

HALLIBURTON

**CAST-M
ADVANCED CEMENT
EVALUATION**

COMPANY CHEVRON
WELL UNION PACIFIC 150X16
FIELD RANGLEY
COUNTY RIO BLANCO
STATE CO

Location: SHL:2067'FSL & 132'FWL

Elevations: K.B.: 5380' R.T.: 5379' G.L.: 5364'

Date Processed	09/07/2011	Logs Processed	CAST-M
Job Number	N/A	Date Logged	09/07/2011
Interval Processed	239-6227'	Type Fluid In Hole	WATER
Processed By	ADAM BOBAY	Location	CO
Processed At	DENVER FRS		

--- COMPUTER PROCESSED PRODUCT ---

— Fold Here —

Service Ticket No.: 8428606 **API Serial No.:** 05103115020000 **PGM Version:** XL v5.1

DIRECTIONAL INFORMATION

Maximum Deviation		deg. @		KOP	
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Remarks:

HALLIBURTON DOES NOT GUARANTEE THE ACCURACY OF ANY INTERPRETATION OF THE LOG DATA, CONVERSION OF LOG DATA TO PHYSICAL ROCK PARAMETERS OR RECOMMENDATIONS WHICH MAY BE GIVEN BY HALLIBURTON PERSONNEL OR WHICH APPEAR ON THE LOG OR IN ANY OTHER FORM. ANY USER OF SUCH DATA, INTERPRETATIONS, CONVERSIONS, OR RECOMMENDATIONS AGREES THAT HALLIBURTON IS NOT RESPONSIBLE EXCEPT WHERE DUE TO GROSS NEGLIGENCE OR WILLFUL MISCONDUCT, FOR ANY LOSS, DAMAGES, OR EXPENSES RESULTING FROM THE USE THEREOF.

HALLIBURTON

THE MAXIMUM IMPEDANCE FOR FREE GAS : 0.38 RED
 THE MAXIMUM IMPEDANCE FOR LIQUID : 2.30 MEDIUM BLUE
 THE MAXIMUM IMPEDANCE FOR SOLID-LIQUID TRANSITION : 2.70 YELLOW
 THE MAXIMUM IMPEDANCE FOR LOW Z CEMENT : 3.85 LIGHT BROWN
 THE MAXIMUM IMPEDANCE FOR MED Z CEMENT : 5.00 DARK BROWN
 THE MINIMUM FOR HIGH Z CEMENT IS : 5.00 BLACK

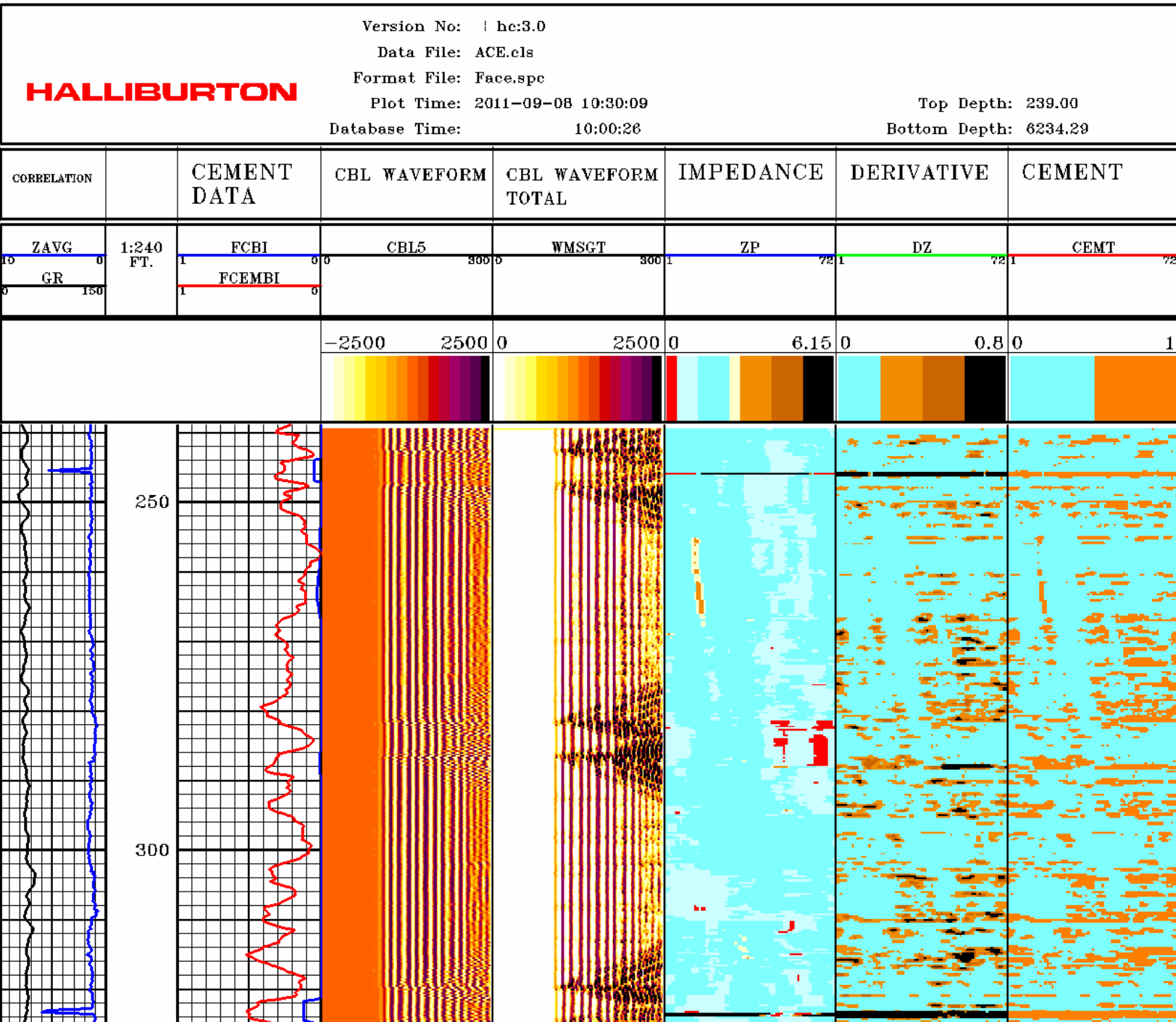
DERIVATIVE MAP

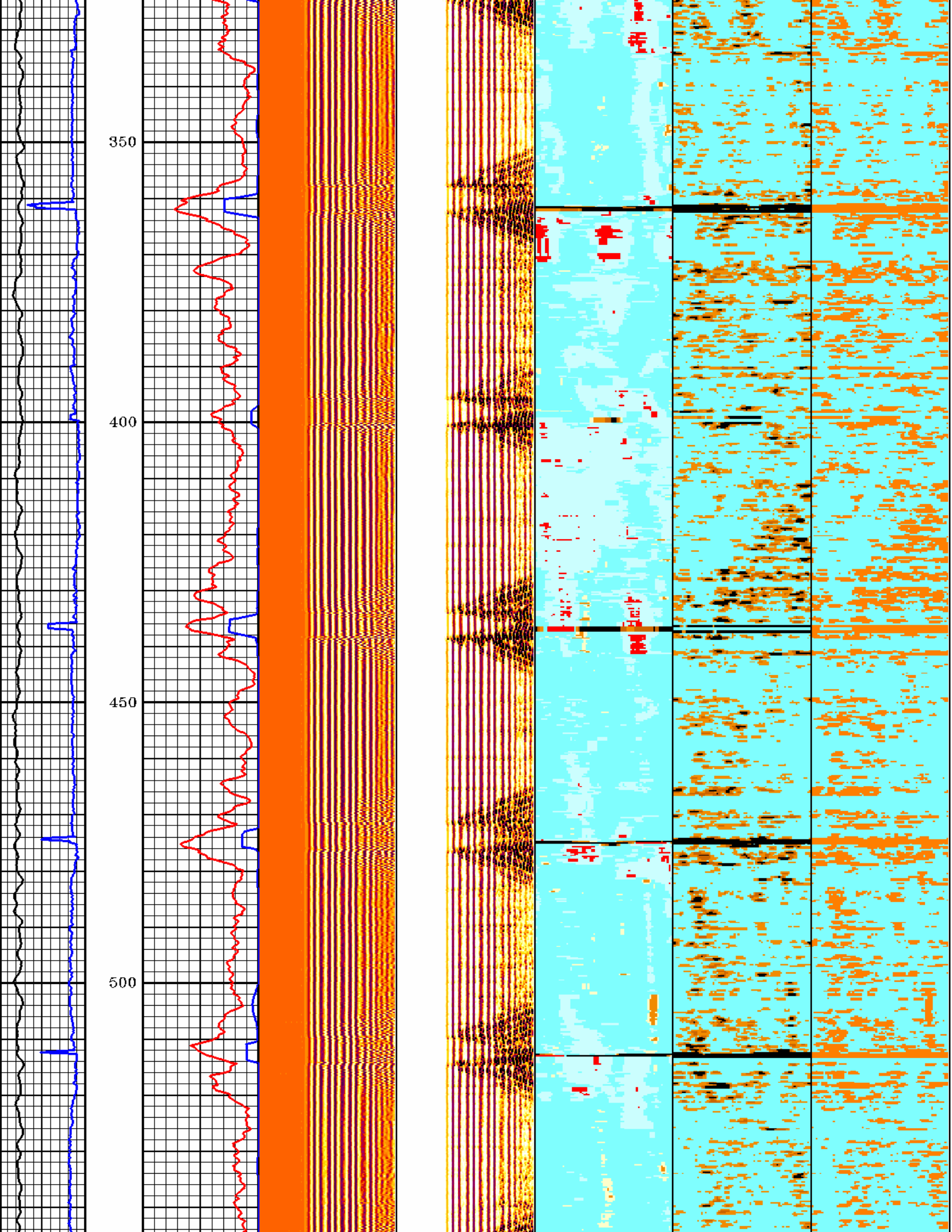
THE MAXIMUM DERIVATIVE FOR LIQUID : 0.20 MEDIUM BLUE
 THE MAXIMUM DERIVATIVE FOR LOW DERIVATIVE CEMENT : 0.40 LIGHT BROWN
 THE MAXIMUM DERIVATIVE FOR MED DERIVATIVE CEMENT : 0.60 DARK BROWN
 THE MINIMUM DERIVATIVE FOR HIGH DERIVATIVE CEMENT : 0.60 BLACK

