



PIONEER

Pioneer Energy Services

**CEMENT BOND LOG
WITH GAMMA RAY**

Company **MERIT ENERGY**

Well **FRANK D-1**

Field **HUGOTON GAS AREA**

County **SEWARD** State **KANSAS**

Location: API # : 15-175-22207

Other Services

430' FNL & 945' FEL

SEC 2 TWP 31S RGE 34W

N/A

Permanent Datum G.L. Elevation 2958'
Log Measured From K.B. 134' Above Perm. Datum
Drilling Measured From K.B. D.F. N/A
G.L. 2958'

Comp. MERIT ENERGY
Well FRANK D-1
Field HUGOTON GAS AREA
Co. SEWARD
State KANSAS

Date of Service 27 FEB 2017

Run Number ONE

Depth Driller or PBTD 5815'

Depth Logger 5744'

Bottom Log Interval 5741.5'

Top Log Interval 2600'

Open Hole Size 7.875"

Type Fluid WATER

Fluid Level 25'

Fluid Density 8.3

Max. Recorded Temperature N/A

Max. Wellhead Pressure N/A

Wellhead Connection N/A

Estimated Cement Top 2898'

Unit Number P65

Wireline Size 0.288"

Location LIBERAL, KS.

Recorded By P NICHOLS

Witnessed By S. KALBERER

Size

Wt/Ft

Top

Bottom

8.625"

24#

0

1806'

5.5"

17#

0

5815'

Production Casing

17#

0

5815'

Liner Record

17#

0

5815'

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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.
CORRELATED TO HALLIBURTON DENSITY LOG DATED 20 DEC 2013

CREW: HUMISTON

DEPTH CORRECTED -.5.5'

MARKER JOINT @ 5152'

QUESTIONS AND/OR COMMENTS PLEASE CALL 1-620-626-4466

THANK YOU FOR USING PIONEER ENERGY SERVICES!

Your Pioneer Energy Services Crew

Engineer: P. NICHOLS
Operator: J. HUMISTON
Operator:
Operator:

Tool Data - Services

RBT - PROBE
GR-CCL

Serial Number

20507-5.5_N
LIB01

Top - Bottom

PPT usec 266	CASEWGHT lb/ft 17	MAXAMPL mV 72	MINAMPL mV 1	MINATTN db/ft 0.08	SRFTEMP degF 0	CASETHCK in 0	CASEOD in 5.5
PERFS 0	TDEPTH ft 5744	BOTTEMP degF 130	BOREID in 7.875				

Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
			CHD-Titan 1 7/16" Titan Cable Head	1.00	1.44	2.00
WVFS8	9.03		RBT-Probe (2750_5_5_N)	8.75	2.75	90.00
WVFS7	9.03					
WVFS6	9.03					
WVFS5	9.03					
WVFS4	9.03					
WVFS3	9.03					
WVFS2	9.03					
WVFS1	9.03					
WVFCAL	9.03					
WVF3FT	9.03					
WVF5FT	8.03					
HEADVOLT	4.78					
CCL	3.92					
GR	2.54		GR-Probe275dig (060725) Probe Digital Gamma CCL	4.78	2.75	57.00

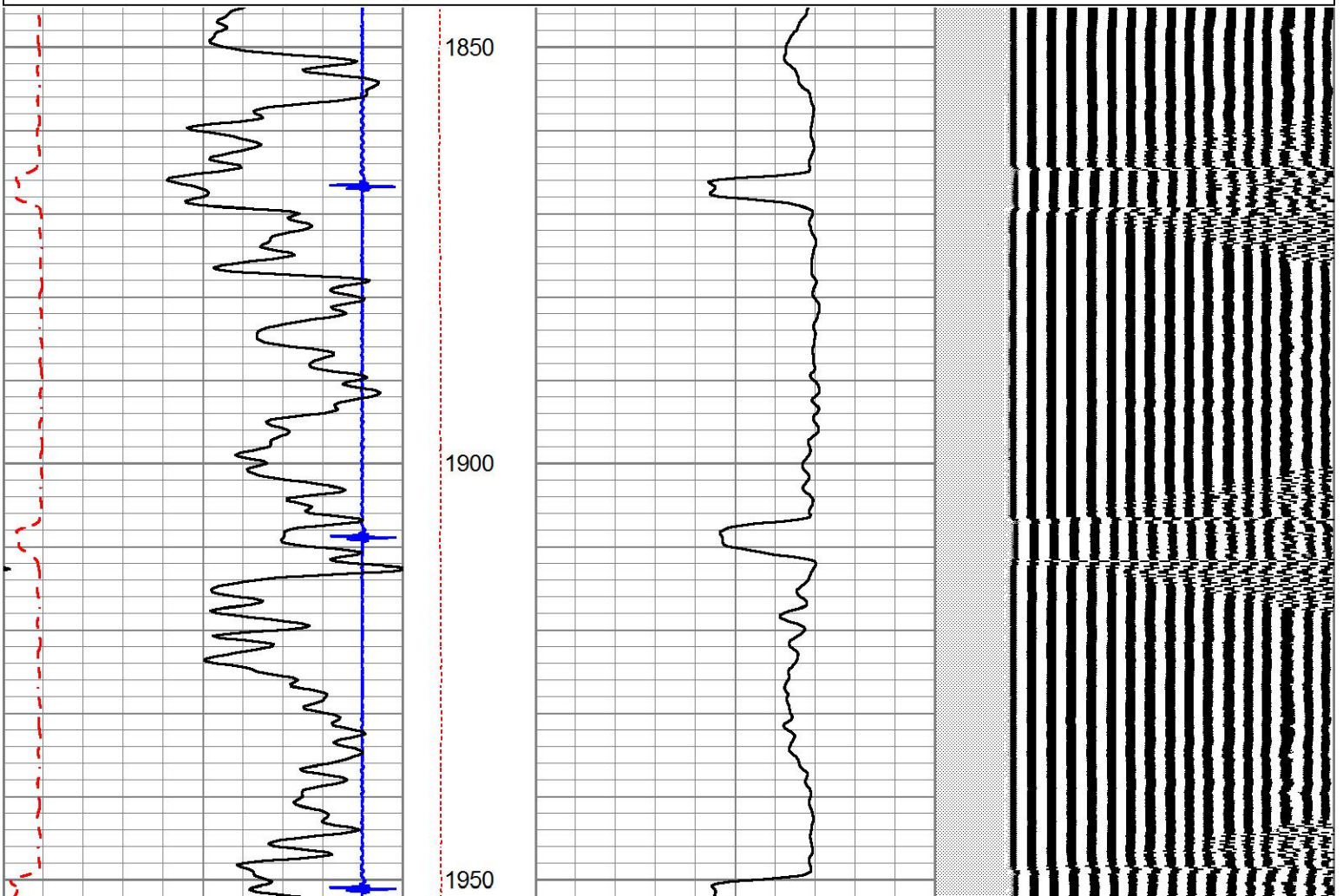
Dataset: merit_frank_d_1_1517522207_2_27_2017_cbl.db: field/well/run1/pass3
 Total length: 14.53 ft
 Total weight: 149.00 lb
 O.D.: 2.75 in

