

HALLIBURTON										GAMMA RAY COLLAR CEMENT BOND LOG (GR-CBL)									
Company URSA OPERATING CO., LLC.					Company URSA OPERATING CO., LLC.					Company URSA OPERATING CO., LLC. Well TOMPKINS 31C-08-07-95 Field PARACHUTE County GARFIELD State CO									
Well TOMPKINS 31C-08-07-95					Well TOMPKINS 31C-08-07-95														
Field PARACHUTE					Field PARACHUTE														
County GARFIELD					County GARFIELD														
State CO					State CO					State CO									
Location:					Location:					Other Services									
API No.: 05045224790000					API No.: 05045224790000					Serv #: 903505058									
N/A					N/A					RMTI									
Sec: 8 Twp: 7S Rge: 95W					Sec: 8 Twp: 7S Rge: 95W														
Permanent Datum					G.L. Elevation 5532.0'					Elevation 5549.0'									
Log Measured From					K.B. , 17.0 Ft. above perm. datum					K.B. 5549.0'									
Drilling Measured From					K.B.					D.F. 5532.0'									
Date @ Time Logged					08/29/2016					Type Fluid in Hole WATER									
Run No.					ONE					Density of Fluid 8.45#									
Depth - Driller					7156' E.D.					Fluid Level SURFACE									
Depth - Logger					7152'					Cement Top Est. Logged N/A									
Bottom - Logged Interval					7146'					Equipment / Location 11591000 / BKSFD									
Top - Log Interval					1700'					Recorded by BRIAN PEDERSEN									
Max. Recorded Temp.					N/A					Witnessed by MR. O. MOLINAR									
CEMENTING DATA					Surface					Protection									
Date / Time Cemented					String					String									
Primary / Squeeze																			
Expected Compressive Strength					psi@ hrs					psi@ hrs									
Cement Volume																			
Cement Type / Weight					/					/									
Formulation																			
Mud Type / Mud Wgt.					/					/									
Borehole Record					From					To									
Run Number					Bit					Size									
ONE					24.0"					77"									
TWO					12.25"					77"									
THREE					7.875"					1796'									

Service Ticket No.	903505058	API No.	045-22483	PGM Ver	15.10.29001
The Well Name, Location, Borehole Description, and / or Cementing Data Furnished by Client					
EQUIPMENT DATA					
XHU		GAMMA		RMTI	
Run No.	ONE	Run No.	ONE	Run No.	ONE
Serial No.	12029128	Serial No.	12157979	Serial No.	11680597
Model No.	XHU-3	Model No.	TTTC-U2	Model No.	RMTI
Diameter	1 11/16"	Diameter	1 11/16"	Diameter	2.25"
LOGGING DATA					
General Data					
Pass	Depths		Well Head	Speed	Logging Run Comments
No	From	To	Pressure	Ft/Min	

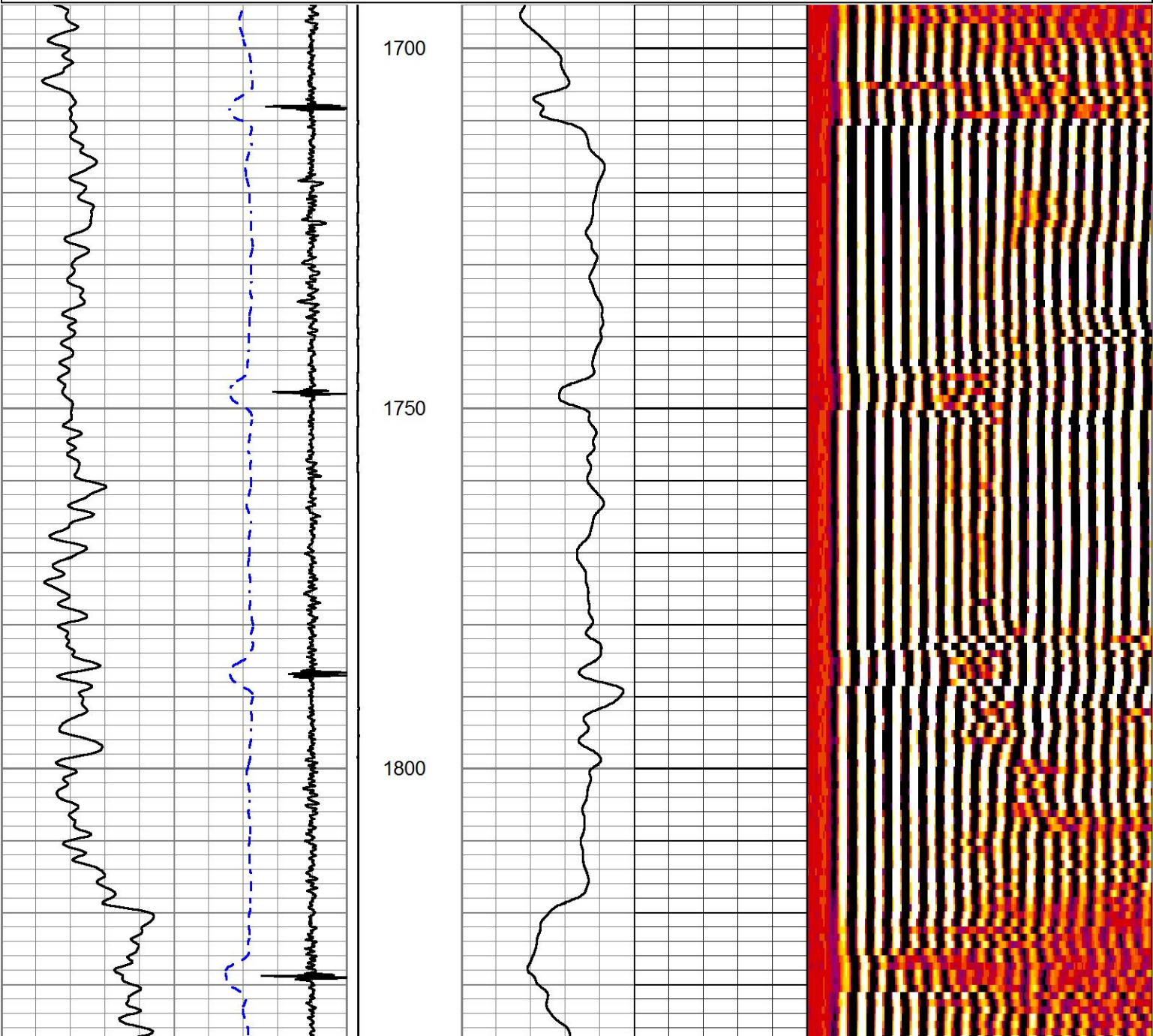
ONE	7152'	6950'	0 PSI	60'	REPEAT			
TWO	7152'	1700'	0 PSI	60'	MAIN			
	GAMMA							
Pass	Scale		Scale		Scale		Scale	
No.	L	R	L	R	L	R	L	L
1-3	0	150						
4	0	150						
DIRECTIONAL INFORMATION								
Maximum Deviation			deg. @		KOP			

