Schlumberger

Company: Southwestern Energy Production Company

Well: Ewertz Farms 1-58 #1-26H

Field: Wildcat

County: Adams State: Colorado

County: Adams
Field: Wildcat
Location: Sec 26, T 1S, 58W
Well: Ewertz Farms 1-58 #1-26H
Company: Southwestern Energy Productio

Platform Express

Dual Density, Laterolog Resistivity, and ADT

Location:			
Sec 26, T 1S, 58W	Elev.	K.B.	
SHL: 660' FNL X 660' FWL NWNW		G.L.	4875.00 ft
Lat/Long: 39.940310/-103.852070		D.F.	4895.60 ft
Permanent Datum: Ground Level	Elev.:	4875.00 f	
Log Measured From: Drill Floor	20.60 ft	above Perm.Datum	
Drilling Measured From: Drill Floor			

API Serial No.	Section:	Township:	Latitude:
05-0001-09740-0000	26	1S	39.940310 degrees

Logging Date			03-May-2012			
Run Number			1			
Depth Driller			9543.00 ft			
Schlumberger Depth			9543.00 ft			
Bottom Log Interval			9543.00 ft			
Top Log Interval			1041.00 ft			
Casing Driller Size @ Depth			9.625 in @ 1056.00 ft			
Casing Schlumberger			1056 ft			
Bit Size			8.25 in			
Type Fluid In Hole			Chemical Gel			
MUD	Density	Viscosity	9.4 lbm/gal	43 s		
	Fluid Loss	PH	5.2 cm3	9.5		
	Source of Sample		Active Tank			
RM @ Meas Temp			0.48 ohm.m @ 67.8 degF			
RMF @ Meas Temp			0.44 ohm.m @ 67.4 degF			
RMC @ Meas Temp			0.56 ohm.m @ 68 degF			
Source RMF	RMC		Pressed	Pressed		
RM @ BHT	RMF @ BHT		0.17 @ 207	0.15 @ 207		
Max Recorded Temperatures			207 degF			
Circulation Stopped	Time		02-May-2012	17:30:00		
Logger on Bottom	Time		03-May-2012	02:00:14		
Unit Number	Location:		2135	Fort Morgan, CO		
Recorded By			Philip Grant, Heather Bennett			
Witnessed By			Bob Hoffmeyer			

Disclaimer

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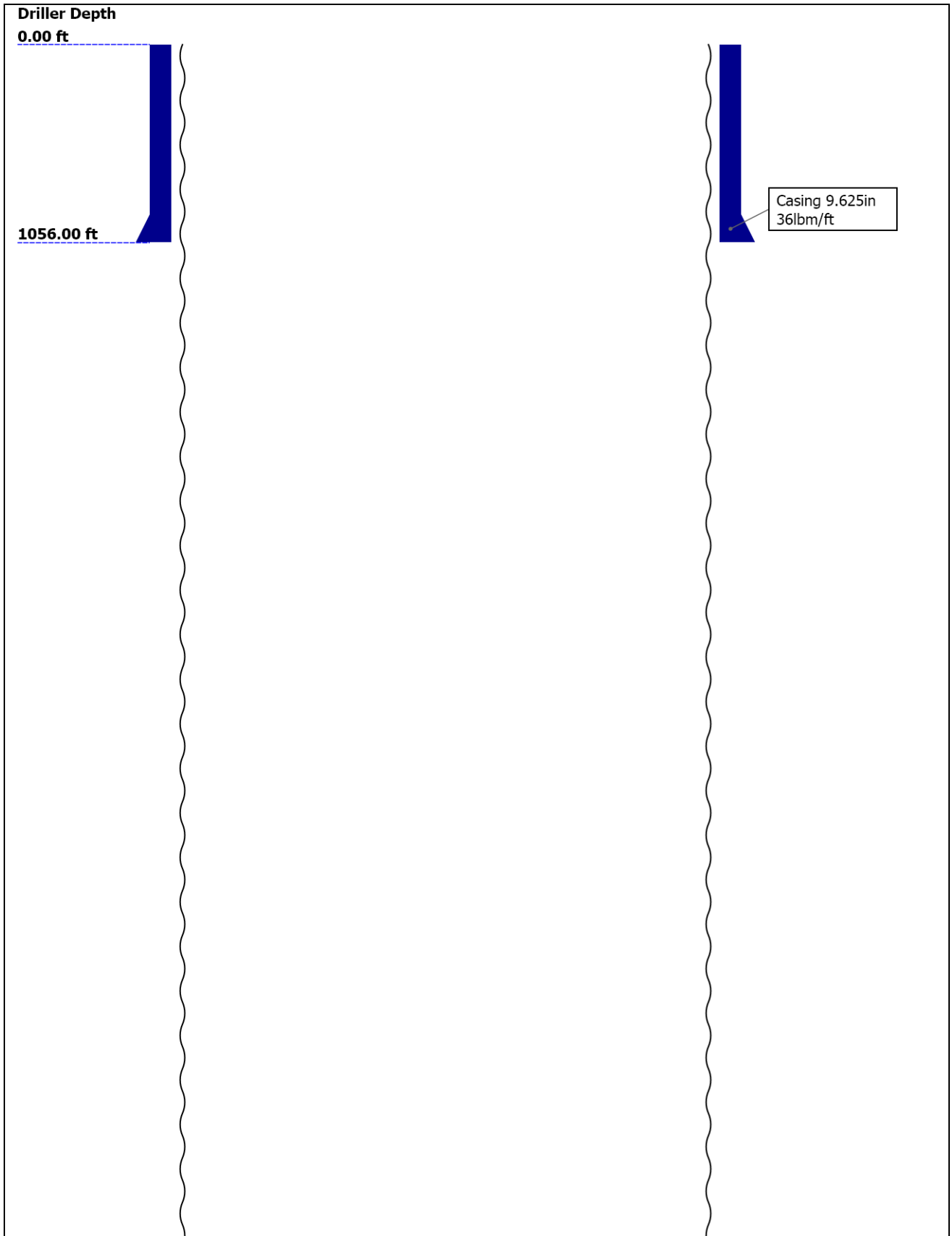
Contents

Well Sketch



Borehole Size/Casing/Tubing Record

Bit						
Bit Size (in)	8.5	8.25				
Top Driller (ft) (ft)	0	8400				
Top Logger (ft)	0	8400				
Bottom Driller (ft)	8400	9543				
Bottom Logger (ft)	8400	9543				
Casing						
Size (in)	9.625					
Weight (lbm/ft)	36					
Inner Diameter (in)	8.914					
Top Driller (ft)	0					
Top Logger (ft)	0					
Bottom Driller (ft)	1056					
Bottom Logger (ft)	1056					

Borehole Fluids

Parameter(unit)	**1**					
Fluid Type	Water					
Fluid Name	Chemical Gel					
Max Recorded Temperatures (degF)	207					
Source of Sample	Active Tank					
Salinity (ppm)	13639.46					
Density (lbm/gal)	9.4					
Viscosity (s)	43					
Fluid Loss (cm3)	5.2					
PH	9.5					
Date/Time Circulation Stopped	02-May-2012 17:30:00					
Date Logger on Bottom	03-May-2012					
Time Logger on Bottom	02:00:14					
Source RMF	Pressed					
RMC	Pressed					
RM @ Meas Temp (ohm.m@degF)	0.48 @ 67.8					
RMF @ Meas Temp (ohm.m@degF)	0.44 @ 67.4					
RMC @ Meas Temp (ohm.m@degF)	0.56 @ 68					

(ohm.m@degF)						
RM @ BHT (ohm.m@degF)	0.17 @ 207					
RMF @ BHT (ohm.m@degF)	0.15 @ 207					
RMC @ BHT (ohm.m@degF)	0.2 @ 207					
Total Solid (%)						
High Gravity Solids (%)						

Remarks and Equipment Summary

1: Toolstring

Equip name	Length	MP name	Offset
LEH-QT	**105.85**		
LEH-QT			
AH-169	**102.93**	2801	
EDTC-B:8629	**101.6**		
EDTH-B:8652			
EDTG-A			
EDTC-B:8629			
		CTEM	**98.1**
		ACCZ	**0.00**
		HV	**0.00**
		Gamma Ray	**96.23**
		TelStatus	**95.1**
PPC-B:8437	**95.1**		
PPC-B:8437			
		PPC-B Calipers	**93.95**
GPIT-C	**88.58**		
GPIH-B:1835			
GPIC-C			
		GPIC Inclinometer	**87.17**
		GPIT	**0.00**
Weight	**84.58**		
ADT-C:729	**78.08**		
HECH-KDB			
ADC-C:728			
ADS-C:729			
ADP-C:727			
		S11 Probe	**69.22**
		Pad	**69.12**
		Caliper	**68.74**
HTBC-H:863	**66.55**		
ECH-TAA:863			
HMCA-H:863			
		HMCA	**64.55**
		Temperature	**64.55**
HDRS-H[2]:4706	**64.55**		
ECH-MEB:4711			
HRCC-H:5705			
HRMS-H:4706			
Backscatter			
Short Spacing:27634			
GPV-Q			
GSR-J:5363			
Long Spacing:28732			
HRGD-H:3816			
		HRCC	**60.55**

1: Remarks

Tool run as per tool sketch. Except for 1.5 inch standoffs on HRLA on the bottom and top cartridges.

Data may be affected by hole rugosity.

This is the first run in hole and primary depth reference.

Matrix: Limestone 2.71

Crew: Derrick Hunter, Ian Derry, Troy Ocanas

MCFL 55.12
Caliper 54.63
TLD Density 54.24

AH-184[3] 52.31

AH-184[2] 50.31

HRLT-B:952 48.31
HRUH-B:946
HRUC-B:935
HRLS-B:952
HRLH-B:791
HRLC-B:791
AH-270

Resistivity 36.54

AH-184[1] 24.11

HGNS-H:4810 22.11
HGNH:3912
NSR-F:5215
NPV-N
HGNS-H:4810
HACCZ-H:5955
HMCA-H

Temperature 22.08
GR 21.37

CNL Porosity 15.03
HMCA 12.7
HGNS 12.7
Accelerometer 0.00

HDRS-H[1]:3837 12.7
ECH-MEB:2788
HRCC-H:3797
HRMS-H:3837
GPV-Q
GSR-J:5240
Short Spacing:26404
HRGD-H:3775
Long Spacing:28926
Backscatter:26404

HRCC 8.7

MCFL 3.27
Caliper 2.78
TLD Density 2.39

BNS-STD 0.46

Head Tension
TOOL_ZERO

Lengths are in ft
Maximum Outer Diameter = 4.770 in

Line: Sensor Location, Value: Gating Offset
All measurements are relative to TOOL_ZERO

Depth Summary

Depth Control Parameters	**1**		
Conveyance Type	Wireline		
Rig Type	Top Drive		
Depth Measuring Device	**1**		
Type	IDW-B		
Wheel Correction 1	1		
Wheel Correction 2	0		
Tension Device	**1**		
Type	CMTD-B/A		
Calibration Points	0		
Logging Cable	**1**		
Type	7-46NT-XS		
Logging Cable Length (ft)	24000.00		

Survey Record

Survey Calculation

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

Rig Location

Latitude : 39.940310 degrees
Longitude : -103.85207 degrees

Tie In Point

Measured Depth: 0.00 ft
Inclination: 0.00 deg
Azimuth: 0.00 deg
True Vertical Depth: 0.00 ft
North Displacement: 0.00 ft
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	943.00	0.20	183.00	943.00	943.00	-1.67	-1.67	-0.09	1.67	183.00	0.02	GPIT-C	9	0	0
3	973.00	0.26	305.50	30.00	973.00	-1.69	-1.69	-0.15	1.71	184.98	1.37	GPIT-C	9	0	0
4	1003.00	0.33	339.29	30.00	1003.00	-1.57	-1.57	-0.23	1.57	188.51	0.62	GPIT-C	9	0	0
5	1033.00	0.35	46.89	30.00	1033.00	-1.42	-1.42	-0.20	1.44	187.95	1.27	GPIT-C	9	0	0
6	1063.00	0.33	300.68	30.00	1063.00	-1.31	-1.31	-0.21	1.35	188.89	1.81	GPIT-C	9	0	0
7	1093.00	0.33	299.12	30.00	1093.00	-1.23	-1.23	-0.36	1.28	196.13	0.03	GPIT-C	9	0	0
8	1123.00	0.33	294.91	30.00	1123.00	-1.15	-1.15	-0.51	1.25	203.84	0.08	GPIT-C	9	0	0
9	1153.00	0.34	285.13	30.00	1153.00	-1.09	-1.09	-0.67	1.28	211.57	0.19	GPIT-C	9	0	0
10	1183.00	0.35	282.74	30.00	1182.99	-1.05	-1.05	-0.85	1.35	218.88	0.07	GPIT-C	9	0	0
11	1213.00	0.35	274.47	30.00	1212.99	-1.02	-1.02	-1.03	1.44	225.15	0.17	GPIT-C	9	0	0
12	1243.00	0.33	259.74	30.00	1242.99	-1.03	-1.03	-1.20	1.57	229.43	0.30	GPIT-C	9	0	0
13	1273.00	0.35	245.67	30.00	1272.99	-1.08	-1.08	-1.37	1.74	231.70	0.29	GPIT-C	9	0	0
14	1303.00	0.32	255.38	30.00	1302.99	-1.14	-1.14	-1.54	1.90	233.37	0.22	GPIT-C	9	0	0
15	1333.00	0.32	270.64	30.00	1332.99	-1.16	-1.16	-1.70	2.07	235.64	0.28	GPIT-C	9	0	0
16	1363.00	0.32	286.72	30.00	1362.99	-1.14	-1.14	-1.86	2.17	238.60	0.30	GPIT-C	9	0	0
17	1393.00	0.29	300.80	30.00	1392.99	-1.07	-1.07	-2.01	2.26	241.86	0.27	GPIT-C	9	0	0
18	1423.00	0.28	308.98	30.00	1422.99	-0.99	-0.99	-2.13	2.36	245.12	0.14	GPIT-C	9	0	0
19	1453.00	0.26	308.18	30.00	1452.99	-0.90	-0.90	-2.24	2.43	248.14	0.09	GPIT-C	9	0	0
20	1483.00	0.23	320.00	30.00	1482.99	-0.81	-0.81	-2.33	2.46	250.82	0.20	GPIT-C	9	0	0

21	1513.00	0.20	345.88	30.00	1512.99	-0.71	-0.71	-2.38	2.49	253.32	0.33	GPIT-C	9	0	0
22	1543.00	0.17	336.43	30.00	1542.99	-0.62	-0.62	-2.42	2.49	255.58	0.14	GPIT-C	9	0	0
23	1573.00	0.19	358.75	30.00	1572.99	-0.53	-0.53	-2.44	2.49	257.73	0.24	GPIT-C	9	0	0
24	1603.00	0.10	10.41	30.00	1602.99	-0.46	-0.46	-2.43	2.46	259.40	0.33	GPIT-C	9	0	0
25	1633.00	0.15	23.40	30.00	1632.99	-0.39	-0.39	-2.41	2.43	260.72	0.21	GPIT-C	9	0	0
26	1663.00	0.26	19.66	30.00	1662.99	-0.29	-0.29	-2.37	2.40	262.98	0.37	GPIT-C	9	0	0
27	1693.00	0.27	15.27	30.00	1692.99	-0.16	-0.16	-2.33	2.33	266.09	0.07	GPIT-C	9	0	0
28	1723.00	0.34	26.87	30.00	1722.99	-0.01	-0.01	-2.27	2.26	269.70	0.31	GPIT-C	9	0	0
29	1753.00	0.27	43.17	30.00	1752.99	0.12	0.12	-2.18	2.20	273.13	0.36	GPIT-C	9	0	0
30	1783.00	0.23	46.01	30.00	1782.99	0.21	0.21	-2.09	2.10	275.80	0.16	GPIT-C	9	0	0
31	1813.00	0.16	65.28	30.00	1812.99	0.27	0.27	-2.01	2.03	277.67	0.31	GPIT-C	9	0	0
32	1843.00	0.18	149.45	30.00	1842.99	0.25	0.25	-1.95	1.97	277.21	0.76	GPIT-C	9	0	0
33	1873.00	0.31	177.84	30.00	1872.99	0.12	0.12	-1.92	1.94	273.67	0.58	GPIT-C	9	0	0
34	1903.00	0.42	186.39	30.00	1902.99	-0.07	-0.07	-1.93	1.94	267.97	0.41	GPIT-C	9	0	0
35	1933.00	0.59	188.25	30.00	1932.99	-0.33	-0.33	-1.97	2.00	260.40	0.58	GPIT-C	9	0	0
36	1963.00	0.74	195.87	30.00	1962.98	-0.67	-0.67	-2.04	2.17	251.78	0.56	GPIT-C	9	0	0
37	1993.00	0.83	195.67	30.00	1992.98	-1.07	-1.07	-2.15	2.40	243.63	0.32	GPIT-C	9	0	0
38	2023.00	0.98	192.16	30.00	2022.98	-1.53	-1.53	-2.27	2.72	236.01	0.52	GPIT-C	9	0	0
39	2053.00	1.09	189.84	30.00	2052.97	-2.06	-2.06	-2.37	3.15	229.00	0.39	GPIT-C	9	0	0
40	2083.00	1.15	189.83	30.00	2082.97	-2.64	-2.64	-2.47	3.61	223.12	0.20	GPIT-C	9	0	0
41	2113.00	1.23	189.47	30.00	2112.96	-3.25	-3.25	-2.57	4.13	218.37	0.26	GPIT-C	9	0	0
42	2143.00	1.25	190.16	30.00	2142.95	-3.89	-3.89	-2.68	4.72	214.61	0.09	GPIT-C	9	0	0
43	2173.00	1.13	190.10	30.00	2172.95	-4.50	-4.50	-2.79	5.28	211.82	0.39	GPIT-C	9	0	0
44	2203.00	1.21	190.28	30.00	2202.94	-5.10	-5.10	-2.90	5.87	209.61	0.25	GPIT-C	9	0	0
45	2233.00	1.28	190.12	30.00	2232.93	-5.74	-5.74	-3.02	6.50	207.70	0.24	GPIT-C	9	0	0
46	2263.00	1.22	188.31	30.00	2262.93	-6.39	-6.39	-3.12	7.12	206.04	0.25	GPIT-C	9	0	0
47	2293.00	1.18	189.50	30.00	2292.92	-7.01	-7.01	-3.22	7.71	204.67	0.16	GPIT-C	9	0	0
48	2323.00	1.21	189.50	30.00	2322.91	-7.62	-7.62	-3.32	8.30	203.54	0.11	GPIT-C	9	0	0
49	2353.00	1.16	190.16	30.00	2352.91	-8.23	-8.23	-3.43	8.92	202.60	0.16	GPIT-C	9	0	0
50	2383.00	1.09	185.35	30.00	2382.90	-8.82	-8.82	-3.51	9.48	201.69	0.39	GPIT-C	9	0	0
51	2413.00	1.07	190.22	30.00	2412.90	-9.38	-9.38	-3.58	10.04	200.91	0.32	GPIT-C	9	0	0
52	2443.00	0.96	189.72	30.00	2442.89	-9.90	-9.90	-3.68	10.56	200.36	0.38	GPIT-C	9	0	0
53	2473.00	0.91	187.03	30.00	2472.89	-10.39	-10.39	-3.75	11.06	199.84	0.21	GPIT-C	9	0	0
54	2503.00	0.81	191.68	30.00	2502.88	-10.83	-10.83	-3.82	11.48	199.42	0.42	GPIT-C	9	0	0
55	2533.00	0.65	199.66	30.00	2532.88	-11.20	-11.20	-3.92	11.88	199.29	0.61	GPIT-C	9	0	0
56	2563.00	0.52	195.07	30.00	2562.88	-11.49	-11.49	-4.01	12.17	199.25	0.49	GPIT-C	9	0	0
57	2593.00	0.44	158.54	30.00	2592.88	-11.73	-11.73	-4.01	12.40	198.86	1.03	GPIT-C	9	0	0
58	2623.00	0.51	184.54	30.00	2622.88	-11.97	-11.97	-3.97	12.60	198.37	0.74	GPIT-C	9	0	0
59	2653.00	0.72	192.83	30.00	2652.88	-12.28	-12.28	-4.03	12.93	198.15	0.77	GPIT-C	9	0	0
60	2683.00	0.80	191.91	30.00	2682.87	-12.67	-12.67	-4.11	13.32	197.98	0.27	GPIT-C	9	0	0
61	2713.00	0.77	188.68	30.00	2712.87	-13.08	-13.08	-4.19	13.71	197.75	0.18	GPIT-C	9	0	0
62	2743.00	0.73	188.21	30.00	2742.87	-13.46	-13.46	-4.24	14.11	197.50	0.14	GPIT-C	9	0	0
63	2773.00	0.69	190.68	30.00	2772.87	-13.83	-13.83	-4.30	14.47	197.29	0.16	GPIT-C	9	0	0
64	2803.00	0.61	189.63	30.00	2802.86	-14.16	-14.16	-4.36	14.83	197.13	0.29	GPIT-C	9	0	0
65	2833.00	0.49	186.36	30.00	2832.86	-14.45	-14.45	-4.41	15.09	196.96	0.41	GPIT-C	9	0	0
66	2863.00	0.37	179.96	30.00	2862.86	-14.67	-14.67	-4.42	15.32	196.76	0.43	GPIT-C	9	0	0
67	2893.00	0.30	176.53	30.00	2892.86	-14.85	-14.85	-4.41	15.49	196.56	0.25	GPIT-C	9	0	0
68	2923.00	0.28	169.68	30.00	2922.86	-15.00	-15.00	-4.40	15.62	196.34	0.14	GPIT-C	9	0	0
69	2953.00	0.23	176.41	30.00	2952.86	-15.13	-15.13	-4.38	15.75	196.15	0.17	GPIT-C	9	0	0
70	2983.00	0.23	170.08	30.00	2982.86	-15.25	-15.25	-4.37	15.88	195.97	0.09	GPIT-C	9	0	0
71	3013.00	0.23	171.07	30.00	3012.86	-15.37	-15.37	-4.35	15.98	195.79	0.02	GPIT-C	9	0	0
72	3043.00	0.20	185.97	30.00	3042.86	-15.48	-15.48	-4.34	16.08	195.66	0.22	GPIT-C	9	0	0
73	3073.00	0.15	173.73	30.00	3072.86	-15.58	-15.58	-4.34	16.17	195.58	0.20	GPIT-C	9	0	0
74	3103.00	0.16	182.54	30.00	3102.86	-15.66	-15.66	-4.34	16.24	195.49	0.08	GPIT-C	9	0	0
75	3133.00	0.19	198.40	30.00	3132.86	-15.73	-15.73	-4.35	16.31	195.40	0.23	GPIT-C	9	0	0

75	3133.00	0.10	198.40	30.00	3132.86	-15.73	-15.73	-4.35	16.31	195.46	0.23	GPIT-C	9	0	0
76	3163.00	0.06	241.22	30.00	3162.86	-15.76	-15.76	-4.37	16.34	195.51	0.24	GPIT-C	9	0	0
77	3193.00	0.09	310.50	30.00	3192.86	-15.75	-15.75	-4.41	16.37	195.63	0.30	GPIT-C	9	0	0
78	3223.00	0.12	295.34	30.00	3222.86	-15.72	-15.72	-4.45	16.34	195.81	0.13	GPIT-C	9	0	0
79	3253.00	0.16	232.22	30.00	3252.86	-15.73	-15.73	-4.51	16.37	196.00	0.49	GPIT-C	9	0	0
80	3283.00	0.17	238.94	30.00	3282.86	-15.78	-15.78	-4.58	16.44	196.19	0.08	GPIT-C	9	0	0
81	3313.00	0.09	273.50	30.00	3312.86	-15.80	-15.80	-4.64	16.47	196.37	0.36	GPIT-C	9	0	0
82	3343.00	0.36	347.34	30.00	3342.86	-15.71	-15.71	-4.69	16.40	196.62	1.16	GPIT-C	9	0	0
83	3373.00	0.48	359.90	30.00	3372.86	-15.49	-15.49	-4.71	16.21	196.91	0.50	GPIT-C	9	0	0
84	3403.00	0.38	7.39	30.00	3402.86	-15.27	-15.27	-4.70	15.98	197.10	0.38	GPIT-C	9	0	0
85	3433.00	0.47	27.01	30.00	3432.86	-15.06	-15.06	-4.63	15.75	197.09	0.56	GPIT-C	9	0	0
86	3463.00	0.59	37.36	30.00	3462.85	-14.83	-14.83	-4.48	15.49	196.81	0.51	GPIT-C	9	0	0
87	3493.00	0.59	39.73	30.00	3492.85	-14.58	-14.58	-4.29	15.19	196.38	0.08	GPIT-C	9	0	0
88	3523.00	0.56	36.88	30.00	3522.85	-14.35	-14.35	-4.10	14.93	195.95	0.12	GPIT-C	9	0	0
89	3553.00	0.54	37.69	30.00	3552.85	-14.12	-14.12	-3.93	14.67	195.54	0.09	GPIT-C	9	0	0
90	3583.00	0.42	30.35	30.00	3582.85	-13.91	-13.91	-3.78	14.40	195.22	0.45	GPIT-C	9	0	0
91	3613.00	0.39	24.92	30.00	3612.85	-13.73	-13.73	-3.69	14.21	195.03	0.16	GPIT-C	9	0	0
92	3643.00	0.37	15.96	30.00	3642.85	-13.54	-13.54	-3.62	14.01	194.95	0.21	GPIT-C	9	0	0
93	3673.00	0.34	6.44	30.00	3672.85	-13.36	-13.36	-3.58	13.85	195.00	0.22	GPIT-C	9	0	0
94	3703.00	0.31	346.96	30.00	3702.85	-13.19	-13.19	-3.59	13.68	195.22	0.38	GPIT-C	9	0	0
95	3733.00	0.32	311.02	30.00	3732.85	-13.06	-13.06	-3.67	13.55	195.70	0.65	GPIT-C	9	0	0
96	3763.00	0.42	291.62	30.00	3762.85	-12.96	-12.96	-3.84	13.52	196.49	0.52	GPIT-C	9	0	0
97	3793.00	0.50	283.79	30.00	3792.84	-12.89	-12.89	-4.06	13.52	197.50	0.33	GPIT-C	9	0	0
98	3823.00	0.53	280.32	30.00	3822.84	-12.83	-12.83	-4.33	13.55	198.63	0.16	GPIT-C	9	0	0
99	3853.00	0.53	278.49	30.00	3852.84	-12.79	-12.79	-4.60	13.58	199.78	0.06	GPIT-C	9	0	0
100	3883.00	0.59	274.73	30.00	3882.84	-12.75	-12.75	-4.89	13.65	200.97	0.24	GPIT-C	9	0	0
101	3913.00	0.65	269.71	30.00	3912.84	-12.74	-12.74	-5.21	13.78	202.24	0.28	GPIT-C	9	0	0
102	3943.00	0.70	265.81	30.00	3942.84	-12.76	-12.76	-5.56	13.91	203.57	0.22	GPIT-C	9	0	0
103	3973.00	0.82	262.11	30.00	3972.83	-12.80	-12.80	-5.96	14.11	204.97	0.44	GPIT-C	9	0	0
104	4003.00	0.91	261.51	30.00	4002.83	-12.86	-12.86	-6.41	14.37	206.48	0.29	GPIT-C	9	0	0
105	4033.00	1.04	257.99	30.00	4032.83	-12.96	-12.96	-6.91	14.70	208.07	0.49	GPIT-C	9	0	0
106	4063.00	1.25	253.87	30.00	4062.82	-13.10	-13.10	-7.49	15.09	209.75	0.75	GPIT-C	9	0	0
107	4093.00	1.36	252.64	30.00	4092.81	-13.30	-13.30	-8.14	15.58	211.48	0.39	GPIT-C	9	0	0
108	4123.00	1.53	252.27	30.00	4122.80	-13.53	-13.53	-8.86	16.17	213.23	0.56	GPIT-C	9	0	0
109	4153.00	1.63	251.50	30.00	4152.79	-13.79	-13.79	-9.65	16.83	214.99	0.35	GPIT-C	9	0	0
110	4183.00	1.78	251.25	30.00	4182.78	-14.07	-14.07	-10.50	17.55	216.72	0.51	GPIT-C	9	0	0
111	4213.00	1.94	249.61	30.00	4212.76	-14.40	-14.40	-11.42	18.37	218.41	0.56	GPIT-C	9	0	0
112	4243.00	2.13	248.49	30.00	4242.74	-14.78	-14.78	-12.41	19.29	220.02	0.65	GPIT-C	9	0	0
113	4273.00	2.32	246.58	30.00	4272.72	-15.23	-15.23	-13.49	20.34	221.54	0.67	GPIT-C	9	0	0
114	4303.00	2.37	245.29	30.00	4302.70	-15.73	-15.73	-14.61	21.46	222.89	0.23	GPIT-C	9	0	0
115	4333.00	2.41	244.75	30.00	4332.67	-16.26	-16.26	-15.75	22.64	224.08	0.18	GPIT-C	9	0	0
116	4363.00	2.34	245.37	30.00	4362.64	-16.78	-16.78	-16.87	23.79	225.16	0.25	GPIT-C	9	0	0
117	4393.00	2.35	244.79	30.00	4392.62	-17.30	-17.30	-17.99	24.97	226.12	0.09	GPIT-C	9	0	0
118	4423.00	2.22	245.96	30.00	4422.59	-17.80	-17.80	-19.08	26.08	226.99	0.45	GPIT-C	9	0	0
119	4453.00	2.18	246.98	30.00	4452.57	-18.26	-18.26	-20.13	27.17	227.80	0.21	GPIT-C	9	0	0
120	4483.00	2.08	248.13	30.00	4482.55	-18.68	-18.68	-21.16	28.22	228.56	0.35	GPIT-C	9	0	0
121	4513.00	2.00	249.64	30.00	4512.53	-19.07	-19.07	-22.16	29.23	229.29	0.32	GPIT-C	9	0	0
122	4543.00	1.79	250.18	30.00	4542.52	-19.41	-19.41	-23.09	30.15	229.95	0.71	GPIT-C	9	0	0
123	4573.00	1.73	250.07	30.00	4572.50	-19.72	-19.72	-23.95	31.04	230.53	0.19	GPIT-C	9	0	0
124	4603.00	1.59	250.43	30.00	4602.49	-20.02	-20.02	-24.77	31.86	231.06	0.46	GPIT-C	9	0	0
125	4633.00	1.52	253.18	30.00	4632.48	-20.27	-20.27	-25.55	32.61	231.57	0.35	GPIT-C	9	0	0
126	4663.00	1.49	252.68	30.00	4662.47	-20.50	-20.50	-26.30	33.33	232.06	0.12	GPIT-C	9	0	0
127	4693.00	1.36	252.42	30.00	4692.46	-20.73	-20.73	-27.01	34.06	232.50	0.43	GPIT-C	9	0	0
128	4723.00	1.36	254.25	30.00	4722.45	-20.93	-20.93	-27.69	34.71	232.92	0.14	GPIT-C	9	0	0

129	4753.00	1.06	247.24	30.00	4752.44	-21.13	-21.13	-28.29	35.30	233.24	1.09	GPIT-C	9	0	0
130	4783.00	1.00	240.17	30.00	4782.44	-21.37	-21.37	-28.77	35.83	233.40	0.48	GPIT-C	9	0	0
131	4813.00	0.89	236.89	30.00	4812.44	-21.63	-21.63	-29.20	36.35	233.47	0.40	GPIT-C	9	0	0
132	4843.00	0.77	238.54	30.00	4842.43	-21.86	-21.86	-29.56	36.78	233.52	0.43	GPIT-C	9	0	0
133	4873.00	0.69	231.77	30.00	4872.43	-22.08	-22.08	-29.88	37.14	233.54	0.38	GPIT-C	9	0	0
134	4903.00	0.78	221.80	30.00	4902.43	-22.34	-22.34	-30.15	37.53	233.46	0.51	GPIT-C	9	0	0
135	4933.00	0.85	217.64	30.00	4932.42	-22.67	-22.67	-30.43	37.93	233.31	0.30	GPIT-C	9	0	0
136	4963.00	0.86	218.13	30.00	4962.42	-23.02	-23.02	-30.70	38.39	233.13	0.06	GPIT-C	9	0	0
137	4993.00	0.84	211.58	30.00	4992.42	-23.39	-23.39	-30.95	38.78	232.93	0.33	GPIT-C	9	0	0
138	5023.00	1.07	212.71	30.00	5022.41	-23.81	-23.81	-31.22	39.27	232.67	0.79	GPIT-C	9	0	0
139	5053.00	0.48	211.32	30.00	5052.41	-24.15	-24.15	-31.44	39.63	232.47	1.98	GPIT-C	9	0	0
140	5083.00	0.08	55.03	30.00	5082.41	-24.25	-24.25	-31.48	39.73	232.40	1.84	GPIT-C	9	0	0
141	5113.00	0.56	41.00	30.00	5112.41	-24.12	-24.12	-31.37	39.57	232.44	1.61	GPIT-C	9	0	0
142	5143.00	1.10	38.44	30.00	5142.41	-23.79	-23.79	-31.10	39.14	232.58	1.80	GPIT-C	9	0	0
143	5173.00	1.45	38.74	30.00	5172.40	-23.27	-23.27	-30.68	38.52	232.82	1.16	GPIT-C	9	0	0
144	5203.00	1.55	39.82	30.00	5202.39	-22.66	-22.66	-30.18	37.73	233.10	0.35	GPIT-C	9	0	0
145	5233.00	1.61	40.30	30.00	5232.38	-22.03	-22.03	-29.65	36.94	233.39	0.21	GPIT-C	9	0	0
146	5263.00	1.68	40.62	30.00	5262.36	-21.38	-21.38	-29.10	36.09	233.70	0.25	GPIT-C	9	0	0
147	5293.00	1.78	39.91	30.00	5292.35	-20.69	-20.69	-28.51	35.24	234.04	0.34	GPIT-C	9	0	0
148	5323.00	1.82	40.25	30.00	5322.34	-19.96	-19.96	-27.90	34.32	234.42	0.15	GPIT-C	9	0	0
149	5353.00	1.87	42.16	30.00	5352.32	-19.24	-19.24	-27.27	33.37	234.80	0.25	GPIT-C	9	0	0
150	5383.00	1.91	44.32	30.00	5382.30	-18.52	-18.52	-26.59	32.41	235.15	0.28	GPIT-C	9	0	0
151	5413.00	1.89	46.05	30.00	5412.29	-17.82	-17.82	-25.88	31.43	235.46	0.20	GPIT-C	9	0	0
152	5443.00	1.84	46.81	30.00	5442.27	-17.14	-17.14	-25.18	30.45	235.75	0.19	GPIT-C	9	0	0
153	5473.00	1.79	46.93	30.00	5472.26	-16.49	-16.49	-24.48	29.53	236.03	0.17	GPIT-C	9	0	0
154	5503.00	1.76	49.39	30.00	5502.24	-15.88	-15.88	-23.79	28.61	236.29	0.27	GPIT-C	9	0	0
155	5533.00	1.77	51.40	30.00	5532.23	-15.29	-15.29	-23.08	27.69	236.48	0.21	GPIT-C	9	0	0
156	5563.00	1.79	52.11	30.00	5562.21	-14.71	-14.71	-22.35	26.77	236.65	0.09	GPIT-C	9	0	0
157	5593.00	1.75	55.26	30.00	5592.20	-14.16	-14.16	-21.60	25.82	236.76	0.35	GPIT-C	9	0	0
158	5623.00	1.69	59.09	30.00	5622.19	-13.67	-13.67	-20.85	24.93	236.74	0.44	GPIT-C	9	0	0
159	5653.00	1.70	62.15	30.00	5652.17	-13.24	-13.24	-20.08	24.05	236.60	0.31	GPIT-C	9	0	0
160	5683.00	1.75	63.85	30.00	5682.16	-12.83	-12.83	-19.27	23.16	236.35	0.23	GPIT-C	9	0	0
161	5713.00	1.68	64.93	30.00	5712.15	-12.44	-12.44	-18.46	22.24	236.02	0.25	GPIT-C	9	0	0
162	5743.00	1.62	65.05	30.00	5742.13	-12.07	-12.07	-17.68	21.39	235.66	0.22	GPIT-C	9	0	0
163	5773.00	1.47	66.13	30.00	5772.12	-11.74	-11.74	-16.94	20.60	235.28	0.49	GPIT-C	9	0	0
164	5803.00	1.66	64.86	30.00	5802.11	-11.40	-11.40	-16.19	19.82	234.86	0.63	GPIT-C	9	0	0
165	5833.00	1.58	63.08	30.00	5832.10	-11.03	-11.03	-15.43	18.96	234.45	0.32	GPIT-C	9	0	0
166	5863.00	1.29	64.66	30.00	5862.09	-10.70	-10.70	-14.76	18.24	234.07	0.98	GPIT-C	9	0	0
167	5893.00	1.28	67.31	30.00	5892.08	-10.42	-10.42	-14.14	17.55	233.62	0.20	GPIT-C	9	0	0
168	5923.00	1.41	62.39	30.00	5922.07	-10.12	-10.12	-13.51	16.86	233.16	0.59	GPIT-C	9	0	0
169	5953.00	1.35	64.69	30.00	5952.07	-9.80	-9.80	-12.86	16.17	232.69	0.27	GPIT-C	9	0	0
170	5983.00	1.15	66.51	30.00	5982.06	-9.53	-9.53	-12.26	15.52	232.16	0.70	GPIT-C	9	0	0
171	6013.00	1.16	72.75	30.00	6012.05	-9.32	-9.32	-11.70	14.96	231.46	0.42	GPIT-C	9	0	0
172	6043.00	1.12	72.36	30.00	6042.05	-9.14	-9.14	-11.13	14.40	230.61	0.15	GPIT-C	9	0	0
173	6073.00	0.93	73.24	30.00	6072.04	-8.98	-8.98	-10.62	13.91	229.78	0.63	GPIT-C	9	0	0
174	6103.00	0.94	73.11	30.00	6102.04	-8.84	-8.84	-10.15	13.45	228.95	0.04	GPIT-C	9	0	0
175	6133.00	1.07	70.62	30.00	6132.03	-8.67	-8.67	-9.65	12.96	228.05	0.47	GPIT-C	9	0	0
176	6163.00	1.13	71.95	30.00	6162.03	-8.49	-8.49	-9.10	12.43	227.00	0.21	GPIT-C	9	0	0
177	6193.00	1.06	72.65	30.00	6192.02	-8.31	-8.31	-8.55	11.94	225.82	0.23	GPIT-C	9	0	0
178	6223.00	1.08	75.46	30.00	6222.02	-8.16	-8.16	-8.02	11.45	224.49	0.18	GPIT-C	9	0	0
179	6253.00	1.15	74.07	30.00	6252.01	-8.01	-8.01	-7.45	10.93	222.95	0.24	GPIT-C	9	0	0
180	6283.00	1.19	73.29	30.00	6282.00	-7.83	-7.83	-6.87	10.43	221.23	0.16	GPIT-C	9	0	0
181	6313.00	1.06	78.37	30.00	6312.00	-7.69	-7.69	-6.29	9.94	219.31	0.54	GPIT-C	9	0	0
182	6343.00	1.10	81.89	30.00	6341.99	-7.59	-7.59	-5.74	9.51	217.08	0.24	GPIT-C	9	0	0

183	6373.00	1.11	86.30	30.00	6371.99	-7.53	-7.53	-5.17	9.12	214.44	0.28	GPIT-C	9	0	0
184	6403.00	1.10	83.94	30.00	6401.98	-7.48	-7.48	-4.59	8.79	211.52	0.15	GPIT-C	9	0	0
185	6433.00	1.02	80.12	30.00	6431.98	-7.41	-7.41	-4.04	8.43	208.60	0.36	GPIT-C	9	0	0
186	6463.00	0.81	76.02	30.00	6461.97	-7.31	-7.31	-3.57	8.14	206.02	0.73	GPIT-C	9	0	0
187	6493.00	0.71	80.77	30.00	6491.97	-7.23	-7.23	-3.18	7.91	203.73	0.40	GPIT-C	9	0	0
188	6523.00	0.68	82.15	30.00	6521.97	-7.17	-7.17	-2.82	7.71	201.44	0.11	GPIT-C	9	0	0
189	6553.00	0.64	84.52	30.00	6551.97	-7.13	-7.13	-2.47	7.55	199.13	0.18	GPIT-C	9	0	0
190	6583.00	0.58	84.94	30.00	6581.96	-7.10	-7.10	-2.16	7.41	196.88	0.17	GPIT-C	9	0	0
191	6613.00	0.49	82.31	30.00	6611.96	-7.07	-7.07	-1.88	7.32	194.85	0.32	GPIT-C	9	0	0
192	6643.00	0.44	82.35	30.00	6641.96	-7.04	-7.04	-1.63	7.22	193.06	0.18	GPIT-C	9	0	0
193	6673.00	0.39	79.37	30.00	6671.96	-7.01	-7.01	-1.42	7.15	191.44	0.17	GPIT-C	9	0	0
194	6703.00	0.32	93.67	30.00	6701.96	-6.99	-6.99	-1.23	7.09	190.00	0.38	GPIT-C	9	0	0
195	6733.00	0.41	119.71	30.00	6731.96	-7.05	-7.05	-1.06	7.12	188.53	0.62	GPIT-C	9	0	0
196	6763.00	0.69	111.52	30.00	6761.96	-7.17	-7.17	-0.80	7.22	186.33	0.98	GPIT-C	9	0	0
197	6793.00	0.76	107.50	30.00	6791.96	-7.30	-7.30	-0.44	7.32	183.42	0.30	GPIT-C	9	0	0
198	6823.00	0.79	97.64	30.00	6821.95	-7.39	-7.39	-0.04	7.38	180.32	0.45	GPIT-C	9	0	0
199	6853.00	0.81	97.85	30.00	6851.95	-7.44	-7.44	0.37	7.45	177.13	0.09	GPIT-C	9	0	0
200	6883.00	0.81	94.78	30.00	6881.95	-7.49	-7.49	0.80	7.55	173.93	0.15	GPIT-C	9	0	0
201	6913.00	0.98	93.20	30.00	6911.94	-7.52	-7.52	1.27	7.61	170.45	0.56	GPIT-C	9	0	0
202	6943.00	0.76	88.28	30.00	6941.94	-7.53	-7.53	1.72	7.71	167.14	0.79	GPIT-C	9	0	0
203	6973.00	0.71	83.92	30.00	6971.94	-7.50	-7.50	2.10	7.81	164.35	0.24	GPIT-C	9	0	0
204	7003.00	0.78	86.98	30.00	7001.94	-7.47	-7.47	2.49	7.87	161.57	0.27	GPIT-C	9	0	0
205	7033.00	0.80	86.66	30.00	7031.93	-7.45	-7.45	2.90	8.01	158.72	0.06	GPIT-C	9	0	0
206	7063.00	0.81	84.78	30.00	7061.93	-7.42	-7.42	3.32	8.14	155.89	0.09	GPIT-C	9	0	0
207	7093.00	0.77	74.56	30.00	7091.93	-7.35	-7.35	3.73	8.23	153.10	0.48	GPIT-C	9	0	0
208	7123.00	0.76	68.05	30.00	7121.92	-7.22	-7.22	4.11	8.30	150.36	0.29	GPIT-C	9	0	0
209	7153.00	0.67	54.34	30.00	7151.92	-7.04	-7.04	4.43	8.33	147.79	0.65	GPIT-C	9	0	0
210	7183.00	0.72	60.18	30.00	7181.92	-6.84	-6.84	4.74	8.33	145.29	0.29	GPIT-C	9	0	0
211	7213.00	0.69	59.79	30.00	7211.92	-6.66	-6.66	5.06	8.37	142.76	0.10	GPIT-C	9	0	0
212	7243.00	0.63	57.21	30.00	7241.92	-6.48	-6.48	5.36	8.40	140.41	0.23	GPIT-C	9	0	0
213	7273.00	0.63	58.81	30.00	7271.91	-6.30	-6.30	5.64	8.46	138.19	0.06	GPIT-C	9	0	0
214	7303.00	0.44	56.24	30.00	7301.91	-6.15	-6.15	5.88	8.50	136.32	0.64	GPIT-C	9	0	0
215	7333.00	0.35	62.85	30.00	7331.91	-6.05	-6.05	6.05	8.56	134.97	0.34	GPIT-C	9	0	0
216	7363.00	0.22	117.71	30.00	7361.91	-6.03	-6.03	6.18	8.63	134.28	0.95	GPIT-C	9	0	0
217	7393.00	0.29	131.38	30.00	7391.91	-6.11	-6.11	6.29	8.76	134.15	0.32	GPIT-C	9	0	0
218	7423.00	0.46	136.81	30.00	7421.91	-6.25	-6.25	6.43	8.96	134.17	0.56	GPIT-C	9	0	0
219	7453.00	0.60	128.70	30.00	7451.91	-6.43	-6.43	6.64	9.25	134.11	0.54	GPIT-C	9	0	0
220	7483.00	0.62	110.48	30.00	7481.91	-6.59	-6.59	6.91	9.55	133.63	0.64	GPIT-C	9	0	0
221	7513.00	0.55	94.45	30.00	7511.91	-6.65	-6.65	7.20	9.81	132.73	0.59	GPIT-C	9	0	0
222	7543.00	0.39	90.00	30.00	7541.91	-6.67	-6.67	7.45	10.01	131.83	0.56	GPIT-C	9	0	0
223	7573.00	0.15	77.89	30.00	7571.90	-6.66	-6.66	7.59	10.10	131.26	0.80	GPIT-C	9	0	0
224	7603.00	0.12	113.45	30.00	7601.90	-6.66	-6.66	7.66	10.14	131.03	0.29	GPIT-C	9	0	0
225	7633.00	0.16	140.50	30.00	7631.90	-6.71	-6.71	7.71	10.20	131.01	0.25	GPIT-C	9	0	0
226	7663.00	0.36	181.79	30.00	7661.90	-6.83	-6.83	7.73	10.33	131.46	0.89	GPIT-C	9	0	0
227	7693.00	0.50	159.49	30.00	7691.90	-7.05	-7.05	7.78	10.50	132.20	0.72	GPIT-C	9	0	0
228	7723.00	0.65	127.94	30.00	7721.90	-7.28	-7.28	7.96	10.79	132.45	1.15	GPIT-C	9	0	0
229	7753.00	0.68	112.24	30.00	7751.90	-7.45	-7.45	8.26	11.12	132.07	0.61	GPIT-C	9	0	0
230	7783.00	0.60	93.09	30.00	7781.90	-7.53	-7.53	8.58	11.42	131.27	0.76	GPIT-C	9	0	0
231	7813.00	0.29	81.86	30.00	7811.90	-7.53	-7.53	8.81	11.58	130.51	1.06	GPIT-C	9	0	0
232	7843.00	0.14	159.55	30.00	7841.90	-7.55	-7.55	8.89	11.68	130.33	0.98	GPIT-C	9	0	0
233	7873.00	0.36	166.20	30.00	7871.90	-7.68	-7.68	8.93	11.78	130.69	0.74	GPIT-C	9	0	0
234	7903.00	0.53	155.56	30.00	7901.90	-7.90	-7.90	9.01	11.98	131.23	0.61	GPIT-C	9	0	0
235	7933.00	0.62	135.90	30.00	7931.89	-8.14	-8.14	9.18	12.27	131.56	0.72	GPIT-C	9	0	0
236	7963.00	0.66	122.72	30.00	7961.89	-8.35	-8.35	9.44	12.60	131.49	0.51	GPIT-C	9	0	0

