

Company: ENCANA OIL & GAS (USA) INC.

Well: SG 8505A-24 (L24 496)

Field: STORY GULCH

County: GARFIELD State: COLORADO

ISOLATION SCANNER LOG  
CASING COLLAR LOCATOR

County: GARFIELD

Field: STORY GULCH

Location: SHL: 1700' FSL & 963' FWL NW

Well: SG 8505A-24 (L24 496)

Company: ENCANA OIL & GAS (USA) INC.

LOCATION

SHL: 1700' FSL & 963' FWL NWNW

BHL: 829' FNL & 668' FWL

Elev.: K.B. 8210.00 ft  
G.L. 8180.00 ft  
D.F. 8210.00 ft

Permanent Datum: \_\_\_\_\_

Log Measured From: \_\_\_\_\_

Drilling Measured From: \_\_\_\_\_

GROUND LEVEL

GROUND LEVEL

GROUND LEVEL

Elev.: 8180.00 ft

0.00 ft

above Perm. Datum

API Serial No.

05045211770000

Section

24

Township

4S

Range

96W

Logging Date	30-Jun-2013			
Run Number	1			
Depth Driller	3277 ft			
Schlumberger Depth	3160 ft			
Bottom Log Interval	3160 ft			
Top Log Interval	0 ft			
Casing Fluid Type	WATER BASED MUD			
Salinity				
Density	8.4 lbm/gal			
Fluid Level	0 ft			
BIT/CASING/TUBING STRING				
Bit Size	14.750 in			
From	0 ft			
To	3170 ft			
Casing/Tubing Size				
Weight	9.625 in			
Grade	36 lbm/ft			
From	J55			
To	0 ft			
Maximum Recorded Temperatures	130 degF			
Logger On Bottom	Time		13:15	
Unit Number	Location		VERNAL	
Recorded By	FOLAKE OGUNBANWO			
Witnessed By	NATE CURLEY			

PVT DATA					Run 1	Run 2	Run
Oil Density							
Water Salinity							
Gas Gravity							
Bo							
Bw							
1/Bg							
Bubble Point Pressure							
Bubble Point Temperature							
Solution GOR							
Maximum Deviation	3 deg						
CEMENTING DATA							
Primary/Squeeze	Primary						
Casing String No							
Lead Cement Type	11.0 LITEFILL						
Volume	520 ft3						
Density	-999 lbm/gal						
Water Loss							
Additives							
Tail Cement Type	12.5 G						
Volume	94 ft3						
Density	12.5 lbm/gal						
Water Loss							
Additives							
Expected Cement Top							
Logging Date							
Run Number							
Depth Driller							
Schlumberger Depth							
Bottom Log Interval							
Top Log Interval							
Casing Fluid Type							
Salinity							
Density							
Fluid Level							
BIT/CASING/TUBING STRING							
Bit Size							
From							
To							
Casing/Tubing Size							
Weight							
Grade							
From							
To							
Maximum Recorded Temperatures							
Logger On Bottom			Time				
Unit Number	Location						
Recorded By							
Witnessed By							

## DEPTH SUMMARY LISTING

Date Created: 30-JUN-2013 16:24:41

### Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-JA	Type:	CMTD-B/A	Type:	7-46A-XS
Serial Number:	6911	Serial Number:	2952	Serial Number:	711172
Calibration Date:	09-MAY-2013	Calibration Date:	05-JUN-2013	Length:	22600 FT
Calibrator Serial Number:		Calibrator Serial Number:	100518	Conveyance Method: Wireline Rig Type: Rigless	
Calibration Cable Type:	7-46A-XS	Number of Calibration Points:	10		
Wheel Correction 1:	-6	Calibration RMS:	42		
Wheel Correction 2:	-6	Calibration Peak Error:	26		

### Depth Control Parameters

Log Sequence: First Log In the Well

Rig Up Length At Surface: 0.00 FT

Rig Up Length At Bottom: 0.00 FT

Rig Up Length Correction: 0.00 FT

Stretch Correction: 1.00 FT

Tool Zero Check At Surface:

### Depth Control Remarks

1. All Schlumberger depth control procedures followed as per Schlumberger depth control standard.
2. IDW used as primary depth control system,
3. Z-chart used as secondary depth control system.
- 4.
- 5.
- 6.

#### DISCLAIMER

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#### OTHER SERVICES1

OS1:  
OS2:  
OS3:  
OS4:  
OS5:

#### OTHER SERVICES2

OS1:  
OS2:  
OS3:  
OS4:  
OS5:

REMARKS: RUN NUMBER 1

TOOLSTRING RUN AS PER TOOLSKETCH

3 X GEMCOS USED TO CENTRALIZE TOOLSTRING

1 X INLINE CENTRALIZERS USED FOR CENTRALIZATION

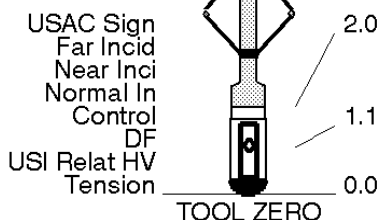
2 X KNUCKLES USED TO DECOUPLE TOOLSTRING.

ZMUD FOUND TO BE 1.55 MRAYL.

REMARKS: RUN NUMBER 2

DOWNHOLE EQUIPMENT			
LEH-QT LEH-QT 1001			35.9
DTC-H ECH-KC 9373 DTCH0-A 8794 DTCH1-A 8794	CTEM	32.0	33.0
	TelStatus ToolStatu	30.0	
AH-107 AH-107			30.0
AH-XXX AH-XXX			28.0
SGT-N SGH-K 3110 SGC-TB 10229 SGD-TAB	Gamma Ray	23.3	24.2
AH-107 AH-107 4907			18.7
USIT-E ECH-MFA 1903 USAC-A 928 USAC-A 928			16.7

USIS-A 1831  
 USSC-B 1720  
 IBCS C-100158203 813  
 Top Transducer 769  
 Middle Top Transducer 1766  
 Middle Bottom Transducer 1771  
 Bottom Transducer 3525



MAXIMUM STRING DIAMETER 6.66 IN  
 MEASUREMENTS RELATIVE TO TOOL ZERO  
 ALL LENGTHS IN FEET

**Schlumberger**

## USI\_IBC\_SLG\_COMPOSITE MAIN PASS

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC.

Well: SG 8505A-24 (L24 496)

### Input DLIS Files

USI_011PUP	FN:12	10-Jul-2013 08:55	3162.0 FT	0.5 FT
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### Output DLIS Files

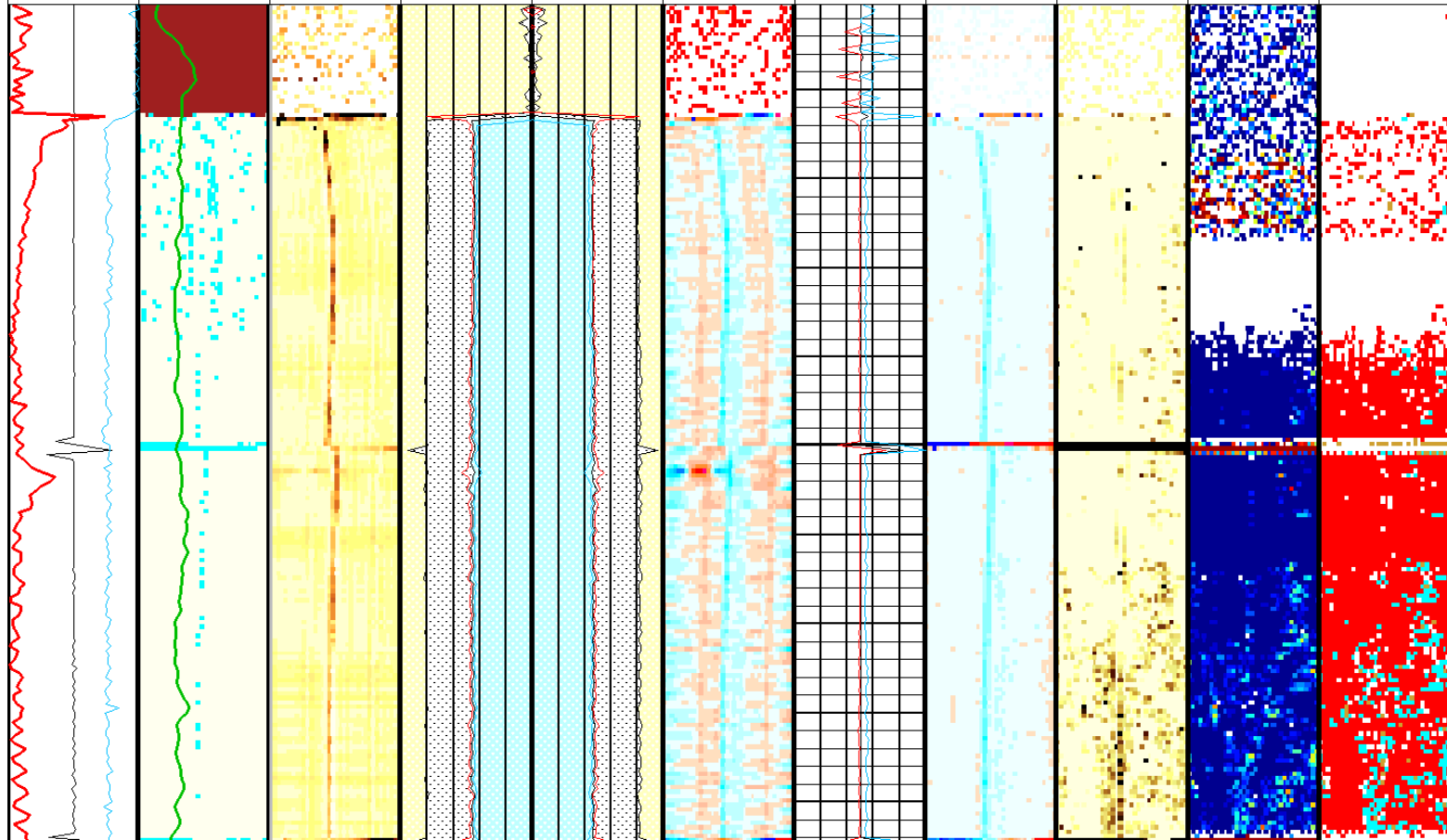
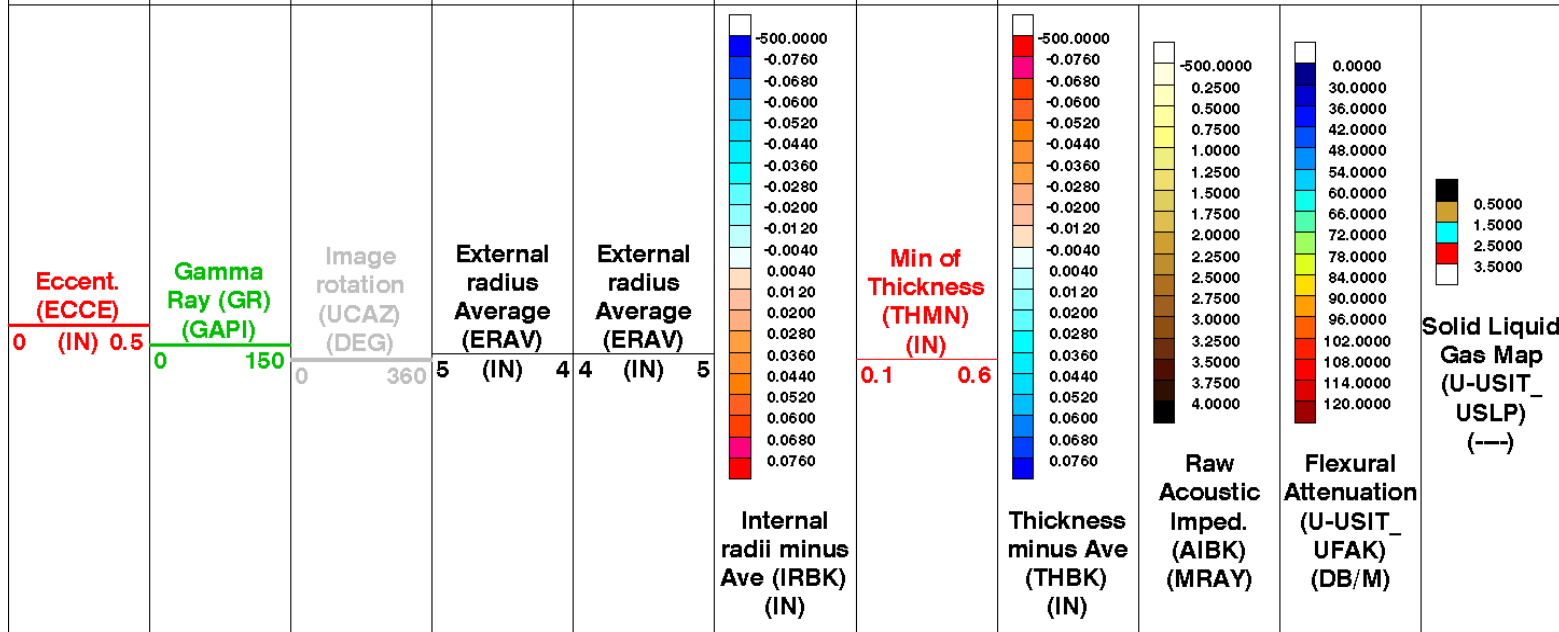
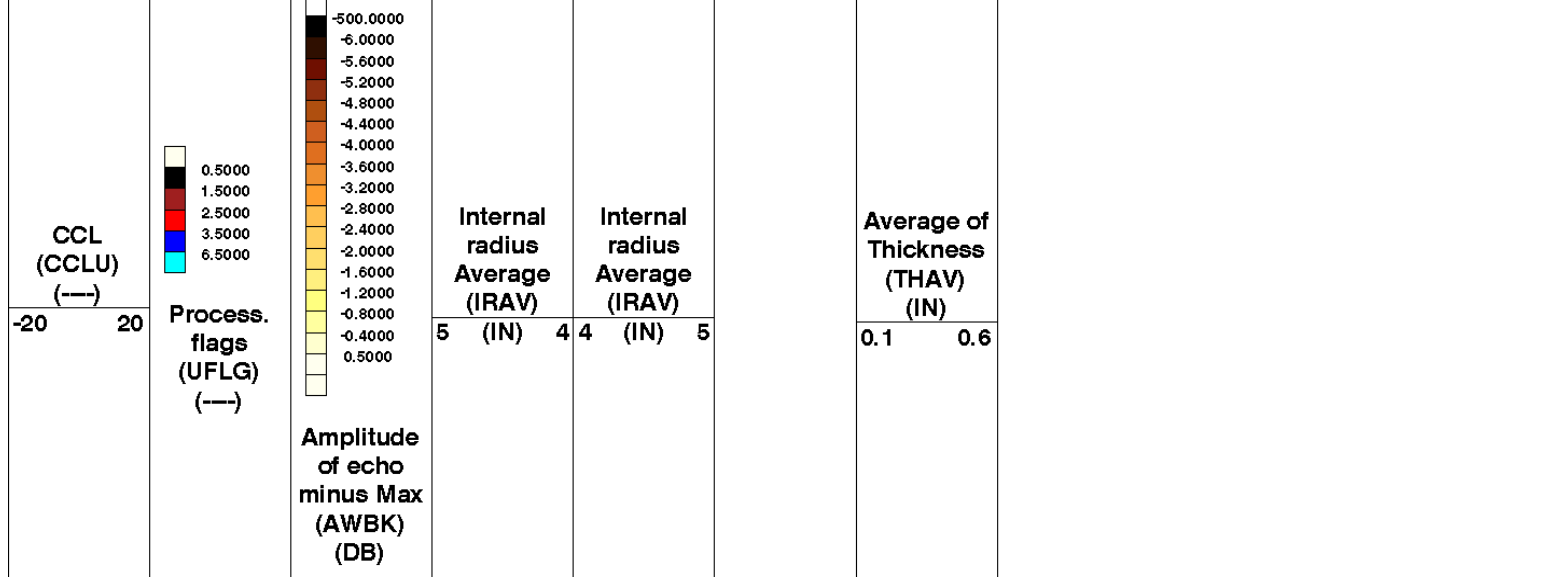
DEFAULT	USI_003PUP	FN:2	PRODUCER	10-Jul-2013 15:34	3162.0 FT	0.5 FT
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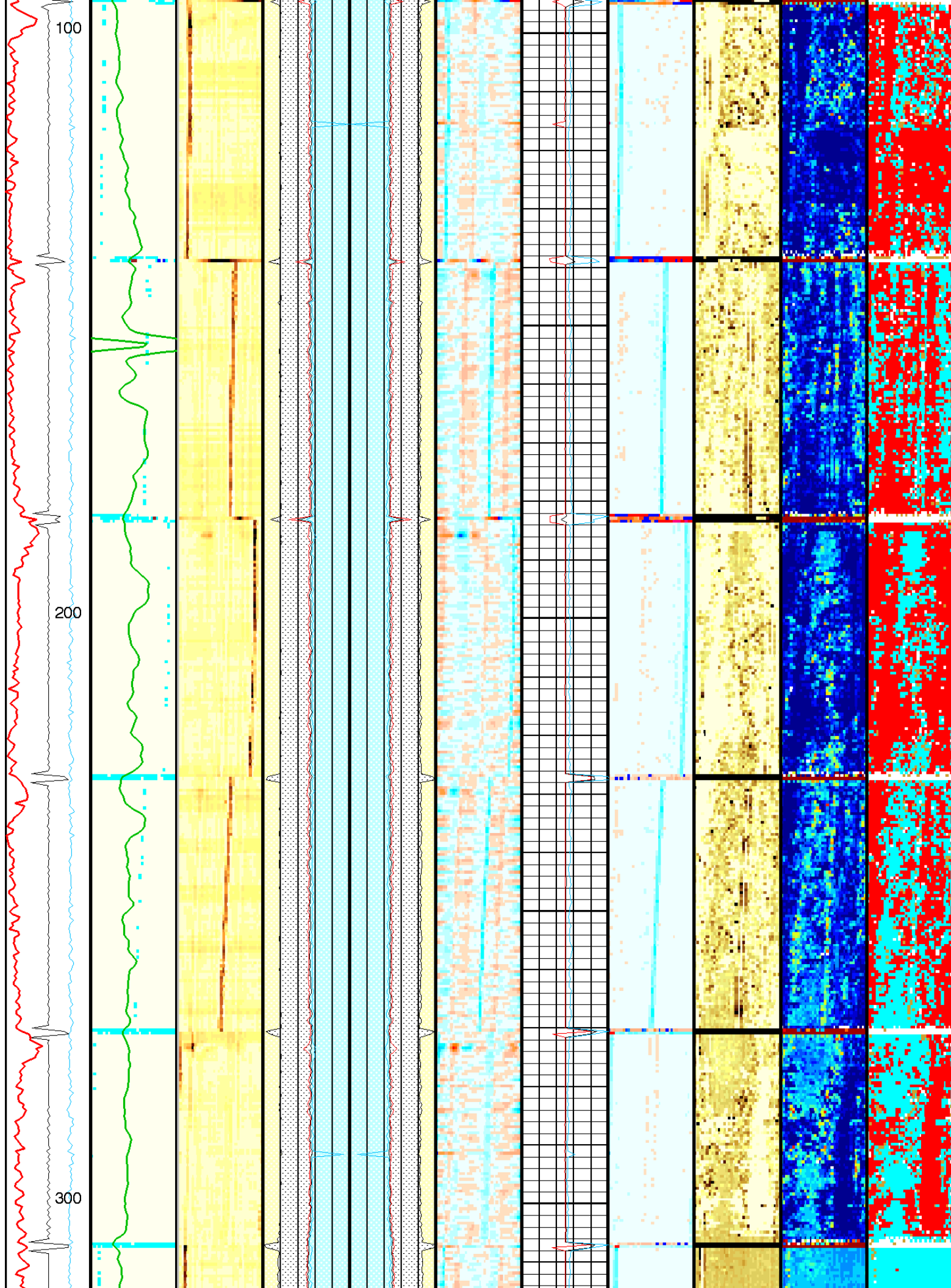
### OP System Version: 19C0-187

