

Company: Occidental Petroleum Corporation

Well: Bryant #8-30

Field: Spindle

Country: Weld Country: USA

Isolation Scanner
Cement Evaluation
Gamma Ray - CCL Log

County: Weld
Field: Spindle
Location: NESE
Well: Bryant #8-30
Company: Occidental Petroleum Corporation

Location:	NESE	Elev.:	K.B. 4939.00 ft
Permanent Datum:	Ground Level	Elev.:	G.L. 4924.00 ft
Log Measured From:	Kelly Bushing		D.F.
Drilling Measured From:	Kelly Bushing		
API Serial No. 05-123-30118	Max.Hole Deviation 0 deg	Longitude: -105.03823 degrees	Latitude: 40.107298 degrees

Logging Date	26-Jul-2022
Run Number	One
Depth Driller	8388.00 ft
Schlumberger Depth	8388.00 ft
Bottom Log Interval	7000.00 ft
Top Log Interval	56.00 ft
Casing Fluid Type	Water
Salinity	
Density	8.5 lbm/gal
Fluid Level	8.00 ft
BIT/CASING/TUBING STRING	
Bit Size	7.87 in
From	748.00 ft
To	8388.00 ft
Casing/Tubing Size	4.5 in
Weight	11.6 lbm/ft
Grade	N/A
From	0.00 ft
To	7000.00 ft
Max Recorded Temperatures	
Logger on Bottom	26-Jul-2022 17:43:00
Unit Number	OSLC-HA9111 Fort Morgan
Recorded By	D. Hassan/ W. Hahn
Witnessed By	Jeremy Duty

Disclaimer

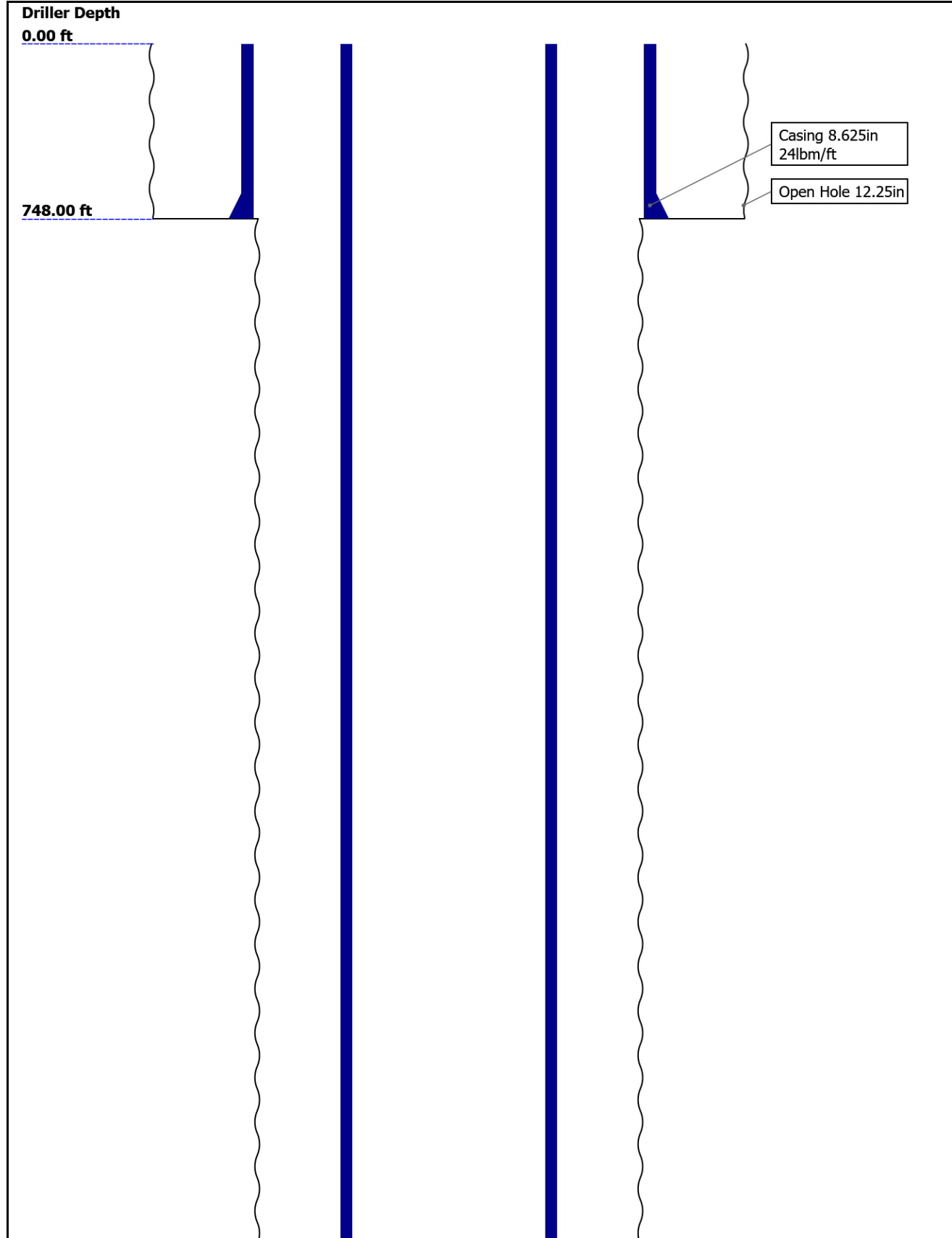
THE USE OF AND RELIANCE UPON THIS RECORDED-DATA BY THE HEREIN NAMED COMPANY (AND ANY OF ITS AFFILIATES, PARTNERS, REPRESENTATIVES, AGENTS, CONSULTANTS AND EMPLOYEES) IS SUBJECT TO THE TERMS AND CONDITIONS AGREED UPON BETWEEN SCHLUMBERGER AND THE COMPANY, INCLUDING: (a) RESTRICTIONS ON USE OF THE RECORDED-DATA; (b) DISCLAIMERS AND WAIVERS OF WARRANTIES AND REPRESENTATIONS REGARDING COMPANY'S USE 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.

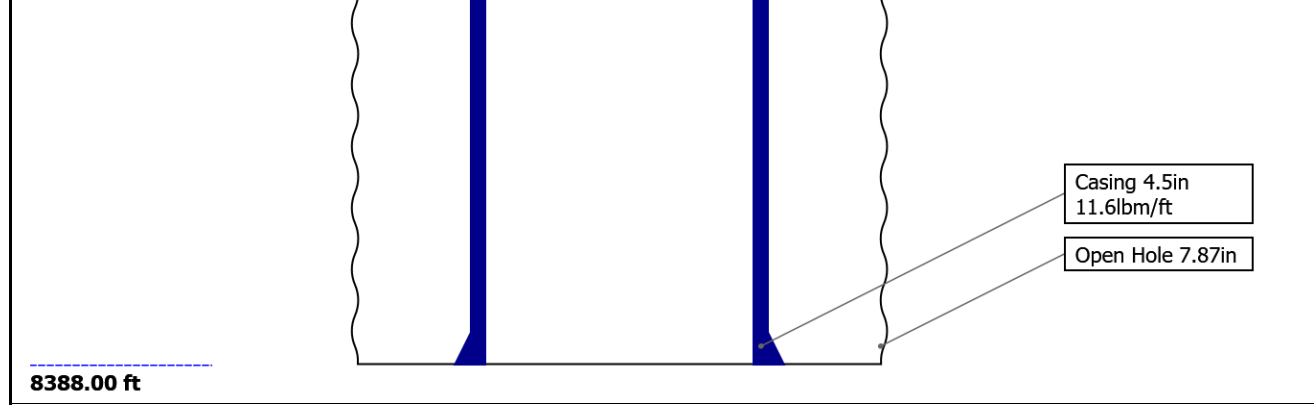
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 - 11.1 Integration Summary
 - 11.2 Software Version
 - 11.3 Composite Summary

Well Sketch





Borehole Size/Casing/Tubing Record

Bit					
Bit Size (in)	12.25	7.87			
Top Driller (ft)	0	748			
Top Logger (ft)	0	748			
Bottom Driller (ft)	748	8388			
Bottom Logger (ft)	748	8388			
Casing					
Size (in)	8.625	4.5			
Weight (lbm/ft)	24	11.6			
Inner Diameter (in)	8.097	4			
Grade	N/A	N/A			
Top Driller (ft)	0	0			
Top Logger (ft)	0	0			
Bottom Driller (ft)	748	8388			
Bottom Logger (ft)	748	7000			

Remarks and Equipment Summary

One: Toolstring

One: Remarks

Equip name length
LEH-QT 49.07
LEH-QT

MP name Offset



EDTC-B: 45.58
8350
EDTH-B
EDTG-A
EDTC-B:
8350

CTEM 42.08
ACCZ 0.00
HV 0.00
Gamma Ray 40.21
TelStar 39.08
tus

ASLT-B: 39.08
8073
ASLT-BB
:8073

CBL_U 32.55
P

Thank you for choosing Schlumberger

Log was run for cement and casing evaluation

IBC-TX was used with IBC-A

Tool was run as per tool sketch

Pressure was applied at 500 psi

Crew: Derrick Hunter, John Price



Lengths are in ft
 Maximum Outer Diameter = 3.800 in
 Line: Sensor Location, Value: Gating Offset
 All measurements are relative to TOOL_ZERO

Depth Summary

One

Depth Measuring Device

Type	IDW-B
Serial Number	
Calibration Date	
Calibrator Serial Number	
Calibration Cable Type	
Wheel Correction 1	0
Wheel Correction 2	0

Tension Device

Type	CMTD-B/A		
Serial Number			
Calibration Date			
Calibrator Serial Number			
Number of Calibration Points	0		

Logging Cable			
Type	7-46NT-XS		
Serial Number	1234		
Length	24000.00 ft		
Conveyance Type	Wireline		
Rig Type	Workoverrig		

One:Depth Control Parameters		Depth Control Remarks	
Log Sequence	First Log In the Well	Schlumberger depth control procedures followed	
Rig Up Length At Surface		IDW used as primary depth control system	
Rig Up Length At Bottom		Z-Chart used as secondary depth control system	
Rig Up Length Correction			
Stretch Correction			
Tool Zero Check At Surface			

USIT - Fluid Properties Measurement

Run Name	Pass Name	Start Depth(ft)	Stop Depth(ft)
Run 2	Log[2]:Down	6004.67	7000.52

Fluid Velocity = "Automatic".
CFVL equals DFSL channel

Start Depth(ft)	Stop Depth(ft)	Start Value(us/ft)	End Value(us/ft)
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Mud Impedance = "Theoretical".
CZMD uses theoretical results.
MUD_N_THE=1.09
DFD=1.02g/cm3(8.50lbm/gal)

Start Depth(ft)	Stop Depth(ft)	Start Value(Mrayl)	End Value(Mrayl)
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Composite 1

Software Version

Acquisition System		Version
Maxwell 2021.1		11.1.211946.3100
Application Patch		Wireline_Hotfix-Mandatory-2021.1_11.1.216380
		Wireline_NPD-ThruBit-2021.1_11.1.216465

Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[4]:Up	Up	3741.46 ft	6950.21 ft	26-Jul-2022 4:22:26 PM	26-Jul-2022 5:10:28 PM	ON	-4.23 ft	Yes
One	Log[5]:Up	Up	1177.30 ft	4099.45 ft	26-Jul-2022 5:25:04 PM	26-Jul-2022 6:09:50 PM	ON	-4.02 ft	Yes
One	Log[6]:Up	Up	65.97 ft	1399.86 ft	26-Jul-2022 6:21:19 PM	26-Jul-2022 6:43:48 PM	ON	-3.82 ft	Yes

All depths are referenced to toolstring zero

TIME_1900 - Time Marked every 60.00 (s)

Gamma Ray
(ECGR_E
DTC)
EDTC-B[1
]
0 150
gAPI

Amplitude
of
Eccentering
(ECCE)
USIT-E[1]
0 in 0.5

Motor
Revolution
Speed
(RSAV)
USIT-E[1]
6 c/s 8

Goodwin Sector Curves (5 Mrayl per Division)

Acoustic
Impedance
Minimum
(AIMN)
USIT-E[1]
-1 Mrayl 9

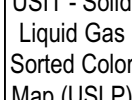
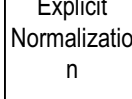
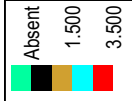
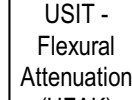
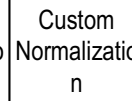
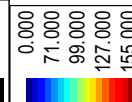
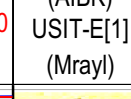
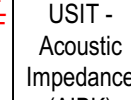
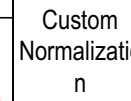
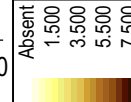
Acoustic
Impedance
Maximum
(AIMX)
USIT-E[1]
-1 Mrayl 9

Acoustic
Impedance
Average
(AIAV)
USIT-E[1]
-1 Mrayl 9

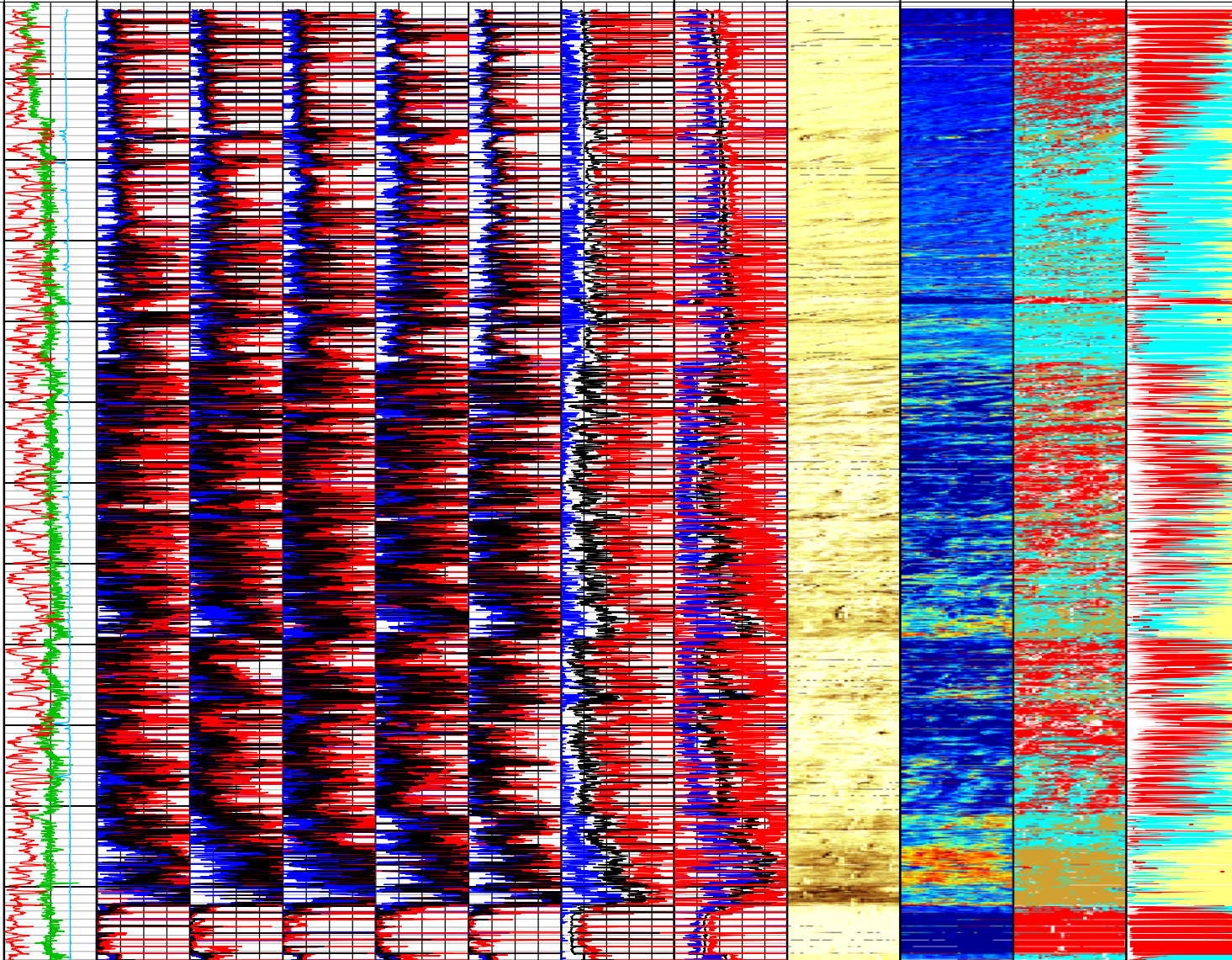
Minimum
Flexural
Attenuation
(U-USIT_UF
AN)
USIT-E[1]
0 150
dB/m

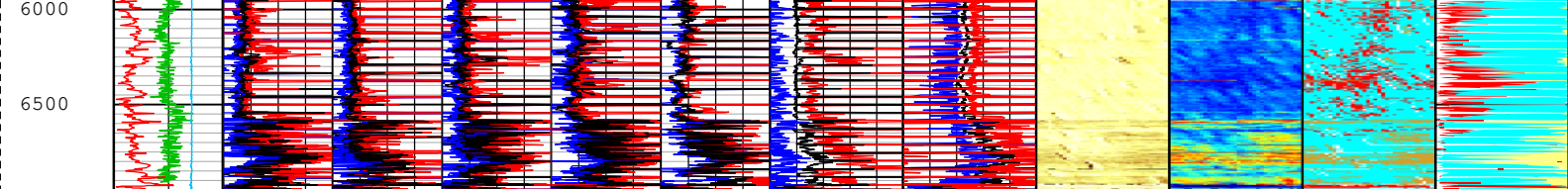
Average
Flexural
Attenuation
(U-USIT_UF
AV)
USIT-E[1]
0 150
dB/m

Maximum
Flexural
Attenuation
(U-USIT_UF
AX)
USIT-E[1]
0 150
dB/m



500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500





Gamma Ray (ECGR_E DTC) EDTC-B[1] 0 150 gAPI

Amplitude of Eccentering (ECCE) USIT-E[1] 0 in 0.5

Motor Revolution Speed (RSAV) USIT-E[1] 6 c/s 8

Goodwin Sector Curves (5 Mrayl per Division)

Acoustic Impedance Minimum (AIMN) USIT-E[1] -1 Mrayl 9

Acoustic Impedance Maximum (AIMX) USIT-E[1] -1 Mrayl 9

Acoustic Impedance Average (AIAV) USIT-E[1] -1 Mrayl 9

Minimum Flexural Attenuation (U-USIT_UF AN) USIT-E[1] 0 150 dB/m

Average Flexural Attenuation (U-USIT_UF AV) USIT-E[1] 0 150 dB/m

Maximum Flexural Attenuation (U-USIT_UF AX) USIT-E[1] 0 150 dB/m

Custom Normalization USIT - Acoustic Impedance (AIBK) USIT-E[1] (Mrayl)

Custom Normalization USIT - Flexural Attenuation (UFAK) USIT-E[1] (dB/m)

Explicit Normalization USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E[1]

SLG Solid Index

SLG Liquid Index

SLG Gas Index

SLG White Point Index

TIME_1900 - Time Marked every 60.00 (s)

Description: USI Goodwin Format: Log (IBC Goodwin) Index Scale: 0.1 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 28-Jul-2022 07:05:38

Channel Processing Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	Depth Zoned	in
CBLO	Casing Bottom (Logger)	WLSESSION	7000	ft
CDEN	Cement Density	USIT-E	0	g/cm3
CDEN	Cement Density	EDTC-B	2	g/cm3
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DFD	Drilling Fluid Density	Borehole	8.5	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	203	us/ft
FD	Fluid Density	USIT-E	1.2	g/cm3
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS(RT)	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	Theoretical	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tube Processing Window Length in Measurement Mode	USIT-E	15.37	us

MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	0	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1.09	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.76	Mrayl
U-USIT_UFAO	USIT Flexural Attenuation Offset	USIT-E	-30	dB/m
UFSFILT	Ultrasonic Flexural Surface Filter	USIT-E	LPF 250k	
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SLG - TIE Picking	
ZMUD	Acoustic Impedance of Mud	Borehole	1.52	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.6	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

OneDepth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	12.25	26	748
BS	7.87	748	6949.5

All depth are actual.

Tool Control Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	54	dB
EMXV	EMEX Voltage	USIT-E	Time Zoned	V
IBC_ACQTYPE	IBC Acquisition type	USIT-E	1 MHz	
IBC_FLEXDBP	IBC Flex Duration Before Peak	USIT-E	30	us
ICE2_ACQ	Ultrasonic ICE2 Acquisition	USIT-E	Yes	
UPAT	USIT Emission Pattern	USIT-E	Pattern 750 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in	
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	

OneTime Zoned Parameters

Pass Log[4]:Up

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXV	65	26-Jul-2022 16:22:26	26-Jul-2022 17:10:04	6954.34	3861.25
EMXV	75	26-Jul-2022 17:10:04	26-Jul-2022 17:10:28	3861.25	3843.84

Pass Log[5]:Up

EMXV	75	26-Jul-2022 17:25:04	26-Jul-2022 17:30:12	3928.88	3781.16
EMXV	85	26-Jul-2022 17:30:12	26-Jul-2022 17:50:11	3781.16	2485.34
EMXV	75	26-Jul-2022 17:50:11	26-Jul-2022 18:09:50	2485.34	1177.34

Pass Log[6]:Up

EMXV	75	26-Jul-2022 18:24:09	26-Jul-2022 18:43:48	1269.82	66.34
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All depth are at tool zero.

Composite 1

IBC SLG

Software Version

Acquisition System	Version
Maxwell 2021.1	11.1.211946.3100

Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[4]:Up	Up	3741.46 ft	6950.21 ft	26-Jul-2022 4:22:26 PM	26-Jul-2022 5:10:28 PM	ON	-4.23 ft	Yes
One	Log[5]:Up	Up	1177.30 ft	4099.45 ft	26-Jul-2022 5:25:04 PM	26-Jul-2022 6:09:50 PM	ON	-4.02 ft	Yes
One	Log[6]:Up	Up	65.97 ft	1399.86 ft	26-Jul-2022 6:21:19 PM	26-Jul-2022 6:43:48 PM	ON	-3.82 ft	Yes

