MIDWEST WIRELINE

BOREHOLE COMPENSATED SONIC LOG

Company Chris Batchman, Inc.
Well Herter #5
Field Chase - Silica
County Barton
State Kansas

Location: API # : 15-009-26297-00-00
SE - NW - SE - SE
710' FSL & 890' FEL
SEC 8 TWP 20S RGE 11W

Other Services
CNL/CDL
DIL/MEL
BHCS

Elevation
K.B. 1784'
D.F. N/A
G.L. 1775'

Permanent Datum Ground Level Elevation 1775'
Log Measured From Kelly Bushing
Drilling Measured From Kelly Bushing

Date	4/28/2021
Run Number	Two
Type Log	BHCS
Depth Driller	3400'
Depth Logger	3401'
Bottom Logged Interval	3389'
Top Logged Interval	250'
Type Fluid In Hole	Chemical
Salinity, PPM CL	9500
Density	8.9
Level	Full
Max. Rec. Temp. F	110
Operating Rig Time	4 Hours
Equipment -- Location	P-108 | HAYS
Recorded By	D. Schmidt
Witnessed By	James Musgrove

Borehole Record

Run No.	Bit	From	To
One	12.25"	0'	265'
Two	7.875"	265'	TD

Casing Record

Size	Wgt.	From	To
8.625"	23#	0'	265'

<<< 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.

Ellinwood,
South to SE 30 Rd, 1 7/8 East,
North into

Log Measured From: Kelly Bushing 9 Ft. Above Permanent Datum

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

Your Midwest Wireline Crew	This Log Record Was Witnessed By
Engineer: D. Schmidt	Primary Witness: James Musgrove
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb
			GR-M&W (233-M&W)	3.00	3.50	50.00
GR	44.50					
CNLSC	41.40		CNT-M&W (207-MW)	5.50	3.50	100.00
CNSSC	40.65					
			CDL-M&W (817-947)	8.50	4.00	250.00
LSD	32.35					
DCAL	32.33					
SSD	31.85					
			ML-PSI UDM ML (UDM-01) Stackable Microlog Tools	11.50	4.00	215.00
MCAL	20.87					
MI	20.87					
MN	20.87					
RLL3F	15.80					
RLL3	15.80					
			DIL-PSI HIGH TEMP (952-828)	18.50	3.50	220.00
CILD	8.00					
CILM	4.70					
SP	0.20					

Dataset: batchman_herter 5.db: field/well/stkml/pass6.1
Total length: 47.00 ft
Total weight: 835.00 lb
O.D.: 4.00 in

Log Variables

DatabaseC:\ProgramData\Warrior\Data\batchman_herter 5.db
Dataset field/well/stkml/pass6.1/_vars_

Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	110	5.5	0	1	2	2.71

NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	0	0	370	60	Off	3401

Variable Description

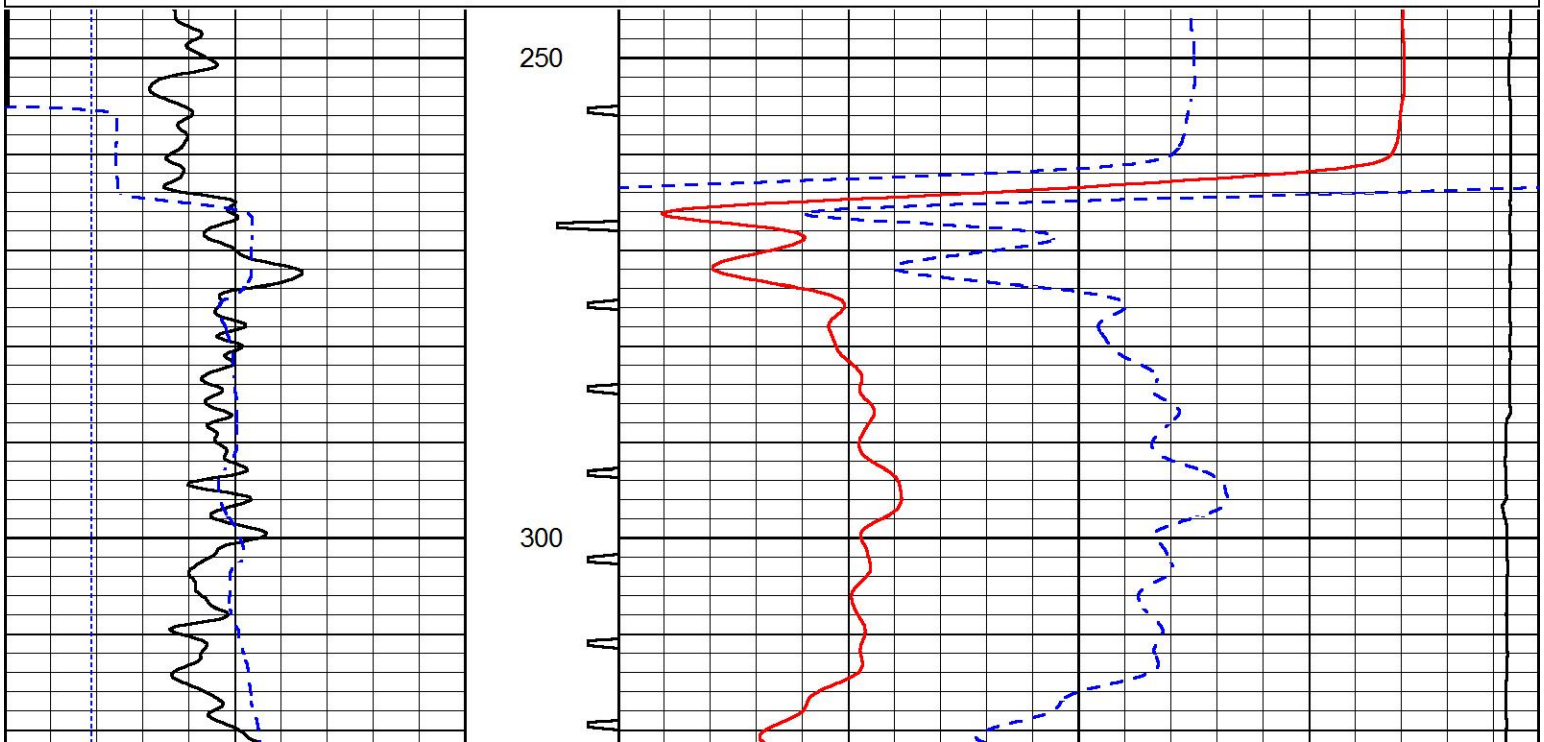
A : Cement Factor (a)
BOREID : Borehole I.D.
BOTTEMP : Bottom Hole Temperature
CASEOD : Casing O.D.
CASETHCK : Casing Thickness
FLUIDDEN : Fluid Density
M : Cement Exp (m)
MATRXDEN : Matrix Density
NPORSEL : Neutron Porosity Curve Select
PERFS : Perforation Flag
SNDERR : Deep Sonde Error Correction
SNDERRM : Medium Sonde Error Correction
SPSHIFT : S.P. Baseline Offset
SRFTEMP : Surface Temperature
SZCOR : CN Size Cor. ?
TDEPTH : Total Depth

