

DUAL INDUCTION LOG

MIDWEST WIRELINE

Company TDI, Inc.		Company TDI, Inc.	
Well Munsch #12		Well Munsch #12	
Field Schoenchen		Field Schoenchen	
County Ellis		County Ellis	
State Kansas		State Kansas	
Location: API #: 15-051-26996-00-00		Other Services	
1180' FSL & 1380' FEL		CNL/CDL MEL	
SEC 9 TWP 15S RGE 18W			
Permanent Datum	Ground Level	Elevation	2033'
Log Measured From	Kelly Bushing		K.B. 2043'
Drilling Measured From	Kelly Bushing		D.F. N/A
			G.L. 2033'
Date	6/23/2021		
Run Number	One		
Depth Driller	3750'		
Depth Logger	3752'		
Bottom Logged Interval	3751'		
Top Log Interval	200'		
Casing Driller	8.625" @ 213.88'		
Casing Logger	212'		
Bit Size	7.875'		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	6700		
Density / Viscosity	9.4 56		
pH / Fluid Loss	10.5 6.0		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	0.50 @ 80		
Rmt @ Meas. Temp	0.38 @ 80		
Rmc @ Meas. Temp	0.68 @ 80		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	0.35 @ 114		
Operating Rig Time	3 Hours		
Max Rec. Temp. F	114		
Equipment Number	P-24		
Location	HAYS		
Recorded By	D. Schmidt		
Witnessed By	Tom Denning	Herb Deines	

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All interpretations are opinions based on inferences from electrical or other measurements and Midwest Wireline LLC cannot and does not guarantee the accuracy or correctness of any interpretation, and Midwest Wireline LLC will not 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.

Comments

N/A DENOTES NOT AVAILABLE OR NON-APPLICABLE.

Hays,
South on 183 to Norolk Rd, 400' West,
North into

Log Measured From: Kelly Bushing

10 Ft. Above Permanent Datum

THANK YOU FOR USING MIDWEST WIRELINE LLC
785-625-3858

Your Midwest Wireline Crew

Engineer: D. Schmidt
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Tom Denning
Secondary Witness: Herb Deines
Secondary Witness:
Secondary Witness:

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (233-M&W)	3.00	3.50	50.00
CNLSC CNSSC	37.48 36.73			CNT-M&W (207-MW)	5.50	3.50	100.00
LSD DCAL SSD	28.43 28.42 27.93			CDL-M&W (934-226)	8.50	4.00	250.00
ML-PSIML (PSI-02) GO Micro log tools converted to Simplec electronics					7.58	4.00	65.00
MCAL MI MN	19.83 19.83 19.83						
RLL3F RLL3	15.80 15.80						
CILD	8.00			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILM	4.70						
SP	0.20						
Dataset: tdi_munsch 12.db: field/well/stkml/pass3.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in							

Log Variables

DatabaseC:\ProgramData\Warrior\Data\tdi_munsch 12.db
Dataset field/well/stkml/pass3.1/_vars_

Top - Bottom

A	BOREID	BOTTEMP	CASEOD	CASETHCK	FLUIDDEN	M	MATRXDEN
1	in 7.875	degF 114	in 5.5	in 0	g/cc 1	2	g/cc 2.71
NPORSEL	PERFS	SNDERR	SNDERRM	SPSHIFT	SRFTEMP	SZCOR	TDEPTH
Limestone	No	mmho/m 0	mmho/m 0	mV 530	degF 80	Off	ft 3752

Variable Description

A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density

NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

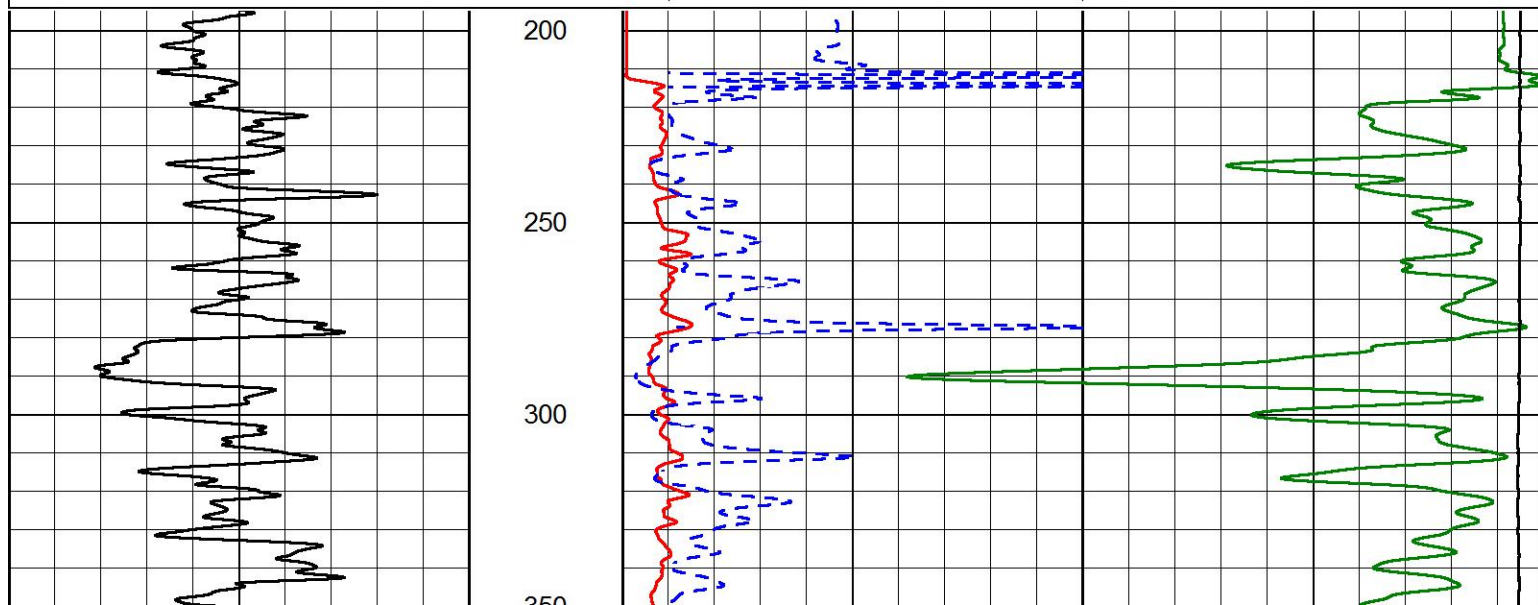


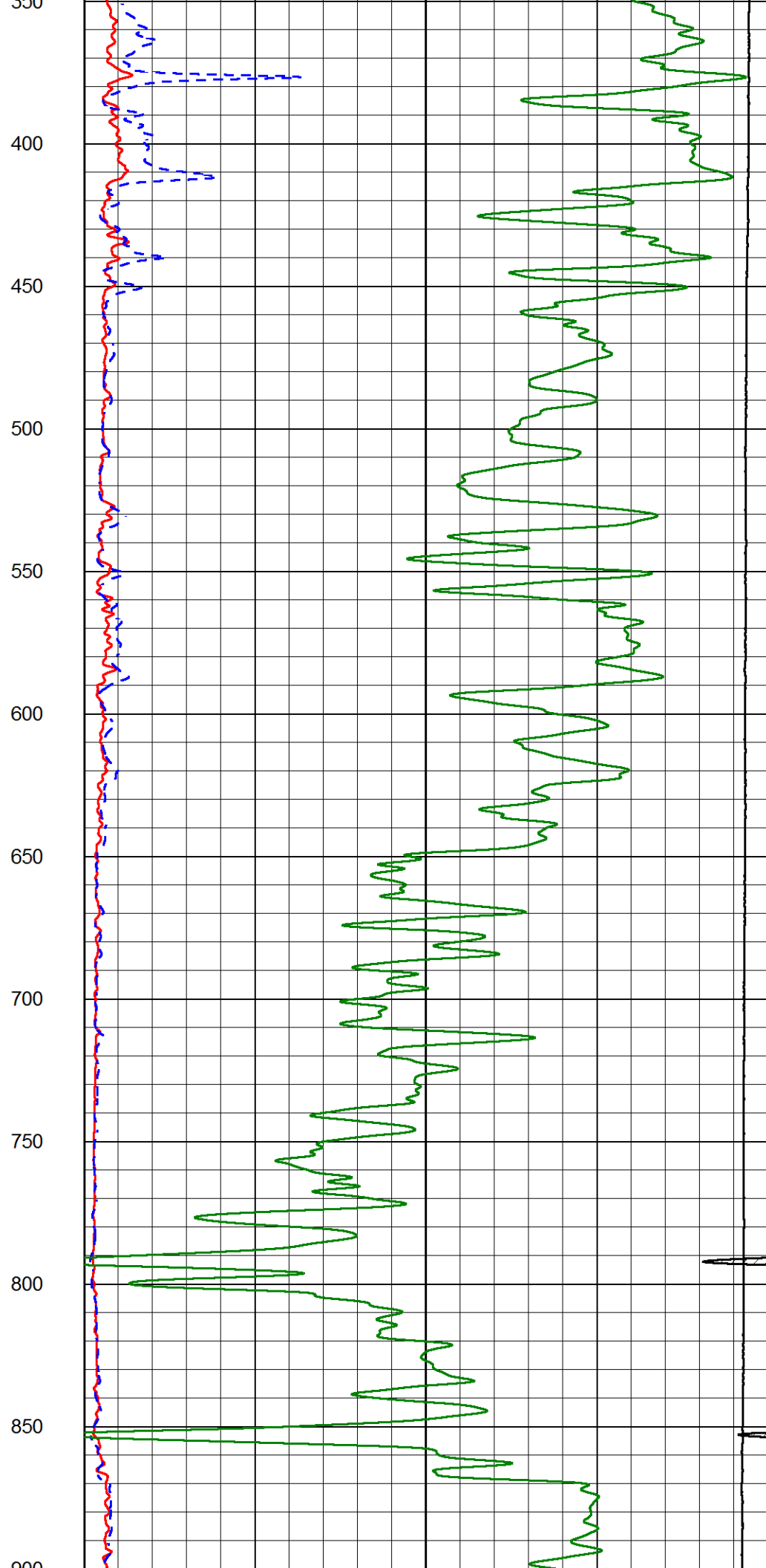
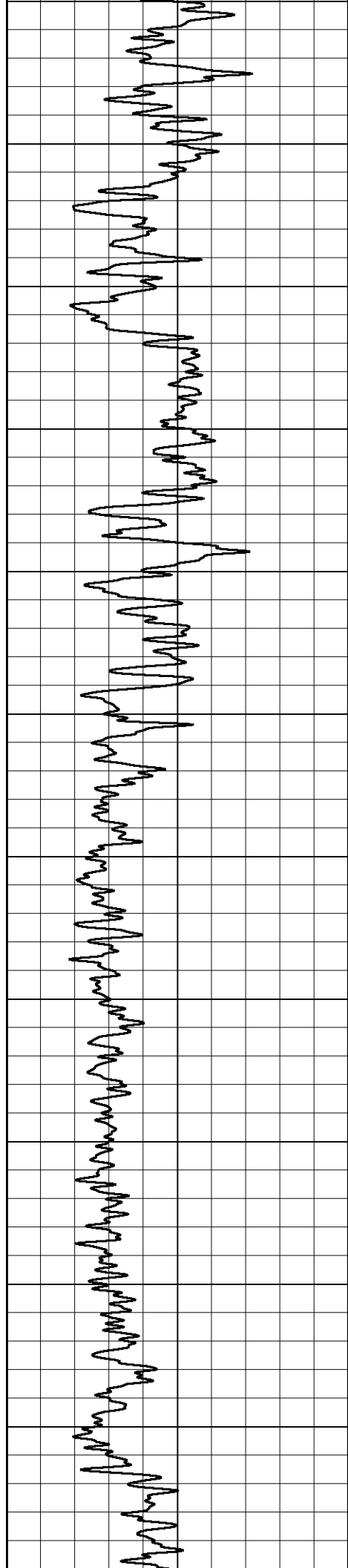
2" SCALE RESISTIVITY

