



**RADIAL CEMENT BOND LOG
GAMMA RAY / CCL /VDL**

Company ANTERO RESOURCES CORPORATION
Well HORST 2H
Field TYLER
County TYLER
State W.V.

Company ANTERO RESOURCES CORPORATION
Well HORST 2H
Field TYLER
County TYLER State W.V.

Location: API #: 4709502516
AFE# A06311

SEC	TWP	RGE	Elevation
			827'

Permanent Datum G.L. Elevation 827'
Log Measured From K.B. OF 30'
Drilling Measured From K.B. G.L. 1114'

Other Services
K.B. 1084'
D.F. 1084'
G.L. 1114'

Date	5/4/19			
Run Number	ONE			
Depth Driller	16344'			
Depth Logger	7066'			
Bottom Logged Interval	7066'			
Top Log Interval	SURFACE			
Open Hole Size	8.5"			
Type Fluid	WATER			
Density / Viscosity	N/A			
Max. Recorded Temp.	DEG			
Estimated Cement Top	70'			
Time Well Ready	N/A			
Time Logger on Bottom	N/A			
Equipment Number	624874			
Location	BRIDGEPORT W.V.			
Recorded By	P DAVIDSON			
Witnessed By	J.BURKS			

Borehole Record			Casing Record				
Run Number	Bit	From	To	Size	Weight	From	To
				5.5"	23	16344'	SURFACE
				9.625"		2708'	SURFACE
				13.375"		824'	SURFACE

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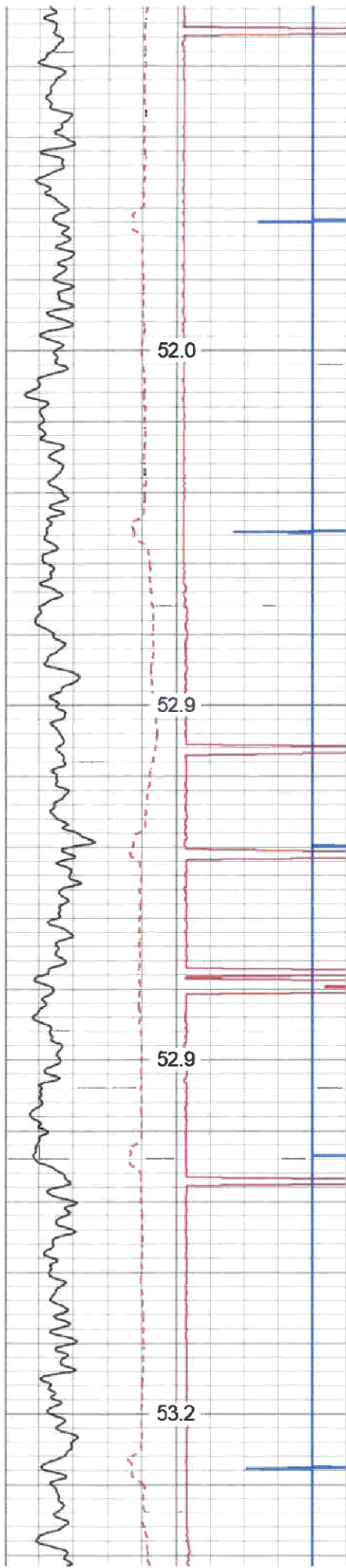
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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

THANK YOU FOR USING KLX ENERGY SERVICES
 LOG WAS RAN ON 5.5 CASING WITH 1500PSI ON WELL
 ZERO AT K.B. OF 30 FT
 MARKER JOINT @ 6061'-6071'
 LOG WAS SHIFTED DOWN 10'



MAIN PASS

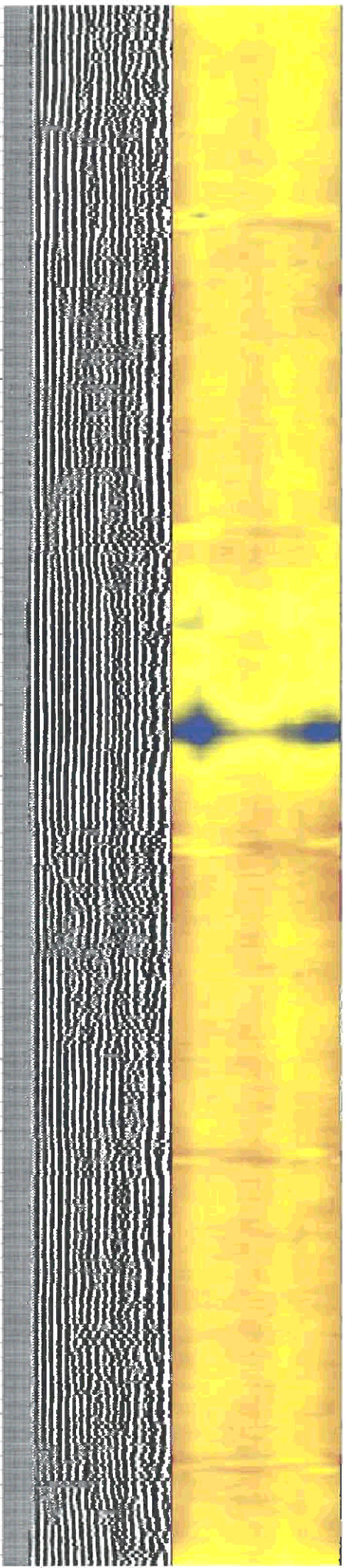
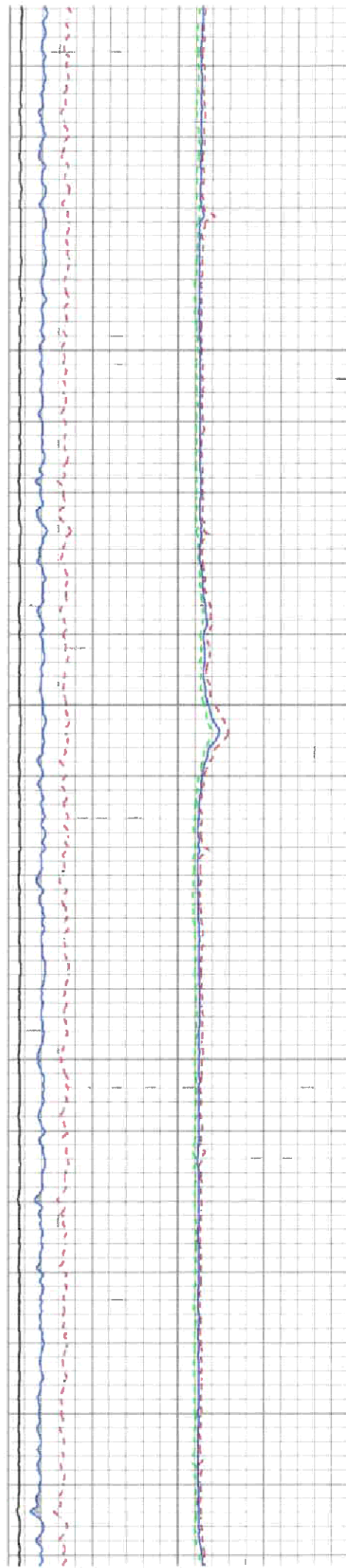


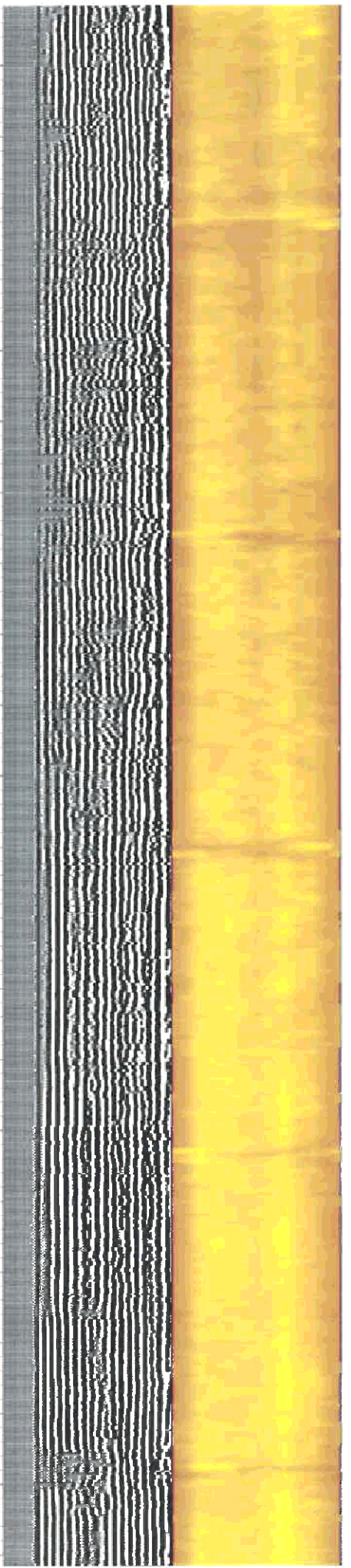
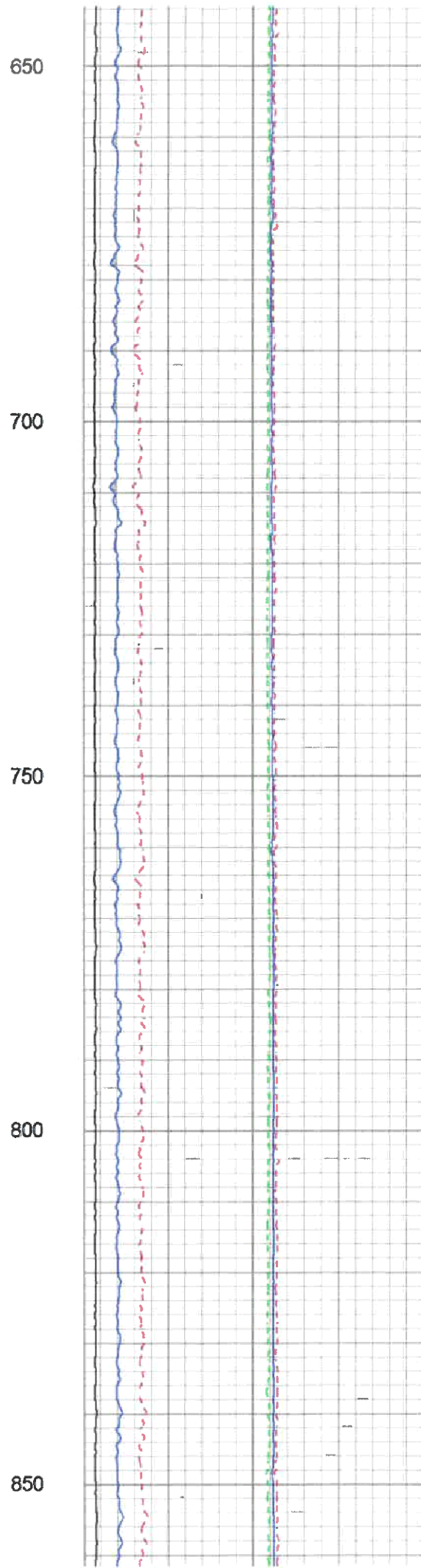
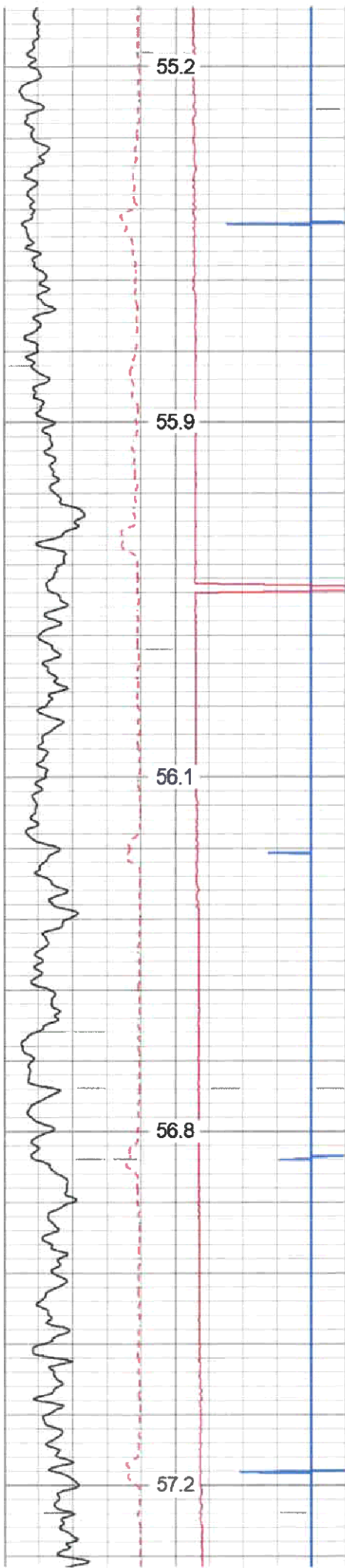
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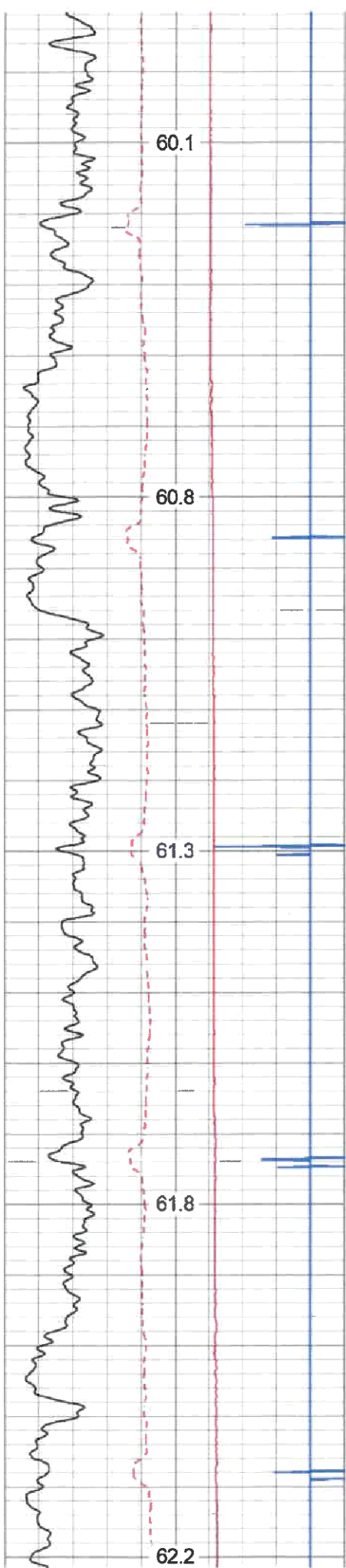
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350

