Schlumberger

Company: SWEPI, LP

Well: HW-8105
Field: COLORADO EAST RDD PILOT PROJECT
County: RIO BLANCO State: COLORADO

County: RIO BLANCO
Field: COLORADO EAST RDD PILOT
Location: LAT: 39.910278; LONG: -108.38
Well: HW-8105
Company: SWEPI, LP

ISOLATION SCANNER LOG
CEMENT BOND LOG
GAMMA RAY

LOCATION

LAT: 39.910278; LONG: -108.384

Elev.: K.B.
G.L. 6613.00 ft
D.F.

Permanent Datum: GROUND LEVEL Elev.: 6613.00 ft
Log Measured From: GROUND LEVEL 0.00 ft above Perm. Datum
Drilling Measured From:

API Serial No.	Section	Township	Range
	4	2S	98W

Logging Date		10-Sep-2012				
Run Number		2				
Depth Driller		2285 ft				
Schlumberger Depth		2285 ft				
Bottom Log Interval		2125 ft				
Top Log Interval		0 ft				
Casing Fluid Type		FRESH WATER				
Salinity						
Density		8.34 lbm/gal				
Fluid Level						
BIT/CASING/TUBING STRING						
Bit Size		9.875 in				
From		0 ft				
To		2125 ft				
Casing/Tubing Size		7.625 in				
Weight		26.4 lbm/ft				
Grade						
From		0 ft				
To		2125 ft				
Maximum Recorded Temperatures		211 degF				
Logger On Bottom	Time	10-Sep-2012	12:40			
Unit Number	Location	9102	VERNAL			
Recorded By		FOLAKE OGUNBANWO				
Witnessed By		PATRICK BOTZET				

		Run 1	Run 2
PVT DATA	Oil Density		
	Water Salinity		
	Gas Gravity		
	Bo		
	Bw		
	1/Bg		
	Bubble Point Pressure		
	Bubble Point Temperature		
	Solution GOR		
	Maximum Deviation	2.67 deg	
	CEMENTING DATA		
	Primary/Squeeze	Primary	
	Casing String No		
	Lead Cement Type		
	Volume		
	Density	9.47 lbm/gal	
	Water Loss		
	Additives		
	Tail Cement Type		
	Volume		
	Density		
	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			

Run 3

Run 4

DEPTH SUMMARY LISTING

Date Created: 13-SEP-2012 2:19:46

Depth System Equipment

Depth Measuring Device		Tension Device		Logging Cable	
Type:	IDW-JA	Type:	CMTD-B/A	Type:	7-46A XS
Serial Number:	6094	Serial Number:	119	Serial Number:	711150
Calibration Date:	16-AUG-2012	Calibration Date:	12-AUG-2012	Length:	24000 FT
Calibrator Serial Number:		Calibrator Serial Number:	1002518	Conveyance Method:	Wireline
Calibration Cable Type:	7-46A XS	Number of Calibration Points:	10	Rig Type:	LAND
Wheel Correction 1:	-6	Calibration RMS:	23		
Wheel Correction 2:	-4	Calibration Peak Error:	45		

Depth Control Parameters

Log Sequence: Subsequent Log In the Well

Reference Log Name: CALIPER LOG
Reference Log Run Number: 1
Reference Log Date: 10-SEP-2012

Depth Control Remarks

1. All depth control procedures followed as per Schlumberger depth control standard dated April, 2010.
2. IDW used as primary depth control.
3. Z-chart used as secondary depth control device.
4. Stretch calculated by comparing the up-log to the down-log.
5.
6.

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	OTHER SERVICES2
OS1:	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:
REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
TOOL STRING RUN AS PER TOOL SKETCH.	
INTERVAL LOGGED AT 1800 FPH AS PER CLIENTS REQUEST	
1 X INLINE CENTRALIZER AND 4 GEMCOS RUN TO CENTRALIZE TOOLSTRING	
LOG SPLICED AT 840 FT	

TOP OF CEMENT FOUND AT 230 FT

CBAF OBTAINED FROM HW-8111; CBAF = 0.7363

EXPECTED TRANSIT TIME IS 288 US. ACTUAL TRANSIT TIME IS 308 US.

EXPECTED AMPLITUDE READING IN FREE PIPE IS 59 mV

ZMUD FOUND IN FREE PIPE TO BE 1.5 MRAY

RUN 1			RUN 2		
SERVICE ORDER #:		BXV3-00060	SERVICE ORDER #:		
PROGRAM VERSION:		19C0-187	PROGRAM VERSION:		
FLUID LEVEL:			FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

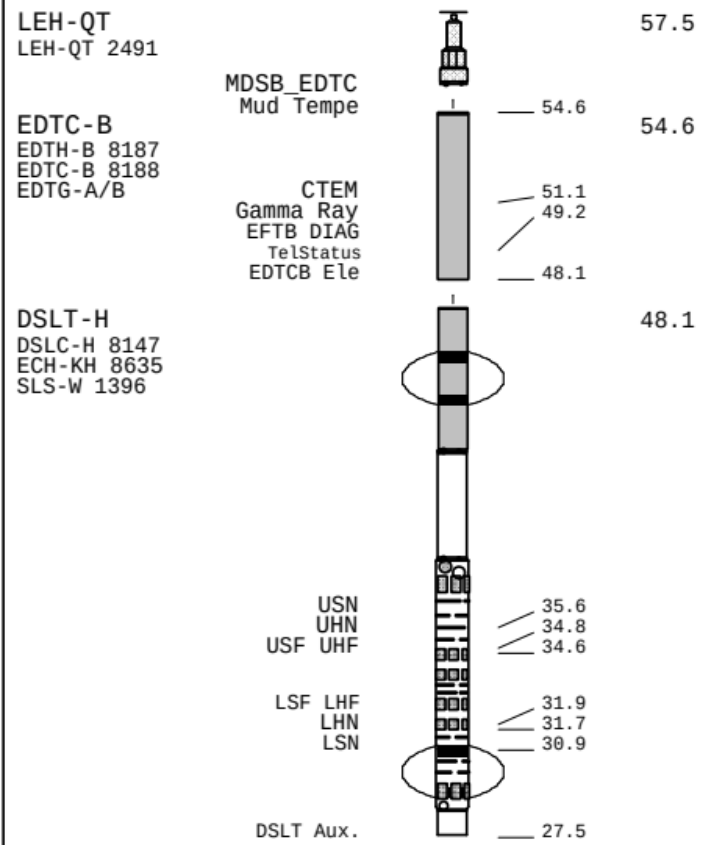
EQUIPMENT DESCRIPTION

RUN 1 | RUN 2

SURFACE EQUIPMENT

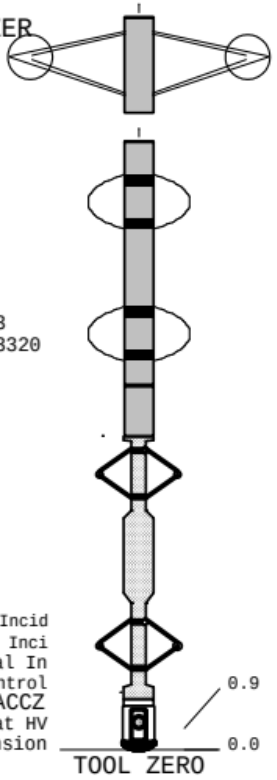
WITM (EDTS)-A

DOWNHOLE EQUIPMENT



AH-INLINE CENTRALIZER 27.5
AH-INLINE CENTRALIZER

USIT-D 23.7
ECH-MRA 5769
USIC-D 1874
AH-107
USIS-A 1804
USSC-B
IBCS_B-100158202 808
Top Transducer 3210
Middle Top Transducer 3253
Middle Bottom Transducer 3320
Bottom Transducer 3326



MAXIMUM STRING DIAMETER 7.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN FEET

Schlumberger

USI IBC SLG COMPOSITE MAIN PASS

MAXIS Field Log

Company: SWEPI, LP Well: HW-8105

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

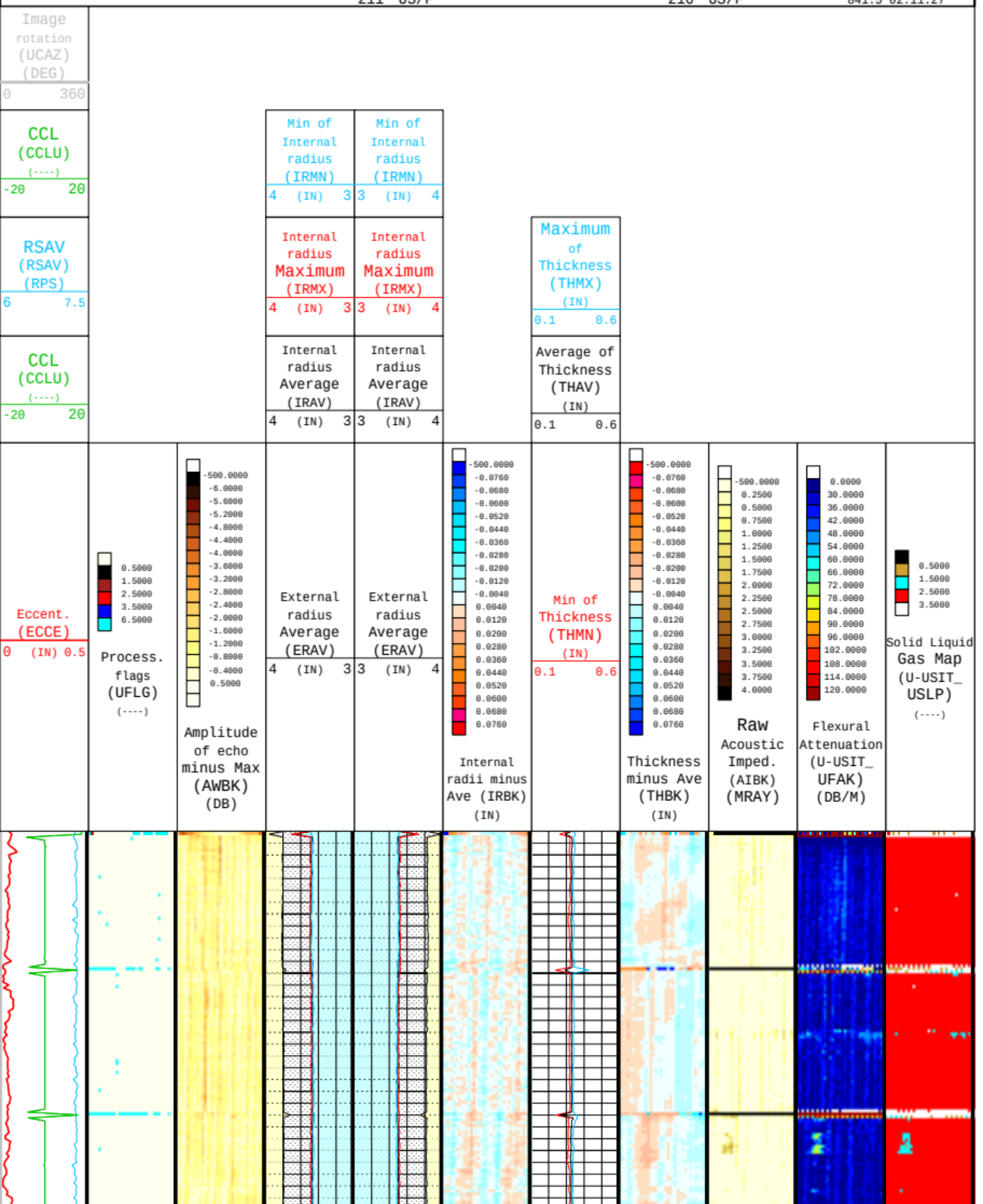
DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09	2119.0 FT	26.0 FT

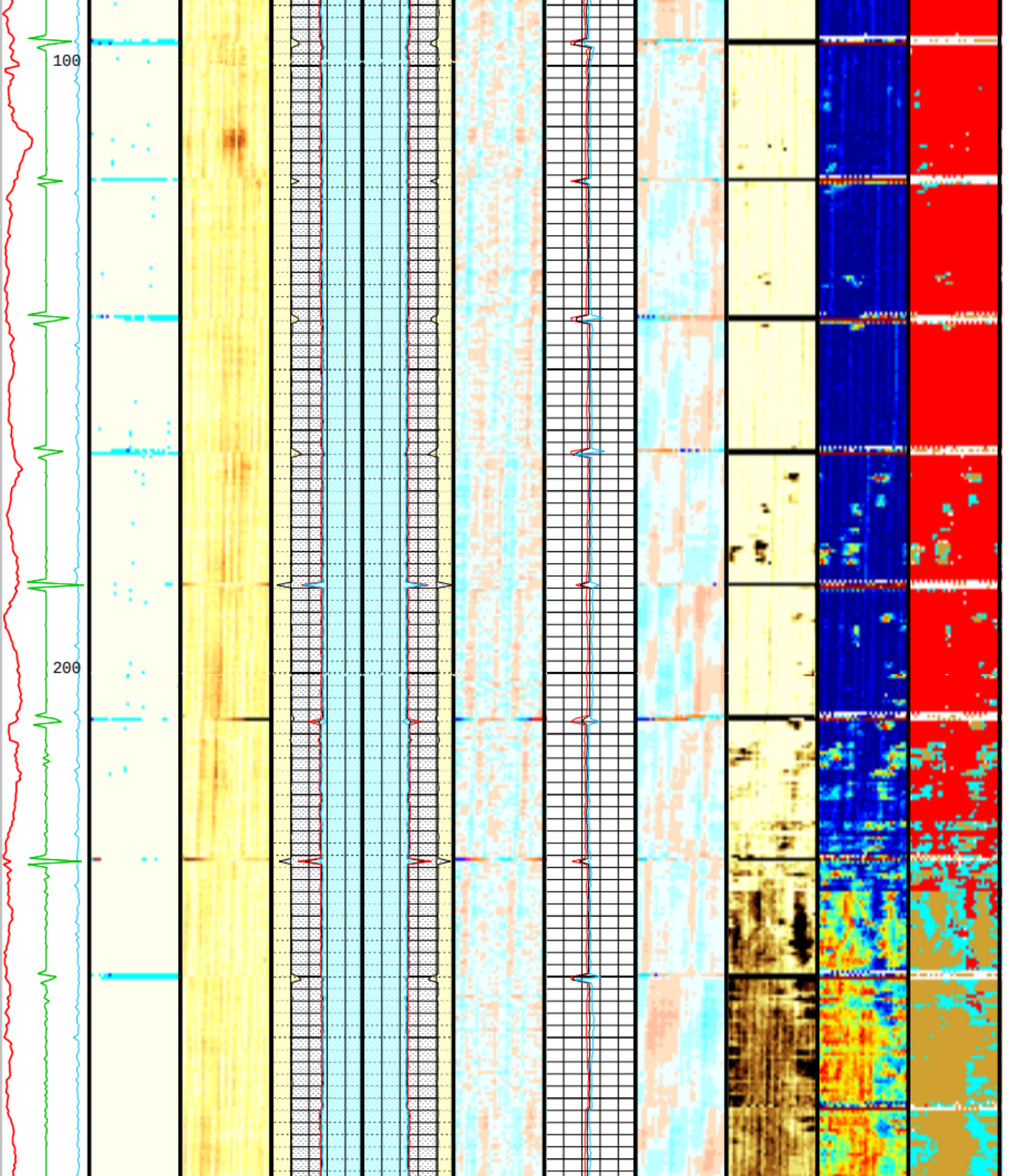
OP System Version: 19C0-187

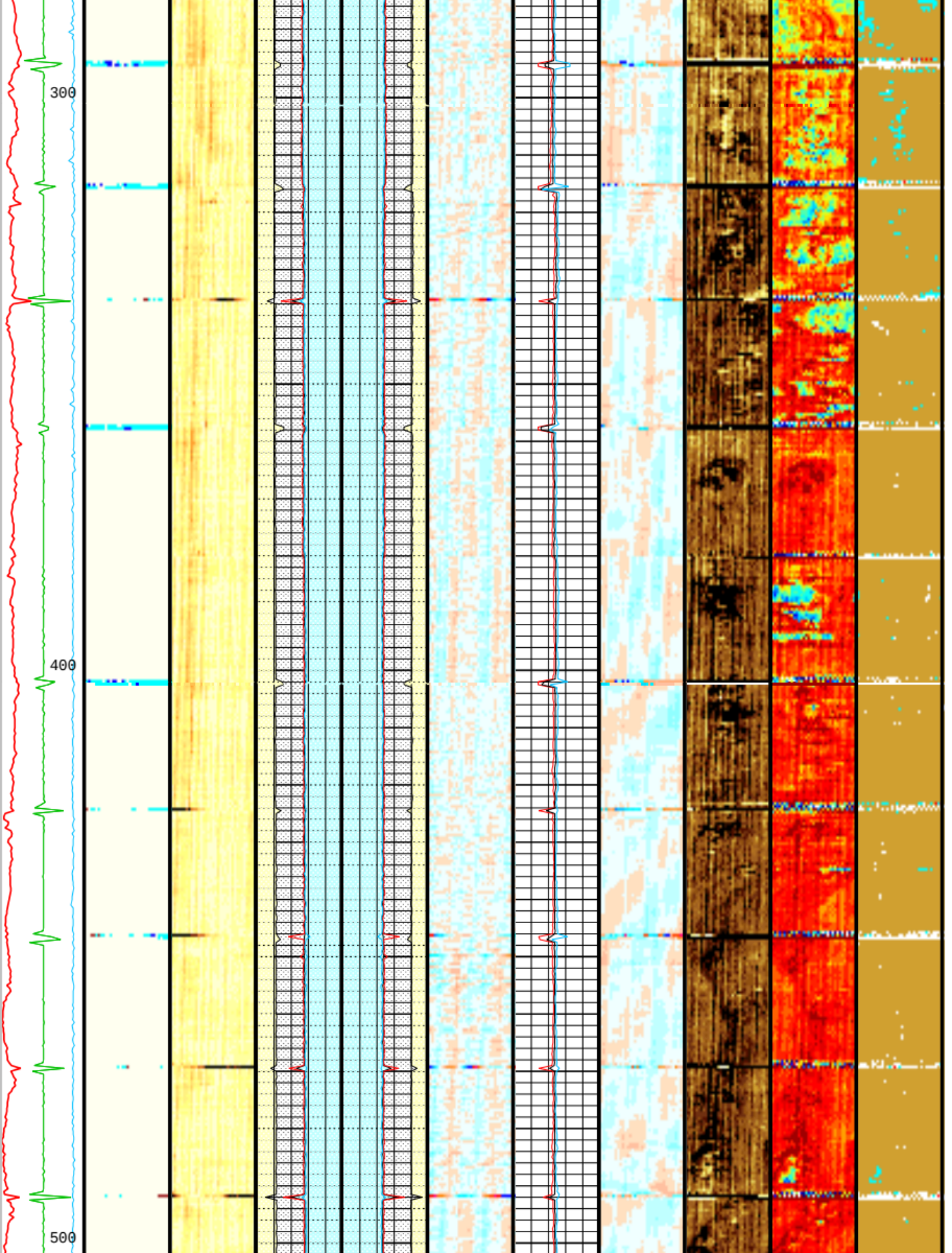
USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

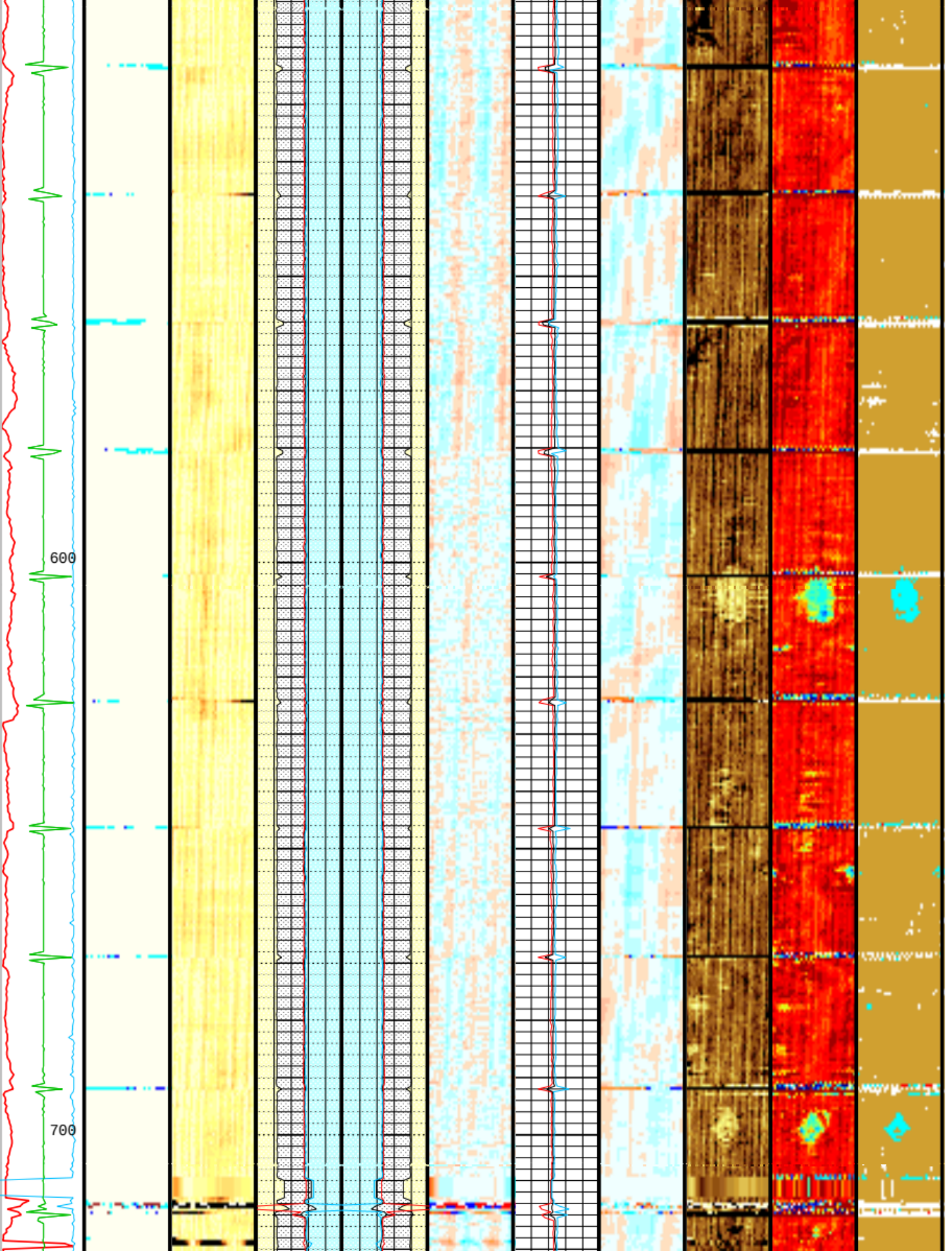
Changed Parameter Summary

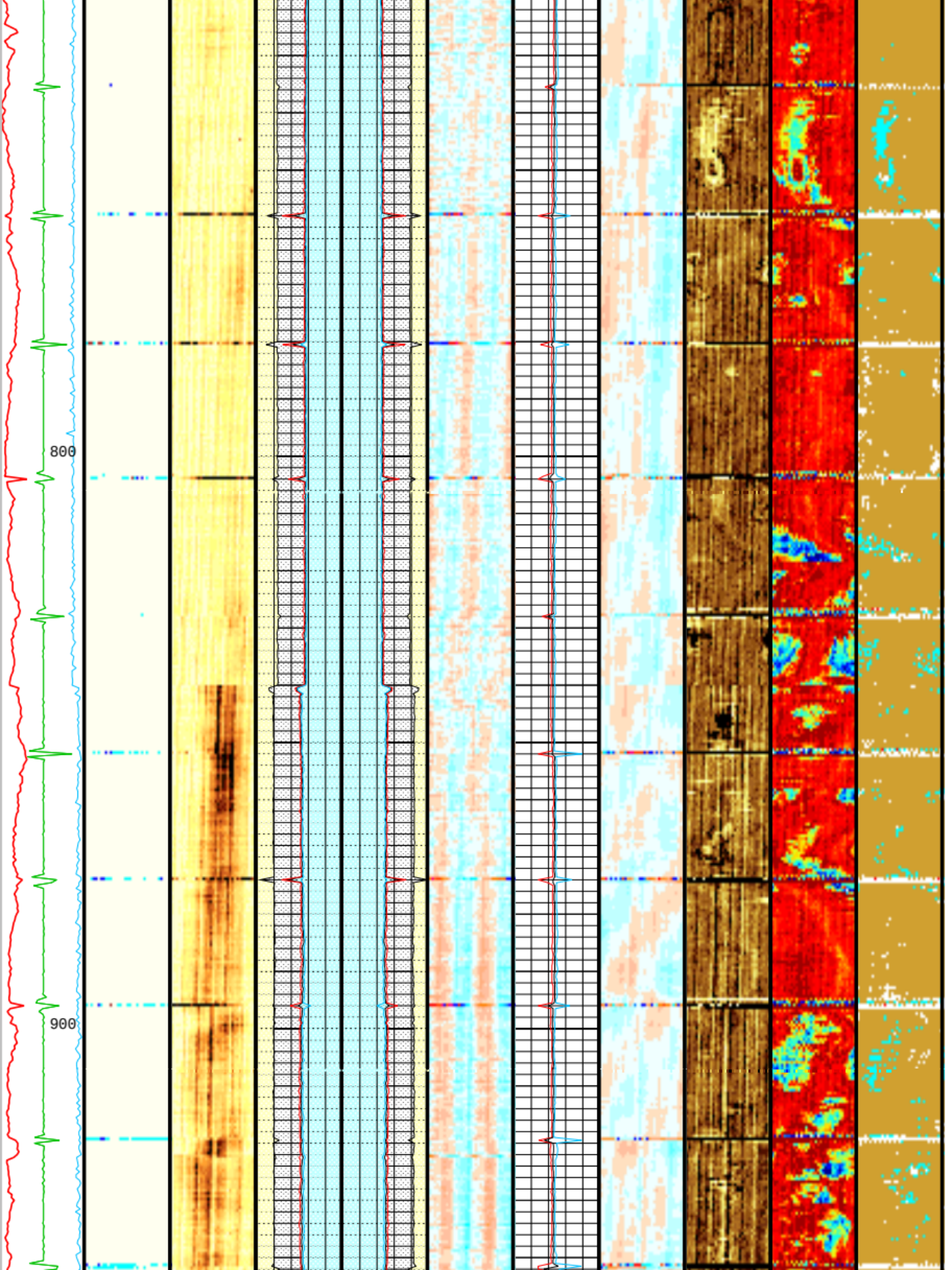
DLIS Name	New Value	Previous Value	Depth & Time
DFVL	216 US/F 211 US/F	211 US/F 216 US/F	1401.5 02:10:44 841.5 02:11:27

