



CEMENT BOND LOG

4 TRACK PRESENTATION

FINAL PRINT

Company CATAMOUNT

Well ELSA 34-6-19 #1

Field FRUITLAND COAL

County LA PLATA State COLORADO

Location: API #: 05-067-09922

Other Services

1303' FSL & 290' FEL

SEC 19 TWP 34N RGE 6W

Elevation

Permanent Datum GL Elevation 6973'

Log Measured From RKB 16'

Drilling Measured From RKB

R.B. 6789'
D.F. 6724'
G.L. 6973'

Date

5/21/15

5/21/15

Run Number

ONE

TWO

Depth Driller

3503'

3503

Depth Logger

3450'

3450

Bottom Logged Interval

3450'

3450

Top Log Interval

SURF.

SURF.

Open Hole Size

H2O

H2O

Type Fluid

Density / Viscosity

Max. Recorded Temp.

Estimated Cement Top

Time Well Ready

Time Logger on Bottom

Equipment Number

Location

Recorded By

Witnessed By

Run Number

Bit

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Size

Weight

From

To

Tool Name	Length (ft)	Weight (lb)	OD (in)	Notes
WVFS8	11.80			
WVFS7	11.80			
WVFS6	11.80			
WVFS5	11.80			
WVFS4	11.80			
WVFS3	11.80			
WVFS2	11.80			
WVFS1	11.80			
WVFCAL	11.80			
WVF3FT	11.80			
WVF5FT	10.72			
CCL	6.52			
GR	3.78			
CENT-Probe (PT_MONO)	2.88	2.75	35.00	
RBT-Probe (060632)	9.17	2.75	90.00	Probe Radii Bond Tool with Digital Telemetry
GR-Probe (060634)	4.58	2.75	30.00	Probe 2.75" 4 Channel Pulse
CENT-Probe (PT_MONO2)	2.88	2.75	35.00	

Dataset: catamountelsa346191rce.db: fieldfc/wellelsa346191/run1/pass6

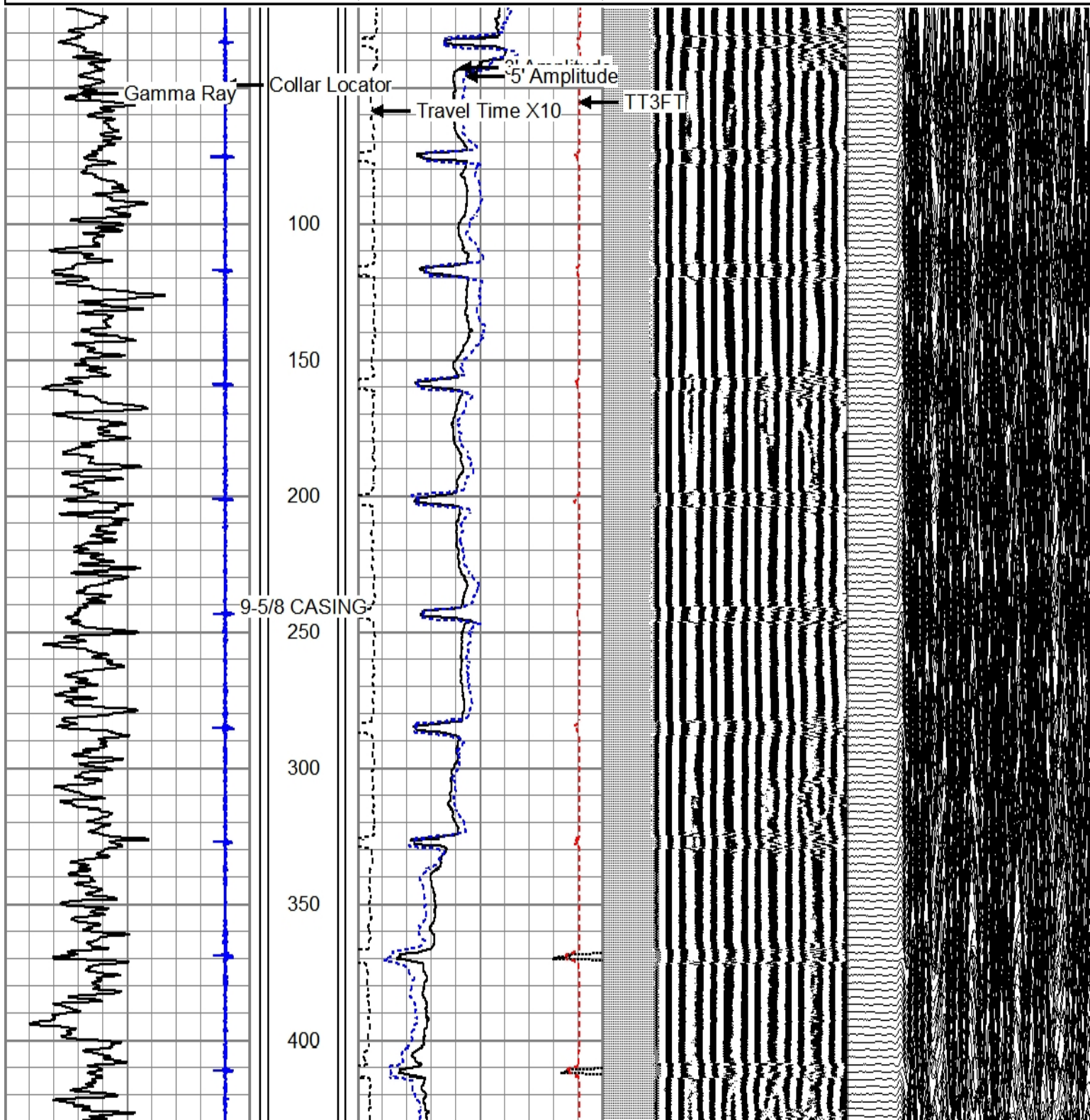
Total length: 19.52 ft

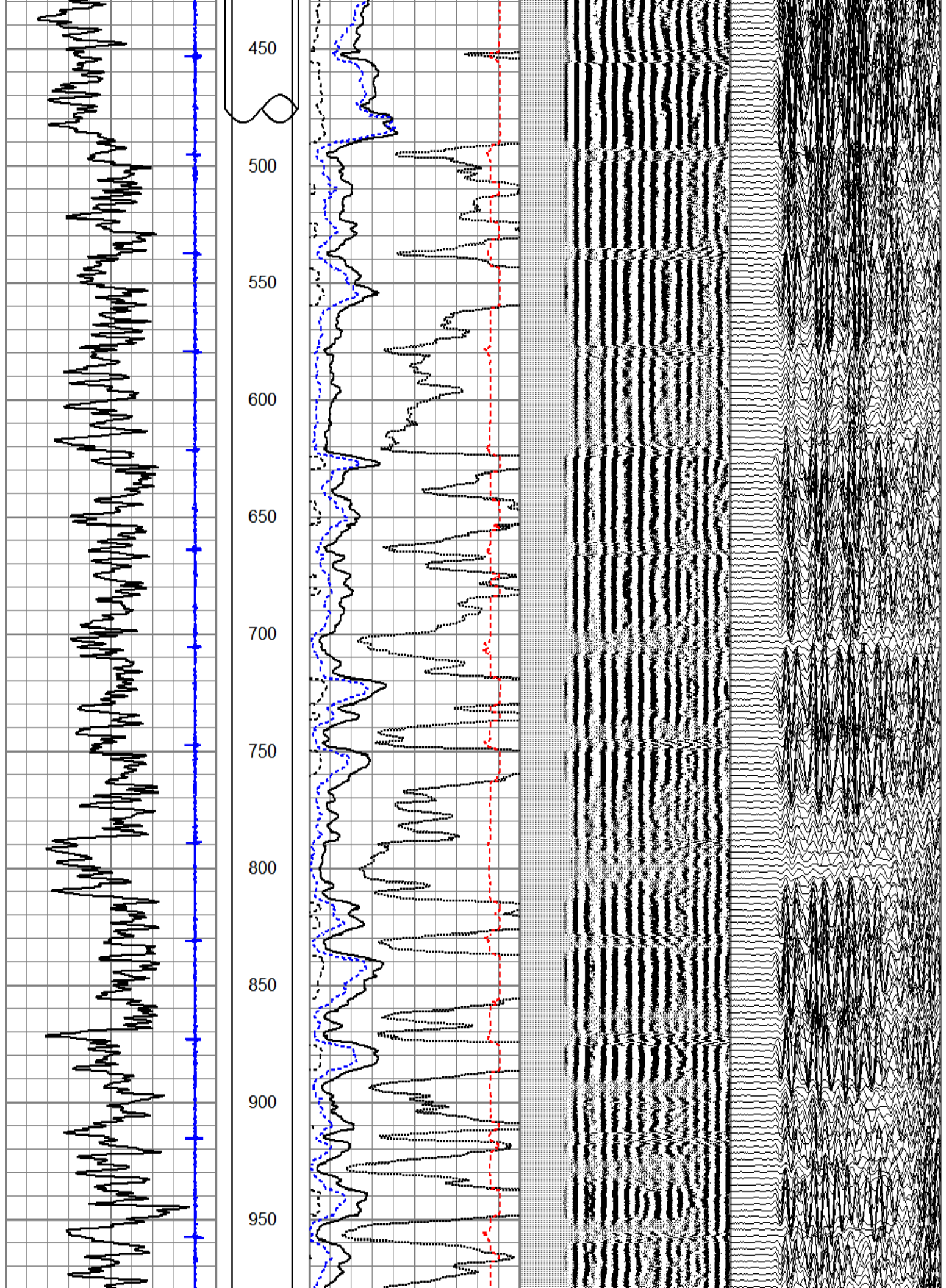
Total weight: 190.00 lb

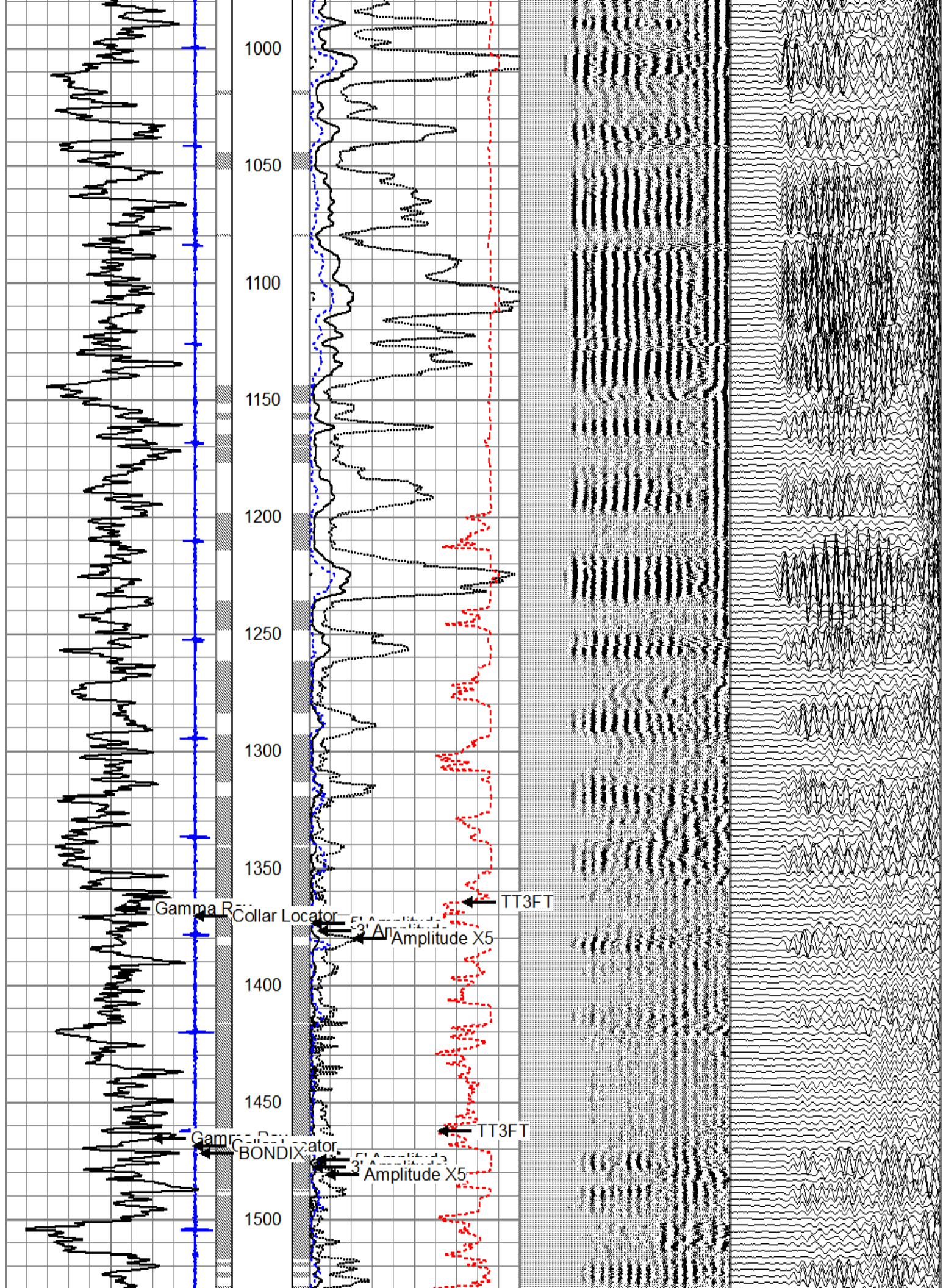
O.D.: 2.75 in

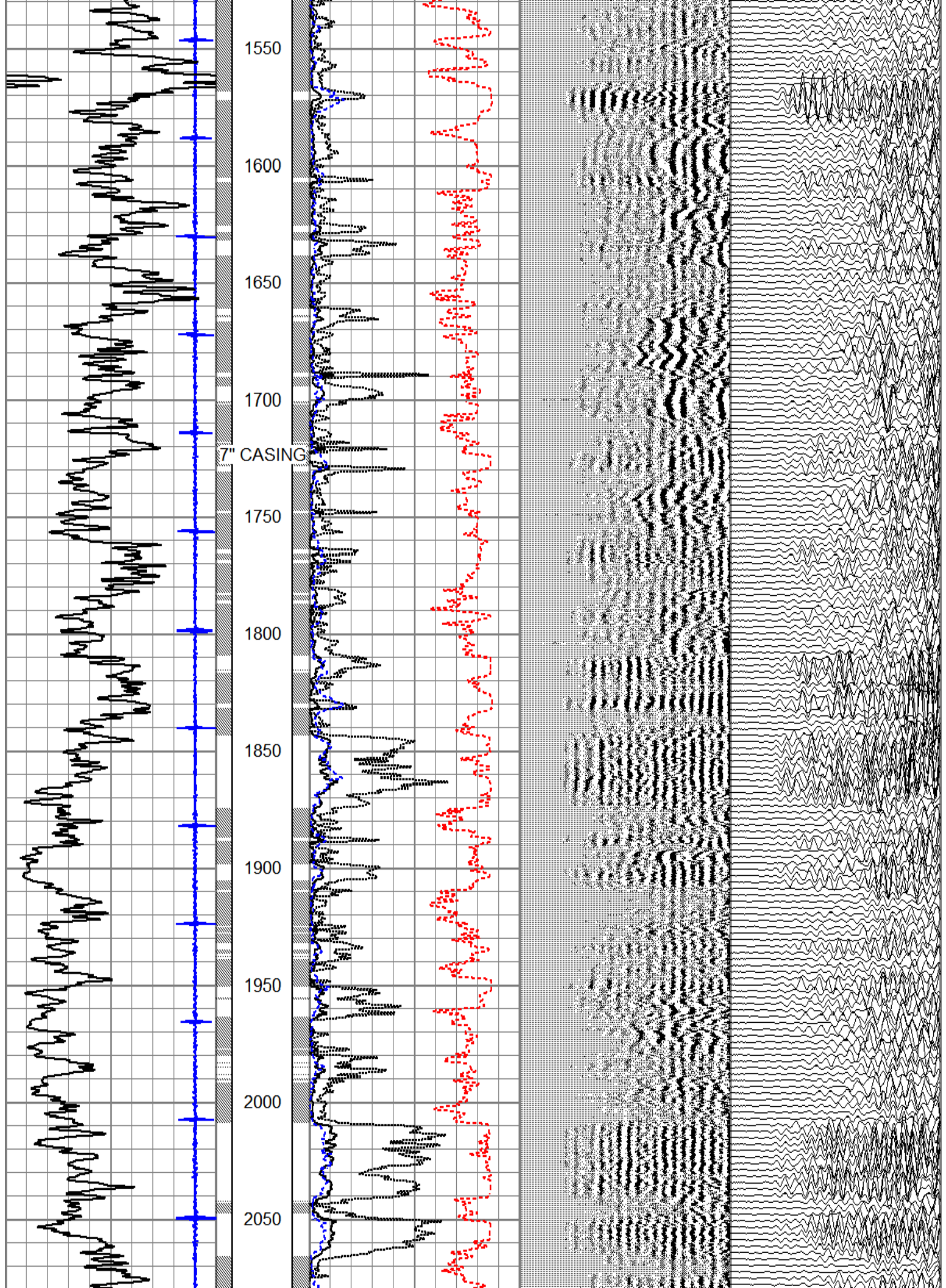
Database File catamountelsa346191rce.db
Dataset Pathname fieldfc/wellelsa346191/run1/pass7
Presentation Format cbl7inplo
Dataset Creation Thu May 21 14:01:08 2015
Charted by Depth in Feet scaled 1:600

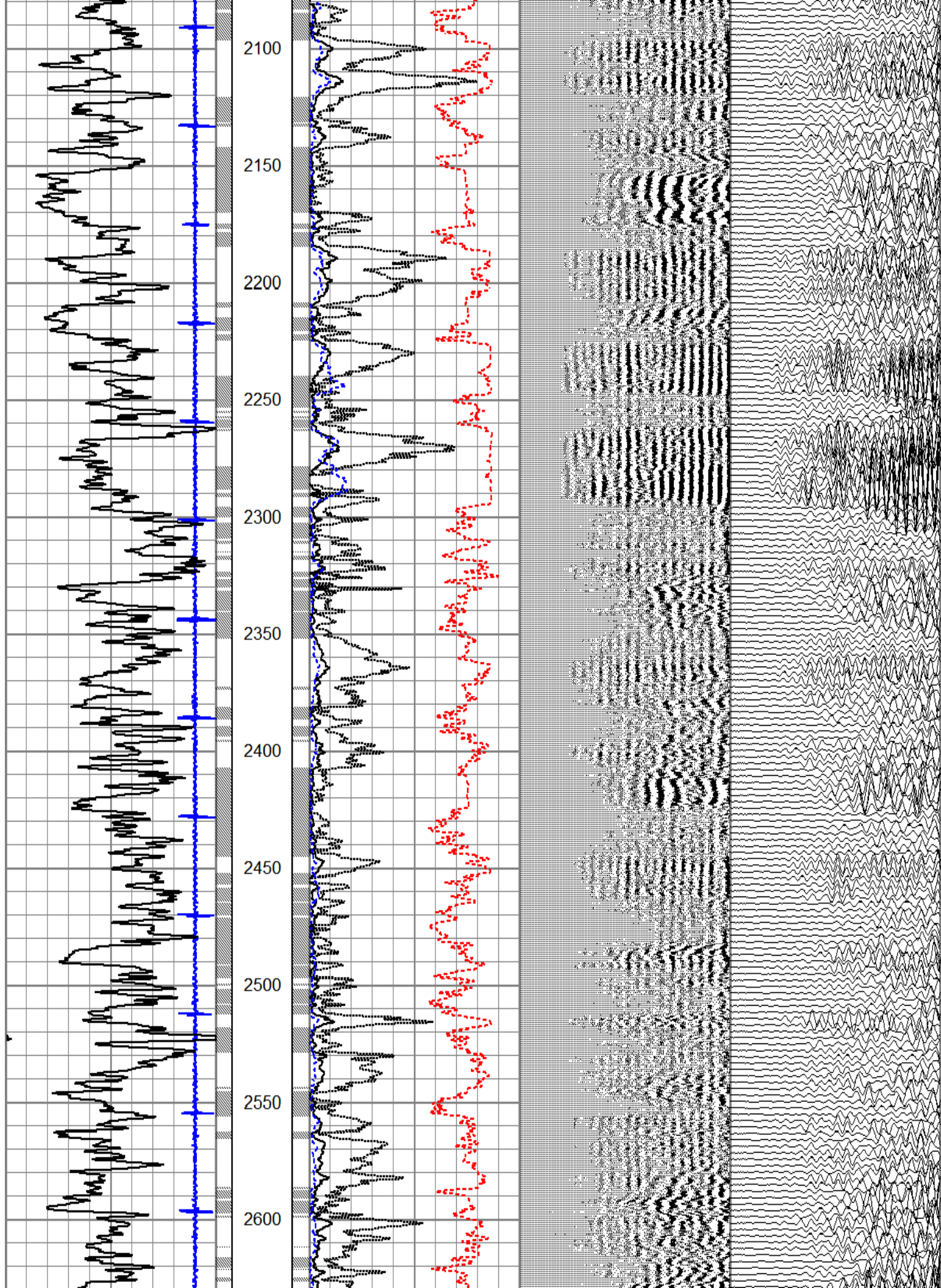
9	Collar Locator	-1	0	Amplitude X5 (mV)	16	200	VDL	1200	200	WVF5FT	1200
	Gamma Ray		0	3' Amplitude (mV)	80						
0	(GAPI)	200	1200	TT3FT (usec)	200						
				Travel Time X10							
			300	(usec)	200						
			0	5' Amplitude (mV)	80						

