HALLIBURTON | Sperry Drilling

AGR Azimuthal Gamma Ray
XBAT Bi-Modal Acoustic
EWR-M5

Powered by INSITE™

1 : 200

Country	: Japan
Field	: Nankai Trough
Location	: Lat: 33° 18' 3.04" North Long: 136° 38' 12.17" East
Well	: C0002P
Company	: JAMSTEC
Rig	: CHIKYU

Company	:	**JAMSTEC**
Rig	:	**CHIKYU**
Well	:	**C0002P**
Field	:	**Nankai Trough**
Country	:	**Japan**
DOE Number	:	

LOCATION

Latitude : **33° 18' 3.04" North**
Longitude : **136° 38' 12.17" East**

UTM Easting = 652382.4 m
UTM Northing = 3685834.6 m

Other Services
Directional Drilling
DDSr Drillstring Dynamics

Permanent Datum : **Mean Sea Level** Elevation : **0.00 m**
Log Measured From : **Drill Floor** **28.50 m** Above Permanent Datum
Drilling Measured From : **Drill Floor**

TVDss LOG

Elev. KB **0.00 m**
DF **28.50 m**
GL **0.00 m**
WD **1939.00 m**

Depth Logged : **4,156.11 m** To **4,995.59 m**
Date Logged : **26-Dec-13** To **02-Jan-14**
Total Depth MD : **5,026.00 m** TVD : **5,024.09 m**
Spud Date : **11-Oct-13**

Unit No. : **0003501** Job No. : **JP-XX-0900526576**

Plot Type : **Final**
Plot Date : **11-Jan-14**

Run No.	Borehole Record (TVDss) Size	From	To
4	12.250 in	4,156.11 m	4,995.59 m

Run No.	Borehole Record (TVDss) Size	From	To

Casing Record (TVDss) Size	Weight	From	To
36.000 in	822.35 kgpm	1,934.32 m	1,992.50 m
20.000 in	192.39 kgpm	1,934.32 m	2,799.30 m
13.375 in	101.19 kgpm	2,799.30 m	3,874.39 m

WELL INFORMATION

MWD Run Number	400																										
Date run completed	02-Jan-14																										
Rig Bit Number	4																										
Bit Size (in)	12.250																										
Tool Nominal OD (in)	8.000																										
Log Start Depth (TVD, m)	4,184.611																										
Log End Depth (TVD, m)	5,024.093																										
Drill or Wipe	Drill																										
Drill/Wipe Start Date and Time	26-Dec-13 10:00																										
Drill/Wipe End Date and Time	31-Dec-13 00:15																										
Min Inc (deg) @ Depth (TVD, m)	1.40 @ 4,947.854																										
Max Inc (deg) @ Depth (TVD, m)	2.93 @ 4,152.405																										
Bit TFA(cm2) / Bit Type	6.8 / PDC																										
Flow Rate (m3pm)	3.03																										
Max AV (mps) / CV (mps) @ MWD	1.3 / 3.1																										
Fluid Type	Polymer																										
Density (ppg) / Viscosity (spl)	10.68 / 107.81																										
Filtrate CL (ppm)	120,700.00																										
pH / Fluid Loss (m3pm)	11.10 / 0																										
PV (mPsec) / YP (pa)	44 / 27.29																										
% Solids / % Sand	14 / 0.2																										
% Oil / Oil:Water Ratio	N/A / N/A																										
Rm @ Measured Temp (degC)	.110 @ 24.00																										
Rmf @ Measured Temp (degC)	.080 @ 24.00																										
Rmc @ Measured Temp (degC)	.140 @ 24.00																										
Max Tool Temp (degC) / Source	43.14 / HCIM																										
Rm @ Max Tool Temp (degC)	.0774 @ 43.14																										
Lead MWD Engineer	Alex Munro																										
Customer Representative	Dr Moe																										

SENSOR INFORMATION

Downhole Processor Information

Tool Type	HCIM				
Software Version	88.56				
Sub Serial Number	11952679				
Insert Serial Number	11790865				
Date and Time Initialized	26-Dec-13 16:50				
Date and Time Read	02-Jan-14 05:24				
ECMB SW Version	N/A				

Directional Sensor Information

Tool Type	PCDC				
Distance From Bit (m)	31.450				
Software Version	6.21				
Sub Serial Number	11025002				
Sonde Serial Number	11902126				
Sensor ID Number	N/A				
Toolface Offset (deg)	0				

Gamma Ray Sensor Information

Tool Type	AGR				
Distance From Bit (m)	16.230				
Recorded Sample Period (sec)	10				
Software Version	9.23				
Sub Serial Number	11952679				
Insert/Sonde Serial Number	239879				

Resistivity Sensor Information

Tool Type	EWR-M5				
Distance From Bit (m)	19.030				
Recorded Sample Period (sec)	12				
Software Version	1.56				
Sub Serial Number	11952679				
Receiver Insert Serial Number	208050				
Transmitter Insert Serial Number	239879				
Receiver Orientation	Down				

Sonic Sensor Information

Tool Type	XBAT				
Distance From Bit (m)	26.84				
Recorded Sample Period (sec)	20				
Sub Serial Number	N/A				
Receiver Insert Serial Number	12108405				
Transmitter Insert Serial Number	11215811				
MIT File	4:M11_D5				
Config File	N/A				
Real-Time Window (us/m)	N/A - N/A				
Battery Insert Serial Number	11816955				
MCM Software Version	N/A				
DAQ1/DAQ2 Software Version	N/A / N/A				
DSM Software Version	N/A				

REMARKS

1. All depths are referenced to driller's pipe tally. No correction has been made for pipe stretch or squat.

2. Curve Mnemonice used are:

   ROPA : Smoothed Avg Rate of Penetration, m/h
   AGRCC : Smoothed AGR Comb Gamma Ray BCorr (K+ and Borehole corrected), api
   MAGNQC : Smoothed AGR North Quad GR BCorr (K+ and Borehole Corrected), api
   MAGEQC : Smoothed AGR East Quad GR BCorr (K+ and Borehole Corrected), api
   MAGSQC : Smoothed AGR South Quad GR BCorr (K+ and Borehole Corrected), api
   MAGWQC : Smoothed AGR West Quad GR BCorr (K+ and Borehole Corrected), api
   RH16PC : Smoothed 16in 2 MHz Phase Resistivity BC, ohmm
   RH24PC : Smoothed 24in 2 MHz Phase Resistivity BC, ohmm
   RH32PC : Smoothed 32in 2 MHz Phase Resistivity BC, ohmm
   RH40PC : Smoothed 40in 2 MHz Phase Resistivity BC, ohmm
   RH48PC : Smoothed 48in 2 MHz Phase Resistivity BC, ohmm
   AGRCCM : Smoothed AGR GR Azi Mag BCorr
   AGXT : Smoothed AGR Formation Exposure Time, hr

3. The following smoothing parameters have been applied to the data:
   Gamma Ray / Resistivity curves 0.1524m interval, 0.60960 coercion distance
   ROP 0.1524m interval, 0.60960 coercion distance

WARRANTY

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MWD RUN 400 - BHA

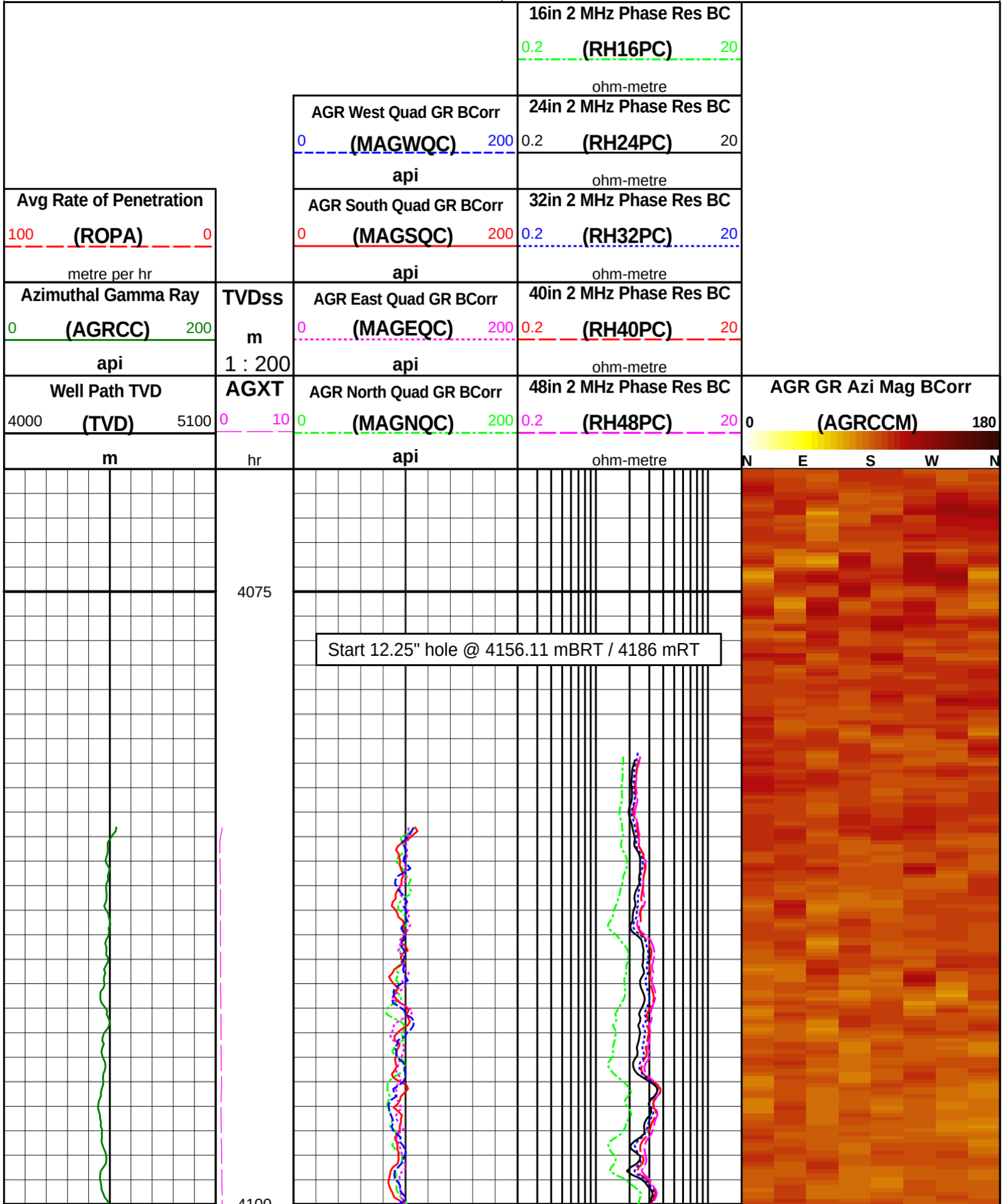
	Component Length (m)	Cumulative Length (m)
		5251.15
Drill Pipe 6.6250 in OD	940.000	
		4311.15
Sub 8.5000 in OD	.800	