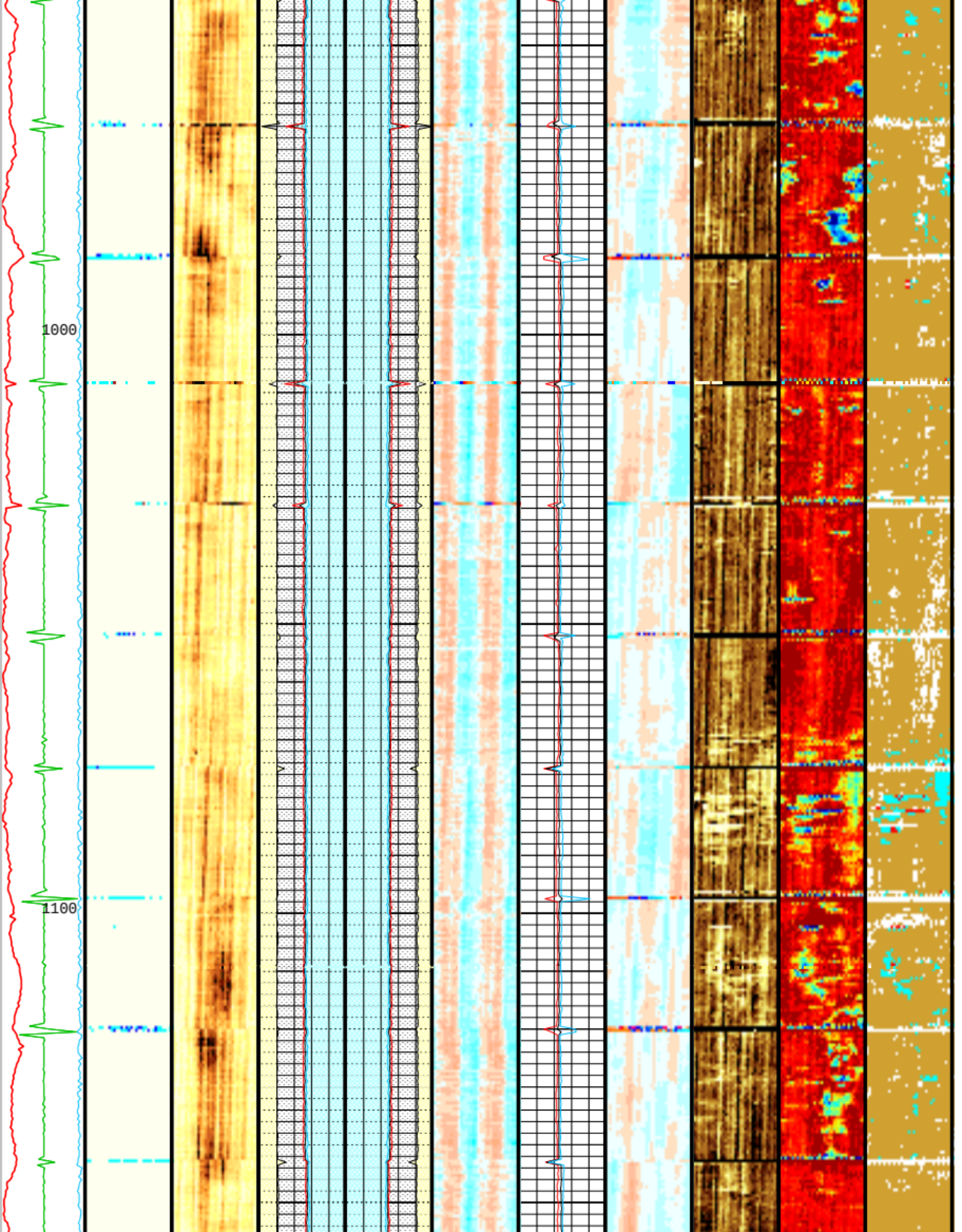


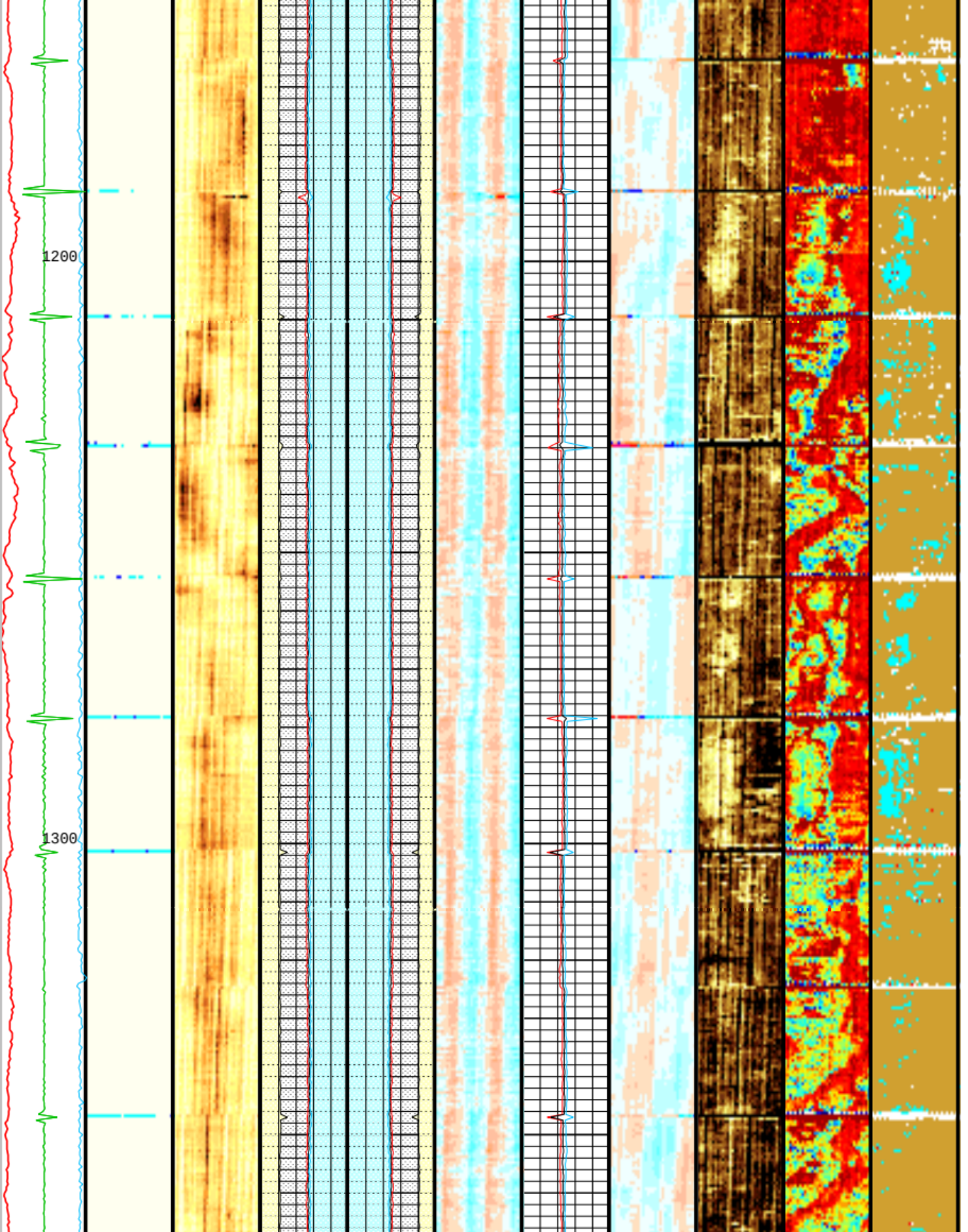

100
200

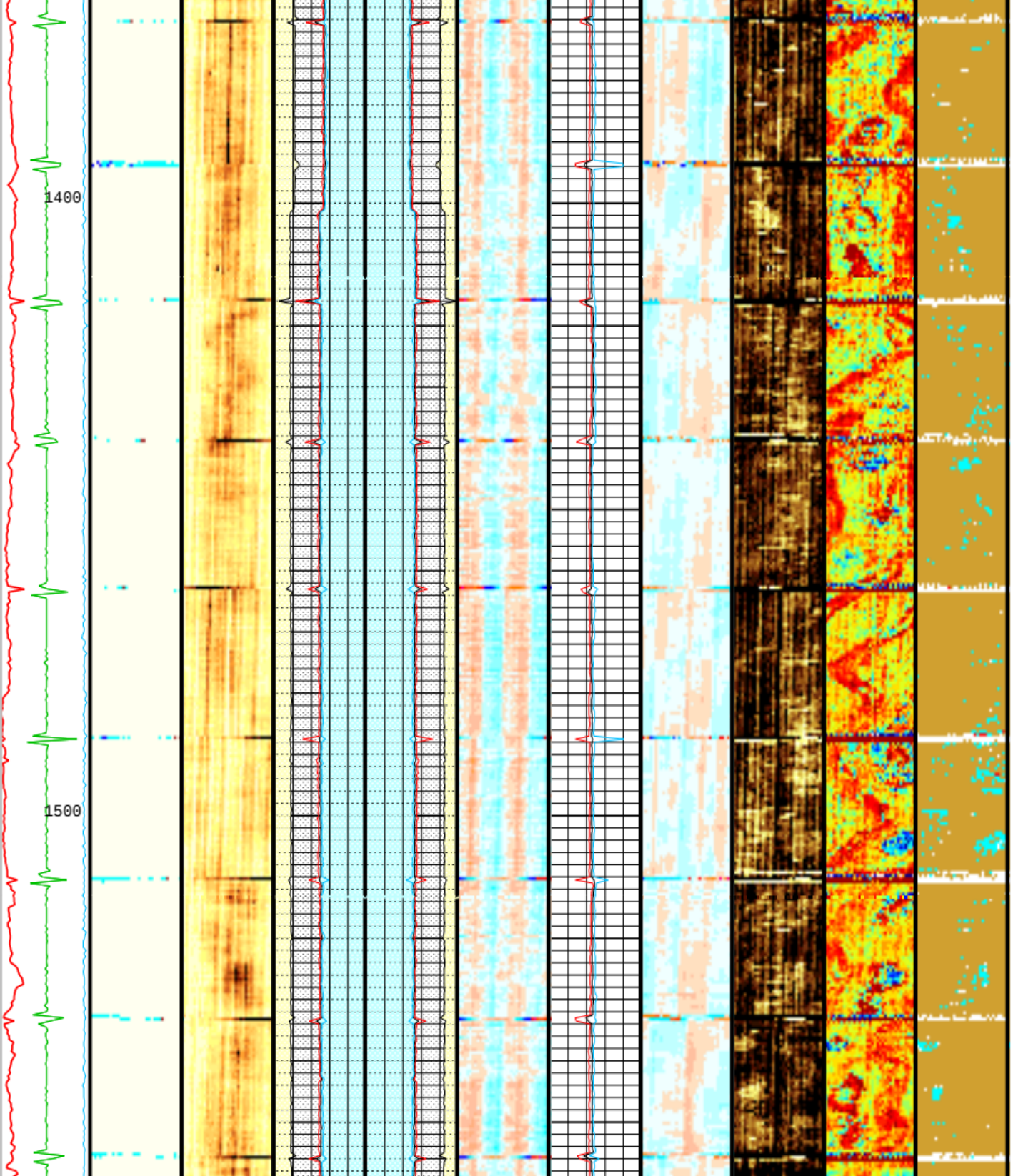

300
400
500

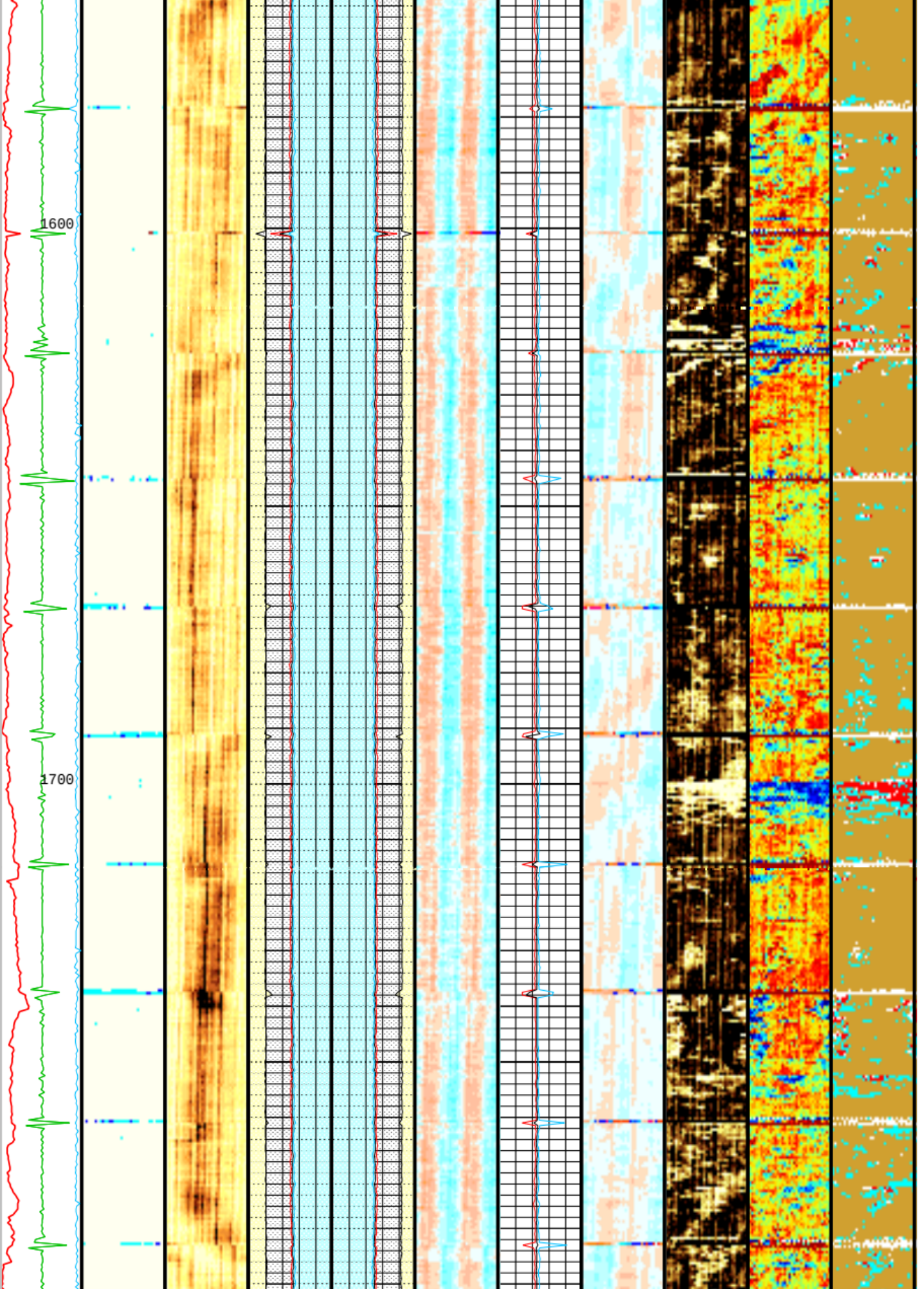

600
700

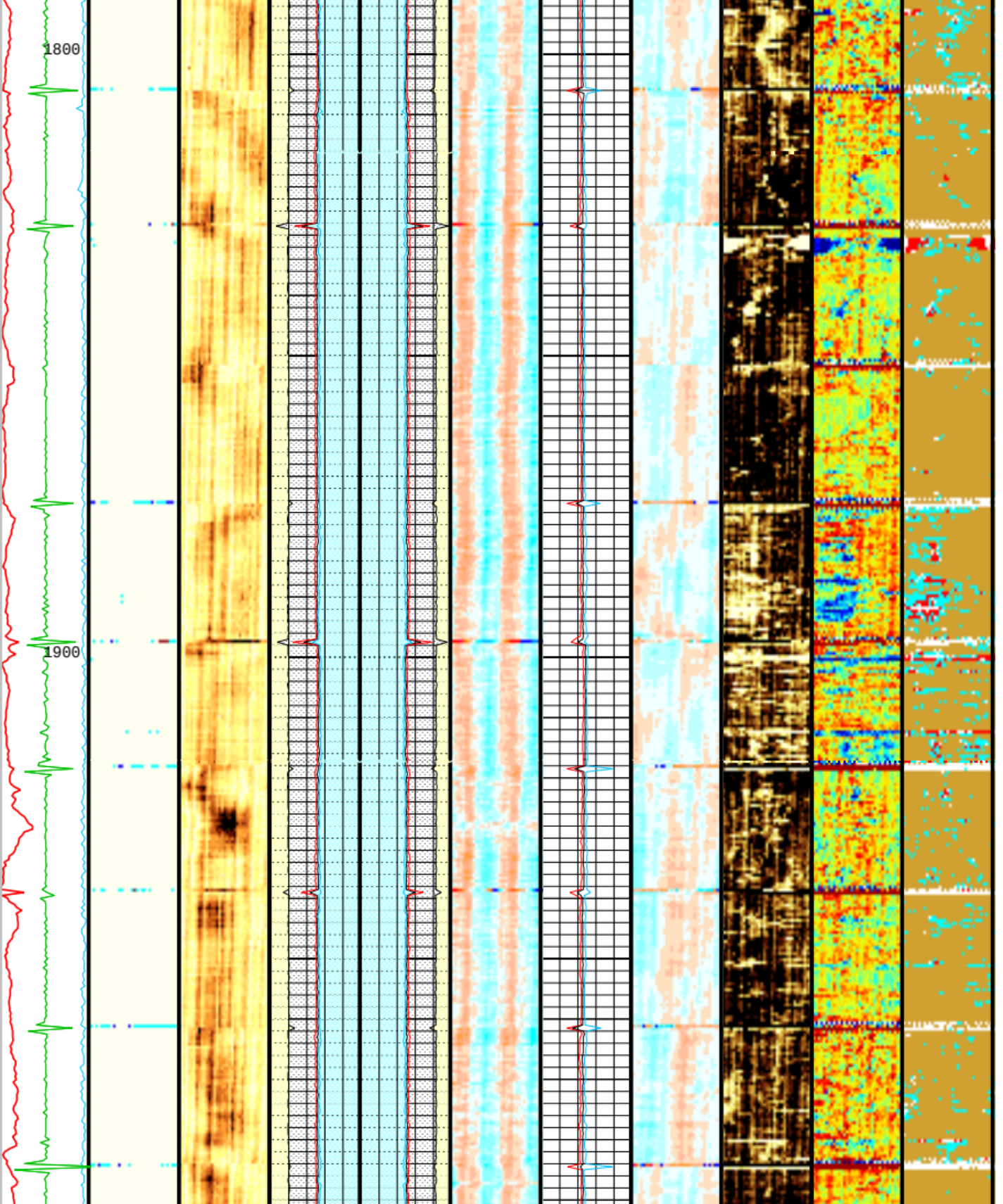

800
900

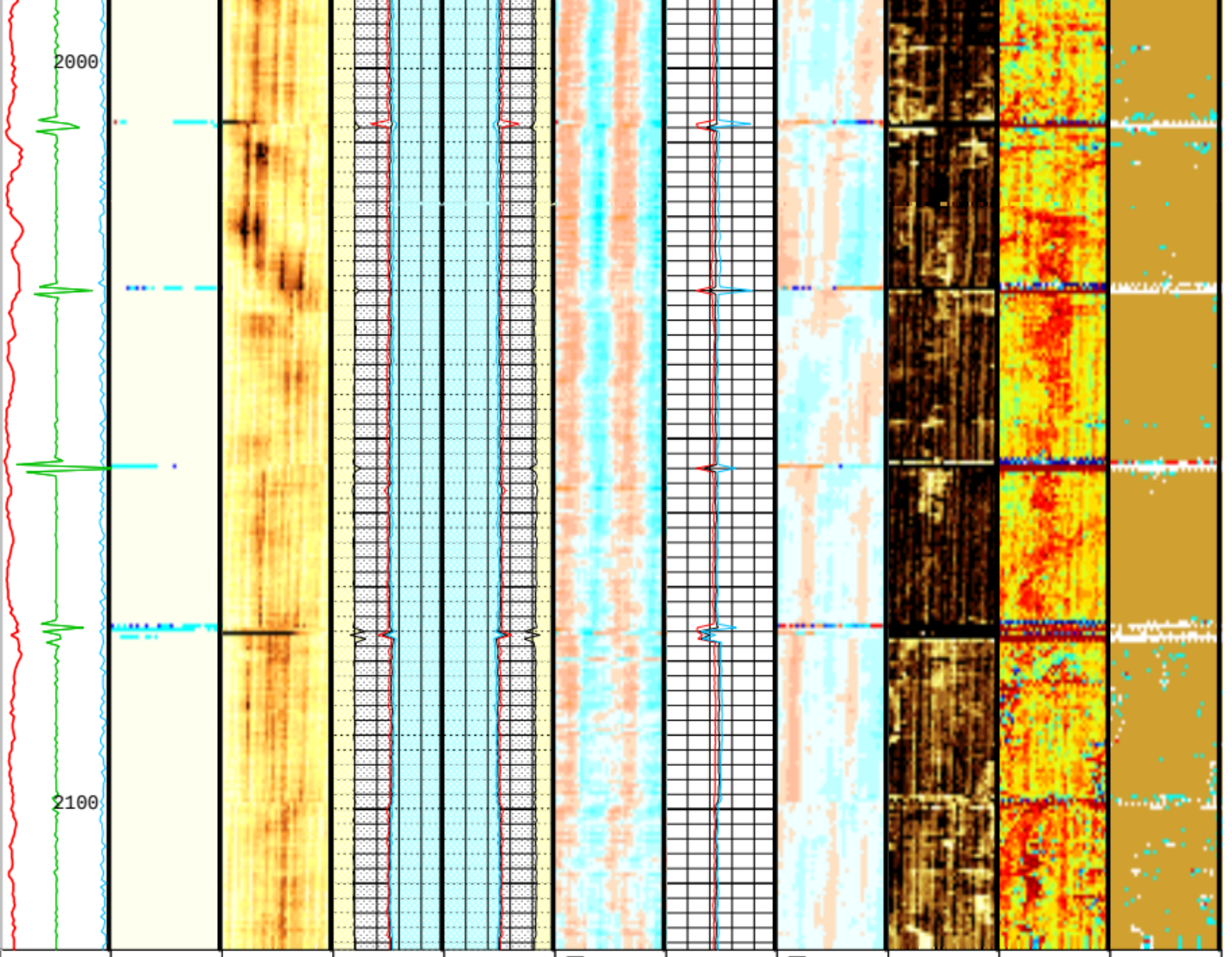

1000
1100


1200
1300


1400
1500


1600
1700


1800
1900



Eccent. (ECCE)
0 (IN) 0.5

Process. flags (UFLG)
(----)
0.5000
1.5000
2.5000
3.5000
6.5000

Amplitude of echo minus Max (AWBK) (DB)
-500.0000
-6.0000
-5.6000
-5.2000
-4.8000
-4.4000
-4.0000
-3.6000
-3.2000
-2.8000
-2.4000
-2.0000
-1.6000
-1.2000
-0.8000
-0.4000
0.5000

External radius Average (ERAV)
4 (IN) 3

External radius Average (ERAV)
3 (IN) 4

Internal radii minus Ave (IRBK) (IN)
-500.0000
-0.0760
-0.0680
-0.0600
-0.0520
-0.0440
-0.0360
-0.0280
-0.0200
-0.0120
-0.0040
0.0040
0.0120
0.0200
0.0280
0.0360
0.0440
0.0520
0.0600
0.0680
0.0760

Min of Thickness (THMN) (IN)
0.1 0.6

Thickness minus Ave (THBK) (IN)
-500.0000
-0.0760
-0.0680
-0.0600
-0.0520
-0.0440
-0.0360
-0.0280
-0.0200
-0.0120
-0.0040
0.0040
0.0120
0.0200
0.0280
0.0360
0.0440
0.0520
0.0600
0.0680
0.0760

Raw Acoustic Imped. (AIBK) (MRAY)
-500.0000
0.2500
0.5000
0.7500
1.0000
1.2500
1.5000
1.7500
2.0000
2.2500
2.5000
2.7500
3.0000
3.2500
3.5000
3.7500
4.0000

Flexural Attenuation (U-USIT_UFAK) (DB/M)
0.0000
30.0000
36.0000
42.0000
48.0000
54.0000
60.0000
66.0000
72.0000
78.0000
84.0000
90.0000
96.0000
102.0000
108.0000
114.0000
120.0000

Solid Liquid Gas Map (U-USIT_USLP)
(----)
0.5000
1.5000
2.5000
3.5000

CCL (CCLU)
(----)
-20 20

RSAV (RSAV) (RPS)
6 7.5

Internal radius Average (IRAV)
4 (IN) 3

Internal radius Average (IRAV)
3 (IN) 4

Internal radius Maximum (IRMX)
4 (IN) 3

Internal radius Maximum (IRMX)
3 (IN) 4

Average of Thickness (THAV) (IN)
0.1 0.6

Maximum of Thickness (THMX) (IN)
0.1 0.6

CCL (CCLU) (----)	Min of Internal radius (IRMN)	Min of Internal radius (IRMN)
-20 20	4 (IN) 3	3 (IN) 4

