



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company BLUE GOOSE DRILLING CO., INC.
Well NEELEY "A" NO. 1
Field ALAMOTA NORTHWEST
County LANE
State KANSAS

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Location: API #: 15-101-22582-00-00

Other Services

2,310' FSL & 1,650' FWL
SEC 10 TWP 18S RGE 27W

CNL/CDL
MEL

Permanent Datum GROUND LEVEL Elevation 2679'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 2689'
D.F. N/A
G.L. 2679'

Date	11/6/2016		
Run Number	ONE		
Depth Driller	4660'		
Depth Logger	4649'		
Bottom Logged Interval	4648'		
Top Log Interval	250'		
Casing Driller	8,625" @ 268'		
Casing Logger	265'		
Bit Size	7.875"		
Type Fluid in Hole	CHEMICAL		
Salinity, ppm CL	4300		
Density / Viscosity	9.0 51		
pH / Fluid Loss	9.0 9.6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.90 @ 68		
Rmt @ Meas. Temp	.68 @ 68		
Rmc @ Meas. Temp	1.22 @ 68		
Source of Rmt / Rmc	CHARTS		
Rm @ BHT	.50 @ 123		
Operating Rig Time	2 1/2 HOURS		
Max Rec. Temp. F	123		
Equipment Number	108		
Location	COLBY		
Recorded By	J. LONG		
Witnessed By	KEN WALLACE		

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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.

DIGHTON, EAST TO TURKEY RED ROAD, 1 1/2 NORTH, EAST INTO ON FARM HOUSE
SOUTH ENTRANCE, FOLLOW TRAIL EAST AND NORTH

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. LONG
Operator: C. PFEIFER
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: KEN WALLACE
Secondary Witness:
Secondary Witness:
Secondary Witness:

DatabaseC:\ProgramData\Warrior\Data\bluegoose_neeley_a_1.db
Dataset field/well/stackmel/pass4.1/_vars_

Dataset field/well/stackmel/pass4.1/_vars_

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	123	4.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	0	0	0	0	58	Off	4649

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							
					CDL-M&W (71-914)	8.50	4.00	250.00
LSD	28.43							
DCAL	28.42							
SSD	27.93				ML-PSI STKBL ML (PSI-01) Stackable Microlog Tools	7.58	4.00	65.00
MCAL	19.83							
MI	19.83							
MN	19.83							
RLL3	15.80			DIL-M&W (1987)	18.50	3.50	220.00	
RLL3F	15.79							
CILD	8.00							

CILM

4.70

SP

0.20

Dataset: bluegoose_neeley_a_1.db: field/well/stackmel/pass4
Total length: 43.08 ft
Total weight: 685.00 lb
O.D.: 4.00 in



2" SCALE RESISTIVITY

MAIN PASS

Database File bluegoose_neeley_a_1.db
Dataset Pathname stackmel/pass4.2
Presentation Format dil2in
Dataset Creation Sun Nov 06 16:35:29 2016
Charted by Depth in Feet scaled 1:600

0 GAMMA RAY (GAPI) 150

1000 CONDUCTIVITY (mmho/m) 0

SHALLOW RESISTIVITY

0 (Ohm-m) 50

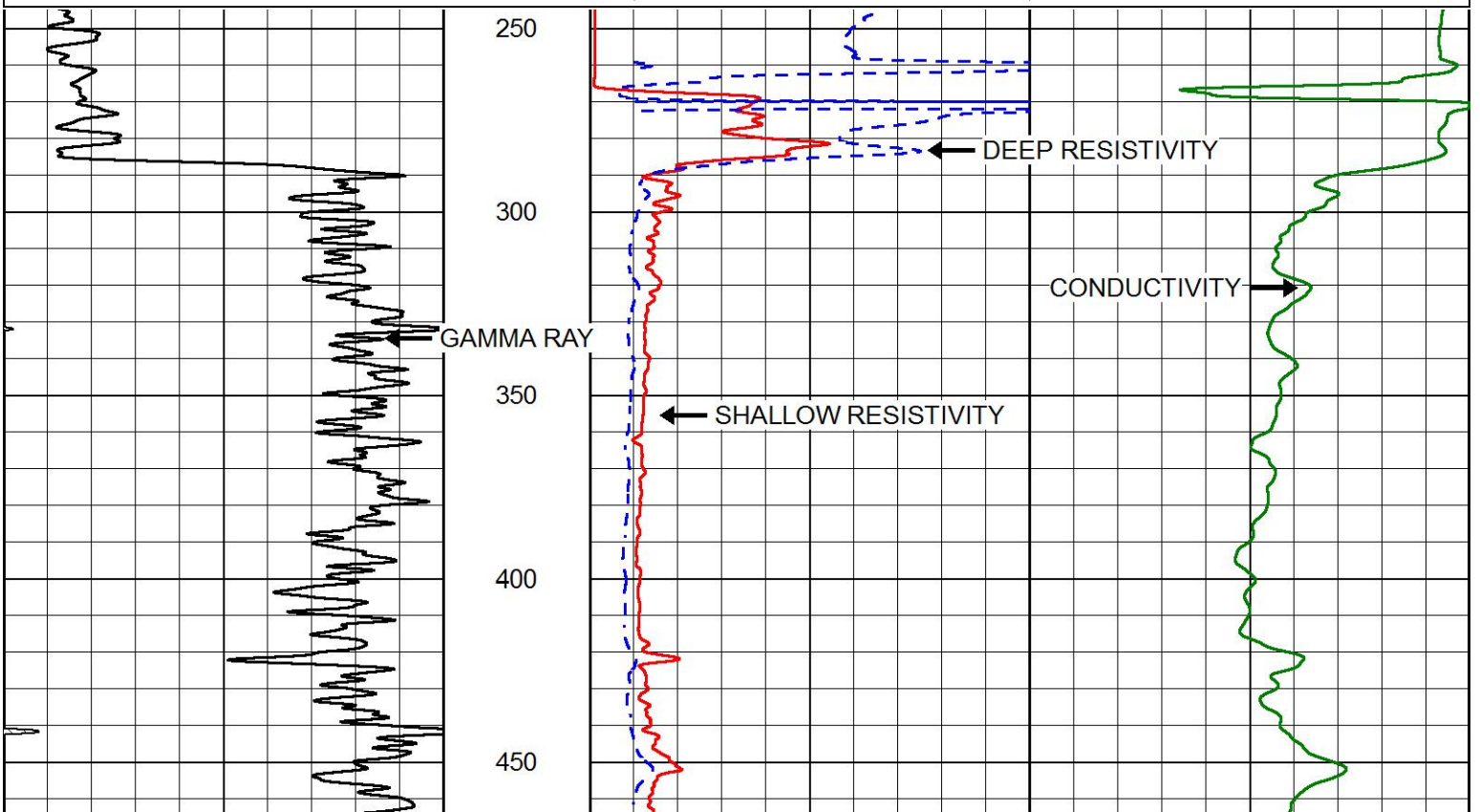
0 DEEP RESISTIVITY (Ohm-m) 50

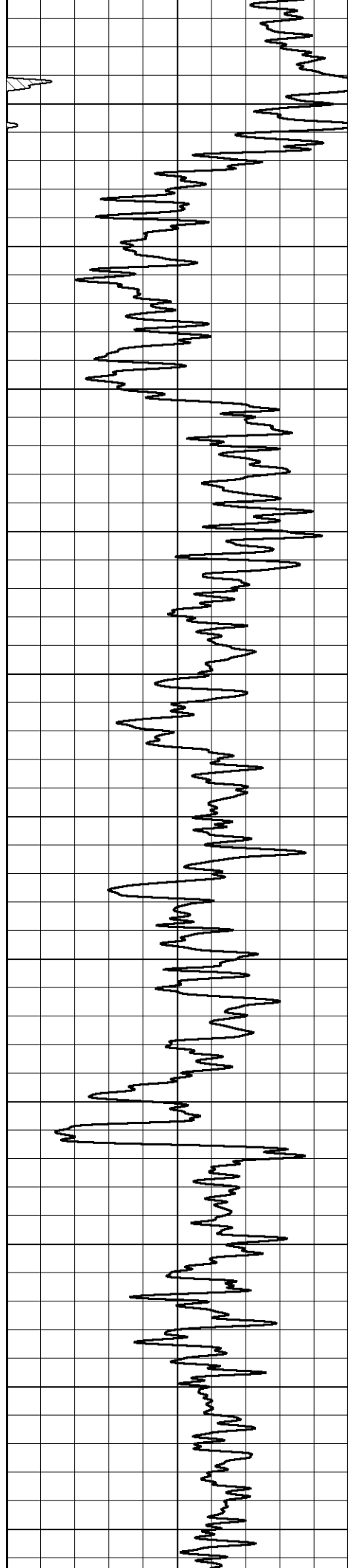
SHALLOW RESISTIVITY

50 (Ohm-m) 500

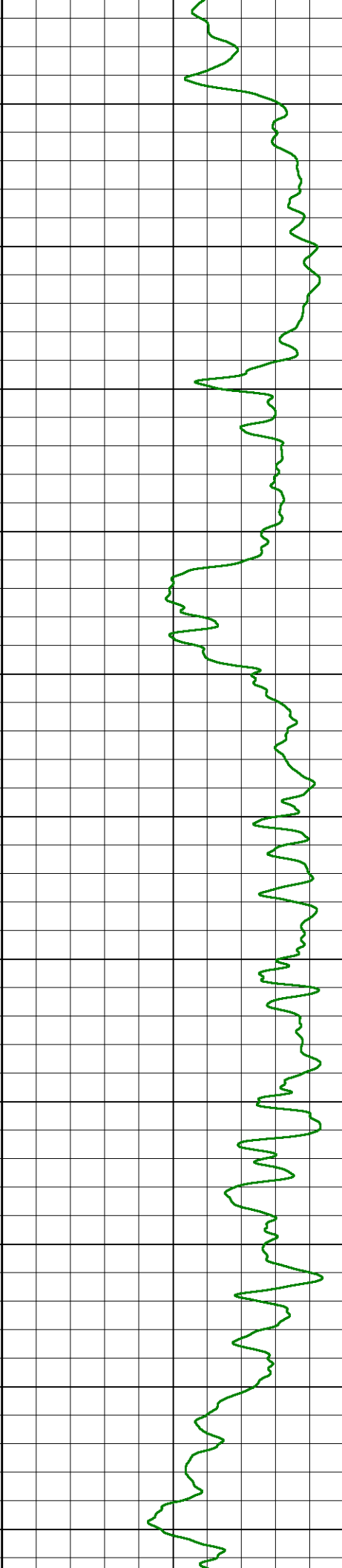
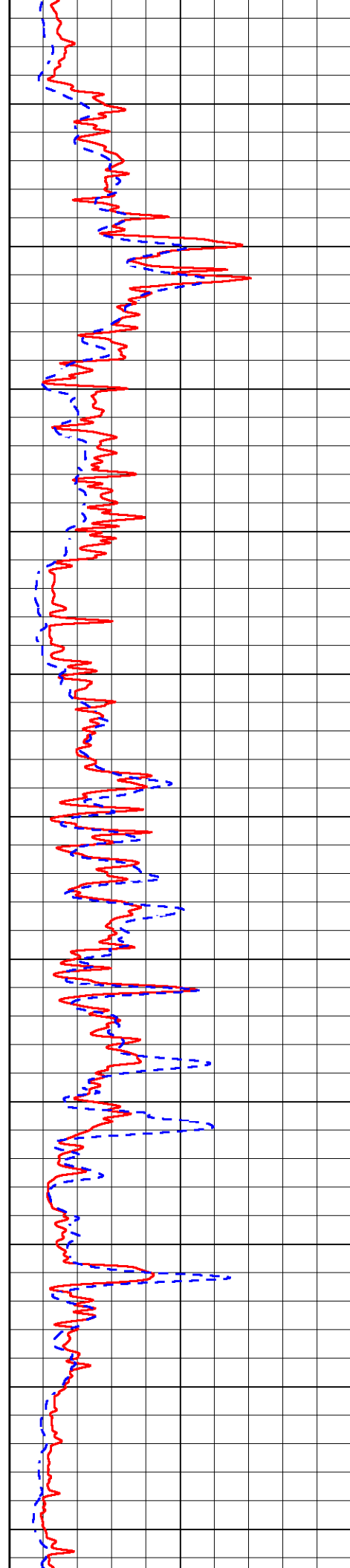
DEEP RESISTIVITY