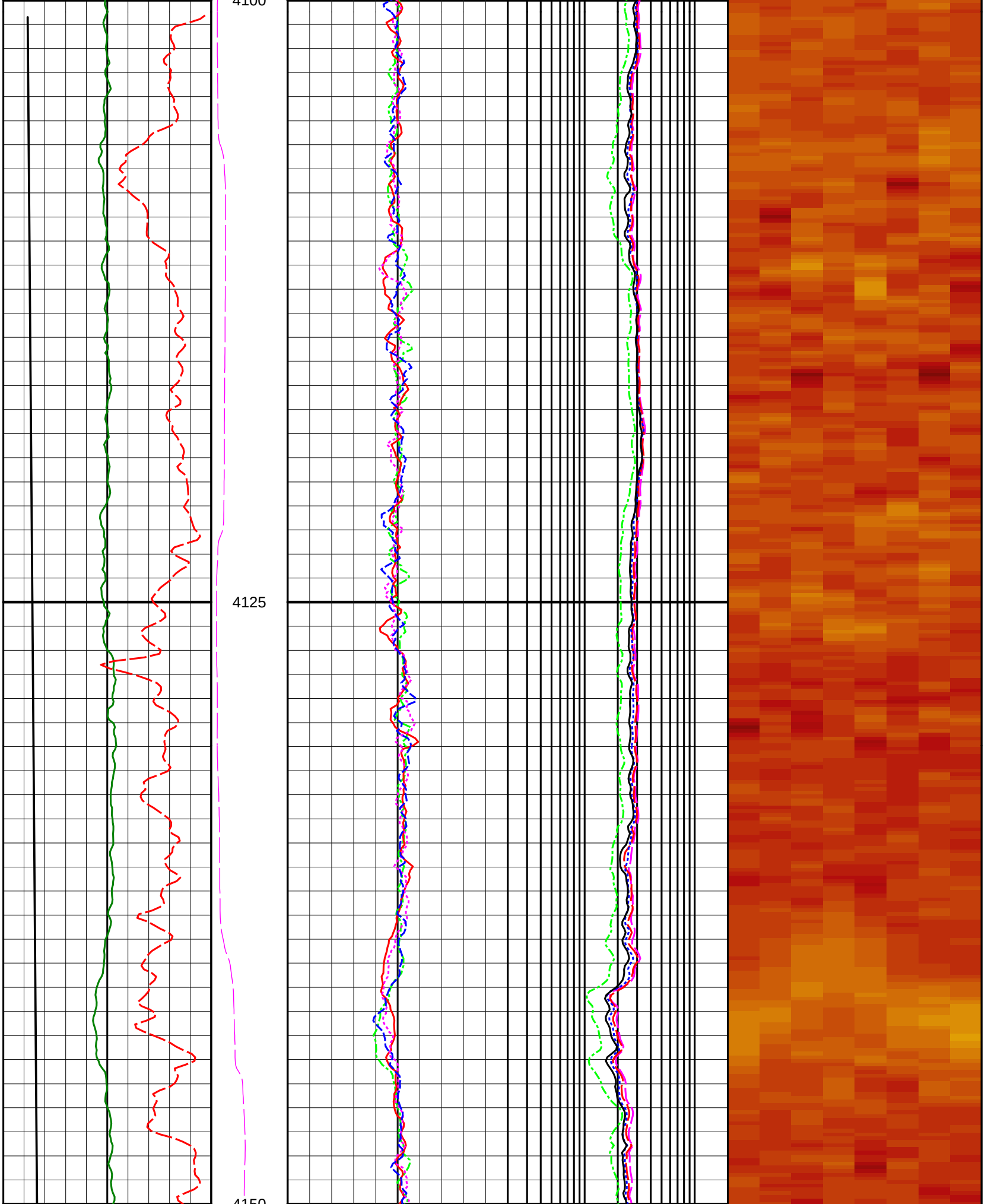
MWD RUN 400 - MWD

	Sensor Measure Point Distance To Bit (m)
MWD - Directional SN# 11902126	31.450

		4310.35
Drill Pipe 5.5000 in OD	902.400	
		3407.95
Sub 7.5000 in OD	.800	
		3407.15
Drill Pipe 5.5000 in OD	789.600	
		2617.55
Drill Pipe 5.0000 in OD	2,331.200	
		286.35
Sub 8.5000 in OD	.910	
		285.44
Drill Pipe 5.6800 in OD	108.390	
		177.05
Sub 8.5000 in OD	.610	
		176.44
Collar 8.5000 in OD	18.540	
		157.90
Jar 8.0000 in OD	9.370	
		148.53
Collar 8.5000 in OD	111.050	
		37.48
Collar 8.0000 in OD	2.360	
		35.12
MWD 8.0000 in OD	23.23	
		11.89
Stabilizer 8.5000 in OD	1.680	
		10.21
Sub 8.0000 in OD	.680	
		9.53
Motor 9.6250 in OD	9.190	
		0.34
Bit 7.7500 in OD	.340	

MWD - Processor SN# 10996871	
MWD - Telemetry SN# 10450009	
MWD - Sonic SN# 11816955	
MWD - Processor	
MWD - Gamma Ray SN# 239879	16.230
MWD - Drilling SN# 239879	16.020
MWD - Drilling SN# 239879	16.790
MWD - Resistivity SN# 208050	19.030
MWD - Resistivity SN# 11576832	13.790


