



DUAL INDUCTION LOG

MIDWEST WIRELINE

CompanyLB Exploration Inc.		Company LB Exploration Inc.	
Well	Sandy 31-1	Well	Sandy 31-1
Field	Unknown	Field	Unknown
County	Ellsworth	County	Ellsworth
State	Kansas	State	Kansas
Location: API #: 15-053-21395-00-00		Other Services	
1440 FSL & 1885 FWL		CNL/CDL MEL/BHCS	
Permanent Datum	Ground Level	Elevation	1784
Log Measured From	Kelly Bushing	K.B.	1792
Drilling Measured From	Kelly Bushing	D.F.	
		G.L.	1784
SEC 31 TWP 16S RGE 8W			
Date	6/1/2024		
Run Number	One		
Depth Driller	2490		
Depth Logger	2490		
Bottom Logged Interval	2489		
Top Log Interval	250		
Casing Driller	8.625 @ 250		
Casing Logger	260		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity,ppm CL	5000		
Density / Viscosity	9.2 54		
pH / Fluid Loss	10 8.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.75 @ 79		
Rmt @ Meas. Temp	.56 @ 79		
Rmc @ Meas. Temp	1.01 @ 79		
Source of Rmt/ Rmc	CHARTS		
Rm @ BHT	.59 @ 101		
Operating Rig Time	3 Hours		
Max Rec. Temp. F	101		
Equipment Number	P-108		
Location	HAYS		
Recorded By	J. Henrickson		
Witnessed By	Jim Musgrove		

<<< Fold Here >>>

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.

Hollyrood KS
8.4 East, North Into

Log Measured From: Kelly Bushing 8 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew

Engineer: J. Henrickson
Operator:
Operator:
Operator:

This Log Record Was Witnessed By

Primary Witness: Jim Musgrove
Secondary Witness:
Secondary Witness:
Secondary Witness:

Log Variables

DatabaseC:\ProgramData\Warrior\Data\lb_sandy_31_1.db
Dataset field/well/StackmlPE/pass3.1/_vars_

Top - Bottom

BOREID in 7.875	BOTTEMP degF 101	CASEOD in 5.5	CASETHCK in 0	FLUIDDEN g/cc 1	MATRXDEN g/cc 2.71	NPORSEL Limestone	PERFS No
SNDERR mmho/m 0	SNDERRM mmho/m 0	SPSHIFT mV 490	SRFTEMP degF 68	SZCOR Off	TDEPTH ft 2490		

Variable Description

BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
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



MIDWEST WIRELINE

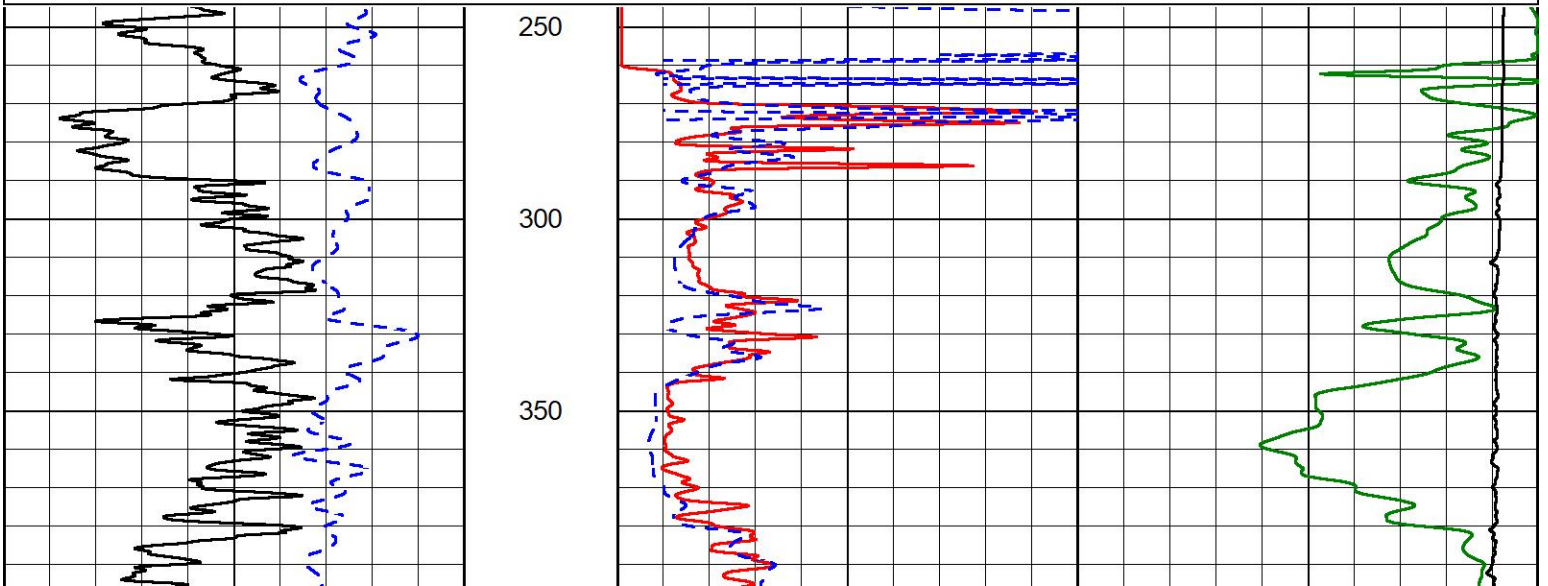
2" SCALE RESISTIVITY

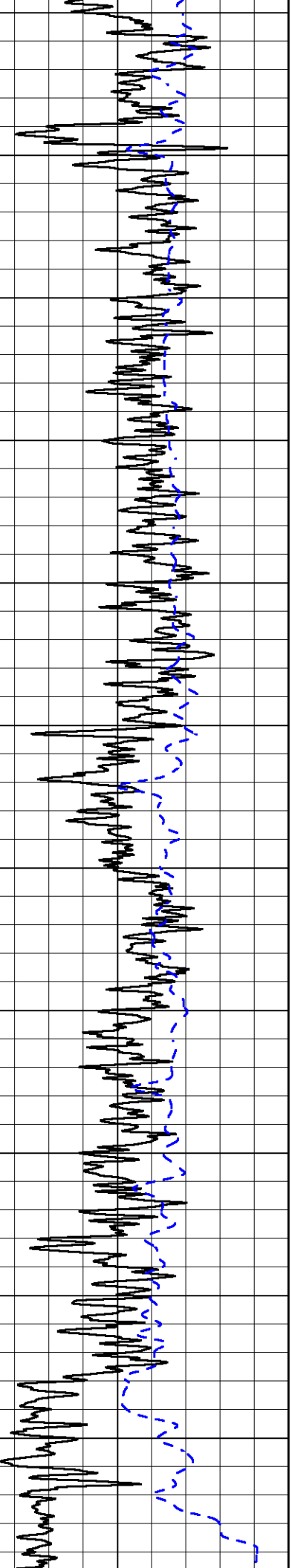
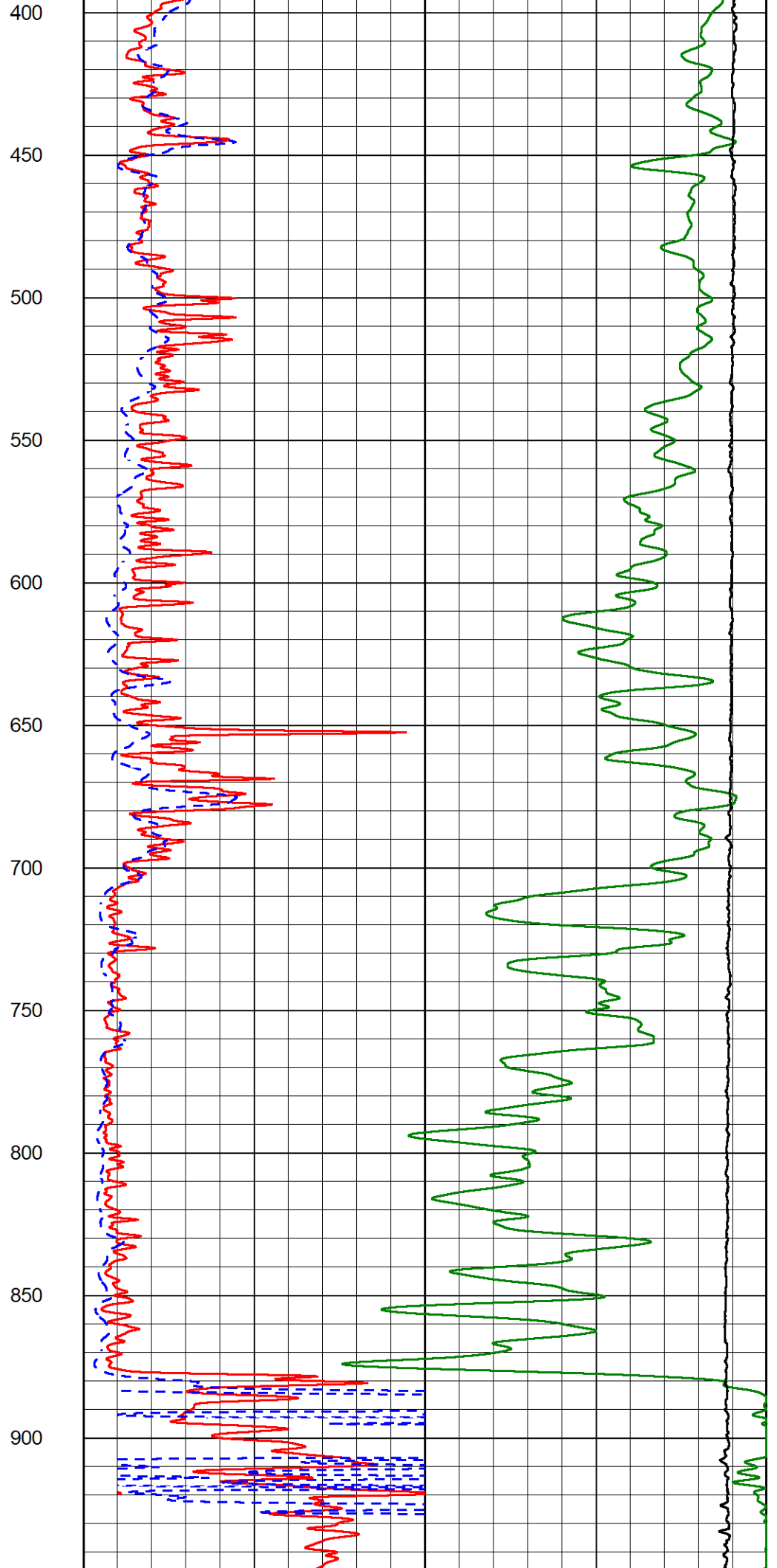
MAIN PASS

