**Schlumberger**

Company: **International Ocean Discovery Program**

Well: **Expedition 368, Site U1502B**
Field: **South China Sea Rifted Margin**
Rig: **JOIDES Resolution** Country:

Company: International Ocean Discovery Pr
Well: Expedition 368, Site U1502B
Location: Latitude: N 18* 27.8798'
Field: South China Sea Rifted Margin
Rig: JOIDES Resolution

Dipole Shear Sonic (DSI)
Litho−Density (HLDS)
Spectral Gamma Ray (HNGS)

LOCATION

Latitude: N 18* 27.8798'
Longitude: E 116* 13.8409'

Elev.: K.B. 0.00 m
G.L. 3774.70 m
D.F. 0.00 m

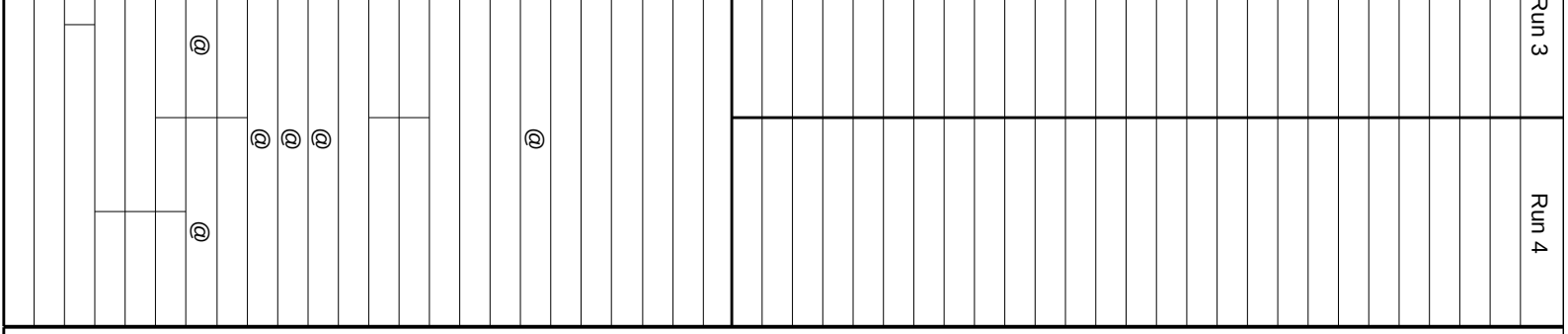
Permanent Datum: Sea Floor — Elev.: 3774.70 m
Log Measured From: Rig Floor — −3774.70 m above Perm. Datum
Drilling Measured From: Rig Floor

| Ocean: Pacific | Max. Well Deviation 0 deg | Longitude E 116.2306817 | Latitude N 18.46466 |
|---|---|---|---|

| | Run 1 | Run 2 | Run 3 |
|---|---|---|---|
| Logging Date | | | |
| Run Number | | | |
| Depth Driller | | | |
| Schlumberger Depth | | | |
| Bottom Log Interval | | | |
| Top Log Interval | | | |
| Casing Driller Size @ Depth | @ | | |
| Casing Schlumberger | | | |
| Bit Size | | | |
| Type Fluid In Hole | | | |
| MUD Density / Viscosity | | | |
| MUD Fluid Loss / PH | | | |
| MUD Source Of Sample | | | |
| RM @ Measured Temperature | @ | | |
| RMF @ Measured Temperature | @ | | |
| RMC @ Measured Temperature | @ | | |
| Source RMF / RMC | | | |
| RM @ MRT / RMF @ MRT | @ / @ | | |
| Maximum Recorded Temperatures | | | |
| Circulation Stopped / Time | | | |
| Logger On Bottom / Time | | | |
| Unit Number / Location | | | |
| Recorded By | | | |
| Witnessed By | | | |

| | Run 1 | Run 2 |
|---|---|---|
| Logging Date | 13−May−2017 | |
| Run Number | 1 | |
| Depth Driller | 4695.5 m | |
| Schlumberger Depth | 4650 m | |
| Bottom Log Interval | 4650 m | |
| Top Log Interval | 3774.7 m | |
| Casing Driller Size @ Depth | 5.500 in @ 4522 m | @ |
| Casing Schlumberger | 4522 m | |
| Bit Size | 9.875 in | |
| Type Fluid In Hole | Seawater | |
| MUD Density / Viscosity | 1.05 g/cm3 | |
| MUD Fluid Loss / PH | 8.07 | |
| MUD Source Of Sample | Mudpit | |
| RM @ Measured Temperature | 0.220 ohm.m @ 23 degC | @ |
| RMF @ Measured Temperature | @ | @ |
| RMC @ Measured Temperature | @ | @ |
| Source RMF / RMC | N/A / N/A | |
| RM @ MRT / RMF @ MRT | 0.455 @ 0 / @ 0 | @ / @ |
| Maximum Recorded Temperatures | 0 degC | |
| Circulation Stopped / Time | 13−May−2017 2:00 | |
| Logger On Bottom / Time | 13−May−2017 7:00 | |
| Unit Number / Location | 627314 Larose, LA | |
| Recorded By | C. Furman | |
| Witnessed By | K. Grigar | |

| | Run 1 | Run 2 |
|---|---|---|
| Logging Date | | |
| Run Number | | |
| Depth Driller | | |
| Schlumberger Depth | | |
| Bottom Log Interval | | |
| Top Log Interval | | |
| Casing Driller Size @ Depth | @ | |
| Casing Schlumberger | | |
| Bit Size | | |
| Type Fluid In Hole | | |
| MUD Density / Viscosity | | |
| MUD Fluid Loss / PH | | |
| MUD Source Of Sample | | |
| RM @ Measured Temperature | @ | |
| RMF @ Measured Temperature | @ | |
| RMC @ Measured Temperature | @ | |
| Source RMF / RMC | | |
| RM @ MRT / RMF @ MRT | @ | @ |
| Maximum Recorded Temperatures | | |
| Circulation Stopped / Time | | |
| Logger On Bottom / Time | | |
| Unit Number / Location | | |
| Recorded By | | |
| Witnessed By | | |




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 SERVICES1

OS1: VSI

REMARKS: RUN NUMBER 1

Hole drilled with RCB bottom hole assembly (BHA) at 9−7/8" BS

Bit dropped at bottom of hole using MBR; Driller's Sea Floor was 3774.7mbrf.

Drilled TD was 4695.5mbrf; Tool hung up at 4650mbrf (~45m off bottom) on both passes

Drill pipe set at 4522mbrf (approx. 20m below casing shoe)

Triple−combo run with upper part eccentered using bowsprings and lower part centralized using MCDs.

Fluid type was sea water; no barite corrections applied.

Depth recorded from drill floor; logs presented as−logged without depth corrections or shifts, as per client instructions.

All logs presented in wireline measured depth below rig floor (MDBRF).

Caliper opened during upward passes; closed inside pipe.

Hole size corrections made using caliper measurements for upward passes.

The AHC was NOT used for this run, as the prevailing heave was less than 0.1m p−p.

DSI run with Upper Dipole, Lower Dipole, and P&S Modes active in standard frequency mode

as per tool configuration used on previous expedition (367) for consistency of data sets.

Maximum depth reached was 4650mbrf; caliper closed at 4560mbrf on main pass.

After−survey calibrations not performed due to mitigating circumstances; before−survey cals presented instead

| RUN 1 | | | RUN 2 | | |
|---|---|---|---|---|---|
| SERVICE ORDER #: | | | SERVICE ORDER #: | | |
| PROGRAM VERSION: | | 19C0−187 | PROGRAM VERSION: | | |
| FLUID LEVEL: | | | FLUID LEVEL: | | |
| LOGGED INTERVAL | START | STOP | LOGGED INTERVAL | START | STOP |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |
| | | | | | |

# EQUIPMENT DESCRIPTION

## RUN 1

### SURFACE EQUIPMENT

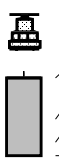
GSR−U 616008
WITM (EDTS)−A

### DOWNHOLE EQUIPMENT

LEH−QT

EDTC−B
EDTH−B 8303
EDTC−B 8317

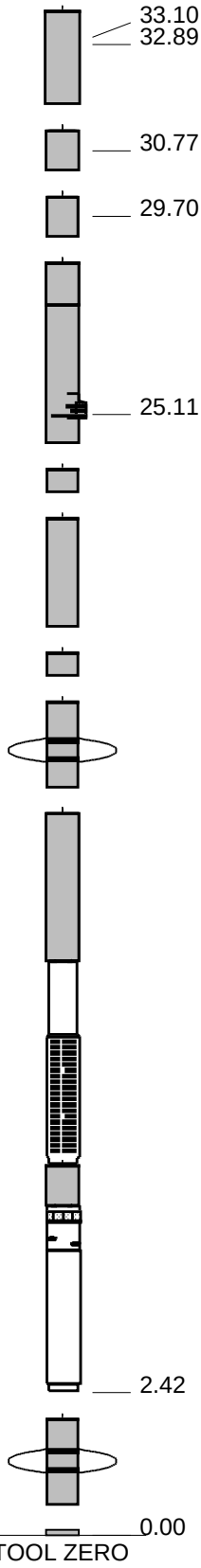
MDSB_EDTC
Mud Tempe
CTEM
Gamma Ray
EFTB DIAG
TelStatus
EDTCB Ele




36.67

35.78

## RUN 2

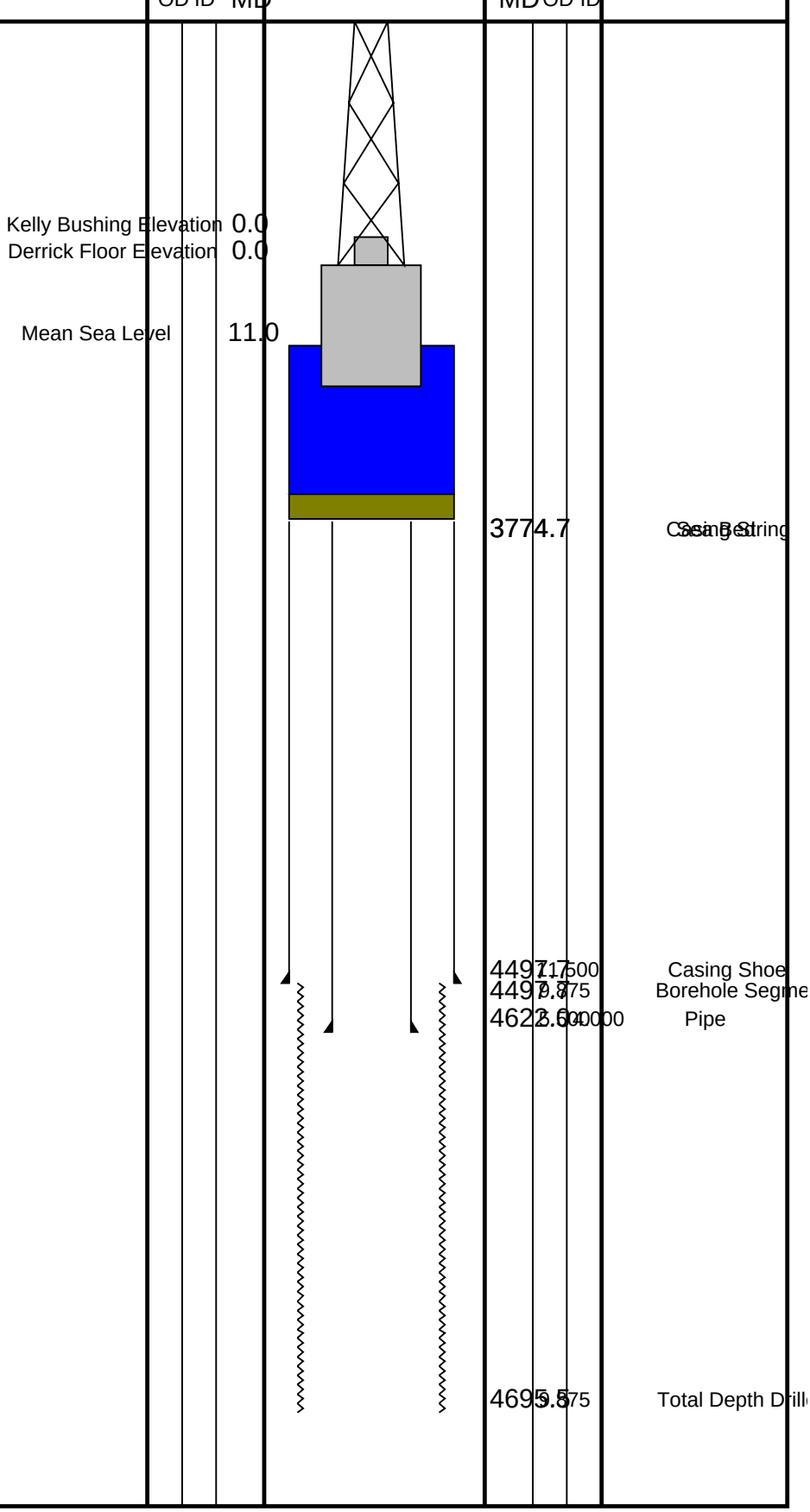



| | | |
|---|---|---|
| HNGS−BA<br>HNGS−BA 194<br>HNSH−BA 205 | | 33.80 |
| HNGC−B<br>HNGH−A 3 | | 31.30 |
| LDSC−B<br>LDSH−A 319 | | 30.24 |
| HLDS<br>HLDV−D 45<br>HLDS−D 45<br>GSR−ZA 2945<br>HLDP−C 45<br>HEH−H 47 | | 29.17 |
| AH−184 | | 24.35 |
| AH−ECH−MRA<br>AH−ECH−MRA 5714 | | 23.74 |
| AH−184 | | 20.85 |
| AH−MCD2<br>AH−MCD2 2 | | 20.24 |
| DSST−B<br>SPAC−B 8194<br>ECH−SD 8183<br>SMDR−BD 8232<br>SSIJ−BA 8192<br>SMDX−AA 8131 | | 17.96 |
| AH−MCD1<br>AH−MCD1 1 | | 2.42 |
| BNS−CCS | | 0.14 |

MAXIMUM STRING DIAMETER 3.75 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String Well Schematic

| (in) OD | ID | (m) MD | | (m) MD | (in) OD | ID | Casing St |
|---|---|---|---|---|---|---|---|


OD ID MD
MD OD ID
Kelly Bushing Elevation 0.0
Derrick Floor Elevation 0.0
Mean Sea Level 11.0
3774.7
Casing String
4497.7 17.500
Casing Shoe
4497.8 9.875
Borehole Segme
4623.6 5.000000
Pipe
4695.5 9.875
Total Depth Drill

Schlumberger

# Main Pass
# 1:200 Scale

MAXIS Field Log

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_013LUP | FN:15 | PRODUCER | 13−May−2017 07:20 | 4649.7 M | 3760.5 M |
| RTB | DSI_LDL_NGS_013LUP | FN:16 | PRODUCER | 13−May−2017 07:20 | 4649.7 M | 3760.5 M |

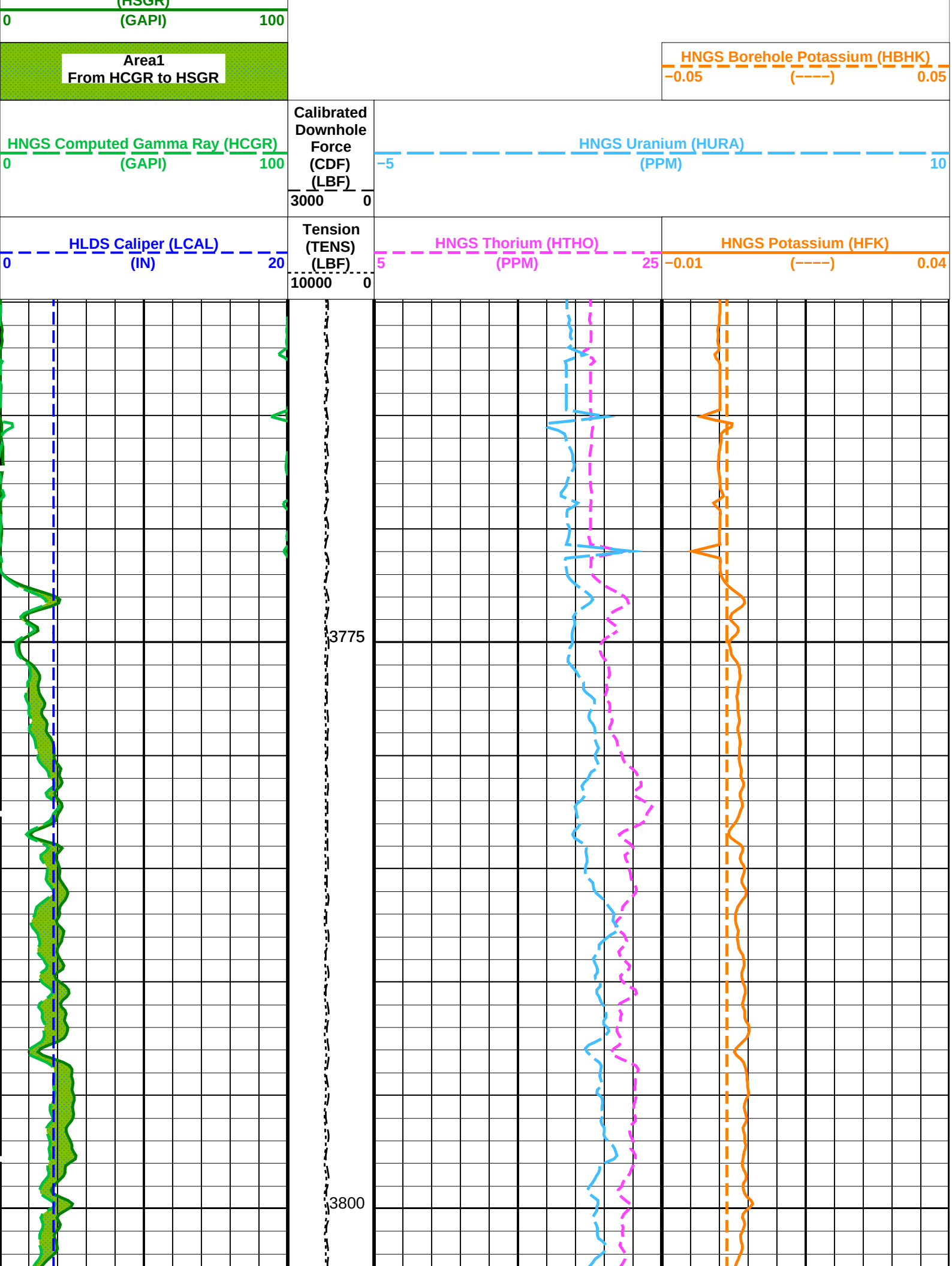
## OP System Version: 19C0−187

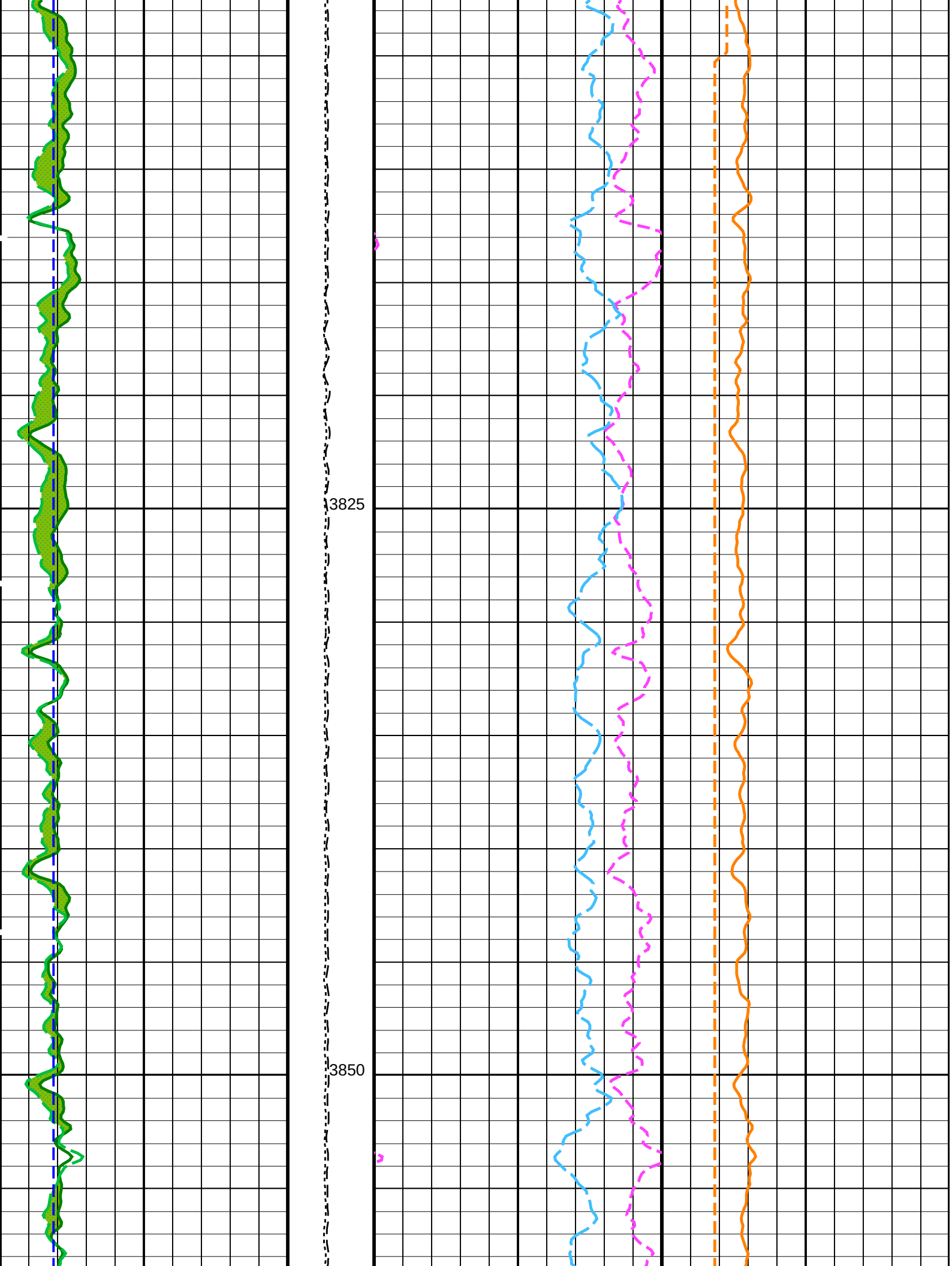
| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

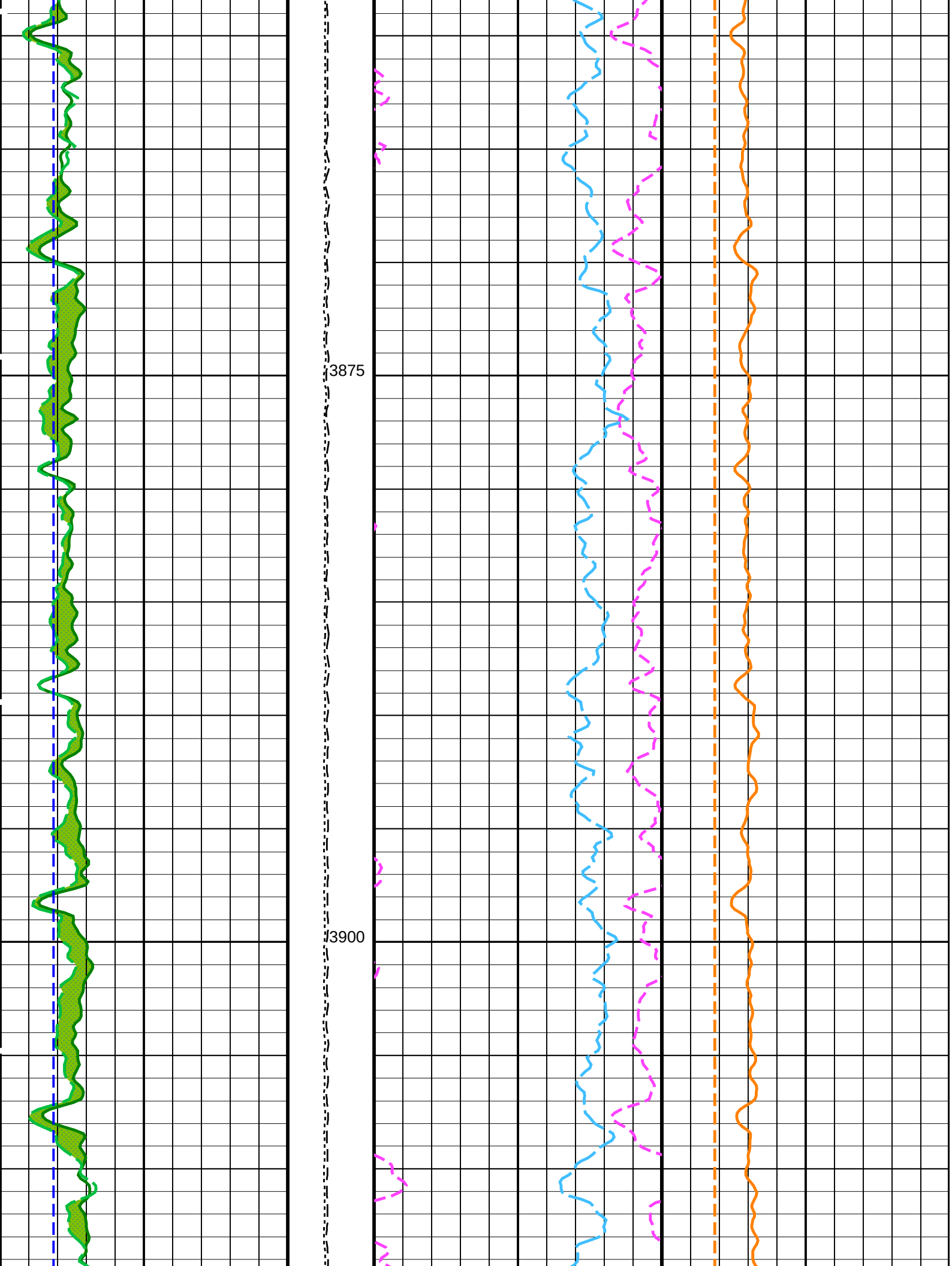
**PIP SUMMARY**

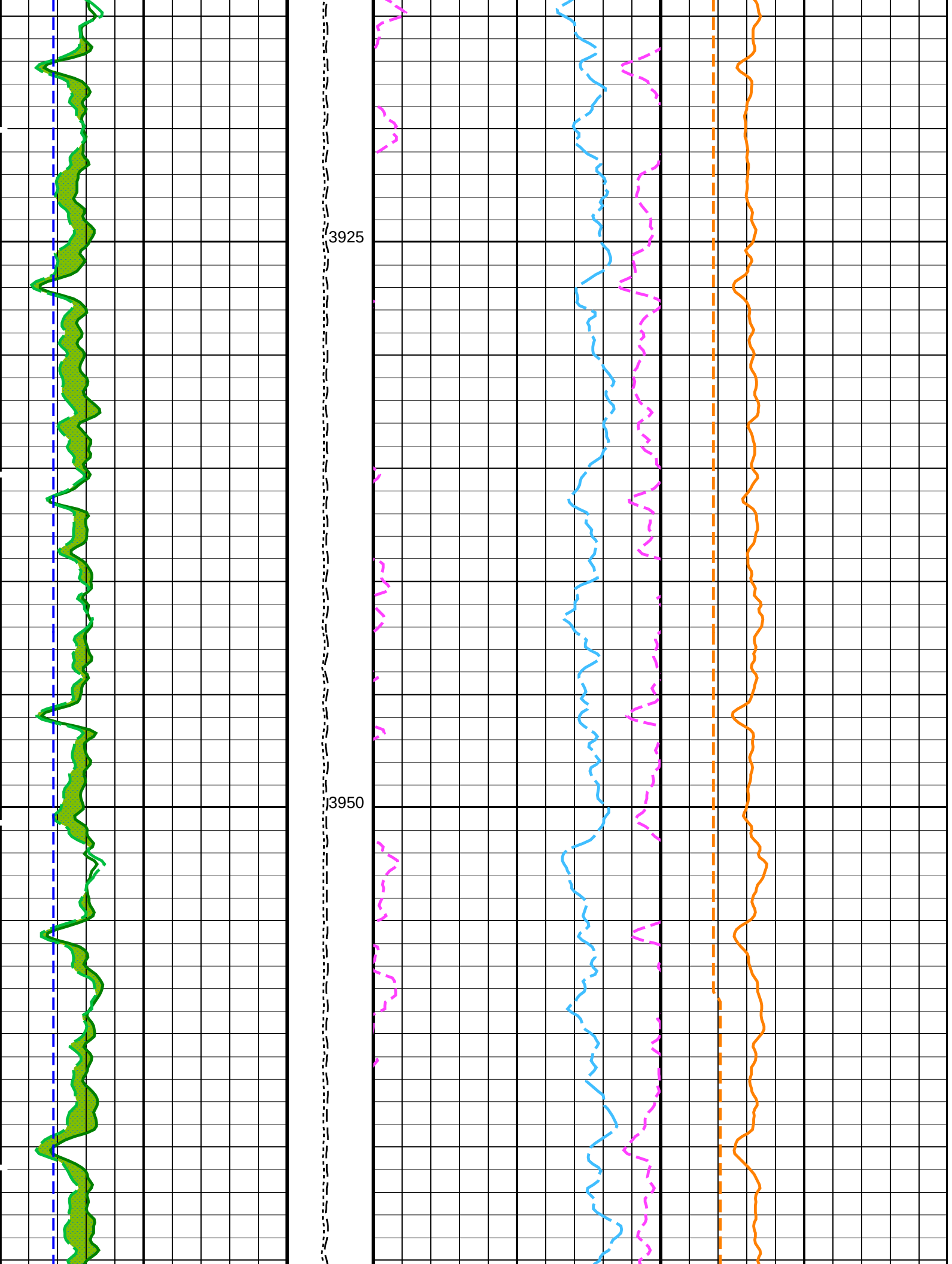
Time Mark Every 60 S

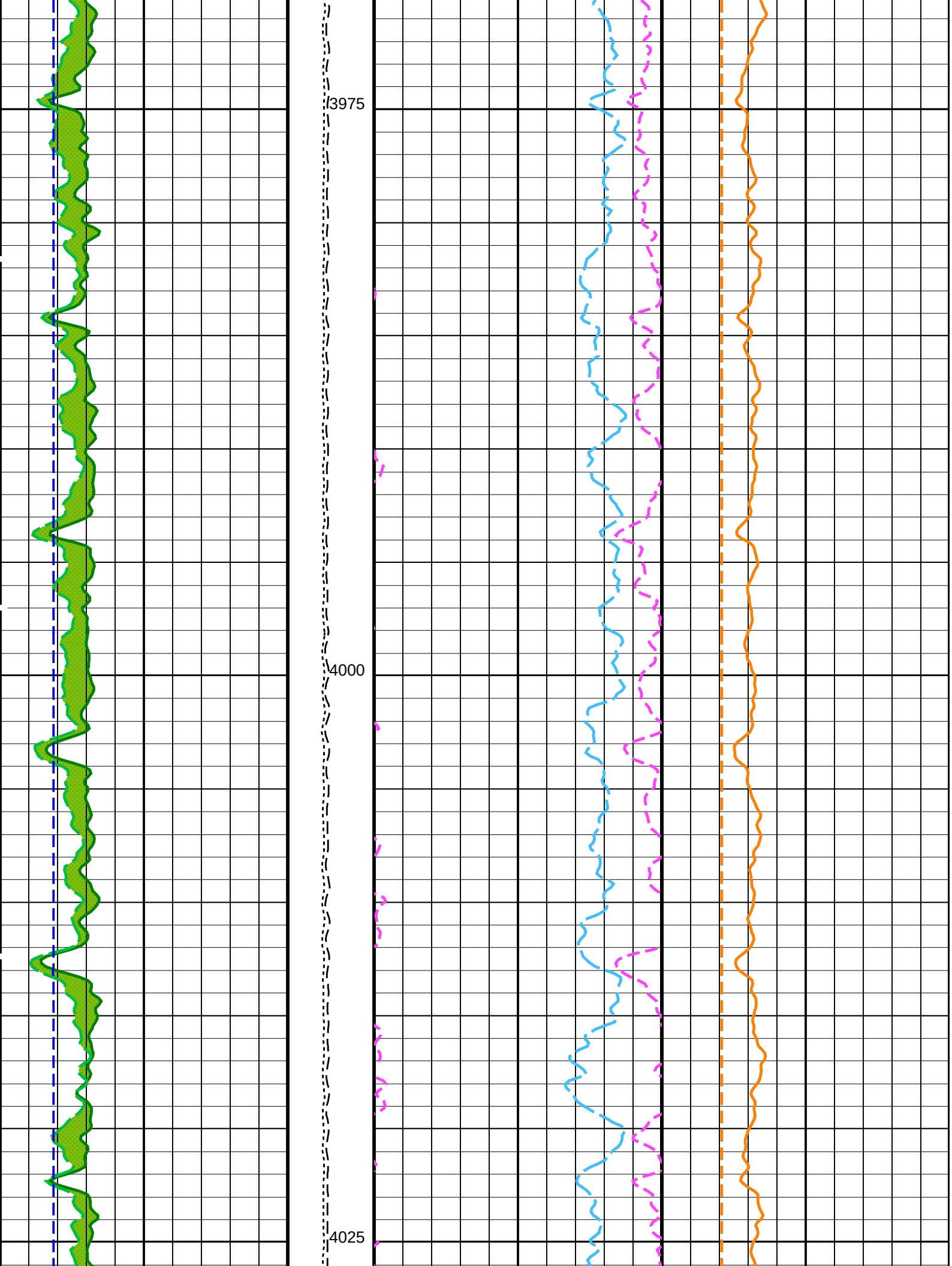
HNGS Spectroscopy Gamma Ray (HSGR)

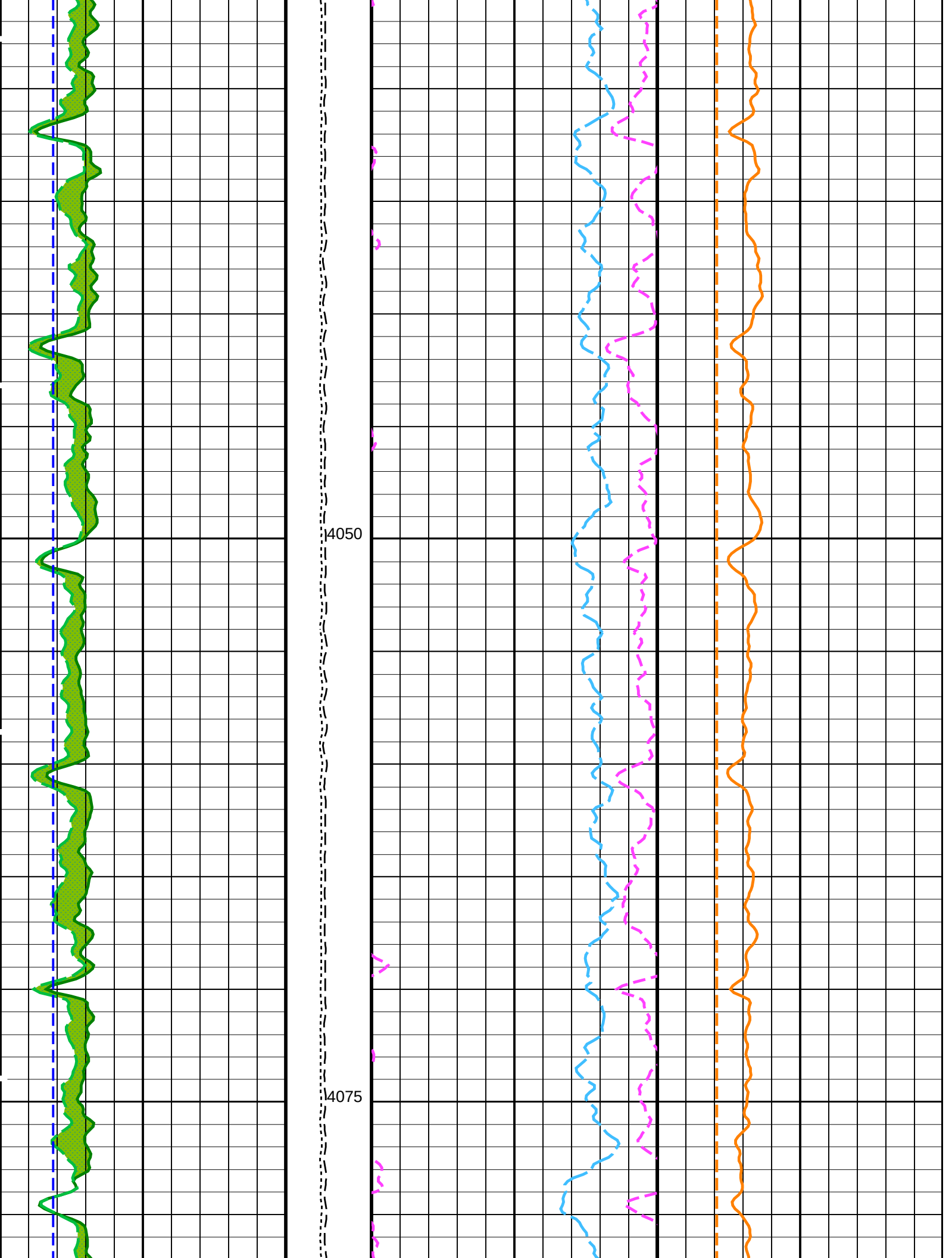

(HSGR)
0
(GAPI)
100
Area1
From HCGR to HSGR
HNGS Borehole Potassium (HBHK)
−0.05
(−−−−)
0.05
HNGS Computed Gamma Ray (HCGR)
0
(GAPI)
100
Calibrated Downhole Force (CDF) (LBF)
3000
0
HNGS Uranium (HURA)
−5
(PPM)
10
HLDS Caliper (LCAL)
0
(IN)
20
Tension (TENS) (LBF)
10000
0
HNGS Thorium (HTHO)
5
(PPM)
25
HNGS Potassium (HFK)
−0.01
(−−−−)
0.04
3775
3800