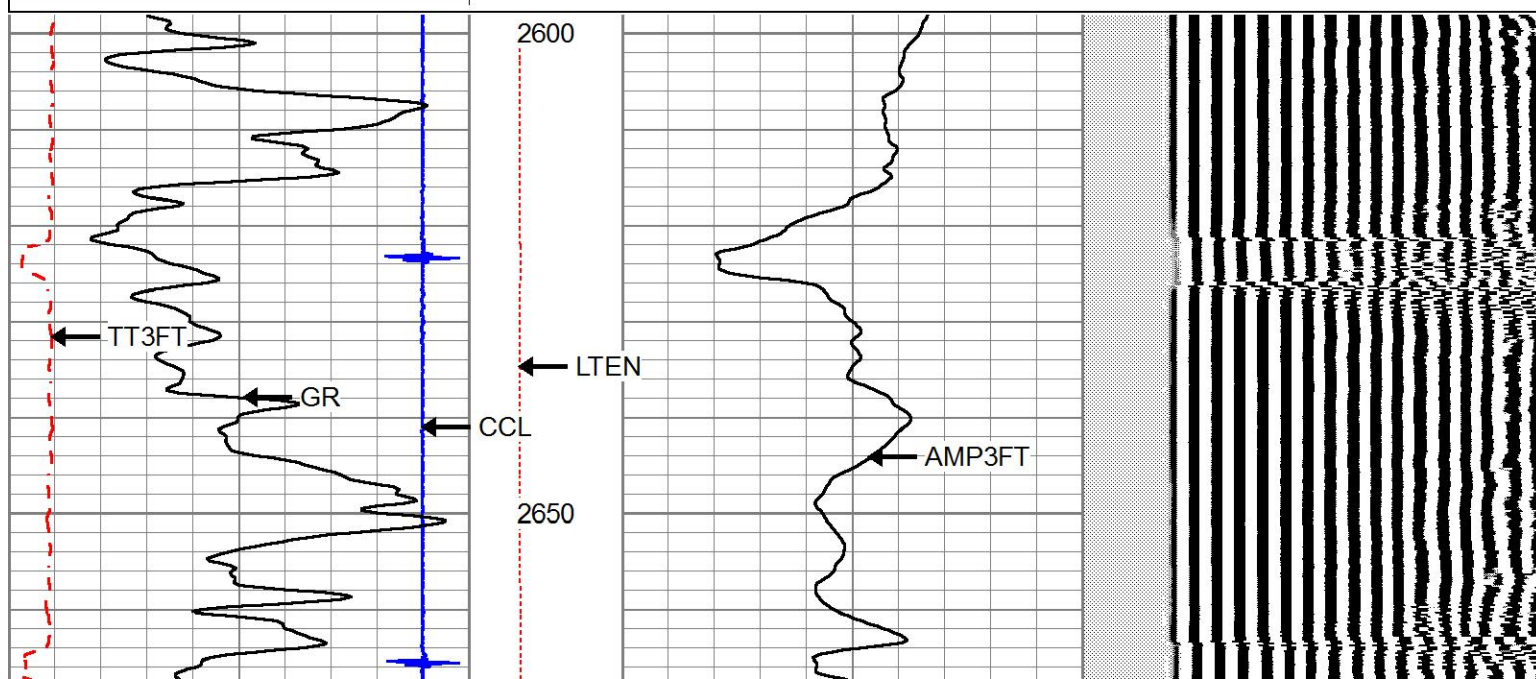
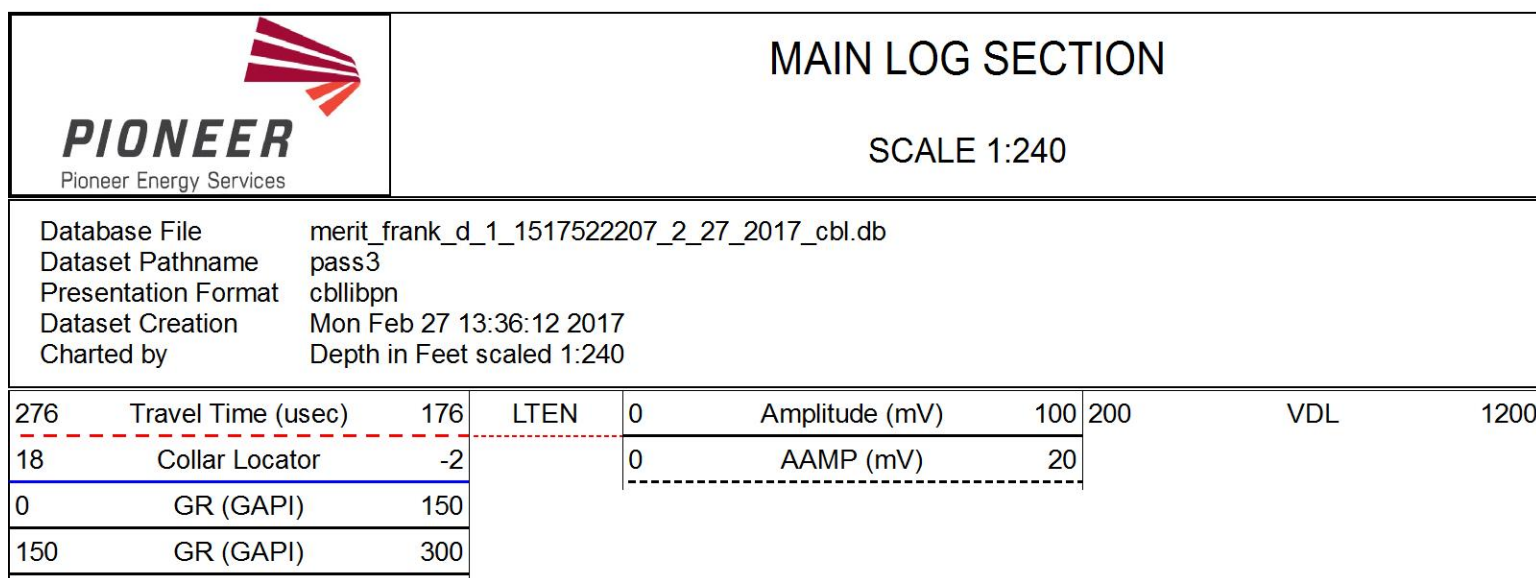
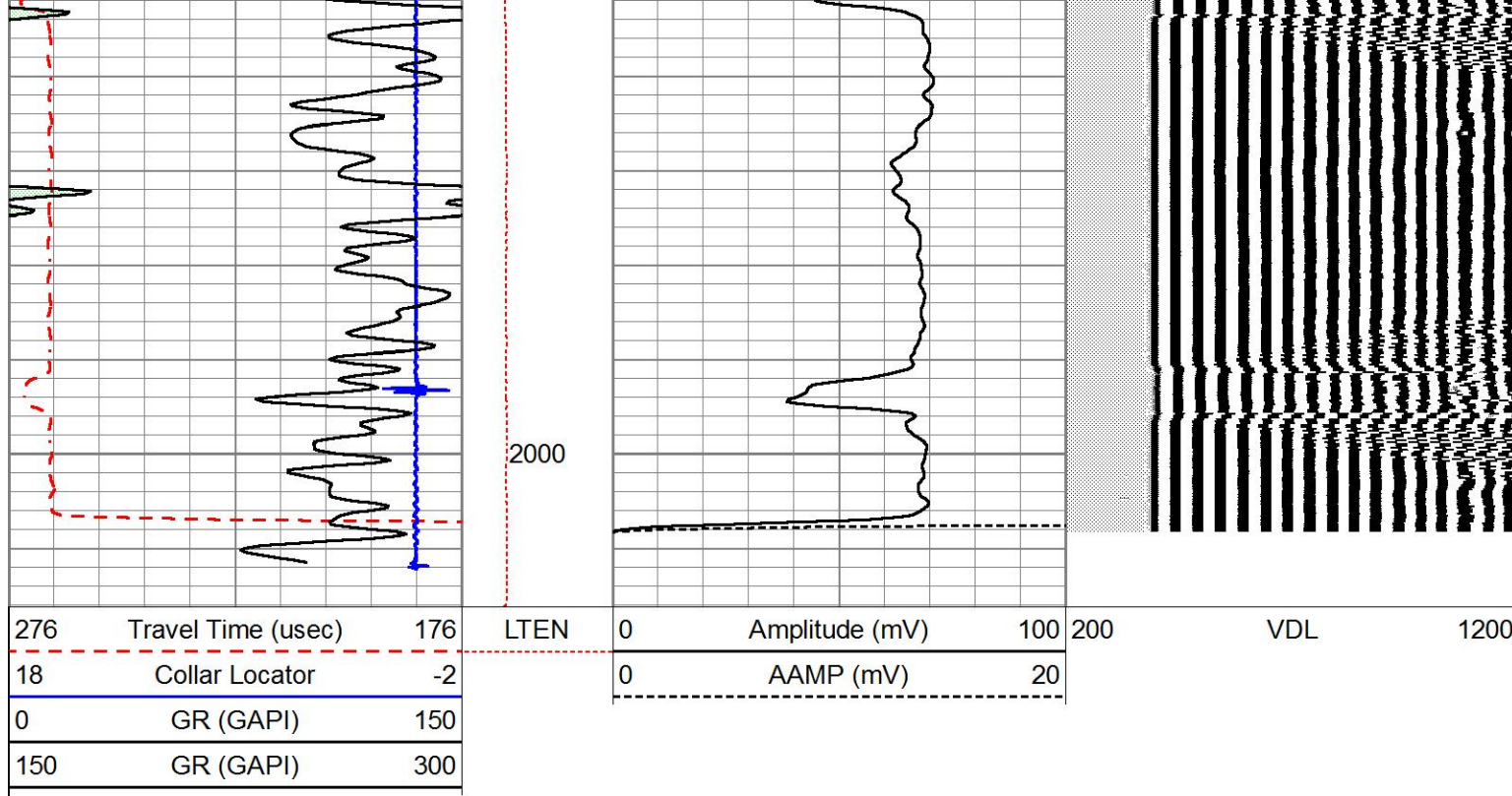