237	7993.00	0.66	116.42	30.00	7991.89	-8.52	-8.52	9.74	12.96	131.18	0.24	GPIT-C	9	0	0
238	8023.00	0.64	101.47	30.00	8021.89	-8.63	-8.63	10.06	13.25	130.62	0.57	GPIT-C	9	0	0
239	8053.00	0.54	96.50	30.00	8051.89	-8.68	-8.68	10.37	13.52	129.94	0.39	GPIT-C	9	0	0
240	8083.00	0.61	93.48	30.00	8081.89	-8.71	-8.71	10.67	13.78	129.22	0.26	GPIT-C	9	0	0
241	8113.00	0.50	92.54	30.00	8111.88	-8.72	-8.72	10.96	14.01	128.53	0.38	GPIT-C	9	0	0
242	8143.00	0.41	79.52	30.00	8141.88	-8.71	-8.71	11.19	14.17	127.89	0.45	GPIT-C	9	0	0
243	8173.00	0.40	73.71	30.00	8171.88	-8.66	-8.66	11.39	14.30	127.24	0.14	GPIT-C	9	0	0
244	8203.00	0.36	81.60	30.00	8201.88	-8.62	-8.62	11.59	14.44	126.64	0.21	GPIT-C	9	0	0
245	8233.00	0.32	67.73	30.00	8231.88	-8.57	-8.57	11.76	14.57	126.09	0.30	GPIT-C	9	0	0
246	8263.00	0.25	76.30	30.00	8261.88	-8.52	-8.52	11.90	14.63	125.61	0.28	GPIT-C	9	0	0
247	8293.00	0.14	35.07	30.00	8291.88	-8.48	-8.48	11.99	14.70	125.28	0.58	GPIT-C	9	0	0
248	8323.00	0.11	55.84	30.00	8321.88	-8.43	-8.43	12.03	14.70	125.03	0.17	GPIT-C	9	0	0
249	8353.00	0.15	158.51	30.00	8351.88	-8.45	-8.45	12.07	14.73	125.00	0.68	GPIT-C	9	0	0
250	8383.00	0.18	188.67	30.00	8381.88	-8.53	-8.53	12.08	14.80	125.25	0.30	GPIT-C	9	0	0
251	8413.00	0.25	181.56	30.00	8411.88	-8.65	-8.65	12.07	14.86	125.62	0.26	GPIT-C	9	0	0
252	8443.00	0.50	154.60	30.00	8441.88	-8.83	-8.83	12.12	14.99	126.08	1.01	GPIT-C	9	0	0
253	8473.00	0.46	143.01	30.00	8471.88	-9.05	-9.05	12.25	15.22	126.44	0.36	GPIT-C	9	0	0
254	8503.00	0.45	109.20	30.00	8501.88	-9.18	-9.18	12.43	15.45	126.44	0.88	GPIT-C	9	0	0
255	8533.00	0.49	96.55	30.00	8531.88	-9.24	-9.24	12.67	15.68	126.08	0.38	GPIT-C	9	0	0
256	8563.00	0.47	75.02	30.00	8561.88	-9.22	-9.22	12.92	15.88	125.51	0.61	GPIT-C	9	0	0
257	8593.00	0.33	75.55	30.00	8591.88	-9.17	-9.17	13.12	16.01	124.93	0.47	GPIT-C	9	0	0
258	8623.00	0.34	75.16	30.00	8621.87	-9.12	-9.12	13.29	16.11	124.46	0.04	GPIT-C	9	0	0
259	8653.00	0.17	65.68	30.00	8651.87	-9.08	-9.08	13.42	16.21	124.09	0.59	GPIT-C	9	0	0
260	8683.00	0.20	75.78	30.00	8681.87	-9.05	-9.05	13.51	16.27	123.82	0.17	GPIT-C	9	0	0
261	8713.00	0.27	73.93	30.00	8711.87	-9.02	-9.02	13.63	16.34	123.49	0.21	GPIT-C	9	0	0
262	8743.00	0.20	75.93	30.00	8741.87	-8.98	-8.98	13.74	16.44	123.17	0.24	GPIT-C	9	0	0
263	8773.00	0.21	71.18	30.00	8771.87	-8.95	-8.95	13.85	16.50	122.89	0.07	GPIT-C	9	0	0
264	8803.00	0.17	75.10	30.00	8801.87	-8.93	-8.93	13.94	16.57	122.63	0.15	GPIT-C	9	0	0
265	8833.00	0.14	72.32	30.00	8831.87	-8.90	-8.90	14.02	16.60	122.43	0.09	GPIT-C	9	0	0
266	8863.00	0.14	49.39	30.00	8861.87	-8.87	-8.87	14.08	16.63	122.22	0.18	GPIT-C	9	0	0
267	8893.00	0.10	21.16	30.00	8891.87	-8.82	-8.82	14.11	16.63	122.01	0.22	GPIT-C	9	0	0
268	8923.00	0.05	348.19	30.00	8921.87	-8.78	-8.78	14.12	16.63	121.89	0.21	GPIT-C	9	0	0
269	8953.00	0.10	284.03	30.00	8951.87	-8.76	-8.76	14.09	16.60	121.88	0.31	GPIT-C	9	0	0
270	8983.00	0.14	277.30	30.00	8981.87	-8.75	-8.75	14.03	16.54	121.96	0.12	GPIT-C	9	0	0
271	9013.00	0.24	246.14	30.00	9011.87	-8.77	-8.77	13.93	16.47	122.19	0.48	GPIT-C	9	0	0
272	9043.00	0.28	255.48	30.00	9041.87	-8.82	-8.82	13.81	16.37	122.56	0.18	GPIT-C	9	0	0
273	9073.00	0.38	249.62	30.00	9071.87	-8.87	-8.87	13.64	16.27	123.03	0.37	GPIT-C	9	0	0
274	9103.00	0.55	235.92	30.00	9101.87	-8.99	-8.99	13.43	16.17	123.78	0.66	GPIT-C	9	0	0
275	9133.00	0.51	234.64	30.00	9131.87	-9.14	-9.14	13.20	16.04	124.71	0.11	GPIT-C	9	0	0
276	9163.00	0.32	193.70	30.00	9161.87	-9.30	-9.30	13.07	16.04	125.44	1.15	GPIT-C	9	0	0
277	9193.00	0.23	153.30	30.00	9191.87	-9.44	-9.44	13.08	16.14	125.82	0.70	GPIT-C	9	0	0
278	9223.00	0.22	101.44	30.00	9221.87	-9.50	-9.50	13.16	16.24	125.83	0.65	GPIT-C	9	0	0
279	9253.00	0.29	53.62	30.00	9251.87	-9.47	-9.47	13.28	16.31	125.50	0.72	GPIT-C	9	0	0
280	9283.00	0.24	24.35	30.00	9281.87	-9.37	-9.37	13.36	16.31	125.03	0.47	GPIT-C	9	0	0
281	9313.00	0.17	9.82	30.00	9311.87	-9.27	-9.27	13.40	16.31	124.68	0.30	GPIT-C	9	0	0
282	9343.00	0.17	347.17	30.00	9341.87	-9.18	-9.18	13.40	16.24	124.43	0.22	GPIT-C	9	0	0
283	9373.00	0.21	296.02	30.00	9371.87	-9.12	-9.12	13.34	16.14	124.35	0.57	GPIT-C	9	0	0
284	9403.00	0.34	256.41	30.00	9401.87	-9.11	-9.11	13.20	16.04	124.62	0.75	GPIT-C	9	0	0
285	9433.00	0.44	218.19	30.00	9431.87	-9.22	-9.22	13.04	15.98	125.27	0.90	GPIT-C	9	0	0
286	9463.00	0.73	206.20	30.00	9461.86	-9.48	-9.48	12.89	16.01	126.35	1.06	GPIT-C	9	0	0

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
IHV	Integrated Hole Volume	HVAS	3888.25	ft3
ICV	Integrated Cement Volume	HVAS, FCD	1617.9	ft3

Software Version

Acquisition System	Version
MaxWell	3.0.9609.0
Application Patch	SP-20111012-3.0.9609.1274
	EXP_APL-MAST-3.0.9609.1568
	EXP_APL-ADT-3.0.9609.1558

Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	3.0.9609.1274
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections	3.0.9609.0

Tool Elements	Description	Software Version	Firmware Version
HRCC-H	HILT High-Resolution Control Cartridge, 150 degC	3.0.9609.0	2.0
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	3.0.9609.0	2.0
HRLS-B	HRLT-B Sonde	3.0.9609.1274	DSP: 2.1 HOST: 0.a
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	3.0.9609.0	3.0
ADC-C	ADT Cartridge Electronics Element	3.0.9609.1558	

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Depth Shift	Include Parallel Data
1	Log[3]:Up	Up	897.50 ft	9551.50 ft	03-May-2012 4:59:40 AM	03-May-2012 9:08:24 AM	0.00 ft	

All depths are referenced to toolstring zero

Log

1: Log[3]:Up EE145F16-CDC8-427D-BFA4-2599F7417FB0

Description: Triple Combo standard resolution template for Platform Express Format: Log (Five_HRLA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type
Creation Date: 03-May-2012 11:23:40

Channel	Source	Sampling
CALI.1	HDRS-H[2]:HRCC-H:HRCC-H	1in
CALI.2	ADT-C:ADC:ADC-C	0.2in
DPH8	HDRS-H[1]:HRMS-H:HRGD-H	2in
DSO8.1	HDRS-H[1]:HRMS-H:HRGD-H	2in
DSO8.2	HDRS-H[2]:HRMS-H:HRGD-H	2in
GR	HGNS-H:HGNS-H:HGNS-H	6in
HDRA.1	HDRS-H[1]:HRMS-H:HRGD-H	2in
HDRA.2	HDRS-H[2]:HRMS-H:HRGD-H	2in
CALI	HDRS-H[1]:HRCC-H:HRCC-H	1in
DPH8	HDRS-H[2]:HRMS-H:HRGD-H	2in
ICV	Borehole	6in
IHV	Borehole	6in
PEF8.1	HDRS-H[1]:HRMS-H:HRGD-H	2in
PEF8.2	HDRS-H[2]:HRMS-H:HRGD-H	2in
PWXO	ADT-C:ADC:ADC-C	2in
RLA1	HRLT-B:HRLS-B:HRLS-B	2in
RLA2	HRLT-B:HRLS-B:HRLS-B	2in
RLA3	HRLT-B:HRLS-B:HRLS-B	2in
RLA4	HRLT-B:HRLS-B:HRLS-B	2in
RLA5	HRLT-B:HRLS-B:HRLS-B	2in
RSO8.1	HDRS-H[1]:HRMS-H:HRGD-H	2in

RSO8.2	HDRS-H[2]:HRMS-H:HRGD-H	2in
RXO8.1	HDRS-H[1]:HRMS-H:HRGD-H	2in
RXO8.2	HDRS-H[2]:HRMS-H:HRGD-H	2in
TIME_1900	WLWorkflow	0.1in
TNPH	HGNS-H:HGNS-H:HGNS-H	6in

IHV - Integrated Hole Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

IHV - Integrated Hole Volume every 10.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

ECGR
0 gAPI 150

Caliper (CALI) HDRS-H[1]
6 in 16

CALI2
6 in 16

Density Standoff Correction (HDRA).1 HDRS-H[1]
-0.8 g/cm3 0.2

HDRA2
-0.8 g/cm3 0.2

Bit Size (BS)
6 in 16

Caliper (CALI).2 ADT-C
6 in 16

High Resolution Density Standoff (DSO8).1 HDRS-H[1]
0.5 in 0

Resistivity Standoff High Resolution (RSO8).1 HDRS-H[1]
0.5 in 0

RSO8 2
0.5 in 0

DSO8 2
0.5 in 0

Apparent Resistivity from Computed Focusing Mode 1 (RLA1) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 2 (RLA2) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 3 (RLA3) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 4 (RLA4) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 5 (RLA5) HRLT-B
0.2 ohm.m 2000

Invaded Formation Resistivity filtered at 8 inches (RXO8).2 HDRS-H[2]
0.2 ohm.m 2000

Invaded Formation Resistivity filtered at 8 inches (RXO8).1 HDRS-H[1]
0.2 ohm.m 2000

Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H
0.45 ft3/ft3 -0.15

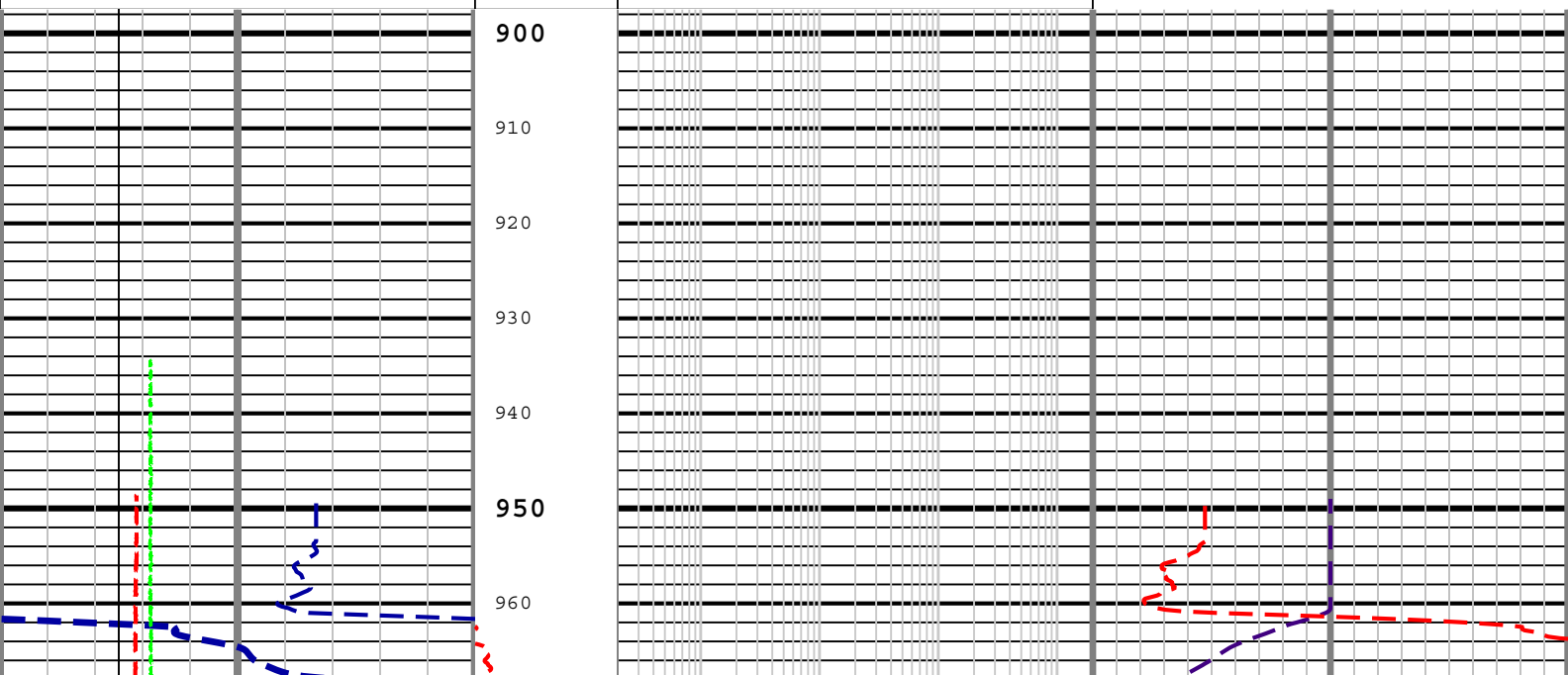
High Resolution Density Porosity (DPH8) HDRS-H[1]
0.45 ft3/ft3 -0.15

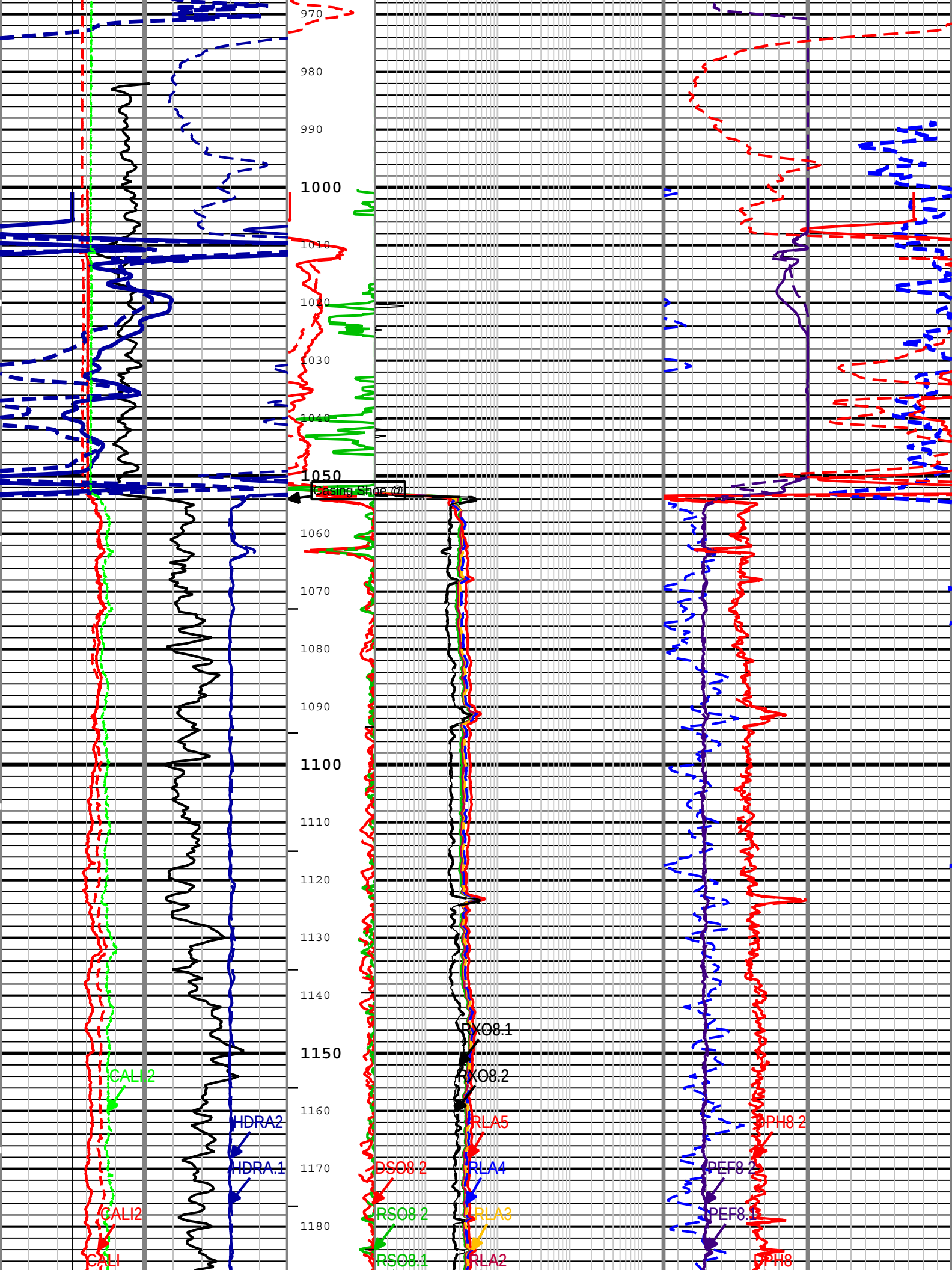
High Resolution Formation Photoelectric Factor (PEF8).1 HDRS-H[1]
0 20