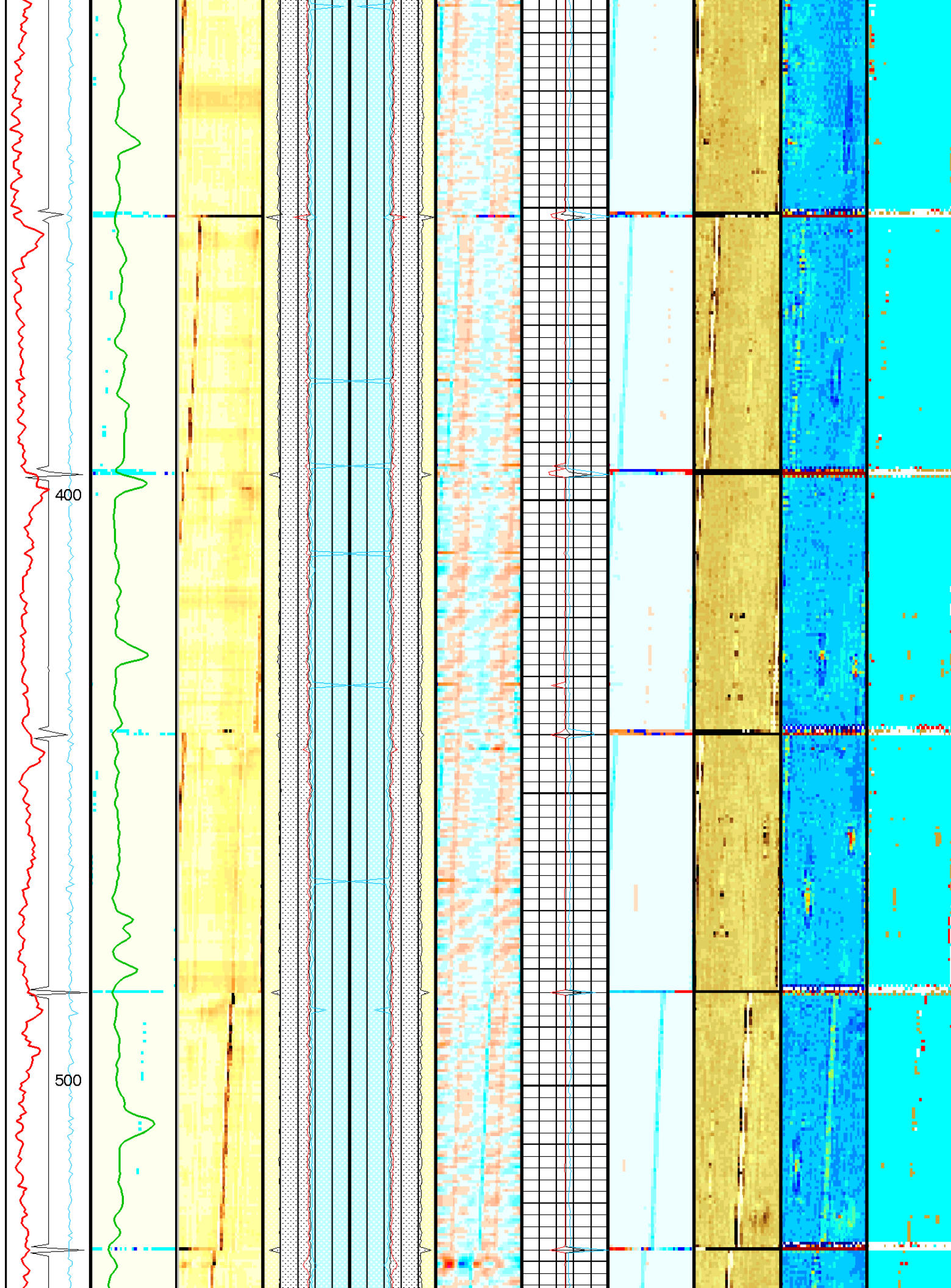
USIT-E	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

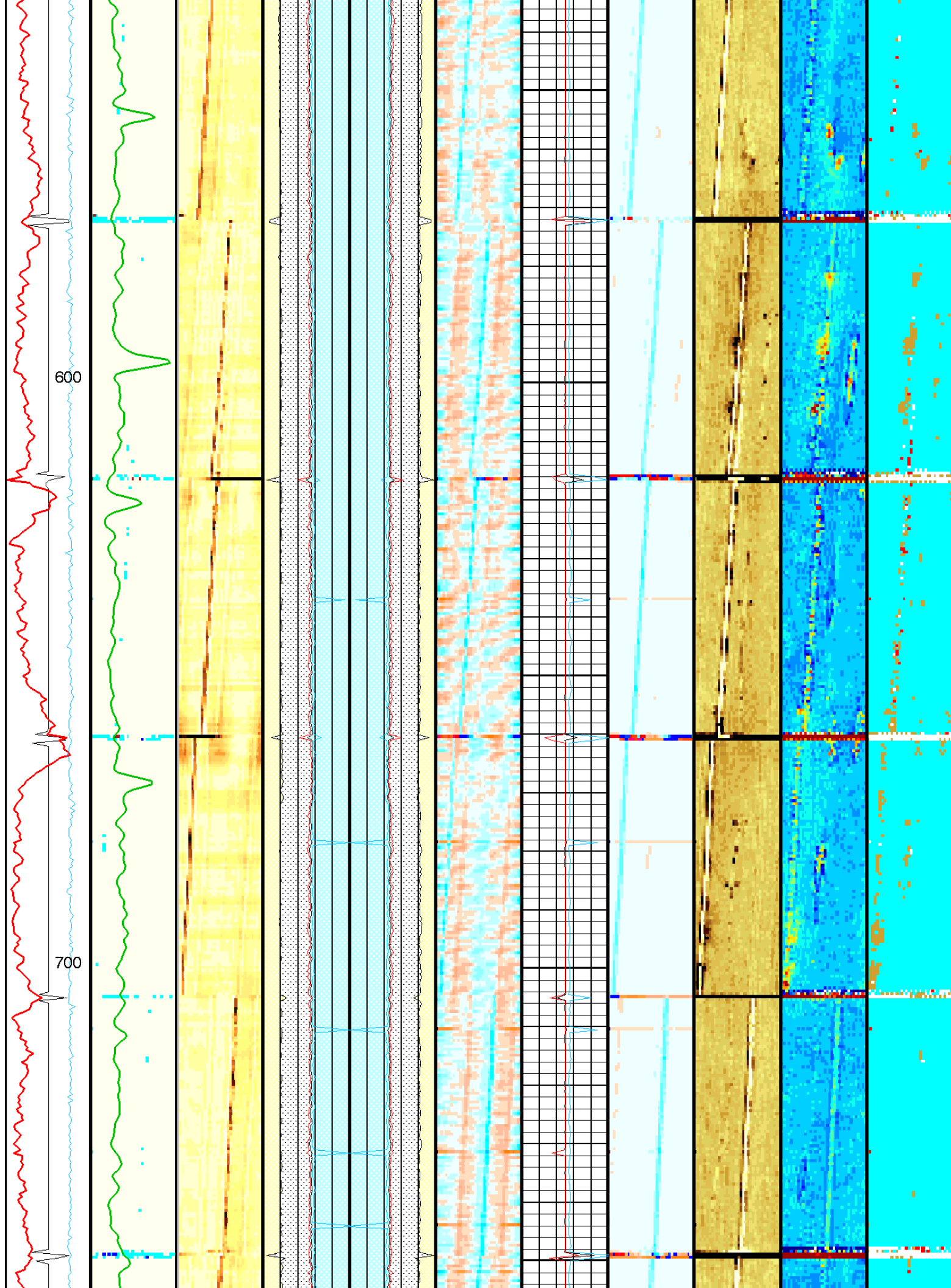
		Min of Internal radius (IRMN)		Min of Internal radius (IRMN)			
		5 (IN)	4	4 (IN)	5		
RSAV (RSAV) (RPS)	6					Maximum of Thickness (THMX) (IN)	
		Internal radius Maximum (IRMX)		Internal radius Maximum (IRMX)			
		5 (IN)	4	4 (IN)	5		
						0.1	0.6



