

Schlumberger

Company: **CDEX**

Well: **C0009A**

Field: **Kumanonada, Offshore Kii peninsula**

Rig: **Chikyu** Country: **JAPAN**

EMS-HRLA-MCFL-DT-GR-SF
3665.4m – 2785.0m
Suite 1, Run 1 (1:200)

LOCATION		Elev.:	K.B.
NanKai Trough		G.L.	
NT2-11B		D.F.	28.30 m
Permanent Datum:	MEAN SEA LEVEL	Elev.:	28.30 m
Log Measured From:	DRILL FLOOR		0.00 m above Perm. Datum
Drilling Measured From:	DRILL FLOOR		

Rig: Chikyu
Field: Kumanonada, Offshore Kii peninsula
Location: NanKai Trough
Well: C0009A
Company: CDEX

Prefecture: Wakayama	Max. Well Deviation 0.7 deg	Longitude 136° 32.1489' E	Latitude 33° 27.4704' N
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Logging Date	12-Jul-2009		
Run Number	1		
Depth Driller	3686 m		
Schlumberger Depth	3667 m		
Bottom Log Interval	3665.4 m		
Top Log Interval	2785 m		
Casing Driller Size @ Depth	20,000 in @ 2786.2 m		
Casing Schlumberger	2785 m		
Bit Size	12.250 in		
Type Fluid In Hole	KCl-NaCl Polymer		
Density	1.1 g/cm3	97 s	
Fluid Loss	4.1 cm3	10.6	
Source Of Sample	Flow Line		
RM @ Measured Temperature	0.068 ohm.m	@	26 degC
RMF @ Measured Temperature	0.059 ohm.m	@	27 degC
RMC @ Measured Temperature	0.083 ohm.m	@	26 degC
Source RMF	Press	Press	
RM @ MRT	0.060 @ 32	0.052 @ 32	
Maximum Recorded Temperatures	32 degC	31	31
Circulation Stopped	11-Jul-2009	Time	5:30
Logger On Bottom	11-Jul-2009	Time	4:45
Unit Number	4308	Location	JPOP
Recorded By	Payap Thongpracharn		
Witnessed By	T. Honda / K. Takahashi		

Logging Date	12-Jul-2009			Run 1	Run 2	Run
Run Number	1					
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Bottom Log Interval	3665.4 m					
Top Log Interval	2785 m					
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Unit Number	4308	Location	JPOP			
Recorded By	Payap Thongpracharn					
Witnessed By	T. Honda / K. Takahashi					

DEPTH SUMMARY LISTING

Date Created: 15-JUL-2009 16:22:03

Depth System Equipment

Depth Measuring Device	Tension Device	Logging Cable
Type: IDW-JA Serial Number: 6726 Calibration Date: Calibrator Serial Number: 17 Calibration Cable Type: 7-46A XXS Wheel Correction 1: -6 Wheel Correction 2: -6	Type: CMTD-B/A Serial Number: 2986 Calibration Date: 16-Apr-09 Calibrator Serial Number: 1049 Number of Calibration Points: 10 Calibration RMS: 373 Calibration Peak Error: 499	Type: 7-46A XXS Serial Number: 6019 Length: 9200 M <hr/> Conveyance Method: Wireline Rig Type: Offshore Floater with WMC

Depth Control Parameters

Log Sequence:	First Log In the Well
Rig Up Length At Surface:	89.00 M
Rig Up Length At Bottom:	89.00 M
Rig Up Length Correction:	0.00 M
Stretch Correction:	3.20 M
Tool Zero Check At Surface:	0.00 M

Depth Control Remarks

1. Schlumberger Depth Control Policy is followed.
2. IDW used as primary depth control device.
3. Z-Chart used as secondary depth control device.
4. Tide Level = 0 m.
- 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
OS1: FMI-HNGS-EMS-Sonic Scanner-PPC-GR
OS2: MDT Dual Packer & Sungle Probe
OS3:
OS4:
OS5:

REMARKS: RUN NUMBER 1
This is the first log in the well.
Downlog used as the reference log.
Tool ran as per tool sketch and 2.5 inch standoffs used.
Maximum recorded temperature from logging head thermometers = 32.22 degC.
Maximum deviation = 0.70 deg @ 2749.79mBRT.
Logging speed was 1,800 ft/hr.
Repeat section was taken from 3665.4m-3575.0m as per client request.

DTCO data was taken from Run 2 (FMI-HNGS-EMS-SonicScanner-PPC-GR) as per client request.

Caliper check in casing = 18.75 inch.

Sonic check in casing = 57 us/ft.

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 #:		AVDO-0003	SERVICE ORDER #:		
PROGRAM VERSION:		17C0-154	PROGRAM VERSION:		
FLUID LEVEL:		10 m	FLUID LEVEL:		
LOGGED INTERVAL	START	STOP	LOGGED INTERVAL	START	STOP

EQUIPMENT DESCRIPTION






RUN 1 RUN 2


SURFACE EQUIPMENT
 WITM (DTS)-A
 GSR-Y 1005
 NCT-B 2138
 CNB-AB
 NCS-YC 5380

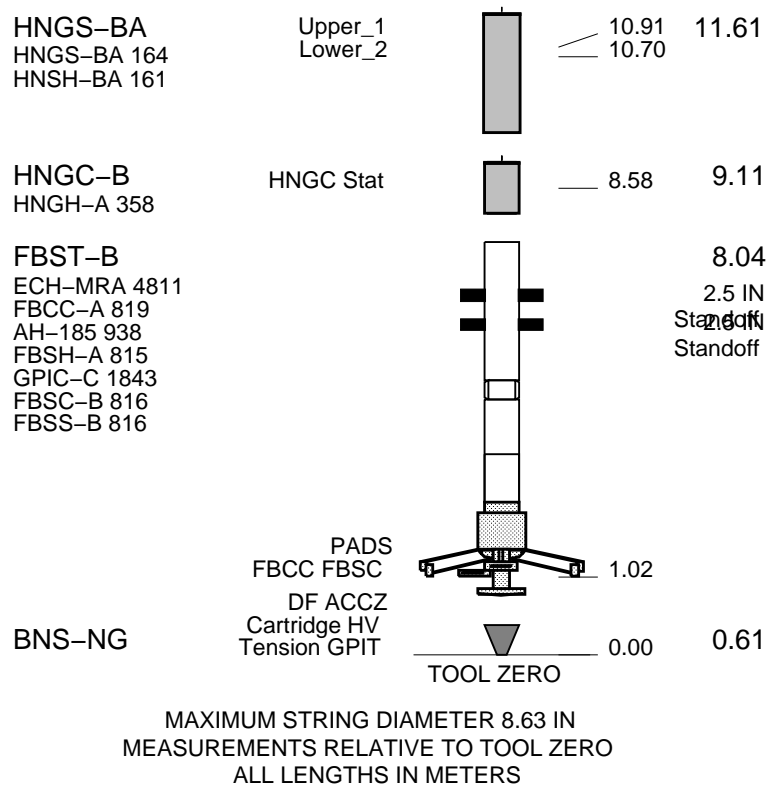
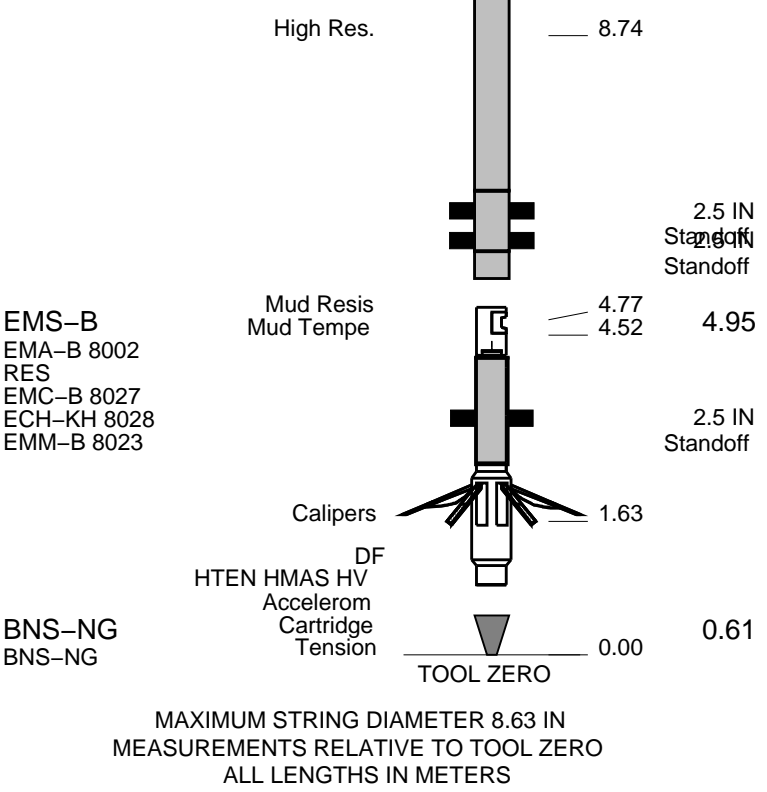
SURFACE EQUIPMENT
 WITM (EDTS)-A
 GSR-Y 1005

DOWNHOLE EQUIPMENT

DOWNHOLE EQUIPMENT

LEH-QT		23.60
LEH-QT 1794		
AH-369		22.71
DTC-H	CTEM	22.00
ECH-KC 9799	TelStatus	22.28
DTCH0-A	ToolStatu	21.36
SPA-A	SP SPARC	20.75
SPA-A 9933	HGNS HTEM	20.14
	HMCA	
HILTH-FTB	HGNS Gamm	19.92
HGNSD-H 3840		20.14
HMCA-H		
HGNH 2916	HGNS Neut	18.14
NLS-KL 5228	HGNS Neut	17.99
NSR-F 5228		
HACCZ-H	HGNS sens	17.27
HCNT-H		
HGR		
HRCC-H 3794	HRCC cart	16.06
HRMS-H 3846		
HRGD-H 3824	MCFL	14.40
GLS-VJ 3804	HILT cali	14.25
MCFL Device-H	HRDD-LS	14.13
HILT Nucl. LS-H	HRDD-SS	
HILT Nucl. SS-H	HRDD-BS	
HILT Nucl. BS-H		
BOW-SPR		
AH-184		13.54
AH-184 936		
AH-184		12.93
AH-184 917		
HRLT-B		12.32
HRLH-B 755		2.5 IN
HRUC-B 755		Standoff
HRLS-B 846		Standoff
HRLH-B 849		
HRLC-B 847		
AH-270 846		

LEH-QT		31.77
LEH-QT 1296		
EDTC-B	MDSB_EDTC	30.88
EDTH-B 8206	Mud Tempe	29.81
EDTC-BB 8218	CTEM	29.24
EDTG-A/B 8215	Gamma Ray	28.90
	TelStatus	
	EDTCB Ele	
PPC1-B	Calipers	28.55
PPC1-B 8169		28.90
PPC_CAL_STD	PPC_Cartr	26.91
MAPC-B		26.91
MAPC-BA 8038		
ECH-SF 8038		2.5 IN
MAMS-BA 8048		Standoff
		Standoff
	MAMS-PS	22.20
MAXS-B		2.5 IN
MAXS-BA 8038		Standoff
MAXS-BA 8044		20.50
EMS-B	MAXS-PS	14.33
EMA-B 8002	Mud Resis	14.15
RES	Mud Tempe	13.90
EMC-B 8027		14.33
ECH-KH 8028		



Client: CDEX Drawing Date: 7/11/2009

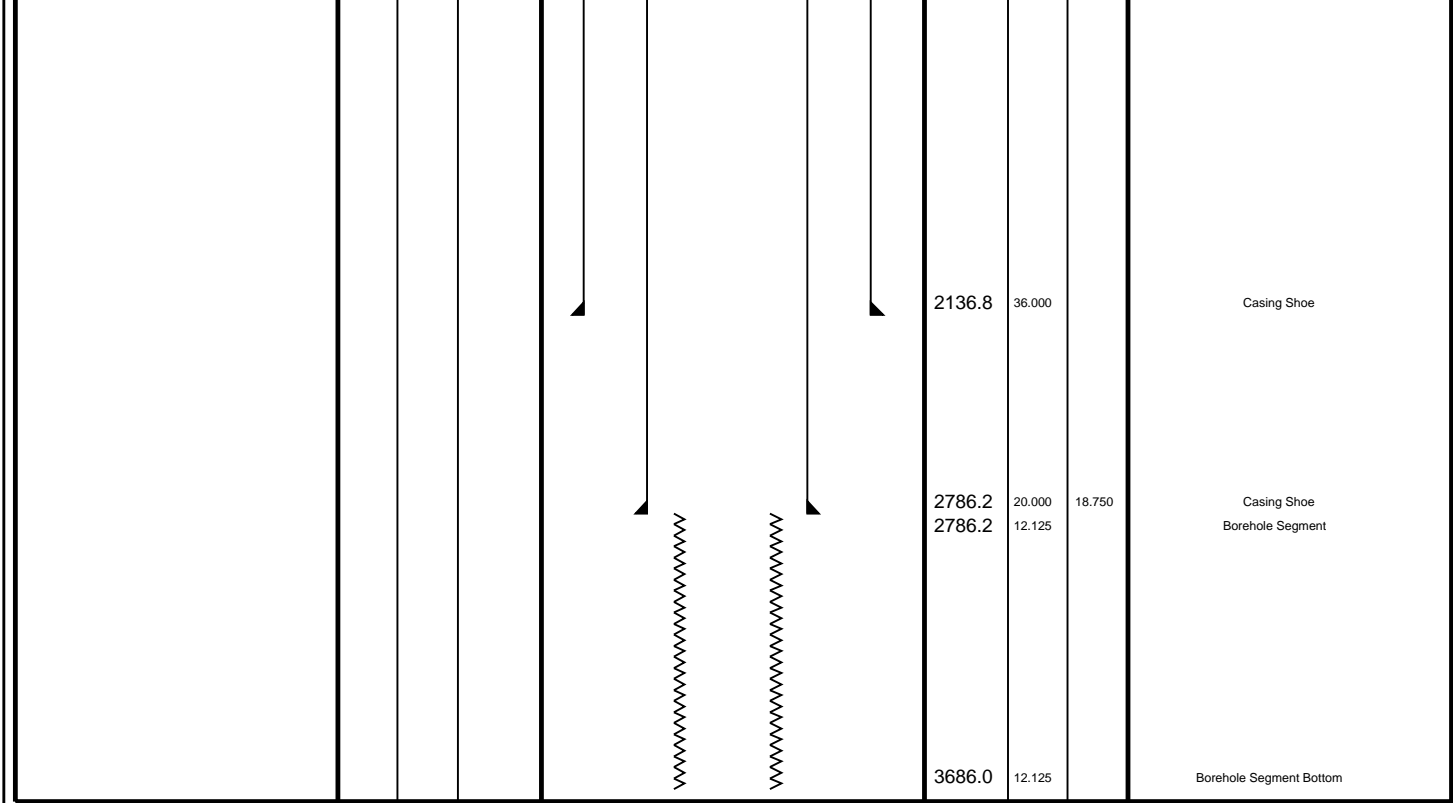
Well: C0009A

Field: Nankai Trough Rig Name: Chikyu

State: Wakayama Reference Datum: Mean Sea Level

Country: JAPAN Elevation: 28.3 m

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



**Main Log
1:200**

MAXIS Field Log

Company: CDEX Well: C0009A

Input DLIS Files

DEFAULT	MERGE_EMS_HRLA_TLD_025GUP	FN:1	PRODUCER	13-Aug-2009 12:50	3670.2 M	2755.7 M
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Output DLIS Files

