



DUAL INDUCTION LOG

Company	Palomino Petroleum	Company	Palomino Petroleum
Well	Butterfield #2	Well	Butterfield #2
Field	Overland Northwest	Field	Overland Northwest
County	Gove	County	Gove
State	Kansas	State	Kansas
Location:	API #: 15 063 22309 360' FNL & 1373' FEL SE-NE-NW-NE		Other Services CDNL ML
Permanent Datum	SEC 11 TWP 14S RGE 26W	Elevation	
Log Measured From	Ground Level	Elevation	2471'
Drilling Measured From	KB 5' AGL	Elevation	
	KB	Elevation	K.B. 2476' D.F. 2475' G.L. 2471'
Date	7-3-17		
Run Number	One		
Depth Driller	4450'		
Depth Logger	4455'		
Bottom Logged Interval	4453'		
Top Log Interval	200'		
Casing Driller	8 5/8" @ 219'		
Casing Logger	219'		
Bit Size	7 7/8"		
Type Fluid in Hole	Chemical		
Density / Viscosity	9.1/5.4		
pH / Fluid Loss	10.5/6.8		
Source of Sample	Pit		
Rm @ Meas. Temp	1.5@78degf		
Rmf @ Meas. Temp	1.20@78degf		
Rmc @ Meas. Temp	1.92@78degf		
Source of Rmf / Rmc	Calculated		
Rm @ BHT	0.98@117degf		
Time Circulation Stopped	7:00 a.m.		
Time Logger on Bottom	9:10 a.m.		
Maximum Recorded Temperature	117degf		
Equipment Number	T127		
Location	Hays, KS		
Recorded By	C. Patterson		
Witnessed By	Mr. Ryan Seib		

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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

Take Quinter Rd. South To K Rd.
Then East 4 mi.(to castle Rock Rd sign), North Into

Thanks for using Gemini Wireline LLC
785-625-1182



MAIN PASS

Database File ppbutterfield#2oh.db
Dataset Pathname pass3.1
Presentation Format kdillinn
Dataset Creation Mon Jul 03 12:23:22 2017
Charted by Depth in Feet scaled 1:600

0 GR (GAPI) 150

1000 CILD (mmho/m) 0

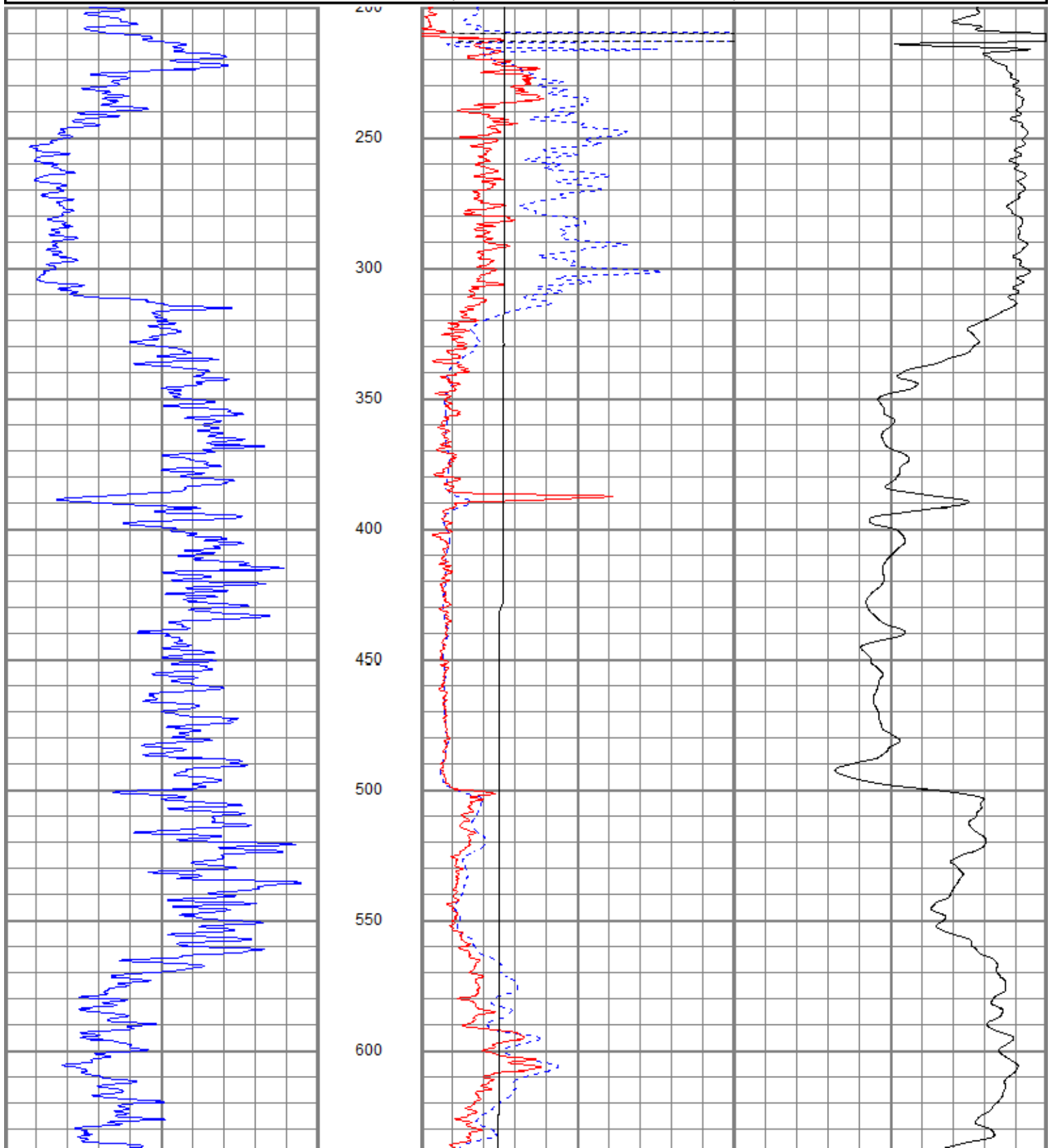
10000 LTEN (lb) 0

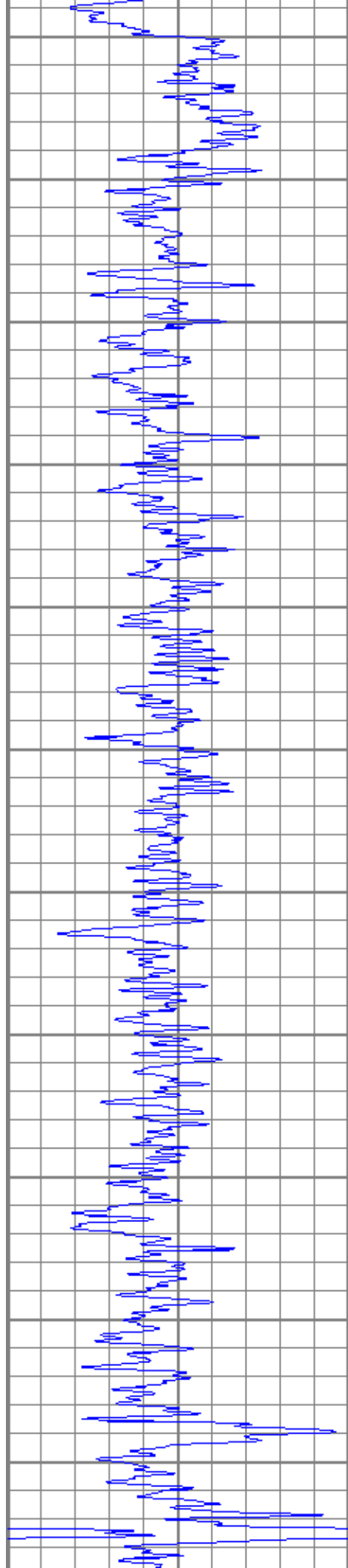
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0 RLL3 (Ohm-m) 50

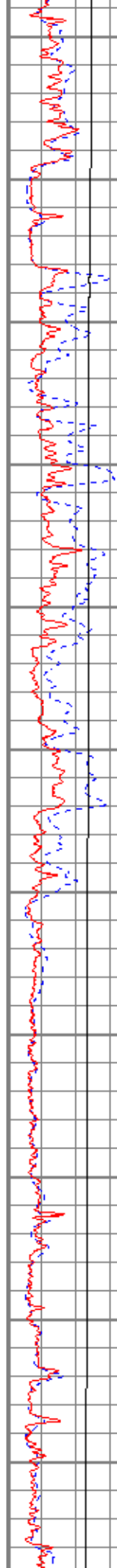
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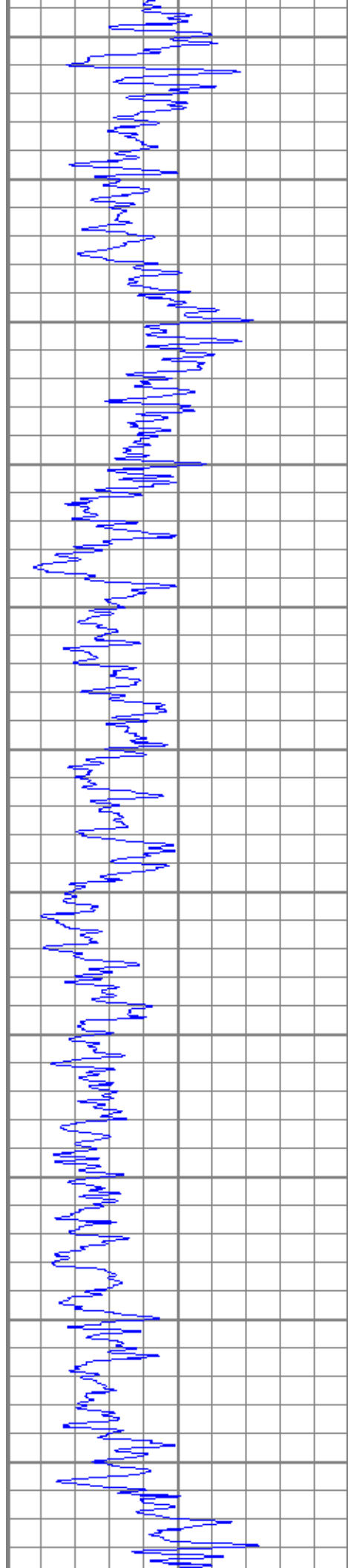
50 RLL3 x 10 (Ohm-m) 500





