Company: Lamont Doherty

Well: ODP Leg 196, Site 808I

Field: Nankai Trough

Country: Japan Ocean: Pacific

Country: Japan
Field: Nankai Trough
Location: Offshore Japan
Well: ODP Leg 196, Site 808I
Company: Lamont Doherty

Schlumberger

RAB / ADN
Scale 1:200 Measured Depth
Recorded Data

Location

| | |
|---|---|
| Total depth: | 5744 m |
| Spud date: | 21 May 2001 |
| Runs: | 1 To 1 |

Elevation

| | |
|---|---|
| K.B. | 11.2 m |
| G.L. | -4686 m |
| D.F. | 11.2 m |

| | | | |
|---|---|---|---|
| Permanent datum: | Mean Sea Level | Elev.: | 0 m |
| Log measured from: | Drill Floor | 11.2 m | above Perm. datum |
| Depth reference: | Driller's Depth | | |

| API serial no. | | Longitude | Latitude |
|---|---|---|---|
| | | E 134° 56.7003' | N 32° 21.2145' |

| | | |
|---|---|---|
| Depth logged: 4842.6 m To 5743.7 m | Mag decl: -6.22 | Other services: |
| Date logged: 22 May 01 To 26 May 01 | Mag dip: 45.56 | ISONIC |

Bore hole record

| Hole size | from | to |
|---|---|---|
| 9.875 in. | 4686 m | 5744 m |

Casing record

| Size | Density | from | to |
|---|---|---|---|
| 20 in. | 94 lbm/ft | 4686 m | 4842.6 m |

Mud record

| Type | from | to |
|---|---|---|
| Sea Water | 4686 m | 5744 m |

Borehole deviation record

| Min | Max | from | to |
|---|---|---|---|
| | | | |

| Surface equipment | | Software record | |
|---|---|---|---|
| Unit | None | IDEAL Wis | id6_1c_08 |
| Depth system | PDA | SPM | 6.1C-08 |
| | | LWD | 5.0B/4.0 |
| | | MWD | 6.2B-01 |

IDEAL
services from
Anadrill

# Bit Run Summary

| Run number | 1 | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Bit size | in. | 9.875 | | | | | | | | | |
| Bit start depth | m | 4846 | | | | | | | | | |
| Bit end depth | m | 5744 | | | | | | | | | |
| Top interval logged | m | 4842.6 | | | | | | | | | |
| Bottom interval logged | m | 5743.7 | | | | | | | | | |
| Begin log: time | | 07:46:41 | | | | | | | | | |
| Begin log: date | | 23 May-01 | | | | | | | | | |
| End log: time | | 21:44:31 | | | | | | | | | |
| End log: date | | 26 May-01 | | | | | | | | | |
| Mud data | | | | | | | | | | | |
| Depth | m | 5744 | | | | | | | | | |
| Type | | Seawater | | | | | | | | | |
| Mud weight | ppg | 8.5 | | | | | | | | | |
| Solids | | | | | | | | | | | |
| Chlorides | | | | | | | | | | | |
| Rm | Ohmm | 0.22@24C | | | | | | | | | |
| Rmf | | | | | | | | | | | |
| Rmc | | | | | | | | | | | |

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| Potassium | | | | | | | | | | | |
| Environmental data | | | | | | | | | | | |
| GR | | | | | | | | | | | |
| Mud weight | ppg | 8.5 | | | | | | | | | |
| Bit size | in. | 9.875 | | | | | | | | | |
| Resistivity | | | | | | | | | | | |
| Neutron porosity | | | | | | | | | | | |
| Hole Size | in. | 9.875 | | | | | | | | | |
| Mud weight | ppg | 8.5 | | | | | | | | | |
| Temperature | ℃ | | | | | | | | | | |
| Mud salinity | | | | | | | | | | | |
| Formation salinity | | | | | | | | | | | |
| Recording rate 1 | SEC | GR/Res/10 | | | | | | | | | |
| Recording rate 2 | SEC | Neu/Den/10 | | | | | | | | | |
| Filtering GR | | 3 points | | | | | | | | | |
| Filtering density | | 3 points | | | | | | | | | |
| Filtering Neutron | | 3 points | | | | | | | | | |
| Company representative | | D. Goldberg | S. Saito | | | | | | | | |
| Anadrill personnel | | N. Thaiprasert | G. Ong | | | | | | | | |

DISCLAIMER

THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE OF AND RELIANCE UPON THE RECORDED-DATA; AND (c) CUSTOMER'S FULL AND SOLE RESPONSIBILITY FOR ANY INFERENCE DRAWN OR DECISION MADE IN CONNECTION WITH THE USE OF THIS RECORDED-DATA.

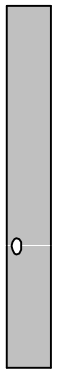
| OTHER SERVICES FOR RUN 1 | OTHER SERVICES FOR RUN | OTHER SERVICES FOR RUN |
|---|---|---|
| | | |

| REMARKS: RUN NUMBER 1 | REMARKS: RUN NUMBER | REMARKS: RUN NUMBER |
|---|---|---|
| Depth reference is Driller's depth.<br><br>Sensor offsets and tools' serial number are described on the toolsketch below.<br><br>Gamma Ray measurement is corrected for mud weight and bit size.<br><br>RING_resistivity measurement are environmentally corrected.<br><br>BIT_resistivity is good for qualitative interpretation only.<br><br>Neutron Porosity is environmentally corrected for mud salinity, matrix density, temperature, bit size and tool size.<br><br>Maximum bottom hole temperature was 65.88℃.<br><br>Total depth was 5744 m. | | |

# EQUIPMENT DESCRIPTION

| RUN1 | RUN | RUN |
|---|---|---|
| | | |

DOWNHOLE EQUIPMENT



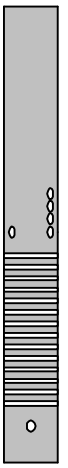
ADN-BA-6.75 in. — 26.00

S/N 119

NSR-M A0149

GSR-J A2097

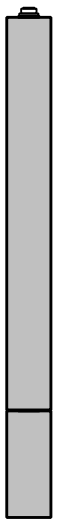
| | |
|---|---|
| Neutron F | 24.26 |
| Neutron N | 24.10 |
| Density S | 23.24 |
| Density L | 23.14 |
| UltraSoni | 22.76 |
| R-O Port | 22.00 |



ISONIC-6.75 in. — 19.98

S/N 642

| | |
|---|---|
| RX array | 16.62 |
| R-O port | 16.22 |
| Xmitter | 13.18 |



PowerPulse-6.75 in. — 12.38

S/N 282

| | |
|---|---|
| D&I | 8.20 |
| Shallow | 2.53 |

RAB6-BA-6.75 in. — 4.03

S/N 012

| | |
|---|---|
| Medium | 2.41 |
| Deep | 2.23 |
| Ring Res | 2.05 |
| R-O port | 1.92 |
| GR | 1.70 |

Bit Sub — 1.03

| | |
|---|---|
| Bit Res | 0.60 |

Bit-Mill Tooth — 0.27

| | |
|---|---|
| | 0.00 |

MAXIMUM STRING DIAMETER 9.875 in.

ALL LENGTHS IN METERS

# Input DLIS Files

RAB .005 FN:4 27-May-2001 23:18 15283.5 FT 18846.2 FT

# IDEAL Version: ID6_1C_08

IDF

Format: RAB ADN Vertical Scale: 1:200 Graphics File Created: 28-May-2001 00:30

PIP SUMMARY

Density Ticks, 0.1-ft

Neutron Ticks, 0.1-ft

Gamma Ray Samples

RAB samples

Ring Resistivity (RES_RING)
0.2 (OHMM) 20

Bit Resistivity, Real-Time (RES_BIT_RT)
0.2 (OHMM) 20

Deep Button Resistivity (RES_BD)
0.2 (OHMM) 20

Rate of Penetration, Averaged over Last 5ft (ROP5_RM)
200 (M/HR) 0

Shallow Button Resistivity (RES_BS)
0.2 (OHMM) 20

Differential Caliper (DCAL)
0 (IN) 20

RAB Gamma Ray (GR_RAB)
0 (GAPI) 150

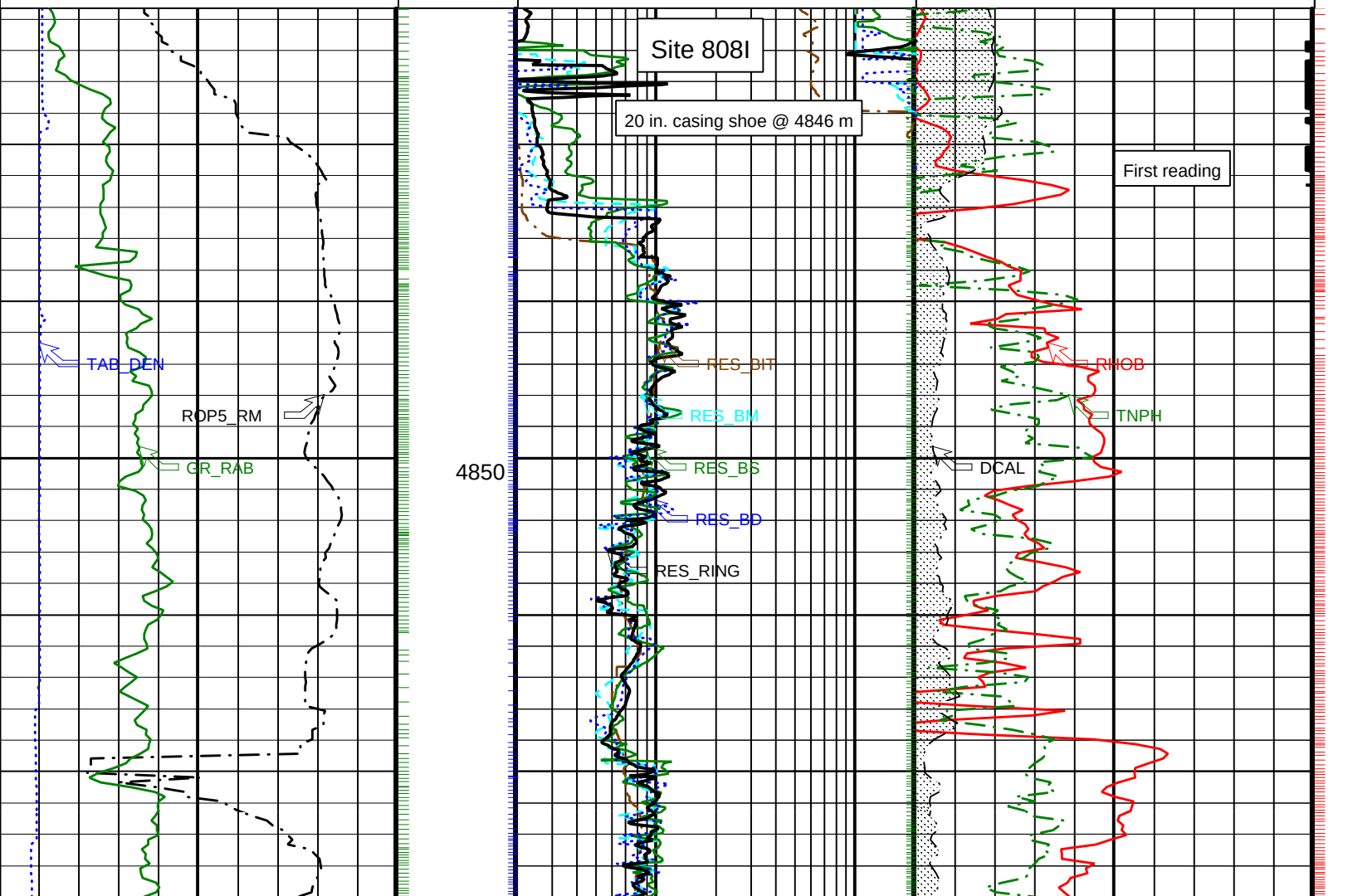
Medium Button Resistivity (RES_BM)
0.2 (OHMM) 20