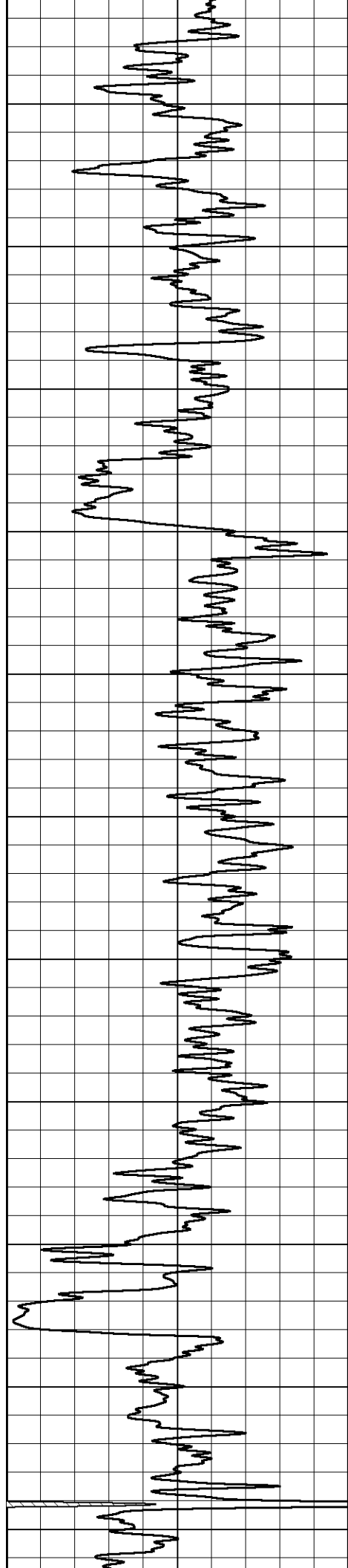
50 (Ohm-m) 500





500
550
600
650
700
750
800
850
900
950
1000





1050

1100

1150

1200

1250

1300

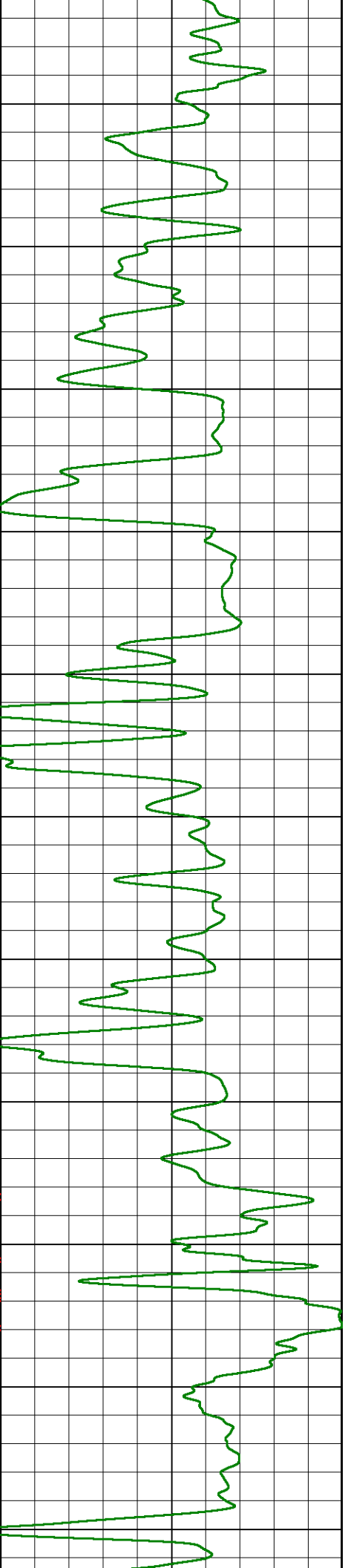
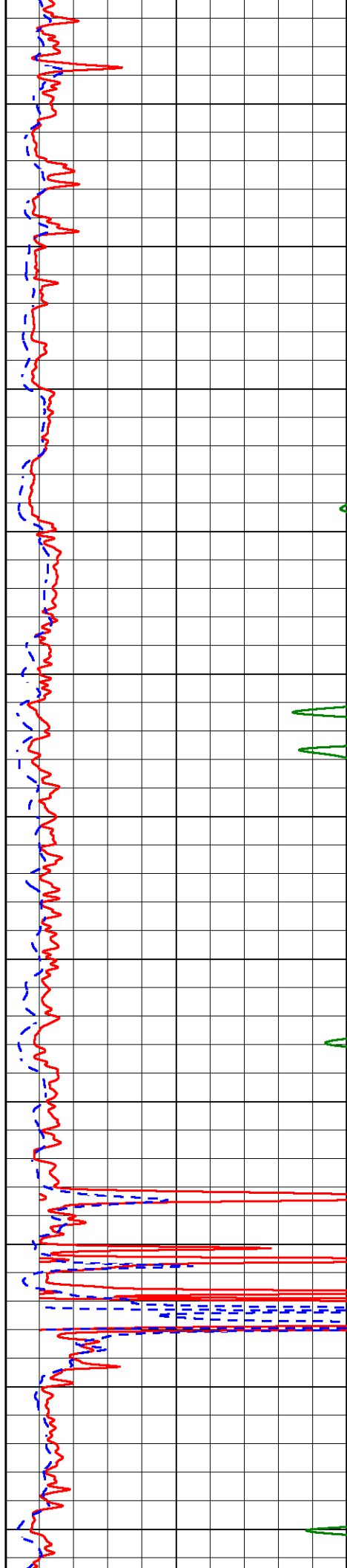
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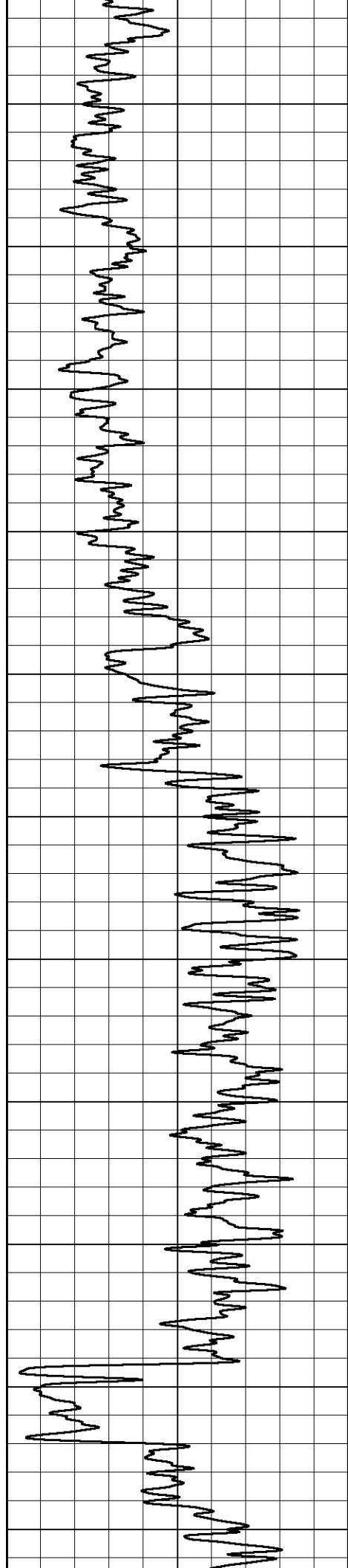
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1450

