



**RADIAL CEMENT BOND  
GAMMA RAY C.C.L.V.D.L.  
LOG**

Company **OCCIDENTAL PETROLEUM INC.**  
 Well **STREAR V03-73HN**  
 Field **WATTENBERG**  
 County **WELD** State **COLORADO**

Location **SE/SE**  
**API# 05-123-33567**  
**SEC 3 TWN 2N RNG 67W**  
 Permanent Datum **GROUND LEVEL** Elevation **4905'**  
 Log Measured From **KELLY BUSHING**  
 Drilling Measured From **KELLY BUSHING**  
 Other Services **NONE**  
 Elevation **K.B. 4929'**  
**D.F. 4928'**  
**G.L. 4905'**

Date **30 NOVEMBER, 2023**  
 Run Number **ONE**  
 Depth Driller **11386'**  
 Depth Logger **2500'**  
 Bottom Logged Interval **2497'**  
 Top Log Interval **SURFACE**  
 Casing Size **7"**  
 Type Fluid **WATER**  
 Density / Viscosity **N/A**  
 Max. Recorded Temp. **N/A**  
 Estimated Cement Top **CEMMUD @ 1450'**  
 Time Well Ready **R.O.A.**  
 Time Logger on Bottom **2:45PM**  
 Equipment Number **200128**  
 Location **STERLING, CO**  
 Recorded By **ADAM GARDNER**  
 Witnessed By **LUIS MORALES**

Borehole Record				Tubing Record			
Run Number	Bit	From	To	Size	Weight	From	To
Casing Record		Size		Wgt/Ft		Top	Bottom
Surface String		9.625"		36#		0'	844'
Prot. String		7'		26"		0'	7638'
Production String		4.5"		11.6#		6497'	11371'
Liner							

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, damages, or expenses incurred or sustained by anyone resulting from any interpretation made by any of our officers, agents or employees. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

**Comments**

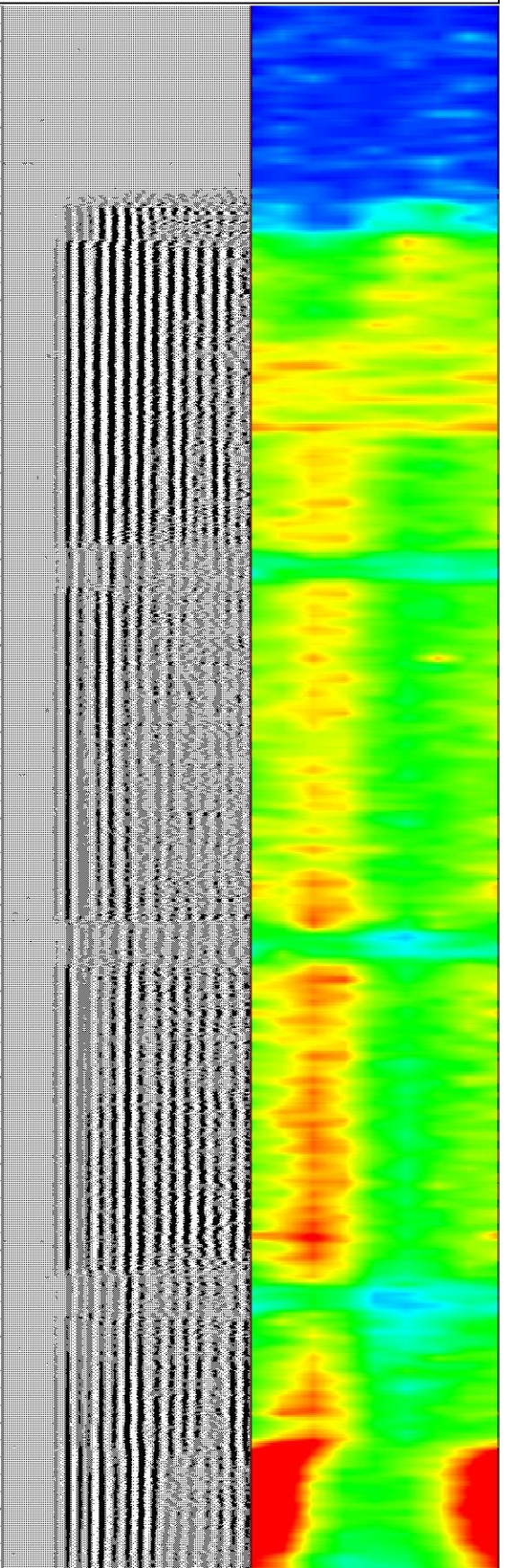
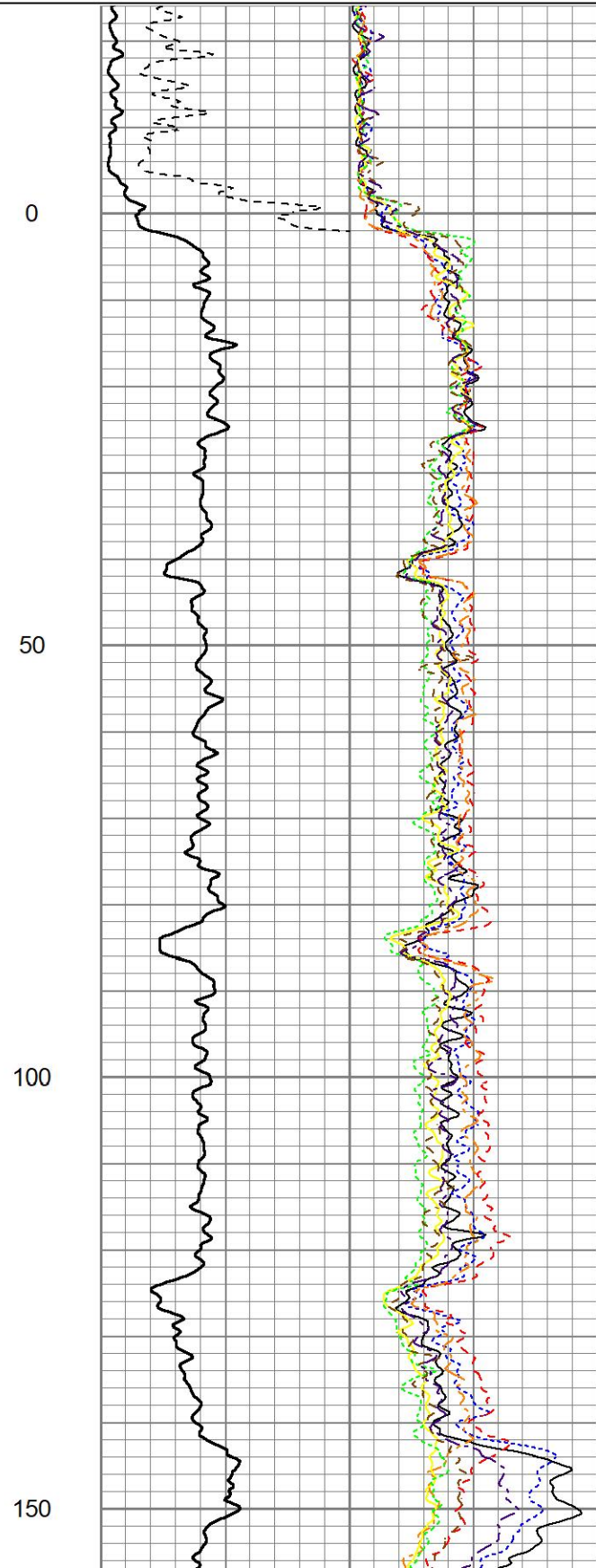
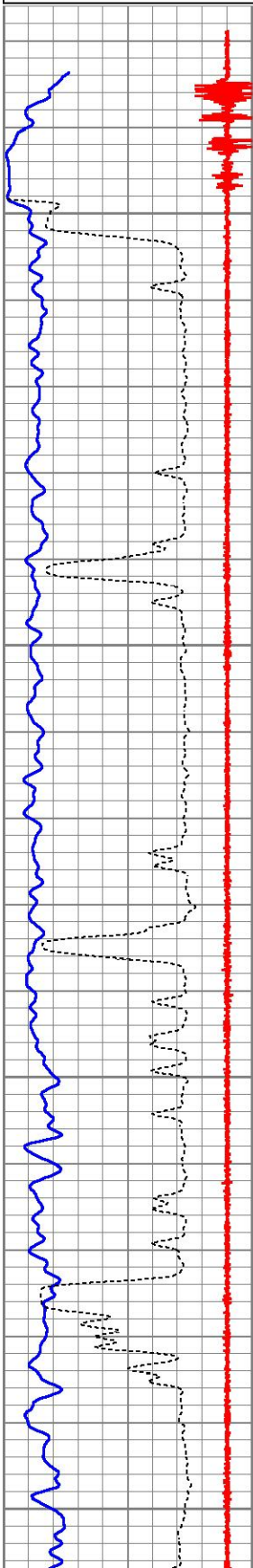
**LOG CORRELATED TO LOG RAN BY JW WIRELNE DATED JULY 27, 2011  
 LOG USED GROUND LEVEL AS K.B.  
 TOOK -26' OUT TO CORREALATE.  
 GASEOUES FLUID AROUND 800'  
 CEM/MUD @ 1450'**