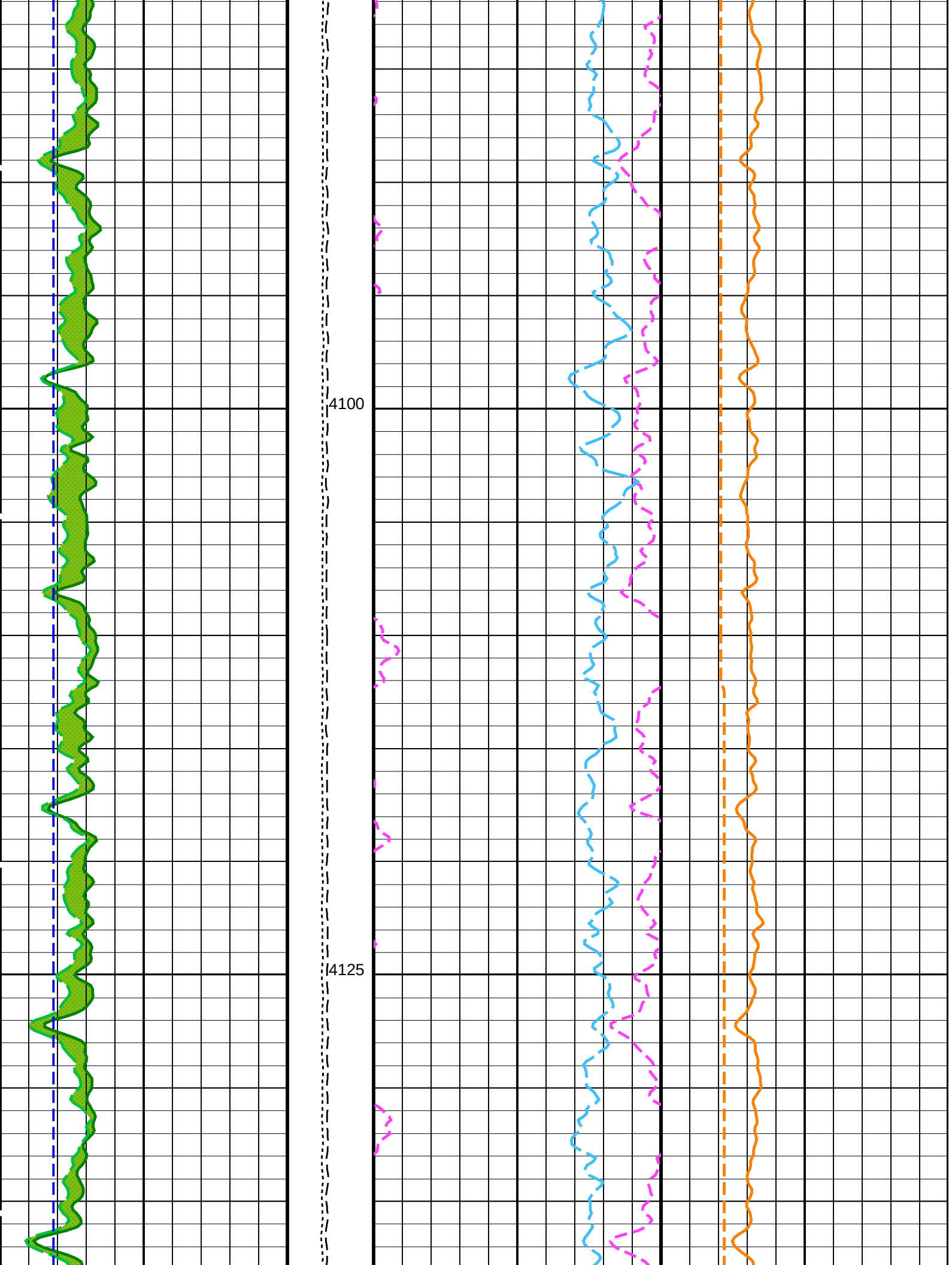

3825
3850

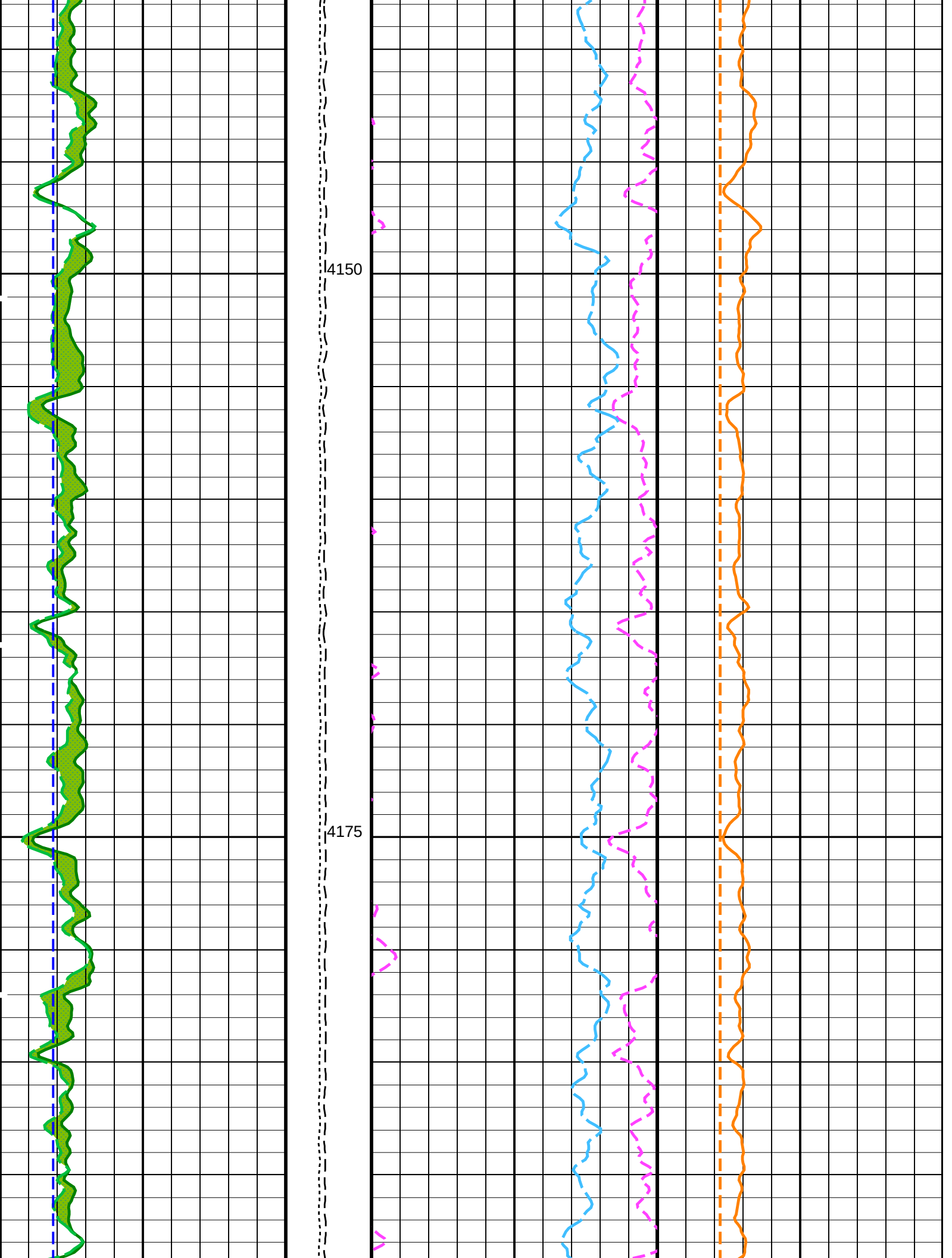

3875
3900

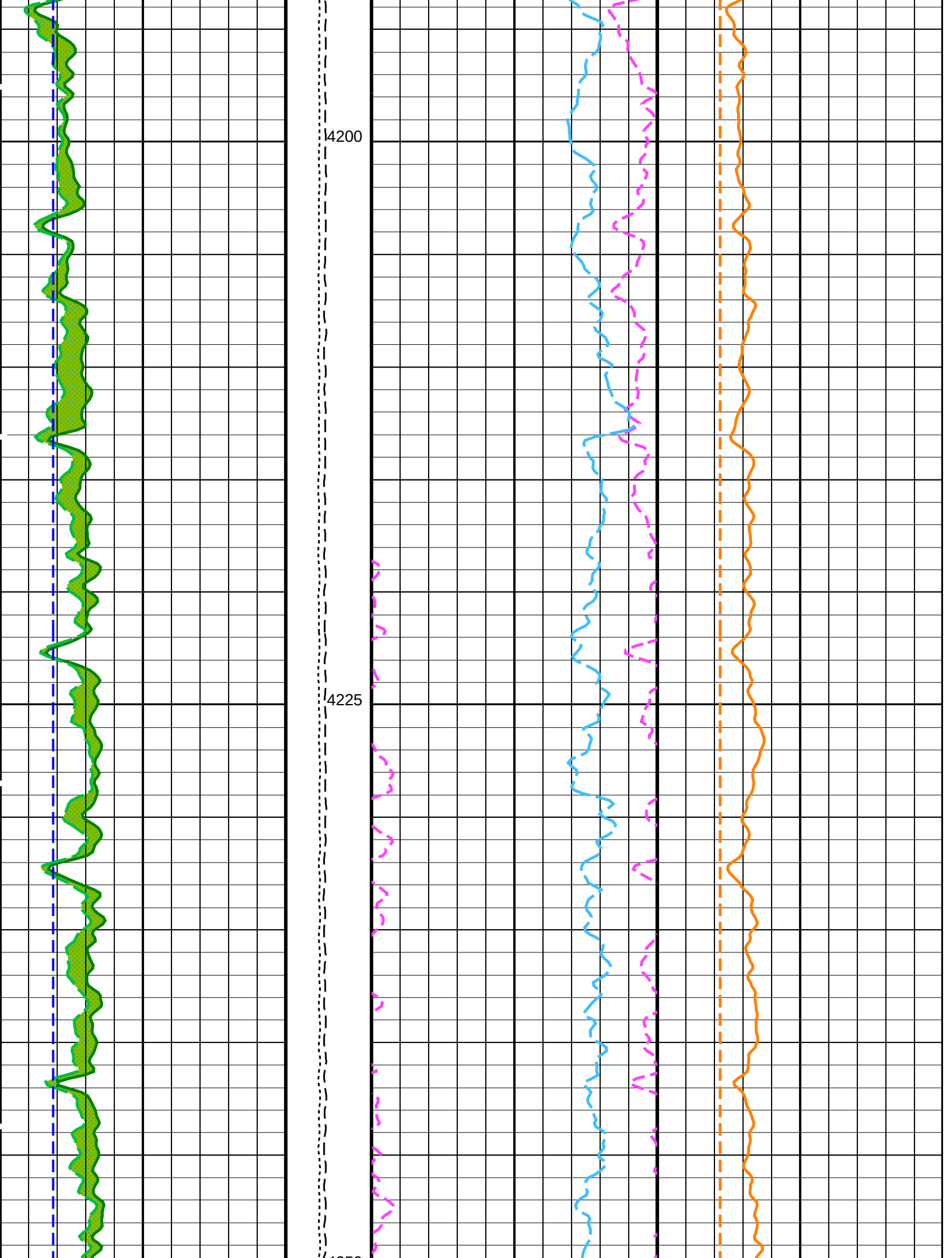

3925
3950

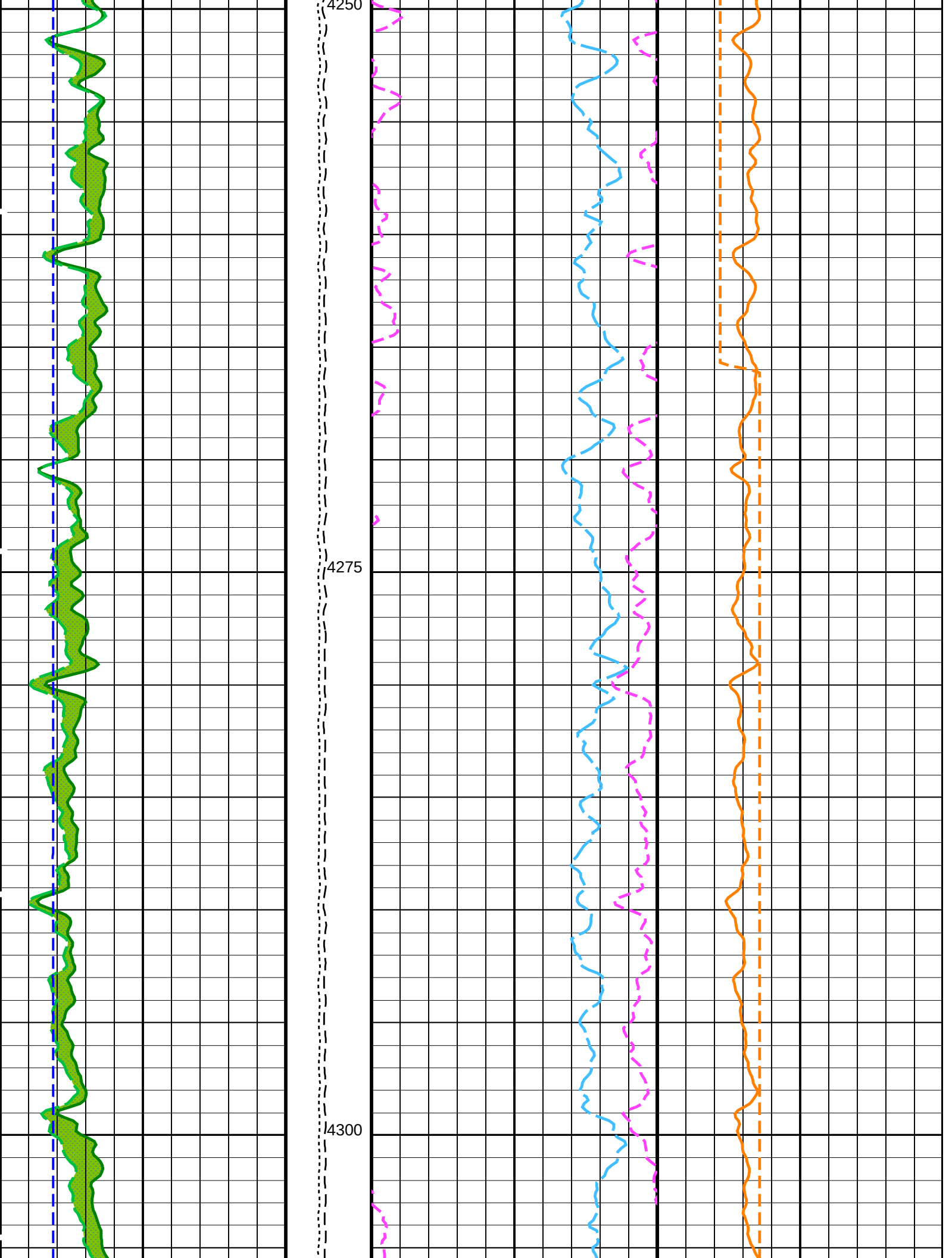

3975
4000
4025

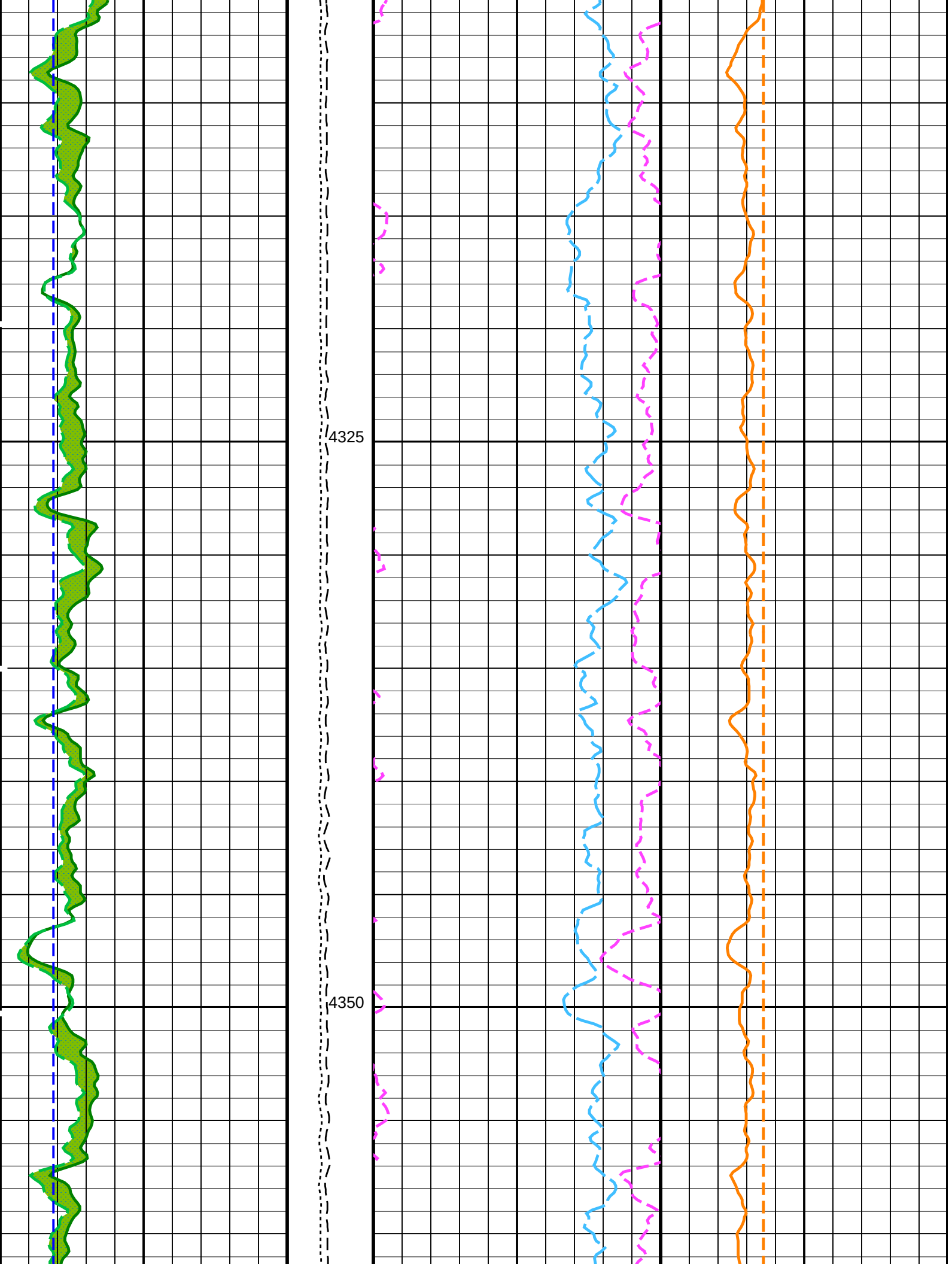

4050
4075

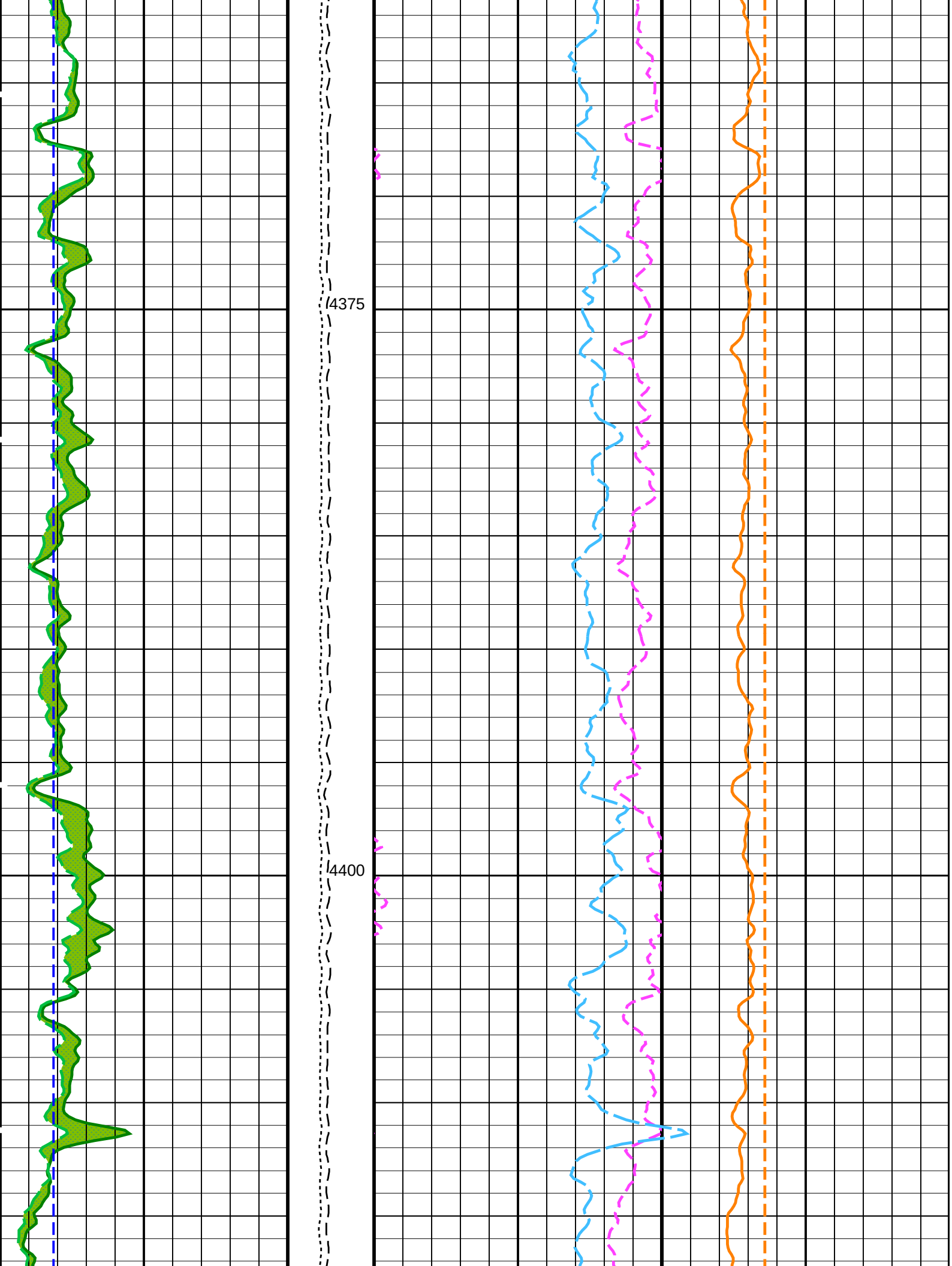

4100
4125

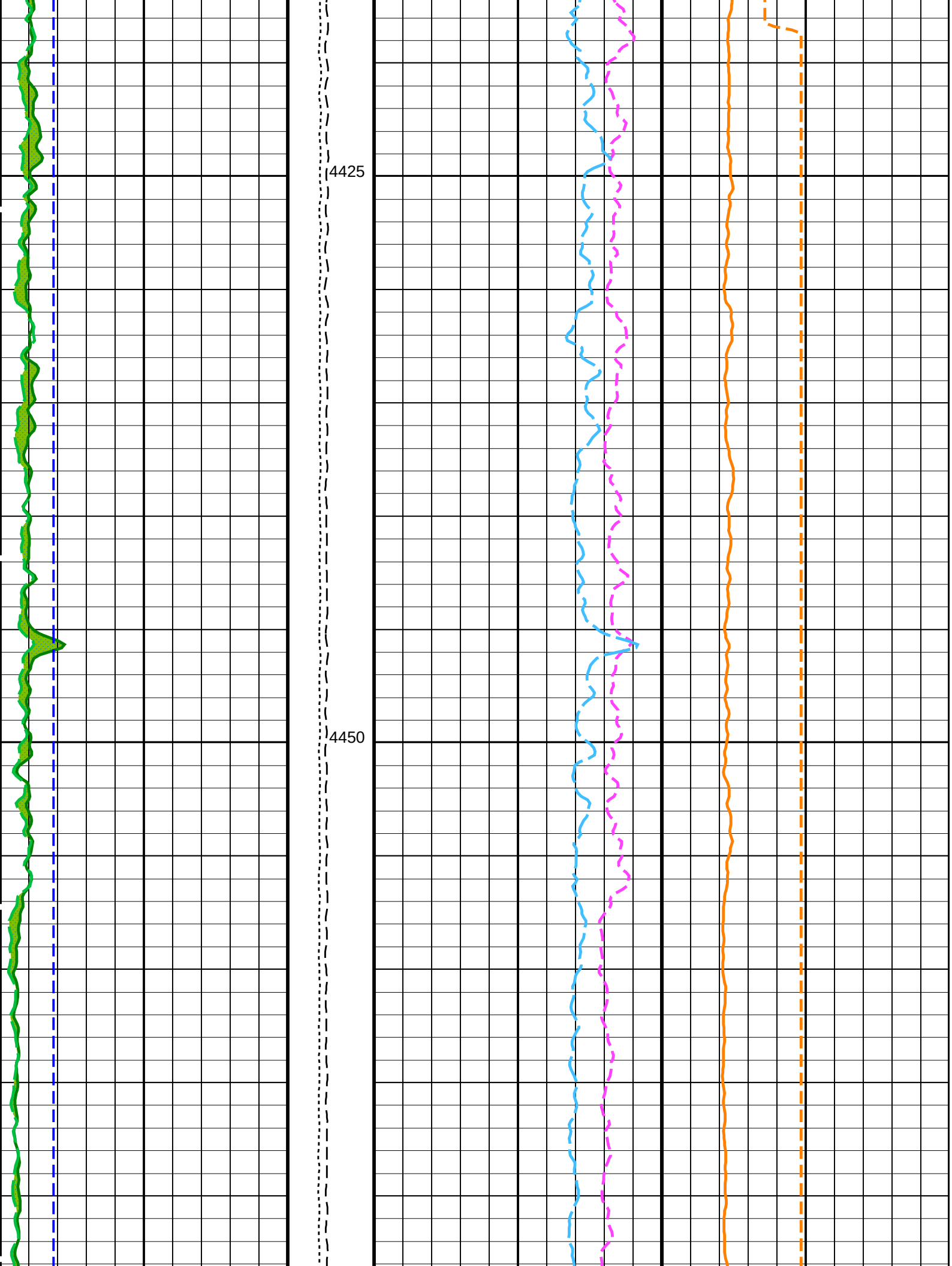

4150
4175

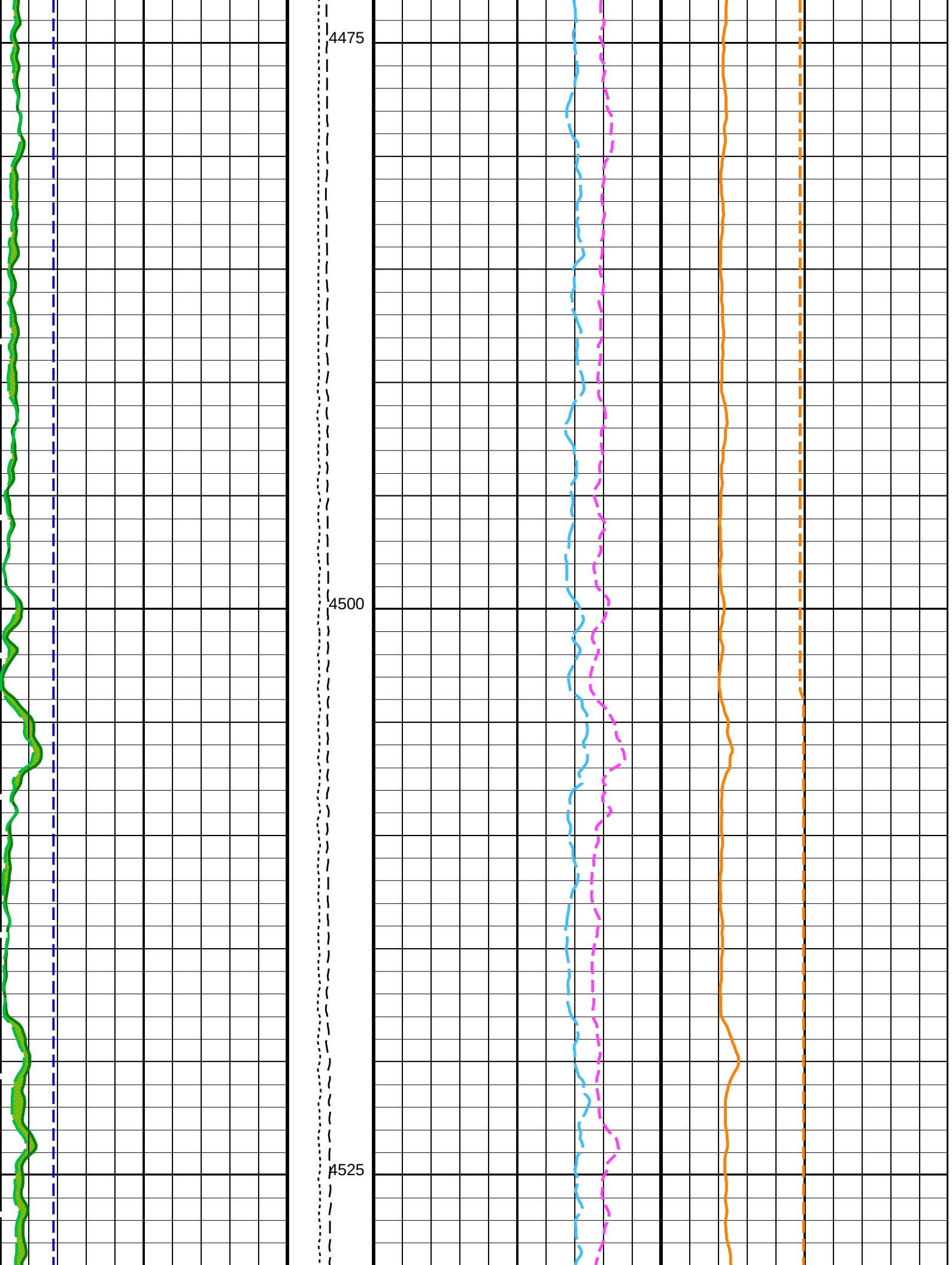

4200
4225

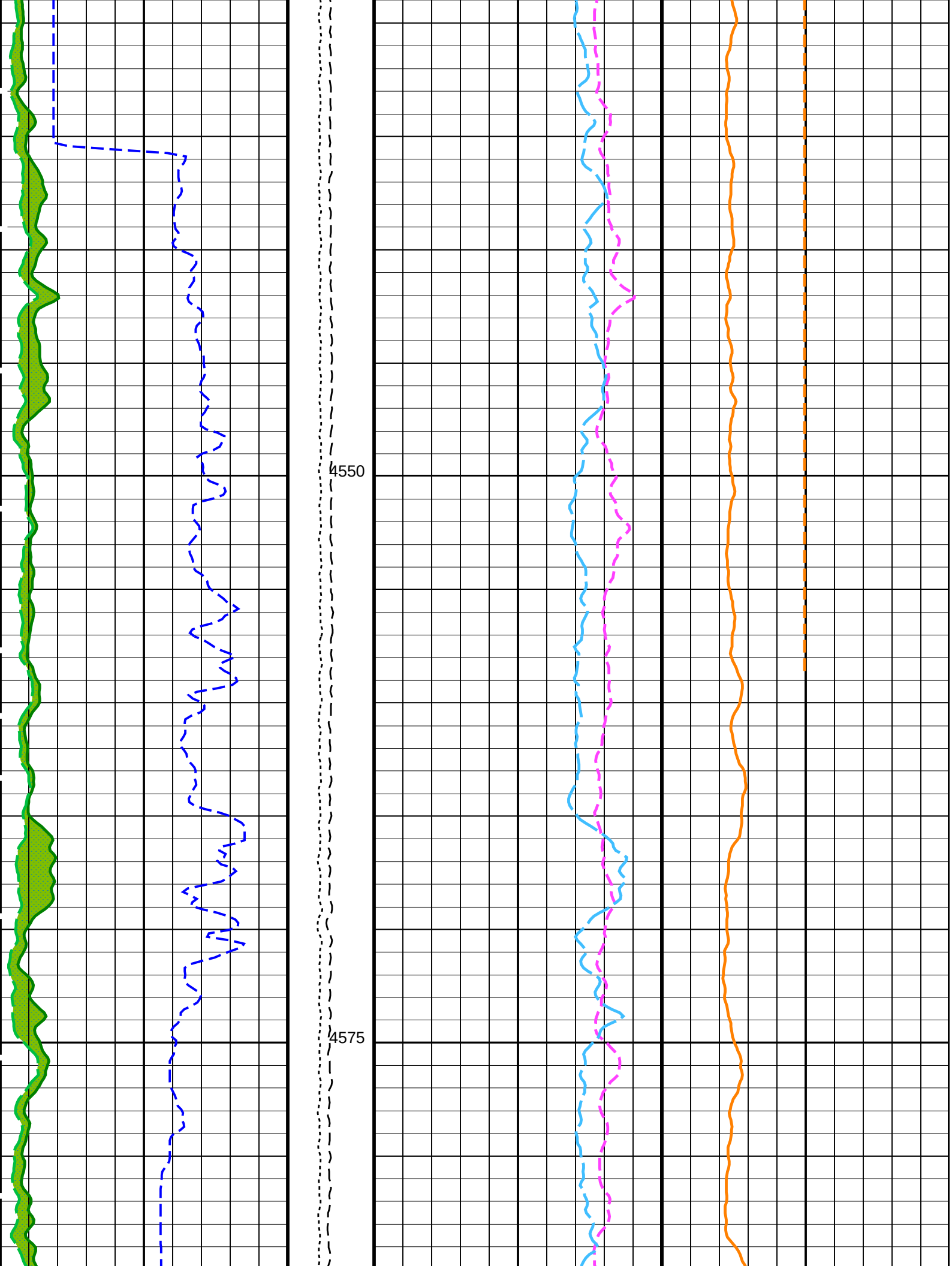

4250
4275
4300

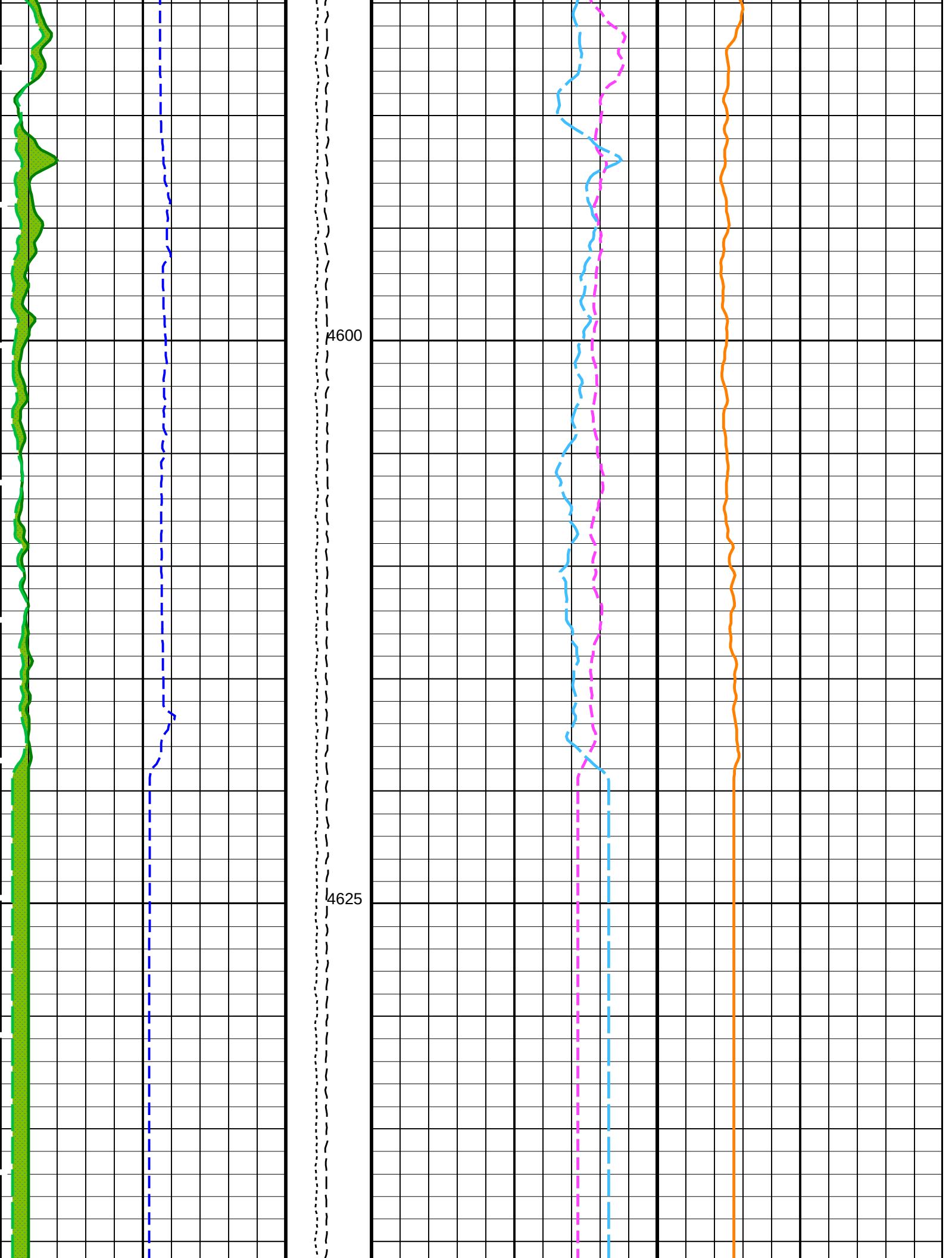

4325
4350

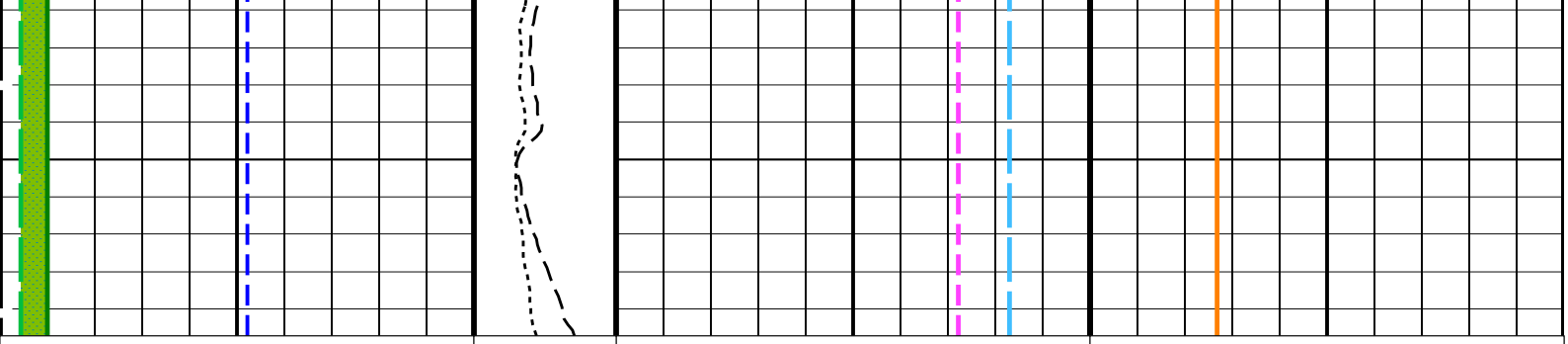

4375
4400


4425
4450


4475
4500
4525


4550
4575


4600
4625



HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

HNGS Potassium (HFK)
−0.01 (−−−−) 0.04

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 100

Calibrated Downhole Force (CDF) (LBF)
3000 0

HNGS Uranium (HURA)
−5 (PPM) 10

Area1
From HCGR to HSGR

HNGS Borehole Potassium (HBHK)
−0.05 (−−−−) 0.05

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

PIP SUMMARY

Time Mark Every 60 S

## Parameters

| DLIS Name | Description | Value | |
|---|---|---|---|
| | **DSST−B: Dipole Shear Imager − B** | | |
| BHS | Borehole Status | OPEN | |
| GCSE | Generalized Caliper Selection | LCAL | |
| | **HNGS−BA: Hostile Natural Gamma Ray Sonde** | | |
| BAR1 | HNGS Detector 1 Barite Constant | 1 | |
| BAR2 | HNGS Detector 2 Barite Constant | 1 | |
| BHK | HNGS Borehole Potassium Correction Concentration | 0 | |
| BHS | Borehole Status | OPEN | |
| CSD1 | Inner Casing Outer Diameter | 10.75 | IN |
| CSD2 | Outer Casing Outer Diameter | 10.75 | IN |
| CSW1 | Inner Casing Weight | 45 | LB/F |
| CSW2 | Outer Casing Weight | 45 | LB/F |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | LCAL | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | −0.0011803 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | BARI | |
| HNPE | HNGS Processing Enable | YES | |
| S1BI | HNGS Detector 1 Calibration Bismuth Count Rate | 1.3 | CPS |
| S2BI | HNGS Detector 2 Calibration Bismuth Count Rate | 1.3 | CPS |
| SGRC | HNGS Standard Gamma−Ray Correction Flag | YES | |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 0.990143 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 1.05695 | |
| | **EDTC−B: Enhanced DTS Cartridge** | | |
| BHS | Borehole Status | OPEN | |
| GCSE | Generalized Caliper Selection | LCAL | |
| | **System and Miscellaneous** | | |
| BS | Bit Size | 9.875 | IN |
| DFD | Drilling Fluid Density | 1.05 | G/C3 |

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 13−May−2017 07:20

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |

| | | | |
|---|---|---|---|
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## Output DLIS Files

| | | | | | |
|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_013LUP | FN:15 | PRODUCER | 13−May−2017 07:20 | |
| RTB | DSI_LDL_NGS_013LUP | FN:16 | PRODUCER | 13−May−2017 07:20 | |


## Output DLIS Files

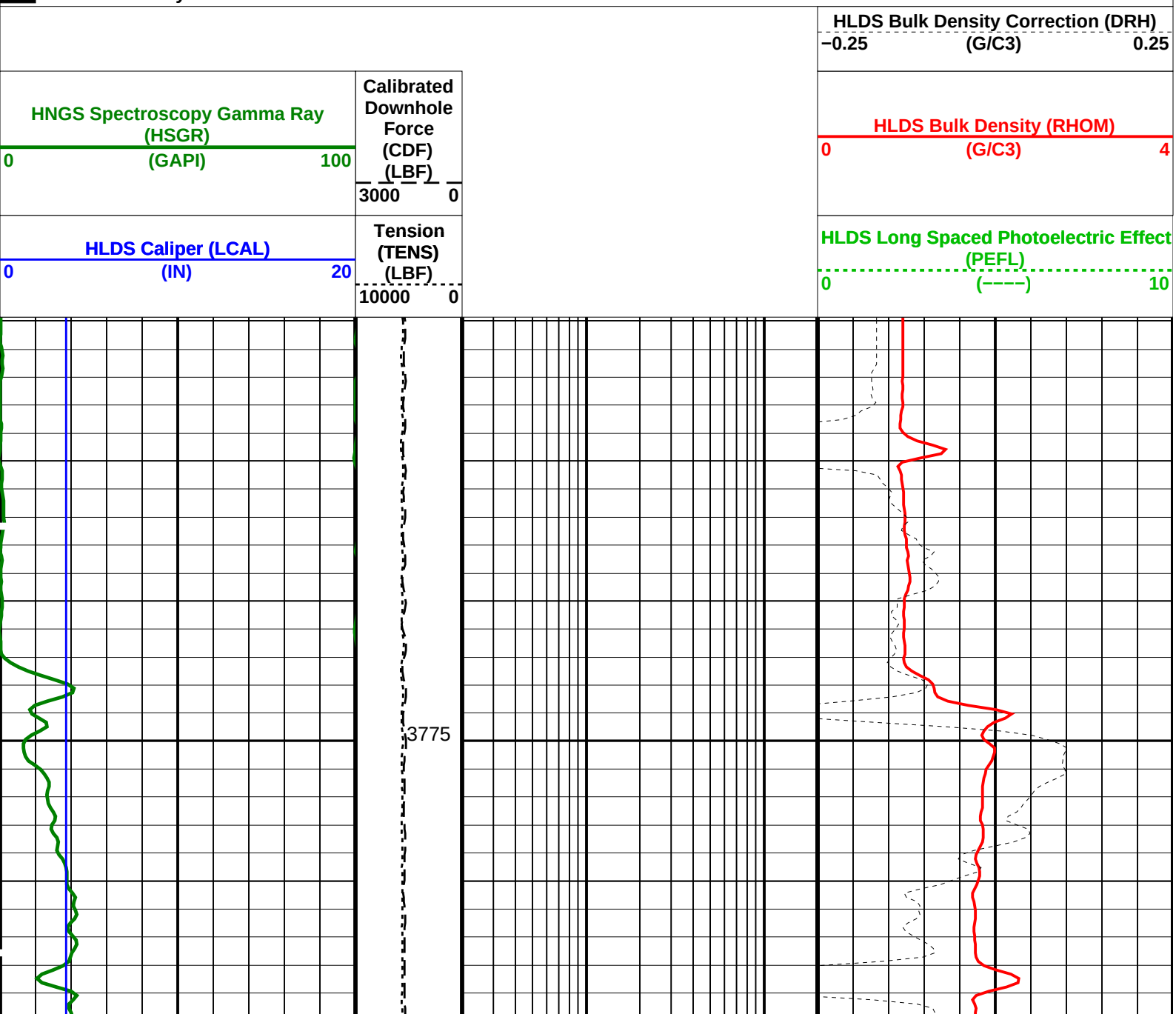

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_013LUP | FN:15 | PRODUCER | 13−May−2017 07:20 | 4649.7 M | 3760.5 M |
| RTB | DSI_LDL_NGS_013LUP | FN:16 | PRODUCER | 13−May−2017 07:20 | 4649.7 M | 3760.5 M |

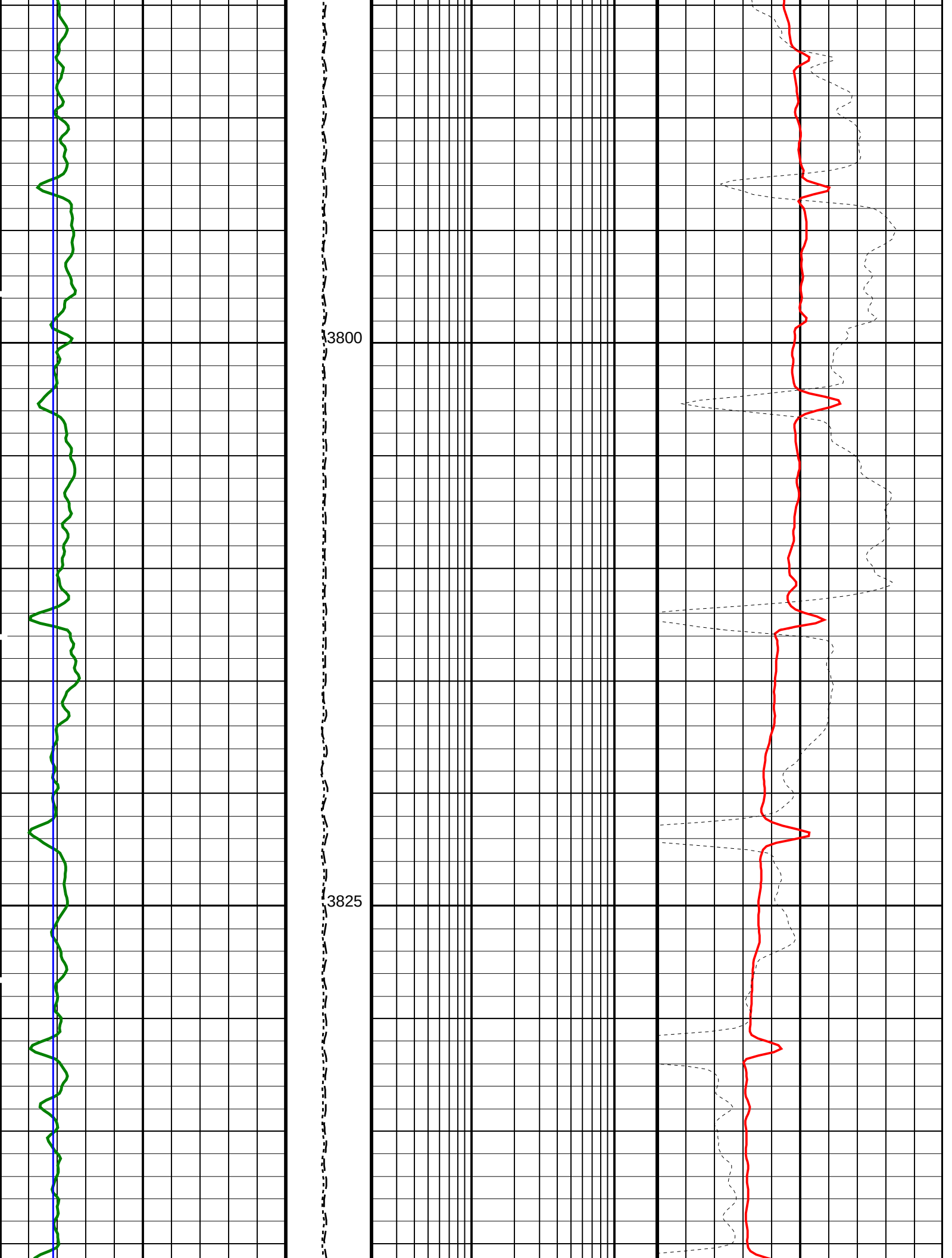
## OP System Version: 19C0−187

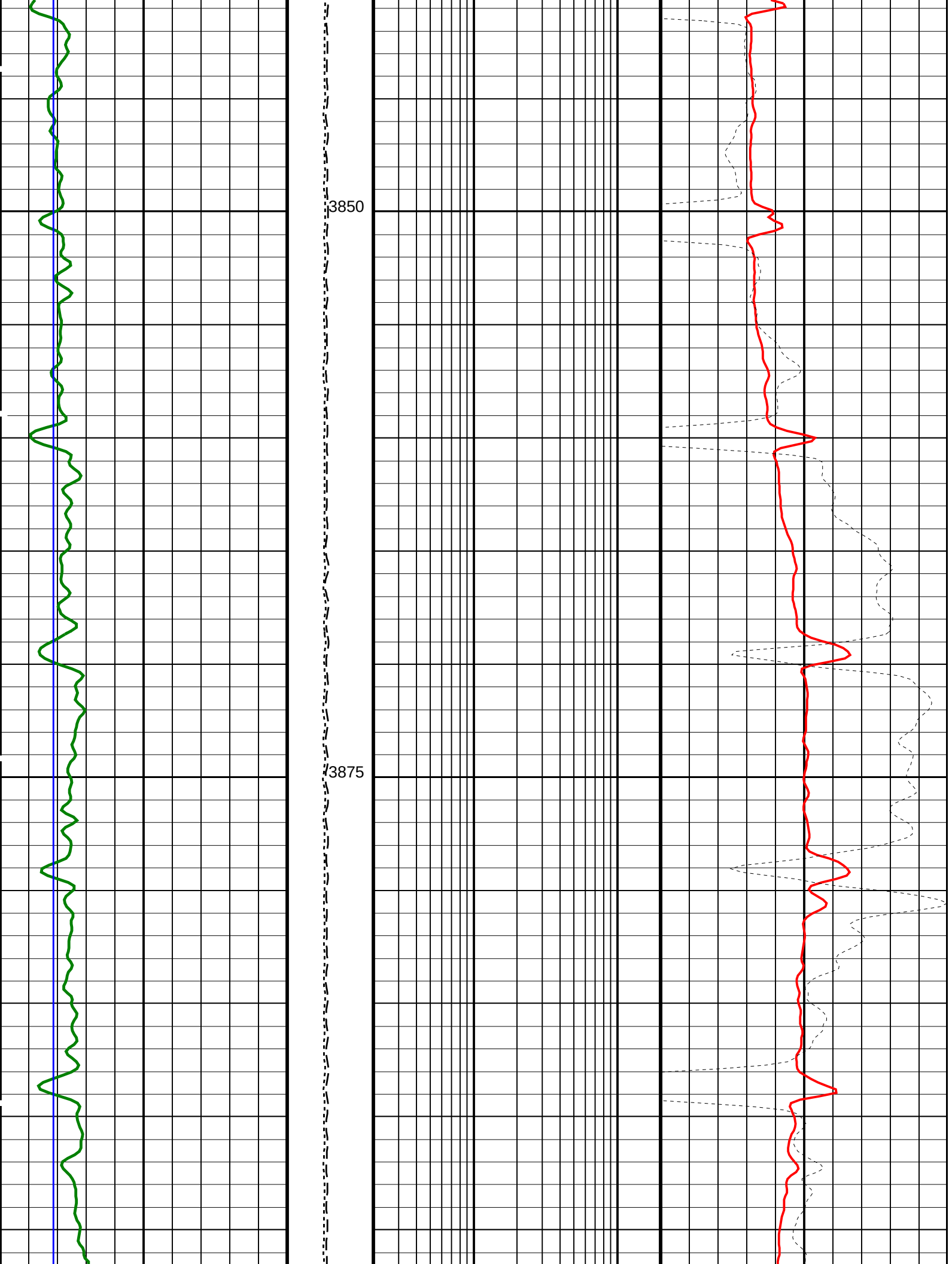
| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