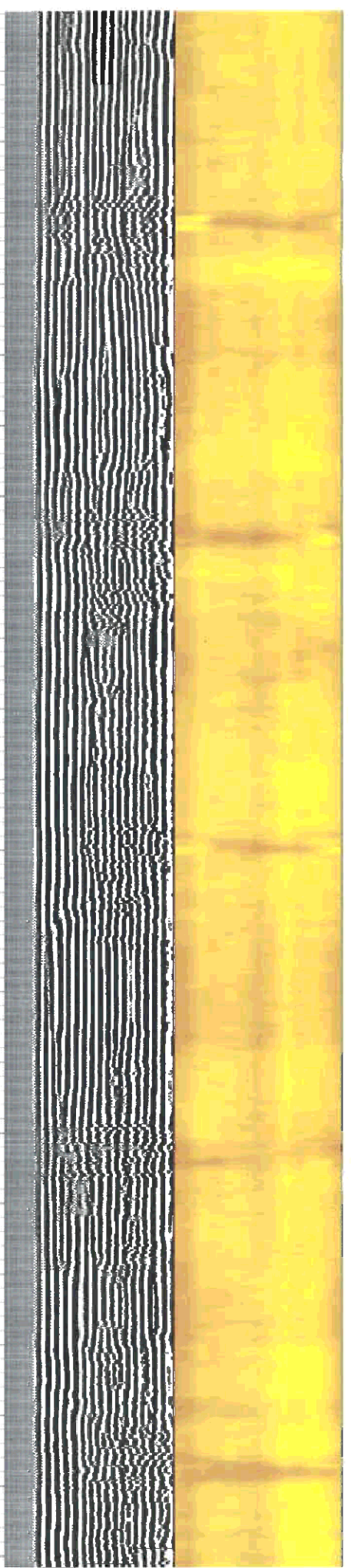
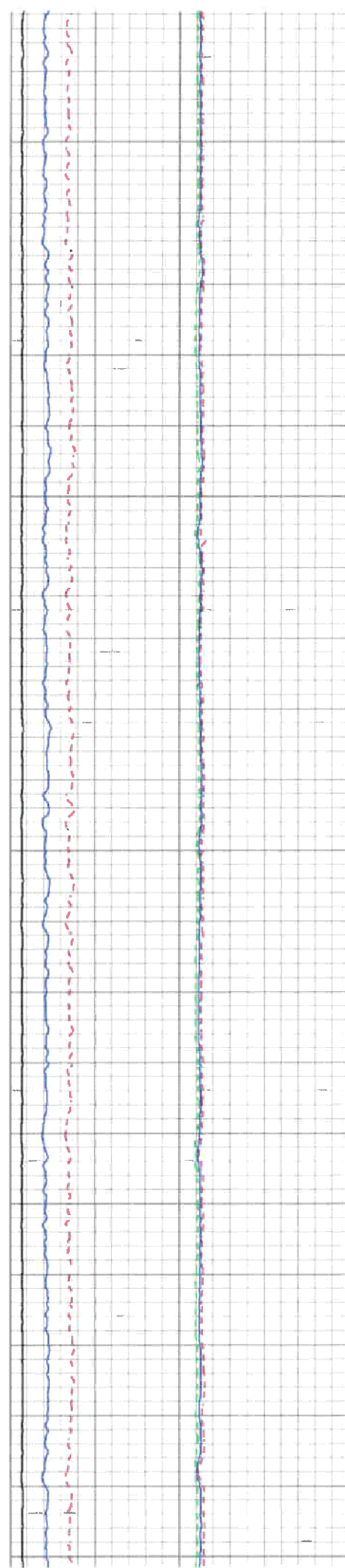
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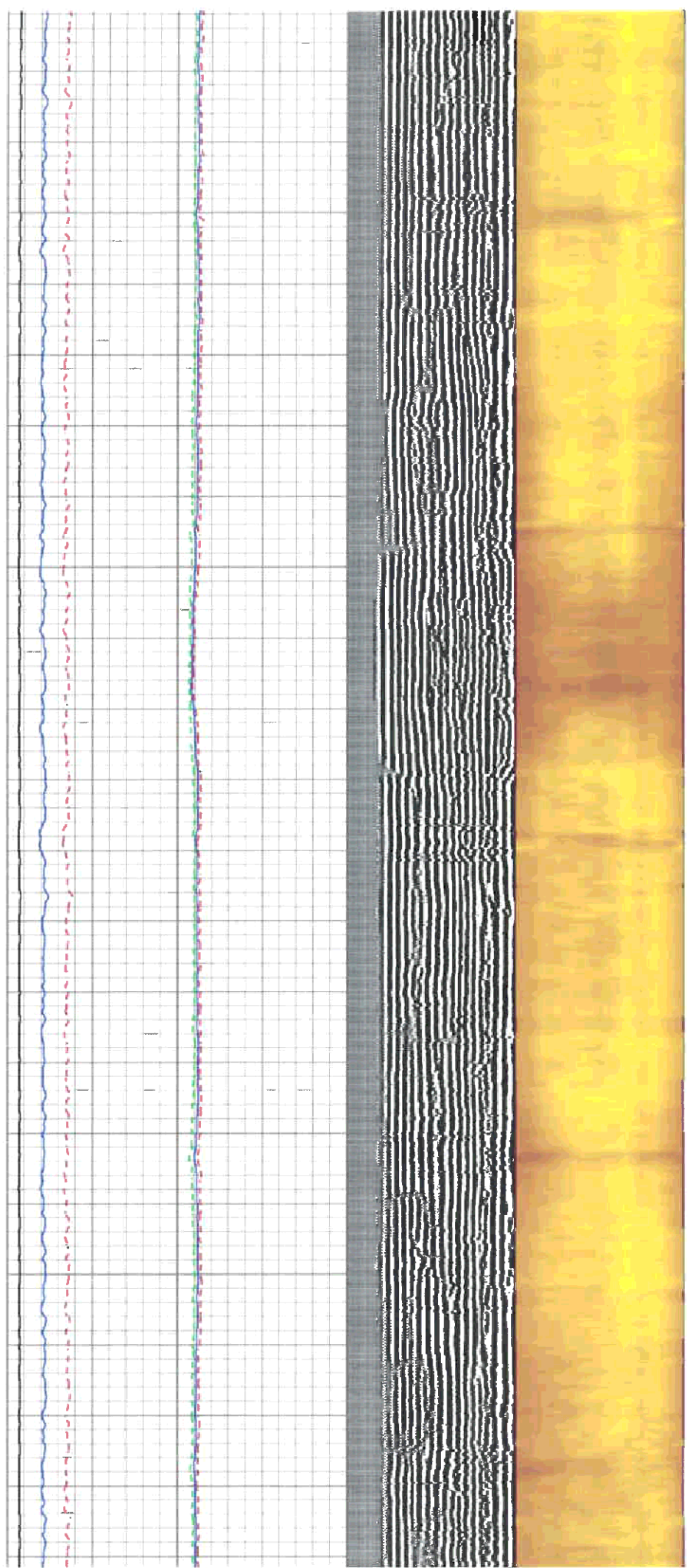
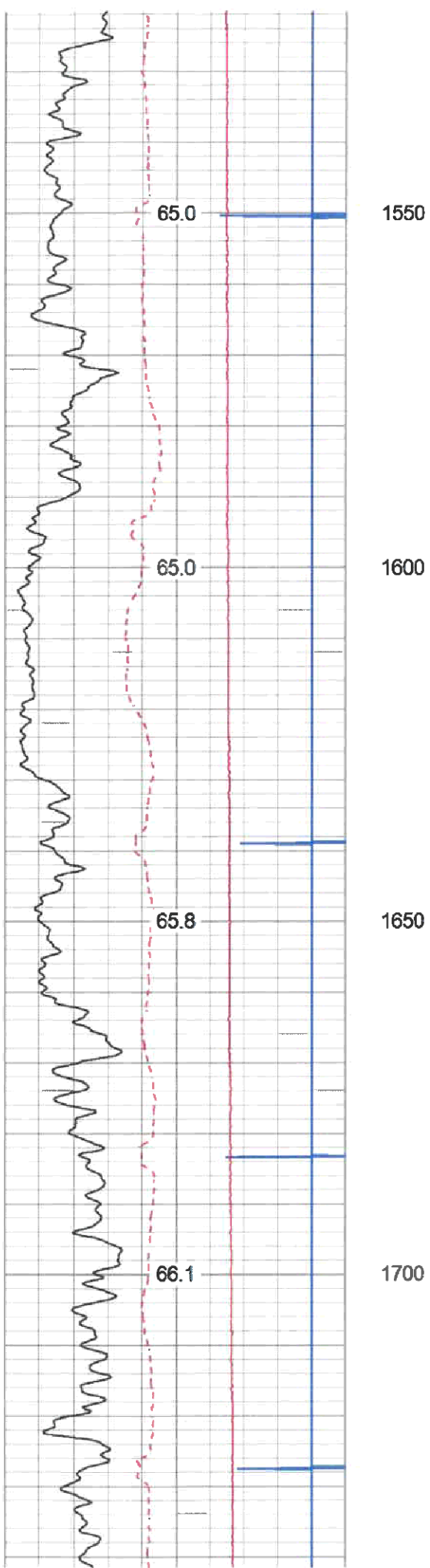