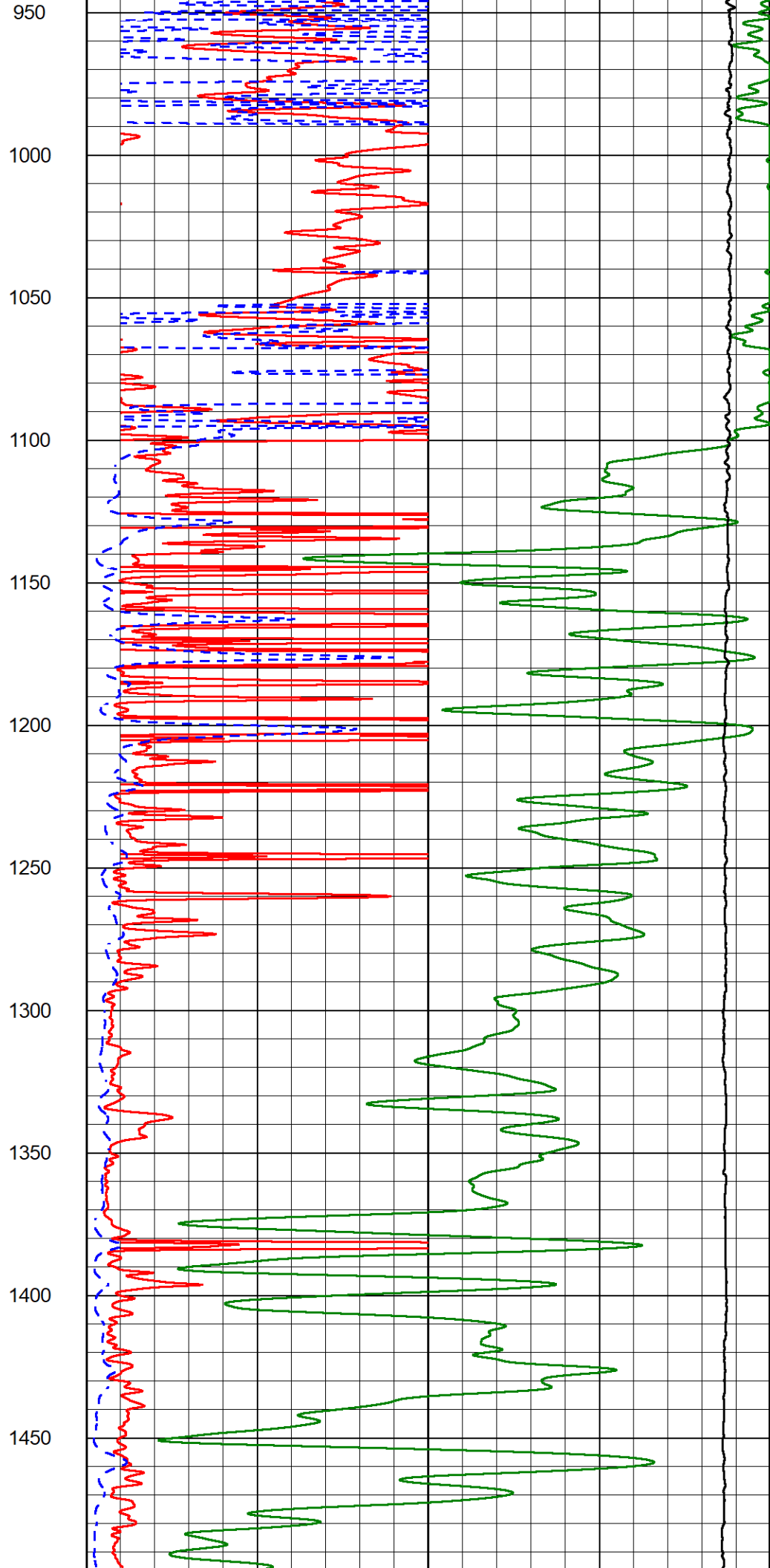
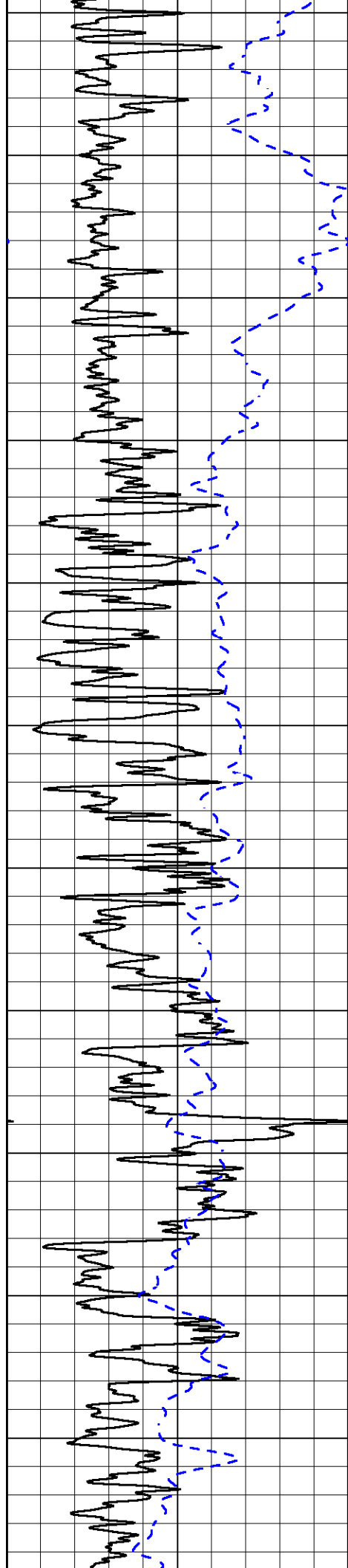
Database File lb_sandy_31_1.db
Dataset Pathname StackmlPE/pass3.2
Presentation Format _dil2in
Dataset Creation Sat Jun 01 20:41:24 2024
Charted by Depth in Feet scaled 1:600