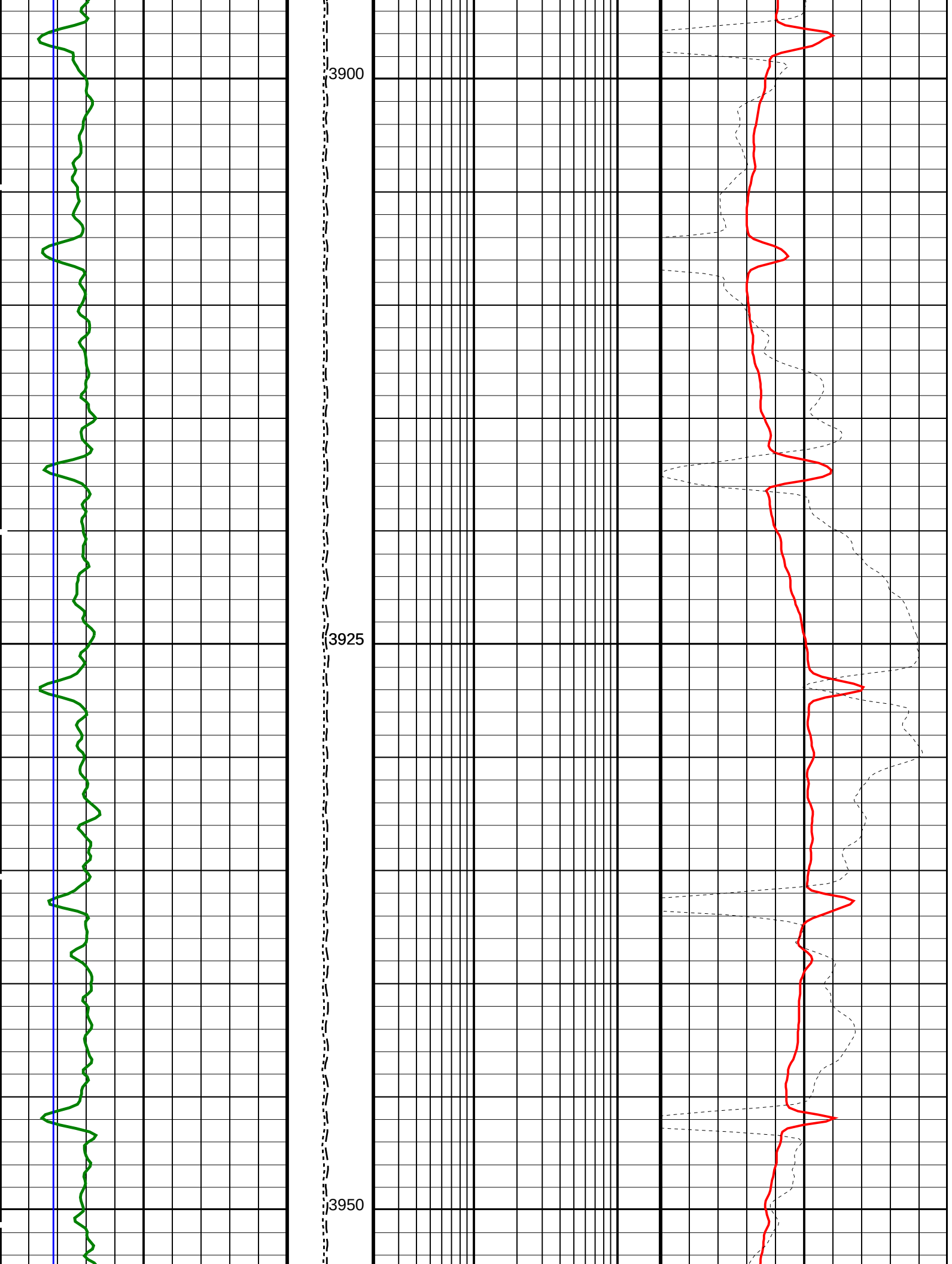
### PIP SUMMARY

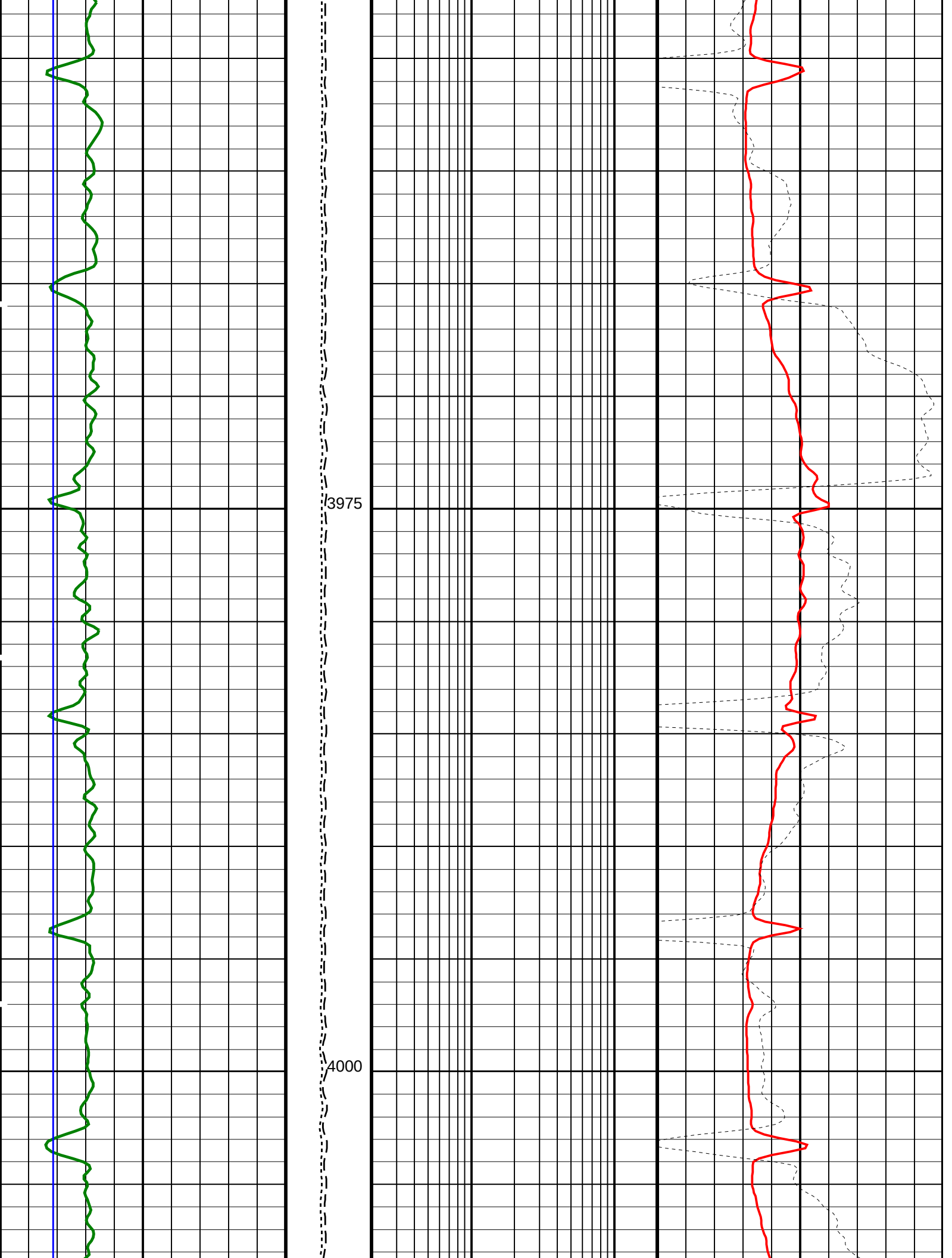
Time Mark Every 60 S

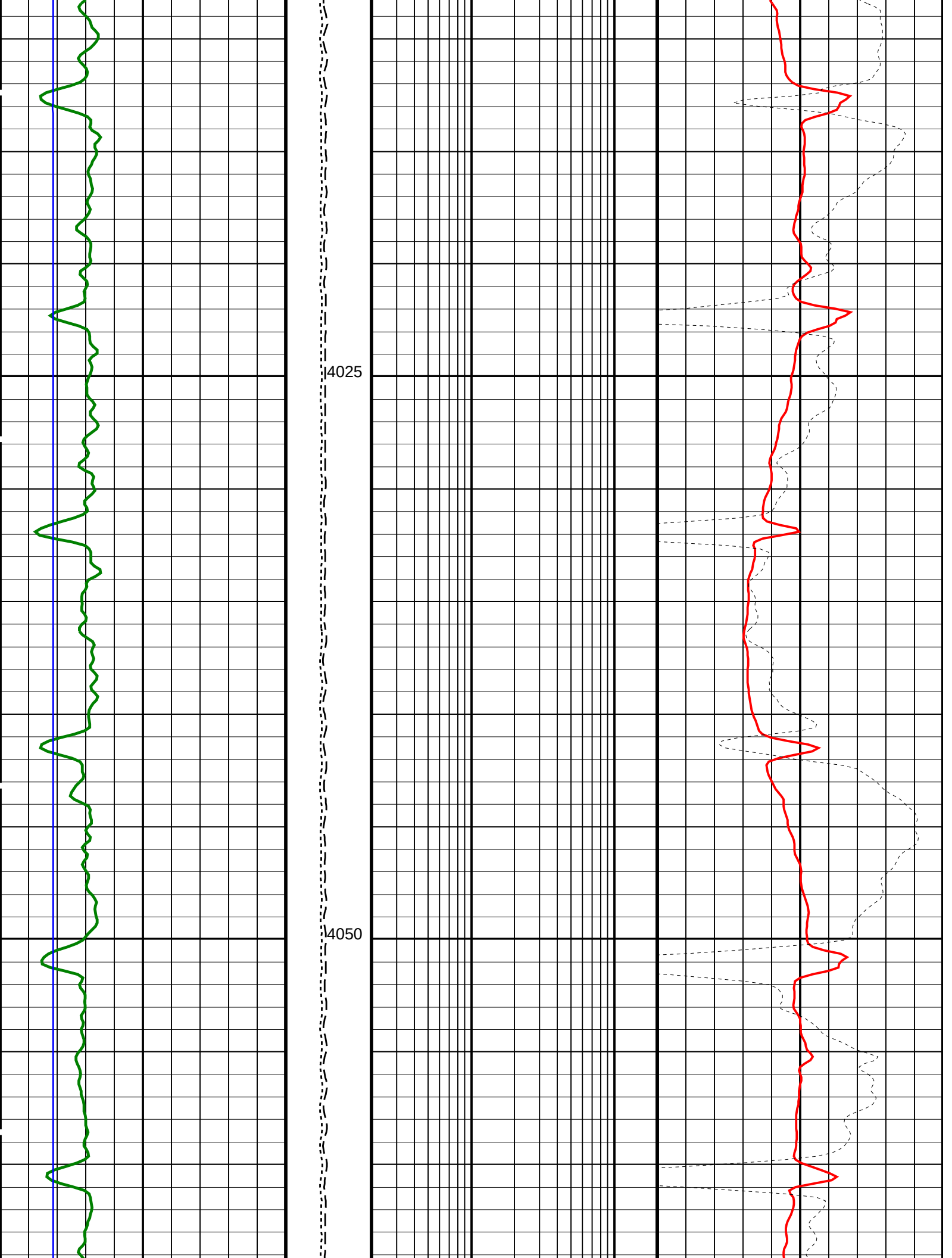


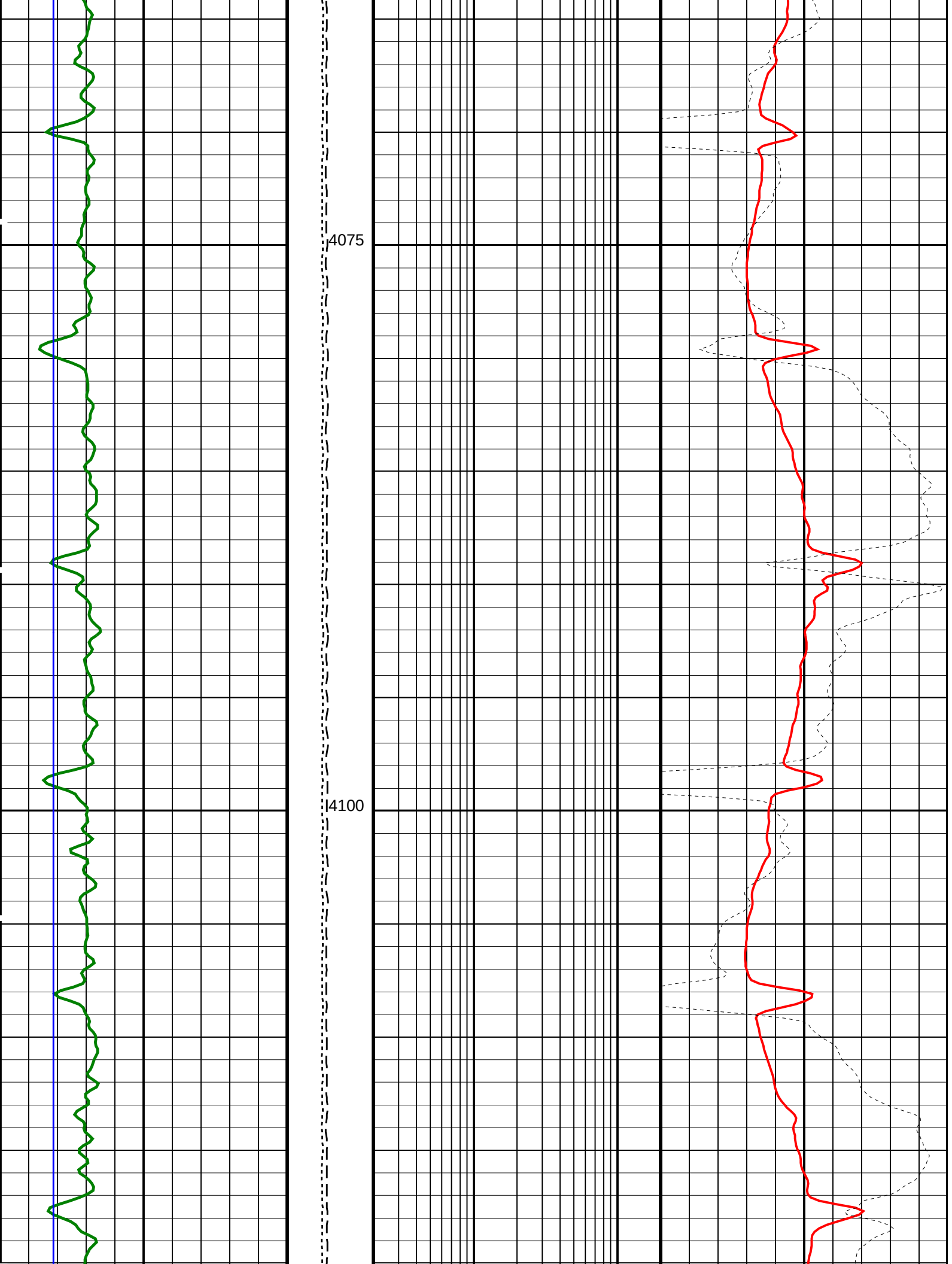

3800
3825

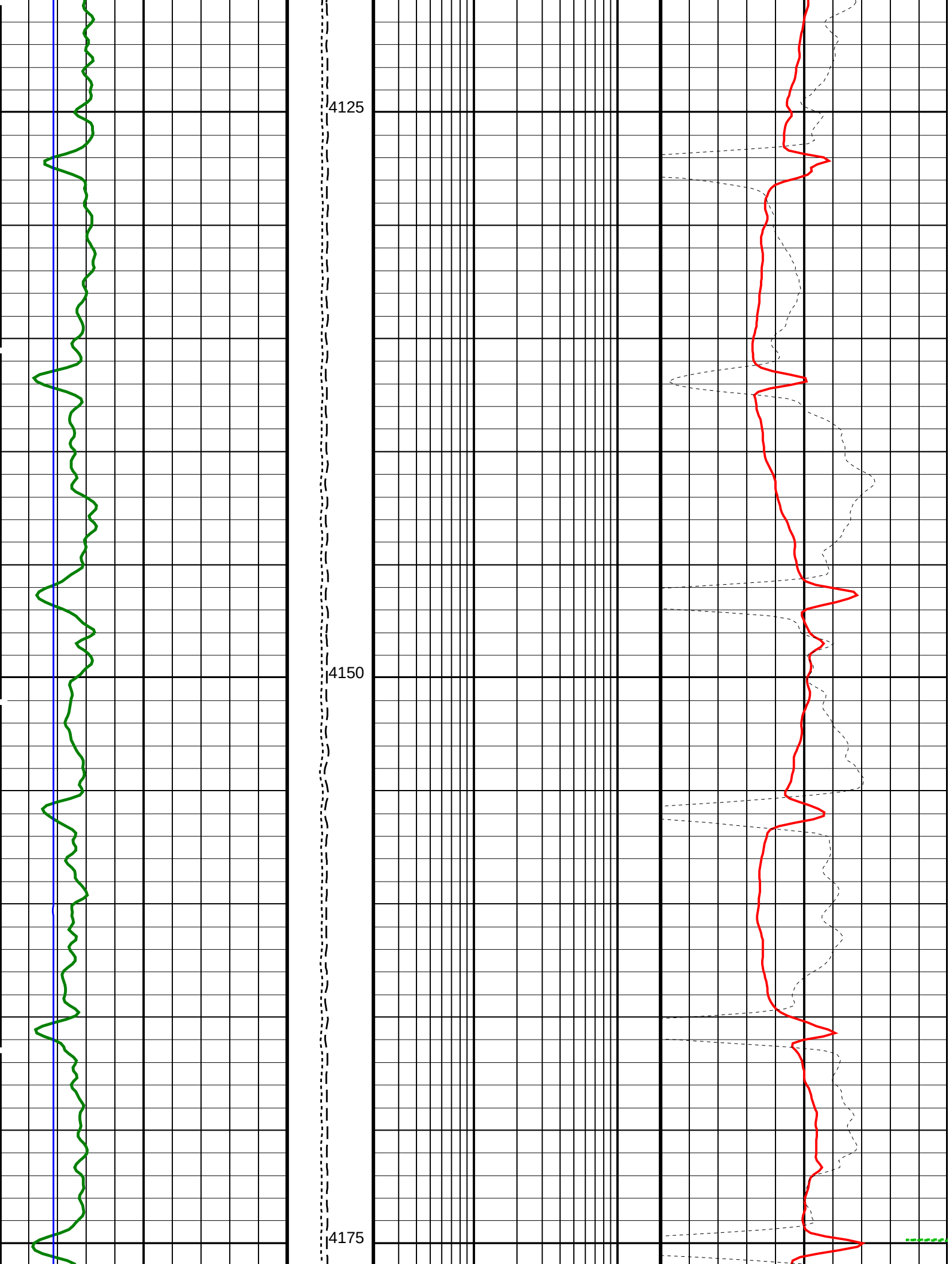

3850
3875

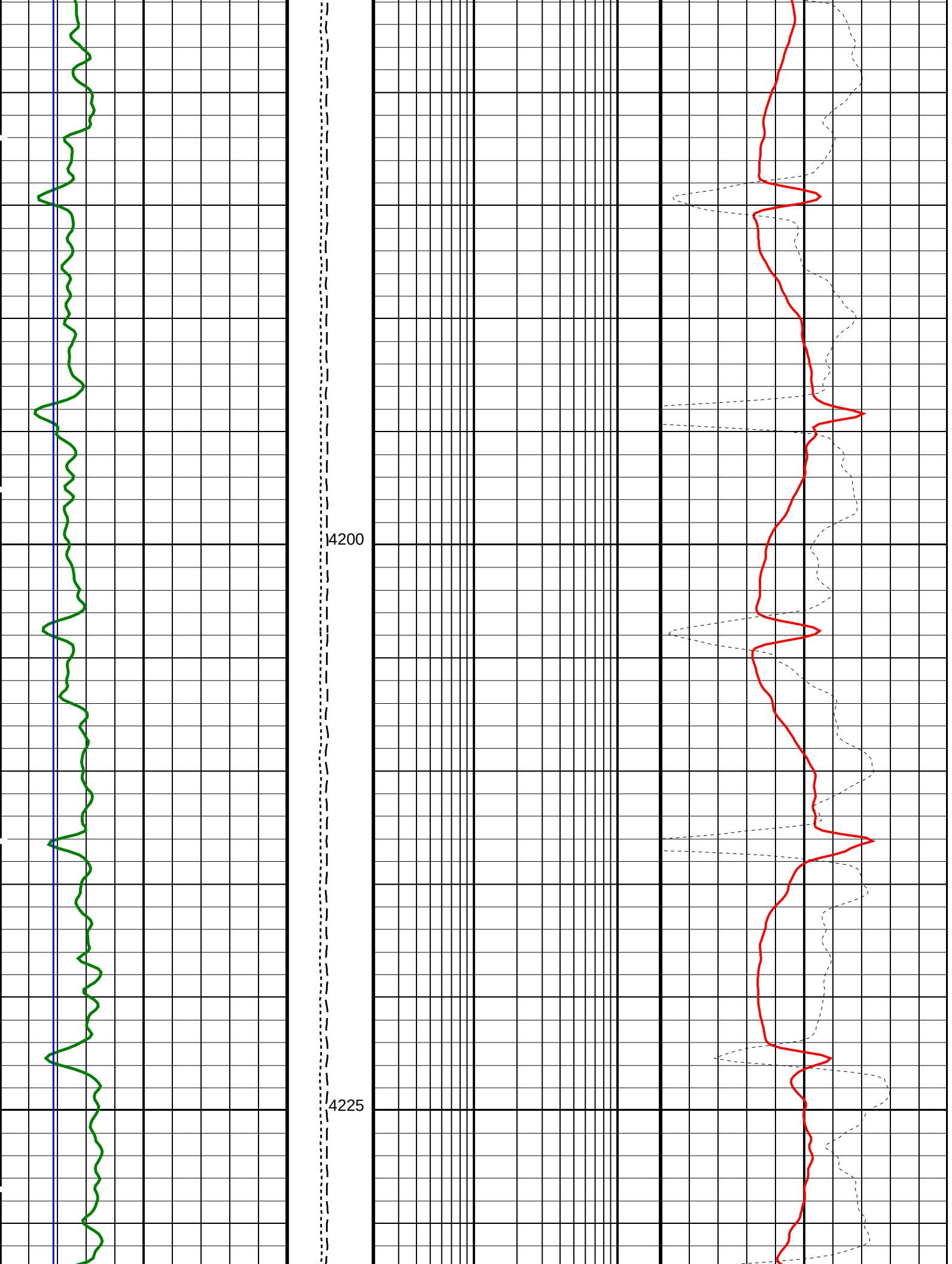

3900
3925
3950

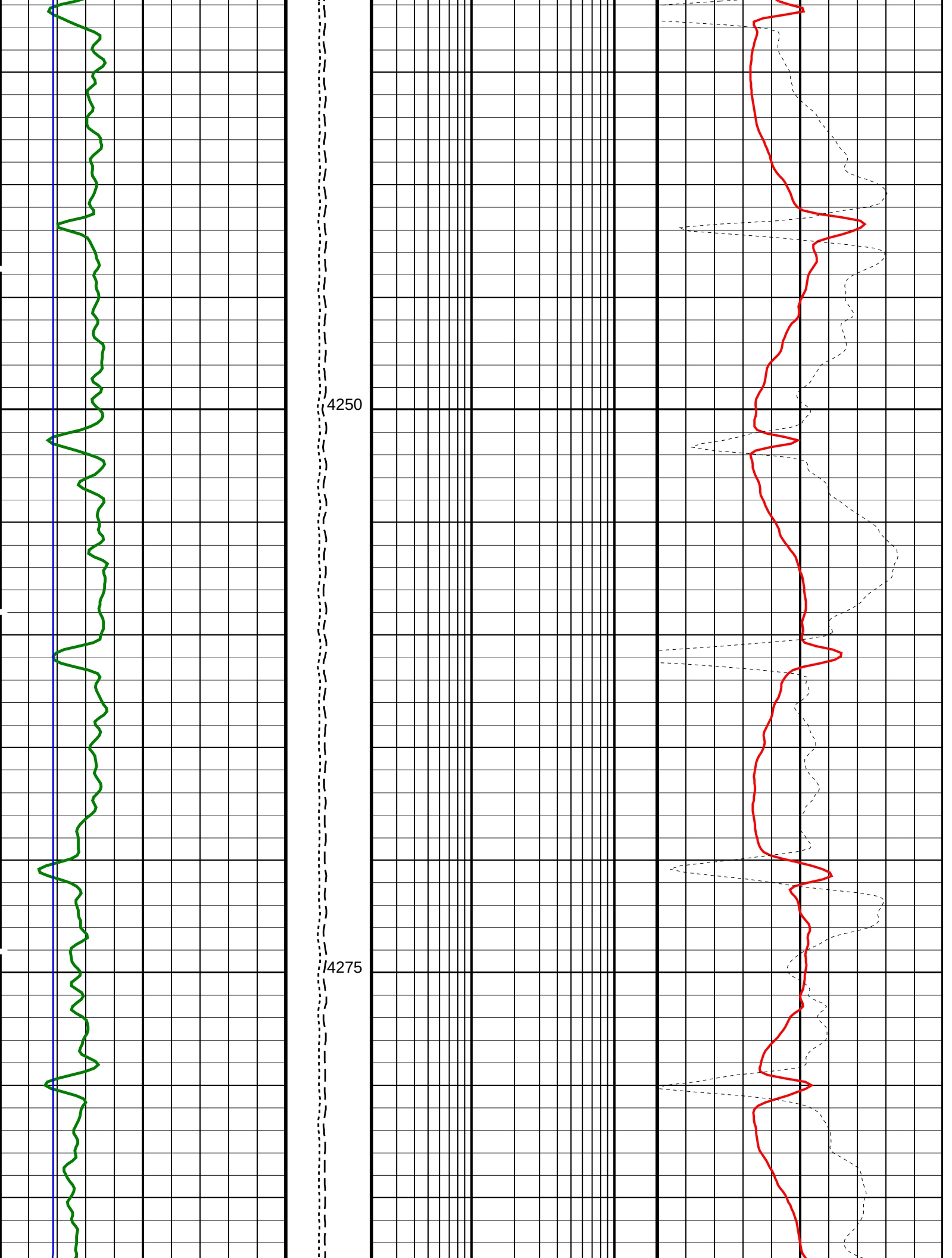

3975
4000

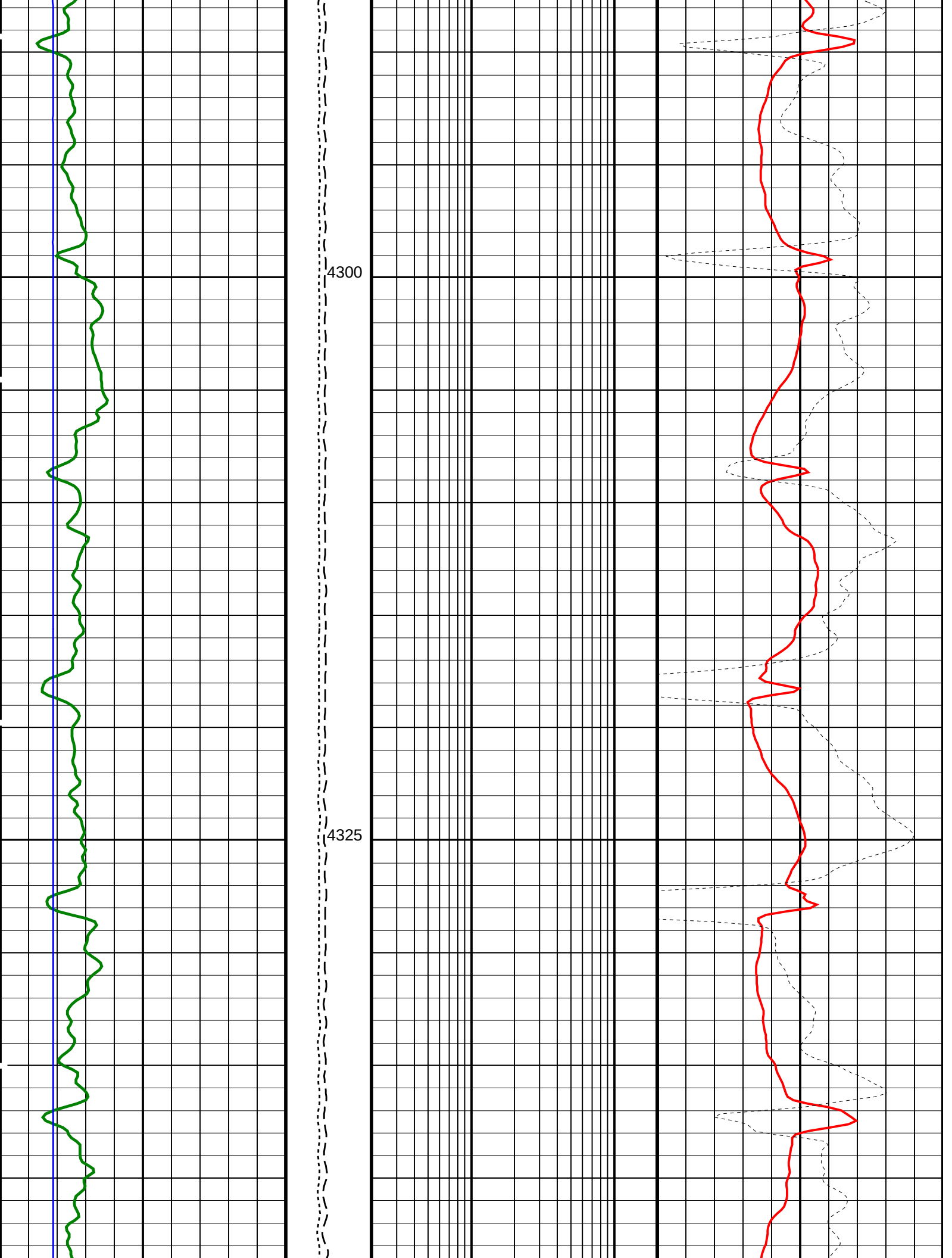

4025
4050

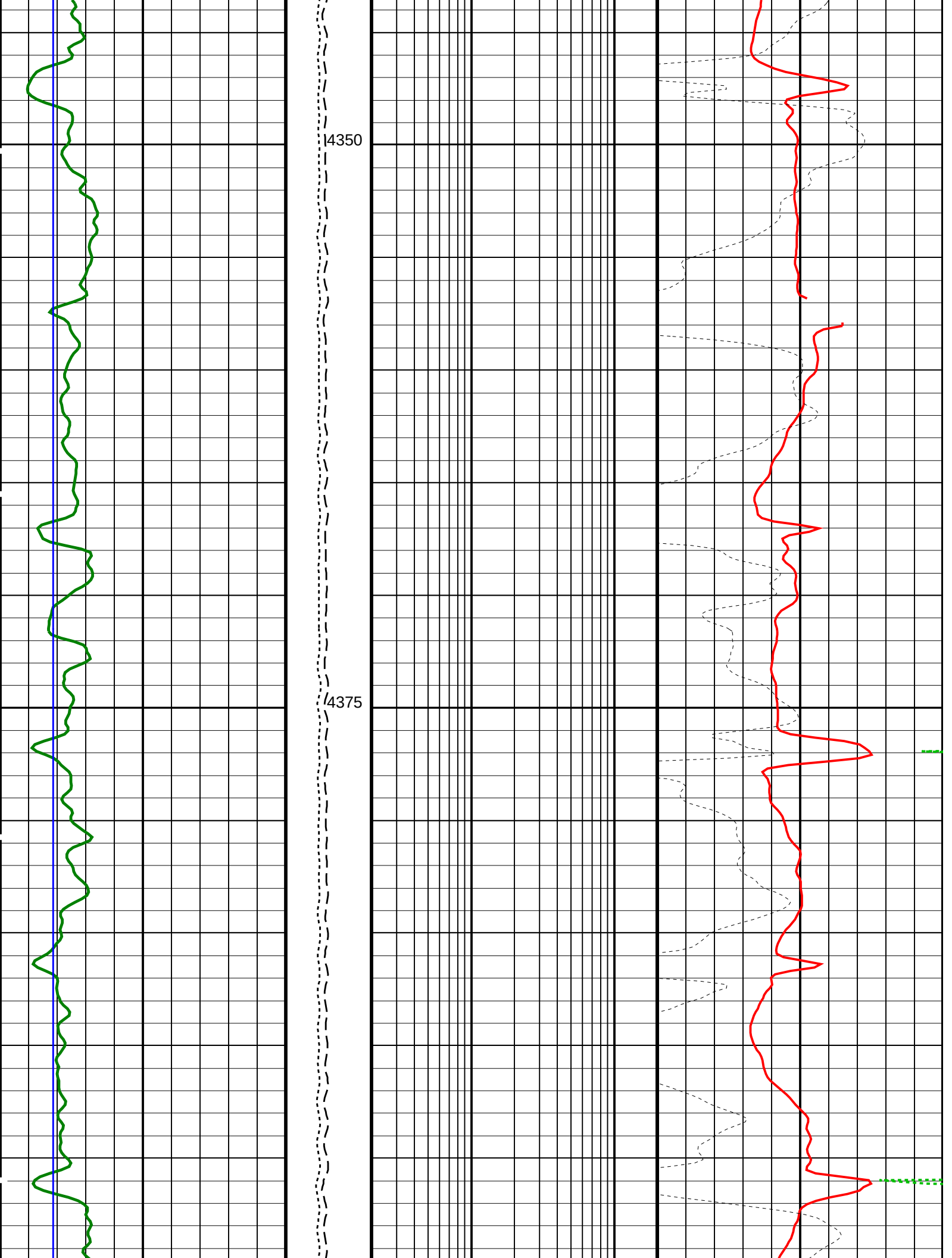

4075
4100

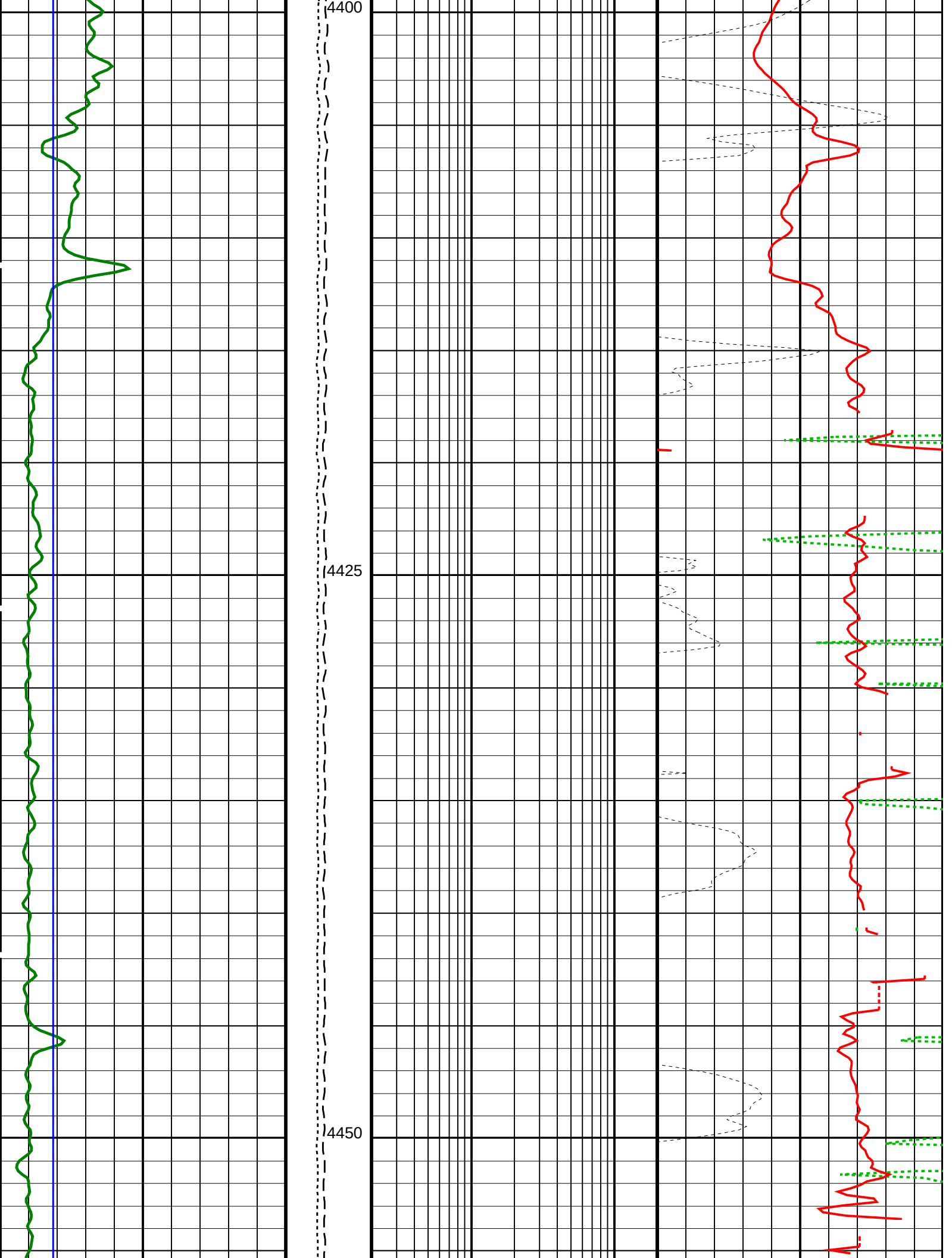

4125
4150
4175

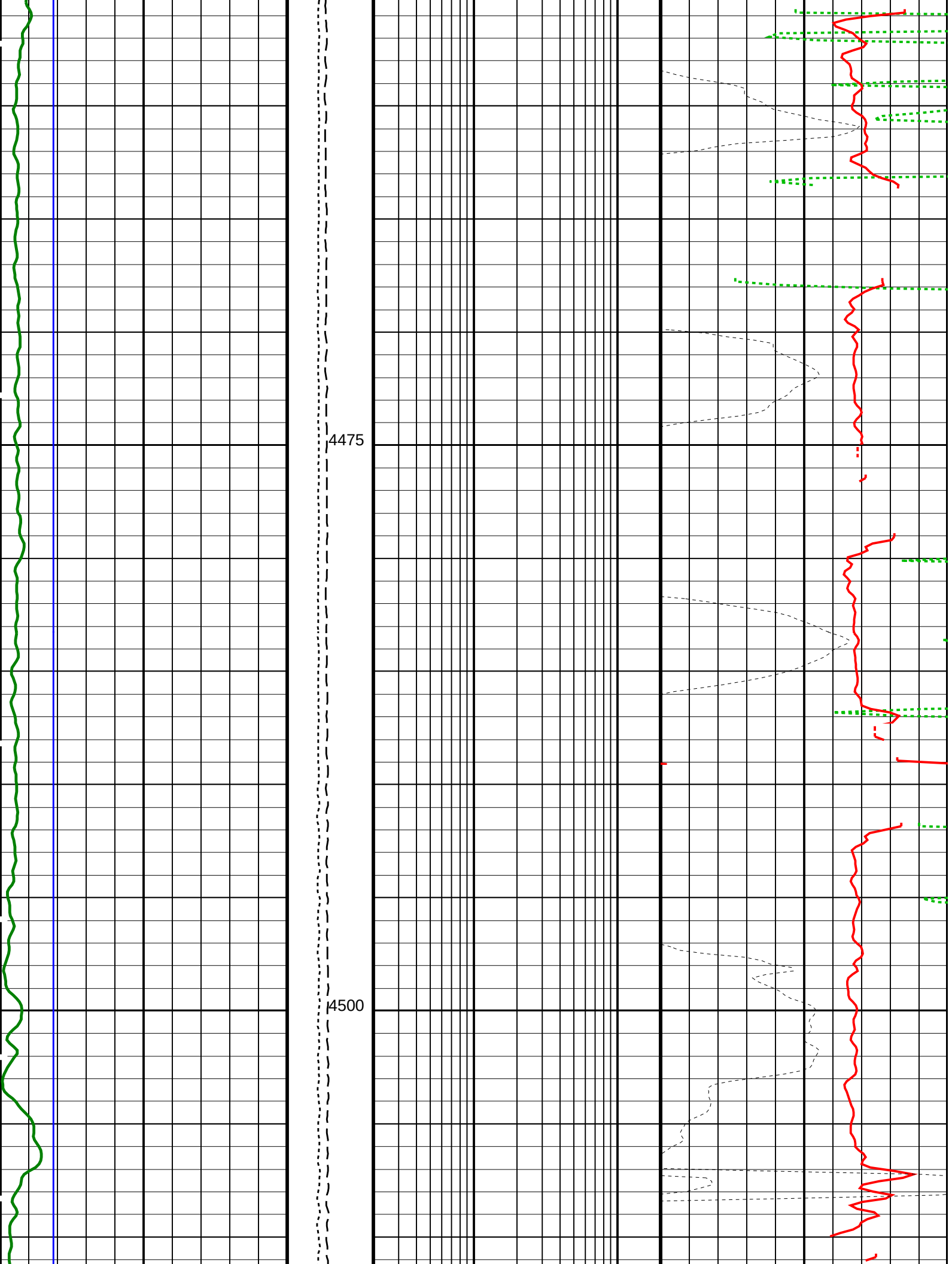

4200
4225

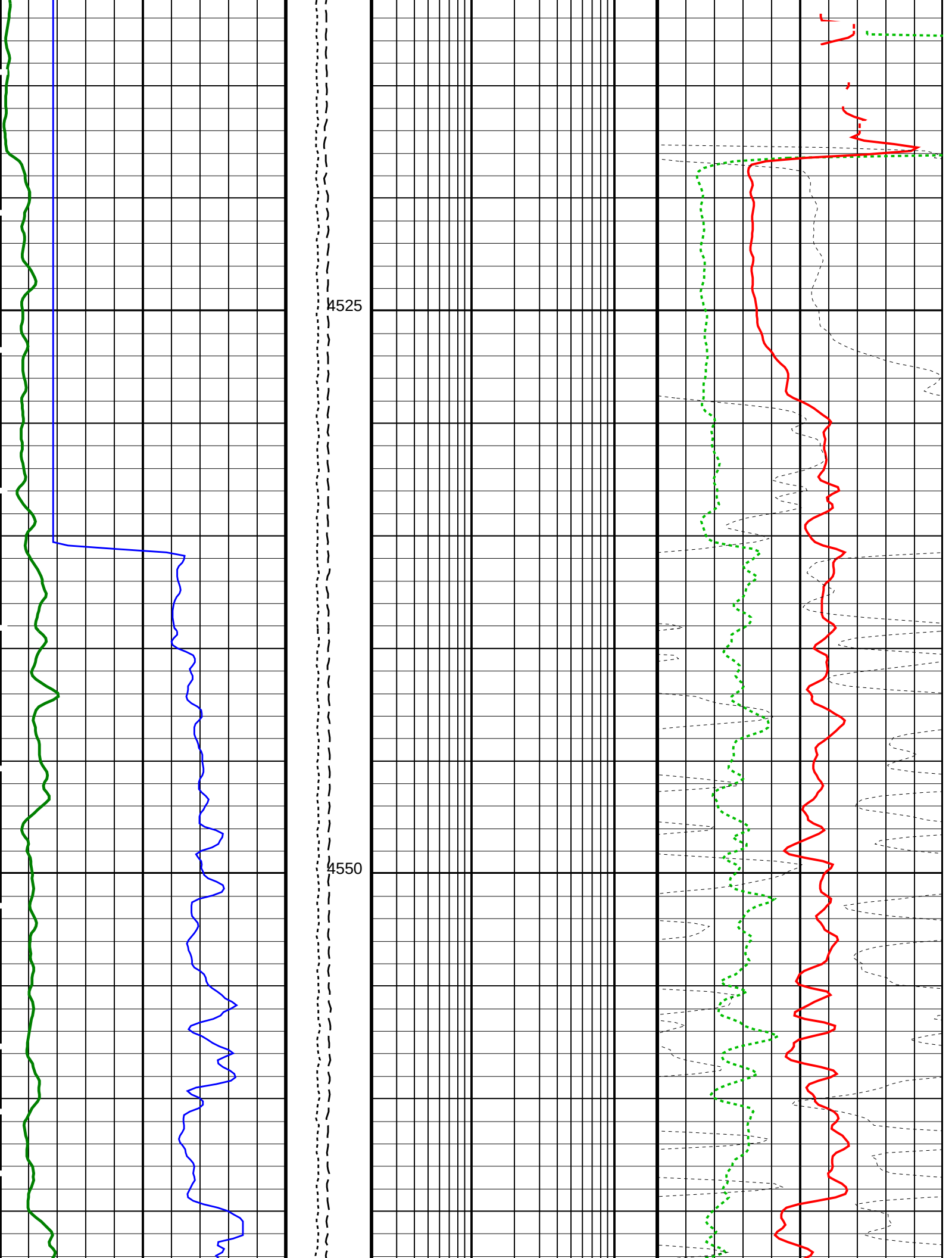

4250
4275

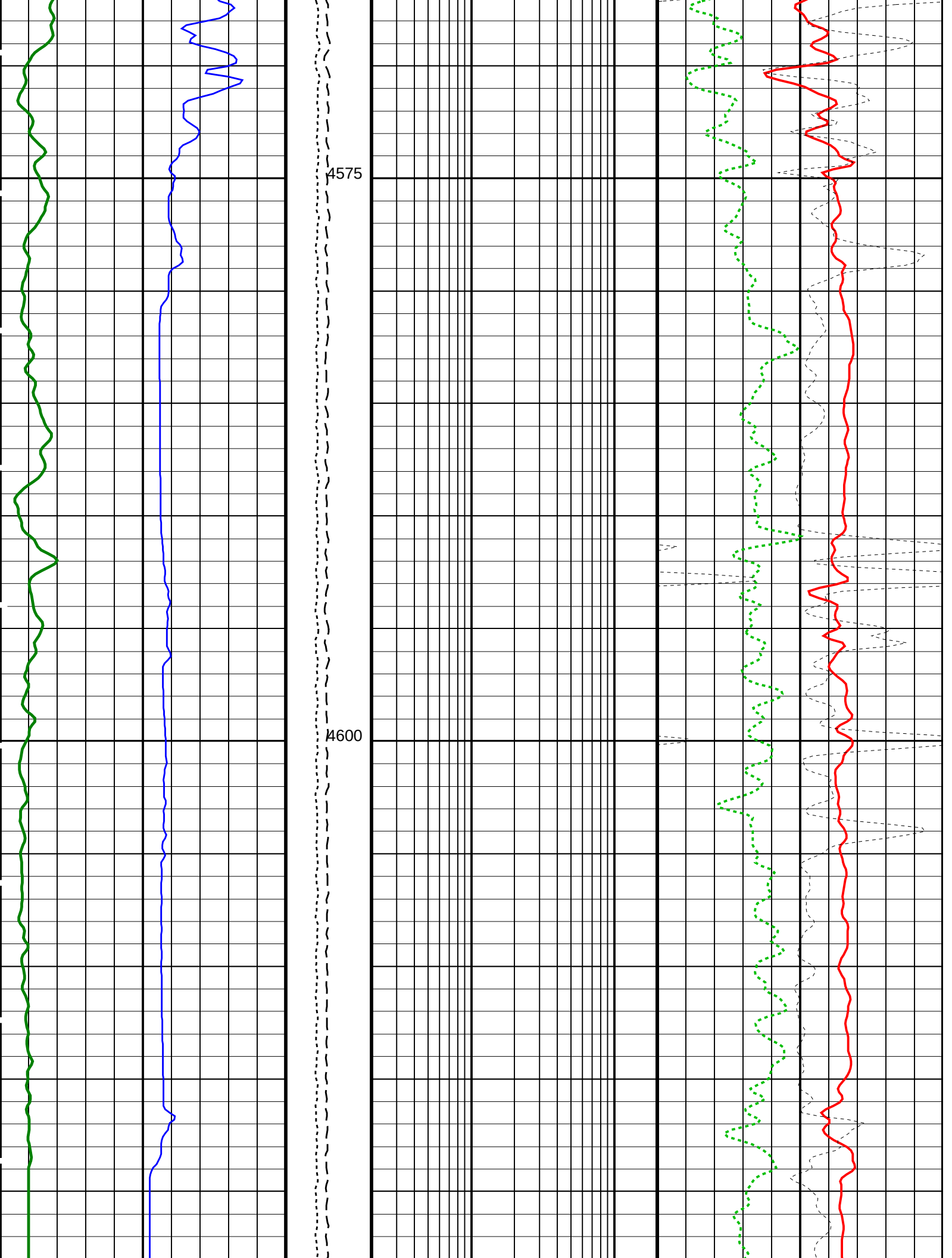

4300
4325

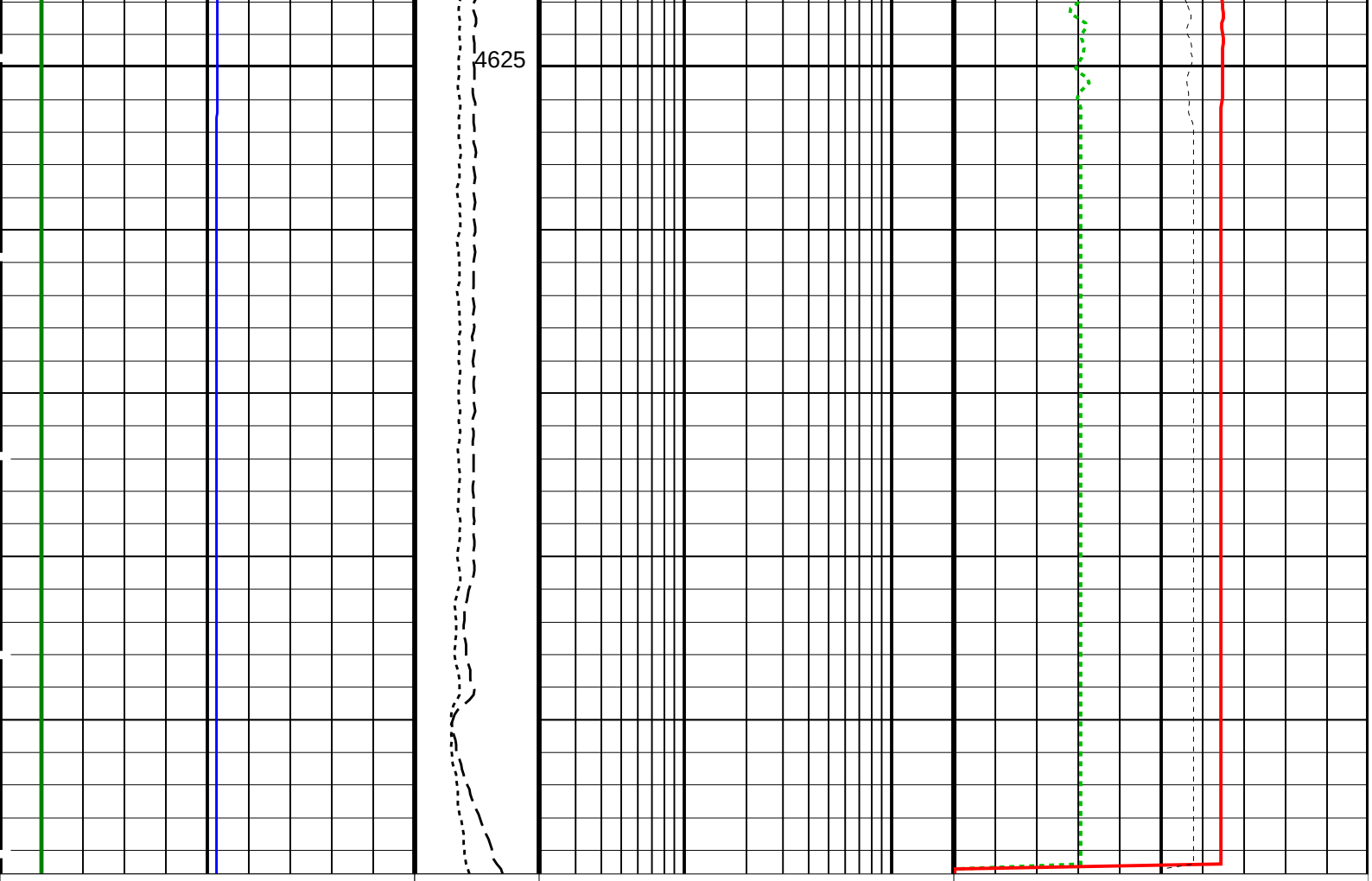

4350
4375


4400
4425
4450


4475
4500


4525
4550


4575
4600




| HLDS Caliper (LCAL) | Tension (TENS) | HLDS Long Spaced Photoelectric Effect (PEFL) |
|---|---|---|
| 0 (IN) 20 | 10000 0 | 0 (−−−−) 10 |
| **HNGS Spectroscopy Gamma Ray (HSGR)** | **Calibrated Downhole Force (CDF)** | **HLDS Bulk Density (RHOM)** |
| 0 (GAPI) 100 | 3000 (LBF) 0 | 0 (G/C3) 4 |
| | | **HLDS Bulk Density Correction (DRH)** |
| | | −0.25 (G/C3) 0.25 |

**PIP SUMMARY**

**Time Mark Every 60 S**

## Parameters

| DLIS Name | Description | Value | |
|---|---|---|---|
| | **DSST−B: Dipole Shear Imager − B** | | |
| AGC1 | Automatic Gain Control 1 | ON | |
| AGC2 | Automatic Gain Control 2 | ON | |
| AGC3 | Automatic Gain Control 3 | ON | |
| AGC4 | Automatic Gain Control 4 | ON | |
| AGC5 | Automatic Gain Control 5 | ON | |
| AGCX | Automatic Gain Control X | ON | |
| BARS_MTR1 | Length for Monopole Transmitter to Receiver 1 | 2.7432 | M |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CASF | Label Casing Function − Monopole P&S | 50 | |
| CDTS | C−Delta−T Shale | 100 | US/F |
| COLL | Label Slowness Lower Limit − Monopole P&S Compressional | 65 | US/F |
| COUL | Label Slowness Upper Limit − Monopole P&S Compressional | 185 | US/F |
| DDE1 | Digitizing Delay 1 | 0 | US |
| DDE2 | Digitizing Delay 2 | 0 | US |
| DDE3 | Digitizing Delay 3 | 0 | US |
| DDE4 | Digitizing Delay 4 | 0 | US |
| DDE5 | Digitizing Delay 5 | 0 | US |

| | | | |
|---|---|---|---|
| DDE5 | Digitizing Delay 5 | 0 | US |
| DDEX | Digitizing Delay X | 0 | US |
| DLCS | Label Compressional Source − Dipole Shear | USE | |
| DLHS | Label Hole Diameter Source for SOBS Channel | AUTO | |
| DSHL | Label Slowness Lower Limit − Dipole Shear | 40 | US/F |
| DSHU | Label Slowness Upper Limit − Dipole Shear | 640 | US/F |
| DSI1 | Digitizer Sample Interval 1 | 40 | US |
| DSI2 | Digitizer Sample Interval 2 | 40 | US |
| DSI3 | Digitizer Sample Interval 3 | 10 | US |
| DSI4 | Digitizer Sample Interval 4 | 10 | US |
| DSI5 | Digitizer Sample Interval 5 | 10 | US |
| DSIX | Digitizer Sample Interval X | 40 | US |
| DTCS | Compressional Delta−T Source for DTCO Channel | PS_COMP | |
| DTF | Delta−T Fluid | 193 | US/F |
| DTM | Delta−T Matrix | 56 | US/F |
| DTSS | Shear Delta−T Source for DTSM Channel | LOWER_DIPOLE | |
| DWC1 | Digitizer Word Count 1 | 512 | |
| DWC2 | Digitizer Word Count 2 | 512 | |
| DWC3 | Digitizer Word Count 3 | 512 | |
| DWC4 | Digitizer Word Count 4 | 512 | |
| DWC5 | Digitizer Word Count 5 | 512 | |
| DWCX | Digitizer Word Count X | 512 | |
| FDE1 | Firing Delay 1 | 0 | |
| FDE2 | Firing Delay 2 | 0 | |
| FDE3 | Firing Delay 3 | 0 | |
| FDE4 | Firing Delay 4 | 0 | |
| FDE5 | Firing Delay 5 | 0 | |
| FDEX | Firing Delay X | 0 | |
| FGM5 | First Motion Gate Moveout 5 | 40 | US/F |
| FGMX | First Motion Gate Moveout X | 40 | US/F |
| FILG | Label Fill Gap Control − Monopole P&S | COMP_SHEAR | |
| FMG5 | First Motion Minimum Gate 5 | 500 | US |
| FMGX | First Motion Minimum Gate X | 500 | US |
| FMLL | Slowness Lower Limit − FMD | 40 | US/F |
| FMRC | Restart Control − FMD | CONTINUE | |
| FMT5 | First Motion Threshold 5 | UP | |
| FMTX | First Motion Threshold X | NONE | |
| FMUL | Slowness Upper Limit − FMD | 180 | US/F |
| FNC5 | First Motion Noise Counter Input 5 | ALO | |
| FNCX | First Motion Noise Counter Input X | ALO | |
| FPM | Processing Mode − FMD | NONE | |
| FTD5 | First Motion Threshold Direction 5 | UP | |
| FTDX | First Motion Threshold Direction X | UP | |
| GAI1 | Manual Gain 1 | 10 | |
| GAI2 | Manual Gain 2 | 10 | |
| GAI3 | Manual Gain 3 | 10 | |
| GAI4 | Manual Gain 4 | 16 | |
| GAI5 | Manual Gain 5 | 16 | |
| GAIX | Manual Gain X | 10 | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GDT1 | Gain Delta−T 1 | 800 | US/F |
| GDT2 | Gain Delta−T 2 | 800 | US/F |
| GDT3 | Gain Delta−T 3 | 800 | US/F |
| GDT4 | Gain Delta−T 4 | 160 | US/F |
| GDT5 | Gain Delta−T 5 | 160 | US/F |
| GDTX | Gain Delta−T X | 800 | US/F |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GIN1 | Gain Interval 1 | 15360 | US |
| GIN2 | Gain Interval 2 | 15360 | US |
| GIN3 | Gain Interval 3 | 15360 | US |
| GIN4 | Gain Interval 4 | 2560 | US |
| GIN5 | Gain Interval 5 | 1600 | US |
| GINX | Gain Interval X | 15360 | US |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HPF1 | High Pass Filter 1 | F80 | |
| HPF2 | High Pass Filter 2 | F80 | |
| HPF3 | High Pass Filter 3 | F80 | |
| HPF4 | High Pass Filter 4 | F8K | |
| HPF5 | High Pass Filter 5 | F8K | |
| HPFX | High Pass Filter X | F80 | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ITTS | Integrated Transit Time Source | DTCO | |
| LFC | Label Formation Character − Monopole P&S | DYNAMIC | |
| LPF1 | Low Pass Filter 1 | F5K | |
| LPF2 | Low Pass Filter 2 | F5K | |
| LPF3 | Low Pass Filter 3 | F5K | |
| LPF4 | Low Pass Filter 4 | F30K | |
| LPF5 | Low Pass Filter 5 | F30K | |
| LPFX | Low Pass Filter X | F5K | |
| LTXG | Lower Dipole Transmitter Geometry | 156 | IN |
| MAI5 | Slowness Averaging Interval − FMD | 42 | IN |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCS | Mean Casing Slowness | 57 | US/F |

| | | | |
|---|---|---|---|
| MDS5 | Multishot Delta−T Scatter − FMD | 20 | US |
| MTXG | Monopole Transmitter Geometry | 186 | IN |
| MUX1 | Sum Difference Multiplexor Input 1 | RR | |
| MUX2 | Sum Difference Multiplexor Input 2 | RR | |
| MUX3 | Sum Difference Multiplexor Input 3 | RR | |
| MUX4 | Sum Difference Multiplexor Input 4 | RR | |
| MUX5 | Sum Difference Multiplexor Input 5 | RR | |
| MUXX | Sum Difference Multiplexor Input X | RR | |
| NTI5 | Number Threshold Items 5 | 0 | |
| NTIX | Number Threshold Items X | 0 | |
| NWI1 | Number Waveform Items 1 | 8 | |
| NWI2 | Number Waveform Items 2 | 8 | |
| NWI3 | Number Waveform Items 3 | 0 | |
| NWI4 | Number Waveform Items 4 | 8 | |
| NWI5 | Number Waveform Items 5 | 0 | |
| NWIX | Number Waveform Items X | 0 | |
| NWS1 | Number Waveforms Stacked 1 | 1 | |
| NWS2 | Number Waveforms Stacked 2 | 1 | |
| NWS3 | Number Waveforms Stacked 3 | 1 | |
| NWS4 | Number Waveforms Stacked 4 | 1 | |
| NWS5 | Number Waveforms Stacked 5 | 1 | |
| NWSX | Number Waveforms Stacked X | 1 | |
| RATE | Firing Rate | R7 | |
| RSMN | Label Shear/Compressional Minimum Ratio − Monopole P&S | 1.4 | |
| RSMX | Label Shear/Compressional Maximum Ratio − Monopole P&S | 2.12 | |
| RX1G | Receiver 1 Geometry | 294 | IN |
| RX2G | Receiver 2 Geometry | 300 | IN |
| RX3G | Receiver 3 Geometry | 306 | IN |
| RX4G | Receiver 4 Geometry | 312 | IN |
| RX5G | Receiver 5 Geometry | 318 | IN |
| RX6G | Receiver 6 Geometry | 324 | IN |
| RX7G | Receiver 7 Geometry | 330 | IN |
| RX8G | Receiver 8 Geometry | 336 | IN |
| SAM1 | DSST Sonic Acquisition Mode 1 − Lower Dipole Mode | EVEN | |
| SAM2 | DSST Sonic Acquisition Mode 2 − Upper Dipole Mode | ODD | |
| SAM3 | DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley | OFF | |
| SAM4 | DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S | EVEN | |
| SAM5 | DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD | OFF | |
| SAMX | DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert | OFF | |
| SAS1 | STC Sonic Array Status − Lower Dipole | 255 | |
| SAS2 | STC Sonic Array Status − Upper Dipole | 255 | |
| SAS3 | STC Sonic Array Status − Monopole Stoneley | 255 | |
| SAS4 | STC Sonic Array Status − Monopole P&S | 255 | |
| SAS5 | Sonic Array Status − FMD | 255 | |
| SBO1 | STC Search Band Offset − Lower Dipole | 3000 | US |
| SBO2 | STC Search Band Offset − Upper Dipole | 3000 | US |
| SBO3 | STC Search Band Offset − Monopole Stoneley | 3000 | US |
| SBO4 | STC Search Band Offset − Monopole P&S | 500 | US |
| SBR4 | STC Baseline Removal − Monopole P&S | ON | |
| SBW1 | STC Search Bandwidth − Lower Dipole | 8000 | US |
| SBW2 | STC Search Bandwidth − Upper Dipole | 8000 | US |
| SBW3 | STC Search Bandwidth − Monopole Stoneley | 8000 | US |
| SBW4 | STC Search Bandwidth − Monopole P&S | 2000 | US |
| SFC1 | STC Formation Character − Lower Dipole | SELECTABLE | |
| SFC2 | STC Formation Character − Upper Dipole | SELECTABLE | |
| SFC3 | STC Formation Character − Monopole Stoneley | SELECTABLE | |
| SFC4 | STC Formation Character − Monopole P&S | SELECTABLE | |
| SFM1 | STC Filter − Lower Dipole | B1−3K | |
| SFM2 | STC Filter − Upper Dipole | B1−2K | |
| SFM3 | STC Filter − Monopole Stoneley | B.5−1.5K | |
| SFM4 | STC Filter − Monopole P&S | B3−20K | |
| SHLL | Label Slowness Lower Limit − Monopole P&S Shear | 235 | US/F |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SHUL | Label Slowness Upper Limit − Monopole P&S Shear | 240 | US/F |
| SLL1 | STC Slowness Lower Limit − Lower Dipole | 40 | US/F |
| SLL2 | STC Slowness Lower Limit − Upper Dipole | 40 | US/F |
| SLL3 | STC Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| SLL4 | STC Slowness Lower Limit − Monopole P&S | 40 | US/F |
| SPFS | Sonic Porosity Formula | RAYMER_HUNT | |
| SPSO | Sonic Porosity Source | DTCO | |
| SST1 | STC Slowness Step − Lower Dipole | 4 | US/F |
| SST2 | STC Slowness Step − Upper Dipole | 4 | US/F |
| SST3 | STC Slowness Step − Monopole Stoneley | 4 | US/F |
| SST4 | STC Slowness Step − Monopole P&S | 2 | US/F |
| SSW1 | STC Source Waveform − Lower Dipole | WF_SAM1 | |
| SSW2 | STC Source Waveform − Upper Dipole | WF_SAM2 | |
| SSW3 | STC Source Waveform − Monopole Stoneley | WF_SAM3 | |
| SSW4 | STC Source Waveform − Monopole P&S | WF_SAM4 | |
| STLL | Label Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| STUL | Label Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL1 | STC Slowness Upper Limit − Lower Dipole | 640 | US/F |
| SUL2 | STC Slowness Upper Limit − Upper Dipole | 640 | US/F |
| SUL3 | STC Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL4 | STC Slowness Upper Limit − Monopole P&S | 240 | US/F |

| | | | |
|---|---|---|---|
| SWD1 | STC Slowness Width − Lower Dipole | 40 | US/F |
| SWD2 | STC Slowness Width − Upper Dipole | 40 | US/F |
| SWD3 | STC Slowness Width − Monopole Stoneley | 40 | US/F |
| SWD4 | STC Slowness Width − Monopole P&S | 10 | US/F |
| TBDB | Tool String Bottom to DSST Bottom | 95.25 | IN |
| TBF1 | STC Time for Baseline Fill − Lower Dipole | 0 | US |
| TBF2 | STC Time for Baseline Fill − Upper Dipole | 0 | US |
| TBF3 | STC Time for Baseline Fill − Monopole Stoneley | 0 | US |
| TBF4 | STC Time for Baseline Fill − Monopole P&S | 300 | US |
| TLL1 | STC Time Lower Limit − Lower Dipole | 600 | US |
| TLL2 | STC Time Lower Limit − Upper Dipole | 600 | US |
| TLL3 | STC Time Lower Limit − Monopole Stoneley | 600 | US |
| TLL4 | STC Time Lower Limit − Monopole P&S | 150 | US |
| TST1 | STC Time Step − Lower Dipole | 200 | US |
| TST2 | STC Time Step − Upper Dipole | 200 | US |
| TST3 | STC Time Step − Monopole Stoneley | 200 | US |
| TST4 | STC Time Step − Monopole P&S | 50 | US |
| TTDB | Tool String Top to DSST Bottom | 1348.6 | IN |
| TUL1 | STC Time Upper Limit − Lower Dipole | 14360 | US |
| TUL2 | STC Time Upper Limit − Upper Dipole | 14040 | US |
| TUL3 | STC Time Upper Limit − Monopole Stoneley | 12000 | US |
| TUL4 | STC Time Upper Limit − Monopole P&S | 3660 | US |
| TWA1 | Transmitter Waveform Amplitude 1 | 179 | |
| TWA2 | Transmitter Waveform Amplitude 2 | 179 | |
| TWA3 | Transmitter Waveform Amplitude 3 | 179 | |
| TWA4 | Transmitter Waveform Amplitude 4 | 150 | |
| TWA5 | Transmitter Waveform Amplitude 5 | 150 | |
| TWAX | Transmitter Waveform Amplitude X | 179 | |
| TWD1 | STC Time Width − Lower Dipole | 2000 | US |
| TWD2 | STC Time Width − Upper Dipole | 2000 | US |
| TWD3 | STC Time Width − Monopole Stoneley | 2000 | US |
| TWD4 | STC Time Width − Monopole P&S | 1000 | US |
| TWI1 | STC Integration Time Window − Lower Dipole | 1600 | US |
| TWI2 | STC Integration Time Window − Upper Dipole | 1600 | US |
| TWI3 | STC Integration Time Window − Monopole Stoneley | 2400 | US |
| TWI4 | STC Integration Time Window − Monopole P&S | 500 | US |
| TWR1 | Transmitter Waveform Sample Rate 1 | 5 | US |
| TWR2 | Transmitter Waveform Sample Rate 2 | 5 | US |
| TWR3 | Transmitter Waveform Sample Rate 3 | 5 | US |
| TWR4 | Transmitter Waveform Sample Rate 4 | 5 | US |
| TWR5 | Transmitter Waveform Sample Rate 5 | 5 | US |
| TWRX | Transmitter Waveform Sample Rate X | 5 | US |
| TWS1 | Transmitter Waveform Select 1 | 0 | |
| TWS2 | Transmitter Waveform Select 2 | 0 | |
| TWS3 | Transmitter Waveform Select 3 | 0 | |
| TWS4 | Transmitter Waveform Select 4 | 6 | |
| TWS5 | Transmitter Waveform Select 5 | 6 | |
| TWSX | Transmitter Waveform Select X | 0 | |
| UTXG | Upper Dipole Transmitter Geometry | 162 | IN |
| WFDTSP1 | SAM1 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP2 | SAM2 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP3 | SAM3 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP4 | SAM4 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSPX | SAMX Waveform Delta for Spectrum | 0 | US/F |
| WFLLSP1 | SAM1 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP2 | SAM2 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP3 | SAM3 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP4 | SAM4 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSPX | SAMX Waveform Lower Limit for Spectrum | 0 | US |
| WFM1 | Waveform Mode 1 | W1 | |
| WFM2 | Waveform Mode 2 | W1 | |
| WFM3 | Waveform Mode 3 | W1 | |
| WFM4 | Waveform Mode 4 | W1 | |
| WFM5 | Waveform Mode 5 | W1 | |
| WFMX | Waveform Mode X | W1 | |
| WFULSP1 | SAM1 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP2 | SAM2 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP3 | SAM3 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP4 | SAM4 Waveform Upper Limit for Spectrum | 5000 | US |
| WFULSPX | SAMX Waveform Upper Limit for Spectrum | 20000 | US |
| XMT1 | Transmitter Select 1 | DLO | |
| XMT2 | Transmitter Select 2 | DUP | |
| XMT3 | Transmitter Select 3 | NONE | |
| XMT4 | Transmitter Select 4 | MONO | |
| XMT5 | Transmitter Select 5 | MONO | |
| XMTX | Transmitter Select X | DUP | |

**HLDS: Hostile Litho−Density Sonde**

| | | | |
|---|---|---|---|
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |

| | | | |
|---|---|---|---|
| LATC | HLDS Activation Correction | ON | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1000 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| HNGS−BA: Hostile Natural Gamma Ray Sonde | | | |
| BAR1 | HNGS Detector 1 Barite Constant | 1 | |
| BAR2 | HNGS Detector 2 Barite Constant | 1 | |
| BHK | HNGS Borehole Potassium Correction Concentration | 0 | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CSD1 | Inner Casing Outer Diameter | 10.75 | IN |
| CSD2 | Outer Casing Outer Diameter | 10.75 | IN |
| CSW1 | Inner Casing Weight | 45 | LB/F |
| CSW2 | Outer Casing Weight | 45 | LB/F |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | −0.0011803 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | BARI | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| S1BI | HNGS Detector 1 Calibration Bismuth Count Rate | 1.3 | CPS |
| S2BI | HNGS Detector 2 Calibration Bismuth Count Rate | 1.3 | CPS |
| SGRC | HNGS Standard Gamma−Ray Correction Flag | YES | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 0.990143 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 1.05695 | |
| EDTC−B: Enhanced DTS Cartridge | | | |
| BHFL | Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| BSCO | Borehole Salinity Correction Option | NO | |
| CCCO | Casing & Cement Thickness Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FSAL | Formation Salinity | −50000 | PPM |
| FSCO | Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO | Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ISSBAR_EDTC | Nuclear Mud Type | BARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO | Mud Cake Correction Option | NO | |
| MCOR | Mud Correction | SALT | |
| MWCO | Mud Weight Correction Option | YES | |
| PTCO | Pressure/Temperature Correction Option | NO | |
| SDAT | Standoff Data Source | SOCN | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SOCN | Standoff Distance | 0.5 | IN |
| SOCO | Standoff Correction Option | NO | |
| TPOS_EDTC | EDTC Tool Centered/Eccentered | Eccentered | |
| U−ETELM_EDTS | Telemetry Mode for eWAFE | Standard_EDTS | |
| U−TELM_EDTS | Telemetry Mode for WAFE | Standard_EDTS | |
| System and Miscellaneous | | | |
| ALTDPCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.05 | G/C3 |
| FLEV | Fluid Level | −50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| RMFS | Resistivity of Mud Filtrate Sample | −50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |

| | | | |
|---|---|---|---|
| TD | Total Depth | 5345 | M |
| TDD | Total Depth − Driller | 4695.50 | M |
| TDL | Total Depth − Logger | 4695.50 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

Format: TripleCombo  Vertical Scale: 1:200  Graphics File Created: 13−May−2017 07:20

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## Output DLIS Files

| | | | | | |
|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_013LUP | FN:15 | PRODUCER | 13−May−2017 07:20 | |
| RTB | DSI_LDL_NGS_013LUP | FN:16 | PRODUCER | 13−May−2017 07:20 | |

Company: International Ocean Discovery Program  Well: Expedition 368, Site U1502B

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_013LUP | FN:15 | PRODUCER | 13−May−2017 07:20 | 4649.7 M | 3760.5 M |
| RTB | DSI_LDL_NGS_013LUP | FN:16 | PRODUCER | 13−May−2017 07:20 | 4649.7 M | 3760.5 M |

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

PIP SUMMARY

Time Mark Every 60 S

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)
0 (−−−−) 10

Peak Coherence / RA − P & S Shear (CHRS)
−1 (−−−−) 9

Peak Coherence / RA − P & S Comp (CHRP)
0 (−−−−) 10

Peak Coherence / TA − Upper Dipole (CHT2)
−2 (−−−−) 8

Peak Coherence / RA − Upper Dipole (CHR2)
0 (−−−−) 10

HLDS Caliper (LCAL)
0 (IN) 20

Gamma Ray (GR_EDTC)
0 (GAPI) 100

Poisson's Ratio (PR)
0 (−−−−) 0.5

Sonic Velocity (SVEL)

Min Amplitude Max

1000 (M/S) 6000

Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

Poisson's Ratio (PR)
0 (----) 0.5

Calibrated Downhole Force (CDF) (LBF)
3000 0

Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240

Min Amplitude Max

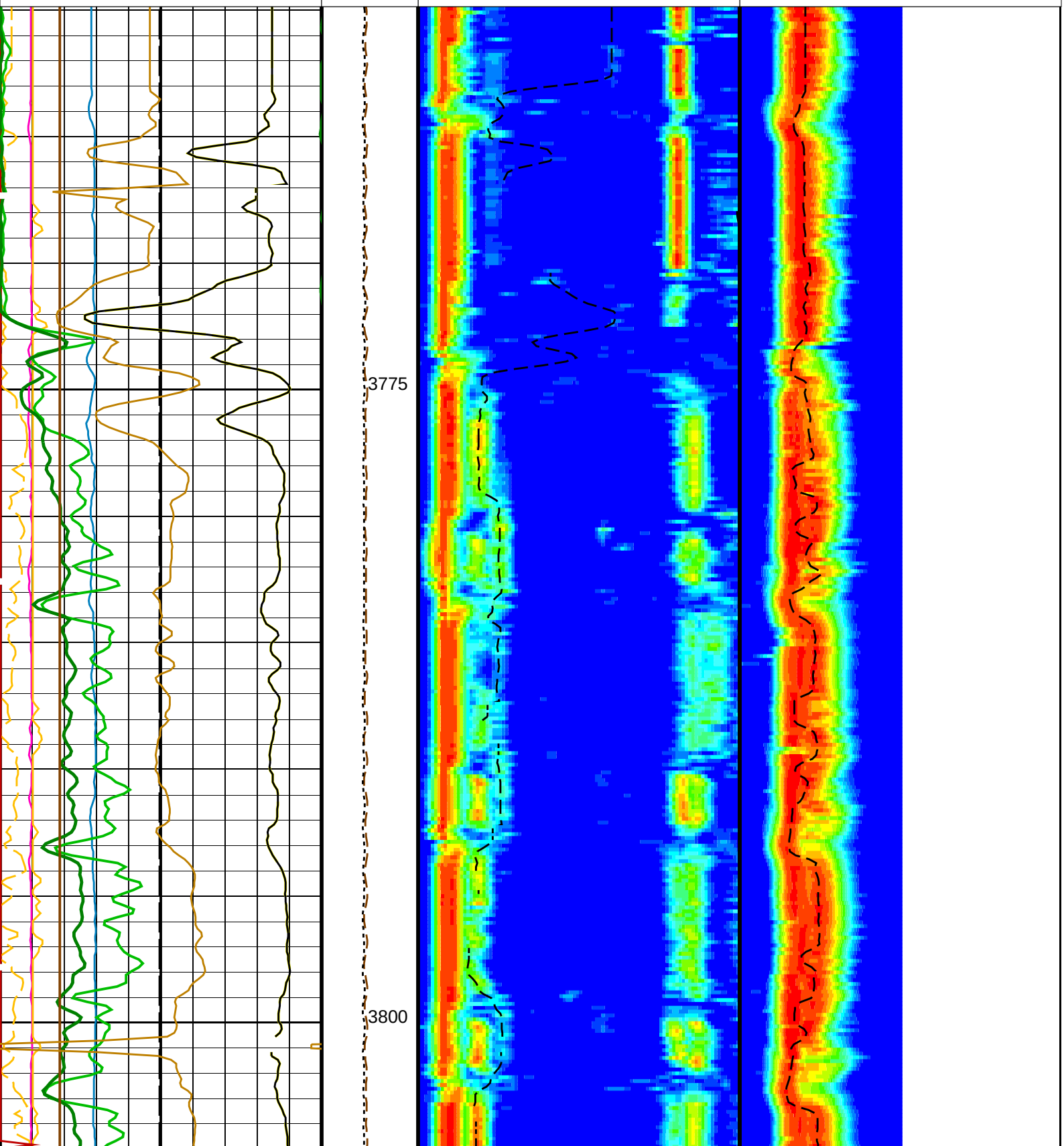
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
75 (US/F) 1200

