



PIONEER
Pioneer Energy Services

DUAL INDUCTION LOG

Company VAL ENERGY, INC.
Well WILSON #1-3
Field UNKNOWN
County THOMAS State KANSAS

Location: API #: 15-193-21003-00-00

Other Services

SEC 3 TWP 8S RGE 36W
1838' FSL & 472' FWL

CNL/CDL
MEL

Permanent Datum GROUND LEVEL Elevation 3330'
Log Measured From KELLY BUSHING
Drilling Measured From KELLY BUSHING

Elevation
K.B. 3335'
D.F. N/A
G.L. 3330'

Date 10/22/2017

Run Number	ONE	
Depth Driller	4900'	
Depth Logger	4902'	
Bottom Logged Interval	4901'	
Top Log Interval	250'	
Casing Driller	8.625" @ 261'	
Casing Logger	261'	
Bit Size	7.875"	
Type Fluid in Hole	CHEMICAL	
Salinity, ppm CL	6500	
Density / Viscosity	9.2 52	
pH / Fluid Loss	9.0 10.4	
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	0.32 @ 125	
Operating Rig Time	3 HOURS	
Max Rec. Temp. F	125	
Equipment Number	91	
Location	HAYS	
Recorded By	D. SCHMIDT	
Witnessed By	TIM PRIEST	

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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.

BREWSTER,
2 EAST ON OLD HWY 24 TO 4 RD, 1 1/2 NORTH,
EAST INTO

Log Measured From: KELLY BUSHING 5 Ft. Above Permanent Datum

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

Your Pioneer Energy Services Crew

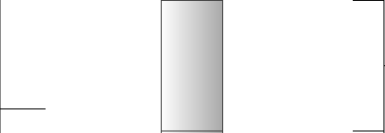
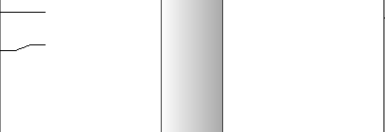
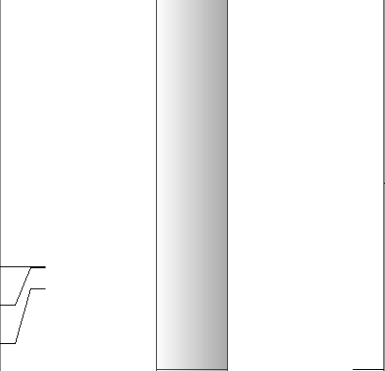
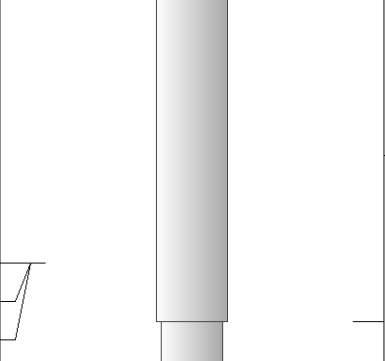
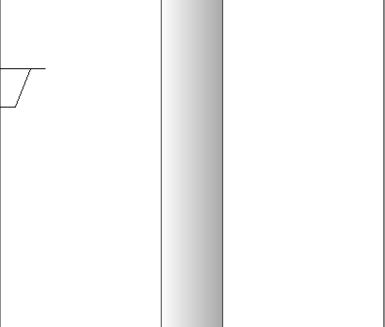
Engineer: D. SCHMIDT
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: TIM PRIEST
Secondary Witness:
Secondary Witness:
Secondary Witness:

Top - Bottom

M	A	SZCOR	NPORSEL	FLUIDDEN g/cc	MATRXDEN g/cc	SPSHIFT mV	SNDERRM mmho/m
2	1	Off	Limestone	1	2.71	-75	0
SNDERR mmho/m	SRFTEMP degF	CASETHCK in	CASEOD in	PERFS	TDEPTH ft	BOTTEMP degF	BOREID in
0	60	0	5.5	0	4902	125	7.875

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	40.58		GR-M&W (89)	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 (90-1031)	8.50	4.00	250.00
MCAL MI MN	19.83 19.83 19.83		ML-PSIML (PSI-01) GO Micro log tools converted to Simplec electronics	7.58	4.00	65.00
RLL3F RLL3	15.80 15.80					

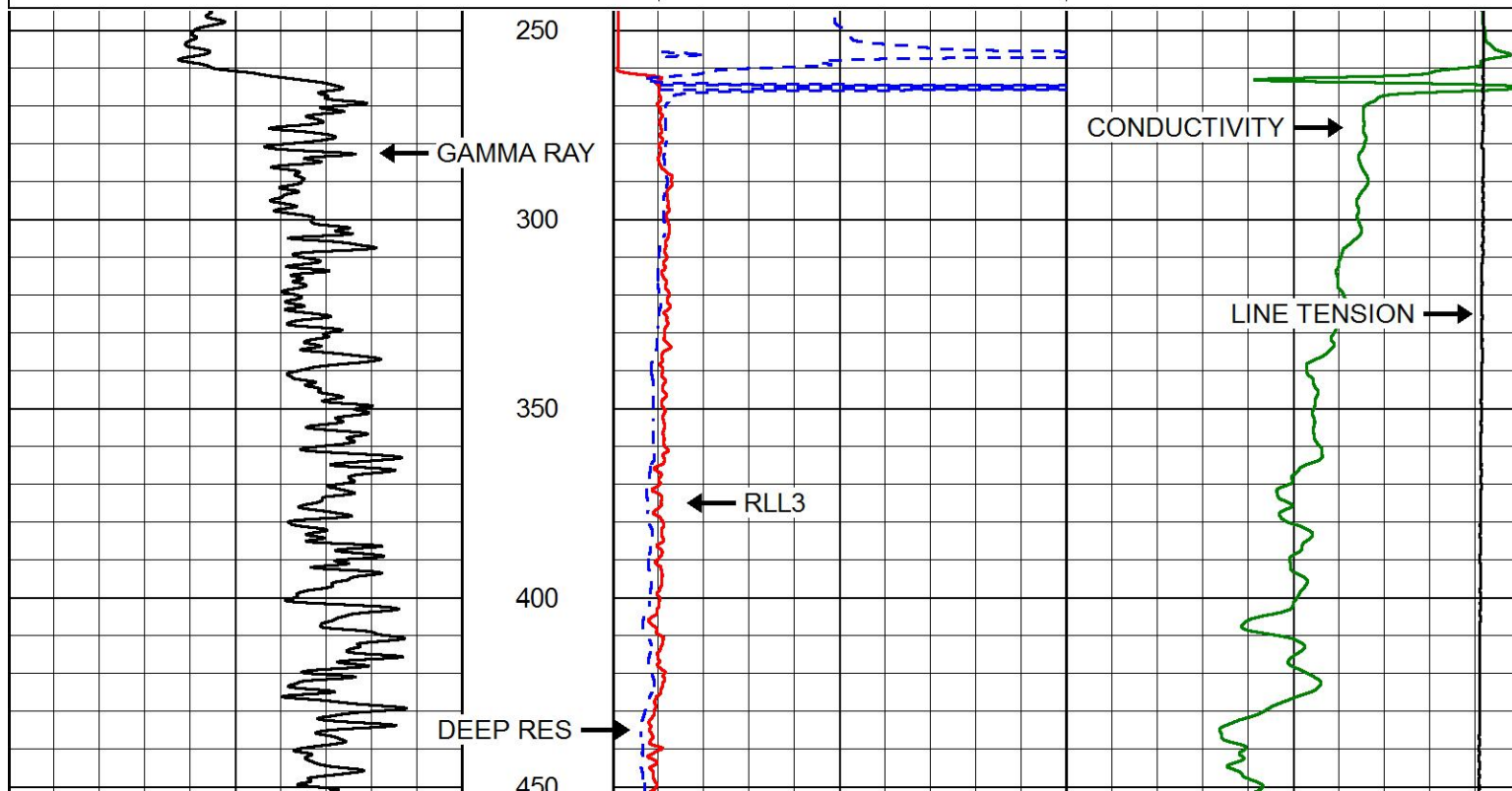
			DIL-M&W (PSI 91)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					
Dataset: val_wilson 1-3.db: field/well/STKML/pass4.1 Total length: 43.08 ft Total weight: 685.00 lb O.D.: 4.00 in						

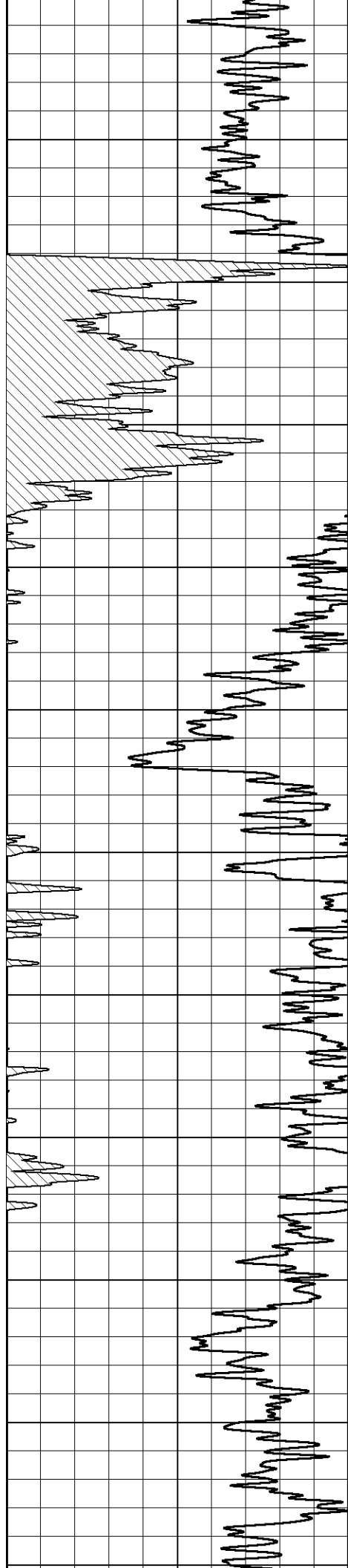


MAIN PASS

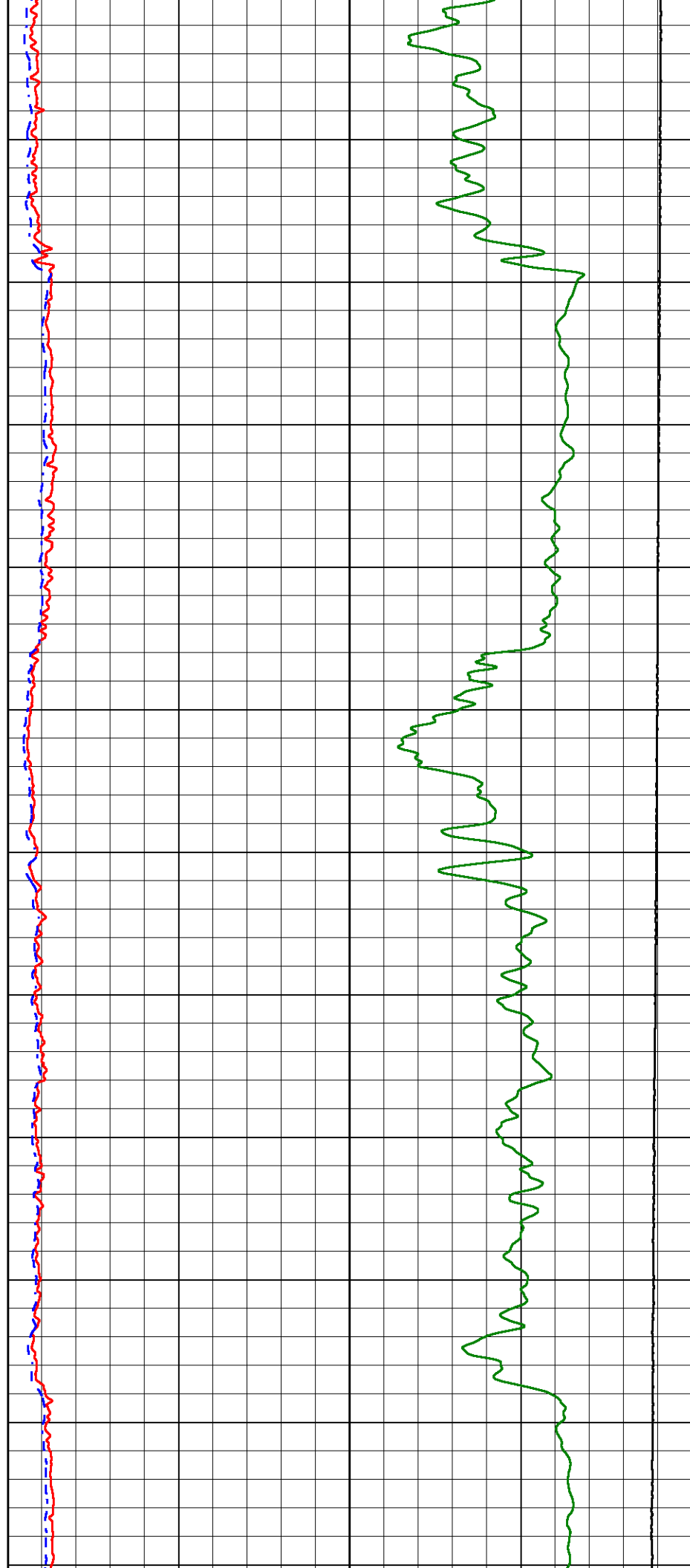
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Presentation Format	dil2in
Dataset Creation	Sun Oct 22 02:35:03 2017
Charted by	Depth in Feet scaled 1:600