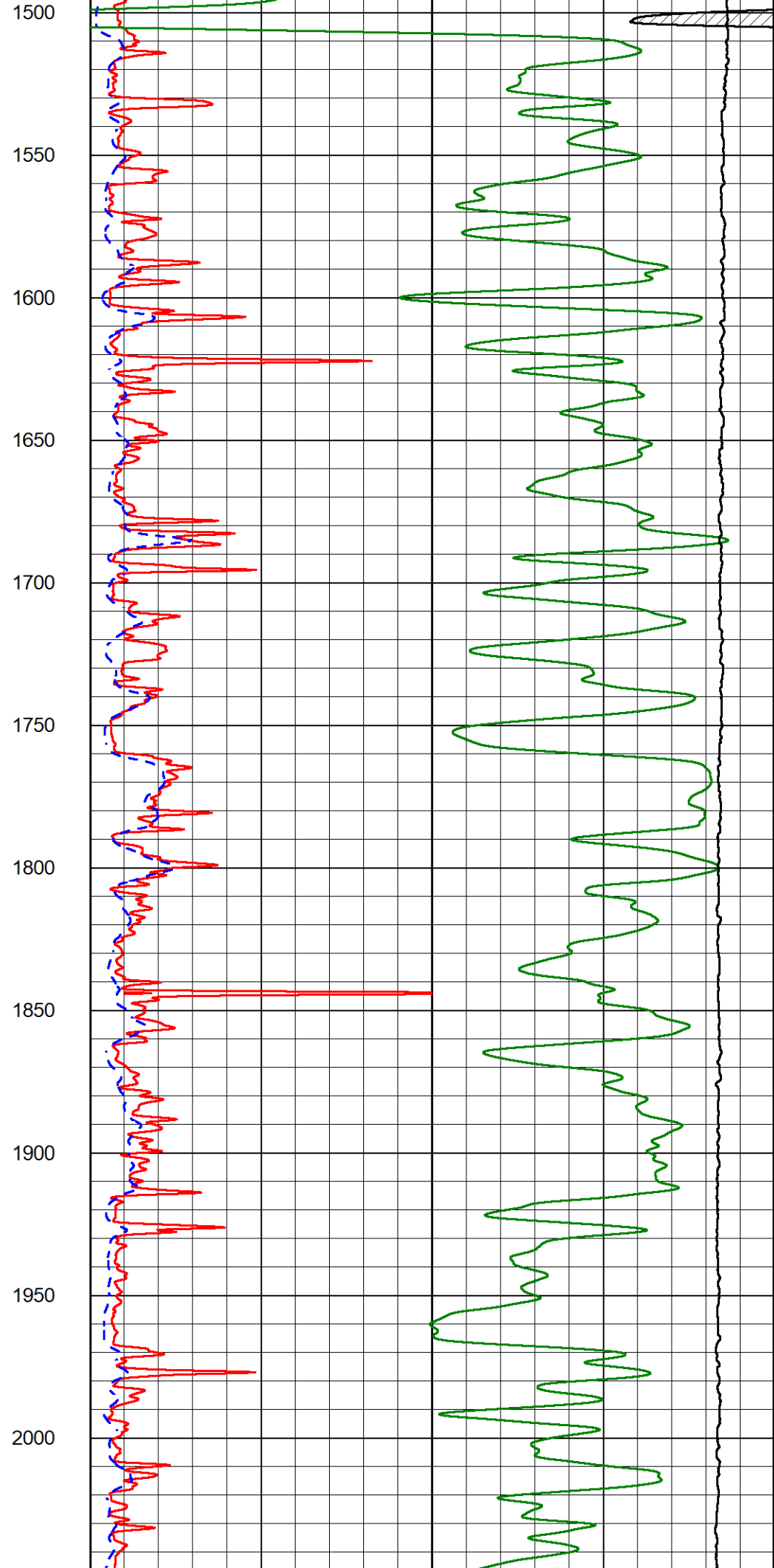
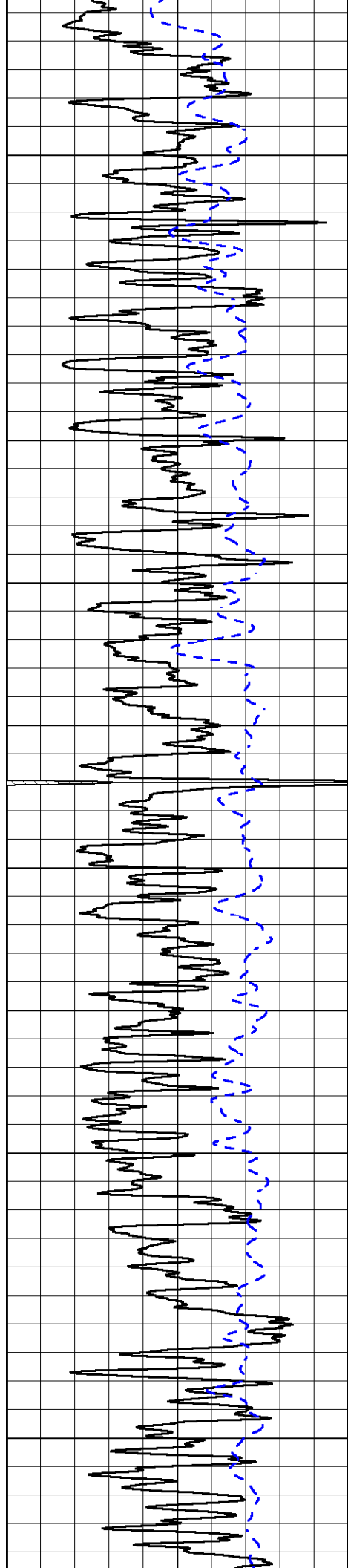
0	Gamma Ray (GAPI)	150
-200	SP (mV)	0

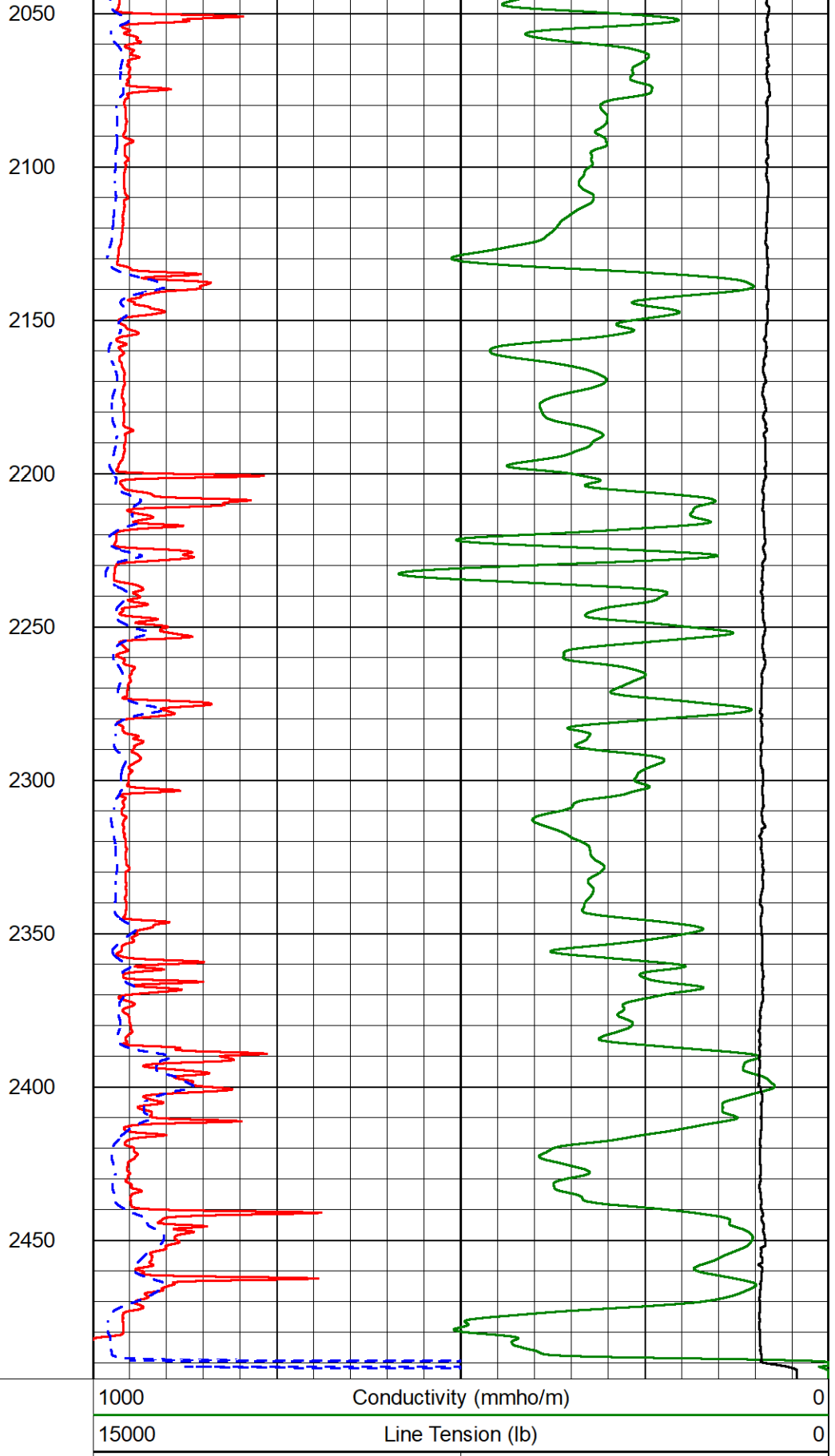
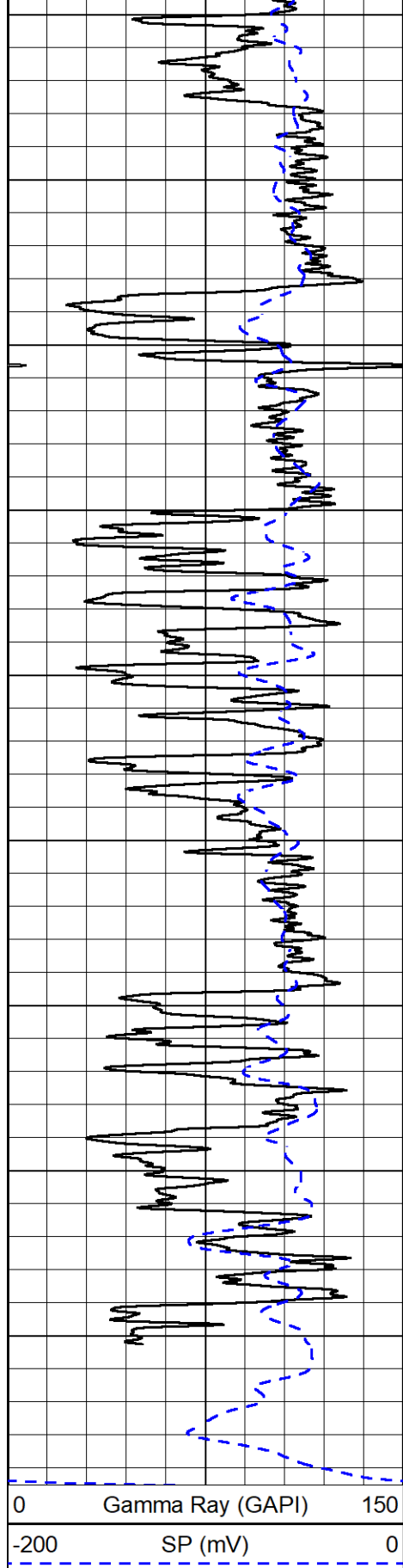
1000	Conductivity (mmho/m)	0
15000	Line Tension (lb)	0
0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
50	Shallow Resistivity (Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200