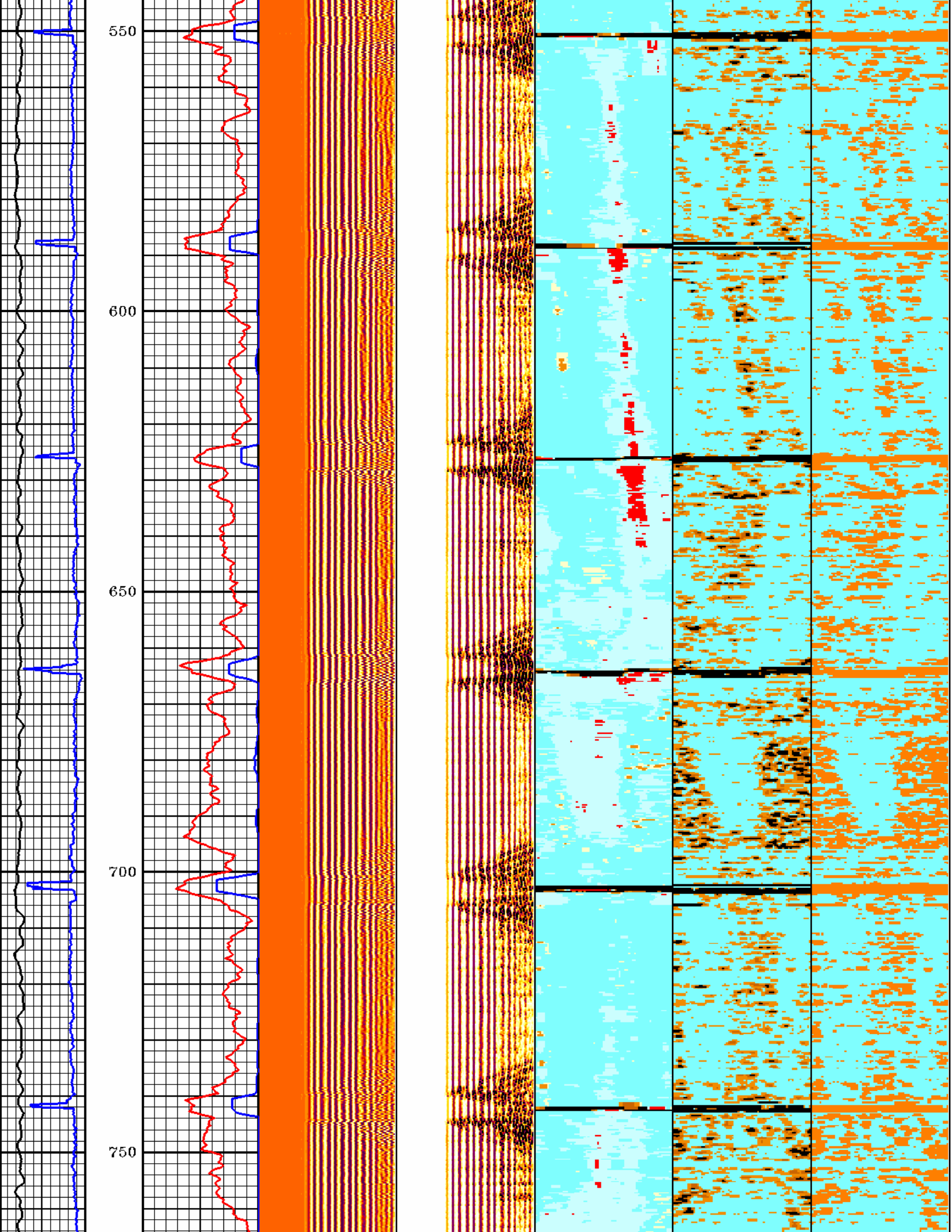
CEMENT MAP

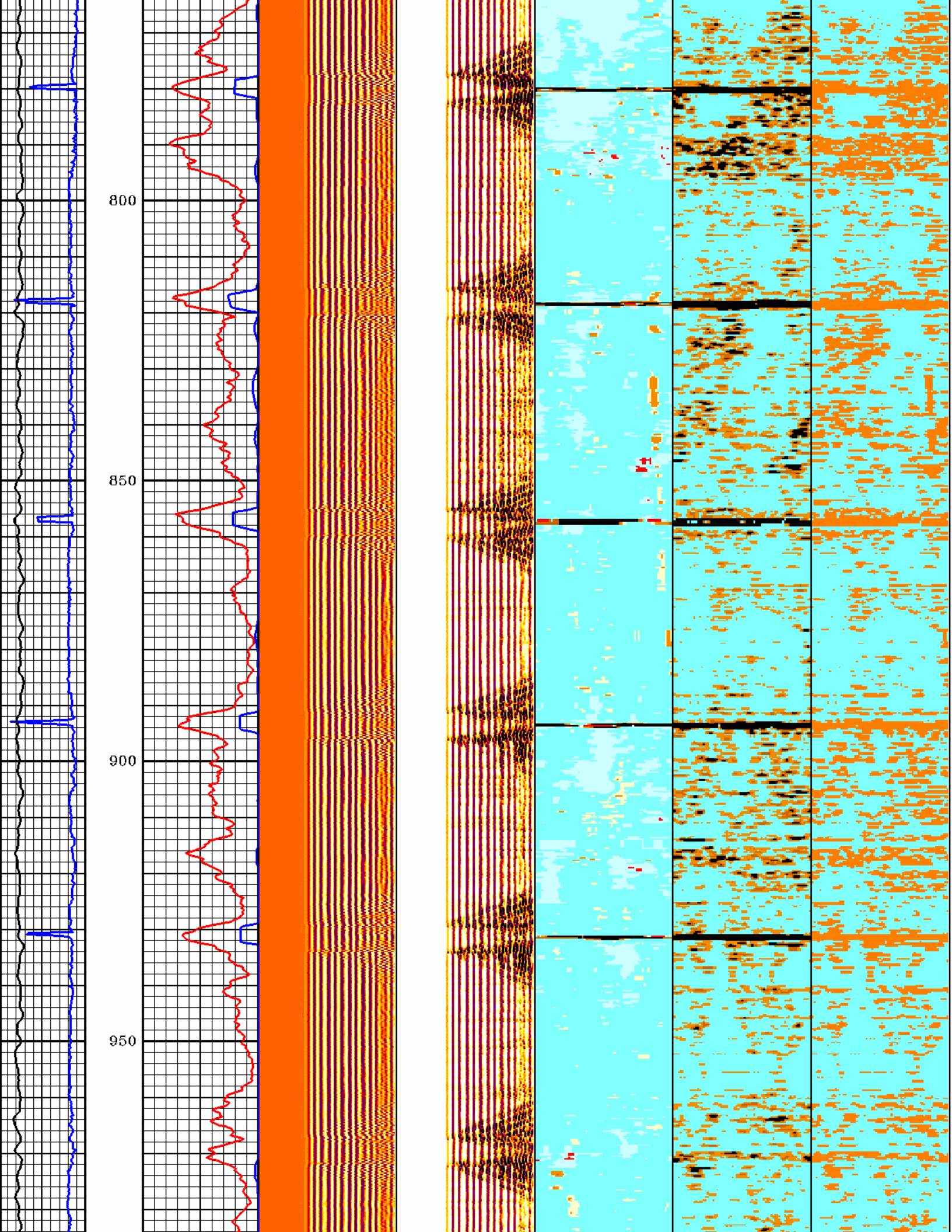
FOR FLUIDS DZ IS LESS THAN DZWAT OF : 0.20
 AND ZP IS LESS THAN CEMLM OF : 2.70

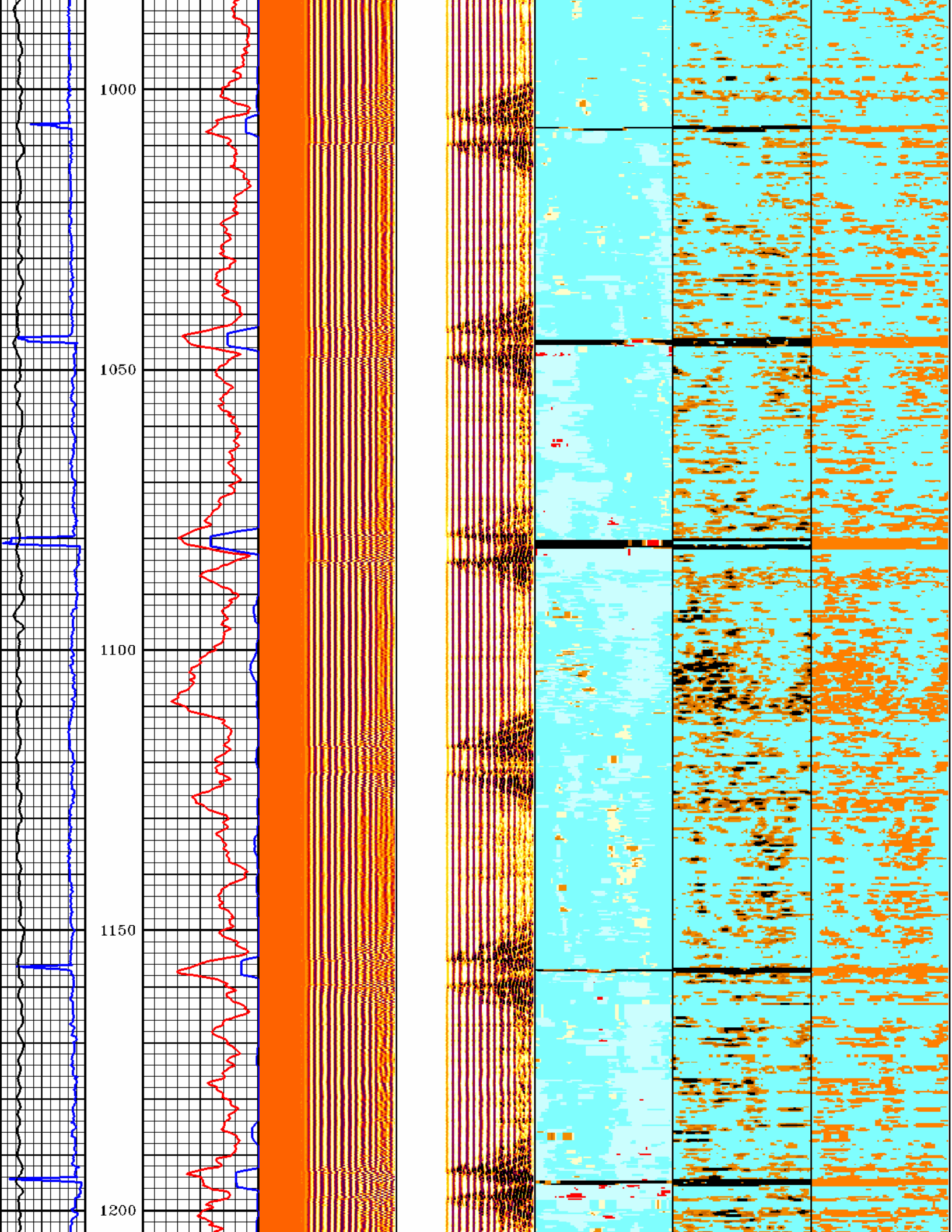
FLUIDS ARE MEDIUM BLUE WHILE SOLIDS OR CEMENTS ARE DARK BROWN

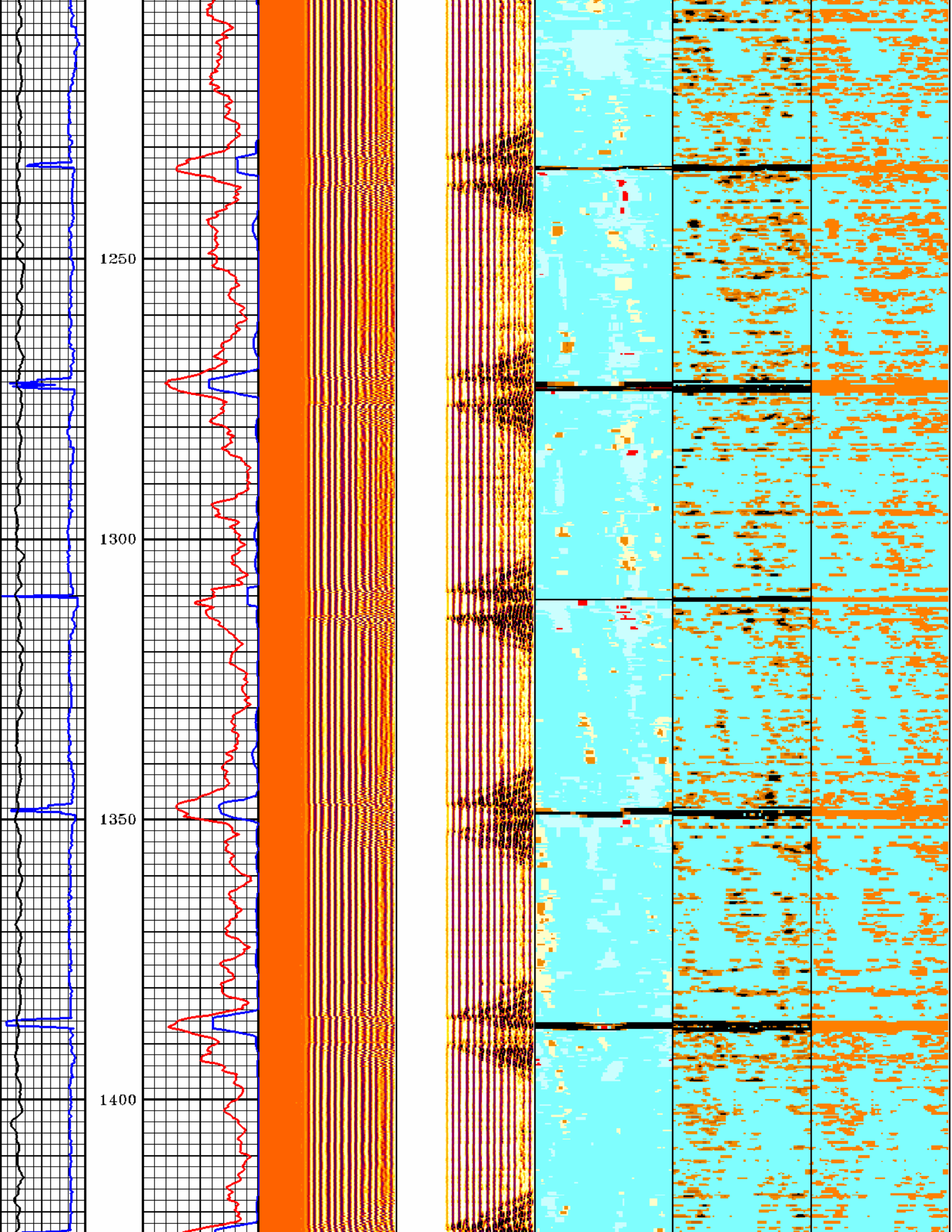


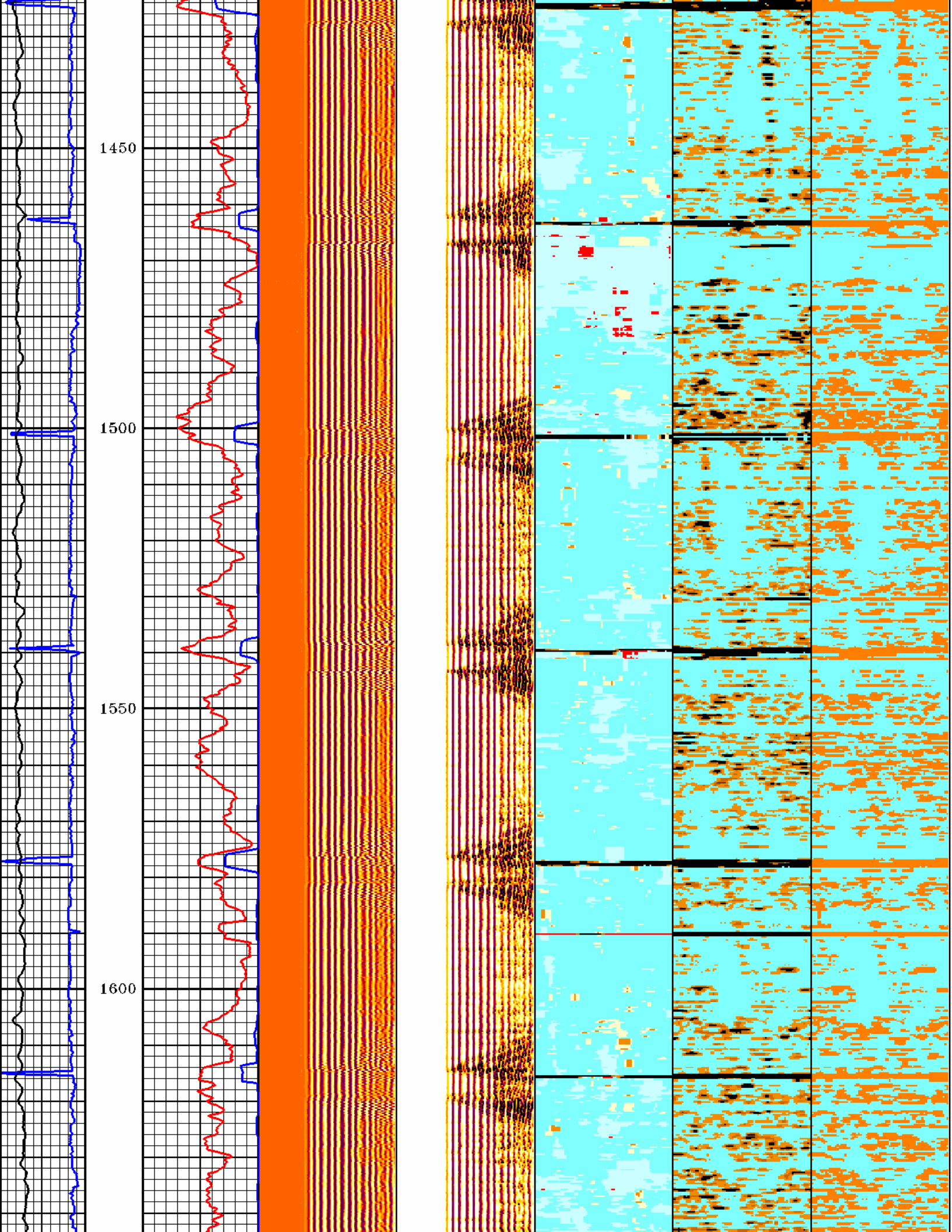


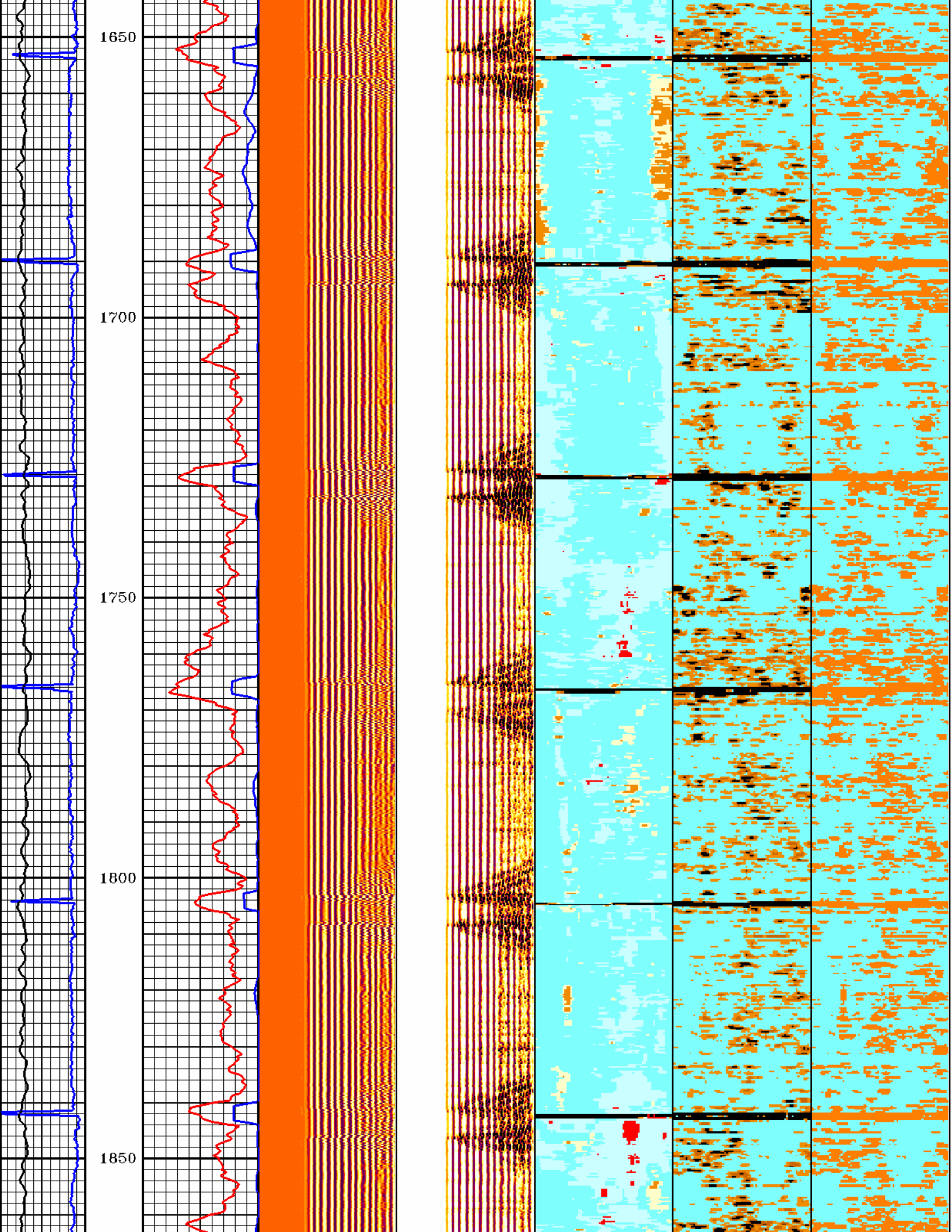


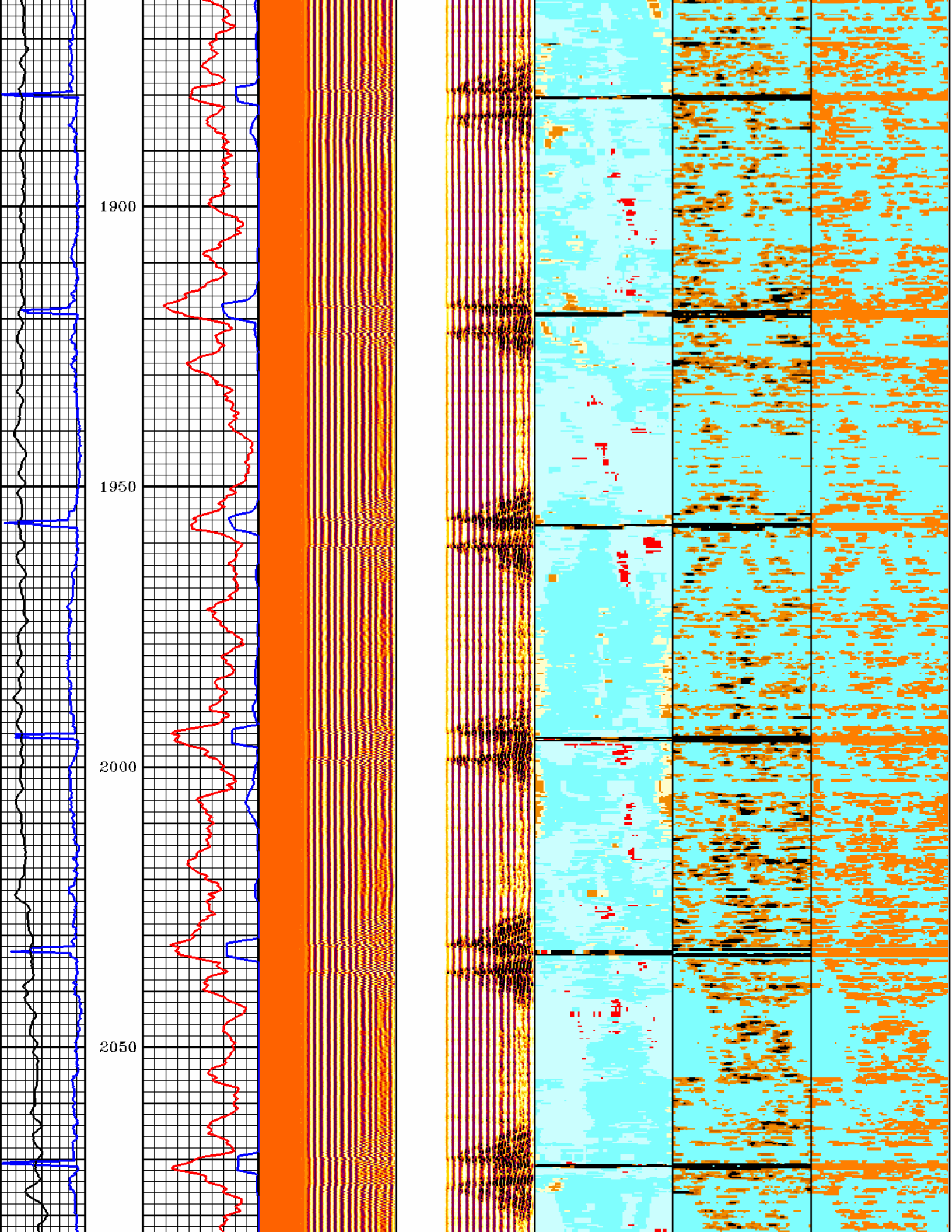