650
700
750
800
850
900
950
1000
1050
1100
1150





1200

1250

1300

1350

1400

1450

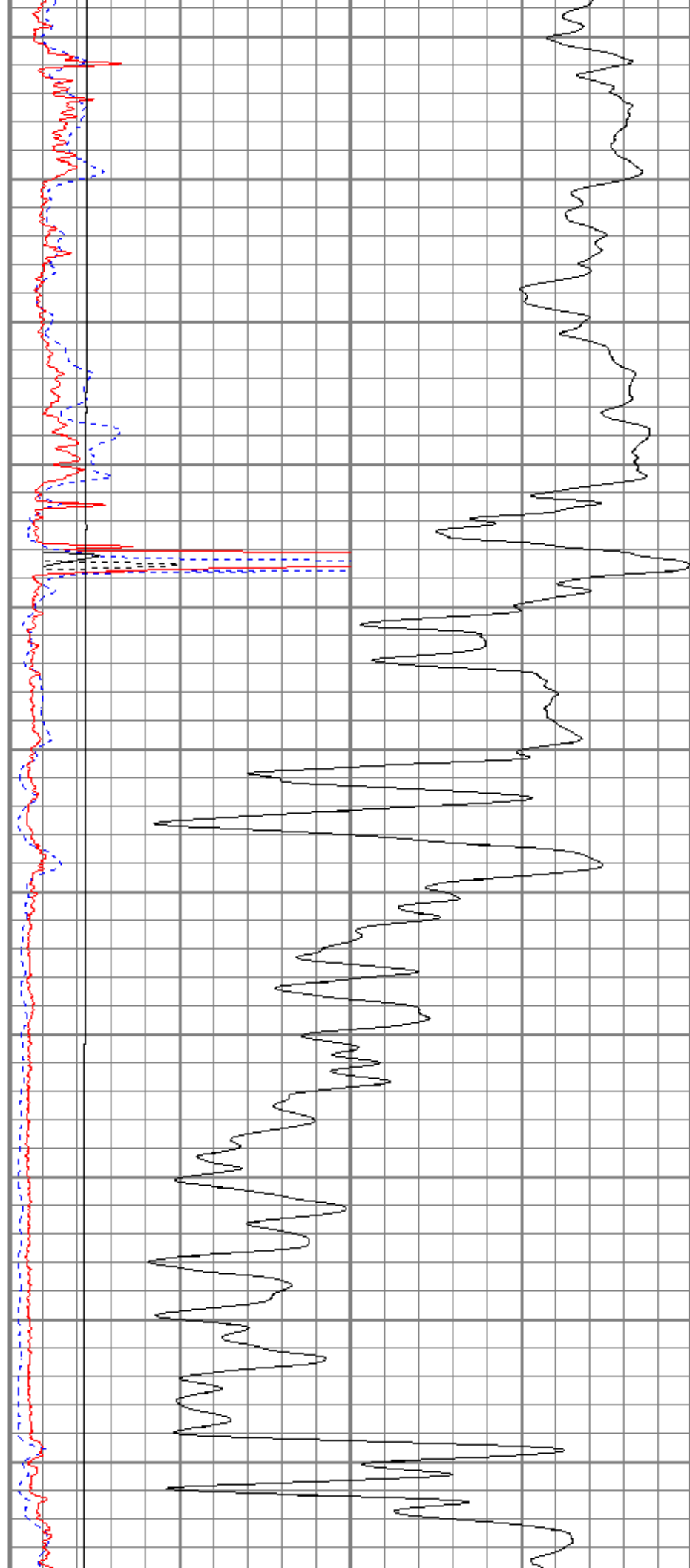
1500

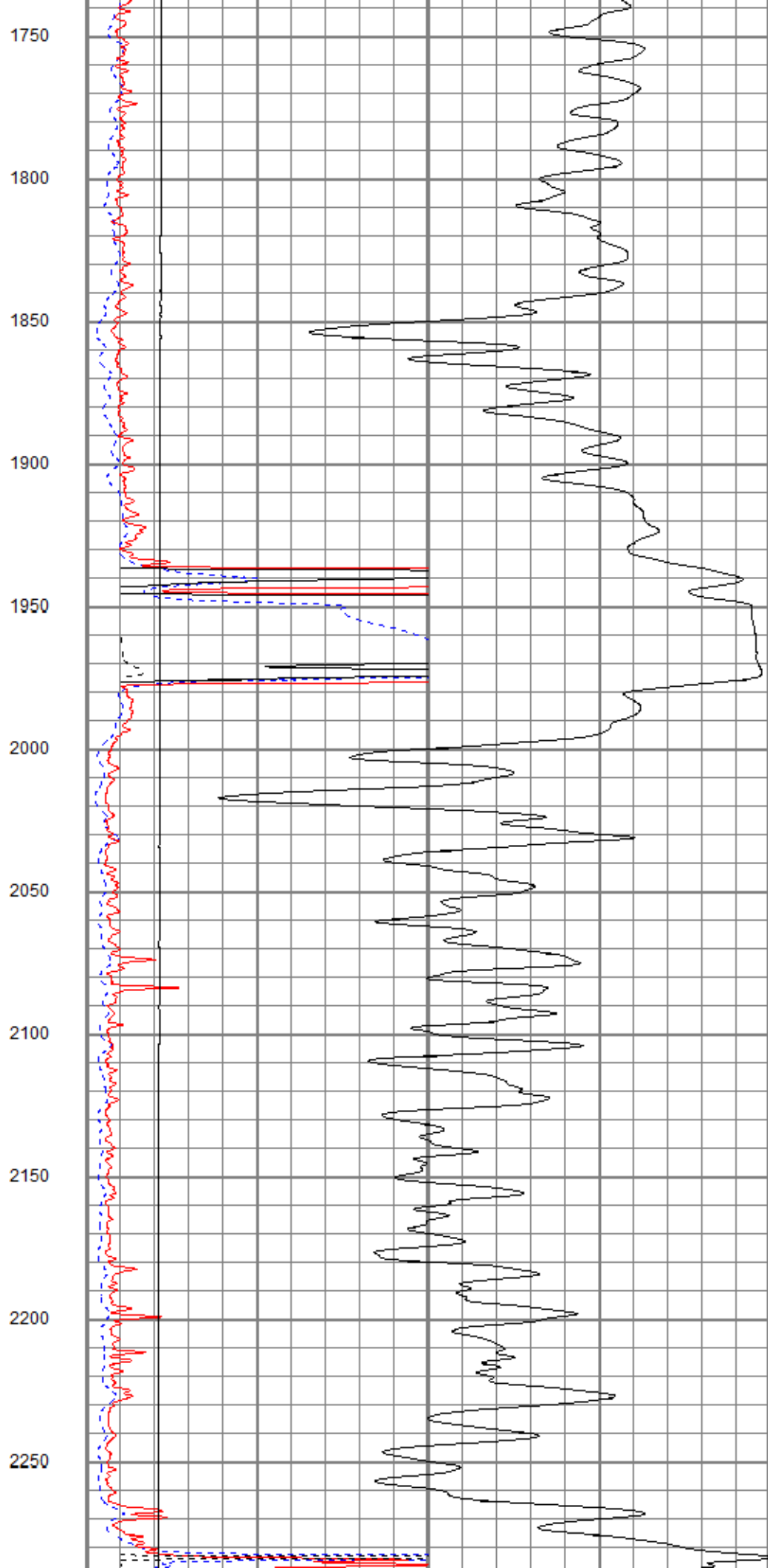
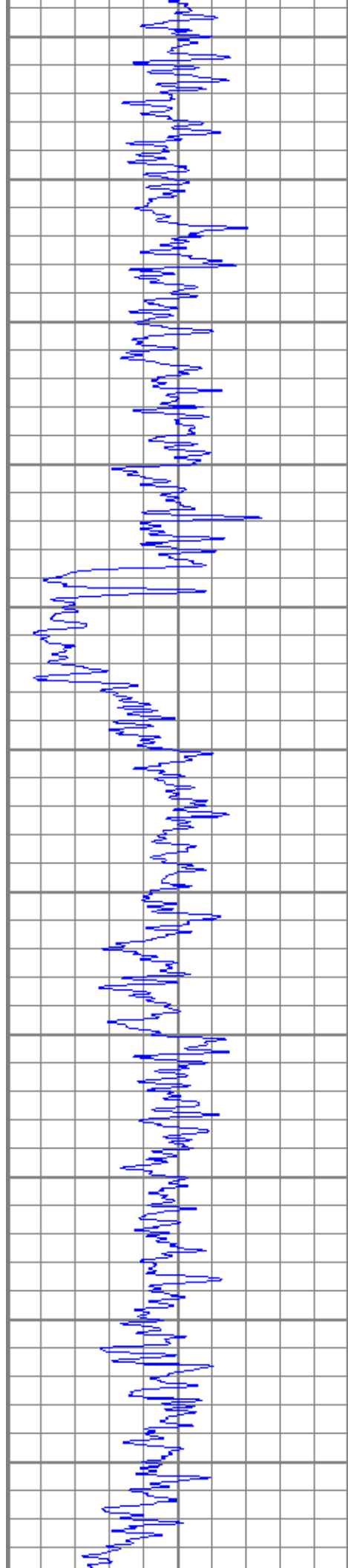
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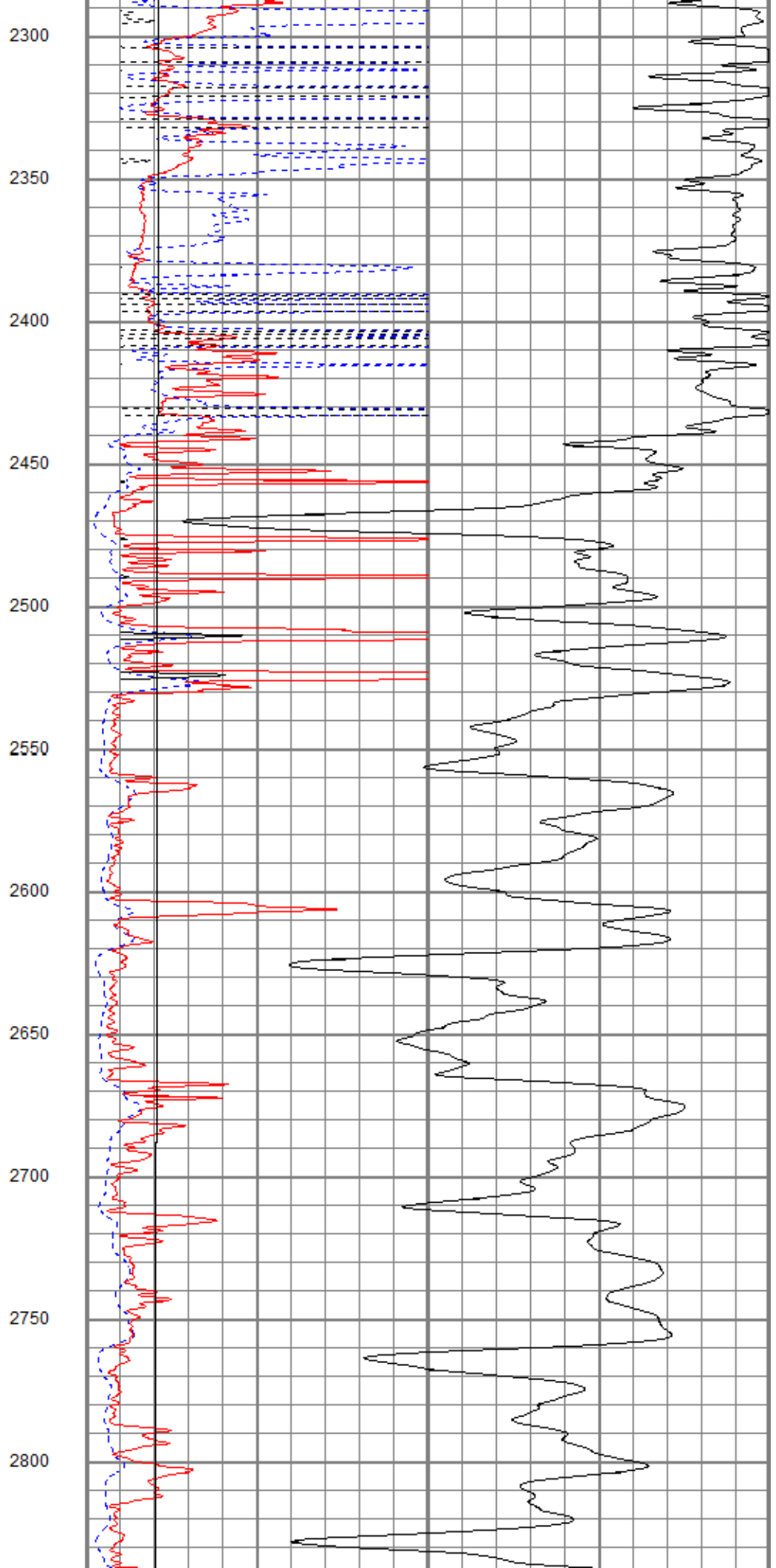