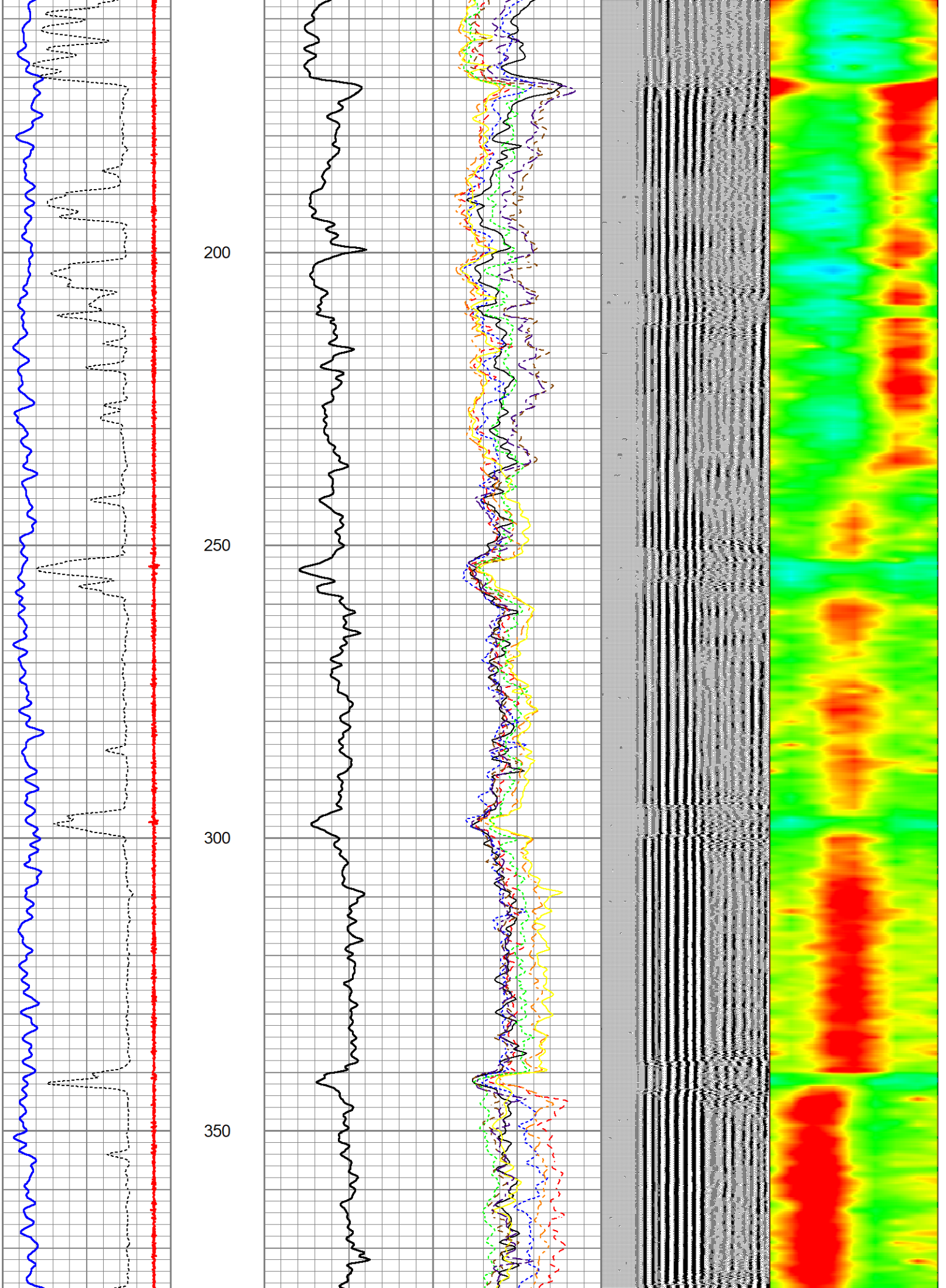
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 Presentation Format **zwag (2)**  
 Dataset Creation **Thu Nov 30 14:47:37 2023**  
 Charted by **Depth in Feet scaled 1:240**

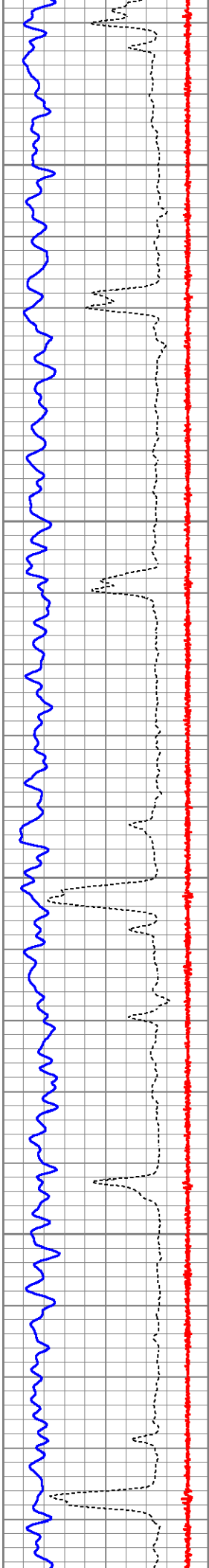
50 CCL -5.5  
0 GR (GAPI) 150  
370 TT3 (usec) 282

0 AMP (mV) 100  
AMPLIFIED AMP3 0  
0 (mV) 20  
0 AMPS1 100  
0 AMPS2 100  
0 AMPS3 100  
0 AMPS4 100  
0 AMPS5 100  
0 AMPS6 100  
0 AMPS7 100  
0 AMPS8 100

