



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company **CONCORDE RESOURCES CORP**
Well **MCDANIEL NO. 1-14**
Field **WILDCAT**
County **LOGAN**
State **KANSAS**

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Well **MCDANIEL NO. 1-14**
Field **WILDCAT**
County **LOGAN** State **KANSAS**

Location: API #: 15-109-21530-00-00

177' FSL & 754' FWL

SEC 14 TWP 15S RGE 34W

Permanent Datum **GROUND LEVEL** Elevation **3007'**
Log Measured From **KELLY BUSHING**
Drilling Measured From **KELLY BUSHING**

Other Services
CNL/CDL
MEL
Elevation
K.B. 3017'
D.F. N/A
G.L. 3007'

Date 1/12/2018

Run Number ONE

Depth Driller 4740'

Depth Logger 4738'

Bottom Logged Interval 4737'

Top Log Interval 300'

Casing Driller 8.625" @ 307'

Casing Logger 303'

Bit Size 7.875"

Type Fluid in Hole CHEMICAL

Salinity, ppm CL 4000

Density / Viscosity 9.5 58

pH / Fluid Loss 9.5 9.6

Source of Sample FLOWLINE

Rm @ Meas. Temp .35 @ 51

Rmt @ Meas. Temp .26 @ 51

Rmc @ Meas. Temp .47 @ 51

Source of Rmt / Rmc CHARTS

Rm @ BHT .14 @ 123

Operating Rig Time 2 HOURS

Max Rec. Temp. F 123 DEGF

Equipment Number 108

Location HAYS

Recorded By J. HENRICKSON

Witnessed By KEVIN HOWARD

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

PENCE KANSAS
NORTH ON 320 ROAD TO DAKOTA ROAD
100 FOOT NORTH, EAST INTO

Log Measured From: KELLY BUSHING 10 Ft. Above Permanent Datum

THANK YOU FOR USING PIONEER ENERGY SERVICES
www.pioneerenergy.com 785-625-3858

Your Pioneer Energy Services Crew

Engineer: J. HENRICKSON
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: KEVIN HOWARD
Secondary Witness:
Secondary Witness:
Secondary Witness:

DatabaseC:\ProgramData\WarriorData\concorde_mcdaniel_1_14.db
Dataset field/well/stackml/pass3.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	123	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	-110	21	Off	4738

Sensor	Offset (ft)	Schematic		Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58			GR-M&W (89-M&W)	3.00	3.50	50.00
CNLSC	37.48			CNT-M&W (tk10-MW)	5.50	3.50	100.00
CNSSC	36.73						
LSD	28.43			CDL-M&W (168-986)	8.50	4.00	250.00
DCAL	28.42			ML-PSI STKBL ML (PSI-02)	7.58	4.00	65.00
SSD	27.93						
MCAL	19.83			Stackable Microlog Tools	7.58	4.00	65.00
MI	19.83						
MN	19.83						
RLL3	15.80						
RLL3F	15.79						
CILD	8.00			DIL-M&W (PSI 978)	18.50	3.50	220.00

CILM

4.70

SP

0.20

Dataset: concorde_mcdaniel_1_14.db: field/well/stackml/pass3.1
Total length: 43.08 ft
Total weight: 685.00 lb
O.D.: 4.00 in

**PIONEER**

Pioneer Energy Services

MAIN PASS

Database File concorde_mcdaniel_1_14.db
Dataset Pathname stackml/pass3.1
Presentation Format dil2in
Dataset Creation Fri Jan 12 19:00:12 2018
Charted by Depth in Feet scaled 1:600

0 GAMMA RAY (GAPI) 150

2000 CONDUCTIVITY (mmho/m) 0

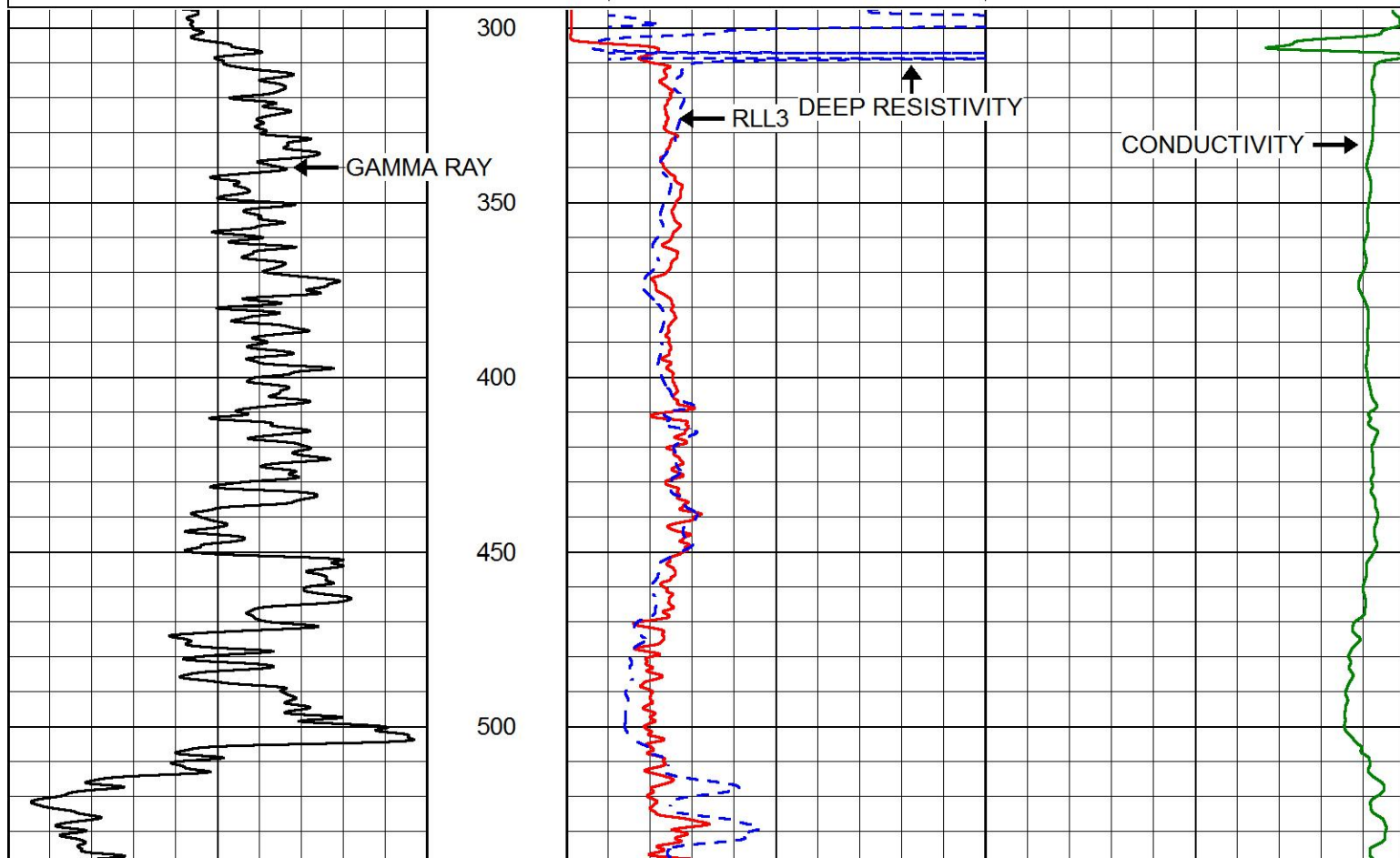
0 RLL3 (Ohm-m) 50

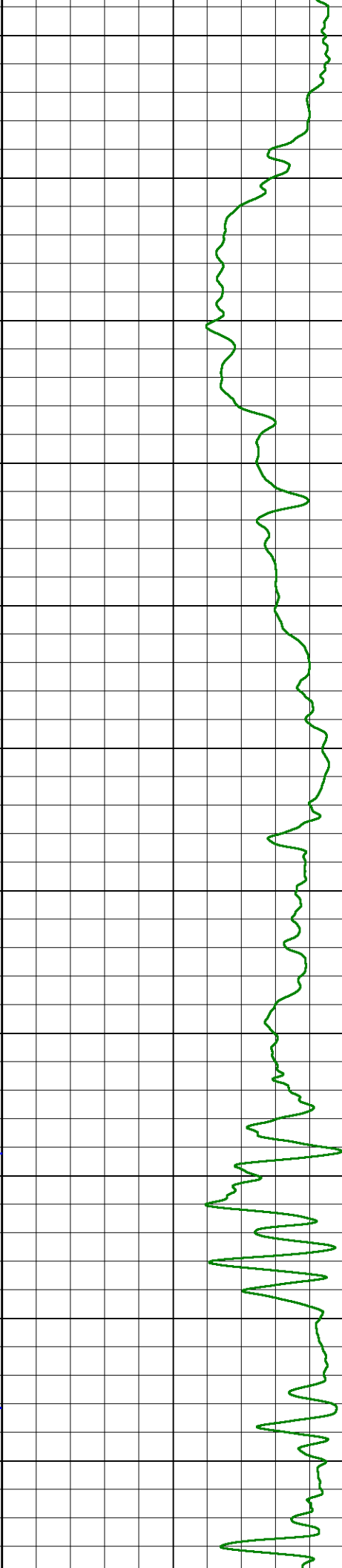
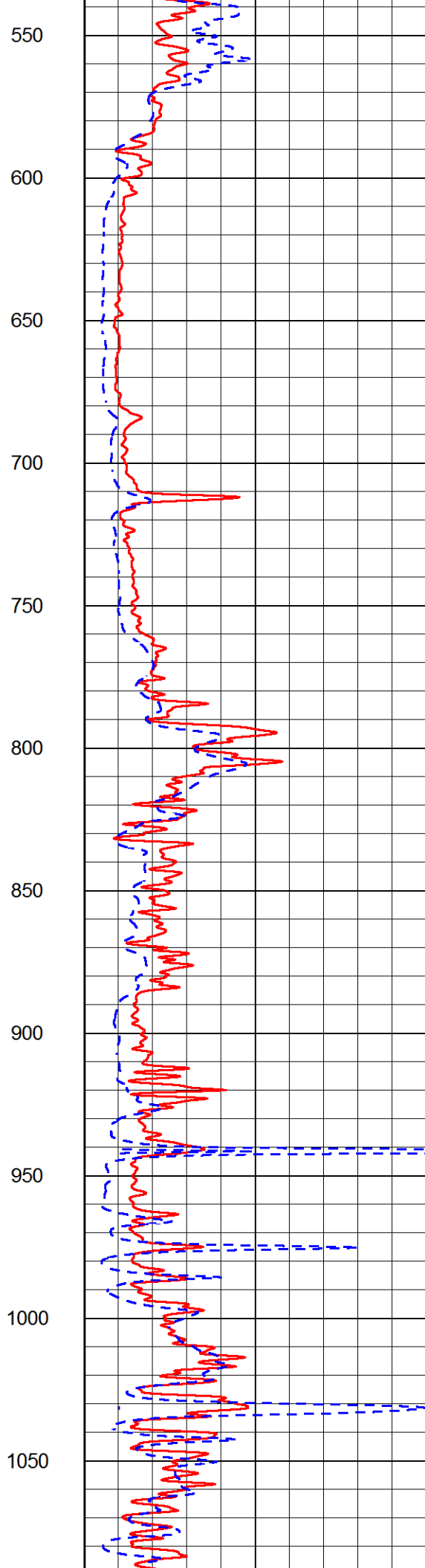
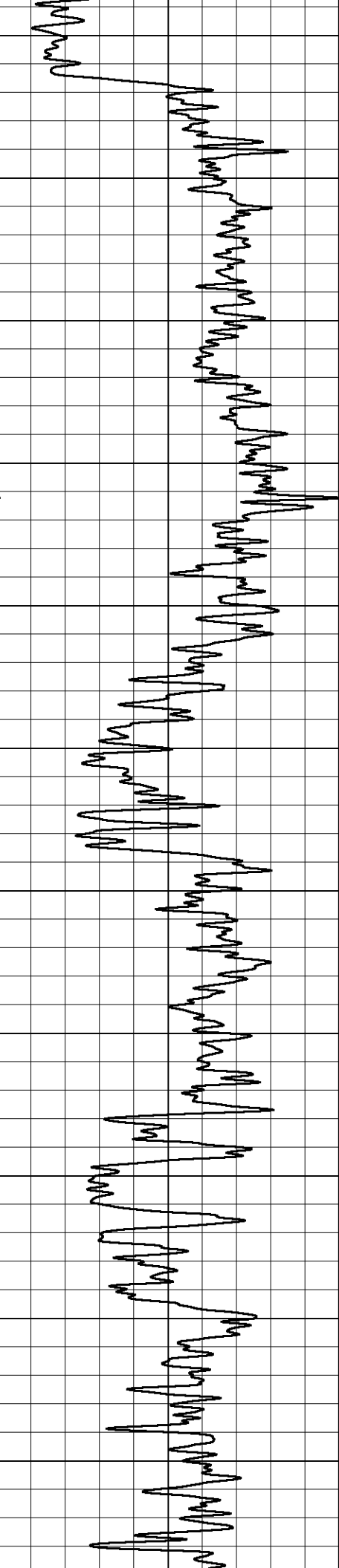
0 DEEP RESISTIVITY (Ohm-m) 50