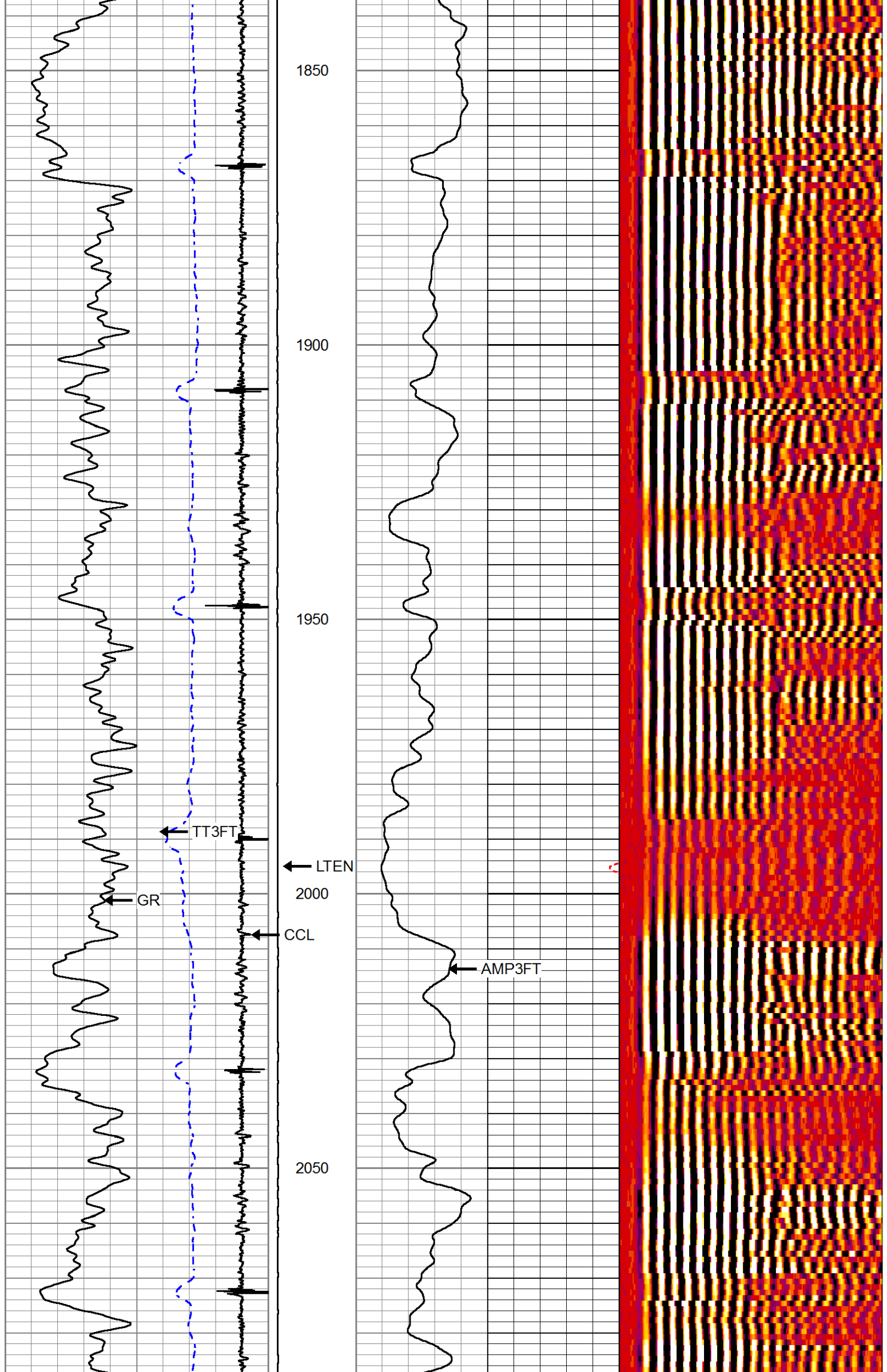
HALLIBURTON

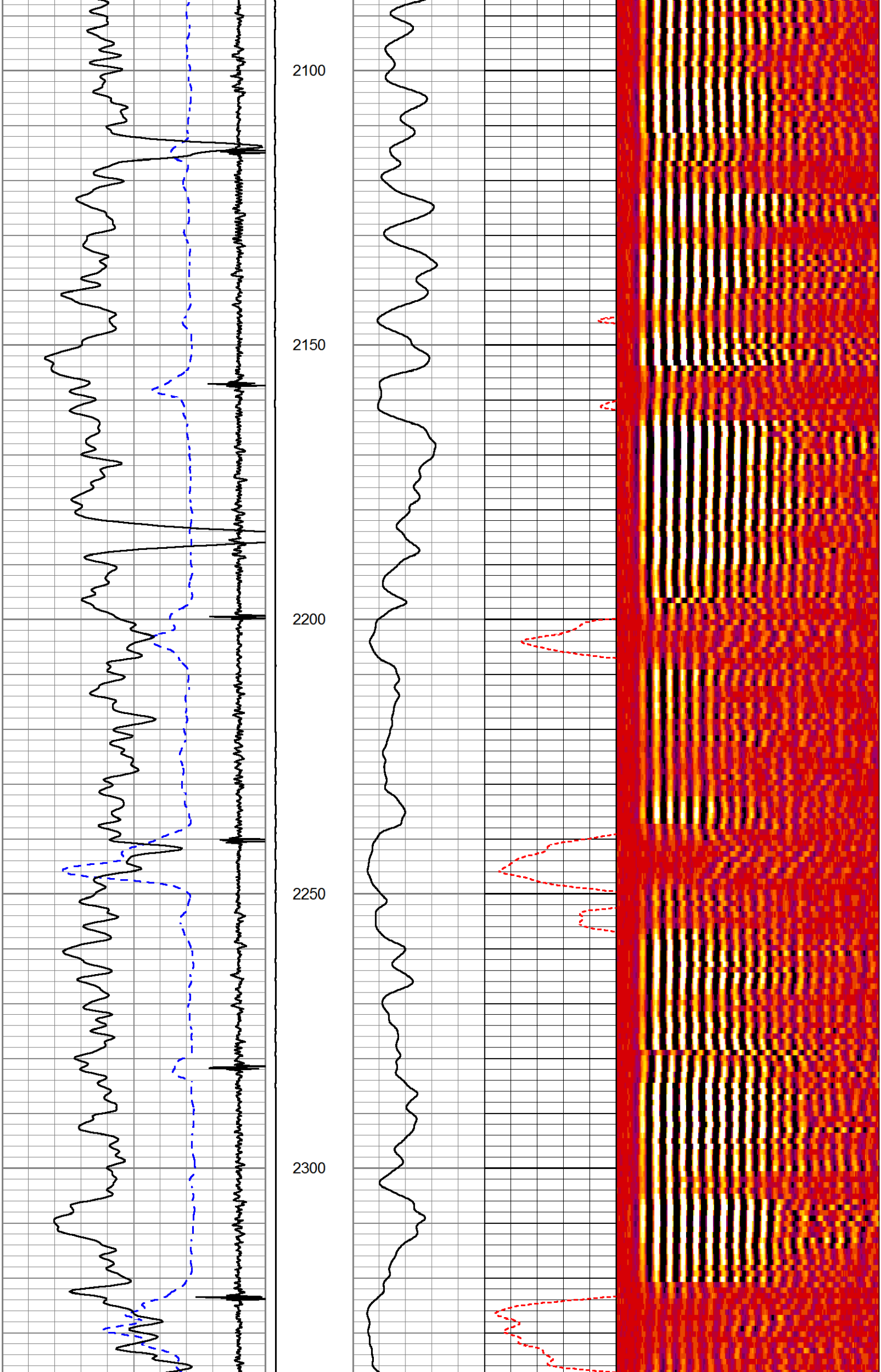
MAIN PASS

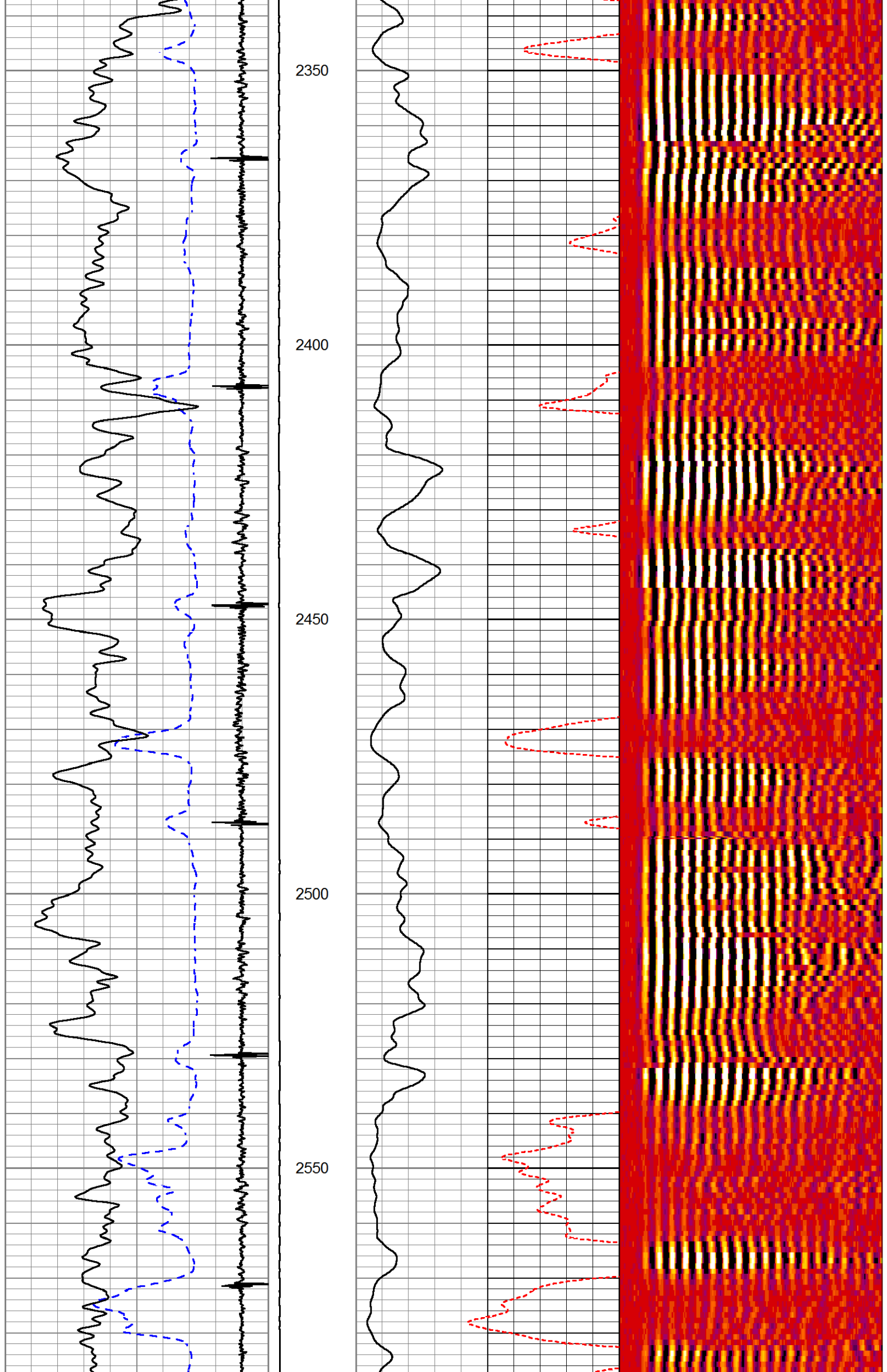
Database File	ursa-tom-31c_rmt.db
Dataset Pathname	pass30
Presentation Format	!1!!cbl_rmti
Dataset Creation	Tue Aug 30 02:47:49 2016
Charted by	Depth in Feet scaled 1:240

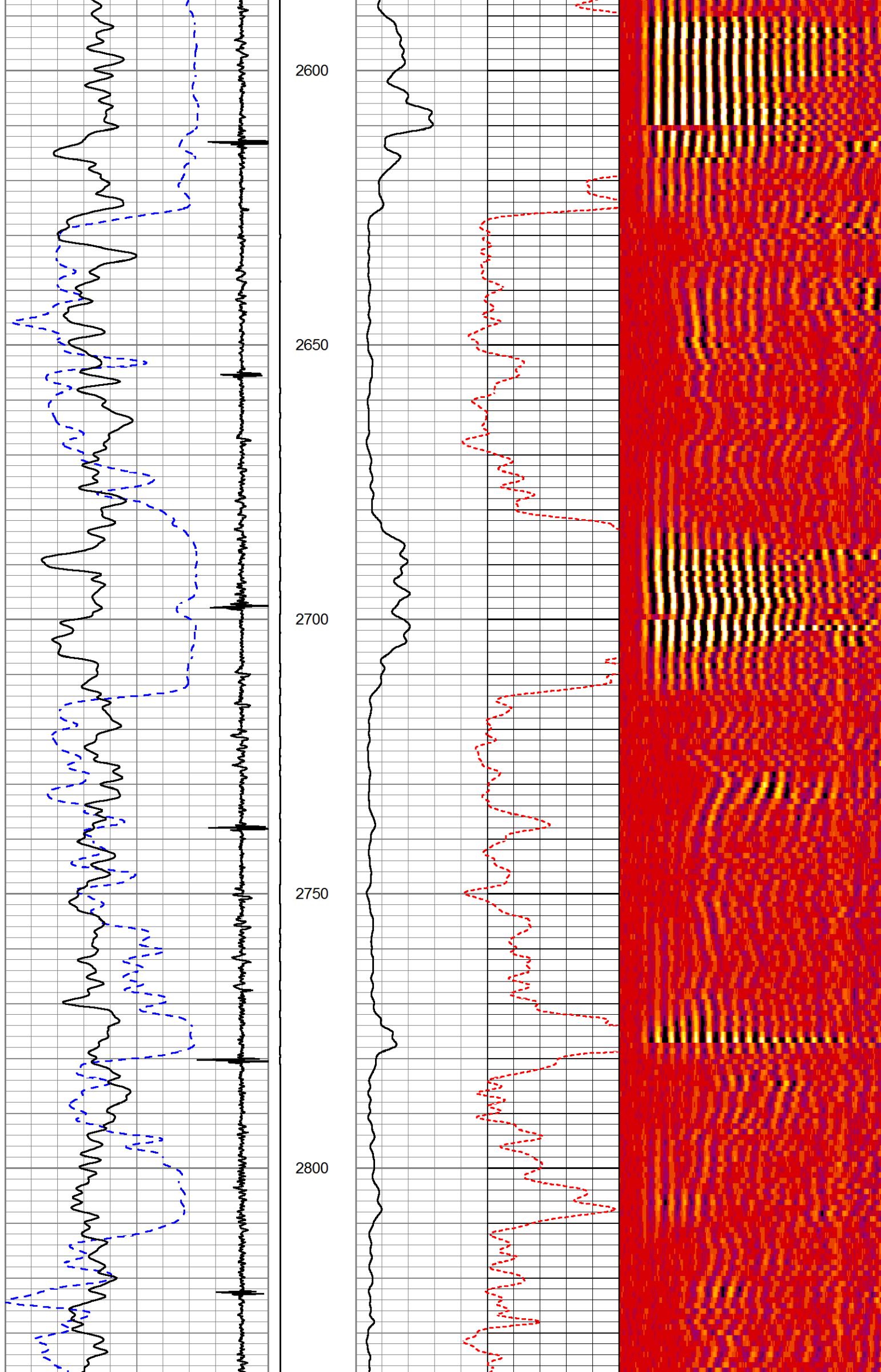
312	Travel Time (usec)	212	Line Tension	0	Amplitude (mV)	100	200	Variable Density	1060
3600	Collar Locator	-400	0 (lb/5000	0	Amplified Amplitude (mV)	10			
0	GAMMA RAY	150							

