Schlumberger

Company: **Lamont Doherty**

Well: **NGHP–01–19B**

Field:

Rig **Joides Resolution** State:

Dipole Shear Sonic Imager

Gamma Ray

Rig: Joides Resolution
Field:
Location:
Well: NGHP–01–19B
Company: Lamont Doherty

LOCATION

		Elev.:	K.B. 11.3 m
			G.L. –1433 m
			D.F. 11 m
Permanent Datum:	Mean Seal Level	Elev.:	0 m
Log Measured From:	Drill Floor	11.0 m	above Perm. Datum
Drilling Measured From:	Drill Floor		

API Serial No.	Latitude	Longitude
	18* 58.6568' N	85* 39.5202' E

Logging Date			8–Aug–2006								
Run Number			One								
Depth Driller			1713 m								
Schlumberger Depth			1716 m								
Bottom Log Interval			1700 m								
Top Log Interval			1485 m								
Casing Driller Size @ Depth			0.000 in	@	1485 m			@			
Casing Schlumberger			1485 m								
Bit Size			11.438 in								
Type Fluid In Hole			Barite								
MUD	Density	Viscosity	1.07 g/cm3								
MUD	Fluid Loss	PH									
MUD	Source Of Sample										
RM @ Measured Temperature				@				@			
RMF @ Measured Temperature				@				@			
RMC @ Measured Temperature				@				@			
Source RMF	RMC										
RM @ MRT	RMF @ MRT		@		@		@		@		
Maximum Recorded Temperatures											
Circulation Stopped		Time	8–Aug–2006								
Logger On Bottom		Time	8–Aug–2006		19:29						
Unit Number	Location		2082	Webster, TX							
Recorded By			Javier Espinosa								
Witnessed By			Gilles Guerin, Indrajit Dutta								

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

Run 3	Run 4

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: MEST	OS1:
OS2:	OS2:
OS3:	OS3:
OS4:	OS4:
OS5:	OS5:

REMARKS: RUN NUMBER 1	REMARKS: RUN NUMBER 2
All parameters and presentations as per client request.	
Tool ran as per tool sketch shown below	
TD not reached due to bad hole conditions and log started from 1700 mbrf.	
Original drill pipe depth was 1495 mbrf and moved to 1485 mbrf for second pass.	
FMS cali[pers closed 10 m. before tool reached drill pipe to avoid tool damage.	
DSI modes for first pass SAM1 std frequency, SAM2 low frewuency	
SAM3 std frequency, SAM4 low frequency.	
Second pass SAMX BCR mode and SAM4 medium frequency.	

RUN 1

SERVICE ORDER #:
PROGRAM VERSION: 12C0–301
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

RUN 2

SERVICE ORDER #:
PROGRAM VERSION:
FLUID LEVEL:

LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION

RUN 1

SURFACE EQUIPMENT

GSR–U/Y
WITM (DTS)–A

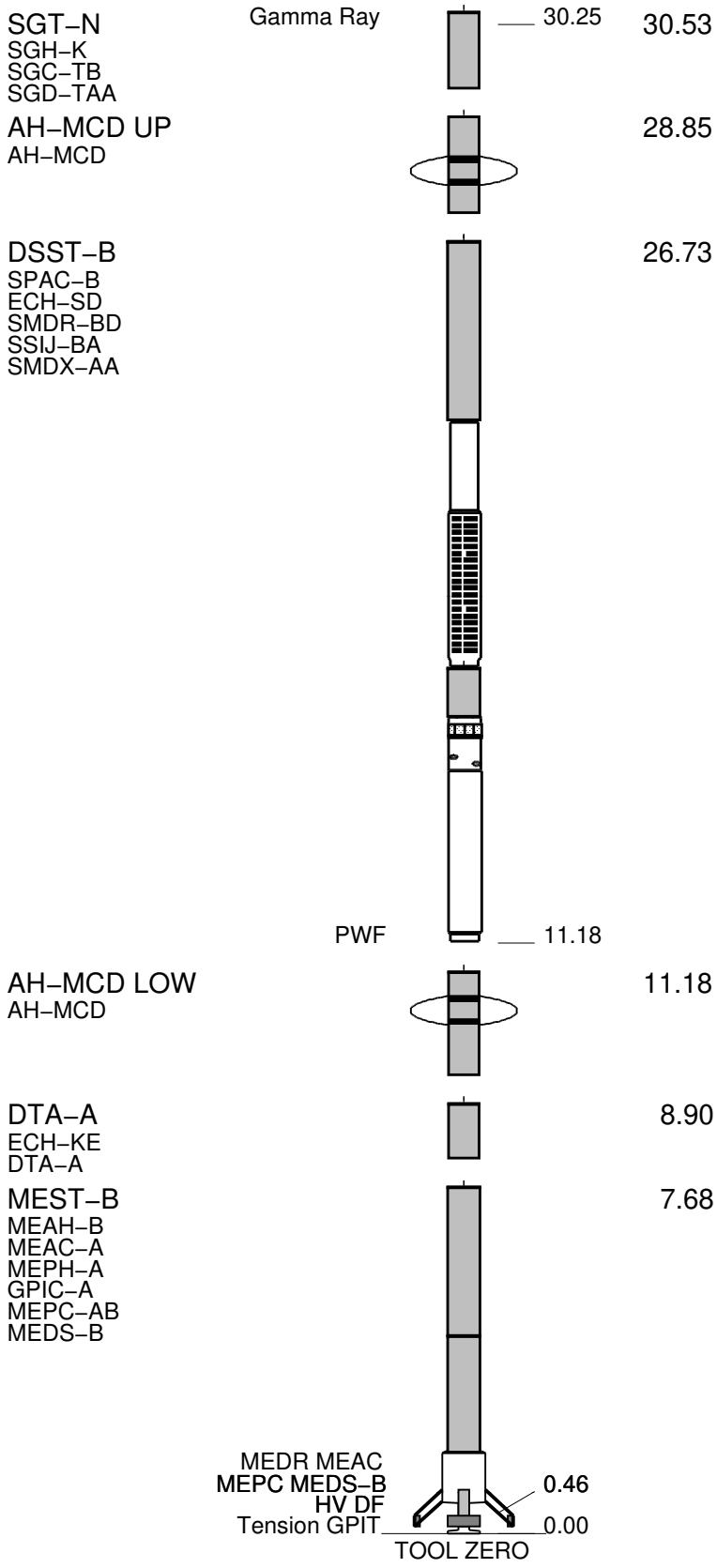
DOWNHOLE EQUIPMENT

LEH–QT 32.33
LEH–QT

DTC–H 31.45
ECH–KC

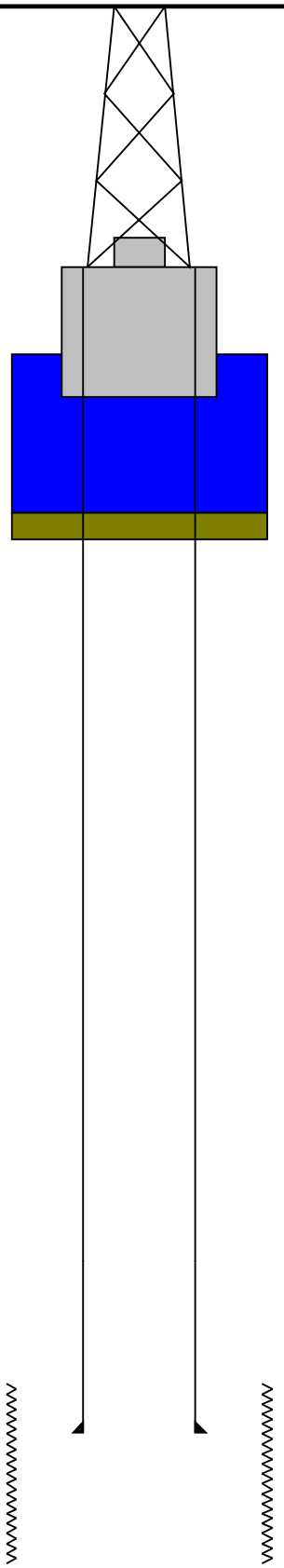
CTEM 31.17
TelStatus
ToolStatu 30.53

RUN 2



MAXIMUM STRING DIAMETER 4.50 IN
MEASUREMENTS RELATIVE TO TOOL ZERO
ALL LENGTHS IN METERS

Production String	(in) OD	(in) ID	(m) MD	Well Schematic	(m) MD	(in) OD	(in) ID	Casing String
Kelly Bushing Elevation			11.3					
Derrick Floor Elevation			11.0		11.0	5.000		Rig Floor
Mean Sea Level			0.0					
					1433.0	11.438		Sea Floor
					1495.0	5.000		Drill Pipe



