

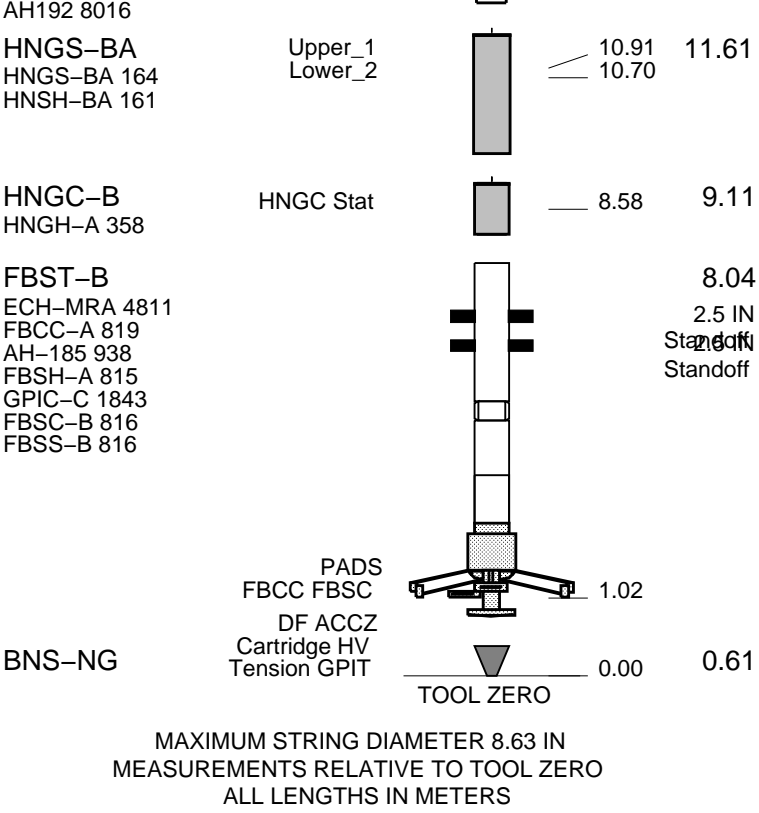
Repeat section was taken from 2900.0m – 2850.0m as per client request.

PPC used as for borehole measurement as well as tool centerization for Sonic Scanner.					
Sonic check in casing = 57 us/ft.					
Caliper check in casing = 18.75 inch.					
Some of data affected by borehole condition (rugosity/washout).					
Circulation Started: 11-Jul-2009; 1:45am					
Circulation Stopped: 11-Jul-2009; 5:30am					
AV=55 cps, PV=35 cps, YV=40 lb/100ft2, Gel=7-8 lb/100ft2, WL=4.1 ml, MC=0.5 mm					
pH=10.6 ml, Pf=0.2 ml, Pm=0.3 ml, Mf=0.3 ml, Cl-=71,700 mg/l, Ca++Mg++=80/97 mg/l, Sand = 0.2%					
O/S/W=0/6/94 %Vol, MBC=0.5 ml/ml mud, K+=26,400 mg/l					

RUN 1			RUN 2		
SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:			SERVICE ORDER #: PROGRAM VERSION: FLUID LEVEL:		
ADVO-0003 17C0-154 10 m					
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION					
RUN 1			RUN 2		

SURFACE EQUIPMENT					
GSR-Y 1005 WITM (EDTS)-A					
DOWNHOLE EQUIPMENT					
LEH-QT LEH-QT 1296	MDSB_EDTC Mud Tempe	31.77			
EDTC-B EDTH-B 8206 EDTC-BB 8218 EDTG-A/B 8215	CTEM Gamma Ray TelStatus EDTCB Ele	30.88			
PPC1-B PPC1-B 8169 PPC_CAL_STD	Calipers PPC_Cartr	28.90			
MAPC-B MAPC-BA 8038 ECH-SF 8038 MAMS-BA 8048		26.91			
		2.5 IN Standoff			
	MAMS-PS	22.20			
		2.5 IN Standoff			
MAXS-B MASS-BA 8038 MAXS-BA 8044		20.50			
		2.5 IN Standoff			
		2.5 IN Standoff			
	MAXS-PS	14.33			
	Mud Resis	14.15			
	Mud Tempe	13.90			
EMS-B EMA-B 8002 RES EMC-B 8027 ECH-KH 8028		14.33			

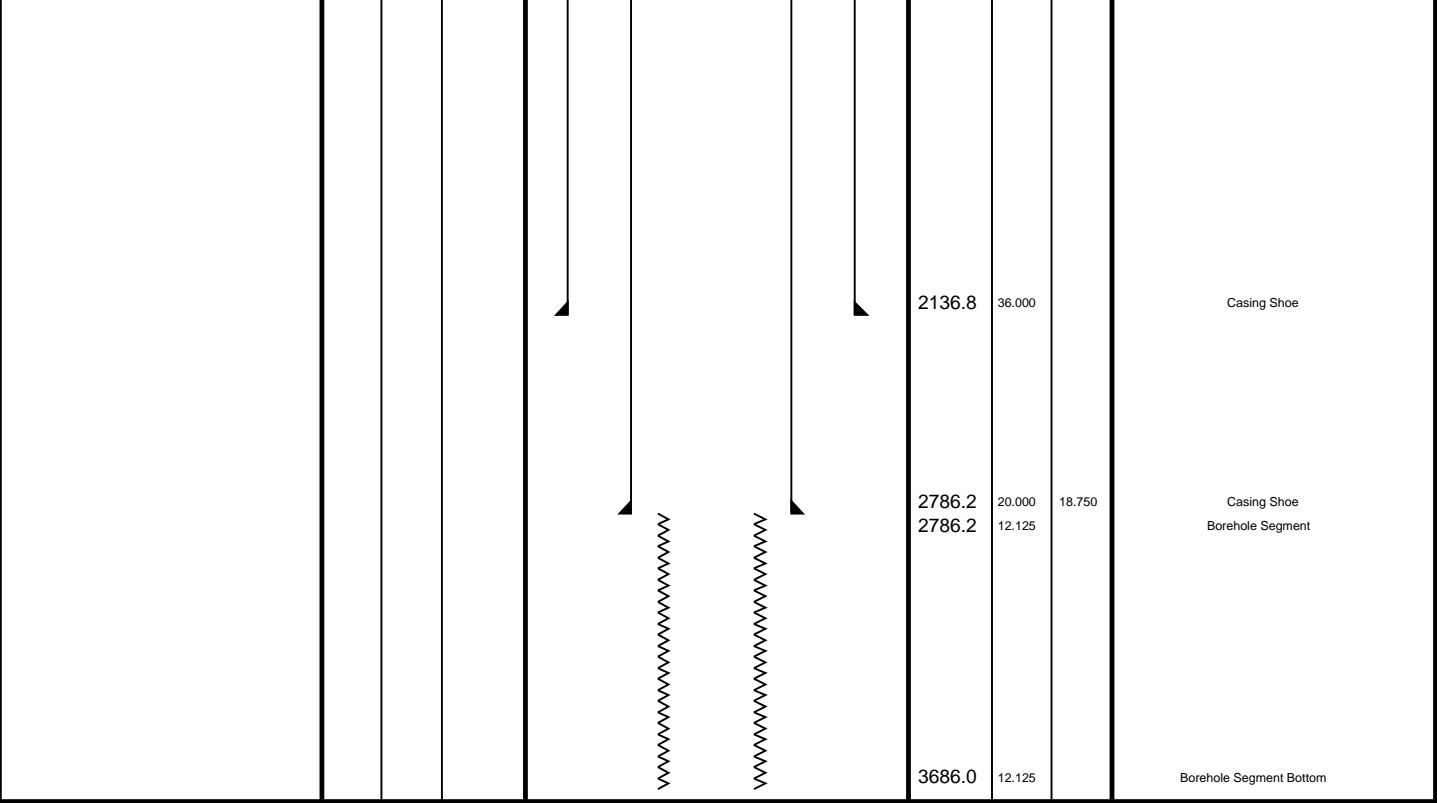


Client: CDEX
 Well: C0009A
 Field: Nankai Trough
 State: Wakayama
 Country: JAPAN

Rig Name: Chikyu
 Reference Datum: Mean Sea Level
 Elevation: 28.3 m

Drawing Date: 7/11/2009

Production String	(in)			Well Schematic	(m)			Casing String
	OD	ID	MD		MD	OD	ID	
Derrick Floor Elevation Mean Sea Level			28.3					Casing String
			0.0		2082.3	36.000		



Schlumberger

Main Log
1:200

MAXIS Field Log

Company: CDEX Well: C0009A

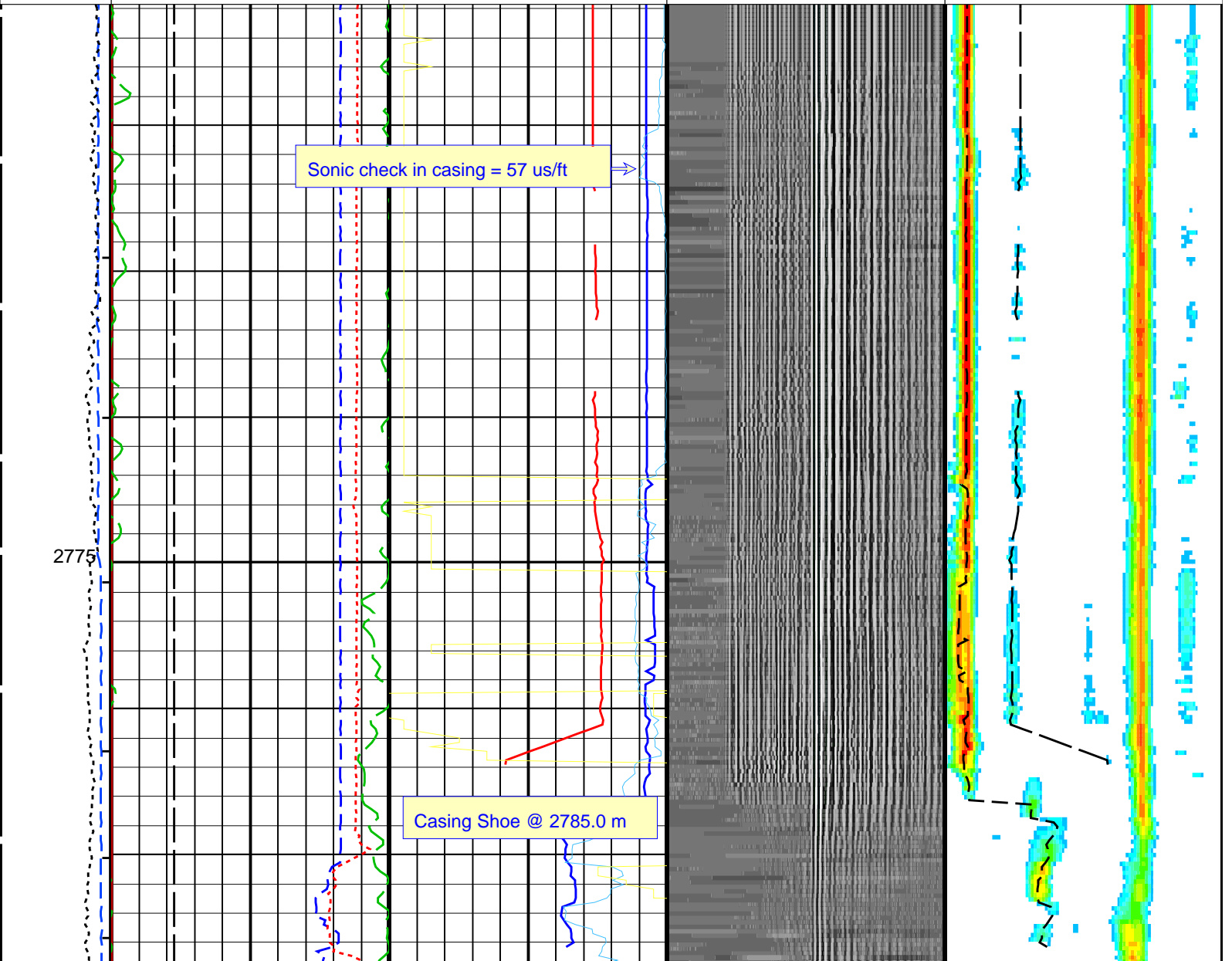
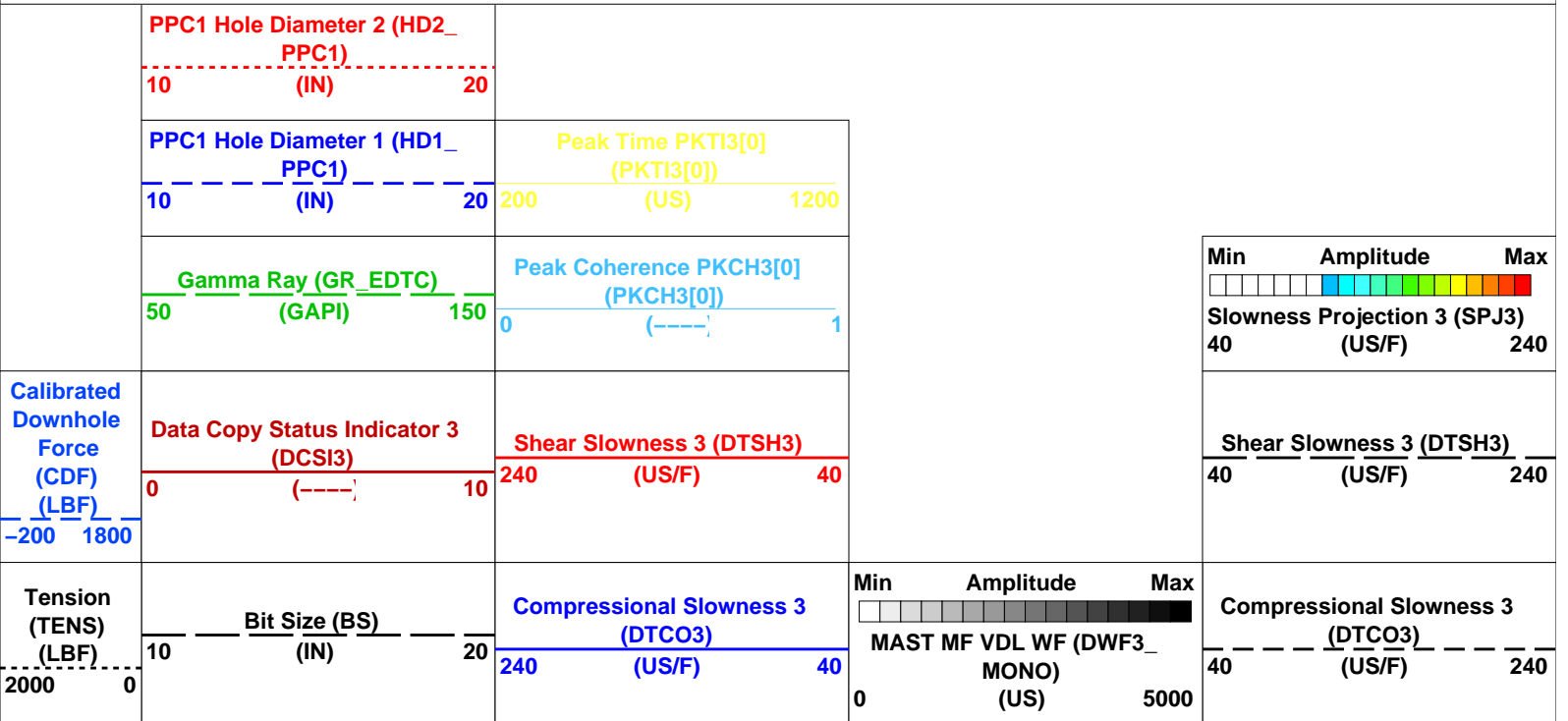
Input DLIS Files						
DEFAULT	FMI_NGS_EMS_MAXS_038LUP	FN:114	PRODUCER	13-Jul-2009 17:16	3659.9 M	2752.6 M
Output DLIS Files						
DEFAULT	FMI_EMS_MAXS_MAPC_012PUP	FN:42	PRODUCER	10-Aug-2009 18:37	3662.2 M	2755.8 M
CLIENT	FMI_EMS_MAXS_MAPC_012PUC	FN:43	CUSTOMER	10-Aug-2009 18:37	3662.2 M	2755.8 M