All depths are referenced to toolstring zero

Log

Company:Occidental Petroleum Corporation Well:Bryant #8-30

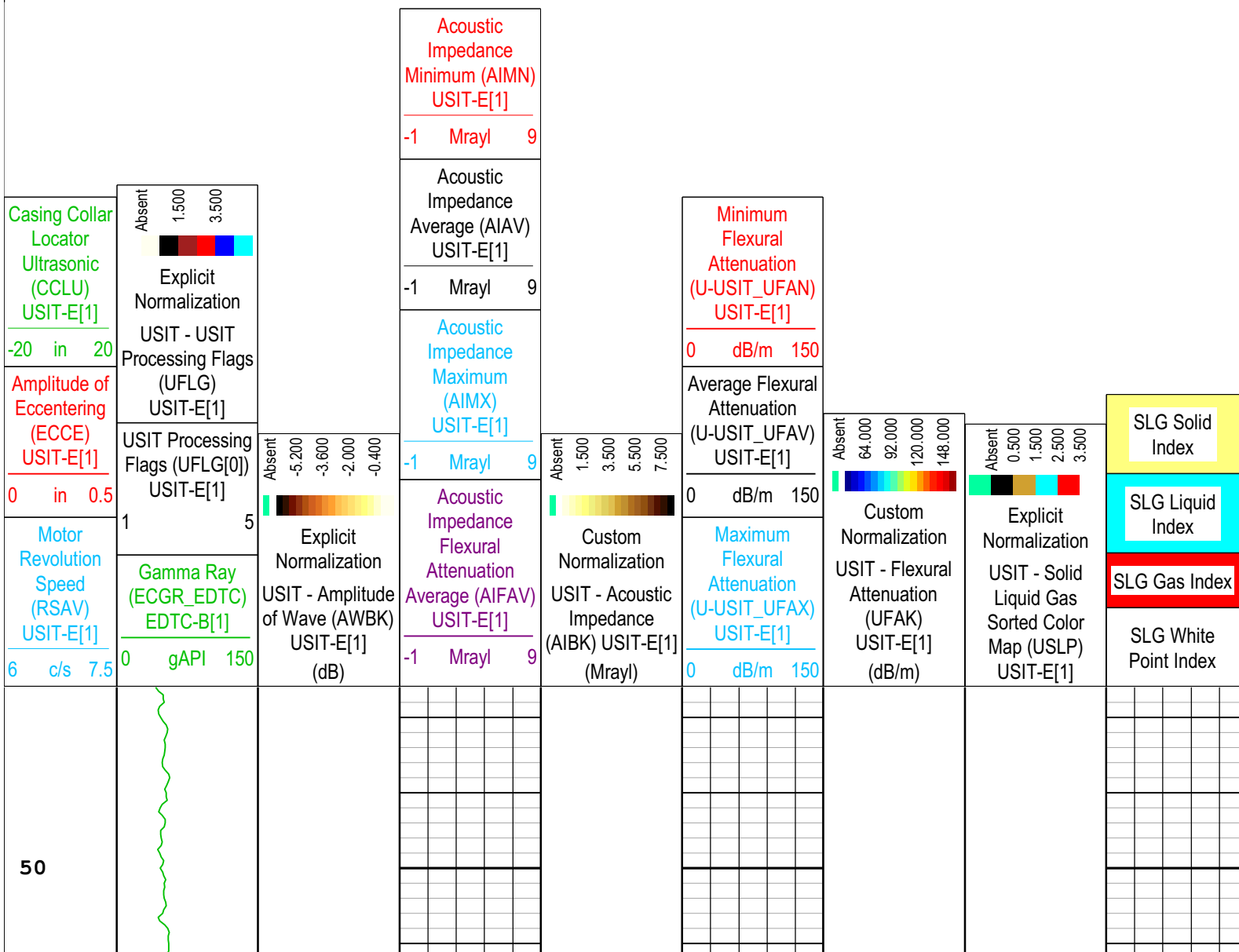
Composite 1:S008

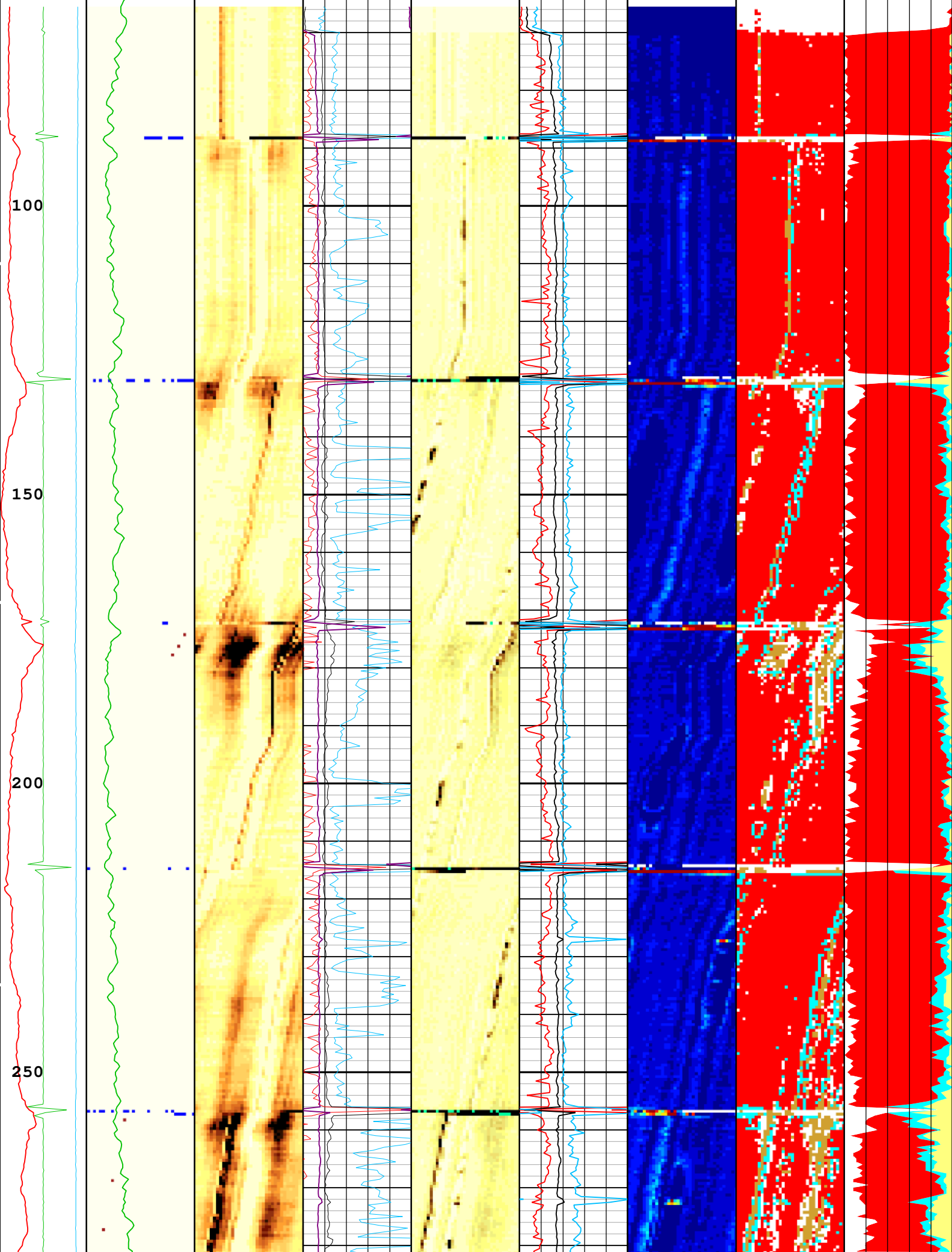
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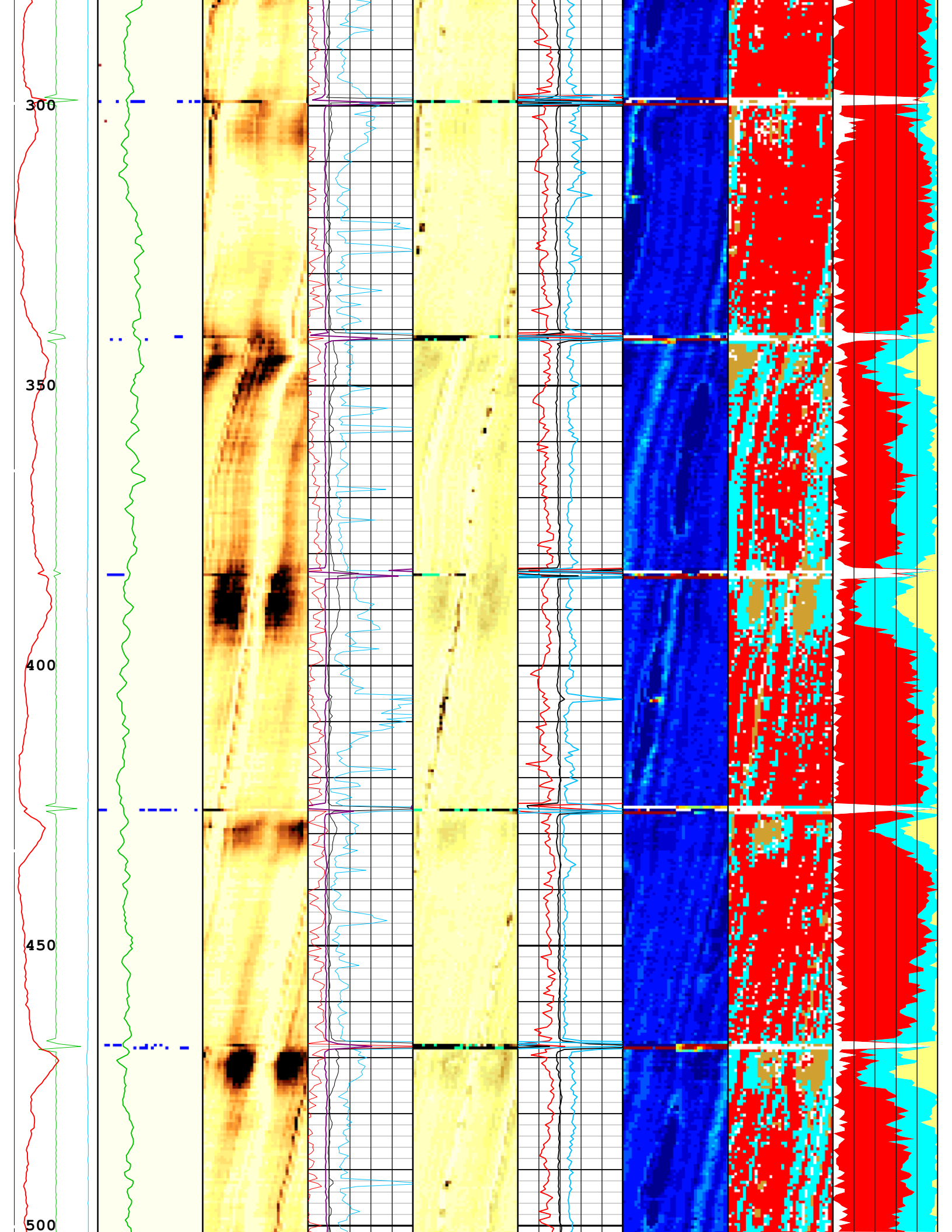
USIT Processing Flags (UFLG[0]) USIT-E[1]

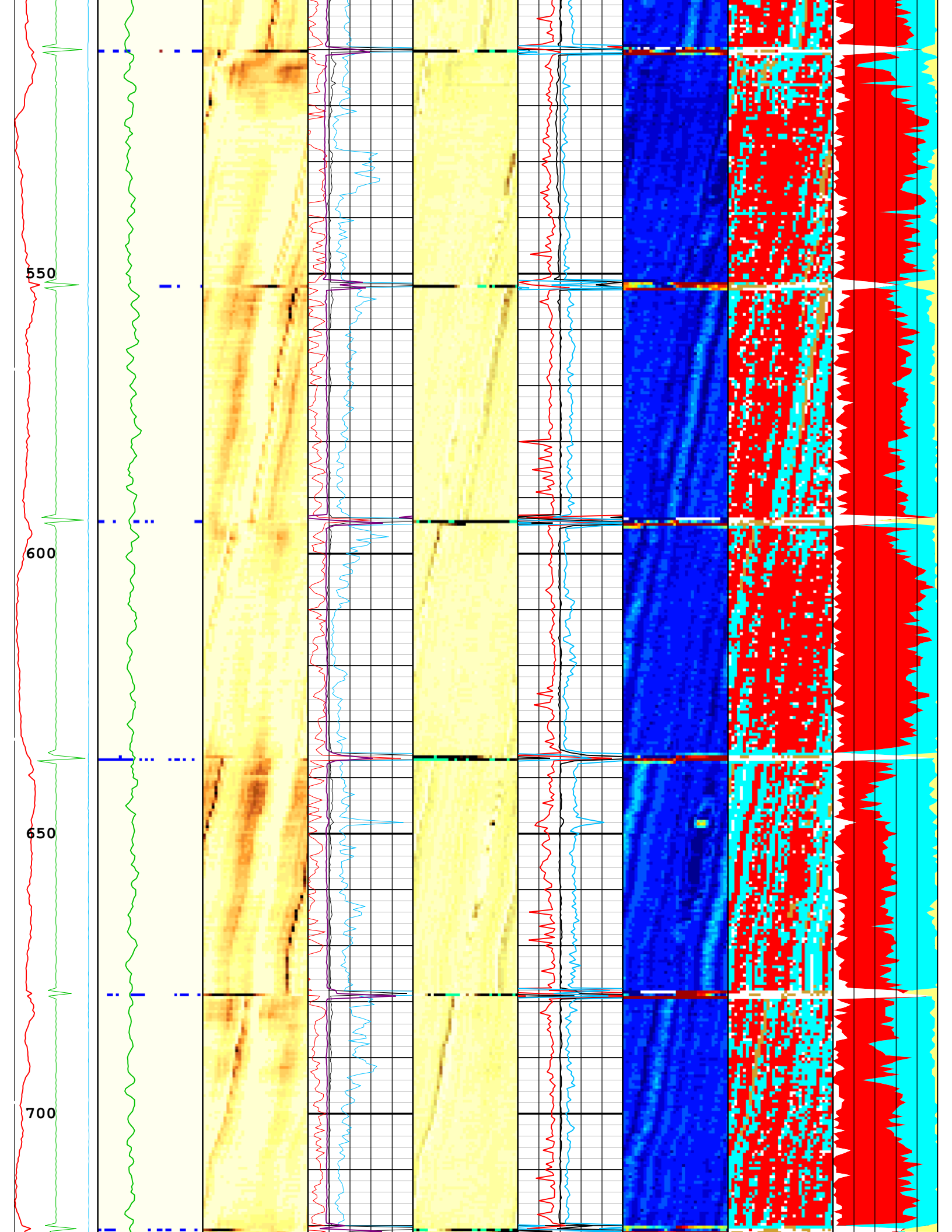
- 1 - UFLG 1 Value within [0.0 - 1.5] - : UTIM Error
- 2 - UFLG 2 Value within [1.5 - 2.5] - : Pulse Origin Not Detected
- 3 - UFLG 3 Value within [2.5 - 3.5] - : WINLEN Error
- 4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : Casing Thickness Error
- 5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : Loop Processing Error

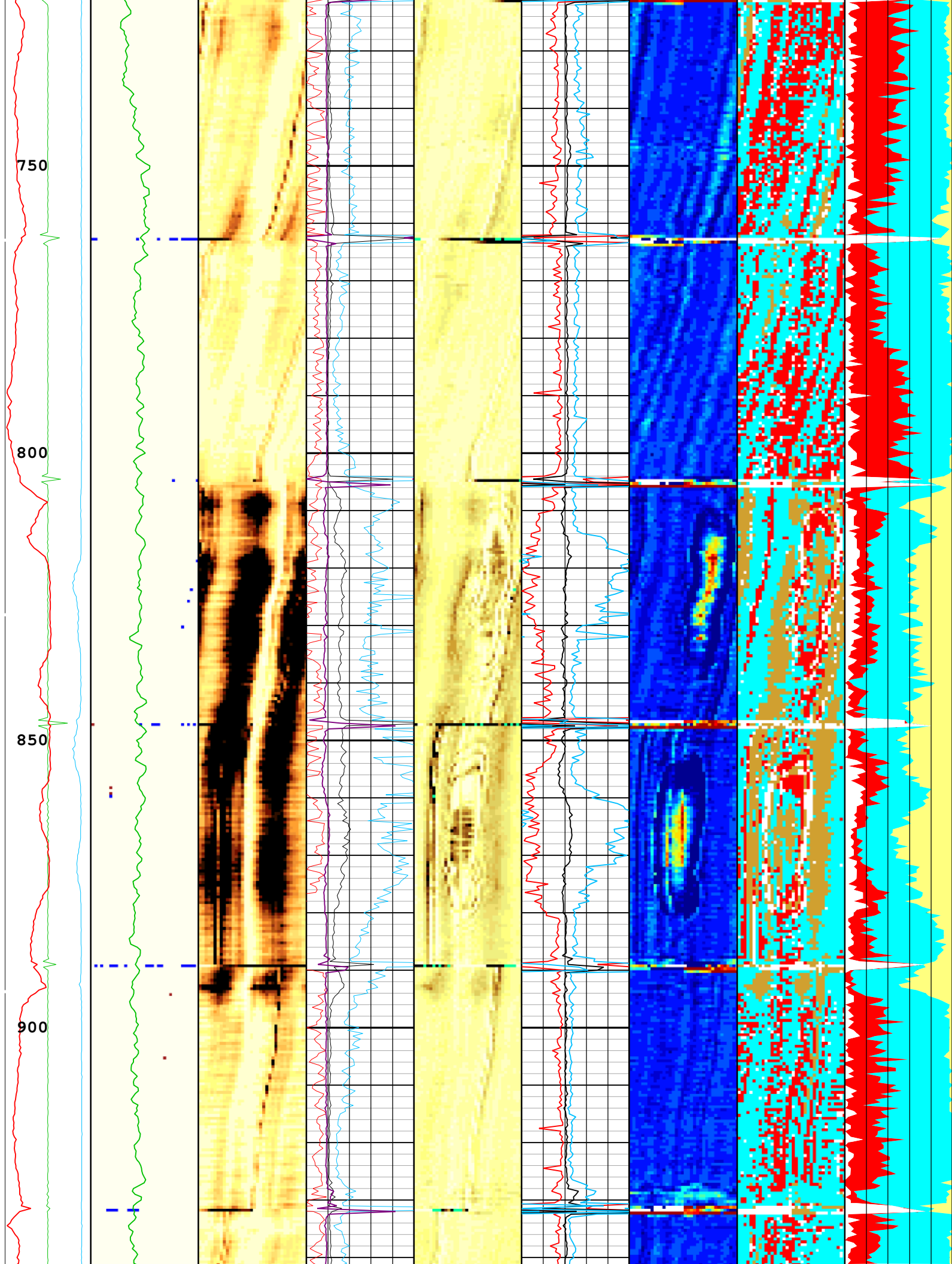
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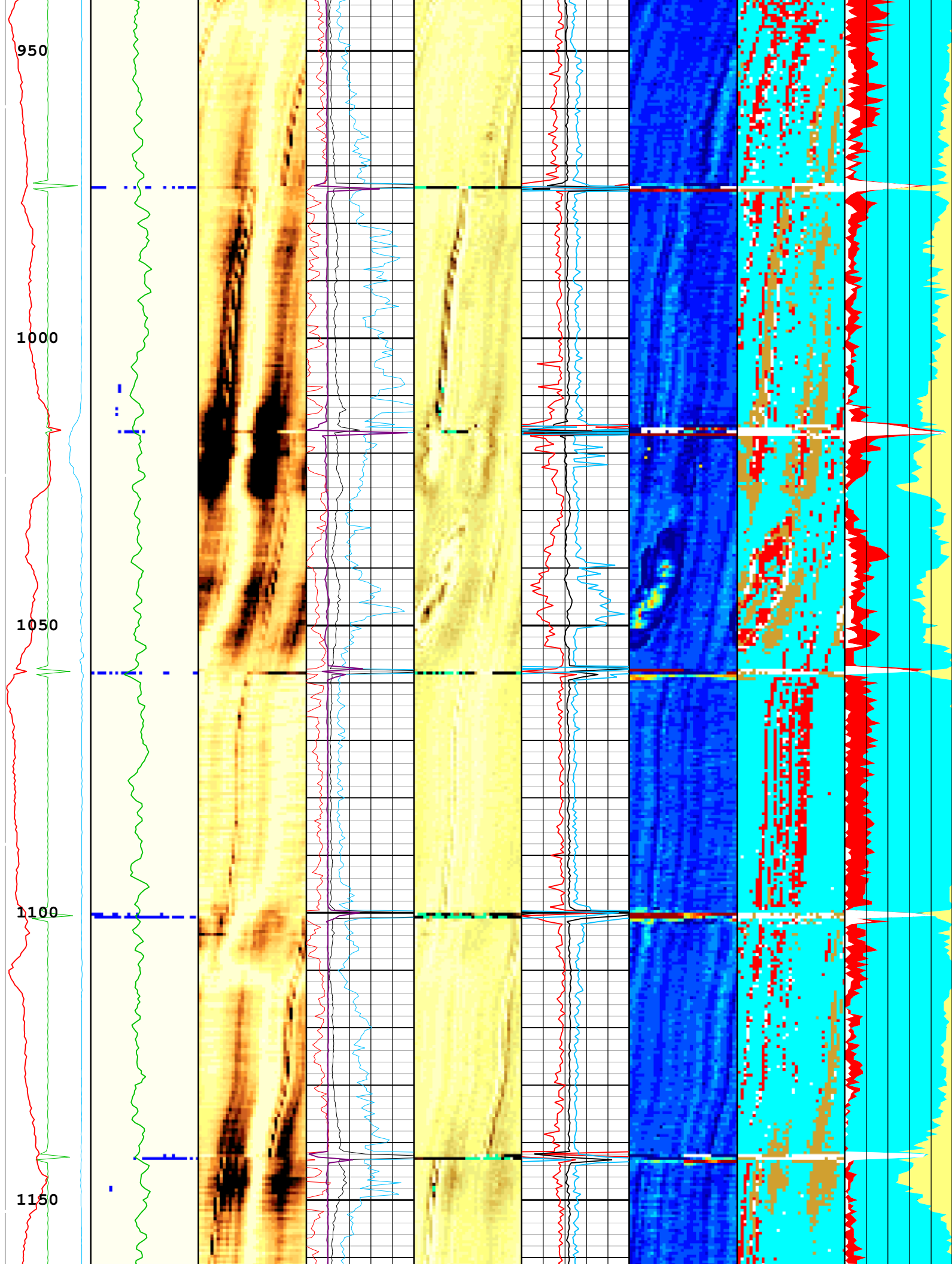