Image rotation (UCAZ) (DEG)
0 360

Format: USI_IBC_SLG_Composite Vertical Scale: 5" per 100' Graphics File Created: 13-Sep-2012 02:09

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	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-D: Ultrasonic Imaging - D			
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7.625	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.969	IN
DFVL	Default Fluid Velocity	211	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	40	V
FDII	FPM Data Interpolation Interval	0	FT
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.34	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.328	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	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	-15	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_Ibcs_B	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	-10	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	19.6689	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.5	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	9.875	IN
CWEI	Casing Weight	26.40	LB/F
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09

Schlumberger

USI IBC SLG
MAIN PASS

MAXIS Field Log

Company: SWEPI, LP

Well: HW-8105

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09	2119.0 FT	26.0 FT

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time

DFVL 216 US/F 211 US/F 211 US/F 216 US/F 1401.5 02:10:44 841.5 02:11:27

Image rotation (UCAZ) (DEG)
0 360

Gamma Ray (GR_EDTC) (GAPI)
0 150

RSAV (RSAV) (RPS)
6 7.5

CCL (CCLU) (----)
-20 20

Maximum of AI (AIMX)
0 (MRAY) 10

Maximum Flexural Attenuation (U-USIT_UFAX)
0 (DB/M) 150

Average of AI (AIAV)
0 (MRAY) 10

Average Flexural Attenuation (U-USIT_UFAV)
0 (DB/M) 150

Eccent. (ECCE)
0 (IN) 0.5

Process. flags (UFLG) (----)
0.5000
1.5000
2.5000
3.5000
6.5000

Amplitude of echo minus Max (AWBK) (DB)
-500.0000
-6.0000
-5.6000
-5.2000
-4.8000
-4.4000
-4.0000
-3.6000
-3.2000
-2.8000
-2.4000
-2.0000
-1.6000
-1.2000
-0.8000
-0.4000
0.5000

Minimum of AI (AIMN)
0 (MRAY) 10

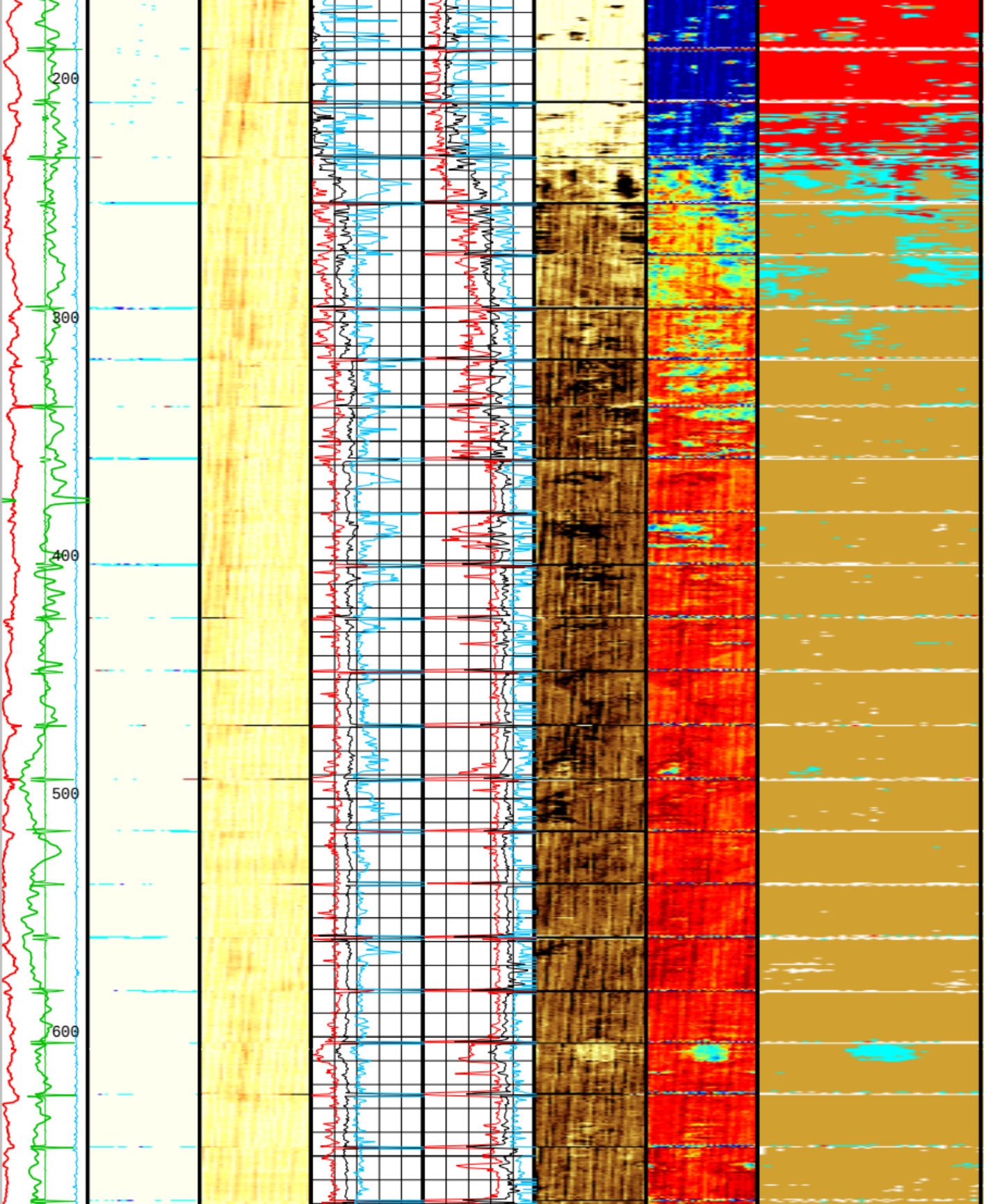
Minimum Flexural Attenuation (U-USIT_UFAN)
0 (DB/M) 150

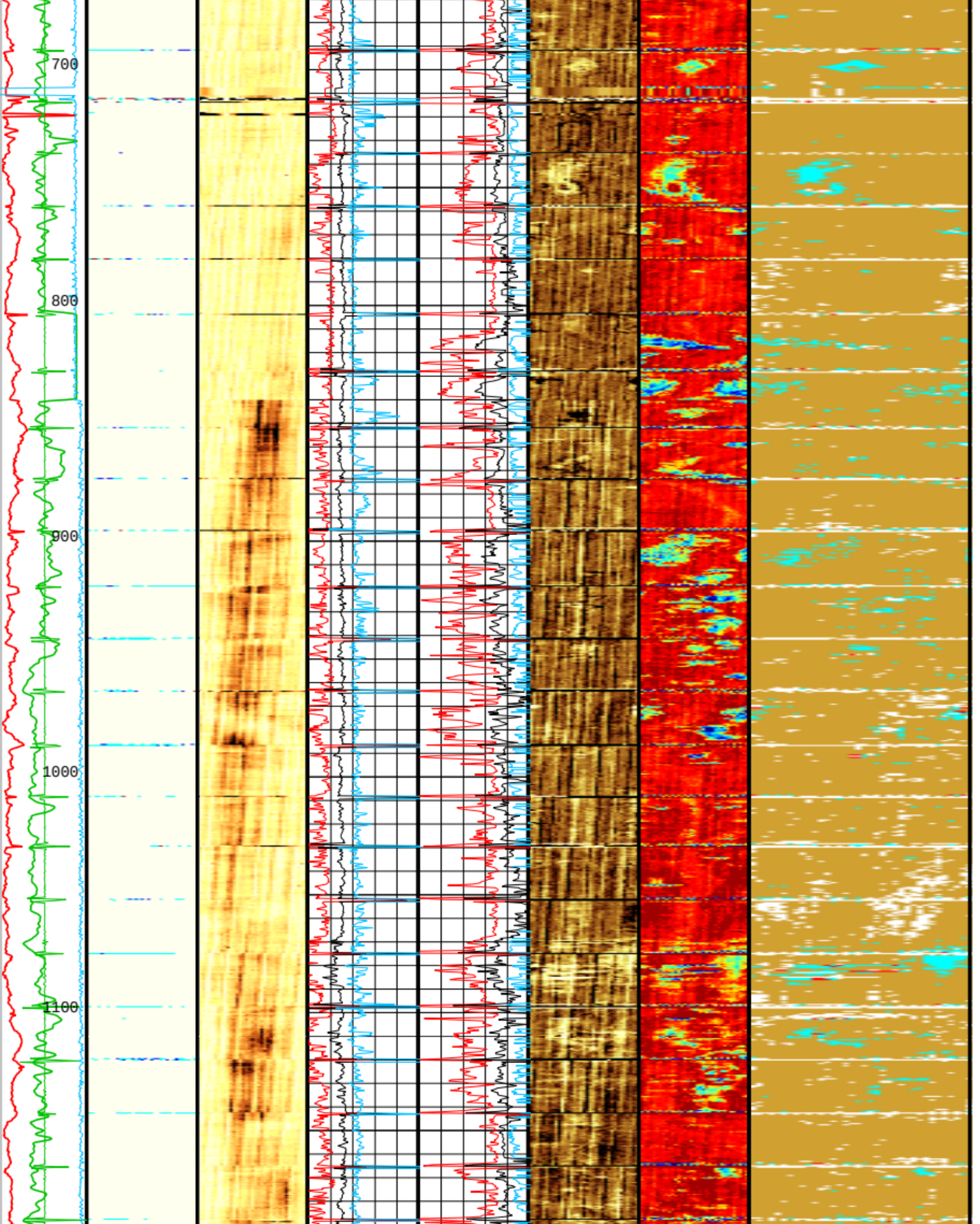
Raw Acoustic Imped. (AIBK) (MRAY)
-500.0000
0.2500
0.5000
0.7500
1.0000
1.2500
1.5000
1.7500
2.0000
2.2500
2.5000
2.7500
3.0000
3.2500
3.5000
3.7500
4.0000

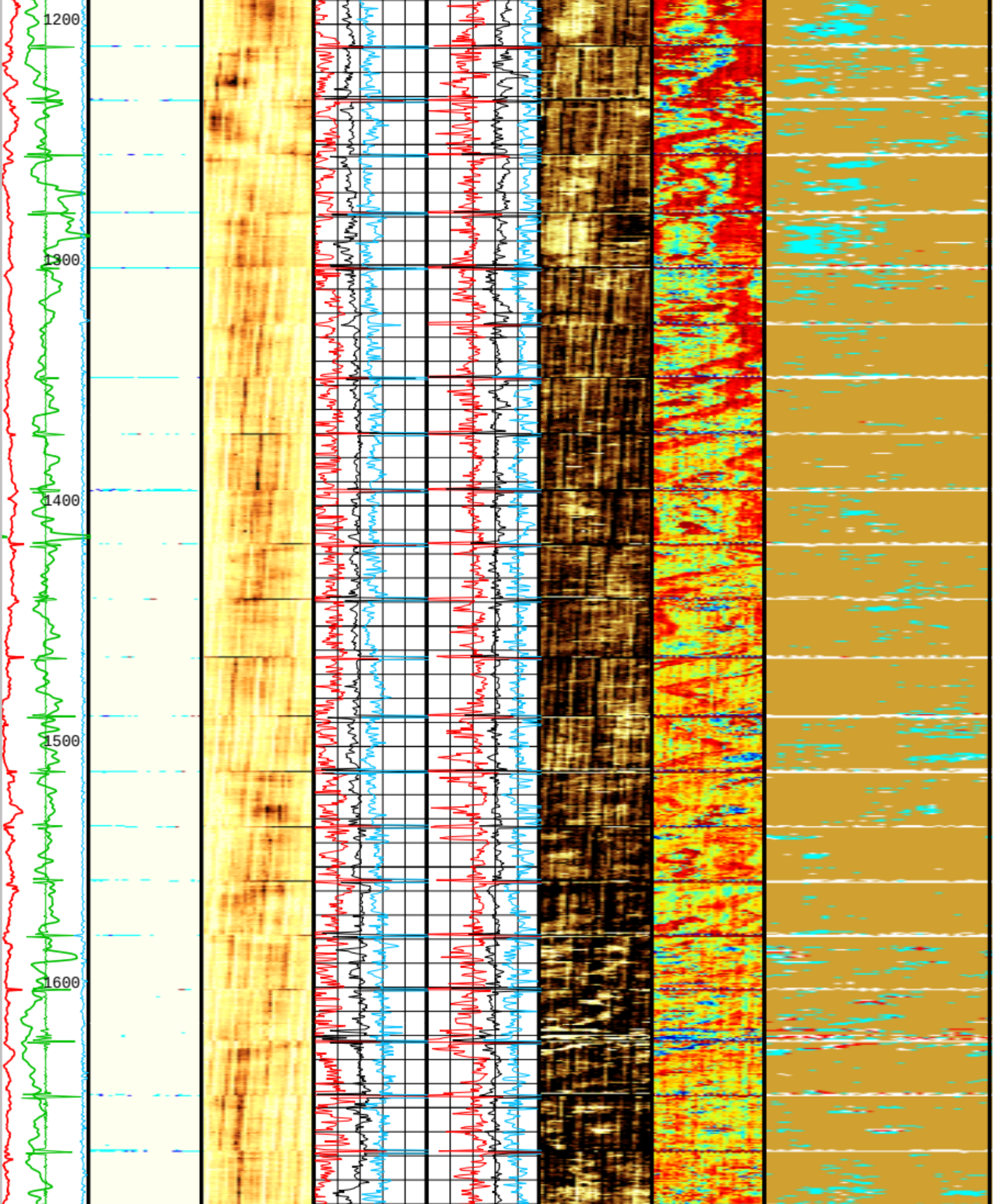
Flexural Attenuation (U-USIT_UFAK) (DB/M)
0.0000
30.0000
36.0000
42.0000
48.0000
54.0000
60.0000
66.0000
72.0000
78.0000
84.0000
90.0000
96.0000
102.0000
108.0000
114.0000
120.0000

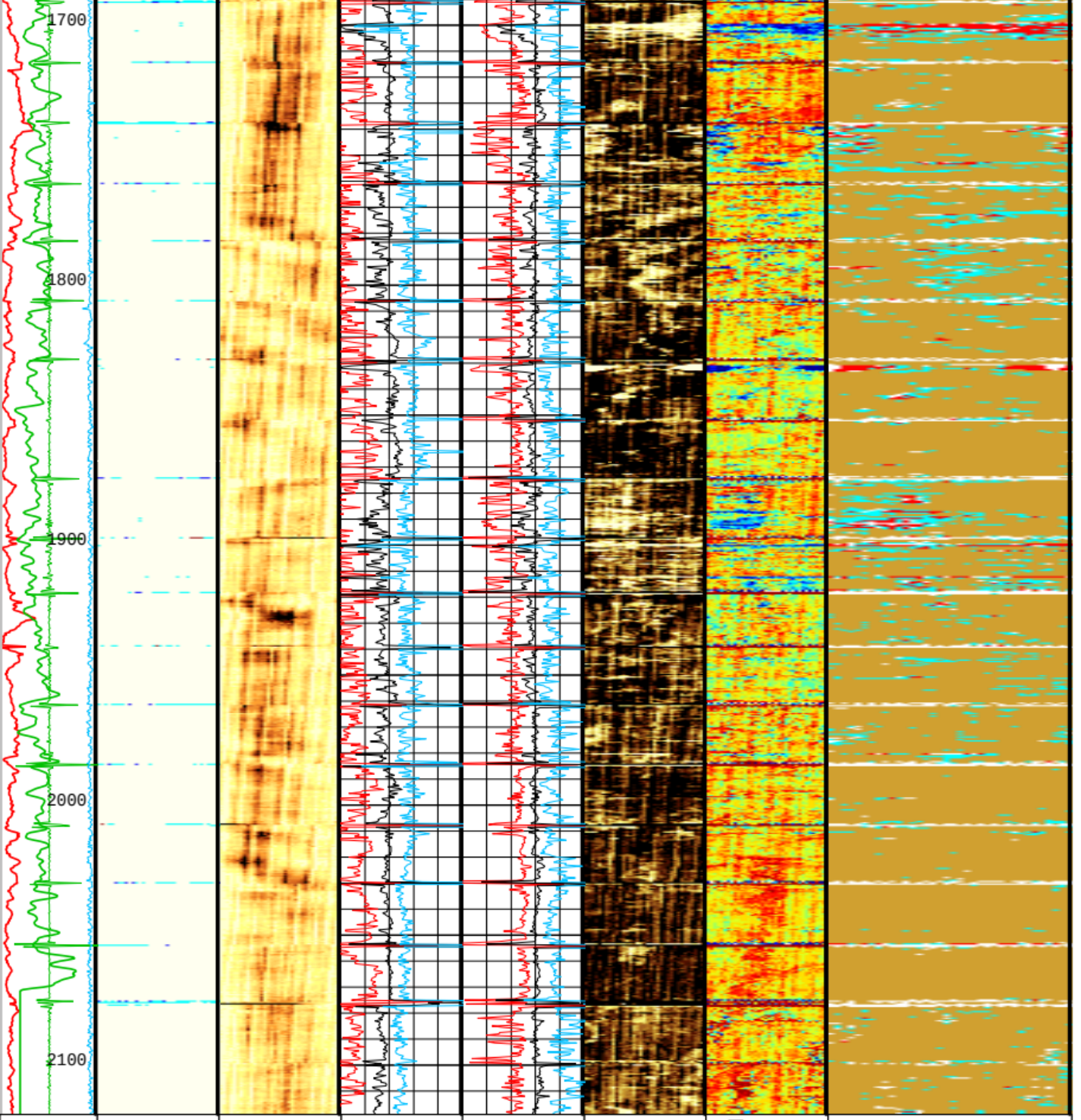
Solid Liquid Gas Map (U-USIT_USLP) (----)
0.5000
1.5000
2.5000
3.5000

100


200
300
400
500
600


700
800
900
1000
1100


1200
1300
1400
1500
1600


1700
1800
1900
2000
2100
Eccent. (ECCE)
0 (IN) 0.5
0.5000
1.5000
2.5000
3.5000
6.5000
Process. flags (UFLG)
(----)
-500.0000
-6.0000
-5.6000
-5.2000
-4.8000
-4.4000
-4.0000
-3.6000
-3.2000
-2.8000
-2.4000
-2.0000
-1.6000
-1.2000
-0.8000
-0.4000
0.5000
Amplitude of echo minus Max (AWBK) (DB)
Minimum of AI (AIMN)
0 (MRAY) 10
Minimum Flexural Attenuation (U-USIT_ UFAN)
0 (DB/M) 150
-500.0000
0.2500
0.5000
0.7500
1.0000
1.2500
1.5000
1.7500
2.0000
2.2500
2.5000
2.7500
3.0000
3.2500
3.5000
3.7500
4.0000
Raw Acoustic Imped. (AIBK) (MRAY)
0.0000
30.0000
36.0000
42.0000
48.0000
54.0000
60.0000
66.0000
72.0000
78.0000
84.0000
90.0000
96.0000
102.0000
108.0000
114.0000
120.0000
Flexural Attenuation (U-USIT_ UFAK) (DB/M)
0.5000
1.5000
2.5000
3.5000
Solid Liquid Gas Map (U-USIT_USLP)
(----)

CCL (CCLU) (----) -20 20	Average of AI (AIAV) 0 (MRAY) 10	Average Flexural Attenuation (U-USIT_UFAV) 0 (DB/M) 150
RSAV (RSAV) (RPS) 6 7.5	Maximum of AI (AIMX) 0 (MRAY) 10	Maximum Flexural Attenuation (U-USIT_UFAX) 0 (DB/M) 150
Gamma Ray (GR_EDTC) (GAPI) 0 150		
Image rotation (UCAZ) (DEG) 0 360		

Format: USI_IBC_SLG Vertical Scale: 2" per 100' Graphics File Created: 13-Sep-2012 02:09

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	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-D: Ultrasonic Imaging - D			
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7.625	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.969	IN
DFVL	Default Fluid Velocity	211	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	40	V
FDII	FPM Data Interpolation Interval	0	FT
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.34	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN

RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.328	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	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	-15	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_Ibcs_B	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	-10	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	19.6689	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.5	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	9.875	IN
CWEI	Casing Weight	26.40	LB/F
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09

Schlumberger

USI IBC VDL WIDE
MAIN PASS

MAXIS Field Log

Company: SWEPI, LP

Well: HW-8105

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09	2119.0 FT	26.0 FT

OP System Version: 19C0-187

USIT-D SRPC-5095-H2-2011-OP19_b DSLT-H 19C0-187
EDTC-B 19C0-187

Changed Parameter Summary

DLIS Name	New Value	Previous Value	Depth & Time
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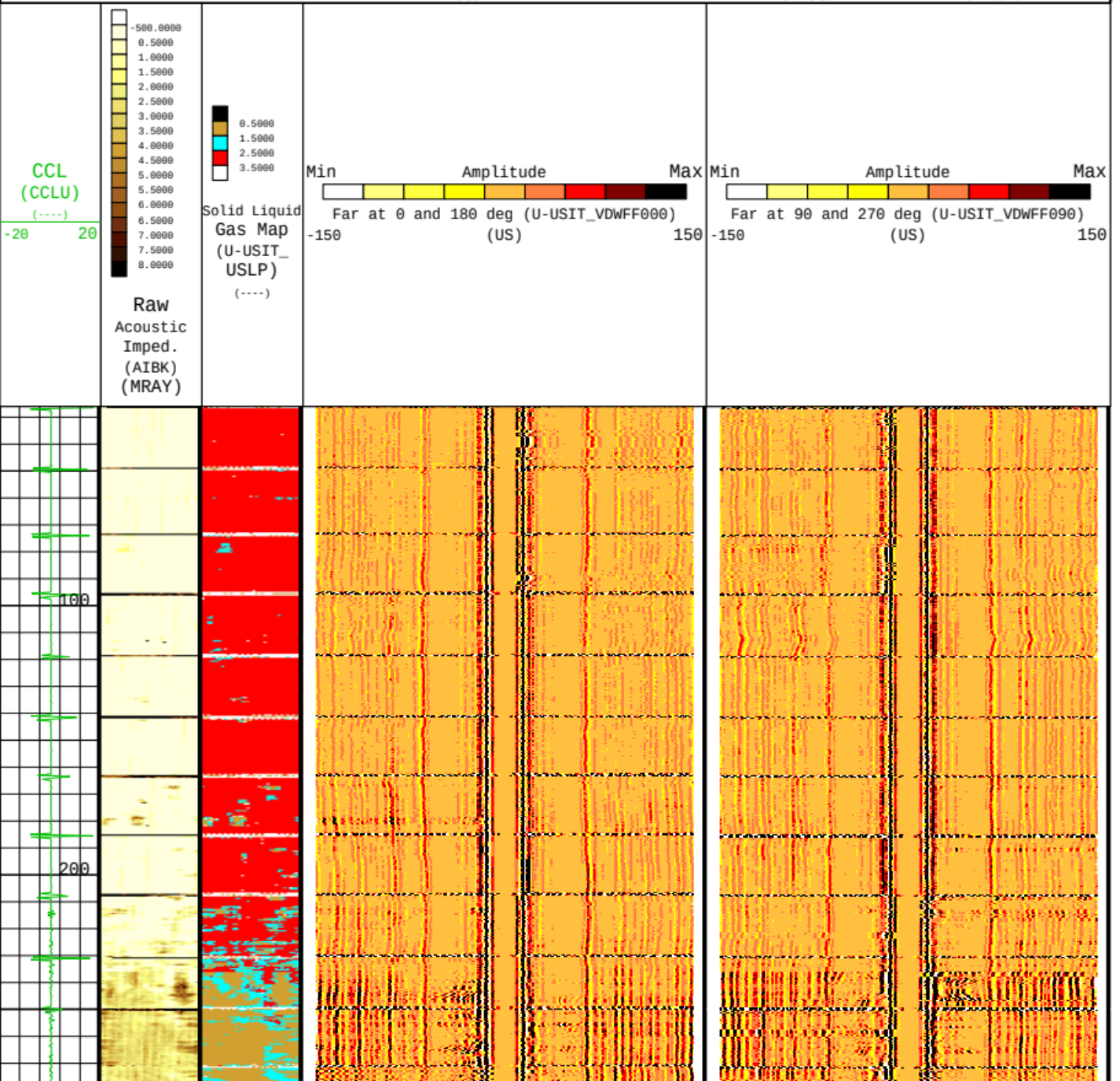