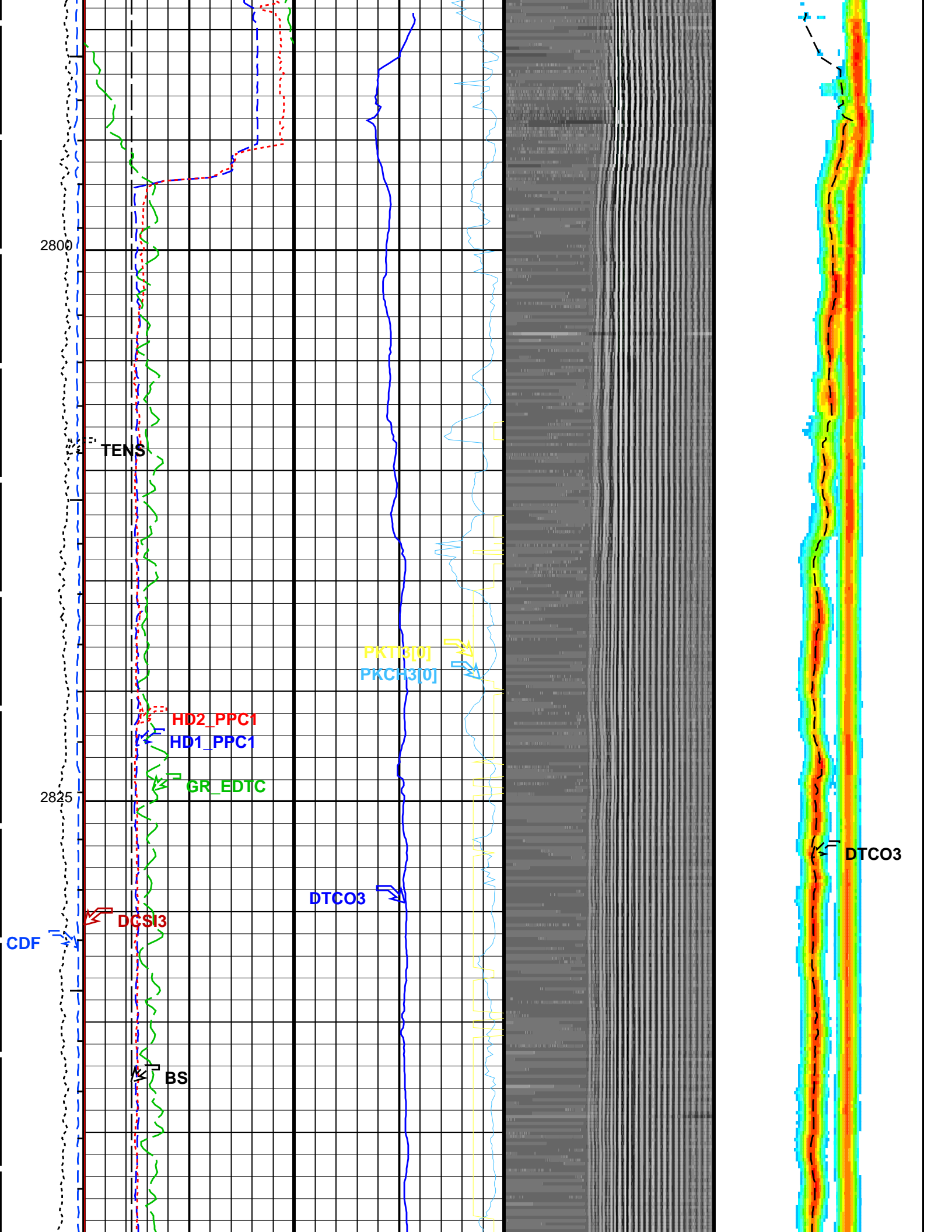
OP System Version: 17C0-154

FBST-B	17C0-154	EMS-B	17C0-154
MAXS-B	SKK-3704-MAST	MAPC-B	SKK-3704-MAST
PPC1-B	17C0-154	EDTC-B	17C0-154

PIP SUMMARY

- Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS
- Time Mark Every 60 S

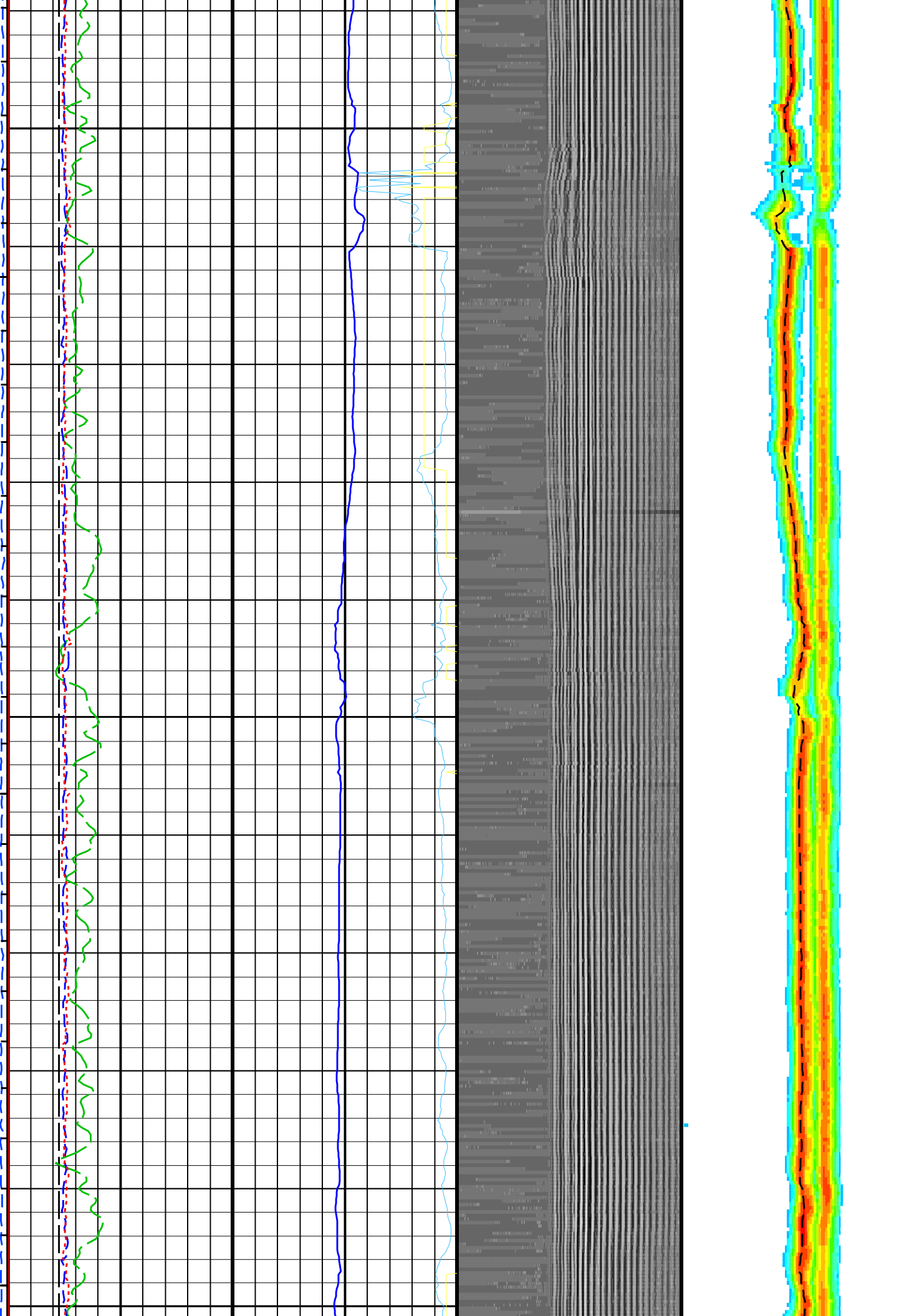


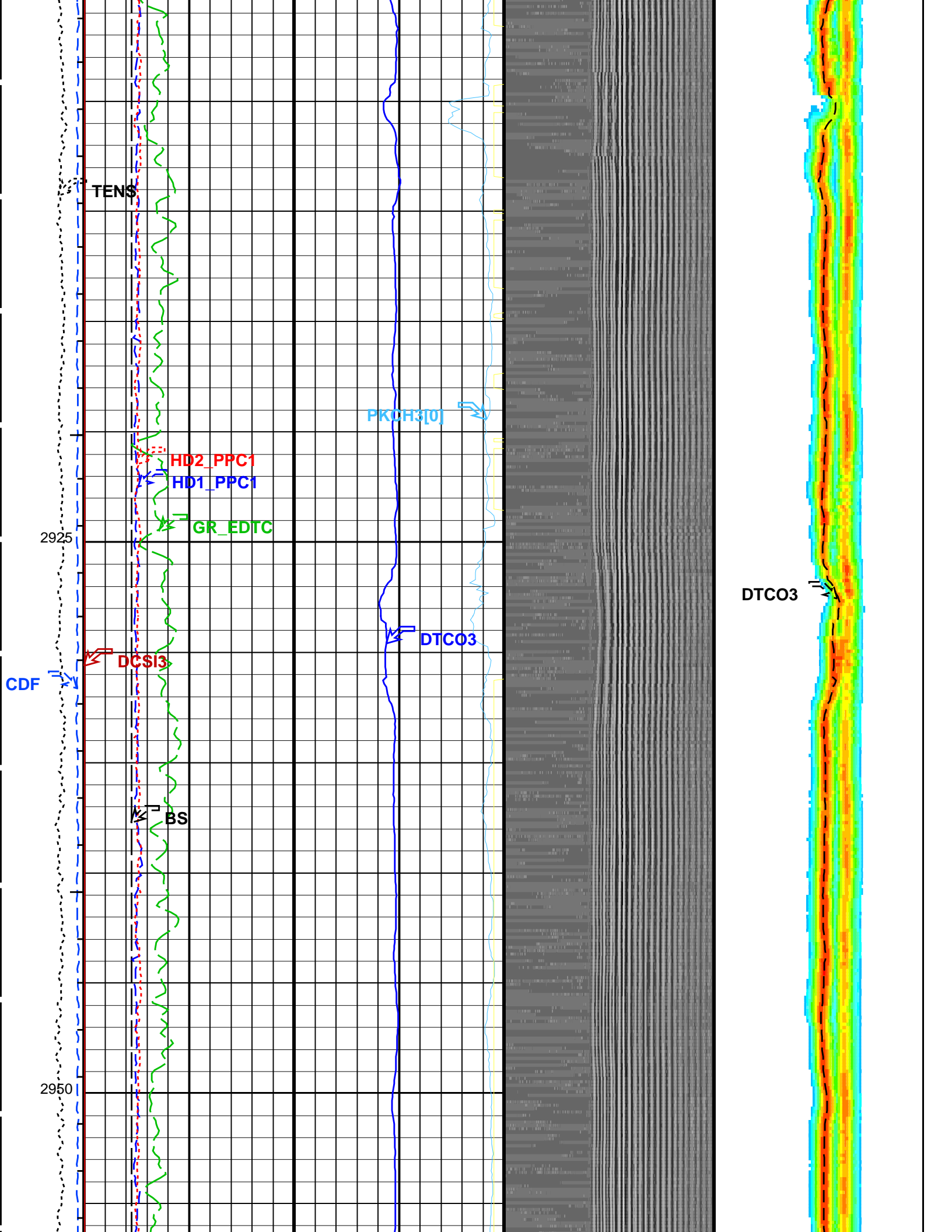


2850

2875

2900

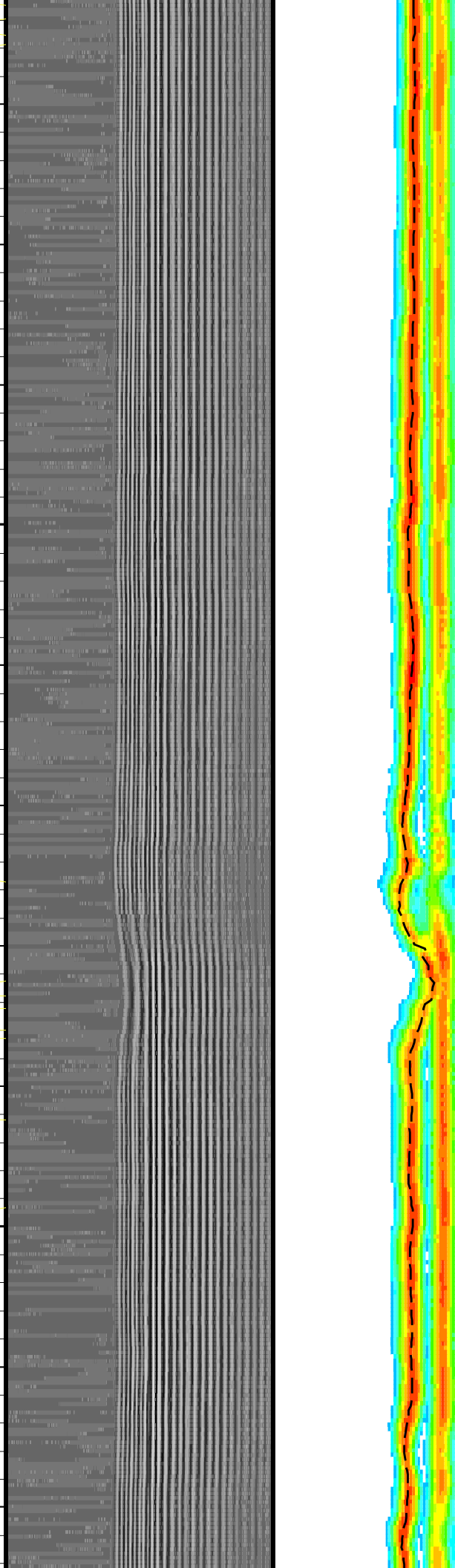


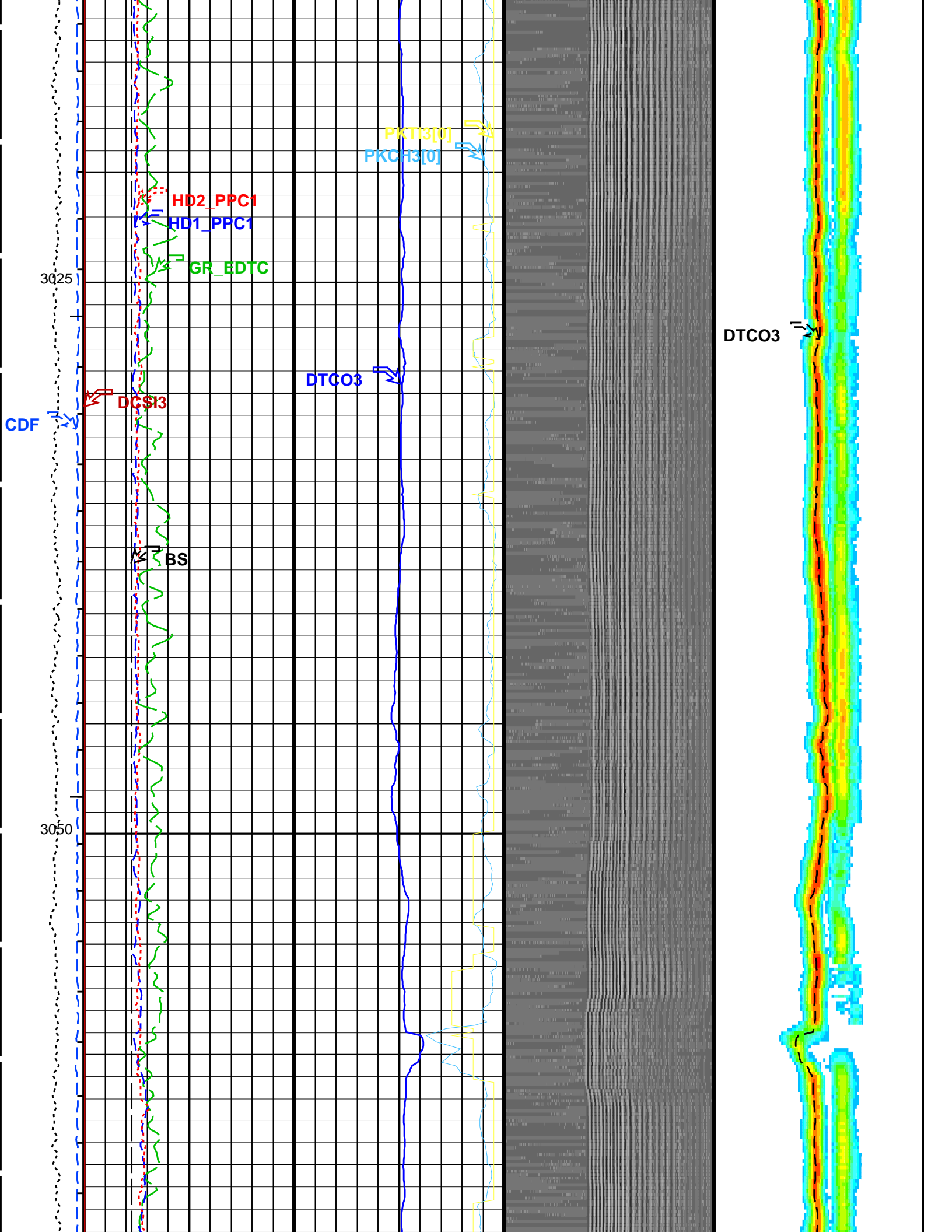