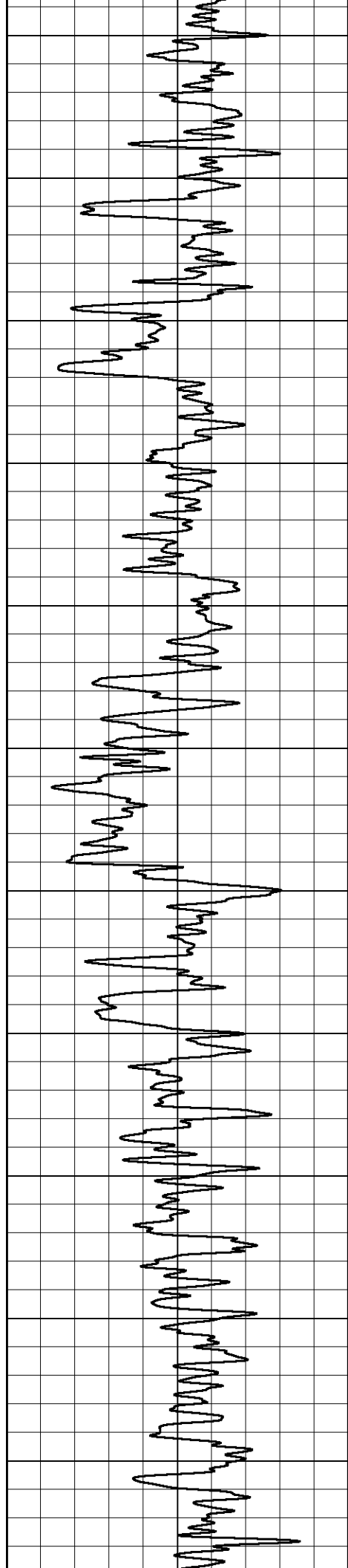
50 RLL3 (Ohm-m) 500

DEEP RESISTIVITY

50 (Ohm-m) 500







1100

1150

1200

1250

1300

1350

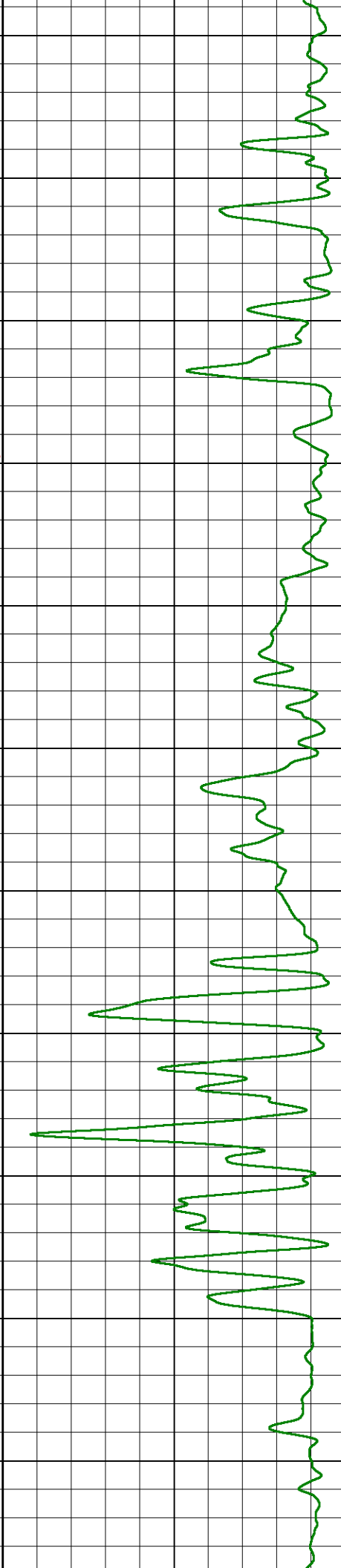
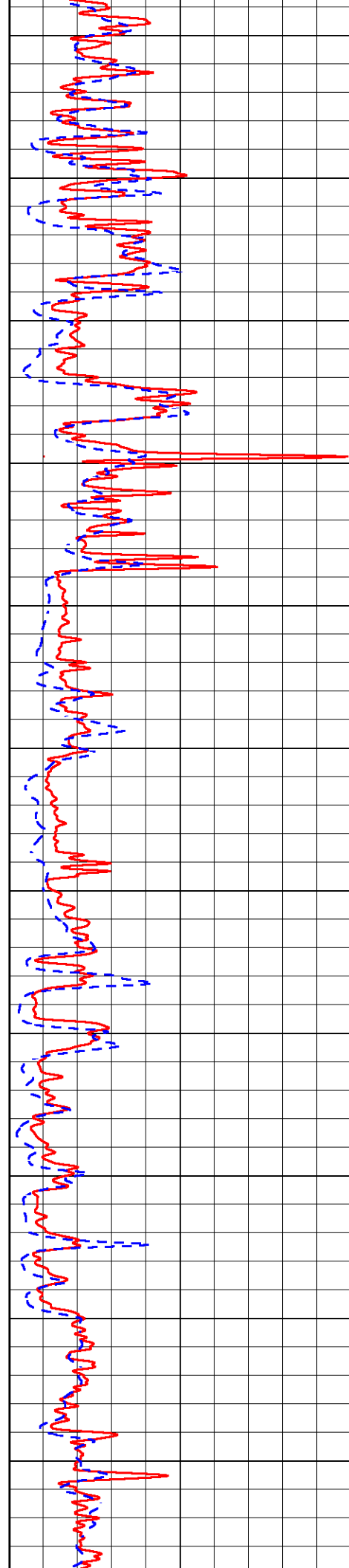
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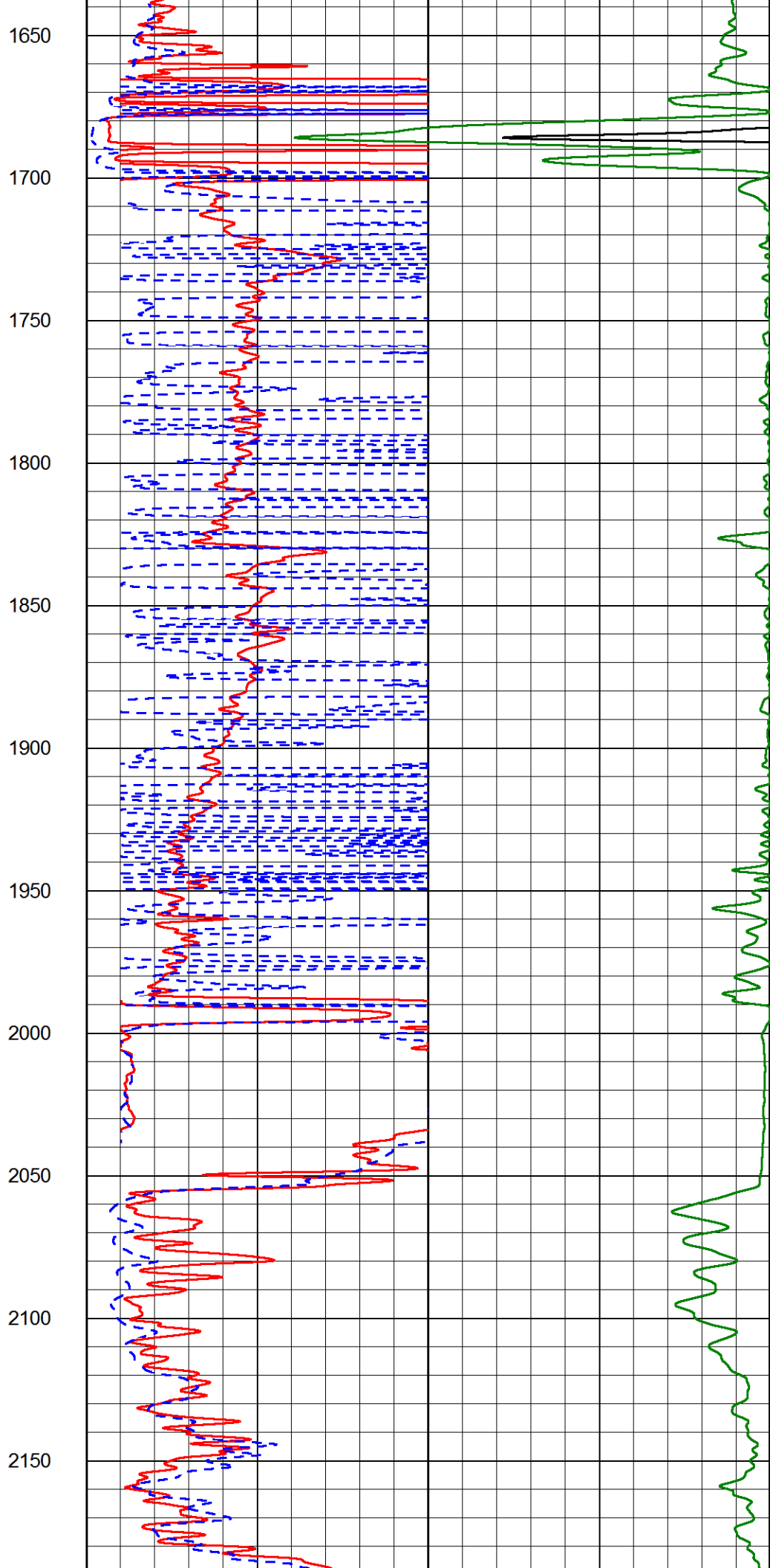
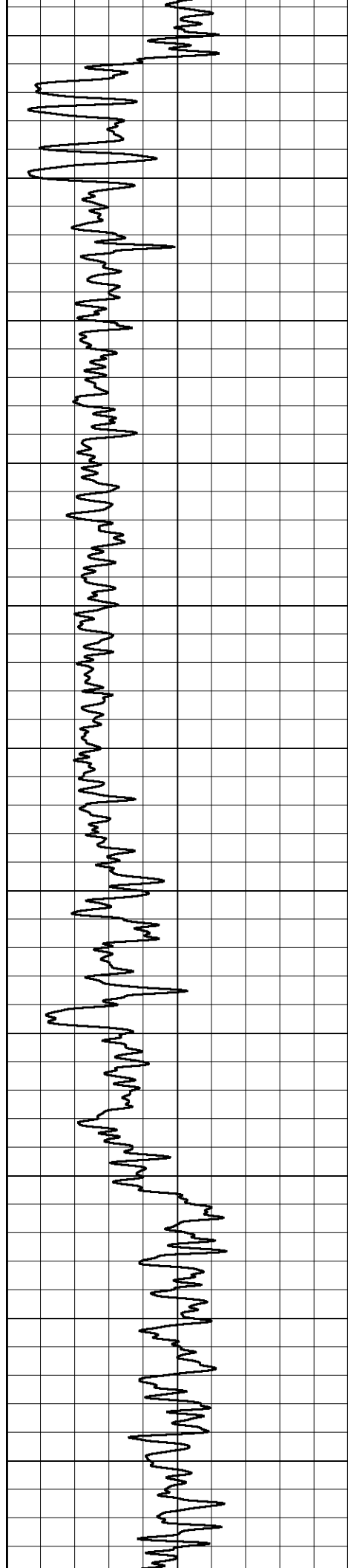
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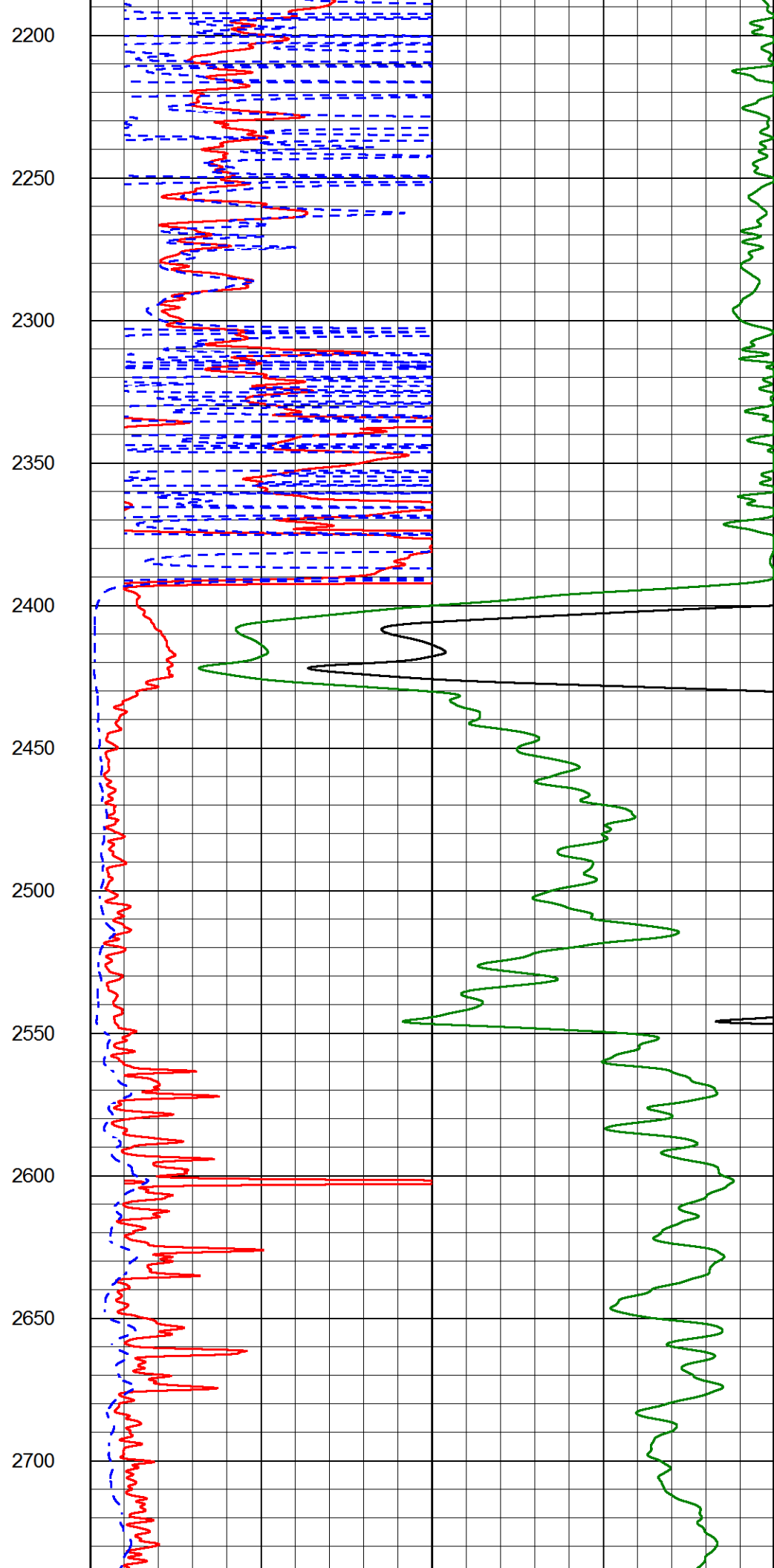
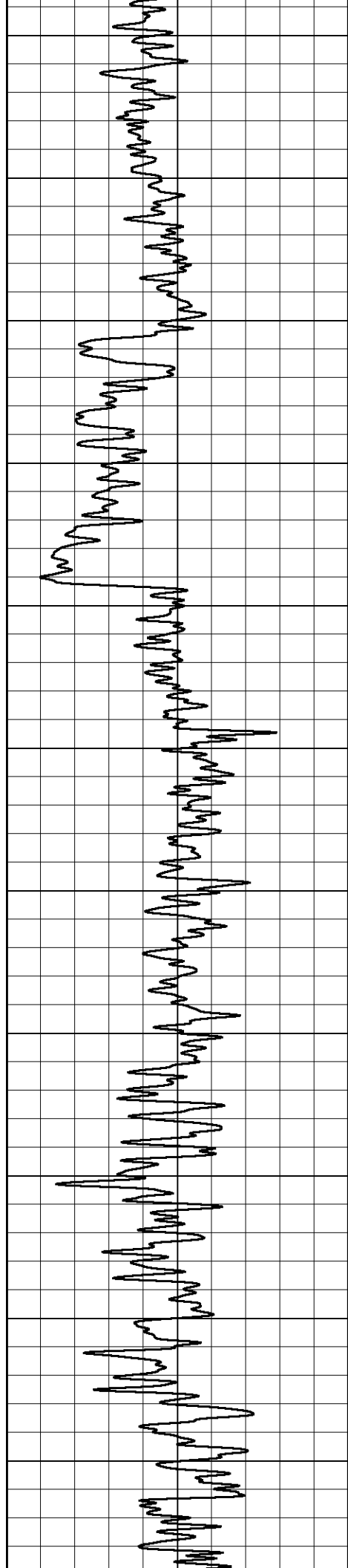
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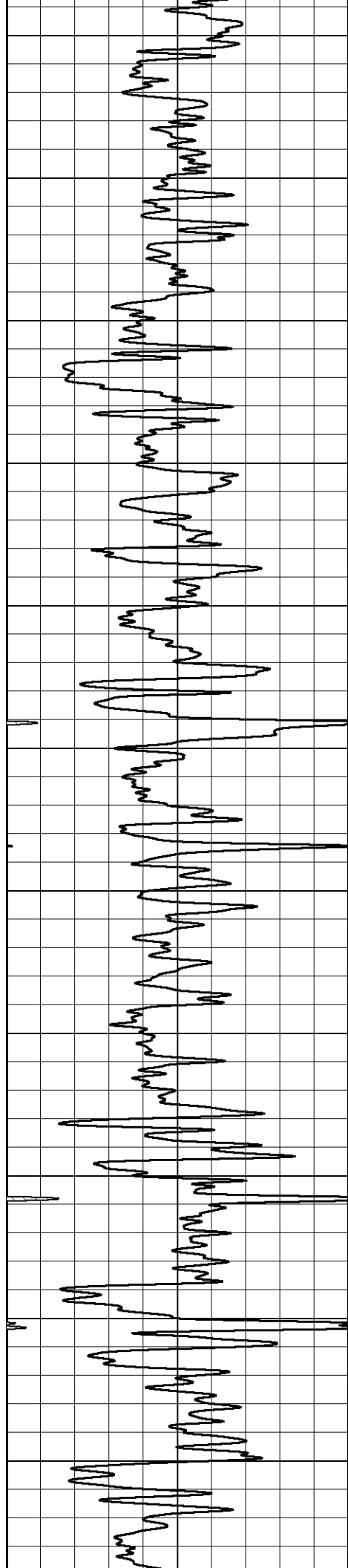
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1600