DEFAULT	EMS_HRLA_TLD_MCFL_029PUP	FN:65	PRODUCER	13-Aug-2009 13:36	3670.2 M	2761.3 M
CLIENT	EMS_HRLA_TLD_MCFL_029PUC	FN:66	CUSTOMER	13-Aug-2009 13:36	3670.2 M	2761.3 M

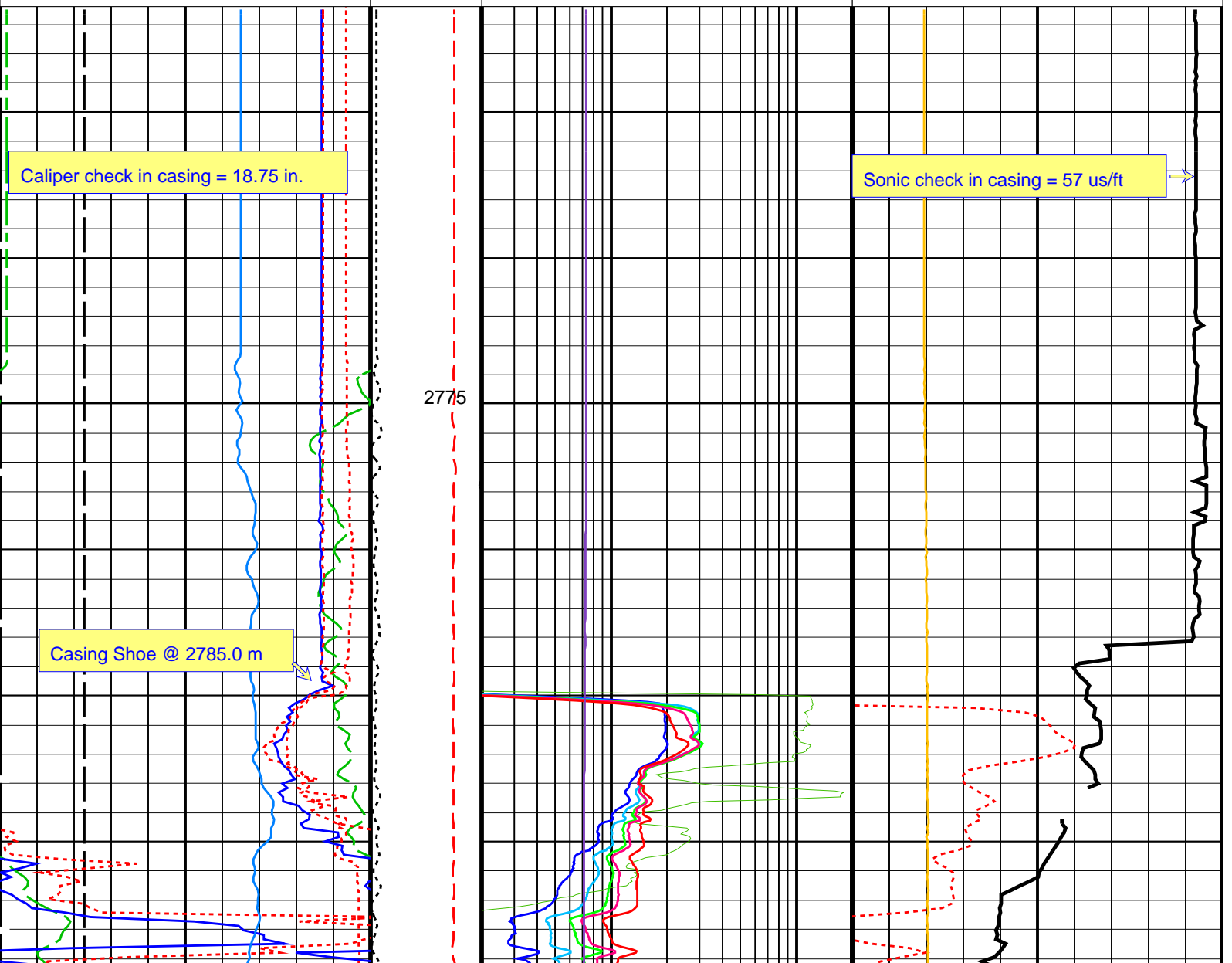
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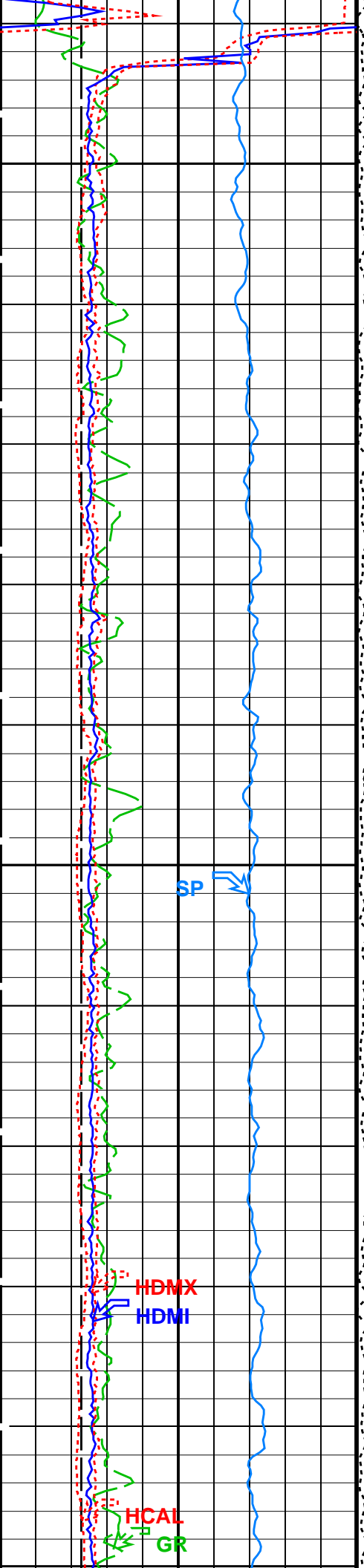
EMS-B	17C0-154	HRLT-B	17C0-154
HILTH-FTB	17C0-154	SPA-A	17C0-154
DTC-H	17C0-154	MAXS-B	SKK-3704-MAST
MAPC-B	SKK-3704-MAST		

PIP SUMMARY

Time Mark Every 60 S

		Mud Resistivity (REMS)			
		0.02	(OHMM)	2	
SP (SP)		HRLT Resistivity 5 (RLA5)			
-80	(MV)	20	0.2	(OHMM)	20
Hole Diameter Maximum (HDMX)		HRLT Resistivity 4 (RLA4)			
10	(IN)	20	0.2	(OHMM)	20
Hole Diameter Minimum (HDMI)		HRLT Resistivity 3 (RLA3)			
10	(IN)	20	0.2	(OHMM)	20
HILT Caliper (HCAL)		HRLT Resistivity 2 (RLA2)		Mud Temperature (TMP)	
10	(IN)	20	0.2	(OHMM)	20
				0	(DEGC)
				100	
Gamma Ray (GR)		HRLT Resistivity 1 (RLA1)		HRLT Conductivity (LC01)	
50	(GAPI)	150	0.2	(OHMM)	20
				1000	(MM/M)
				0	
Calibrated Downhole Force (CDF) (LBF)		Std. Res. Invaded Zone Resistivity (RXOZ)		Compressional Slowness 3 (DTCO3)	
-200 1800		0.2		(OHMM)	20
				240	(US/F)
Tension (TENS) (LBF)				40	
0 2000					



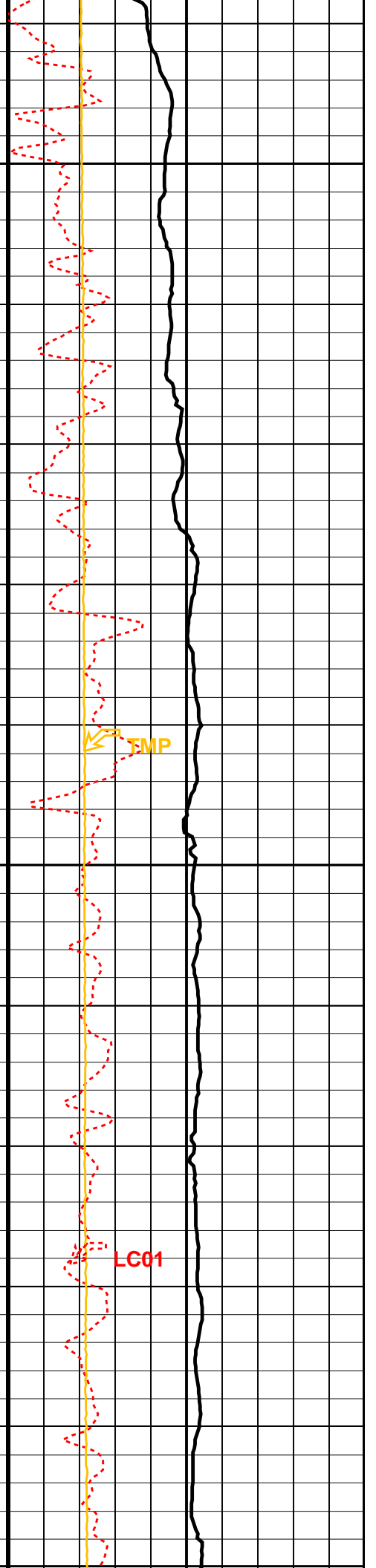
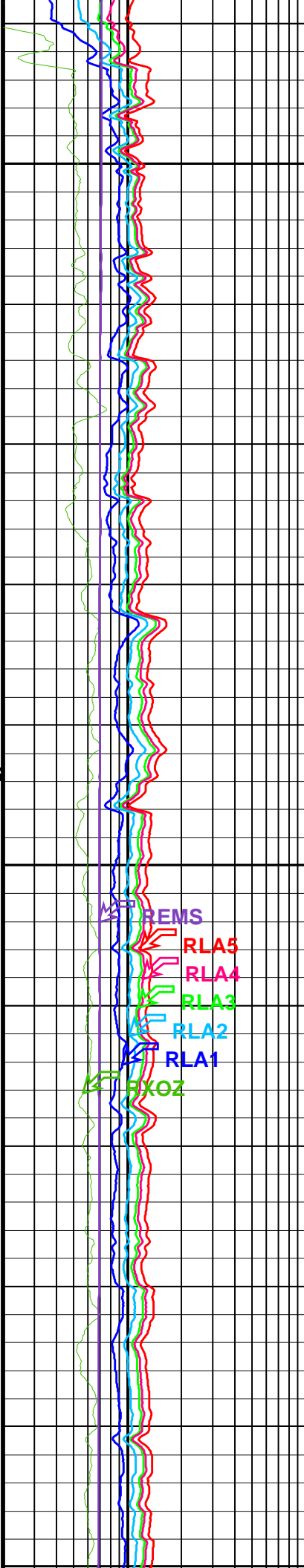


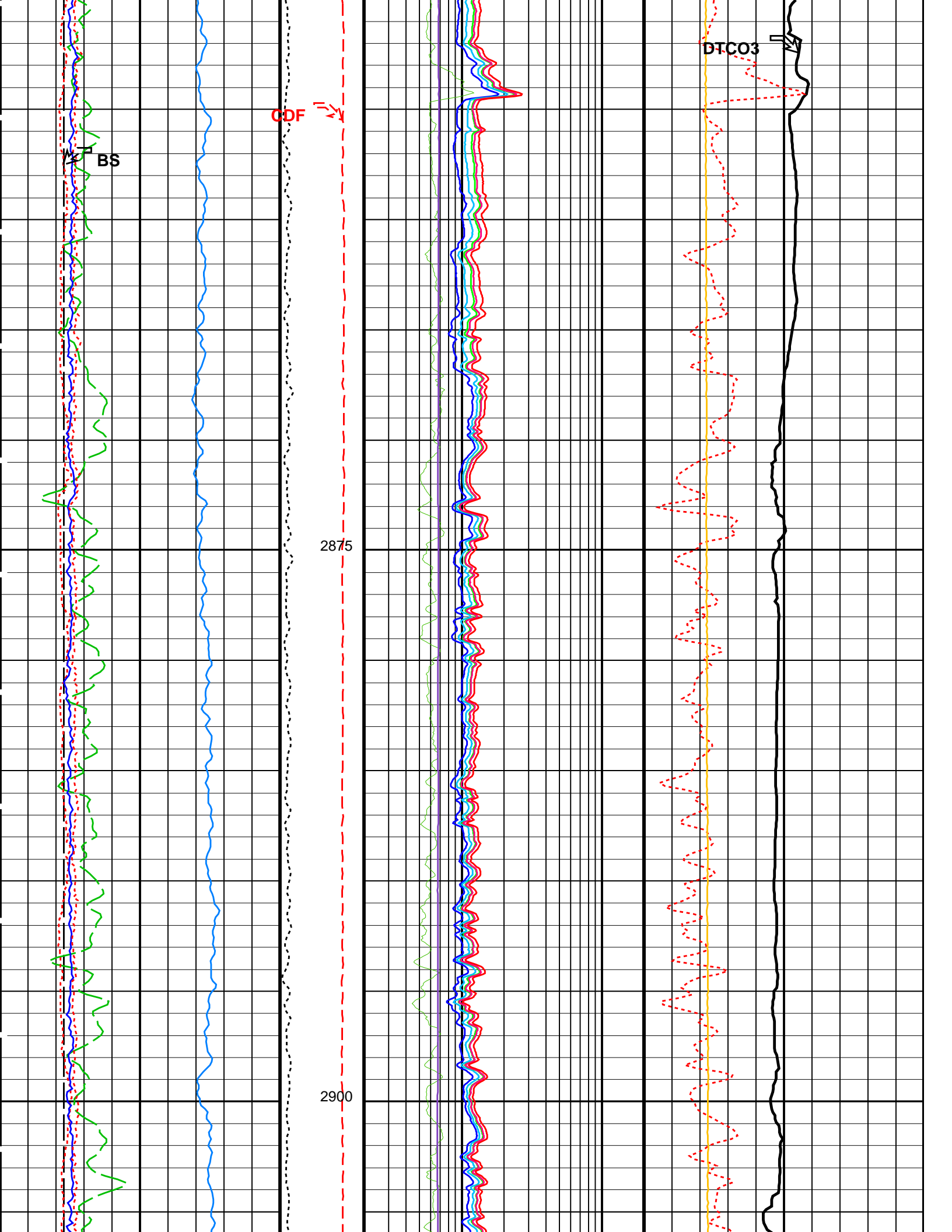
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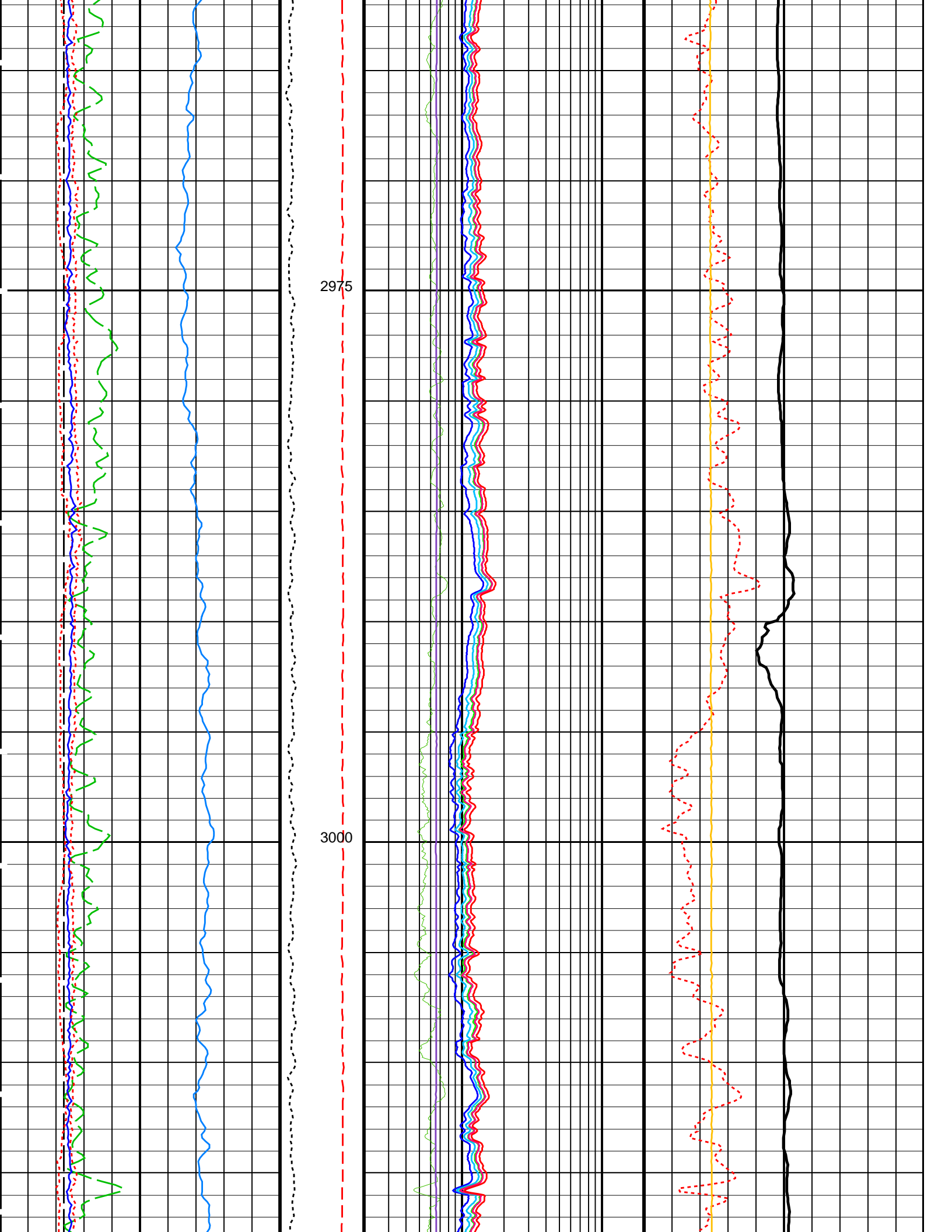
TENS