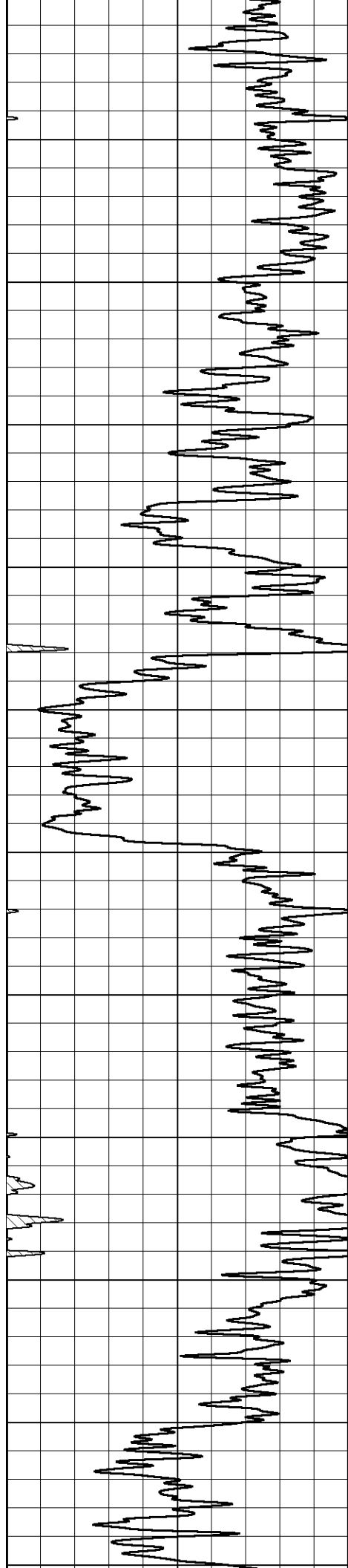
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			15000	Line Tension (lb)	0
			0	RLL3 (Ohm-m)	50
			0	Deep Resistivity (Ohm-m)	50
			50	RLL3 (Ohm-m)	500
			50	Deep Resistivity (Ohm-m)	500



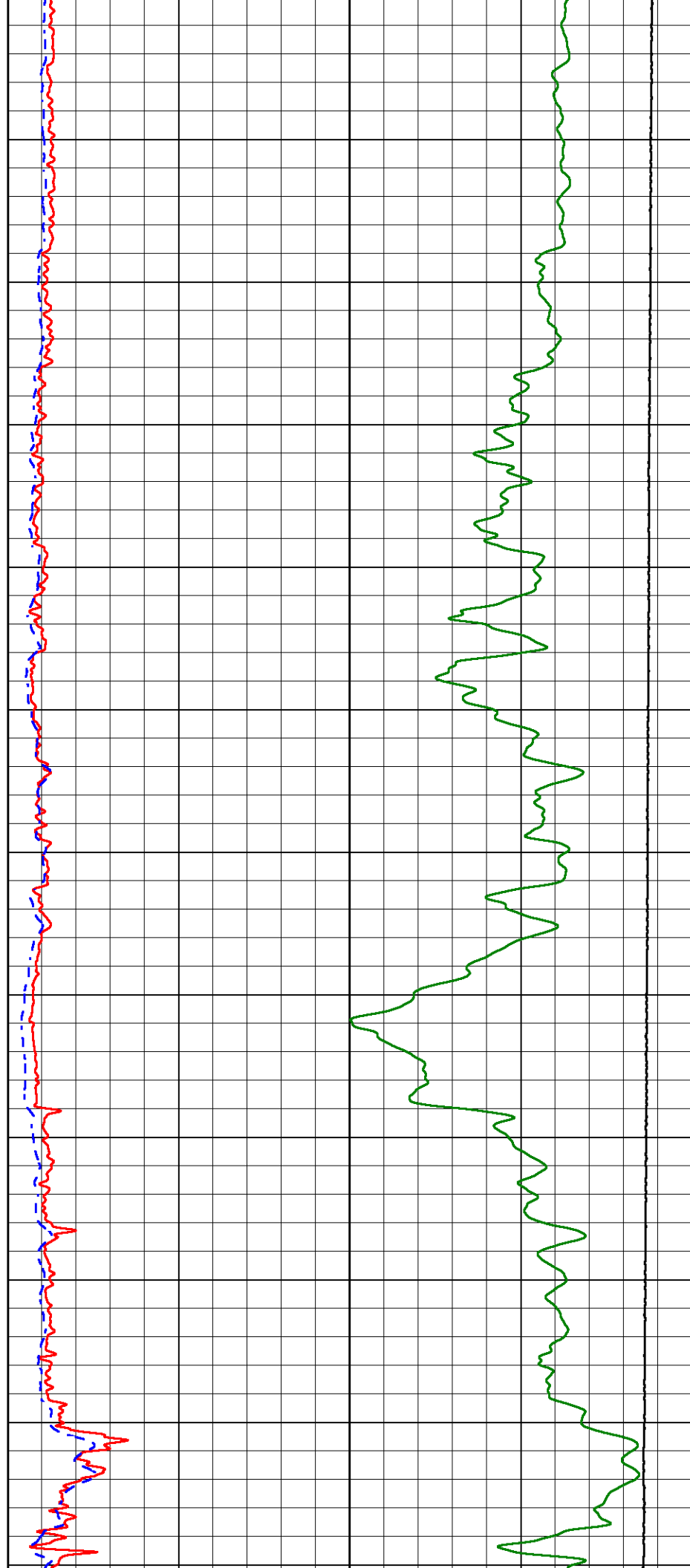


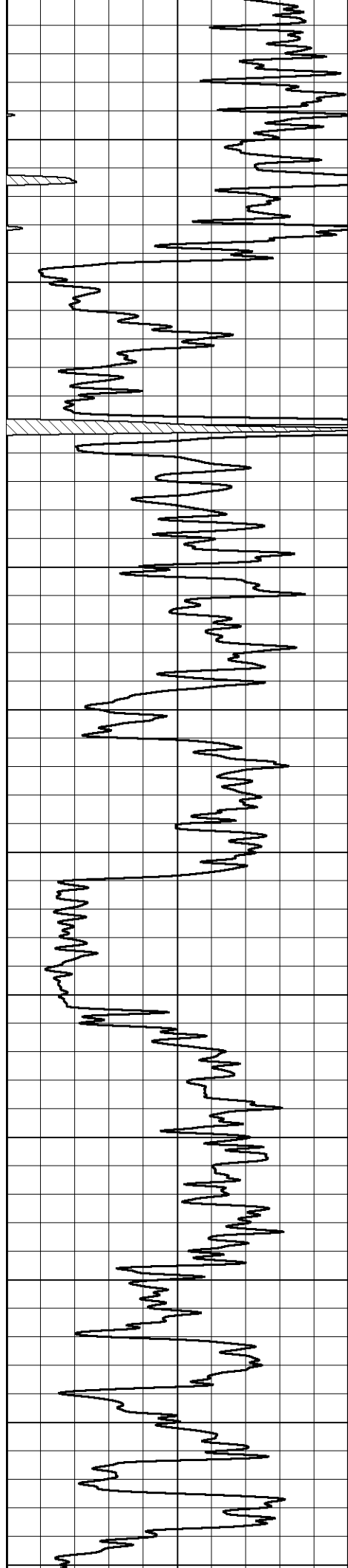
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500
550
600
650
700
750
800
850
900
950
1000