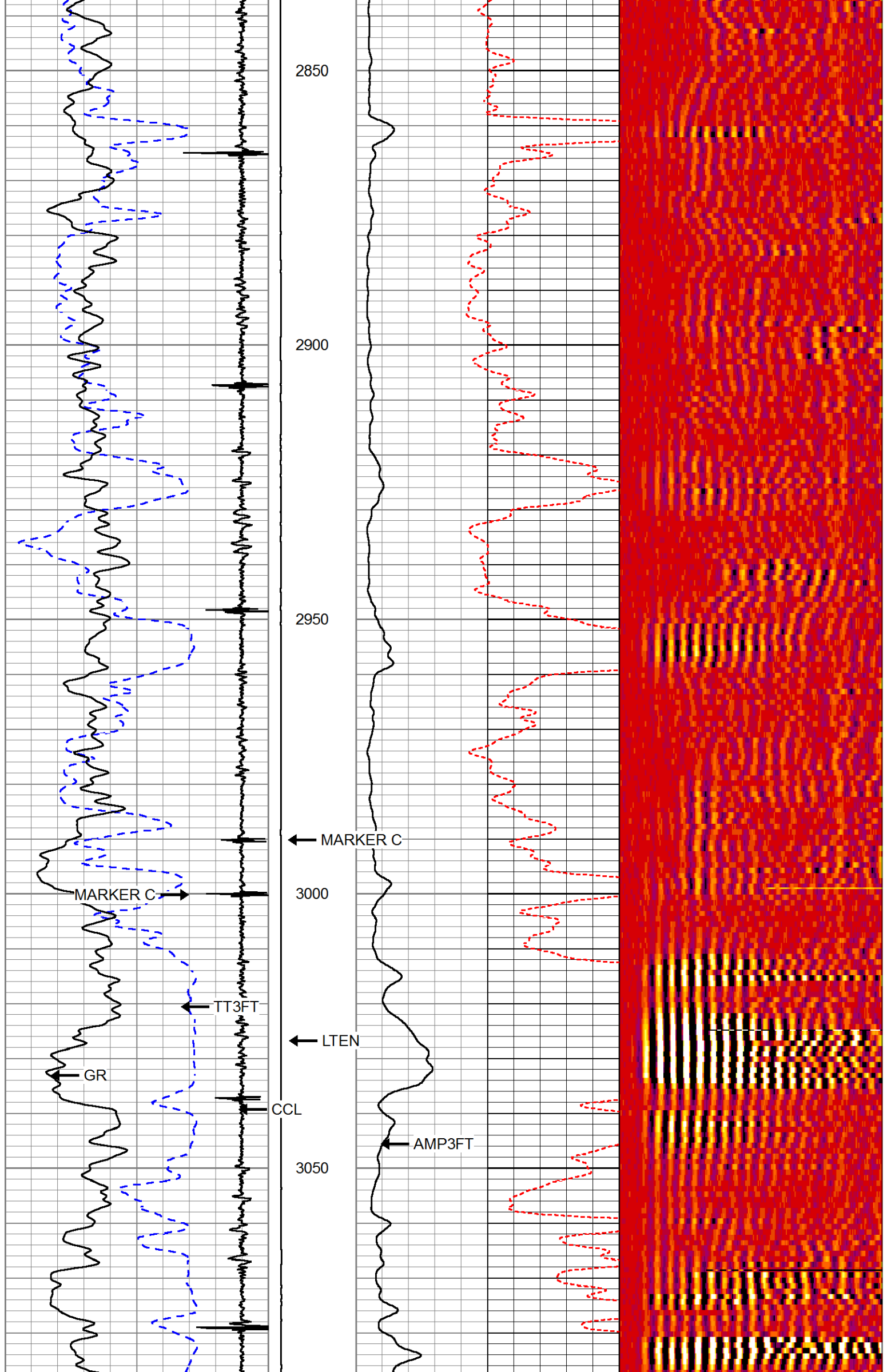


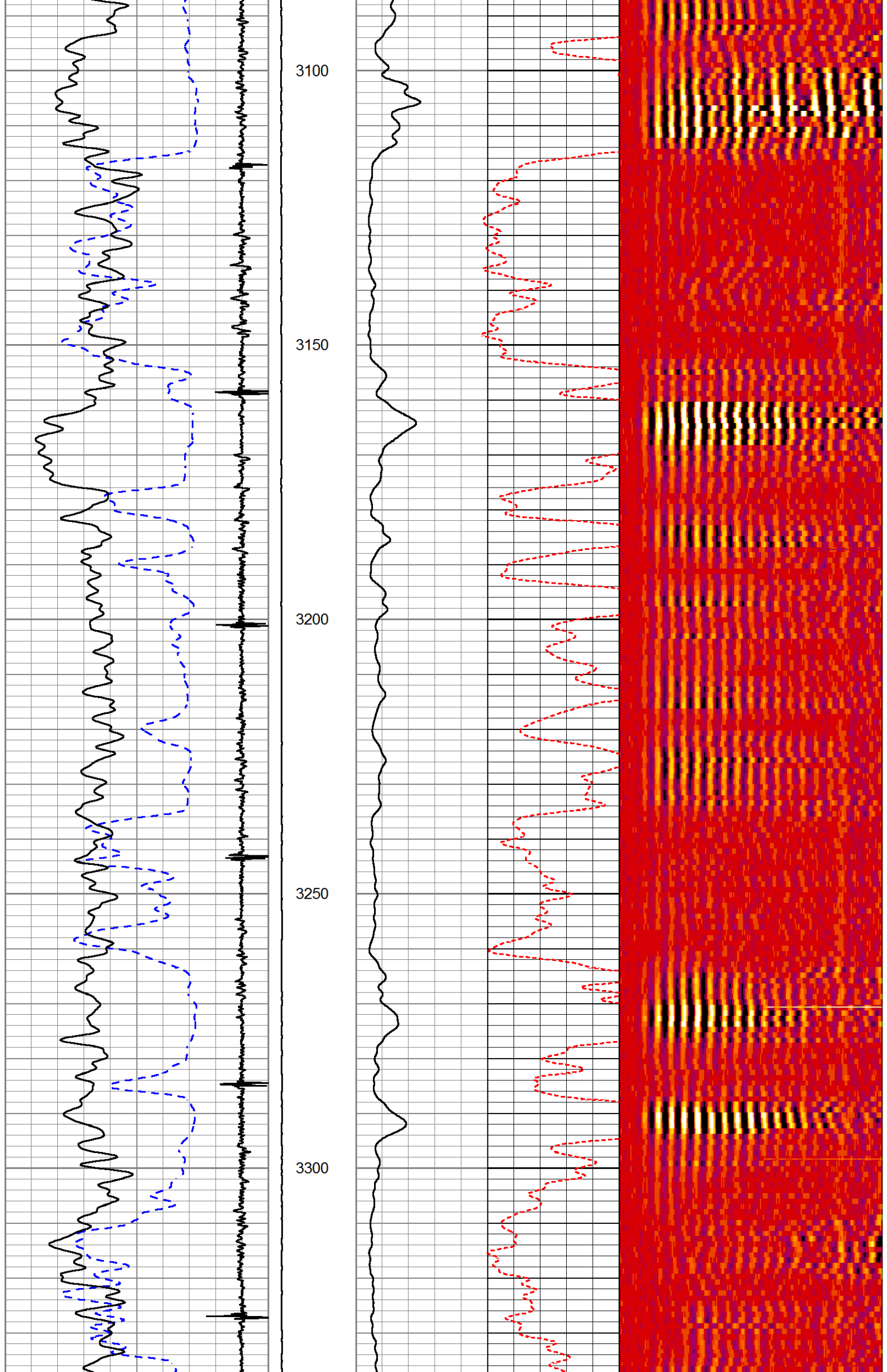


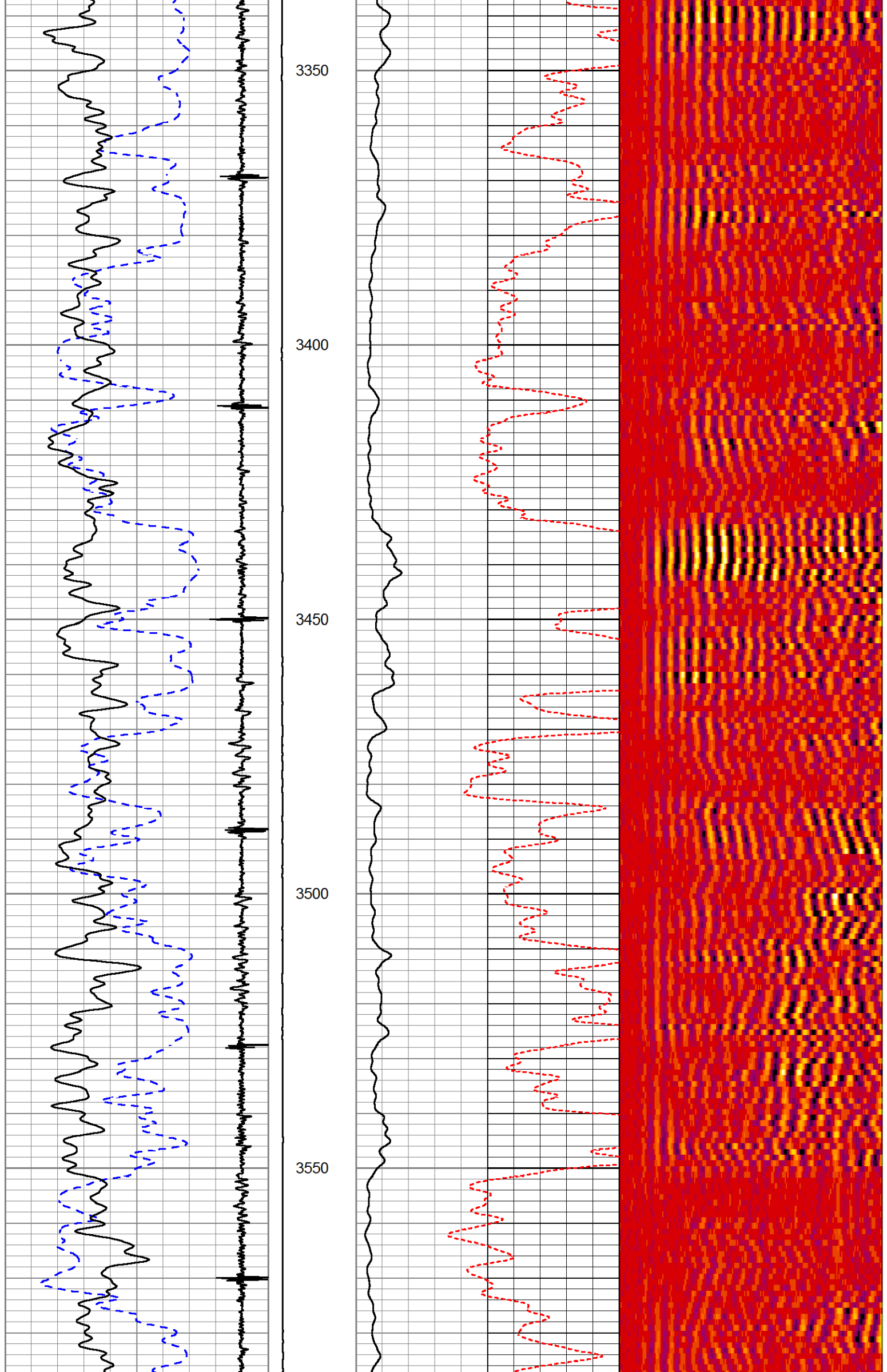


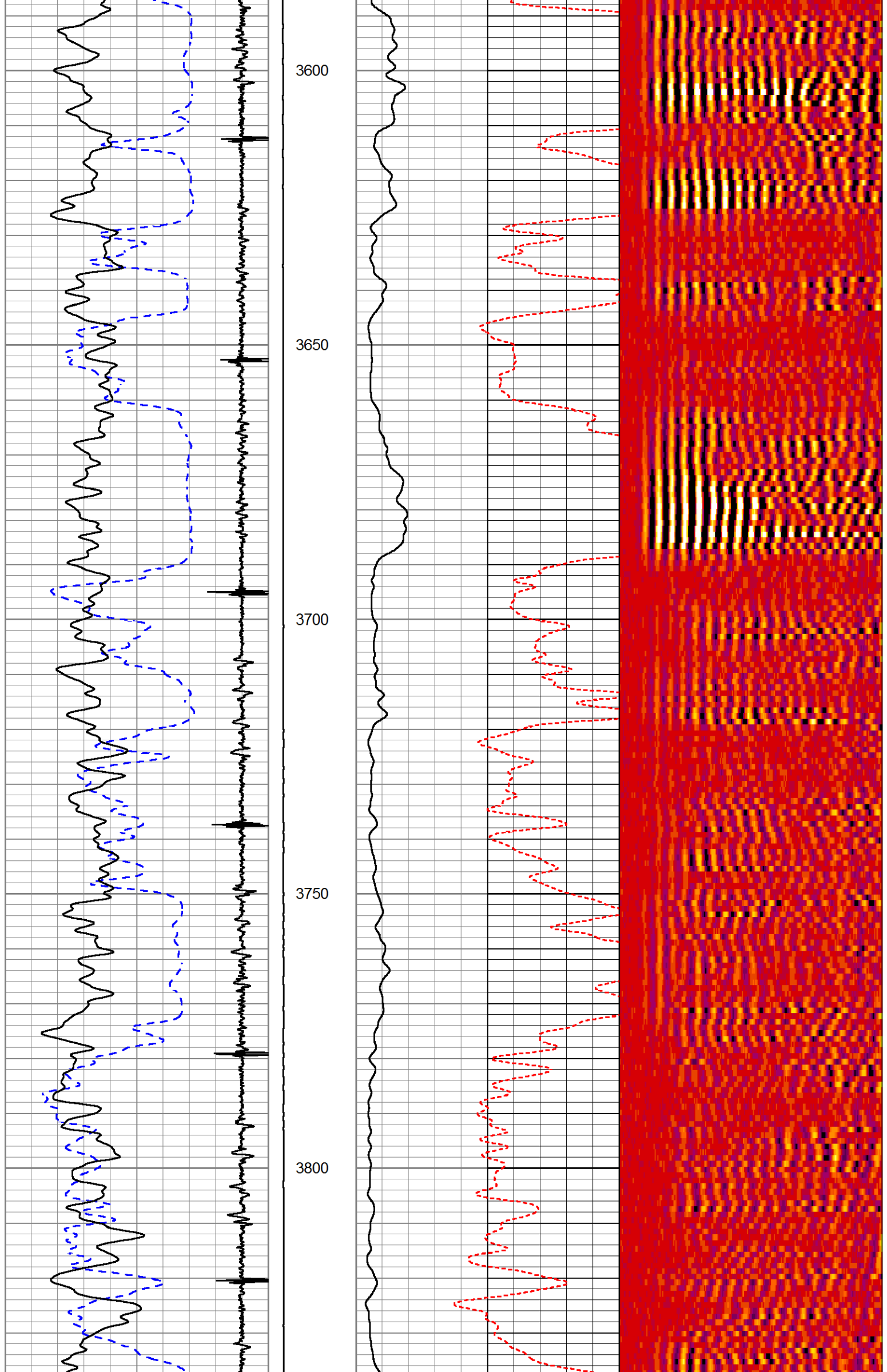


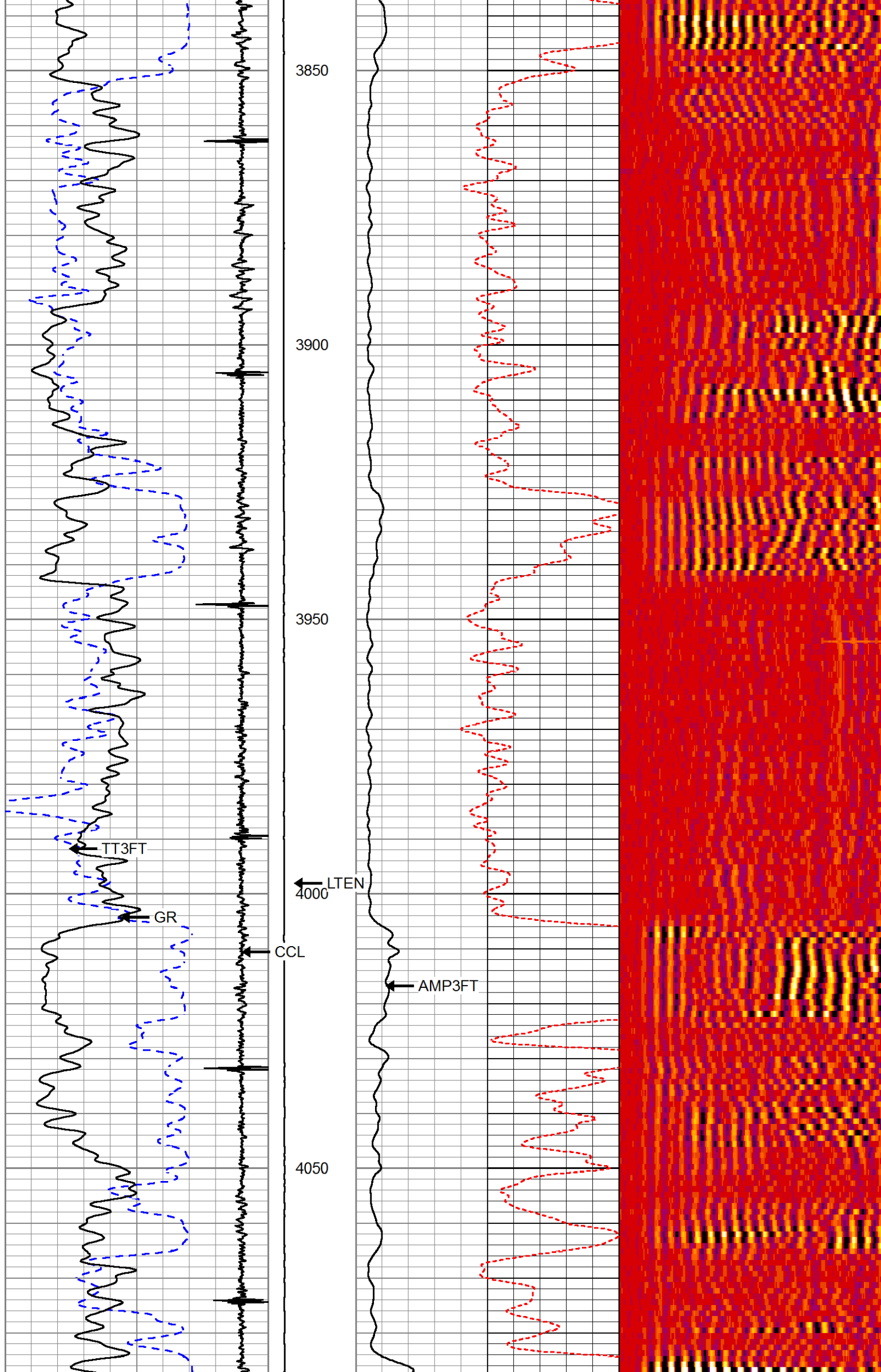


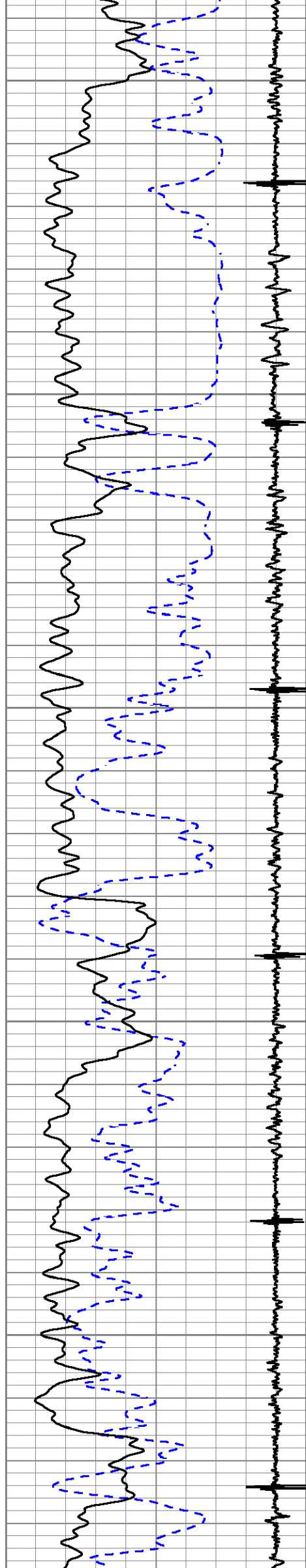












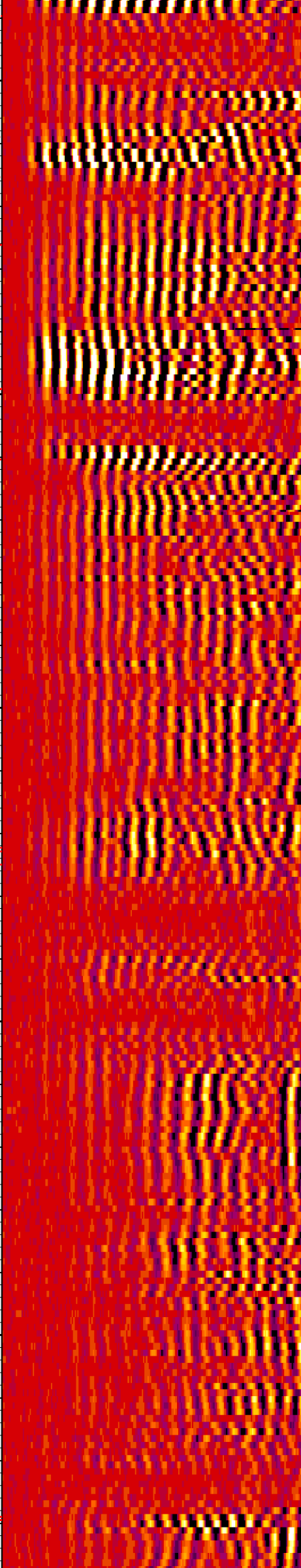
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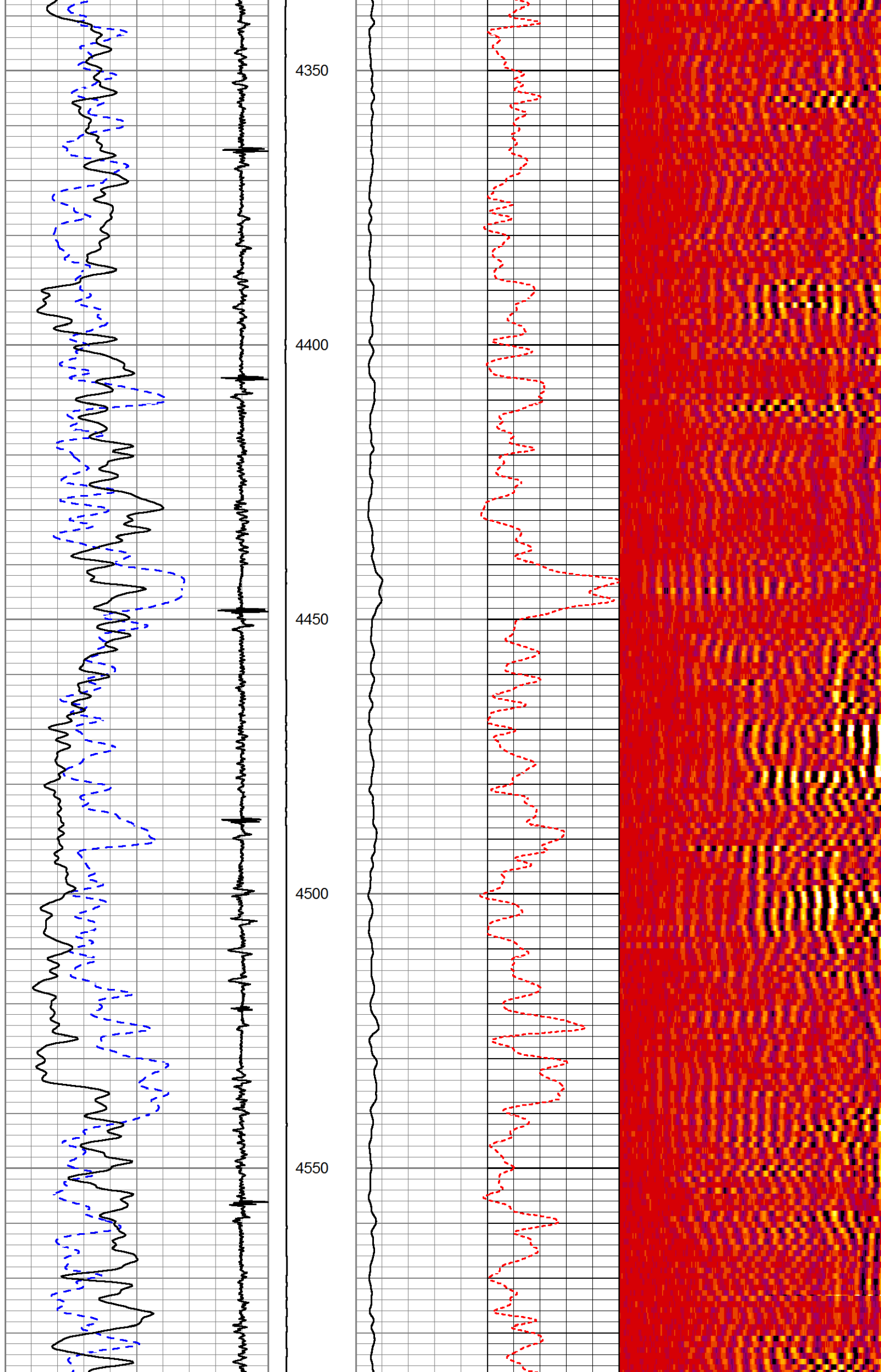