0	Shallow Resistivity (Ohm-m)	50
0	Deep Resistivity (Ohm-m)	50
Shallow Resistivity		
50	(Ohm-m)	200
50	Deep Resistivity (Ohm-m)	200



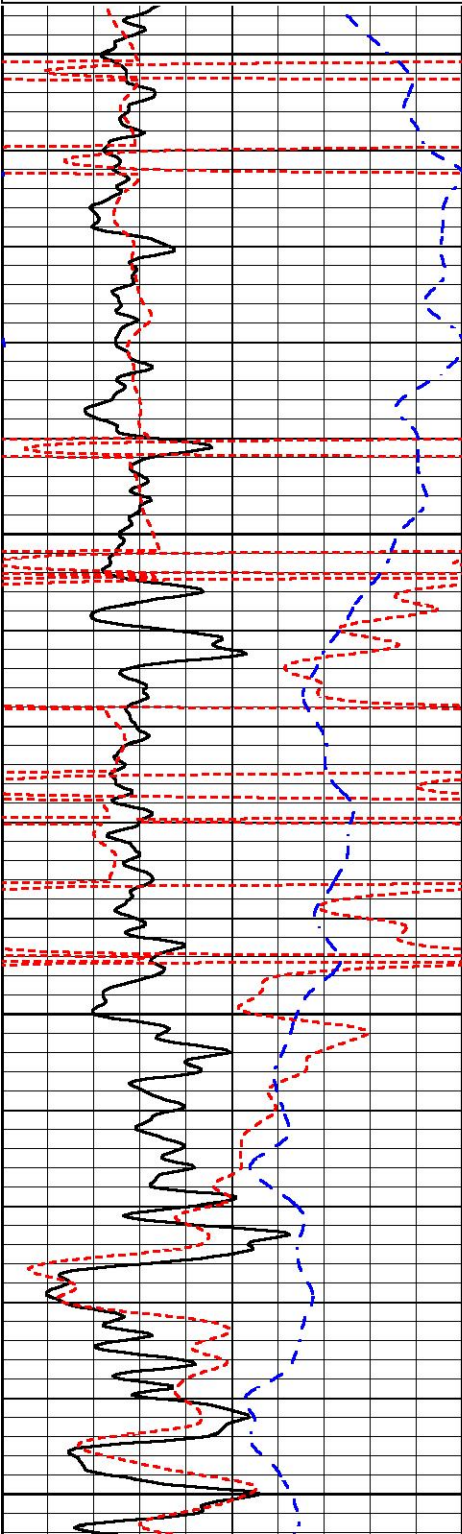
DETAIL SECTION

MAIN PASS

Database File lb_sandy_31_1.db
Dataset Pathname StackmlPE/pass3.1
Presentation Format _dil
Dataset Creation Sat Jun 01 20:41:46 2024
Charted by Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150
50	RXORT	250
-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