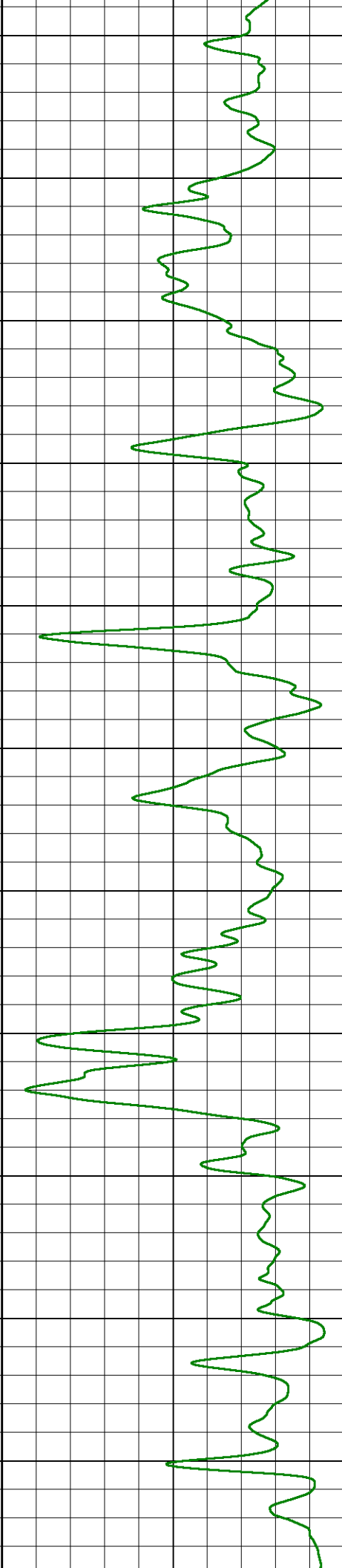
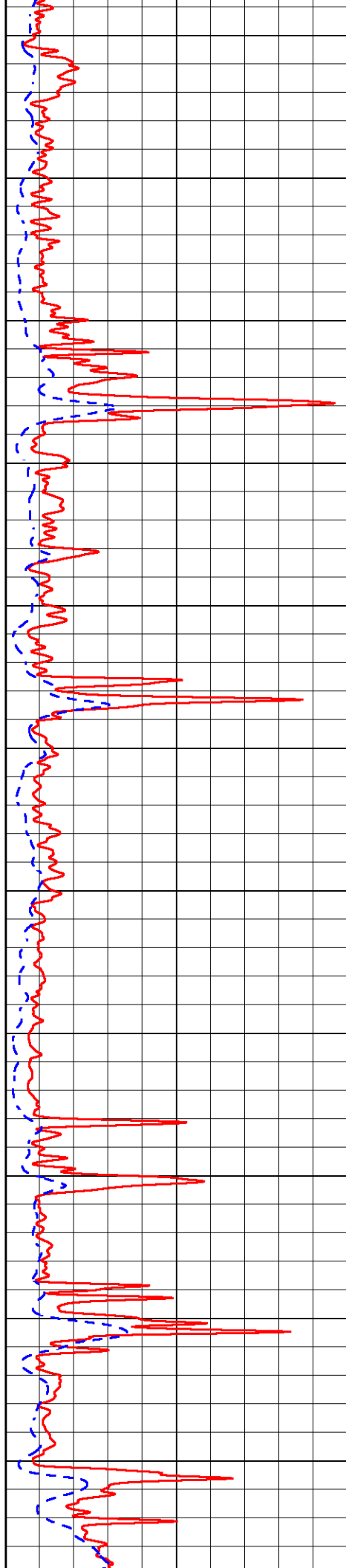