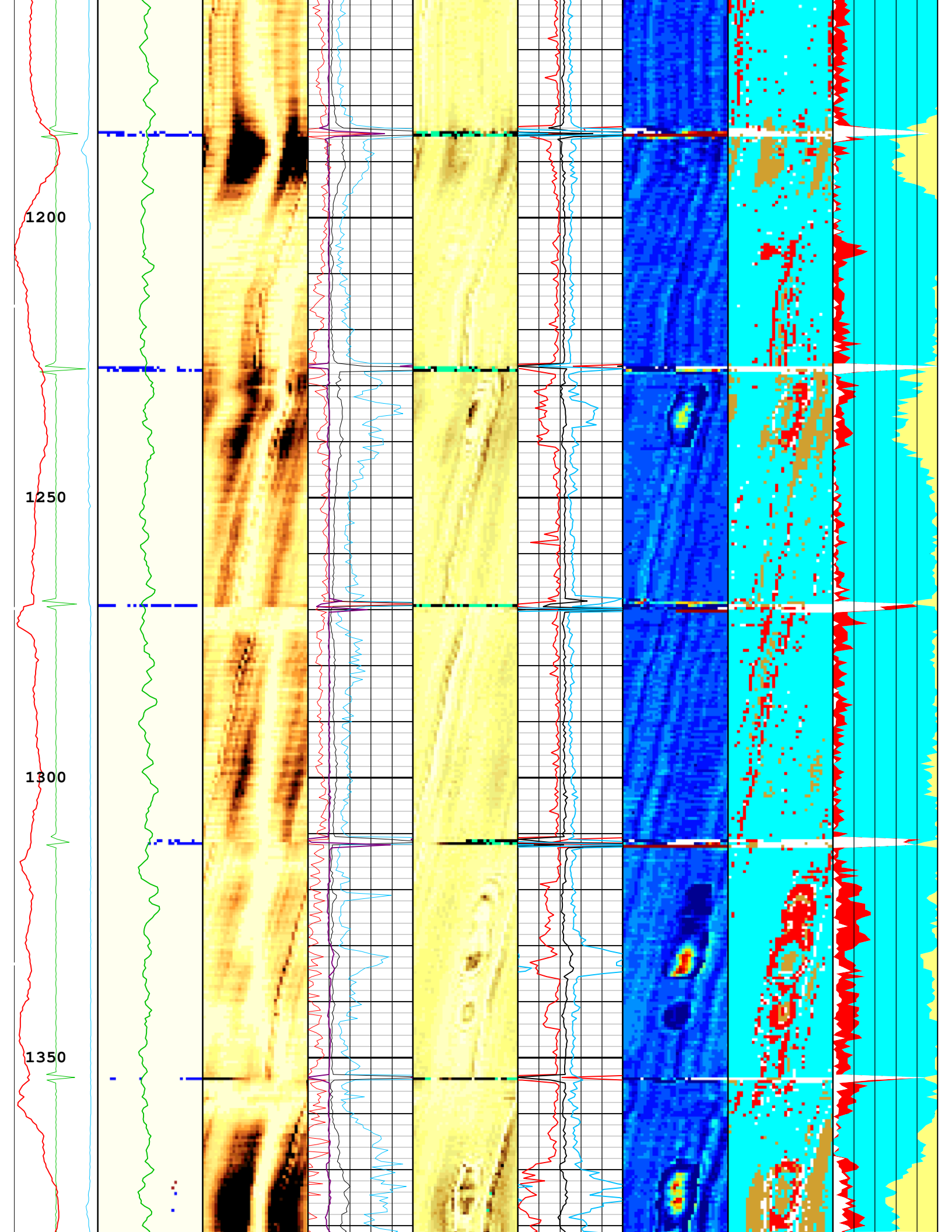


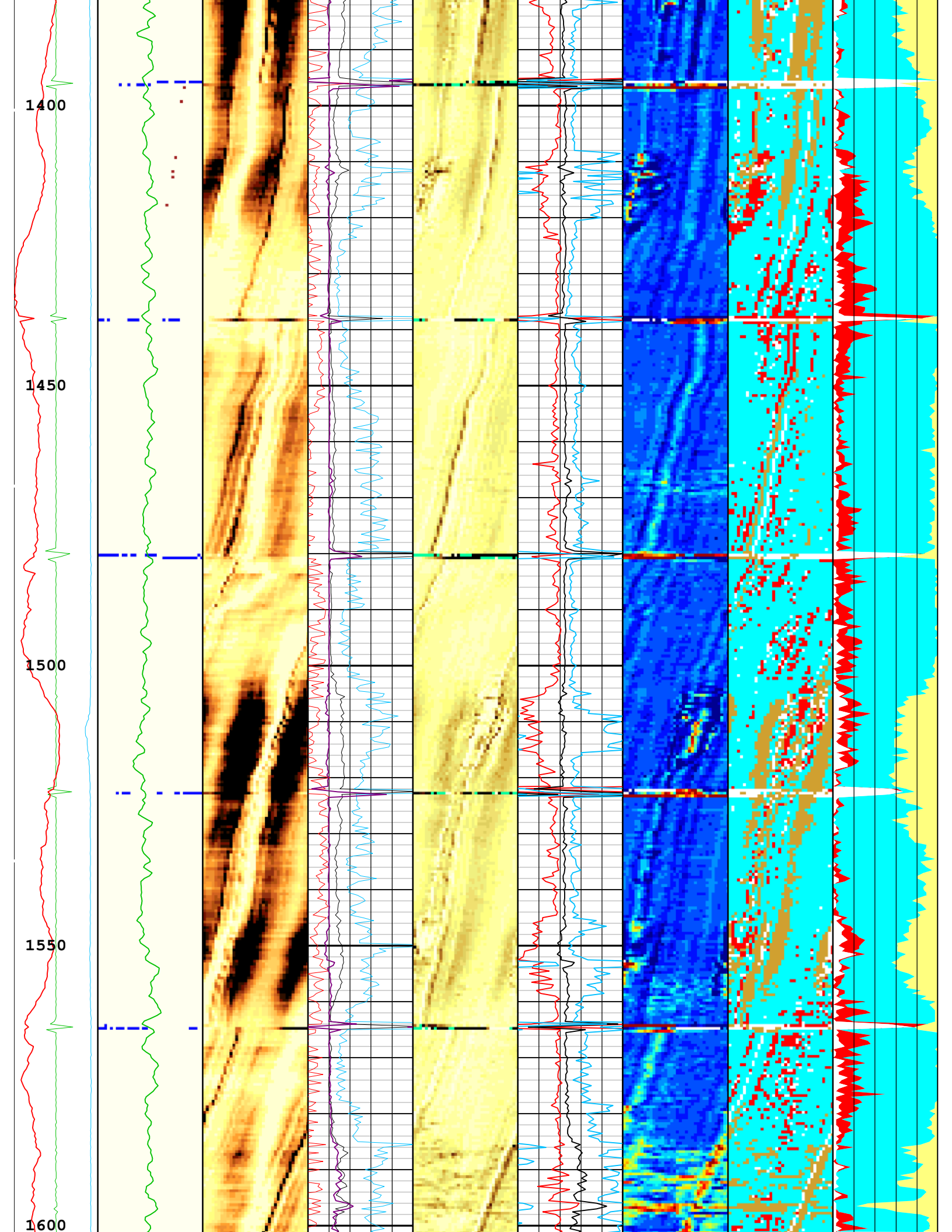


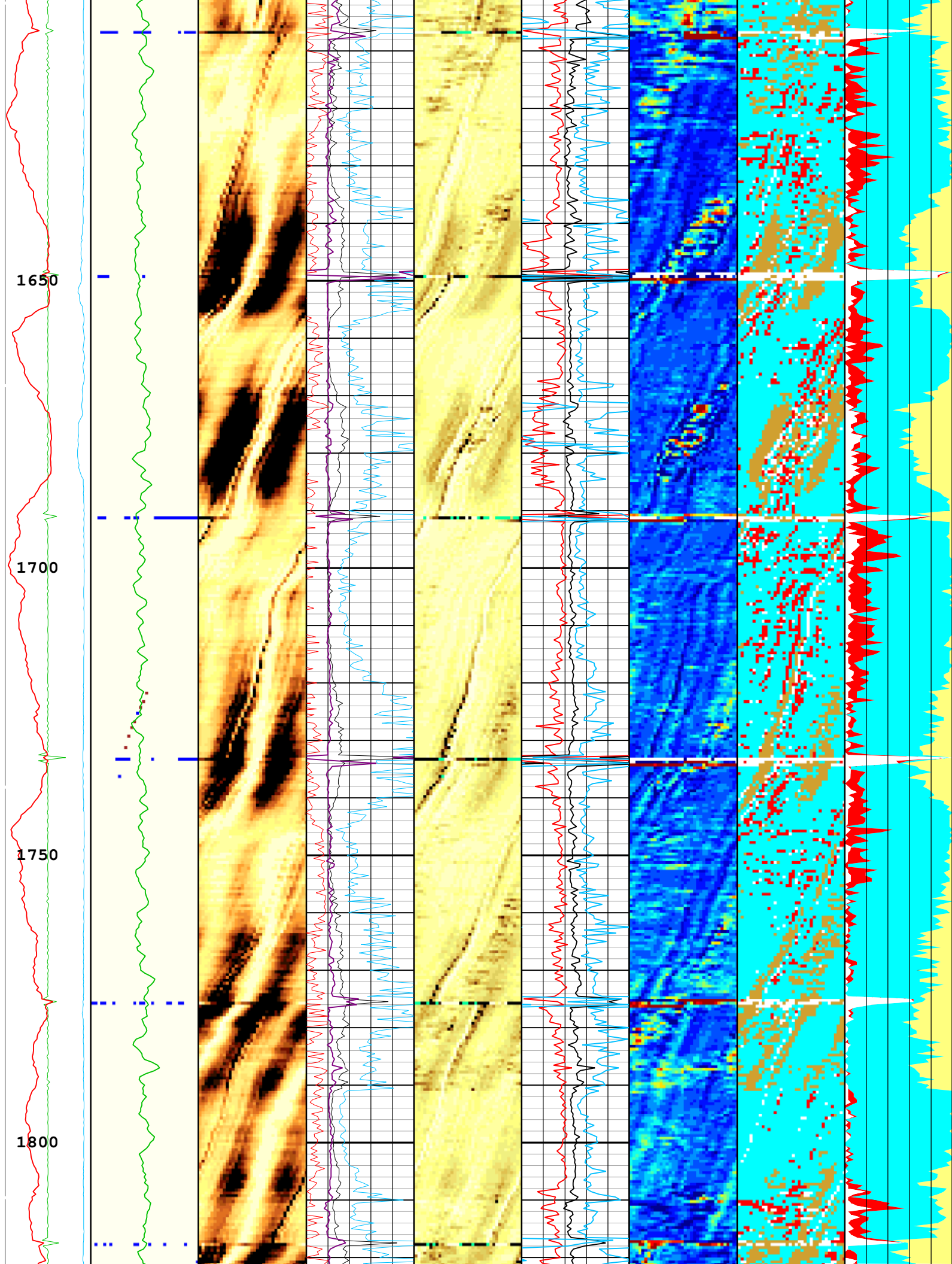


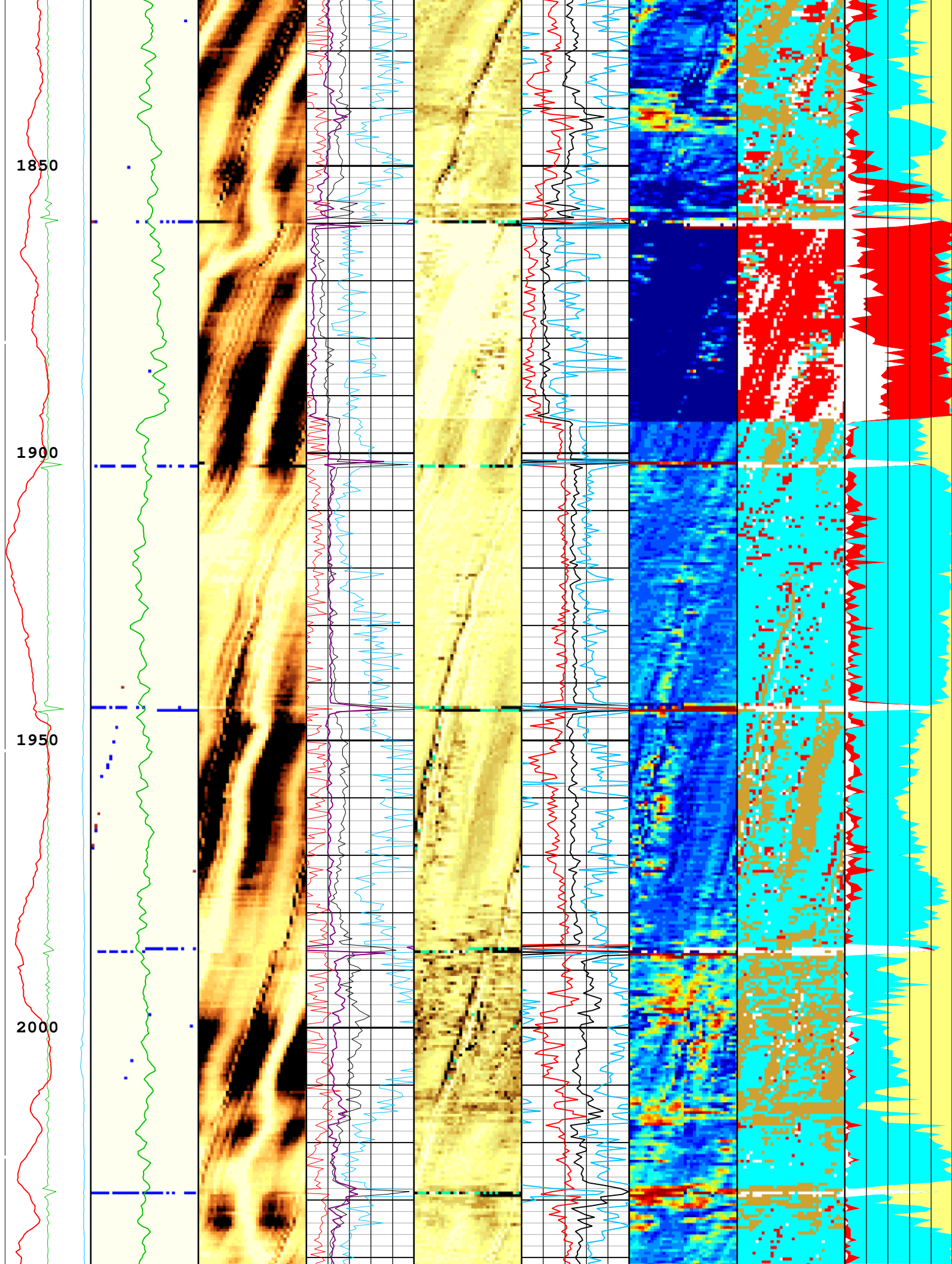


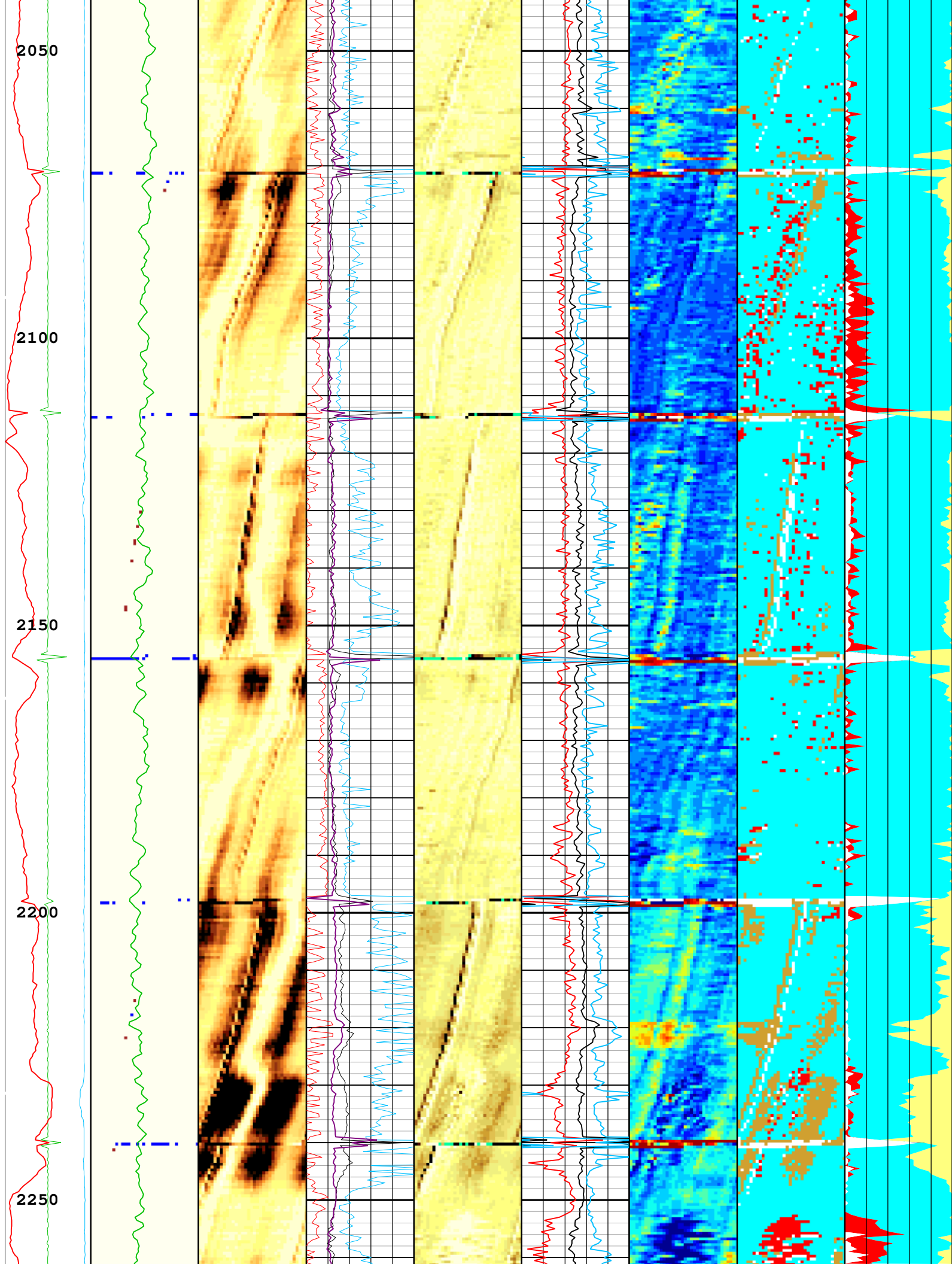


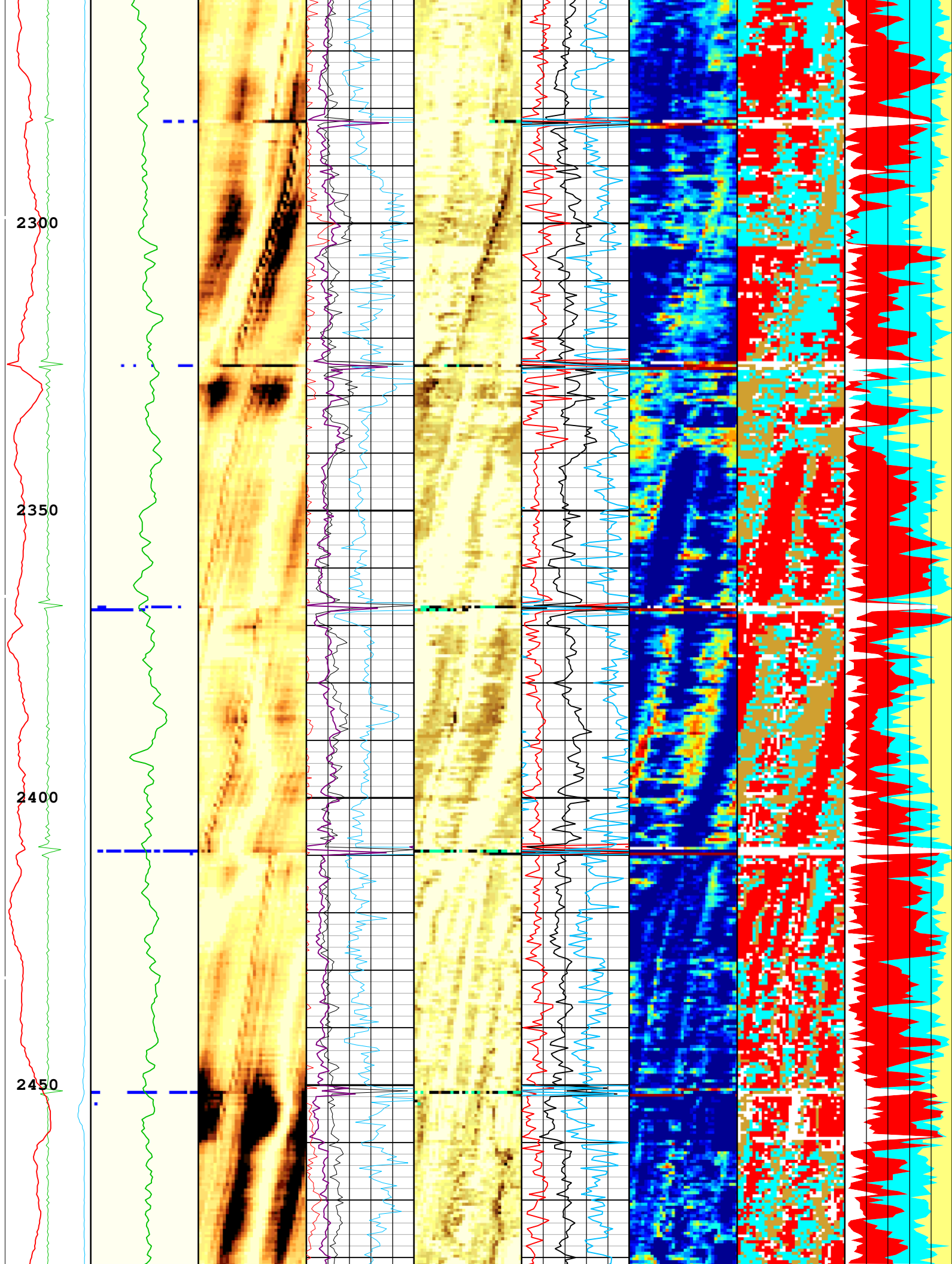


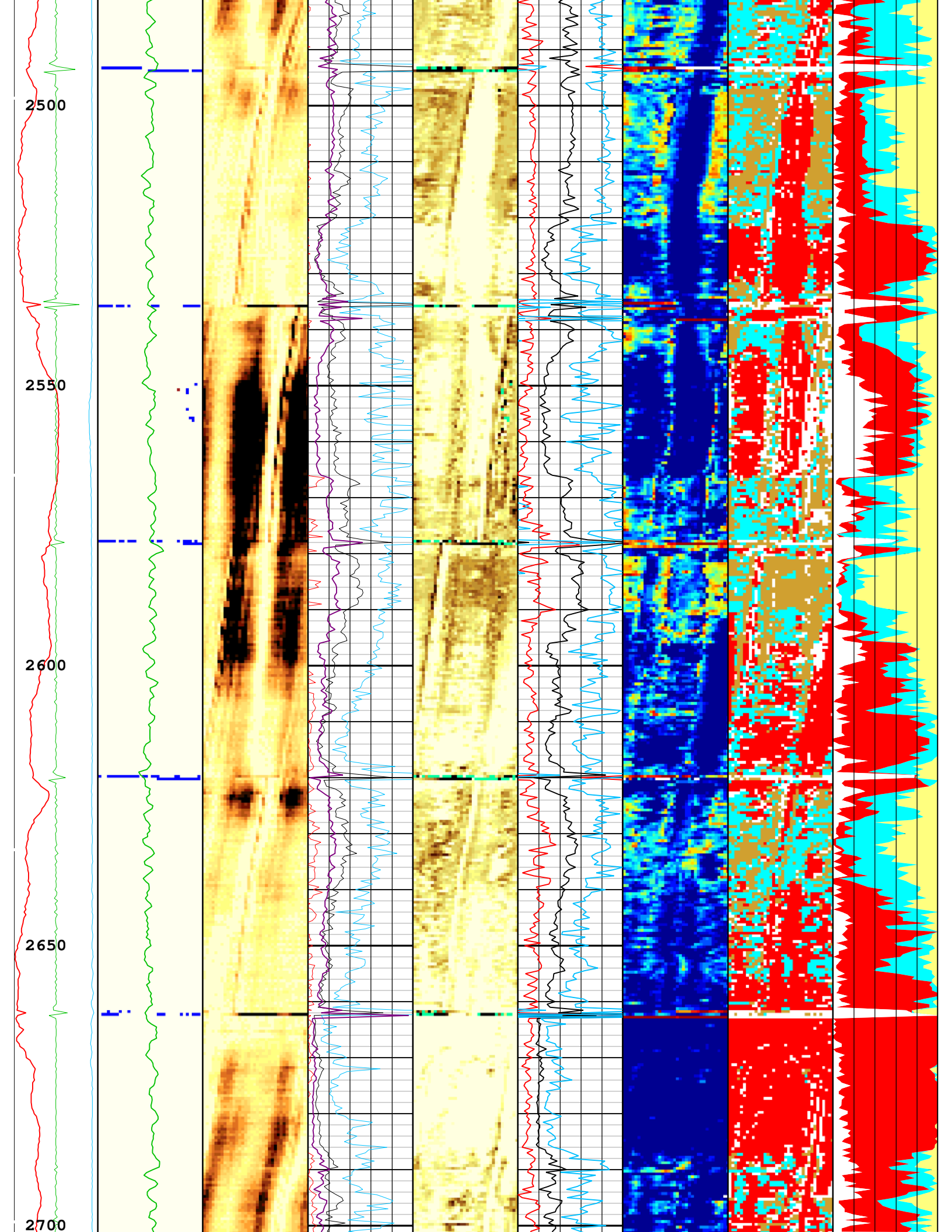


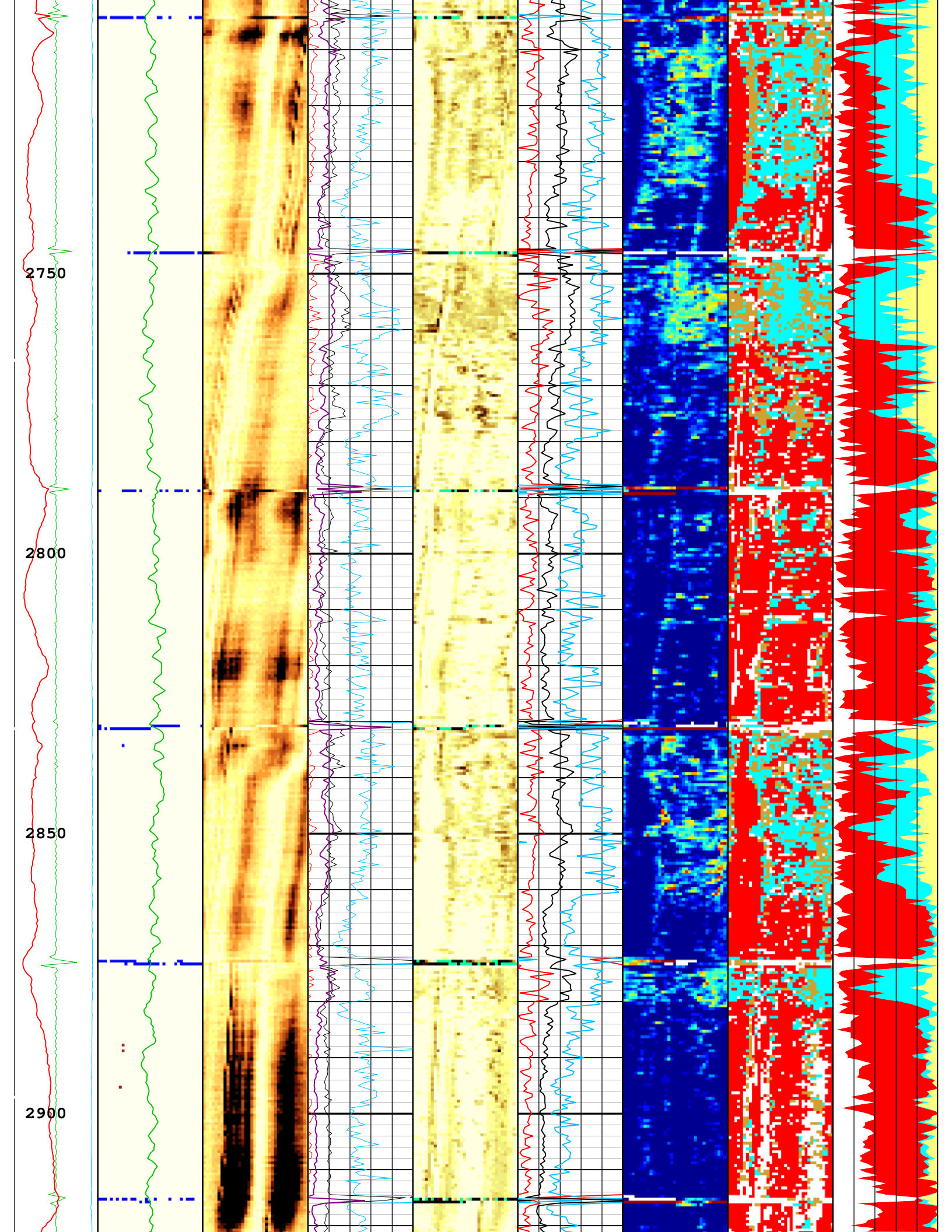


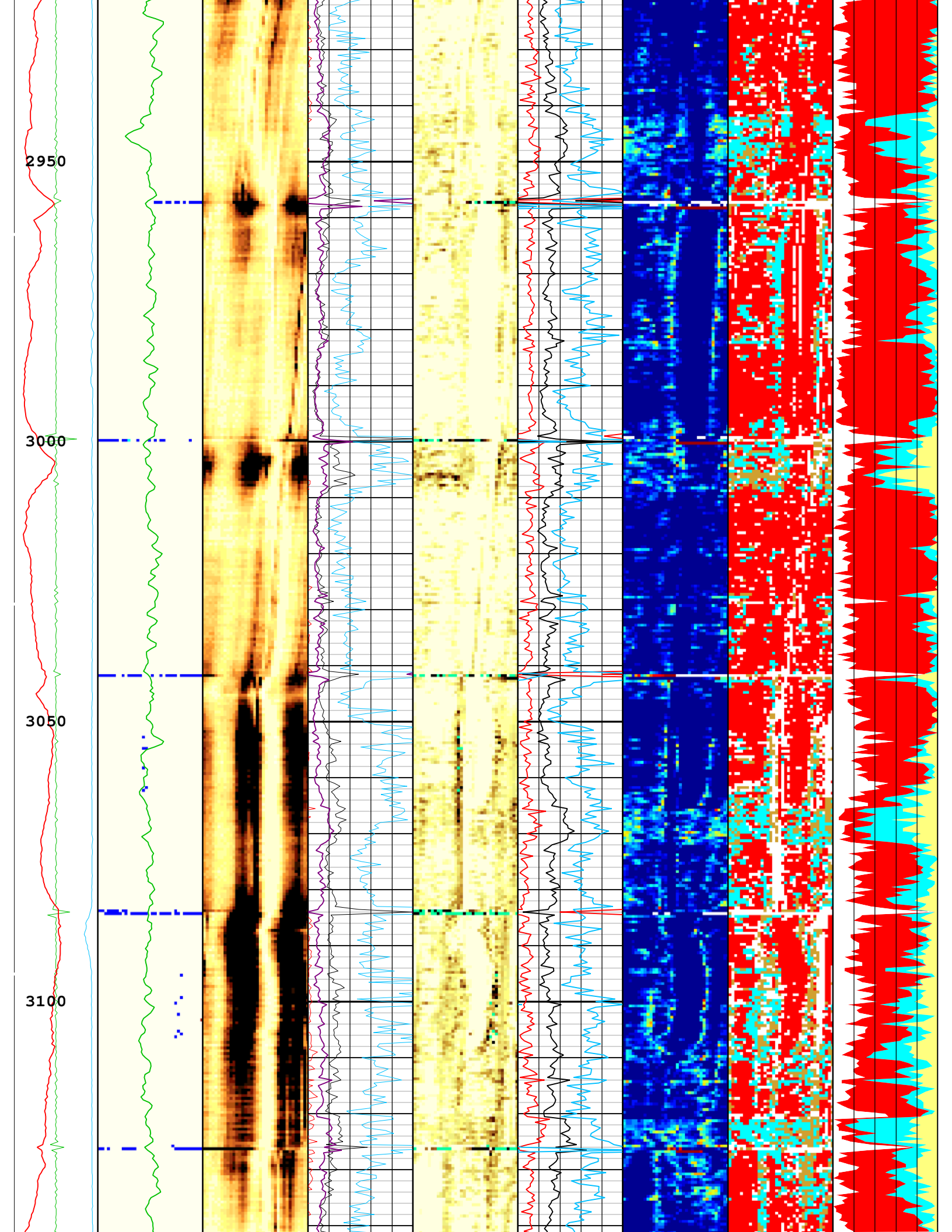