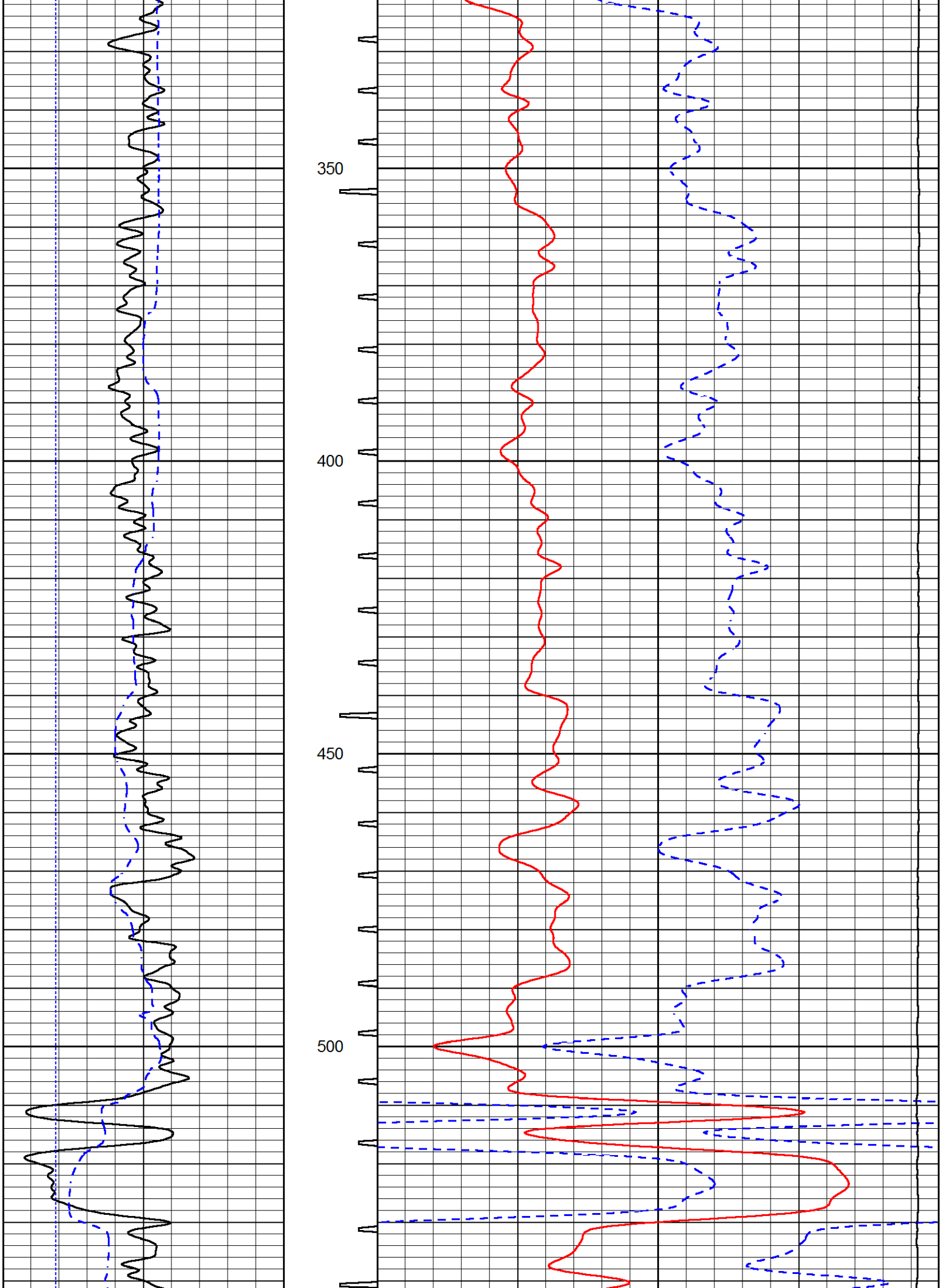
MIDWEST WIRELINE

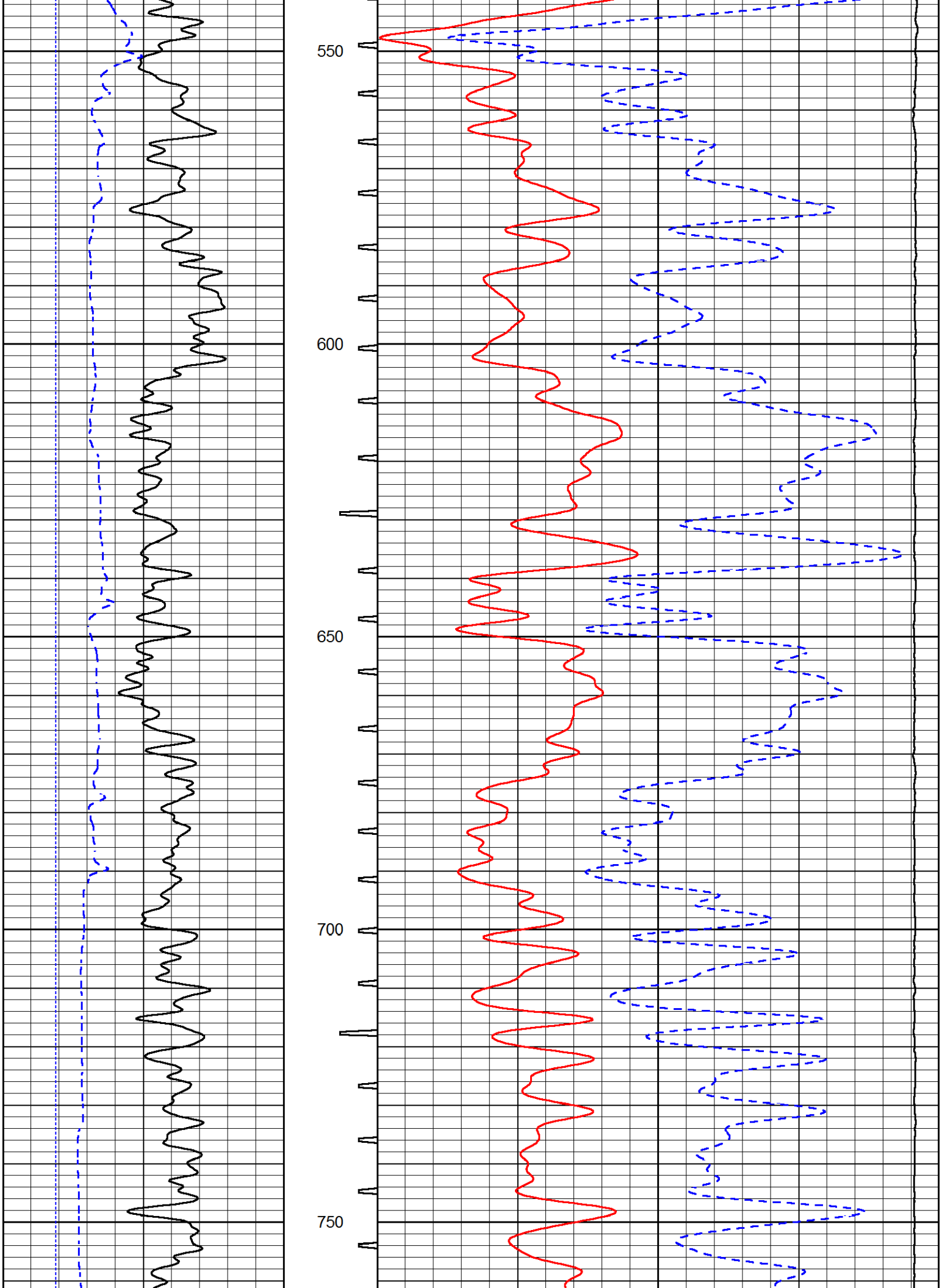
MAIN PASS

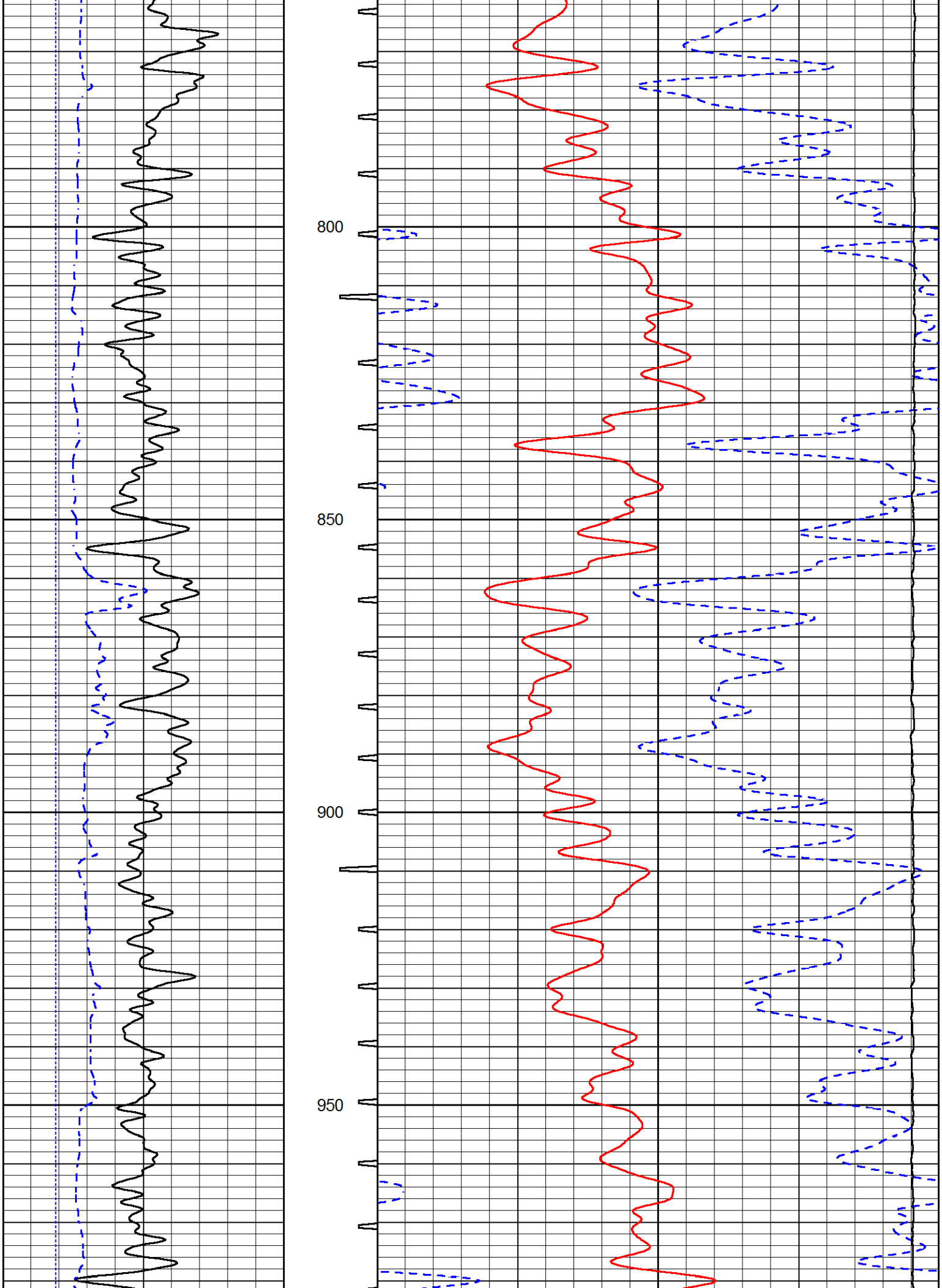
Database File	batchman_herter 5.db
Dataset Pathname	stkml/pass7.1
Presentation Format	_sonic
Dataset Creation	Wed Apr 28 09:52:09 2021
Charted by	Depth in Feet scaled 1:240