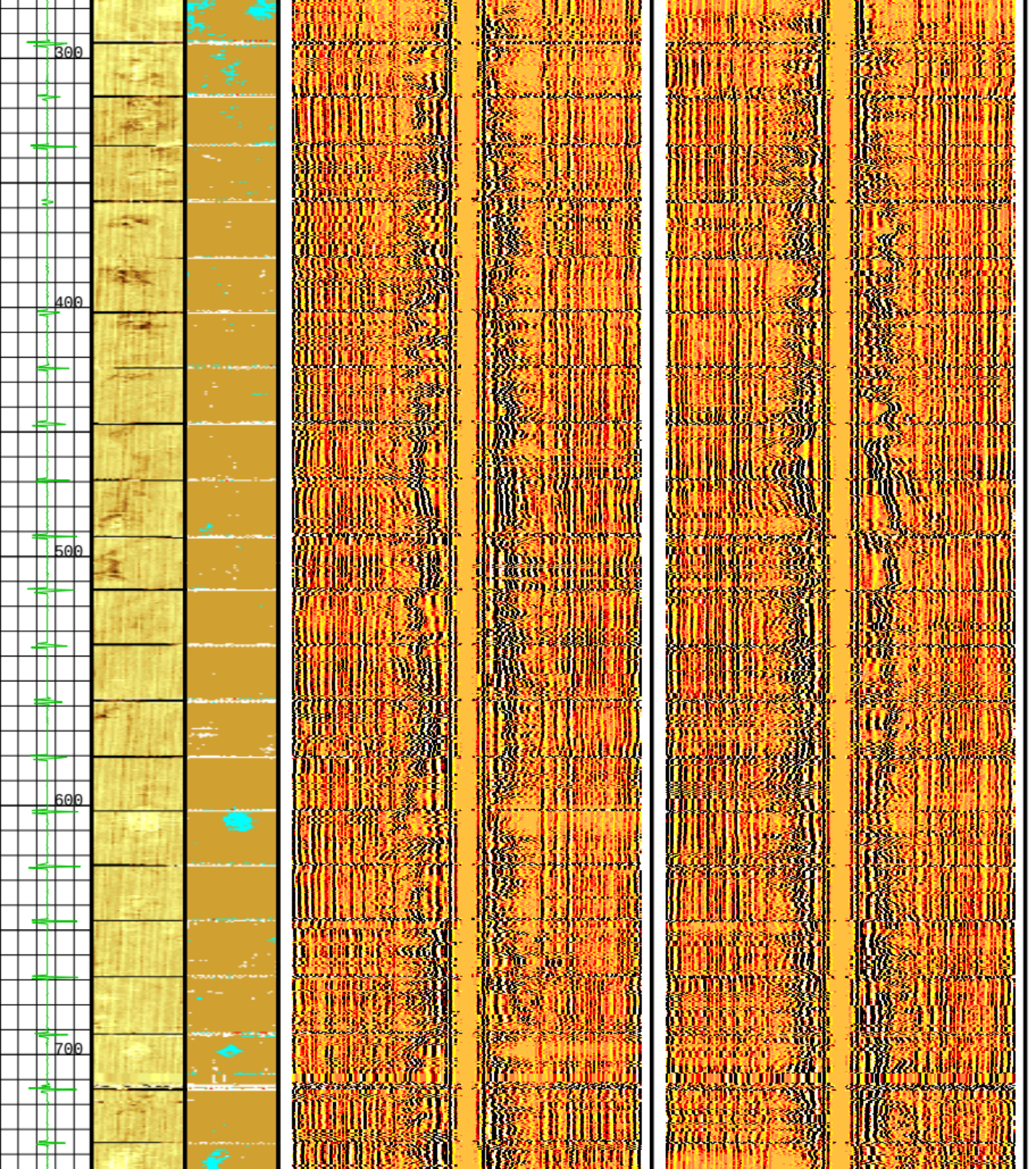
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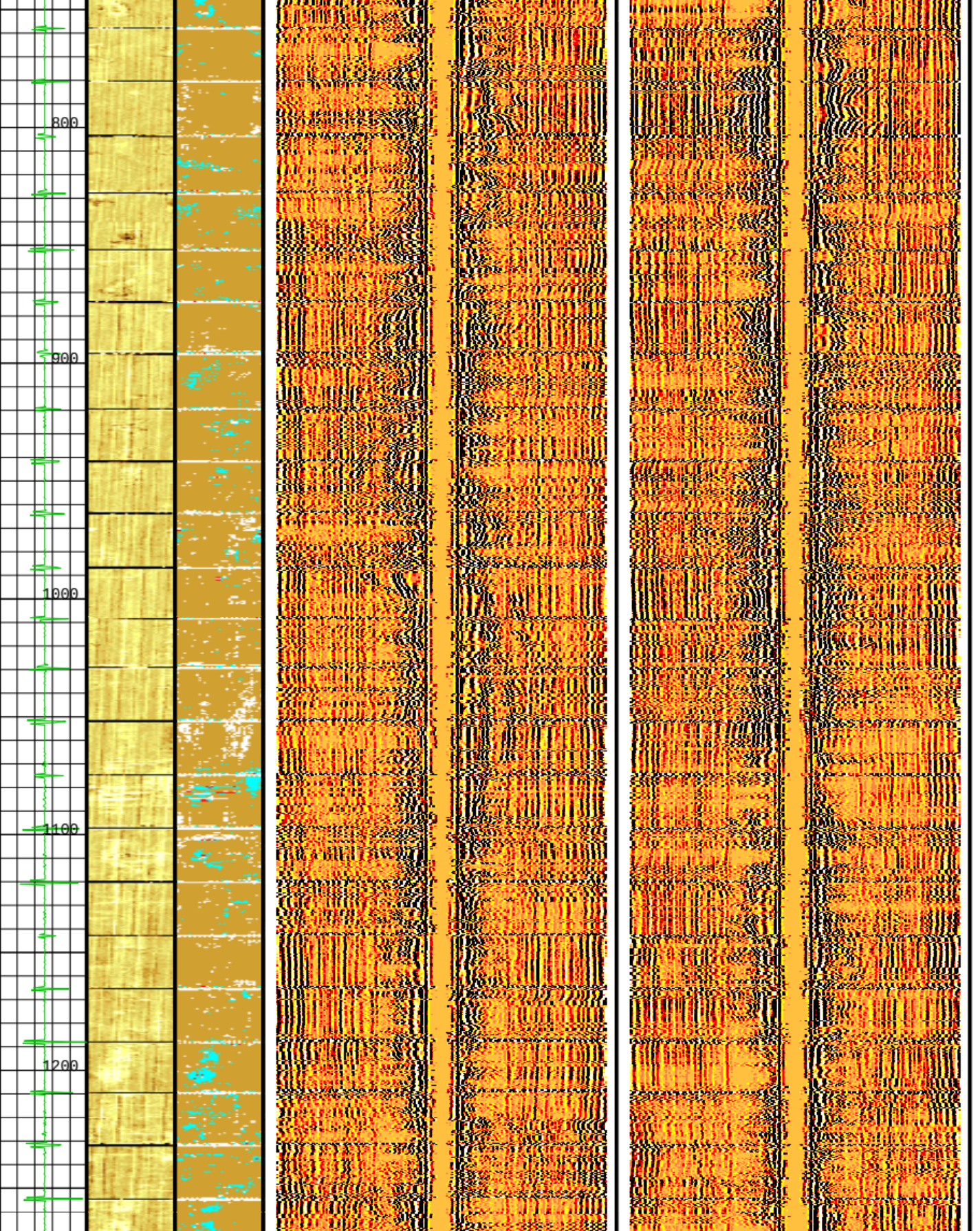
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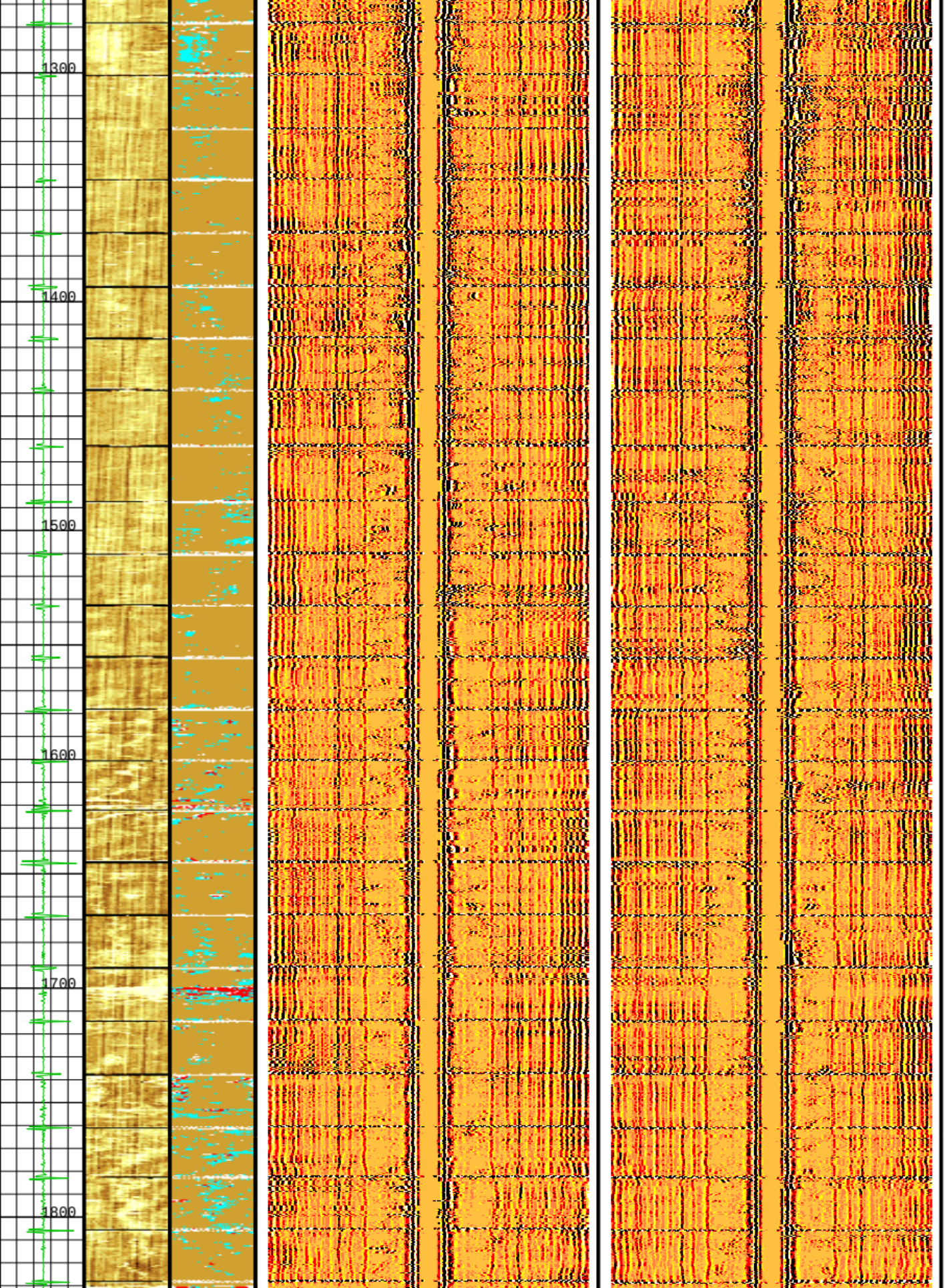
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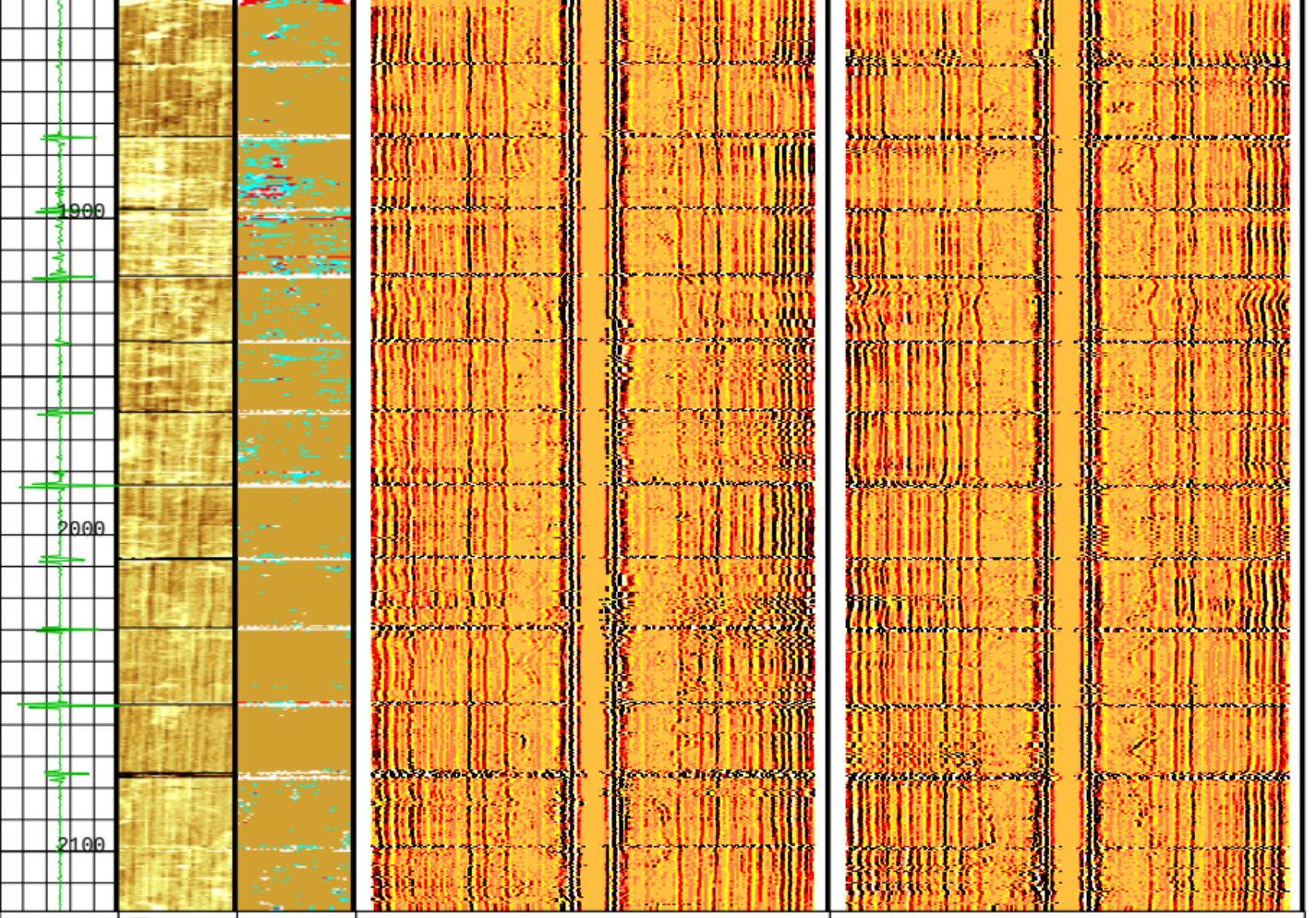


Parameters

DLIS Name	Description	Value

USIT-D: Ultrasonic Imaging - D

AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7.625	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.969	IN
DFVL	Default Fluid Velocity	211	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	40	V
FDII	FPM Data Interpolation Interval	0	FT
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.34	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.328	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	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	-15	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_Ibcs_B	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	-10	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	19.6689	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.5	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	9.875	IN
CWEI	Casing Weight	26.40	LB/F
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	

Format: USI_IBC_VDL_WIDE Vertical Scale: 2" per 100' Graphics File Created: 13-Sep-2012 02:09

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

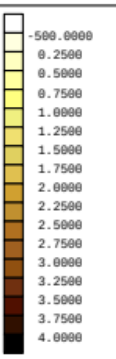
Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09	2119.0 FT	26.0 FT

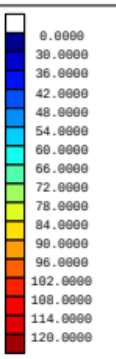
OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

	Minimum Acoustic Impedance #2 (MIN_AI2) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #4 (MIN_AI4) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #6 (MIN_AI6) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #8 (MIN_AI8) (MRAY) -7.5 7.5			
	Minimum Acoustic Impedance #1 (MIN_AI1) (MRAY) 0 15	Minimum Acoustic Impedance #3 (MIN_AI3) (MRAY) 0 15	Minimum Acoustic Impedance #5 (MIN_AI5) (MRAY) 0 15	Minimum Acoustic Impedance #7 (MIN_AI7) (MRAY) 0 15			
	Maximum Acoustic Impedance #2 (MAX_AI2) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #4 (MAX_AI4) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #6 (MAX_AI6) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #8 (MAX_AI8) (MRAY) -7.5 7.5			
	Maximum Acoustic Impedance #1 (MAX_AI1) (MRAY) 0 15	Maximum Acoustic Impedance #3 (MAX_AI3) (MRAY) 0 15	Maximum Acoustic Impedance #5 (MAX_AI5) (MRAY) 0 15	Maximum Acoustic Impedance #7 (MAX_AI7) (MRAY) 0 15	Minimum Acoustic Impedance #9 (MIN_AI9) (MRAY) 0 15	Maximum of AI (AIMX) (MRAY) 0 7.5	Maximum Flexural Attenuation (U-USIT_UFAX) (DB/M) 0 150
Gamma Ray (GR_EDTC) (GAPI) 0 150	Average Acoustic Impedance #2 (AV_AI2) (MRAY) -7.5 7.5	Average Acoustic Impedance #4 (AV_AI4) (MRAY) -7.5 7.5	Average Acoustic Impedance #6 (AV_AI6) (MRAY) -7.5 7.5	Average Acoustic Impedance #8 (AV_AI8) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #9 (MAX_AI9) (MRAY) 0 15	Minimum of AI (AIMN) (MRAY) 0 7.5	Average Flexural Attenuation (U-USIT_UFAV) (DB/M) 0 150
Eccent. (ECCE) 0 (IN) 0.5	Average Acoustic Impedance #1 (AV_AI1) (MRAY) 0 15	Average Acoustic Impedance #3 (AV_AI3) (MRAY) 0 15	Average Acoustic Impedance #5 (AV_AI5) (MRAY) 0 15	Average Acoustic Impedance #7 (AV_AI7) (MRAY) 0 15	Average Acoustic Impedance #9 (AV_AI9) (MRAY) 0 15	Average of AI (AIAV) (MRAY) 0 7.5	Minimum Flexural Attenuation (U-USIT_UFAN) (DB/M) 0 150



Raw Acoustic Imped. (AIBK) (MRAY)



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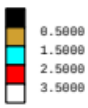
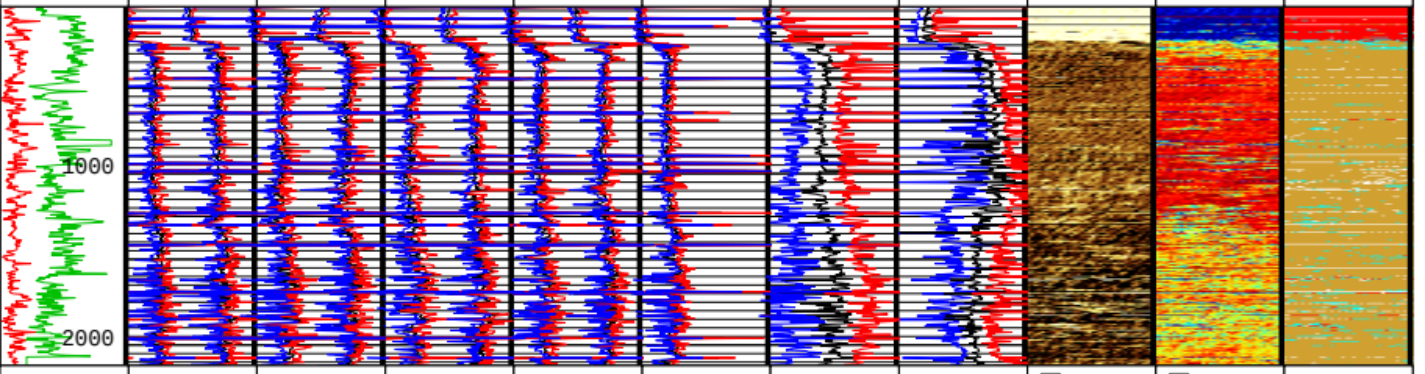


Solid Liquid Gas Map (U-USIT_USLP) (----)



Eccent. (ECCE) 0 (IN) 0.5	Average Acoustic Impedance #1 (AV_AI1) (MRAY) 0 15	Average Acoustic Impedance #3 (AV_AI3) (MRAY) 0 15	Average Acoustic Impedance #5 (AV_AI5) (MRAY) 0 15	Average Acoustic Impedance #7 (AV_AI7) (MRAY) 0 15	Average Acoustic Impedance #9 (AV_AI9) (MRAY) 0 15	Average of AI (AIAV) (MRAY) 0 7.5	Minimum Flexural Attenuation (U-USIT_UFAN) (DB/M) 0 150	-500.0000, 0.2500, 0.5000, 0.7500, 1.0000, 1.2500, 1.5000, 1.7500, 2.0000, 2.2500, 2.5000, 2.7500, 3.0000, 3.2500, 3.5000, 3.7500, 4.0000 Raw Acoustic Imped. (AIBK) (MRAY)	0.0000, 30.0000, 36.0000, 42.0000, 48.0000, 54.0000, 60.0000, 66.0000, 72.0000, 78.0000, 84.0000, 90.0000, 96.0000, 102.0000, 108.0000, 114.0000, 120.0000 Flexural Attenuation (U-USIT_UFAK) (DB/M)	0.5000, 1.5000, 2.5000, 3.5000 Solid Liquid Gas Map (U-USIT_USLP) (----)
Gamma Ray (GR_EDTC) (GAPI) 0 150	Average Acoustic Impedance #2 (AV_AI2) (MRAY) -7.5 7.5	Average Acoustic Impedance #4 (AV_AI4) (MRAY) -7.5 7.5	Average Acoustic Impedance #6 (AV_AI6) (MRAY) -7.5 7.5	Average Acoustic Impedance #8 (AV_AI8) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #9 (MAX_AI9) (MRAY) 0 15	Minimum of AI (AIMN) (MRAY) 0 7.5	Average Flexural Attenuation (U-USIT_UFAV) (DB/M) 0 150			
	Maximum Acoustic Impedance #1 (MAX_AI1) (MRAY) 0 15	Maximum Acoustic Impedance #3 (MAX_AI3) (MRAY) 0 15	Maximum Acoustic Impedance #5 (MAX_AI5) (MRAY) 0 15	Maximum Acoustic Impedance #7 (MAX_AI7) (MRAY) 0 15	Minimum Acoustic Impedance #9 (MIN_AI9) (MRAY) 0 15	Maximum of AI (AIMX) (MRAY) 0 7.5	Maximum Flexural Attenuation (U-USIT_UFAX) (DB/M) 0 150			
	Maximum Acoustic Impedance #2 (MAX_AI2) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #4 (MAX_AI4) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #6 (MAX_AI6) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #8 (MAX_AI8) (MRAY) -7.5 7.5						
	Minimum Acoustic Impedance #1 (MIN_AI1) (MRAY) 0 15	Minimum Acoustic Impedance #3 (MIN_AI3) (MRAY) 0 15	Minimum Acoustic Impedance #5 (MIN_AI5) (MRAY) 0 15	Minimum Acoustic Impedance #7 (MIN_AI7) (MRAY) 0 15						
	Minimum Acoustic Impedance #2 (MIN_AI2) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #4 (MIN_AI4) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #6 (MIN_AI6) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #8 (MIN_AI8) (MRAY) -7.5 7.5						

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	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

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09

Schlumberger

COMPRESSED GOODWIN
MAIN PASS

MAXIS Field Log

Schlumberger

CBL VDL
MAIN PASS

MAXIS Field Log

Company: SWEPI, LP

Well: HW-8105

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09	2119.0 FT	26.0 FT

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

PIP SUMMARY

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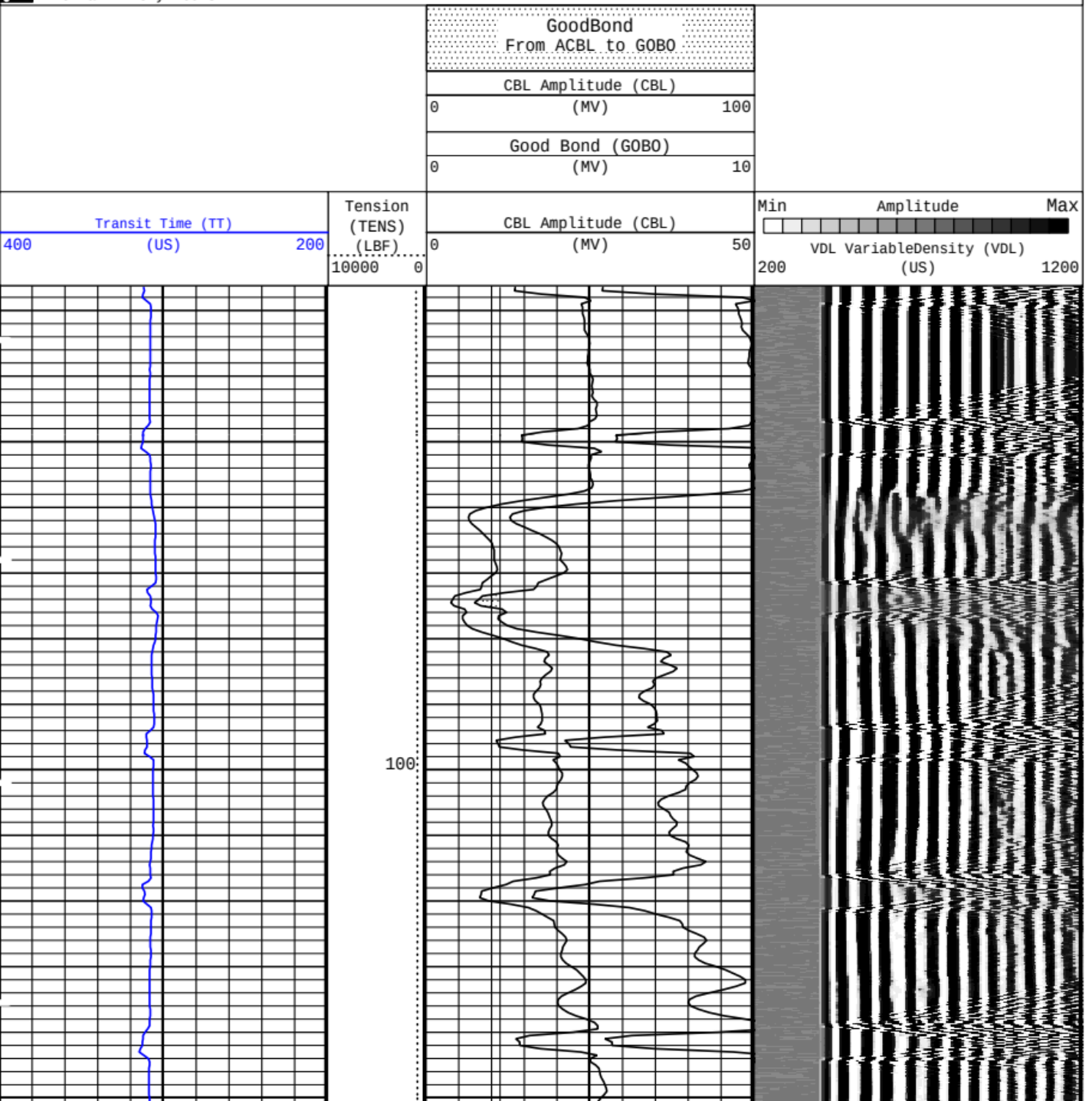