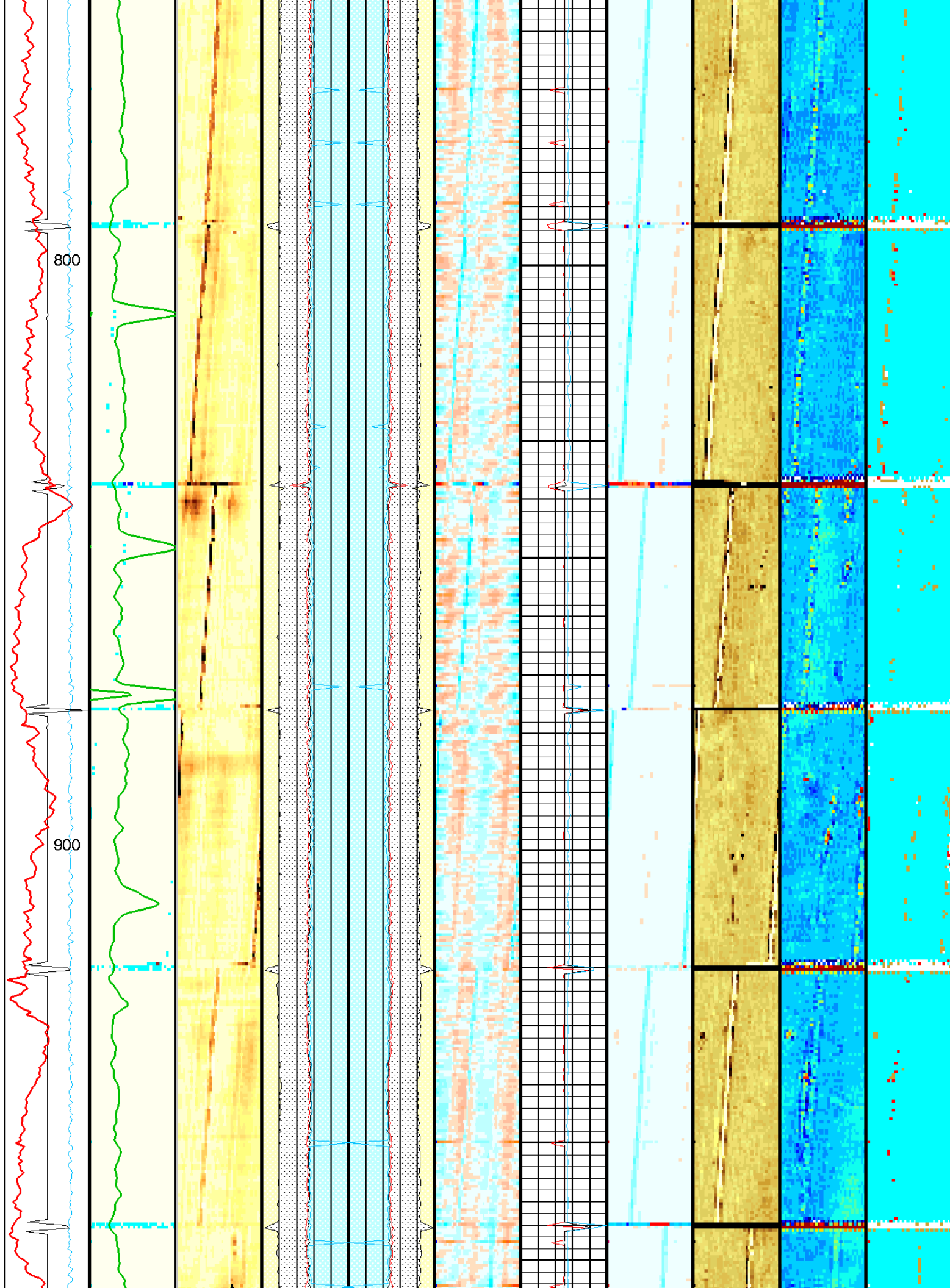


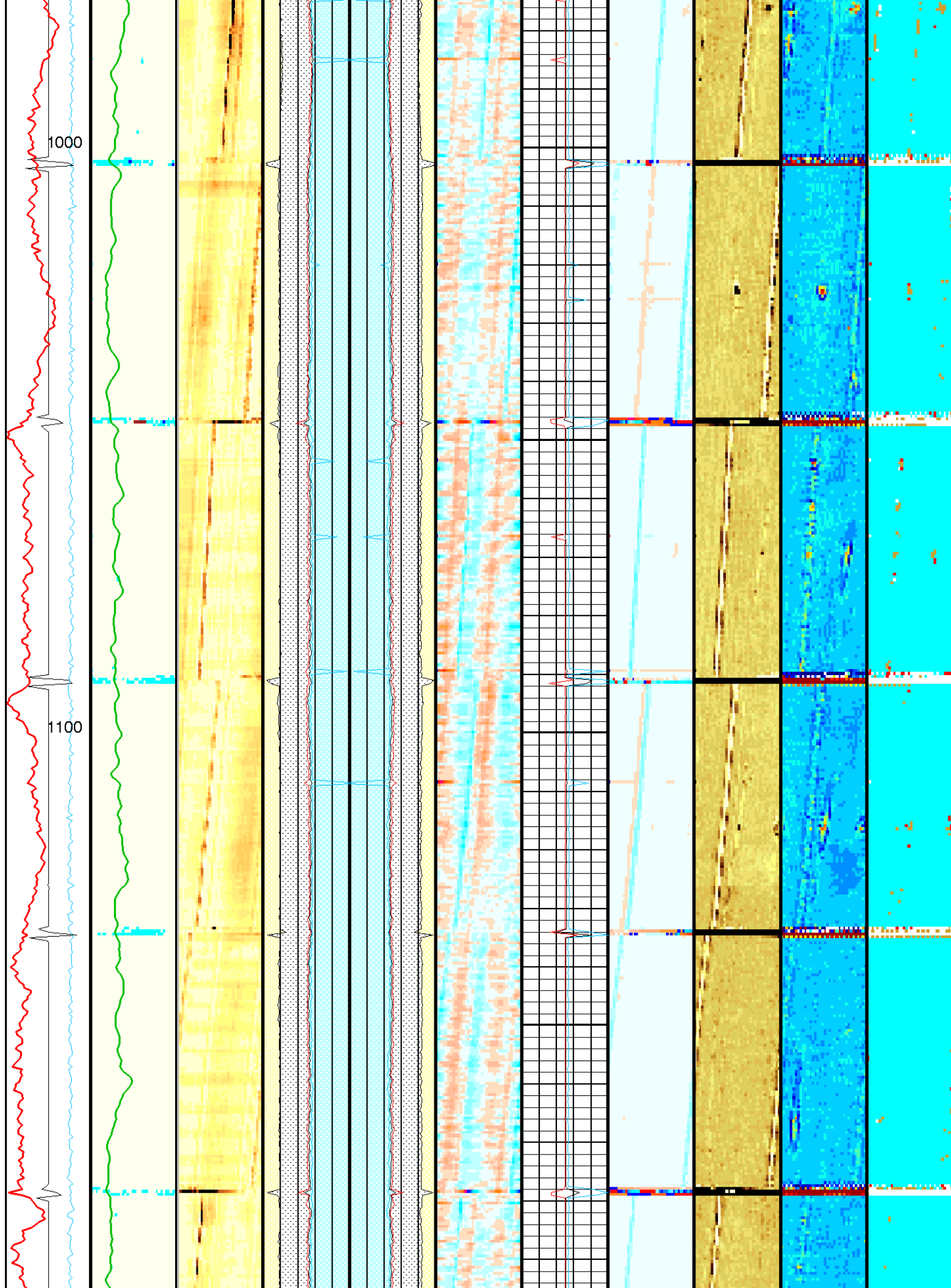


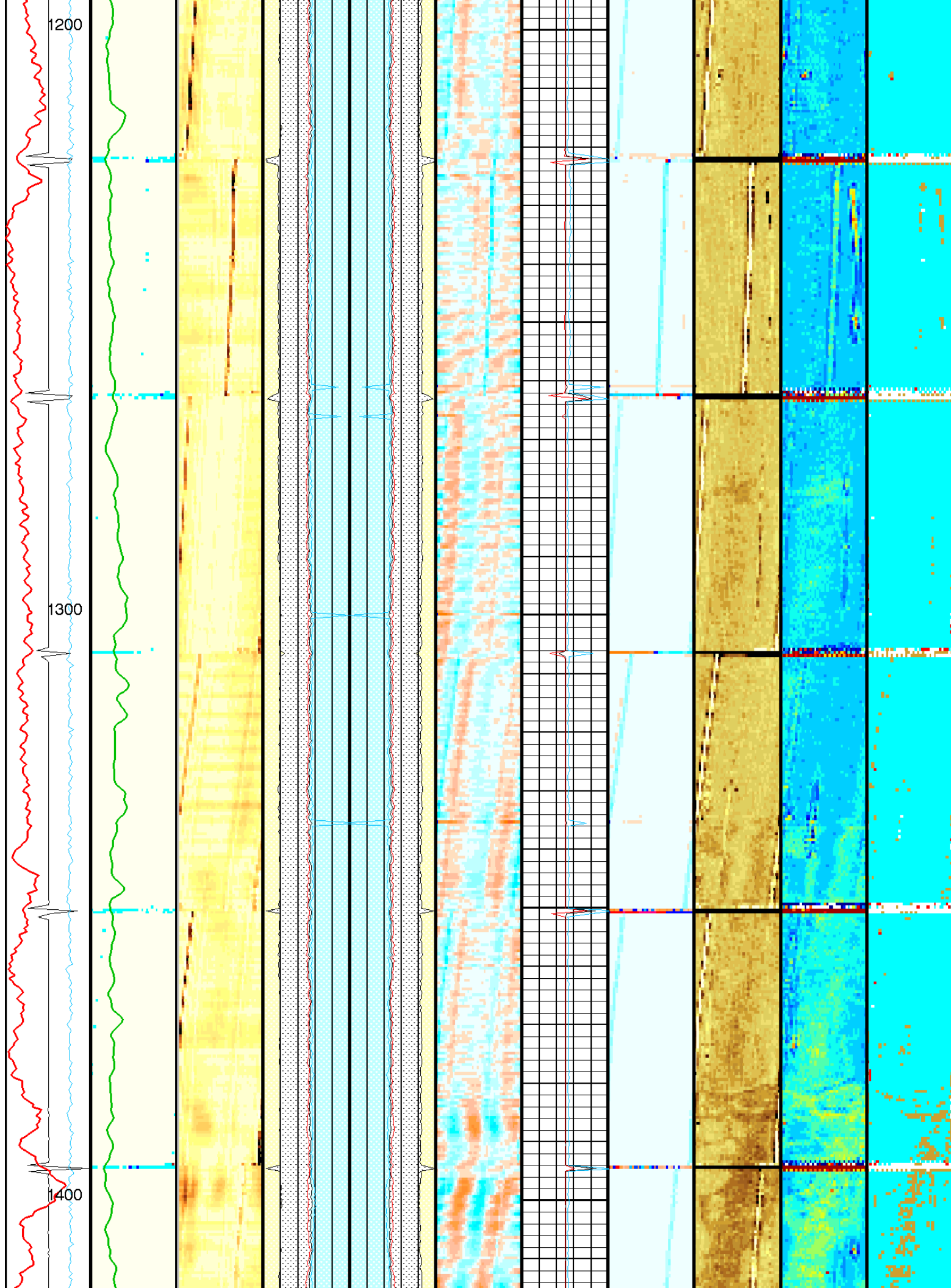




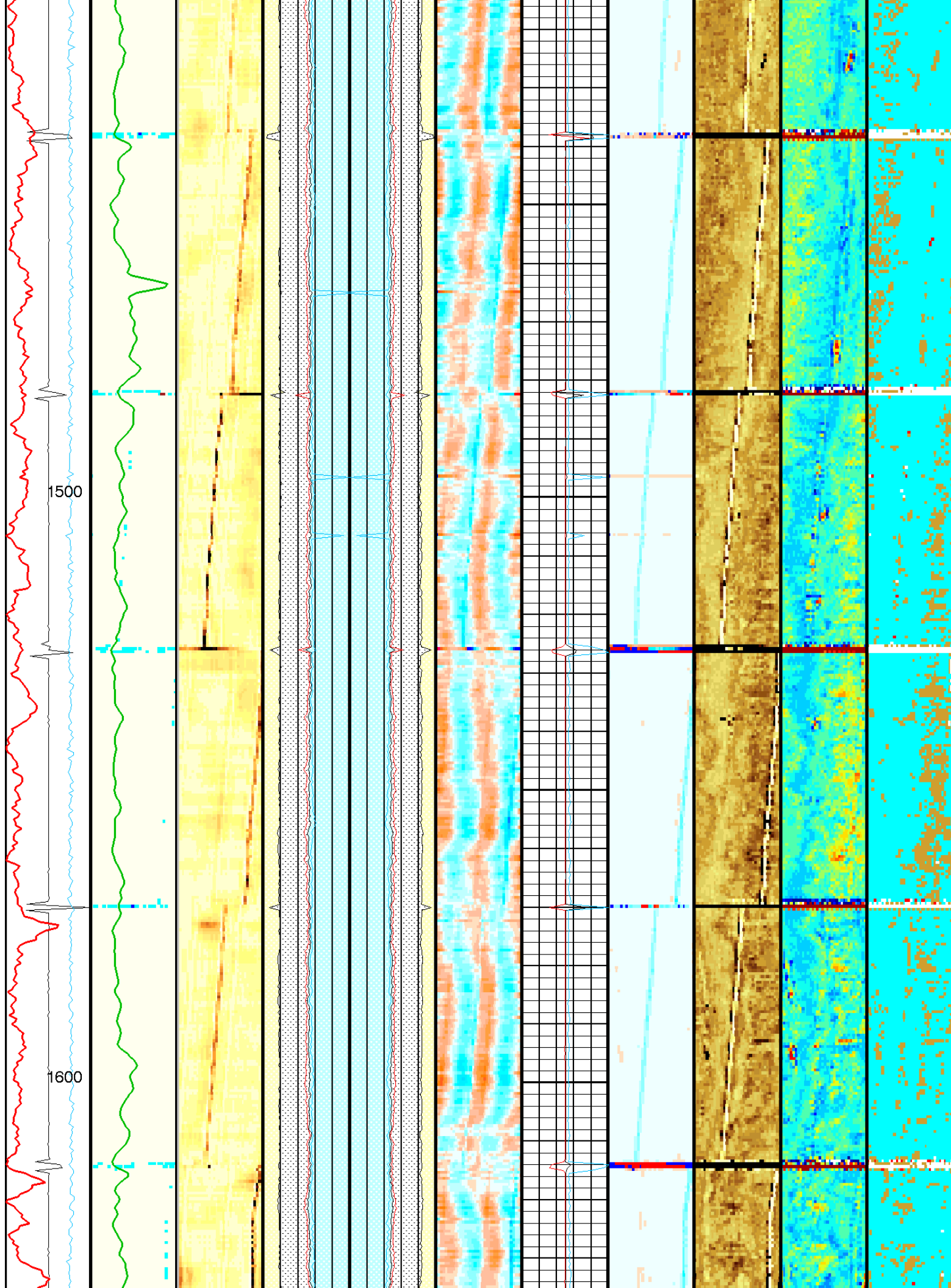




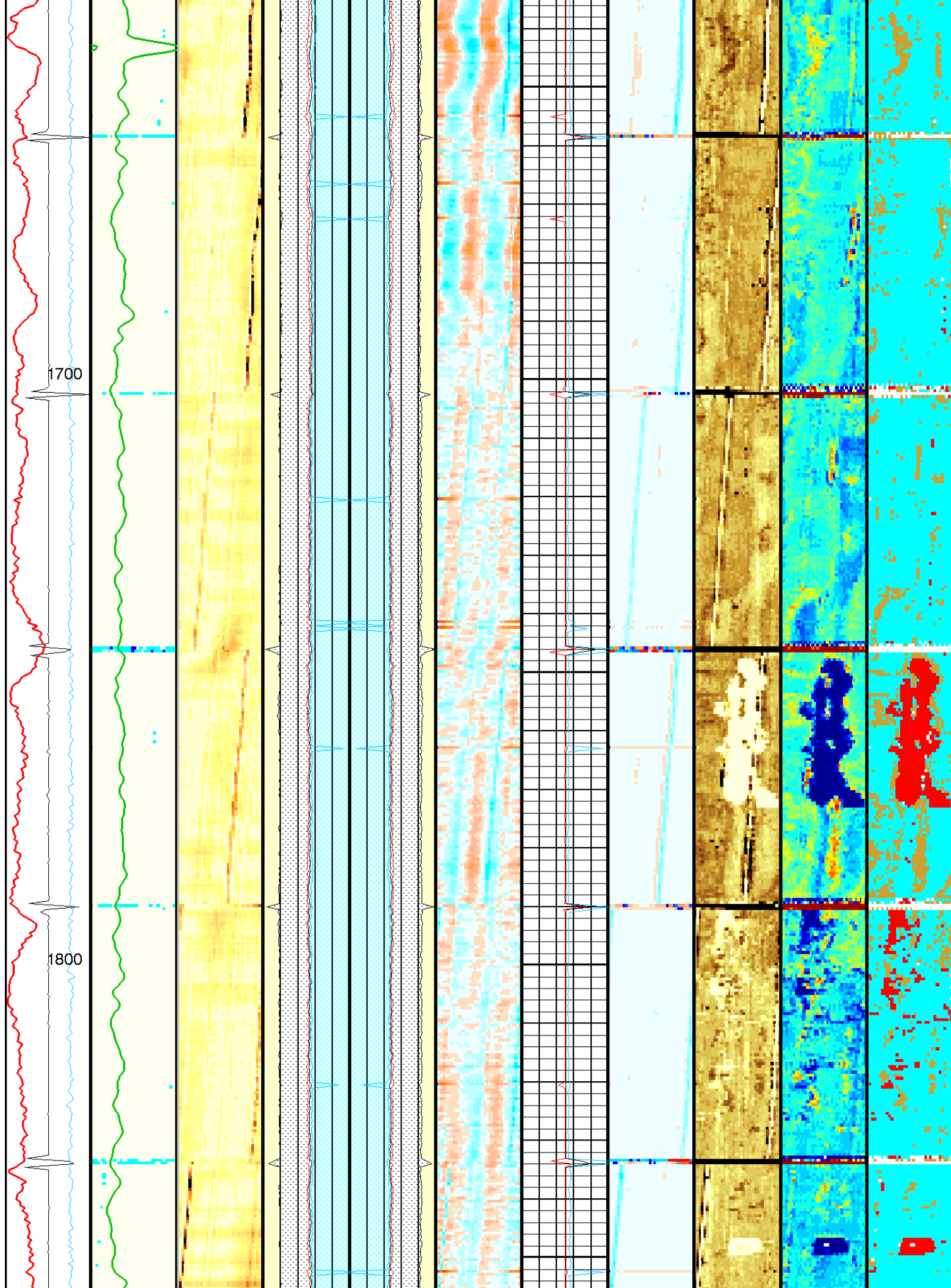


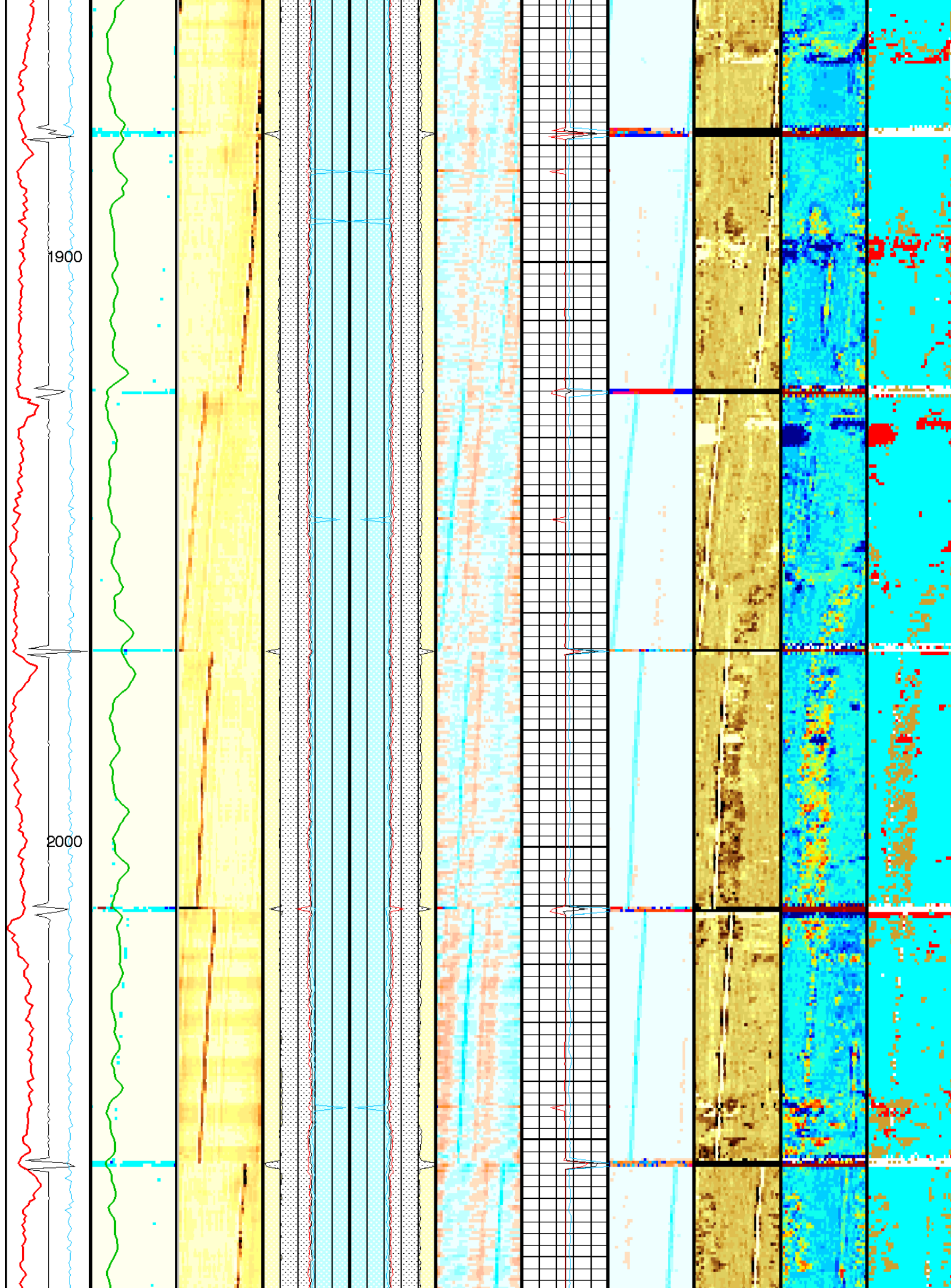


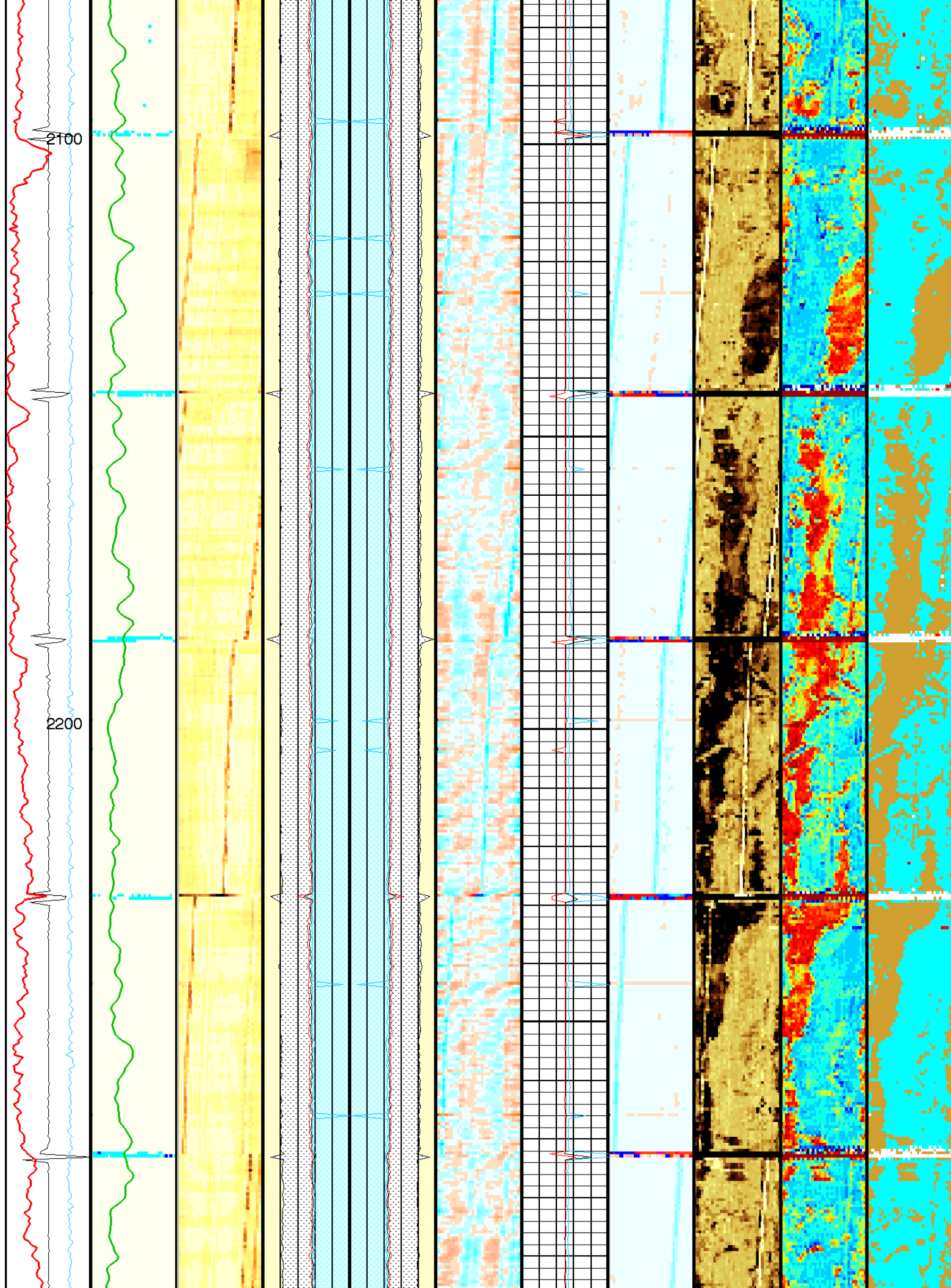




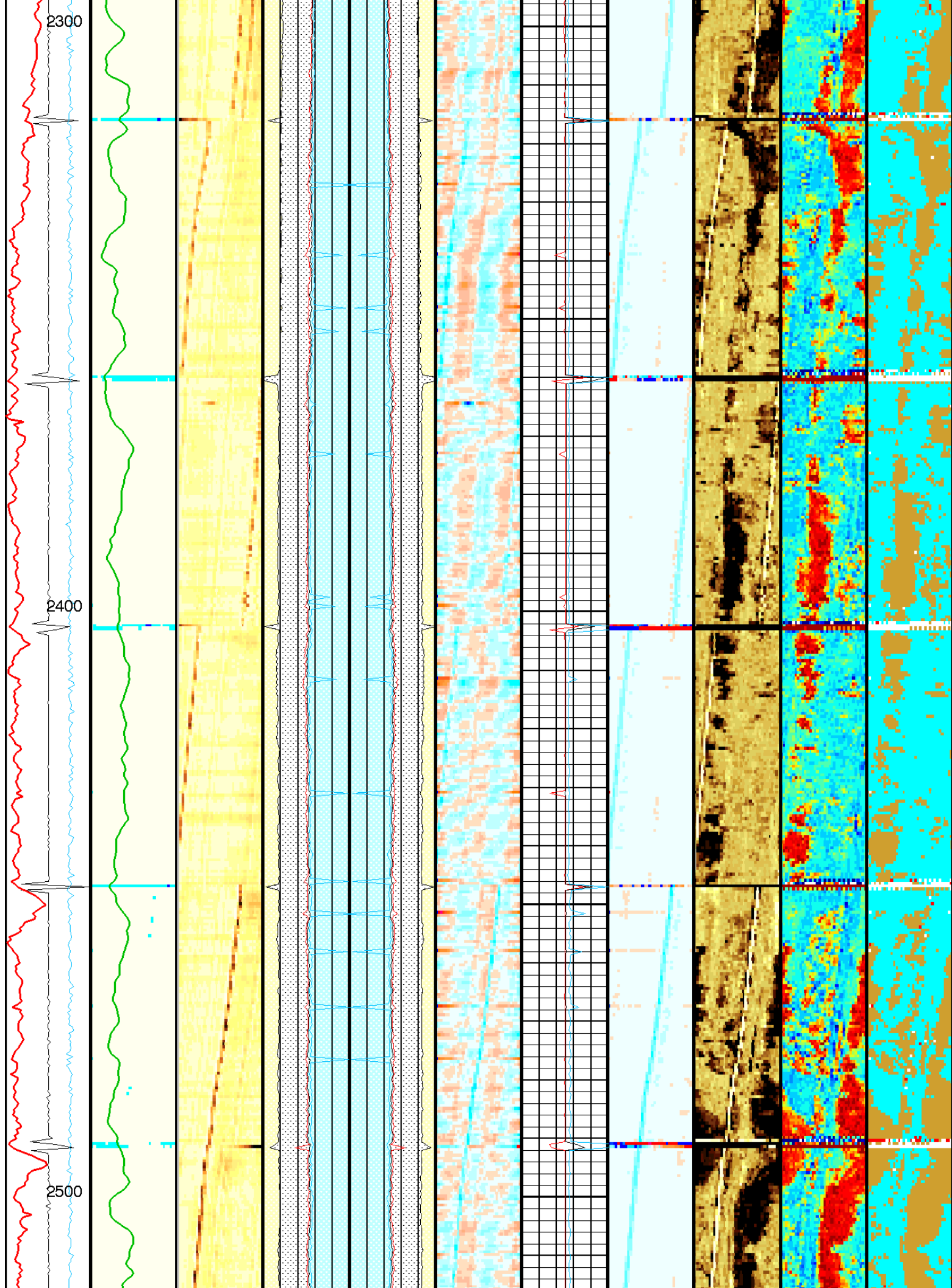


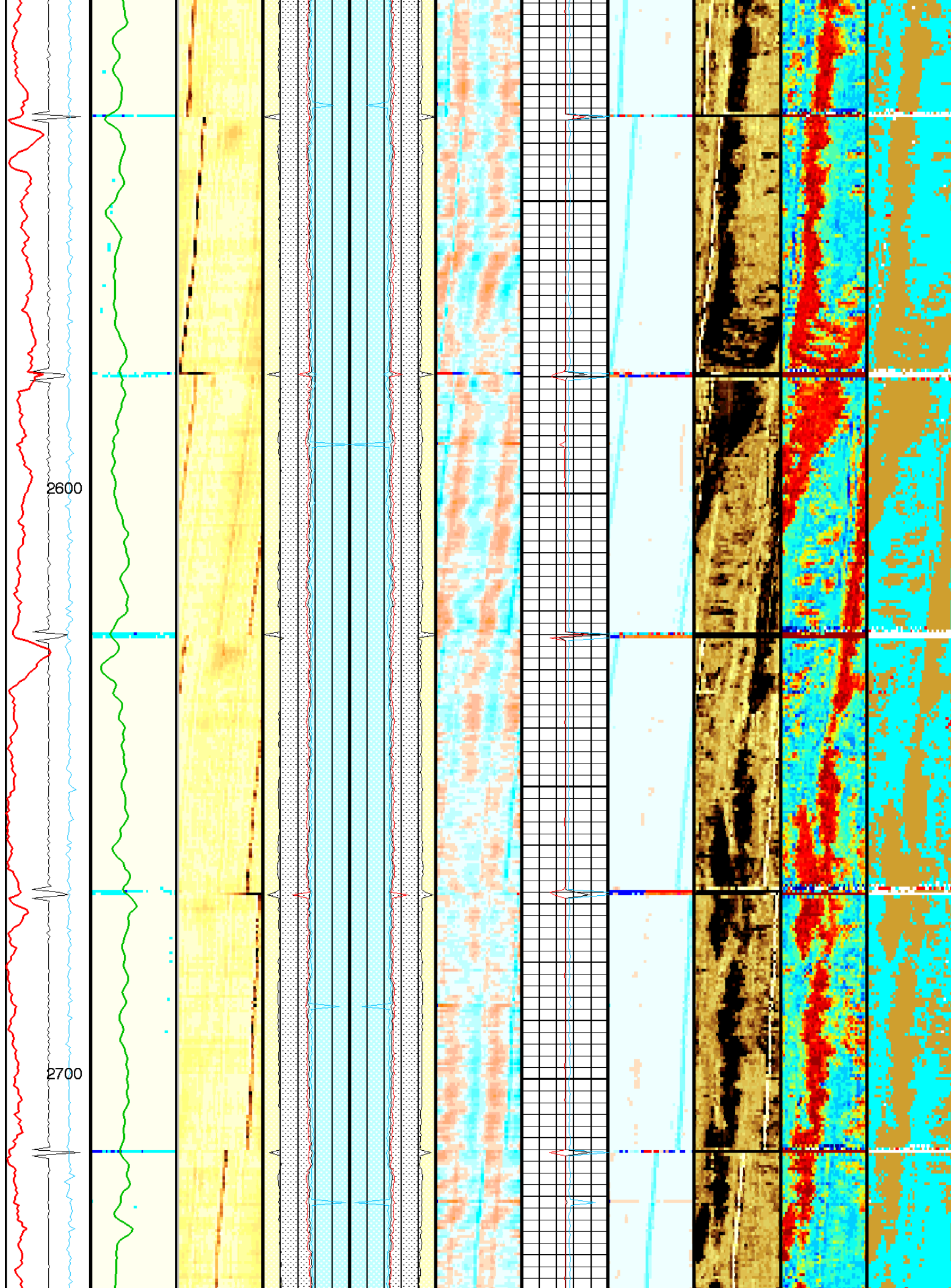


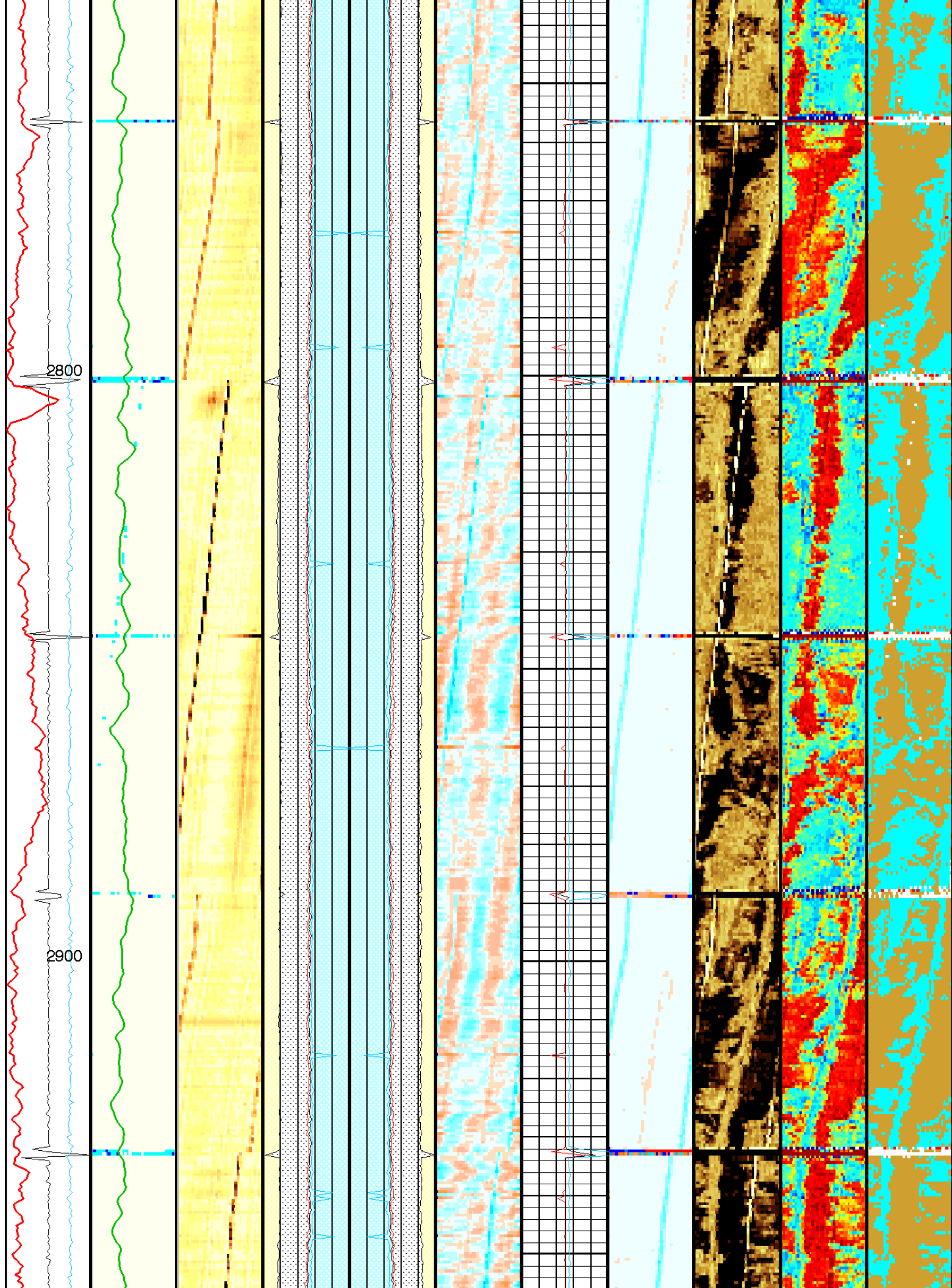




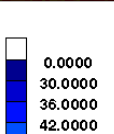
