Schlumberger

Company: SandRidge Energy Inc

Well: Peters 0781 10-13H12

Field: Wildcat

County: Jackson State: Colorado

ThruBit

Triple Combo

County: Jackson
Field: Wildcat
Location: Lot 4 18-7N-80W
Well: Peters 0781 10-13H12
Company: SandRidge Energy Inc

Location:				
Lot 4 18-7N-80W 372 FSL & 235 FWL		Elev.:	K.B.	8233.00 ft
			G.L.	8207.00 ft
			D.F.	
Permanent Datum:	Ground Level	Elev.:		8207.00 f
Log Measured From:	Kelly Bushing	26.00 ft		above Perm.Datum
Drilling Measured From:	Kelly Bushing			

API Serial No.	Section:	Township:	Range:
05-057-06590	18	7N	80W

Logging Date			18-Nov-2018			
Run Number			ThruBit			
Depth Driller			17095.00 ft			
Schlumberger Depth			17095.00 ft			
Bottom Log Interval			16915.00 ft			
Top Log Interval			2400.00 ft			
Casing Driller Size @ Depth			9.625 in @ 2400.00 ft			
Casing Schlumberger			2400 ft			
Bit Size			8.75 in			
Type Fluid In Hole			Oil			
MUD	Density	Viscosity	10 lbm/gal	67 s		
	Fluid Loss	PH				
	Source of Sample		N/A			
RM @ Meas Temp			N/A			
RMF @ Meas Temp			N/A			
RMC @ Meas Temp			N/A			
Source RMF		RMC	N/A	N/A		
RM @ BHT		RMF @ BHT	N/A	N/A		
Max Recorded Temperatures			190 degF			
Circulation Stopped	Time		18-Nov-2018	10:00:00		
Logger on Bottom	Time		18-Nov-2018	13:35:00		
Unit Number	Location:		OSLC-HA 9102	Ft. Morgan		
Recorded By			L. Awalt			
Witnessed By			Frank			

Disclaimer

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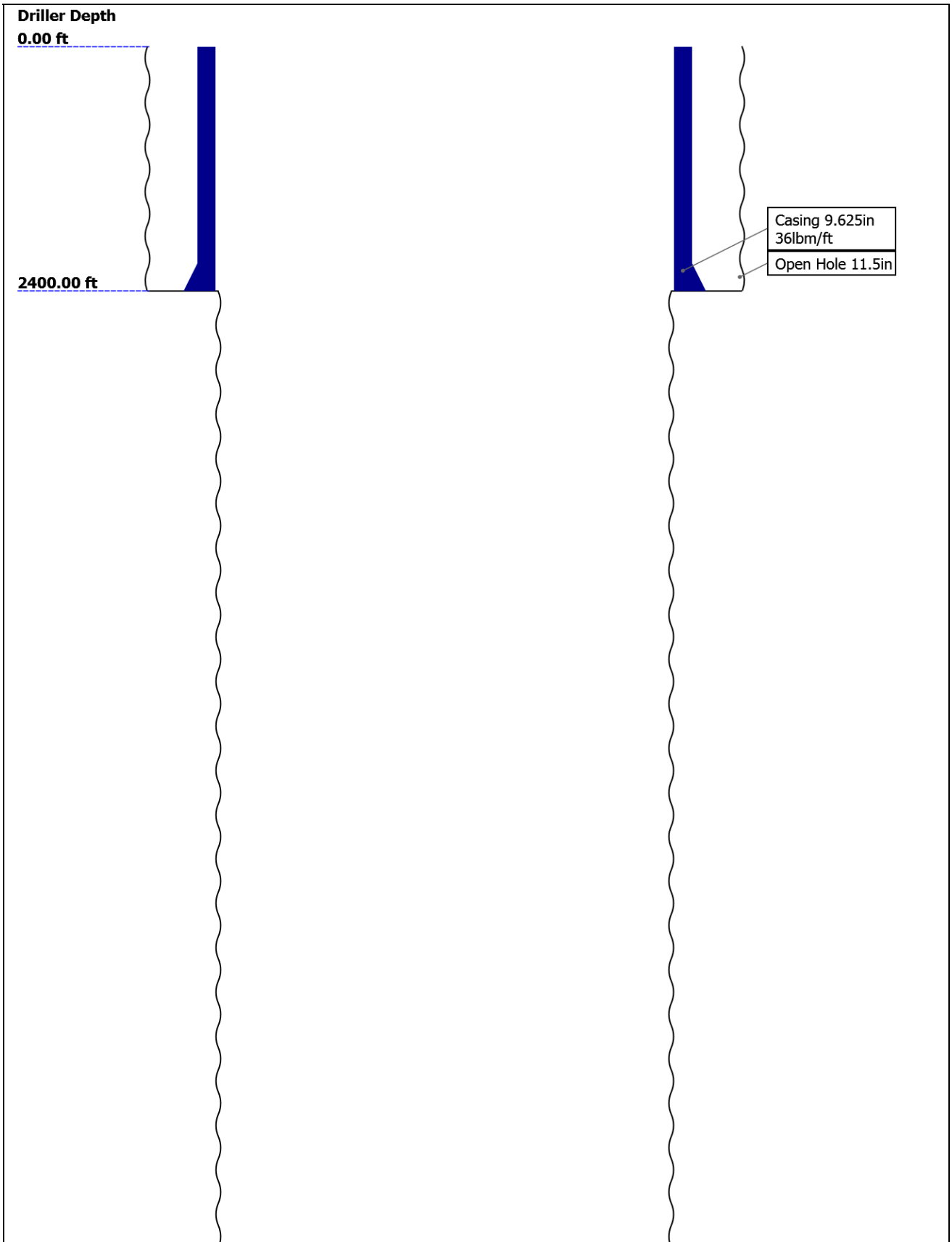
Well Sketch

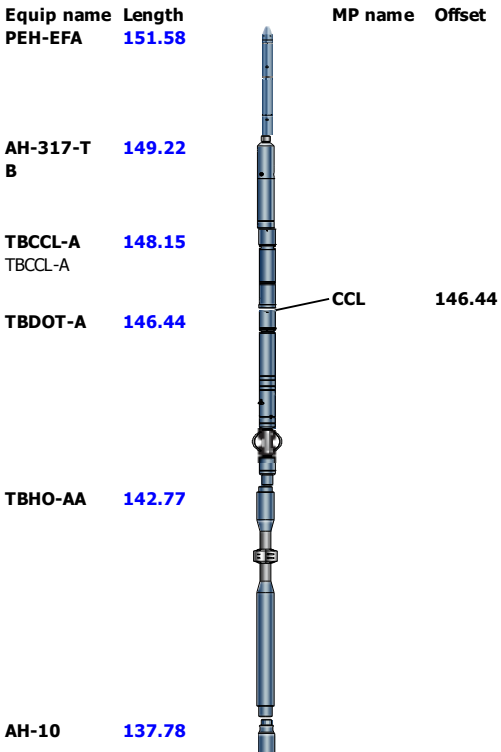

Driller Depth
0.00 ft
2400.00 ft
Casing 9.625in
36lbm/ft
Open Hole 11.5in

Borehole Size/Casing/Tubing Record

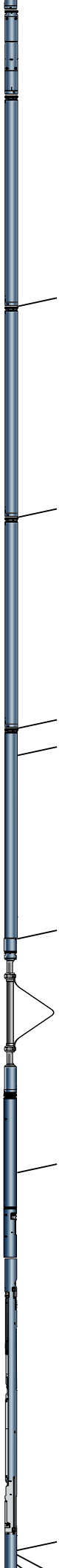
Bit						
Bit Size (in)	11.5	8.75				
Top Driller (ft)	0	2400				
Top Logger (ft)	0	2400				
Bottom Driller (ft)	2400	17095				
Bottom Logger (ft)	2400	17095				
Casing						
Size (in)	9.625					
Weight (lbm/ft)	36					
Inner Diameter (in)	8.921					
Grade	N/A					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	2400					
Bottom Logger (ft)	2400					

Remarks and Equipment Summary

ThruBit: Toolstring



ThruBit: Remarks
Thanks for choosing Schlumberger!
Log run for formation evaluation
Tools pumped down through drill pipe and logged off memory
Tools ran as per tool sketch
Casing shoe @ 2400ft was used a depth reference
Pipe stretch corrected for using pipe tally
Crew: Gary Lapp, Christ N.


SAH-TB 137.02
TBSB-BA[3]:43 134.68
TBSB-BA:43
Status 128.56
TBSB-BA[2]:38 128.56
TBSB-BA:38
Status 122.43
TBSB-BA[1]:54 122.43
TBSB-BA:54
Status 116.31
TMG-A:69 116.31
TMG-A:69
Gamma-Ray 115.51
Status 110.18
TILE-AB 110.18
TBN-A:069 105.68
TBN-A:069
NNLS-EWA:5975
Neutron Porosity 103.37
TBD-B:38 100.91
TBD-B:38
GGLS-FZ:3398
Density LS 92.38

TBCR-A:18 90.43
TBCR-A:18

TBKS-AA 88.88

TBDS-B:8013 82.5
TBDS-B:8013

TBEI-A:18 53.39
TBEI-A:18
TBEI-SONDE3:66
TBEI-SONDE2:65
TBEI-SONDE1:64

Section 1 , Pad BD Bottom Row 43.12

Section 1 , Pad AC Bottom Row 42.62

Section 1 Buttons 42.62

Section 2 , Pad BD Bottom Row 37.62

Section 2 , Pad AC Bottom Row 37.12

Section 2 Buttons 37.12

Section 3 , Pad BD Bottom Row 32.12

Section 3 , Pad AC Bottom Row 31.62

Section 3 Buttons 31.62

Status 22.26

Adaptor_Head 22.26

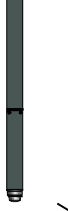
TCME-BA 22.2

KAH-TB[2] 18.11

KAH-TB[1] 16.7

TBIT-A:27 15.28
TBIT-A:27

Induction Array 9.27



Lengths are in ft
Maximum Outer Diameter = 2.125 in
Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

	ThruBit		
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		

ThruBit: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		

ThruBit

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
ICV	Integrated Cement Volume	GCSE_UP_PASS, FCD	3584.8	ft3
IHV	Integrated Hole Volume	GCSE_UP_PASS	5998.63	ft3

Software Version

Acquisition System	Version
Maxwell 2018 SP2	8.2.104493.3100

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
ThruBit	Log[1]:Up	Up	1197.70 ft	17030.78 ft	18-Nov-2018 4:32:23 PM	19-Nov-2018 10:31:59 AM	ON	-53.31 ft	Yes

All depths are referenced to toolstring zero

Log

Company:SandRidge Energy Inc Well:Peters 0781 10-13H12

ThruBit: Log[1]:Up:S011

Description: ThruBit_TCOM_RM Format: Log (ThruBit_TCOM_RM) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Nov-2018 13:59:40

IHV_RM - Integrated Hole Volume every 10.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

IHV_RM - Integrated Hole Volume every 100.00 (ft3)

ICV_RM - Integrated Cement Volume every 10.00 (ft3)

ICV_RM - Integrated Cement Volume every 100.00 (ft3)

Bit Size (BS_RM) RM
6 in 16

Calibrated Gamma Ray (GR_TMG) TMG-A RM
0 gAPI 150

Caliper (CALI) TBD-B RM
6 in 16

Hole Deviation (DEVI) TMG-A RM
0 deg 100

Relative Bearing (RB) TMG-A RM
0 deg 360

Thrubit Induction Array Two Foot Resistivity at 20 inch depth of investigation (TBIT20) TBIT-A RM
0.2 ohm.m 2000

Thrubit Induction Array Two Foot Resistivity at 30 inch depth of investigation (TBIT30) TBIT-A RM
0.2 ohm.m 2000

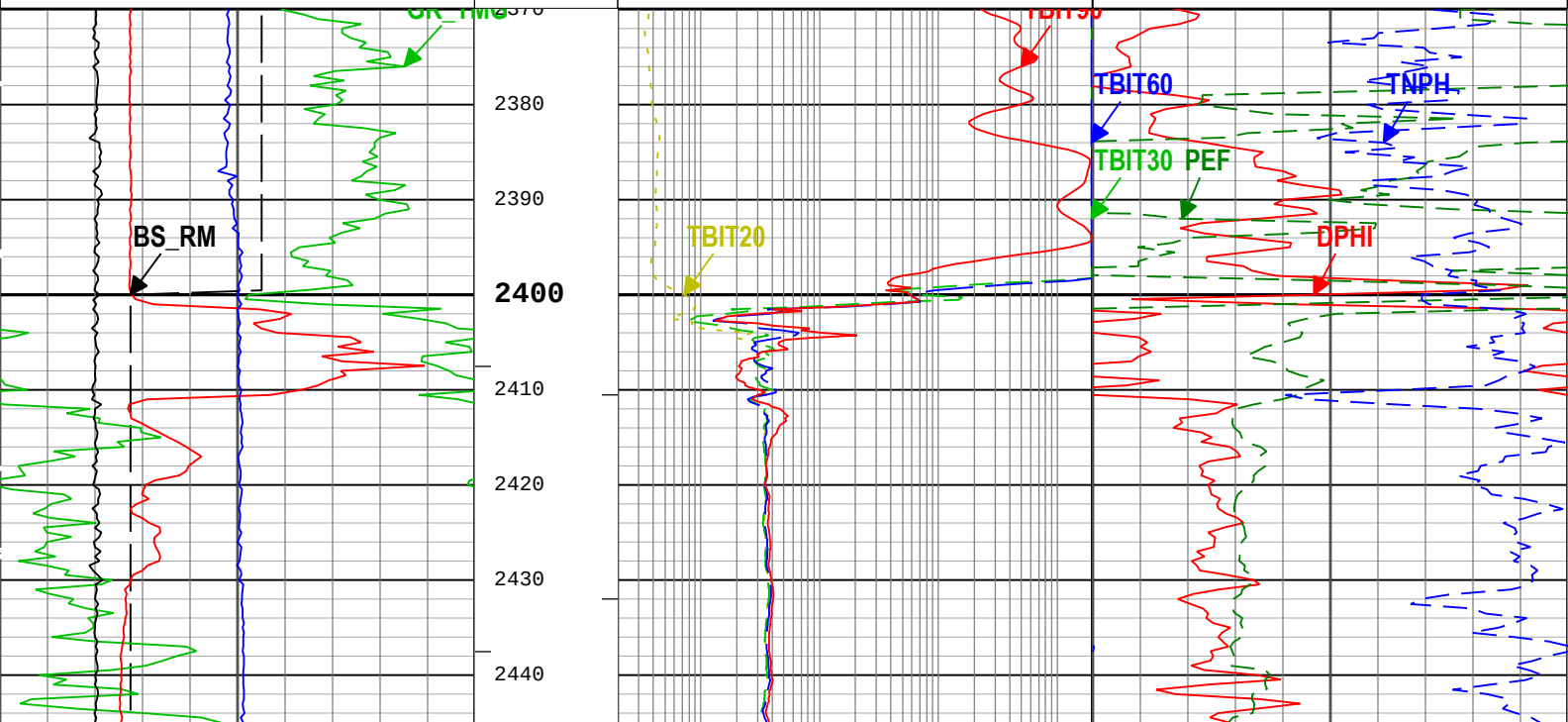
Thrubit Induction Array Two Foot Resistivity at 60 inch depth of investigation (TBIT60) TBIT-A RM
0.2 ohm.m 2000

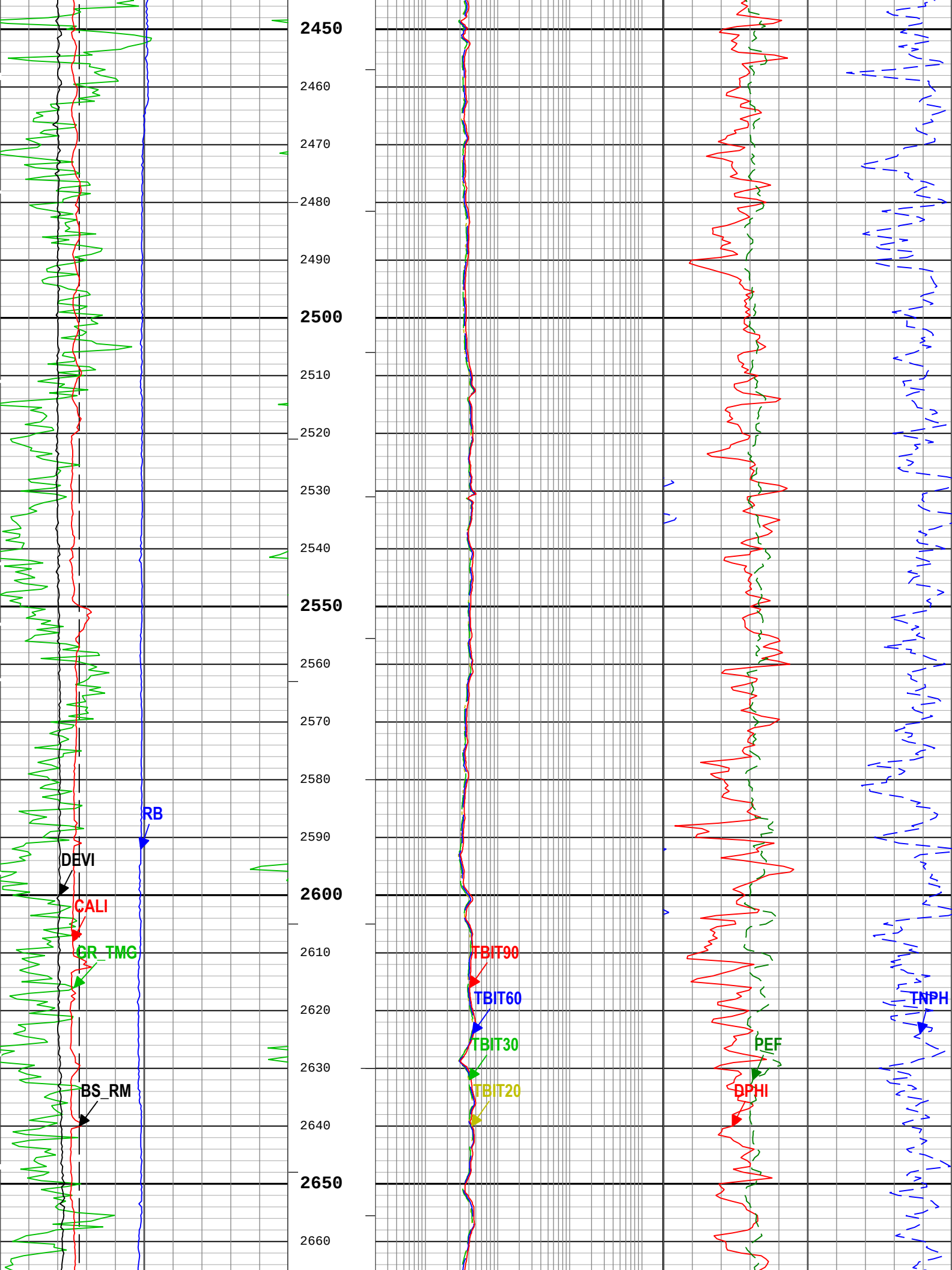
Thrubit Induction Array Two Foot Resistivity at 90 inch depth of investigation (TBIT90) TBIT-A RM
0.2 ohm.m 2000