2975

3000

TENS





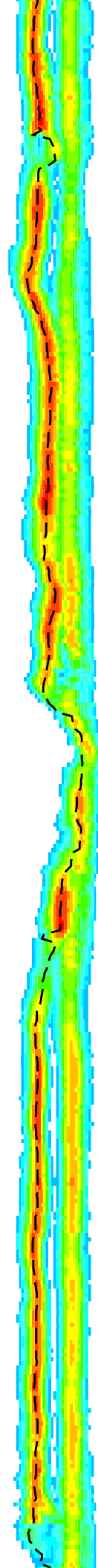
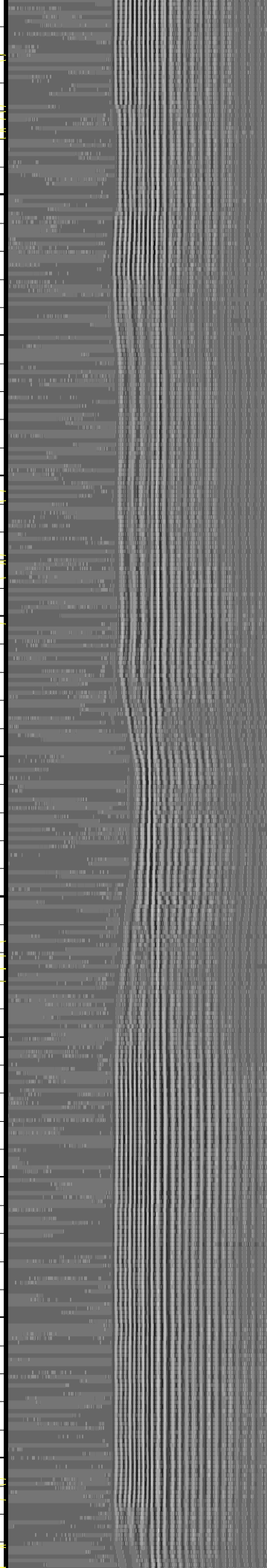
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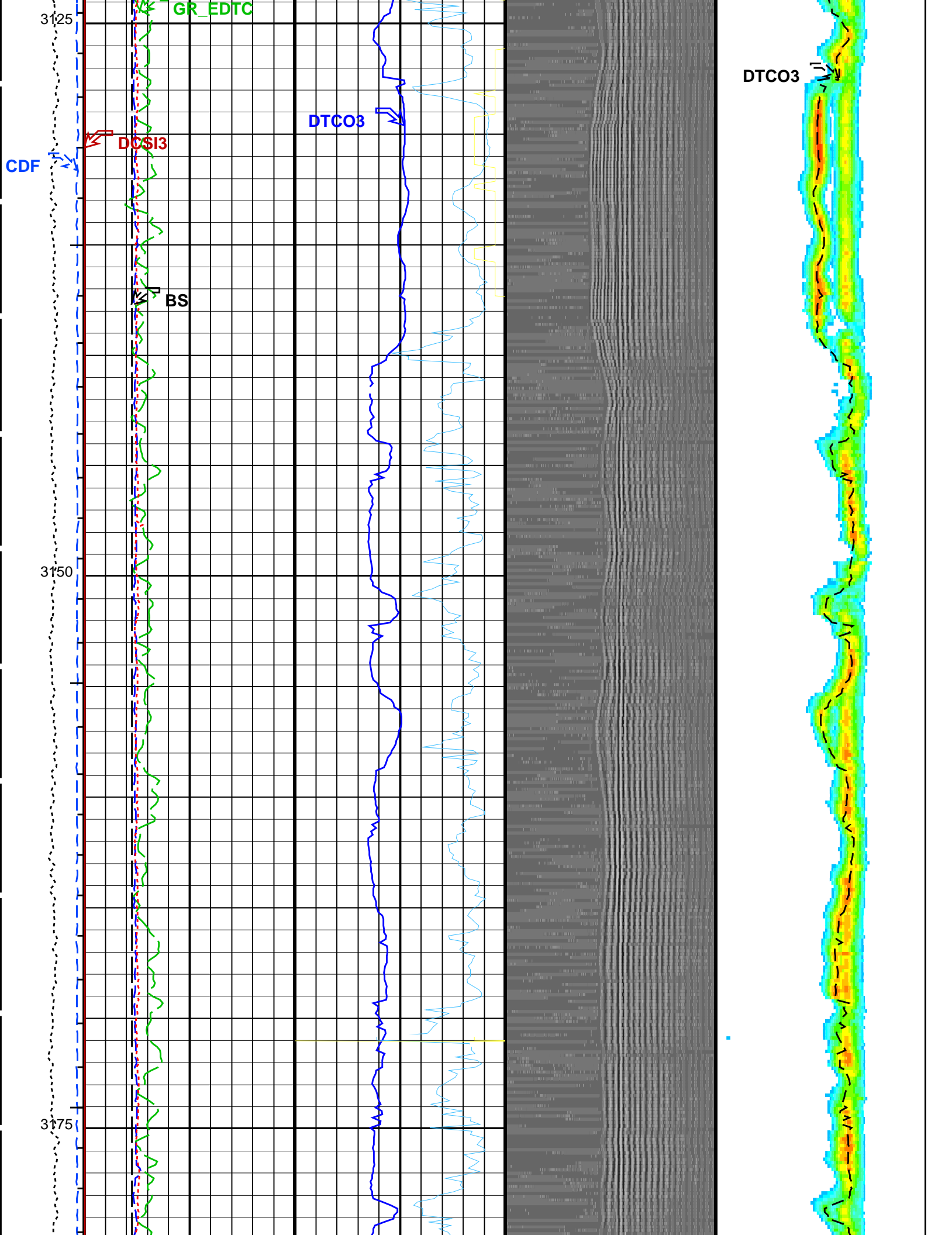
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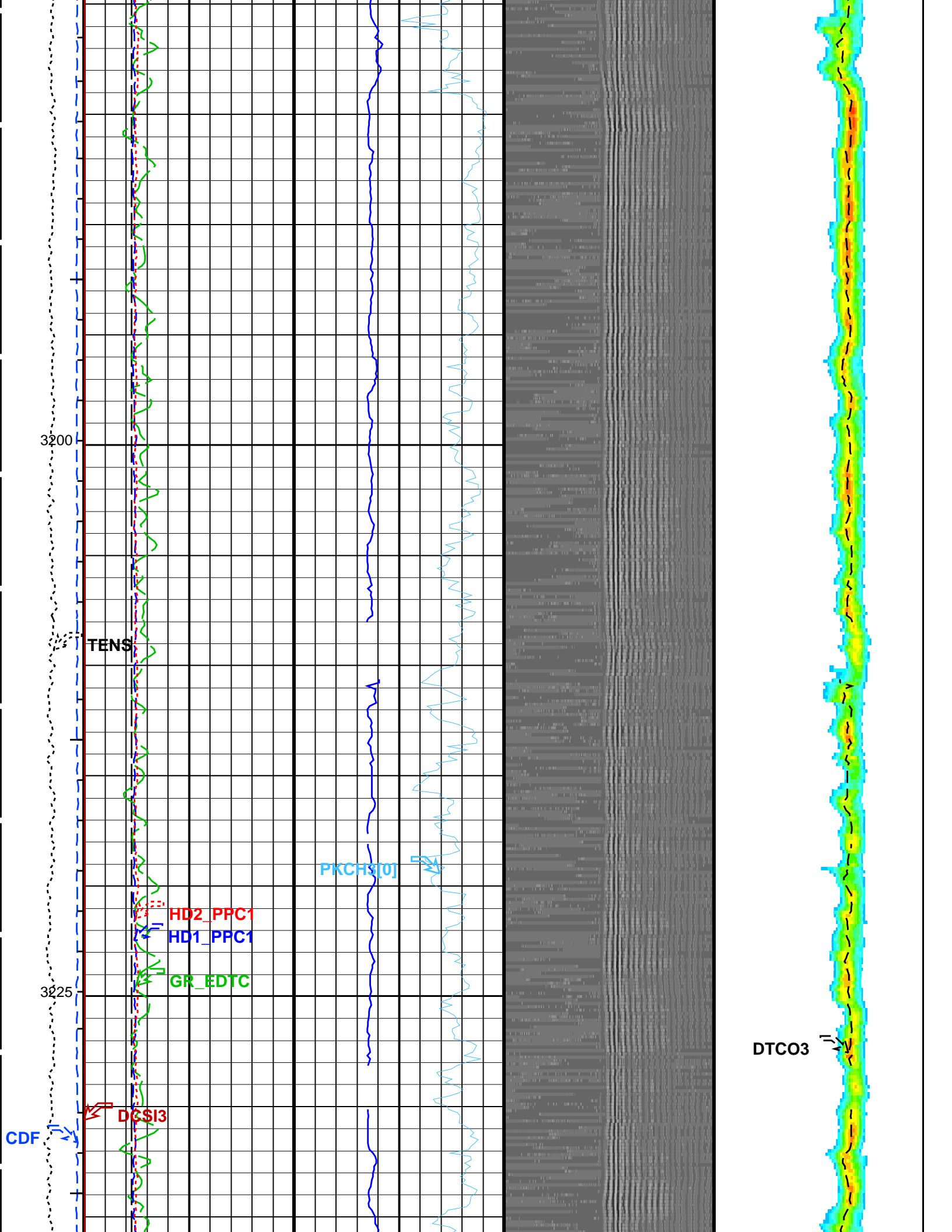
TENS

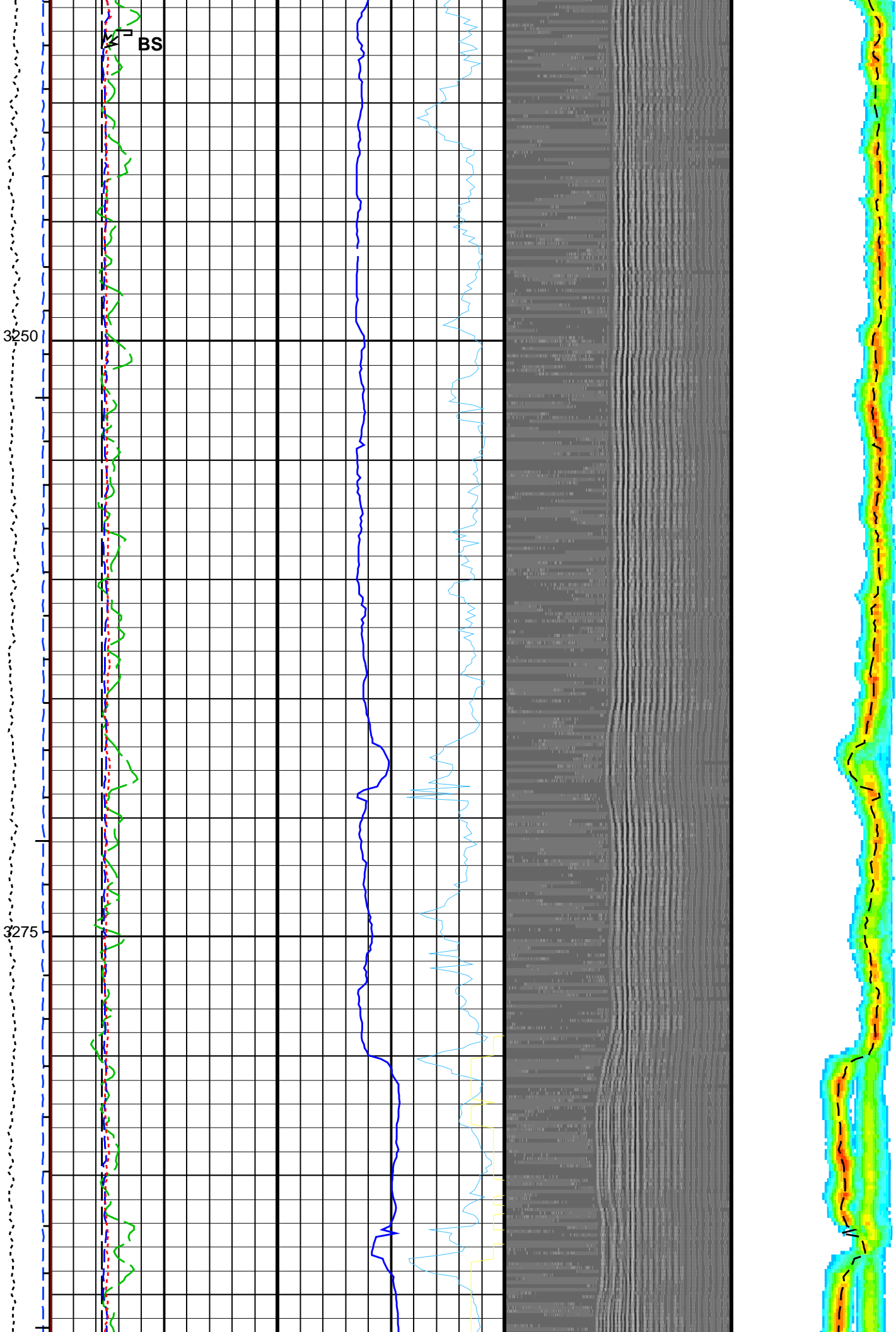
HD2_PPC1
HD1_PPC1

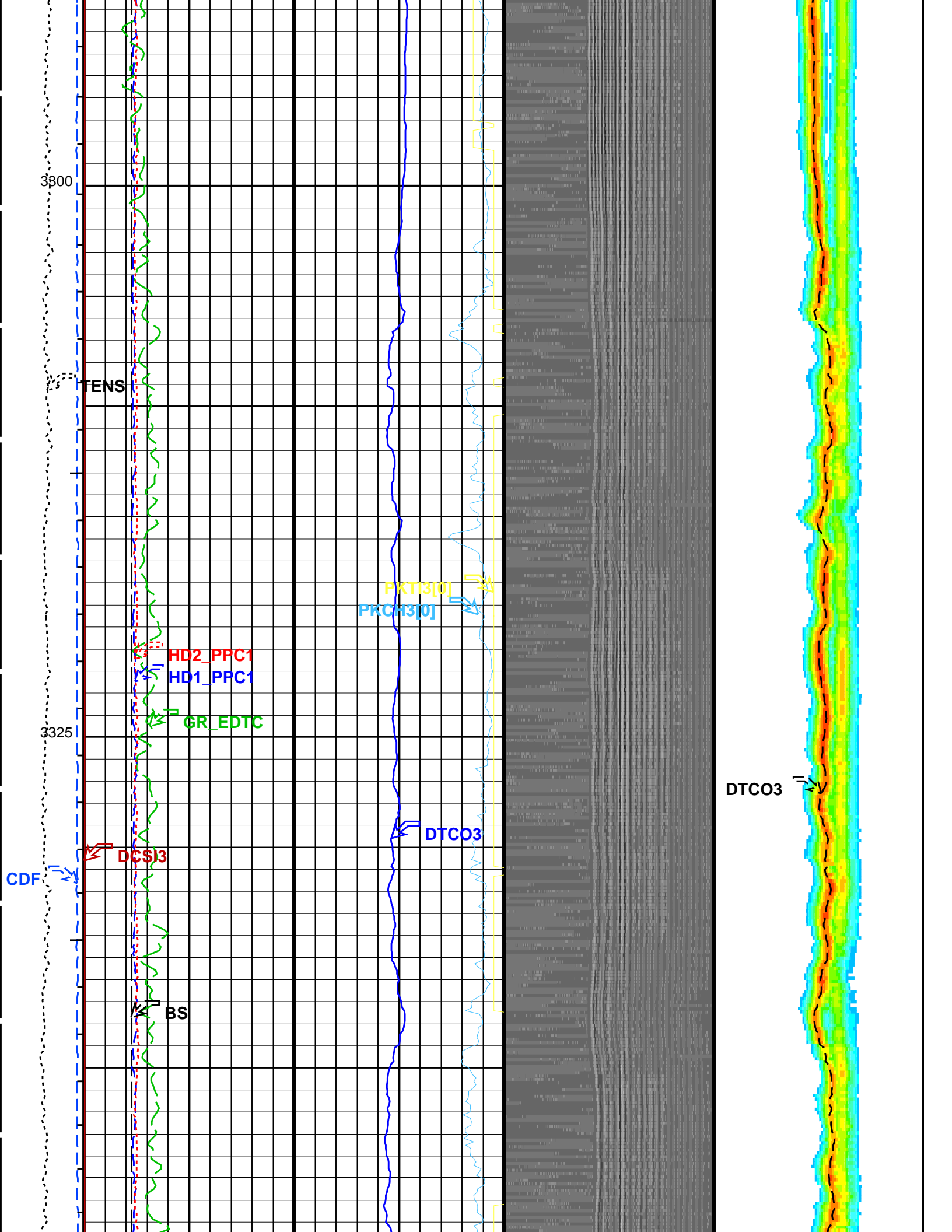
PKT3[0]
PKCH3[0]