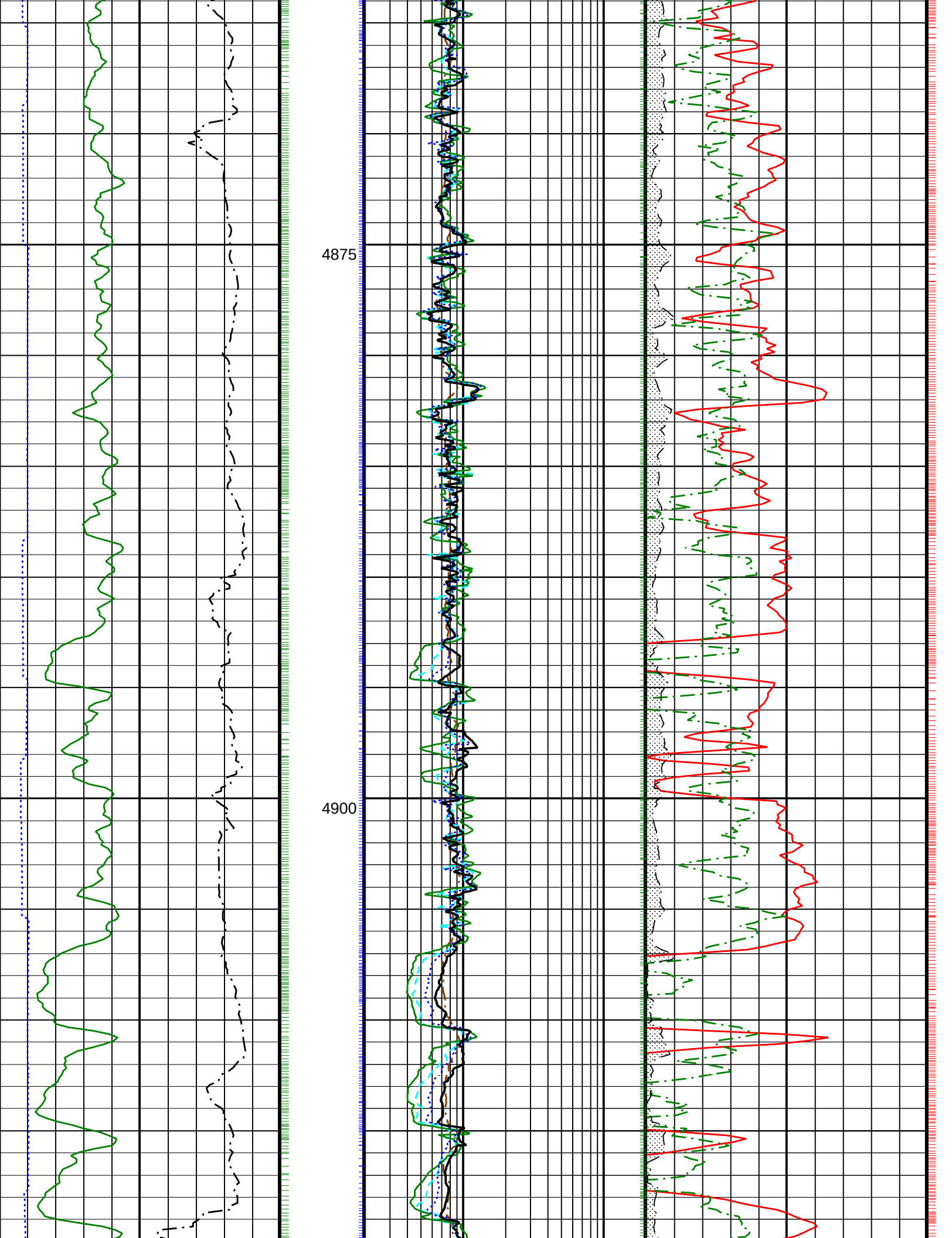
Thermal Neutron Porosity (TNPH)
75 (PU) 15

Density Time After Bit (TAB_DEN)
0 (HR) 10

Bit Resistivity (RES_BIT)
0.2 (OHMM) 20

Bulk Density (RHOB)
1.4 (G/C3) 2.4

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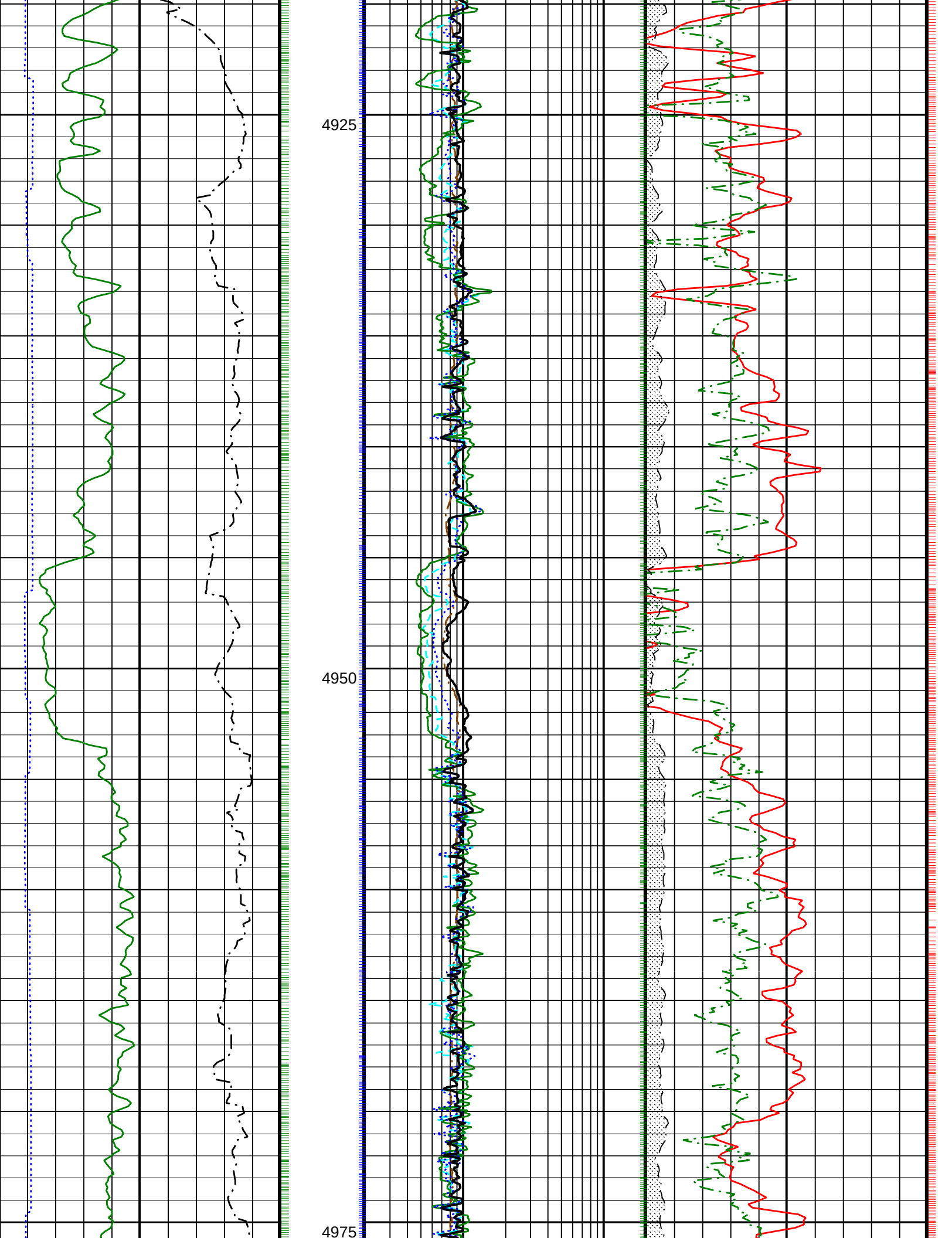
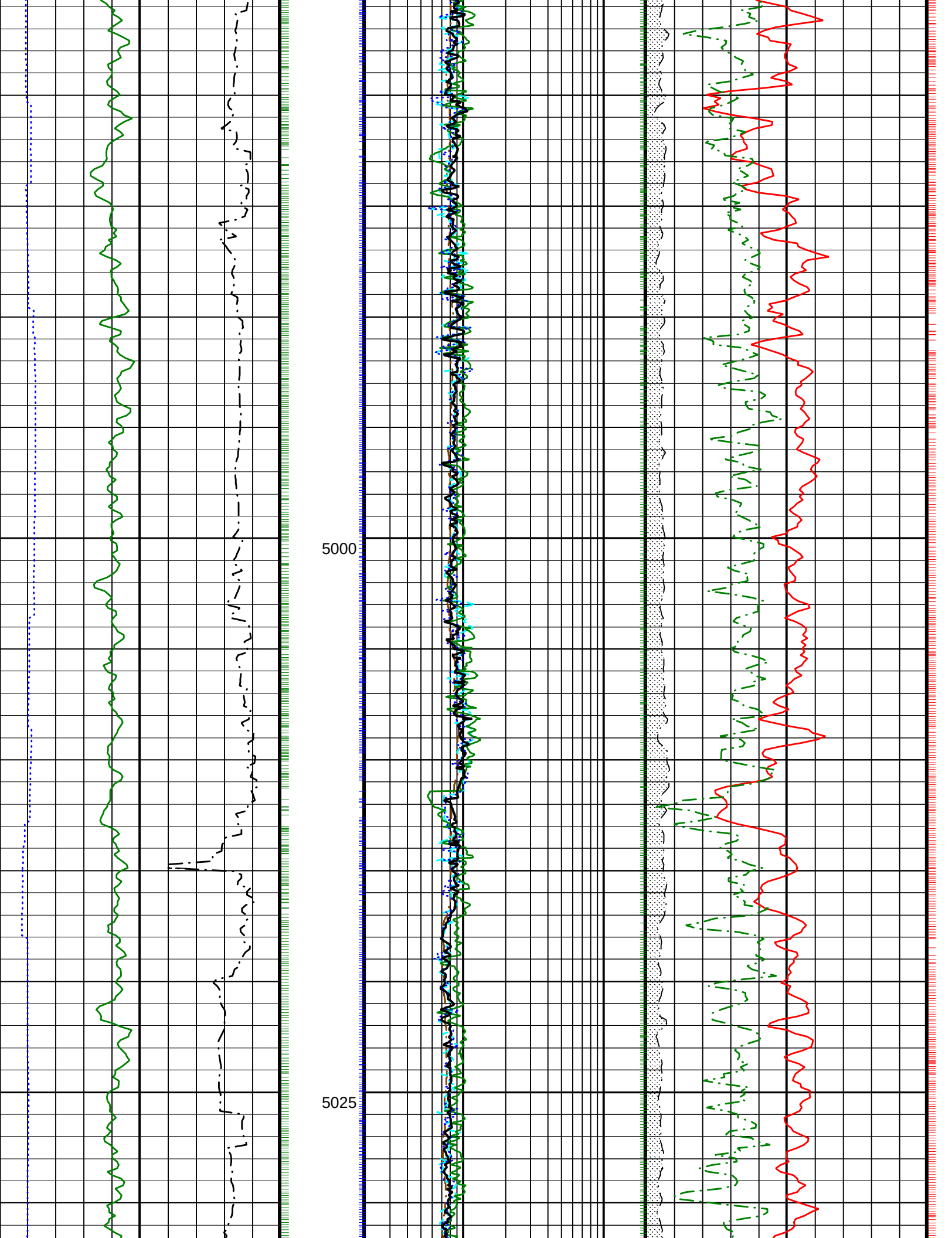
4900