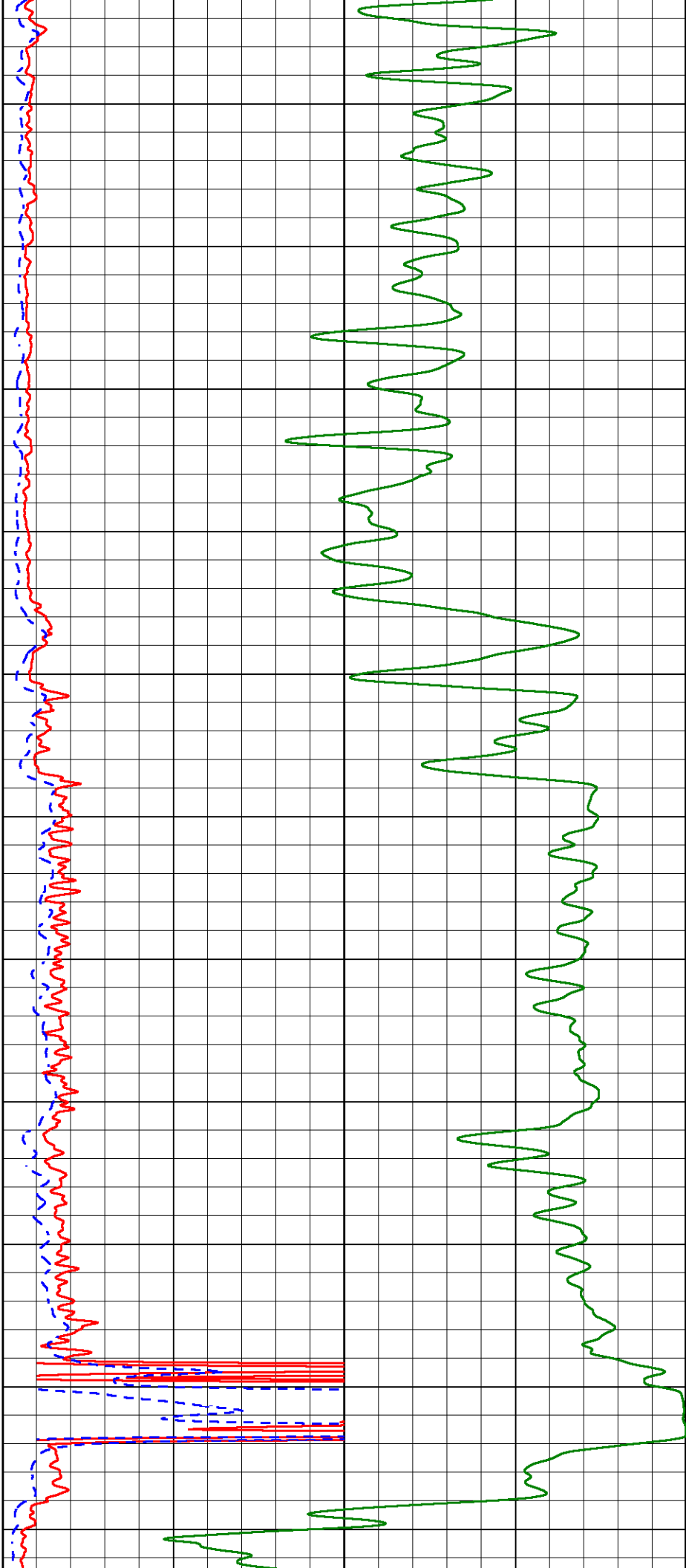
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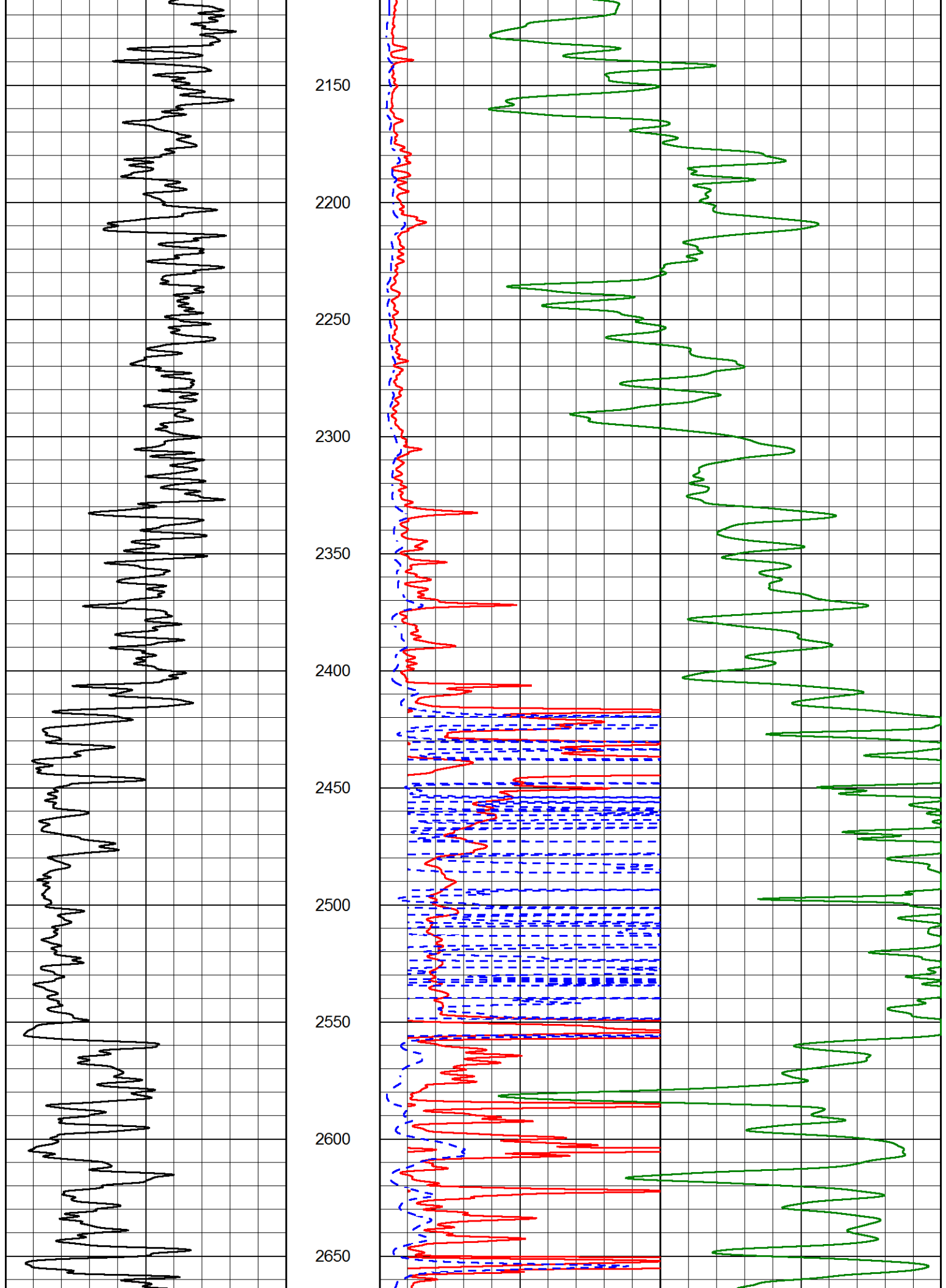
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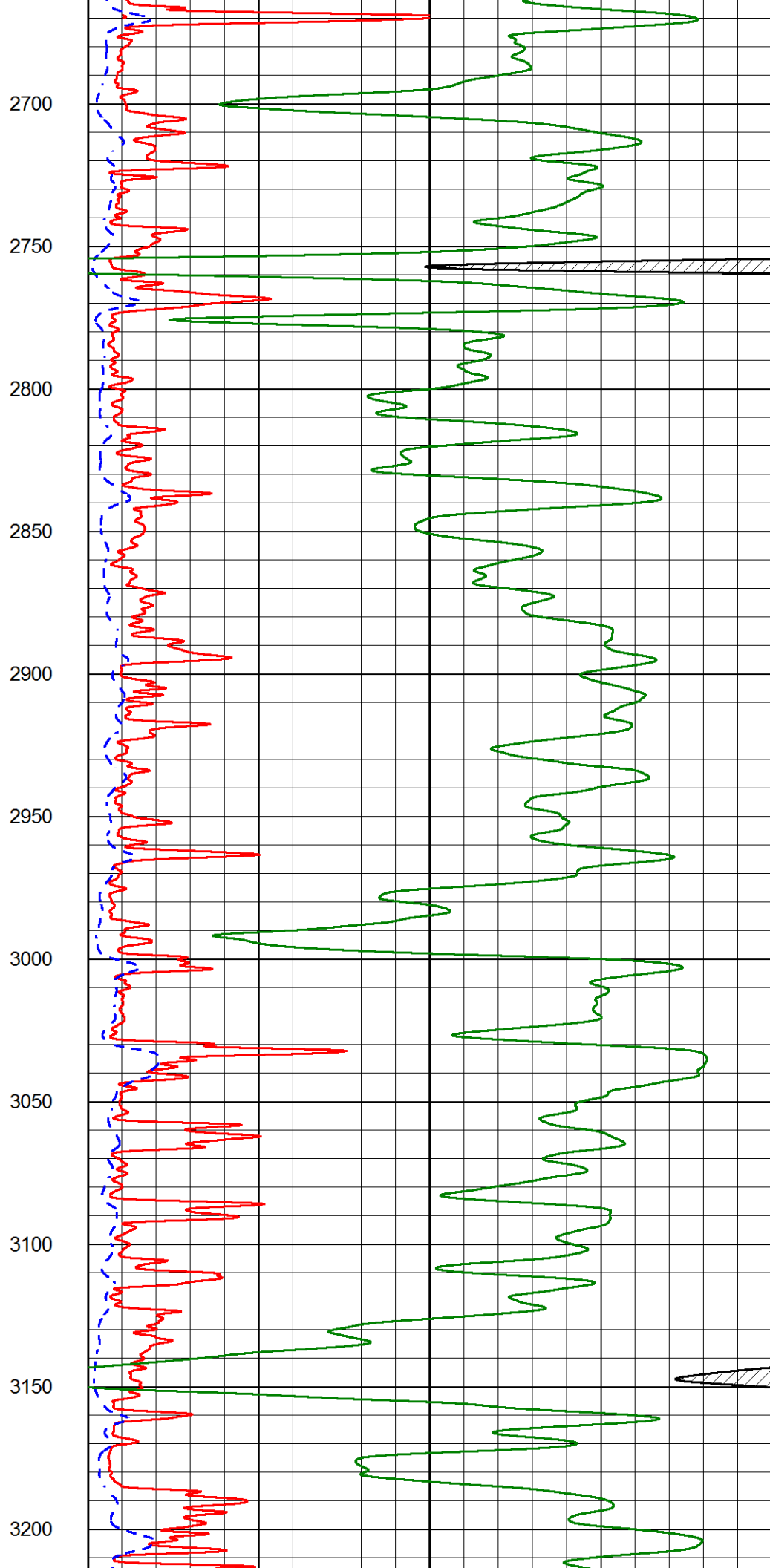
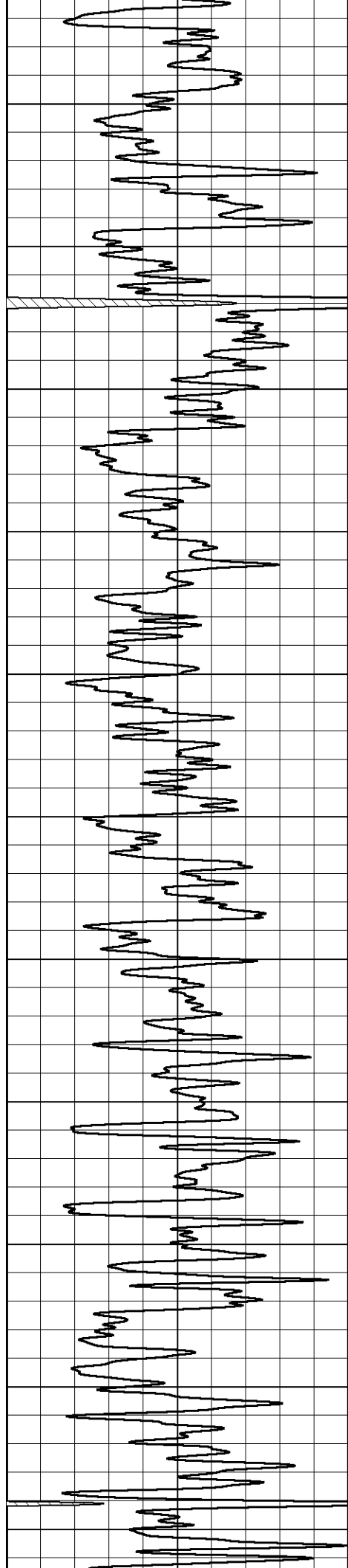