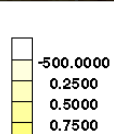
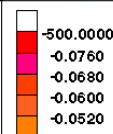
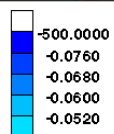
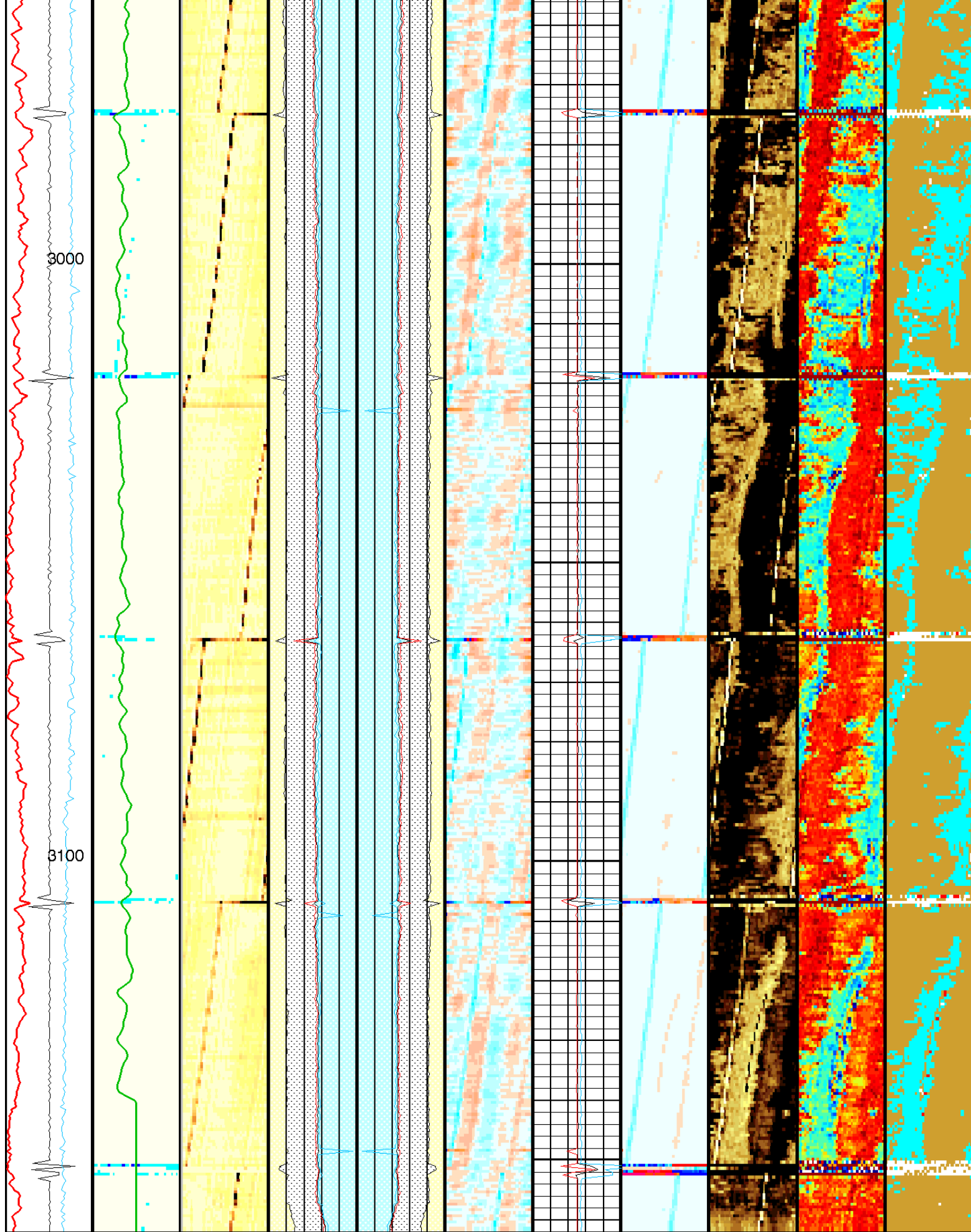


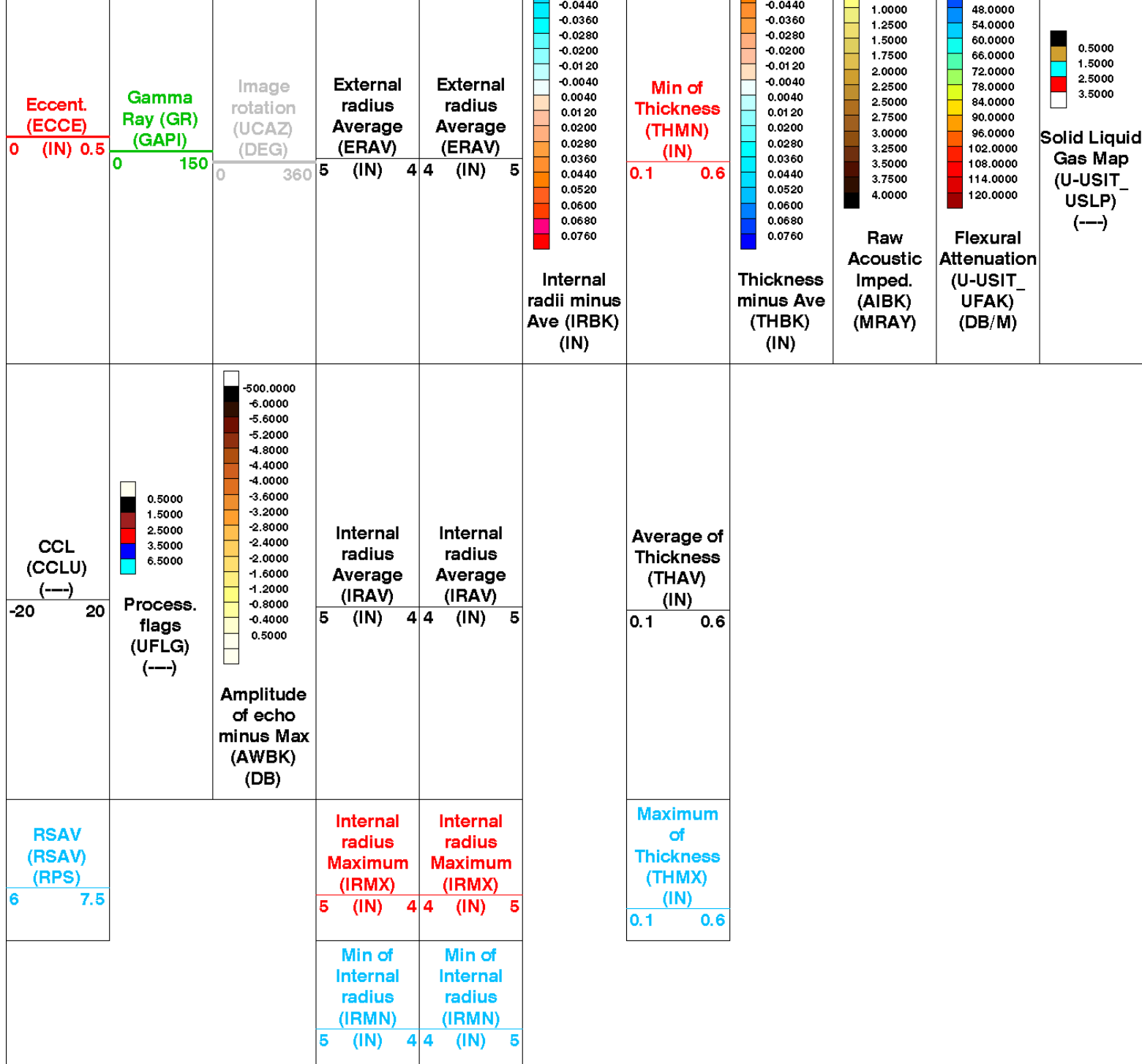












Format: 5 inch IBC CEMENT COMPOSITE      Vertical Scale: 5" per 100'      Graphics File Created: 10-Jul-2013 15:34

## OP System Version: 19C0-187

USIT-E	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

All USI Images are outside views

USI : LOW Frequency Compression Mode Used For Logging.