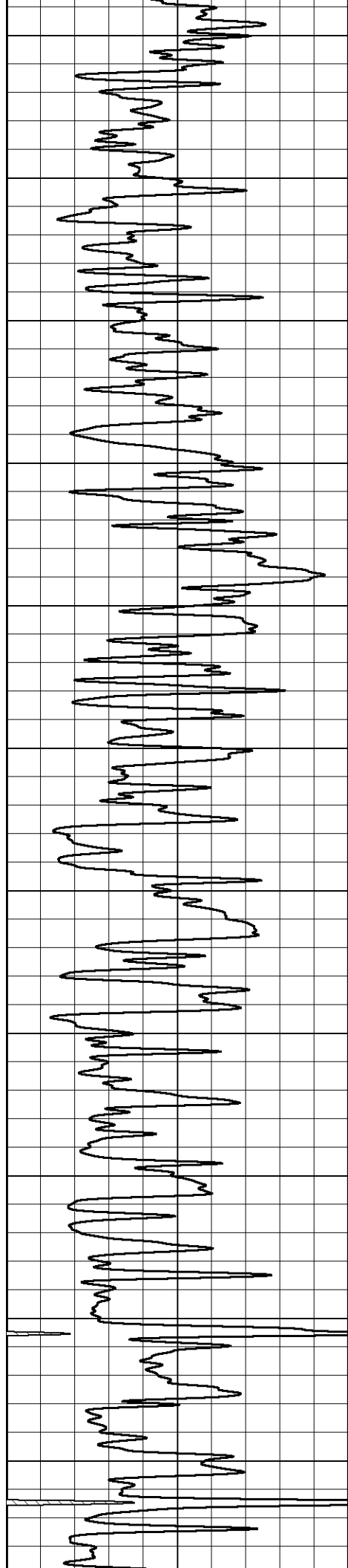






2750
2800
2850
2900
2950
3000
3050
3100
3150
3200
3250





3300

3350

3400

3450

3500

3550

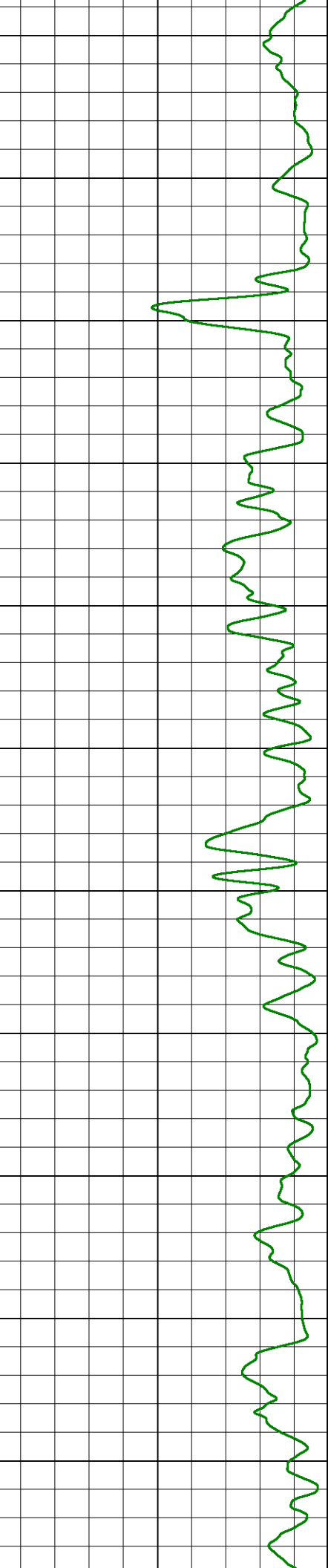
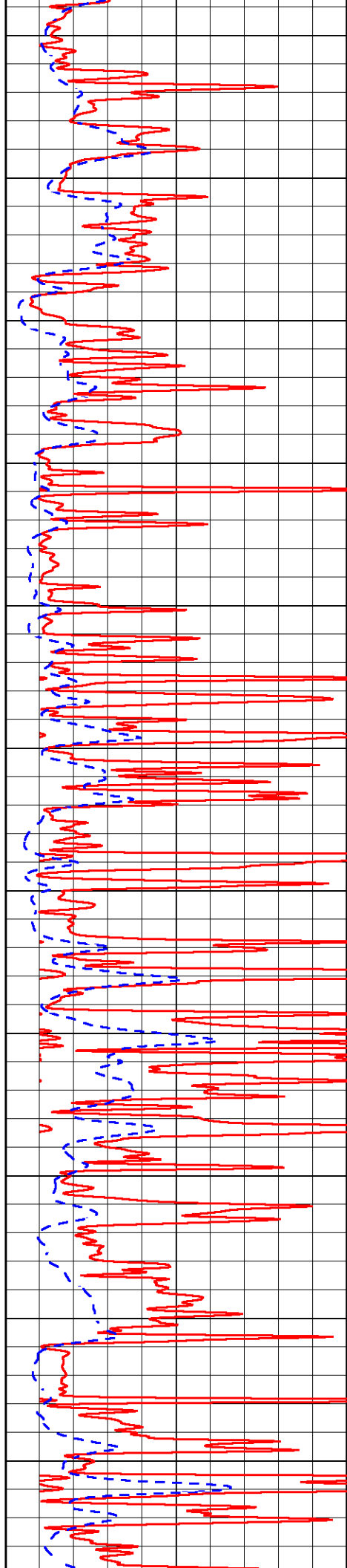
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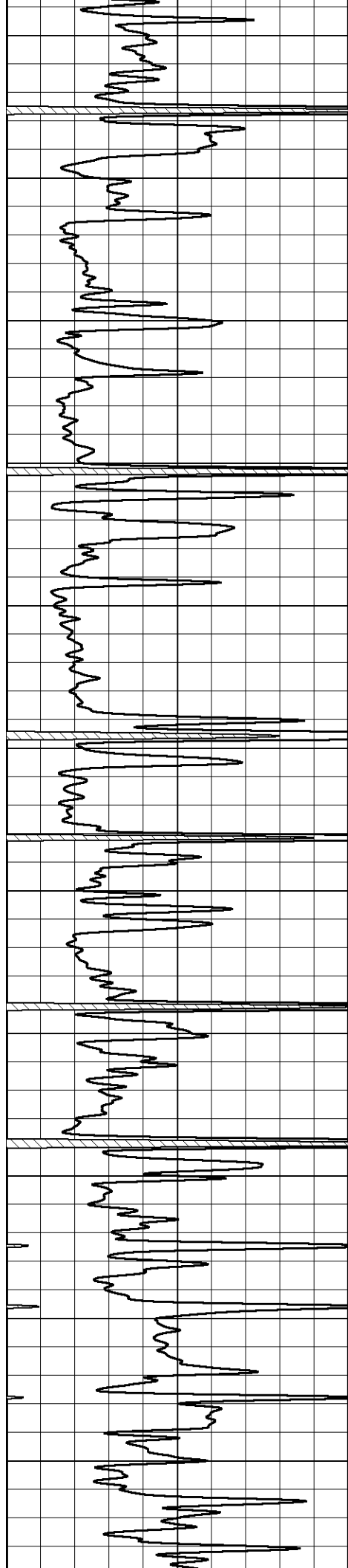
3650

3700

3750

3800





3850

3900

3950

4000

4050

4100

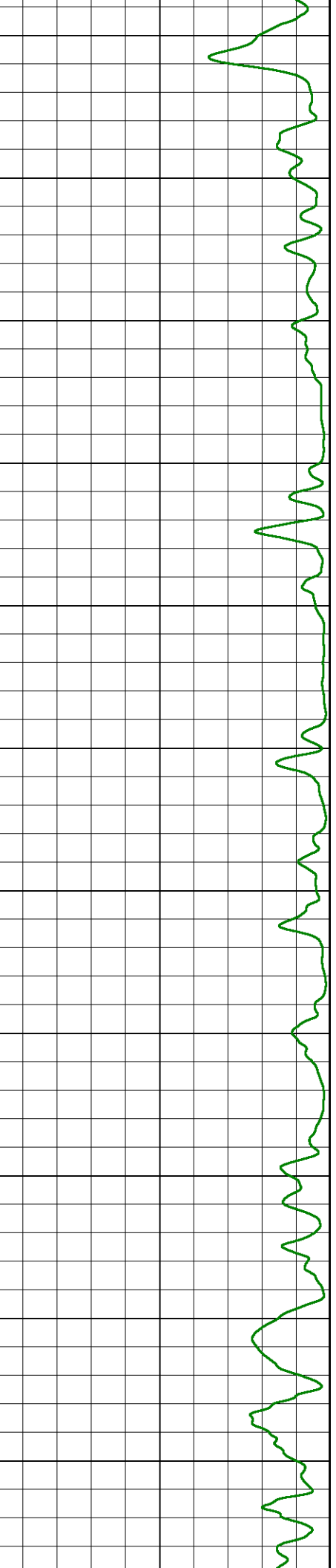
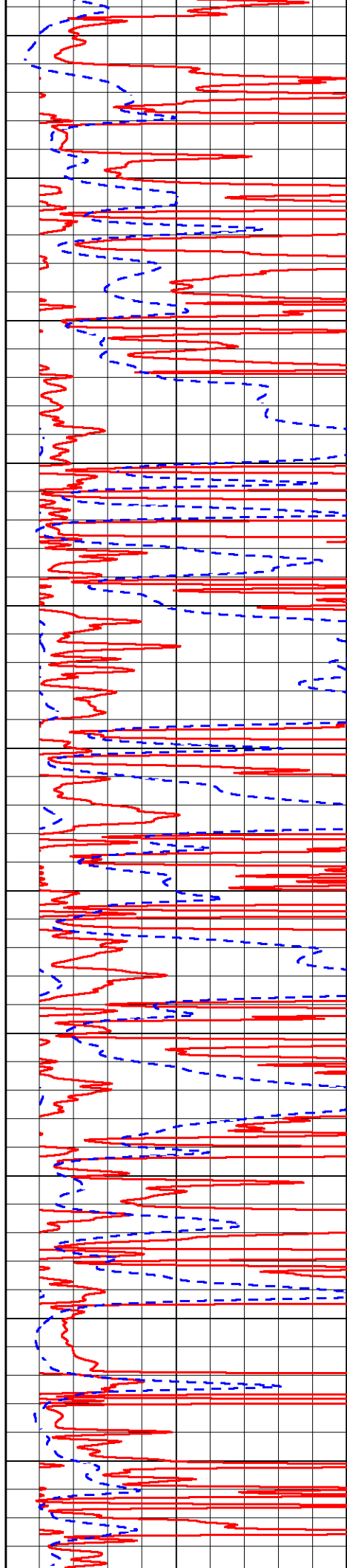
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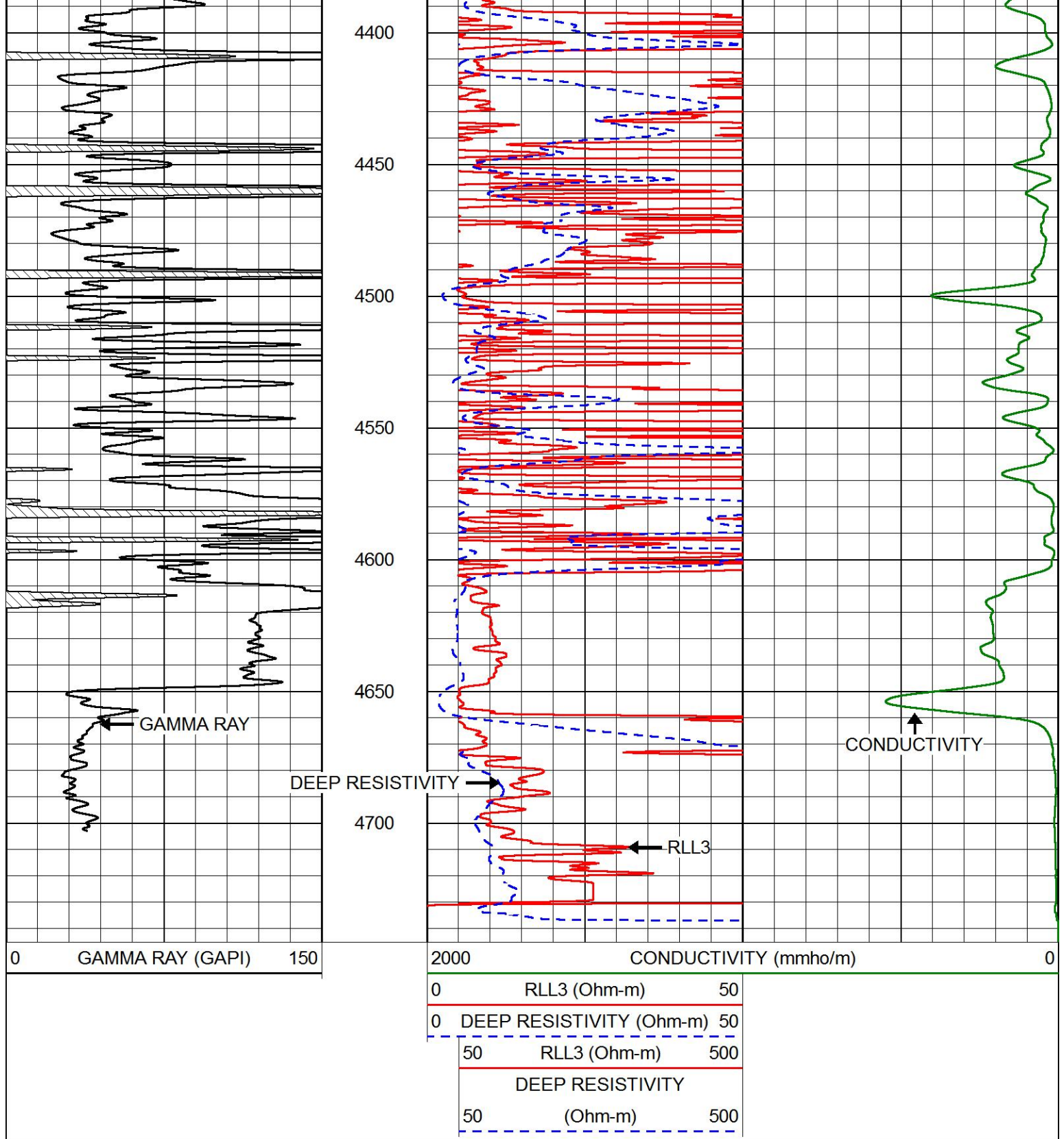
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4250