16in 2 MHz Phase Res BC
0.2 (RH16PC) 20
ohm-metre
AGR West Quad GR BCorr
0 (MAGWQC) 200
api
24in 2 MHz Phase Res BC
0.2 (RH24PC) 20
ohm-metre
Avg Rate of Penetration
100 (ROPA) 0
metre per hr
AGR South Quad GR BCorr
0 (MAGSQC) 200
api
32in 2 MHz Phase Res BC
0.2 (RH32PC) 20
ohm-metre
Azimuthal Gamma Ray
0 (AGRCC) 200
api
TVDss
m
1 : 200
AGR East Quad GR BCorr
0 (MAGEQC) 200
api
40in 2 MHz Phase Res BC
0.2 (RH40PC) 20
ohm-metre
Well Path TVD
4000 (TVD) 5100
m
AGXT
0 10
hr
AGR North Quad GR BCorr
0 (MAGNQC) 200
api
48in 2 MHz Phase Res BC
0.2 (RH48PC) 20
ohm-metre
AGR GR Azi Mag BCorr
0 (AGRCCM) 180
N E S W N
4075
Start 12.25" hole @ 4156.11 mBRT / 4186 mRT
4100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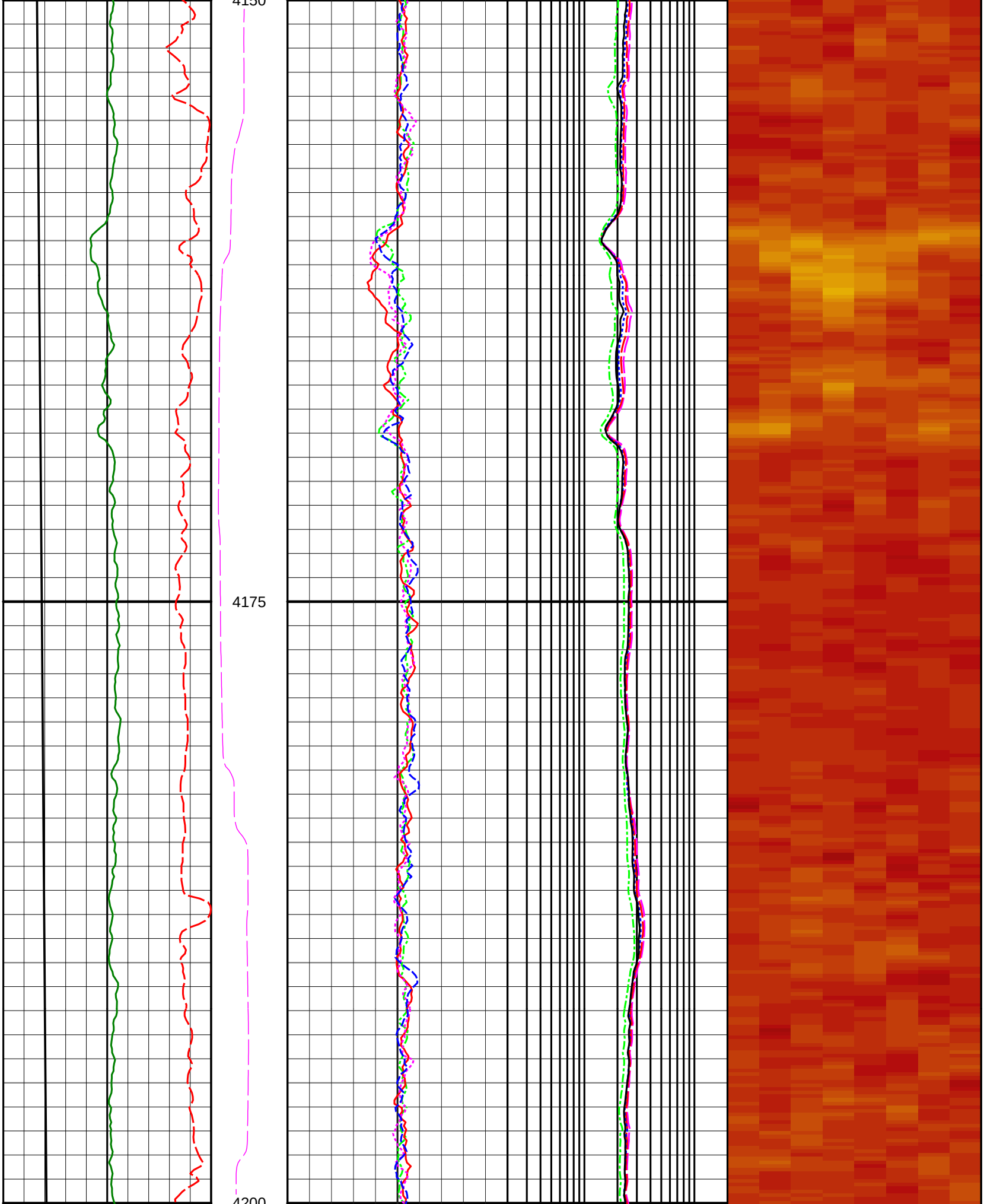
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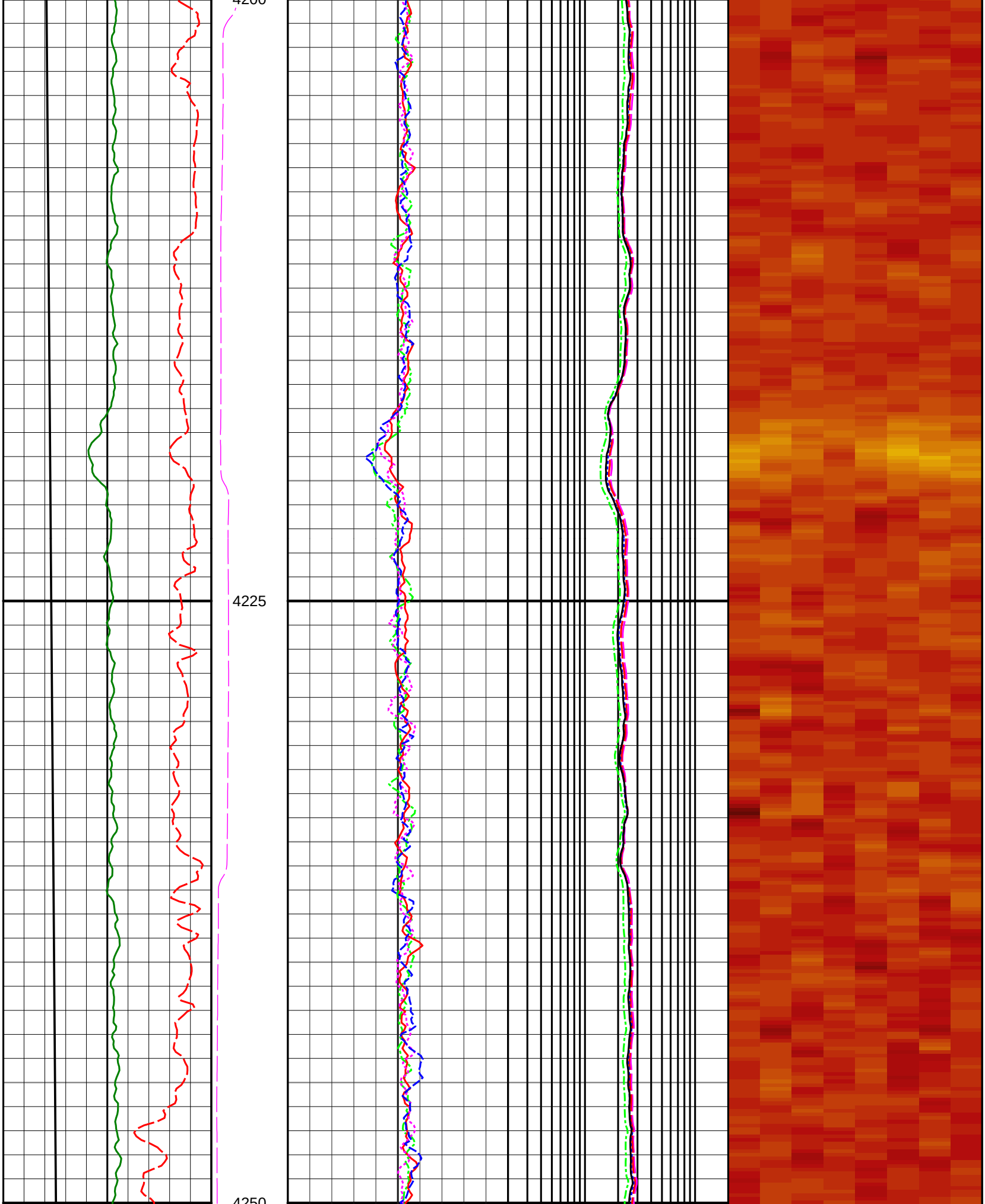
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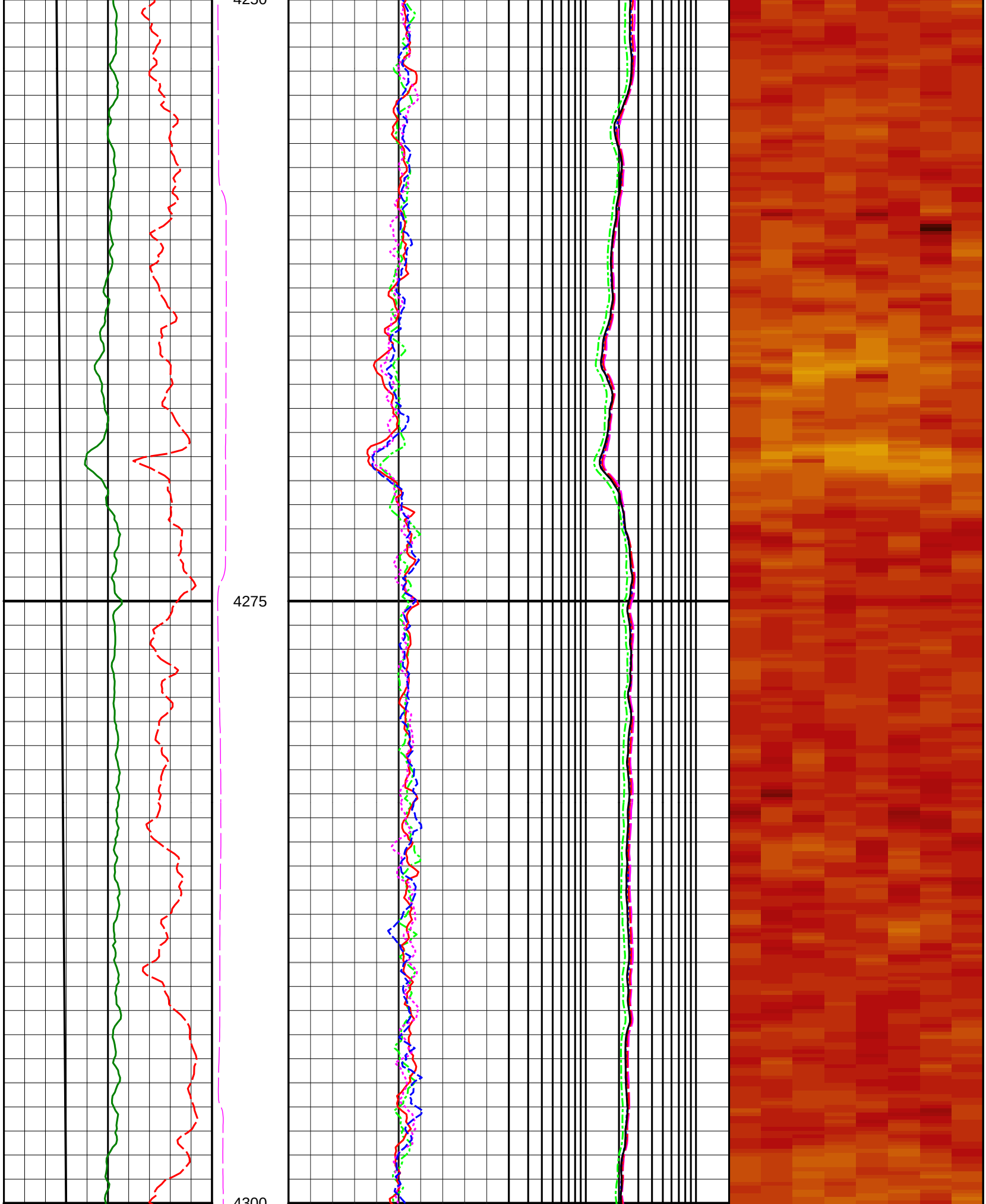