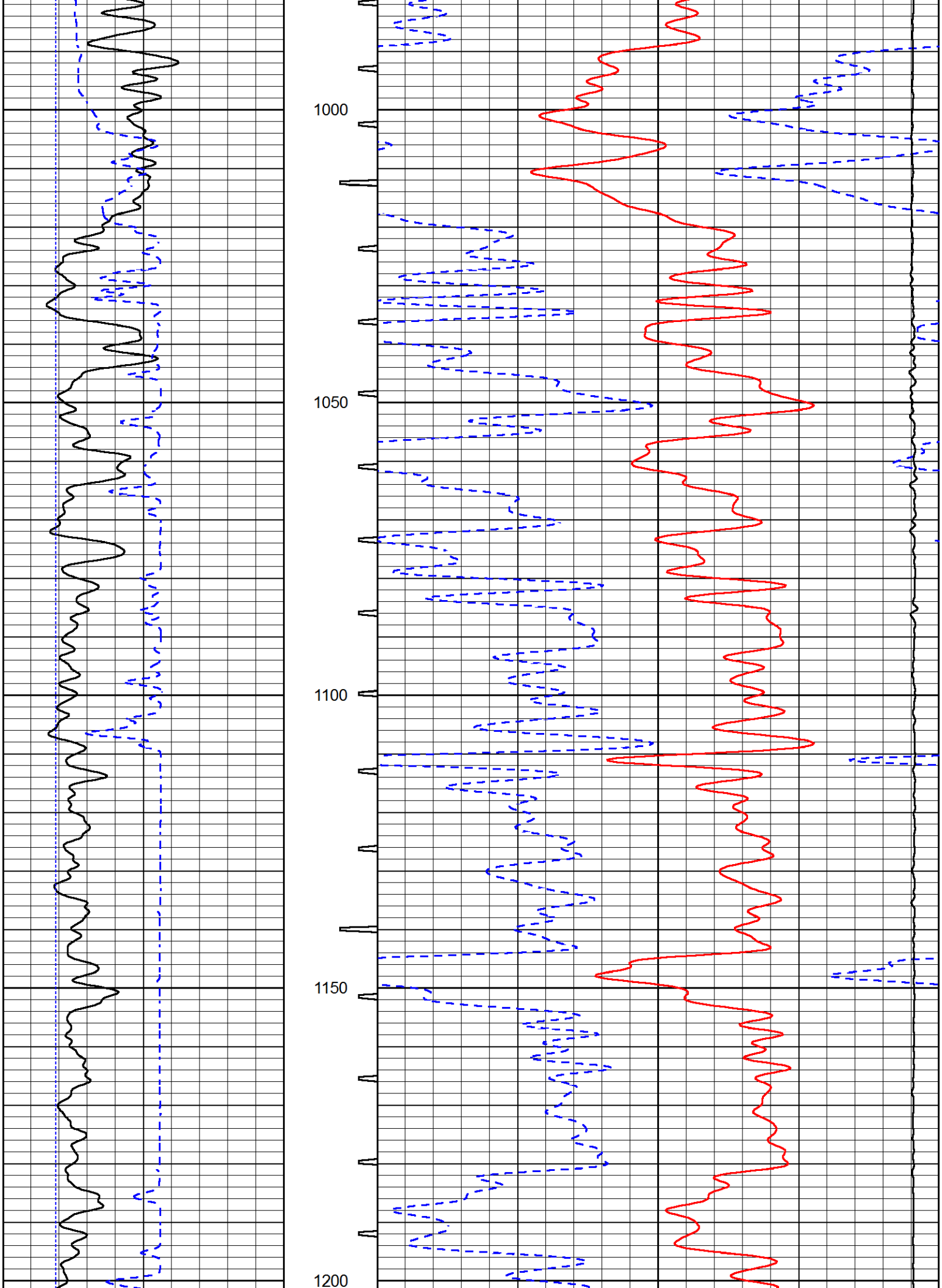
0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft) 40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu) -10
6	DCAL (in)	16		15000	LTEN (lb) (lb) 0