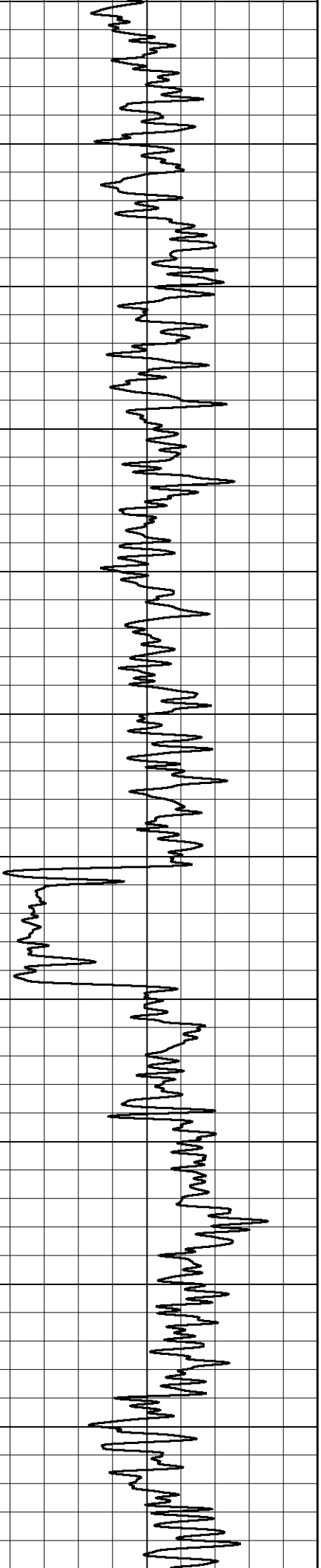
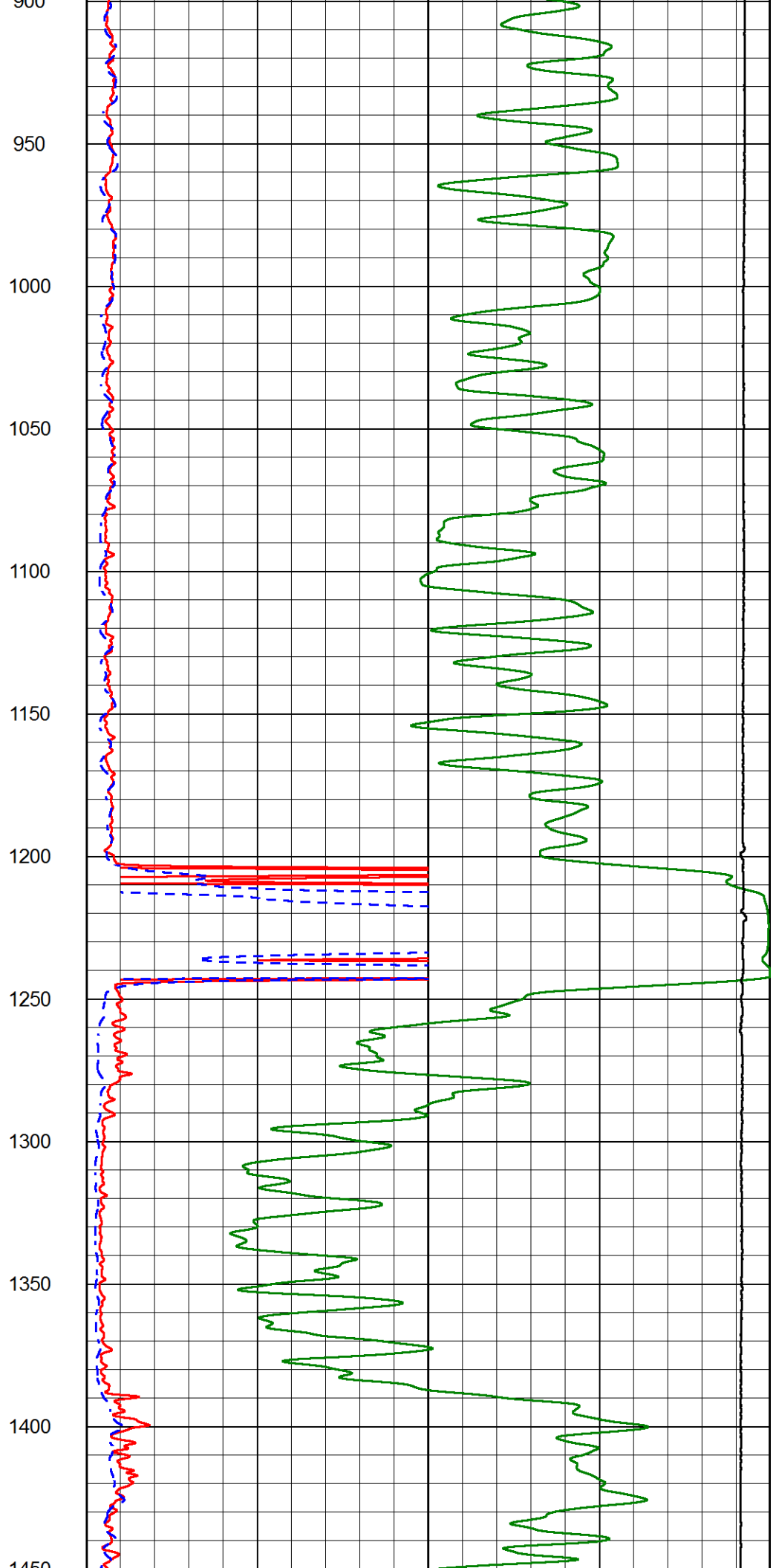
MAIN PASS