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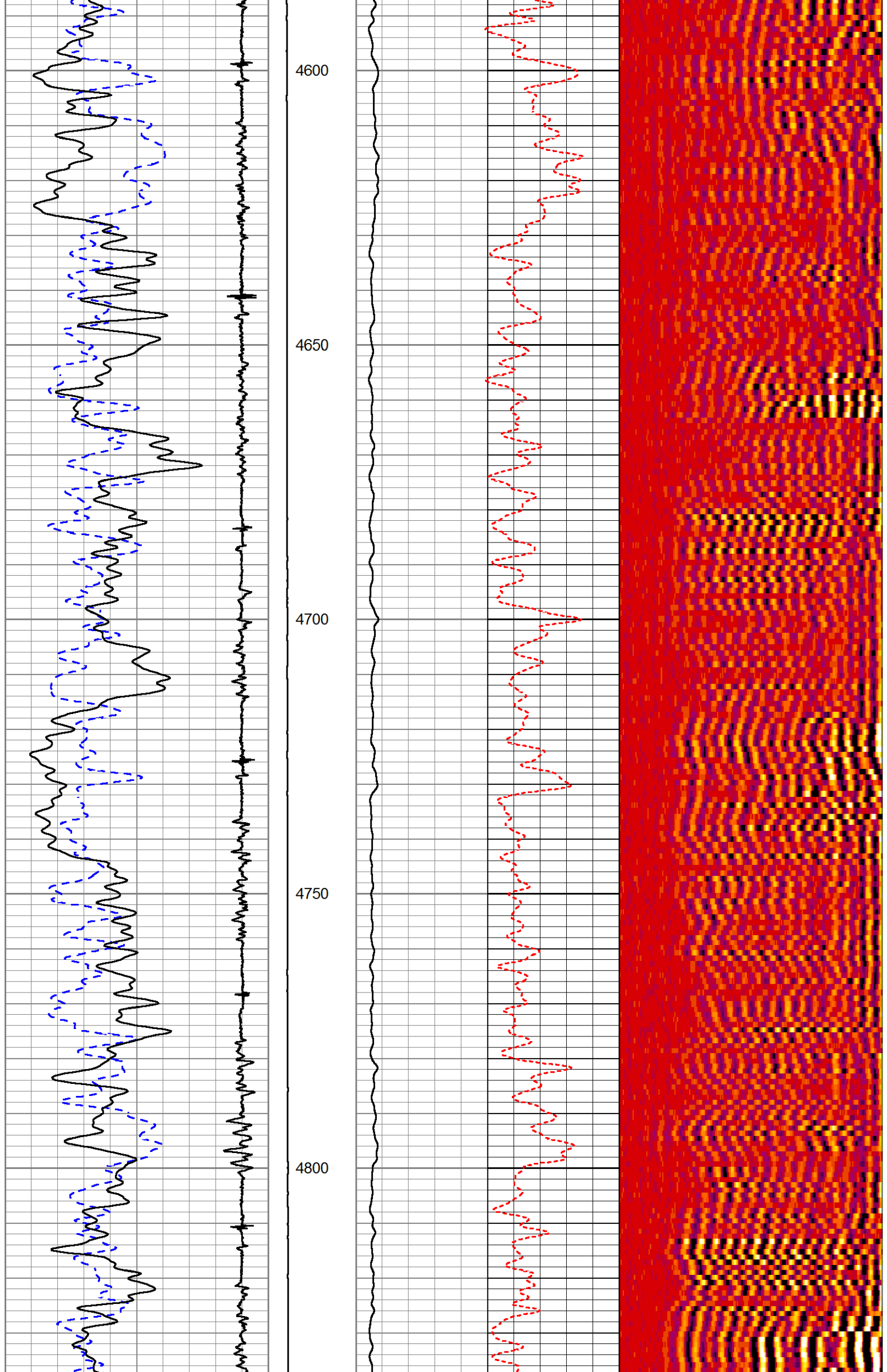
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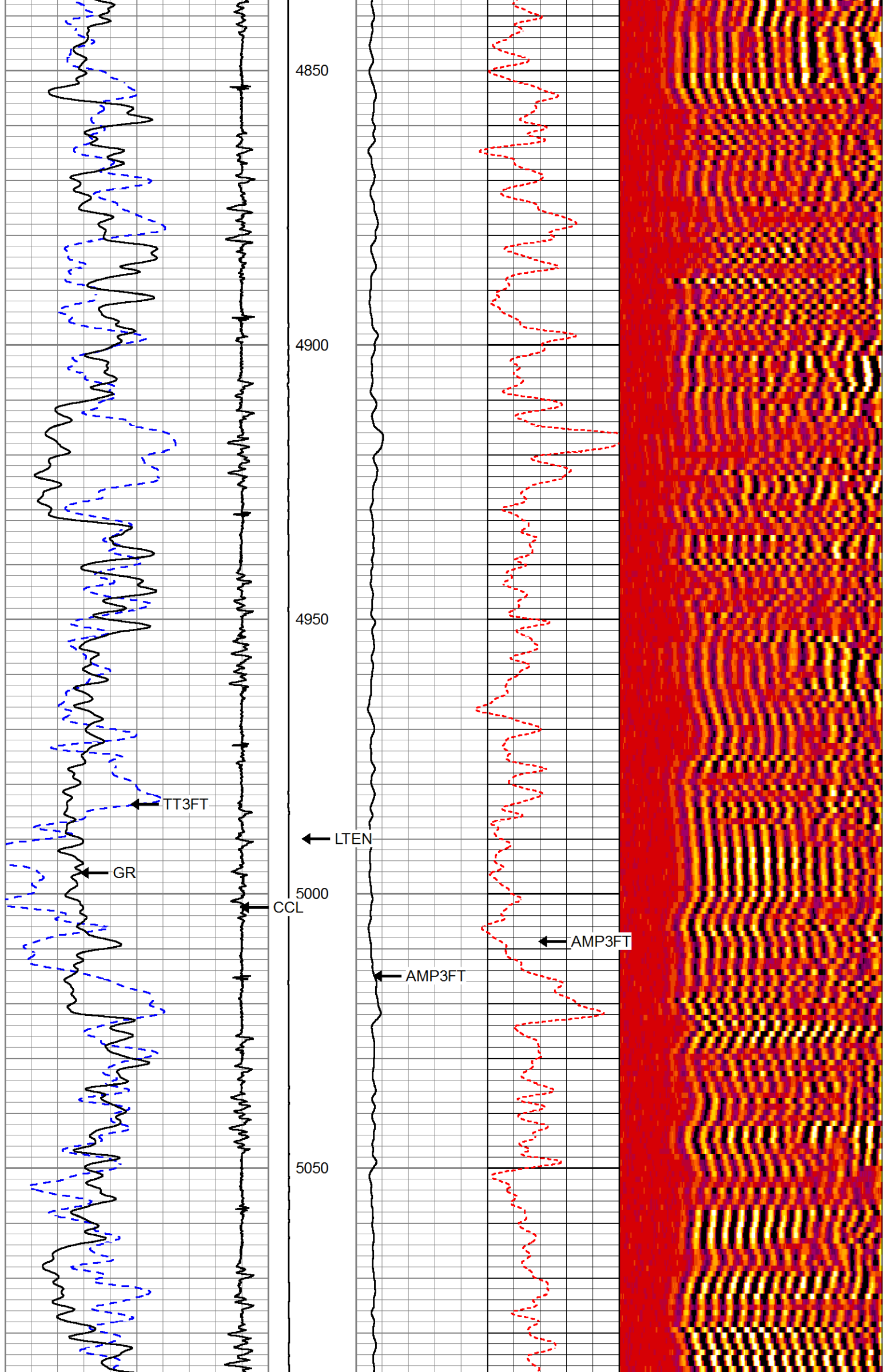
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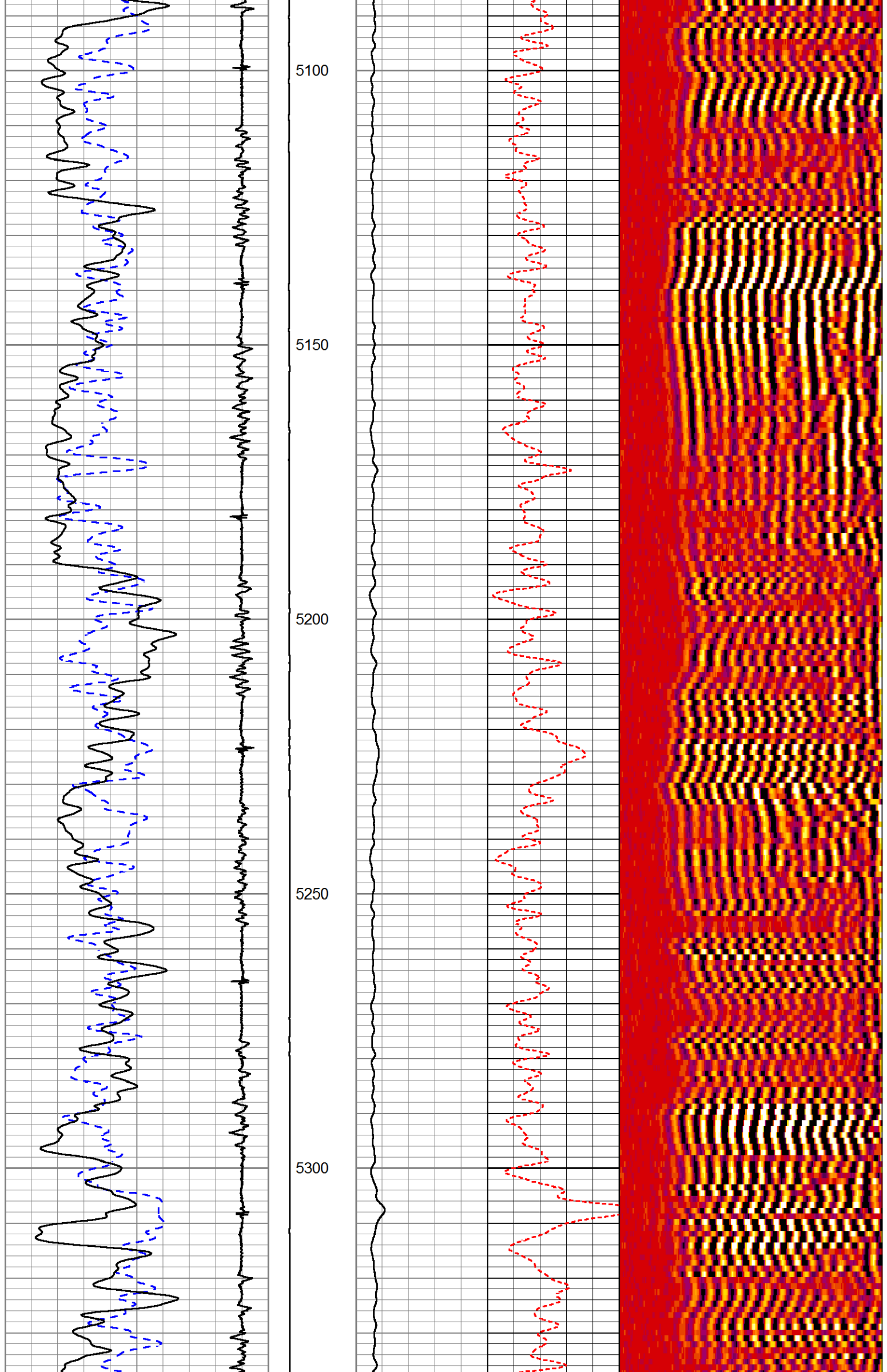
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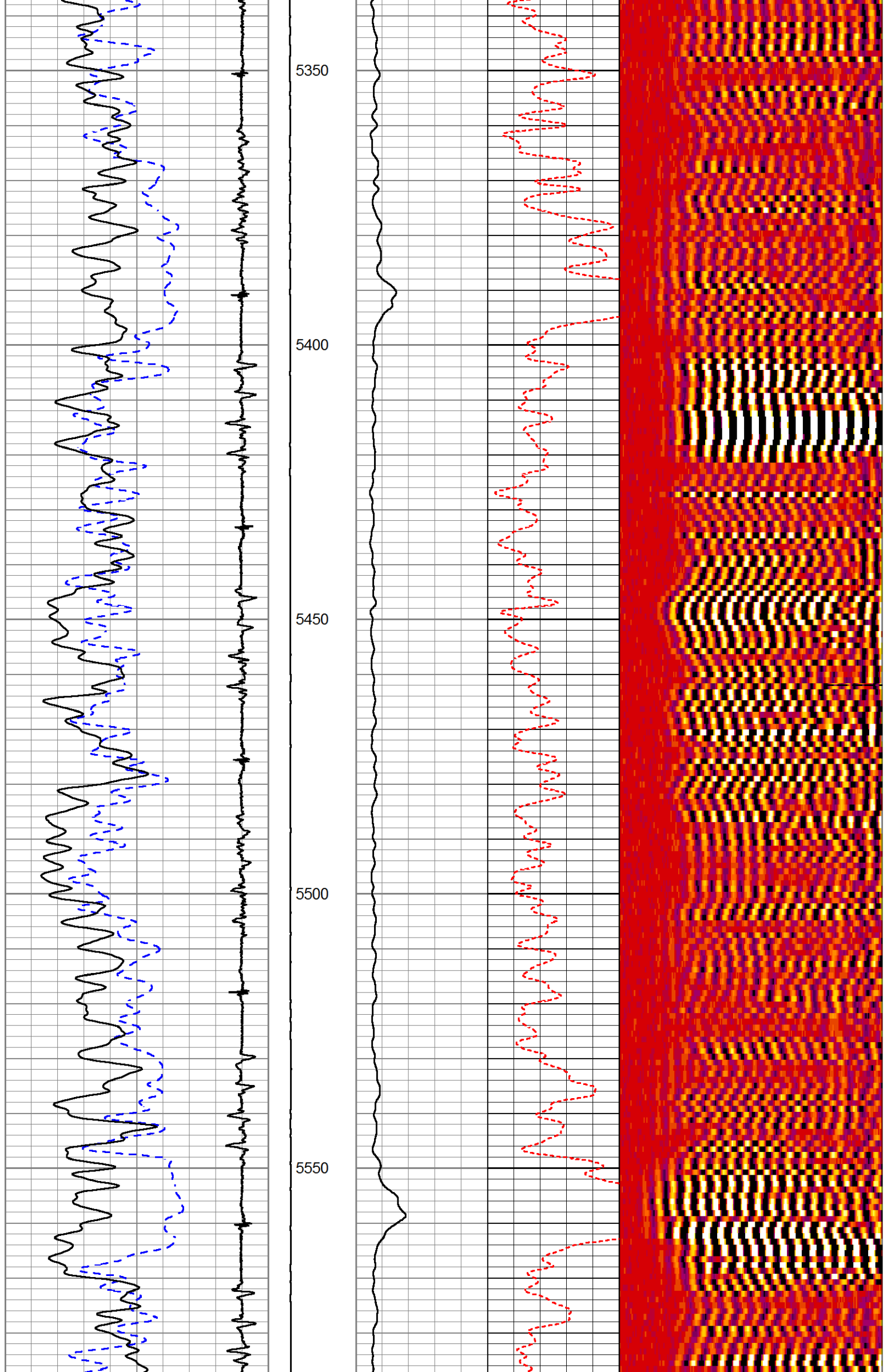