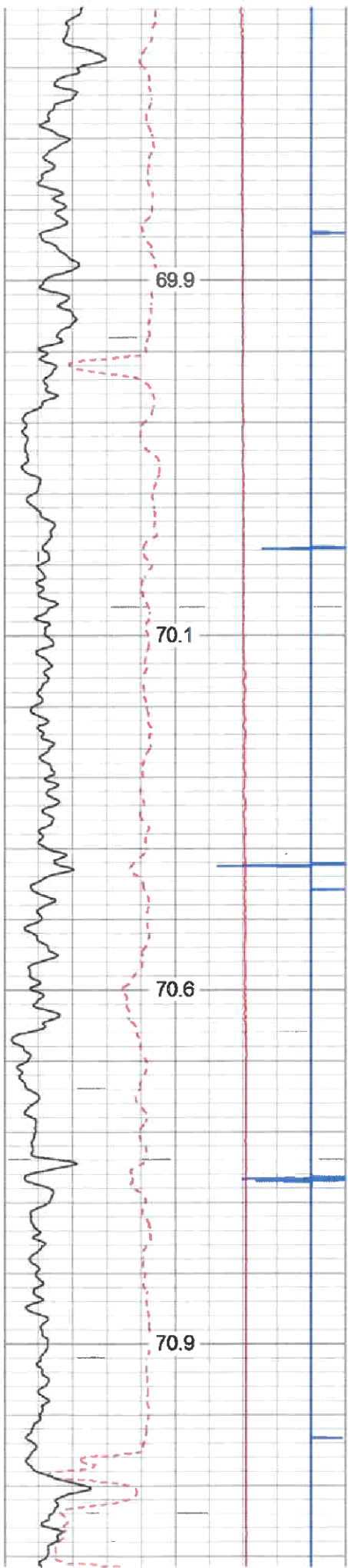




1100
1150
1200
1250
1300





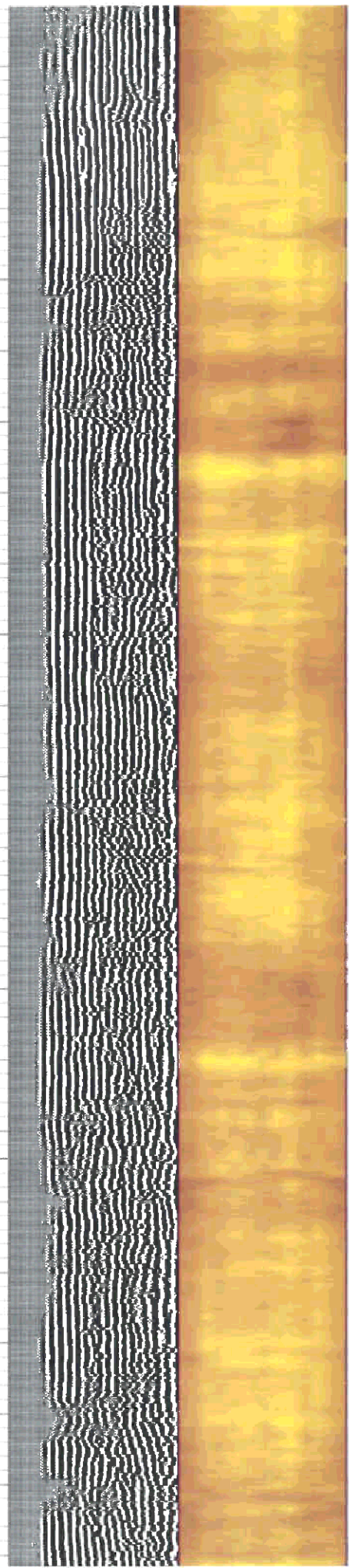
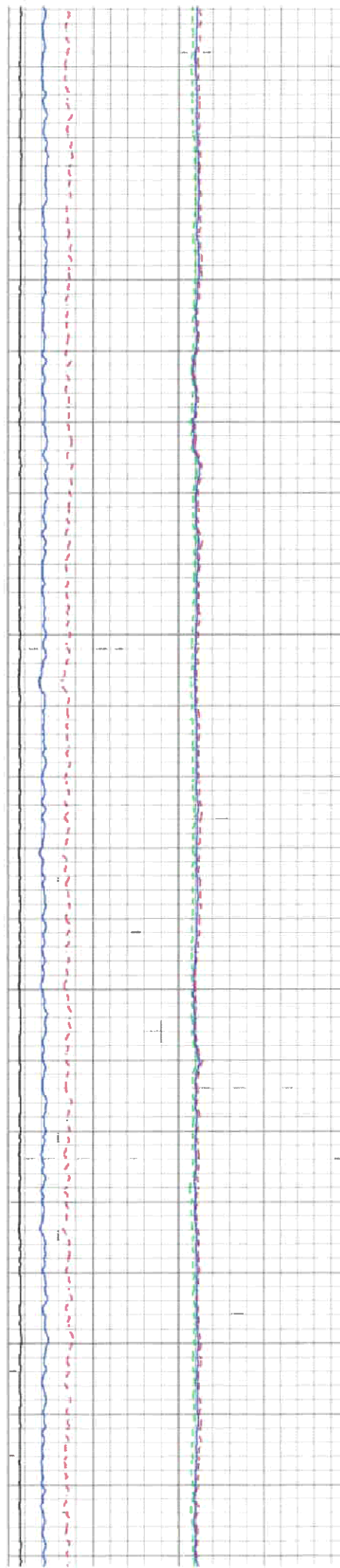


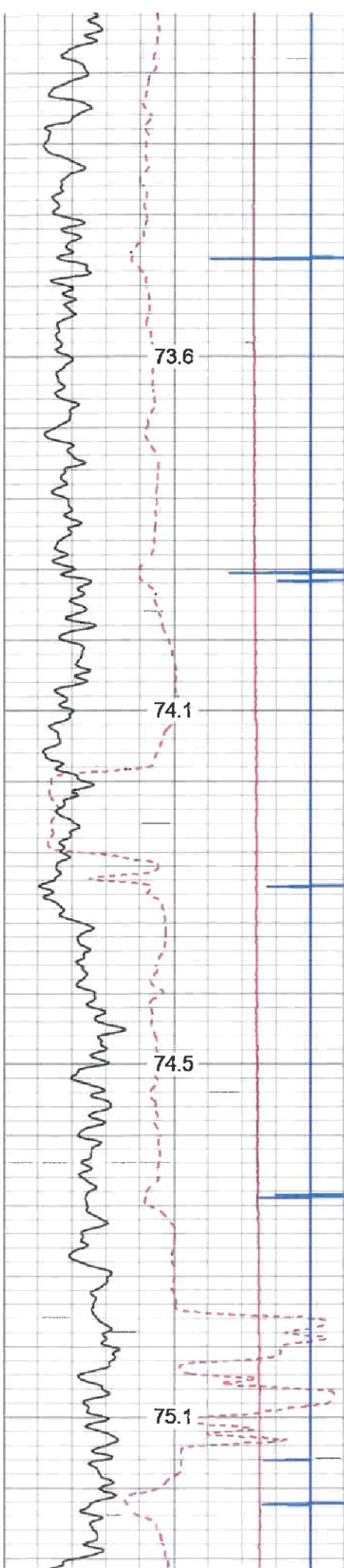
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2050

2100

2150



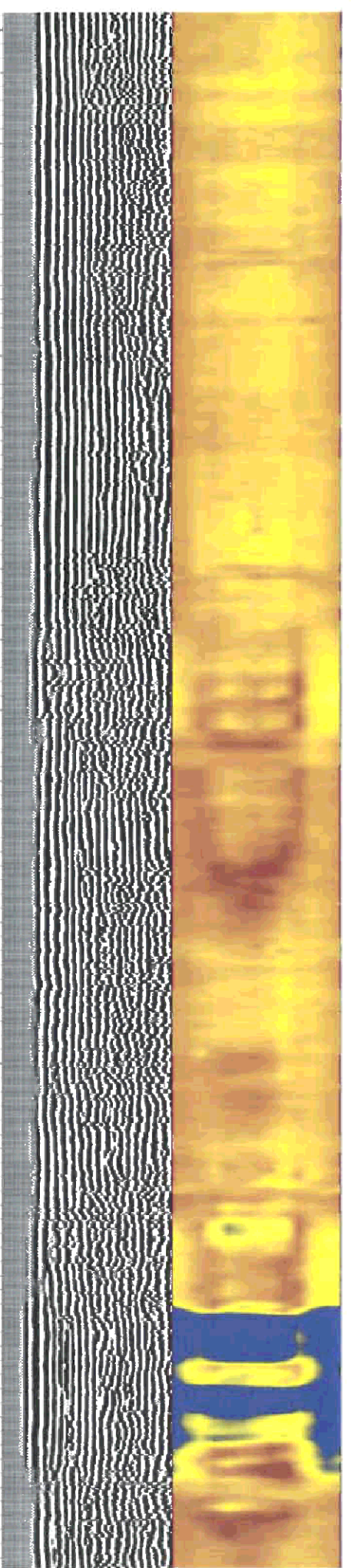
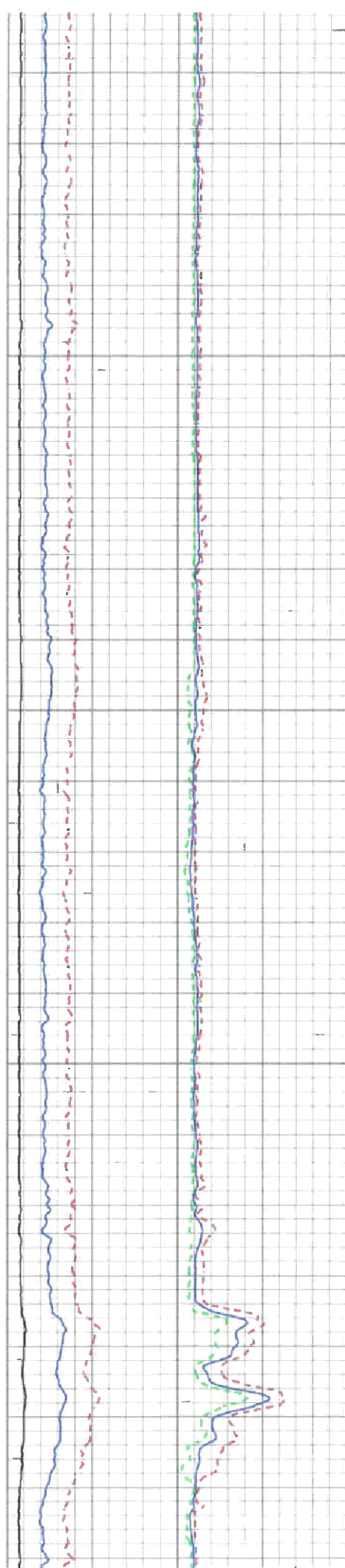