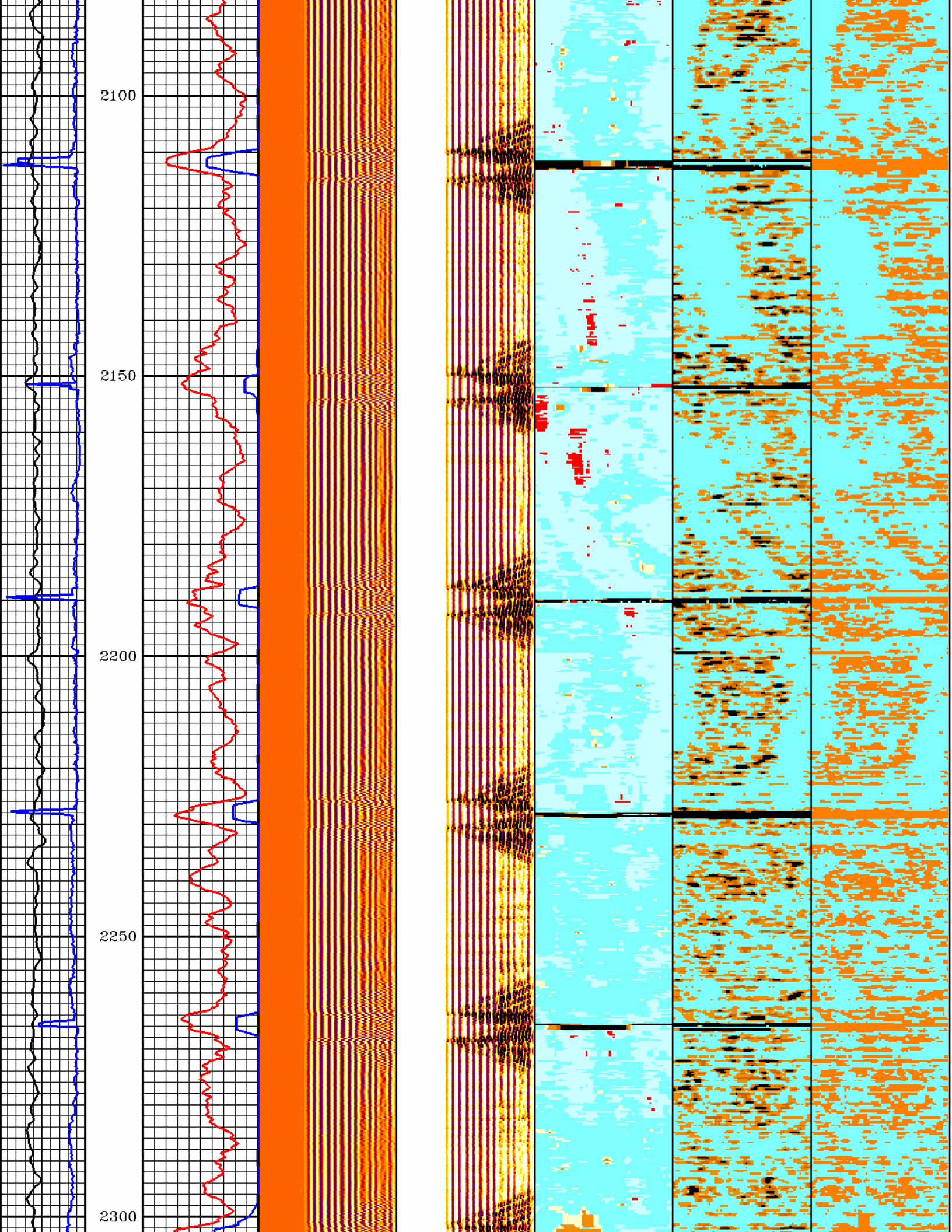


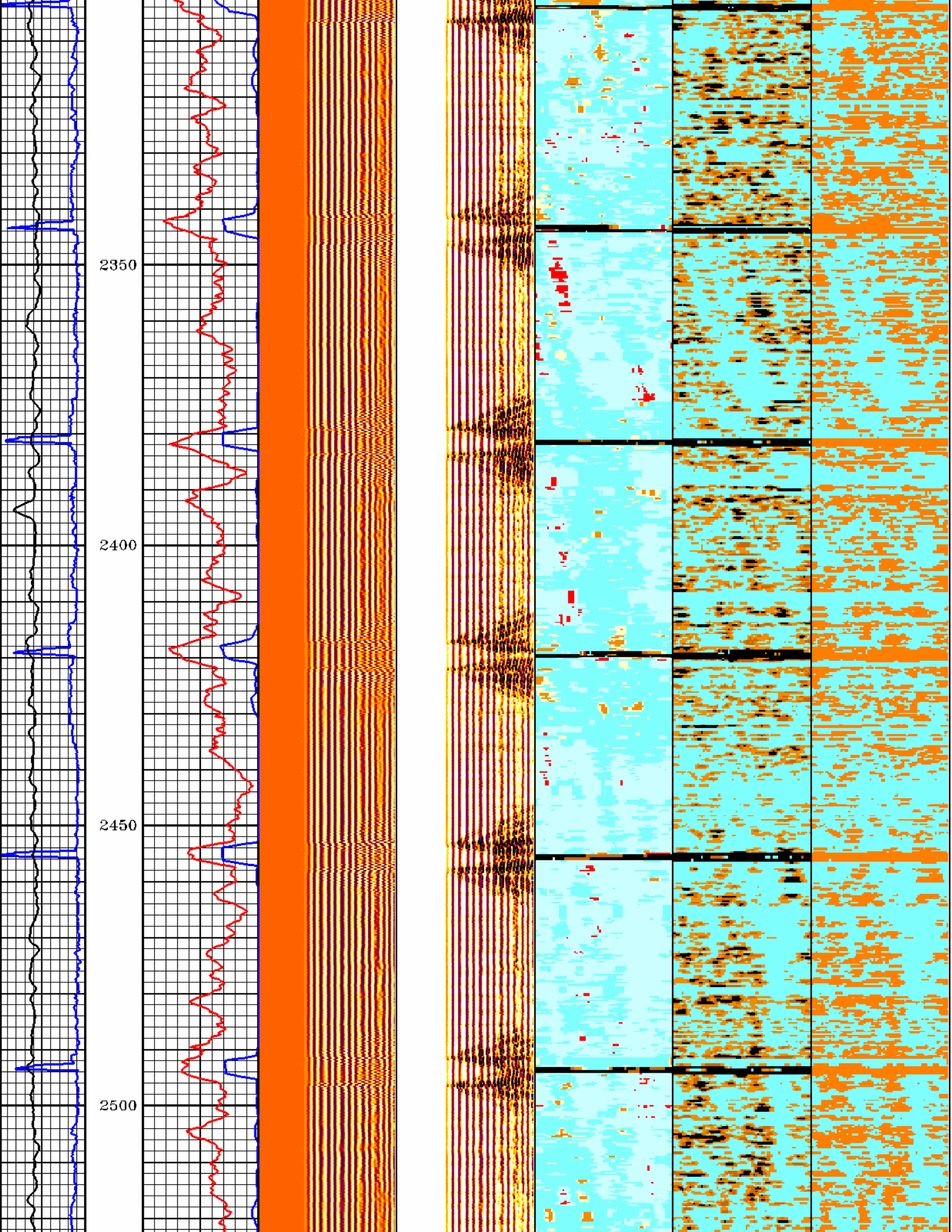


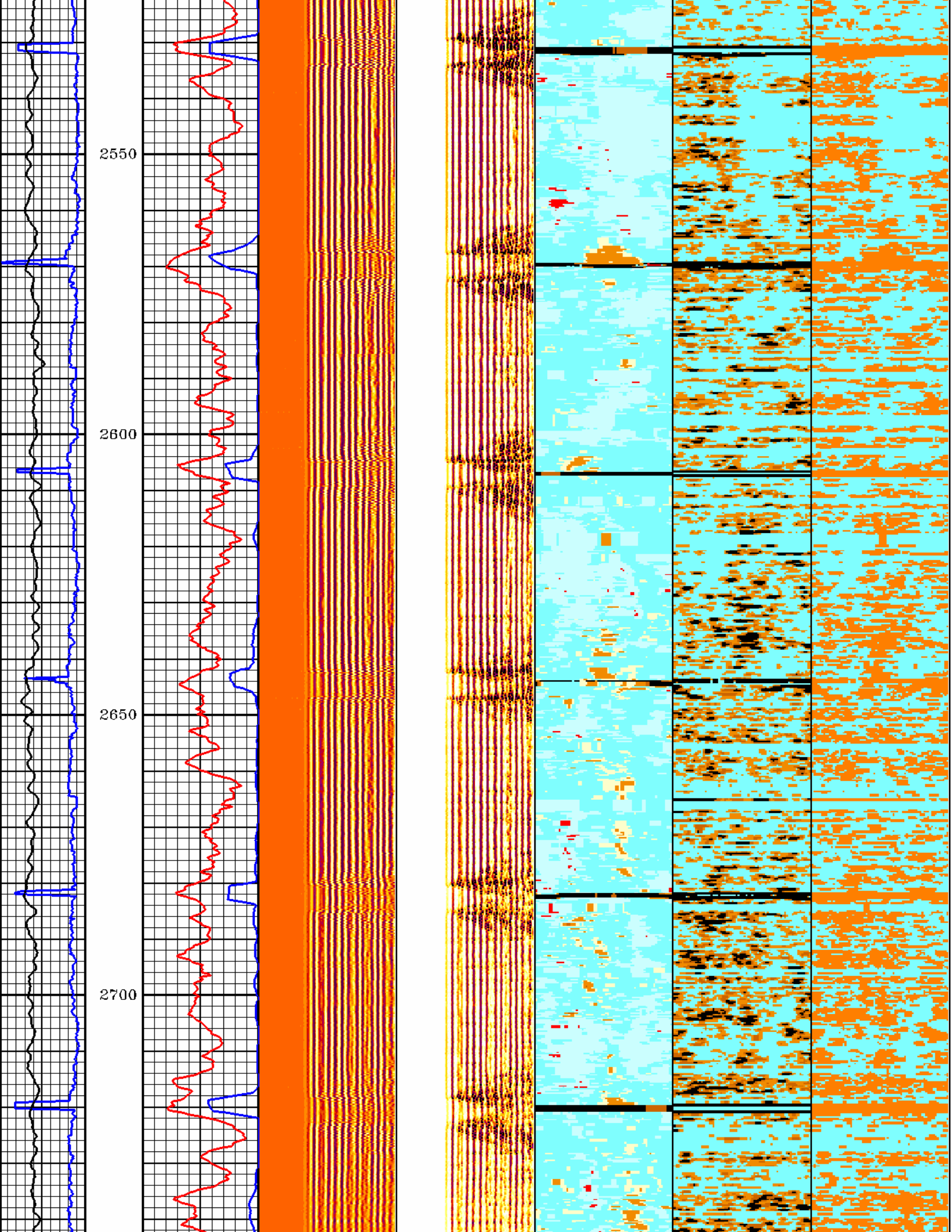


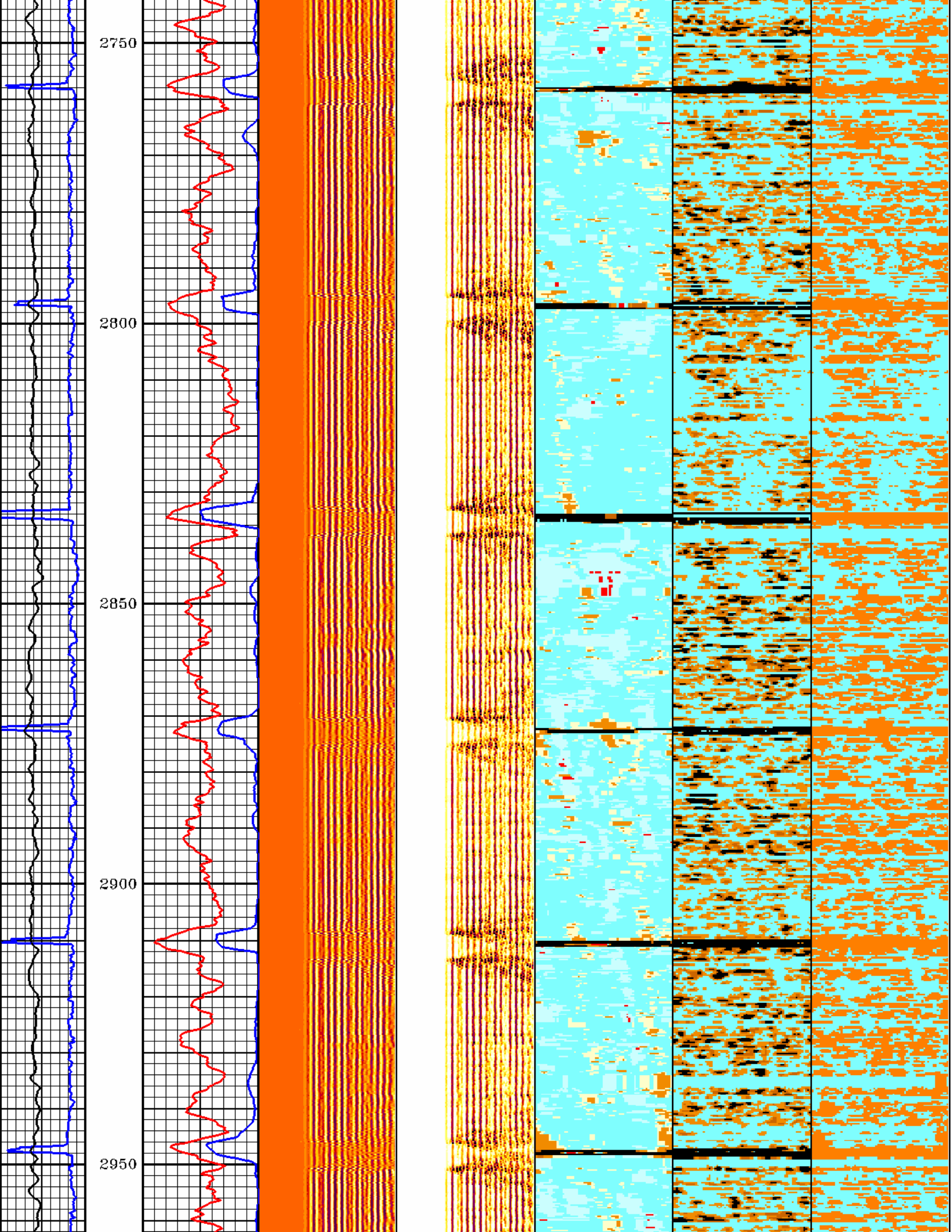


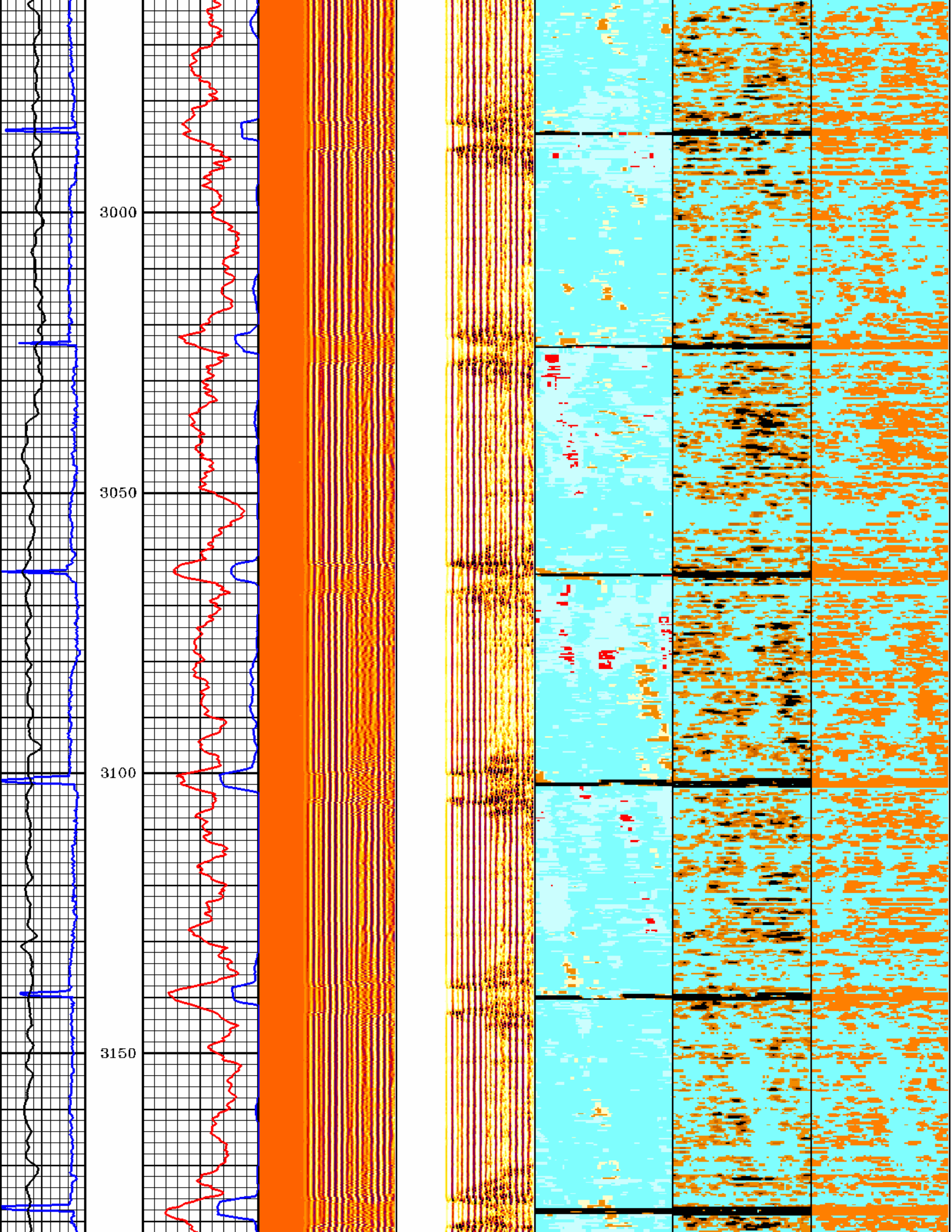


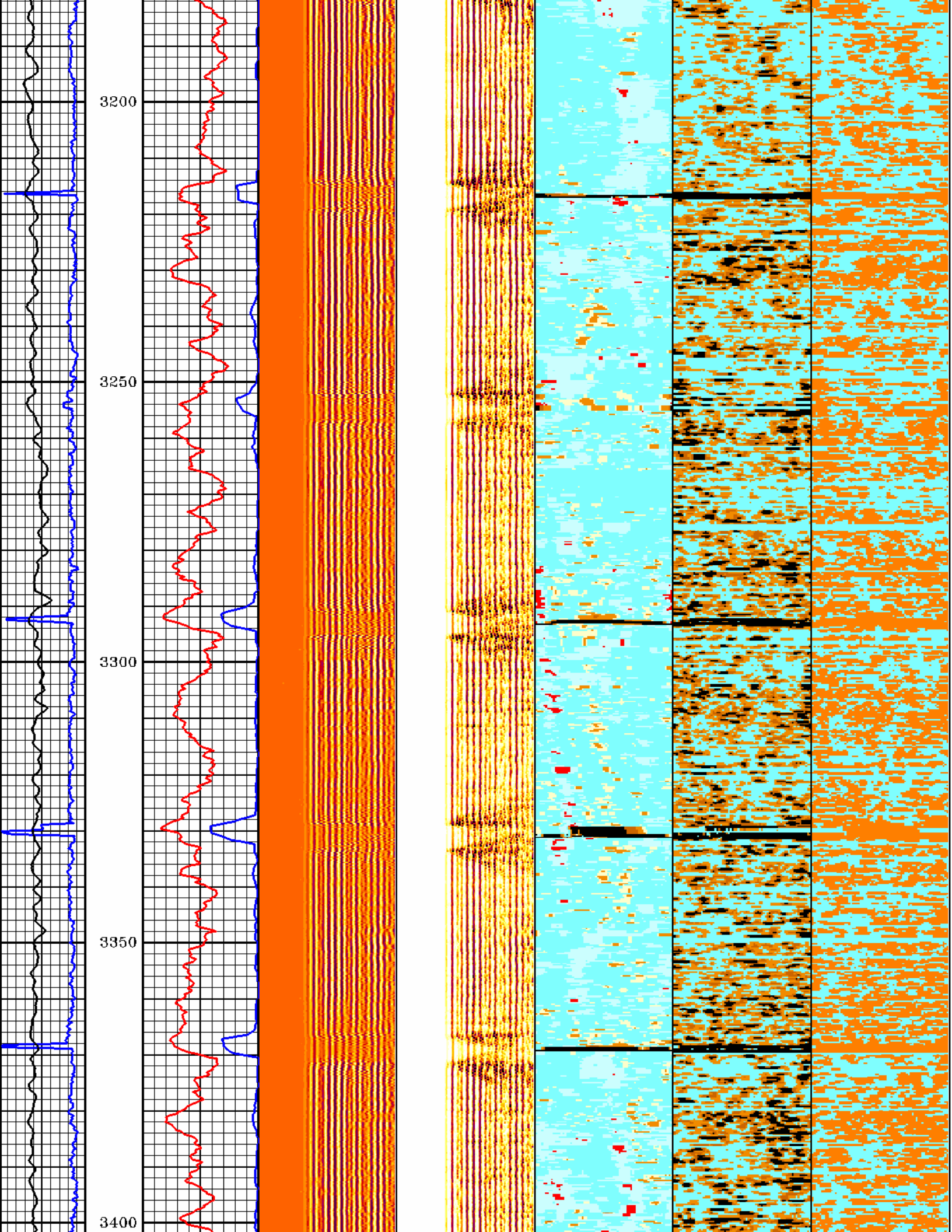


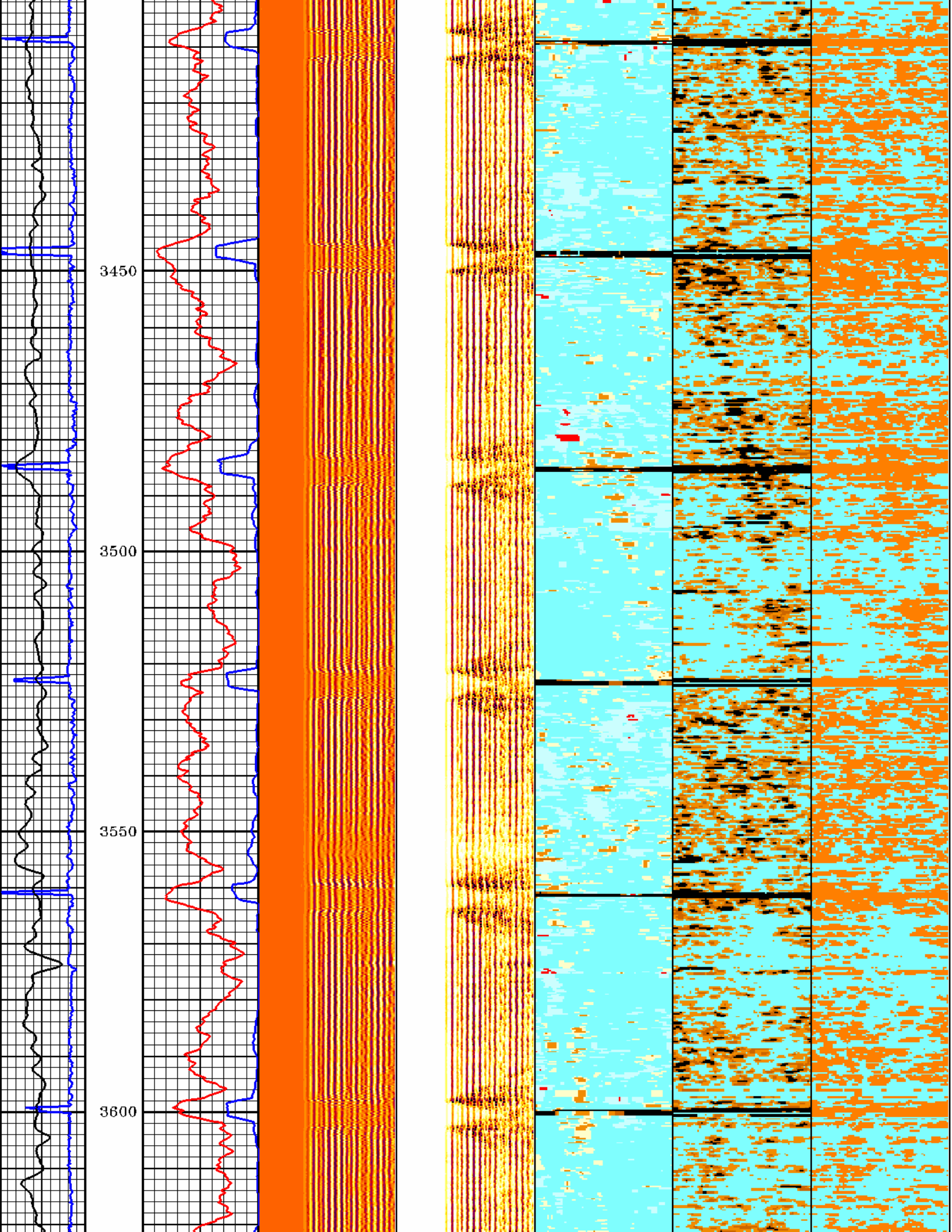


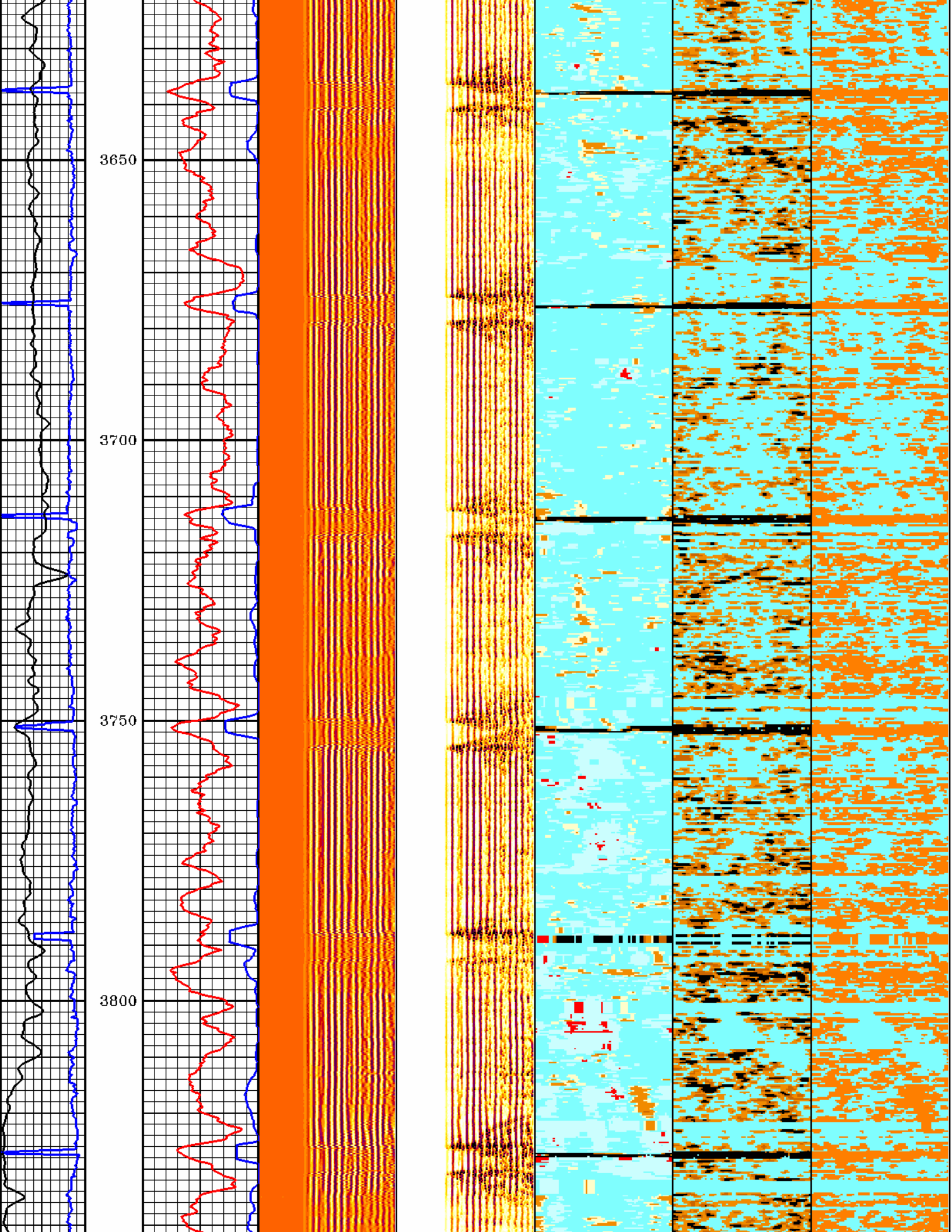


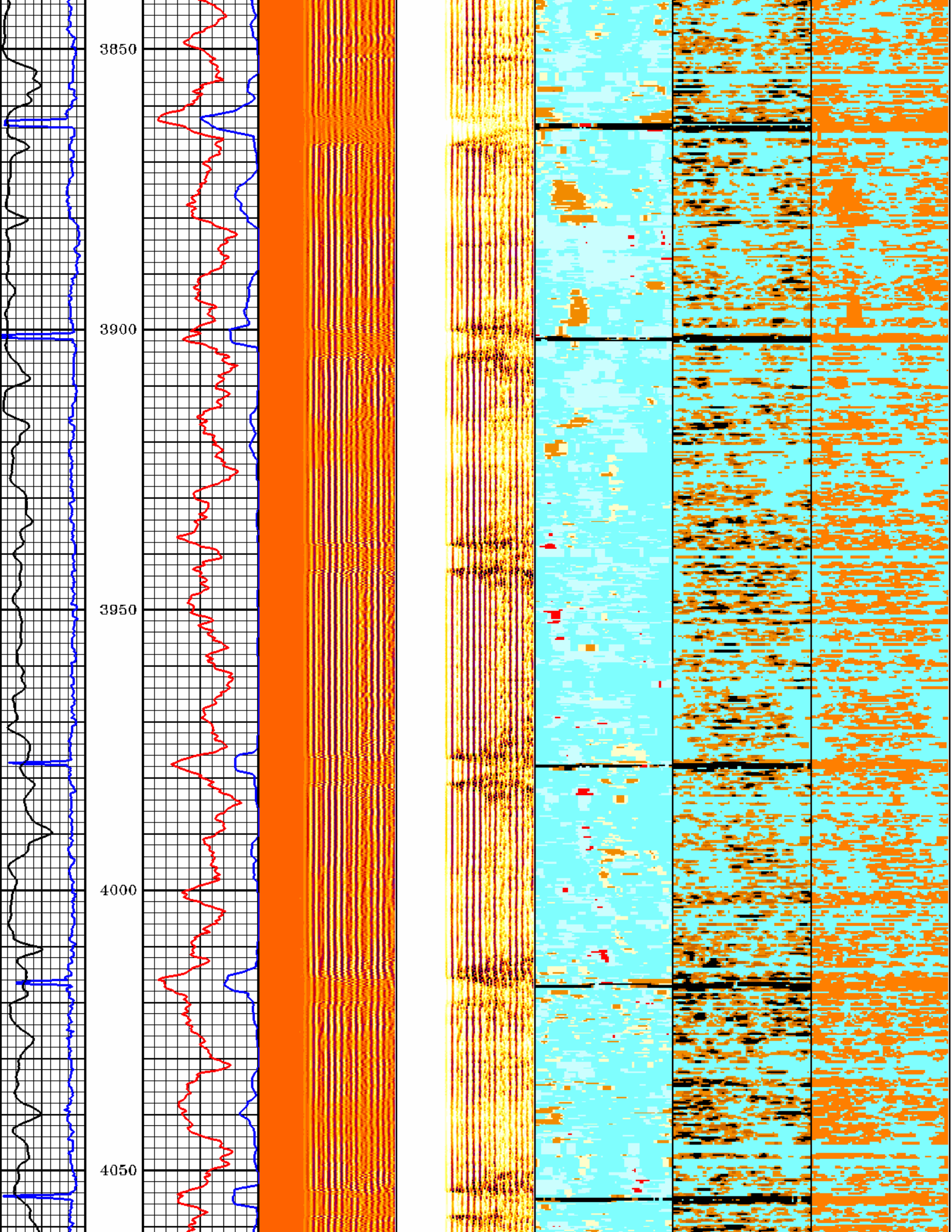


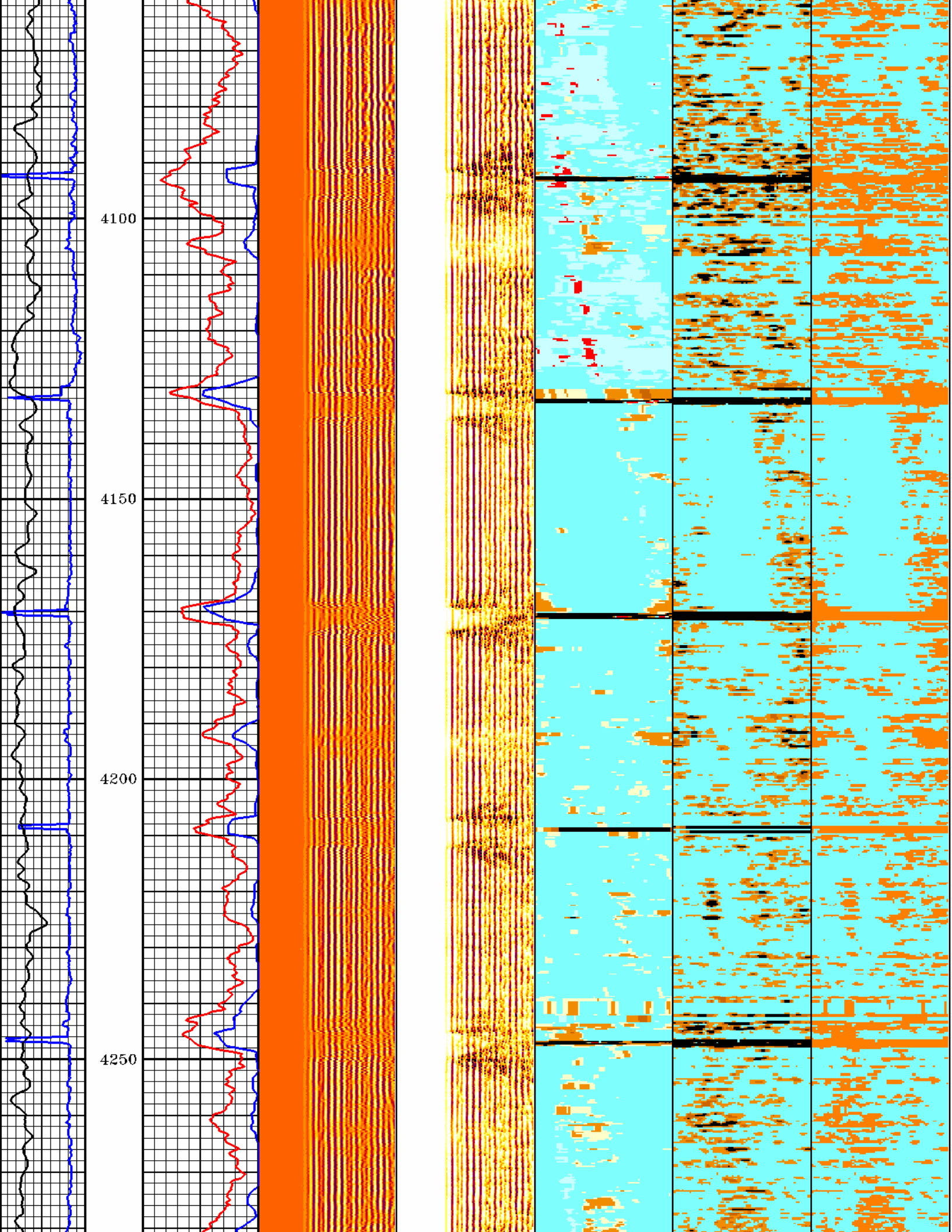