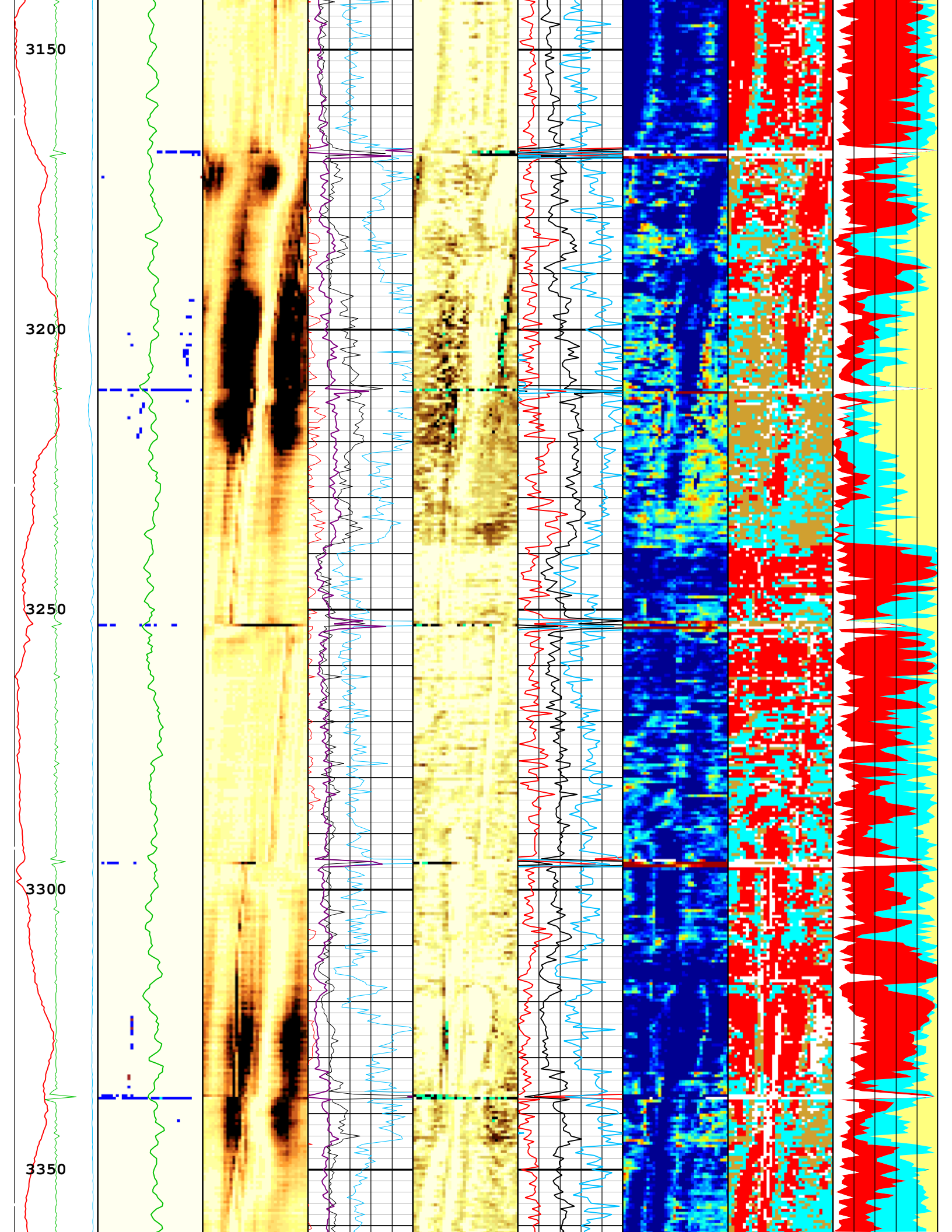


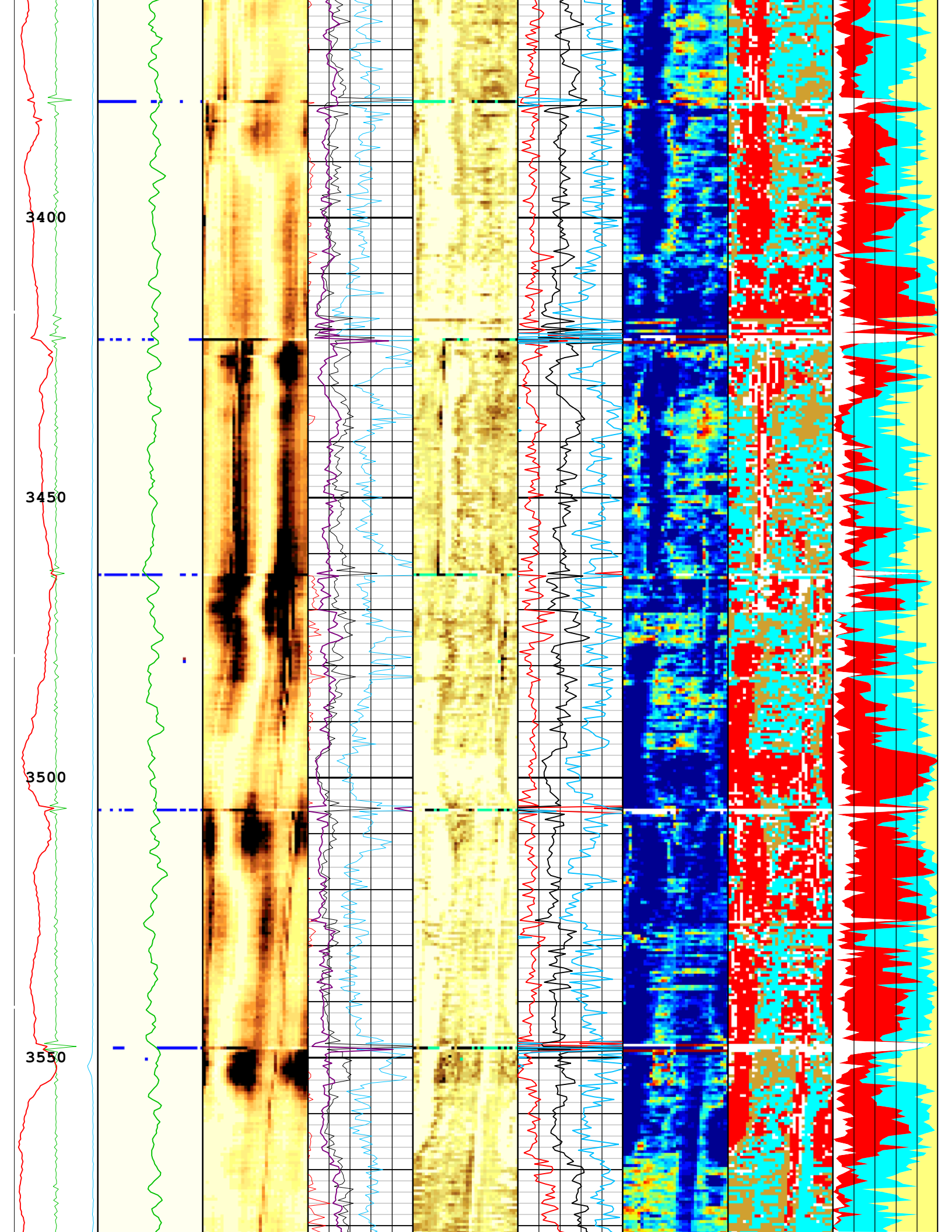


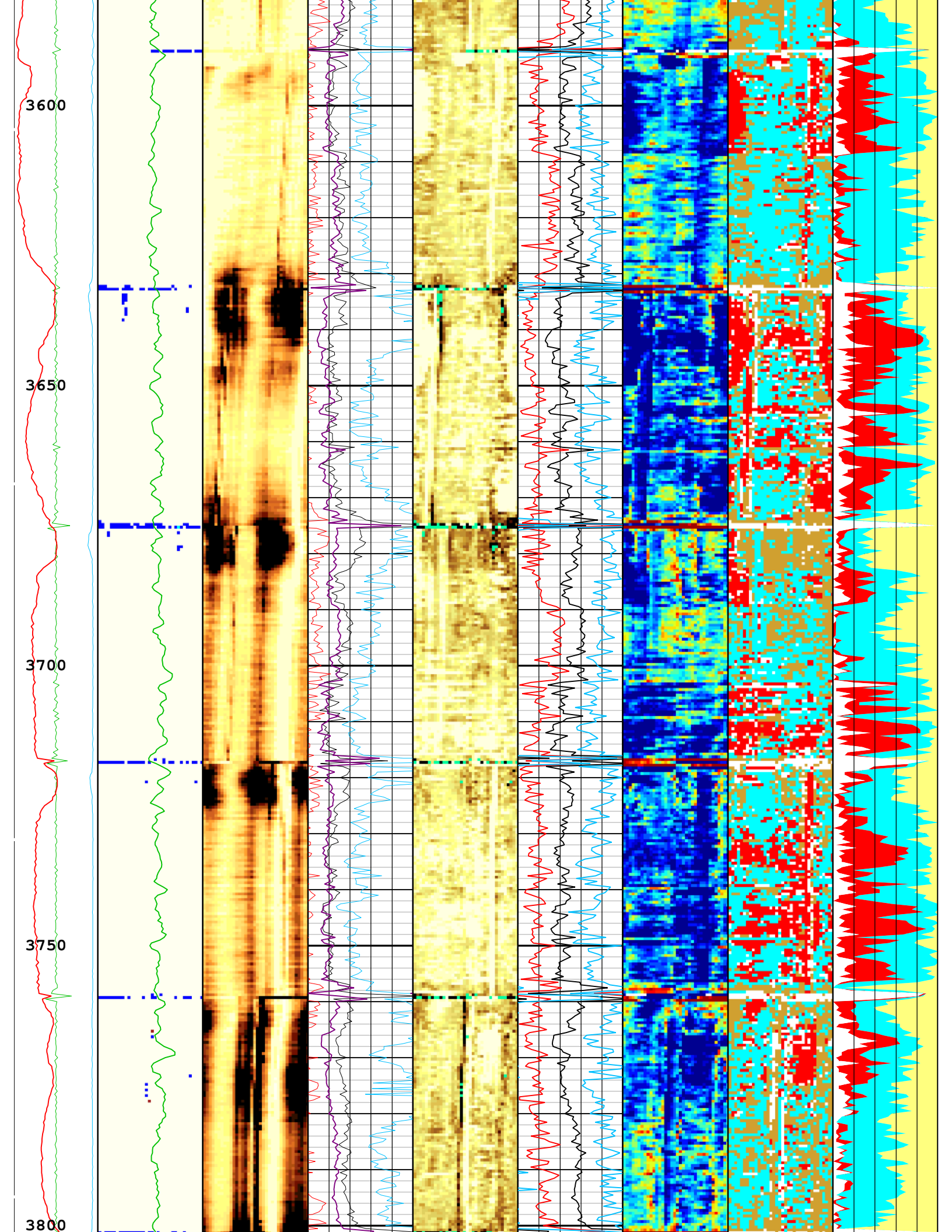


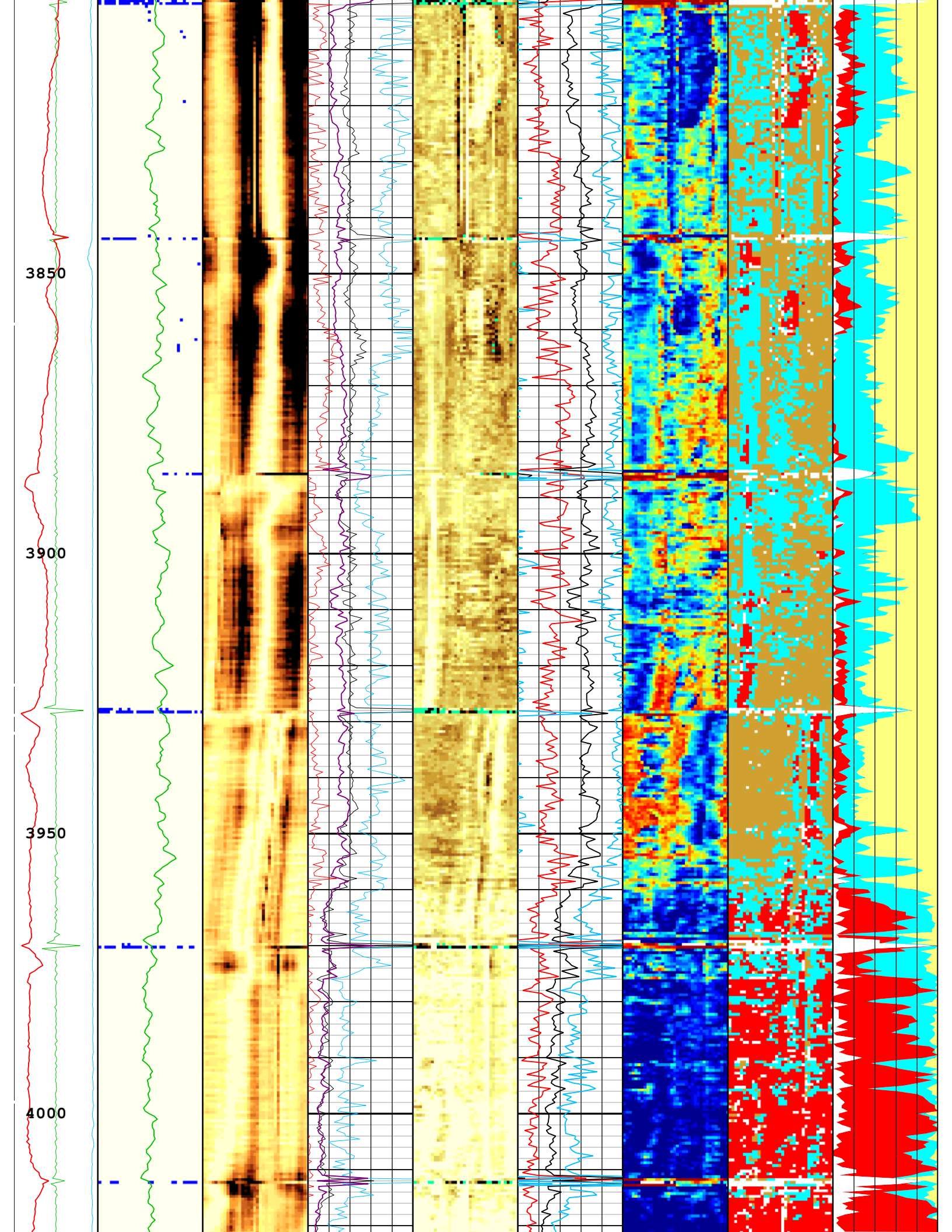


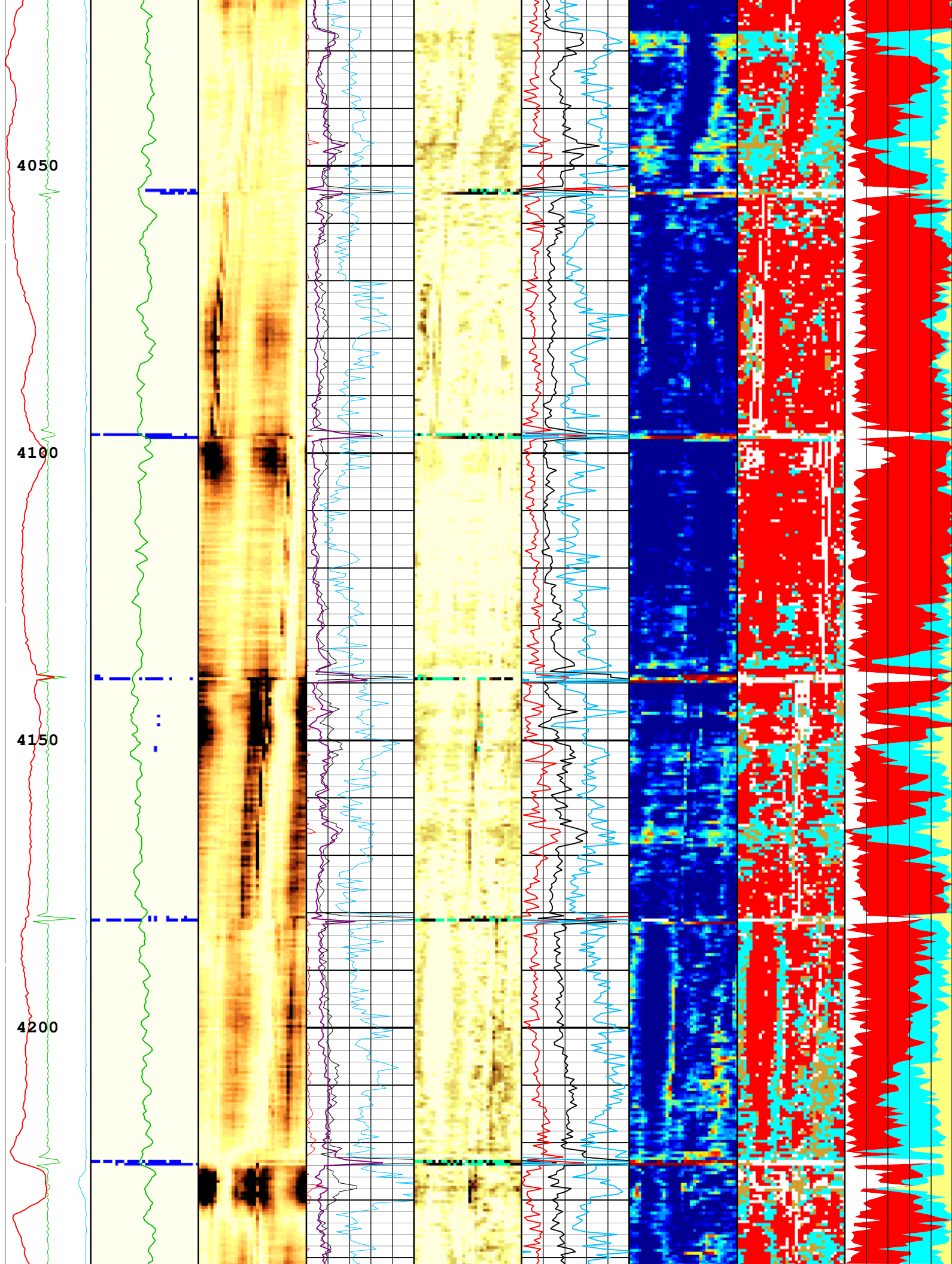


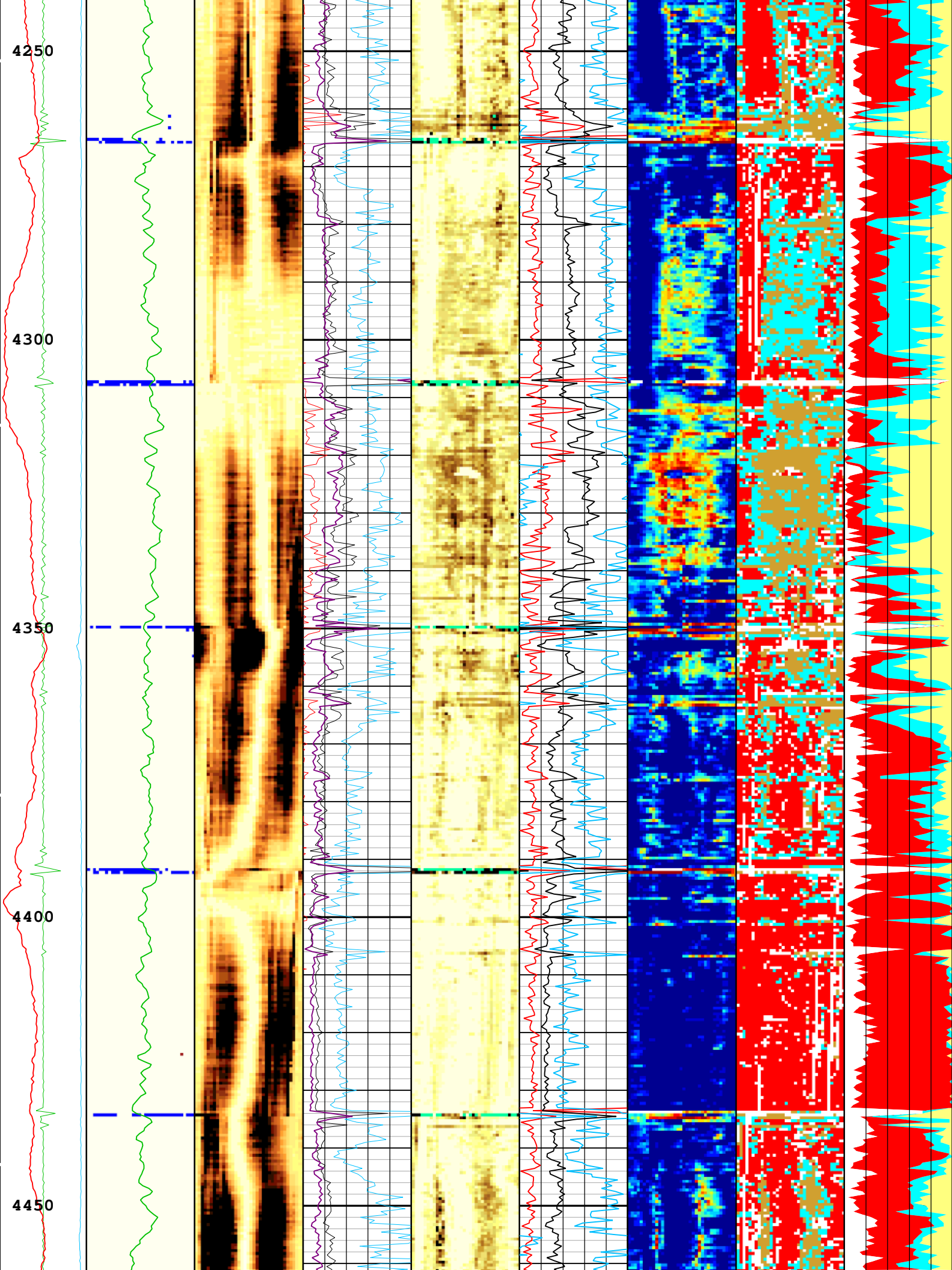


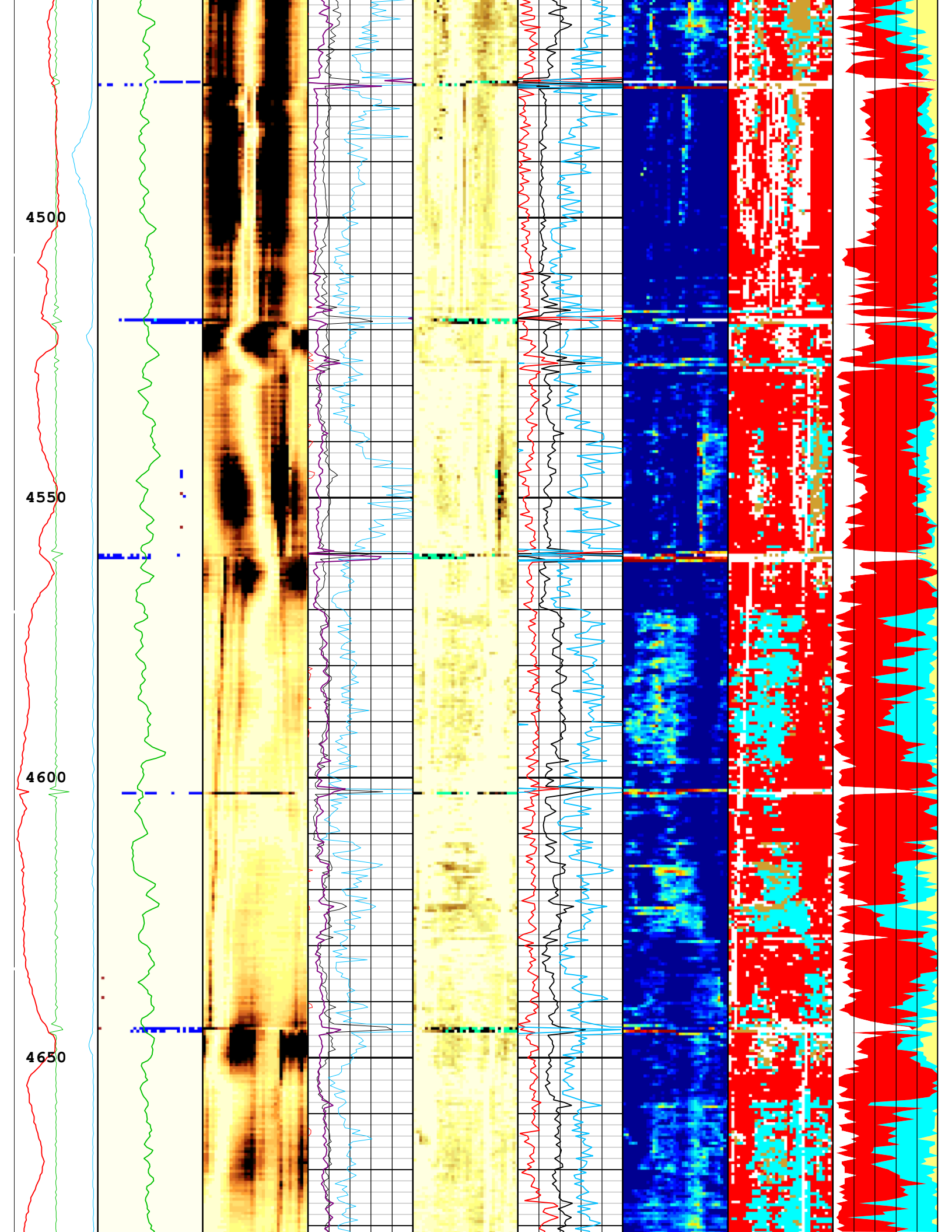


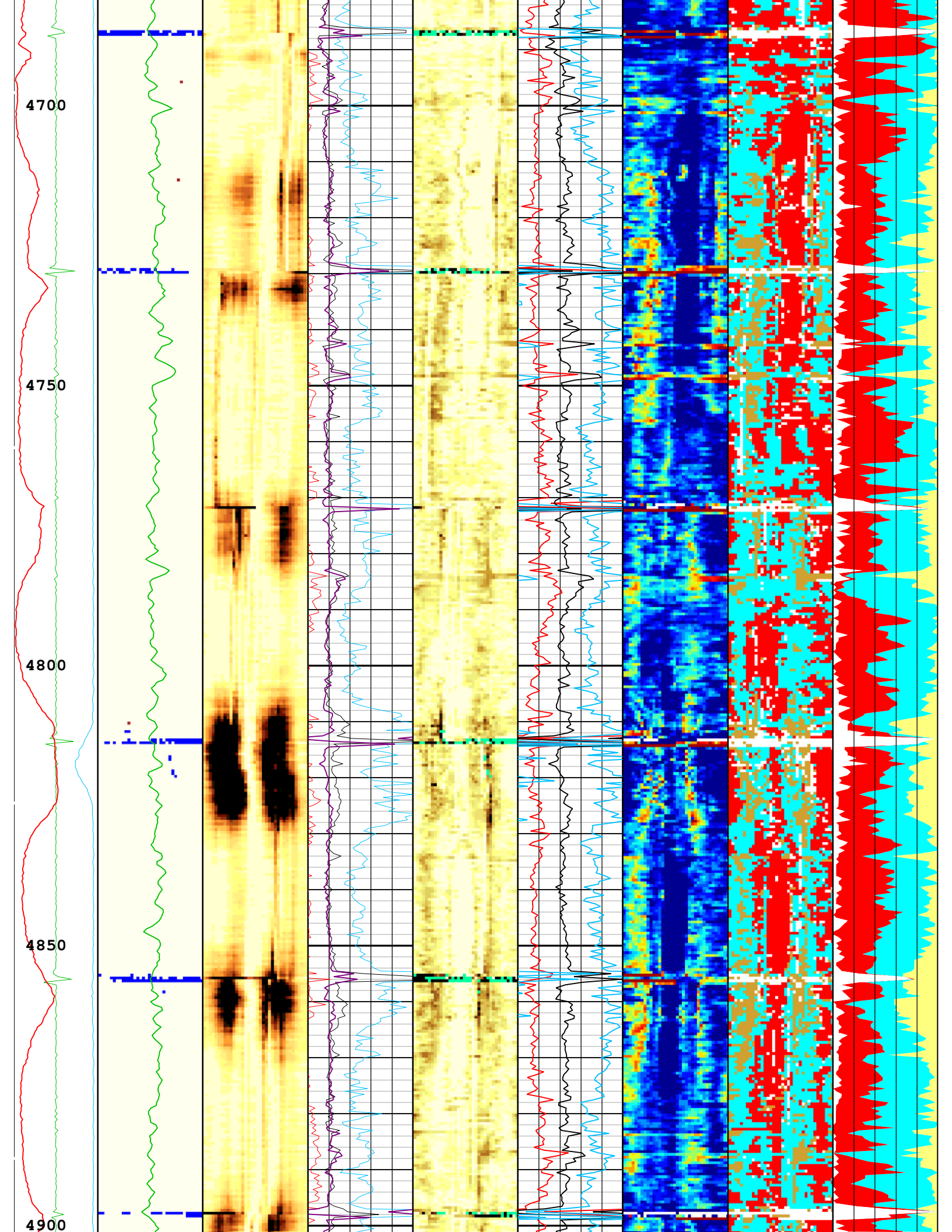










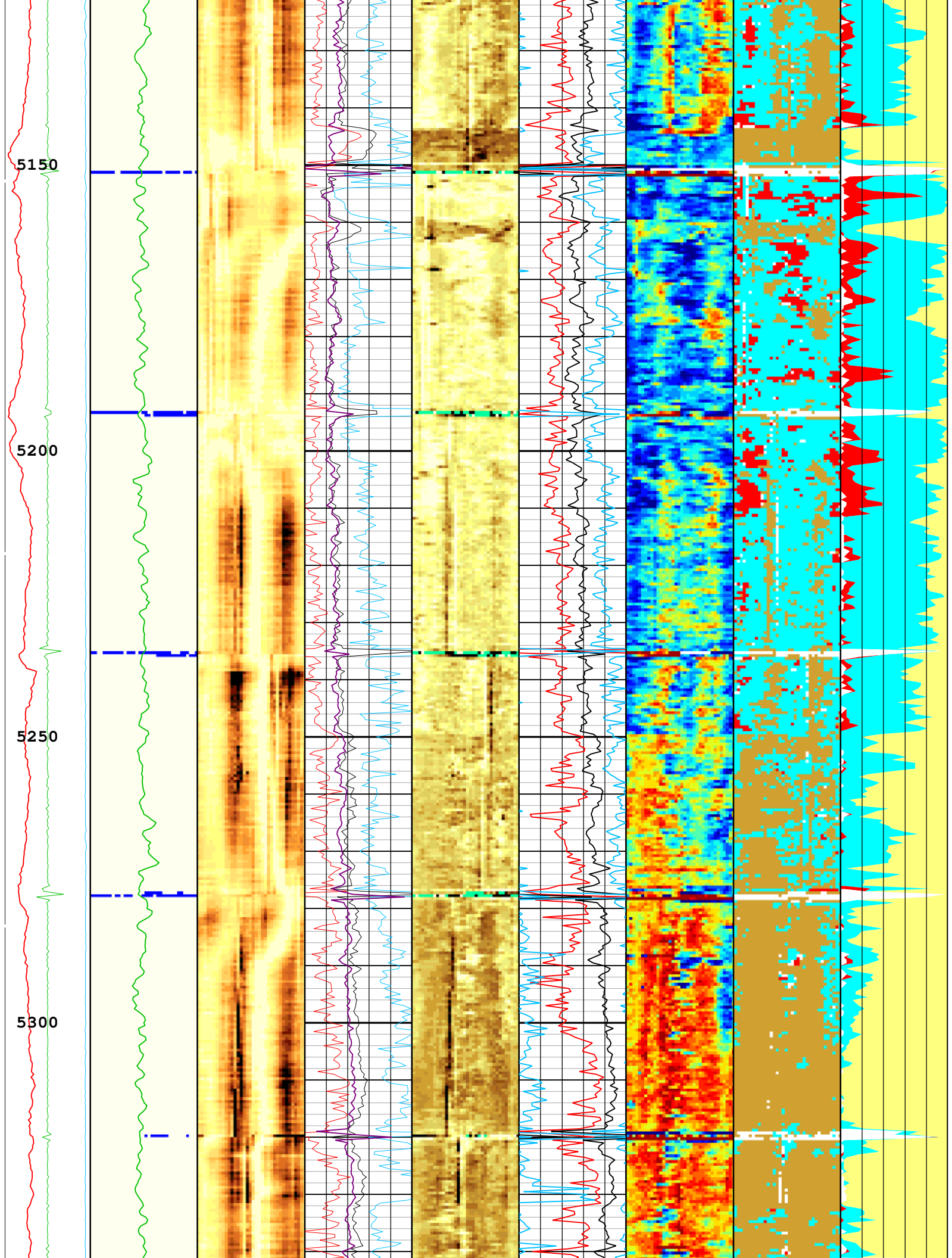