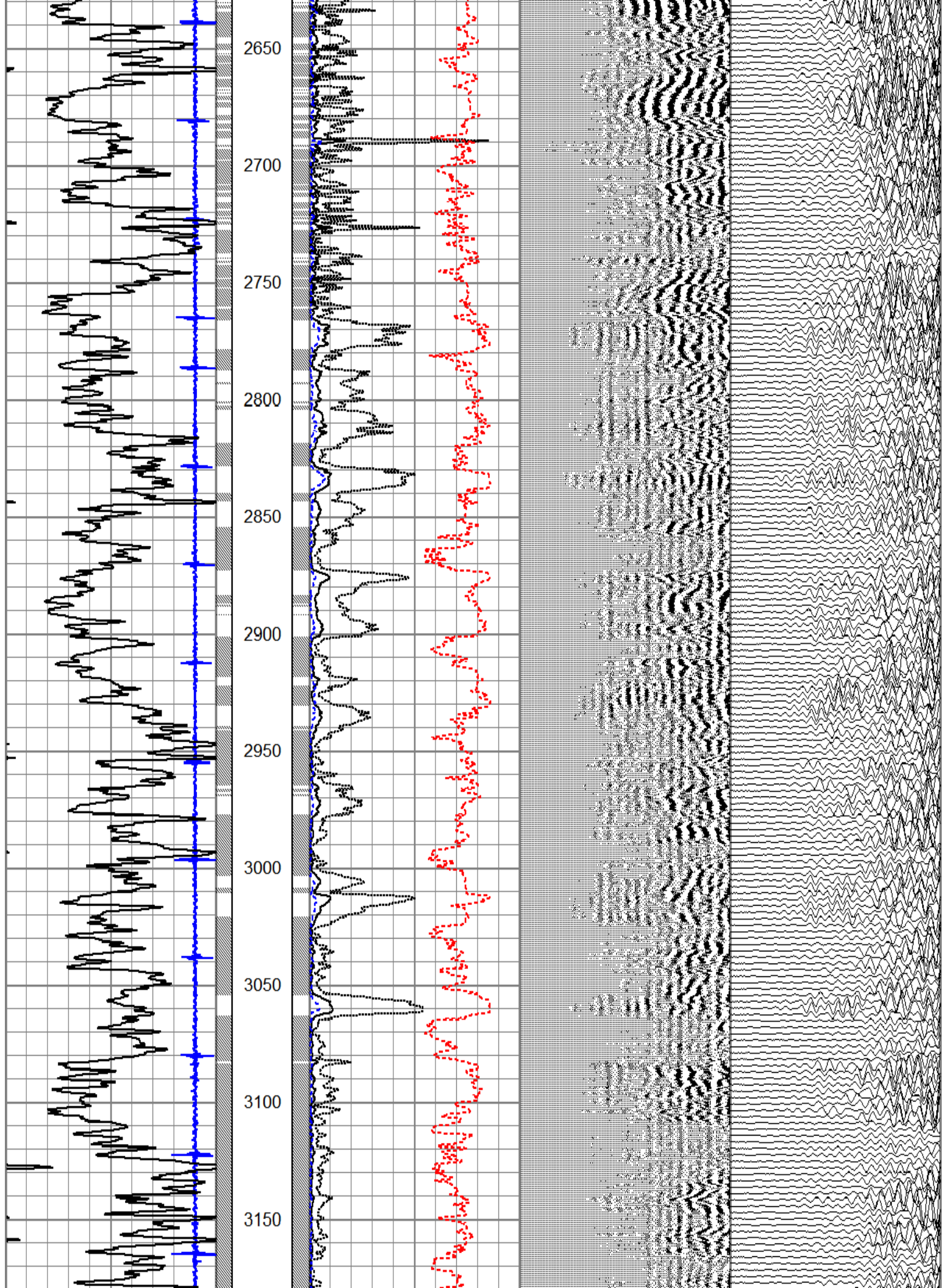


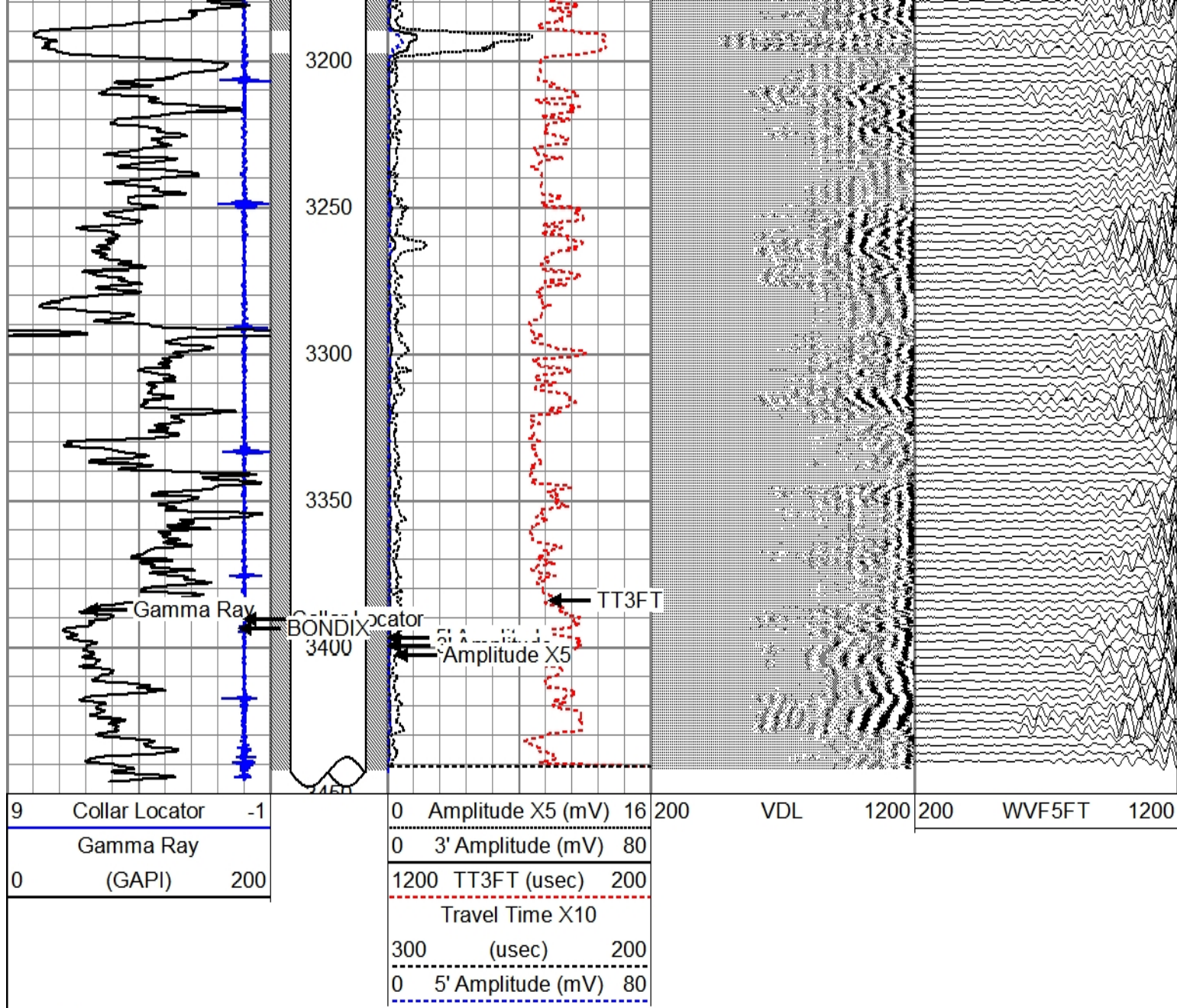










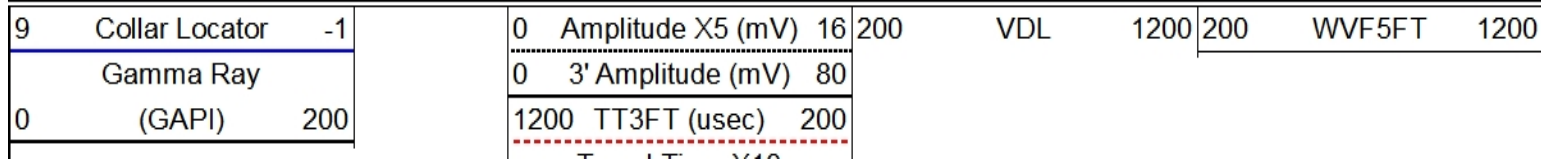


LOG RAN WITH 1000 PSI



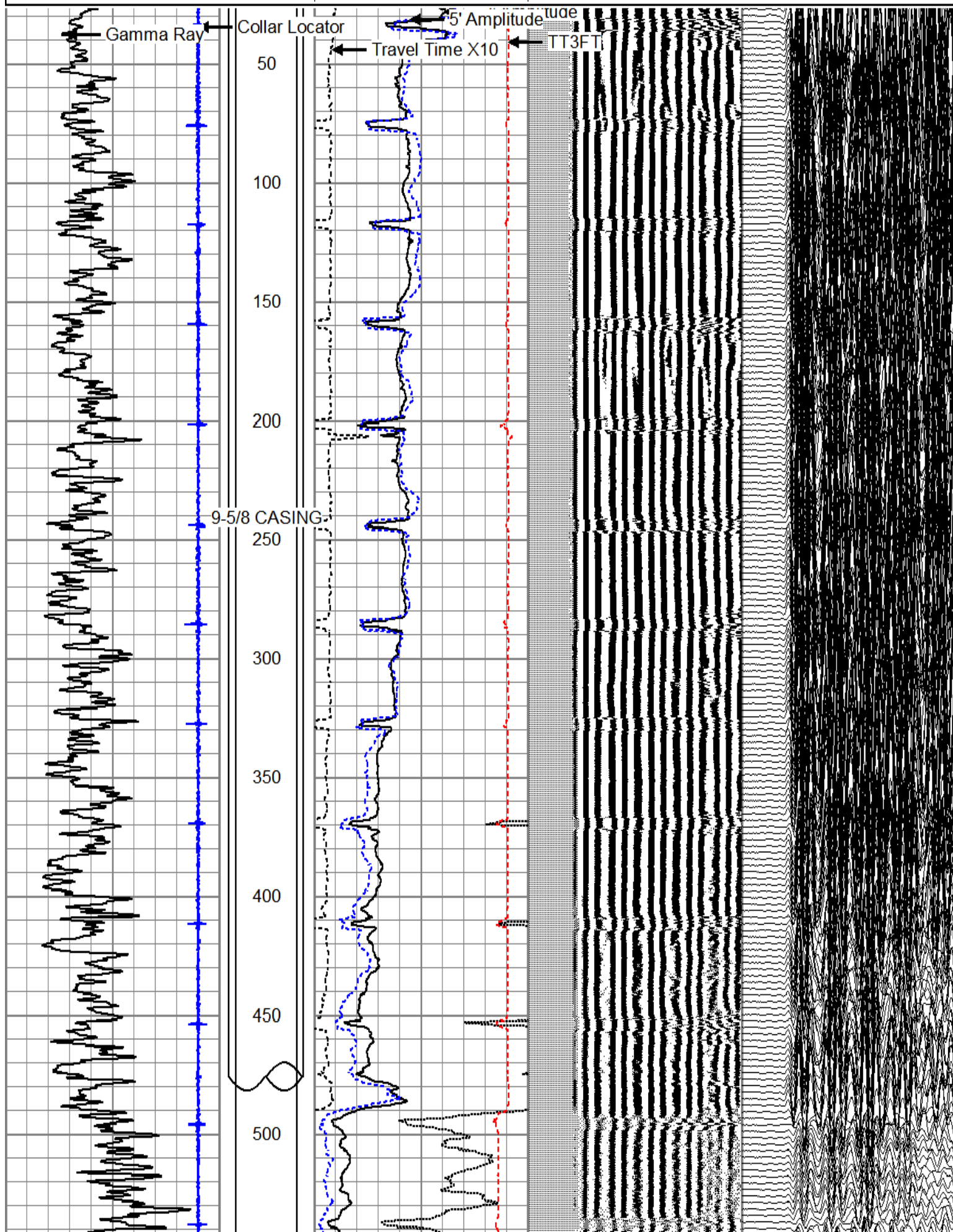
LOG RAN WITH ZERO PSI

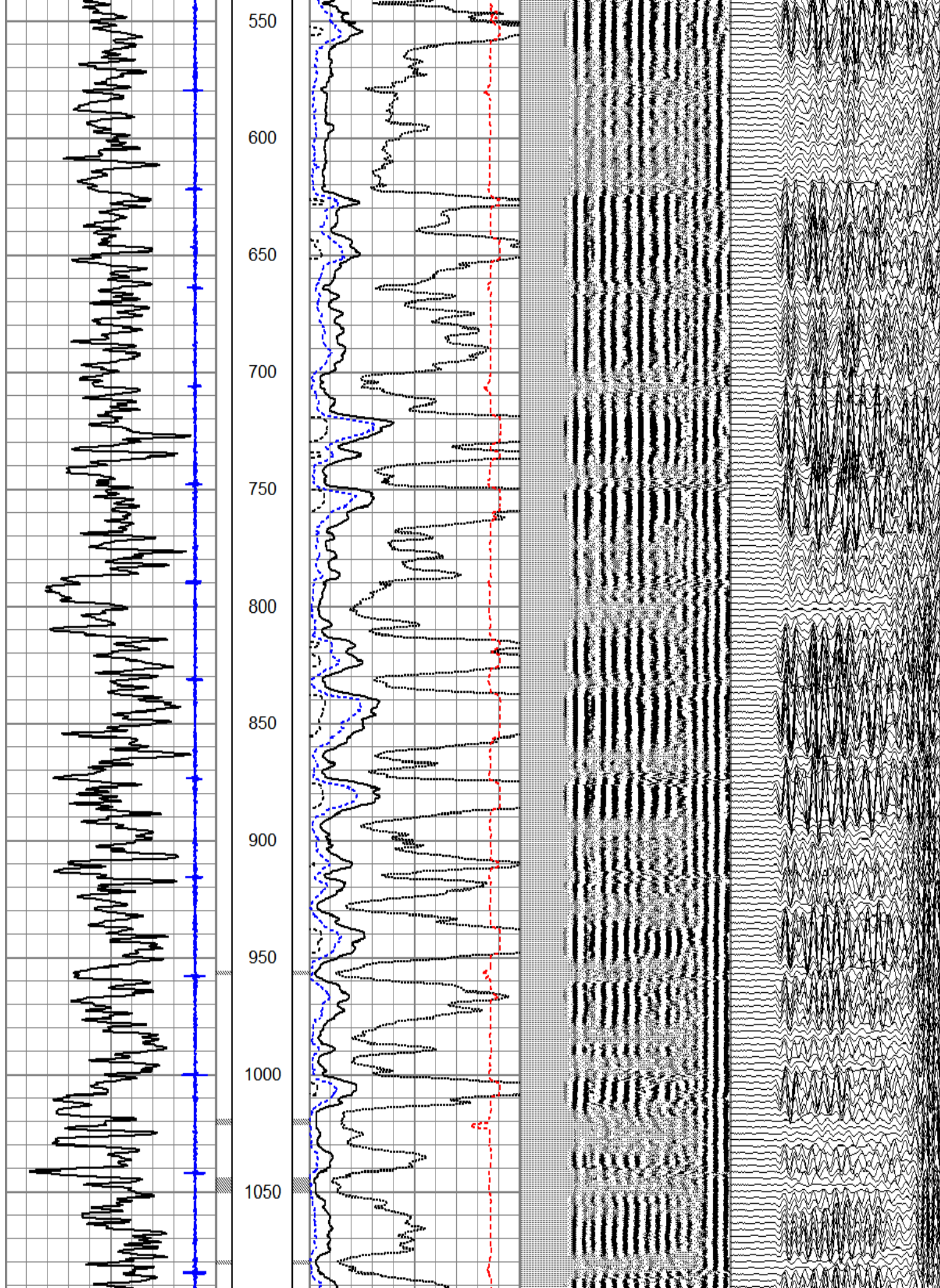
Database File catamountelsa346191rce.db
 Dataset Pathname fieldfc/wellelsa346191/run1/pass6
 Presentation Format cbl7inplo
 Dataset Creation Thu May 21 14:41:16 2015
 Charted by Depth in Feet scaled 1:600