4300

4350





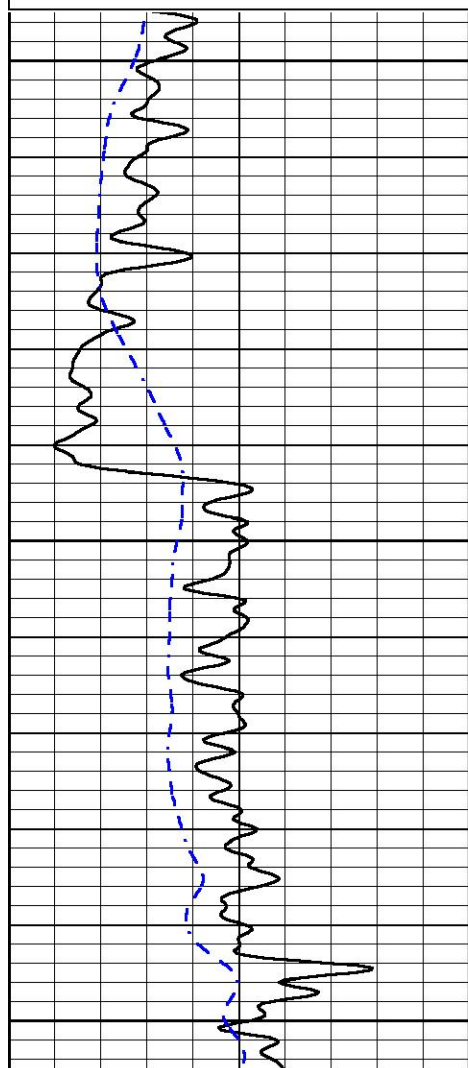


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MAIN PASS

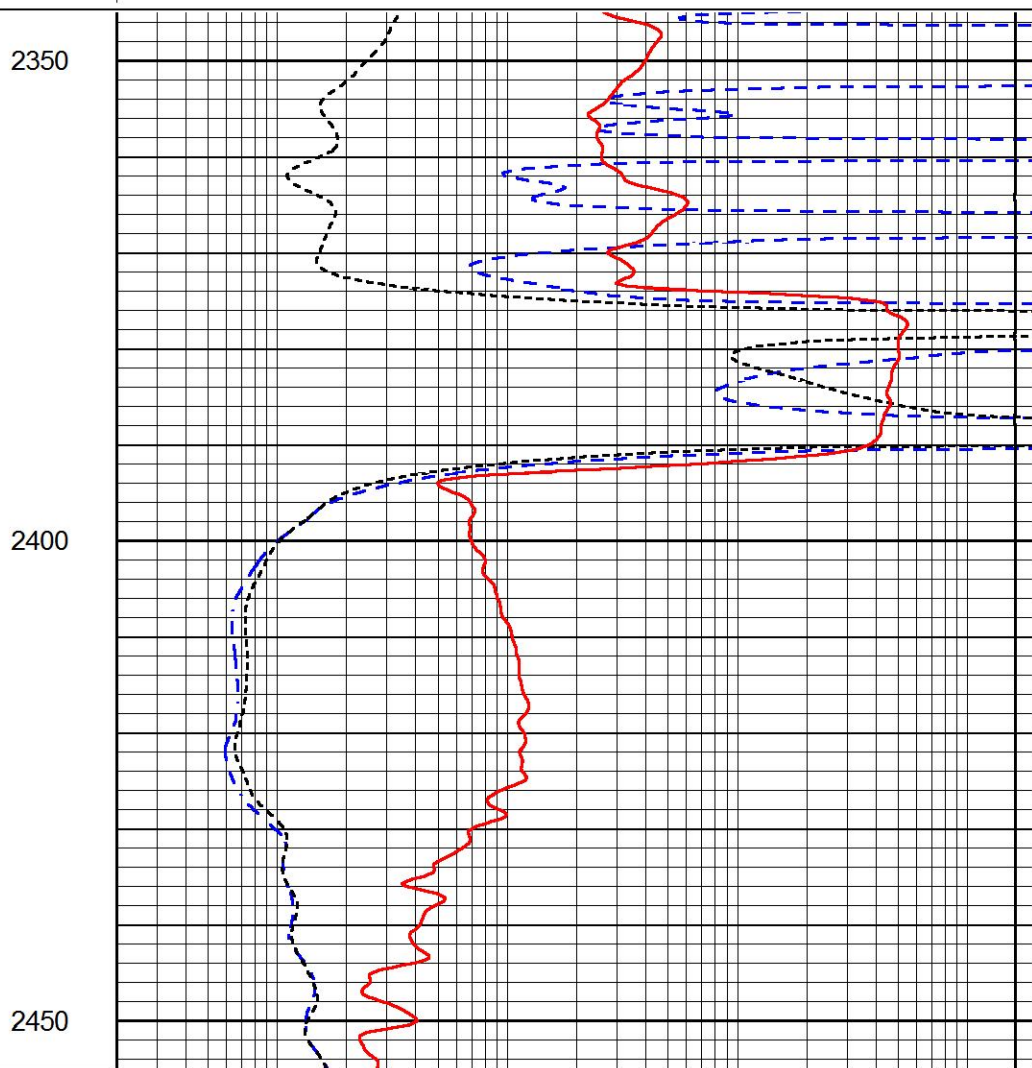
Database File	concorde_mcdaniel_1_14.db
Dataset Pathname	stackml/pass3.1
Presentation Format	dil
Dataset Creation	Fri Jan 12 19:00:12 2018
Charted by	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0



0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0

0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0



0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0



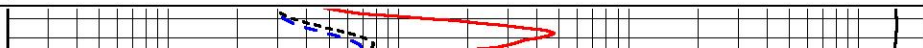
MAIN PASS

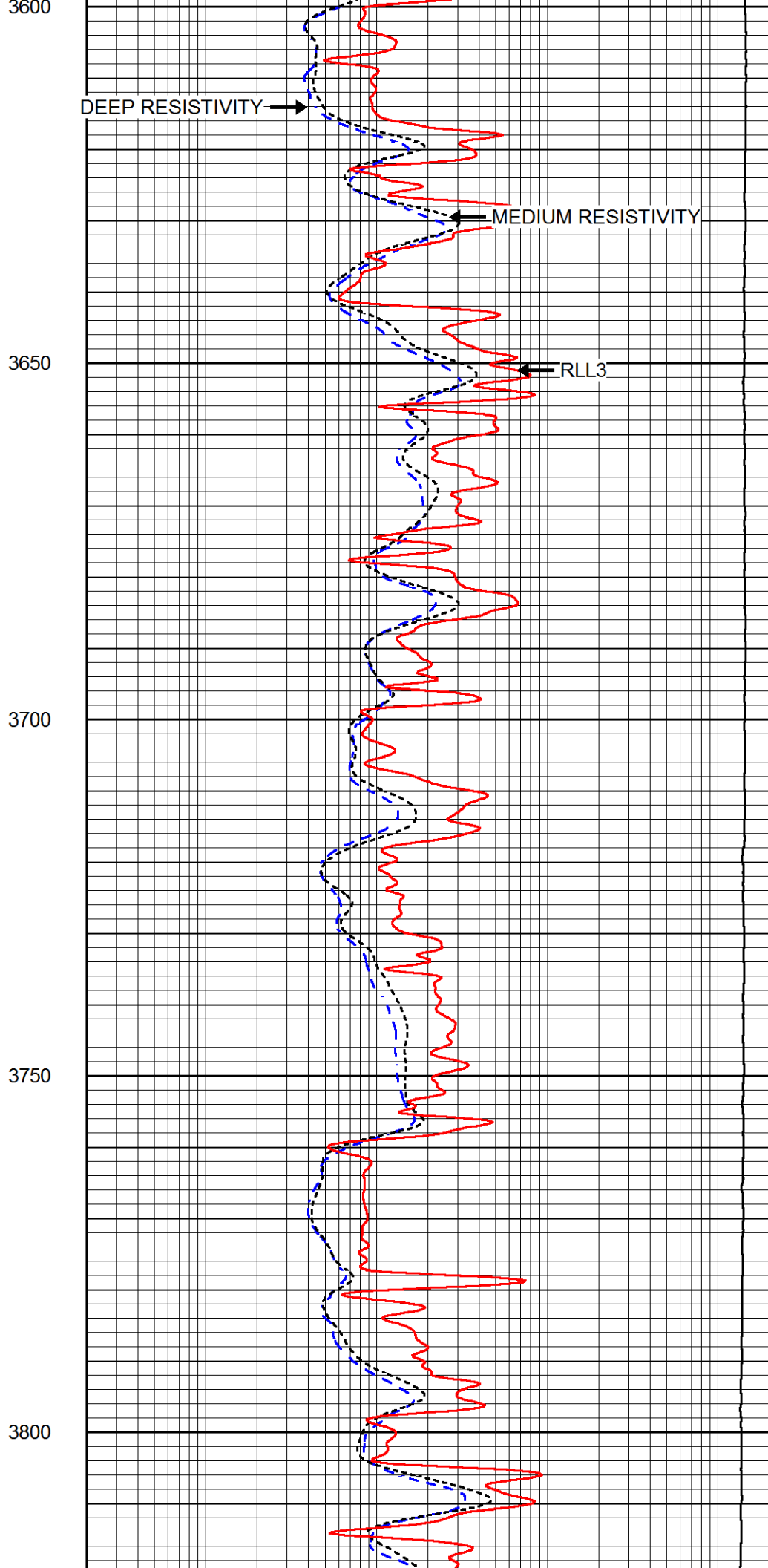
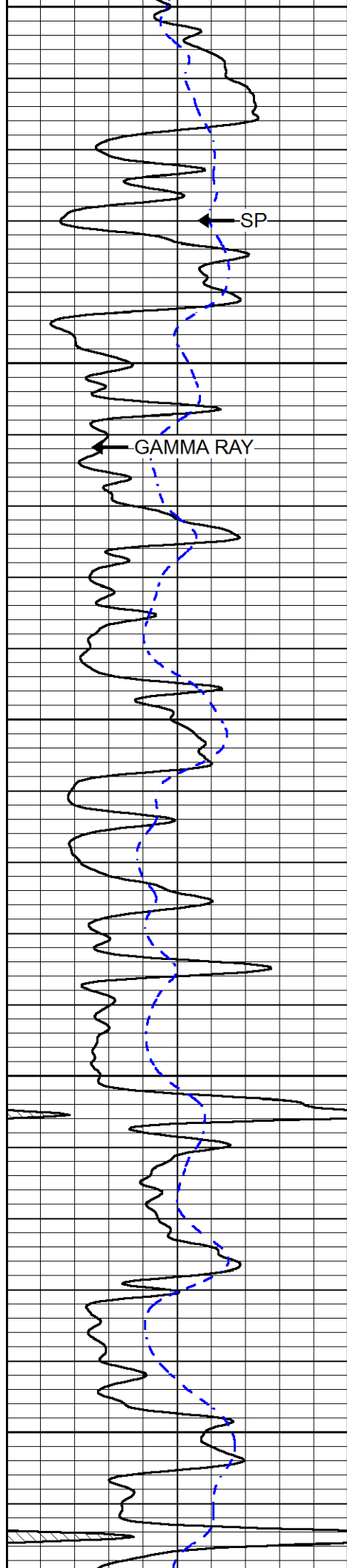
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 Dataset Pathname: stackml/pass3.1
 Presentation Format: dil
 Dataset Creation: Fri Jan 12 19:00:12 2018
 Charted by: Depth in Feet scaled 1:240