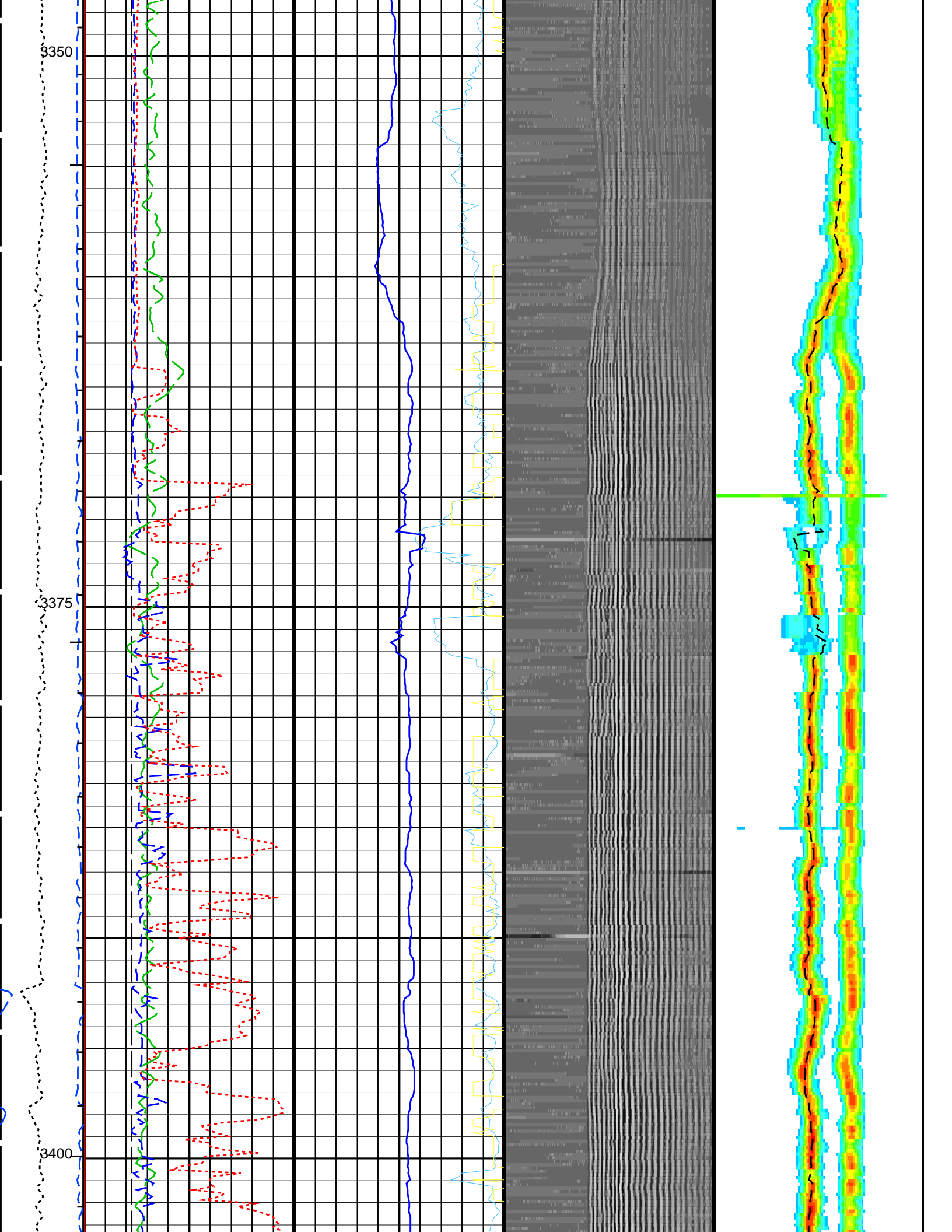


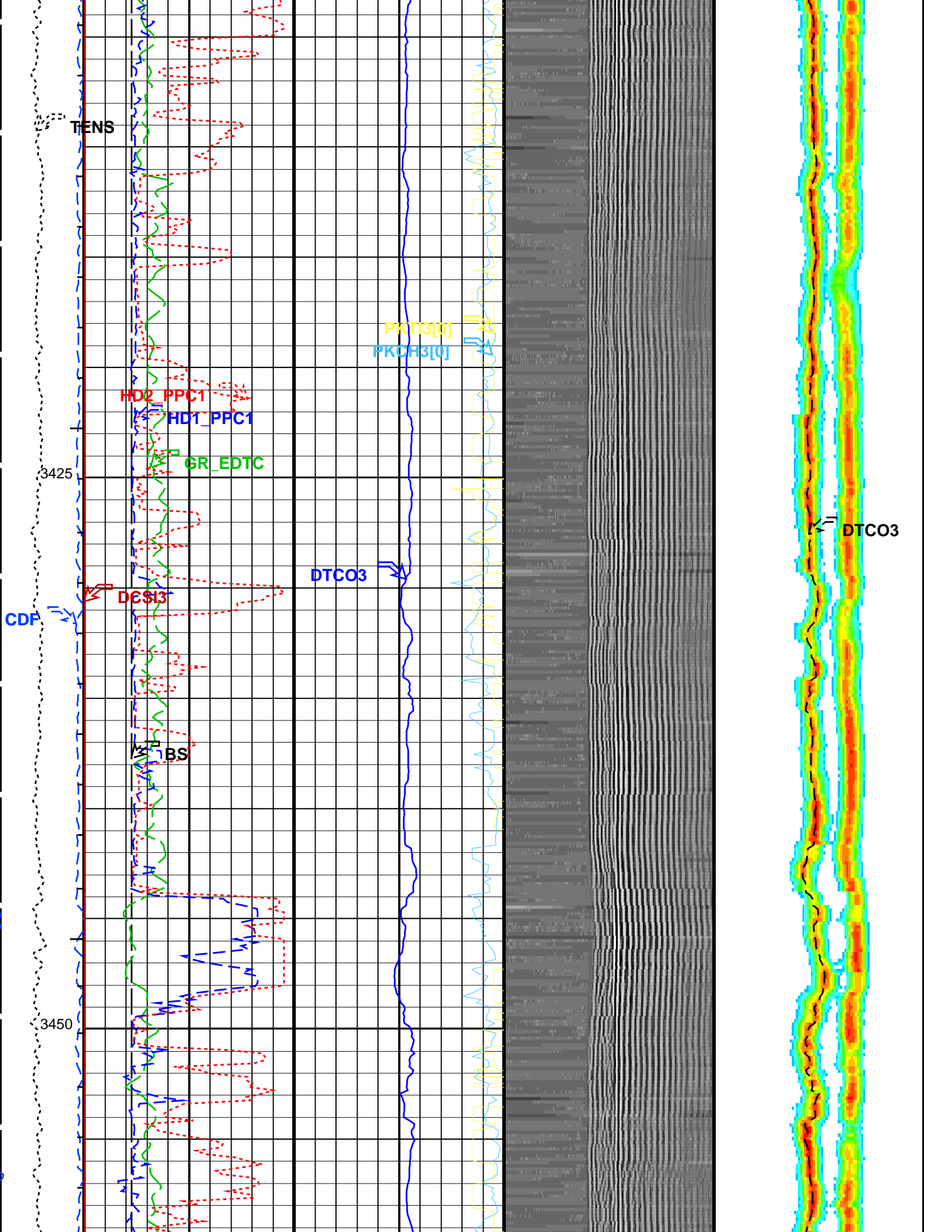


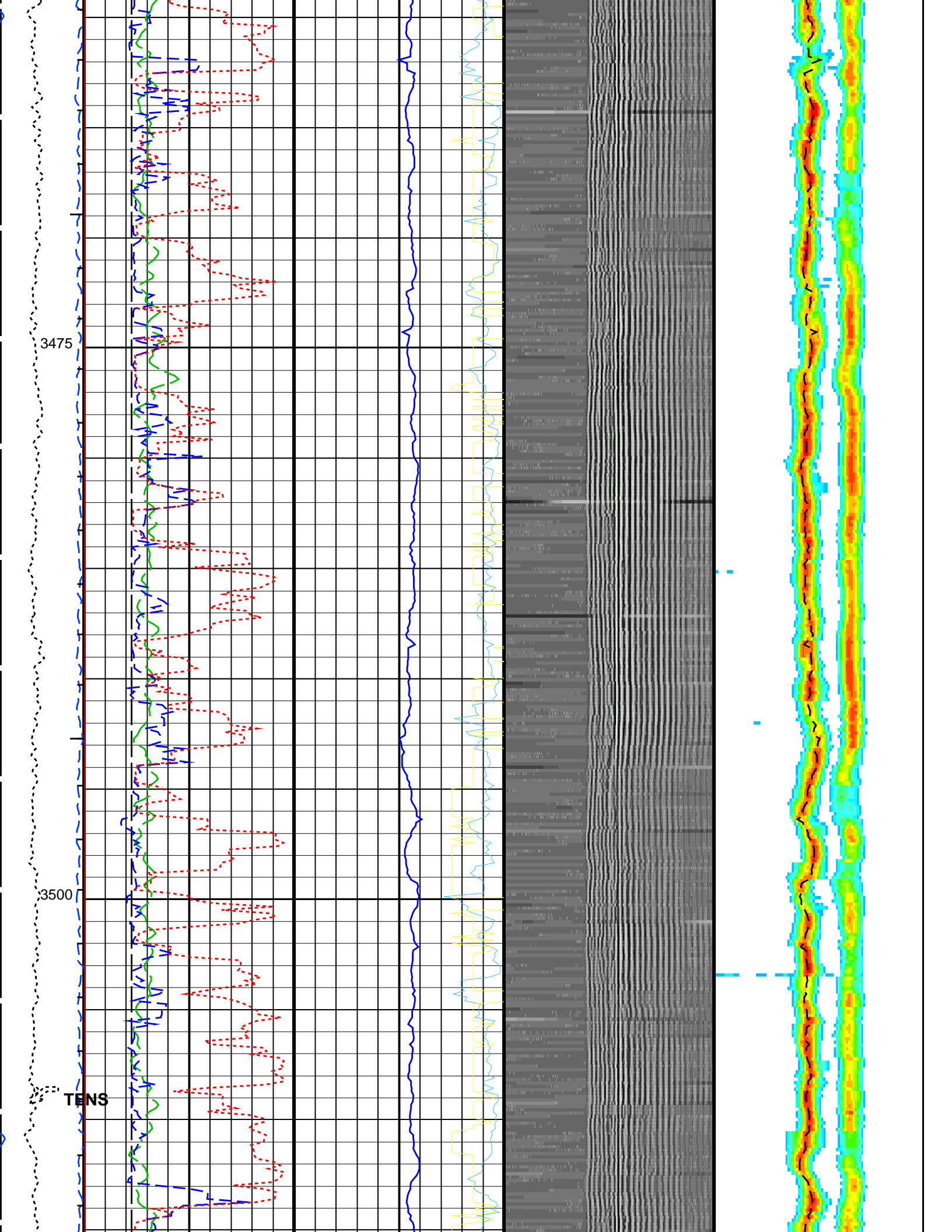


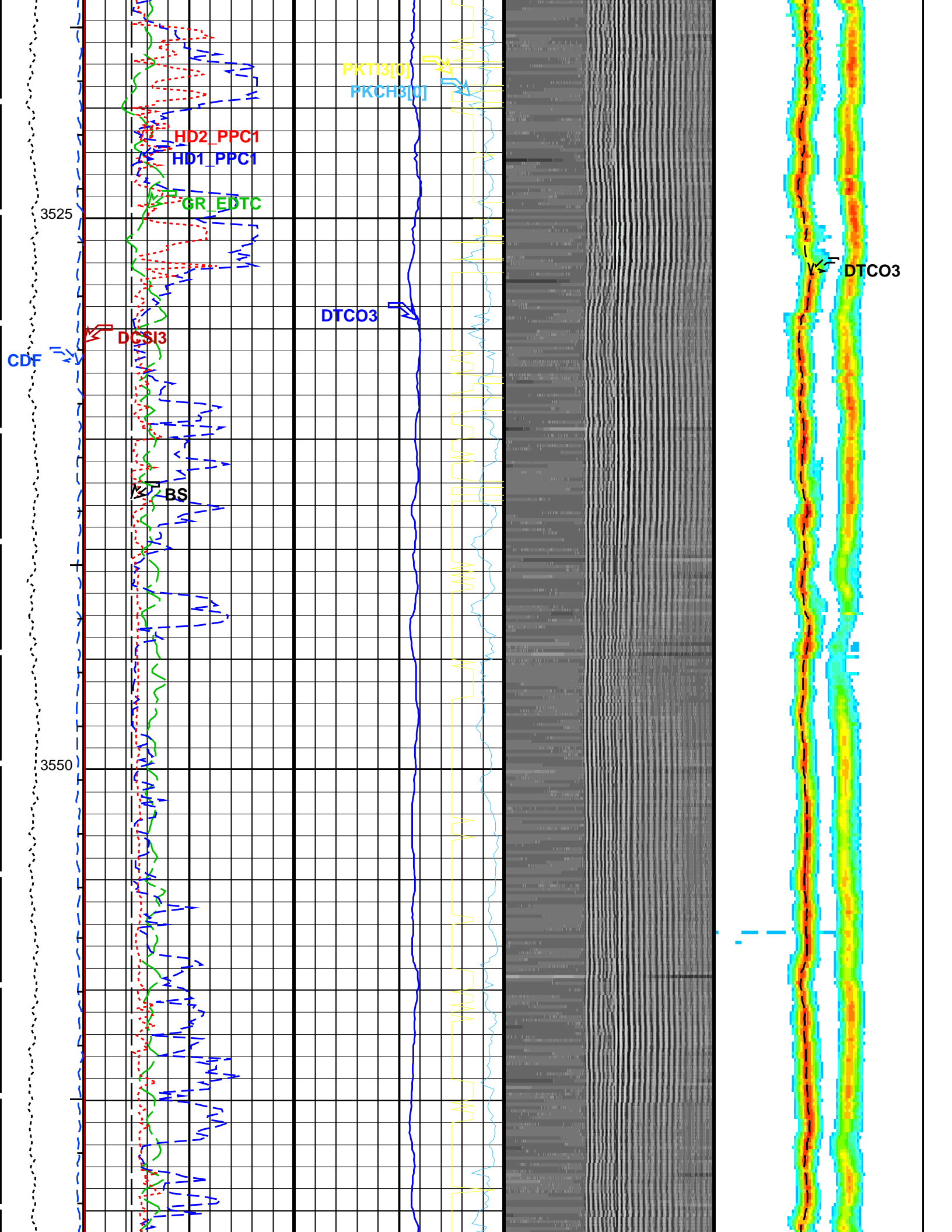


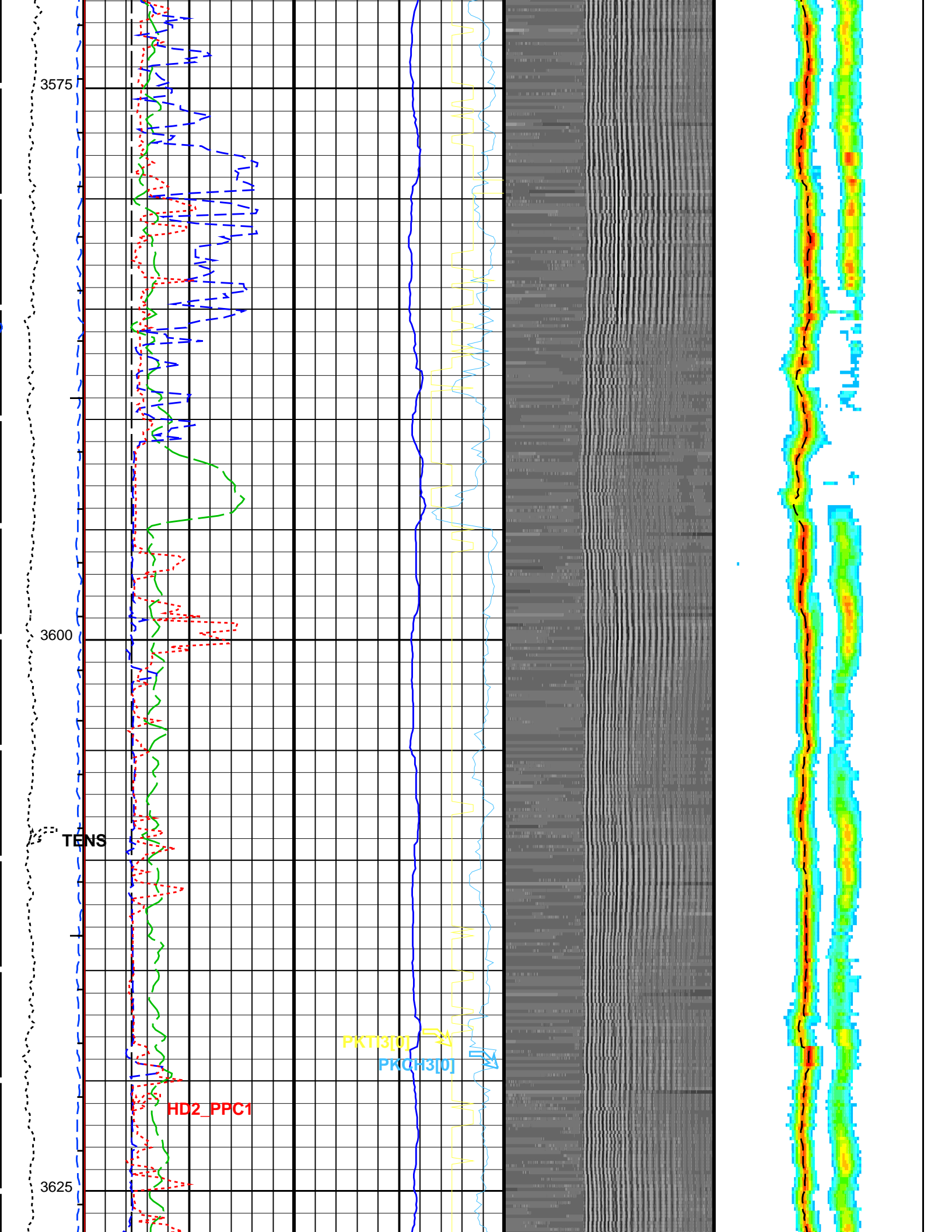


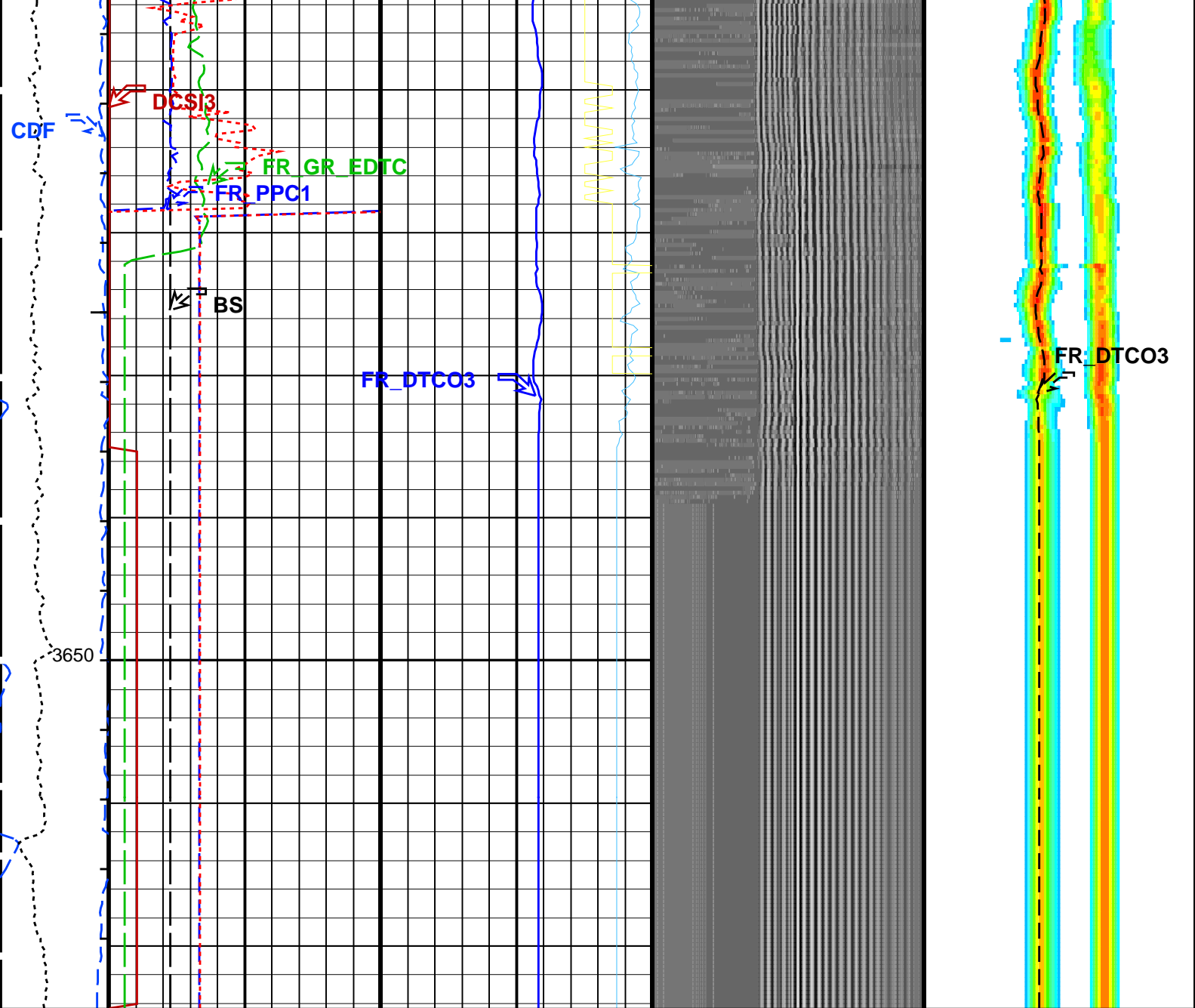












Tension (TENS) (LBF) 2000 0	Bit Size (BS) (IN) 10 20	Compressional Slowness 3 (DTCO3) (US/F) 240 40	Min Amplitude Max MAST MF VDL WF (DWF3_ MONO) (US) 5000	Compressional Slowness 3 (DTCO3) (US/F) 40 240
Calibrated Downhole Force (CDF) (LBF) -200 1800	Data Copy Status Indicator 3 (DCSI3) (----) 0 10	Shear Slowness 3 (DTSH3) (US/F) 240 40		Shear Slowness 3 (DTSH3) (US/F) 40 240
	Gamma Ray (GR_EDTC) (GAPI) 50 150	Peak Coherence PKCH3[0] (PKCH3[0]) (----) 0 1		Min Amplitude Max Slowness Projection 3 (SPJ3) (US/F) 40 240
	PPC1 Hole Diameter 1 (HD1_PPC1) (IN) 10 20	Peak Time PKT13[0] (PKT13[0]) (US) 200 1200		
	PPC1 Hole Diameter 2 (HD2_PPC1) (IN) 10 20			

Parameters

DLIS Name	Description	Value	
FBST-B: Full-Bore Scanner - B			
ACPP	Accelerometer PROM Presence	PRESENT	
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ART	Accelerometer Reference Temperature	20	DEGC
EGCO	FMI EMEX and GAIN Correction	NO	
FBCD	Correct Dip Buttons Values by EMEX and Gain	OFF	
FBEF	FMI EMEX filtering activation	OFF	
FBMV	FMI EMEX maximum voltage calculation	OFF	
FDBD	FMI Dead Buttons detection	AUTO	
FDBP	FMI Dead Buttons Patching	ON	
FDFL	FMI DSP Filter Length	1	
FIEQ	FMI Image Equalisation	ON	
FIGA	FMI Image Gain	1	
FIOF	FMI Image Offset	0	
FLM	FMI Logging Mode	8PAD	
FP5A	FMI Peak Signal Amplitude for Required Servo Level	ON	
GLM	GPIT Logging Mode	DIPM	
GMOD	Gain Mode	AUTOLOW	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MAPP	Magnetometer PROM Presence	PRESENT	
MDEC	Magnetic Field Declination	-6.587	DEG
MRTE	Magneto Reference Temperature	22	DEGC
RBS	Resistivity Button Selection	AUTO	
RBSI	Auto RBS Change Interval	10	
SOFF	Standoff	-1	IN
TEMS	GPIT Temperature Sensor Used	BOTH	
U-GPOF	Playback OLD VERSION GPIT FILE (BEFORE OP14 + SRPC-3098-FEB_2006_C) ?	NO	
XGAI_FBST	Gain Value in Manual Mode	0_dB	
XGMO	EMEX & Gain Modes	EmexManu_GainAutoLowRange	
XMOD	EMEX Voltage Regulation Mode	MANU	
XVOL	EMEX Voltage	175	V
EMS-B: Environment Measurement Sonde			
EAAB	EMS Accelerometer Coefficient:Ab	0	
EAAS	EMS Accelerometer Coefficient:As	0	
EABB	EMS Accelerometer Coefficient:Bb	0	
EABS	EMS Accelerometer Coefficient:Bs	0	
EACB	EMS Accelerometer Coefficient:Cb	0	
EACS	EMS Accelerometer Coefficient:Cs	0	
EMUD	EMS Mudcake Correction	OFF	
FCD	Future Casing (Outer) Diameter	13.375	IN
HVCS	Integrated Hole Volume Caliper Selection	PPC1_Calipers	
MAXS-B: Multimode Array Sonic Xmitter Sonde			
FIRING_TABLE	MAST Firing Table	** V **	
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta-T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta-T 8 for Cement Evaluation	57	US/F
MAPC-B: Multimode Array Sonic Power Cartridge			
AZIM_SELECT	Azimuth Reference Selection	P1AZ	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	33.33	DEGC
BS	Bit Size	12.250	IN
CDTS	C-Delta-T Shale	100	US/F
CE_DCBLSL	DCBL Selection for Cement Evaluation	3_5FT	
CE_VDLGRA	VDL Manual Gain Rate Array for Cement Evaluation	** V **	
CE_VDLSEL	VDL Selection for Cement Evaluation	MU_5FT	
CE_VDL_MODE	DCBL/VDL Mode for Cement Evaluation	STANDARD	
CE_VFILSWA	VDL Filter Switch Array for Cement Evaluation	** V **	
CLASSAL	Classification Algorithm	** V **	
CRVIN_MF	Alteration Detection Input Number for Monopole Far	ID3	
CRVIN_ML	Alteration Detection Input Number for Monopole Lower	ID2	
CRVIN_MU	Alteration Detection Input Number for Monopole Upper	ID1	
DCRMVL	DC Offset Removal Option	DC_MULTIPLE	
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTCO_SELECT	Delta-T Compressional Selection for Finalization	MF	
DTF	Delta-T Fluid	190	US/F
DTM	Delta-T Matrix	56	US/F
DTSH_SELECT	Delta-T Shear Selection for Finalization	XD	
DWF7_SPEC	Channel/Station/Azimuth for VDL (DWF7) of Measurement 7	WFA7/9/1	
DWF8_SPEC	Channel/Station/Azimuth for VDL (DWF8) of Measurement 8	WFA8/5/1	
FIRING_TABLE	MAST Firing Table	** V **	

GCSE	Generalized Caliper Selection	HD1_PPC1	0	DEG
GDEV	Average Angular Deviation of Borehole from Normal			
GGRD	Geothermal Gradient	0.018227		DC/M
GRSE	Generalized Mud Resistivity Selection	EMS_RESIST		
GTSE	Generalized Temperature Selection	EMS_TEMP		
IMG_DTCO_SEL_MAST	Imaging Input DT Compressional Selection	CONSTANT_DTCO		
IMG_EST_DTCO_MAST	Imaging Estimated DT Compressional	120		US/F
IMG_RBS	Imaging Relative Bearing Selection	RB1		
ISSBAR	Barite Mud Switch	NOBARITE		
ITTS	Integrated Transit Time Source	DTCO		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		
NFPI_ML	Free Pipe Amplitude for ML	0		
NFPI_MU	Free Pipe Amplitude for MU	0		
NRSA	Number of Receivers in Sub-Array	** V **		
RBC	Relative Bearing Correction Allow/Disallow	DISALLOW		
ROTIN_XD	Alford Rotation X Dipole Measurement Number	ID5		
ROTIN_YD	Alford Rotation Y Dipole Measurement Number	ID6		
ROTWINDOW_CTRL	Alford Rotation Window Control	ON		
ROT_AI	Dipole Waveform Rotation Averaging Depth Interval	1.524		M
ROT_FIL LENG	Alford Rotation Filter Length	101		