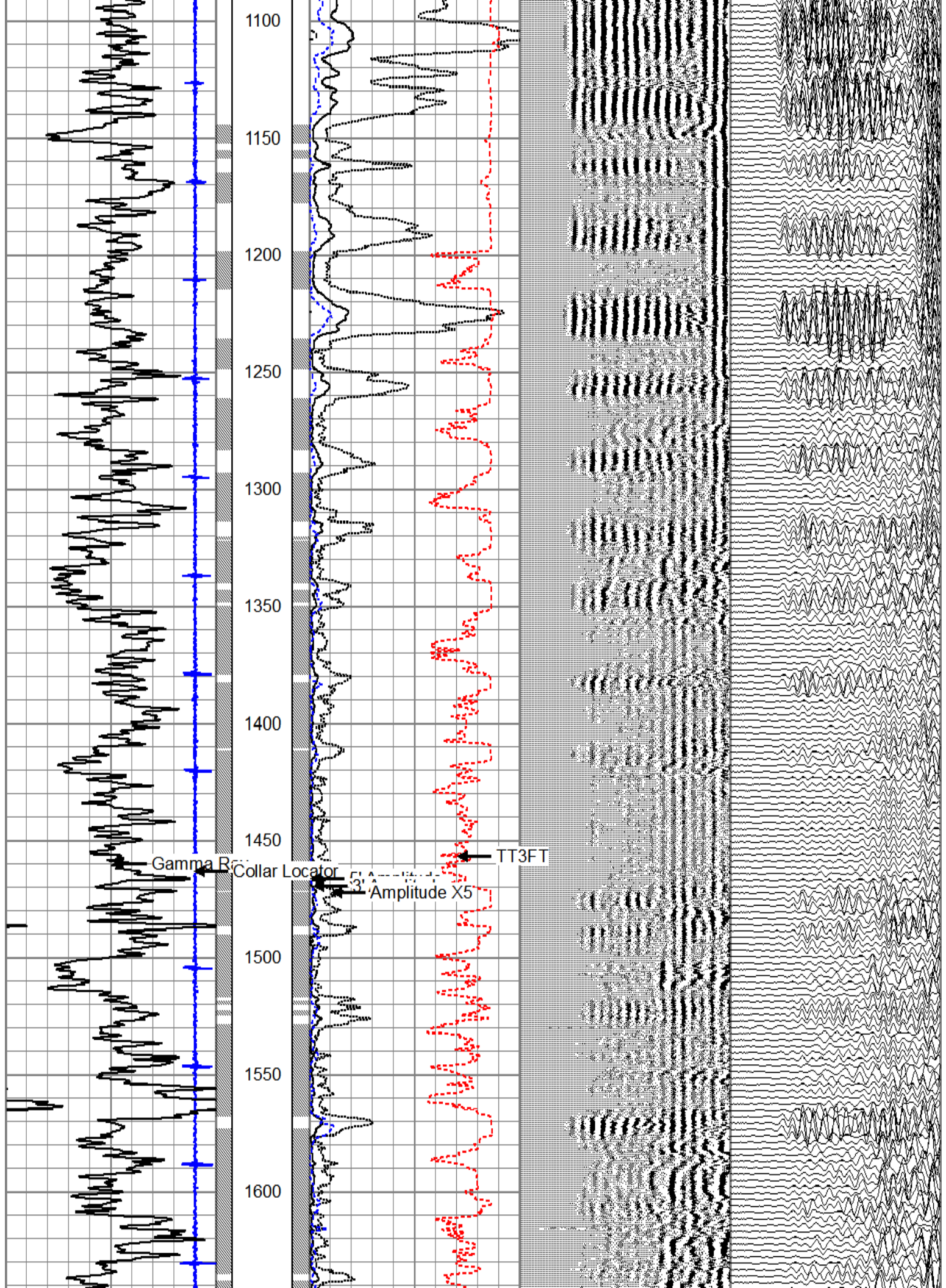


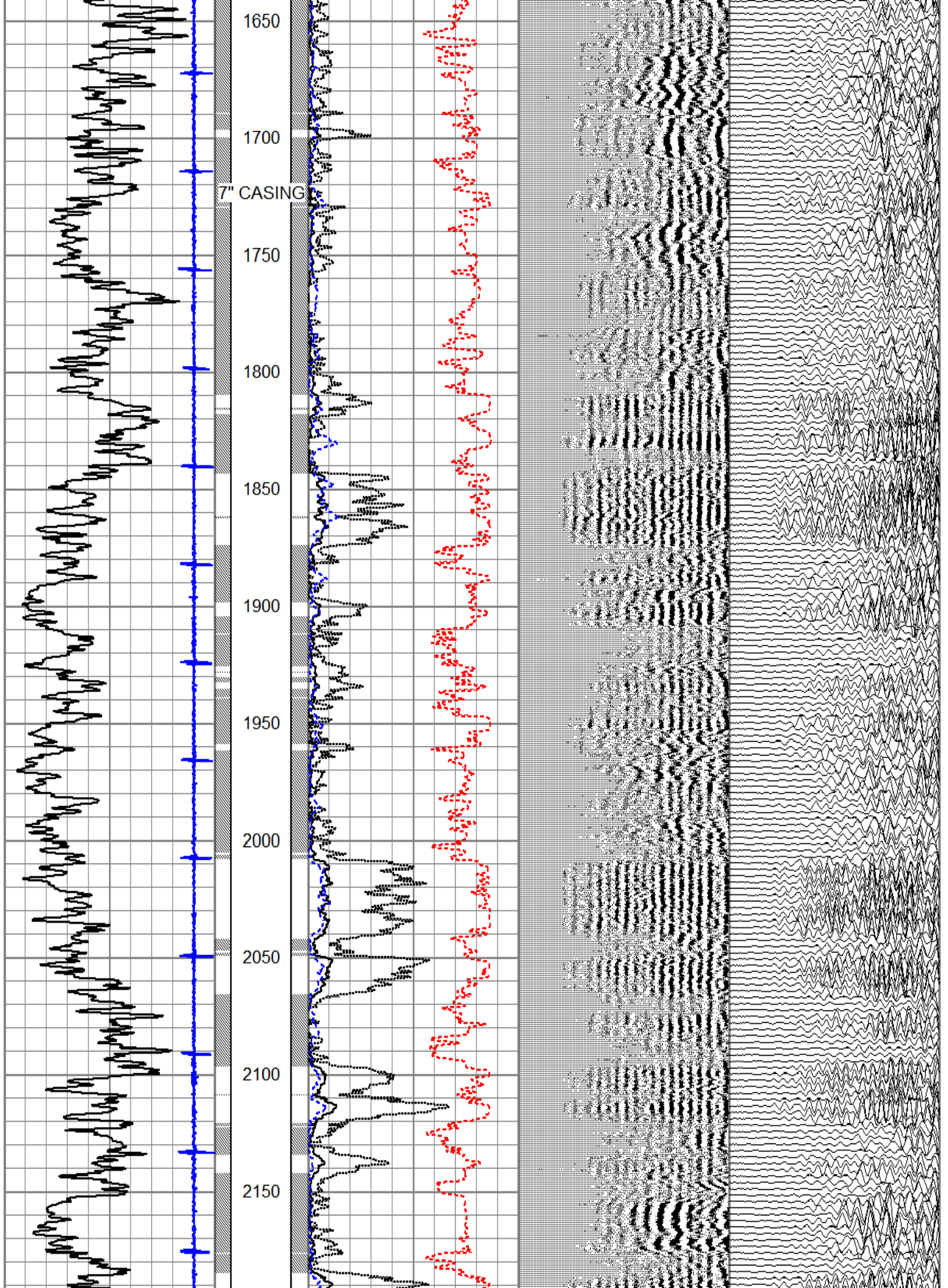
Travel Time X10		
300	(usec)	200

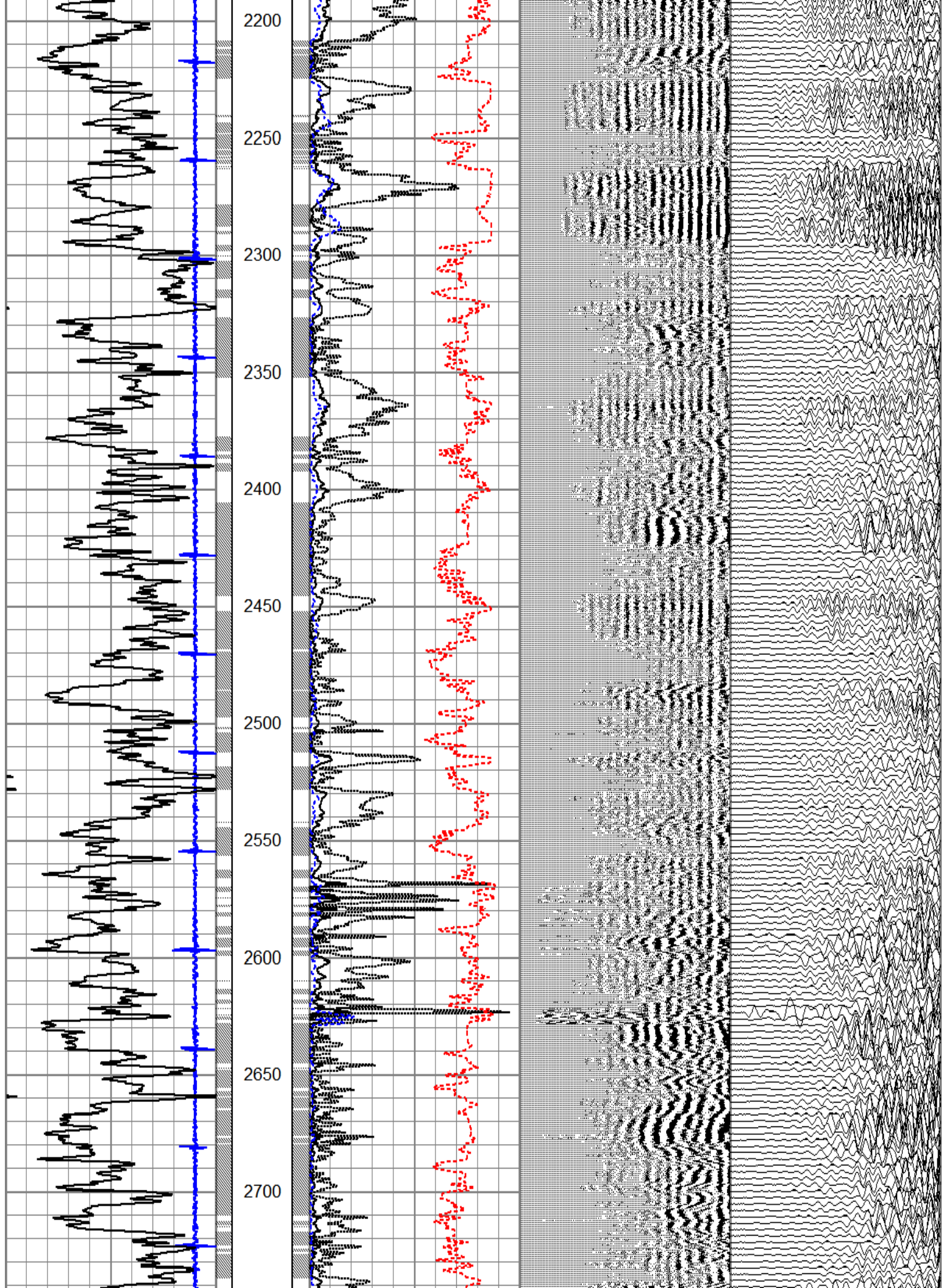
0	5' Amplitude (mV)	80

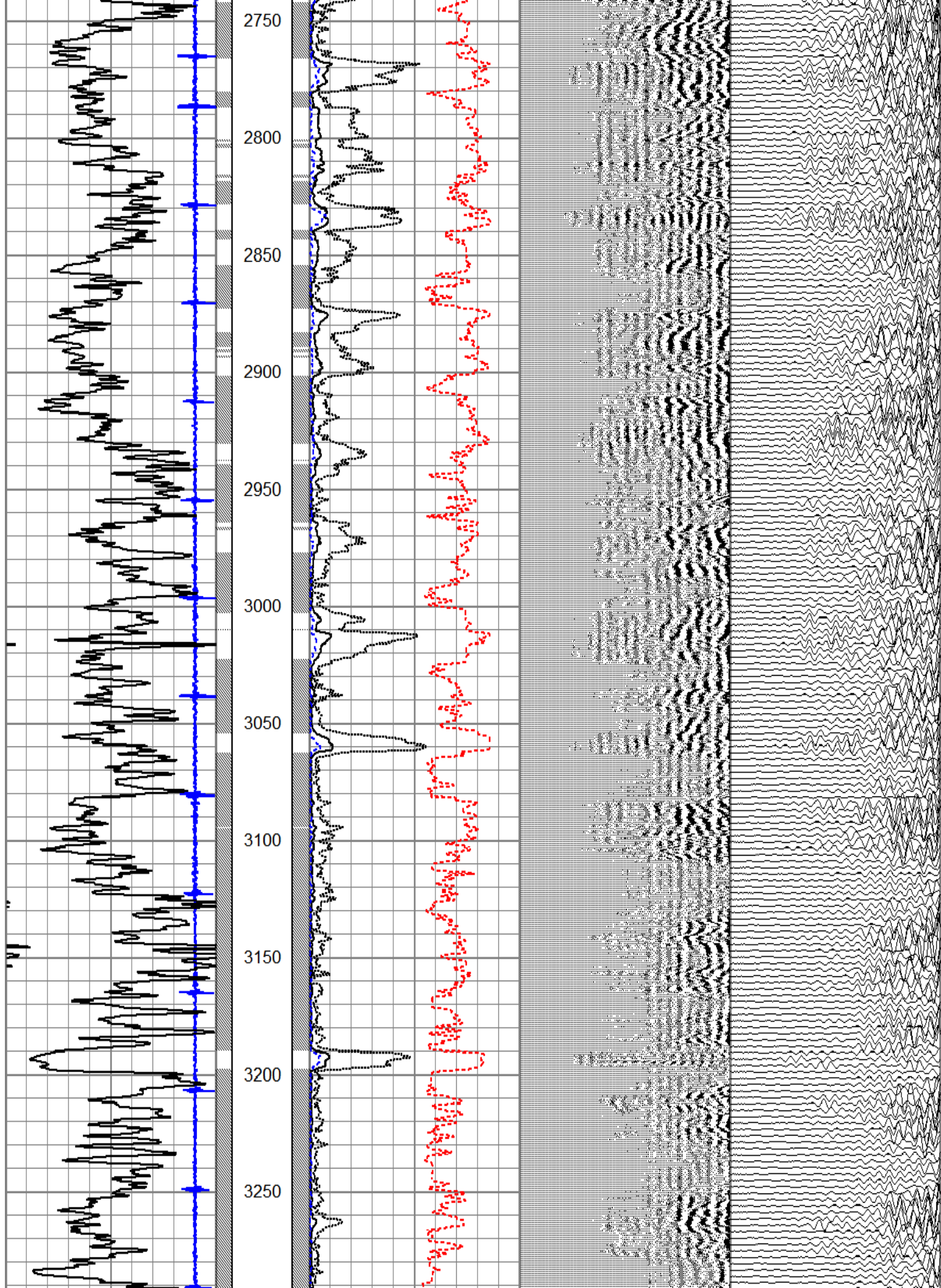


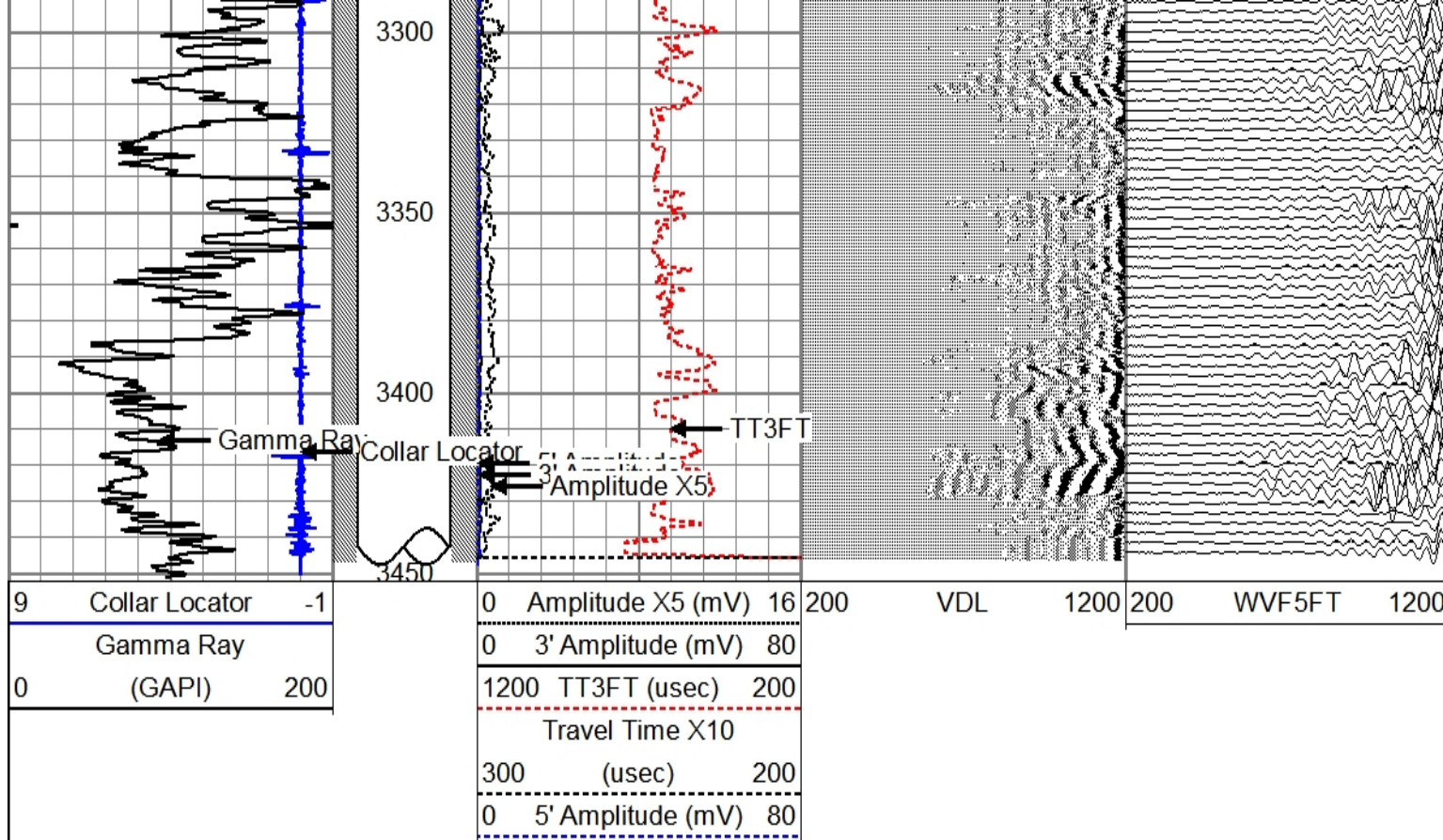










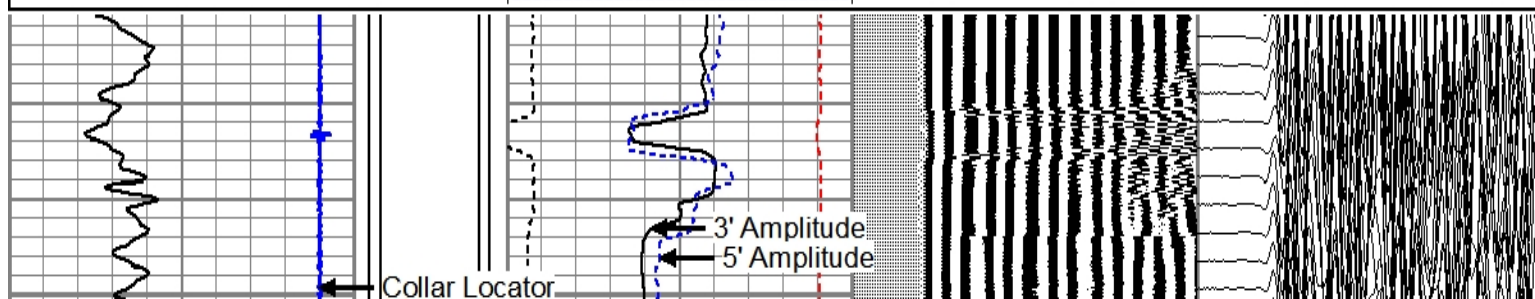
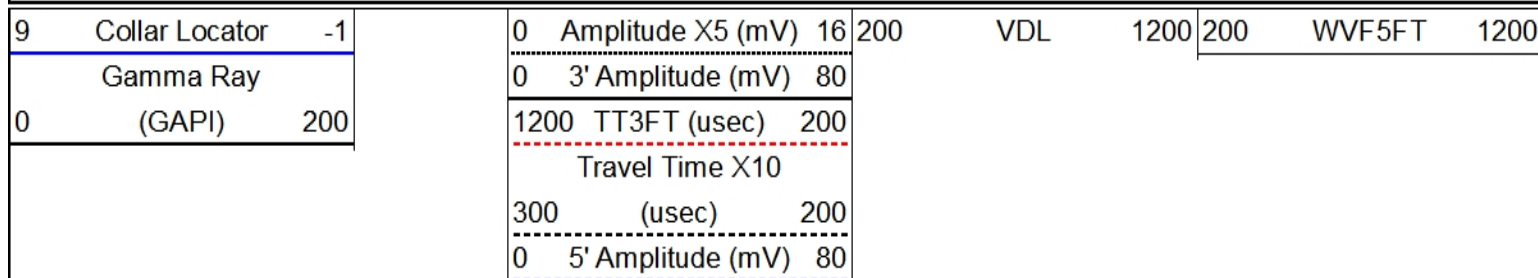