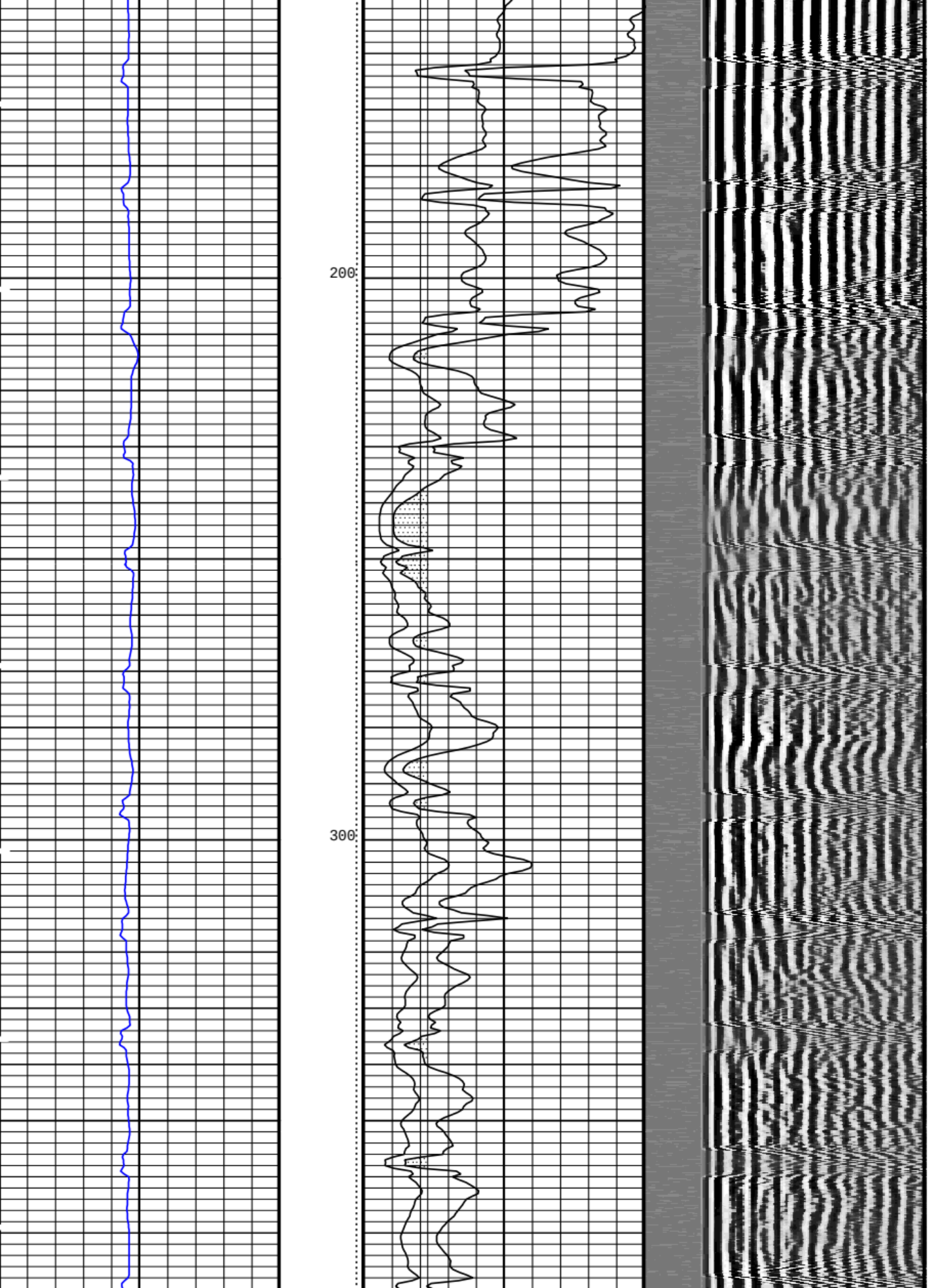
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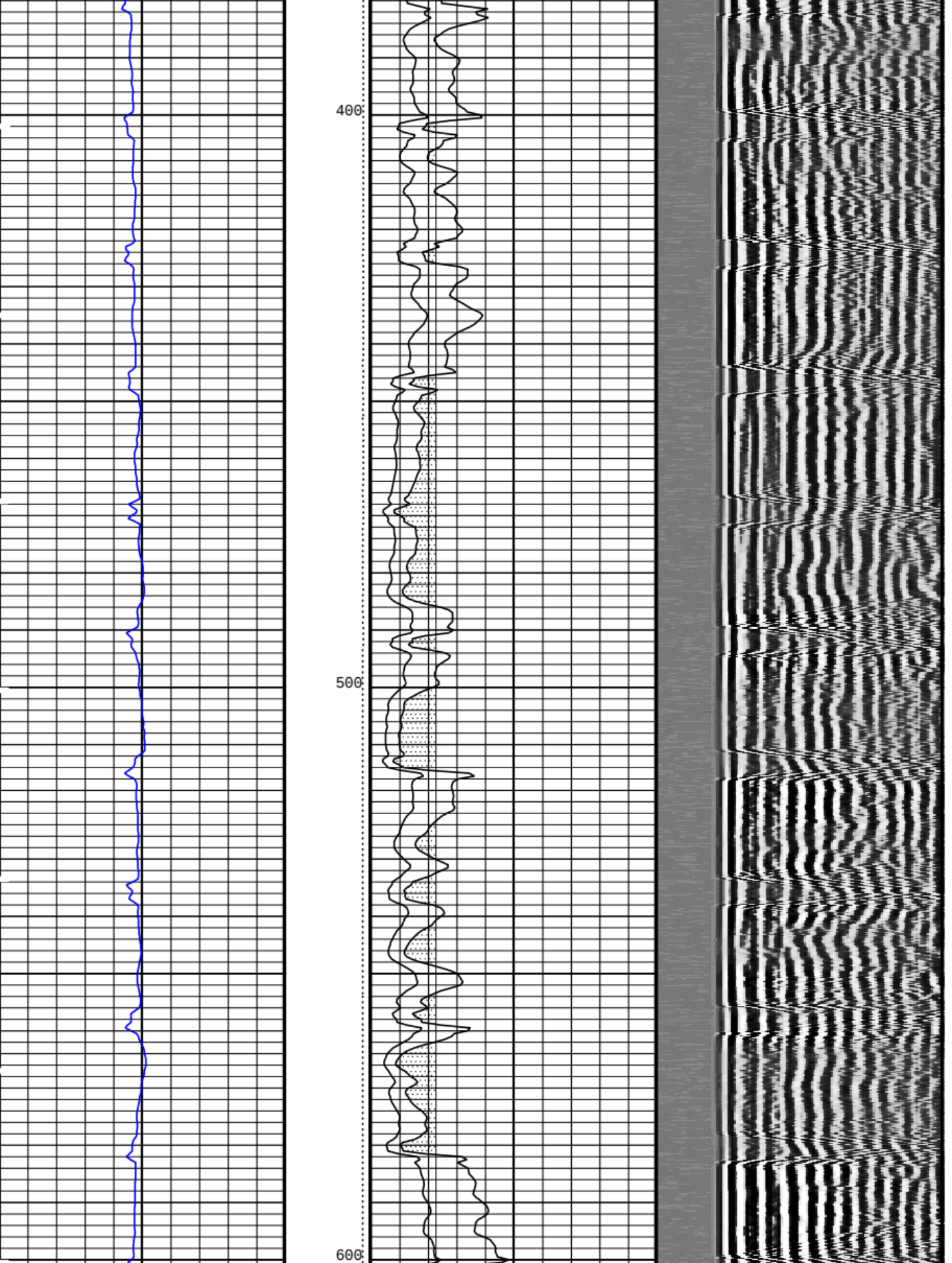
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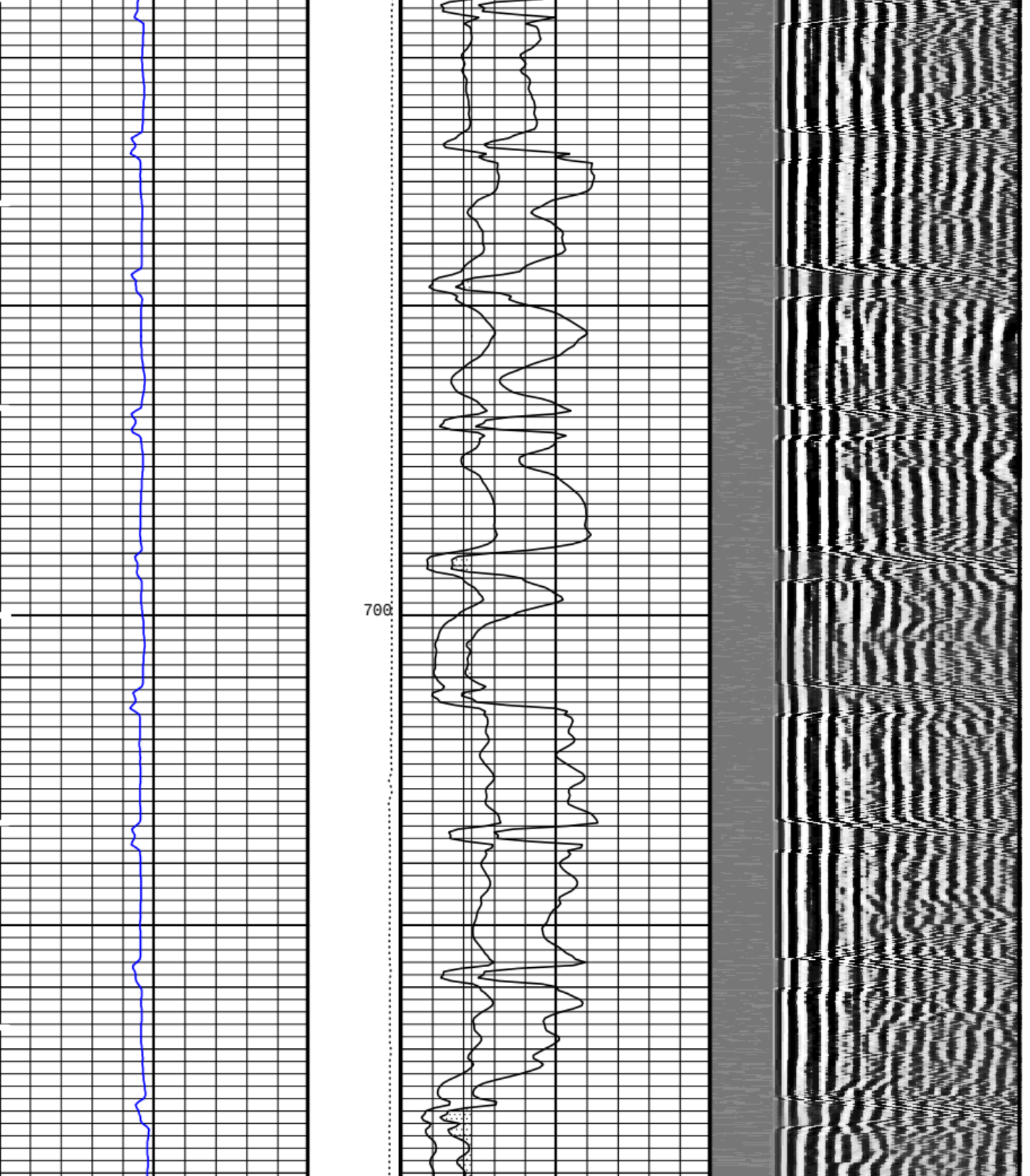
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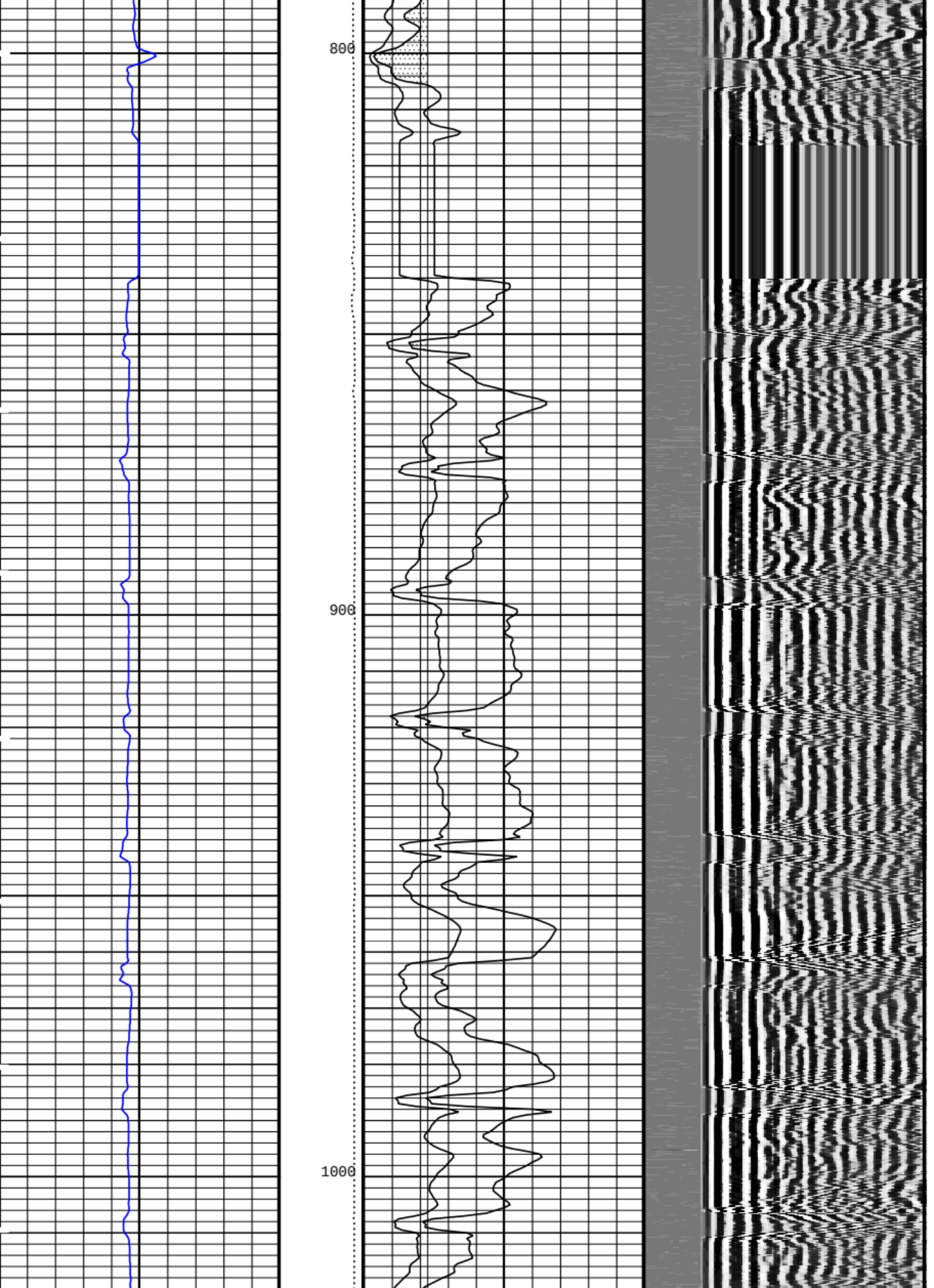
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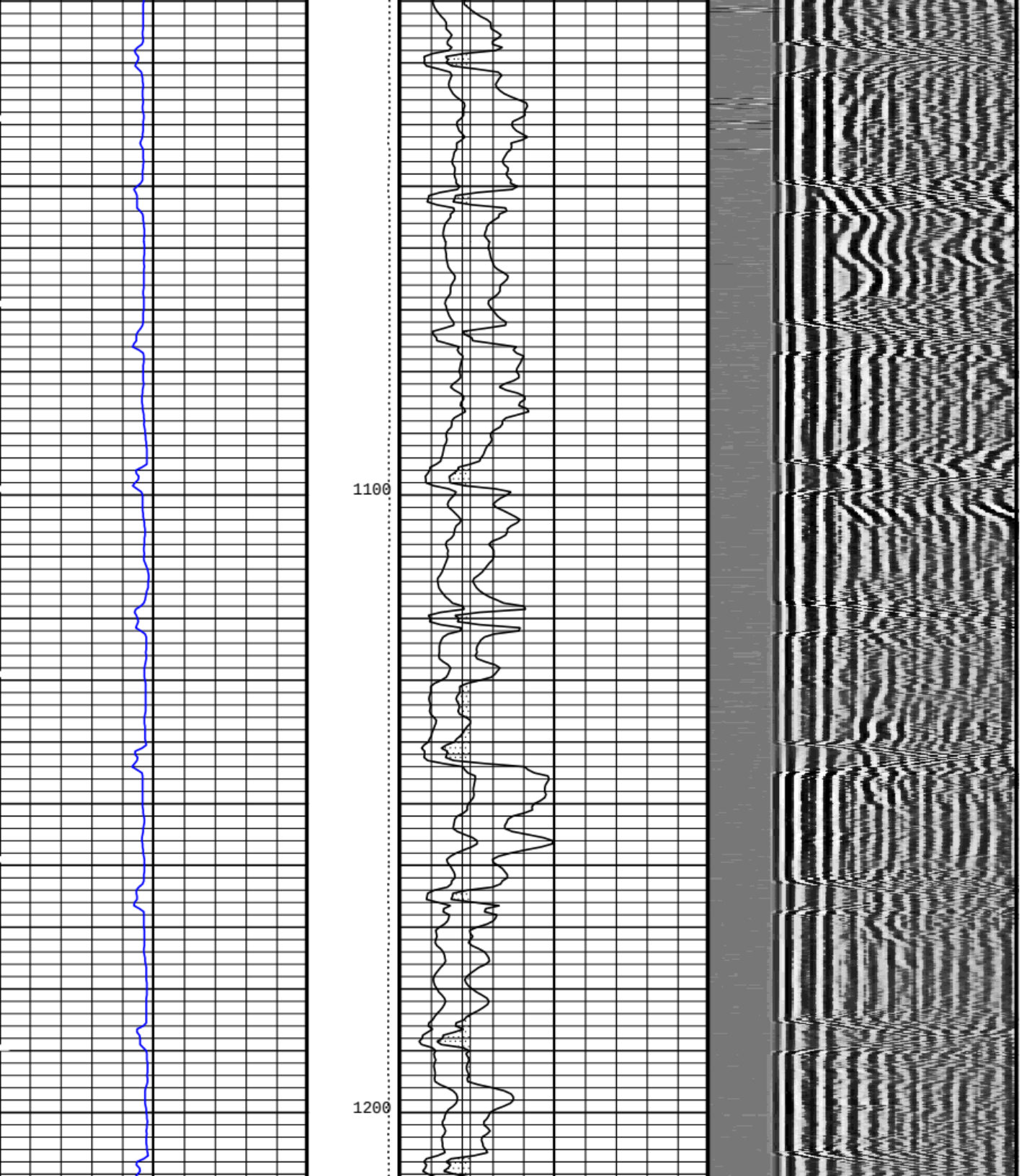
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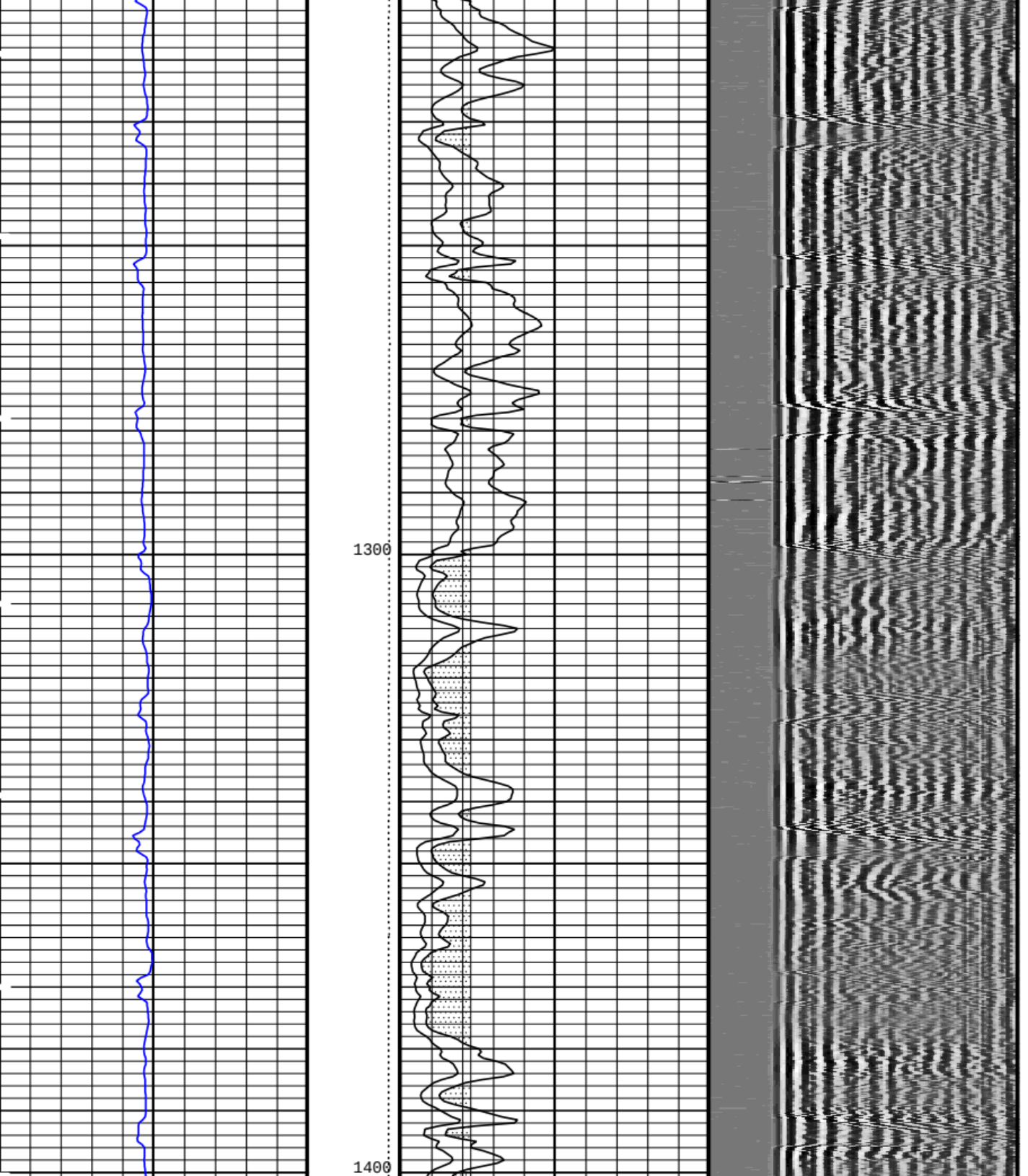
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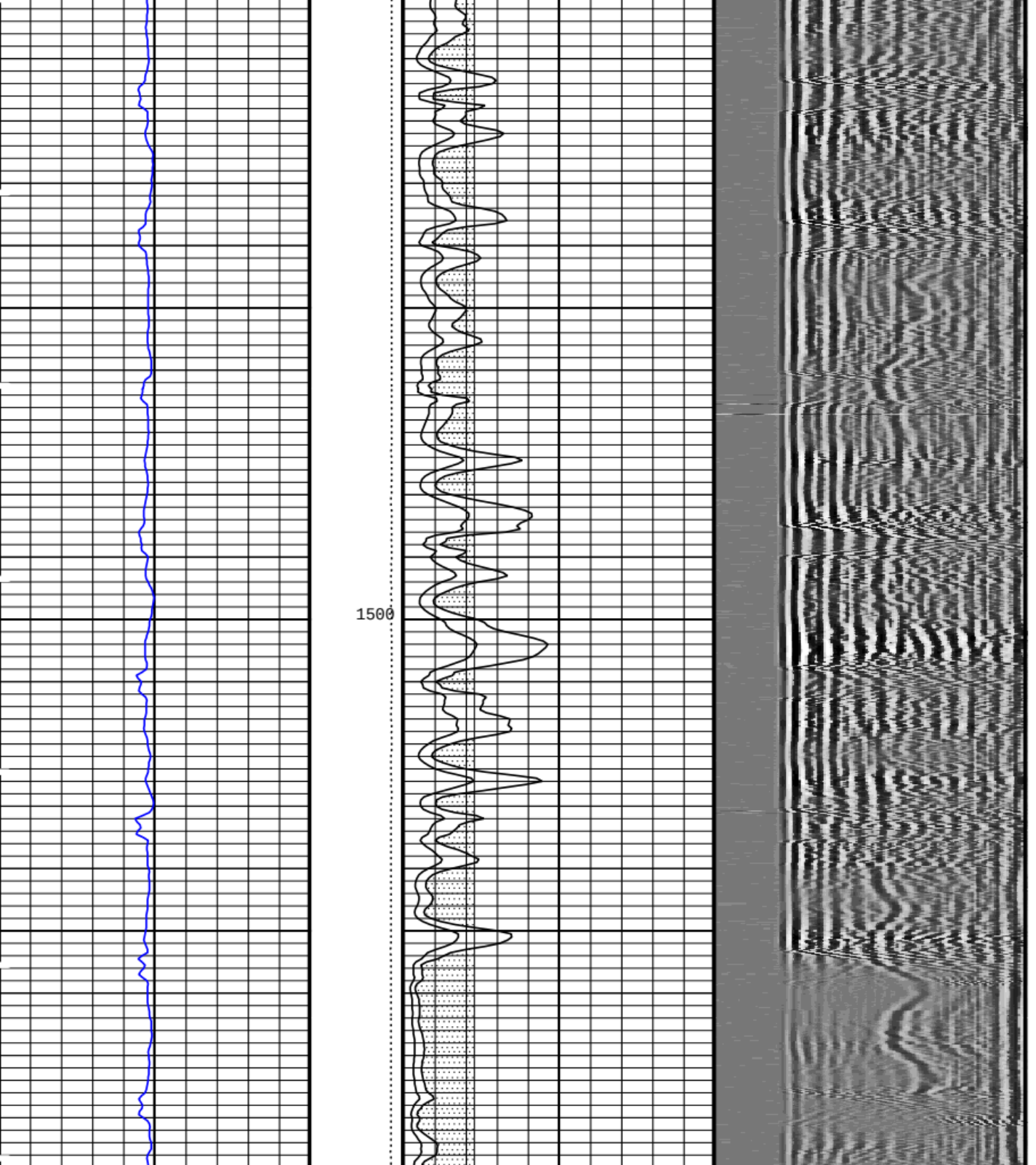
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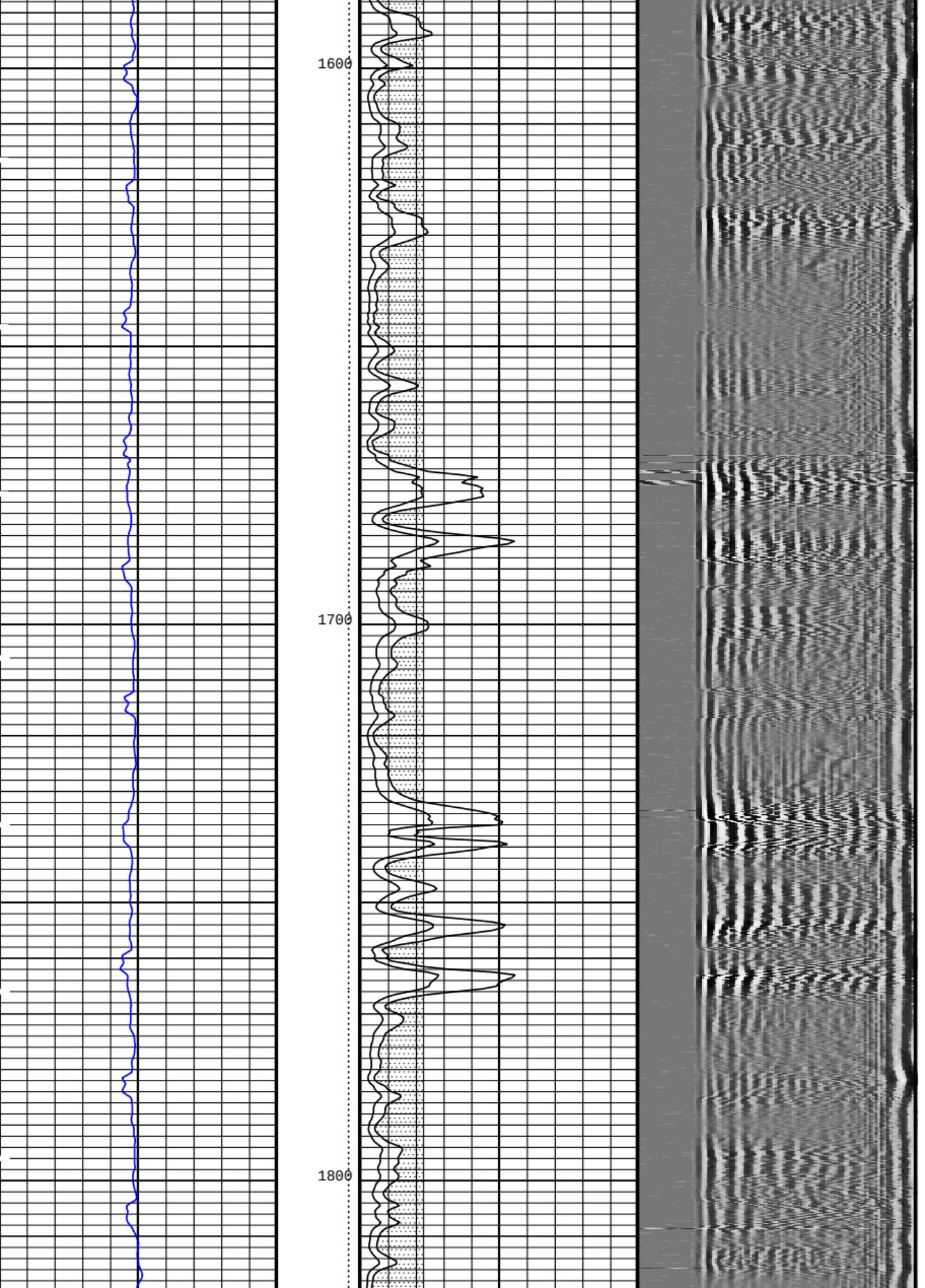
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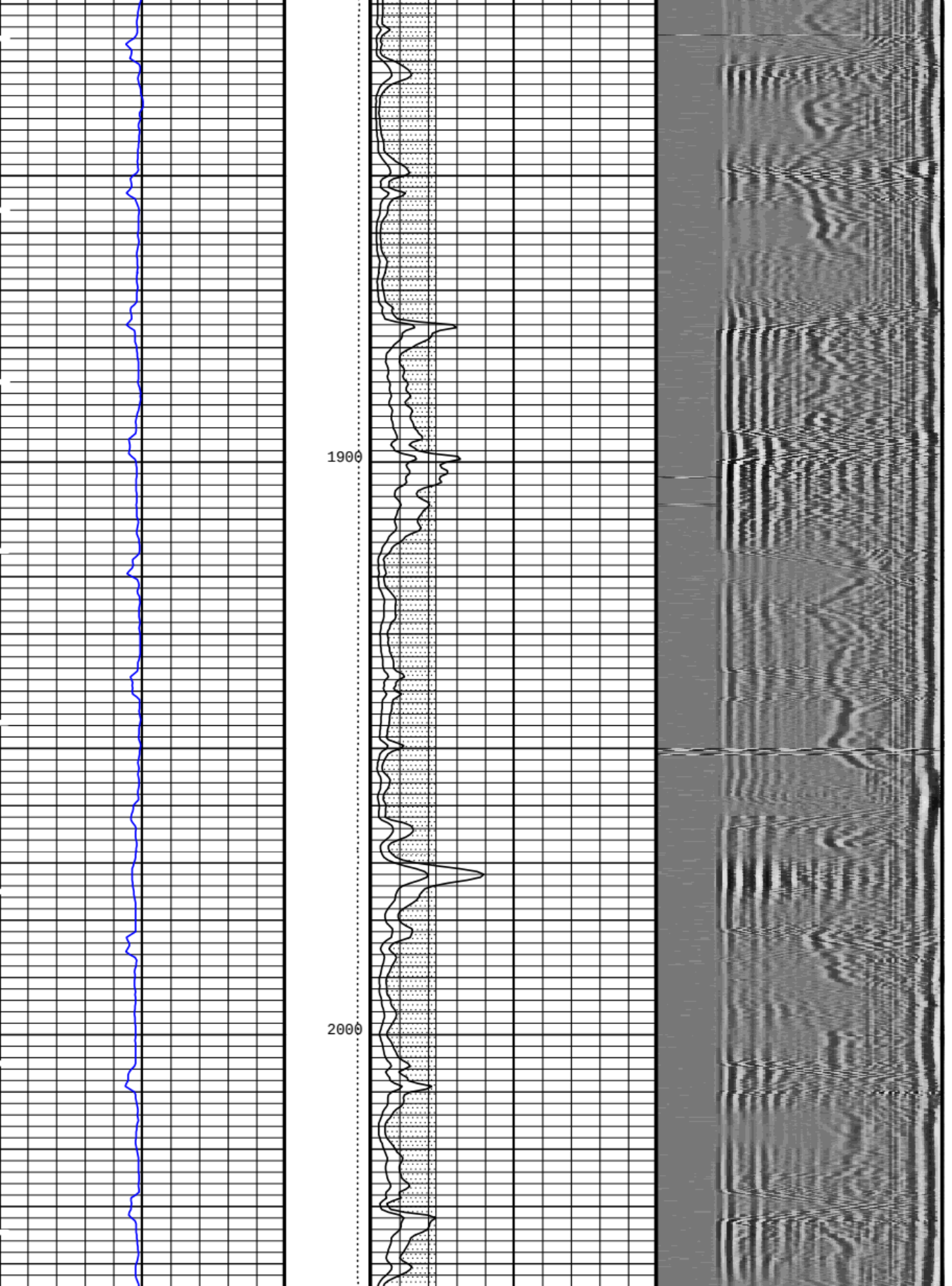
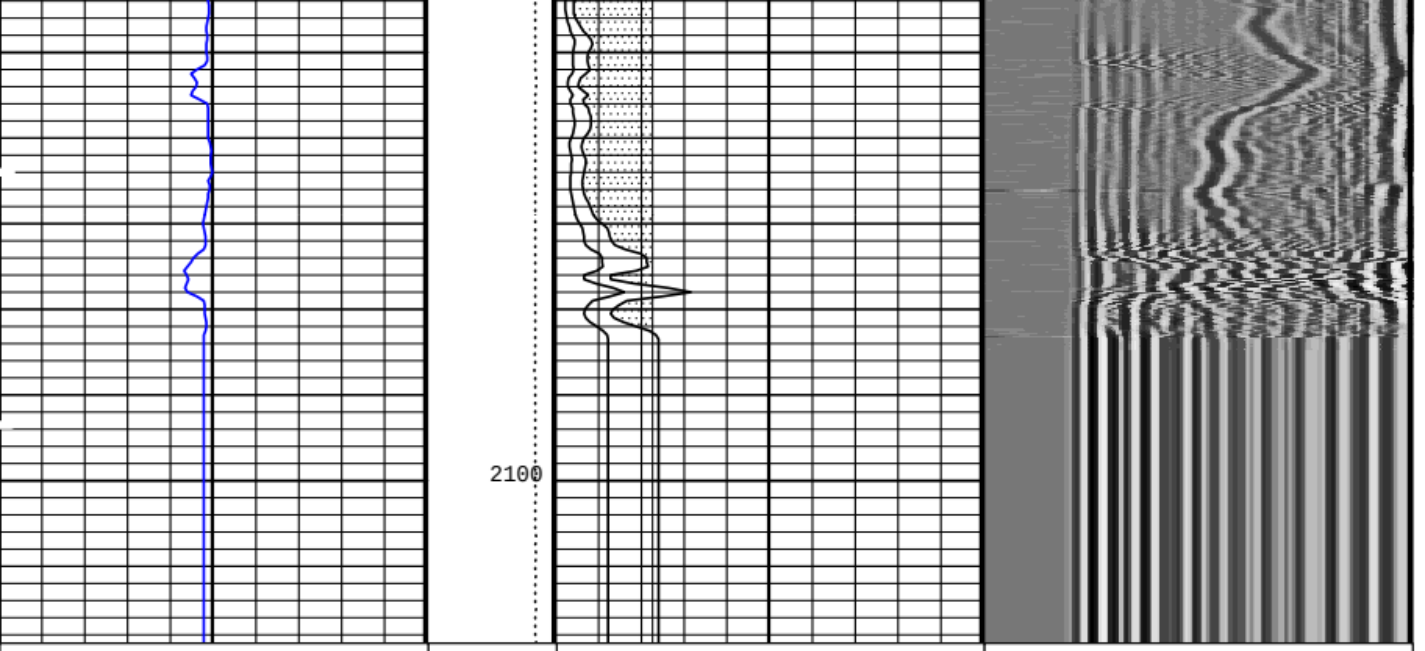
1700
1800