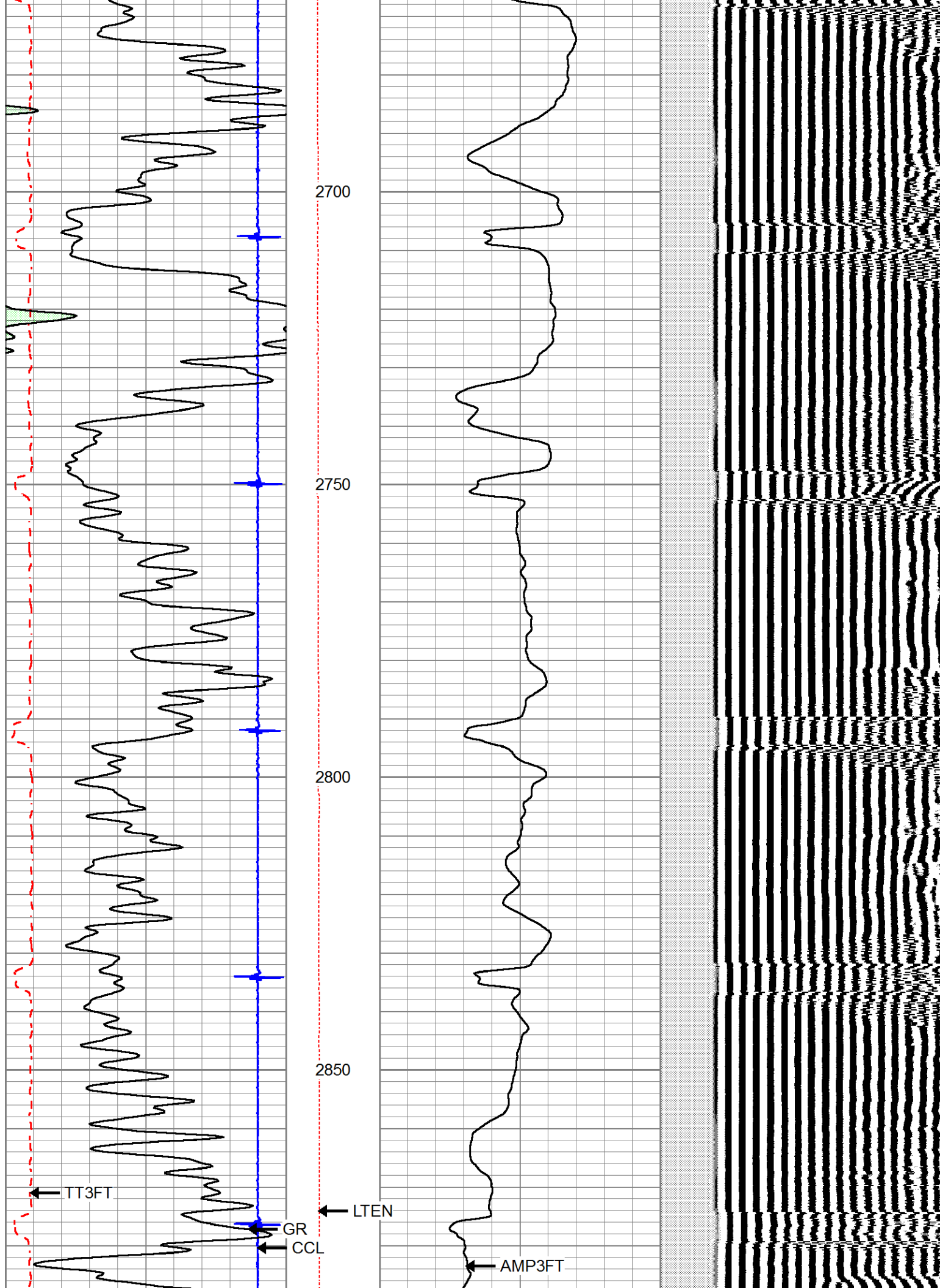
FREE PIPE SECTION

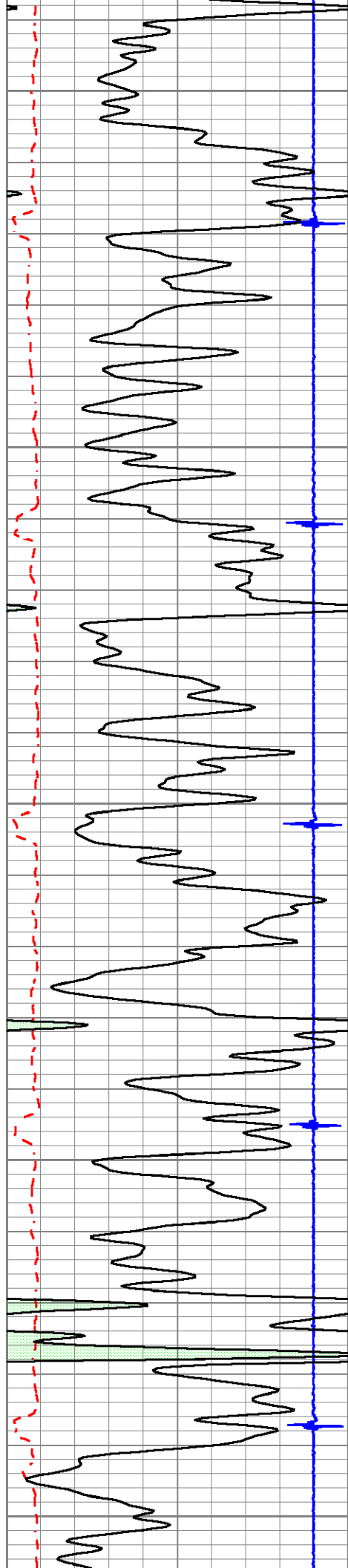
Database File merit_frank_d_1_1517522207_2_27_2017_cbl.db
 Dataset Pathname pass1
 Presentation Format cblibpn
 Dataset Creation Mon Feb 27 13:07:06 2017
 Charted by Depth in Feet scaled 1:240