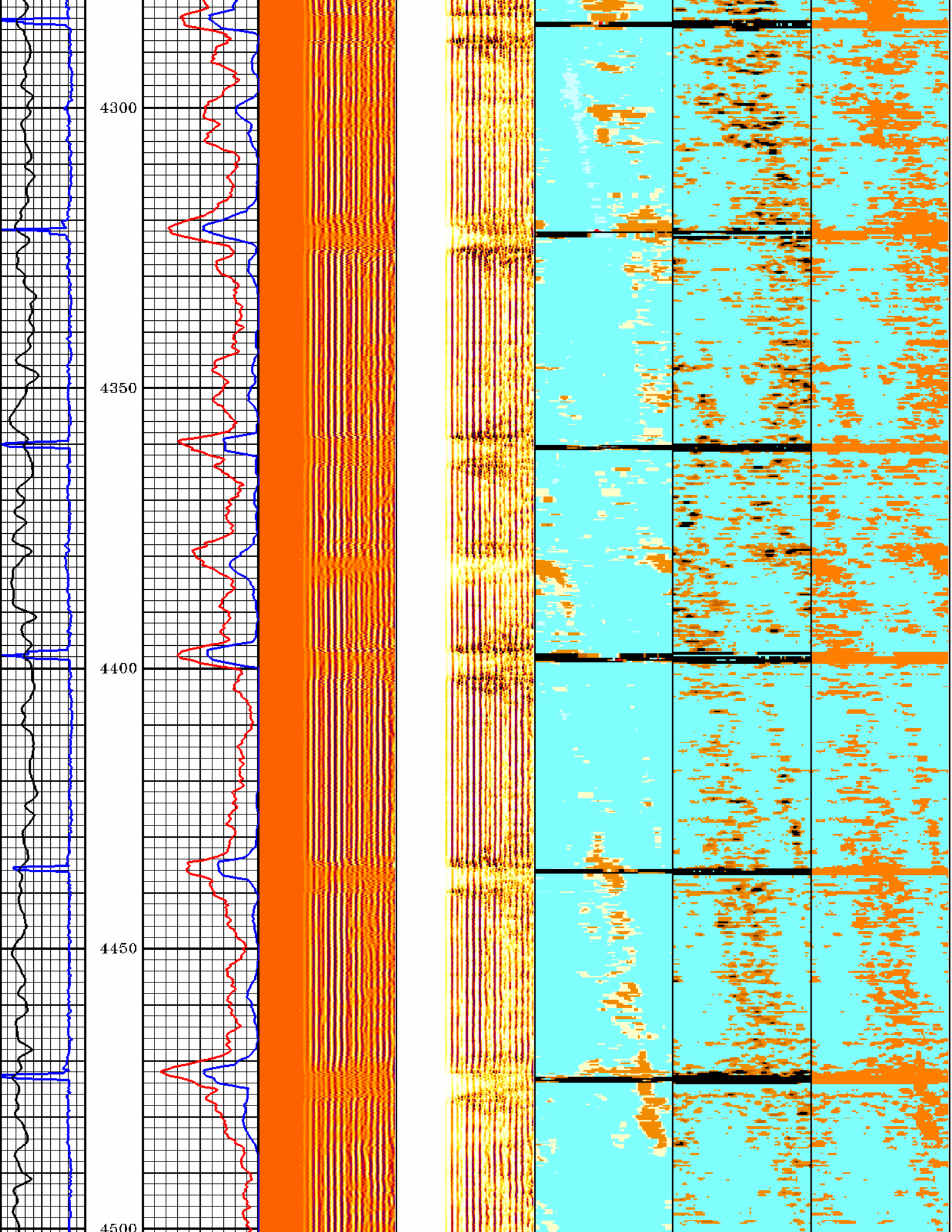


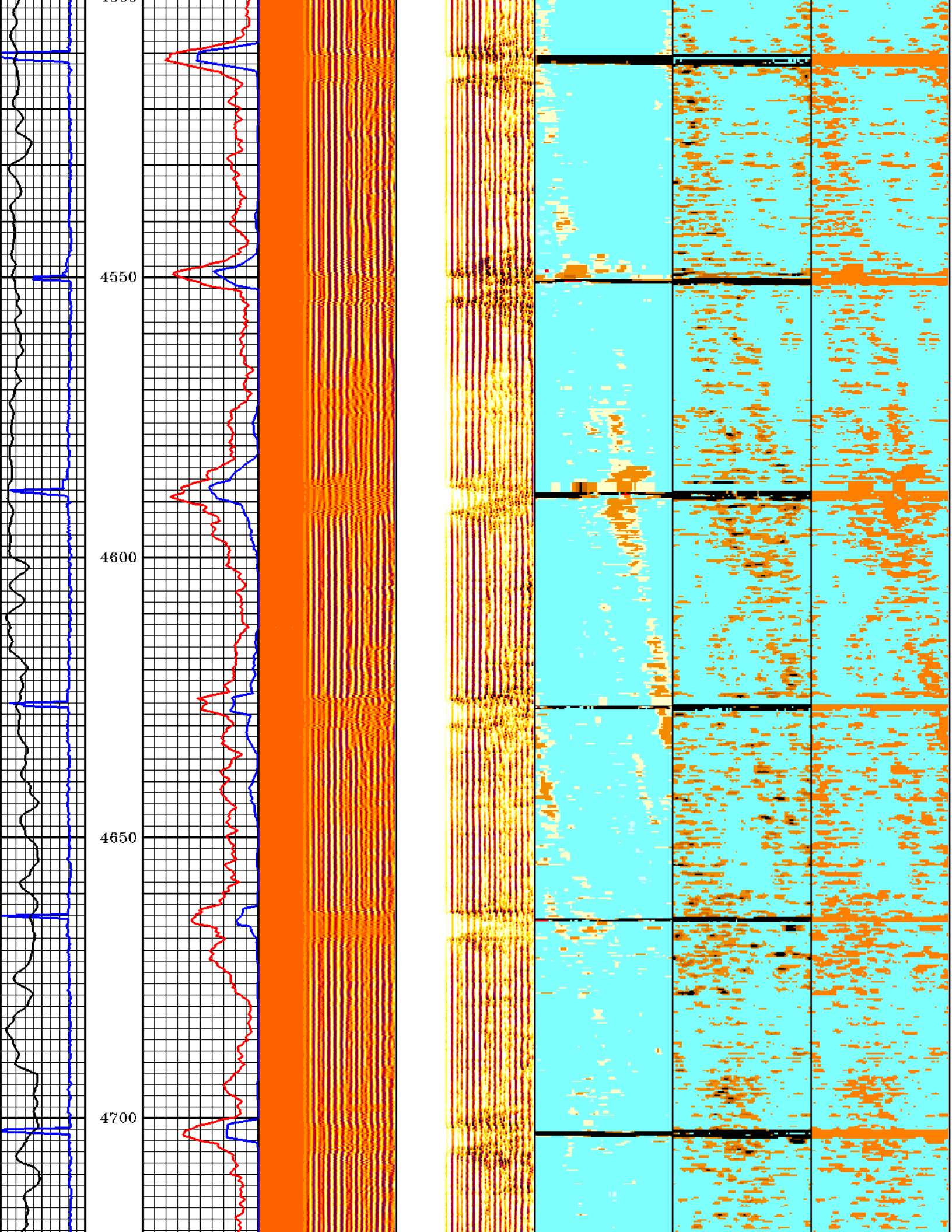


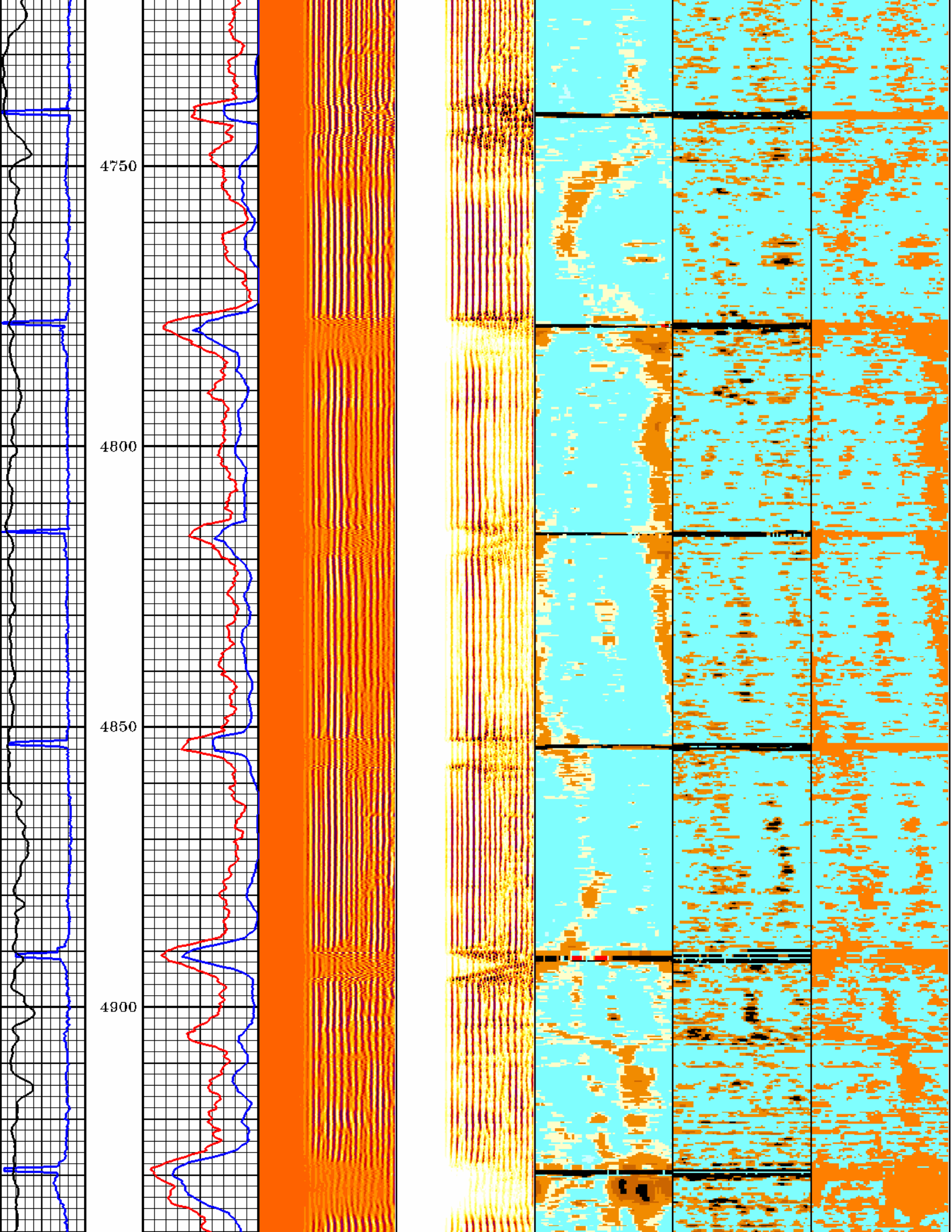


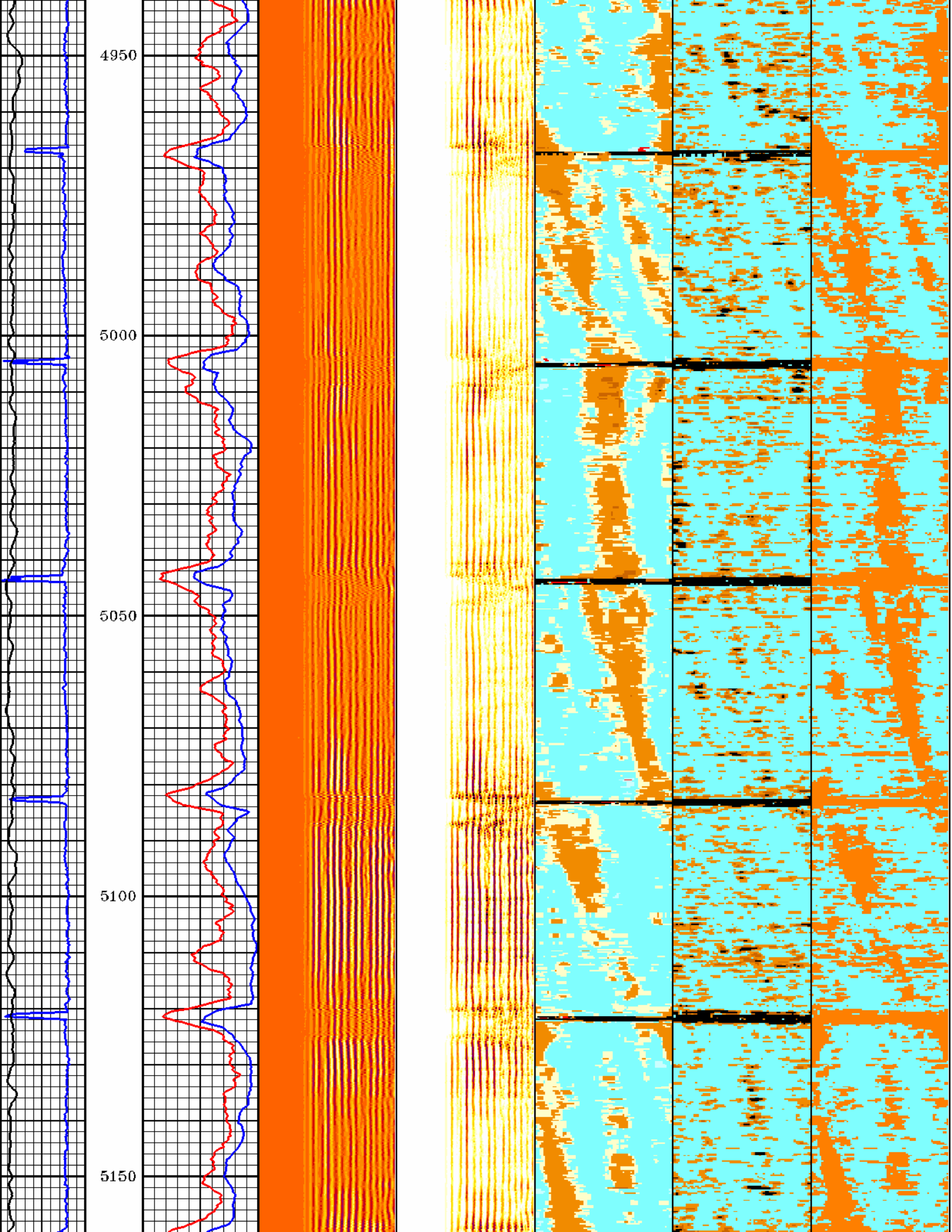


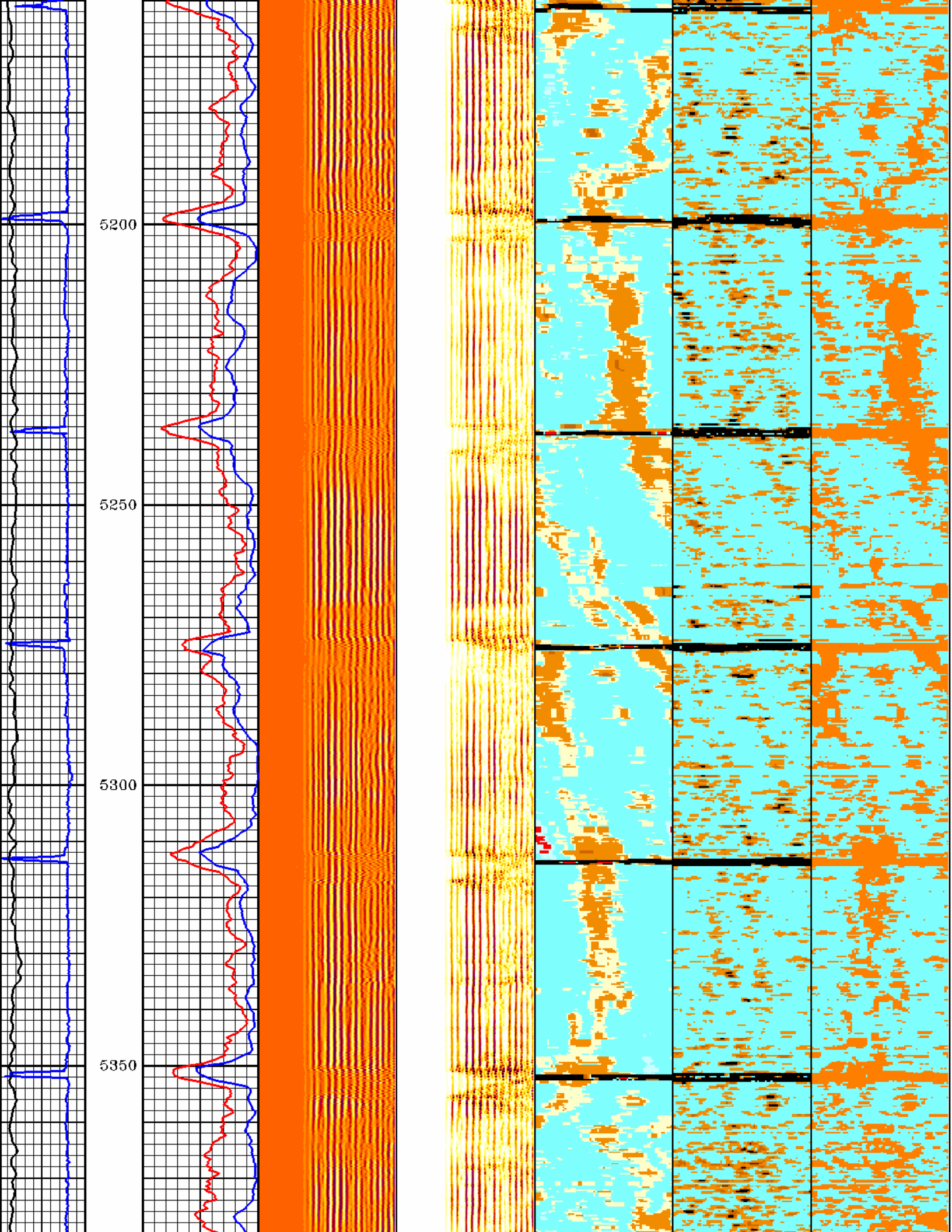


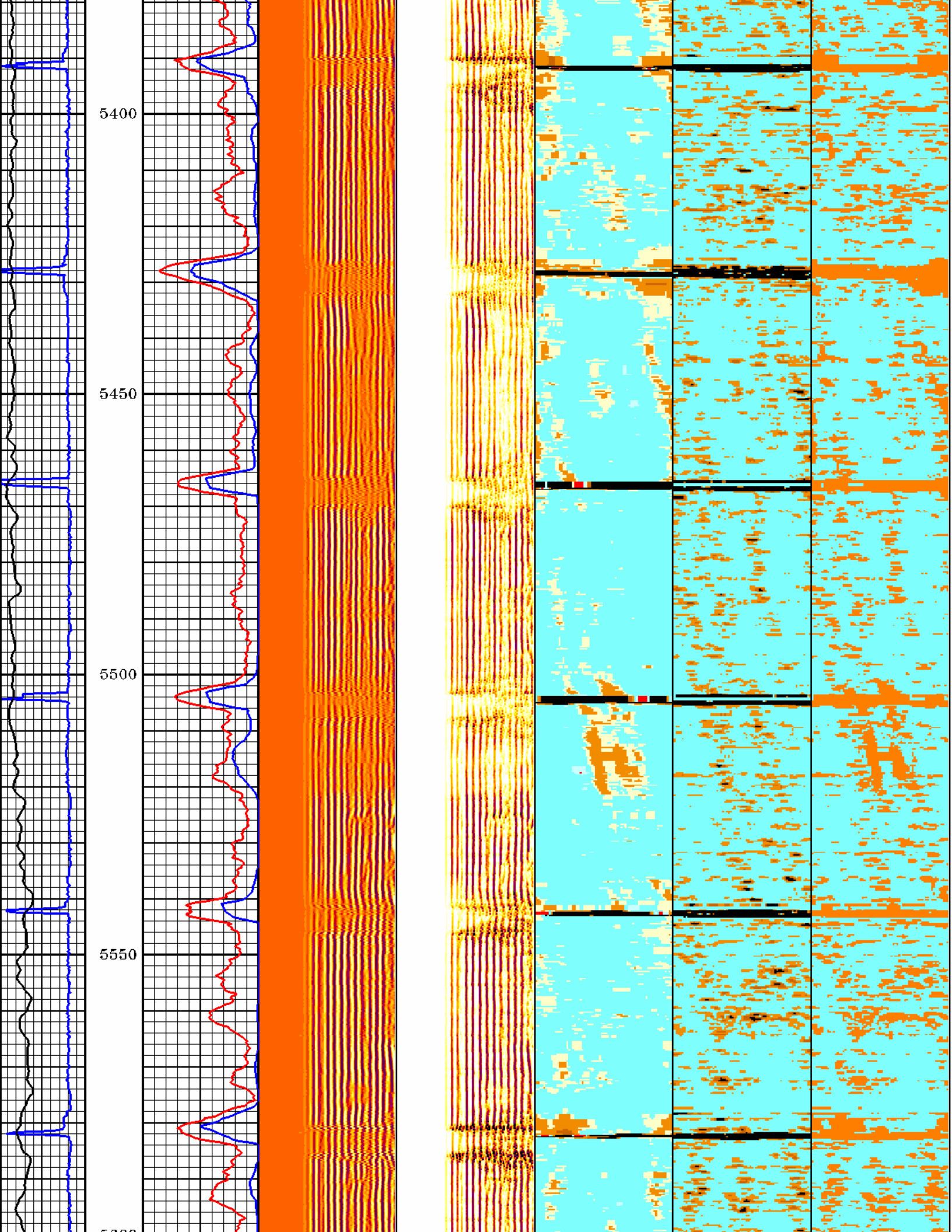


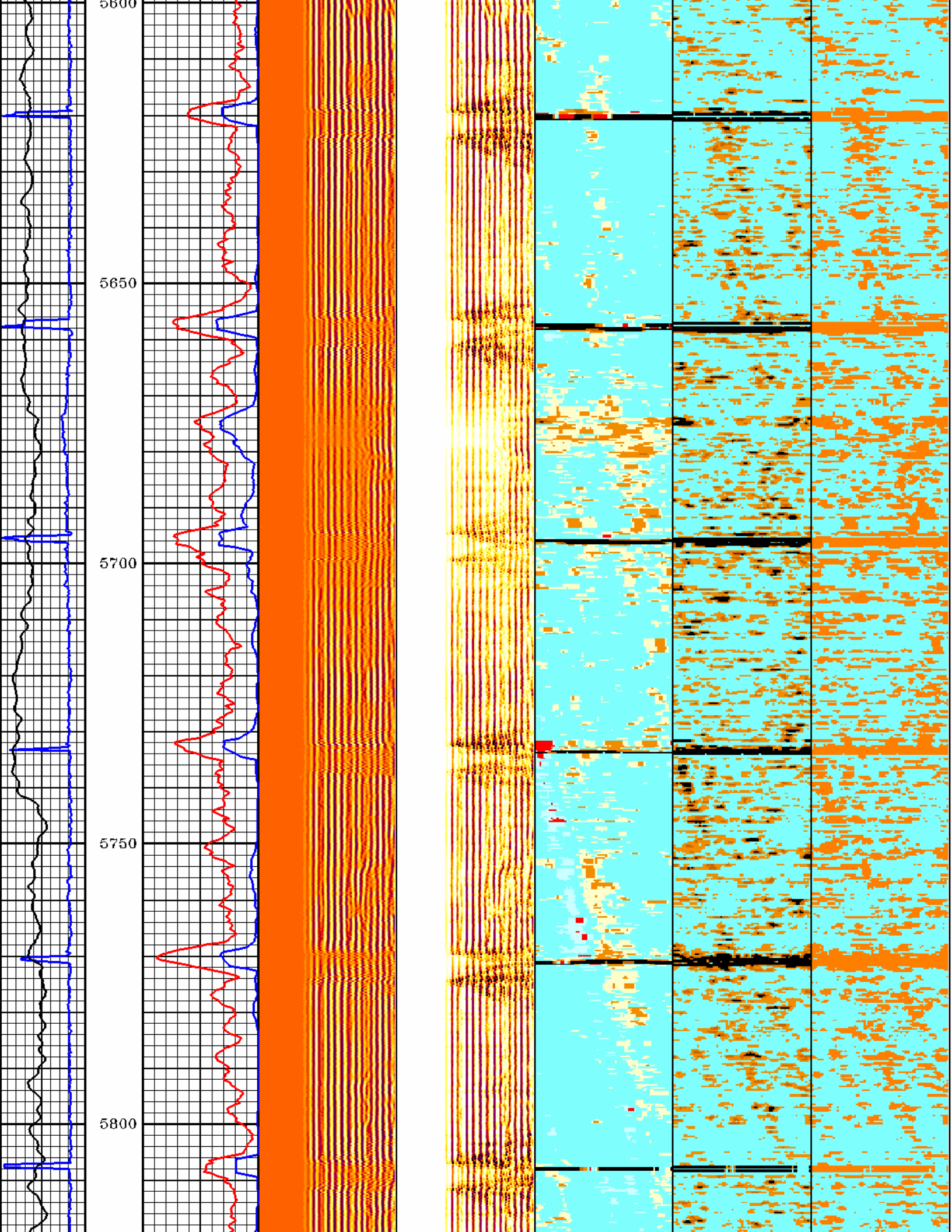


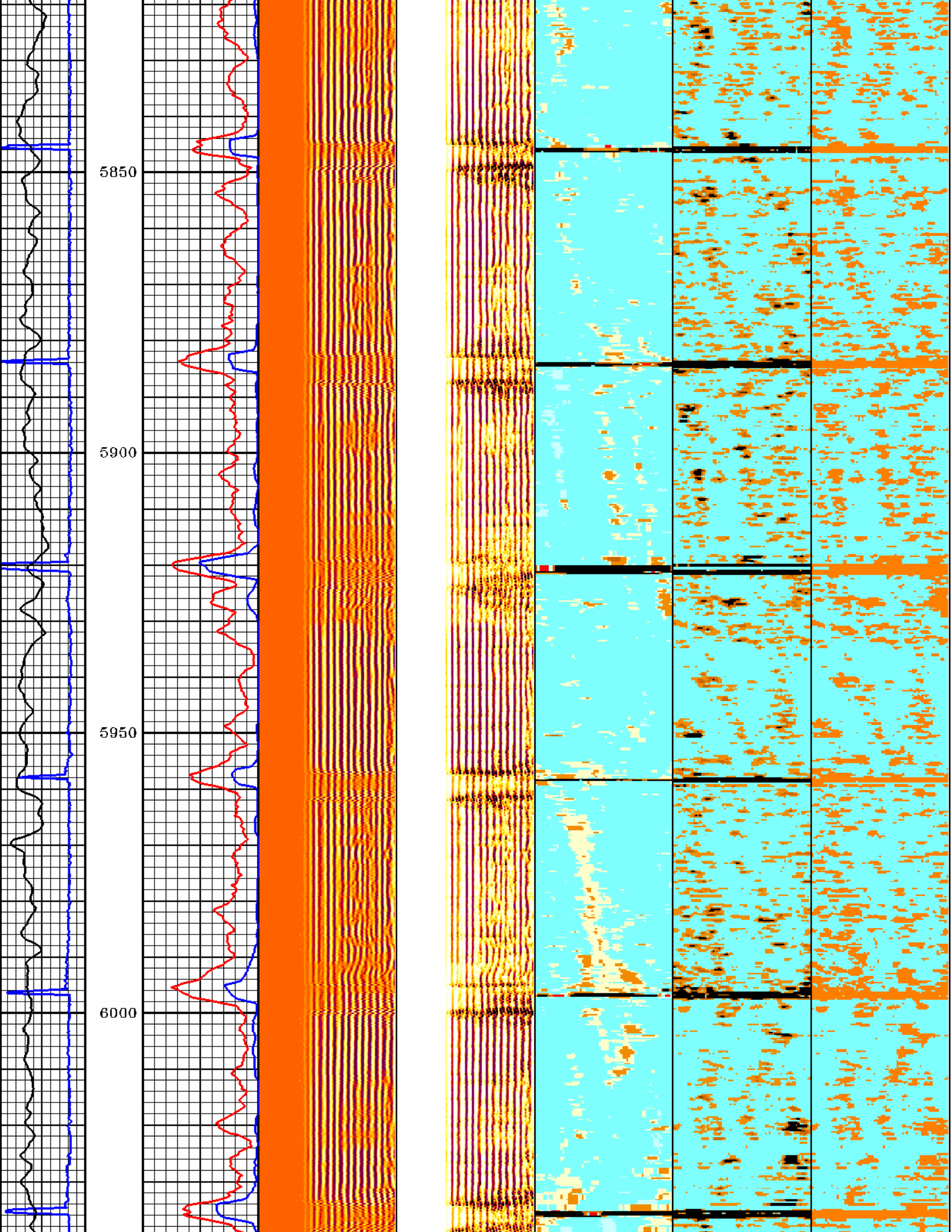


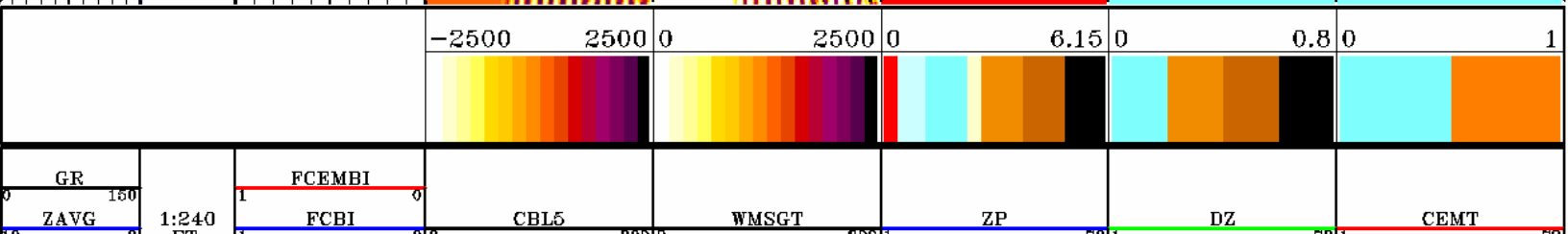
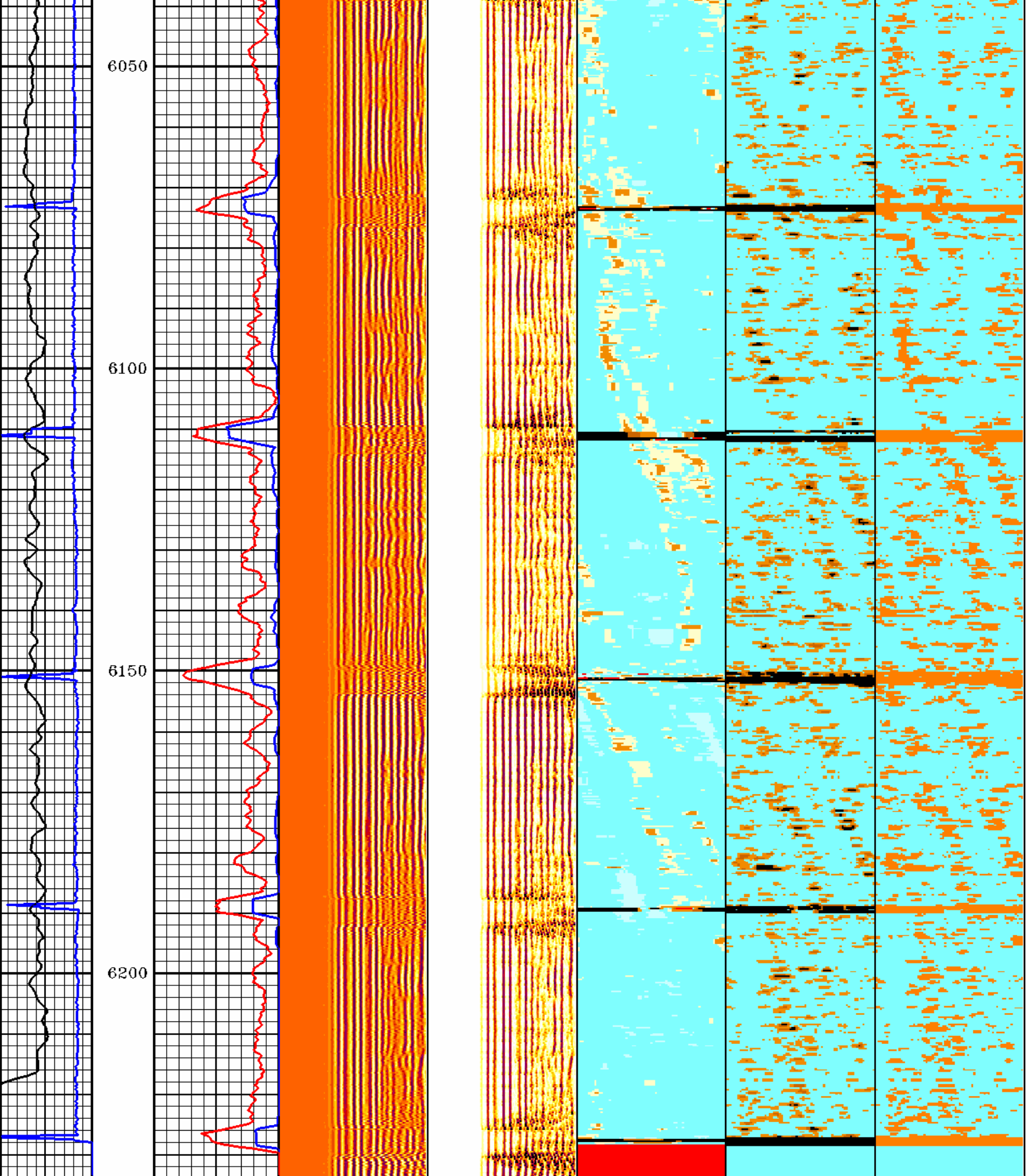