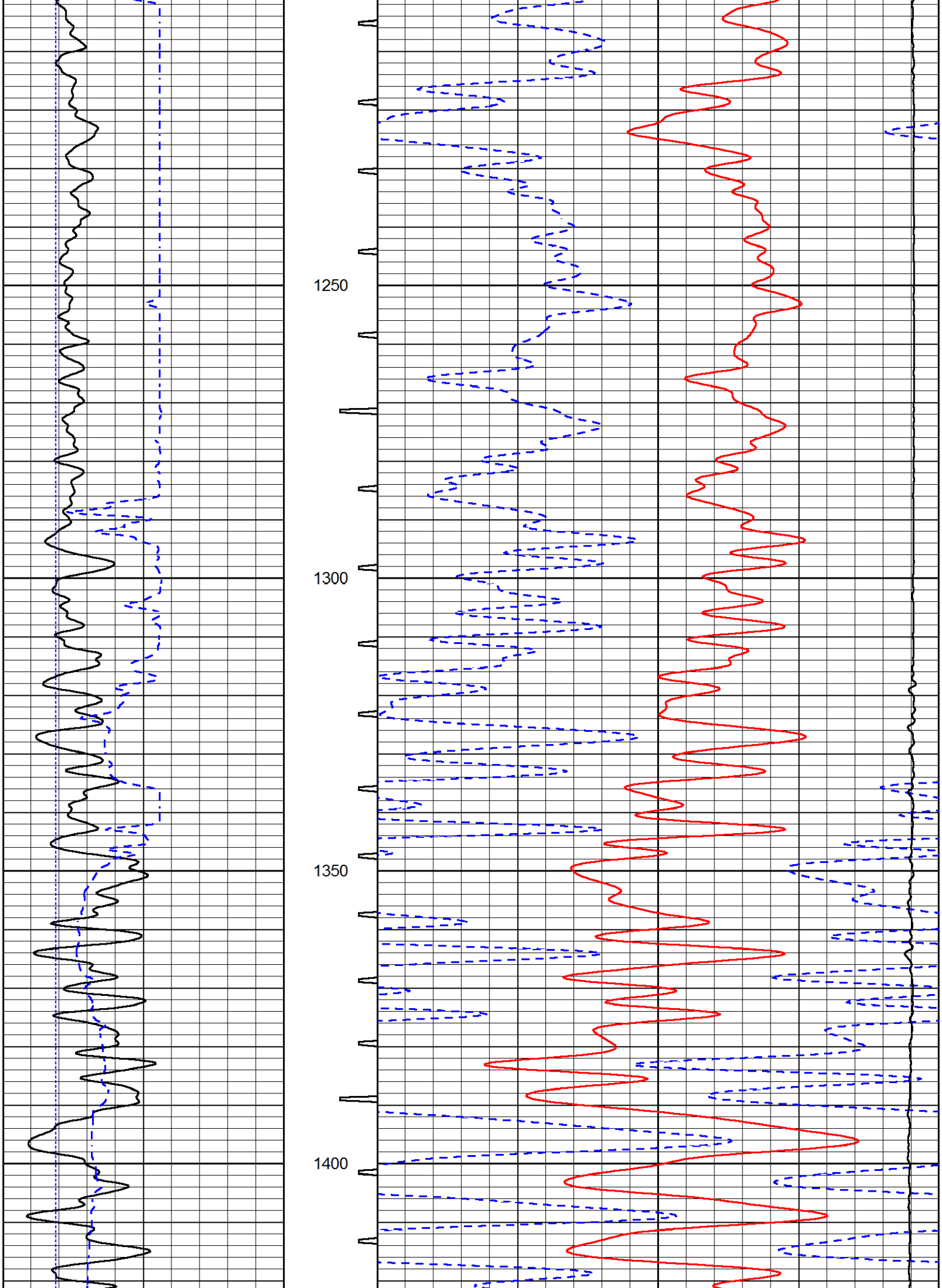


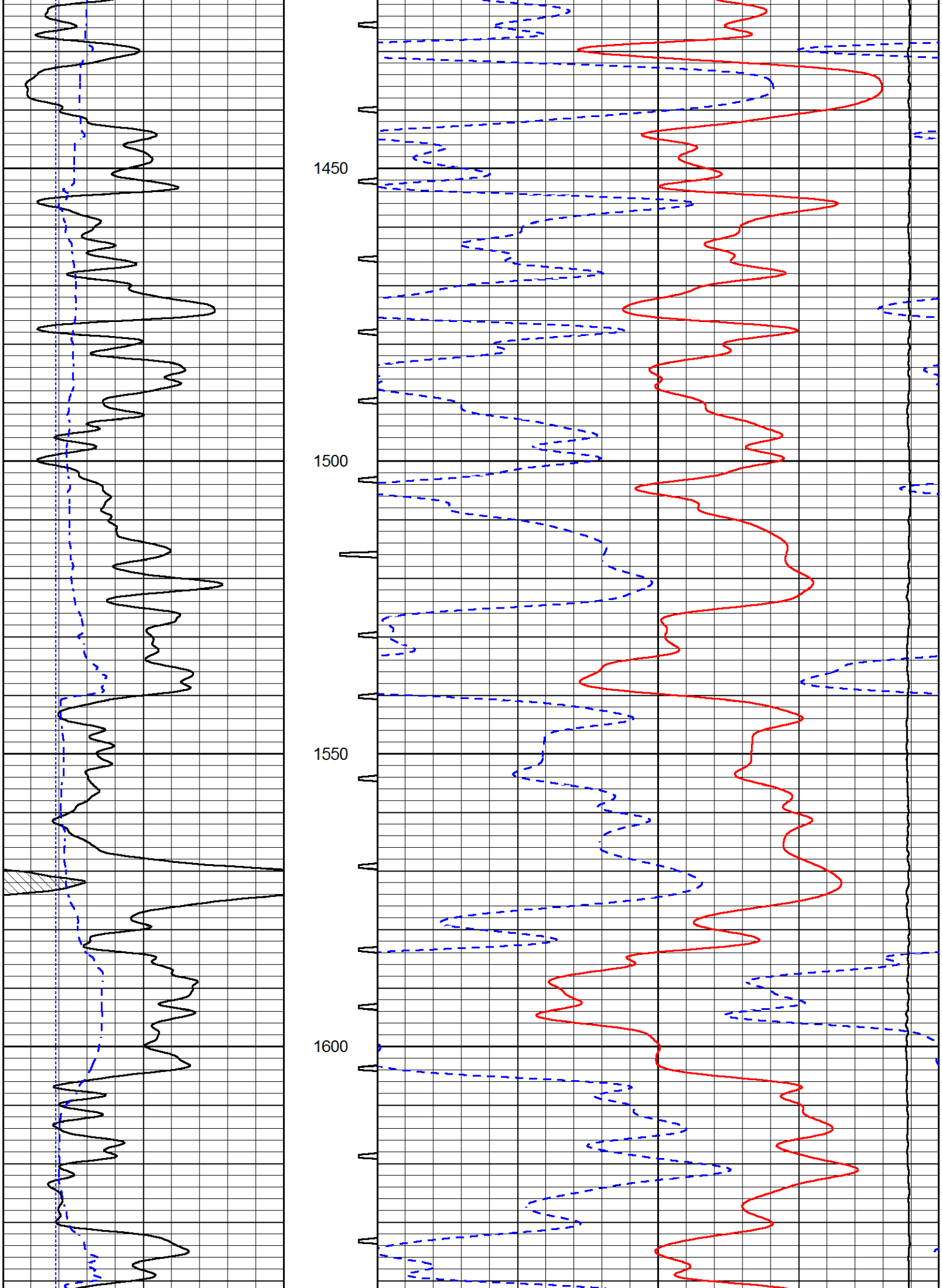

350
400
450
500

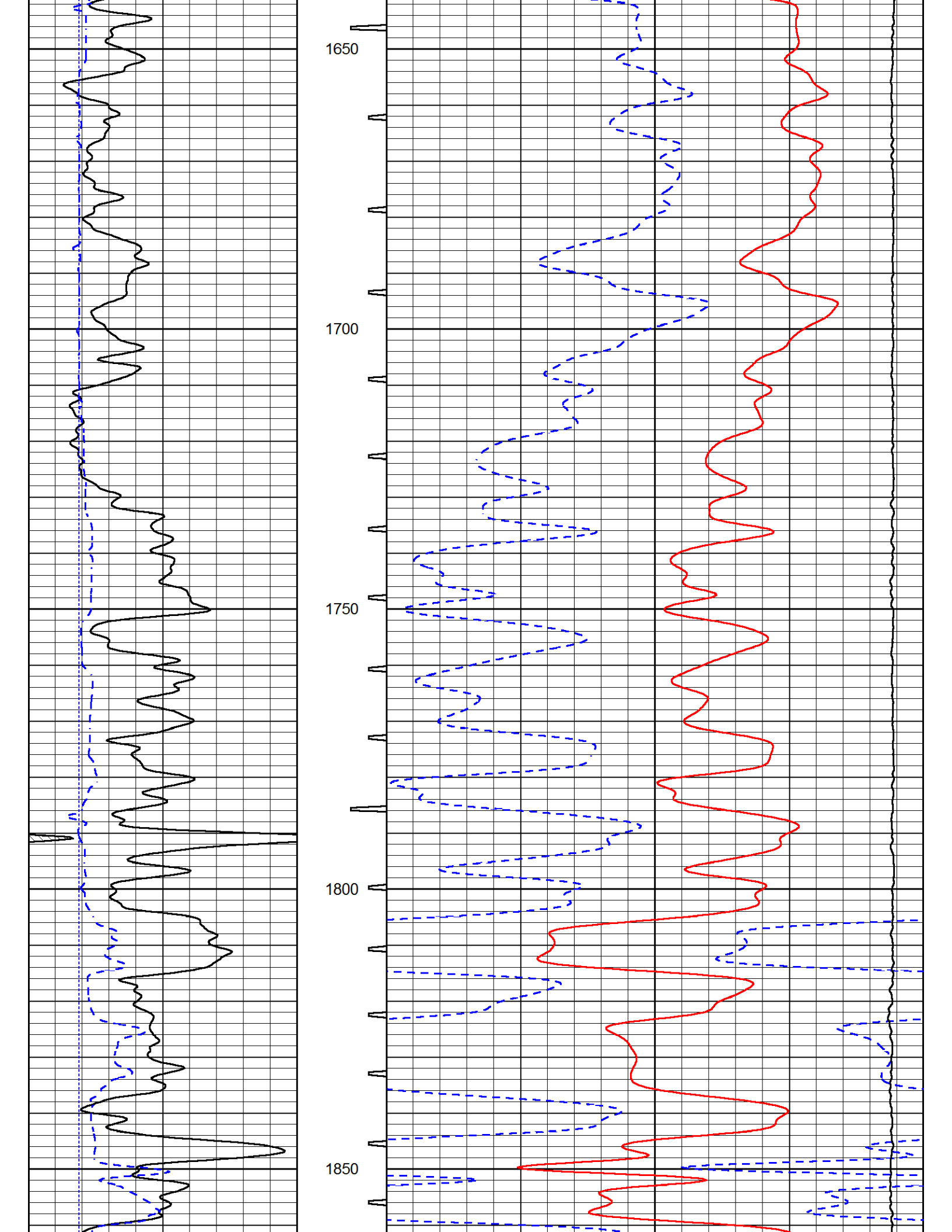

550
600
650
700
750

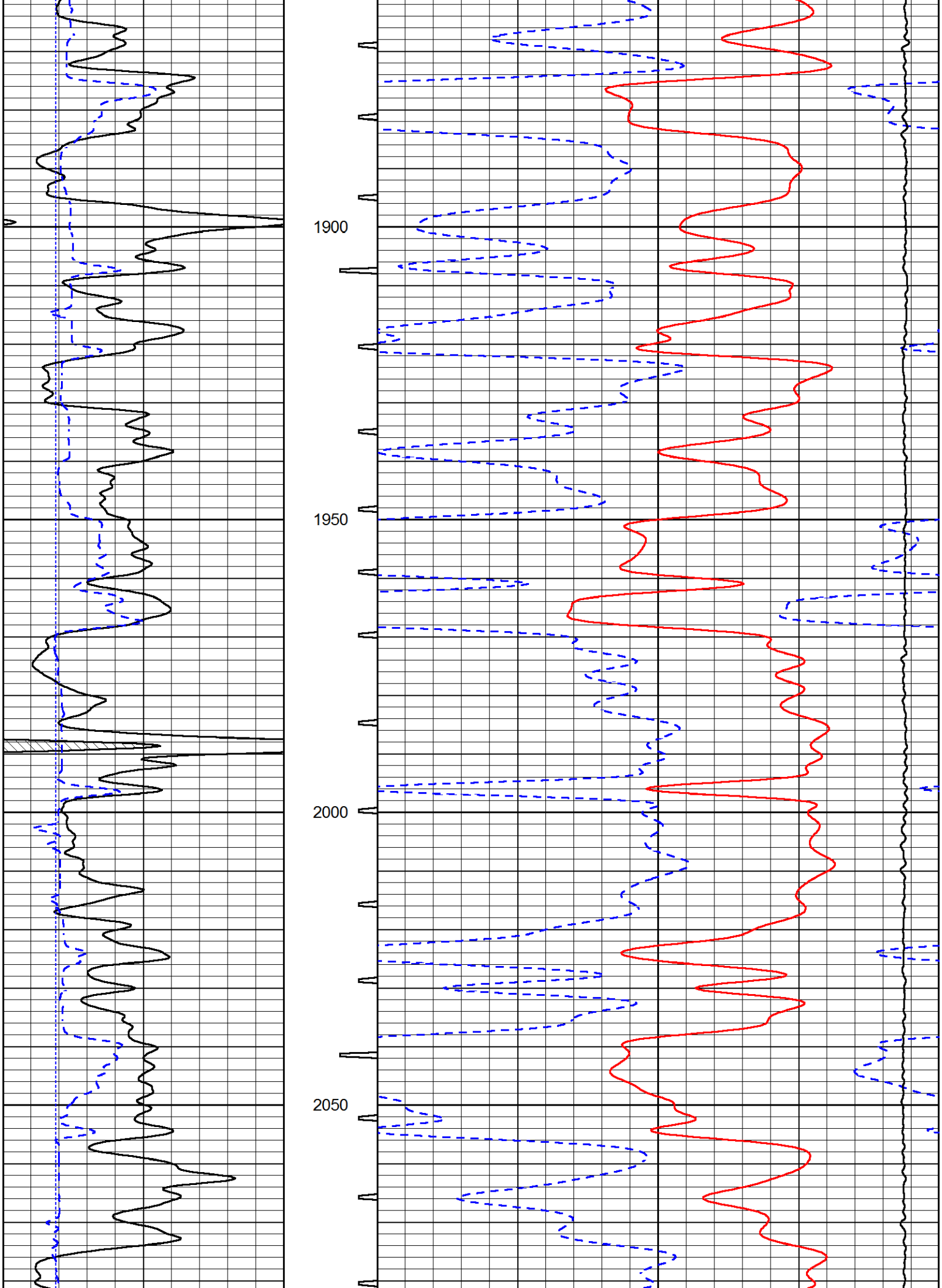

800
850
900
950