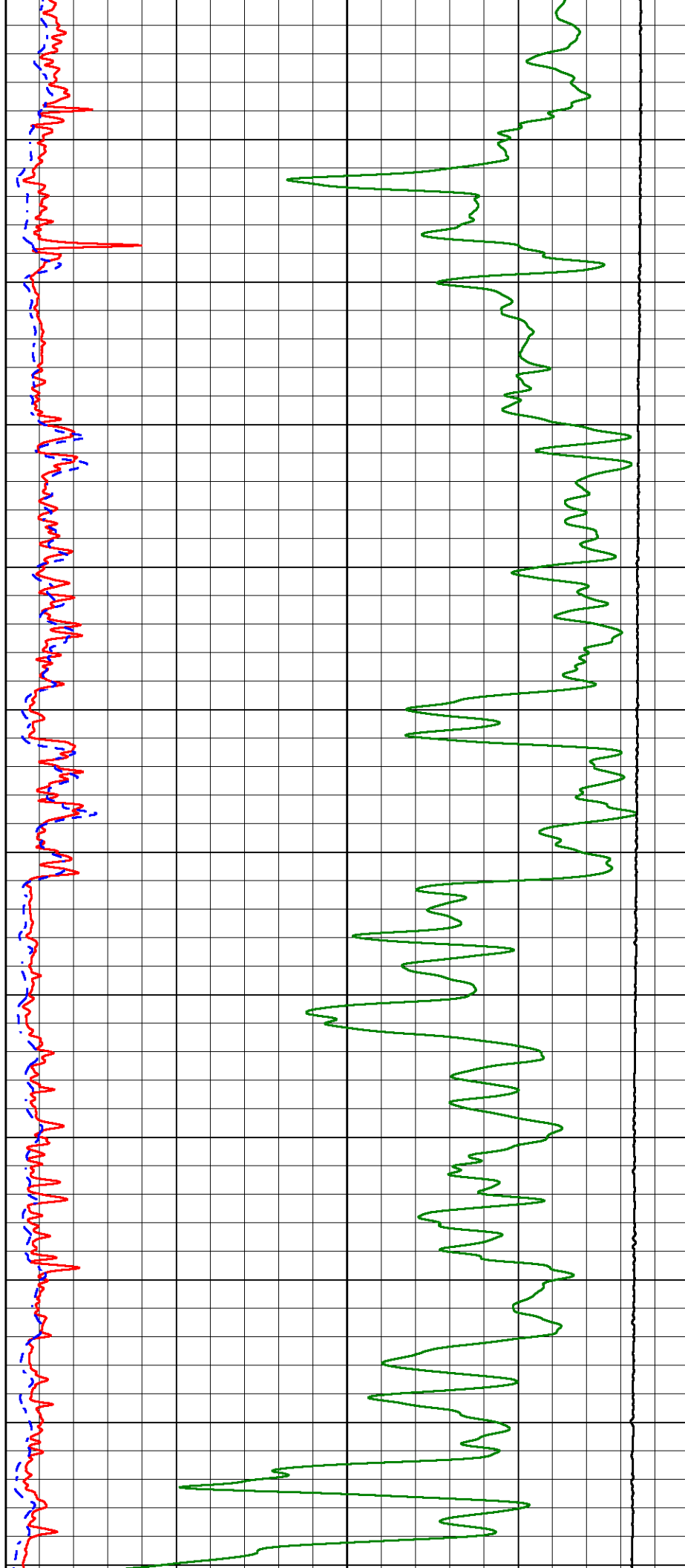


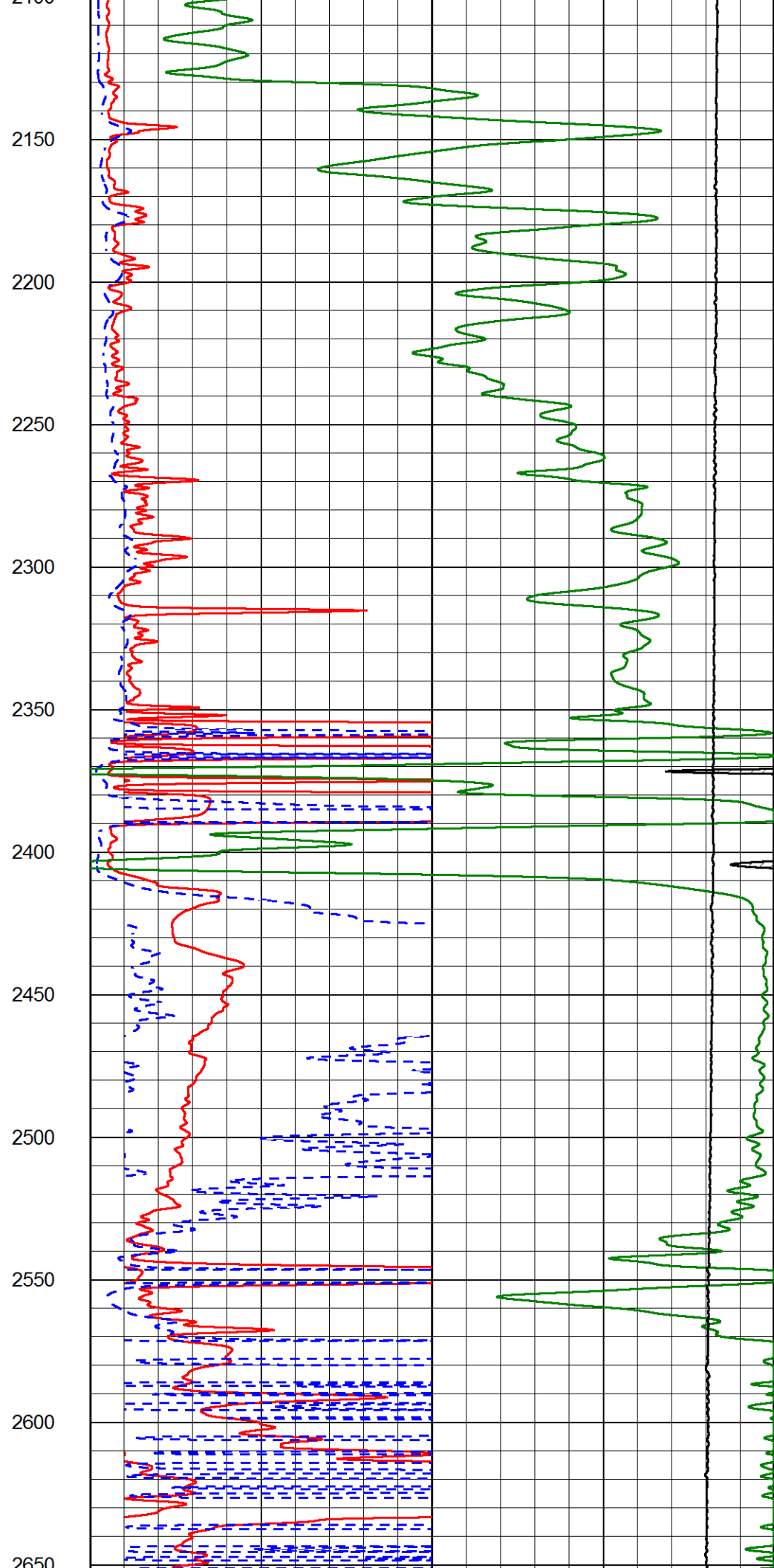
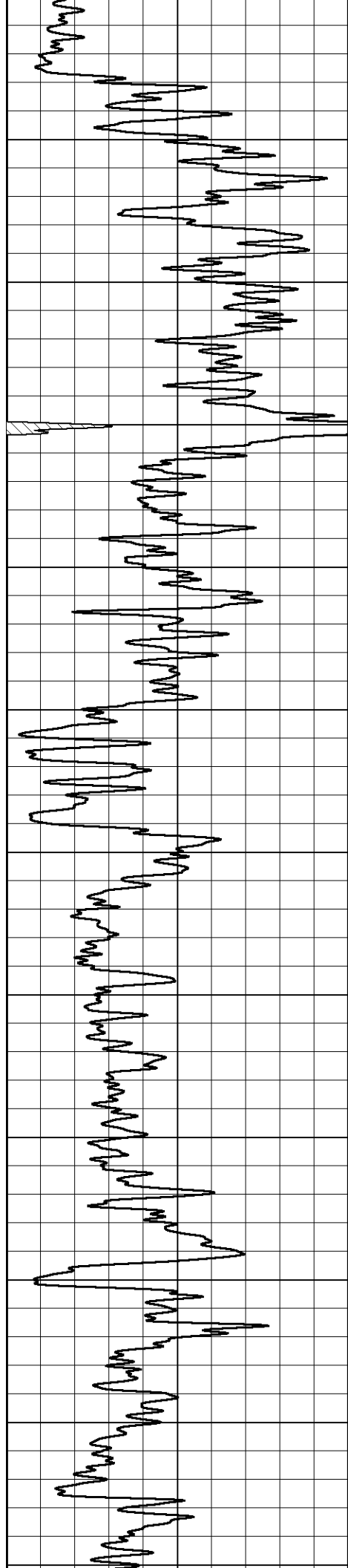
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1100
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1200
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1300
1350
1400
1450
1500
1550

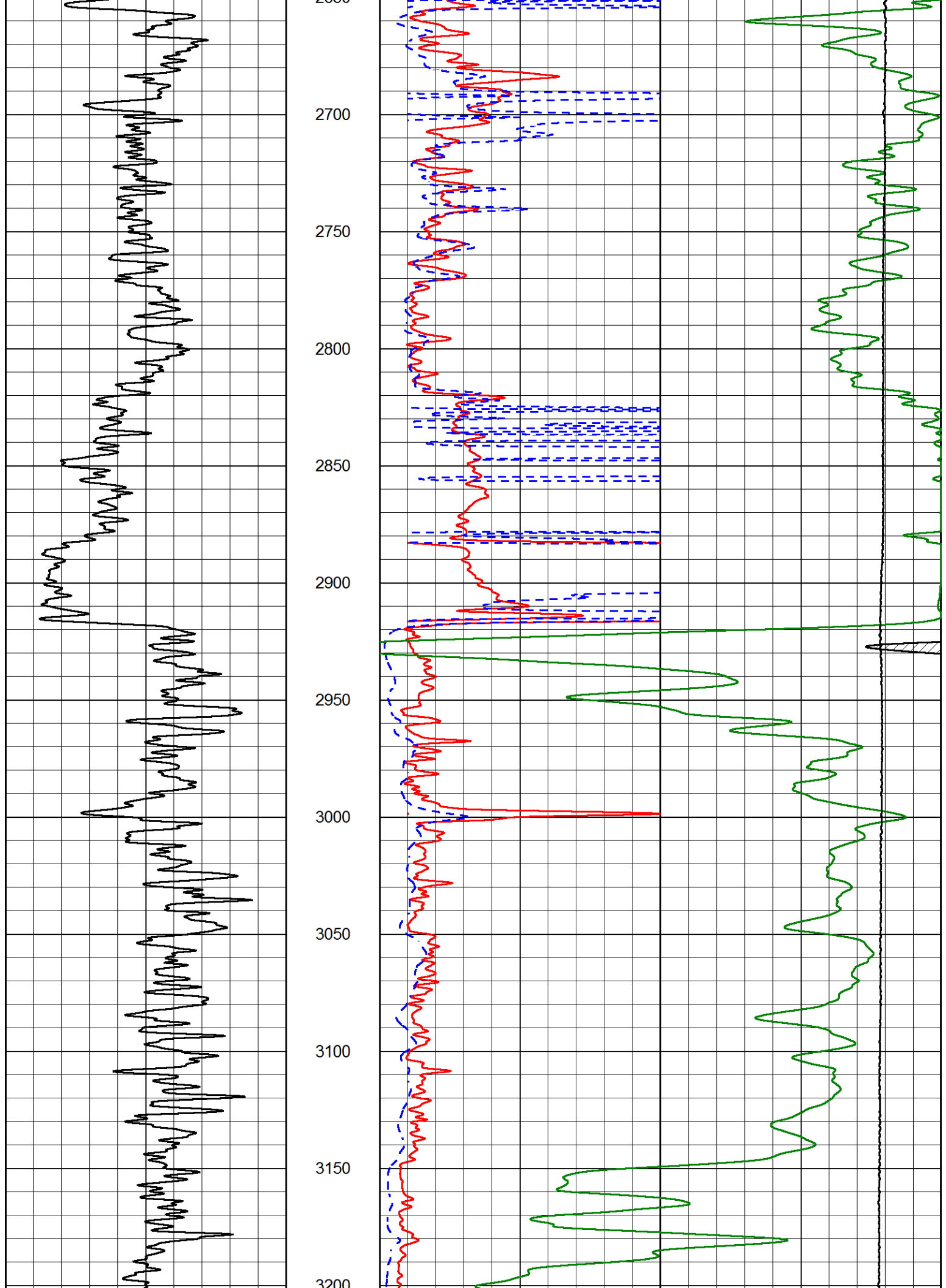


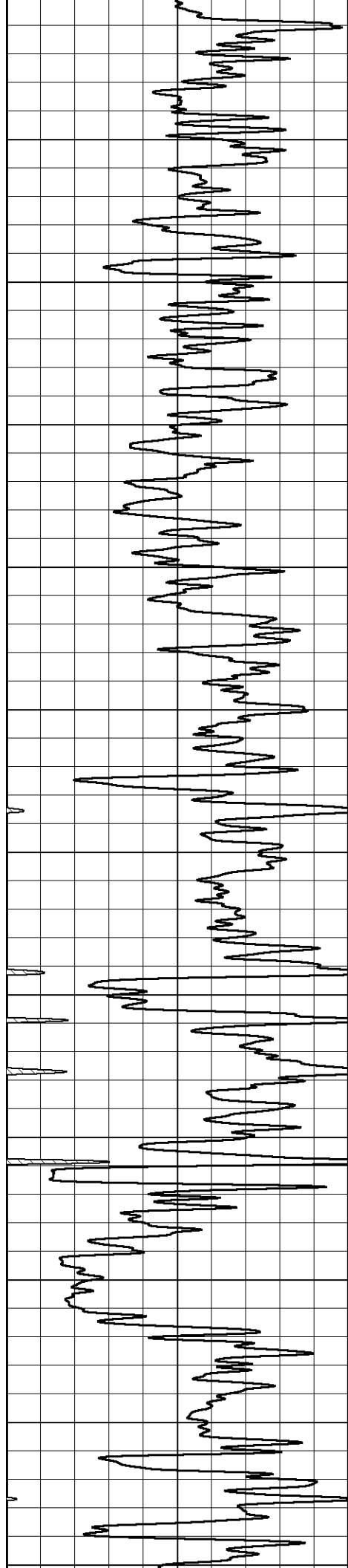


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1800
1850
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2000
2050
2100