CORRELATION	CEMENT DATA	CBL WAVEFORM	CBL WAVEFORM TOTAL	IMPEDANCE	DERIVATIVE	CEMENT
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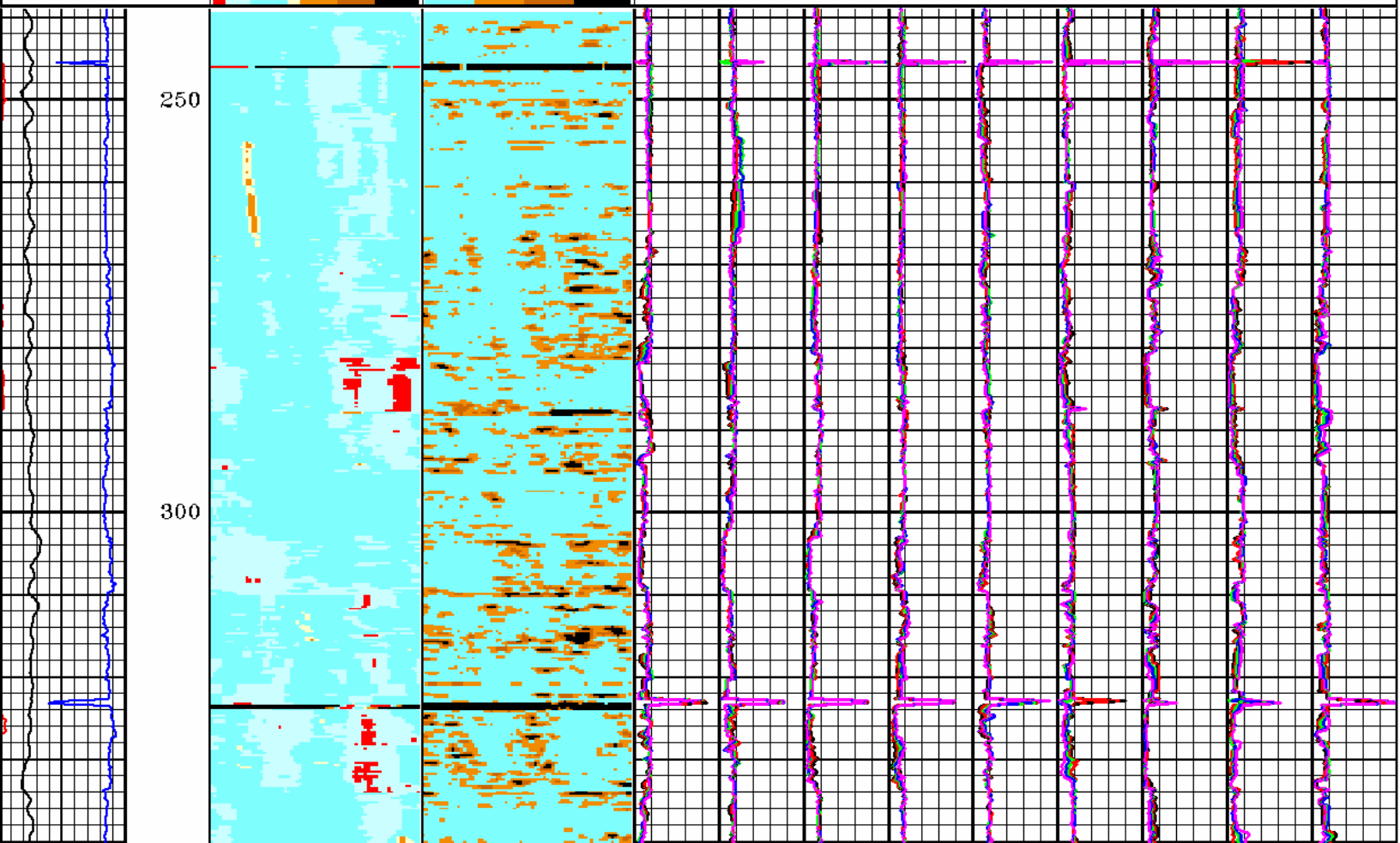
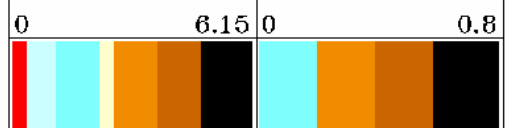
HALLIBURTON

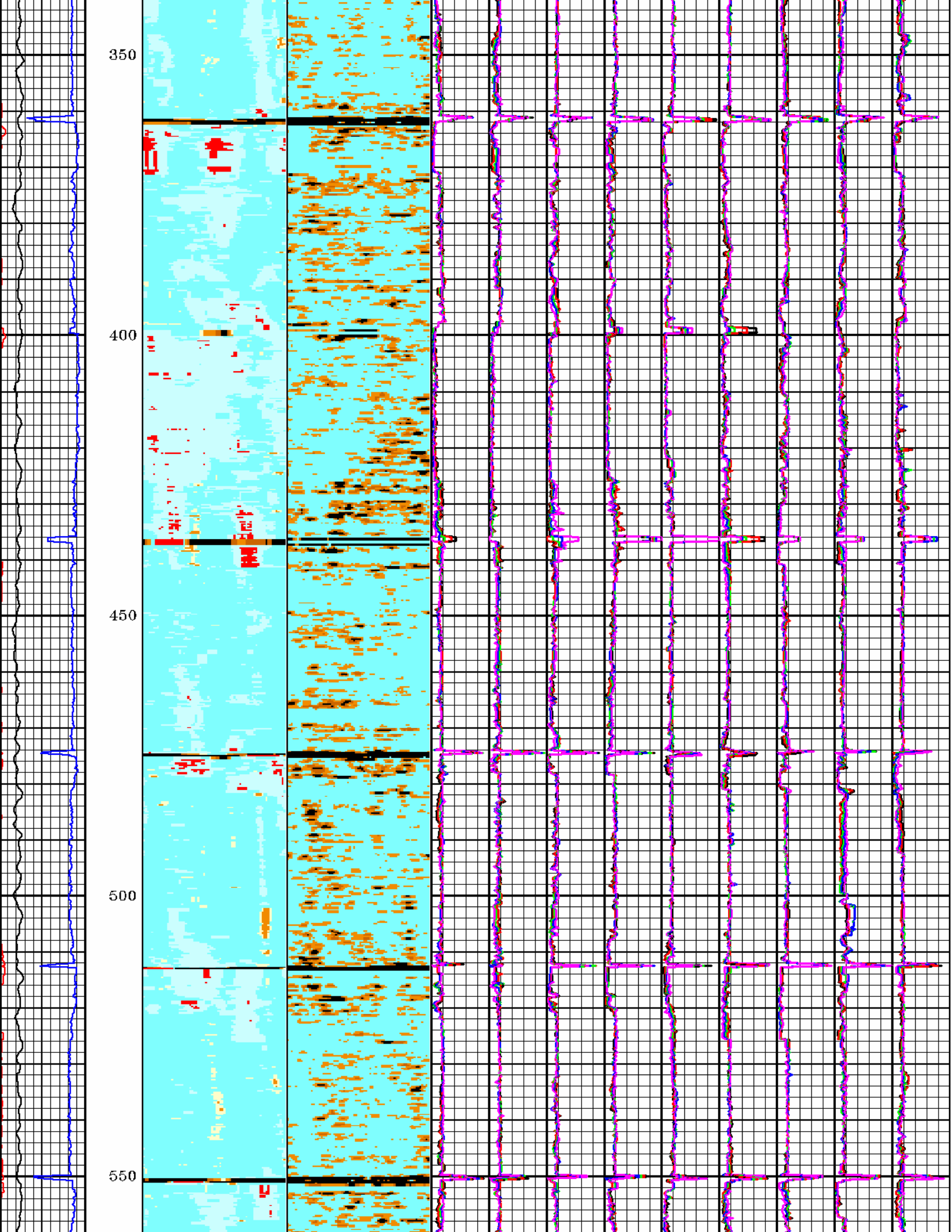
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 Format File: Face.spc
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 Database Time: 10:00:26
 Top Depth: 239.00
 Bottom Depth: 6234.29

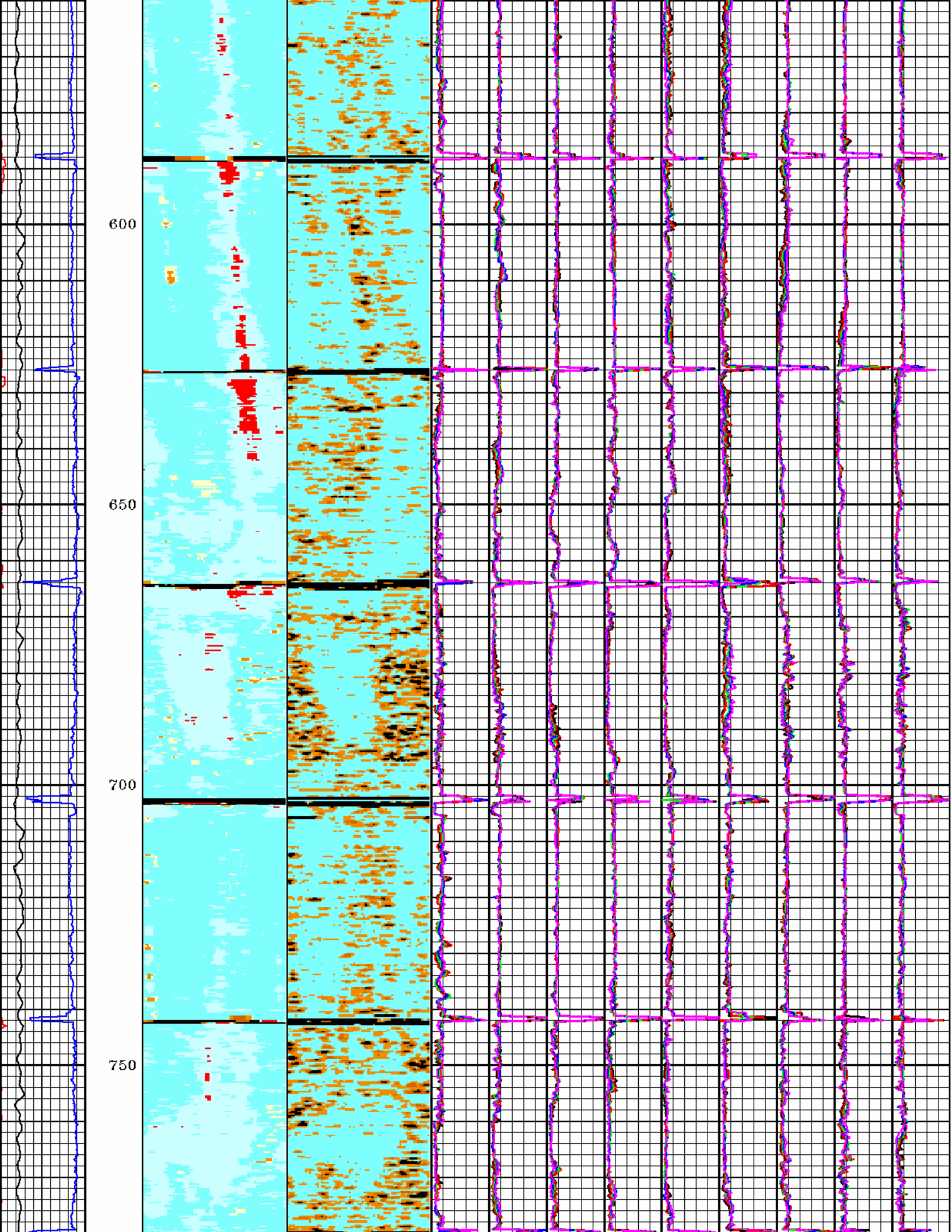
HALLIBURTON

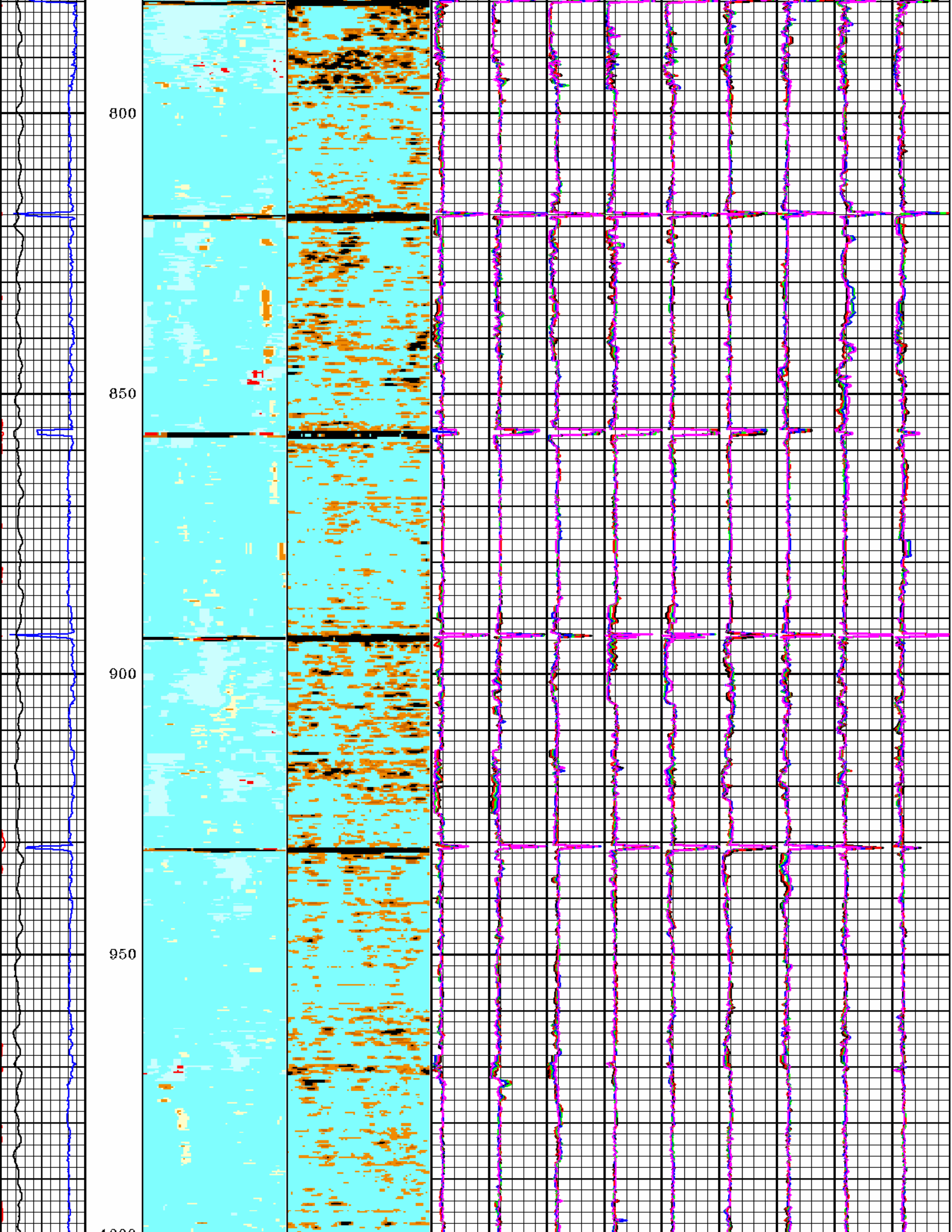
Version No: | hc:3.0
 Data File: ACE.cls
 Format File: M72-face_seg_curves.spc
 Plot Time: 2011-09-08 10:34:31
 Database Time: 10:00:26
 Top Depth: 239.00
 Bottom Depth: 6234.29

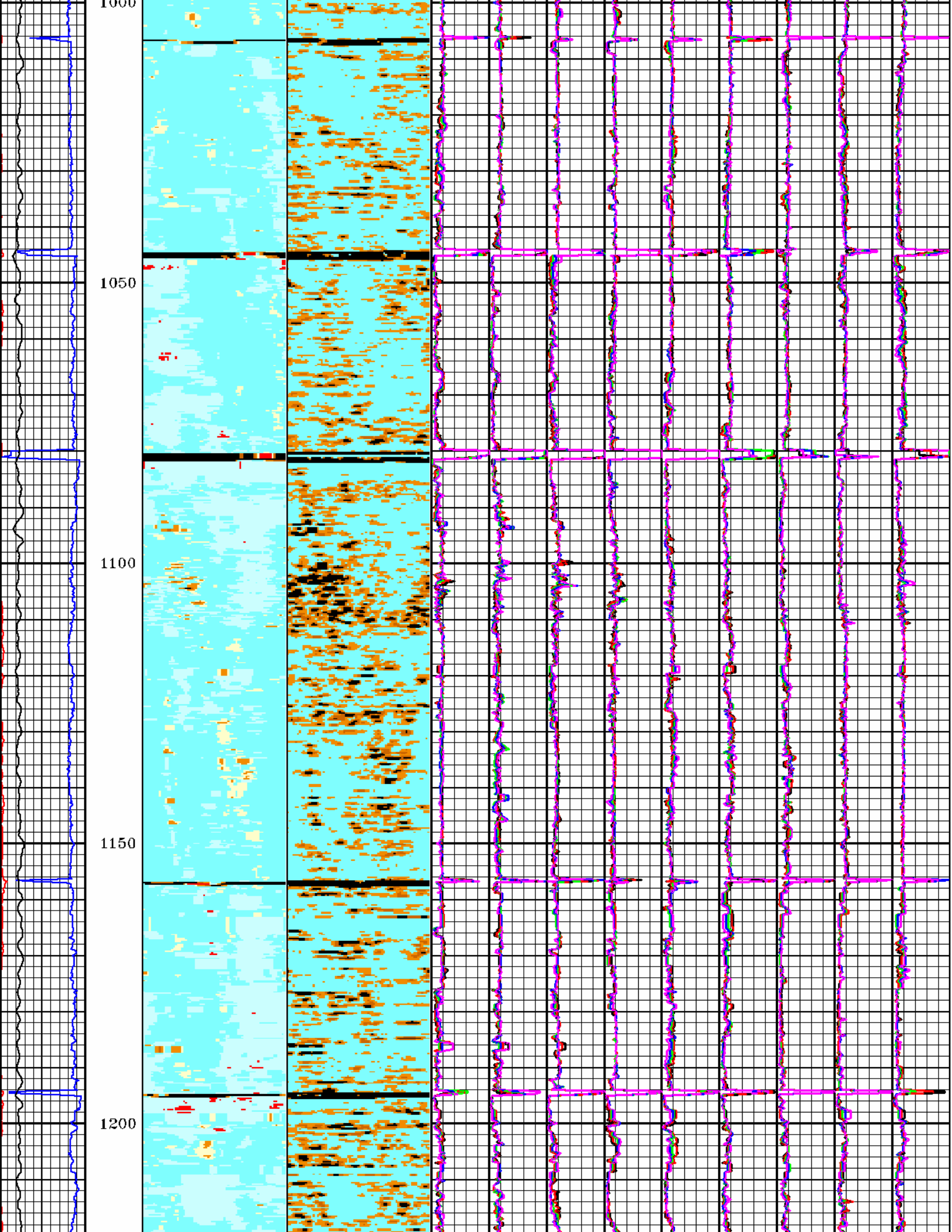
WELLBORE DATA	IMPEDANCE MAP	DERIVATIVE	SEG. A	SEG. B	SEG. C	SEG. D	SEG. E	SEG. F	SEG. G	SEG. H	SEG. I
ZAVG ECTY GR OVAL	1:240 FT.	ZP DZ	CA1 CA2 CA3 CA4 CA5	CB1 CB2 CB3 CB4 CB5	CC1 CC2 CC3 CC4 CC5	CD1 CD2 CD3 CD4 CD5	CE1 CE2 CE3 CE4 CE5	CF1 CF2 CF3 CF4 CF5	CG1 CG2 CG3 CG4 CG5	CH1 CH2 CH3 CH4 CH5	CI1 CI2 CI3 CI4 CI5