Recommended casing thickness range for optimum cement impedance measurement : 0.27 to 0.6 IN.

## Parameters



DLIS Name	Description	Value	
USIT-E: Ultrasonic Imaging - E			
	Corrosion range maximum	0.076	IN
	T <sup>3</sup> Processing Length for FPM	26.648	US
	Corrosion range minimum	-0.076	IN
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	9.625	IN
CDUN	Curves Unit Declared in Presentation Manager	IN	
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	8.921	IN
CYST	Casing Yield Strength	0	PSI
DFVL	Default Fluid Velocity	206	US/F
DOT	Diameter of Transducer Sensor	4.874	IN
EMXV	EMEX Voltage	40	V
FDII	FPM Data Interpolation Interval	0	FT
FSOD	Fluid Slowness Fits Casing Outer Diameter	2_UFSL_N_UFAI	
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.4	LB/G
OPLEV	USIT Remove Flagged Data Level	level2	
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.37795	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
SDNV	Number of Vertical Samples used for Micro-debonding Computation	5	
SDTHOR	Acoustic Impedance STD Horizontal Threshold for Micro-debonding	0.5	
SDTVER	Acoustic Impedance STD Vertical Threshold for Micro-debonding	0.3	
SUBT	Ultrasonic Subassembly Type	Sub_9_58_inch_S	
TCUB	T <sup>3</sup> Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	180	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.352	IN
TMUC	Type of Mud	WBM	
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	1.7	MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0_US_P_FT	
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_MRAY	
U-USIT_OCDI	USIT Outer Casing Diameter	0	IN
U-USIT_OCSH	USIT Outer Casing Shoe	0	FT
U-USIT_OCWE	USIT Outer Casing Weight	0	LB/F
U-USIT_RFWB	USIT Remove Flagged Data Window Begin	0	US
U-USIT_RFWE	USIT Remove Flagged Data Window End	511	US
U-USIT_TIEB	IBC Third Interface Echo Bin Processing	YES	
U-USIT_TIEC	IBC Third Interface Echo Cleaning	NONE	
U-USIT_TIEM	IBC Third Interface Echo Multi Tracking	NO	
U-USIT_TIEP	IBC Third Interface Echo Policy	BFEP	
U-USIT_TIER	IBC Third Interface Echo Receivers	BOTH	
U-USIT_U3WE	Third Interface Echo Window End	110	US
U-USIT_UBTP	USIT Bottom Transducer Position	UNKNOWN	
U-USIT_UDFC	USIT Deflector for Casing	NONE	
U-USIT_UFAO	USIT Flexural Attenuation Offset	-5	DB/M
U-USIT_UFGA	Far Receiver Maximum Gain of Cartridge	48	DB
U-USIT_UFGI	Far Receiver Minimum Gain of Cartridge	-12	DB
U-USIT_UHCI	USIT IBC Hydraulic Communication Interval	06FT_02M	
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_ibcs_C	
U-USIT_UNGA	Near Receiver Maximum Gain of Cartridge	48	DB
U-USIT_UNGI	Near Receiver Minimum Gain of Cartridge	-12	DB
U-USIT_URTP	USIT Radial Transducer Position	UNKNOWN	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	18	DEG
UPAT	Emission Pattern	Pattern_375K	
USIT_USAC_TASK_ALLOW	USIT USAC Allow Task after Power Up	YES	
USIT_USAC_TASK_TIMEOUT	USIT USAC Task Timeout (in seconds) FOR TEST REPORT	600	
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_9_58_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T <sup>3</sup> Processing Length	21.1081	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.55	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
SGT-N: Scintillation Gamma Ray Tool - N			
BHS	Borehole Status	CASED	
BHT	Bottom Hole Temperature (used in calculations)	130	DEGF
DPPM	Density Porosity Processing Mode	STAN	
GCSE	Generalized Caliper Selection	BS	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.01	DF/F
GRSE	Generalized Mud Resistivity Selection	CHART GEN 9	
GTSE	Generalized Temperature Selection	LINEAR ESTIMATE	

CTSE	Generalized Temperature Selection	LINEAR ESTIMATE	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	95	DEGF
SOGR	SGT Standoff Distance	0	IN
System and Miscellaneous			
ALTDPCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BS	Bit Size	14.750	IN
BSAL	Borehole Salinity	-50000.00	PPM
CSIZ	Current Casing Size	9.625	IN
CWEI	Casing Weight	36.00	LB/F
DFD	Drilling Fluid Density	8.40	LB/G
DO	Depth Offset for Playback	0.0	FT
FLEV	Fluid Level	0.00	FT
MST	Mud Sample Temperature	-50000.00	DEGF
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	RECOMPUTE	
RMFS	Resistivity of Mud Filtrate Sample	-50000.0000	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	3381	FT
TDD	Total Depth - Driller	3277.00	FT
TDL	Total Depth - Logger	3160.00	FT
TWS	Temperature of Connate Water Sample	100.00	DEGF

### Input DLIS Files

USI\_011PUP      FN:12      10-Jul-2013 08:55      3162.0 FT      0.5 FT

### Output DLIS Files

DEFAULT      USI\_003PUP      FN:2      PRODUCER      10-Jul-2013 15:34

**Schlumberger**

**USI\_IBC\_SLG  
MAIN PASS**

MAXIS Field Log

Company: ENCANA OIL & GAS (USA) INC.

Well: SG 8505A-24 (L24 496)

### Input DLIS Files

USI\_011PUP      FN:12      10-Jul-2013 08:55      3162.0 FT      0.5 FT

### Output DLIS Files

DEFAULT      USI\_003PUP      FN:2      PRODUCER      10-Jul-2013 15:34      3162.0 FT      0.5 FT

### OP System Version: 19C0-187

USIT-E      19C0-187      SGT-N      19C0-187  
DTC-H      19C0-187

Image  
rotation  
(UCAZ)  
(DEG)

0      360

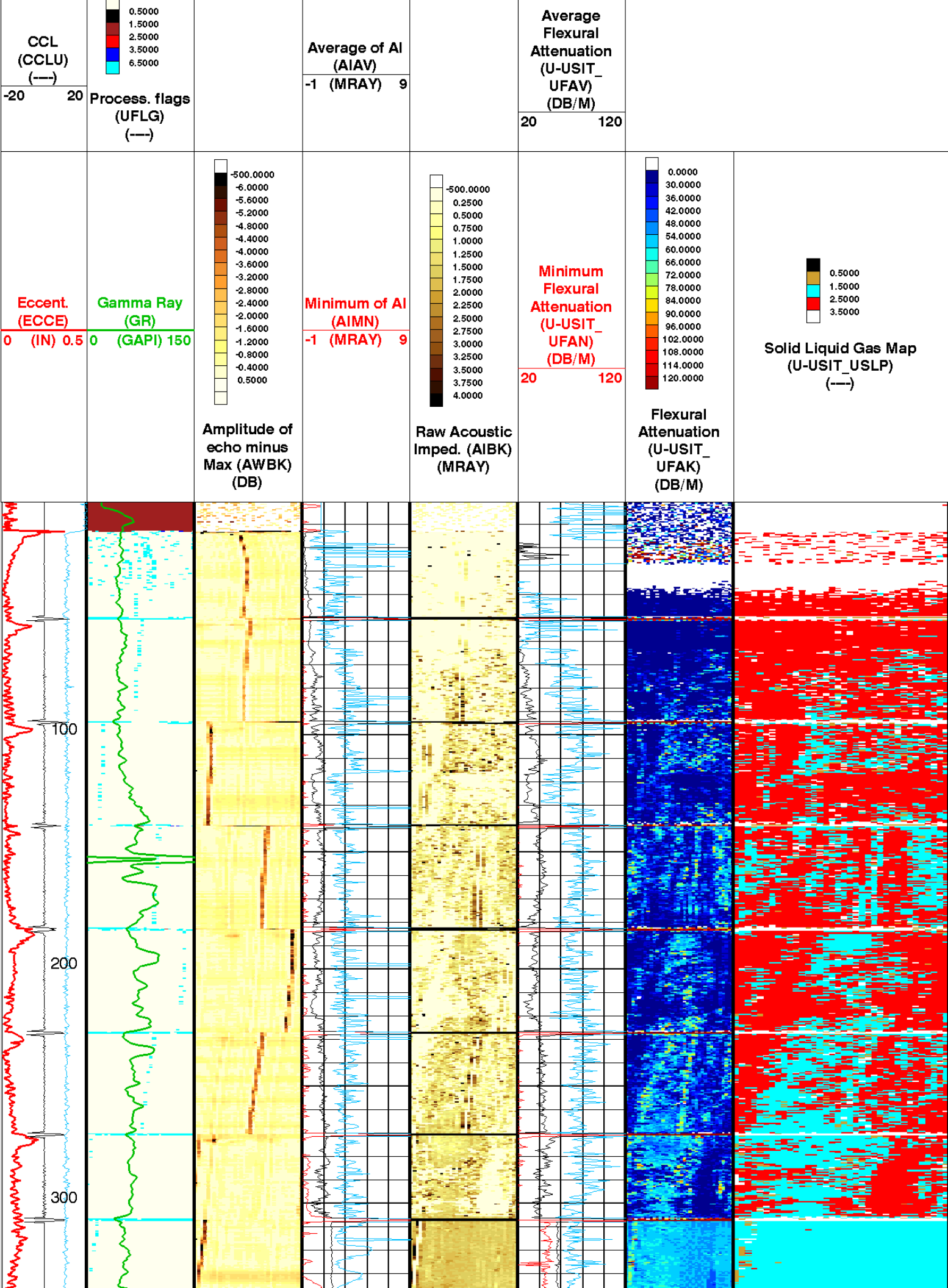
RSV  
(RSV)  
(RPS)

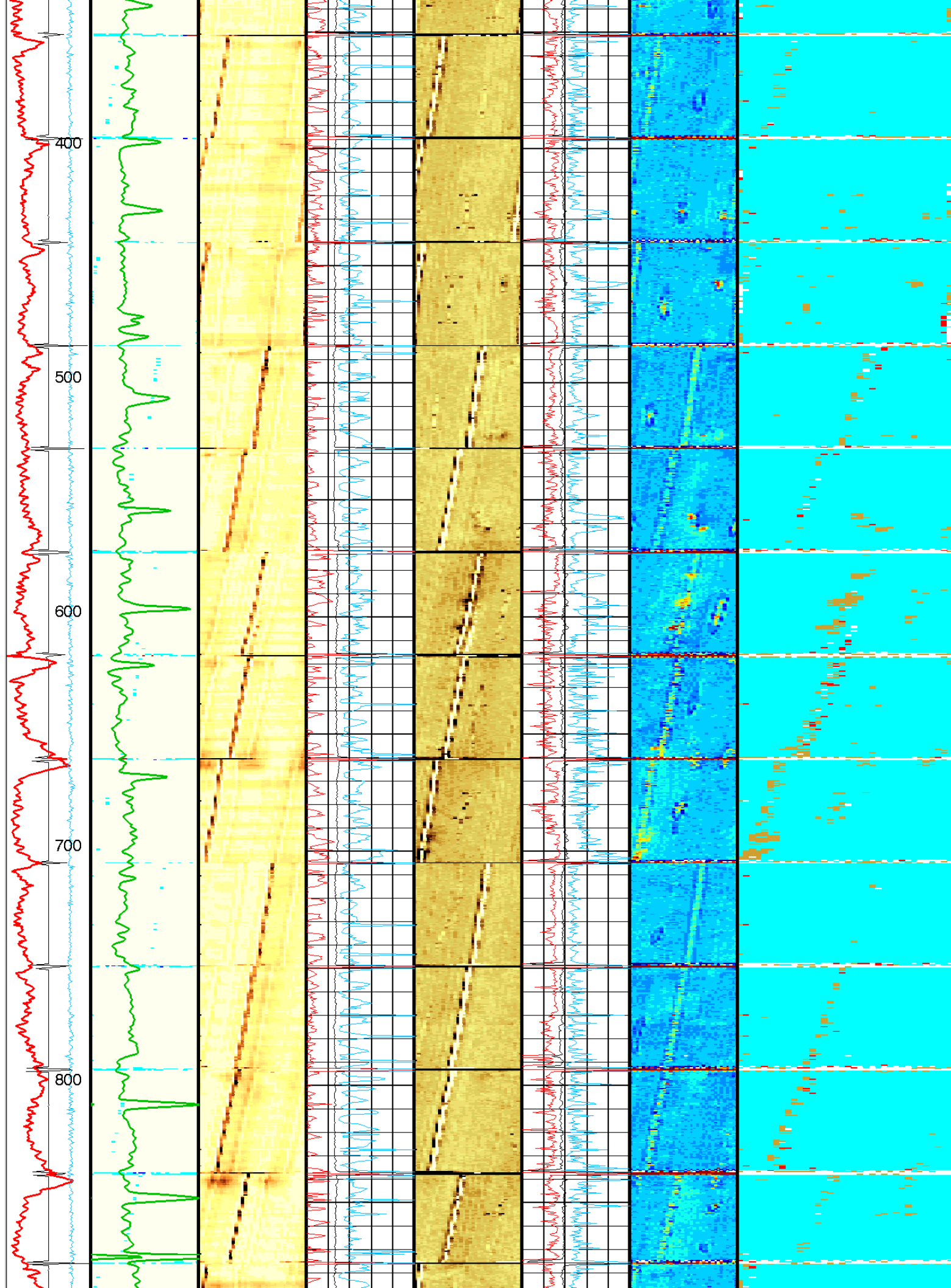
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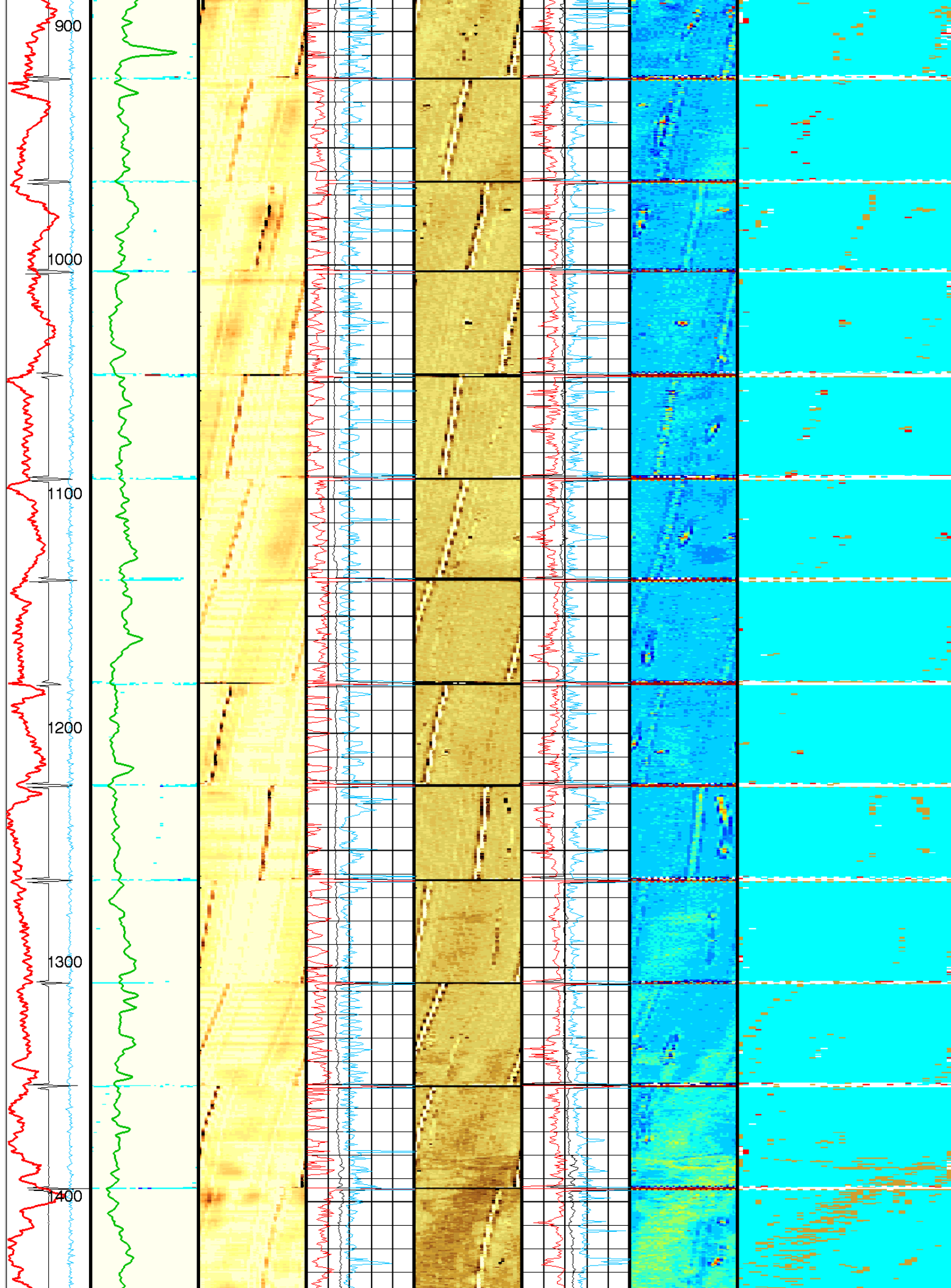
Maximum of AI  
(AIMX)  
-1 (MRAY) 9

Maximum  
Flexural  
Attenuation  
(U-USIT\_  
UFAX)  
(DB/M)