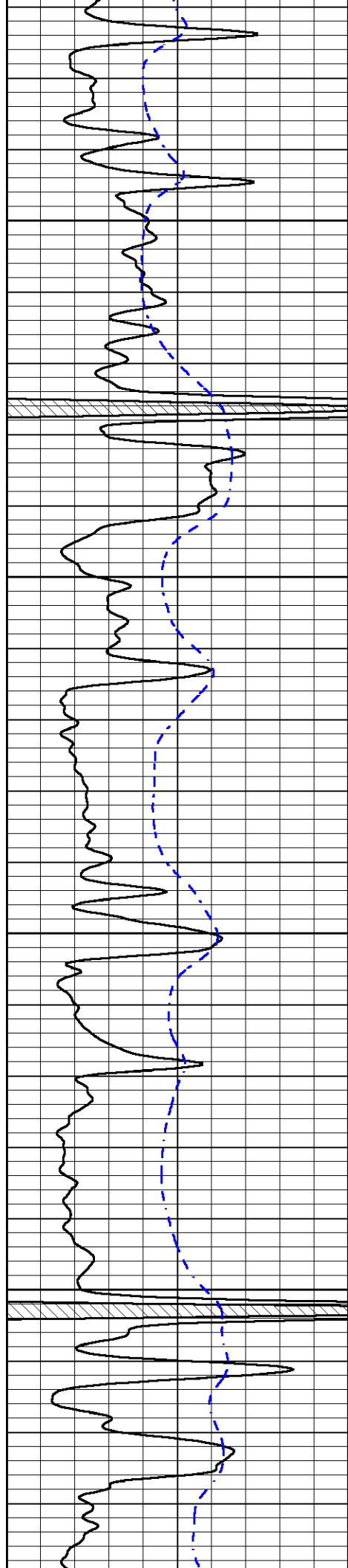
0	GAMMA RAY (GAPI)	150
-200	SP (mV)	0



0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
15000	LINE TENSION (lb)	0





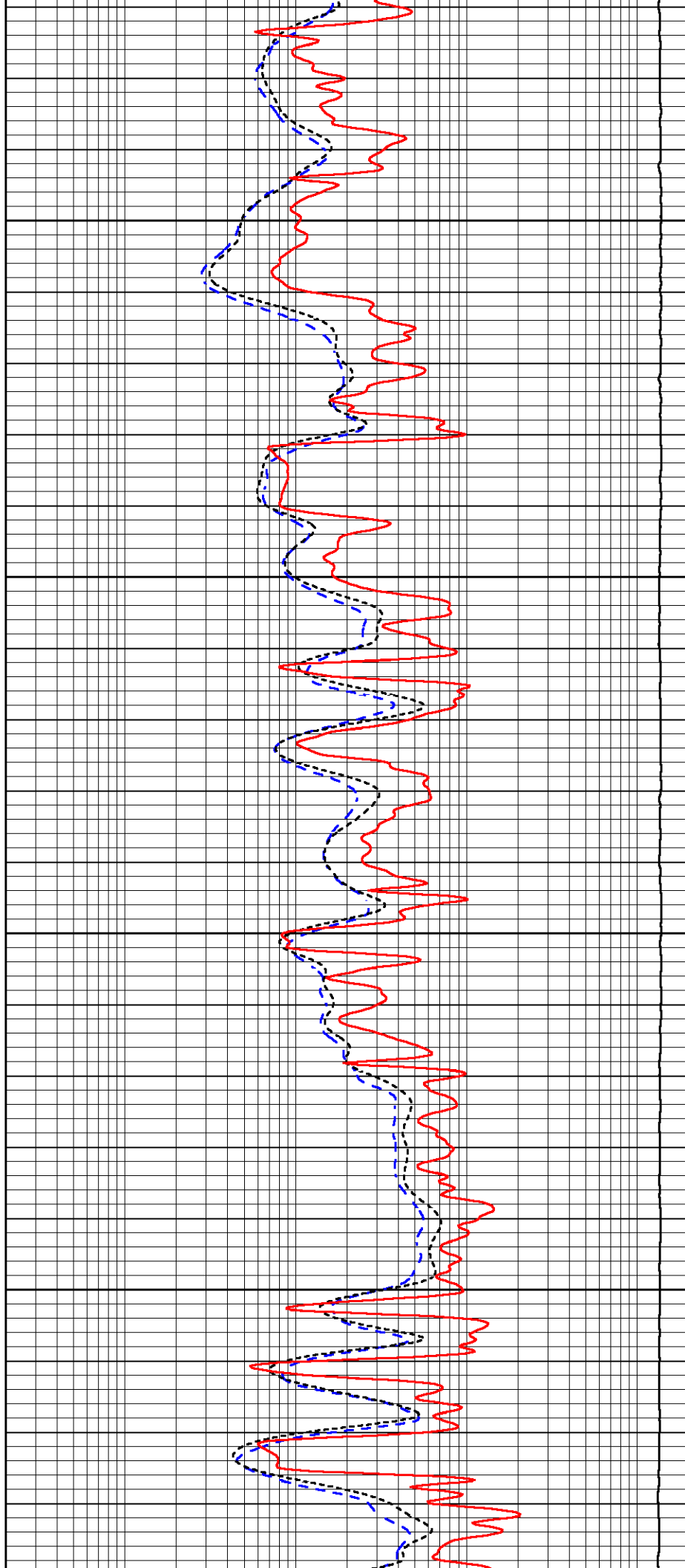


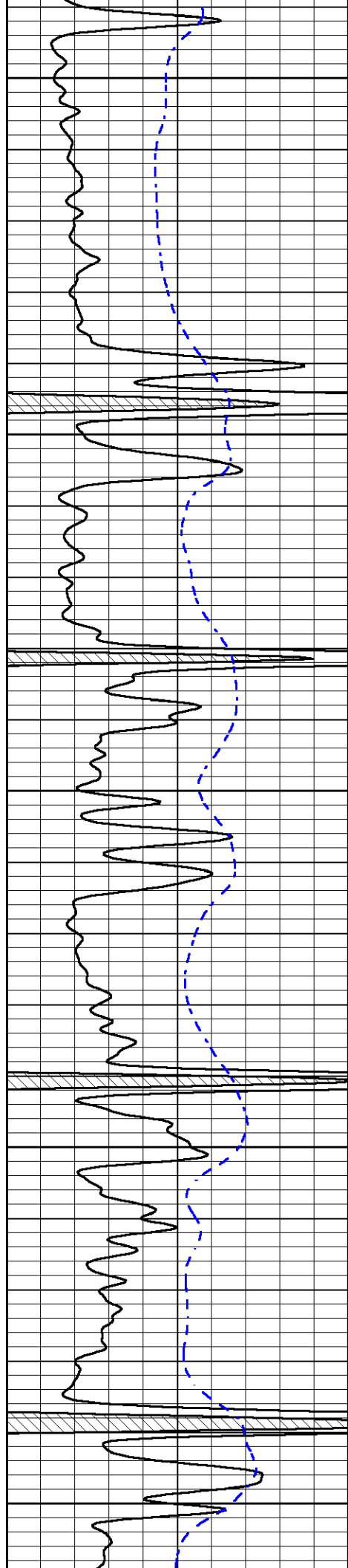
3850

3900

3950

4000





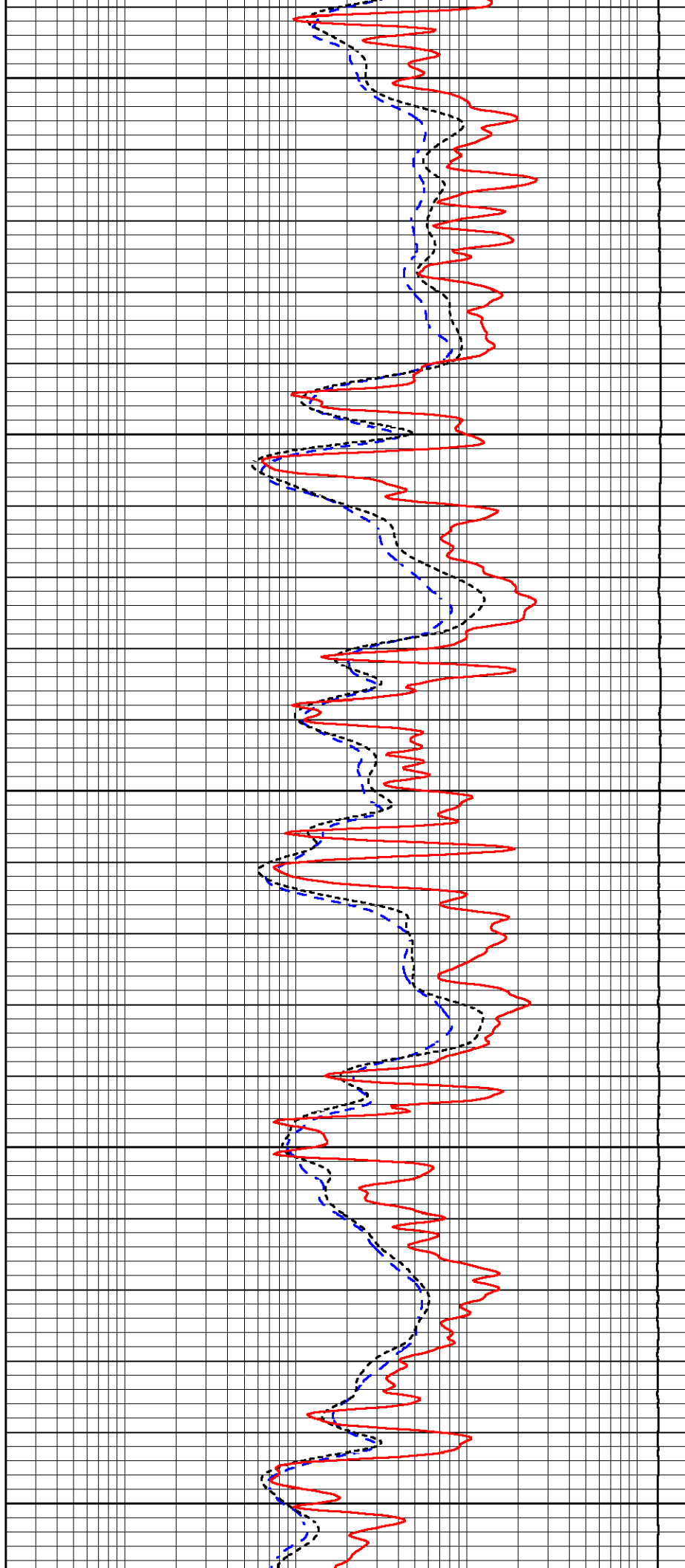
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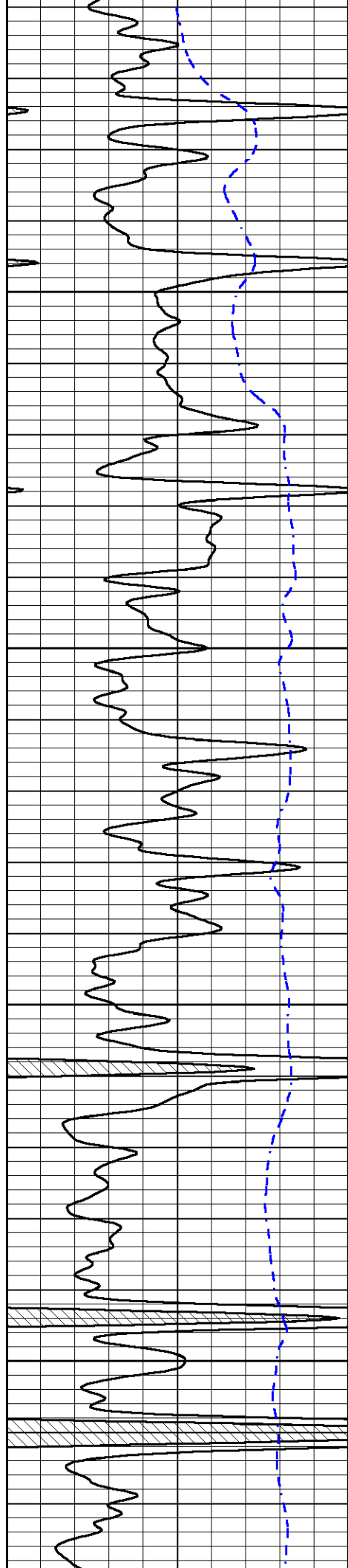
4100