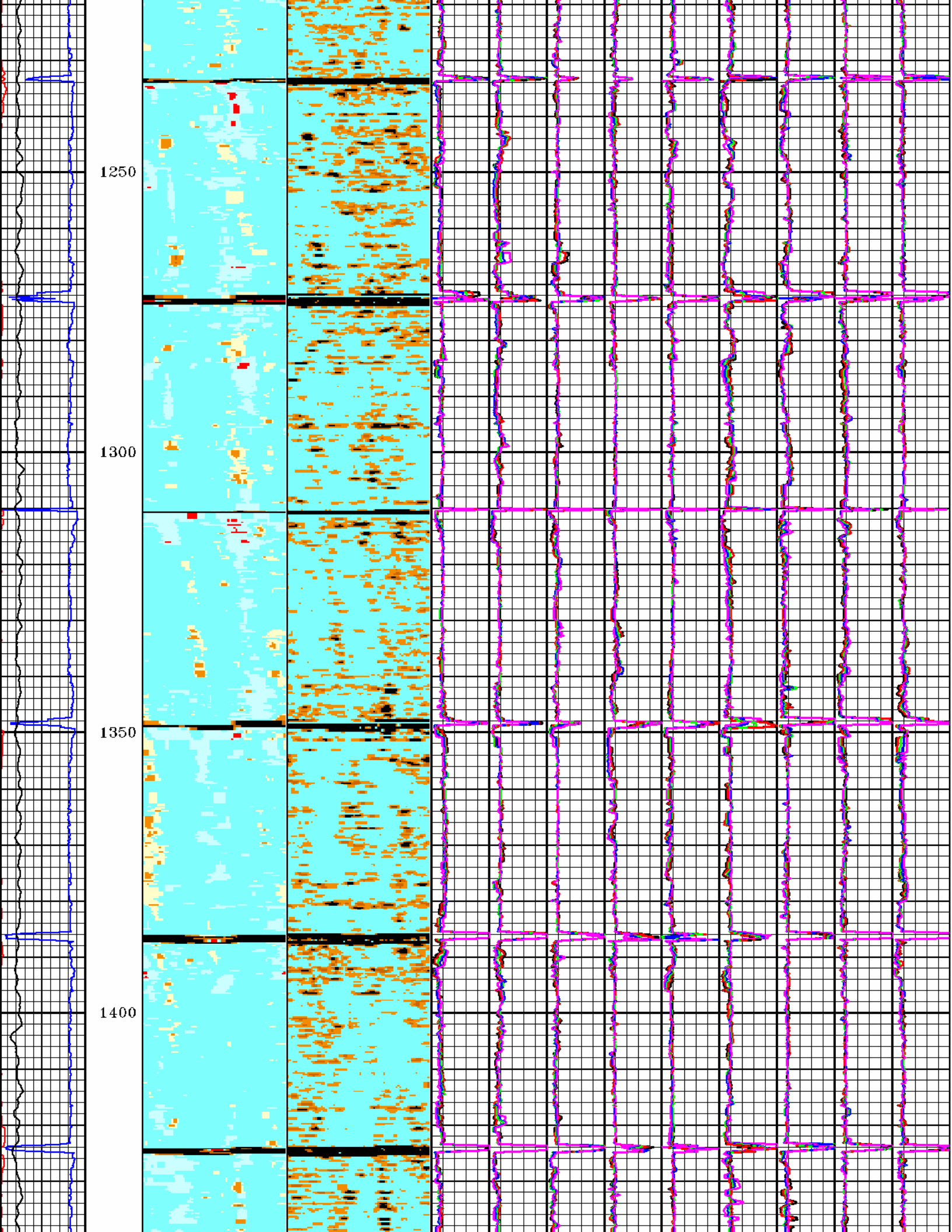


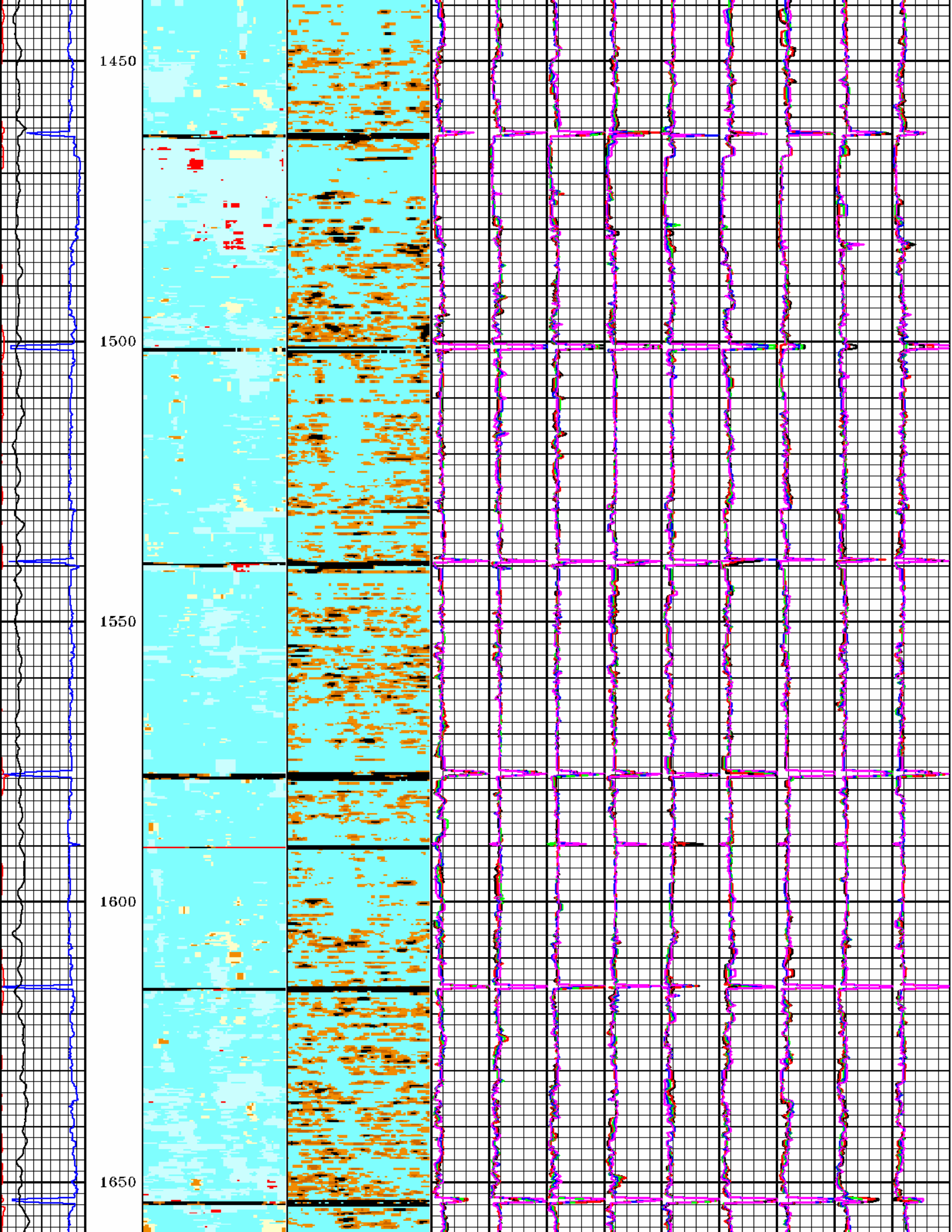


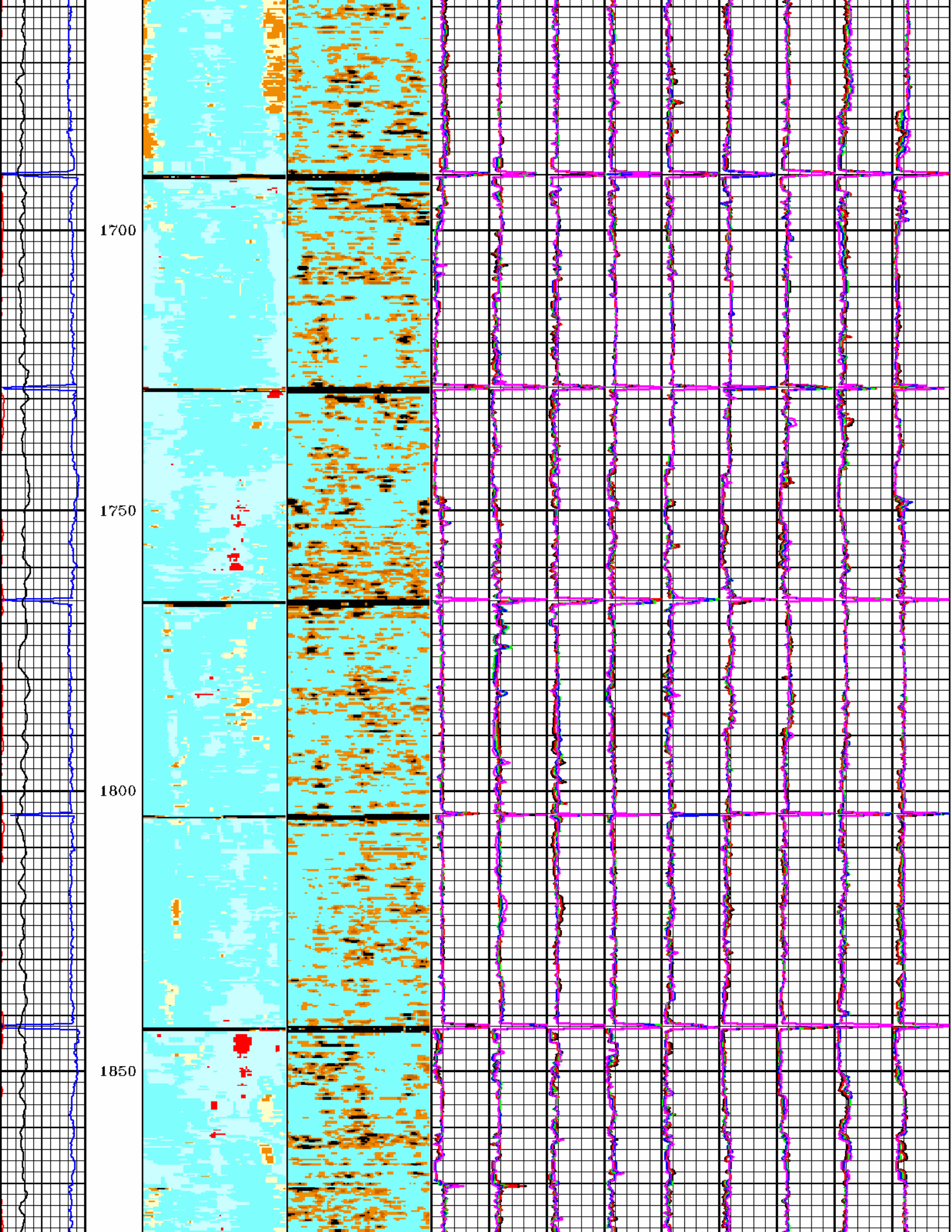


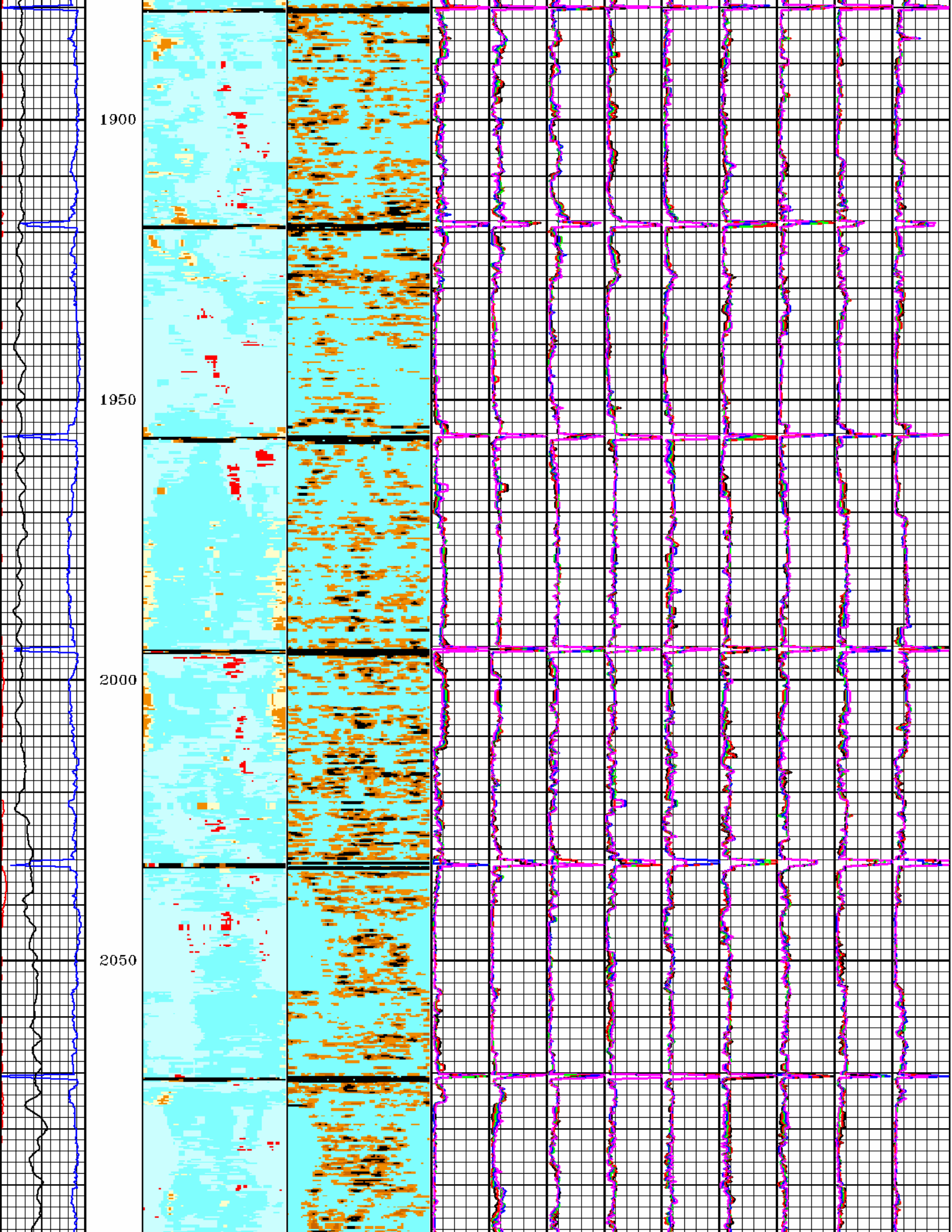


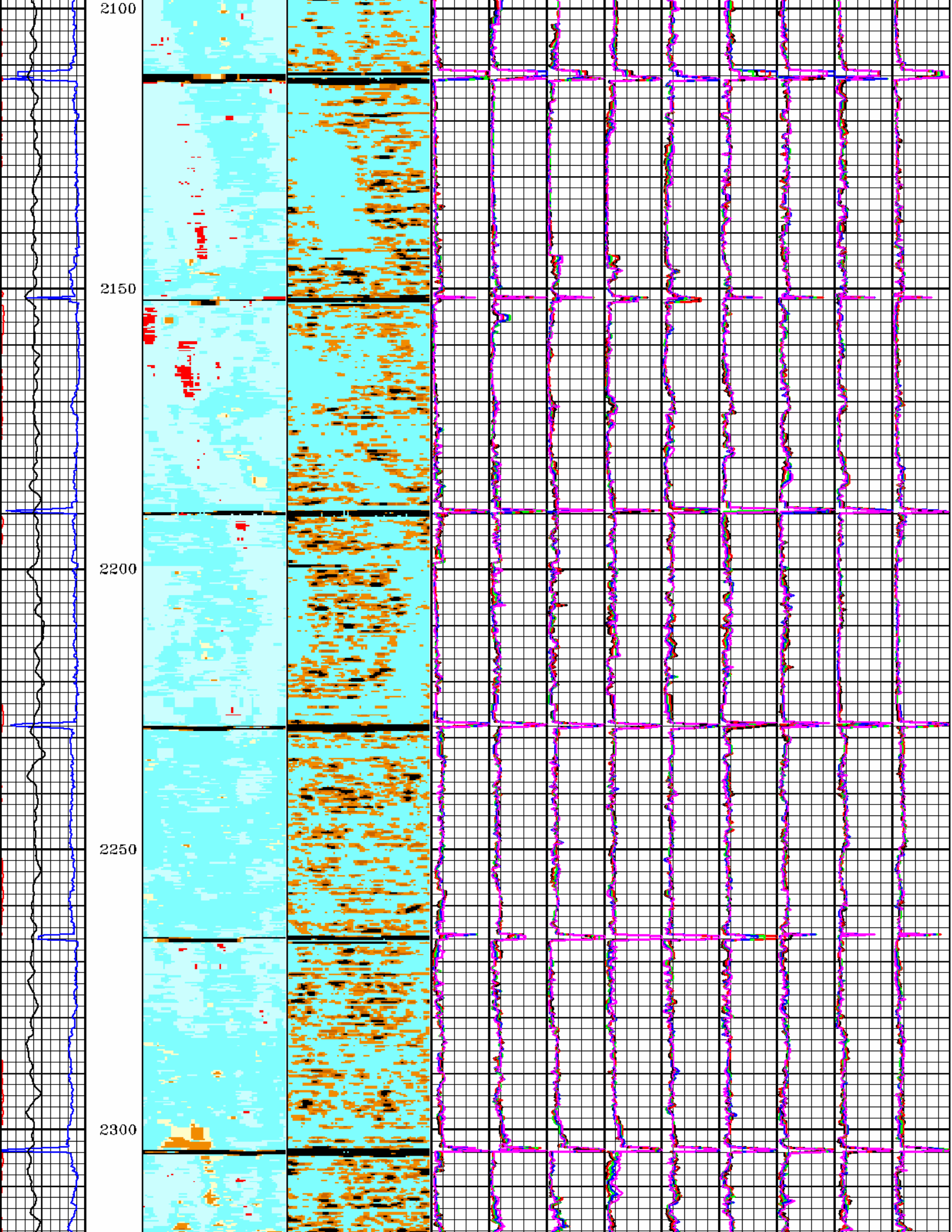


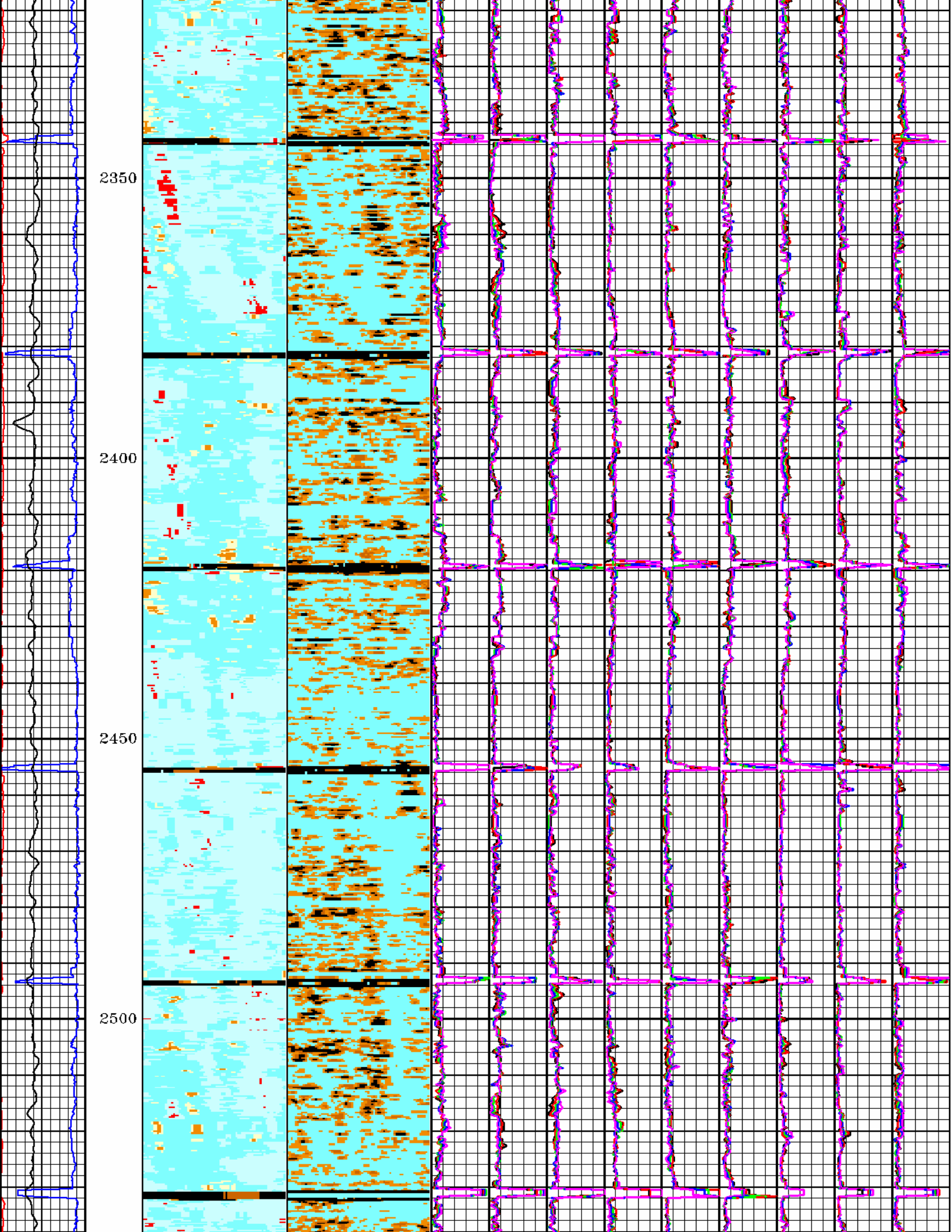


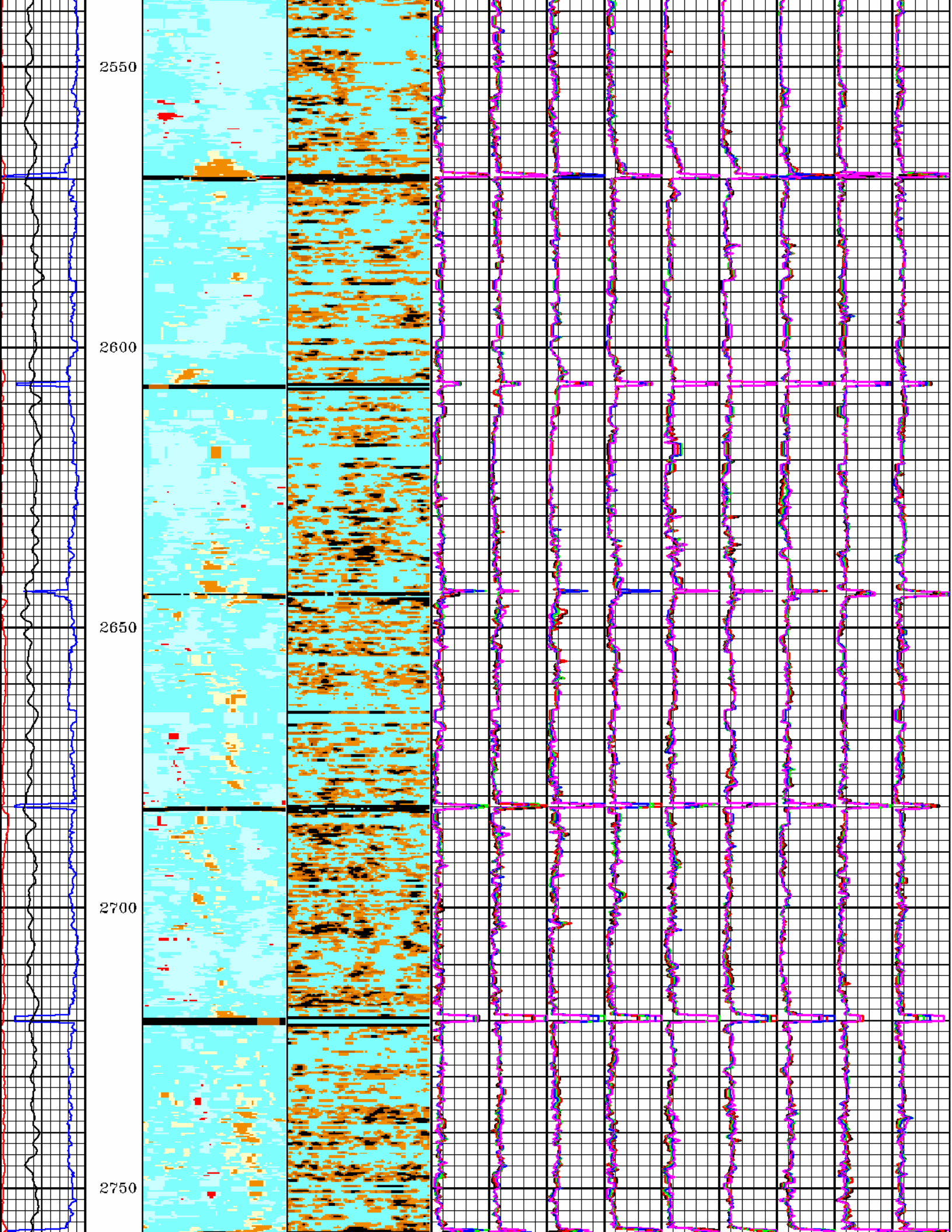


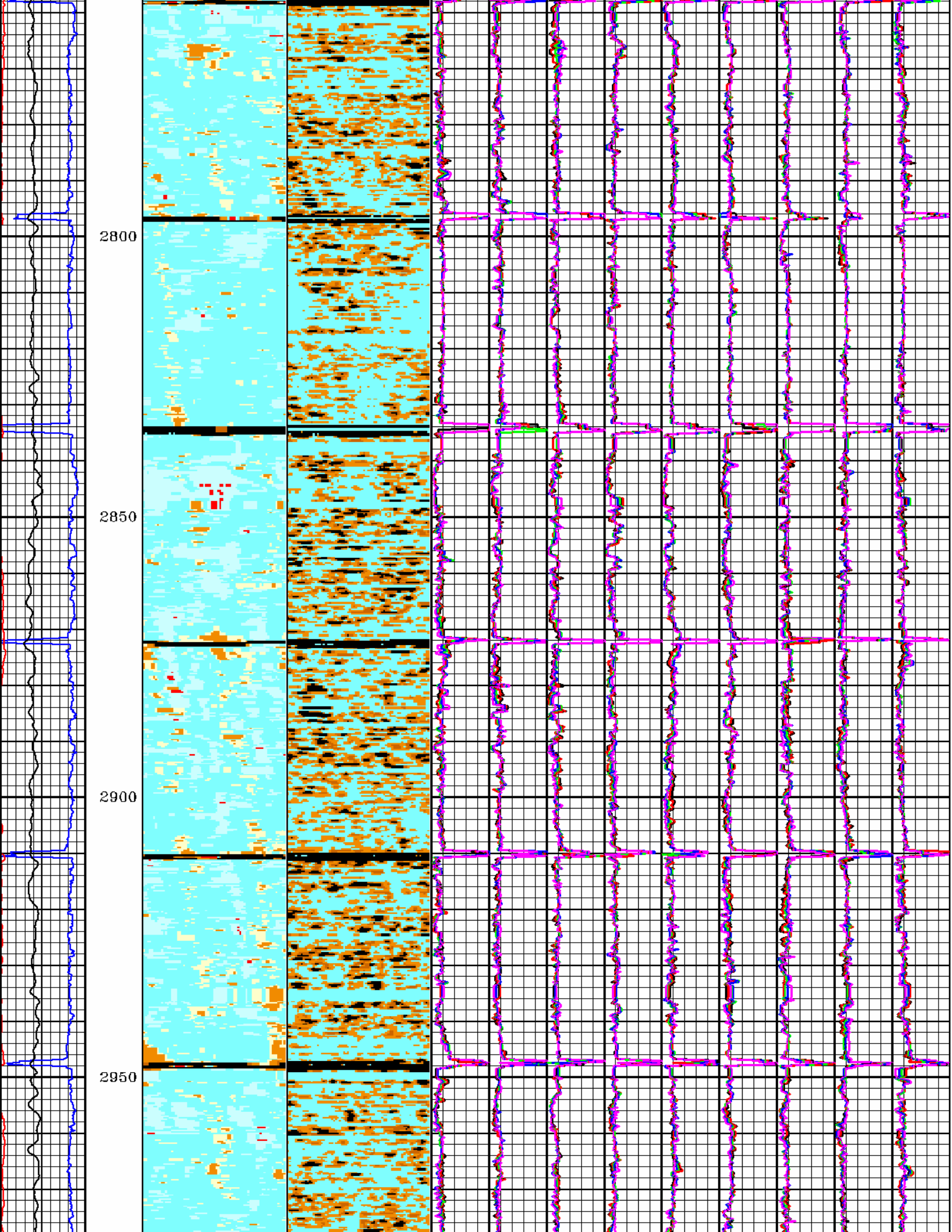


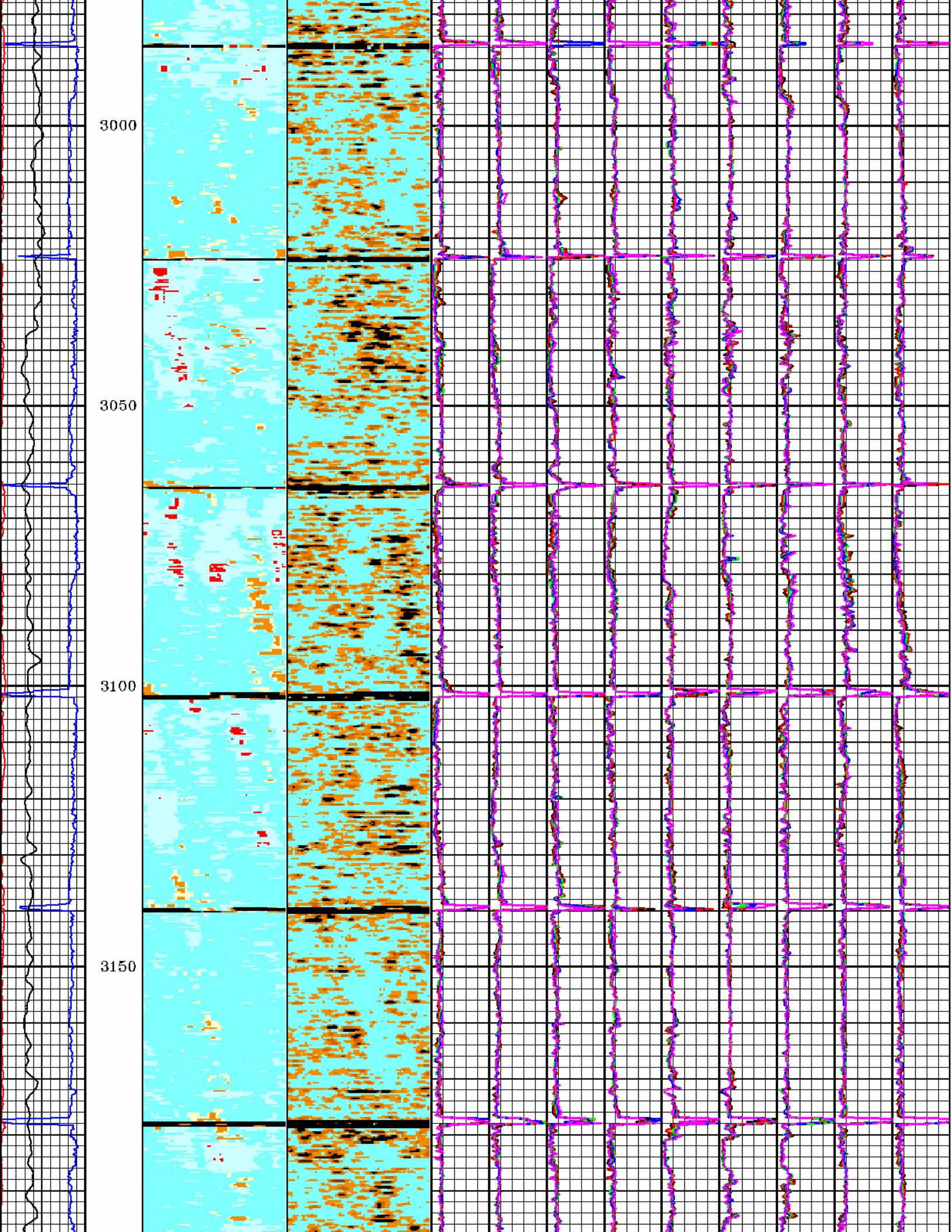


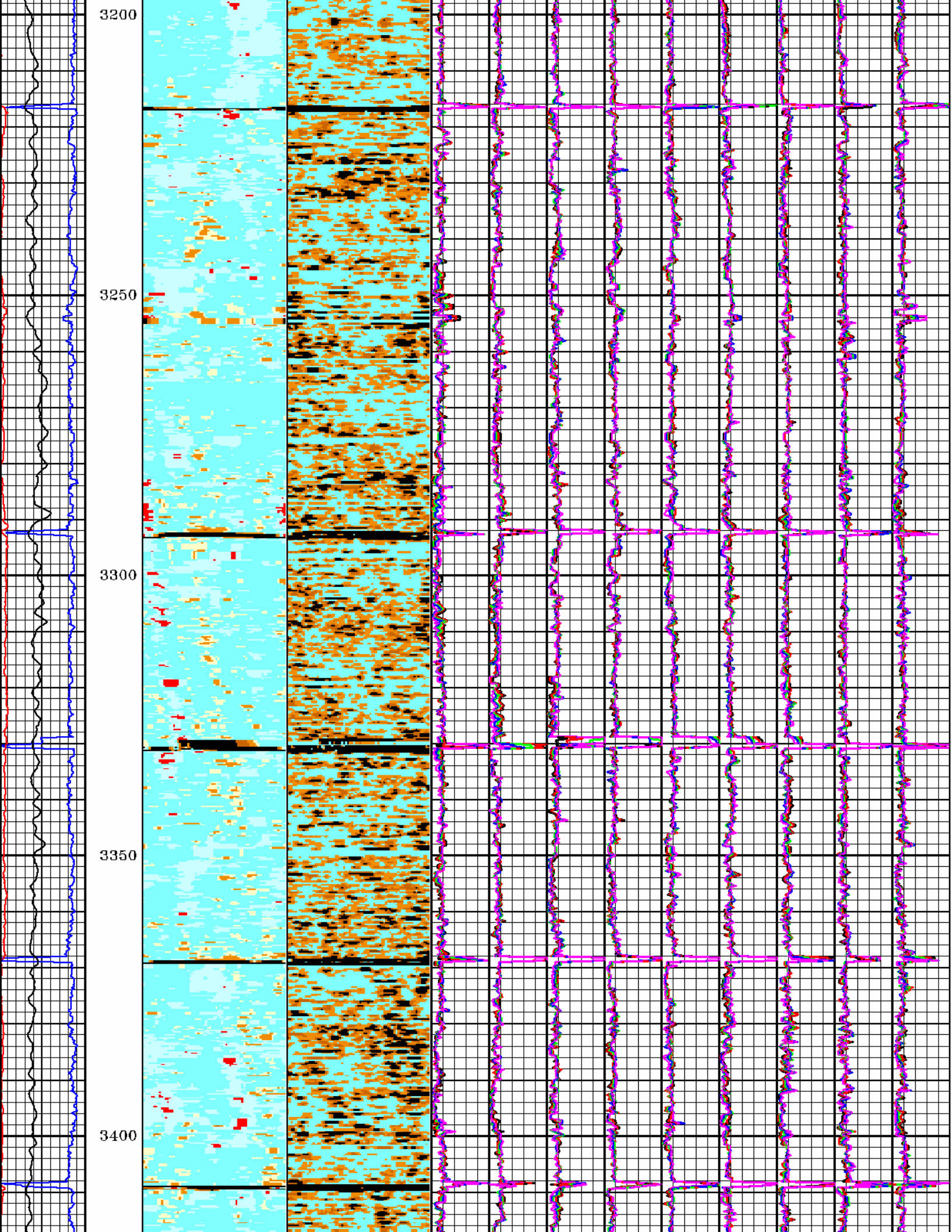


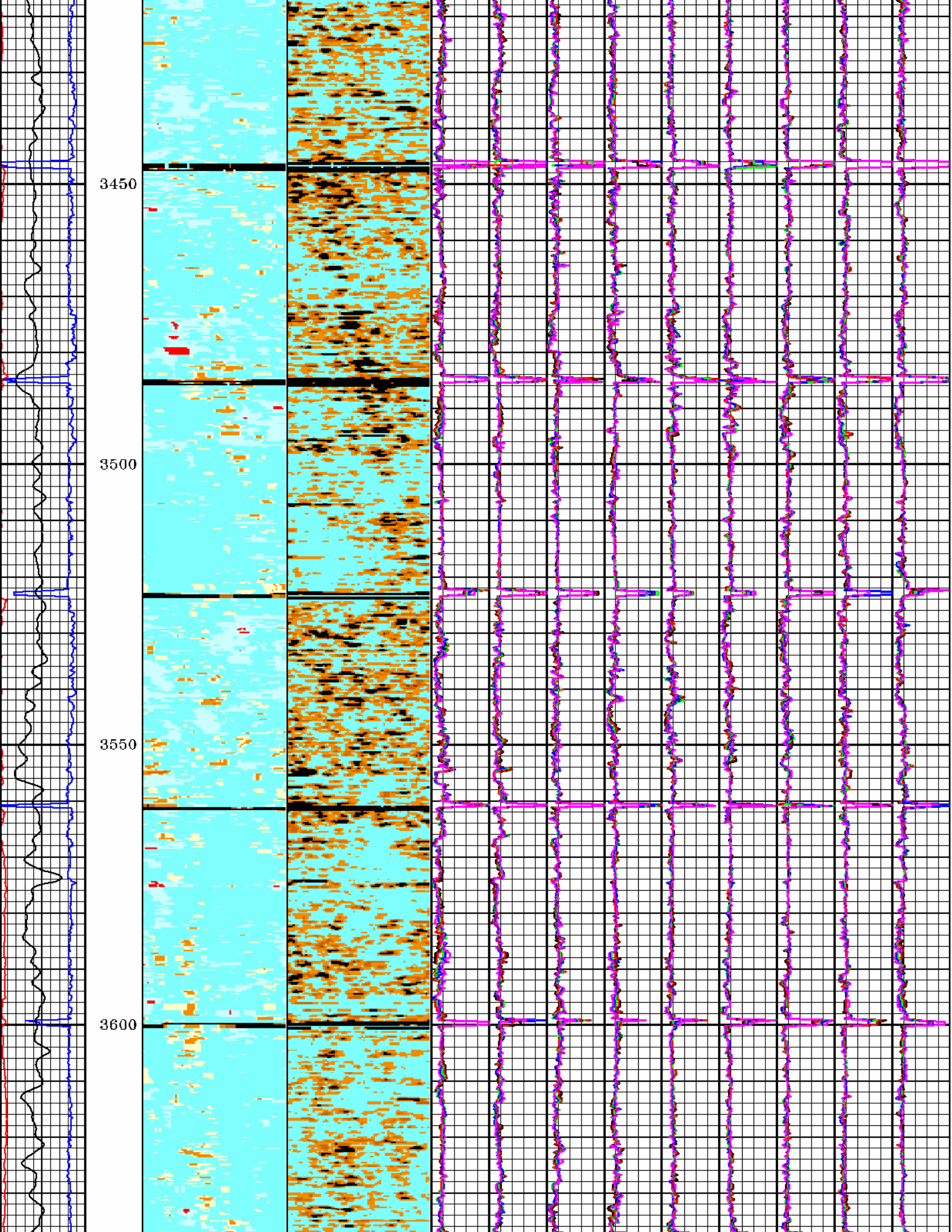


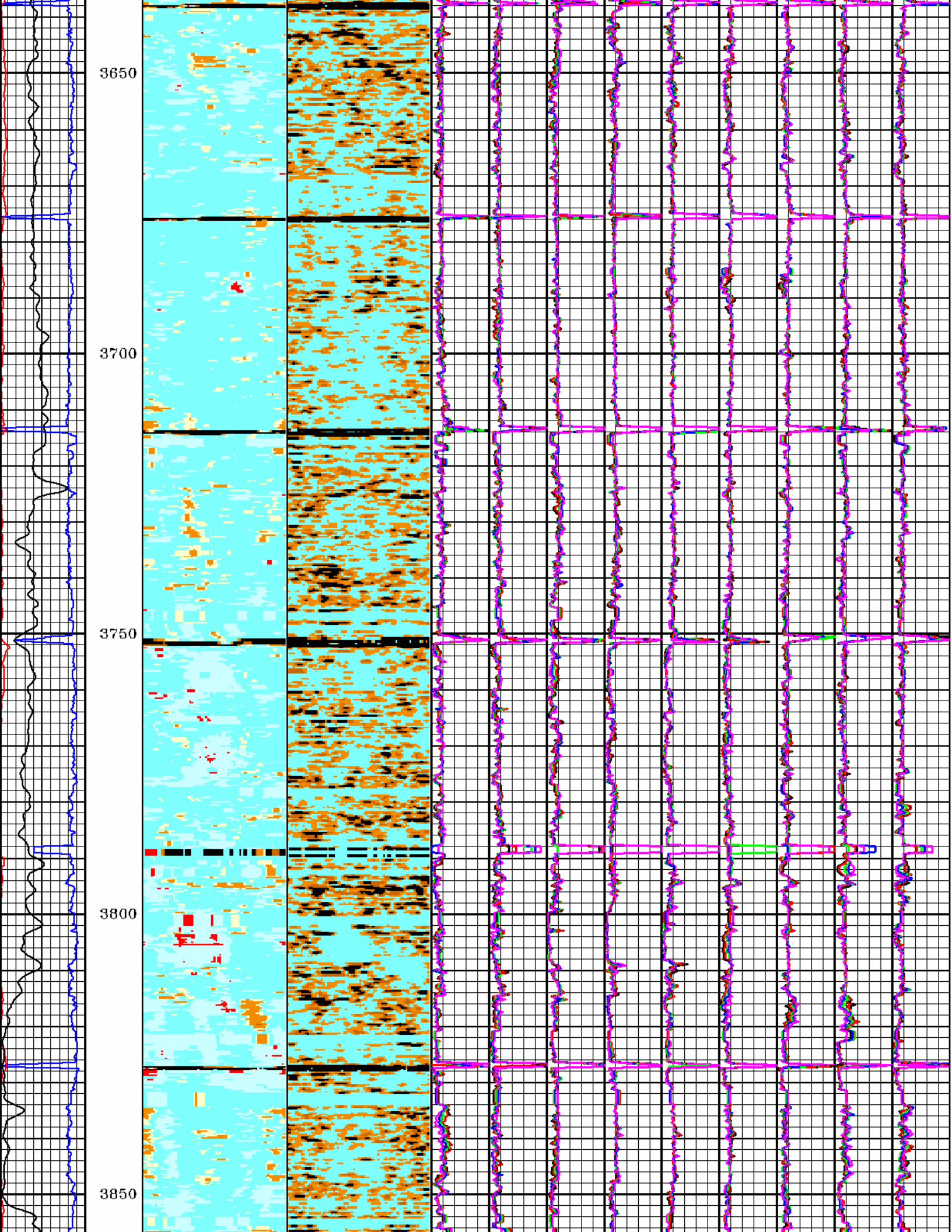


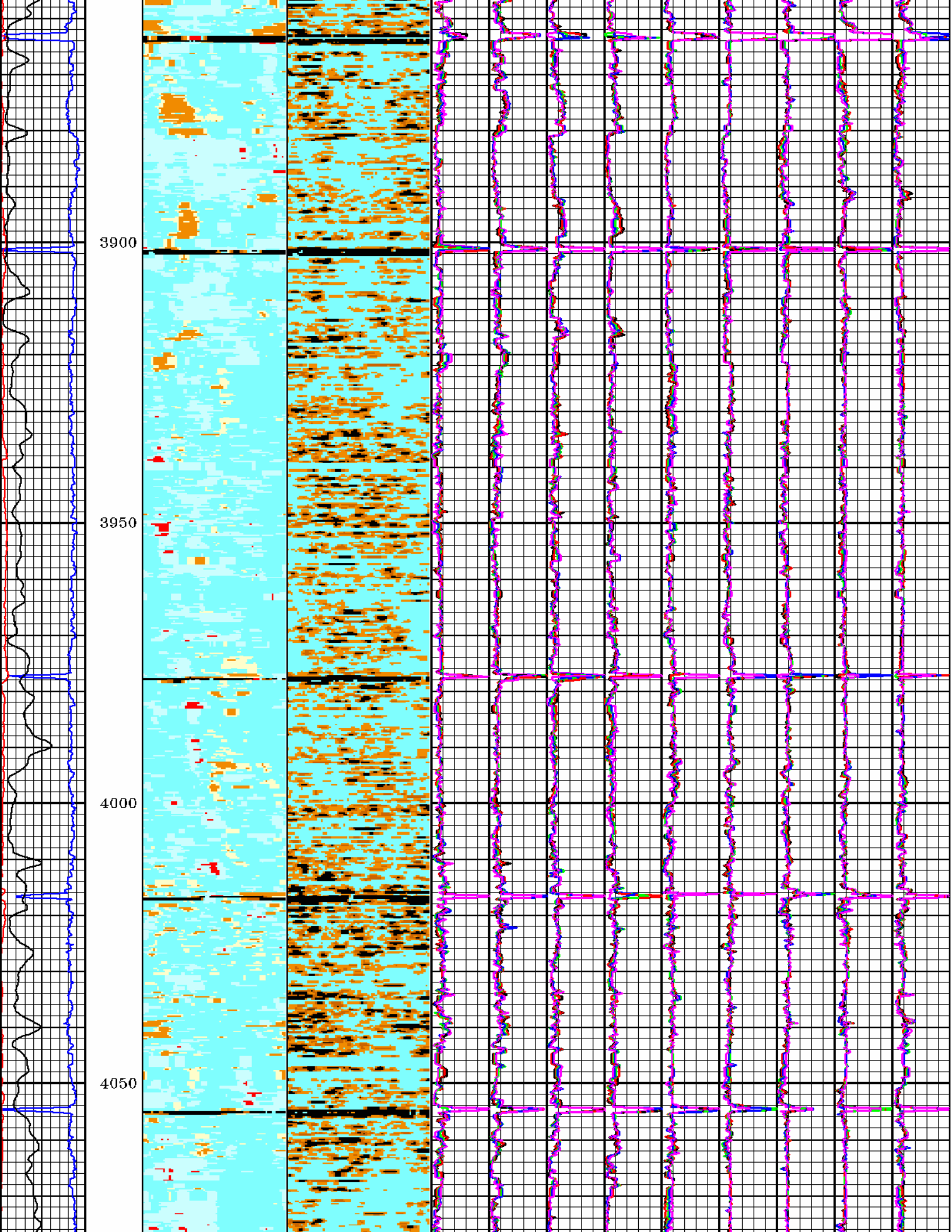


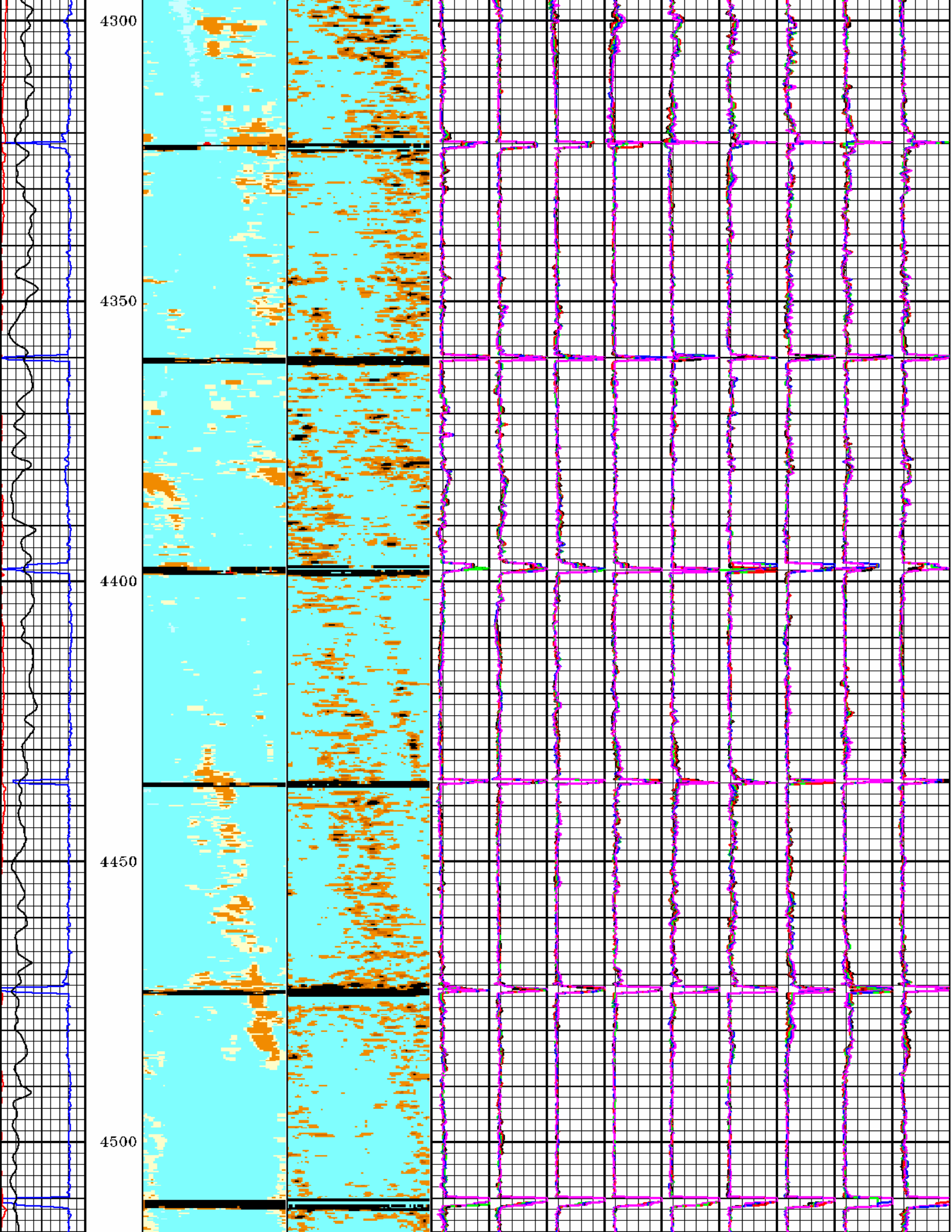


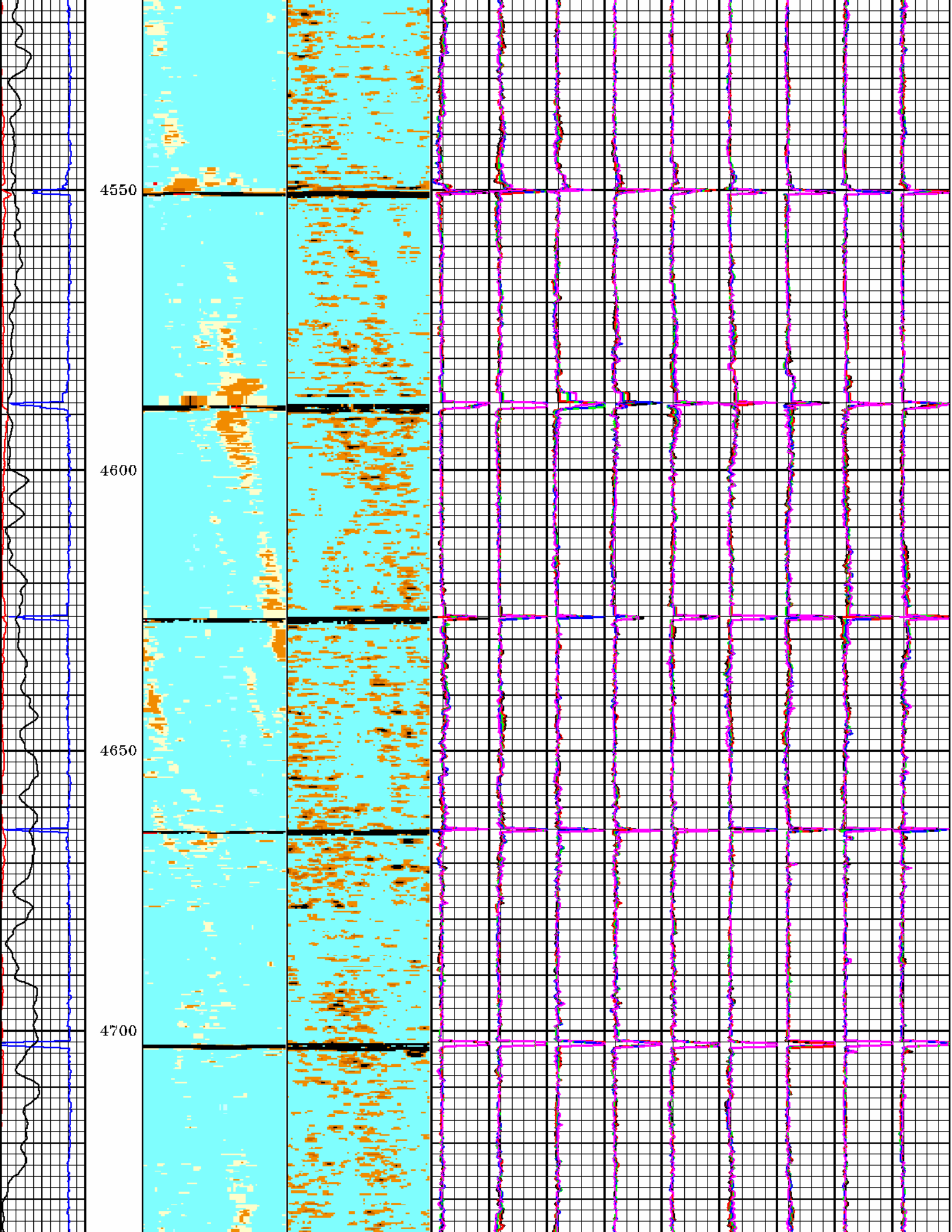


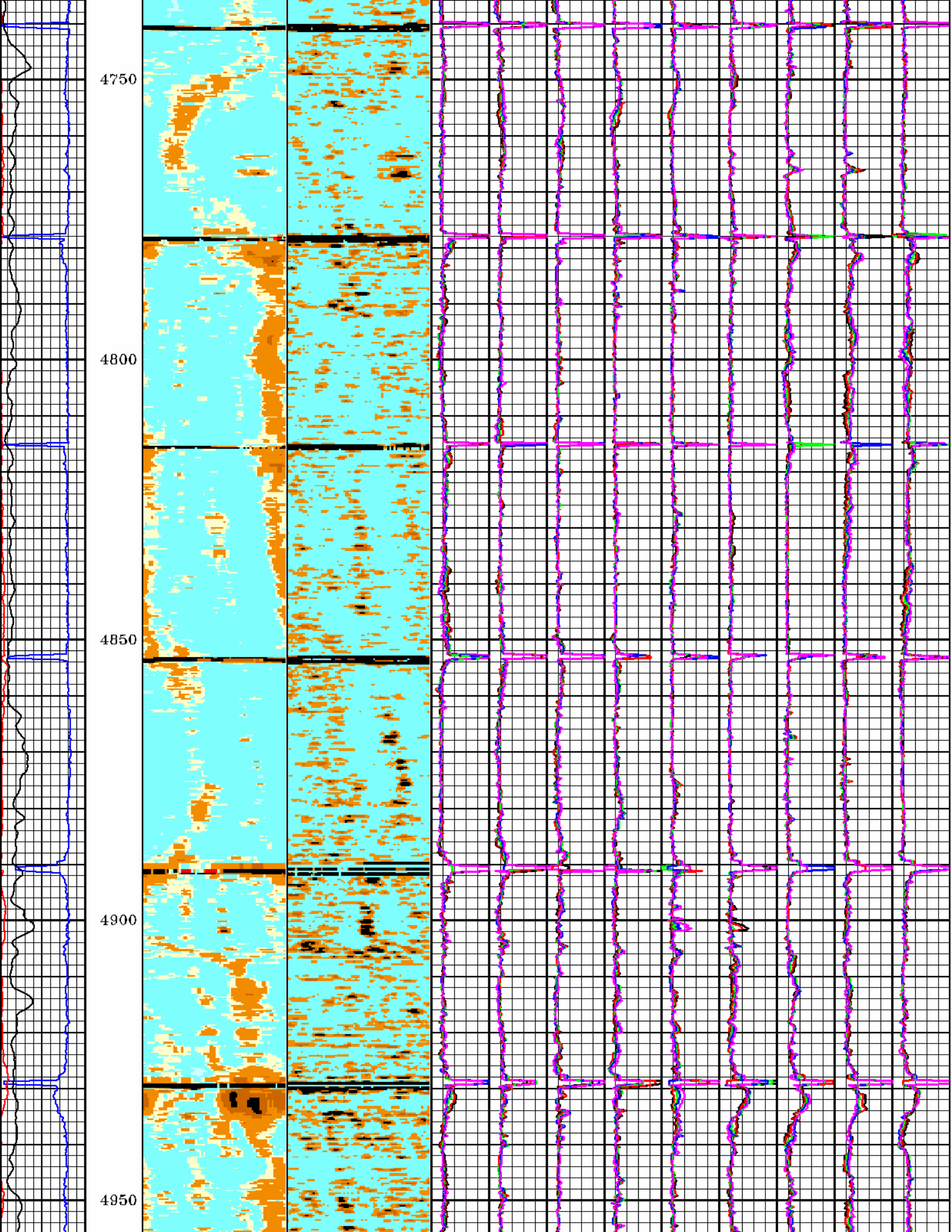


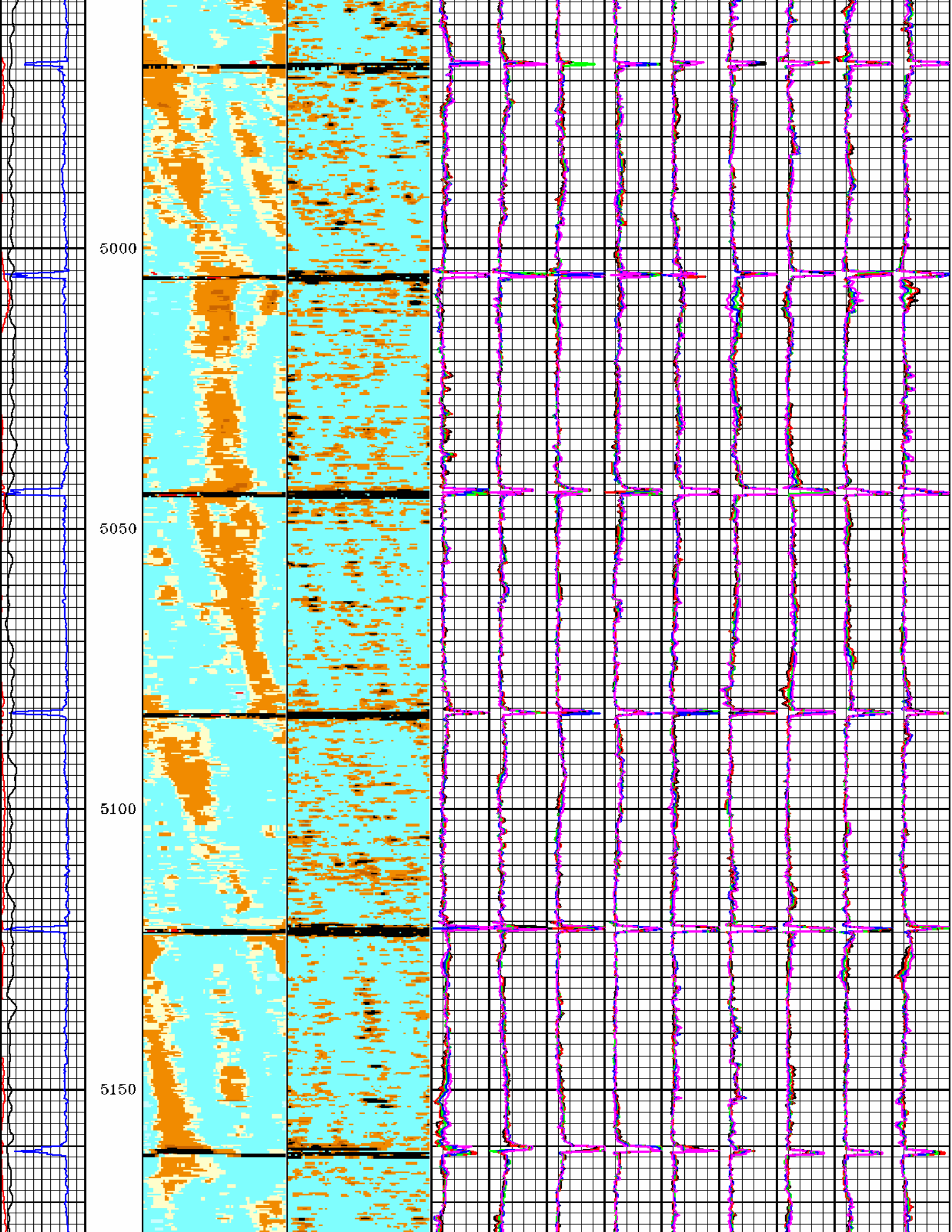


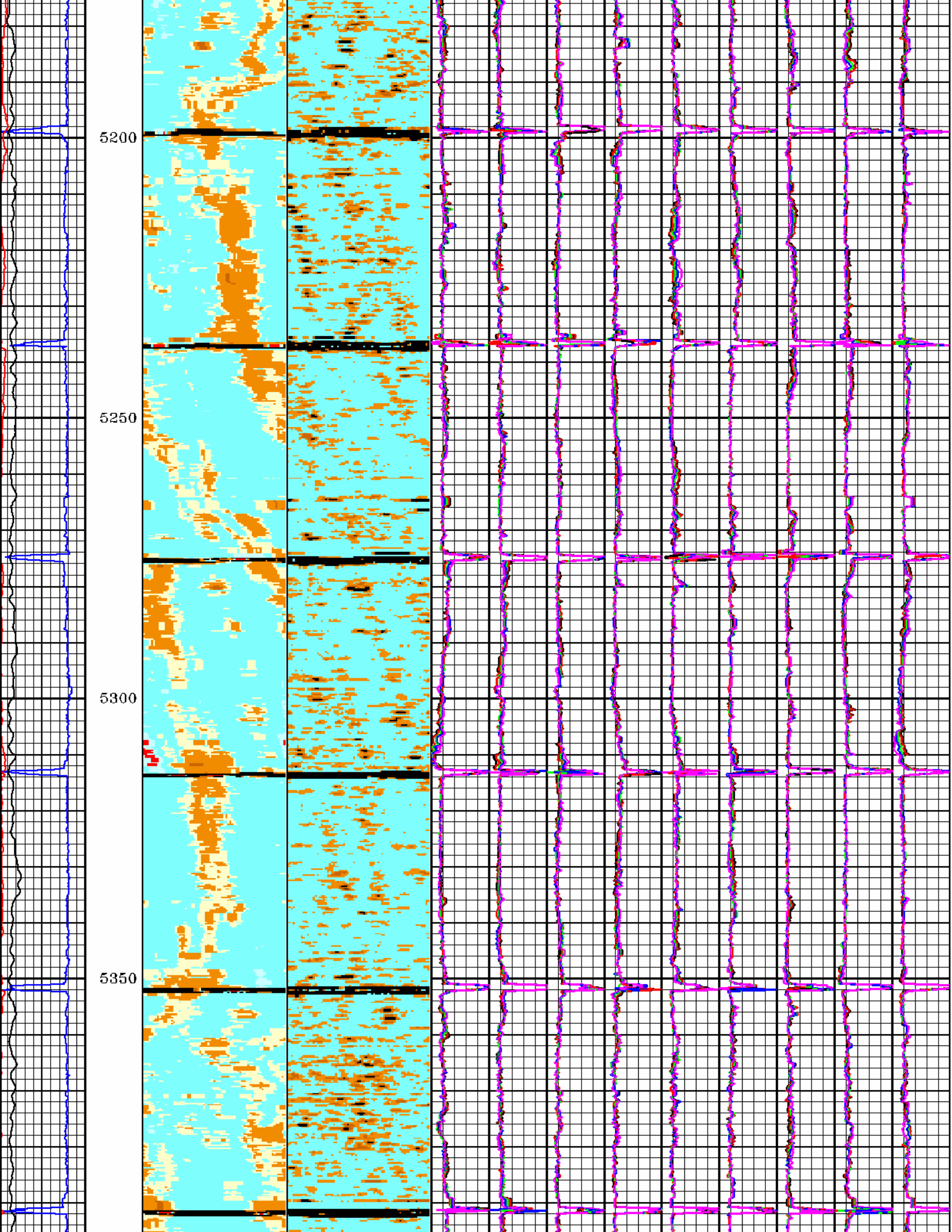


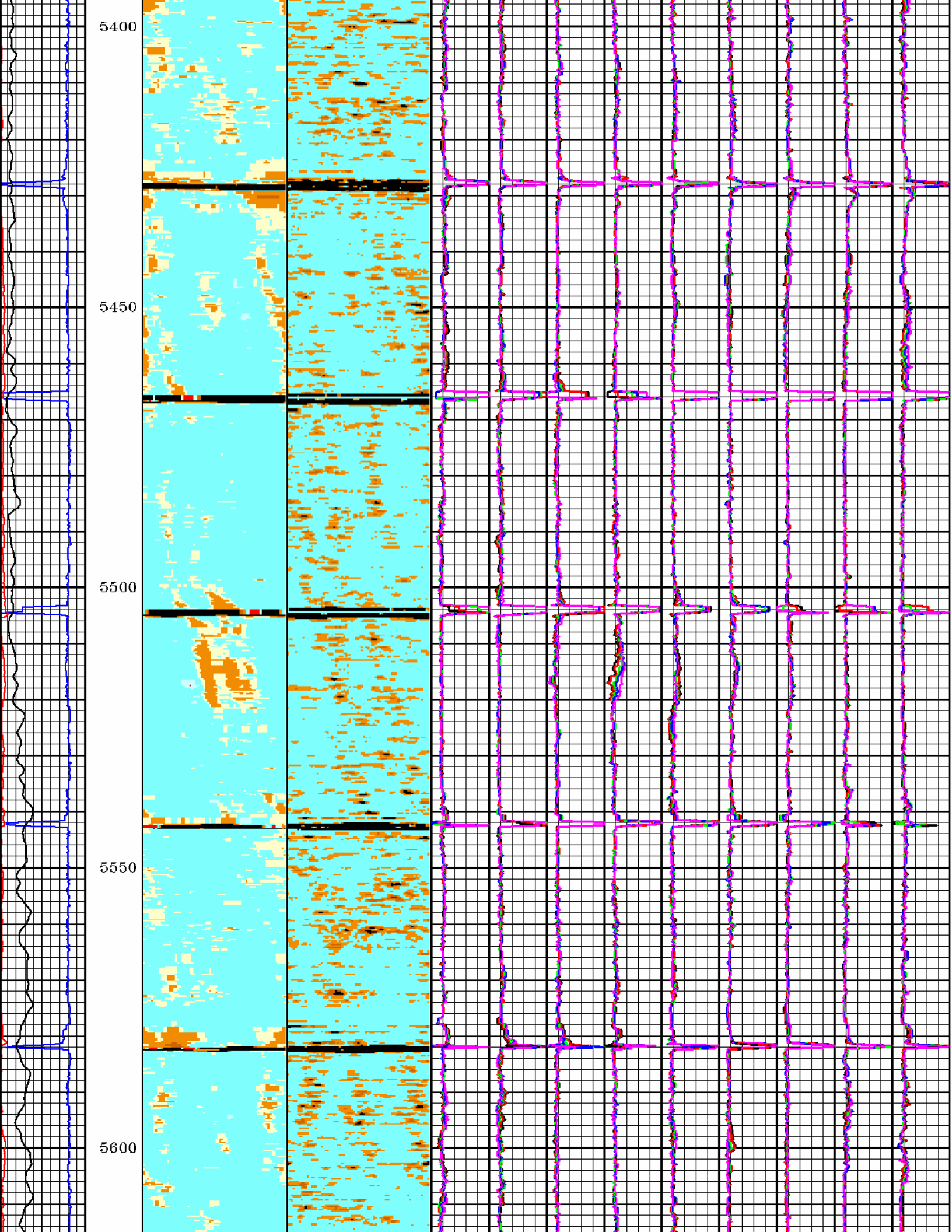


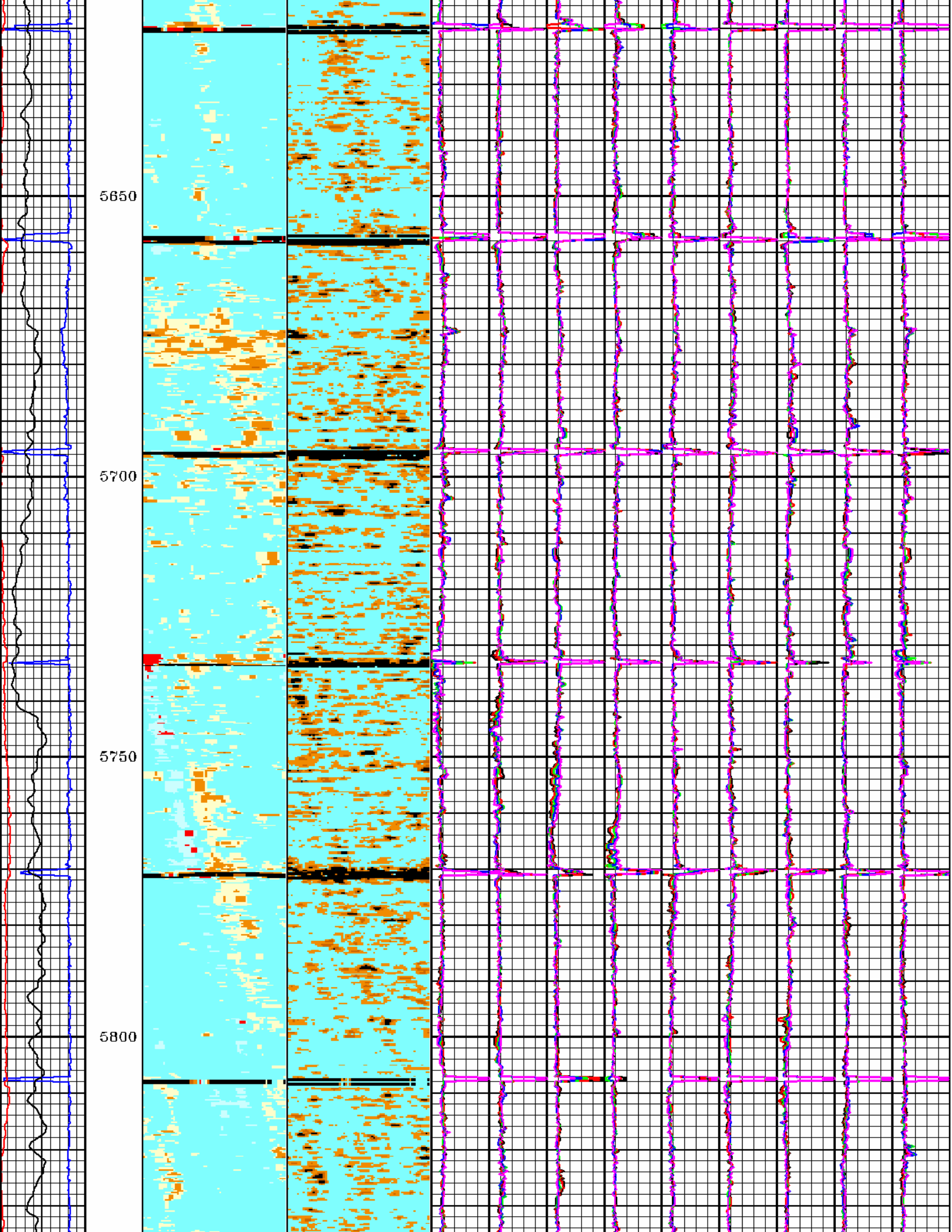


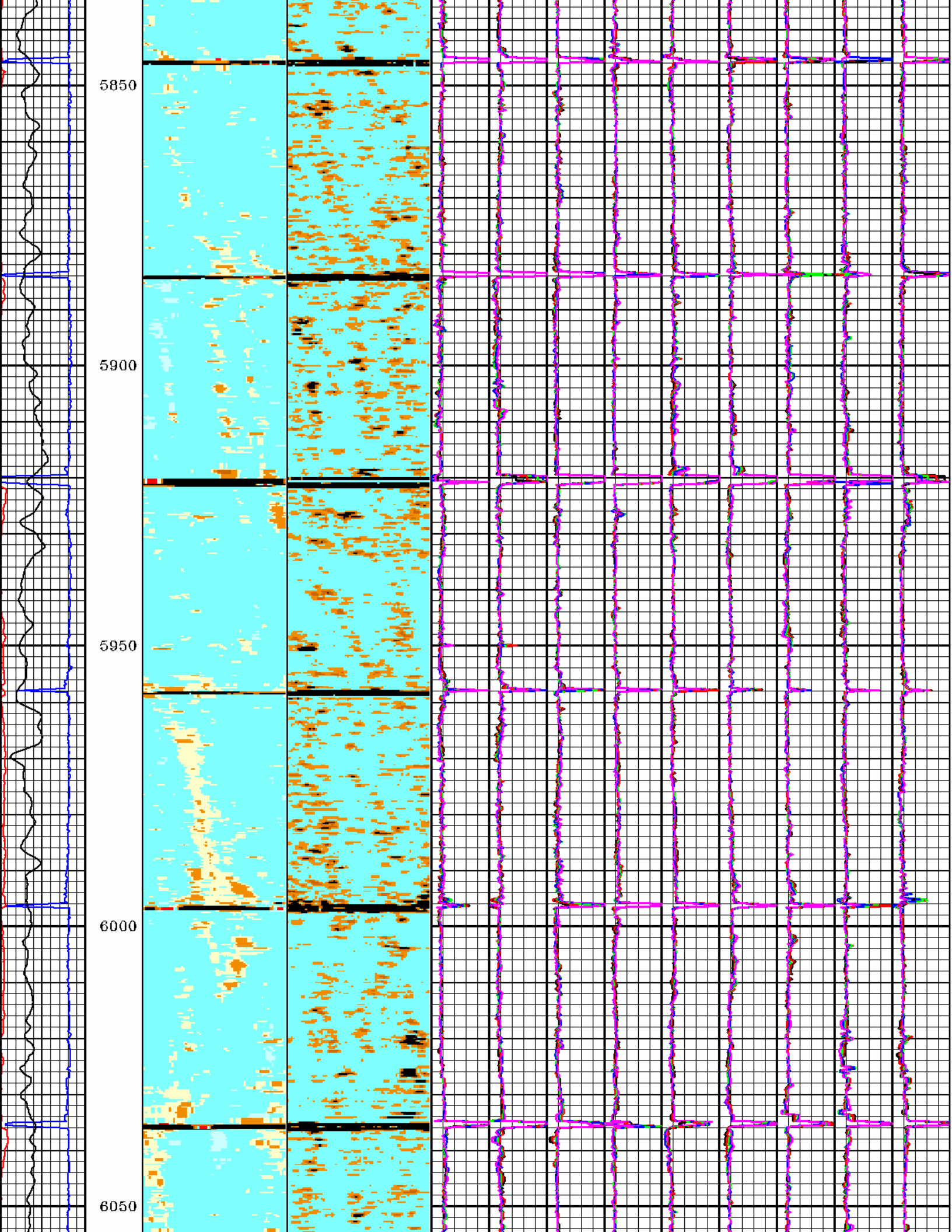


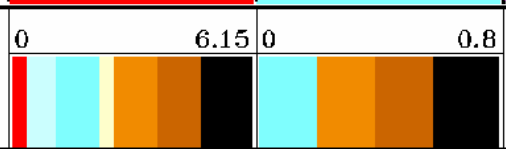