Schlumberger

FIRST PASS

MAXIS Field Log

Output DLIS Files

DEFAULT	FMS_DSI_017LUP	FN:24	PRODUCER	08–Aug–2006 19:28	1701.4 M	1474.3 M
REDUCED	FMS_DSI_017LUP	FN:25	PRODUCER	08–Aug–2006 19:28	1701.4 M	1474.3 M

OP System Version: 12C0–301

MCM

MEST–B	12C0–301	DTA–A	12C0–301
DSST–B	12C0–301	SGT–N	12C0–301
DTC–H	12C0–301		

PIP SUMMARY

Time Mark Every 60 S

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

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

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

Peak Coherence / RA – Upper Dipole (CHR2)
0 (----) 10

Tension (TENS)
10000 (LBF) 0

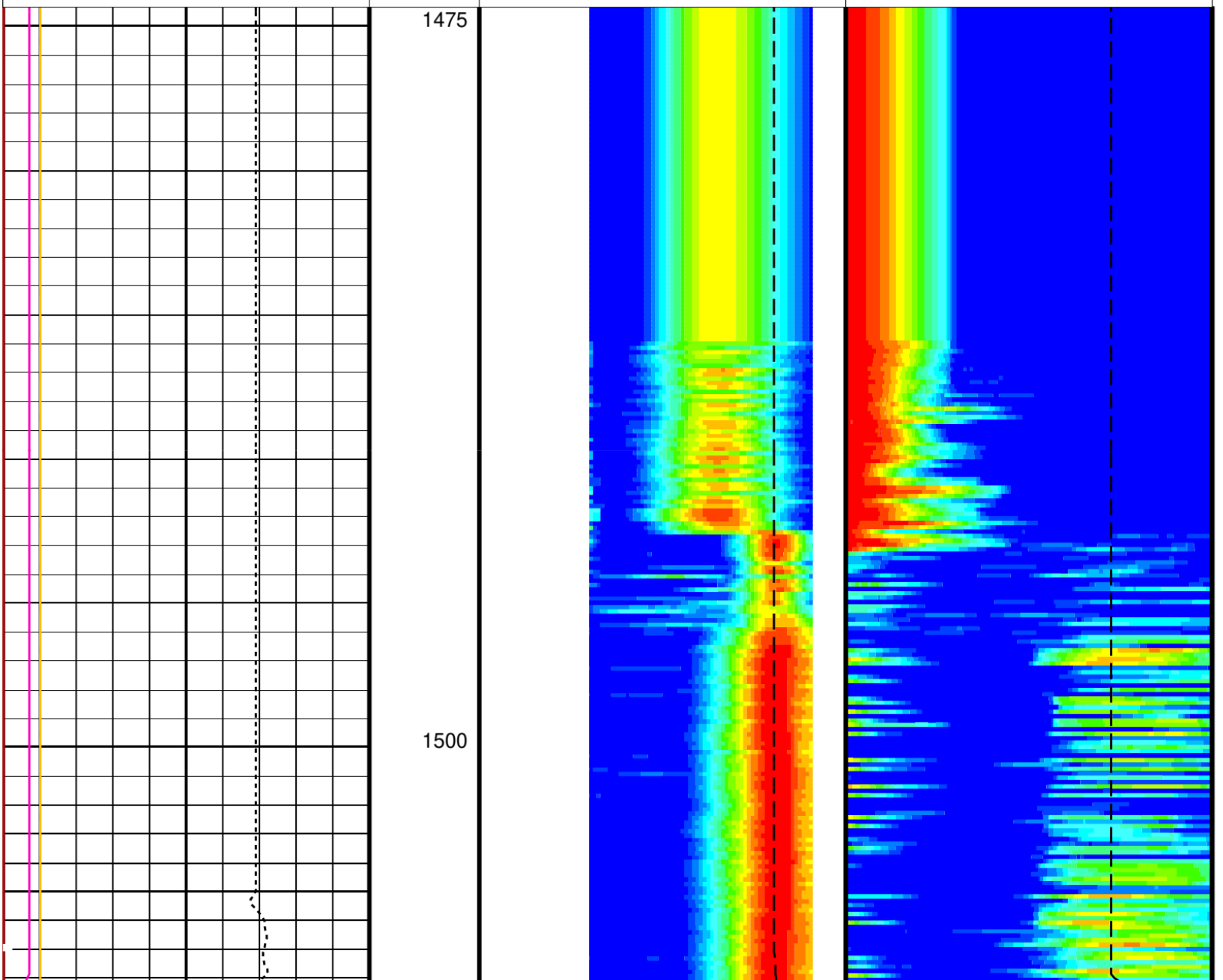
Min Amplitude Max
Rec.Array P&S Slow Proj. CVDL (SPR4)
40 (US/F) 240

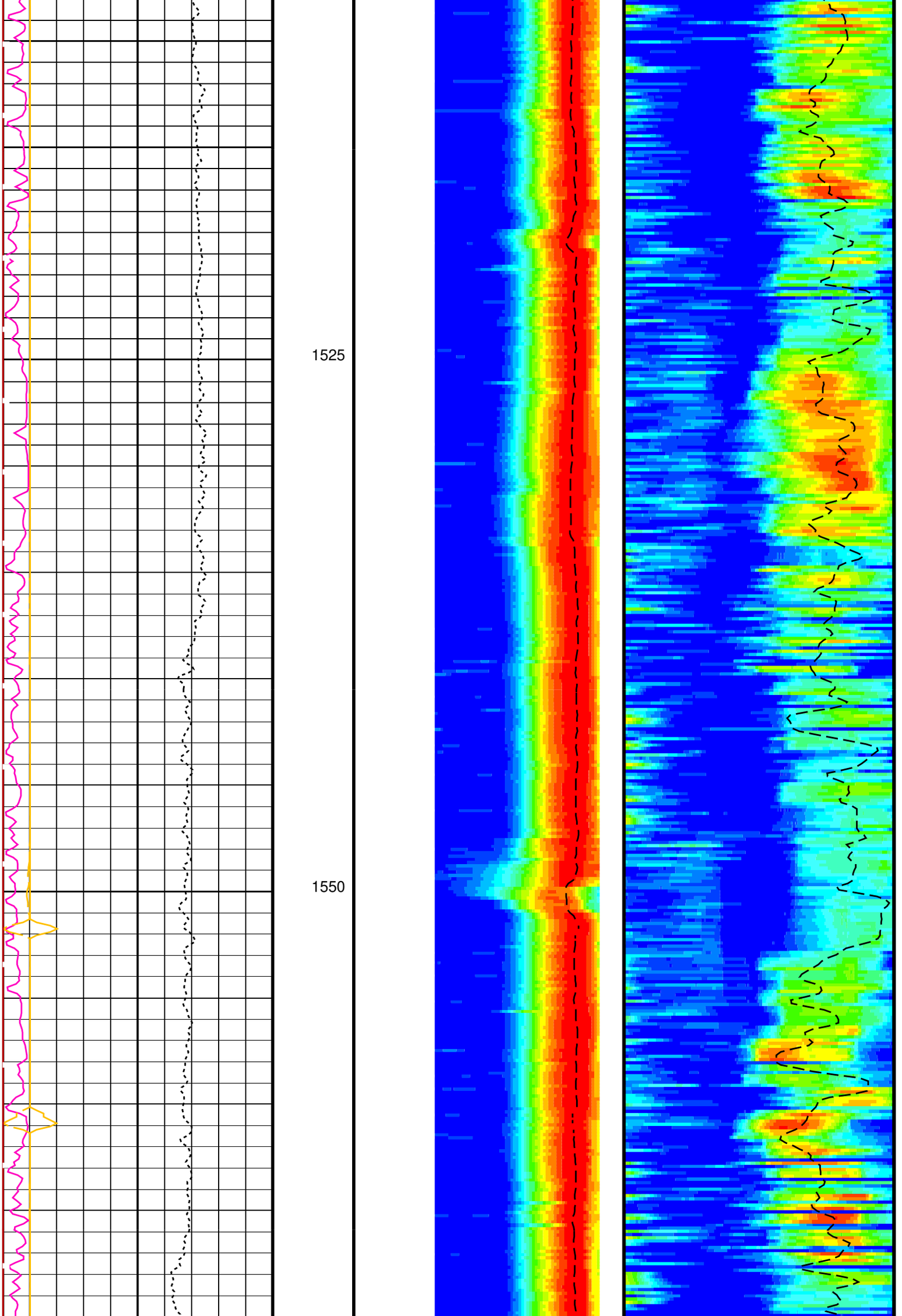
Delta–T Shear / RA – P & S (DTRS)
40 (US/F) 240