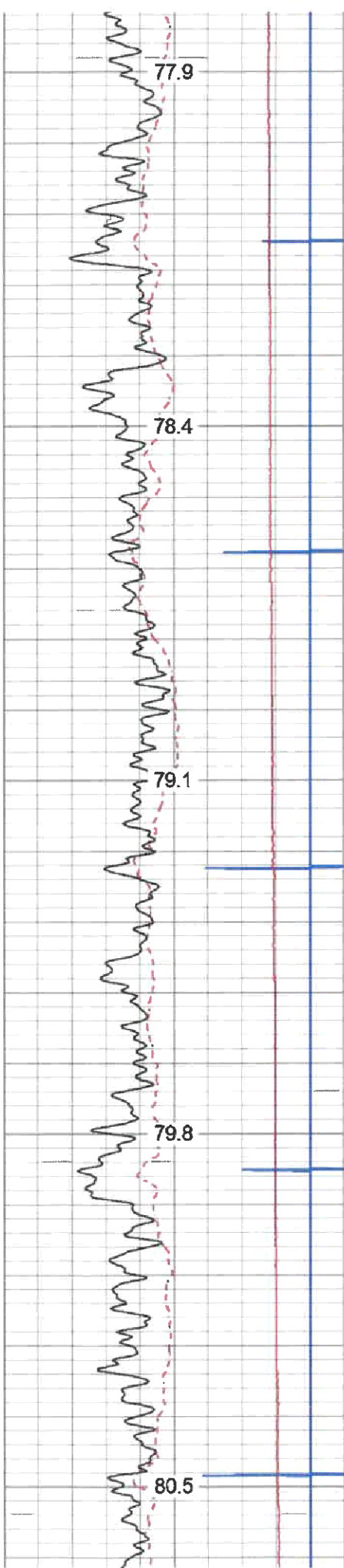
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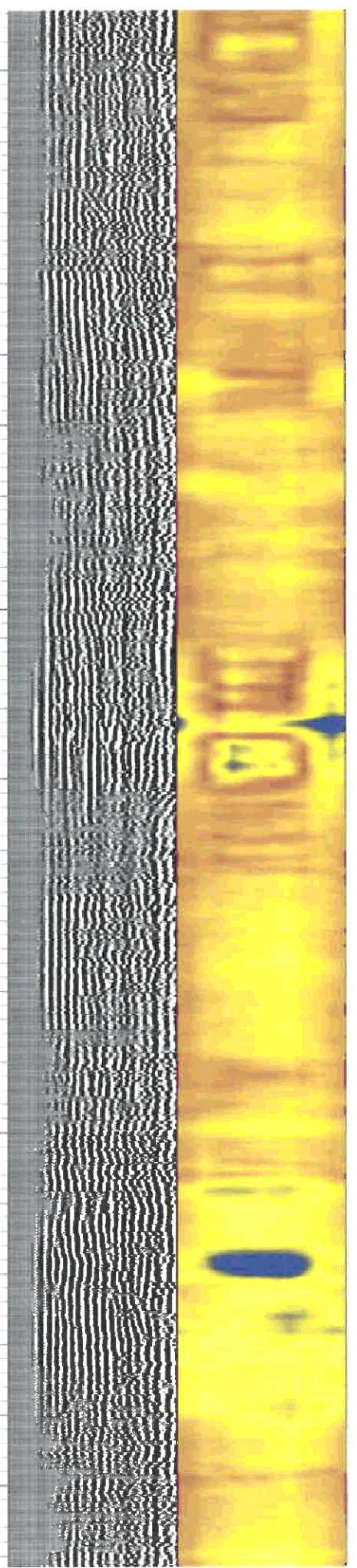
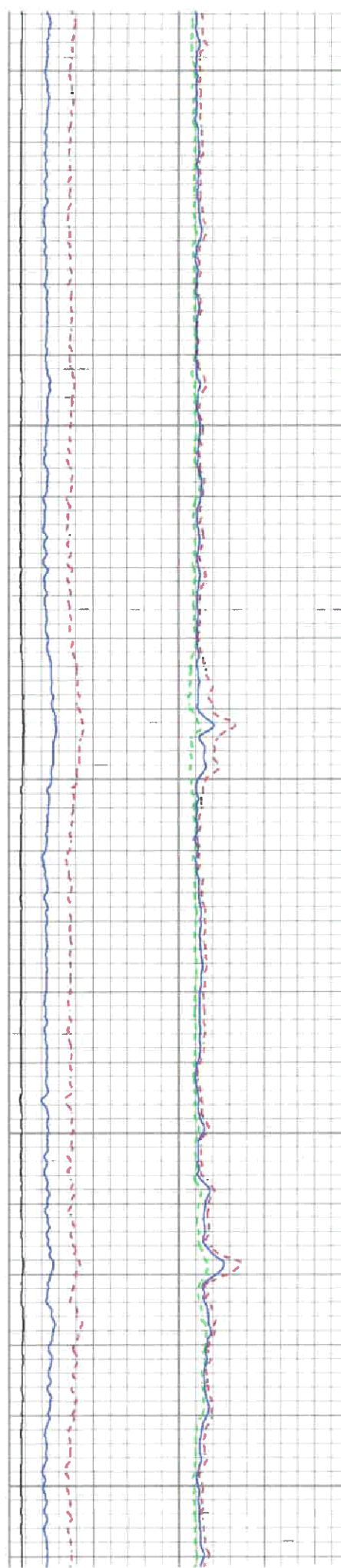
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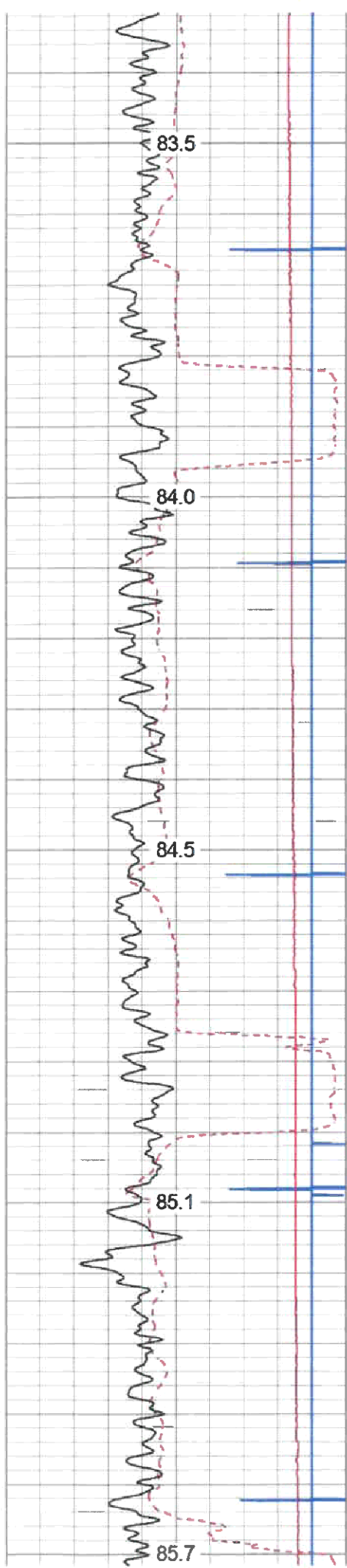
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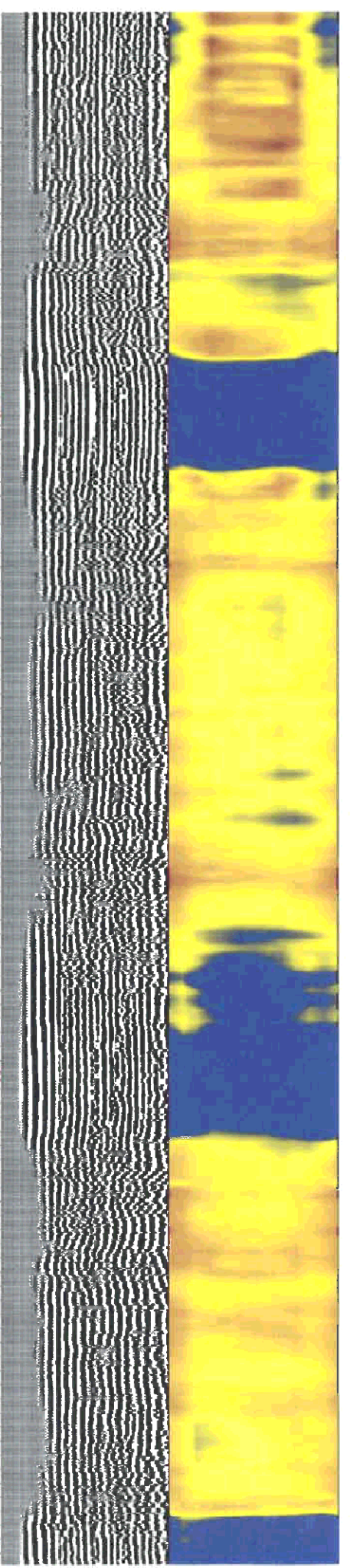
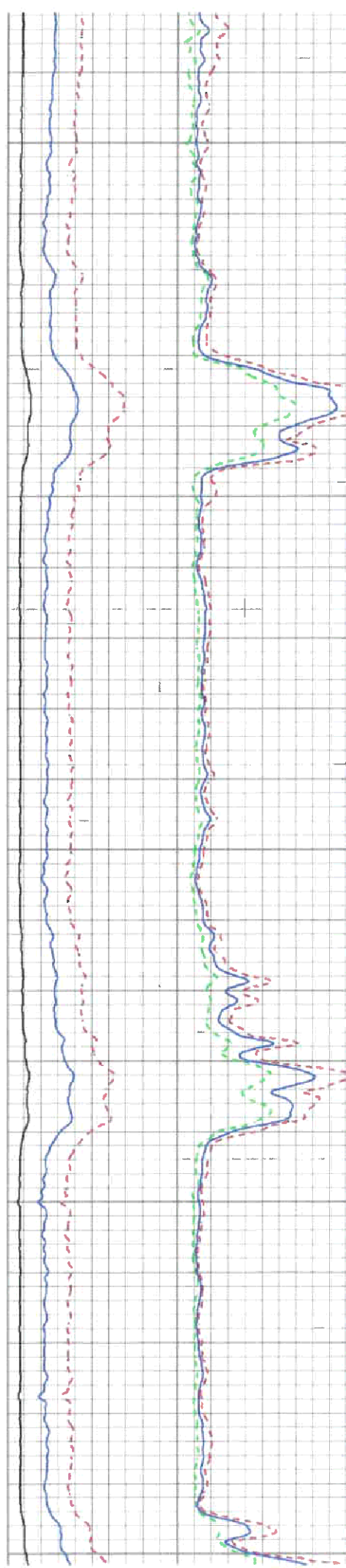
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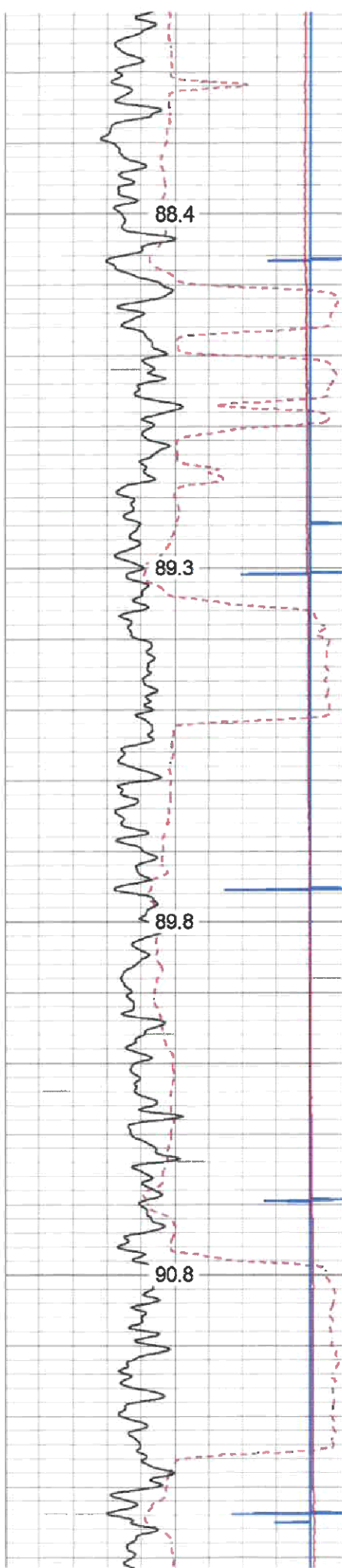
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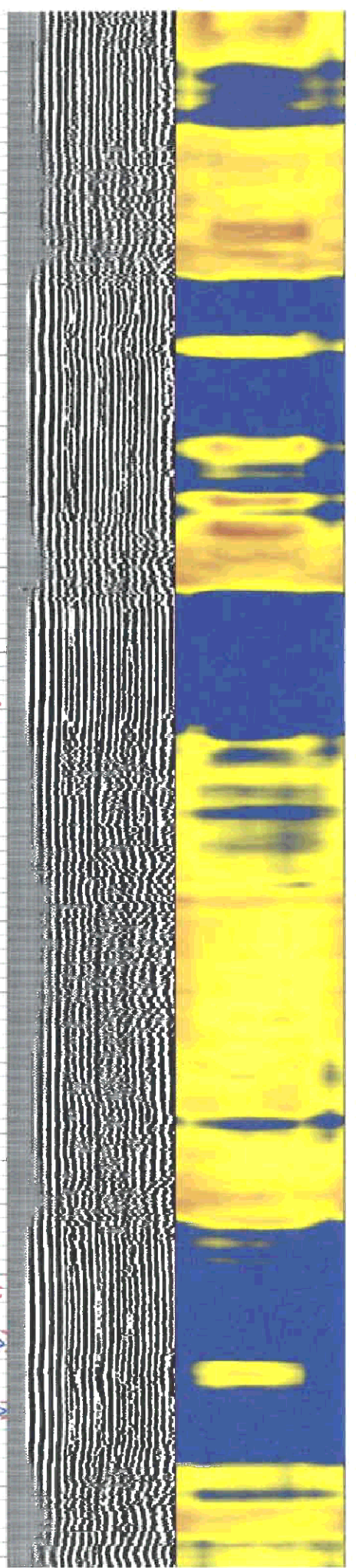
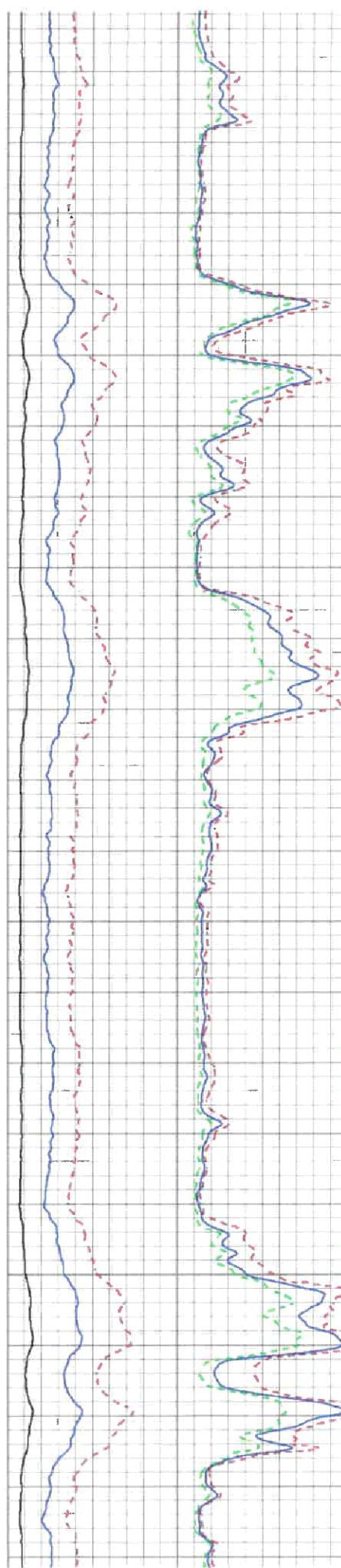