200 VDL (usec) 1200 1  
RADIAL MAP 8





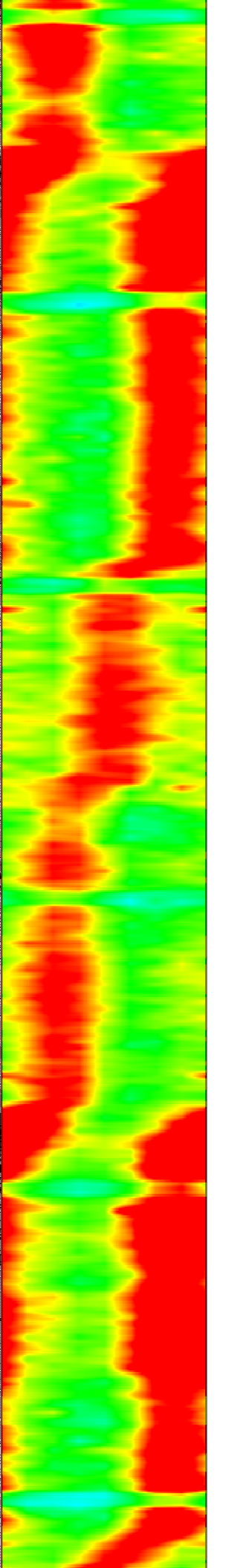
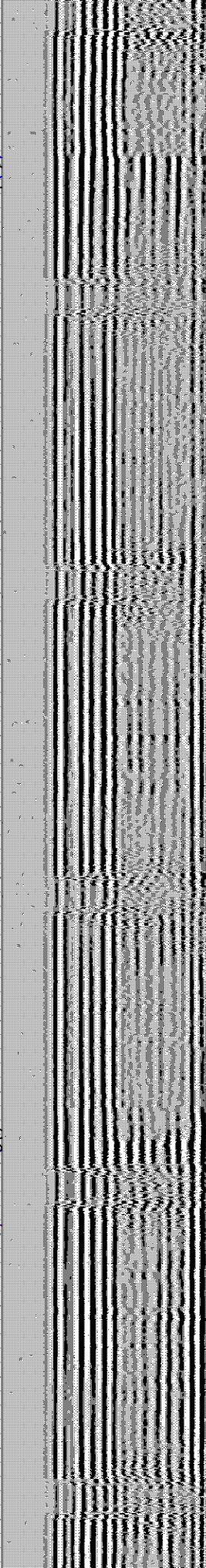
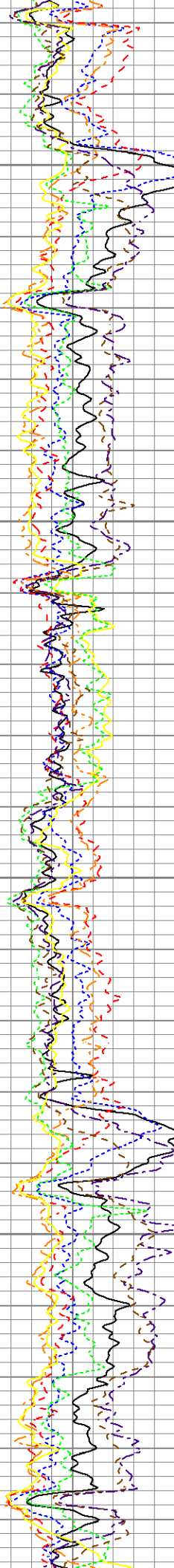
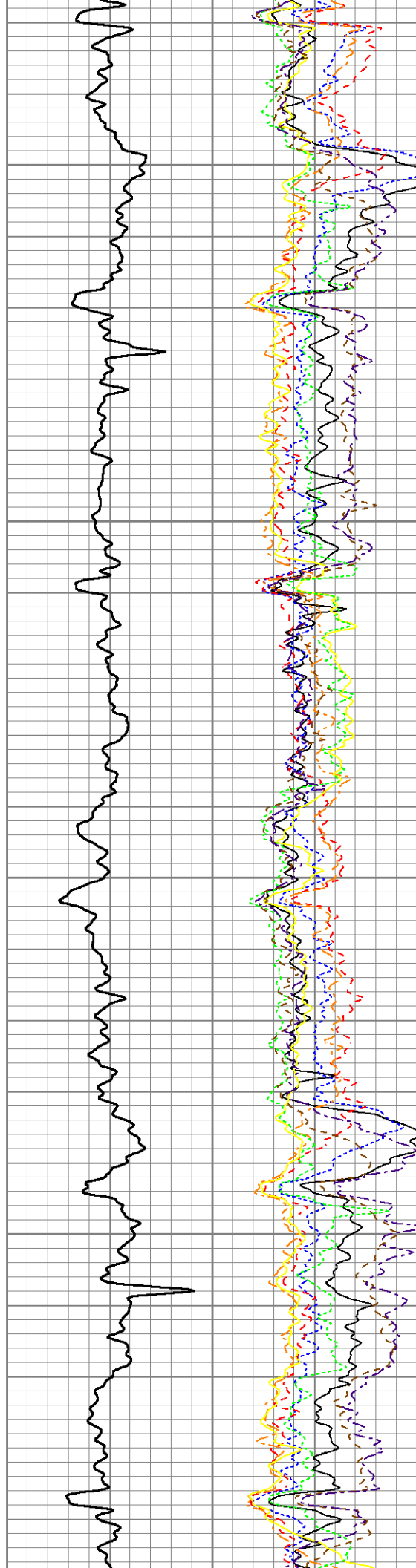


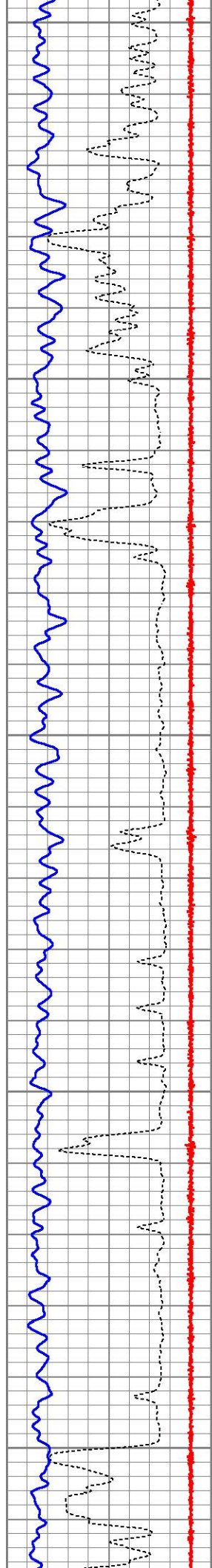
400

450

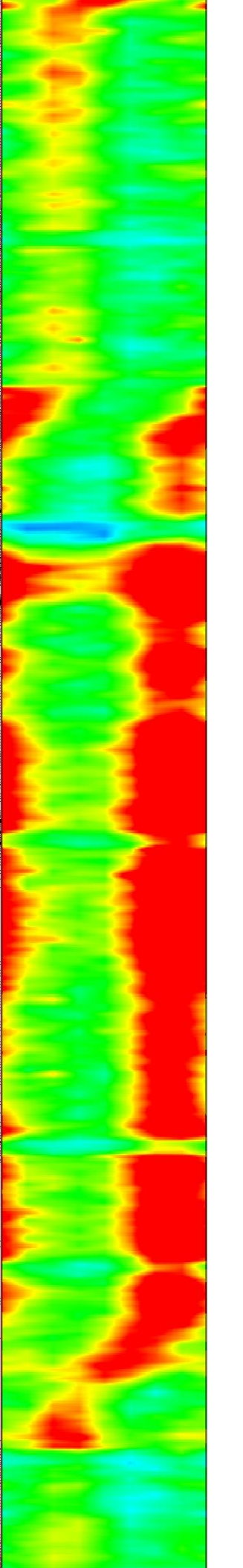
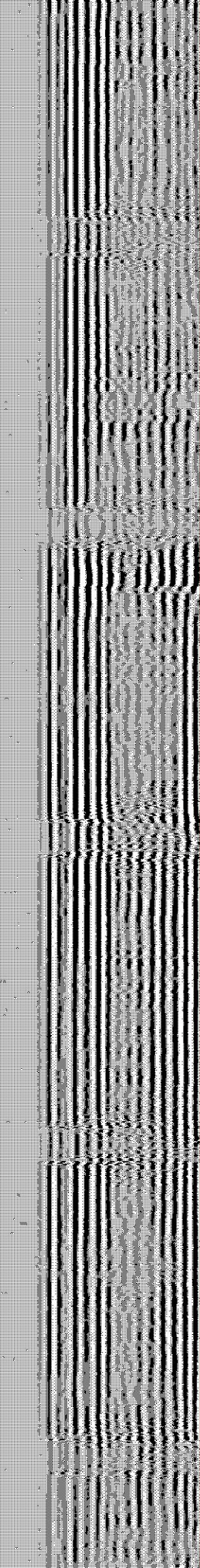
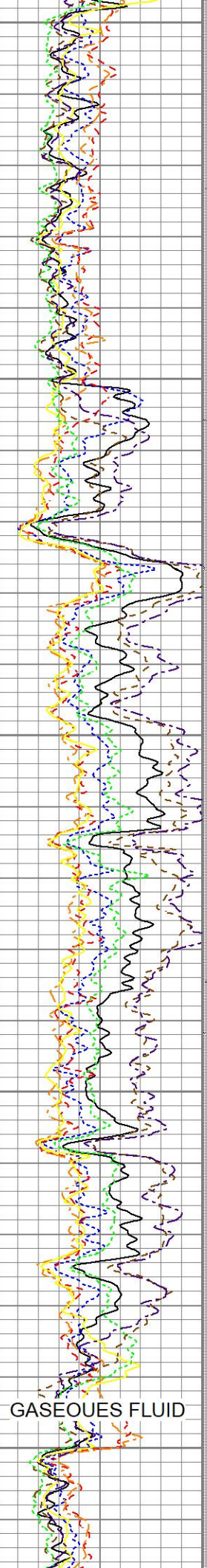
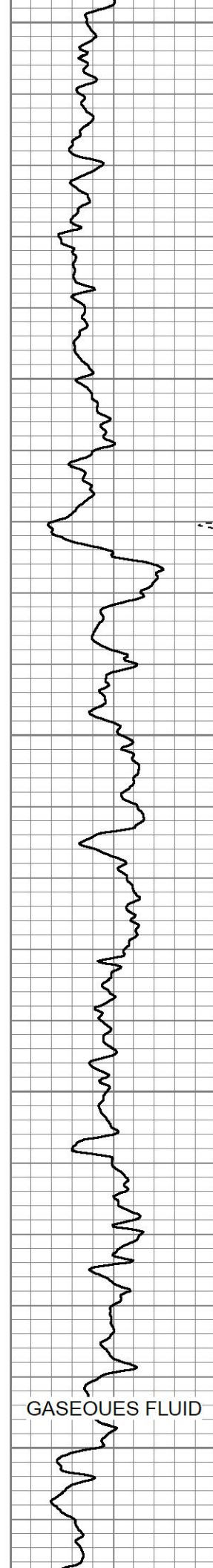
500