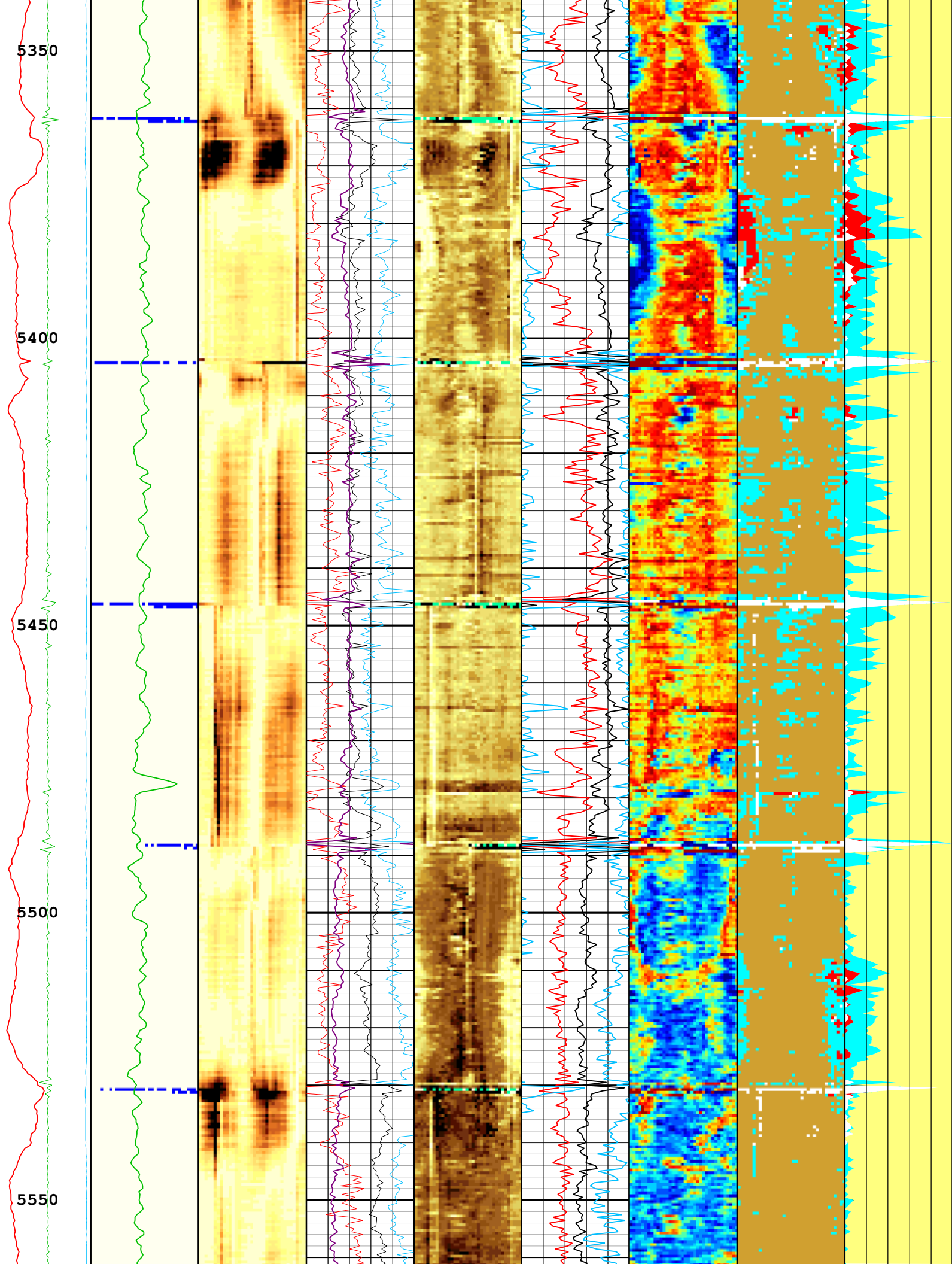
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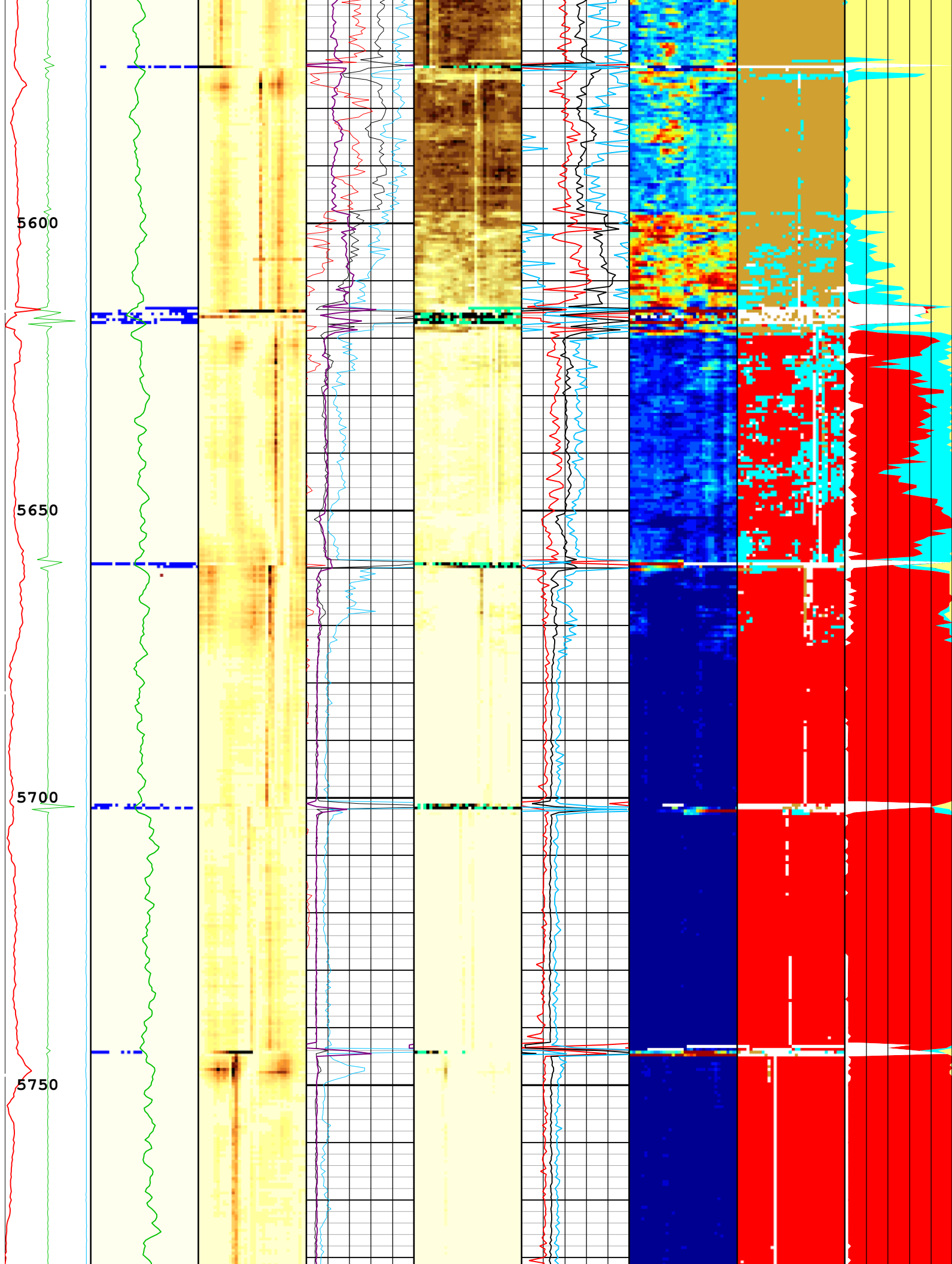
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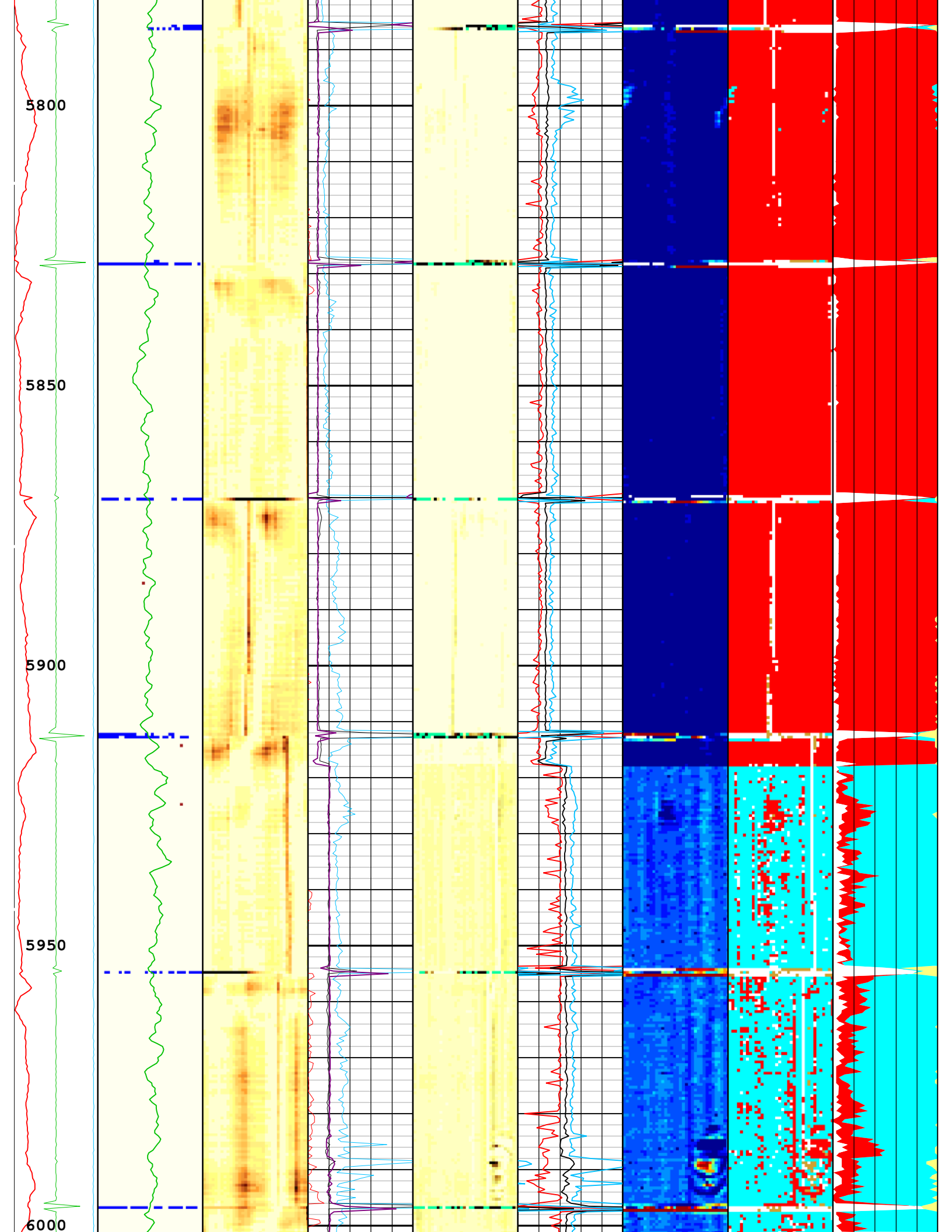
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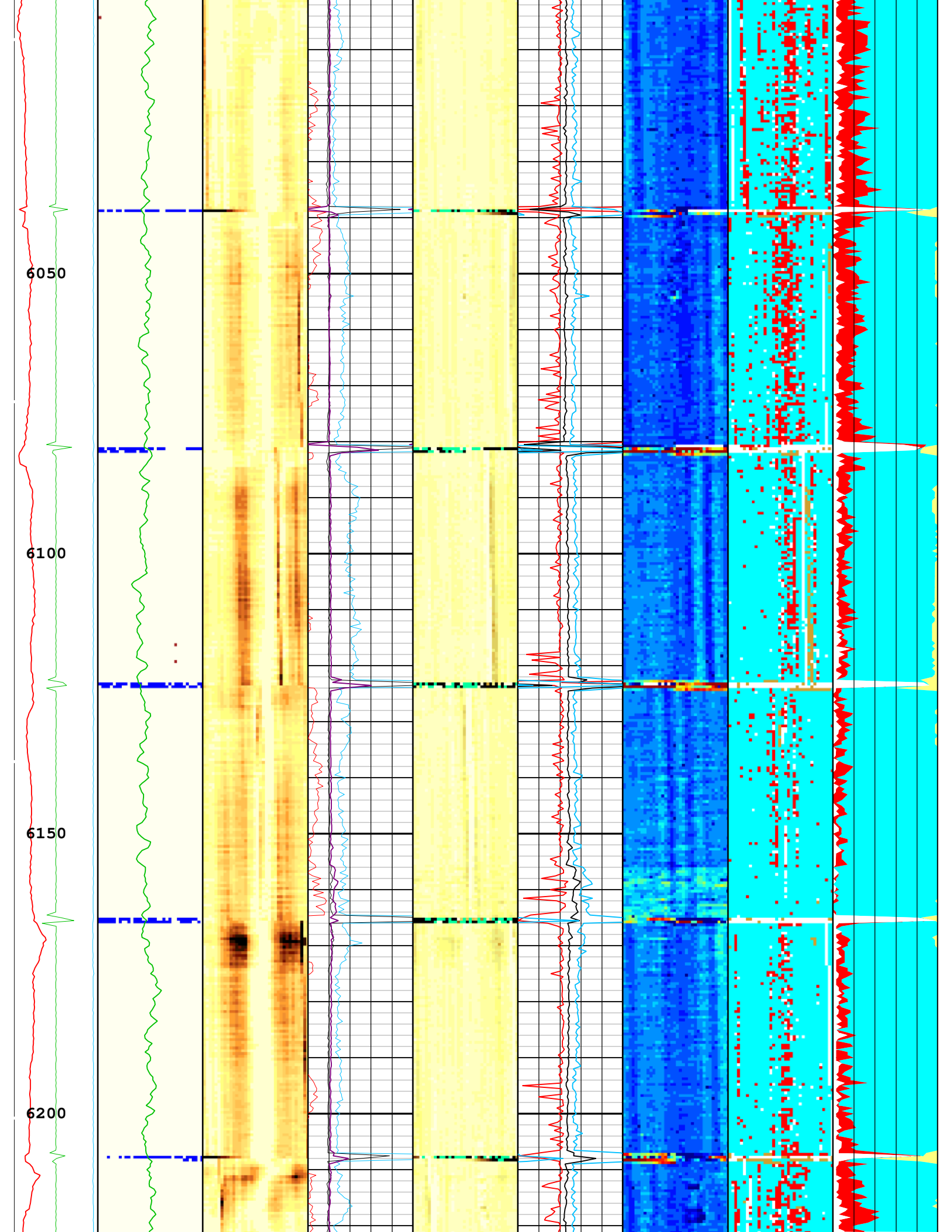
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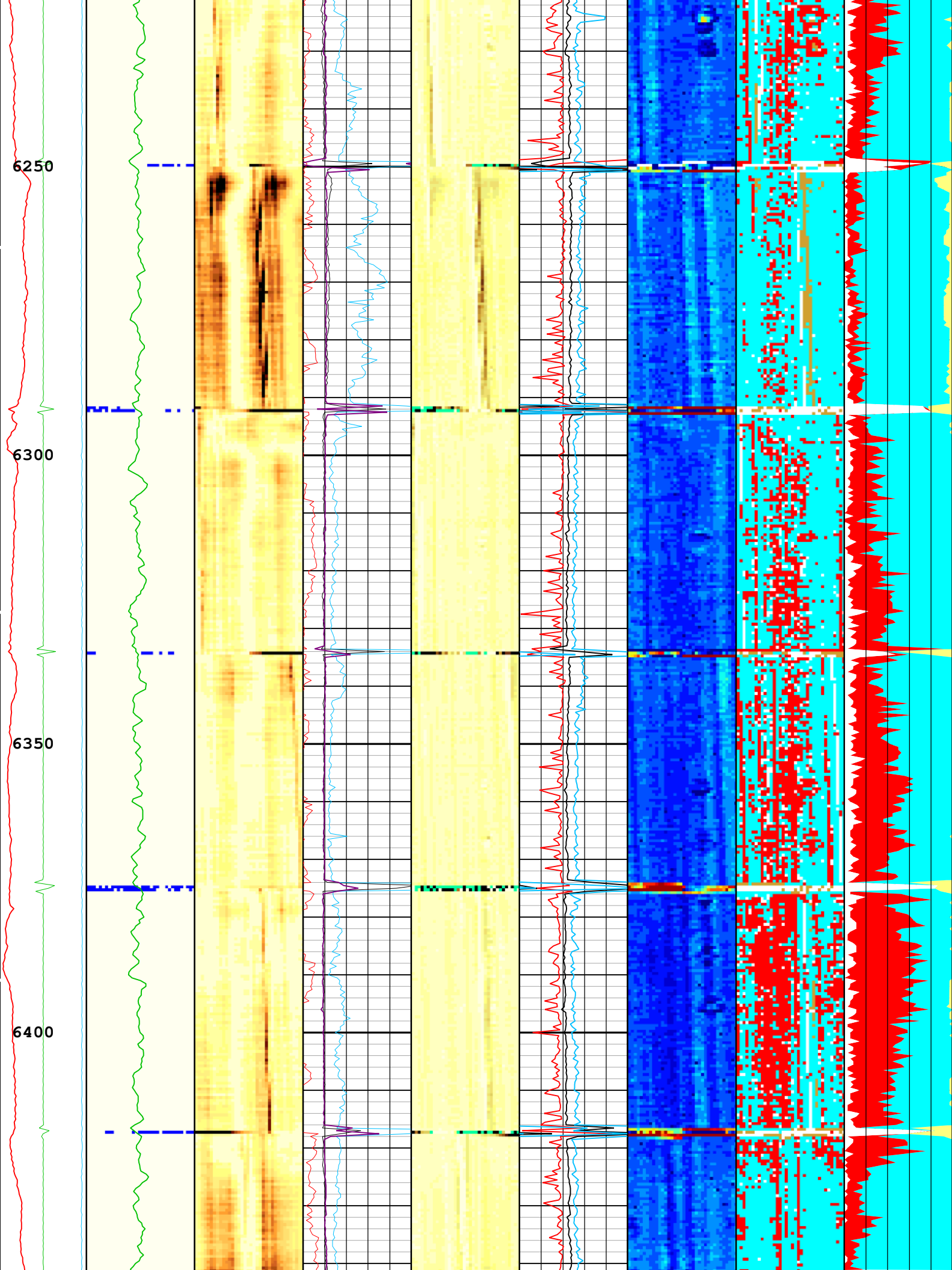