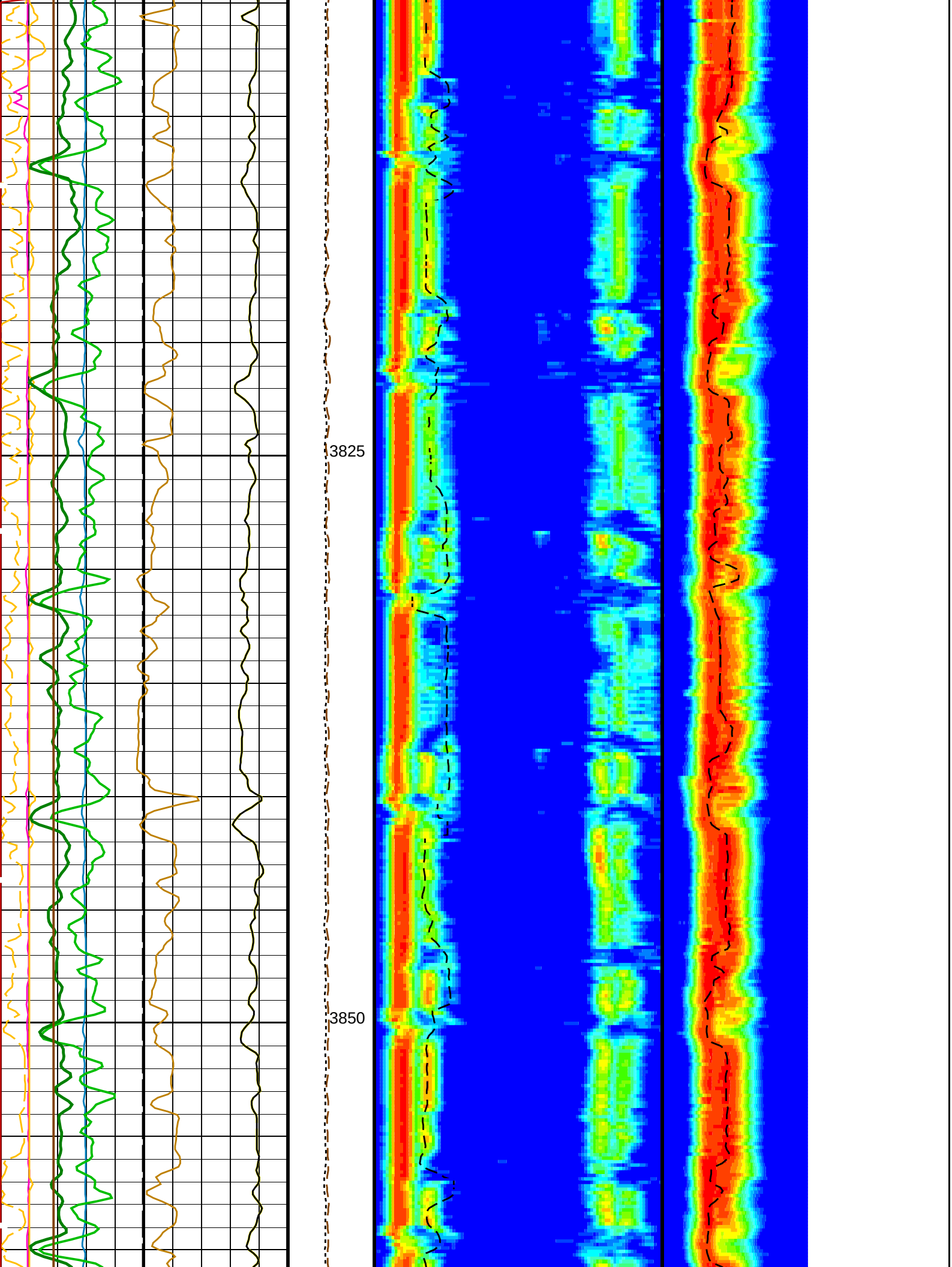
Bit Size (BS)
0 (IN) 20

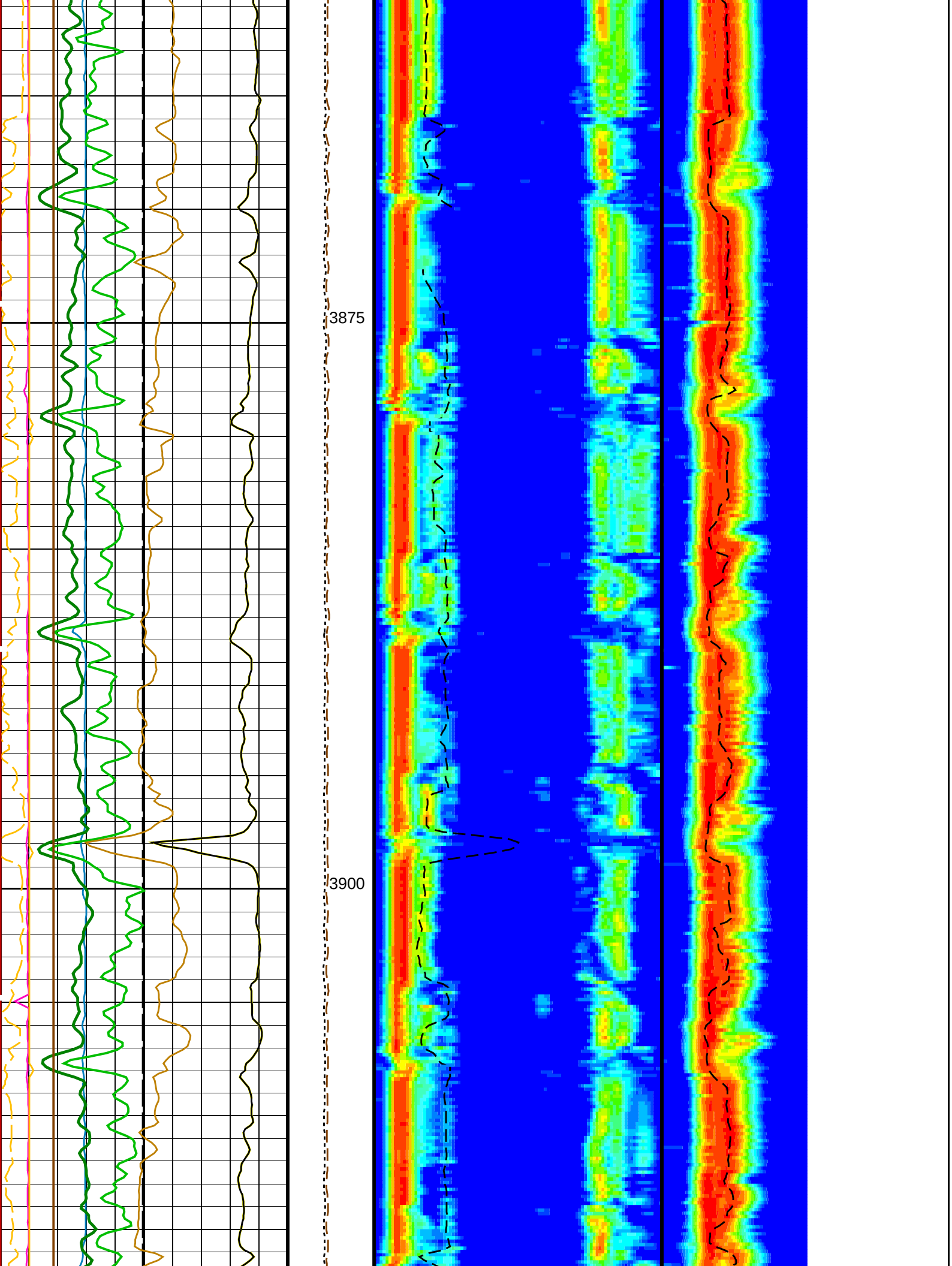
Tension (TENS) (LBF)
10000 0

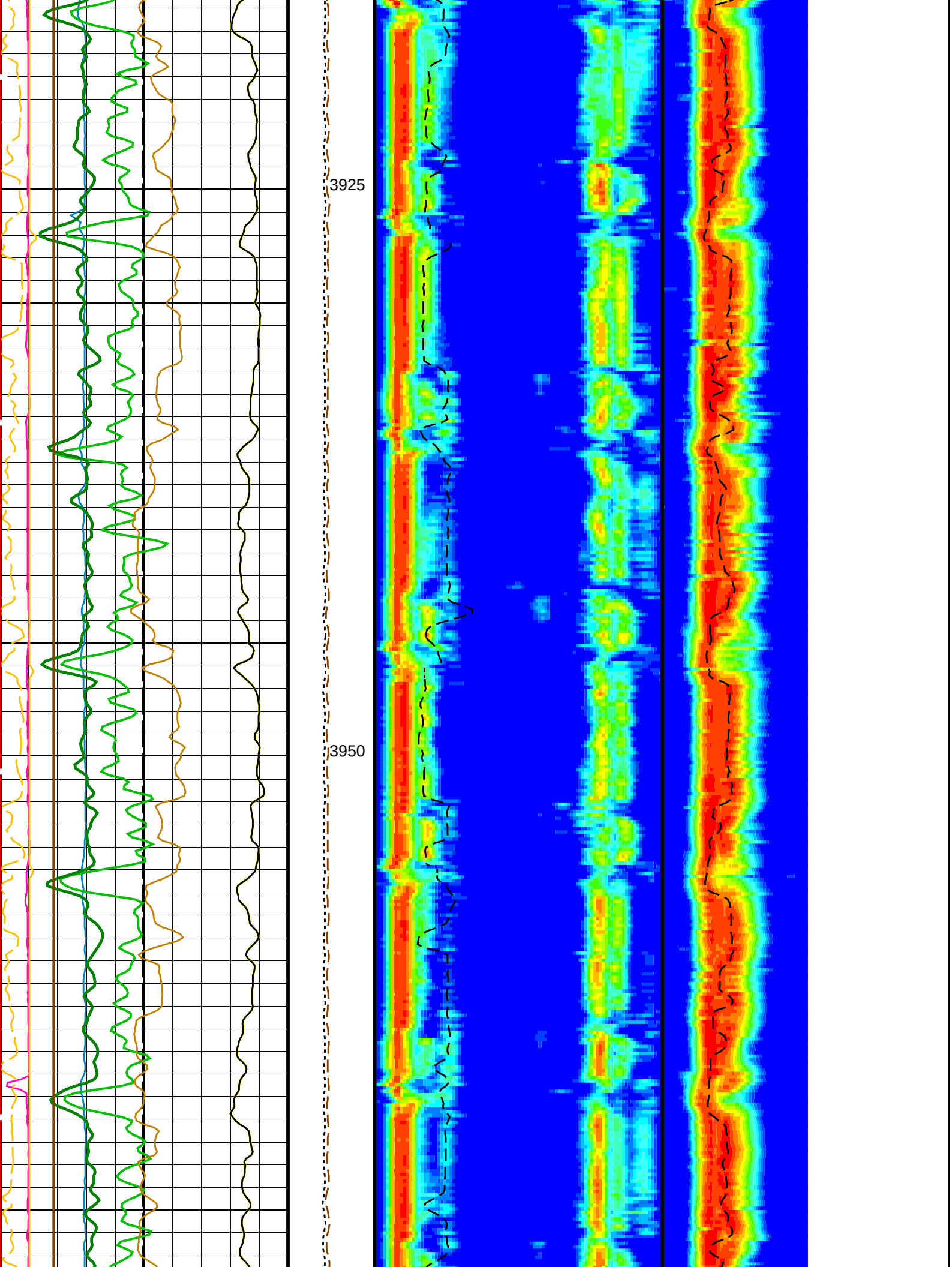
Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

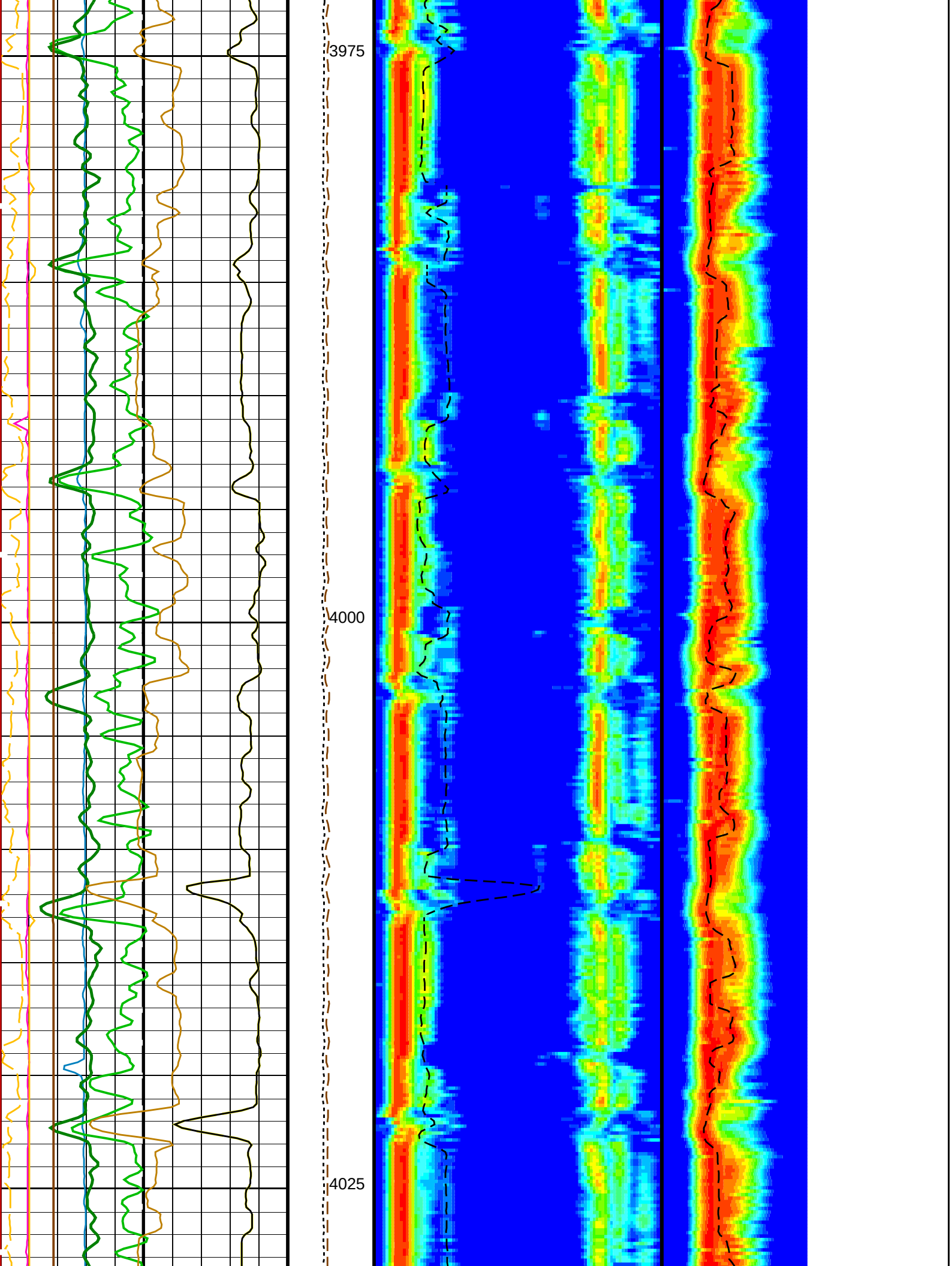
Delta−T Shear / RA − Upper Dipole (DT2R)
75 (US/F) 1200

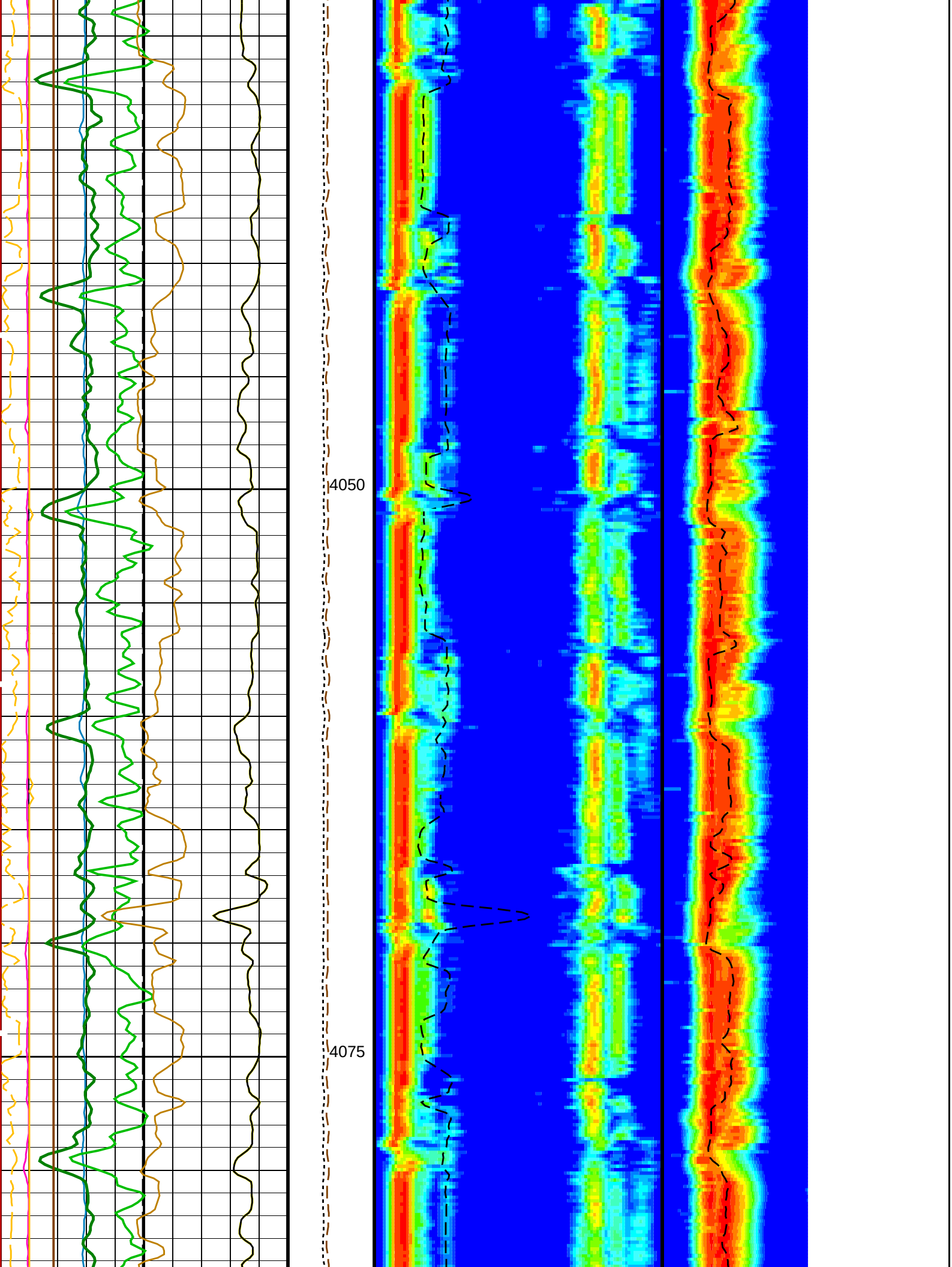


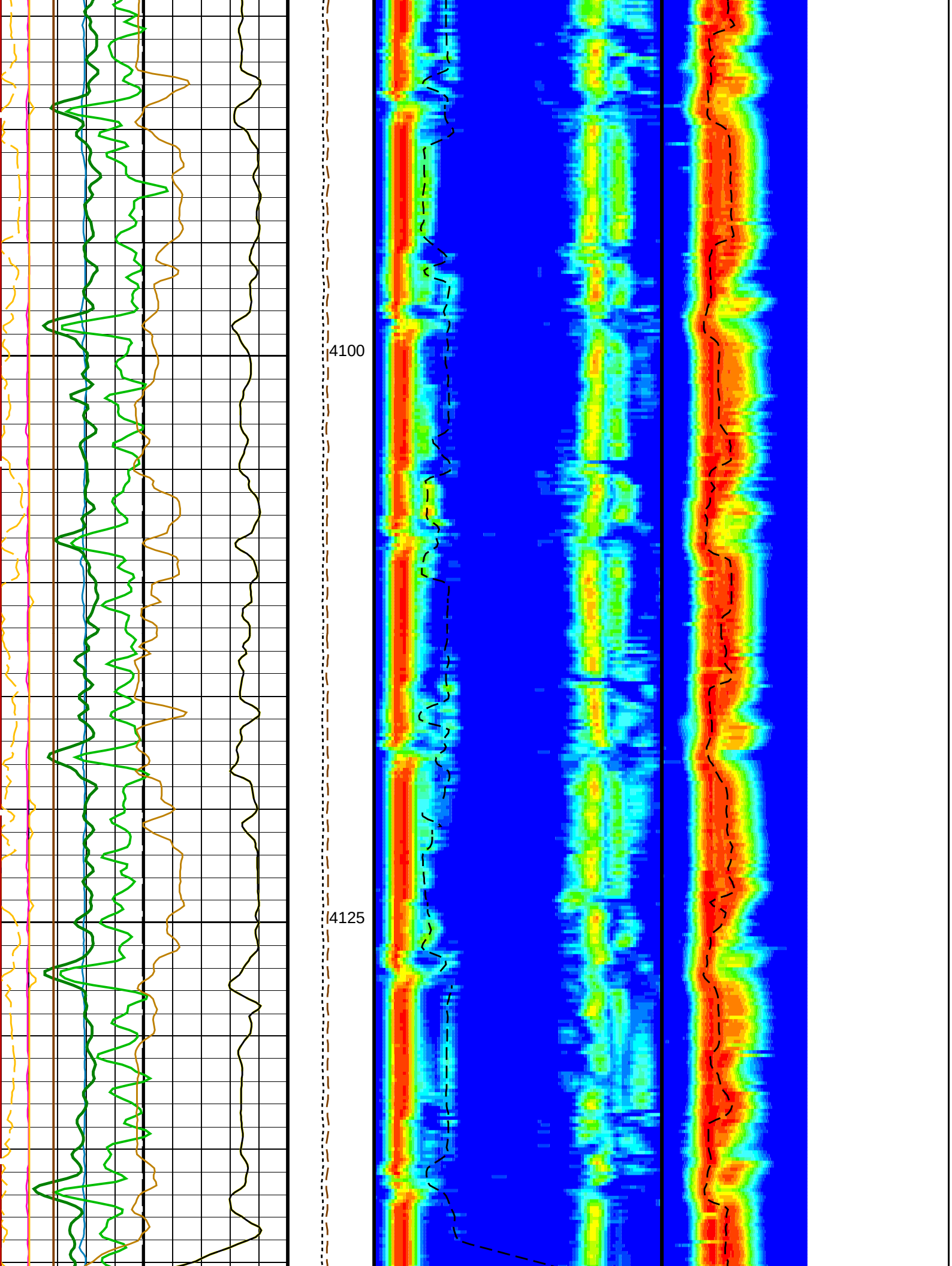

3825
3850

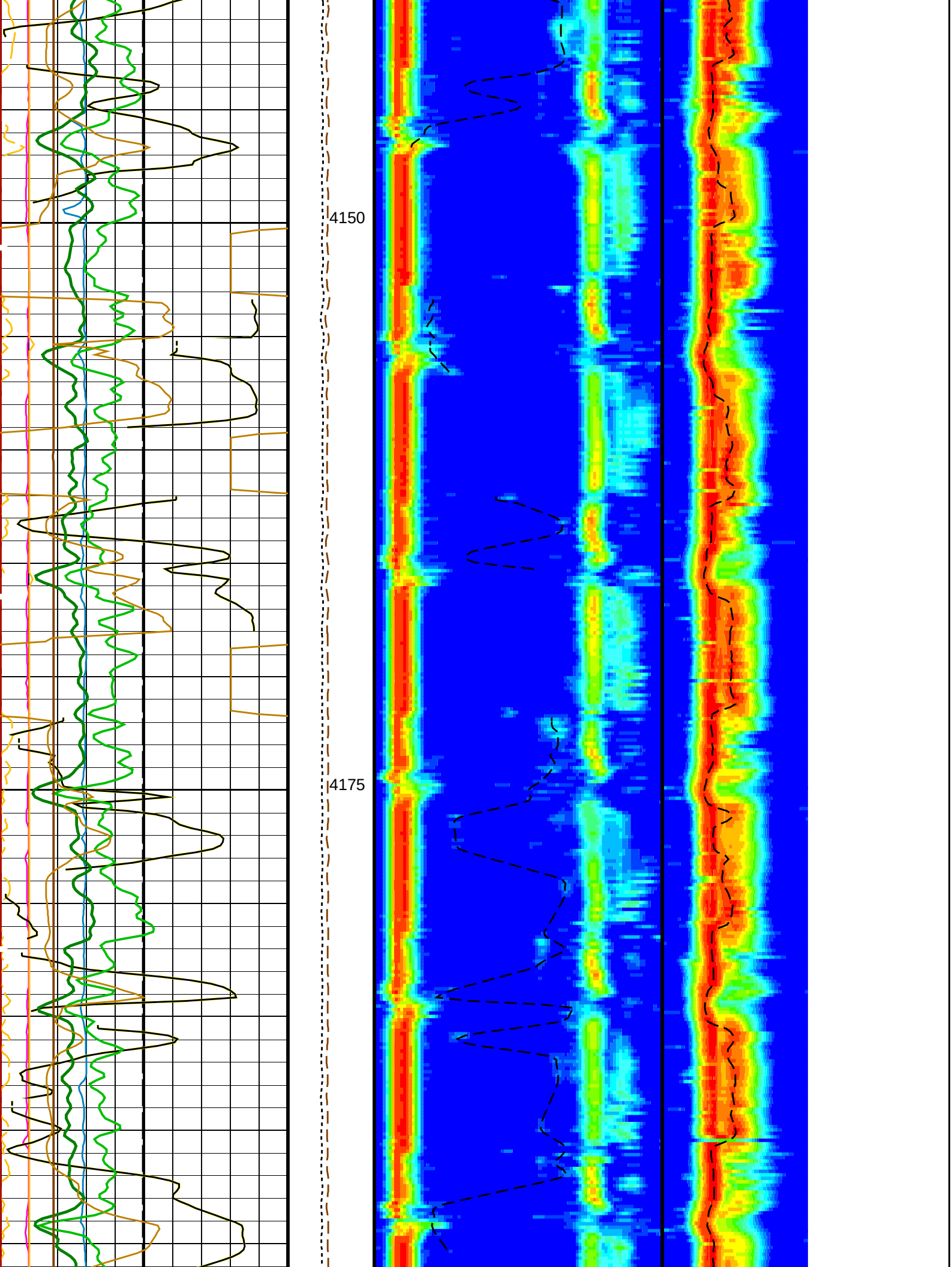

3875
3900

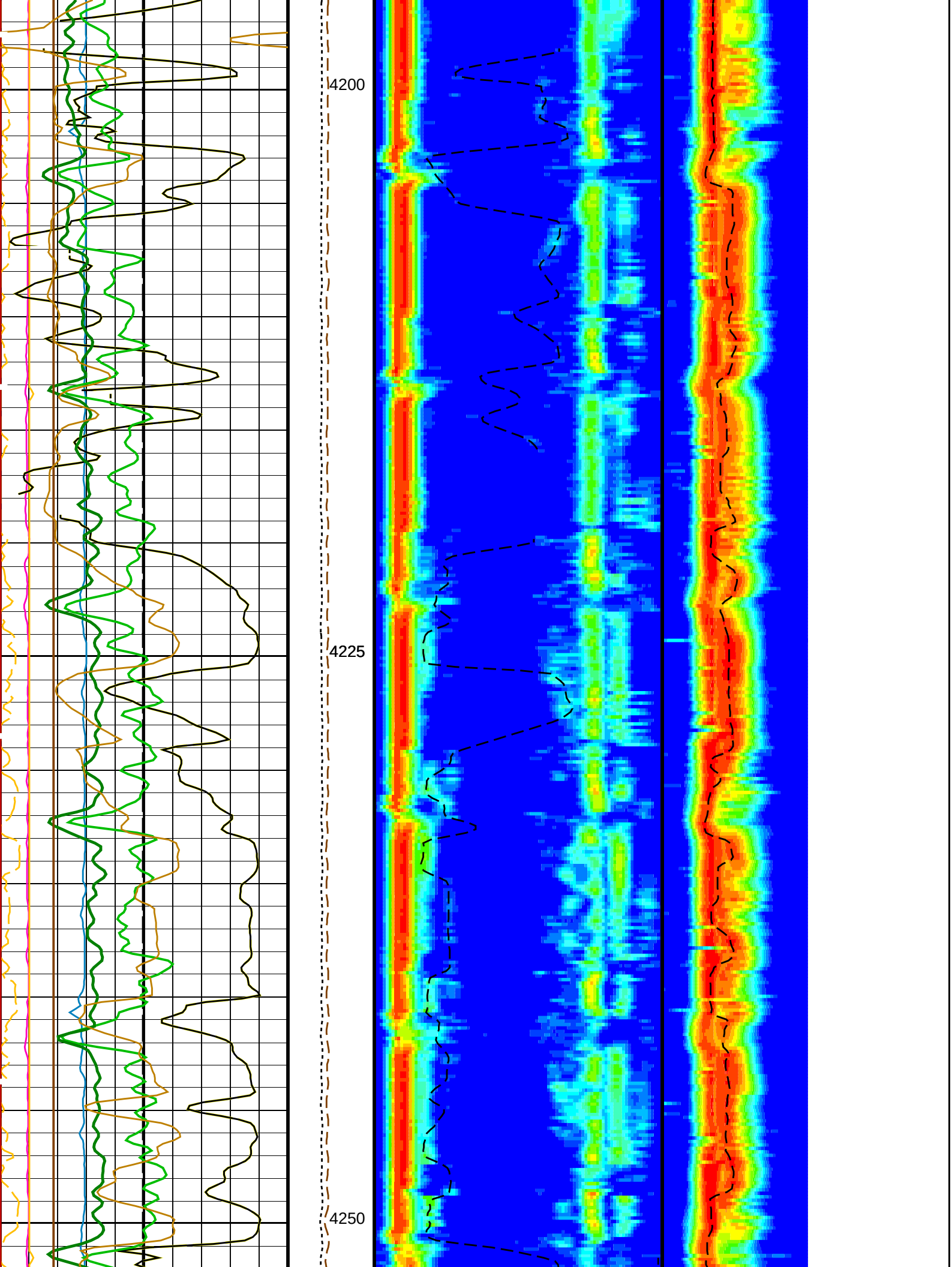

3925
3950

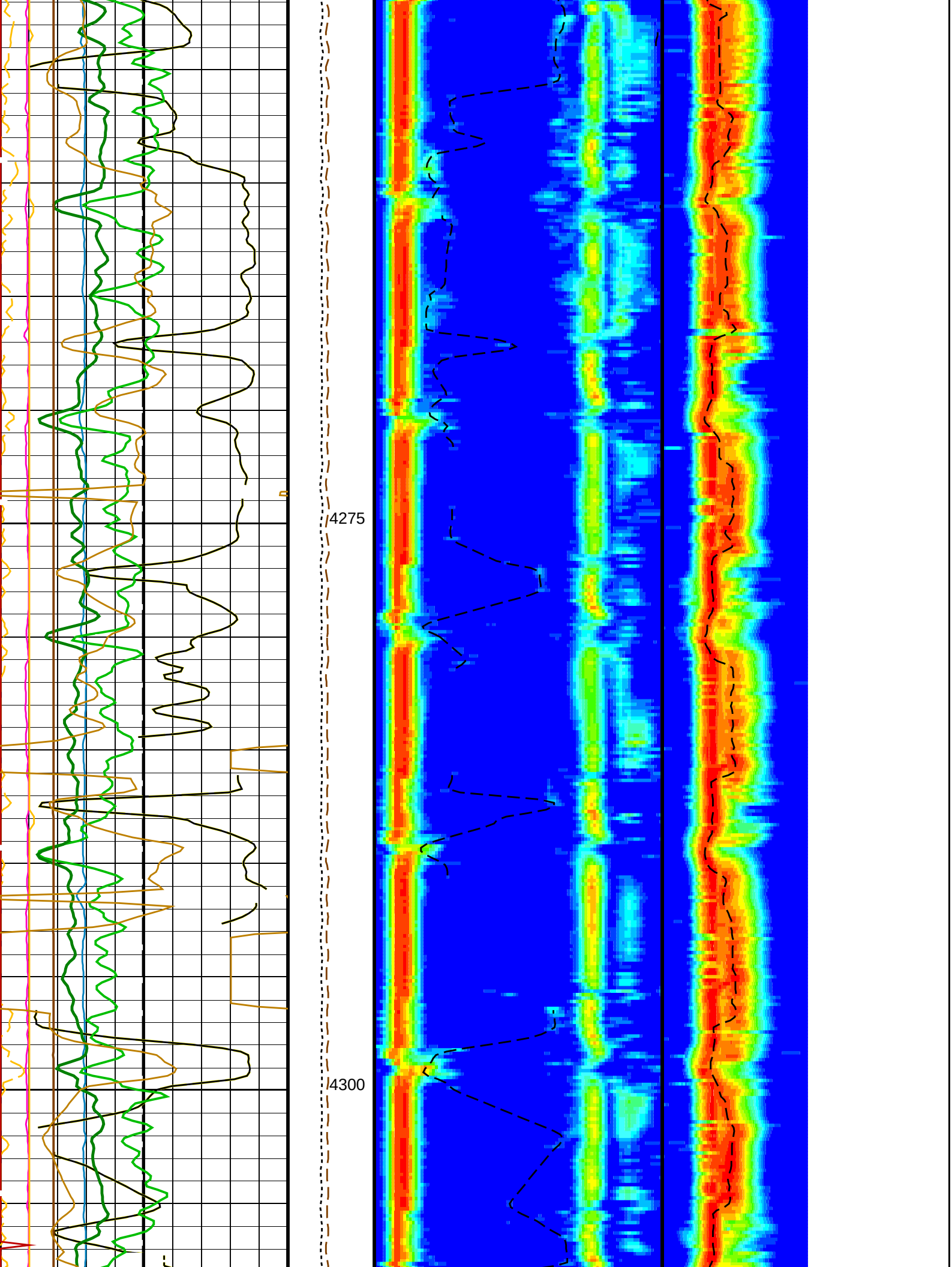

3975
4000
4025

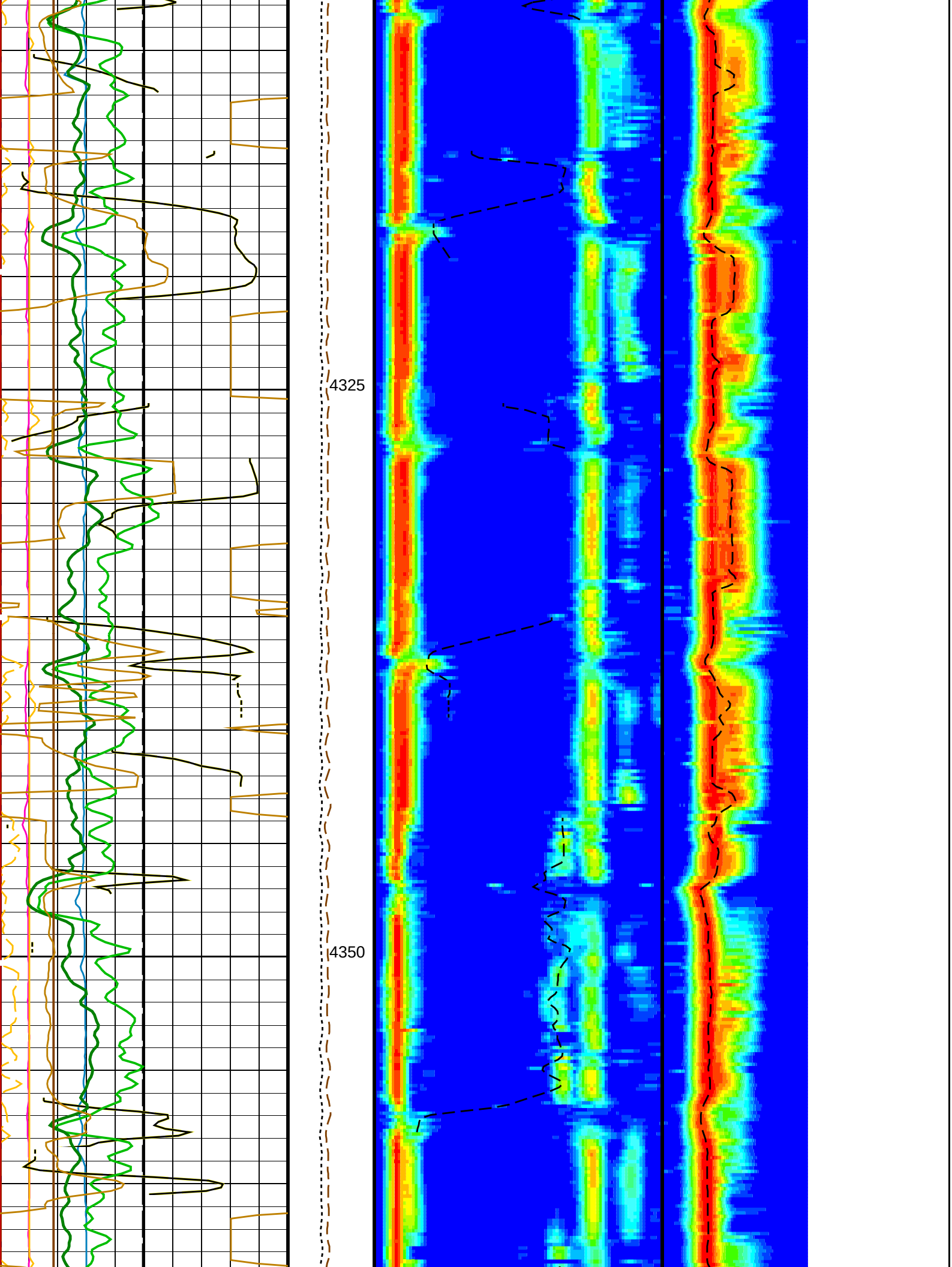

4050
4075

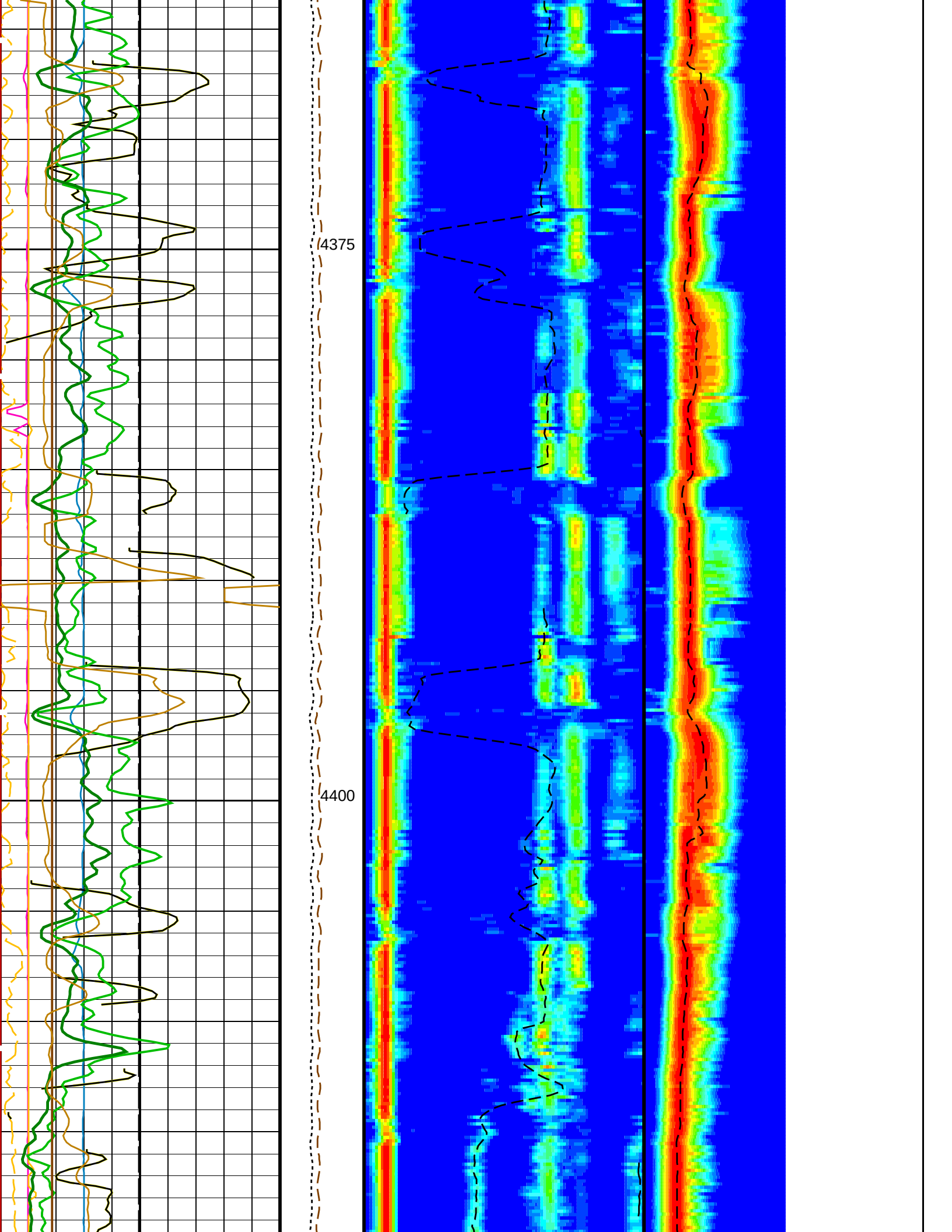

4100
4125

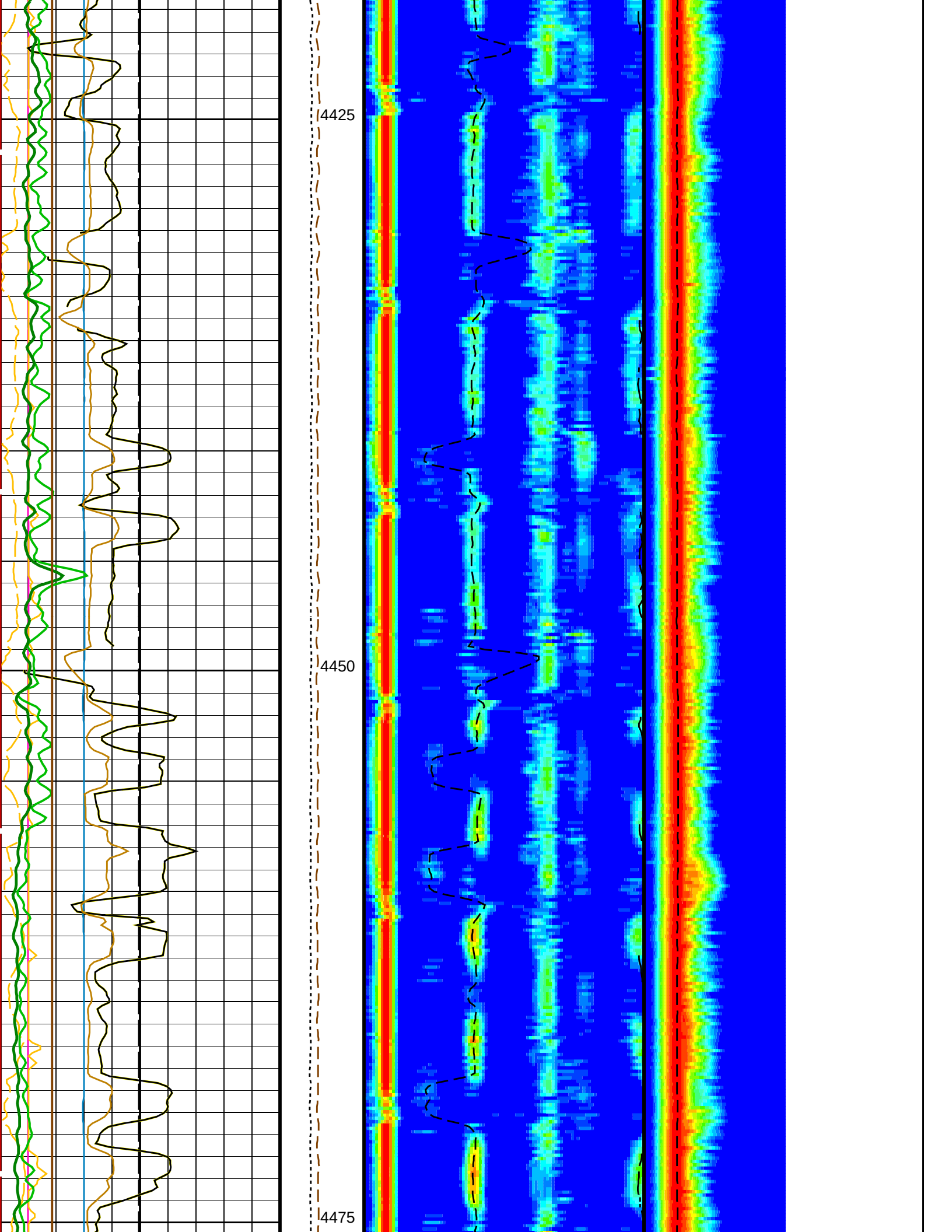

4150
4175

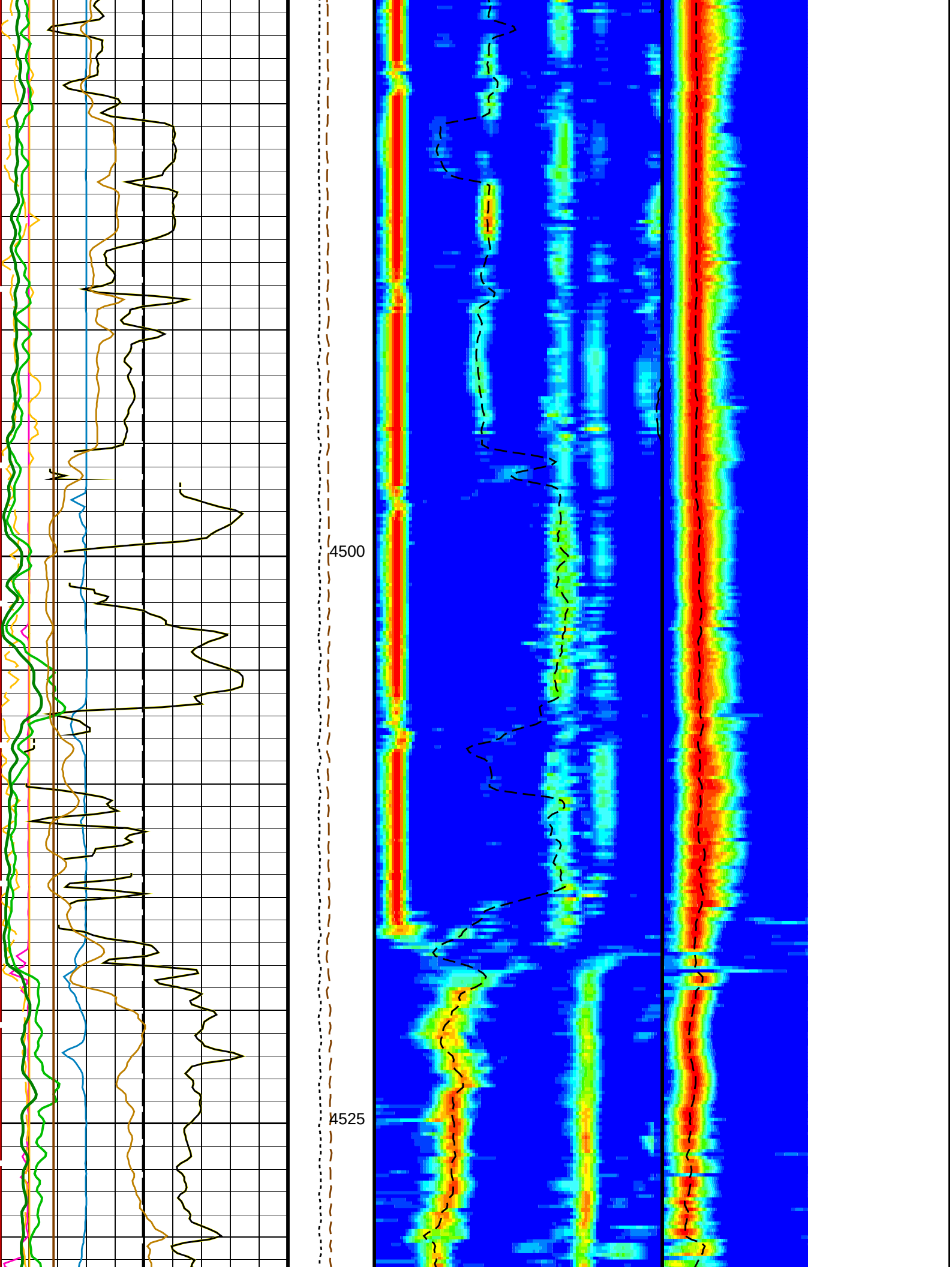

4200
4225
4250

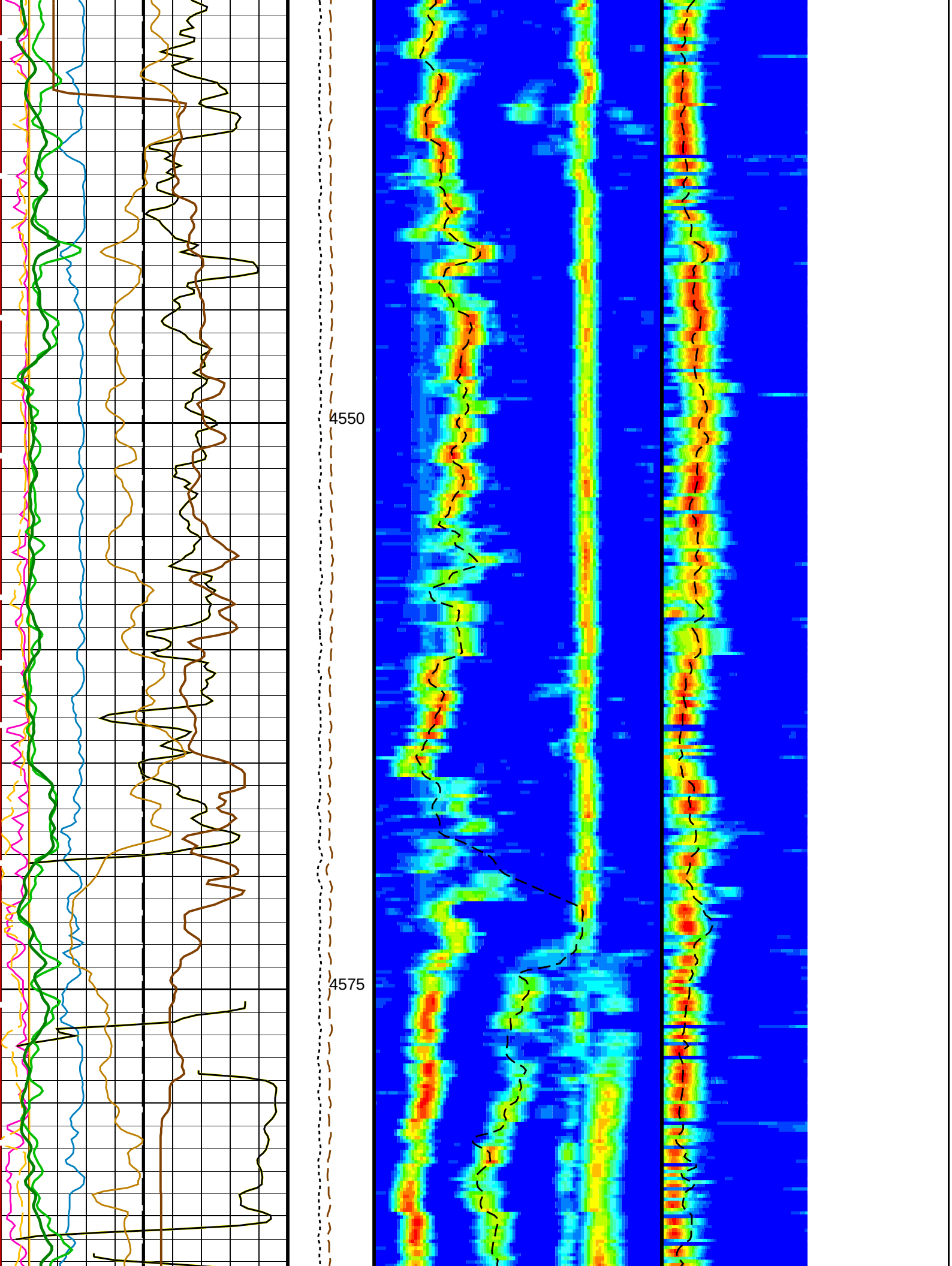

4275
4300

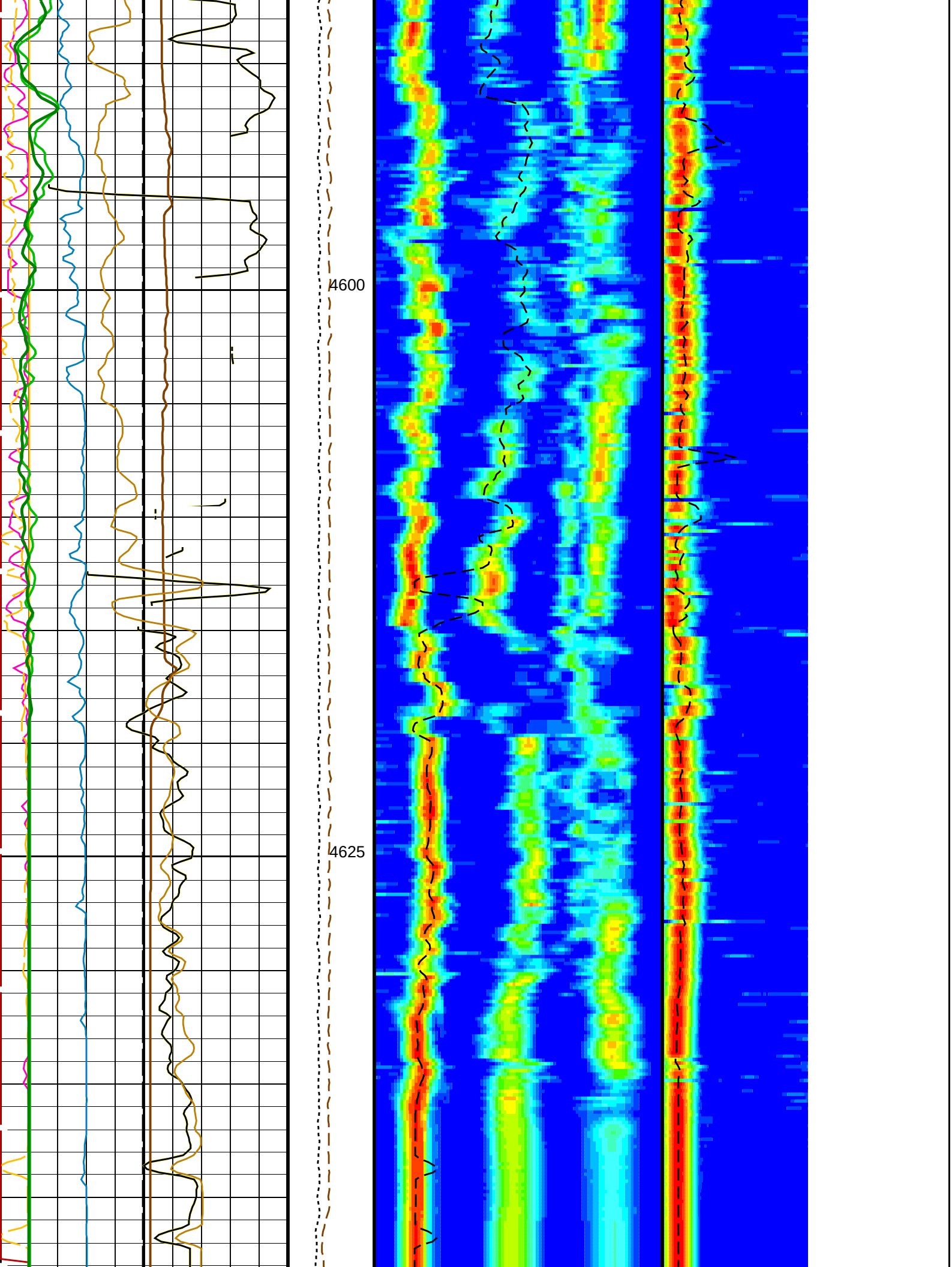

4325
4350

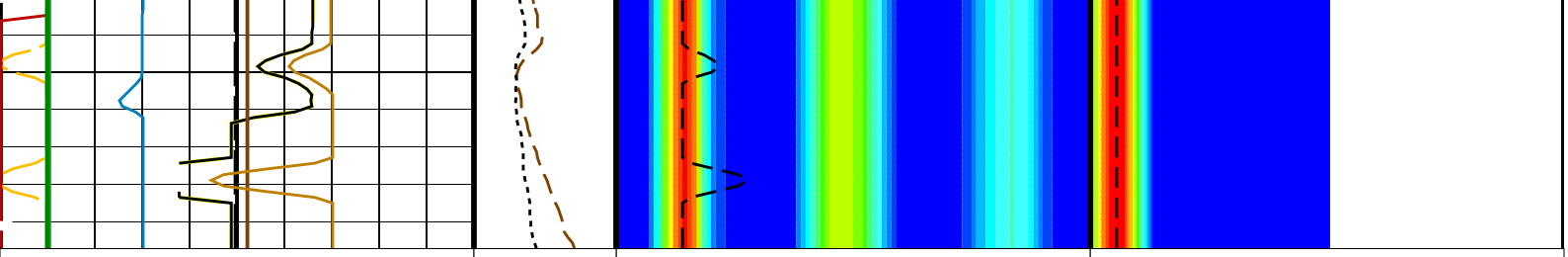

4375
4400


4425
4450
4475


4500
4525


4550
4575


4600
4625



| | | |
|---|---|---|
| Bit Size (BS)<br>0 (IN) 20 | Tension (TENS) (LBF)<br>10000 0 | Delta−T Comp / RA − P & S (DTRP)<br>40 (US/F) 240 |
| Poisson's Ratio (PR)<br>0 (−−−−) 0.5 | Calibrated Downhole Force (CDF) (LBF)<br>3000 0 | Delta−T Shear / RA − P & S (DTRS)<br>40 (US/F) 240 |
| Sonic Velocity (SVEL)<br>1000 (M/S) 6000 | | Min Amplitude Max<br>Rec.Array P&S Slow Proj. CVDL (SPR4)<br>40 (US/F) 240 |
| Poisson's Ratio (PR)<br>0 (−−−−) 0.5 | | |
| Gamma Ray (GR_EDTC)<br>0 (GAPI) 100 | | |
| HLDS Caliper (LCAL)<br>0 (IN) 20 | | |
| Peak Coherence / RA − Upper Dipole (CHR2)<br>0 (−−−−) 10 | | |
| Peak Coherence / TA − Upper Dipole (CHT2)<br>−2 (−−−−) 8 | | |
| Peak Coherence / RA − P & S Comp (CHRP)<br>0 (−−−−) 10 | | |
| Peak Coherence / RA − P & S Shear (CHRS)<br>−1 (−−−−) 9 | | |
| Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)<br>0 (−−−−) 10 | | |
| HNGS Spectroscopy Gamma Ray (HSGR)<br>0 (GAPI) 100 | | |

| | |
|---|---|
| Delta−T Shear / RA − Upper Dipole (DT2R)<br>75 (US/F) 1200 | |
| Min Amplitude Max<br>Rec.Array U.Dipole Slow Proj. CVDL (SPR2)<br>75 (US/F) 1200 | |