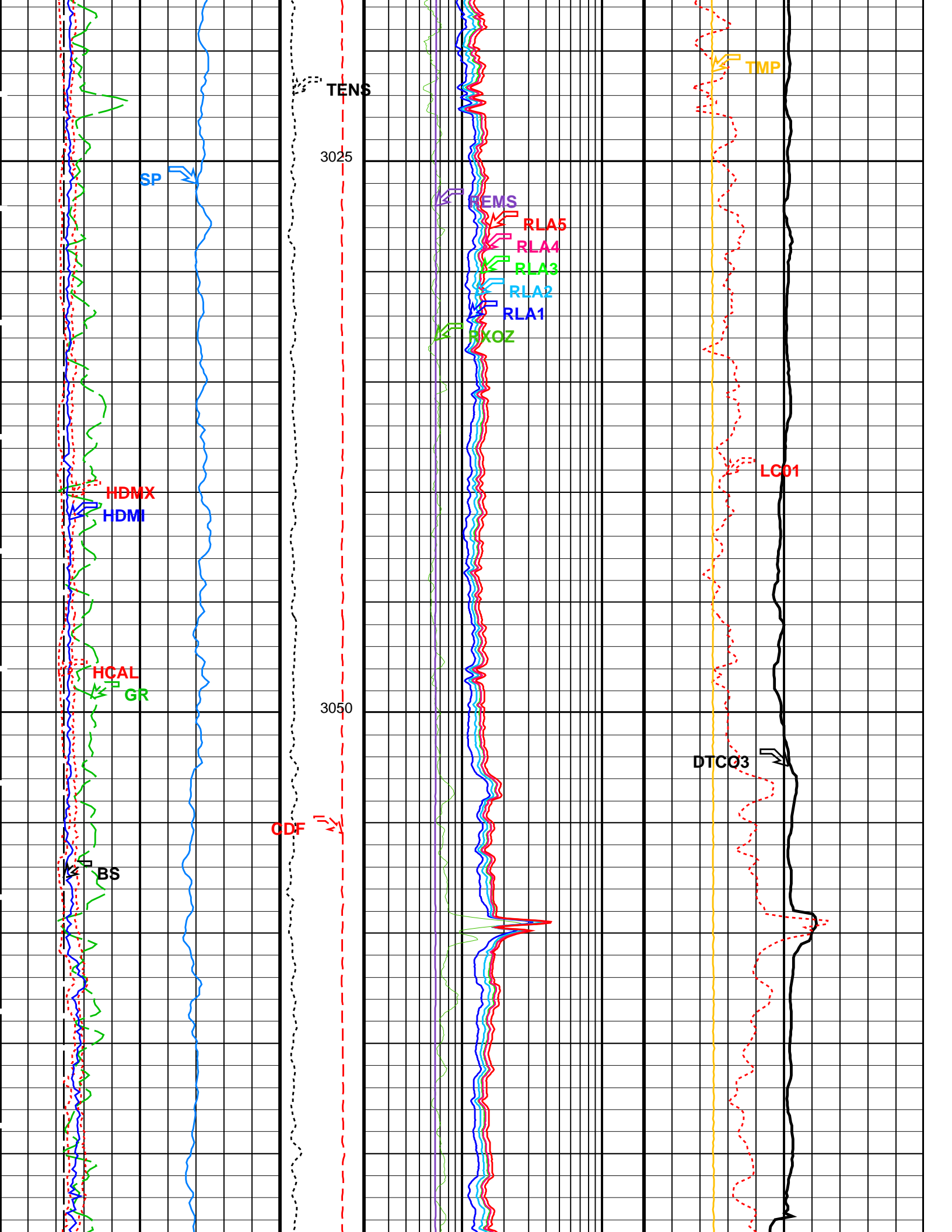
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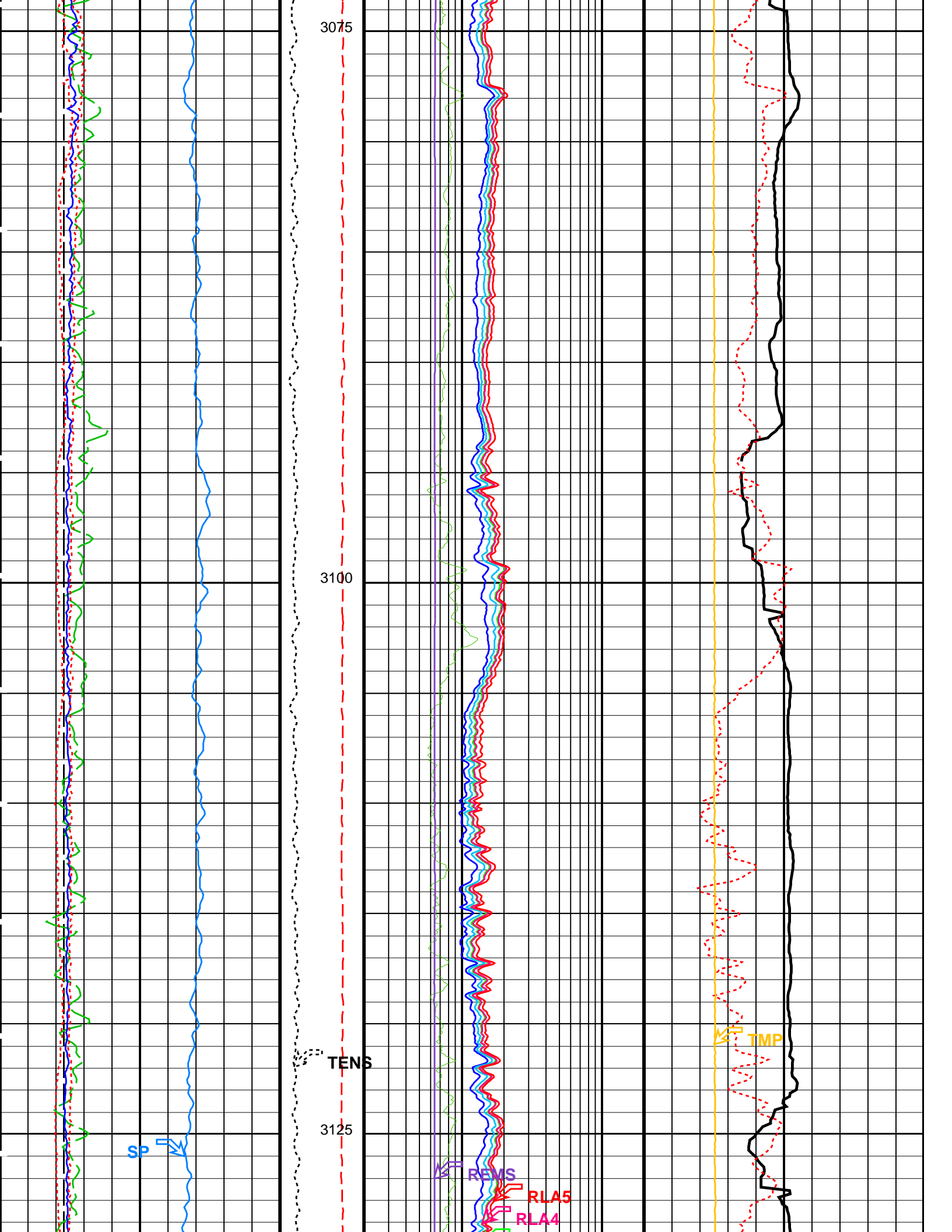
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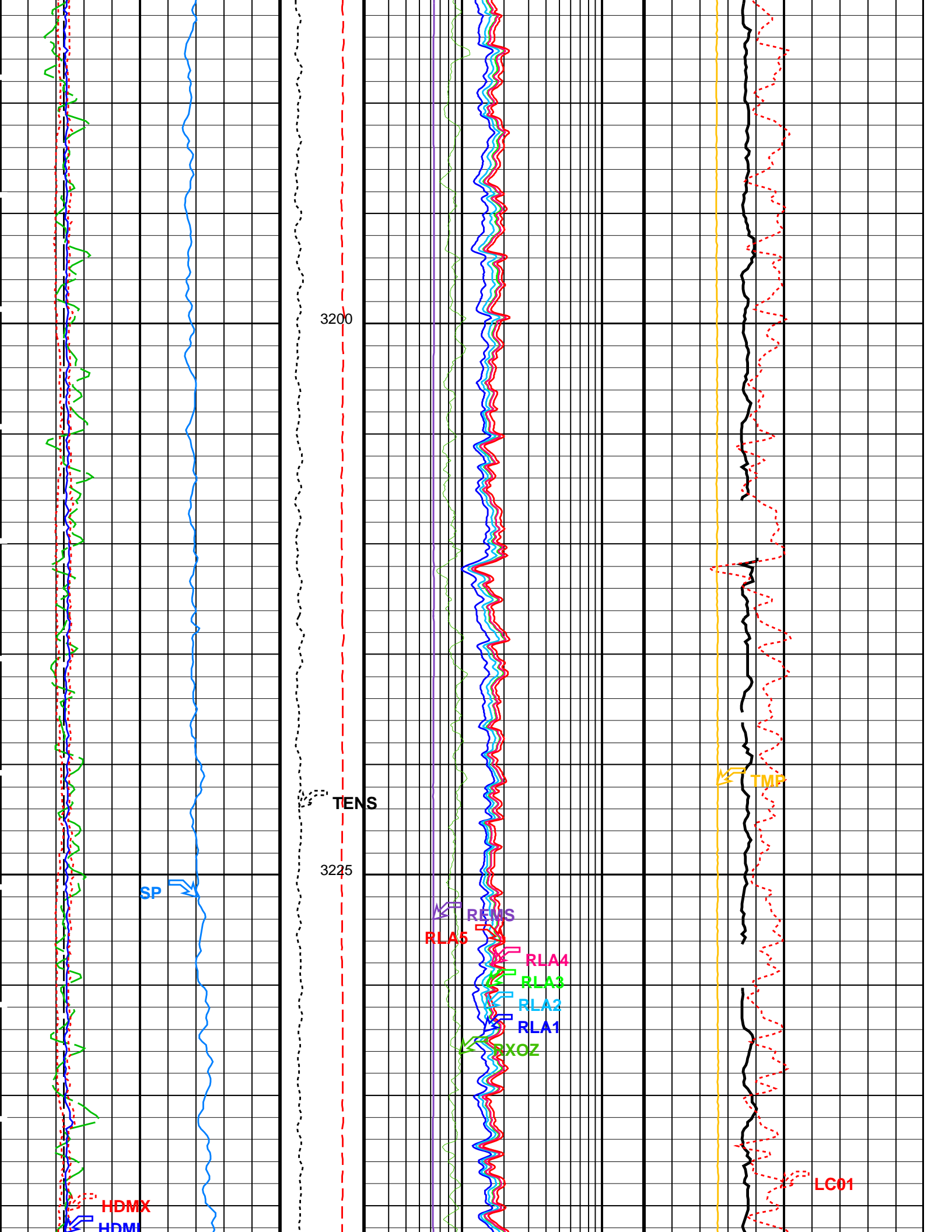