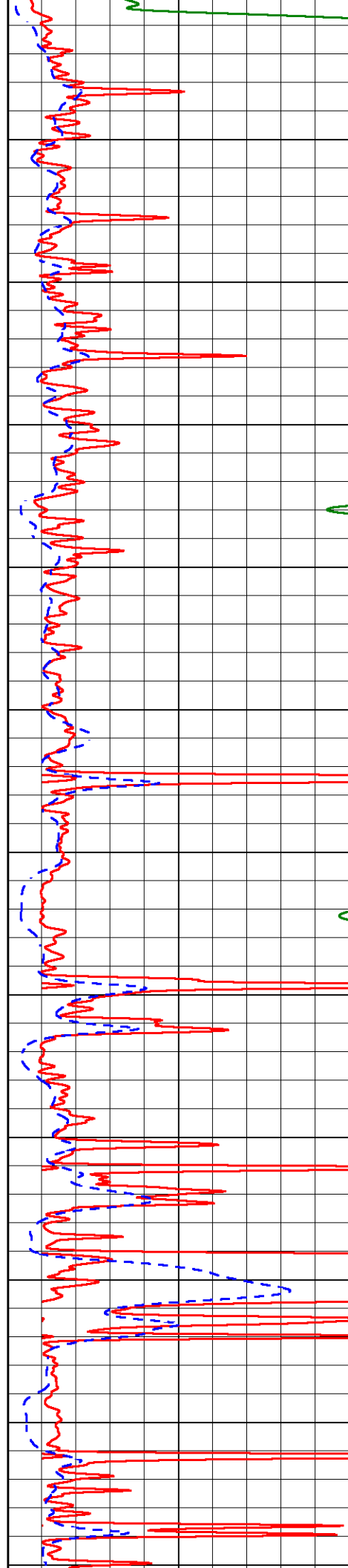


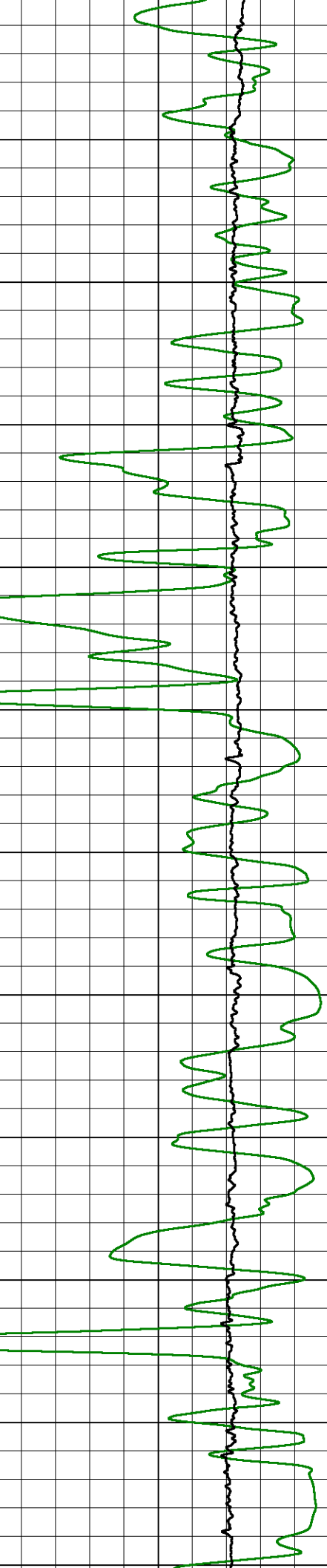
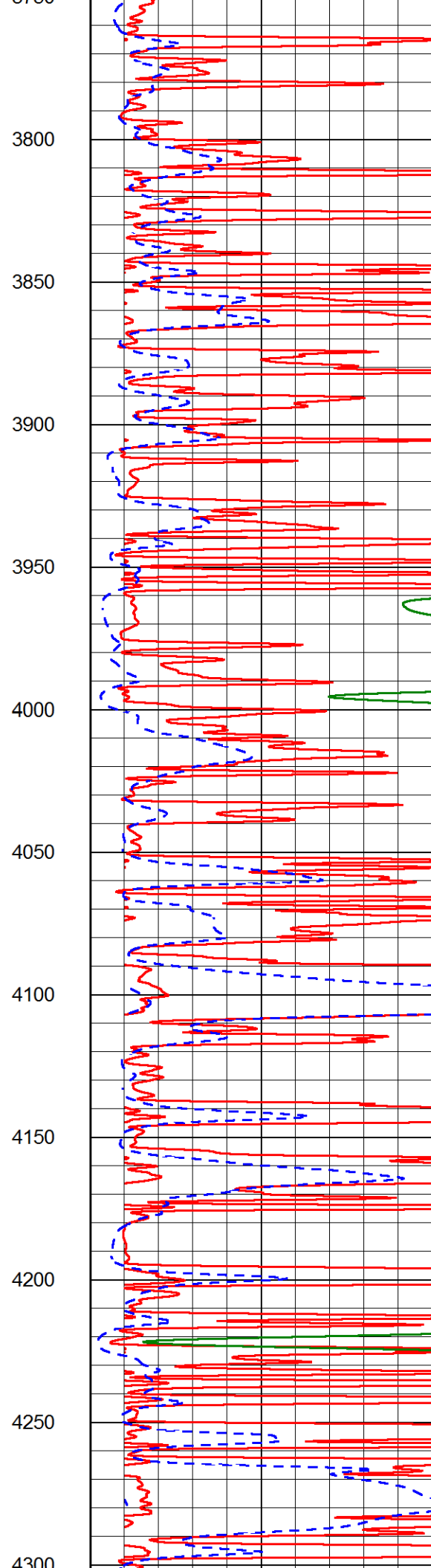
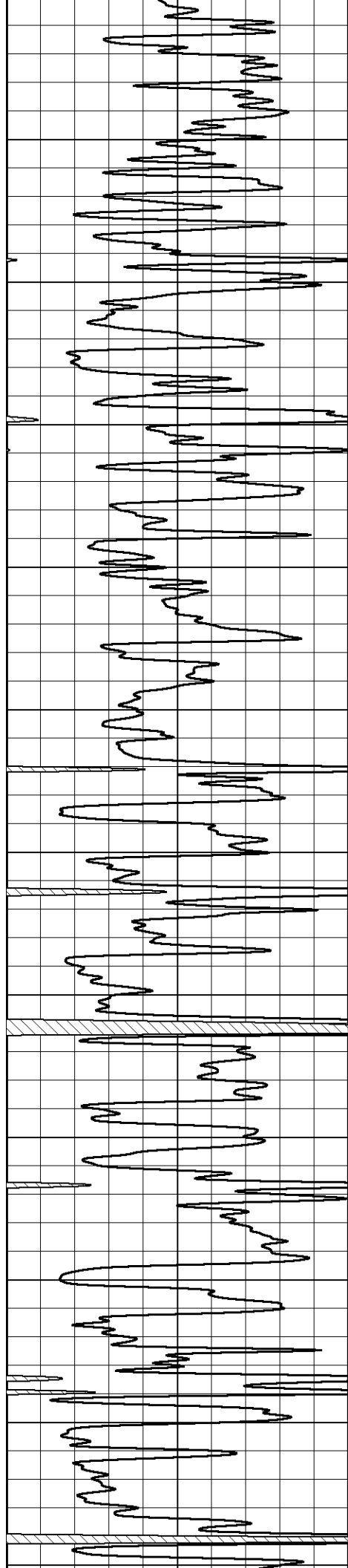


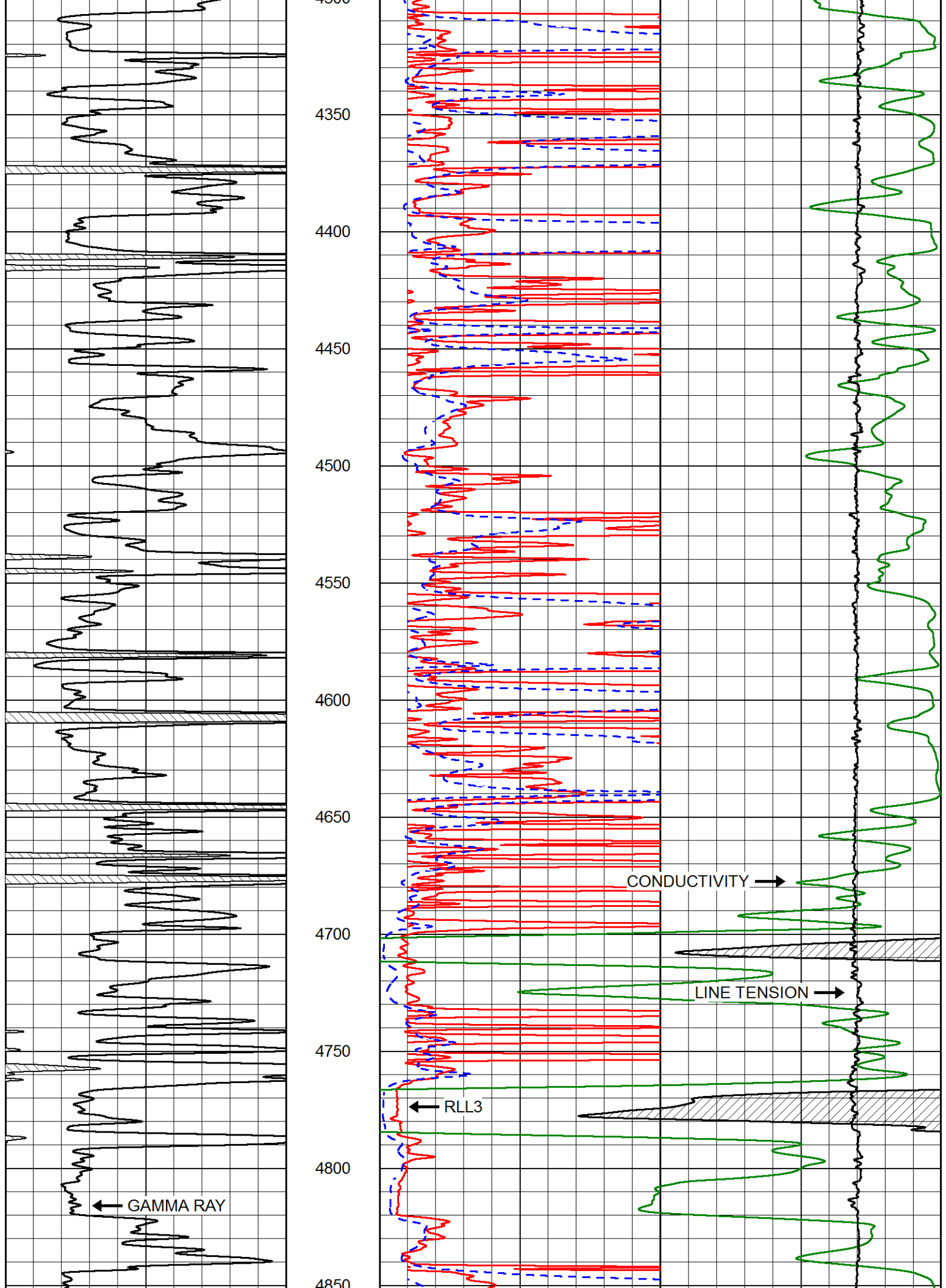


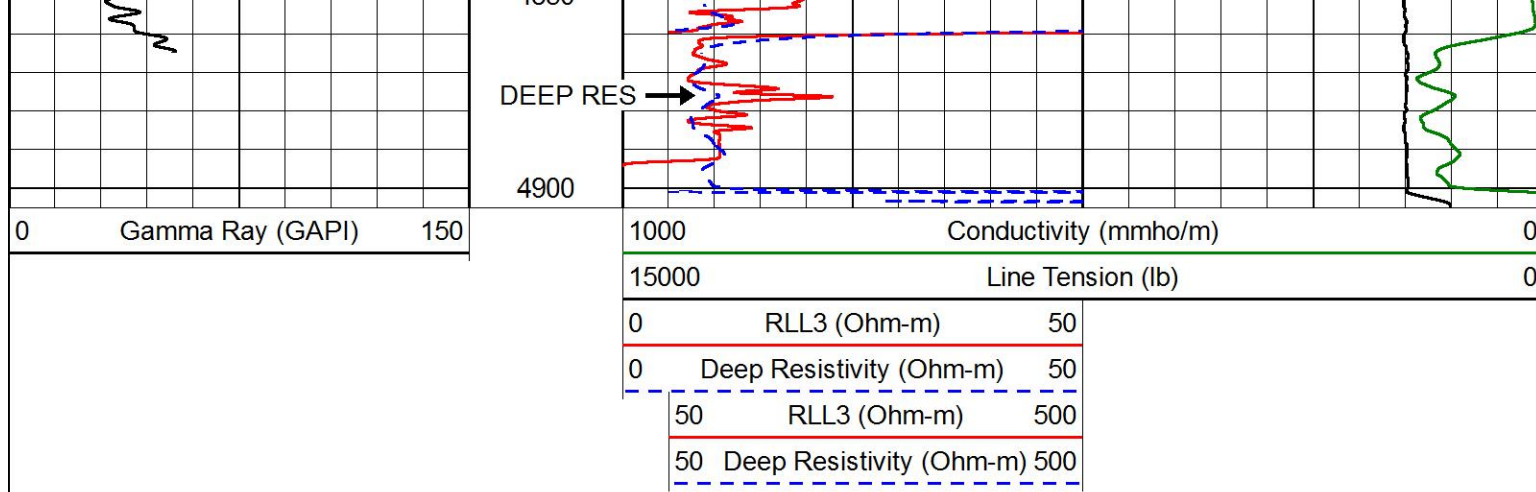


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3500
3550
3600
3650
3700
3750