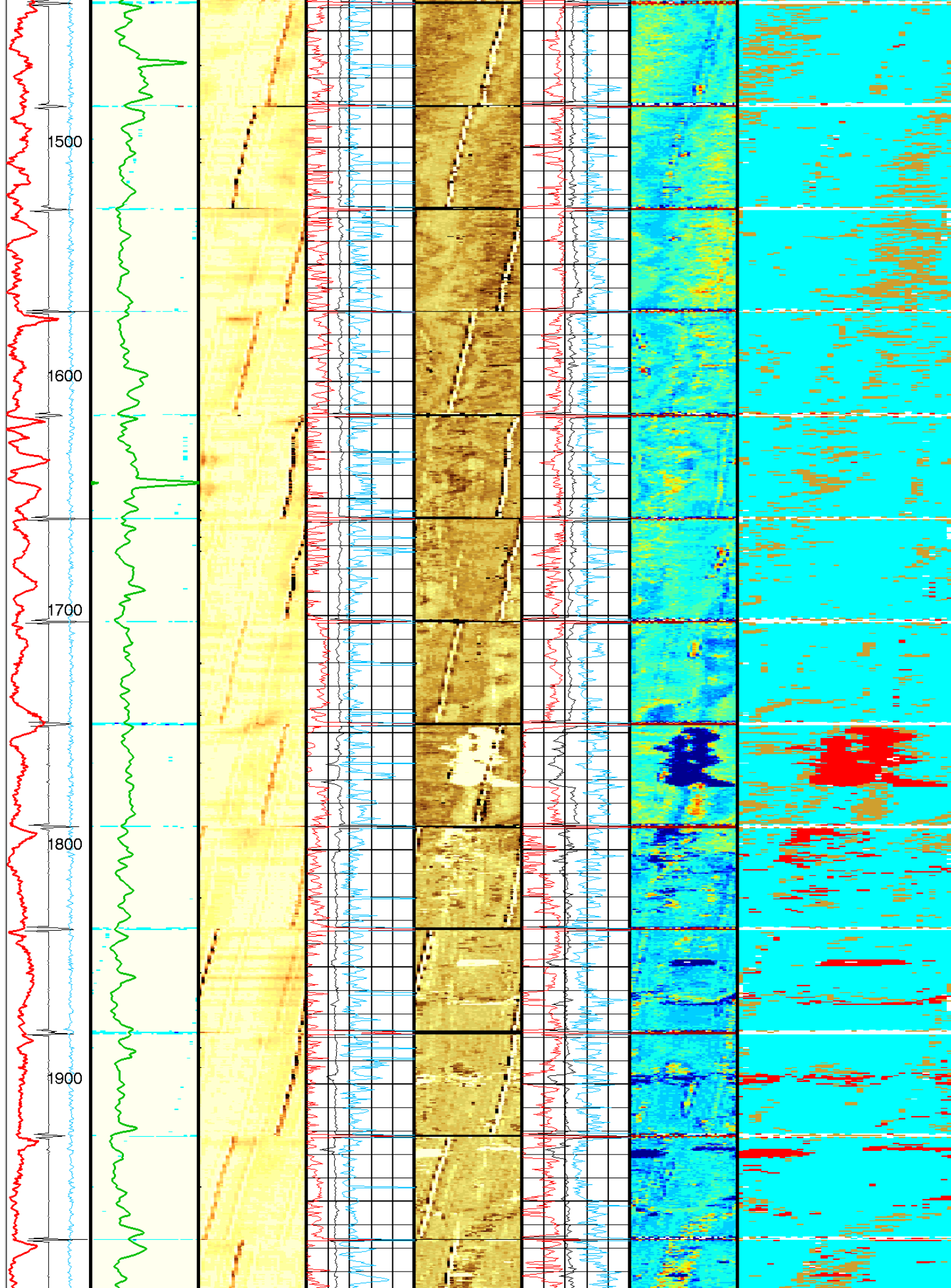
20      120

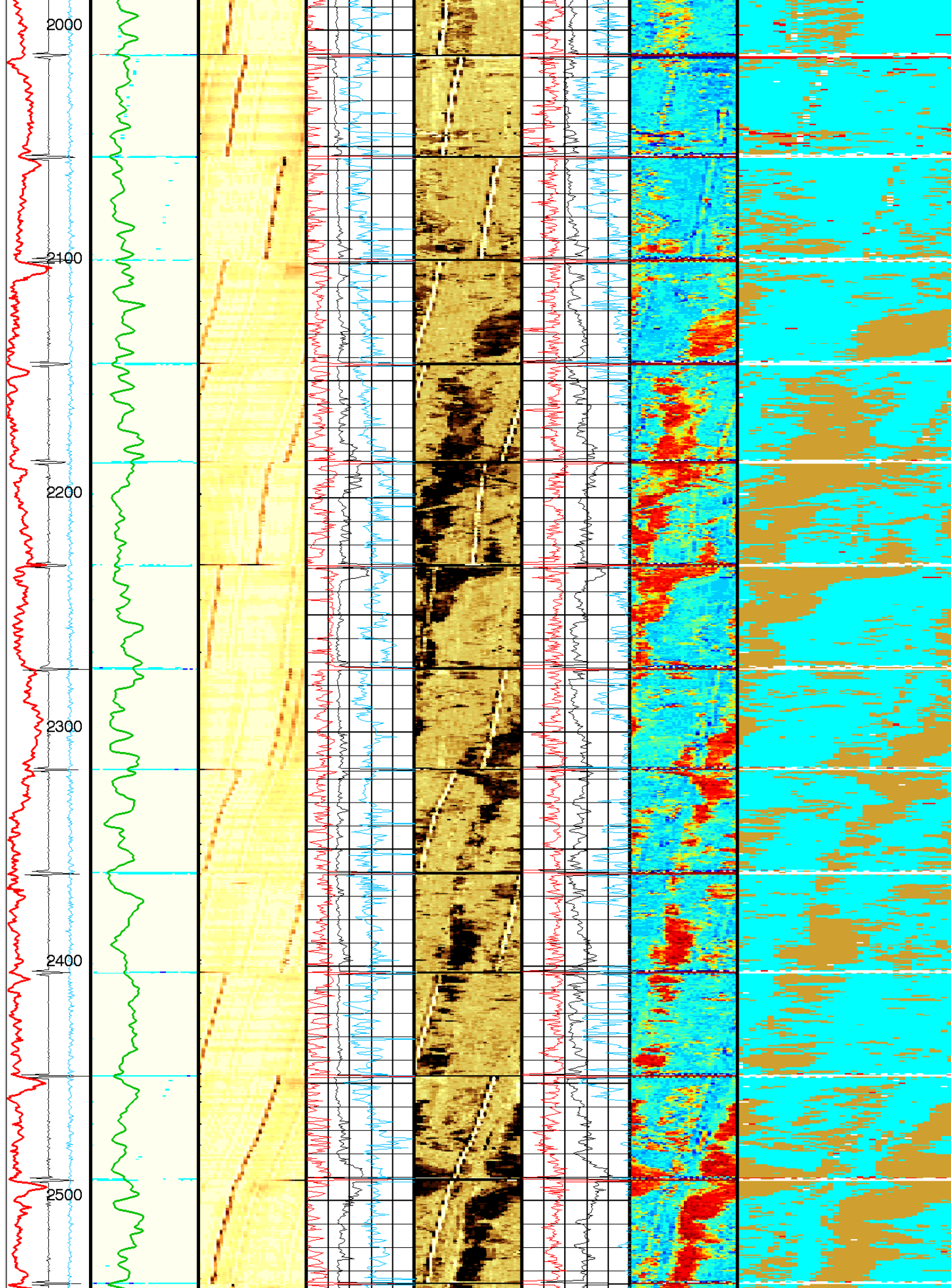




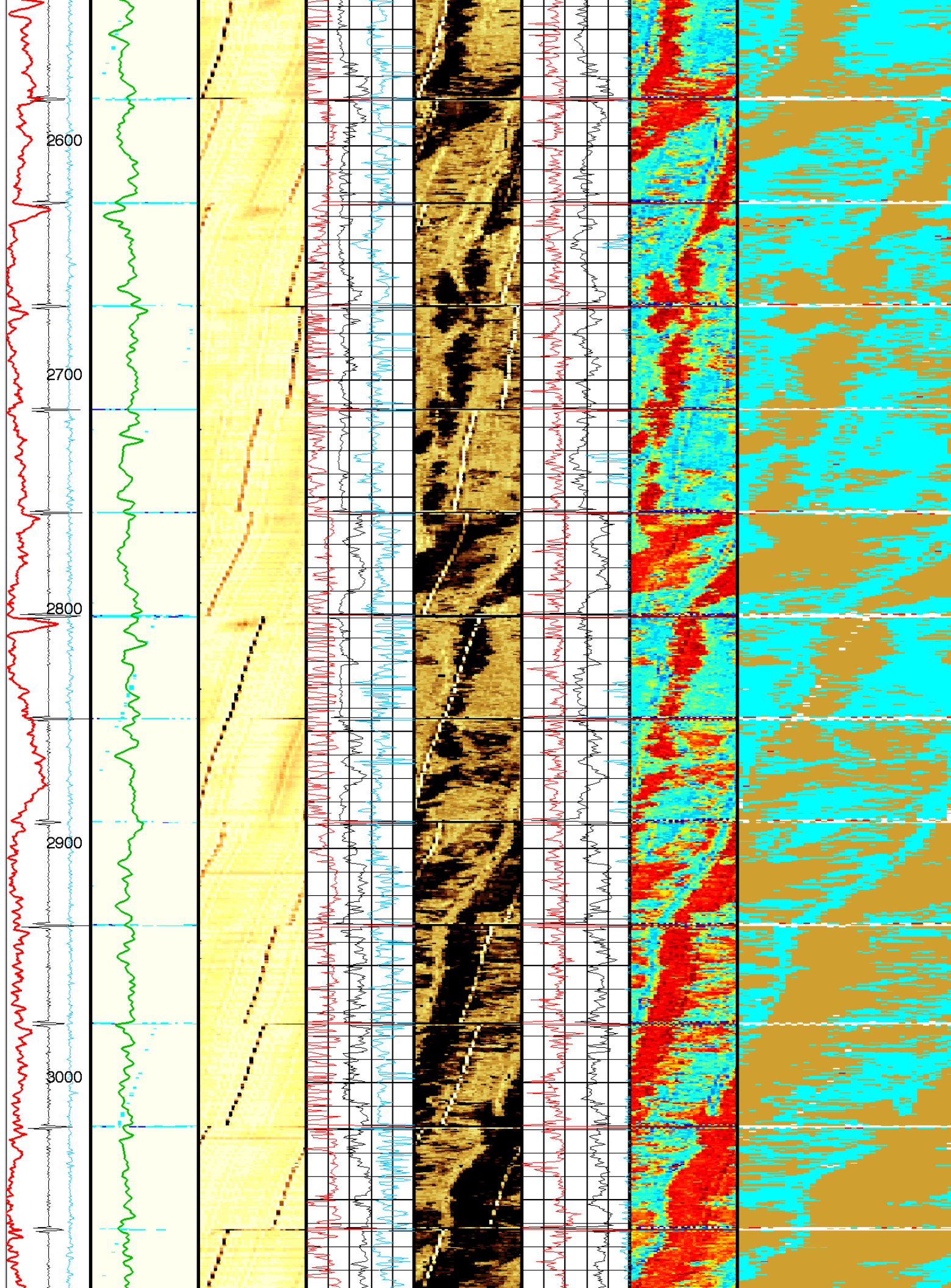




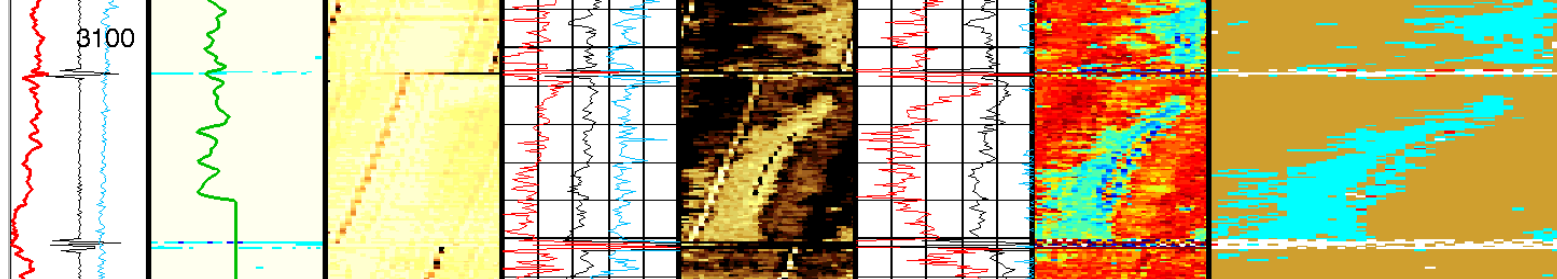





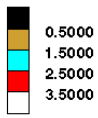











<b>Eccent. (ECCE)</b> 0 (IN) 0.5	<b>Gamma Ray (GR)</b> 0 (GAPI) 150	 <b>Amplitude of echo minus Max (AWBK) (DB)</b>	<b>Minimum of AI (AIMN)</b> -1 (MRAY) 9	 <b>Raw Acoustic Imped. (AIBK) (MRAY)</b>	<b>Minimum Flexural Attenuation (U-USIT_UFAN) (DB/M)</b> 20 120	 <b>Flexural Attenuation (U-USIT_UFAK) (DB/M)</b>	 <b>Solid Liquid Gas Map (U-USIT_USLP) (---)</b>
<b>CCL (CCLU) (---)</b> -20 20	 <b>Process. flags (UFLG) (---)</b>		<b>Average of AI (AIAV)</b> -1 (MRAY) 9		<b>Average Flexural Attenuation (U-USIT_UFAV) (DB/M)</b> 20 120		
<b>RSBV (RSBV) (RPS)</b> 6 7.5			<b>Maximum of AI (AIMX)</b> -1 (MRAY) 9		<b>Maximum Flexural Attenuation (U-USIT_UFAX) (DB/M)</b> 20 120		
<b>Image rotation (UCAZ) (DEG)</b> 0 360							

Format: 2 inch IBC SLG Vertical Scale: 2" per 100'

Graphics File Created: 10-Jul-2013 15:34

## OP System Version: 19C0-187

USIT-E 19C0-187 SGT-N 19C0-187  
DTC-H 19C0-187

All USI Images are outside views

USI : LOW Frequency Compression Mode Used For Logging.

Recommended casing thickness range for optimum cement impedance measurement : 0.27 to 0.6 IN.

## Parameters

DLIS Name	Description	Value	
USIT-E: Ultrasonic Imaging - E			
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	9.625	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	8.921	IN
DFVL	Default Fluid Velocity	206	US/F
DOT	Diameter of Transducer Sensor	4.874	IN
EMXV	EMEX Voltage	40	V
FSOD	Fluid Slowness Fits Casing Outer Diameter	2_UFSL_N_UFAI	
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.4	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.37795	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	180	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.352	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	1.7	MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0_US_P_FT	
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_MRAY	
U-USIT_OCDI	USIT Outer Casing Diameter	0	IN
U-USIT_OCSH	USIT Outer Casing Shoe	0	FT
U-USIT_OCWE	USIT Outer Casing Weight	0	LB/F
U-USIT_TIEB	IBC Third Interface Echo Bin Processing	YES	
U-USIT_TIEC	IBC Third Interface Echo Cleaning	NONE	
U-USIT_TIEM	IBC Third Interface Echo Multi Tracking	NO	
U-USIT_TIEP	IBC Third Interface Echo Policy	BFEP	
U-USIT_TIER	IBC Third Interface Echo Receivers	BOTH	
U-USIT_U3WE	Third Interface Echo Window End	110	US
U-USIT_UBTP	USIT Bottom Transducer Position	UNKNOWN	
U-USIT_UFAO	USIT Flexural Attenuation Offset	-5	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_ibcs_C	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	18	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_9_58_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	21.1081	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.55	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
System and Miscellaneous			
BS	Bit Size	14.750	IN
CWEI	Casing Weight	36.00	LB/F
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	RECOMPUTE	

## Input DLIS Files

USI_011PUP	FN:12	10-Jul-2013 08:55	3162.0 FT	0.5 FT
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## Output DLIS Files

DEFAULT	USI_003PUP	FN:2	PRODUCER	10-Jul-2013 15:34
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**USI\_IBC\_VDL\_WIDE  
MAIN PASS**