**PIP SUMMARY**

Time Mark Every 60 S

## Parameters

| DLIS Name | Description | Value |
|---|---|---|
| | **DSST−B: Dipole Shear Imager − B** | |
| AGC1 | Automatic Gain Control 1 | ON |
| AGC2 | Automatic Gain Control 2 | ON |
| AGC3 | Automatic Gain Control 3 | ON |
| AGC4 | Automatic Gain Control 4 | ON |
| AGC5 | Automatic Gain Control 5 | ON |
| AGCX | Automatic Gain Control X | ON |
| BARS_MTR1 | Length for Monopole Transmitter to Receiver 1 | 2.7432 M |

| | | | |
|---|---|---|---|
| BARS_MTR1 | Length for Monopole Transmitter to Receiver 1 | 2.7432 | M |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CASF | Label Casing Function − Monopole P&S | 50 | |
| CDTS | C−Delta−T Shale | 100 | US/F |
| COLL | Label Slowness Lower Limit − Monopole P&S Compressional | 65 | US/F |
| COUL | Label Slowness Upper Limit − Monopole P&S Compressional | 185 | US/F |
| DDE1 | Digitizing Delay 1 | 0 | US |
| DDE2 | Digitizing Delay 2 | 0 | US |
| DDE3 | Digitizing Delay 3 | 0 | US |
| DDE4 | Digitizing Delay 4 | 0 | US |
| DDE5 | Digitizing Delay 5 | 0 | US |
| DDEX | Digitizing Delay X | 0 | US |
| DLCS | Label Compressional Source − Dipole Shear | USE | |
| DLHS | Label Hole Diameter Source for SOBS Channel | AUTO | |
| DSHL | Label Slowness Lower Limit − Dipole Shear | 40 | US/F |
| DSHU | Label Slowness Upper Limit − Dipole Shear | 640 | US/F |
| DSI1 | Digitizer Sample Interval 1 | 40 | US |
| DSI2 | Digitizer Sample Interval 2 | 40 | US |
| DSI3 | Digitizer Sample Interval 3 | 10 | US |
| DSI4 | Digitizer Sample Interval 4 | 10 | US |
| DSI5 | Digitizer Sample Interval 5 | 10 | US |
| DSIX | Digitizer Sample Interval X | 40 | US |
| DTCS | Compressional Delta−T Source for DTCO Channel | PS_COMP | |
| DTF | Delta−T Fluid | 193 | US/F |
| DTM | Delta−T Matrix | 56 | US/F |
| DTSS | Shear Delta−T Source for DTSM Channel | LOWER_DIPOLE | |
| DWC1 | Digitizer Word Count 1 | 512 | |
| DWC2 | Digitizer Word Count 2 | 512 | |
| DWC3 | Digitizer Word Count 3 | 512 | |
| DWC4 | Digitizer Word Count 4 | 512 | |
| DWC5 | Digitizer Word Count 5 | 512 | |
| DWCX | Digitizer Word Count X | 512 | |
| FDE1 | Firing Delay 1 | 0 | |
| FDE2 | Firing Delay 2 | 0 | |
| FDE3 | Firing Delay 3 | 0 | |
| FDE4 | Firing Delay 4 | 0 | |
| FDE5 | Firing Delay 5 | 0 | |
| FDEX | Firing Delay X | 0 | |
| FGM5 | First Motion Gate Moveout 5 | 40 | US/F |
| FGMX | First Motion Gate Moveout X | 40 | US/F |
| FILG | Label Fill Gap Control − Monopole P&S | COMP_SHEAR | |
| FMG5 | First Motion Minimum Gate 5 | 500 | US |
| FMGX | First Motion Minimum Gate X | 500 | US |
| FMLL | Slowness Lower Limit − FMD | 40 | US/F |
| FMRC | Restart Control − FMD | CONTINUE | |
| FMT5 | First Motion Threshold 5 | UP | |
| FMTX | First Motion Threshold X | NONE | |
| FMUL | Slowness Upper Limit − FMD | 180 | US/F |
| FNC5 | First Motion Noise Counter Input 5 | ALO | |
| FNCX | First Motion Noise Counter Input X | ALO | |
| FPM | Processing Mode − FMD | NONE | |
| FTD5 | First Motion Threshold Direction 5 | UP | |
| FTDX | First Motion Threshold Direction X | UP | |
| GAI1 | Manual Gain 1 | 10 | |
| GAI2 | Manual Gain 2 | 10 | |
| GAI3 | Manual Gain 3 | 10 | |
| GAI4 | Manual Gain 4 | 16 | |
| GAI5 | Manual Gain 5 | 16 | |
| GAIX | Manual Gain X | 10 | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GDT1 | Gain Delta−T 1 | 800 | US/F |
| GDT2 | Gain Delta−T 2 | 800 | US/F |
| GDT3 | Gain Delta−T 3 | 800 | US/F |
| GDT4 | Gain Delta−T 4 | 160 | US/F |
| GDT5 | Gain Delta−T 5 | 160 | US/F |
| GDTX | Gain Delta−T X | 800 | US/F |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GIN1 | Gain Interval 1 | 15360 | US |
| GIN2 | Gain Interval 2 | 15360 | US |
| GIN3 | Gain Interval 3 | 15360 | US |
| GIN4 | Gain Interval 4 | 2560 | US |
| GIN5 | Gain Interval 5 | 1600 | US |
| GINX | Gain Interval X | 15360 | US |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HPF1 | High Pass Filter 1 | F80 | |
| HPF2 | High Pass Filter 2 | F80 | |
| HPF3 | High Pass Filter 3 | F80 | |
| HPF4 | High Pass Filter 4 | F8K | |
| HPF5 | High Pass Filter 5 | F8K | |
| HPFX | High Pass Filter X | F80 | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ITTS | Integrated Transit Time Source | DTCO | |

| | | | |
|---|---|---|---|
| LFC | Label Formation Character − Monopole P&S | DYNAMIC | |
| LPF1 | Low Pass Filter 1 | F5K | |
| LPF2 | Low Pass Filter 2 | F5K | |
| LPF3 | Low Pass Filter 3 | F5K | |
| LPF4 | Low Pass Filter 4 | F30K | |
| LPF5 | Low Pass Filter 5 | F30K | |
| LPFX | Low Pass Filter X | F5K | |
| LTXG | Lower Dipole Transmitter Geometry | 156 | IN |
| MAI5 | Slowness Averaging Interval − FMD | 42 | IN |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCS | Mean Casing Slowness | 57 | US/F |
| MDS5 | Multishot Delta−T Scatter − FMD | 20 | US |
| MTXG | Monopole Transmitter Geometry | 186 | IN |
| MUX1 | Sum Difference Multiplexor Input 1 | RR | |
| MUX2 | Sum Difference Multiplexor Input 2 | RR | |
| MUX3 | Sum Difference Multiplexor Input 3 | RR | |
| MUX4 | Sum Difference Multiplexor Input 4 | RR | |
| MUX5 | Sum Difference Multiplexor Input 5 | RR | |
| MUXX | Sum Difference Multiplexor Input X | RR | |
| NTI5 | Number Threshold Items 5 | 0 | |
| NTIX | Number Threshold Items X | 0 | |
| NWI1 | Number Waveform Items 1 | 8 | |
| NWI2 | Number Waveform Items 2 | 8 | |
| NWI3 | Number Waveform Items 3 | 0 | |
| NWI4 | Number Waveform Items 4 | 8 | |
| NWI5 | Number Waveform Items 5 | 0 | |
| NWIX | Number Waveform Items X | 0 | |
| NWS1 | Number Waveforms Stacked 1 | 1 | |
| NWS2 | Number Waveforms Stacked 2 | 1 | |
| NWS3 | Number Waveforms Stacked 3 | 1 | |
| NWS4 | Number Waveforms Stacked 4 | 1 | |
| NWS5 | Number Waveforms Stacked 5 | 1 | |
| NWSX | Number Waveforms Stacked X | 1 | |
| RATE | Firing Rate | R7 | |
| RSMN | Label Shear/Compressional Minimum Ratio − Monopole P&S | 1.4 | |
| RSMX | Label Shear/Compressional Maximum Ratio − Monopole P&S | 2.12 | |
| RX1G | Receiver 1 Geometry | 294 | IN |
| RX2G | Receiver 2 Geometry | 300 | IN |
| RX3G | Receiver 3 Geometry | 306 | IN |
| RX4G | Receiver 4 Geometry | 312 | IN |
| RX5G | Receiver 5 Geometry | 318 | IN |
| RX6G | Receiver 6 Geometry | 324 | IN |
| RX7G | Receiver 7 Geometry | 330 | IN |
| RX8G | Receiver 8 Geometry | 336 | IN |
| SAM1 | DSST Sonic Acquisition Mode 1 − Lower Dipole Mode | EVEN | |
| SAM2 | DSST Sonic Acquisition Mode 2 − Upper Dipole Mode | ODD | |
| SAM3 | DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley | OFF | |
| SAM4 | DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S | EVEN | |
| SAM5 | DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD | OFF | |
| SAMX | DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert | OFF | |
| SAS1 | STC Sonic Array Status − Lower Dipole | 255 | |
| SAS2 | STC Sonic Array Status − Upper Dipole | 255 | |
| SAS3 | STC Sonic Array Status − Monopole Stoneley | 255 | |
| SAS4 | STC Sonic Array Status − Monopole P&S | 255 | |
| SAS5 | Sonic Array Status − FMD | 255 | |
| SBO1 | STC Search Band Offset − Lower Dipole | 3000 | US |
| SBO2 | STC Search Band Offset − Upper Dipole | 3000 | US |
| SBO3 | STC Search Band Offset − Monopole Stoneley | 3000 | US |
| SBO4 | STC Search Band Offset − Monopole P&S | 500 | US |
| SBR4 | STC Baseline Removal − Monopole P&S | ON | |
| SBW1 | STC Search Bandwidth − Lower Dipole | 8000 | US |
| SBW2 | STC Search Bandwidth − Upper Dipole | 8000 | US |
| SBW3 | STC Search Bandwidth − Monopole Stoneley | 8000 | US |
| SBW4 | STC Search Bandwidth − Monopole P&S | 2000 | US |
| SFC1 | STC Formation Character − Lower Dipole | SELECTABLE | |
| SFC2 | STC Formation Character − Upper Dipole | SELECTABLE | |
| SFC3 | STC Formation Character − Monopole Stoneley | SELECTABLE | |
| SFC4 | STC Formation Character − Monopole P&S | SELECTABLE | |
| SFM1 | STC Filter − Lower Dipole | B1−3K | |
| SFM2 | STC Filter − Upper Dipole | B1−2K | |
| SFM3 | STC Filter − Monopole Stoneley | B.5−1.5K | |
| SFM4 | STC Filter − Monopole P&S | B3−20K | |
| SHLL | Label Slowness Lower Limit − Monopole P&S Shear | 235 | US/F |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SHUL | Label Slowness Upper Limit − Monopole P&S Shear | 240 | US/F |
| SLL1 | STC Slowness Lower Limit − Lower Dipole | 40 | US/F |
| SLL2 | STC Slowness Lower Limit − Upper Dipole | 40 | US/F |
| SLL3 | STC Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| SLL4 | STC Slowness Lower Limit − Monopole P&S | 40 | US/F |
| SPFS | Sonic Porosity Formula | RAYMER_HUNT | |
| SPSO | Sonic Porosity Source | DTCO | |
| SST1 | STC Slowness Step − Lower Dipole | 4 | US/F |
| SST2 | STC Slowness Step − Upper Dipole | 4 | US/F |
| SST3 | STC Slowness Step − Monopole Stoneley | 4 | US/F |

| | | | |
|---|---|---|---|
| SST4 | STC Slowness Step − Monopole P&S | 2 | US/F |
| SSW1 | STC Source Waveform − Lower Dipole | WF_SAM1 | |
| SSW2 | STC Source Waveform − Upper Dipole | WF_SAM2 | |
| SSW3 | STC Source Waveform − Monopole Stoneley | WF_SAM3 | |
| SSW4 | STC Source Waveform − Monopole P&S | WF_SAM4 | |
| STLL | Label Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| STUL | Label Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL1 | STC Slowness Upper Limit − Lower Dipole | 640 | US/F |
| SUL2 | STC Slowness Upper Limit − Upper Dipole | 640 | US/F |
| SUL3 | STC Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL4 | STC Slowness Upper Limit − Monopole P&S | 240 | US/F |
| SWD1 | STC Slowness Width − Lower Dipole | 40 | US/F |
| SWD2 | STC Slowness Width − Upper Dipole | 40 | US/F |
| SWD3 | STC Slowness Width − Monopole Stoneley | 40 | US/F |
| SWD4 | STC Slowness Width − Monopole P&S | 10 | US/F |
| TBDB | Tool String Bottom to DSST Bottom | 95.25 | IN |
| TBF1 | STC Time for Baseline Fill − Lower Dipole | 0 | US |
| TBF2 | STC Time for Baseline Fill − Upper Dipole | 0 | US |
| TBF3 | STC Time for Baseline Fill − Monopole Stoneley | 0 | US |
| TBF4 | STC Time for Baseline Fill − Monopole P&S | 300 | US |
| TLL1 | STC Time Lower Limit − Lower Dipole | 600 | US |
| TLL2 | STC Time Lower Limit − Upper Dipole | 600 | US |
| TLL3 | STC Time Lower Limit − Monopole Stoneley | 600 | US |
| TLL4 | STC Time Lower Limit − Monopole P&S | 150 | US |
| TST1 | STC Time Step − Lower Dipole | 200 | US |
| TST2 | STC Time Step − Upper Dipole | 200 | US |
| TST3 | STC Time Step − Monopole Stoneley | 200 | US |
| TST4 | STC Time Step − Monopole P&S | 50 | US |
| TTDB | Tool String Top to DSST Bottom | 1348.6 | IN |
| TUL1 | STC Time Upper Limit − Lower Dipole | 14360 | US |
| TUL2 | STC Time Upper Limit − Upper Dipole | 14040 | US |
| TUL3 | STC Time Upper Limit − Monopole Stoneley | 12000 | US |
| TUL4 | STC Time Upper Limit − Monopole P&S | 3660 | US |
| TWA1 | Transmitter Waveform Amplitude 1 | 179 | |
| TWA2 | Transmitter Waveform Amplitude 2 | 179 | |
| TWA3 | Transmitter Waveform Amplitude 3 | 179 | |
| TWA4 | Transmitter Waveform Amplitude 4 | 150 | |
| TWA5 | Transmitter Waveform Amplitude 5 | 150 | |
| TWAX | Transmitter Waveform Amplitude X | 179 | |
| TWD1 | STC Time Width − Lower Dipole | 2000 | US |
| TWD2 | STC Time Width − Upper Dipole | 2000 | US |
| TWD3 | STC Time Width − Monopole Stoneley | 2000 | US |
| TWD4 | STC Time Width − Monopole P&S | 1000 | US |
| TWI1 | STC Integration Time Window − Lower Dipole | 1600 | US |
| TWI2 | STC Integration Time Window − Upper Dipole | 1600 | US |
| TWI3 | STC Integration Time Window − Monopole Stoneley | 2400 | US |
| TWI4 | STC Integration Time Window − Monopole P&S | 500 | US |
| TWR1 | Transmitter Waveform Sample Rate 1 | 5 | US |
| TWR2 | Transmitter Waveform Sample Rate 2 | 5 | US |
| TWR3 | Transmitter Waveform Sample Rate 3 | 5 | US |
| TWR4 | Transmitter Waveform Sample Rate 4 | 5 | US |
| TWR5 | Transmitter Waveform Sample Rate 5 | 5 | US |
| TWRX | Transmitter Waveform Sample Rate X | 5 | US |
| TWS1 | Transmitter Waveform Select 1 | 0 | |
| TWS2 | Transmitter Waveform Select 2 | 0 | |
| TWS3 | Transmitter Waveform Select 3 | 0 | |
| TWS4 | Transmitter Waveform Select 4 | 6 | |
| TWS5 | Transmitter Waveform Select 5 | 6 | |
| TWSX | Transmitter Waveform Select X | 0 | |
| UTXG | Upper Dipole Transmitter Geometry | 162 | IN |
| WFDTSP1 | SAM1 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP2 | SAM2 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP3 | SAM3 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP4 | SAM4 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSPX | SAMX Waveform Delta for Spectrum | 0 | US/F |
| WFLLSP1 | SAM1 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP2 | SAM2 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP3 | SAM3 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP4 | SAM4 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSPX | SAMX Waveform Lower Limit for Spectrum | 0 | US |
| WFM1 | Waveform Mode 1 | W1 | |
| WFM2 | Waveform Mode 2 | W1 | |
| WFM3 | Waveform Mode 3 | W1 | |
| WFM4 | Waveform Mode 4 | W1 | |
| WFM5 | Waveform Mode 5 | W1 | |
| WFMX | Waveform Mode X | W1 | |
| WFULSP1 | SAM1 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP2 | SAM2 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP3 | SAM3 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP4 | SAM4 Waveform Upper Limit for Spectrum | 5000 | US |
| WFULSPX | SAMX Waveform Upper Limit for Spectrum | 20000 | US |
| XMT1 | Transmitter Select 1 | DLO | |
| XMT2 | Transmitter Select 2 | DUP | |
| XMT3 | Transmitter Select 3 | NONE | |
| XMT4 | Transmitter Select 4 | MONO | |

| | | | |
|---|---|---|---|
| XMT4 | Transmitter Select 4 | MONO | |
| XMT5 | Transmitter Select 5 | MONO | |
| XMTX | Transmitter Select X | DUP | |
| HLDS: Hostile Litho−Density Sonde | | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | ON | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1000 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| HNGS−BA: Hostile Natural Gamma Ray Sonde | | | |
| BAR1 | HNGS Detector 1 Barite Constant | 1 | |
| BAR2 | HNGS Detector 2 Barite Constant | 1 | |
| BHK | HNGS Borehole Potassium Correction Concentration | 0 | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CSD1 | Inner Casing Outer Diameter | 10.75 | IN |
| CSD2 | Outer Casing Outer Diameter | 10.75 | IN |
| CSW1 | Inner Casing Weight | 45 | LB/F |
| CSW2 | Outer Casing Weight | 45 | LB/F |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | −0.0011803 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | BARI | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| S1BI | HNGS Detector 1 Calibration Bismuth Count Rate | 1.3 | CPS |
| S2BI | HNGS Detector 2 Calibration Bismuth Count Rate | 1.3 | CPS |
| SGRC | HNGS Standard Gamma−Ray Correction Flag | YES | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 0.990143 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 1.05695 | |
| EDTC−B: Enhanced DTS Cartridge | | | |
| BHFL | Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| BSCO | Borehole Salinity Correction Option | NO | |
| CCCO | Casing & Cement Thickness Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FSAL | Formation Salinity | −50000 | PPM |
| FSCO | Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO | Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ISSBAR_EDTC | Nuclear Mud Type | BARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO | Mud Cake Correction Option | NO | |
| MCOR | Mud Correction | SALT | |
| MWCO | Mud Weight Correction Option | YES | |
| PTCO | Pressure/Temperature Correction Option | NO | |
| SDAT | Standoff Data Source | SOCN | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SOCN | Standoff Distance | 0.5 | IN |
| SOCO | Standoff Correction Option | NO | |
| TPOS_EDTC | EDTC Tool Centered/Eccentered | Eccentered | |
| U−ETELM_EDTS | Telemetry Mode for eWAFE | Standard_EDTS | |
| U−TELM_EDTS | Telemetry Mode for WAFE | Standard_EDTS | |
| System and Miscellaneous | | | |

| | | | |
|---|---|---|---|
| ALTDPCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.05 | G/C3 |
| FLEV | Fluid Level | −50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| RMFS | Resistivity of Mud Filtrate Sample | −50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 5345 | M |
| TDD | Total Depth − Driller | 4695.50 | M |
| TDL | Total Depth − Logger | 4695.50 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

Format: DSST_P_S_UPPER_VDL_COLOR  Vertical Scale: 1:200  Graphics File Created: 13−May−2017 07:20

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## Output DLIS Files

| | | | | | |
|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_013LUP | FN:15 | PRODUCER | 13−May−2017 07:20 | |
| RTB | DSI_LDL_NGS_013LUP | FN:16 | PRODUCER | 13−May−2017 07:20 | |

Company: International Ocean Discovery Program  Well: Expedition 368, Site U1502B

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_013LUP | FN:15 | PRODUCER | 13−May−2017 07:20 | 4649.7 M | 3760.5 M |
| RTB | DSI_LDL_NGS_013LUP | FN:16 | PRODUCER | 13−May−2017 07:20 | 4649.7 M | 3760.5 M |

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## PIP SUMMARY

Time Mark Every 60 S

| | | |
|---|---|---|
| HNGS Spectroscopy Gamma Ray (HSGR) | | |
| 0 | (GAPI) | 100 |
| Waveform Data Copy Indicator 4 − Monopole P&S (WCI4) | | |
| 0 | (−−−−) | 10 |
| Peak Coherence / RA − P & S Shear (CHRS) | | |
| −1 | (−−−−) | 9 |
| Peak Coherence / RA − P & S Comp (CHRP) | | |
| 0 | (−−−−) | 10 |
| Peak Coherence / TA − Lower Dipole (CHT1) | | |
| −2 | (−−−−) | 8 |
| Peak Coherence / RA − Lower Dipole (CHR1) | | |
| 0 | (−−−−) | 10 |
| Sonic Velocity (SVEL) | | |
| 1000 | (M/S) | 6000 |

HLDS Caliper (LCAL)
0 (IN) 20

Gamma Ray (GR_EDTC)
0 (GAPI) 100

Poisson's Ratio (PR)
0 (----) 0.5

Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

Poisson's Ratio (PR)
0 (----) 0.5

Calibrated Downhole Force (CDF) (LBF)
3000 0

Delta-T Shear / RA - P & S (DTRS)
40 (US/F) 240

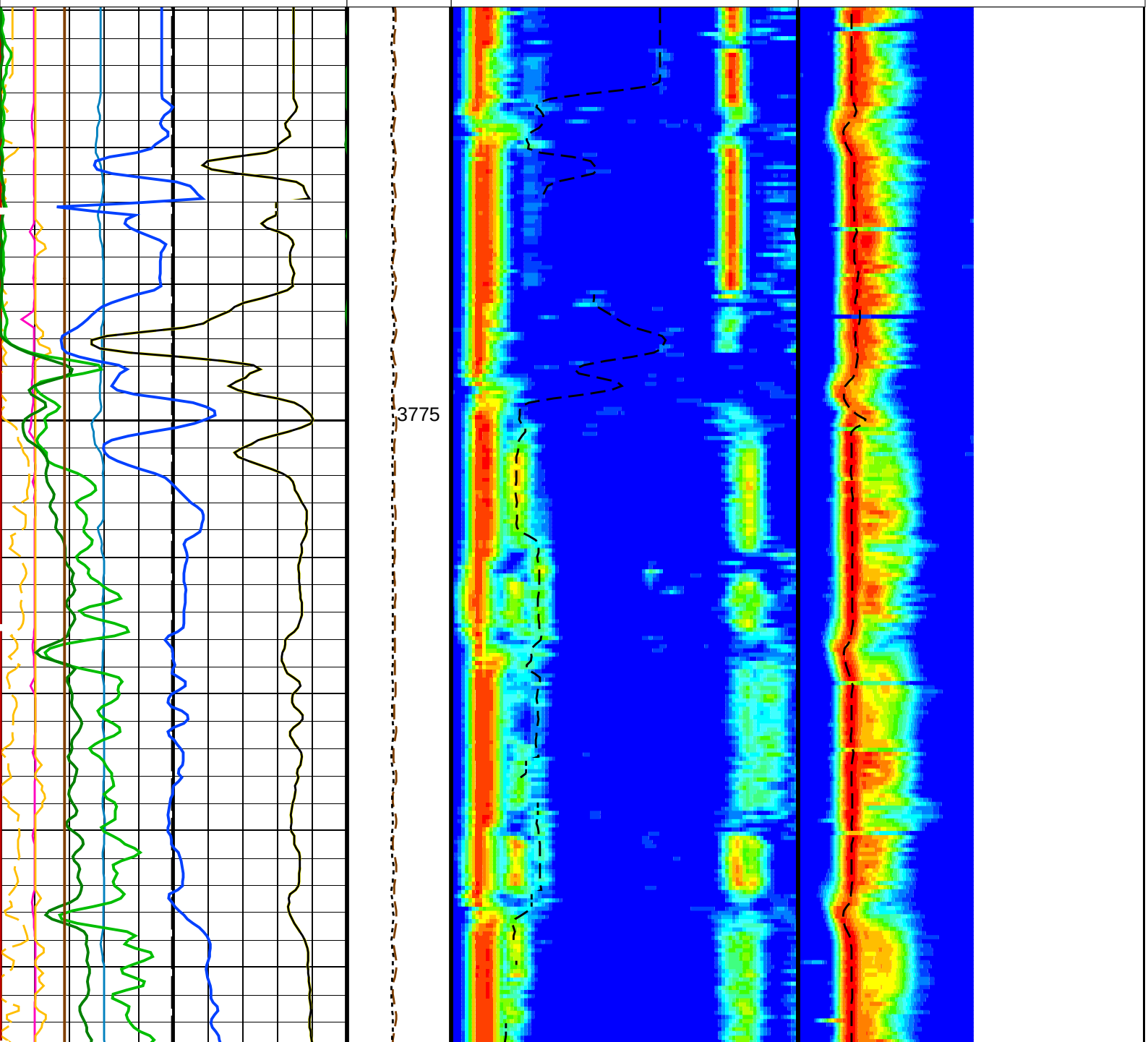
Min Amplitude Max
Rec.Array L.Dipole Slow Proj. CVDL (SPR1)
75 (US/F) 1200

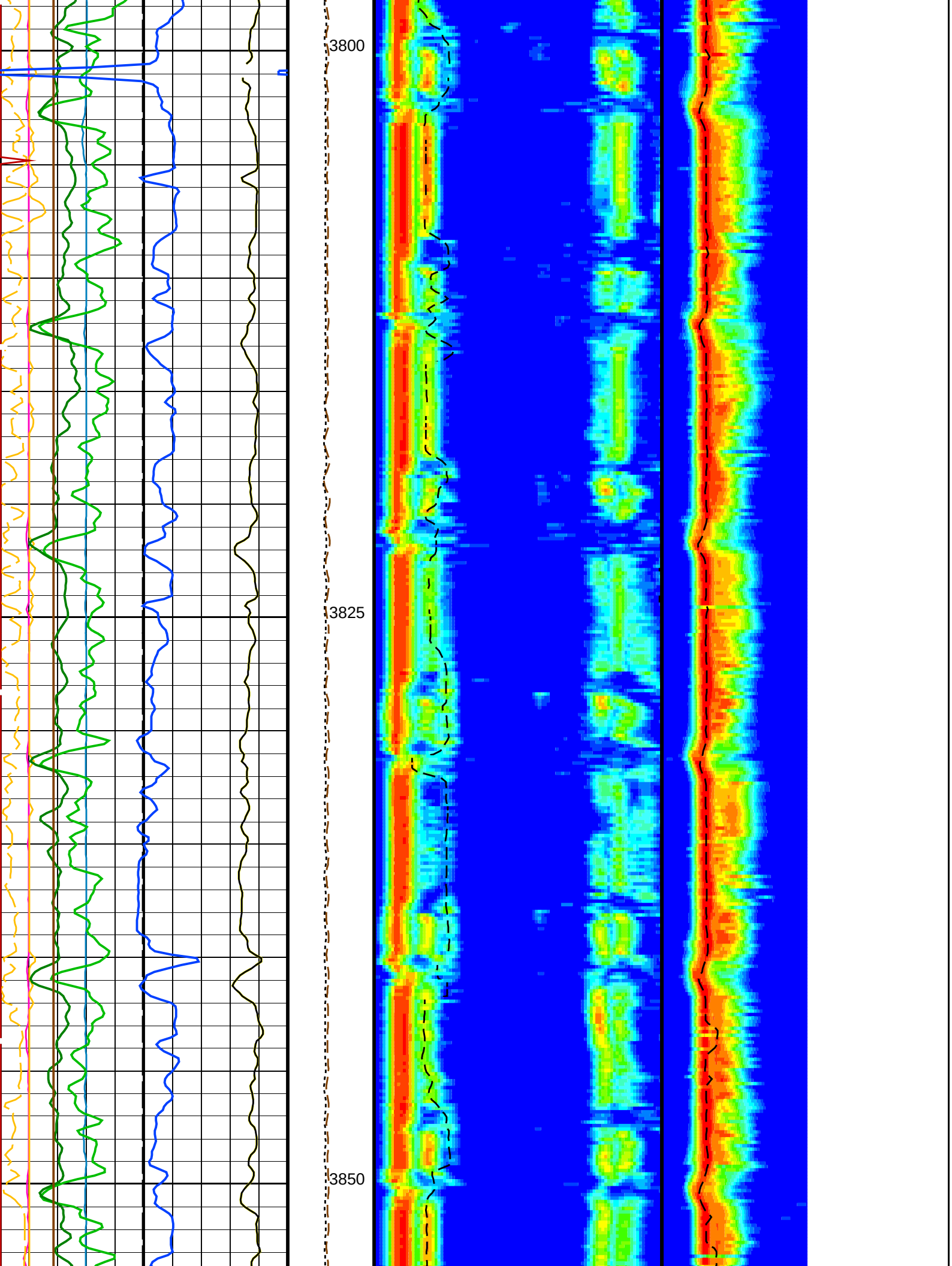
Bit Size (BS)
0 (IN) 20

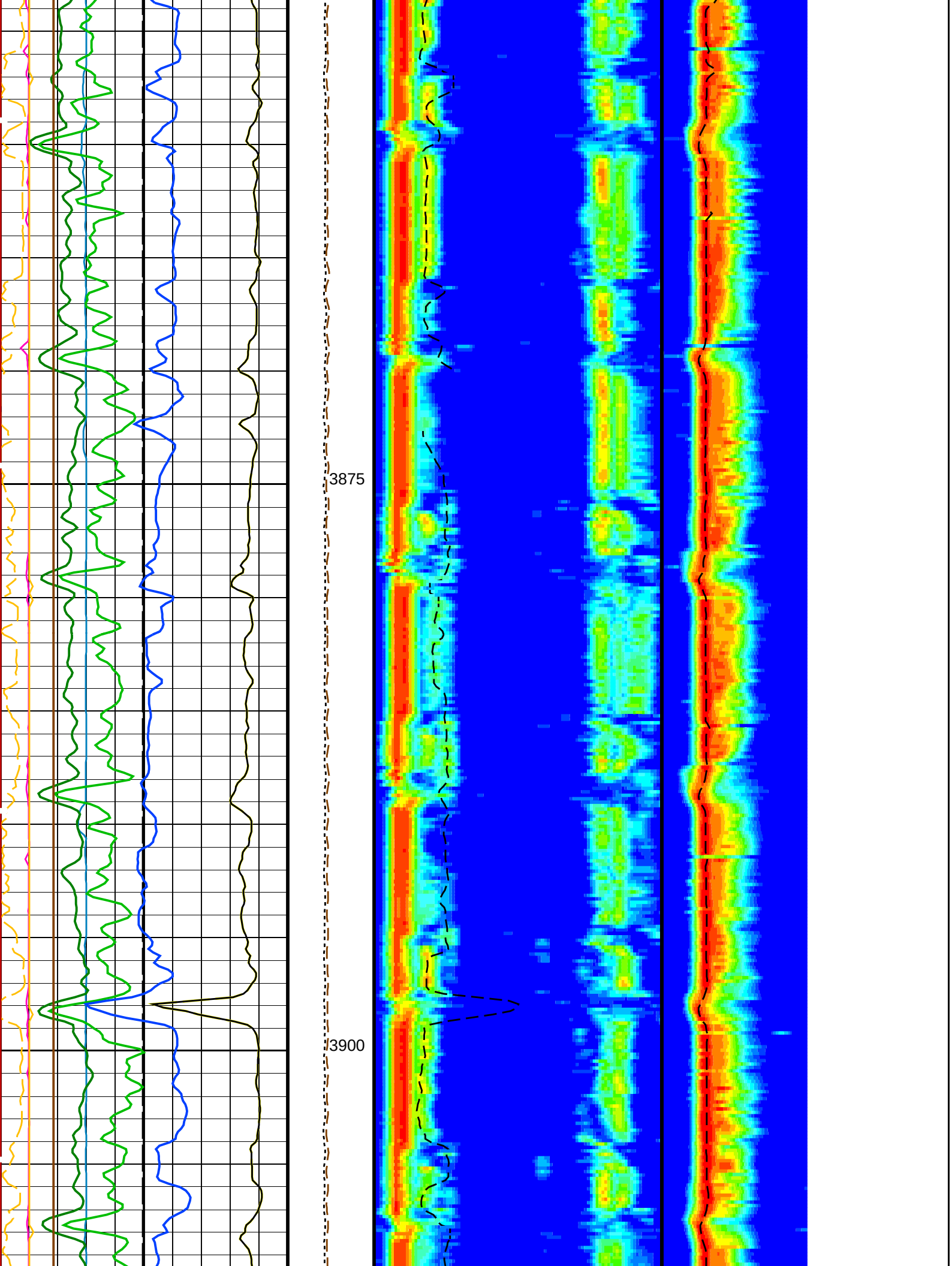
Tension (TENS) (LBF)
10000 0

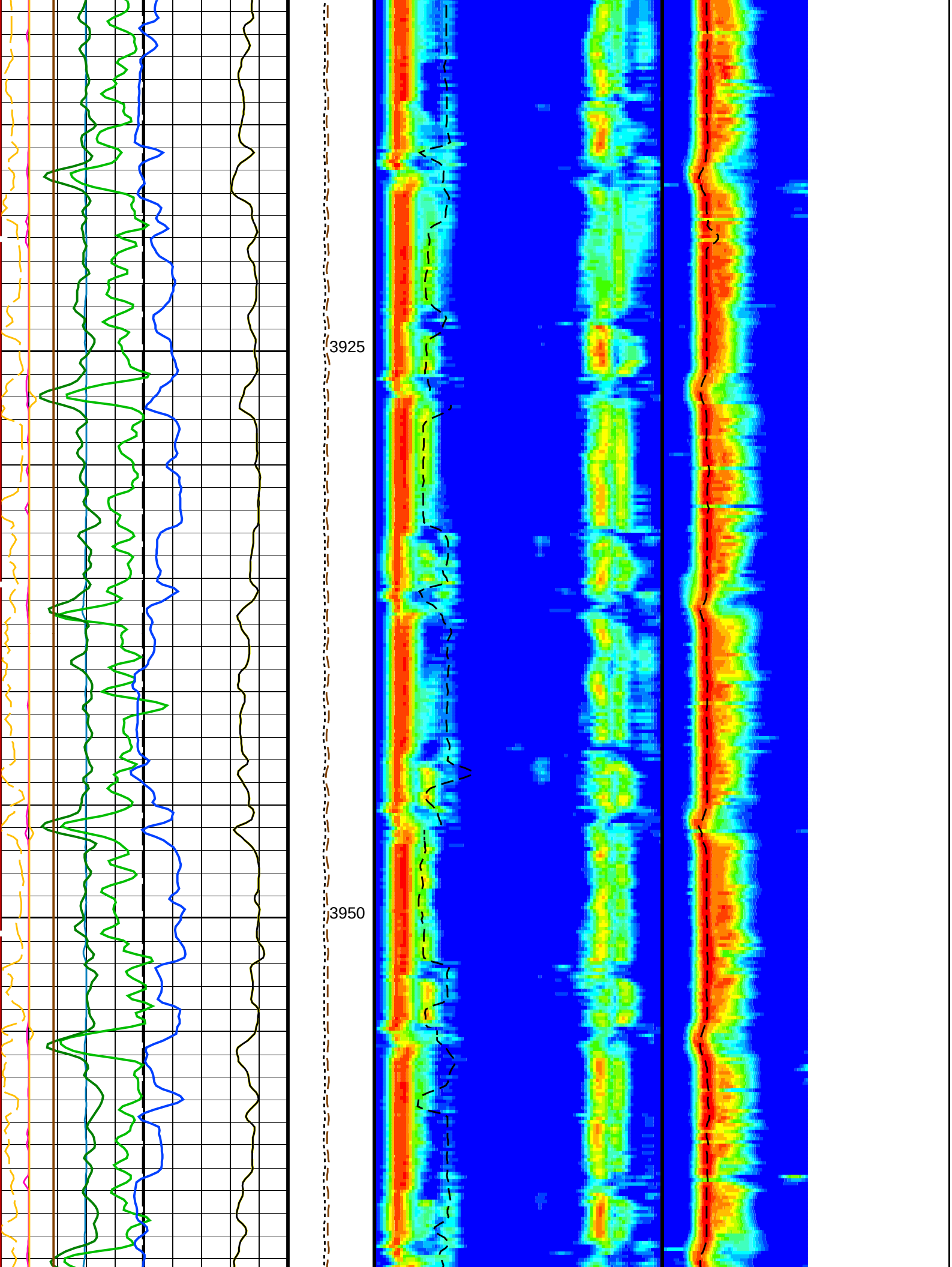
Delta-T Comp / RA - P & S (DTRP)
40 (US/F) 240

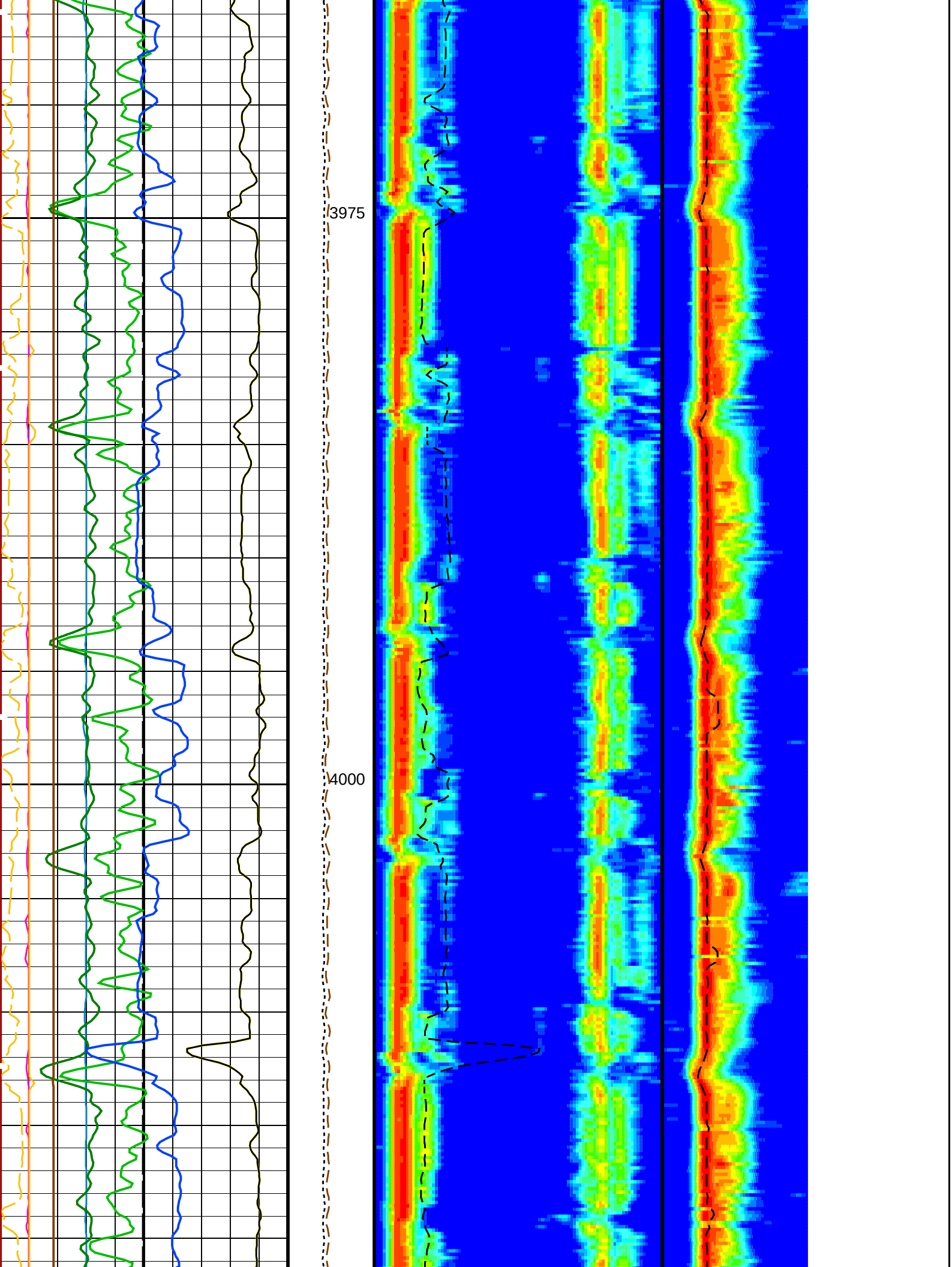
Delta-T Shear / RA - Lower Dipole (DT1R)
75 (US/F) 1200