1900
2000



Transit Time (TT)	Tension (TENS)	CBL Amplitude (CBL)	VDL VariableDensity (VDL)
400 (US) 200	(LBF) 10000 0	0 (MV) 50	Min Amplitude Max; 200 (US) 1200

Good Bond (GOBO)	CBL Amplitude (CBL)	GoodBond From ACBL to GOBO
0 (MV) 10	0 (MV) 100	

PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL Vertical Scale: 5" per 100' Graphics File Created: 13-Sep-2012 02:09

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

Information for DSLT Sonde Status and Casing Features

Sonde Type	SLS-W/E
Sonde Serial Number	1396
Casing Size (CSIZ)	7.62500 IN
Casing Weight (CWEI)	26.4000 LB/F
Expected CBL Amplitude in Free Pipe Section (CBRA)	59.0 MV
Minimum Sonic Amplitude (MSA : 100% Cement)	0.980294 MV
Minimum Sonic Amplitude (MSA : 80% Cement)	2.22462 MV
Date of Master Calibration	8-SEP-2012
CBL Correction Factor (Master Calibration)	4.17329
Depth of Before Calibration (BDEP)	Not Recorded
CBL Adjustment Factor (CBAF : Before Calibration)	0.736300

Parameters

DLIS Name	Description	Value	
USIT-D: Ultrasonic Imaging - D			
	T^3 Processing Length for FPM	26.648	US
	Corrosion range maximum	0.076	IN
	Corrosion range minimum	-0.076	IN
DSLT-H: Digitizing Sonic Logging Tool			
	DSLT Firing Mode	CBL_W	
	Telemetry Mode	DSLC_FTB	
AMSG	Auxiliary Minimum Sliding Gate	250	US
CBAF	CBL Adjustment Factor	0.7363	
CBLG	CBL Gate Width	93	US
DDEL	Digitizing Delay	0	US
DRCS	DSLT DLIS Recording Size	120	
DSIN	Digitizing Sample Interval	10	
DTFS	DSLC Telemetry Frame Size	236	
DWCO	Digitizing Word Count	120	
GAI	Manual Gain	40	
GOBO	Good Bond	2.22462	MV
MAHTR	Manual High Threshold Reference	679	
MGAI	Maximum Gain	1000	
MNHTR	Minimum High Threshold Reference	55	
NMSG	Near Minimum Sliding Gate	254	US
NMXG	Near Maximum Sliding Gate	666	US
RATE	Firing Rate	R7	
SFAF	Sonic Formation Attenuation Factor	0	DB/F
SGCL	Sliding Gate Closing Delta-T	250	US/F
SGDT	Sliding Gate Delta-T	46	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	
VDLG	VDL Manual Gain	5	
WAGC	Waveform AGC Allow/Disallow	OFF	
WMOD	Waveform Firing Mode	FULL	
System and Miscellaneous			
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	Splice_USI_SONIC_003CUP	FN:1	PRODUCER	13-Sep-2012 01:51	2119.0 FT	25.7 FT

Output DLIS Files

DEFAULT	USI_SONIC_006PUP	FN:3	PRODUCER	13-Sep-2012 02:09

Schlumberger

USI IBC SLG COMPOSITE REPEAT PASS

MAXIS Field Log

Company: SWEPI, LP

Well: HW-8105

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15	2118.0 FT	1767.5 FT

OP System Version: 19C0-187

USIT-D SRPC-5095-H2-2011-OP19_b DSLT-H 19C0-187
EDTC-B 19C0-187

Image rotation (UCAZ) (DEG)
0 360

Tool/Tot. Drag From D4T to STIA

Cable Drag From D4T to STIT

Stuck Stretch (STIT)
0 (F) 50

CCL (CCLU) (----)
-20 20

RSAV (RSAV) (RPS)
6 7.5

CCL (CCLU) (----)
-20 20

Min of Internal radius (IRMN)
4 (IN) 3

Min of Internal radius (IRMN)
3 (IN) 4

Internal radius Maximum (IRMX)
4 (IN) 3

Internal radius Maximum (IRMX)
3 (IN) 4

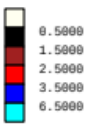
Internal radius Average (IRAV)
4 (IN) 3

Internal radius Average (IRAV)
3 (IN) 4

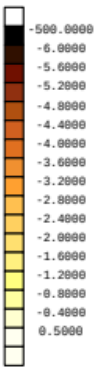
Maximum of Thickness (THMX) (IN)
0.1 0.6

Average of Thickness (THAV) (IN)
0.1 0.6

Eccent. (ECCE)
0 (IN) 0.5



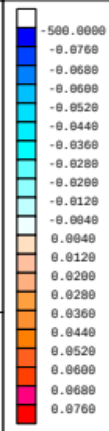
Process. flags (UFLG) (----)



Amplitude of echo minus Max (AWBK) (DB)

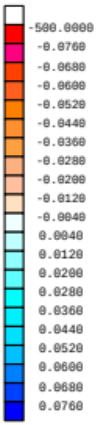
External radius Average (ERAV)
4 (IN) 3

External radius Average (ERAV)
3 (IN) 4

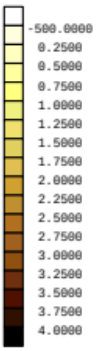


Internal radii minus Ave (IRBK) (IN)

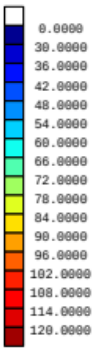
Min of Thickness (THMN) (IN)
0.1 0.6



Thickness minus Ave (THBK) (IN)

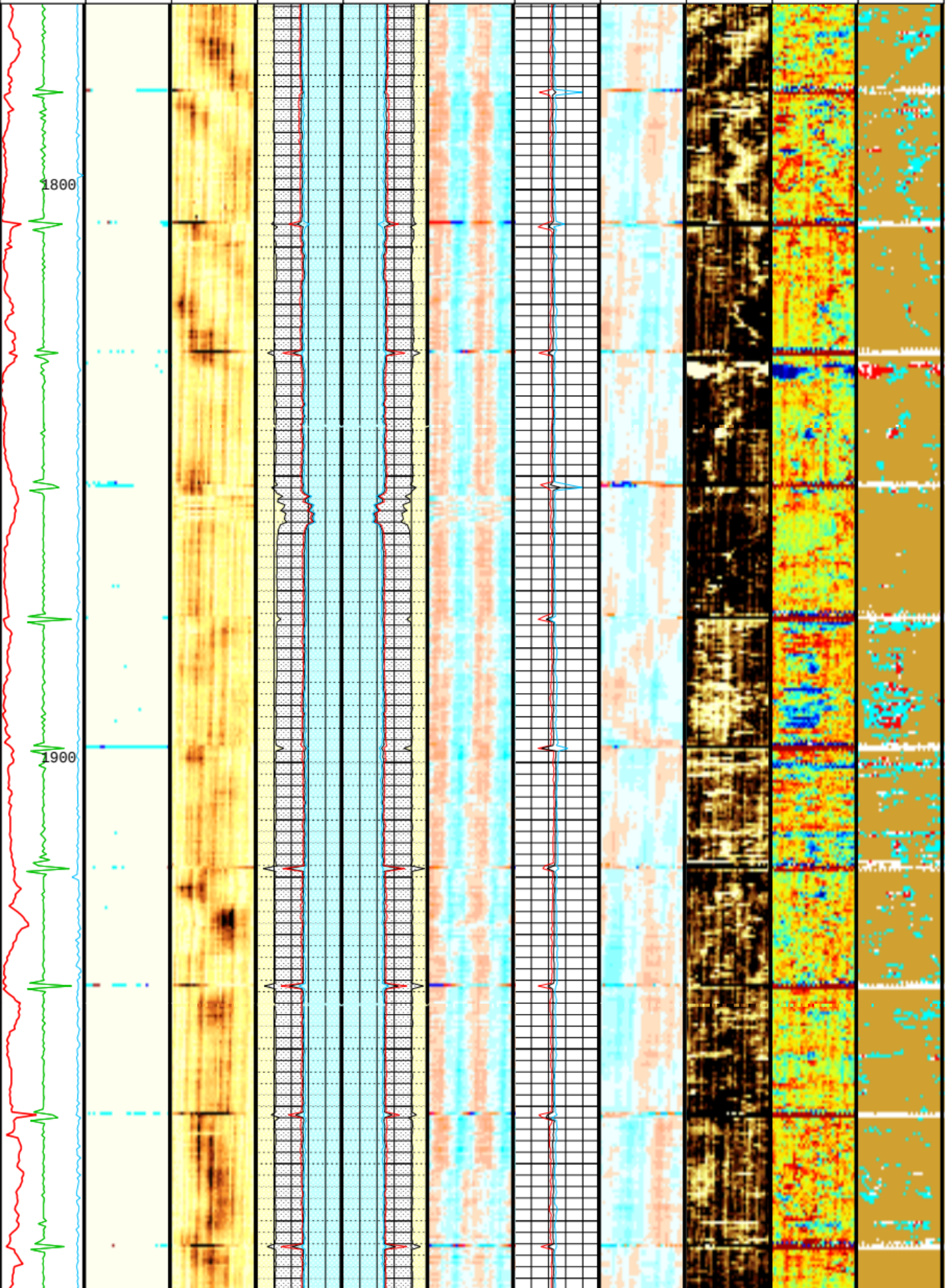


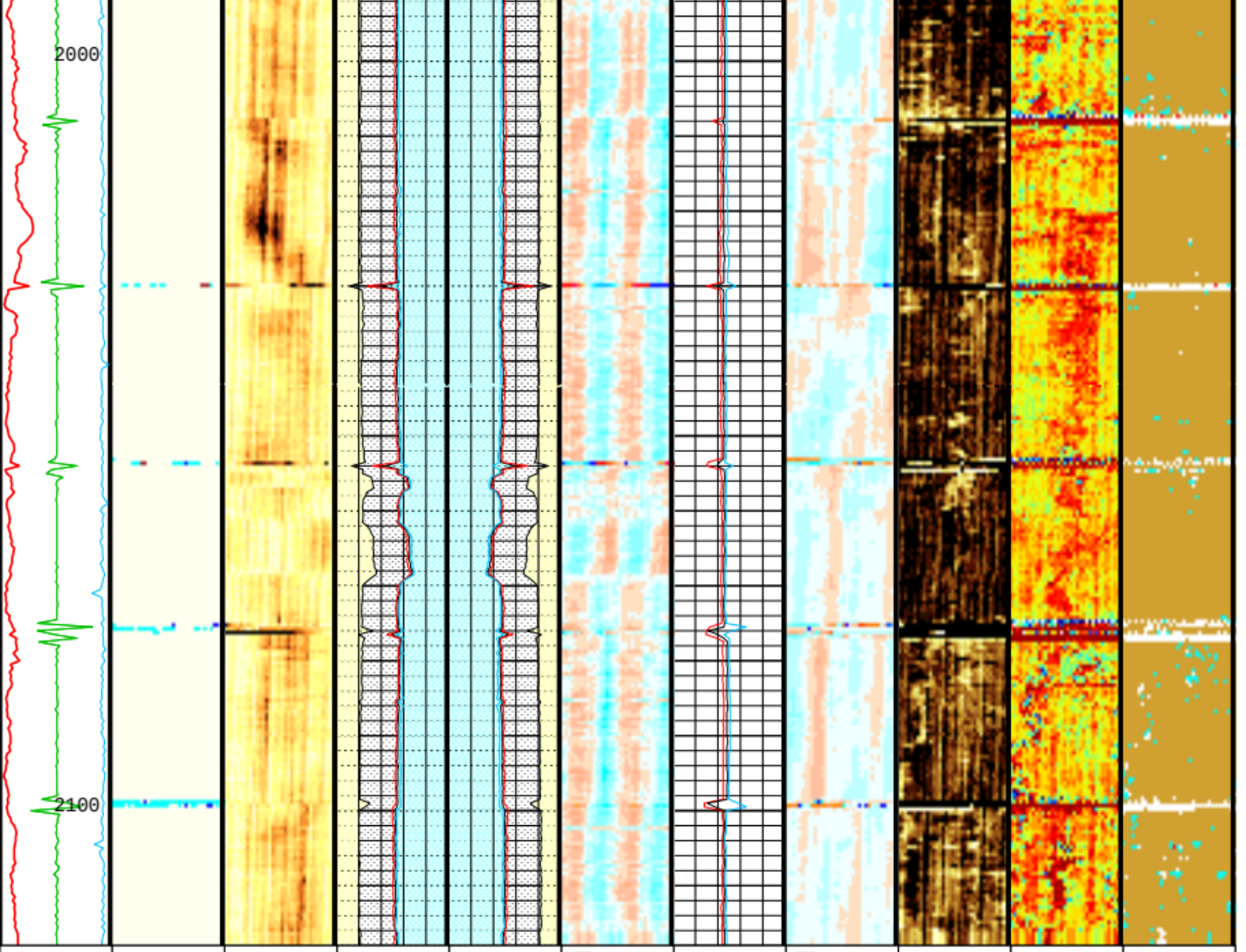
Raw Acoustic Imped. (AIBK) (MRAY)



Flexural Attenuation (U-USIT_ UFAK) (DB/M)

Solid Liquid Gas Map (U-USIT_ USLP) (----)


1800
1900



Eccent. (ECCE)
0 (IN) 0.5

Process. flags (UFLG)
(----)
0.5000
1.5000
2.5000
3.5000
6.5000

Amplitude of echo minus Max (AWBK)
(DB)
-500.0000
-6.0000
-5.6000
-5.2000
-4.8000
-4.4000
-4.0000
-3.6000
-3.2000
-2.8000
-2.4000
-2.0000
-1.6000
-1.2000
-0.8000
-0.4000
0.5000

External radius Average (ERAV)
4 (IN) 3

External radius Average (ERAV)
3 (IN) 4

Internal radii minus Ave (IRBK)
(IN)
-500.0000
-0.0760
-0.0680
-0.0600
-0.0520
-0.0440
-0.0360
-0.0280
-0.0200
-0.0120
-0.0040
0.0040
0.0120
0.0200
0.0280
0.0360
0.0440
0.0520
0.0600
0.0680
0.0760

Min of Thickness (THMN)
(IN)
0.1 0.6

Thickness minus Ave (THBK)
(IN)
-500.0000
-0.0760
-0.0680
-0.0600
-0.0520
-0.0440
-0.0360
-0.0280
-0.0200
-0.0120
-0.0040
0.0040
0.0120
0.0200
0.0280
0.0360
0.0440
0.0520
0.0600
0.0680
0.0760

Raw Acoustic Imped. (AIBK) (MRAY)
-500.0000
0.2500
0.5000
0.7500
1.0000
1.2500
1.5000
1.7500
2.0000
2.2500
2.5000
2.7500
3.0000
3.2500
3.5000
3.7500
4.0000