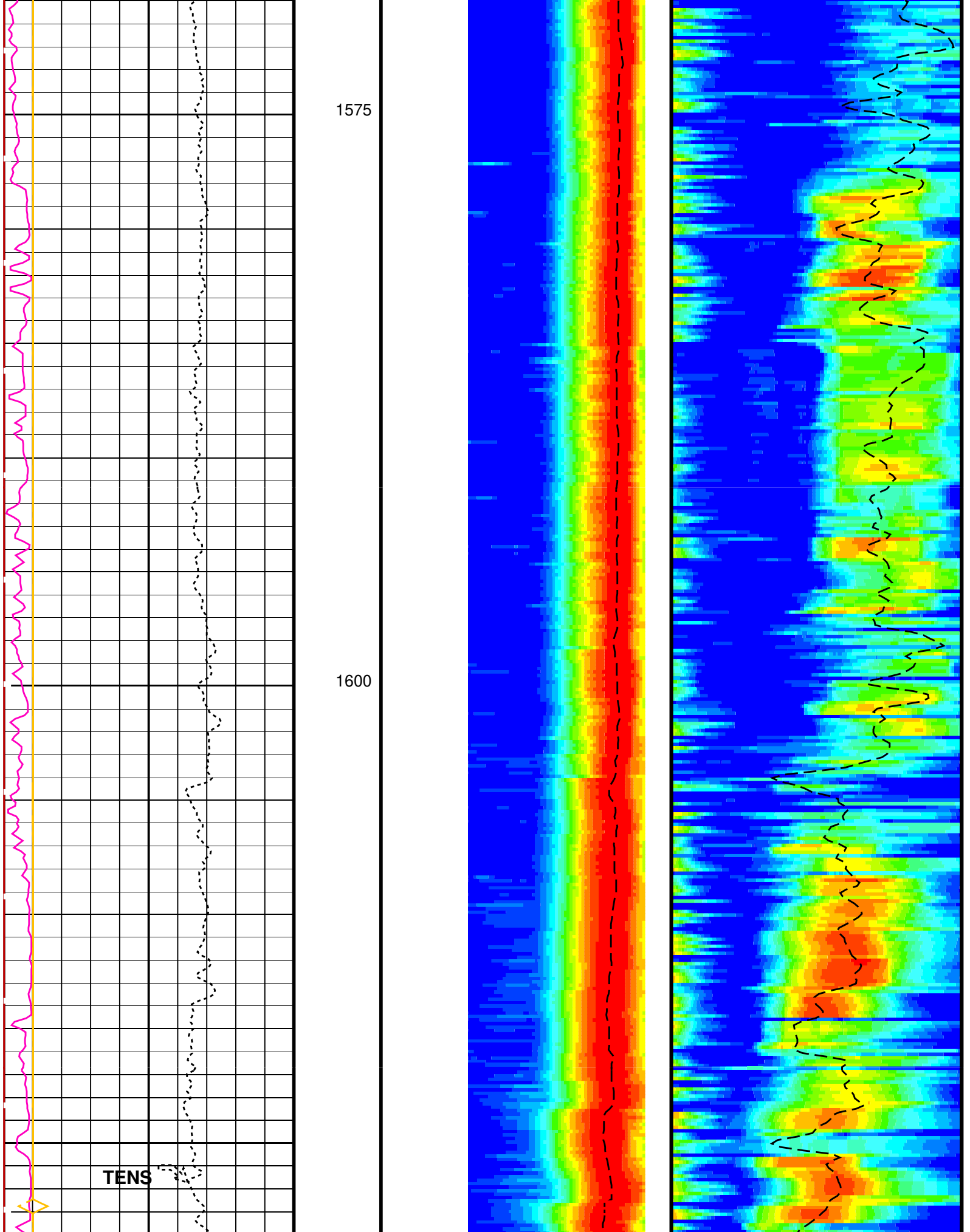
Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
250 (US/F) 1600

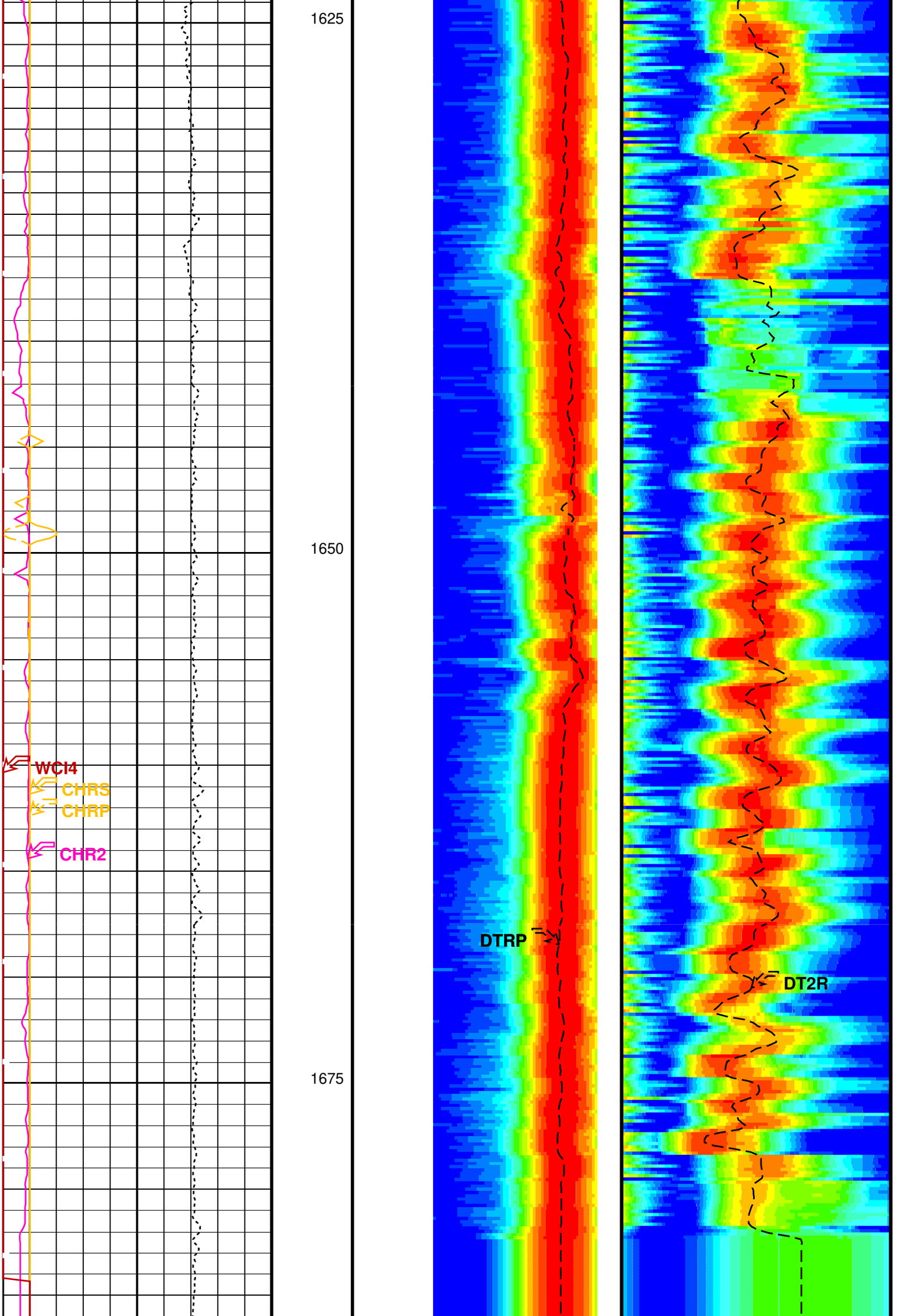
Delta–T Comp / RA – P & S (DTRP)
40 (US/F) 240