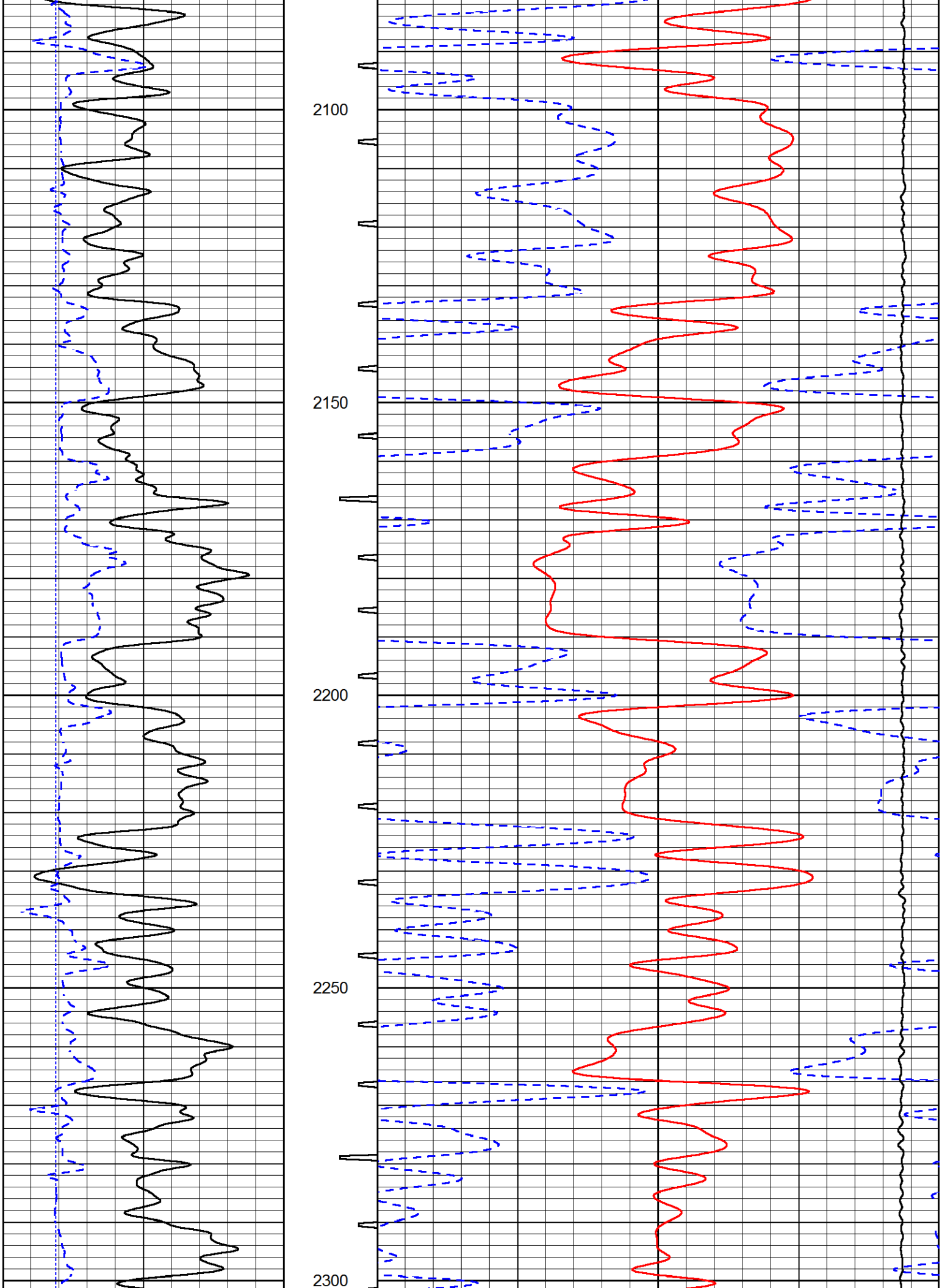

1000
1050
1100
1150
1200

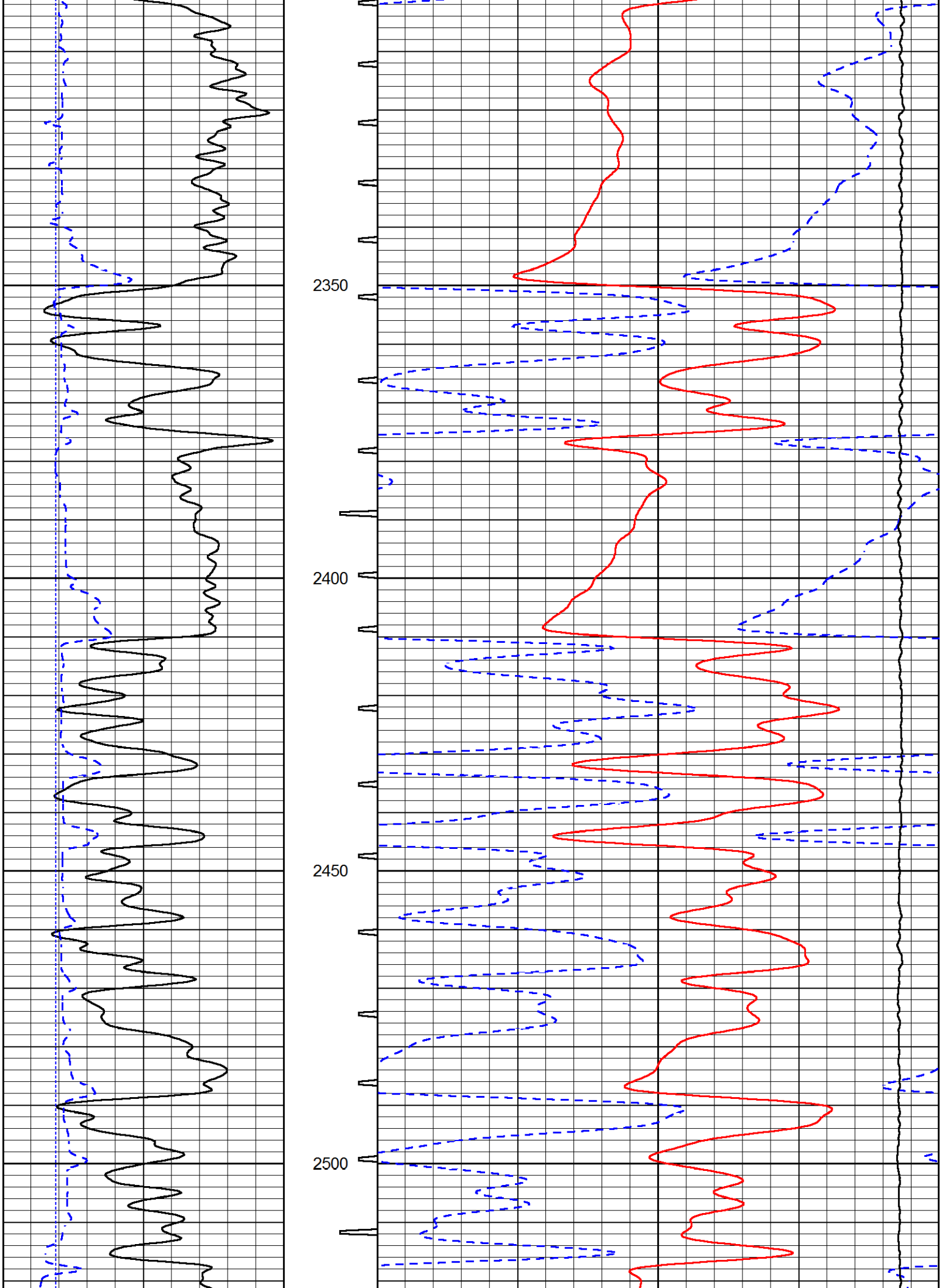

1250
1300
1350
1400

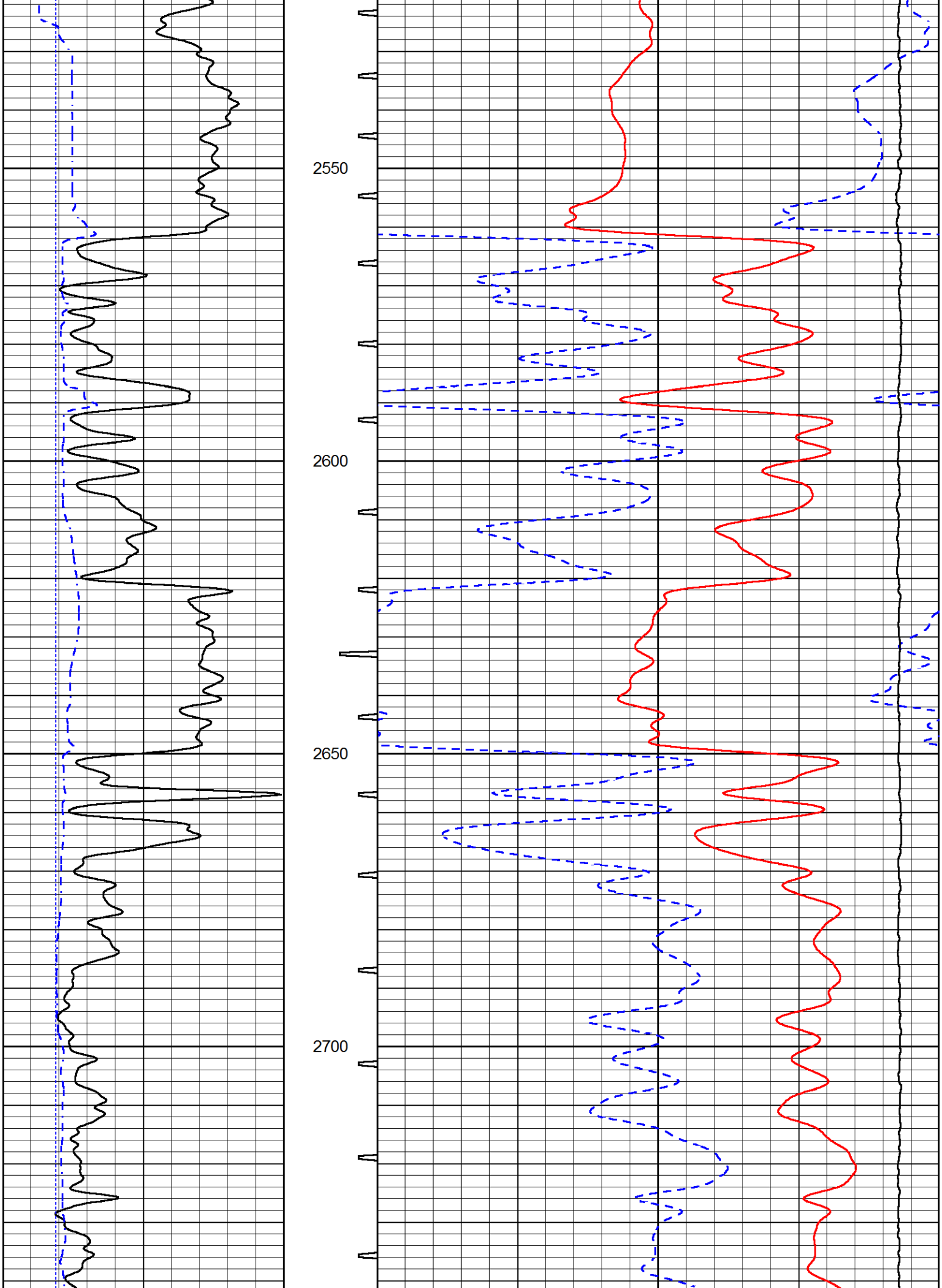

1450
1500
1550
1600

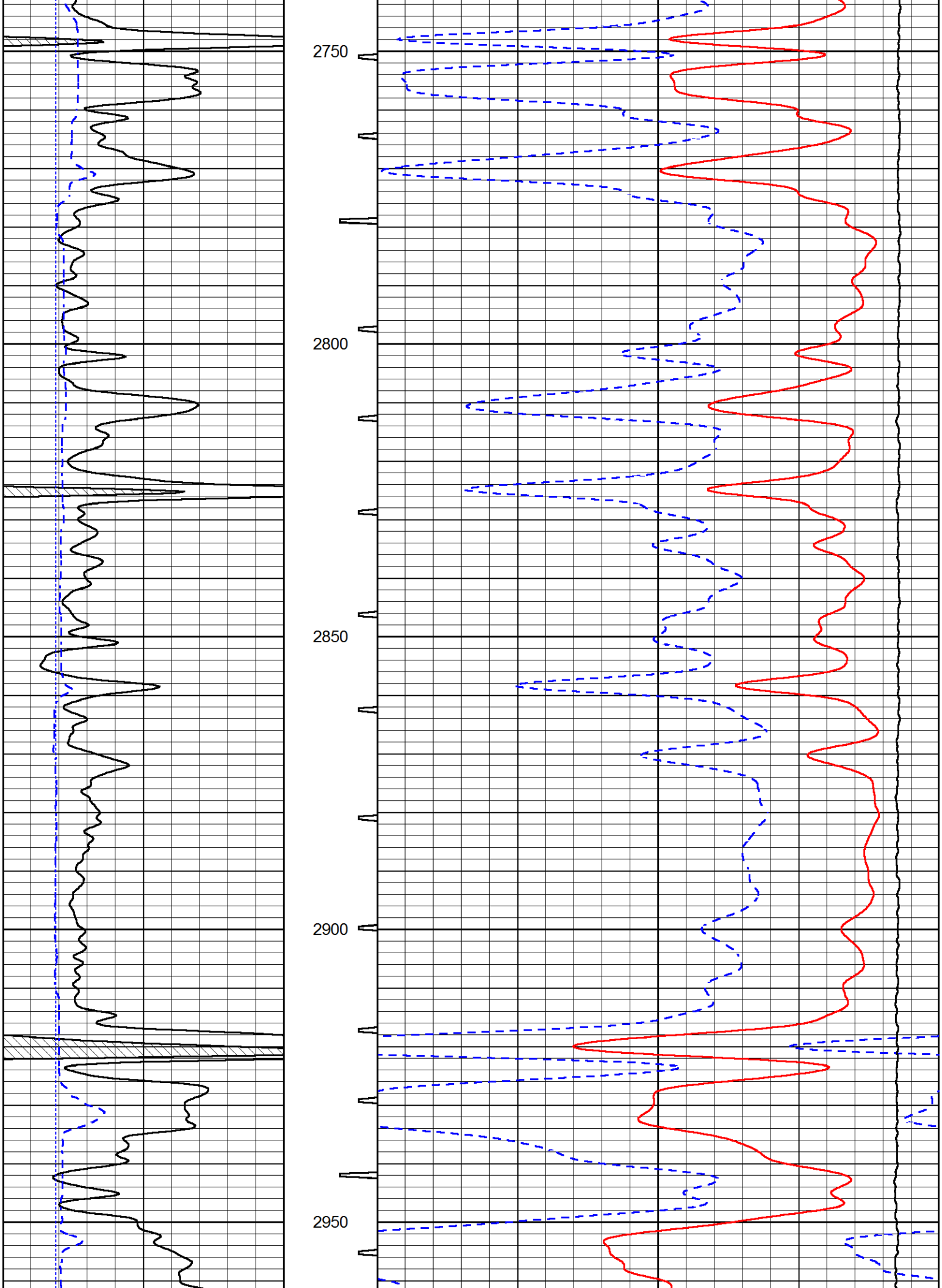