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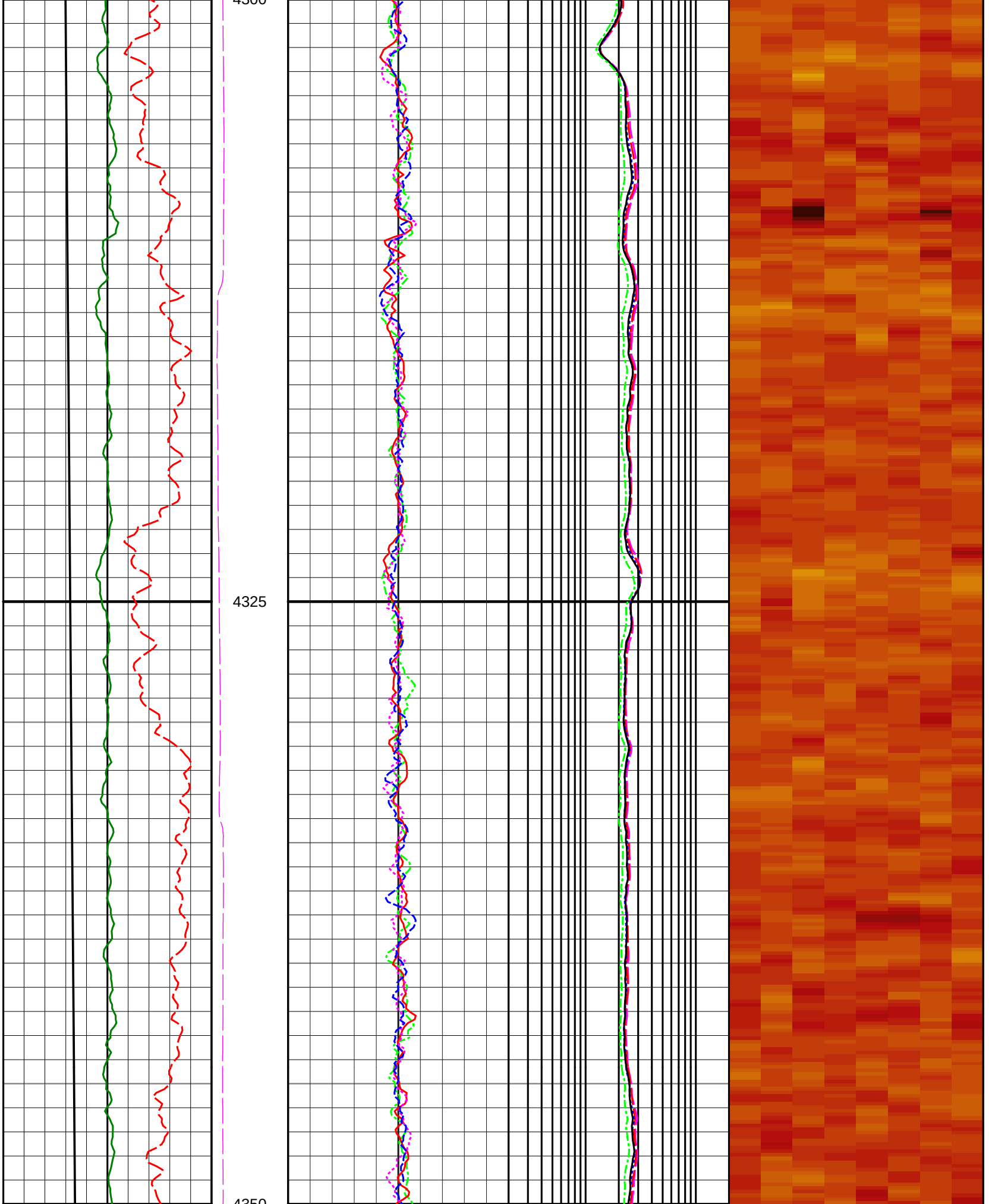
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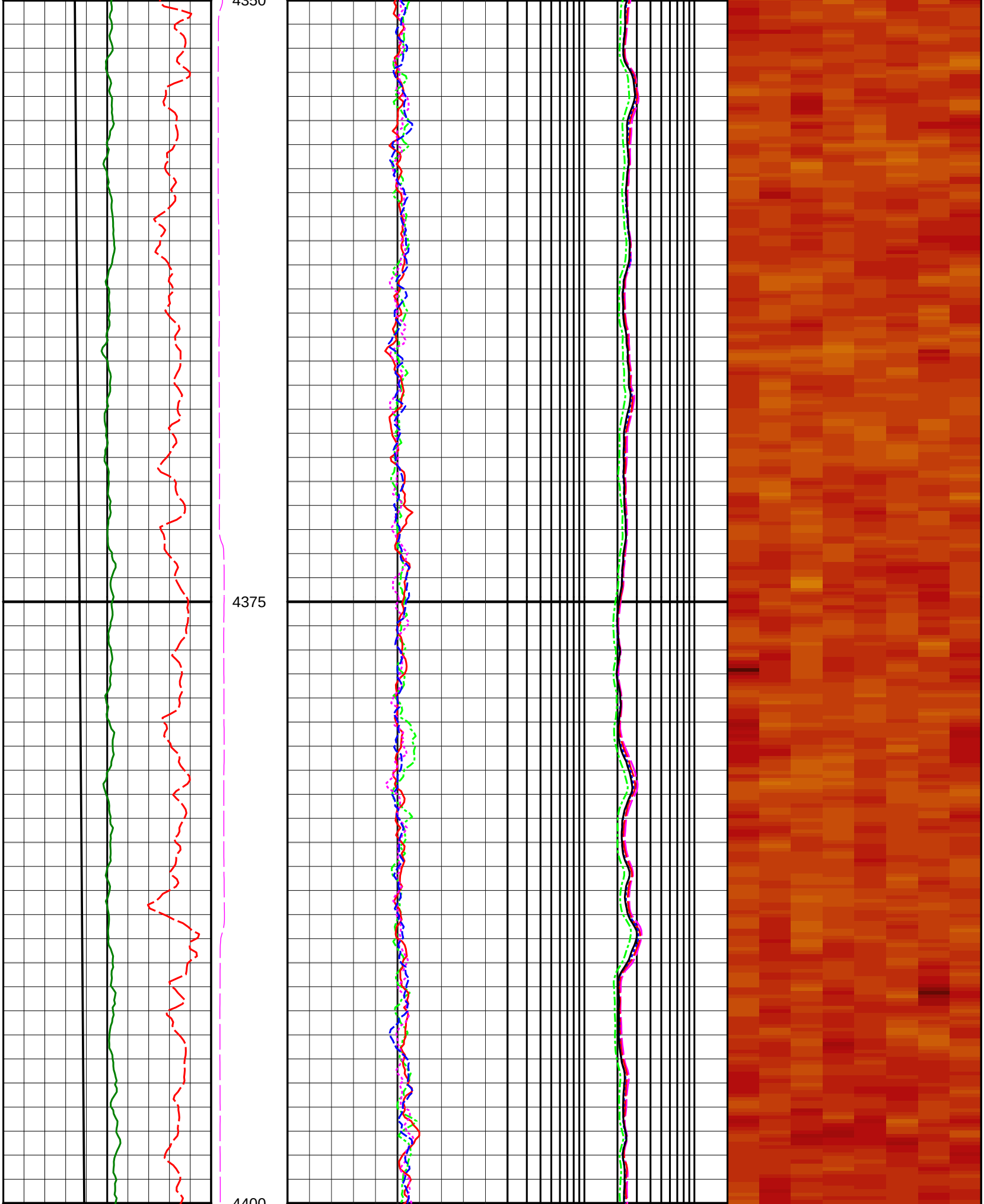
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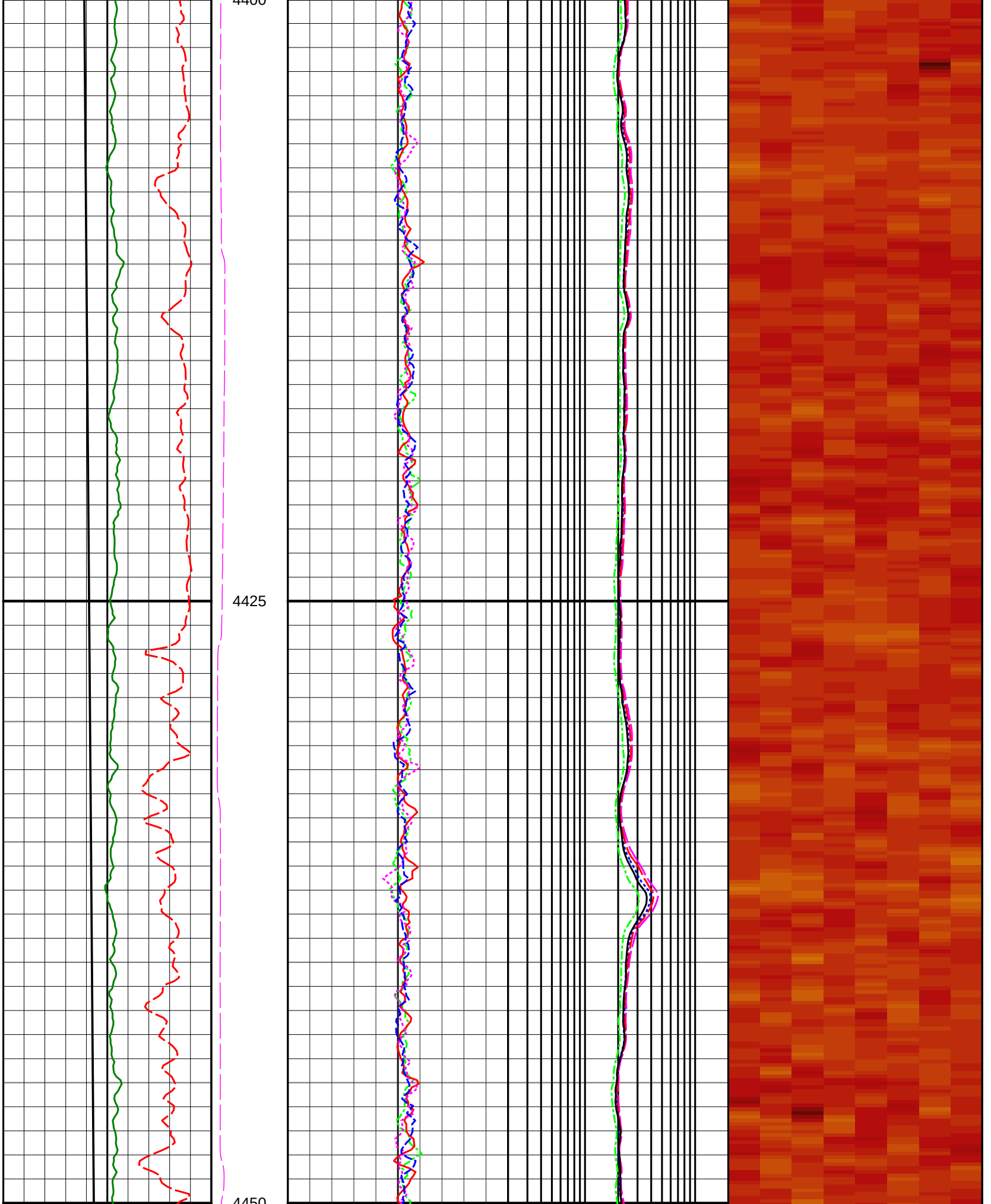
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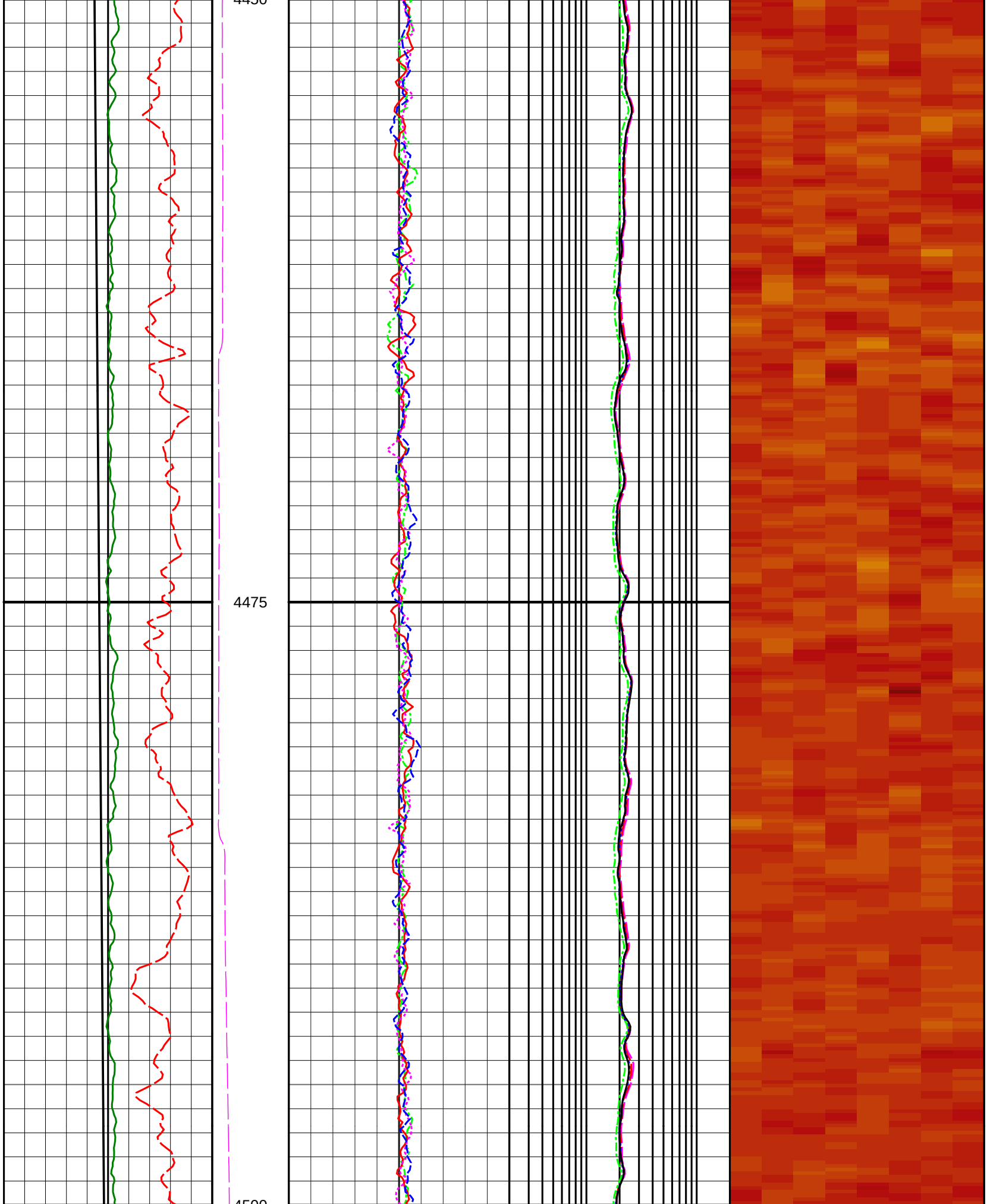