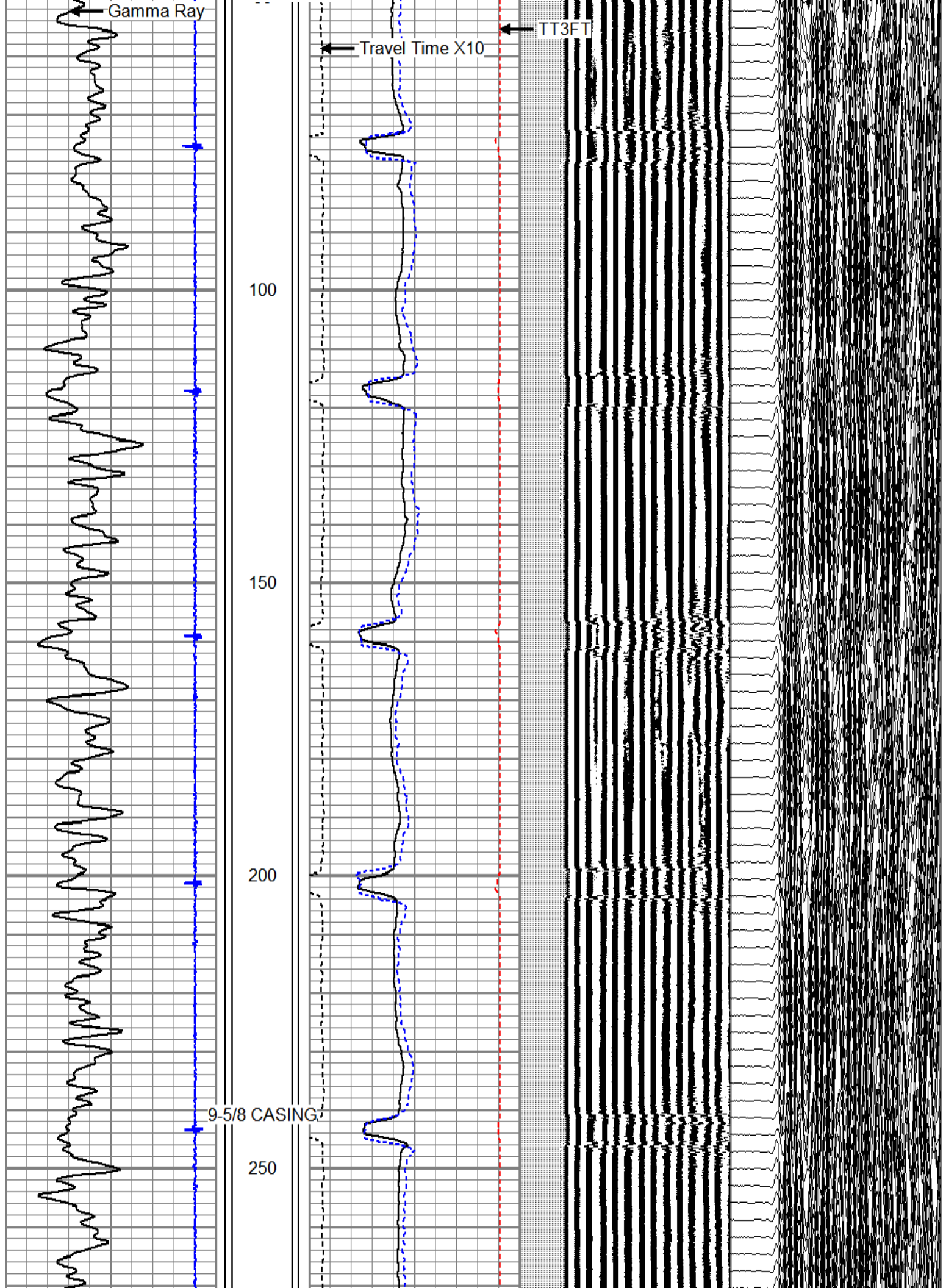
LOG RAN WITH ZERO PSI

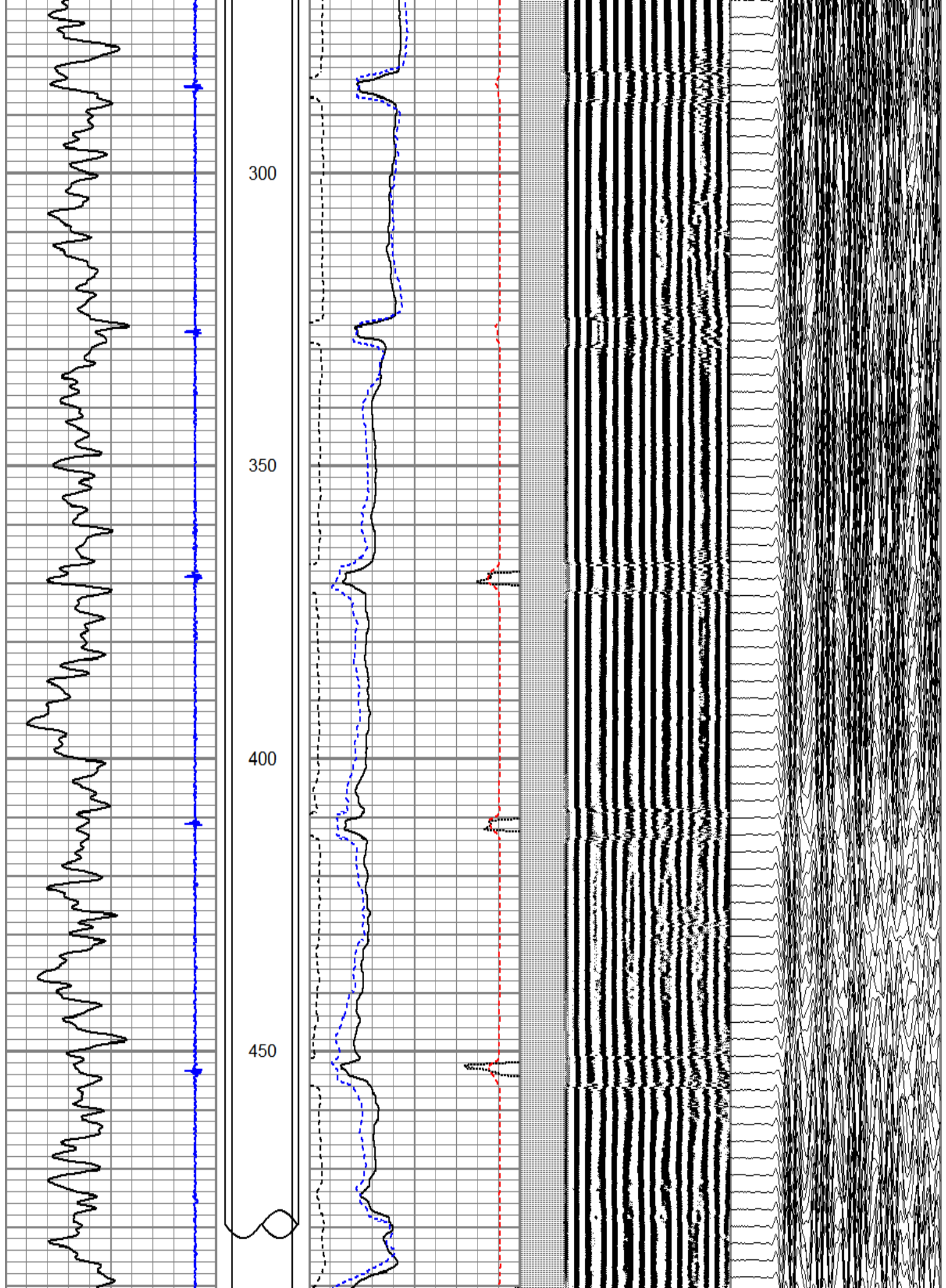


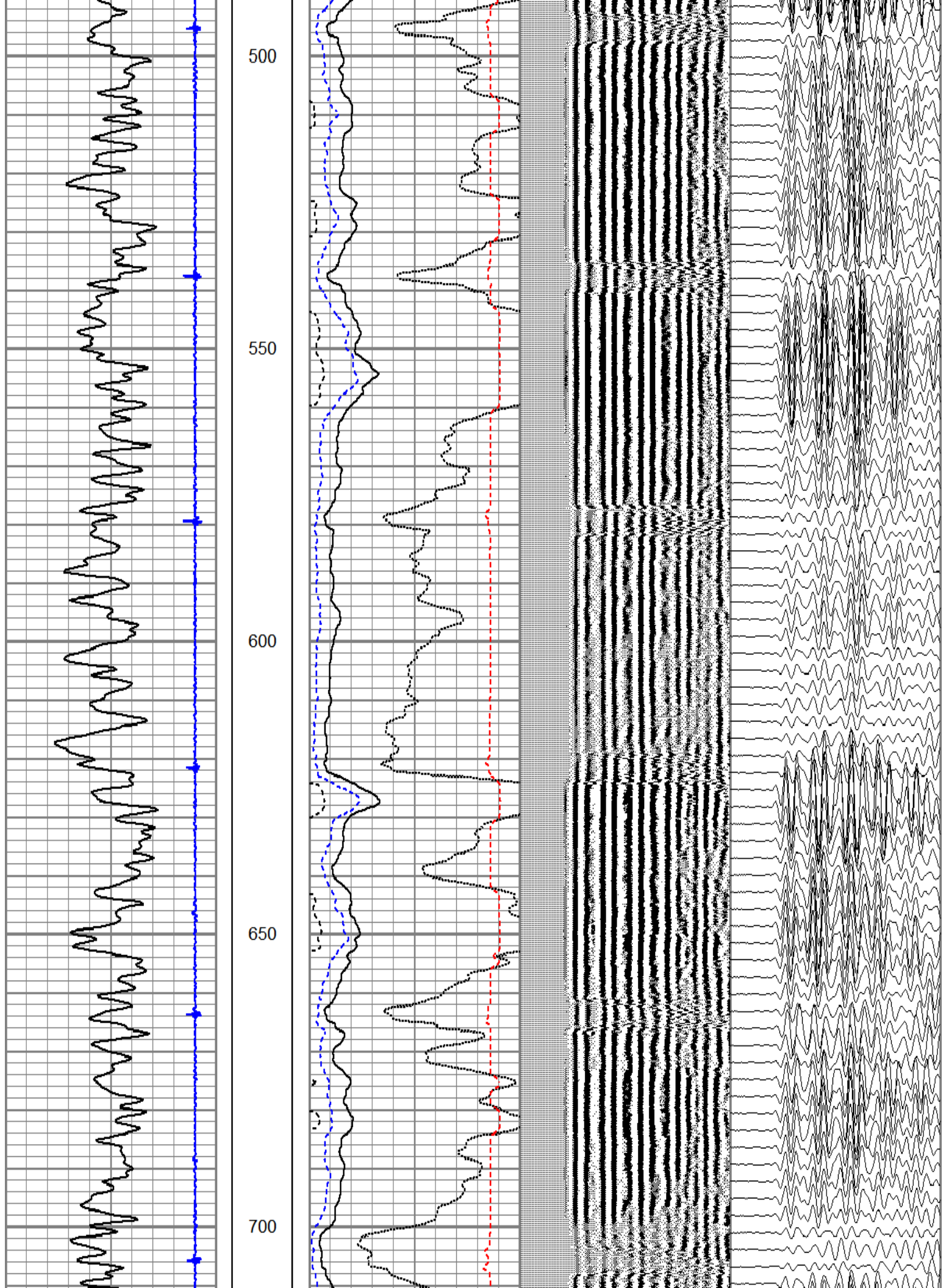
LOG RAN WITH 1000 PSI

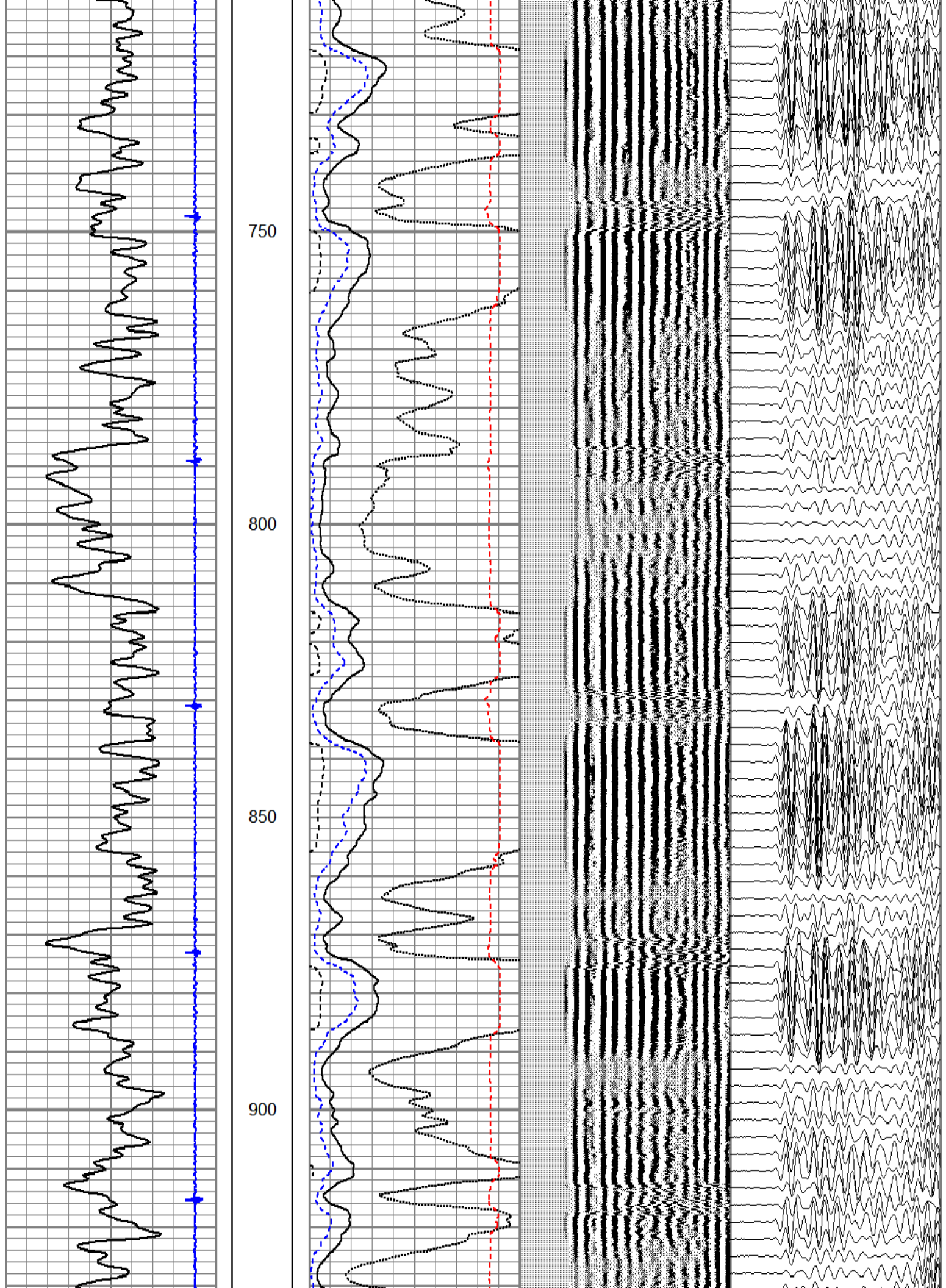
Database File: catamountelsa346191rce.db
 Dataset Pathname: fieldfc/wellelsa346191/run1/pass7
 Presentation Format: cbl7inplo
 Dataset Creation: Thu May 21 14:01:08 2015
 Charted by: Depth in Feet scaled 1:240