ROT_TWD	Alford Rotation Window Time Width	1240		US
ROT_TWO	Alford Rotation Window Time Offset	1360		US
ROT_XFH	Alford Rotation Filter High Cutoff	2000		HZ
ROT_XFL	Alford Rotation Filter Low Cutoff	800		HZ
SHT	Surface Hole Temperature	25		DEGC
SPFS	Sonic Porosity Formula	RAYMER_HUNT		
SPSO	Sonic Porosity Source	DTCO		
STCAL	STC Algorithm	** V **		
STCSEL1	Station Selection for STC for Measurement 1	** V **		
STCSEL2	Station Selection for STC for Measurement 2	** V **		
STCSEL3	Station Selection for STC for Measurement 3	** V **		
STCSEL4	Station Selection for STC for Measurement 4	** V **		
STCSEL5	Station Selection for STC for Measurement 5	** V **		
STCSEL6	Station Selection for STC for Measurement 6	** V **		
STCSEL_FAST	Station Selection for STC for DT_FAST	** V **		
STCSEL_SLOW	Station Selection for STC for DT_SLOW	** V **		
TRMIN	Alteration Detection Minimum Transmitter Receiver Spacing for Processing	3.0		FT
TX_AMP	Transmitter Amplitude Factor	** V **		
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80		US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80		US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220		US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220		US
U_CE_SGDT7	Sliding Gate Delta-T 7 for Cement Evaluation	57		US/F
U_CE_SGDT8	Sliding Gate Delta-T 8 for Cement Evaluation	57		US/F
U_SLL1_MAST	MAST DSTC Slowness Lower Limit 1	0		US/F
U_SLL2_MAST	MAST DSTC Slowness Lower Limit 2	0		US/F
U_SLL3_MAST	MAST DSTC Slowness Lower Limit 3	40		US/F
U_SLL4_MAST	MAST DSTC Slowness Lower Limit 4	200		US/F
U_SLL5_MAST	MAST DSTC Slowness Lower Limit 5	112		US/F
U_SLL6_MAST	MAST DSTC Slowness Lower Limit 6	112		US/F
U_SLL_FAST_MAST	MAST DSTC Slowness Lower Limit Fast	0		US/F
U_SLL_SLOW_MAST	MAST DSTC Slowness Lower Limit Slow	0		US/F
U_SUL1_MAST	MAST DSTC Slowness Upper Limit 1	0		US/F
U_SUL2_MAST	MAST DSTC Slowness Upper Limit 2	0		US/F
U_SUL3_MAST	MAST DSTC Slowness Upper Limit 3	240		US/F
U_SUL4_MAST	MAST DSTC Slowness Upper Limit 4	900		US/F
U_SUL5_MAST	MAST DSTC Slowness Upper Limit 5	772		US/F
U_SUL6_MAST	MAST DSTC Slowness Upper Limit 6	772		US/F
U_SUL_FAST_MAST	MAST DSTC Slowness Upper Limit Fast	0		US/F
U_SUL_SLOW_MAST	MAST DSTC Slowness Upper Limit Slow	0		US/F
PPC1-B: Powered Positioning Device/Caliper 1				
	PPC1 Caliper Type	CAL_STD		
CLBD_PPC	PPC Calibration data selection	ROM		
PWEL_PPC	PPC Primary Tool for WellCAD	NONE		
SWEL_PPC	PPC Secondary Tool for WellCAD (45 Degrees Rotation PPC Tool)	NONE		
WRDR_PPC	PPC Rotation Direction for Secondary Tool	NONE		
EDTC-B: Enhanced DTS Cartridge				
BHFL	Borehole Fluid Type	WATER		
BHS	Borehole Status	OPEN		
BHT	Bottom Hole Temperature (used in calculations)	33.33		DEGC
BSCO	Borehole Salinity Correction Option	NO		
CCCO	Casing & Cement Thickness Correction Option	NO		
DPPM	Density Porosity Processing Mode	STAN		
FSAL	Formation Salinity	-50000		PPM
FSCO	Formation Salinity Correction Option	NO		
GCSE	Generalized Caliper Selection	HD1_PPC1		
GDEV	Average Angular Deviation of Borehole from Normal	0		DEG
GGRD	Geothermal Gradient	0.018227		DC/M
GRSE	Generalized Mud Resistivity Selection	EMS_RESIST		
GTSE	Generalized Temperature Selection	EMS_TEMP		
HSCO	Hole Size Correction Option	YES		
ISSBAR	Barite Mud Switch	NOBARITE		
ISSBAR_EDTC	Nuclear Mud Type	NOBARITE		
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE		

MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	NO	
SDAT	Standoff Data Source	SOCN	
SHT	Surface Hole Temperature	25	DEGC
SOCN	Standoff Distance	2.5	IN
SOCO	Standoff Correction Option	NO	
TPOS_EDTC	EDTC Tool Centered/Eccentered	Centered	
	HOLEV: Integrated Hole/Cement Volume		
FCD	Future Casing (Outer) Diameter	13.375	IN
HVCS	Integrated Hole Volume Caliper Selection	PPC1_Calipers	
	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth – Driller	3686.00	M
TDL	Total Depth – Logger	3667.00	M
	System and Miscellaneous		
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BSAL	Borehole Salinity	110000.00	PPM
CSIZ	Current Casing Size	20.000	IN
CWEI	Casing Weight	133.00	LB/F
DFD	Drilling Fluid Density	1.10	G/C3
DO	Depth Offset for Playback	3.2	M
DORL	Depth Offset for Repeat Analysis	0.0	M
FLEV	Fluid Level	10.00	M
MST	Mud Sample Temperature	25.70	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	0.0590	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	3667	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MAST_P_S_200 Vertical Scale: 1:200 Graphics File Created: 10-Aug-2009 18:37

OP System Version: 17C0-154

FBST-B	17C0-154	EMS-B	17C0-154
MAXS-B	SKK-3704-MAST	MAPC-B	SKK-3704-MAST
PPC1-B	17C0-154	EDTC-B	17C0-154

Input DLIS Files

DEFAULT	FMI_NGS_EMS_MAXS_038LUP	FN:114	PRODUCER	13-Jul-2009 17:16	3659.9 M	2752.6 M
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Output DLIS Files

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CLIENT	FMI_EMS_MAXS_MAPC_012PUC	FN:43	CUSTOMER	10-Aug-2009 18:37		

Schlumberger

Repeat Analysis
1:200

MAXIS Field Log

Company: CDEX Well: C0009A

Input DLIS Files

DEFAULT	FMI_NGS_EMS_MAXS_038LUP	FN:114	PRODUCER	13-Jul-2009 17:16	3659.9 M	2752.6 M
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Output DLIS Files