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1700
1750
1800
1850

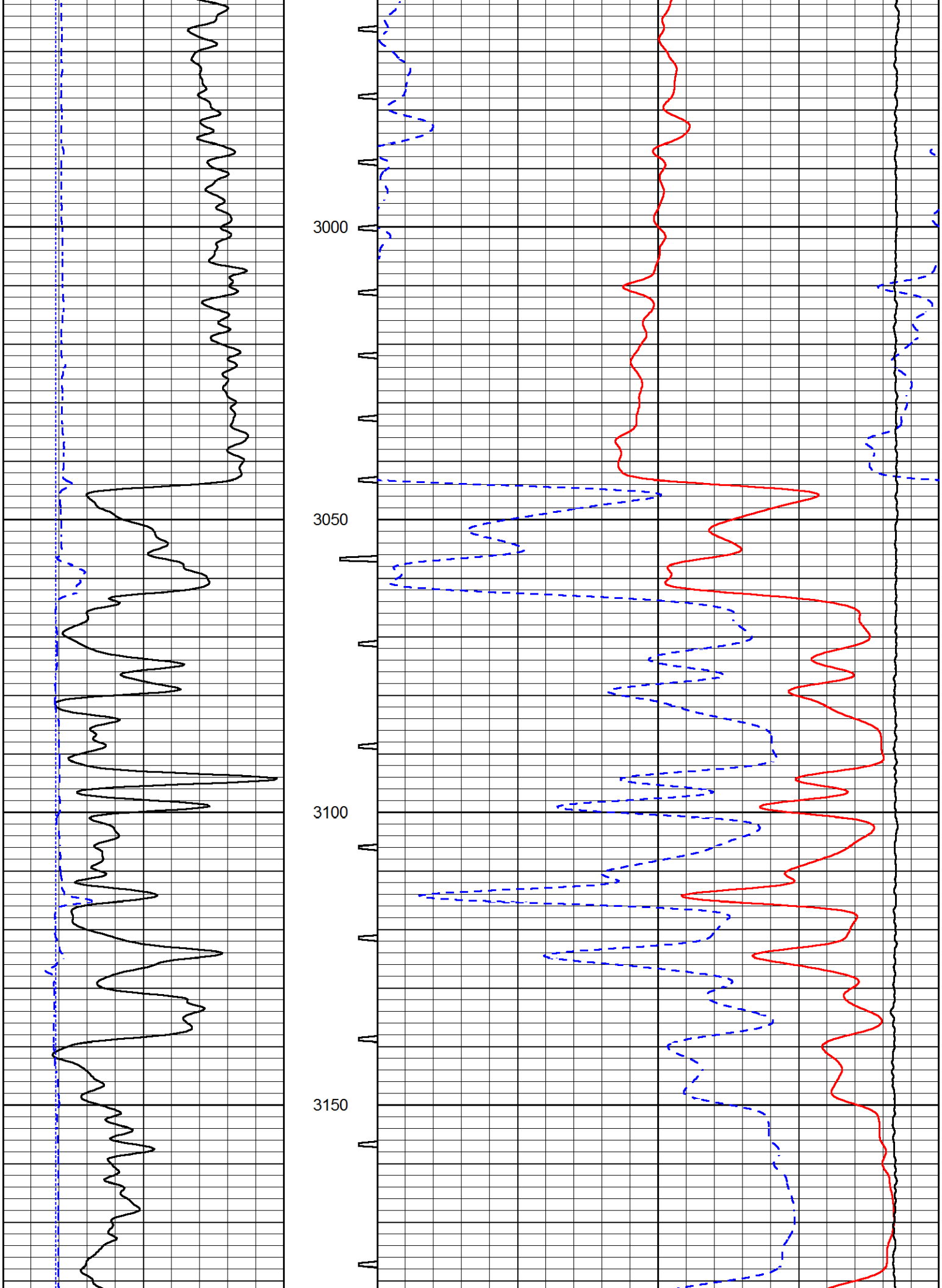

1900
1950
2000
2050

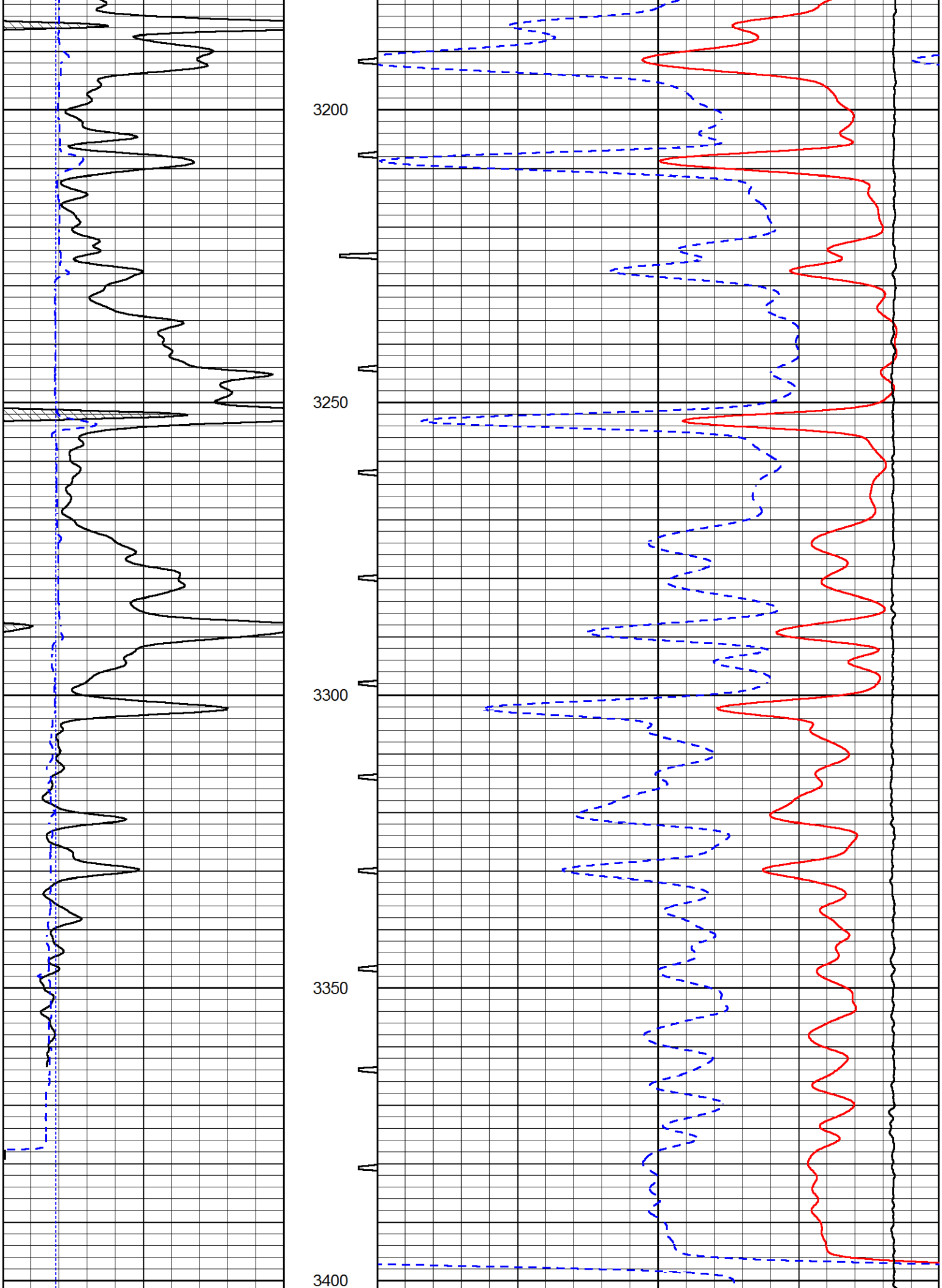

2100
2150
2200
2250
2300


2350
2400
2450
2500


2550
2600
2650
2700


2750
2800
2850
2900
2950


3000
3050
3100
3150


3200
3250
3300
3350
3400

0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft) 40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu) -10
6	DCAL (in)	16		15000	LTEN (lb) (lb) 0