Input DLIS Files

USI\_011PUP

FN:12

10-Jul-2013 08:55

3162.0 FT

0.5 FT

Output DLIS Files

DEFAULT

USI\_003PUP

FN:2

PRODUCER

10-Jul-2013 15:34

3162.0 FT

0.5 FT

OP System Version: 19C0-187

USIT-E

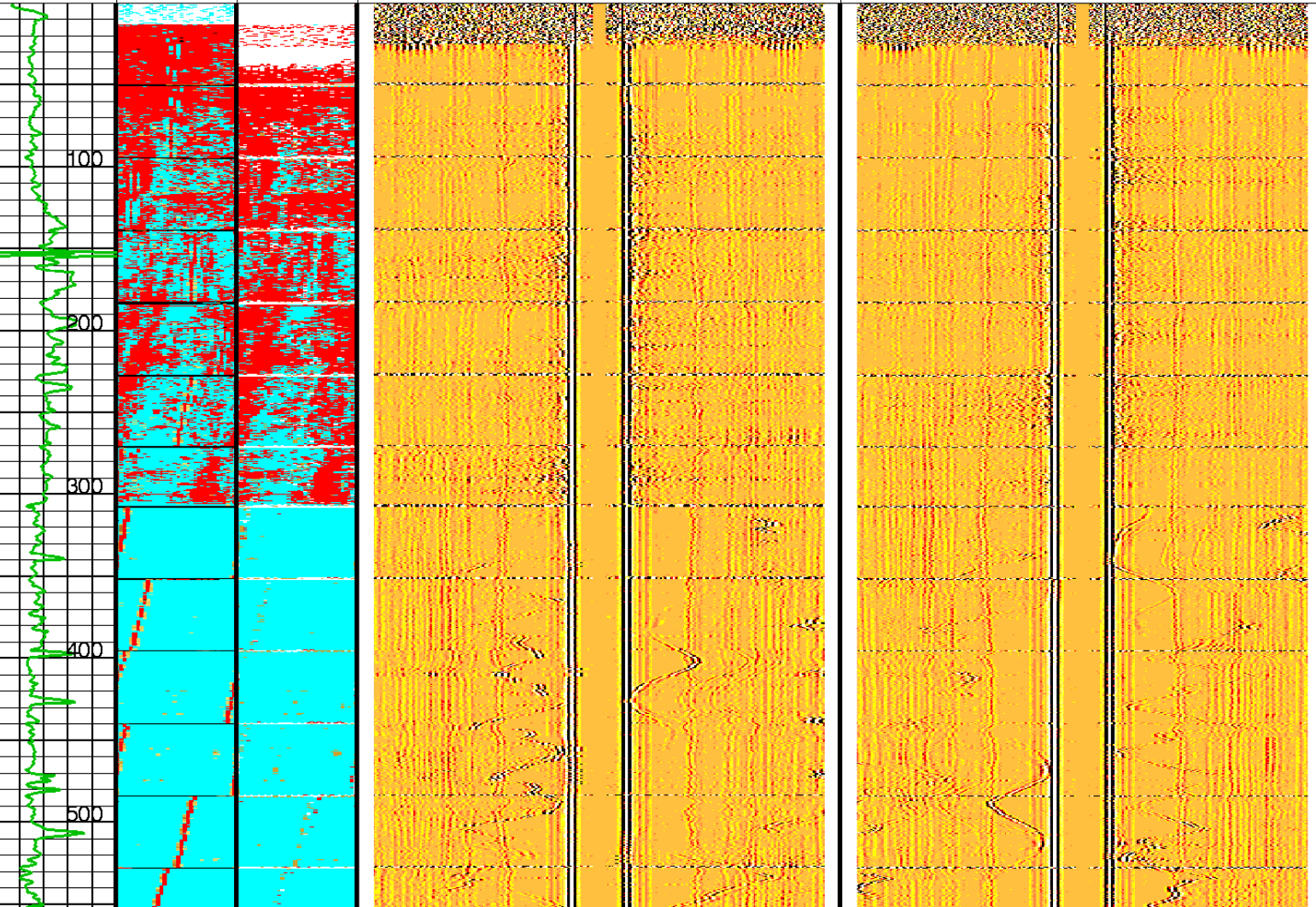
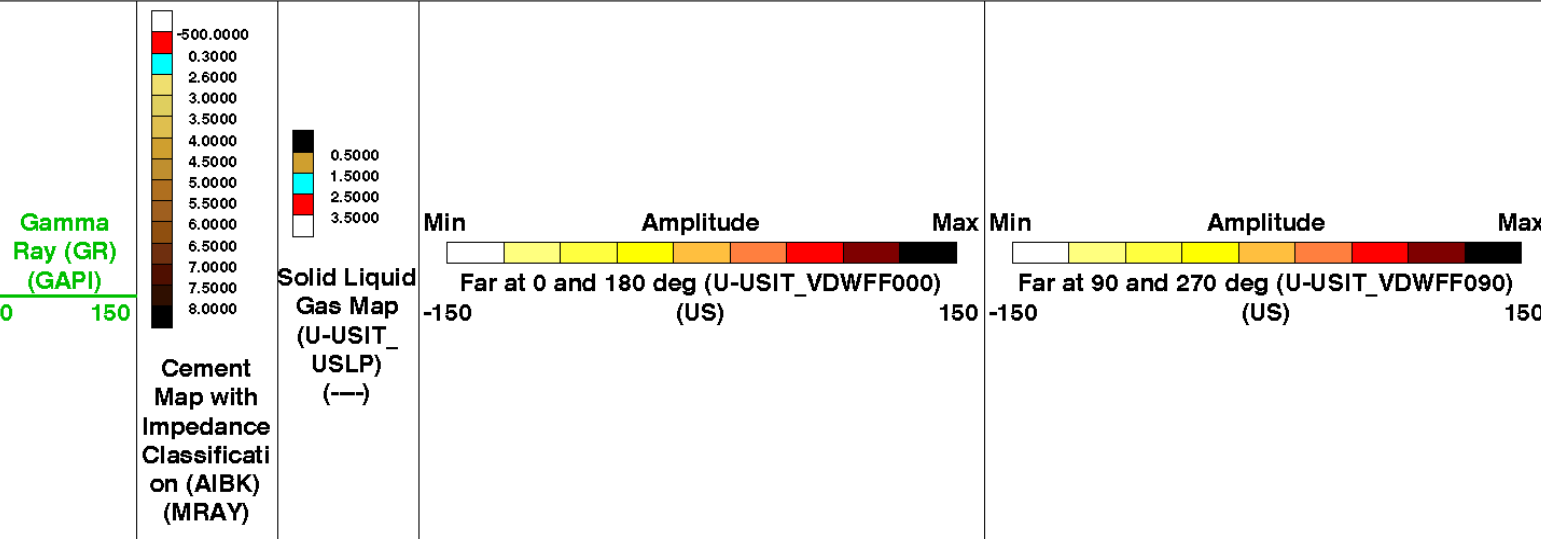
19C0-187

SGT-N

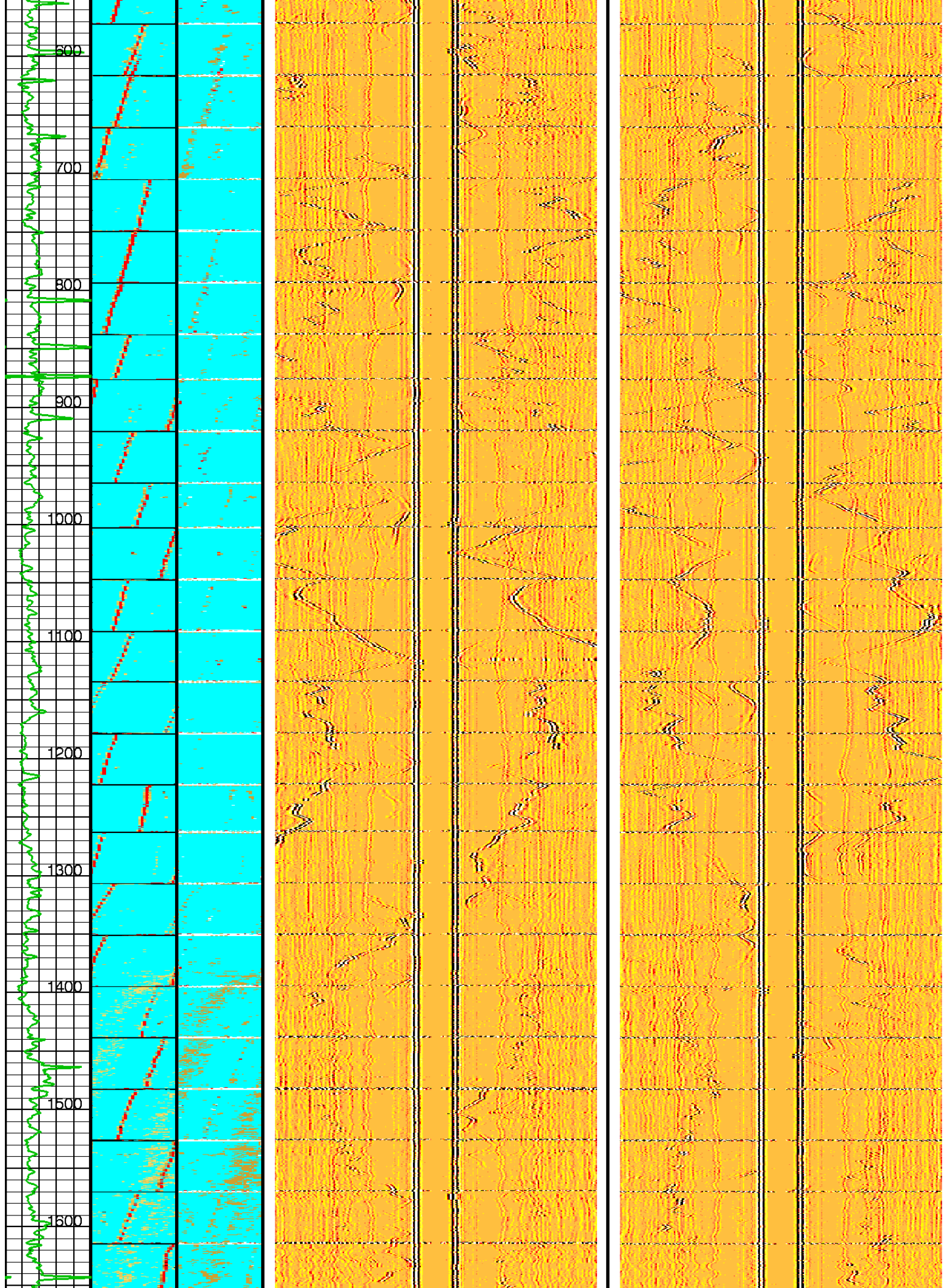
19C0-187

DTC-H

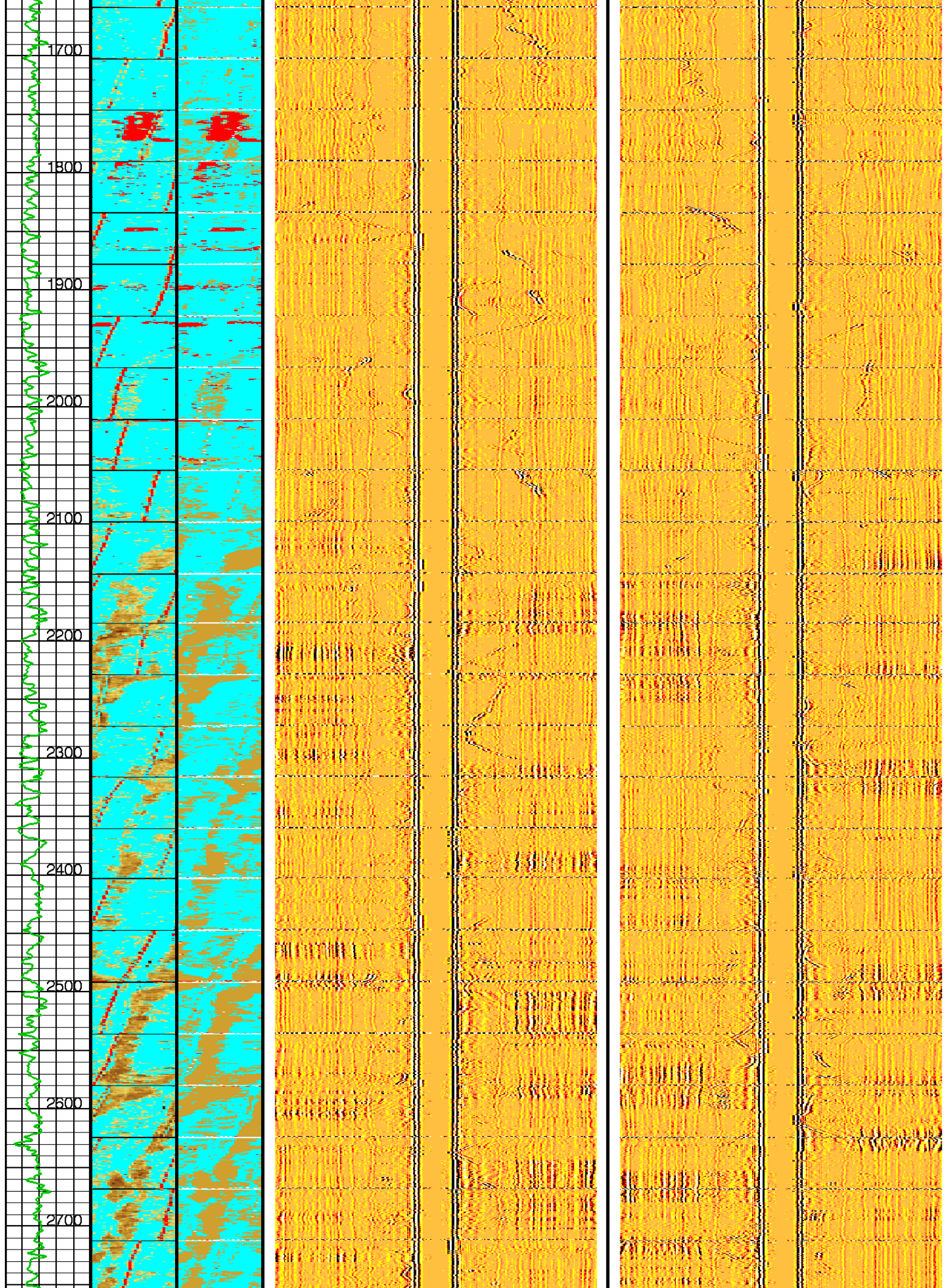
19C0-187



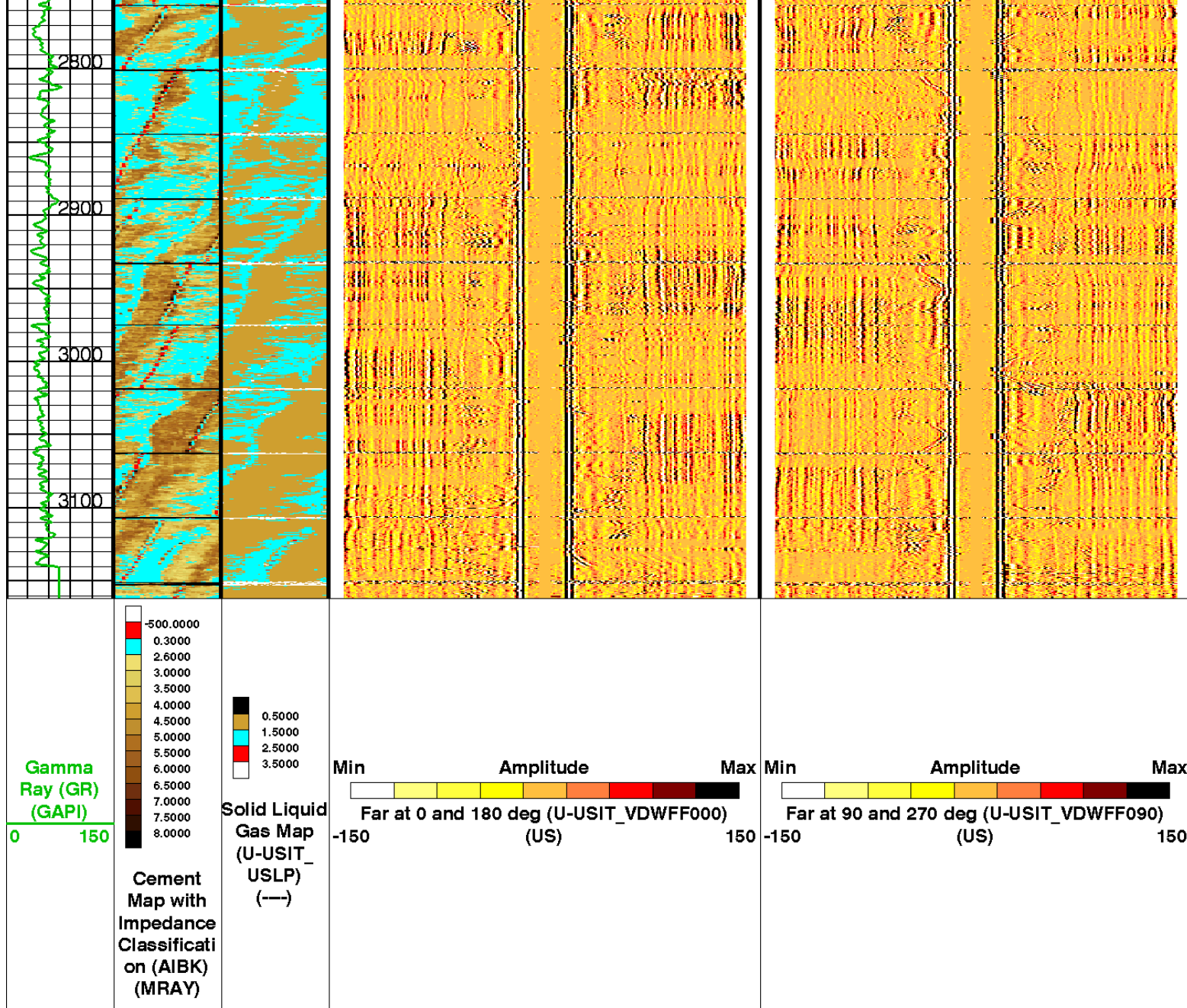












## Parameters

DLIS Name	Description	Value	
USIT-E: Ultrasonic Imaging - E			
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	9.625	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	8.921	IN
DFVL	Default Fluid Velocity	206	US/F
DOT	Diameter of Transducer Sensor	4.874	IN
EMXV	EMEX Voltage	40	V
FSOD	Fluid Slowness Fits Casing Outer Diameter	2_UFSL_N_UFAI	
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.4	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.37795	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T <sup>3</sup> Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	180	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.352	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	1.7	MRAY
U-USIT_IISR	USIT IBC Inverted Fluid Slowness Resolution	1.0 US_P_FT	
U-USIT_IIZR	USIT IBC Inverted ZMUD Resolution	0.050_MRAY	
U-USIT_OCDI	USIT Outer Casing Diameter	0	IN

U-USIT_OCSH	USIT Outer Casing Shoe	0	FT
U-USIT_OCWE	USIT Outer Casing Weight	0	LB/F
U-USIT_TIEB	IBC Third Interface Echo Bin Processing	YES	
U-USIT_TIEC	IBC Third Interface Echo Cleaning	NONE	
U-USIT_TIEM	IBC Third Interface Echo Multi Tracking	NO	
U-USIT_TIEP	IBC Third Interface Echo Policy	BFEP	
U-USIT_TIER	IBC Third Interface Echo Receivers	BOTH	
U-USIT_U3WE	Third Interface Echo Window End	110	US
U-USIT_UBTP	USIT Bottom Transducer Position	UNKNOWN	
U-USIT_UFAO	USIT Flexural Attenuation Offset	-5	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub Ibcs C	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	18	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_9_58_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T <sup>3</sup> Processing Length	21.1081	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.55	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
System and Miscellaneous			
BS	Bit Size	14.750	IN
CWEI	Casing Weight	36.00	LB/F
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	RECOMPUTE	

Format: 1 inch IBC VDL WIDE

Vertical Scale: 1" per 100'

Graphics File Created: 10-Jul-2013 15:34

## OP System Version: 19C0-187

USIT-E	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

### Input DLIS Files

USI_011PUP	FN:12	10-Jul-2013 08:55	3162.0 FT	0.5 FT
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### Output DLIS Files

DEFAULT	USI_003PUP	FN:2	PRODUCER	10-Jul-2013 15:34
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## COMPRESSED GOODWIN MAIN PASS

MAXIS Field Log

Company: ENCANA OIL &amp; GAS (USA) INC.