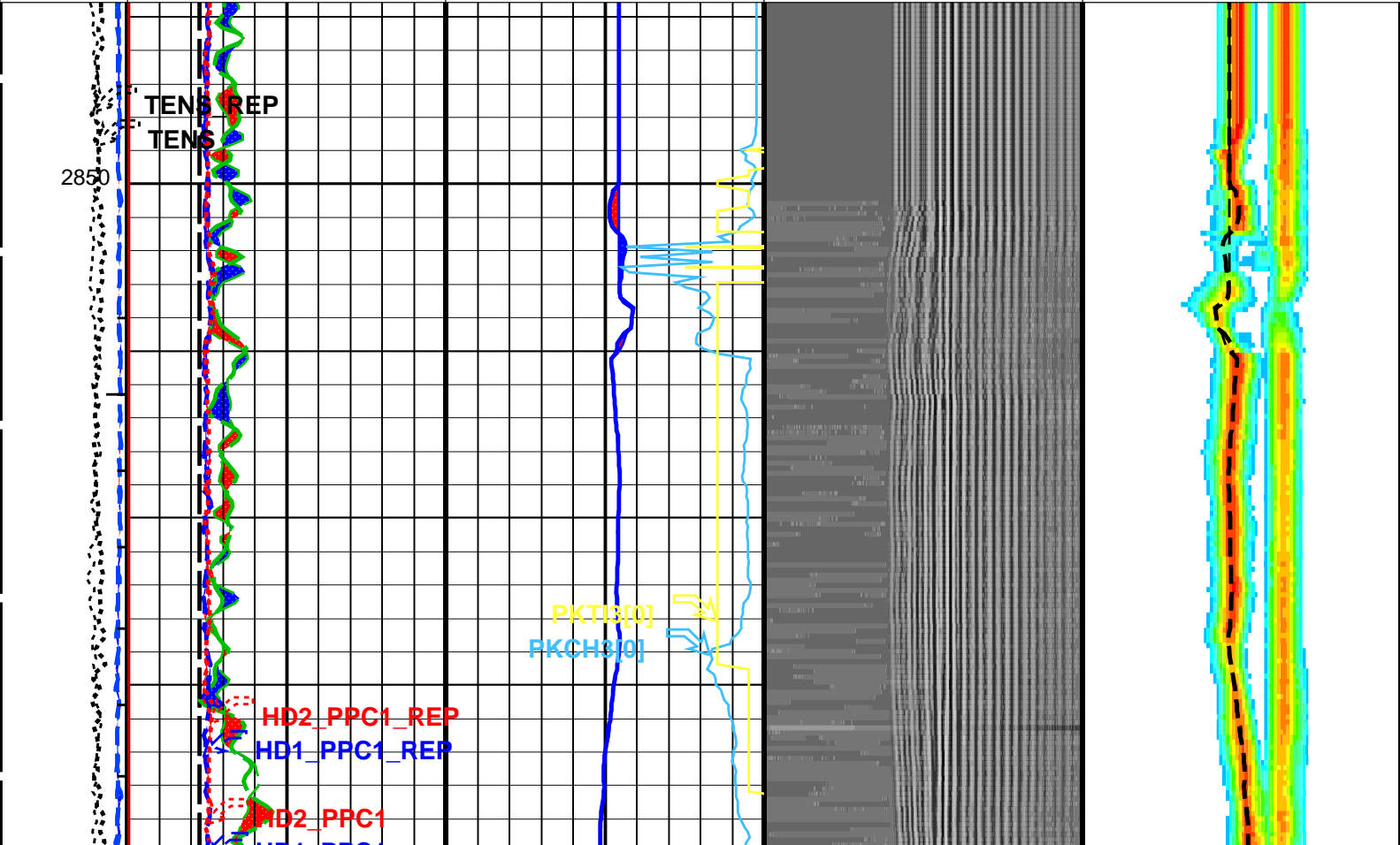
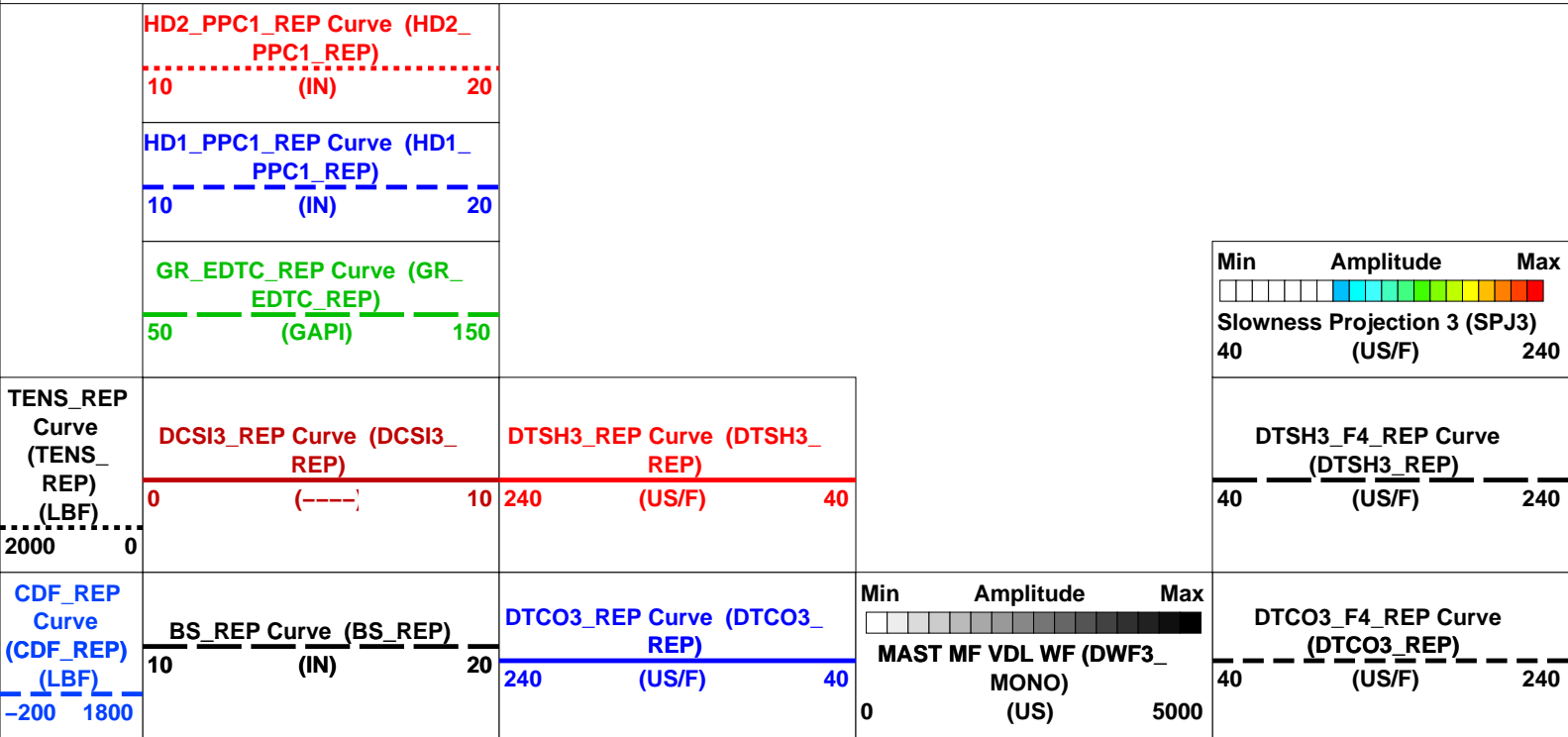
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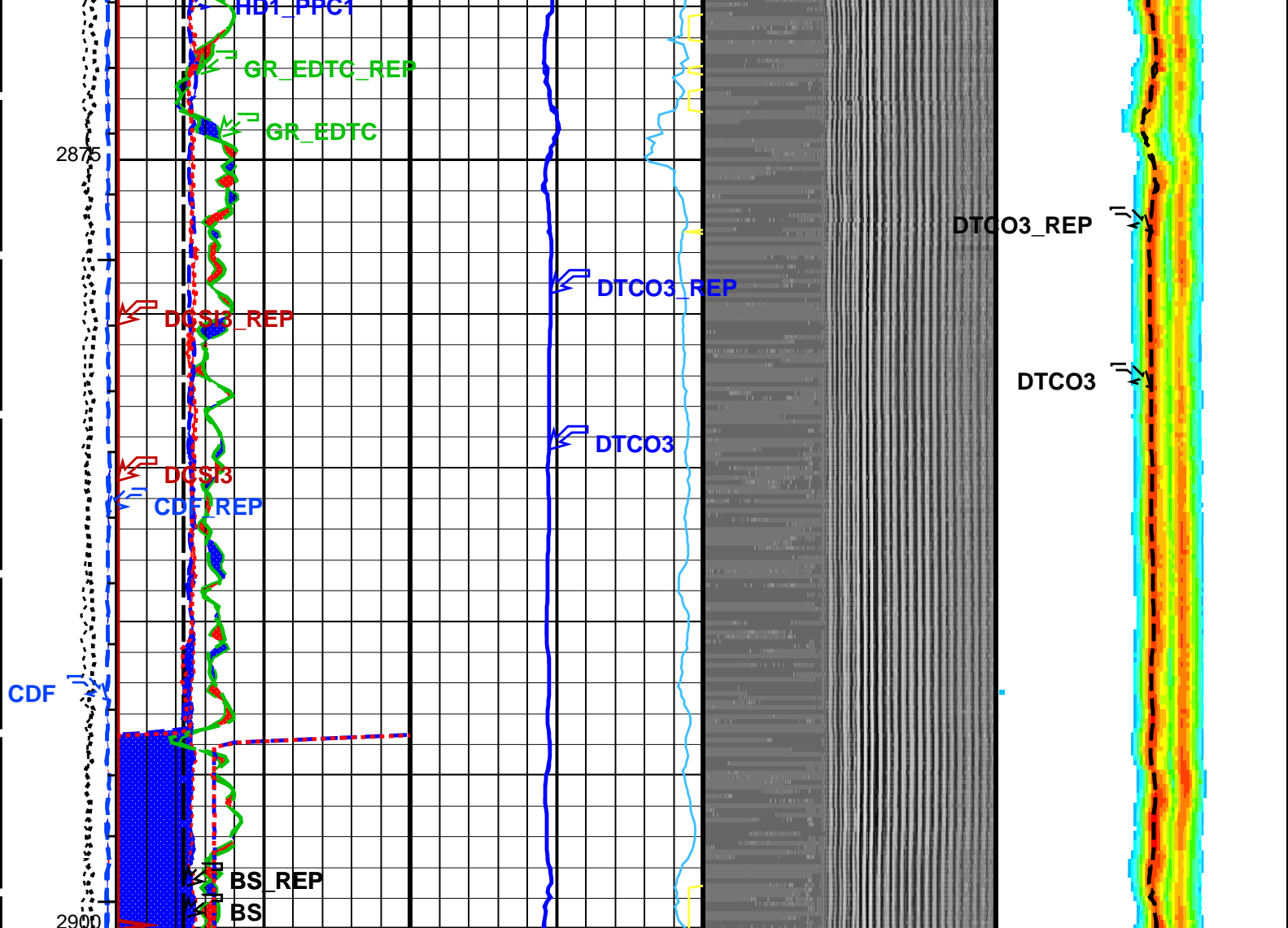
OP System Version: 17C0-154

FBST-B	17C0-154	EMS-B	17C0-154
MAXS-B	SKK-3704-MAST	MAPC-B	SKK-3704-MAST
PPC1-B	17C0-154	EDTC-B	17C0-154

PIP SUMMARY

- Integrated Transit Time Minor Pip Every 1 MS
- Integrated Transit Time Major Pip Every 10 MS
- Time Mark Every 60 S





CDF_REP Curve (CDF_REP) (LBF) -200 1800	BS_REP Curve (BS_REP) 10 (IN) 20	DTCO3_REP Curve (DTCO3_REP) 240 (US/F) 40	Min Amplitude Max MAST MF VDL WF (DWF3_MONO) (US) 5000	DTCO3_F4_REP Curve (DTCO3_REP) 40 (US/F) 240
TENS_REP Curve (TENS_REP) (LBF) 2000 0	DCSI3_REP Curve (DCSI3_REP) 0 (----) 10	DTSH3_REP Curve (DTSH3_REP) 240 (US/F) 40		DTSH3_F4_REP Curve (DTSH3_REP) 40 (US/F) 240
	GR_EDTC_REP Curve (GR_EDTC_REP) 50 (GAPI) 150		Min Amplitude Max Slowness Projection 3 (SPJ3) 40 (US/F) 240	
	HD1_PPC1_REP Curve (HD1_PPC1_REP) 10 (IN) 20			
	HD2_PPC1_REP Curve (HD2_PPC1_REP) 10 (IN) 20			

PIP SUMMARY

- └ Integrated Transit Time Minor Pip Every 1 MS
- └ Integrated Transit Time Major Pip Every 10 MS
- Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
FBST-B: Full-Bore Scanner – B			
ACPP	Accelerometer PROM Presence	PRESENT	
AFMO	Accelerometer Filtering Mode	MOVING_AVERAGE	
ART	Accelerometer Reference Temperature	20	DEGC
EGCO	FMI EMEX and GAIN Correction	NO	
FBCD	Correct Dip Buttons Values by EMEX and Gain	OFF	
FBEF	FMI EMEX filtering activation	OFF	
FBMV	FMI EMEX maximum voltage calculation	OFF	
FDBD	FMI Dead Buttons detection	AUTO	
FDBP	FMI Dead Buttons Patching	ON	
FDFL	FMI DSP Filter Length	1	
FIEQ	FMI Image Equalisation	ON	
FIGA	FMI Image Gain	1	
FIOF	FMI Image Offset	0	
FLM	FMI Logging Mode	8PAD	
FPSA	FMI Peak Signal Amplitude for Required Servo Level	ON	
GLM	GPIT Logging Mode	DIPM	
GMOD	Gain Mode	AUTOLOW	
ICMO	Inclinometry Computation Mode	AUTOMATIC_SELECTION	
MAPP	Magnetometer PROM Presence	PRESENT	
MDEC	Magnetic Field Declination	-6.587	DEG
MRTE	Magneto Reference Temperature	22	DEGC
RBS	Resistivity Button Selection	AUTO	
RBSI	Auto RBS Change Interval	10	
SOFF	Standoff	-1	IN
TEMS	GPIT Temperature Sensor Used	BOTH	
U-GPOF	Playback OLD VERSION GPIT FILE (BEFORE OP14 + SRPC-3098-FEB_2006_C) ?	NO	
XGAI_FBST	Gain Value in Manual Mode	0_dB	
XGMO	EMEX & Gain Modes	EmexManu_GainAutoLowRange	
XMOD	EMEX Voltage Regulation Mode	MANU	
XVOL	EMEX Voltage	175	V
EMS-B: Environment Measurement Sonde			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	33.33	DEGC
EAAB	EMS Accelerometer Coefficient:Ab	0	
EAAS	EMS Accelerometer Coefficient:As	0	
EABB	EMS Accelerometer Coefficient:Bb	0	
EABS	EMS Accelerometer Coefficient:Bs	0	
EACB	EMS Accelerometer Coefficient:Cb	0	
EACS	EMS Accelerometer Coefficient:Cs	0	
EMUD	EMS Mudcake Correction	OFF	
FCD	Future Casing (Outer) Diameter	13.375	IN
GCSE	Generalized Caliper Selection	HD1_PPC1	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	EMS_RESIST	
GTSE	Generalized Temperature Selection	EMS_TEMP	
HVCS	Integrated Hole Volume Caliper Selection	PPC1_Calipers	
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
SHT	Surface Hole Temperature	25	DEGC
MAXS-B: Multimode Array Sonic Xmitter Sonde			
FIRING_TABLE	MAST Firing Table	** V **	
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta-T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta-T 8 for Cement Evaluation	57	US/F
MAPC-B: Multimode Array Sonic Power Cartridge			
AZIM_SELECT	Azimuth Reference Selection	P1AZ	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	33.33	DEGC
BS	Bit Size	12.250	IN
CDTS	C-Delta-T Shale	100	US/F
CE_DCBLSEL	DCBL Selection for Cement Evaluation	3_5FT	
CE_VDLGRA	VDL Manual Gain Rate Array for Cement Evaluation	** V **	
CE_VDLSEL	VDL Selection for Cement Evaluation	MU_5FT	
CE_VDL_MODE	DCBL/VDL Mode for Cement Evaluation	STANDARD	
CE_VFILSWA	VDL Filter Switch Array for Cement Evaluation	** V **	
CLASSAL	Classification Algorithm	** V **	
CRVIN_MF	Alteration Detection Input Number for Monopole Far	ID3	
CRVIN_ML	Alteration Detection Input Number for Monopole Lower	ID2	
CRVIN_MU	Alteration Detection Input Number for Monopole Upper	ID1	
DCRMVL	DC Offset Removal Option	DC_MULTIPLE	
DLHS	Hole Diameter Source for SOBS Channel	AUTO	
DTCO_SELECT	Delta-T Compressional Selection for Finalization	MF	
DTF	Delta-T Fluid	190	US/F
DTM	Delta-T Matrix	56	US/F
DTSH_SELECT	Delta-T Shear Selection for Finalization	XD	
DWE7_SPEC	Channel/Station/Azimuth for VDL (DWE7) of Measurement 7	WEA7/9/1	