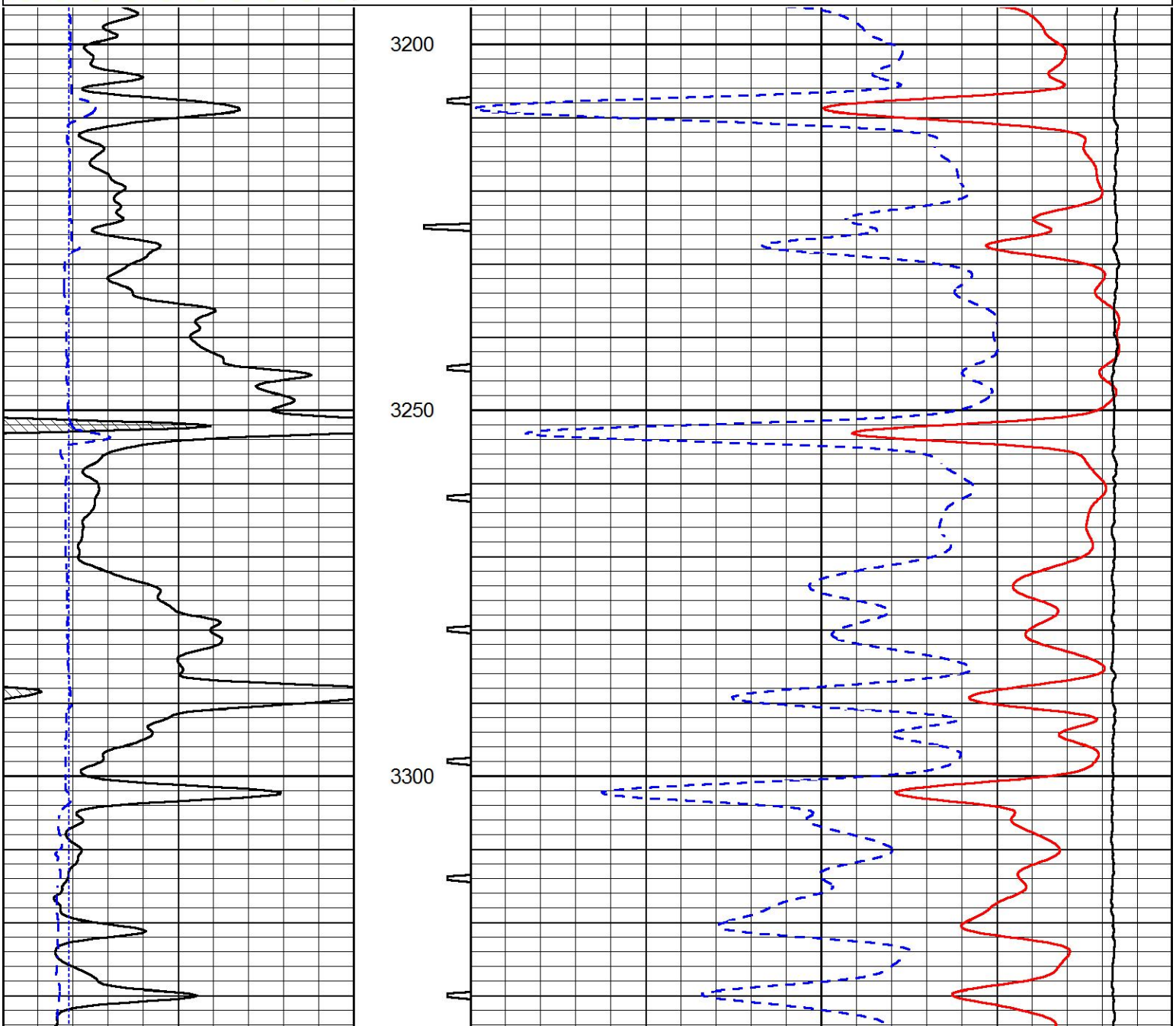
MIDWEST WIRELINE

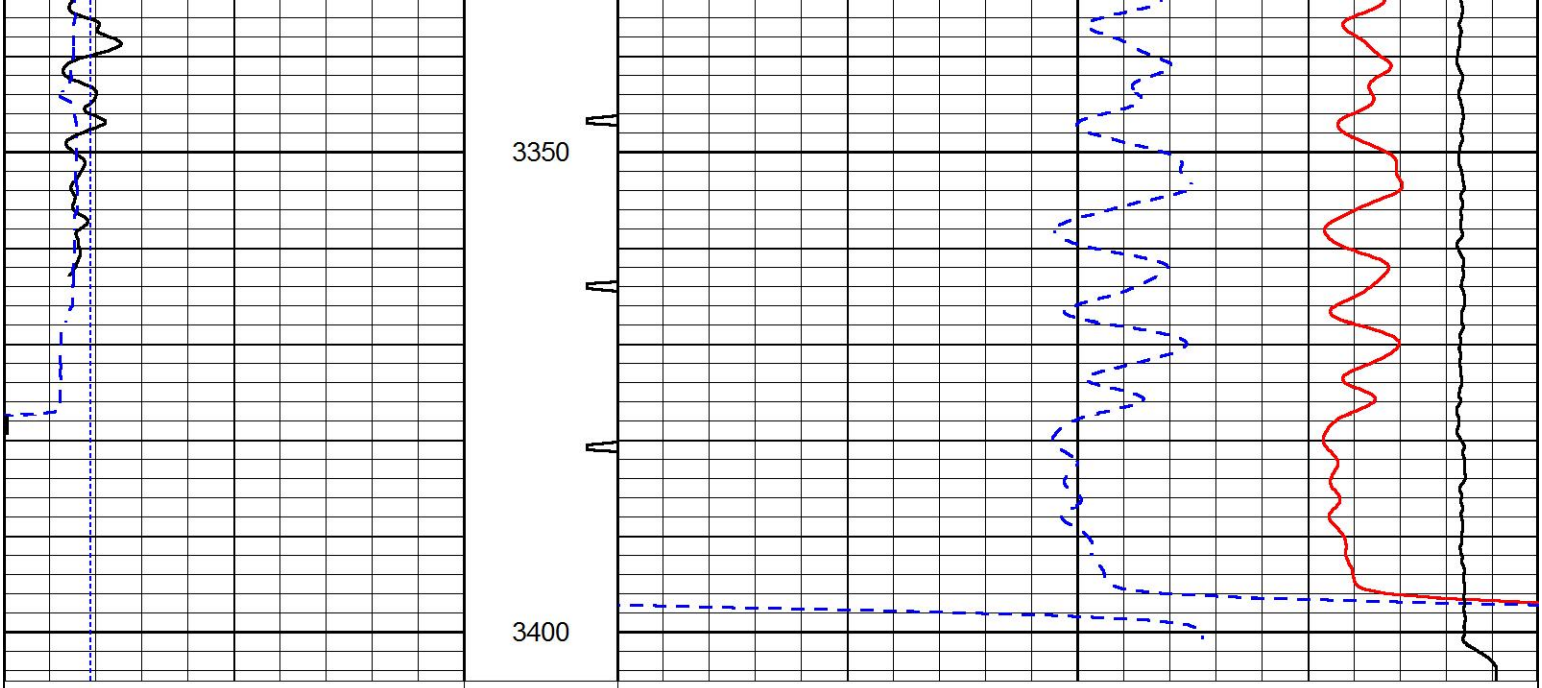
REPEAT SECTION

REPEAT PASS

Database File	batchman_herter 5.db
Dataset Pathname	stkml/pass2.1
Presentation Format	_sonic
Dataset Creation	Wed Apr 28 08:13:57 2021
Charted by	Depth in Feet scaled 1:240

0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft) 40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu) -10
6	DCAL (in)	16		15000	LTEN (lb) (lb) 0





0	Gamma Ray (GAPI)	150	Sonic Int	140	Delta Time (usec/ft) (usec/ft)	40
150	GR (GAPI)	300	5 (msec) 0	30	Sonic Porosity (pu)	-10
6	DCAL (in)	16		15000	LTEN (lb) (lb)	0

MIDWEST WIRELINE

Company	Chris Batchman, Inc.
Well	Herter #5
Field	Chase - Silica
County	Barton
State	Kansas