4150

4200

4250



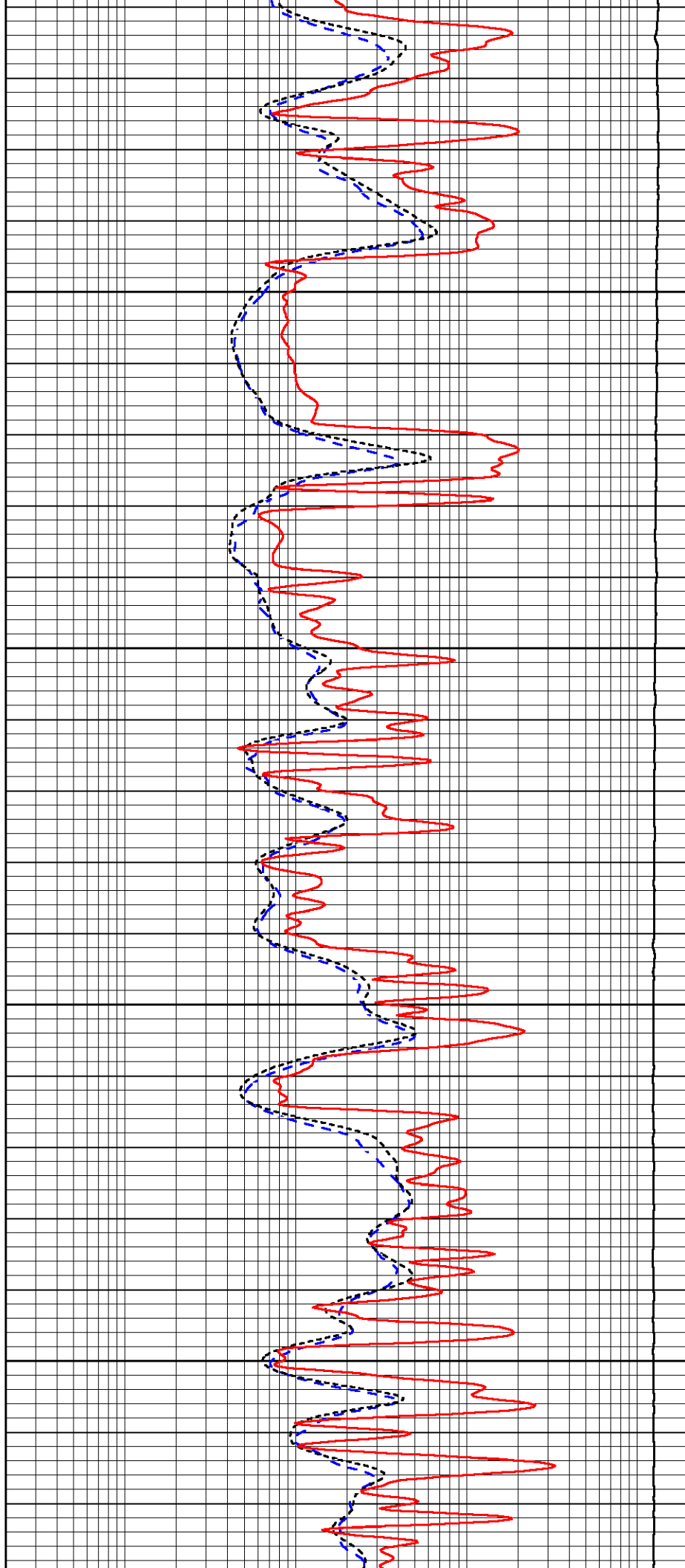


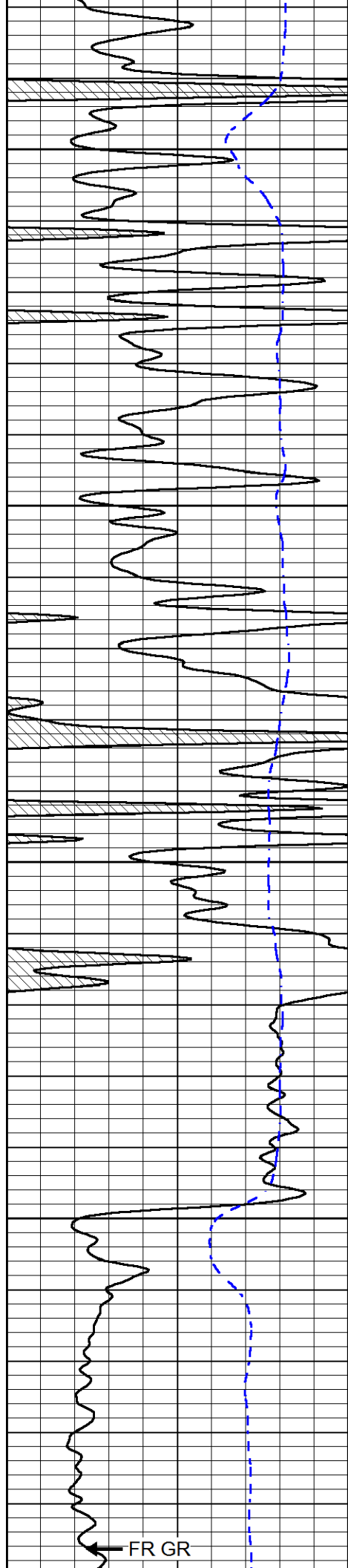
4300

4350

4400

4450



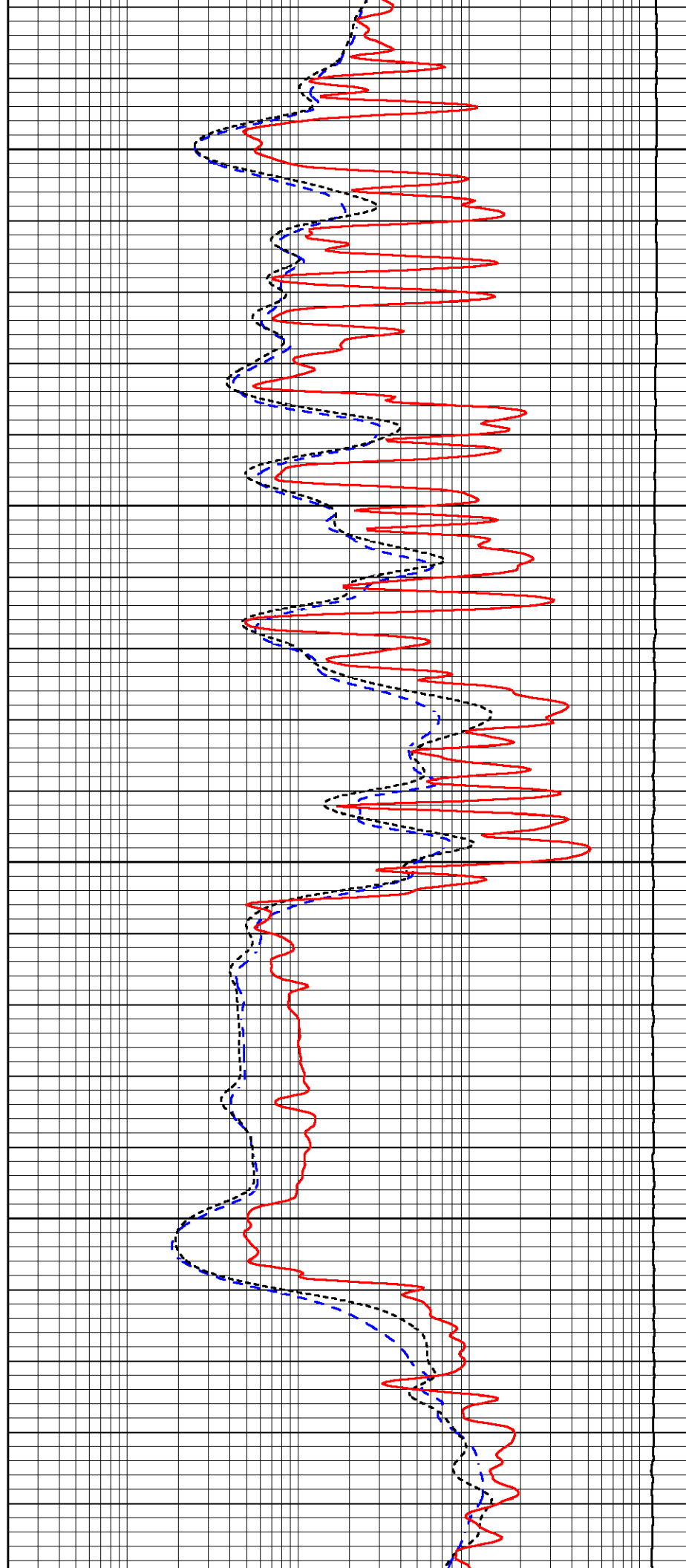


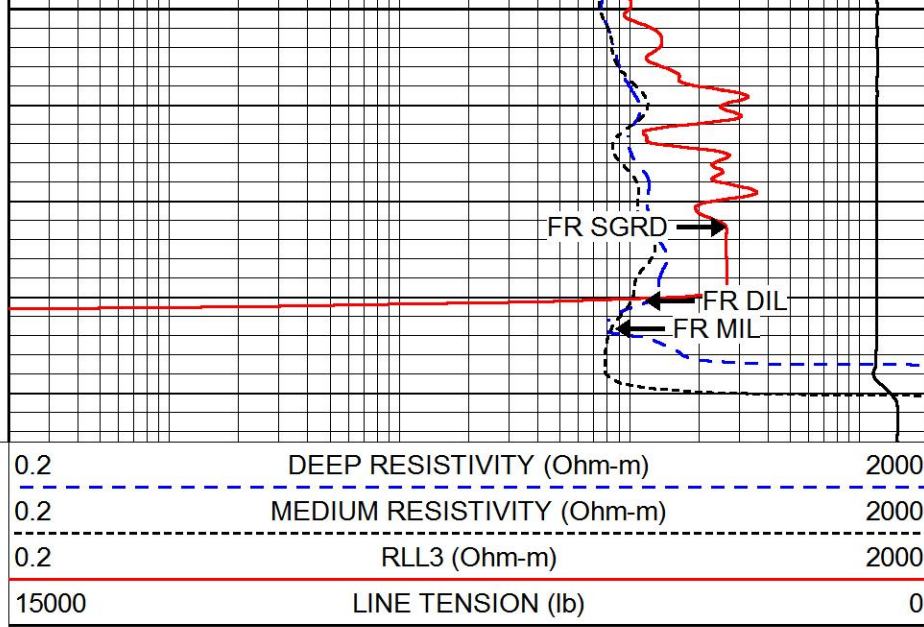
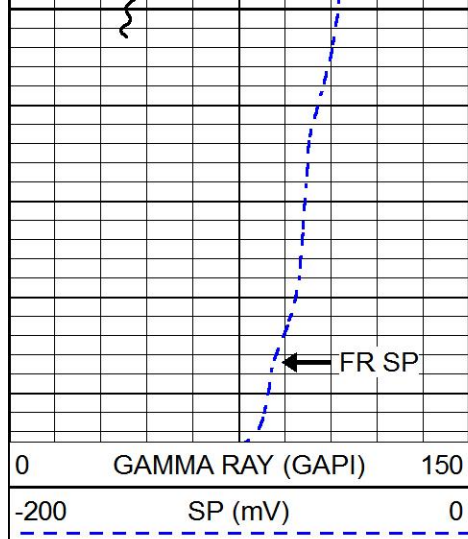
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4550