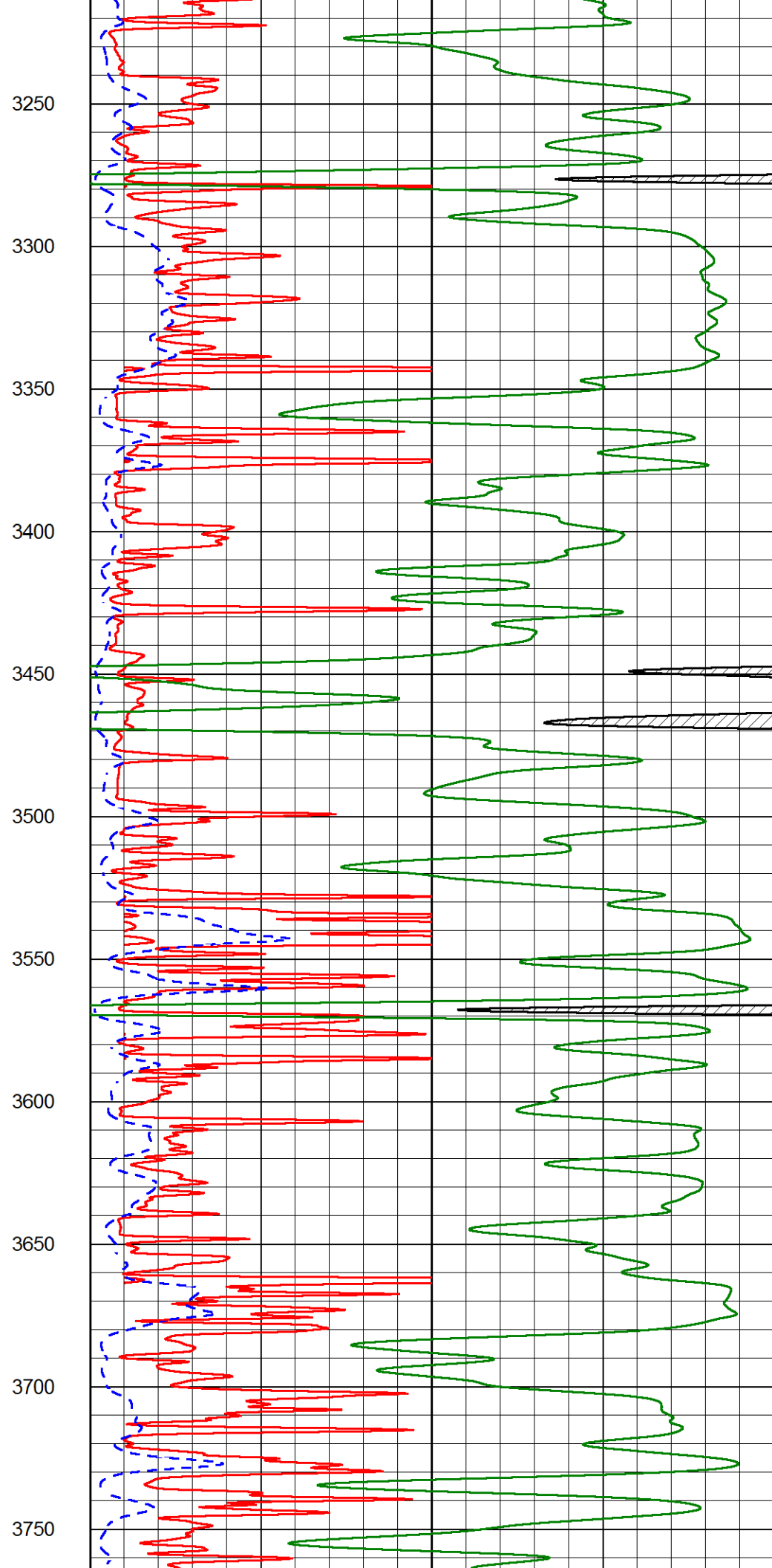
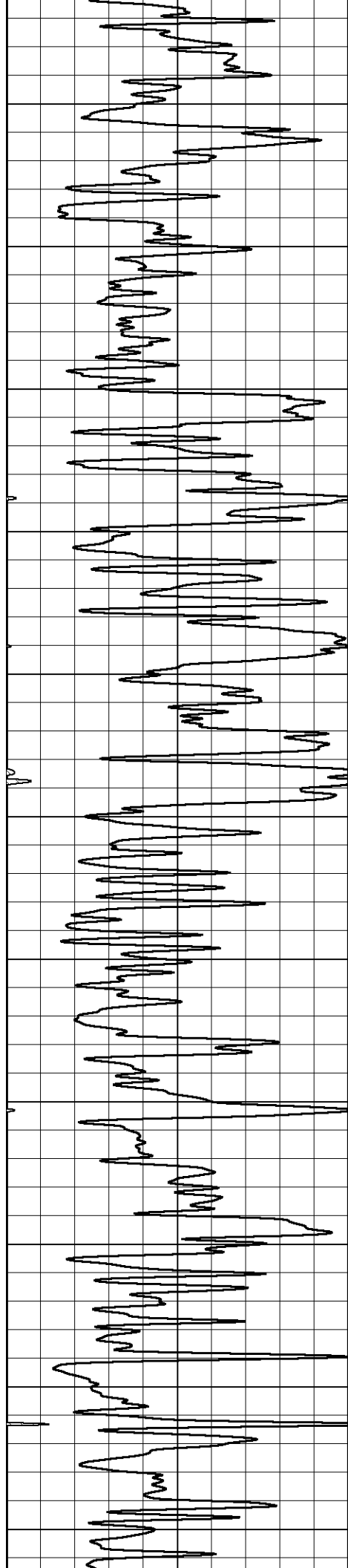


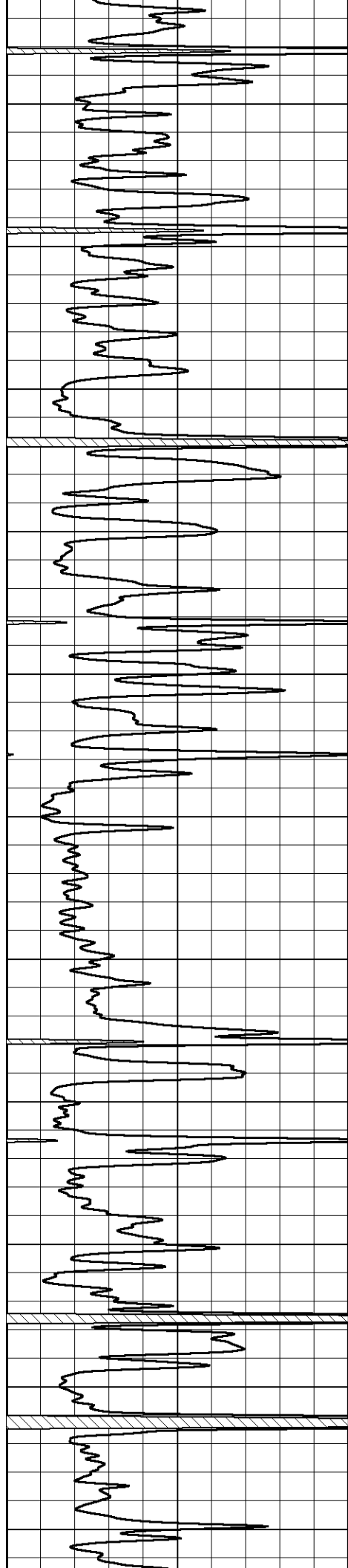
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050
2100











3800

3850

3900

3950

4000

4050

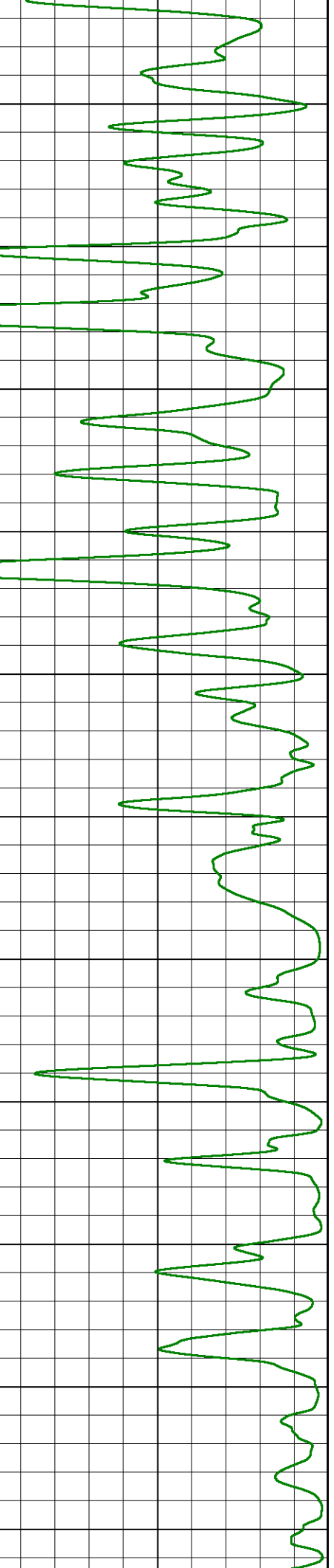
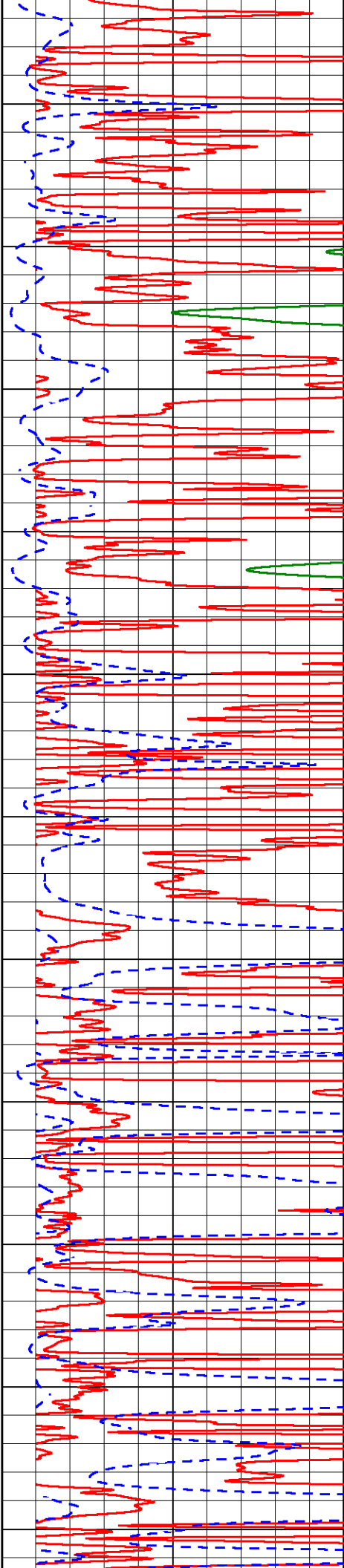
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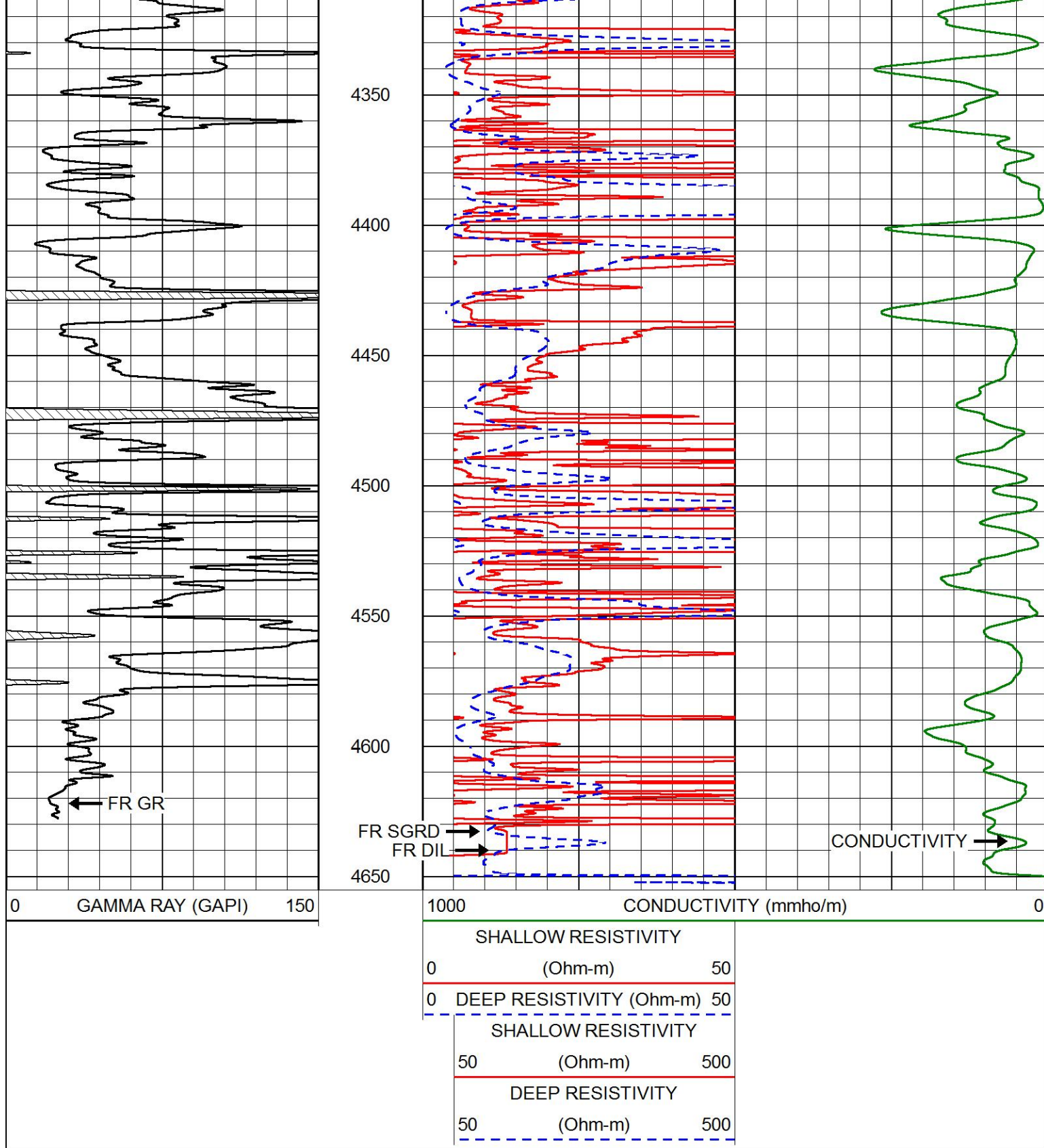
4150