PEF8 2
0 20

DPH8 2
0.45 ft3/ft3 -0.15

Invaded Zone Water-filled Porosity (PWXO) ADT-C
0.45 ft3/ft3 -0.15

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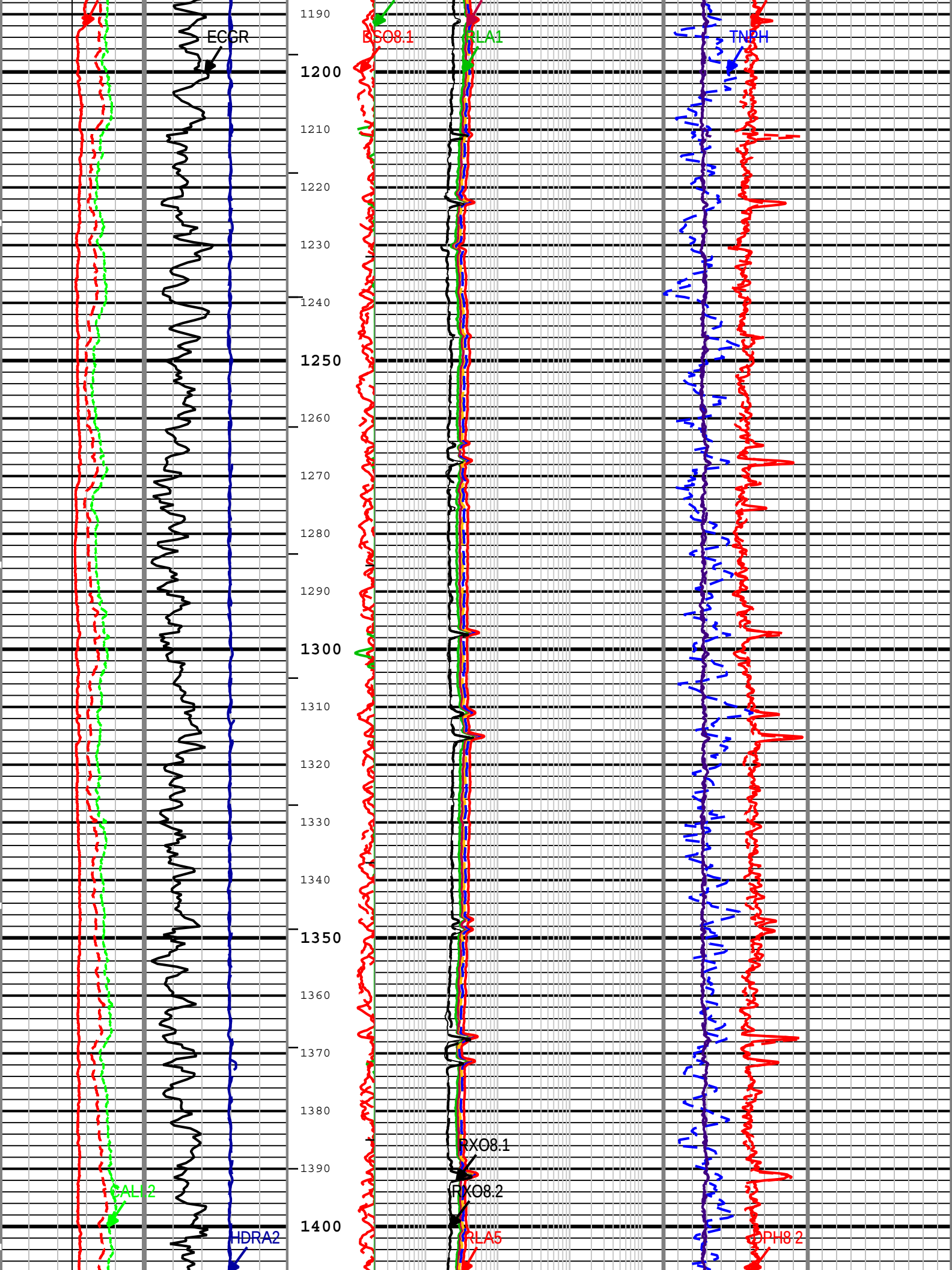
DPH8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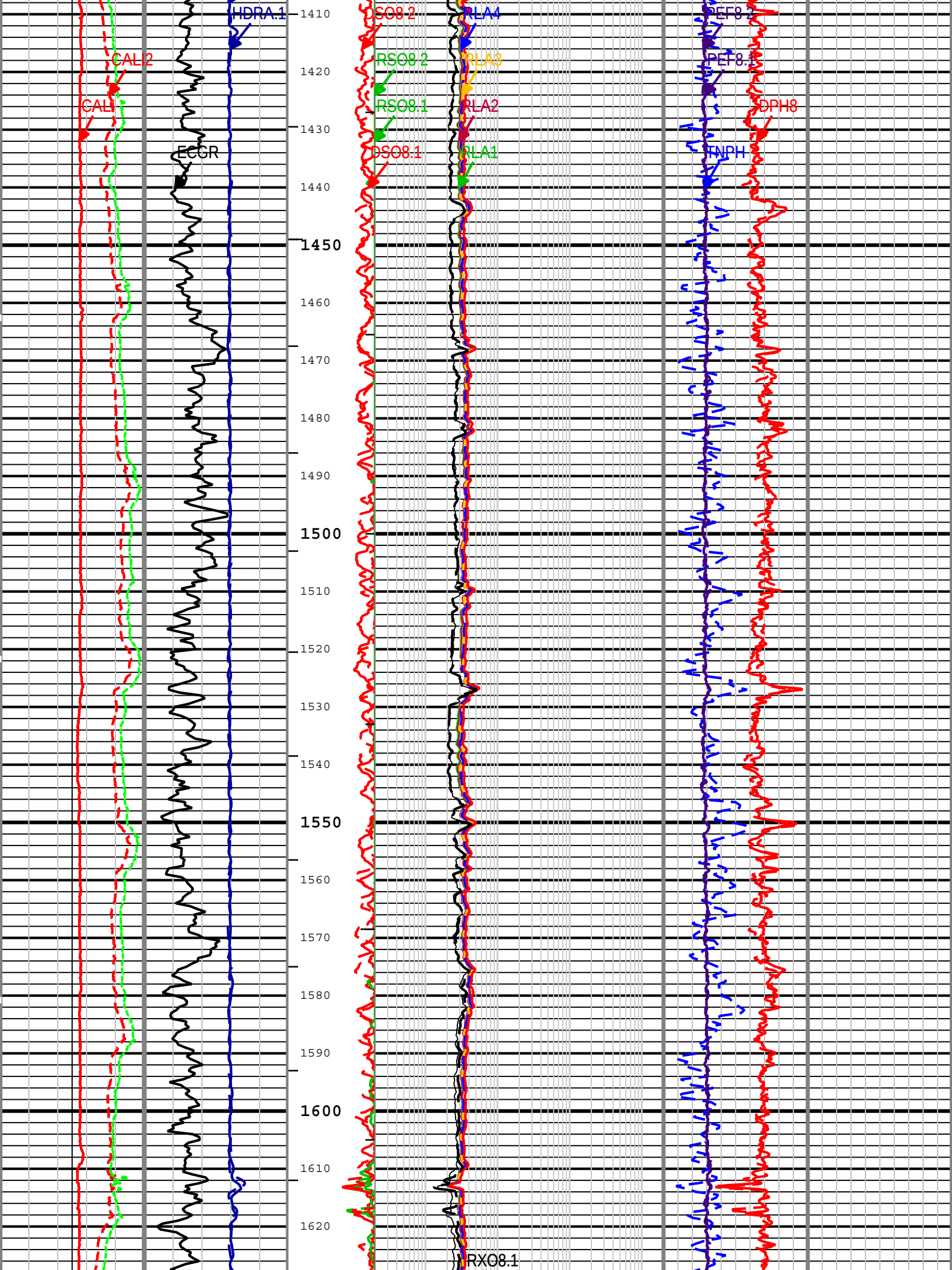
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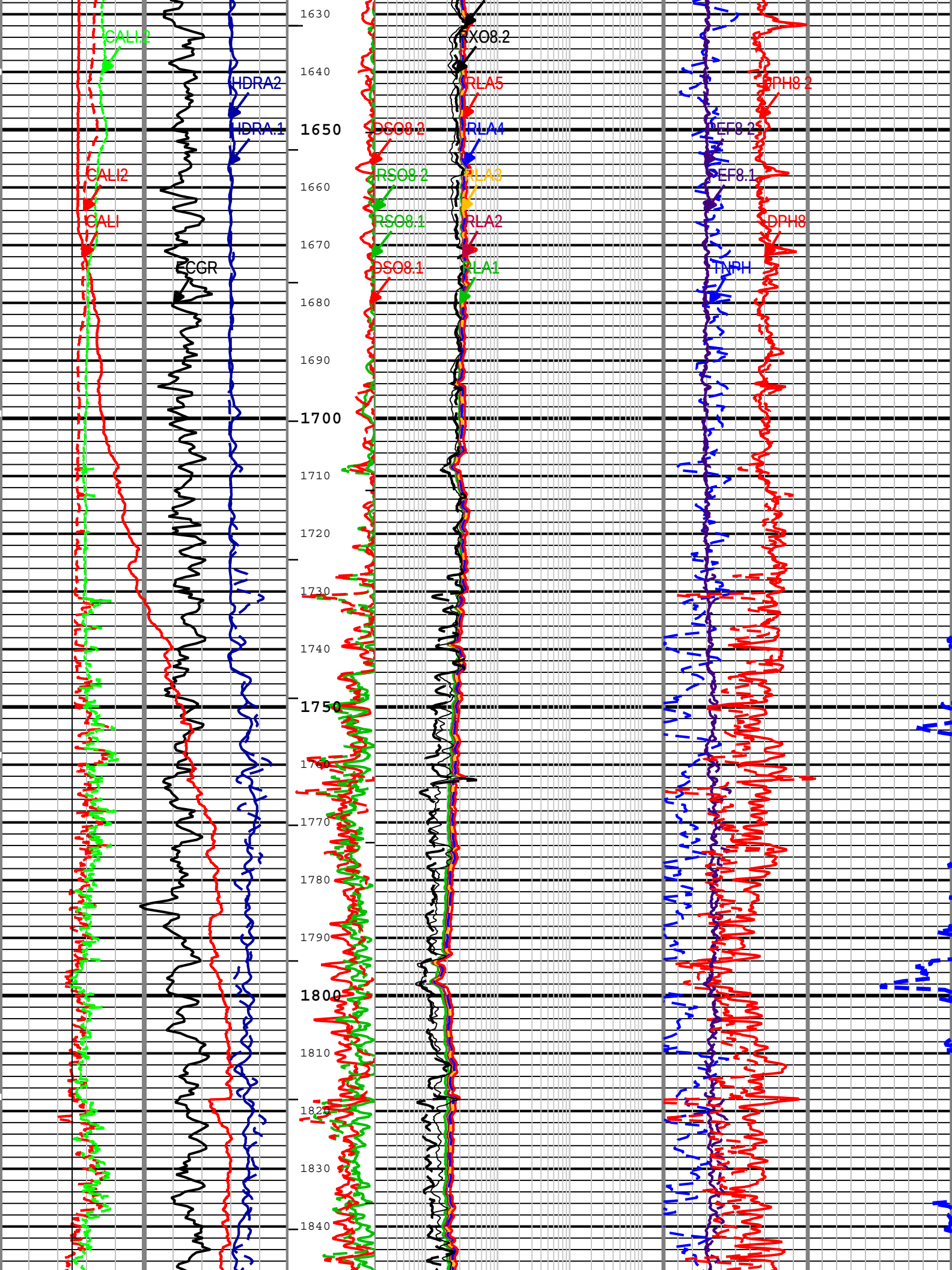
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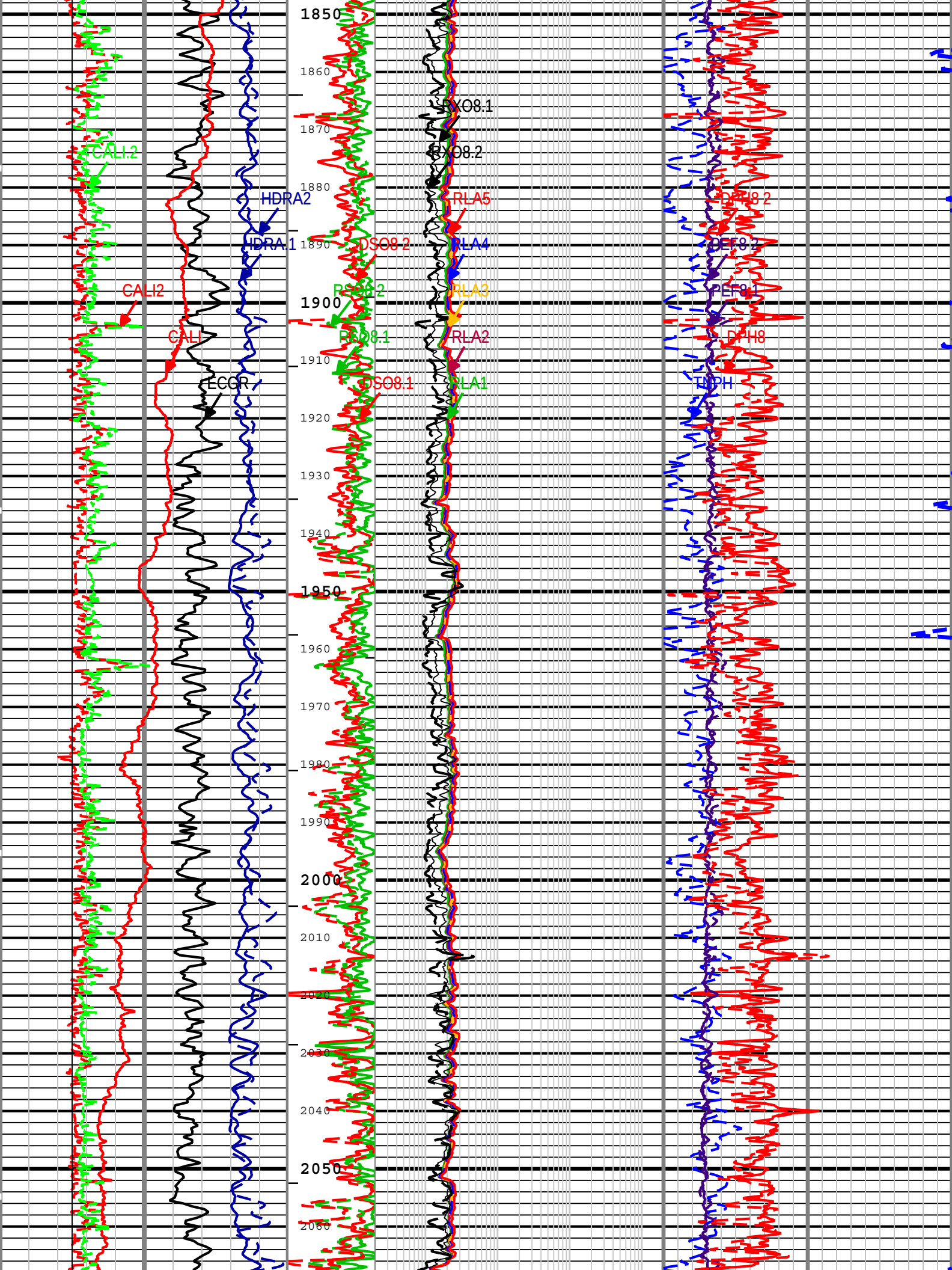
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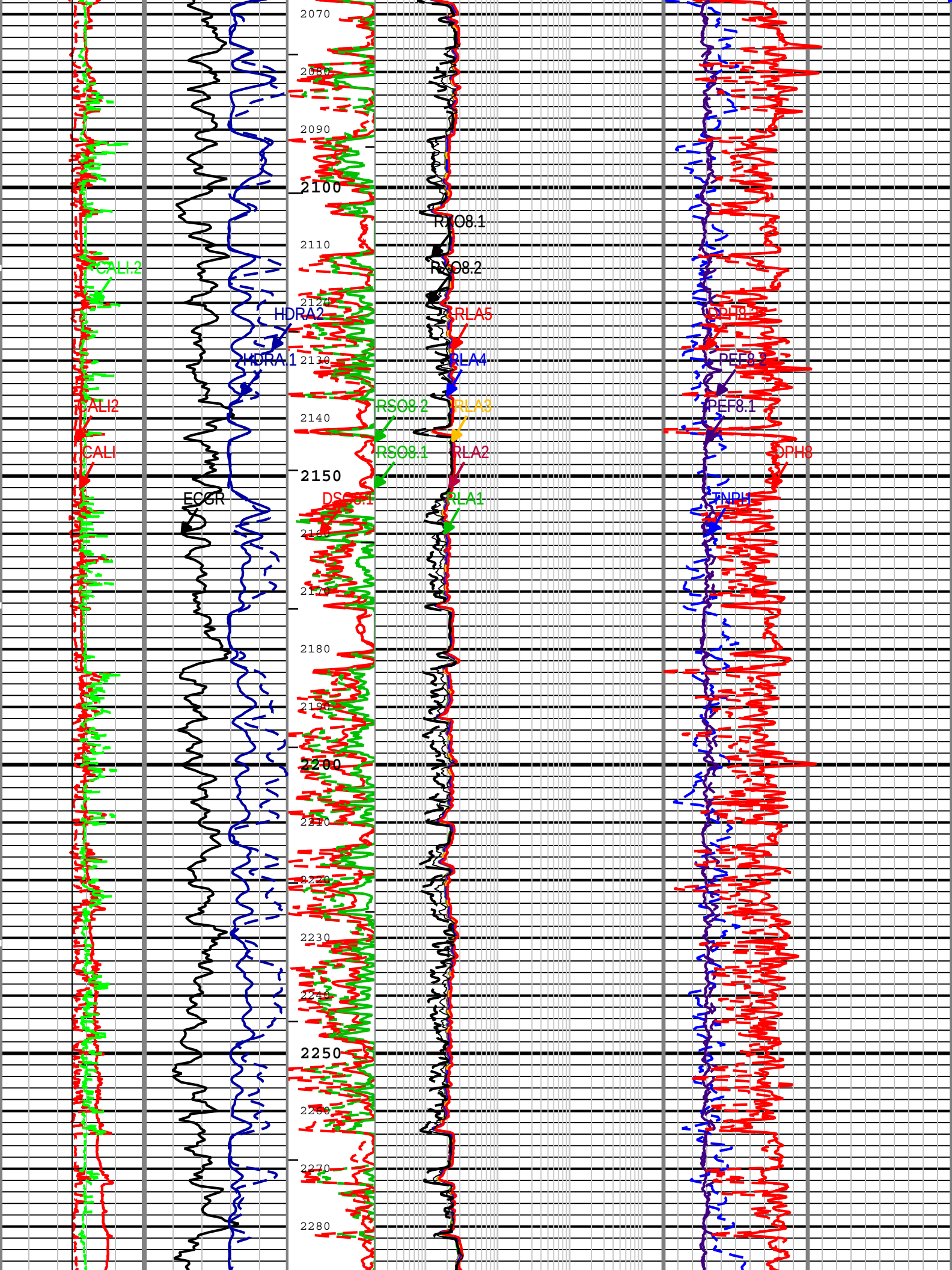
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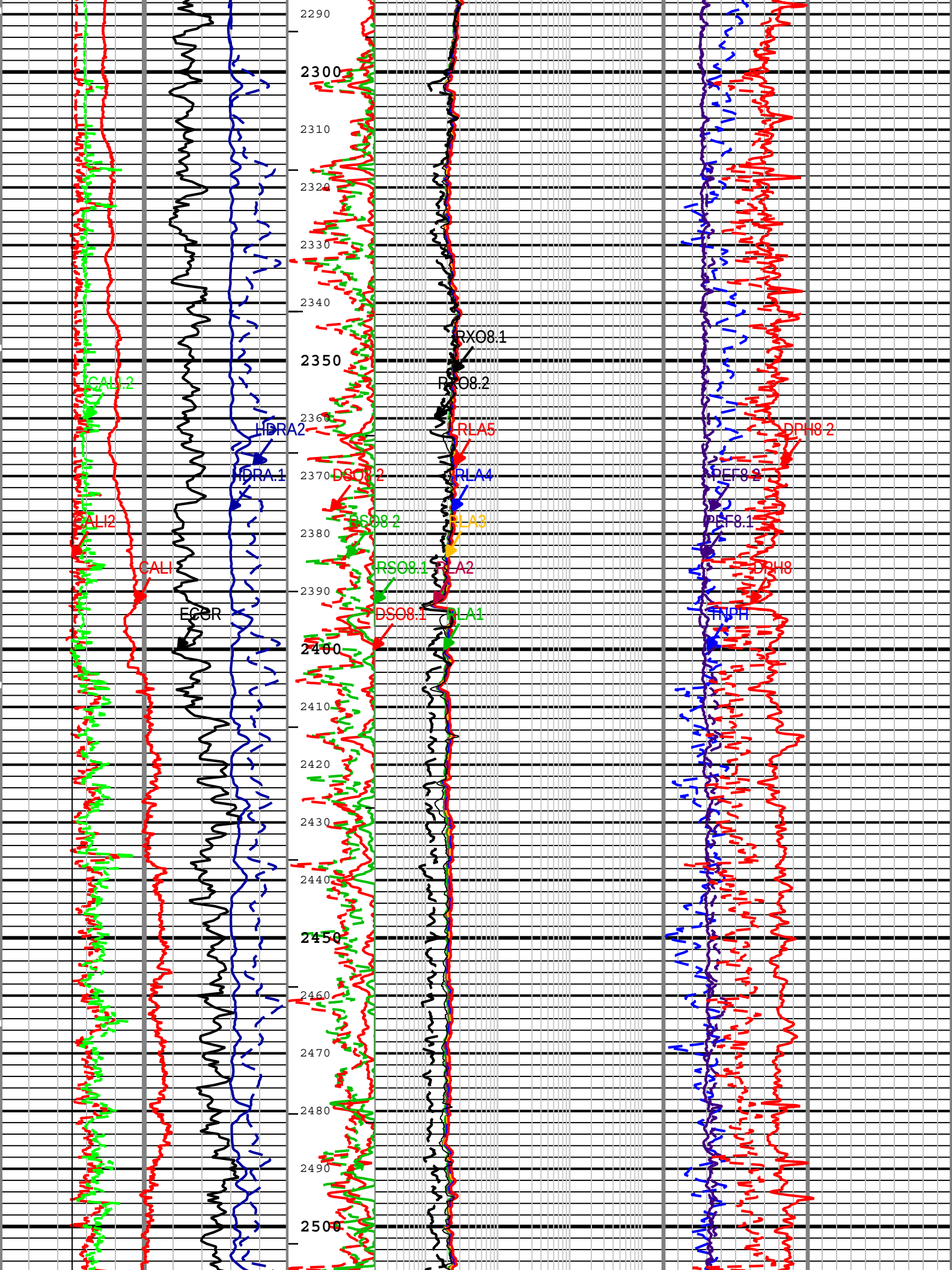
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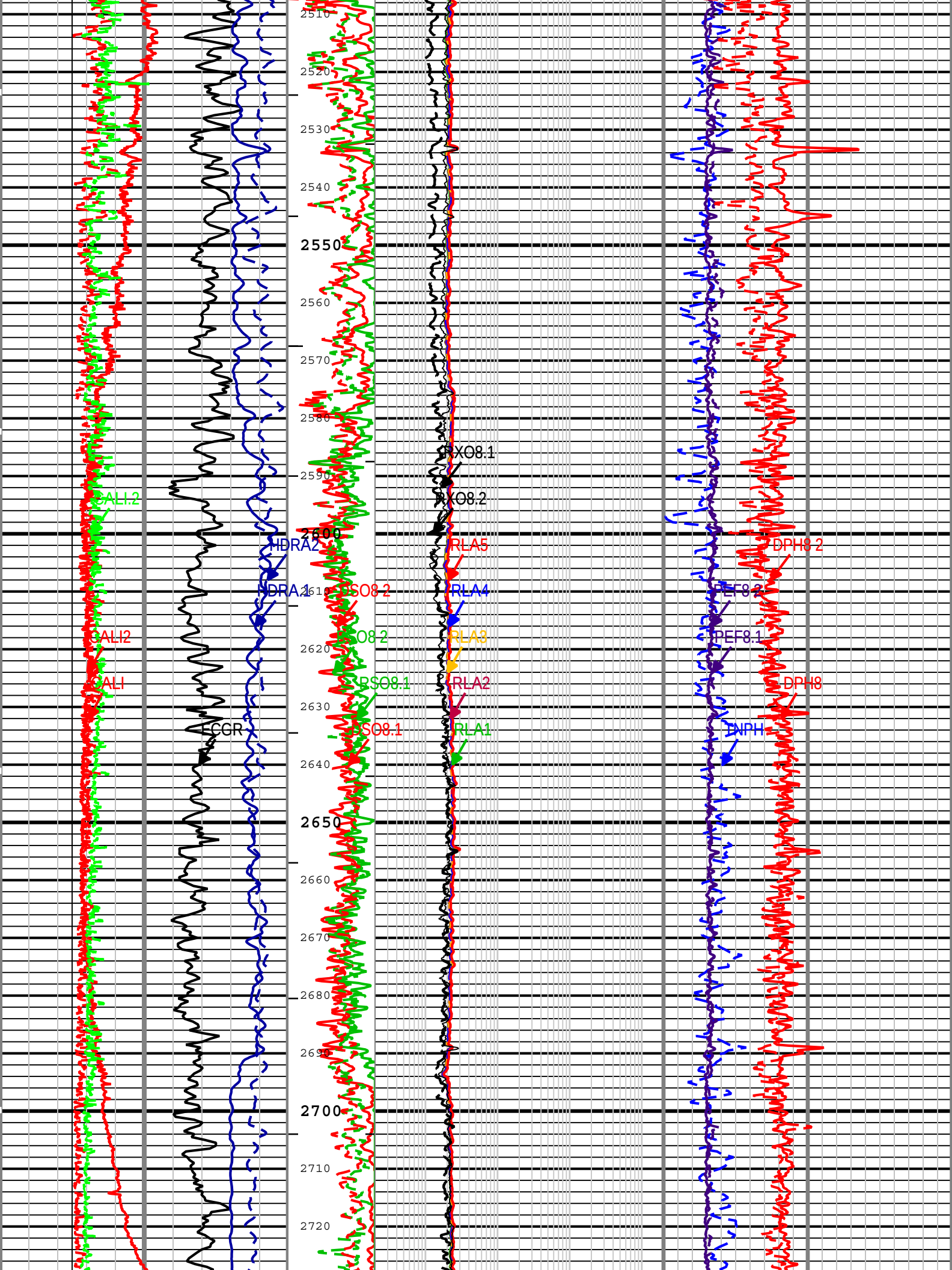
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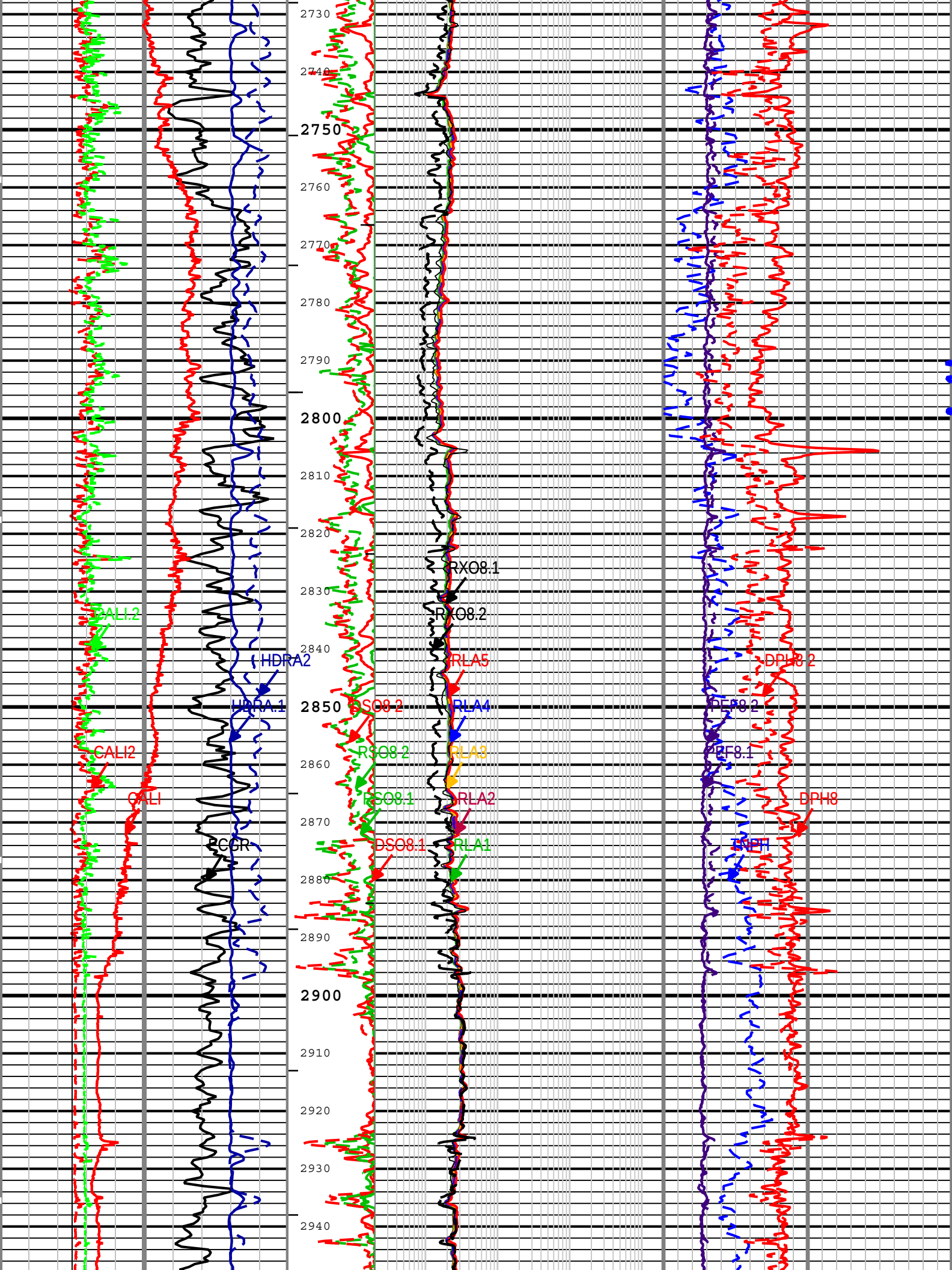
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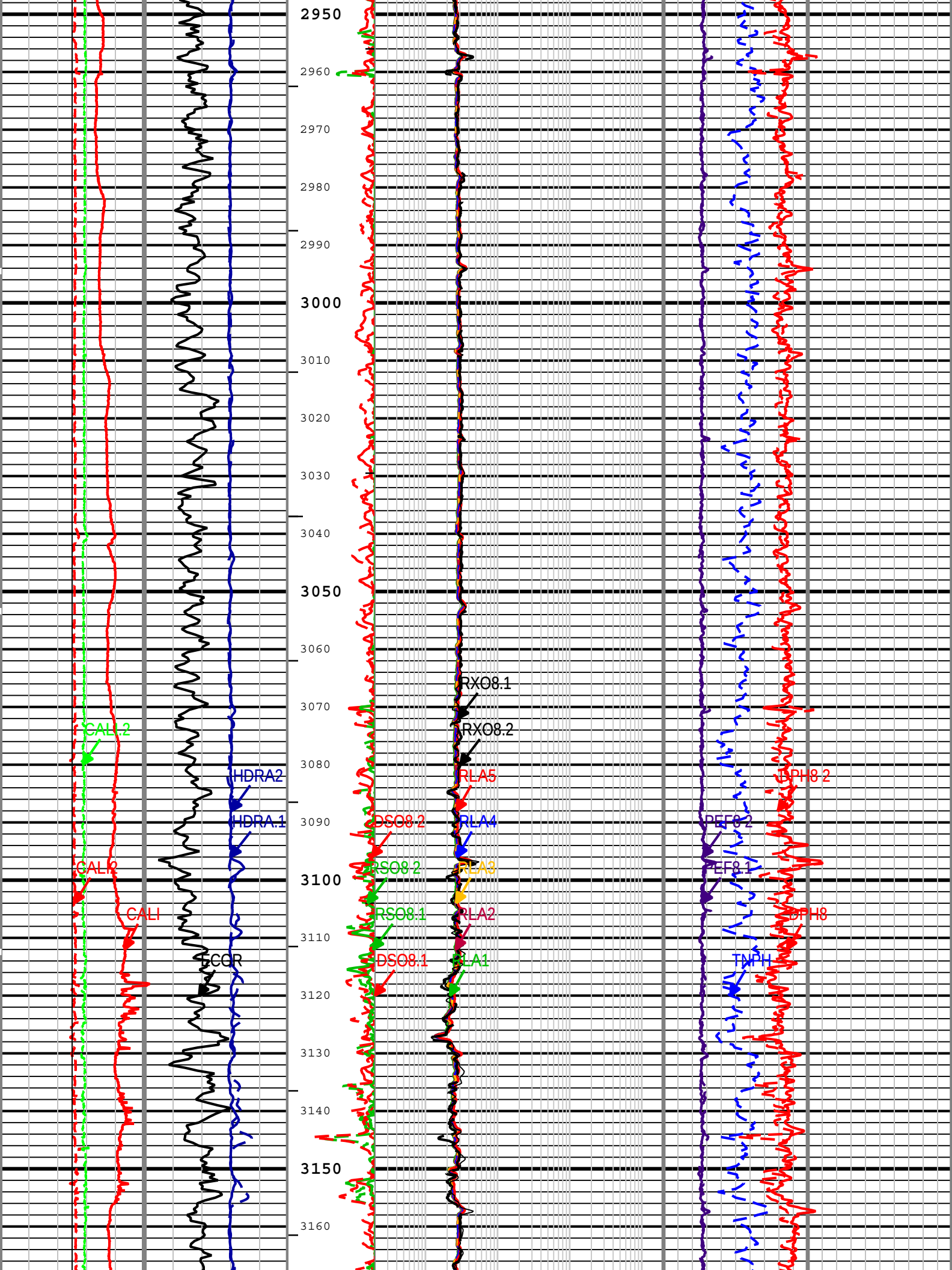
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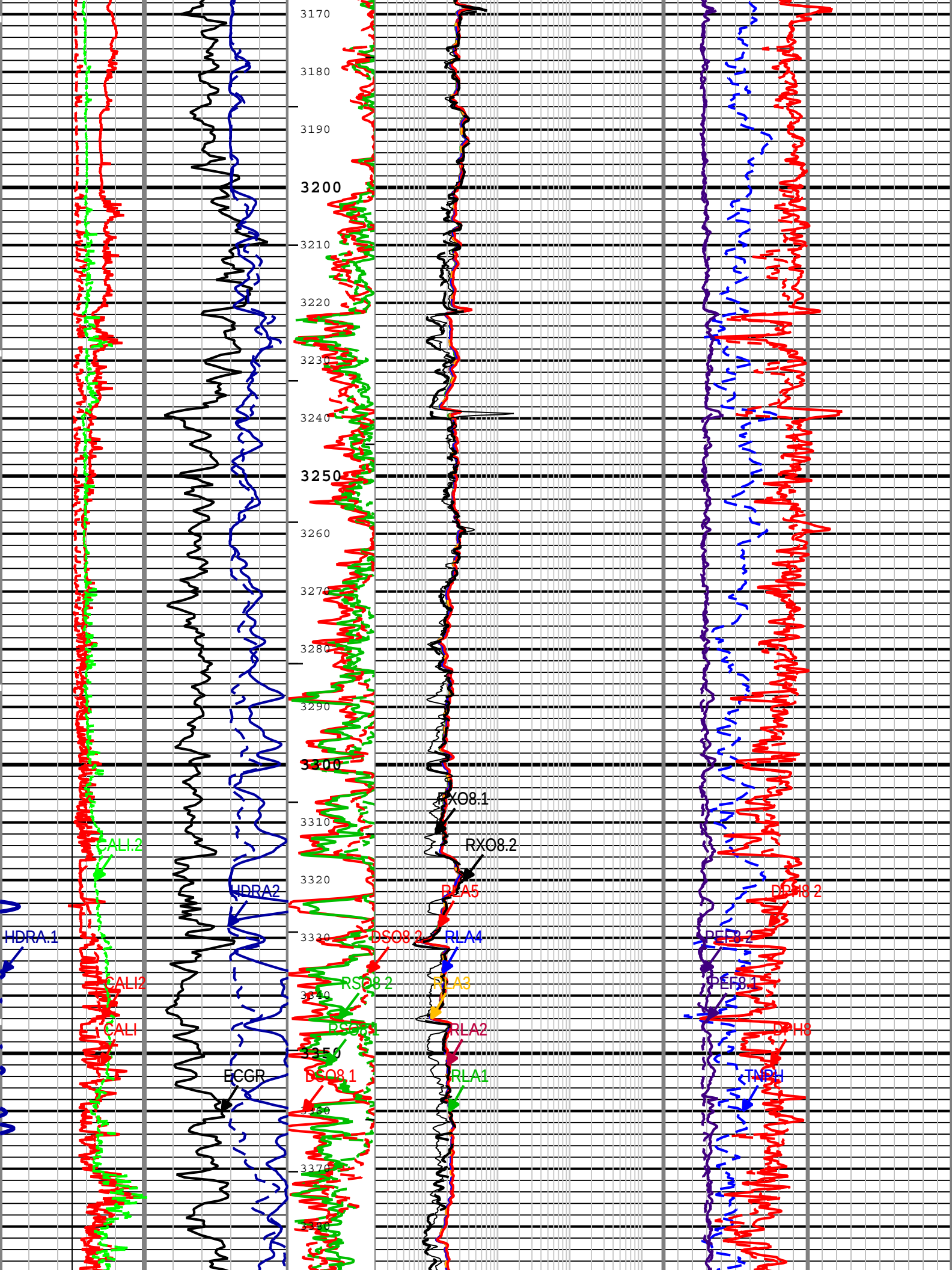
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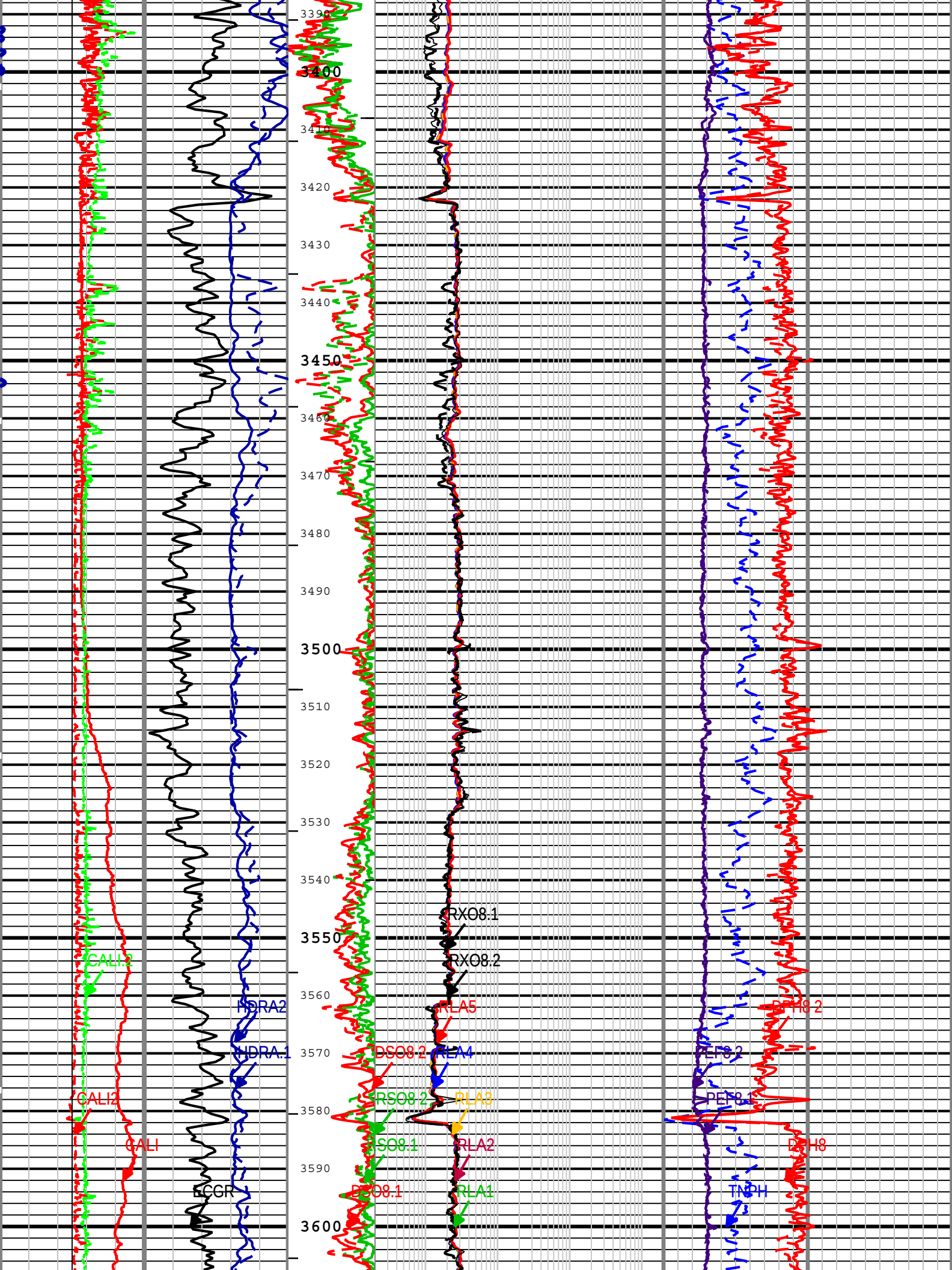
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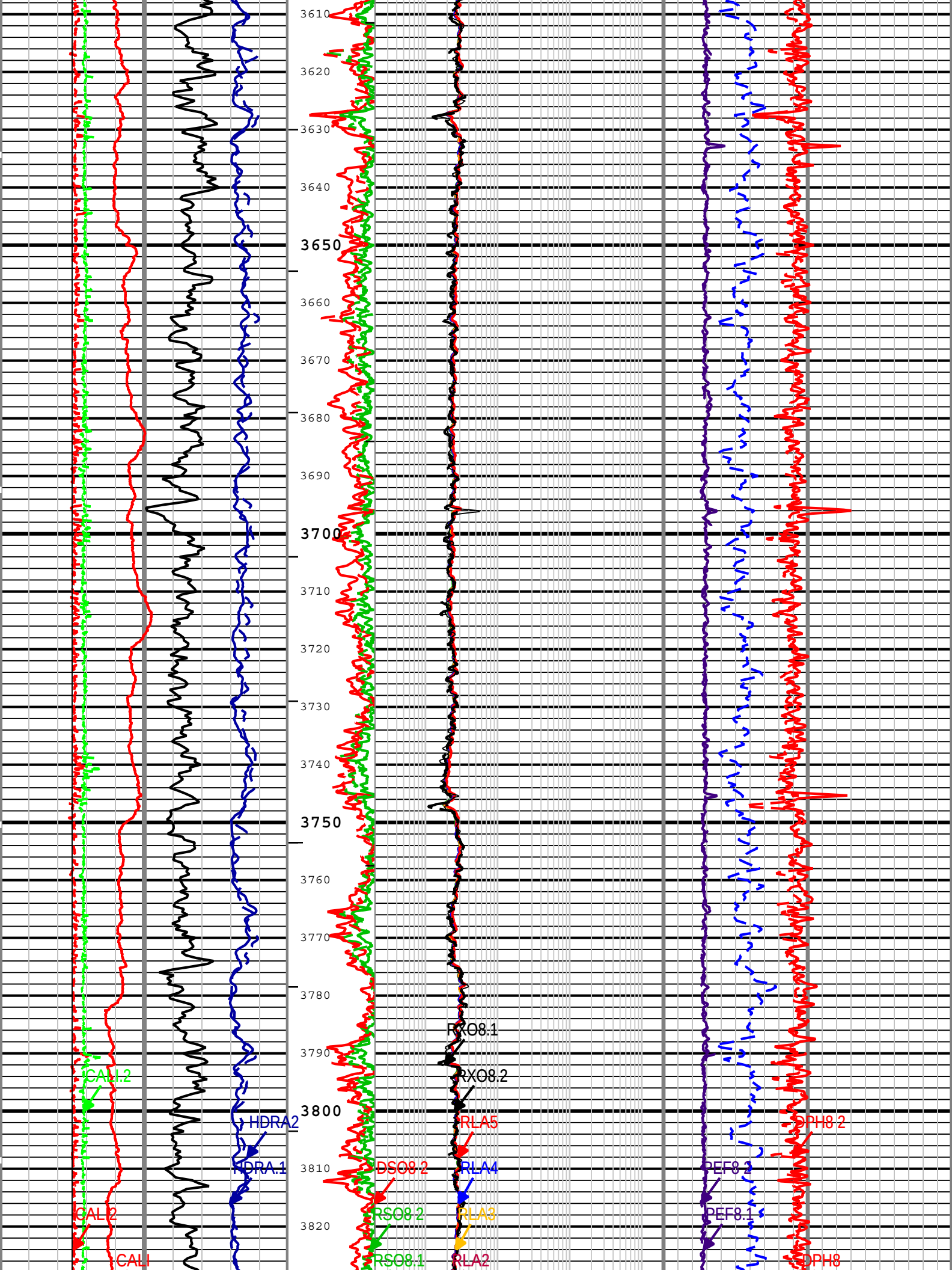
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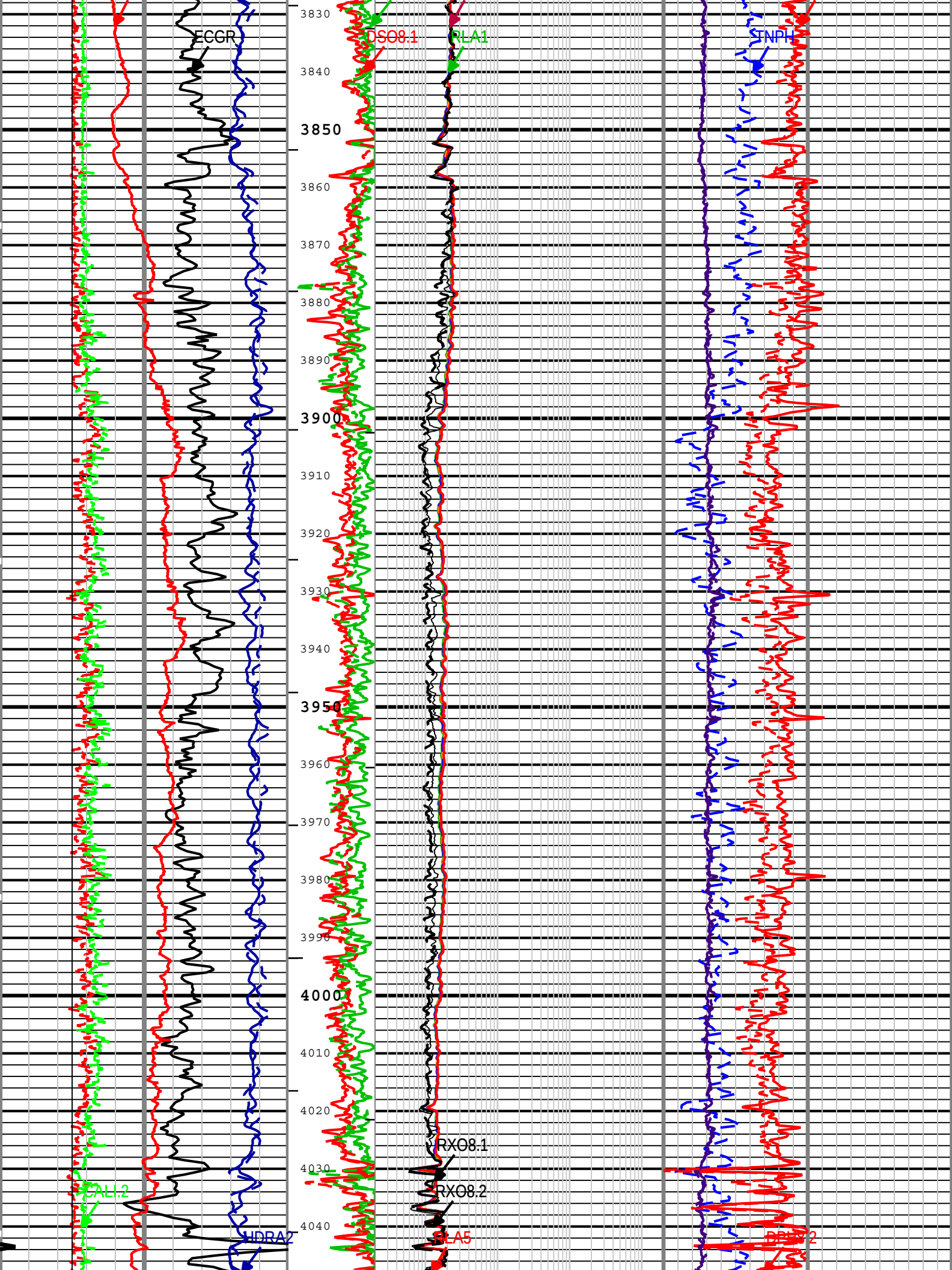
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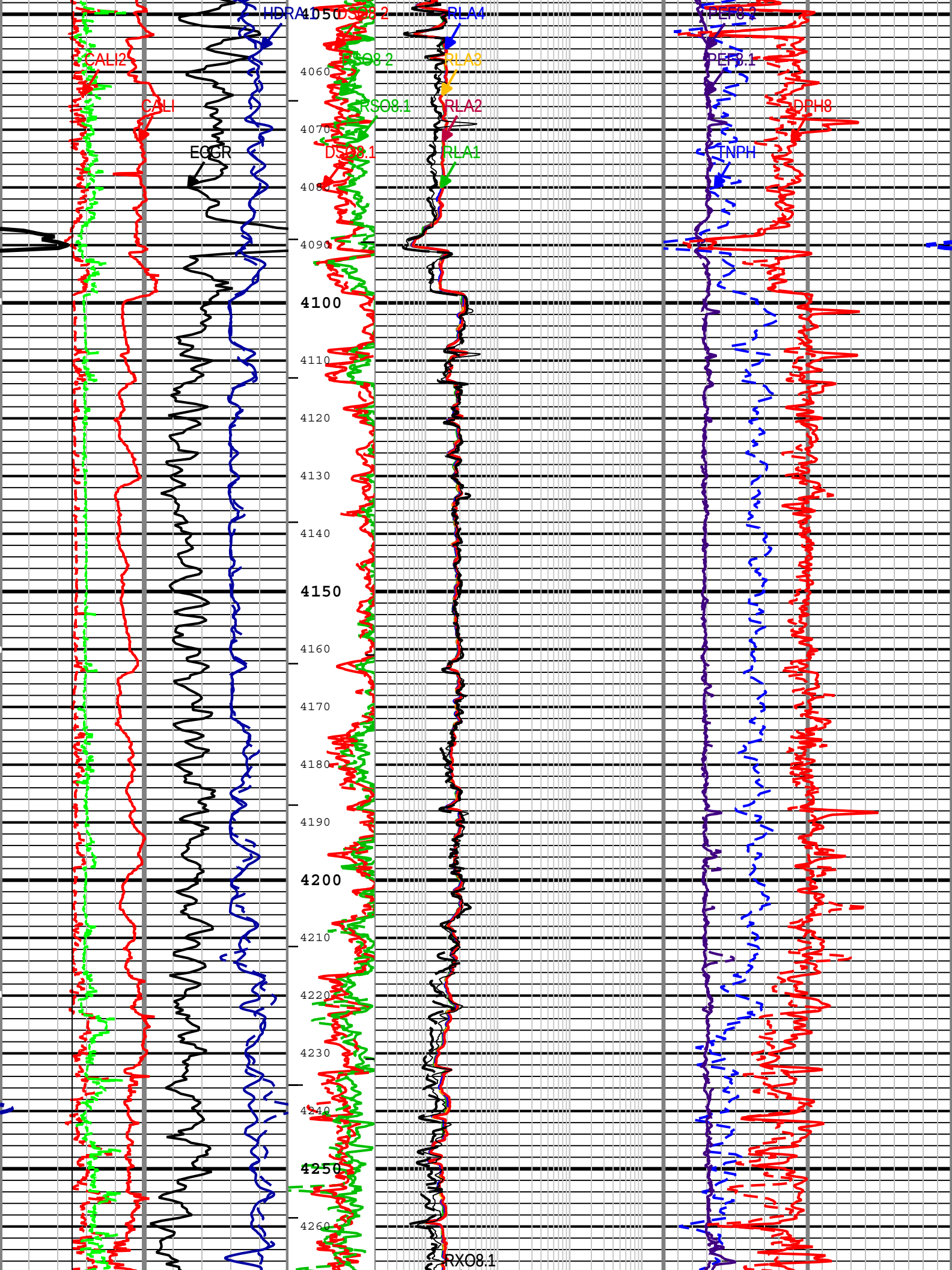
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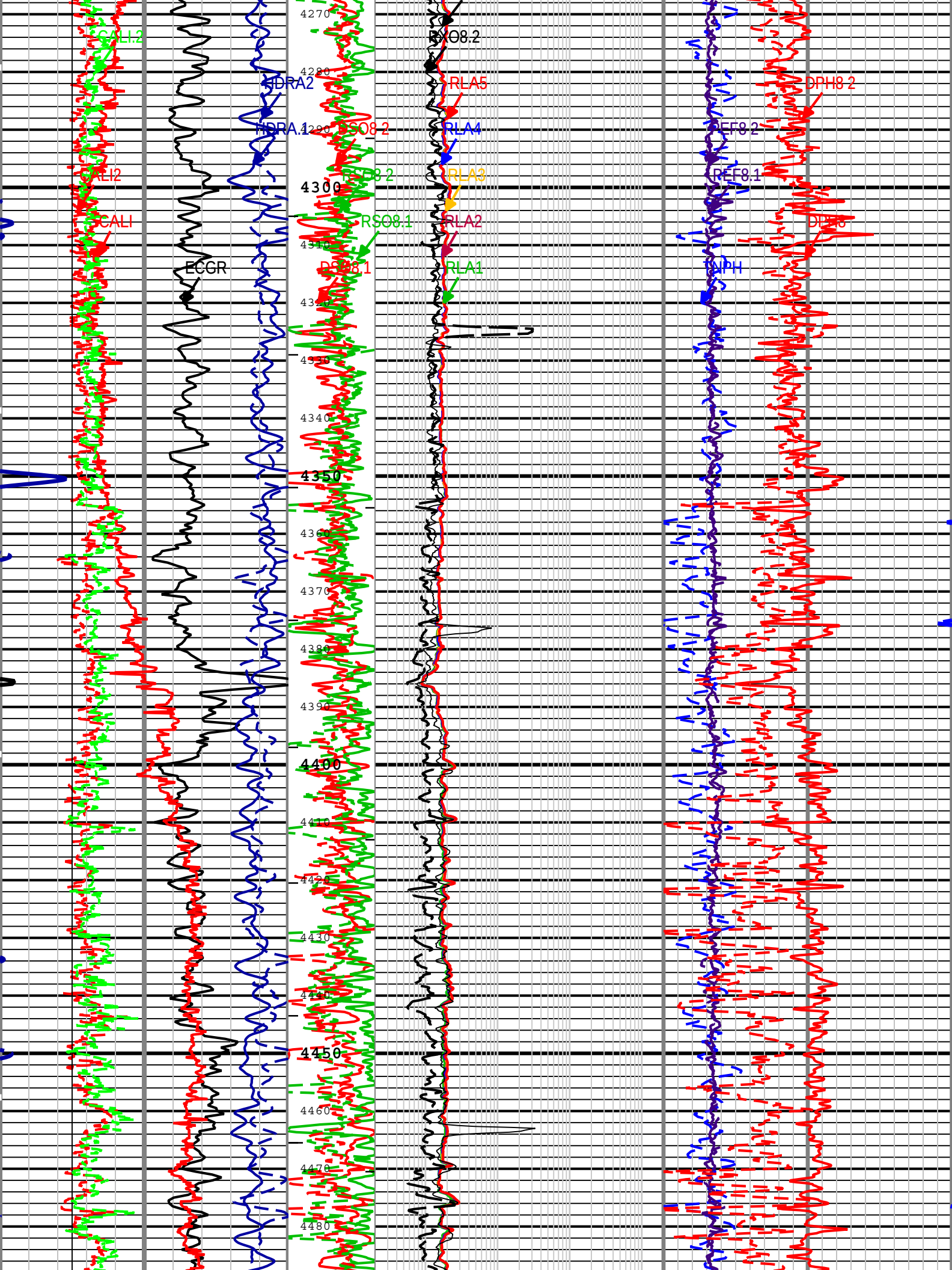
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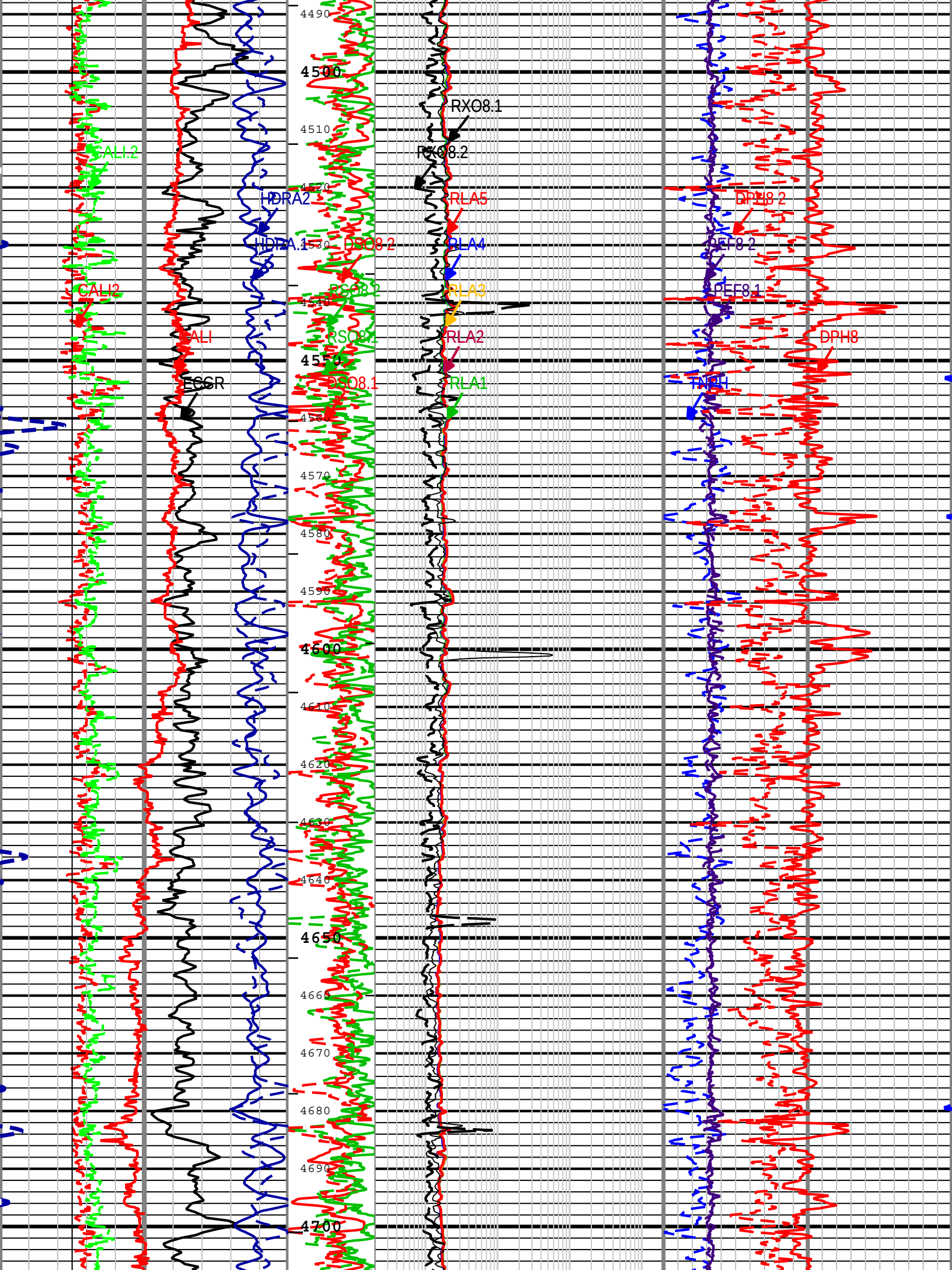
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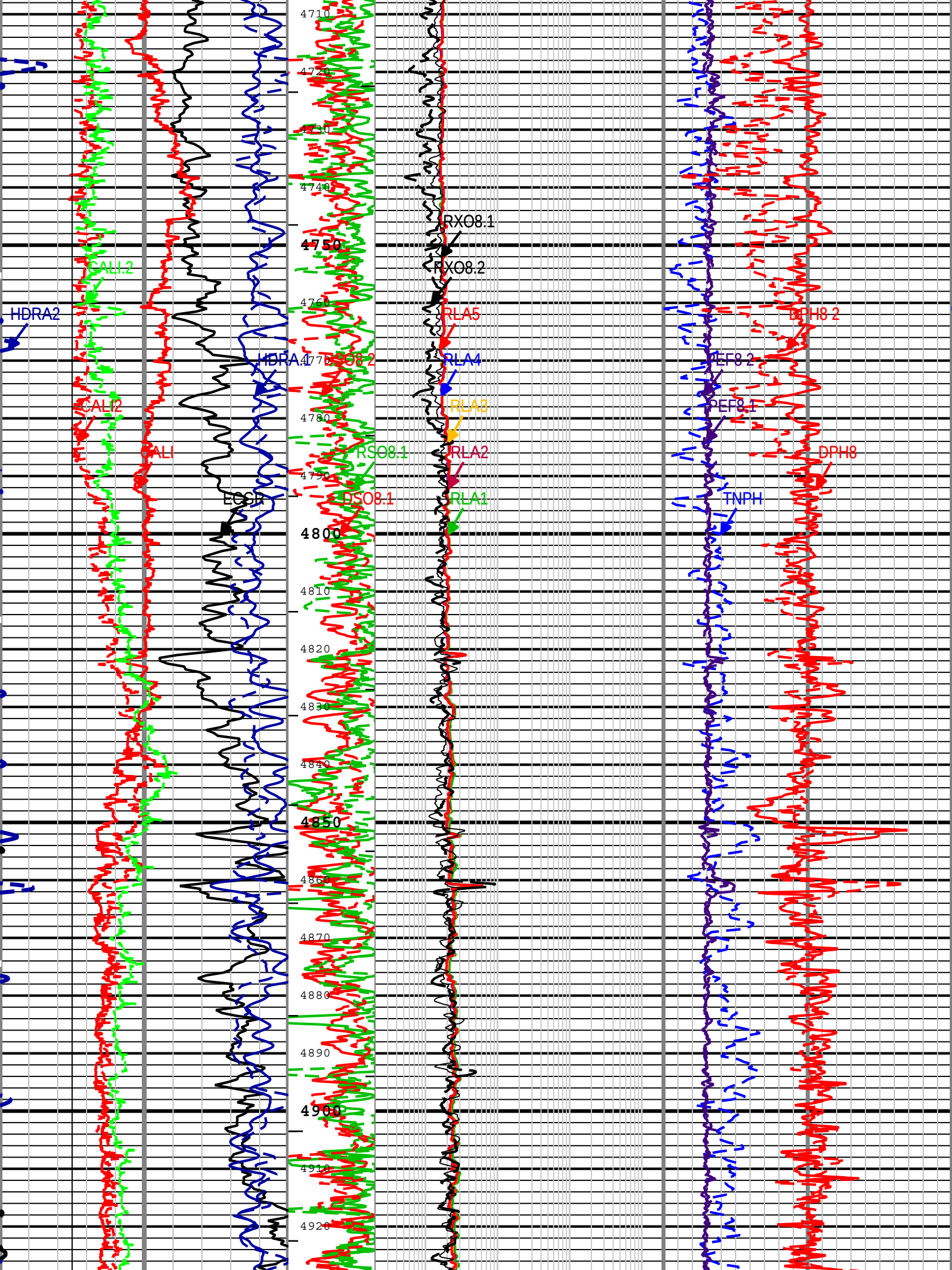
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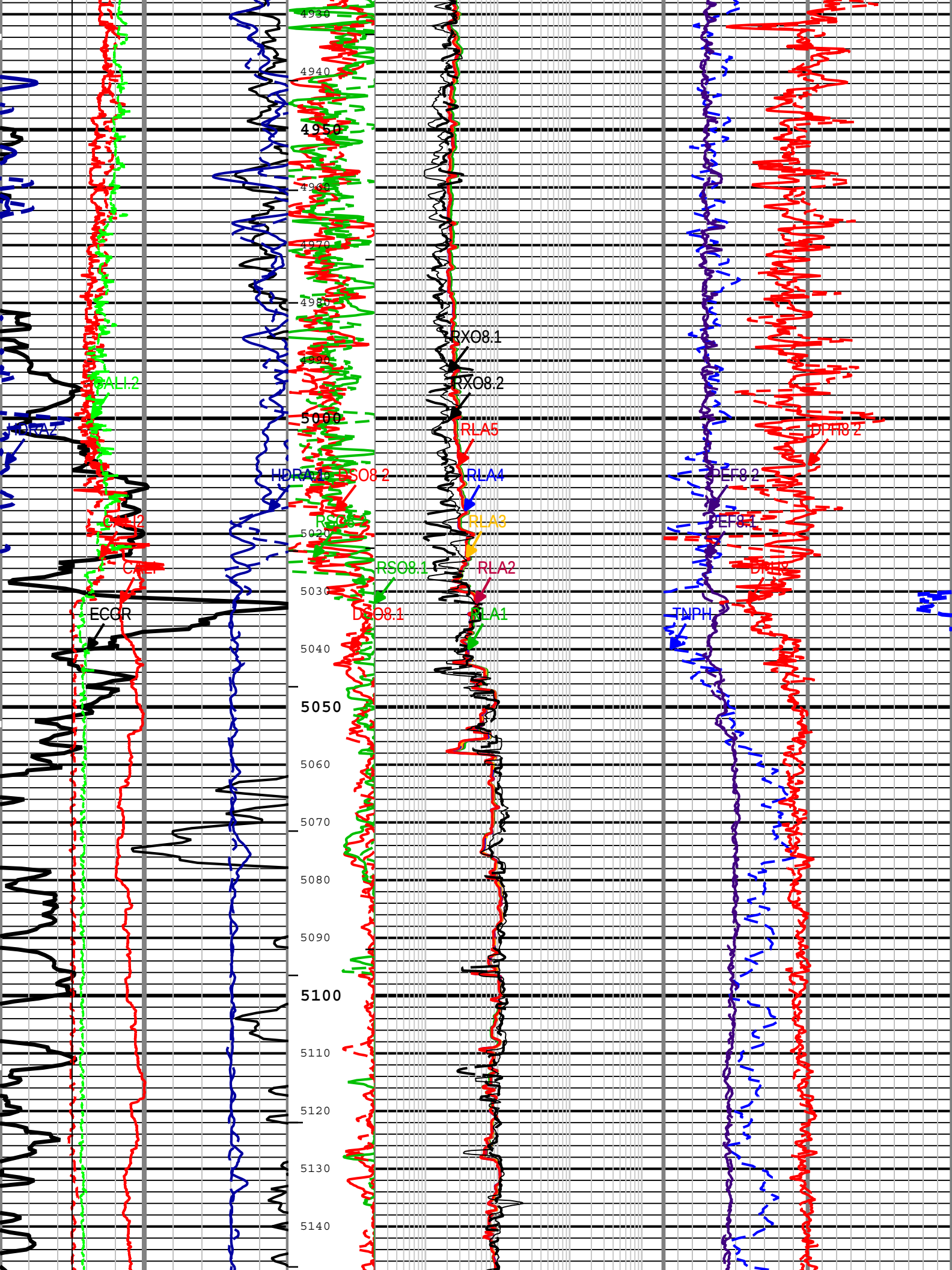
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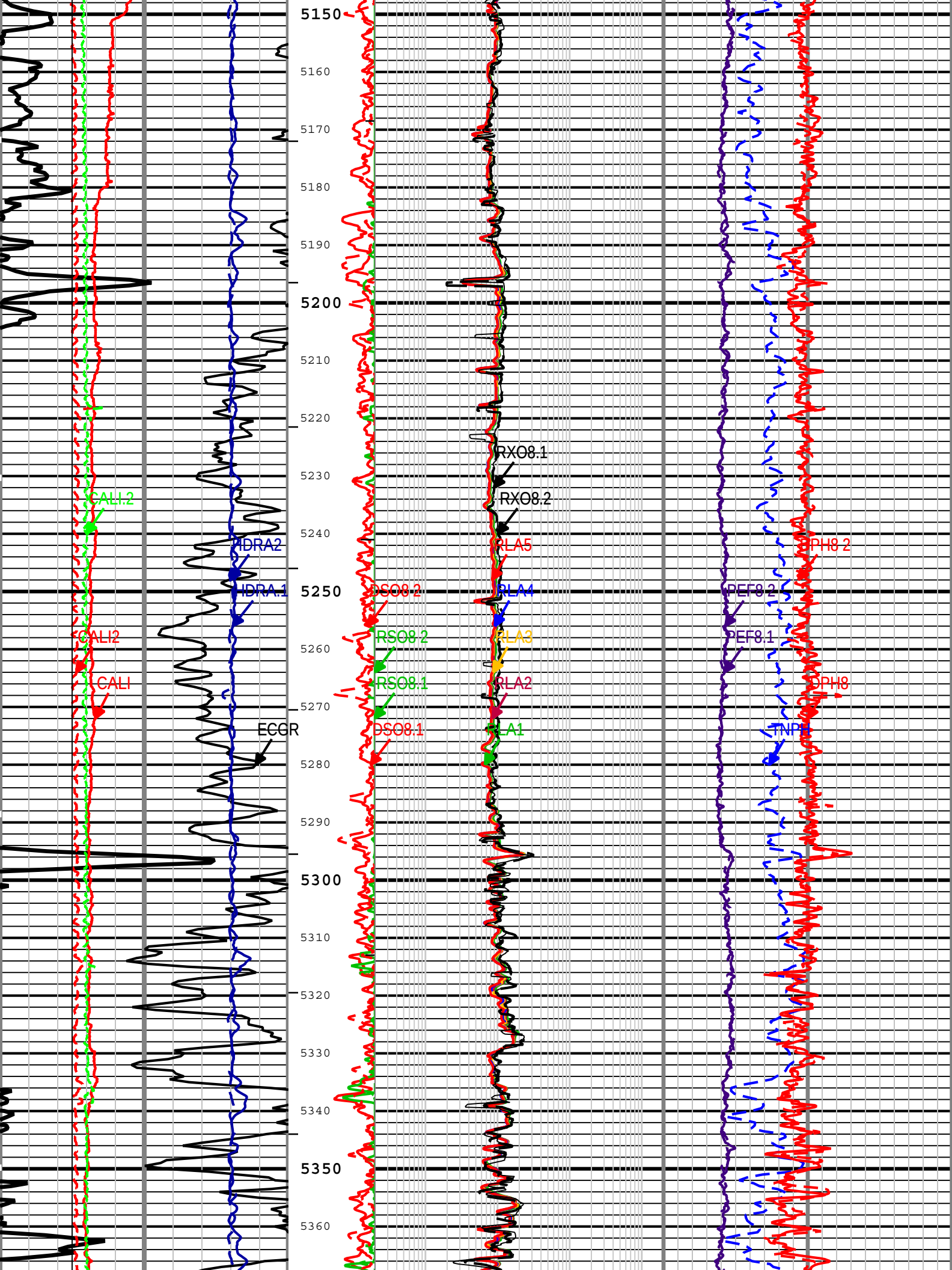
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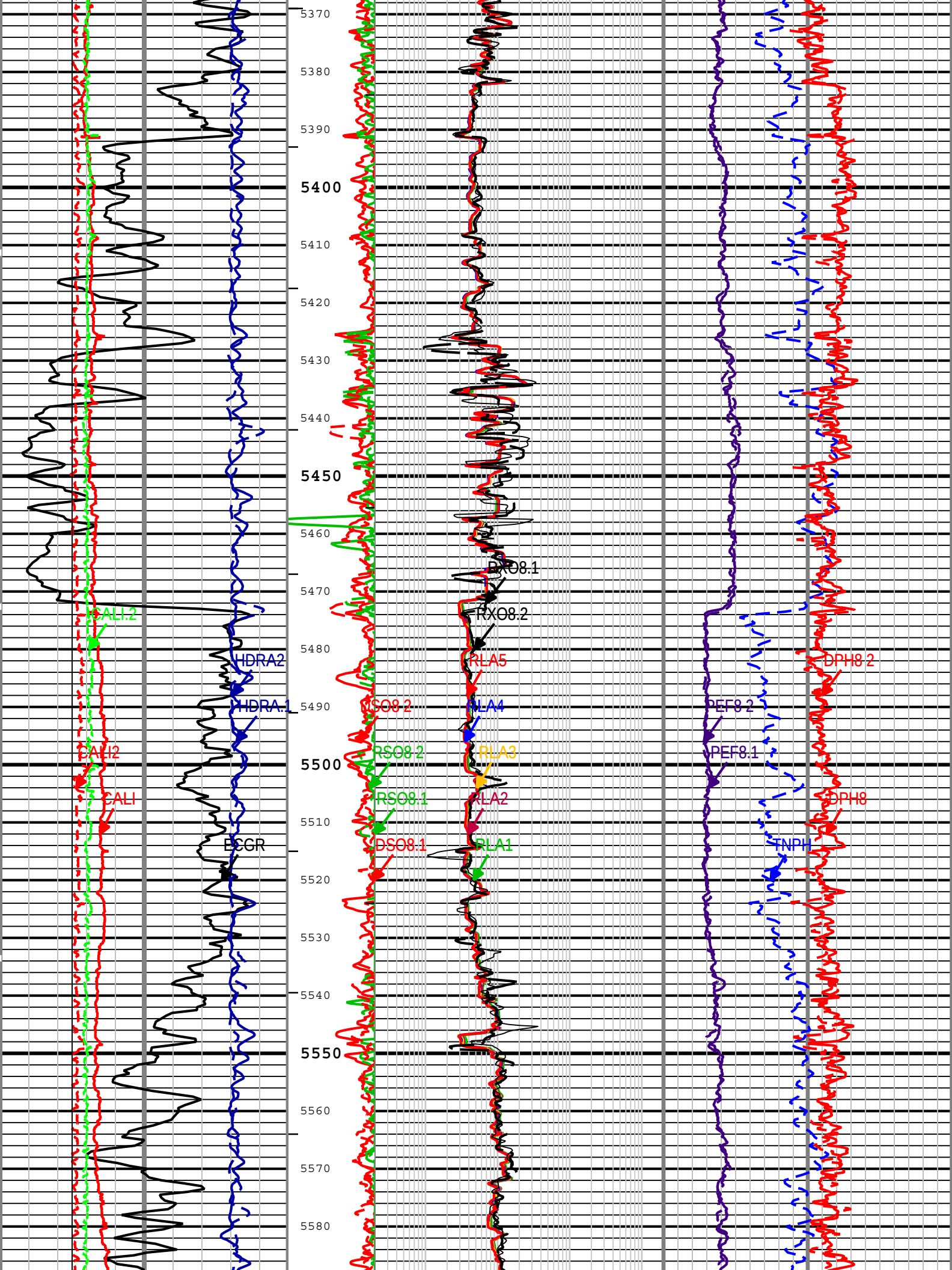
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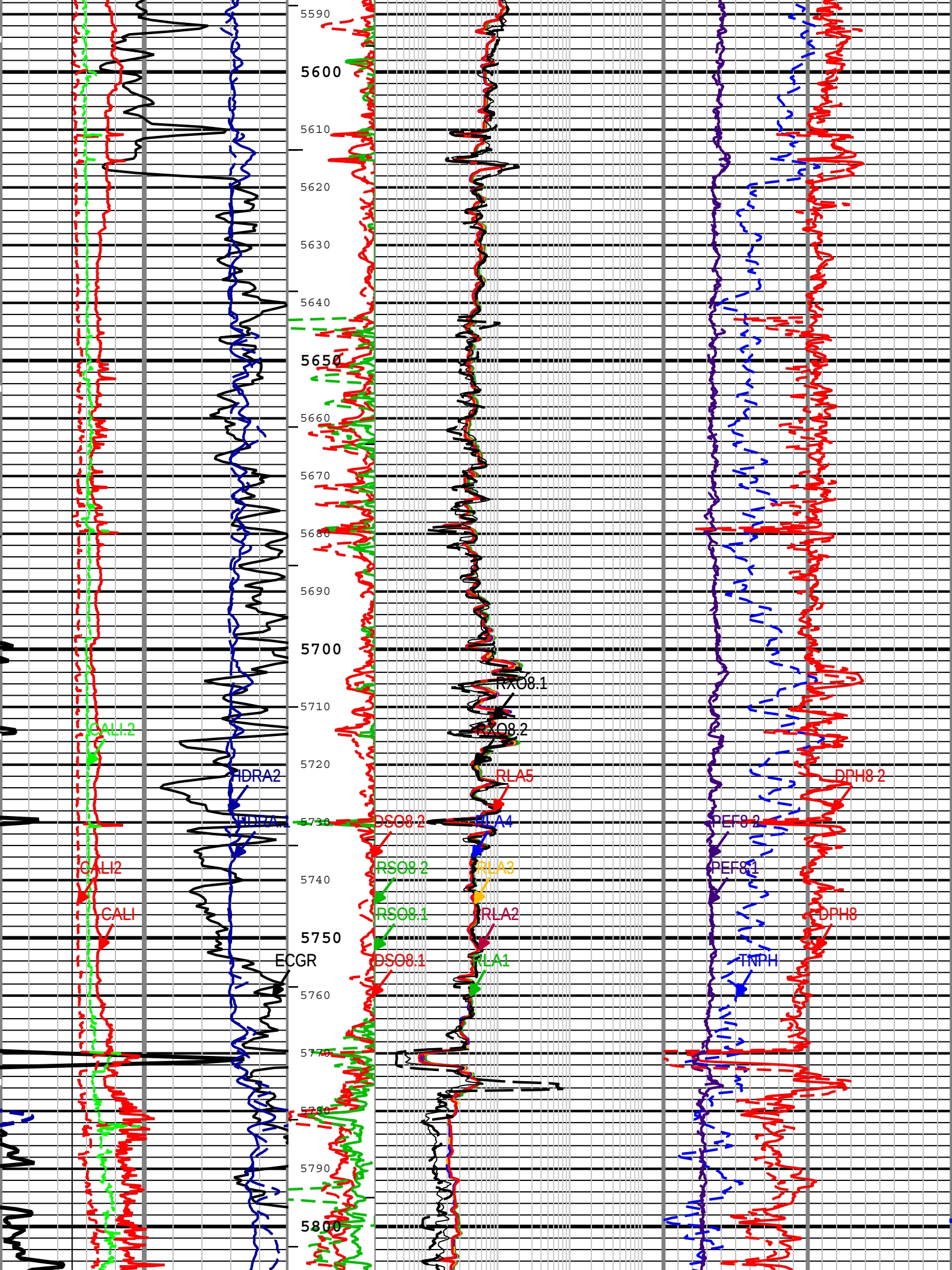
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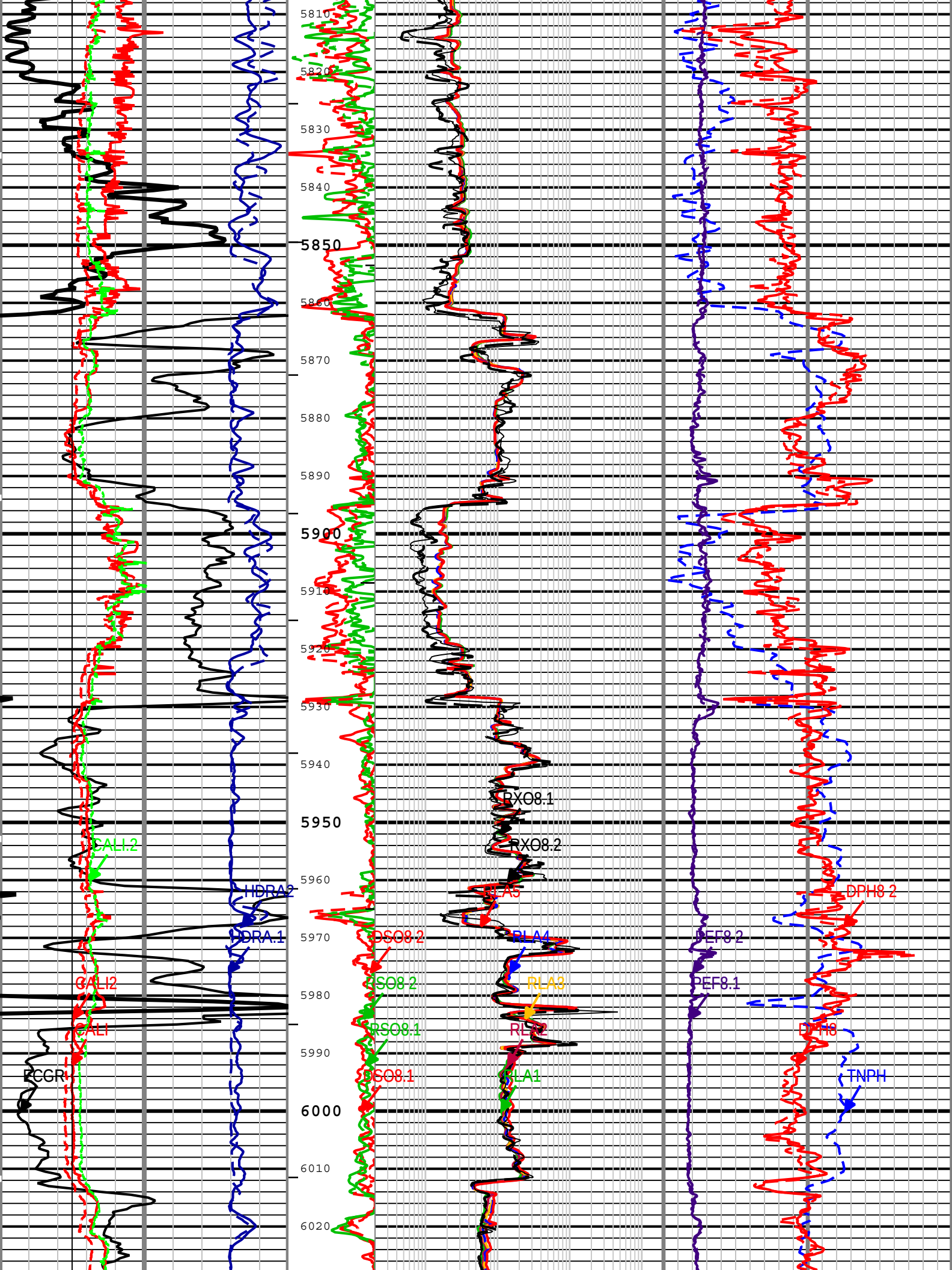
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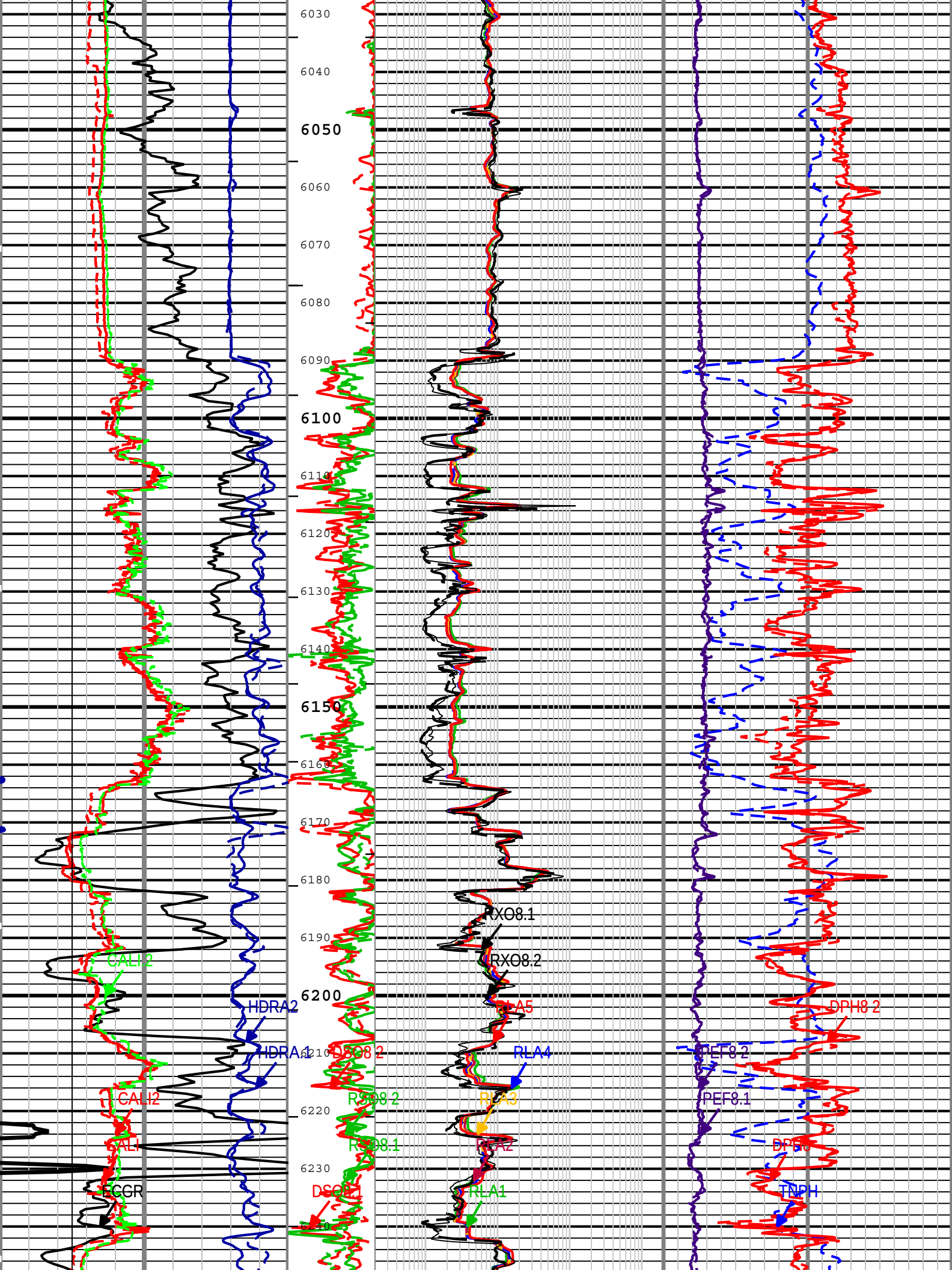