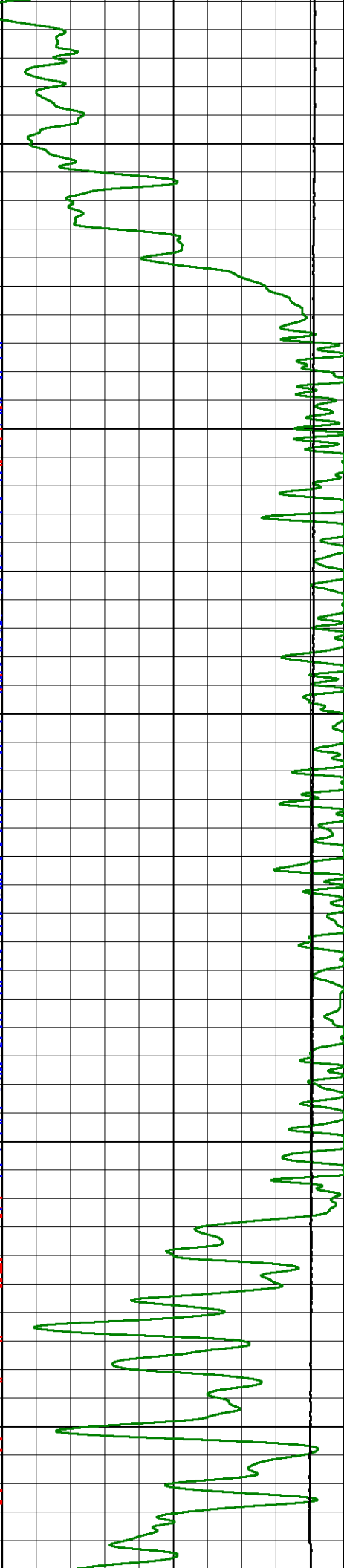
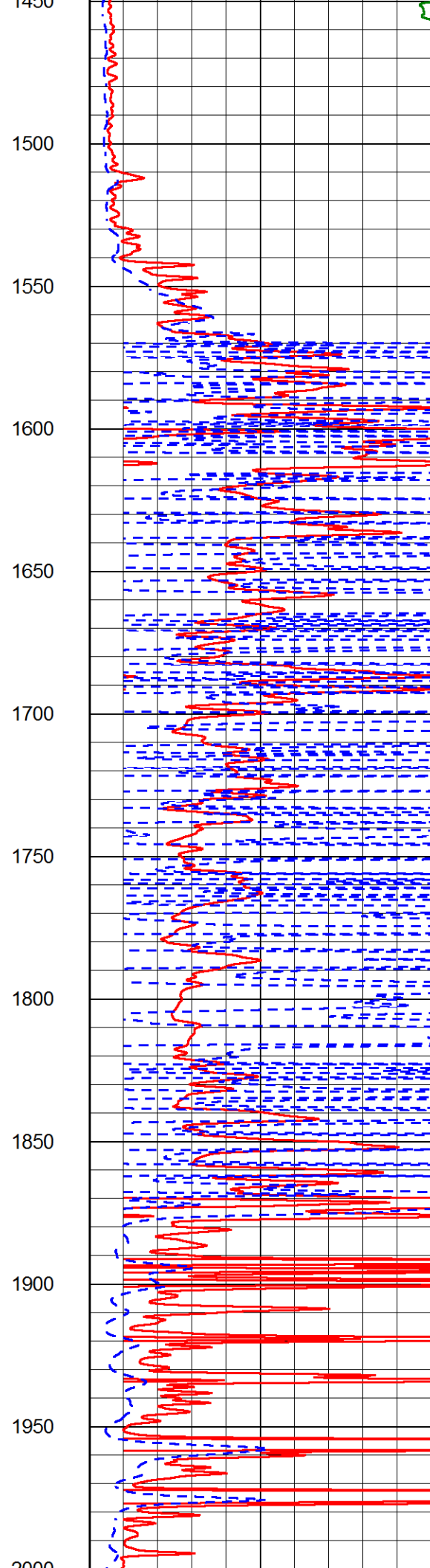
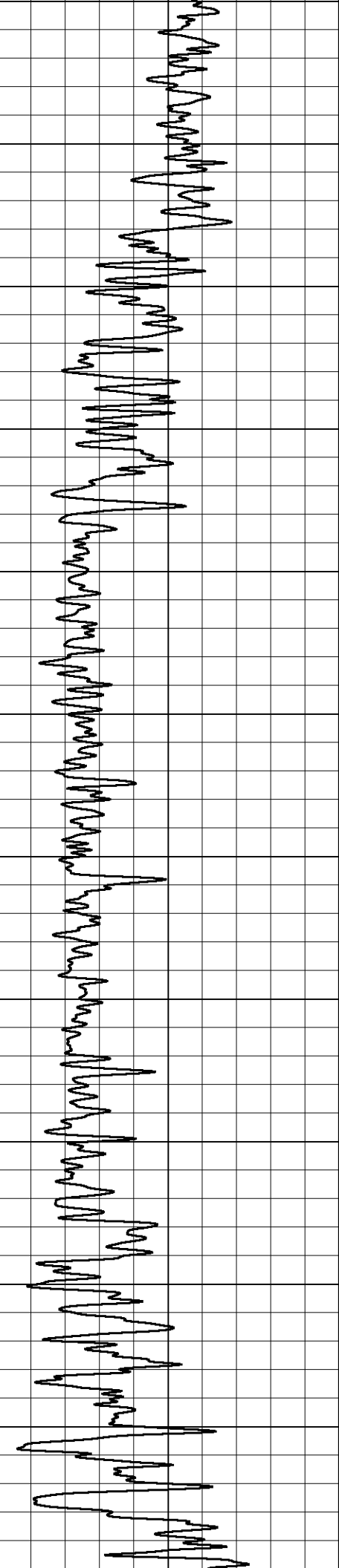
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Presentation Format _dil2in
Dataset Creation Wed Jun 23 11:27:59 2021
Charted by Depth in Feet scaled 1:600

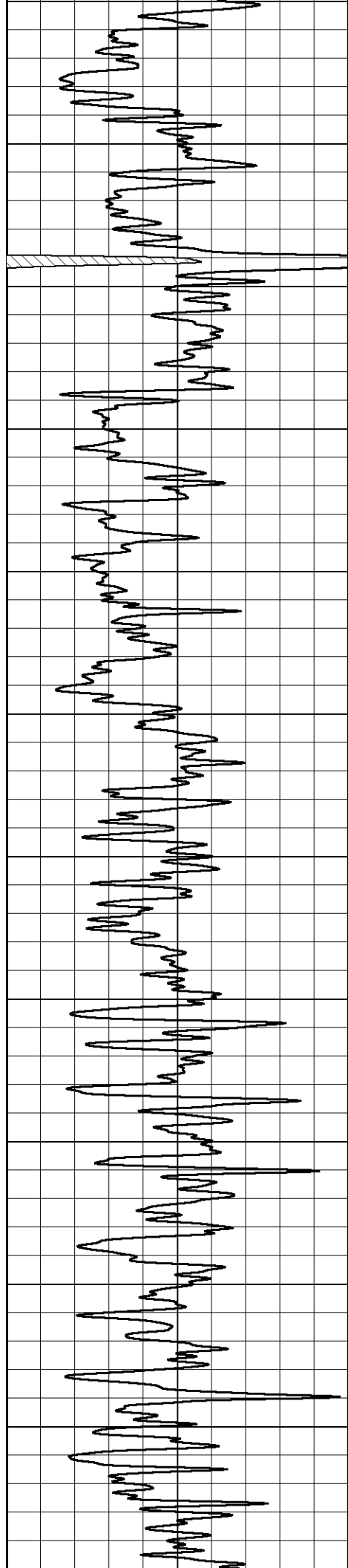
GAMMA RAY		1000 CONDUCTIVITY (mmho/m)		0
		15000 Line Tension (lb)		0
0	(GAPI)	0	RLL3 (Ohm-m)	50
		0	RILD (Ohm-m)	50
		50	RLL3 (Ohm-m)	100
		50	Deep Resistivity (Ohm-m)	200