Density Porosity (DPHI) TBD-B RM
0.3 ft3/ft3 -0.1

Photoelectric Factor (PEF) TBD-B RM
0 10

Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) TBN-A RM
0.3 ft3/ft3 -0.1

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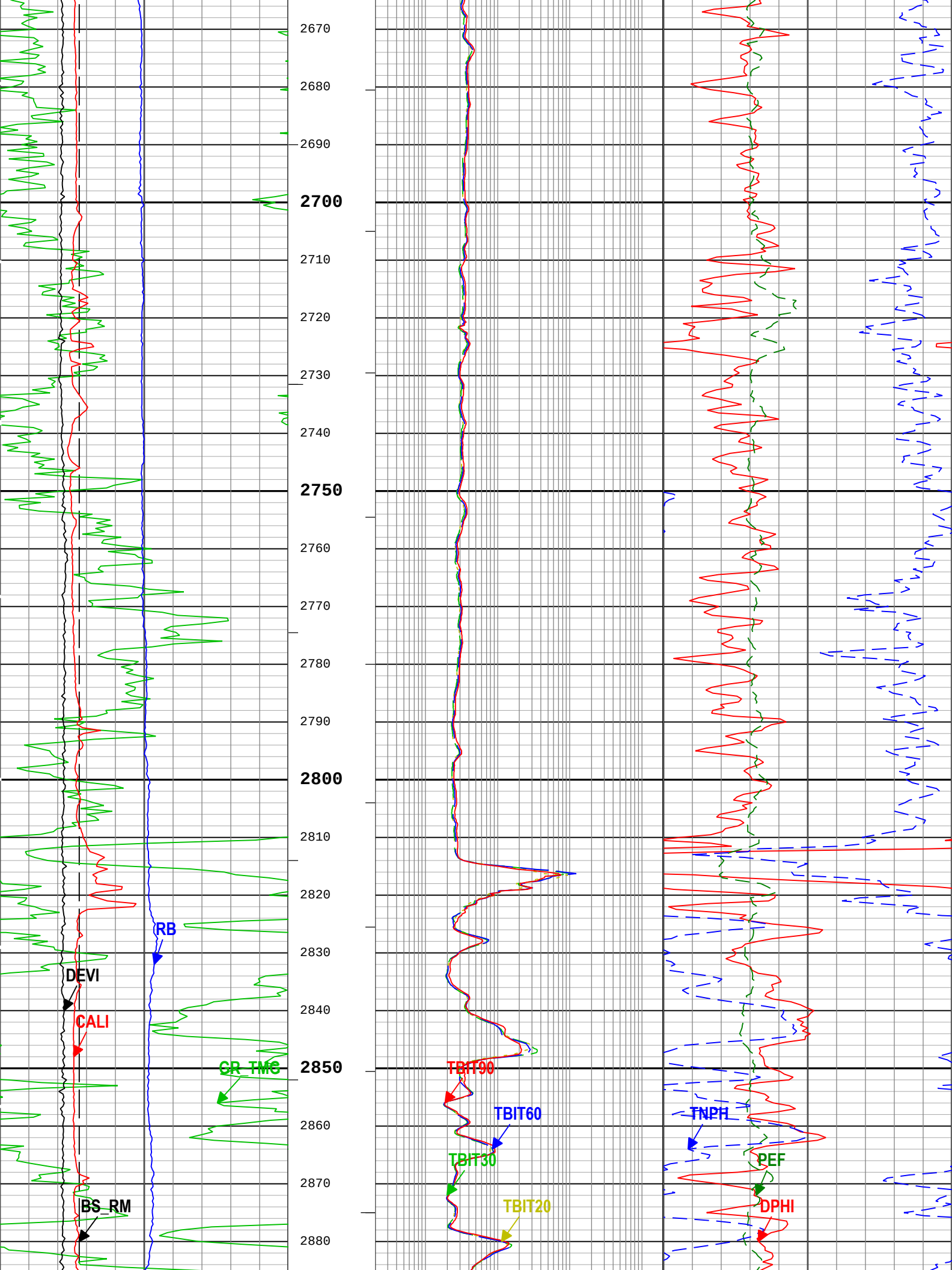
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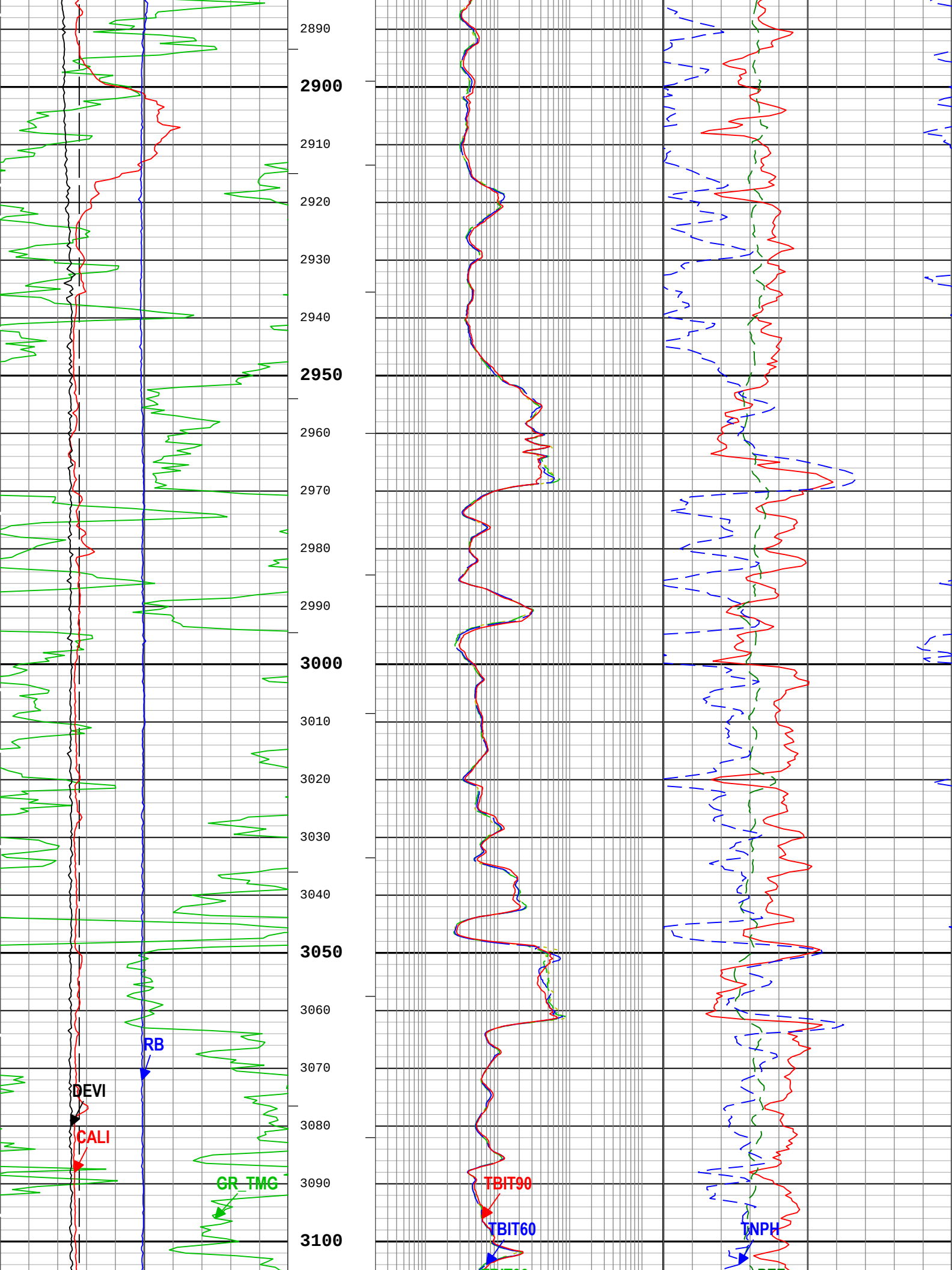
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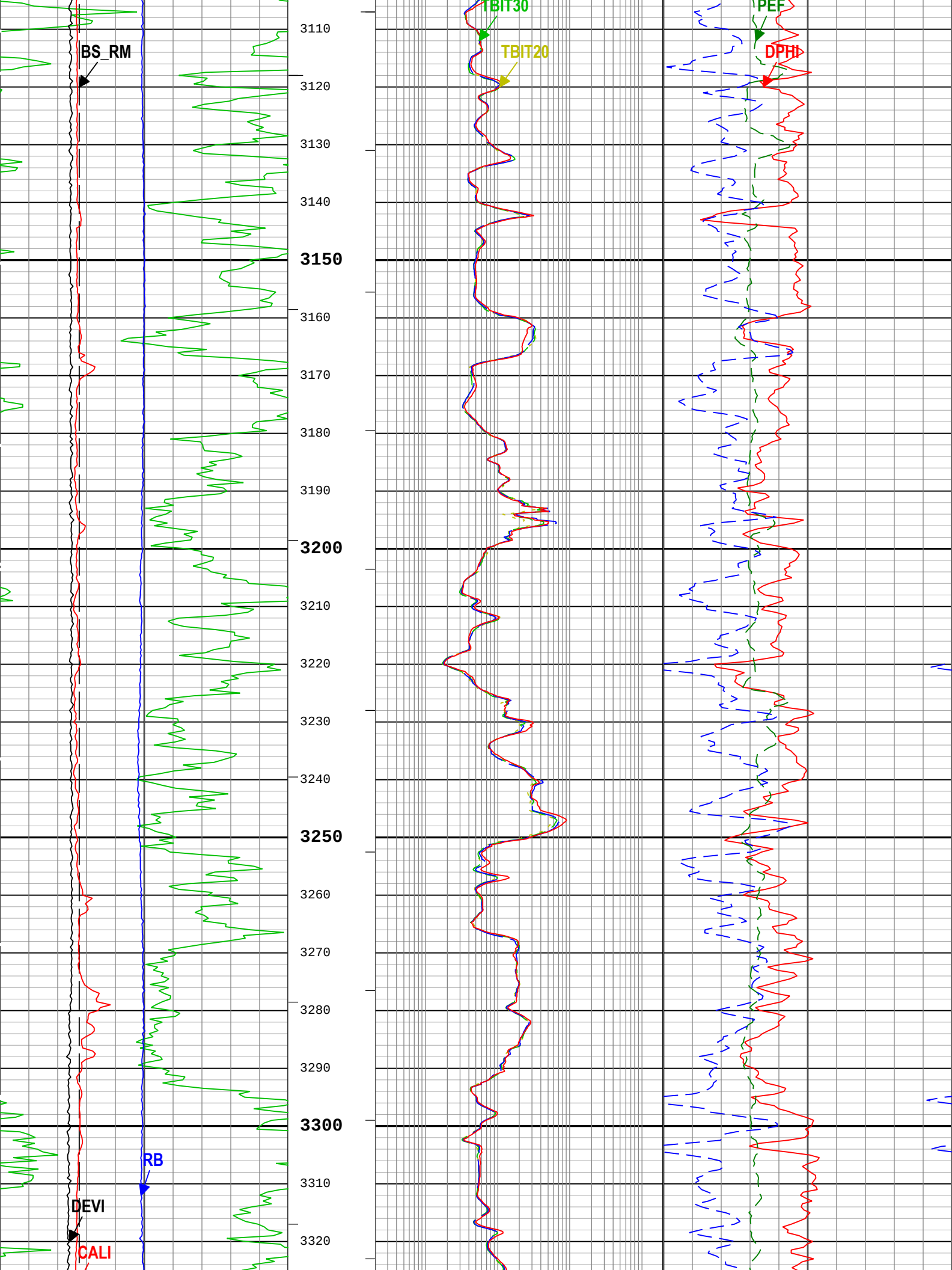
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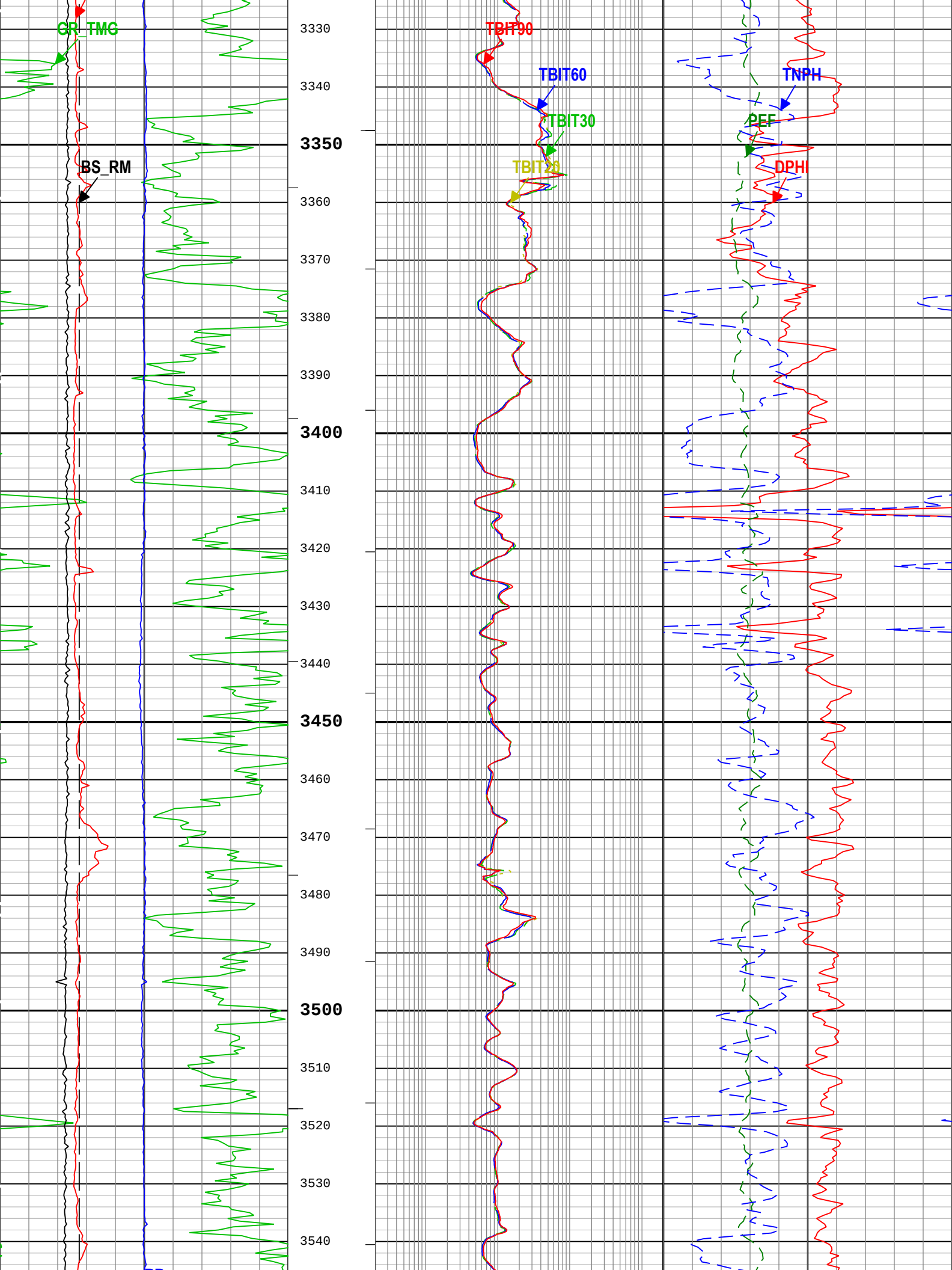
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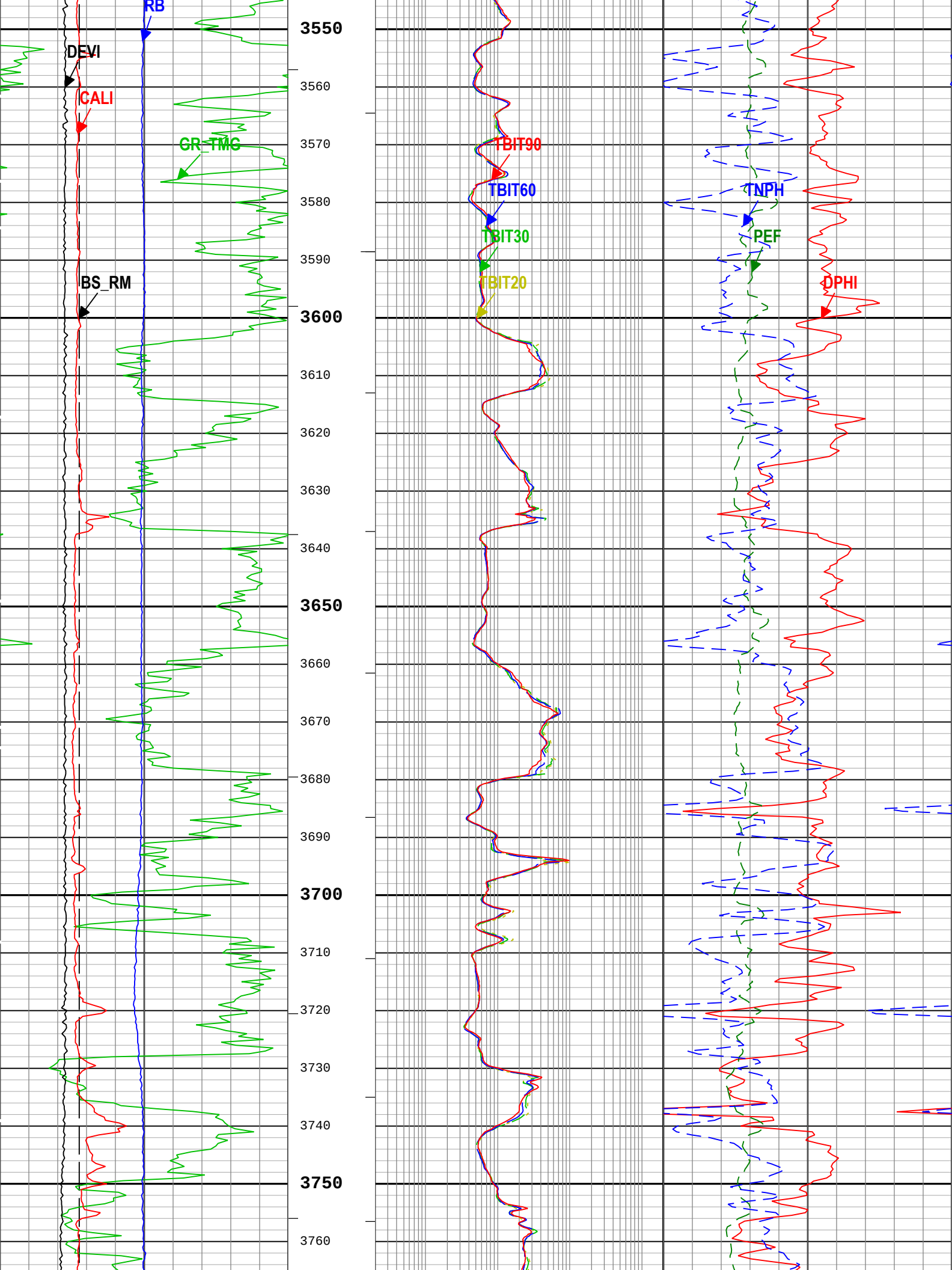
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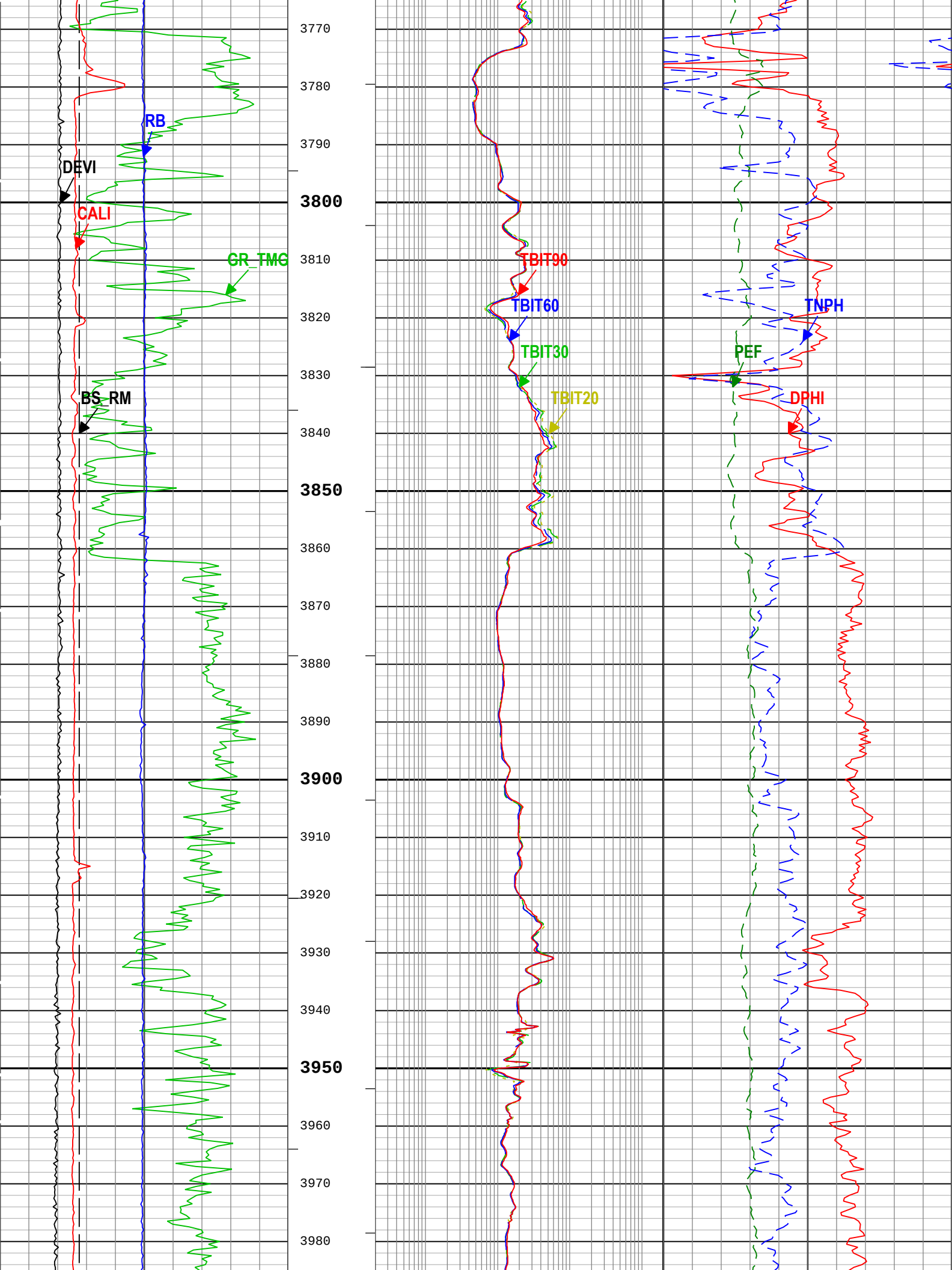
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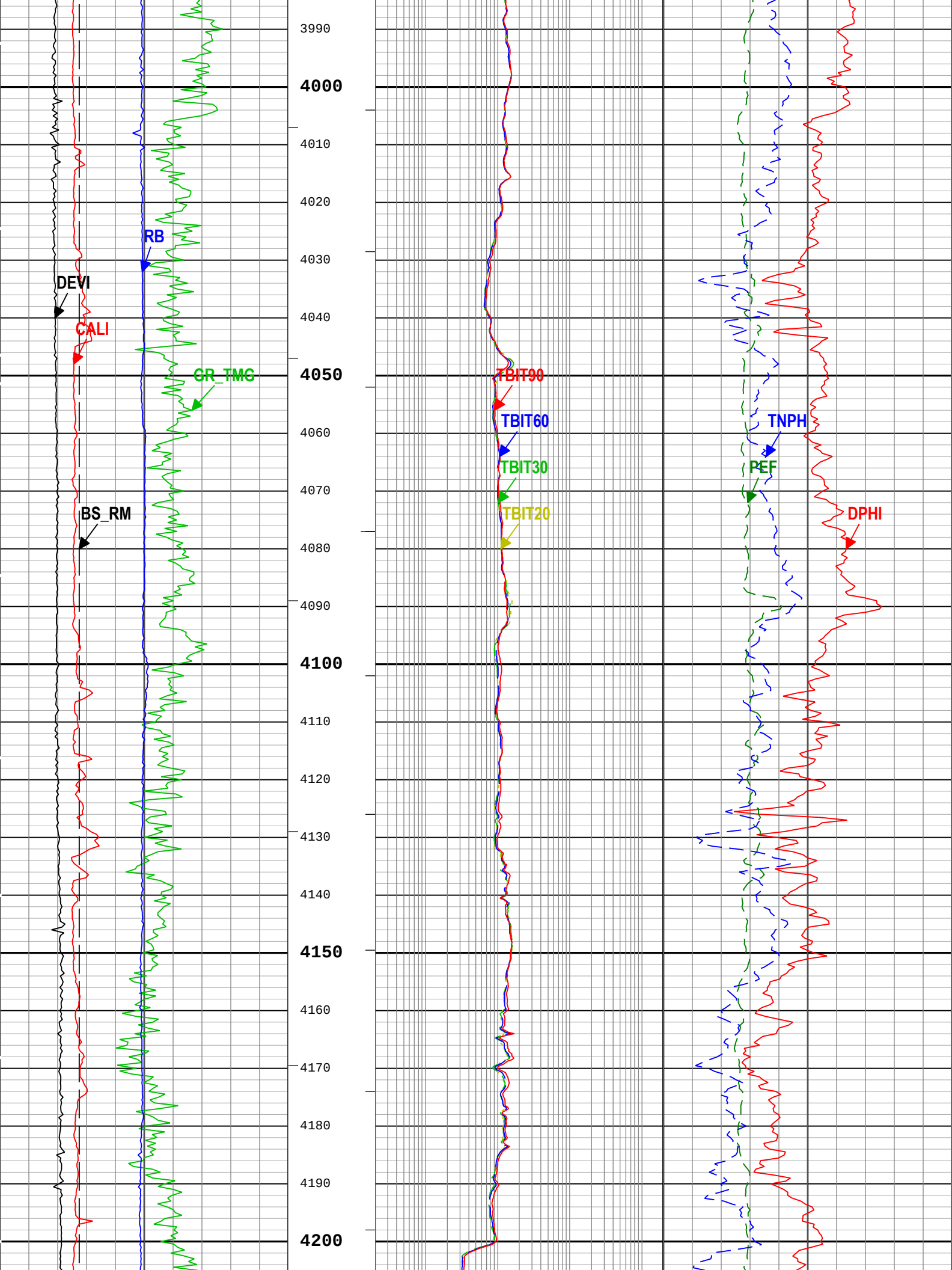
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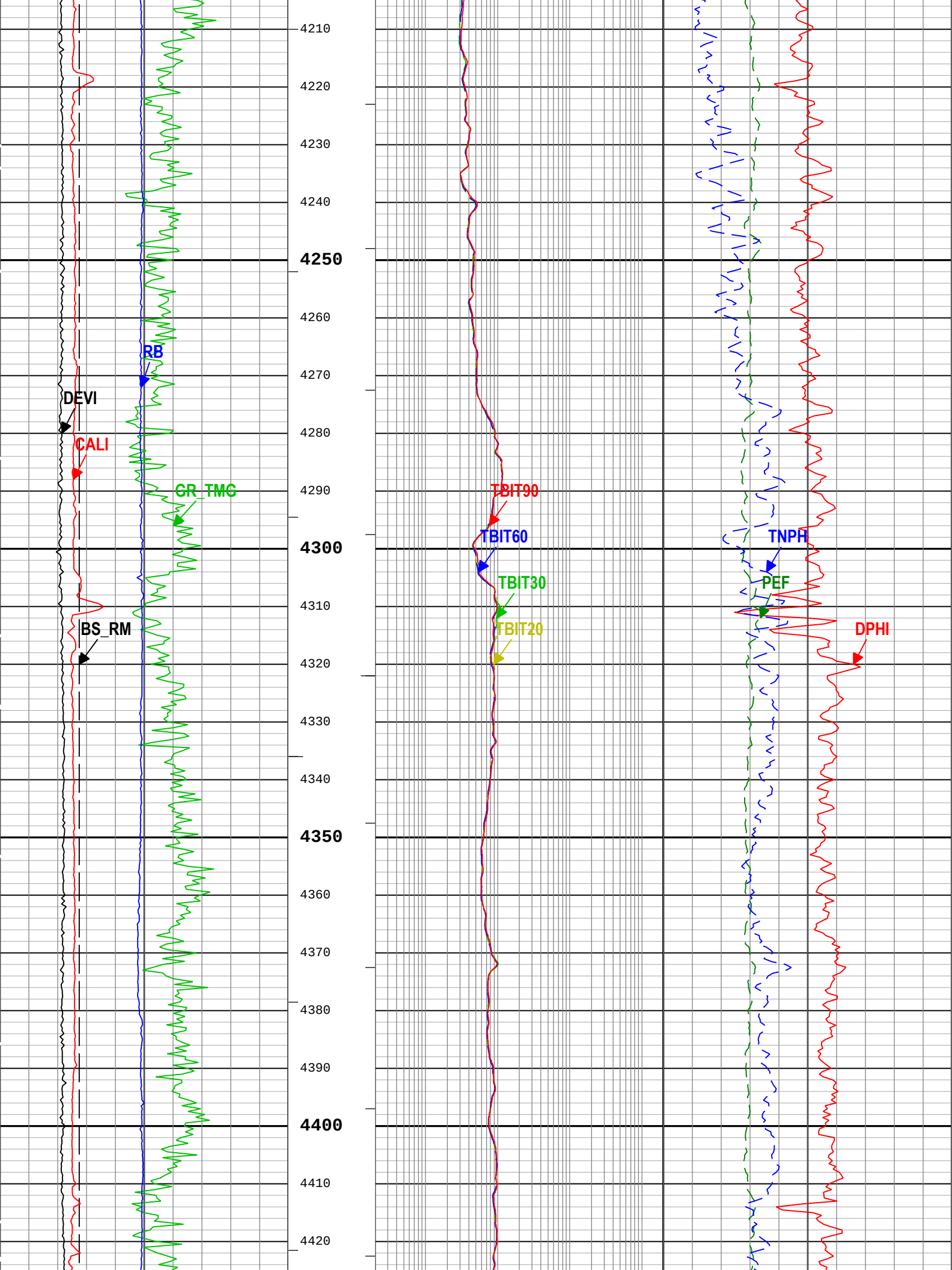
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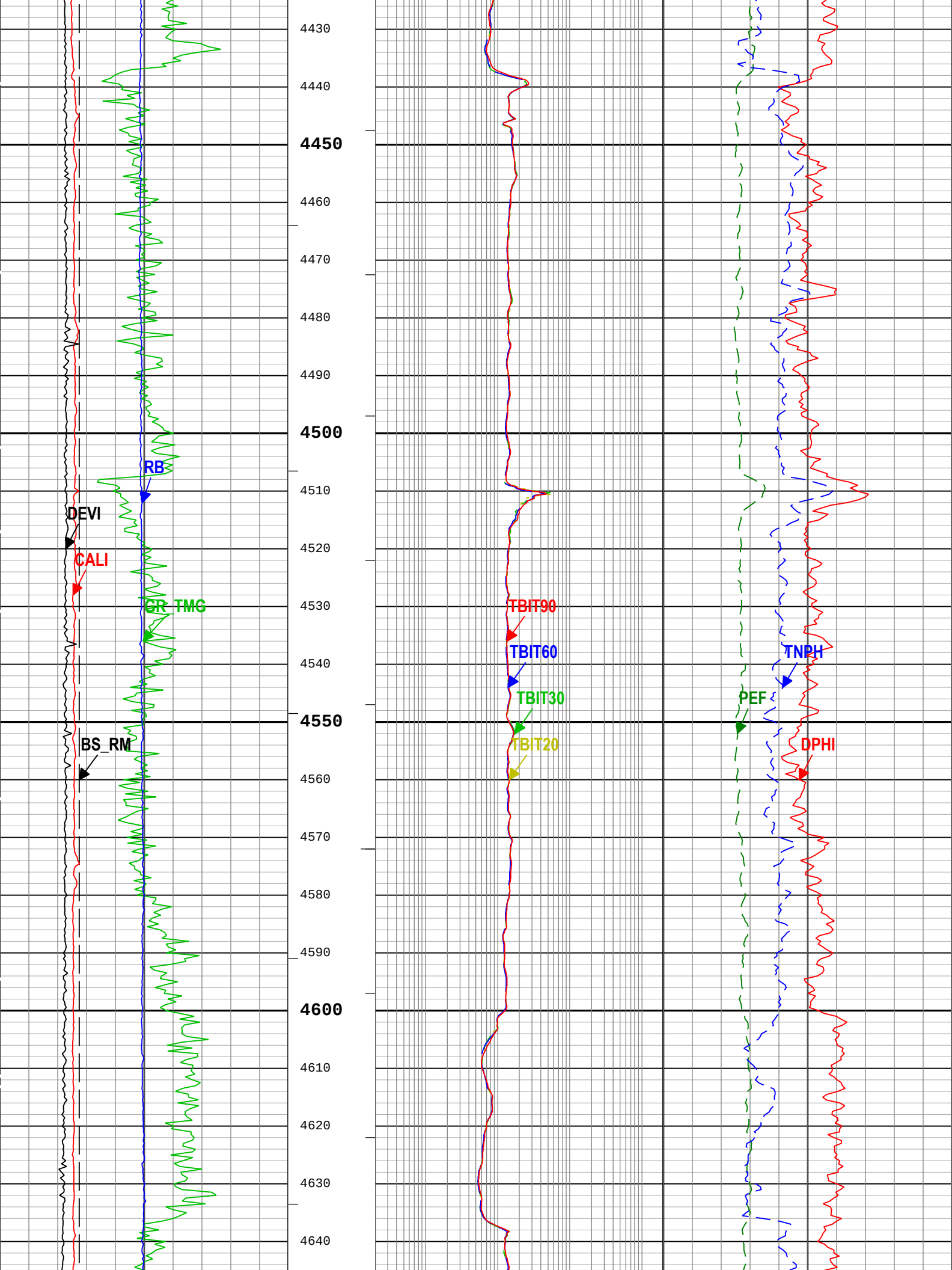