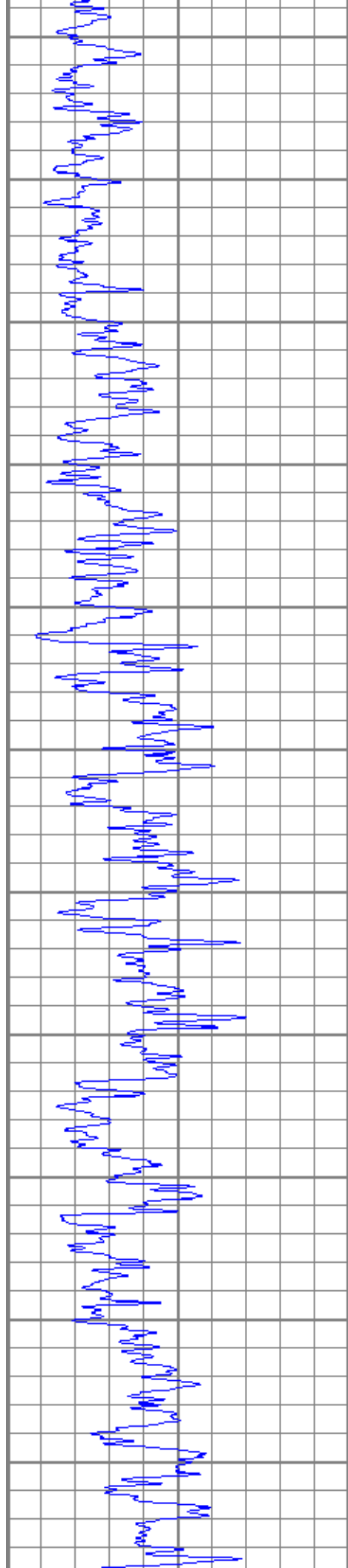
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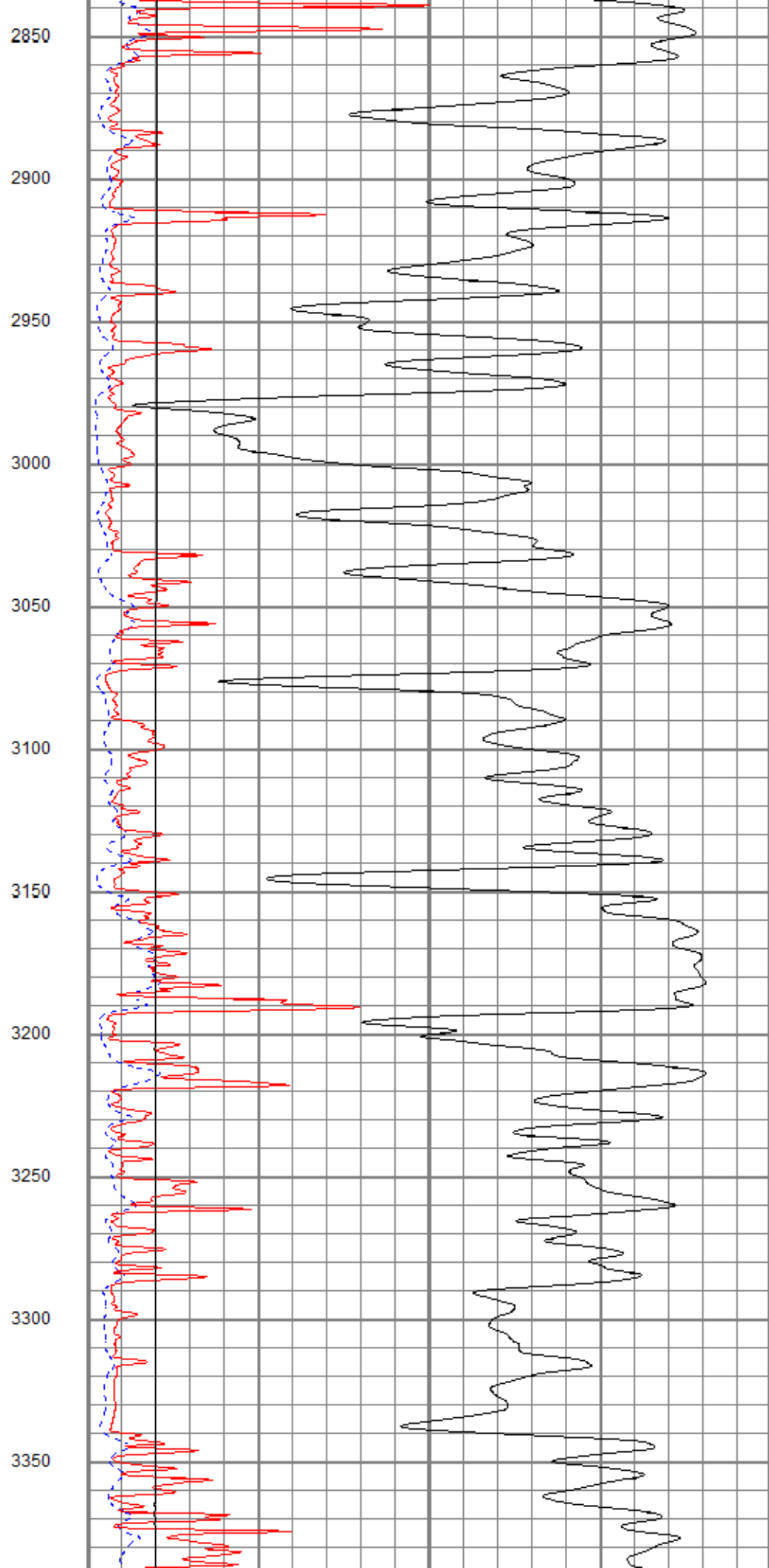
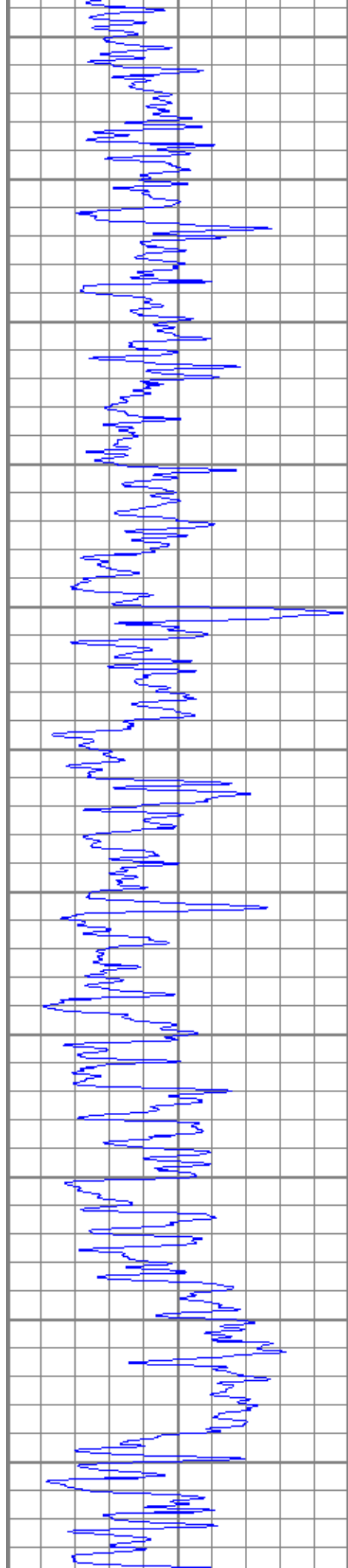
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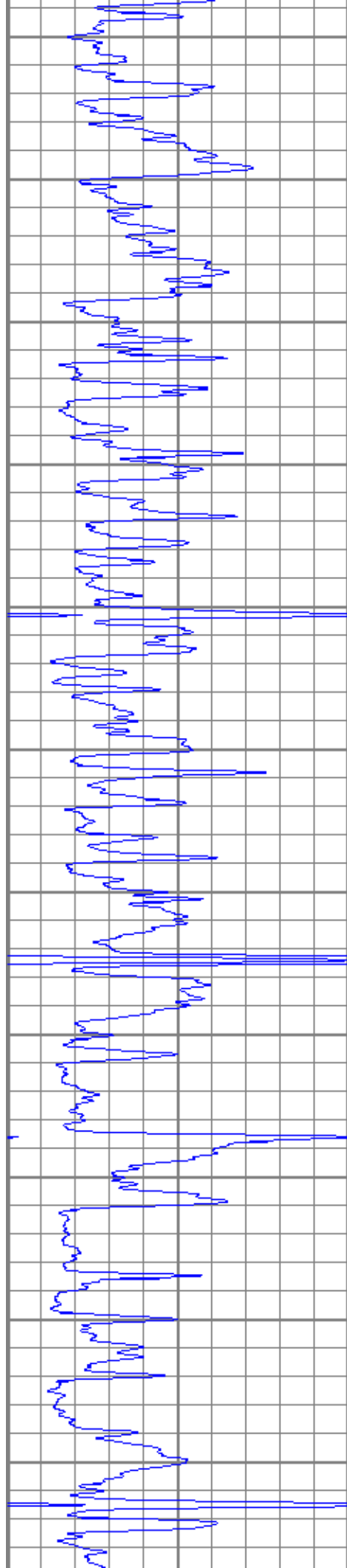
1700