Flexural Attenuation (U-USIT_ UFAK) (DB/M)
0.0000
30.0000
36.0000
42.0000
48.0000
54.0000
60.0000
66.0000
72.0000
78.0000
84.0000
90.0000
96.0000
102.0000
108.0000
114.0000
120.0000

Solid Liquid Gas Map (U-USIT_ USLP)
(----)
0.5000
1.5000
2.5000
3.5000

CCL (CCLU)
(----)
-20 20

RSAV (RSAV) (RPS)
6 7.5

Internal radius Average (IRAV)
4 (IN) 3

Internal radius Average (IRAV)
3 (IN) 4

Internal radius Maximum (IRMX)
4 (IN) 3

Internal radius Maximum (IRMX)
3 (IN) 4

Average of Thickness (THAV)
(IN)
0.1 0.6

Maximum of Thickness (THMX)
(IN)
0.1 0.6

CCL (CCLU) (----)	Min of Internal radius (IRMN)	Min of Internal radius (IRMN)
-20 20	4 (IN) 3	3 (IN) 4

Stuck Stretch (STIT)
0 (F) 50

Cable Drag From D4T to STIT

Tool/Tot. Drag From D4T to STIA

Image rotation (UCAZ) (DEG)
0 360

Format: USI_IBC_SLG_Composite Vertical Scale: 5" per 100' Graphics File Created: 13-Sep-2012 02:15

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	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-D: Ultrasonic Imaging - D			
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7.625	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.969	IN
DFVL	Default Fluid Velocity	211	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	40	V
FDII	FPM Data Interpolation Interval	0	FT
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.34	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN

RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.328	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	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	-15	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_Ibcs_B	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	-10	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	19.6689	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.5	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	2285.00	FT
TDL	Total Depth - Logger	2285.00	FT
System and Miscellaneous			
BS	Bit Size	9.875	IN
CWEI	Casing Weight	26.40	LB/F
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15

Schlumberger

USI IBC SLG
REPEAT PASS

MAXIS Field Log

Company: SWEPI, LP | Well: HW-8105

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15	2118.0 FT	1767.5 FT

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

Image rotation (UCAZ) (DEG)
0 360

Gamma Ray (GR_EDTC) (GAPI)
0 150

Tool/Tot. Drag From D4T to STIA

Cable Drag From D4T to STIT

Stuck Stretch (STIT)
0 (F) 50

RSAV (RSAV) (RPS)
6 7.5

CCL (CCLU) (----)
-20 20

Maximum of AI (AIMX)
0 (MRAY) 10

Maximum Flexural Attenuation (U-USIT_UFAX)
0 (DB/M) 150

Average of AI (AIAV)
0 (MRAY) 10

Average Flexural Attenuation (U-USIT_UFAV)
0 (DB/M) 150

Eccent. (ECCE)
0 (IN) 0.5

Process. flags (UFLG) (----)
0.5000
1.5000
2.5000
3.5000
6.5000

-500.0000
-6.0000
-5.6000
-5.2000
-4.8000
-4.4000
-4.0000
-3.6000
-3.2000
-2.8000
-2.4000
-2.0000
-1.6000
-1.2000
-0.8000
-0.4000
0.5000

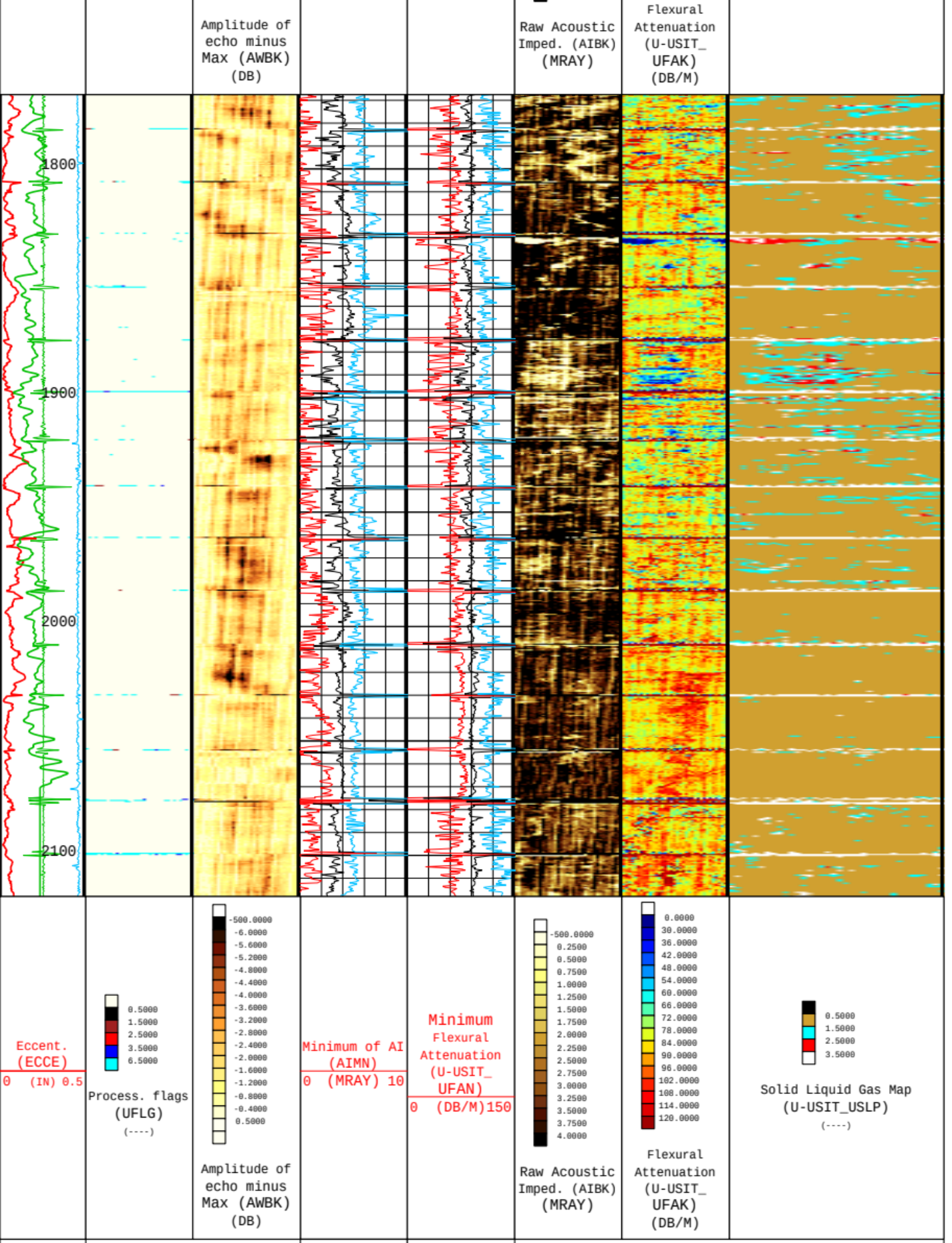
Minimum of AI (AIMN)
0 (MRAY) 10

Minimum Flexural Attenuation (U-USIT_UFAN)
0 (DB/M) 150

-500.0000
0.2500
0.5000
0.7500
1.0000
1.2500
1.5000
1.7500
2.0000
2.2500
2.5000
2.7500
3.0000
3.2500
3.5000
3.7500
4.0000

0.0000
30.0000
36.0000
42.0000
48.0000
54.0000
60.0000
66.0000
72.0000
78.0000
84.0000
90.0000
96.0000
102.0000
108.0000
114.0000
120.0000

Solid Liquid Gas Map (U-USIT_USLP) (----)
0.5000
1.5000
2.5000
3.5000


Amplitude of echo minus Max (AWBK) (DB)
Raw Acoustic Imped. (AIBK) (MRAY)
Flexural Attenuation (U-USIT_ UFAK) (DB/M)
1800
1900
2000
2100
Eccent. (ECCE)
0 (IN) 0.5
0.5000
1.5000
2.5000
3.5000
6.5000
Process. flags (UFLG)
(----)
-500.0000
-6.0000
-5.6000
-5.2000
-4.8000
-4.4000
-4.0000
-3.6000
-3.2000
-2.8000
-2.4000
-2.0000
-1.6000
-1.2000
-0.8000
-0.4000
0.5000
Amplitude of echo minus Max (AWBK) (DB)
Minimum of AI (AIMN)
0 (MRAY) 10
Minimum Flexural Attenuation (U-USIT_ UFAN)
0 (DB/M)150
-500.0000
0.2500
0.5000
0.7500
1.0000
1.2500
1.5000
1.7500
2.0000
2.2500
2.5000
2.7500
3.0000
3.2500
3.5000
3.7500
4.0000
Raw Acoustic Imped. (AIBK) (MRAY)
0.0000
30.0000
36.0000
42.0000
48.0000
54.0000
60.0000
66.0000
72.0000
78.0000
84.0000
90.0000
96.0000
102.0000
108.0000
114.0000
120.0000
Flexural Attenuation (U-USIT_ UFAK) (DB/M)
0.5000
1.5000
2.5000
3.5000
Solid Liquid Gas Map (U-USIT_USLP)
(----)

CCL (CCLU) (----) -20 20	Average of AI (AIAV) 0 (MRAY) 10
RSAV (RSAV) (RPS) 6 7.5	Maximum of AI (AIMX) 0 (MRAY) 10
Stuck Stretch (STIT) 0 (F) 50	Average Flexural Attenuation (U-USIT_UFAV) 0 (DB/M) 150
Cable Drag From D4T to STIT	Maximum Flexural Attenuation (U-USIT_UFAX) 0 (DB/M) 150
Tool/Tot. Drag From D4T to STIA	
Gamma Ray (GR_EDTC) (GAPI) 0 150	
Image rotation (UCAZ) (DEG) 0 360	

Format: USI_IBC_SLG Vertical Scale: 2" per 100' Graphics File Created: 13-Sep-2012 02:15

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	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-D: Ultrasonic Imaging - D			
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7.625	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.969	IN
DFVL	Default Fluid Velocity	211	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	40	V
FDII	FPM Data Interpolation Interval	0	FT
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.34	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.328	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	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	-15	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_Ibcs_B	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	-10	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	19.6689	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.5	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	2285.00	FT
TDL	Total Depth - Logger	2285.00	FT
System and Miscellaneous			
BS	Bit Size	9.875	IN
CWEI	Casing Weight	26.40	LB/F
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15

Schlumberger

USI IBC VDL WIDE
REPEAT PASS

MAXIS Field Log

Company: SWEPI, LP | Well: HW-8105

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15	2118.0 FT	1767.5 FT

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

Tool/Tot. Drag From D4T to STIA

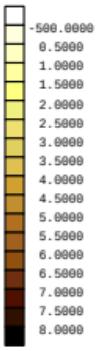
Cable Drag From D4T to STIT

Stuck Stretch (STIT)

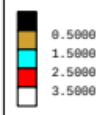
0 (F) 50

CCL (CCLU) (----)

-20 20



Raw Acoustic Imped. (AIBK) (MRAY)



Solid Liquid Gas Map (U-USIT_USLP) (----)

Min Amplitude Max

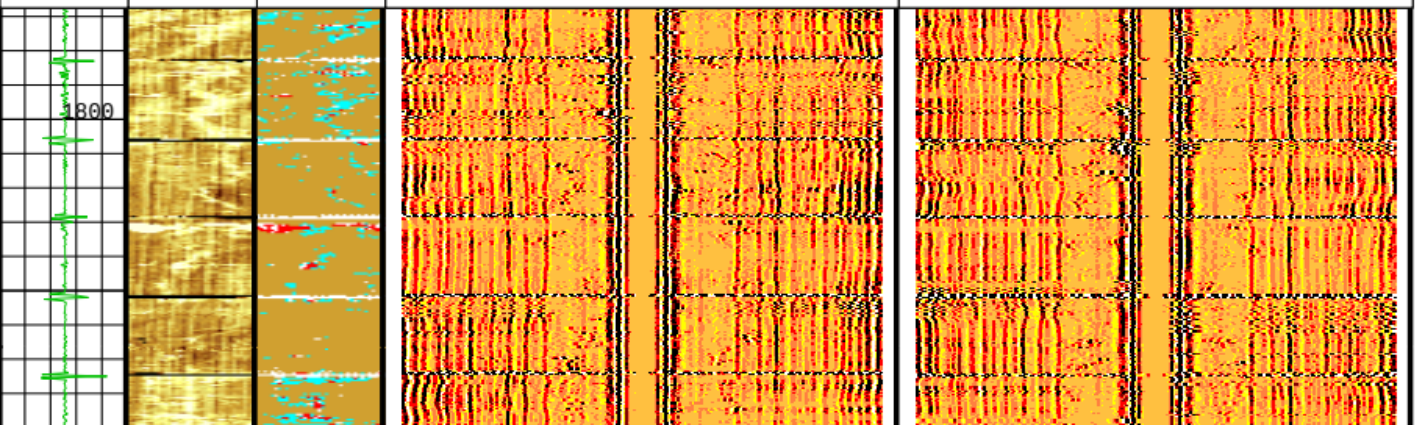
Far at 0 and 180 deg (U-USIT_VDWFF000)

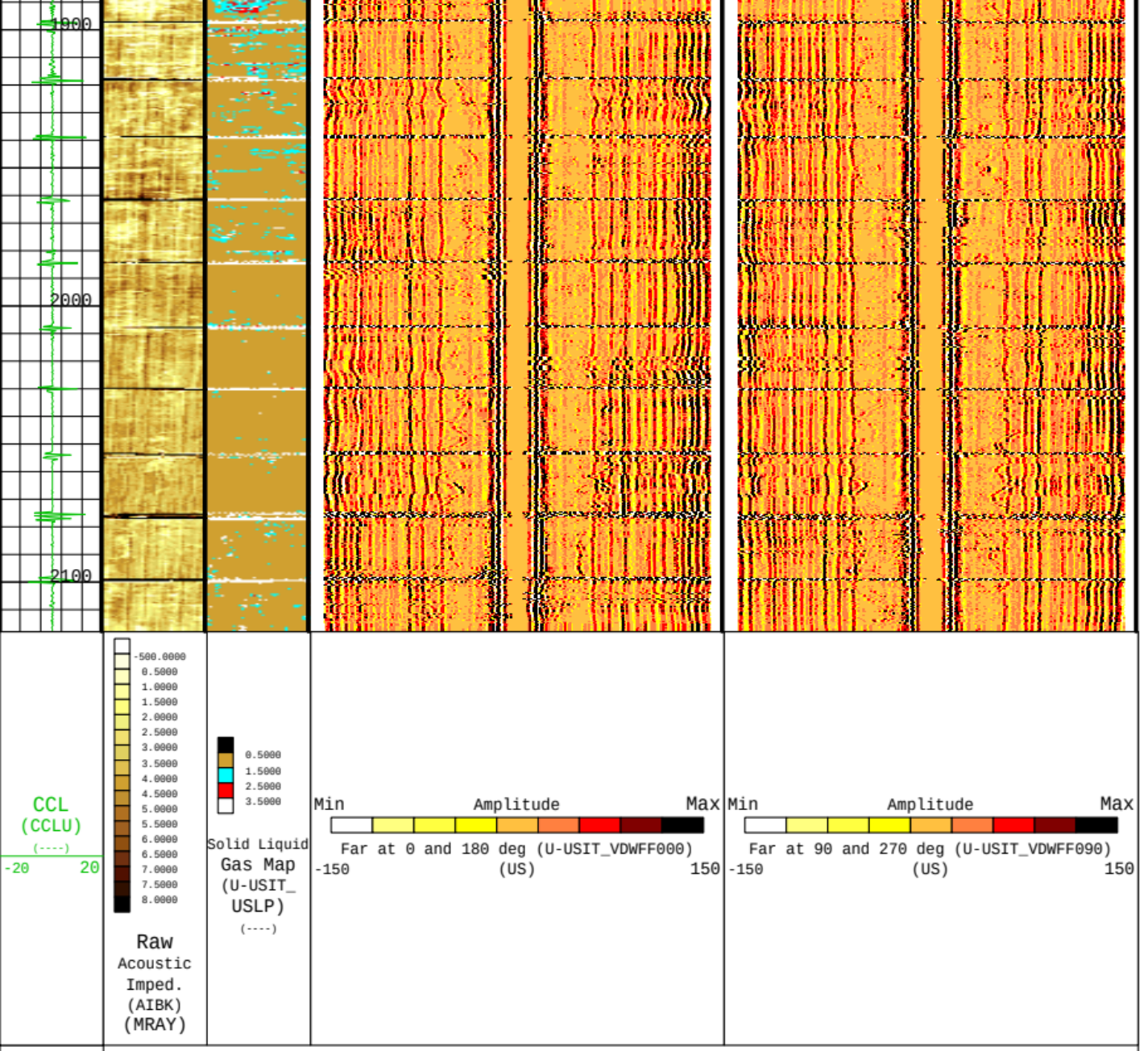
-150 (US) 150

Min Amplitude Max

Far at 90 and 270 deg (U-USIT_VDWFF090)

-150 (US) 150




1000
2000
2100
CCL
(CCLU)
(----)
-20
20
-500.0000
0.5000
1.0000
1.5000
2.0000
2.5000
3.0000
3.5000
4.0000
4.5000
5.0000
5.5000
6.0000
6.5000
7.0000
7.5000
8.0000
Raw
Acoustic
Imped.
(AIBK)
(MRAY)
0.5000
1.5000
2.5000
3.5000
Solid Liquid
Gas Map
(U-USIT_
USLP)
(----)
Min
Amplitude
Max
Far at 0 and 180 deg (U-USIT_VDWFF000)
-150
(US)
150
Min
Amplitude
Max
Far at 90 and 270 deg (U-USIT_VDWFF090)
-150
(US)
150
Stuck
Stretch
(STIT)
0
(F)
50
Cable
Drag
From D4T
to STIT
Tool/Tot.
Drag
From D4T
to STIA

Parameters

DLIS Name	Description	Value	
	USIT-D: Ultrasonic Imaging - D		
AGMN	Minimum Gain of Cartridge	-4	DB
AGMX	Maximum Gain of Cartridge	20	DB
BERJ	Bad Echo Rejection	ON	
CDIA	Casing Outer Diameter	7.625	IN
CSDE	Casing Density	486.94	LBCF
CSID	Casing Inner Diameter	6.969	IN
DFVL	Default Fluid Velocity	211	US/F
DOT	Diameter of Transducer Sensor	2.874	IN
EMXV	EMEX Voltage	40	V
FDII	FPM Data Interpolation Interval	0	FT
IMAR	Image Rotation	OFF	
MW	Mud Weight	8.34	LB/G
RCOD	Reference Calibrator Outer Diameter	7	IN
RCSO	Reference Calibrator Standoff	1.1811	IN
RCTH	Reference Calibrator Thickness	0.2952	IN
TCUB	T^3 Processing Level	Vax_Loop	
THDH	Maximum Search Thickness (percentage of nominal)	130	
THDL	Minimum Search Thickness (percentage of nominal)	70	
THDP	Thickness Detection Policy	Fundamental	
THNO	Nominal Thickness of Casing	0.328	IN
U-USIT_CEMT	USIT Cement Type	LIGHT	
U-USIT_DFSZ	Drilling Fluid Specific Acoustic Impedance	0	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	-15	DB/M
U-USIT_UIAP	USIT IBC Answer Product Enabled	SolidLiquidGasMap	
U-USIT_UIST	Ultrasonic IBC Sonde Type	Sub_Ibcs_B	
U-USIT_UTAN	USIT Transducer Angles	33_DEG	
UMAO	USIT Measurement Angular Offset	-10	DEG
USTO	Ultrasonic Time Offset	-2	US
USUB	Ultrasonic Subassembly Identifier	Sub_7_inch	
UWKM	Ultrasonic Working Mode	10DEG_6IN_136UNF_LF	
VCAS	Ultrasonic Transversal Velocity in Casing	51.4	US/F
WLEN	T^3 Processing Length	19.6689	US
ZCAS	Acoustic Impedance of Casing	46.25	MRAY
ZINI	Initial Estimate of Cement Impedance	-1	MRAY
ZMUD	Acoustic Impedance of Mud	1.5	MRAY
ZTCM	Acoustic Impedance Threshold for Cement	2.6	MRAY
ZTGS	Acoustic Impedance Threshold for Gas	0.3	MRAY
	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	2285.00	FT
TDL	Total Depth - Logger	2285.00	FT
	System and Miscellaneous		
BS	Bit Size	9.875	IN
CWEI	Casing Weight	26.40	LB/F
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	

Format: USI_IBC_VDL_WIDE Vertical Scale: 2" per 100' Graphics File Created: 13-Sep-2012 02:15

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15

Schlumberger

COMPRESSED GOODWIN
REPEAT PASS

MAXIS Field Log

Company: SWEPI, LP | Well: HW-8105

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15	2118.0 FT	1767.5 FT

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

	Minimum Acoustic Impedance #2 (MIN_AI2) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #4 (MIN_AI4) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #6 (MIN_AI6) (MRAY) -7.5 7.5	Minimum Acoustic Impedance #8 (MIN_AI8) (MRAY) -7.5 7.5			
	Minimum Acoustic Impedance #1 (MIN_AI1) (MRAY) 0 15	Minimum Acoustic Impedance #3 (MIN_AI3) (MRAY) 0 15	Minimum Acoustic Impedance #5 (MIN_AI5) (MRAY) 0 15	Minimum Acoustic Impedance #7 (MIN_AI7) (MRAY) 0 15			
	Maximum Acoustic Impedance #2 (MAX_AI2) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #4 (MAX_AI4) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #6 (MAX_AI6) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #8 (MAX_AI8) (MRAY) -7.5 7.5			
	Maximum Acoustic Impedance #1 (MAX_AI1) (MRAY) 0 15	Maximum Acoustic Impedance #3 (MAX_AI3) (MRAY) 0 15	Maximum Acoustic Impedance #5 (MAX_AI5) (MRAY) 0 15	Maximum Acoustic Impedance #7 (MAX_AI7) (MRAY) 0 15	Minimum Acoustic Impedance #9 (MIN_AI9) (MRAY) 0 15	Maximum of AI (AIMX) (MRAY) 0 7.5	Maximum Flexural Attenuation (U-USIT_UFAX) (DB/M) 0 150
Gamma Ray (GR_EDTC) (GAPI) 0 150	Average Acoustic Impedance #2 (AV_AI2) (MRAY) -7.5 7.5	Average Acoustic Impedance #4 (AV_AI4) (MRAY) -7.5 7.5	Average Acoustic Impedance #6 (AV_AI6) (MRAY) -7.5 7.5	Average Acoustic Impedance #8 (AV_AI8) (MRAY) -7.5 7.5	Maximum Acoustic Impedance #9 (MAX_AI9) (MRAY) 0 15	Minimum of AI (AIMN) (MRAY) 0 7.5	Average Flexural Attenuation (U-USIT_UFAV) (DB/M) 0 150

Eccent. (ECCE) 0 (IN) 0.5

Average Acoustic Impedance #1 (AV_AI1) (MRAY) 0 15

Average Acoustic Impedance #3 (AV_AI3) (MRAY) 0 15

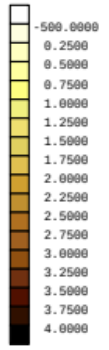
Average Acoustic Impedance #5 (AV_AI5) (MRAY) 0 15

Average Acoustic Impedance #7 (AV_AI7) (MRAY) 0 15

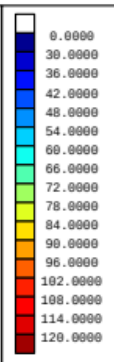
Average Acoustic Impedance #9 (AV_AI9) (MRAY) 0 15

Average of AI (AIAV) (MRAY) 0 7.5

Minimum Flexural Attenuation (U-USIT_UFAN) (DB/M) 0 150

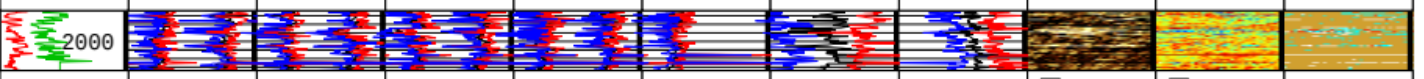


Raw Acoustic Imped. (AIBK) (MRAY)



Flexural Attenuation (U-USIT_UFAK) (DB/M)

Solid Liquid Gas Map (U-USIT_USLP) (----)



Eccent. (ECCE) 0 (IN) 0.5

Average Acoustic Impedance #1 (AV_AI1) (MRAY) 0 15

Average Acoustic Impedance #3 (AV_AI3) (MRAY) 0 15

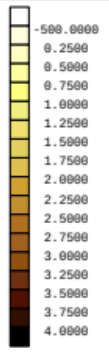
Average Acoustic Impedance #5 (AV_AI5) (MRAY) 0 15

Average Acoustic Impedance #7 (AV_AI7) (MRAY) 0 15

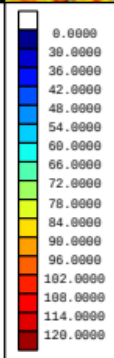
Average Acoustic Impedance #9 (AV_AI9) (MRAY) 0 15

Average of AI (AIAV) (MRAY) 0 7.5

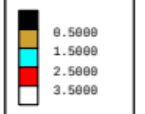
Minimum Flexural Attenuation (U-USIT_UFAN) (DB/M) 0 150



Raw Acoustic Imped. (AIBK) (MRAY)



Flexural Attenuation (U-USIT_UFAK) (DB/M)



Solid Liquid Gas Map (U-USIT_USLP) (----)