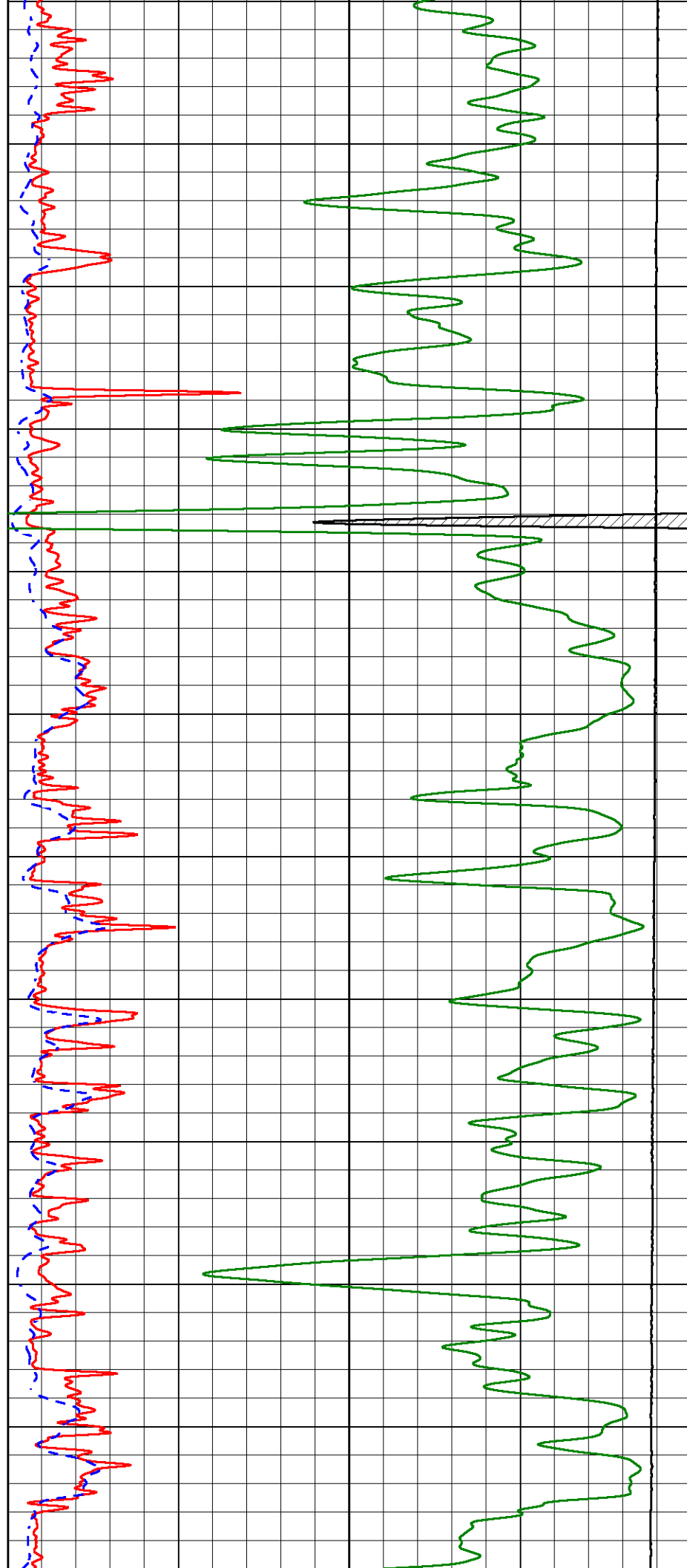


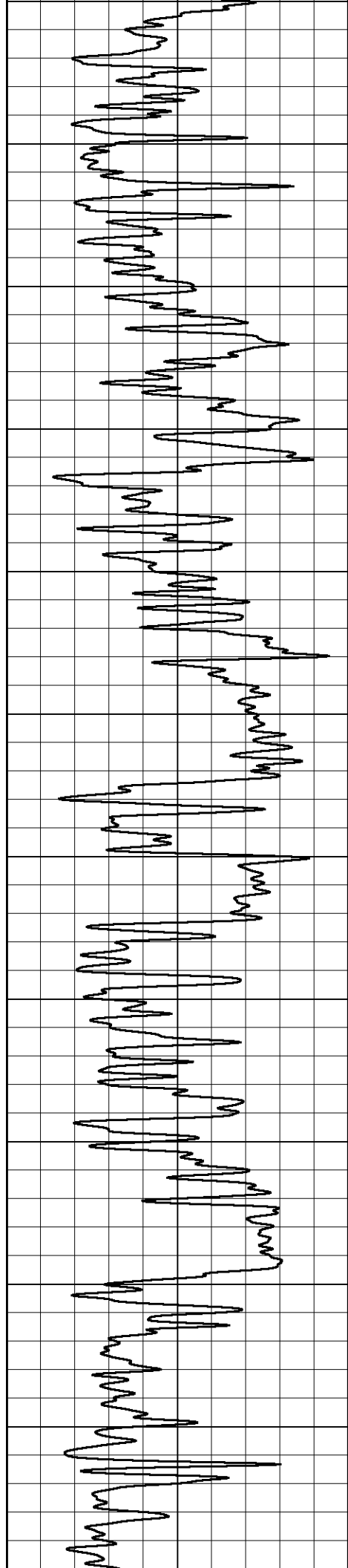




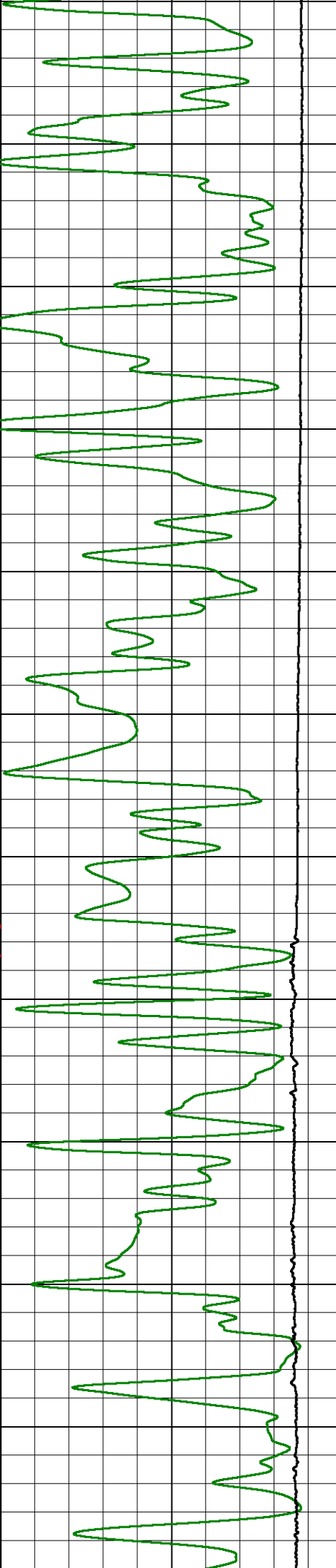
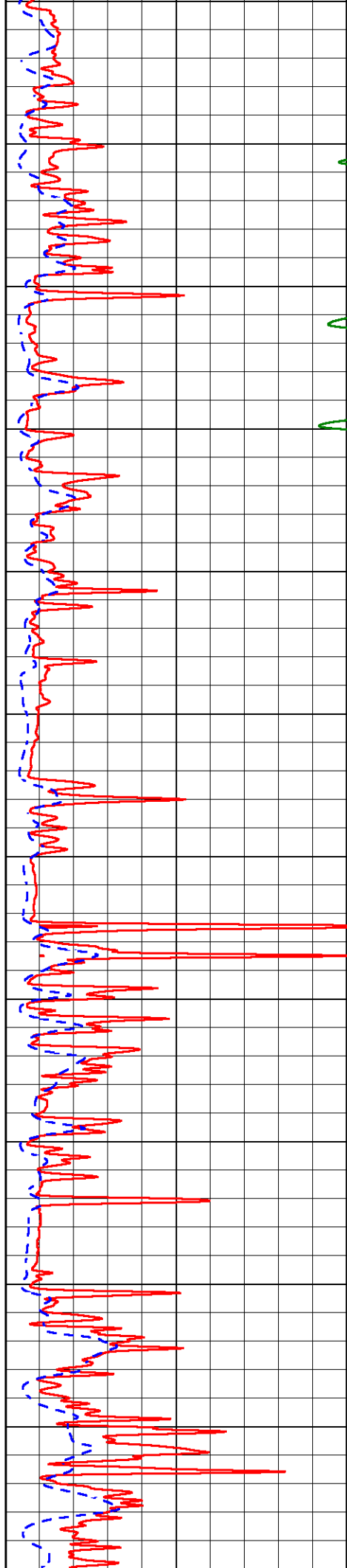


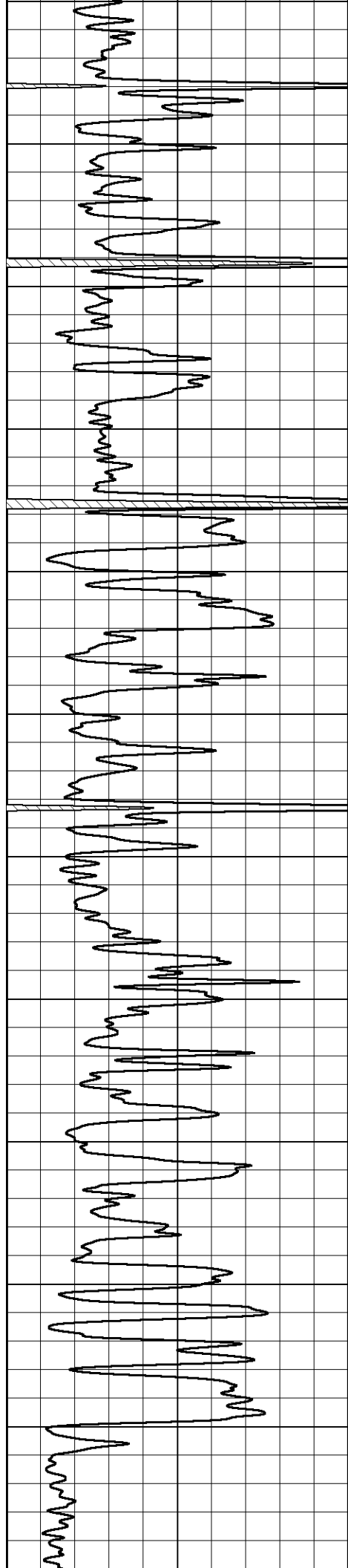
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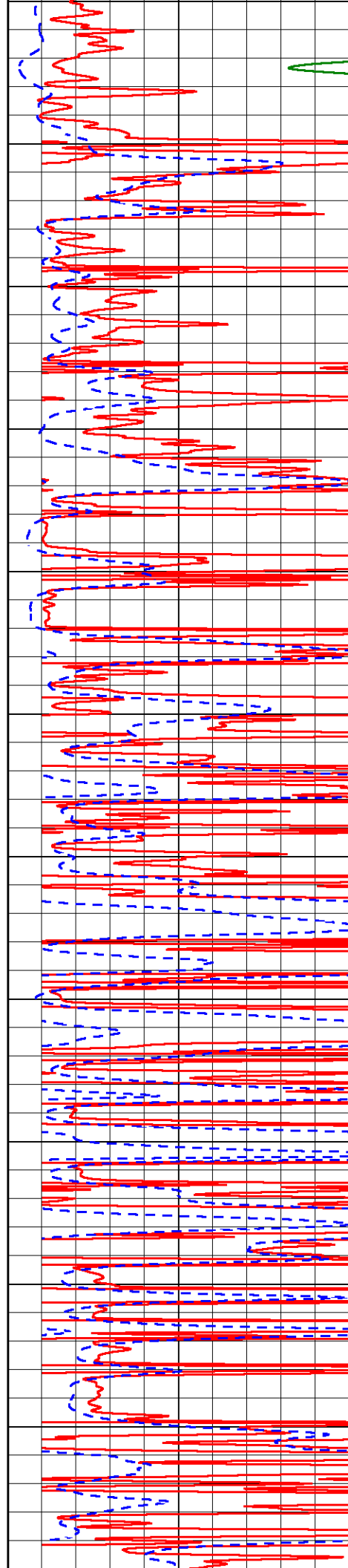


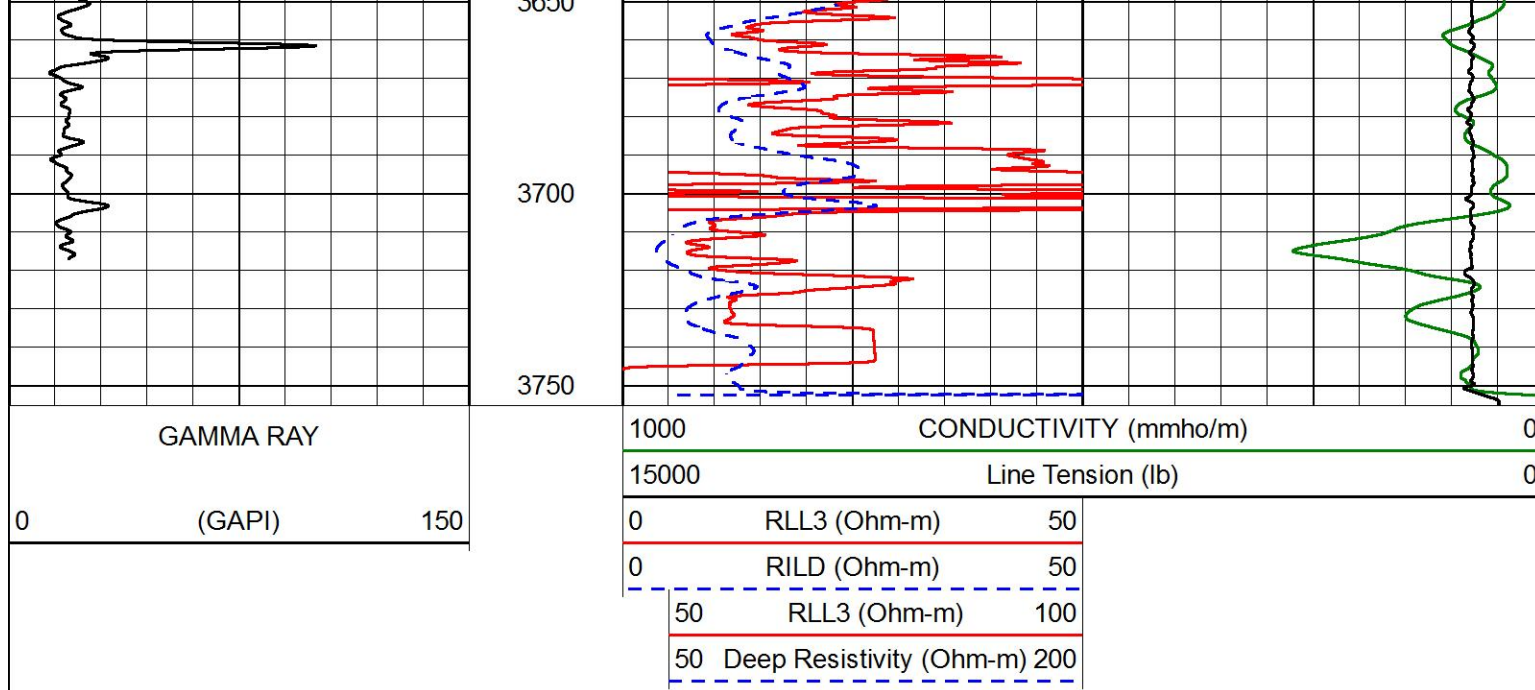
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2800
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2900
2950
3000
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3100