3400

3450

3500

3550

3600

3650

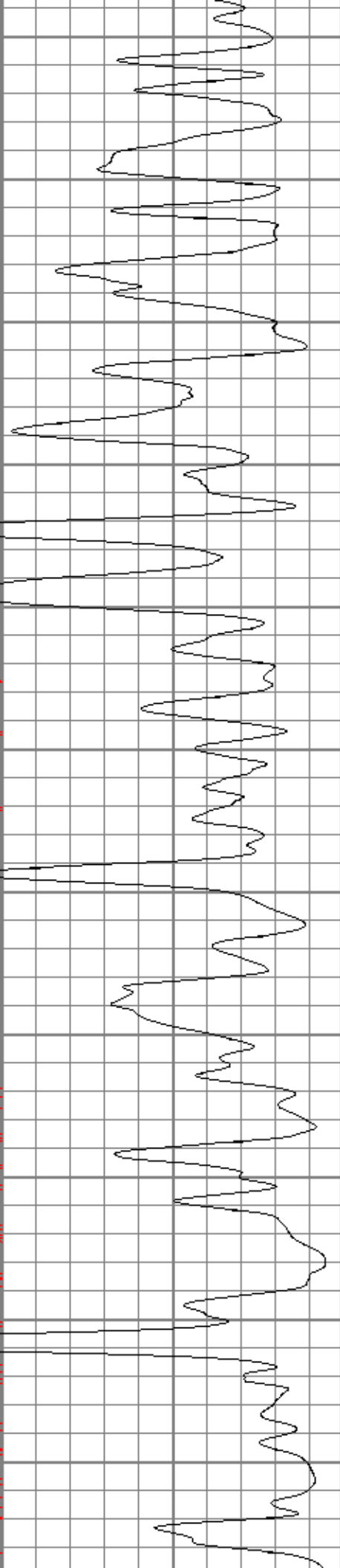
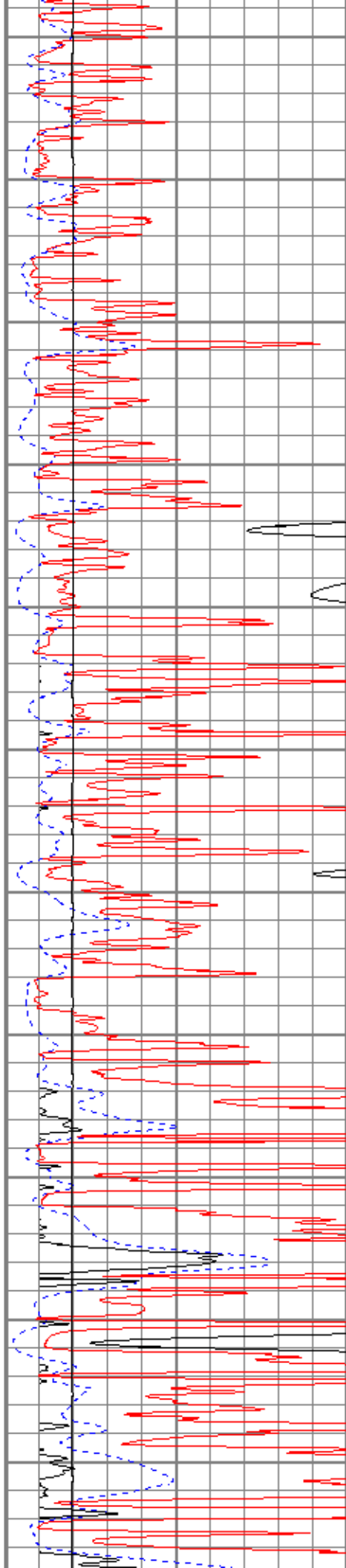
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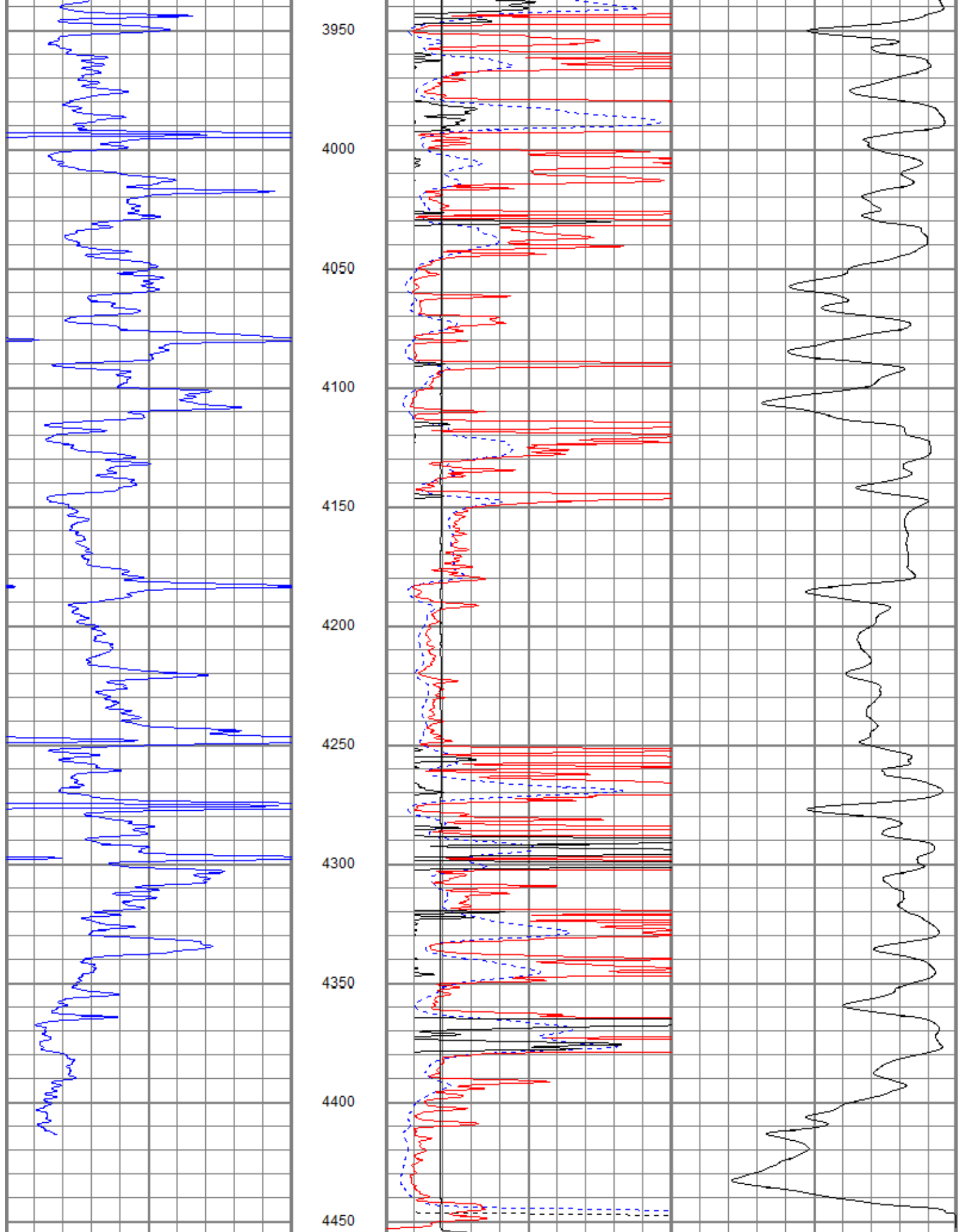
3750

3800

3850

3900





0 GR (GAPI) 150

1000 CILD (mmho/m) 0

10000 LTEN (lb) 0

0 RILD (Ohm-m) 50

0	RLL3 (Ohm-m)	50
50	RILD x 10 (Ohm-m)	500
50	RLL3 x 10 (Ohm-m)	500

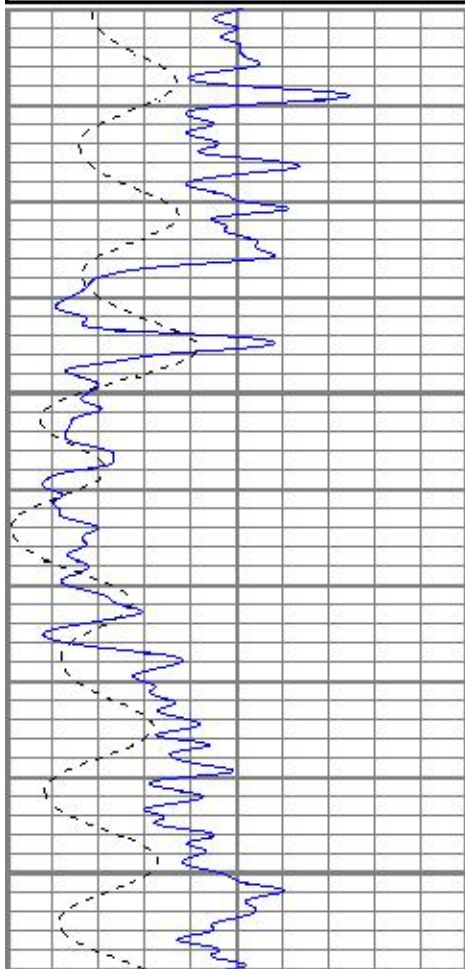


MAIN PASS

Database File ppbutterfield#2oh.db
Dataset Pathname pass3.1
Presentation Format kdil
Dataset Creation Mon Jul 03 12:23:22 2017
Charted by Depth in Feet scaled 1:240