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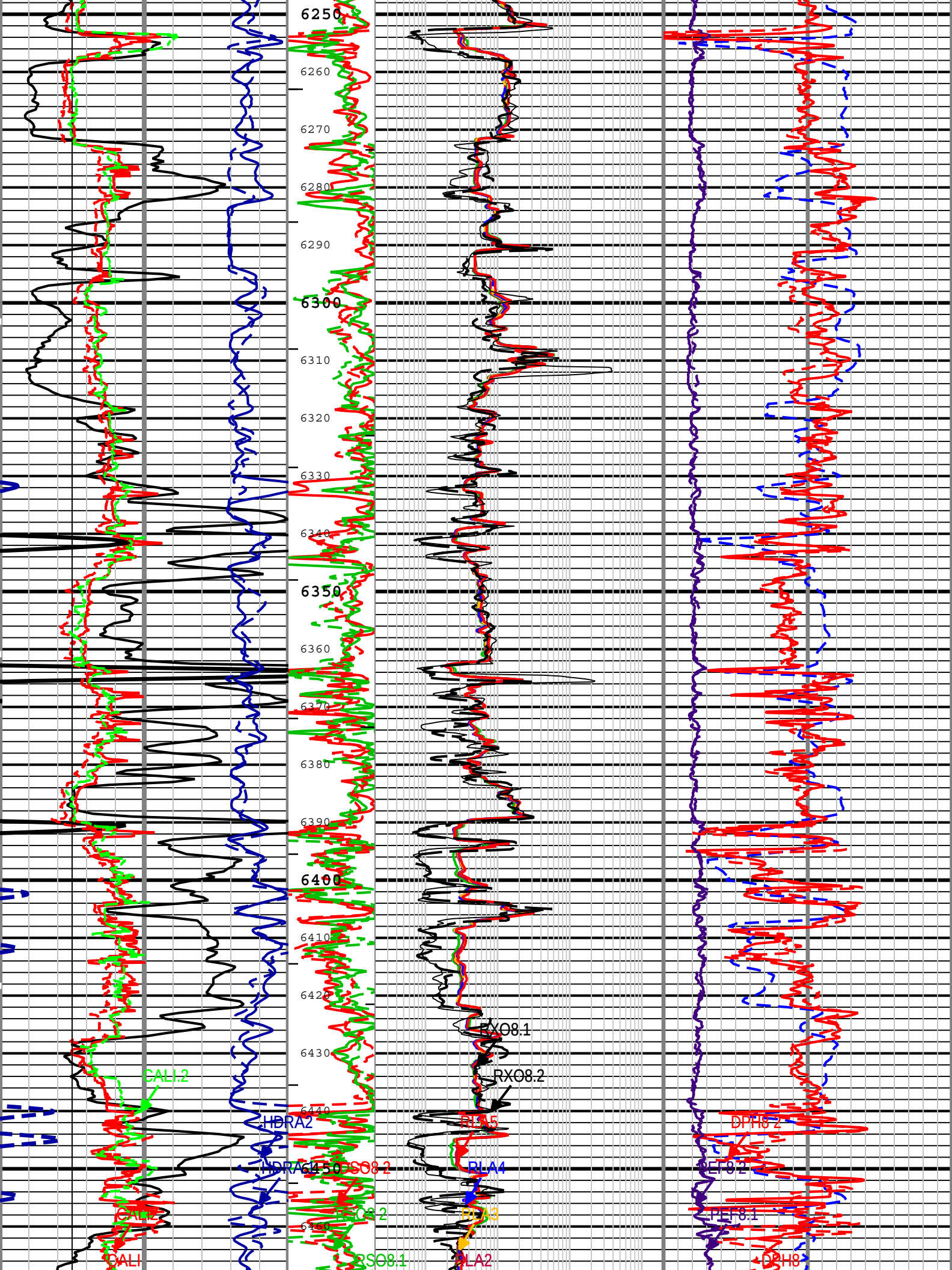
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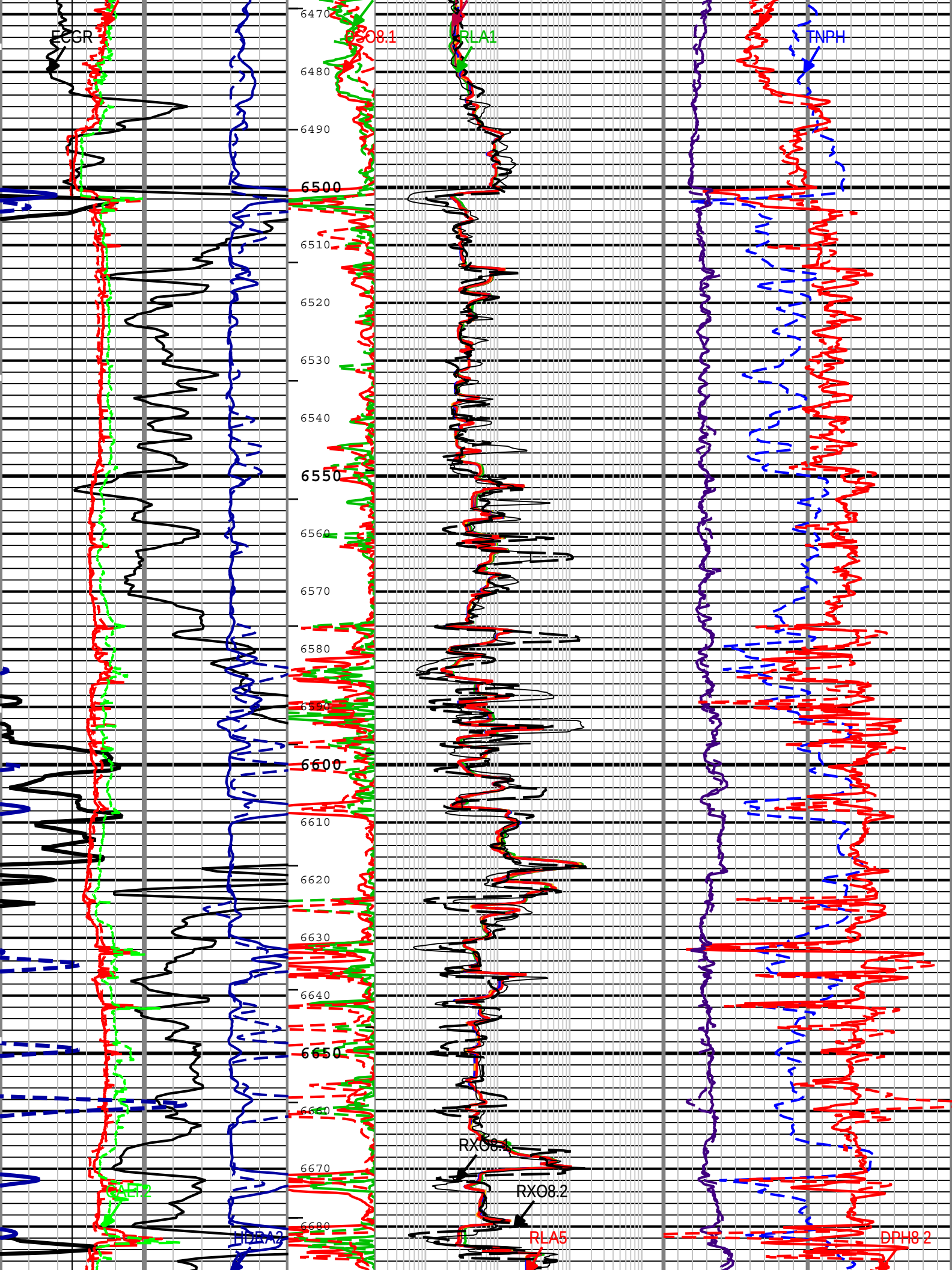
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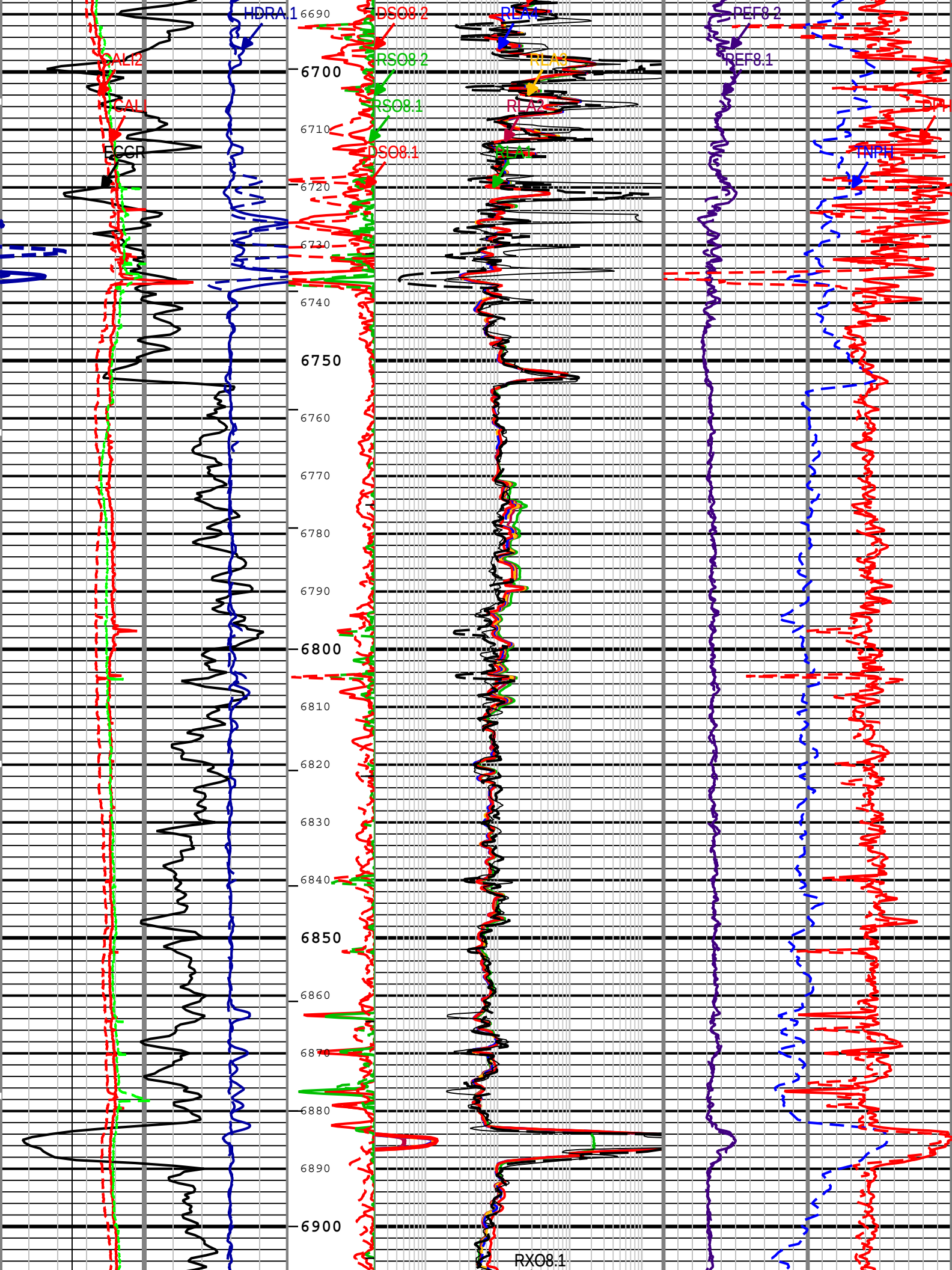
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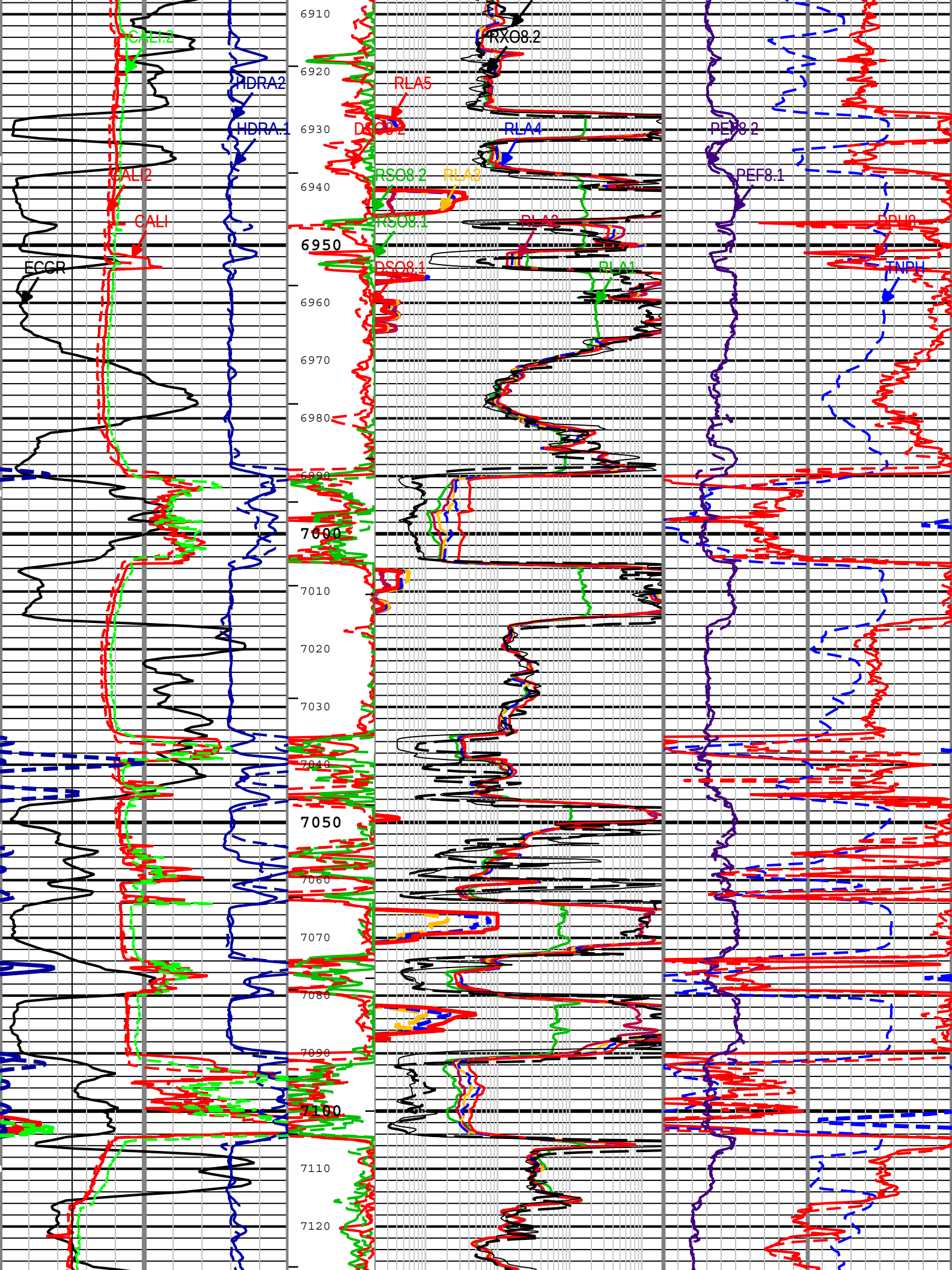
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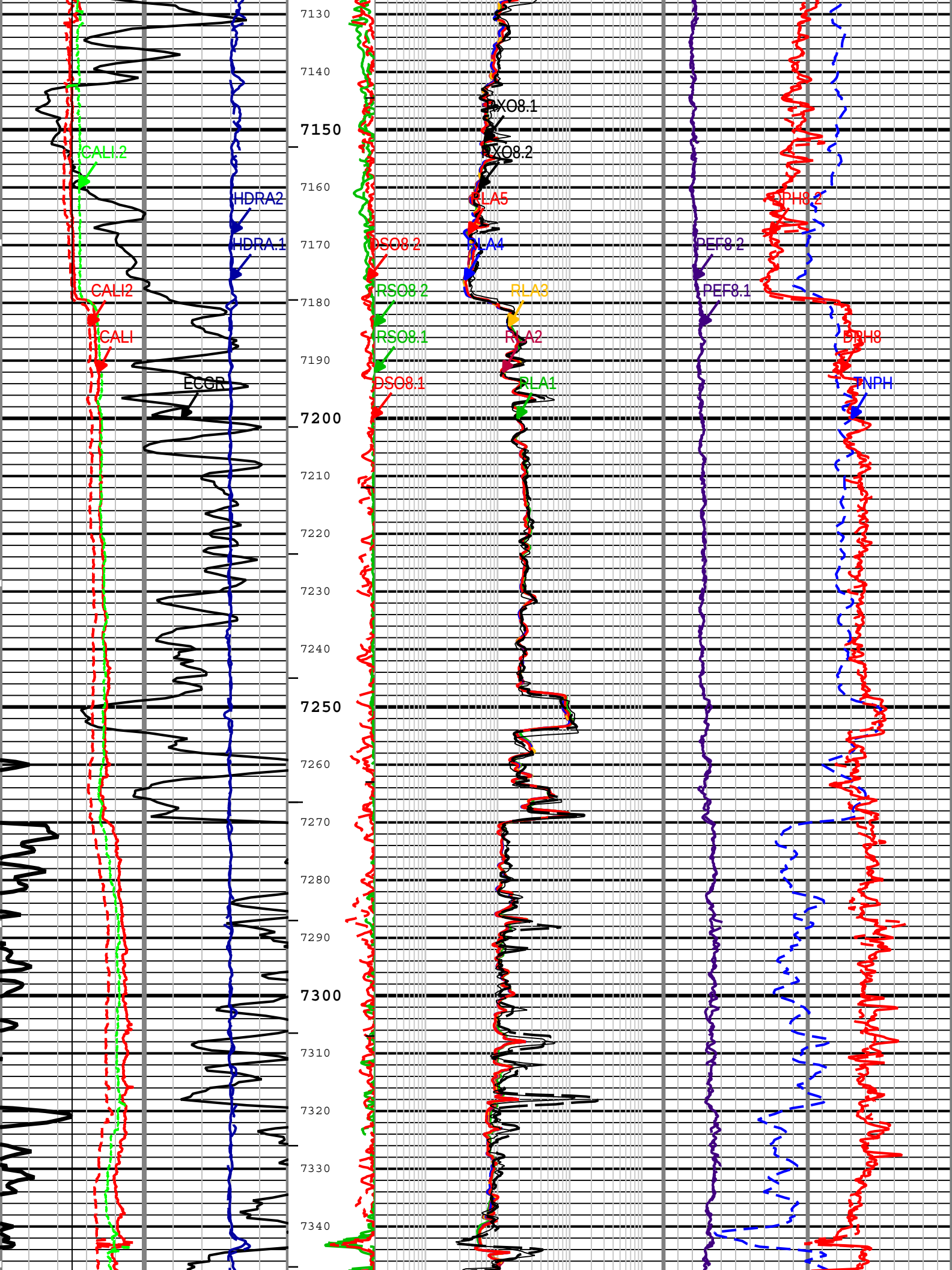
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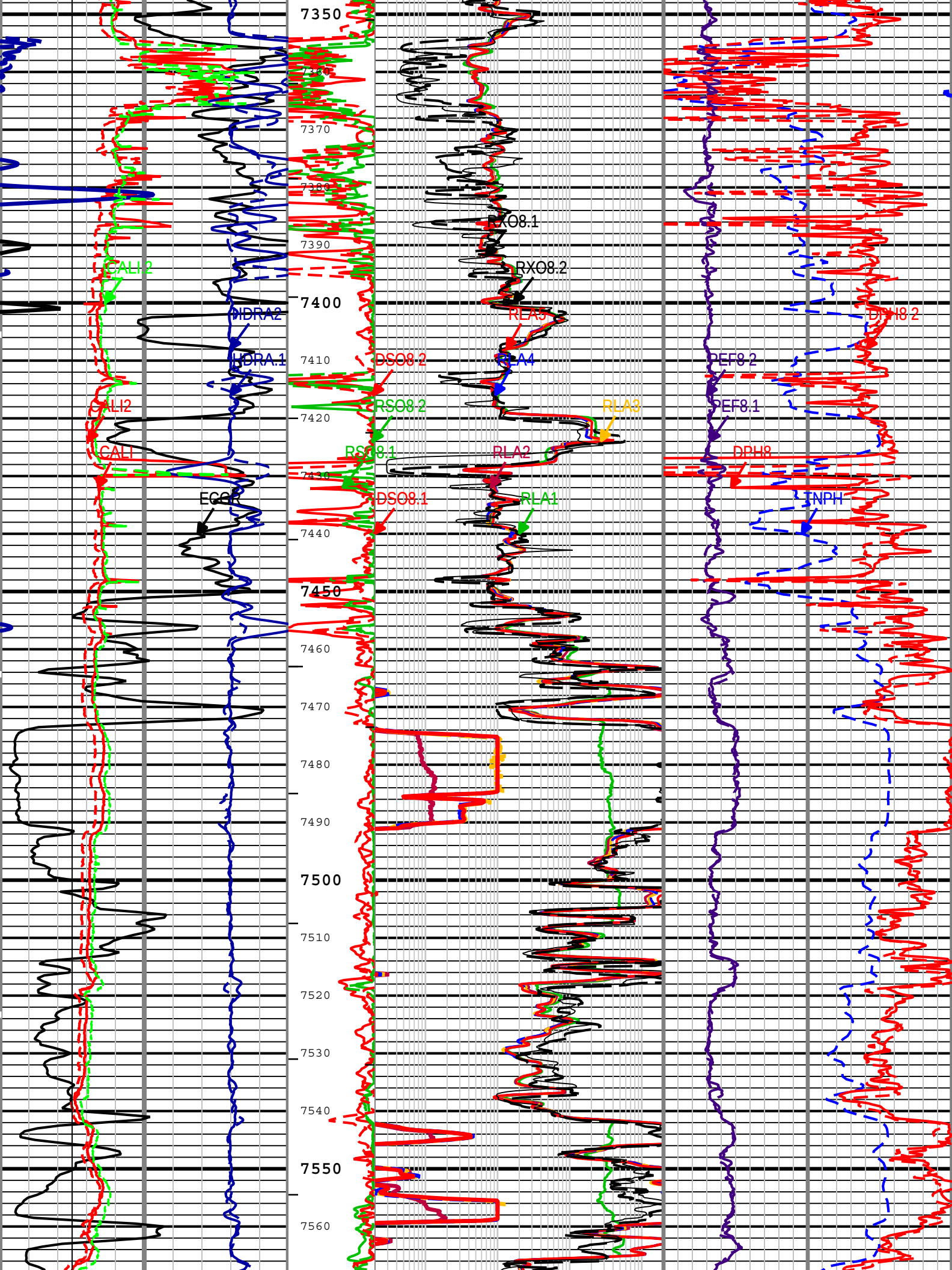
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HDRA2
HDRA.1
CALI2
CALI
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DSO8.2
RSO8.2
RSO8.1
DSO8.1
RXO8.1
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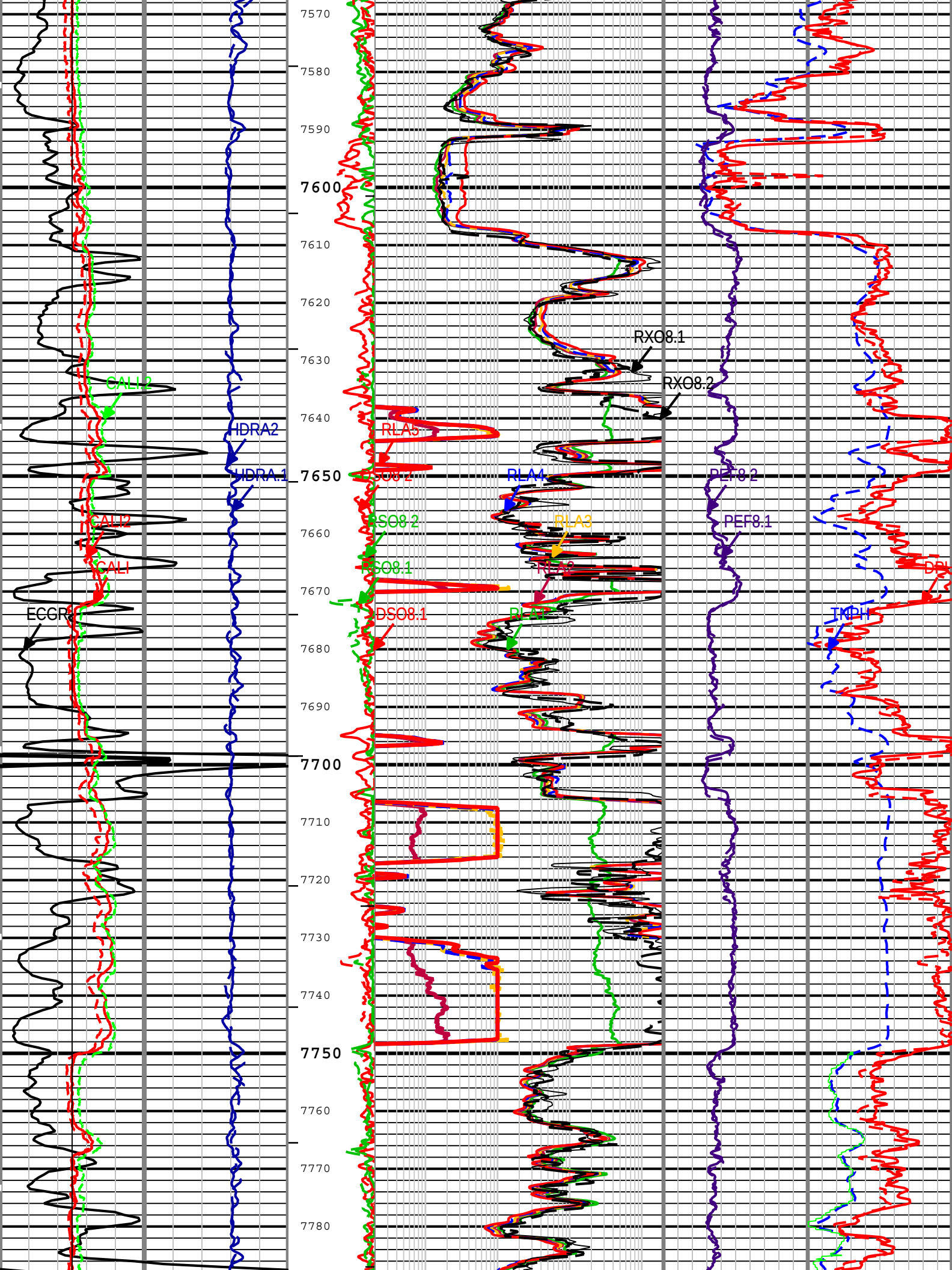
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IDRA.1
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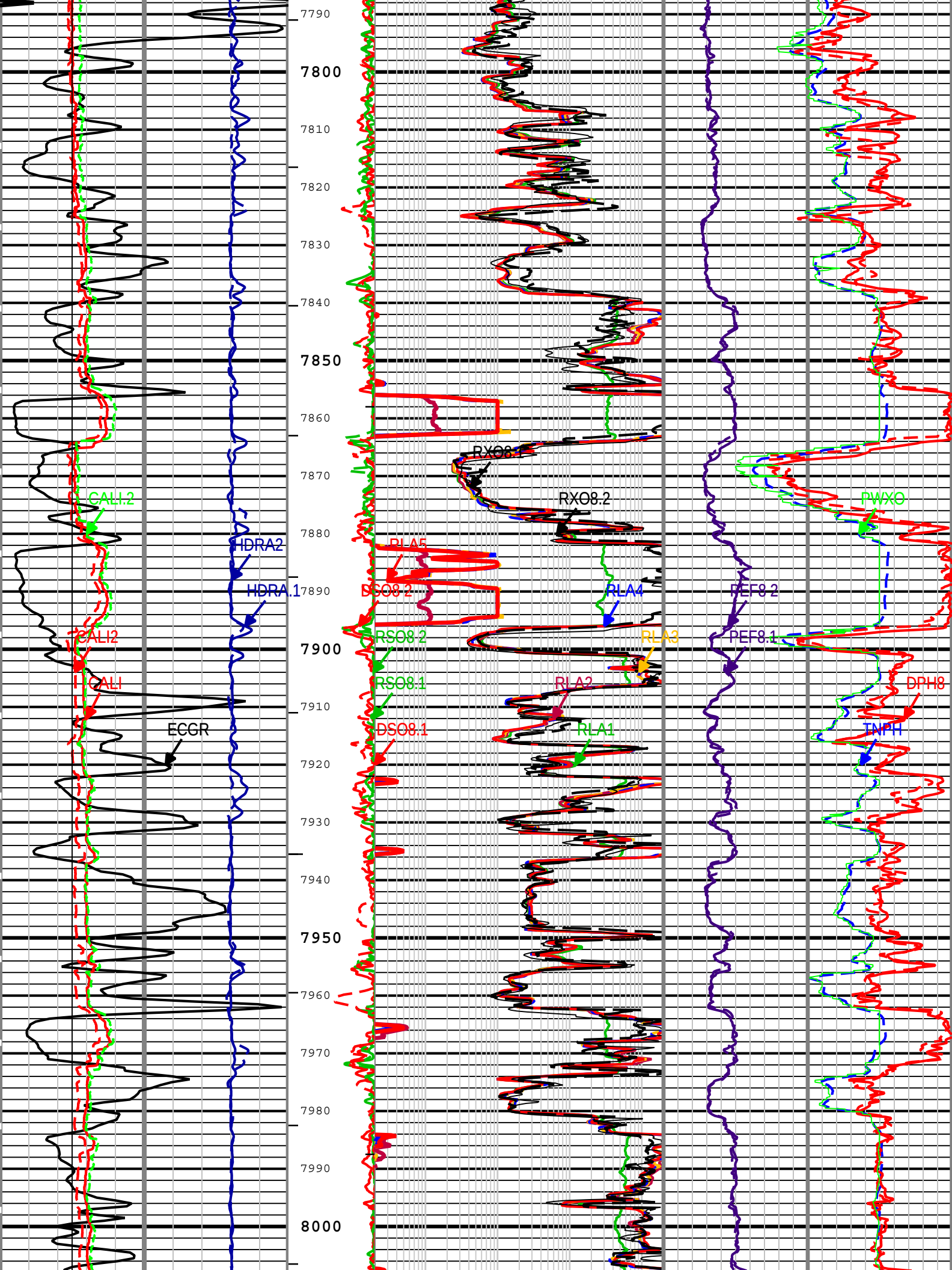
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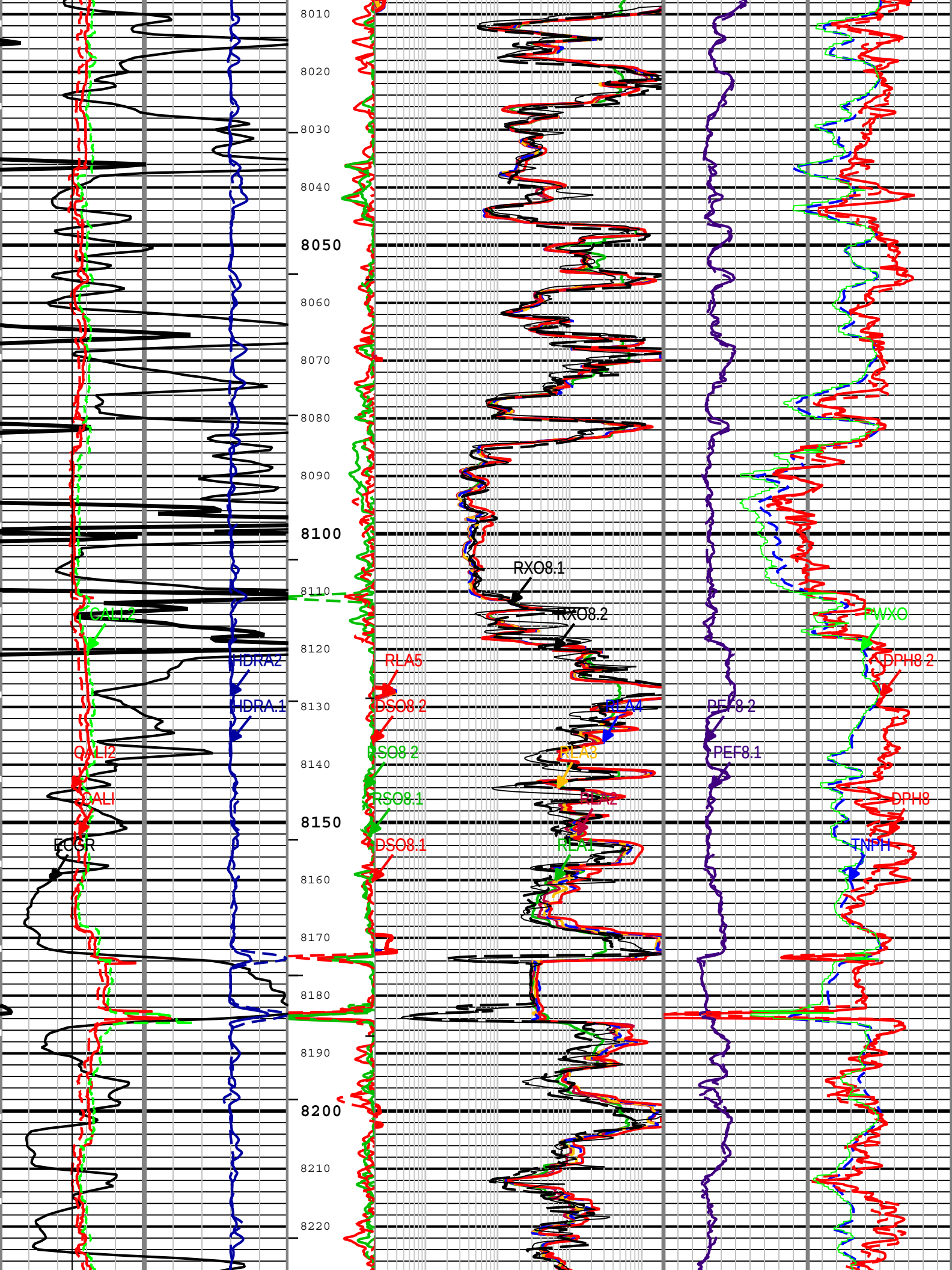
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RXO8.1
RXO8.2
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HDRA2
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RLA5
RSO8.2
RLA4
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RSO8.2
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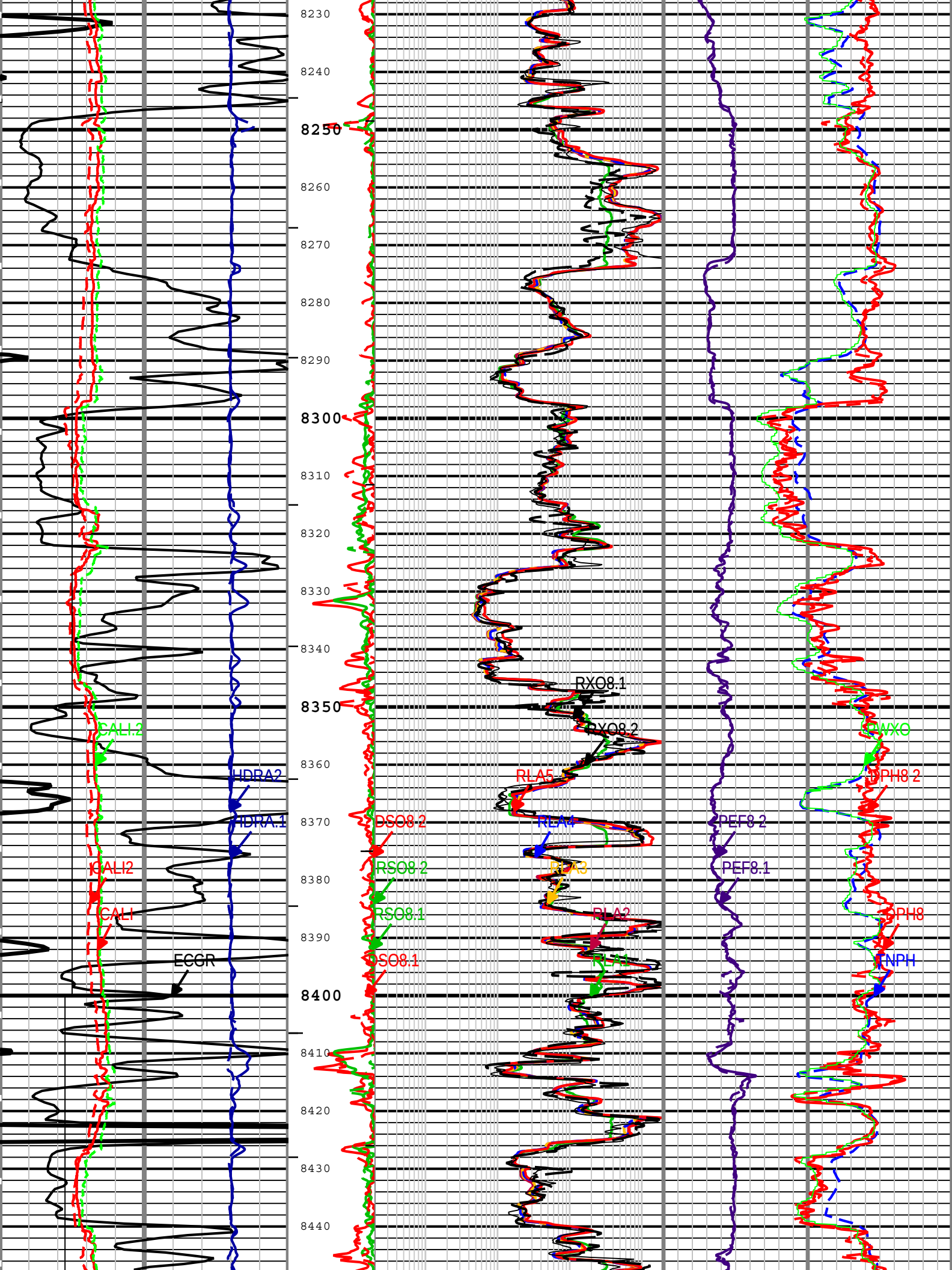
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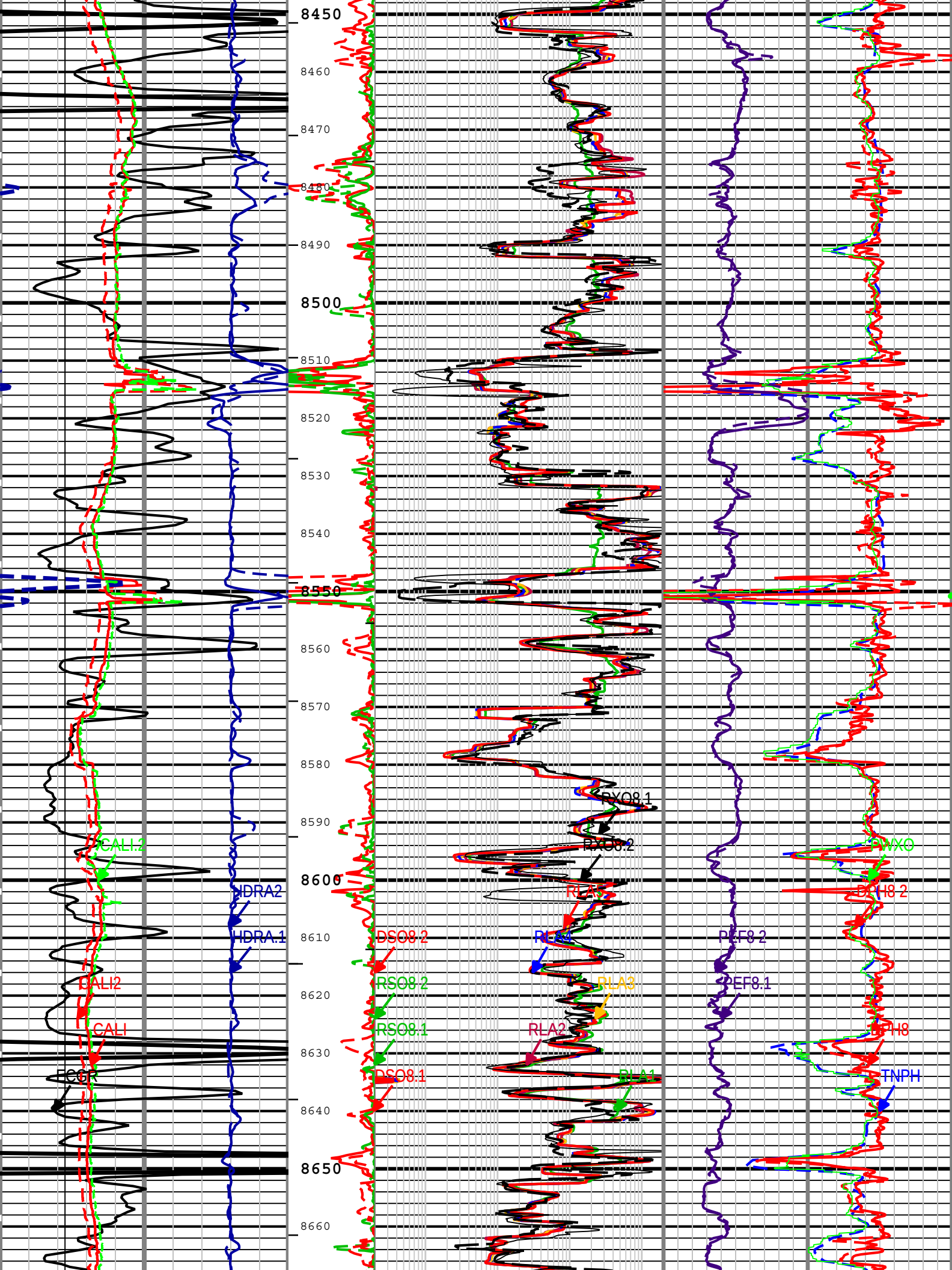
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RSO8.2
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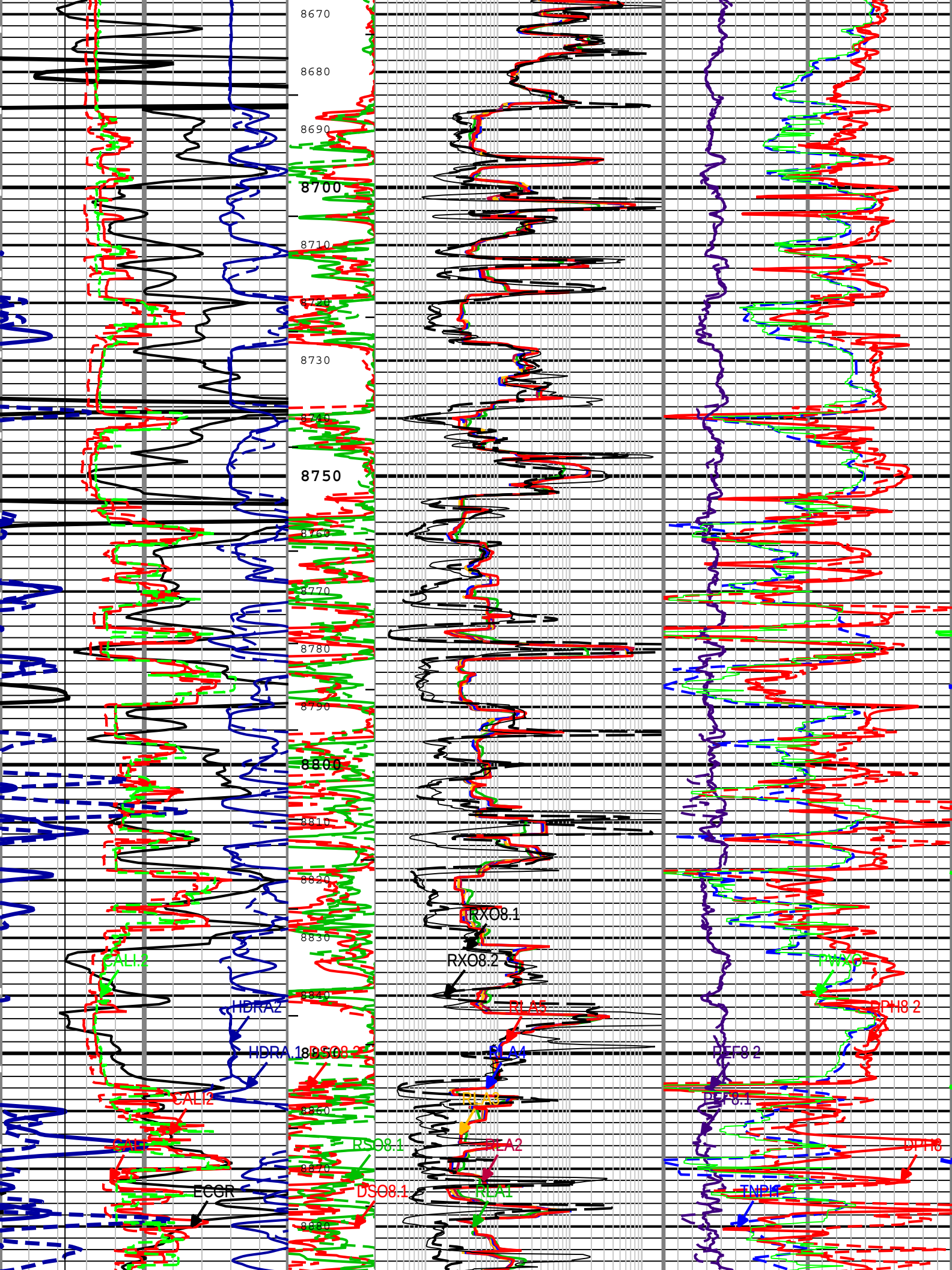
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HDRA2
HDRA.1
CALI2
CALI
ECGR
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RXO8.2
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RLA4
RLA3
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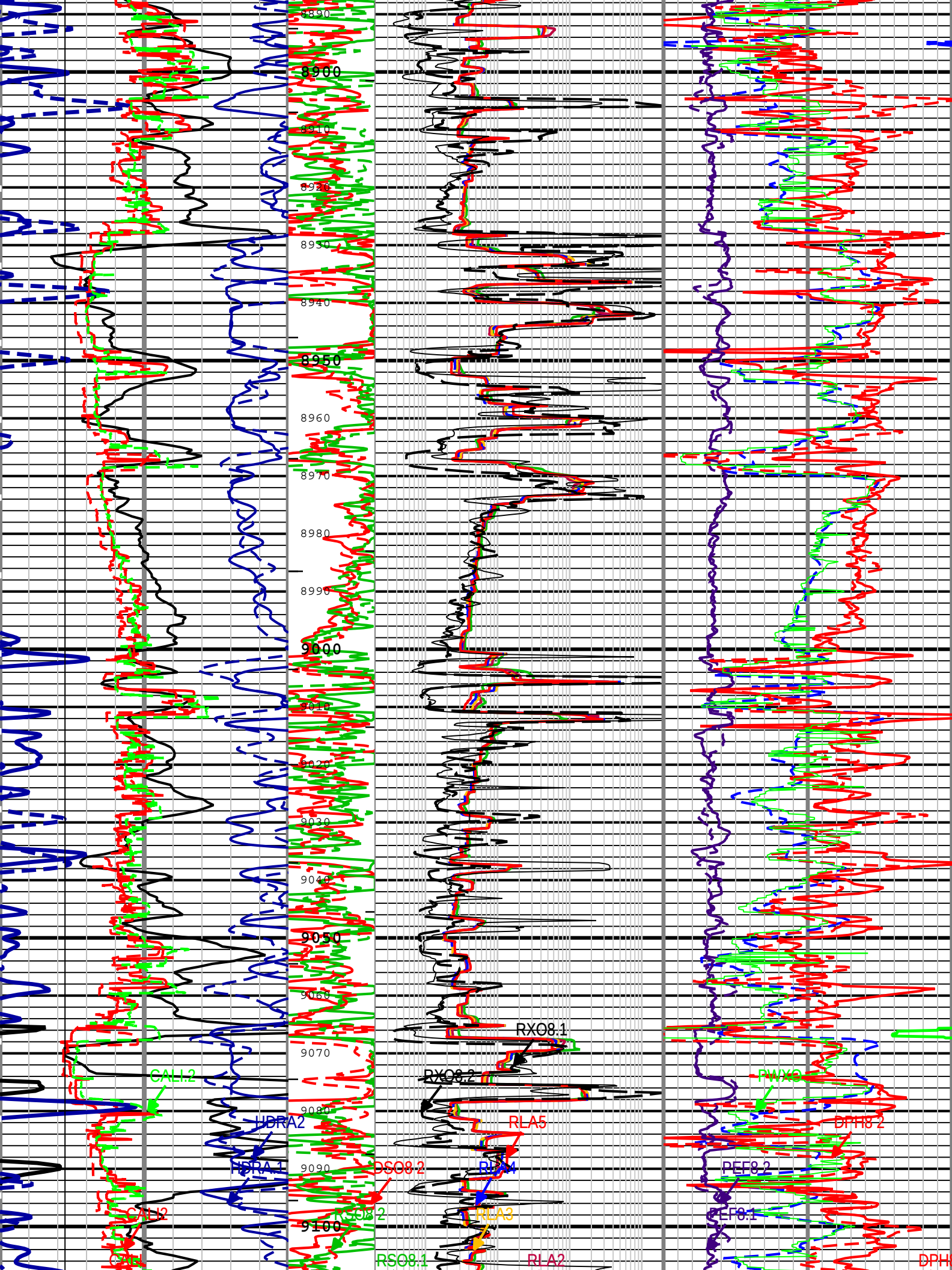
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UDRA.2
UDRA.1
CALI.2
RXO8.1
RXO8.2
RLA5
RLA4
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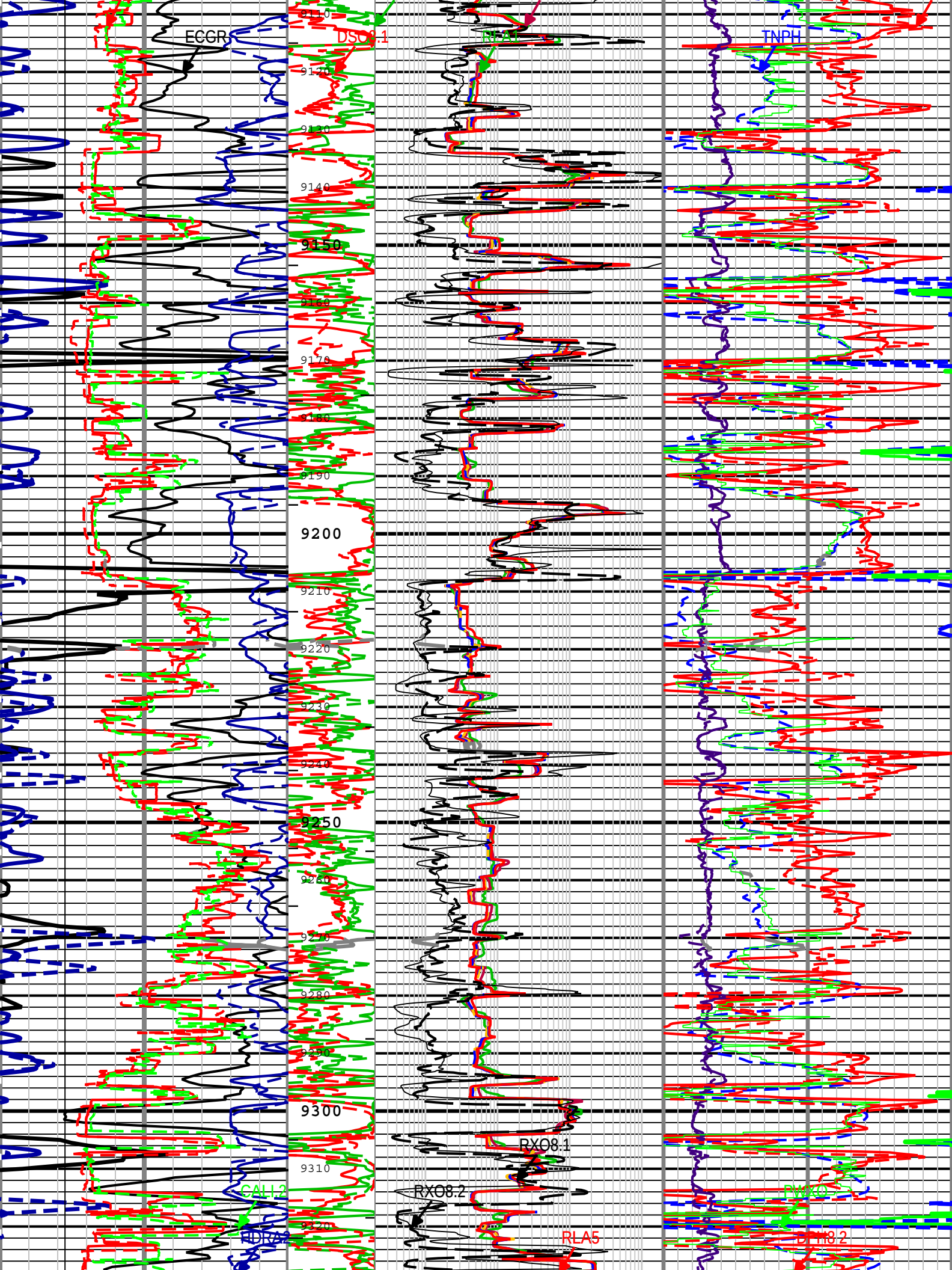
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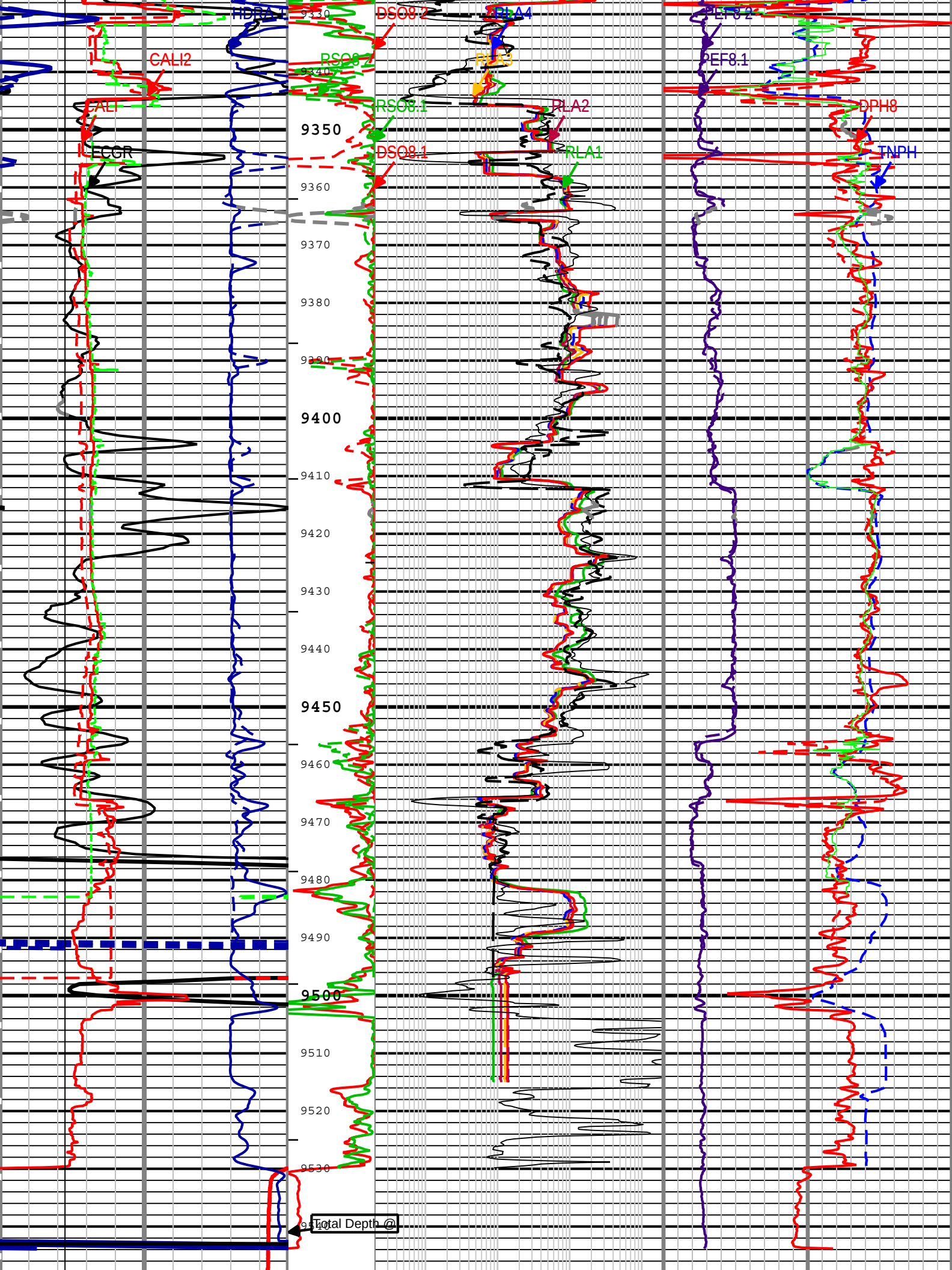
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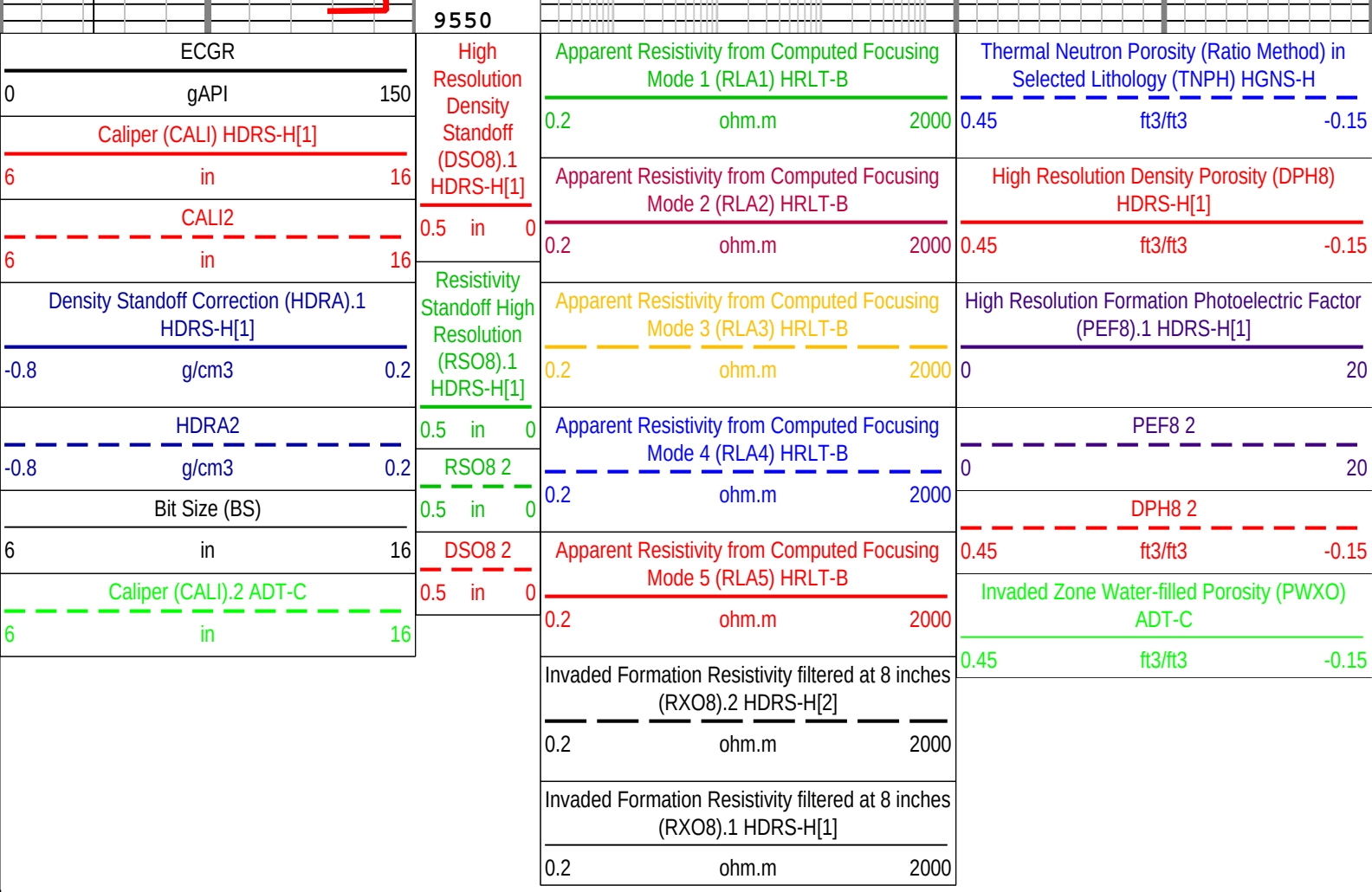
Total Depth @