4600

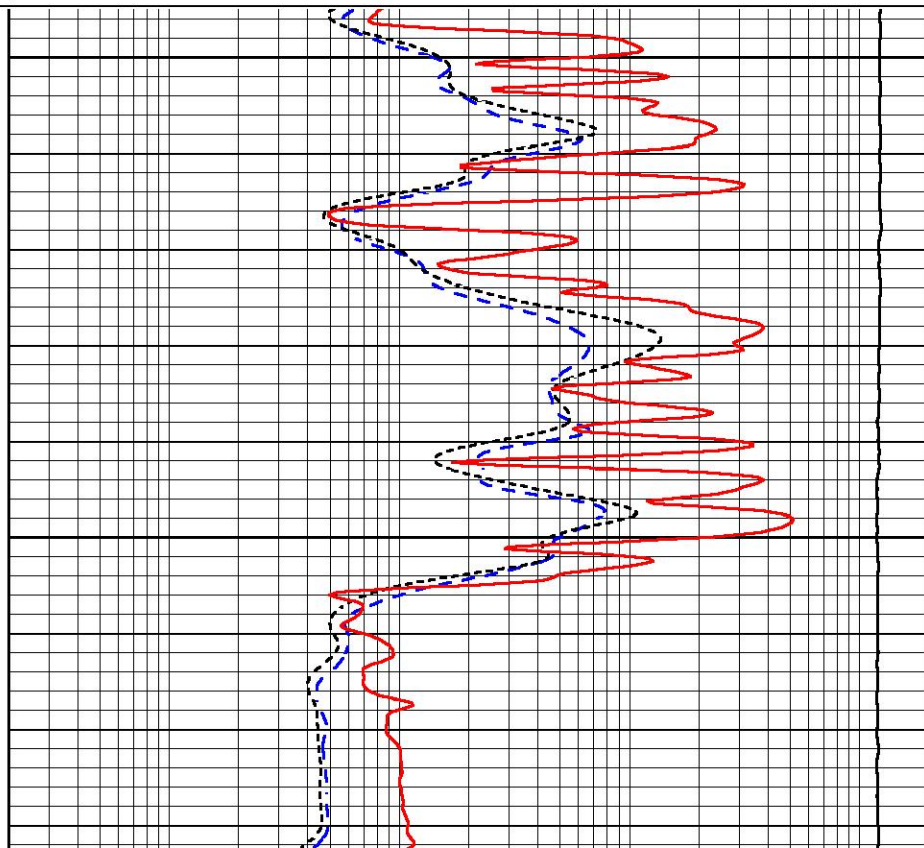
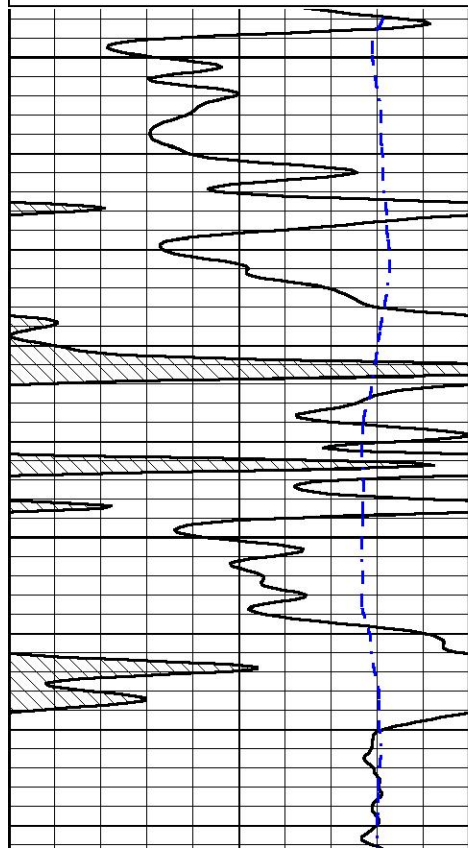
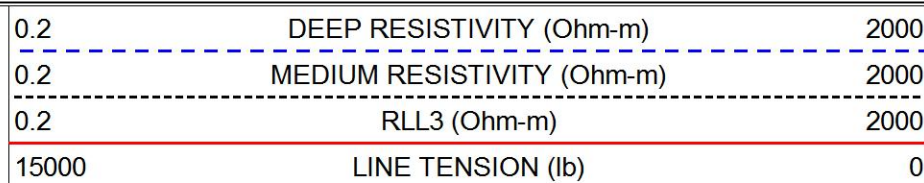
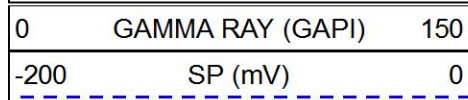
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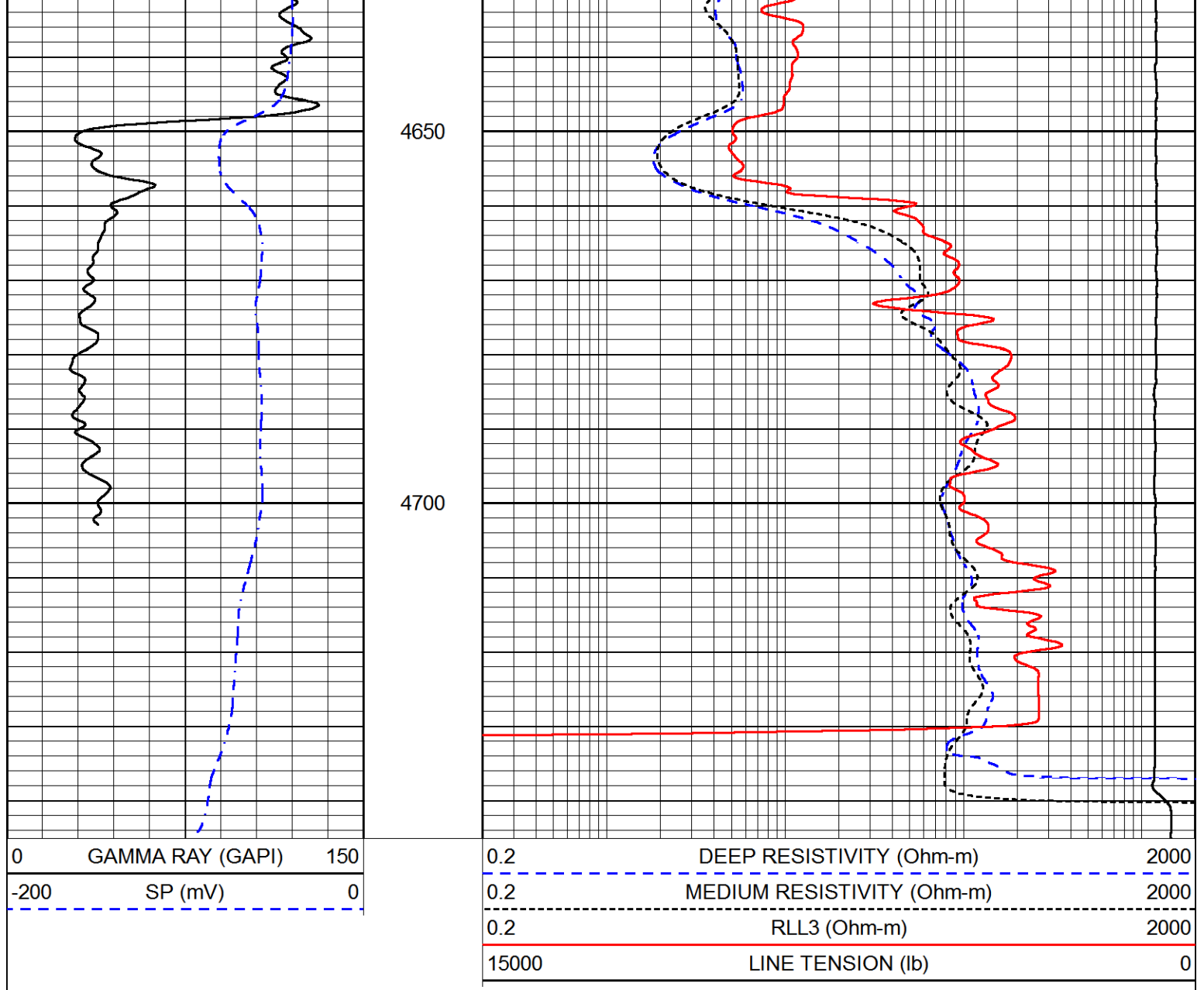




REPEAT SECTION

Database File: concorde_mcdaniel_1_14.db
 Dataset Pathname: stackml/pass2.1
 Presentation Format: dil
 Dataset Creation: Fri Jan 12 19:00:29 2018
 Charted by: Depth in Feet scaled 1:240





Calibration Report								
Database File	concorde_mcdaniel_1_14.db							
Dataset Pathname	stackml/pass3.1							
Dataset Creation	Fri Jan 12 19:00:12 2018							
Dual Induction Calibration Report								
Serial-Model:			PSI 978-M&W					
Calibration Performed:			Wed Dec 13 12:45:09 2017					
Readings			References			Results		
Loop:	Air	Loop	Air	Loop		Gain	Offset	
Deep	178.615	710.235	0.000	255.800	mmho/m	0.570	-36.500	
Medium	161.982	1441.110	0.000	255.800	mmho/m	0.420	-35.000	
Microlog Calibration Report								
Serial-Model:			PSI-02-PSI STKBL ML					
Performed:			Fri Jun 23 01:25:19 2017					
Readings			References			Results		

	Zero	Cal	Zero	Cal		m	b
Normal	0.0031	0.0043	0.0000	10.0000	Ohm-m	22000.0000	0.0000
Inverse	0.0000	0.0013	0.0000	10.0000	Ohm-m	26000.0000	0.0000
Caliper	1.0020	1.0834	5.5000	16.5000	in	135.1560	-131.3000

Compensated Density Calibration Report

Serial-Model: 168-986-M&W
 Source / Verifier: /
 Master Calibration Performed: Tue Apr 11 17:07:47 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4691.86	4818.19	cps
Aluminum	2.685	g/cc	859.57	3020.22	cps
Spine Angle = 74.61			Density/Spine Ratio = 0.528		
	Size		Reading		
Small Ring	4.00	in	1.00		
Large Ring	14.00	in	1.20		

Compensated Neutron Calibration Report

Serial Number: tk10-MW
 Tool Model: M&W
 Calibration Performed: Wed Nov 16 11:21:36 2016

Detector	Readings		Target	Normalization
Short Space	6240.00	cps	1000.00 cps	1.6025
Long Space	460.00	cps	1000.00 cps	1.9500

Gamma Ray Calibration Report

Serial Number: 89-M&W
 Tool Model: M&W
 Calibration Performed: Tue Apr 11 17:08:01 2017

 Calibrator Value: 1000.0 GAPI

 Background Reading: 0.0 cps
 Calibrator Reading: 6.2 cps

 Sensitivity: 0.5200 GAPI/cps



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