4925
4950
4975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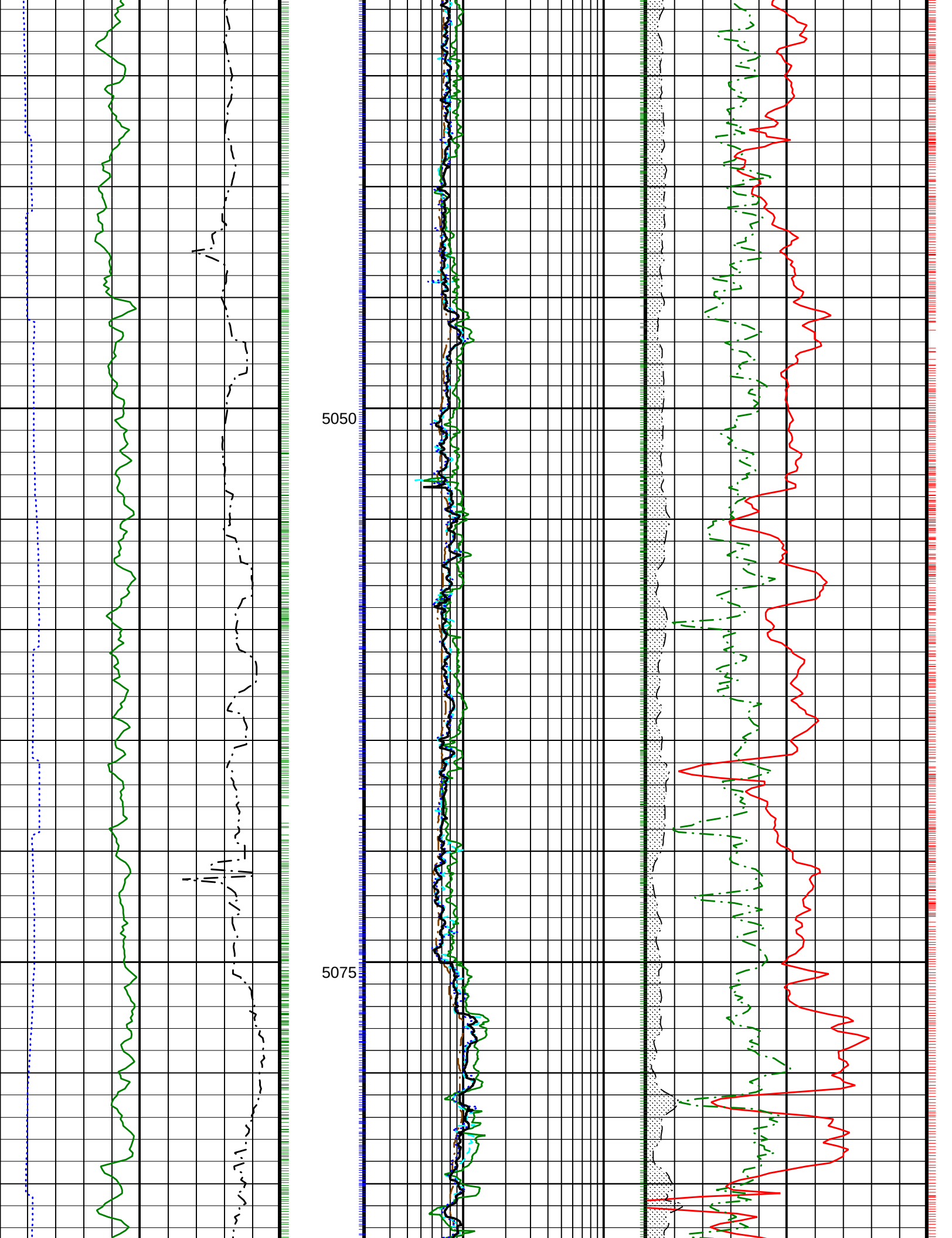
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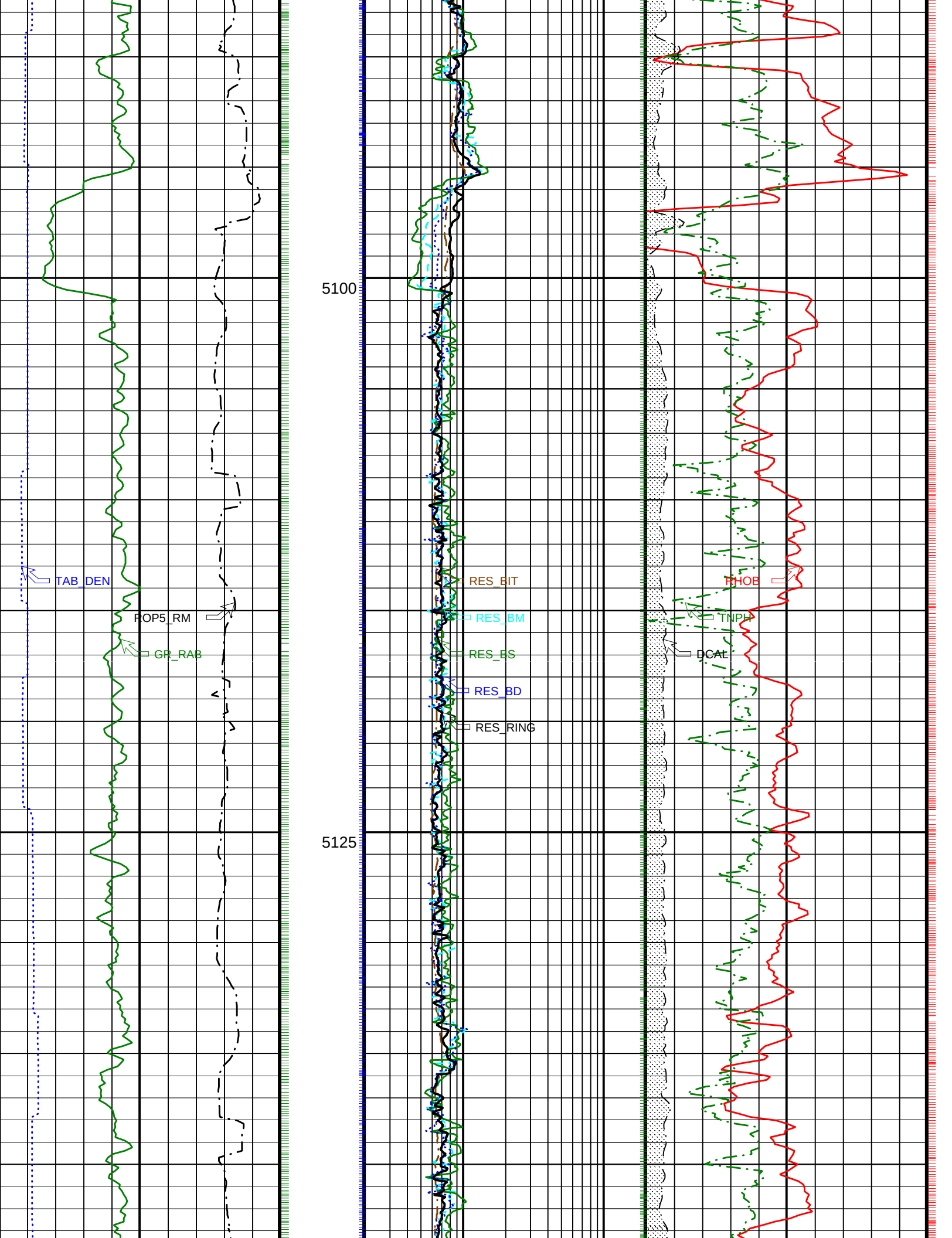
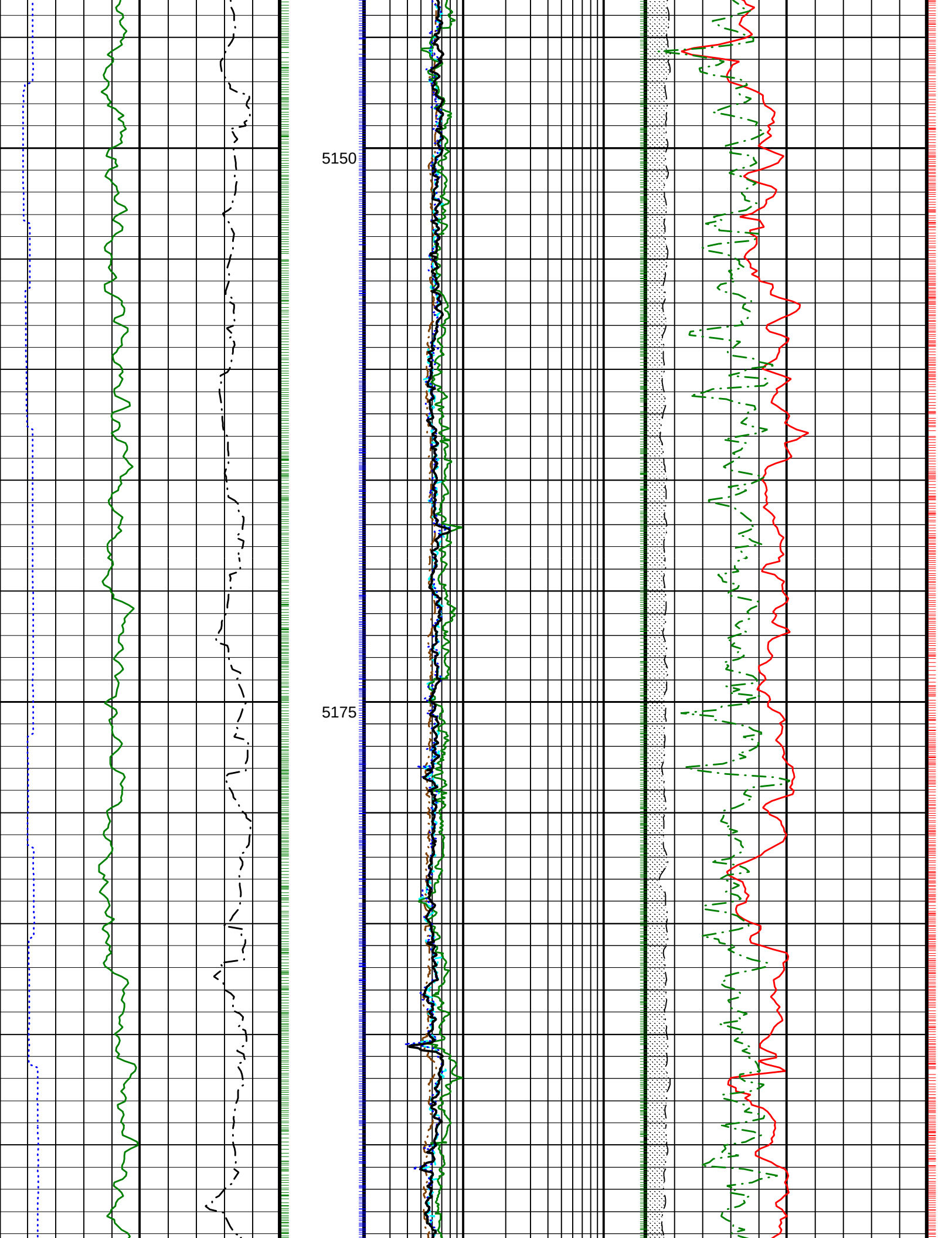