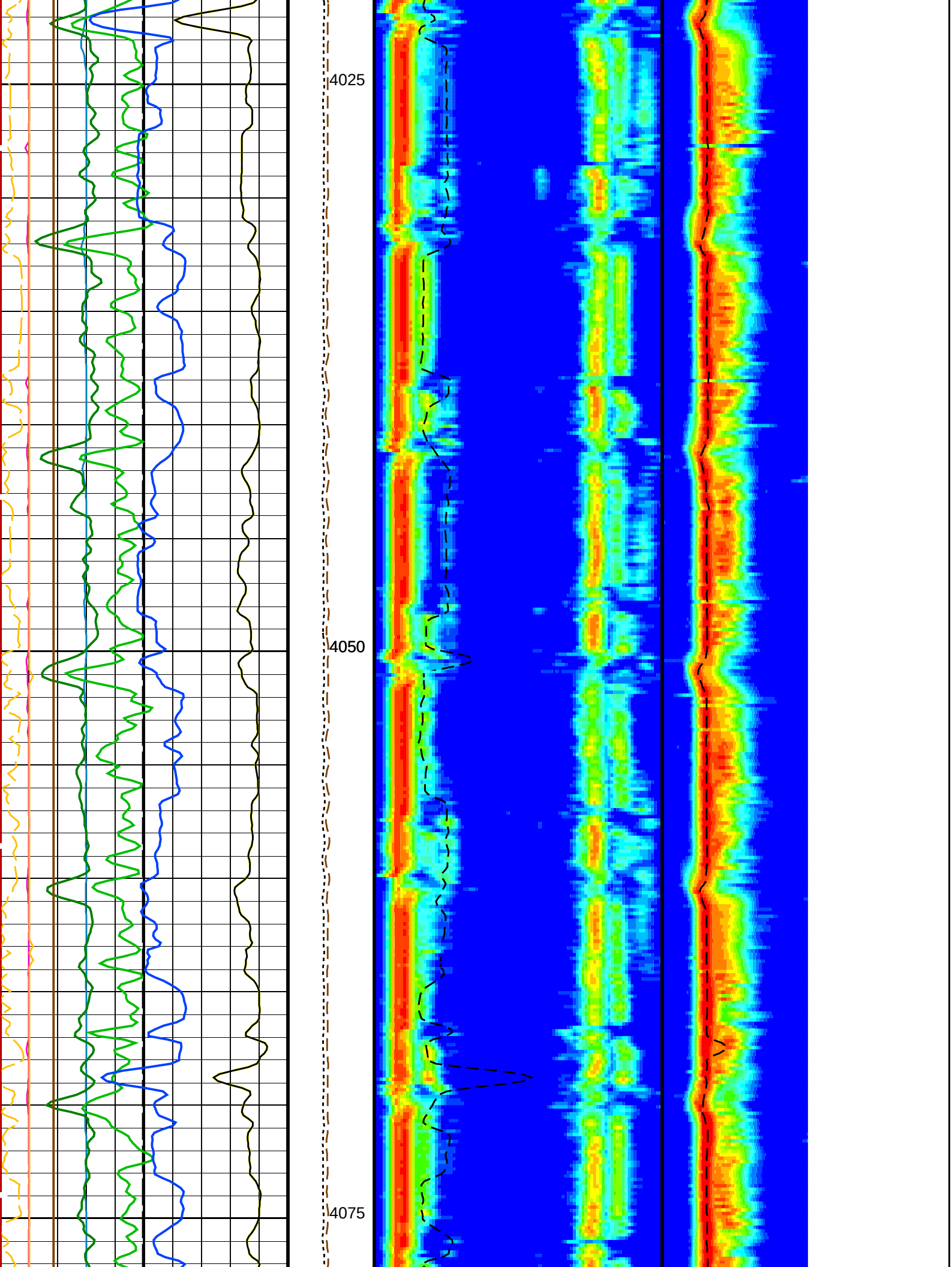


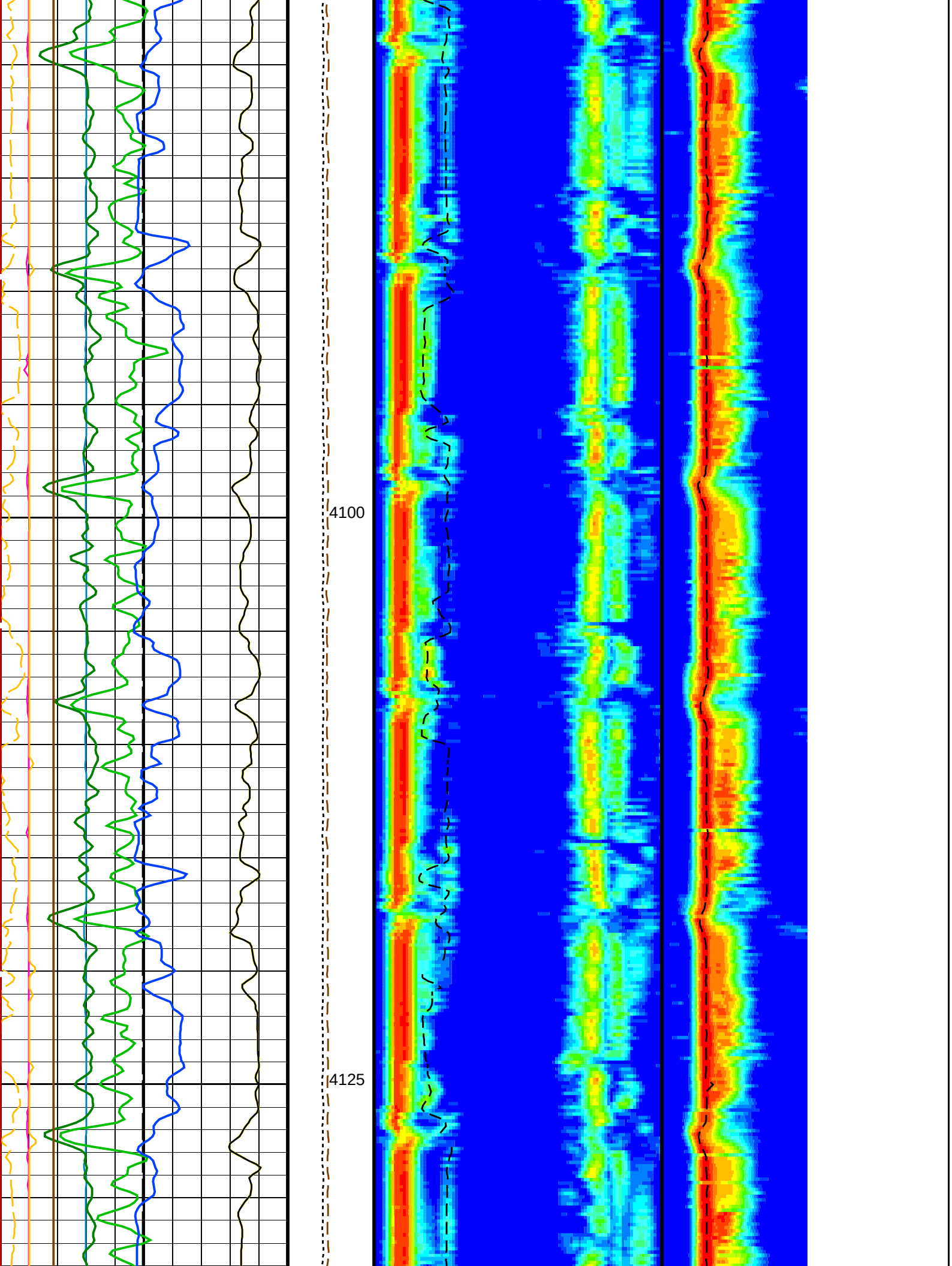

3800
3825
3850

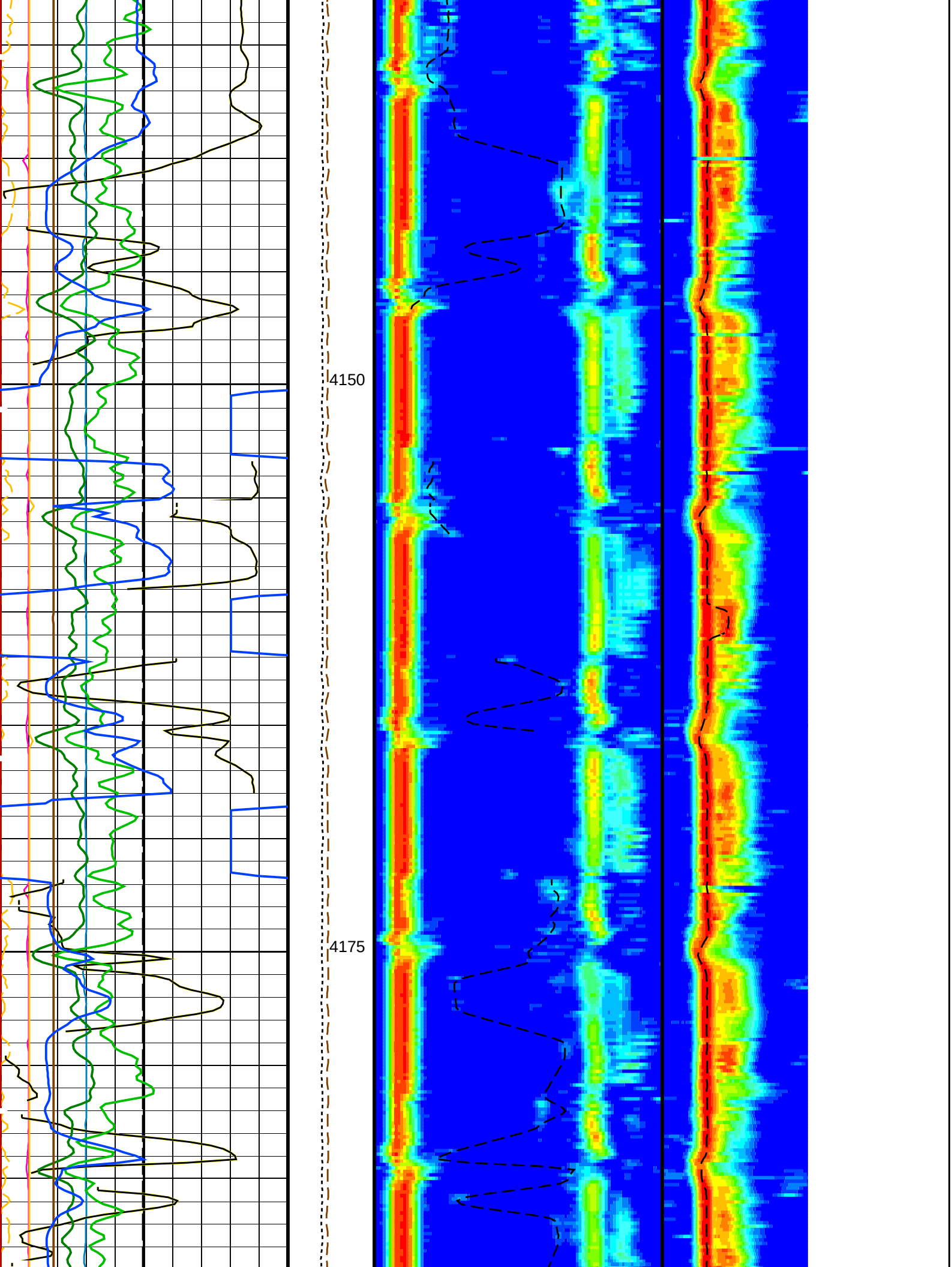

3875
3900

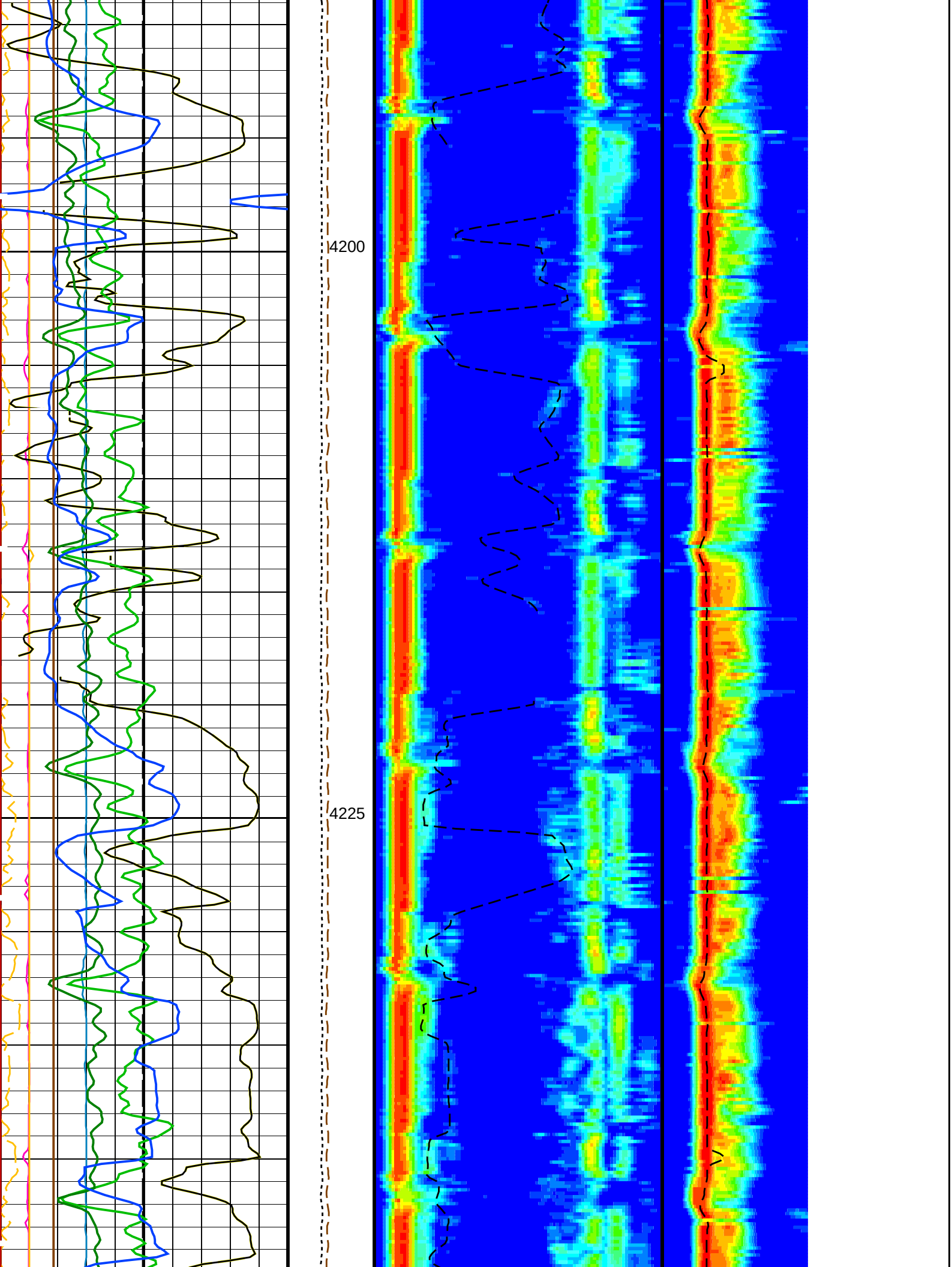

3925
3950

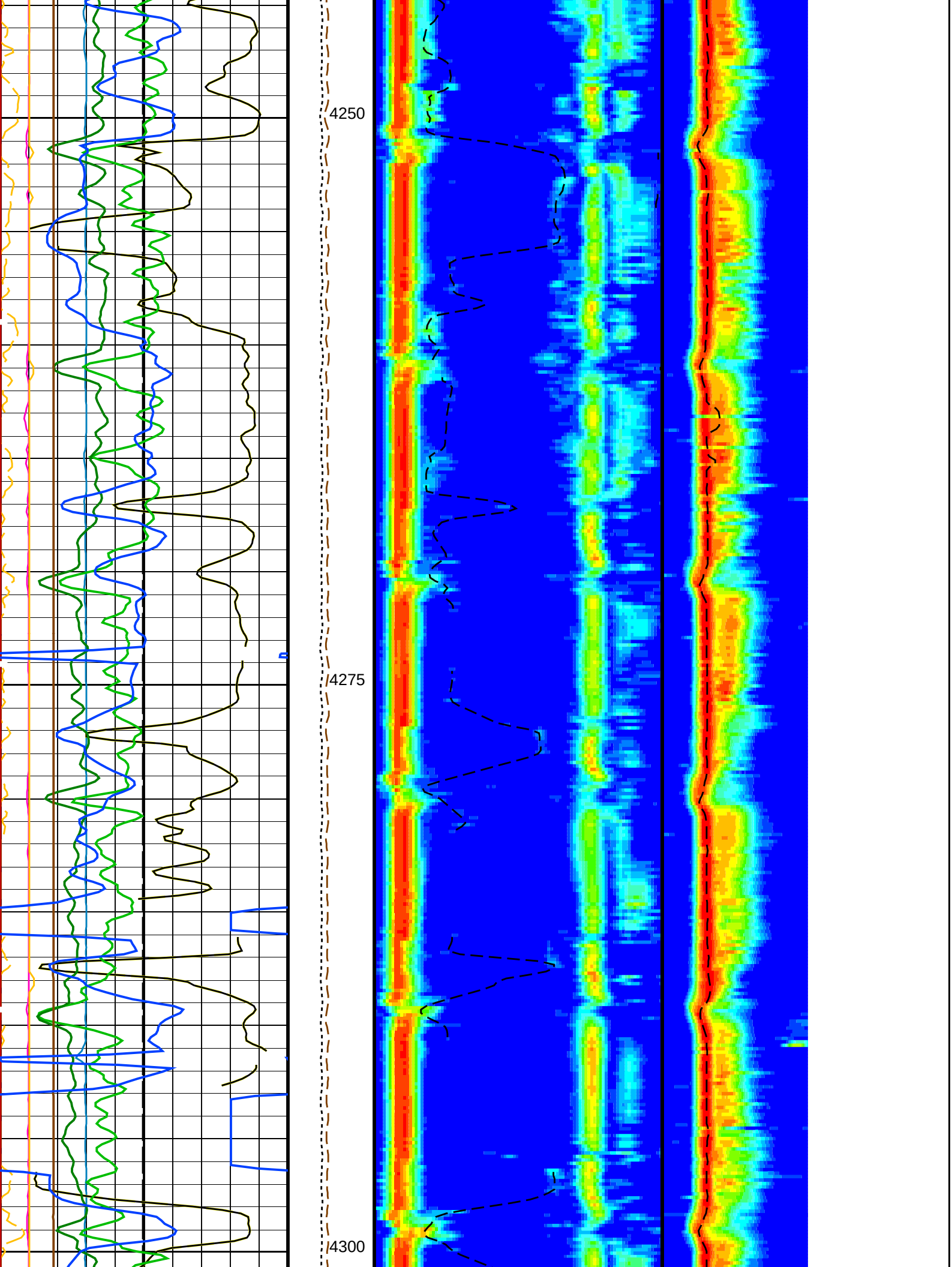

3975
4000

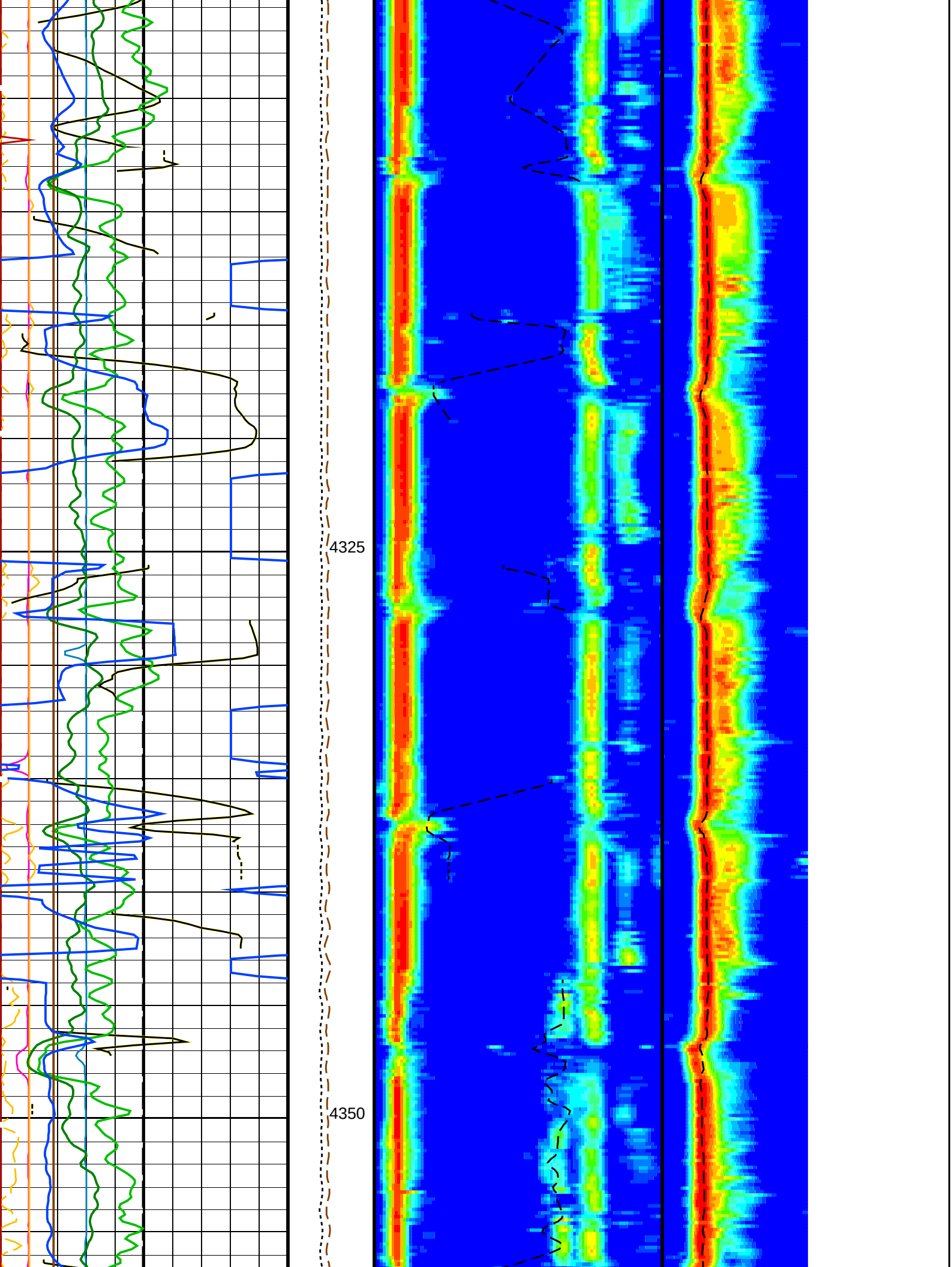

4025
4050
4075

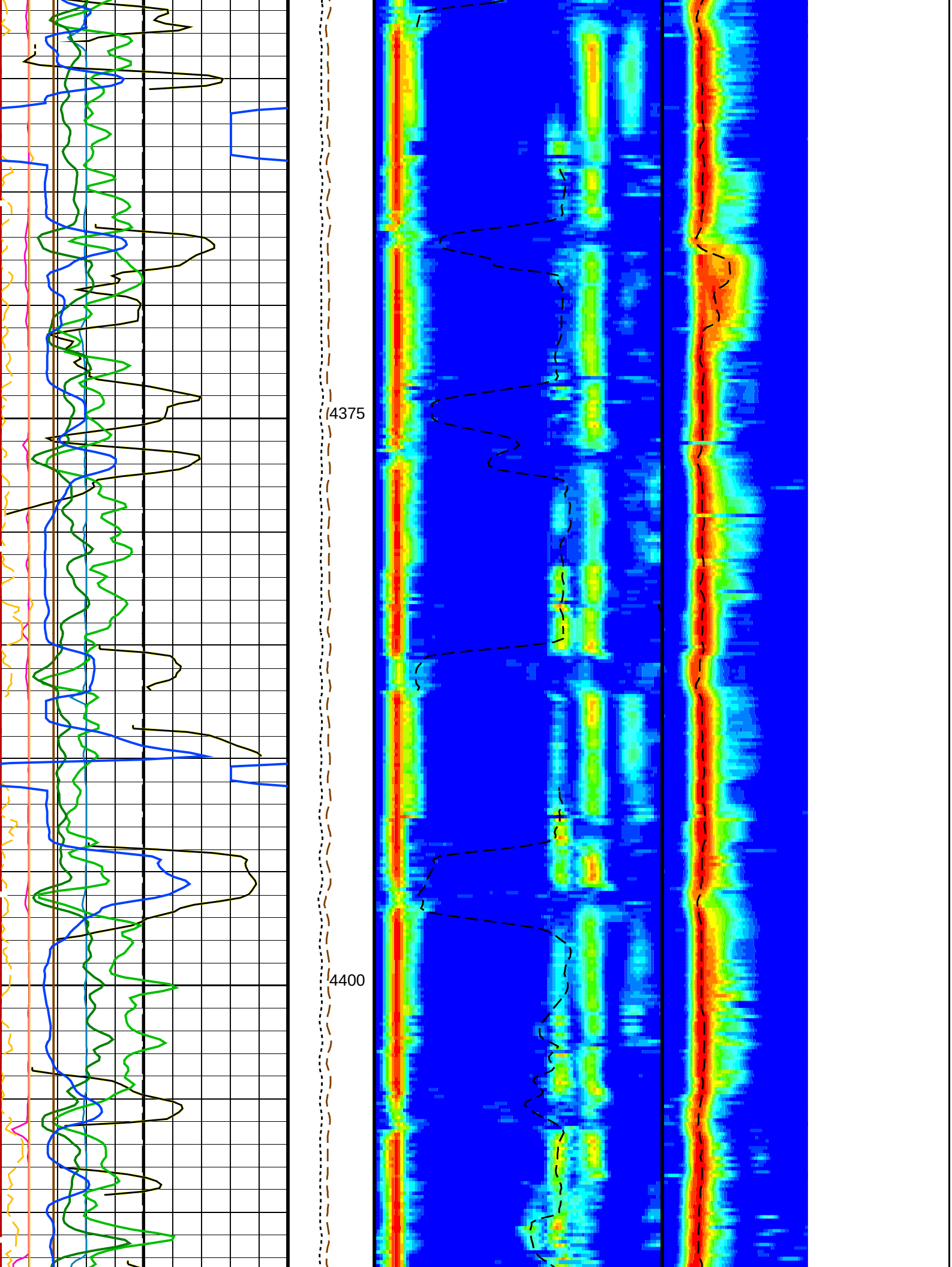

4100
4125

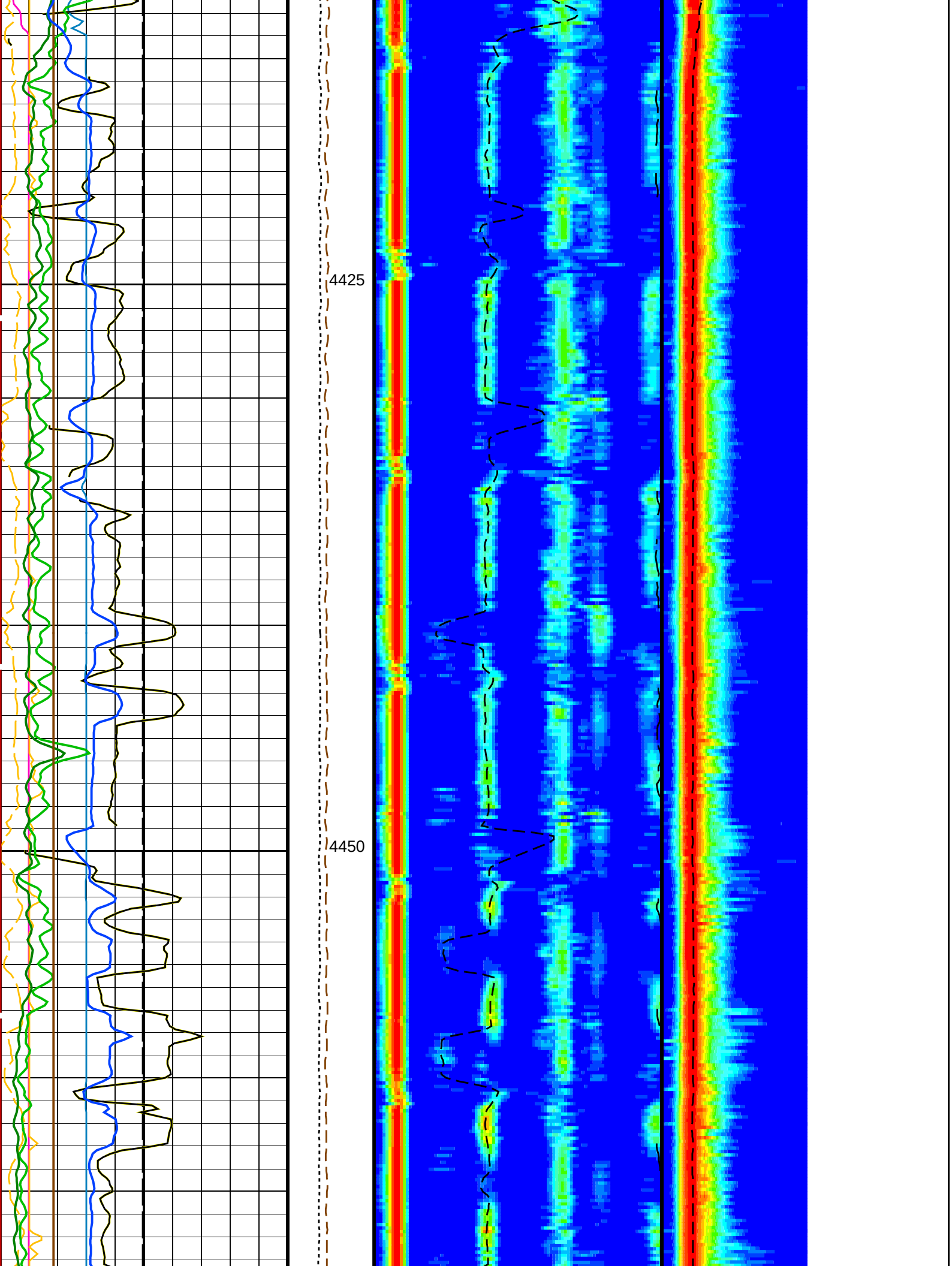

4150
4175

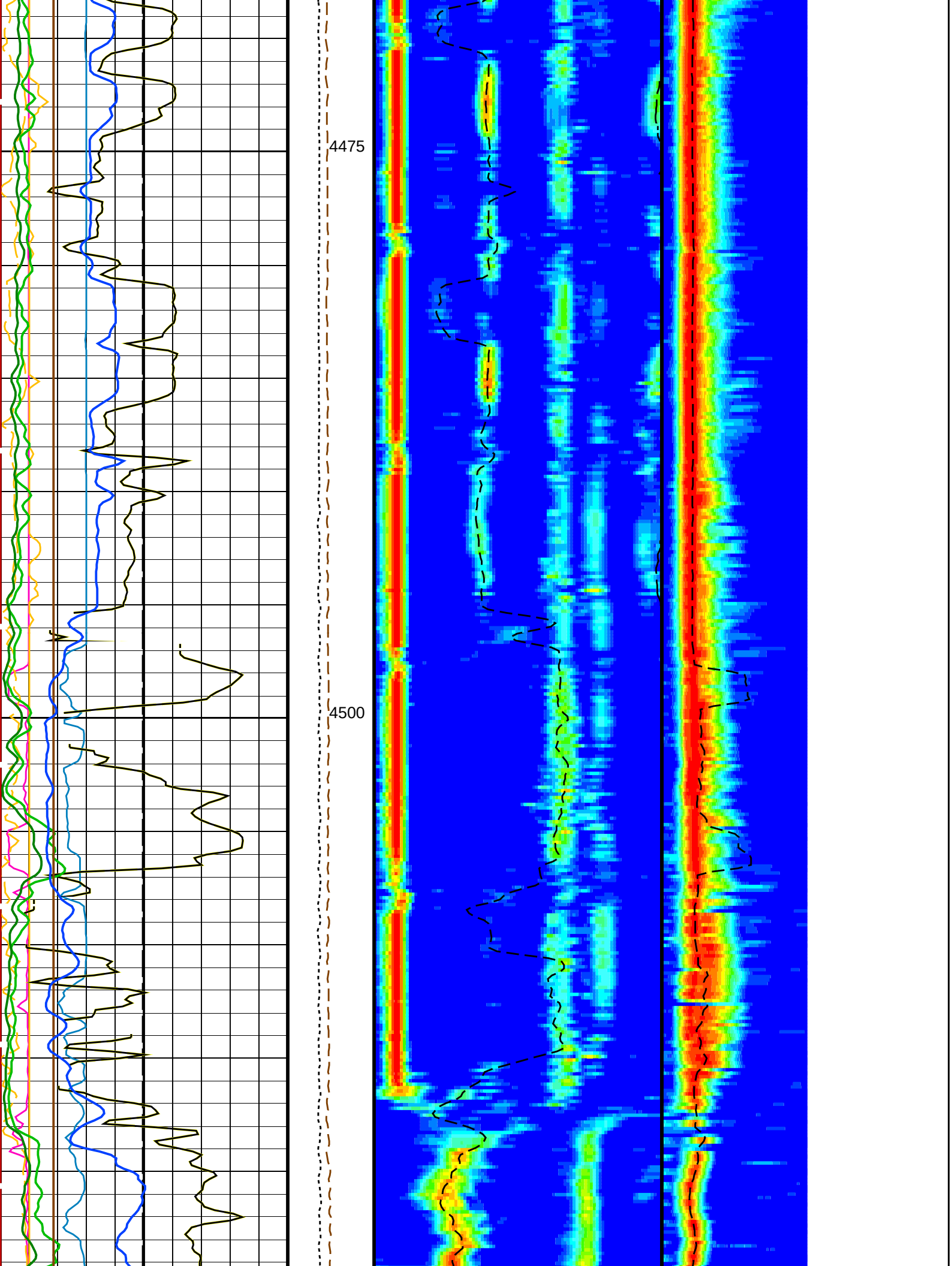

4200
4225

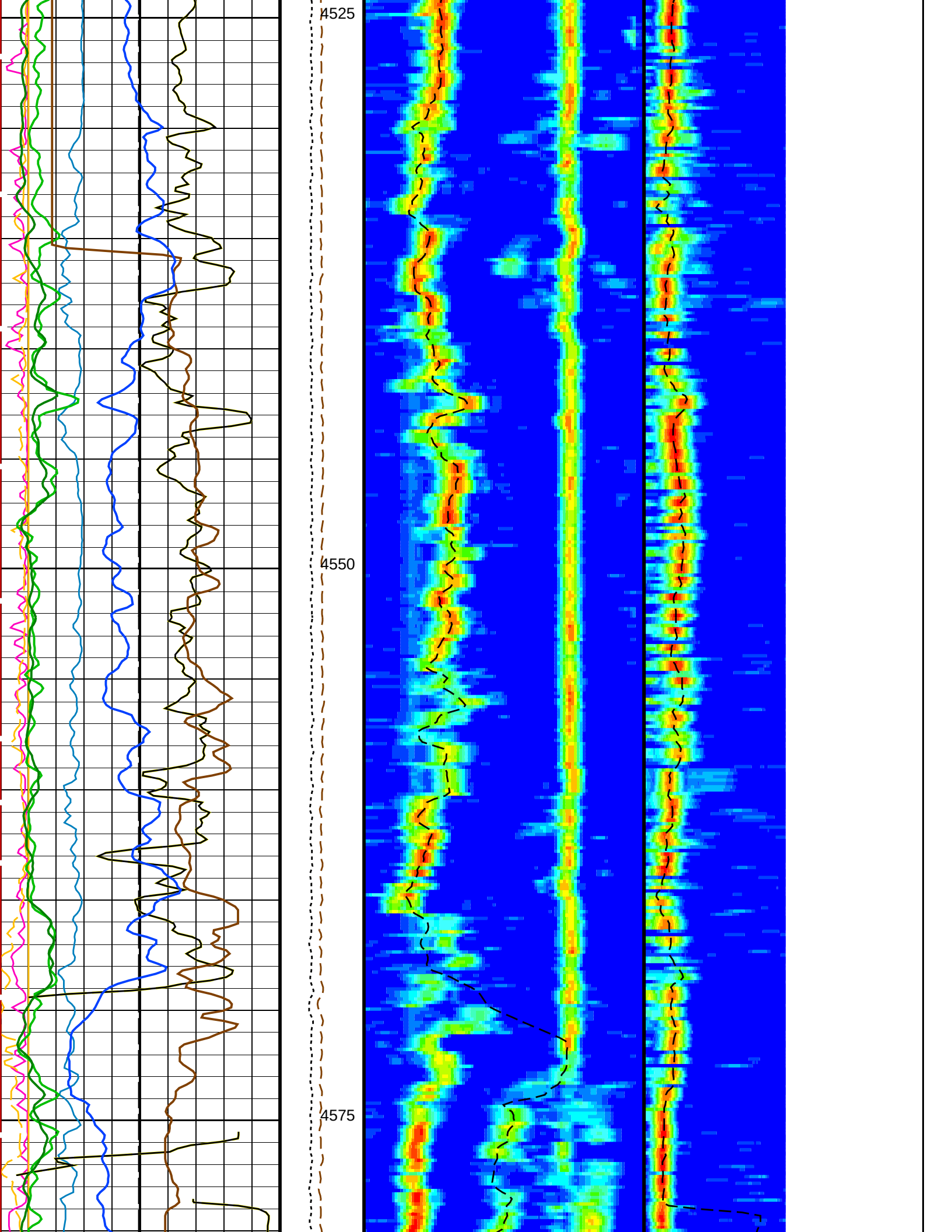

4250
4275
4300

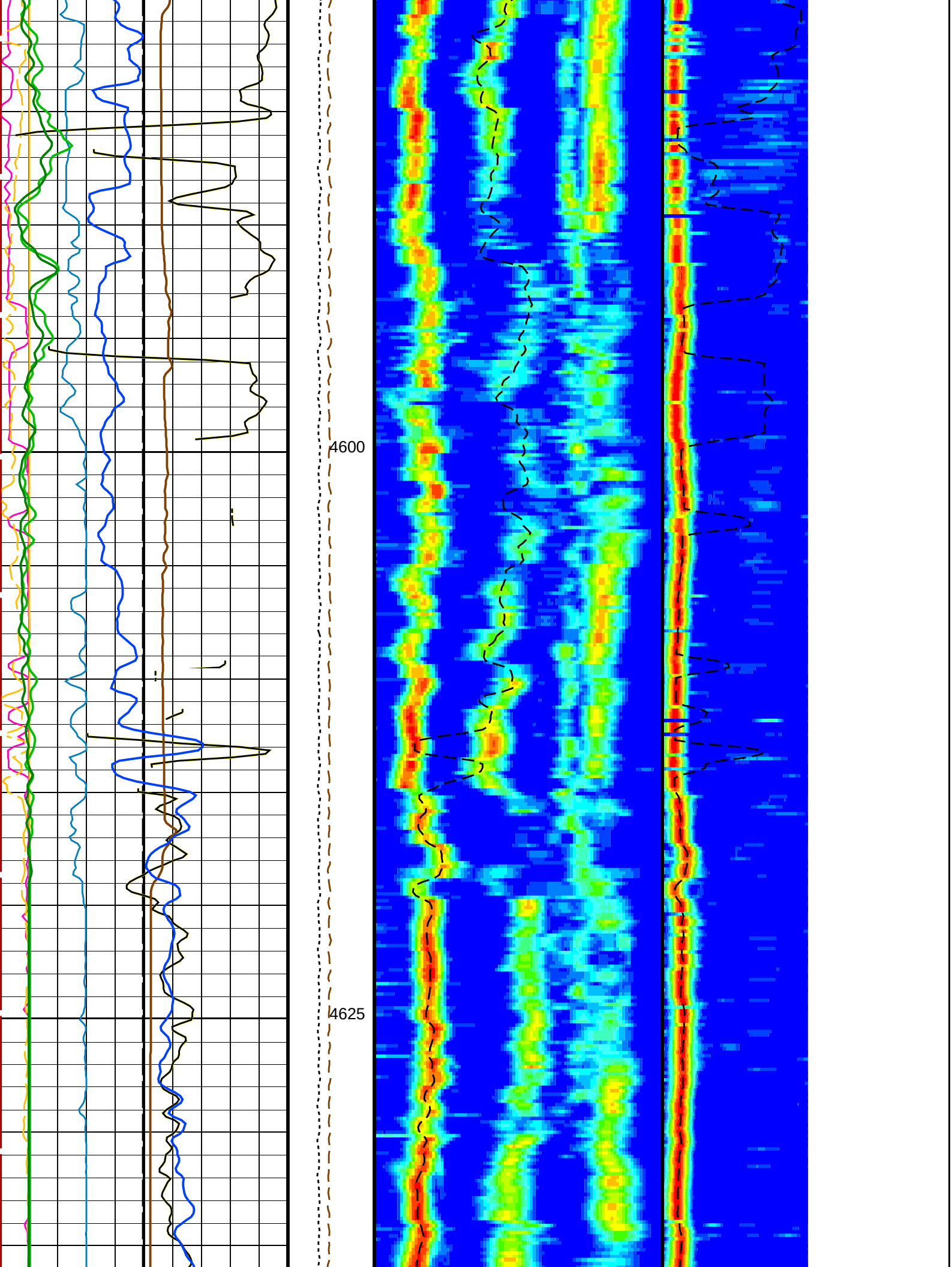

4325
4350

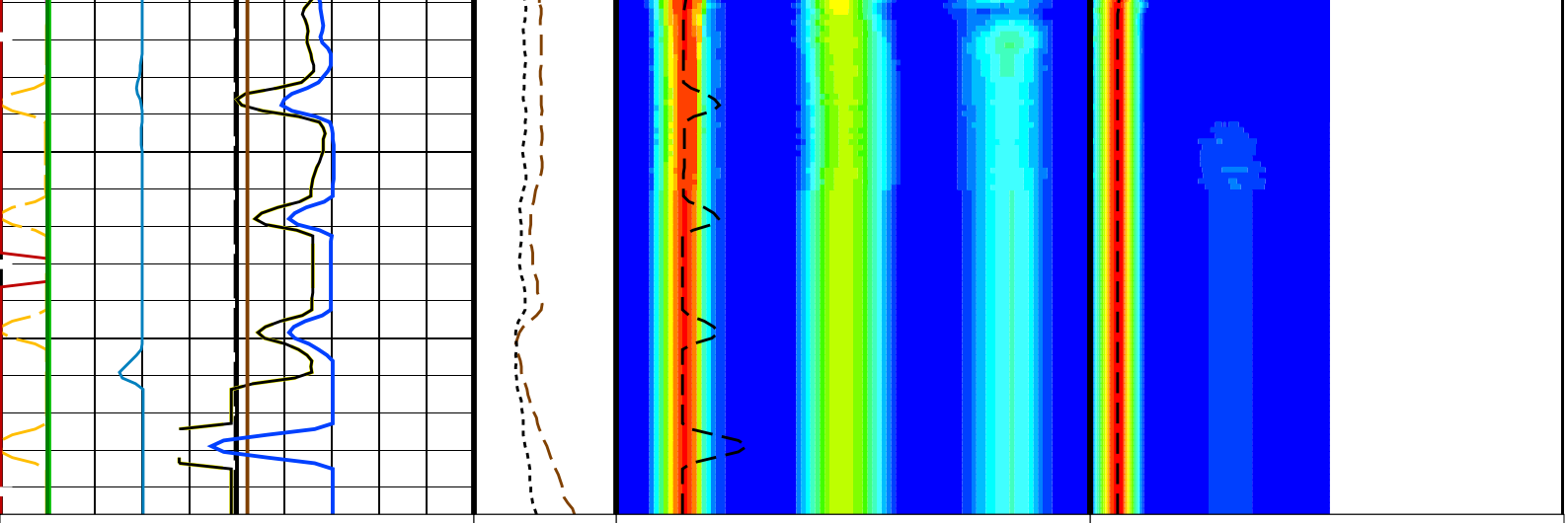

4375
4400


4425
4450


4475
4500


4525
4550
4575


4600
4625



| Bit Size (BS) | Tension (TENS) | Delta−T Comp / RA − P & S (DTRP) | Delta−T Shear / RA − Lower Dipole (DT1R) |
|---|---|---|---|
| 0 (IN) 20 | 10000 (LBF) 0 | 40 (US/F) 240 | 75 (US/F) 1200 |
| **Poisson's Ratio (PR)** | **Calibrated Downhole Force (CDF)** | **Delta−T Shear / RA − P & S (DTRS)** | **Min Amplitude Max** |
| 0 (−−−−) 0.5 | 3000 (LBF) 0 | 40 (US/F) 240 | Rec.Array L.Dipole Slow Proj. CVDL (SPR1) 75 (US/F) 1200 |
| **Poisson's Ratio (PR)** | | **Min Amplitude Max** | |
| 0 (−−−−) 0.5 | | Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240 | |
| **Gamma Ray (GR_EDTC)** | | | |
| 0 (GAPI) 100 | | | |
| **HLDS Caliper (LCAL)** | | | |
| 0 (IN) 20 | | | |
| **Sonic Velocity (SVEL)** | | | |
| 1000 (M/S) 6000 | | | |
| **Peak Coherence / RA − Lower Dipole (CHR1)** | | | |
| 0 (−−−−) 10 | | | |
| **Peak Coherence / TA − Lower Dipole (CHT1)** | | | |
| −2 (−−−−) 8 | | | |
| **Peak Coherence / RA − P & S Comp (CHRP)** | | | |
| 0 (−−−−) 10 | | | |
| **Peak Coherence / RA − P & S Shear (CHRS)** | | | |
| −1 (−−−−) 9 | | | |
| **Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)** | | | |
| 0 (−−−−) 10 | | | |
| **HNGS Spectroscopy Gamma Ray (HSGR)** | | | |
| 0 (GAPI) 100 | | | |

**PIP SUMMARY**

**Time Mark Every 60 S**

## Parameters

| DLIS Name | Description | Value | |
|---|---|---|---|
| | **DSST−B: Dipole Shear Imager − B** | | |
| AGC1 | Automatic Gain Control 1 | ON | |
| AGC2 | Automatic Gain Control 2 | ON | |
| AGC3 | Automatic Gain Control 3 | ON | |
| AGC4 | Automatic Gain Control 4 | ON | |
| AGC5 | Automatic Gain Control 5 | ON | |
| AGCX | Automatic Gain Control X | ON | |
| BARS_MTR1 | Length for Monopole Transmitter to Receiver 1 | 2.7432 | M |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CASF | Label Casing Function − Monopole P&S | 50 | |
| CDTS | C−Delta−T Shale | 100 | US/F |
| COLL | Label Slowness Lower Limit − Monopole P&S Compressional | 65 | US/F |
| COUL | Label Slowness Upper Limit − Monopole P&S Compressional | 185 | US/F |
| DDE1 | Digitizing Delay 1 | 0 | US |
| DDE2 | Digitizing Delay 2 | 0 | US |
| DDE3 | Digitizing Delay 3 | 0 | US |
| DDE4 | Digitizing Delay 4 | 0 | US |
| DDE5 | Digitizing Delay 5 | 0 | US |
| DDEX | Digitizing Delay X | 0 | US |
| DLCS | Label Compressional Source − Dipole Shear | USE | |
| DLHS | Label Hole Diameter Source for SOBS Channel | AUTO | |
| DSHL | Label Slowness Lower Limit − Dipole Shear | 40 | US/F |
| DSHU | Label Slowness Upper Limit − Dipole Shear | 640 | US/F |
| DSI1 | Digitizer Sample Interval 1 | 40 | US |
| DSI2 | Digitizer Sample Interval 2 | 40 | US |
| DSI3 | Digitizer Sample Interval 3 | 10 | US |
| DSI4 | Digitizer Sample Interval 4 | 10 | US |
| DSI5 | Digitizer Sample Interval 5 | 10 | US |
| DSIX | Digitizer Sample Interval X | 40 | US |
| DTCS | Compressional Delta−T Source for DTCO Channel | PS_COMP | |
| DTF | Delta−T Fluid | 193 | US/F |
| DTM | Delta−T Matrix | 56 | US/F |
| DTSS | Shear Delta−T Source for DTSM Channel | LOWER_DIPOLE | |
| DWC1 | Digitizer Word Count 1 | 512 | |
| DWC2 | Digitizer Word Count 2 | 512 | |
| DWC3 | Digitizer Word Count 3 | 512 | |
| DWC4 | Digitizer Word Count 4 | 512 | |
| DWC5 | Digitizer Word Count 5 | 512 | |
| DWCX | Digitizer Word Count X | 512 | |
| FDE1 | Firing Delay 1 | 0 | |
| FDE2 | Firing Delay 2 | 0 | |
| FDE3 | Firing Delay 3 | 0 | |
| FDE4 | Firing Delay 4 | 0 | |
| FDE5 | Firing Delay 5 | 0 | |
| FDEX | Firing Delay X | 0 | |
| FGM5 | First Motion Gate Moveout 5 | 40 | US/F |
| FGMX | First Motion Gate Moveout X | 40 | US/F |
| FILG | Label Fill Gap Control − Monopole P&S | COMP_SHEAR | |
| FMG5 | First Motion Minimum Gate 5 | 500 | US |
| FMGX | First Motion Minimum Gate X | 500 | US |
| FMLL | Slowness Lower Limit − FMD | 40 | US/F |
| FMRC | Restart Control − FMD | CONTINUE | |
| FMT5 | First Motion Threshold 5 | UP | |
| FMTX | First Motion Threshold X | NONE | |
| FMUL | Slowness Upper Limit − FMD | 180 | US/F |
| FNC5 | First Motion Noise Counter Input 5 | ALO | |
| FNCX | First Motion Noise Counter Input X | ALO | |
| FPM | Processing Mode − FMD | NONE | |
| FTD5 | First Motion Threshold Direction 5 | UP | |
| FTDX | First Motion Threshold Direction X | UP | |
| GAI1 | Manual Gain 1 | 10 | |
| GAI2 | Manual Gain 2 | 10 | |
| GAI3 | Manual Gain 3 | 10 | |
| GAI4 | Manual Gain 4 | 16 | |
| GAI5 | Manual Gain 5 | 16 | |
| GAIX | Manual Gain X | 10 | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GDT1 | Gain Delta−T 1 | 800 | US/F |
| GDT2 | Gain Delta−T 2 | 800 | US/F |
| GDT3 | Gain Delta−T 3 | 800 | US/F |
| GDT4 | Gain Delta−T 4 | 160 | US/F |
| GDT5 | Gain Delta−T 5 | 160 | US/F |
| GDTX | Gain Delta−T X | 800 | US/F |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GIN1 | Gain Interval 1 | 15360 | US |
| GIN2 | Gain Interval 2 | 15360 | US |
| GIN3 | Gain Interval 3 | 15360 | US |
| GIN4 | Gain Interval 4 | 2560 | US |
| GIN5 | Gain Interval 5 | 1600 | US |
| GINX | Gain Interval X | 15360 | US |

| | | | |
|---|---|---|---|
| GINX | Gain Interval X | 15360 | US |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HPF1 | High Pass Filter 1 | F80 | |
| HPF2 | High Pass Filter 2 | F80 | |
| HPF3 | High Pass Filter 3 | F80 | |
| HPF4 | High Pass Filter 4 | F8K | |
| HPF5 | High Pass Filter 5 | F8K | |
| HPFX | High Pass Filter X | F80 | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ITTS | Integrated Transit Time Source | DTCO | |
| LFC | Label Formation Character − Monopole P&S | DYNAMIC | |
| LPF1 | Low Pass Filter 1 | F5K | |
| LPF2 | Low Pass Filter 2 | F5K | |
| LPF3 | Low Pass Filter 3 | F5K | |
| LPF4 | Low Pass Filter 4 | F30K | |
| LPF5 | Low Pass Filter 5 | F30K | |
| LPFX | Low Pass Filter X | F5K | |
| LTXG | Lower Dipole Transmitter Geometry | 156 | IN |
| MAI5 | Slowness Averaging Interval − FMD | 42 | IN |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCS | Mean Casing Slowness | 57 | US/F |
| MDS5 | Multishot Delta−T Scatter − FMD | 20 | US |
| MTXG | Monopole Transmitter Geometry | 186 | IN |
| MUX1 | Sum Difference Multiplexor Input 1 | RR | |
| MUX2 | Sum Difference Multiplexor Input 2 | RR | |
| MUX3 | Sum Difference Multiplexor Input 3 | RR | |
| MUX4 | Sum Difference Multiplexor Input 4 | RR | |
| MUX5 | Sum Difference Multiplexor Input 5 | RR | |
| MUXX | Sum Difference Multiplexor Input X | RR | |
| NTI5 | Number Threshold Items 5 | 0 | |
| NTIX | Number Threshold Items X | 0 | |
| NWI1 | Number Waveform Items 1 | 8 | |
| NWI2 | Number Waveform Items 2 | 8 | |
| NWI3 | Number Waveform Items 3 | 0 | |
| NWI4 | Number Waveform Items 4 | 8 | |
| NWI5 | Number Waveform Items 5 | 0 | |
| NWIX | Number Waveform Items X | 0 | |
| NWS1 | Number Waveforms Stacked 1 | 1 | |
| NWS2 | Number Waveforms Stacked 2 | 1 | |
| NWS3 | Number Waveforms Stacked 3 | 1 | |
| NWS4 | Number Waveforms Stacked 4 | 1 | |
| NWS5 | Number Waveforms Stacked 5 | 1 | |
| NWSX | Number Waveforms Stacked X | 1 | |
| RATE | Firing Rate | R7 | |
| RSMN | Label Shear/Compressional Minimum Ratio − Monopole P&S | 1.4 | |
| RSMX | Label Shear/Compressional Maximum Ratio − Monopole P&S | 2.12 | |
| RX1G | Receiver 1 Geometry | 294 | IN |
| RX2G | Receiver 2 Geometry | 300 | IN |
| RX3G | Receiver 3 Geometry | 306 | IN |
| RX4G | Receiver 4 Geometry | 312 | IN |
| RX5G | Receiver 5 Geometry | 318 | IN |
| RX6G | Receiver 6 Geometry | 324 | IN |
| RX7G | Receiver 7 Geometry | 330 | IN |
| RX8G | Receiver 8 Geometry | 336 | IN |
| SAM1 | DSST Sonic Acquisition Mode 1 − Lower Dipole Mode | EVEN | |
| SAM2 | DSST Sonic Acquisition Mode 2 − Upper Dipole Mode | ODD | |
| SAM3 | DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley | OFF | |
| SAM4 | DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S | EVEN | |
| SAM5 | DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD | OFF | |
| SAMX | DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert | OFF | |
| SAS1 | STC Sonic Array Status − Lower Dipole | 255 | |
| SAS2 | STC Sonic Array Status − Upper Dipole | 255 | |
| SAS3 | STC Sonic Array Status − Monopole Stoneley | 255 | |
| SAS4 | STC Sonic Array Status − Monopole P&S | 255 | |
| SAS5 | Sonic Array Status − FMD | 255 | |
| SBO1 | STC Search Band Offset − Lower Dipole | 3000 | US |
| SBO2 | STC Search Band Offset − Upper Dipole | 3000 | US |
| SBO3 | STC Search Band Offset − Monopole Stoneley | 3000 | US |
| SBO4 | STC Search Band Offset − Monopole P&S | 500 | US |
| SBR4 | STC Baseline Removal − Monopole P&S | ON | |
| SBW1 | STC Search Bandwidth − Lower Dipole | 8000 | US |
| SBW2 | STC Search Bandwidth − Upper Dipole | 8000 | US |
| SBW3 | STC Search Bandwidth − Monopole Stoneley | 8000 | US |
| SBW4 | STC Search Bandwidth − Monopole P&S | 2000 | US |
| SFC1 | STC Formation Character − Lower Dipole | SELECTABLE | |
| SFC2 | STC Formation Character − Upper Dipole | SELECTABLE | |
| SFC3 | STC Formation Character − Monopole Stoneley | SELECTABLE | |
| SFC4 | STC Formation Character − Monopole P&S | SELECTABLE | |
| SFM1 | STC Filter − Lower Dipole | B1−3K | |
| SFM2 | STC Filter − Upper Dipole | B1−2K | |
| SFM3 | STC Filter − Monopole Stoneley | B.5−1.5K | |
| SFM4 | STC Filter − Monopole P&S | B3−20K | |
| SHLL | Label Slowness Lower Limit − Monopole P&S Shear | 235 | US/F |

| | | | |
|---|---|---|---|
| SHT | Surface Hole Temperature | 20 | DEGC |
| SHUL | Label Slowness Upper Limit − Monopole P&S Shear | 240 | US/F |
| SLL1 | STC Slowness Lower Limit − Lower Dipole | 40 | US/F |
| SLL2 | STC Slowness Lower Limit − Upper Dipole | 40 | US/F |
| SLL3 | STC Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| SLL4 | STC Slowness Lower Limit − Monopole P&S | 40 | US/F |
| SPFS | Sonic Porosity Formula | RAYMER_HUNT | |
| SPSO | Sonic Porosity Source | DTCO | |
| SST1 | STC Slowness Step − Lower Dipole | 4 | US/F |
| SST2 | STC Slowness Step − Upper Dipole | 4 | US/F |
| SST3 | STC Slowness Step − Monopole Stoneley | 4 | US/F |
| SST4 | STC Slowness Step − Monopole P&S | 2 | US/F |
| SSW1 | STC Source Waveform − Lower Dipole | WF_SAM1 | |
| SSW2 | STC Source Waveform − Upper Dipole | WF_SAM2 | |
| SSW3 | STC Source Waveform − Monopole Stoneley | WF_SAM3 | |
| SSW4 | STC Source Waveform − Monopole P&S | WF_SAM4 | |
| STLL | Label Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| STUL | Label Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL1 | STC Slowness Upper Limit − Lower Dipole | 640 | US/F |
| SUL2 | STC Slowness Upper Limit − Upper Dipole | 640 | US/F |
| SUL3 | STC Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL4 | STC Slowness Upper Limit − Monopole P&S | 240 | US/F |
| SWD1 | STC Slowness Width − Lower Dipole | 40 | US/F |
| SWD2 | STC Slowness Width − Upper Dipole | 40 | US/F |
| SWD3 | STC Slowness Width − Monopole Stoneley | 40 | US/F |
| SWD4 | STC Slowness Width − Monopole P&S | 10 | US/F |
| TBDB | Tool String Bottom to DSST Bottom | 95.25 | IN |
| TBF1 | STC Time for Baseline Fill − Lower Dipole | 0 | US |
| TBF2 | STC Time for Baseline Fill − Upper Dipole | 0 | US |
| TBF3 | STC Time for Baseline Fill − Monopole Stoneley | 0 | US |
| TBF4 | STC Time for Baseline Fill − Monopole P&S | 300 | US |
| TLL1 | STC Time Lower Limit − Lower Dipole | 600 | US |
| TLL2 | STC Time Lower Limit − Upper Dipole | 600 | US |
| TLL3 | STC Time Lower Limit − Monopole Stoneley | 600 | US |
| TLL4 | STC Time Lower Limit − Monopole P&S | 150 | US |
| TST1 | STC Time Step − Lower Dipole | 200 | US |
| TST2 | STC Time Step − Upper Dipole | 200 | US |
| TST3 | STC Time Step − Monopole Stoneley | 200 | US |
| TST4 | STC Time Step − Monopole P&S | 50 | US |
| TTDB | Tool String Top to DSST Bottom | 1348.6 | IN |
| TUL1 | STC Time Upper Limit − Lower Dipole | 14360 | US |
| TUL2 | STC Time Upper Limit − Upper Dipole | 14040 | US |
| TUL3 | STC Time Upper Limit − Monopole Stoneley | 12000 | US |
| TUL4 | STC Time Upper Limit − Monopole P&S | 3660 | US |
| TWA1 | Transmitter Waveform Amplitude 1 | 179 | |
| TWA2 | Transmitter Waveform Amplitude 2 | 179 | |
| TWA3 | Transmitter Waveform Amplitude 3 | 179 | |
| TWA4 | Transmitter Waveform Amplitude 4 | 150 | |
| TWA5 | Transmitter Waveform Amplitude 5 | 150 | |
| TWAX | Transmitter Waveform Amplitude X | 179 | |
| TWD1 | STC Time Width − Lower Dipole | 2000 | US |
| TWD2 | STC Time Width − Upper Dipole | 2000 | US |
| TWD3 | STC Time Width − Monopole Stoneley | 2000 | US |
| TWD4 | STC Time Width − Monopole P&S | 1000 | US |
| TWI1 | STC Integration Time Window − Lower Dipole | 1600 | US |
| TWI2 | STC Integration Time Window − Upper Dipole | 1600 | US |
| TWI3 | STC Integration Time Window − Monopole Stoneley | 2400 | US |
| TWI4 | STC Integration Time Window − Monopole P&S | 500 | US |
| TWR1 | Transmitter Waveform Sample Rate 1 | 5 | US |
| TWR2 | Transmitter Waveform Sample Rate 2 | 5 | US |
| TWR3 | Transmitter Waveform Sample Rate 3 | 5 | US |
| TWR4 | Transmitter Waveform Sample Rate 4 | 5 | US |
| TWR5 | Transmitter Waveform Sample Rate 5 | 5 | US |
| TWRX | Transmitter Waveform Sample Rate X | 5 | US |
| TWS1 | Transmitter Waveform Select 1 | 0 | |
| TWS2 | Transmitter Waveform Select 2 | 0 | |
| TWS3 | Transmitter Waveform Select 3 | 0 | |
| TWS4 | Transmitter Waveform Select 4 | 6 | |
| TWS5 | Transmitter Waveform Select 5 | 6 | |
| TWSX | Transmitter Waveform Select X | 0 | |
| UTXG | Upper Dipole Transmitter Geometry | 162 | IN |
| WFDTSP1 | SAM1 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP2 | SAM2 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP3 | SAM3 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP4 | SAM4 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSPX | SAMX Waveform Delta for Spectrum | 0 | US/F |
| WFLLSP1 | SAM1 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP2 | SAM2 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP3 | SAM3 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP4 | SAM4 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSPX | SAMX Waveform Lower Limit for Spectrum | 0 | US |
| WFM1 | Waveform Mode 1 | W1 | |
| WFM2 | Waveform Mode 2 | W1 | |
| WFM3 | Waveform Mode 3 | W1 | |
| WFM4 | Waveform Mode 4 | W1 | |

| | | | |
|---|---|---|---|
| WFM5 | Waveform Mode 5 | W1 | |
| WFMX | Waveform Mode X | W1 | |
| WFULSP1 | SAM1 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP2 | SAM2 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP3 | SAM3 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP4 | SAM4 Waveform Upper Limit for Spectrum | 5000 | US |
| WFULSPX | SAMX Waveform Upper Limit for Spectrum | 20000 | US |
| XMT1 | Transmitter Select 1 | DLO | |
| XMT2 | Transmitter Select 2 | DUP | |
| XMT3 | Transmitter Select 3 | NONE | |
| XMT4 | Transmitter Select 4 | MONO | |
| XMT5 | Transmitter Select 5 | MONO | |
| XMTX | Transmitter Select X | DUP | |
| HLDS: Hostile Litho−Density Sonde | | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | ON | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1000 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| HNGS−BA: Hostile Natural Gamma Ray Sonde | | | |
| BAR1 | HNGS Detector 1 Barite Constant | 1 | |
| BAR2 | HNGS Detector 2 Barite Constant | 1 | |
| BHK | HNGS Borehole Potassium Correction Concentration | 0 | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CSD1 | Inner Casing Outer Diameter | 10.75 | IN |
| CSD2 | Outer Casing Outer Diameter | 10.75 | IN |
| CSW1 | Inner Casing Weight | 45 | LB/F |
| CSW2 | Outer Casing Weight | 45 | LB/F |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | −0.0011803 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | BARI | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| S1BI | HNGS Detector 1 Calibration Bismuth Count Rate | 1.3 | CPS |
| S2BI | HNGS Detector 2 Calibration Bismuth Count Rate | 1.3 | CPS |
| SGRC | HNGS Standard Gamma−Ray Correction Flag | YES | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 0.990143 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 1.05695 | |
| EDTC−B: Enhanced DTS Cartridge | | | |
| BHFL | Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| BSCO | Borehole Salinity Correction Option | NO | |
| CCCO | Casing & Cement Thickness Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FSAL | Formation Salinity | −50000 | PPM |
| FSCO | Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO | Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ISSBAR_EDTC | Nuclear Mud Type | BARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO | Mud Cake Correction Option | NO | |
| MCOR | Mud Correction | SALT | |

| | | | |
|---|---|---|---|
| MCOR | Mud Correction | SALT | |
| MWCO | Mud Weight Correction Option | YES | |
| PTCO | Pressure/Temperature Correction Option | NO | |
| SDAT | Standoff Data Source | SOCN | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SOCN | Standoff Distance | 0.5 | IN |
| SOCO | Standoff Correction Option | NO | |
| TPOS_EDTC | EDTC Tool Centered/Eccentered | Eccentered | |
| U−ETELM_EDTS | Telemetry Mode for eWAFE | Standard_EDTS | |
| U−TELM_EDTS | Telemetry Mode for WAFE | Standard_EDTS | |
| System and Miscellaneous | | | |
| ALTDPCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.05 | G/C3 |
| FLEV | Fluid Level | −50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| RMFS | Resistivity of Mud Filtrate Sample | −50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 5345 | M |
| TDD | Total Depth − Driller | 4695.50 | M |
| TDL | Total Depth − Logger | 4695.50 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

Format: DSST_P_S_LOWER_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 13−May−2017 07:20

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_013LUP | FN:15 | PRODUCER | 13−May−2017 07:20 | | |
| RTB | DSI_LDL_NGS_013LUP | FN:16 | PRODUCER | 13−May−2017 07:20 | | |

Schlumberger

# Repeat Pass
# 1:200 Scale

MAXIS Field Log

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_012LUP | FN:13 | PRODUCER | 13−May−2017 06:55 | 4649.7 M | 4560.6 M |
| RTB | DSI_LDL_NGS_012LUP | FN:14 | PRODUCER | 13−May−2017 06:55 | 4649.7 M | 4560.6 M |

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

**PIP SUMMARY**

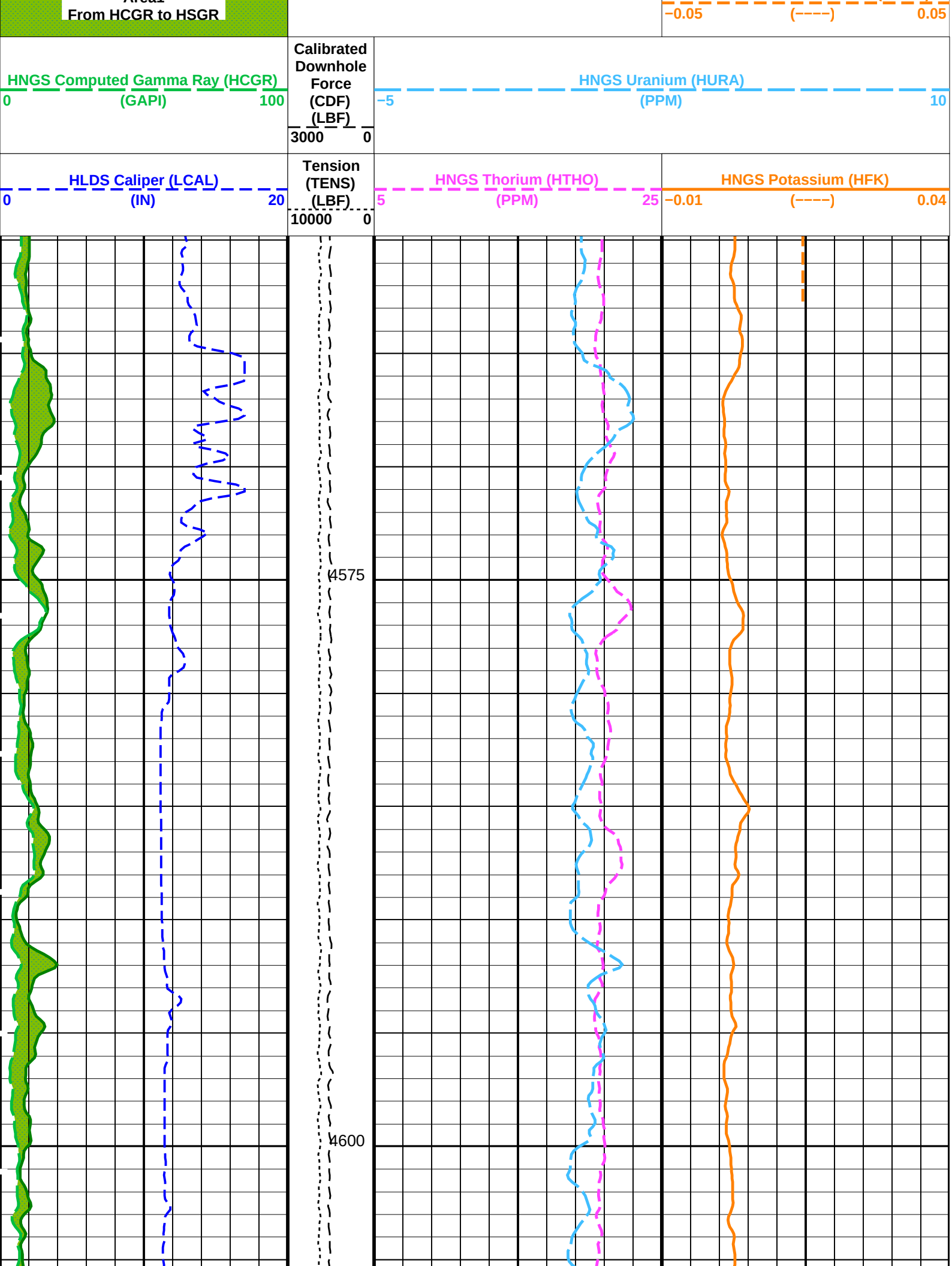
Time Mark Every 60 S

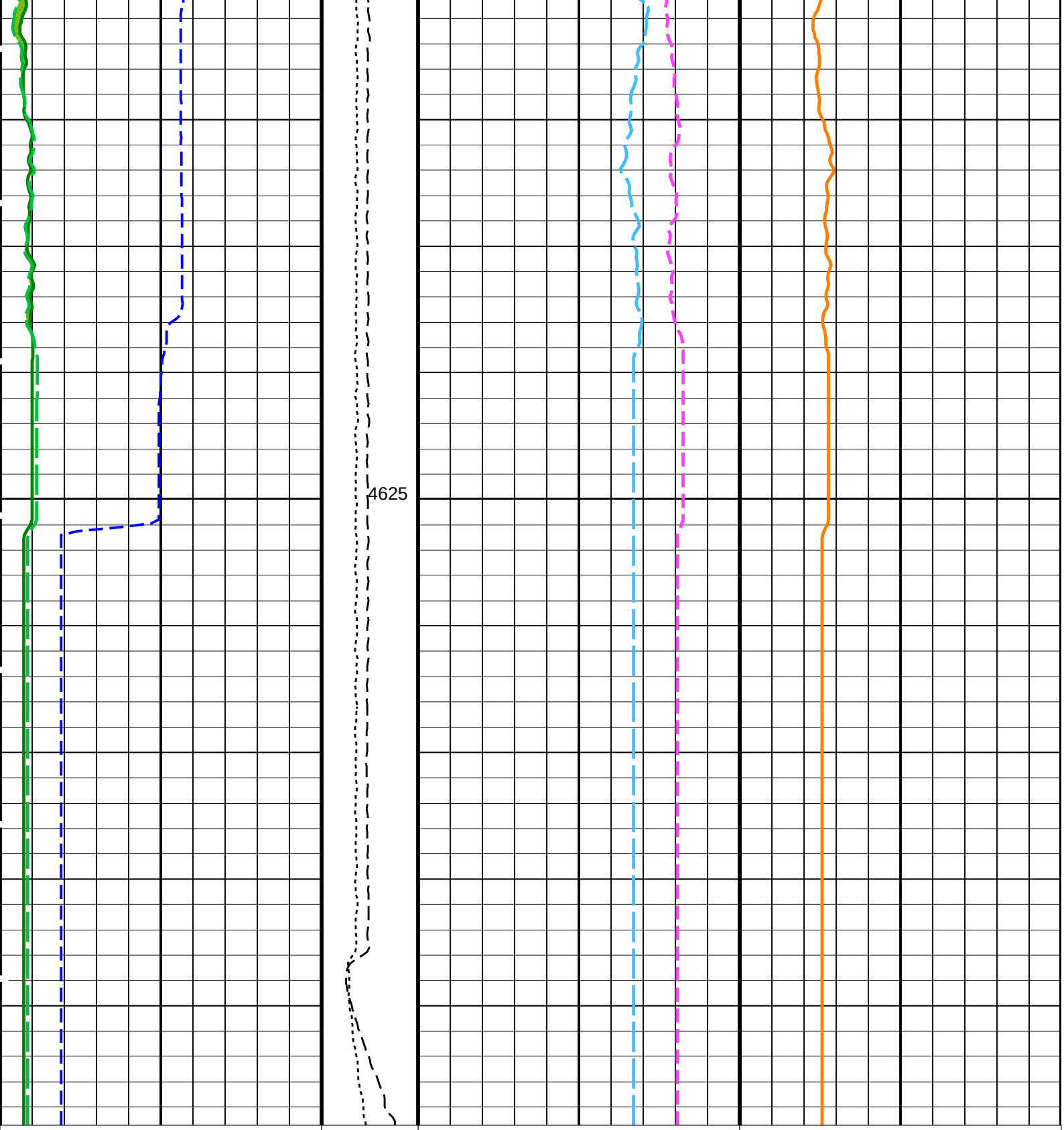
HNGS Spectroscopy Gamma Ray (HSGR)

0 (GAPI) 100

Area1

HNGS Borehole Potassium (HBHK)


Area1
From HCGR to HSGR
HNGS Computed Gamma Ray (HCGR)
0
(GAPI)
100
Calibrated Downhole Force (CDF) (LBF)
3000
0
HNGS Uranium (HURA)
−5
(PPM)
10
−0.05
(−−−−)
0.05
HLDS Caliper (LCAL)
0
(IN)
20
Tension (TENS) (LBF)
10000
0
HNGS Thorium (HTHO)
5
(PPM)
25
HNGS Potassium (HFK)
−0.01
(−−−−)
0.04
4575
4600




HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HNGS Thorium (HTHO)
5 (PPM) 25

HNGS Potassium (HFK)
−0.01 (−−−−) 0.04

HNGS Computed Gamma Ray (HCGR)
0 (GAPI) 100

Calibrated Downhole Force (CDF) (LBF)
3000 0

HNGS Uranium (HURA)
−5 (PPM) 10

Area1
From HCGR to HSGR

HNGS Borehole Potassium (HBHK)
−0.05 (−−−−) 0.05

| HNGS Spectroscopy Gamma Ray (HSGR) | | |
|---|---|---|
| 0 | (GAPI) | 100 |

PIP SUMMARY

Time Mark Every 60 S

## Parameters

| DLIS Name | Description | Value | |
|---|---|---|---|
| | **DSST−B: Dipole Shear Imager − B** | | |
| BHS | Borehole Status | OPEN | |
| GCSE | Generalized Caliper Selection | LCAL | |
| | **HNGS−BA: Hostile Natural Gamma Ray Sonde** | | |
| BAR1 | HNGS Detector 1 Barite Constant | 1 | |
| BAR2 | HNGS Detector 2 Barite Constant | 1 | |
| BHK | HNGS Borehole Potassium Correction Concentration | 0 | |
| BHS | Borehole Status | OPEN | |
| CSD1 | Inner Casing Outer Diameter | 10.75 | IN |
| CSD2 | Outer Casing Outer Diameter | 10.75 | IN |
| CSW1 | Inner Casing Weight | 45 | LB/F |
| CSW2 | Outer Casing Weight | 45 | LB/F |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | LCAL | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | −0.00373802 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | BARI | |
| HNPE | HNGS Processing Enable | YES | |
| S1BI | HNGS Detector 1 Calibration Bismuth Count Rate | 1.3 | CPS |
| S2BI | HNGS Detector 2 Calibration Bismuth Count Rate | 1.3 | CPS |
| SGRC | HNGS Standard Gamma−Ray Correction Flag | YES | |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 0.933396 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 0.945439 | |
| | **EDTC−B: Enhanced DTS Cartridge** | | |
| BHS | Borehole Status | OPEN | |
| GCSE | Generalized Caliper Selection | LCAL | |
| | **System and Miscellaneous** | | |
| BS | Bit Size | 9.875 | IN |
| DFD | Drilling Fluid Density | 1.05 | G/C3 |