550



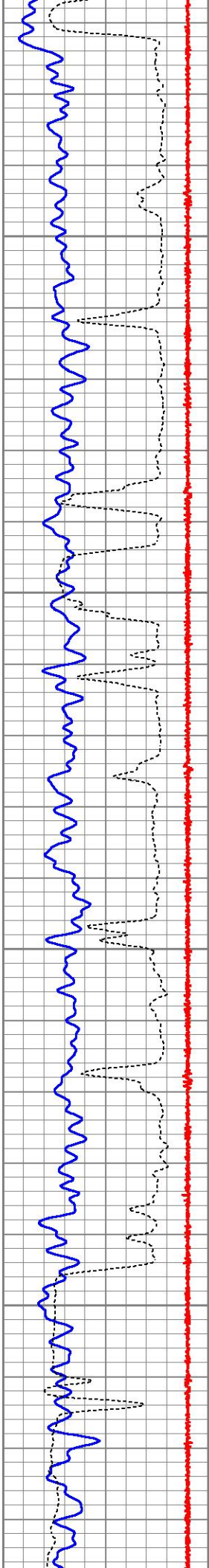


600  
650  
700  
750  
800



GASEOUS FLUID

GASEOUS FLUID

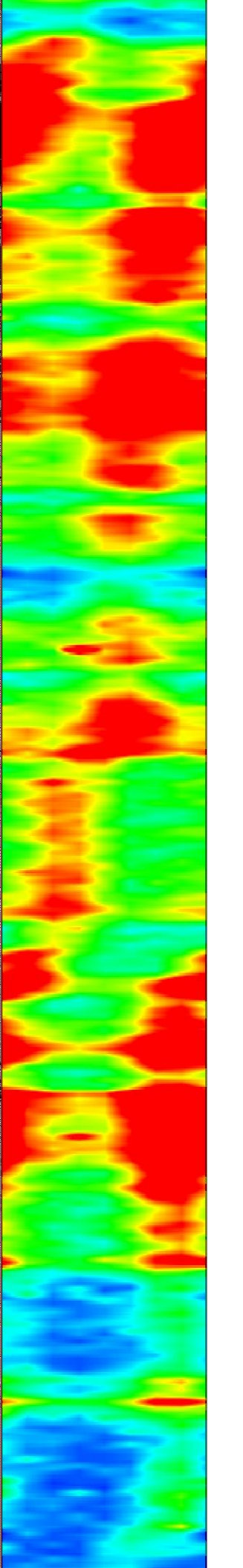
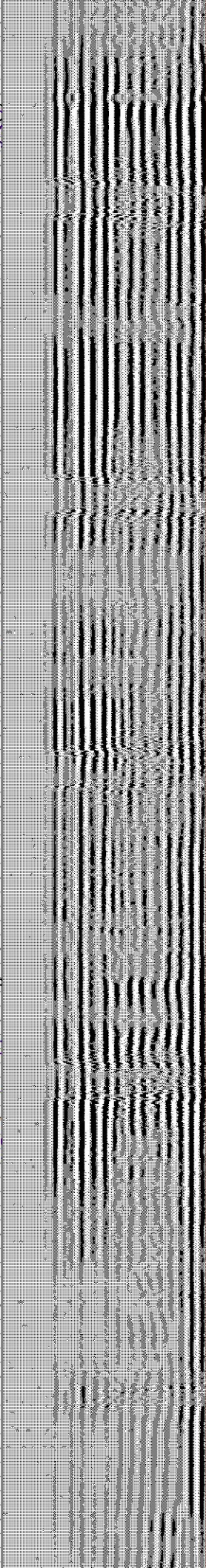
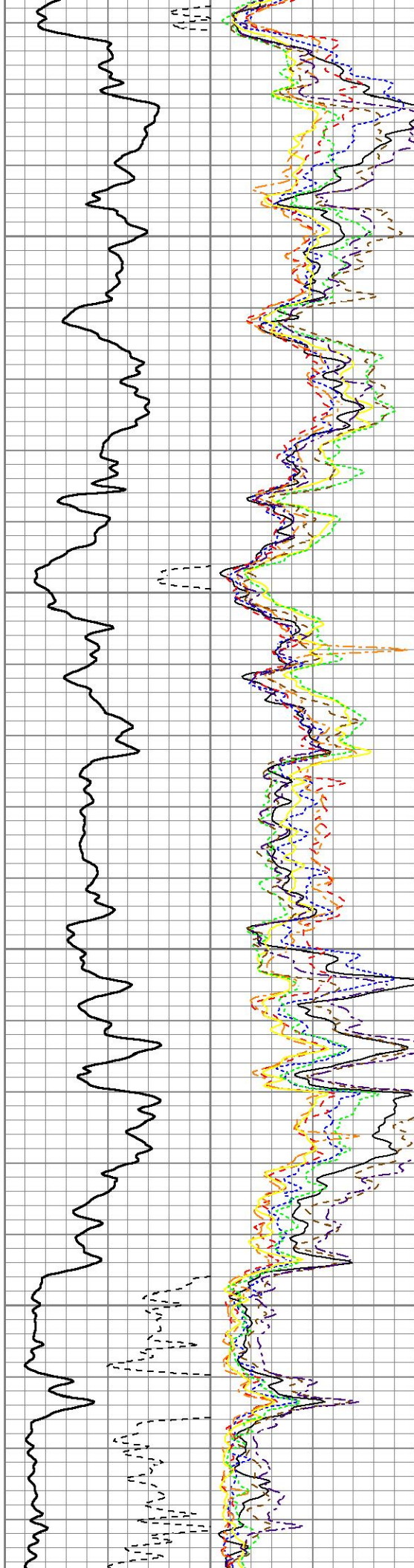


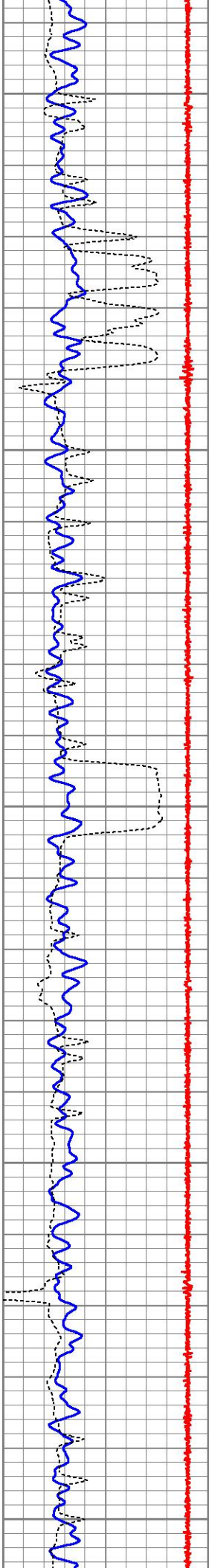
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900