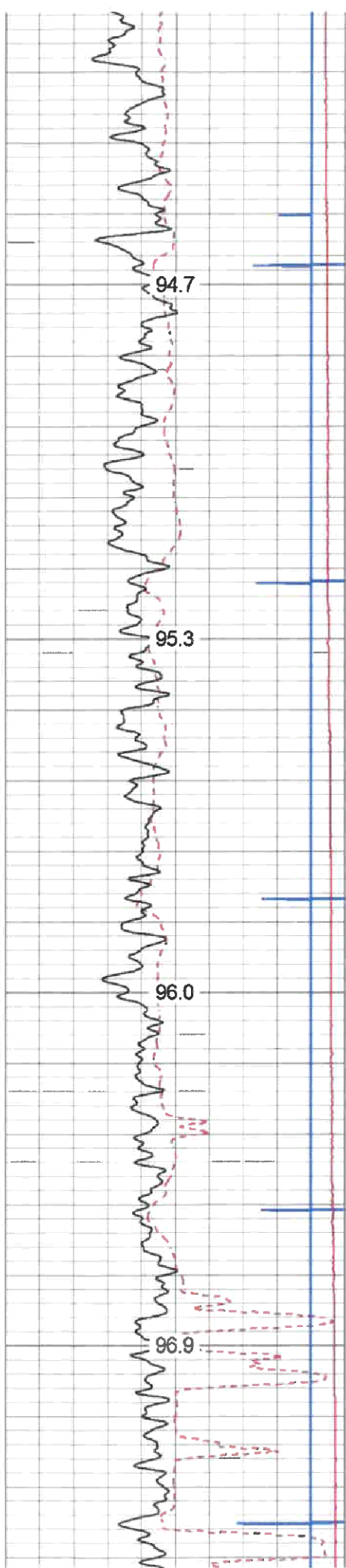
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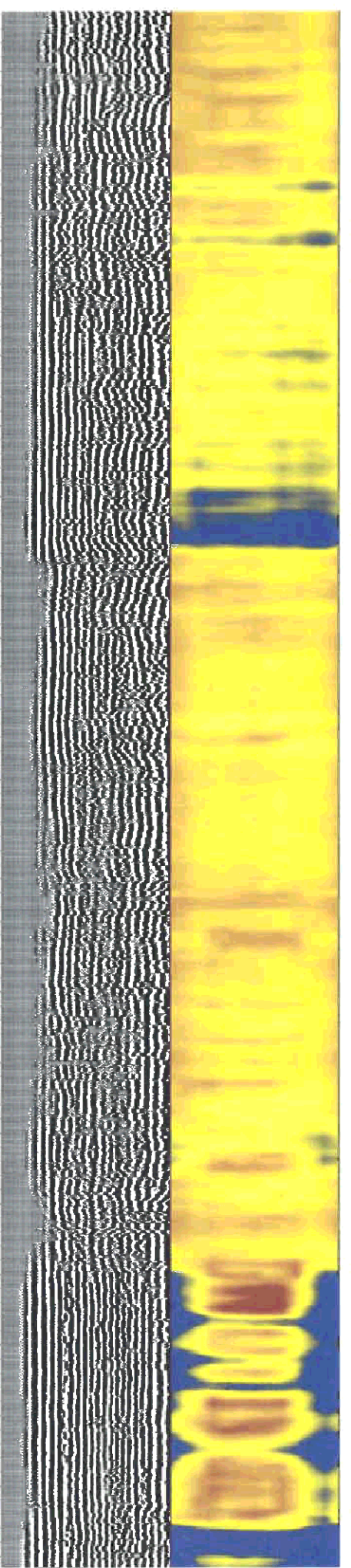
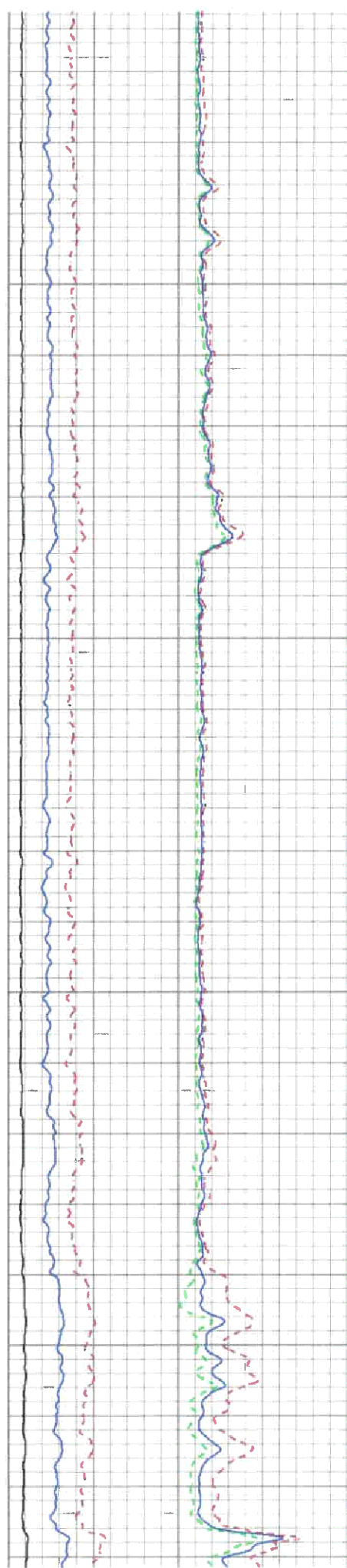