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3150
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3300
3350
3400
3450
3500
3550
3600
3650



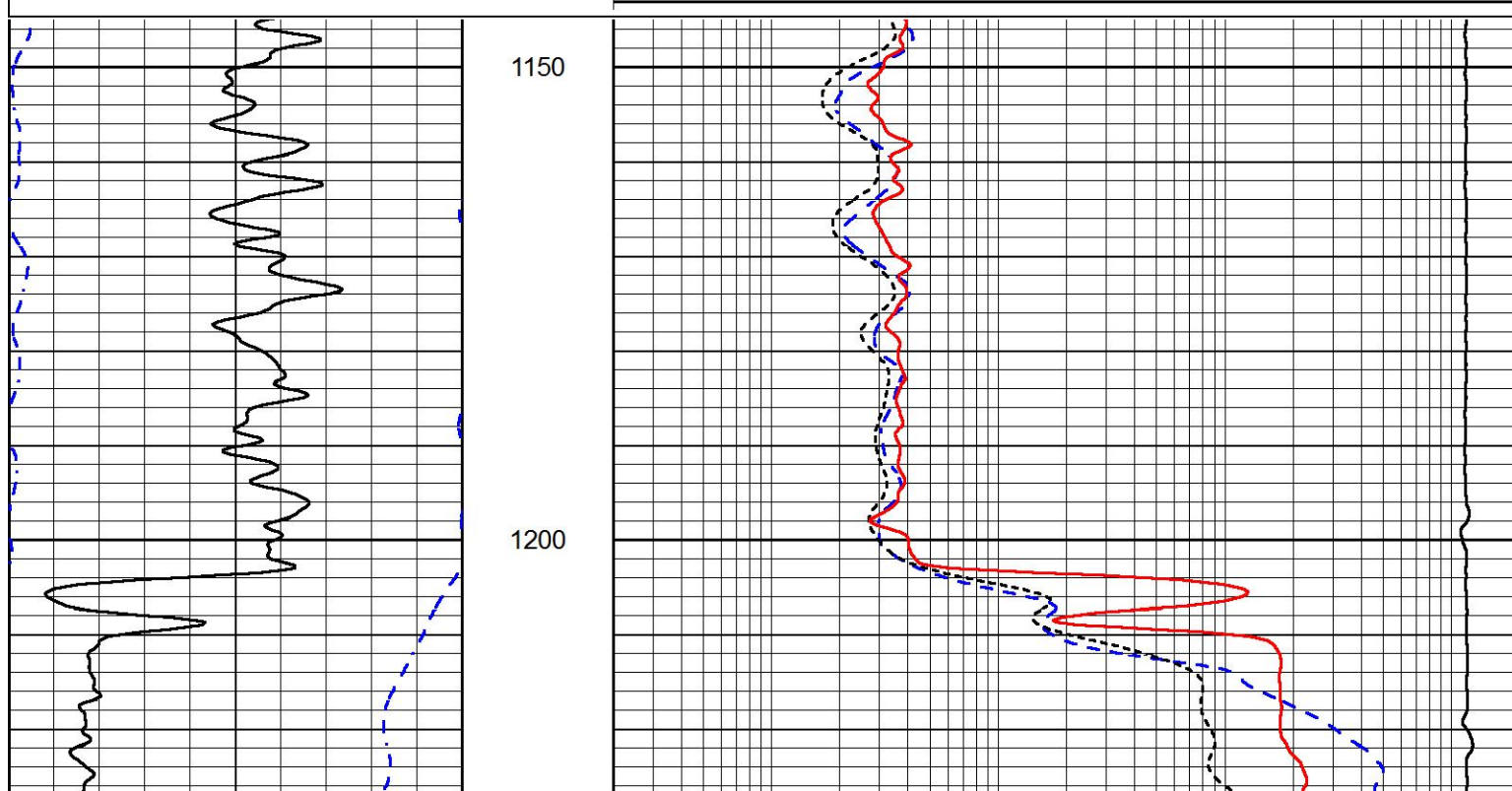


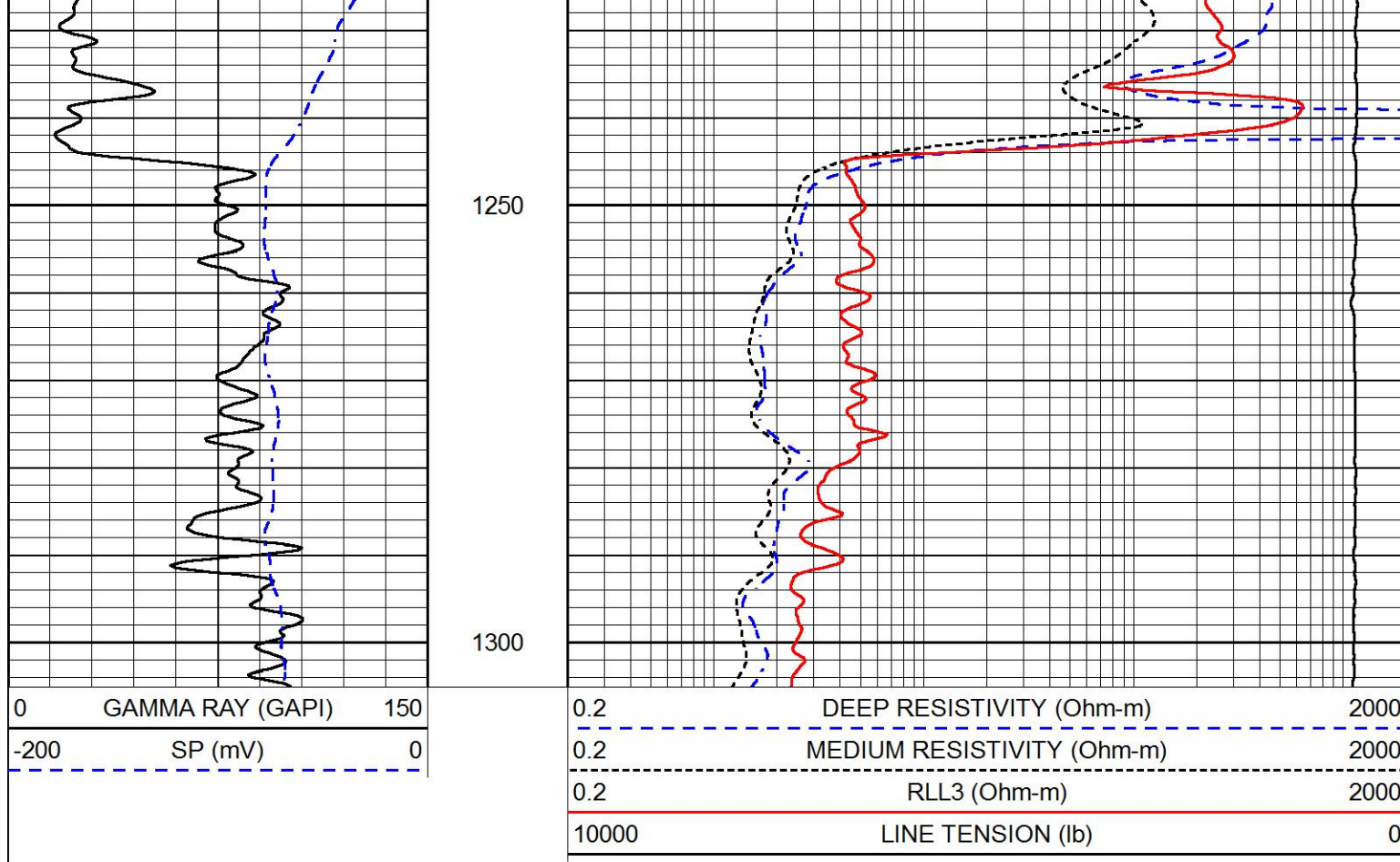
ANHYDRITE SECTION

MAIN PASS

Database File	tdi_munsch 12.db
Dataset Pathname	stkml/pass6.1
Presentation Format	_dil
Dataset Creation	Wed Jun 23 11:29:30 2021
Charted by	Depth in Feet scaled 1:240

0 GAMMA RAY (GAPI) 150	0.2 DEEP RESISTIVITY (Ohm-m) 2000
-200 SP (mV) 0	0.2 MEDIUM RESISTIVITY (Ohm-m) 2000
	0.2 RLL3 (Ohm-m) 2000
	10000 LINE TENSION (lb) 0