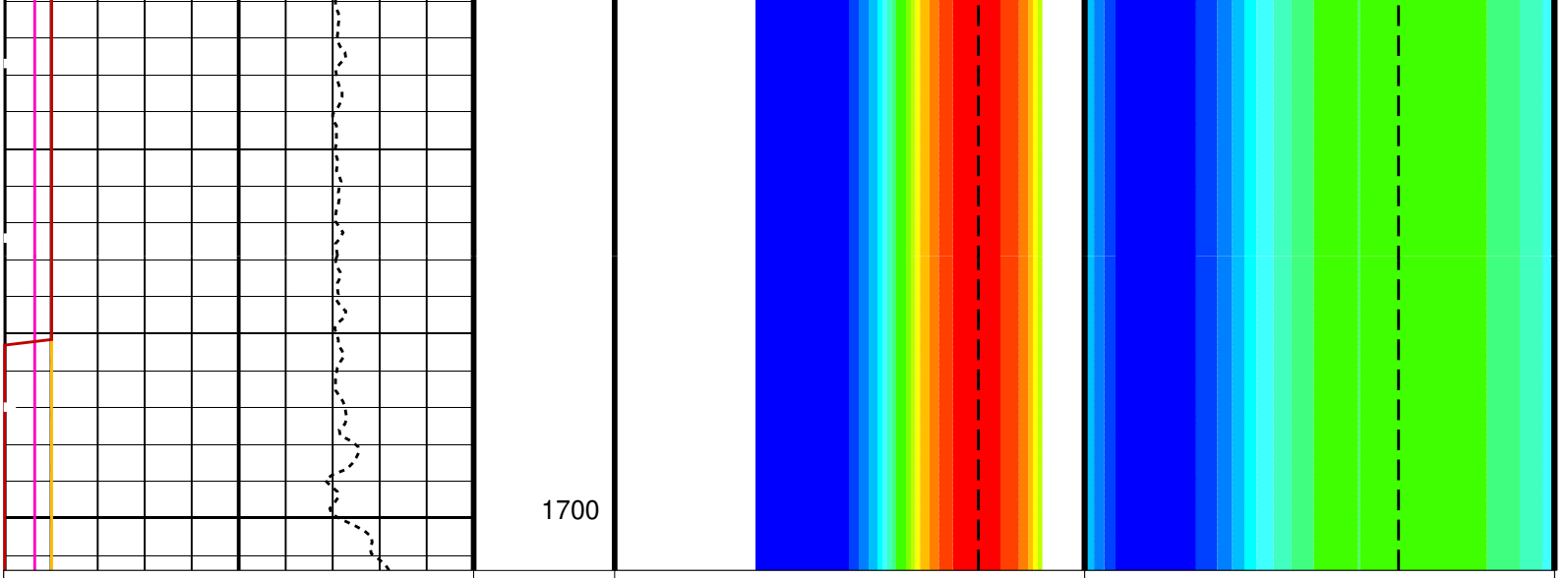
Delta–T Shear / RA – Upper Dipole (DT2R)
250 (US/F) 1600




1525
1550


1575
1600
TENS


1625
1650
1675
WCI4
CHRS
CHRP
CHR2
DTRP
DT2R



Parameters

DLIS Name	Description	Value	
	DSST–B: Dipole Shear Imager – B		
BHS	Borehole Status	OPEN	
CASF	Label Casing Function – Monopole P&S	50	
COLL	Label Slowness Lower Limit – Monopole P&S Compressional	100	US/F
COUL	Label Slowness Upper Limit – Monopole P&S Compressional	220	US/F
DDE2	Digitizing Delay 2	0	US
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source – Dipole Shear	USE	
DSHL	Label Slowness Lower Limit – Dipole Shear	250	US/F
DSHU	Label Slowness Upper Limit – Dipole Shear	1600	US/F
DSI2	Digitizer Sample Interval 2	40	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta–T Source for DTCO Channel	PS_COMP	
DTF	Delta–T Fluid	189	US/F
DWC2	Digitizer Word Count 2	512	
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control – Monopole P&S	COMP_SHEAR	
LFC	Label Formation Character – Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI2	Number Waveform Items 2	8	

NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	0	
RSMN	Label Shear/Compressional Minimum Ratio – Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio – Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	LFD_ODD	
SAM4	DSST Sonic Acquisition Mode 4 – High Frequency Monopole Mode for P&S	LFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X – Both Dipoles or Monopole Mode for Expert	OFF	
SAS2	STC Sonic Array Status – Upper Dipole	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO4	STC Search Band Offset – Monopole P&S	500	US
SBR4	STC Baseline Removal – Monopole P&S	ON	
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC4	STC Formation Character – Monopole P&S	SELECTABLE	
SFM2	STC Filter – Upper Dipole	B.3–1.5K	
SFM4	STC Filter – Monopole P&S	B3–12K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	120	US/F
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	220	US/F
SLL2	STC Slowness Lower Limit – Upper Dipole	250	US/F
SLL4	STC Slowness Lower Limit – Monopole P&S	100	US/F
SST2	STC Slowness Step – Upper Dipole	4	US/F
SST4	STC Slowness Step – Monopole P&S	2	US/F
SSW2	STC Source Waveform – Upper Dipole	WF_SAM2	
SSW4	STC Source Waveform – Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit – Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit – Monopole Stoneley	780	US/F
SUL2	STC Slowness Upper Limit – Upper Dipole	1600	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	220	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBF2	STC Time for Baseline Fill – Upper Dipole	0	US
TBF4	STC Time for Baseline Fill – Monopole P&S	300	US
TLL2	STC Time Lower Limit – Upper Dipole	1750	US
TLL4	STC Time Lower Limit – Monopole P&S	400	US
TST2	STC Time Step – Upper Dipole	200	US
TST4	STC Time Step – Monopole P&S	50	US
TUL2	STC Time Upper Limit – Upper Dipole	20440	US
TUL4	STC Time Upper Limit – Monopole P&S	3480	US
TWD2	STC Time Width – Upper Dipole	2000	US
TWD4	STC Time Width – Monopole P&S	1000	US
TWI2	STC Integration Time Window – Upper Dipole	1600	US
TWI4	STC Integration Time Window – Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
SGT–N: Scintillation Gamma–Ray – N			
BHS	Borehole Status	OPEN	

Format: DSST_P_S_UPPER_VDL_COLOR Vertical Scale: 1:200 Graphics File Created: 08–Aug–2006 19:28

OP System Version: 12C0–301

MCM

MEST–B	12C0–301	DTA–A	12C0–301
DSST–B	12C0–301	SGT–N	12C0–301
DTC–H	12C0–301		

Output DLIS Files

DEFAULT	FMS_DSI_017LUP	FN:24	PRODUCER	08–Aug–2006 19:28
REDUCED	FMS_DSI_017LUP	FN:25	PRODUCER	08–Aug–2006 19:28

Schlumberger

SECOND PASS

MAXIS Field Log

Output DLIS Files

DEFAULT	FMS_DSI_018LUP	FN:26	PRODUCER	08–Aug–2006 20:35	1700.8 M	1449.6 M
REDUCED	FMS_DSI_018LUP	FN:27	PRODUCER	08–Aug–2006 20:35	1700.8 M	1449.6 M