Description: Triple Combo standard resolution template for Platform Express Format: Log (Five_HRLA) Index Scale: 5 in per 100 ft Index Unit: ft Index Type
Creation Date: 03-May-2012 11:23:40

Channel Processing Parameters

Parameter	Description	ToolPath	Value	Unit
AZ_SELECT	Z-Axis Acceleration Channel Selection for Real-Time Depth Correction	DepthCorrection	AZ	
BARI	Barite Mud Presence Flag	Borehole	Yes	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	COMPLETION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	13639.46	ppm
CALI_SHIFT.1	CALI Supplementary Offset	HDRS-H[2]:HRCC-H:HRCC-H	0	in
CALI_SHIFT.2	CALI Supplementary Offset	HDRS-H[1]:HRCC-H:HRCC-H	0	in
CBLO	Casing Bottom (Logger)	COMPLETION	1056	ft
CDEN	Cement Density	HGNS-H:HGNS-H:HGNS-H	2	g/cm3
CSODDRL	Casing Outer Diameter - Zoned along driller depths	COMPLETION	Depth Zoned	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.4	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Chemical Gel	
DHC.1	Density Hole Correction	HDRS-H[2]:HRMS-H:HRGD-H	Bit Size	
DHC.2	Density Hole Correction	HDRS-H[1]:HRMS-H:HRGD-H	Bit Size	

DHC.2	Density Hole Correction	HDRS-H[1]:HRMS-H:HRGD-H	Bit Size	
FCD	Future Casing (Outer) Diameter	COMPLETION	7	in
FD	Fluid Density	Borehole	1	g/cm3
FSAL	Formation Salinity	Borehole	6126.75	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	REMS	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HRLT_PROCRM	Mud Resistivity Select	HRLT-B:HRLS-B:HRLS-B	HRLT Compute	
HSCO	Hole Size Correction Option	HGNS-H:HGNS-H:HGNS-H	Yes	
HVCS	Integrated Hole Volume Caliper Selection	Borehole	Measured Area	
KFAC_HRLT	HRLT Geometrical Factor Option	HRLT-B:HRLS-B:HRLS-B	Sonde	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MDEN	Matrix Density for Density Porosity	Borehole	2.71	g/cm3
MFST	Mud Filtrate Sample Temperature	Borehole	67.4	degF
MST	Mud Sample Temperature	Borehole	67.8	degF
NPRM.1	HRDD Nuclear Processing Mode	HDRS-H[2]:HRMS-H:HRGD-H	High Resolution	
NPRM.2	HRDD Nuclear Processing Mode	HDRS-H[1]:HRMS-H:HRGD-H	High Resolution	
PROCMSO	Mechanical Standoff Size	HRLT-B:HRLS-B:HRLS-B	1.5	in
PROCSPO	Sonde Position	HRLT-B:HRLS-B:HRLS-B	Eccentered	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.44	ohm.m
RMS	Resistivity of Mud Sample	Borehole	0.47	ohm.m
SOCO	Standoff Correction Option	HGNS-H:HGNS-H:HGNS-H	Yes	

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	8.5	897.5	8400
BS	8.25	8400	9551.5
CSODDRL	[9.625]	897.5	1056
CSODDRL	[0]	1056	9551.5

All depth are actual.

Tool Control Parameters

Parameter	Description	ToolPath	Value	Unit
ACQRESOLUTION	Acquisition Depth Resolution	ADT-C	ZP2_INCH_OPTIMIZED_FOR_0900_FPH	
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H:HGNS-H:HMCA-H	1	
HRGD_BRD_TYPE.1	HRGD Board Type	HDRS-H[2]:HRMS-H:HRGD-H	WITH_HET	
HRGD_BRD_TYPE.2	HRGD Board Type	HDRS-H[1]:HRMS-H:HRGD-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLWorkflow	900	ft/h

1

PEx Short Axis 1"=100

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
IHV	Integrated Hole Volume	HVAS	3303.52	ft3
ICV	Integrated Cement Volume	HVAS, FCD	1046.24	ft3

Software Version

Acquisition System	Version
MaxWell	3.0.9609.0

Application Patch	SP-20111012-3.0.9609.1274
	EXP_APL-MAST-3.0.9609.1568
	EXP_APL-ADT-3.0.9609.1558

Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	3.0.9609.1274
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections	3.0.9609.0
DepthCorrection	DepthCorrection	3.0.9609.1274

Tool Elements	Description	Software Version	Firmware Version
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	3.0.9609.0	2.0
HRLS-B	HRLT-B Sonde	3.0.9609.1274	DSP: 2.1 HOST: 0.a
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	3.0.9609.0	3.0
EDTC-B	Enhanced Digital Telemetry Cartridge - B	3.0.9609.1274	

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Depth Shift	Include Parallel Data
1	Log[1]:Down	Down	94.50 ft	9503.50 ft	03-May-2012 3:00:04 AM	03-May-2012 3:51:34 AM	0.00 ft	

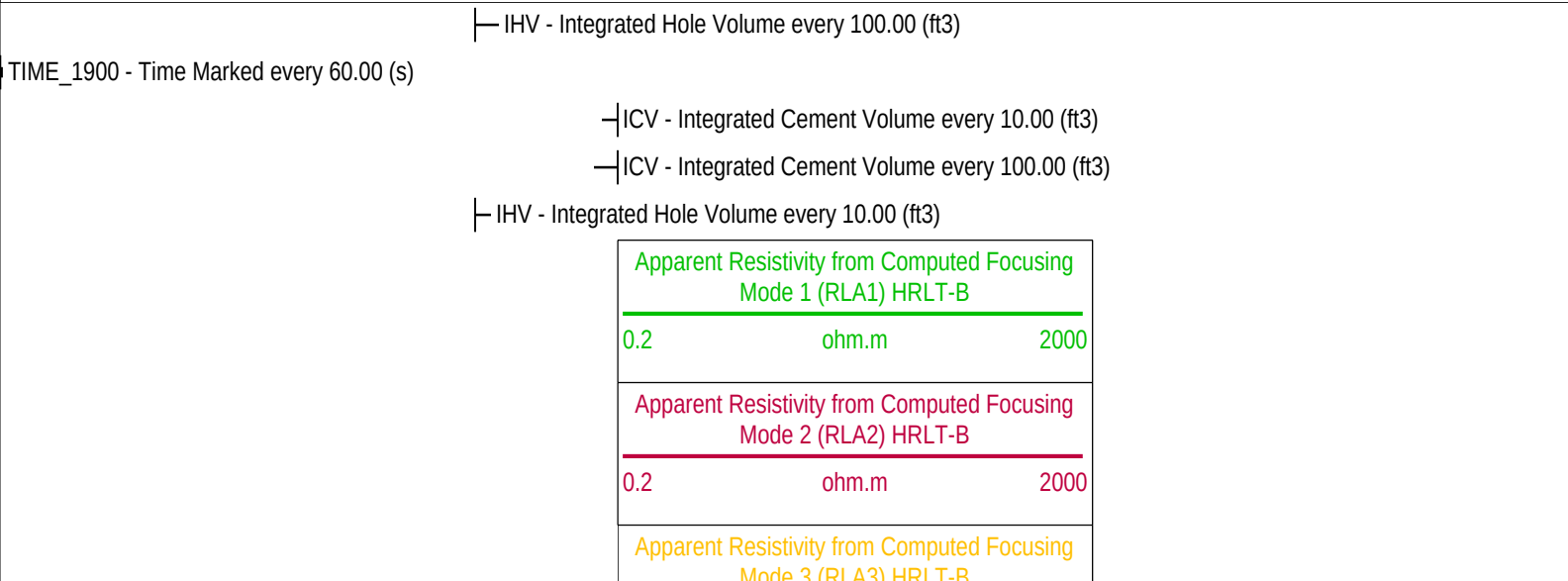
All depths are referenced to toolstring zero

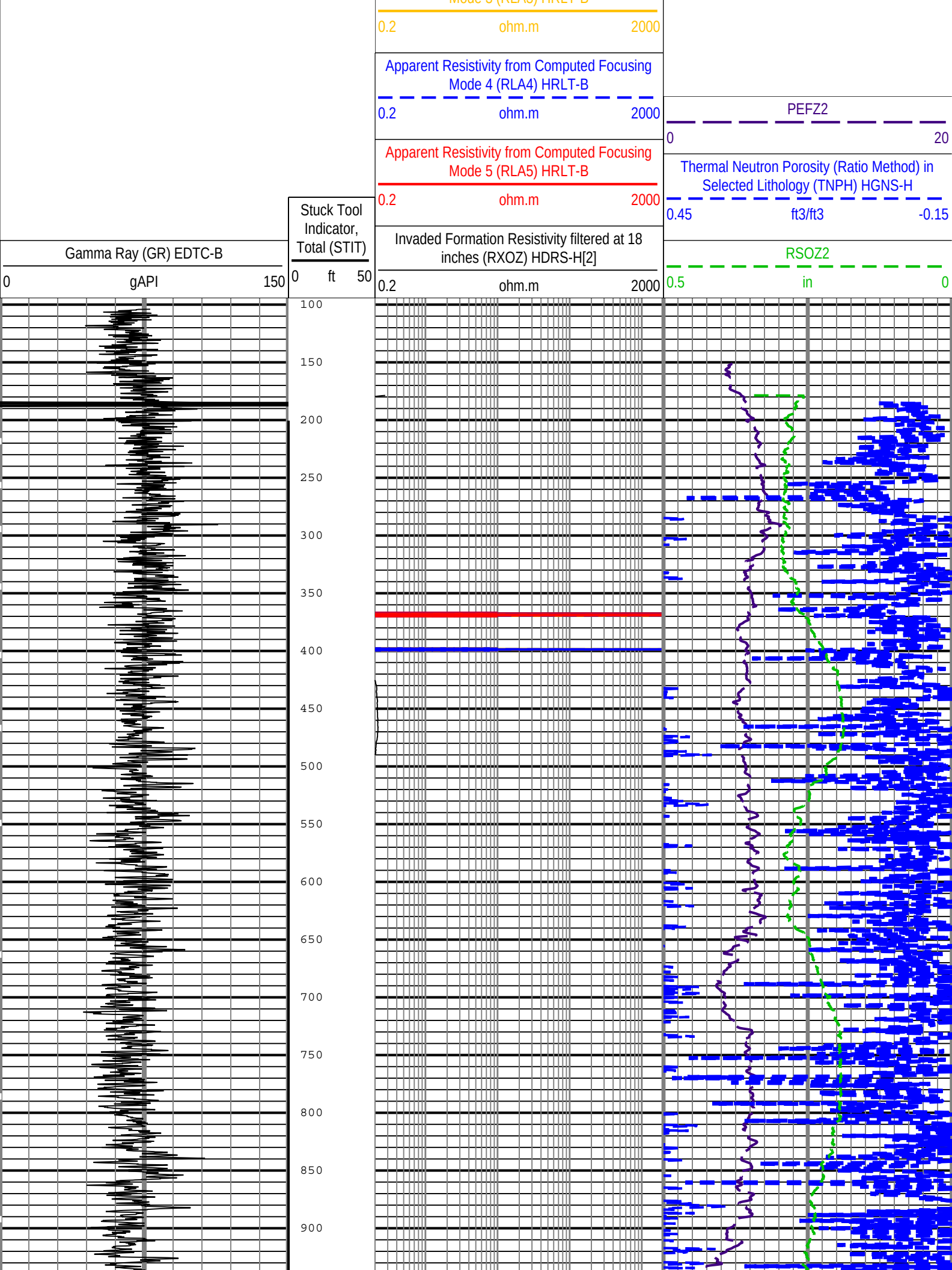
Log

1: Log[1]:Down 4C60F550-6140-4236-B2D0-465CAE4235B7

Description: Triple Combo standard resolution template for Platform Express Format: Log (Five_HRLA_RS) Index Scale: 1 in per 100 ft Index Unit: ft Index Depth Creation Date: 03-May-2012 11:23:56

Channel	Source	Sampling
GR	EDTC-B:EDTC-B:EDTC-B	2in
ICV	Borehole	6in
IHV	Borehole	6in
PEFZ	HDRS-H[2]:HRMS-H:HRGD-H	2in
RLA1	HRLT-B:HRLS-B:HRLS-B	2in
RLA2	HRLT-B:HRLS-B:HRLS-B	2in
RLA3	HRLT-B:HRLS-B:HRLS-B	2in
RLA4	HRLT-B:HRLS-B:HRLS-B	2in
RLA5	HRLT-B:HRLS-B:HRLS-B	2in
RSOZ	HDRS-H[2]:HRMS-H:HRGD-H	2in
RXOZ	HDRS-H[2]:HRMS-H:HRGD-H	2in
STIT	DepthCorrection	6in
TIME_1900	WLWorkflow	0.1in
TNPH	HGNS-H:HGNS-H:HGNS-H	6in




0.2
ohm.m
2000
Apparent Resistivity from Computed Focusing Mode 4 (RLA4) HRLT-B
0.2
ohm.m
2000
PEFZ2
0
20
Apparent Resistivity from Computed Focusing Mode 5 (RLA5) HRLT-B
0.2
ohm.m
2000
Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H
0.45
ft3/ft3
-0.15
Stuck Tool Indicator, Total (STIT)
0
ft
50
Invaded Formation Resistivity filtered at 18 inches (RXOZ) HDRS-H[2]
0.2
ohm.m
2000
RSOZ2
0.5
in
0
Gamma Ray (GR) EDTC-B
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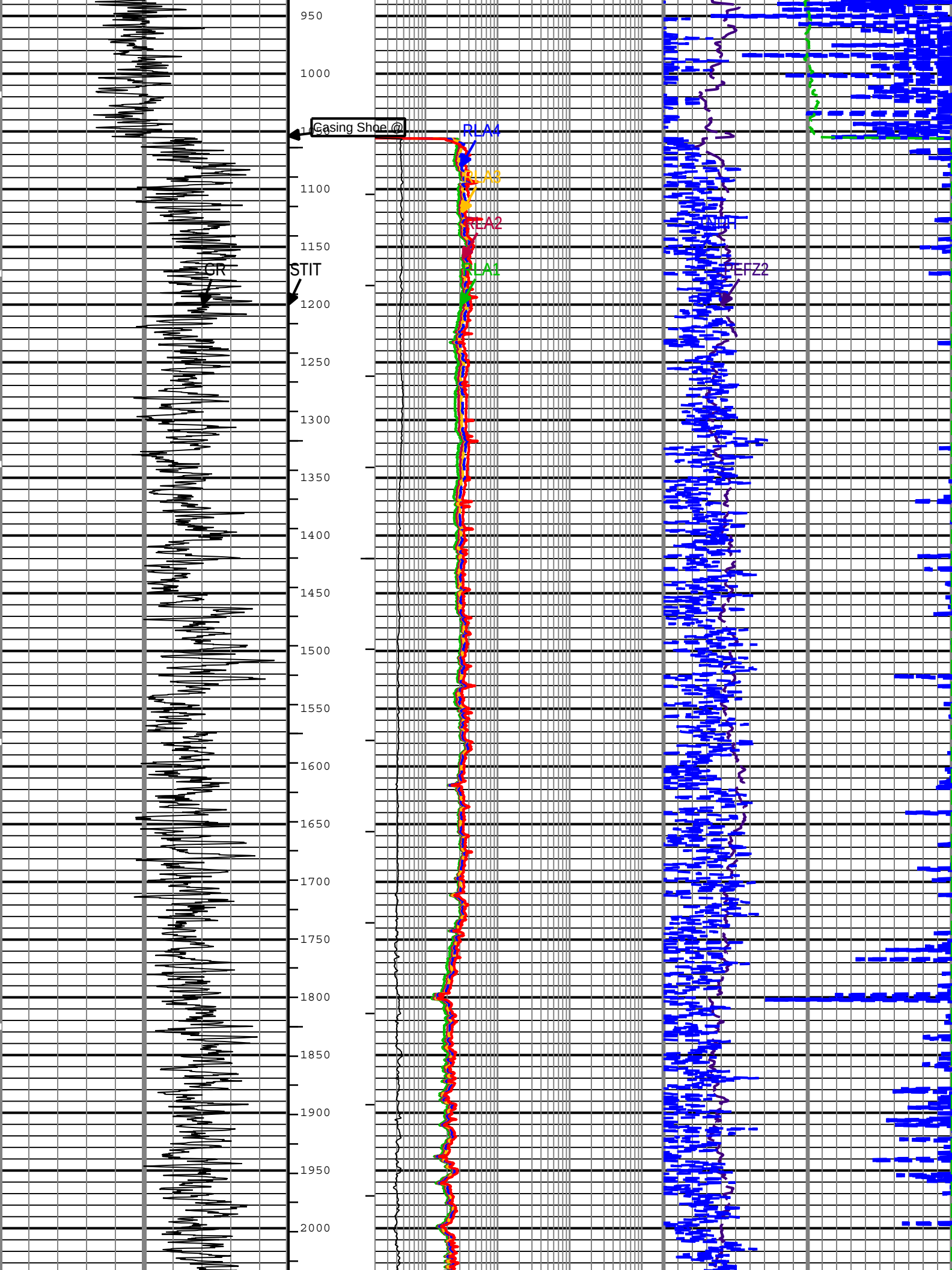
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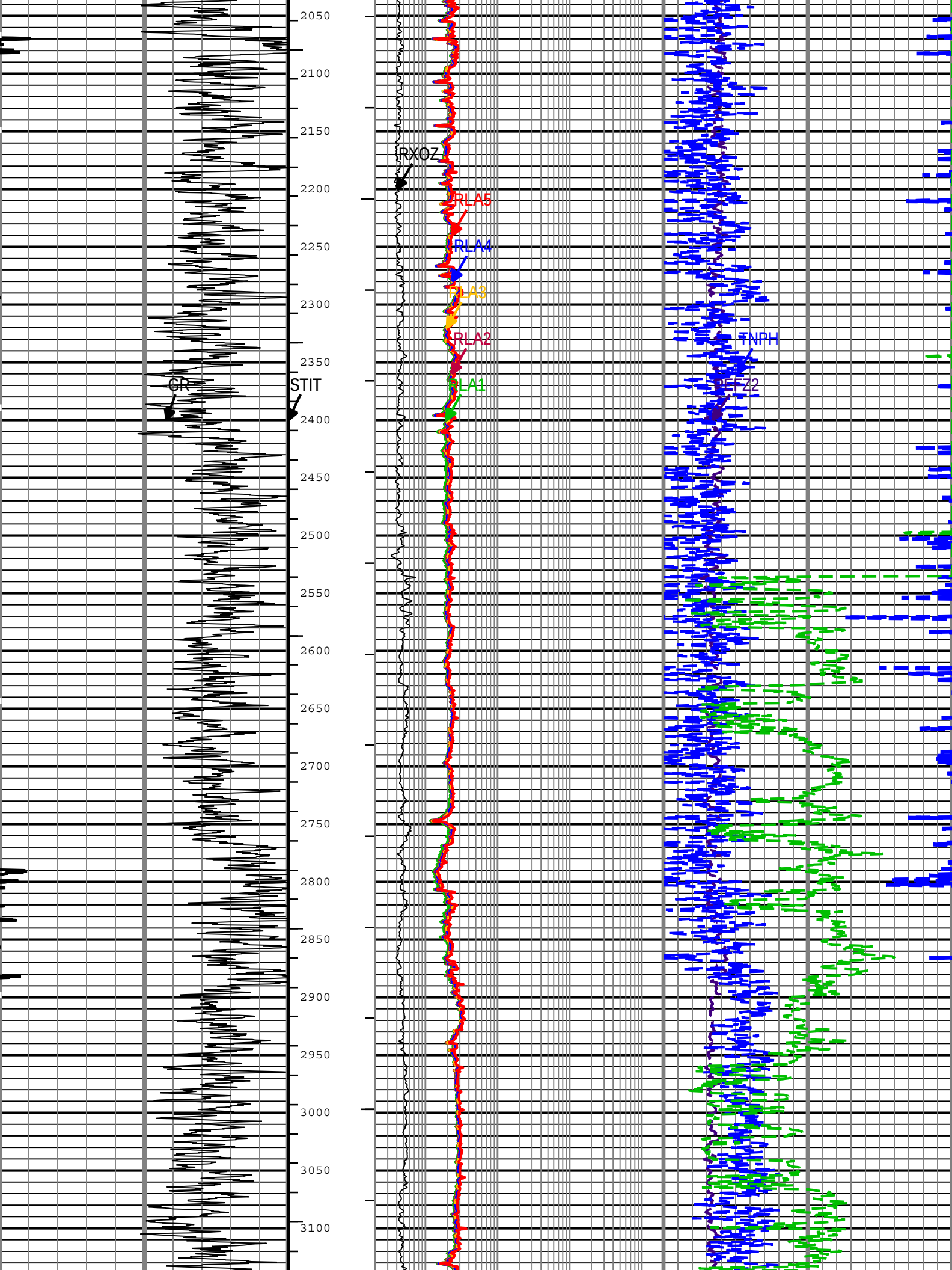
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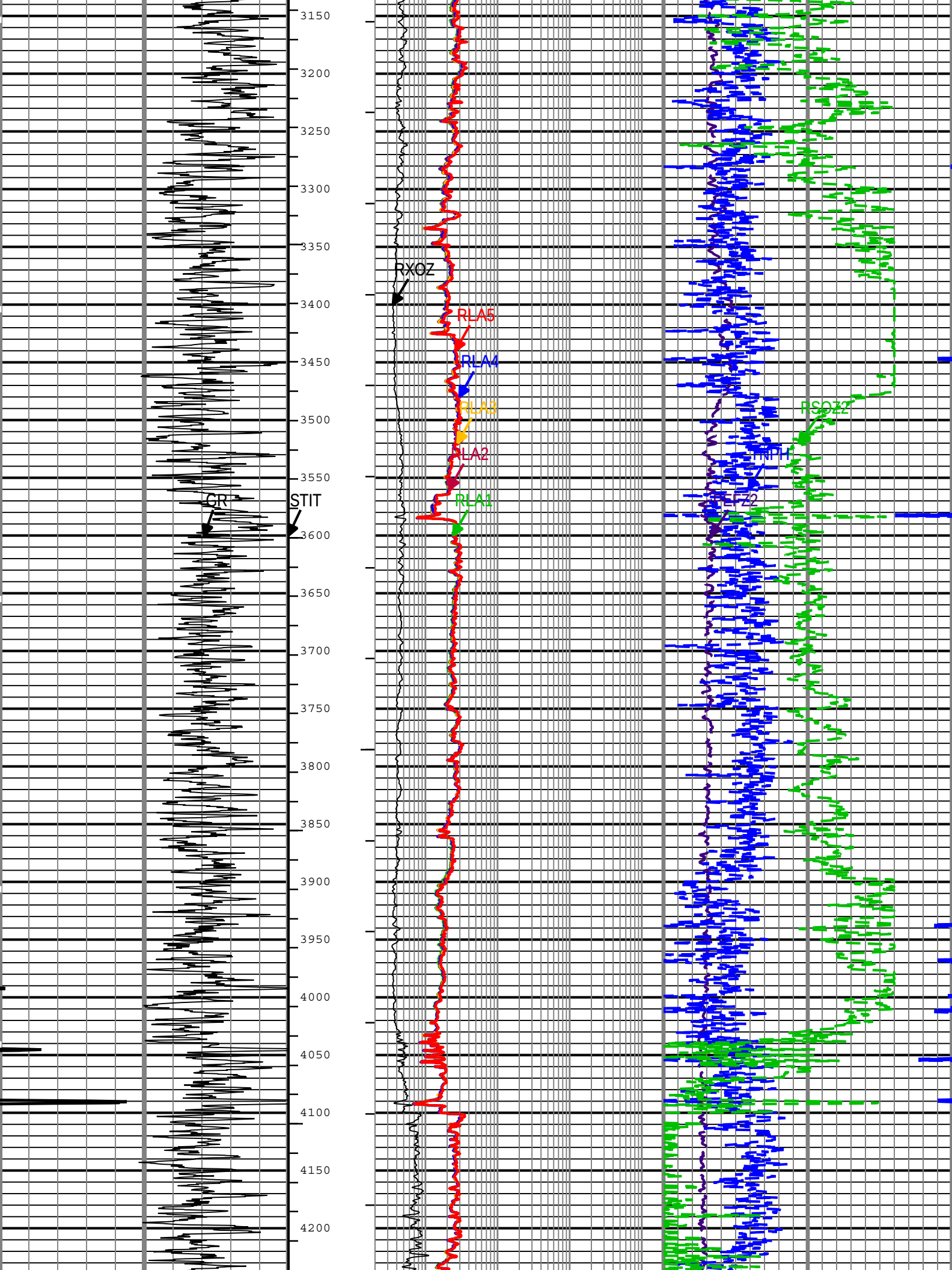
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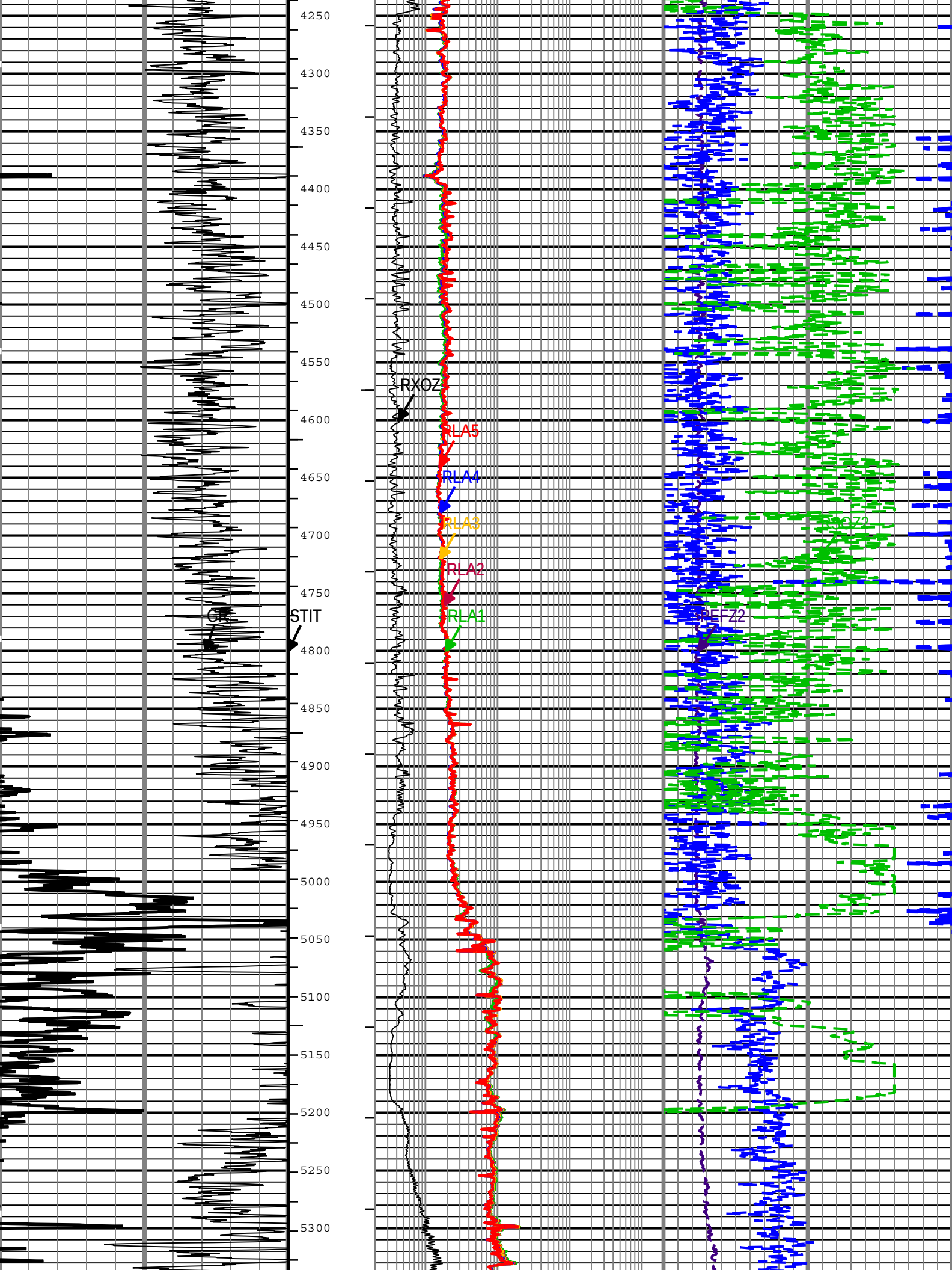
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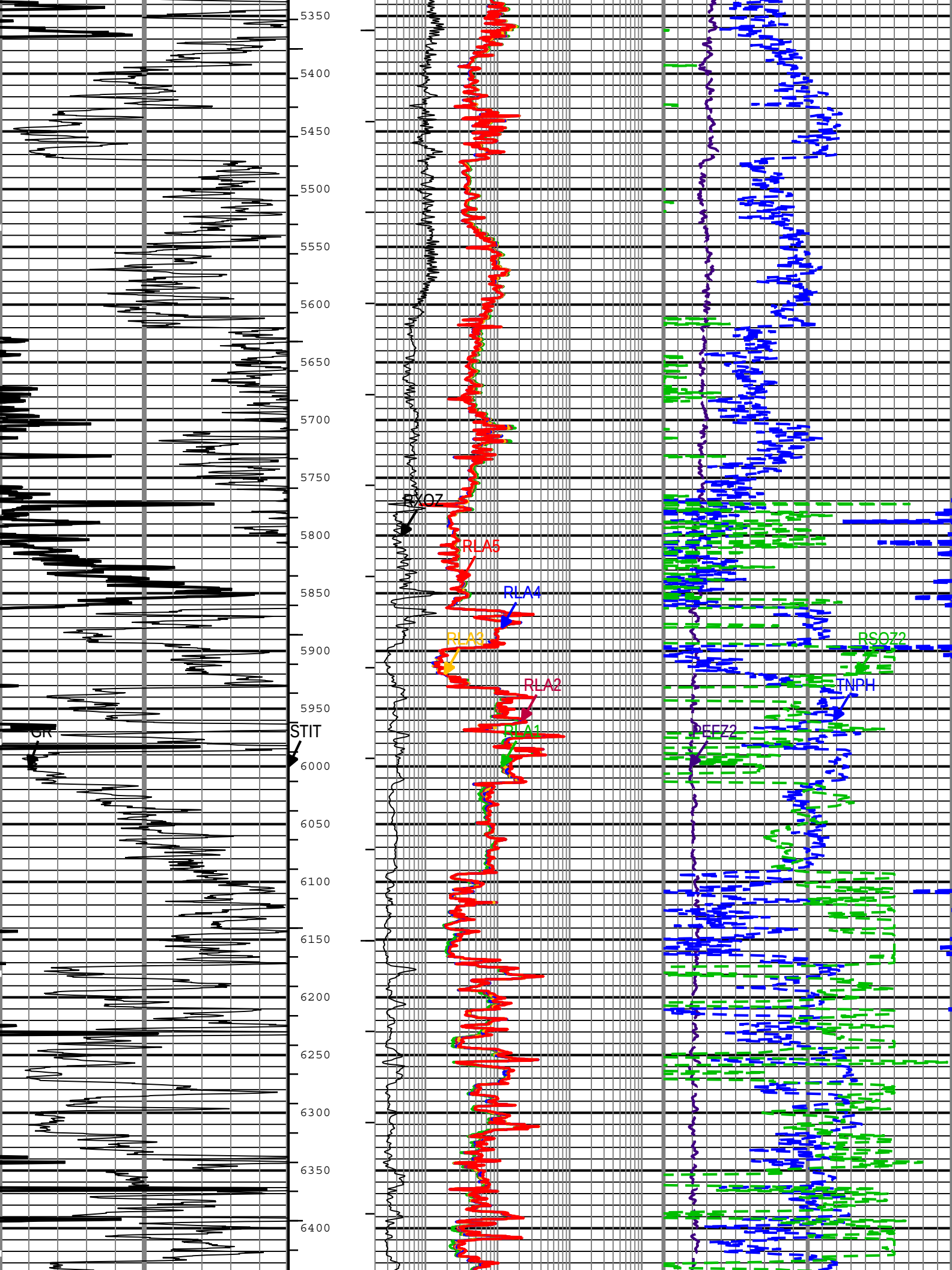
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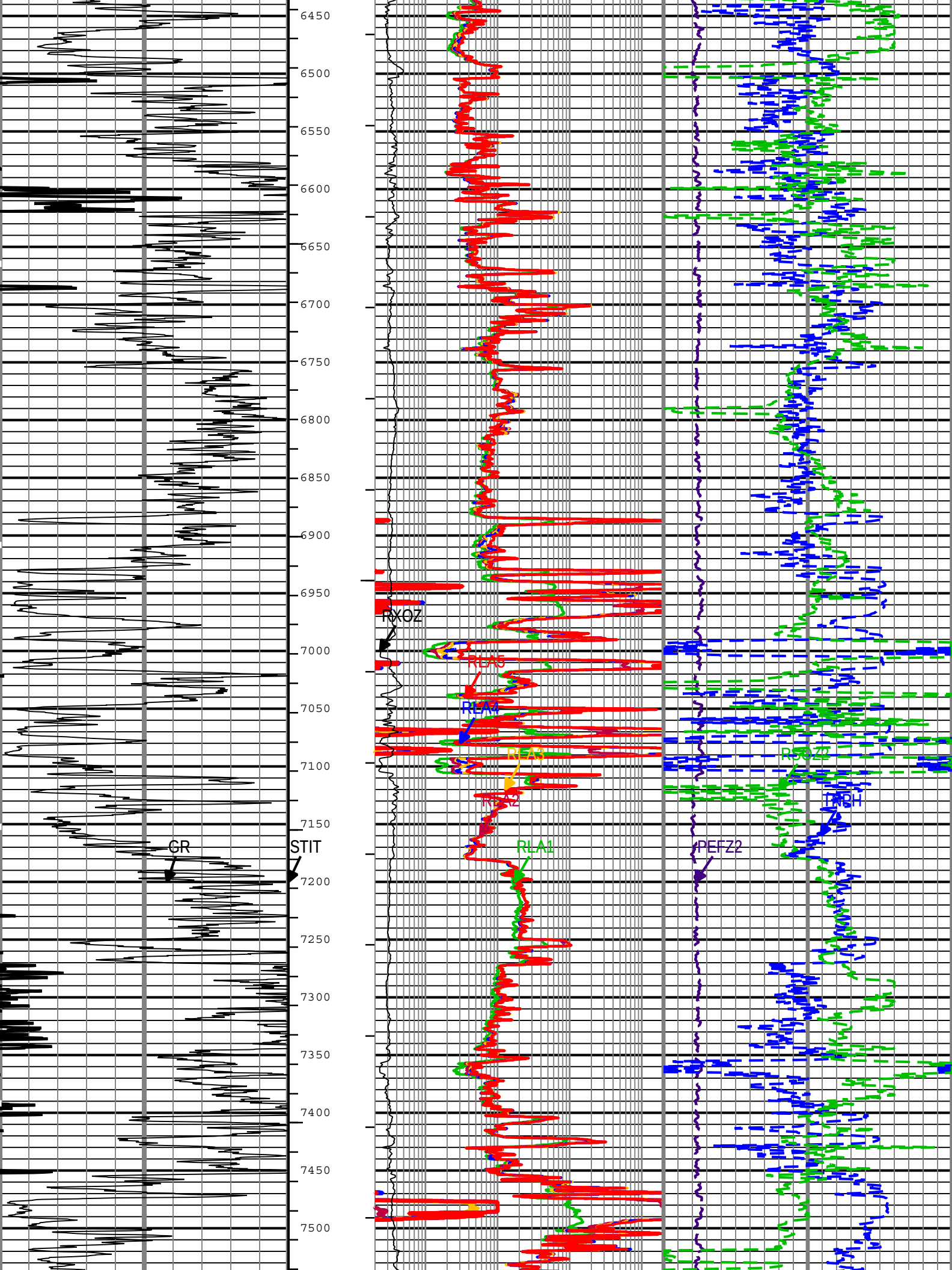
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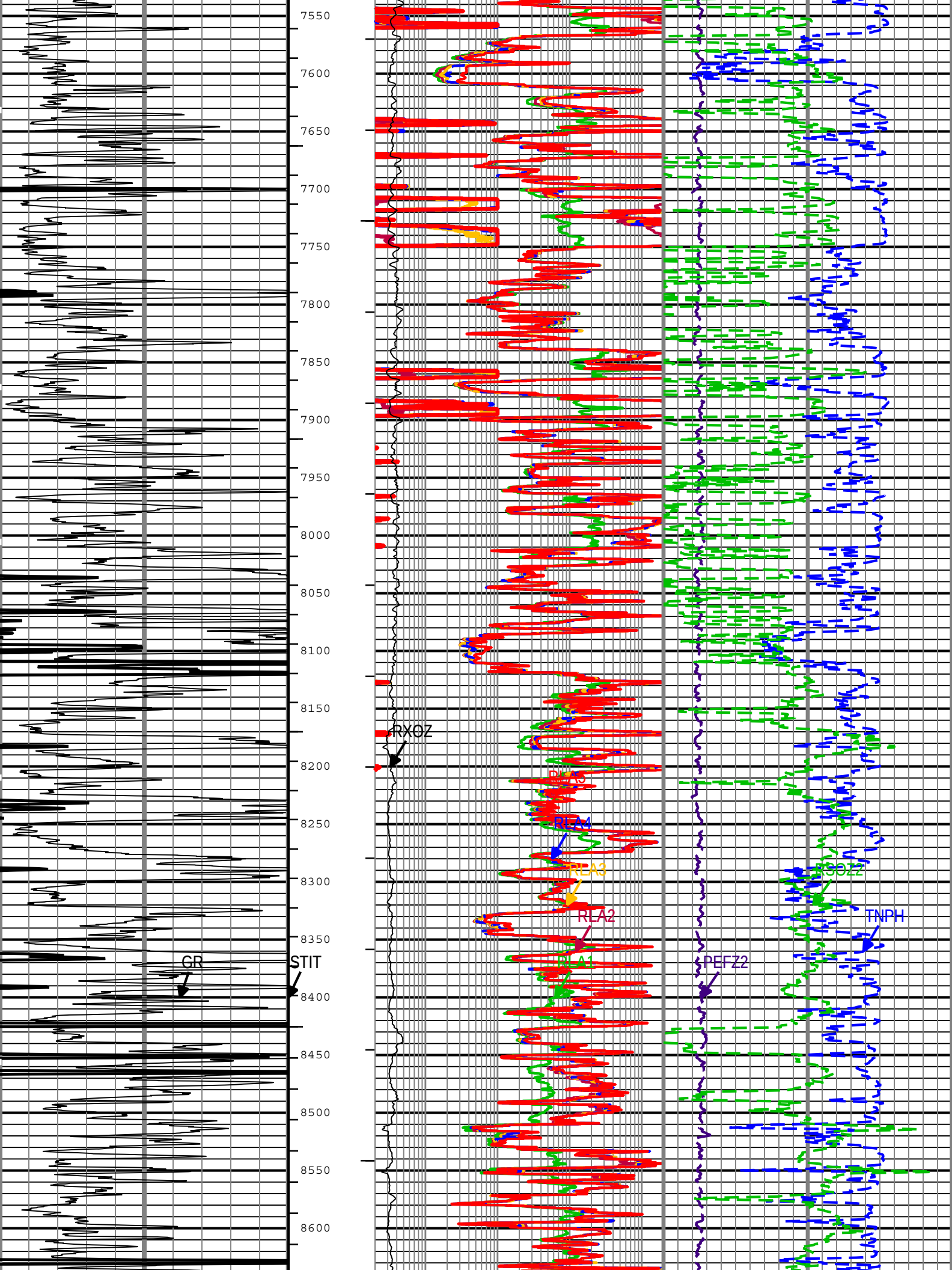
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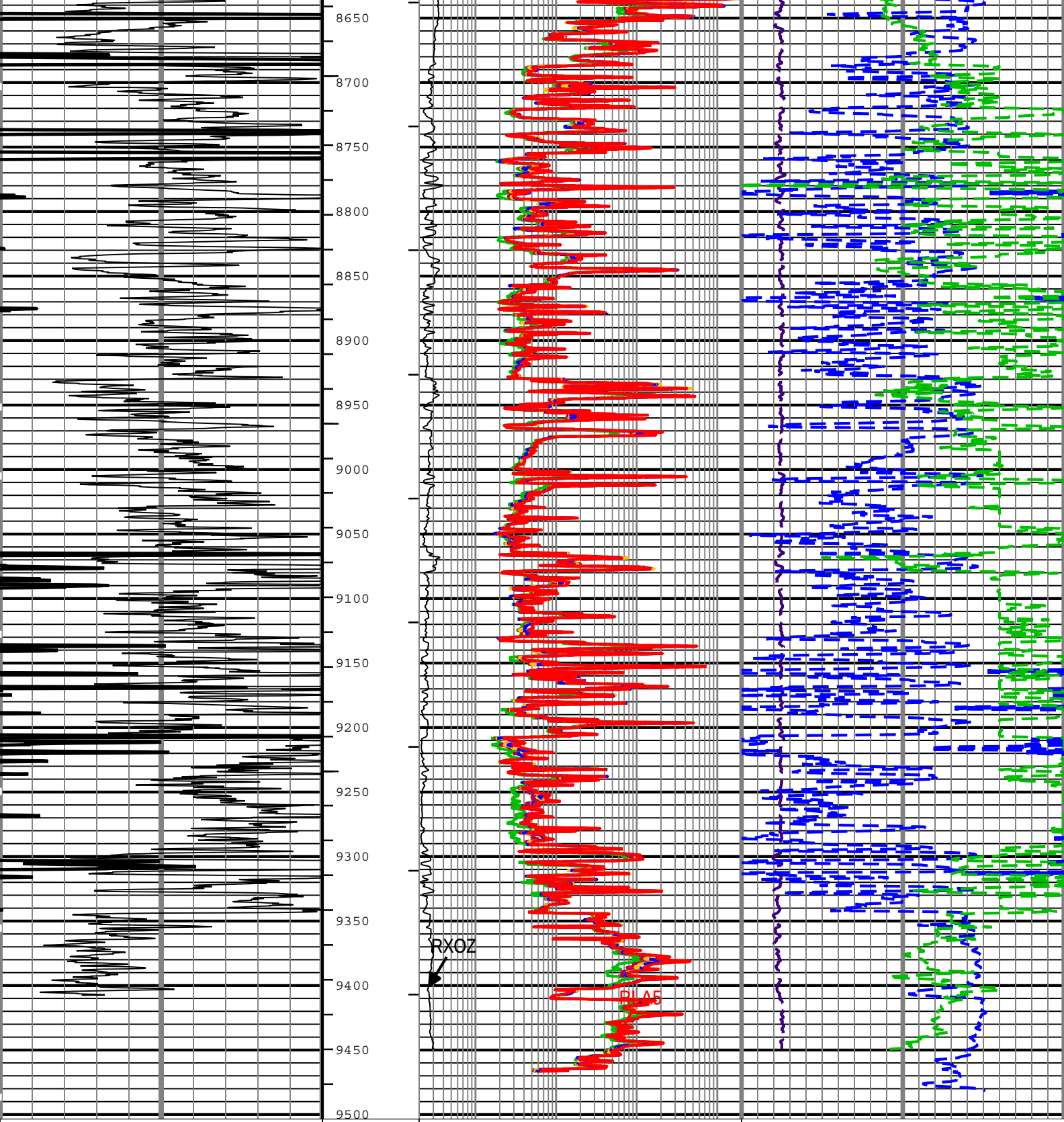
GR
STIT