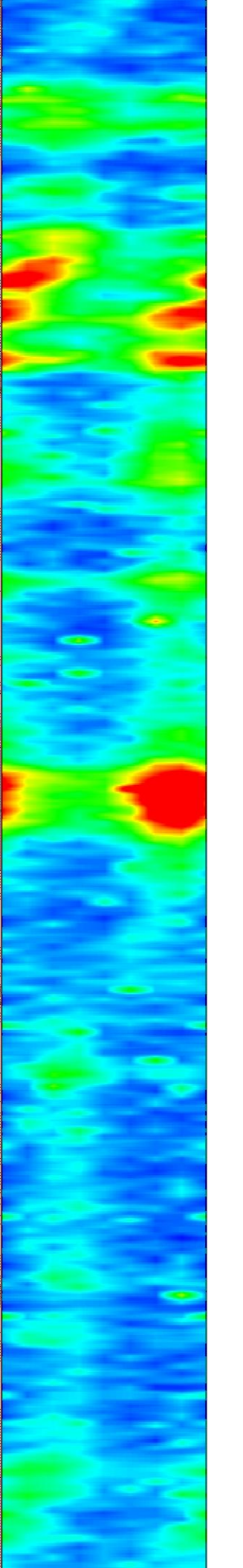
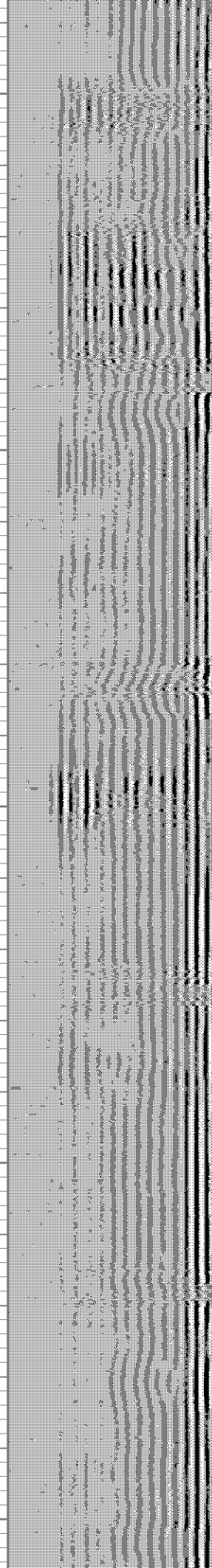
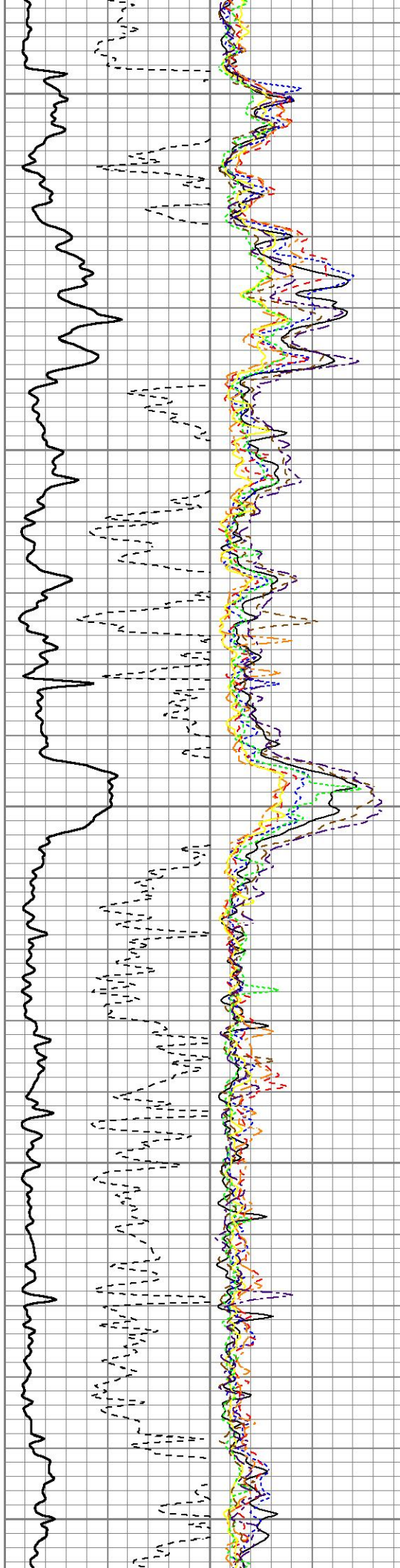
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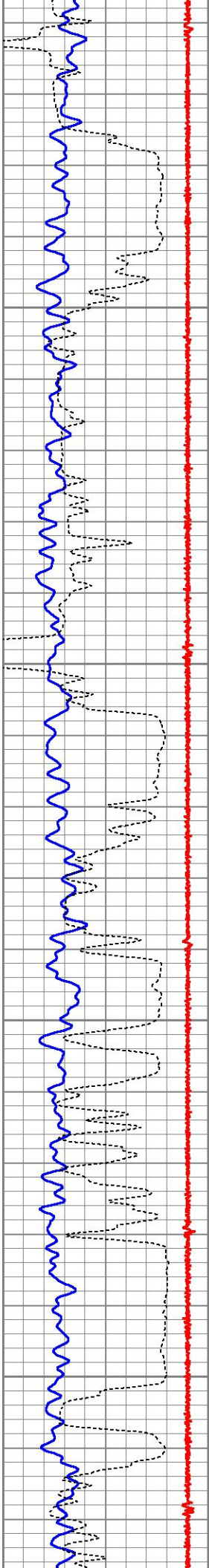
1000





1050  
1100  
1150  
1200  
1250



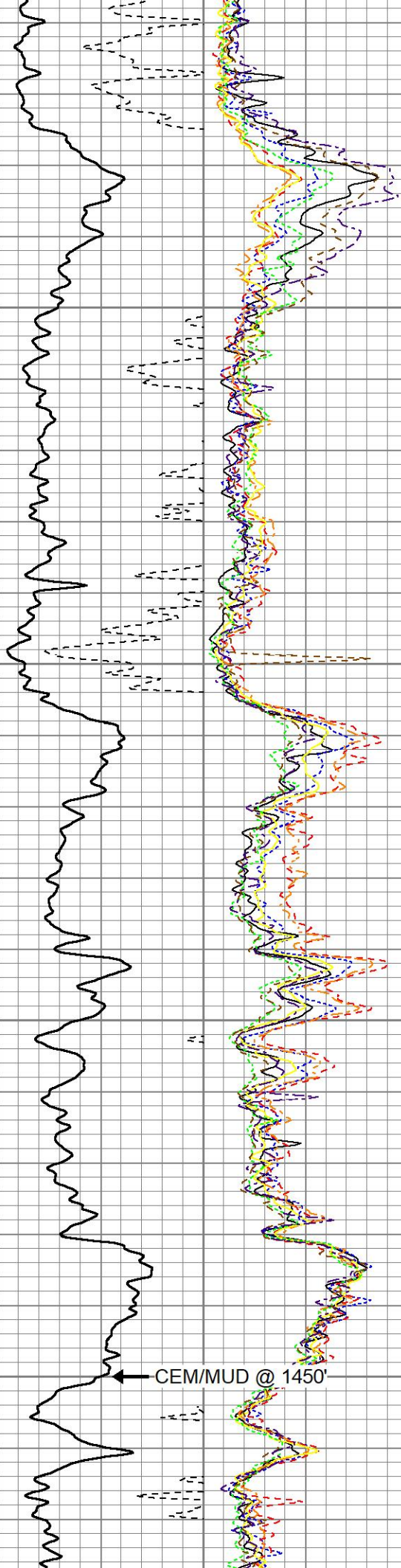


1300

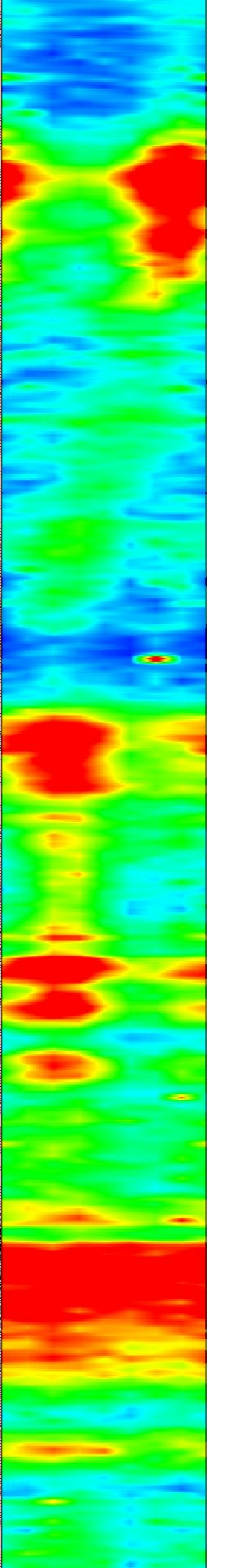
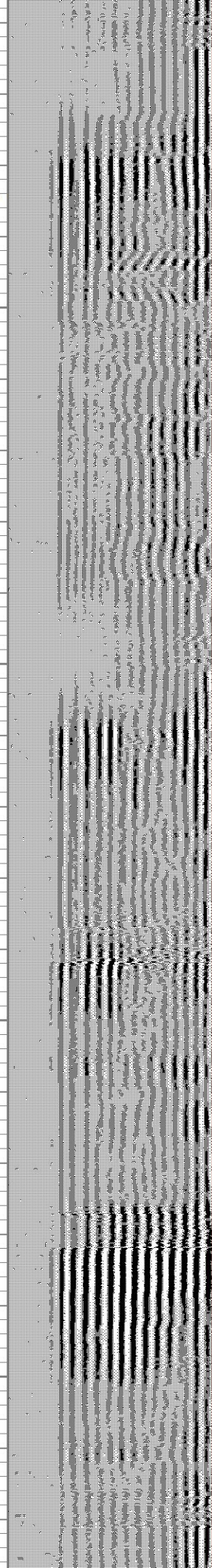
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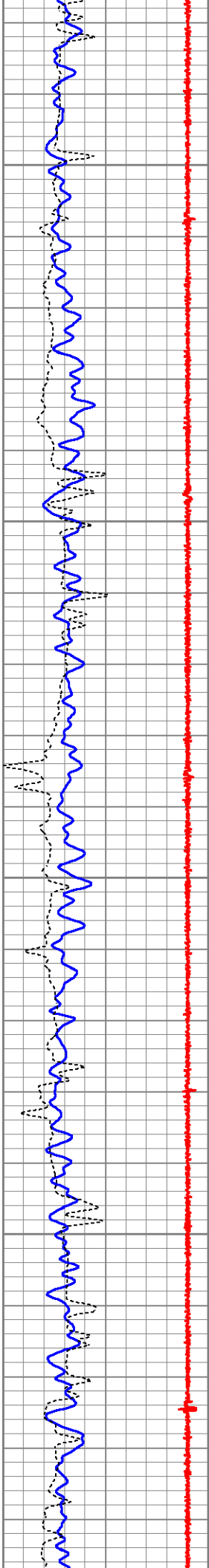
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1450