276	Travel Time (usec)	176	LTEN	0	Amplitude (mV)	100	200	VDL	1200
18	Collar Locator	-2		0	AAMP (mV)	20			
0	GR (GAPI)	150							
150	GR (GAPI)	300							









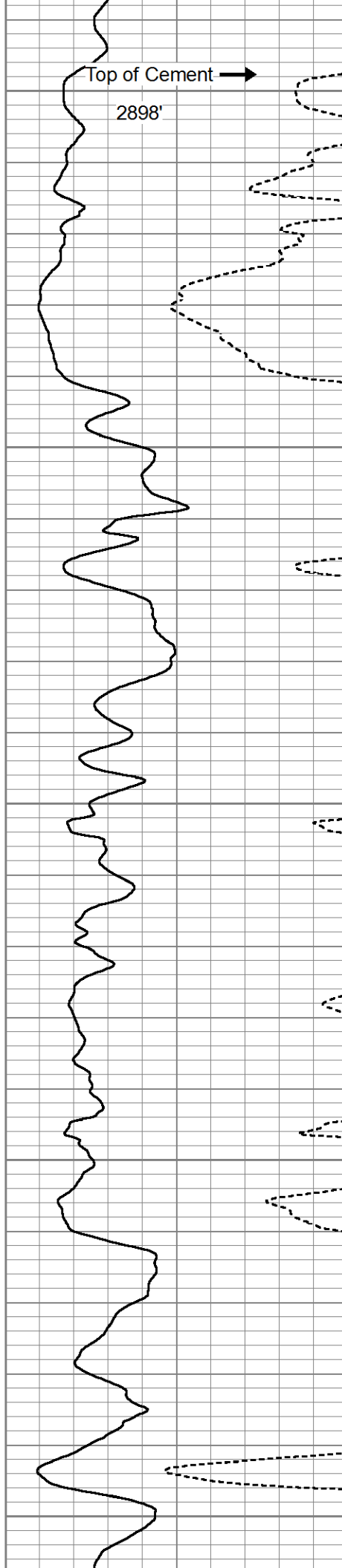
2900

2950

3000

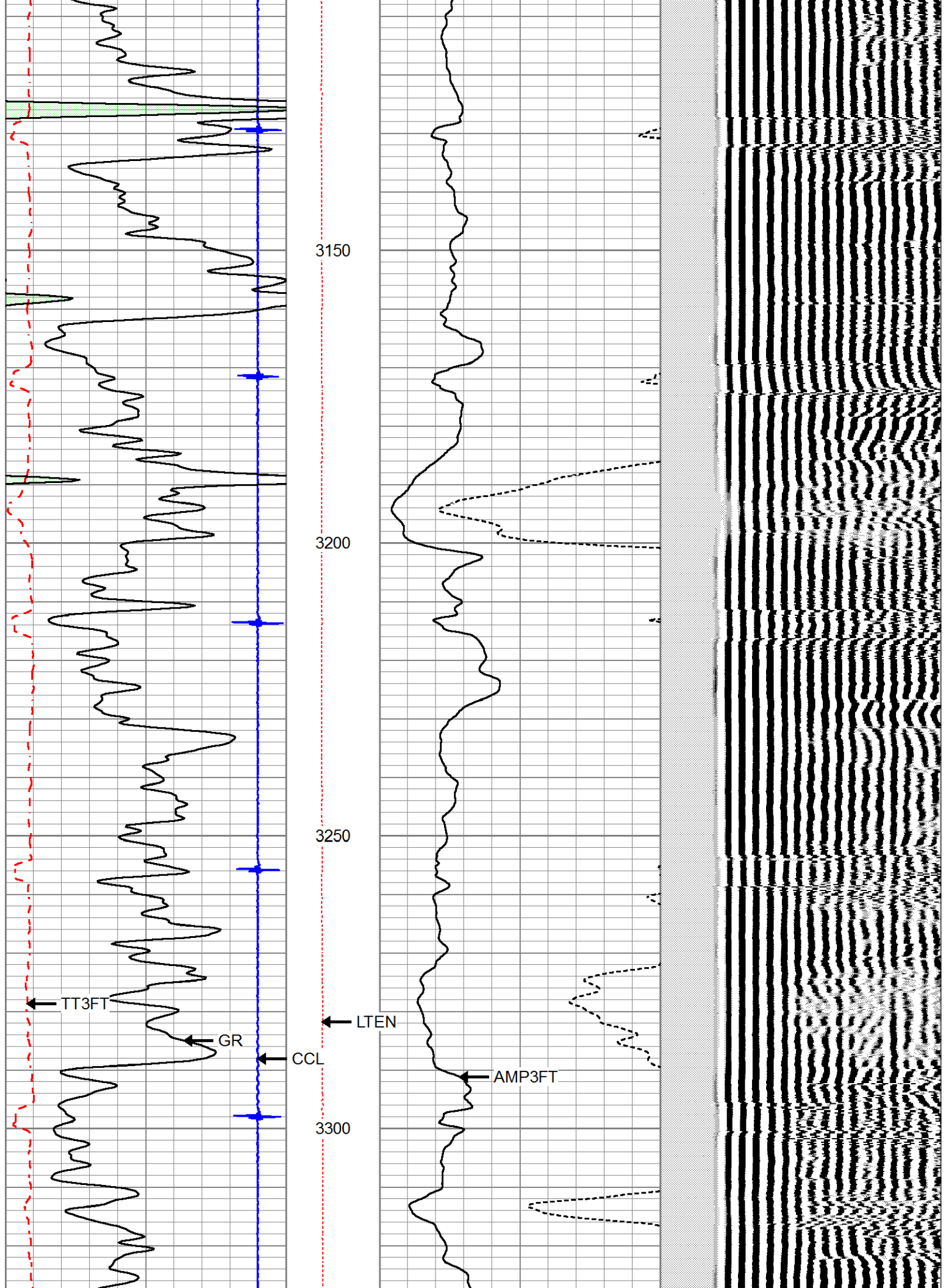
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3100



Top of Cement →

2898'