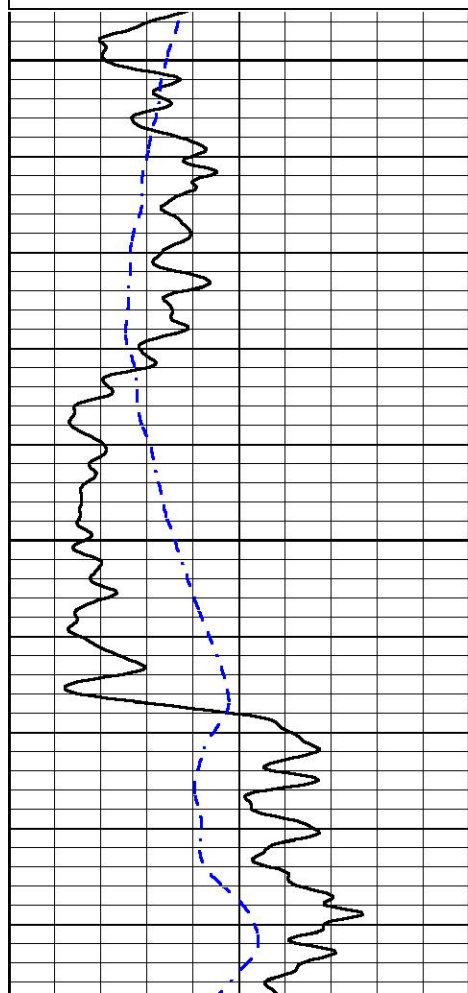
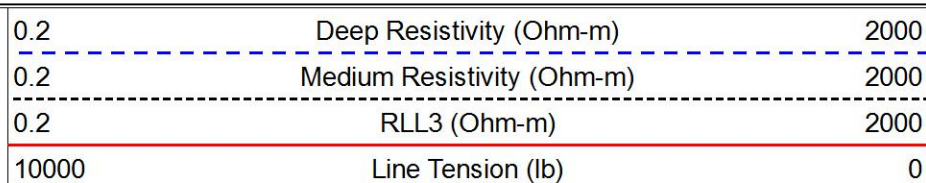
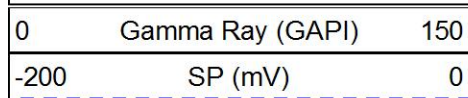






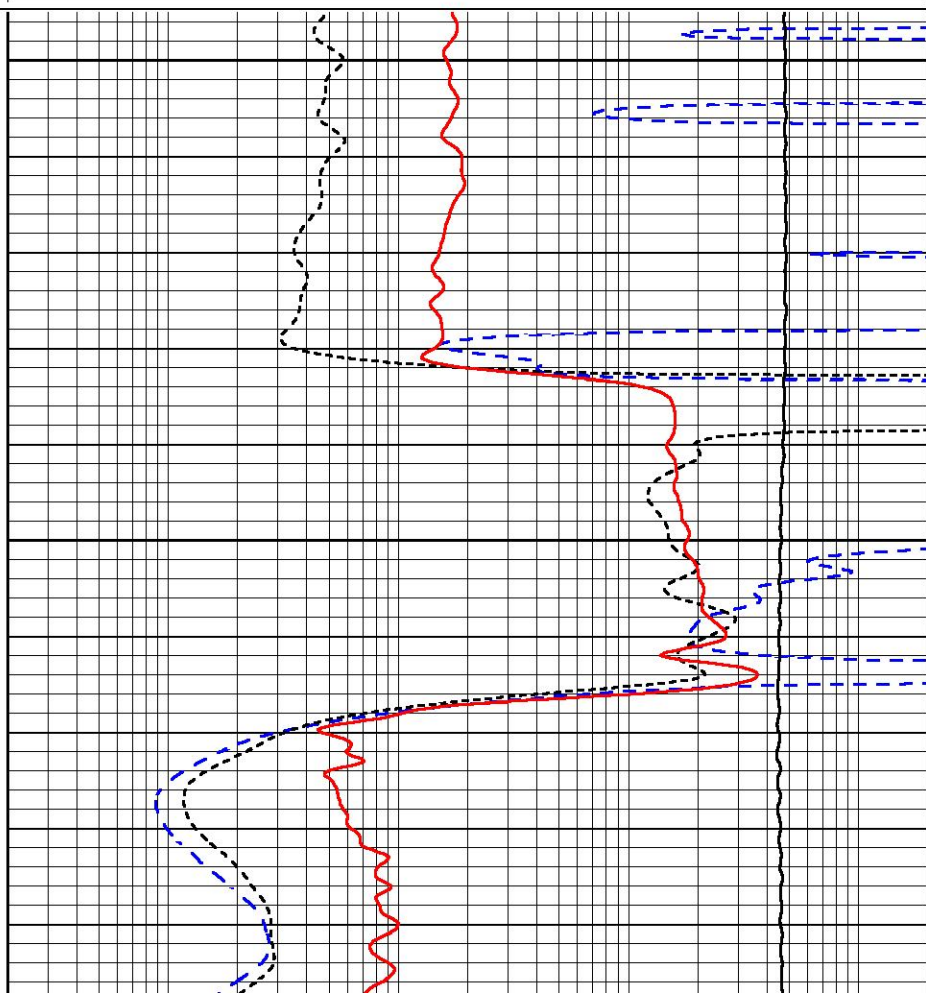
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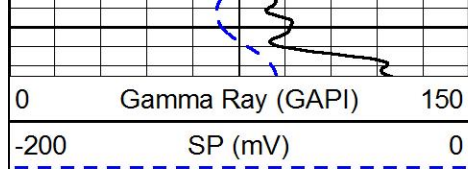
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Presentation Format dil
Dataset Creation Sun Oct 22 02:35:03 2017
Charted by Depth in Feet scaled 1:240



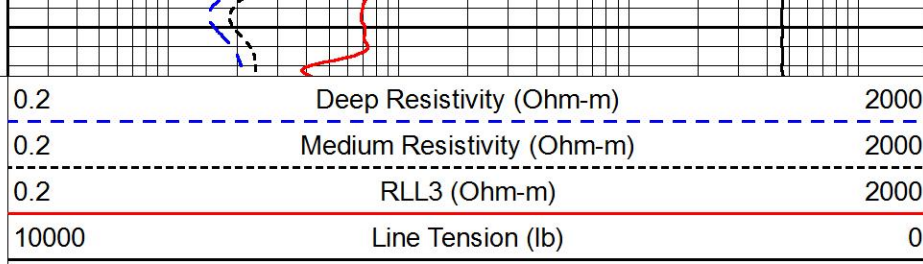
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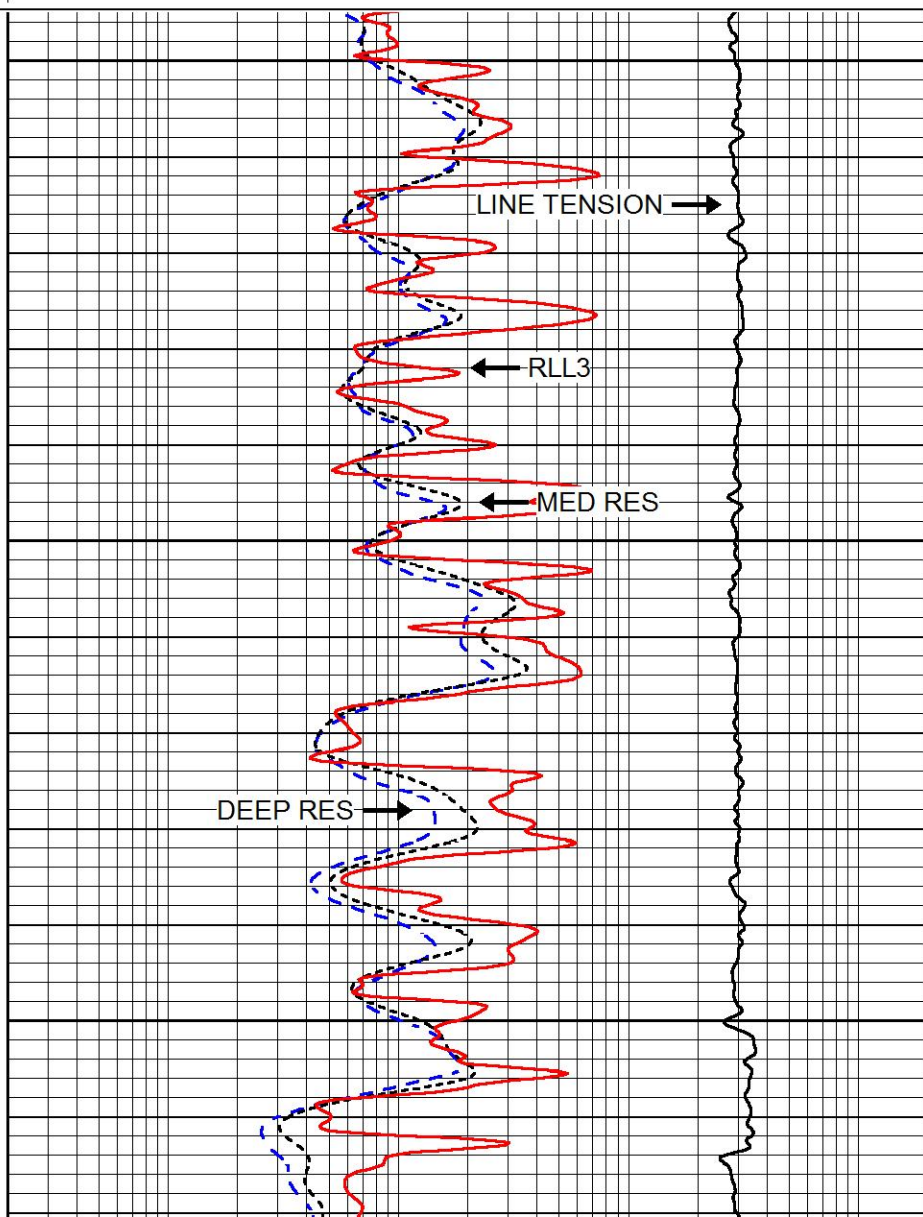
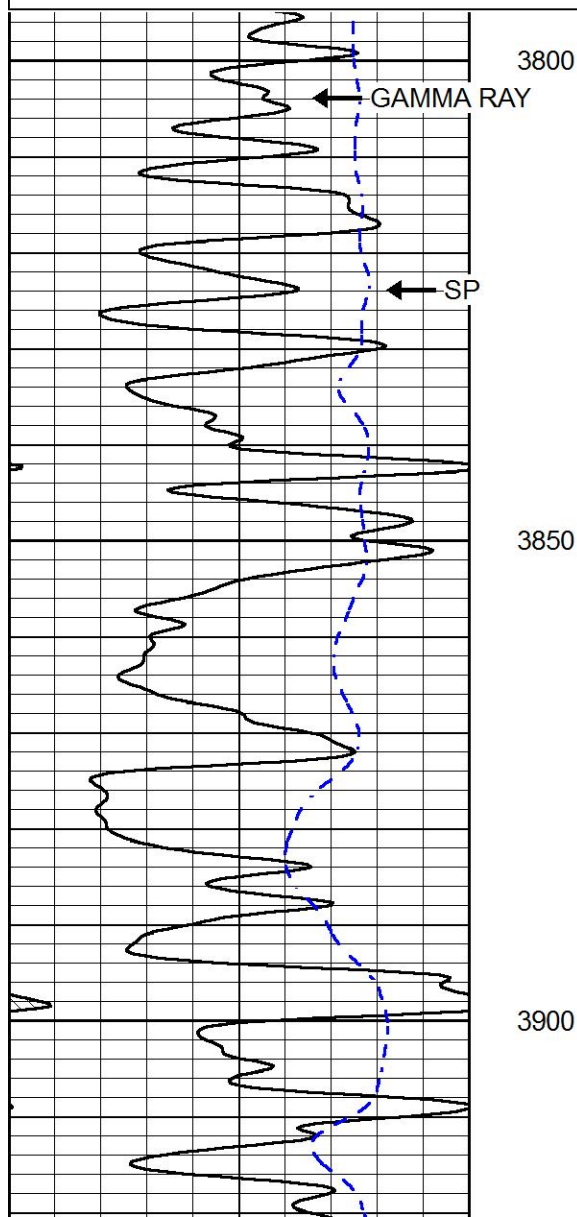
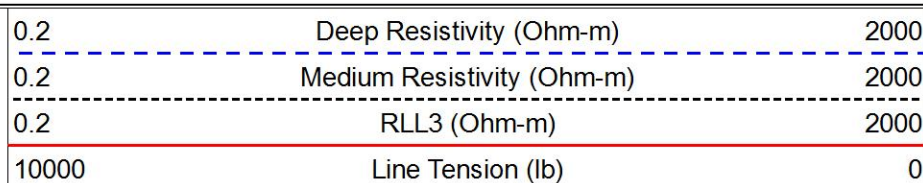
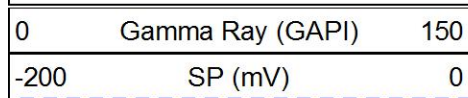