4200

4250

4300







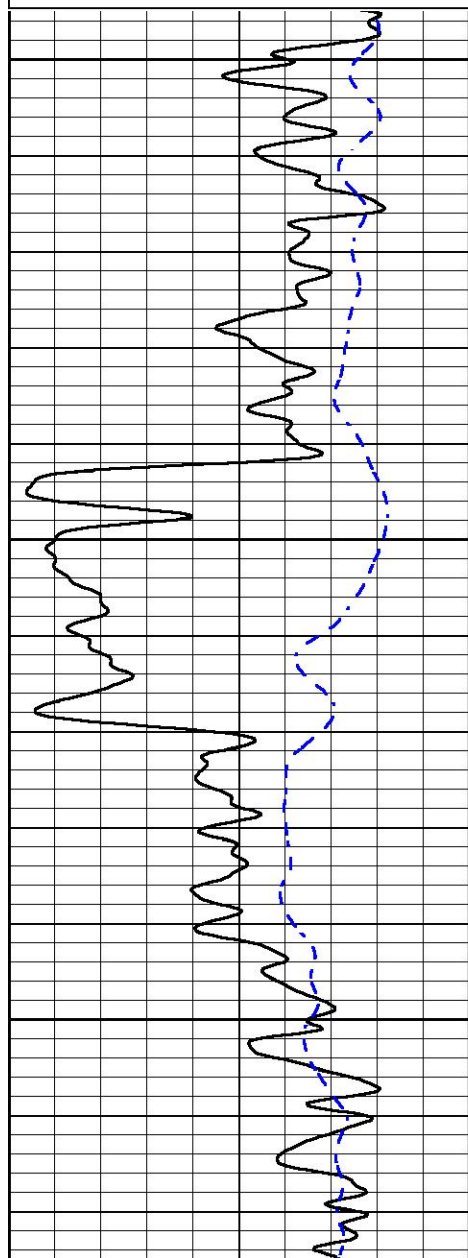
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ANHYDRITE SECTION

MAIN PASS

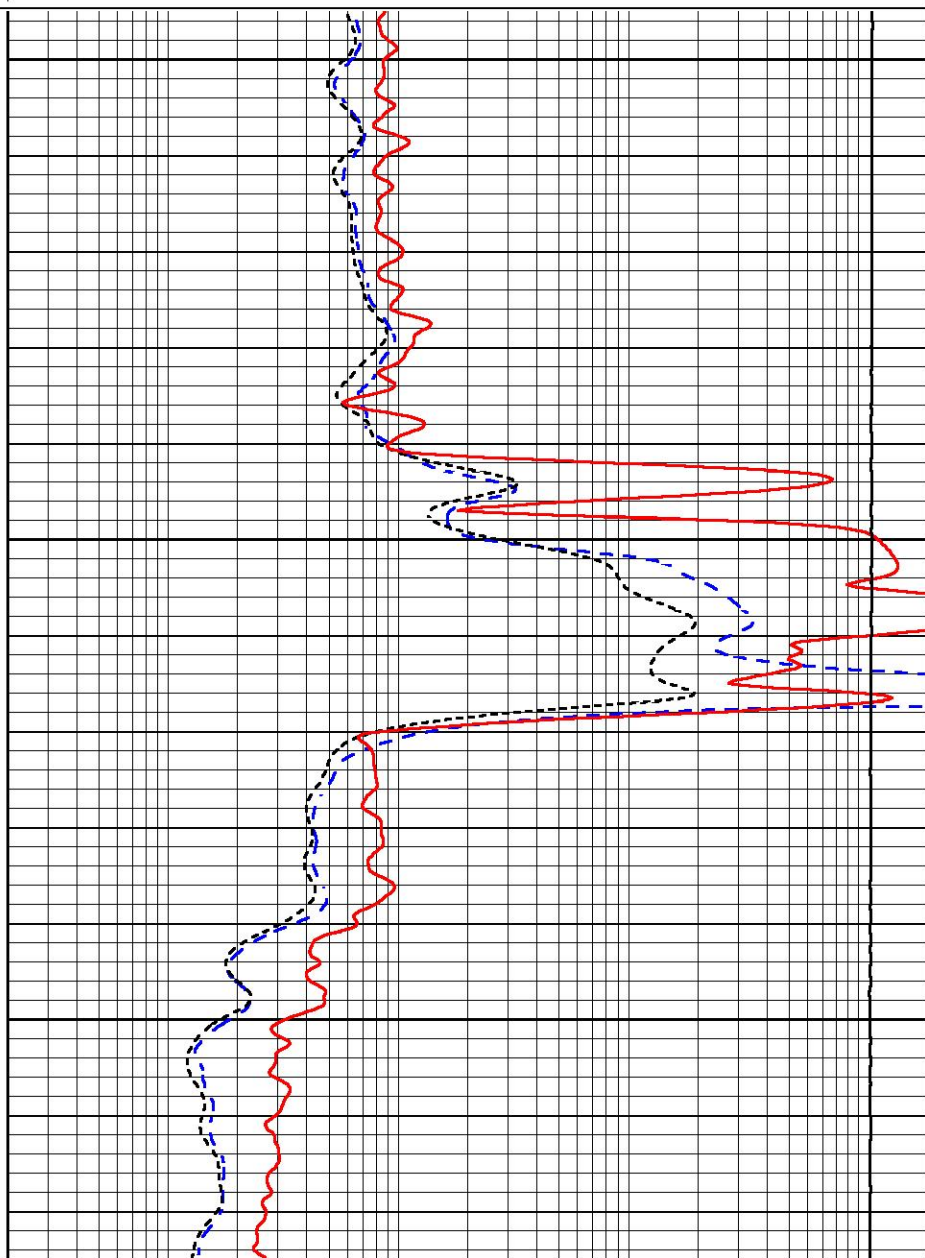
Database File	bluegoose_neeley_a_1.db
Dataset Pathname	stackmel/pass4.4
Presentation Format	dil
Dataset Creation	Sun Nov 06 17:25:48 2016
Charted by	Depth in Feet scaled 1:240

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	SHALLOW RESISTIVITY (Ohm-m)	2000
15000	LINE TENSION (lb)	0