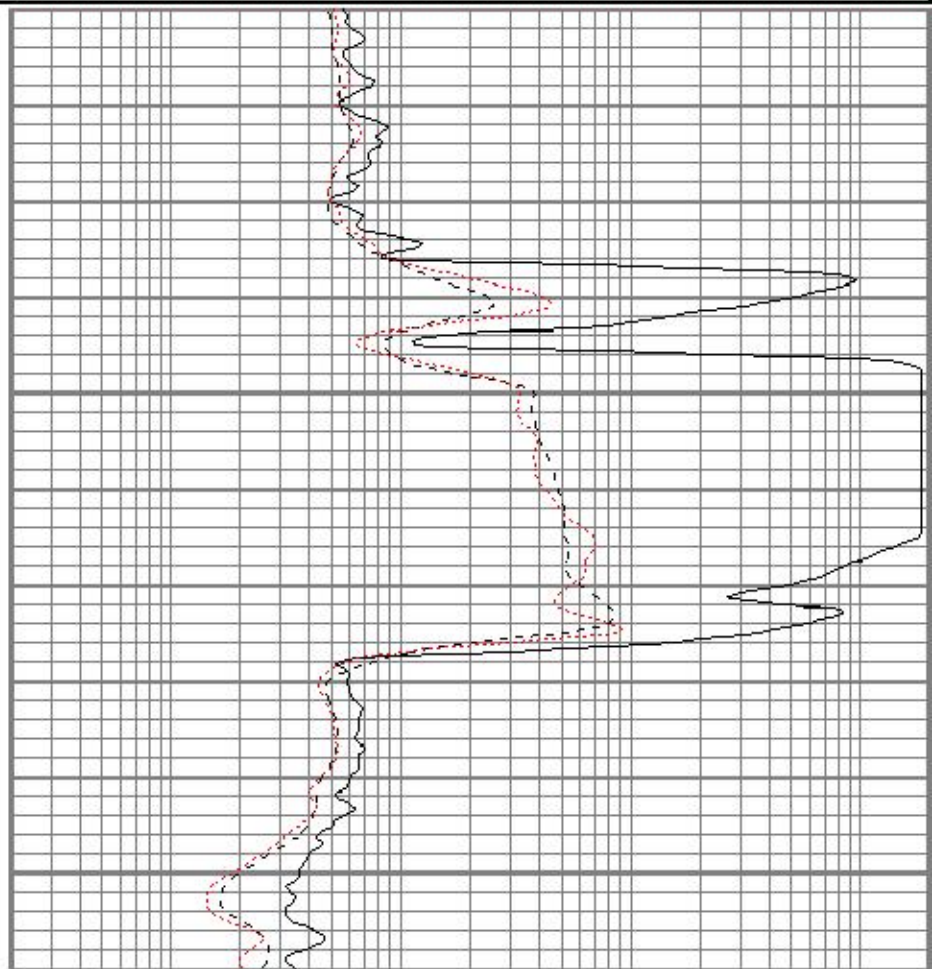
0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000



1950

2000



0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

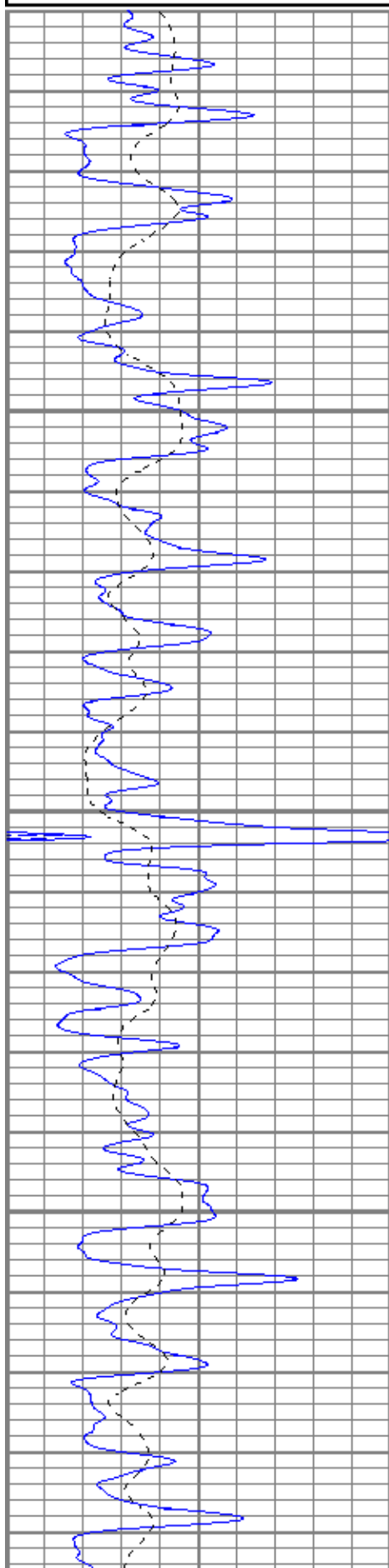


MAIN PASS

Database File ppbutterfield#2oh.db
Dataset Pathname pass3.1

0	GR (GAPI)	150
-100	SP (mV)	100

0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

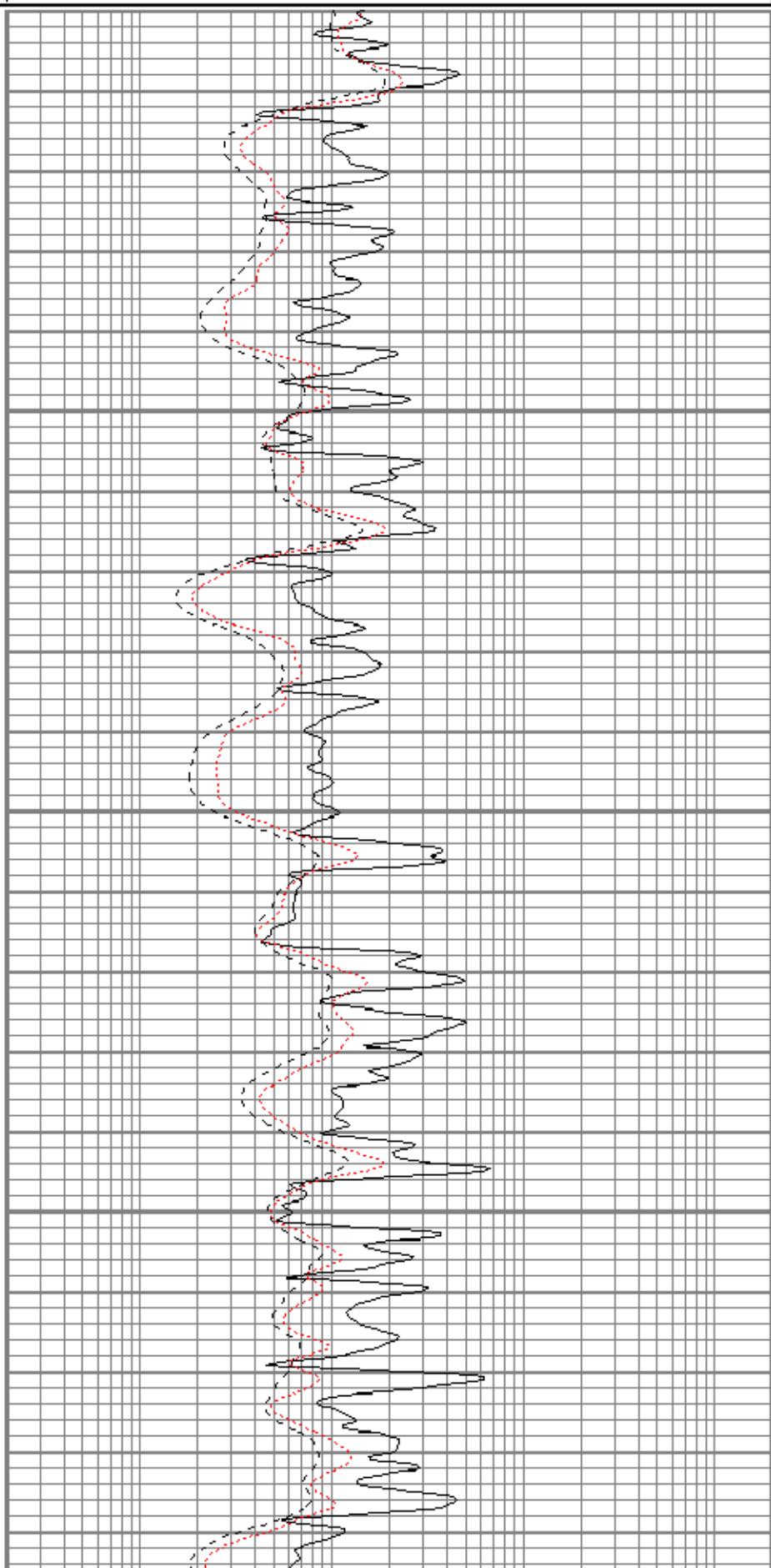


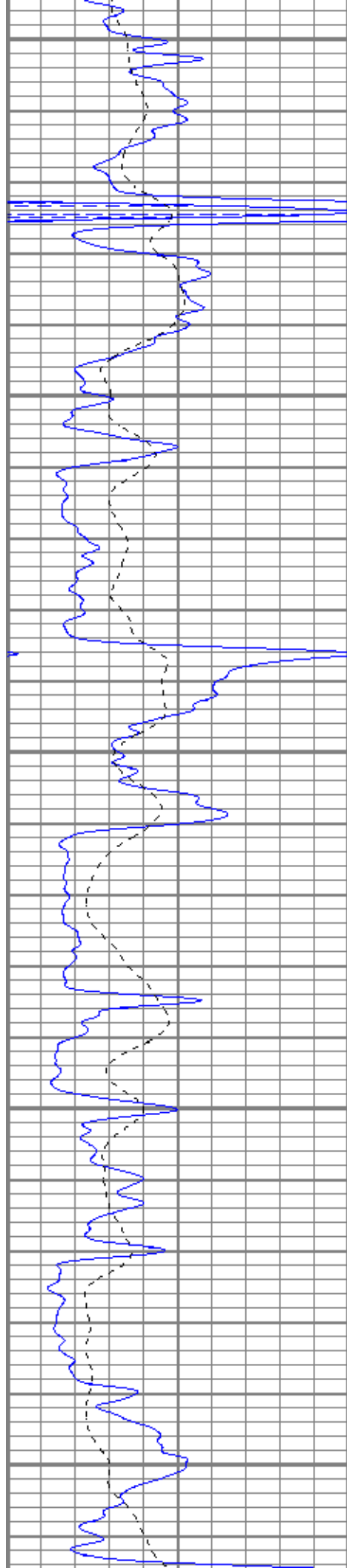
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3550