Gamma Ray (GR_EDTC) (GAPI) 0 150

Average Acoustic Impedance #2 (AV_AI2) (MRAY) -7.5 7.5

Average Acoustic Impedance #4 (AV_AI4) (MRAY) -7.5 7.5

Average Acoustic Impedance #6 (AV_AI6) (MRAY) -7.5 7.5

Average Acoustic Impedance #8 (AV_AI8) (MRAY) -7.5 7.5

Maximum Acoustic Impedance #9 (MAX_AI9) (MRAY) 0 15

Minimum of AI (AIMN) (MRAY) 0 7.5

Average Flexural Attenuation (U-USIT_UFAV) (DB/M) 0 150

Maximum Acoustic Impedance #1 (MAX_AI1) (MRAY) 0 15

Maximum Acoustic Impedance #3 (MAX_AI3) (MRAY) 0 15

Maximum Acoustic Impedance #5 (MAX_AI5) (MRAY) 0 15

Maximum Acoustic Impedance #7 (MAX_AI7) (MRAY) 0 15

Minimum Acoustic Impedance #9 (MIN_AI9) (MRAY) 0 15

Maximum of AI (AIMX) (MRAY) 0 7.5

Maximum Flexural Attenuation (U-USIT_UFAX) (DB/M) 0 150

Maximum Acoustic Impedance #2 (MAX_AI2) (MRAY) -7.5 7.5

Maximum Acoustic Impedance #4 (MAX_AI4) (MRAY) -7.5 7.5

Maximum Acoustic Impedance #6 (MAX_AI6) (MRAY) -7.5 7.5

Maximum Acoustic Impedance #8 (MAX_AI8) (MRAY) -7.5 7.5

Minimum Acoustic Impedance #1 (MIN_AI1) (MRAY) 0 15

Minimum Acoustic Impedance #3 (MIN_AI3) (MRAY) 0 15

Minimum Acoustic Impedance #5 (MIN_AI5) (MRAY) 0 15

Minimum Acoustic Impedance #7 (MIN_AI7) (MRAY) 0 15

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

Format: M_Goodwin_Compressed Vertical Scale: 0.1" per 100' Graphics File Created: 13-Sep-2012 02:15

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	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

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15

Schlumberger

CBL VDL
REPEAT PASS

MAXIS Field Log

Company: SWEPI, LP Well: HW-8105

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

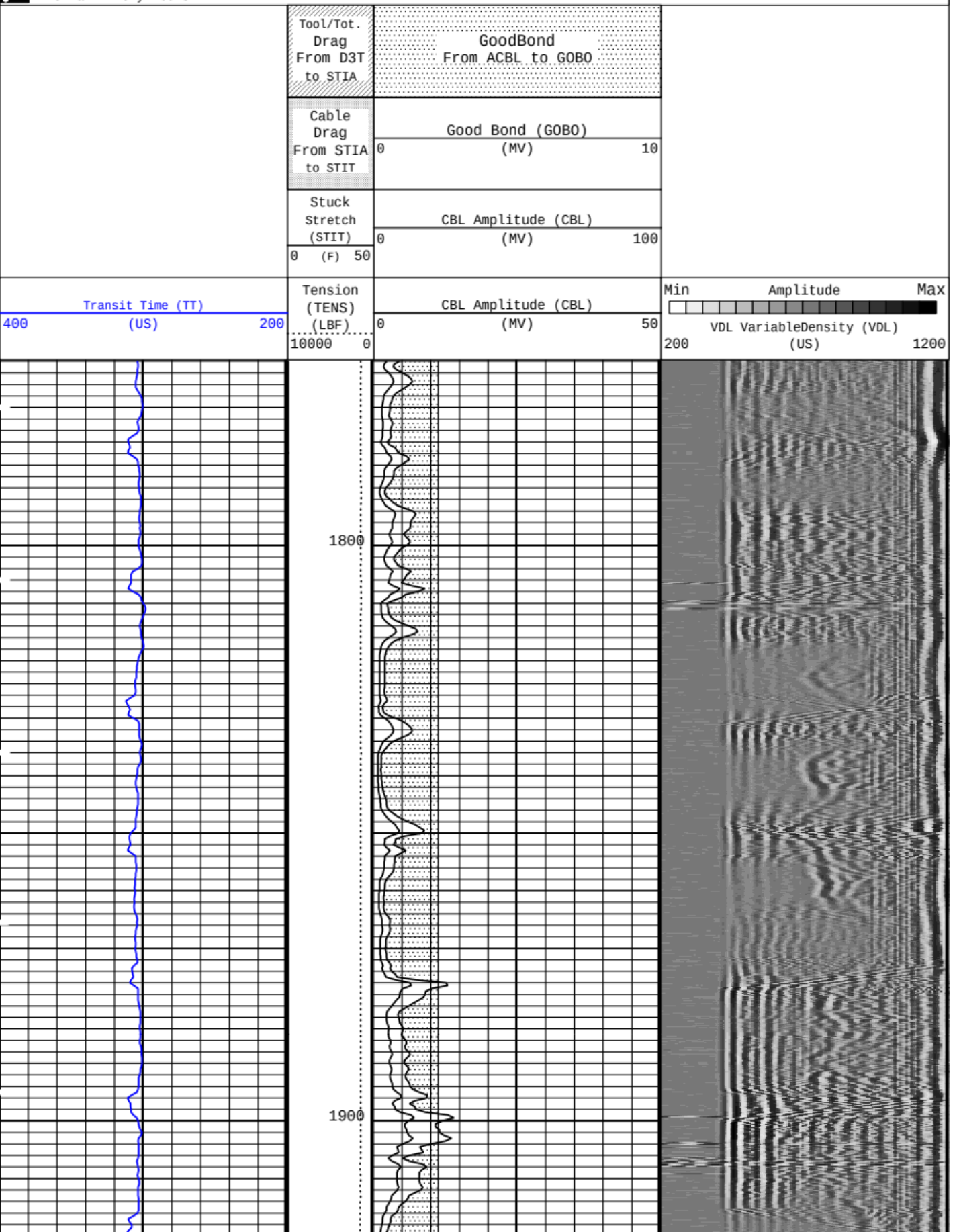
DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15	2118.0 FT	1767.5 FT

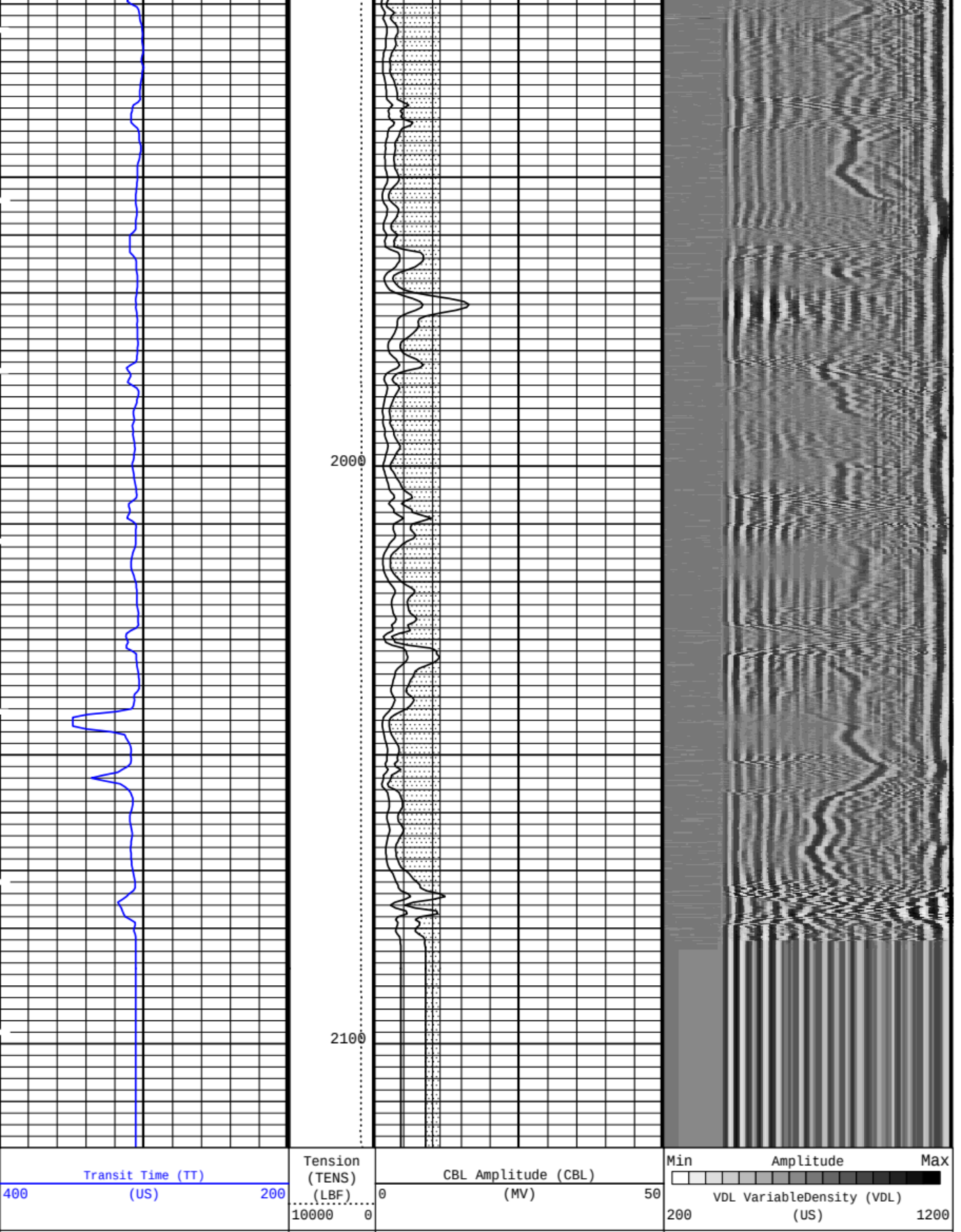
OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

PIP SUMMARY

Time Mark Every 60 S




2000
2100
Transit Time (TT)
400
(US)
200
Tension
(TENS)
(LBF)
10000
0
CBL Amplitude (CBL)
0
(MV)
50
Min
Amplitude
Max
VDL VariableDensity (VDL)
200
(US)
1200

Stuck Stretch (STIT) 0 (F) 50	CBL Amplitude (CBL) 0 (MV) 100
Cable Drag From STIA to STIT	Good Bond (GOBO) 0 (MV) 10
Tool/Tot. Drag From D3T to STIA	GoodBond From ACBL to GOBO

PIP SUMMARY

Time Mark Every 60 S

Format: CBL_VDL Vertical Scale: 5" per 100' Graphics File Created: 13-Sep-2012 02:15

OP System Version: 19C0-187

USIT-D	SRPC-5095-H2-2011-OP19_b	DSLT-H	19C0-187
EDTC-B	19C0-187		

Information for DSLT Sonde Status and Casing Features

Sonde Type	SLS-W/E
Sonde Serial Number	1396
Casing Size (CSIZ)	7.62500 IN
Casing Weight (CWEI)	26.4000 LB/F
Expected CBL Amplitude in Free Pipe Section (CBRA)	59.0 MV
Minimum Sonic Amplitude (MSA : 100% Cement)	0.980294 MV
Minimum Sonic Amplitude (MSA : 80% Cement)	2.22462 MV
Date of Master Calibration	8-SEP-2012
CBL Correction Factor (Master Calibration)	4.17329
Depth of Before Calibration (BDEP)	Not Recorded
CBL Adjustment Factor (CBAF : Before Calibration)	0.736300

Parameters

DLIS Name	Description	Value	
	USIT-D: Ultrasonic Imaging - D		
	T^3 Processing Length for FPM	26.648	US
	Corrosion range maximum	0.076	IN
	Corrosion range minimum	-0.076	IN
	DSLT-H: Digitizing Sonic Logging Tool		
	DSLT Firing Mode	CBL_W	
	Telemetry Mode	DSLC_FTB	
AMSG	Auxiliary Minimum Sliding Gate	250	US
CBAF	CBL Adjustment Factor	0.7363	
CBLG	CBL Gate Width	93	US
DDEL	Digitizing Delay	0	US
DRCS	DSLT DLIS Recording Size	120	

DSIN	Digitizing Sample Interval	10	
DTFS	DSLC Telemetry Frame Size	236	
DWCO	Digitizing Word Count	120	
GAI	Manual Gain	40	
GOBO	Good Bond	2.22462	MV
MAHTR	Manual High Threshold Reference	679	
MGAI	Maximum Gain	1000	
MNHTR	Minimum High Threshold Reference	55	
NMSG	Near Minimum Sliding Gate	254	US
NMXG	Near Maximum Sliding Gate	666	US
RATE	Firing Rate	R7	
SFAF	Sonic Formation Attenuation Factor	0	DB/F
SGCL	Sliding Gate Closing Delta-T	250	US/F
SGDT	Sliding Gate Delta-T	46	US/F
SGW	Sliding Gate Width	80	US
SLEV	Signal Level for AGC	5000	
VDLG	VDL Manual Gain	5	
WAGC	Waveform AGC Allow/Disallow	OFF	
WMOD	Waveform Firing Mode	FULL	
STI: Stuck Tool Indicator			
LBFR	Trigger for MAXIS First Reading Label	STI	
STKT	STI Stuck Threshold	2.5	FT
TDD	Total Depth - Driller	2285.00	FT
TDL	Total Depth - Logger	2285.00	FT
System and Miscellaneous			
DO	Depth Offset for Playback	0.0	FT
PP	Playback Processing	NORMAL	

Input DLIS Files

DEFAULT	USI_SONIC_013LUP	FN:18	PRODUCER	11-Sep-2012 07:17	2118.0 FT	1767.5 FT

Output DLIS Files

DEFAULT	USI_SONIC_007PUP	FN:4	PRODUCER	13-Sep-2012 02:15

Schlumberger

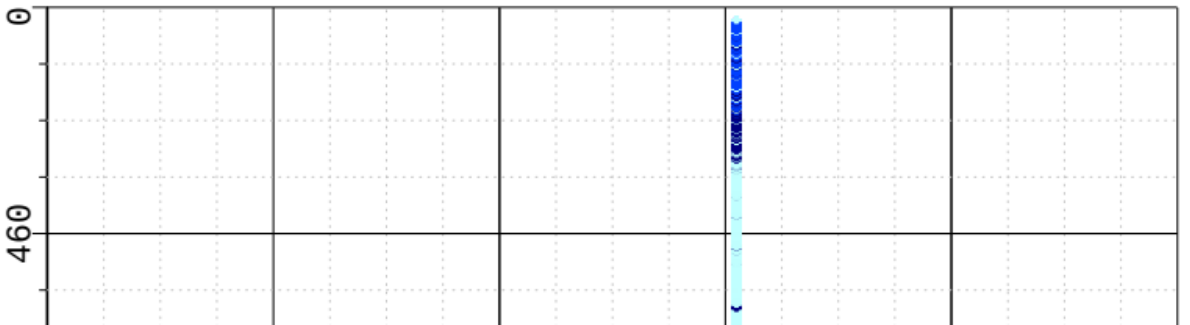
FLUID PROPERTIES
USI IBC FVEL

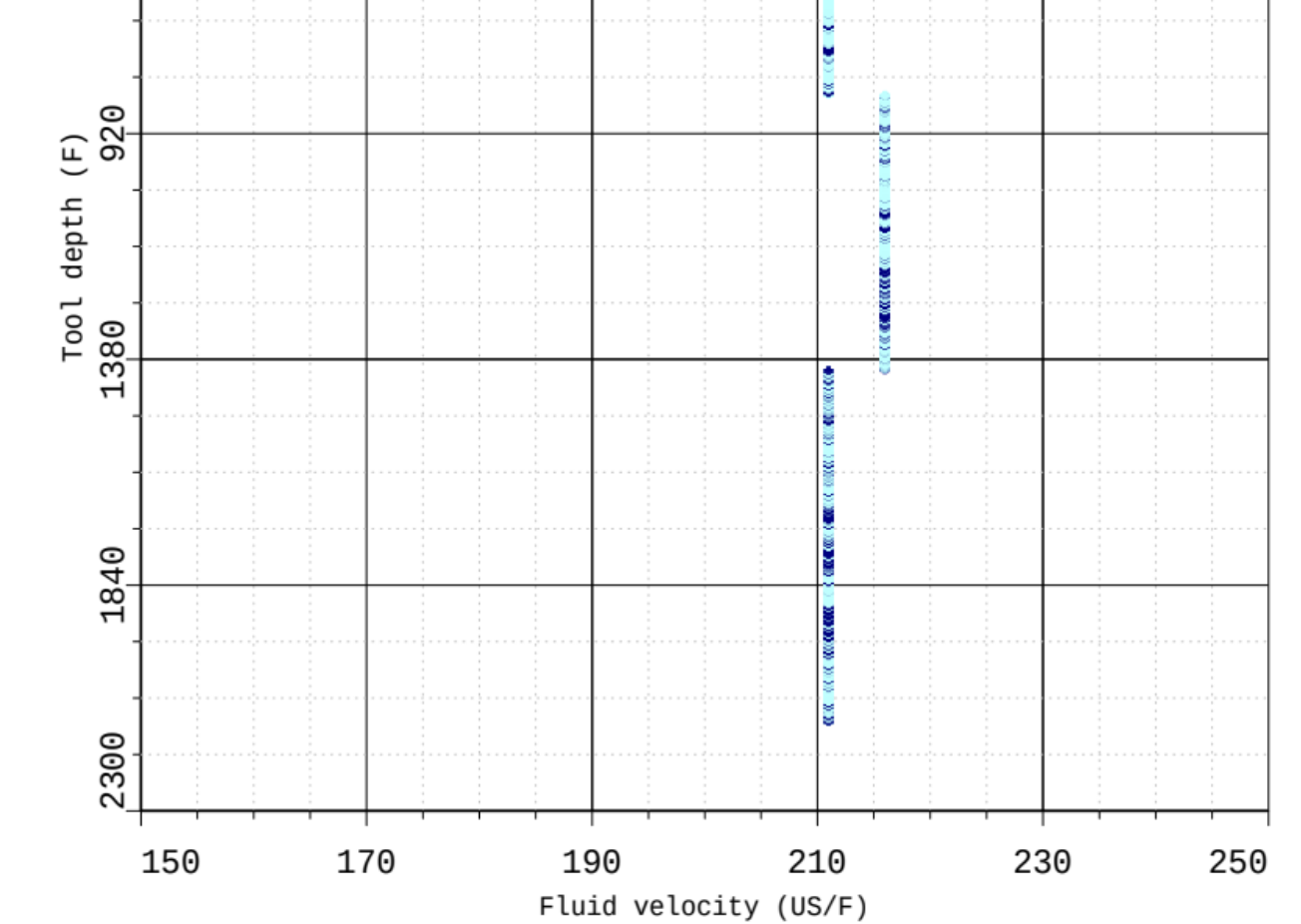
MAXIS Field Log

Index: 2119.0 - 26.0 FT

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

0. 0.5





4187 Points Plotted 13-SEP-2012 2:12

Schlumberger

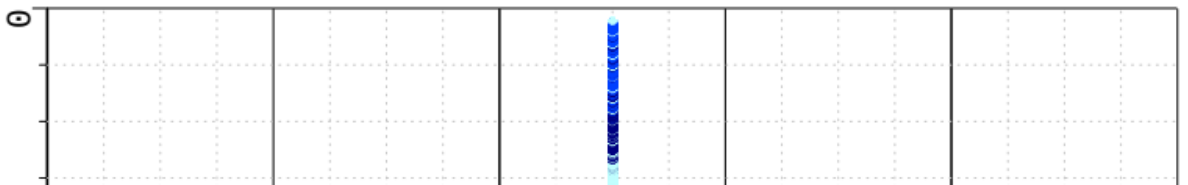
FLUID PROPERTIES
USI IBC ZMUD

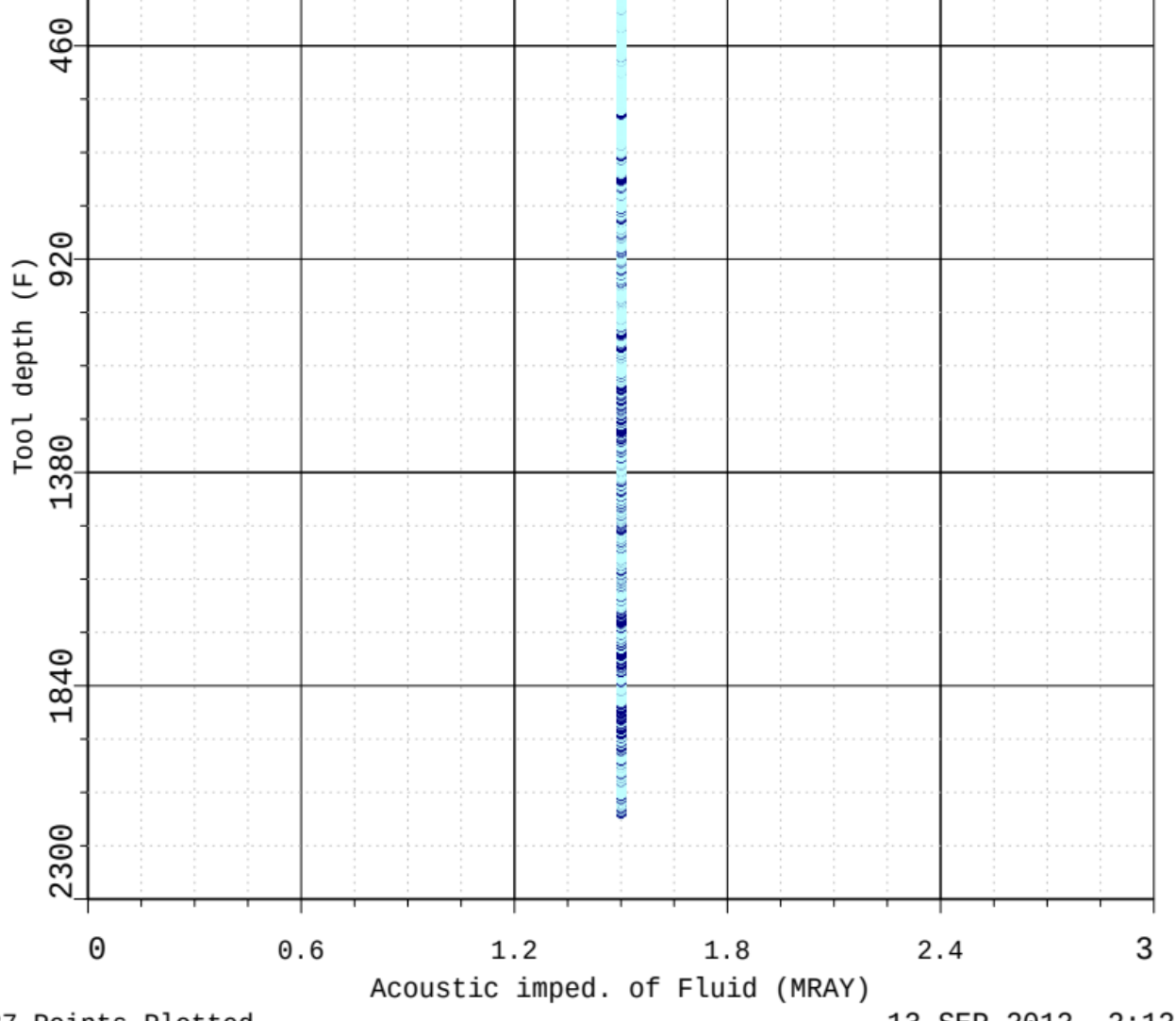
MAXIS Field Log

Index: 2119.0 - 26.0 FT

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

0. 0.5





4187 Points Plotted 13-SEP-2012 2:12

Schlumberger

CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Digitizing Sonic Logging Tool Master Calibration - DSLT CBL/CBLB Amplitude Normalization in SFT-255							
Master: 8-Sep-2012 1:29							
CBL Raw Amplitude	33.00	27.80	--	--	--	--	MV
CBLB Raw Amplitude	46.00	39.56	--	--	--	--	MV
Enhanced DTS Cartridge Wellsite Calibration - EDTC Accelerometer Calibration							
Before: 9-Sep-2012 12:04							
EDTC Z-Axis Acceleration	32.19	N/A	32.41	N/A	N/A	N/A	F/S2
Enhanced DTS Cartridge Wellsite Calibration - Detector Calibration							
Before: 8-Sep-2012 13:32							
Gamma Ray (Jig - Bkg)	154.3	N/A	154.3	N/A	N/A	14.02	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

Digitizing Sonic Logging Tool / Equipment Identification

Primary Equipment:		
BHC Sonde	SLS - W	1396
Digitizing Sonic Logging Cartridge	DSLC - H	8147
Auxiliary Equipment:		
Electronics Cartridge Housing	ECH - KH	8635

Digitizing Sonic Logging Tool Master Calibration

DSLT CBL/CBLB Amplitude Normalization in SFT-255

Phase	CBL Raw Amplitude MV	Value	Phase	CBLB Raw Amplitude MV	Value
Master		27.80	Master		39.56
	27.00 (Minimum) / 33.00 (Nominal) / 43.00 (Maximum)			27.00 (Minimum) / 46.00 (Nominal) / 68.00 (Maximum)	

Master: 8-Sep-2012 1:29

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:		
EDTC Gamma Ray Detector	EDTG - A/B	
Enhanced DTS Cartridge	EDTC - B	8188
Auxiliary Equipment:		
EDTC Housing	EDTH - B	8187

Enhanced DTS Cartridge Wellsite Calibration

EDTC Accelerometer Calibration

Phase	EDTC Z-Axis Acceleration F/S2	Value
Before		32.41
	31.53 (Minimum) / 32.19 (Nominal) / 32.84 (Maximum)	

Before: 9-Sep-2012 12:04

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		93.59	Before		154.3	Before		165.0
	0 (Minimum) / 30.00 (Nominal) / 120.0 (Maximum)			140.2 (Minimum) / 154.3 (Nominal) / 168.3 (Maximum)			150.0 (Minimum) / 165.0 (Nominal) / 180.0 (Maximum)	

Before: 8-Sep-2012 13:32

Company: SWEPI, LP

Schlumberger

Well: HW-8105
Field: COLORADO EAST RDD PILOT PROJECT
County: RIO BLANCO
State: COLORADO

ISOLATION SCANNER LOG
CEMENT BOND LOG
GAMMA RAY