Gamma Ray (GR) EDTC-B
0 gAPI 150

Stuck Tool Indicator, Total (STIT)
0 ft 50

Apparent Resistivity from Computed Focusing Mode 1 (RLA1) HRLT-B
0.2 ohm.m 2000

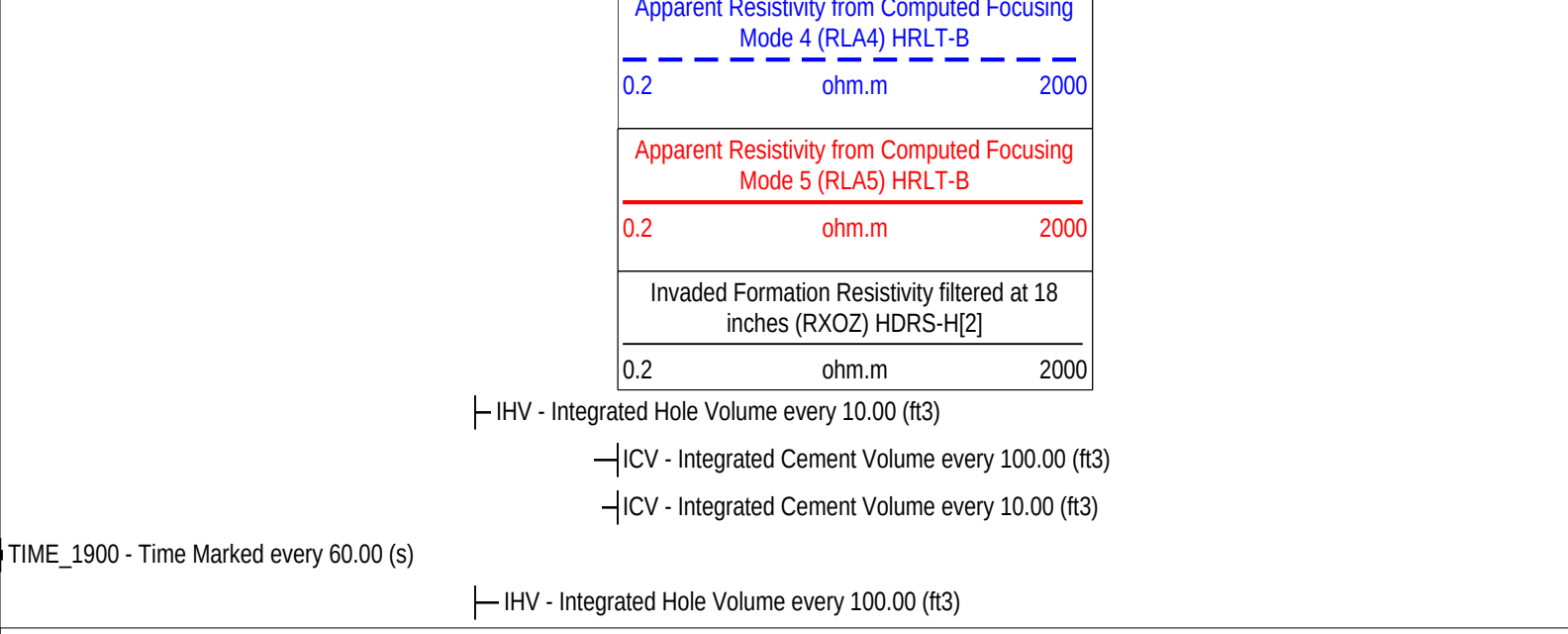
Apparent Resistivity from Computed Focusing Mode 2 (RLA2) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 3 (RLA3) HRLT-B
0.2 ohm.m 2000

PEFZ2
0 20

Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H
0.45 ft3/ft3 -0.15

RSOZ2
0.5 in 0



Description: Triple Combo standard resolution template for Platform Express Format: Log (Five_HRLA_RS) Index Scale: 1 in per 100 ft Index Unit: ft Index Depth Creation Date: 03-May-2012 11:23:56

Channel Processing Parameters

Parameter	Description	ToolPath	Value	Unit
AZ_SELECT	Z-Axis Acceleration Channel Selection for Real-Time Depth Correction	DepthCorrection	AZ	
BARI	Barite Mud Presence Flag	Borehole	Yes	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	COMPLETION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	13639.46	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H[2]:HRCC-H:HRCC-H	0	in
CBLO	Casing Bottom (Logger)	COMPLETION	1056	ft
CDEN	Cement Density	EDTC-B:EDTC-B:EDTC-B	2	g/cm3
CSODDRL	Casing Outer Diameter - Zoned along driller depths	COMPLETION	Depth Zoned	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.4	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Chemical Gel	
DHC	Density Hole Correction	HDRS-H[2]:HRMS-H:HRGD-H	Bit Size	
FCD	Future Casing (Outer) Diameter	COMPLETION	7	in
FSAL	Formation Salinity	Borehole	6126.75	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	REMS	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HRLT_PROCRM	Mud Resistivity Select	HRLT-B:HRLS-B:HRLS-B	HRLT Compute	
HSCO	Hole Size Correction Option	HGNS-H:HGNS-H:HGNS-H	Yes	
HVCS	Integrated Hole Volume Caliper Selection	Borehole	Measured Area	
KFAC_HRLT	HRLT Geometrical Factor Option	HRLT-B:HRLS-B:HRLS-B	Sonde	
MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MFST	Mud Filtrate Sample Temperature	Borehole	67.4	degF
MST	Mud Sample Temperature	Borehole	67.8	degF
NPRM	HRDD Nuclear Processing Mode	HDRS-H[2]:HRMS-H:HRGD-H	High Resolution	
PROCMSO	Mechanical Standoff Size	HRLT-B:HRLS-B:HRLS-B	1.5	in
PROCSPO	Sonde Position	HRLT-B:HRLS-B:HRLS-B	Eccentered	

RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.44	ohm.m
RMS	Resistivity of Mud Sample	Borehole	0.47	ohm.m
SOCO.1	Standoff Correction Option	HGNS-H:HGNS-H:HGNS-H	Yes	
TD	Total Measured Depth	Borehole	9541	ft

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	8.5	94.5	8400
BS	8.25	8400	9503.5
CSODDRL	[9.625]	94.5	1056
CSODDRL	[0]	1056	9503.5

All depth are actual.

Tool Control Parameters

Parameter	Description	ToolPath	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H:HGNS-H:HMCA-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H[2]:HRMS-H:HRGD-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLWorkflow	900	ft/h

1

PEx Short Axis 2"=100'

Integration Summary

Output Channel(s)	Output Description	Input Parameter	Output Value	Unit
IHV	Integrated Hole Volume	HVAS	3303.52	ft3
ICV	Integrated Cement Volume	HVAS, FCD	1046.24	ft3

Software Version

Acquisition System	Version
MaxWell	3.0.9609.0
Application Patch	SP-20111012-3.0.9609.1274
	EXP_APL-MAST-3.0.9609.1568
	EXP_APL-ADT-3.0.9609.1558

Computation	Description	Version
Borehole	Borehole Ensemble provides common Borehole Parameters and Channels	3.0.9609.1274
HENVIR	Computation Ensemble for the HGNS Neutron environmental corrections	3.0.9609.0
DepthCorrection	DepthCorrection	3.0.9609.1274

Tool Elements	Description	Software Version	Firmware Version
HGNS-H	HILT Gamma-Ray and Neutron Sonde, 150 degC	3.0.9609.0	2.0
HRLS-B	HRLT-B Sonde	3.0.9609.1274	DSP: 2.1 HOST: 0.a
HRGD-H	HILT Resistivity Gamma-Ray Density Device, 150 degC	3.0.9609.0	3.0
EDTC-B	Enhanced Digital Telemetry Cartridge - B	3.0.9609.1274	

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Depth Shift	Include Parallel Data
1	Log[1]:Down	Down	94.50 ft	9503.50 ft	03-May-2012 3:00:04 AM	03-May-2012 3:51:34 AM	0.00 ft	

All depths are referenced to toolstring zero

Log

1: Log[1]:Down 4C60F550-6140-4236-B2D0-465CAE4235B7

Description: Triple Combo standard resolution template for Platform Express Format: Log (Five_HRLA_RS) Index Scale: 2 in per 100 ft Index Unit: ft Index Depth Creation Date: 03-May-2012 11:24:17

Channel Source Sampling

Channel	Source	Sampling
GR	EDTC-B:EDTC-B:EDTC-B	2in
ICV	Borehole	6in
IHV	Borehole	6in
PEFZ	HDRS-H[2]:HRMS-H:HRGD-H	2in
RLA1	HRLT-B:HRLS-B:HRLS-B	2in
RLA2	HRLT-B:HRLS-B:HRLS-B	2in
RLA3	HRLT-B:HRLS-B:HRLS-B	2in
RLA4	HRLT-B:HRLS-B:HRLS-B	2in
RLA5	HRLT-B:HRLS-B:HRLS-B	2in
RSOZ	HDRS-H[2]:HRMS-H:HRGD-H	2in
RXOZ	HDRS-H[2]:HRMS-H:HRGD-H	2in
STIT	DepthCorrection	6in
TIME_1900	WLWorkflow	0.1in
TNPH	HGNS-H:HGNS-H:HGNS-H	6in

IHV - Integrated Hole Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

IHV - Integrated Hole Volume every 10.00 (ft3)

TIME_1900 - Time Marked every 60.00 (s)

Apparent Resistivity from Computed Focusing Mode 1 (RLA1) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 2 (RLA2) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 3 (RLA3) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 4 (RLA4) HRLT-B
0.2 ohm.m 2000

Apparent Resistivity from Computed Focusing Mode 5 (RLA5) HRLT-B
0.2 ohm.m 2000

PEFZ2
0 20

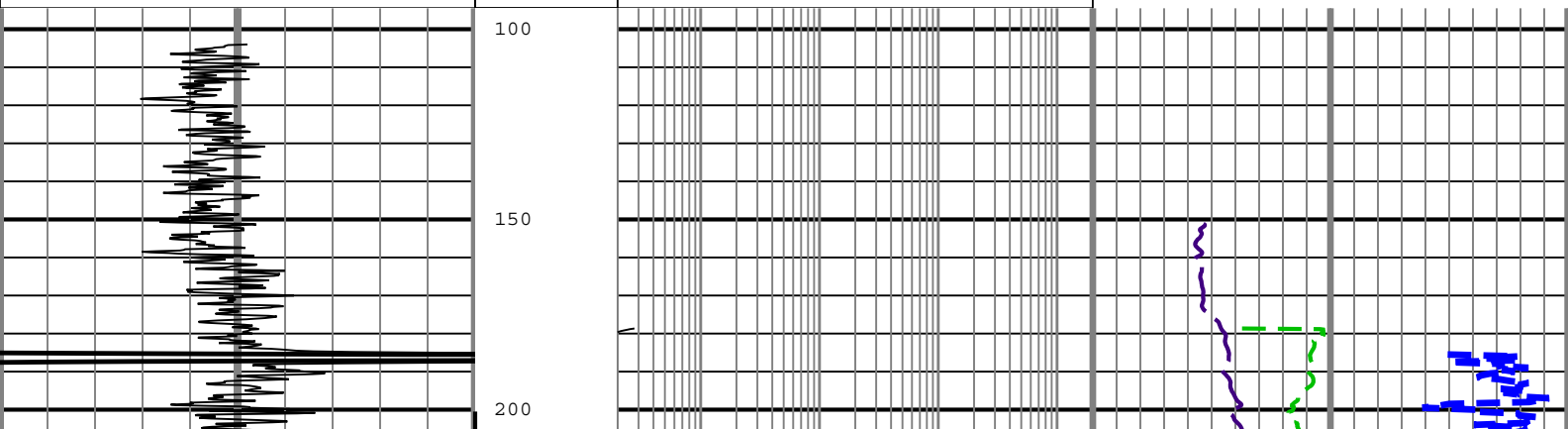
Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H
0.45 ft3/ft3 -0.15

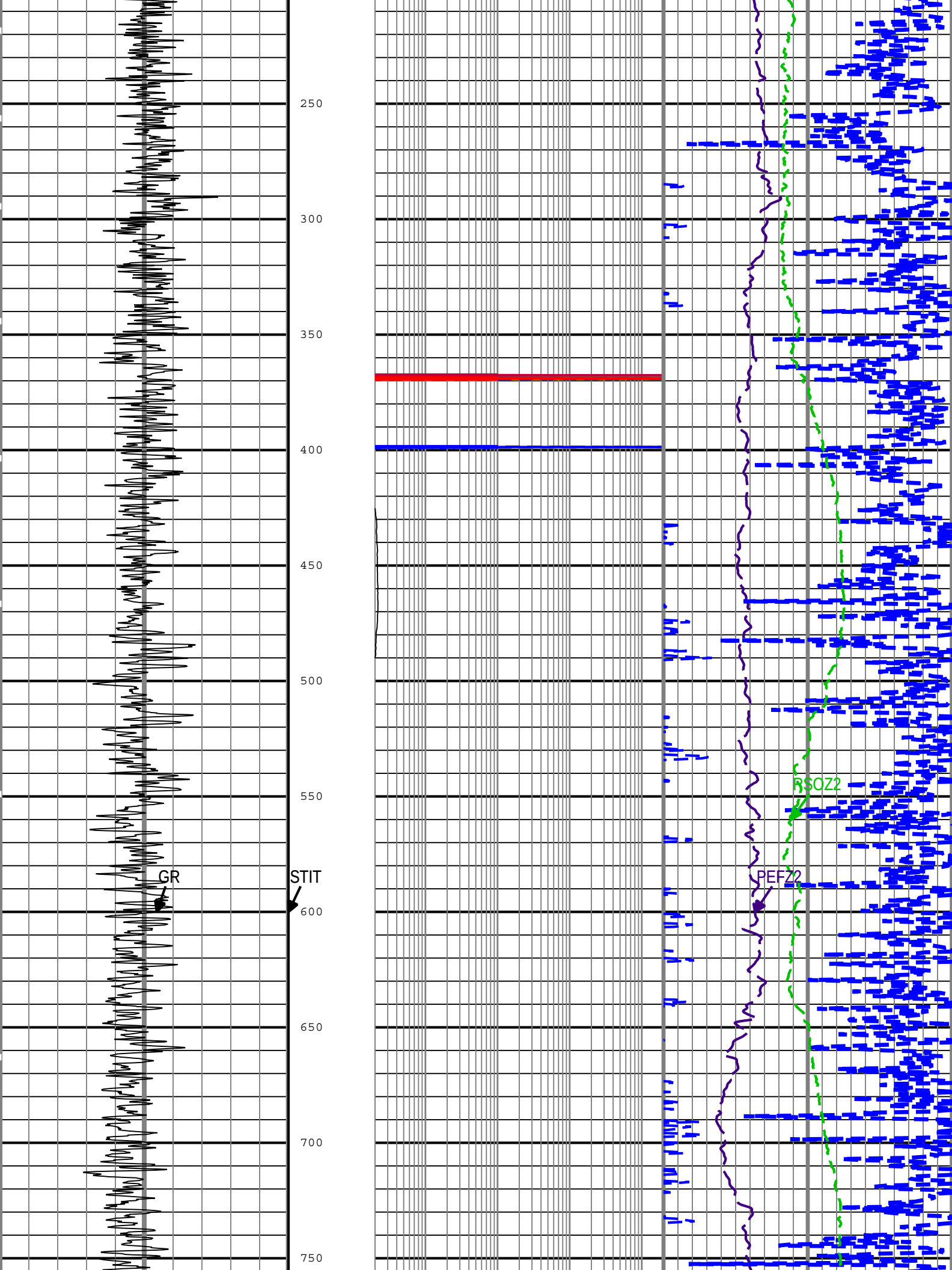
Gamma Ray (GR) EDTC-B
0 gAPI 150

Stuck Tool Indicator, Total (STIT)
0 ft 50

Invaded Formation Resistivity filtered at 18 inches (RXOZ) HDRS-H[2]
0.2 ohm.m 2000