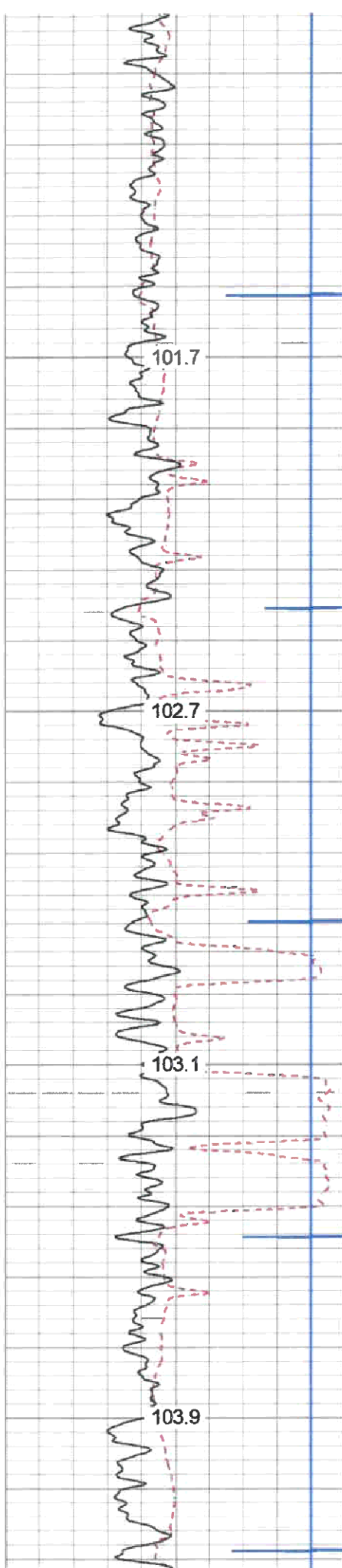
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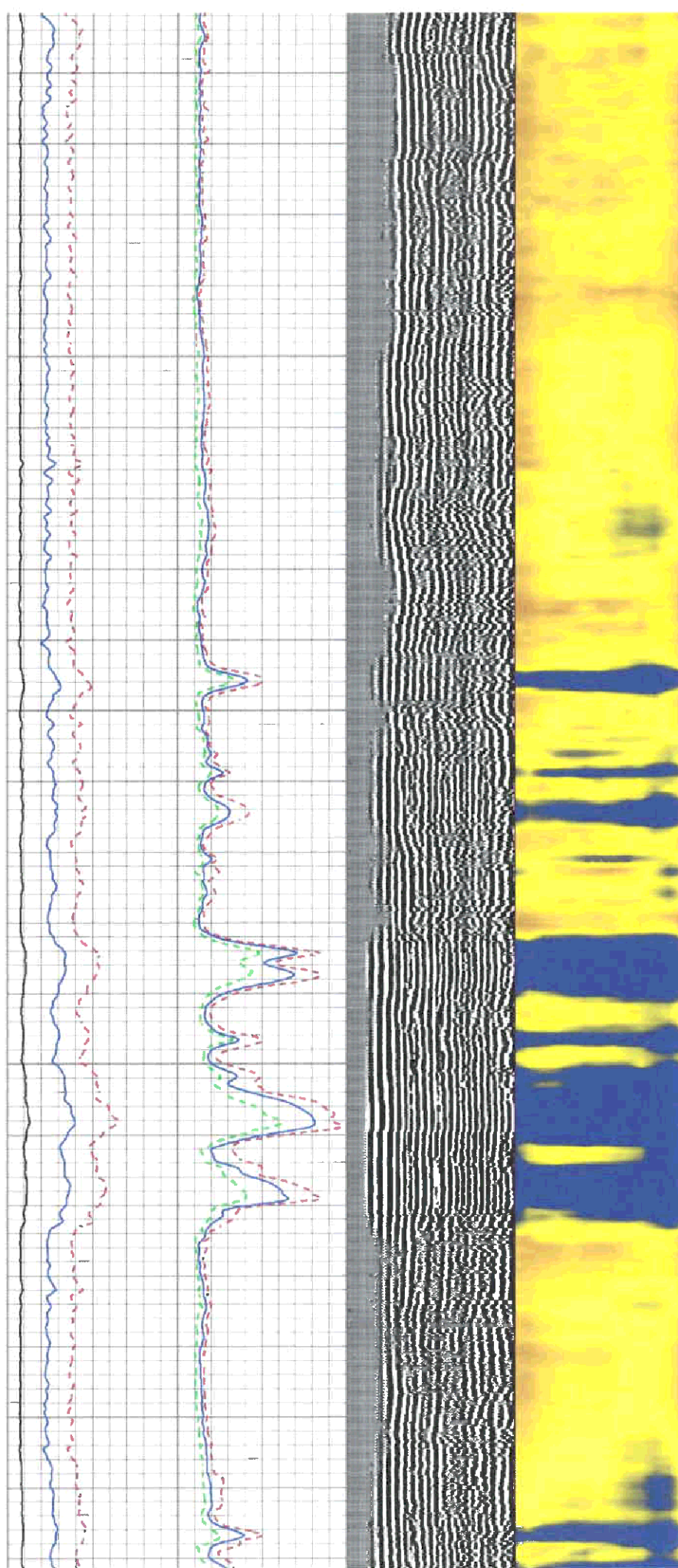


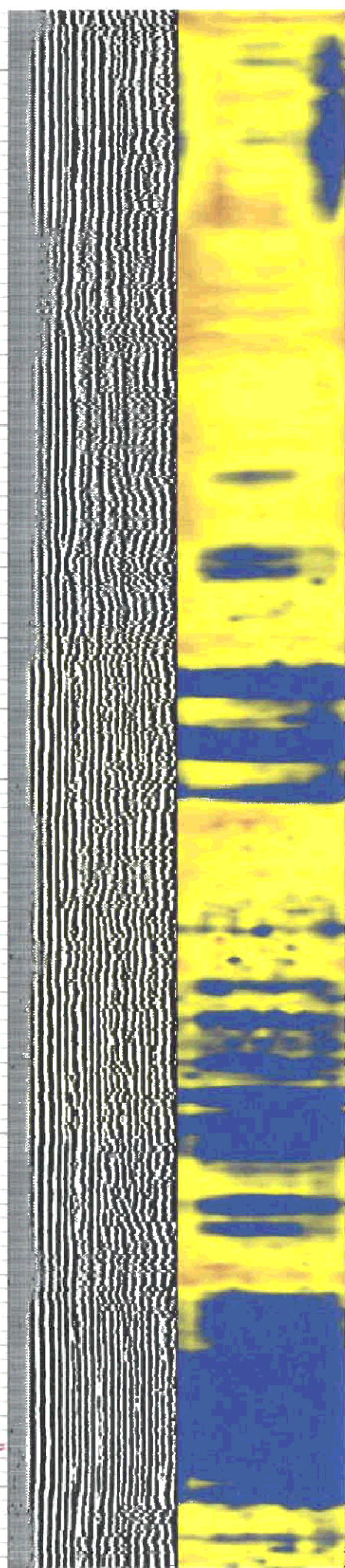
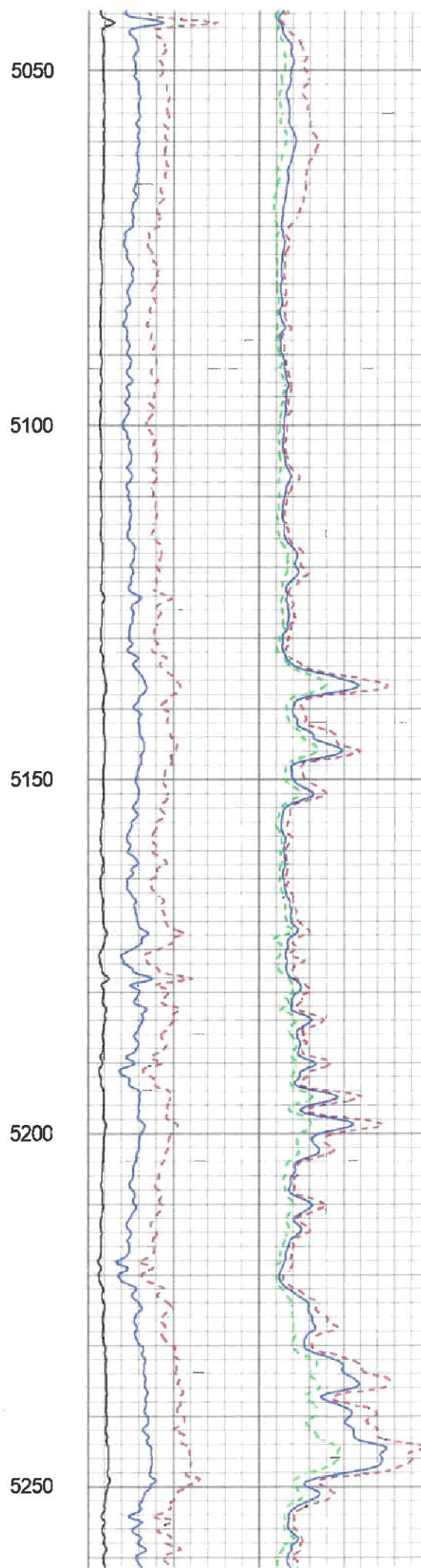
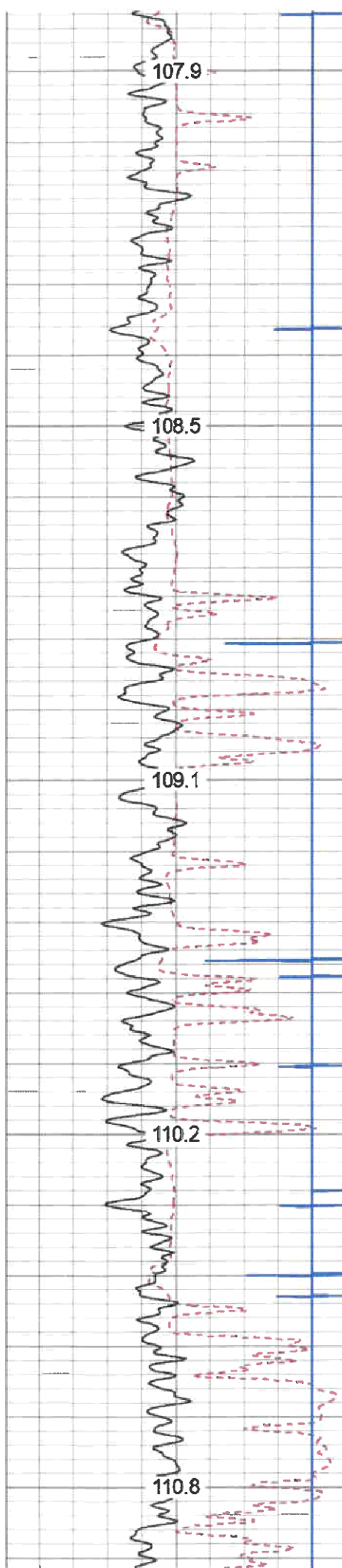
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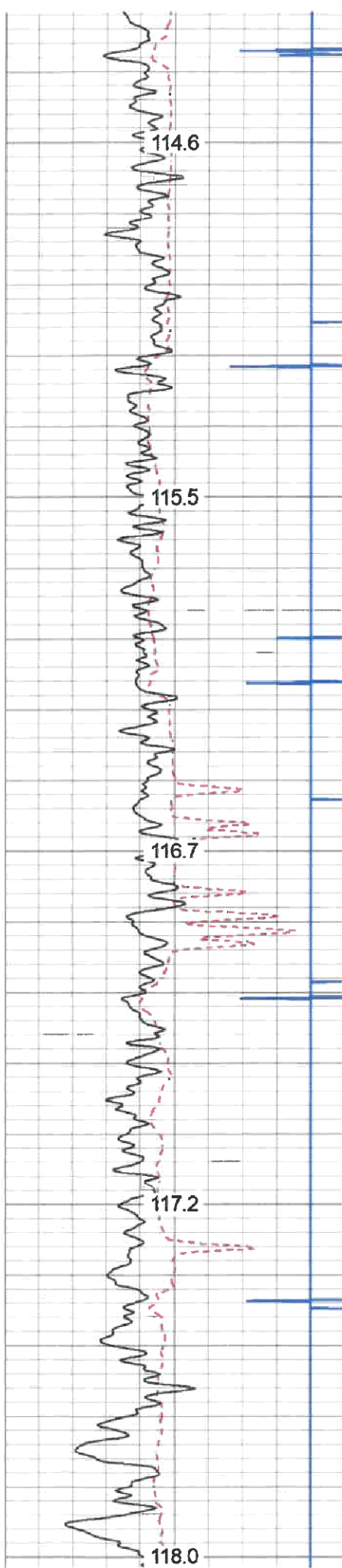
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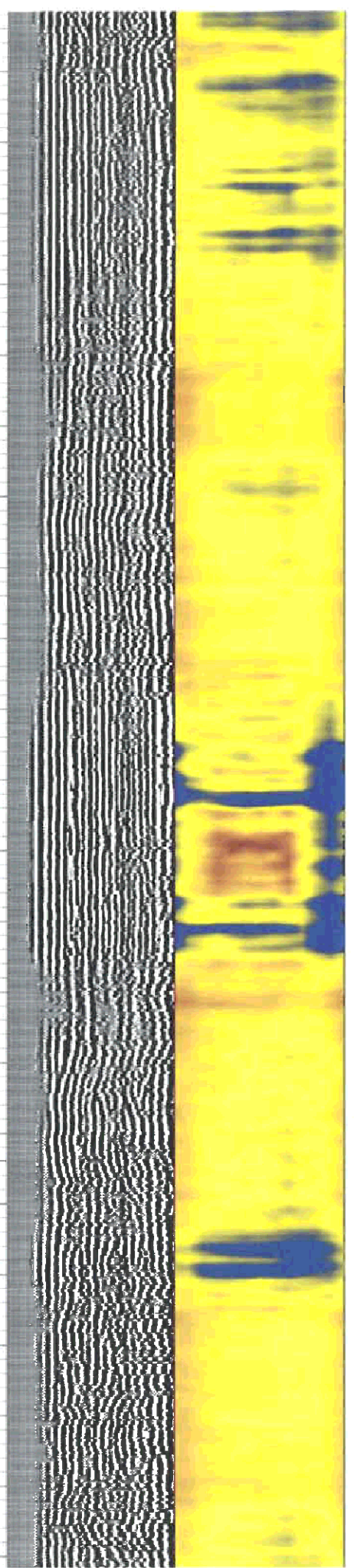
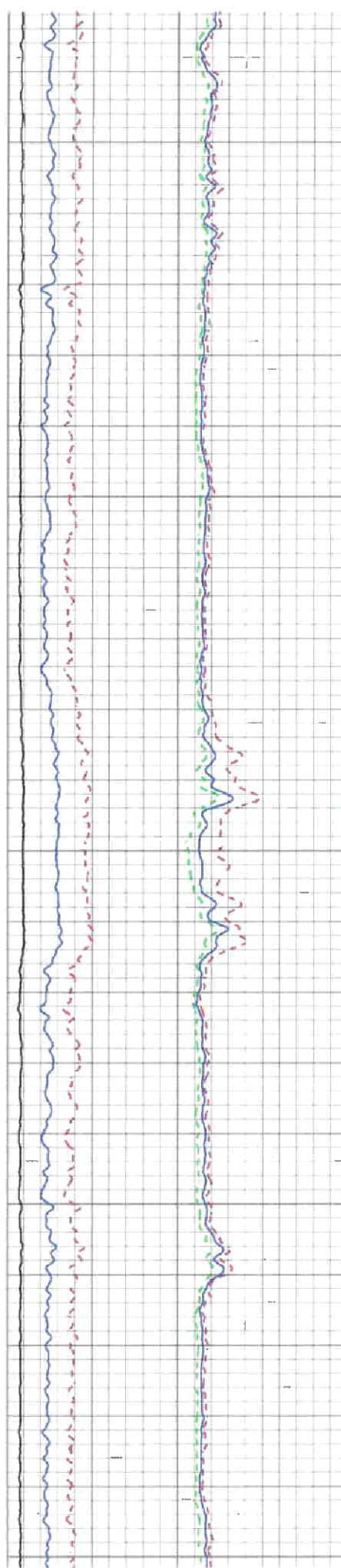
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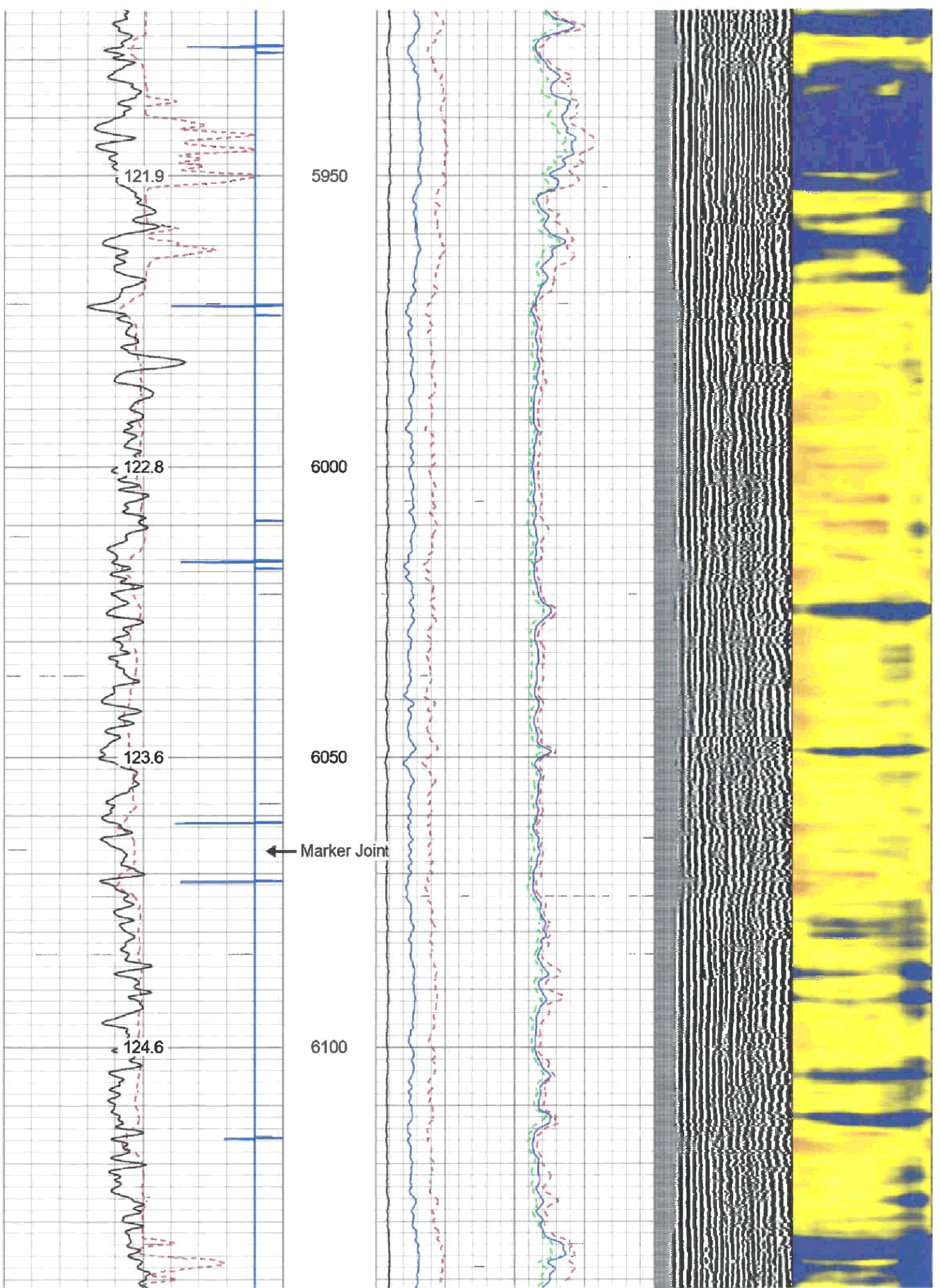