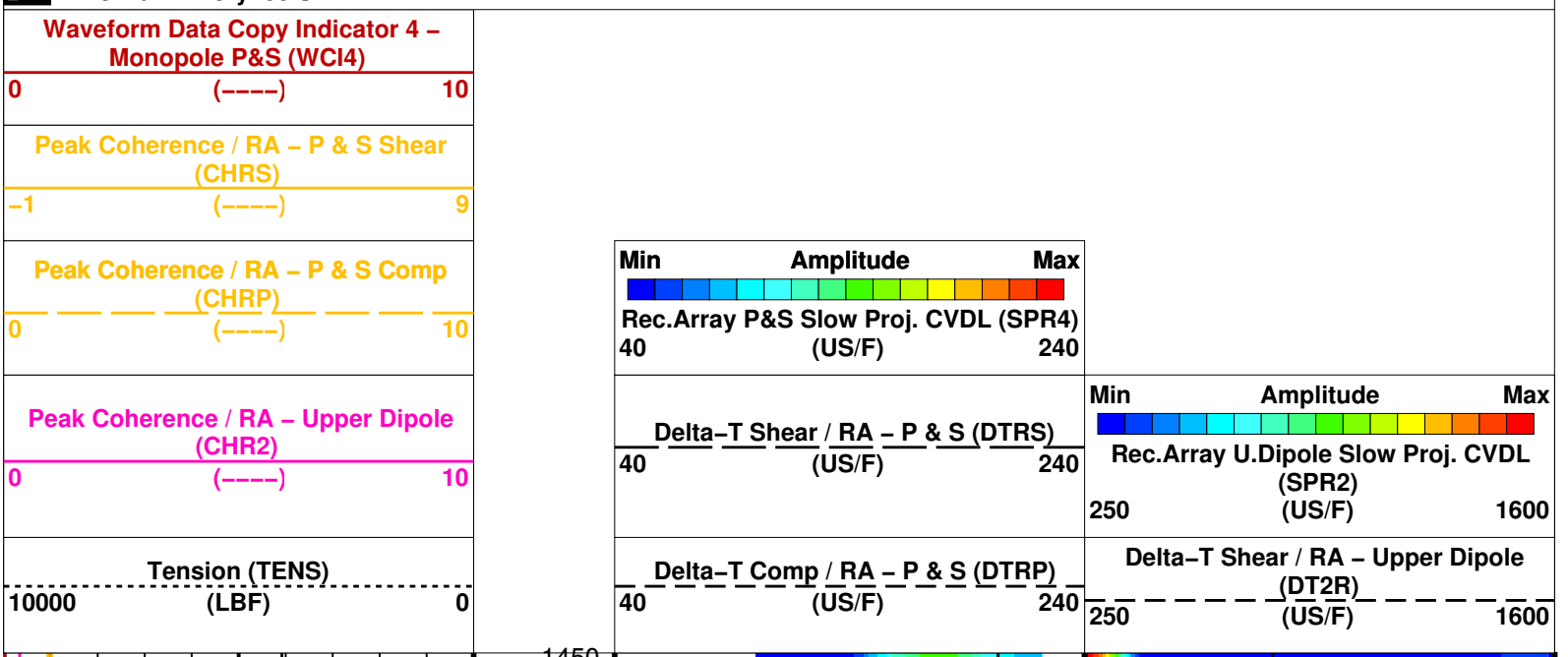
OP System Version: 12C0–301

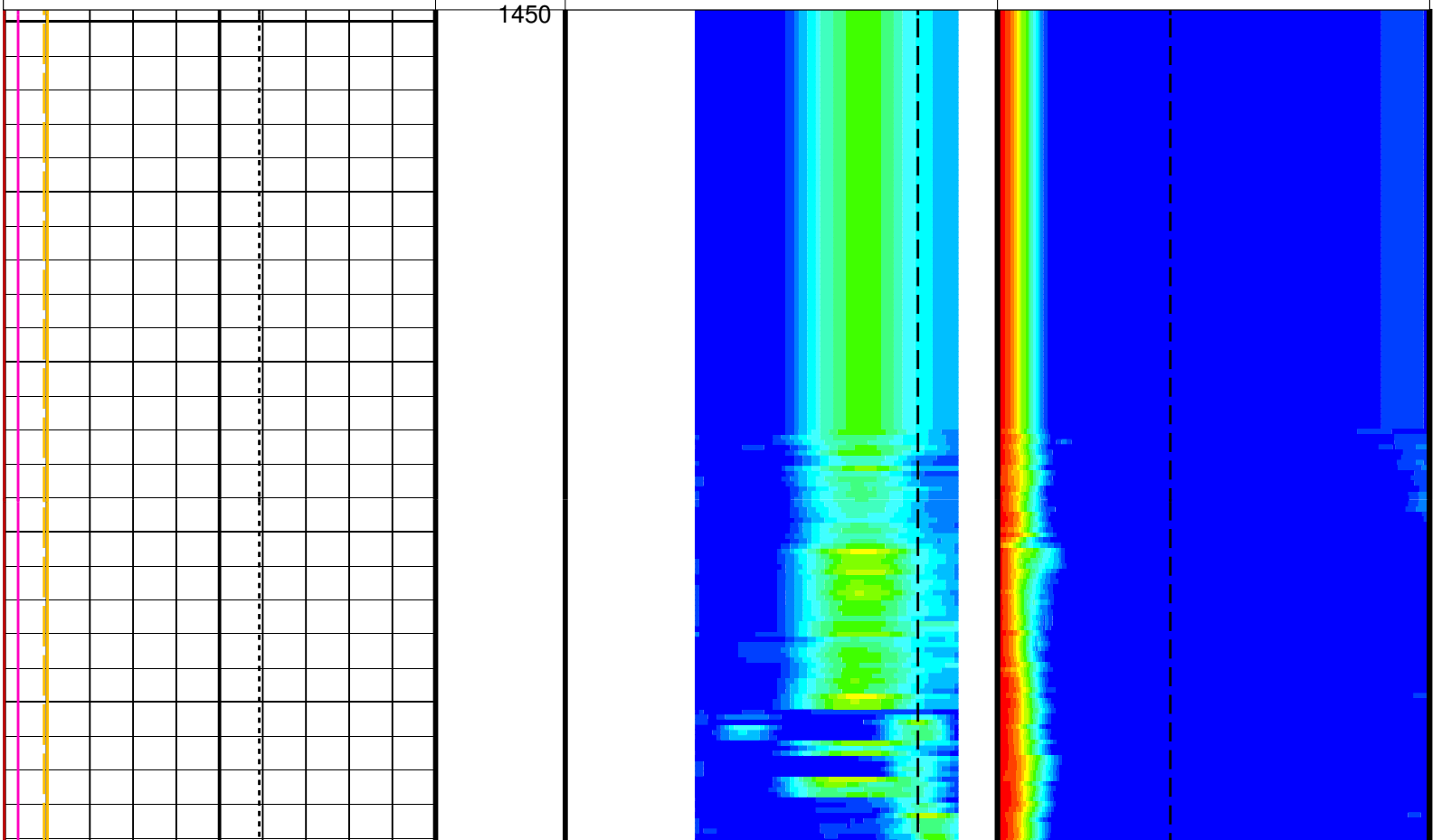
MCM

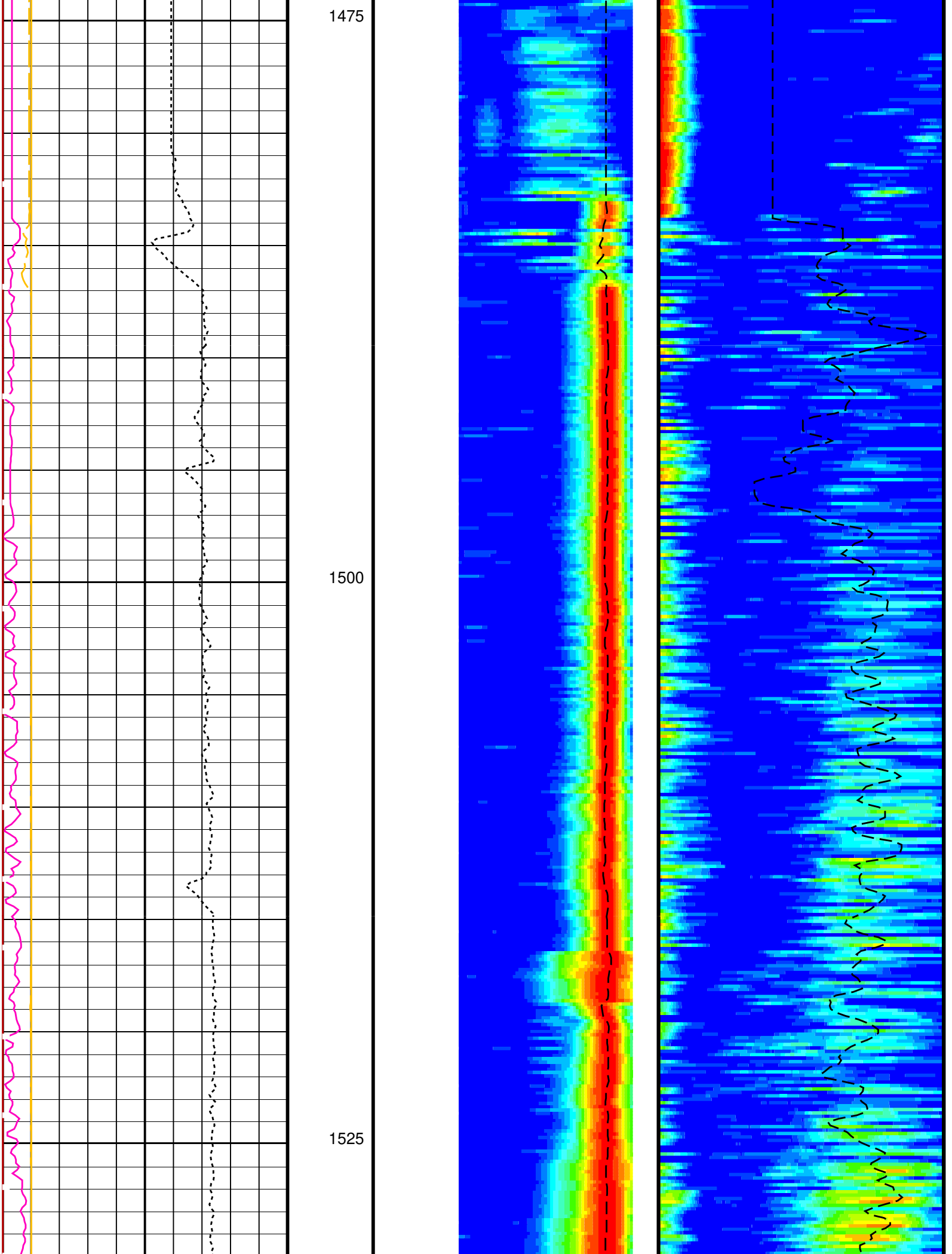
MEST–B	12C0–301	DTA–A	12C0–301
DSST–B	12C0–301	SGT–N	12C0–301
DTC–H	12C0–301		