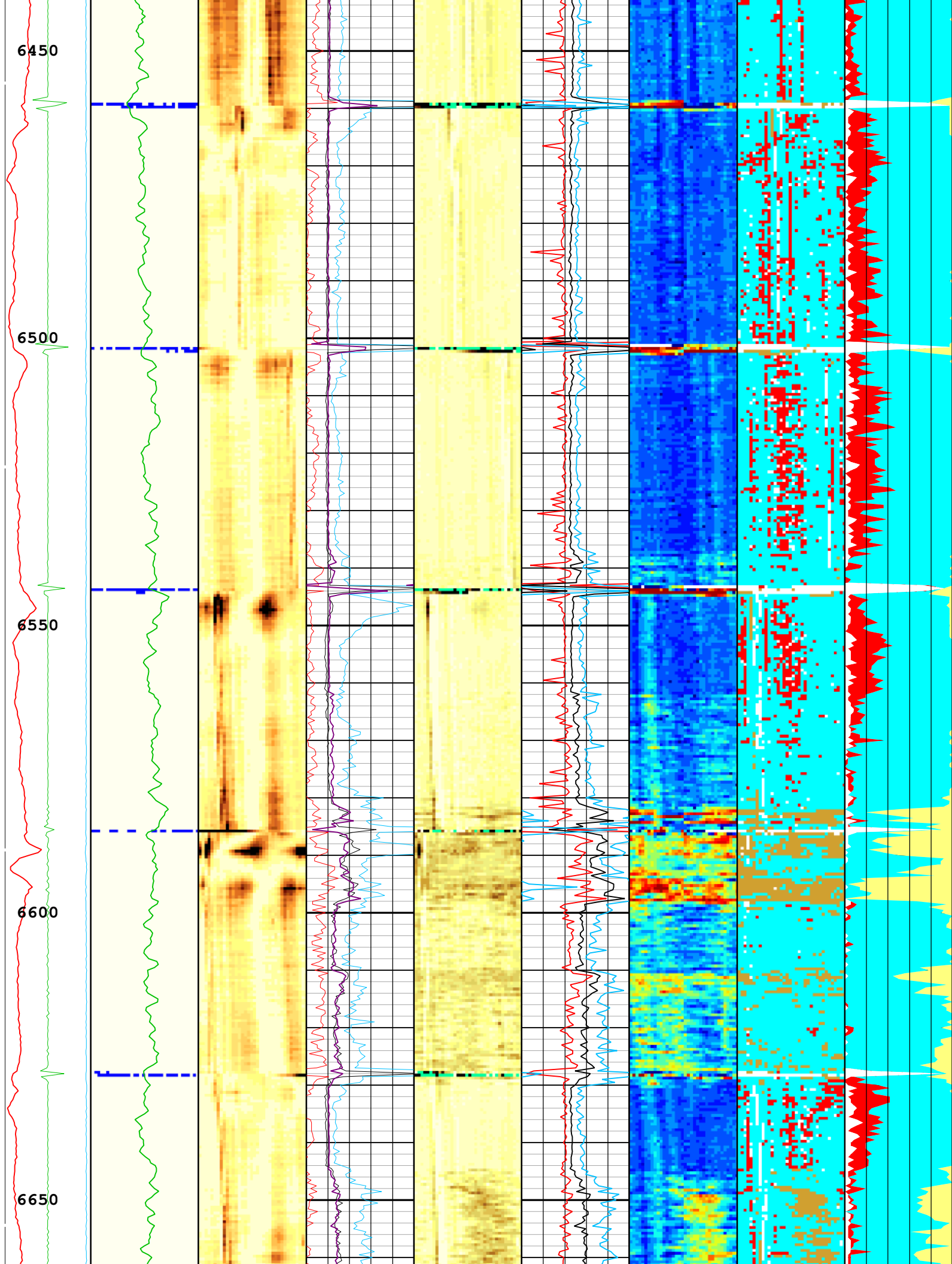










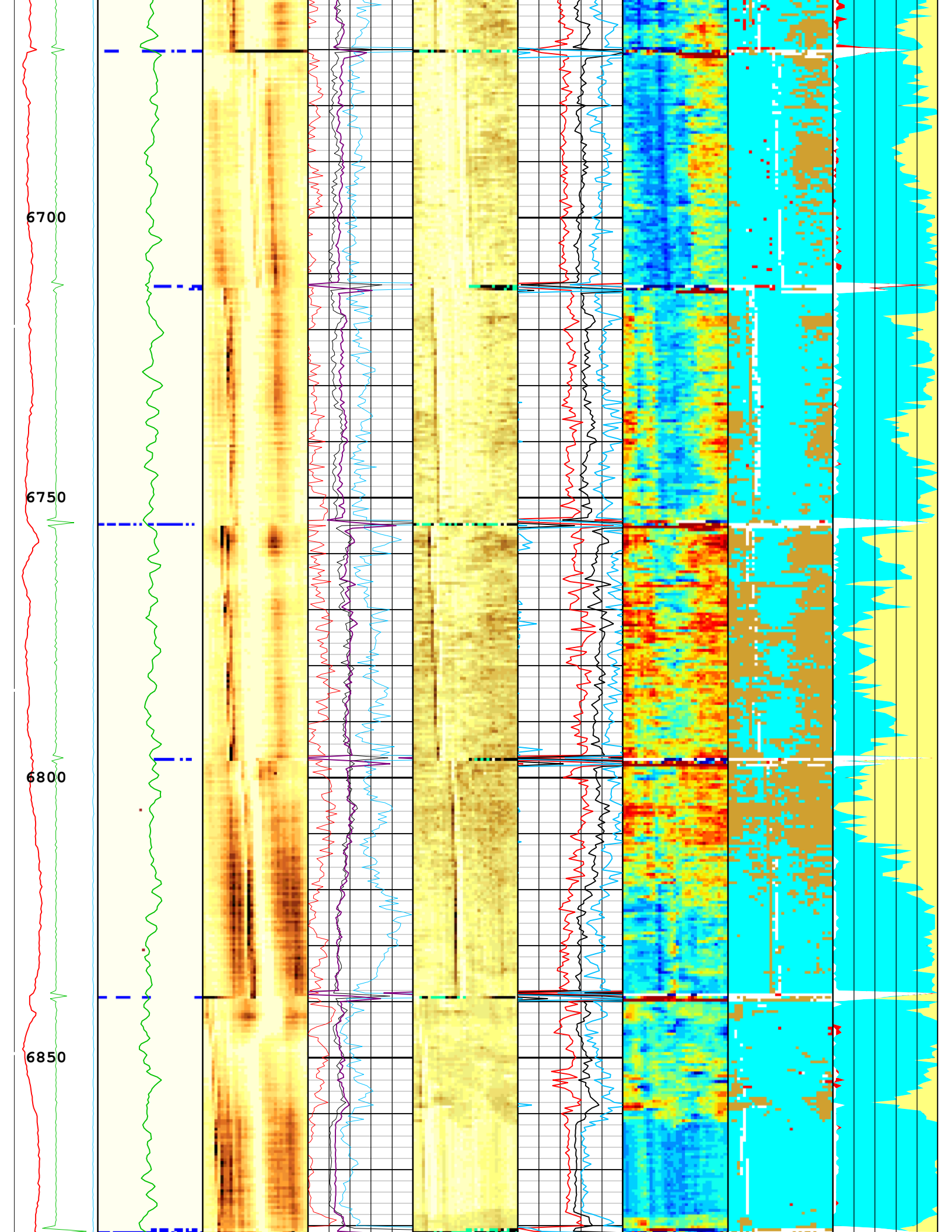


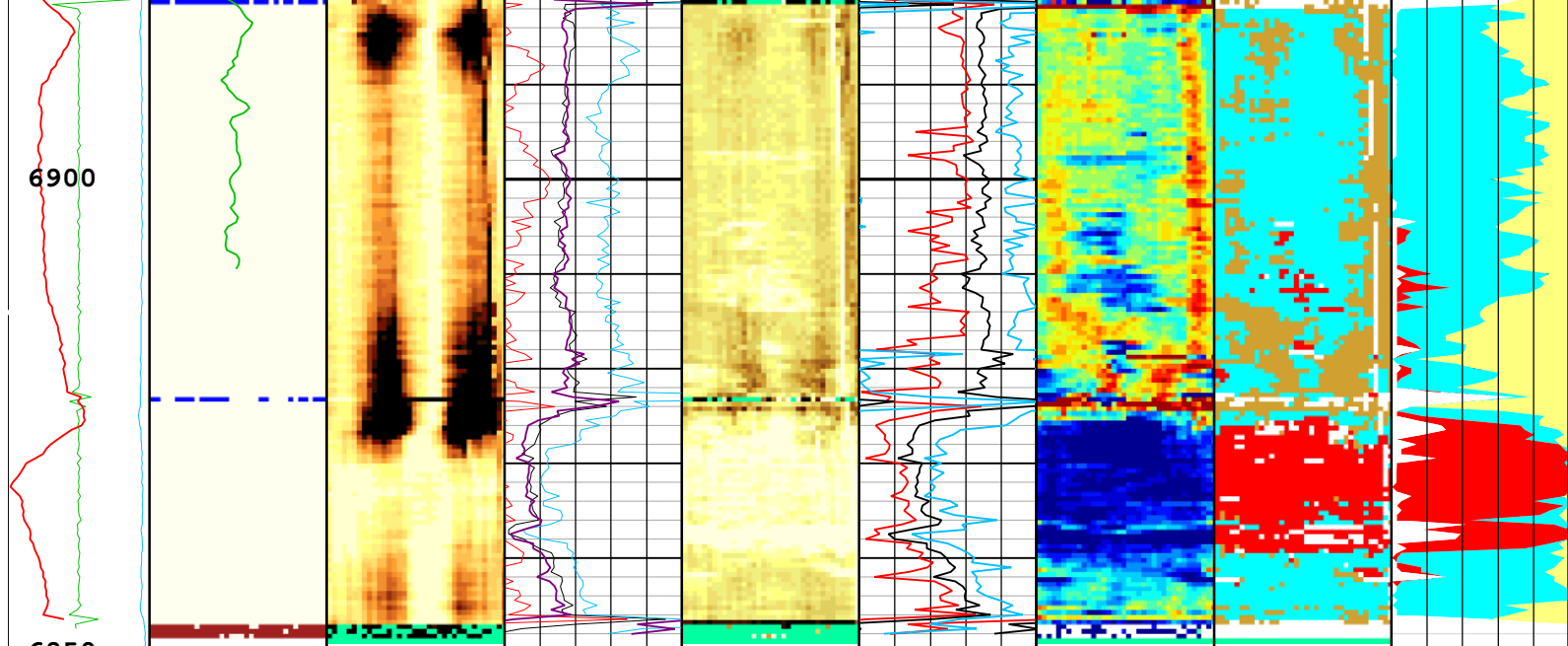
6700

6750

6800

6850





Casing Collar Locator Ultrasonic (CCLU) USIT-E[1] -20 in 20 Amplitude of Eccentering (ECCE) USIT-E[1] 0 in 0.5 Motor Revolution Speed (RSAV) USIT-E[1] 6 c/s 7.5 Gamma Ray (ECGR_EDTC) EDTC-B[1] 0 gAPI 150	Absent 1.500 3.500 Explicit Normalization USIT - USIT Processing Flags (UFLG) USIT-E[1] USIT Processing Flags (UFLG[0]) USIT-E[1] 1 5 Gamma Ray (ECGR_EDTC) EDTC-B[1] 0 gAPI 150	Absent -5.200 -3.600 -2.000 -0.400 Explicit Normalization USIT - Amplitude of Wave (AWBK) USIT-E[1] (dB)	Acoustic Impedance Minimum (AIMN) USIT-E[1] -1 Mrayl 9 Acoustic Impedance Average (AIAV) USIT-E[1] -1 Mrayl 9 Acoustic Impedance Maximum (AIMX) USIT-E[1] -1 Mrayl 9 Acoustic Impedance Flexural Attenuation Average (AIFAV) USIT-E[1] -1 Mrayl 9	Absent 1.500 3.500 5.500 7.500 Custom Normalization USIT - Acoustic Impedance (AIBK) USIT-E[1] (Mrayl)	Minimum Flexural Attenuation (U-USIT_UFAN) USIT-E[1] 0 dB/m 150 Average Flexural Attenuation (U-USIT_UFAV) USIT-E[1] 0 dB/m 150 Maximum Flexural Attenuation (U-USIT_UFAX) USIT-E[1] 0 dB/m 150	Absent 64.000 92.000 120.000 148.000 Custom Normalization USIT - Flexural Attenuation (UFAK) USIT-E[1] (dB/m)	Absent 0.500 1.500 2.500 3.500 Explicit Normalization USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E[1]	SLG Solid Index SLG Liquid Index SLG Gas Index SLG White Point Index
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TIME_1900 - Time Marked every 60.00 (s)

USIT Processing Flags (UFLG[0]) USIT-E[1]

- 1 - UFLG 1 Value within [0.0 - 1.5] - : UTIM Error
- 2 - UFLG 2 Value within [1.5 - 2.5] - : Pulse Origin Not Detected
- 3 - UFLG 3 Value within [2.5 - 3.5] - : WINLEN Error
- 4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : Casing Thickness Error
- 5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : Loop Processing Error

Description: USI IBC SLG Format: Log (IBC SLG) Index Scale: 5 in per 100 ft Index Unit: ft Index Type: Measured Depth Creation Date: 28-Jul-2022 07:05:50

Channel Processing Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
BARI(ISSBAR)	Barite Mud Presence Flag	Borehole	No	

BERJ	Bad Echo Rejection	USIT-E	On	
BHS	Borehole Status (Open or Cased Hole)	Borehole	Cased	
BS	Bit Size	WLSESSION	Depth Zoned	in
CASING_PRATIO	Casing Poisson Ratio	USIT-E	Standard Poisson Ratio	
CBLO	Casing Bottom (Logger)	WLSESSION	7000	ft
CDEN	Cement Density	USIT-E	0	g/cm3
CDEN	Cement Density	EDTC-B	2	g/cm3
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DFD	Drilling Fluid Density	Borehole	8.5	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	203	us/ft
FD	Fluid Density	USIT-E	1.2	g/cm3
FDII	FPM Data Interpolation Interval	USIT-E	0	ft
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS(RT)	
GR_MULTIPLIER	Gamma Ray Multiplier	EDTC-B	1	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_CTHI_SEL	IBC Casing Thickness Selector	USIT-E	THBK+THAV	
IBC_FRP_OFFSET	IBC Flexural Offset from Free Pipe	USIT-E	0	dB/m
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	Theoretical	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	15.37	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	0	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1.09	
RCOD	Reference Calibrator Outer Diameter	USIT-E	4.5	in
RCSO	Reference Calibrator Standoff	USIT-E	0.842	in
RCTH	Reference Calibrator Thickness	USIT-E	0.216	in
RPLUS_PROCESS	Ultrasonic R+ Processing	USIT-E	No	
SOCN	Standoff Distance	EDTC-B	0.125	in
SOCO	Standoff Correction Option	EDTC-B	No	
THDH	Maximum Search Thickness (percentage of nominal)	USIT-E	130	%
THDL	Minimum Search Thickness (percentage of nominal)	USIT-E	70	%
TPOS_EDTC	Tool Position: Centered or Eccentered	EDTC-B	Eccentered	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.76	Mrayl
U-USIT_UFAO	USIT Flexural Attenuation Offset	USIT-E	-30	dB/m
UFSFILT	Ultrasonic Flexural Surface Filter	USIT-E	LPF 250k	
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SLG - TIE Picking	
THDP	Thickness Detection Policy	USIT-E	Fundamental	
VCAS	Ultrasonic Transversal Velocity in Casing	USIT-E	51.4	us/ft
ZCAS	Acoustic Impedance of Casing	USIT-E	46.25	Mrayl
ZINI	Initial Estimate of Cement Impedance	USIT-E	-1	Mrayl
ZMUD	Acoustic Impedance of Mud	Borehole	1.52	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.6	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

OneDepth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	12.25	26	748
BS	7.87	748	6949.5

All depth are actual.

Tool Control Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	54	dB
U-USIT_DDT5	USIC Downhole Decimation for T5 only	USIT-E	0_NONE	
DOT(DOS)	Distance between Opposite Transducer Faces	USIT-E	1.756	in
EMXV	EMEX Voltage	USIT-E	Time Zoned	V
HRES	Horizontal Resolution	USIT-E	10 deg	
IBC_ACQTYPE	IBC Acquisition type	USIT-E	1 MHz	
IBC_FLEXDBP	IBC Flex Duration Before Peak	USIT-E	30	us
ICE2_ACQ	Ultrasonic ICE2 Acquisition	USIT-E	Yes	
MOTOR_PROTECT	Motor Protection	USIT-E	On	
UACLV_PERM	Ultrasonic ACLV Permanent	USIT-E	Yes	
USFR	Ultrasonic Sampling Frequency	USIT-E	666667	Hz
UPAT	USIT Emission Pattern	USIT-E	Pattern 750 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in	
USSP	Ultrasonic Service	USIT-E	IBC	
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	

OneTime Zoned Parameters

Pass Log[4]:Up

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXV	65	26-Jul-2022 16:22:26	26-Jul-2022 17:10:04	6954.34	3861.25
EMXV	75	26-Jul-2022 17:10:04	26-Jul-2022 17:10:28	3861.25	3843.84

Pass Log[5]:Up

EMXV	75	26-Jul-2022 17:25:04	26-Jul-2022 17:30:12	3928.88	3781.16
EMXV	85	26-Jul-2022 17:30:12	26-Jul-2022 17:50:11	3781.16	2485.34
EMXV	75	26-Jul-2022 17:50:11	26-Jul-2022 18:09:50	2485.34	1177.34

Pass Log[6]:Up

EMXV	75	26-Jul-2022 18:24:09	26-Jul-2022 18:43:48	1269.82	66.34
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All depth are at tool zero.

Composite 1

Software Version

Acquisition System	Version
Maxwell 2021.1	11.1.211946.3100
Application Patch	Wireline_Hotfix-Mandatory-2021.1_11.1.216380
	Wireline_NPD-ThruBit-2021.1_11.1.216465

Composite Summary

Run Name	Pass Objective	Direction	Top	Bottom	Start	Stop	DSC Mode	Depth Shift	Include Parallel Data
One	Log[4]:Up	Up	3741.46 ft	6950.21 ft	26-Jul-2022 4:22:26 PM	26-Jul-2022 5:10:28 PM	ON	-4.23 ft	Yes

One	Log[5]:Up	Up	1177.30 ft	4099.45 ft	26-Jul-2022 5:25:04 PM	26-Jul-2022 6:09:50 PM	ON	-4.02 ft	Yes
One	Log[6]:Up	Up	65.97 ft	1399.86 ft	26-Jul-2022 6:21:19 PM	26-Jul-2022 6:43:48 PM	ON	-3.82 ft	Yes

All depths are referenced to toolstring zero

Log Company: Occidental Petroleum Corporation Well: Bryant #8-30 Composite 1:S008

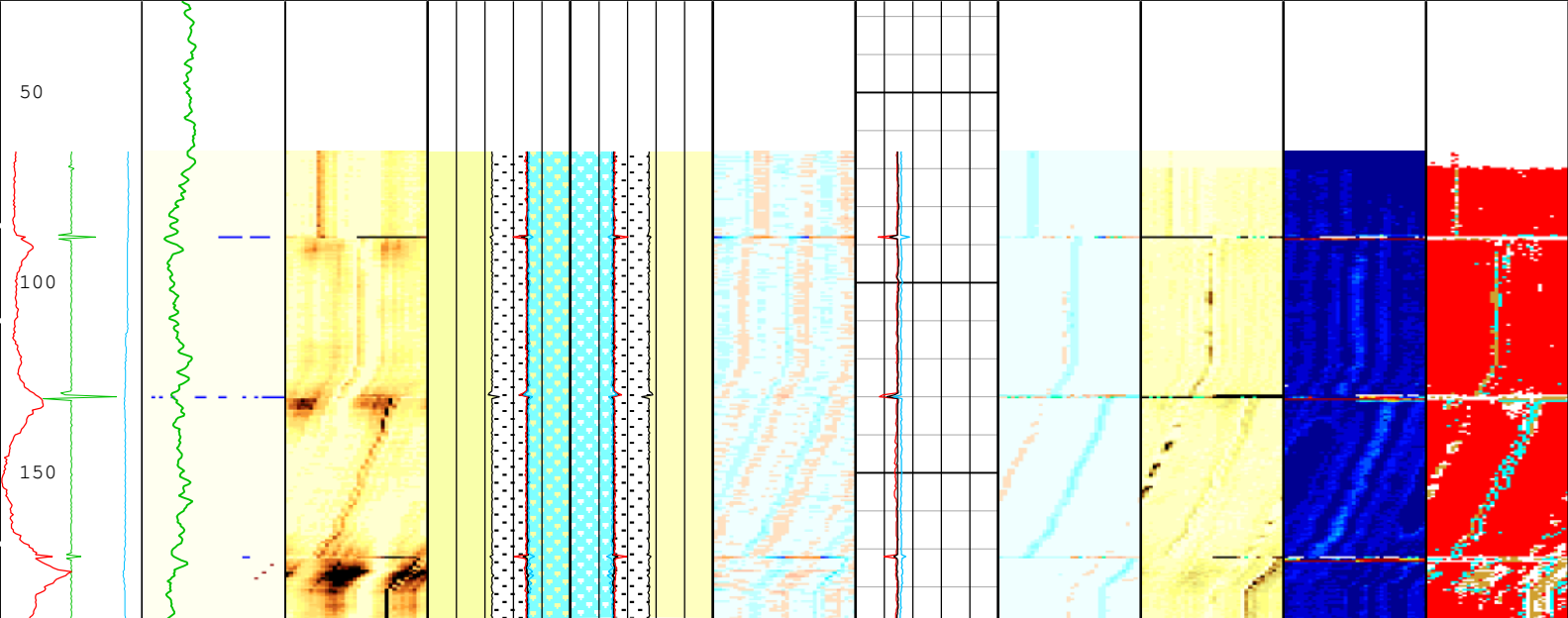
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 Creation Date: 28-Jul-2022 07:06:11

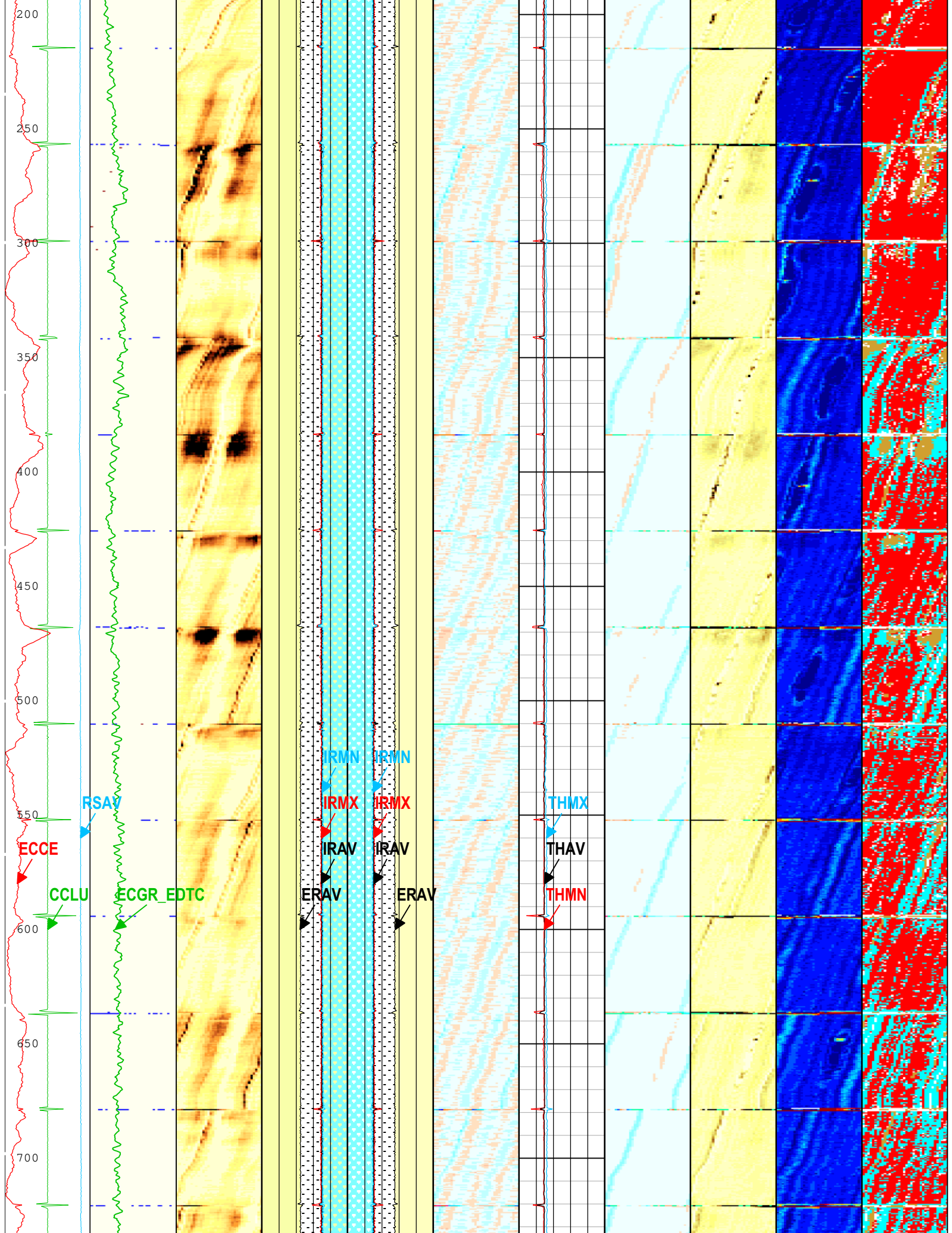
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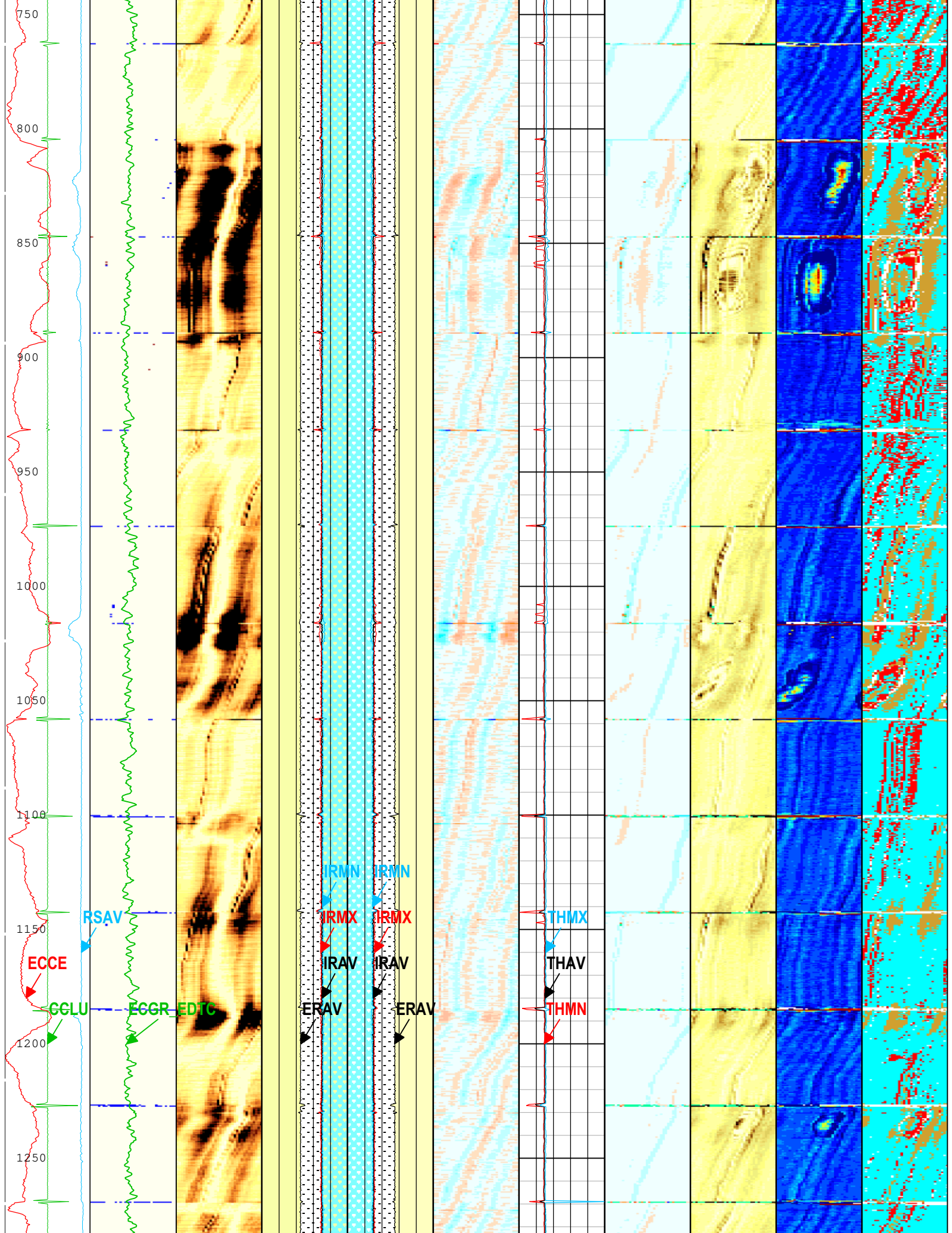
USIT Processing Flags (UFLG[0]) USIT-E[1]