5100
5125
TAB_DEN
ROP5_RM
GR_RAB
RES_BIT
RES_BM
RES_ES
RES_BD
RES_RING
RHOB
TNPH
DCAL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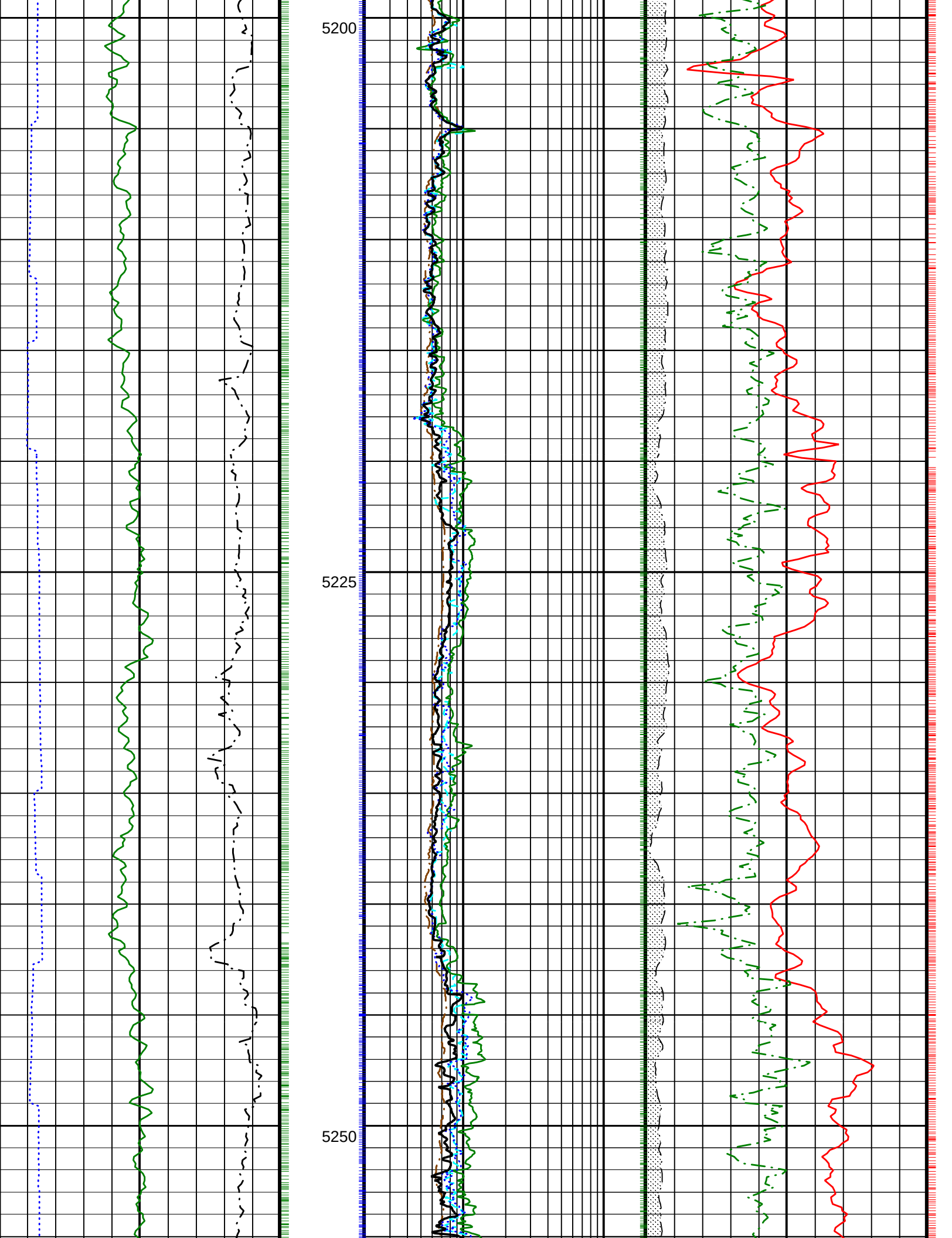
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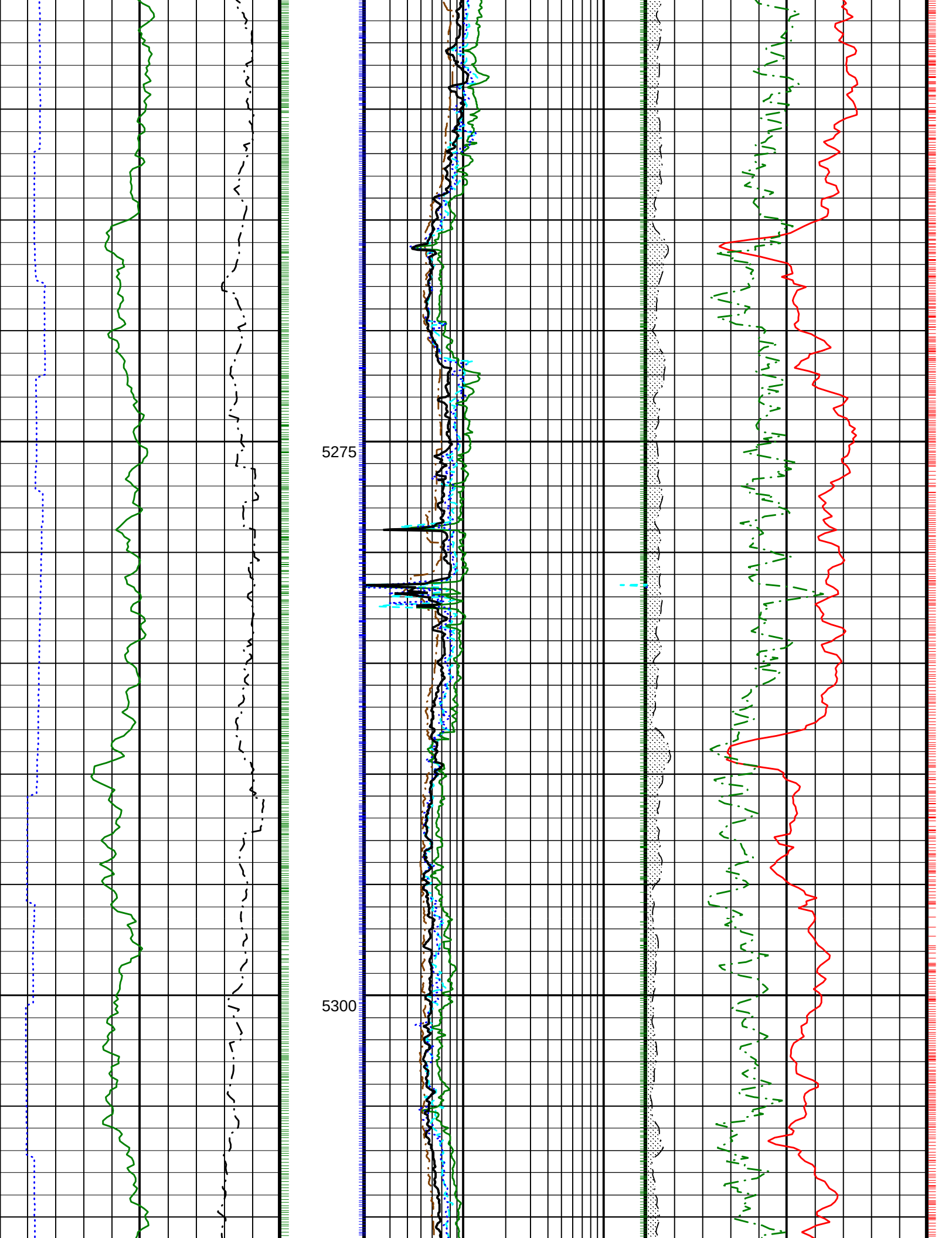