Format: HNGSYields Vertical Scale: 1:200 Graphics File Created: 13−May−2017 06:55

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_012LUP | FN:13 | PRODUCER | 13−May−2017 06:55 | | |
| RTB | DSI_LDL_NGS_012LUP | FN:14 | PRODUCER | 13−May−2017 06:55 | | |


## Output DLIS Files


| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_012LUP | FN:13 | PRODUCER | 13−May−2017 06:55 | 4649.7 M | 4560.6 M |
| RTB | DSI_LDL_NGS_012LUP | FN:14 | PRODUCER | 13−May−2017 06:55 | 4649.7 M | 4560.6 M |

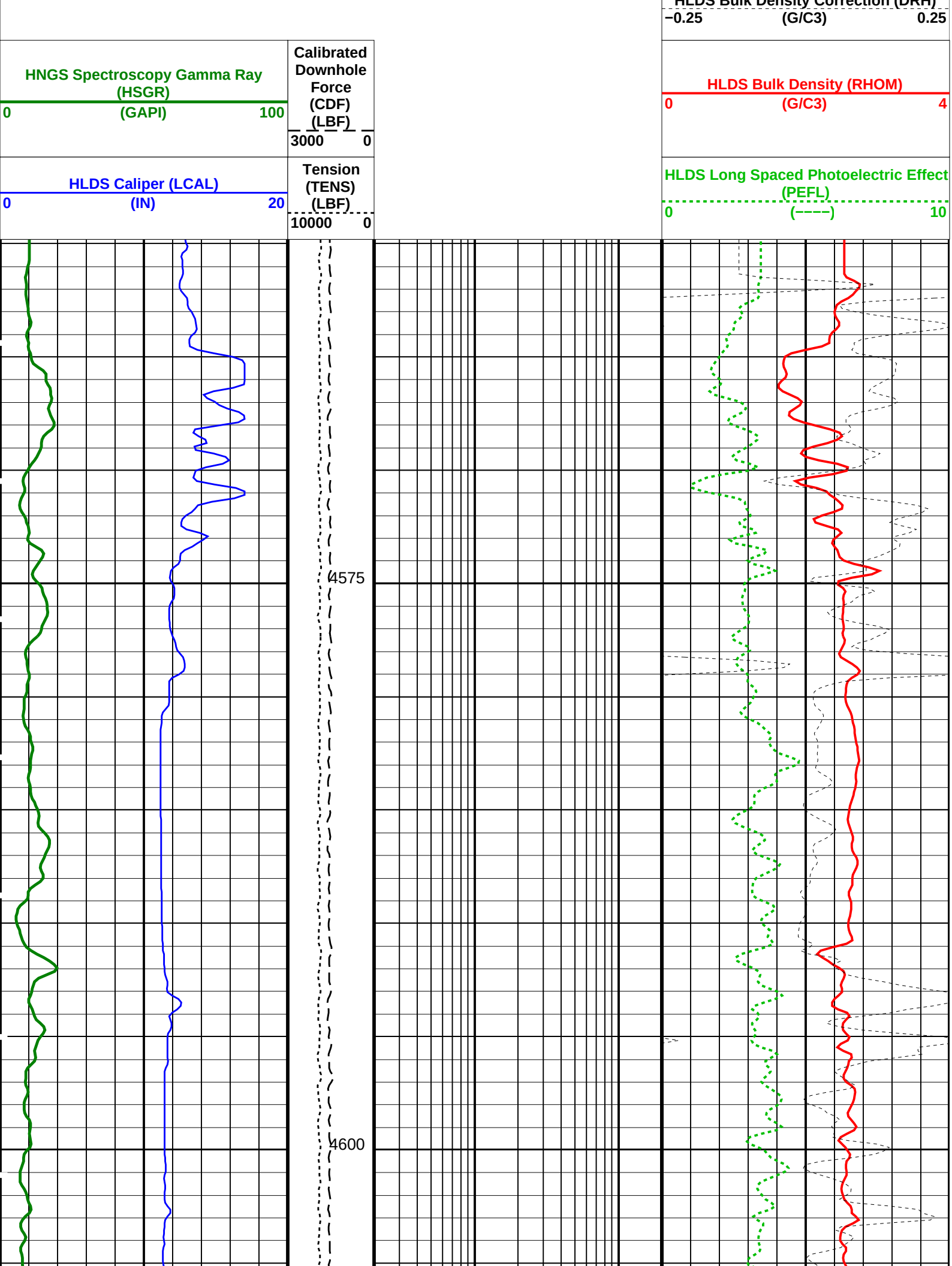

## OP System Version: 19C0−187

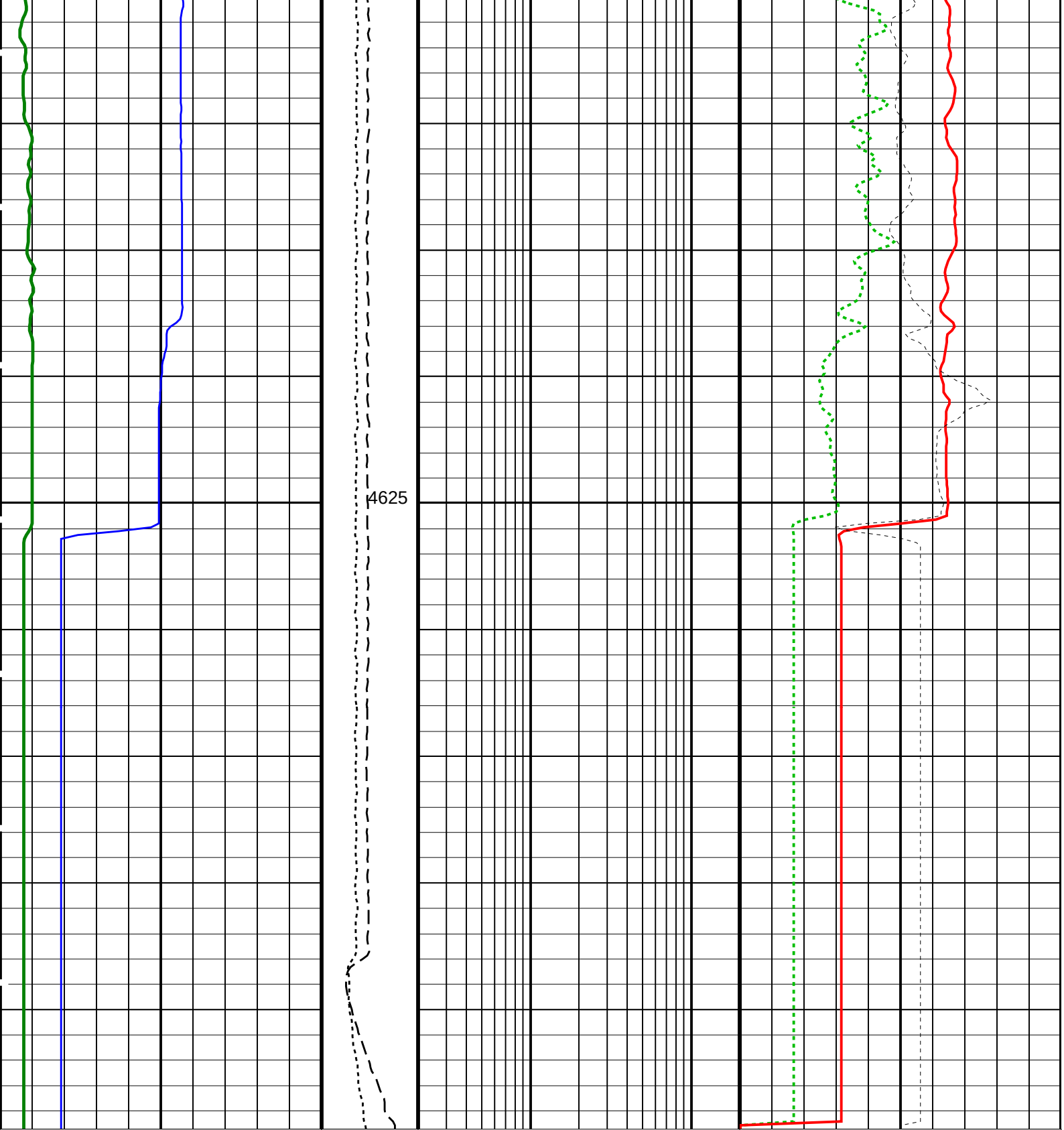
| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

PIP SUMMARY

Time Mark Every 60 S


HLDS Bulk Density Correction (DRH)


HLDS Bulk Density Correction (DRH)
−0.25
(G/C3)
0.25
HNGS Spectroscopy Gamma Ray (HSGR)
0
(GAPI)
100
Calibrated Downhole Force (CDF) (LBF)
3000
0
HLDS Bulk Density (RHOM)
0
(G/C3)
4
HLDS Caliper (LCAL)
0
(IN)
20
Tension (TENS) (LBF)
10000
0
HLDS Long Spaced Photoelectric Effect (PEFL)
0
(−−−−)
10
4575
4600




HLDS Caliper (LCAL)
0 (IN) 20

Tension (TENS) (LBF)
10000 0

HLDS Long Spaced Photoelectric Effect (PEFL)
0 (−−−−) 10

HNGS Spectroscopy Gamma Ray (HSGR)
0 (GAPI) 100

Calibrated Downhole Force (CDF) (LBF)
3000 0

HLDS Bulk Density (RHOM)
0 (G/C3) 4

HLDS Bulk Density Correction (DRH)
−0.25 (G/C3) 0.25

Time Mark Every 60 S

# Parameters

| DLIS Name | Description | Value | |
|---|---|---|---|
| | DSST−B: Dipole Shear Imager − B | | |
| AGC1 | Automatic Gain Control 1 | ON | |
| AGC2 | Automatic Gain Control 2 | ON | |
| AGC3 | Automatic Gain Control 3 | ON | |
| AGC4 | Automatic Gain Control 4 | ON | |
| AGC5 | Automatic Gain Control 5 | ON | |
| AGCX | Automatic Gain Control X | ON | |
| BARS_MTR1 | Length for Monopole Transmitter to Receiver 1 | 2.7432 | M |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CASF | Label Casing Function − Monopole P&S | 50 | |
| CDTS | C−Delta−T Shale | 100 | US/F |
| COLL | Label Slowness Lower Limit − Monopole P&S Compressional | 65 | US/F |
| COUL | Label Slowness Upper Limit − Monopole P&S Compressional | 185 | US/F |
| DDE1 | Digitizing Delay 1 | 0 | US |
| DDE2 | Digitizing Delay 2 | 0 | US |
| DDE3 | Digitizing Delay 3 | 0 | US |
| DDE4 | Digitizing Delay 4 | 0 | US |
| DDE5 | Digitizing Delay 5 | 0 | US |
| DDEX | Digitizing Delay X | 0 | US |
| DLCS | Label Compressional Source − Dipole Shear | USE | |
| DLHS | Label Hole Diameter Source for SOBS Channel | AUTO | |
| DSHL | Label Slowness Lower Limit − Dipole Shear | 40 | US/F |
| DSHU | Label Slowness Upper Limit − Dipole Shear | 640 | US/F |
| DSI1 | Digitizer Sample Interval 1 | 40 | US |
| DSI2 | Digitizer Sample Interval 2 | 40 | US |
| DSI3 | Digitizer Sample Interval 3 | 10 | US |
| DSI4 | Digitizer Sample Interval 4 | 10 | US |
| DSI5 | Digitizer Sample Interval 5 | 10 | US |
| DSIX | Digitizer Sample Interval X | 40 | US |
| DTCS | Compressional Delta−T Source for DTCO Channel | PS_COMP | |
| DTF | Delta−T Fluid | 193 | US/F |
| DTM | Delta−T Matrix | 56 | US/F |
| DTSS | Shear Delta−T Source for DTSM Channel | LOWER_DIPOLE | |
| DWC1 | Digitizer Word Count 1 | 512 | |
| DWC2 | Digitizer Word Count 2 | 512 | |
| DWC3 | Digitizer Word Count 3 | 512 | |
| DWC4 | Digitizer Word Count 4 | 512 | |
| DWC5 | Digitizer Word Count 5 | 512 | |
| DWCX | Digitizer Word Count X | 512 | |
| FDE1 | Firing Delay 1 | 0 | |
| FDE2 | Firing Delay 2 | 0 | |
| FDE3 | Firing Delay 3 | 0 | |
| FDE4 | Firing Delay 4 | 0 | |
| FDE5 | Firing Delay 5 | 0 | |
| FDEX | Firing Delay X | 0 | |
| FGM5 | First Motion Gate Moveout 5 | 40 | US/F |
| FGMX | First Motion Gate Moveout X | 40 | US/F |
| FILG | Label Fill Gap Control − Monopole P&S | COMP_SHEAR | |
| FMG5 | First Motion Minimum Gate 5 | 500 | US |
| FMGX | First Motion Minimum Gate X | 500 | US |
| FMLL | Slowness Lower Limit − FMD | 40 | US/F |
| FMRC | Restart Control − FMD | CONTINUE | |
| FMT5 | First Motion Threshold 5 | UP | |
| FMTX | First Motion Threshold X | NONE | |
| FMUL | Slowness Upper Limit − FMD | 180 | US/F |
| FNC5 | First Motion Noise Counter Input 5 | ALO | |
| FNCX | First Motion Noise Counter Input X | ALO | |
| FPM | Processing Mode − FMD | NONE | |
| FTD5 | First Motion Threshold Direction 5 | UP | |
| FTDX | First Motion Threshold Direction X | UP | |
| GAI1 | Manual Gain 1 | 10 | |
| GAI2 | Manual Gain 2 | 10 | |
| GAI3 | Manual Gain 3 | 10 | |
| GAI4 | Manual Gain 4 | 16 | |
| GAI5 | Manual Gain 5 | 16 | |
| GAIX | Manual Gain X | 10 | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GDT1 | Gain Delta−T 1 | 800 | US/F |
| GDT2 | Gain Delta−T 2 | 800 | US/F |
| GDT3 | Gain Delta−T 3 | 800 | US/F |
| GDT4 | Gain Delta−T 4 | 160 | US/F |
| GDT5 | Gain Delta−T 5 | 160 | US/F |
| GDTX | Gain Delta−T X | 800 | US/F |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |

| | | | |
|---|---|---|---|
| GIN1 | Gain Interval 1 | 15360 | US |
| GIN2 | Gain Interval 2 | 15360 | US |
| GIN3 | Gain Interval 3 | 15360 | US |
| GIN4 | Gain Interval 4 | 2560 | US |
| GIN5 | Gain Interval 5 | 1600 | US |
| GINX | Gain Interval X | 15360 | US |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HPF1 | High Pass Filter 1 | F80 | |
| HPF2 | High Pass Filter 2 | F80 | |
| HPF3 | High Pass Filter 3 | F80 | |
| HPF4 | High Pass Filter 4 | F8K | |
| HPF5 | High Pass Filter 5 | F8K | |
| HPFX | High Pass Filter X | F80 | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ITTS | Integrated Transit Time Source | DTCO | |
| LFC | Label Formation Character − Monopole P&S | DYNAMIC | |
| LPF1 | Low Pass Filter 1 | F5K | |
| LPF2 | Low Pass Filter 2 | F5K | |
| LPF3 | Low Pass Filter 3 | F5K | |
| LPF4 | Low Pass Filter 4 | F30K | |
| LPF5 | Low Pass Filter 5 | F30K | |
| LPFX | Low Pass Filter X | F5K | |
| LTXG | Lower Dipole Transmitter Geometry | 156 | IN |
| MAI5 | Slowness Averaging Interval − FMD | 42 | IN |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCS | Mean Casing Slowness | 57 | US/F |
| MDS5 | Multishot Delta−T Scatter − FMD | 20 | US |
| MTXG | Monopole Transmitter Geometry | 186 | IN |
| MUX1 | Sum Difference Multiplexor Input 1 | RR | |
| MUX2 | Sum Difference Multiplexor Input 2 | RR | |
| MUX3 | Sum Difference Multiplexor Input 3 | RR | |
| MUX4 | Sum Difference Multiplexor Input 4 | RR | |
| MUX5 | Sum Difference Multiplexor Input 5 | RR | |
| MUXX | Sum Difference Multiplexor Input X | RR | |
| NTI5 | Number Threshold Items 5 | 0 | |
| NTIX | Number Threshold Items X | 0 | |
| NWI1 | Number Waveform Items 1 | 8 | |
| NWI2 | Number Waveform Items 2 | 8 | |
| NWI3 | Number Waveform Items 3 | 0 | |
| NWI4 | Number Waveform Items 4 | 8 | |
| NWI5 | Number Waveform Items 5 | 0 | |
| NWIX | Number Waveform Items X | 0 | |
| NWS1 | Number Waveforms Stacked 1 | 1 | |
| NWS2 | Number Waveforms Stacked 2 | 1 | |
| NWS3 | Number Waveforms Stacked 3 | 1 | |
| NWS4 | Number Waveforms Stacked 4 | 1 | |
| NWS5 | Number Waveforms Stacked 5 | 1 | |
| NWSX | Number Waveforms Stacked X | 1 | |
| RATE | Firing Rate | R7 | |
| RSMN | Label Shear/Compressional Minimum Ratio − Monopole P&S | 1.4 | |
| RSMX | Label Shear/Compressional Maximum Ratio − Monopole P&S | 2.12 | |
| RX1G | Receiver 1 Geometry | 294 | IN |
| RX2G | Receiver 2 Geometry | 300 | IN |
| RX3G | Receiver 3 Geometry | 306 | IN |
| RX4G | Receiver 4 Geometry | 312 | IN |
| RX5G | Receiver 5 Geometry | 318 | IN |
| RX6G | Receiver 6 Geometry | 324 | IN |
| RX7G | Receiver 7 Geometry | 330 | IN |
| RX8G | Receiver 8 Geometry | 336 | IN |
| SAM1 | DSST Sonic Acquisition Mode 1 − Lower Dipole Mode | EVEN | |
| SAM2 | DSST Sonic Acquisition Mode 2 − Upper Dipole Mode | ODD | |
| SAM3 | DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley | OFF | |
| SAM4 | DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S | EVEN | |
| SAM5 | DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD | OFF | |
| SAMX | DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert | OFF | |
| SAS1 | STC Sonic Array Status − Lower Dipole | 255 | |
| SAS2 | STC Sonic Array Status − Upper Dipole | 255 | |
| SAS3 | STC Sonic Array Status − Monopole Stoneley | 255 | |
| SAS4 | STC Sonic Array Status − Monopole P&S | 255 | |
| SAS5 | Sonic Array Status − FMD | 255 | |
| SBO1 | STC Search Band Offset − Lower Dipole | 3000 | US |
| SBO2 | STC Search Band Offset − Upper Dipole | 3000 | US |
| SBO3 | STC Search Band Offset − Monopole Stoneley | 3000 | US |
| SBO4 | STC Search Band Offset − Monopole P&S | 500 | US |
| SBR4 | STC Baseline Removal − Monopole P&S | ON | |
| SBW1 | STC Search Bandwidth − Lower Dipole | 8000 | US |
| SBW2 | STC Search Bandwidth − Upper Dipole | 8000 | US |
| SBW3 | STC Search Bandwidth − Monopole Stoneley | 8000 | US |
| SBW4 | STC Search Bandwidth − Monopole P&S | 2000 | US |
| SFC1 | STC Formation Character − Lower Dipole | SELECTABLE | |
| SFC2 | STC Formation Character − Upper Dipole | SELECTABLE | |
| SFC3 | STC Formation Character − Monopole Stoneley | SELECTABLE | |
| SFC4 | STC Formation Character − Monopole P&S | SELECTABLE | |

| | | | |
|---|---|---|---|
| SFM1 | STC Filter − Lower Dipole | B1−3K | |
| SFM2 | STC Filter − Upper Dipole | B1−2K | |
| SFM3 | STC Filter − Monopole Stoneley | B.5−1.5K | |
| SFM4 | STC Filter − Monopole P&S | B3−20K | |
| SHLL | Label Slowness Lower Limit − Monopole P&S Shear | 235 | US/F |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SHUL | Label Slowness Upper Limit − Monopole P&S Shear | 240 | US/F |
| SLL1 | STC Slowness Lower Limit − Lower Dipole | 40 | US/F |
| SLL2 | STC Slowness Lower Limit − Upper Dipole | 40 | US/F |
| SLL3 | STC Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| SLL4 | STC Slowness Lower Limit − Monopole P&S | 40 | US/F |
| SPFS | Sonic Porosity Formula | RAYMER_HUNT | |
| SPSO | Sonic Porosity Source | DTCO | |
| SST1 | STC Slowness Step − Lower Dipole | 4 | US/F |
| SST2 | STC Slowness Step − Upper Dipole | 4 | US/F |
| SST3 | STC Slowness Step − Monopole Stoneley | 4 | US/F |
| SST4 | STC Slowness Step − Monopole P&S | 2 | US/F |
| SSW1 | STC Source Waveform − Lower Dipole | WF_SAM1 | |
| SSW2 | STC Source Waveform − Upper Dipole | WF_SAM2 | |
| SSW3 | STC Source Waveform − Monopole Stoneley | WF_SAM3 | |
| SSW4 | STC Source Waveform − Monopole P&S | WF_SAM4 | |
| STLL | Label Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| STUL | Label Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL1 | STC Slowness Upper Limit − Lower Dipole | 640 | US/F |
| SUL2 | STC Slowness Upper Limit − Upper Dipole | 640 | US/F |
| SUL3 | STC Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL4 | STC Slowness Upper Limit − Monopole P&S | 240 | US/F |
| SWD1 | STC Slowness Width − Lower Dipole | 40 | US/F |
| SWD2 | STC Slowness Width − Upper Dipole | 40 | US/F |
| SWD3 | STC Slowness Width − Monopole Stoneley | 40 | US/F |
| SWD4 | STC Slowness Width − Monopole P&S | 10 | US/F |
| TBDB | Tool String Bottom to DSST Bottom | 95.25 | IN |
| TBF1 | STC Time for Baseline Fill − Lower Dipole | 0 | US |
| TBF2 | STC Time for Baseline Fill − Upper Dipole | 0 | US |
| TBF3 | STC Time for Baseline Fill − Monopole Stoneley | 0 | US |
| TBF4 | STC Time for Baseline Fill − Monopole P&S | 300 | US |
| TLL1 | STC Time Lower Limit − Lower Dipole | 600 | US |
| TLL2 | STC Time Lower Limit − Upper Dipole | 600 | US |
| TLL3 | STC Time Lower Limit − Monopole Stoneley | 600 | US |
| TLL4 | STC Time Lower Limit − Monopole P&S | 150 | US |
| TST1 | STC Time Step − Lower Dipole | 200 | US |
| TST2 | STC Time Step − Upper Dipole | 200 | US |
| TST3 | STC Time Step − Monopole Stoneley | 200 | US |
| TST4 | STC Time Step − Monopole P&S | 50 | US |
| TTDB | Tool String Top to DSST Bottom | 1348.6 | IN |
| TUL1 | STC Time Upper Limit − Lower Dipole | 14360 | US |
| TUL2 | STC Time Upper Limit − Upper Dipole | 14040 | US |
| TUL3 | STC Time Upper Limit − Monopole Stoneley | 12000 | US |
| TUL4 | STC Time Upper Limit − Monopole P&S | 3660 | US |
| TWA1 | Transmitter Waveform Amplitude 1 | 179 | |
| TWA2 | Transmitter Waveform Amplitude 2 | 179 | |
| TWA3 | Transmitter Waveform Amplitude 3 | 179 | |
| TWA4 | Transmitter Waveform Amplitude 4 | 150 | |
| TWA5 | Transmitter Waveform Amplitude 5 | 150 | |
| TWAX | Transmitter Waveform Amplitude X | 179 | |
| TWD1 | STC Time Width − Lower Dipole | 2000 | US |
| TWD2 | STC Time Width − Upper Dipole | 2000 | US |
| TWD3 | STC Time Width − Monopole Stoneley | 2000 | US |
| TWD4 | STC Time Width − Monopole P&S | 1000 | US |
| TWI1 | STC Integration Time Window − Lower Dipole | 1600 | US |
| TWI2 | STC Integration Time Window − Upper Dipole | 1600 | US |
| TWI3 | STC Integration Time Window − Monopole Stoneley | 2400 | US |
| TWI4 | STC Integration Time Window − Monopole P&S | 500 | US |
| TWR1 | Transmitter Waveform Sample Rate 1 | 5 | US |
| TWR2 | Transmitter Waveform Sample Rate 2 | 5 | US |
| TWR3 | Transmitter Waveform Sample Rate 3 | 5 | US |
| TWR4 | Transmitter Waveform Sample Rate 4 | 5 | US |
| TWR5 | Transmitter Waveform Sample Rate 5 | 5 | US |
| TWRX | Transmitter Waveform Sample Rate X | 5 | US |
| TWS1 | Transmitter Waveform Select 1 | 0 | |
| TWS2 | Transmitter Waveform Select 2 | 0 | |
| TWS3 | Transmitter Waveform Select 3 | 0 | |
| TWS4 | Transmitter Waveform Select 4 | 6 | |
| TWS5 | Transmitter Waveform Select 5 | 6 | |
| TWSX | Transmitter Waveform Select X | 0 | |
| UTXG | Upper Dipole Transmitter Geometry | 162 | IN |
| WFDTSP1 | SAM1 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP2 | SAM2 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP3 | SAM3 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP4 | SAM4 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSPX | SAMX Waveform Delta for Spectrum | 0 | US/F |
| WFLLSP1 | SAM1 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP2 | SAM2 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP3 | SAM3 Waveform Lower Limit for Spectrum | 0 | US |

| | | | |
|---|---|---|---|
| WFLLSP4 | SAM4 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSPX | SAMX Waveform Lower Limit for Spectrum | 0 | US |
| WFM1 | Waveform Mode 1 | W1 | |
| WFM2 | Waveform Mode 2 | W1 | |
| WFM3 | Waveform Mode 3 | W1 | |
| WFM4 | Waveform Mode 4 | W1 | |
| WFM5 | Waveform Mode 5 | W1 | |
| WFMX | Waveform Mode X | W1 | |
| WFULSP1 | SAM1 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP2 | SAM2 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP3 | SAM3 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP4 | SAM4 Waveform Upper Limit for Spectrum | 5000 | US |
| WFULSPX | SAMX Waveform Upper Limit for Spectrum | 20000 | US |
| XMT1 | Transmitter Select 1 | DLO | |
| XMT2 | Transmitter Select 2 | DUP | |
| XMT3 | Transmitter Select 3 | NONE | |
| XMT4 | Transmitter Select 4 | MONO | |
| XMT5 | Transmitter Select 5 | MONO | |
| XMTX | Transmitter Select X | DUP | |
| HLDS: Hostile Litho−Density Sonde | | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | ON | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1000 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| HNGS−BA: Hostile Natural Gamma Ray Sonde | | | |
| BAR1 | HNGS Detector 1 Barite Constant | 1 | |
| BAR2 | HNGS Detector 2 Barite Constant | 1 | |
| BHK | HNGS Borehole Potassium Correction Concentration | 0 | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CSD1 | Inner Casing Outer Diameter | 10.75 | IN |
| CSD2 | Outer Casing Outer Diameter | 10.75 | IN |
| CSW1 | Inner Casing Weight | 45 | LB/F |
| CSW2 | Outer Casing Weight | 45 | LB/F |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | −0.00373802 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | BARI | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| S1BI | HNGS Detector 1 Calibration Bismuth Count Rate | 1.3 | CPS |
| S2BI | HNGS Detector 2 Calibration Bismuth Count Rate | 1.3 | CPS |
| SGRC | HNGS Standard Gamma−Ray Correction Flag | YES | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 0.933396 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 0.945439 | |
| EDTC−B: Enhanced DTS Cartridge | | | |
| BHFL | Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| BSCO | Borehole Salinity Correction Option | NO | |
| CCCO | Casing & Cement Thickness Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FSAL | Formation Salinity | −50000 | PPM |
| FSCO | Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |

| | | | |
|---|---|---|---|
| HSCO | Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ISSBAR_EDTC | Nuclear Mud Type | BARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO | Mud Cake Correction Option | NO | |
| MCOR | Mud Correction | SALT | |
| MWCO | Mud Weight Correction Option | YES | |
| PTCO | Pressure/Temperature Correction Option | NO | |
| SDAT | Standoff Data Source | SOCN | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SOCN | Standoff Distance | 0.5 | IN |
| SOCO | Standoff Correction Option | NO | |
| TPOS_EDTC | EDTC Tool Centered/Eccentered | Eccentered | |
| U−ETELM_EDTS | Telemetry Mode for eWAFE | Standard_EDTS | |
| U−TELM_EDTS | Telemetry Mode for WAFE | Standard_EDTS | |
| System and Miscellaneous | | | |
| ALTDPCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.05 | G/C3 |
| FLEV | Fluid Level | −50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| RMFS | Resistivity of Mud Filtrate Sample | −50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 5345 | M |
| TDD | Total Depth − Driller | 4695.50 | M |
| TDL | Total Depth − Logger | 4695.50 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

Format: TripleCombo  Vertical Scale: 1:200  Graphics File Created: 13−May−2017 06:55

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_012LUP | FN:13 | PRODUCER | 13−May−2017 06:55 | | |
| RTB | DSI_LDL_NGS_012LUP | FN:14 | PRODUCER | 13−May−2017 06:55 | | |

Company: International Ocean Discovery Program  Well: Expedition 368, Site U1502B

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_012LUP | FN:13 | PRODUCER | 13−May−2017 06:55 | 4649.7 M | 4560.6 M |
| RTB | DSI_LDL_NGS_012LUP | FN:14 | PRODUCER | 13−May−2017 06:55 | 4649.7 M | 4560.6 M |

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## PIP SUMMARY

Time Mark Every 60 S

| | | |
|---|---|---|
| HNGS Spectroscopy Gamma Ray (HSGR) | | |
| 0 | (GAPI) | 100 |
| Waveform Data Copy Indicator 4 − Monopole P&S (WCI4) | | |
| 0 | (−−−−) | 10 |
| Peak Coherence / RA − P & S Shear (CHRS) | | |
| −1 | (−−−−) | 9 |

Peak Coherence / RA − P & S Comp (CHRP)
0 (−−−−) 10

Peak Coherence / TA − Upper Dipole (CHT2)
−2 (−−−−) 8

Peak Coherence / RA − Upper Dipole (CHR2)
0 (−−−−) 10

HLDS Caliper (LCAL)
0 (IN) 20

Gamma Ray (GR_EDTC)
0 (GAPI) 100

Poisson's Ratio (PR)
0 (−−−−) 0.5

Sonic Velocity (SVEL)
1000 (M/S) 6000

Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

Poisson's Ratio (PR)
0 (−−−−) 0.5

Calibrated Downhole Force (CDF) (LBF)
3000 0

Delta−T Shear / RA − P & S (DTRS)
40 (US/F) 240

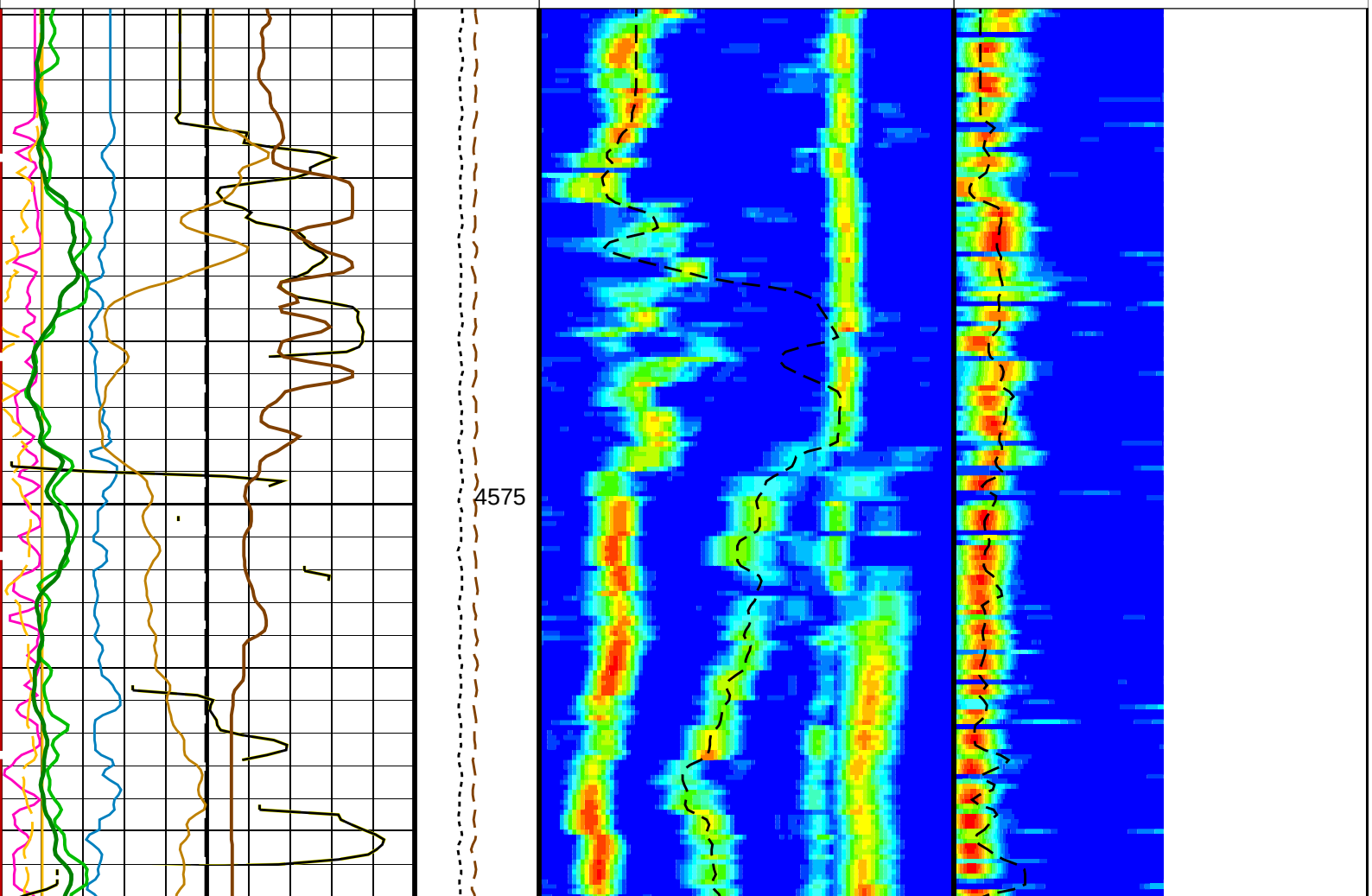
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
75 (US/F) 1200

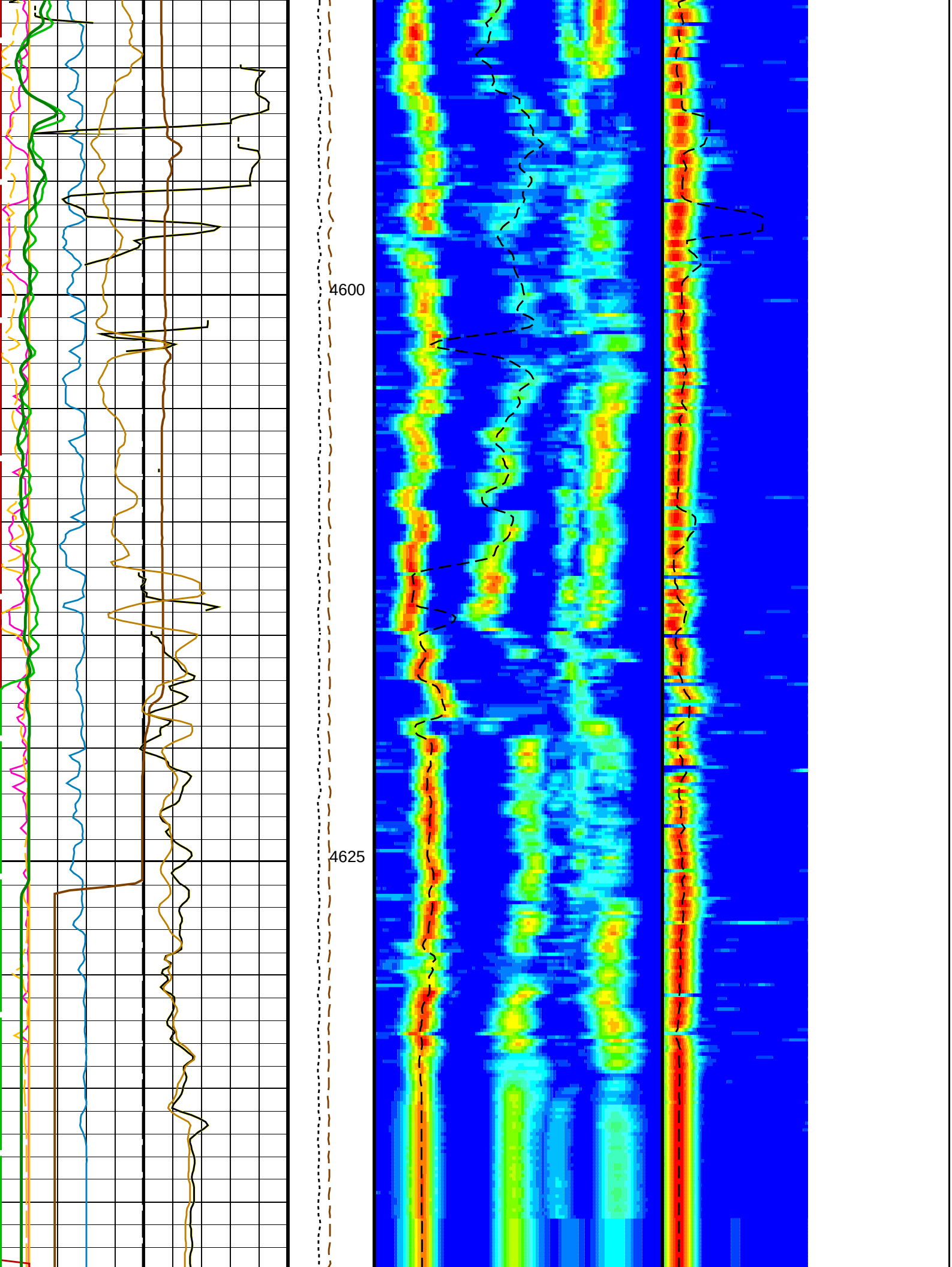
Bit Size (BS)
0 (IN) 20

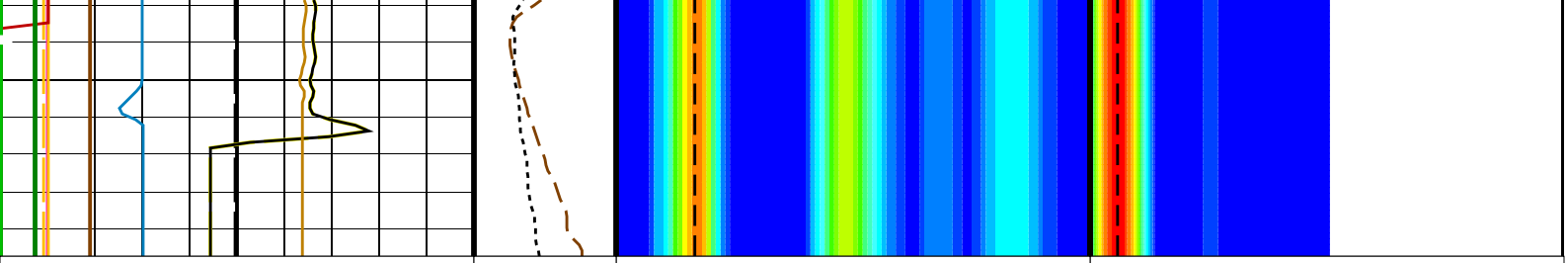
Tension (TENS) (LBF)
10000 0

Delta−T Comp / RA − P & S (DTRP)
40 (US/F) 240

Delta−T Shear / RA − Upper Dipole (DT2R)
75 (US/F) 1200




4600
4625



| Bit Size (BS) | Tension (TENS) | Delta−T Comp / RA − P & S (DTRP) | Delta−T Shear / RA − Upper Dipole (DT2R) |
|---|---|---|---|
| 0 (IN) 20 | 10000 0 (LBF) | 40 (US/F) 240 | 75 (US/F) 1200 |
| **Poisson's Ratio (PR)** | **Calibrated Downhole Force (CDF)** | **Delta−T Shear / RA − P & S (DTRS)** | **Min Amplitude Max** |
| 0 (−−−−) 0.5 | 3000 0 (LBF) | 40 (US/F) 240 | Rec.Array U.Dipole Slow Proj. CVDL (SPR2) 75 (US/F) 1200 |
| | | **Min Amplitude Max** | |
| | | Rec.Array P&S Slow Proj. CVDL (SPR4) 40 (US/F) 240 | |

**Sonic Velocity (SVEL)**
1000 (M/S) 6000

**Poisson's Ratio (PR)**
0 (−−−−) 0.5

**Gamma Ray (GR_EDTC)**
0 (GAPI) 100

**HLDS Caliper (LCAL)**
0 (IN) 20

**Peak Coherence / RA − Upper Dipole (CHR2)**
0 (−−−−) 10

**Peak Coherence / TA − Upper Dipole (CHT2)**
−2 (−−−−) 8

**Peak Coherence / RA − P & S Comp (CHRP)**
0 (−−−−) 10

**Peak Coherence / RA − P & S Shear (CHRS)**
−1 (−−−−) 9

**Waveform Data Copy Indicator 4 − Monopole P&S (WCI4)**
0 (−−−−) 10

**HNGS Spectroscopy Gamma Ray (HSGR)**
0 (GAPI) 100

**PIP SUMMARY**

Time Mark Every 60 S

## Parameters

| DLIS Name | Description | Value |
|---|---|---|
| | **DSST−B: Dipole Shear Imager − B** | |
| AGC1 | Automatic Gain Control 1 | ON |
| AGC2 | Automatic Gain Control 2 | ON |
| AGC3 | Automatic Gain Control 3 | ON |
| AGC4 | Automatic Gain Control 4 | ON |
| AGC5 | Automatic Gain Control 5 | ON |
| AGCX | Automatic Gain Control X | ON |
| PARS_MTR1 | Length for Monopole Transmitter to Receiver 1 | 3.7432 M |

| | | | |
|---|---|---|---|
| BARS_MTR1 | Length for Monopole Transmitter to Receiver 1 | 2.7432 | M |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CASF | Label Casing Function − Monopole P&S | 50 | |
| CDTS | C−Delta−T Shale | 100 | US/F |
| COLL | Label Slowness Lower Limit − Monopole P&S Compressional | 65 | US/F |
| COUL | Label Slowness Upper Limit − Monopole P&S Compressional | 185 | US/F |
| DDE1 | Digitizing Delay 1 | 0 | US |
| DDE2 | Digitizing Delay 2 | 0 | US |
| DDE3 | Digitizing Delay 3 | 0 | US |
| DDE4 | Digitizing Delay 4 | 0 | US |
| DDE5 | Digitizing Delay 5 | 0 | US |
| DDEX | Digitizing Delay X | 0 | US |
| DLCS | Label Compressional Source − Dipole Shear | USE | |
| DLHS | Label Hole Diameter Source for SOBS Channel | AUTO | |
| DSHL | Label Slowness Lower Limit − Dipole Shear | 40 | US/F |
| DSHU | Label Slowness Upper Limit − Dipole Shear | 640 | US/F |
| DSI1 | Digitizer Sample Interval 1 | 40 | US |
| DSI2 | Digitizer Sample Interval 2 | 40 | US |
| DSI3 | Digitizer Sample Interval 3 | 10 | US |
| DSI4 | Digitizer Sample Interval 4 | 10 | US |
| DSI5 | Digitizer Sample Interval 5 | 10 | US |
| DSIX | Digitizer Sample Interval X | 40 | US |
| DTCS | Compressional Delta−T Source for DTCO Channel | PS_COMP | |
| DTF | Delta−T Fluid | 193 | US/F |
| DTM | Delta−T Matrix | 56 | US/F |
| DTSS | Shear Delta−T Source for DTSM Channel | LOWER_DIPOLE | |
| DWC1 | Digitizer Word Count 1 | 512 | |
| DWC2 | Digitizer Word Count 2 | 512 | |
| DWC3 | Digitizer Word Count 3 | 512 | |
| DWC4 | Digitizer Word Count 4 | 512 | |
| DWC5 | Digitizer Word Count 5 | 512 | |
| DWCX | Digitizer Word Count X | 512 | |
| FDE1 | Firing Delay 1 | 0 | |
| FDE2 | Firing Delay 2 | 0 | |
| FDE3 | Firing Delay 3 | 0 | |
| FDE4 | Firing Delay 4 | 0 | |
| FDE5 | Firing Delay 5 | 0 | |
| FDEX | Firing Delay X | 0 | |
| FGM5 | First Motion Gate Moveout 5 | 40 | US/F |
| FGMX | First Motion Gate Moveout X | 40 | US/F |
| FILG | Label Fill Gap Control − Monopole P&S | COMP_SHEAR | |
| FMG5 | First Motion Minimum Gate 5 | 500 | US |
| FMGX | First Motion Minimum Gate X | 500 | US |
| FMLL | Slowness Lower Limit − FMD | 40 | US/F |
| FMRC | Restart Control − FMD | CONTINUE | |
| FMT5 | First Motion Threshold 5 | UP | |
| FMTX | First Motion Threshold X | NONE | |
| FMUL | Slowness Upper Limit − FMD | 180 | US/F |
| FNC5 | First Motion Noise Counter Input 5 | ALO | |
| FNCX | First Motion Noise Counter Input X | ALO | |
| FPM | Processing Mode − FMD | NONE | |
| FTD5 | First Motion Threshold Direction 5 | UP | |
| FTDX | First Motion Threshold Direction X | UP | |
| GAI1 | Manual Gain 1 | 10 | |
| GAI2 | Manual Gain 2 | 10 | |
| GAI3 | Manual Gain 3 | 10 | |
| GAI4 | Manual Gain 4 | 16 | |
| GAI5 | Manual Gain 5 | 16 | |
| GAIX | Manual Gain X | 10 | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GDT1 | Gain Delta−T 1 | 800 | US/F |
| GDT2 | Gain Delta−T 2 | 800 | US/F |
| GDT3 | Gain Delta−T 3 | 800 | US/F |
| GDT4 | Gain Delta−T 4 | 160 | US/F |
| GDT5 | Gain Delta−T 5 | 160 | US/F |
| GDTX | Gain Delta−T X | 800 | US/F |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GIN1 | Gain Interval 1 | 15360 | US |
| GIN2 | Gain Interval 2 | 15360 | US |
| GIN3 | Gain Interval 3 | 15360 | US |
| GIN4 | Gain Interval 4 | 2560 | US |
| GIN5 | Gain Interval 5 | 1600 | US |
| GINX | Gain Interval X | 15360 | US |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HPF1 | High Pass Filter 1 | F80 | |
| HPF2 | High Pass Filter 2 | F80 | |
| HPF3 | High Pass Filter 3 | F80 | |
| HPF4 | High Pass Filter 4 | F8K | |
| HPF5 | High Pass Filter 5 | F8K | |
| HPFX | High Pass Filter X | F80 | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ITTS | Integrated Transit Time Source | DTCO | |

| | | | |
|---|---|---|---|
| LFC | Label Formation Character − Monopole P&S | DYNAMIC | |
| LPF1 | Low Pass Filter 1 | F5K | |
| LPF2 | Low Pass Filter 2 | F5K | |
| LPF3 | Low Pass Filter 3 | F5K | |
| LPF4 | Low Pass Filter 4 | F30K | |
| LPF5 | Low Pass Filter 5 | F30K | |
| LPFX | Low Pass Filter X | F5K | |
| LTXG | Lower Dipole Transmitter Geometry | 156 | IN |
| MAI5 | Slowness Averaging Interval − FMD | 42 | IN |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCS | Mean Casing Slowness | 57 | US/F |
| MDS5 | Multishot Delta−T Scatter − FMD | 20 | US |
| MTXG | Monopole Transmitter Geometry | 186 | IN |
| MUX1 | Sum Difference Multiplexor Input 1 | RR | |
| MUX2 | Sum Difference Multiplexor Input 2 | RR | |
| MUX3 | Sum Difference Multiplexor Input 3 | RR | |
| MUX4 | Sum Difference Multiplexor Input 4 | RR | |
| MUX5 | Sum Difference Multiplexor Input 5 | RR | |
| MUXX | Sum Difference Multiplexor Input X | RR | |
| NTI5 | Number Threshold Items 5 | 0 | |
| NTIX | Number Threshold Items X | 0 | |
| NWI1 | Number Waveform Items 1 | 8 | |
| NWI2 | Number Waveform Items 2 | 8 | |
| NWI3 | Number Waveform Items 3 | 0 | |
| NWI4 | Number Waveform Items 4 | 8 | |
| NWI5 | Number Waveform Items 5 | 0 | |
| NWIX | Number Waveform Items X | 0 | |
| NWS1 | Number Waveforms Stacked 1 | 1 | |
| NWS2 | Number Waveforms Stacked 2 | 1 | |
| NWS3 | Number Waveforms Stacked 3 | 1 | |
| NWS4 | Number Waveforms Stacked 4 | 1 | |
| NWS5 | Number Waveforms Stacked 5 | 1 | |
| NWSX | Number Waveforms Stacked X | 1 | |
| RATE | Firing Rate | R7 | |
| RSMN | Label Shear/Compressional Minimum Ratio − Monopole P&S | 1.4 | |
| RSMX | Label Shear/Compressional Maximum Ratio − Monopole P&S | 2.12 | |
| RX1G | Receiver 1 Geometry | 294 | IN |
| RX2G | Receiver 2 Geometry | 300 | IN |
| RX3G | Receiver 3 Geometry | 306 | IN |
| RX4G | Receiver 4 Geometry | 312 | IN |
| RX5G | Receiver 5 Geometry | 318 | IN |
| RX6G | Receiver 6 Geometry | 324 | IN |
| RX7G | Receiver 7 Geometry | 330 | IN |
| RX8G | Receiver 8 Geometry | 336 | IN |
| SAM1 | DSST Sonic Acquisition Mode 1 − Lower Dipole Mode | EVEN | |
| SAM2 | DSST Sonic Acquisition Mode 2 − Upper Dipole Mode | ODD | |
| SAM3 | DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley | OFF | |
| SAM4 | DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S | EVEN | |
| SAM5 | DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD | OFF | |
| SAMX | DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert | OFF | |
| SAS1 | STC Sonic Array Status − Lower Dipole | 255 | |
| SAS2 | STC Sonic Array Status − Upper Dipole | 255 | |
| SAS3 | STC Sonic Array Status − Monopole Stoneley | 255 | |
| SAS4 | STC Sonic Array Status − Monopole P&S | 255 | |
| SAS5 | Sonic Array Status − FMD | 255 | |
| SBO1 | STC Search Band Offset − Lower Dipole | 3000 | US |
| SBO2 | STC Search Band Offset − Upper Dipole | 3000 | US |
| SBO3 | STC Search Band Offset − Monopole Stoneley | 3000 | US |
| SBO4 | STC Search Band Offset − Monopole P&S | 500 | US |
| SBR4 | STC Baseline Removal − Monopole P&S | ON | |
| SBW1 | STC Search Bandwidth − Lower Dipole | 8000 | US |
| SBW2 | STC Search Bandwidth − Upper Dipole | 8000 | US |
| SBW3 | STC Search Bandwidth − Monopole Stoneley | 8000 | US |
| SBW4 | STC Search Bandwidth − Monopole P&S | 2000 | US |
| SFC1 | STC Formation Character − Lower Dipole | SELECTABLE | |
| SFC2 | STC Formation Character − Upper Dipole | SELECTABLE | |
| SFC3 | STC Formation Character − Monopole Stoneley | SELECTABLE | |
| SFC4 | STC Formation Character − Monopole P&S | SELECTABLE | |
| SFM1 | STC Filter − Lower Dipole | B1−3K | |
| SFM2 | STC Filter − Upper Dipole | B1−2K | |
| SFM3 | STC Filter − Monopole Stoneley | B.5−1.5K | |
| SFM4 | STC Filter − Monopole P&S | B3−20K | |
| SHLL | Label Slowness Lower Limit − Monopole P&S Shear | 235 | US/F |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SHUL | Label Slowness Upper Limit − Monopole P&S Shear | 240 | US/F |
| SLL1 | STC Slowness Lower Limit − Lower Dipole | 40 | US/F |
| SLL2 | STC Slowness Lower Limit − Upper Dipole | 40 | US/F |
| SLL3 | STC Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| SLL4 | STC Slowness Lower Limit − Monopole P&S | 40 | US/F |
| SPFS | Sonic Porosity Formula | RAYMER_HUNT | |
| SPSO | Sonic Porosity Source | DTCO | |
| SST1 | STC Slowness Step − Lower Dipole | 4 | US/F |
| SST2 | STC Slowness Step − Upper Dipole | 4 | US/F |
| SST3 | STC Slowness Step − Monopole Stoneley | 4 | US/F |

| | | | |
|---|---|---|---|
| SST3 | STC Slowness Step − Monopole Stoneley | 4 | US/F |
| SST4 | STC Slowness Step − Monopole P&S | 2 | US/F |
| SSW1 | STC Source Waveform − Lower Dipole | WF_SAM1 | |
| SSW2 | STC Source Waveform − Upper Dipole | WF_SAM2 | |
| SSW3 | STC Source Waveform − Monopole Stoneley | WF_SAM3 | |
| SSW4 | STC Source Waveform − Monopole P&S | WF_SAM4 | |
| STLL | Label Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| STUL | Label Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL1 | STC Slowness Upper Limit − Lower Dipole | 640 | US/F |
| SUL2 | STC Slowness Upper Limit − Upper Dipole | 640 | US/F |
| SUL3 | STC Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL4 | STC Slowness Upper Limit − Monopole P&S | 240 | US/F |
| SWD1 | STC Slowness Width − Lower Dipole | 40 | US/F |
| SWD2 | STC Slowness Width − Upper Dipole | 40 | US/F |
| SWD3 | STC Slowness Width − Monopole Stoneley | 40 | US/F |
| SWD4 | STC Slowness Width − Monopole P&S | 10 | US/F |
| TBDB | Tool String Bottom to DSST Bottom | 95.25 | IN |
| TBF1 | STC Time for Baseline Fill − Lower Dipole | 0 | US |
| TBF2 | STC Time for Baseline Fill − Upper Dipole | 0 | US |
| TBF3 | STC Time for Baseline Fill − Monopole Stoneley | 0 | US |
| TBF4 | STC Time for Baseline Fill − Monopole P&S | 300 | US |
| TLL1 | STC Time Lower Limit − Lower Dipole | 600 | US |
| TLL2 | STC Time Lower Limit − Upper Dipole | 600 | US |
| TLL3 | STC Time Lower Limit − Monopole Stoneley | 600 | US |
| TLL4 | STC Time Lower Limit − Monopole P&S | 150 | US |
| TST1 | STC Time Step − Lower Dipole | 200 | US |
| TST2 | STC Time Step − Upper Dipole | 200 | US |
| TST3 | STC Time Step − Monopole Stoneley | 200 | US |
| TST4 | STC Time Step − Monopole P&S | 50 | US |
| TTDB | Tool String Top to DSST Bottom | 1348.6 | IN |
| TUL1 | STC Time Upper Limit − Lower Dipole | 14360 | US |
| TUL2 | STC Time Upper Limit − Upper Dipole | 14040 | US |
| TUL3 | STC Time Upper Limit − Monopole Stoneley | 12000 | US |
| TUL4 | STC Time Upper Limit − Monopole P&S | 3660 | US |
| TWA1 | Transmitter Waveform Amplitude 1 | 179 | |
| TWA2 | Transmitter Waveform Amplitude 2 | 179 | |
| TWA3 | Transmitter Waveform Amplitude 3 | 179 | |
| TWA4 | Transmitter Waveform Amplitude 4 | 150 | |
| TWA5 | Transmitter Waveform Amplitude 5 | 150 | |
| TWAX | Transmitter Waveform Amplitude X | 179 | |
| TWD1 | STC Time Width − Lower Dipole | 2000 | US |
| TWD2 | STC Time Width − Upper Dipole | 2000 | US |
| TWD3 | STC Time Width − Monopole Stoneley | 2000 | US |
| TWD4 | STC Time Width − Monopole P&S | 1000 | US |
| TWI1 | STC Integration Time Window − Lower Dipole | 1600 | US |
| TWI2 | STC Integration Time Window − Upper Dipole | 1600 | US |
| TWI3 | STC Integration Time Window − Monopole Stoneley | 2400 | US |
| TWI4 | STC Integration Time Window − Monopole P&S | 500 | US |
| TWR1 | Transmitter Waveform Sample Rate 1 | 5 | US |
| TWR2 | Transmitter Waveform Sample Rate 2 | 5 | US |
| TWR3 | Transmitter Waveform Sample Rate 3 | 5 | US |
| TWR4 | Transmitter Waveform Sample Rate 4 | 5 | US |
| TWR5 | Transmitter Waveform Sample Rate 5 | 5 | US |
| TWRX | Transmitter Waveform Sample Rate X | 5 | US |
| TWS1 | Transmitter Waveform Select 1 | 0 | |
| TWS2 | Transmitter Waveform Select 2 | 0 | |
| TWS3 | Transmitter Waveform Select 3 | 0 | |
| TWS4 | Transmitter Waveform Select 4 | 6 | |
| TWS5 | Transmitter Waveform Select 5 | 6 | |
| TWSX | Transmitter Waveform Select X | 0 | |
| UTXG | Upper Dipole Transmitter Geometry | 162 | IN |
| WFDTSP1 | SAM1 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP2 | SAM2 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP3 | SAM3 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP4 | SAM4 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSPX | SAMX Waveform Delta for Spectrum | 0 | US/F |
| WFLLSP1 | SAM1 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP2 | SAM2 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP3 | SAM3 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP4 | SAM4 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSPX | SAMX Waveform Lower Limit for Spectrum | 0 | US |
| WFM1 | Waveform Mode 1 | W1 | |
| WFM2 | Waveform Mode 2 | W1 | |
| WFM3 | Waveform Mode 3 | W1 | |
| WFM4 | Waveform Mode 4 | W1 | |
| WFM5 | Waveform Mode 5 | W1 | |
| WFMX | Waveform Mode X | W1 | |
| WFULSP1 | SAM1 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP2 | SAM2 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP3 | SAM3 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP4 | SAM4 Waveform Upper Limit for Spectrum | 5000 | US |
| WFULSPX | SAMX Waveform Upper Limit for Spectrum | 20000 | US |
| XMT1 | Transmitter Select 1 | DLO | |
| XMT2 | Transmitter Select 2 | DUP | |
| XMT3 | Transmitter Select 3 | NONE | |

| | | | |
|---|---|---|---|
| XMT4 | Transmitter Select 4 | MONO | |
| XMT5 | Transmitter Select 5 | MONO | |
| XMTX | Transmitter Select X | DUP | |
| HLDS: Hostile Litho−Density Sonde | | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | ON | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1000 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| HNGS−BA: Hostile Natural Gamma Ray Sonde | | | |
| BAR1 | HNGS Detector 1 Barite Constant | 1 | |
| BAR2 | HNGS Detector 2 Barite Constant | 1 | |
| BHK | HNGS Borehole Potassium Correction Concentration | 0 | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CSD1 | Inner Casing Outer Diameter | 10.75 | IN |
| CSD2 | Outer Casing Outer Diameter | 10.75 | IN |
| CSW1 | Inner Casing Weight | 45 | LB/F |
| CSW2 | Outer Casing Weight | 45 | LB/F |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | −0.00373802 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | BARI | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| S1BI | HNGS Detector 1 Calibration Bismuth Count Rate | 1.3 | CPS |
| S2BI | HNGS Detector 2 Calibration Bismuth Count Rate | 1.3 | CPS |
| SGRC | HNGS Standard Gamma−Ray Correction Flag | YES | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 0.933396 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 0.945439 | |
| EDTC−B: Enhanced DTS Cartridge | | | |
| BHFL | Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| BSCO | Borehole Salinity Correction Option | NO | |
| CCCO | Casing & Cement Thickness Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FSAL | Formation Salinity | −50000 | PPM |
| FSCO | Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO | Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ISSBAR_EDTC | Nuclear Mud Type | BARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO | Mud Cake Correction Option | NO | |
| MCOR | Mud Correction | SALT | |
| MWCO | Mud Weight Correction Option | YES | |
| PTCO | Pressure/Temperature Correction Option | NO | |
| SDAT | Standoff Data Source | SOCN | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SOCN | Standoff Distance | 0.5 | IN |
| SOCO | Standoff Correction Option | NO | |
| TPOS_EDTC | EDTC Tool Centered/Eccentered | Eccentered | |
| U−ETELM_EDTS | Telemetry Mode for eWAFE | Standard_EDTS | |
| U−TELM_EDTS | Telemetry Mode for WAFE | Standard_EDTS | |
| System and Miscellaneous | | | |

| | | | |
|---|---|---|---|
| ALTDPCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.05 | G/C3 |
| FLEV | Fluid Level | −50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| RMFS | Resistivity of Mud Filtrate Sample | −50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 5345 | M |
| TDD | Total Depth − Driller | 4695.50 | M |
| TDL | Total Depth − Logger | 4695.50 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