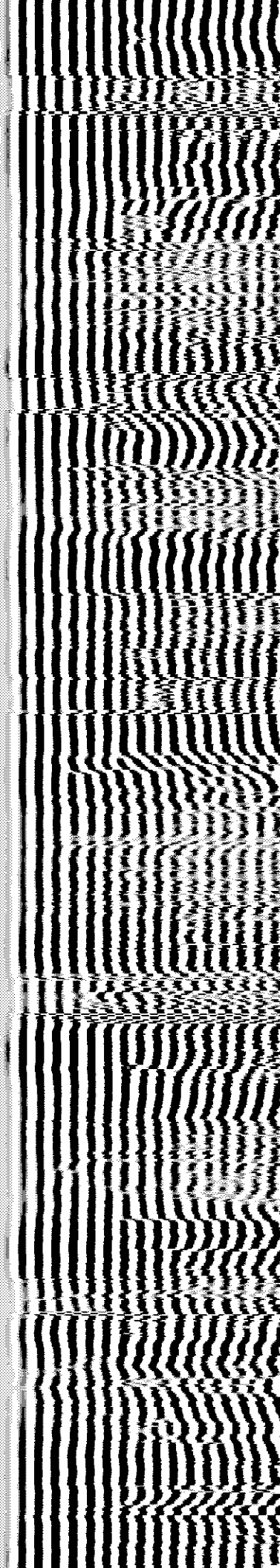
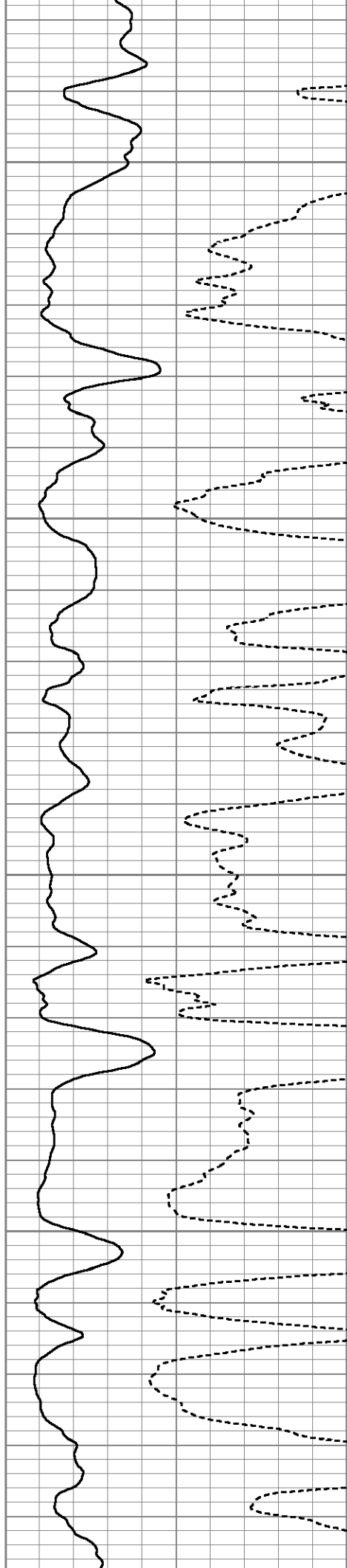


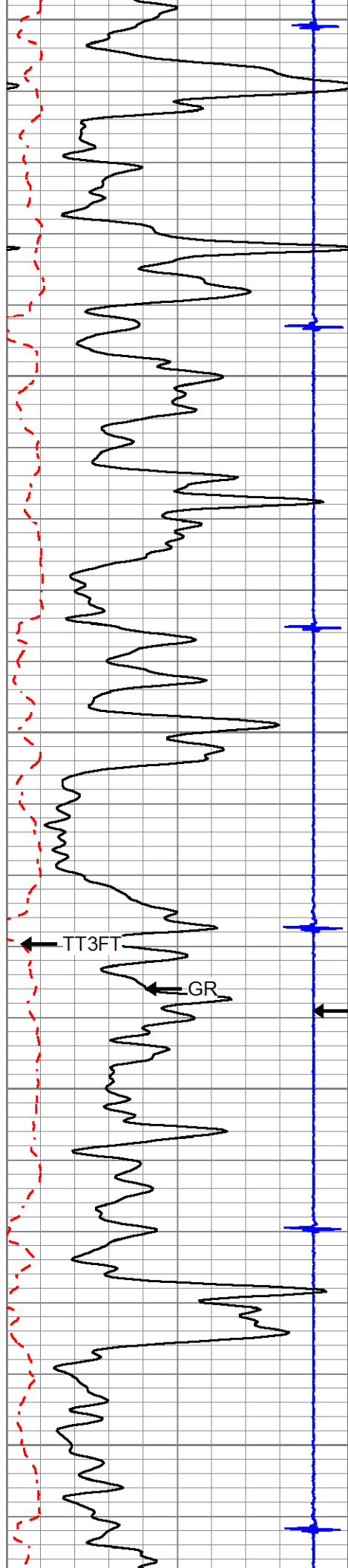
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3400

3450

3500





3550

3600

3650

3700

3750

TT3FT

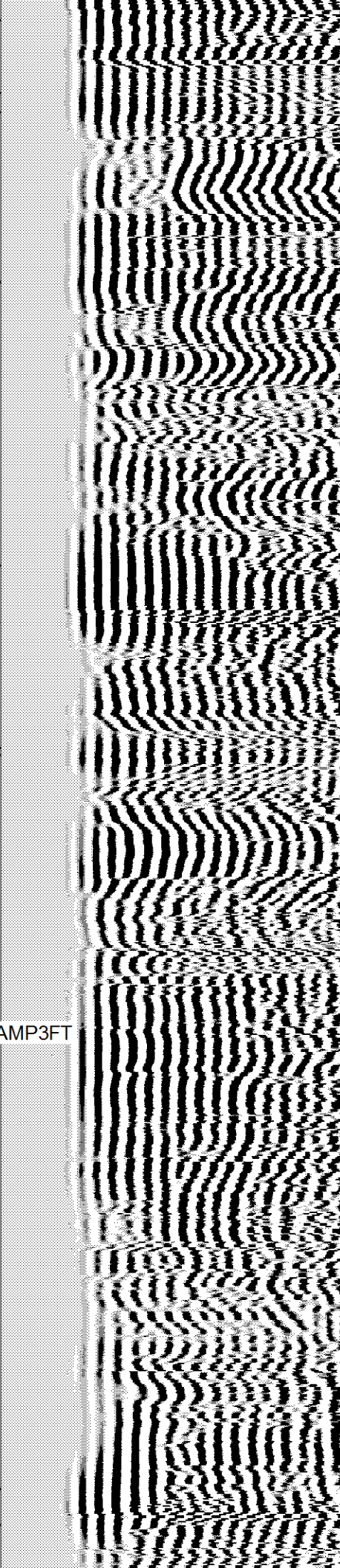
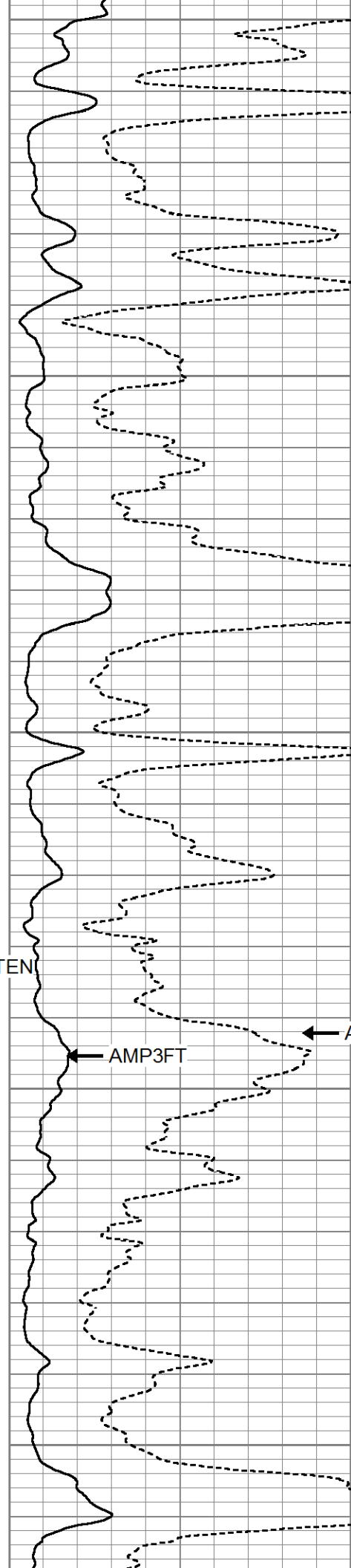
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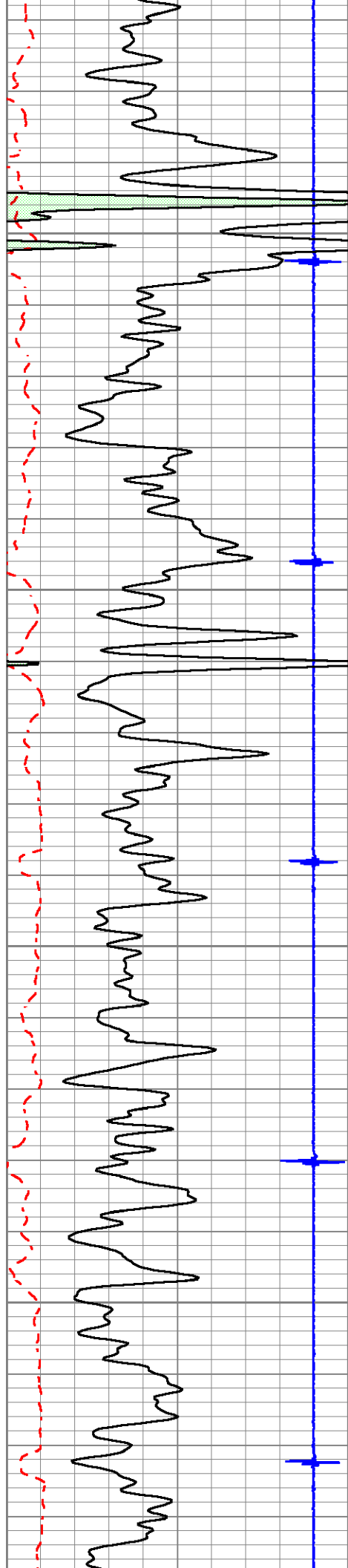
CCL