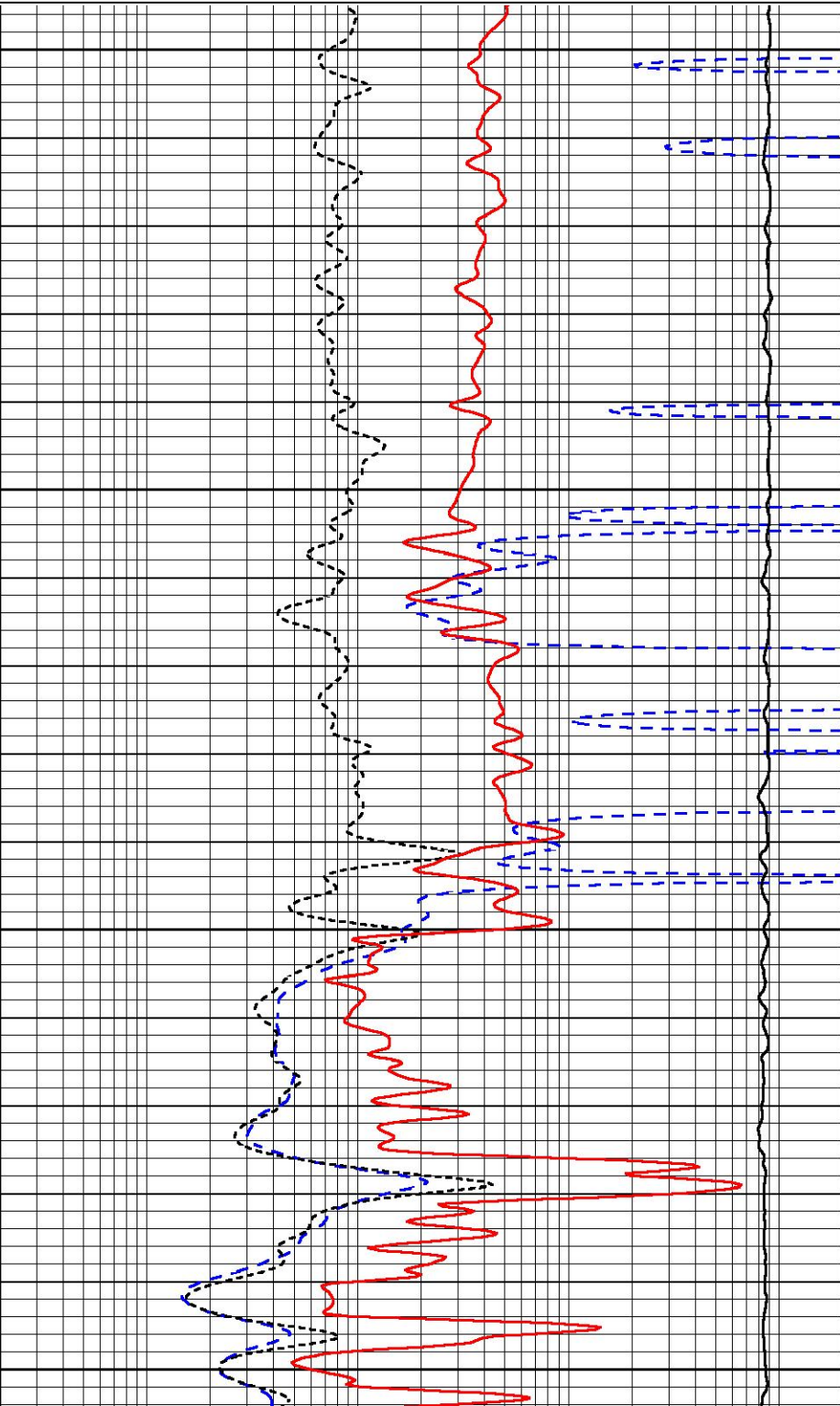


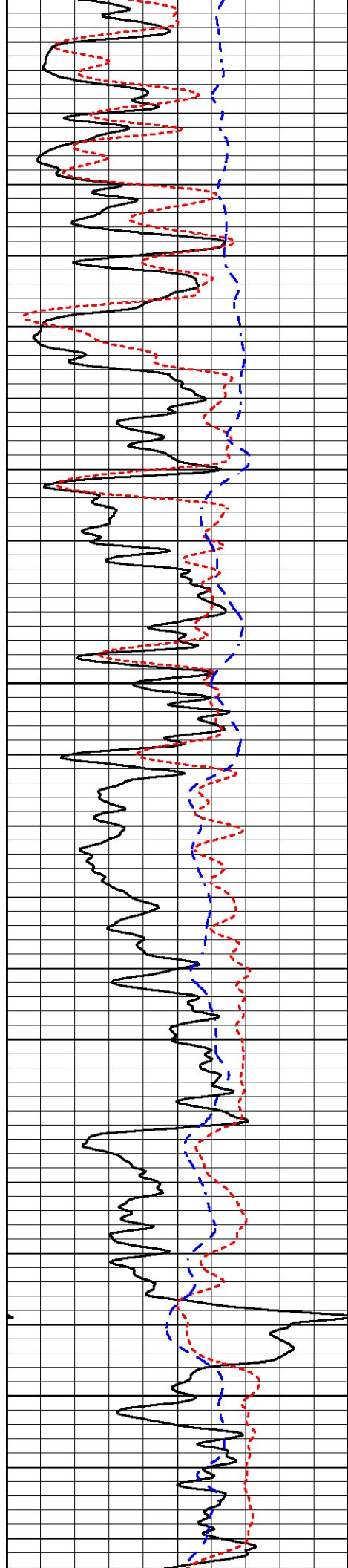
1000

1050

1100

1150



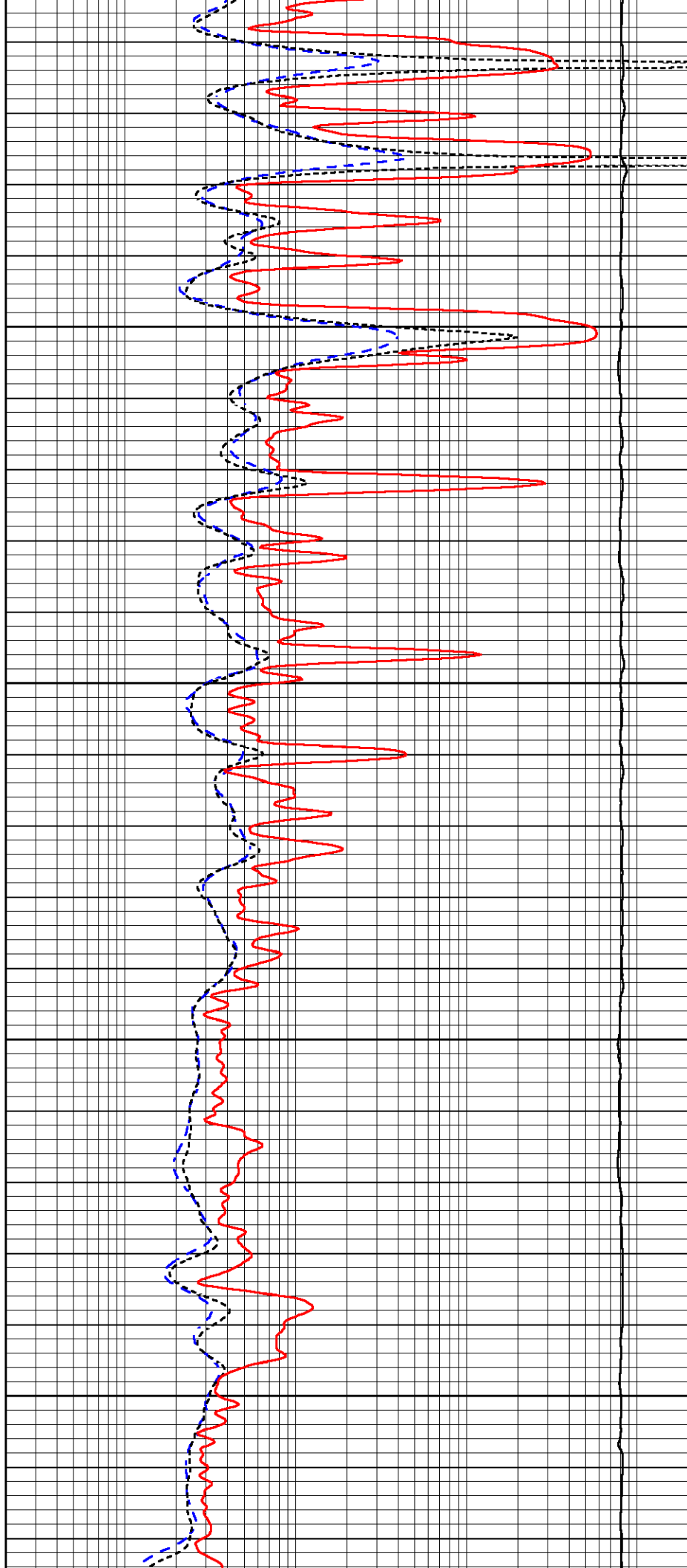


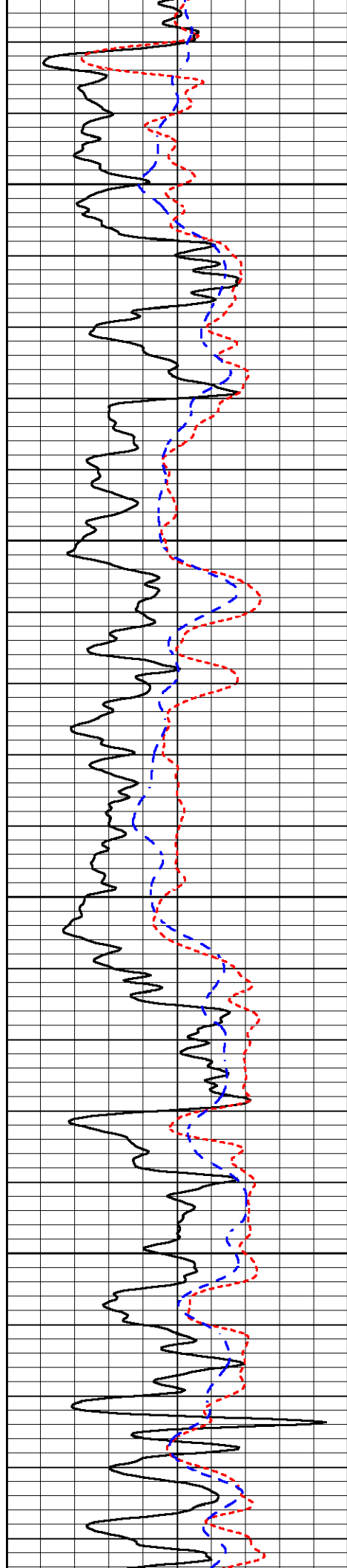
1200

1250

1300