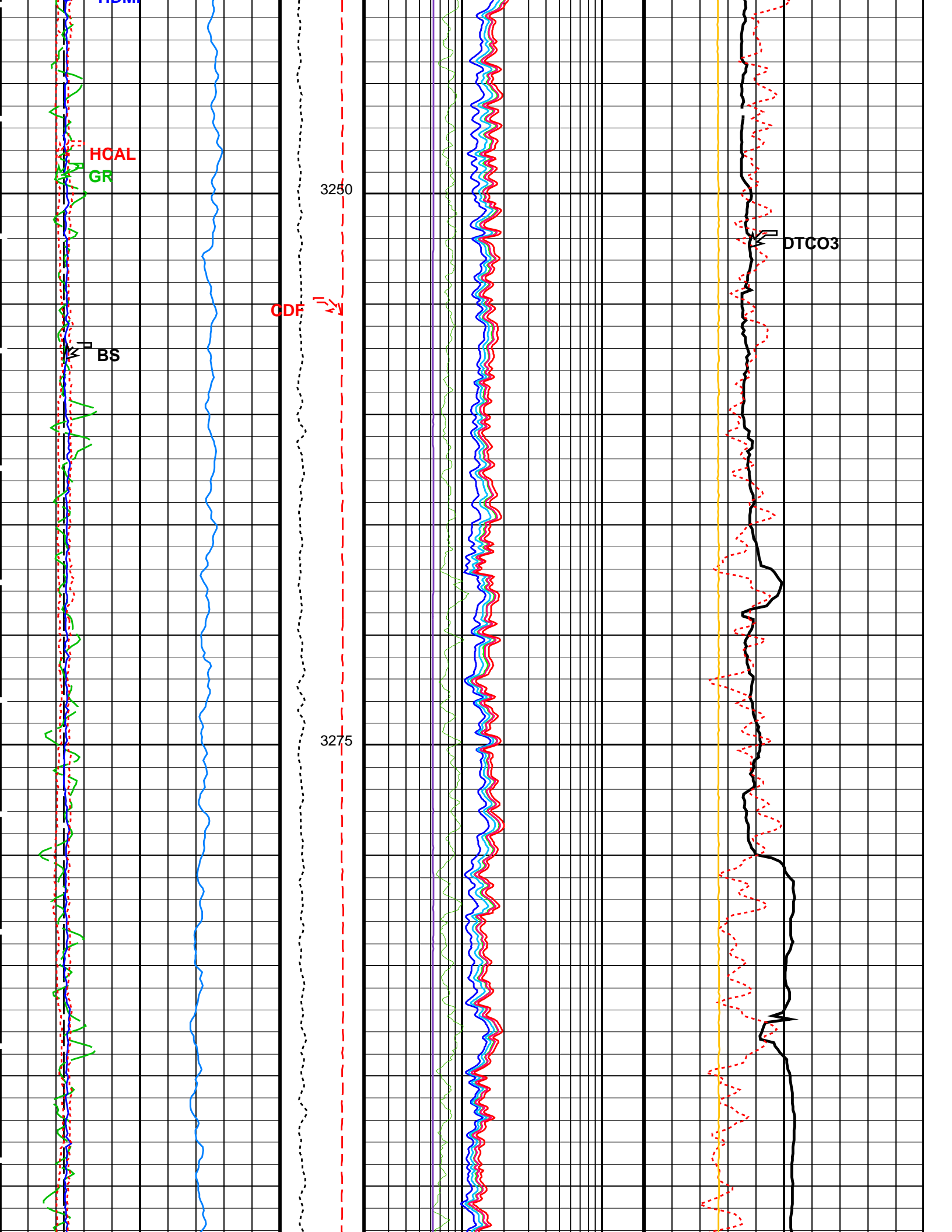


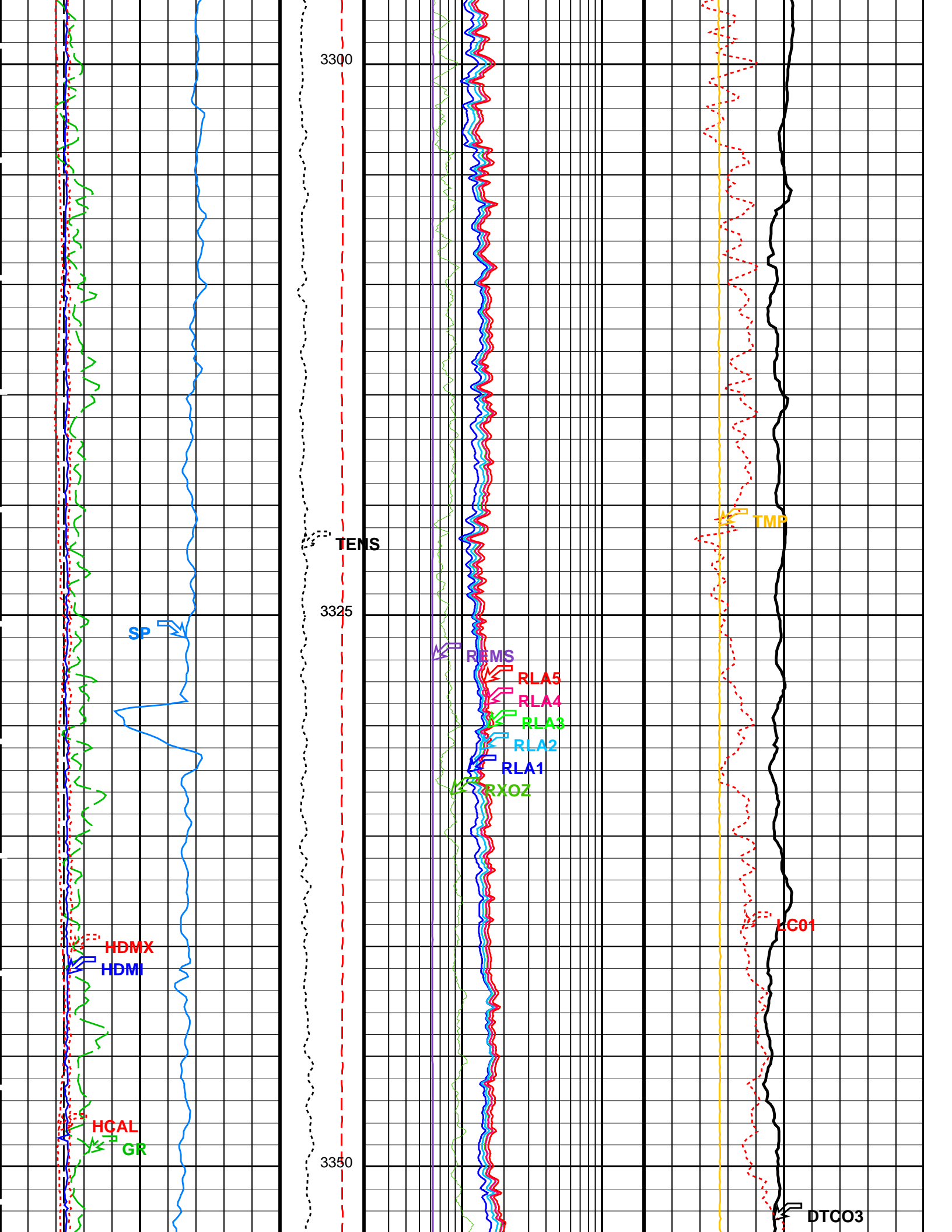


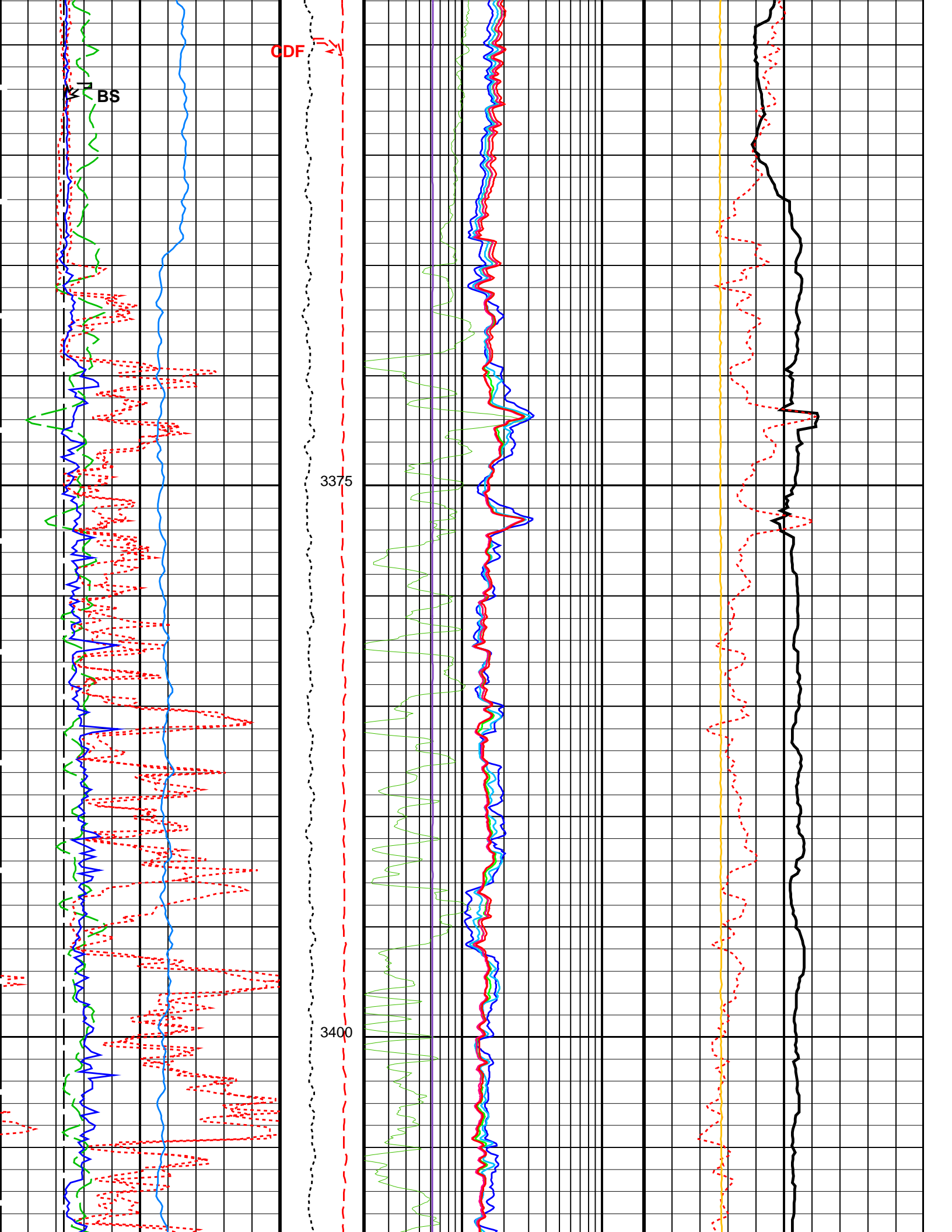


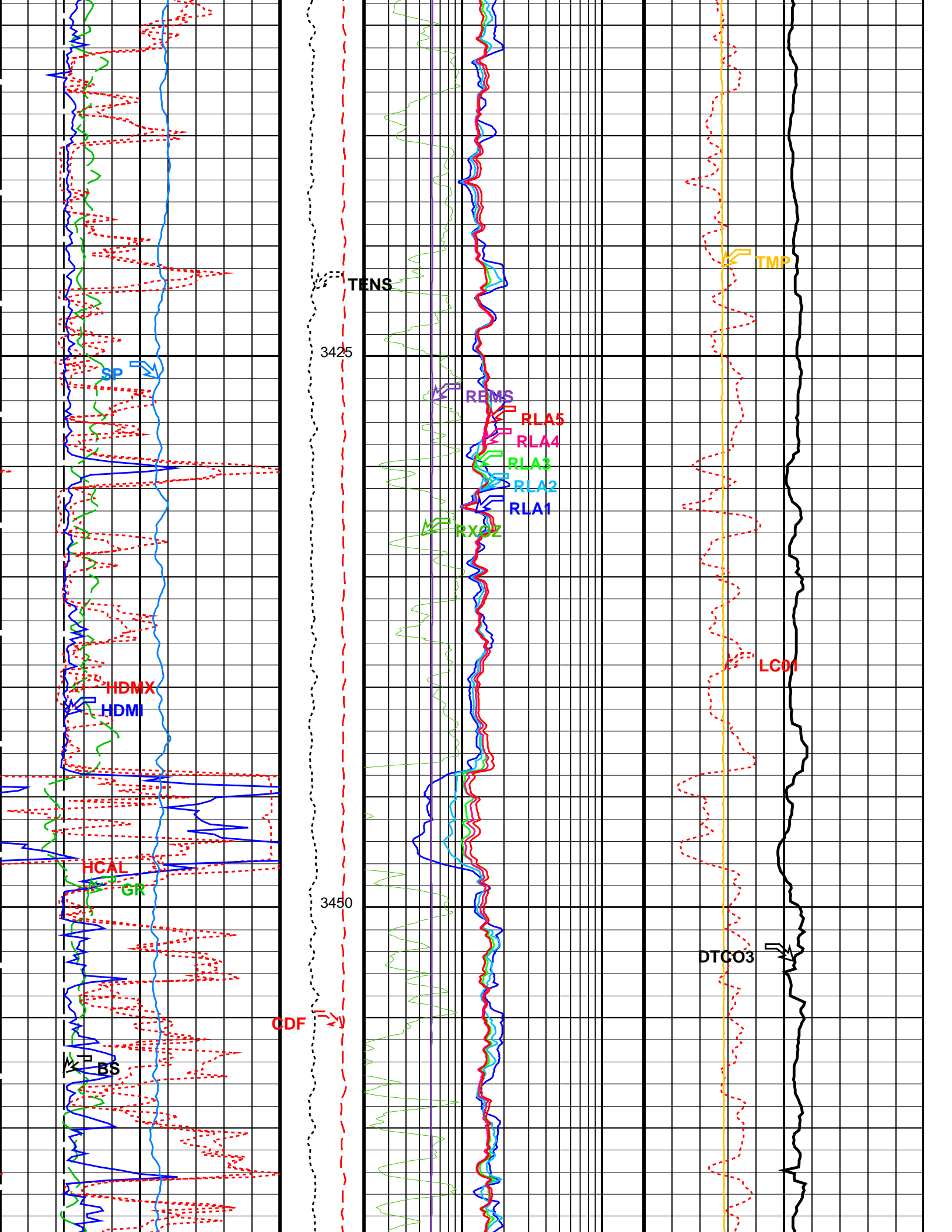


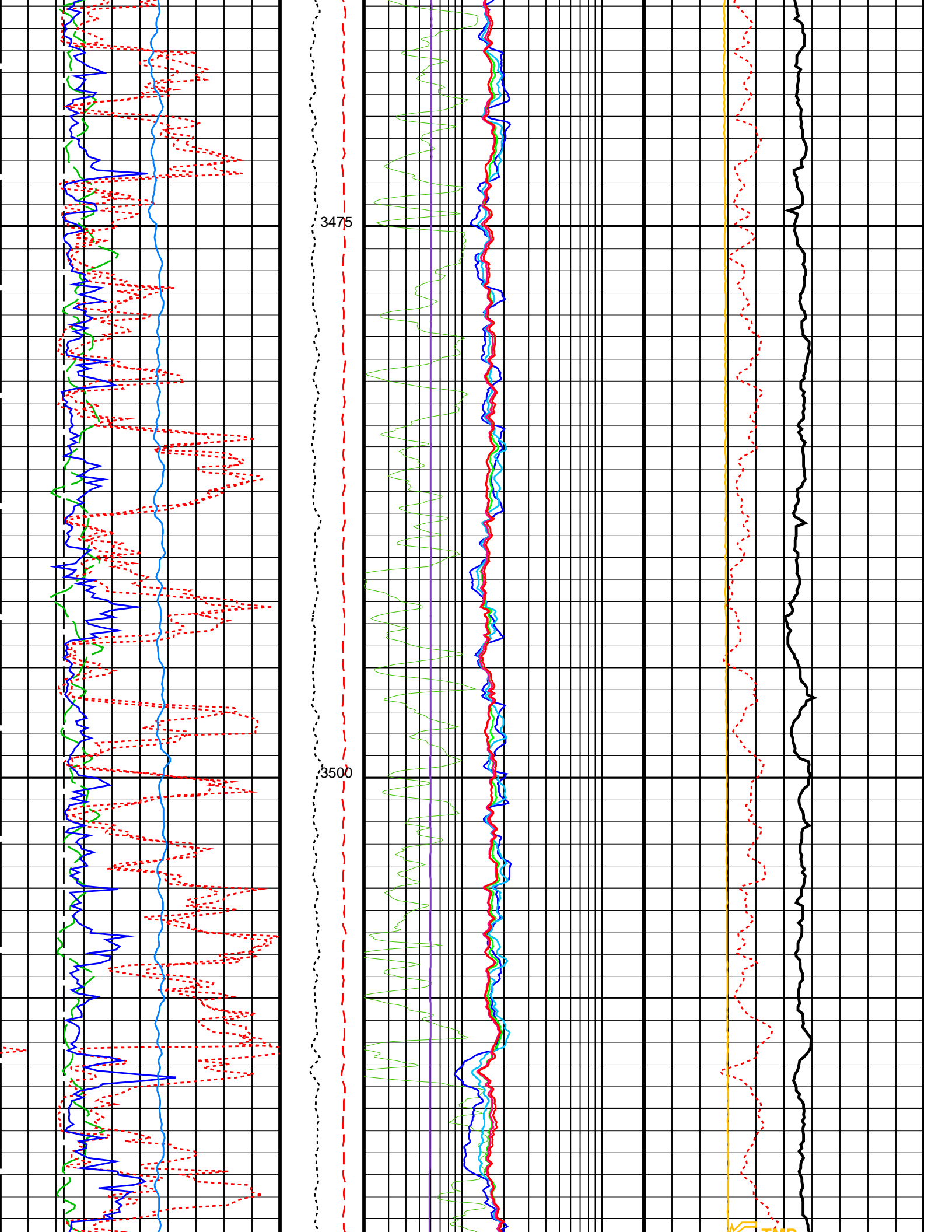


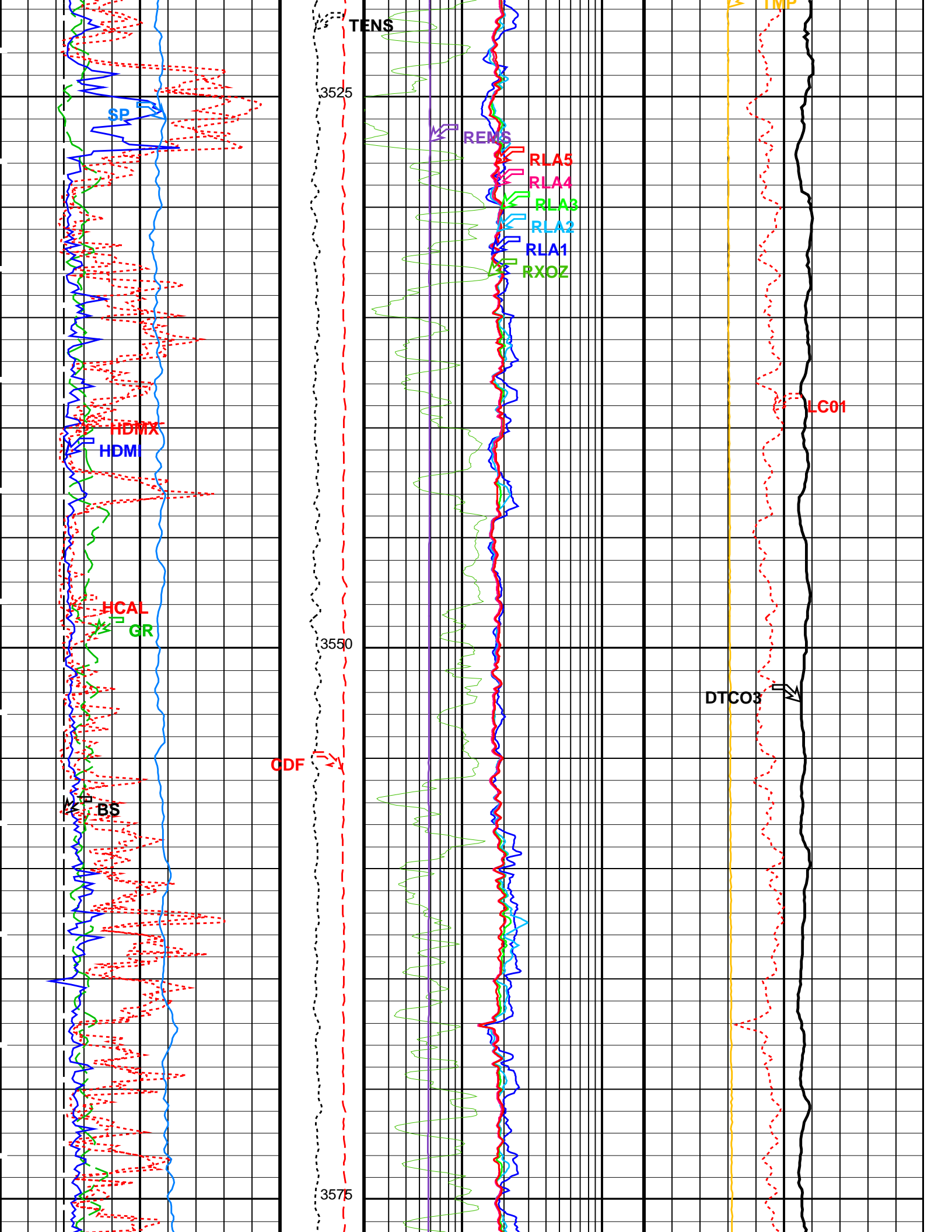


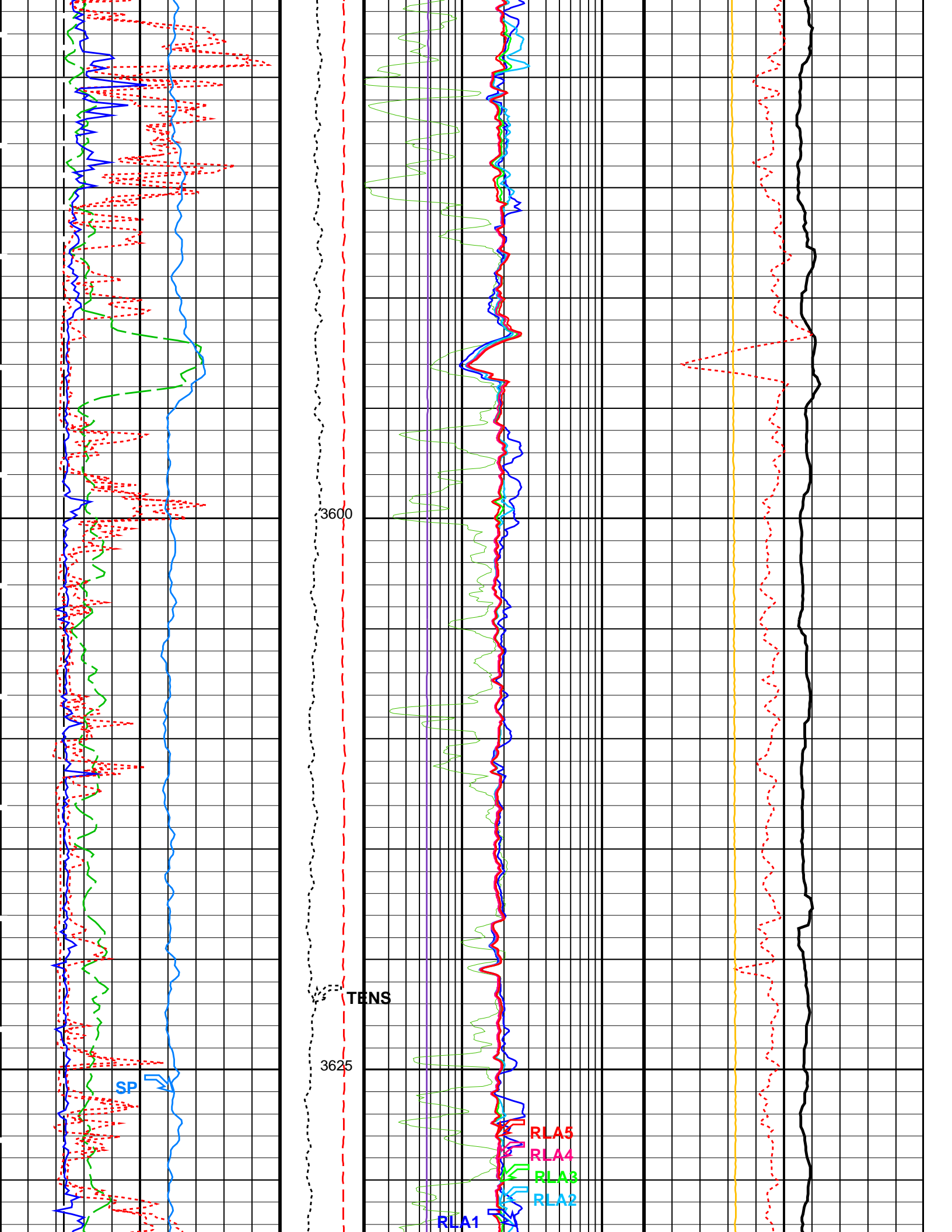


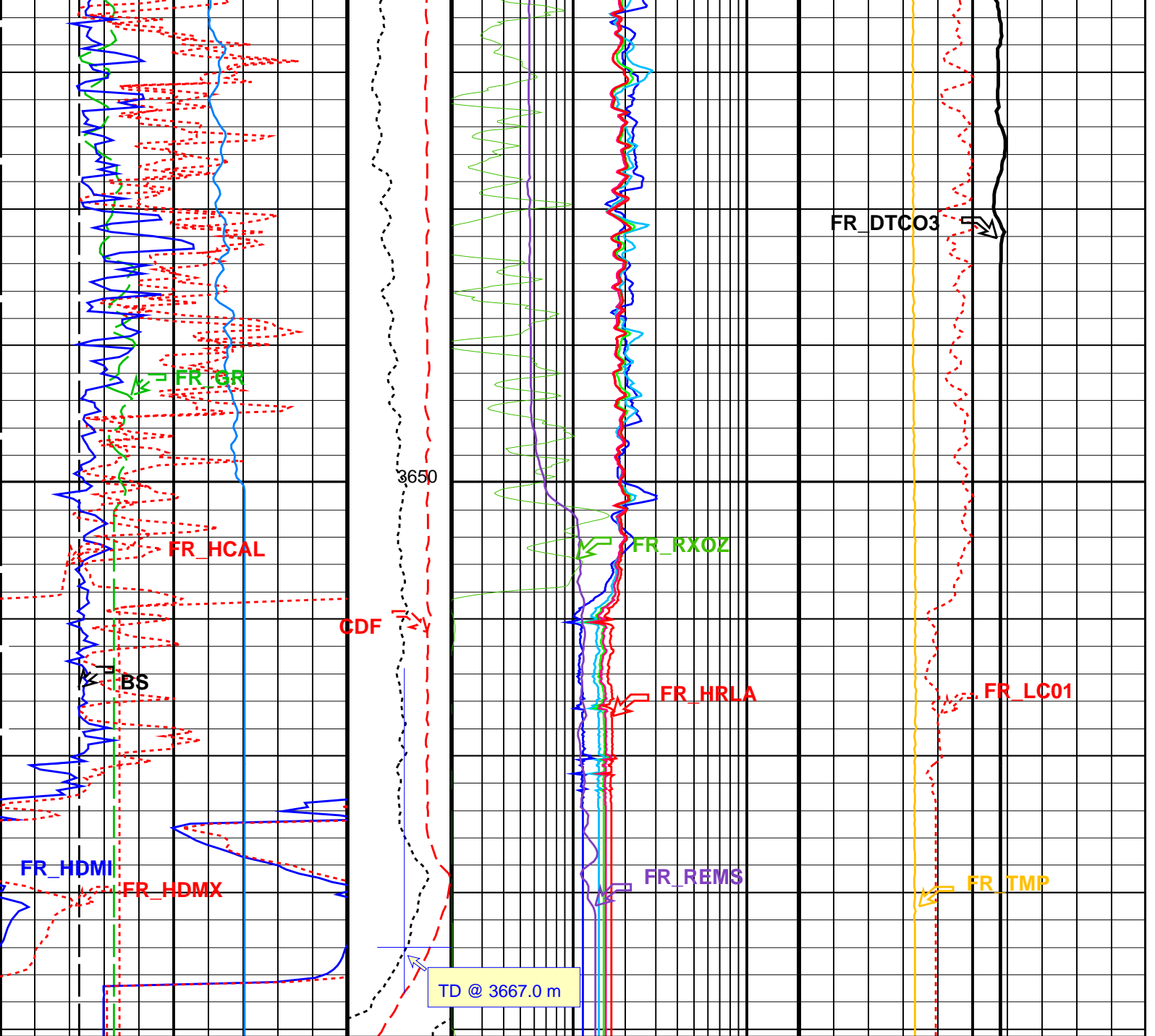












Bit Size (BS) (IN)	Tension (TENS) (LBF)	Std. Res. Invaded Zone Resistivity (RXOZ) (OHMM)	Compressional Slowness 3 (DTCO3) (US/F)
10 20	0 2000	0.2 20	240 40
Gamma Ray (GR) (GAPI)	Calibrated Downhole Force (CDF) (LBF)	HRLT Resistivity 1 (RLA1) (OHMM)	HRLT Conductivity (LC01) (MM/M)
50 150	-200 1800	0.2 20	1000 0
HILT Caliper (HCAL) (IN)		HRLT Resistivity 2 (RLA2) (OHMM)	Mud Temperature (TMP) (DEGC)
10 20		0.2 20	0 100
Hole Diameter Minimum (HDMI) (IN)		HRLT Resistivity 3 (RLA3) (OHMM)	
10 20		0.2 20	
Hole Diameter Maximum (HDMX) (IN)		HRLT Resistivity 4 (RLA4) (OHMM)	
10 20		0.2 20	
SP (SP) (MV)		HRLT Resistivity 5 (RLA5) (OHMM)	
-80 20		0.2 20	

PIP SUMMARY

Time Mark Every 60 S

Parameters

DLIS Name	Description	Value	
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	
ECOF	EMS Caliper Offset	2	IN
EFC	EMS Fixed Caliper Operation	OFF	
EMPDFL	EMS Max Pipe Diameter filter length	120	
EMUD	EMS Mudcake Correction	OFF	
ESCL	EMS Synthetic Caliper Log	OFF	
FCD	Future Casing (Outer) Diameter	13.375	IN
HVCS	Integrated Hole Volume Caliper Selection	EMS_Calipers	
HRLT-B: High Resolution Laterolog Array - B			
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	32.22	DEGC
CALSTAT	HRLTB Calibration Status	SHALLOW_DONE	
CALTEMP	HRLTB Calibration Temperature	26.8049	DEGC
FREQ0	HRLT Frequency Index for Mode 0	32	
FREQ1	HRLT Frequency Index for Mode 1	128	
FREQ2	HRLT Frequency Index for Mode 2	104	
FREQ3	HRLT Frequency Index for Mode 3	86	