5250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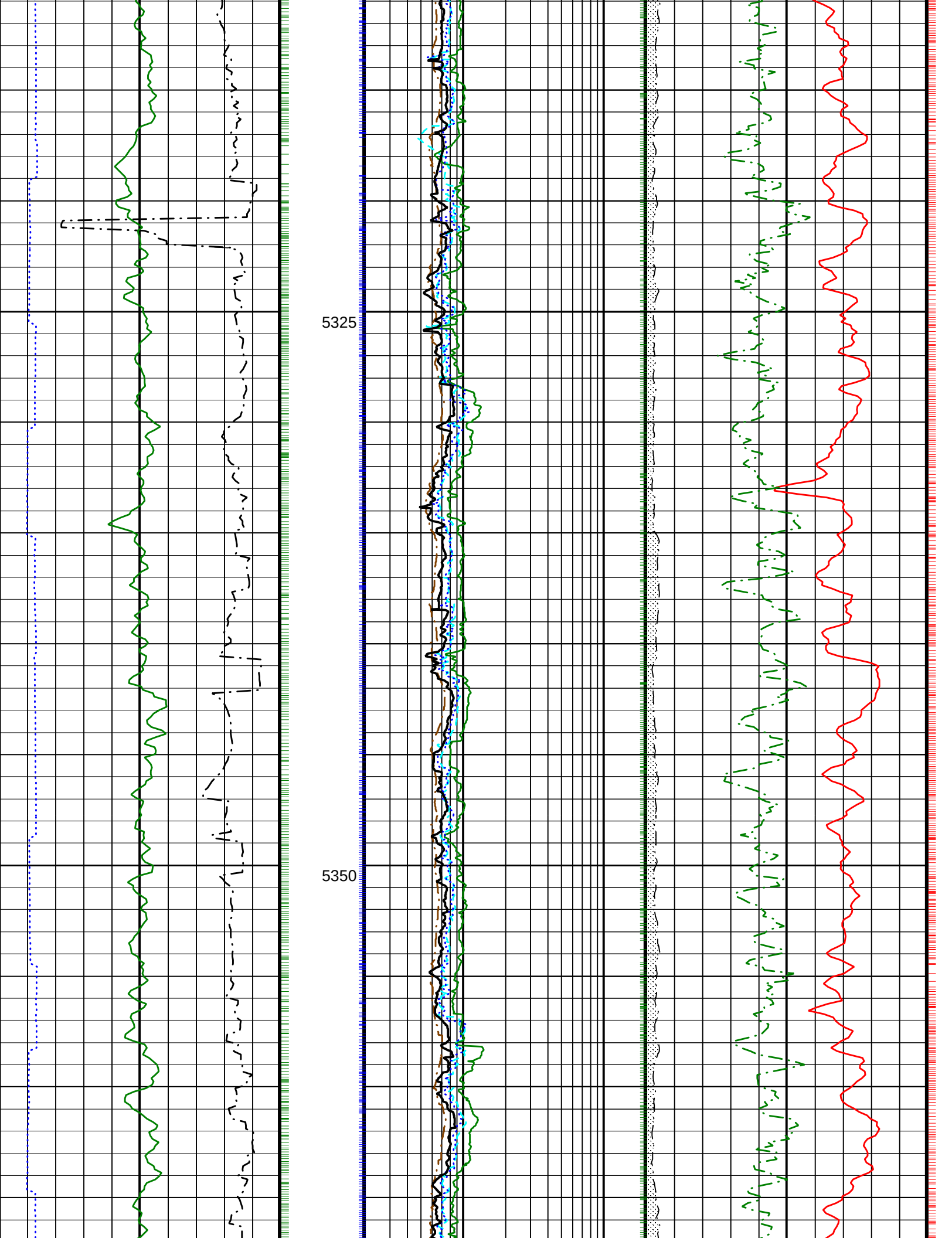
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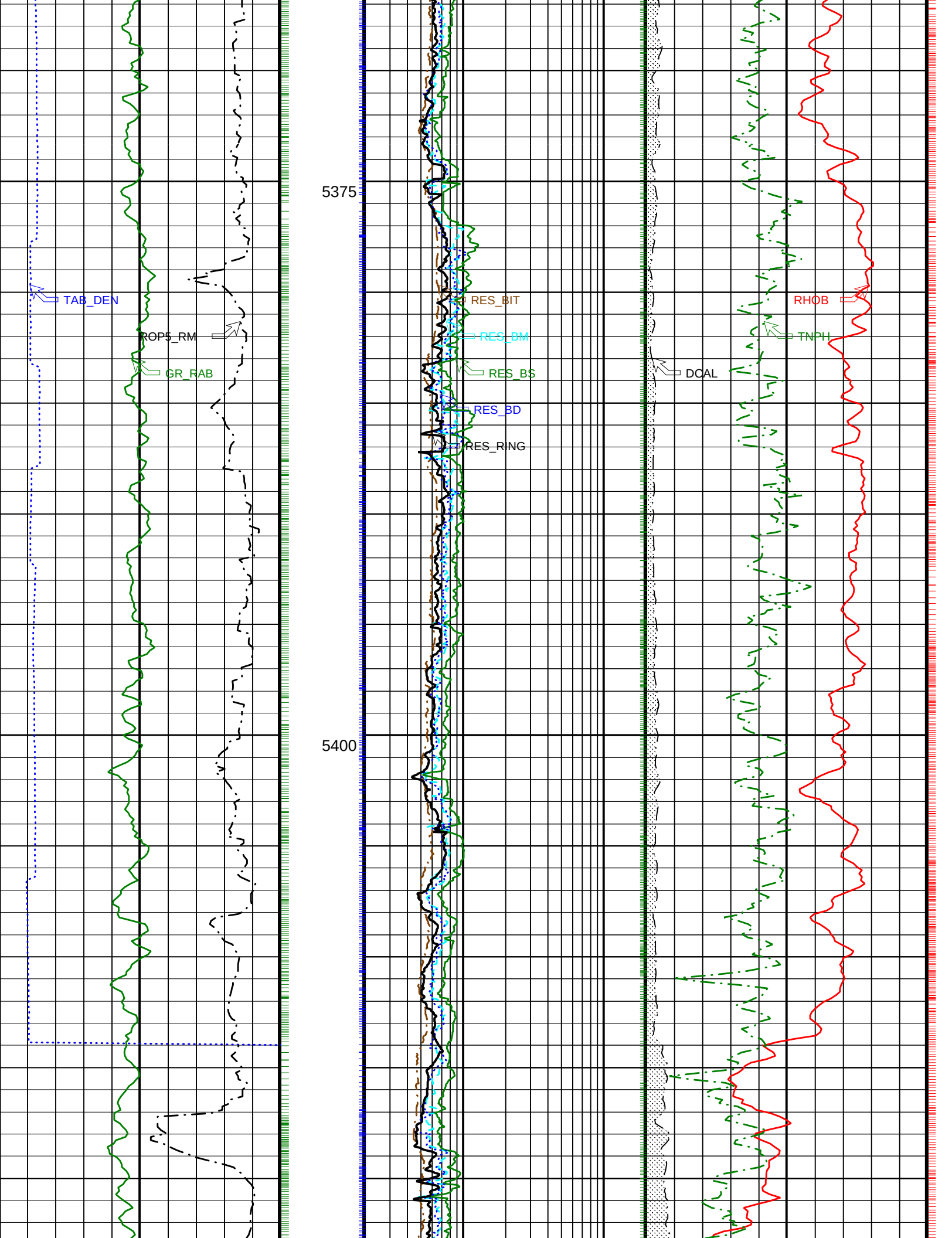
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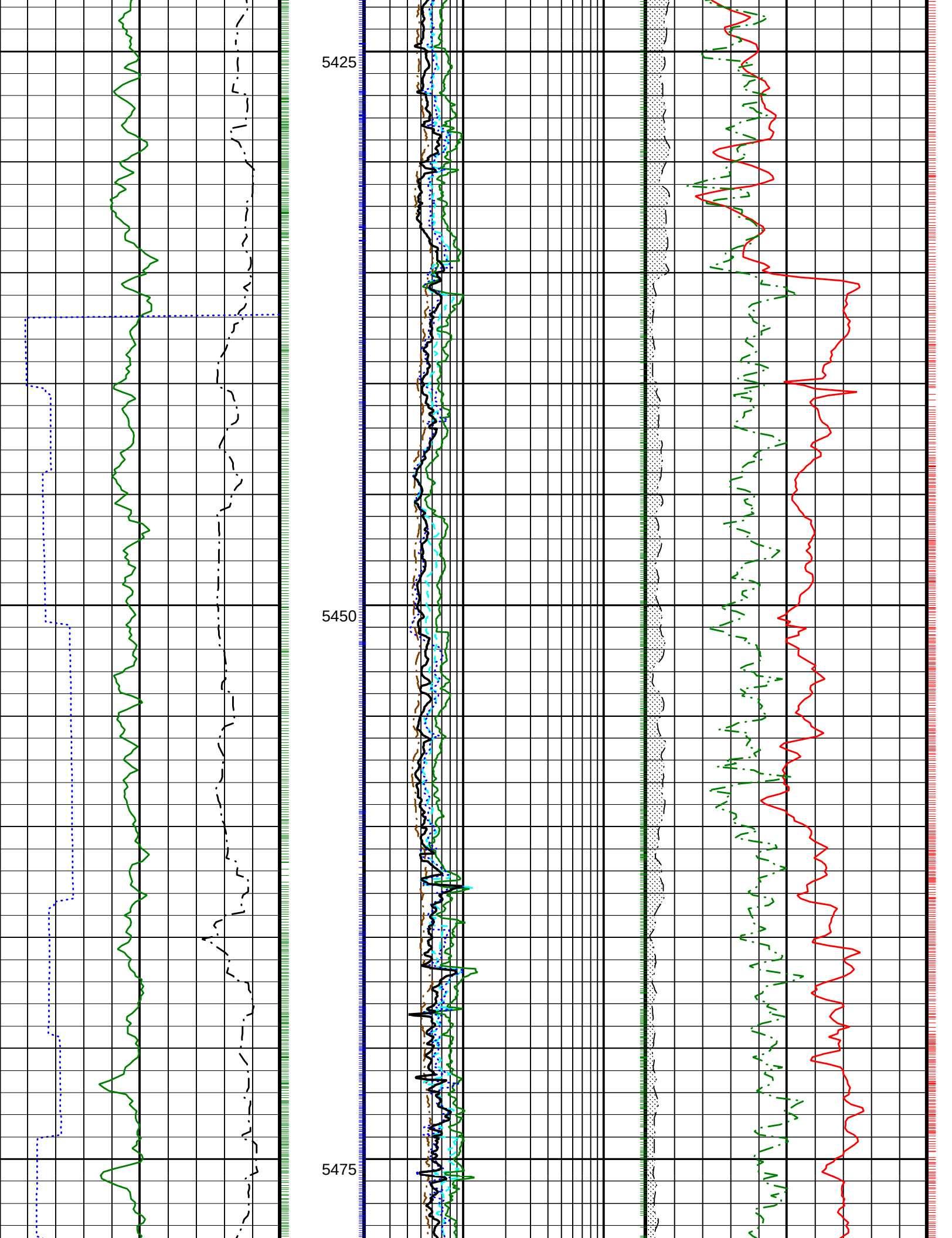