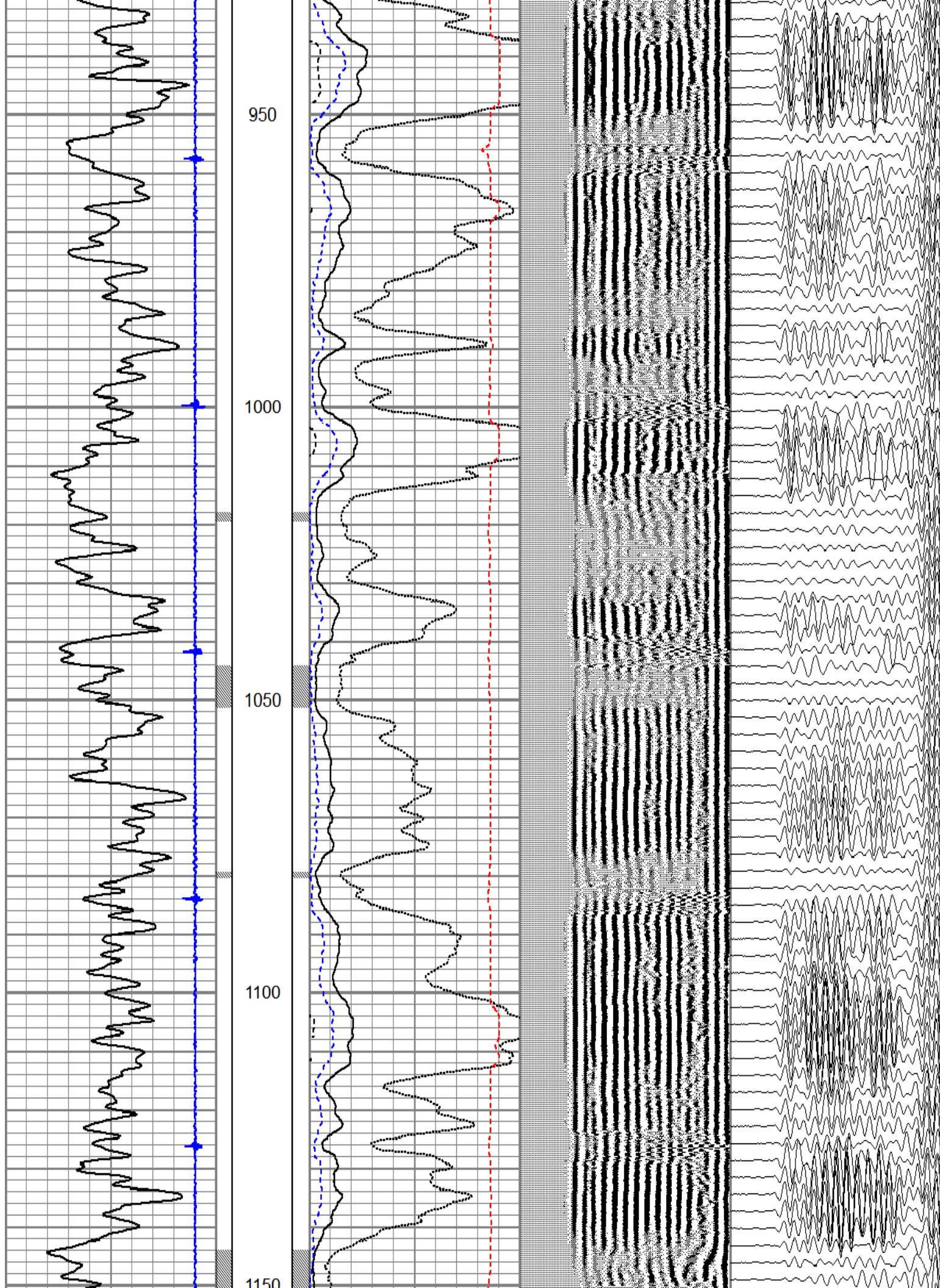


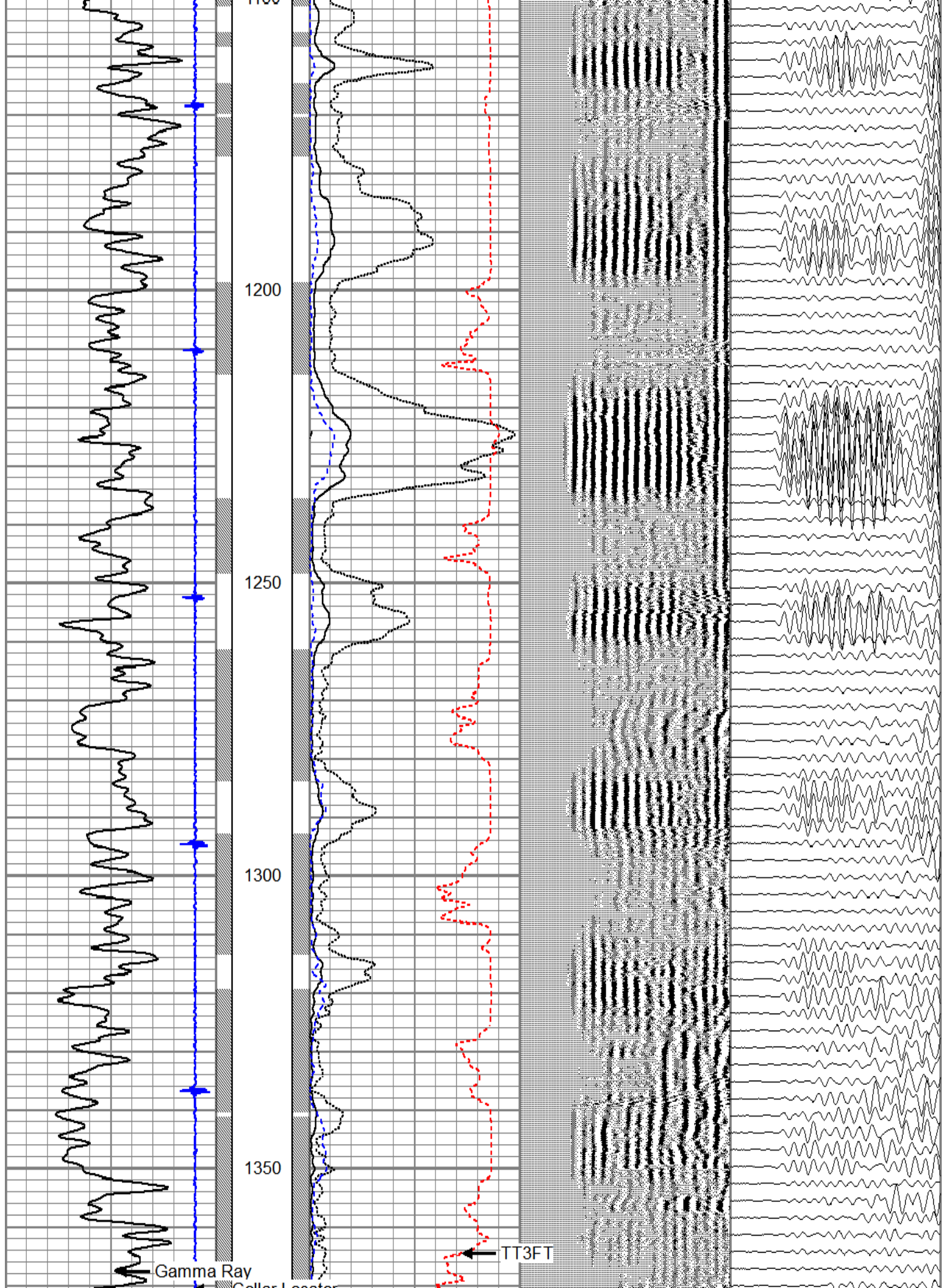


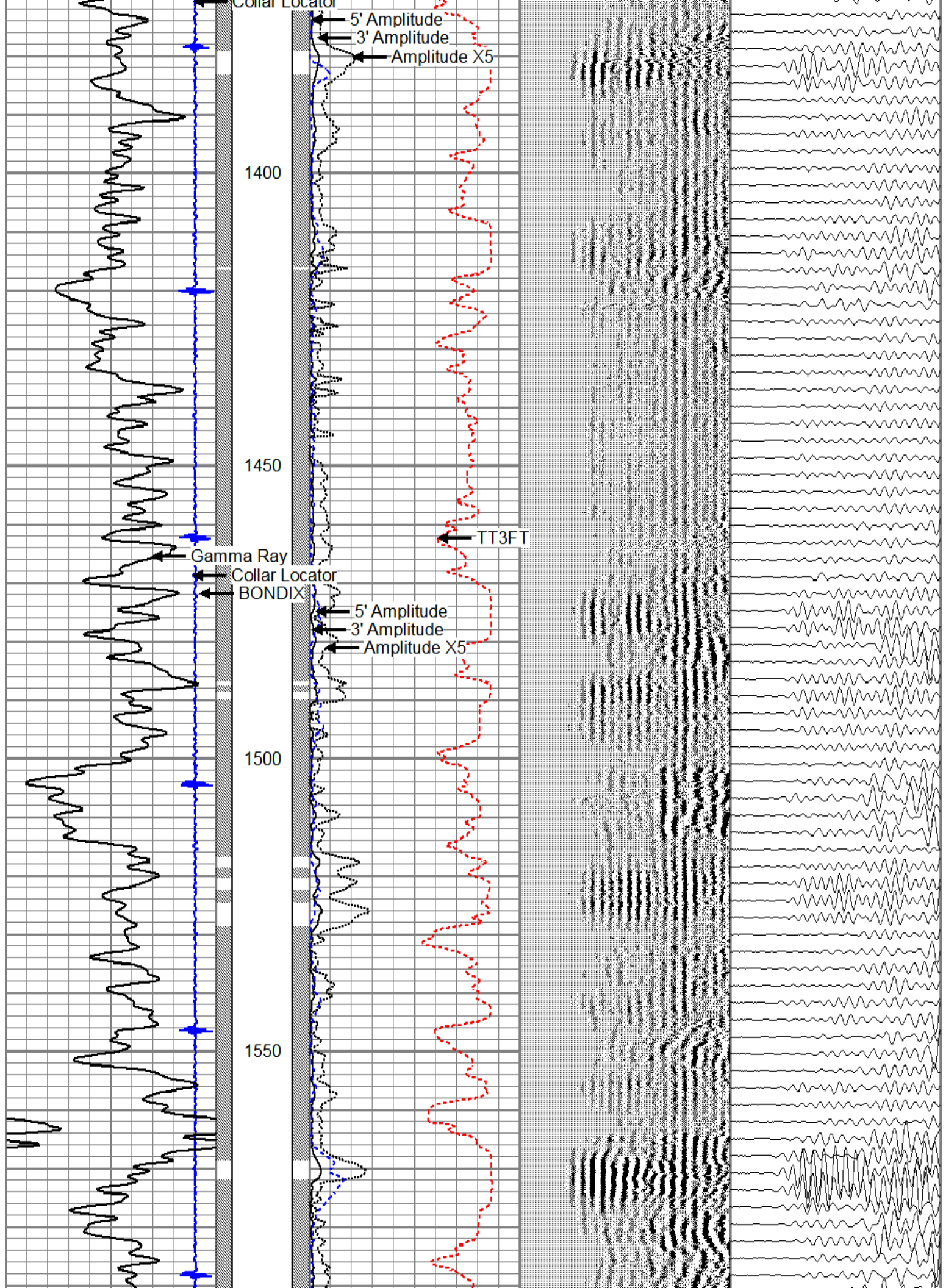


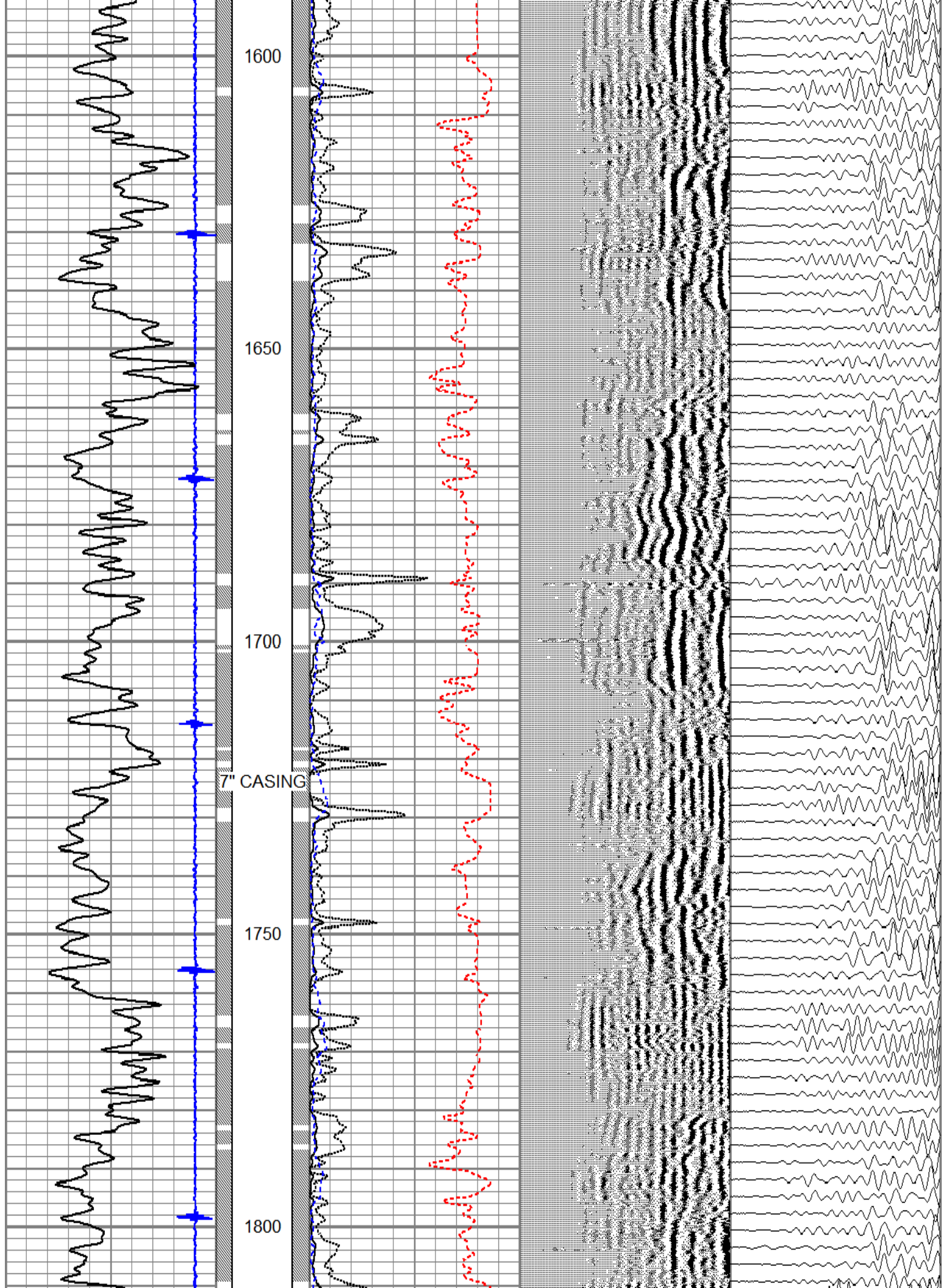


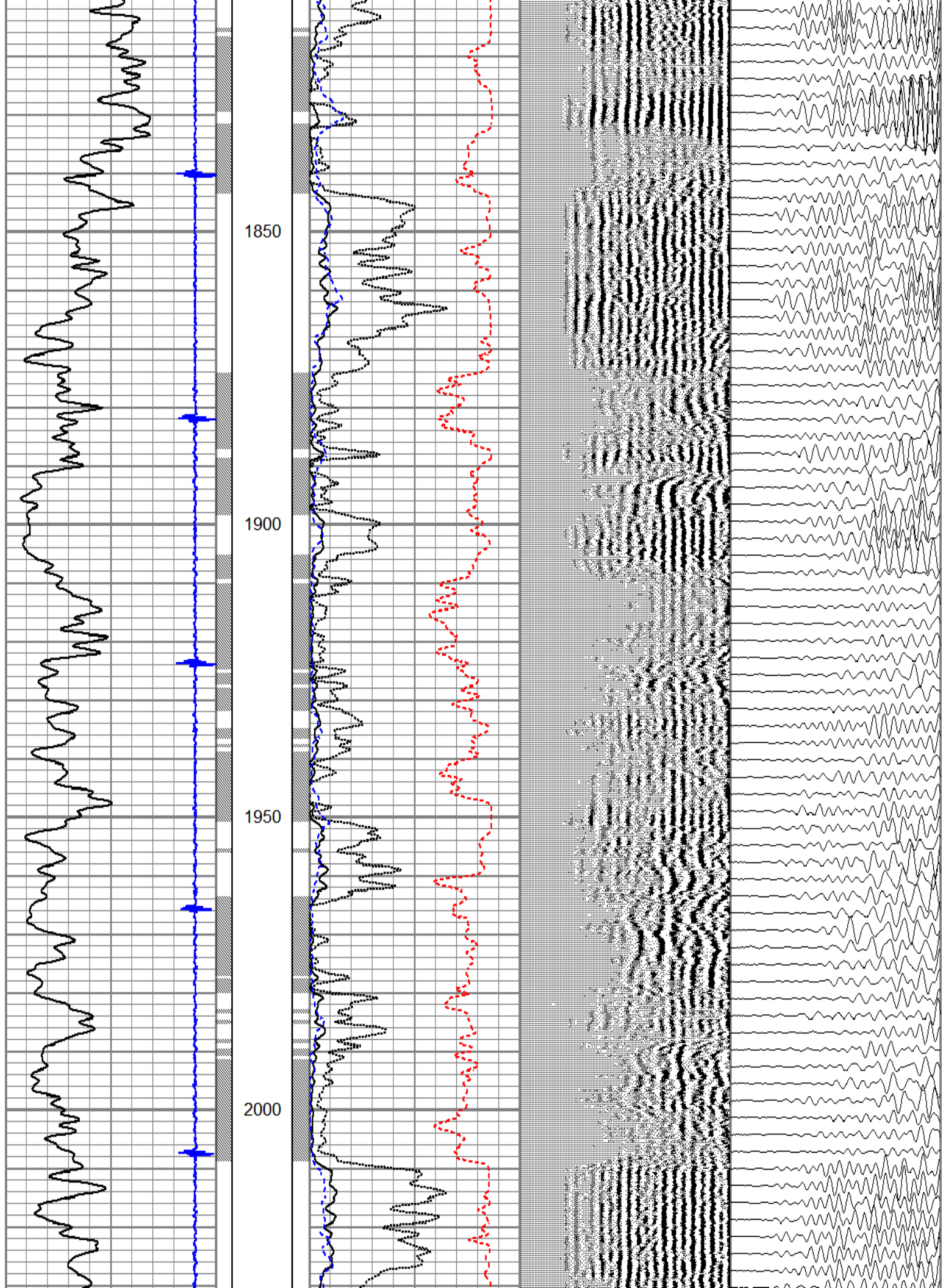


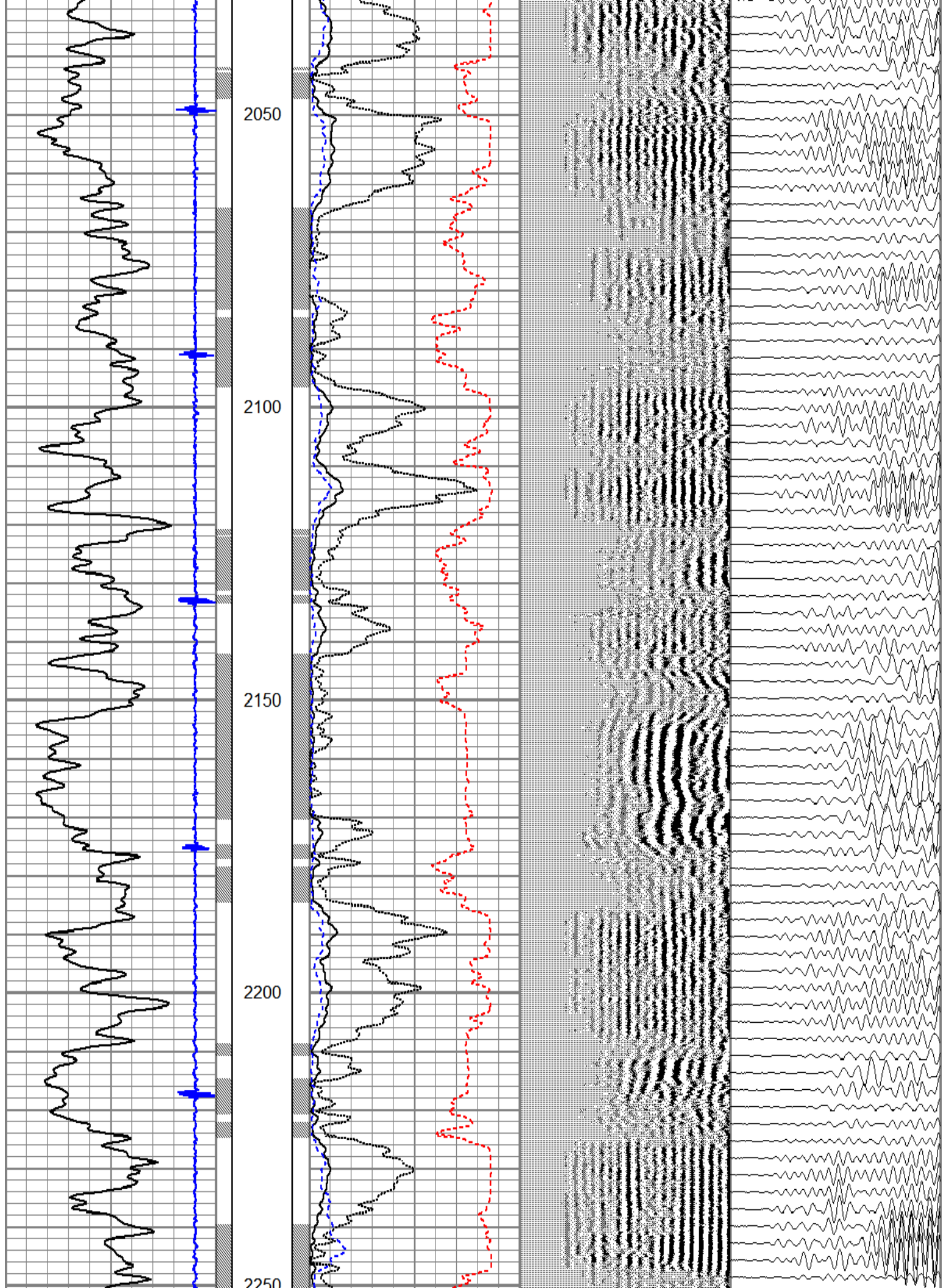


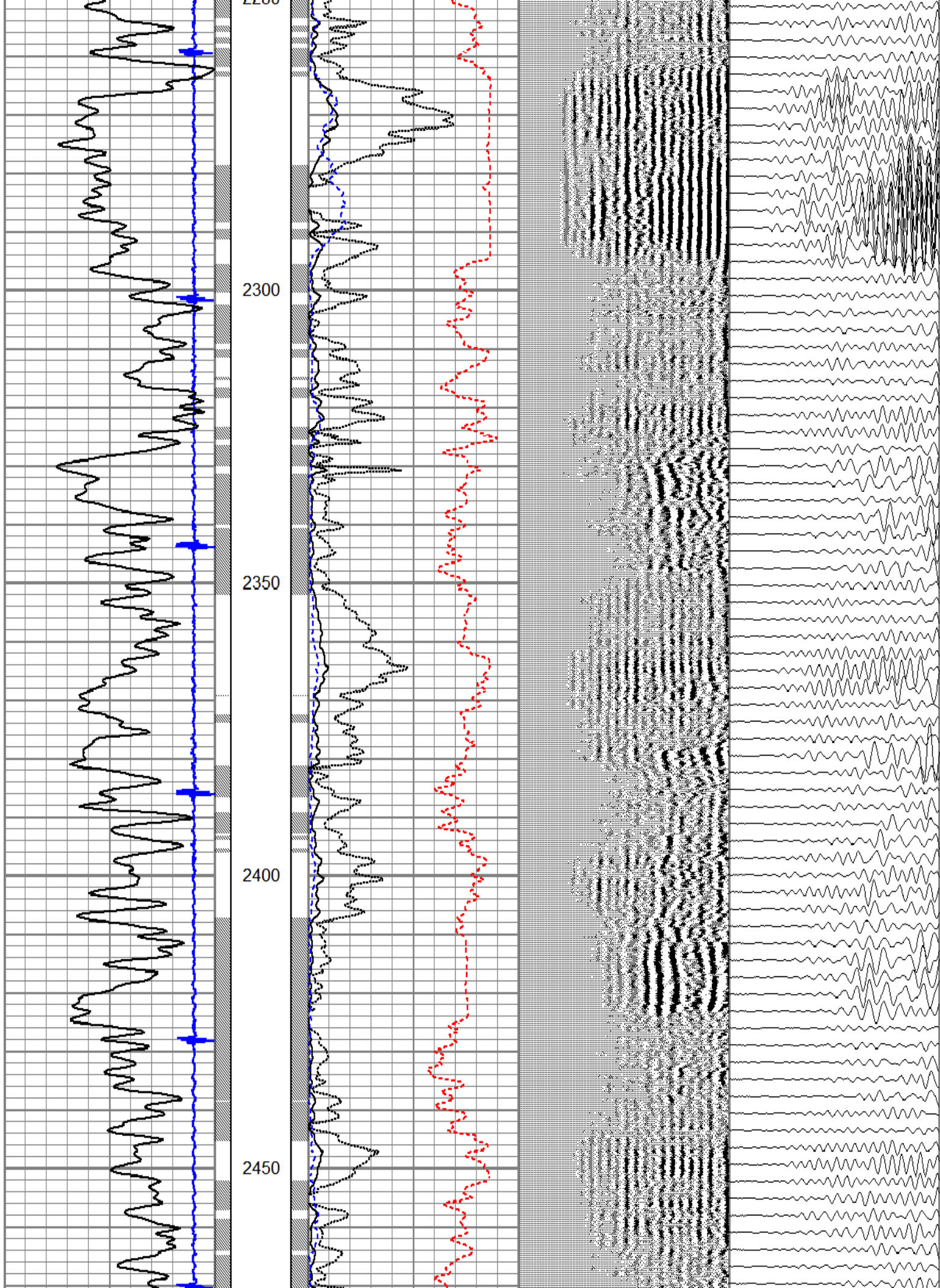


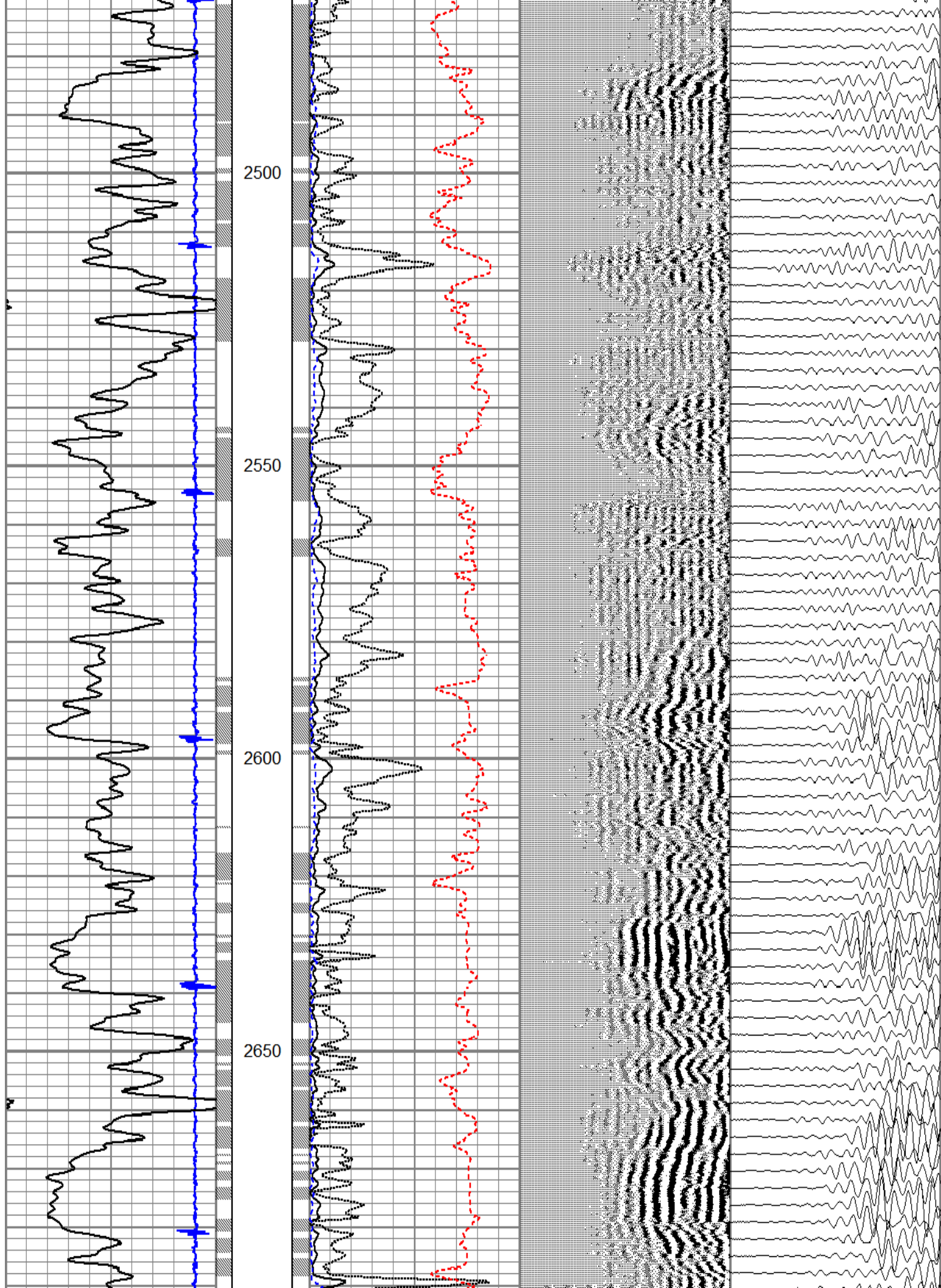


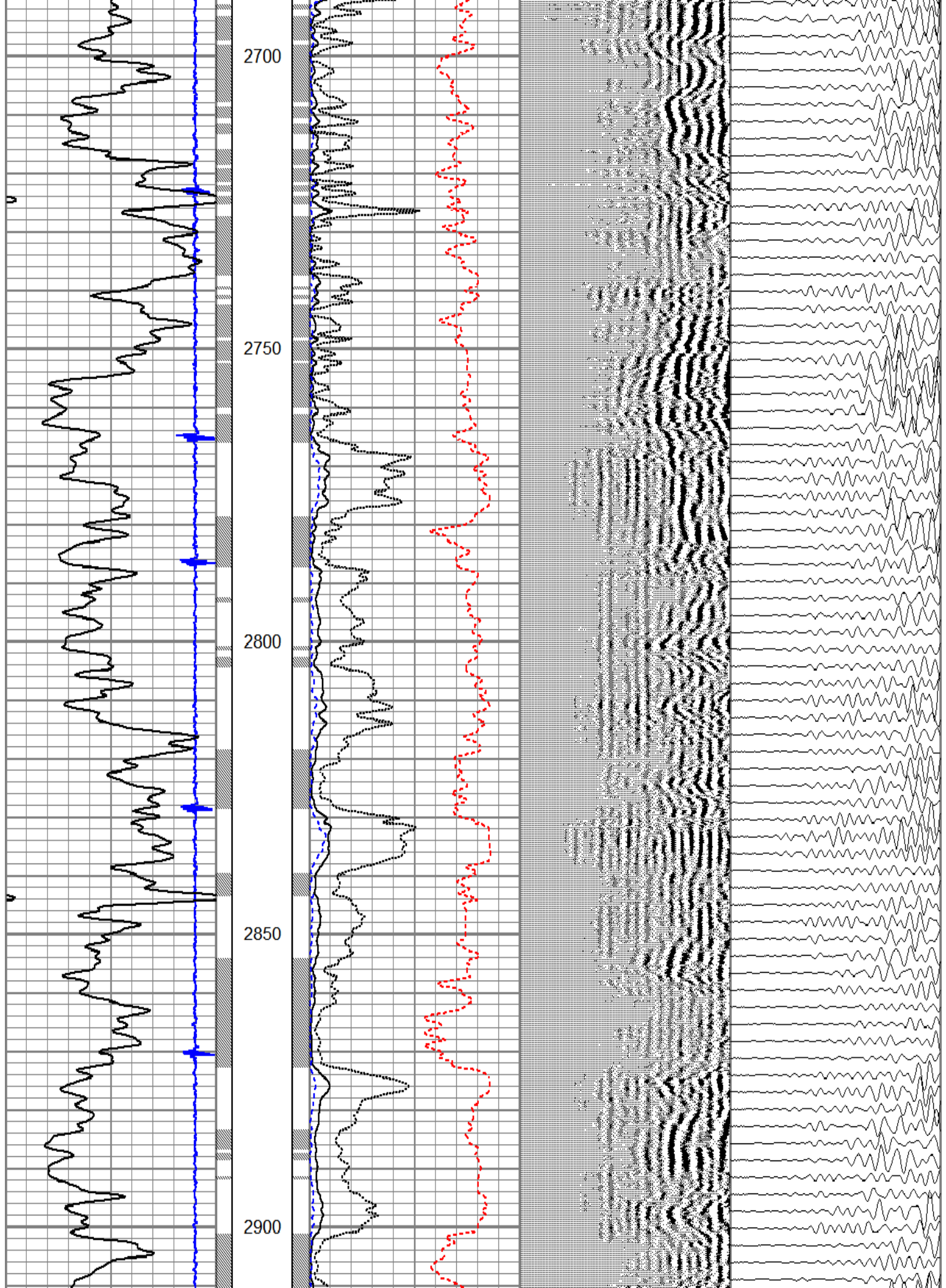


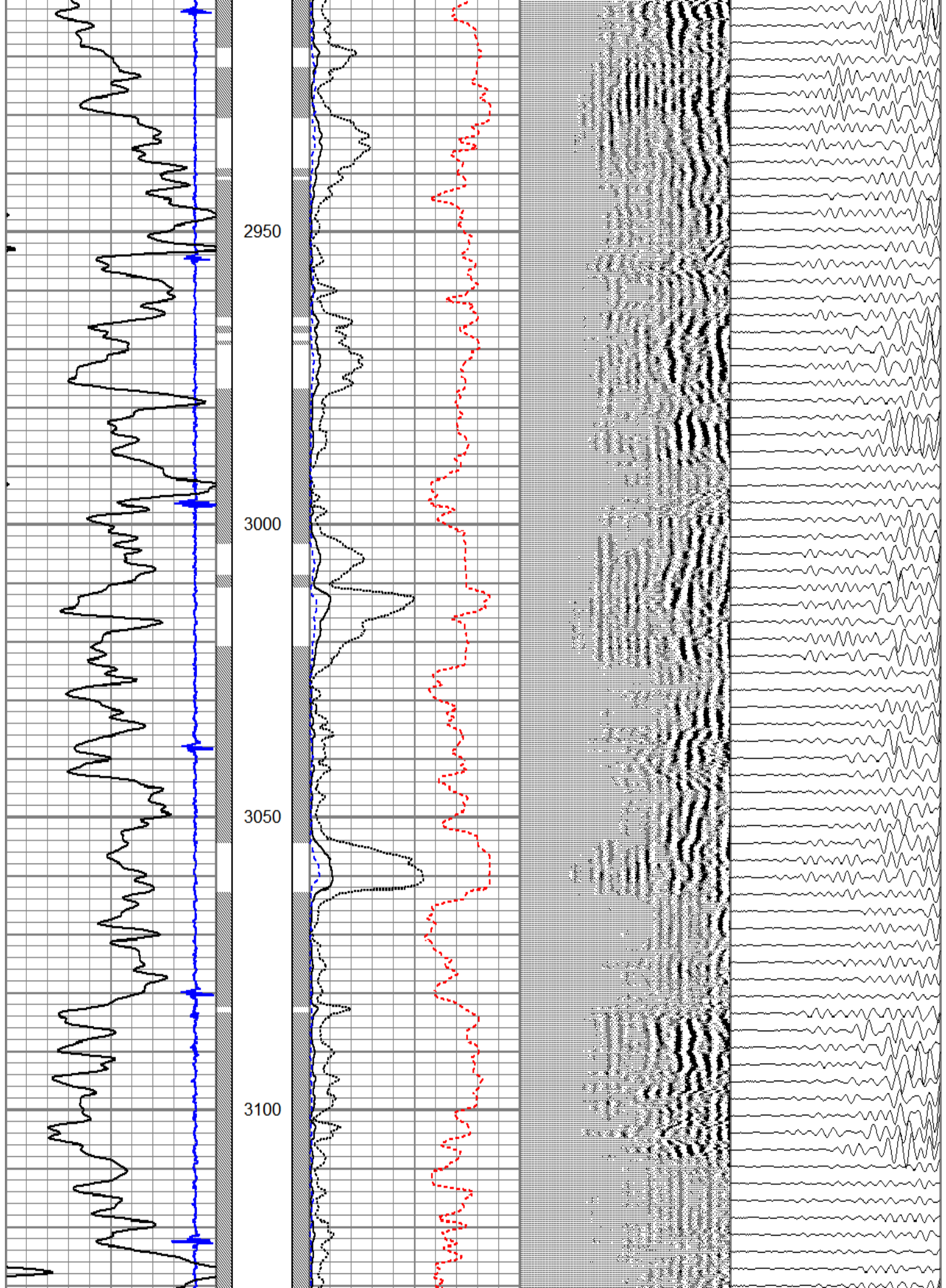


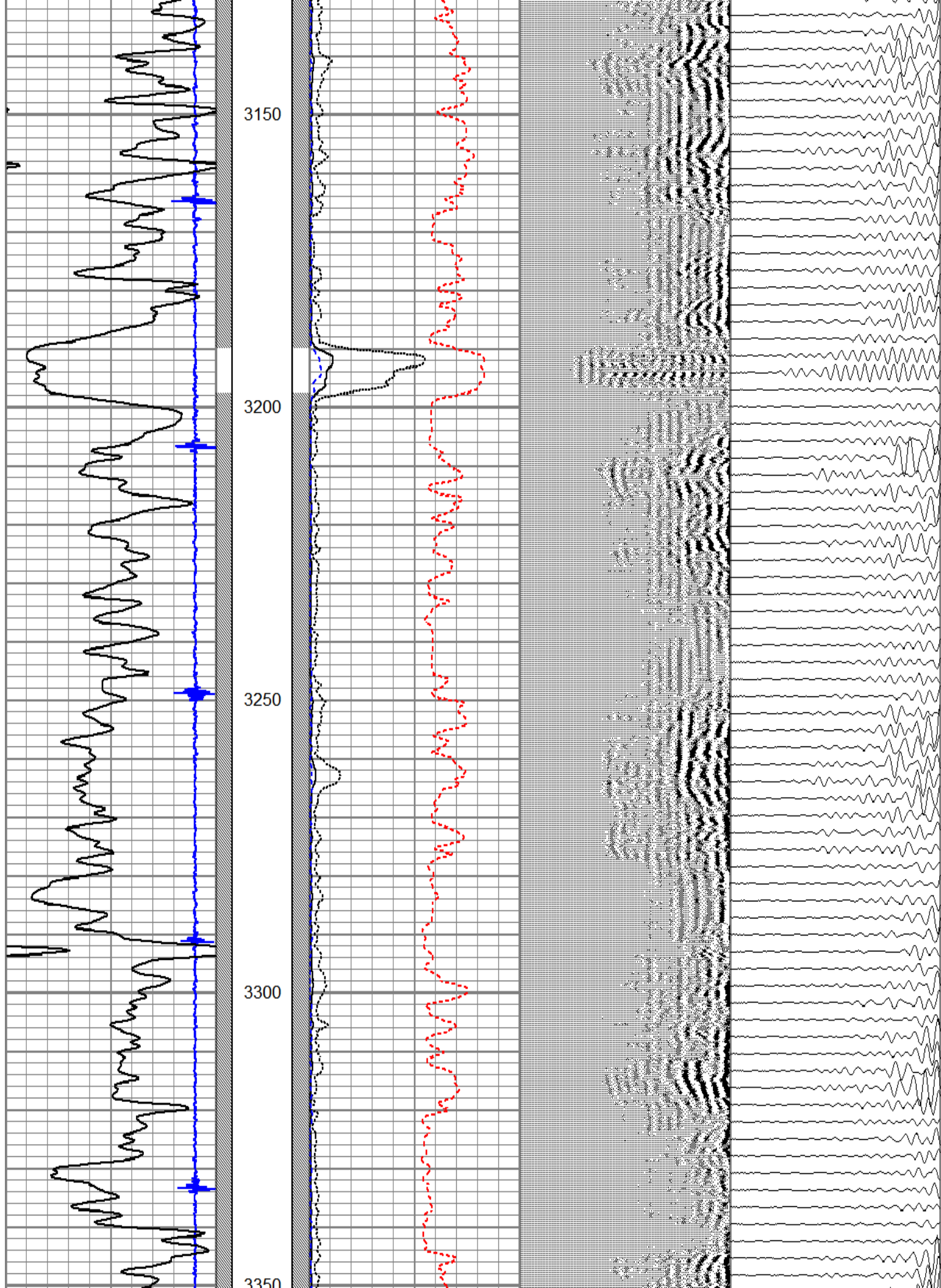


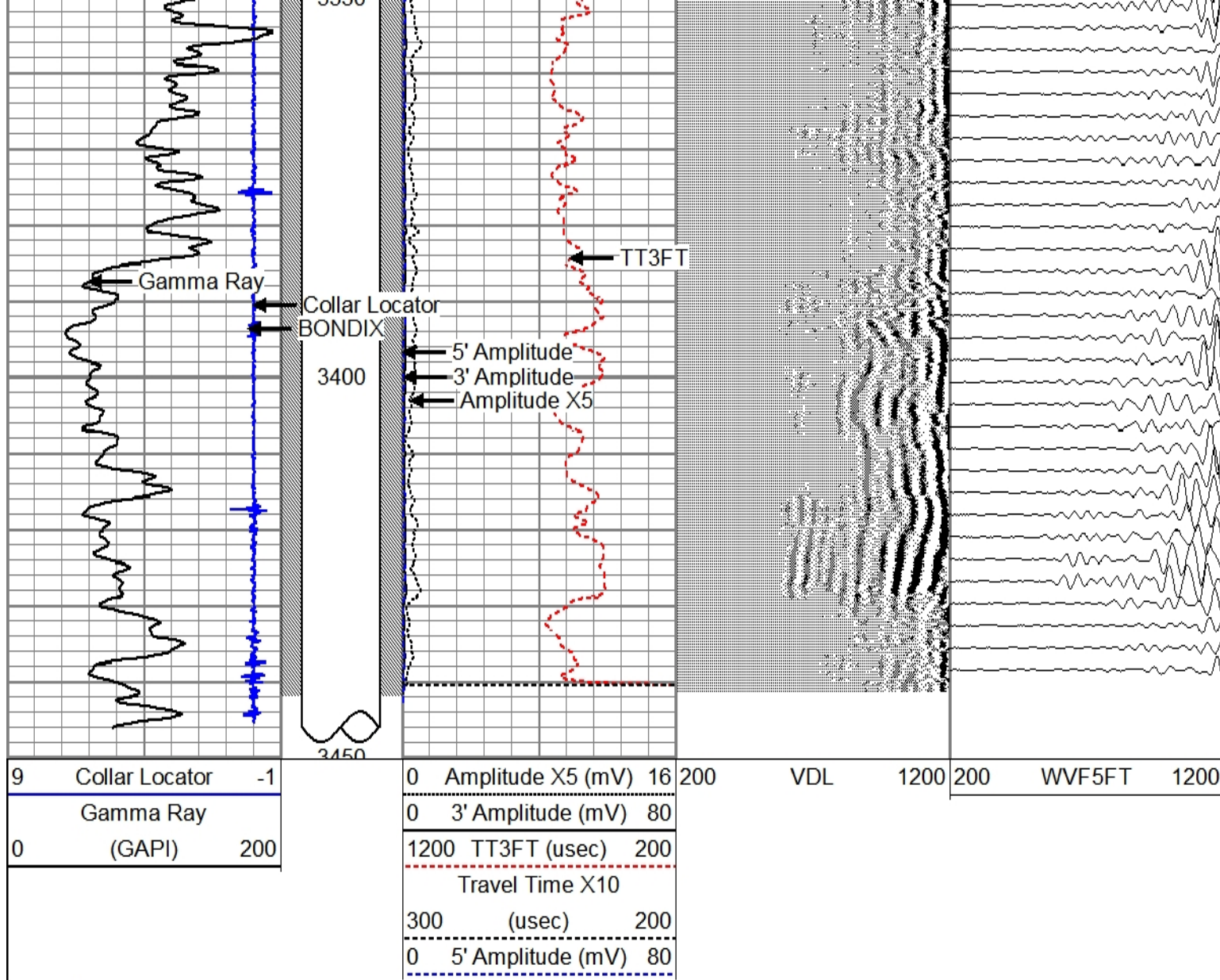












LOG RAN WITH 1000 PSI