3600

3650





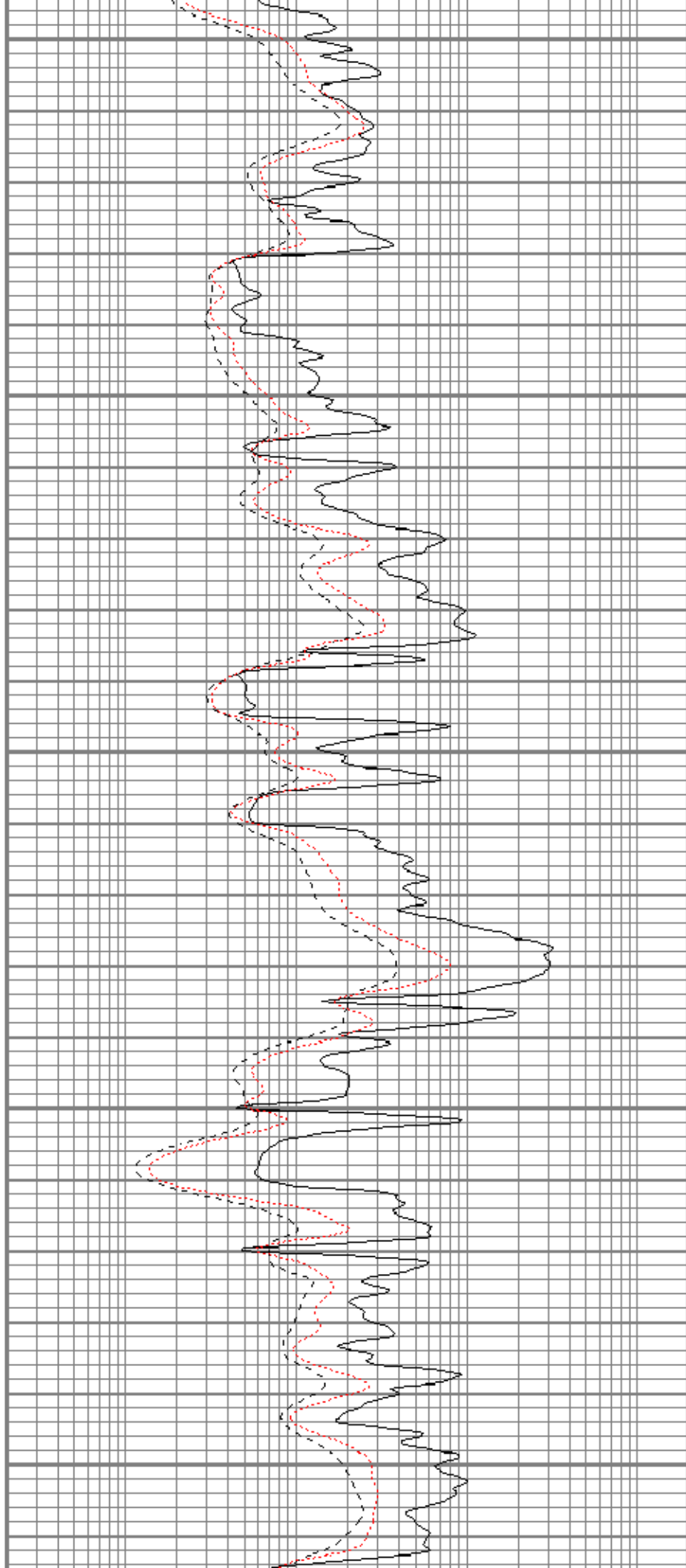
3700

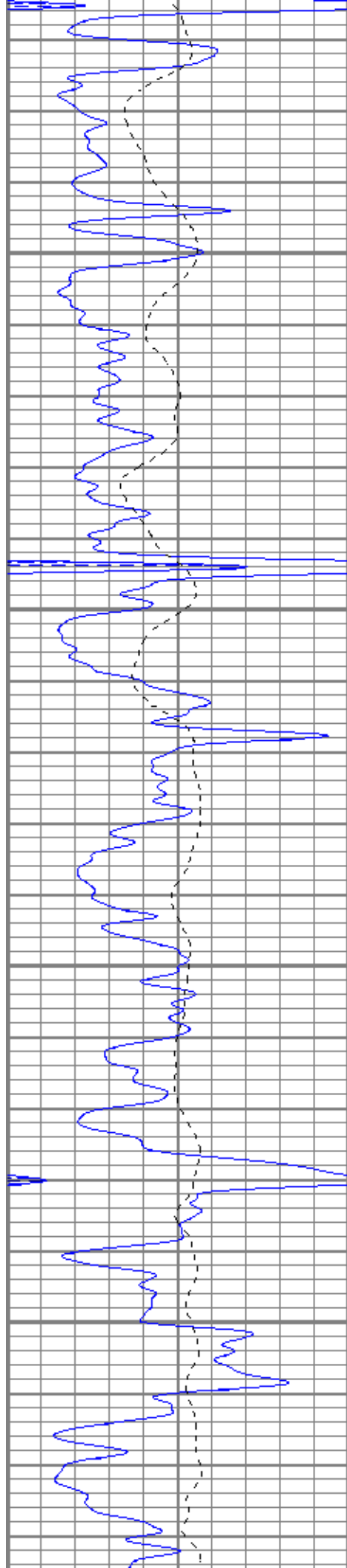
3750

3800

3850

3900



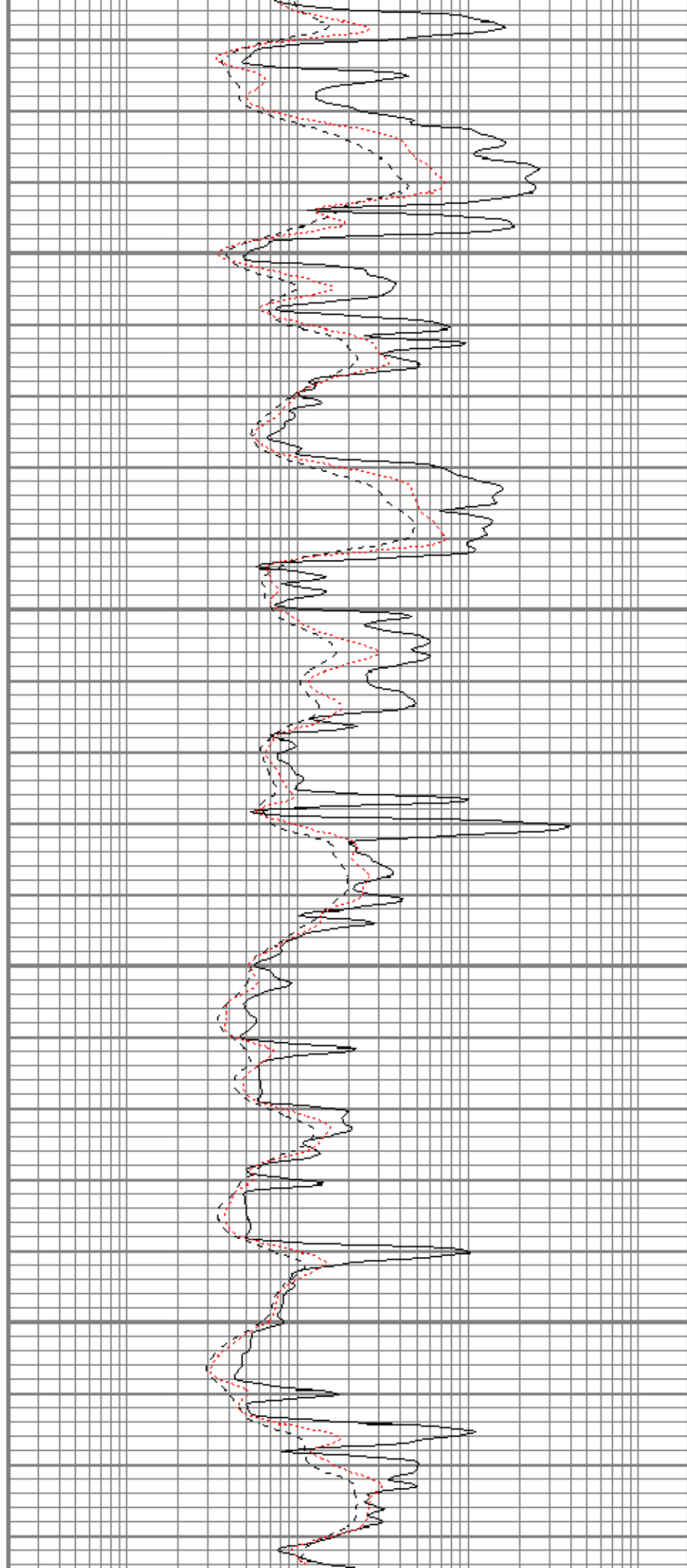


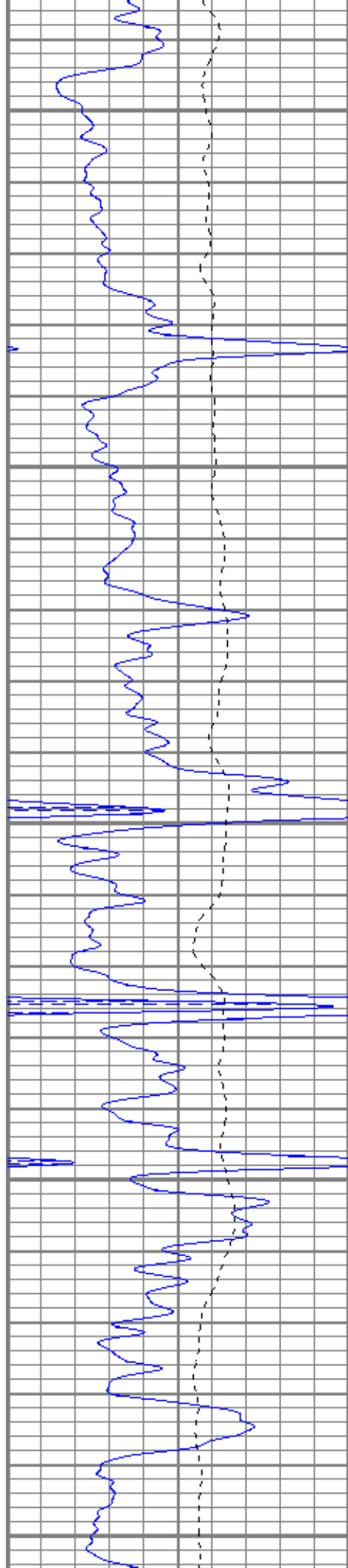
3950

4000

4050

4100





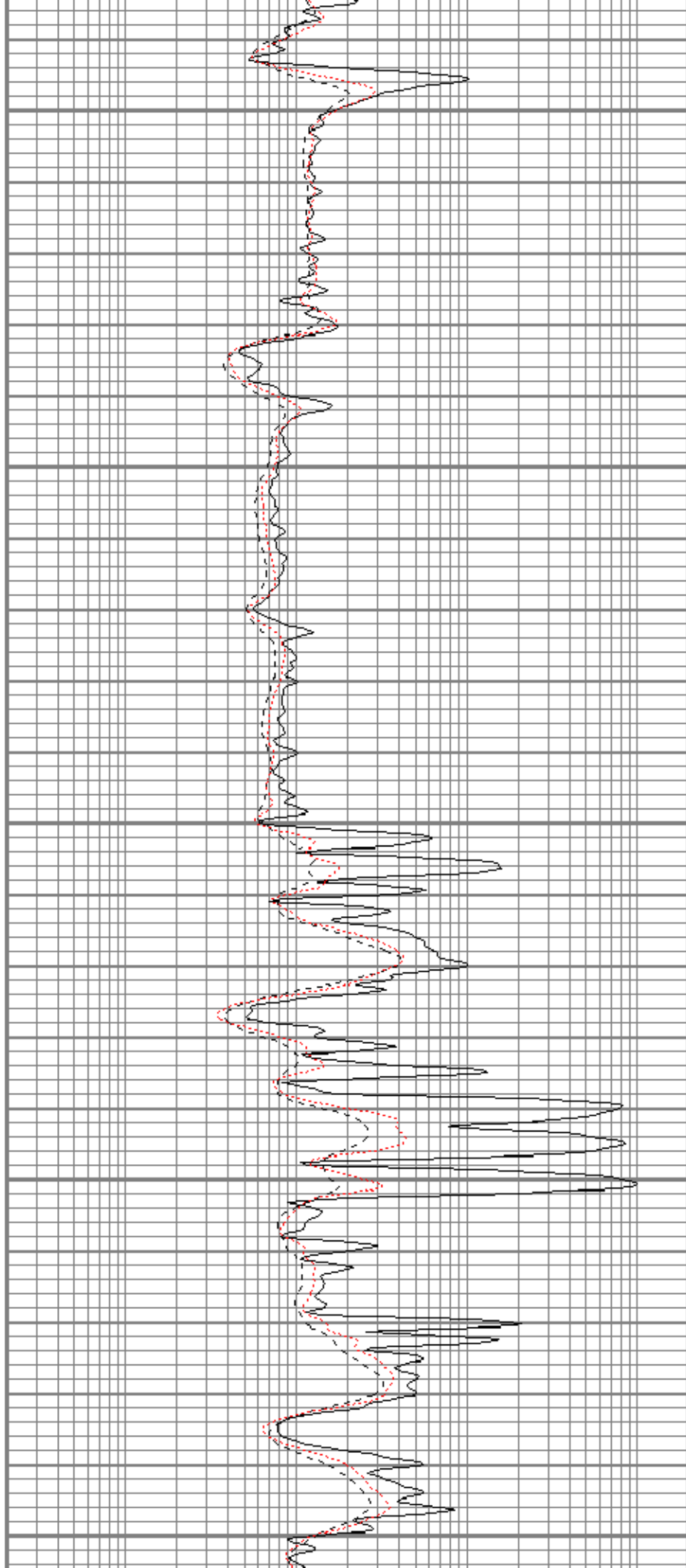
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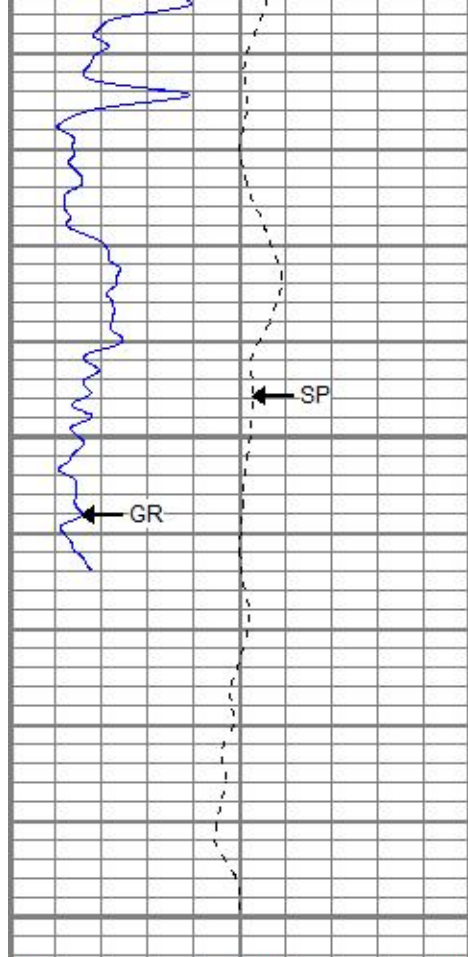
4200

4250

4300

4350