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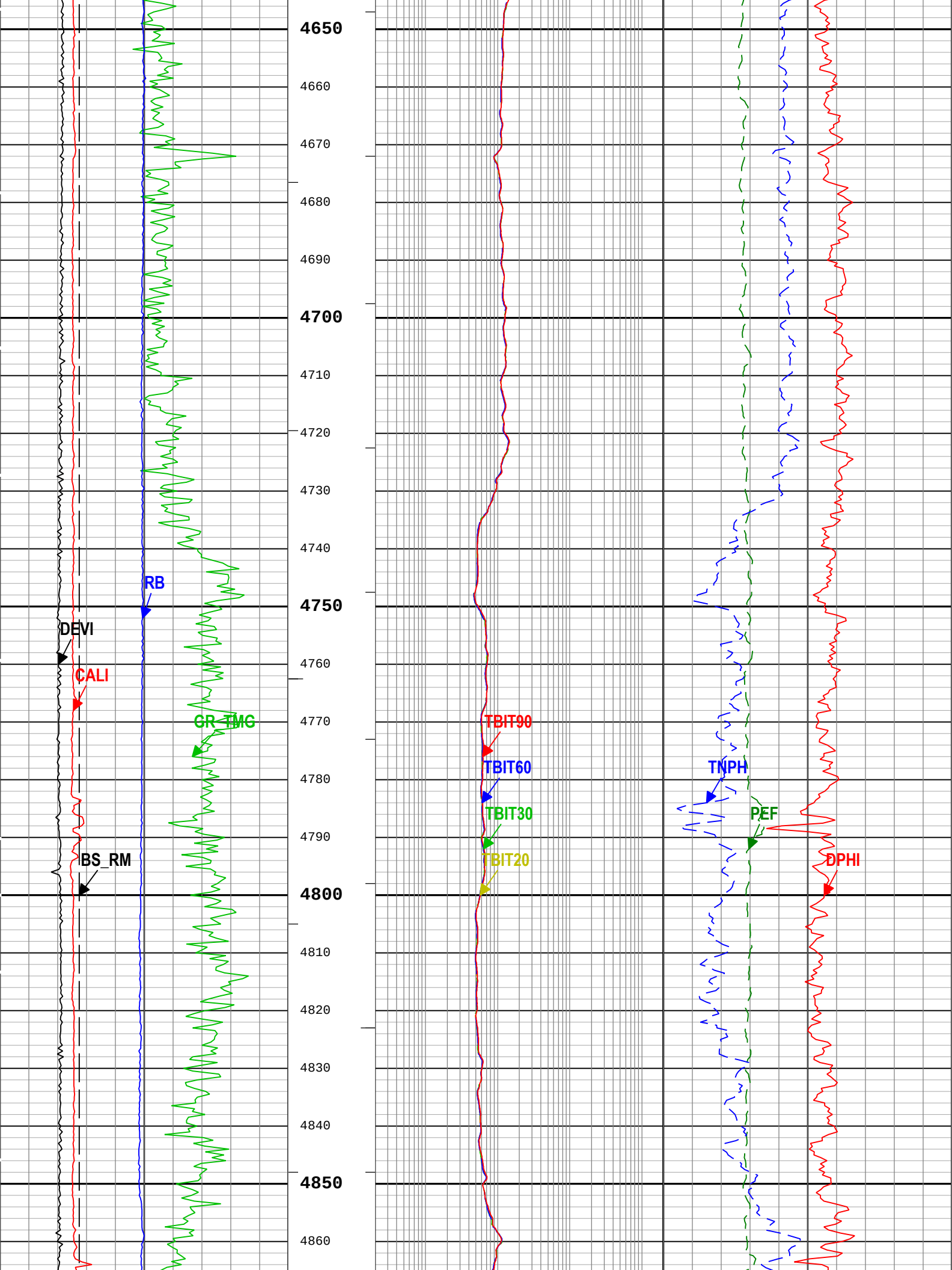
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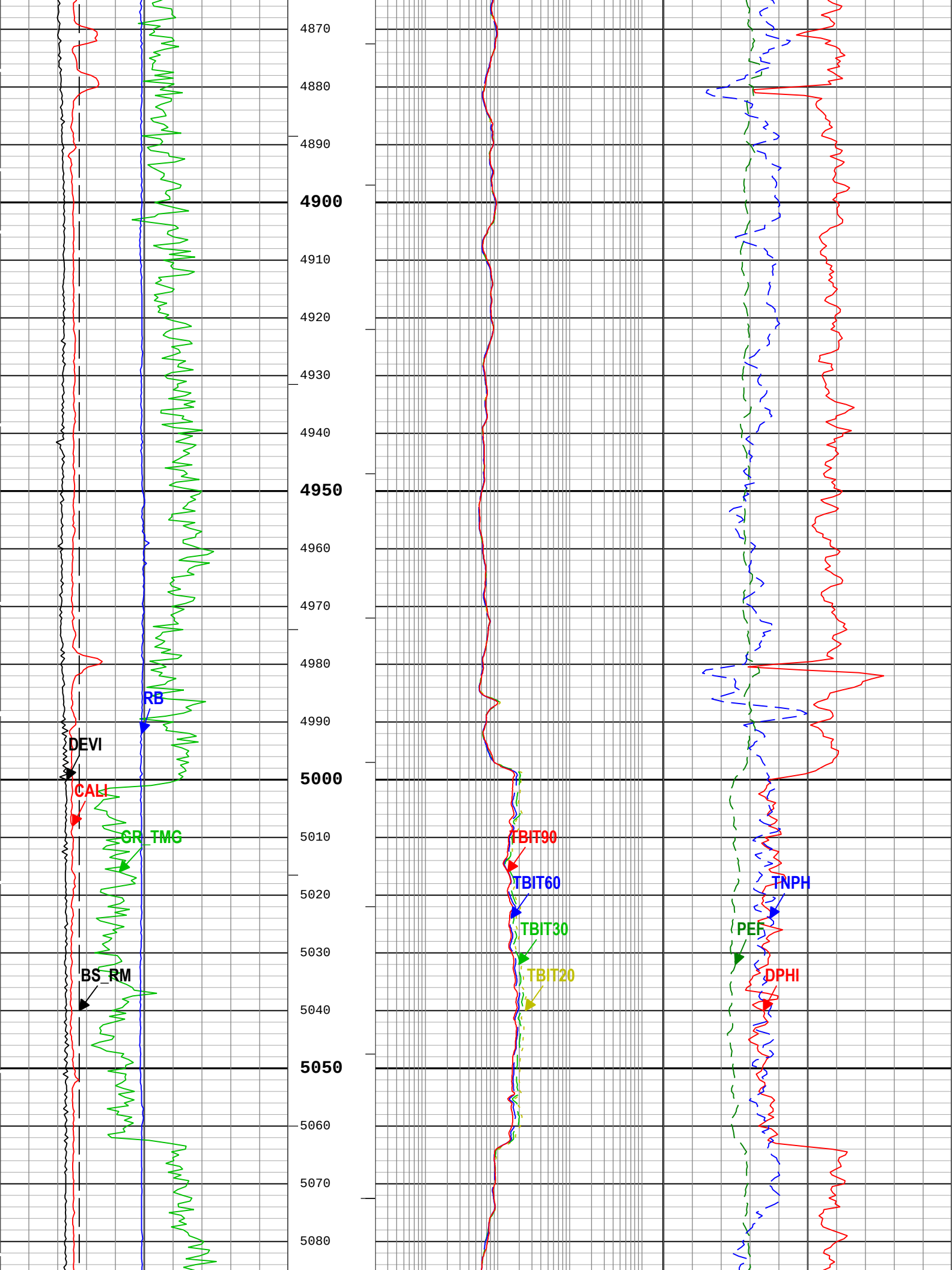
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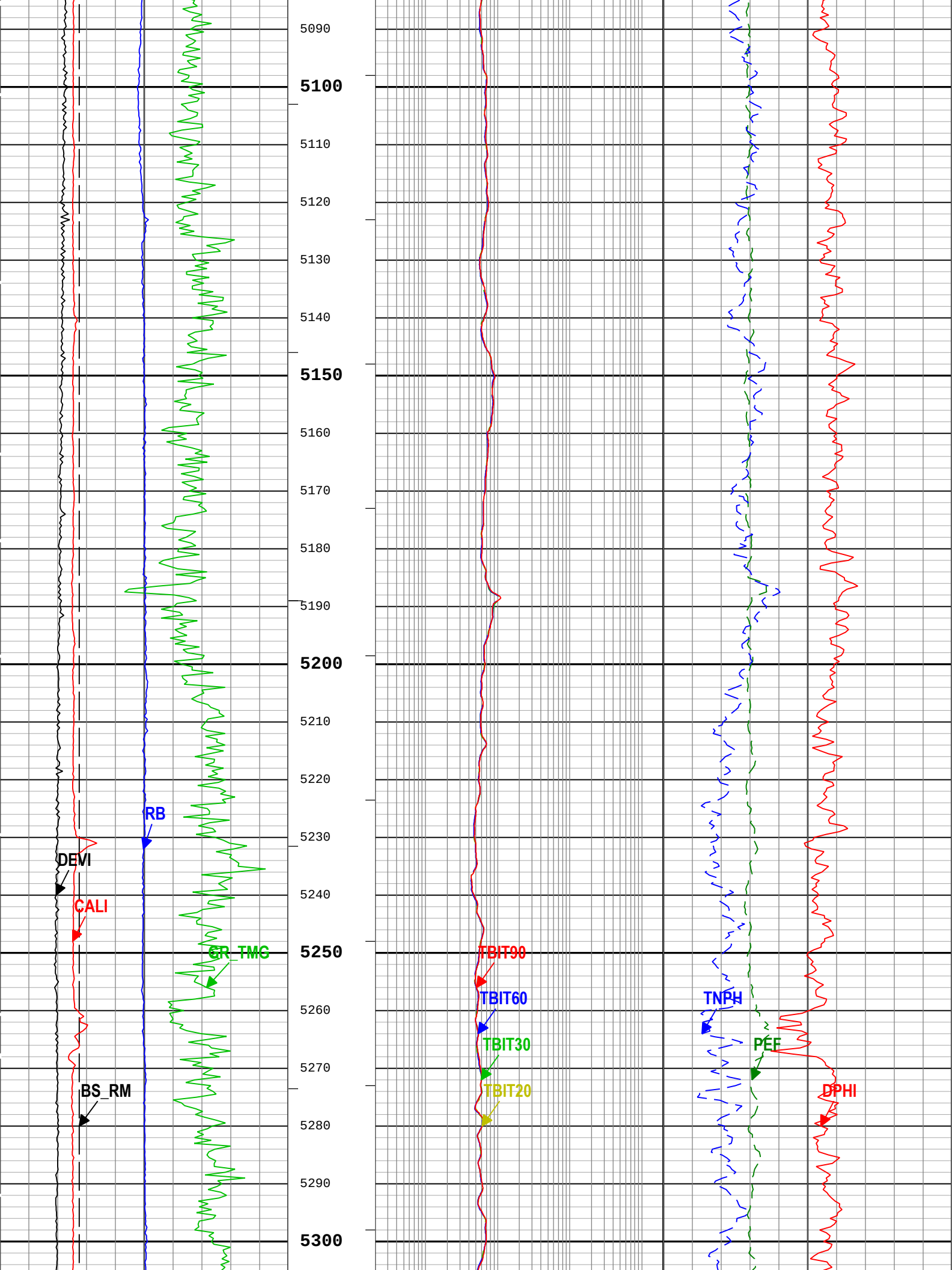
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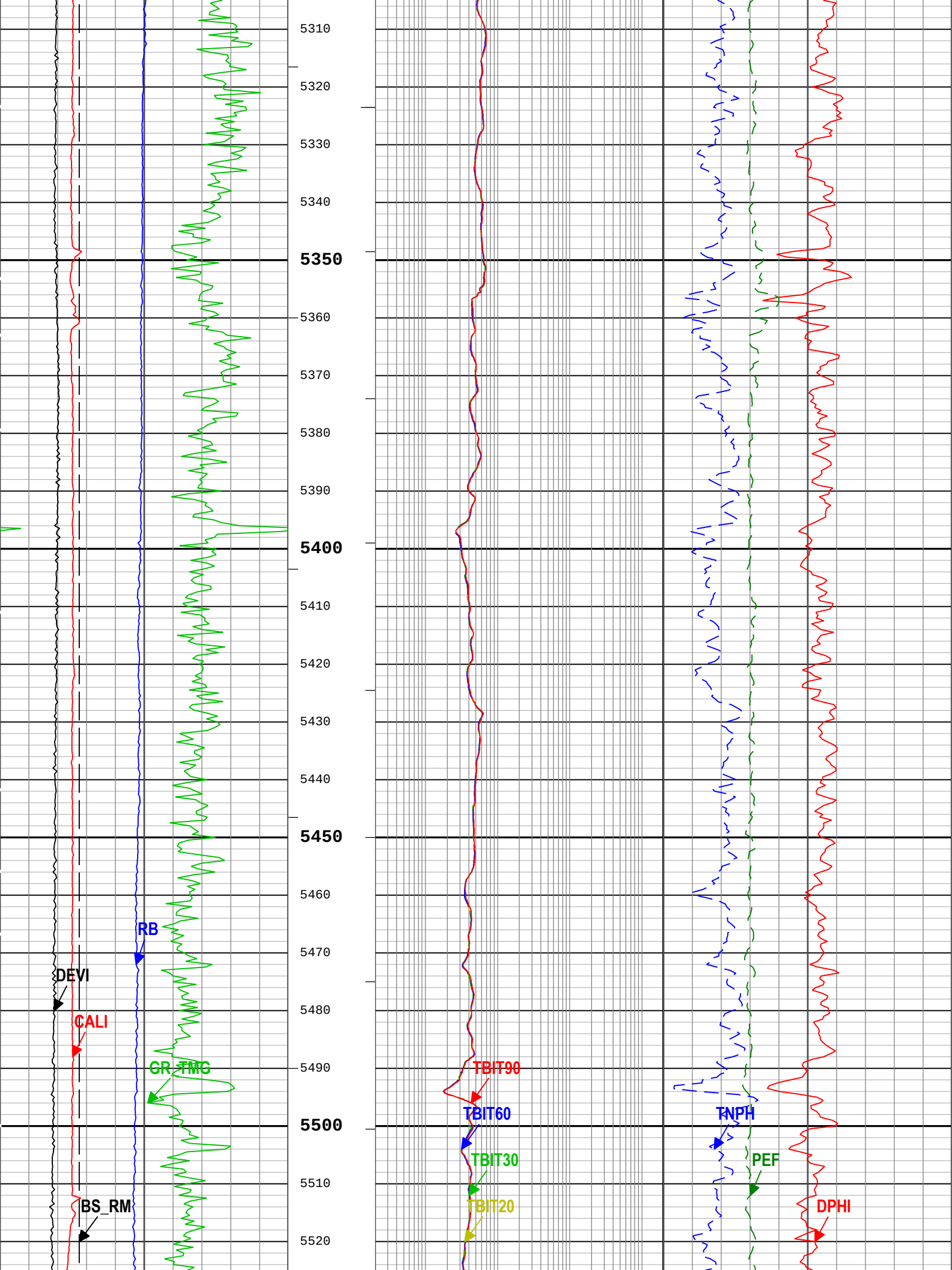
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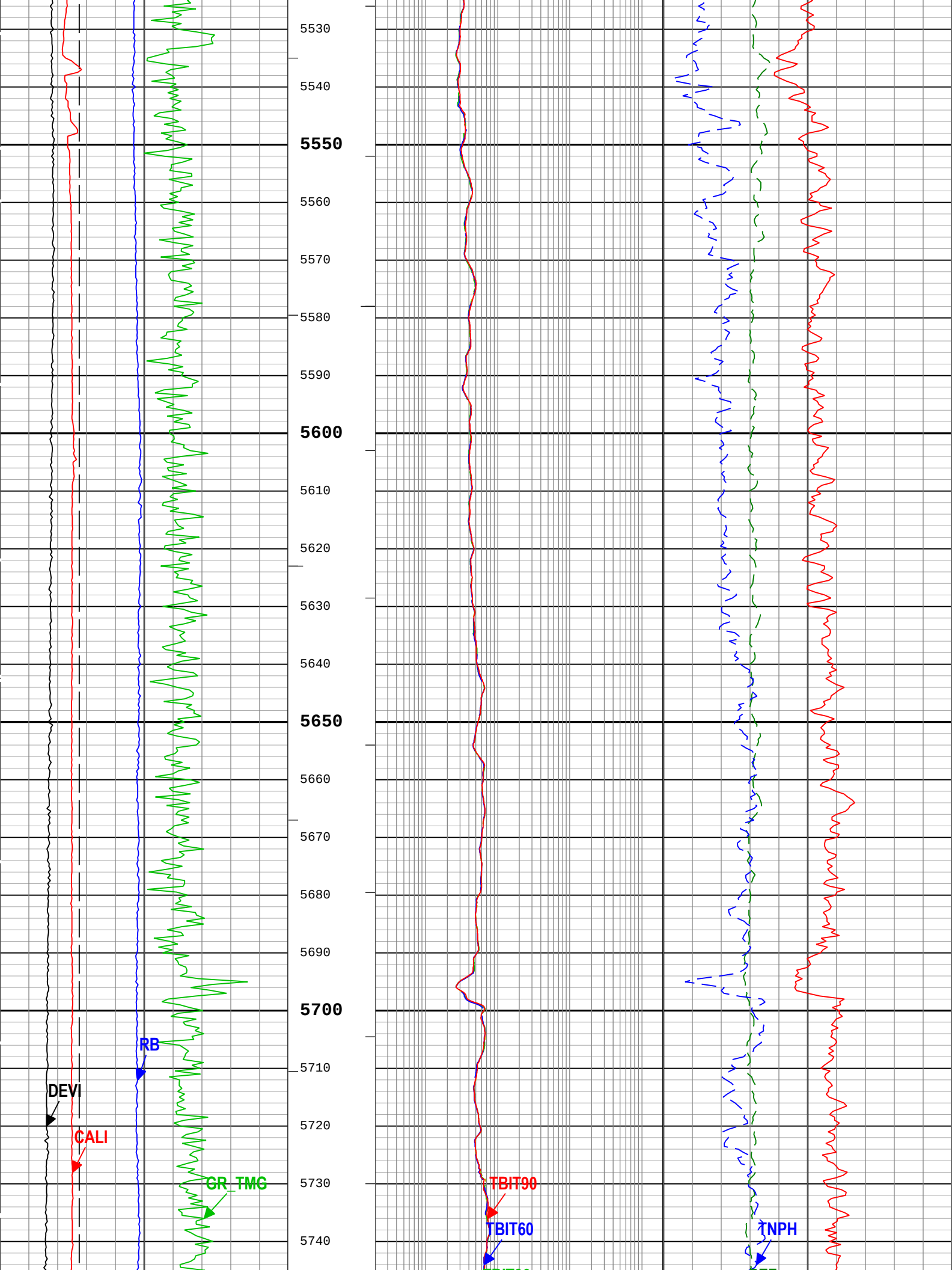
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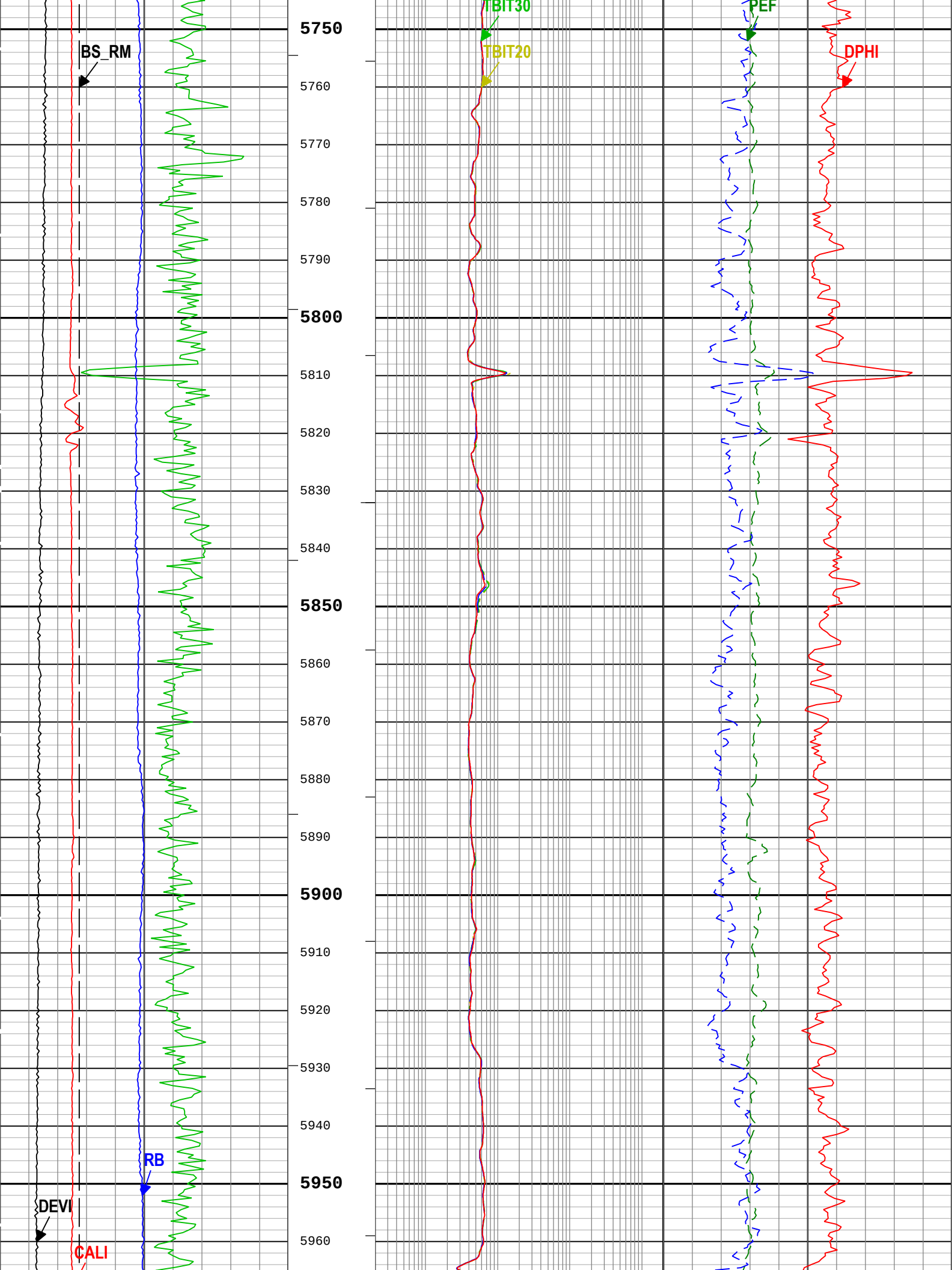
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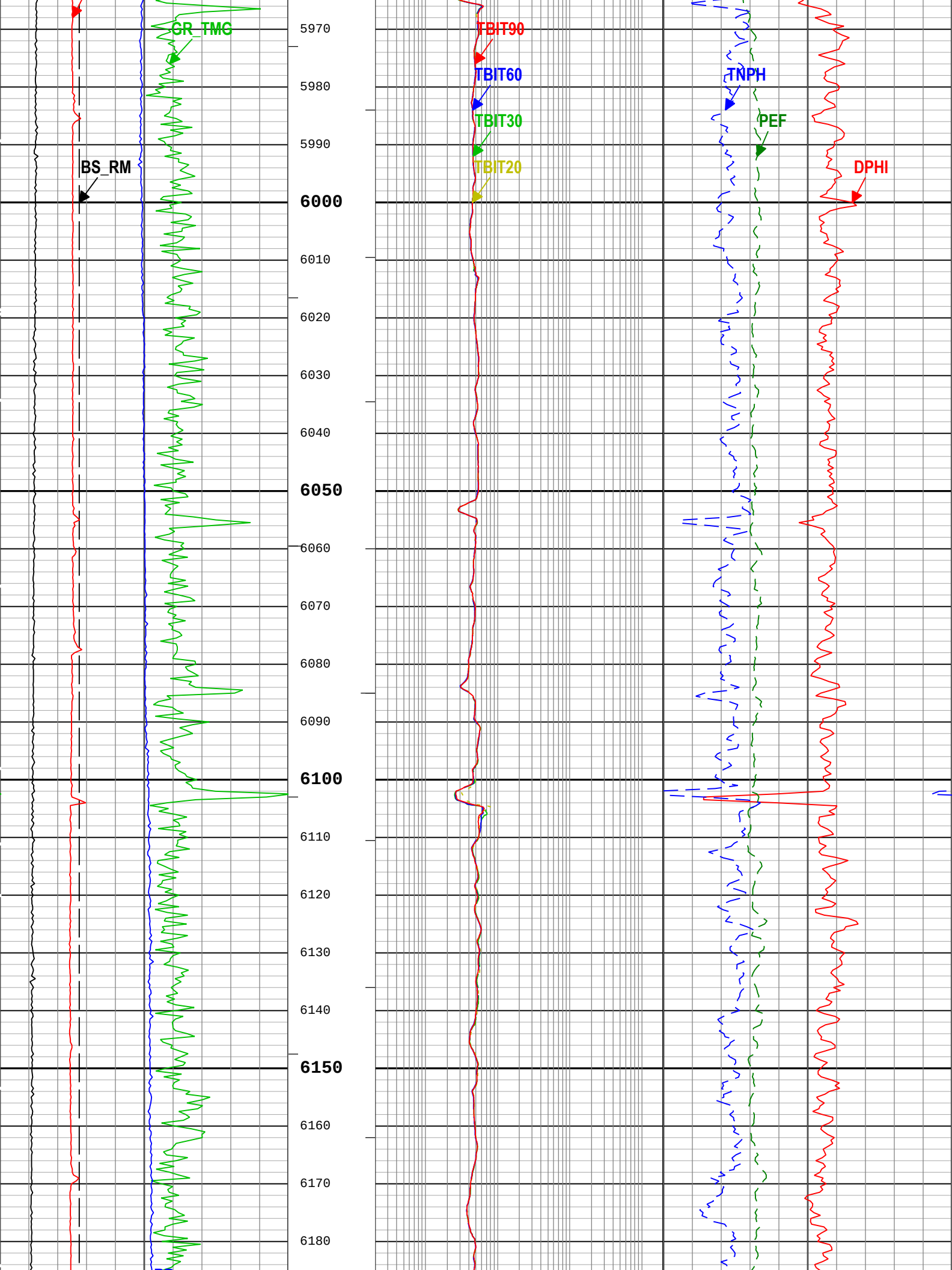
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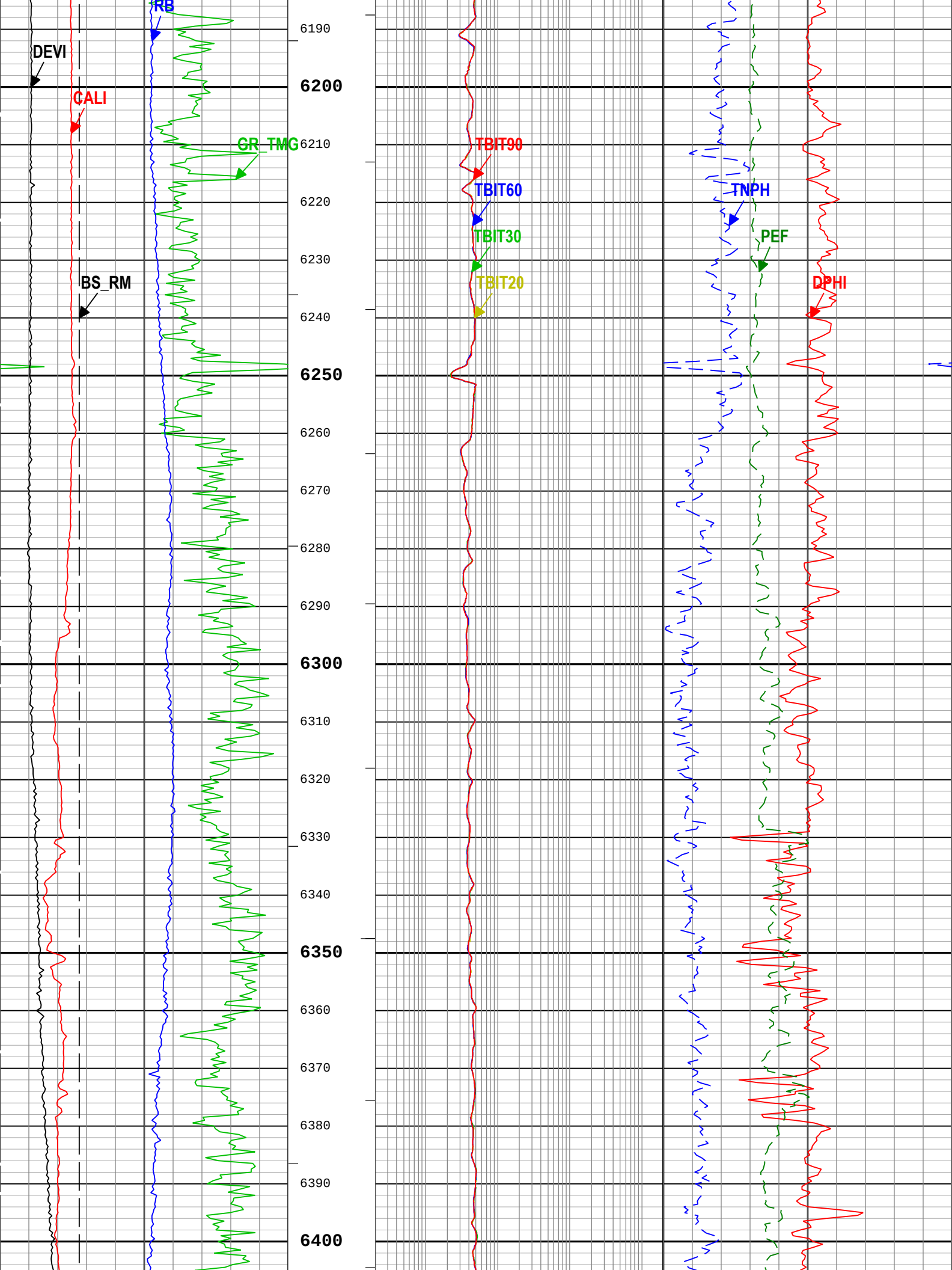
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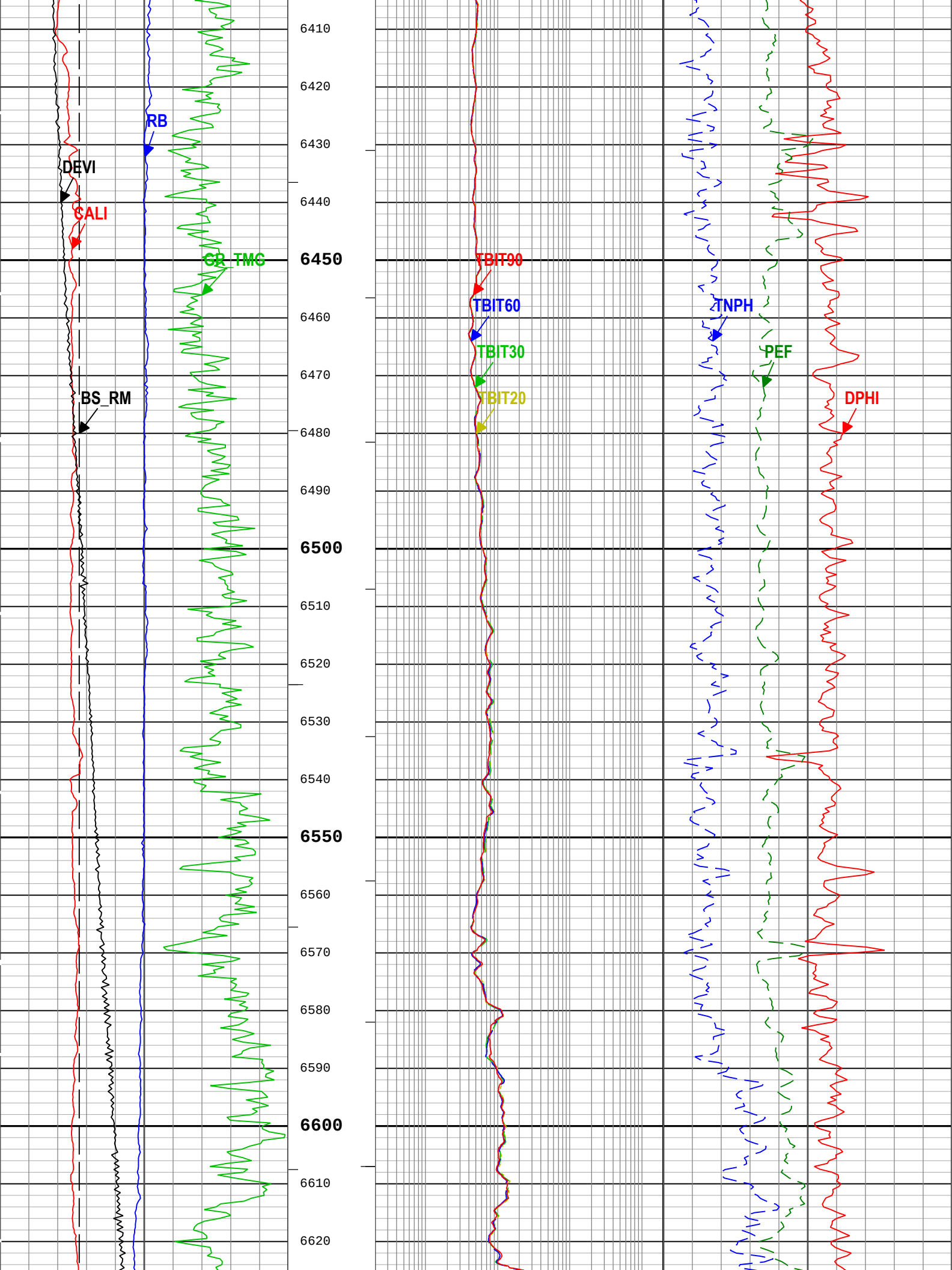
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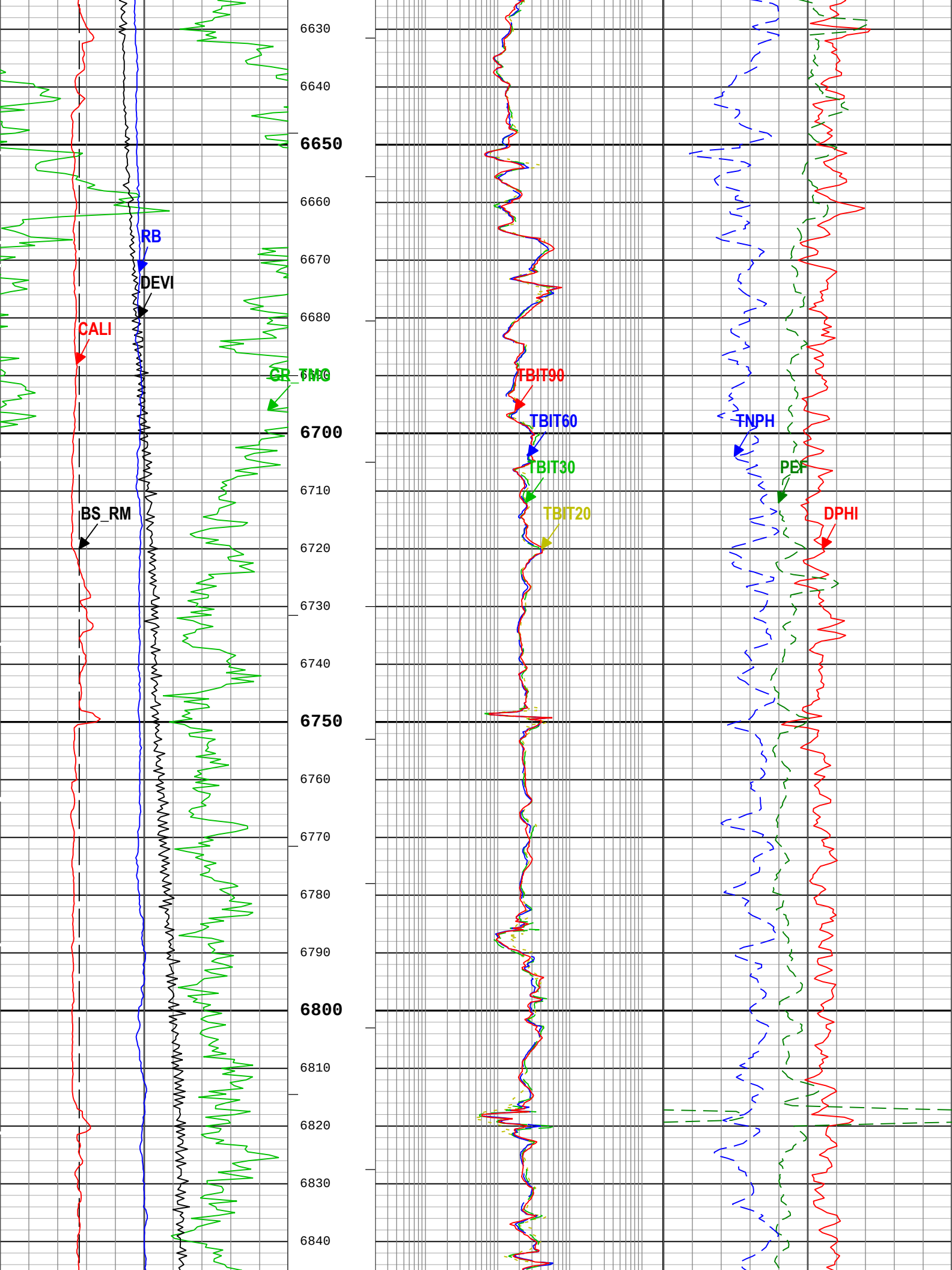
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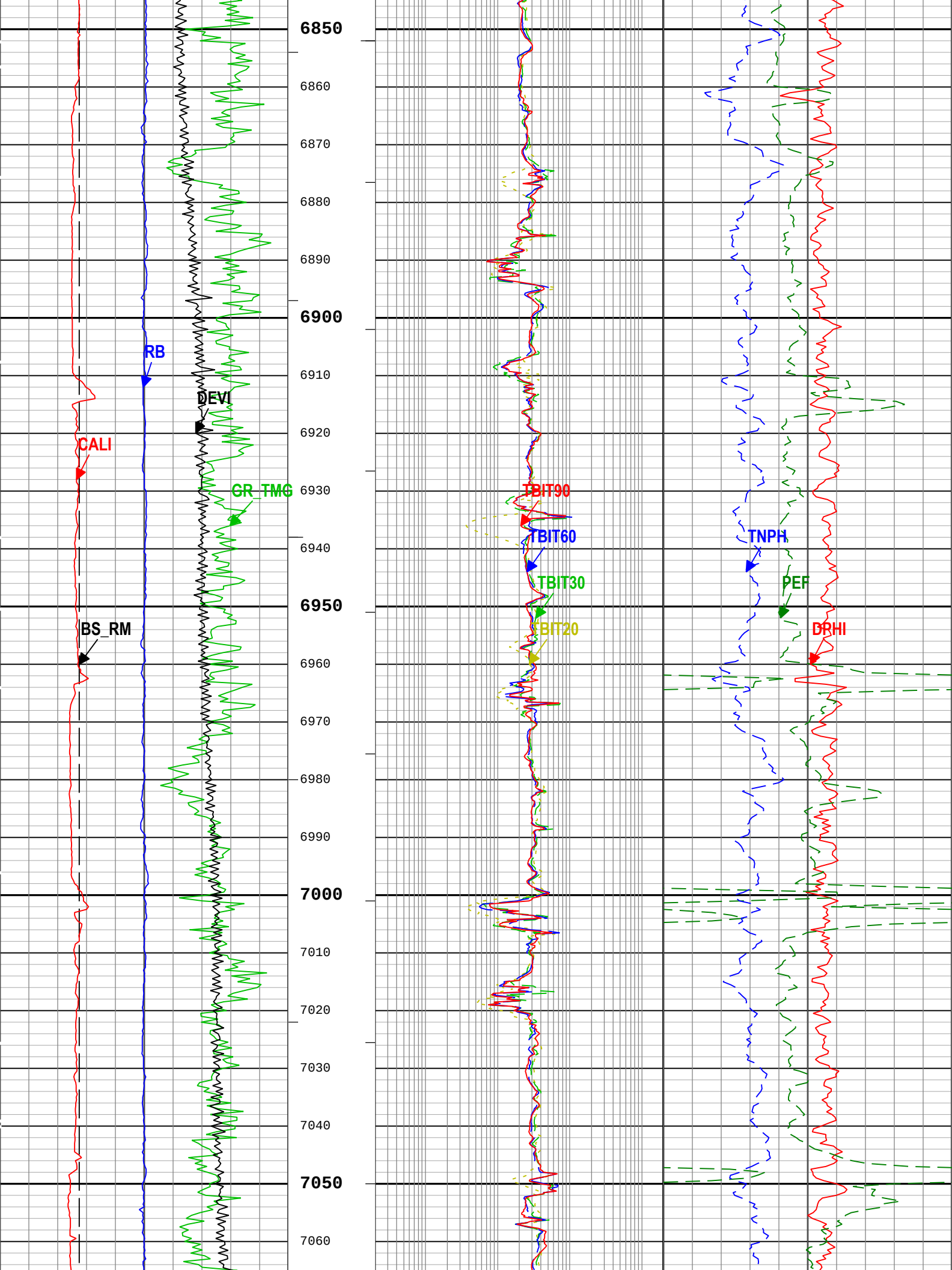
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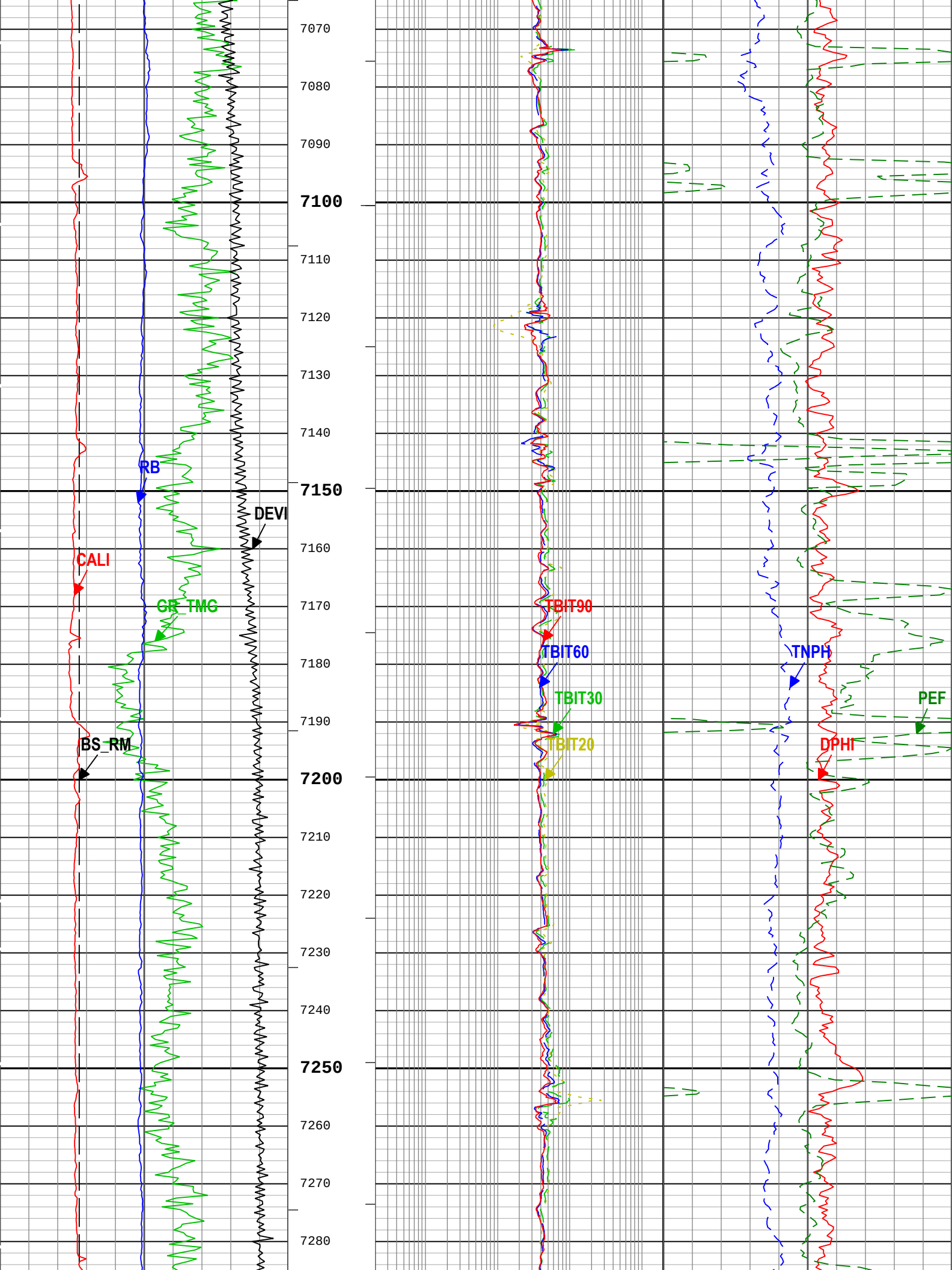