FREQ4	HRLT Frequency Index for Mode 4	56	
FREQ5	HRLT Frequency Index for Mode 5	44	
FREQ6	HRLT Frequency Index for Mode 6	116	
GCSE	Generalized Caliper Selection	HCAL	
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	
ISSBAR	Barite Mud Switch	NOBARITE	
KFAC_HRLT	HRLT K Factor Option	SONDE	
LOOPCOEF_S	HRLT Loop Coefficient for Shallow Modes	LOW	
LOOPMOD0	HRLT Mode 0 Loop Mode	OFF	
LOOPMOD1	HRLT Mode 1 Loop Mode	OFF	
LOOPMOD2	HRLT Mode 2 Loop Mode	OFF	
LOOPMOD3	HRLT Mode 3 Loop Mode	OFF	
LOOPMOD4	HRLT Mode 4 Loop Mode	OFF	
LOOPMOD5	HRLT Mode 5 Loop Mode	OFF	
LOOPMOD6	HRLT Mode 6 Loop Mode	OFF	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
PROCINV	Inversion Selection	ON	
PROCMFL	Inversion Micro-Resistivity Selection	RXOZ	
PROCMSO	Mechanical Standoff Fin Size	2.5	IN
PROCRM	Processing Mud Resistivity Select	External_GRSE	
PROCSP0	Sonde Position	Eccentered	
SHT	Surface Hole Temperature	25	DEGC
HILTH-FTB: High resolution Integrated Logging Tool-DTS			
BHFL	Borehole Fluid Type	WATER	
BHFL_TLD	HILT Nuclear Mud Base	WATER	
BHS	Borehole Status	OPEN	
BHT	Bottom Hole Temperature (used in calculations)	32.22	DEGC
BSCO	Borehole Salinity Correction Option	YES	
CCCO	Casing & Cement Thickness Correction Option	NO	
DHC	Density Hole Correction	BS	
DPPM	Density Porosity Processing Mode	HIRS	
EXSICL	External Shale Indicator Clean Value	20	
EXSISH	External Shale Indicator Shale Value	150	
FD	Fluid Density	1	G/C3
FEXP	Form Factor Exponent	2	
FNUM	Form Factor Numerator	1	
FPHI	Form Factor Porosity Source	DPHZ	
FSAL	Formation Salinity	-50000	PPM
FSCO	Formation Salinity Correction Option	NO	
GCLF	Germany Coal-like Formation Option	NO	
GCSE	Generalized Caliper Selection	HCAL	
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	
HACPP	Accelerometer PROM Presence	PRESENT	DOWNHOLE