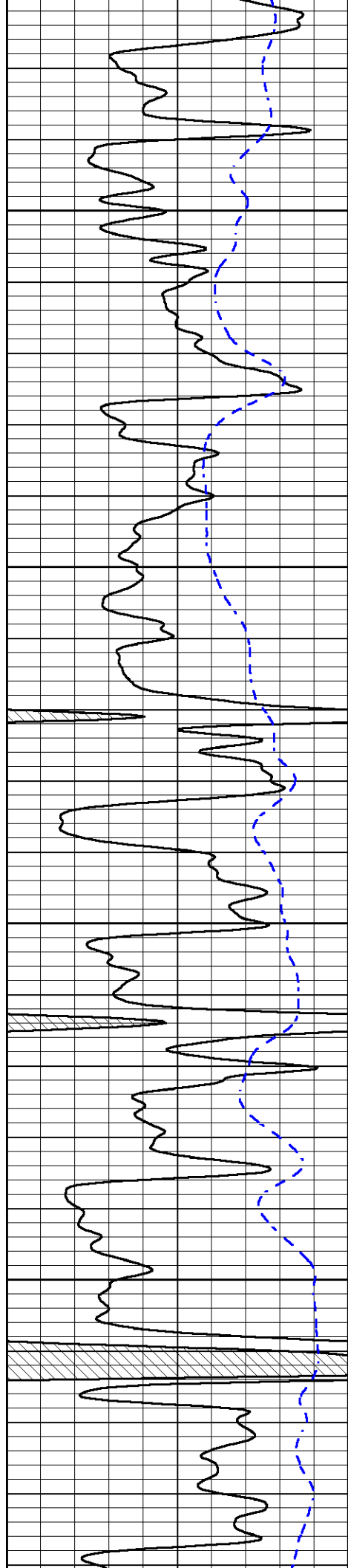
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MAIN PASS

Database File val_wilson 1-3.db
 Dataset Pathname STKML/pass4.1
 Presentation Format dil
 Dataset Creation Sun Oct 22 01:54:45 2017
 Charted by Depth in Feet scaled 1:240



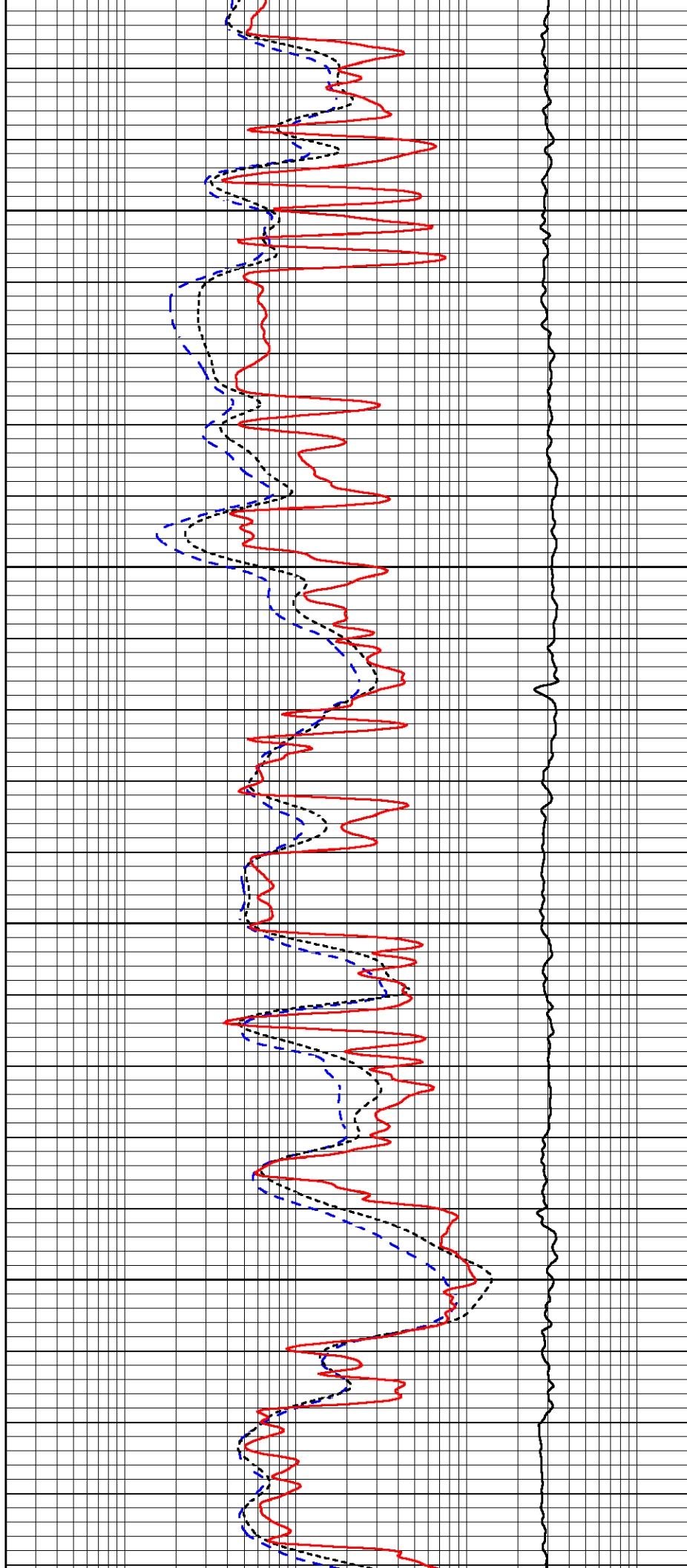


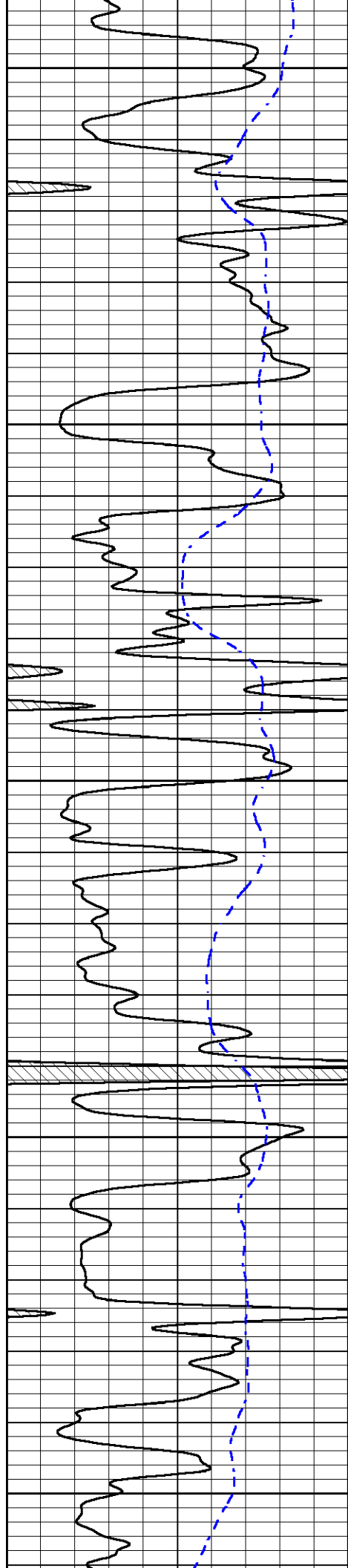
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4000