CEM/MUD @ 1450'



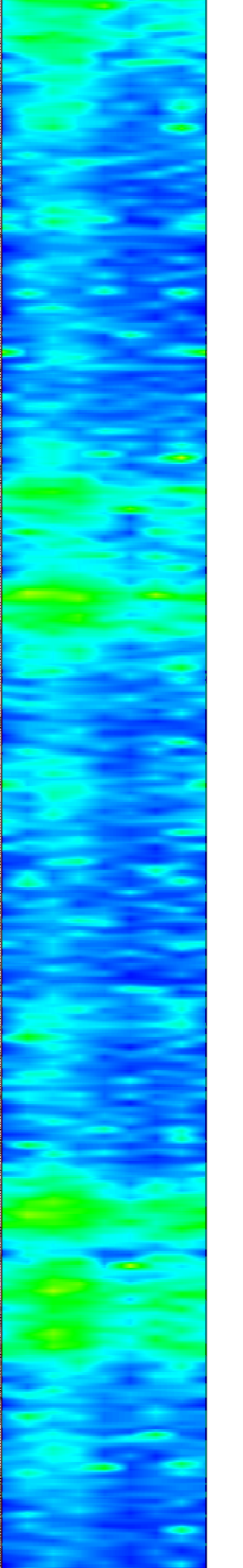
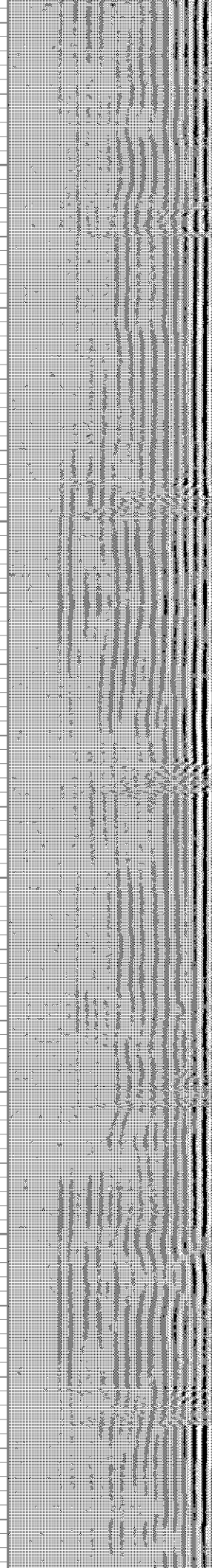
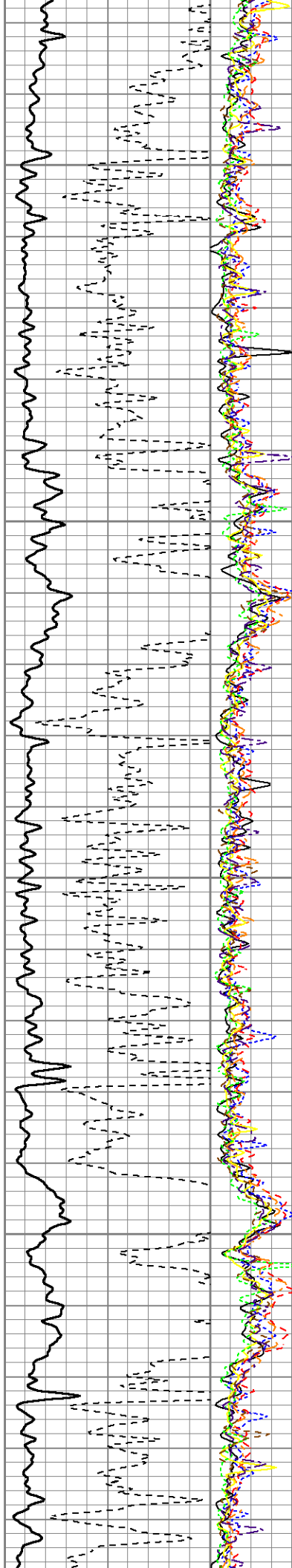