LTEN

AMP3FT

AMP3FT



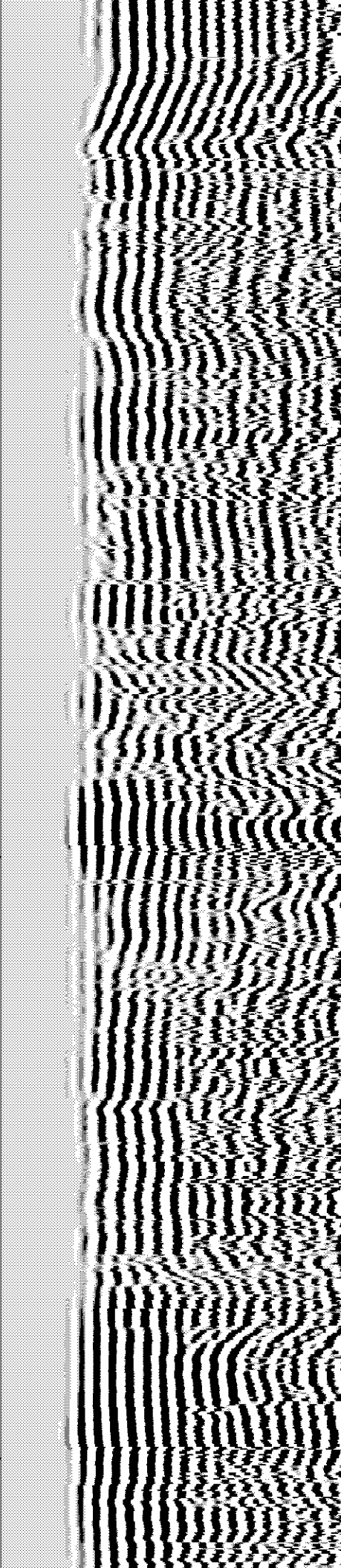
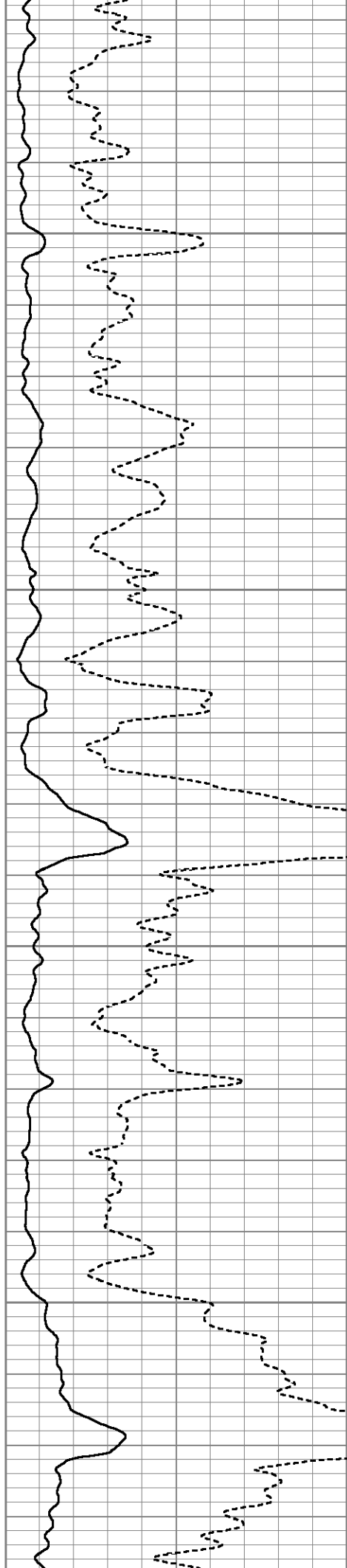