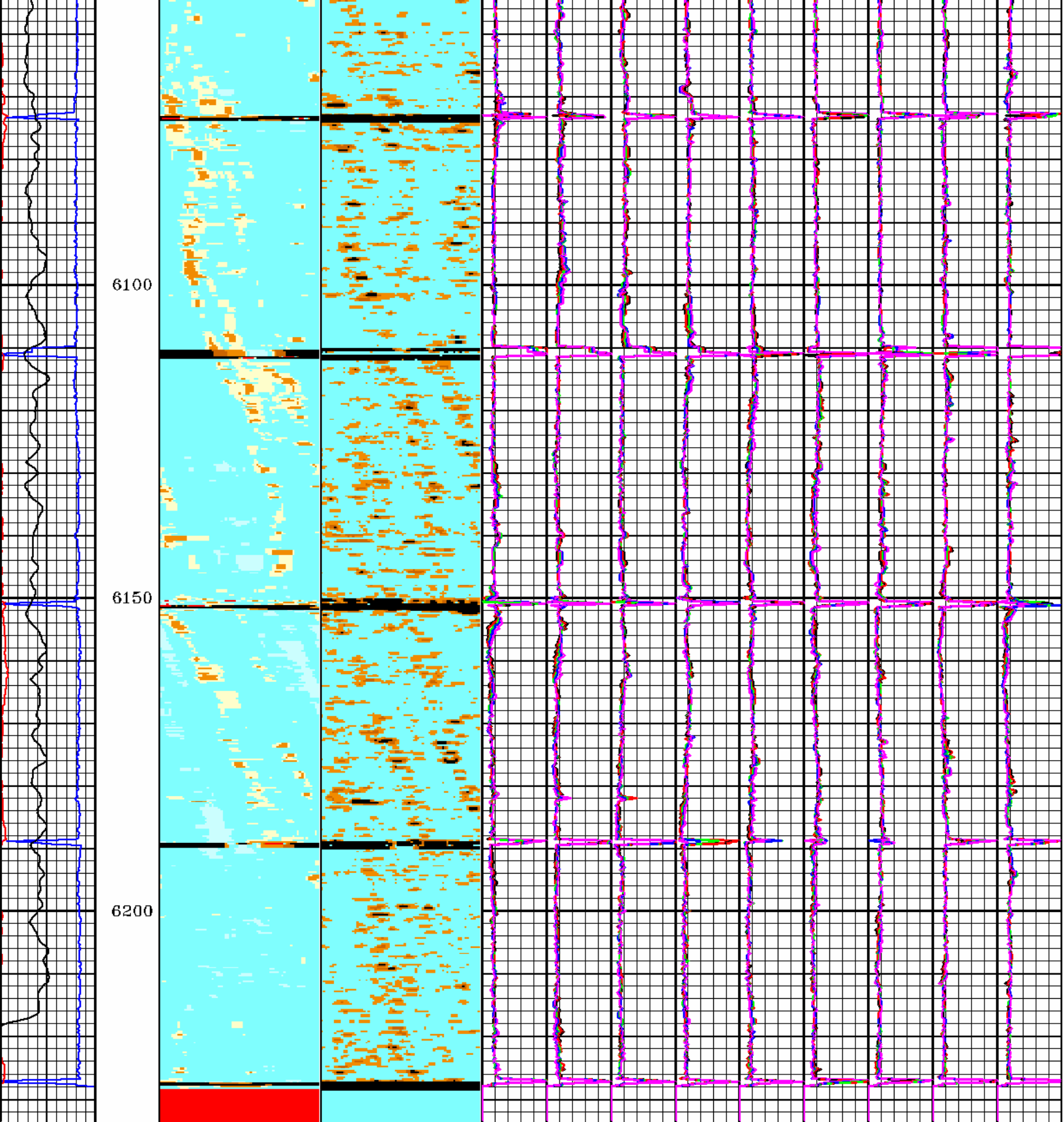












0	CA5	CB5	CC5	CD5	CE5	CF5	CG5	CH5	CI5	10	0	10	0	10
0	CA4	CB4	CC4	CD4	CE4	CF4	CG4	CH4	CI4	10	0	10	0	10
0	CA3	CB3	CC3	CD3	CE3	CF3	CG3	CH3	CI3	10	0	10	0	10
0	CA2	CB2	CC2	CD2	CE2	CF2	CG2	CH2	CI2	10	0	10	0	10
0										10	0	10	0	10
0	OVAL									1				
0	GR									150				
0	ECTY									1				

ZAVG	1:240 FT.	ZP	72	DZ	72	CA1	10	CB1	10	CC1	10	CD1	10	CE1	10	CF1	10	CG1	10	CH1	10	CI1	10
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WELLBORE DATA		IMPEDANCE MAP	DERIVATIVE	SEG. A	SEG. B	SEG. C	SEG. D	SEG. E	SEG. F	SEG. G	SEG. H	SEG. I
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Version No: | hc:3.0
 Data File: ACE.cls
 Format File: M72-face_seg_curves.spc
 Plot Time: 2011-09-08 10:34:49
 Database Time: 10:00:26

Top Depth: 239.00
 Bottom Depth: 6234.29

HALLIBURTON

Parameter Report
08-Sep-2011 10:41: ?G
 Parameter File: C:/Work1/Chevron/UNION_PACIFIC_150X16/UP_150X16_CASTM/fastace.jbv.

		Zone1	Zone2