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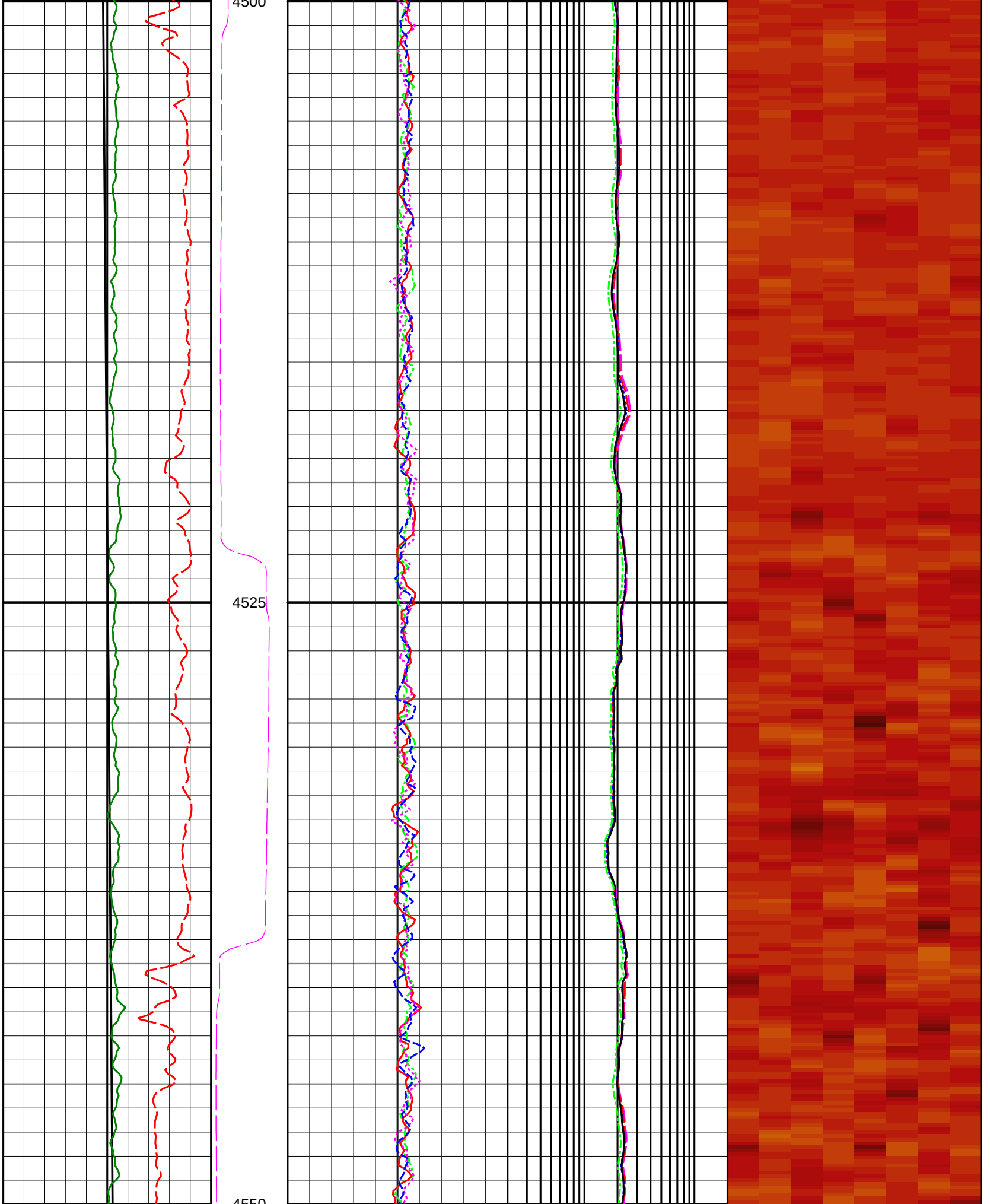
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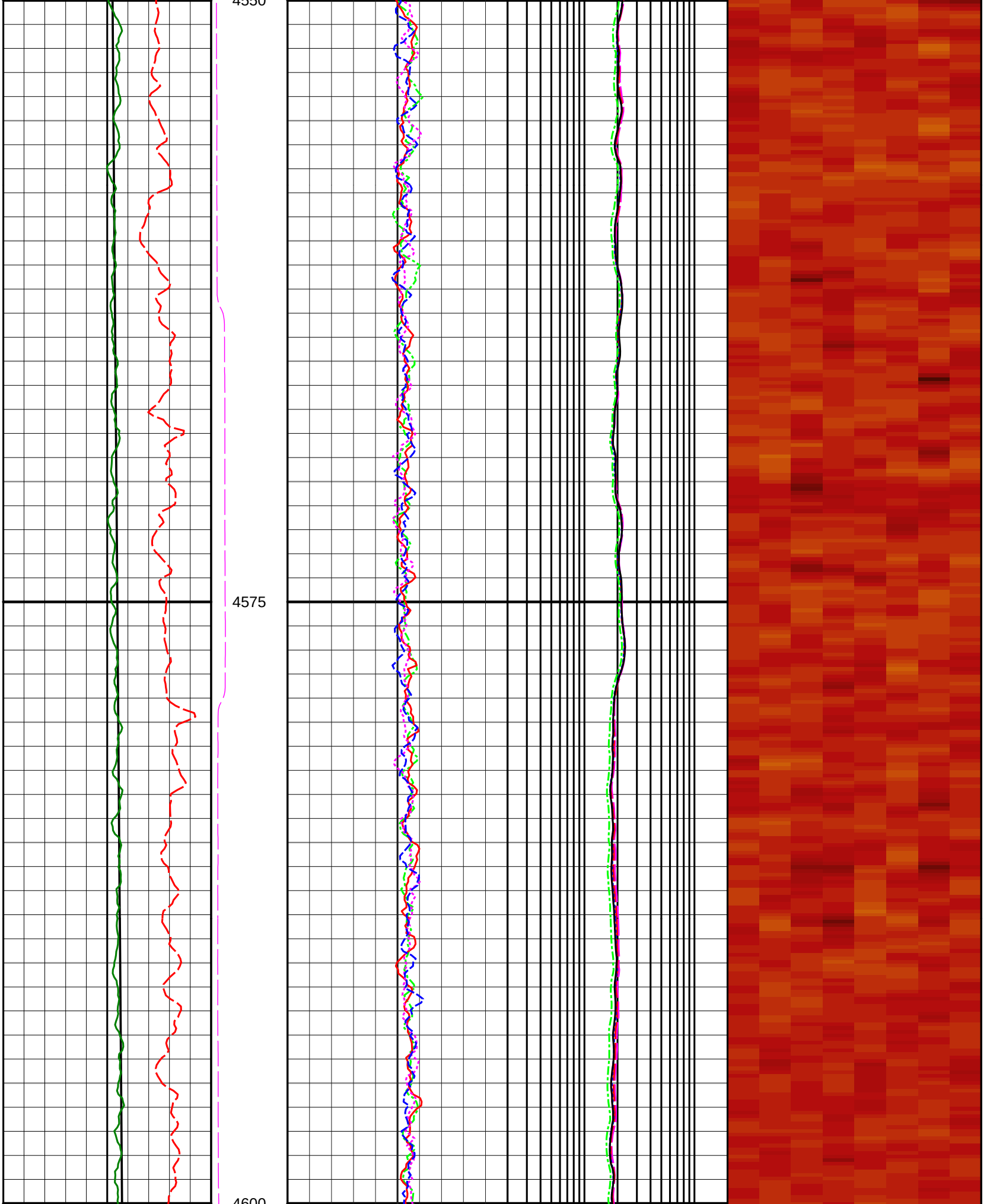
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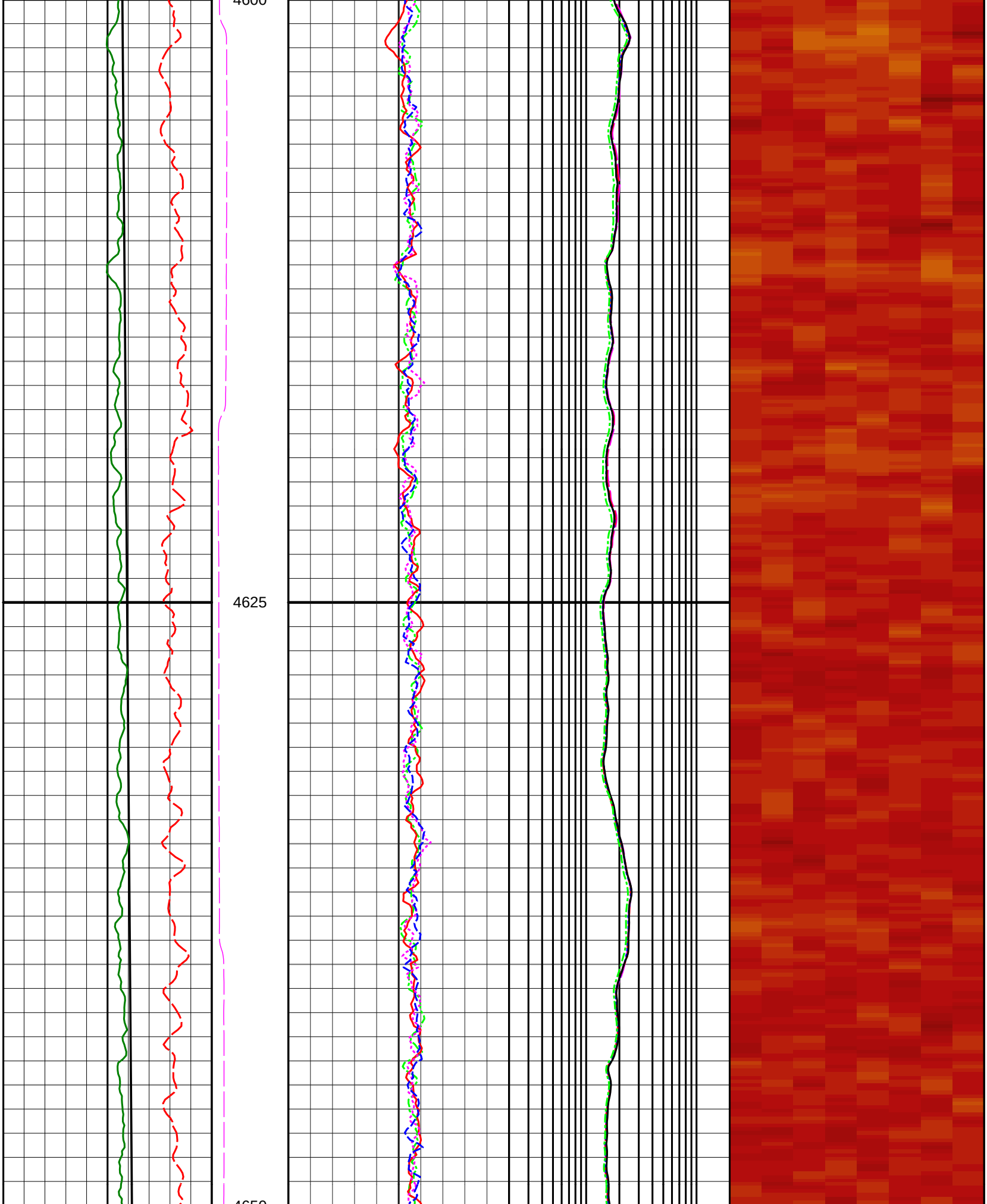
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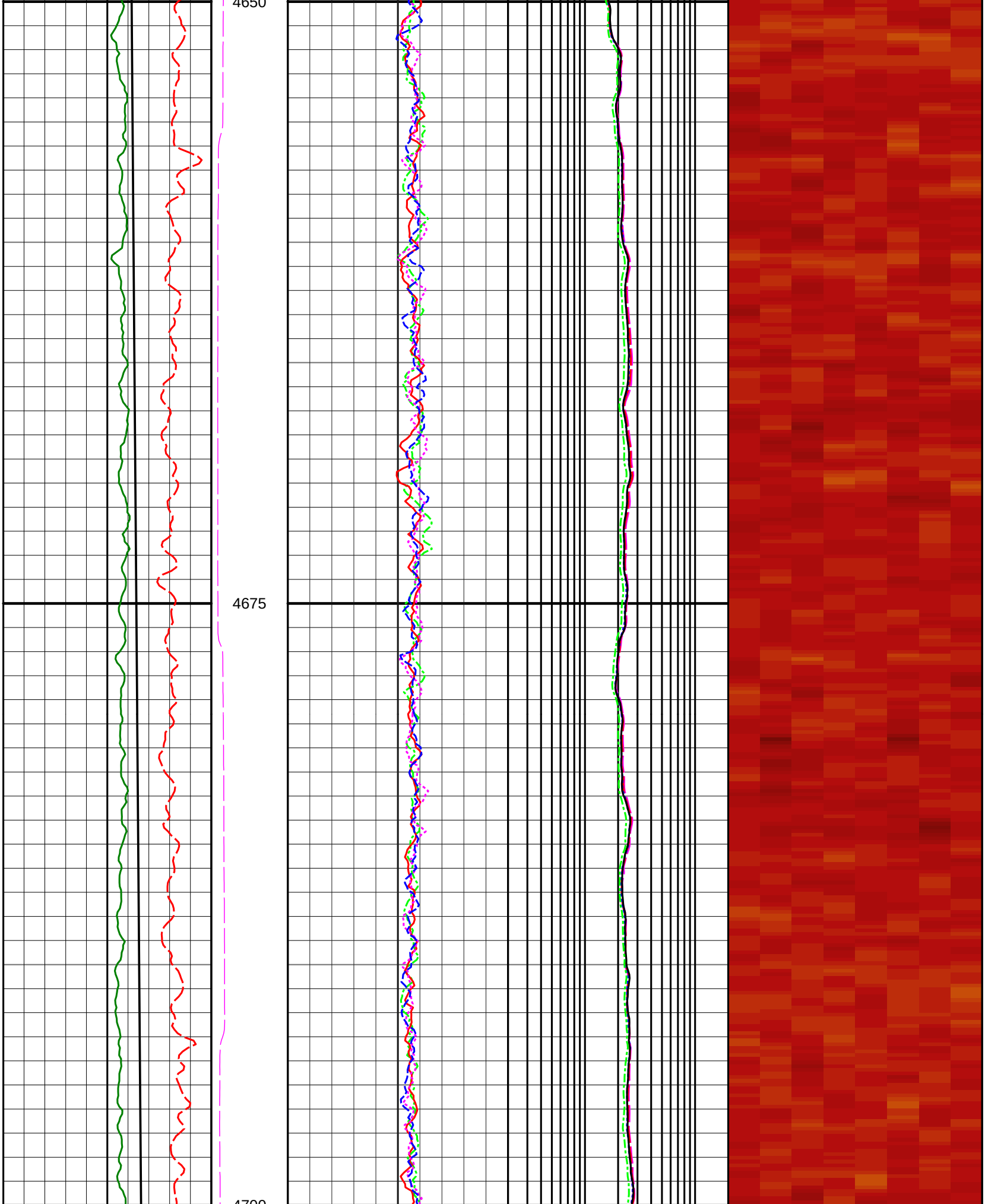
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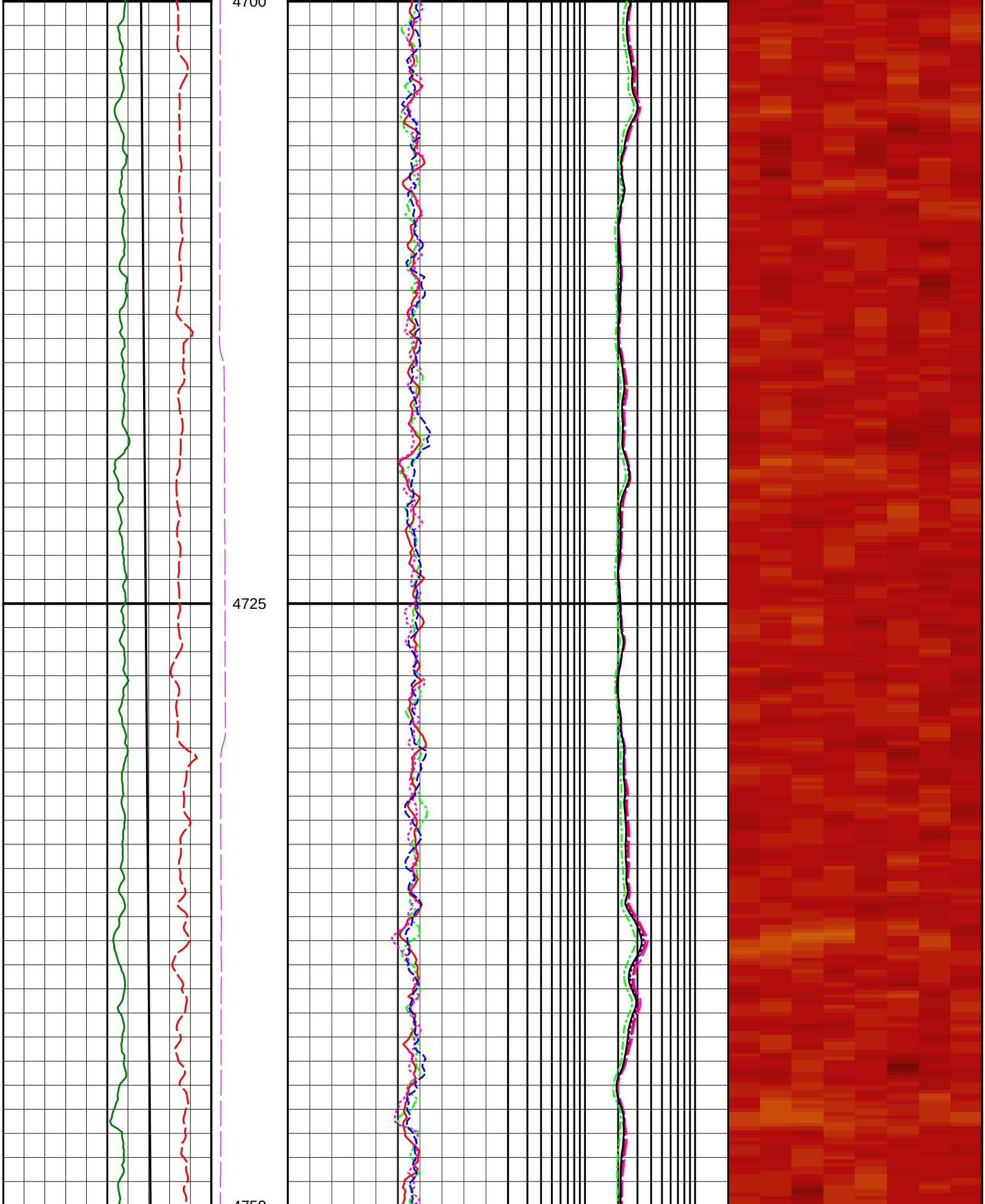