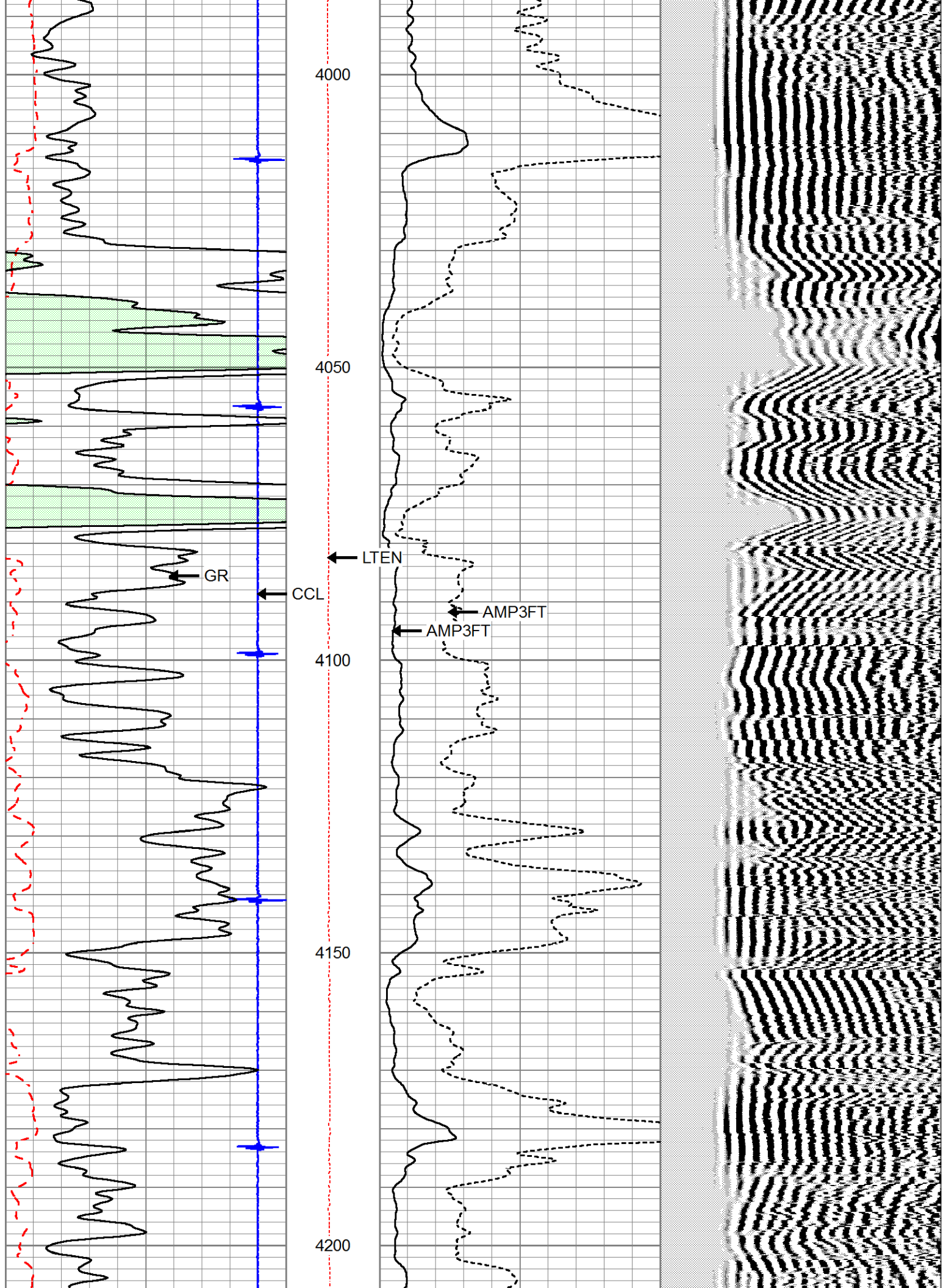
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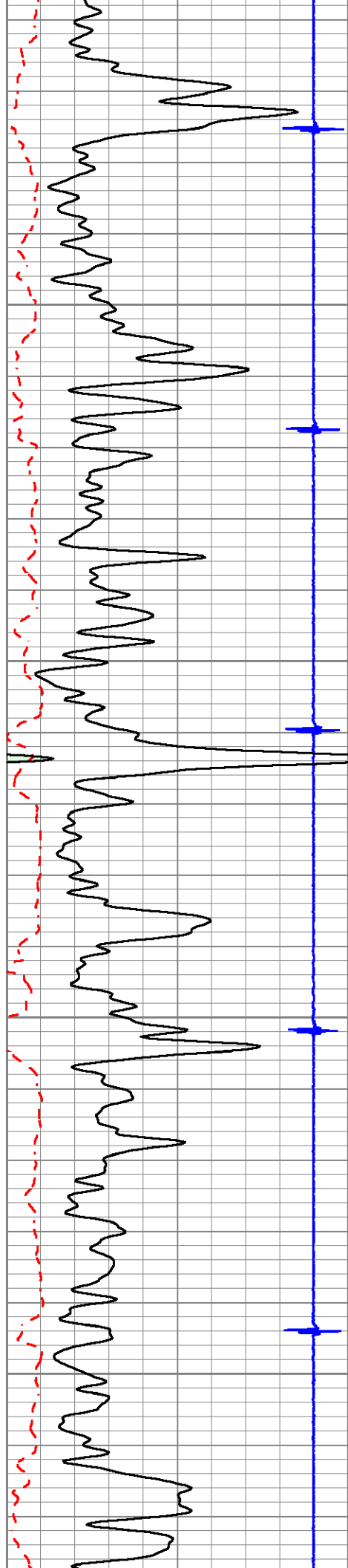
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3900

3950





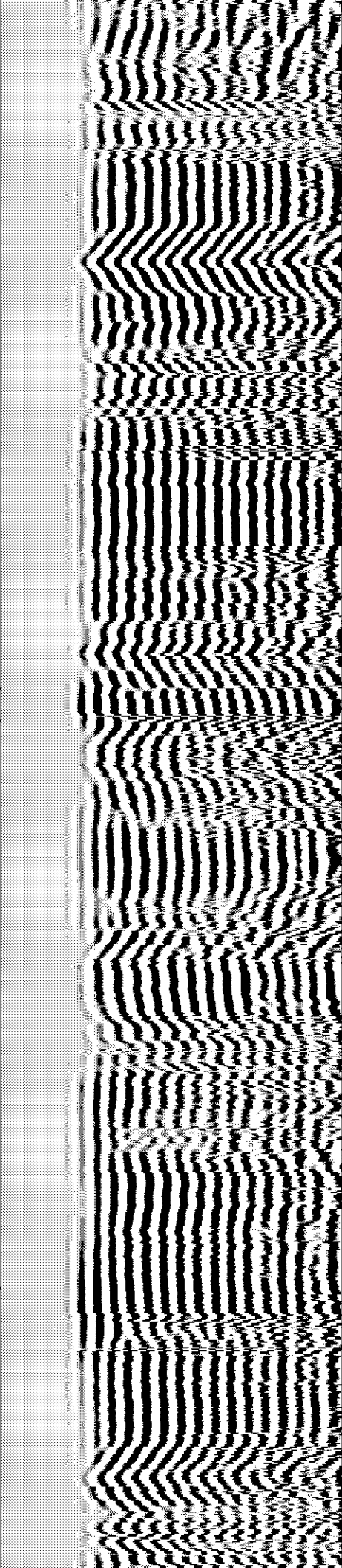
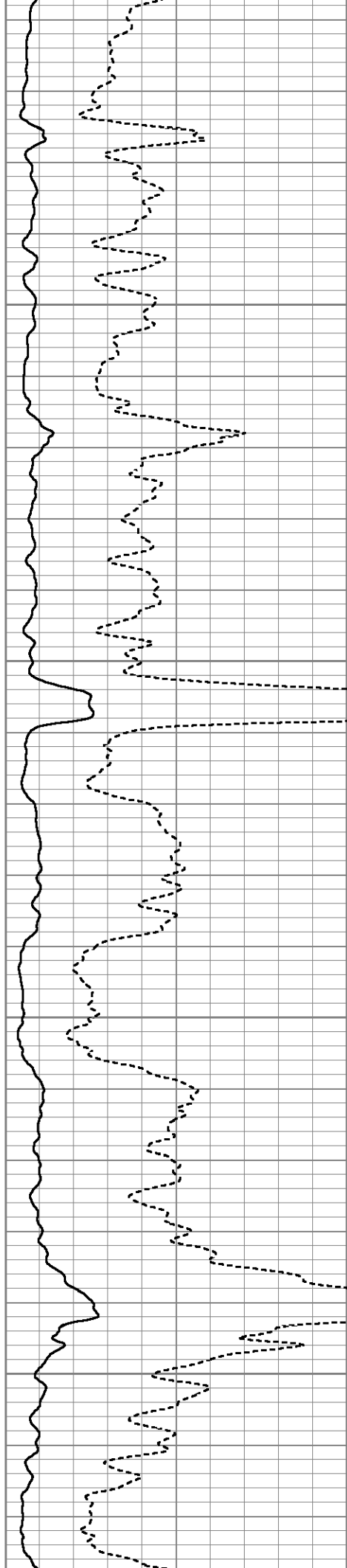