		0.00	20000.00
		20000.00	Infinity
1:SETUP Group Parameters:			
DZWAT	WATER LIMIT FOR DERIVATIVE & CEMENT	0.2000	-----
CEMLIM	LOWER LIMIT FOR CEMENT IN CEMENT MAP	2.7000	-----
VSIZE	VECTOR SIZE OF THE CAST CEMENT VECTOR	72.0000	100.0000
VCBL	VECTOR SIZE OF THE CBL WAVEFORM	500.0000	-----
CBIFILT	CBI FILTER,VERICAL RESOLUTION MATCH TO C	13.0000	-----
BPOPTION	0= NORMAL,1= BP,2=BP_SHELL, DIFFERENT CE	0.0000	-----
FLIPCEMV	0= NORMAL(C,GC,L,GAS),1= FLIP(GAS,L,GC,C	0.0000	-----
PAMPLIM	PAMP LIMIT,DZ=0 WHEN PAMP< PAMPLIM	-999.0000	-----
2:ZPBIN Group Parameters:			
GASLIM	UPPER LIMIT FOR GAS IN CEMENT MAP	0.3800	-----
LIQLIM	UPPER LIMIT FOR LIQUID IN CEMENT MAP	2.3000	-----
ZLOWLIM	UPPER LIMIT FOR LOW Z IN CEMENT MAP	3.8500	-----
ZMEDLIM	UPPER LIMIT FOR MED Z IN CEMENT MAP	5.0000	-----

COMPANY	CHEVRON		
WELL	UNION PACIFIC 150X16		
FIELD	RANGLEY		
COUNTY	RIO BLANCO	STATE	CO

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 ADVANCED CEMENT
 EVALUATION**