TAB_DEN
ROP5_RM
GR_RAB
RES_BIT
RES_BM
RES_BS
RES_BD
RES_RING
DCAL
RHOB
TNPH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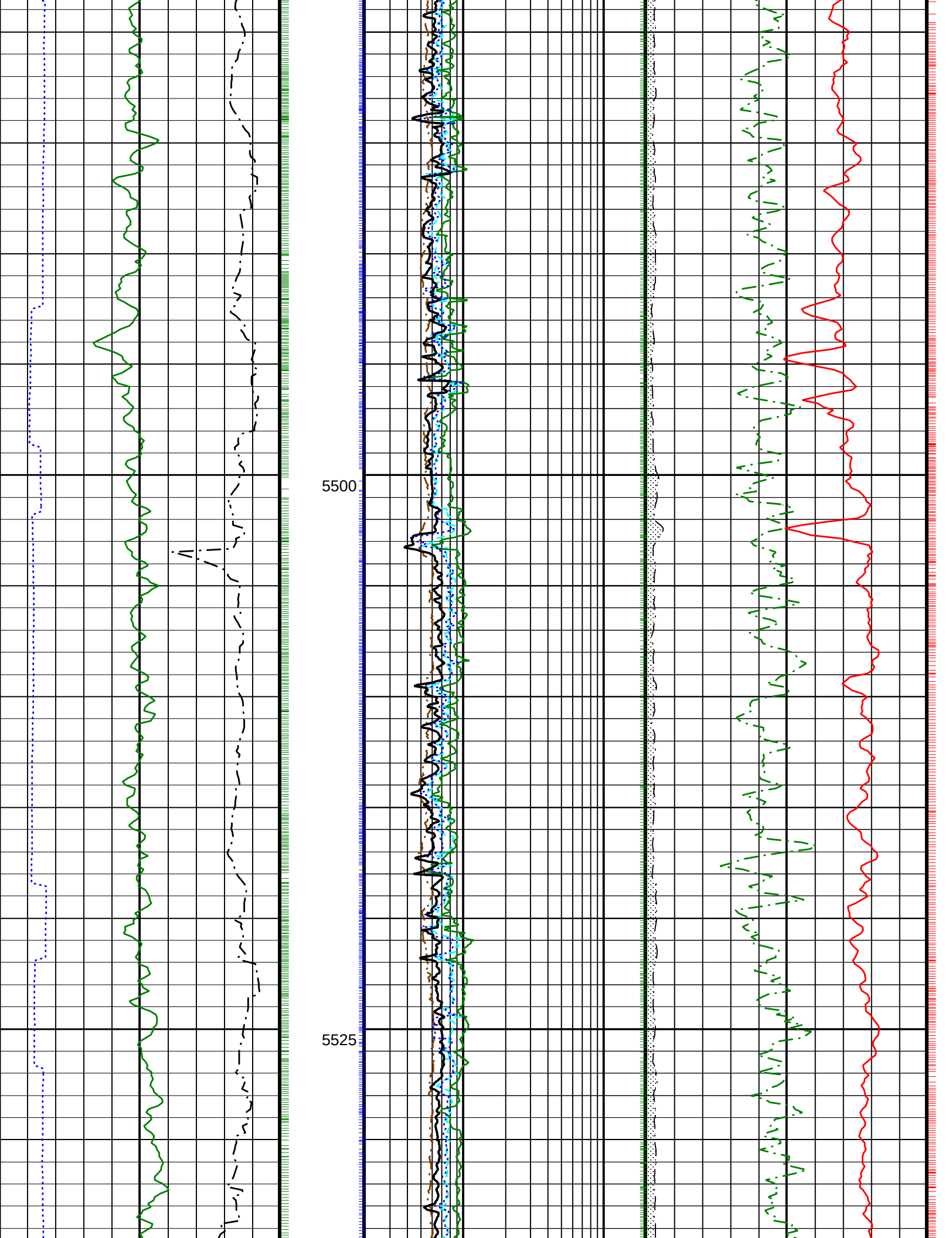
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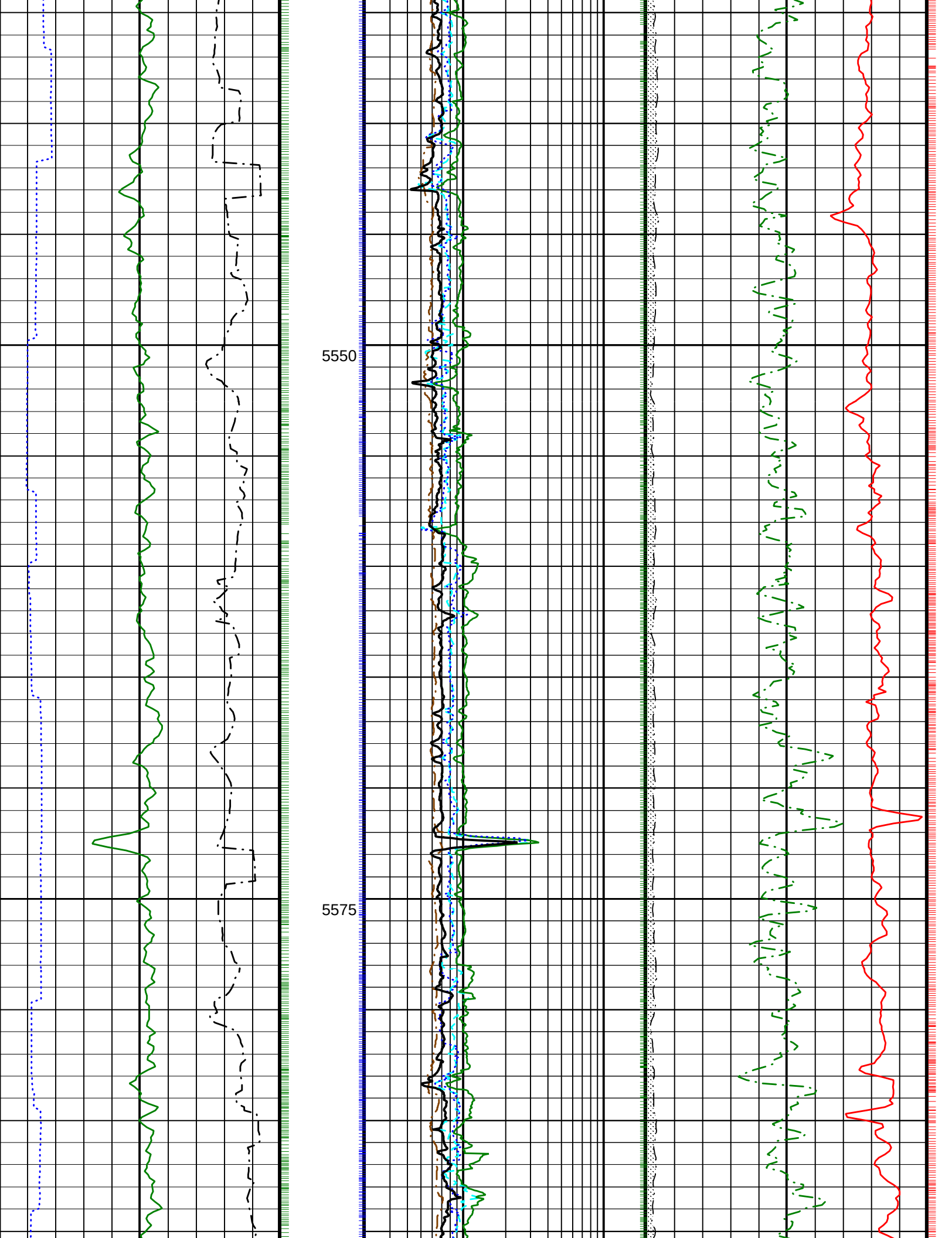