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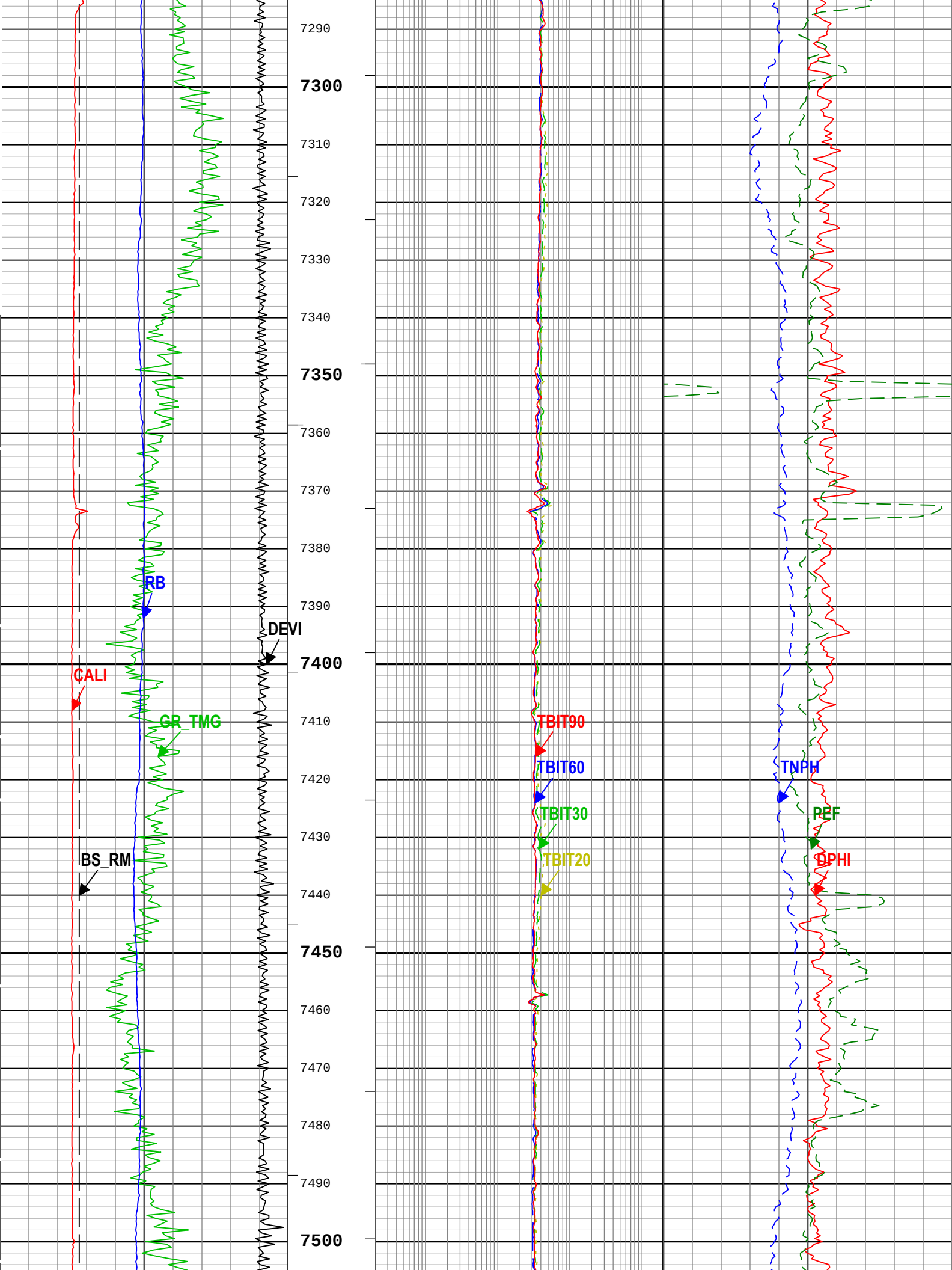
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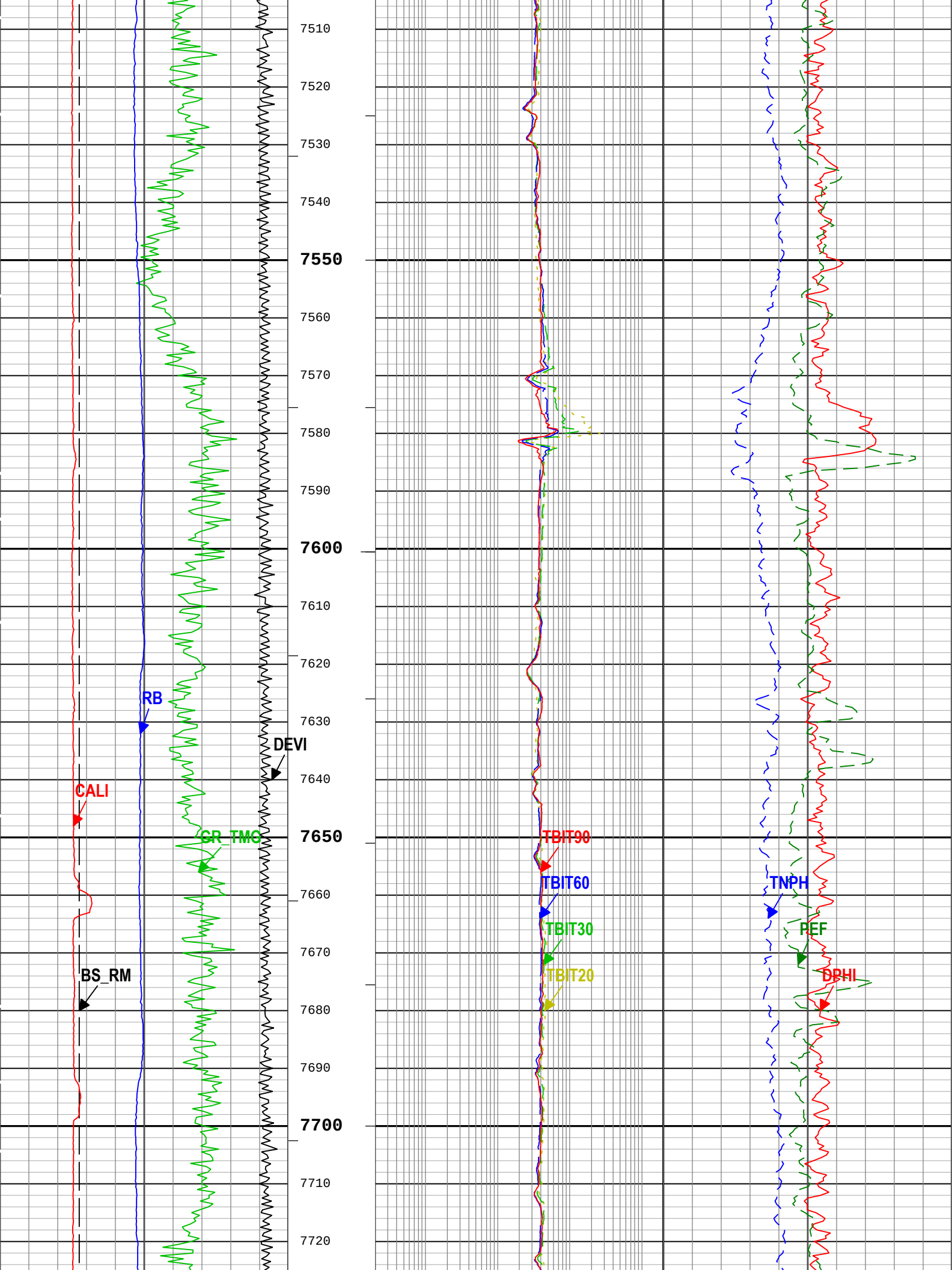
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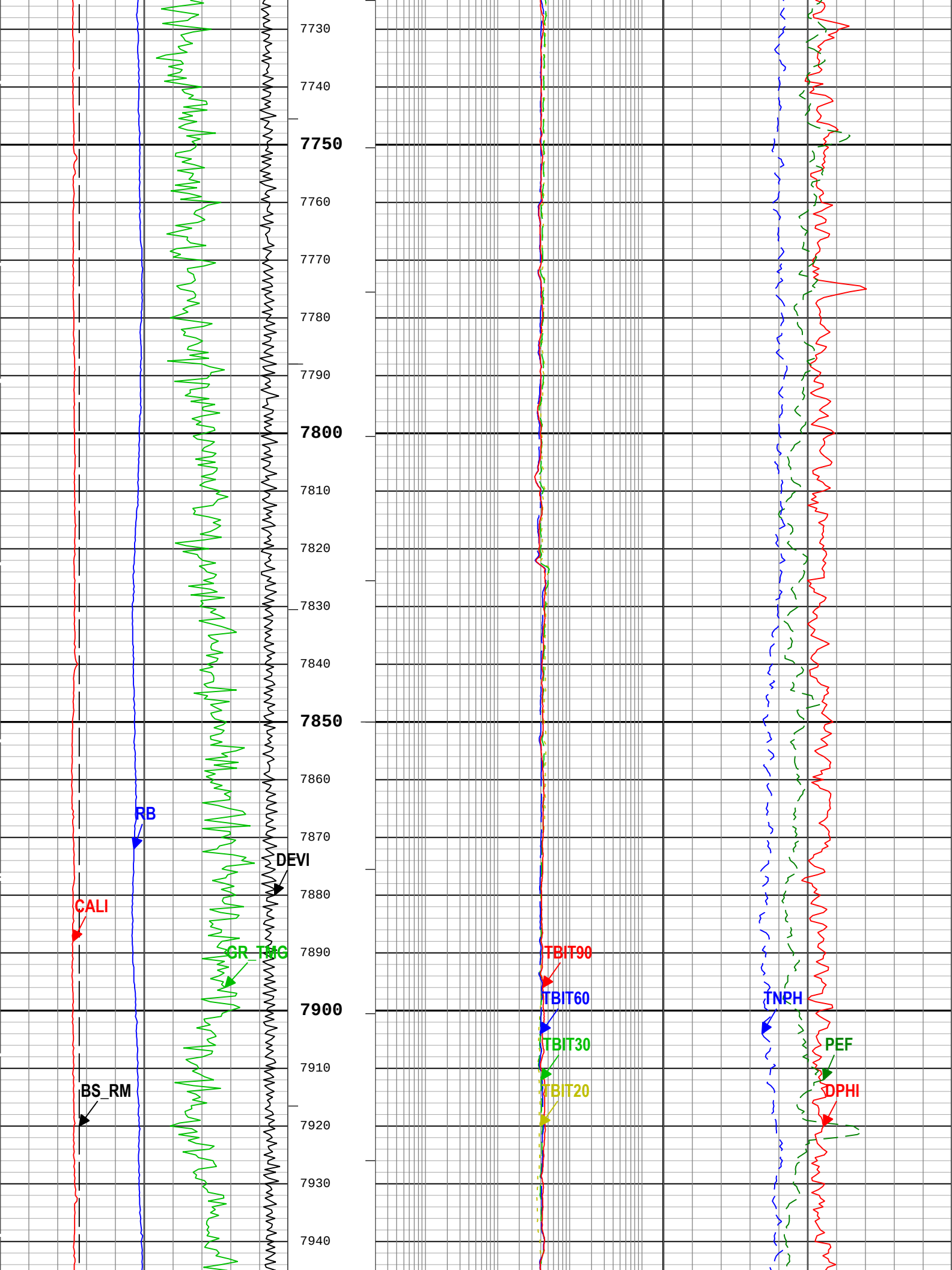
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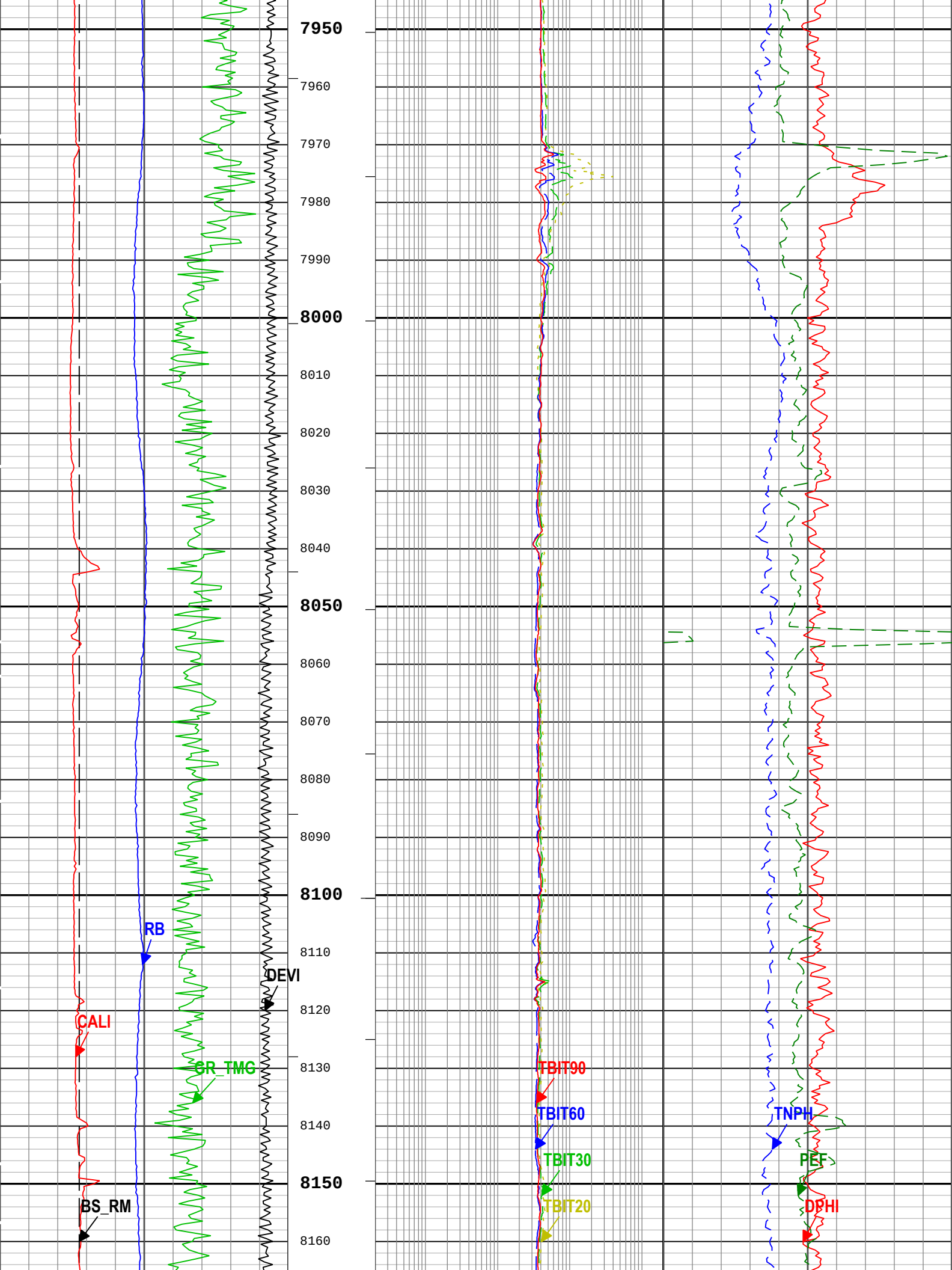
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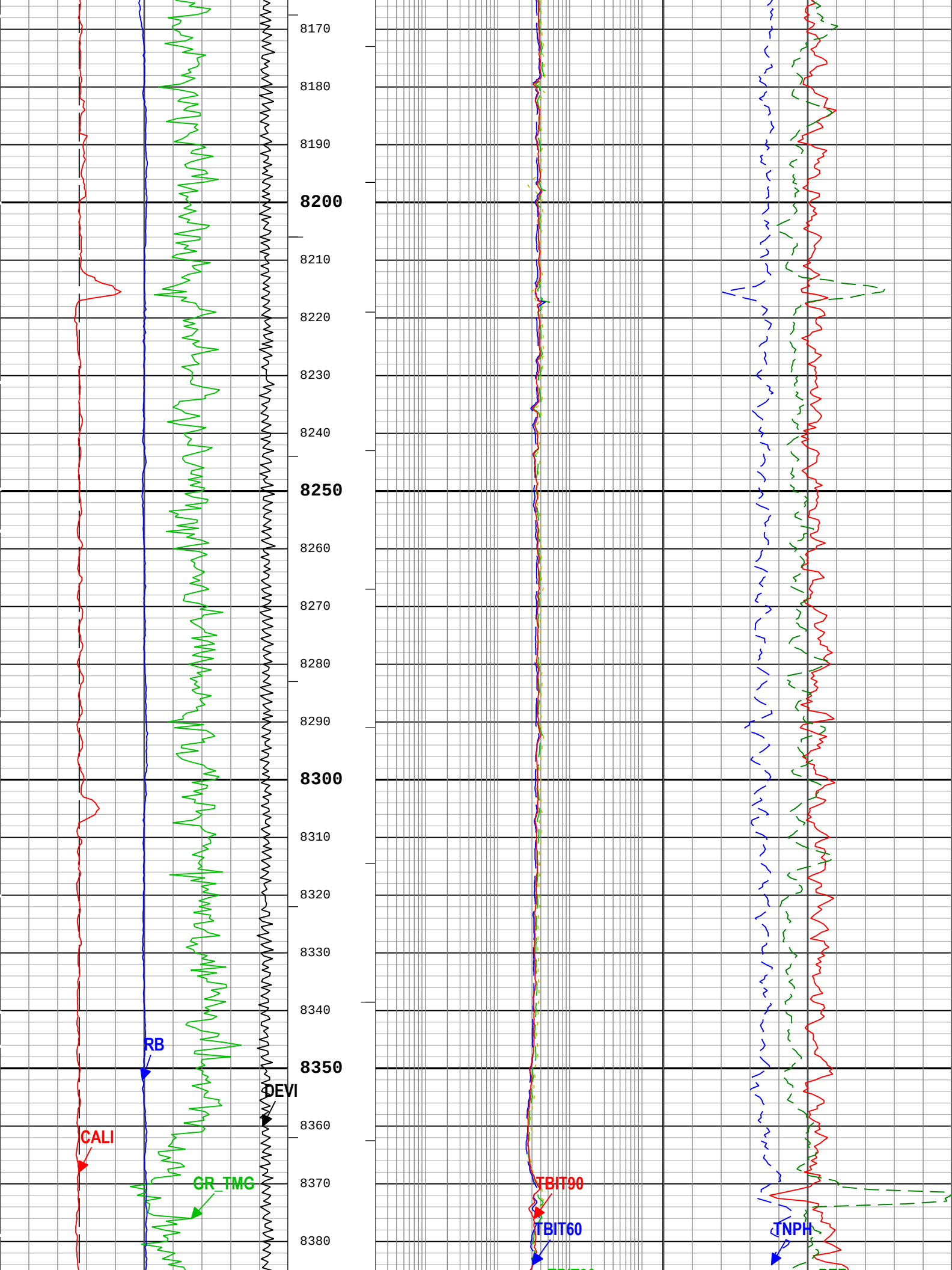
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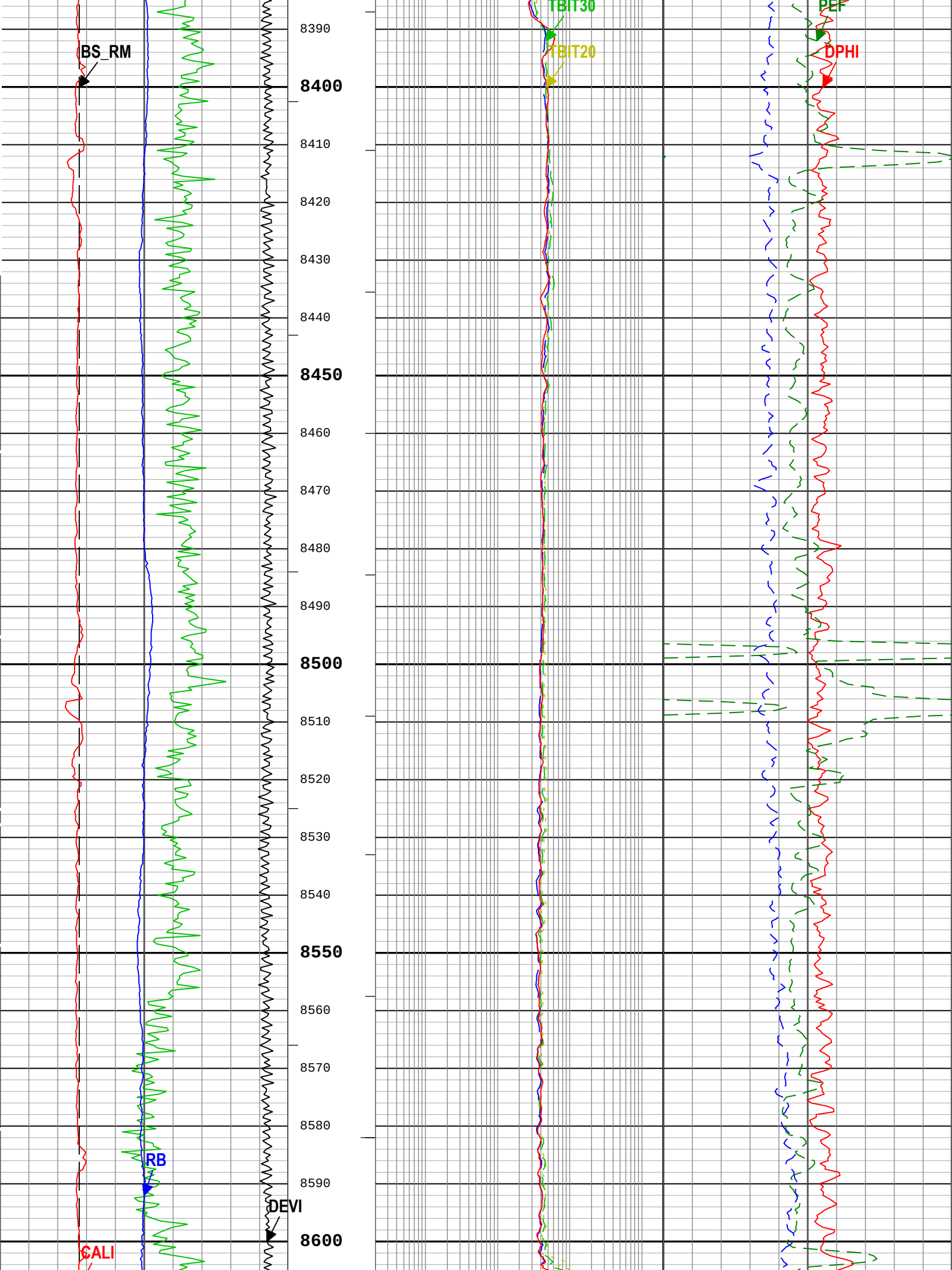
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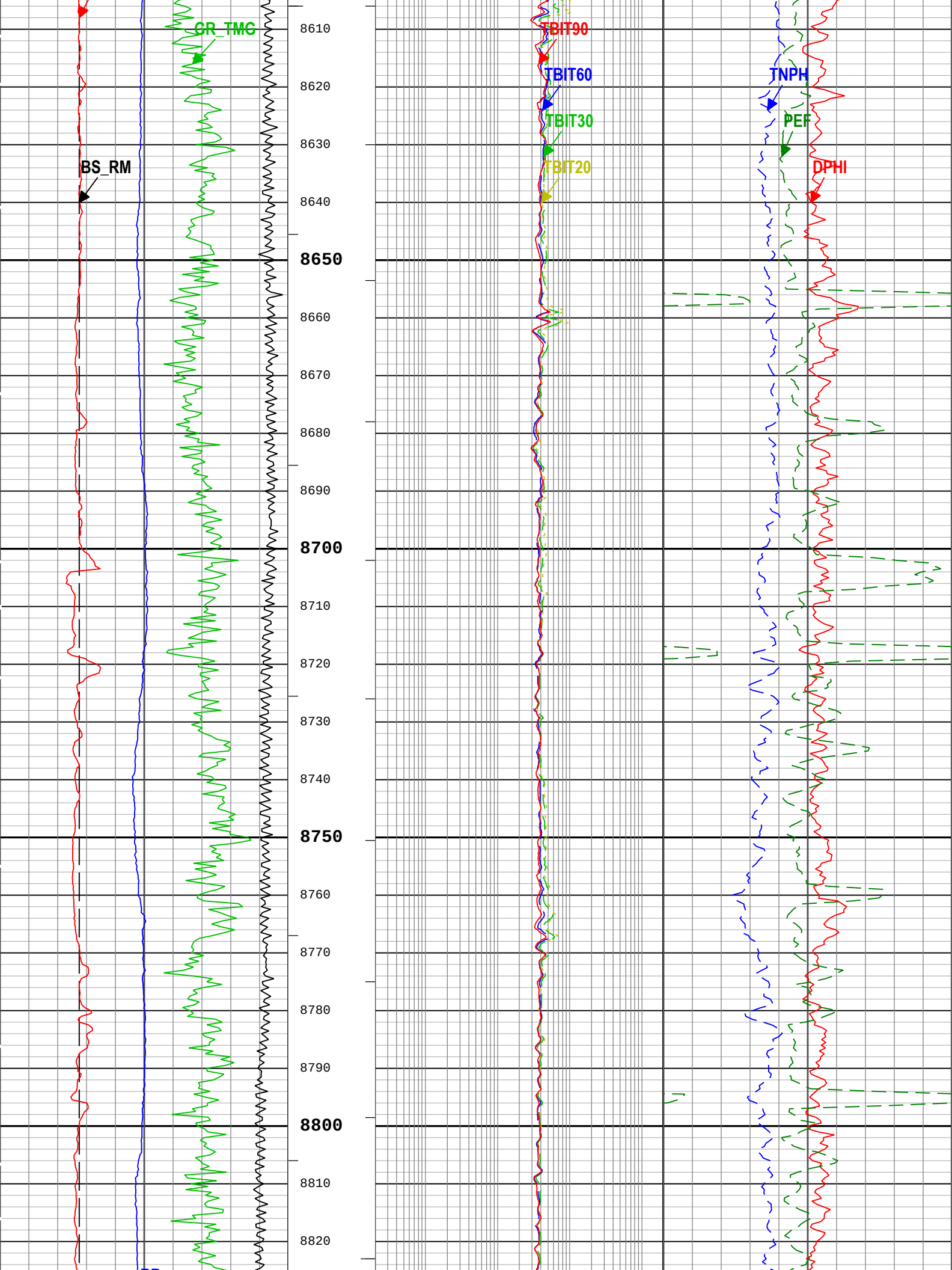
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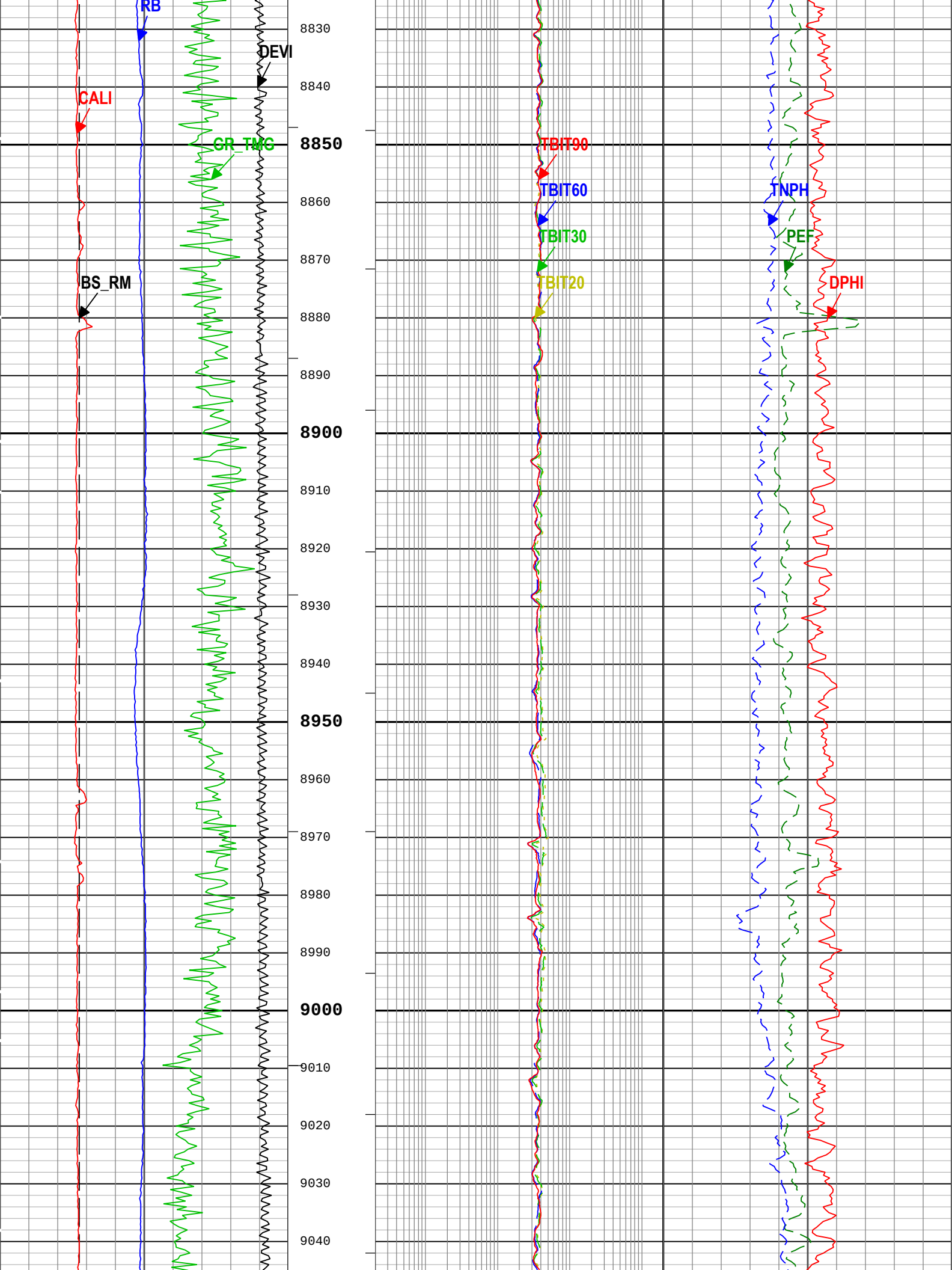
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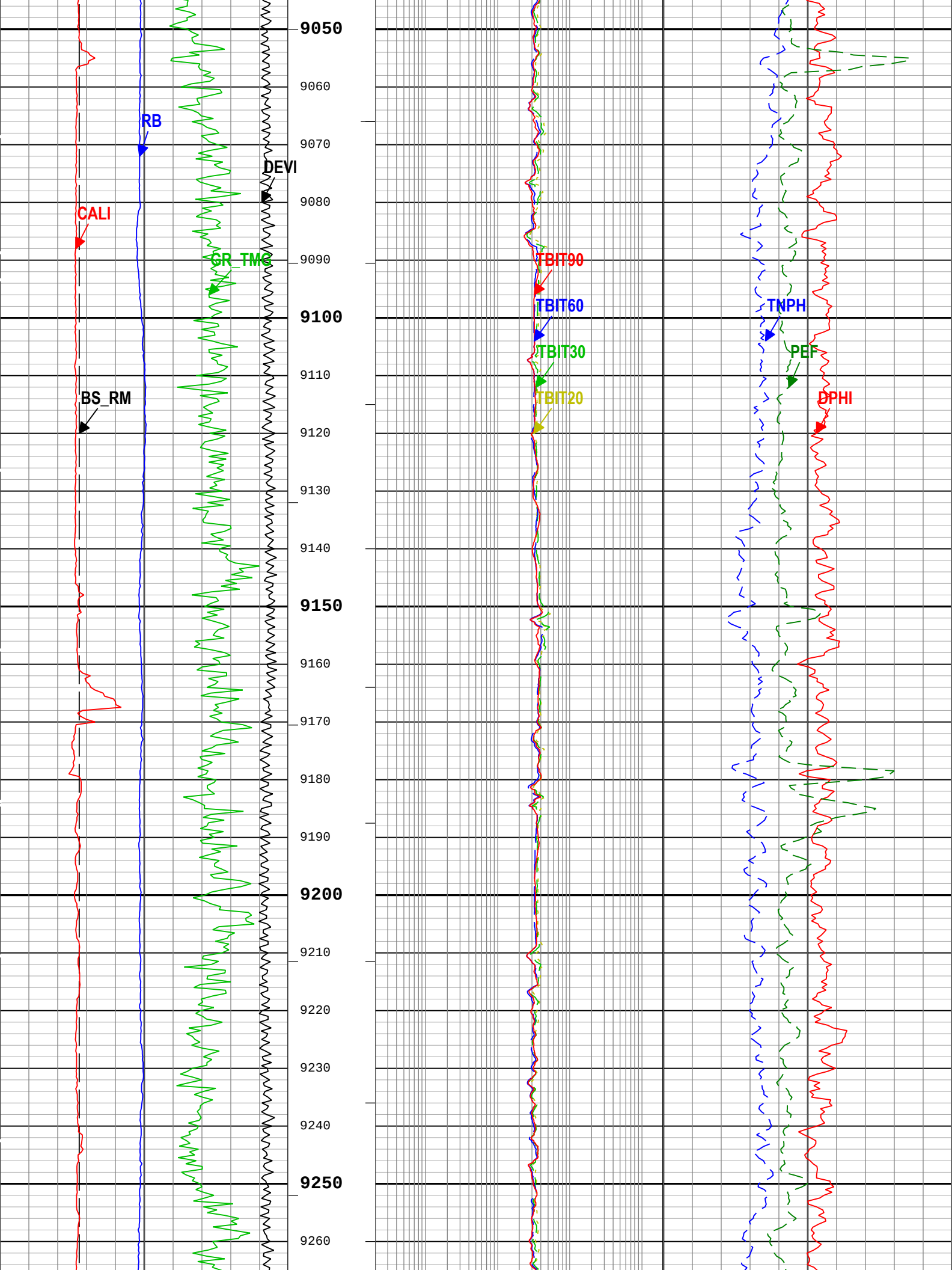
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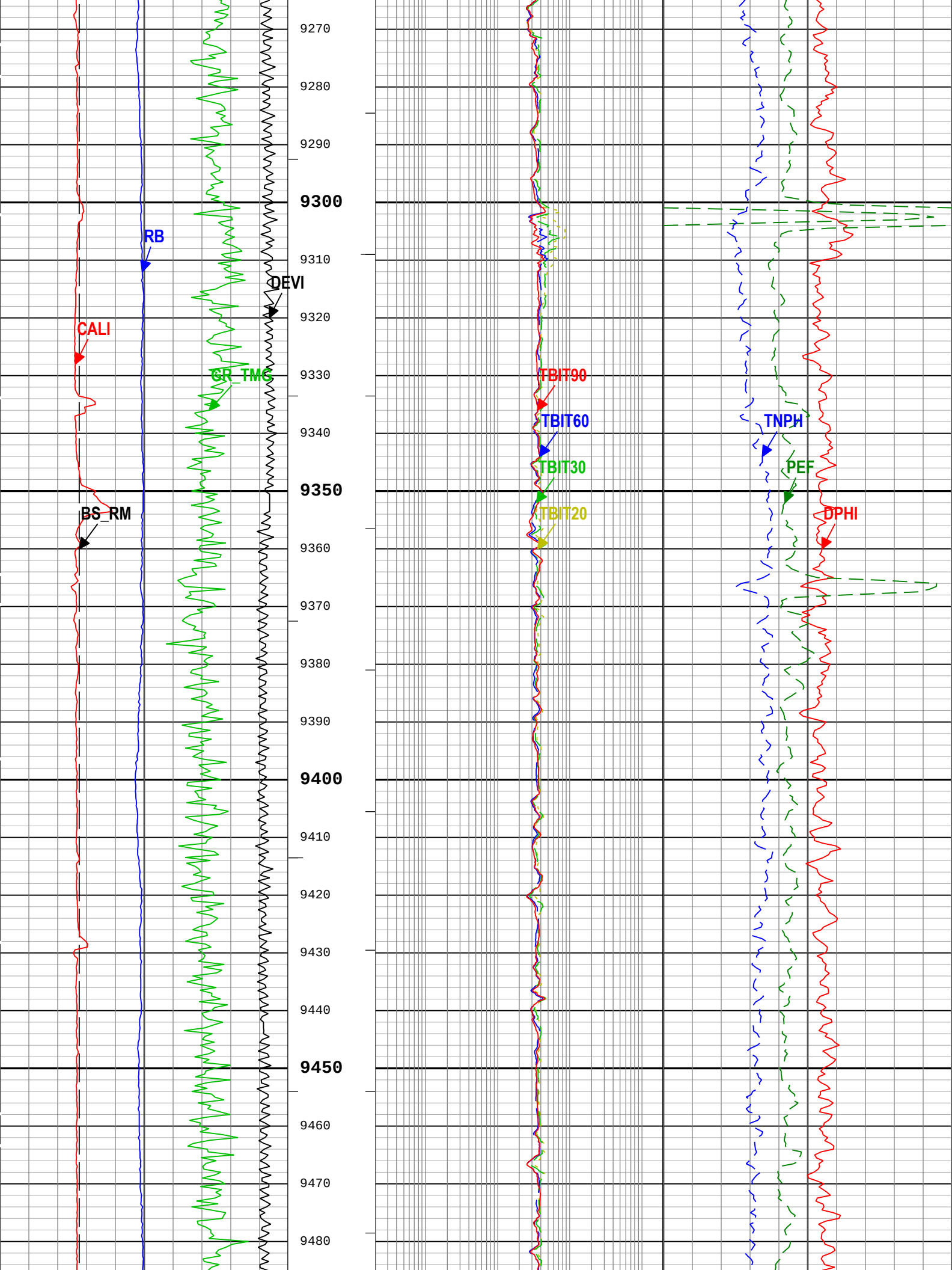
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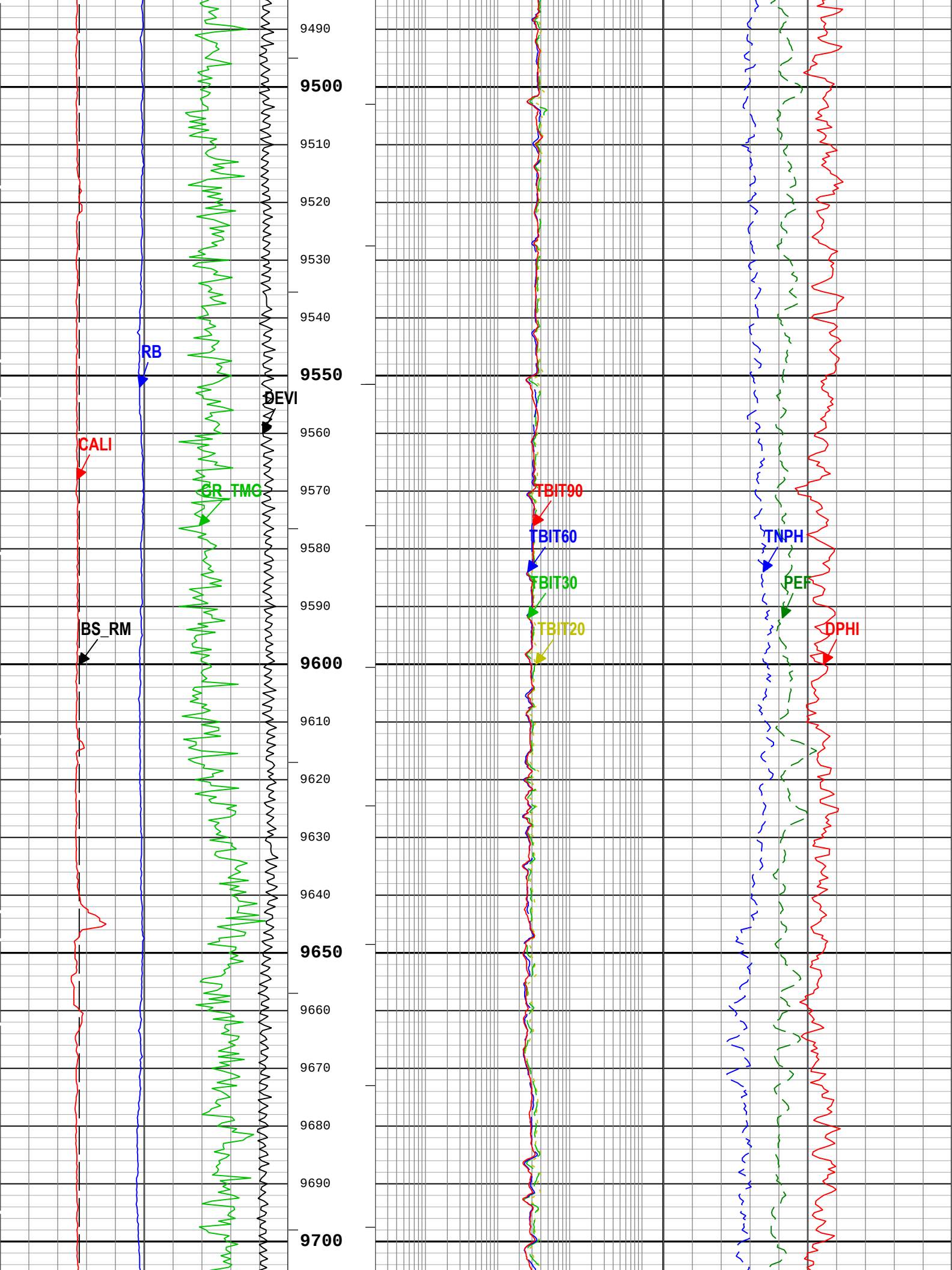