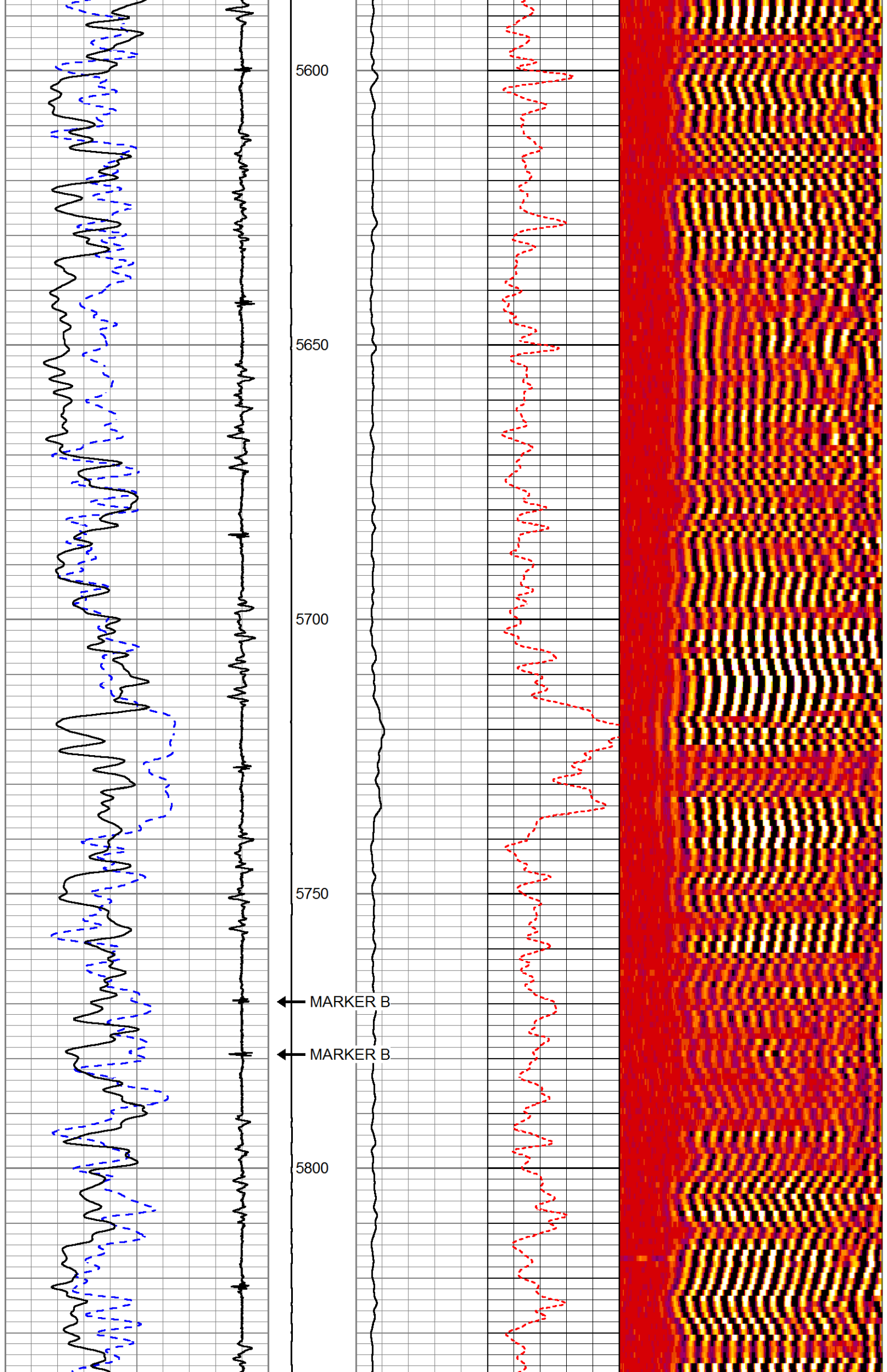


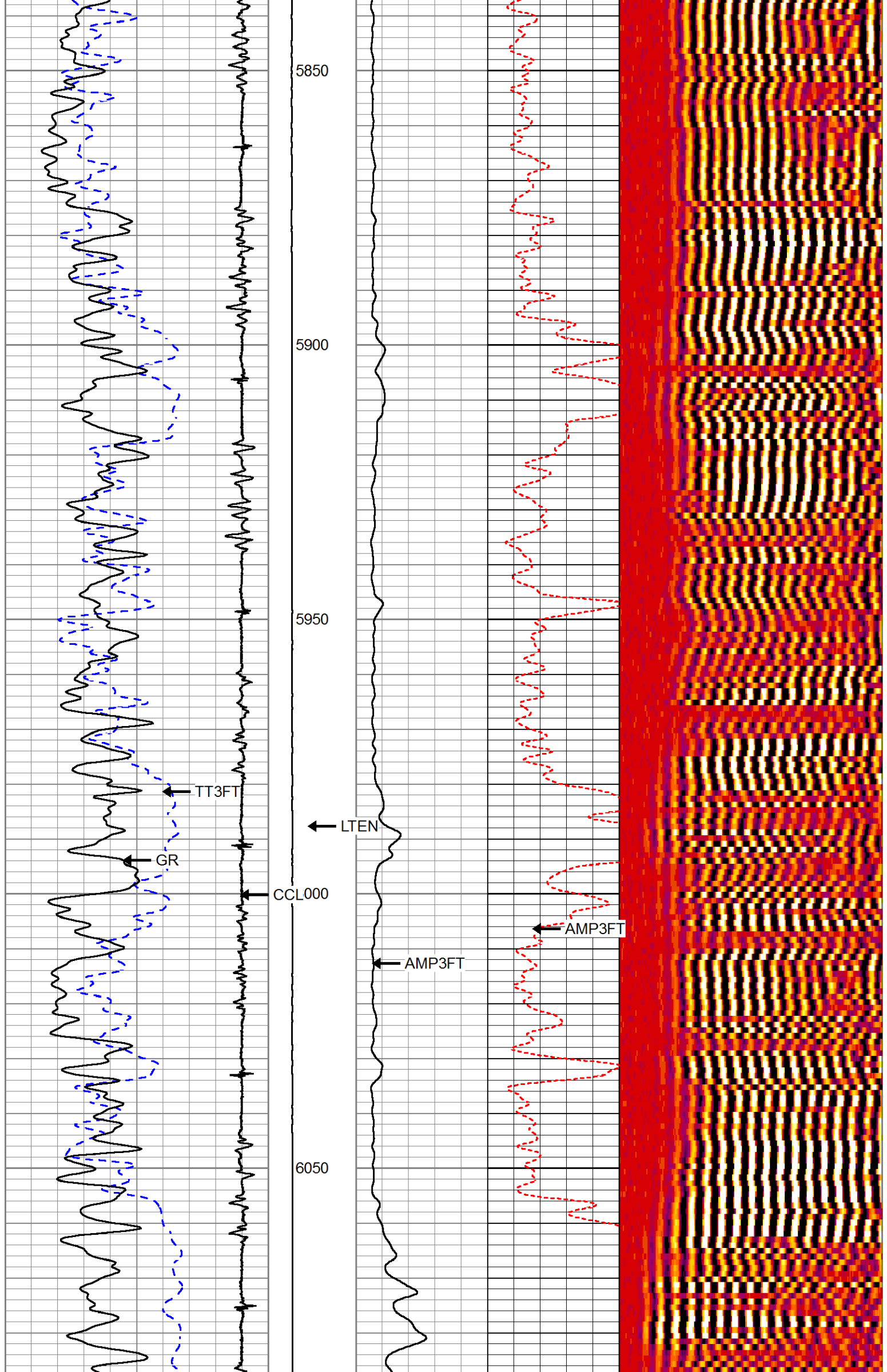


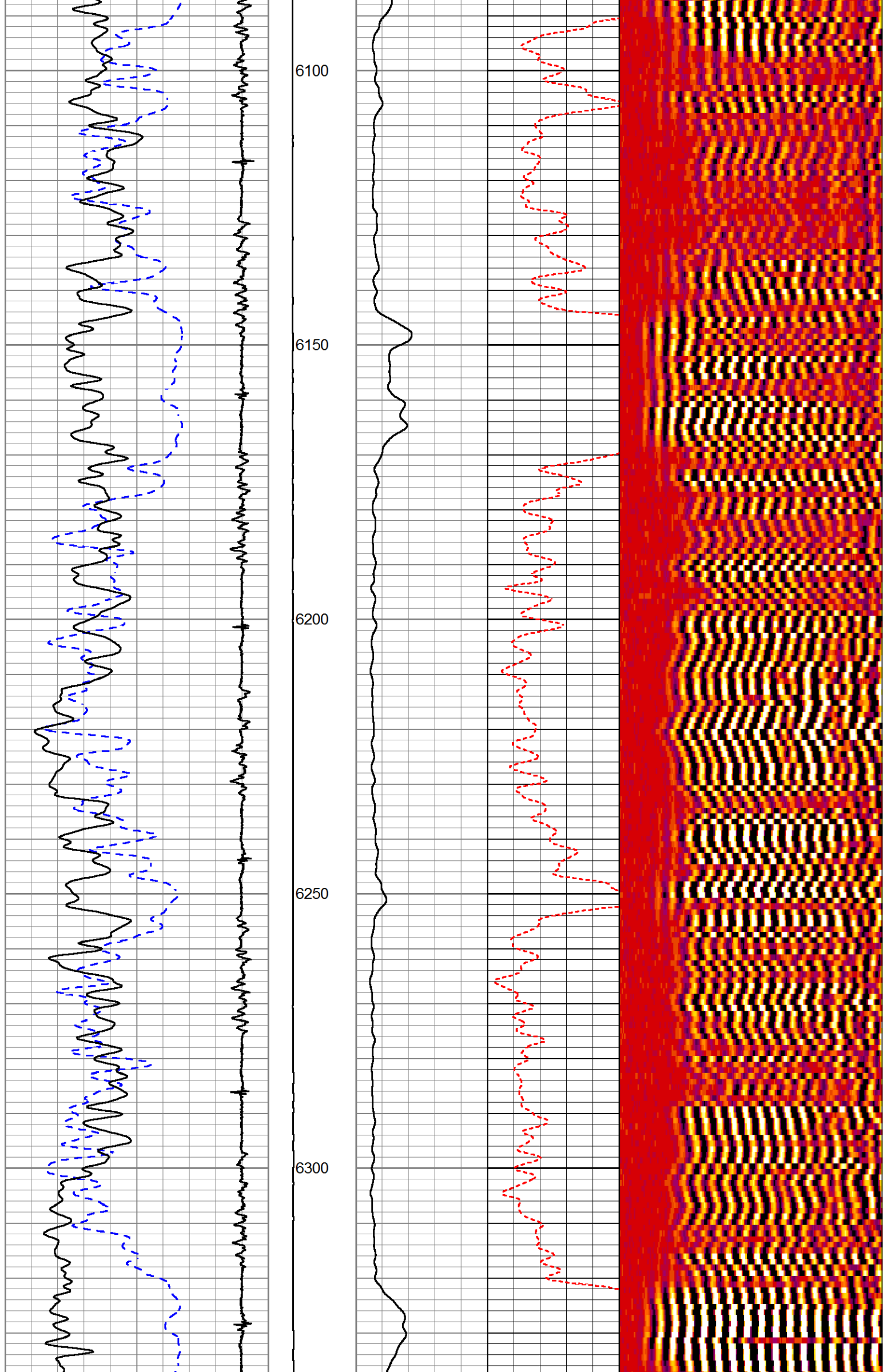


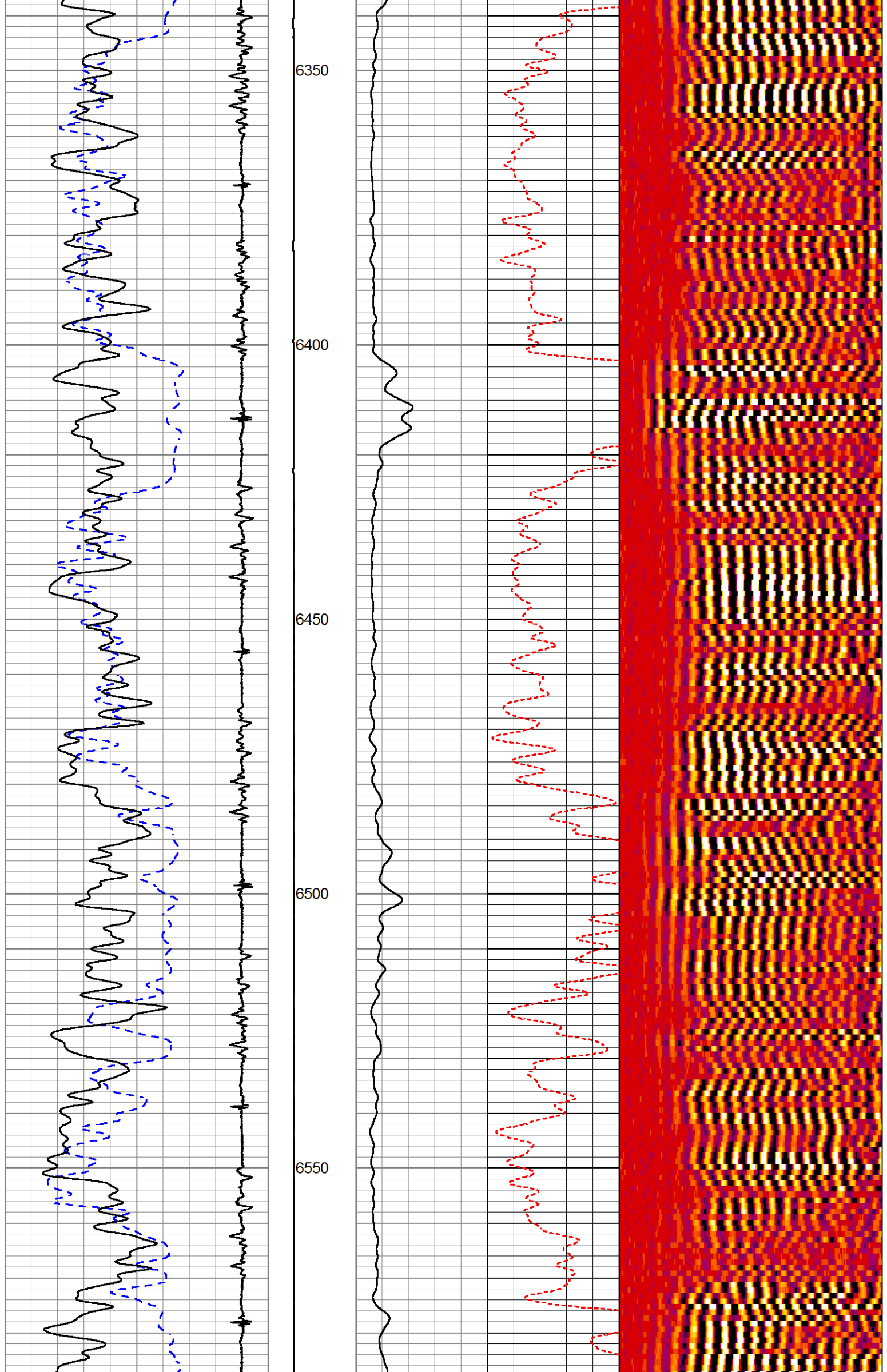