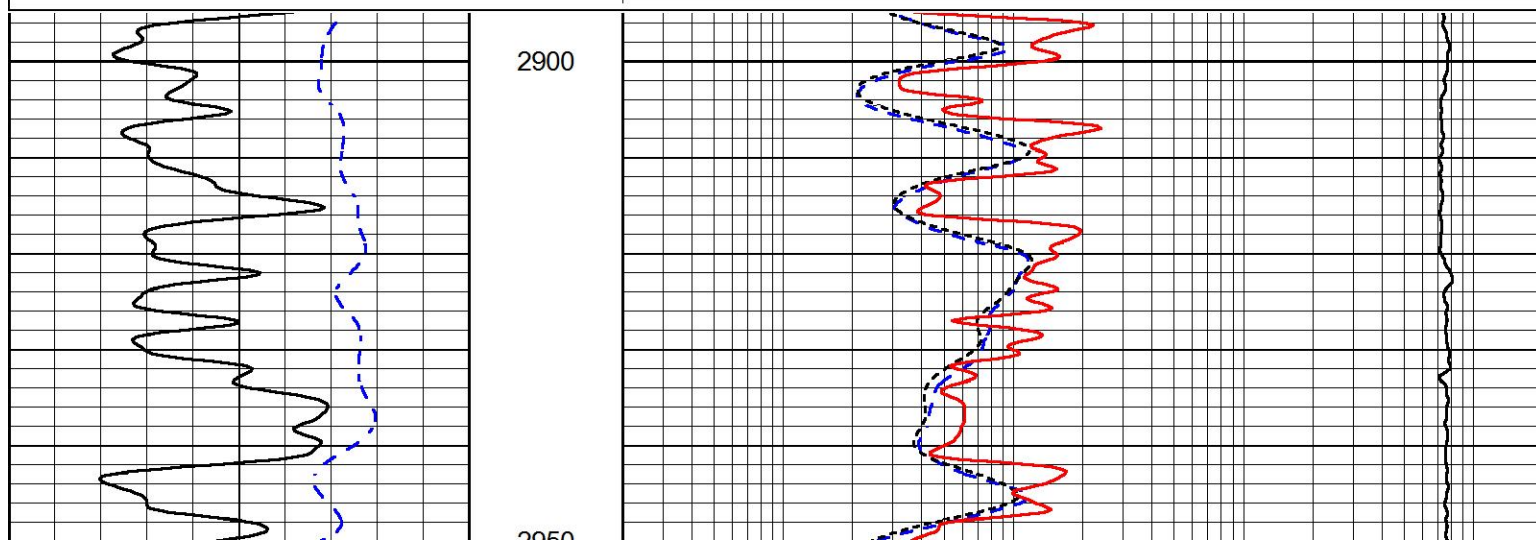
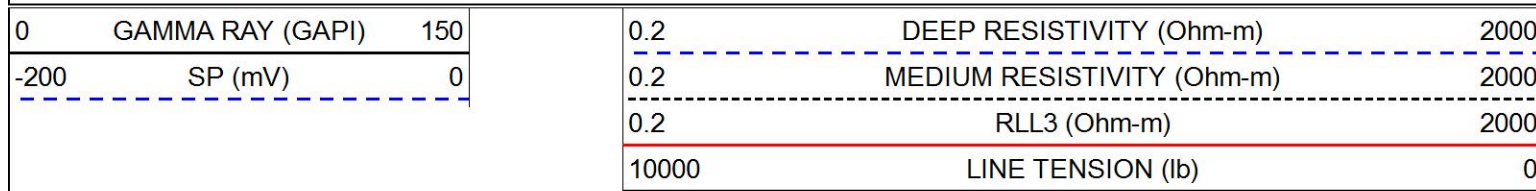


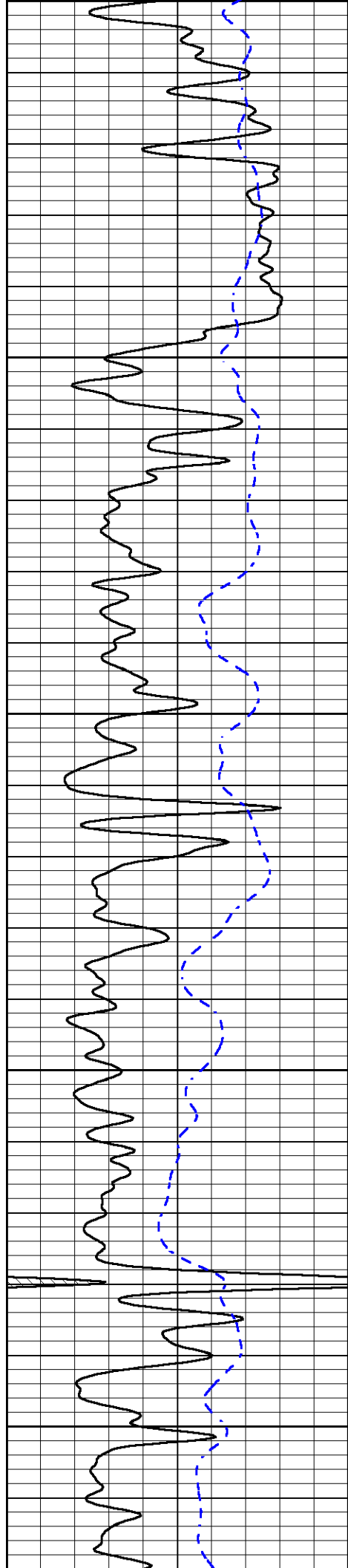


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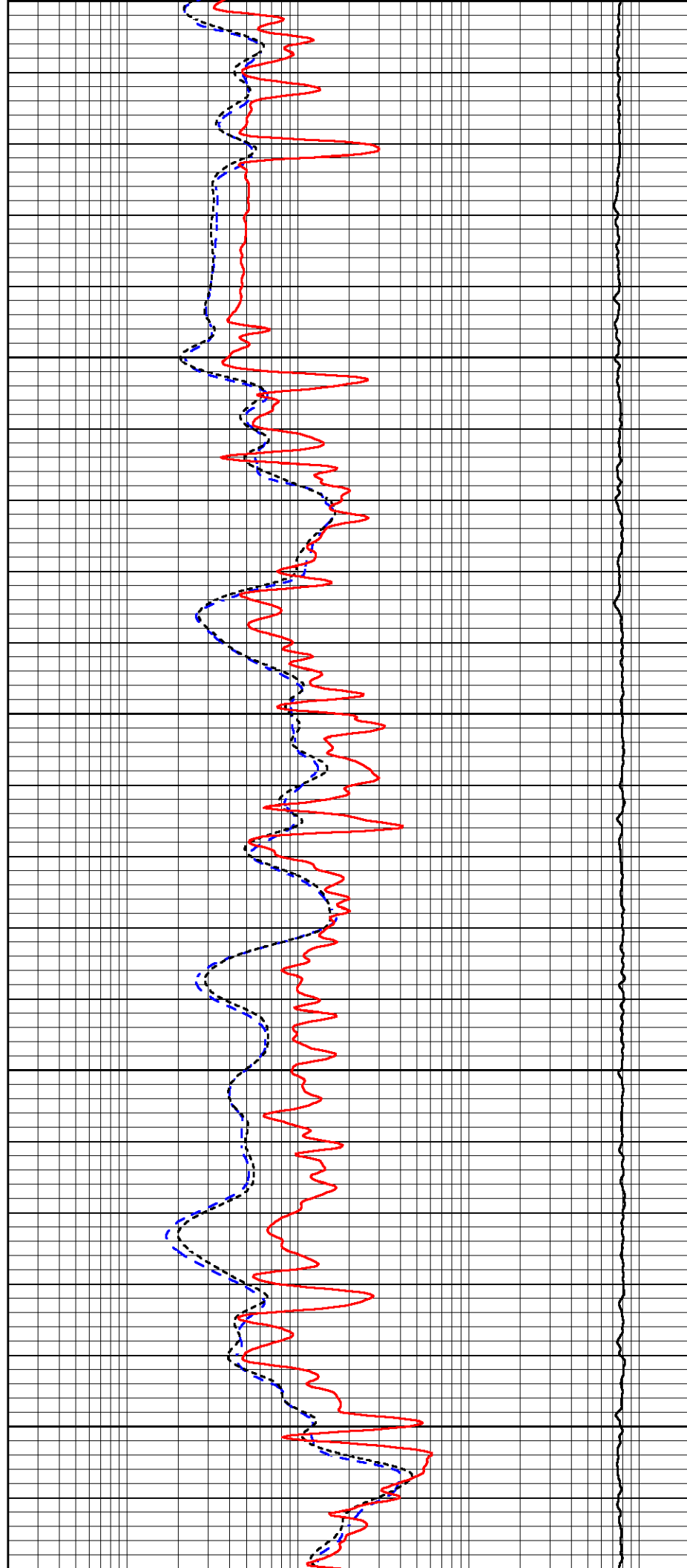
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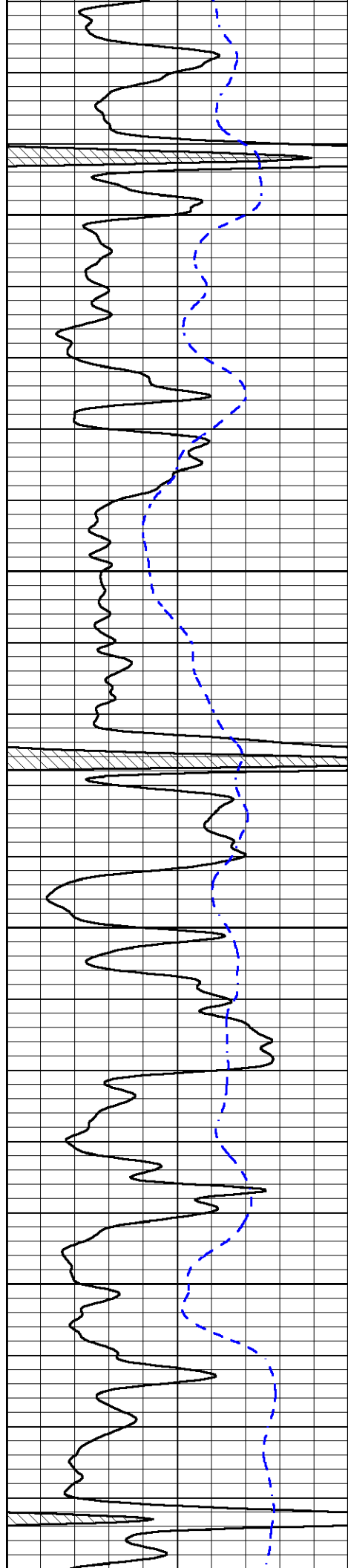
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 Charted by Depth in Feet scaled 1:240