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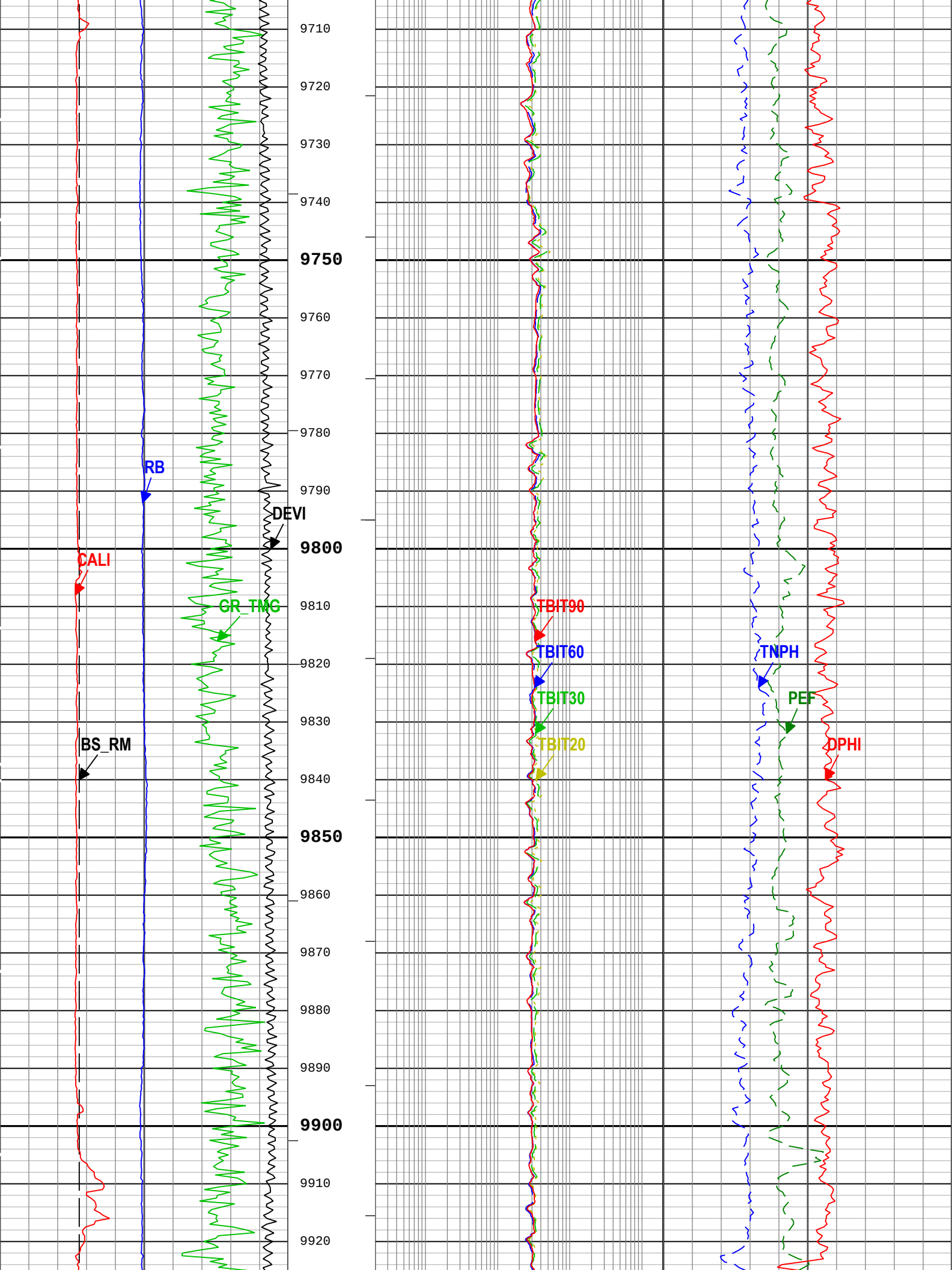
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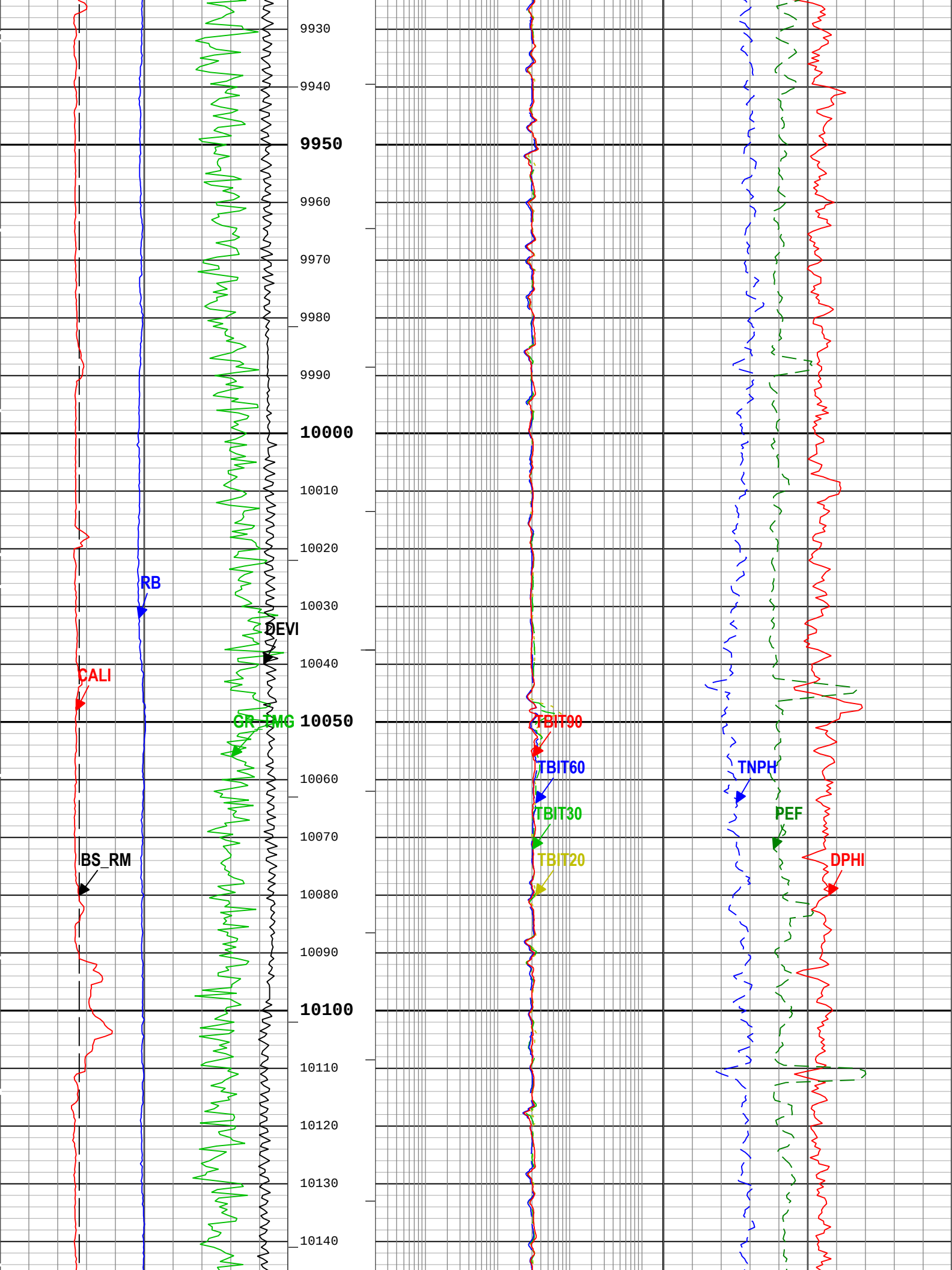
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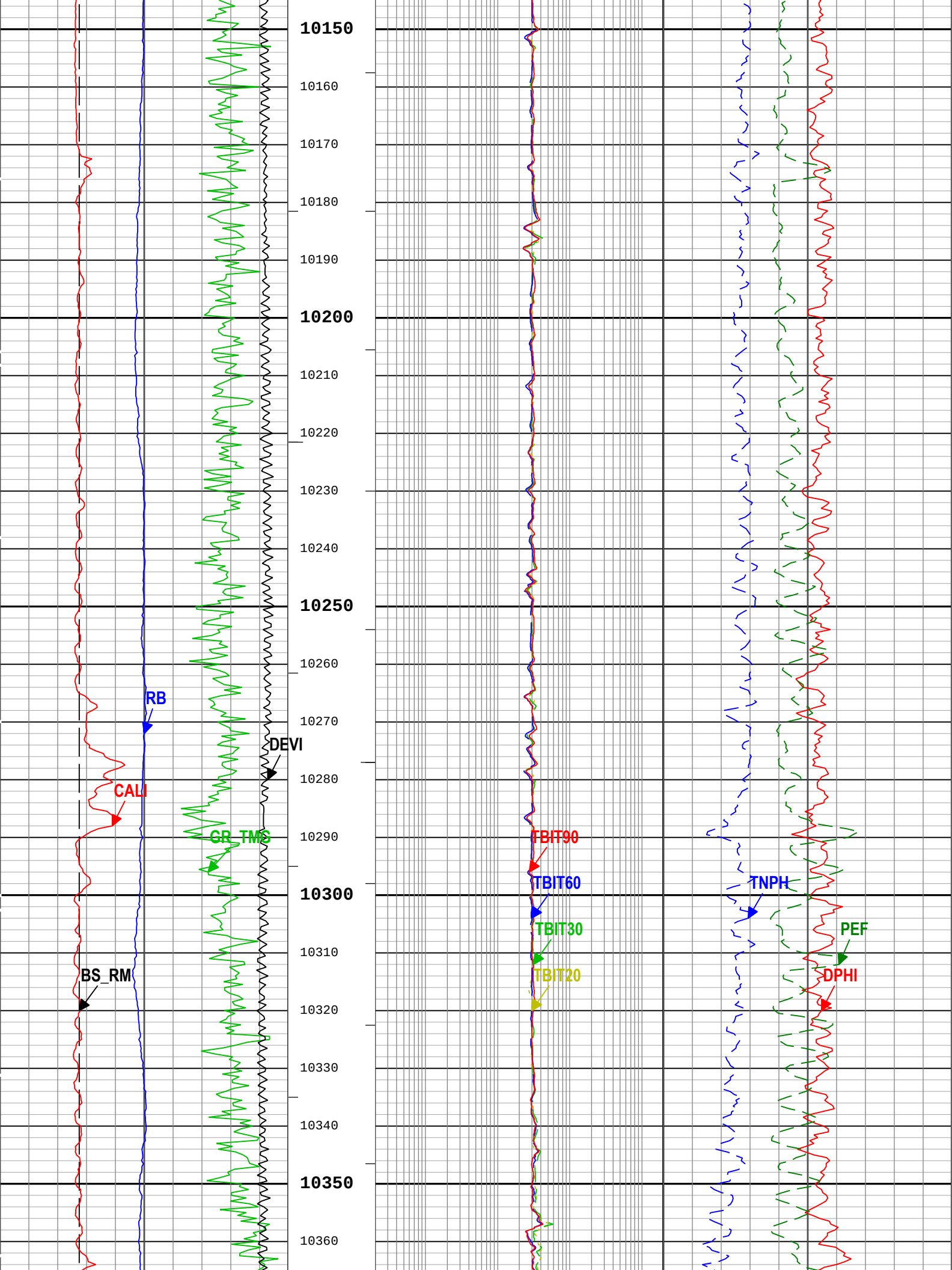
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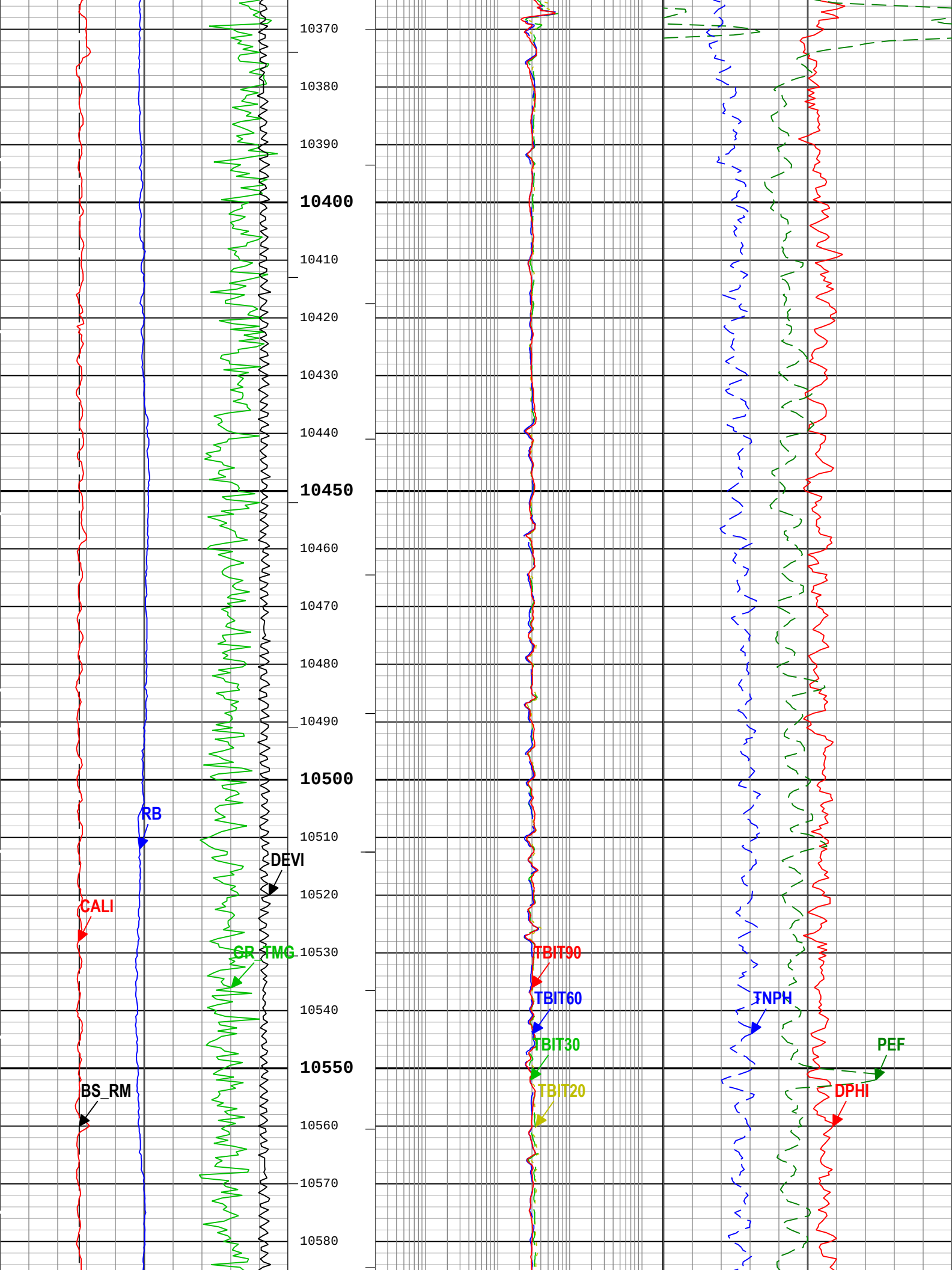
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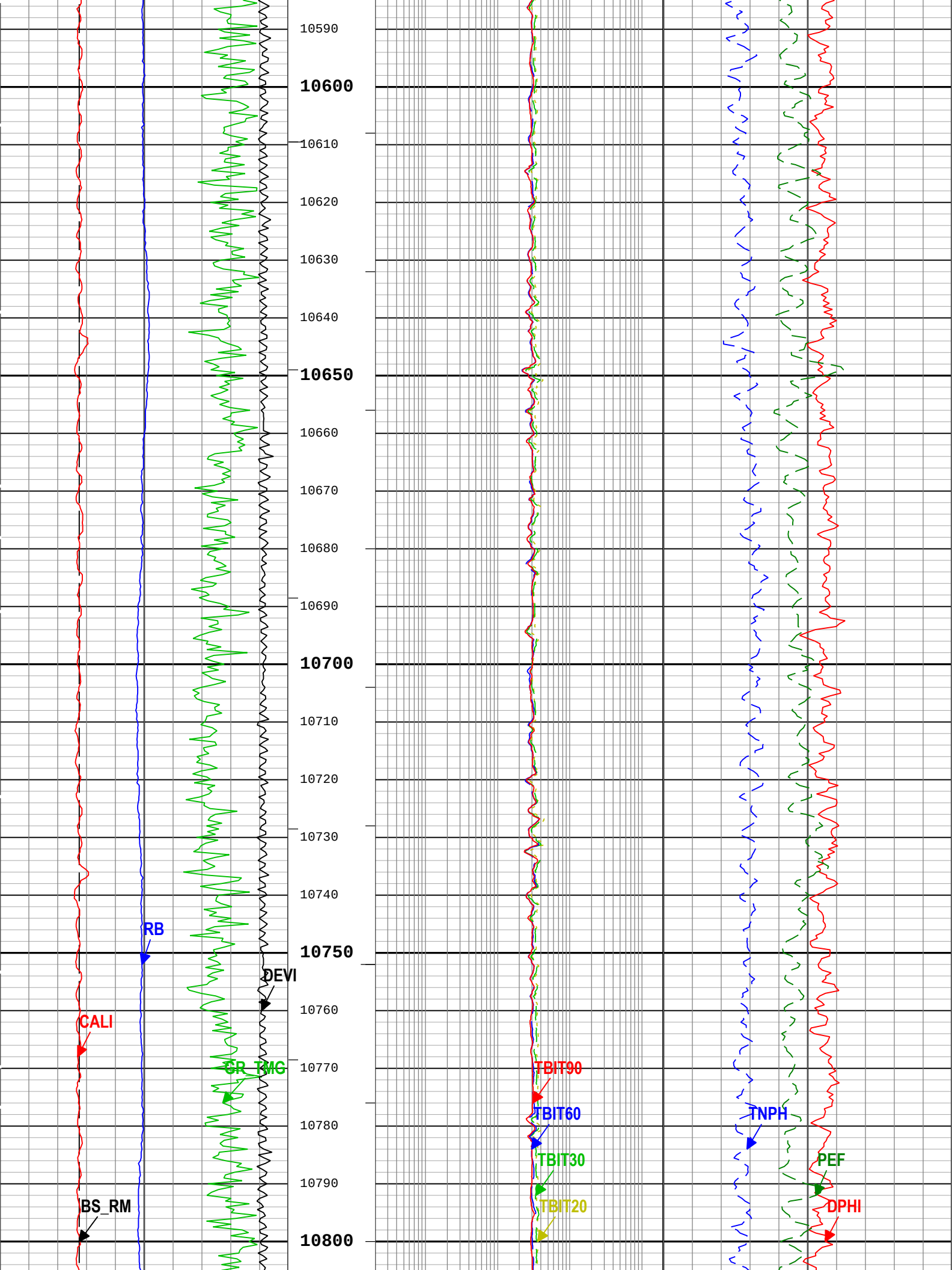
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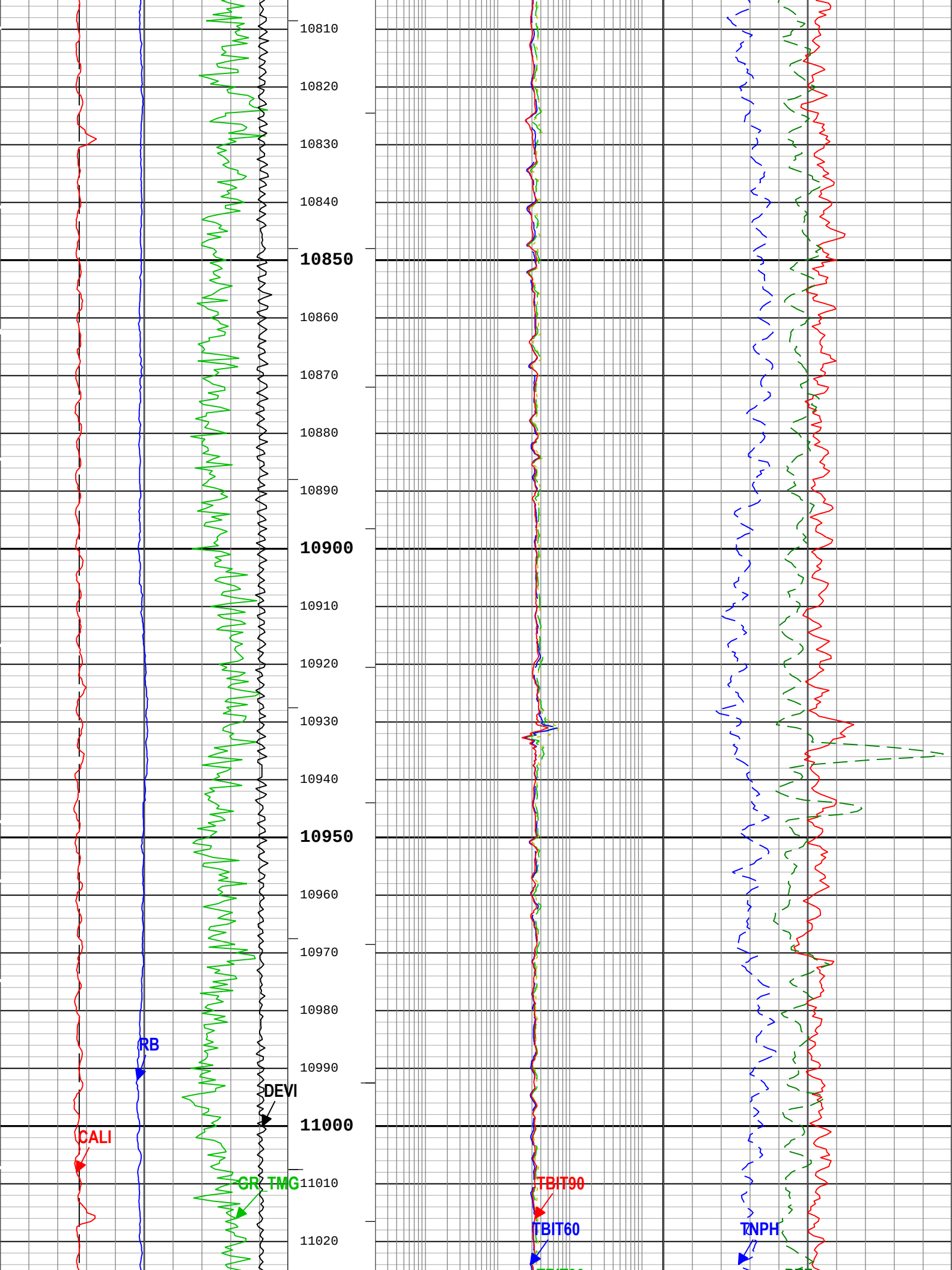
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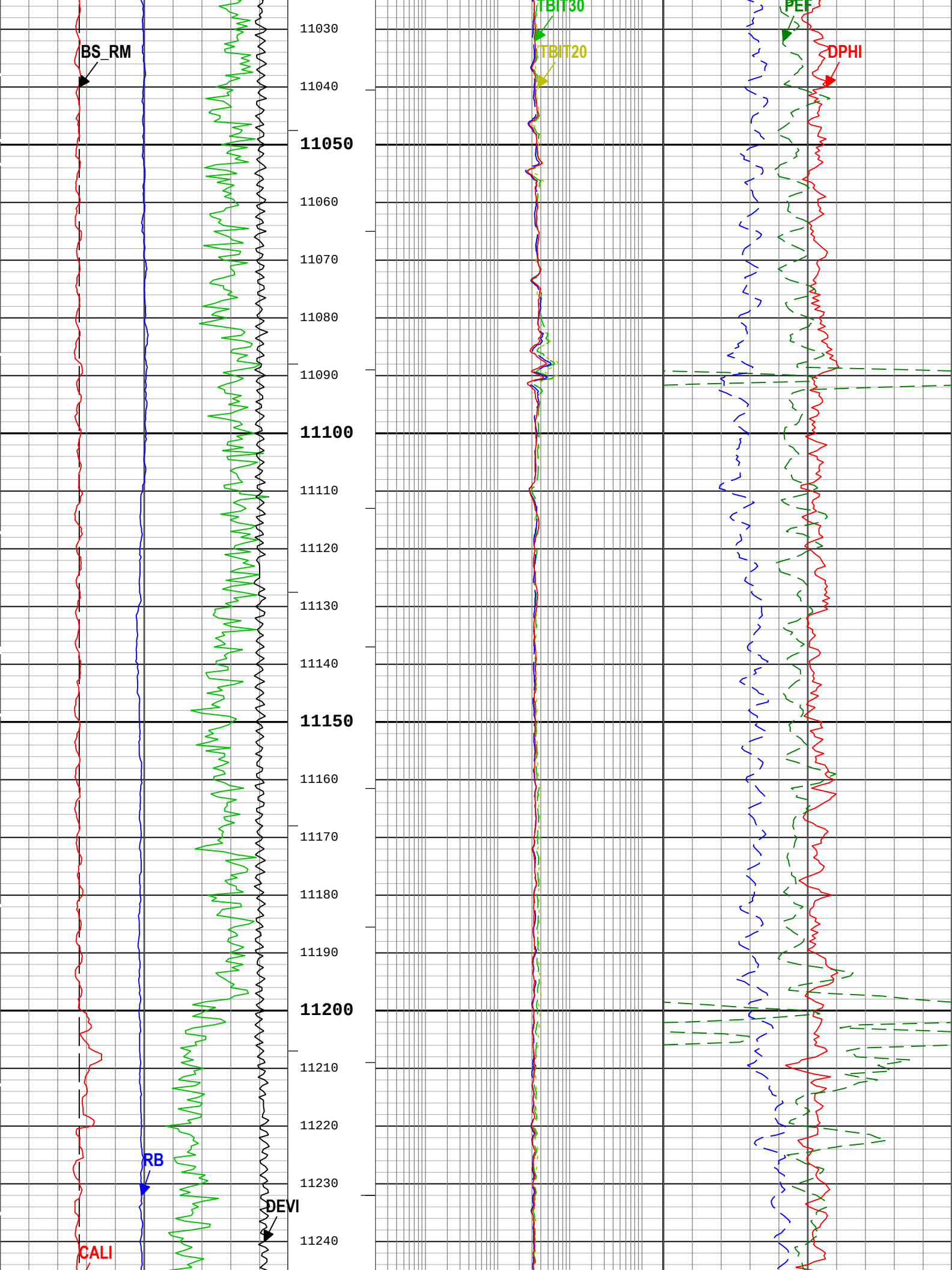
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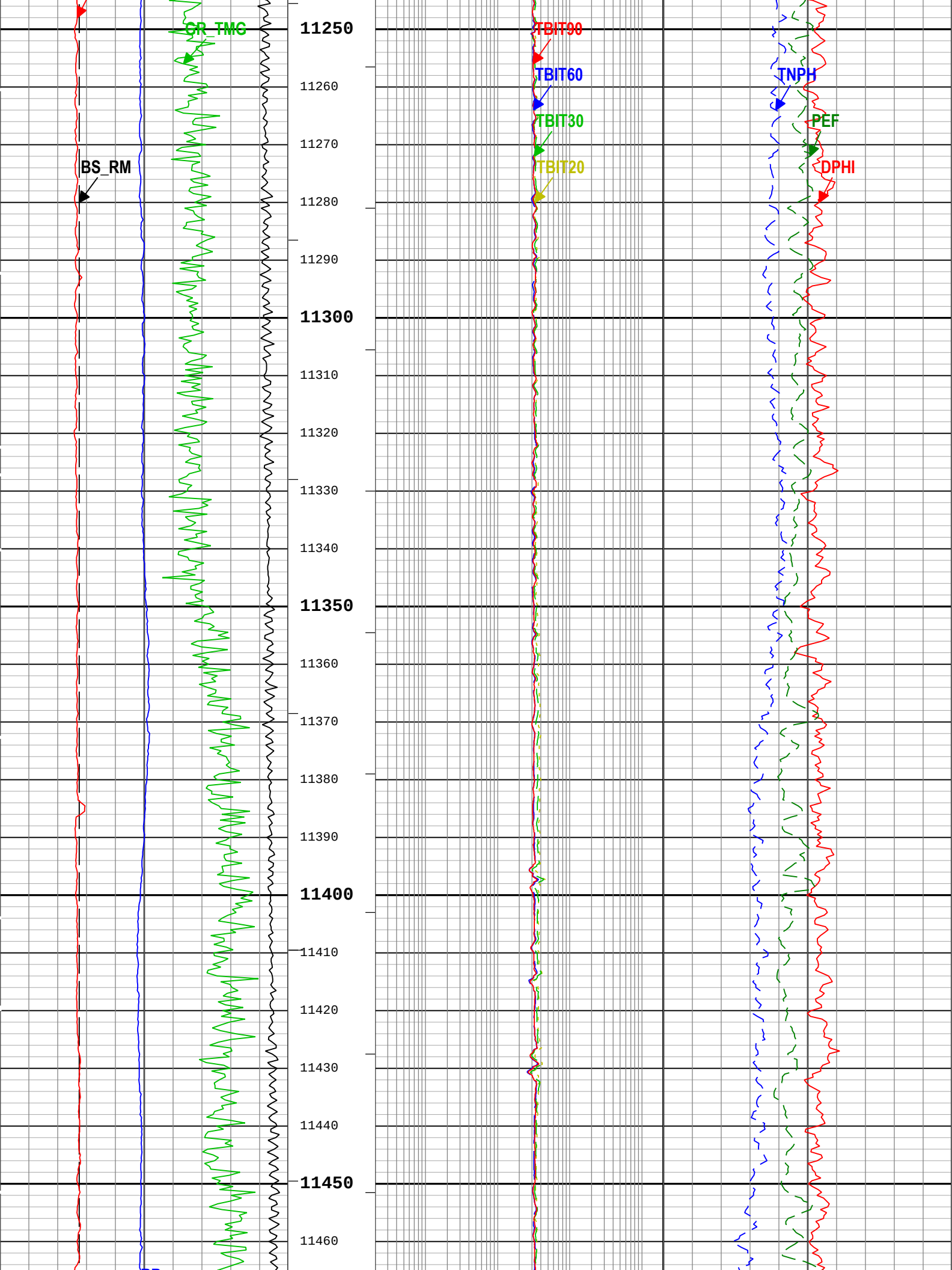
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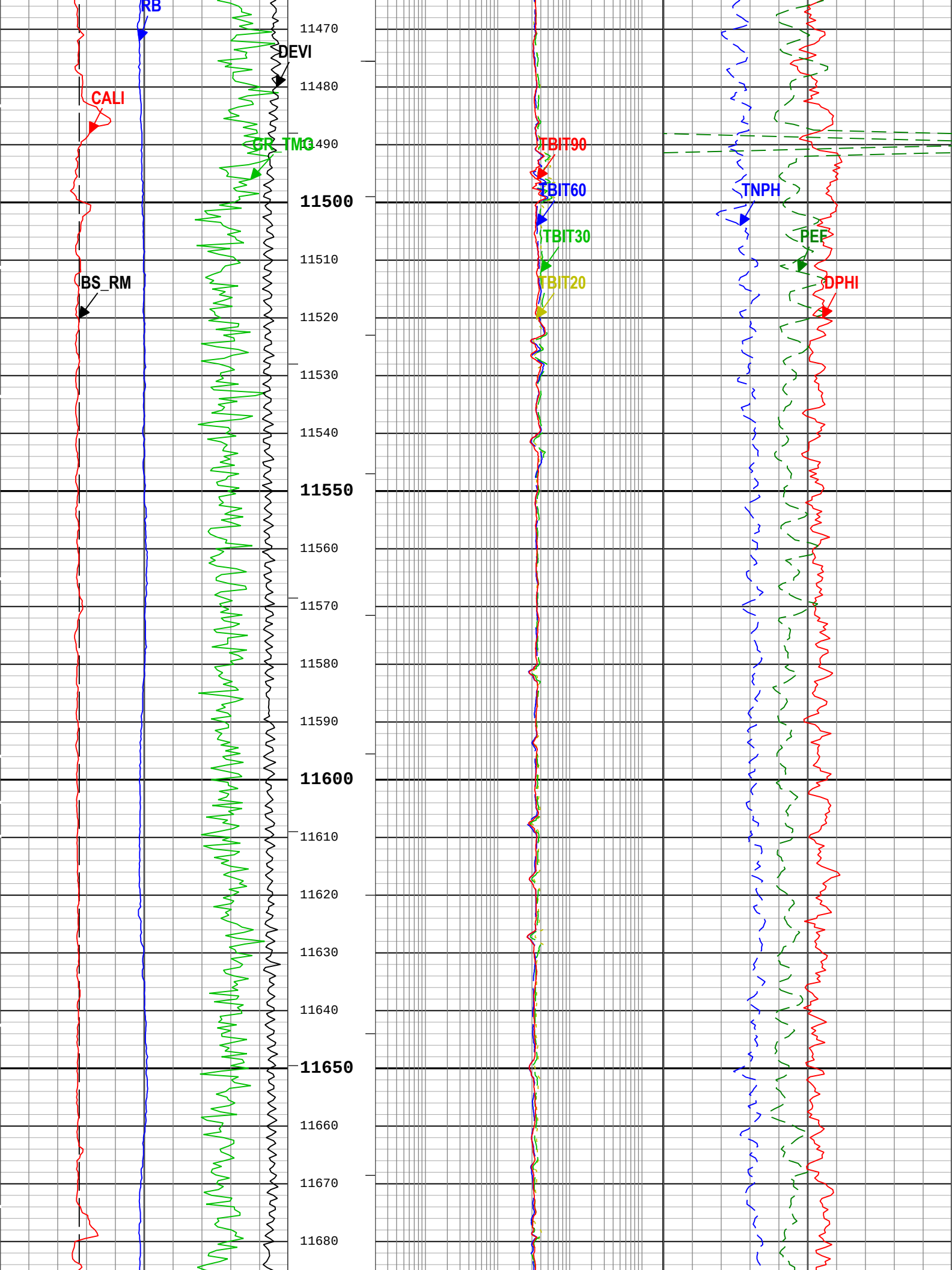
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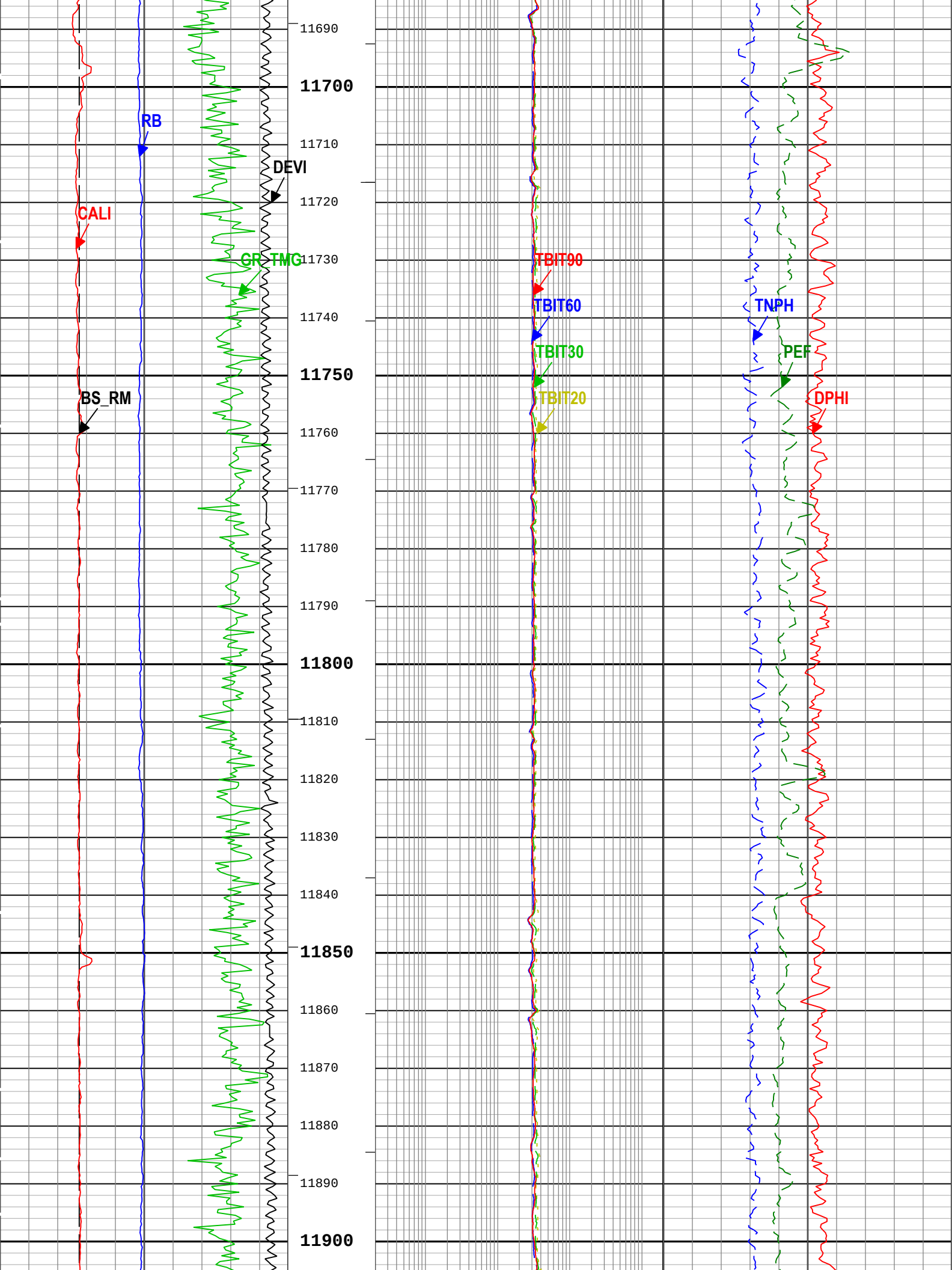
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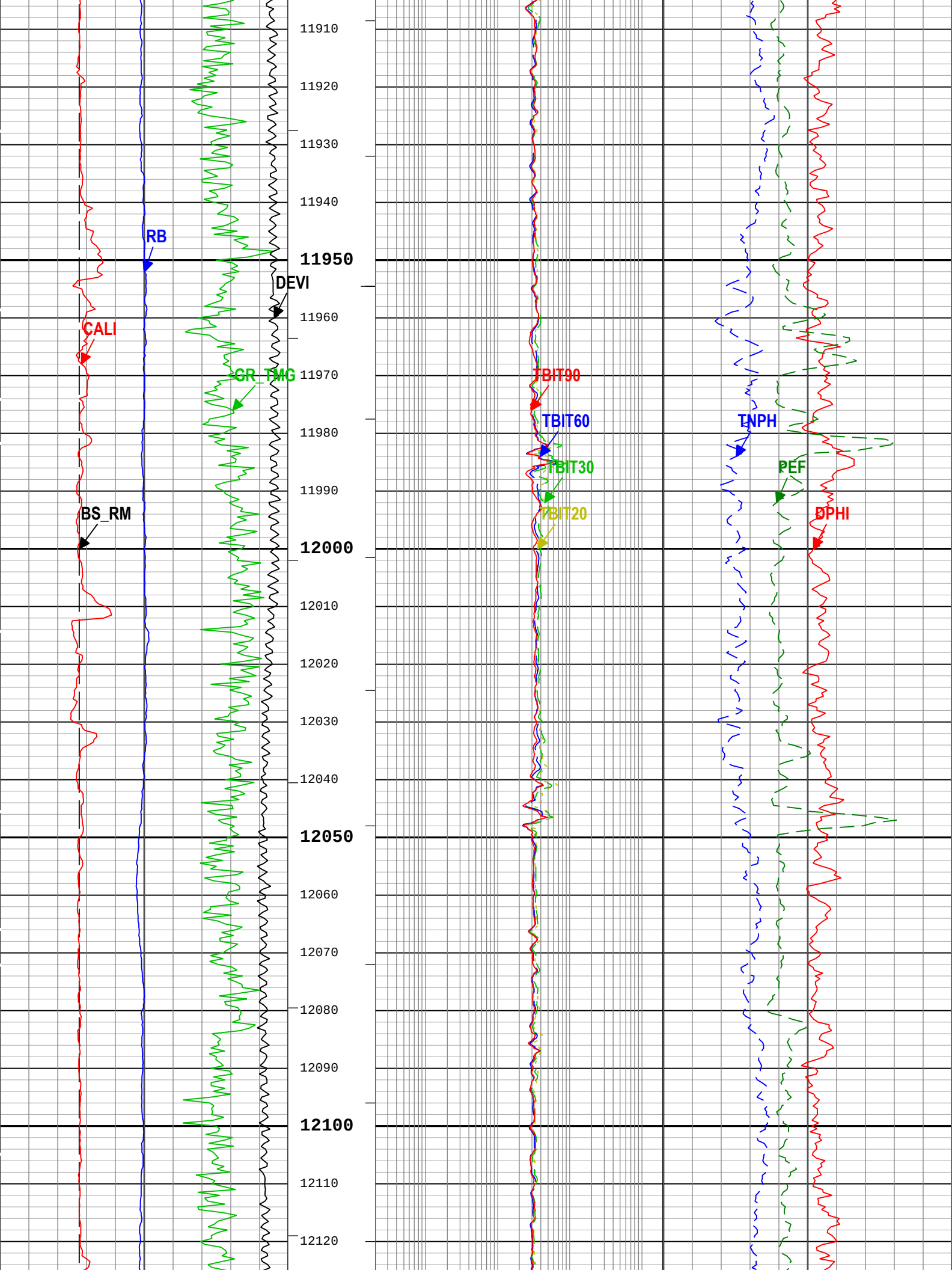