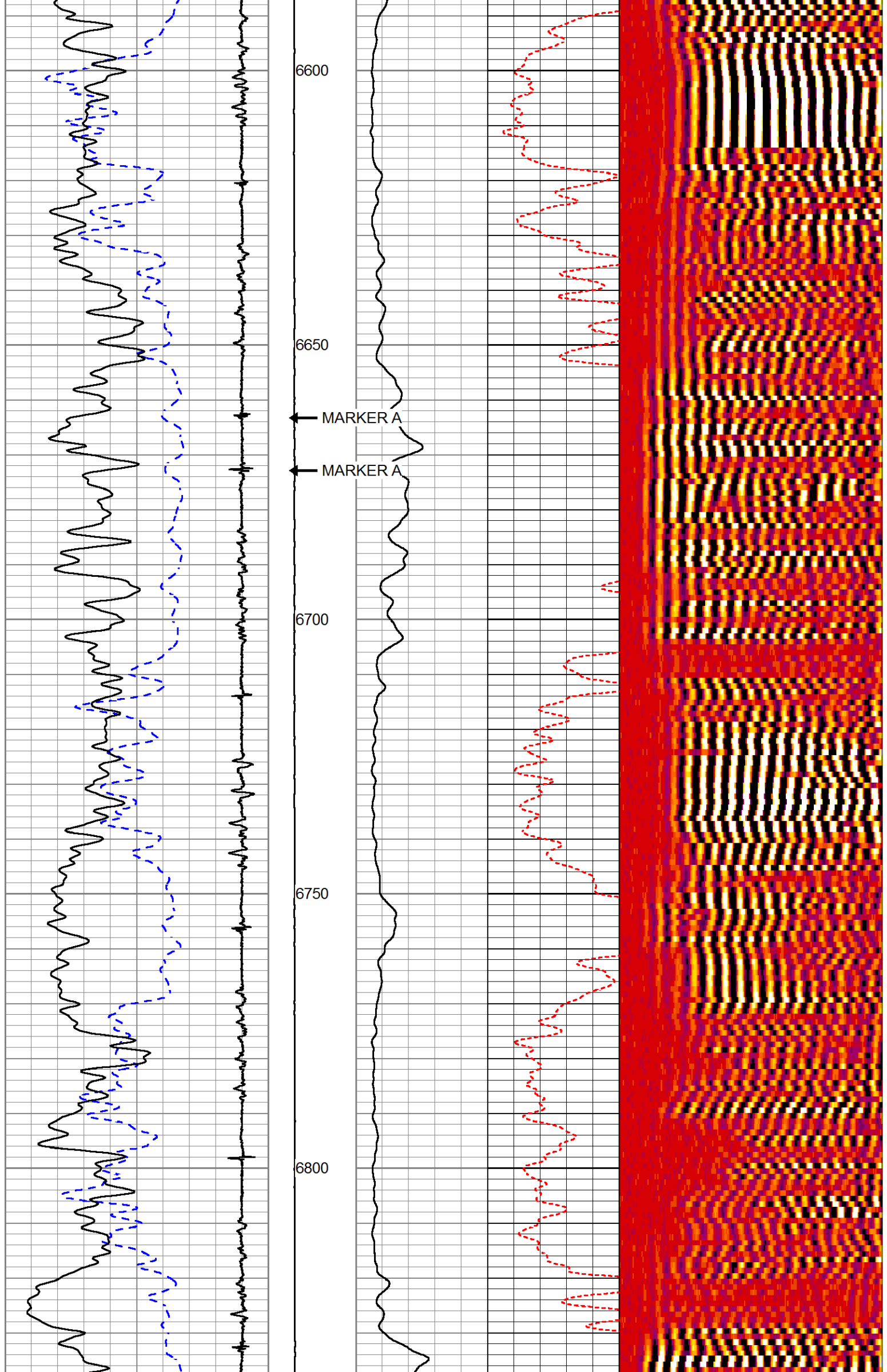


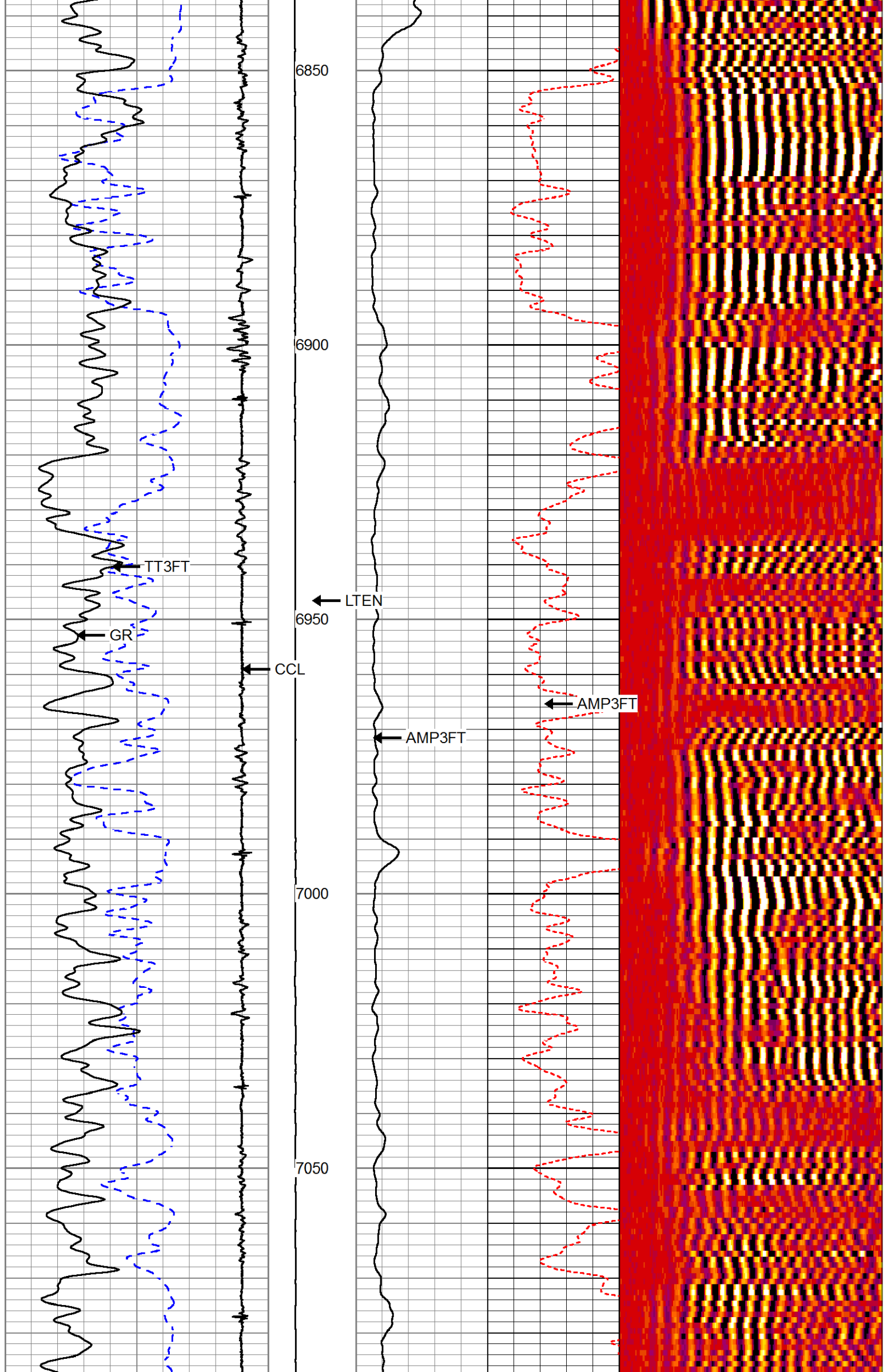


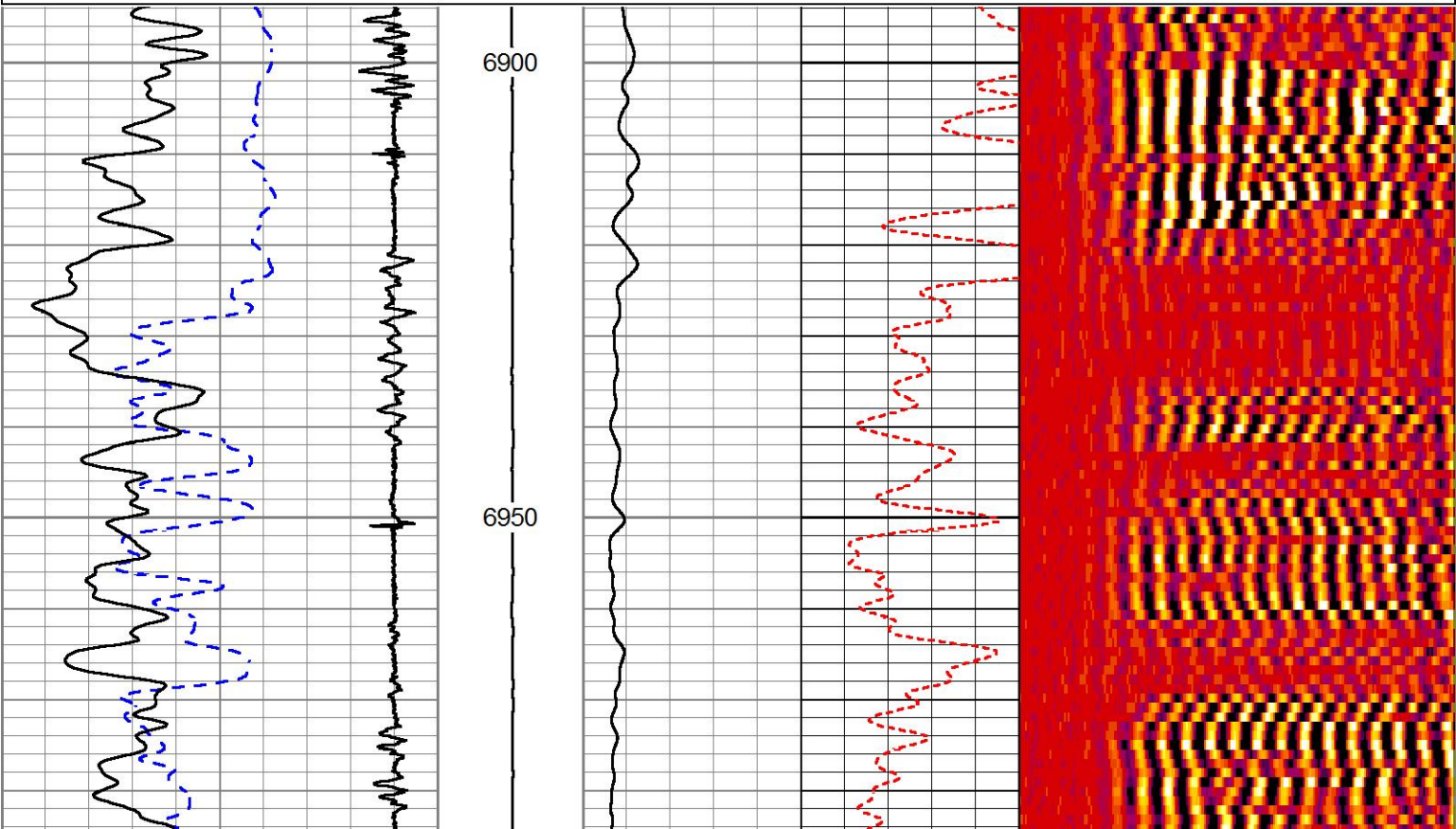
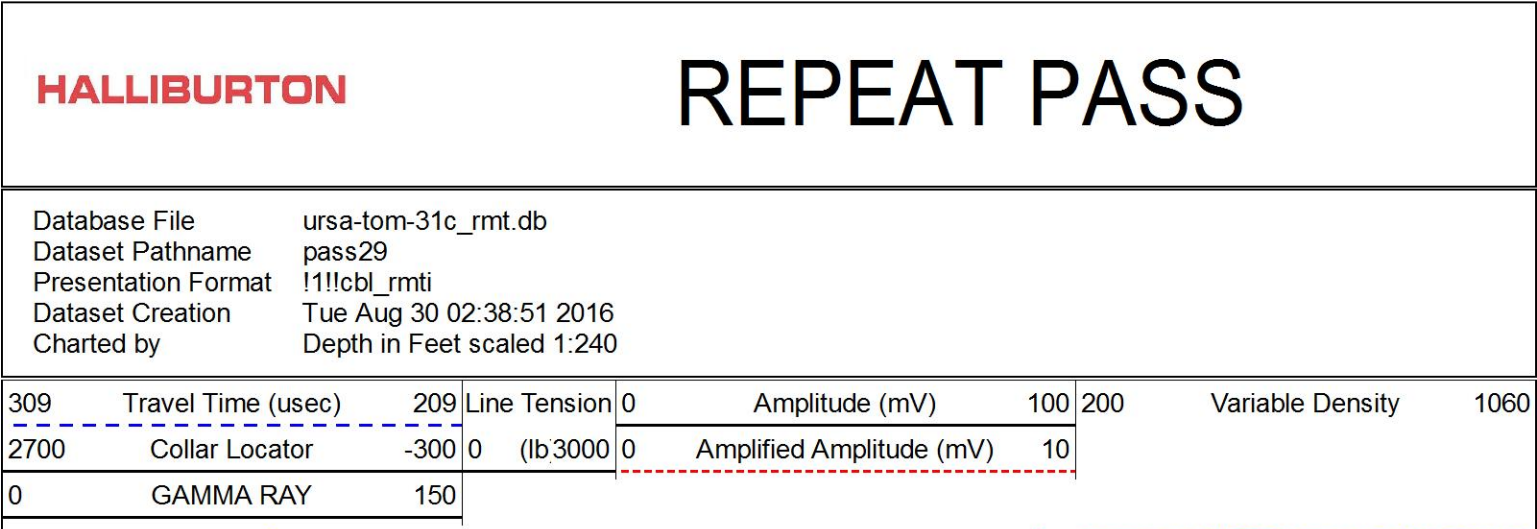
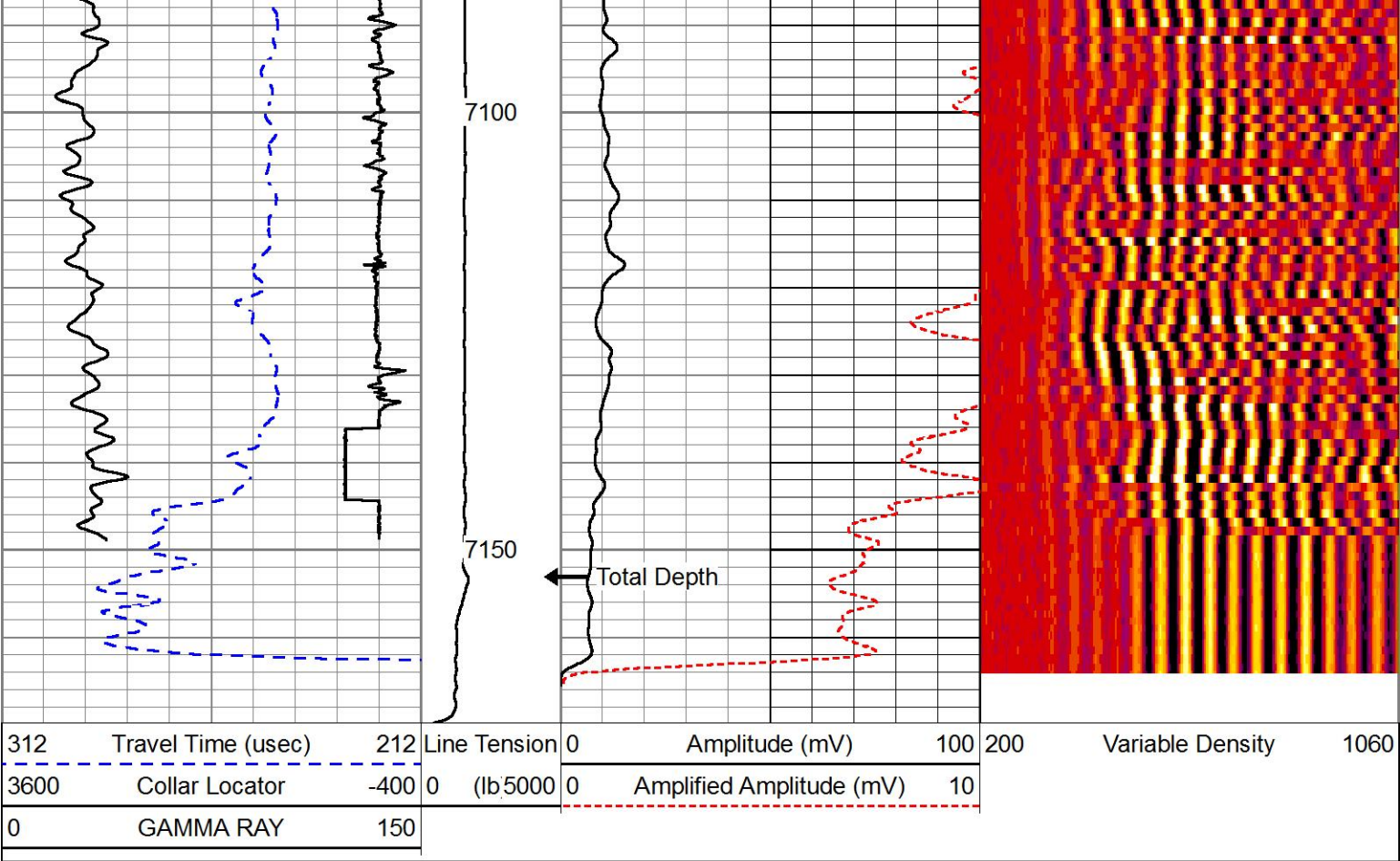