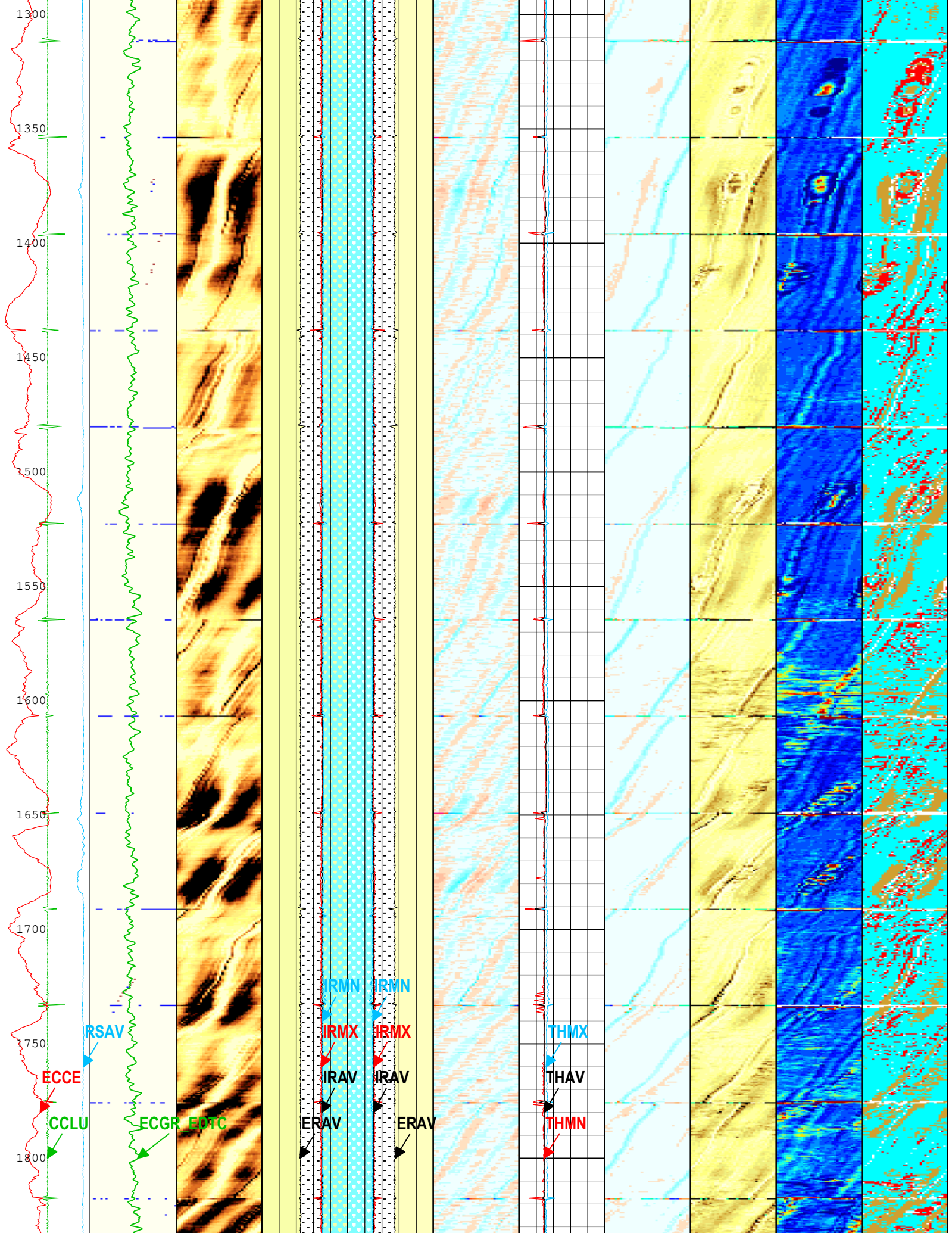
- 1 - UFLG 1 Value within [0.0 - 1.5] - : UTIM Error
- 2 - UFLG 2 Value within [1.5 - 2.5] - : Pulse Origin Not Detected
- 3 - UFLG 3 Value within [2.5 - 3.5] - : WINLEN Error
- 4 - UFLG 4 UFLG 5 UFLG 6 Value within [3.5 - 6.5] - : Casing Thickness Error
- 5 - UFLG 7 UFLG 8 UFLG 9 Value within [6.5 - 10] - : Loop Processing Error

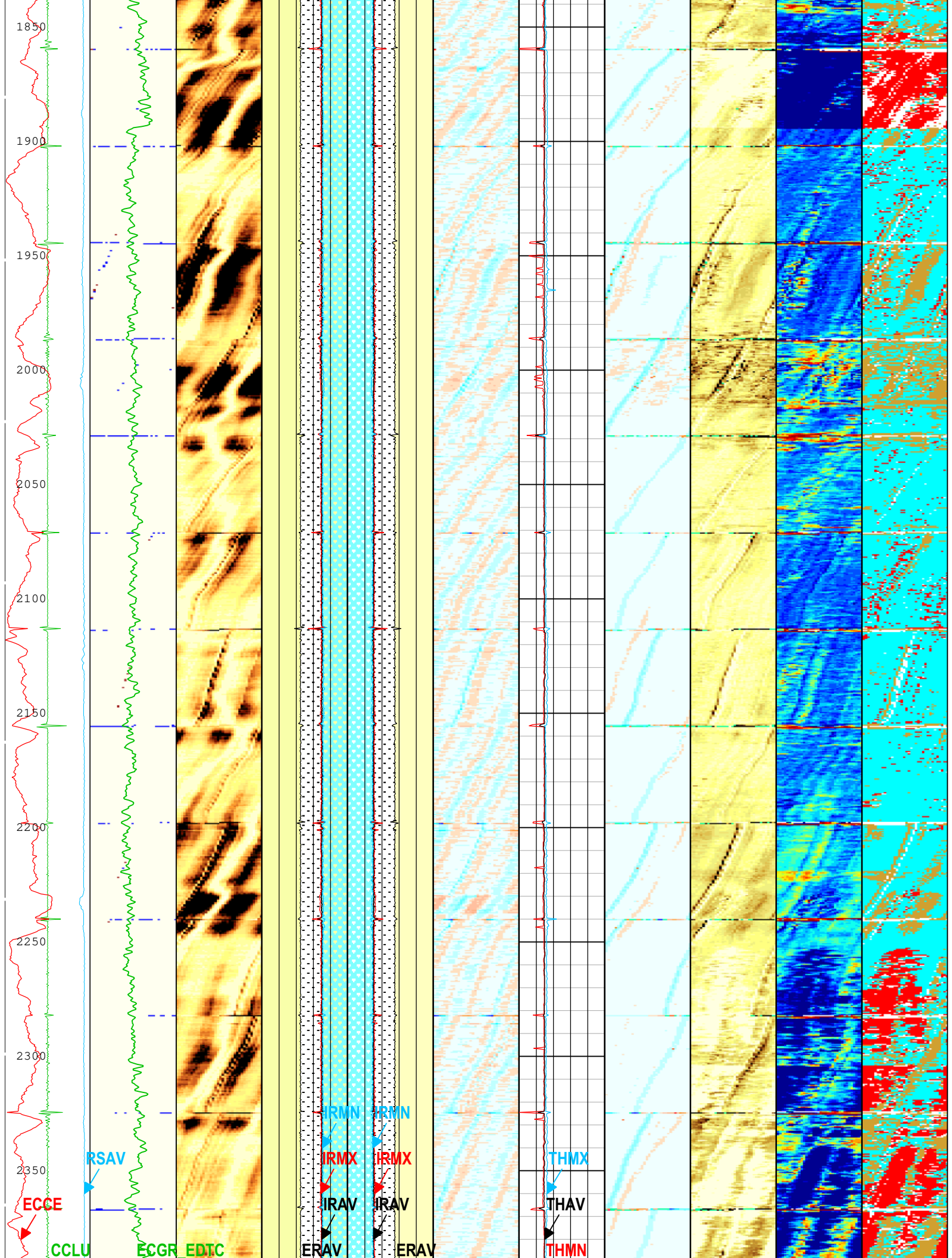
Casing Collar Locator Ultrasonic (CCLU) USIT-E[1] -20 in 20	Explicit Normalization USIT - USIT Processing Flags (UFLG) USIT-E[1] 1 5	USIT - USIT Processing Flags (UFLG) USIT-E[1]	External Radii Average (ERAV) USIT-E[1]	External Radii Average (ERAV) USIT-E[1]	Thickness Minimum Value (THMN) USIT-E[1]	Thickness Average Value (THAV) USIT-E[1]	Explicit Normalization USIT - Casing Thickness Normalized (THBK) USIT-E[1]	Custom Normalization USIT - Acoustic Impedance (AIBK) USIT-E[1]	Custom Normalization USIT - Flexural Attenuation (UFAK) USIT-E[1]	Explicit Normalization USIT - Solid Liquid Gas Sorted Color Map (USLP) USIT-E[1]
			2.7 in 1.7	1.7 in 2.7						
Amplitude of Eccentering (ECCE) USIT-E[1] 0 in 0.5	USIT Processing Flags (UFLG[0]) USIT-E[1]	USIT - Amplitude of Wave (AWBK) USIT-E[1]	Internal Radius Averaged Value (IRAV) USIT-E[1]	Internal Radius Averaged Value (IRAV) USIT-E[1]	Internal Radius Maximum Value (IRMX) USIT-E[1]	Internal Radius Maximum Value (IRMX) USIT-E[1]	USIT - Internal Radii Normalized (IRBK) USIT-E[1]	Thickness Maximum Value (THMX) USIT-E[1]	Thickness Minimum Value (THMN) USIT-E[1]	Thickness Average Value (THAV) USIT-E[1]
Motor Revolution Speed (RSAV) USIT-E[1] 6 c/s 7.5	Gamma Ray (ECGR_EDT C) EDTC-B[1] 0 gAPI 150	(dB)	2.7 in 1.7	1.7 in 2.7	2.7 in 1.7	1.7 in 2.7	(in)	0.1 in 0.6	0.1 in 0.6	0.1 in 0.6

