89	0.80	0.93	1.05	

Company:	Whiting Oil and Gas Corporation	Schlumberger
Well:	Wolf 12L-0103	
Field:	Wildcat	
County:	Weld	
State:	Colorado	
Platform Express		
MicroLog		