4050

4100





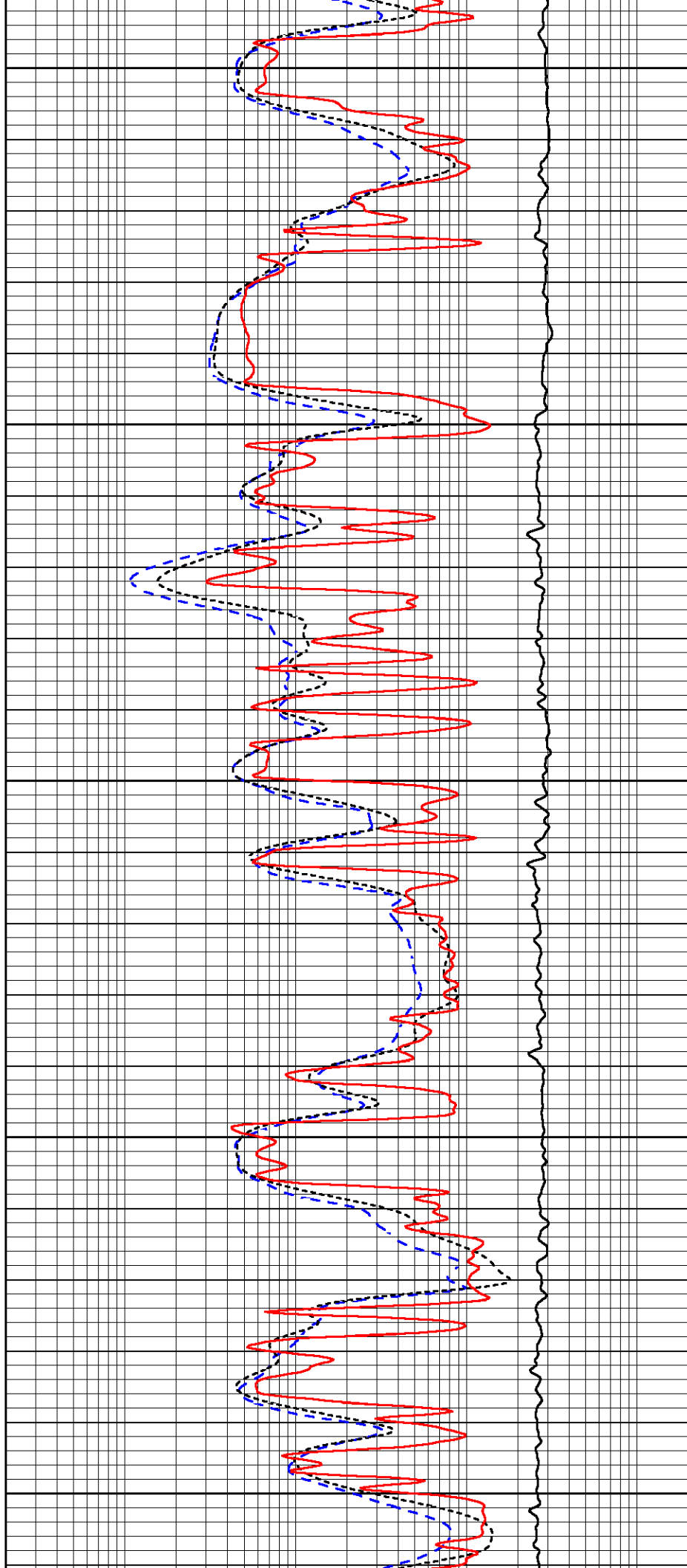
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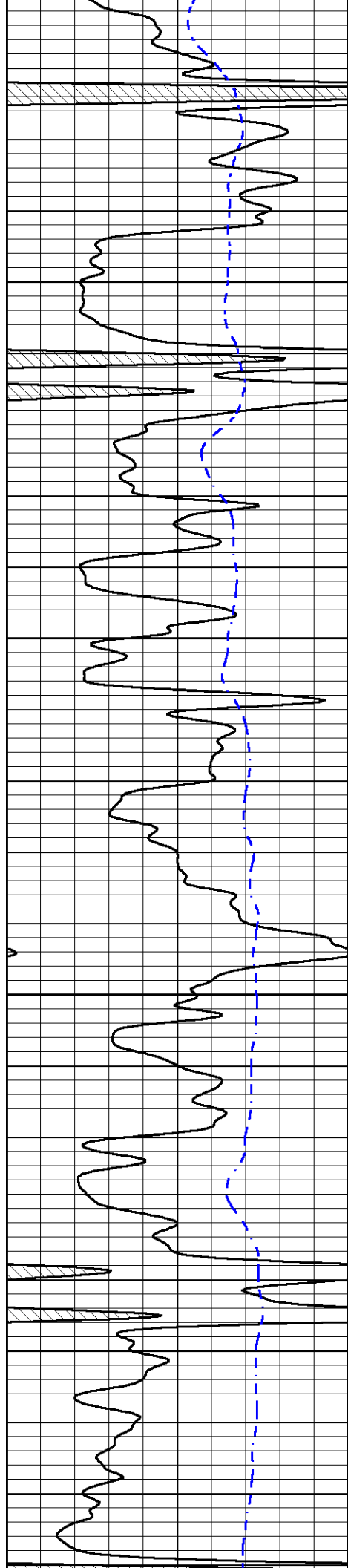
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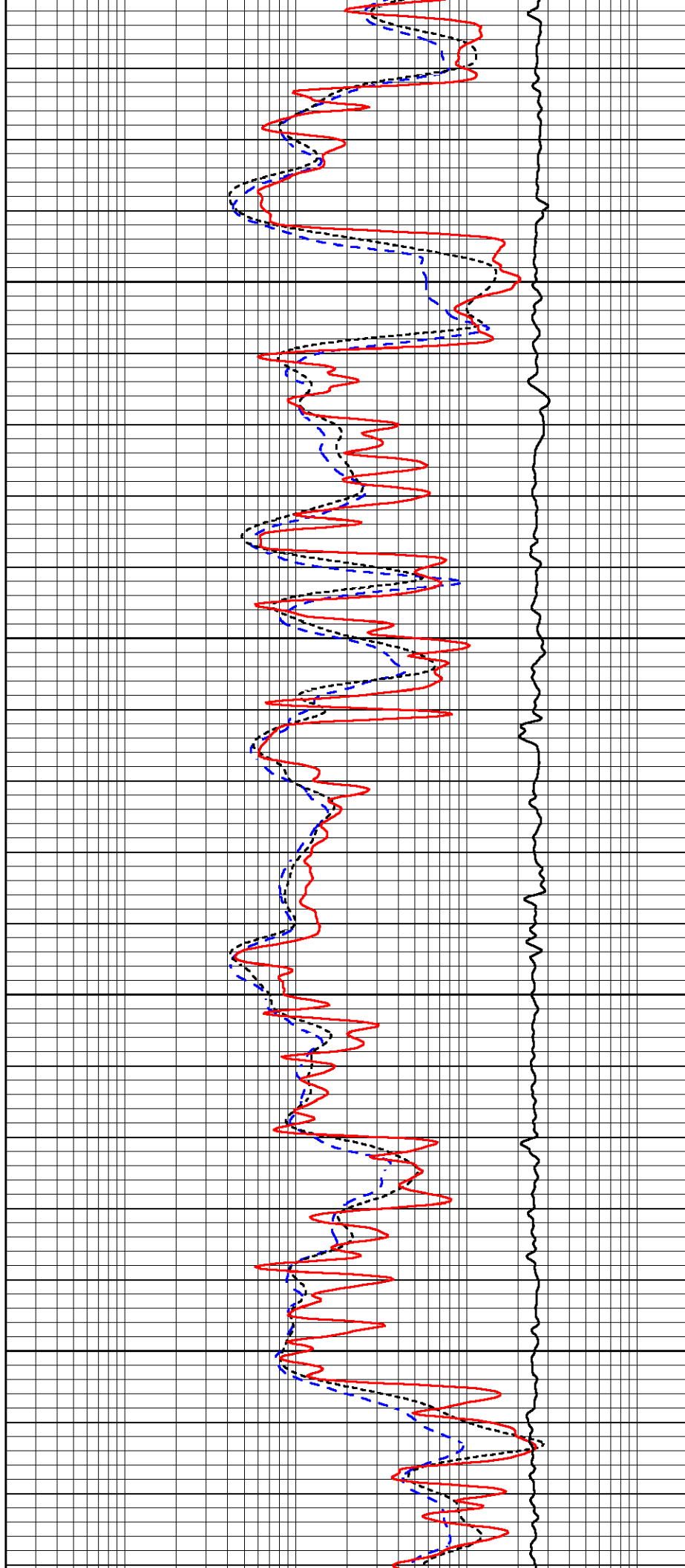


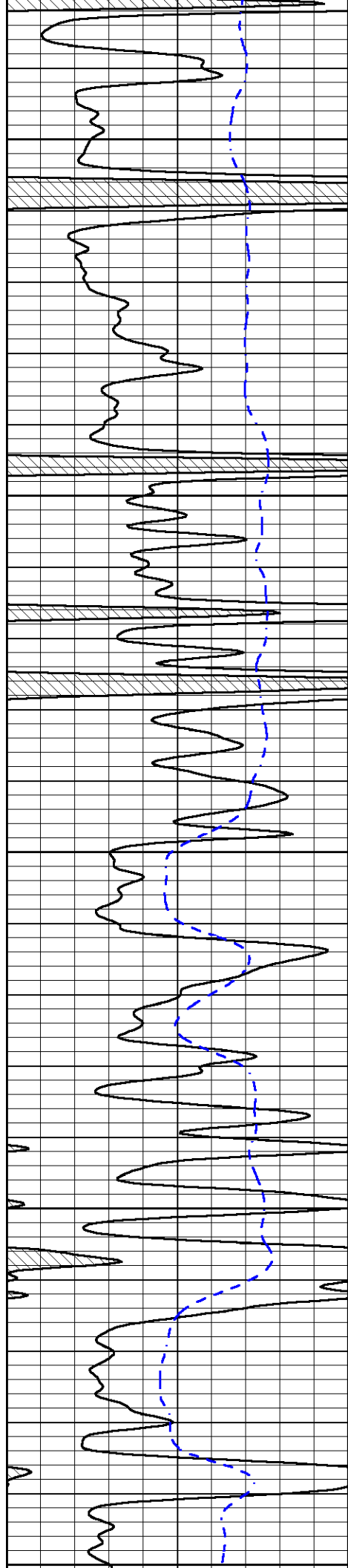
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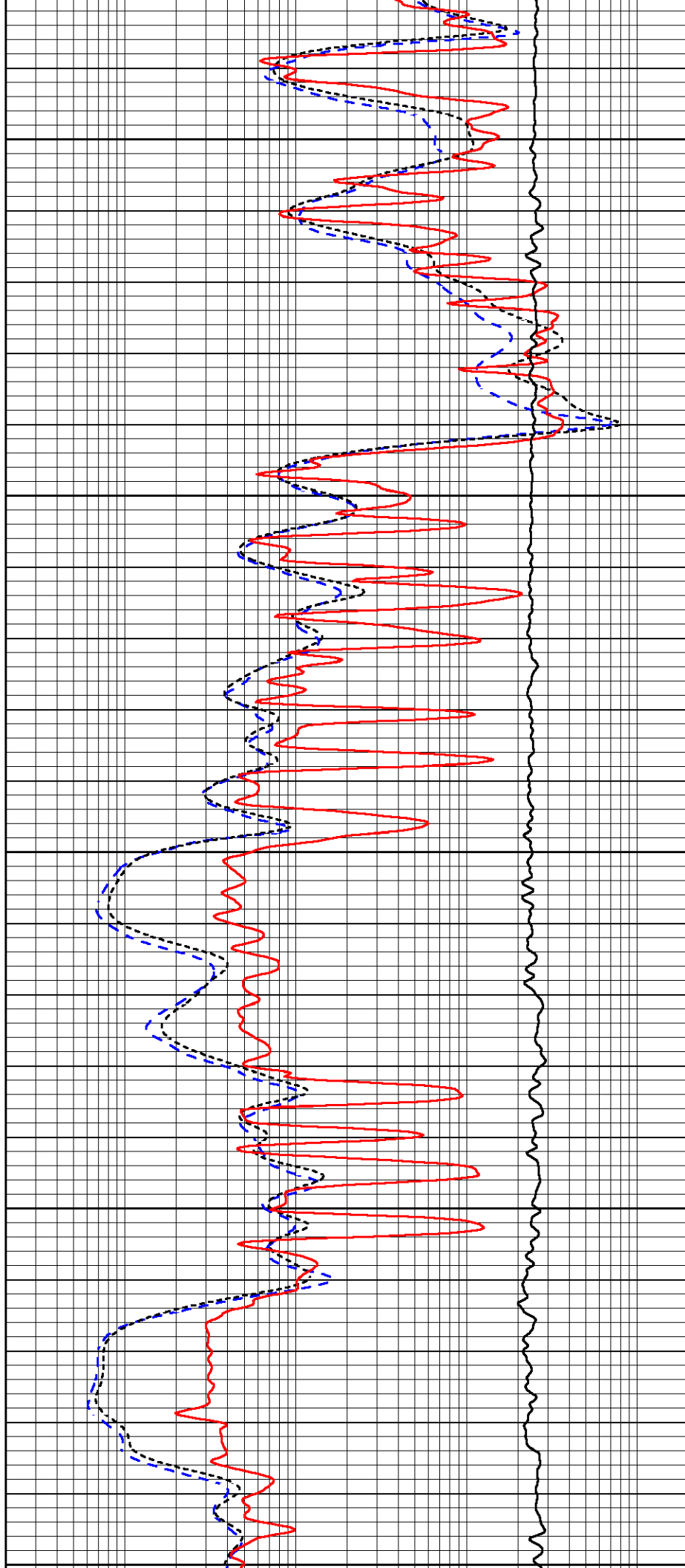
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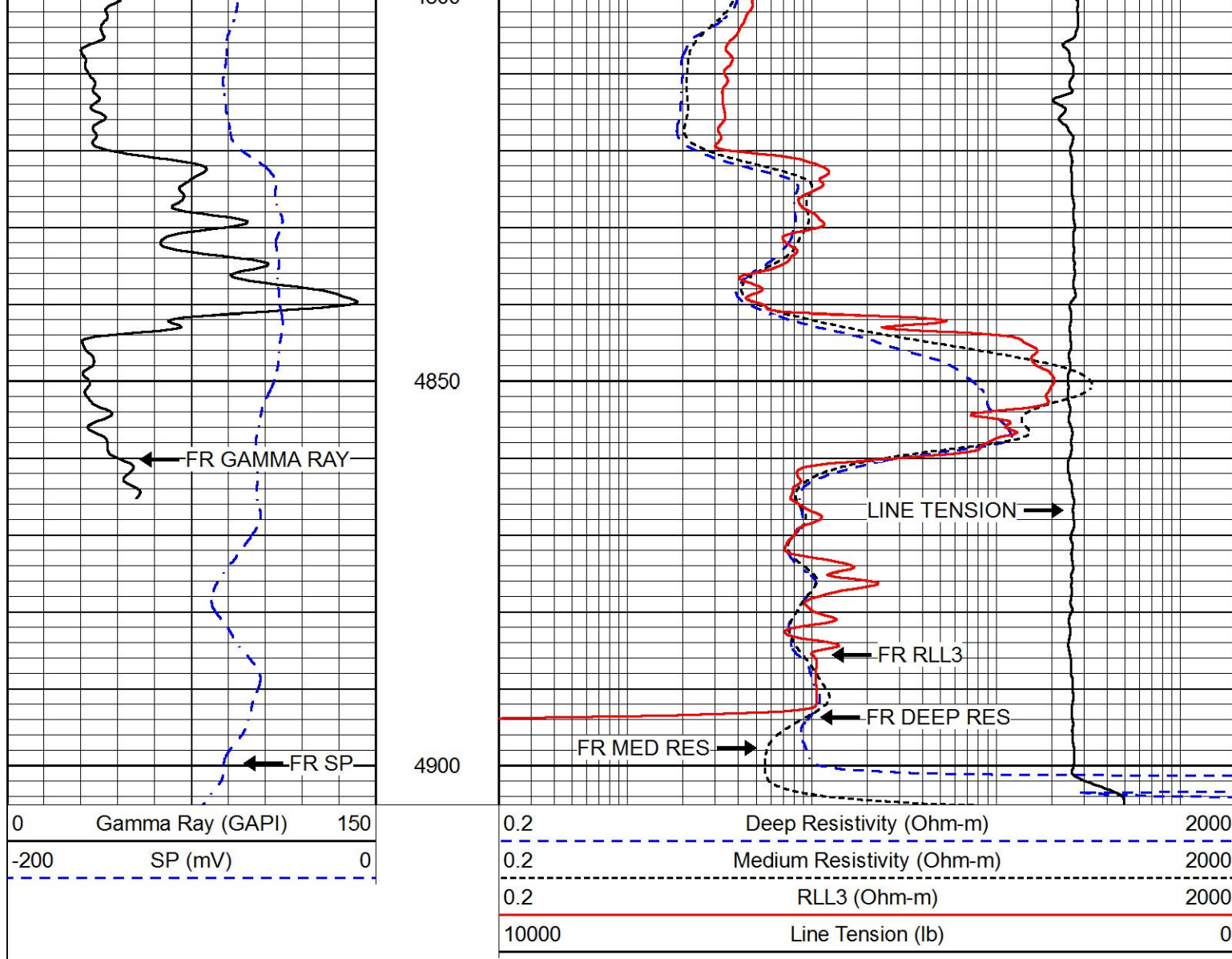
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4700