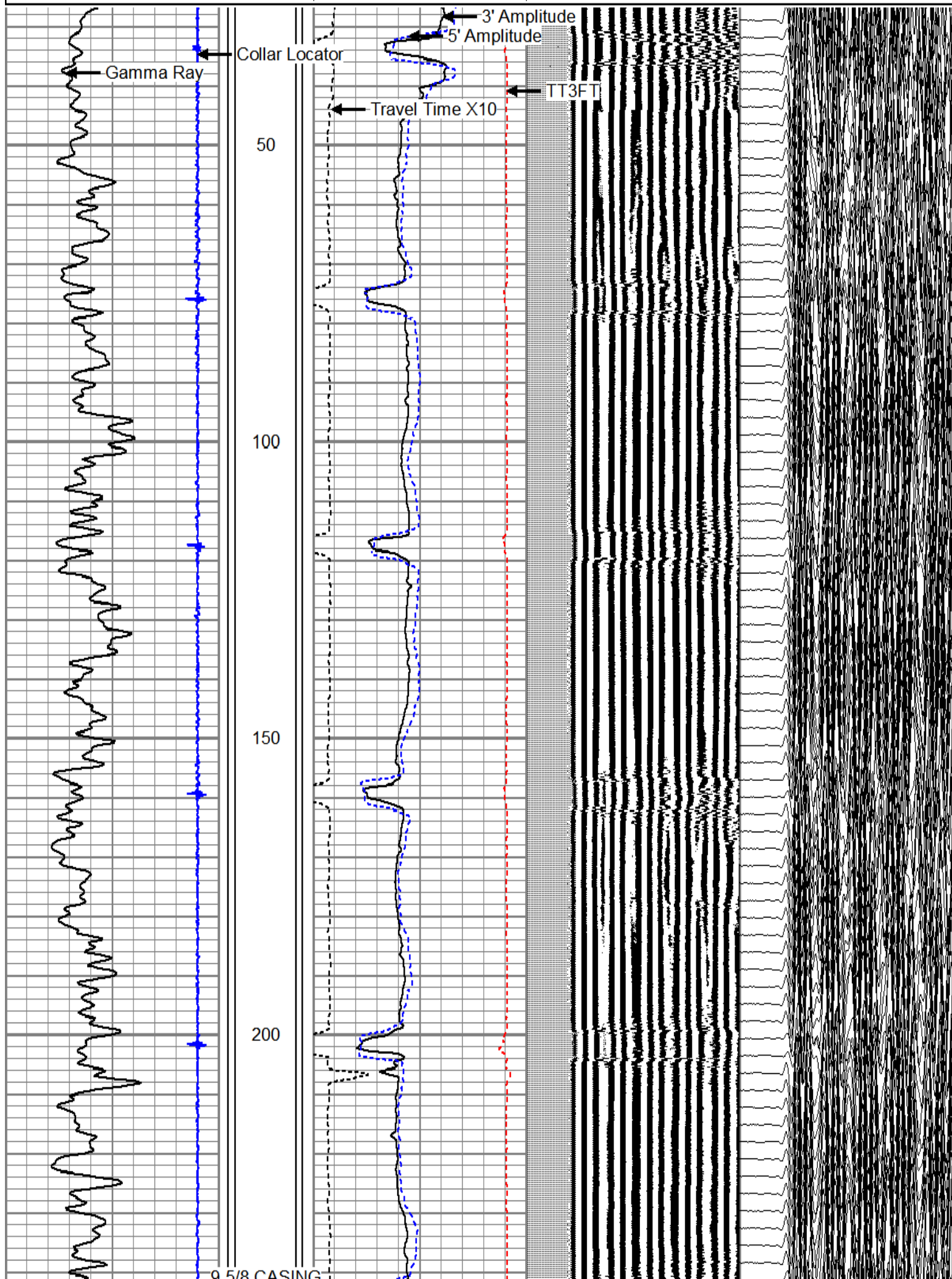


LOG RAN WITH ZERO PSI

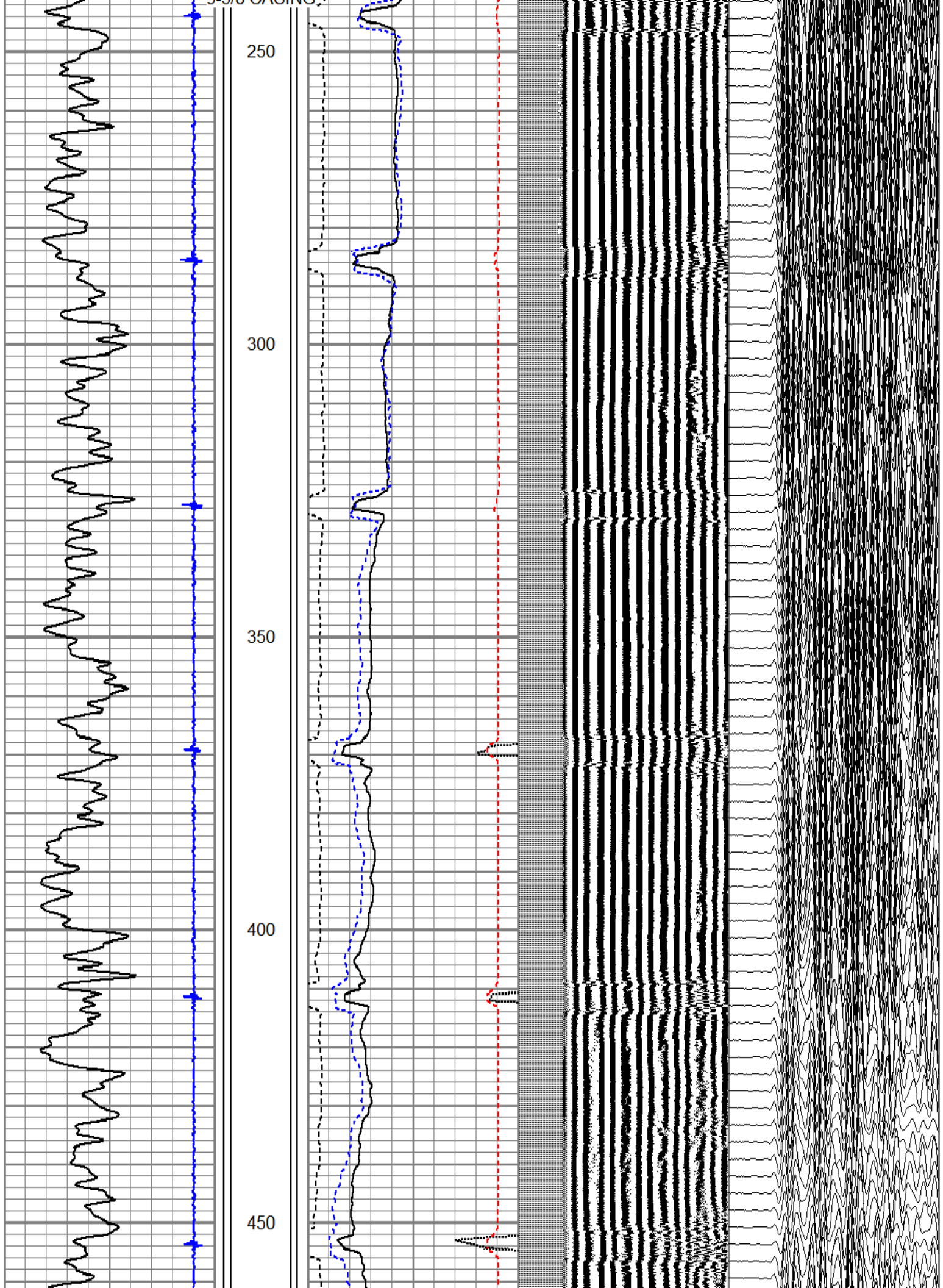
Database File catamountelsa346191rce.db
 Dataset Pathname fieldfc/wellels346191/run1/pass6
 Presentation Format cbl7inplo
 Dataset Creation Thu May 21 14:41:16 2015
 Charted by Depth in Feet scaled 1:240

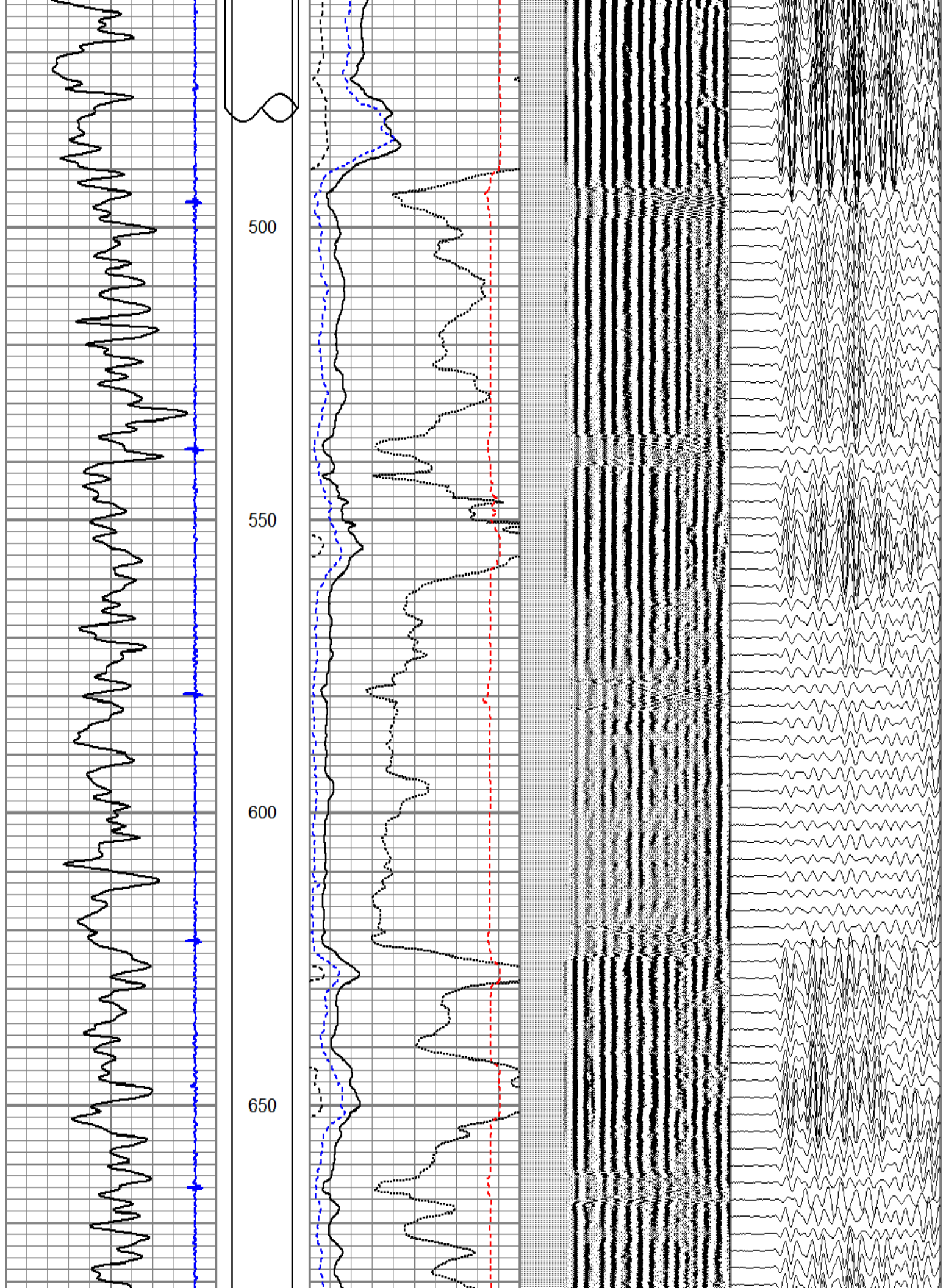
9	Collar Locator	-1	0	Amplitude X5 (mV)	16	200	VDL	1200	200	WVF5FT	1200
	Gamma Ray		0	3' Amplitude (mV)	80						
0	(GAPI)	200	1200	TT3FT (usec)	200						
				Travel Time X10							
			300	(usec)	200						