Format: DSST_P_S_UPPER_VDL_COLOR  Vertical Scale: 1:200  Graphics File Created: 13−May−2017 06:55

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_012LUP | FN:13 | PRODUCER | 13−May−2017 06:55 | | |
| RTB | DSI_LDL_NGS_012LUP | FN:14 | PRODUCER | 13−May−2017 06:55 | | |

Company: International Ocean Discovery Program  Well: Expedition 368, Site U1502B

## Output DLIS Files

| | | | | | | |
|---|---|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_012LUP | FN:13 | PRODUCER | 13−May−2017 06:55 | 4649.7 M | 4560.6 M |
| RTB | DSI_LDL_NGS_012LUP | FN:14 | PRODUCER | 13−May−2017 06:55 | 4649.7 M | 4560.6 M |

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## PIP SUMMARY

Time Mark Every 60 S

| | | |
|---|---|---|
| HNGS Spectroscopy Gamma Ray (HSGR) | | |
| 0 | (GAPI) | 100 |
| Waveform Data Copy Indicator 4 − Monopole P&S (WCI4) | | |
| 0 | (−−−−) | 10 |
| Peak Coherence / RA − P & S Shear (CHRS) | | |
| −1 | (−−−−) | 9 |
| Peak Coherence / RA − P & S Comp (CHRP) | | |
| 0 | (−−−−) | 10 |
| Peak Coherence / TA − Lower Dipole (CHT1) | | |
| −2 | (−−−−) | 8 |
| Peak Coherence / RA − Lower Dipole (CHR1) | | |
| 0 | (−−−−) | 10 |
| Sonic Velocity (SVEL) | | |
| 1000 | (M/S) | 6000 |

1000 (M/S) 6000

HLDS Caliper (LCAL)
0 (IN) 20

Gamma Ray (GR_EDTC)
0 (GAPI) 100

Poisson's Ratio (PR)
0 (----) 0.5

Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

Poisson's Ratio (PR)
0 (----) 0.5

Calibrated Downhole Force (CDF) (LBF)
3000 0

Delta-T Shear / RA - P & S (DTRS)
40 (US/F) 240

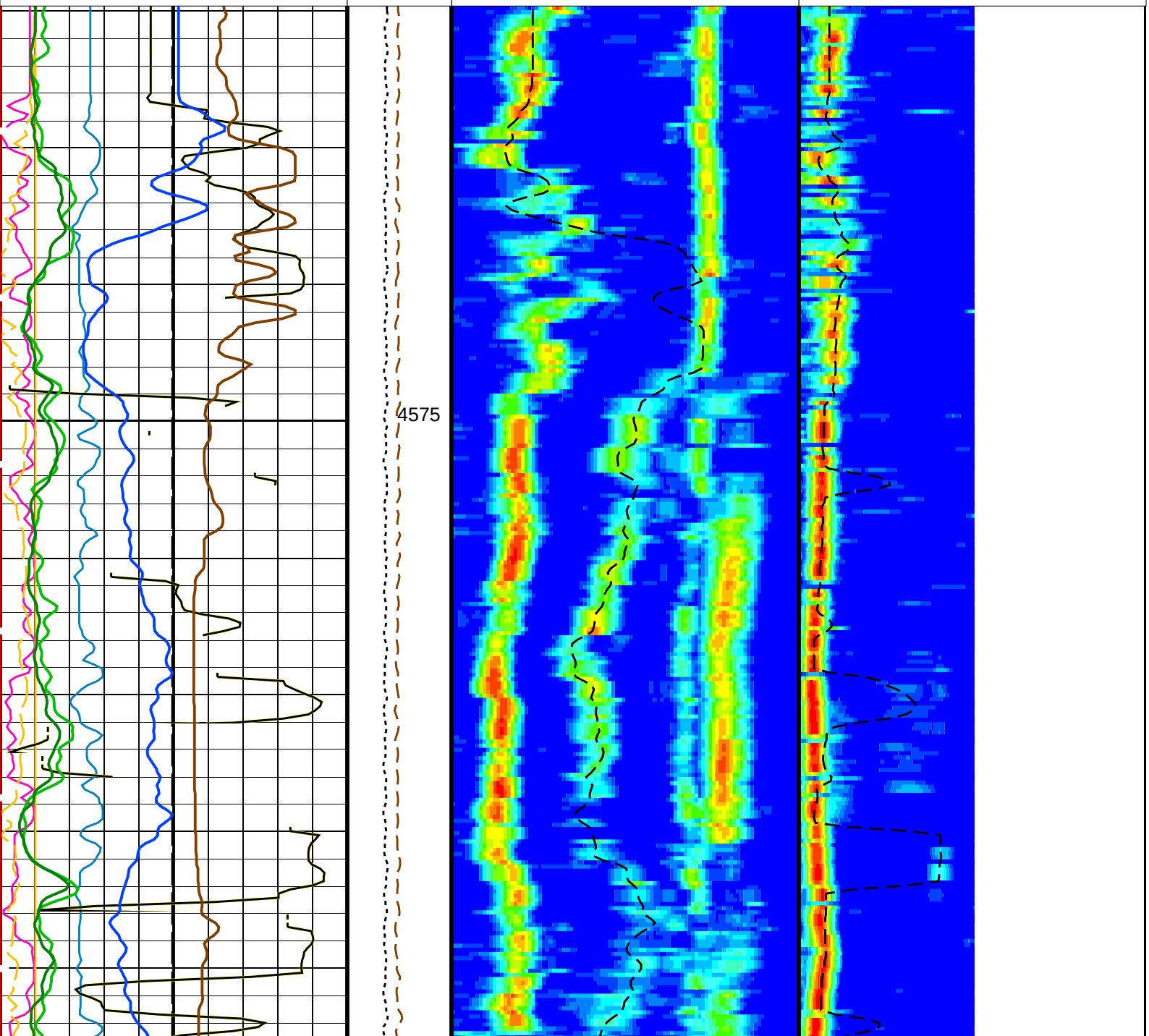
Min Amplitude Max
Rec.Array L.Dipole Slow Proj. CVDL (SPR1)
75 (US/F) 1200

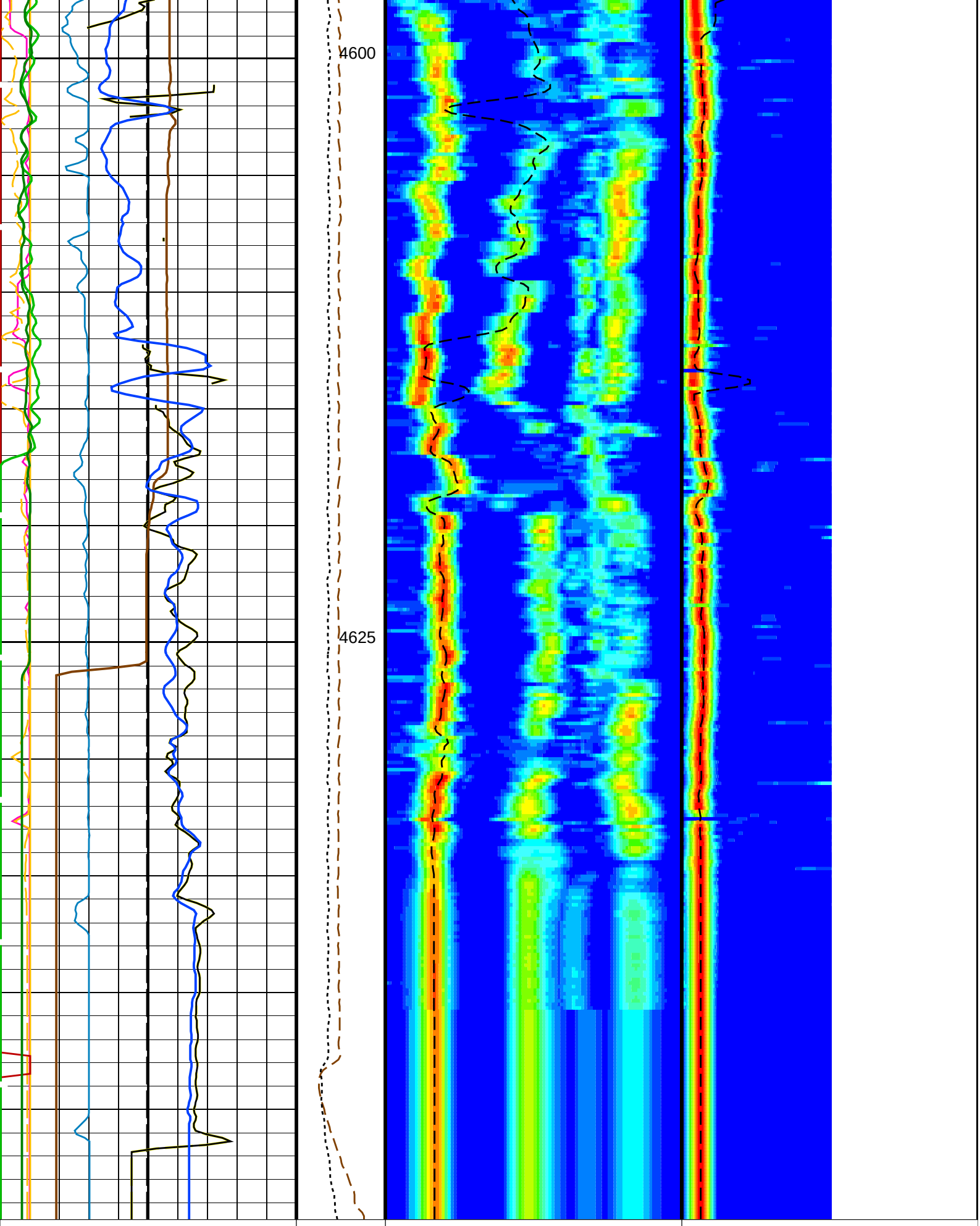
Bit Size (BS)
0 (IN) 20

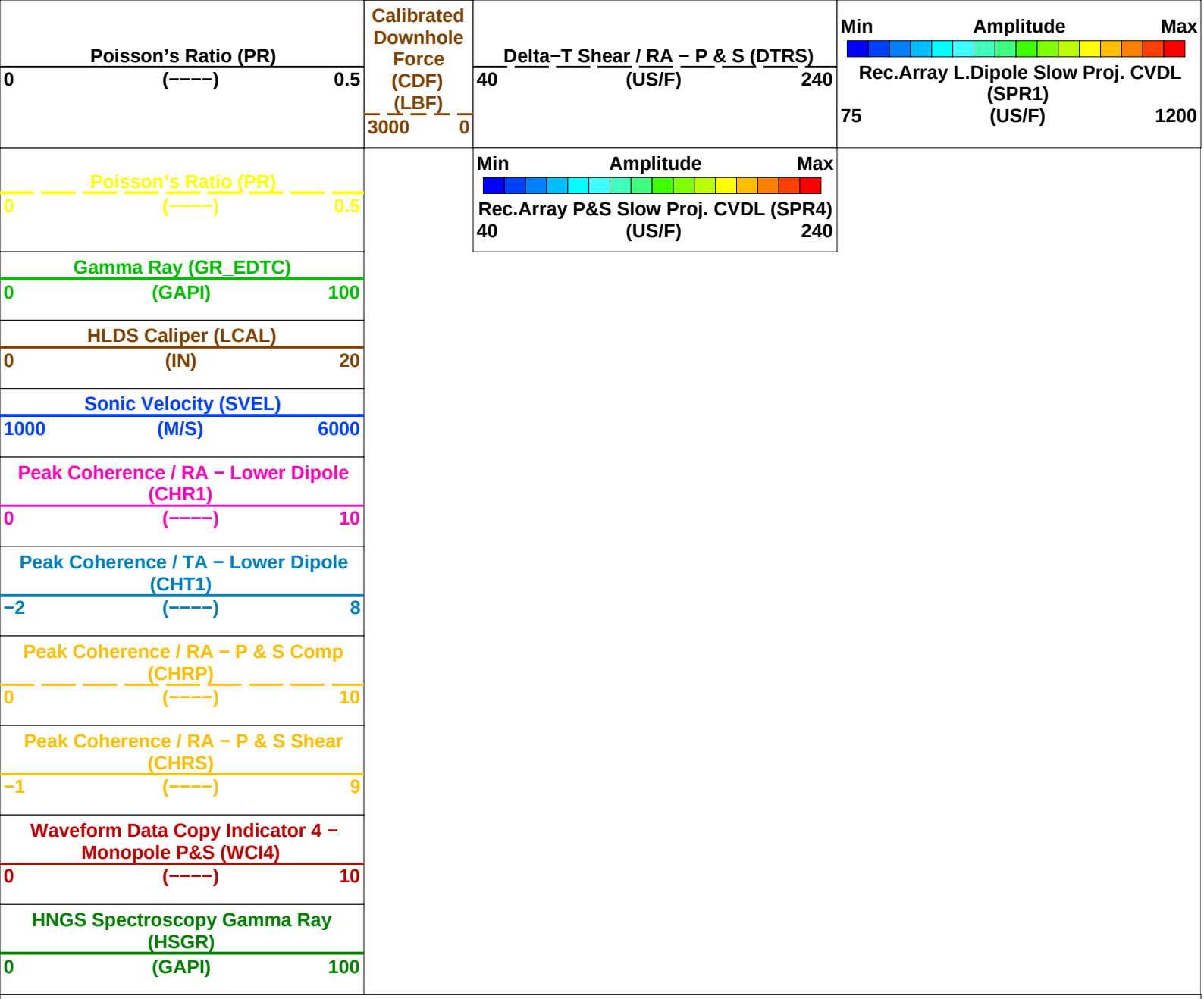
Tension (TENS) (LBF)
10000 0

Delta-T Comp / RA - P & S (DTRP)
40 (US/F) 240

Delta-T Shear / RA - Lower Dipole (DT1R)
75 (US/F) 1200




4600
4625
Bit Size (BS)
0
(IN)
20
Tension
(TENS)
(LBF)
10000
0
Delta−T Comp / RA − P & S (DTRP)
40
(US/F)
240
Delta−T Shear / RA − Lower Dipole
(DT1R)
75
(US/F)
1200




PIP SUMMARY

Time Mark Every 60 S

## Parameters

| DLIS Name | Description | Value | |
|---|---|---|---|
| | **DSST−B: Dipole Shear Imager − B** | | |
| AGC1 | Automatic Gain Control 1 | ON | |
| AGC2 | Automatic Gain Control 2 | ON | |
| AGC3 | Automatic Gain Control 3 | ON | |
| AGC4 | Automatic Gain Control 4 | ON | |
| AGC5 | Automatic Gain Control 5 | ON | |
| AGCX | Automatic Gain Control X | ON | |
| BARS_MTR1 | Length for Monopole Transmitter to Receiver 1 | 2.7432 | M |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CASF | Label Casing Function − Monopole P&S | 50 | |
| CDTS | C−Delta−T Shale | 100 | US/F |
| COLL | Label Slowness Lower Limit − Monopole P&S Compressional | 65 | US/F |
| COUL | Label Slowness Upper Limit − Monopole P&S Compressional | 185 | US/F |
| DDE1 | Digitizing Delay 1 | 0 | US |
| DDE2 | Digitizing Delay 2 | 0 | US |
| DDE3 | Digitizing Delay 3 | 0 | US |
| DDE4 | Digitizing Delay 4 | 0 | US |
| DDE5 | Digitizing Delay 5 | 0 | US |
| DDEX | Digitizing Delay X | 0 | US |
| DLCS | Label Compressional Source − Dipole Shear | USE | |
| DLHS | Label Hole Diameter Source for SOBS Channel | AUTO | |
| DSHL | Label Slowness Lower Limit − Dipole Shear | 40 | US/F |

| | | | |
|---|---|---|---|
| DSHU | Label Slowness Upper Limit − Dipole Shear | 640 | US/F |
| DSI1 | Digitizer Sample Interval 1 | 40 | US |
| DSI2 | Digitizer Sample Interval 2 | 40 | US |
| DSI3 | Digitizer Sample Interval 3 | 10 | US |
| DSI4 | Digitizer Sample Interval 4 | 10 | US |
| DSI5 | Digitizer Sample Interval 5 | 10 | US |
| DSIX | Digitizer Sample Interval X | 40 | US |
| DTCS | Compressional Delta−T Source for DTCO Channel | PS_COMP | |
| DTF | Delta−T Fluid | 193 | US/F |
| DTM | Delta−T Matrix | 56 | US/F |
| DTSS | Shear Delta−T Source for DTSM Channel | LOWER_DIPOLE | |
| DWC1 | Digitizer Word Count 1 | 512 | |
| DWC2 | Digitizer Word Count 2 | 512 | |
| DWC3 | Digitizer Word Count 3 | 512 | |
| DWC4 | Digitizer Word Count 4 | 512 | |
| DWC5 | Digitizer Word Count 5 | 512 | |
| DWCX | Digitizer Word Count X | 512 | |
| FDE1 | Firing Delay 1 | 0 | |
| FDE2 | Firing Delay 2 | 0 | |
| FDE3 | Firing Delay 3 | 0 | |
| FDE4 | Firing Delay 4 | 0 | |
| FDE5 | Firing Delay 5 | 0 | |
| FDEX | Firing Delay X | 0 | |
| FGM5 | First Motion Gate Moveout 5 | 40 | US/F |
| FGMX | First Motion Gate Moveout X | 40 | US/F |
| FILG | Label Fill Gap Control − Monopole P&S | COMP_SHEAR | |
| FMG5 | First Motion Minimum Gate 5 | 500 | US |
| FMGX | First Motion Minimum Gate X | 500 | US |
| FMLL | Slowness Lower Limit − FMD | 40 | US/F |
| FMRC | Restart Control − FMD | CONTINUE | |
| FMT5 | First Motion Threshold 5 | UP | |
| FMTX | First Motion Threshold X | NONE | |
| FMUL | Slowness Upper Limit − FMD | 180 | US/F |
| FNC5 | First Motion Noise Counter Input 5 | ALO | |
| FNCX | First Motion Noise Counter Input X | ALO | |
| FPM | Processing Mode − FMD | NONE | |
| FTD5 | First Motion Threshold Direction 5 | UP | |
| FTDX | First Motion Threshold Direction X | UP | |
| GAI1 | Manual Gain 1 | 10 | |
| GAI2 | Manual Gain 2 | 10 | |
| GAI3 | Manual Gain 3 | 10 | |
| GAI4 | Manual Gain 4 | 16 | |
| GAI5 | Manual Gain 5 | 16 | |
| GAIX | Manual Gain X | 10 | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GDT1 | Gain Delta−T 1 | 800 | US/F |
| GDT2 | Gain Delta−T 2 | 800 | US/F |
| GDT3 | Gain Delta−T 3 | 800 | US/F |
| GDT4 | Gain Delta−T 4 | 160 | US/F |
| GDT5 | Gain Delta−T 5 | 160 | US/F |
| GDTX | Gain Delta−T X | 800 | US/F |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GIN1 | Gain Interval 1 | 15360 | US |
| GIN2 | Gain Interval 2 | 15360 | US |
| GIN3 | Gain Interval 3 | 15360 | US |
| GIN4 | Gain Interval 4 | 2560 | US |
| GIN5 | Gain Interval 5 | 1600 | US |
| GINX | Gain Interval X | 15360 | US |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HPF1 | High Pass Filter 1 | F80 | |
| HPF2 | High Pass Filter 2 | F80 | |
| HPF3 | High Pass Filter 3 | F80 | |
| HPF4 | High Pass Filter 4 | F8K | |
| HPF5 | High Pass Filter 5 | F8K | |
| HPFX | High Pass Filter X | F80 | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ITTS | Integrated Transit Time Source | DTCO | |
| LFC | Label Formation Character − Monopole P&S | DYNAMIC | |
| LPF1 | Low Pass Filter 1 | F5K | |
| LPF2 | Low Pass Filter 2 | F5K | |
| LPF3 | Low Pass Filter 3 | F5K | |
| LPF4 | Low Pass Filter 4 | F30K | |
| LPF5 | Low Pass Filter 5 | F30K | |
| LPFX | Low Pass Filter X | F5K | |
| LTXG | Lower Dipole Transmitter Geometry | 156 | IN |
| MAI5 | Slowness Averaging Interval − FMD | 42 | IN |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCS | Mean Casing Slowness | 57 | US/F |
| MDS5 | Multishot Delta−T Scatter − FMD | 20 | US |
| MTXG | Monopole Transmitter Geometry | 186 | IN |
| MUX1 | Sum Difference Multiplexor Input 1 | RR | |
| MUX2 | Sum Difference Multiplexor Input 2 | RR | |
| MUX3 | Sum Difference Multiplexor Input 3 | RR | |

| | | | |
|---|---|---|---|
| MUX4 | Sum Difference Multiplexor Input 4 | RR | |
| MUX5 | Sum Difference Multiplexor Input 5 | RR | |
| MUXX | Sum Difference Multiplexor Input X | RR | |
| NTI5 | Number Threshold Items 5 | 0 | |
| NTIX | Number Threshold Items X | 0 | |
| NWI1 | Number Waveform Items 1 | 8 | |
| NWI2 | Number Waveform Items 2 | 8 | |
| NWI3 | Number Waveform Items 3 | 0 | |
| NWI4 | Number Waveform Items 4 | 8 | |
| NWI5 | Number Waveform Items 5 | 0 | |
| NWIX | Number Waveform Items X | 0 | |
| NWS1 | Number Waveforms Stacked 1 | 1 | |
| NWS2 | Number Waveforms Stacked 2 | 1 | |
| NWS3 | Number Waveforms Stacked 3 | 1 | |
| NWS4 | Number Waveforms Stacked 4 | 1 | |
| NWS5 | Number Waveforms Stacked 5 | 1 | |
| NWSX | Number Waveforms Stacked X | 1 | |
| RATE | Firing Rate | R7 | |
| RSMN | Label Shear/Compressional Minimum Ratio − Monopole P&S | 1.4 | |
| RSMX | Label Shear/Compressional Maximum Ratio − Monopole P&S | 2.12 | |
| RX1G | Receiver 1 Geometry | 294 | IN |
| RX2G | Receiver 2 Geometry | 300 | IN |
| RX3G | Receiver 3 Geometry | 306 | IN |
| RX4G | Receiver 4 Geometry | 312 | IN |
| RX5G | Receiver 5 Geometry | 318 | IN |
| RX6G | Receiver 6 Geometry | 324 | IN |
| RX7G | Receiver 7 Geometry | 330 | IN |
| RX8G | Receiver 8 Geometry | 336 | IN |
| SAM1 | DSST Sonic Acquisition Mode 1 − Lower Dipole Mode | EVEN | |
| SAM2 | DSST Sonic Acquisition Mode 2 − Upper Dipole Mode | ODD | |
| SAM3 | DSST Sonic Acquisition Mode 3 − Monopole Mode for Stoneley | OFF | |
| SAM4 | DSST Sonic Acquisition Mode 4 − Monopole Mode for P&S | EVEN | |
| SAM5 | DSST Sonic Acquisition Mode 5 − Monopole Mode for FMD | OFF | |
| SAMX | DSST Sonic Acquisition Mode X − Both Dipoles or Monopole Mode for Expert | OFF | |
| SAS1 | STC Sonic Array Status − Lower Dipole | 255 | |
| SAS2 | STC Sonic Array Status − Upper Dipole | 255 | |
| SAS3 | STC Sonic Array Status − Monopole Stoneley | 255 | |
| SAS4 | STC Sonic Array Status − Monopole P&S | 255 | |
| SAS5 | Sonic Array Status − FMD | 255 | |
| SBO1 | STC Search Band Offset − Lower Dipole | 3000 | US |
| SBO2 | STC Search Band Offset − Upper Dipole | 3000 | US |
| SBO3 | STC Search Band Offset − Monopole Stoneley | 3000 | US |
| SBO4 | STC Search Band Offset − Monopole P&S | 500 | US |
| SBR4 | STC Baseline Removal − Monopole P&S | ON | |
| SBW1 | STC Search Bandwidth − Lower Dipole | 8000 | US |
| SBW2 | STC Search Bandwidth − Upper Dipole | 8000 | US |
| SBW3 | STC Search Bandwidth − Monopole Stoneley | 8000 | US |
| SBW4 | STC Search Bandwidth − Monopole P&S | 2000 | US |
| SFC1 | STC Formation Character − Lower Dipole | SELECTABLE | |
| SFC2 | STC Formation Character − Upper Dipole | SELECTABLE | |
| SFC3 | STC Formation Character − Monopole Stoneley | SELECTABLE | |
| SFC4 | STC Formation Character − Monopole P&S | SELECTABLE | |
| SFM1 | STC Filter − Lower Dipole | B1−3K | |
| SFM2 | STC Filter − Upper Dipole | B1−2K | |
| SFM3 | STC Filter − Monopole Stoneley | B.5−1.5K | |
| SFM4 | STC Filter − Monopole P&S | B3−20K | |
| SHLL | Label Slowness Lower Limit − Monopole P&S Shear | 235 | US/F |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SHUL | Label Slowness Upper Limit − Monopole P&S Shear | 240 | US/F |
| SLL1 | STC Slowness Lower Limit − Lower Dipole | 40 | US/F |
| SLL2 | STC Slowness Lower Limit − Upper Dipole | 40 | US/F |
| SLL3 | STC Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| SLL4 | STC Slowness Lower Limit − Monopole P&S | 40 | US/F |
| SPFS | Sonic Porosity Formula | RAYMER_HUNT | |
| SPSO | Sonic Porosity Source | DTCO | |
| SST1 | STC Slowness Step − Lower Dipole | 4 | US/F |
| SST2 | STC Slowness Step − Upper Dipole | 4 | US/F |
| SST3 | STC Slowness Step − Monopole Stoneley | 4 | US/F |
| SST4 | STC Slowness Step − Monopole P&S | 2 | US/F |
| SSW1 | STC Source Waveform − Lower Dipole | WF_SAM1 | |
| SSW2 | STC Source Waveform − Upper Dipole | WF_SAM2 | |
| SSW3 | STC Source Waveform − Monopole Stoneley | WF_SAM3 | |
| SSW4 | STC Source Waveform − Monopole P&S | WF_SAM4 | |
| STLL | Label Slowness Lower Limit − Monopole Stoneley | 180 | US/F |
| STUL | Label Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL1 | STC Slowness Upper Limit − Lower Dipole | 640 | US/F |
| SUL2 | STC Slowness Upper Limit − Upper Dipole | 640 | US/F |
| SUL3 | STC Slowness Upper Limit − Monopole Stoneley | 780 | US/F |
| SUL4 | STC Slowness Upper Limit − Monopole P&S | 240 | US/F |
| SWD1 | STC Slowness Width − Lower Dipole | 40 | US/F |
| SWD2 | STC Slowness Width − Upper Dipole | 40 | US/F |
| SWD3 | STC Slowness Width − Monopole Stoneley | 40 | US/F |
| SWD4 | STC Slowness Width − Monopole P&S | 10 | US/F |
| TBDB | Tool String Bottom to DSST Bottom | 95.25 | IN |

| | | | |
|---|---|---|---|
| TBDB | Tool String Bottom to DSST Bottom | 95.25 | IN |
| TBF1 | STC Time for Baseline Fill − Lower Dipole | 0 | US |
| TBF2 | STC Time for Baseline Fill − Upper Dipole | 0 | US |
| TBF3 | STC Time for Baseline Fill − Monopole Stoneley | 0 | US |
| TBF4 | STC Time for Baseline Fill − Monopole P&S | 300 | US |
| TLL1 | STC Time Lower Limit − Lower Dipole | 600 | US |
| TLL2 | STC Time Lower Limit − Upper Dipole | 600 | US |
| TLL3 | STC Time Lower Limit − Monopole Stoneley | 600 | US |
| TLL4 | STC Time Lower Limit − Monopole P&S | 150 | US |
| TST1 | STC Time Step − Lower Dipole | 200 | US |
| TST2 | STC Time Step − Upper Dipole | 200 | US |
| TST3 | STC Time Step − Monopole Stoneley | 200 | US |
| TST4 | STC Time Step − Monopole P&S | 50 | US |
| TTDB | Tool String Top to DSST Bottom | 1348.6 | IN |
| TUL1 | STC Time Upper Limit − Lower Dipole | 14360 | US |
| TUL2 | STC Time Upper Limit − Upper Dipole | 14040 | US |
| TUL3 | STC Time Upper Limit − Monopole Stoneley | 12000 | US |
| TUL4 | STC Time Upper Limit − Monopole P&S | 3660 | US |
| TWA1 | Transmitter Waveform Amplitude 1 | 179 | |
| TWA2 | Transmitter Waveform Amplitude 2 | 179 | |
| TWA3 | Transmitter Waveform Amplitude 3 | 179 | |
| TWA4 | Transmitter Waveform Amplitude 4 | 150 | |
| TWA5 | Transmitter Waveform Amplitude 5 | 150 | |
| TWAX | Transmitter Waveform Amplitude X | 179 | |
| TWD1 | STC Time Width − Lower Dipole | 2000 | US |
| TWD2 | STC Time Width − Upper Dipole | 2000 | US |
| TWD3 | STC Time Width − Monopole Stoneley | 2000 | US |
| TWD4 | STC Time Width − Monopole P&S | 1000 | US |
| TWI1 | STC Integration Time Window − Lower Dipole | 1600 | US |
| TWI2 | STC Integration Time Window − Upper Dipole | 1600 | US |
| TWI3 | STC Integration Time Window − Monopole Stoneley | 2400 | US |
| TWI4 | STC Integration Time Window − Monopole P&S | 500 | US |
| TWR1 | Transmitter Waveform Sample Rate 1 | 5 | US |
| TWR2 | Transmitter Waveform Sample Rate 2 | 5 | US |
| TWR3 | Transmitter Waveform Sample Rate 3 | 5 | US |
| TWR4 | Transmitter Waveform Sample Rate 4 | 5 | US |
| TWR5 | Transmitter Waveform Sample Rate 5 | 5 | US |
| TWRX | Transmitter Waveform Sample Rate X | 5 | US |
| TWS1 | Transmitter Waveform Select 1 | 0 | |
| TWS2 | Transmitter Waveform Select 2 | 0 | |
| TWS3 | Transmitter Waveform Select 3 | 0 | |
| TWS4 | Transmitter Waveform Select 4 | 6 | |
| TWS5 | Transmitter Waveform Select 5 | 6 | |
| TWSX | Transmitter Waveform Select X | 0 | |
| UTXG | Upper Dipole Transmitter Geometry | 162 | IN |
| WFDTSP1 | SAM1 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP2 | SAM2 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP3 | SAM3 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSP4 | SAM4 Waveform Delta for Spectrum | 0 | US/F |
| WFDTSPX | SAMX Waveform Delta for Spectrum | 0 | US/F |
| WFLLSP1 | SAM1 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP2 | SAM2 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP3 | SAM3 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSP4 | SAM4 Waveform Lower Limit for Spectrum | 0 | US |
| WFLLSPX | SAMX Waveform Lower Limit for Spectrum | 0 | US |
| WFM1 | Waveform Mode 1 | W1 | |
| WFM2 | Waveform Mode 2 | W1 | |
| WFM3 | Waveform Mode 3 | W1 | |
| WFM4 | Waveform Mode 4 | W1 | |
| WFM5 | Waveform Mode 5 | W1 | |
| WFMX | Waveform Mode X | W1 | |
| WFULSP1 | SAM1 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP2 | SAM2 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP3 | SAM3 Waveform Upper Limit for Spectrum | 20000 | US |
| WFULSP4 | SAM4 Waveform Upper Limit for Spectrum | 5000 | US |
| WFULSPX | SAMX Waveform Upper Limit for Spectrum | 20000 | US |
| XMT1 | Transmitter Select 1 | DLO | |
| XMT2 | Transmitter Select 2 | DUP | |
| XMT3 | Transmitter Select 3 | NONE | |
| XMT4 | Transmitter Select 4 | MONO | |
| XMT5 | Transmitter Select 5 | MONO | |
| XMTX | Transmitter Select X | DUP | |
| **HLDS: Hostile Litho−Density Sonde** | | | |
| CLCL | HLDS LS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLCS | HLDS SS Control Loop Controller Mode | AUTO_DEFAULT | |
| CLLS | HLDS Mode Loop Long Spacing | AUTO | |
| CLSS | HLDS Mode Loop Short Spacing | AUTO | |
| DHC | Density Hole Correction | BS | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FD | Fluid Density | 1 | G/C3 |
| LATC | HLDS Activation Correction | ON | |
| LLDL | HLDS LS Low Level Discriminator DAC | 14000 | |
| LLDS | HLDS SS Low Level Discriminator DAC | 14000 | |
| LLML | HLDS LS Low Level Discriminator Mode | AUTO | |
| LLMS | HLDS SS Low Level Discriminator Mode | AUTO | |

| | | | |
|---|---|---|---|
| MDEN | Matrix Density | 2.6 | G/C3 |
| PHVL | HLDS Long Spacing High Voltage Setting | 1000 | V |
| PHVS | HLDS Short Spacing High Voltage Setting | 1000 | V |
| PSDL | HLDS LS Pulse Shape Compensation DAC | 30000 | |
| PSDS | HLDS SS Pulse Shape Compensation DAC | 30000 | |
| PSML | HLDS LS Pulse Shape Compensation Mode | AUTO | |
| PSMS | HLDS SS Pulse Shape Compensation Mode | AUTO | |
| HNGS−BA: Hostile Natural Gamma Ray Sonde | | | |
| BAR1 | HNGS Detector 1 Barite Constant | 1 | |
| BAR2 | HNGS Detector 2 Barite Constant | 1 | |
| BHK | HNGS Borehole Potassium Correction Concentration | 0 | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| CSD1 | Inner Casing Outer Diameter | 10.75 | IN |
| CSD2 | Outer Casing Outer Diameter | 10.75 | IN |
| CSW1 | Inner Casing Weight | 45 | LB/F |
| CSW2 | Outer Casing Weight | 45 | LB/F |
| DBCC | HNGS Barite Constant Correction Flag | NONE | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| H1P | HNGS Detector 1 Allow/Disallow In Processing | ALLOW | |
| H2P | HNGS Detector 2 Allow/Disallow In Processing | ALLOW | |
| HABK | HNGS Borehole Potassium Running Average | −0.00373802 | |
| HALF | HNGS Alpha Filter Length | 60 | IN |
| HCRB | HNGS Apply Borehole Potassium Correction | NONE | |
| HMWM | Mud Weighting Material | BARI | |
| HNPE | HNGS Processing Enable | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| S1BI | HNGS Detector 1 Calibration Bismuth Count Rate | 1.3 | CPS |
| S2BI | HNGS Detector 2 Calibration Bismuth Count Rate | 1.3 | CPS |
| SGRC | HNGS Standard Gamma−Ray Correction Flag | YES | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| TPOS | Tool Position | ECCE | |
| VBA1 | HNGS Detector 1 Variable Barite Factor Running Average | 0.933396 | |
| VBA2 | HNGS Detector 2 Variable Barite Factor Running Average | 0.945439 | |
| EDTC−B: Enhanced DTS Cartridge | | | |
| BHFL | Borehole Fluid Type | WATER | |
| BHS | Borehole Status | OPEN | |
| BHT | Bottom Hole Temperature (used in calculations) | 21 | DEGC |
| BSCO | Borehole Salinity Correction Option | NO | |
| CCCO | Casing & Cement Thickness Correction Option | NO | |
| DPPM | Density Porosity Processing Mode | HIRS | |
| FSAL | Formation Salinity | −50000 | PPM |
| FSCO | Formation Salinity Correction Option | NO | |
| GCSE | Generalized Caliper Selection | LCAL | |
| GDEV | Average Angular Deviation of Borehole from Normal | 0 | DEG |
| GGRD | Geothermal Gradient | 0.018227 | DC/M |
| GRSE | Generalized Mud Resistivity Selection | CHART_GEN_9 | |
| GTSE | Generalized Temperature Selection | LINEAR_ESTIMATE | |
| HSCO | Hole Size Correction Option | YES | |
| ISSBAR | Barite Mud Switch | NOBARITE | |
| ISSBAR_EDTC | Nuclear Mud Type | BARITE | |
| MATR | Rock Matrix for Neutron Porosity Corrections | LIMESTONE | |
| MCCO | Mud Cake Correction Option | NO | |
| MCOR | Mud Correction | SALT | |
| MWCO | Mud Weight Correction Option | YES | |
| PTCO | Pressure/Temperature Correction Option | NO | |
| SDAT | Standoff Data Source | SOCN | |
| SHT | Surface Hole Temperature | 20 | DEGC |
| SOCN | Standoff Distance | 0.5 | IN |
| SOCO | Standoff Correction Option | NO | |
| TPOS_EDTC | EDTC Tool Centered/Eccentered | Eccentered | |
| U−ETELM_EDTS | Telemetry Mode for eWAFE | Standard_EDTS | |
| U−TELM_EDTS | Telemetry Mode for WAFE | Standard_EDTS | |
| System and Miscellaneous | | | |
| ALTDPCHAN | Name of alternate depth channel | SpeedCorrectedDepth | |
| BS | Bit Size | 9.875 | IN |
| BSAL | Borehole Salinity | 38000.00 | PPM |
| CSIZ | Current Casing Size | 5.500 | IN |
| CWEI | Casing Weight | 168.00 | LB/F |
| DFD | Drilling Fluid Density | 1.05 | G/C3 |
| FLEV | Fluid Level | −50000.00 | M |
| MST | Mud Sample Temperature | 23.00 | DEGC |
| PBVSADP | Use alternate depth channel for playback | NO | |
| RMFS | Resistivity of Mud Filtrate Sample | −50000.0000 | OHMM |
| RW | Resistivity of Connate Water | 1.0000 | OHMM |
| TD | Total Depth | 5345 | M |
| TDD | Total Depth − Driller | 4695.50 | M |
| TDL | Total Depth − Logger | 4695.50 | M |
| TWS | Temperature of Connate Water Sample | 37.78 | DEGC |

## OP System Version: 19C0−187

| | | | |
|---|---|---|---|
| DSST−B | 19C0−187 | HLDS | 19C0−187 |
| LDSC−B | 19C0−187 | HNGC−B | 19C0−187 |
| HNGS−BA | 19C0−187 | EDTC−B | SKK−5169−EDTCB |

## Output DLIS Files

| | | | | |
|---|---|---|---|---|
| DEFAULT | DSI_LDL_NGS_012LUP | FN:13 | PRODUCER | 13−May−2017 06:55 |
| RTB | DSI_LDL_NGS_012LUP | FN:14 | PRODUCER | 13−May−2017 06:55 |

Schlumberger

# Calibrations

MAXIS Field Log

Calibration and Check Summary

| Measurement | Nominal | Master | Before | After | Change | Limit | Units |
|---|---|---|---|---|---|---|---|
| Hostile Litho−Density Sonde Wellsite Calibration − Background Measurement | | | | | | | |
| Master: 25−Mar−2017 1:50 Before: 13−May−2017 3:05 | | | | | | | |
| SS Cs Resolution Bkg | 9.000 | 8.044 | 8.103 | N/A | N/A | 1.800 | % |
| LS Cs Resolution Bkg | 9.000 | 8.113 | 8.113 | N/A | N/A | 1.800 | % |
| LSW1 Background | 100.0 | 65.55 | 64.48 | N/A | N/A | 3.000 | CPS |
| LSW2 Background | 100.0 | 61.47 | 60.18 | N/A | N/A | 3.000 | CPS |
| LSW3 Background | 200.0 | 132.5 | 133.5 | N/A | N/A | 6.000 | CPS |
| LSW4 Background | 250.0 | 160.5 | 161.1 | N/A | N/A | 7.500 | CPS |
| LSW5 Background | 600.0 | 371.0 | 369.9 | N/A | N/A | 18.00 | CPS |
| SSW1 Background | 100.0 | 73.37 | 72.83 | N/A | N/A | 3.000 | CPS |
| SSW2 Background | 200.0 | 129.1 | 128.5 | N/A | N/A | 6.000 | CPS |
| SSW3 Background | 500.0 | 350.2 | 350.7 | N/A | N/A | 15.00 | CPS |
| SSW4 Background | 270.0 | 183.5 | 181.2 | N/A | N/A | 8.100 | CPS |
| SSW5 Background | 200.0 | 132.8 | 131.8 | N/A | N/A | 6.000 | CPS |
| Hostile Litho−Density Sonde Wellsite Calibration − Aluminum Measurement | | | | | | | |
| Master: 25−Mar−2017 2:22 | | | | | | | |
| LSW1 Aluminum | 600.0 | 521.4 | N/A | N/A | N/A | N/A | CPS |
| LSW2 Aluminum | 900.0 | 742.3 | N/A | N/A | N/A | N/A | CPS |
| LSW3 Aluminum | 1100 | 896.4 | N/A | N/A | N/A | N/A | CPS |
| LSW4 Aluminum | 580.0 | 449.8 | N/A | N/A | N/A | N/A | CPS |
| LSW5 Aluminum | 570.0 | 412.4 | N/A | N/A | N/A | N/A | CPS |
| SSW1 Aluminum | 2800 | 2435 | N/A | N/A | N/A | N/A | CPS |
| SSW2 Aluminum | 8000 | 6542 | N/A | N/A | N/A | N/A | CPS |
| SSW3 Aluminum | 11600 | 9006 | N/A | N/A | N/A | N/A | CPS |
| SSW4 Aluminum | 5000 | 3674 | N/A | N/A | N/A | N/A | CPS |
| SSW5 Aluminum | 660.0 | 448.5 | N/A | N/A | N/A | N/A | CPS |
| Hostile Litho−Density Sonde Wellsite Calibration − Lithology Measurement | | | | | | | |
| Master: 25−Mar−2017 2:16 | | | | | | | |
| LSW1 Iron | 400.0 | 355.4 | N/A | N/A | N/A | N/A | CPS |
| LSW2 Iron | 730.0 | 603.3 | N/A | N/A | N/A | N/A | CPS |
| LSW3 Iron | 1000 | 790.5 | N/A | N/A | N/A | N/A | CPS |
| LSW4 Iron | 520.0 | 409.3 | N/A | N/A | N/A | N/A | CPS |
| LSW5 Iron | 470.0 | 373.1 | N/A | N/A | N/A | N/A | CPS |
| SSW1 Iron | 2100 | 1770 | N/A | N/A | N/A | N/A | CPS |
| SSW2 Iron | 6800 | 5464 | N/A | N/A | N/A | N/A | CPS |
| SSW3 Iron | 10800 | 8215 | N/A | N/A | N/A | N/A | CPS |
| SSW4 Iron | 4600 | 3351 | N/A | N/A | N/A | N/A | CPS |
| SSW5 Iron | 580.0 | 402.0 | N/A | N/A | N/A | N/A | CPS |

Hostile Litho−Density Sonde Wellsite Calibration − Caliper Calibration
Before: 25−Mar−2017 4:35

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| HLDS Caliper Small Ring | 12.00 | N/A | 15.97 | N/A | N/A | N/A | IN |
| HLDS Caliper Large Ring | 15.19 | N/A | 20.15 | N/A | N/A | N/A | IN |

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 1 Check
Master: 27−Mar−2017 2:51 Before: 13−May−2017 3:06

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Na 511 Peak Loc | 40.00 | 39.78 | 39.62 | N/A | N/A | 1.000 | |
| Na 511 Peak Res | 15.50 | 15.89 | 16.38 | N/A | N/A | 2.000 | % |
| High Voltage | 1150 | 1194 | 1195 | N/A | N/A | N/A | V |
| Na 1785 Peak Loc | 142.6 | 141.8 | 142.6 | N/A | N/A | 7.000 | |
| Na 1785 Peak Res | 8.500 | 8.607 | 8.990 | N/A | N/A | 2.000 | % |
| Temperature | 15.50 | 34.40 | 35.75 | N/A | N/A | N/A | DEGC |
| Na Count Rate | 45.00 | 29.68 | 28.27 | N/A | N/A | 8.000 | CPS |

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Detector 2 Check
Master: 27−Mar−2017 2:51 Before: 13−May−2017 3:06

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Na 511 Peak Loc | 40.00 | 39.58 | 39.58 | N/A | N/A | 1.000 | |
| Na 511 Peak Res | 15.50 | 16.44 | 16.97 | N/A | N/A | 2.000 | % |
| High Voltage | 1150 | 1124 | 1126 | N/A | N/A | N/A | V |
| Na 1785 Peak Loc | 142.6 | 142.3 | 141.8 | N/A | N/A | 7.000 | |
| Na 1785 Peak Res | 8.500 | 8.332 | 9.161 | N/A | N/A | 2.000 | % |
| Temperature | 15.50 | 35.13 | 36.58 | N/A | N/A | N/A | DEGC |
| Na Count Rate | 45.00 | 29.69 | 28.24 | N/A | N/A | 8.000 | CPS |

Hostile Natural Gamma Ray Sonde Wellsite Calibration − Ratio Of Detector 1 To Detector 2
Master: 27−Mar−2017 2:51 Before: 13−May−2017 3:06

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Coincidence Count Rate Ratio | 1.000 | 0.9983 | 1.002 | N/A | N/A | 0.05000 | |

Enhanced DTS Cartridge Wellsite Calibration − EDTC Accelerometer Calibration
Before: 13−May−2017 3:15

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| EDTC Z−Axis Acceleration | 9.810 | N/A | 9.741 | N/A | N/A | N/A | M/S2 |

Enhanced DTS Cartridge Wellsite Calibration − Detector Calibration
Before: 13−May−2017 3:03

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Gamma Ray (Jig − Bkg) | 146.7 | N/A | 146.7 | N/A | N/A | 13.34 | GAPI |
| Gamma Ray (Calibrated) | 165.0 | N/A | 165.0 | N/A | N/A | 15.00 | GAPI |

## Hostile Litho−Density Sonde / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| Gamma Source Radioactive | GSR − ZA | 2945 |
| Hostile Litho Density Sonde | HLDS − D | 45 |
| Hostile Litho Density High Voltage | HLDV − D | 45 |
| Auxiliary Equipment: | | |
| Hostile Litho Density High Voltage Housi | HEH − H | 47 |
| Hostile Litho Density Pad | HLDP − C | 45 |

## Hostile Litho−Density Sonde Wellsite Calibration

### Background Measurement

| Phase | SS Cs Resolution Bkg % | Value |
|---|---|---|
| Master | | 8.044 |
| Before | | 8.103 |

7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)

| Phase | LS Cs Resolution Bkg % | Value |
|---|---|---|
| Master | | 8.113 |
| Before | | 8.113 |

7.000 (Minimum) 9.000 (Nominal) 11.00 (Maximum)

| Phase | LSW1 Background CPS | Value |
|---|---|---|
| Master | | 65.55 |
| Before | | 64.48 |

55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)

| Phase | LSW2 Background CPS | Value |
|---|---|---|
| Master | | 61.47 |
| Before | | 60.18 |

50.00 (Minimum) 100.0 (Nominal) 140.0 (Maximum)

| Phase | LSW3 Background CPS | Value |
|---|---|---|
| Master | | 132.5 |
| Before | | 133.5 |

110.0 (Minimum) 200.0 (Nominal) 290.0 (Maximum)

| Phase | LSW4 Background CPS | Value |
|---|---|---|
| Master | | 160.5 |
| Before | | 161.1 |

140.0 (Minimum) 250.0 (Nominal) 360.0 (Maximum)

| Phase | LSW5 Background CPS | Value |
|---|---|---|
| Master | | 371.0 |
| Before | | 369.9 |

330.0 (Minimum) 600.0 (Nominal) 830.0 (Maximum)

| Phase | SSW1 Background CPS | Value |
|---|---|---|
| Master | | 73.37 |
| Before | | 72.83 |

55.00 (Minimum) 100.0 (Nominal) 150.0 (Maximum)

| Phase | SSW2 Background CPS | Value |
|---|---|---|
| Master | | 129.1 |
| Before | | 128.5 |

100.0 (Minimum) 200.0 (Nominal) 260.0 (Maximum)

| Phase | SSW3 Background CPS | Value |
|---|---|---|
| Master | | 350.2 |
| Before | | 350.7 |

| Phase | SSW4 Background CPS | Value |
|---|---|---|
| Master | | 183.5 |
| Before | | 181.2 |

| Phase | SSW5 Background CPS | Value |
|---|---|---|
| Master | | 132.8 |
| Before | | 131.8 |

| | | |
|---|---|---|
| 280.0 (Minimum) | 500.0 (Nominal) | 700.0 (Maximum) |
| 150.0 (Minimum) | 270.0 (Nominal) | 380.0 (Maximum) |
| 110.0 (Minimum) | 200.0 (Nominal) | 270.0 (Maximum) |

Master: 25−Mar−2017 1:50 Before: 13−May−2017 3:05

## Litho−Density Spectroscopy Cartridge − B / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| LDSC Cartridge | LDSC − B | 521 |
| Auxiliary Equipment: | | |
| LDSC Housing | LDSH − A | 319 |

## Hostile Natural Gamma Ray Cartridge − B / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| HNGC Cartridge | HNGC − B | 304 |
| Auxiliary Equipment: | | |
| HNGC Housing | HNGH − A | 3 |

## Hostile Natural Gamma Ray Sonde / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| HNGS Sonde | HNGS − BA | 194 |
| Auxiliary Equipment: | | |
| HNGS Sonde Housing | HNSH − BA | 205 |
| Gamma Source Radioactive | GSR − U | 616008 |

## Hostile Natural Gamma Ray Sonde Wellsite Calibration

### Detector 1 Check

| Phase | Na 511 Peak Loc | Value |
|---|---|---|
| Master | | 39.78 |
| Before | | 39.62 |
| 37.50 (Minimum) | 40.00 (Nominal) | 43.50 (Maximum) |

| Phase | Na 511 Peak Res % | Value |
|---|---|---|
| Master | | 15.89 |
| Before | | 16.38 |
| 12.00 (Minimum) | 15.50 (Nominal) | 19.00 (Maximum) |

| Phase | High Voltage V | Value |
|---|---|---|
| Master | | 1194 |
| Before | | 1195 |
| 900.0 (Minimum) | 1150 (Nominal) | 1600 (Maximum) |

| Phase | Na 1785 Peak Loc | Value |
|---|---|---|
| Master | | 141.8 |
| Before | | 142.6 |
| 135.0 (Minimum) | 142.6 (Nominal) | 150.3 (Maximum) |

| Phase | Na 1785 Peak Res % | Value |
|---|---|---|
| Master | | 8.607 |
| Before | | 8.990 |
| 7.000 (Minimum) | 8.500 (Nominal) | 11.00 (Maximum) |

| Phase | Temperature DEGC | Value |
|---|---|---|
| Master | | 34.40 |
| Before | | 35.75 |
| −28.89 (Minimum) | 15.50 (Nominal) | 60.00 (Maximum) |

| Phase | Na Count Rate CPS | Value |
|---|---|---|
| Master | | 29.68 |
| Before | | 28.27 |
| 10.00 (Minimum) | 45.00 (Nominal) | 100.0 (Maximum) |

Master: 27−Mar−2017 2:51 Before: 13−May−2017 3:06

## Hostile Natural Gamma Ray Sonde Wellsite Calibration

### Detector 2 Check

| Phase | Na 511 Peak Loc | Value |
|---|---|---|
| Master | | 39.58 |
| Before | | 39.58 |
| 37.50 (Minimum) | 40.00 (Nominal) | 43.50 (Maximum) |

| Phase | Na 511 Peak Res % | Value |
|---|---|---|
| Master | | 16.44 |
| Before | | 16.97 |
| 12.00 (Minimum) | 15.50 (Nominal) | 19.00 (Maximum) |

| Phase | High Voltage V | Value |
|---|---|---|
| Master | | 1124 |
| Before | | 1126 |
| 900.0 (Minimum) | 1150 (Nominal) | 1600 (Maximum) |

| Phase | Na 1785 Peak Loc | Value |
|---|---|---|
| Master | | 142.3 |
| Before | | 141.8 |
| 135.0 (Minimum) | 142.6 (Nominal) | 150.3 (Maximum) |

| Phase | Na 1785 Peak Res % | Value |
|---|---|---|
| Master | | 8.332 |
| Before | | 9.161 |
| 7.000 (Minimum) | 8.500 (Nominal) | 11.00 (Maximum) |

| Phase | Temperature DEGC | Value |
|---|---|---|
| Master | | 35.13 |
| Before | | 36.58 |
| −28.89 (Minimum) | 15.50 (Nominal) | 60.00 (Maximum) |

| Phase | Na Count Rate CPS | Value |
|---|---|---|
| Master | | 29.69 |
| Before | | 28.24 |
| | 10.00 (Minimum) 45.00 (Nominal) 100.0 (Maximum) | |

Master: 27−Mar−2017 2:51 Before: 13−May−2017 3:06

Hostile Natural Gamma Ray Sonde Wellsite Calibration

Ratio Of Detector 1 To Detector 2

| Phase | Coincidence Count Rate Ratio | Value |
|---|---|---|
| Master | | 0.9983 |
| Before | | 1.002 |
| | 0.9500 (Minimum) 1.000 (Nominal) 1.050 (Maximum) | |

Master: 27−Mar−2017 2:51

Before: 13−May−2017 3:06

Enhanced DTS Cartridge / Equipment Identification

| | | |
|---|---|---|
| Primary Equipment: | | |
| EDTC Gamma Ray Detector | EDTG − A/B | 8305 |
| Enhanced DTS Cartridge | EDTC − B | 8317 |
| Auxiliary Equipment: | | |
| EDTC Housing | EDTH − B | 8303 |

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

| Phase | EDTC Z−Axis Acceleration M/S2 | Value |
|---|---|---|
| Before | | 9.741 |
| | 9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum) | |

Before: 13−May−2017 3:15

Enhanced DTS Cartridge Wellsite Calibration

Detector Calibration

| Phase | Gamma Ray Background GAPI | Value | Phase | Gamma Ray (Jig − Bkg) GAPI | Value | Phase | Gamma Ray (Calibrated) GAPI | Value |
|---|---|---|---|---|---|---|---|---|
| Before | | 1.224 | Before | | 146.7 | Before | | 165.0 |
| | 0 (Minimum) 30.00 (Nominal) 120.0 (Maximum) | | | 133.4 (Minimum) 146.7 (Nominal) 160.1 (Maximum) | | | 150.0 (Minimum) 165.0 (Nominal) 180.0 (Maximum) | |

Before: 13−May−2017 3:03

Company: **International Ocean Discovery Program**

Schlumberger

Well: **Expedition 368, Site U1502B**

Field: **South China Sea Rifted Margin**

Rig: **JOIDES Resolution**

Country:

Dipole Shear Sonic (DSI)
Litho−Density (HLDS)
Spectral Gamma Ray (HNGS)