1350



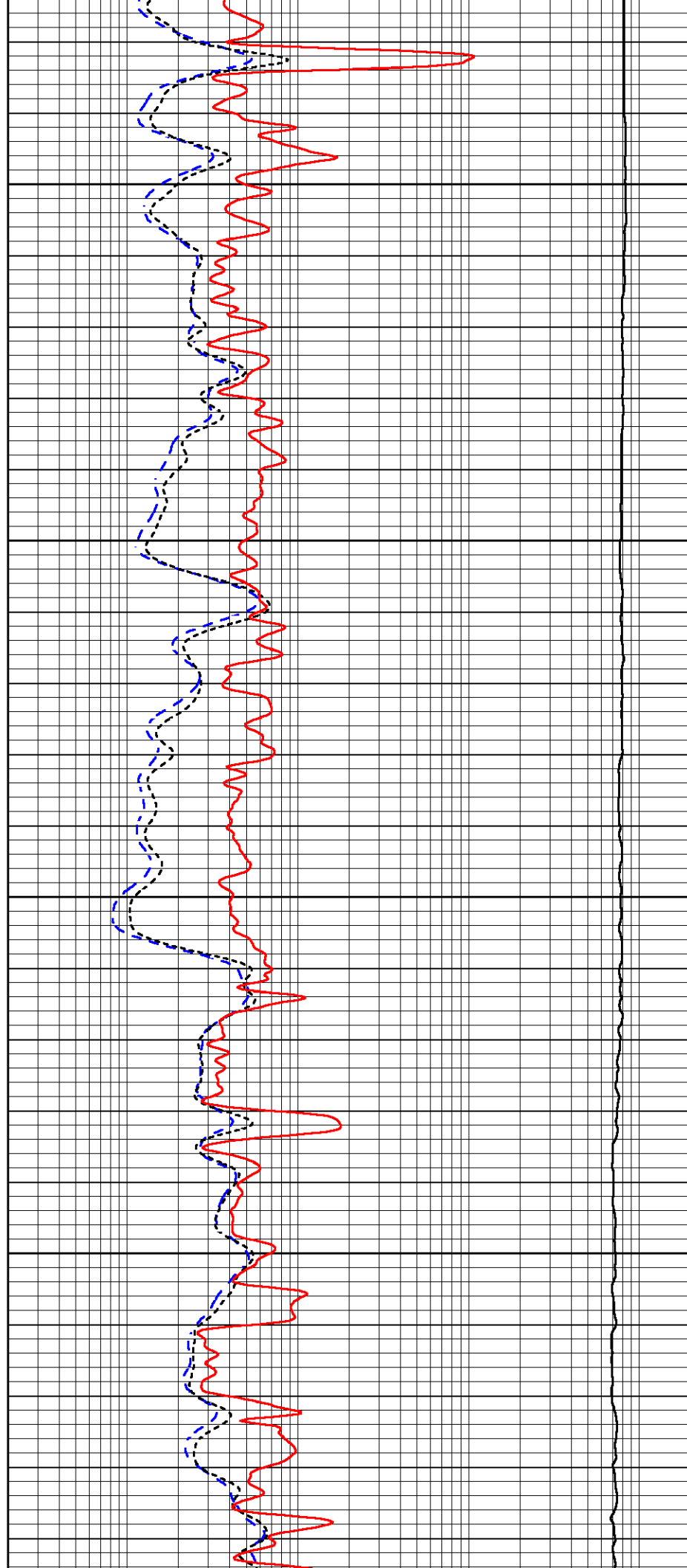


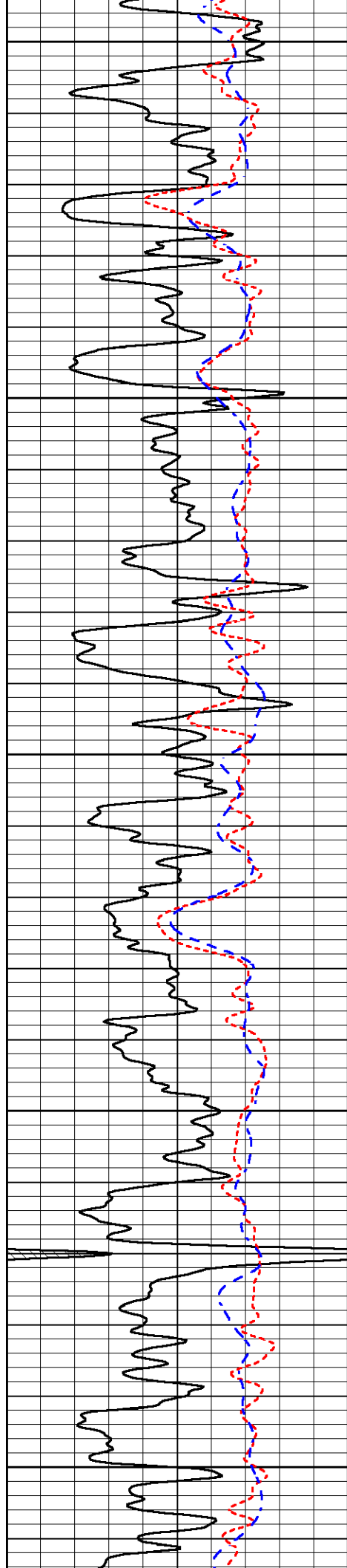
1400

1450

1500

1550





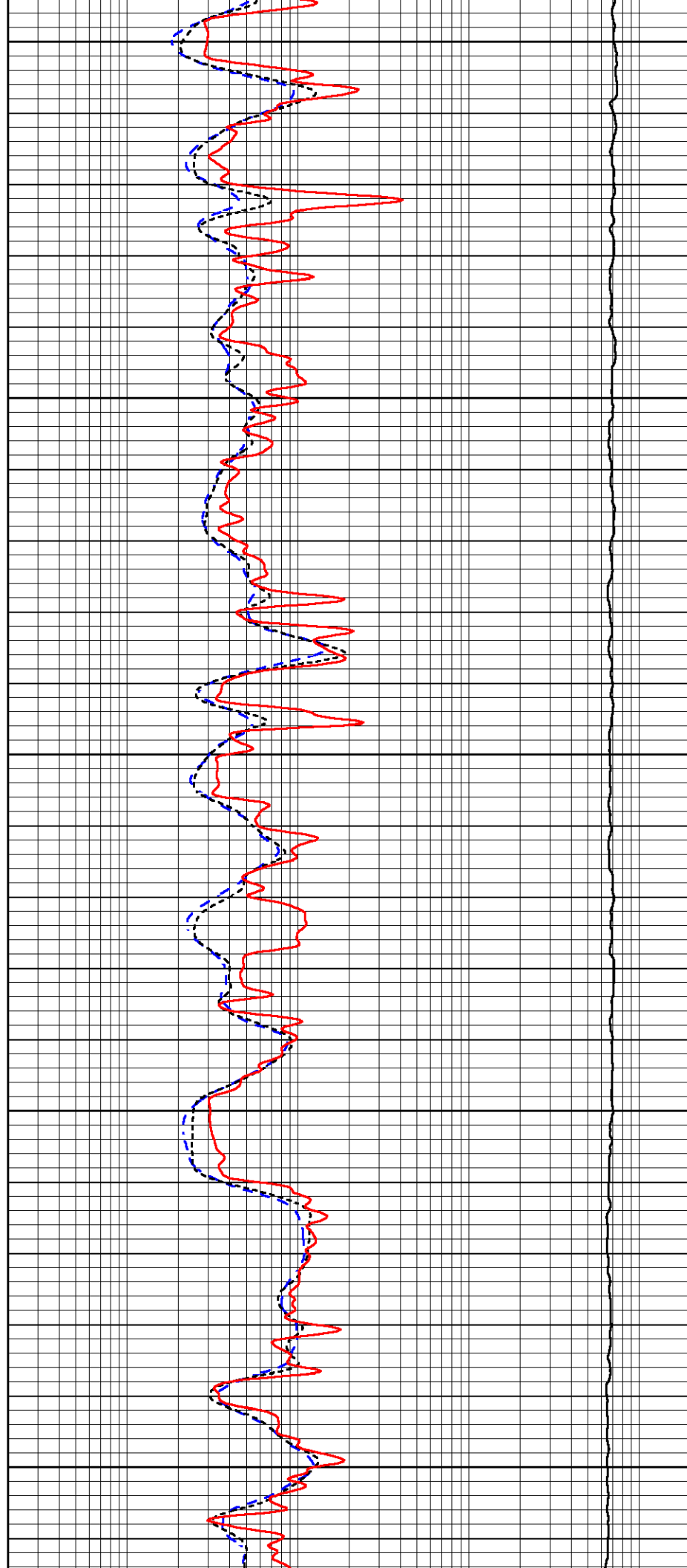
1600

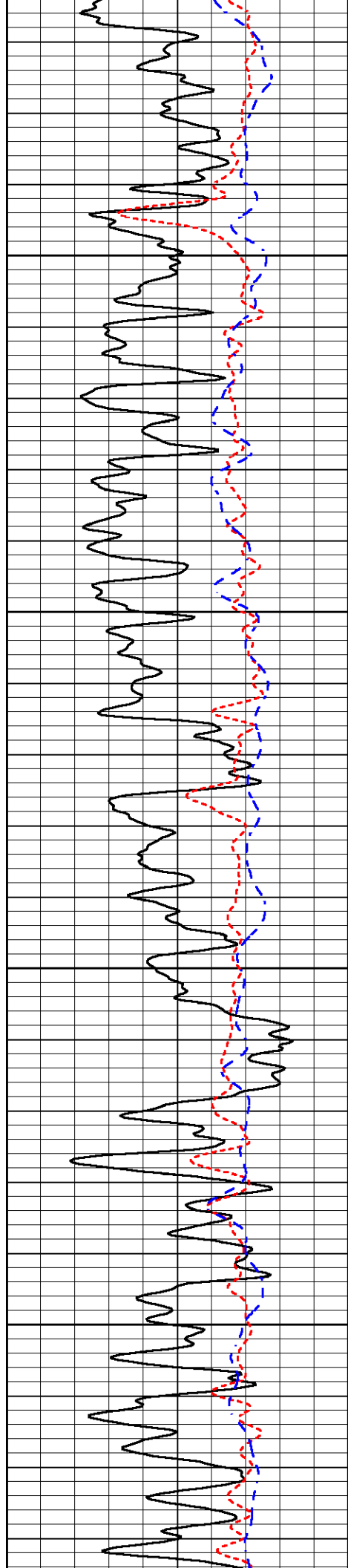
1650

1700