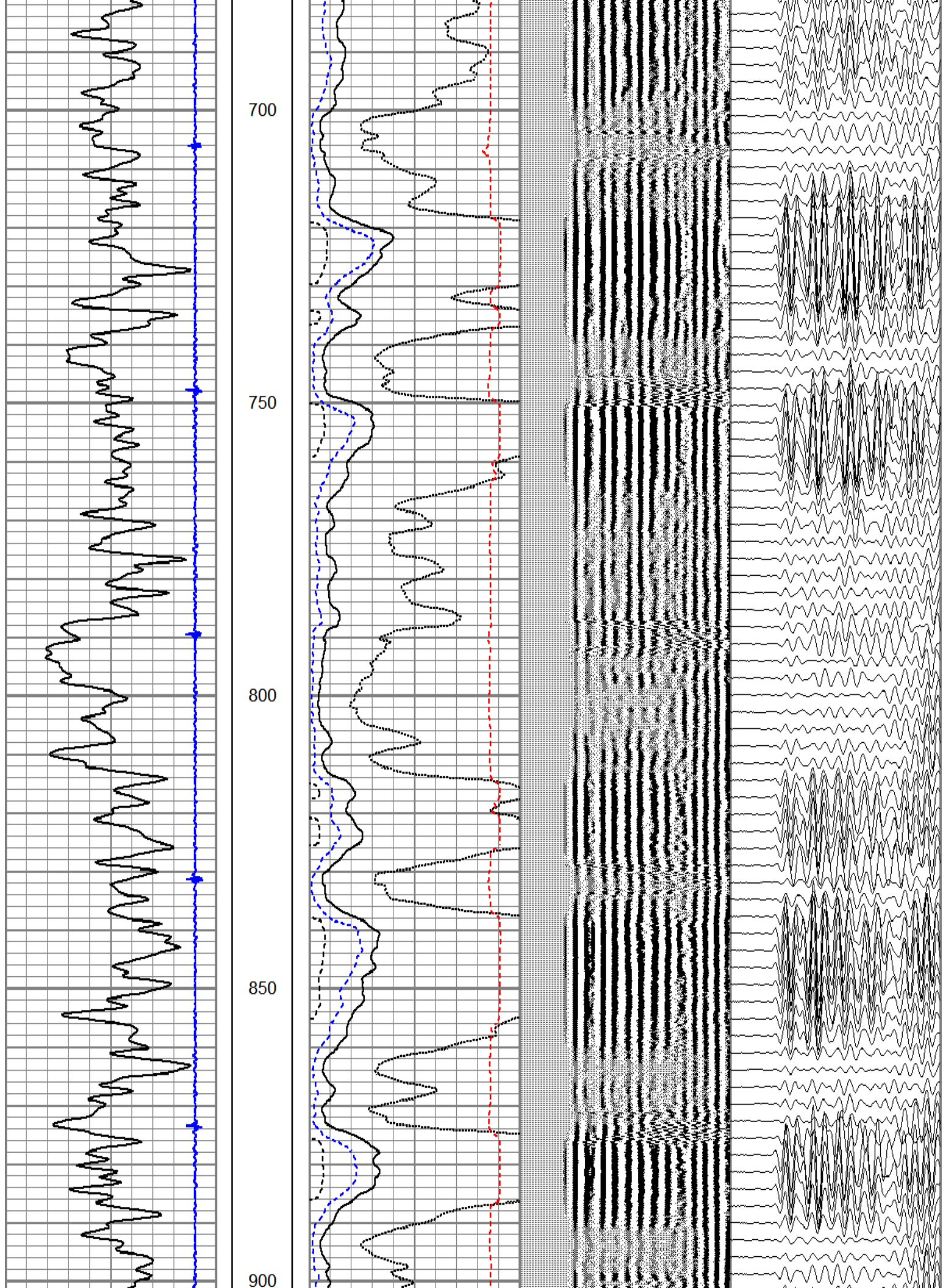
0 5' Amplitude (mV) 80

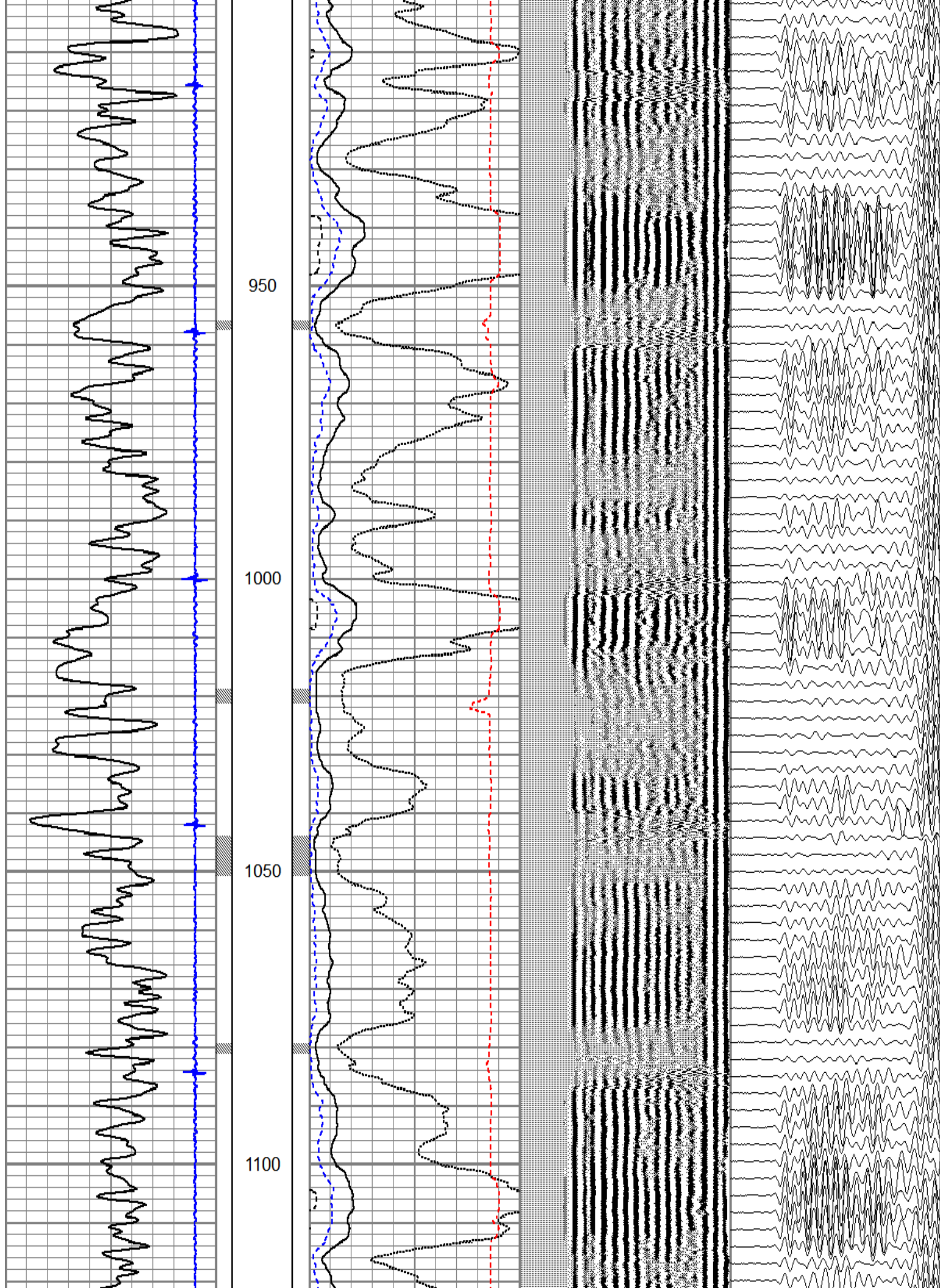


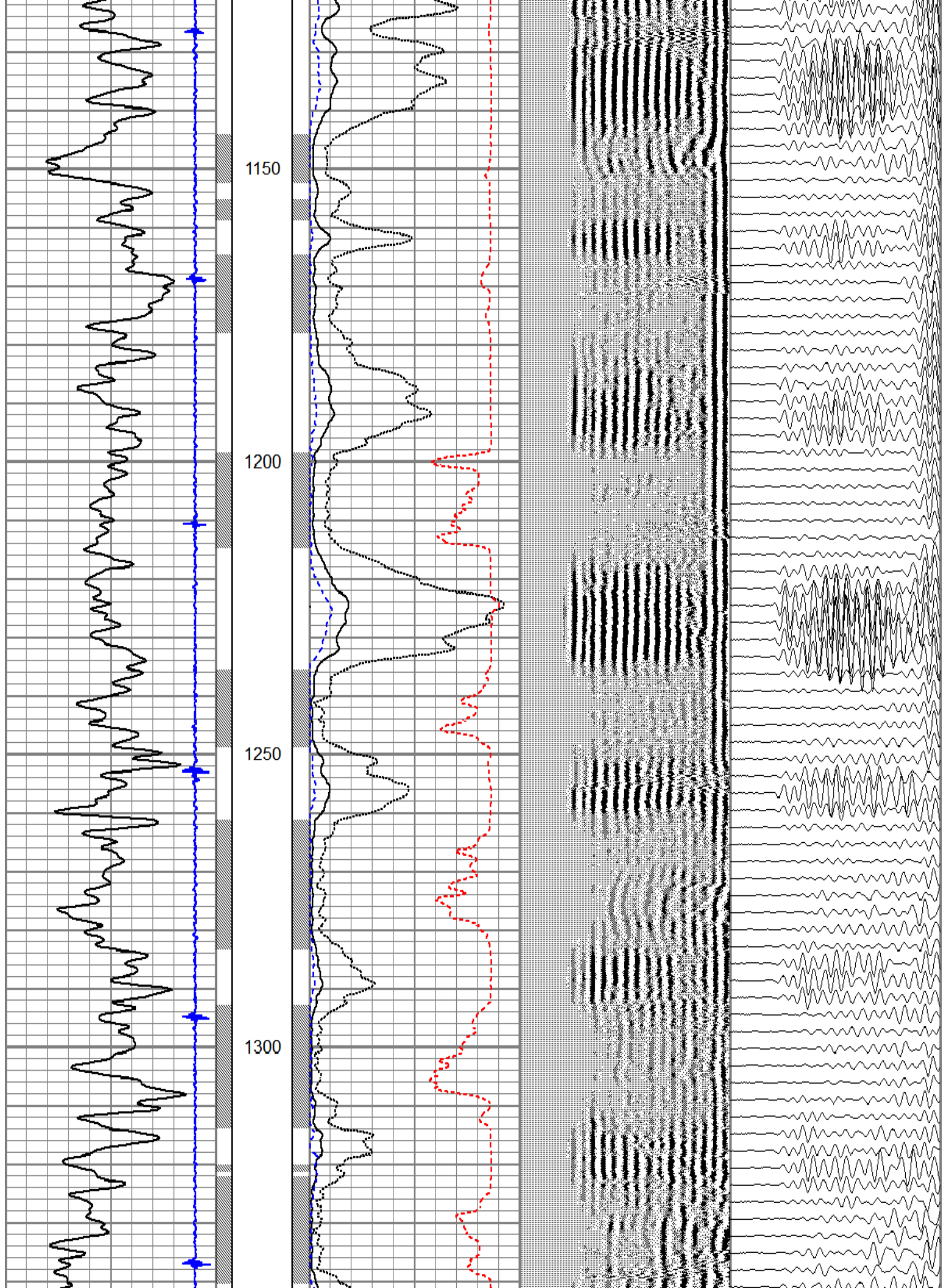
3-5% EXCISE

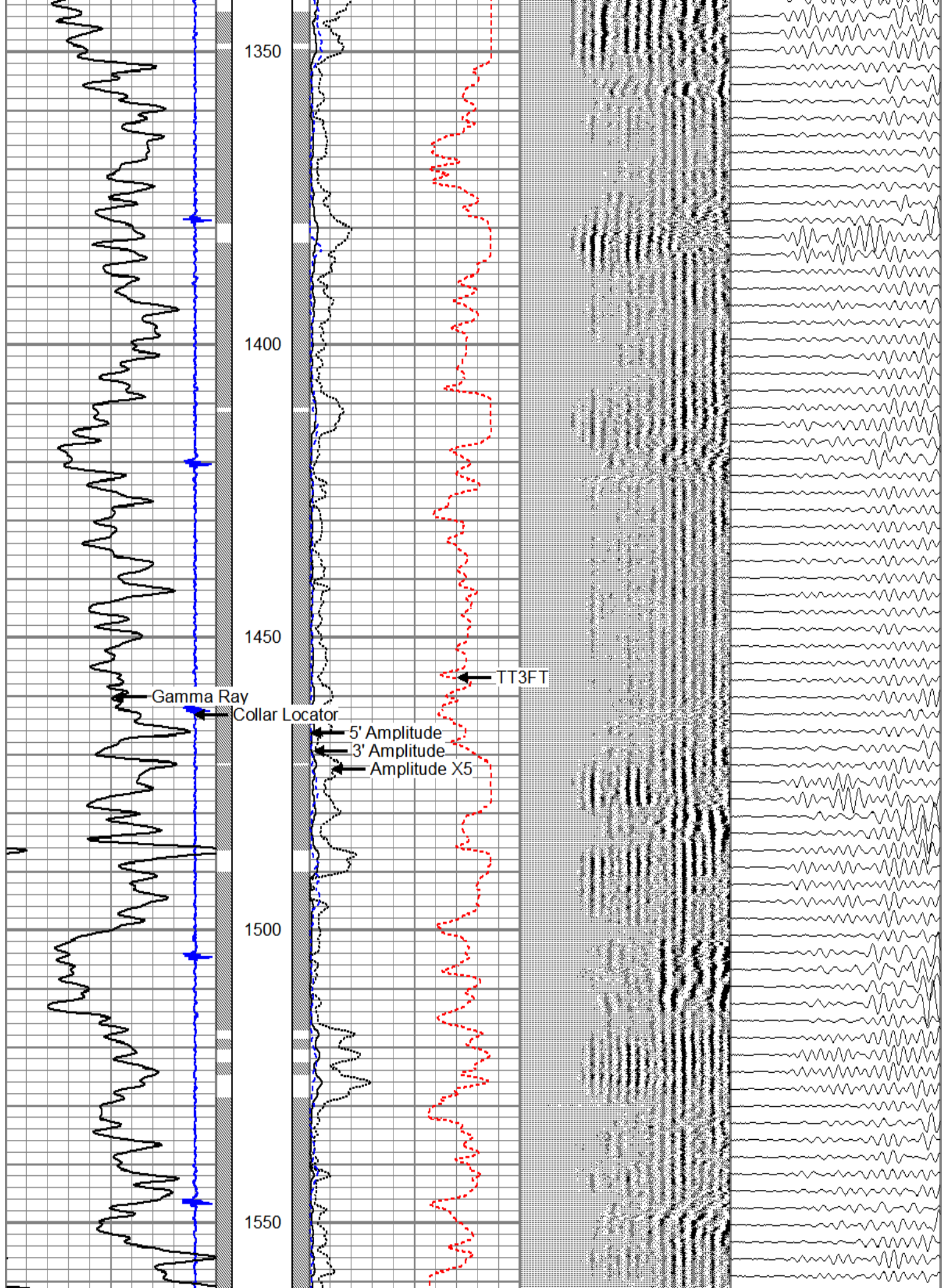


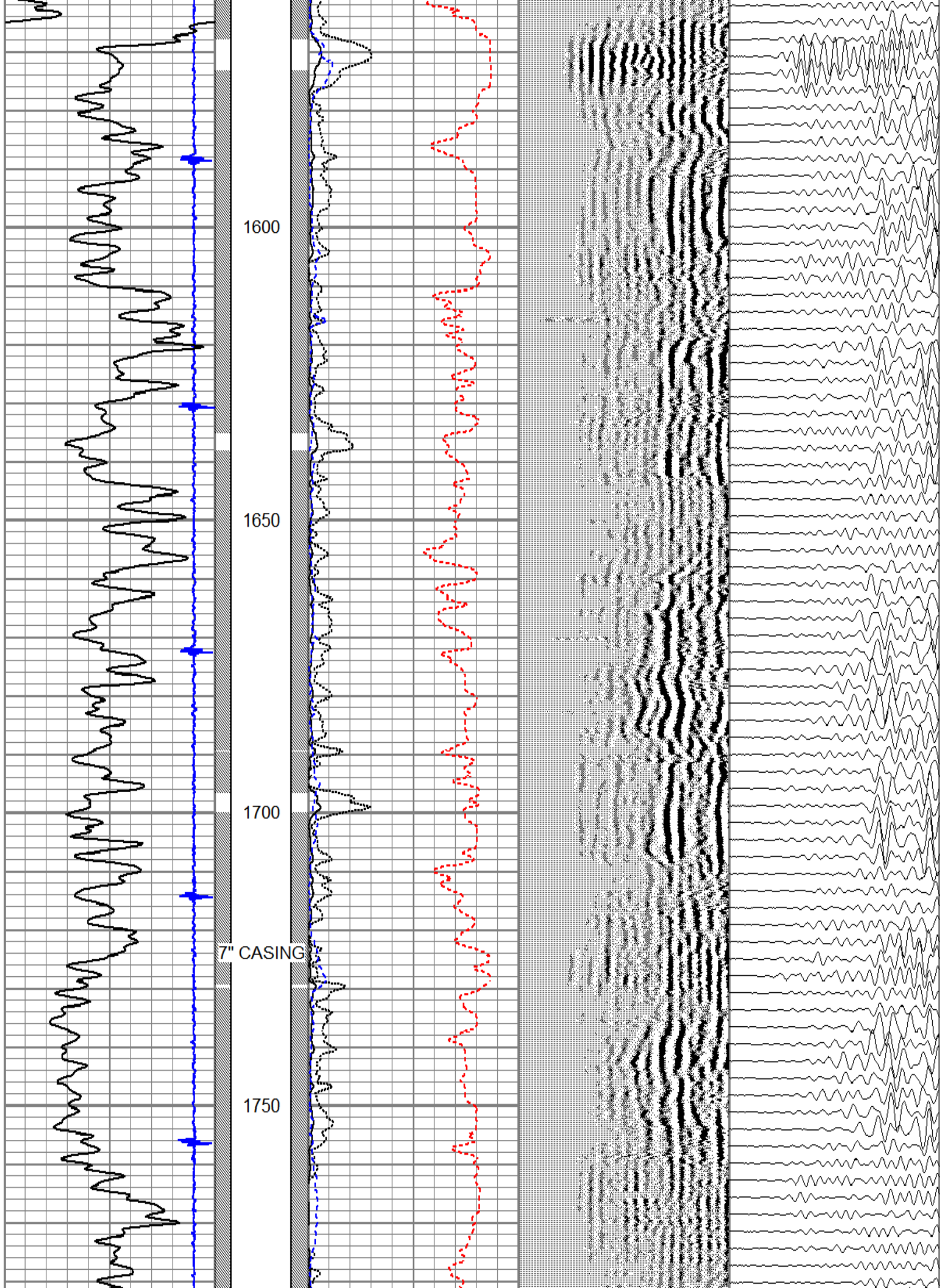


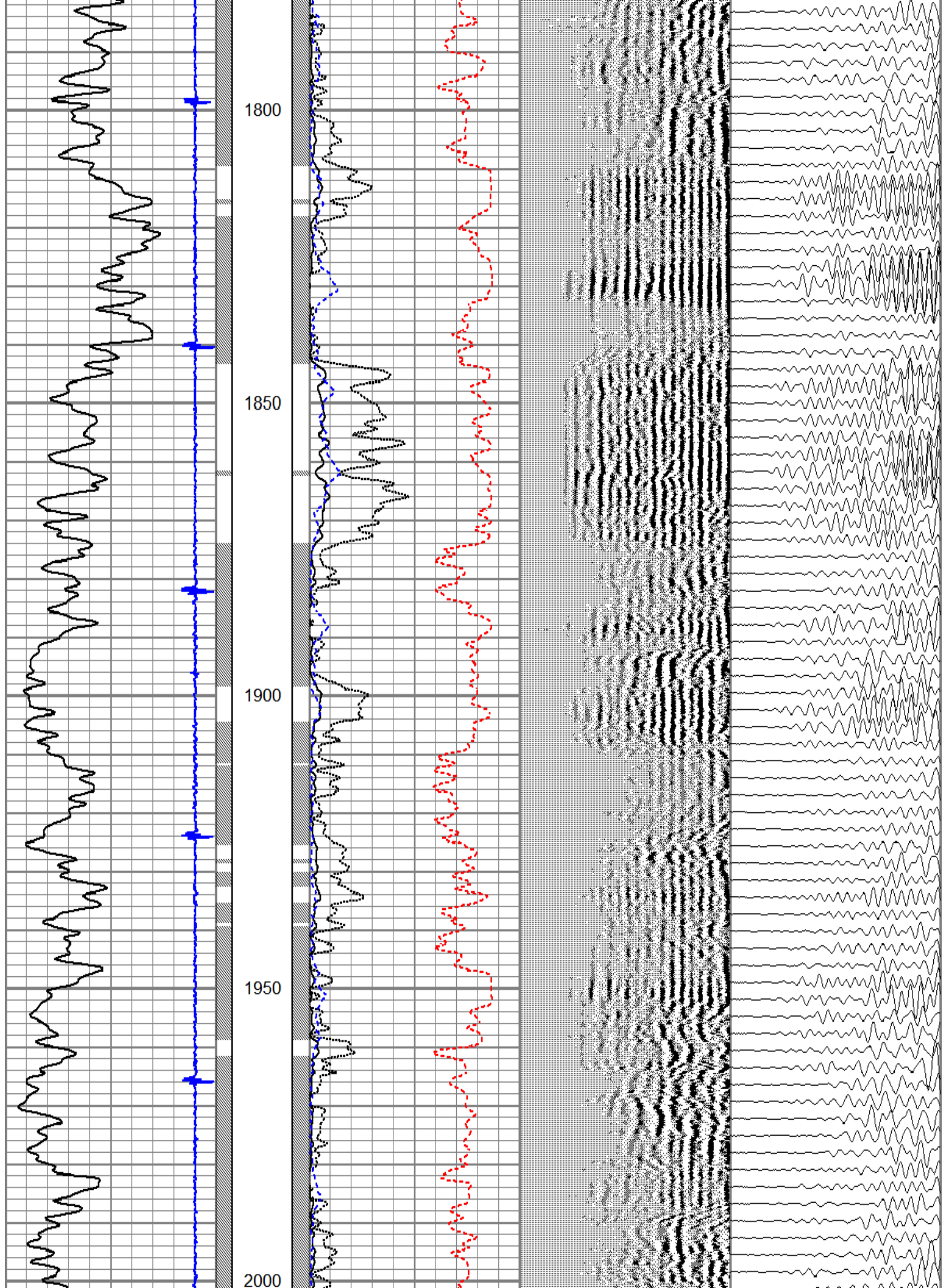


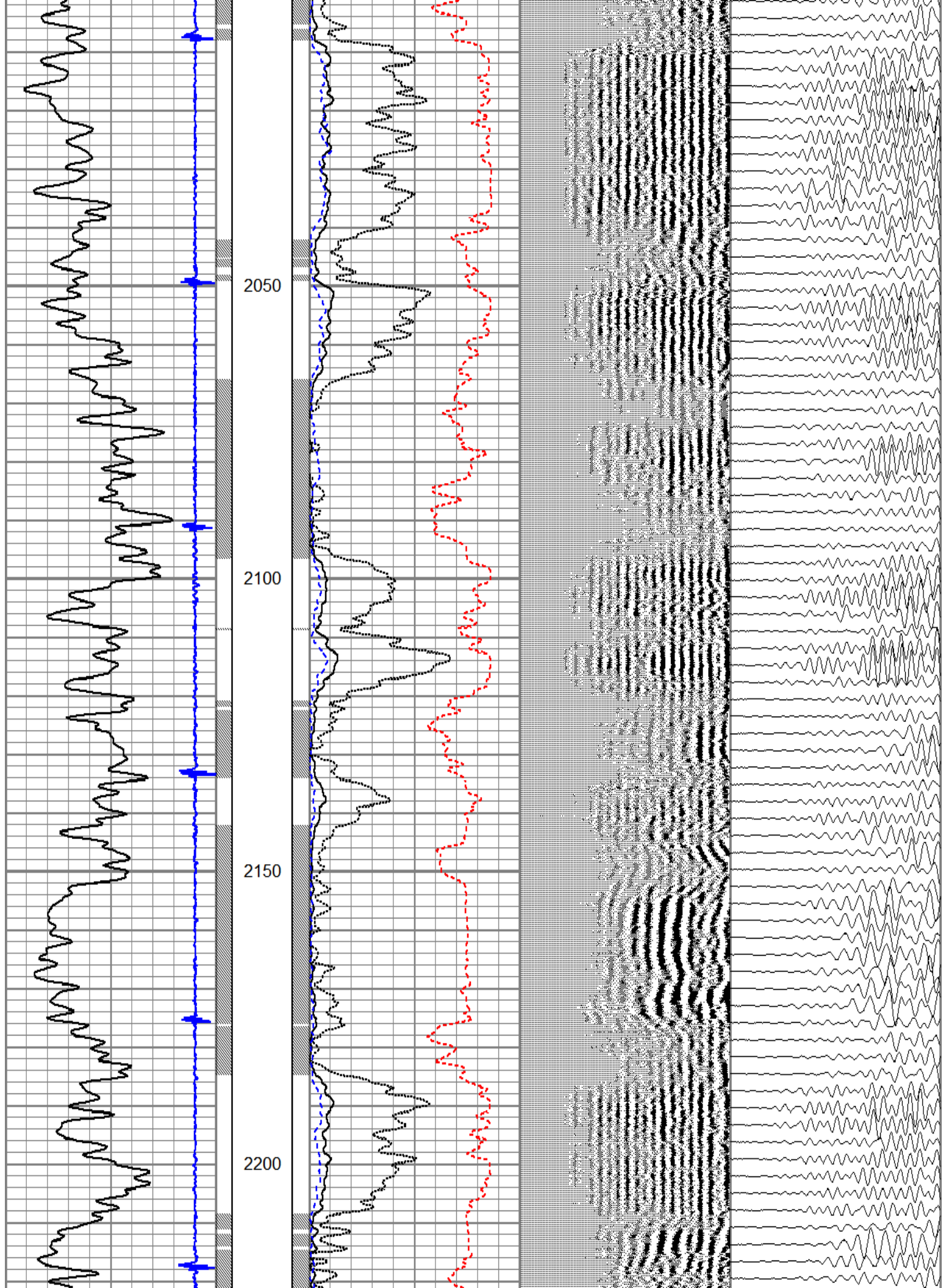


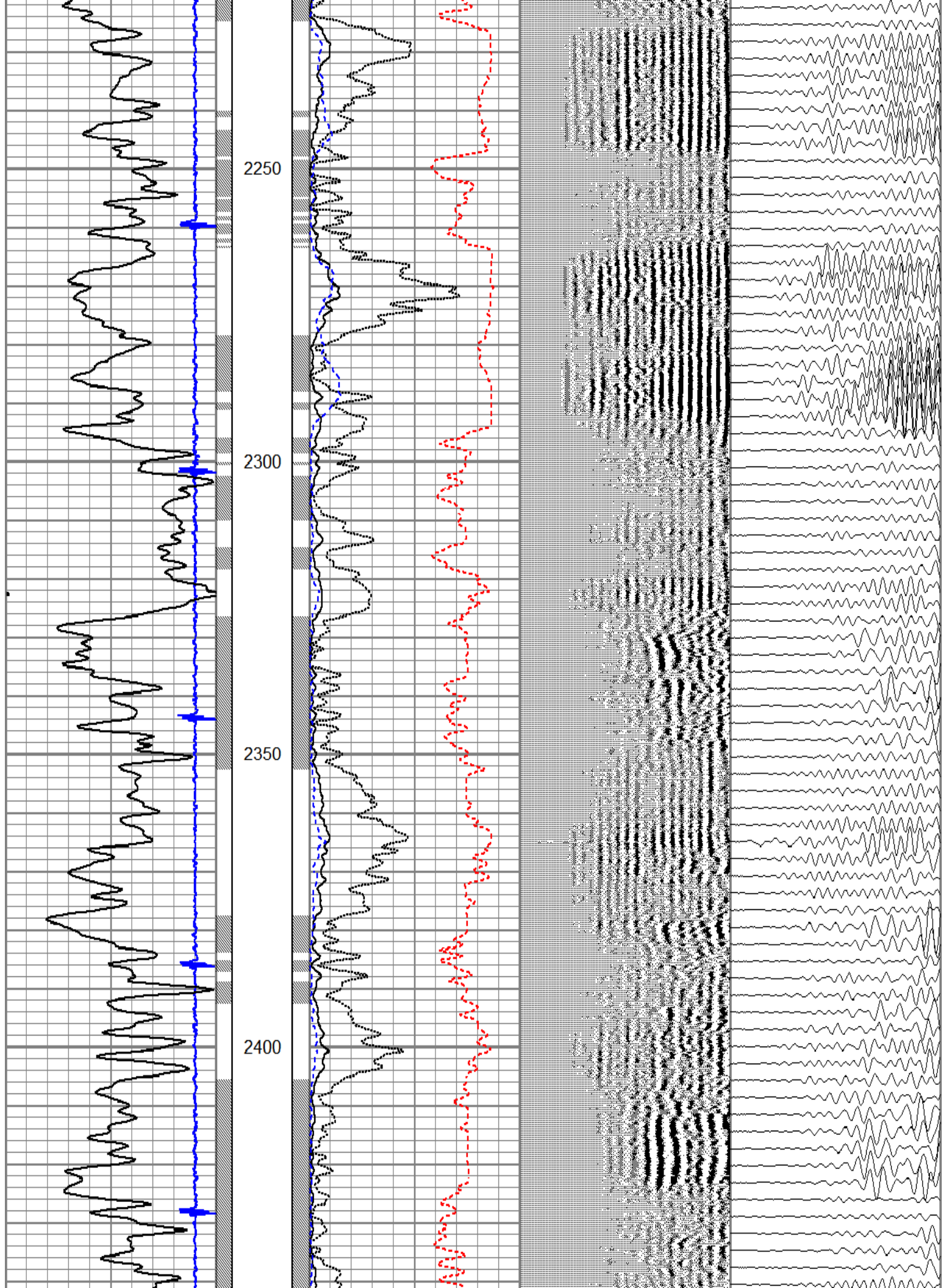


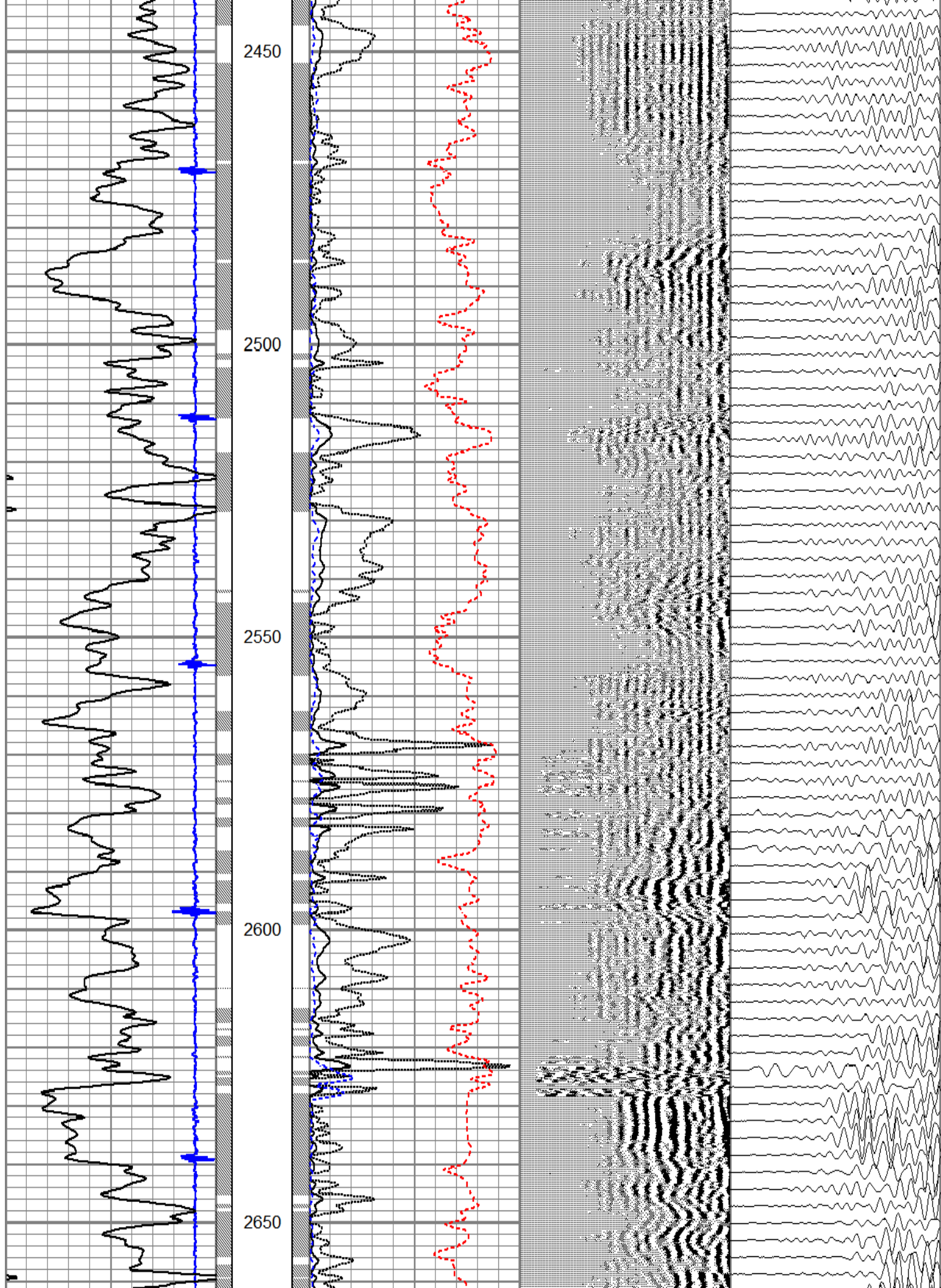


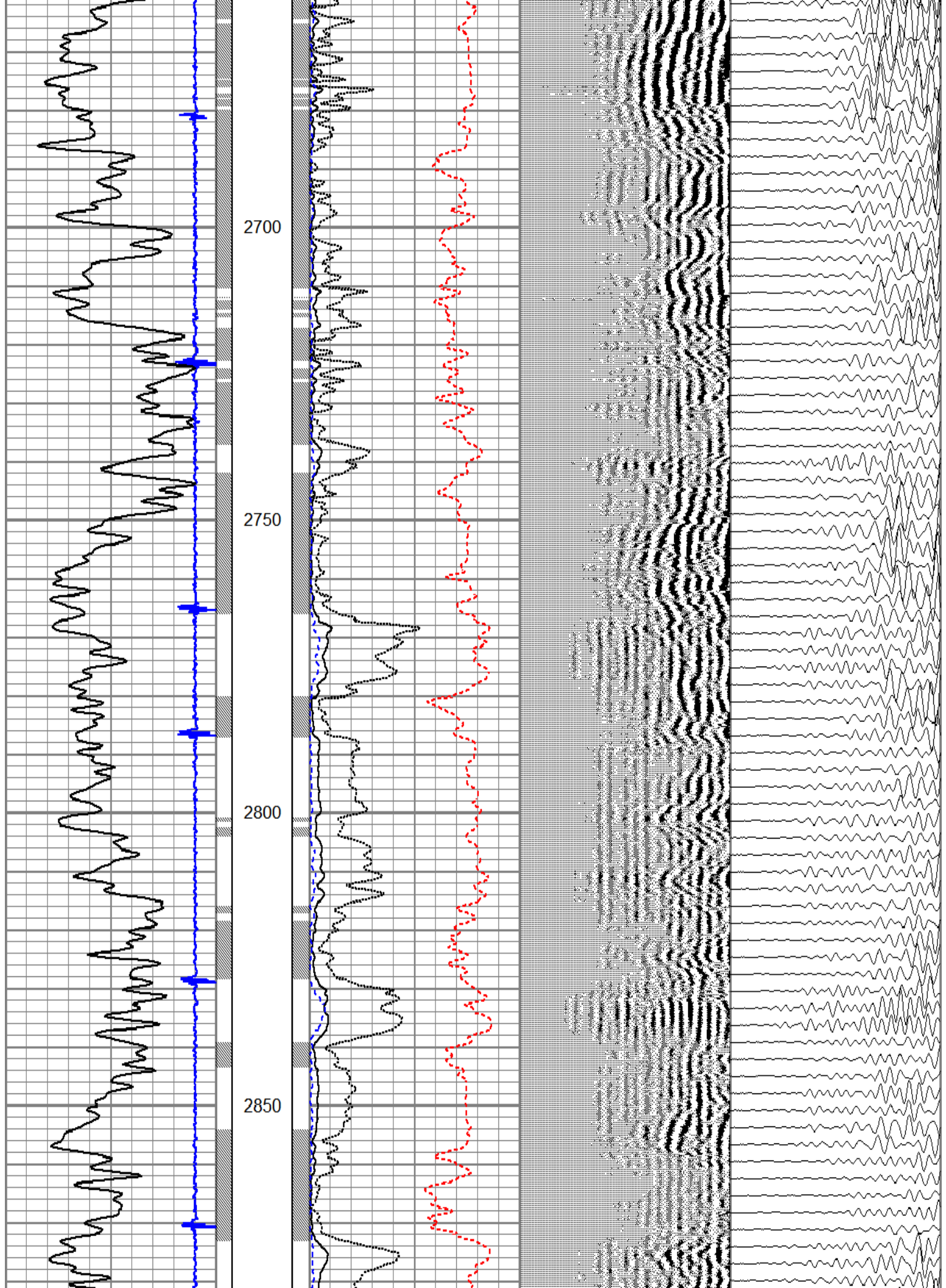


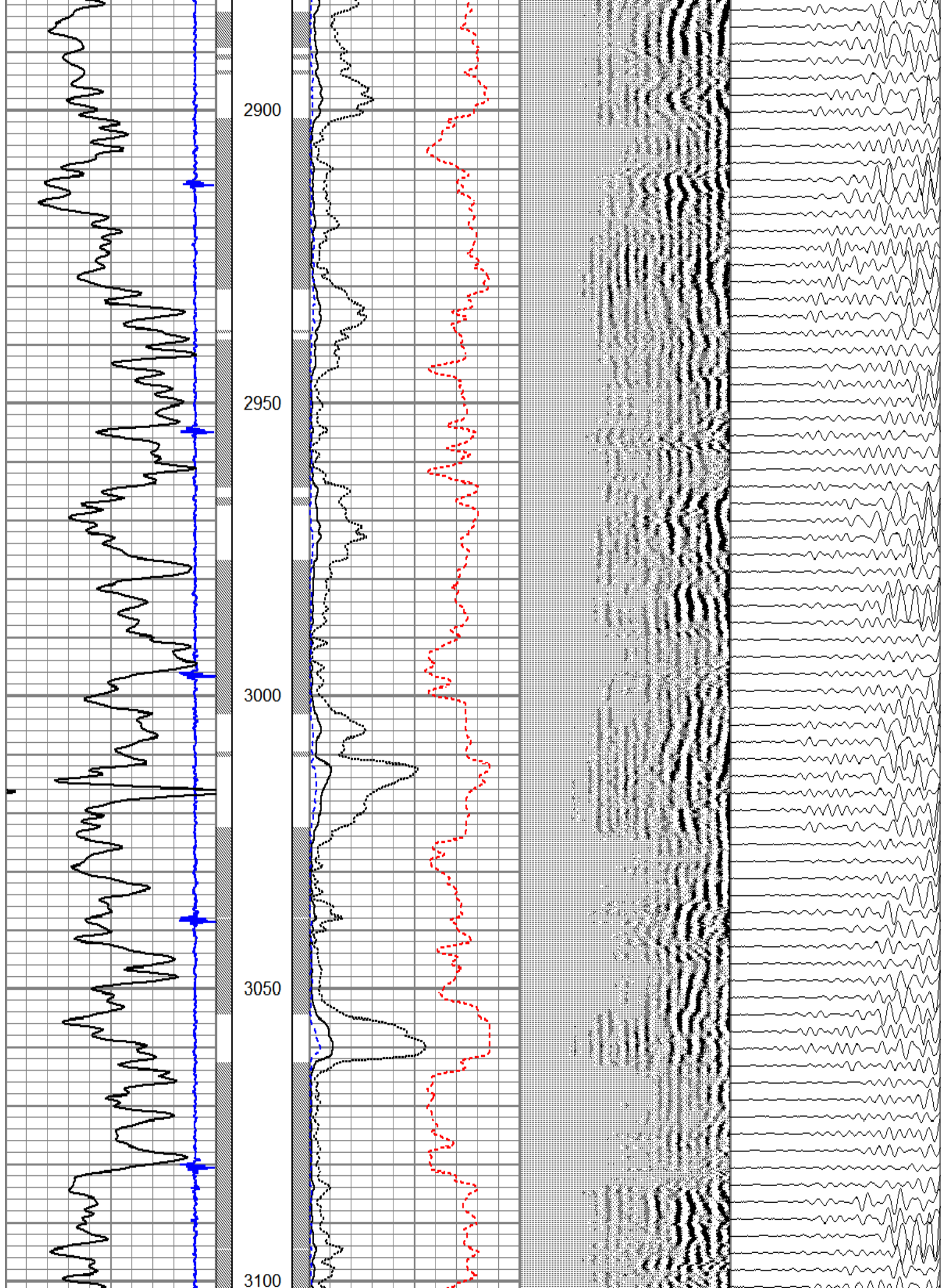


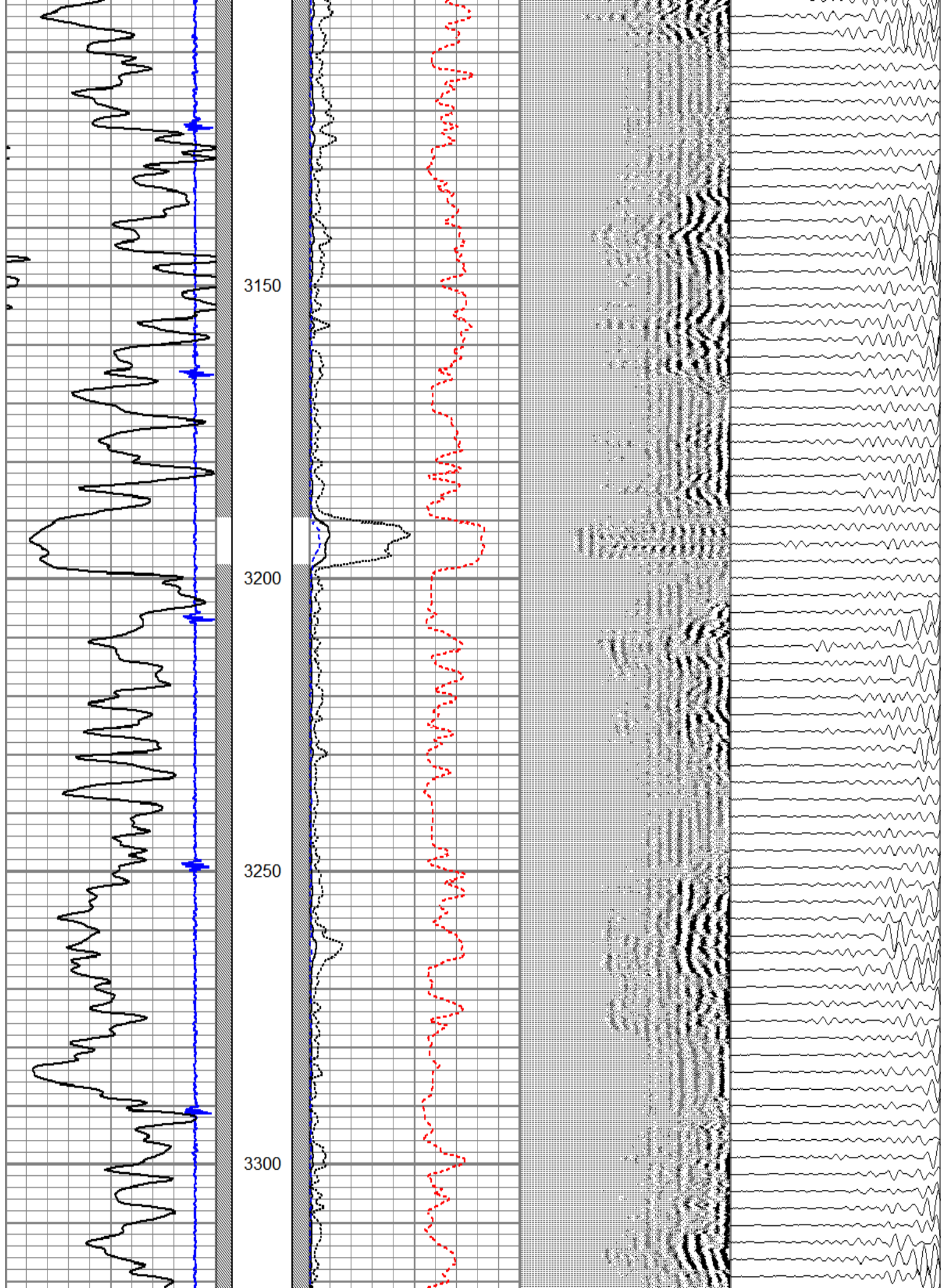


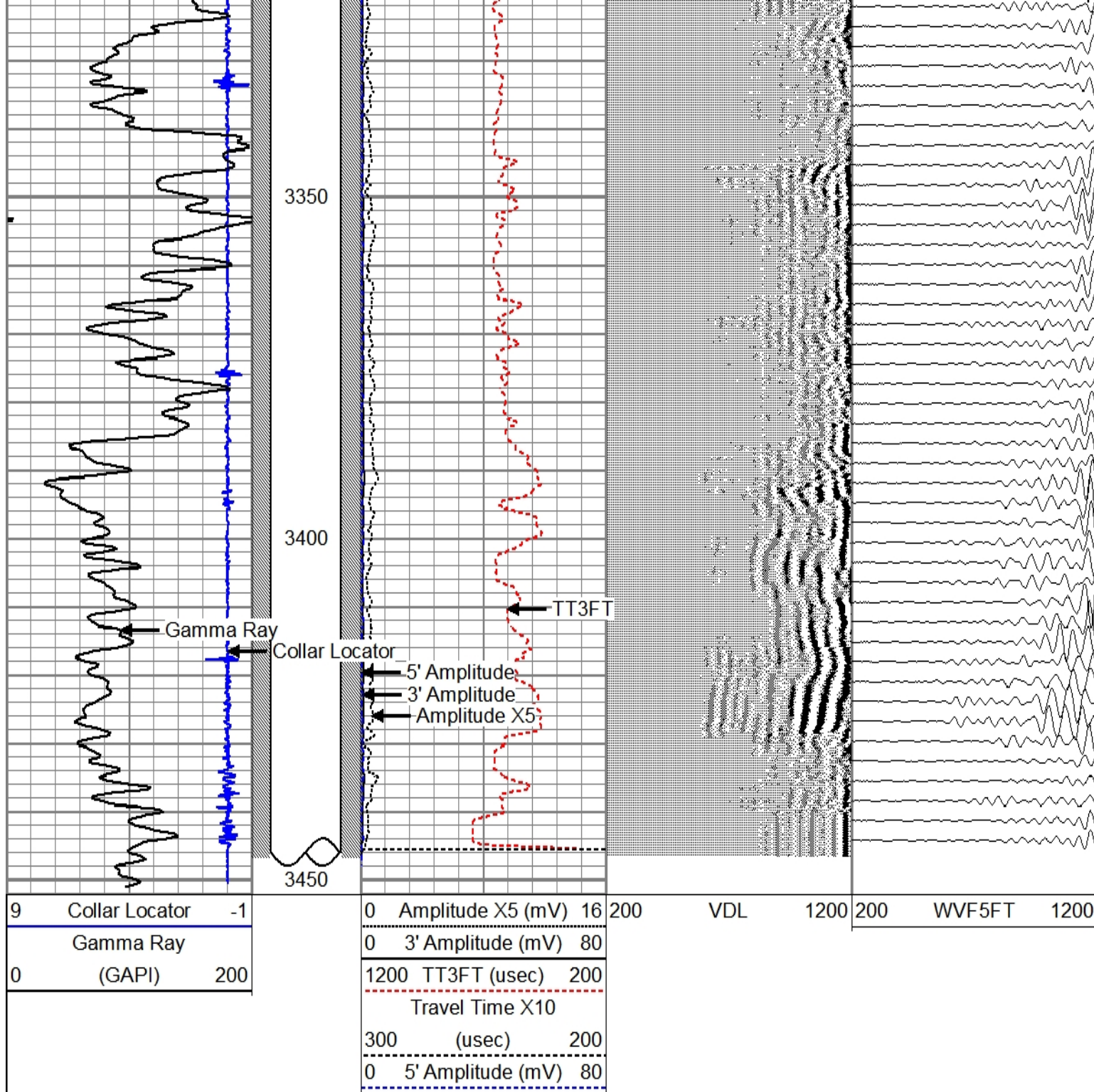












LOG RAN WITH ZERO PSI

Calibration Report

Database File catamountelsa346191rce.db
 Dataset Pathname fieldc/wellelsa346191/run1/pass6
 Dataset Creation Thu May 21 14:41:16 2015

Gamma Ray Calibration Report

Serial Number: 060634
 Tool Model: Probe
 Performed: Thu May 14 09:51:26 2015

Performed:	Mon May 11 11:00:12 2015	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	1.0000	GAPI/cps

Segmented Cement Bond Log Calibration Report

Serial Number:	060632	