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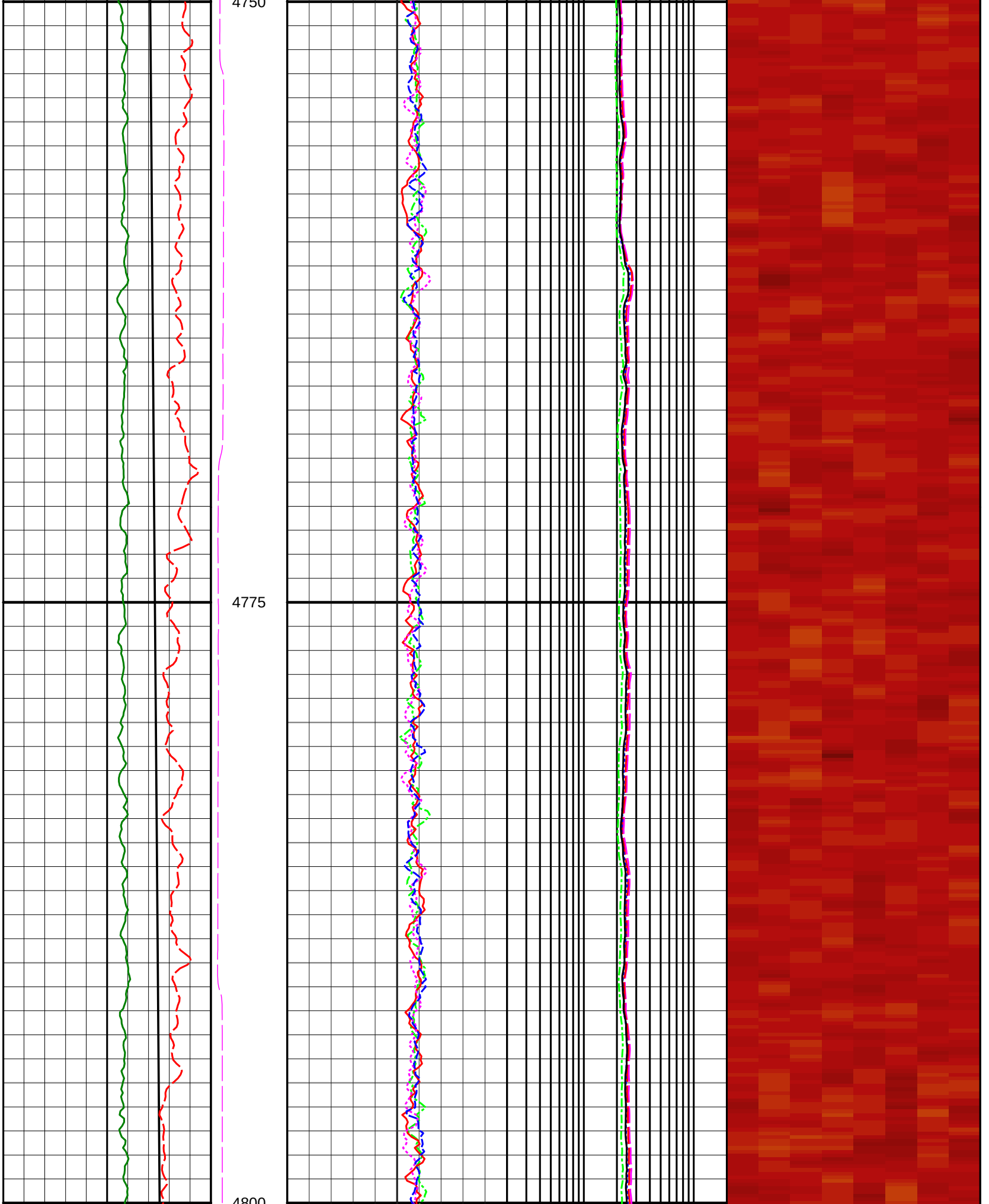
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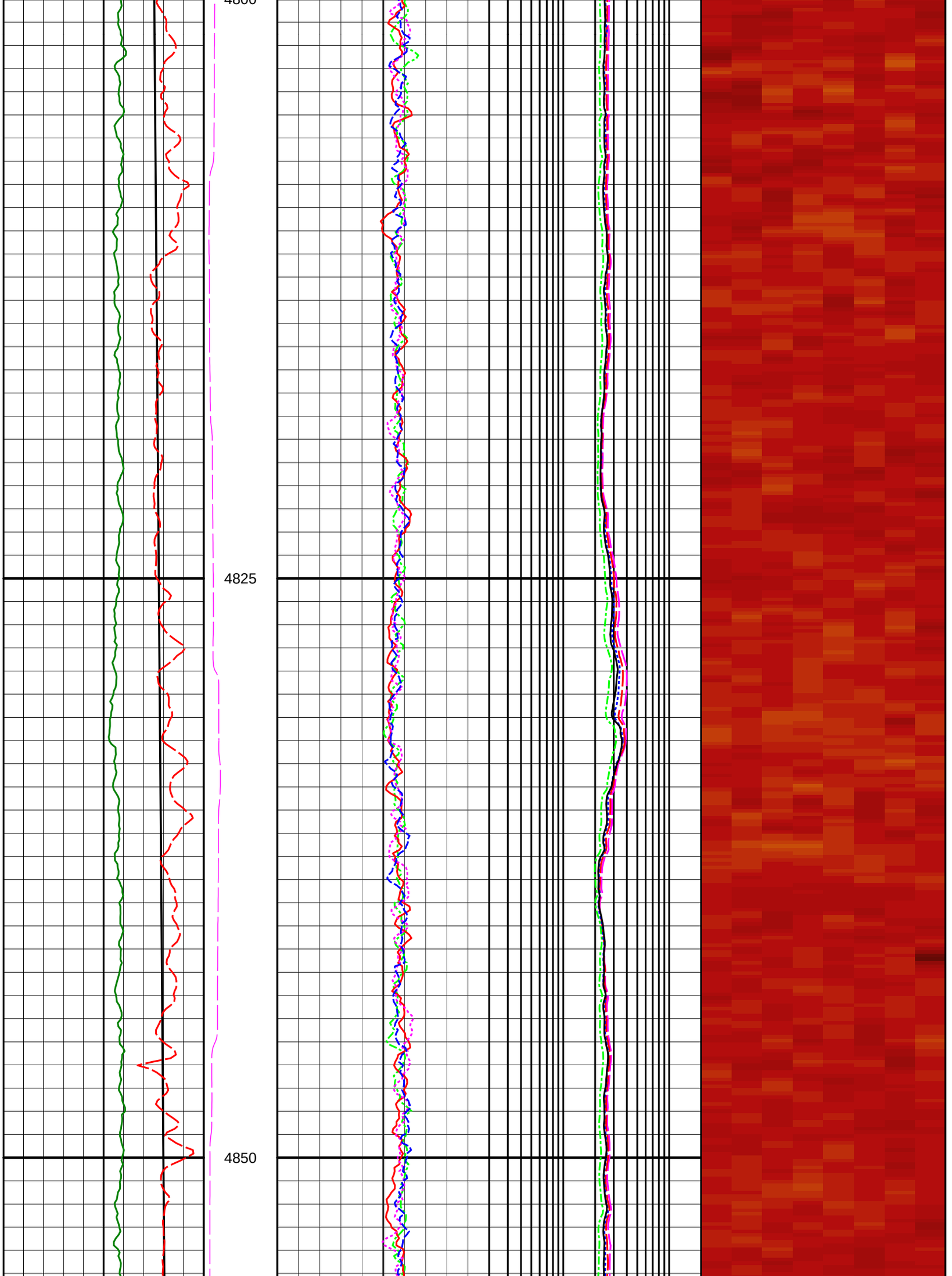
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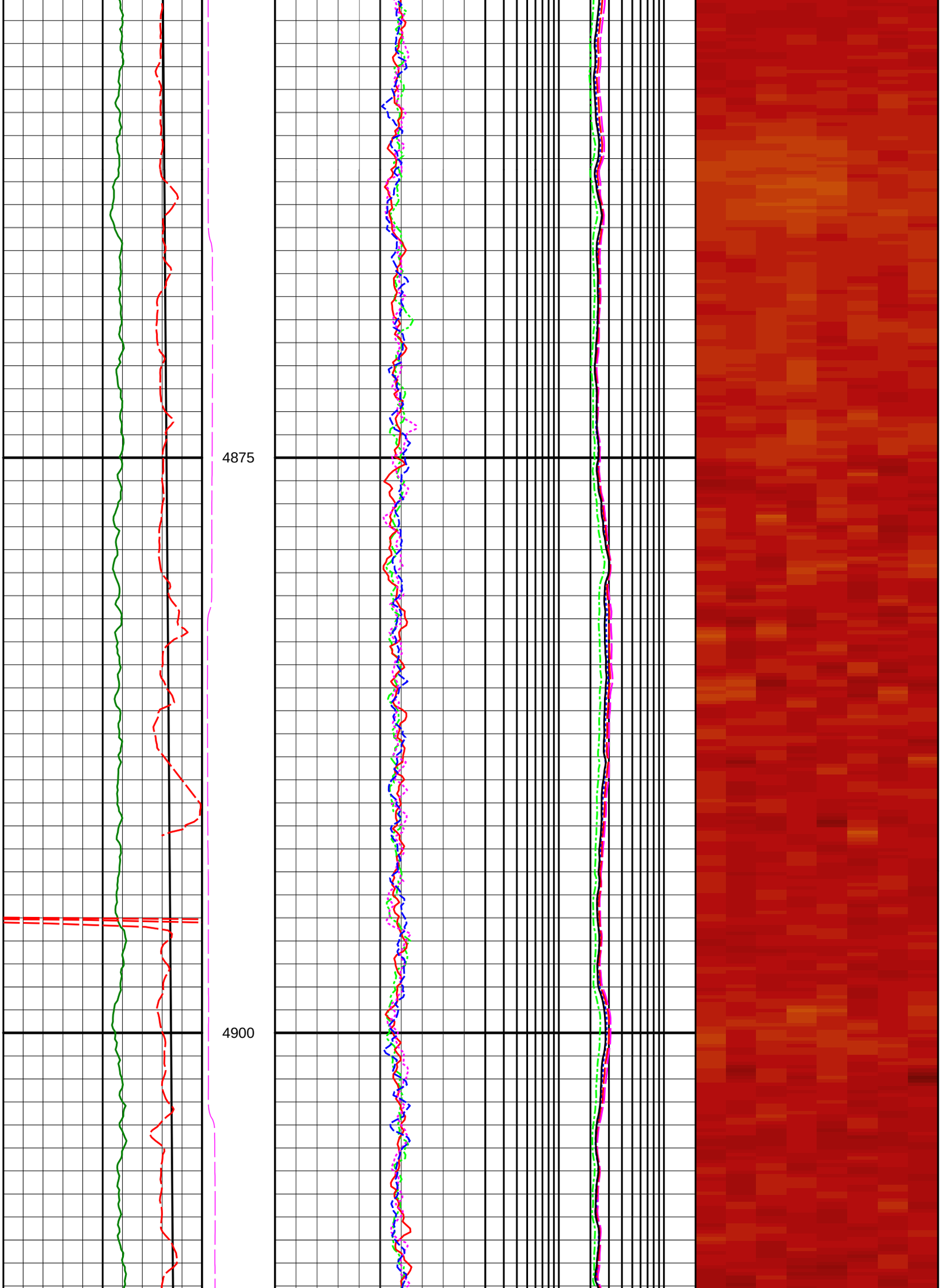
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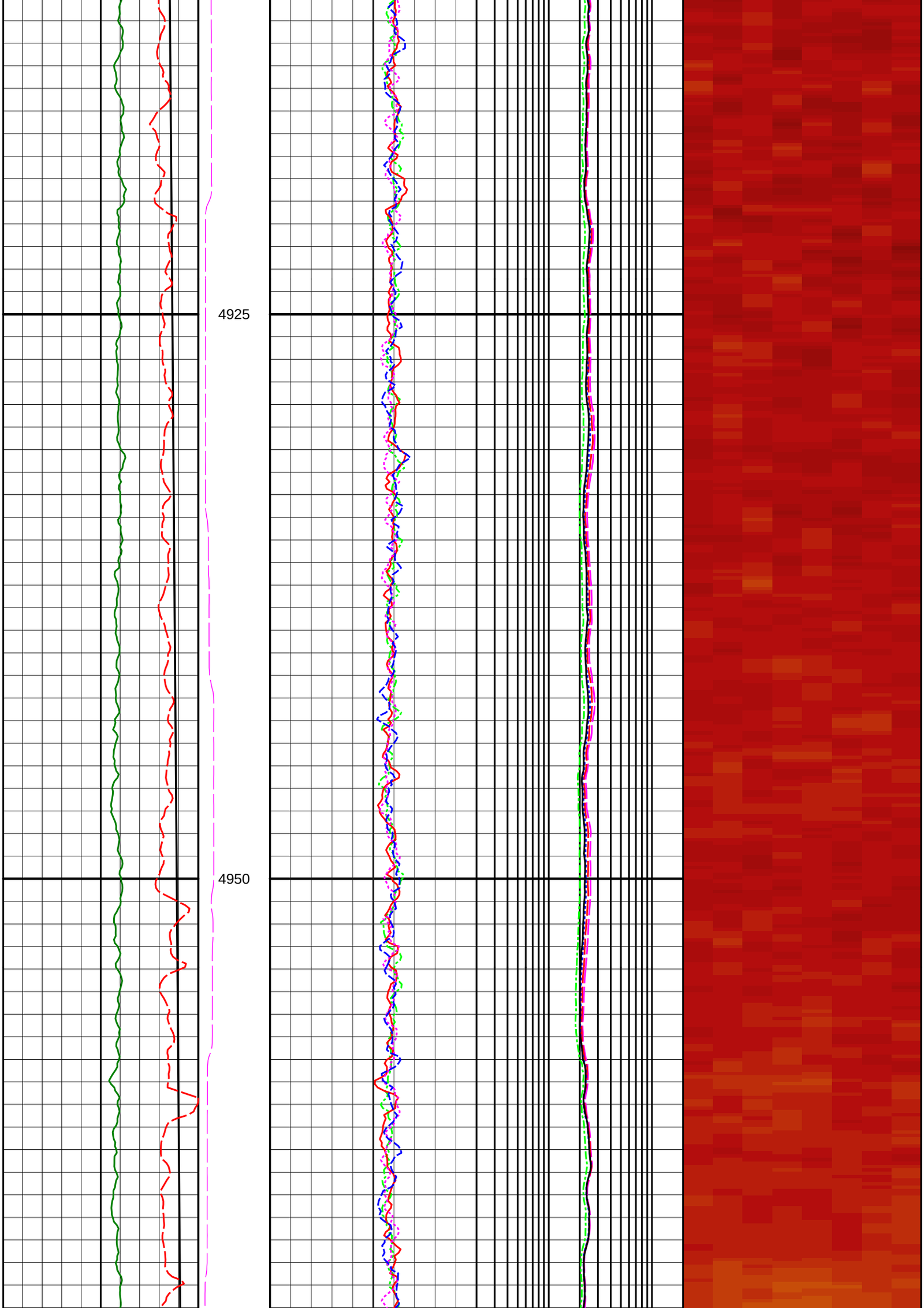
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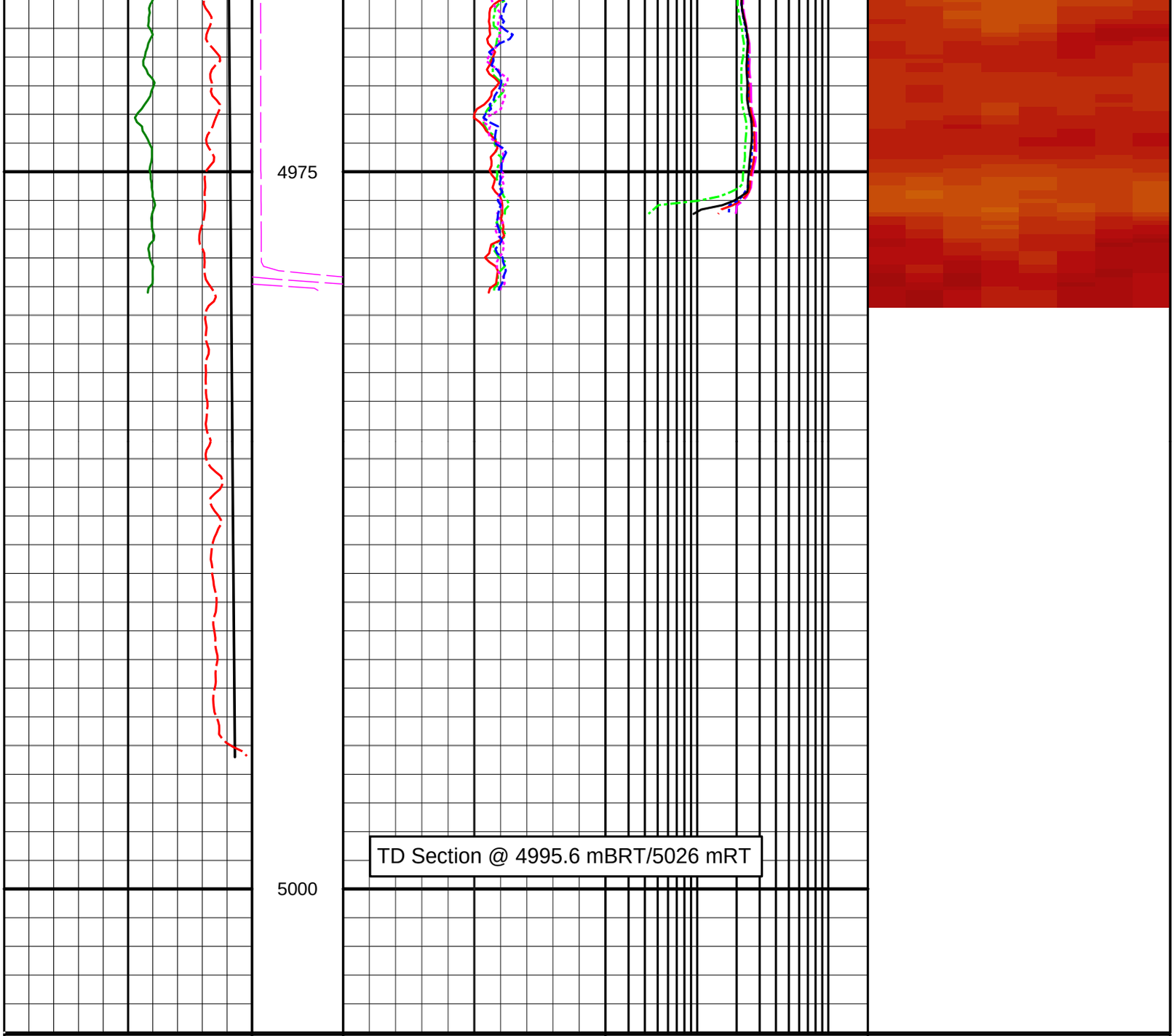