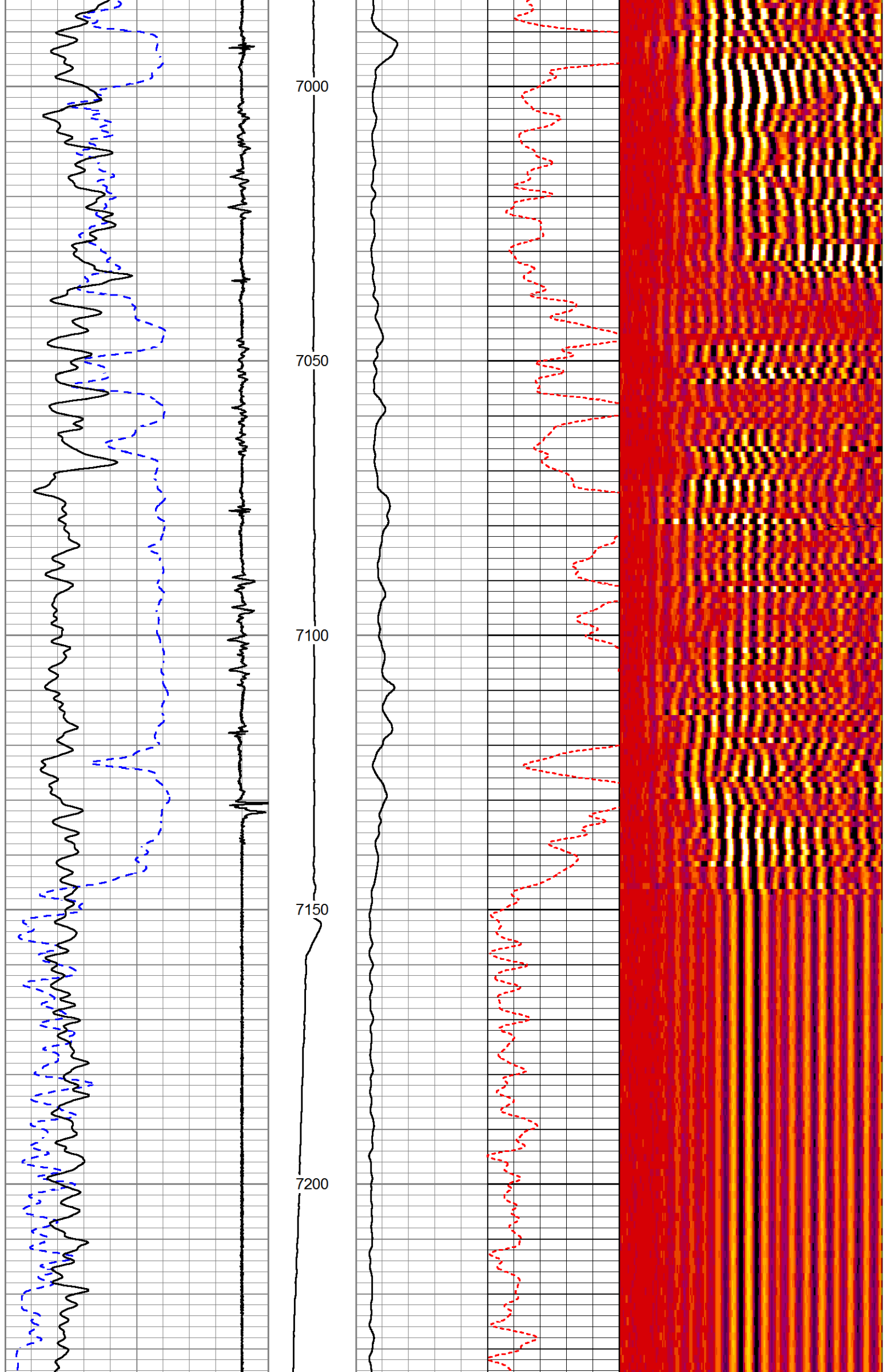


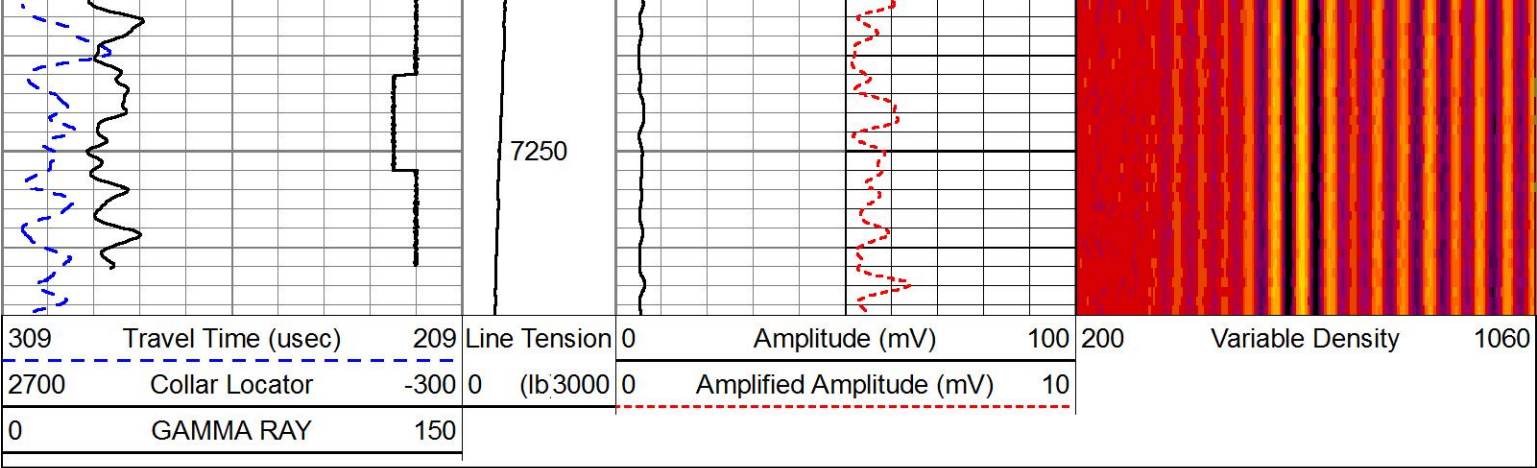








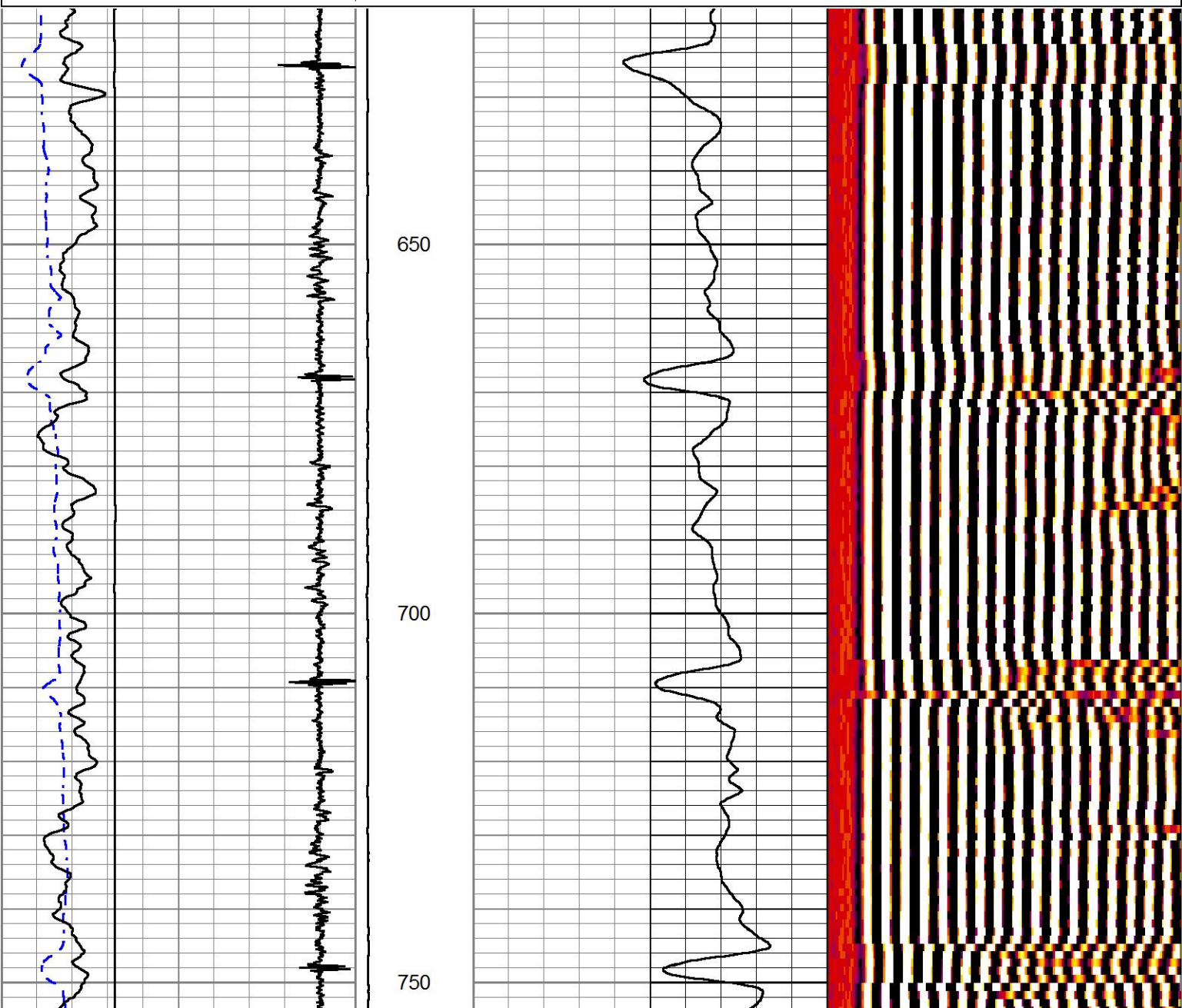
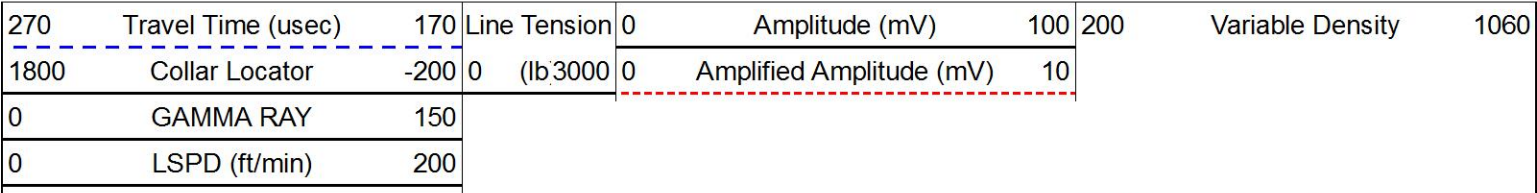