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

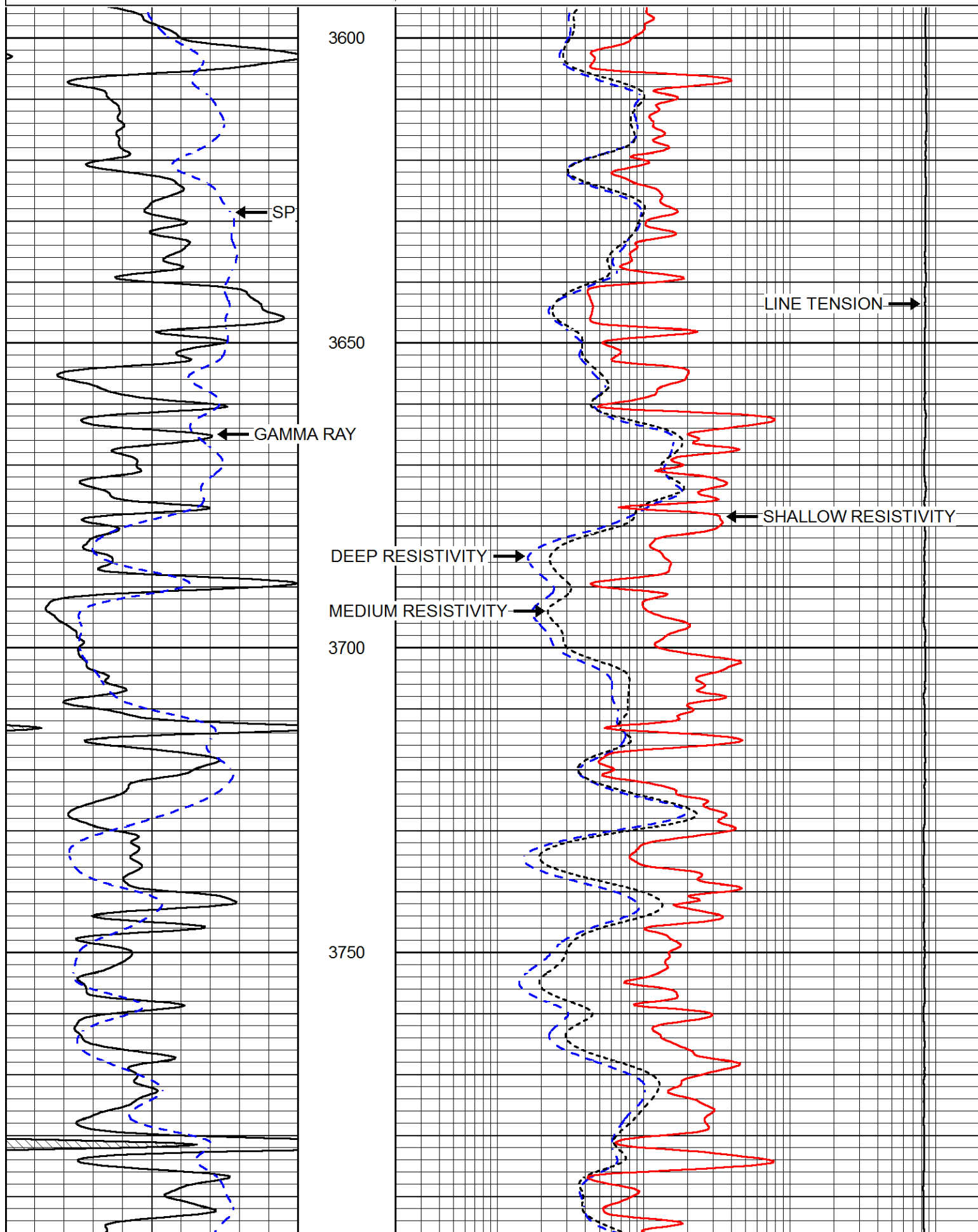


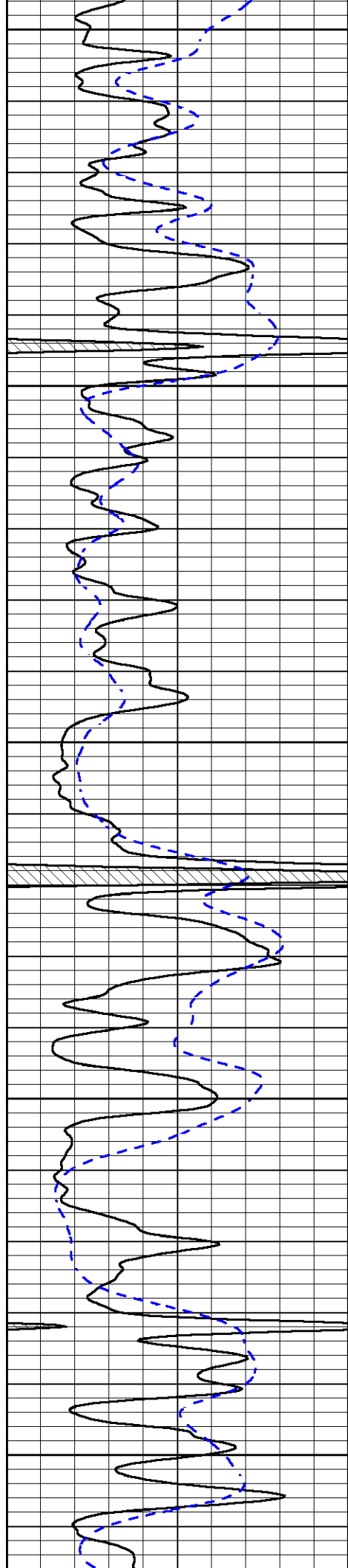
MAIN PASS

Database File: bluegoose_neeley_a_1.db
 Dataset Pathname: stackmel/pass4.1
 Presentation Format: dil
 Dataset Creation: Sun Nov 06 16:35:08 2016
 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	SHALLOW RESISTIVITY (Ohm-m)	2000
15000	LINE TENSION (lb)	0





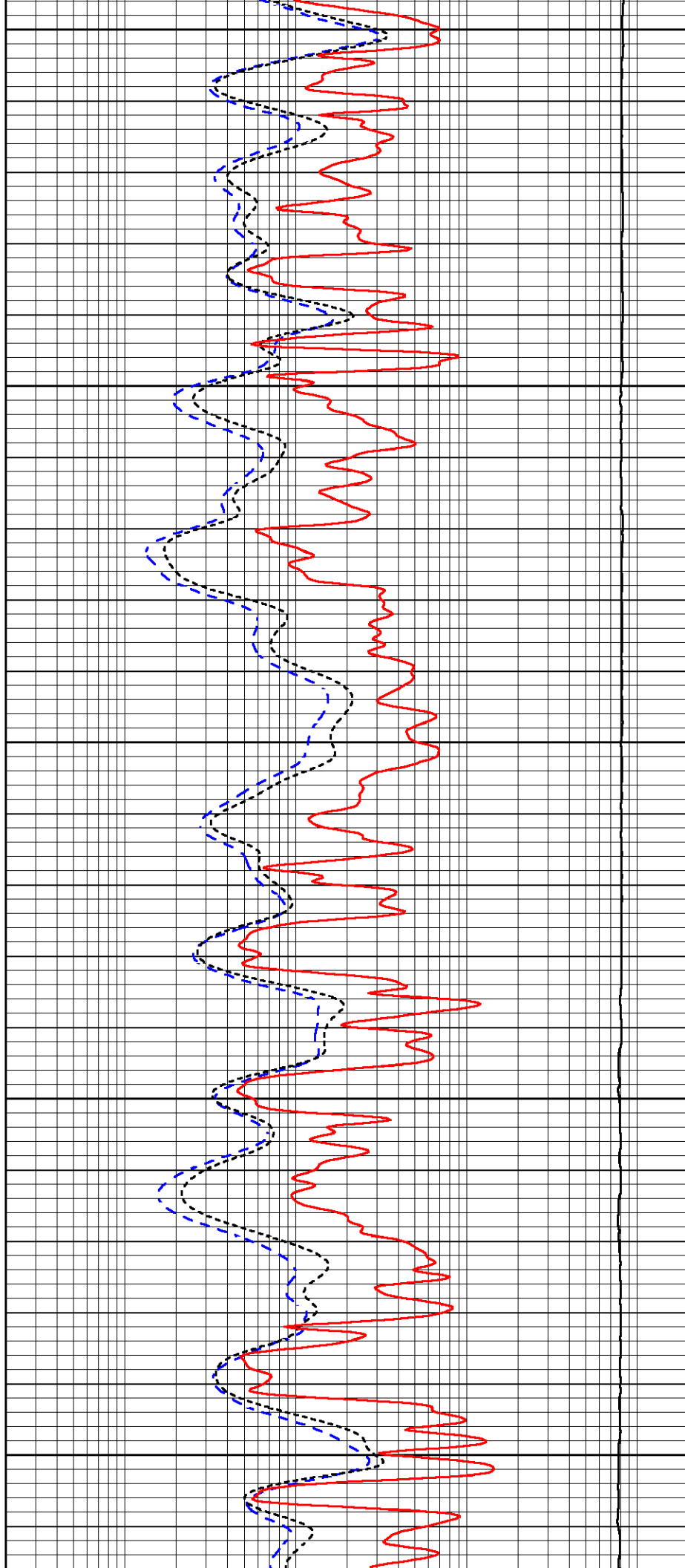
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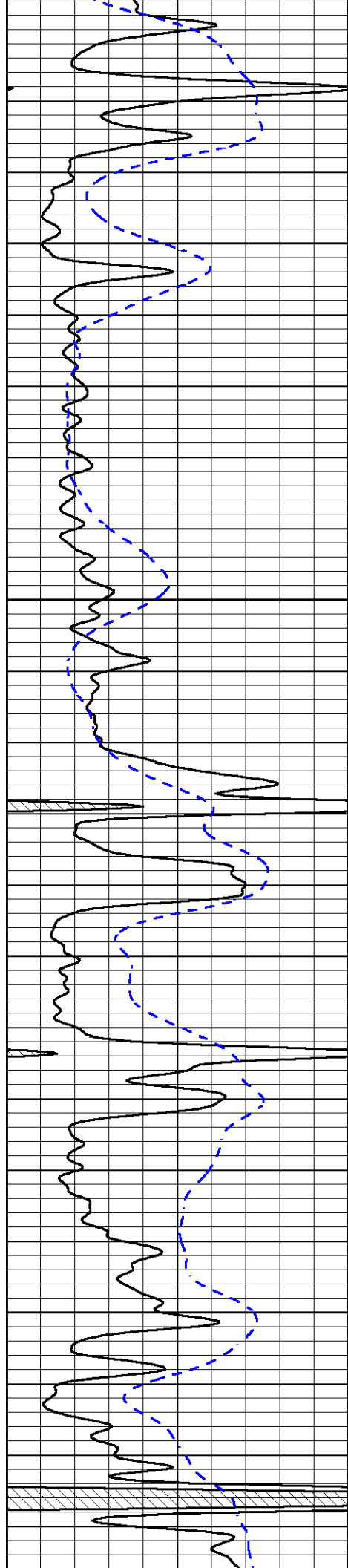
3850