Well Path TVD 4000 (TVD) 5100 m	AGXT 0 10 hr	AGR North Quad GR BCorr 0 (MAGNQC) 200 api	48in 2 MHz Phase Res BC 0.2 (RH48PC) 20 ohm-metre	AGR GR Azi Mag BCorr 0 (AGRCCM) 180 N E S W N
Azimuthal Gamma Ray 0 (AGRCC) 200 api	TVDss m 1 : 200	AGR East Quad GR BCorr 0 (MAGEQC) 200 api	40in 2 MHz Phase Res BC 0.2 (RH40PC) 20 ohm-metre	
Avg Rate of Penetration 100 (ROPA) 0 metre per hr		AGR South Quad GR BCorr 0 (MAGSQC) 200 api	32in 2 MHz Phase Res BC 0.2 (RH32PC) 20 ohm-metre	
		AGR West Quad GR BCorr 0 (MAGWQC) 200 api	24in 2 MHz Phase Res BC 0.2 (RH24PC) 20 ohm-metre	
			16in 2 MHz Phase Res BC 0.2 (RH16PC) 20 ohm-metre	

HALLIBURTON

DIRECTIONAL SURVEY REPORT

Mantle Quest Japan Co.,Ltd.
C0002P
Nankai Trough
Japan
JP-XX-0900526576

Measured Depth (metres)	Inclination (degrees)	Direction (degrees)	Vertical Depth (metres)	Latitude (metres)	Departure (metres)	Vertical Section (metres)	Dogleg (deg/30m)
2827.800	0.00	0.00	2827.800	0.000 N	0.000 E	0.000	TIE-IN
2890.590	3.40	159.39	2890.553	1.743 S	0.656 E	-1.743	1.62
2928.740	5.12	140.76	2928.598	4.121 S	2.131 E	-4.121	1.72
2966.900	5.18	106.59	2966.613	5.932 S	4.859 E	-5.932	2.38
3010.810	5.07	76.58	3010.355	6.048 S	8.647 E	-6.048	1.81
3043.630	5.11	51.56	3043.050	4.802 S	11.203 E	-4.802	2.01
3084.170	5.36	38.78	3083.422	2.204 S	13.803 E	-2.204	0.88
3123.580	4.98	25.39	3122.673	0.777 N	15.689 E	0.777	0.96
3162.080	4.18	4.38	3161.052	3.686 N	16.513 E	3.686	1.44
3199.710	2.00	1.06	3198.625	5.710 N	16.630 E	5.710	1.74
3238.190	0.31	209.19	3237.098	6.290 N	16.592 E	6.290	1.78
3276.890	0.44	239.16	3275.798	6.123 N	16.413 E	6.123	0.18
3314.850	0.41	269.76	3313.757	6.048 N	16.152 E	6.048	0.18
3353.040	0.12	310.15	3351.946	6.073 N	15.985 E	6.073	0.26
3391.260	0.56	336.21	3390.165	6.270 N	15.879 E	6.270	0.36
3429.140	0.50	334.26	3428.044	6.588 N	15.732 E	6.588	0.05
3468.360	0.62	352.84	3467.262	6.952 N	15.632 E	6.952	0.17
3505.570	0.31	333.27	3504.471	7.242 N	15.561 E	7.242	0.28
3544.480	0.19	98.24	3543.381	7.327 N	15.578 E	7.327	0.34
3581.980	0.25	209.19	3580.880	7.247 N	15.599 E	7.247	0.29
3620.060	0.31	210.19	3618.960	7.085 N	15.507 E	7.085	0.05
3657.980	0.84	245.28	3656.878	6.880 N	15.203 E	6.880	0.48
3691.660	0.36	224.61	3690.556	6.702 N	14.905 E	6.702	0.46
3729.630	0.25	132.00	3728.526	6.561 N	14.882 E	6.561	0.35
3767.900	0.44	166.60	3766.795	6.362 N	14.978 E	6.362	0.21
3887.570	0.31	300.87	3886.464	6.081 N	14.807 E	6.081	0.17
3904.000	0.22	301.45	3902.894	6.121 N	14.742 E	6.121	0.16
3996.760	2.38	94.61	3995.629	6.059 N	16.513 E	6.059	0.83
4010.460	1.46	75.41	4009.321	6.080 N	16.966 E	6.080	2.44
4039.630	3.59	105.91	4038.462	5.923 N	18.204 E	5.923	2.52
4074.320	3.88	104.24	4073.078	5.336 N	20.386 E	5.336	0.27
4114.770	2.47	97.13	4113.466	4.891 N	22.578 E	4.891	1.08
4153.753	2.93	97.28	4152.405	4.661 N	24.399 E	4.661	0.35
4190.770	2.85	92.40	4189.375	4.503 N	26.256 E	4.503	0.21
4228.710	2.82	92.05	4227.269	4.430 N	28.132 E	4.430	0.03
4267.620	2.72	91.98	4266.133	4.364 N	30.013 E	4.364	0.08
4305.530	2.53	93.65	4304.003	4.279 N	31.748 E	4.279	0.16
4343.840	2.36	93.75	4342.278	4.174 N	33.379 E	4.174	0.13
4382.200	2.25	92.32	4380.607	4.091 N	34.920 E	4.091	0.10
4416.740	1.97	92.61	4415.124	4.037 N	36.192 E	4.037	0.24
4458.160	2.10	92.74	4456.517	3.968 N	37.663 E	3.968	0.09
4494.780	2.10	91.96	4493.113	3.913 N	39.004 E	3.913	0.02
4535.180	1.97	89.62	4533.488	3.892 N	40.437 E	3.892	0.11
4572.710	1.83	90.94	4570.997	3.887 N	41.679 E	3.887	0.12
4610.770	1.73	90.61	4609.039	3.871 N	42.861 E	3.871	0.07
4649.220	1.82	89.80	4647.470	3.867 N	44.054 E	3.867	0.07
4686.700	1.70	90.44	4684.933	3.865 N	45.206 E	3.865	0.10
4724.760	1.62	93.01	4722.976	3.832 N	46.310 E	3.832	0.09
4762.960	1.77	95.87	4761.160	3.743 N	47.436 E	3.743	0.13
4801.260	1.71	92.70	4799.442	3.656 N	48.596 E	3.656	0.09
4838.540	1.67	90.73	4836.706	3.623 N	49.696 E	3.623	0.06
4913.640	1.53	90.52	4911.776	3.600 N	51.795 E	3.600	0.06
4949.730	1.40	87.84	4947.855	3.612 N	52.720 E	3.612	0.12
4990.290	1.74	80.10	4988.400	3.736 N	53.822 E	3.736	0.29
5026.000	1.74	80.10	5024.093	3.923 N	54.889 E	3.923	0.00

CALCULATION BASED ON MINIMUM CURVATURE METHOD

SURVEY COORDINATES RELATIVE TO WELL SYSTEM REFERENCE POINT
TVD VALUES GIVEN RELATIVE TO DRILLING MEASUREMENT POINT

VERTICAL SECTION RELATIVE TO WELL HEAD
VERTICAL SECTION IS COMPUTED ALONG A DIRECTION OF 0.00 DEGREES (GRID)
A TOTAL CORRECTION OF -7.66 DEG FROM MAGNETIC NORTH TO GRID NORTH HAS BEEN APPLIED

HORIZONTAL DISPLACEMENT IS RELATIVE TO THE WELL HEAD.
HORIZONTAL DISPLACEMENT(CLOSURE) AT 5026.000 METRES
IS 55.029 METRES ALONG 85.91 DEGREES (GRID)

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