2950 3000 3050 3100 3150



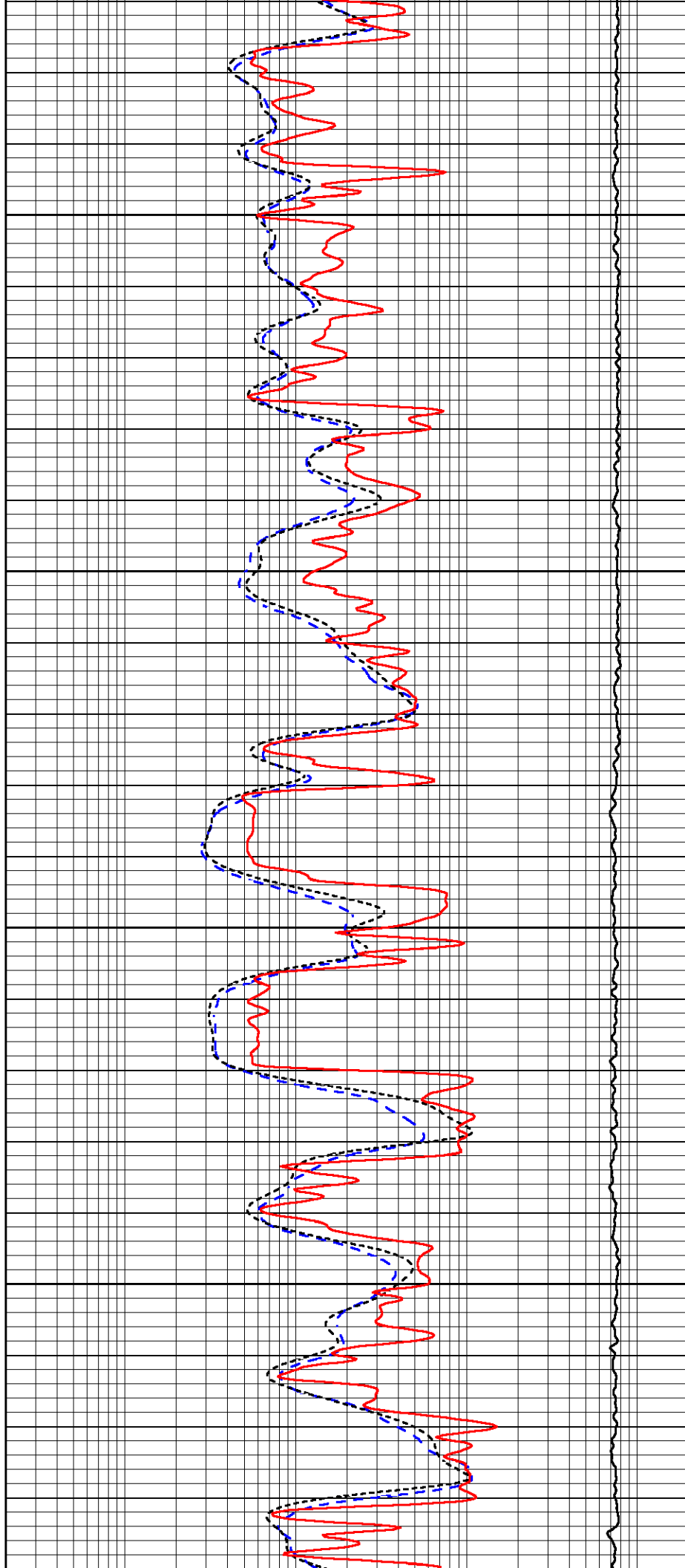


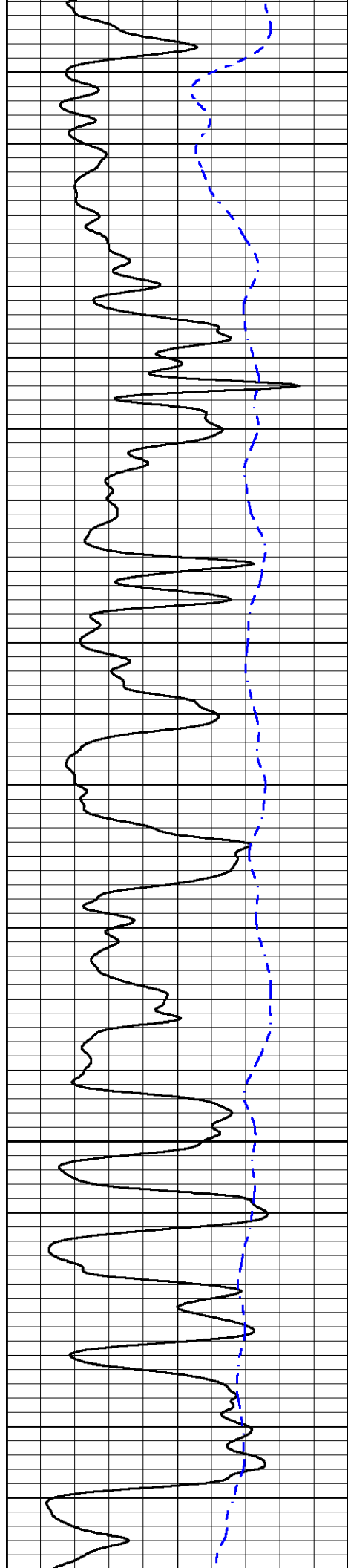
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3250

3300

3350





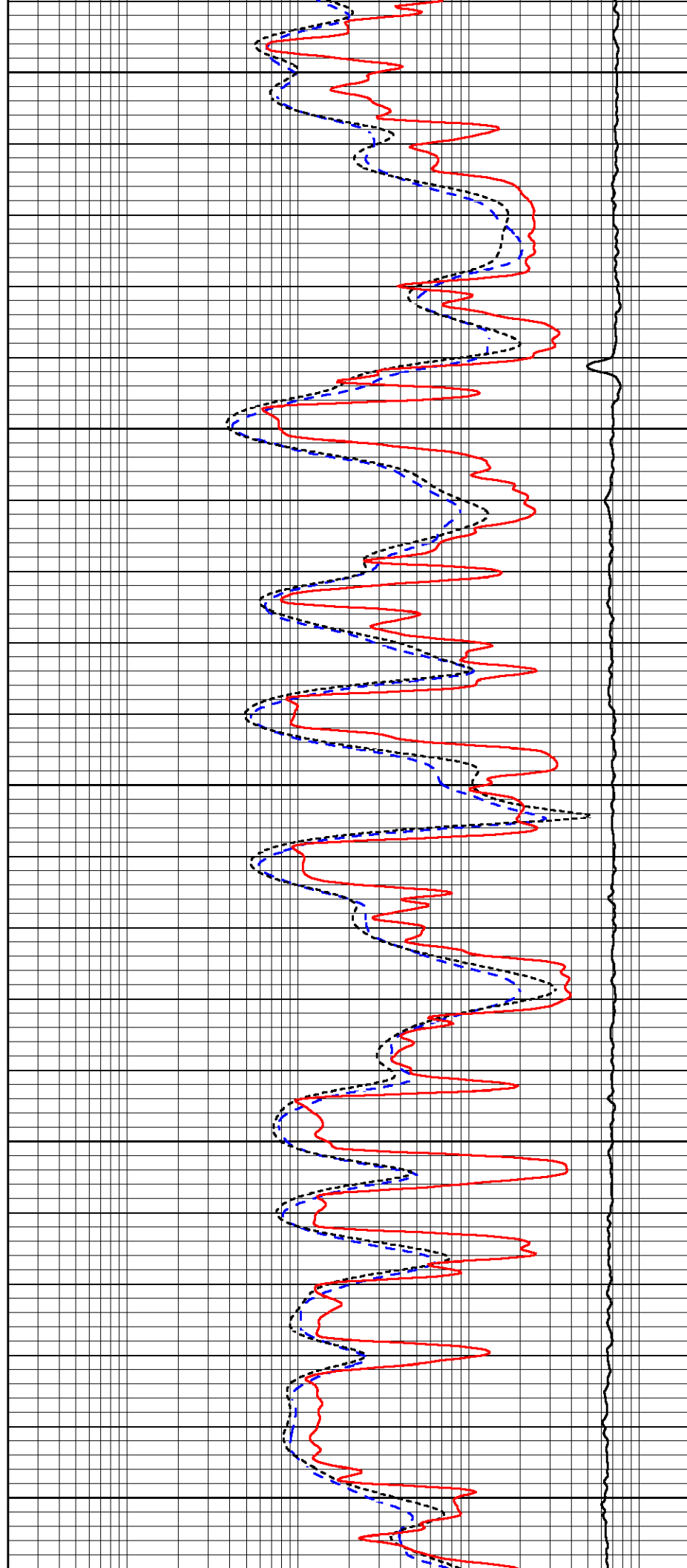
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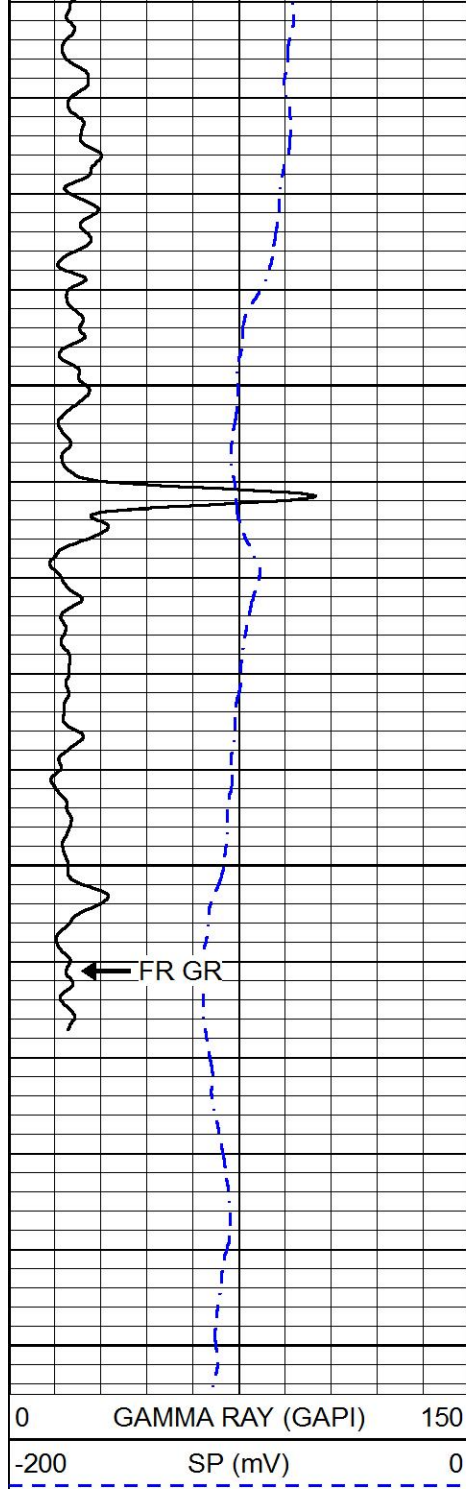
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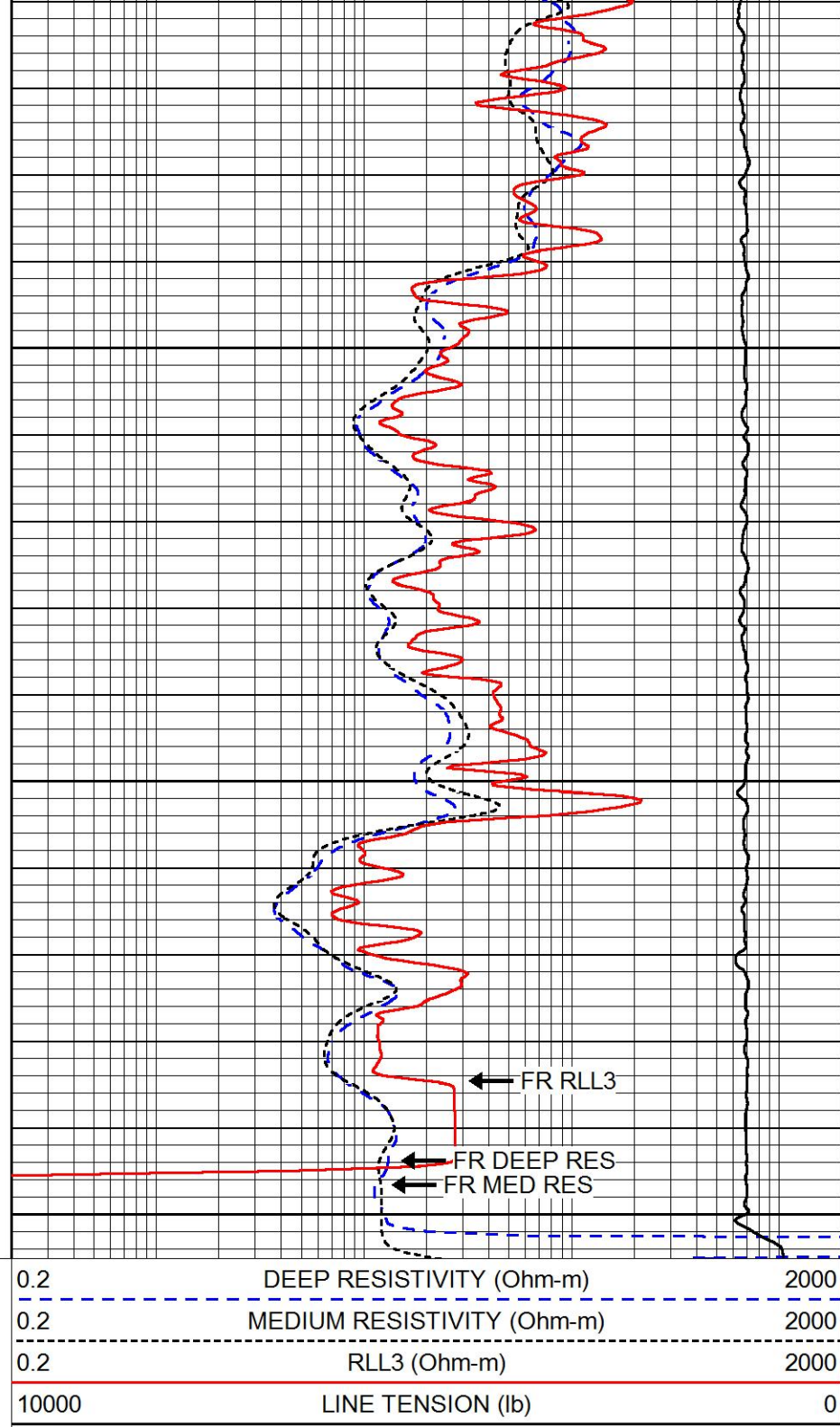