RSOZ2
0.5 in 0

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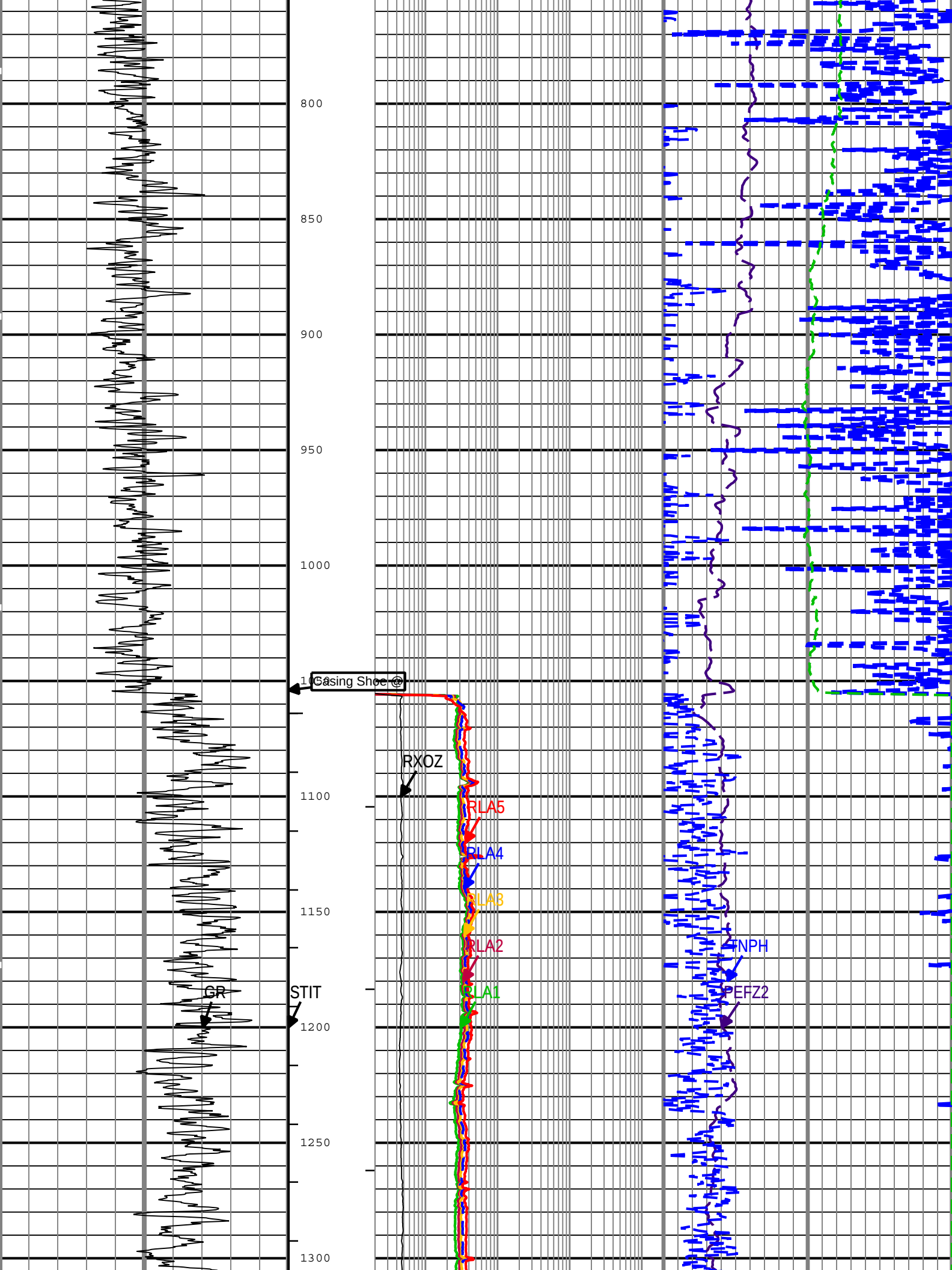
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Casing Shoe @
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TNPH
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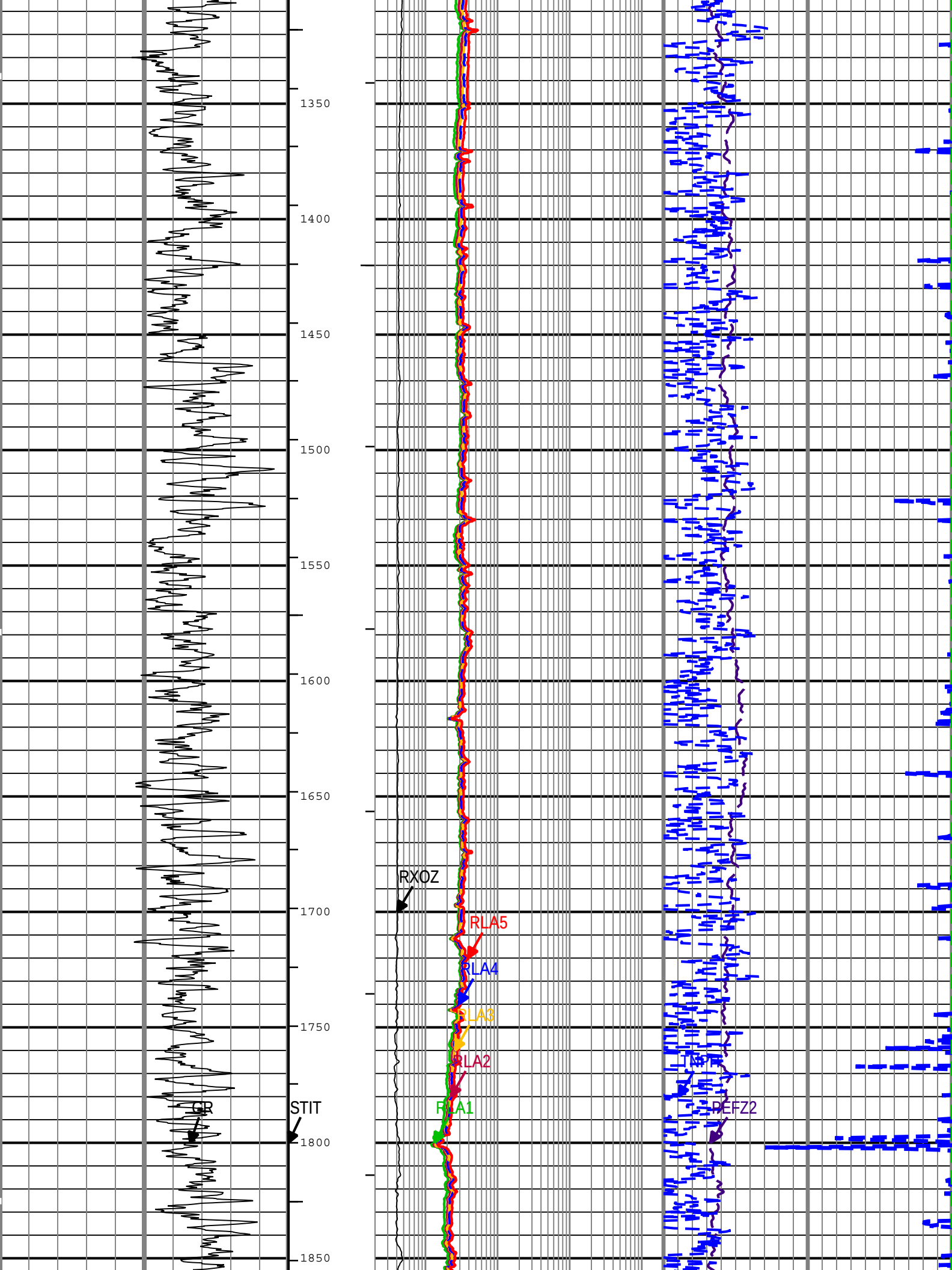
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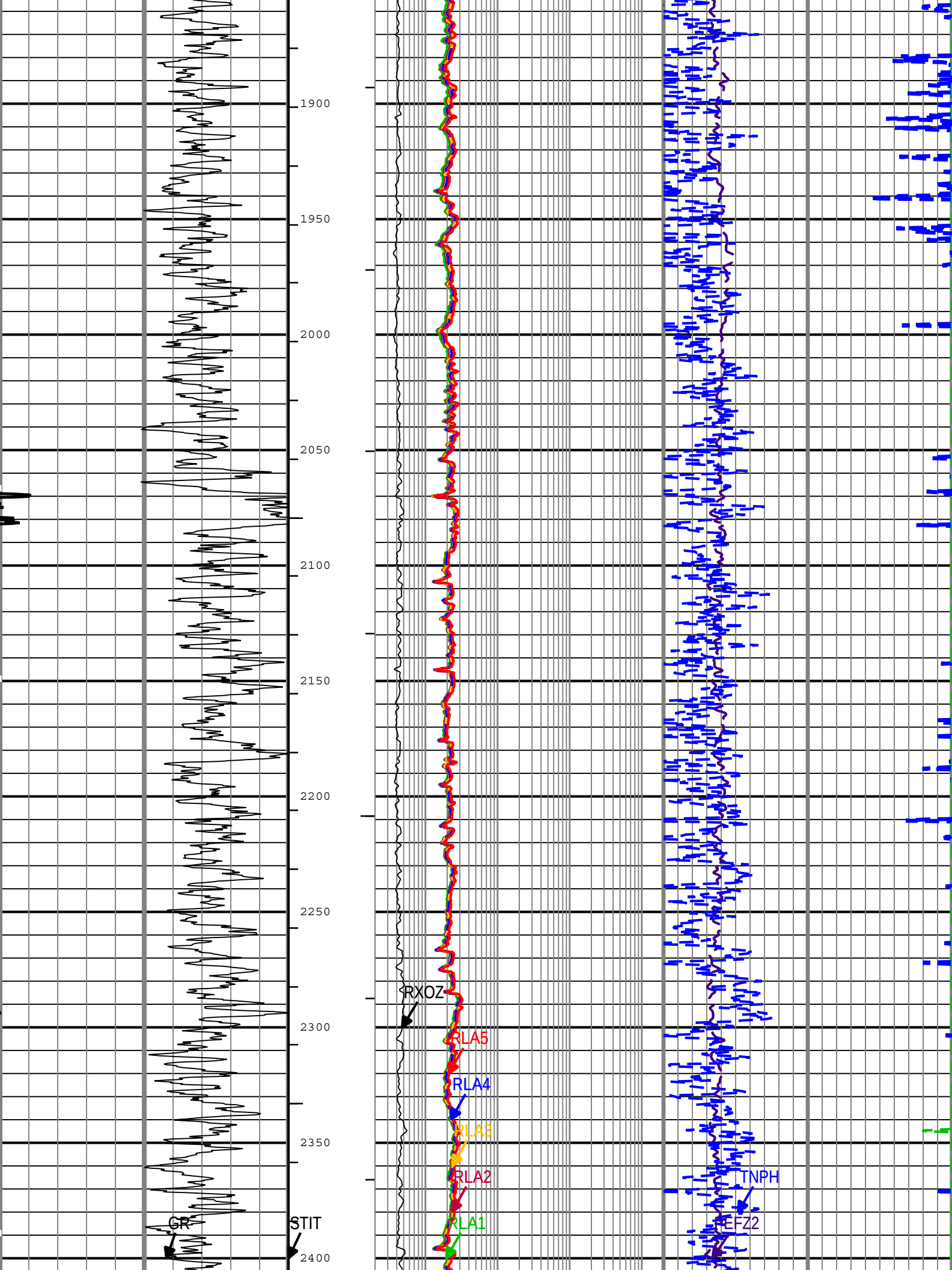
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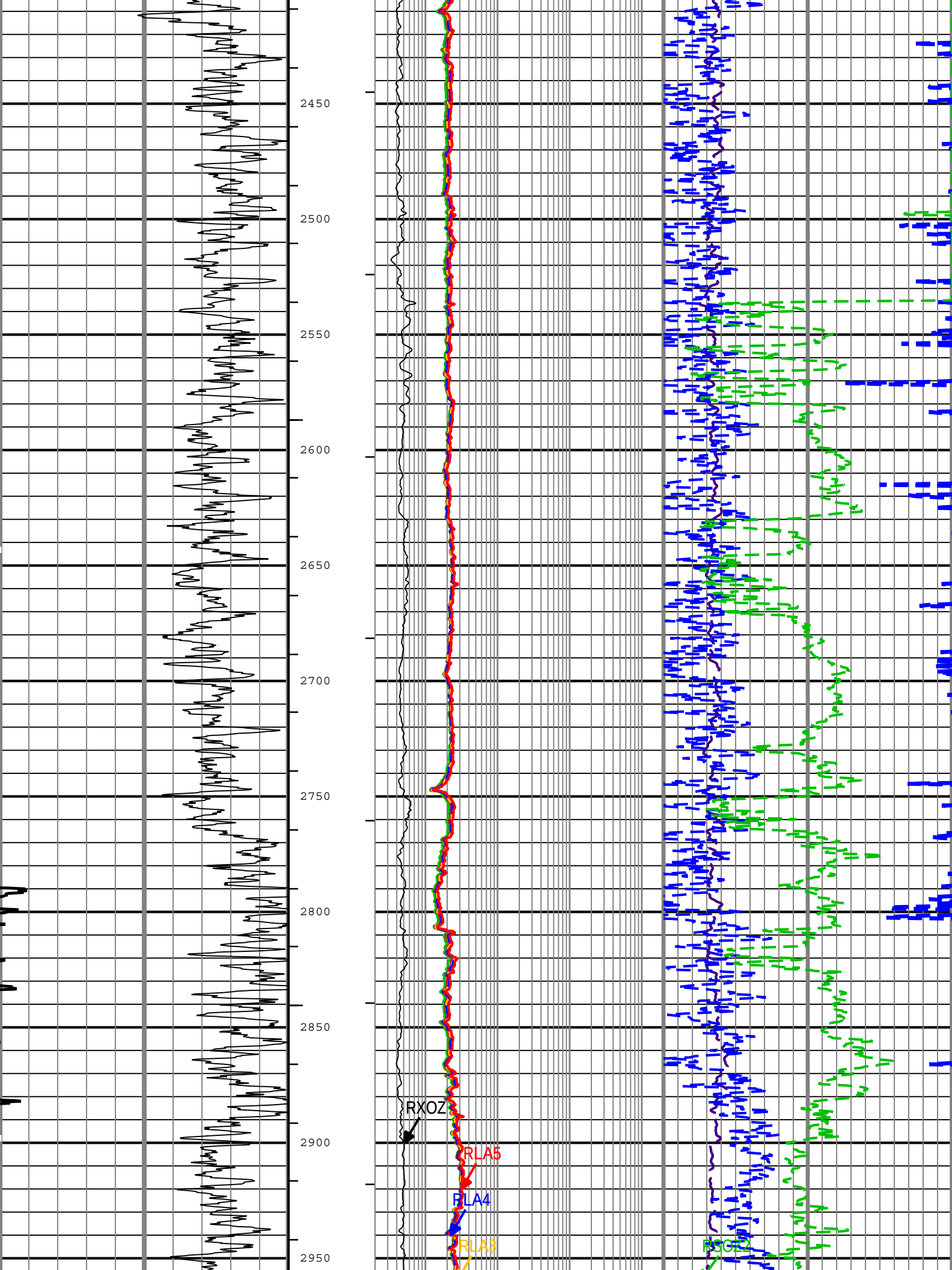
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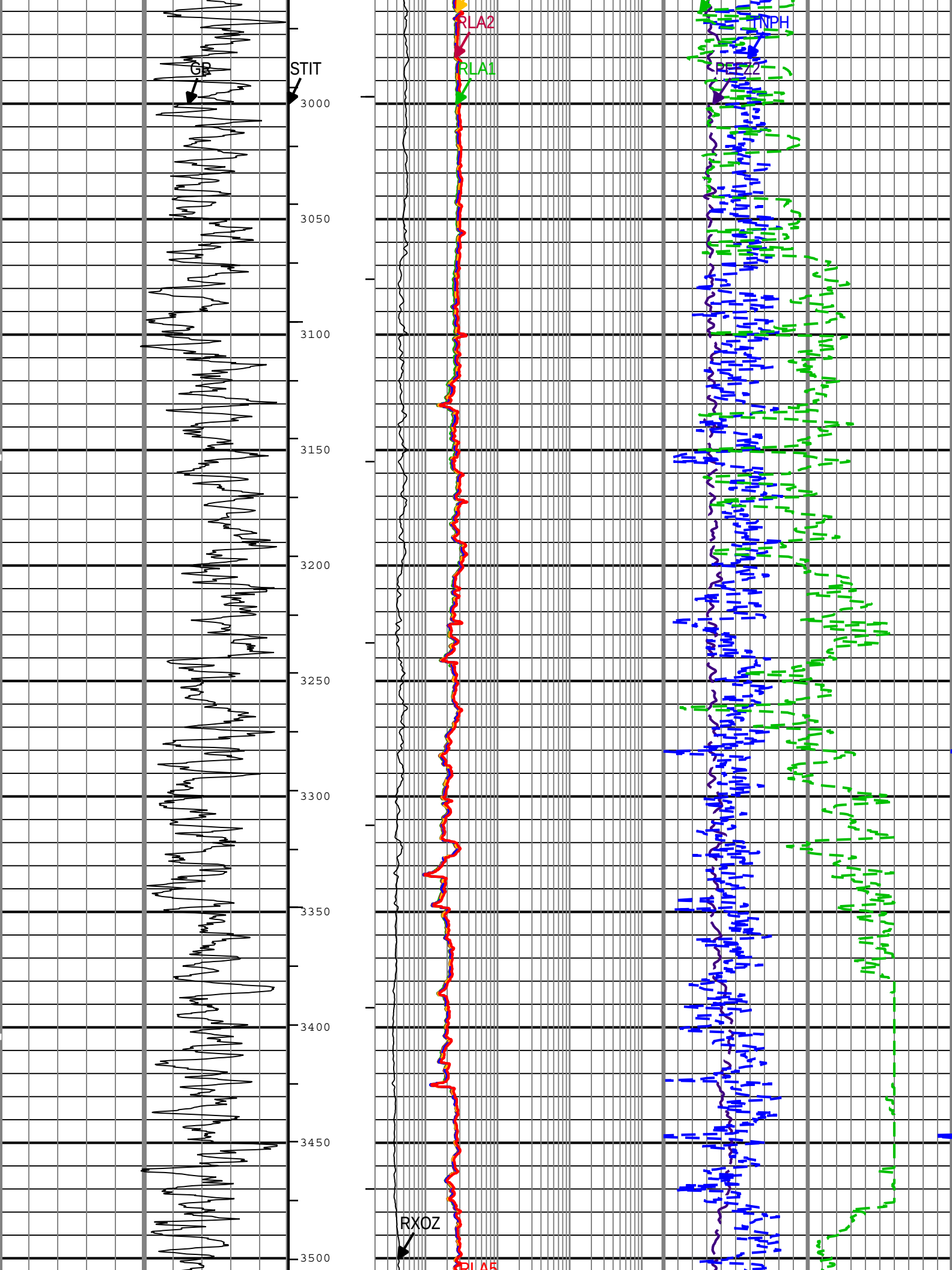
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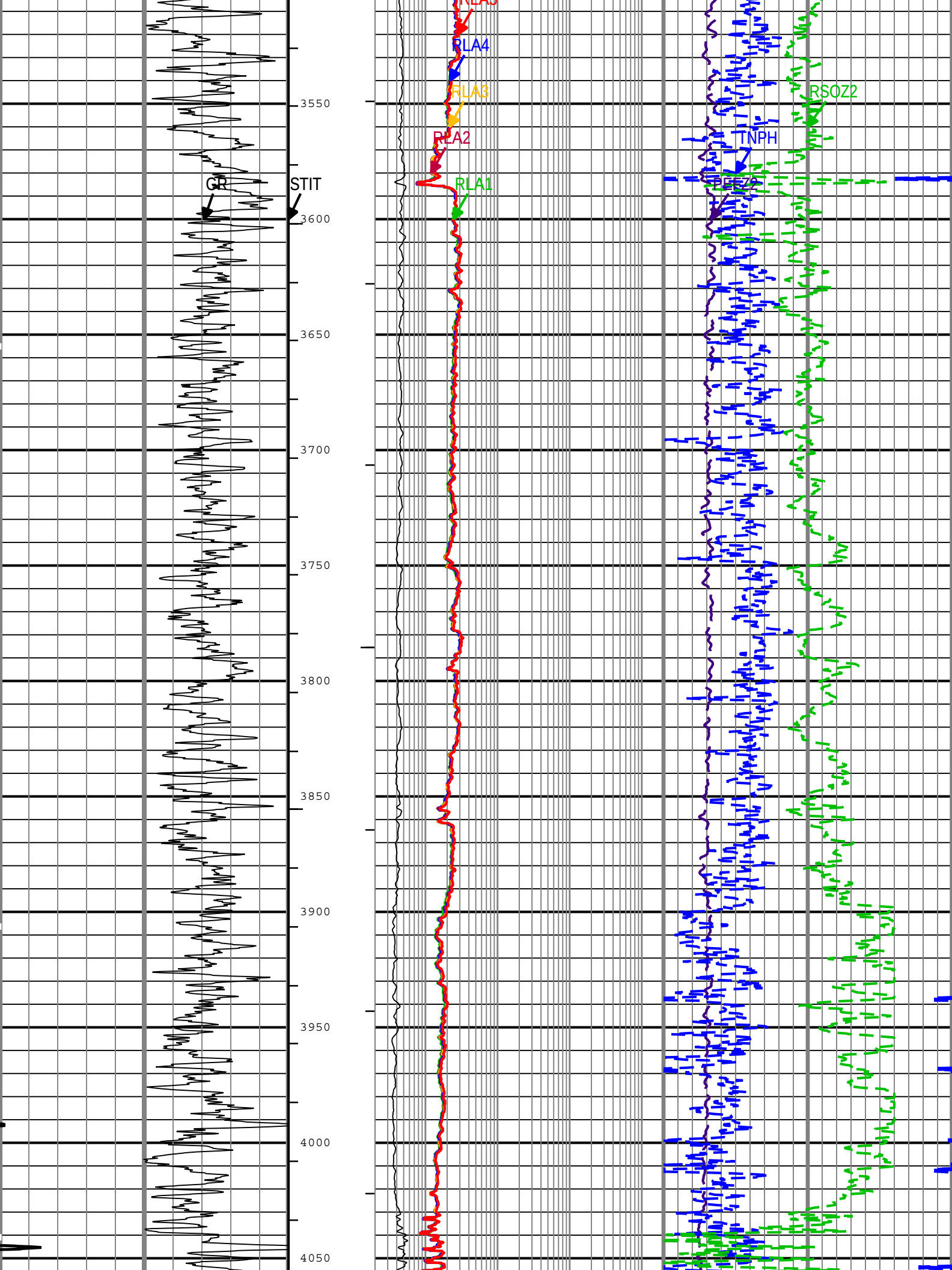
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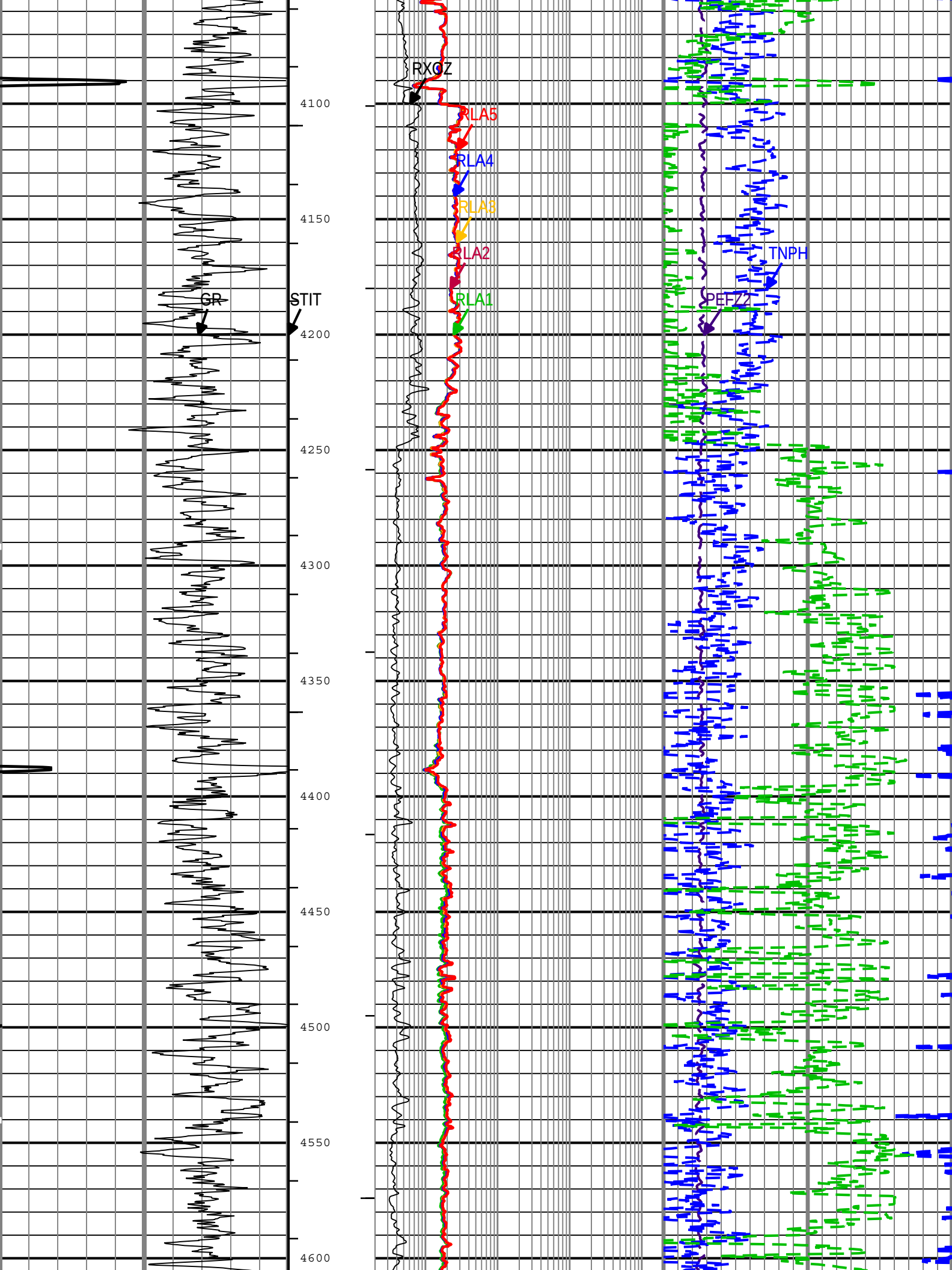
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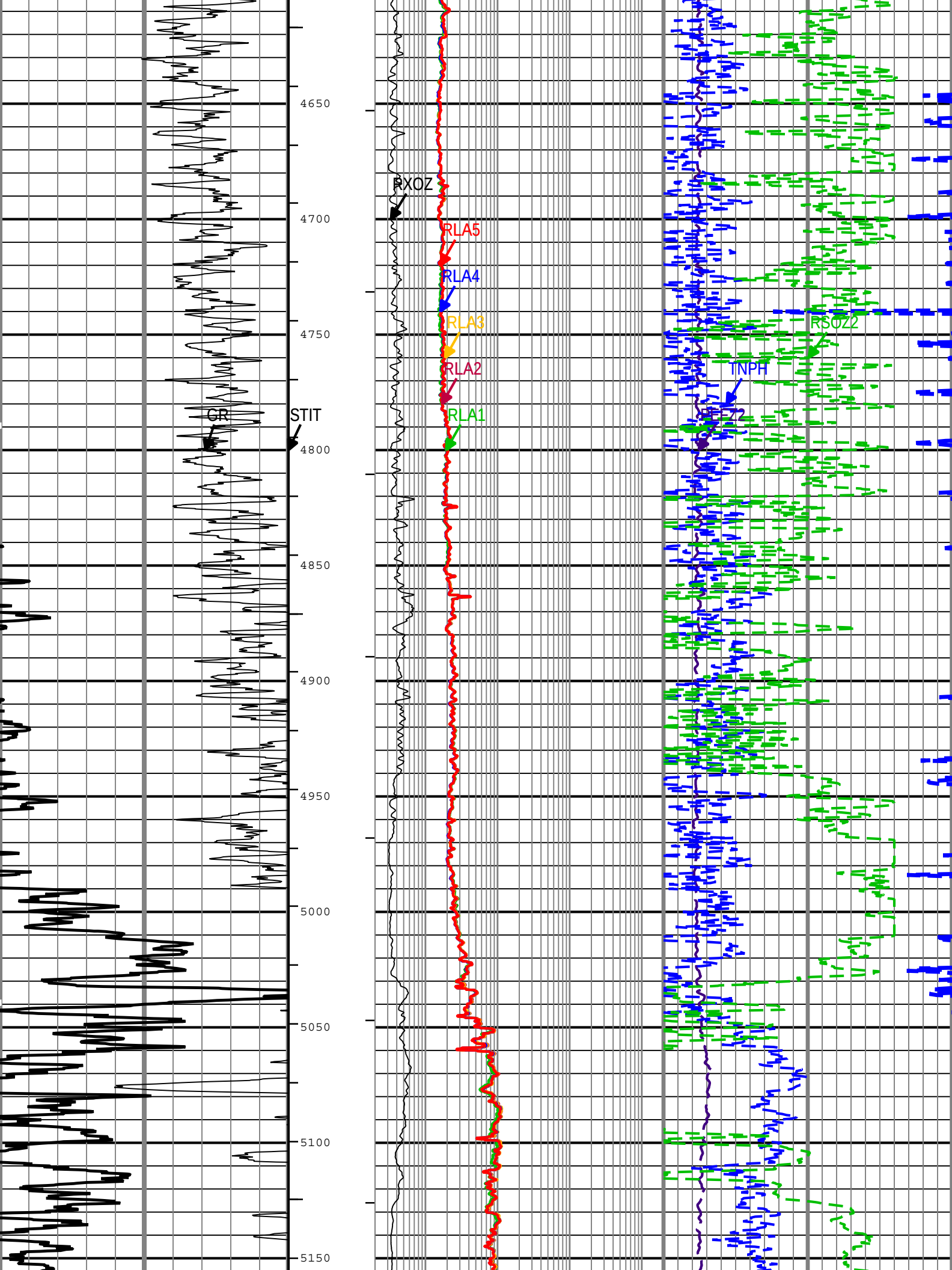
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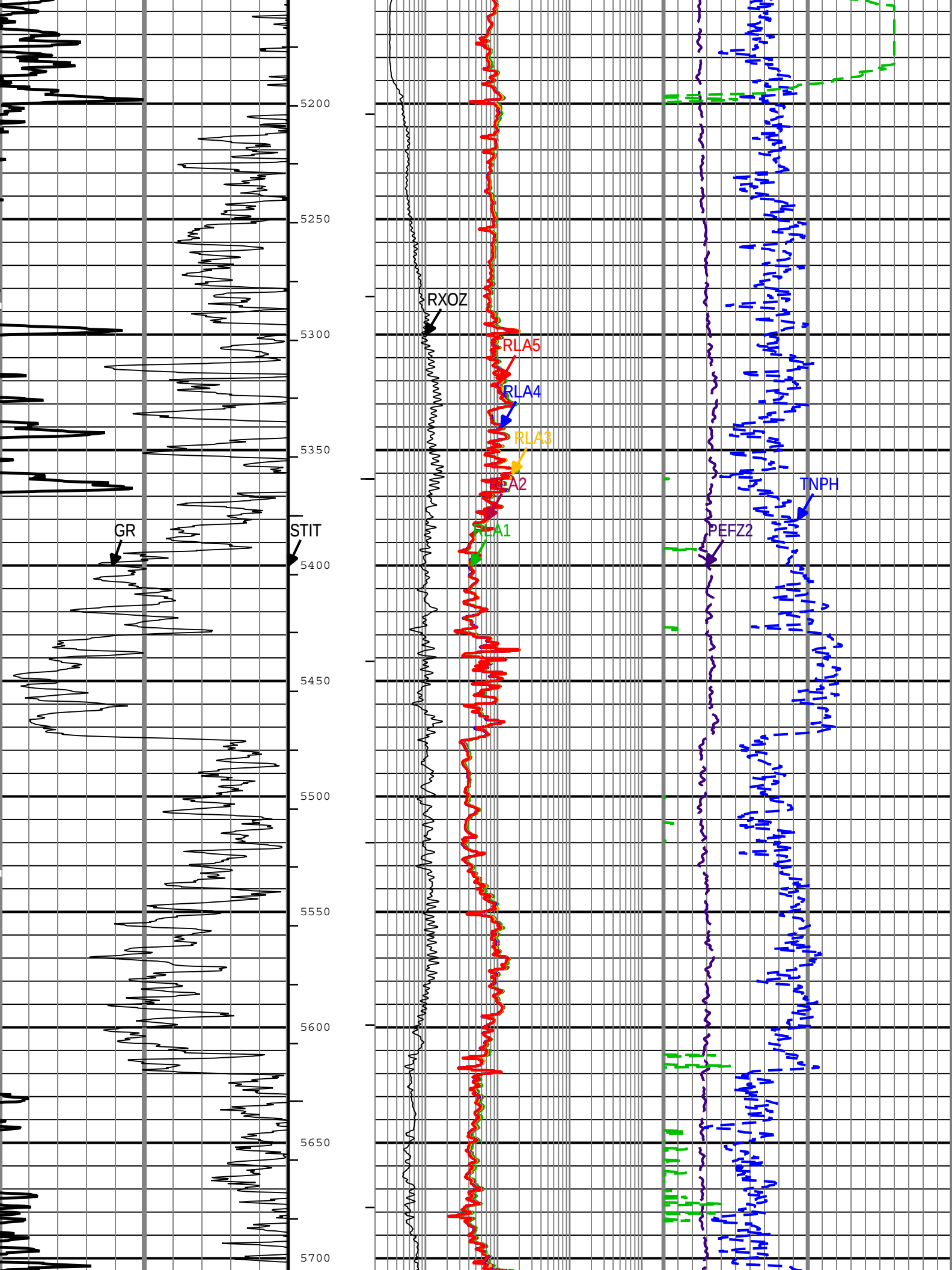
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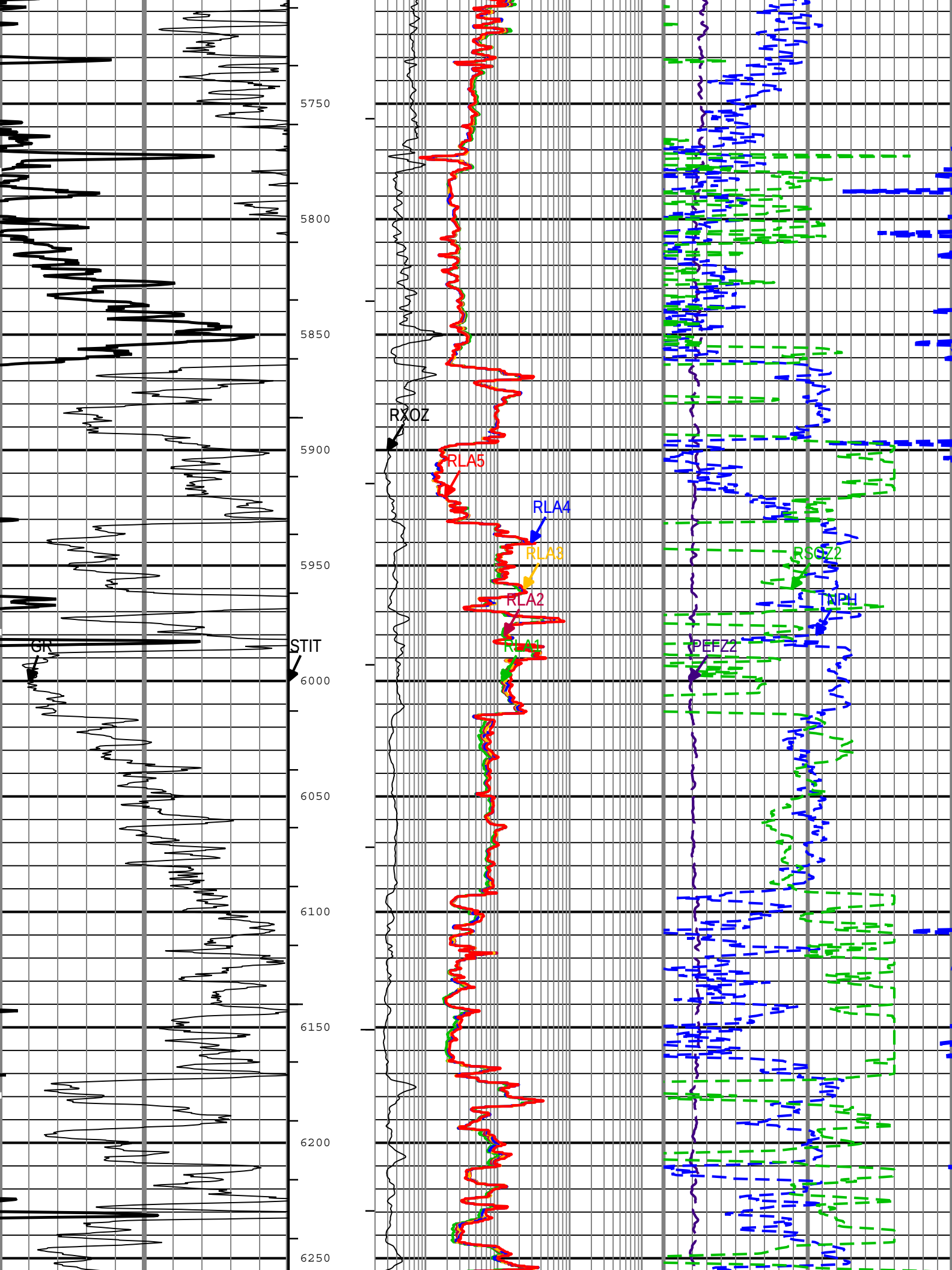
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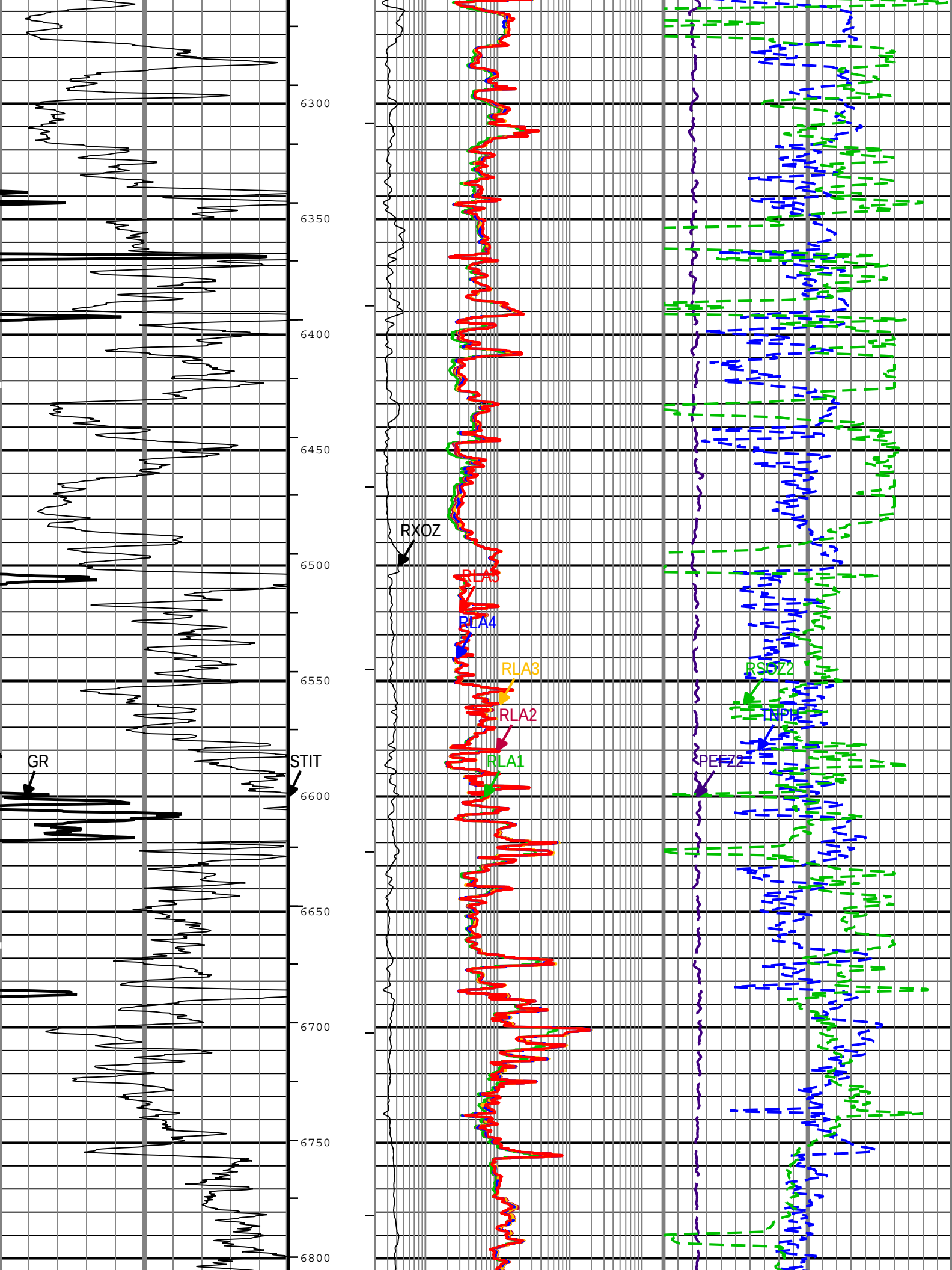
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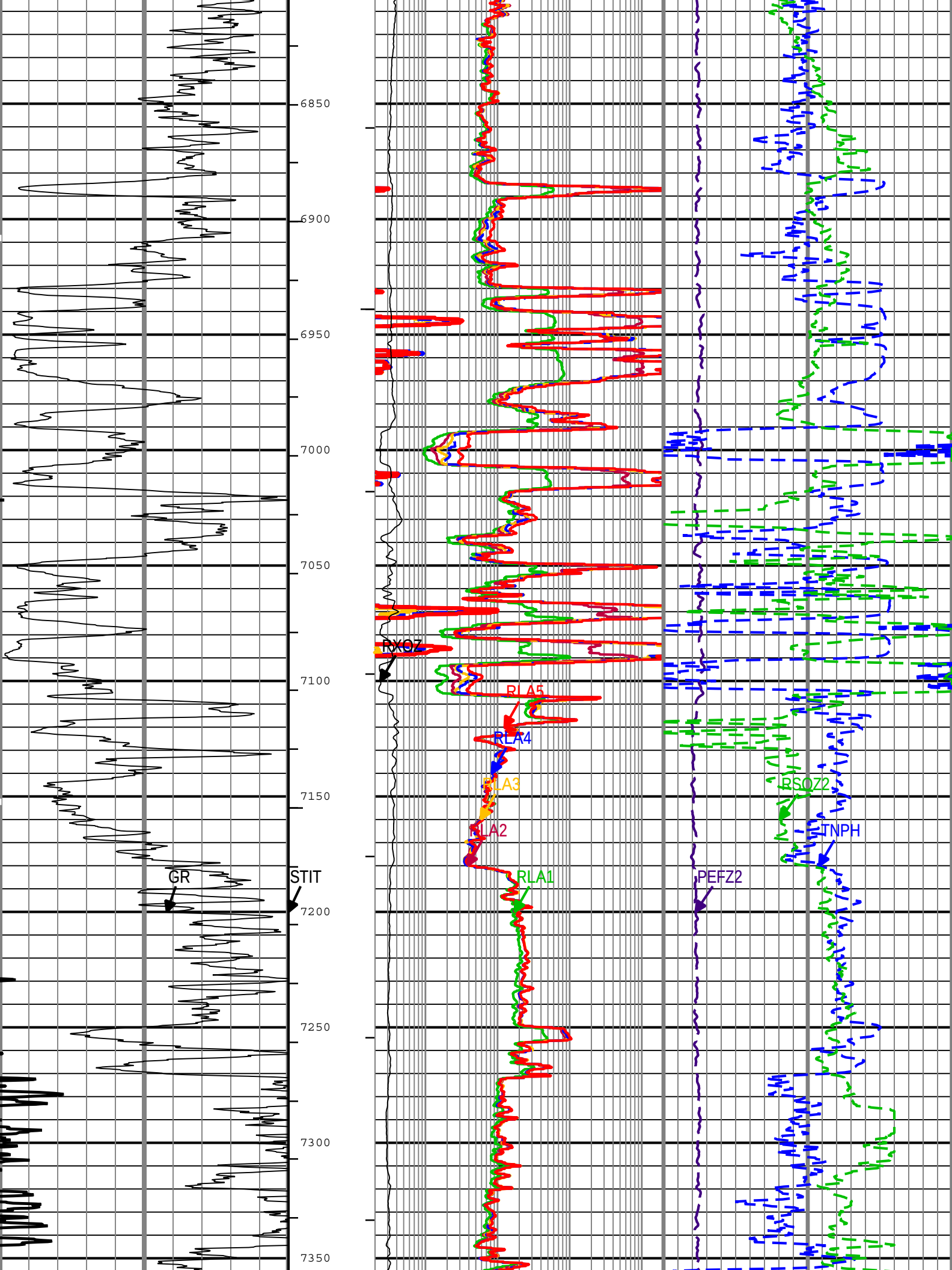
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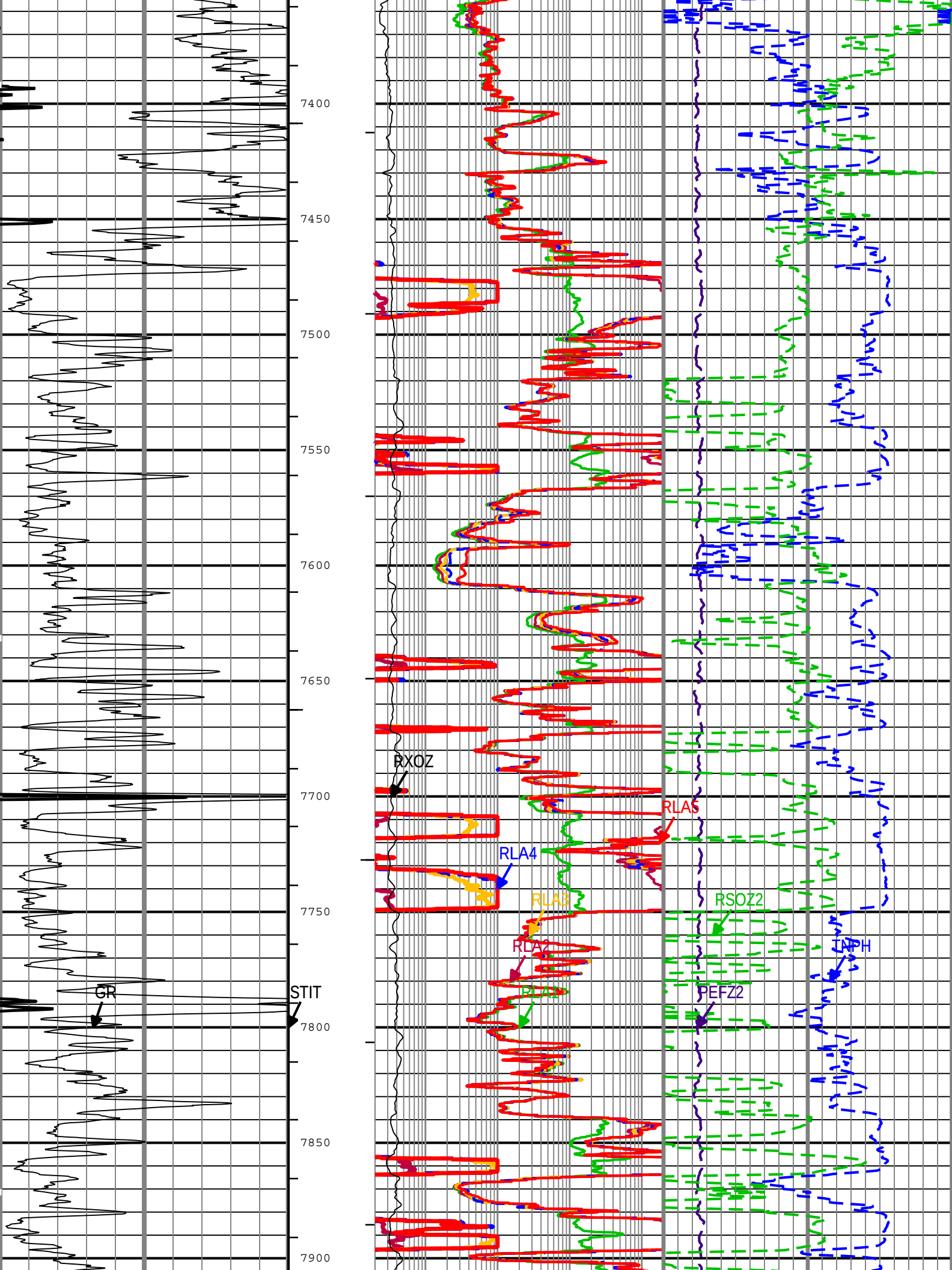
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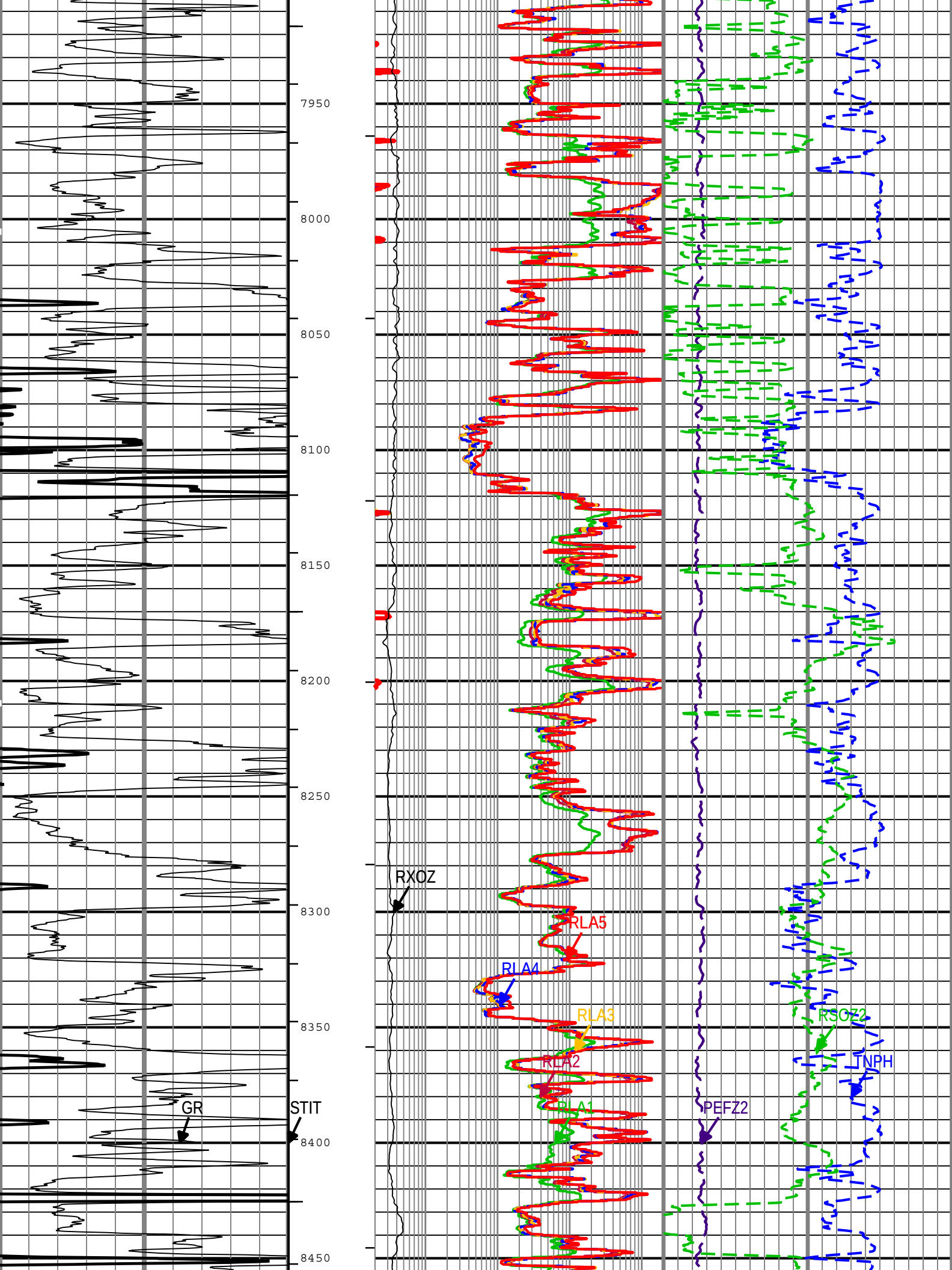
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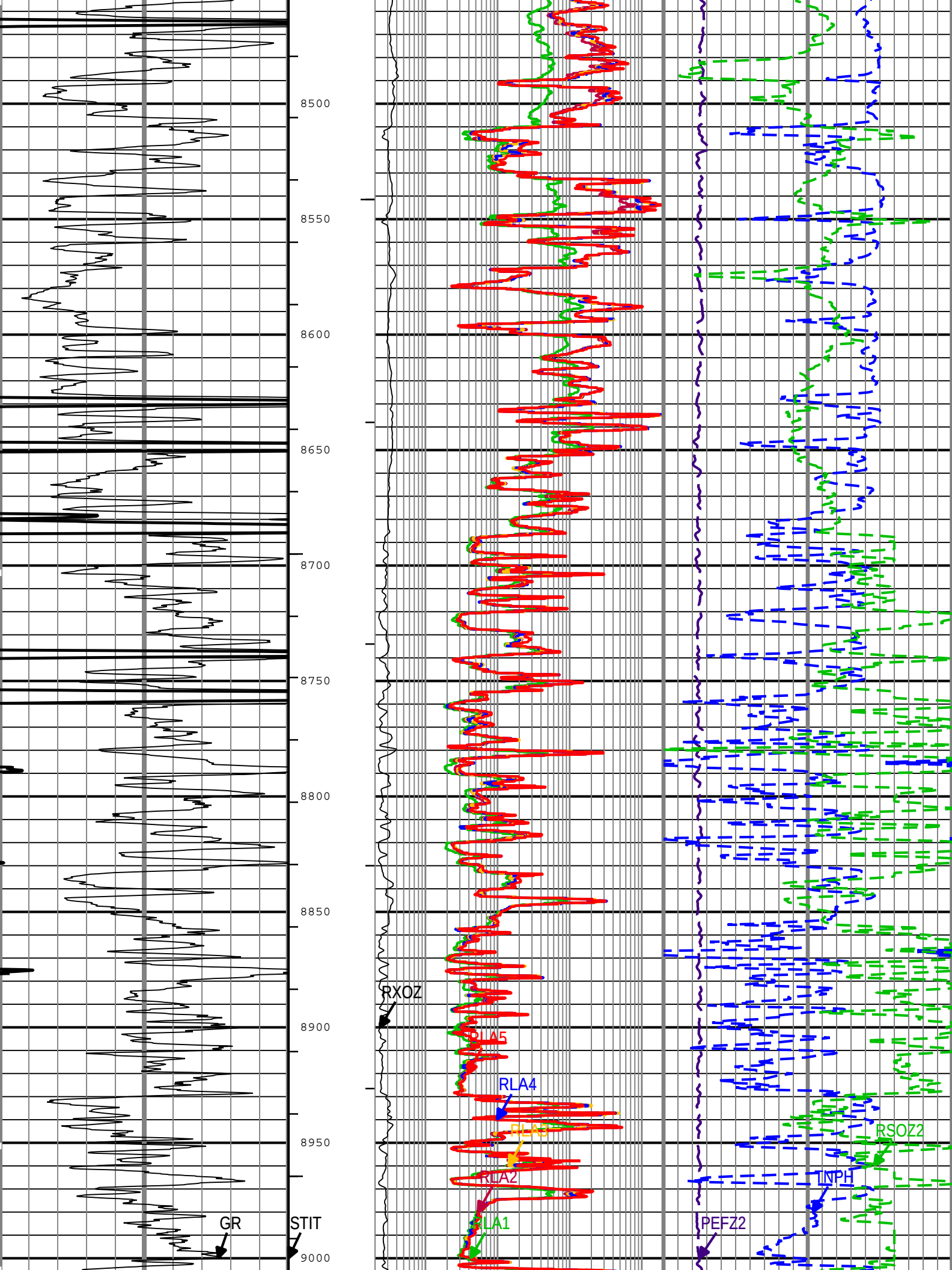
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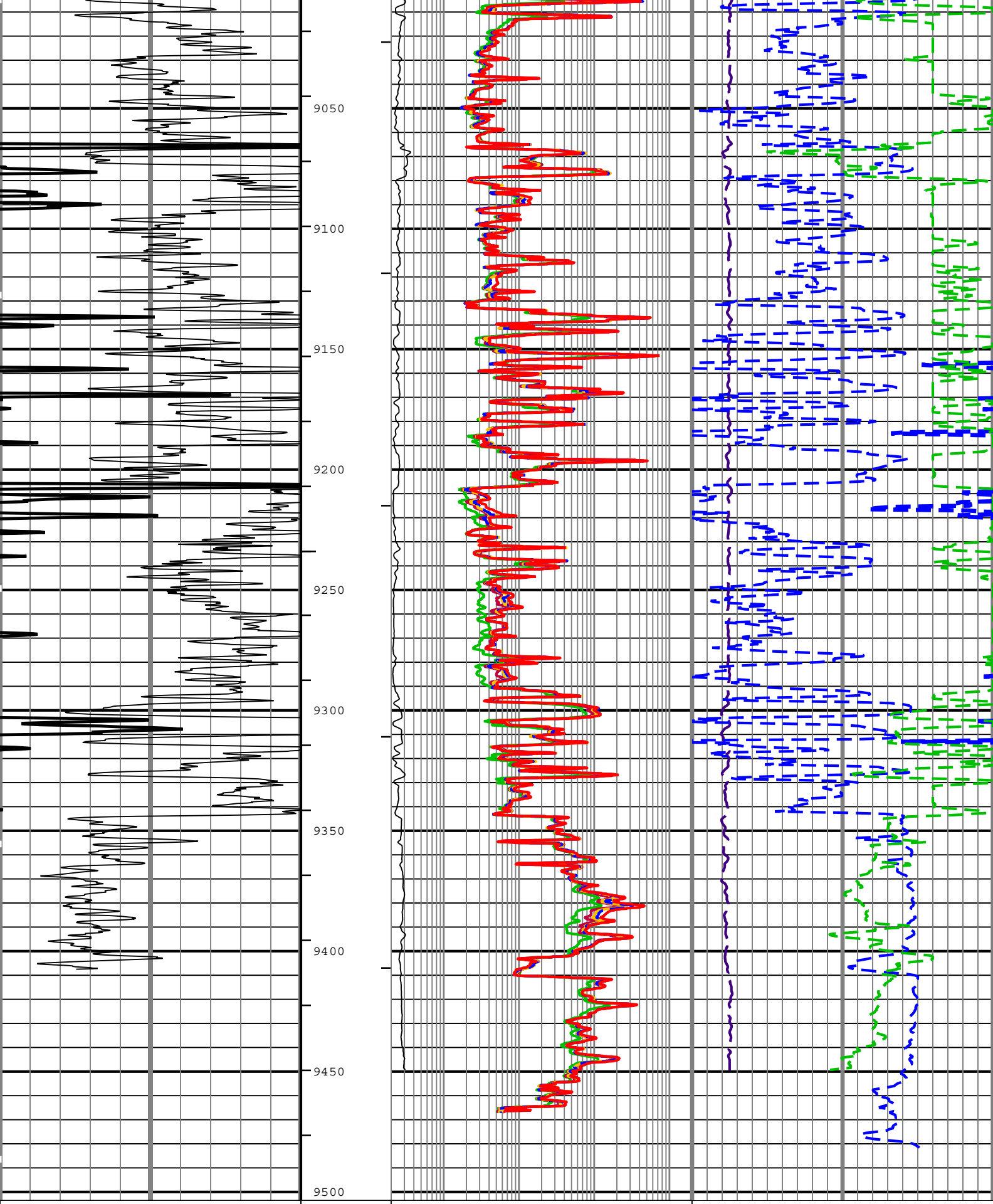


Gamma Ray (GR) EDTC-B

0 gAPI 150

Stuck Tool Indicator, Total (STIT)

0 ft 50

Apparent Resistivity from Computed Focusing Mode 1 (RLA1) HRLT-B

0.2 ohm.m 2000

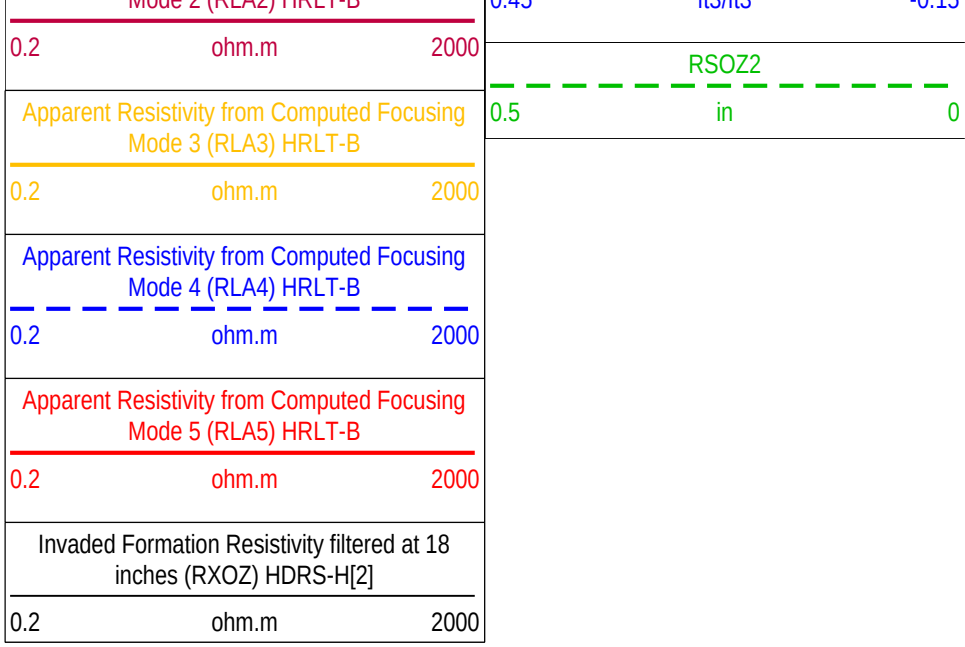
Apparent Resistivity from Computed Focusing Mode 2 (RLA2) HRLT-B

PEFZ2

0 20

Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H

0.45 ft3/ft3 -0.15



TIME_1900 - Time Marked every 60.00 (s)

IHV - Integrated Hole Volume every 10.00 (ft3)

ICV - Integrated Cement Volume every 100.00 (ft3)

ICV - Integrated Cement Volume every 10.00 (ft3)

IHV - Integrated Hole Volume every 100.00 (ft3)

Description: Triple Combo standard resolution template for Platform Express Format: Log (Five_HRLA_RS) Index Scale: 2 in per 100 ft Index Unit: ft Index Depth Creation Date: 03-May-2012 11:24:17

Channel Processing Parameters

Parameter	Description	ToolPath	Value	Unit
AZ_SELECT	Z-Axis Acceleration Channel Selection for Real-Time Depth Correction	DepthCorrection	AZ	
BARI	Barite Mud Presence Flag	Borehole	Yes	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Open	
BS	Bit Size	COMPLETION	Depth Zoned	in
BSAL	Borehole Salinity	Borehole	13639.46	ppm
CALI_SHIFT	CALI Supplementary Offset	HDRS-H[2]:HRCC-H:HRCC-H	0	in
CBLO	Casing Bottom (Logger)	COMPLETION	1056	ft
CDEN	Cement Density	EDTC-B:EDTC-B:EDTC-B	2	g/cm3
CSODDRL	Casing Outer Diameter - Zoned along driller depths	COMPLETION	Depth Zoned	in
DC_MODE	Depth Correction Mode	DepthCorrection	Real-time	
DFD	Drilling Fluid Density	Borehole	9.4	lbm/gal
DFT	Drilling Fluid Type	Borehole	Water	
DFT_WATER	Drilling Fluid Water Type	Borehole	Chemical Gel	
DHC	Density Hole Correction	HDRS-H[2]:HRMS-H:HRGD-H	Bit Size	
FCD	Future Casing (Outer) Diameter	COMPLETION	7	in
FSAL	Formation Salinity	Borehole	6126.75	ppm
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	CALI	
GRSE	Generalized Mud Resistivity Selection, from Measured or Computed Mud Resistivity	Borehole	REMS	
GTSE	Generalized Temperature Selection, from Measured or Computed Temperature	Borehole	CTEM	
HRLT_PROCRM	Mud Resistivity Select	HRLT-B:HRLS-B:HRLS-B	HRLT Compute	
HSCO	Hole Size Correction Option	HGNS-H:HGNS-H:HGNS-H	Yes	
HVCS	Integrated Hole Volume Caliper Selection	Borehole	Measured Area	
KFAC_HRLT	HRLT Geometrical Factor Option	HRLT-B:HRLS-B:HRLS-B	Sonde	

MATR	Rock Matrix for Neutron Porosity Corrections	Borehole	LIMESTONE	
MFST	Mud Filtrate Sample Temperature	Borehole	67.4	degF
MST	Mud Sample Temperature	Borehole	67.8	degF
NPRM	HRDD Nuclear Processing Mode	HDRS-H[2]:HRMS-H:HRGD-H	High Resolution	
PROCMSO	Mechanical Standoff Size	HRLT-B:HRLS-B:HRLS-B	1.5	in
PROCSPO	Sonde Position	HRLT-B:HRLS-B:HRLS-B	Eccentered	
RMFS	Resistivity of Mud Filtrate Sample	Borehole	0.44	ohm.m
RMS	Resistivity of Mud Sample	Borehole	0.47	ohm.m
SOCO.1	Standoff Correction Option	HGNS-H:HGNS-H:HGNS-H	Yes	
TD	Total Measured Depth	Borehole	9541	ft

Depth Zone Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	8.5	94.5	8400
BS	8.25	8400	9503.5
CSODDRL	[9.625]	94.5	1056
CSODDRL	[0]	1056	9503.5

All depth are actual.