1750

1800



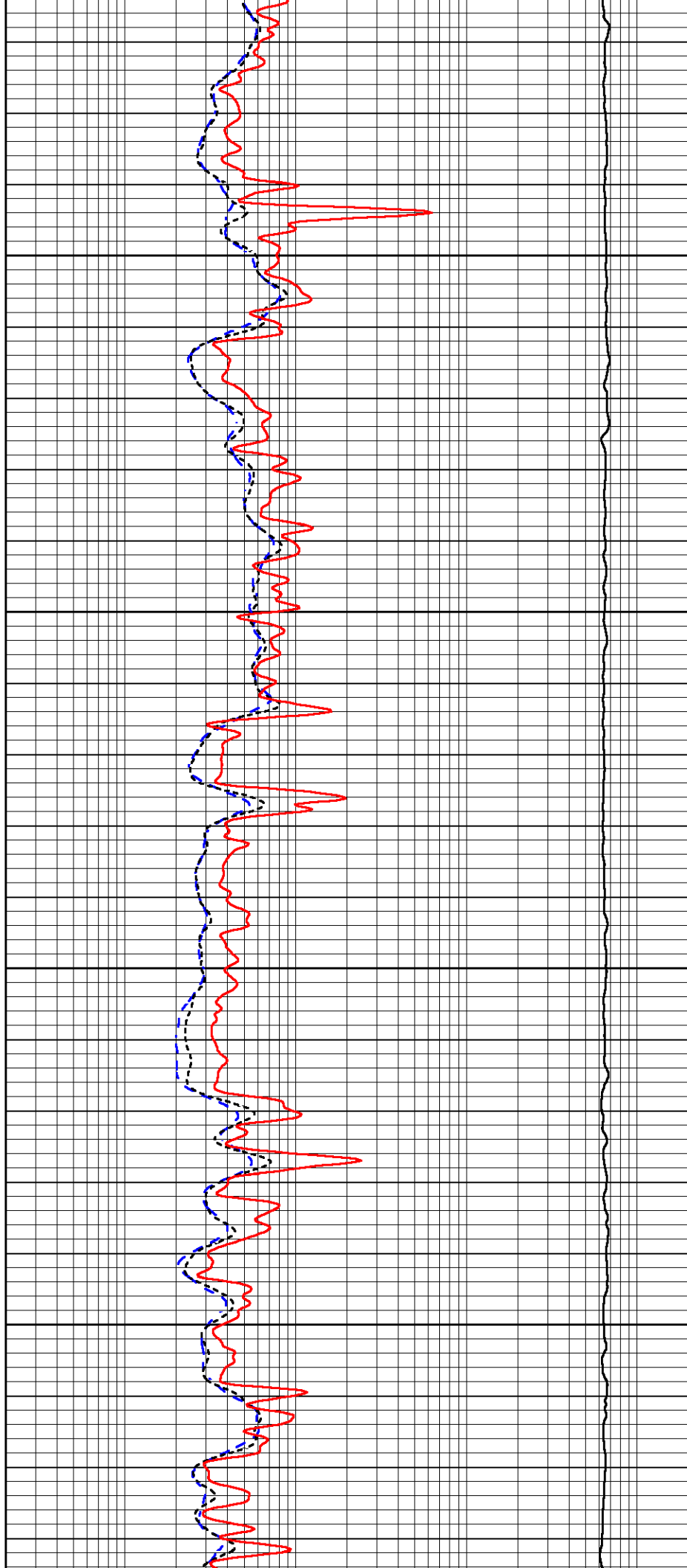


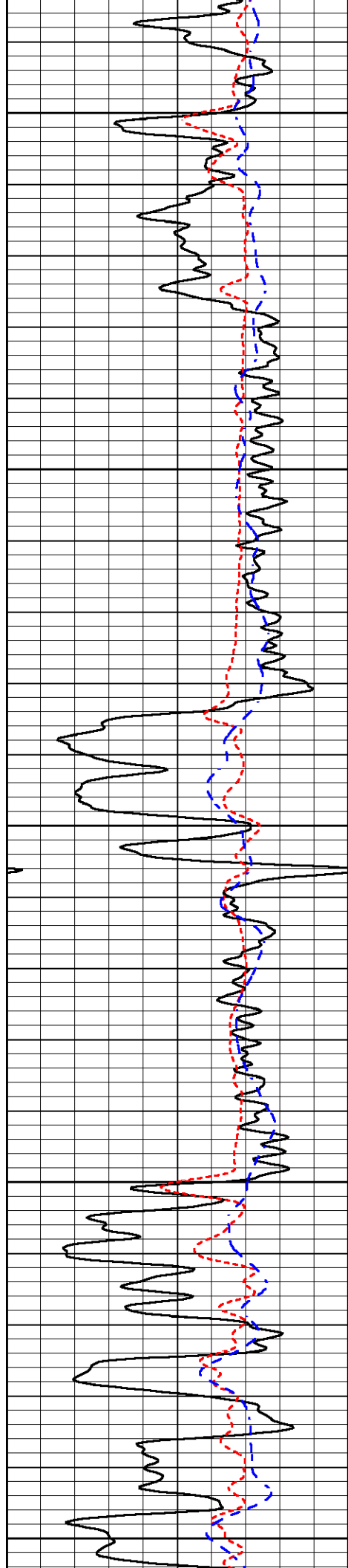
1850

1900

1950

2000





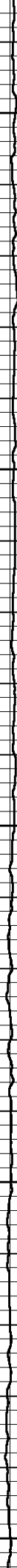
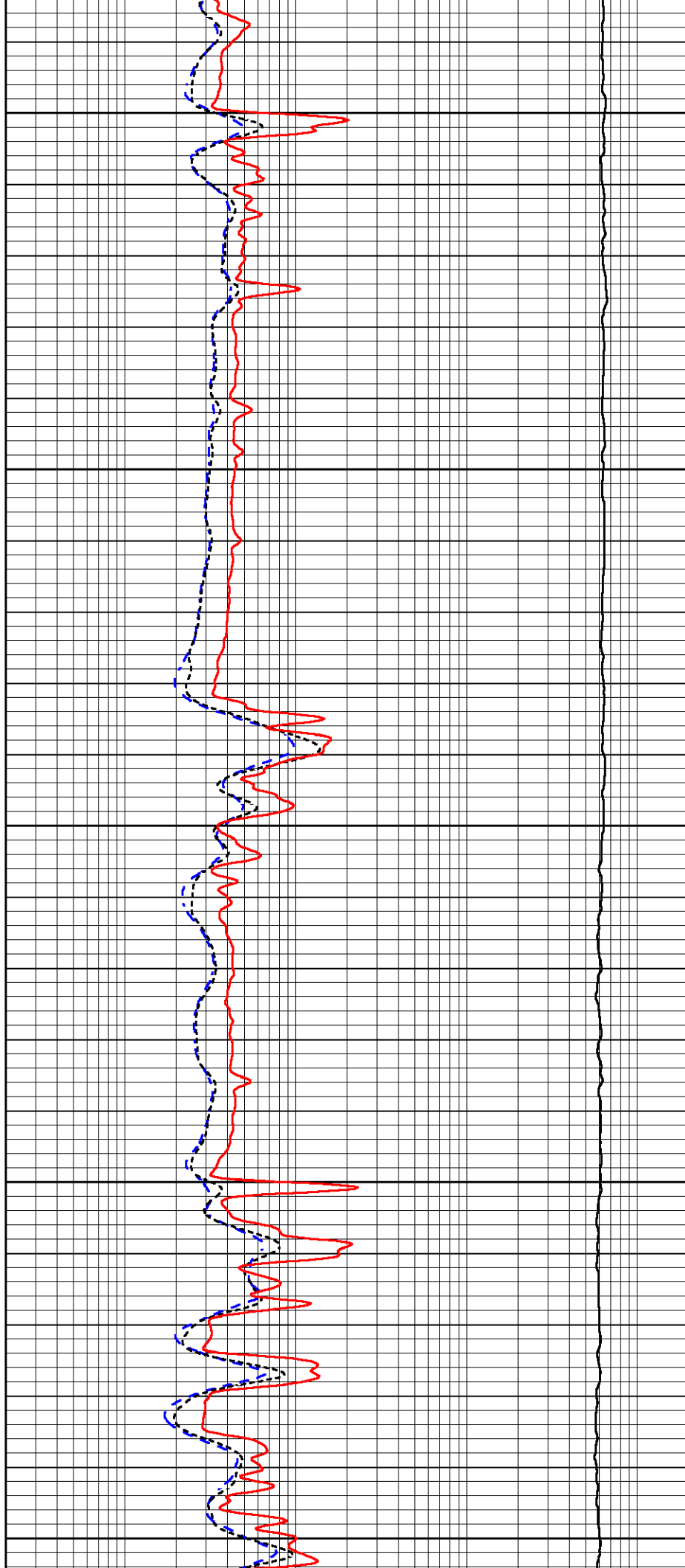
2050