1500

1550

1600

1650



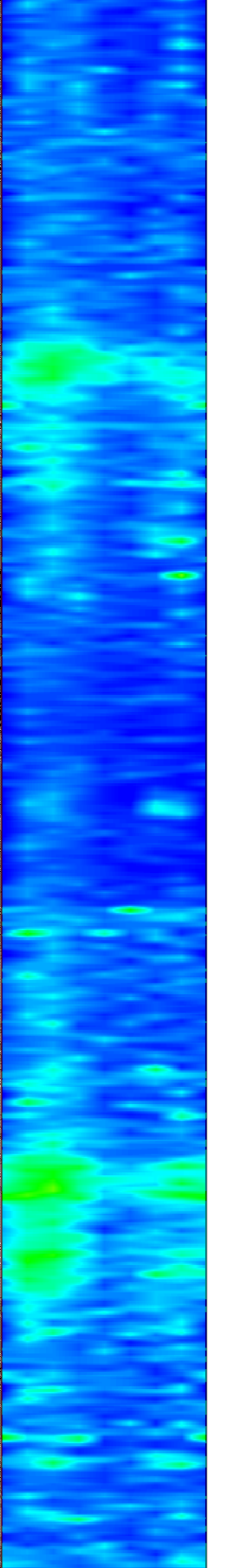
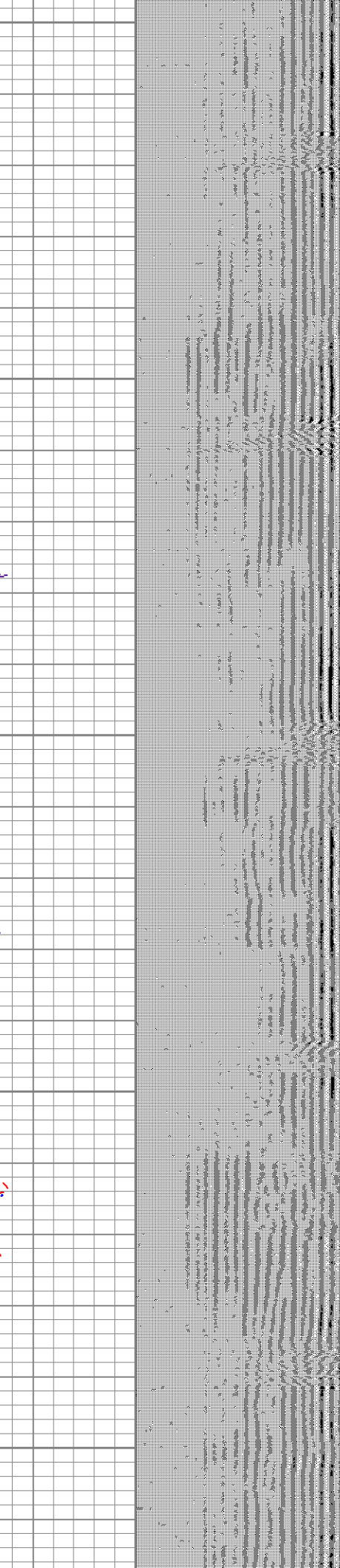
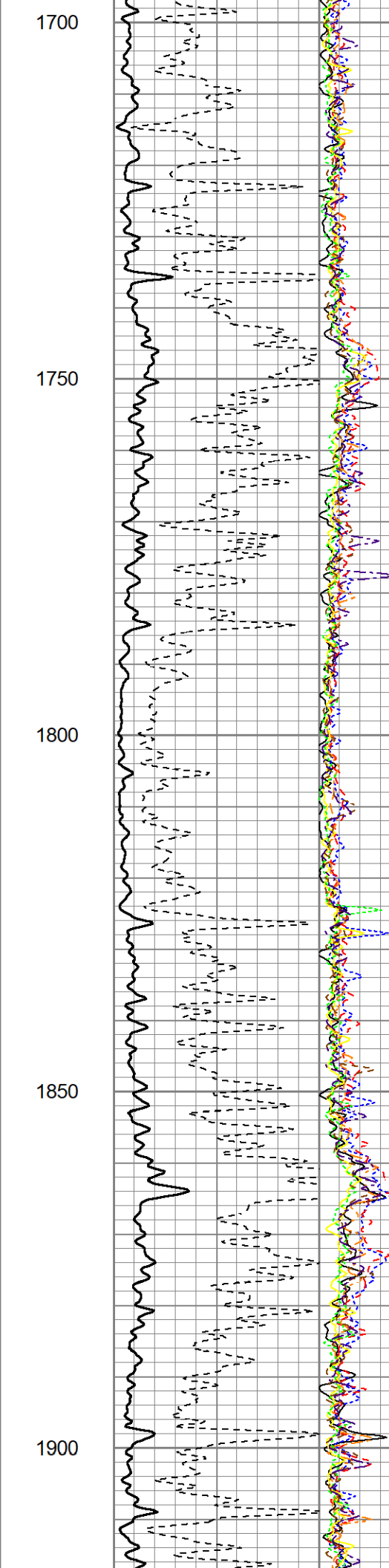
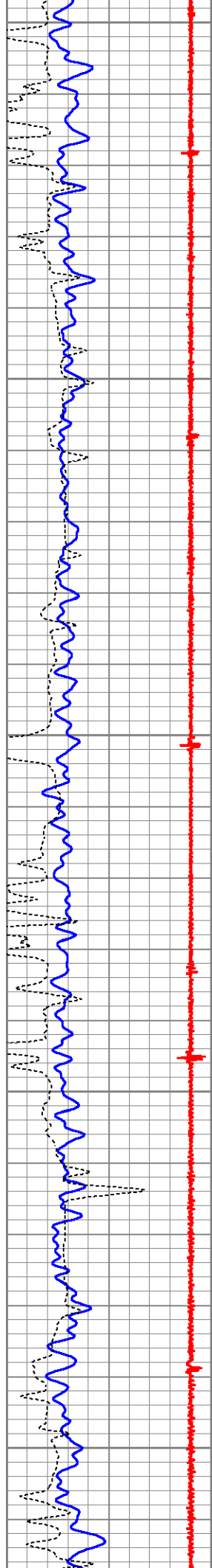
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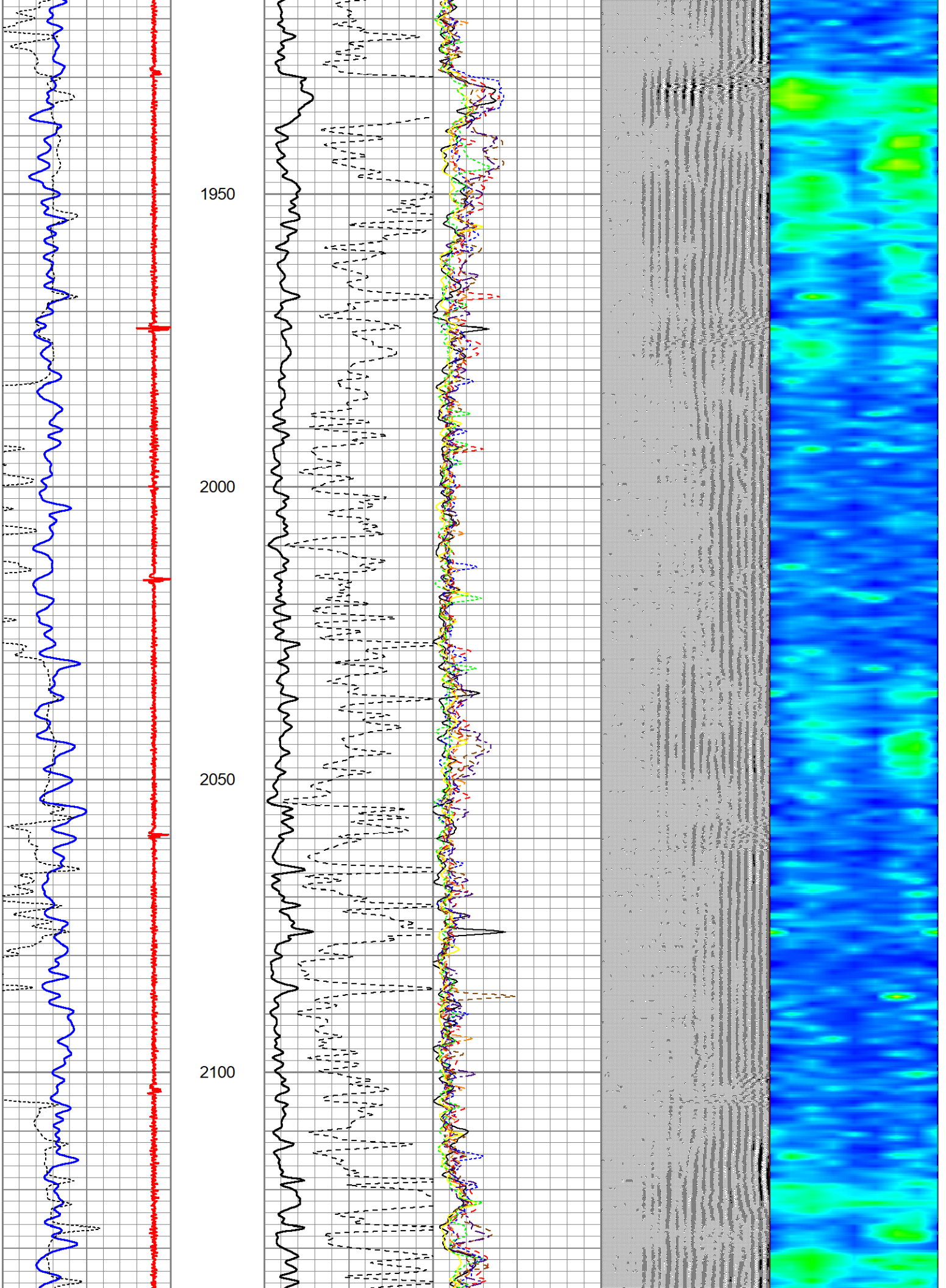
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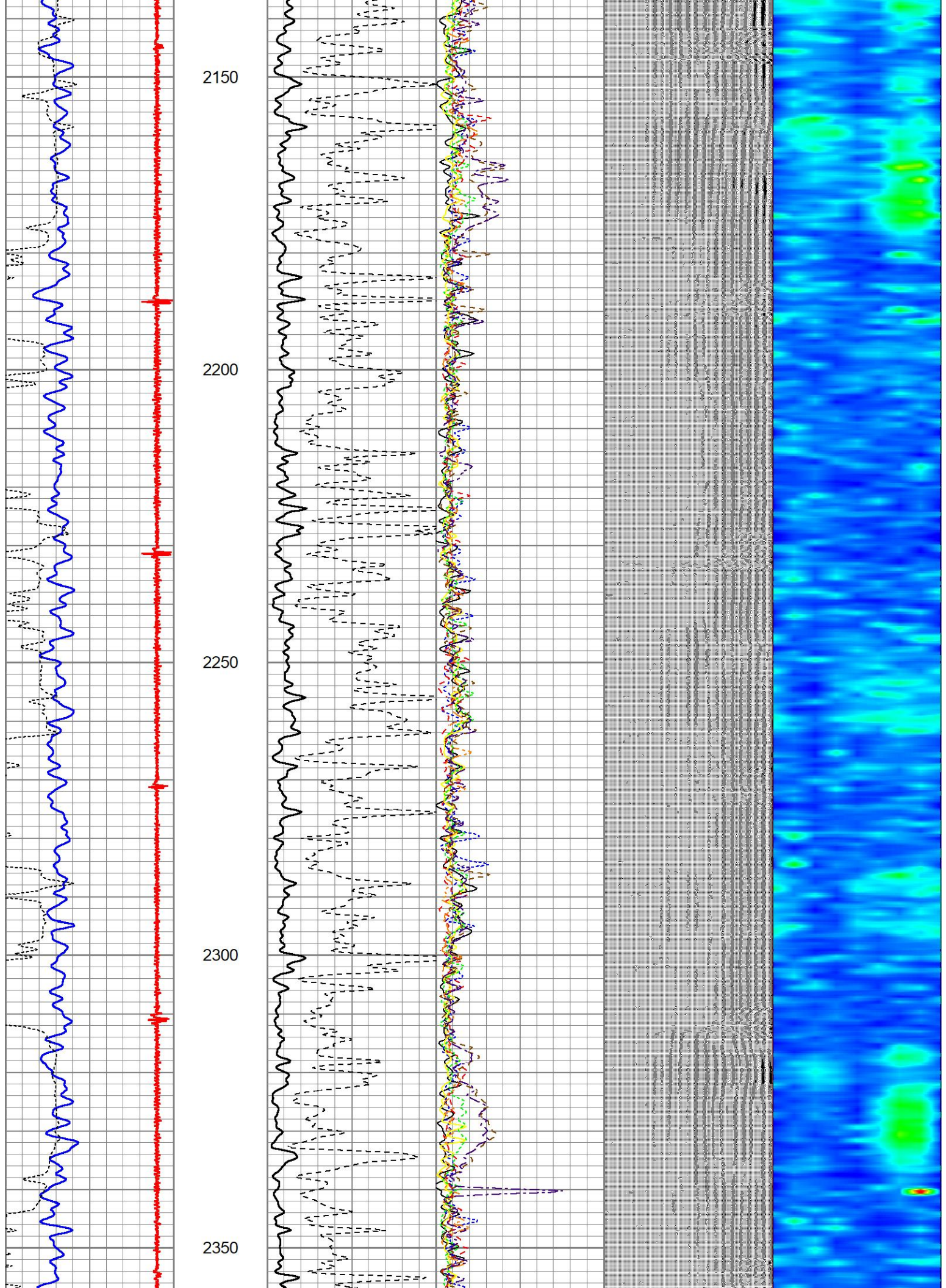
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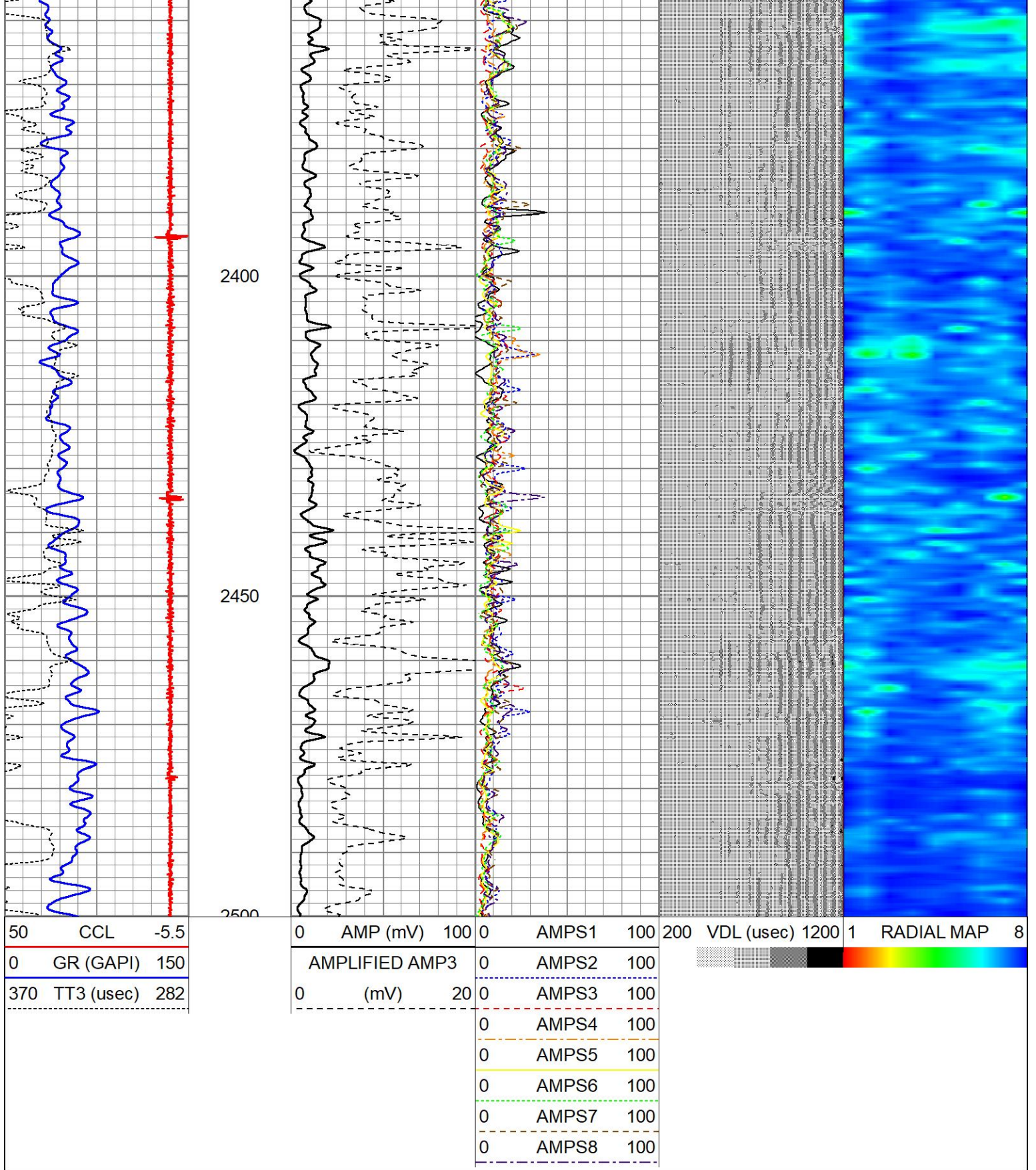
1850