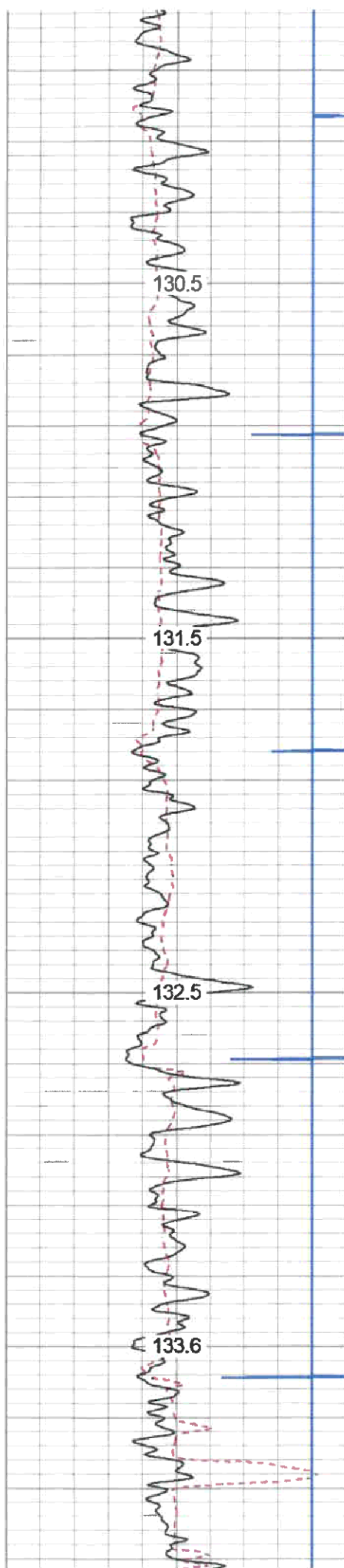




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5700





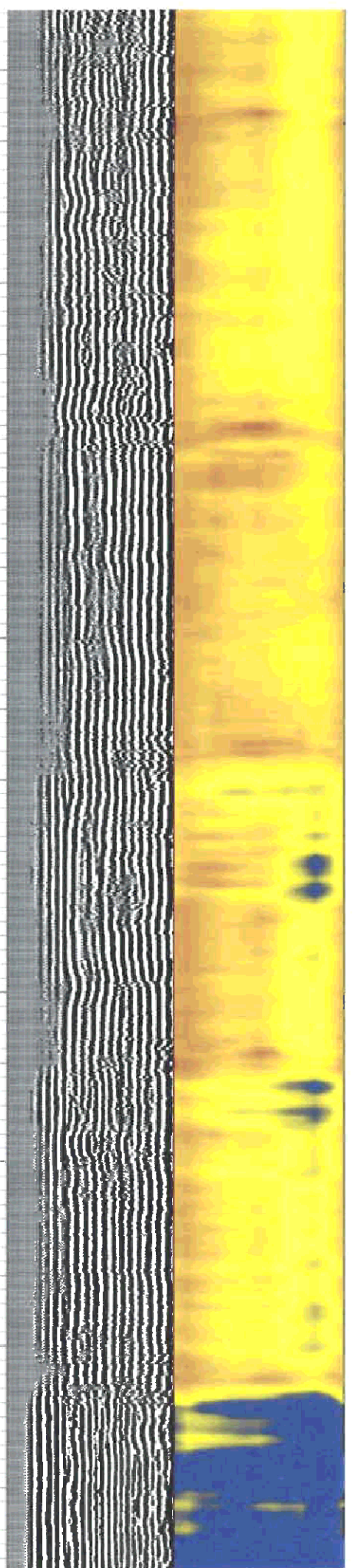
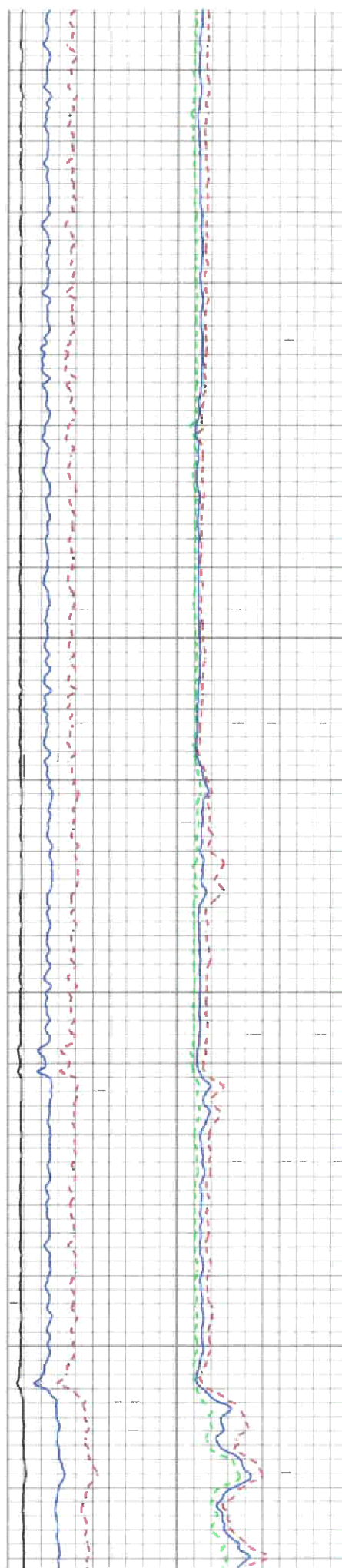