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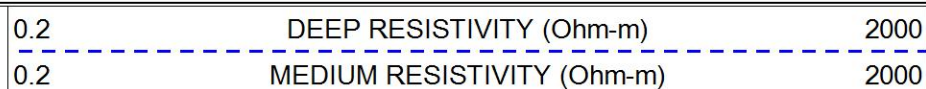
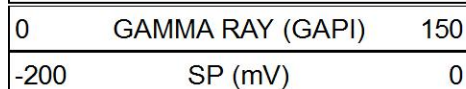
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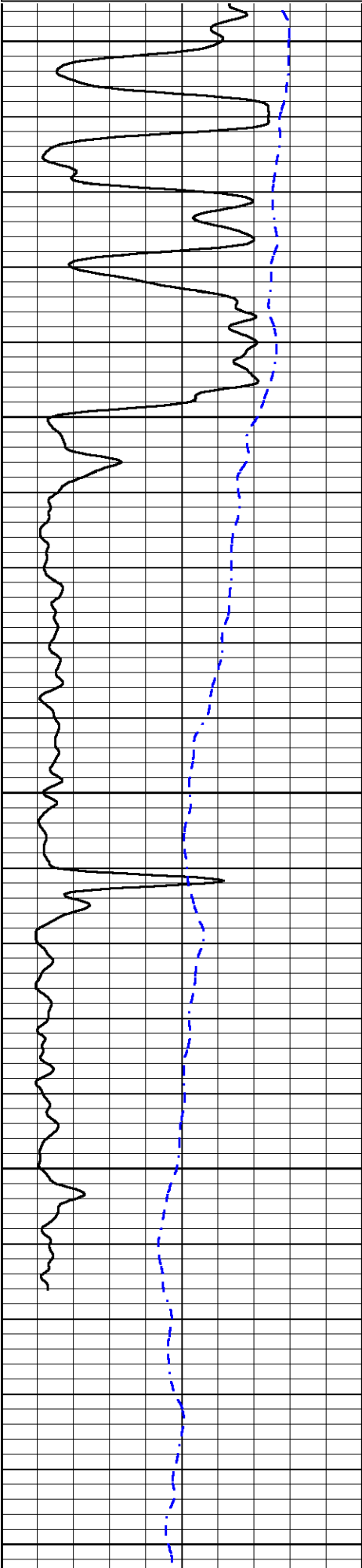
REPEAT SECTION

REPEAT PASS

Database File tdi_munsch 12.db
 Dataset Pathname stkml/pass2.1
 Presentation Format _dil
 Dataset Creation Wed Jun 23 10:51:26 2021
 Charted by Depth in Feet scaled 1:240



0.2	RLL3 (Ohm-m)	2000
10000	LINE TENSION (lb)	0



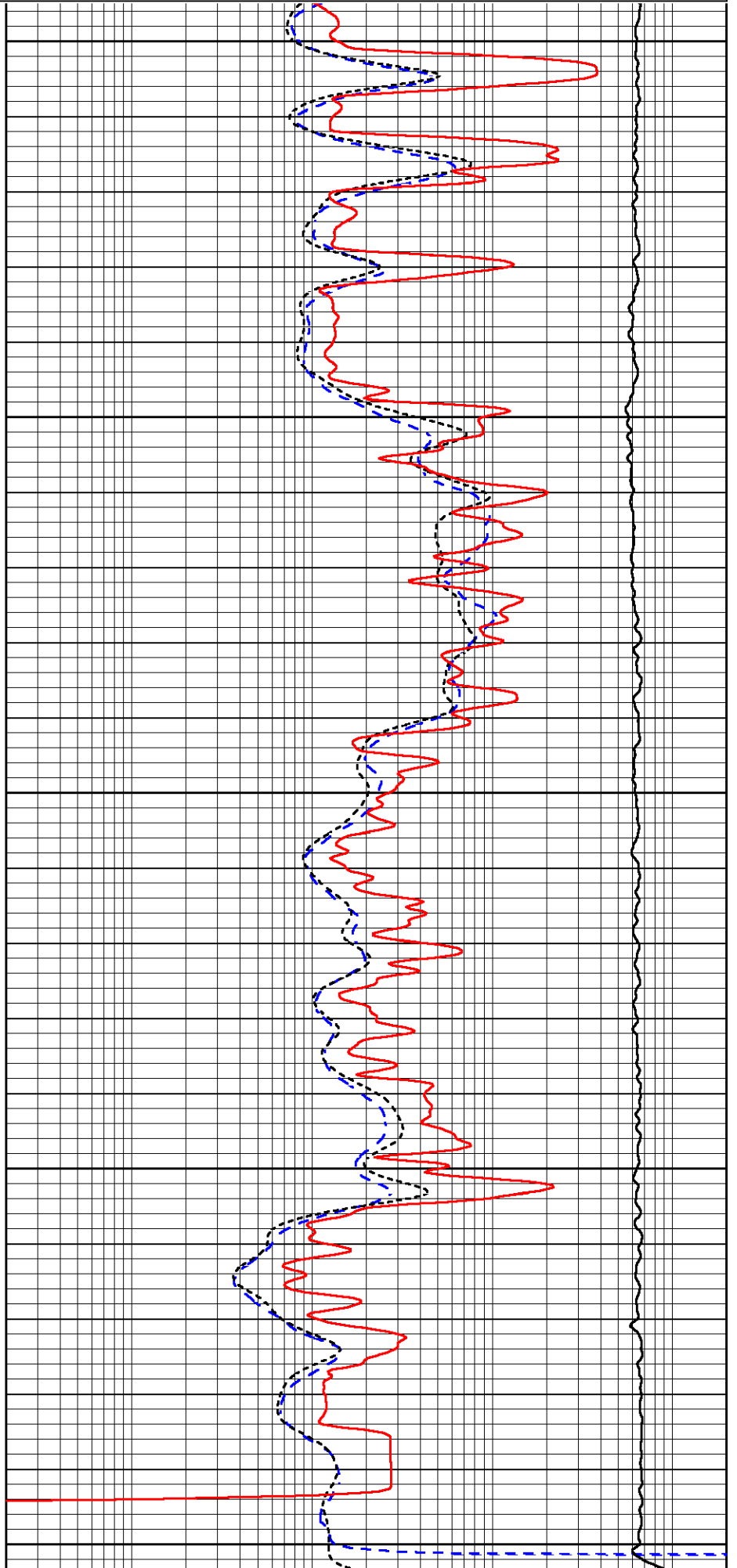
3550

3600

3650

3700

3750



0	GAMMA RAY (GAPI)	150	0.2	DEEP RESISTIVITY (Ohm-m)	2000
-200	SP (mV)	0	0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
			0.2	RLL3 (Ohm-m)	2000
			10000	LINE TENSION (lb)	0

		Company	TDI, Inc.
		Well	Munsch #12
		Field	Schoenchen
		County	Ellis
		State	Kansas