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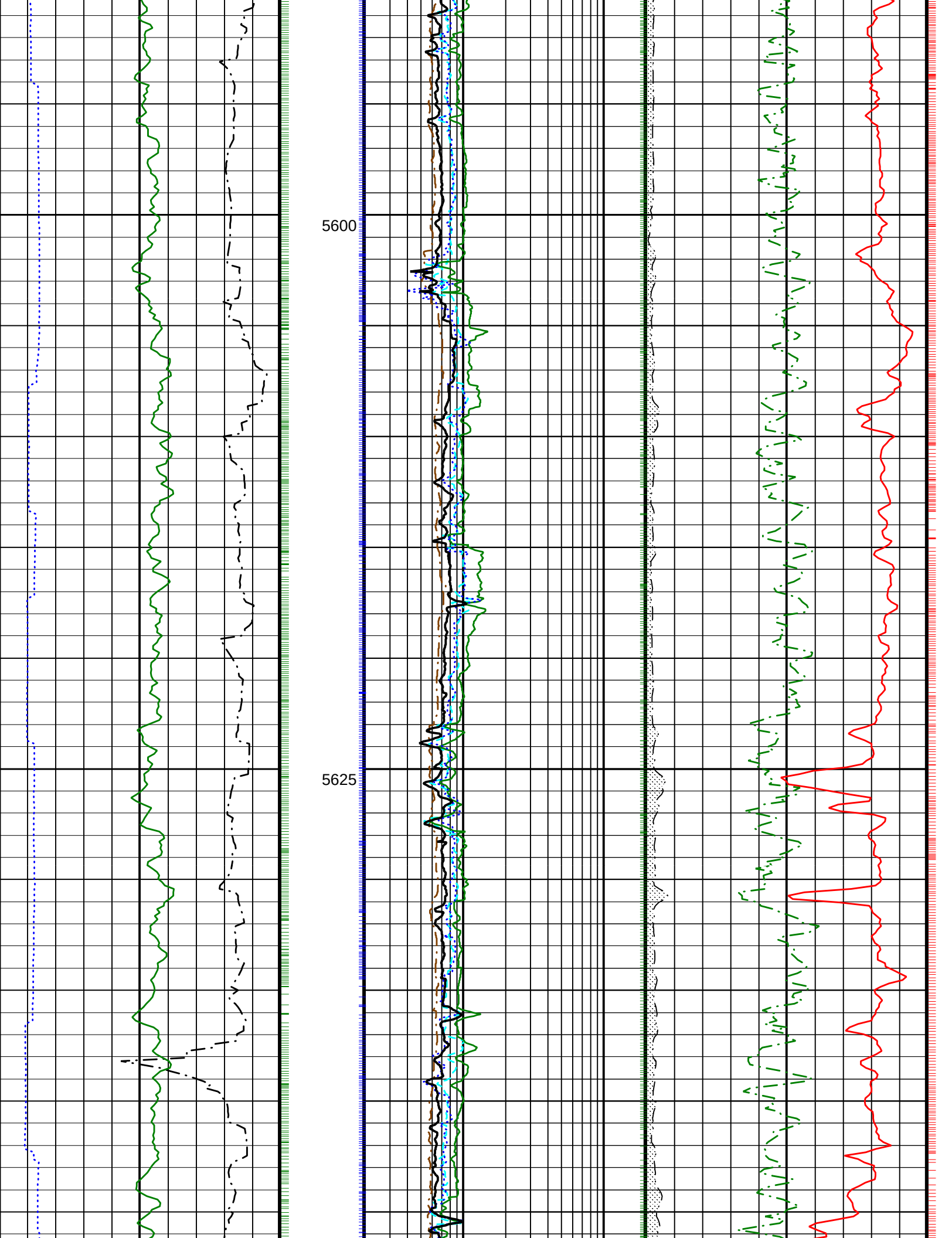
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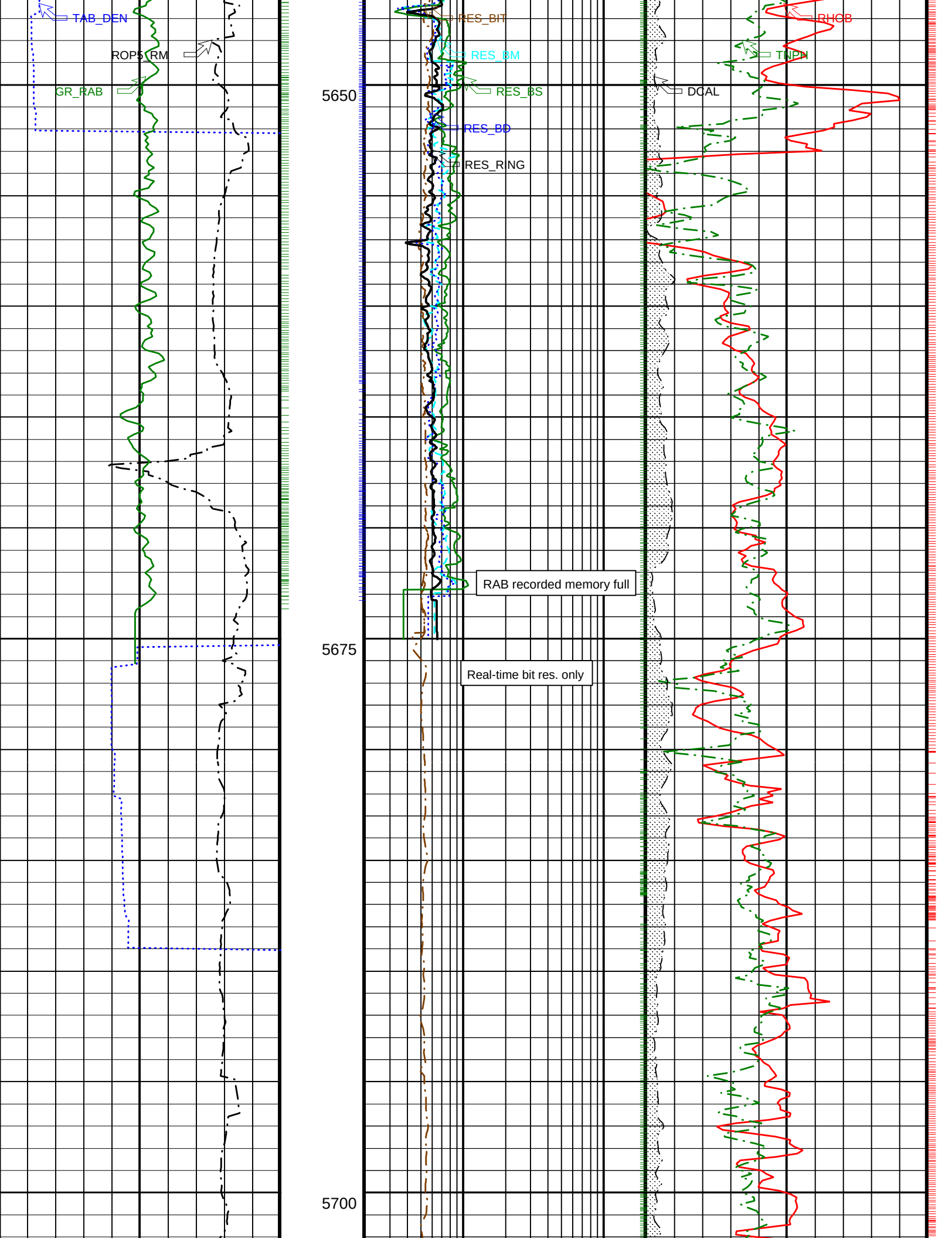
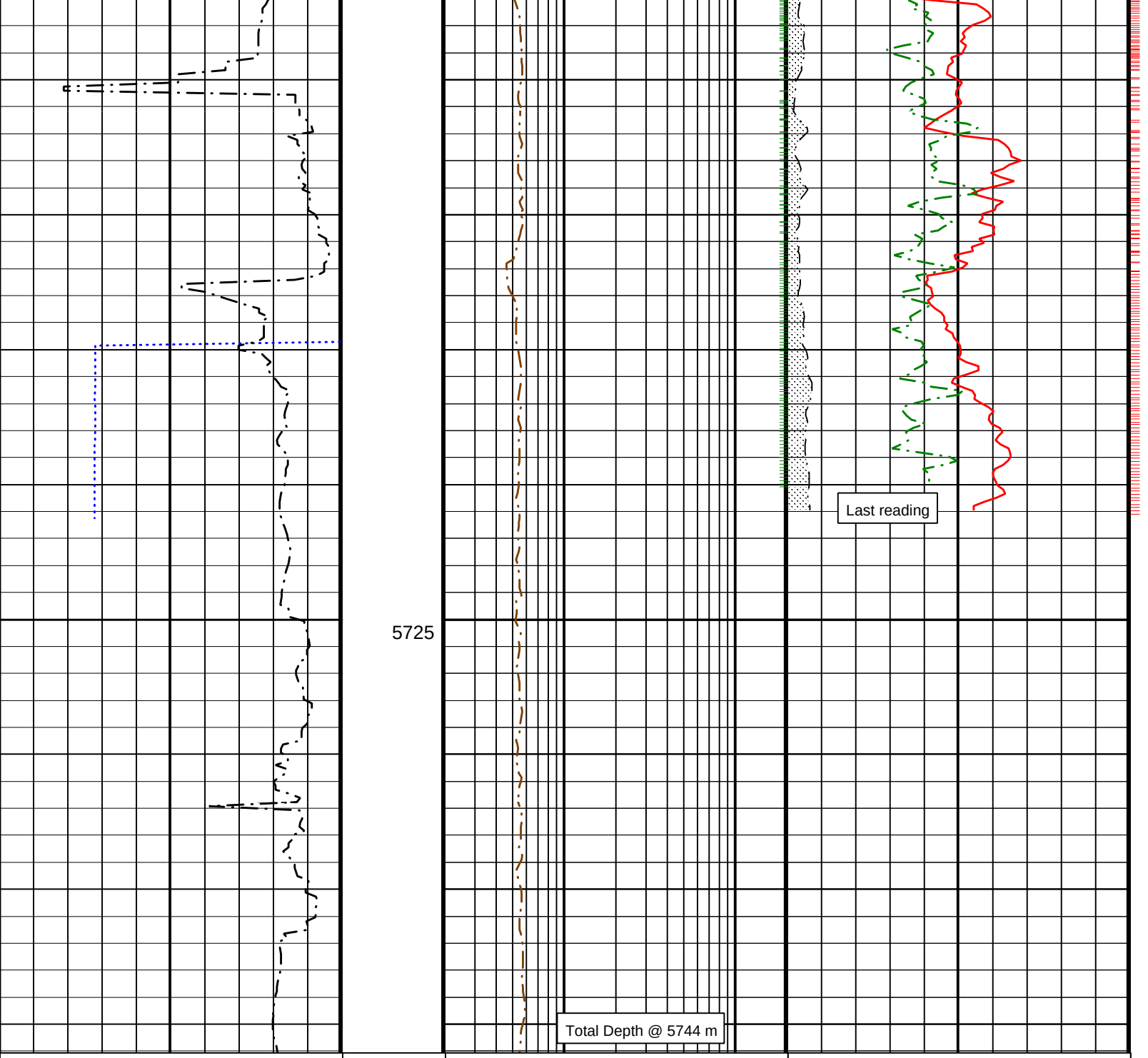