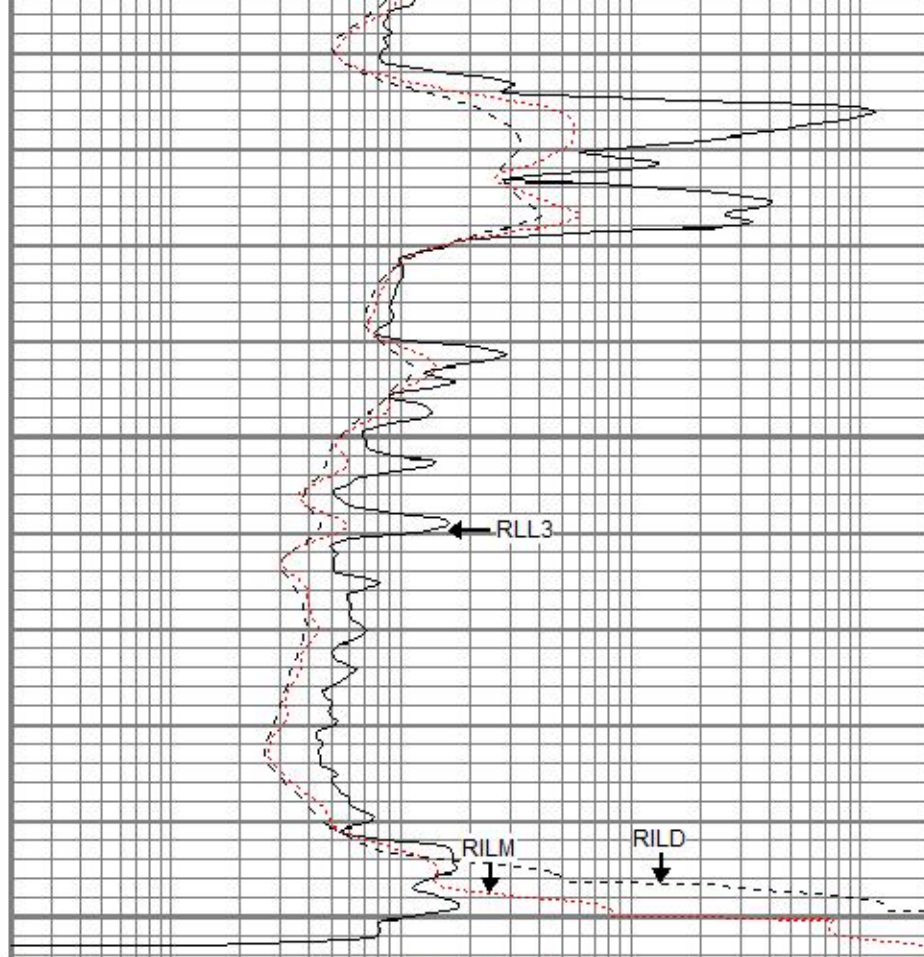




0	GR (GAPI)	150
-100	SP (mV)	100

4400

4450



0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000

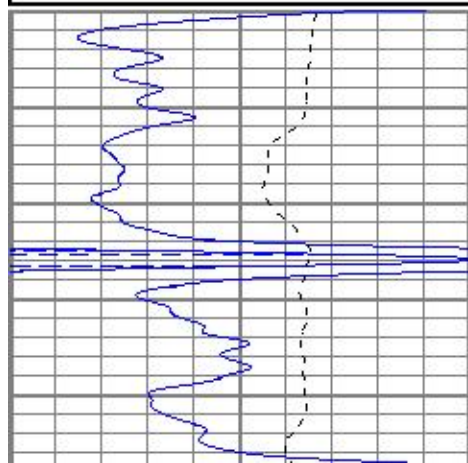


REPEAT SECTION

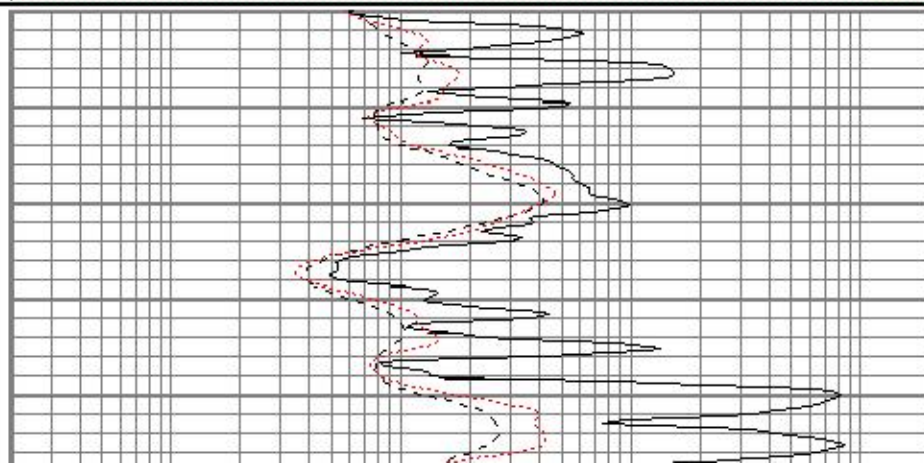
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 Dataset Pathname pass1
 Presentation Format kdil
 Dataset Creation Mon Jul 03 09:11:59 2017
 Charted by Depth in Feet scaled 1:240