Tool Control Parameters

Parameter	Description	ToolPath	Value	Unit
HMCA_BRD_TYPE	HMCA Board Type	HGNS-H:HGNS-H:HMCA-H	1	
HRGD_BRD_TYPE	HRGD Board Type	HDRS-H[2]:HRMS-H:HRGD-H	WITH_HET	
MAX_LOG_SPEED	Toolstring Maximum Logging Speed	WLWorkflow	900	ft/h

1

Pass Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	Depth Shift	Include Parallel Data
1	Log[2]:Up	Up	9100.00 ft	9558.17 ft	03-May-2012 3:54:51 AM	03-May-2012 4:42:34 AM	8.00 ft	
1	Log[3]:Up	Up	9100.00 ft	9558.17 ft	03-May-2012 4:59:40 AM	03-May-2012 9:08:24 AM	0.00 ft	

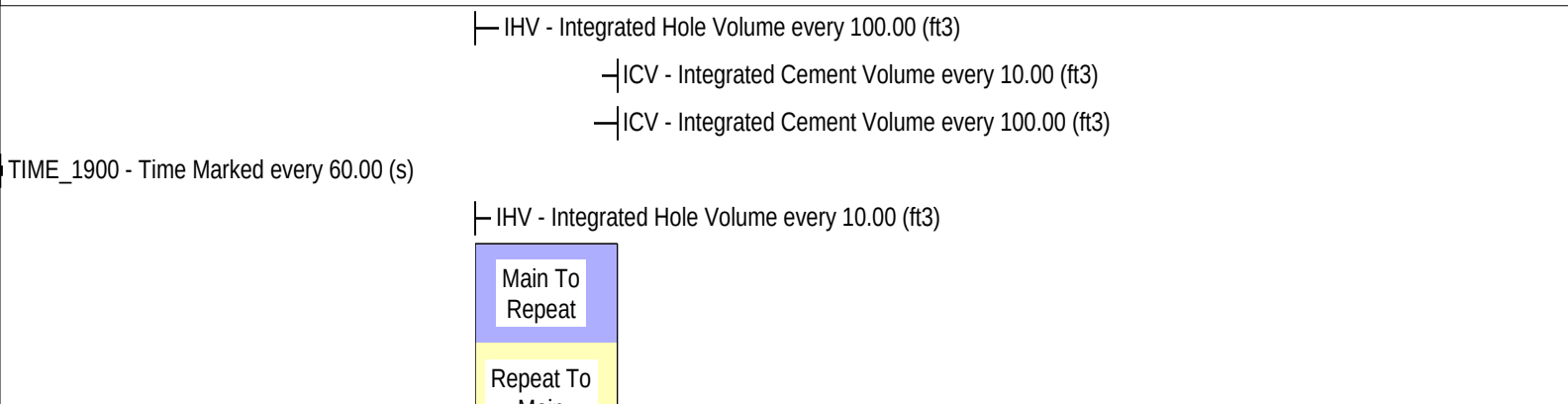
All depths are referenced to toolstring zero

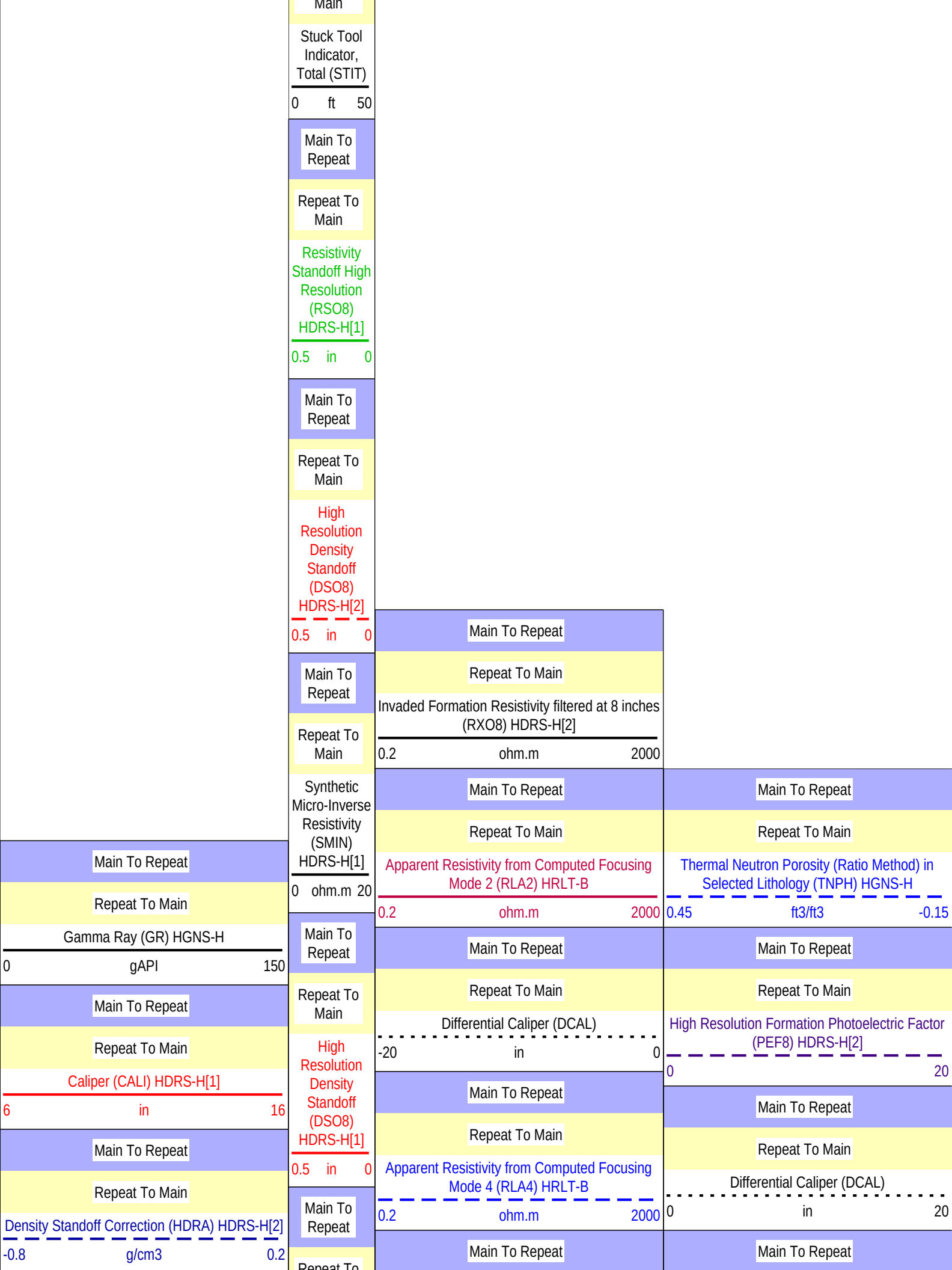
Log

1: Log[2]:Up 3FE8BB02-9554-452B-99C0-A5FAE8E942E0

Description: Triple Combo standard resolution template for Platform Express Format: Log (Five_HRLA RA) Index Scale: 5 in per 100 ft Index Unit: ft Index T
Depth Creation Date: 03-May-2012 11:24:22

Channel	Source	Sampling
ICV	Borehole	6in
IHV	Borehole	6in
TIME_1900	WLWorkflow	0.1in




Main
Stuck Tool Indicator, Total (STIT)
0 ft 50
Main To Repeat
Repeat To Main
Resistivity Standoff High Resolution (RSO8) HDRS-H[1]
0.5 in 0
Main To Repeat
Repeat To Main
High Resolution Density Standoff (DSO8) HDRS-H[2]
0.5 in 0
Main To Repeat
Repeat To Main
Synthetic Micro-Inverse Resistivity (SMIN) HDRS-H[1]
0 ohm.m 20
Main To Repeat
Repeat To Main
Invaded Formation Resistivity filtered at 8 inches (RXO8) HDRS-H[2]
0.2 ohm.m 2000
Main To Repeat
Repeat To Main
Apparent Resistivity from Computed Focusing Mode 2 (RLA2) HRLT-B
0.2 ohm.m 2000
Main To Repeat
Repeat To Main
Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H
0.45 ft3/ft3 -0.15
Main To Repeat
Repeat To Main
Gamma Ray (GR) HGNS-H
0 gAPI 150
Main To Repeat
Repeat To Main
Differential Caliper (DCAL)
-20 in 0
Main To Repeat
Repeat To Main
High Resolution Formation Photoelectric Factor (PEF8) HDRS-H[2]
0 20
Main To Repeat
Repeat To Main
Caliper (CALI) HDRS-H[1]
6 in 16
Main To Repeat
Repeat To Main
High Resolution Density Standoff (DSO8) HDRS-H[1]
0.5 in 0
Main To Repeat
Repeat To Main
Apparent Resistivity from Computed Focusing Mode 4 (RLA4) HRLT-B
0.2 ohm.m 2000
Main To Repeat
Repeat To Main
Differential Caliper (DCAL)
0 in 20
Main To Repeat
Repeat To Main
Density Standoff Correction (HDRA) HDRS-H[2]
-0.8 g/cm3 0.2
Main To Repeat
Main To Repeat

Main To Repeat

Repeat To Main

Caliper (CALI) HDRS-H[2]

6 in 16

Main To Repeat

Repeat To Main

Density Standoff Correction (HDRA) HDRS-H[1]

-0.8 g/cm3 0.2

Main To Repeat

Repeat To Main

Cable Tension (TENS)

10000 lbf 0

Repeat To Main

Synthetic Micro-Normal Resistivity (SMNO) HDRS-H[1]

0 ohm.m 20

Main To Repeat

Repeat To Main

Resistivity Standoff High Resolution (RSO8) HDRS-H[2]

0.5 in 0

Repeat To Main

Apparent Resistivity from Computed Focusing Mode 5 (RLA5) HRLT-B

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Apparent Resistivity from Computed Focusing Mode 1 (RLA1) HRLT-B

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Apparent Resistivity from Computed Focusing Mode 3 (RLA3) HRLT-B

0.2 ohm.m 2000

Repeat To Main

High Resolution Formation Photoelectric Factor (PEF8) HDRS-H[1]

0 20

Main To Repeat

Repeat To Main

High Resolution Density Porosity (DPH8) HDRS-H[2]

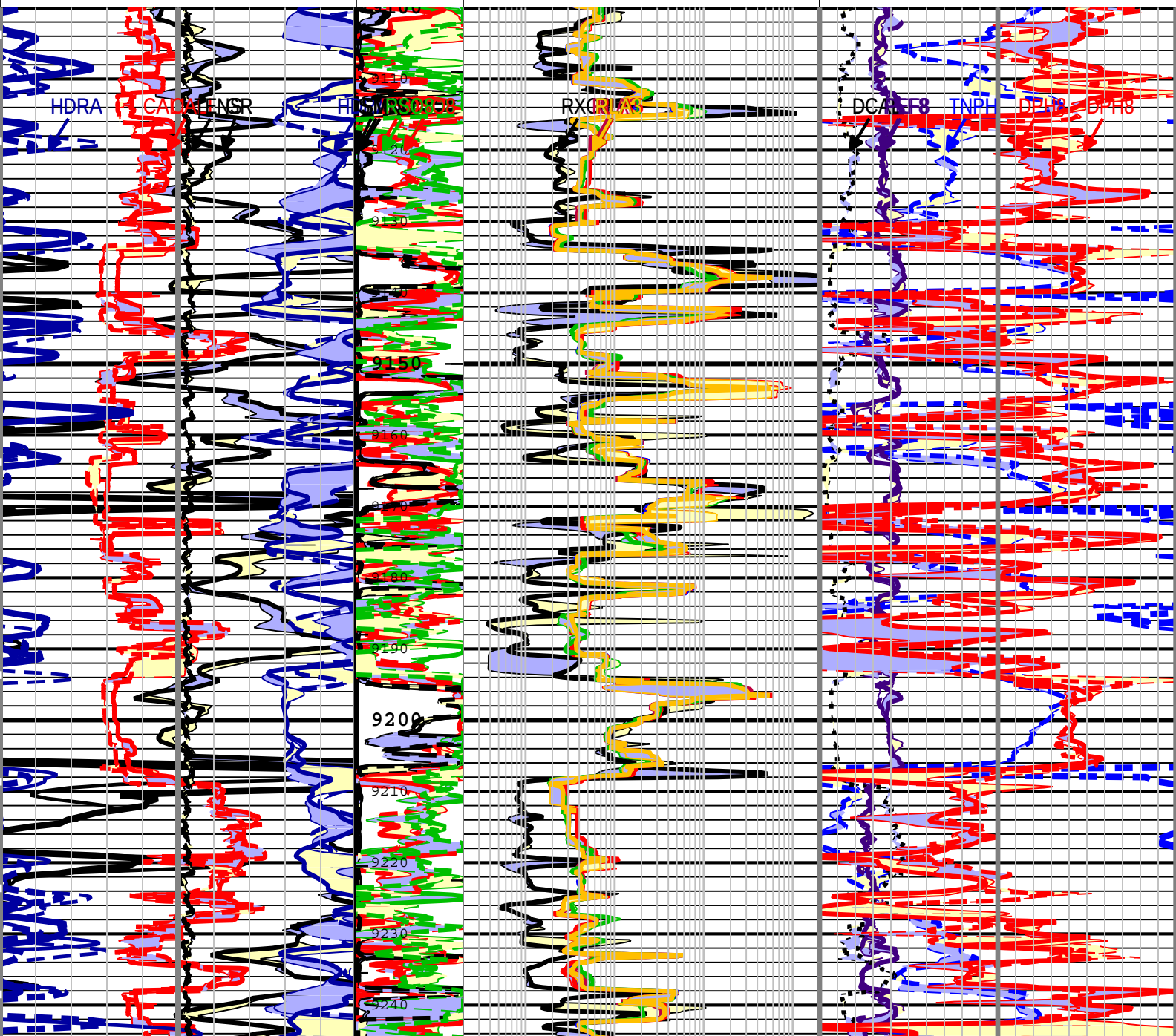
0.45 ft3/ft3 -0.15

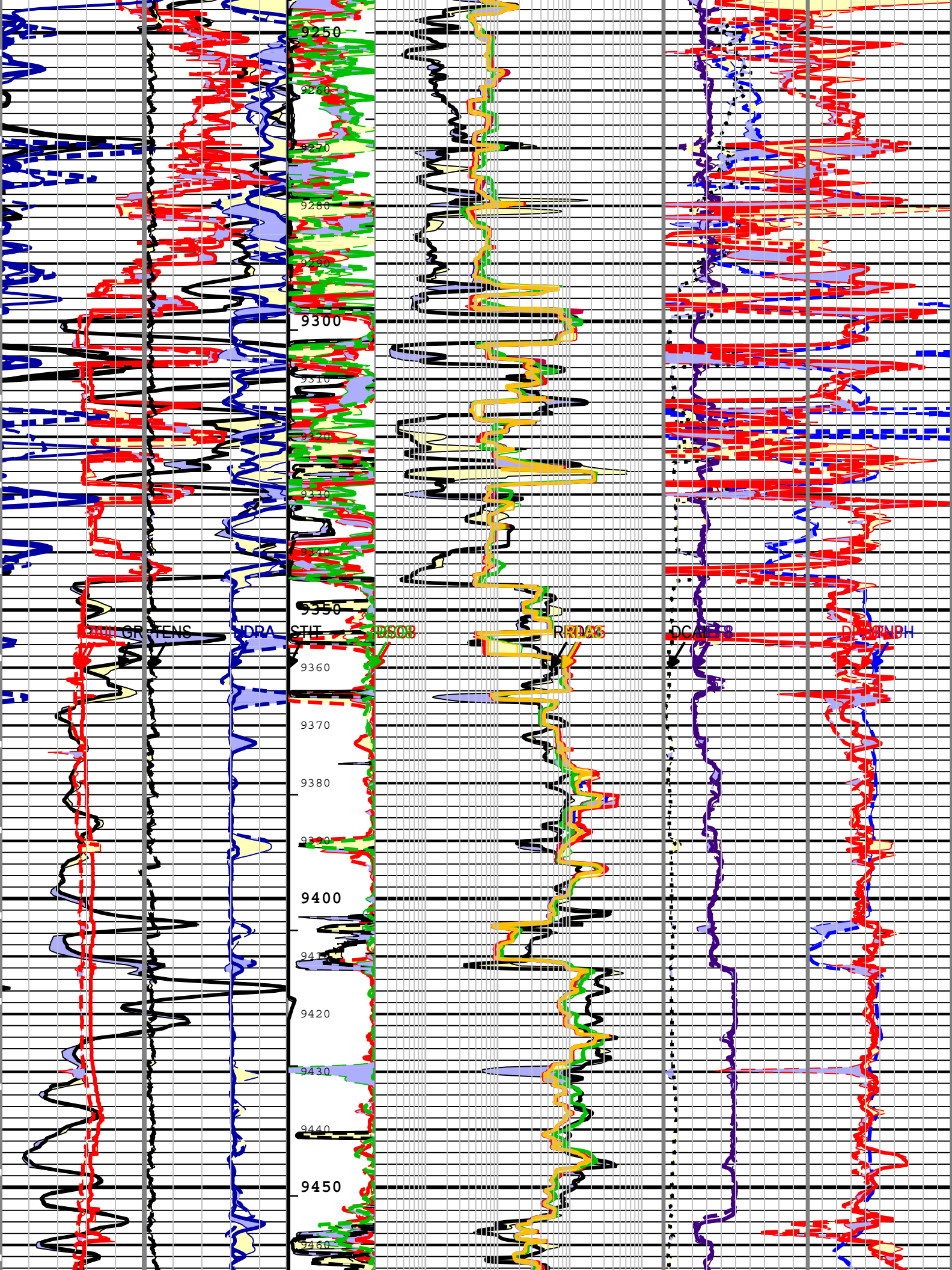
Main To Repeat

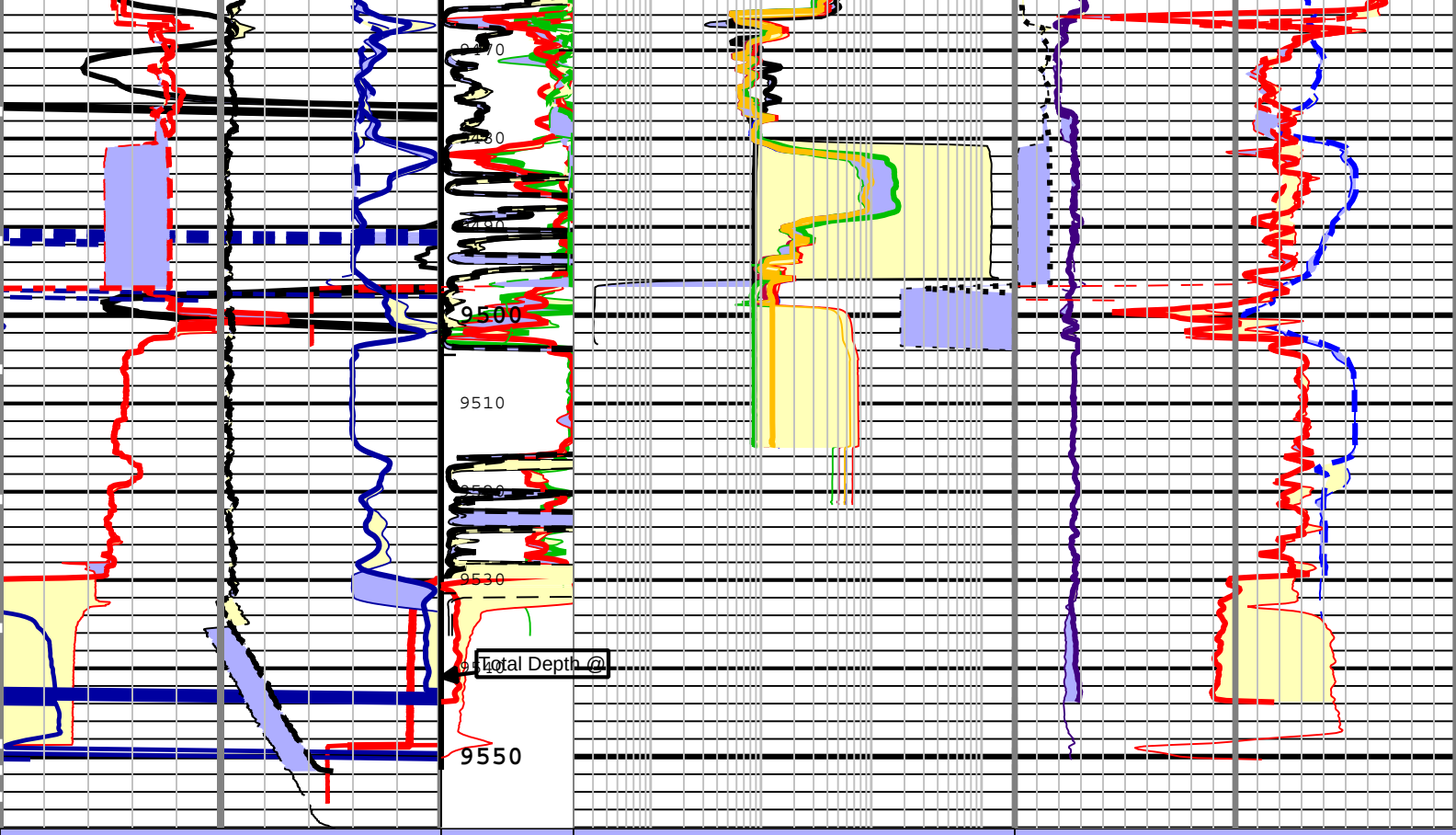
Repeat To Main

High Resolution Density Porosity (DPH8) HDRS-H[1]

0.45 ft3/ft3 -0.15




9250
9260
9270
9280
9290
9300
9310
9320
9330
9340
9350
9360
9370
9380
9390
9400
9410
9420
9430
9440
9450
9460
GR_TENS
HDRA
STIT
RHOB
DCAL



Main To Repeat

Repeat To Main

Gamma Ray (GR) HGNS-H

0 gAPI 150

Main To Repeat

Repeat To Main

Caliper (CALI) HDRS-H[1]

6 in 16

Main To Repeat

Repeat To Main

Density Standoff Correction (HDRA) HDRS-H[2]

-0.8 g/cm3 0.2

Main To Repeat

Repeat To Main

Caliper (CALI) HDRS-H[2]

6 in 16

Main To Repeat

Repeat To Main

Density Standoff Correction (HDRA) HDRS-H[1]

-0.8 g/cm3 0.2

Main To Repeat

Repeat To Main

Stuck Tool Indicator, Total (STIT)

0 ft 50

Main To Repeat

Repeat To Main

Resistivity Standoff High Resolution (RSO8) HDRS-H[1]

0.5 in 0

Main To Repeat

Repeat To Main

High Resolution Density Standoff (DSO8) HDRS-H[2]

Main To Repeat

Repeat To Main

Invaded Formation Resistivity filtered at 8 inches (RXO8) HDRS-H[2]

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Apparent Resistivity from Computed Focusing Mode 2 (RLA2) HRLT-B

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Differential Caliper (DCAL)

-20 in 0

Main To Repeat

Repeat To Main

Apparent Resistivity from Computed Focusing Mode 4 (RLA4) HRLT-B

0.2 ohm.m 2000

Main To Repeat

Repeat To Main

Apparent Resistivity from Computed Focusing

Main To Repeat

Repeat To Main

Thermal Neutron Porosity (Ratio Method) in Selected Lithology (TNPH) HGNS-H

0.45 ft3/ft3 -0.15

Main To Repeat

Repeat To Main

High Resolution Formation Photoelectric Factor (PEF8) HDRS-H[2]

0 20

Main To Repeat

Repeat To Main

Differential Caliper (DCAL)

0 in 20

Main To Repeat

Repeat To Main

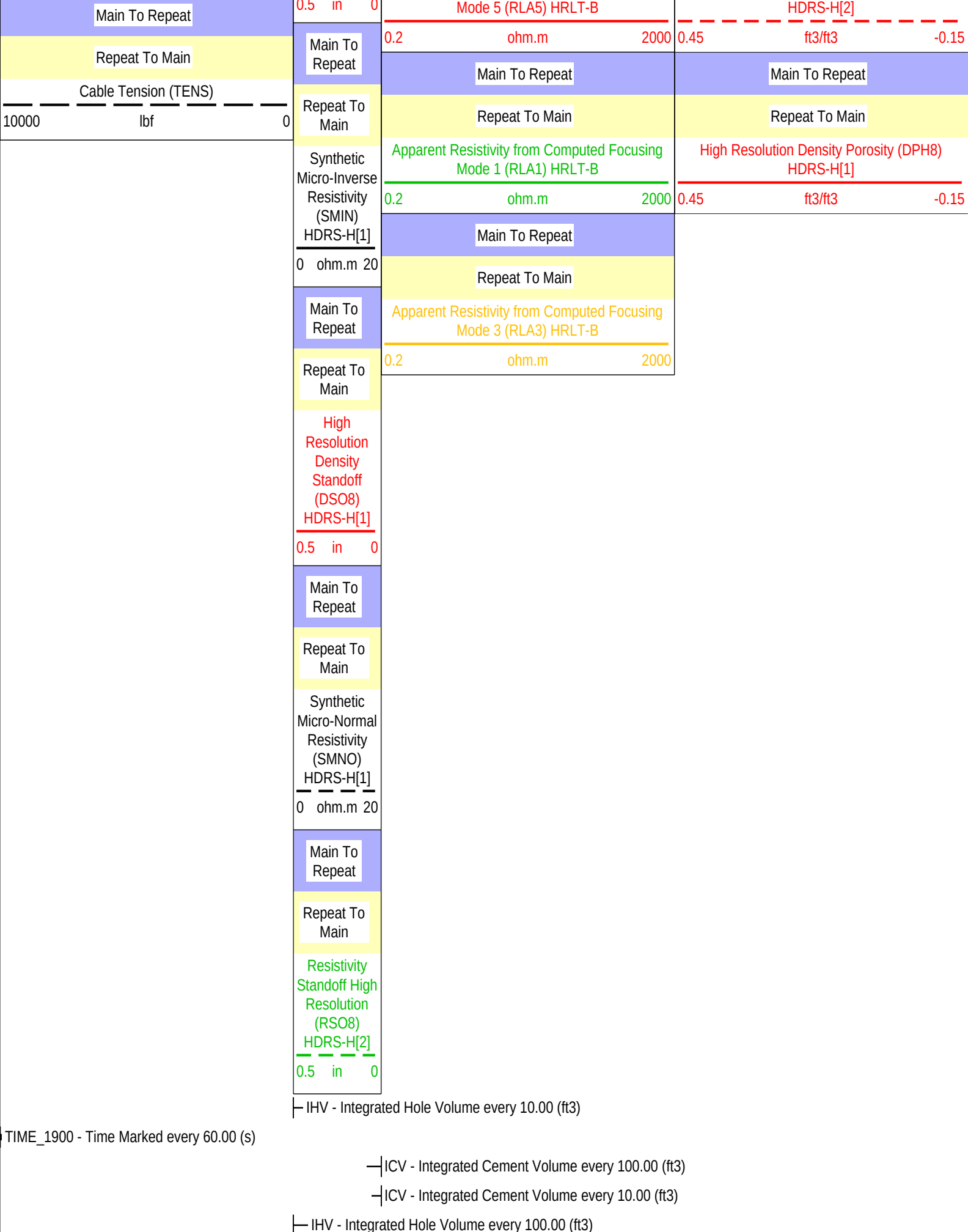
High Resolution Formation Photoelectric Factor (PEF8) HDRS-H[1]

0 20

Main To Repeat

Repeat To Main

High Resolution Density Porosity (DPH8)



Description: Triple Combo standard resolution template for Platform Express Format: Log (Five_HRLA RA) Index Scale: 5 in per 100 ft Index Unit: ft Index T
Depth Creation Date: 03-May-2012 11:24:22

Calibration Report

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

Primary Equipment :

HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	3797
HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H	3775

Auxiliary Equipment :

HRDD Backscatter Detector	Backscatter	26404
HRDD Long Spacing Detector	Long Spacing	28926
HRDD Short Spacing Detector	Short Spacing	26404
Cesium 137 Gamma-Ray Logging Source	GSR-J	5240
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	3797
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	3837

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): 13:44:27 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Small Ring	in	Before	8.00	6.00	7.51	10.00
Large Ring	in	Before	12.00	9.00	11.98	15.00

HDRS Density Calibration - Inversion Results

Master (EEPROM): 11:52:48 09-Apr-2012

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	1.687	1.696
Pe Aluminum		Master	2.570	2.470	2.550	2.670
Pe Magnesium		Master	2.650	2.550	2.623	2.750

HDRS Density Calibration - Deviation Summary

Master (EEPROM): 11:52:48 09-Apr-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Average Deviation	%	Master	0	-0.6000	0.4128	0.6000
BS Max Deviation	%	Master	0	-1.6000	0.8609	1.6000
SS Average Deviation	%	Master	0	-1.0000	0.2625	1.0000
SS Max Deviation	%	Master	0	-2.5000	0.5075	2.5000
LS Average Deviation	%	Master	0	-1.5000	0.6279	1.5000
LS Max Deviation	%	Master	0	-3.5000	1.9667	3.5000

HDRS Density Calibration - Background Summary

Master (EEPROM): 11:52:48 09-Apr-2012 Before (Measured): 13:44:52 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Window Ratio		Master	1.0000	-----	0.7540	-----
		Before	0.7540	0.7163	0.7536	0.7917
		Before-Master	-----	-----	-0.0004	-----
BS Window Sum	1/s	Master	1	-----	25648	-----
		Before	25648	24365	25600	26930
		Before-Master	-----	-----	-48	-----
SS Window Ratio		Master	1.0000	-----	0.4892	-----
		Before	0.4892	0.4648	0.4914	0.5137
		Before-Master	-----	-----	0.0022	-----
SS Window Sum	1/s	Master	1	-----	11494	-----
		Before	11494	10920	11492	12069
		Before-Master	-----	-----	-2	-----
LS Window Ratio		Master	1.0000	-----	0.3005	-----
		Before	0.3005	0.2854	0.3029	0.3155
		Before-Master	-----	-----	0.0024	-----
LS Window Sum	1/s	Master	1	-----	1168	-----
		Before	1168	1109	1164	1226
		Before-Master	-----	-----	-4	-----

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM): 11:52:48 09-Apr-2012 Before (Measured): 13:44:52 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS PM High Voltage	V	Master	-----	1000	1496	2400
		Before	-----	1000	1503	2400
		Before-Master	-----	-100	7	100
SS PM High Voltage	V	Master	-----	1000	1430	2400
		Before	-----	1000	1436	2400
		Before-Master	-----	-100	6	100
LS PM High Voltage	V	Master	-----	1000	1439	2400
		Before	-----	1000	1435	2400
		Before-Master	-----	-100	-4	100

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM): 11:52:48 09-Apr-2012 Before (Measured): 13:44:52 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Crystal Resolution	%	Master	-----	5.00	10.58	25.00
		Before	-----	5.00	10.62	25.00
		Before-Master	-----	-1.00	0.04	1.00
SS Crystal Resolution	%	Master	-----	5.00	9.72	20.00
		Before	-----	5.00	9.63	20.00
		Before-Master	-----	-1.00	-0.09	1.00
LS Crystal Resolution	%	Master	-----	5.00	8.70	20.00
		Before	-----	5.00	8.44	20.00
		Before-Master	-----	-1.00	-0.26	1.00

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured): 13:41:25 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Main Resistivity	ohm.m	Before	3875	3565	3879	4185
Deep Resistivity	ohm.m	Before	3830	3524	3830	4136
Shallow Resistivity	ohm.m	Before	3830	3524	3838	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	4810

Auxiliary Equipment :

HGNS Accelerometer, 150 degC	HACCZ-H	5955
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): 02:42:34 03-May-2012

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

HGNS Accelerometer EEPROM - Accelerometer EEPROM Read

Master (EEPROM): 00:00:00 15-Jan-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	-----	-----	1155.700	-----
Accelerometer Coefficients - 1		Master	-----	-----	26.890	-----
Accelerometer Coefficients - 2		Master	-----	-----	-0.008	-----
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 4		Master	-----	-----	2.748	-----
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	-----	-----	0.983	-----

HGNS Neutron Calibration - HGNS Neutron Accumulations

Master (EEPROM): 14:13:40 09-Apr-2012 Before (Measured): 13:49:26 30-Apr-2012 Expired by 1 days After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Near Zero Measurement	1/s	Master	0	5.0	23.9	40.0
		Before	0	5.0	24.6	40.0
		After	-----	-----	-----	-----
		Before-Master	-----	-3.6	0.7	3.6
		After-Before	-----	-----	-----	-----
Far Zero Measurement	1/s	Master	0	5.0	27.7	40.0
		Before	0	5.0	28.9	40.0
		After	-----	-----	-----	-----
		Before-Master	-----	-4.2	1.2	4.2
		After-Before	-----	-----	-----	-----
Near Plus Measurement - 0	1/s	Master	6031.0	4700.0	5336.0	6900.0
		Before	-----	-----	-----	-----
		After	-----	-----	-----	-----
		Before-Master	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Far Plus Measurement - 0	1/s	Master	2793.0	1900.0	2230.0	2900.0
		Before	-----	-----	-----	-----
		After	-----	-----	-----	-----
		Before-Master	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Near Corrected Plus Measurement - 0	1/s	Master	-----	4700.0	5383.0	6900.0
		Before	-----	-----	-----	-----
		After	-----	-----	-----	-----
		Before-Master	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Far Corrected Plus Measurement - 0	1/s	Master	-----	1900.0	2250.0	2900.0
		Before	-----	-----	-----	-----
		After	-----	-----	-----	-----
		Before-Master	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

HGNS Gamma-Ray Calibration - Gamma-Ray Accumulations

Before (Measured): 13:47:25 30-Apr-2012 Expired by 1 days After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
RGR Zero Measurement	gAPI	Before	30.0	0	78.5	120.0
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
RGR Plus Measurement	gAPI	Before	185.4	157.1	173.8	206.3
		After	-----	-----	NOT DONE	-----
		After-Before	-----	-----	-----	-----
GR Calibration Gain		Before	0.89	0.80	0.95	1.05
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

HRLT-B (High Resolution Laterolog Array) Calibration - Run 1

Primary Equipment :

HRLT-B Sonde HRLS-B 952

HRLT-B Calibration - HRLT M0-M1 Voltage Plus

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
HRLT M01 - 0	uV	Before	-322.7	-364.8	-317.6	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT M01 - 1	uV	Before	-322.7	-364.8	-343.9	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT M01 - 2	uV	Before	-322.7	-364.8	-360.3	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT M01 - 3	uV	Before	-322.7	-364.8	-344.2	-265.8
		After	-----	-----	-----	-----

		After-Before	-----	-----	-----	-----	
HRLT M01 - 4	uV	Before	-322.7	-364.8	-316.1	-265.8	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M01 - 5	uV	Before	-322.7	-364.8	-330.9	-265.8	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M01 - 6	uV	Before	322.7	280.6	348.9	379.6	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

HRLT-B Calibration - HRLT M1-M2 Voltage Plus

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
HRLT M12 - 0	uV	Before	1781.0	1548.7	1765.4	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M12 - 1	uV	Before	1781.0	1548.7	1913.2	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M12 - 2	uV	Before	1781.0	1548.7	1999.3	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M12 - 3	uV	Before	1781.0	1548.7	1909.9	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M12 - 4	uV	Before	1781.0	1548.7	1755.0	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M12 - 5	uV	Before	1781.0	1548.7	1838.3	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M12 - 6	uV	Before	-1781.0	-2013.3	-1949.4	-1466.7	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

HRLT-B Calibration - HRLT M2-M3 Voltage Plus

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
HRLT M23 - 0	uV	Before	1781.0	1548.7	1743.8	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M23 - 1	uV	Before	1781.0	1548.7	1900.6	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M23 - 2	uV	Before	1781.0	1548.7	1987.6	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M23 - 3	uV	Before	1781.0	1548.7	1902.5	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M23 - 4	uV	Before	1781.0	1548.7	1742.5	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M23 - 5	uV	Before	1781.0	1548.7	1826.6	2095.3	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT M23 - 6	uV	Before	-1781.0	-2013.3	-1924.1	-1466.7	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

HRLT-B Calibration - HRLT A3-A4 Voltage Plus

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
HRLT V34 - 0	uV	Before	70000.0	60869.6	68843.5	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V34 - 1	uV	Before	70000.0	60869.6	75123.5	82352.9	

		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V34 - 2	uV	Before	70000.0	60869.6	78799.9	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V34 - 3	uV	Before	70000.0	60869.6	75634.0	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V34 - 4	uV	Before	70000.0	60869.6	69138.3	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V34 - 5	uV	Before	70000.0	60869.6	72451.6	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V34 - 6	uV	Before	-70000.0	-79130.4	-74935.1	-57647.1	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

HRLT-B Calibration - HRLT A4-A5 Voltage Plus

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
HRLT V45 - 0	uV	Before	70000.0	60869.6	68782.3	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V45 - 1	uV	Before	70000.0	60869.6	75216.4	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V45 - 2	uV	Before	70000.0	60869.6	78849.3	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V45 - 3	uV	Before	70000.0	60869.6	75637.0	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V45 - 4	uV	Before	70000.0	60869.6	69090.1	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V45 - 5	uV	Before	70000.0	60869.6	72378.8	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V45 - 6	uV	Before	-70000.0	-79130.4	-75052.3	-57647.1	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

HRLT-B Calibration - HRLT A5-A6 Voltage Plus

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
HRLT V56 - 0	uV	Before	70000.0	60869.6	68753.8	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V56 - 1	uV	Before	70000.0	60869.6	75165.0	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V56 - 2	uV	Before	70000.0	60869.6	78808.8	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V56 - 3	uV	Before	70000.0	60869.6	75595.8	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V56 - 4	uV	Before	70000.0	60869.6	69057.8	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V56 - 5	uV	Before	70000.0	60869.6	72355.2	82352.9	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
HRLT V56 - 6	uV	Before	-70000.0	-79130.4	-75002.7	-57647.1	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

HRLT-B Calibration - HRLT Torpedo-M0 Voltage

HRLT-B Calibration - HRLT Bridle#9-M0 Voltage

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
HRLT VBD - 0	uV	Before	-70000.0	-79130.4	-68426.6	-57647.1
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT VBD - 1	uV	Before	-70000.0	-79130.4	-75270.8	-57647.1
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT VBD - 2	uV	Before	-70000.0	-79130.4	-78892.6	-57647.1
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT VBD - 3	uV	Before	-70000.0	-79130.4	-75726.7	-57647.1
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT VBD - 4	uV	Before	-70000.0	-79130.4	-69182.6	-57647.1
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT VBD - 5	uV	Before	-70000.0	-79130.4	-72476.4	-57647.1
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT VBD - 6	uV	Before	70000.0	60869.6	75040.5	82352.9
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

HRLT-B Calibration - HRLT Source Current Plus

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
HRLT ISO - 0	uA	Before	284.0	247.0	284.9	334.1
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT ISO - 1	uA	Before	281.1	244.4	281.1	330.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT ISO - 2	uA	Before	281.1	244.4	281.1	330.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT ISO - 3	uA	Before	281.1	244.4	281.1	330.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT ISO - 4	uA	Before	281.1	244.4	281.1	330.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

HRLT ISO - 5	uA	Before	281.1	244.4	281.1	330.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT ISO - 6	uA	Before	281.1	244.4	281.1	330.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

HRLT-B Calibration - HRLT Vertical Voltage PI

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
HRLT MV - 0	uV	Before	-322.7	-364.8	-320.8	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT MV - 1	uV	Before	-322.7	-364.8	-340.2	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT MV - 2	uV	Before	-322.7	-364.8	-355.3	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT MV - 3	uV	Before	-322.7	-364.8	-337.6	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT MV - 4	uV	Before	-322.7	-364.8	-307.0	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT MV - 5	uV	Before	-322.7	-364.8	-336.7	-265.8
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
HRLT MV - 6	uV	Before	322.7	280.6	359.4	379.6
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

HRLT-B Calibration - HRLT Calibration Temperature

Before (Measured): 03:52:51 03-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
CTEM_HRLT	degF	Before	-----	-----	170.8	-----
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

HDRS-H[2] (HILT Density and Rxo Sonde, 150 degC) Calibration - Run 1

Primary Equipment :

HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	5705
HILT Resistivity Gamma-Ray Density Device, 150 degC	HRGD-H	3816

Auxiliary Equipment :

HRDD Backscatter Detector	Backscatter	26404
HRDD Short Spacing Detector	Short Spacing	26404
Cesium 137 Gamma-Ray Logging Source	GSR-J	5240
HILT High-Resolution Control Cartridge, 150 degC	HRCC-H	5705
HILT High-Resolution Mechanical Sonde, 150 degC	HRMS-H	4706

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): 13:53:56 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Small Ring	in	Before	8.00	6.00	8.75	10.00
Large Ring	in	Before	12.00	9.00	12.99	15.00

HDRS Density Calibration - Inversion Results

Master (EEPROM): 12:26:16 06-Apr-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	1.686	1.696

Pe Aluminum		Master	2.570	2.470	2.551	2.670
Pe Magnesium		Master	2.650	2.550	2.626	2.750

HDRS Density Calibration - Deviation Summary

Master (EEPROM): 12:26:16 06-Apr-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Average Deviation	%	Master	0	-0.6000	0.4083	0.6000
BS Max Deviation	%	Master	0	-1.6000	0.7516	1.6000
SS Average Deviation	%	Master	0	-1.0000	0.3020	1.0000
SS Max Deviation	%	Master	0	-2.5000	1.0969	2.5000
LS Average Deviation	%	Master	0	-1.5000	0.4636	1.5000
LS Max Deviation	%	Master	0	-3.5000	1.3117	3.5000

HDRS Density Calibration - Background Summary

Master (EEPROM): 12:26:16 06-Apr-2012 Before (Measured): 13:43:37 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Window Ratio		Master	1.0000	-----	0.7525	-----
		Before	0.7525	0.7149	0.7487	0.7901
		Before-Master	-----	-----	-0.0038	-----
BS Window Sum	1/s	Master	1	-----	26369	-----
		Before	26369	25050	26498	27687
		Before-Master	-----	-----	129	-----
SS Window Ratio		Master	1.0000	-----	0.4809	-----
		Before	0.4809	0.4568	0.4816	0.5049
		Before-Master	-----	-----	0.0007	-----
SS Window Sum	1/s	Master	1	-----	10436	-----
		Before	10436	9914	10416	10958
		Before-Master	-----	-----	-20	-----
LS Window Ratio		Master	1.0000	-----	0.3005	-----
		Before	0.3005	0.2855	0.3074	0.3156
		Before-Master	-----	-----	0.0069	-----
LS Window Sum	1/s	Master	1	-----	1220	-----
		Before	1220	1159	1217	1281
		Before-Master	-----	-----	-3	-----

HDRS Density Calibration - Photo-multiplier High Voltages

Master (EEPROM): 12:26:16 06-Apr-2012 Before (Measured): 13:43:37 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS PM High Voltage	V	Master	-----	1000	1576	2400
		Before	-----	1000	1579	2400
		Before-Master	-----	-100	3	100
SS PM High Voltage	V	Master	-----	1000	1411	2400
		Before	-----	1000	1407	2400
		Before-Master	-----	-100	-4	100
LS PM High Voltage	V	Master	-----	1000	1210	2400
		Before	-----	1000	1205	2400
		Before-Master	-----	-100	-5	100

HDRS Density Calibration - Crystal Quality Resolutions

Master (EEPROM): 12:26:16 06-Apr-2012 Before (Measured): 13:43:37 30-Apr-2012 Expired by 1 days

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
BS Crystal Resolution	%	Master	-----	5.00	11.07	25.00
		Before	-----	5.00	11.24	25.00
		Before-Master	-----	-1.00	0.17	1.00
SS Crystal Resolution	%	Master	-----	5.00	10.07	20.00
		Before	-----	5.00	10.03	20.00
		Before-Master	-----	-1.00	-0.04	1.00
LS Crystal Resolution	%	Master	-----	5.00	8.11	20.00
		Before	-----	5.00	8.08	20.00
		Before-Master	-----	-1.00	-0.03	1.00

HDRS MCFL Calibration - MCFL Accumulations

Before (Measured): 13:37:48 30-Apr-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	3825	4136
Shallow Resistivity	ohm.m	Before	3830	3524	3826	4136

ADT-C (Dielectric Scanner) Calibration - Run 1

Primary Equipment :

ADT Pad Element	ADP-C	727

Calibration Parameter :

Small Ring Size (Caliper Calibration Small Ring)	8.00
Large Ring Size (Caliper Calibration Large Ring)	12.00

ADT Caliper Calibration - Caliper Accumulations

Before (Measured): 13:56:39 30-Apr-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Small Ring RCAL	in	Before	8.00	4.00	7.84	12.00
Large Ring RCAL	in	Before	12.00	6.00	11.84	18.00

GPIT-C (General Purpose Inclinometry Tool) Calibration - Run 1

Primary Equipment :

GPIT GPIC Cartridge - C	GPIC-C

GPIC Accelerometer Calibration - Accelerometer Coef Reading

Master (EEPROM): 00:00:00 15-Oct-2006

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Reference Temperature	degF	Master	-----	-----	68	-----
Serial Number		Master	-----	-----	921	-----
Coefficients - 0		Master	0	-----	-0.0012	-----
Coefficients - 1		Master	0	-----	-0.0008	-----
Coefficients - 2		Master	0	-----	0.0003	-----
Coefficients - 3		Master	0	-----	-0.001	-----
Coefficients - 4		Master	0	-----	4E-06	-----
Coefficients - 5		Master	0	-----	-5.8E-05	-----
Coefficients - 6		Master	0	-----	2E-06	-----
Coefficients - 7		Master	0	-----	2.1E-05	-----
Coefficients - 8		Master	0	-----	-2E-08	-----
Coefficients - 9		Master	0	-----	1E-07	-----
Coefficients - 10		Master	0	-----	0	-----
Coefficients - 11		Master	0	-----	-5E-08	-----
Coefficients - 12		Master	0	-----	-0.0006	-----
Coefficients - 13		Master	0	-----	-0.0006	-----
Coefficients - 14		Master	0	-----	-0.0004	-----
Coefficients - 15		Master	0	-----	0.0005	-----
Coefficients - 16		Master	0	-----	2E-06	-----
Coefficients - 17		Master	0	-----	2E-06	-----
Coefficients - 18		Master	0	-----	-9.4E-05	-----
Coefficients - 19		Master	0	-----	1.8E-05	-----
Coefficients - 20		Master	0	-----	-4E-08	-----
Coefficients - 21		Master	0	-----	-3E-08	-----
Coefficients - 22		Master	0	-----	1.4E-07	-----
Coefficients - 23		Master	0	-----	0	-----
Coefficients - 24		Master	0	-----	-0.0014	-----
Coefficients - 25		Master	0	-----	-0.0003	-----
Coefficients - 26		Master	0	-----	-0.0007	-----
Coefficients - 27		Master	0	-----	-0.0002	-----
Coefficients - 28		Master	0	-----	8E-06	-----
Coefficients - 29		Master	0	-----	2E-06	-----
Coefficients - 30		Master	0	-----	-1.9E-05	-----
Coefficients - 31		Master	0	-----	-9.8E-05	-----
Coefficients - 32		Master	0	-----	2E-08	-----
Coefficients - 33		Master	0	-----	-2E-08	-----
Coefficients - 34		Master	0	-----	-1E-08	-----
Coefficients - 35		Master	0	-----	1.8E-07	-----

GPIC Magnetometer Calibration - Magnetometer Coef Reading

Master (EEPROM): 00:00:00 15-Dec-2004

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit

Reference Temperature	degF	Master	-----	-----	66	-----	
Serial Number		Master	-----	-----	675	-----	
Coefficients - 0		Master	0	-----	-0.0054	-----	
Coefficients - 1		Master	0	-----	0.0056	-----	
Coefficients - 2		Master	0	-----	0.0054	-----	
Coefficients - 3		Master	0	-----	-0.0024	-----	
Coefficients - 4		Master	0	-----	1.2E-05	-----	
Coefficients - 5		Master	0	-----	-7.4E-05	-----	
Coefficients - 6		Master	0	-----	-4E-06	-----	
Coefficients - 7		Master	0	-----	0	-----	
Coefficients - 8		Master	0	-----	-1E-07	-----	
Coefficients - 9		Master	0	-----	2E-08	-----	
Coefficients - 10		Master	0	-----	-3E-08	-----	
Coefficients - 11		Master	0	-----	5E-08	-----	
Coefficients - 12		Master	0	-----	-0.0008	-----	
Coefficients - 13		Master	0	-----	0.0006	-----	
Coefficients - 14		Master	0	-----	0.0008	-----	
Coefficients - 15		Master	0	-----	-0.0036	-----	
Coefficients - 16		Master	0	-----	6E-06	-----	
Coefficients - 17		Master	0	-----	1.3E-05	-----	
Coefficients - 18		Master	0	-----	-6.4E-05	-----	
Coefficients - 19		Master	0	-----	-1.4E-05	-----	
Coefficients - 20		Master	0	-----	-1E-07	-----	
Coefficients - 21		Master	0	-----	-1.2E-07	-----	
Coefficients - 22		Master	0	-----	-2E-08	-----	
Coefficients - 23		Master	0	-----	9E-08	-----	
Coefficients - 24		Master	0	-----	-0.0024	-----	
Coefficients - 25		Master	0	-----	0.0008	-----	
Coefficients - 26		Master	0	-----	0.001	-----	
Coefficients - 27		Master	0	-----	-0.0008	-----	
Coefficients - 28		Master	0	-----	8E-06	-----	
Coefficients - 29		Master	0	-----	7E-06	-----	
Coefficients - 30		Master	0	-----	-1E-06	-----	
Coefficients - 31		Master	0	-----	-5.4E-05	-----	
Coefficients - 32		Master	0	-----	-8E-08	-----	
Coefficients - 33		Master	0	-----	-6E-08	-----	
Coefficients - 34		Master	0	-----	8E-08	-----	
Coefficients - 35		Master	0	-----	-1E-07	-----	

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

Primary Equipment :

PPC-B Element is used for usual logging at wellsite and check/diagnostics.	PPC-B	8437

Auxiliary Equipment :

PPC-B Element is used for usual logging at wellsite and check/diagnostics.	PPC-B	8437

Calibration Parameter :

ZERO_REF (Small Size Ring)	3.500
PLUS_REF (Large Size Ring)	8.000

Equipment Properties :

Caliper Arm Equipment Type for PPC	PPC_CAL_STD

PPC Check - Downhole Electronics Test

Before (Measured): 02:13:36 03-May-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
Positive Analog Voltage	V	Before	-----	7	8.70791	9	
Minus Analog Voltage	V	Before	-----	-9	-8.72227	-7	
Digital Voltage	V	Before	-----	3.15	3.37646	3.45	
Digital Voltage for Analog Digital Converter	V	Before	-----	4.5	5.02295	5.5	
Status Word of Analog Digital Converter Offset		Before	-----	-8	1	8	

PPC Check - Cartridge Temperature Test

Before (Measured): 02:13:36 03-May-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	

Cartridge Temperature	degF	Before	-----	-58	68.1132	482	

PPC Check - Power Control LVDT Test

Before (Measured): 02:13:36 03-May-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
LVDT5 Caliper Open Position	in	Before	-----	-----	-1.28821	-----	
LVDT5 Full Power Position	in	Before	-----	-----	1.45483	-----	

PPC Diagnostics - Arm Close Position Test

Master:

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

PPC Diagnostics - Downhole Electronics Test

Master:

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

PPC Diagnostics - RBS Test

Master:

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

PPC Diagnostics - Cartridge Temperature Test

Master:

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

PPC Diagnostics - Power Control LVDT Test

Master:

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

PPC LVDT5 Master Calibration - PPC CaliCoefficients

Master (EEPROM): 15:12:00 27-Apr-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
CCS	in	Master	-1.51	-----	-1.49097	-----	
COP	in	Master	-1.31	-----	-1.28821	-----	
CPW	in	Master	1.41	-----	1.45483	-----	

PPC Caliper Calibration - PPC CaliCoefficients

Before (Measured): 14:05:25 30-Apr-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit	
RD1_GAIN		Before	1	0.85	1.07913	1.15	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
RD2_GAIN		Before	1	0.85	1.06742	1.15	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
RD3_GAIN		Before	1	0.85	1.01106	1.15	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
RD4_GAIN		Before	1	0.85	1.00095	1.15	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	
RD1_OFFSET	in	Before	0	-2.2	-1.11056	2.6	
		After	-----	-----	-----	-----	
		After-Before	-----	-----	-----	-----	

RD2_OFFSET	in	Before	0	-2.2	-0.201499	2.6
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
RD3_OFFSET	in	Before	0	-2.2	-0.69926	2.6
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
RD4_OFFSET	in	Before	0	-2.2	0.073726	2.6
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

PPC Caliper Calibration - PPC Accumulations

Before (Measured): 14:05:25 30-Apr-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Caliper 1 Zero Radius	in	Before	3.5	1.2	4.27248	5.6
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Caliper 2 Zero Radius	in	Before	3.5	1.2	3.4677	5.6
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Caliper 3 Zero Radius	in	Before	3.5	1.2	4.15331	5.6
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Caliper 4 Zero Radius	in	Before	3.5	1.2	3.42302	5.6
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Caliper 1 Plus Radius	in	Before	8	6.1	8.44252	9.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Caliper 2 Plus Radius	in	Before	8	6.1	7.68346	9.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Caliper 3 Plus Radius	in	Before	8	6.1	8.60406	9.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
Caliper 4 Plus Radius	in	Before	8	6.1	7.91874	9.7
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

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

Primary Equipment :

Enhanced Digital Telemetry Cartridge - B EDTC-B 8629

Calibration Parameter :

Plus Reference (Jig minus background reference) 165

EDTC-B Accelerometer Calibration - EDTC-B Accelerometer Calibration

Before (Measured): 02:39:22 03-May-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
AZ Vertical Measurement	ft/s2	Before	32.19	31.53	31.99	32.84

EDTC-B Memory Data - EDTC-B Memory Data

Master (EEPROM): 02:09:55 03-May-2012

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Initial PMT HV	V	Master	-----	-----	1434.000	-----
Accelerometer Serial Number		Master	-----	-----	390	-----
Accelerometer Coefficients - 0		Master	-----	-----	2.894	-----
Accelerometer Coefficients - 1		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 2		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 3		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 4		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 5		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 6		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 7		Master	-----	-----	-0.005	-----
Accelerometer Coefficients - 8		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 9		Master	-----	-----	0.000	-----
Accelerometer Coefficients - 10		Master	-----	-----	0.000	-----

Accelerometer Coefficients - 11		Master	-----	-----	0.000	-----
Gamma-Ray Detector Serial Number		Master	-----	-----	7240	-----

EDTC-B Gamma-Ray Calibration - Gamma Ray Coefficients

Before (Measured): 14:18:41 01-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
Gamma Ray Gain		Before	1.000	0.900	1.049	1.100
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

EDTC-B Gamma-Ray Calibration - Gamma Ray Accumulations

Before (Measured): 14:18:41 01-May-2012 After:

Measurement	Unit	Phase	Nominal	Low Limit	Actual	High Limit
RGR Zero Measurement	gAPI	Before	-----	0	77.747	120.000
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----
RGR Plus Measurement	gAPI	Before	165.000	150.000	157.315	180.000
		After	-----	-----	-----	-----
		After-Before	-----	-----	-----	-----

Company: Southwestern Energy Production Company

Schlumberger

Well: Ewertz Farms 1-58 #1-26H

Field: Wildcat

County: Adams

State: Colorado

Platform Express

Dual Density, Laterolog Resistivity, and ADT