4750

4800





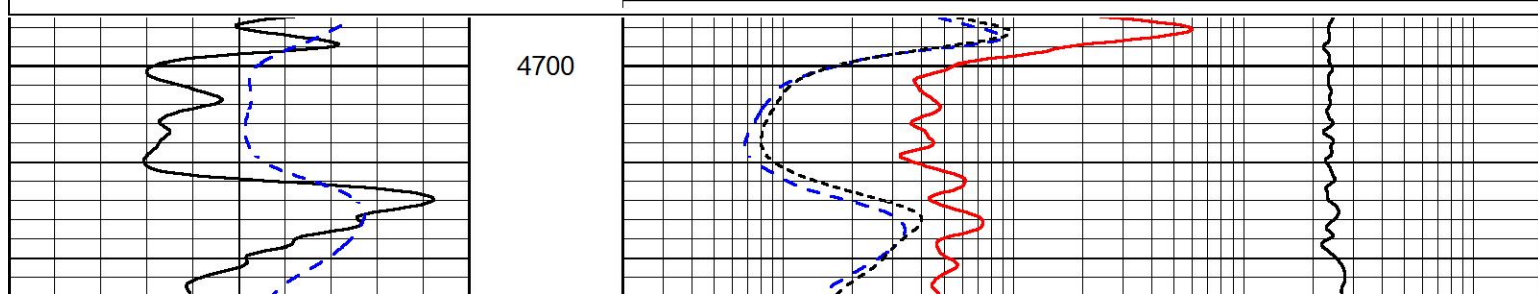


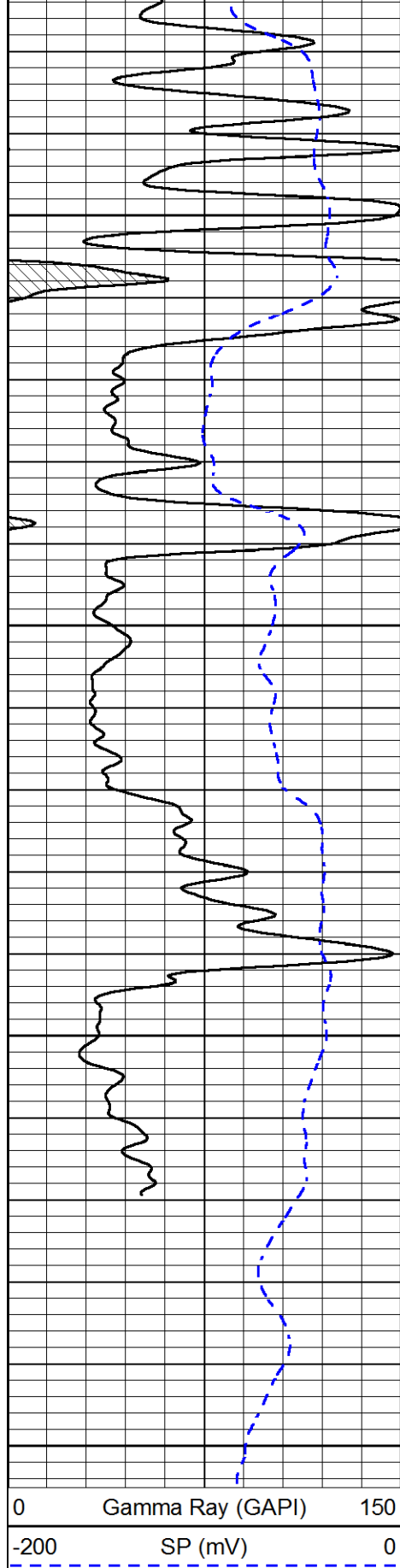
PIONEER
Pioneer Energy Services

REPEAT SECTION

Database File	val_wilson 1-3.db
Dataset Pathname	STKML/pass2.1
Presentation Format	dil
Dataset Creation	Sun Oct 22 01:46:45 2017
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
10000	Line Tension (lb)	0



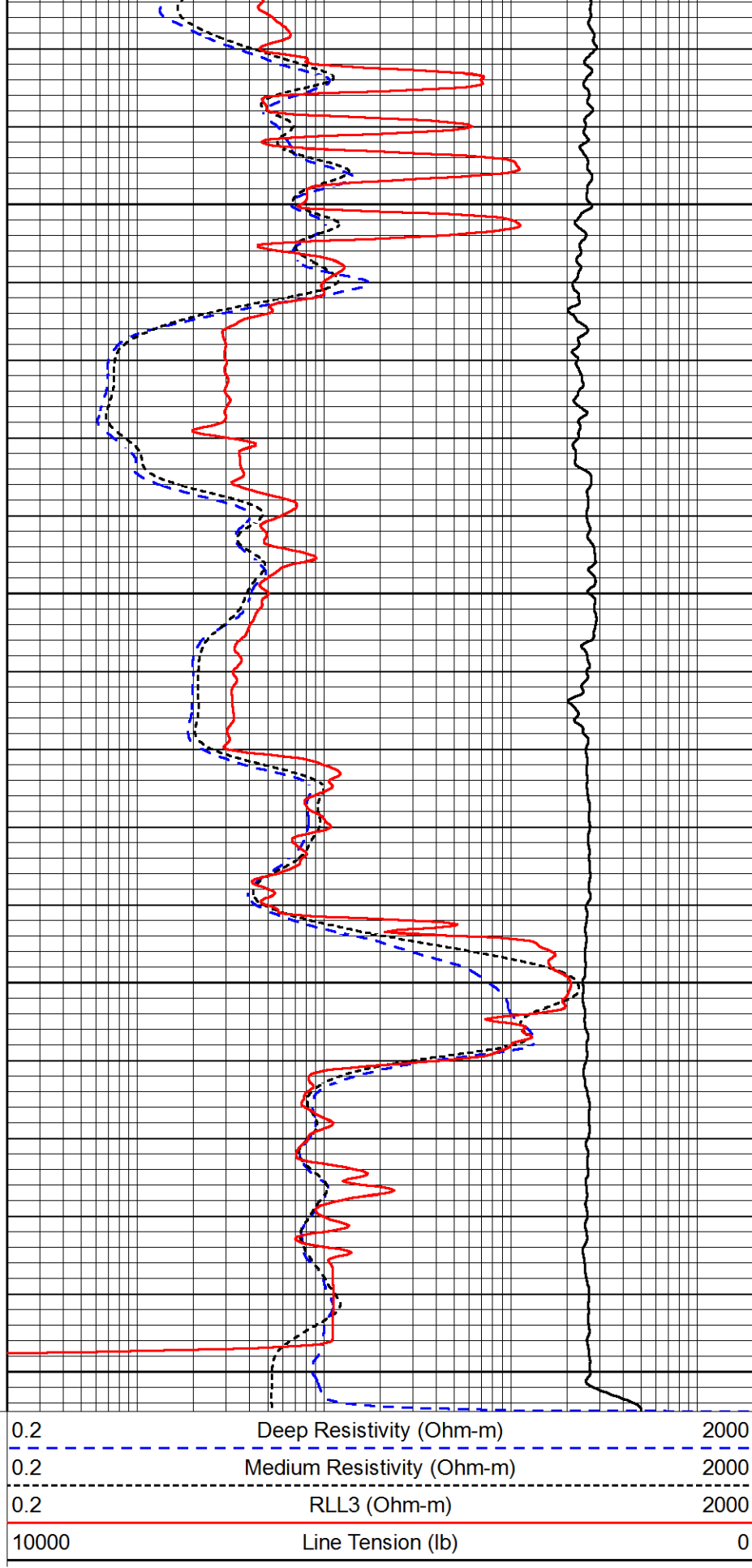


4750

4800

4850

4900



Calibration Report

Database File val_wilson 1-3.db
 Dataset Pathname STKML/pass4.1
 Dataset Creation Sun Oct 22 01:54:45 2017

Dual Induction Calibration Report

Serial-Model:
Calibration Performed:PSI 91-M&W
Wed Sep 13 22:23:16 2017

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		Gain	Offset
Deep	166.796	835.089	0.000	255.800	mmho/m	0.430	-31.500
Medium	142.009	1348.560	0.000	255.800	mmho/m	0.360	-29.500

Microlog Calibration Report

Serial-Model:
Performed:PSI-01-PSIML
Wed Sep 06 19:50:56 2017

	Readings		References			Results	
	Zero	Cal	Zero	Cal		m	b
Normal	0.0000	1.0000	0.0000	1.0000	Ohm-m	62000.0000	-1.5000
Inverse	0.0000	1.0000	0.0000	1.0000	Ohm-m	88000.0000	-1.1000
Caliper	1.0001	1.1397	6.5000	18.5000	in	100.0000	-97.3300

Compensated Density Calibration Report

Serial-Model:
Source / Verifier:
Master Calibration Performed:90-1031-M&W
16955B / 2ci
Wed Sep 06 19:51:03 2017

Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4903.44	6153.79	cps
Aluminum	2.640	g/cc	934.50	4021.31	cps
Spine Angle = 75.61			Density/Spine Ratio = 0.517		
	Size		Reading		
Small Ring	8.00	in	1.84		
Large Ring	22.00	in	1.46		

Compensated Neutron Calibration Report

Serial Number: 207-MW
Tool Model: M&W
Calibration Performed: WED SEP 6 10:30:30 2017

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
Tool Model: M&W

Calibration Performed:	1.0	WED
		Wed Sep 06 19:51:14 2017
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.6000	GAPI/cps



Company	VAL ENERGY, INC.
Well	WILSON #1-3
Field	UNKNOWN
County	THOMAS
State	KANSAS