3900

3950

4000



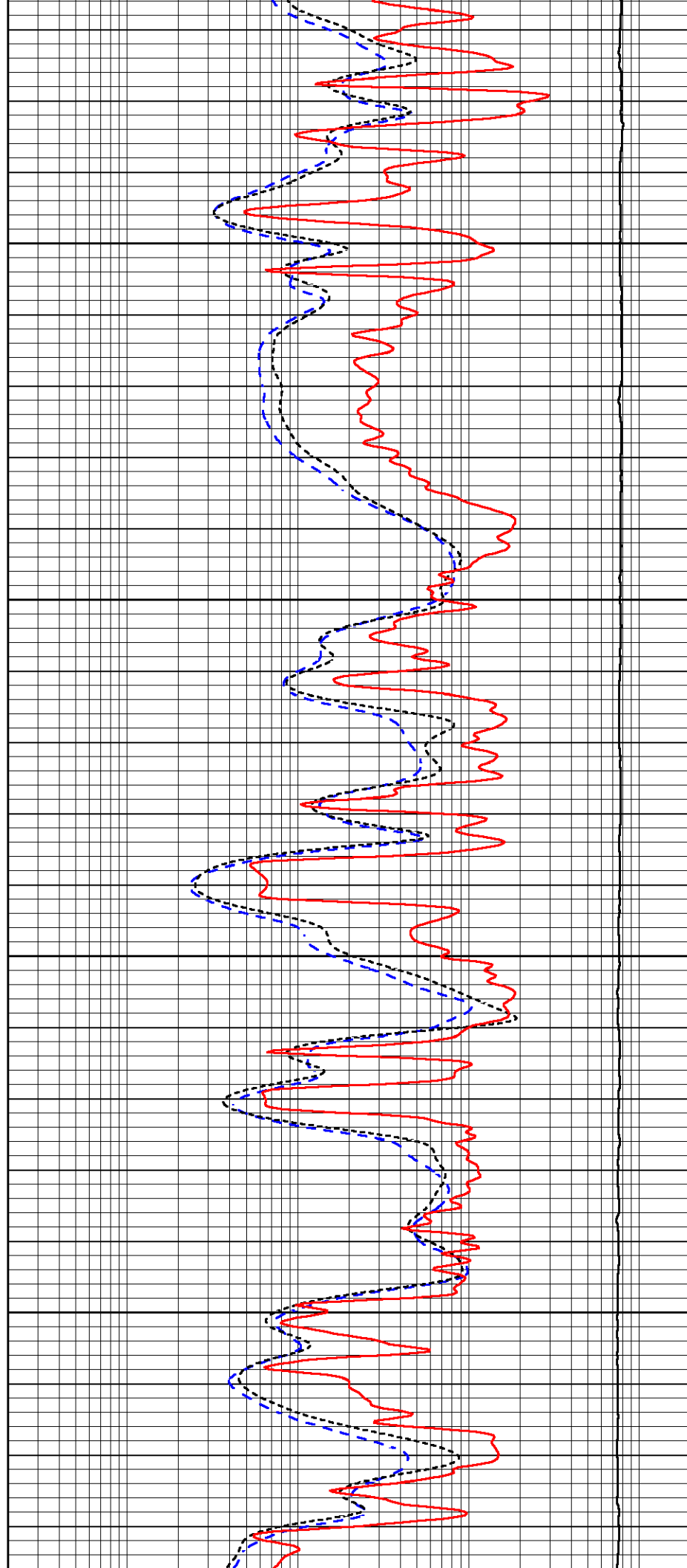


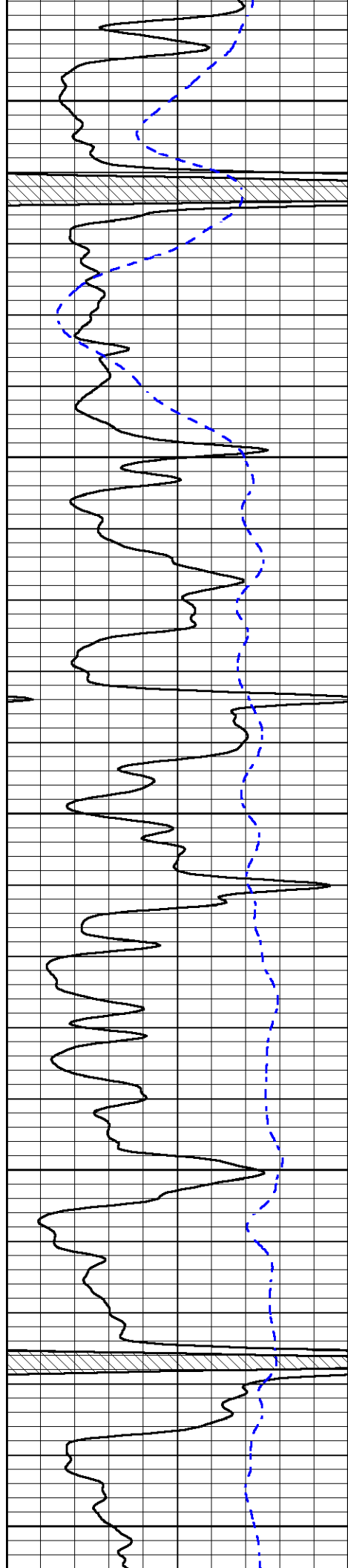
4050

4100

4150

4200





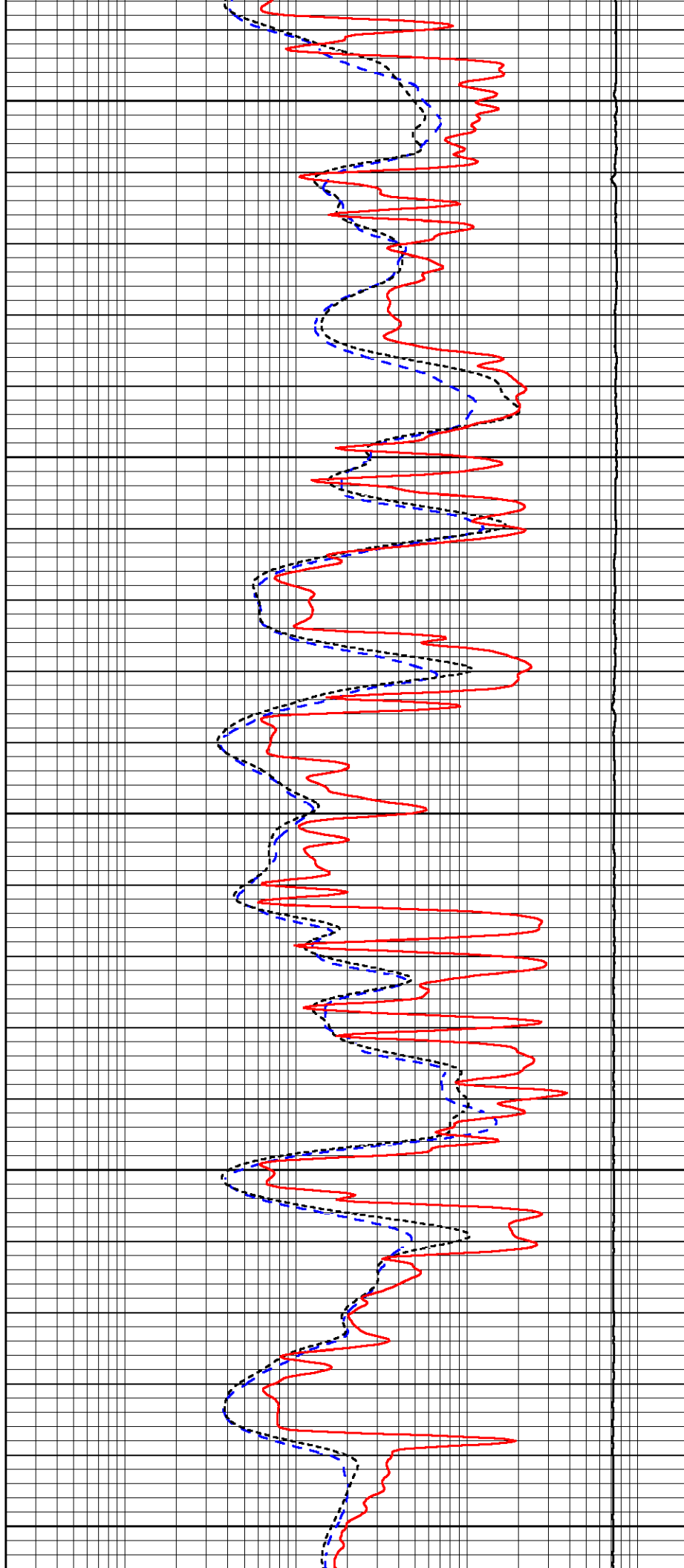
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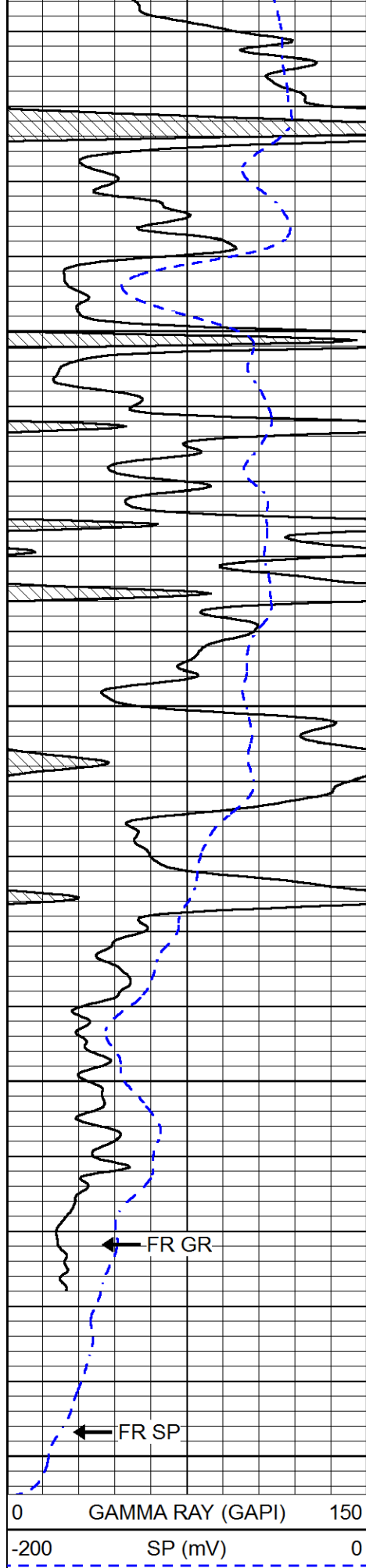
4300