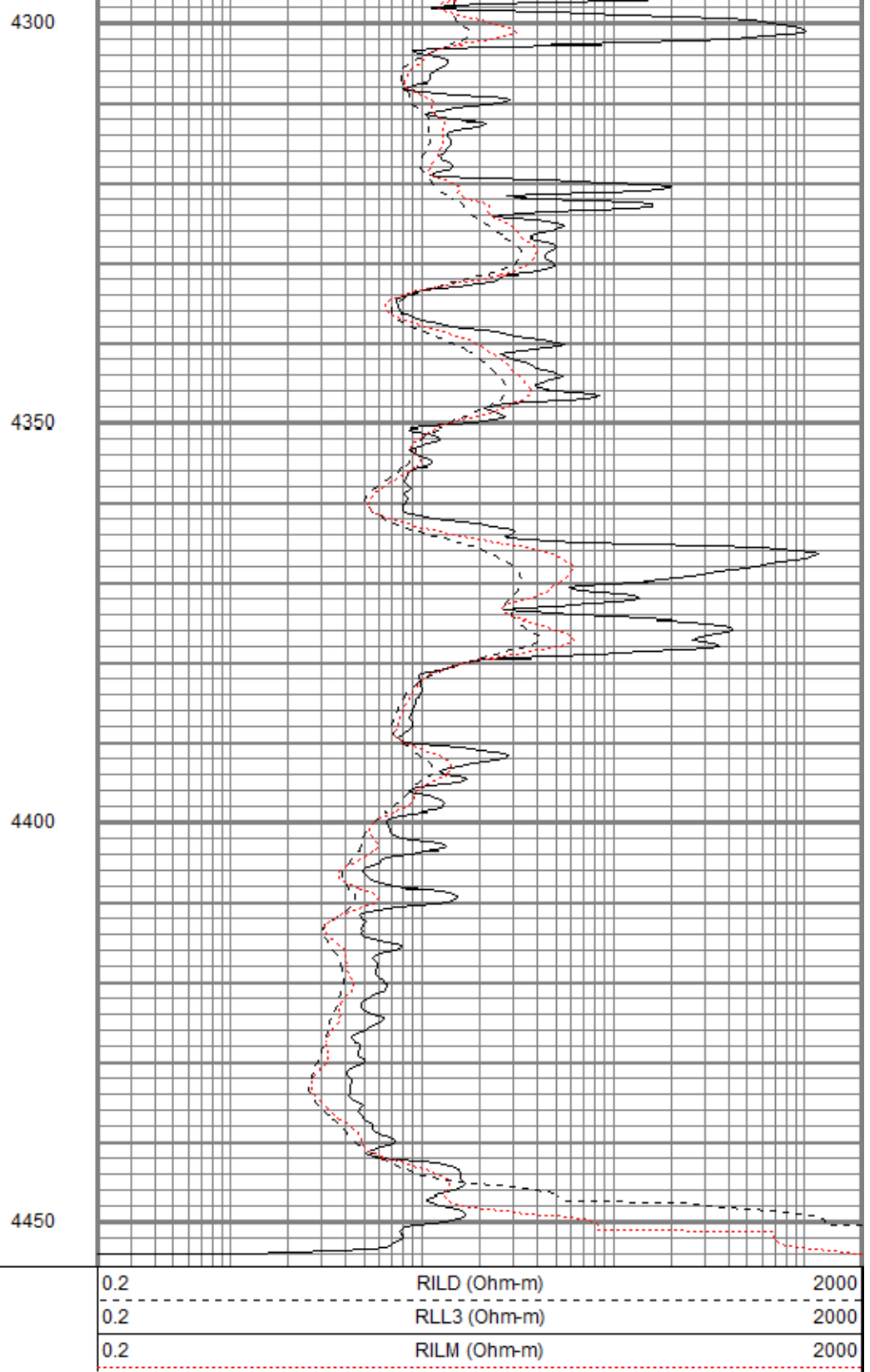
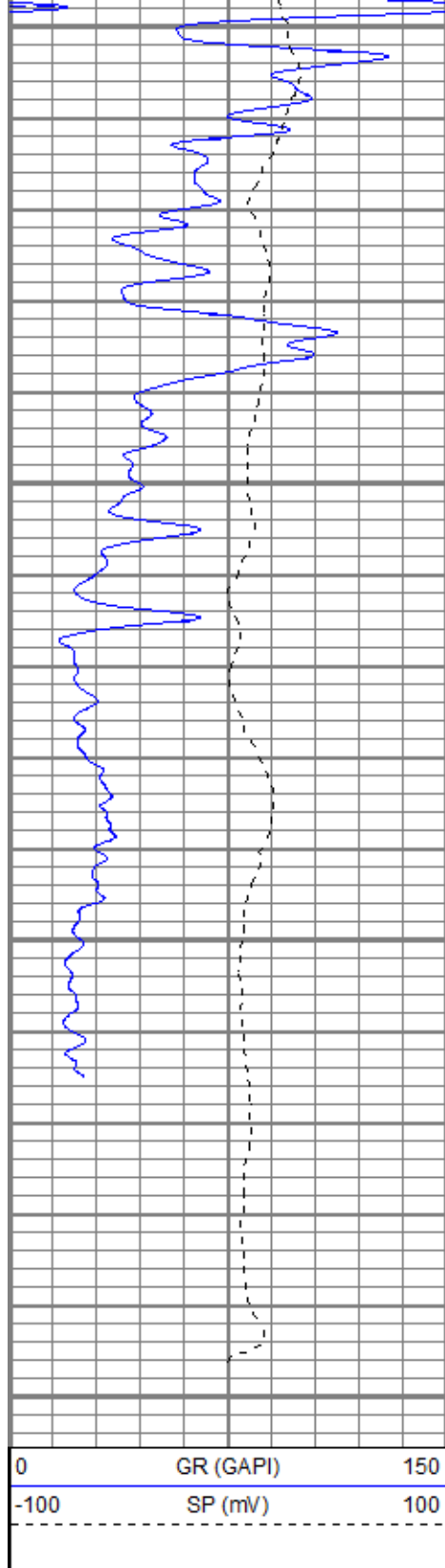
0	GR (GAPI)	150
-100	SP (mV)	100

4200



0.2	RILD (Ohm-m)	2000
0.2	RLL3 (Ohm-m)	2000
0.2	RILM (Ohm-m)	2000





Calibration Report	
Database File	ppbutterfield#2oh.db
Dataset Pathname	pass3
Dataset Creation	Mon Jul 03 09:36:40 2017
Dual Induction Calibration Report	
Serial-Model:	1989-ADM
Surface Cal Performed:	Thu Jun 08 07:52:27 2017
Downhole Cal Performed:	Thu Jun 08 07:52:30 2017
After Survey Verification Performed:	Thu Jun 08 07:52:33 2017
Surface Calibration	

Readings				References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.002	0.656	V	0.000	350.000	mmho/m	535.560	-1.118
Medium	0.003	0.745	V	0.000	400.000	mmho/m	538.828	-1.427
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.656	V	0.000	350.000	mmho/m	535.220	-1.003
Medium	0.003	0.745	V	0.000	550.000	mmho/m	741.357	-2.036

Downhole Calibration								
Readings				References			Results	
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	-0.036	349.993	mmho/m	-0.114	350.108	mmho/m	1.001	-0.078
Medium	0.039	400.181	mmho/m	0.053	399.799	mmho/m	0.999	0.013
Shallow	2.503	0.015	V	500.000	2.000	Ohm-m	180.177	-2.046

After Survey Verification								
Readings				Targets			Results	
Internal:	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.036	349.993	mmho/m	1.001	-0.078
Medium	0.000	0.000	mmho/m	0.039	400.181	mmho/m	0.999	0.013
Shallow	0.000	0.000	Ohm-m	500.000	2.000	Ohm-m	1.000	0.000

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Neutron Calibration Report		
Serial Number:	Admyr	
Tool Model:	G	
Performed:	Thu Mar 09 09:56:12 2017	
Calibrator Value:	1	NAPI
Calibrator Reading:	1	cps
Sensitivity:	1	NAPI/cps

Gamma Ray Calibration Report		
Serial Number:	1	
Tool Model:	A	
Performed:	Thu Jun 08 07:52:01 2017	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.7000	GAPI/cps

Temperature Calibration Report					
Serial Number:	1				
Tool Model:	A				
Performed:	Thu Jun 08 07:52:12 2017				
	Reference		Reading		
Low Reference:	0.00	degF	0.00	degF	
High Reference:	32.00	degF	32.00	degF	
Gain:	1.00				
Offset:	0.00				
Delta Spacing	1				

Inclinometer Calibration Report

Performed: Thu Jun 08 07:52:17 2017

Low Read. High Read. Low Ref. High Ref.

X Accelerometer	205.00	1843.00	-1.00	1.00	gee
Y Accelerometer	205.00	1843.00	-1.00	1.00	gee
Z Accelerometer					gee

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	38.32		CHD-STD	0.50	1.69	1.00
			ADT1PULSE-A (1) Pulsed Interface Tool #1	0.83	3.50	10.00
			ADT1ADC-A (1) Analog Interface #1	0.83	3.50	10.00
TEMP	35.35					
PSTAT	35.06		ADT1SENSORS-A (1)	4.54	3.50	10.00
ASTAT	35.06					
GRD	34.81					
ACCY	34.65		NEU-G (Admyr) Gearhart Epithermal	5.65	3.50	85.00
ACCX	34.65					
SSTAT	34.65					
NEU	33.46					
LStat	22.54					
LS8	21.88					
LS7	21.88		ADT1LITH-A (1) Admyr Litho Density Tool	9.29	3.50	240.00
LS6	21.88					
LS5	21.88					
LS4	21.88					
LS3	21.88					
LS2	21.88					
LS1	21.88					
LSV	21.88					
LSD	21.86					
SSV	21.67					
SS8	21.67					
SS7	21.67					
SS6	21.67					
SS5	21.67					
SS4	21.67					
SS3	21.67		DIL-ADM (1989) Dual Induction	19.71	4.00	300.00
SS2	21.67					
SS1	21.67					
DCAL	21.61					
SSD	21.27					
SP	10.60					
CILD	10.60					
CILM	6.89					
RLL3	1.70					
TR_Mon	0.00					

Dataset:	ppbutterfield#2oh.db: field/well/run1/pass3
Total length:	39.69 ft
Total weight:	656.00 lb
O.D.:	4.00 in