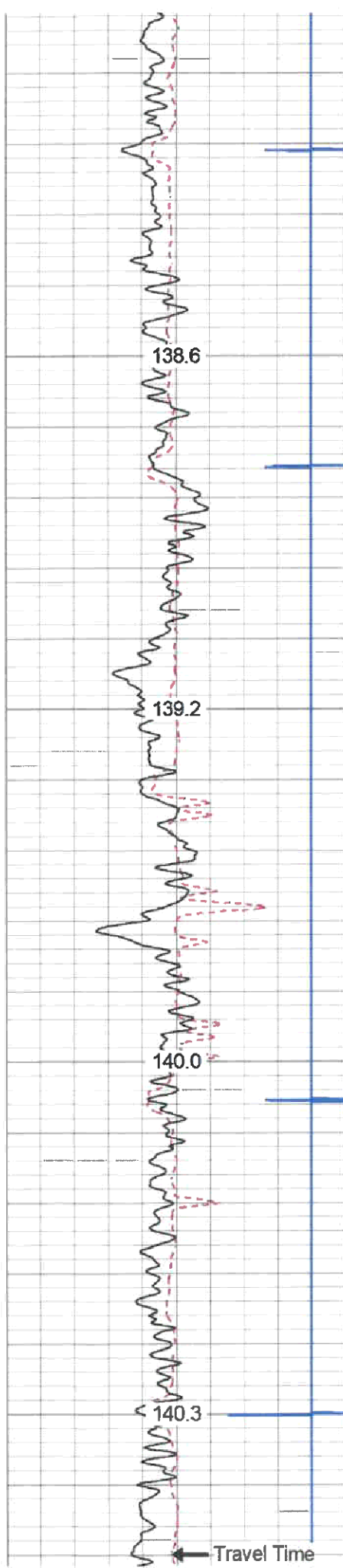
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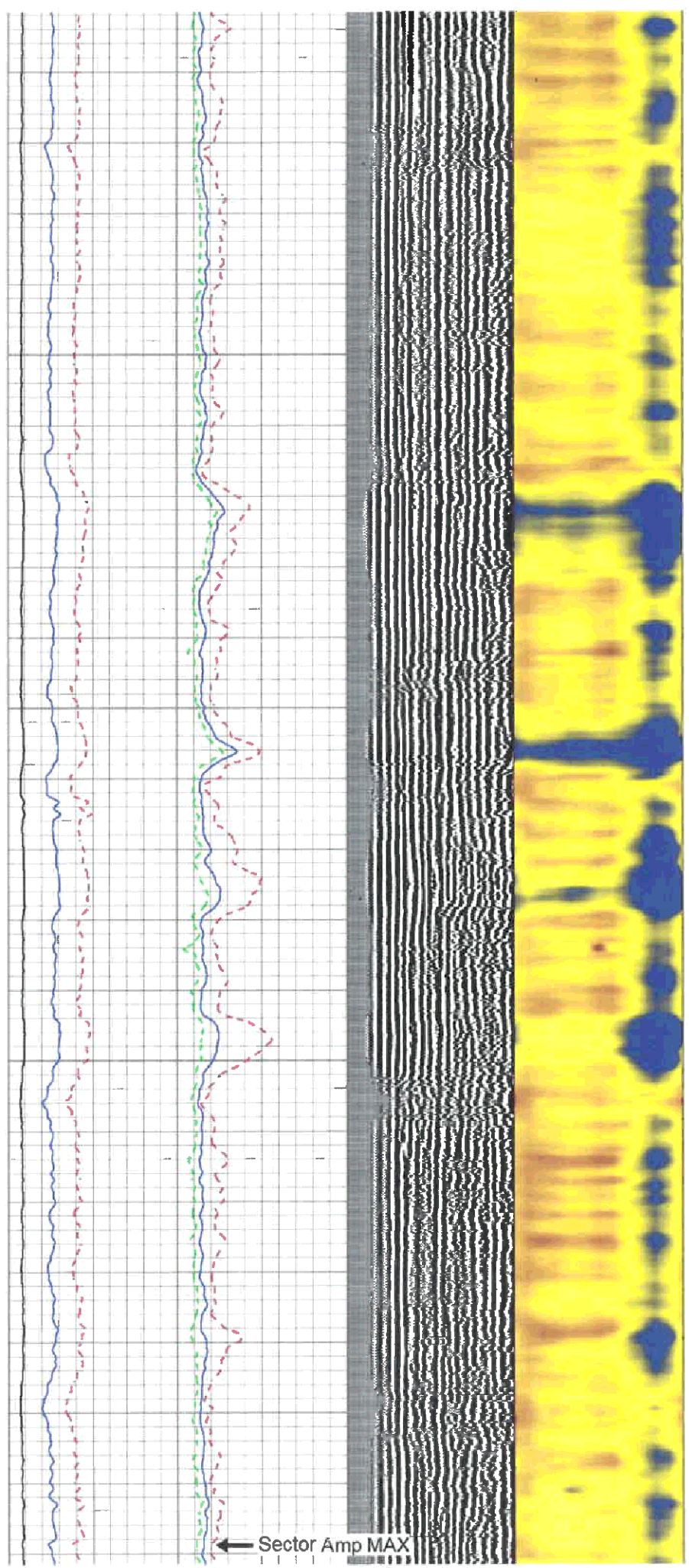


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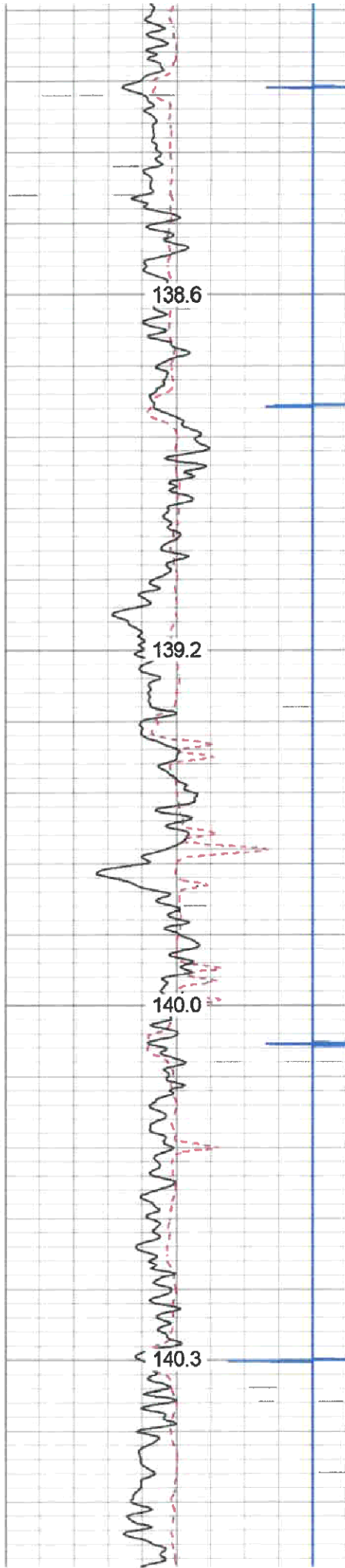
6900

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7000



Sector Amp MAX

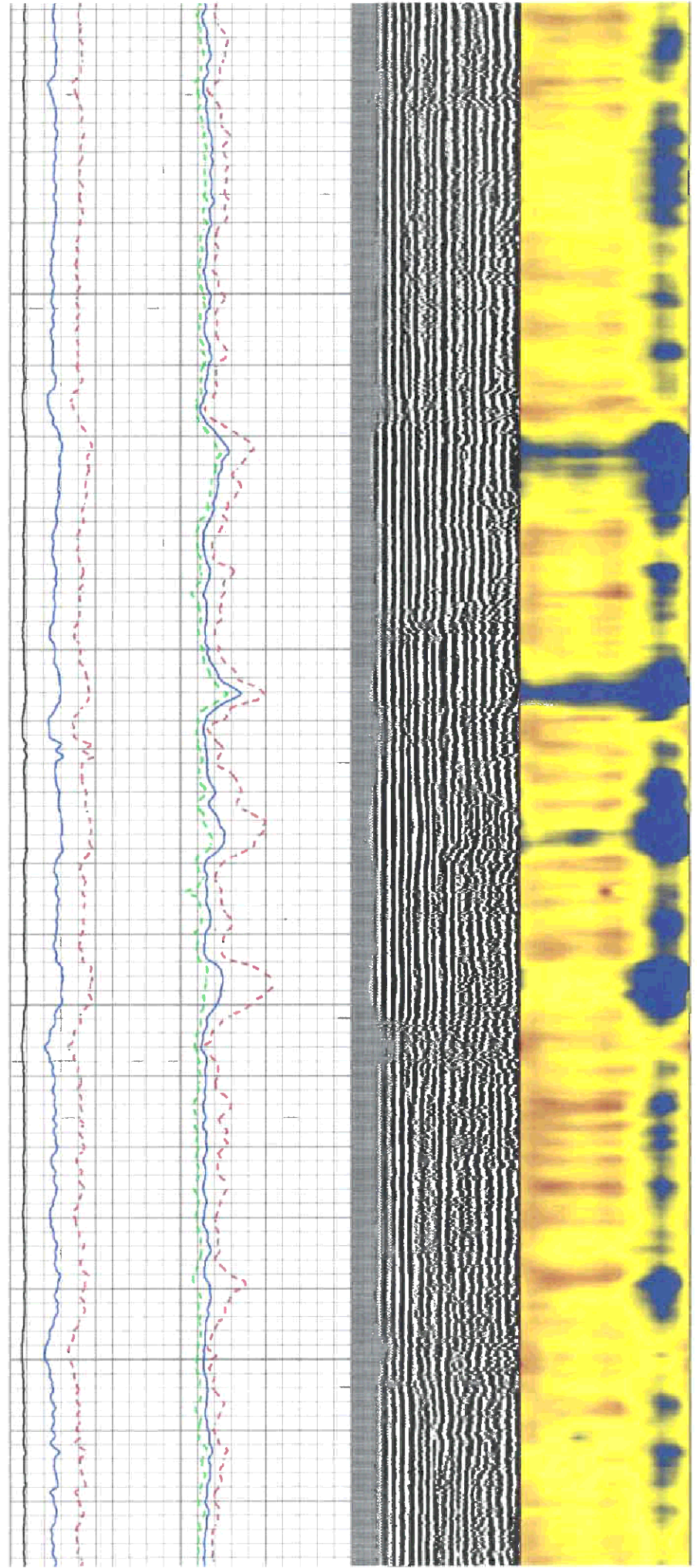


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6900

6950

7000



S7	0.009	0.477	0.000	100.000	229.001	-1.070
S8	0.009	0.406	0.000	100.000	252.054	-2.212
S9	0.008	0.364	0.000	100.000	281.145	-2.365
S10	0.009	0.419	0.000	100.000	243.672	-2.198
S11	0.009	0.461	0.000	100.000	221.537	-2.036
S12	0.008	0.588	0.000	100.000	172.514	-1.421

Temperature Calibration Report

Serial Number: T12_01
Tool Model: Tek12
Performed: Fri Oct 22 17:21:06 2010

	Reference		Reading	
Low Reference:	0.00	degF	0.00	usec
High Reference:	1.00	degF	1.00	usec

Gain: 0.33
Offset: 0.00
Delta Spacing: 2

Log Variables

Database: C:\ProgramData\Warrior\Data\horst2h.db
Dataset: field/well/run1/pass1.18/_vars_


Top - Bottom

BHTEMP_Src	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	CASEWGHT lb/ft	MAXAMPL mV	MINAMPL mV
TEMP	7.875	100	5.5	0	23	71.9	3.5
MINATTN db/ft	PERFS	PPT usec	SRFTEMP degF	TDEPTH ft			
0.8	No	219	0	0			

Variable Description

BHTEMP_Src : BHTEMP Input Source Selector
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)
CCL	19.20		Titan-1.4375 1 7/16 Titan Type II Cable Head	1.03	1.44	5.00
			CCL-312tekco (101) Tekco 3 1/8" 450 Deg. "F" SmCo Logging CCL	1.82	3.12	25.00
			Tek-2.75 2 3/4" Tekco Adjustable Centralizer	2.73	2.75	25.00