1900









Calibration Report

Database File      strear v03-73hn.db  
 Dataset Pathname  pass8  
 Dataset Creation   Thu Nov 30 14:47:37 2023

Gamma Ray Calibration Report

Type / Serial:                   Probe275dig / 101010

	Counts/Sec.	Gain	Offset	Jig	Units
Background	0.0				cps
Calibrator	1.0	0.4500			cps 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

Segmented Cement Bond Log Calibration Report

Serial Number:	101020		
Tool Model:	Probe		
Calibration Casing Diameter:	7.000	in	
Calibration Depth:	1479.075	ft	

Master Calibration, performed Thu Nov 30 14:39:18 2023:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.236	0.700	62.165	262.867	0.199
CAL	0.002	0.871				
5'	0.002	0.142	0.700	62.165	437.845	-0.128
SUM						
S1	0.002	0.198	0.000	62.000	316.156	-0.683
S2	0.002	0.223	0.000	62.000	279.960	-0.519
S3	0.002	0.256	0.000	62.000	244.326	-0.465
S4	0.002	0.284	0.000	62.000	220.043	-0.408
S5	0.002	0.288	0.000	62.000	216.738	-0.429
S6	0.002	0.271	0.000	62.000	230.823	-0.465
S7	0.002	0.239	0.000	62.000	262.076	-0.518
S8	0.002	0.216	0.000	62.000	290.098	-0.581

Internal Reference Calibration, performed Tue Feb 12 12:45:01 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.002	0.871	1.000	0.000

Air Zero Calibration, performed Thu Feb 21 13:40:31 2013:

	Raw (v)		Calibrated (v)		Results	
	Zero		Zero		Offset	

3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000

## Log Variables

Database:C:\ProgramData\Warrior\Data\strear v03-73hn.db  
 Dataset field/well/run1/pass8/\_vars\_

### Top - Bottom

BOREID in 7.875	BOTTEMP degF 100	CASEOD in 7	CASETHCK in 0	CASEWGHT lb/ft 26	MAXAMPL mV 62	MINAMPL mV 1.8	MINATTN db/ft 0.8
PERFS No	PPT usec 394	SRFTEMP degF 36	TDEPTH ft 0				

### Variable Description

BOREID : Borehole I.D.

BOTTEMP : Bottom Hole Temperature

CASEOD : Casing O.D.

CASETHCK : Casing Thickness

CASEWGHT : Casing Weight

MAXAMPL : Maximum Amplitude

MINAMPL : Minimum Amplitude

MINATTN : Minimum Attenuation

PERFS : Perforation Flag

PPT : Predicted Pipe Time

SRFTEMP : Surface Temperature

TDEPTH : Total Depth

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-STNDRD Standard Cable Head	1.00	1.69	10.00
			CENT-PTS1.70 (PT0934) Probe 1.70 Centralizer	3.08	1.70	10.00
WVFS8	11.88		RBT-Probe (101020) Probe Radii Bond Tool with Digital Telemetry	8.75	2.75	90.00
WVFS7	11.88					
WVFS6	11.88					
WVFS5	11.88					
WVFS4	11.88					