HART	Accelerometer Reference Temperature	25	DEGC
HDCOD	HILT Density Coal detection	2	G/C3
HDSAD	HILT Density Salt detection	2.1	G/C3
HILT_GAS_DENSITY	HILT Gas Downhole Density	0	G/C3
HILT_GAS_OPTION	HILT Gas Computation Option	OFF	
HNCOD	HILT Neutron Coal detection	45	PU
HNSAD	HILT Neutron Salt detection	5	PU
HPHIECUT	HILT effective Porosity Cutoff	5	PU
HSCO	Hole Size Correction Option	YES	
HSIS	HILT Shale Indicator Selection	GR	
HSSO	HRDD Nuclear Source Strength Option	NORMAL	
HSWCUT	HILT Water Saturation from AITH cutoff	50	%
ISSBAR	Barite Mud Switch	NOBARITE	
MATR	Rock Matrix for Neutron Porosity Corrections	LIMESTONE	
MCCO	Mud Cake Correction Option	NO	
MCOR	Mud Correction	NATU	
MDEN	Matrix Density	2.71	G/C3
MHC0	MCFL B0 Contrast Correction Coefficient	2.2e-005	OHMS
MHC1	MCFL B1 Contrast Correction Coefficient	3.2e-005	OHMS
MHCC	MCFL High Contrast Correction Switch	NO	
MPOF	MCFL Processing Operation Mode	ON	
MWCO	Mud Weight Correction Option	YES	
NAAC	HRDD APS Activation Correction	OFF	
NMT	HILT Nuclear Mud Type	NOBARITE	
NPRM	HRDD Processing Mode	StdRes	
NSAR	HRDD Depth Sampling Rate	1	IN
PEA_FILTER	PEA Filter	NO_FILTER	
PEFC_FILTER	PEFC Filter	NO_FILTER	
PHIMAX	HILT max porosity	35	PU
PTCO	Pressure/Temperature Correction Option	YES	
SDAT	Standoff Data Source	SOCN	
SEXP_HILT	HILT Saturation Exponent	2	
SHT	Surface Hole Temperature	25	DEGC
SOCN	Standoff Distance	0.125	IN
SOCO	Standoff Correction Option	YES	
SPA-A: SP ADAPTOR			
SPNV	SP Next Value	0	MV
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)	32.22	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	
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	HCAL	
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/Discallow	DISALLOW	

RBC	Relative Bearing Correction Allow/Disallow	DISALLOW	ID5	
ROTIN_XD	Alford Rotation X Dipole Measurement Number		ID6	
ROTIN_YD	Alford Rotation Y Dipole Measurement Number		ON	
ROTWINDOW_CTRL	Alford Rotation Window Control		1.524	M
ROT_AI	Dipole Waveform Rotation Averaging Depth Interval		101	
ROT_FIL LENG	Alford Rotation Filter Length		1240	US
ROT_TWD	Alford Rotation Window Time Width		1360	US
ROT_TWO	Alford Rotation Window Time Offset		2000	HZ
ROT_XFH	Alford Rotation Filter High Cutoff		800	HZ
ROT_XFL	Alford Rotation Filter Low Cutoff		25	DEGC
SHT	Surface Hole Temperature			
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		0	US/F
U_SLL5_MAST	MAST DSTC Slowness Lower Limit 5		0	US/F
U_SLL6_MAST	MAST DSTC Slowness Lower Limit 6		0	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		0	US/F
U_SUL5_MAST	MAST DSTC Slowness Upper Limit 5		0	US/F
U_SUL6_MAST	MAST DSTC Slowness Upper Limit 6		0	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
HOLEV:	Integrated Hole/Cement Volume			
FCD	Future Casing (Outer) Diameter		13.375	IN
HVCS	Integrated Hole Volume Caliper Selection	EMS_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		0.0	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		OFF	
RMFS	Resistivity of Mud Filtrate Sample		0.0587	OHMM
RW	Resistivity of Connate Water		1.0000	OHMM
TD	Total Depth		3667	M
TWS	Temperature of Connate Water Sample		37.78	DEGC

Format: HRLA-MCFL-DT-GR-SP 200

Vertical Scale: 1:200

Graphics File Created: 13-Aug-2009 13:36

OP System Version: 17C0-154

EMS-B	17C0-154	HRLT-B	17C0-154
HILTH-FTB	17C0-154	SPA-A	17C0-154
DTC-H	17C0-154	MAXS-B	SKK-3704-MAST
MAPC-B	SKK-3704-MAST		

Input DLIS Files

Output DLIS Files

DEFAULT	EMS_HRLA_TLD_MCFL_029PUP	FN:65	PRODUCER	13-Aug-2009 13:36
CLIENT	EMS_HRLA_TLD_MCFL_029PUC	FN:66	CUSTOMER	13-Aug-2009 13:36



Repeat Analysis 1:200

MAXIS Field Log

Company: CDEX Well: C0009A

Input DLIS Files

DEFAULT	MERGE_EMS_HRLA_TLD_025GUP	FN:1	PRODUCER	13-Aug-2009 12:50	3670.2 M	2755.7 M
	EMS_HRLA_TLD_MCFL_027PUP	FN:92		13-Jul-2009 17:11	3671.5 M	3570.6 M

Output DLIS Files

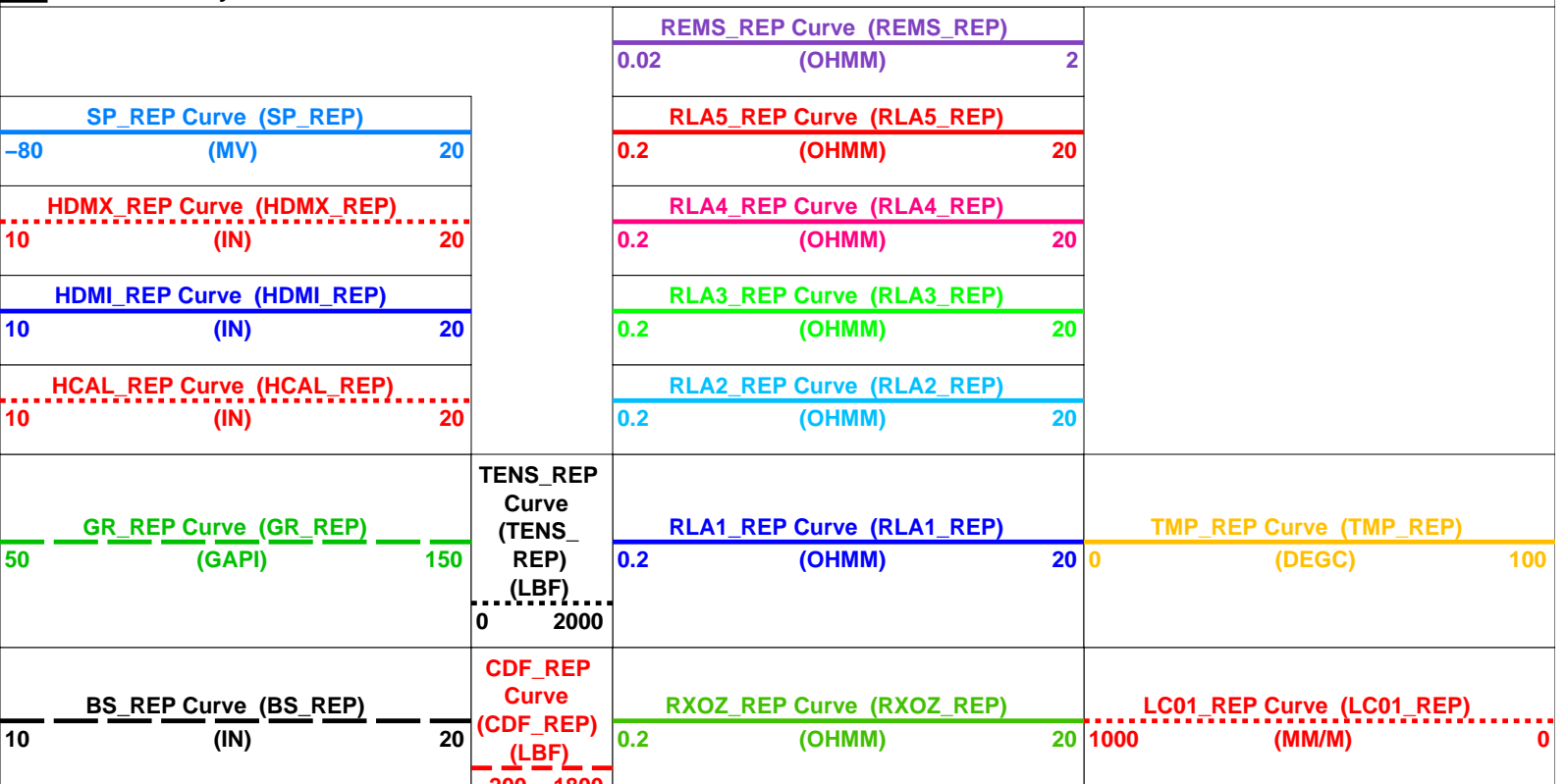
DEFAULT	EMS_HRLA_TLD_MCFL_029PUP	FN:65	PRODUCER	13-Aug-2009 13:36
CLIENT	EMS_HRLA_TLD_MCFL_029PUC	FN:66	CUSTOMER	13-Aug-2009 13:36

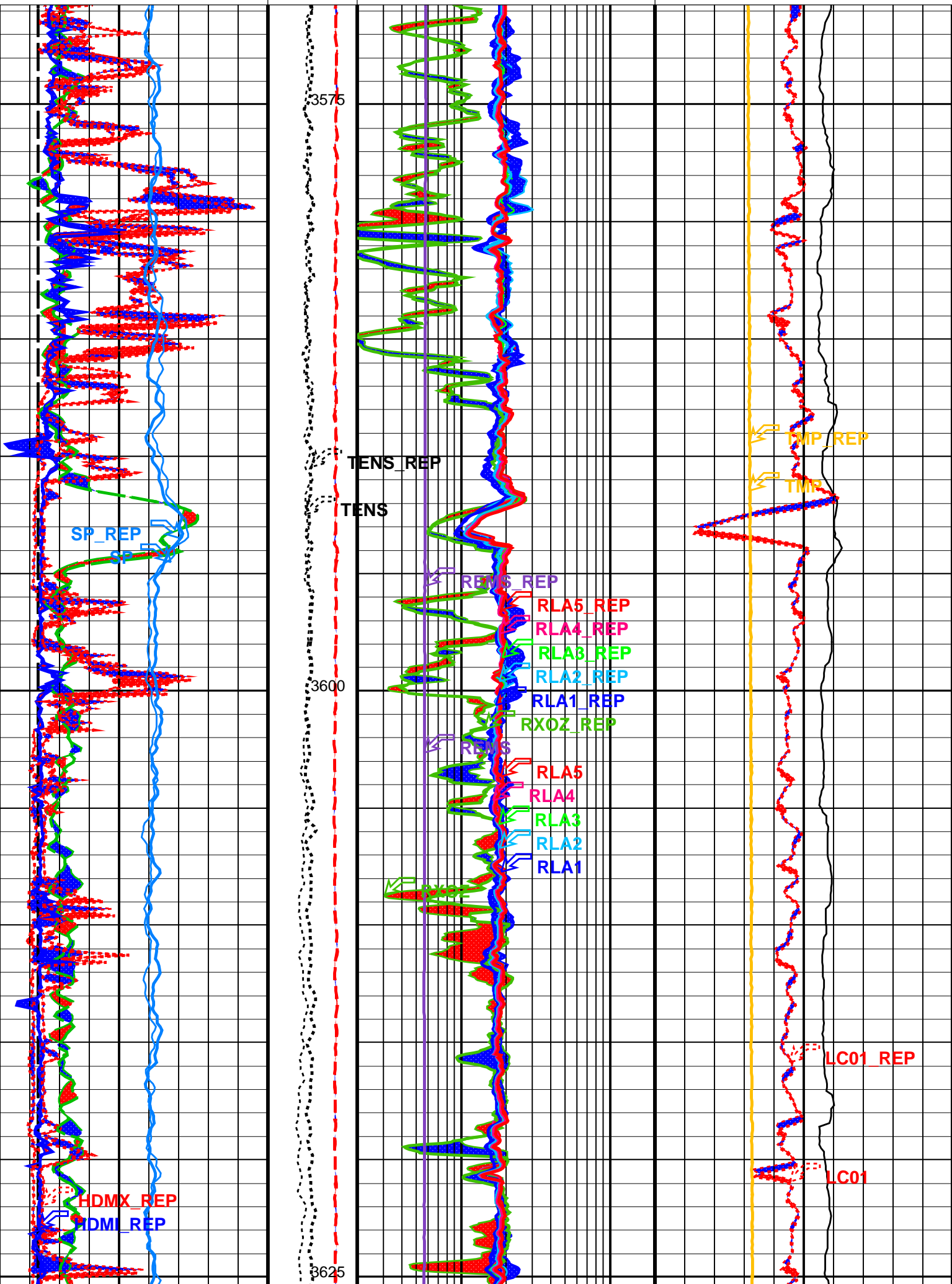
OP System Version: 17C0-154

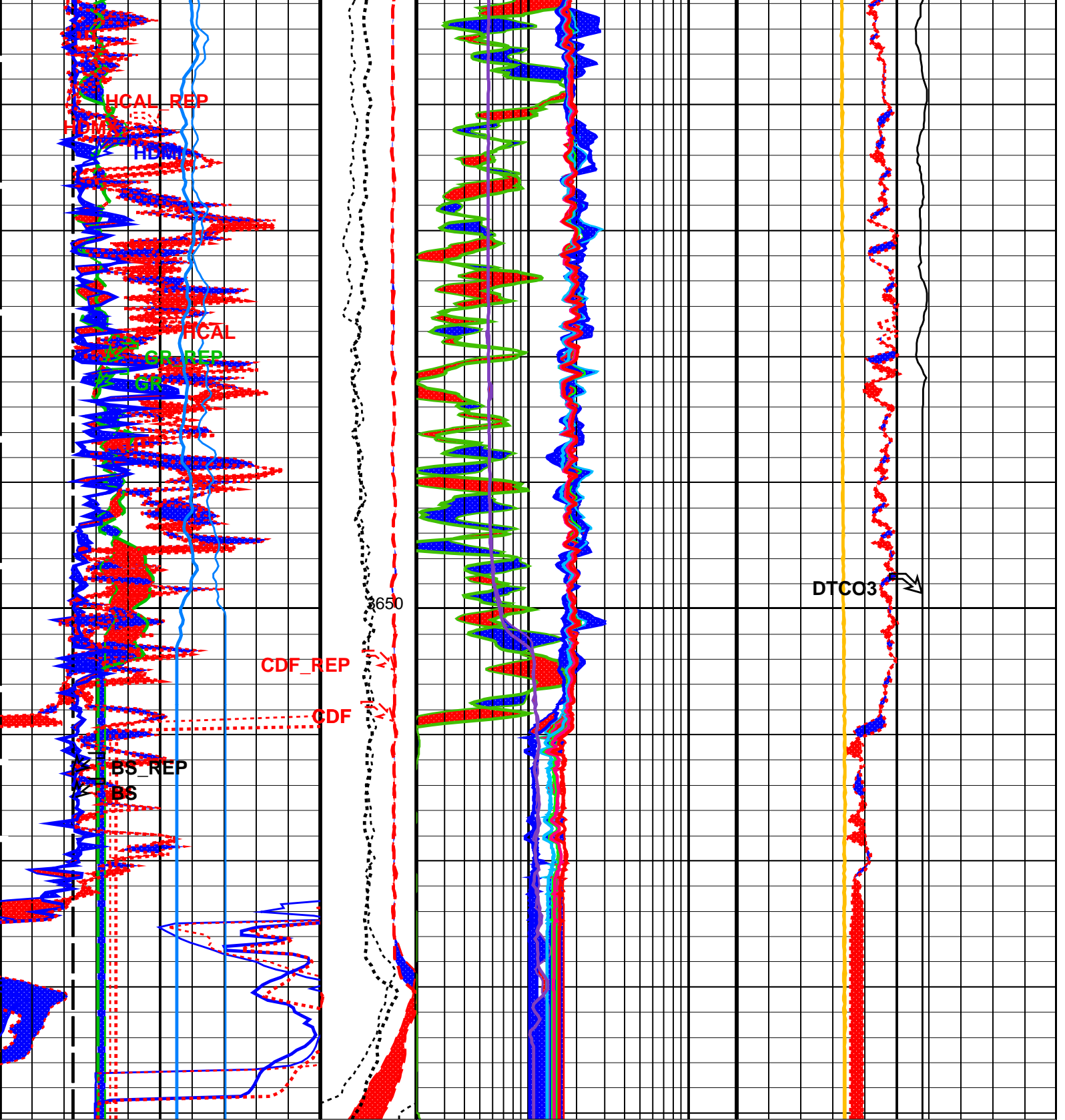
EMS-B	17C0-154	HRLT-B	17C0-154
HILTH-FTB	17C0-154	SPA-A	17C0-154
DTC-H	17C0-154	MAXS-B	SKK-3704-MAST
MAPC-B	SKK-3704-MAST		