DWF7_SPEC	Channel/Station/Azimuth for VDL (DWF7) of Measurement 7	WFA7/5/1	
DWF8_SPEC	Channel/Station/Azimuth for VDL (DWF8) of Measurement 8	WFA8/5/1	
FIRING_TABLE	MAST Firing Table	** V **	
GCSE	Generalized Caliper Selection	HD1_PPC1	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	EMS_RESIST	
GTSE	Generalized Temperature Selection	EMS_TEMP	
IMG_DTCO_SEL_MAST	Imaging Input DT Compressional Selection	CONSTANT_DTCO	
IMG_EST_DTCO_MAST	Imaging Estimated DT Compressional	120	US/F
IMG_RBS	Imaging Relative Bearing Selection	RB1	
ISSBAR	Barite Mud Switch	NOBARITE	
ITTS	Integrated Transit Time Source	DTCO	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
NFPI_ML	Free Pipe Amplitude for ML	0	
NFPI_MU	Free Pipe Amplitude for MU	0	
NRSA	Number of Receivers in Sub-Array	** V **	
RBC	Relative Bearing Correction Allow/Disallow	DISALLOW	
ROTIN_XD	Alford Rotation X Dipole Measurement Number	ID5	
ROTIN_YD	Alford Rotation Y Dipole Measurement Number	ID6	
ROTWINDOW_CTRL	Alford Rotation Window Control	ON	
ROT_AI	Dipole Waveform Rotation Averaging Depth Interval	1.524	M
ROT_FIL LENG	Alford Rotation Filter Length	101	
ROT_TWD	Alford Rotation Window Time Width	1240	US
ROT_TWO	Alford Rotation Window Time Offset	1360	US
ROT_XFH	Alford Rotation Filter High Cutoff	2000	HZ
ROT_XFL	Alford Rotation Filter Low Cutoff	800	HZ
SHT	Surface Hole Temperature	25	DEGC
SPFS	Sonic Porosity Formula	RAYMER_HUNT	
SPSO	Sonic Porosity Source	DTCO	
STCAL	STC Algorithm	** V **	
STCSEL1	Station Selection for STC for Measurement 1	** V **	
STCSEL2	Station Selection for STC for Measurement 2	** V **	
STCSEL3	Station Selection for STC for Measurement 3	** V **	
STCSEL4	Station Selection for STC for Measurement 4	** V **	
STCSEL5	Station Selection for STC for Measurement 5	** V **	
STCSEL6	Station Selection for STC for Measurement 6	** V **	
STCSEL_FAST	Station Selection for STC for DT_FAST	** V **	
STCSEL_SLOW	Station Selection for STC for DT_SLOW	** V **	
TRMIN	Alteration Detection Minimum Transmitter Receiver Spacing for Processing	3.0	FT
TX_AMP	Transmitter Amplitude Factor	** V **	
U_CE_CBLG7	CBL Gate Width 7 for Cement Evaluation	80	US
U_CE_CBLG8	CBL Gate Width 8 for Cement Evaluation	80	US
U_CE_NMSG7	Near Minimum Sliding Gate 7 for Cement Evaluation	220	US
U_CE_NMSG8	Near Minimum Sliding Gate 8 for Cement Evaluation	220	US
U_CE_SGDT7	Sliding Gate Delta-T 7 for Cement Evaluation	57	US/F
U_CE_SGDT8	Sliding Gate Delta-T 8 for Cement Evaluation	57	US/F
U_SLL1_MAST	MAST DSTC Slowness Lower Limit 1	0	US/F
U_SLL2_MAST	MAST DSTC Slowness Lower Limit 2	0	US/F
U_SLL3_MAST	MAST DSTC Slowness Lower Limit 3	40	US/F
U_SLL4_MAST	MAST DSTC Slowness Lower Limit 4	200	US/F
U_SLL5_MAST	MAST DSTC Slowness Lower Limit 5	112	US/F
U_SLL6_MAST	MAST DSTC Slowness Lower Limit 6	112	US/F
U_SLL_FAST_MAST	MAST DSTC Slowness Lower Limit Fast	0	US/F
U_SLL_SLOW_MAST	MAST DSTC Slowness Lower Limit Slow	0	US/F
U_SUL1_MAST	MAST DSTC Slowness Upper Limit 1	0	US/F
U_SUL2_MAST	MAST DSTC Slowness Upper Limit 2	0	US/F
U_SUL3_MAST	MAST DSTC Slowness Upper Limit 3	240	US/F
U_SUL4_MAST	MAST DSTC Slowness Upper Limit 4	900	US/F
U_SUL5_MAST	MAST DSTC Slowness Upper Limit 5	772	US/F
U_SUL6_MAST	MAST DSTC Slowness Upper Limit 6	772	US/F
U_SUL_FAST_MAST	MAST DSTC Slowness Upper Limit Fast	0	US/F
U_SUL_SLOW_MAST	MAST DSTC Slowness Upper Limit Slow	0	US/F
PPC1-B: Powered Positioning Device/Caliper 1			
	PPC1 Caliper Type	CAL_STD	
CLBD_PPC	PPC Calibration data selection	ROM	
PWEL_PPC	PPC Primary Tool for WellCAD	NONE	
SWEL_PPC	PPC Secondary Tool for WellCAD (45 Degrees Rotation PPC Tool)	NONE	
WRDR_PPC	PPC Rotation Direction for Secondary Tool	NONE	
EDTC-B: Enhanced DTS Cartridge			
BHFL	Borehole Fluid Type	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	33.33	DEGC
BSCO	Borehole Salinity Correction Option	NO	
CCCO	Casing & Cement Thickness Correction Option	NO	
DPPM	Density Porosity Processing Mode	STAN	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCSE	Generalized Caliper Selection	HD1_PPC1	
GDEV	Average Angular Deviation of Borehole from Normal	0	DEG
GGRD	Geothermal Gradient	0.018227	DC/M
GRSE	Generalized Mud Resistivity Selection	EMS_RESIST	
GTSE	Generalized Temperature Selection	EMS_TEMP	
HSCO	Hole Size Correction Option	YES	

ISSBAR	Barite Mud Switch	NOBARITE	
ISSBAR_EDTC	Nuclear Mud Type	LIMESTONE	
MATR	Rock Matrix for Neutron Porosity Corrections	NO	
MCCO	Mud Cake Correction Option	NATU	
MCOR	Mud Correction	NO	
MWCO	Mud Weight Correction Option	NO	
PTCO	Pressure/Temperature Correction Option	SOCN	
SDAT	Standoff Data Source	25	DEGC
SHT	Surface Hole Temperature	2.5	IN
SOCN	Standoff Distance	NO	
SOCO	Standoff Correction Option	Centered	
TPOS_EDTC	EDTC Tool Centered/Eccentered		
	HOLEV: Integrated Hole/Cement Volume		
FCD	Future Casing (Outer) Diameter	13.375	IN
HVCS	Integrated Hole Volume Caliper Selection	PPC1_Calipers	
	STI: Stuck Tool Indicator		
LBFR	Trigger for MAXIS First Reading Label	TDL	
STKT	STI Stuck Threshold	0.762	M
TDD	Total Depth - Driller	3686.00	M
TDL	Total Depth - Logger	3667.00	M
	System and Miscellaneous		
ALTDPCCHAN	Name of alternate depth channel	SpeedCorrectedDepth	
BSAL	Borehole Salinity	110000.00	PPM
CSIZ	Current Casing Size	20.000	IN
CWEI	Casing Weight	133.00	LB/F
DFD	Drilling Fluid Density	1.10	G/C3
DO	Depth Offset for Playback	3.2	M
DORL	Depth Offset for Repeat Analysis	0.0	M
FLEV	Fluid Level	10.00	M
MST	Mud Sample Temperature	25.70	DEGC
PBVSADP	Use alternate depth channel for playback	NO	
PP	Playback Processing	NORMAL	
RMFS	Resistivity of Mud Filtrate Sample	0.0590	OHMM
RW	Resistivity of Connate Water	1.0000	OHMM
TD	Total Depth	3667	M
TWS	Temperature of Connate Water Sample	37.78	DEGC

Format: MAST_P_S_200_REP Vertical Scale: 1:200 Graphics File Created: 12-Aug-2009 20:03

OP System Version: 17C0-154

FBST-B	17C0-154	EMS-B	17C0-154
MAXS-B	SKK-3704-MAST	MAPC-B	SKK-3704-MAST
PPC1-B	17C0-154	EDTC-B	17C0-154

Input DLIS Files

DEFAULT	FMI_NGS_EMS_MAXS_038LUP	FN:114	PRODUCER	13-Jul-2009 17:16	3659.9 M	2752.6 M
DEFAULT	FMI_EMS_MAXS_MAPC_009PUP	FN:36	PRODUCER	10-Aug-2009 17:21	2900.0 M	2844.9 M

Output DLIS Files

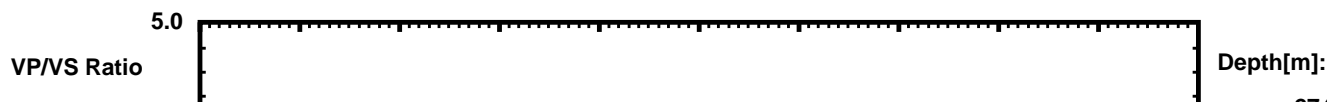
DEFAULT	FMI_EMS_MAXS_MAPC_016PUP	FN:48	PRODUCER	12-Aug-2009 20:03
CLIENT	FMI_EMS_MAXS_MAPC_016PUC	FN:49	CUSTOMER	12-Aug-2009 20:03

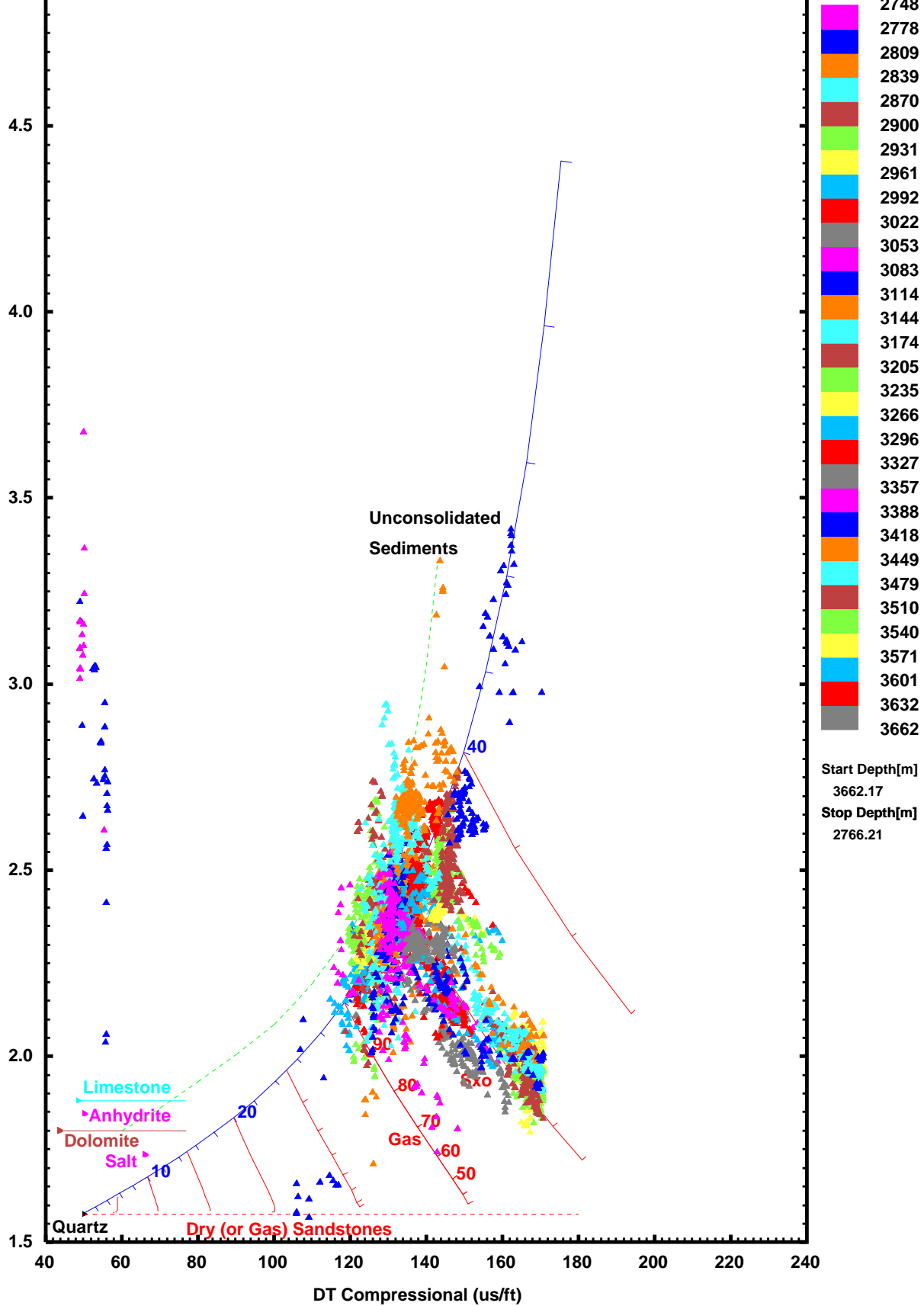
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Cross Plot

MAXIS Field Log

VPVS vs. DTCO





Template: empirical relationship for vertical wells (vertically polarized compressional, horizontally polarized shear)

File Name: MAST_DSTC_VPVS_DTCO_PLOT_1.PDS

File Created: Aug 10 18:37:51 2009

MAST Parameters

Product Class:
Standard

Environment Information

FORM_TYPE Slow
VSLO_COMP No
MUDT Water Based Mud

DTF	190.000 US/F					
BH_STAT	Open Hole					
BDIAM	12.250 IN					
CSIZ	20.000 IN					
BS	12.250 IN					
DLHS	AUTO					
CWEI	133.000 LB/F					
DFD	1.100 G/C3					
ZCMT	6.800 MRAY					
VDL_MODE	-					
Data Channel Identification						
MEASURE_NUMBER	#01	#02	#03	#04	#05	#06
DATAID_WFA	WMUM	WMLM	WMFM	WMFL	W90C	W00C
DATAID_WFA_MONO	WMUM_M	WMLM_M	WMFM_M	WMFL_M	W90C_M	W00C_M
DATAID_WFA_DIN	-	-	-	-	W90C_000	W00C_000
DATAID_WFA_DIOF	-	-	-	-	W90C_090	W00C_090
MEASURE_NAME	Monopole Upper	Monopole Lower	Monopole Far	Stoneley	X Dipole	Y Dipole
Measurement						
MEASURE_TYPE	Monopole Near	Monopole Near	Monopole Far	Stoneley	Dipole	Dipole
TXSEL	MU	ML	MF	MF	XD	YD
WFSEL	mp_mf_d	mp_mf_d	mp_mf_d	mp_lf_d	dp_cd_d	dp_cd_d
TXWFTYPE	No Deconv	No Deconv	No Deconv	No Deconv	No Deconv	No Deconv
TXCONV	3 us	3 us	3 us	3 us	20 us	20 us
TX_WF_FREQ	Medium	Medium	Medium	Low	Chirp	Chirp
TX_WF_CATEG	Normal	Normal	Normal	Normal	Chirp Down	Chirp Down
TX_AMP	75 %	75 %	100 %	100 %	100 %	100 %
SAMINT	10 us	10 us	10 us	40 us	40 us	40 us
DIGTIME	2550.0 US	2550.0 US	5110.0 US	20440.0 US	30480.0 US	30480.0 US
DIGDEL	0.0 US	0.0 US	0.0 US	0.0 US	0.0 US	0.0 US
DIGDT	0.0 US/F	0.0 US/F	0.0 US/F	0.0 US/F	0.0 US/F	0.0 US/F
GNINT	2550.0 US	2550.0 US	5110.0 US	20440.0 US	30480.0 US	30480.0 US
ELTSEL	-	-	-	-	-	-
NWF	52	52	52	52	104	104
GAINSEL	-	-	-	-	-	-
COMPCTL	MZIP A	MZIP A	MZIP A	MZIP D	MZIP D	MZIP D
AUX_ACQ	All	All	All	All	All	All
MODALCTL	Downhole	Surface	Surface	Downhole	Downhole	Downhole
MODALENE	Allow	Disallow	Disallow	Allow	Allow	Allow
AUTOFREQ	Disallow	Disallow	Disallow	Disallow	Disallow	Disallow
SCORCTL	Allow	Allow	Allow	Allow	Allow	Allow
Arrival Time Detection (ATD)						
NMSGA	-	-	-	-	-	-
NMXGA	-	-	-	-	-	-
SGDTA	-	-	-	-	-	-
SGCLA	-	-	-	-	-	-
FMDTTSELA	First Break	First Break	First Break	-	-	-
DSTC and Tracking						
STCIN	Monopole	Monopole	Monopole	Monopole	Dipole Inline	Dipole Inline
TLLA	200 US	200 US	550 US	2720 US	1240 US	1360 US
TULA	2320 US	2320 US	5110 US	18960 US	23800 US	24880 US
SLLA	40 US/F	40 US/F	40 US/F	200 US/F	110 US/F	110 US/F
SULA	240 US/F	240 US/F	240 US/F	900 US/F	770 US/F	770 US/F
TWIA	300 US	300 US	300 US	1880 US	2160 US	2160 US
TSTA	100 US	100 US	100 US	440 US	520 US	520 US
SSTA	2 US/F	2 US/F	2 US/F	4 US/F	4 US/F	4 US/F
SBWA	1530 US	1530 US	2930 US	9360 US	13560 US	14160 US
SBOA	360 US	360 US	360 US	1920 US	8200 US	8200 US
TWIDA	1146 US	1146 US	2196 US	7020 US	10170 US	10620 US
SWIDA	20 US/F	20 US/F	20 US/F	60 US/F	60 US/F	60 US/F
XFLA	5000.0 HZ	5000.0 HZ	5000.0 HZ	1000.0 HZ	500.0 HZ	500.0 HZ
XFHA	16000.0 HZ	16000.0 HZ	16000.0 HZ	2000.0 HZ	2000.0 HZ	2000.0 HZ
FIL_LENGA	49	49	49	91	71	71
SEMTHRA	0.3	0.3	0.3	0.3	0.3	0.3
VPVSA	2.2	2.2	2.2	2.2	2.2	2.2
TRACKMD	PS	PS	PS	Stoneley	Dipole	Dipole
STCAL	Full Array	Full Array	Full Array	Full Array	Full Array	Full Array
NRSA	5	5	5	5	5	5
DTCO_SELECT	MF	MF	MF	MF	MF	MF
DTSH_SELECT	XD	XD	XD	XD	XD	XD