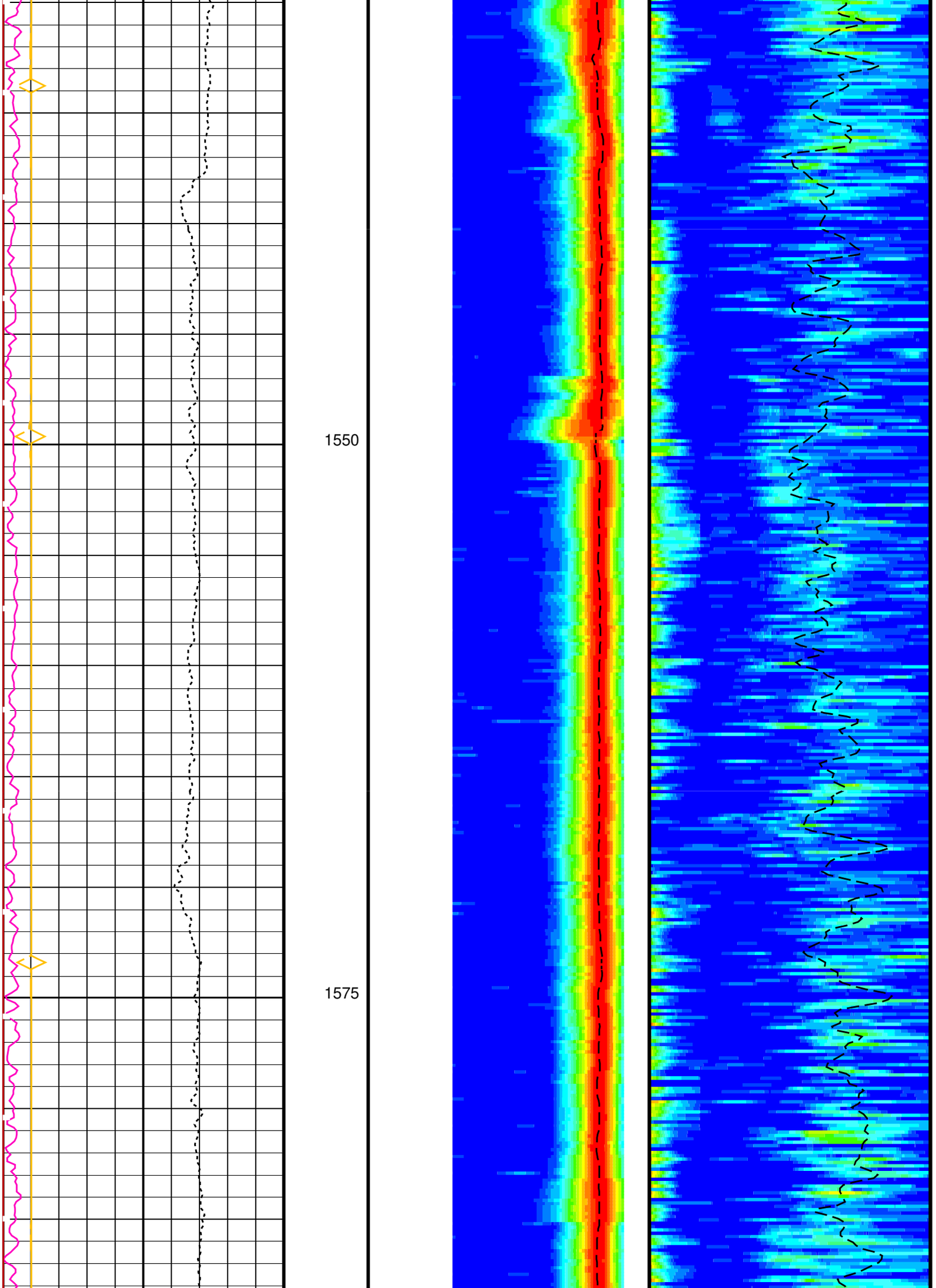
PIP SUMMARY

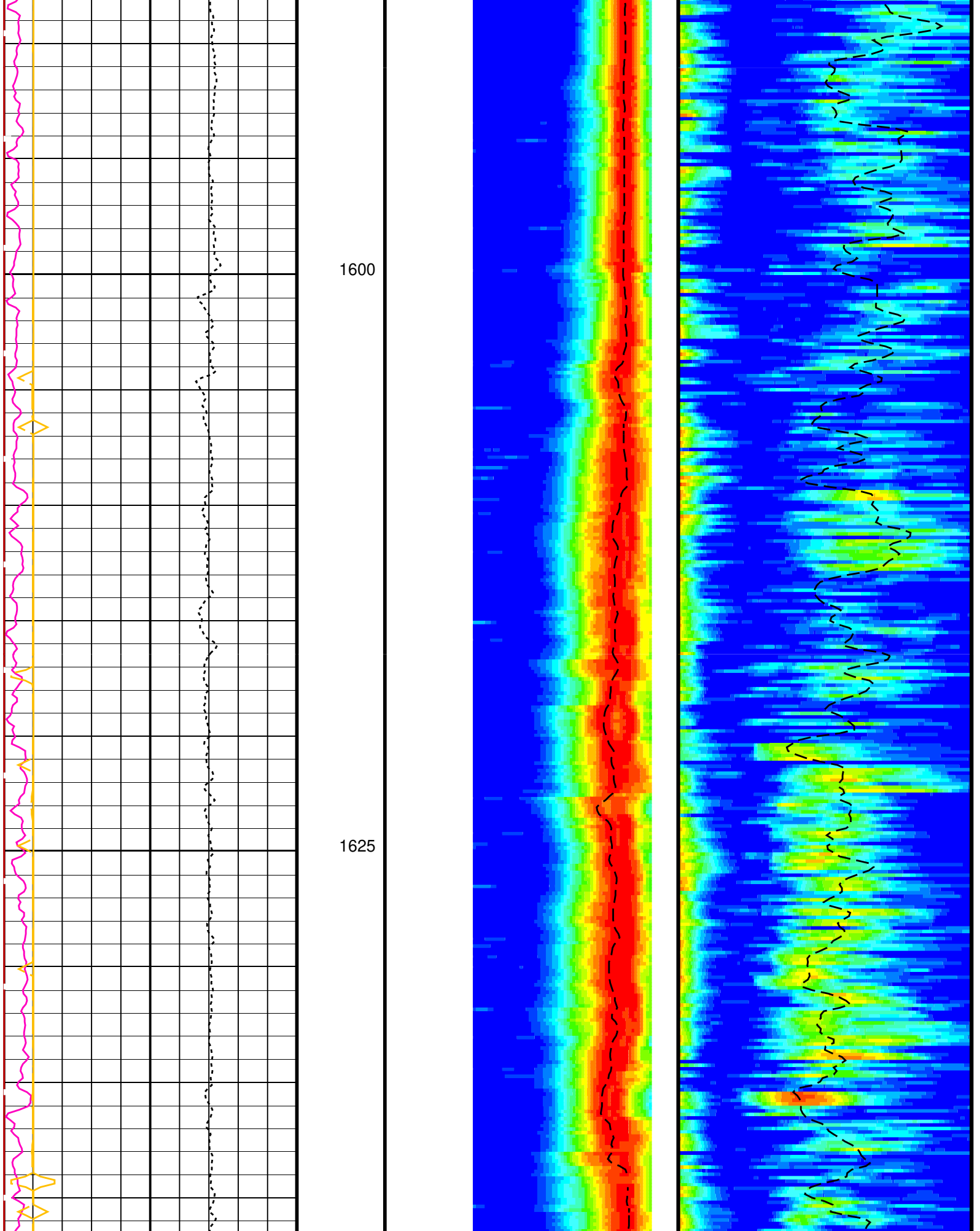
Time Mark Every 60 S

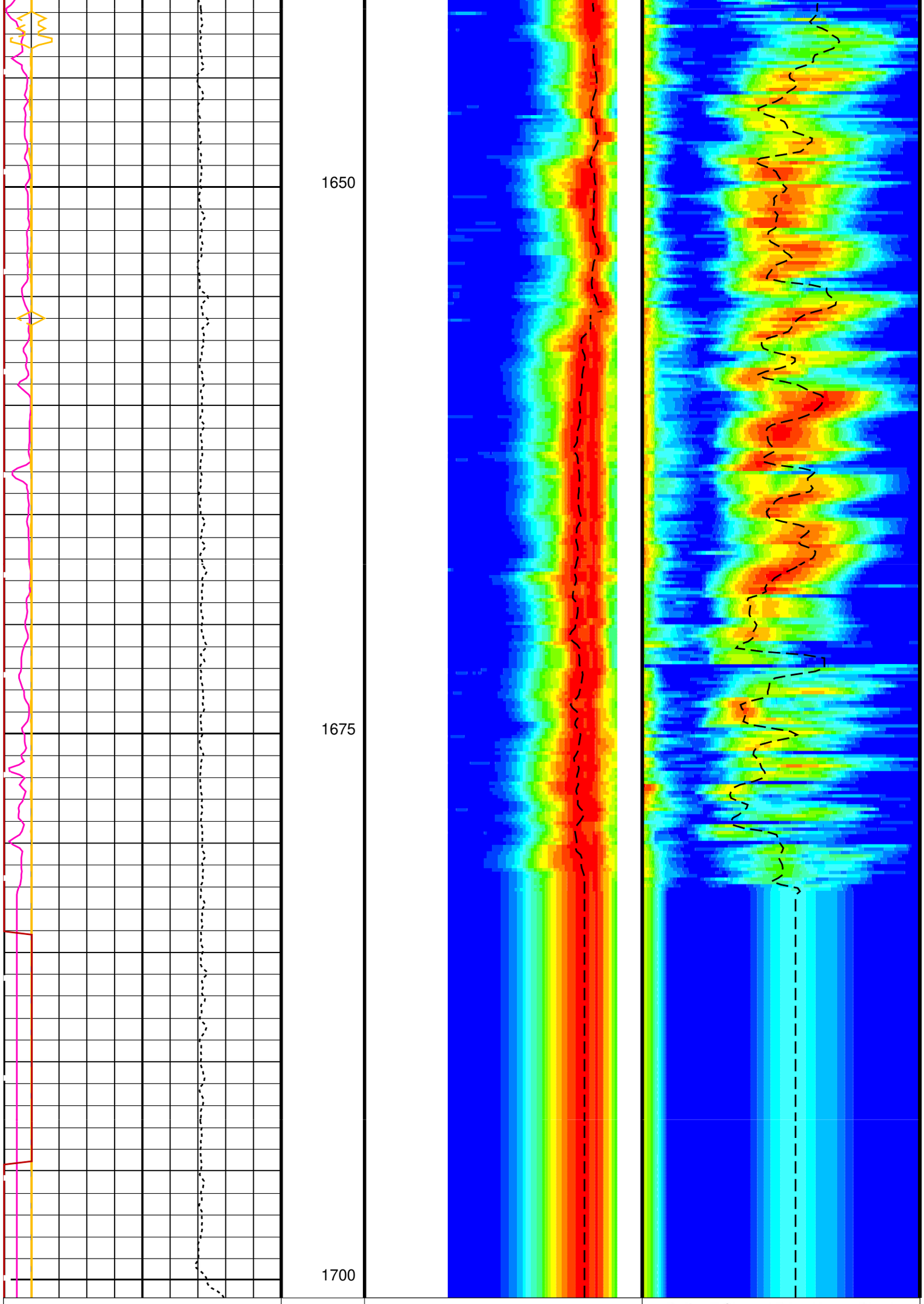





1475
1500
1525


1550
1575


1600
1625


1650
1675
1700
Tension (TENS)
10000 (LBF) 0
Delta–T Comp / RA – P & S (DTRP)
40 (US/F) 240
Delta–T Shear / RA – Upper Dipole (DT2R)
250 (US/F) 1600