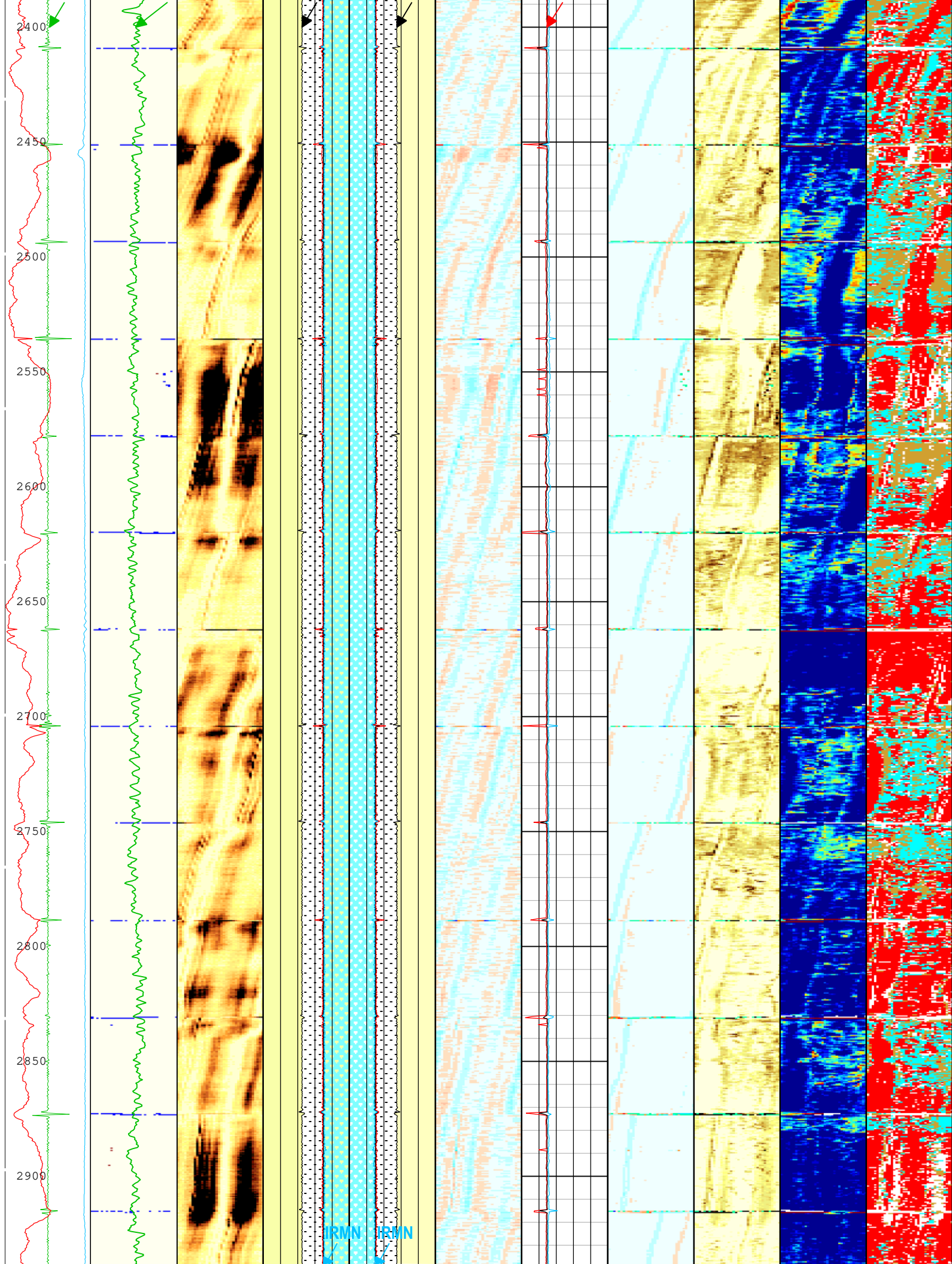


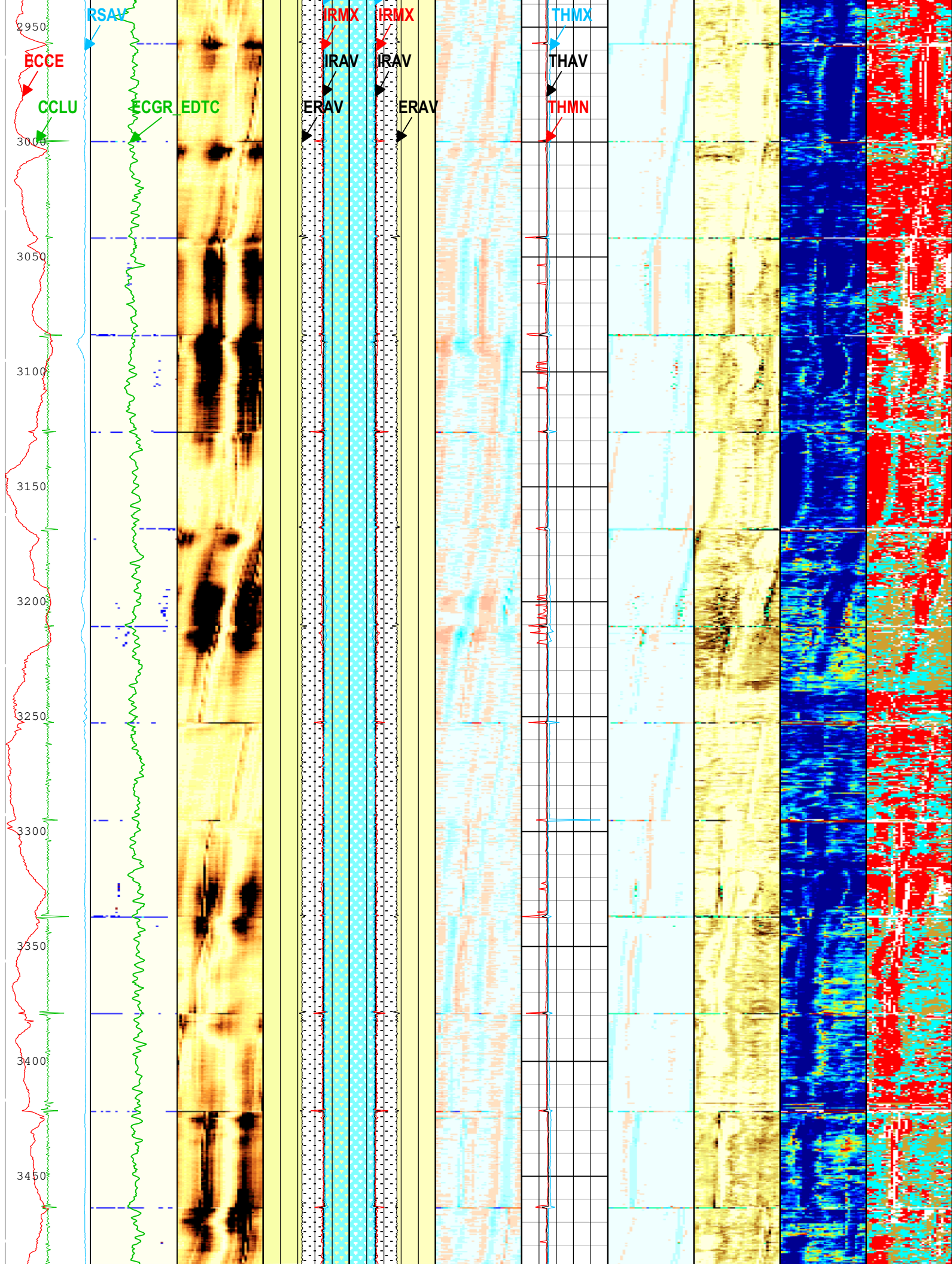


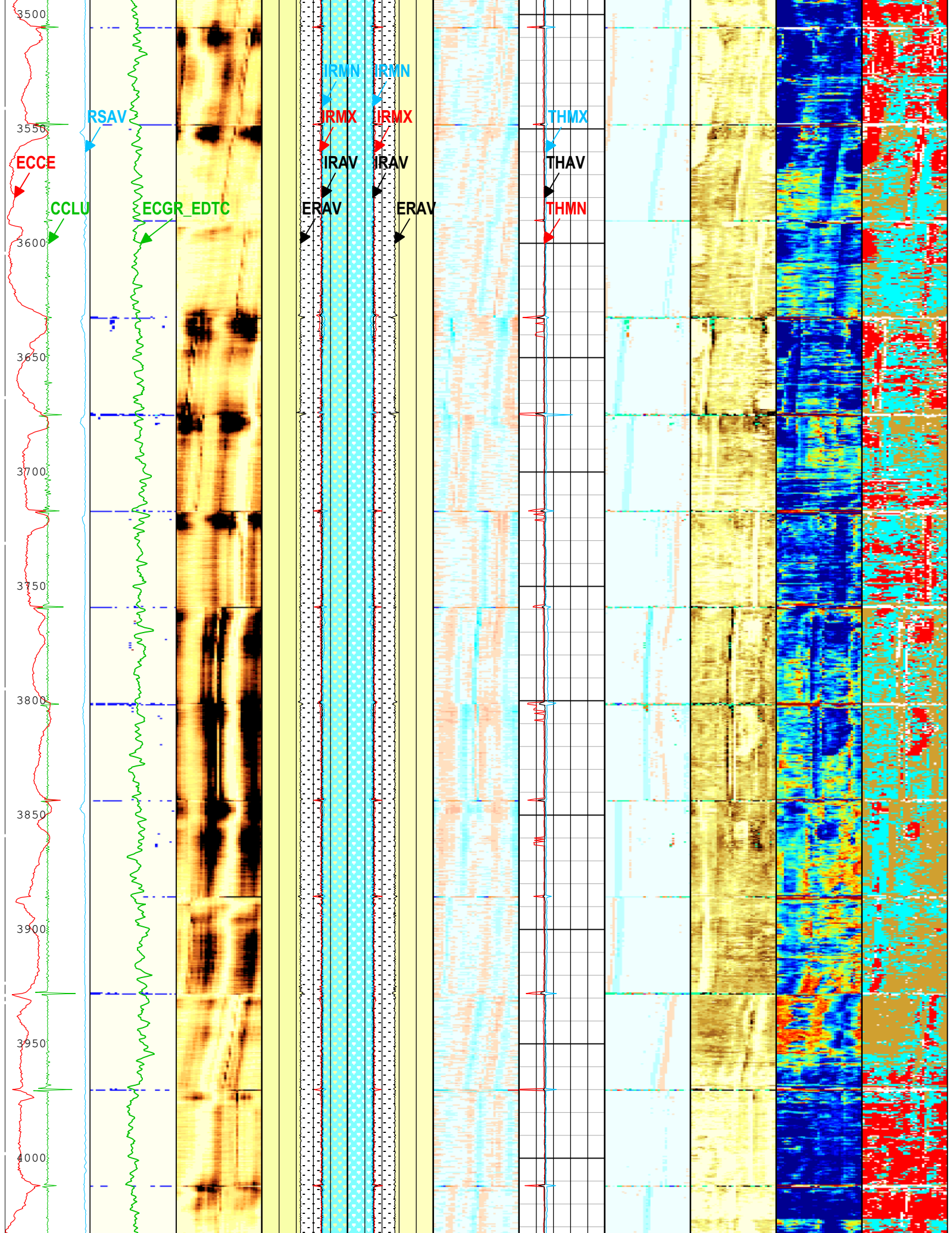


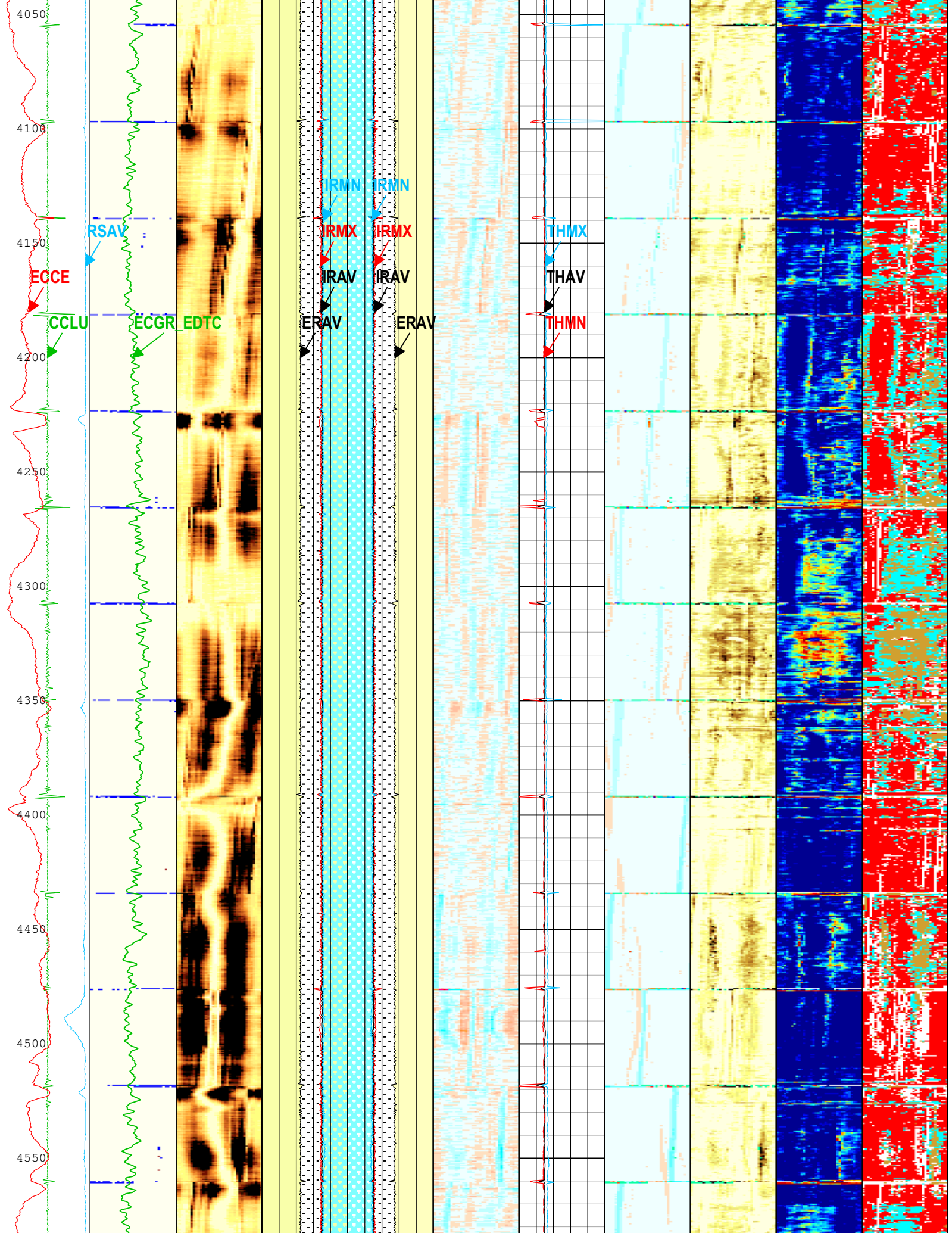


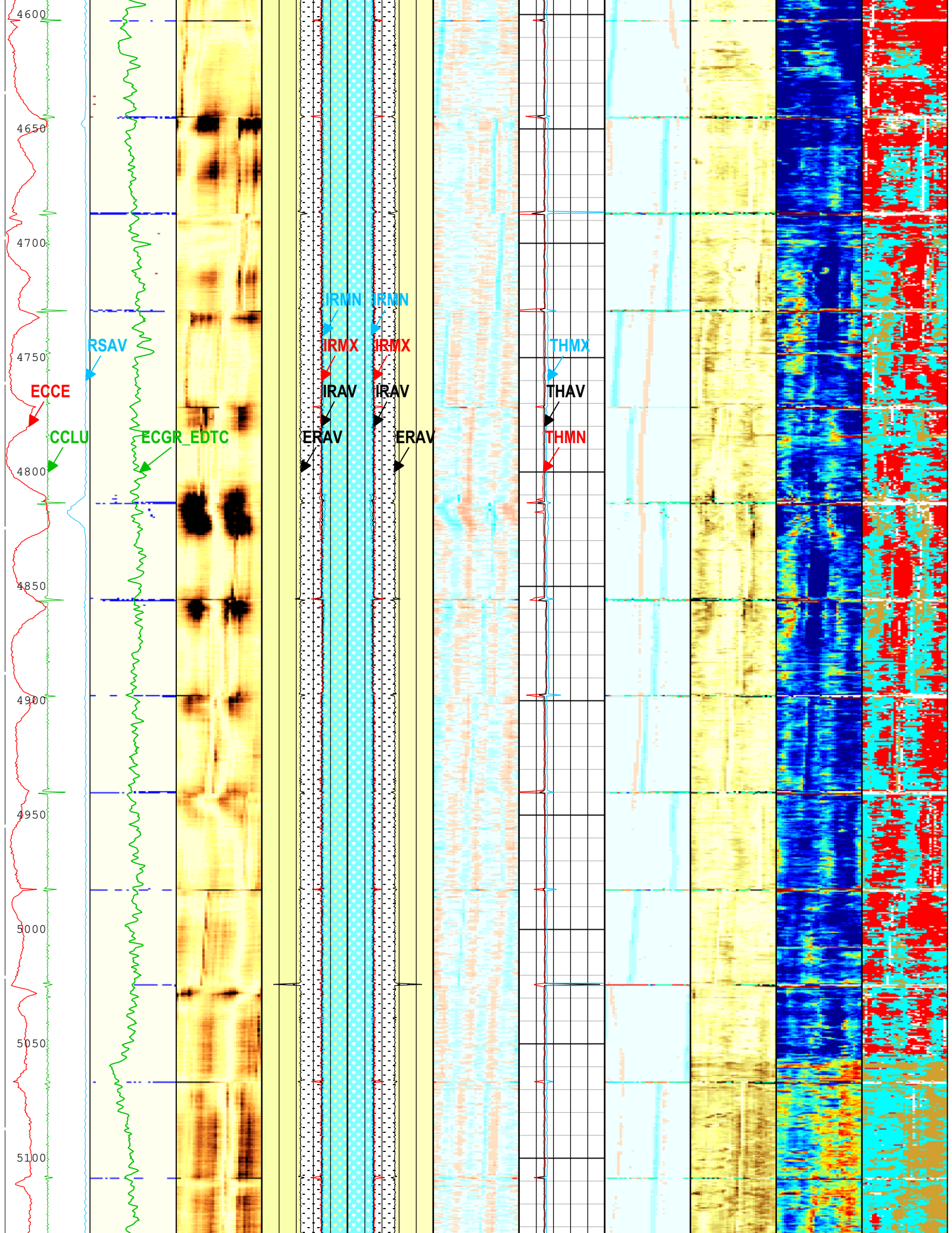


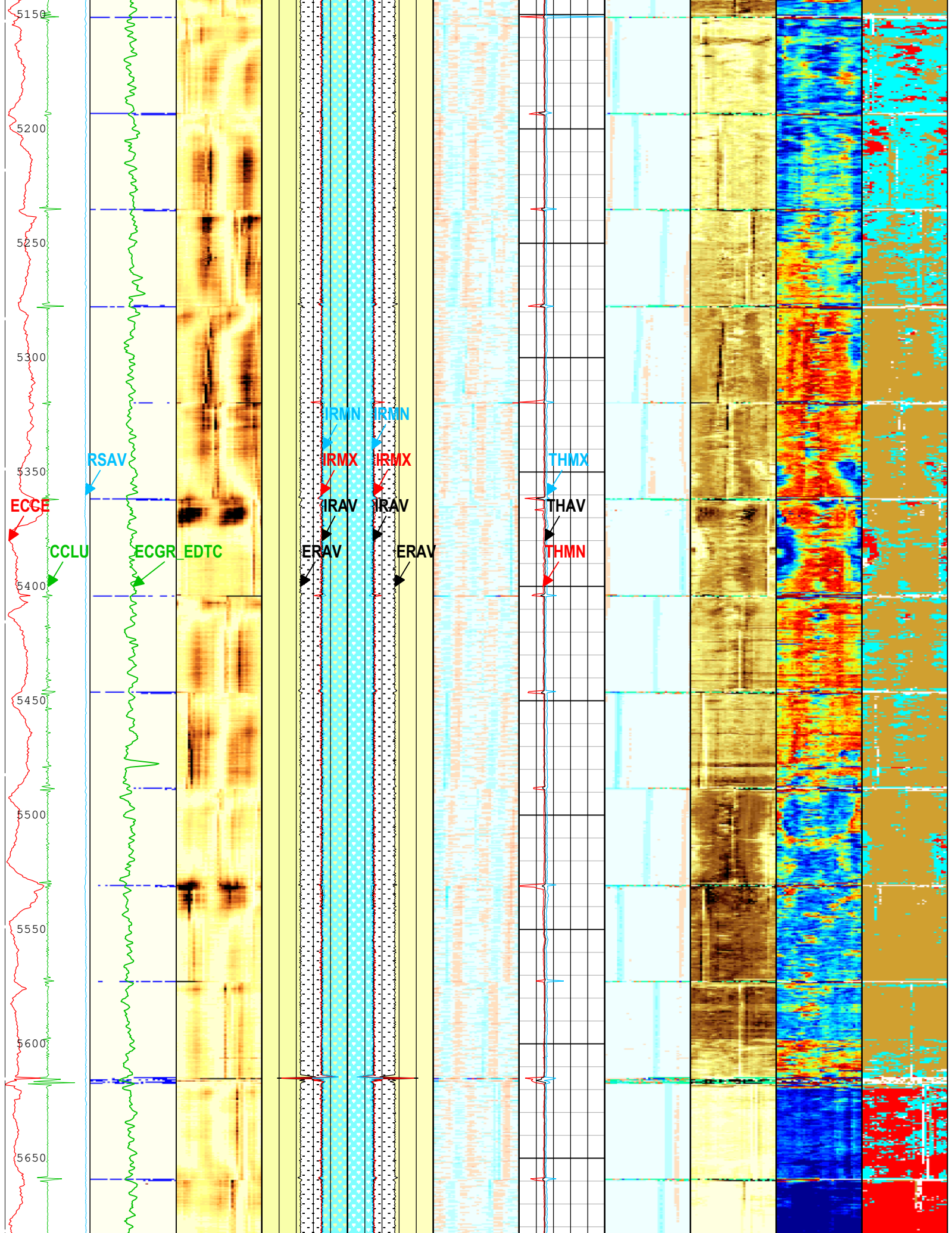


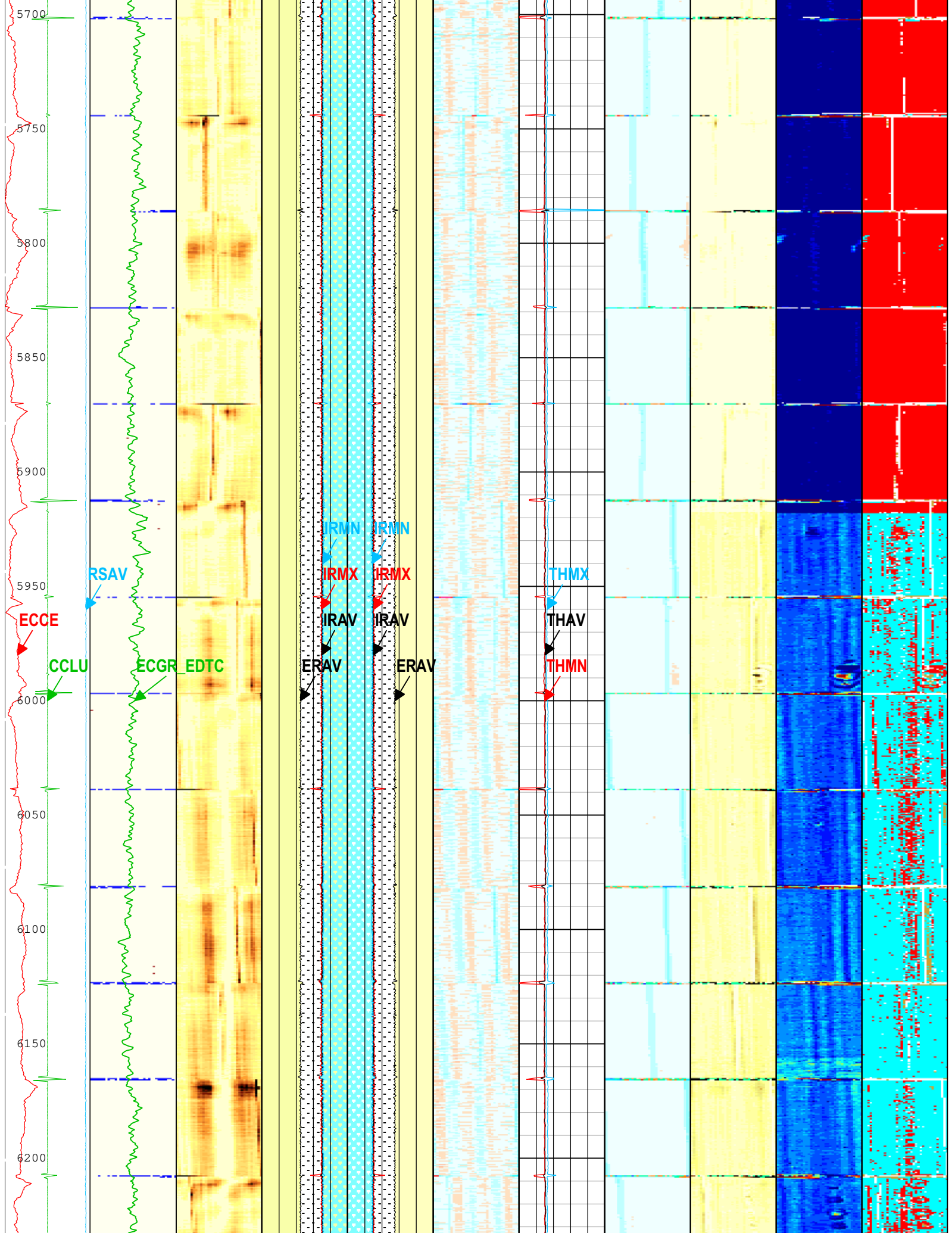


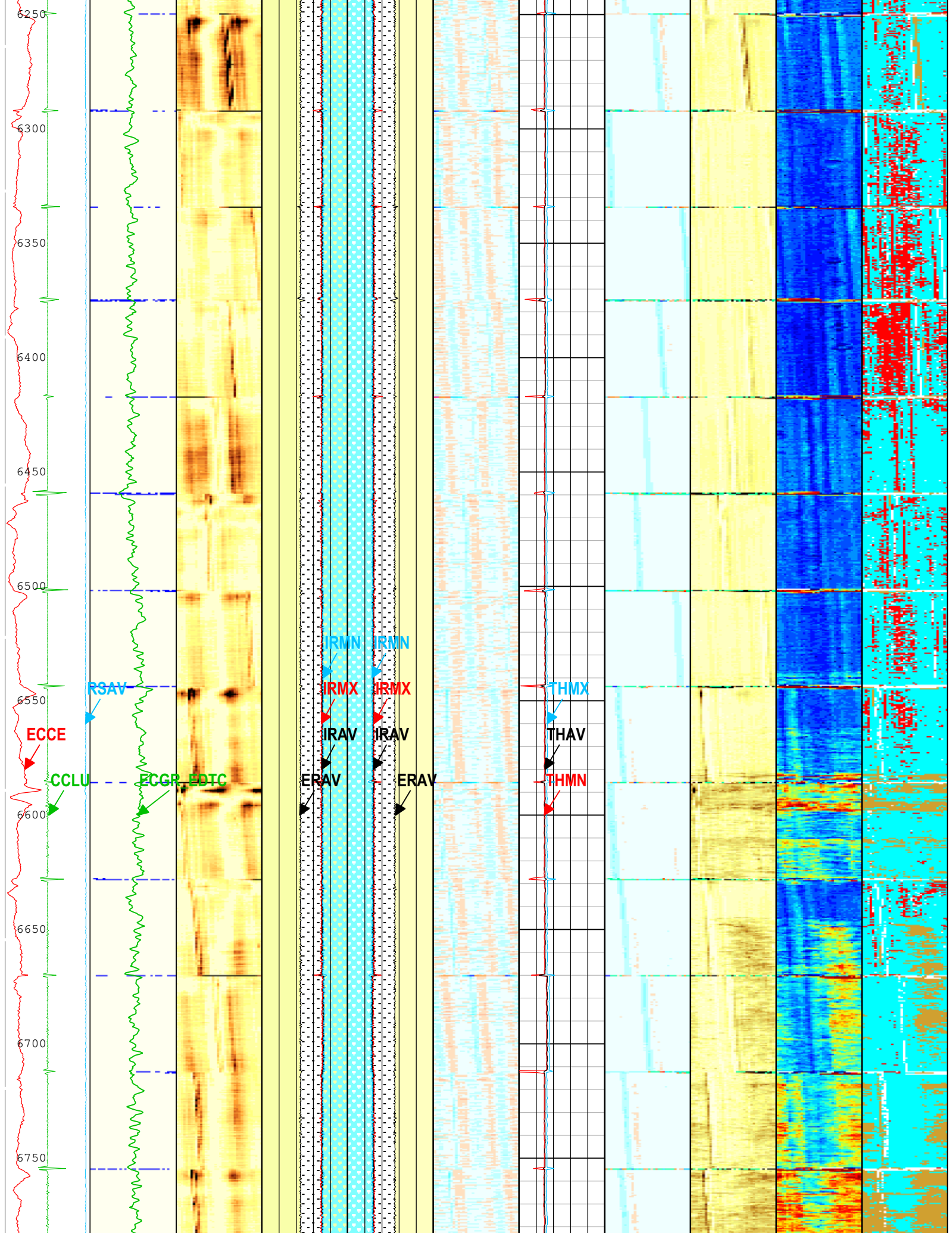












BS	Bit Size	WLSESSION	Depth Zoned	in
CBLO	Casing Bottom (Logger)	WLSESSION	7000	ft
CDEN	Cement Density	USIT-E	0	g/cm3
CDEN	Cement Density	EDTC-B	2	g/cm3
CMTY(U-USIT_CEMT)	Cement Type	USIT-E	Regular Cement	
DFD	Drilling Fluid Density	Borehole	8.5	lbm/gal
DFT_CATEGORY	Drilling Fluid Type	Borehole	Water	
DTMD	Borehole Fluid Slowness	Borehole	203	us/ft
FD	Fluid Density	USIT-E	1.2	g/cm3
GCSE_DOWN_PASS	Generalized Caliper Selection for WL Log Down Passes	Borehole	BS(RT)	
GCSE_UP_PASS	Generalized Caliper Selection for WL Log Up Passes	Borehole	BS(RT)	
HEMA	Hematite Presence Flag	Borehole	No	
IBC_FVEL_SEL	IBC Fluid Velocity Selection	USIT-E	Automatic	
IBC_OFFSET_SEL	IBC Flexural Offset Selector	USIT-E	UFAO	
IBC_ZMUD_SEL	IBC Mud Impedance Selection	USIT-E	Theoretical	
IMAR	Image Rotation	USIT-E	Off	
MEAS_WLEN	Tcube Processing Window Length in Measurement Mode	USIT-E	15.37	us
MUD_N_FRP	Free Pipe Mud Normalization Factor	USIT-E	0	
MUD_N_THE	Theoretical Mud Normalization Factor	USIT-E	1.09	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	USIT-E	1.76	Mrayl
U-USIT_UFAO	USIT Flexural Attenuation Offset	USIT-E	-30	dB/m
UFSFILT	Ultrasonic Flexural Surface Filter	USIT-E	LPF 250k	
U-USIT_UIAP	IBC Answer Product Enabled	USIT-E	SLG - TIE Picking	
ZMUD	Acoustic Impedance of Mud	Borehole	1.52	Mrayl
ZTCM	Acoustic Impedance Threshold for Cement	USIT-E	2.6	Mrayl
ZTGS	Acoustic Impedance Threshold for Gas	USIT-E	0.3	Mrayl

OneDepth Zoned Parameters

Parameter	Value	Start (ft)	Stop (ft)
BS	12.25	26	748
BS	7.87	748	6949.5

All depth are actual.

Tool Control Parameters

One: Parameters

Parameter	Description	Tool	Value	Unit
AGMN	Minimum Gain of Cartridge	USIT-E	-12	dB
AGMX	Maximum Gain of Cartridge	USIT-E	54	dB
EMXV	EMEX Voltage	USIT-E	Time Zoned	V
IBC_ACQTYPE	IBC Acquisition type	USIT-E	1 MHz	
IBC_FLEXDBP	IBC Flex Duration Before Peak	USIT-E	30	us
ICE2_ACQ	Ultrasonic ICE2 Acquisition	USIT-E	Yes	
UPAT	USIT Emission Pattern	USIT-E	Pattern 750 KHz	
UWKM	USIT Working Mode	USIT-E	10 deg at 6.0 in	
U-USIT_UTAN	Transducer Angles	USIT-E	33_DEG	
VRES	Vertical Resolution	USIT-E	6.0 in	

OneTime Zoned Parameters

Pass Log[4]:Up

Parameter	Value	Start Time	Stop Time	Start Depth (ft)	Stop Depth (ft)
EMXV	65	26-Jul-2022 16:22:26	26-Jul-2022 17:10:04	6954.34	3861.25

EMXV	75	26-Jul-2022 17:10:04	26-Jul-2022 17:10:28	3861.25	3843.84
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Pass Log[5]:Up

EMXV	75	26-Jul-2022 17:25:04	26-Jul-2022 17:30:12	3928.88	3781.16
EMXV	85	26-Jul-2022 17:30:12	26-Jul-2022 17:50:11	3781.16	2485.34
EMXV	75	26-Jul-2022 17:50:11	26-Jul-2022 18:09:50	2485.34	1177.34

Pass Log[6]:Up

EMXV	75	26-Jul-2022 18:24:09	26-Jul-2022 18:43:48	1269.82	66.34
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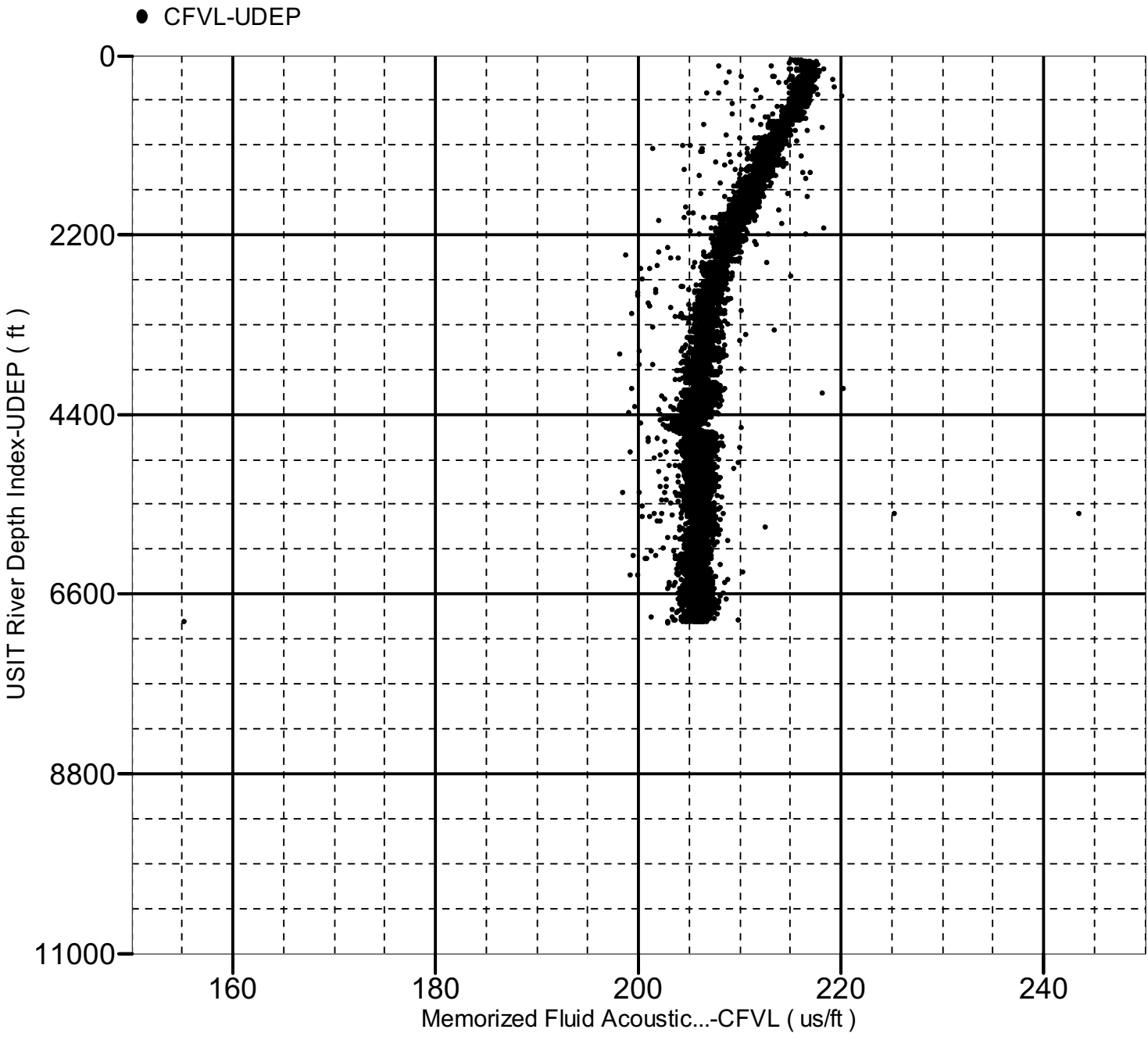
All depth are at tool zero.

XYZ Company:Occidental Petroleum Corporation Well:Bryant #8-30
Composite 1:S008

Fluid Acoustic Slowness vs Depth

2D Cross Plot

Index Range: From 65.50 to 6949.50 ft

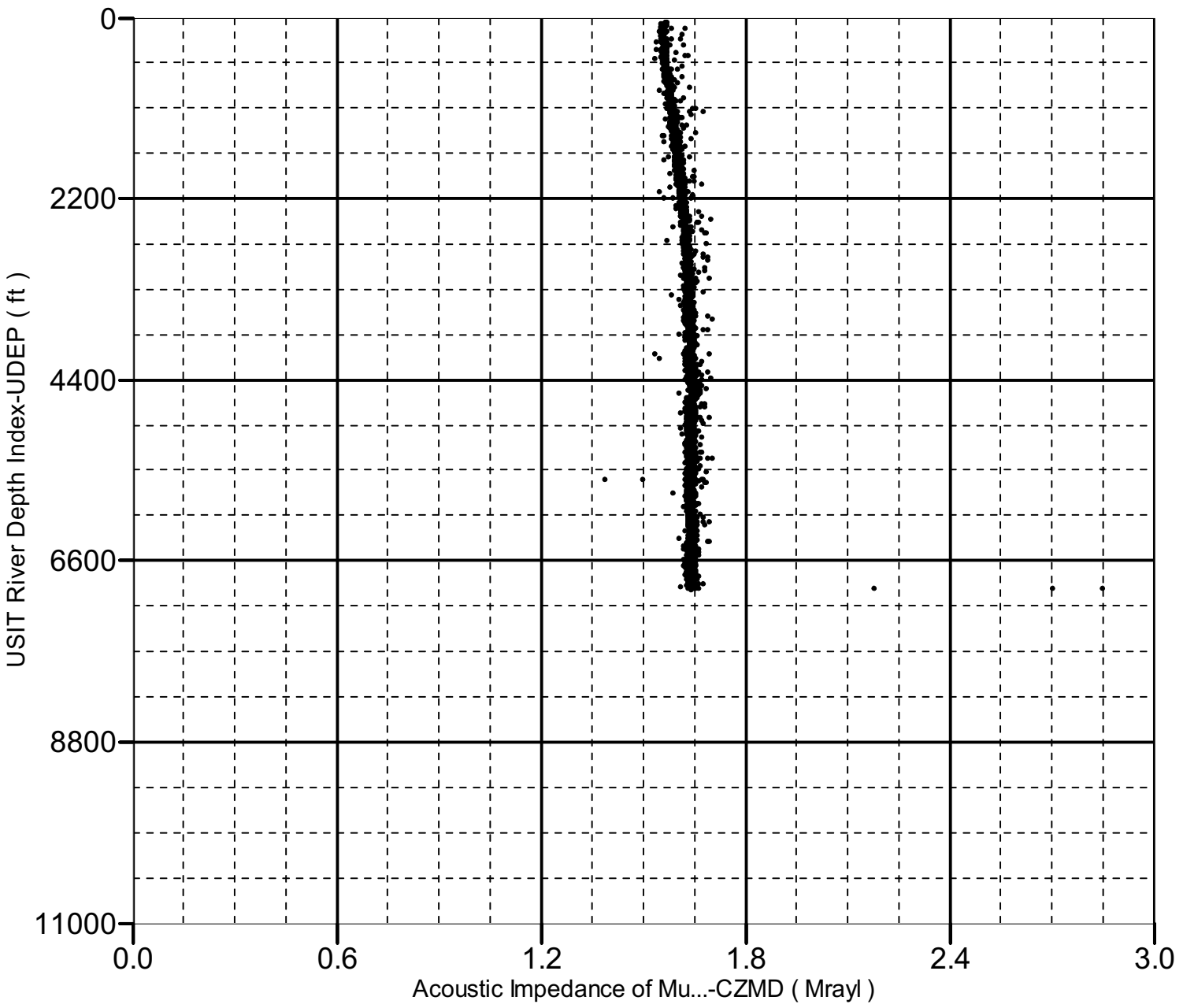


Acoustic Impedance of Mud vs Depth

2D Cross Plot

Index Range: From 65.50 to 6949.50 ft

● CZMD-UDEP



Field: Spindle

County: Weld

Country: USA

Isolation Scanner

Cement Evaluation

Gamma Ray - CCL Log