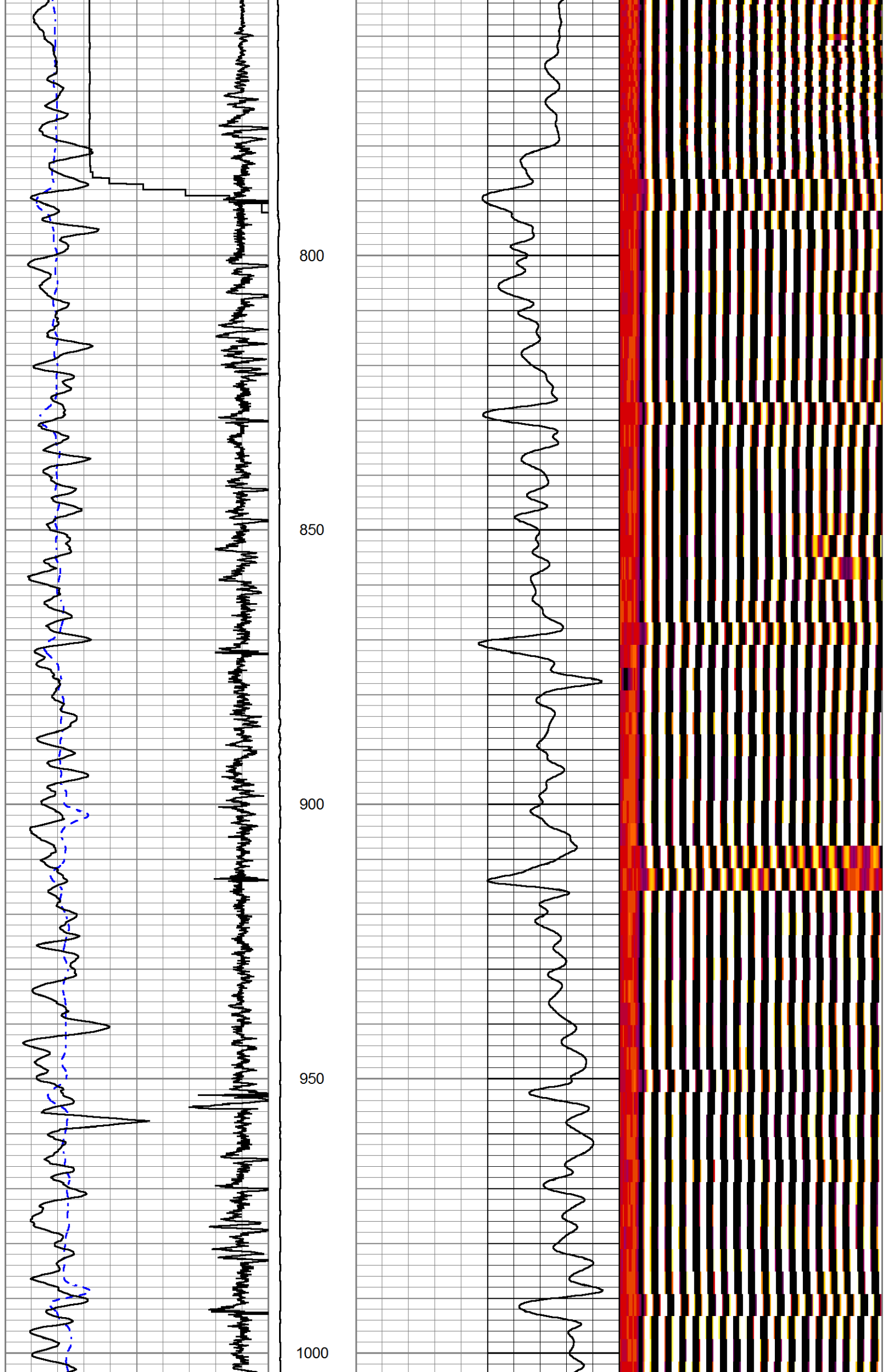


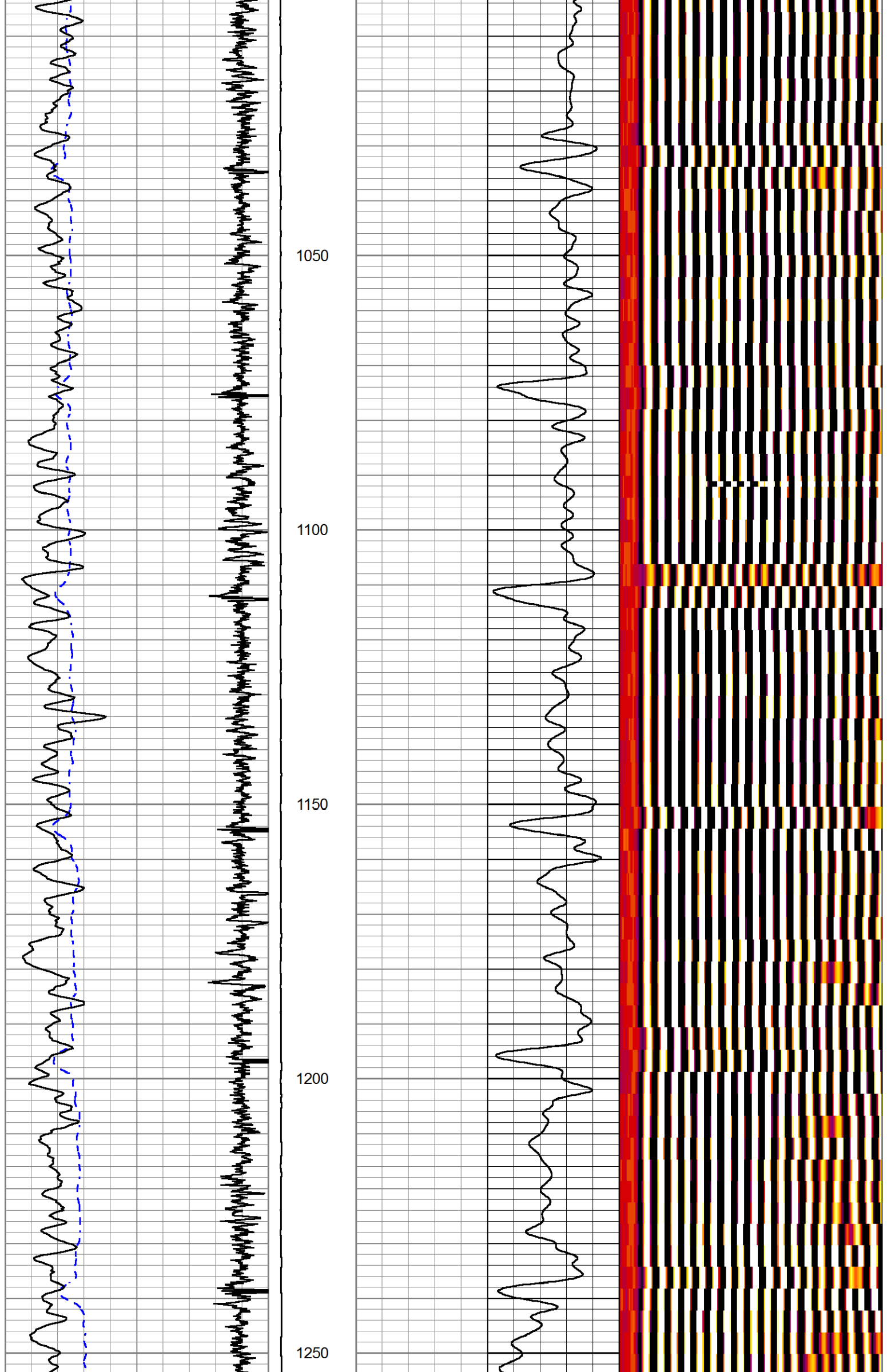
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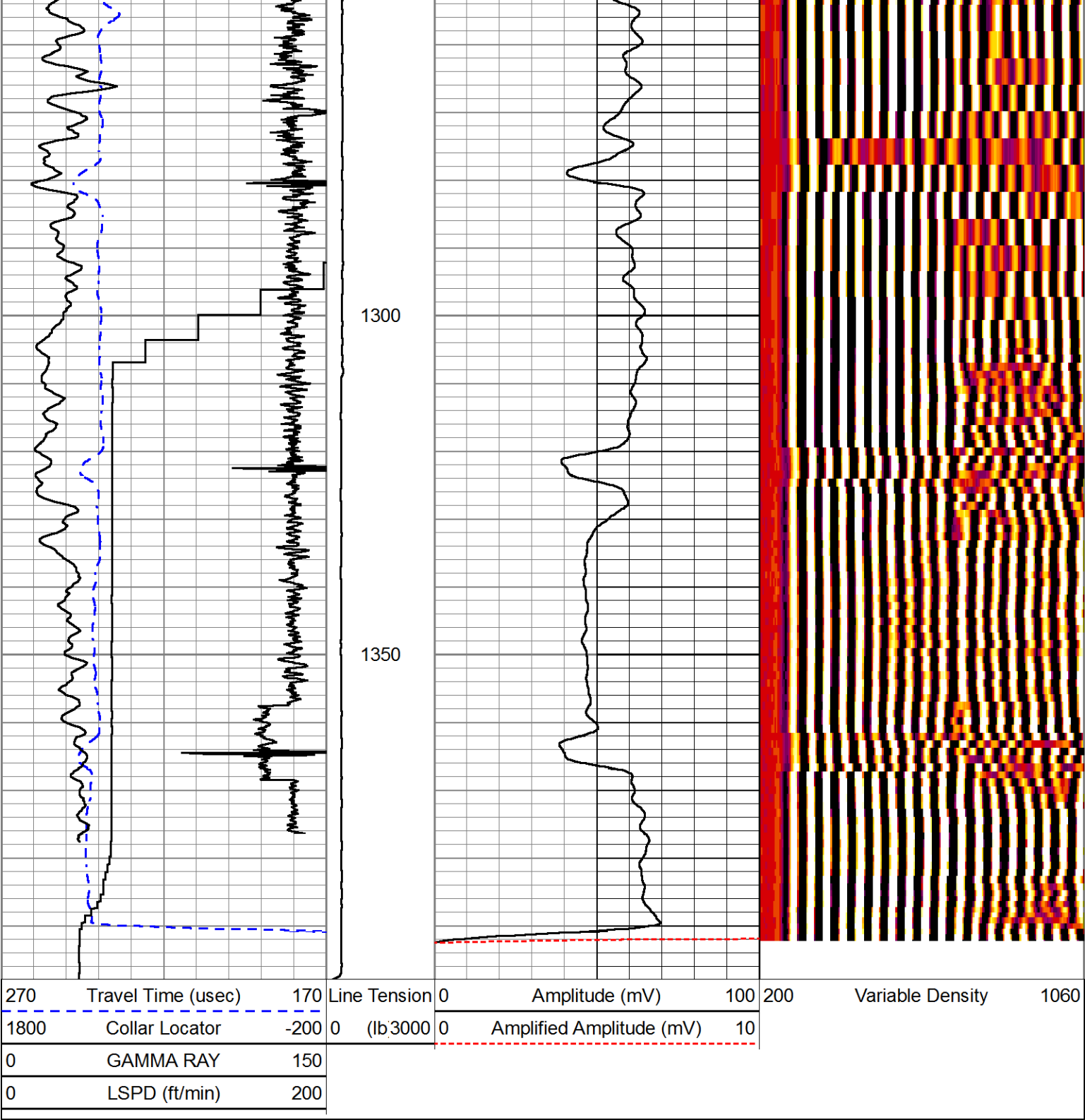
FREE PIPE

Database File ursa-tom-31c_rmt.db
Dataset Pathname pass28
Presentation Format !1!!cbl_rmti
Dataset Creation Tue Aug 30 02:08:41 2016
Charted by Depth in Feet scaled 1:240









Log Variables


DatabaseD:\Warrior_data\ursa-tom-31c_rmt.db


Dataset field/well/run1/pass30/_vars_

Top - Bottom

BHSAL1 1	BHSAL2 0	BHTEMP_Src TEMP	BITSIZE in 7.875	BORSAL kppm 150	BOTTEMP degF 200	CASED? Yes	CASEID in 4
CASEOD in 4.5	CASETHCK in 0.5	CASEWGHT lb/ft 11.6	LTH Sandstone	MAXAMPL mV 0	MINAMPL mV 1	MINATTN db/ft 0.8	MSGGN 1
MudWgt lb/gal 8.34	NPORSHIFT 0	PERFS 0	POROS1 1	POROS2 0	PPT usec 0	RHO�F 0.25	SO in 0
SRFTEMP degF 0	TDEPTH ft 0	UHSGC NONE	USERFTT usec/ft 0	ZREF MRayl 1.7			

Database File		ursa-tom-31c_rmt.db		Calibration Report	
Dataset Pathname		pass30			
Dataset Creation		Tue Aug 30 02:47:49 2016			
Cement Bond Log Shop Calibration Report					
Serial-Model:		12091451-A			
Calibration Performed:		Tue Aug 30 02:30:12 2016			
Free Pipe Calibration					
TT	Measured	253.0	Units		
Amplitude		340.0	usec		
Log Base Line		7.4	mV		
Calibration References and Gain					
Name	Value	Units			
Pipe O.D.	4.500	in			
Pipe Weight	11.6	lb/ft			
Pipe Ref. Amp.	79.0	mV			
Amp. Gain	0.130				
Gamma Ray Calibration Report					
Type / Serial:		002 / 000002			
SHOP CALIBRATION (Not Performed)					
	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0				cps
		1.0000			GAPI/cps
PRIMARY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
BEFORE SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI
AFTER SURVEY VERIFICATION					
Background	0.0				cps
Calibrator	0.0				cps
Difference				0.0	GAPI

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
CCL	20.87		STNDCH-1_11_16_CH 1.6875 IN CABLE HEAD	1.50	1.44	1.00
GR	18.61		TTTCU-002 (000002) Through Tubing Telemetry Cartridge - Ultrawire	7.65	1.69	100.00

							
				XHU-003 (000001) Crossover Halliburton 1553 to Ultrawire	1.58	1.69	7.00
				CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
Temp	8.89						
TT3FT	6.64			HCBLM-A (12091451) Halliburton HCBLM Tool	9.38	2.75	116.00
AMP3FT	6.64						
WVF5FT	5.68						
WVF3FT	2.16						
LOCTIM	0.00			CENT-CASTM-CENT CAST M INLINE CENTRALIZER	2.16	3.13	25.00
UTCTIM	0.00						
LLMTEN	0.00						
Dataset:				ursa-tom-31c_rmt.db: field/well/run1/pass30			
Total length:				24.44 ft			
Total weight:				274.00 lb			
O.D.:				3.13 in			

Company	URSA OPERATING CO., LLC.		
Well	TOMPKINS 31C-08-07-95		
Field	PARACHUTE		
County	GARFIELD	State	CO
HALLIBURTON		CEMENT BOND LOG	