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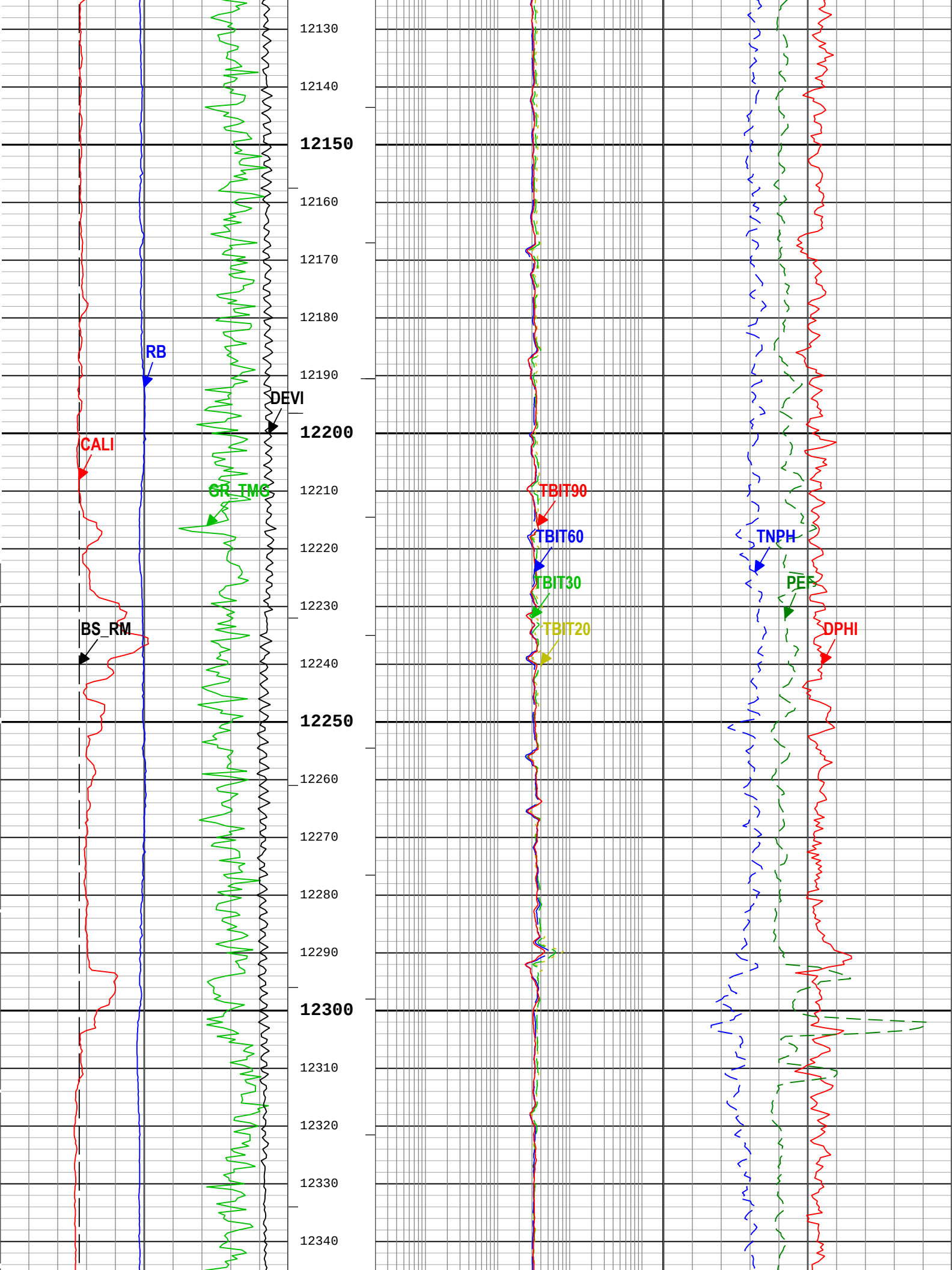
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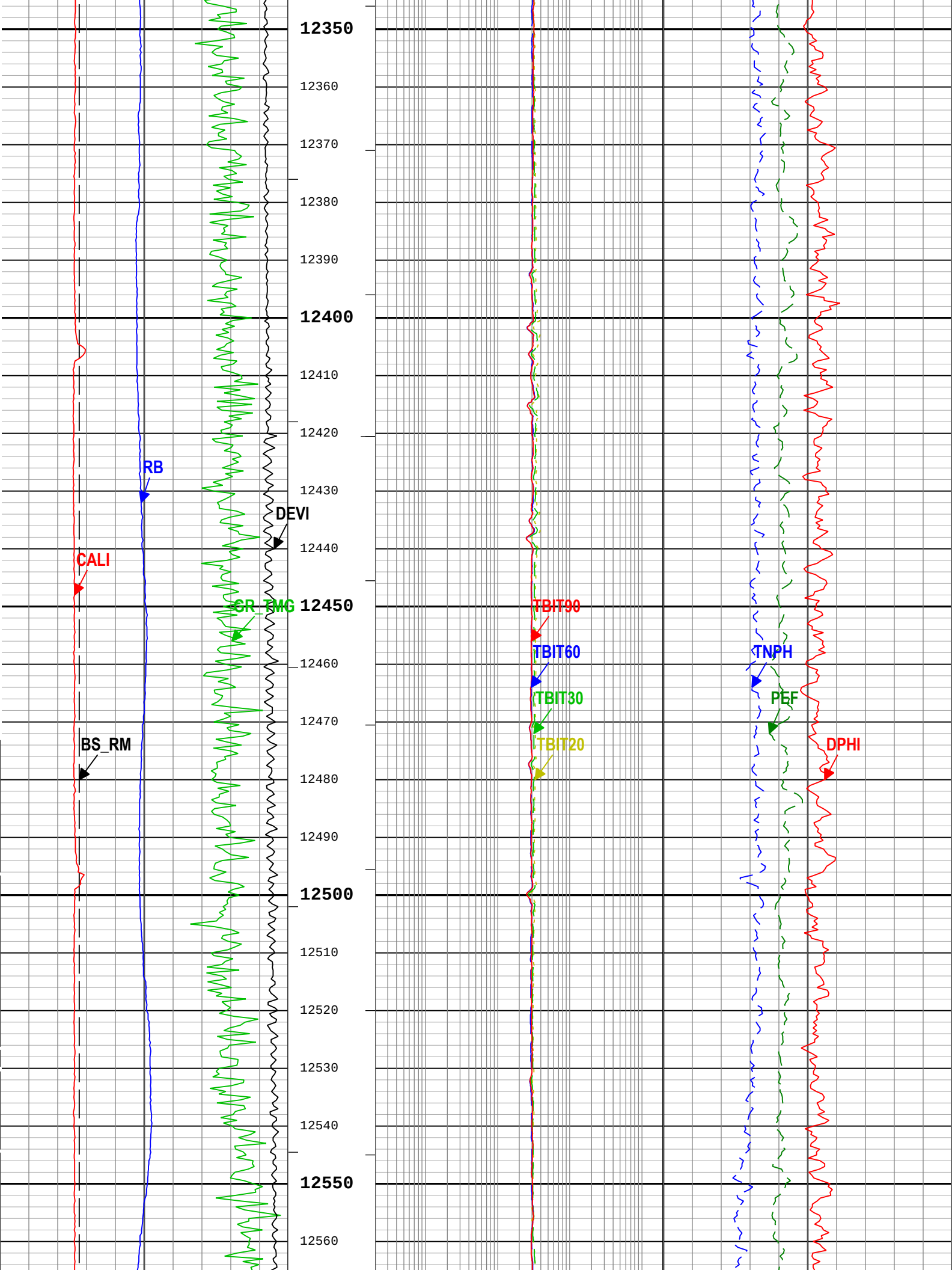
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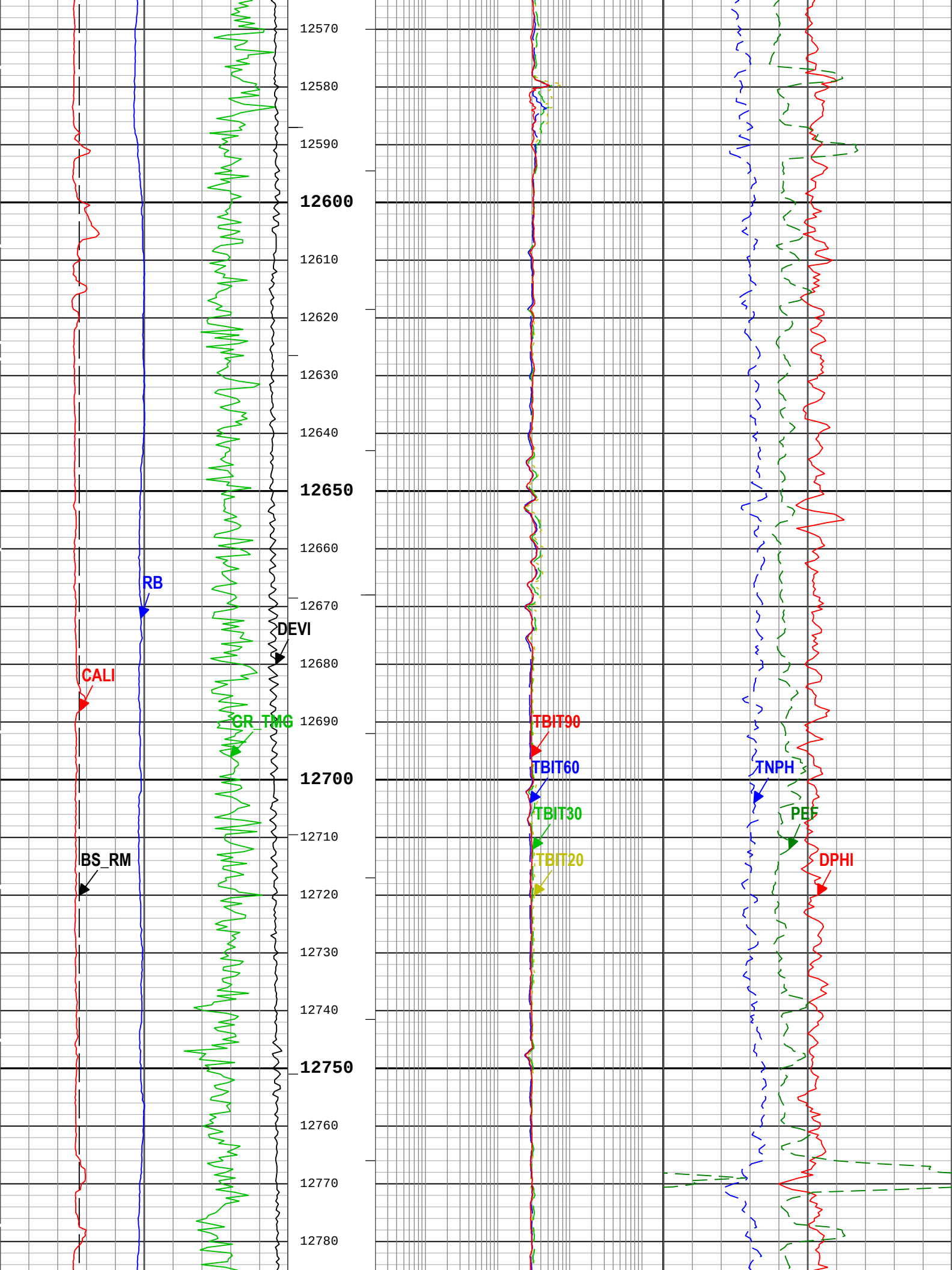
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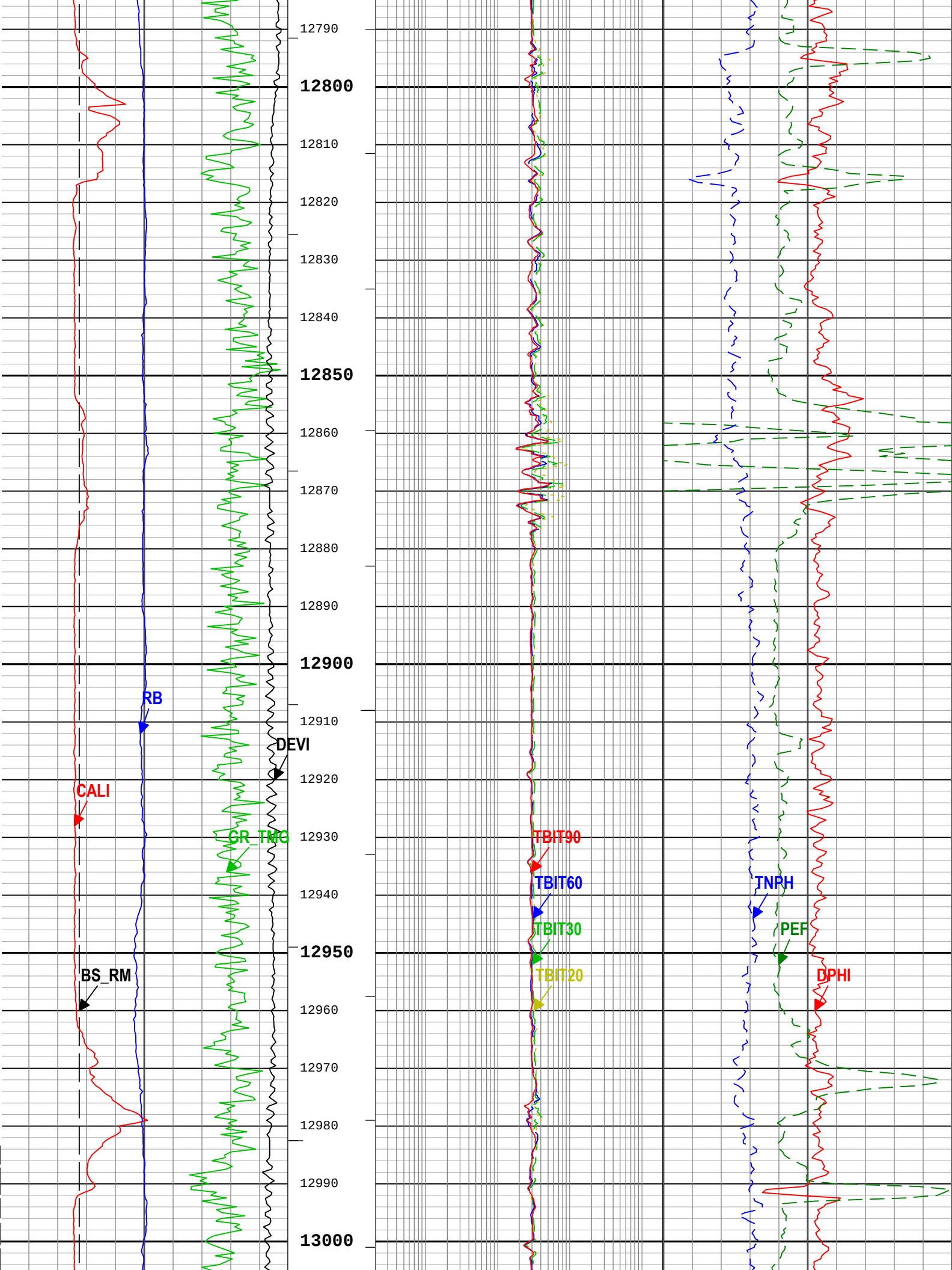
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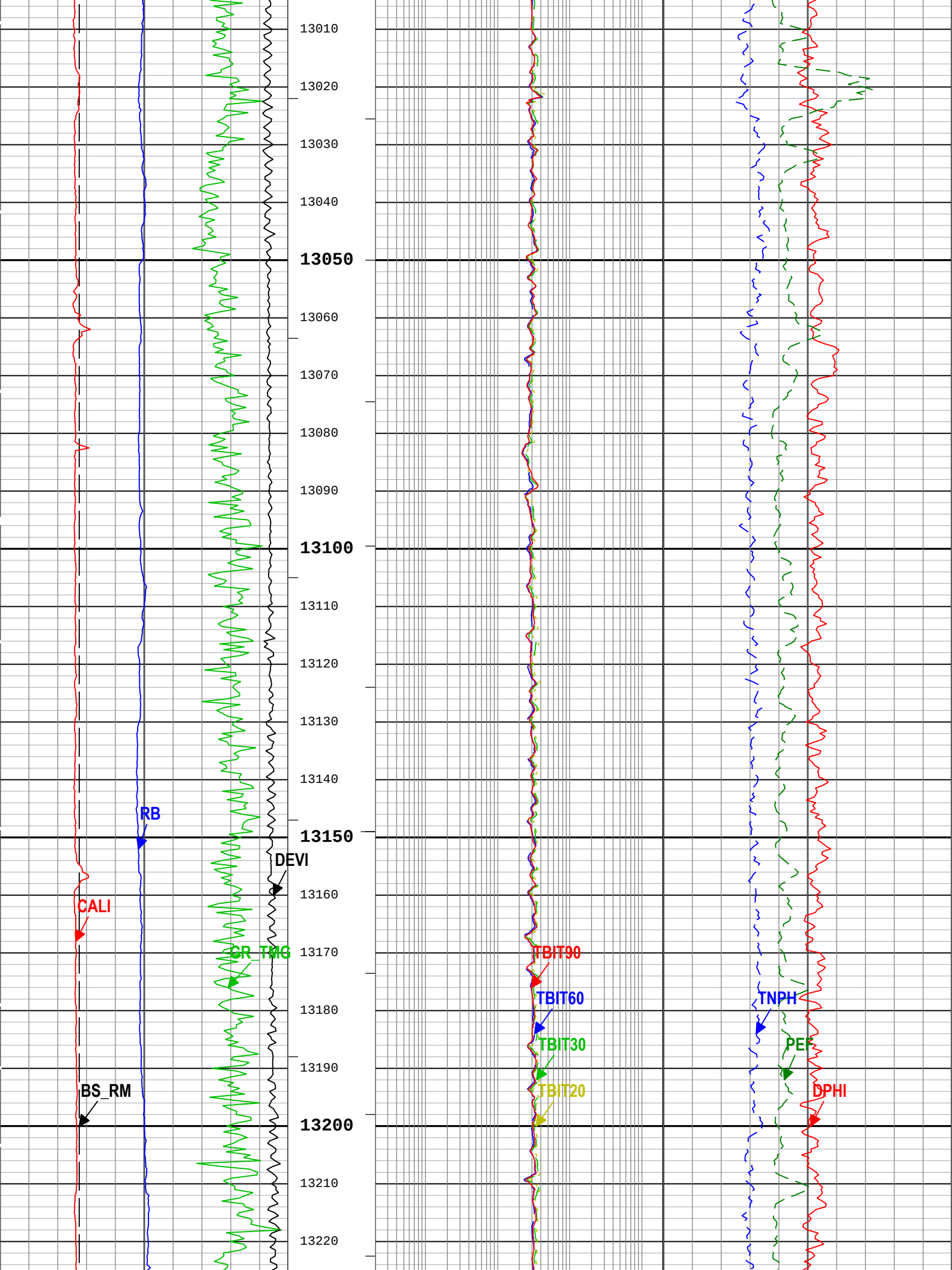
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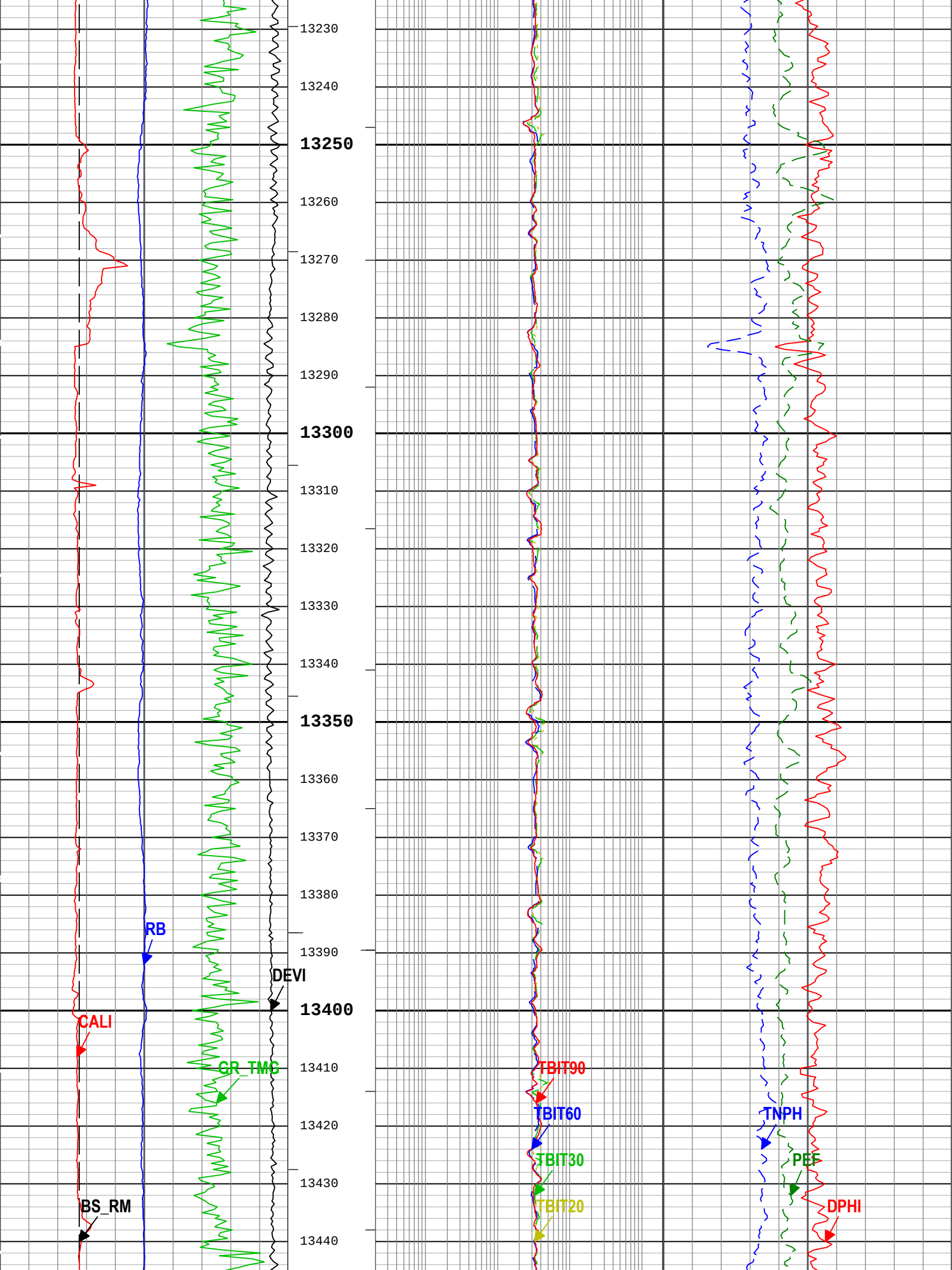
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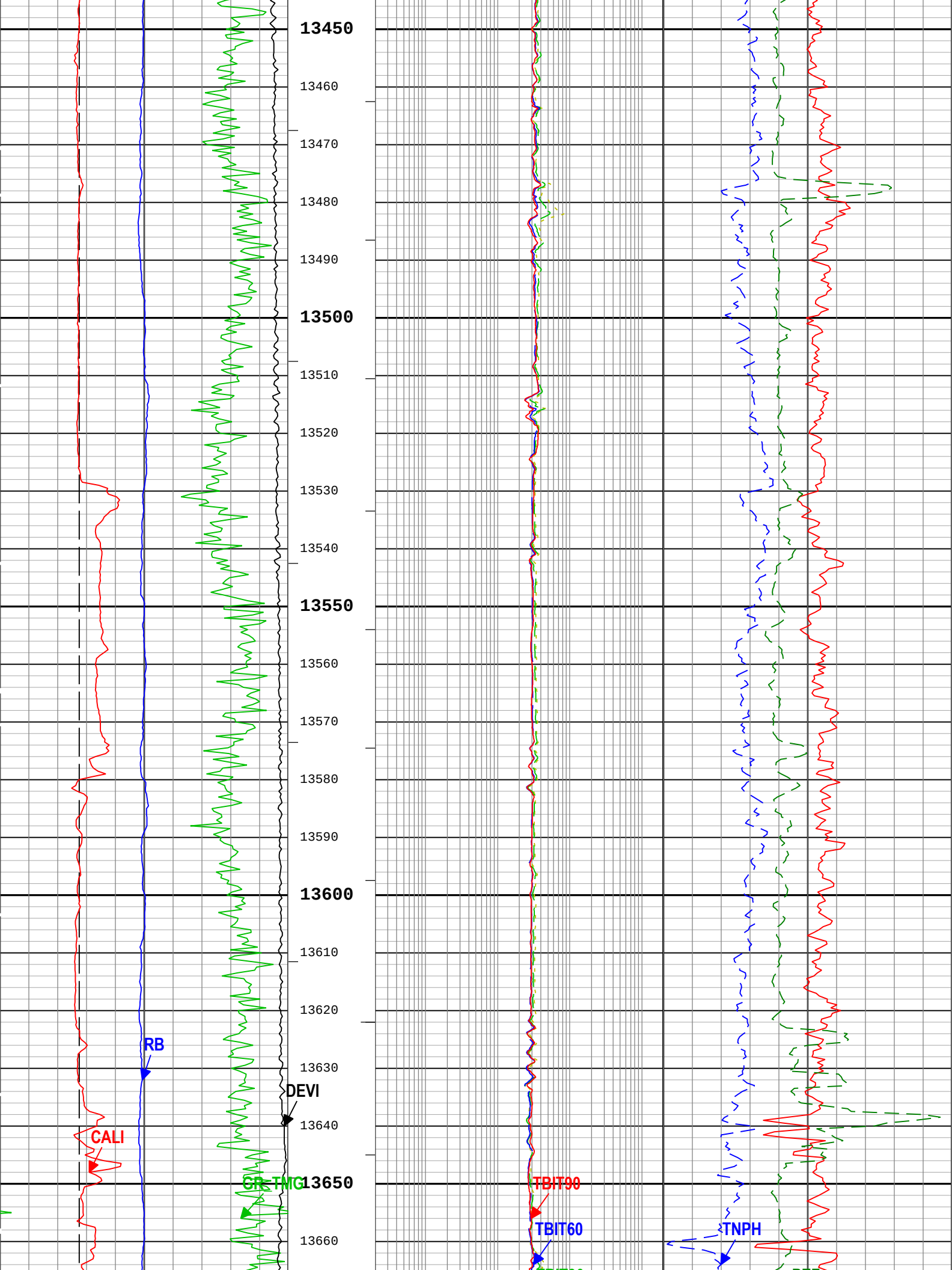
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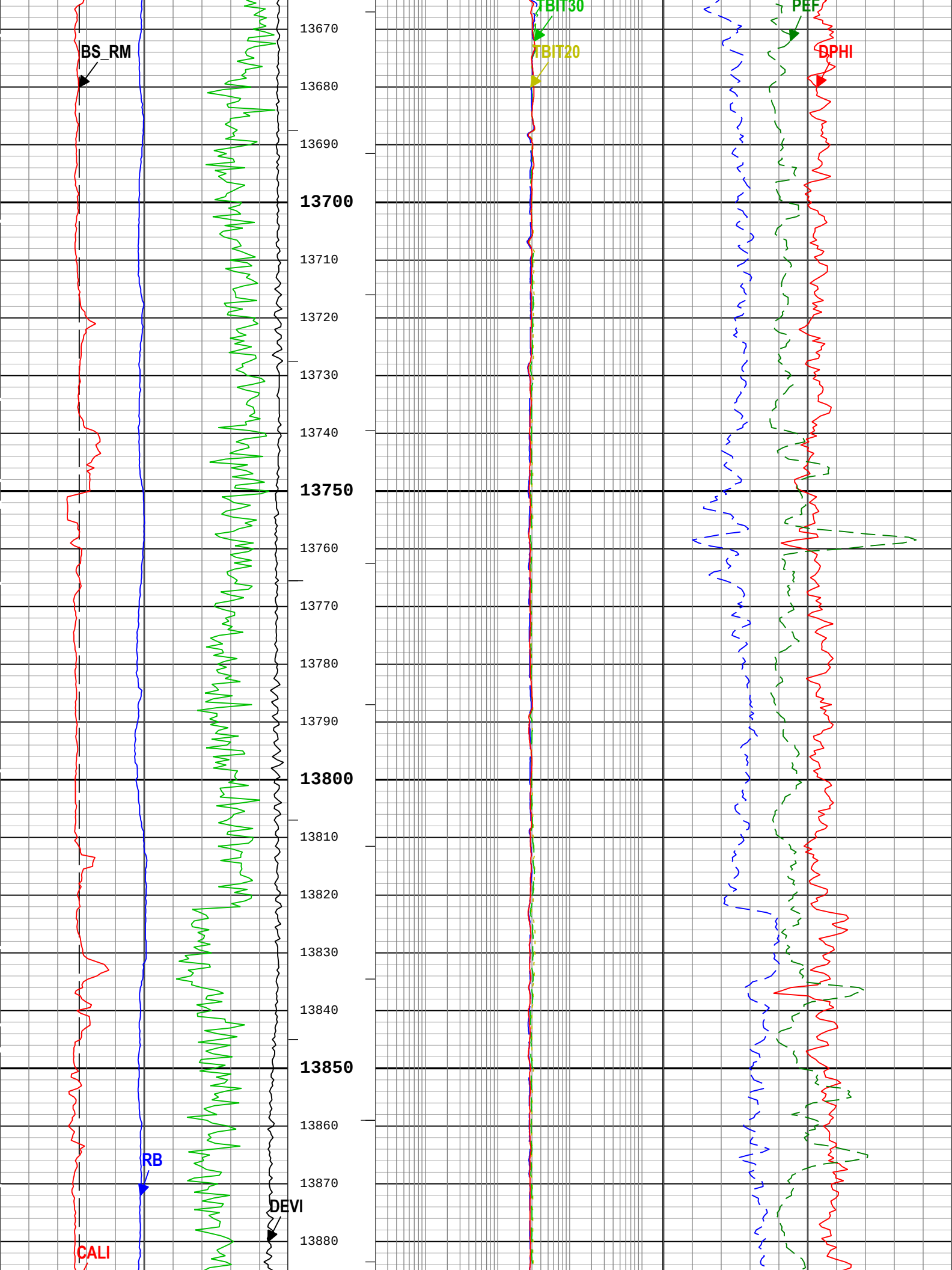
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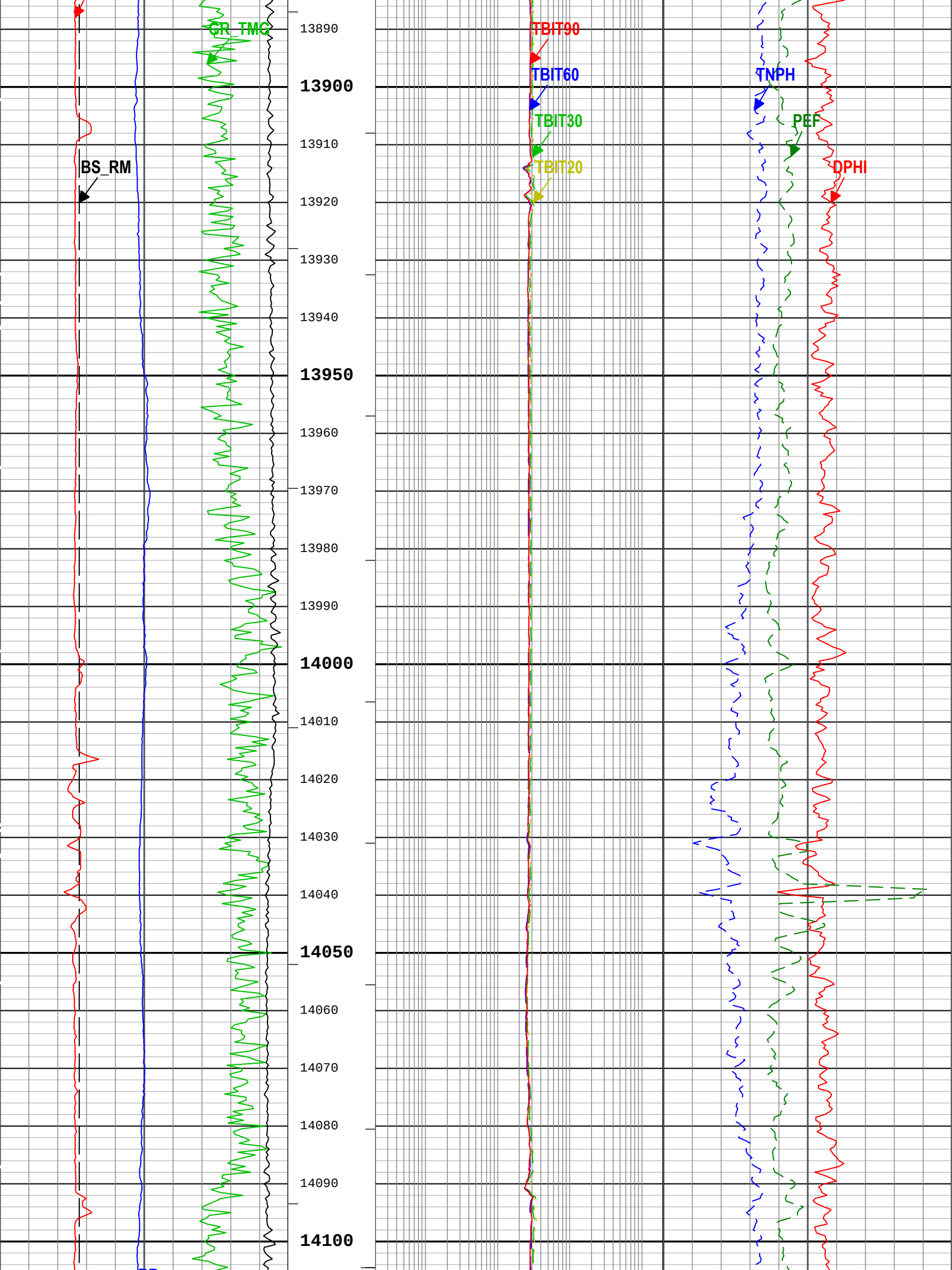
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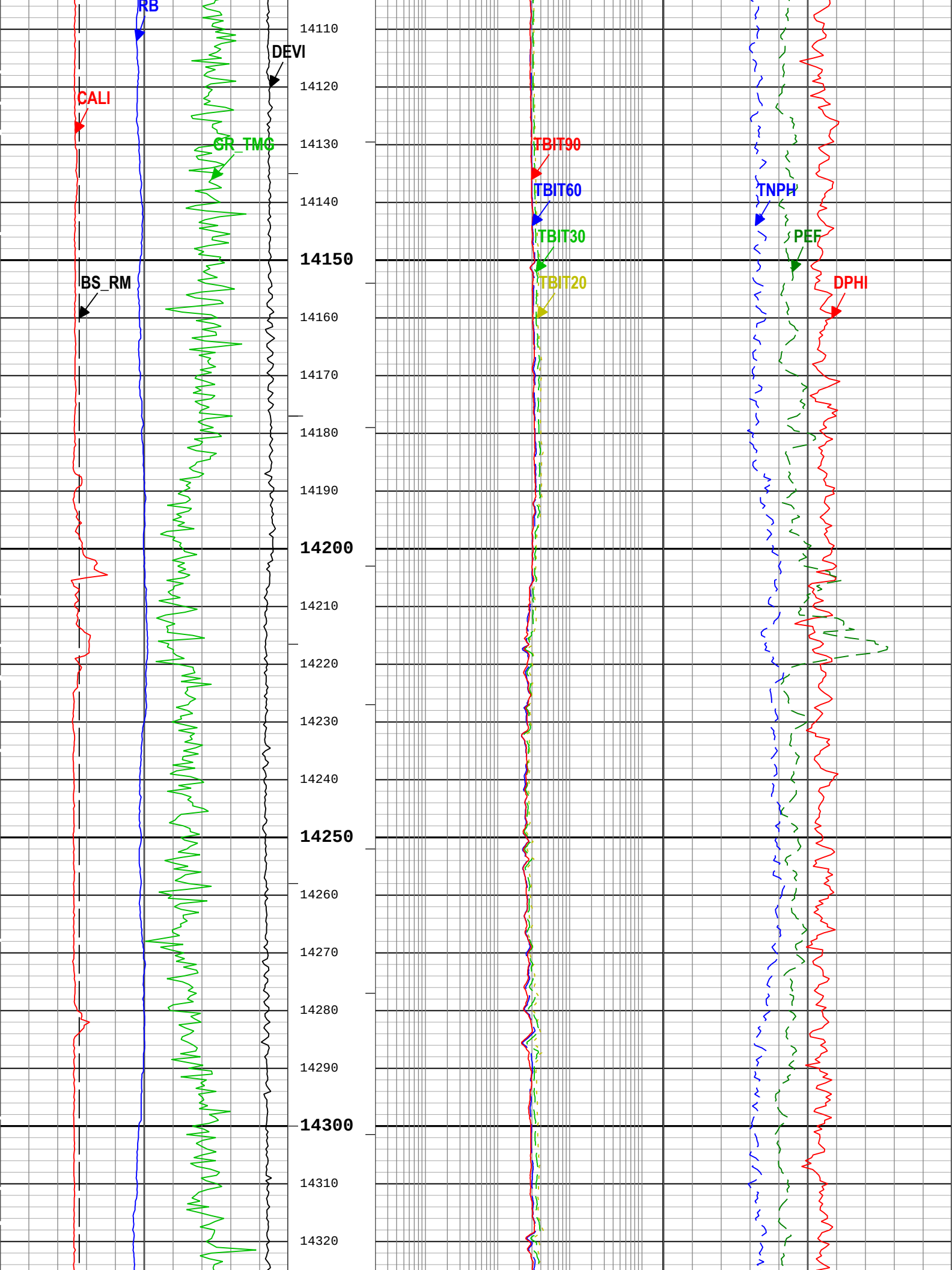
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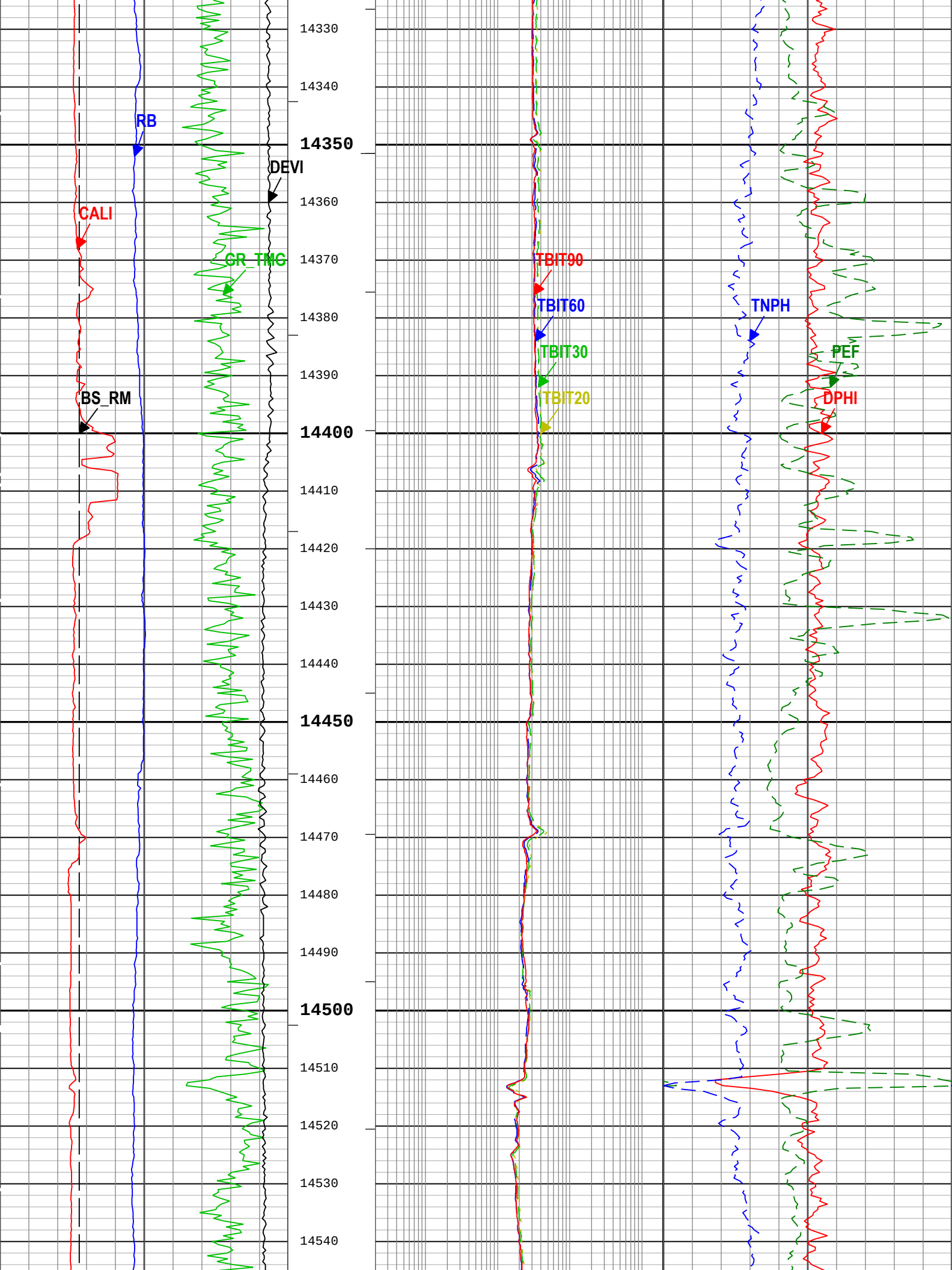
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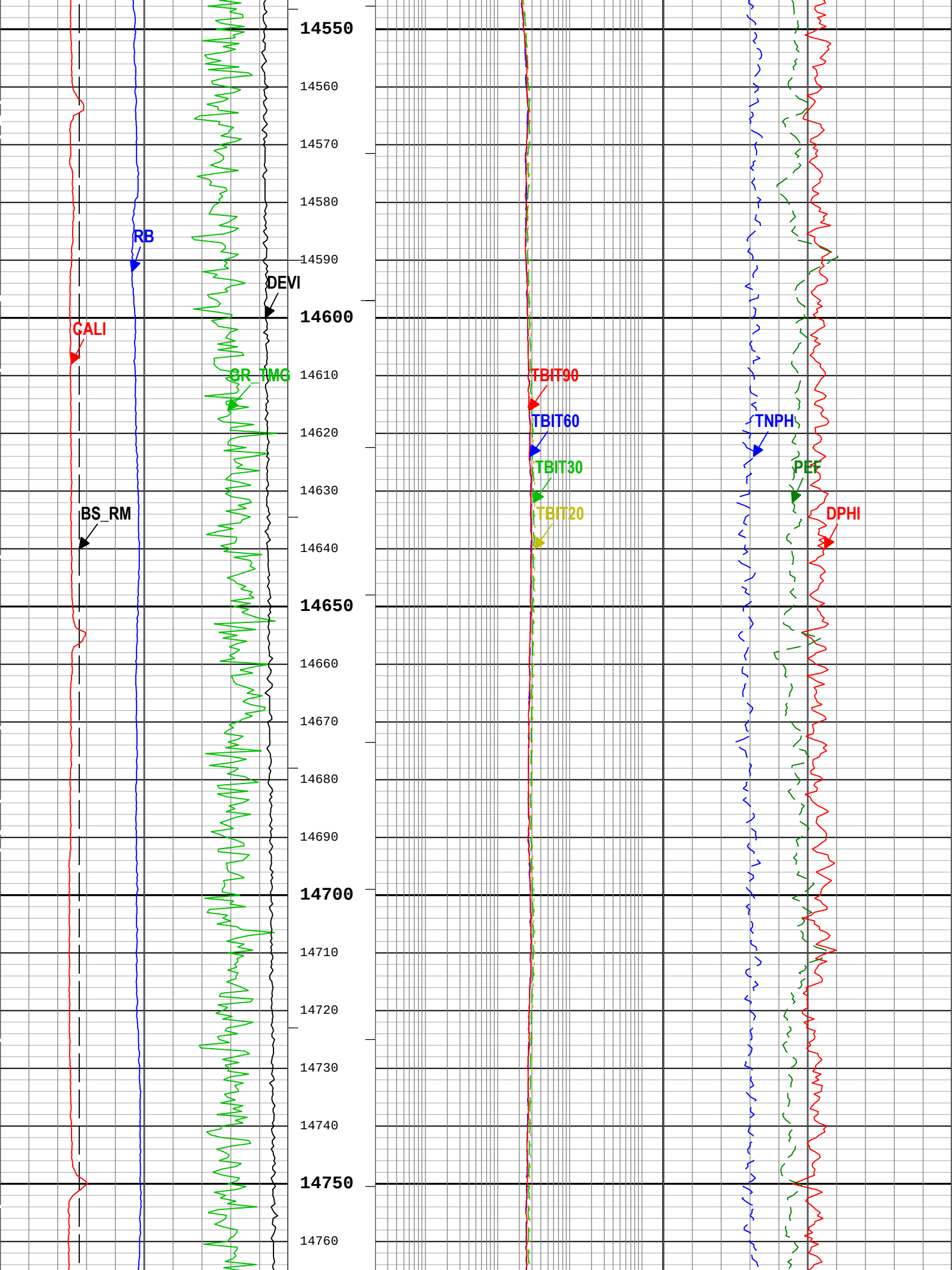