PIP SUMMARY

Time Mark Every 60 S







BS_REP Curve (BS_REP)
(IN)

CDF_REP Curve (CDF_REP) (LBF)

RXOZ_REP Curve (RXOZ_REP) (OHMM)

LC01_REP Curve (LC01_REP) (MM/M)

GR_REP Curve (GR_REP) (GAPI)

TENS_REP Curve (TENS_REP) (LBF)

RLA1_REP Curve (RLA1_REP) (OHMM)

TMP_REP Curve (TMP_REP) (DEGC)

HCAL_REP Curve (HCAL_REP) (IN)

RLA2_REP Curve (RLA2_REP) (OHMM)

HDMI_REP Curve (HDMI_REP)		
10	(IN)	20
HDMX_REP Curve (HDMX_REP)		
10	(IN)	20
SP_REP Curve (SP_REP)		
-80	(MV)	20

RLA3_REP Curve (RLA3_REP)		
0.2	(OHMM)	20
RLA4_REP Curve (RLA4_REP)		
0.2	(OHMM)	20
RLA5_REP Curve (RLA5_REP)		
0.2	(OHMM)	20
REMS_REP Curve (REMS_REP)		
0.02	(OHMM)	2

PIP SUMMARY

Time Mark Every 60 S

Format: HRLA-MCFL-DT-GR-SP 200_REP

Vertical Scale: 1:200

Graphics File Created: 13-Aug-2009 13:36

OP System Version: 17C0-154

EMS-B	17C0-154	HRLT-B	17C0-154
HILTH-FTB	17C0-154	SPA-A	17C0-154
DTC-H	17C0-154	MAXS-B	SKK-3704-MAST
MAPC-B	SKK-3704-MAST		

Input DLIS Files

DEFAULT	MERGE_EMS_HRLA_TLD_025GUP	FN:1	PRODUCER	13-Aug-2009 12:50	3670.2 M	2755.7 M
	EMS_HRLA_TLD_MCFL_027PUP	FN:92		13-Jul-2009 17:11	3671.5 M	3570.6 M

Output DLIS Files

DEFAULT	EMS_HRLA_TLD_MCFL_029PUP	FN:65	PRODUCER	13-Aug-2009 13:36
CLIENT	EMS_HRLA_TLD_MCFL_029PUC	FN:66	CUSTOMER	13-Aug-2009 13:36



Calibrations

MAXIS Field Log

Calibration and Check Summary

Measurement	Nominal	Master	Before	After	Change	Limit	Units
Environment Measurement Sonde Wellsite Calibration – EMS Caliper Calibration							
Before: 11-Jul-2009 23:37							
Radius 1 Short Radius	4.000	N/A	3.627	N/A	N/A	0.2000	IN
Radius 1 Long Radius	8.000	N/A	7.897	N/A	N/A	0.2000	IN
Radius 2 Short Radius	4.000	N/A	3.405	N/A	N/A	0.2000	IN
Radius 2 Long Radius	8.000	N/A	7.651	N/A	N/A	0.2000	IN
Radius 3 Short Radius	4.000	N/A	3.595	N/A	N/A	0.2000	IN
Radius 3 Long Radius	8.000	N/A	7.818	N/A	N/A	0.2000	IN
Radius 4 Short Radius	4.000	N/A	3.824	N/A	N/A	0.2000	IN
Radius 4 Long Radius	8.000	N/A	8.065	N/A	N/A	0.2000	IN
Radius 5 Short Radius	4.000	N/A	3.791	N/A	N/A	0.2000	IN
Radius 5 Long Radius	8.000	N/A	8.051	N/A	N/A	0.2000	IN
Radius 6 Short Radius	4.000	N/A	3.728	N/A	N/A	0.2000	IN
Radius 6 Long Radius	8.000	N/A	7.967	N/A	N/A	0.2000	IN

High Resolution Laterolog Array – B Wellsite Calibration – HRLT M01

Before: 12-Jul-2009 3:18

HRLT M0-M1 Voltage Plus - 0	0	N/A	-316.4	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 1	0	N/A	-325.5	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 2	0	N/A	-317.9	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 3	0	N/A	-320.9	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 4	0	N/A	-314.2	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 5	0	N/A	-319.8	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 6	0	N/A	319.2	N/A	N/A	9.681	UV
HRLT M0-M1 Voltage Plus - 7	0	N/A	-322.7	N/A	N/A	9.681	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT M12
Before: 12-Jul-2009 3:18

HRLT M1-M2 Voltage Plus - 0	0	N/A	1749	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 1	0	N/A	1800	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 2	0	N/A	1753	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 3	0	N/A	1769	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 4	0	N/A	1733	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 5	0	N/A	1764	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 6	0	N/A	-1773	N/A	N/A	53.42	UV
HRLT M1-M2 Voltage Plus - 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT M23
Before: 12-Jul-2009 3:18

HRLT M2-M3 Voltage Plus - 0	0	N/A	1738	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 1	0	N/A	1793	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 2	0	N/A	1749	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 3	0	N/A	1770	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 4	0	N/A	1730	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 5	0	N/A	1764	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 6	0	N/A	-1754	N/A	N/A	53.42	UV
HRLT M2-M3 Voltage Plus - 7	0	N/A	1781	N/A	N/A	53.42	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V34
Before: 12-Jul-2009 3:18

HRLT A3-A4 Voltage Plus - 0	0	N/A	68360	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 1	0	N/A	70650	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 2	0	N/A	69170	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 3	0	N/A	70140	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 4	0	N/A	68390	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 5	0	N/A	69680	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 6	0	N/A	-68180	N/A	N/A	2100	UV
HRLT A3-A4 Voltage Plus - 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V45
Before: 12-Jul-2009 3:18

HRLT A4-A5 Voltage Plus - 0	0	N/A	68340	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 1	0	N/A	70770	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 2	0	N/A	69260	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 3	0	N/A	70190	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 4	0	N/A	68390	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 5	0	N/A	69660	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 6	0	N/A	-68320	N/A	N/A	2100	UV
HRLT A4-A5 Voltage Plus - 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT V56
Before: 12-Jul-2009 3:18

HRLT A5-A6 Voltage Plus - 0	0	N/A	68600	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 1	0	N/A	71030	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 2	0	N/A	69500	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 3	0	N/A	70440	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 4	0	N/A	68640	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 5	0	N/A	69930	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 6	0	N/A	-68520	N/A	N/A	2100	UV
HRLT A5-A6 Voltage Plus - 7	0	N/A	70000	N/A	N/A	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VTP
Before: 12-Jul-2009 3:18

HRLT Torpedo-M0 Voltage - 0	0	N/A	-68120	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 1	0	N/A	-70960	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 2	0	N/A	-69440	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 3	0	N/A	-70410	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 4	0	N/A	-68600	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 5	0	N/A	-69880	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 6	0	N/A	68420	N/A	N/A	2100	UV
HRLT Torpedo-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT VBD
Before: 12-Jul-2009 3:18

HRLT Bridle#9-M0 Voltage - 0	0	N/A	-68130	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 1	0	N/A	-70950	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 2	0	N/A	-69440	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 3	0	N/A	-70410	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-68600	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-69880	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	68420	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV

HRLT Bridle#9-M0 Voltage - 3	0	N/A	-70410	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 4	0	N/A	-68610	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 5	0	N/A	-69880	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 6	0	N/A	68420	N/A	N/A	2100	UV
HRLT Bridle#9-M0 Voltage - 7	0	N/A	-70000	N/A	N/A	2100	UV

High Resolution Laterolog Array - B Wellsite Calibration - HRLT ISO

Before: 12-Jul-2009 3:18

HRLT Source Current Plus - 0	0	N/A	283.7	N/A	N/A	8.520	UA
HRLT Source Current Plus - 1	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 2	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 3	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 4	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 5	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 6	0	N/A	281.1	N/A	N/A	8.520	UA
HRLT Source Current Plus - 7	0	N/A	281.1	N/A	N/A	8.520	UA

High Resolution Laterolog Array - B Wellsite Calibration - HRLT MV

Before: 12-Jul-2009 3:18

HRLT Vertical Voltage PI - 0	0	N/A	-320.2	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 1	0	N/A	-322.1	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 2	0	N/A	-313.4	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 3	0	N/A	-314.7	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 4	0	N/A	-305.2	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 5	0	N/A	-325.5	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 6	0	N/A	328.8	N/A	N/A	9.681	UV
HRLT Vertical Voltage PI - 7	0	N/A	-322.7	N/A	N/A	9.681	UV

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Stab Measurement Summary

Before: 12-Jul-2009 0:20

BS Window Ratio	0.7445	N/A	0.7439	N/A	N/A	N/A	
BS Window Sum	27090	N/A	27070	N/A	N/A	N/A	CPS
SS Window Ratio	0.4832	N/A	0.4839	N/A	N/A	N/A	
SS Window Sum	11550	N/A	11540	N/A	N/A	N/A	CPS
LS Window Ratio	0.2926	N/A	0.2954	N/A	N/A	N/A	
LS Window Sum	1253	N/A	1251	N/A	N/A	N/A	CPS

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Photo-multiplier High Voltages Calibrations

Before: 12-Jul-2009 0:20

BS PM High Voltage (Command)	1557	N/A	1555	N/A	N/A	N/A	V
SS PM High Voltage (Command)	1608	N/A	1607	N/A	N/A	N/A	V
LS PM High Voltage (Command)	1432	N/A	1438	N/A	N/A	N/A	V

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Crystal Quality Resolutions Calibration

Before: 12-Jul-2009 0:20

BS Crystal Resolution	12.45	N/A	12.29	N/A	N/A	N/A	%
SS Crystal Resolution	9.204	N/A	9.168	N/A	N/A	N/A	%
LS Crystal Resolution	8.148	N/A	8.234	N/A	N/A	N/A	%

High resolution Integrated Logging Tool-DTS Wellsite Calibration - MCFL Calibration

Before: 12-Jul-2009 1:48

Raw B0 Resistivity	3875	N/A	3868	N/A	N/A	N/A	OHMM
Raw B1 Resistivity	3830	N/A	3812	N/A	N/A	N/A	OHMM
Raw B2 Resistivity	3830	N/A	3866	N/A	N/A	N/A	OHMM

High resolution Integrated Logging Tool-DTS Wellsite Calibration - HILT Caliper Calibration

Before: 12-Jul-2009 0:30

HILT Caliper Zero Measurement	8.000	N/A	8.514	N/A	N/A	N/A	IN
HILT Caliper Plus Measurement	12.00	N/A	12.40	N/A	N/A	N/A	IN

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Detector Calibration

Before: 12-Jul-2009 0:21

Gamma Ray Background	30.00	N/A	4.160	N/A	N/A	N/A	GAPI
Gamma Ray (Jig - Bkgd)	160.0	N/A	184.7	N/A	N/A	14.55	GAPI

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Zero Measurement

Master: 29-Jun-2009 23:18 Before: 12-Jul-2009 0:22

CNTC Background	28.54	28.54	27.66	N/A	N/A	4.281	CPS
CFTC Background	30.72	30.72	29.47	N/A	N/A	4.608	CPS

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Ratio Measurement

Master: 29-Jun-2009 23:18

Thermal Near Corr. (Tank)	5800	2617	N/A	N/A	N/A	N/A	CPS
Thermal Far Corr. (Tank)	2400	1121	N/A	N/A	N/A	N/A	CPS
CNTC/CFTC (Tank)	2.159	2.335	N/A	N/A	N/A	N/A	

High resolution Integrated Logging Tool-DTS Wellsite Calibration - Accelerometer Calibration

Before: 12-Jul-2009 0:21

Z-Axis Acceleration	9.810	N/A	9.781	N/A	N/A	N/A	M/S2
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High resolution Integrated Logging Tool-DTS Master Calibration - Inversion results

Master: 3-Jul-2009 18:59

Rho Aluminum	2.596	2.597	--	--	--	--	G/C3
Rho Magnesium	1.686	1.688	--	--	--	--	G/C3
Pe Aluminum	2.570	2.516	--	--	--	--	
Pe Magnesium	2.650	2.634	--	--	--	--	

High resolution Integrated Logging Tool–DTS Master Calibration – Deviation Summary

Master: 3–Jul–2009 18:59

BS Average Deviation	0	0.2800	--	--	--	--	%
BS Max Deviation	0	0.6805	--	--	--	--	%
SS Average Deviation	0	0.4310	--	--	--	--	%
SS Max Deviation	0	1.992	--	--	--	--	%
LS Average Deviation	0	0.6905	--	--	--	--	%
LS Max Deviation	0	1.788	--	--	--	--	%

The GLS–VJ source activity is acceptable.