Tool Model:	Probe	
Calibration Casing Diameter:	5.500	in
Calibration Depth:	0.000	ft

Master Calibration, performed Mon May 11 11:17:40 2015:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.002	0.368	0.450	71.000	192.655	0.031
CAL	0.346	0.345				
5'	0.004	0.352	0.450	71.000	202.703	-0.285
SUM						
S1	0.006	0.366	0.000	761.000	2117.564	-13.467
S2	0.003	0.376	0.000	71.000	190.474	-0.609
S3	0.002	0.387	0.000	71.000	184.528	-0.435
S4	0.003	0.402	0.000	671.000	1685.164	-5.678
S5	0.003	0.381	0.000	71.000	188.054	-0.565
S6	0.003	0.353	0.000	71.000	202.687	-0.619
S7	0.003	0.344	0.000	71.000	208.515	-0.669
S8	0.003	0.353	0.000	71.000	202.857	-0.622

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.346	0.345	1.000	0.000

Air Zero Calibration, performed (Not Performed):

	Raw (v)	Calibrated (v)	Results
	Zero	Zero	Offset
3'	0.000	0.000	0.000
5'	0.000	0.000	0.000
SUM			
S1	0.000	0.000	0.000
S2	0.000	0.000	0.000
S3	0.000	0.000	0.000
S4	0.000	0.000	0.000
S5	0.000	0.000	0.000
S6	0.000	0.000	0.000
S7	0.000	0.000	0.000
S8	0.000	0.000	0.000