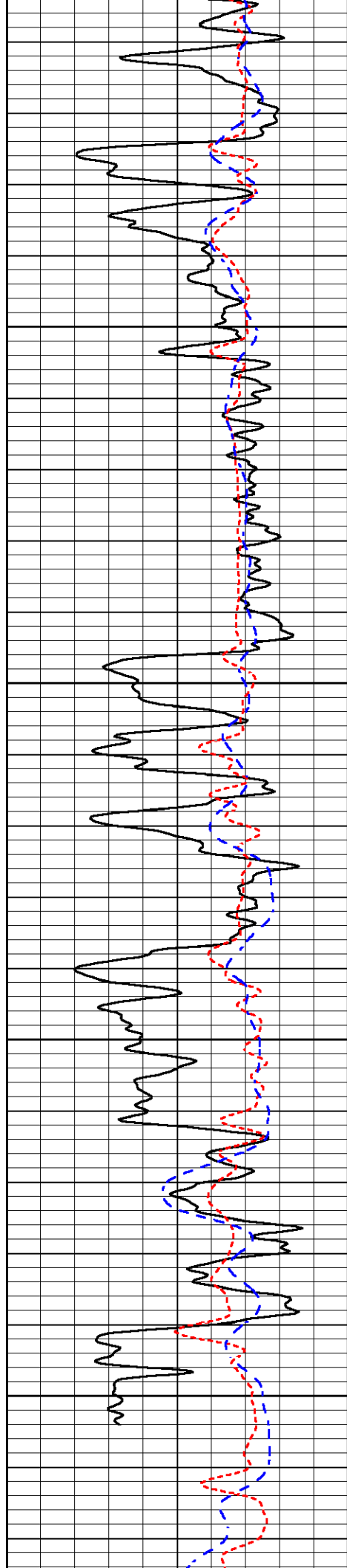
2100

2150

2200

2250



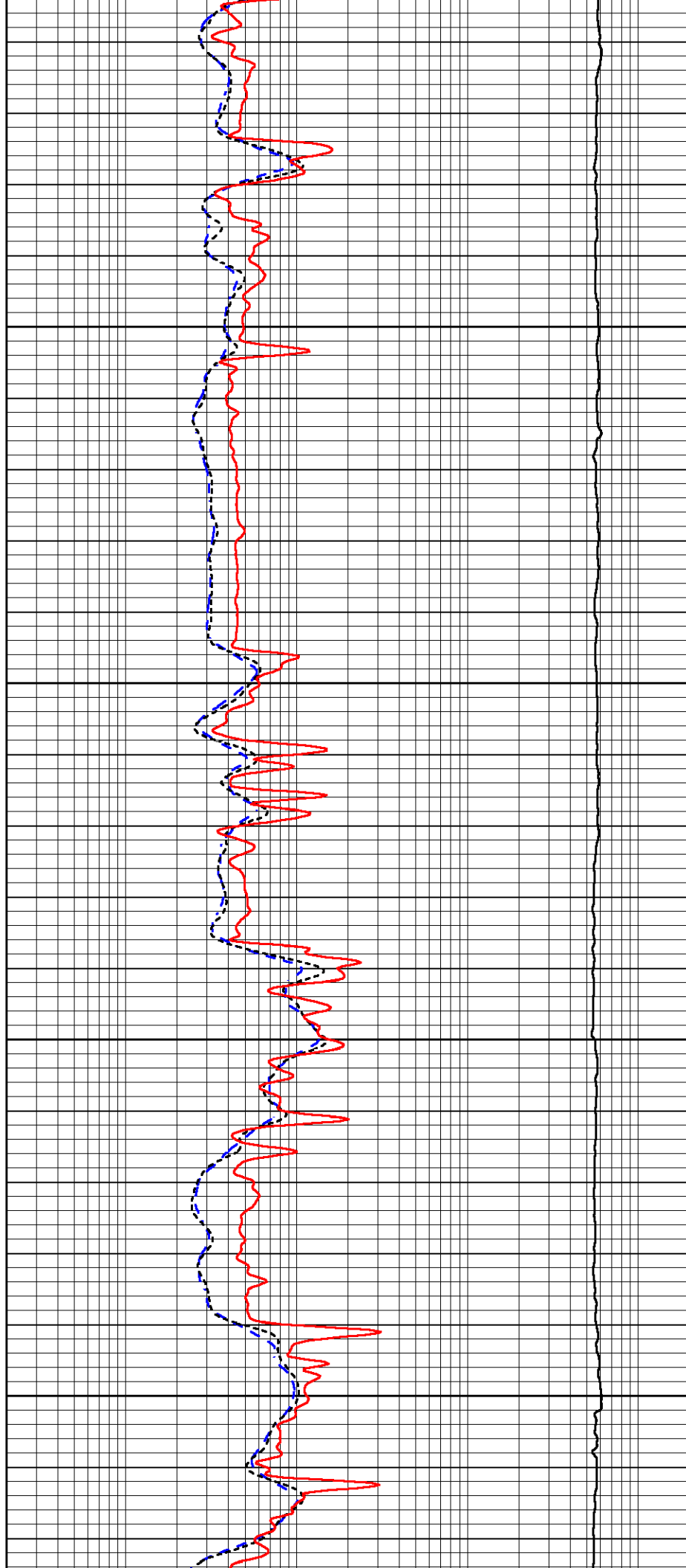


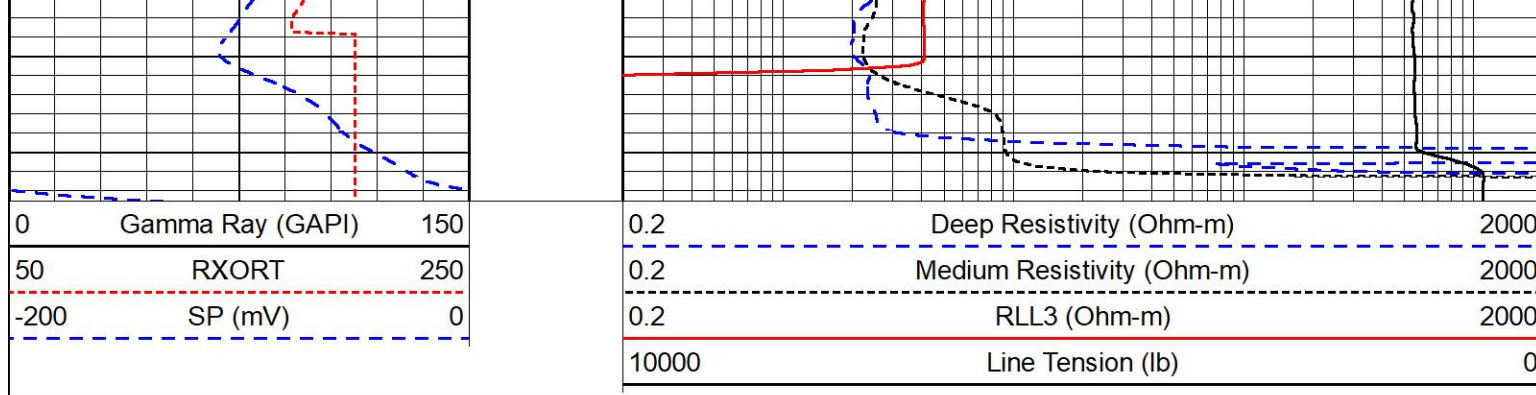
2300

2350

2400

2450



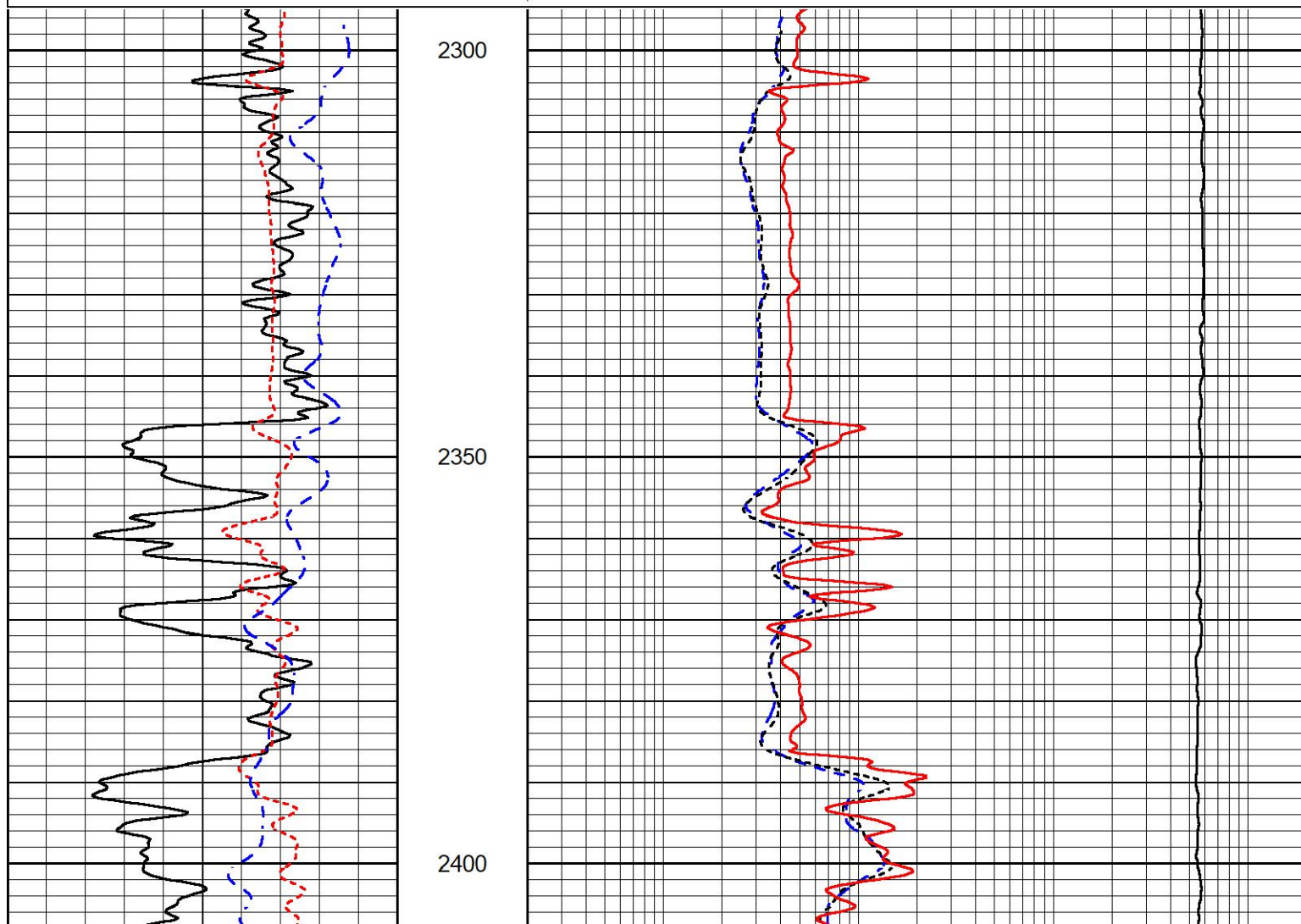
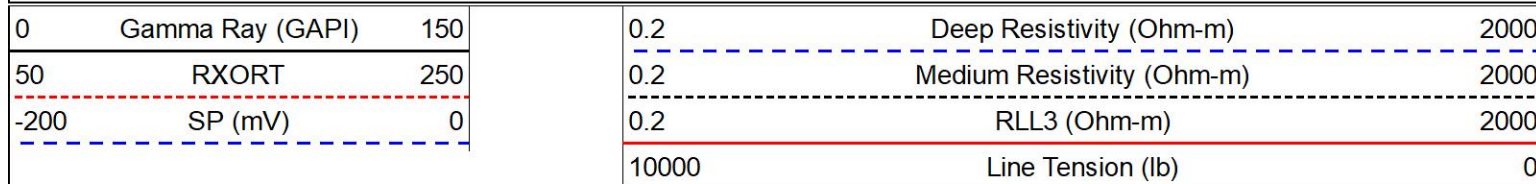


MIDWEST WIRELINE

REPEAT SECTION

REPEAT PASS

Database File lb_sandy_31_1.db
 Dataset Pathname StackmlPE/pass2.1
 Presentation Format _dil
 Dataset Creation Sat Jun 01 20:26:49 2024
 Charted by Depth in Feet scaled 1:240



Serial Number: 704-10
Tool Model: STEP LITHO
Performed: Wed May 15 12:34:43 2024

Source:

	Win1	Win2	Win3	Win4	Win5	Win6	Win7	Win8	
Background:									
SS:	51	55	197	245	22	70	40	1	cps
LS:	86	96	359	462	54	146	91	3	cps
Aluminum:									
SS:	853	1002	2288	1979	39	72	43	2	cps
LS:	1052	1836	3294	1549	61	144	96	5	cps
Magnesium:									
SS:	1445	1656	3774	2905	41	71	43	3	cps
LS:	4605	7622	13008	4914	101	132	89	12	cps
Aluminum+Iron:									
SS:	527	693	1862	1689	37	70	45	1	cps
LS:	603	1287	2745	1370	58	143	93	5	cps

	Density			PE		
	Actual	Calibrated		Actual	Calibrated Quality	
Background:						
SS:						0.274
LS:						0.231
Aluminum:						
SS:	2.6000	2.6000	g/cc			0.247
LS:	2.6000	2.6000	g/cc			0.200
Magnesium:						
SS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.241
LS:	1.6800	1.6800	g/cc	2.5700	2.5700	0.195
Aluminum+Iron:						
SS:					6.1800	0.211
LS:					6.1800	0.212

Caliper:	Reference:	Reading:
Small Ring:	6.0 in	0.2
Large Ring:	16.0 in	0.8
Gain:	16.161	
Offset:	1.050	

Compensated Neutron Calibration Report

Serial Number: 207
Tool Model: M&W

CALIBRATION

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: 102
Tool Model: M&W
Performed: Fri May 17 01:58:13 2024

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps

Calibrator Reading:	1.0	cps
Sensitivity:	0.5300	GAPI/cps



Company	LB Exploration Inc.
Well	Sandy 31-1
Field	Unknown
County	Ellsworth
State	Kansas