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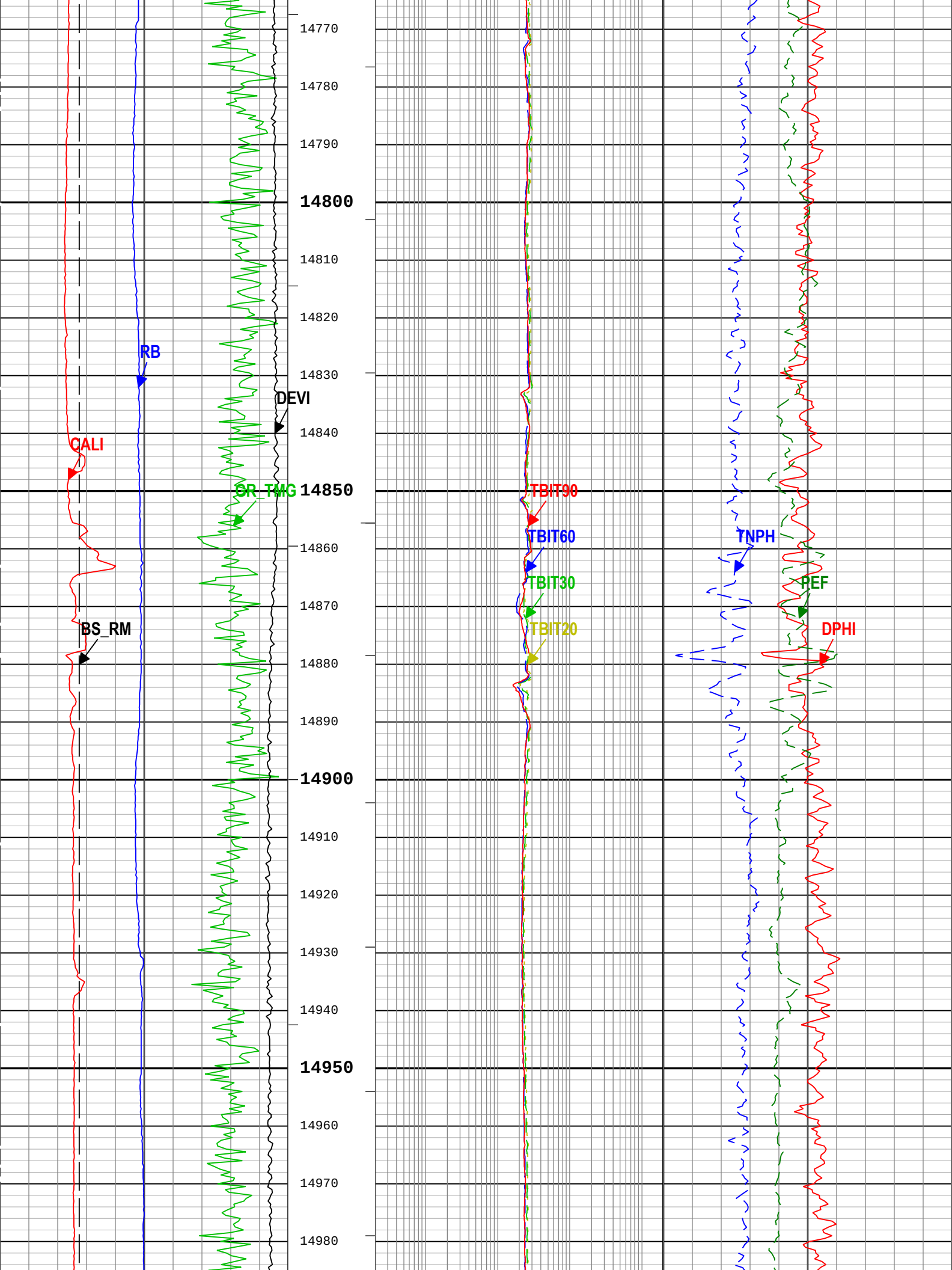
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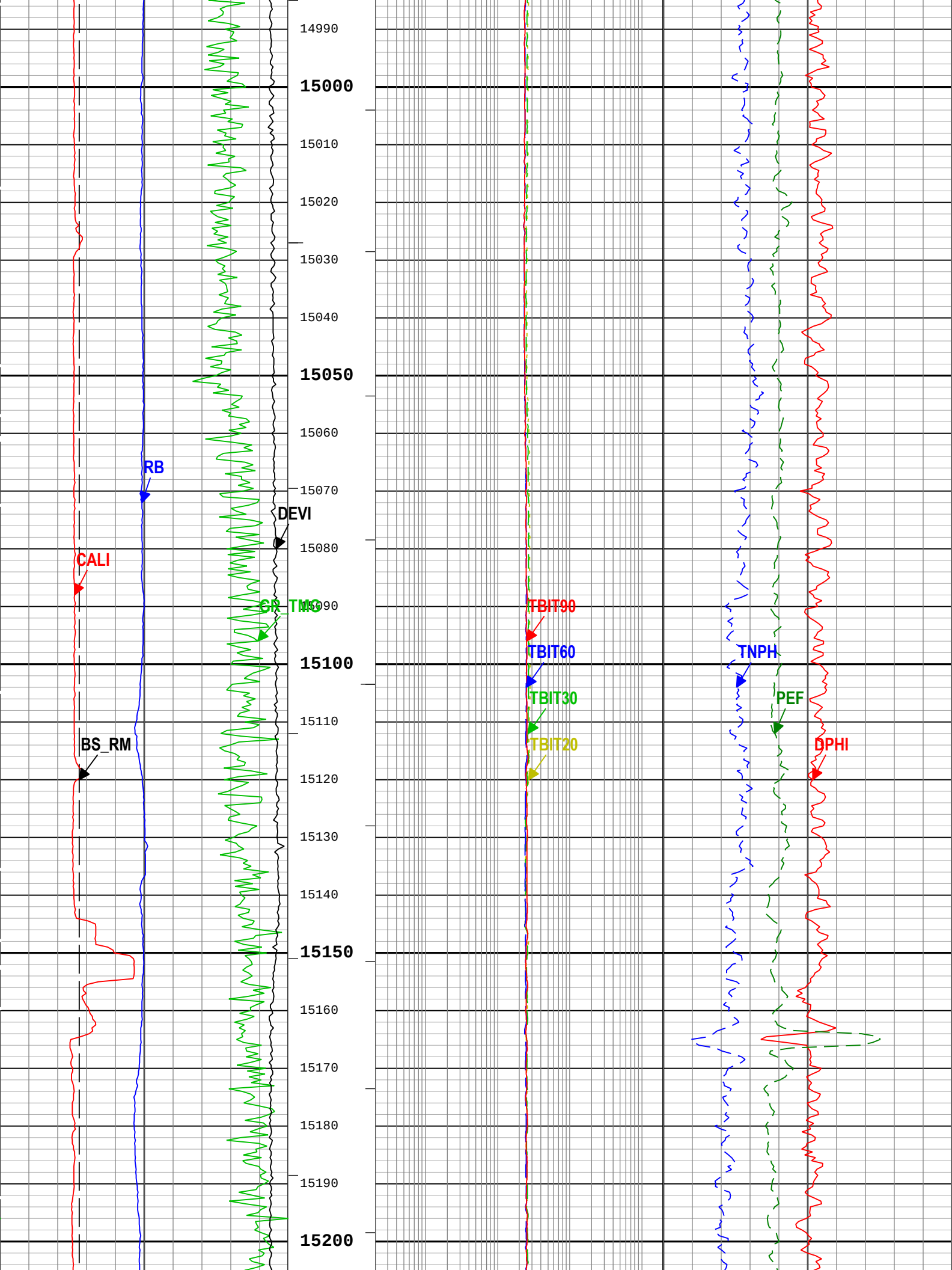
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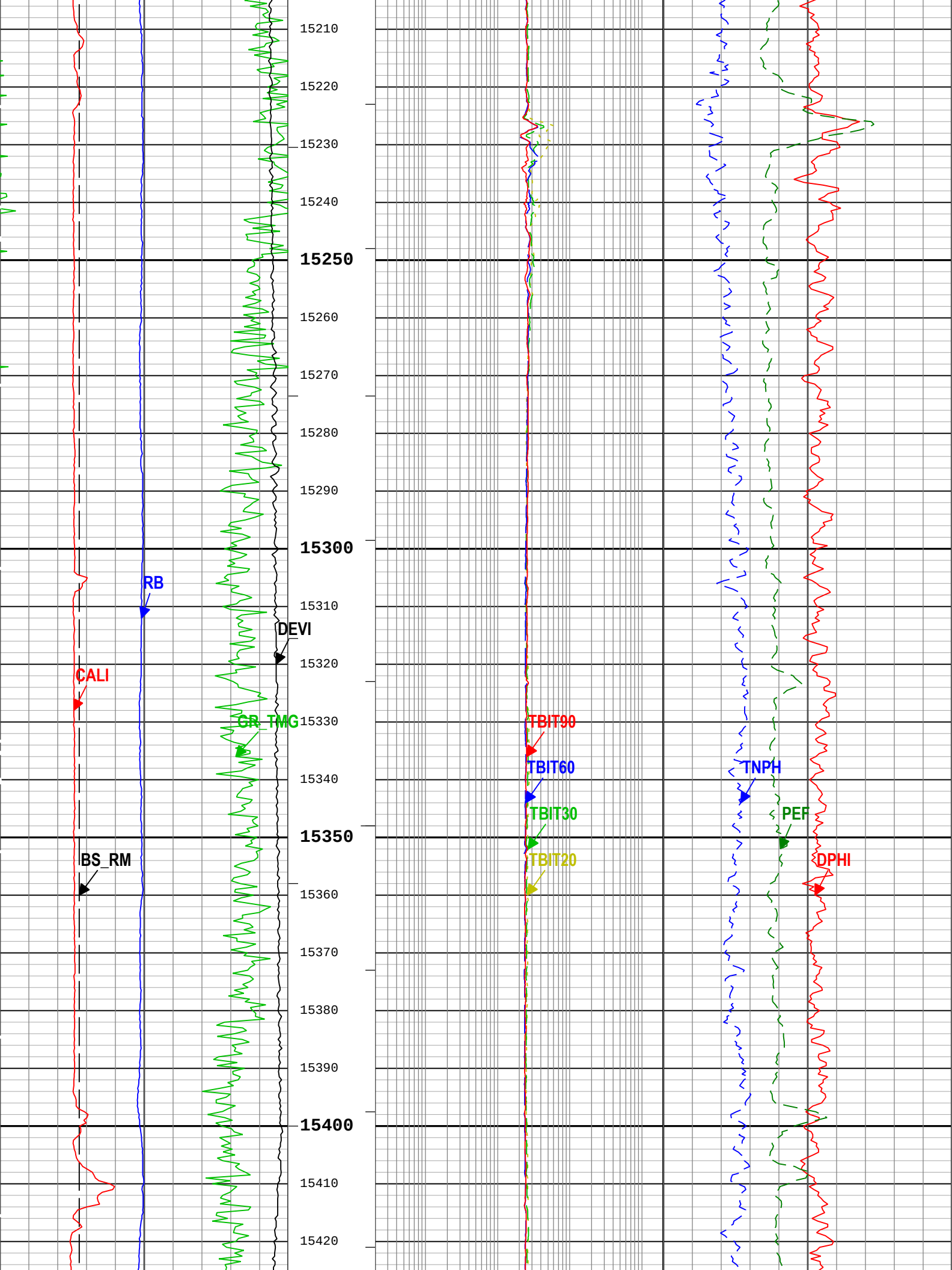
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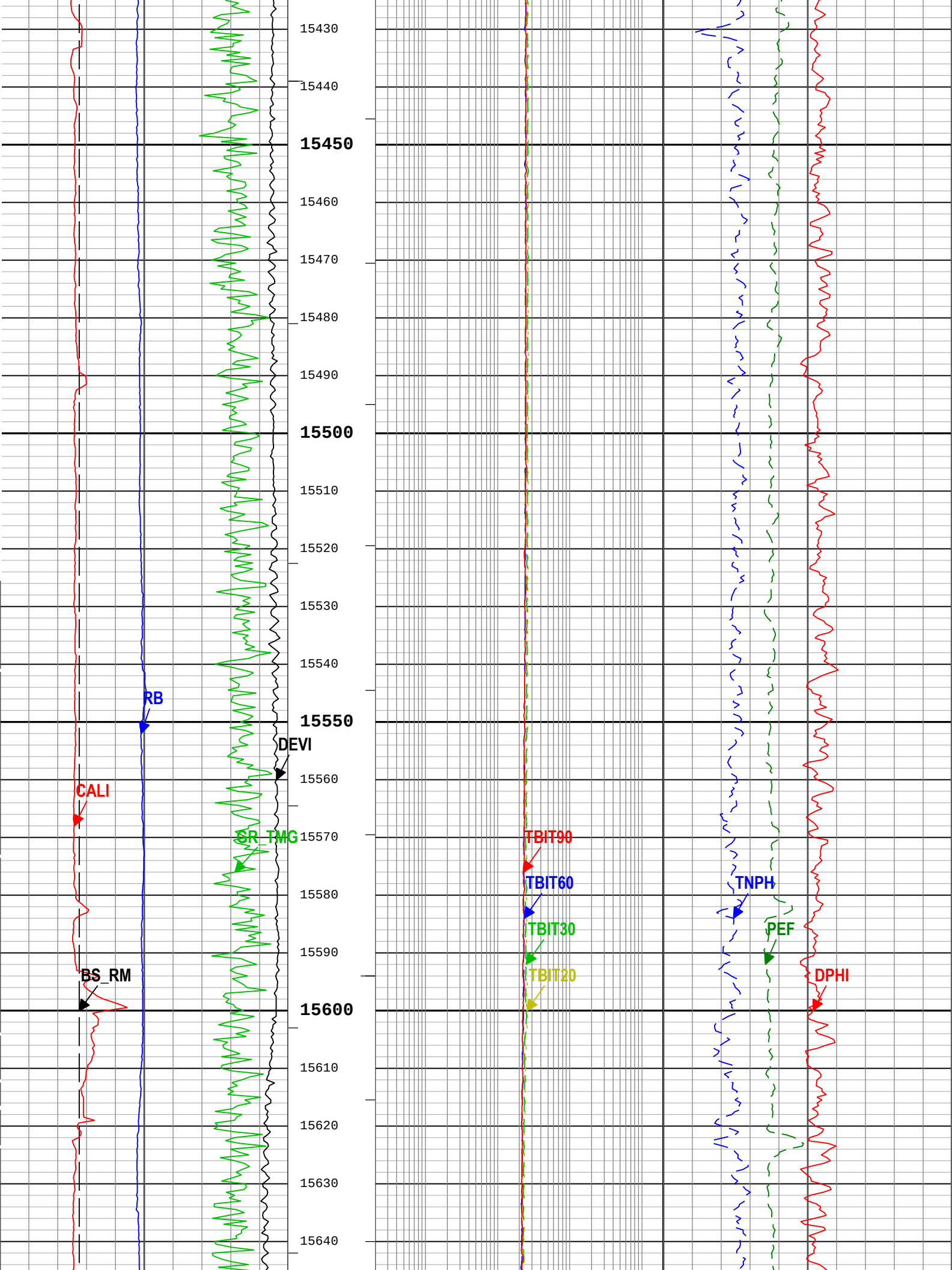
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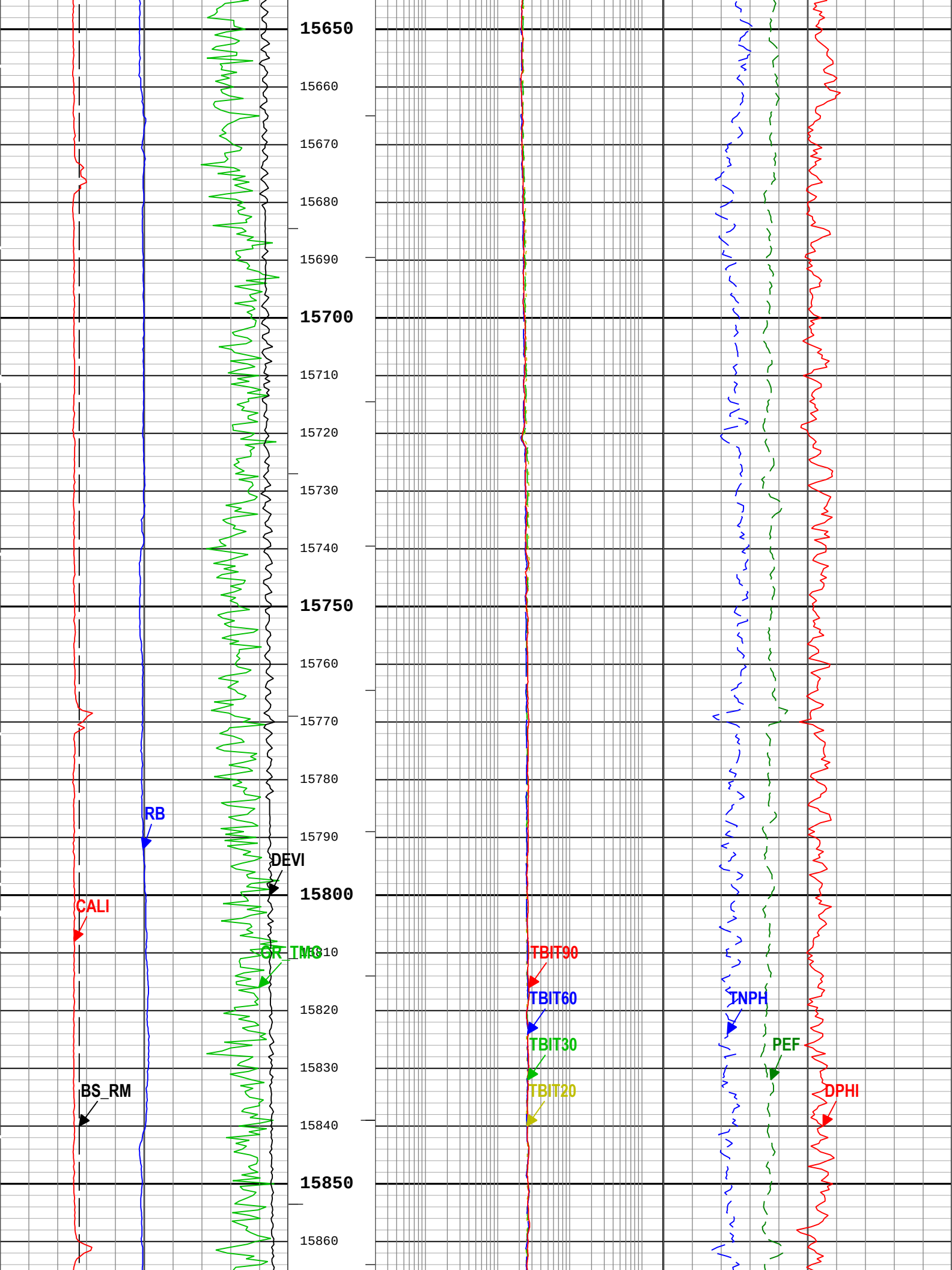
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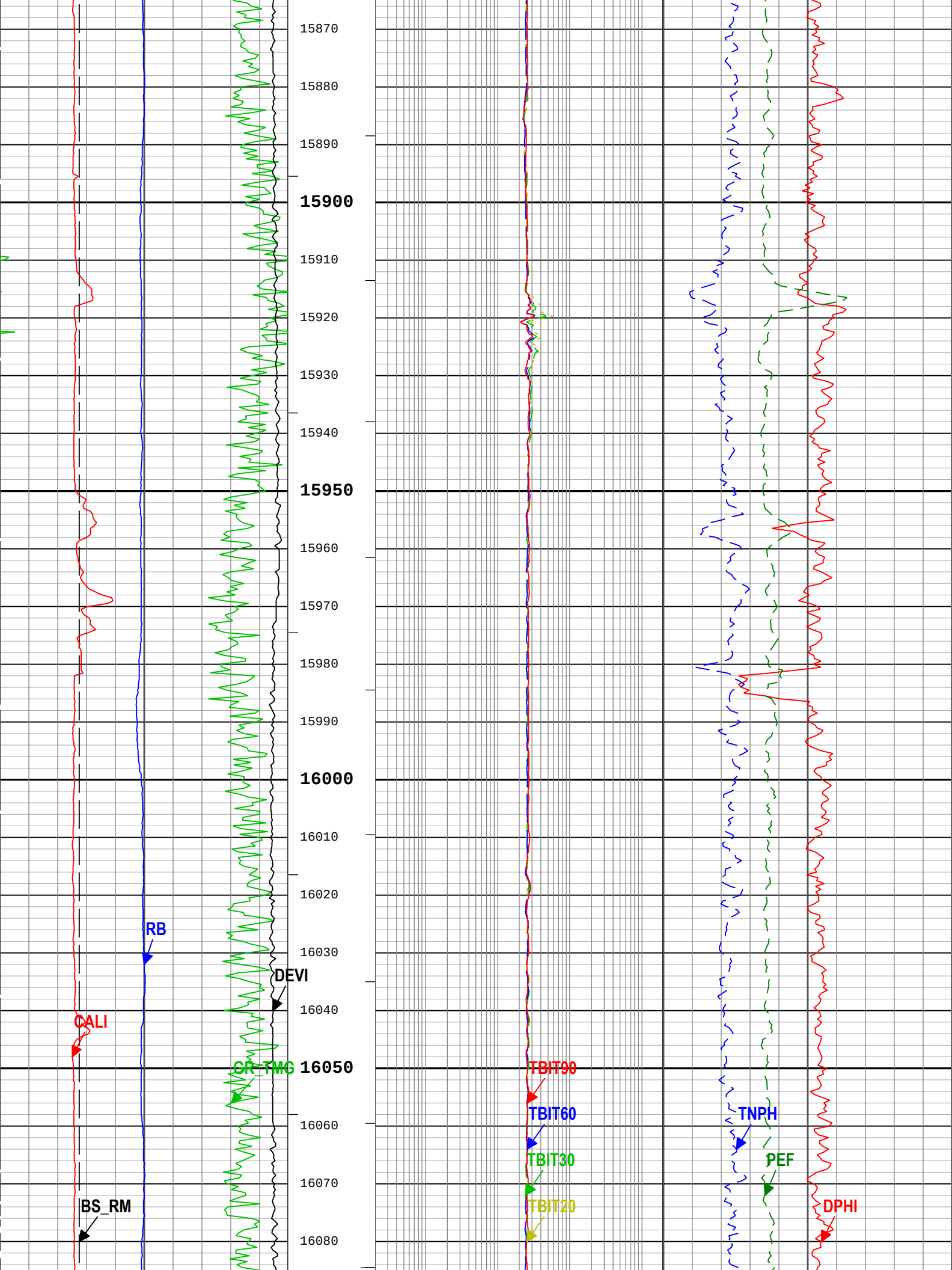
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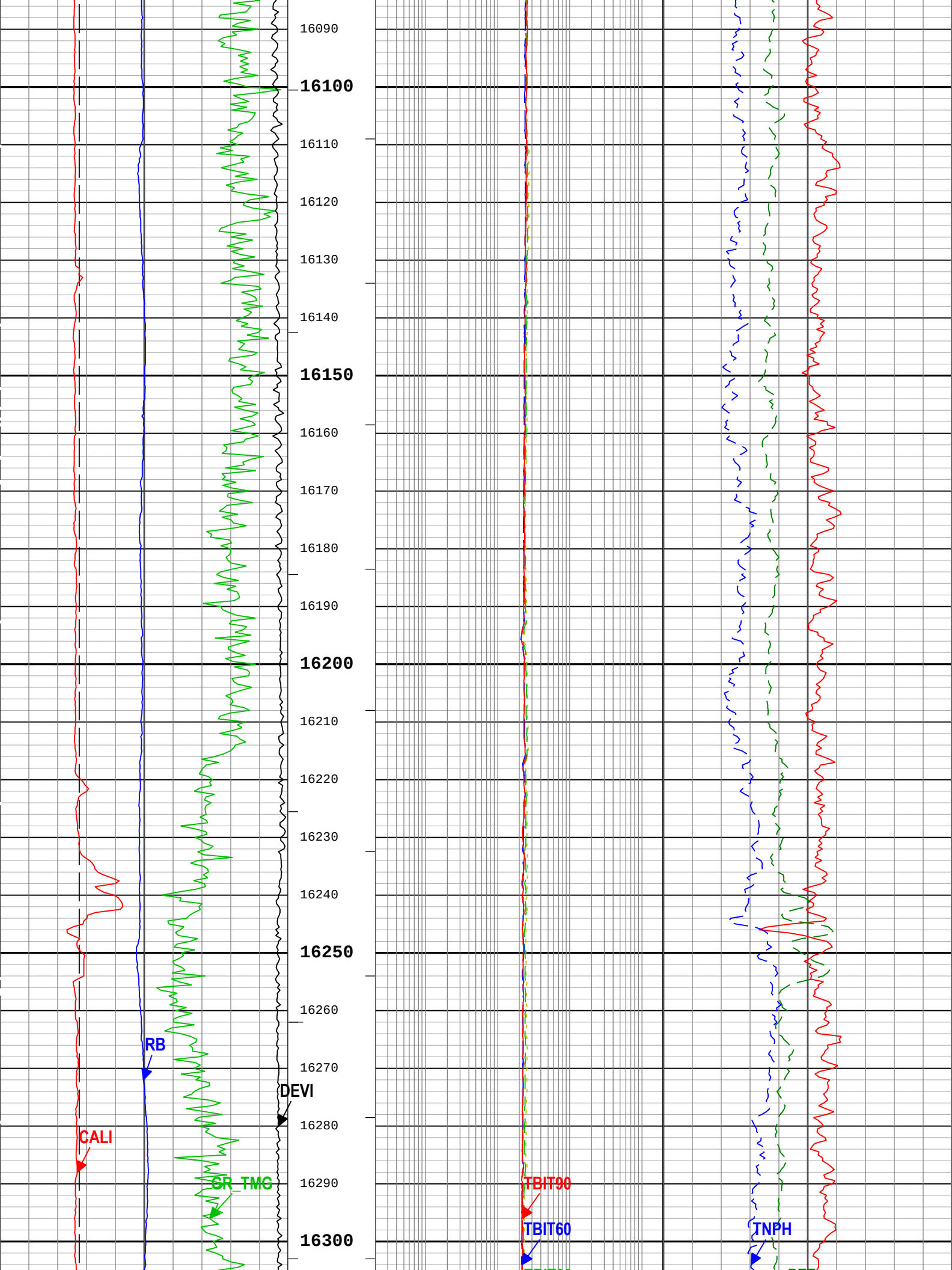
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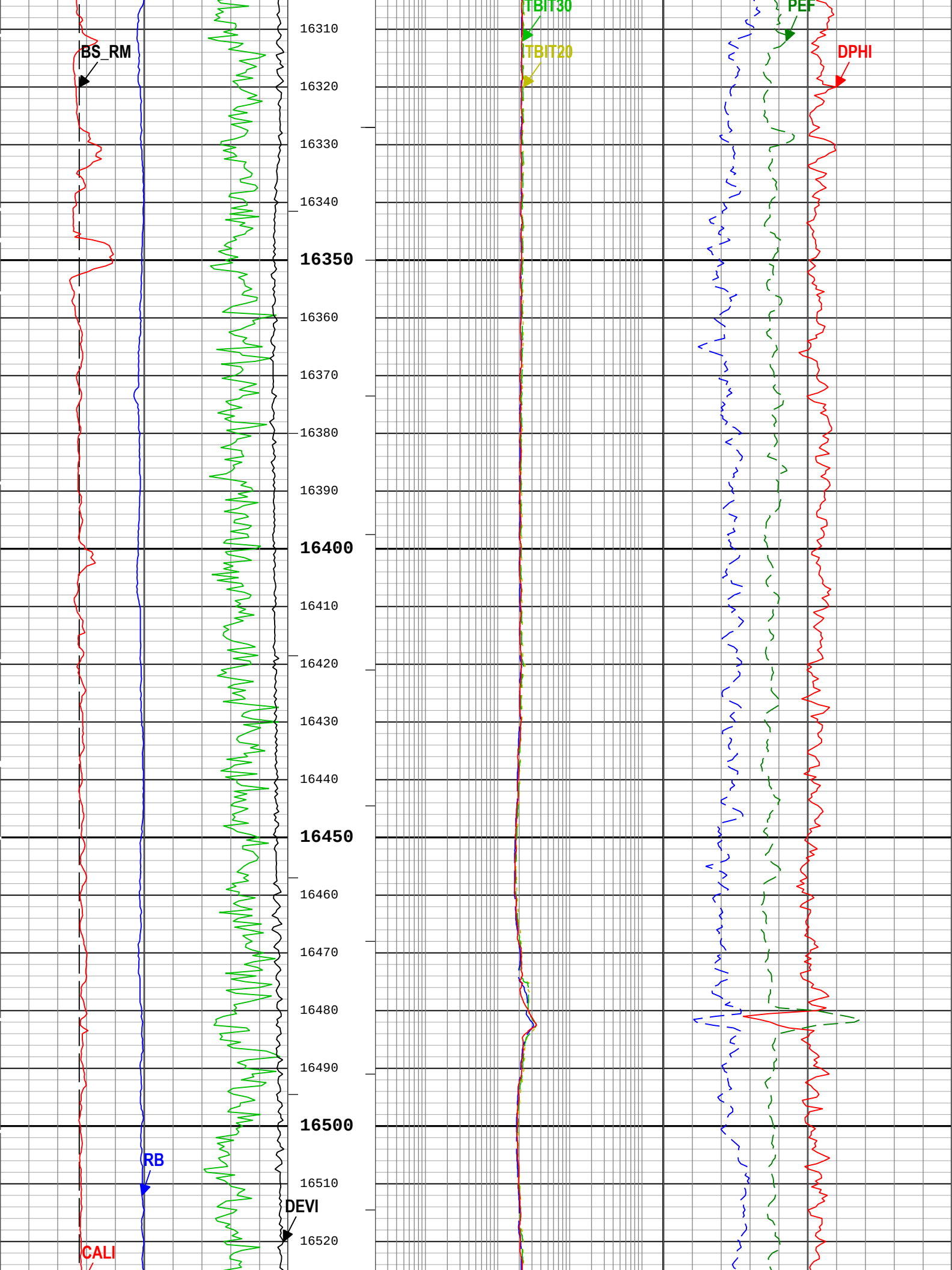
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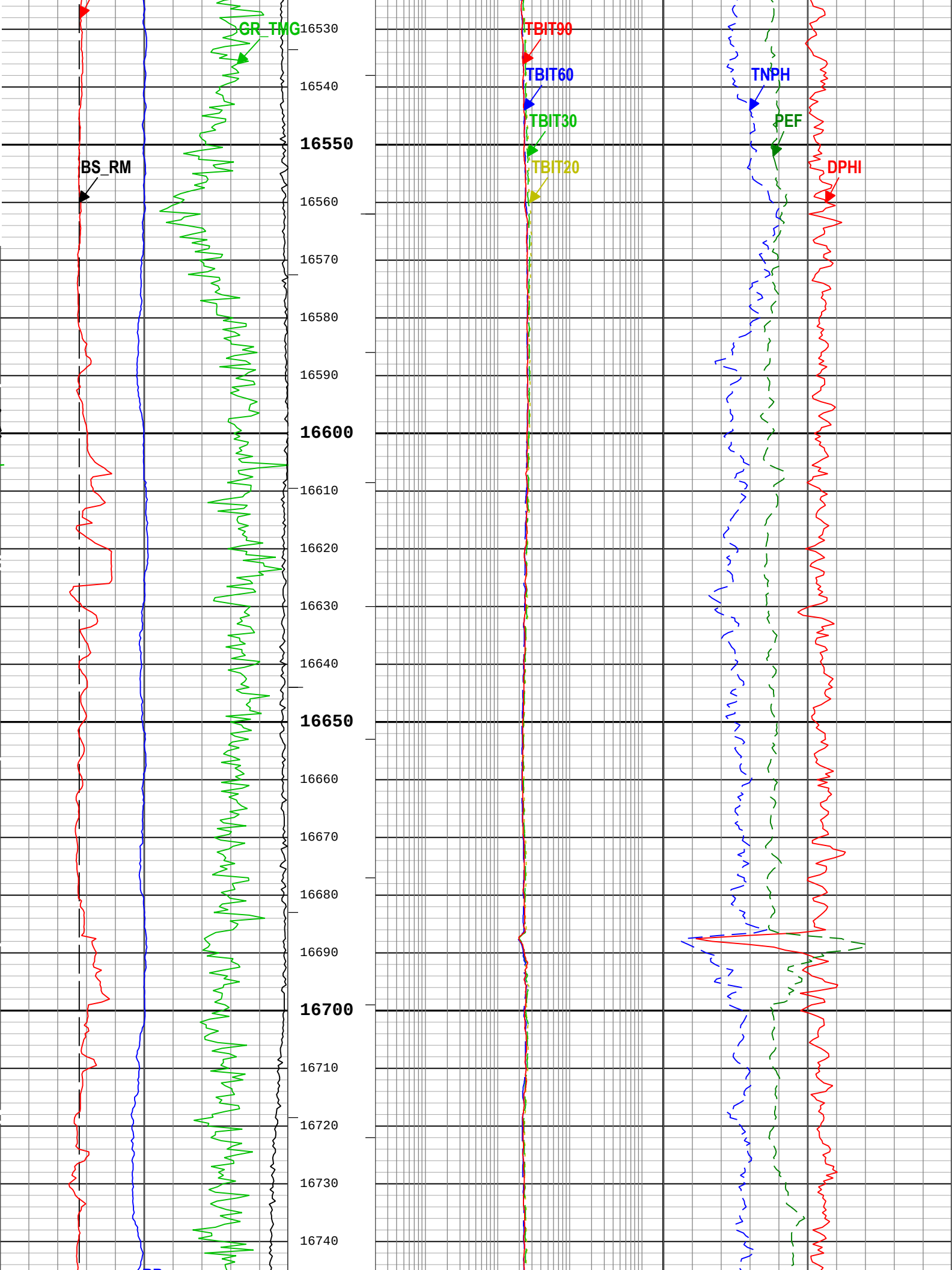
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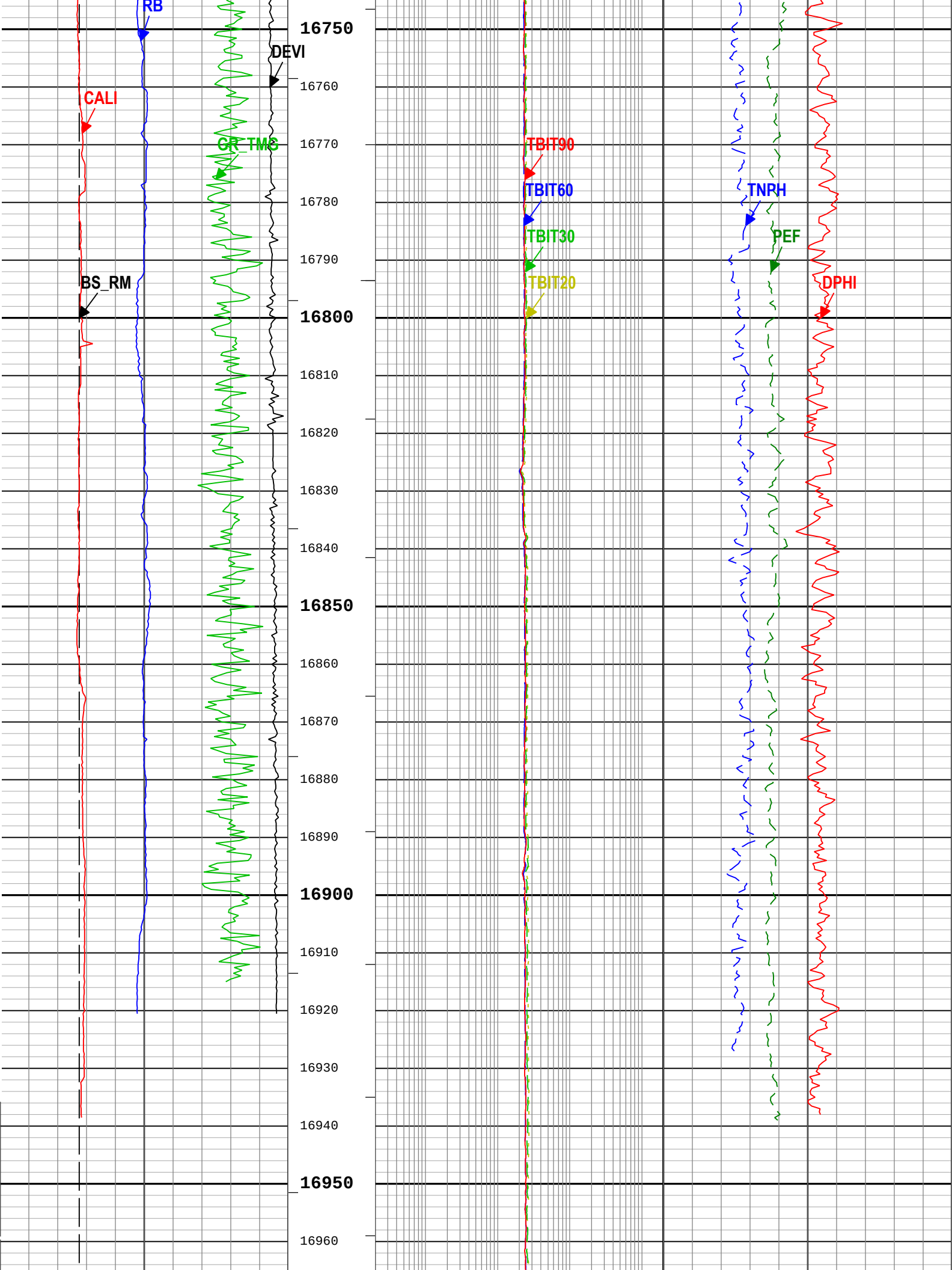
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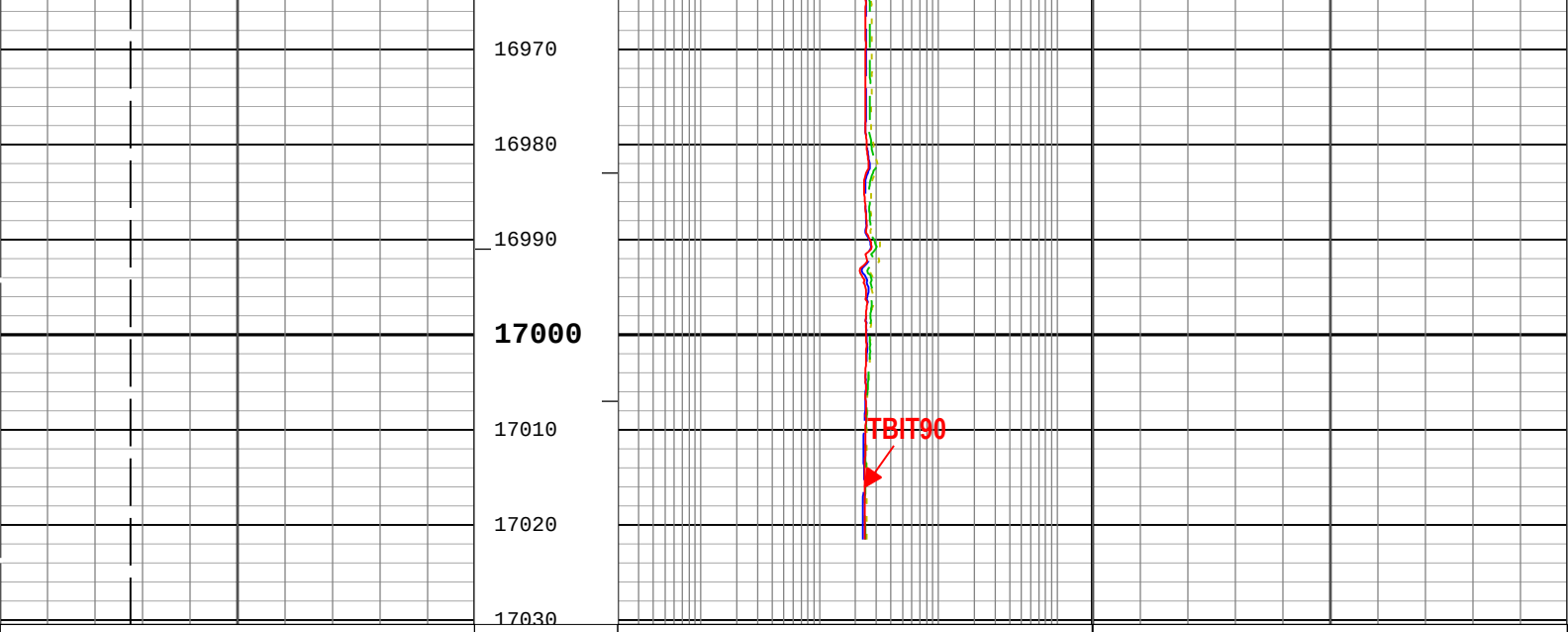