The HGNS Neutron Master Calibration was done with the following parameters :

NCT–B Water Temperature 27.0 DEGC.
 Thermal Housing Size 3.375 IN.
 NSR–F serial number 5228

Environment Measurement Sonde / Equipment Identification

Primary Equipment:			
EMS Mechanical	EMM – B	8023	
EMS Cartridge	EMC – B	8027	
EMS Adaptor	EMA – B	8002	
Resistivity Meter	RES –		
Auxiliary Equipment:			
Electronics Cartridge Housing	ECH – KH	8028	

Environment Measurement Sonde Wellsite Calibration

EMS Caliper Calibration

Phase	Radius 1 Short Radius IN	Value	Phase	Radius 1 Long Radius IN	Value
Before		3.627	Before		7.897
	3.000 (Minimum) 4.000 (Nominal) 5.000 (Maximum)			7.000 (Minimum) 8.000 (Nominal) 9.000 (Maximum)	
Phase	Radius 2 Short Radius IN	Value	Phase	Radius 2 Long Radius IN	Value
Before		3.405	Before		7.651
	3.000 (Minimum) 4.000 (Nominal) 5.000 (Maximum)			7.000 (Minimum) 8.000 (Nominal) 9.000 (Maximum)	
Phase	Radius 3 Short Radius IN	Value	Phase	Radius 3 Long Radius IN	Value
Before		3.595	Before		7.818
	3.000 (Minimum) 4.000 (Nominal) 5.000 (Maximum)			7.000 (Minimum) 8.000 (Nominal) 9.000 (Maximum)	
Phase	Radius 4 Short Radius IN	Value	Phase	Radius 4 Long Radius IN	Value
Before		3.824	Before		8.065
	3.000 (Minimum) 4.000 (Nominal) 5.000 (Maximum)			7.000 (Minimum) 8.000 (Nominal) 9.000 (Maximum)	
Phase	Radius 5 Short Radius IN	Value	Phase	Radius 5 Long Radius IN	Value
Before		3.791	Before		8.051
	3.000 (Minimum) 4.000 (Nominal) 5.000 (Maximum)			7.000 (Minimum) 8.000 (Nominal) 9.000 (Maximum)	
Phase	Radius 6 Short Radius IN	Value	Phase	Radius 6 Long Radius IN	Value
Before		3.728	Before		7.967
	3.000 (Minimum) 4.000 (Nominal) 5.000 (Maximum)			7.000 (Minimum) 8.000 (Nominal) 9.000 (Maximum)	

Before: 11–Jul–2009 23:37

High Resolution Laterolog Array – B / Equipment Identification

Primary Equipment:

HRLT Sonde

HRLS - B

846

Auxiliary Equipment:

HRLT lower Housing

HRLH - B

849

HRLT Lower Cartridge

HRLC - B

847

HRLT upper Housing

HRUH - B

755

HRLT Upper Cartridge

HRUC - B

755

High Resolution Laterolog Array - B Wellsite Calibration

HRLT M01

Idx	Phase	HRLT M0-M1 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-316.4	-322.7	-280.7	-379.7
1	Before		-325.5	-322.7	-280.7	-379.7
2	Before		-317.9	-322.7	-280.7	-379.7
3	Before		-320.9	-322.7	-280.7	-379.7
4	Before		-314.2	-322.7	-280.7	-379.7
5	Before		-319.8	-322.7	-280.7	-379.7
6	Before		319.2	322.7	379.7	280.7
7	Before		-322.7	-322.7	-280.7	-379.7
		(Minimum) (Nominal) (Maximum)				

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array - B Wellsite Calibration

HRLT M12

Idx	Phase	HRLT M1-M2 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1749	1781	2095	1549
1	Before		1800	1781	2095	1549
2	Before		1753	1781	2095	1549
3	Before		1769	1781	2095	1549
4	Before		1733	1781	2095	1549
5	Before		1764	1781	2095	1549
6	Before		-1773	-1781	-1549	-2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array - B Wellsite Calibration

HRLT M23

Idx	Phase	HRLT M2-M3 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		1738	1781	2095	1549
1	Before		1793	1781	2095	1549
2	Before		1749	1781	2095	1549
3	Before		1770	1781	2095	1549
4	Before		1730	1781	2095	1549
5	Before		1764	1781	2095	1549
6	Before		-1754	-1781	-1549	-2095
7	Before		1781	1781	2095	1549
		(Minimum) (Nominal) (Maximum)				

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array - B Wellsite Calibration

HRLT V34

Idx	Phase	HRLT V34 Voltage Plus UV	Value	Nominal	Maximum	Minimum

Idx	Phase	HRLT A3-A4 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68360	70000	82360	60900
1	Before		70650	70000	82360	60900
2	Before		69170	70000	82360	60900
3	Before		70140	70000	82360	60900
4	Before		68390	70000	82360	60900
5	Before		69680	70000	82360	60900
6	Before		-68180	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
			(Minimum)	(Nominal)	(Maximum)	

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V45						
Idx	Phase	HRLT A4-A5 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68340	70000	82360	60900
1	Before		70770	70000	82360	60900
2	Before		69260	70000	82360	60900
3	Before		70190	70000	82360	60900
4	Before		68390	70000	82360	60900
5	Before		69660	70000	82360	60900
6	Before		-68320	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
			(Minimum)	(Nominal)	(Maximum)	

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT V56						
Idx	Phase	HRLT A5-A6 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		68600	70000	82360	60900
1	Before		71030	70000	82360	60900
2	Before		69500	70000	82360	60900
3	Before		70440	70000	82360	60900
4	Before		68640	70000	82360	60900
5	Before		69930	70000	82360	60900
6	Before		-68520	-70000	-60900	-82360
7	Before		70000	70000	82360	60900
			(Minimum)	(Nominal)	(Maximum)	

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT VTP						
Idx	Phase	HRLT Torpedo-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-68120	-70000	-60900	-82360
1	Before		-70960	-70000	-60900	-82360
2	Before		-69440	-70000	-60900	-82360
3	Before		-70410	-70000	-60900	-82360
4	Before		-68600	-70000	-60900	-82360
5	Before		-69880	-70000	-60900	-82360

6	Before		68420	70000	82360	60900
7	Before		-70000	-70000	-60900	-82360
			(Minimum)	(Nominal)	(Maximum)	

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT VBD						
Idx	Phase	HRLT Bridle#9-M0 Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-68130	-70000	-60900	-82360
1	Before		-70950	-70000	-60900	-82360
2	Before		-69440	-70000	-60900	-82360
3	Before		-70410	-70000	-60900	-82360
4	Before		-68610	-70000	-60900	-82360
5	Before		-69880	-70000	-60900	-82360
6	Before		68420	70000	82360	60900
7	Before		-70000	-70000	-60900	-82360
			(Minimum)	(Nominal)	(Maximum)	

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT ISO						
Idx	Phase	HRLT Source Current Plus UA	Value	Nominal	Maximum	Minimum
0	Before		283.7	284.0	334.1	247.0
1	Before		281.1	281.1	330.7	244.4
2	Before		281.1	281.1	330.7	244.4
3	Before		281.1	281.1	330.7	244.4
4	Before		281.1	281.1	330.7	244.4
5	Before		281.1	281.1	330.7	244.4
6	Before		281.1	281.1	330.7	244.4
7	Before		281.1	281.1	330.7	244.4
			(Minimum)	(Nominal)	(Maximum)	

Before: 12-Jul-2009 3:18

High Resolution Laterolog Array – B Wellsite Calibration						
HRLT MV						
Idx	Phase	HRLT Vertical Voltage Plus UV	Value	Nominal	Maximum	Minimum
0	Before		-320.2	-322.7	-280.7	-379.7
1	Before		-322.1	-322.7	-280.7	-379.7
2	Before		-313.4	-322.7	-280.7	-379.7
3	Before		-314.7	-322.7	-280.7	-379.7
4	Before		-305.2	-322.7	-280.7	-379.7
5	Before		-325.5	-322.7	-280.7	-379.7
6	Before		328.8	322.7	379.7	280.7
7	Before		-322.7	-322.7	-280.7	-379.7
			(Minimum)	(Nominal)	(Maximum)	

Before: 12-Jul-2009 3:18

High resolution Integrated Logging Tool–DTS / Equipment Identification

Primary Equipment:

HILT high-Resolution Mechanical Sonde
 HILT Rxo Gamma-ray Device
 HILT Micro Cylindrically Focused Log Dev
 GR Logging Source
 HILT High Res. Control Cartridge
 HILT Gamma-Ray Neutron Sonde-DTS
 HGNS Gamma-Ray Device
 HGNS Neutron Detector with Alpha Source

HRMS - H 3846
 HRGD - H 3824
 MCFL - H
 GLS - VJ 3856
 HRCC - H 3794
 HGNS - H 3840
 HGR -
 HCNT - H

Auxiliary Equipment:

Neutron Calibration Tank
 Gamma Source Radioactive
 HGNS Housing

NCT - B 2138
 GSR - Y 1005
 HGNH - 2916

High resolution Integrated Logging Tool-DTS Wellsite Calibration											
Stab Measurement Summary											
Phase	BS Window Ratio		Value	Phase	SS Window Ratio		Value	Phase	LS Window Ratio		Value
Before			0.7439	Before			0.4839	Before			0.2954
	0.7073 (Minimum)	0.7445 (Nominal)	0.7817 (Maximum)		0.4591 (Minimum)	0.4832 (Nominal)	0.5074 (Maximum)		0.2779 (Minimum)	0.2926 (Nominal)	0.3072 (Maximum)
Phase	BS Window Sum CPS		Value	Phase	SS Window Sum CPS		Value	Phase	LS Window Sum CPS		Value
Before			27070	Before			11540	Before			1251
	25730 (Minimum)	27090 (Nominal)	28440 (Maximum)		10980 (Minimum)	11550 (Nominal)	12130 (Maximum)		1190 (Minimum)	1253 (Nominal)	1315 (Maximum)

Before: 12-Jul-2009 0:20

High resolution Integrated Logging Tool-DTS Wellsite Calibration											
Photo-multiplier High Voltages Calibrations											
Phase	BS PM High Voltage (Command) V		Value	Phase	SS PM High Voltage (Command) V		Value	Phase	LS PM High Voltage (Command) V		Value
Before			1555	Before			1607	Before			1438
	1457 (Minimum)	1557 (Nominal)	1657 (Maximum)		1508 (Minimum)	1608 (Nominal)	1708 (Maximum)		1332 (Minimum)	1432 (Nominal)	1532 (Maximum)

Before: 12-Jul-2009 0:20

High resolution Integrated Logging Tool-DTS Wellsite Calibration											
Crystal Quality Resolutions Calibration											
Phase	BS Crystal Resolution %		Value	Phase	SS Crystal Resolution %		Value	Phase	LS Crystal Resolution %		Value
Before			12.29	Before			9.168	Before			8.234
	11.45 (Minimum)	12.45 (Nominal)	13.45 (Maximum)		8.204 (Minimum)	9.204 (Nominal)	10.20 (Maximum)		7.148 (Minimum)	8.148 (Nominal)	9.148 (Maximum)

Before: 12-Jul-2009 0:20

High resolution Integrated Logging Tool-DTS Wellsite Calibration											
MCFL Calibration											
Phase	Raw B0 Resistivity OHMM		Value	Phase	Raw B1 Resistivity OHMM		Value	Phase	Raw B2 Resistivity OHMM		Value
Before			3868	Before			3812	Before			3866
	3565 (Minimum)	3875 (Nominal)	4185 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)		3524 (Minimum)	3830 (Nominal)	4136 (Maximum)

Before: 12-Jul-2009 1:48

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
HILT Caliper Calibration							
Phase	HILT Caliper Zero Measurement IN		Value	Phase	HILT Caliper Plus Measurement IN		Value
Before			8.514	Before			12.40
	6.000 (Minimum)	8.000 (Nominal)	10.00 (Maximum)		9.000 (Minimum)	12.00 (Nominal)	15.00 (Maximum)

Before: 12-Jul-2009 0:30

High resolution Integrated Logging Tool-DTS Wellsite Calibration							
Detector Calibration							
Phase	Gamma Ray Background GAPI		Value	Phase	Gamma Ray (Jig - Bkgd) GAPI		Value
Before			4.160	Before			184.7
	0 (Minimum)	30.00 (Nominal)	120.0 (Maximum)		152.3 (Minimum)	160.0 (Nominal)	200.0 (Maximum)

Before: 12-Jul-2009 0:21

High resolution Integrated Logging Tool-DTS Wellsite Calibration					
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Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			28.54	Master			30.72
Before			27.66	Before			29.47
5.000 (Minimum) 28.54 (Nominal) 40.00 (Maximum)				5.000 (Minimum) 30.72 (Nominal) 40.00 (Maximum)			
Master: 29-Jun-2009 23:18				Before: 12-Jul-2009 0:22			

High resolution Integrated Logging Tool-DTS Wellsite Calibration													
Ratio Measurement													
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)		Value
Master				2617	Master				1121	Master			2.335
4700 (Minimum) 5800 (Nominal) 6900 (Maximum)					1900 (Minimum) 2400 (Nominal) 2900 (Maximum)					2.120 (Minimum) 2.159 (Nominal) 2.540 (Maximum)			
Master: 29-Jun-2009 23:18													

High resolution Integrated Logging Tool-DTS Wellsite Calibration		
Accelerometer Calibration		
Phase	Z-Axis Acceleration M/S2	Value
Before		9.781
9.610 (Minimum) 9.810 (Nominal) 10.01 (Maximum)		
Before: 12-Jul-2009 0:21		

High resolution Integrated Logging Tool-DTS Master Calibration							
Inversion results							
Phase	Rho Aluminum G/C3		Value	Phase	Rho Magnesium G/C3		Value
Master			2.597	Master			1.688
2.586 (Minimum) 2.596 (Nominal) 2.606 (Maximum)				1.676 (Minimum) 1.686 (Nominal) 1.696 (Maximum)			
Phase	Pe Aluminum		Value	Phase	Pe Magnesium		Value
Master			2.516	Master			2.634
2.470 (Minimum) 2.570 (Nominal) 2.670 (Maximum)				2.550 (Minimum) 2.650 (Nominal) 2.750 (Maximum)			
Master: 3-Jul-2009 18:59							

High resolution Integrated Logging Tool-DTS Master Calibration											
Deviation Summary											
Phase	BS Average Deviation %		Value	Phase	SS Average Deviation %		Value	Phase	LS Average Deviation %		Value
Master			0.2800	Master			0.4310	Master			0.6905
-0.6000 (Minimum) 0 (Nominal) 0.6000 (Maximum)				-1.000 (Minimum) 0 (Nominal) 1.000 (Maximum)				-1.500 (Minimum) 0 (Nominal) 1.500 (Maximum)			
Phase	BS Max Deviation %		Value	Phase	SS Max Deviation %		Value	Phase	LS Max Deviation %		Value
Master			0.6805	Master			1.992	Master			1.788
-1.600 (Minimum) 0 (Nominal) 1.600 (Maximum)				-2.500 (Minimum) 0 (Nominal) 2.500 (Maximum)				-3.500 (Minimum) 0 (Nominal) 3.500 (Maximum)			
Master: 3-Jul-2009 18:59											

High resolution Integrated Logging Tool-DTS Master Calibration							
Zero Measurement							
Phase	CNTC Background CPS		Value	Phase	CFTC Background CPS		Value
Master			28.54	Master			30.72
5.000 (Minimum) 28.54 (Nominal) 40.00 (Maximum)				5.000 (Minimum) 30.72 (Nominal) 40.00 (Maximum)			
Master: 29-Jun-2009 23:18							

High resolution Integrated Logging Tool-DTS Master Calibration													
Tank Measurement													
Phase	Thermal Near Corr. (Tank) CPS			Value	Phase	Thermal Far Corr. (Tank) CPS			Value	Phase	CNTC/CFTC (Tank)		Value
Master				2617	Master				1121	Master			2.335
4700 (Minimum) 5800 (Nominal) 6900 (Maximum)					1900 (Minimum) 2400 (Nominal) 2900 (Maximum)					2.120 (Minimum) 2.159 (Nominal) 2.540 (Maximum)			
Master: 29-Jun-2009 23:18													

DTS Telemetry Tool / Equipment Identification

Primary Equipment:

DTC-H Auxiliary Cartridge
DTC-H Telemetry Cartridge

DTCH - A
DTCH - A

Auxiliary Equipment:

DTCH Telemetry Cartridge Housing

ECH - KC 9799

Company: **CDEX**

Schlumberger

Well: **C0009A**

Field: **Kumanonada, Offshore Kii peninsula**

Rig: **Chikyu**

Country: **JAPAN**

EMS-HRLA-MCFL-DT-GR-SF
3665.4m - 2785.0m
Suite 1, Run 1 (1:200)