Well: SG 8505A-24 (L24 496)

### Input DLIS Files

USI_011PUP	FN:12	10-Jul-2013 08:55	3162.0 FT	0.5 FT
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### Output DLIS Files

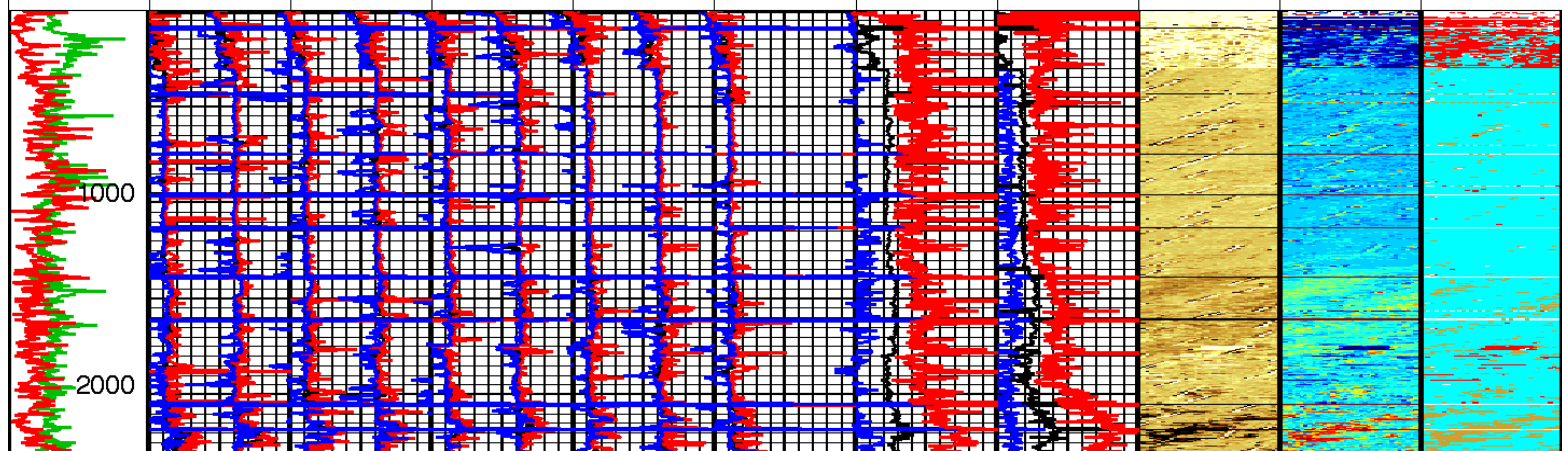
DEFAULT	USI_003PUP	FN:2	PRODUCER	10-Jul-2013 15:34	3162.0 FT	0.5 FT
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## OP System Version: 19C0-187

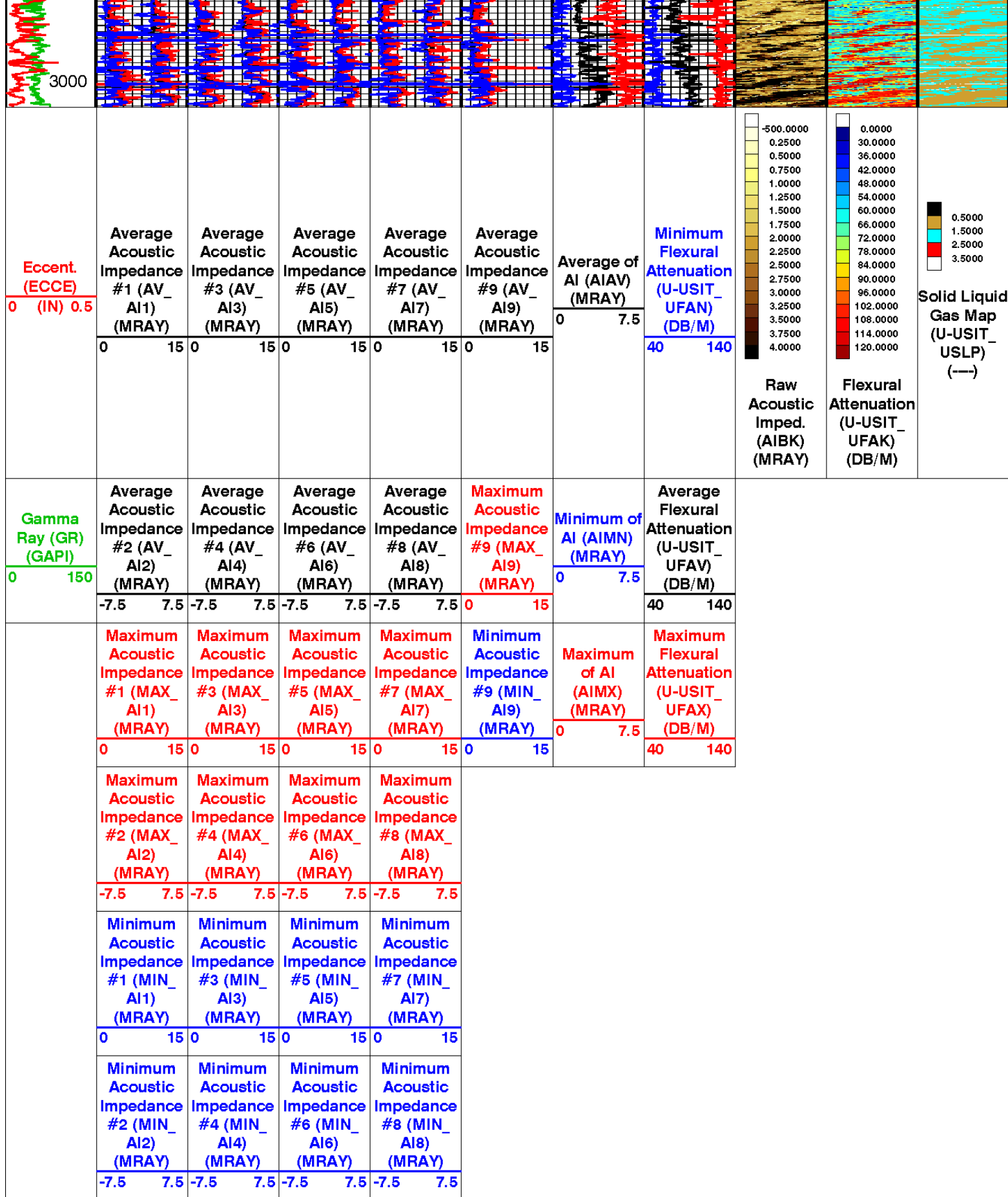
USIT-E	19C0-187	SGT-N	19C0-187
DTC-H	19C0-187		

Minimum	Minimum	Minimum	Minimum
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	Minimum Acoustic Impedance #2 (MIN_ AI2) (MRAY)	Minimum Acoustic Impedance #4 (MIN_ AI4) (MRAY)	Minimum Acoustic Impedance #6 (MIN_ AI6) (MRAY)	Minimum Acoustic Impedance #8 (MIN_ AI8) (MRAY)			
	-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5			
	Minimum Acoustic Impedance #1 (MIN_ AI1) (MRAY)	Minimum Acoustic Impedance #3 (MIN_ AI3) (MRAY)	Minimum Acoustic Impedance #5 (MIN_ AI5) (MRAY)	Minimum Acoustic Impedance #7 (MIN_ AI7) (MRAY)			
	0 15	0 15	0 15	0 15			
	Maximum Acoustic Impedance #2 (MAX_ AI2) (MRAY)	Maximum Acoustic Impedance #4 (MAX_ AI4) (MRAY)	Maximum Acoustic Impedance #6 (MAX_ AI6) (MRAY)	Maximum Acoustic Impedance #8 (MAX_ AI8) (MRAY)			
	-7.5 7.5	-7.5 7.5	-7.5 7.5	-7.5 7.5			
	Maximum Acoustic Impedance #1 (MAX_ AI1) (MRAY)	Maximum Acoustic Impedance #3 (MAX_ AI3) (MRAY)	Maximum Acoustic Impedance #5 (MAX_ AI5) (MRAY)	Maximum Acoustic Impedance #7 (MAX_ AI7) (MRAY)	Minimum Acoustic Impedance #9 (MIN_ AI9) (MRAY)	Maximum of AI (AIMX) (MRAY)	Maximum Flexural Attenuation (U-USIT_ UFAX) (DB/M)
	0 15	0 15	0 15	0 15	0 15	0 7.5	40 140
Gamma Ray (GR) (GAPI)	Average Acoustic Impedance #2 (AV_ AI2) (MRAY)	Average Acoustic Impedance #4 (AV_ AI4) (MRAY)	Average Acoustic Impedance #6 (AV_ AI6) (MRAY)	Average Acoustic Impedance #8 (AV_ AI8) (MRAY)	Maximum Acoustic Impedance #9 (MAX_ AI9) (MRAY)	Minimum of AI (AIMN) (MRAY)	Average Flexural Attenuation (U-USIT_ UFAV) (DB/M)
	0 150	-7.5 7.5	-7.5 7.5	-7.5 7.5	0 15	0 7.5	40 140
Eccent. (ECCE)	Average Acoustic Impedance #1 (AV_ AI1) (MRAY)	Average Acoustic Impedance #3 (AV_ AI3) (MRAY)	Average Acoustic Impedance #5 (AV_ AI5) (MRAY)	Average Acoustic Impedance #7 (AV_ AI7) (MRAY)	Average Acoustic Impedance #9 (AV_ AI9) (MRAY)	Average of AI (AIAV) (MRAY)	Minimum Flexural Attenuation (U-USIT_ UFAN) (DB/M)
0 (IN) 0.5	0 15	0 15	0 15	0 15	0 15	0 7.5	40 140
<div> <div> <div> <div> <div>-500.0000</div> <div>0.2500</div> <div>0.5000</div> <div>0.7500</div> <div>1.0000</div> <div>1.2500</div> <div>1.5000</div> <div>1.7500</div> <div>2.0000</div> <div>2.2500</div> <div>2.5000</div> <div>2.7500</div> <div>3.0000</div> <div>3.2500</div> <div>3.5000</div> <div>3.7500</div> <div>4.0000</div> </div> <div> <div>0.0000</div> <div>30.0000</div> <div>36.0000</div> <div>42.0000</div> <div>48.0000</div> <div>54.0000</div> <div>60.0000</div> <div>66.0000</div> <div>72.0000</div> <div>78.0000</div> <div>84.0000</div> <div>90.0000</div> <div>96.0000</div> <div>102.0000</div> <div>108.0000</div> <div>114.0000</div> <div>120.0000</div> </div> <div> <div>0.5000</div> <div>1.5000</div> <div>2.5000</div> <div>3.5000</div> </div> </div> <div> <div>Raw Acoustic Imped. (AIBK) (MRAY)</div> <div>Flexural Attenuation (U-USIT_ UFAK) (DB/M)</div> </div> <div> <div>Solid Liquid Gas Map (U-USIT_ USLP) (—)</div> </div> </div> </div>							







Format: IBC Goodwin Compressed

Vertical Scale: 0.1" per 100'

Graphics File Created: 10-Jul-2013 15:34

## OP System Version: 19C0-187

USIT-E  
DTC-H

19C0-187  
19C0-187

SGT-N

19C0-187

All USI Images are outside views

USI : LOW Frequency Compression Mode Used For Logging.

Recommended casing thickness range for optimum cement impedance measurement : 0.27 to 0.6 IN.

### Input DLIS Files

USI\_011PUP

FN:12

10-Jul-2013 08:55

3162.0 FT

0.5 FT

### Output DLIS Files

DEFAULT

USI\_003PUP

FN:2

PRODUCER

10-Jul-2013 15:34

**Schlumberger**

## COMPRESSED GOODWIN FLUID PROPERTIES

MAXIS Field Log

IBC Inv. Fluid Z QC (----)

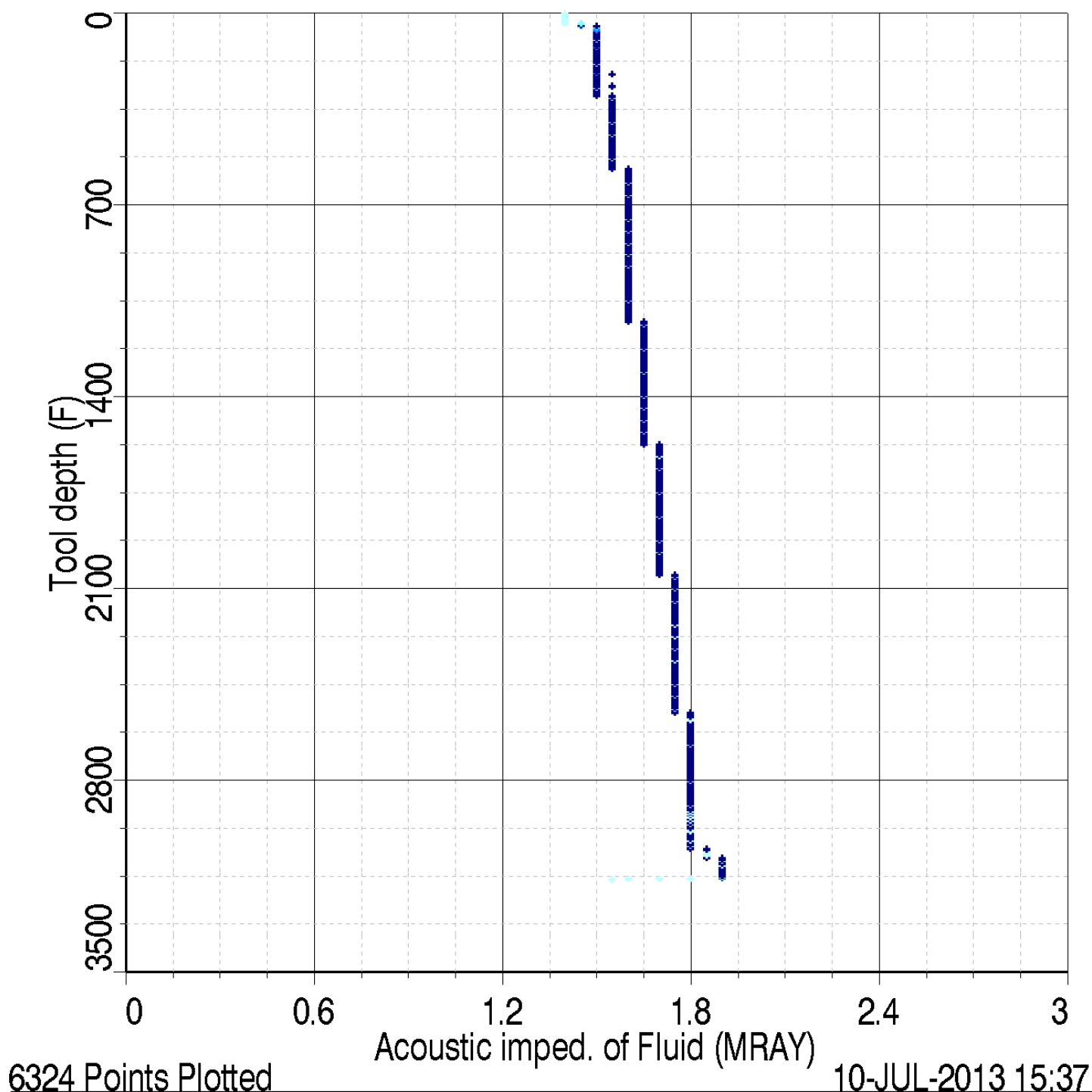
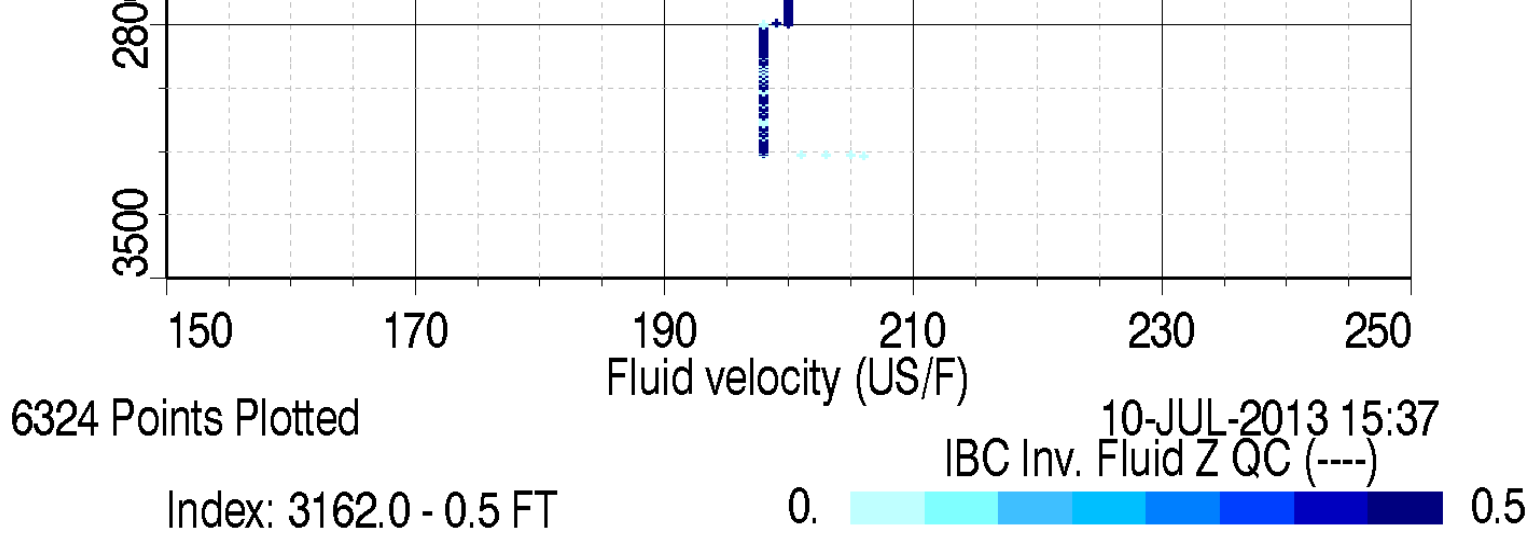
Index: 3162.0 - 0.5 FT

0.



0.5







Well: **SG 8505A-24 (L24 496)**  
Field: **STORY GULCH**  
County: **GARFIELD**  
State: **COLORADO**

ISOLATION SCANNER LOG  
CASING COLLAR LOCATOR