TAB_DEN
ROPS_RM
GR_RAB
RES_BIT
RES_8M
RES_8S
RES_8D
RES_RING
RHOB
TNPH
DCAL
5650
5675
5700
RAB recorded memory full
Real-time bit res. only




Density Time After Bit (TAB_DEN)
0 (HR) 10

RAB Gamma Ray (GR_RAB)
0 (GAPI) 150

Rate of Penetration, Averaged over Last 5ft (ROP5_RM)
200 (M/HR) 0

Bit Resistivity (RES_BIT)
0.2 (OHMM) 20

Medium Button Resistivity (RES_BM)
0.2 (OHMM) 20

Shallow Button Resistivity (RES_BS)
0.2 (OHMM) 20

Deep Button Resistivity (RES_BD)
0.2 (OHMM) 20

Bit Resistivity, Real-Time (RES_BIT_RT)
0.2 (OHMM) 20

Ring Resistivity (RES_RING)
0.2 (OHMM) 20

Bulk Density (RHOB)
1.4 (G/C3) 2.4

Thermal Neutron Porosity (TNPH)
75 (PU) 15

Differential Caliper (DCAL)
0 (IN) 20

PIP SUMMARY

Density Ticks, 0.1-ft

Neutron Ticks, 0.1-ft

Gamma Ray Samples

RAB samples

# IDEAL Version: ID6_1C_08

IDF

## Input DLIS Files

| | | | | |
|---|---|---|---|---|
| RAB | .005 | FN:4 | 27-May-2001 23:18 | 15283.5 FT | 18846.2 FT |

### 6.75-in. Resistivity At-the-Bit / Equipment Identification

Primary Equipment:

| | | |
|---|---|---|
| Tool Name and Serial Number | RAB6 - BA | SN 012 |
| Calibration Status | Good | |

Master: 10-APR-2001 10:12

6.75-in. Resistivity At-the-Bit Calibration

Resistivity: Fixture

| Phase | Ring/T1 factor | Value | Phase | Ring/T2 factor | Value | Phase | M0/T1 factor | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 0.01096 | Master | | 0.01115 | Master | | 1.107 |
| | 0.009500 (Minimum) 0.01100 (Nominal) 0.01250 (Maximum) | | | 0.009500 (Minimum) 0.01100 (Nominal) 0.01250 (Maximum) | | | 0.9000 (Minimum) 1.050 (Nominal) 1.200 (Maximum) | |

| Phase | M0/T2 factor | Value | Phase | M2/T1 factor | Value | Phase | M2/T2 factor | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 1.100 | Master | | 1.016 | Master | | 1.021 |
| | 0.9000 (Minimum) 1.050 (Nominal) 1.200 (Maximum) | | | 0.8500 (Minimum) 1.000 (Nominal) 1.150 (Maximum) | | | 0.8500 (Minimum) 1.000 (Nominal) 1.150 (Maximum) | |

| Phase | BTN shallow/T1 factor | Value | Phase | BTN shallow/T2 factor | Value | Phase | BTN medium/T1 factor | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 0.0006580 | Master | | 0.0006760 | Master | | 0.0006450 |
| | 0.0005700 (Minimum) 0.0006700 (Nominal) 0.0007700 (Maximum) | | | 0.0005700 (Minimum) 0.0006700 (Nominal) 0.0007700 (Maximum) | | | 0.0005700 (Minimum) 0.0006700 (Nominal) 0.0007700 (Maximum) | |

| Phase | BTN medium/T2 factor | Value | Phase | BTN deep/T1 factor | Value | Phase | BTN deep/T2 factor | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 0.0006610 | Master | | 0.0006480 | Master | | 0.0006640 |
| | 0.0005700 (Minimum) 0.0006700 (Nominal) 0.0007700 (Maximum) | | | 0.0005700 (Minimum) 0.0006700 (Nominal) 0.0007700 (Maximum) | | | 0.0005700 (Minimum) 0.0006700 (Nominal) 0.0007700 (Maximum) | |

Master: 10-APR-2001 10:12

6.75-in. Resistivity At-the-Bit Calibration

Gamma Ray: Blanket

| Phase | Gamma ray factor | Value |
|---|---|---|
| Master | | 4.210 |
| | 3.500 (Minimum) 4.500 (Nominal) 5.500 (Maximum) | |

### 6.75-in. Azimuthal Density Neutron / Equipment Identification

Primary Equipment:

| | | |
|---|---|---|
| Tool Name and Serial Number | ADN6 - BA | 119 |
| Neutron Logging Source | NSR - M | A0149 |
| Density Logging Source | GSR - J/Z | A2097 |
| Stabilizer Size | 9.63 - in. | |
| Calibration Status | Good | |

Master: 10-APR-2001 22:25

6.75-in. Azimuthal Density Neutron Calibration

Density: Magnesium Block

| Phase | LS window 3 - Mg CPS | Value | Phase | SS window 1 - Mg CPS | Value | Phase | SS window 3 - Mg CPS | Value |
|---|---|---|---|---|---|---|---|---|
| Master | | 642.3 | Master | | 2016 | Master | | 5009 |
| | 250.0 (Minimum) 4125 (Nominal) 8000 (Maximum) | | | 700.0 (Minimum) 9350 (Nominal) 18000 (Maximum) | | | 2500 (Minimum) 23750 (Nominal) 45000 (Maximum) | |

Master: 10-APR-2001 22:25

6.75-in. Azimuthal Density Neutron Calibration

Density: Aluminum Block

| Phase | LS window 3 - Al CPS | Value |
|---|---|---|
| Master | | 105.3 |
| | 50.00 (Minimum) 725.0 (Nominal) 1400 (Maximum) | |

| Phase | SS window 1 - Al CPS | Value |
|---|---|---|
| Master | | 1185 |
| | 500.0 (Minimum) 4250 (Nominal) 8000 (Maximum) | |

| Phase | SS window 3 - Al CPS | Value |
|---|---|---|
| Master | | 3524 |
| | 1500 (Minimum) 15750 (Nominal) 30000 (Maximum) | |

Master: 10-APR-2001 22:25

6.75-in. Azimuthal Density Neutron Calibration

Density: Background

| Phase | LS window 3 - Background CPS | Value |
|---|---|---|
| Master | | 42.83 |
| | 15.00 (Minimum) 82.50 (Nominal) 150.0 (Maximum) | |

| Phase | SS window 1 - Background CPS | Value |
|---|---|---|
| Master | | 96.15 |
| | 40.00 (Minimum) 220.0 (Nominal) 400.0 (Maximum) | |

| Phase | SS window 3 - Background CPS | Value |
|---|---|---|
| Master | | 408.0 |
| | 150.0 (Minimum) 825.0 (Nominal) 1500 (Maximum) | |

Master: 10-APR-2001 22:25

6.75-in. Azimuthal Density Neutron Calibration

Density: Water Block Check

| Phase | Long spacing water density G/C3 | Value |
|---|---|---|
| Master | | 1.014 |
| | 0.9844 (Minimum) 0.9994 (Nominal) 1.014 (Maximum) | |

| Phase | Short spacing water density G/C3 | Value |
|---|---|---|
| Master | | 1.101 |
| | 1.071 (Minimum) 1.096 (Nominal) 1.121 (Maximum) | |

Master: 10-APR-2001 22:25

6.75-in. Azimuthal Density Neutron Calibration

Neutron: Water Tank

| Phase | Far 1 tube 1 gain | Value |
|---|---|---|
| Master | | 1.067 |
| | 0.9000 (Minimum) 1.100 (Nominal) 1.300 (Maximum) | |

| Phase | Far 1 tube 1 offset CPS | Value |
|---|---|---|
| Master | | -0.8720 |
| | -1.200 (Minimum) -0.9000 (Nominal) -0.6000 (Maximum) | |

| Phase | Far 1 tube 2 gain | Value |
|---|---|---|
| Master | | 1.047 |
| | 0.9000 (Minimum) 1.100 (Nominal) 1.300 (Maximum) | |

| Phase | Far 1 tube 2 offset CPS | Value |
|---|---|---|
| Master | | -0.9180 |
| | -1.200 (Minimum) -0.9000 (Nominal) -0.6000 (Maximum) | |

| Phase | Far 1 tube 3 gain | Value |
|---|---|---|
| Master | | 1.094 |
| | 0.9000 (Minimum) 1.100 (Nominal) 1.300 (Maximum) | |

| Phase | Far 1 tube 3 offset CPS | Value |
|---|---|---|
| Master | | -0.8480 |
| | -1.200 (Minimum) -0.9000 (Nominal) -0.6000 (Maximum) | |

| Phase | Far 2 tube 1 gain | Value |
|---|---|---|
| Master | | 1.081 |
| | 0.9000 (Minimum) 1.100 (Nominal) 1.300 (Maximum) | |

| Phase | Far 2 tube 1 offset CPS | Value |
|---|---|---|
| Master | | -0.8230 |
| | -1.200 (Minimum) -0.9000 (Nominal) -0.6000 (Maximum) | |

| Phase | Far 2 tube 2 gain | Value |
|---|---|---|
| Master | | 1.079 |
| | 0.9000 (Minimum) 1.100 (Nominal) 1.300 (Maximum) | |

| Phase | Far 2 tube 2 offset CPS | Value |
|---|---|---|
| Master | | -0.8700 |
| | -1.200 (Minimum) -0.9000 (Nominal) -0.6000 (Maximum) | |

| Phase | Far 2 tube 3 gain | Value |
|---|---|---|
| Master | | 1.028 |
| | 0.9000 (Minimum) 1.100 (Nominal) 1.300 (Maximum) | |

| Phase | Far 2 tube 3 offset CPS | Value |
|---|---|---|
| Master | | -0.7570 |
| | -1.200 (Minimum) -0.9000 (Nominal) -0.6000 (Maximum) | |

| Phase | Near 1 tube 1 gain | Value |
|---|---|---|
| Master | | 0.9810 |
| | 0.9000 (Minimum) 1.100 (Nominal) 1.300 (Maximum) | |

| Phase | Near 2 tube 1 gain | Value |
|---|---|---|
| Master | | 1.025 |
| | 0.9000 (Minimum) 1.100 (Nominal) 1.300 (Maximum) | |

Company: Lamont Doherty

| | |
|---|---|
| Well: | ODP Leg 196, Site 808I |
| Field: | Nankai Trough |
| Country: | Japan |
| Ocean: | Pacific |

IDEAL services from Anadrill

RAB / ADN
Scale 1:200 Measured Depth
Recorded Data

Schlumberger