Bit Size (BS_RM) RM		
6	in	16

Calibrated Gamma Ray (GR_TMG) TMG-A RM		
0	gAPI	150

Caliper (CALI) TBD-B RM		
6	in	16

Hole Deviation (DEVI) TMG-A RM		
0	deg	100

Relative Bearing (RB) TMG-A RM		
0	deg	360

Thrubit Induction Array Two Foot Resistivity at 20 inch depth of investigation (TBIT20) TBIT-A RM		
0.2	ohm.m	2000

Thrubit Induction Array Two Foot Resistivity at 30 inch depth of investigation (TBIT30) TBIT-A RM		
0.2	ohm.m	2000

Thrubit Induction Array Two Foot Resistivity at 60 inch depth of investigation (TBIT60) TBIT-A RM		
0.2	ohm.m	2000

Thrubit Induction Array Two Foot Resistivity at 90 inch depth of investigation (TBIT90) TBIT-A RM		
0.2	ohm.m	2000

Density Porosity (DPHI) TBD-B RM		
0.3	ft3/ft3	-0.1

Photoelectric Factor (PEF) TBD-B RM	
0	10

Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) TBN-A RM		
0.3	ft3/ft3	-0.1

ICV_RM - Integrated Cement Volume every 100.00 (ft3)

ICV_RM - Integrated Cement Volume every 10.00 (ft3)

IHV_RM - Integrated Hole Volume every 100.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

IHV_RM - Integrated Hole Volume every 10.00 (ft3)

Description: ThruBit_TCOM_RM Format: Log (ThruBit_TCOM_RM) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 19-Nov-2018 13:59:40

Channel Processing Parameters

ThruBit: Parameters

Parameter	Description	Tool	Value	Unit
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	WLSESSION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	0	ppm
BSCO	Borehole Salinity Correction Option	TBN-A	No	
CBLO	Casing Bottom (Logger)	WLSESSION	2400	ft
CQCO	Cement Quality Correction Option	TBN-A	No	
CSAL	Cement Salinity	TBN-A	0	ppm
CSCOR	Cement Salinity Correction Option	TBN-A	No	

CSODDRL	Casing Outer Diameter - Zoned along driller depths	WLSESSION	9.625	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	10	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Oil	
DHC	Density Hole Correction	TBD-B	Bit Size	
ECCO	Eccentricity Coorection Option	TBN-A	No	
FCD	Future Casing (Outer) Diameter	WLSESSION	5.5	in
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	0	ppm
FSCO	Formation Salinity Correction Option	TBN-A	No	
GCSE_UP_PASS_RM	Generalized Caliper Selection for WLRM Log Up Passes	Borehole_RM	CALI(RM)	
HSCOT	Hole Size Correction Option (None, Bit Size, Density Caliper, GCSE)	TBIT-A	GCSE	
HSCOT	Hole Size Correction Option (None, Bit Size, Density Caliper, GCSE)	TBN-A	GCSE	
TBN_WPRE	Well Pressure for Horizontal Section	TBN-A	0	psi
TBI_TC_OP	Induction Temperature Correction Option	TBIT-A	Lower	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.71	g/cm3
MWCO	Mud Weight Correction Option	TBN-A	No	
PTCO	Pressure Temperature Correction Option	TBN-A	No	
RB_OFFSET	Additional RB offset (degrees)	TMG-A	0	deg
SOCN	Standoff Distance	TBN-A	0.125	in
SOCO	Standoff Correction Option	TBN-A	No	
TBD_SPIKE_REJECT	Spike Detection Option	TBD-B	Correct	
TBD_SPIKE_THRESHOLD	Attenuation Change Threshold for Spike Detection	TBD-B	5	%
TBI_REPL_ARRAY_DEST	Thrubit Induction Array to Replace	TBIT-A	None	
TBI_REPL_ARRAY_SOURCE	Thrubit Induction Array to Replace with	TBIT-A	None	
TBI_RMUD_SRC	TBI Mud Resistivity Source for Borehole Correction	TBIT-A	Data_Channel_RMUD	
TBN_ALGO	TBN Porosity Algorithm Option	TBN-A	Schmid_McKeon	

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	11.5	2370	2400
BS	8.75	2400	17030.5

All depth are actual.

Tool Control Parameters

State:	Colorado
ThruBit	
Triple Combo	