Peak Coherence / RA – Upper Dipole (CHR2)
0 (----) 10

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

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

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

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

Min Amplitude Max
Rec.Array U.Dipole Slow Proj. CVDL (SPR2)
250 (US/F) 1600

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

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
	DSST–B: Dipole Shear Imager – B		
BHS	Borehole Status	OPEN	
CASF	Label Casing Function – Monopole P&S	50	
COLL	Label Slowness Lower Limit – Monopole P&S Compressional	100	US/F
COUL	Label Slowness Upper Limit – Monopole P&S Compressional	220	US/F
DDE2	Digitizing Delay 2	0	US
DDE4	Digitizing Delay 4	0	US
DDEX	Digitizing Delay X	0	US
DLCS	Label Compressional Source – Dipole Shear	USE	
DSHL	Label Slowness Lower Limit – Dipole Shear	250	US/F
DSHU	Label Slowness Upper Limit – Dipole Shear	1600	US/F
DSI2	Digitizer Sample Interval 2	10	US
DSI4	Digitizer Sample Interval 4	10	US
DSIX	Digitizer Sample Interval X	40	US
DTCS	Compressional Delta–T Source for DTCO Channel	PS_COMP	
DTF	Delta–T Fluid	189	US/F
DWC2	Digitizer Word Count 2	512	
DWC4	Digitizer Word Count 4	512	
DWCX	Digitizer Word Count X	512	
FILG	Label Fill Gap Control – Monopole P&S	COMP_SHEAR	
LFC	Label Formation Character – Monopole P&S	DYNAMIC	
MCS	Mean Casing Slowness	57	US/F
MTXG	Monopole Transmitter Geometry	186	IN
NWI2	Number Waveform Items 2	0	
NWI4	Number Waveform Items 4	8	
NWIX	Number Waveform Items X	32	
RSMN	Label Shear/Compressional Minimum Ratio – Monopole P&S	1.4	
RSMX	Label Shear/Compressional Maximum Ratio – Monopole P&S	2.12	
RX1G	Receiver 1 Geometry	294	IN
RX2G	Receiver 2 Geometry	300	IN
RX3G	Receiver 3 Geometry	306	IN
RX4G	Receiver 4 Geometry	312	IN
RX5G	Receiver 5 Geometry	318	IN
RX6G	Receiver 6 Geometry	324	IN
RX7G	Receiver 7 Geometry	330	IN
RX8G	Receiver 8 Geometry	336	IN
SAM2	DSST Sonic Acquisition Mode 2 – Upper Dipole Mode	OFF	
SAM4	DSST Sonic Acquisition Mode 4 – High Frequency Monopole Mode for P&S	MFD_EVEN	
SAMX	DSST Sonic Acquisition Mode X – Both Dipoles or Monopole Mode for Expert	BCR	
SAS2	STC Sonic Array Status – Upper Dipole	255	
SAS4	STC Sonic Array Status – Monopole P&S	255	
SBO2	STC Search Band Offset – Upper Dipole	3000	US
SBO4	STC Search Band Offset – Monopole P&S	500	US
SBR4	STC Baseline Removal – Monopole P&S	ON	
SBW2	STC Search Bandwidth – Upper Dipole	8000	US
SBW4	STC Search Bandwidth – Monopole P&S	2000	US
SFC2	STC Formation Character – Upper Dipole	SELECTABLE	
SFC4	STC Formation Character – Monopole P&S	SELECTABLE	
SFM2	STC Filter – Upper Dipole	B.5–1.5K	

SFM4	STC Filter – Monopole P&S	B3–12K	
SHLL	Label Slowness Lower Limit – Monopole P&S Shear	120	US/F
SHUL	Label Slowness Upper Limit – Monopole P&S Shear	220	US/F
SLL2	STC Slowness Lower Limit – Upper Dipole	250	US/F
SLL4	STC Slowness Lower Limit – Monopole P&S	100	US/F
SST2	STC Slowness Step – Upper Dipole	4	US/F
SST4	STC Slowness Step – Monopole P&S	2	US/F
SSW2	STC Source Waveform – Upper Dipole	ODD_IN_SAMX	
SSW4	STC Source Waveform – Monopole P&S	WF_SAM4	
STLL	Label Slowness Lower Limit – Monopole Stoneley	180	US/F
STUL	Label Slowness Upper Limit – Monopole Stoneley	780	US/F
SUL2	STC Slowness Upper Limit – Upper Dipole	1600	US/F
SUL4	STC Slowness Upper Limit – Monopole P&S	220	US/F
SWD2	STC Slowness Width – Upper Dipole	40	US/F
SWD4	STC Slowness Width – Monopole P&S	10	US/F
TBF2	STC Time for Baseline Fill – Upper Dipole	0	US
TBF4	STC Time for Baseline Fill – Monopole P&S	300	US
TLL2	STC Time Lower Limit – Upper Dipole	1750	US
TLL4	STC Time Lower Limit – Monopole P&S	400	US
TST2	STC Time Step – Upper Dipole	200	US
TST4	STC Time Step – Monopole P&S	50	US
TUL2	STC Time Upper Limit – Upper Dipole	20440	US
TUL4	STC Time Upper Limit – Monopole P&S	3480	US
TWD2	STC Time Width – Upper Dipole	2000	US
TWD4	STC Time Width – Monopole P&S	1000	US
TWI2	STC Integration Time Window – Upper Dipole	1600	US
TWI4	STC Integration Time Window – Monopole P&S	500	US
TWSX	Transmitter Waveform Select X	0	
UTXG	Upper Dipole Transmitter Geometry	162	IN
WFM4	Waveform Mode 4	W1	
SGT–N: Scintillation Gamma–Ray – N			
BHS	Borehole Status	OPEN	

Format: DSST_P_S_UPPER_VDL_COLOR **Vertical Scale: 1:200** **Graphics File Created: 08–Aug–2006 20:35**

OP System Version: 12C0–301

MCM

MEST–B	12C0–301	DTA–A	12C0–301
DSST–B	12C0–301	SGT–N	12C0–301
DTC–H	12C0–301		

Output DLIS Files

DEFAULT	FMS_DSI_018LUP	FN:26	PRODUCER	08–Aug–2006 20:35
REDUCED	FMS_DSI_018LUP	FN:27	PRODUCER	08–Aug–2006 20:35

Schlumberger

CALIBRATIONS

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Micro Electrical Scanner – B (Slim) Wellsite Calibration – Caliper Calibration							
Before: 2–Aug–2006 17:31							
Caliper 1 Zero Measurement	8.000	N/A	8.758	N/A	N/A	N/A	IN
Caliper 2 Zero Measurement	8.000	N/A	8.778	N/A	N/A	N/A	IN
Caliper 1 Plus Measurement	12.00	N/A	12.84	N/A	N/A	N/A	IN
Caliper 2 Plus Measurement	12.00	N/A	12.93	N/A	N/A	N/A	IN
Micro Electrical Scanner – B (Slim) Wellsite Calibration – CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 8–Aug–2006 17:43							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	99	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	743	N/A	N/A	N/A	
Micro Electrical Scanner – B (Slim) Wellsite Calibration – CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY							
Before: 8–Aug–2006 17:43							
TEMPERATURE REFERENCE :	N/A	N/A	25	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	91	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	5	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	98	N/A	N/A	N/A	

Scintillation Gamma−Ray − N Wellsite Calibration − Detector Calibration
Before: 8−Aug−2006 17:44

Gamma Ray (Jig − Bkg)	148.8	N/A	148.8	N/A	N/A	13.52	GAPI
Gamma Ray (Calibrated)	165.0	N/A	165.0	N/A	N/A	15.00	GAPI

Micro Electrical Scanner − B (Slim) / Equipment Identification

Primary Equipment:	
MEST Sonde − B	MEDS − B
MEST Preamplifier Cartridge − AB	MEPC − AB
GPIT Cartridge − A	GPIC − A
MEST Acquisition Cartridge − A	MEAC − A
Auxiliary Equipment:	
MEST−B Preamplifier Cartridge Housing	MEPH − A
MEST Acquisition Cartridge Housing (Slim	MEAH − B

Scintillation Gamma−Ray − N / Equipment Identification

Primary Equipment:	
Scintillation Gamma Cartridge	SGC − TB
Scintillation Gamma Detector	SGD − TAA
Auxiliary Equipment:	
Scintillation Gamma Housing	SGH − K
Gamma Source Radioactive	GSR − U/Y

Scintillation Gamma−Ray − N Wellsite Calibration
Detector Calibration

Phase	Gamma Ray Background GAPI	Value	Phase	Gamma Ray (Jig − Bkg) GAPI	Value	Phase	Gamma Ray (Calibrated) GAPI	Value
Before		4.760	Before		148.8	Before		165.0
0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)	135.2 (Minimum)	148.8 (Nominal)	162.3 (Maximum)	150.0 (Minimum)	165.0 (Nominal)	180.0 (Maximum)

Before: 8−Aug−2006 17:44

Company: **Lamont Doherty**

Schlumberger

Well: **NGHP−01−19B**
Field:
Rig **Joides Resolution**
State:

Dipole Shear Sonic Imager

Gamma Ray