TKOCTL	Disallow	Disallow	Allow	Allow	Allow
TKO_DECIM	12 inch				
TKOMCCTL	-	-	-	Disallow	Disallow
MC_RHO	2.0 G/C3				
MC_RHO_OPT	RHOB				
STCTRCTL	BOTH				

MAST Parameter Descriptions

Environment Infomation

LISNAME	Description
FORM_TYPE	Formation Type
VSLO_COMP	Very Slow Compressional
MUDT	Mud Type
DTF	Delta-T Fluid
BH_STAT	Borehole Status
BDIAM	Borehole Diameter
CSIZ	Current Casing Size
BS	Bit Size
DLHS	Hole Diameter Source for SOBS Channel
CWEI	Casing Weight
DFD	Drilling Fluid Density
ZCMT	Acoustic Impedance of Cement
VDL_MODE	DCBL/VDL Mode for Cement Evaluation

Data Channel Identification

DATAID_WFA	MSIP-L Waveform Data ID in Horizon Naming Convention for WFA
DATAID_WFA_MONO	MSIP-L Waveform Data ID in Horizon Naming Convention for WFA_MONO
DATAID_WFA_DIN	MSIP-L Waveform Data ID in Horizon Naming Convention for WFA_DIN
DATAID_WFA_DIOF	MSIP-L Waveform Data ID in Horizon Naming Convention for WFA_DIOF
MEASURE_NAME	Measurement Names

Measurement

MEASURE_TYPE	Measurement Types
TXSEL	Transmitter Drive Selection
WFSEL	Transmitter Drive Waveform Selection
TXWFTYPE	Transmitter Drive Waveform Type
TXCONV	Transmitter Drive Conversion Rate
TX_WF_FREQ	Transmitter Drive Waveform Frequency
TX_WF_CATEG	Transmitter Drive Waveform Category
TX_AMP	Transmitter Amplitude Factor
SAMINT	Waveform Sampling Interval
DIGTIME	Waveform Digitizing Time
DIGDEL	Waveform Digitizing Delay
DIGDT	Waveform Digitizing Delta-T
GNINT	Waveform Gain Interval
ELTSEL	Receiver Sensor Element Selection
NWF	Number of Waveforms
GAINSEL	Sensor Gain Selection
COMPCTL	Data Compression Control
AUX_ACQ	Aux Acquisition Mode
MODALCTL	Modal Computation Control
MODALENE	Downhole Modal Energy Computation Option
AUTOFREQ	Automatic Frequency Selection
SCORCTL	Sensor Correction Control

Arrival Time Detection (ATD)

NMSGGA	Near Minimum Sliding Gate Array
NMXGA	Near Maximum Sliding Gate Array
SGDTA	Sliding Gate Delta-T Array
SGCLA	Sliding Gate Closing Delta-T Array
FMDTTSELA	First Motion Detection Transit Time Selection

DSTC and Tracking

STCIN	STC Input Channel Name
TLLA	Time Lower Limit
TULA	Time Upper Limit
SLLA	Slowness Lower Limit
SULA	Slowness Upper Limit
TWIA	Integration Time Window
TSTA	Time Step
SSTA	Slowness Step
SBWA	Search Band Width
SBOA	Search Band Offset

SDCA	Search Band Onset
TWIDA	Peak Mask Time Width
SWIDA	Peak Mask Slowness Width
XFLA	Filter Low Cutoff
XFHA	Filter High Cutoff
FIL_LENDA	Filter Length Array
SEMTHRA	STC Semblance Threshold
VPVSA	Sonic Vp / Vs Ratio
TRACKMD	MAST Tracking Mode
STCAL	STC Algorithm
NRSA	Number of Receivers in Sub-Array
DTCO_SELECT	Delta-T Compressional Selection for Finalization
DTSH_SELECT	Delta-T Shear Selection for Finalization
TKOCTL	TKO Computation Control (ACQ)
TKO_DECIM	TKO Decimation Depth Interval
TKOMCCTL	TKO Homogeneous Isotropic Model Curve Computation Control
MC_RHO	Homogeneous Isotropic Model Curve Model Formation Bulk Density
MC_RHO_OPT	Homogeneous Isotropic Model Curve Model Formation Bulk Density Option
STCTRCTL	STC and Tracking Control

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Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Full-Bore Scanner – B Wellsite Calibration – Caliper Calibration							
Before: 12-Jul-2009 11:56							
Caliper 1 Small Jig	8.000	N/A	7.973	N/A	N/A	N/A	IN
Caliper 2 Small Jig	16.00	N/A	16.03	N/A	N/A	N/A	IN
Caliper 1 Large Jig	16.00	N/A	15.80	N/A	N/A	N/A	IN
Caliper 2 Large Jig	8.000	N/A	7.906	N/A	N/A	N/A	IN
Full-Bore Scanner – B Wellsite Calibration – CROUZET ACCELEROMETER PROM HAS BEEN READ CORRECTLY							
Before: 12-Jul-2009 12:49							
TEMPERATURE REFERENCE :	N/A	N/A	20	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	3	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	4	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	852	N/A	N/A	N/A	
Full-Bore Scanner – B Wellsite Calibration – CROUZET MAGNETOMETER PROM HAS BEEN READ CORRECTLY							
Before: 12-Jul-2009 12:49							
TEMPERATURE REFERENCE :	N/A	N/A	22	N/A	N/A	N/A	DEGC
YEAR OF CALIBRATION :	N/A	N/A	97	N/A	N/A	N/A	
MONTH OF CALIBRATION :	N/A	N/A	2	N/A	N/A	N/A	
SERIAL NUMBER :	N/A	N/A	287	N/A	N/A	N/A	
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 1 Check							
Master: 5-Jul-2009 18:42 Before: 5-Jul-2009 18:56							
Na 511 Peak Loc	40.00	39.49	39.74	N/A	N/A	1.000	
Na 511 Peak Res	15.50	17.60	16.16	N/A	N/A	2.000	%
High Voltage	1150	1214	1215	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	143.1	143.6	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	9.645	9.431	N/A	N/A	2.000	%
Temperature	15.50	26.77	26.77	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	23.60	23.58	N/A	N/A	8.000	CPS
Hostile Natural Gamma Ray Sonde Wellsite Calibration – Detector 2 Check							
Master: 5-Jul-2009 18:42 Before: 5-Jul-2009 18:56							
Na 511 Peak Loc	40.00	39.91	39.56	N/A	N/A	1.000	

Na 511 Peak Res	15.50	16.82	17.24	N/A	N/A	2.000	%
High Voltage	1150	1105	1106	N/A	N/A	N/A	V
Na 1785 Peak Loc	142.6	144.3	143.7	N/A	N/A	7.000	
Na 1785 Peak Res	8.500	9.151	8.788	N/A	N/A	2.000	%
Temperature	15.50	26.35	26.46	N/A	N/A	N/A	DEGC
Na Count Rate	45.00	23.75	23.52	N/A	N/A	8.000	CPS

Hostile Natural Gamma Ray Sonde Wellsite Calibration – Ratio Of Detector 1 To Detector 2

Master: 5–Jul–2009 18:42 Before: 5–Jul–2009 18:56

Coincidence Count Rate Ratio	1.000	0.9925	1.004	N/A	N/A	0.05000	
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Powered Positioning Device/Caliper 1 Wellsite Calibration – PPC1 Caliper Calibration

Before: 12–Jul–2009 12:03

PPC1 Radius 1 Raw Small Radius	3.500	N/A	4.426	N/A	N/A	0.5000	IN
PPC1 Radius 1 Raw Large Radius	8.000	N/A	8.666	N/A	N/A	0.5000	IN
PPC1 Radius 2 Raw Small Radius	3.500	N/A	3.337	N/A	N/A	0.5000	IN
PPC1 Radius 2 Raw Large Radius	8.000	N/A	7.746	N/A	N/A	0.5000	IN
PPC1 Radius 3 Raw Small Radius	3.500	N/A	4.219	N/A	N/A	0.5000	IN
PPC1 Radius 3 Raw Large Radius	8.000	N/A	8.465	N/A	N/A	0.5000	IN
PPC1 Radius 4 Raw Small Radius	3.500	N/A	2.510	N/A	N/A	0.5000	IN
PPC1 Radius 4 Raw Large Radius	8.000	N/A	7.022	N/A	N/A	0.5000	IN

Enhanced DTS Cartridge Wellsite Calibration – EDTC Accelerometer Calibration

Before: 12–Jul–2009 13:01

EDTC Z–Axis Acceleration	9.810	N/A	9.794	N/A	N/A	N/A	M/S2
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Enhanced DTS Cartridge Wellsite Calibration – Detector Calibration

Before: 12–Jul–2009 12:51

Gamma Ray (Jig – Bkg)	167.1	N/A	167.1	N/A	N/A	15.19	GAPI
Gamma Ray (Calibrated)	160.0	N/A	160.0	N/A	N/A	15.00	GAPI

Full–Bore Scanner – B / Equipment Identification

Primary Equipment:



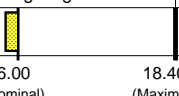
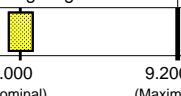
FullBore Scanner Sonde	FBSS – B	816
FullBore Scanner Sonde Upper part	FBSH – A	815
FullBore Scanner Sonde Cartridge	FBSC – B	816
GPIT Cartridge – C	GPIC – C	1843
Insulating Sub	AH – 185	938
FullBore Scanner Control Cartridge	FBCC – A	819

Auxiliary Equipment:

Electronics Cartridge Housing	ECH – MRA	4811
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Full–Bore Scanner – B Wellsite Calibration

Caliper Calibration

Phase	Caliper 1 Small Jig IN	Value	Phase	Caliper 2 Small Jig IN	Value
Before		7.973	Before		16.03
	6.800 (Minimum)			13.60 (Minimum)	
	8.000 (Nominal)			16.00 (Nominal)	
	9.200 (Maximum)			18.40 (Maximum)	
Phase	Caliper 1 Large Jig IN	Value	Phase	Caliper 2 Large Jig IN	Value
Before		15.80	Before		7.906
	13.60 (Minimum)			6.800 (Minimum)	
	16.00 (Nominal)			8.000 (Nominal)	
	18.40 (Maximum)			9.200 (Maximum)	

Before: 12–Jul–2009 11:56

Hostile Natural Gamma Ray Cartridge – B / Equipment Identification

Primary Equipment:

HNGC Cartridge	HNGC – B	424
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Auxiliary Equipment:

HNGC Housing	HNGH – A	358
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Hostile Natural Gamma Ray Sonde / Equipment Identification

Primary Equipment:

HNGS Sonde	HNGS – BA	164
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Hostile Natural Gamma Ray Sonde Wellsite Calibration											
Detector 1 Check											
Phase	Na 511 Peak Loc		Value	Phase	Na 511 Peak Res %		Value	Phase	High Voltage V		Value
Master	<div><div></div></div>		39.49	Master	<div><div></div></div>		17.60	Master	<div><div></div></div>		1214
Before	<div><div></div></div>		39.74	Before	<div><div></div></div>		16.16	Before	<div><div></div></div>		1215
37.50 (Minimum)40.00 (Nominal)43.50 (Maximum)				12.00 (Minimum)15.50 (Nominal)19.00 (Maximum)				900.0 (Minimum)1150 (Nominal)1600 (Maximum)			
Phase	Na 1785 Peak Loc		Value	Phase	Na 1785 Peak Res %		Value	Phase	Temperature DEGC		Value
Master	<div><div></div></div>		143.1	Master	<div><div></div></div>		9.645	Master	<div><div></div></div>		26.77
Before	<div><div></div></div>		143.6	Before	<div><div></div></div>		9.431	Before	<div><div></div></div>		26.77
135.0 (Minimum)142.6 (Nominal)150.3 (Maximum)				7.000 (Minimum)8.500 (Nominal)11.00 (Maximum)				-28.89 (Minimum)15.50 (Nominal)60.00 (Maximum)			
Phase	Na Count Rate CPS		Value								
Master	<div><div></div></div>		23.60								
Before	<div><div></div></div>		23.58								
10.00 (Minimum)45.00 (Nominal)100.0 (Maximum)											
Master: 5-Jul-2009 18:42				Before: 5-Jul-2009 18:56							

Hostile Natural Gamma Ray Sonde Wellsite Calibration																										
Detector 2 Check																										
Phase	Na 511 Peak Loc			Value	Phase	Na 511 Peak Res %			Value	Phase	High Voltage V			Value												
Master				39.91	Master				16.82	Master				1105												
Before				39.56	Before				17.24	Before				1106												
37.50 (Minimum)				40.00 (Nominal)	43.50 (Maximum)				12.00 (Minimum)				15.50 (Nominal)	19.00 (Maximum)				900.0 (Minimum)				1150 (Nominal)	1600 (Maximum)			
Phase	Na 1785 Peak Loc			Value	Phase	Na 1785 Peak Res %			Value	Phase	Temperature DEGC			Value												
Master				144.3	Master				9.151	Master				26.35												
Before				143.7	Before				8.788	Before				26.46												
135.0 (Minimum)				142.6 (Nominal)	150.3 (Maximum)				7.000 (Minimum)				8.500 (Nominal)	11.00 (Maximum)				-28.89 (Minimum)				15.50 (Nominal)	60.00 (Maximum)			
Phase	Na Count Rate CPS			Value																						
Master				23.75																						
Before				23.52																						
10.00 (Minimum)				45.00 (Nominal)											100.0 (Maximum)											
Master: 5-Jul-2009 18:42												Before: 5-Jul-2009 18:56														

Hostile Natural Gamma Ray Sonde Wellsite Calibration			
Ratio Of Detector 1 To Detector 2			
Phase	Coincidence Count Rate Ratio	Value	
Master		0.9925	
Before		1.004	
	0.9500 (Minimum)	1.000 (Nominal)	1.050 (Maximum)
Master: 5-Jul-2009 18:42			
Before: 5-Jul-2009 18:56			

Multimode Array Sonic Power Cartridge / Equipment Identification		
Primary Equipment:		
Multimode Array Sonic Minimum Service So	MAMS – BA	8048
Multimode Array Sonic Control Cartridge	MAPC – BA	8038
Auxiliary Equipment:		
Electronics Cartridge Housing	ECH – SF	8038

Powered Positioning Device/Caliper 1 / Equipment Identification

Primary Equipment:









PPC Powered Positioning Device/Caliper
PPC1 Caliper Standard

PPC1 – B

8169

PPC_ –

Auxiliary Equipment:

Powered Positioning Device/Caliper 1 Wellsite Calibration					
PPC1 Caliper Calibration					
Phase	PPC1 Radius 1 Raw Small Radius IN	Value	Phase	PPC1 Radius 1 Raw Large Radius IN	Value
Before		4.426	Before		8.666
	1.200 (Minimum) 3.500 (Nominal) 5.600 (Maximum)			6.100 (Minimum) 8.000 (Nominal) 9.700 (Maximum)	
Phase	PPC1 Radius 2 Raw Small Radius IN	Value	Phase	PPC1 Radius 2 Raw Large Radius IN	Value
Before		3.337	Before		7.746
	1.200 (Minimum) 3.500 (Nominal) 5.600 (Maximum)			6.100 (Minimum) 8.000 (Nominal) 9.700 (Maximum)	
Phase	PPC1 Radius 3 Raw Small Radius IN	Value	Phase	PPC1 Radius 3 Raw Large Radius IN	Value
Before		4.219	Before		8.465
	1.200 (Minimum) 3.500 (Nominal) 5.600 (Maximum)			6.100 (Minimum) 8.000 (Nominal) 9.700 (Maximum)	
Phase	PPC1 Radius 4 Raw Small Radius IN	Value	Phase	PPC1 Radius 4 Raw Large Radius IN	Value
Before		2.510	Before		7.022
	1.200 (Minimum) 3.500 (Nominal) 5.600 (Maximum)			6.100 (Minimum) 8.000 (Nominal) 9.700 (Maximum)	

Before: 12-Jul-2009 12:03

Enhanced DTS Cartridge / Equipment Identification

Primary Equipment:

EDTC Gamma Ray Detector
Enhanced DTS Cartridge

EDTG – A/B

8215

EDTC – BB


8218

Auxiliary Equipment:

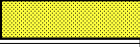


EDTC Housing

EDTH – B

8206

Enhanced DTS Cartridge Wellsite Calibration		
EDTC Accelerometer Calibration		
Phase	EDTC Z-Axis Acceleration M/S2	Value
Before		9.794
	9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)	

Before: 12-Jul-2009 13:01

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		3.157	Before		167.1	Before		160.0	
	0 (Minimum) 30.00 (Nominal) 120.0 (Maximum)			151.9 (Minimum) 167.1 (Nominal) 182.3 (Maximum)			145.0 (Minimum) 160.0 (Nominal) 175.0 (Maximum)		

Before: 12-Jul-2009 12:51

Well: **C0009A**
 Field: **Kumanonada, Offshore Kii peninsula**
 Rig: **Chikyu**
 Country: **JAPAN**

Sonic Scanner (P&S mode)
 3641.2m – 2785.0m
 Suite 1, Run 2 (1:200)