4350

4400

4450



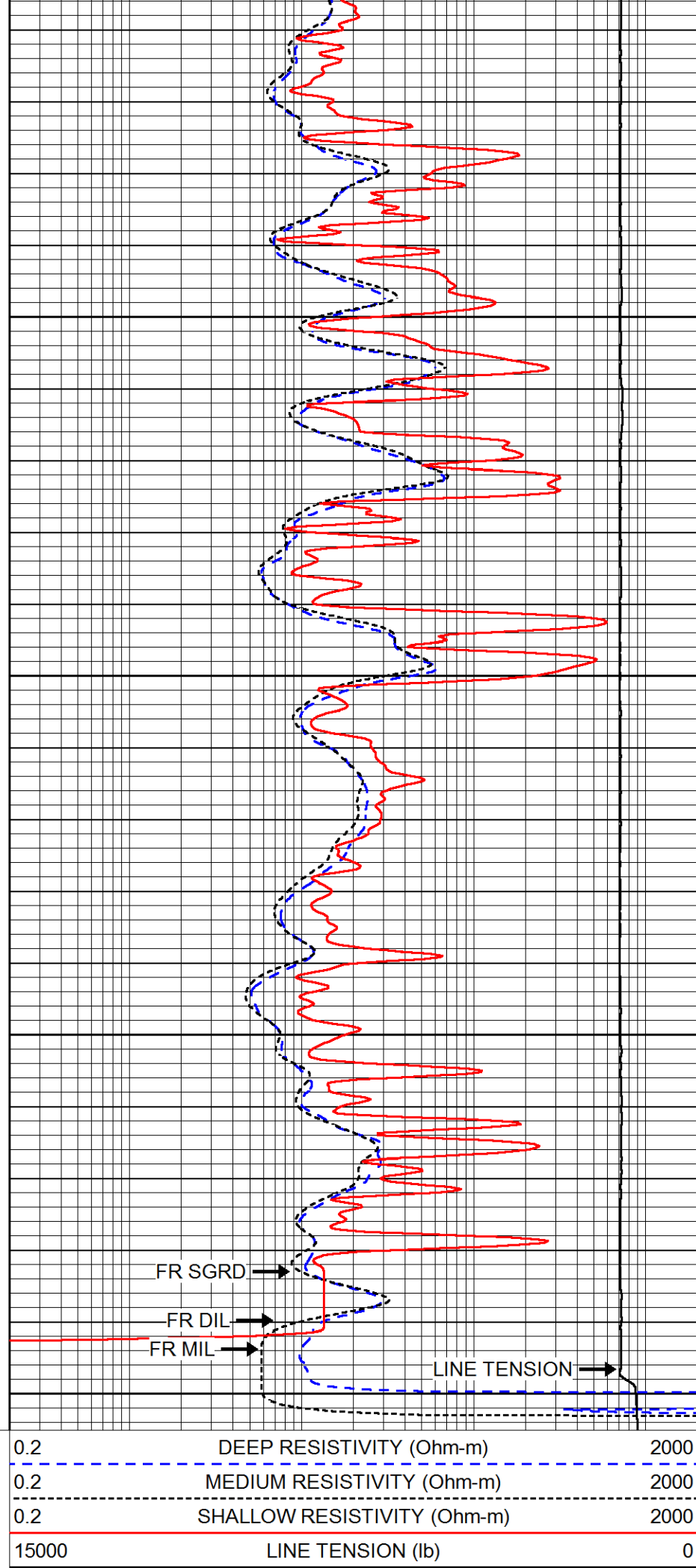


4500

4550

4600

4650

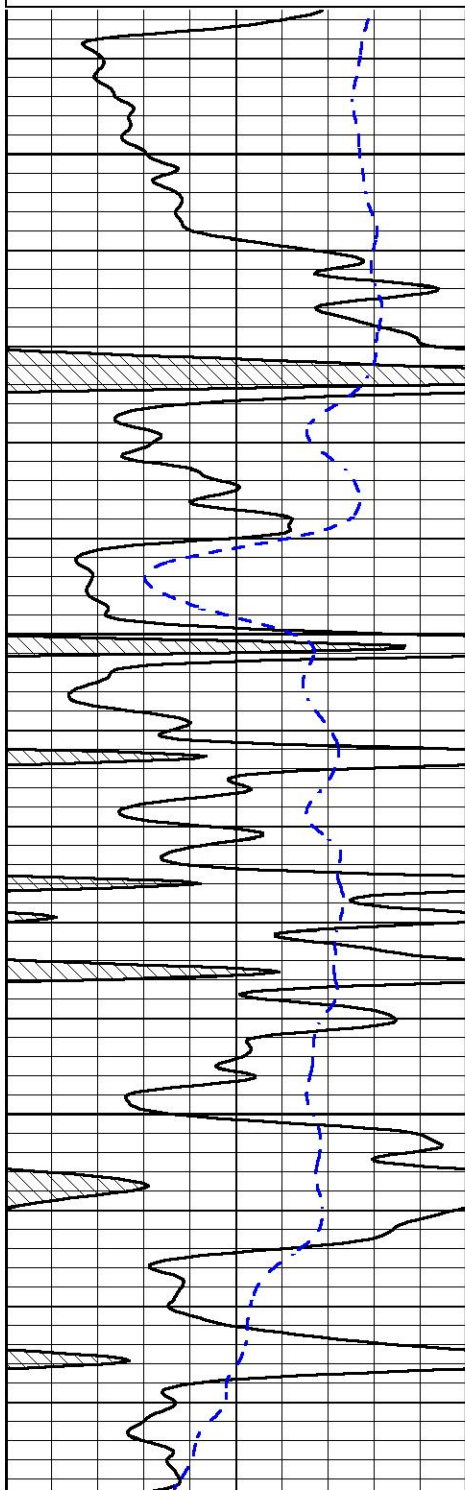


REPEAT SECTION

Database File bluegoose_neeley_a_1.db
 Dataset Pathname stackmel/pass3.1
 Presentation Format dil
 Dataset Creation Sun Nov 06 16:34:37 2016
 Charted by Depth in Feet scaled 1:240

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

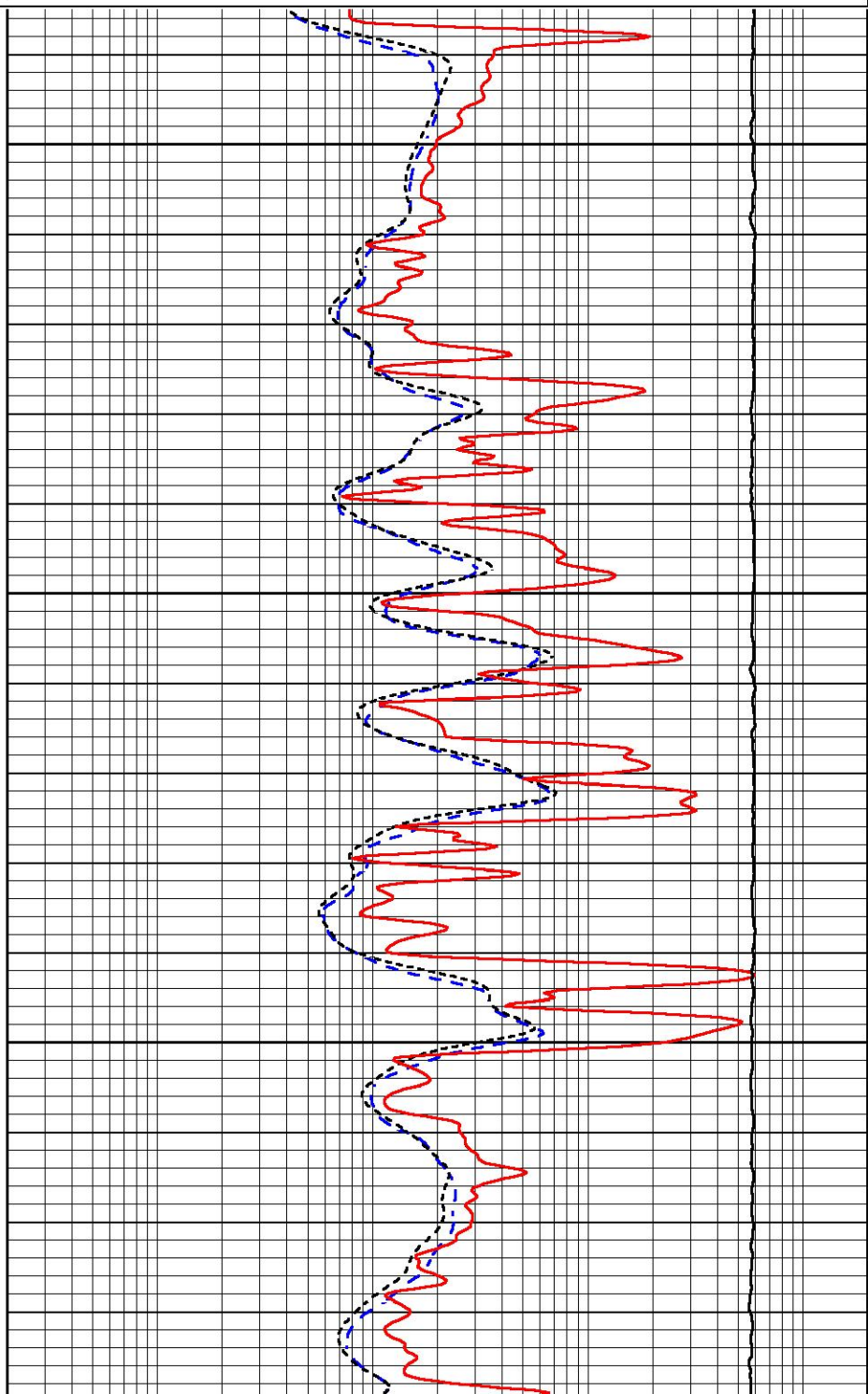
0.2	DEEP RESISTIVITY (Ohm-m)	2000
0.2	MEDIUM RESISTIVITY (Ohm-m)	2000
0.2	SHALLOW RESISTIVITY (Ohm-m)	2000
15000	LINE TENSION (lb)	0

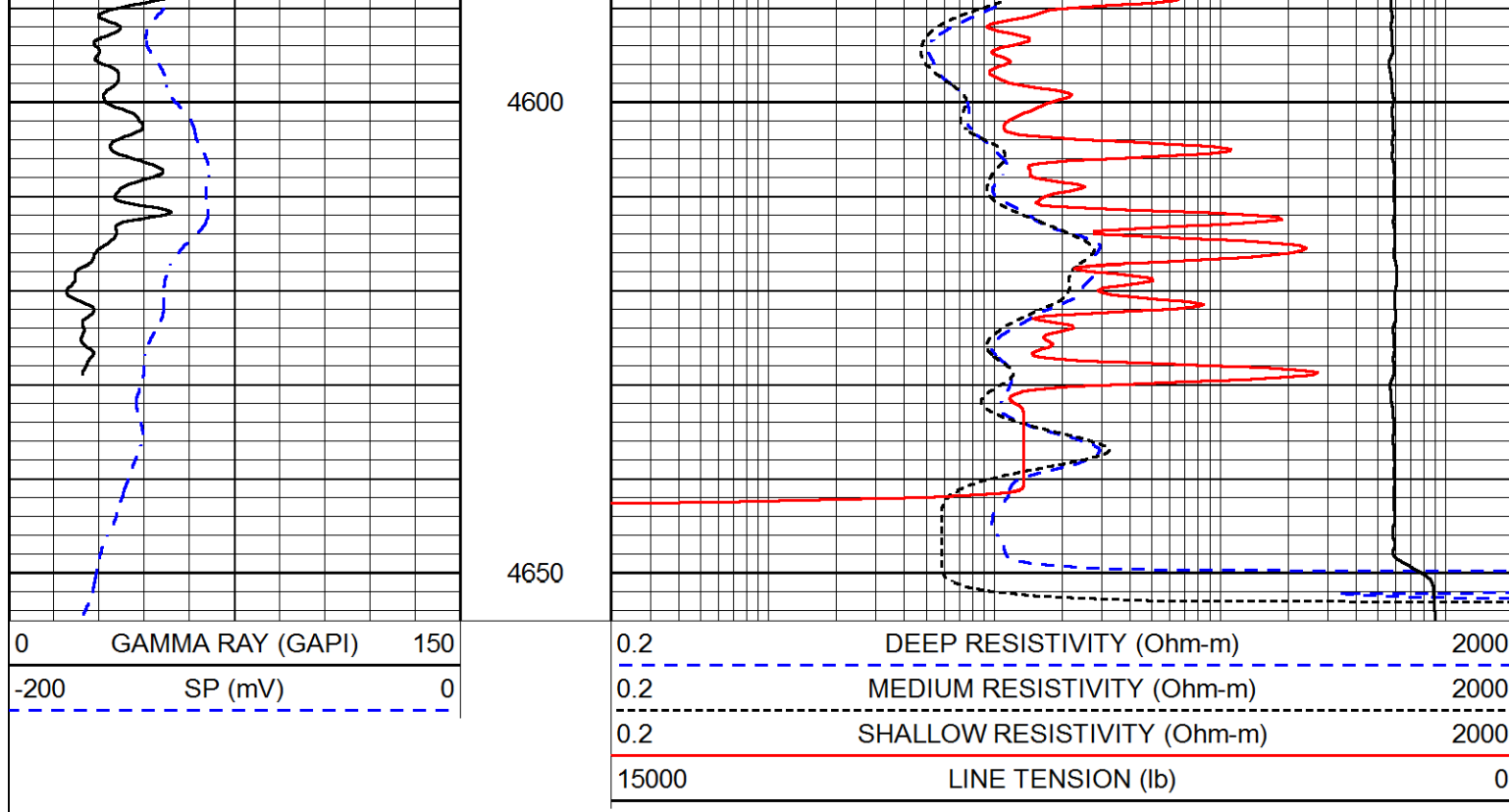


4450

4500

4550





Calibration Report							
Database File	bluegoose_neeley_a_1.db						
Dataset Pathname	stackmel/pass3						
Dataset Creation	Sun Nov 06 14:27:41 2016						
Dual Induction Calibration Report							
Serial-Model:				1987-M&W			
Calibration Performed:				Tue Aug 30 16:23:58 2016			
		Readings		References		Results	
Loop:	Air	Loop		Air	Loop	Gain	Offset
Deep	178.615	710.235		0.000	255.800 mmho/m	0.530	-36.500
Medium	161.982	1441.110		0.000	255.800 mmho/m	0.440	-110.500
Compensated Density Calibration Report							
Serial-Model:				71-914-M&W			
Source / Verifier:				/			
Master Calibration Performed:				Fri Oct 07 08:39:26 2016			

Master Calibration							
		Density		Far Detector		Near Detector	
Magnesium		1.755	g/cc	4314.49		5307.52	cps
Aluminum		2.675	g/cc	822.19		3456.36	cps
Spine Angle = 75.49				Density/Spine Ratio = 0.537			
		Size		Reading			

Small Ring	4.00	in	1.16
Large Ring	14.00	in	1.57

Compensated Neutron Calibration Report

Serial Number:	tk10-MW
Tool Model:	M&W
Calibration Performed:	Sat Oct 1 10:01:53 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:	Fri Sep 30 22:06:47 2016
Calibrator Value:	1000.0 GAPI
Background Reading:	0.0 cps
Calibrator Reading:	6.2 cps
Sensitivity:	0.5200 GAPI/cps



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