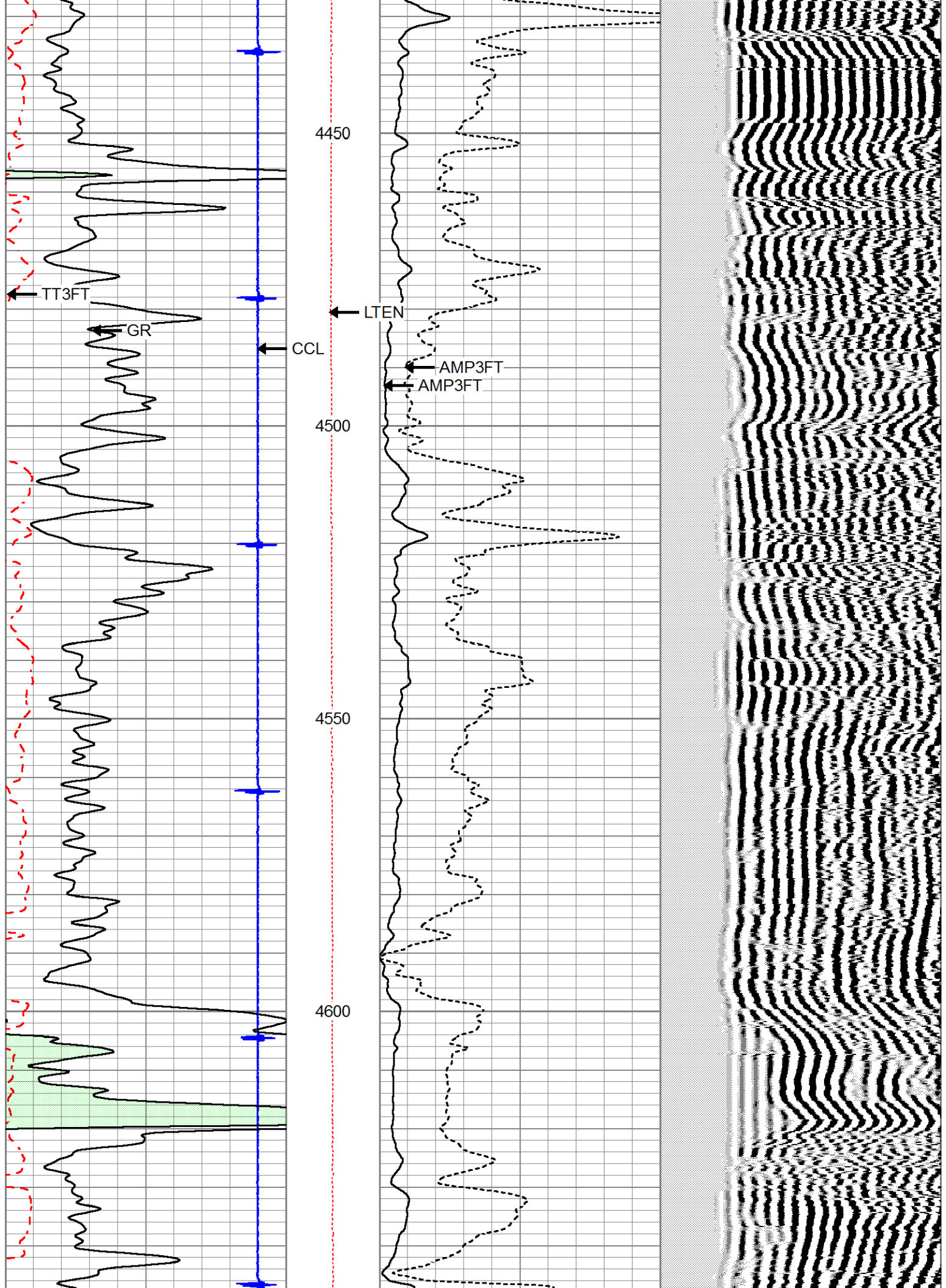
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4300

4350

4400







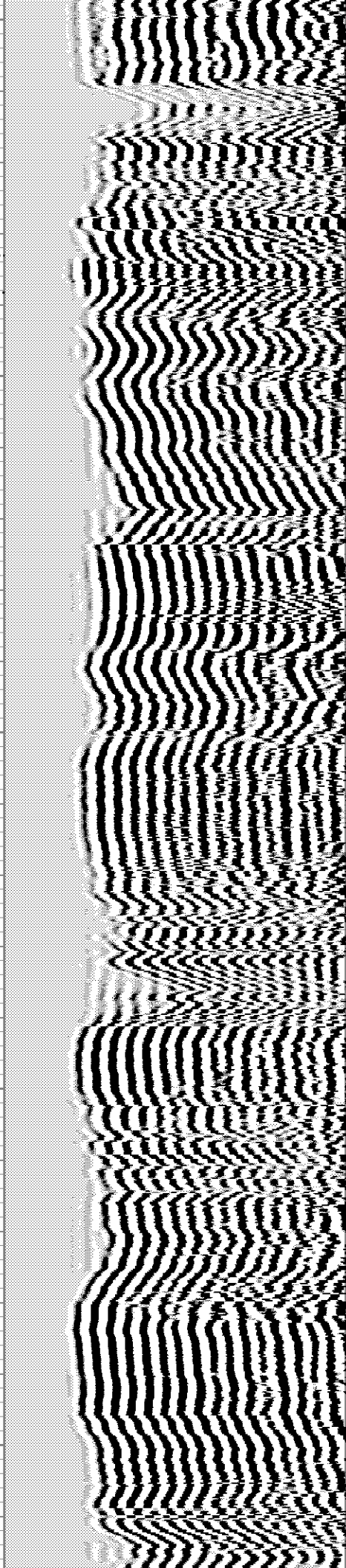
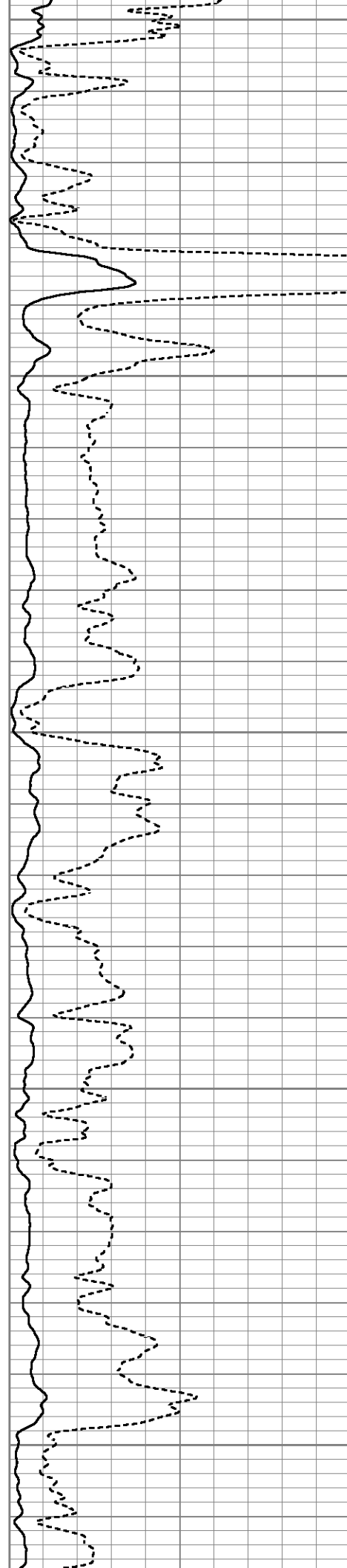
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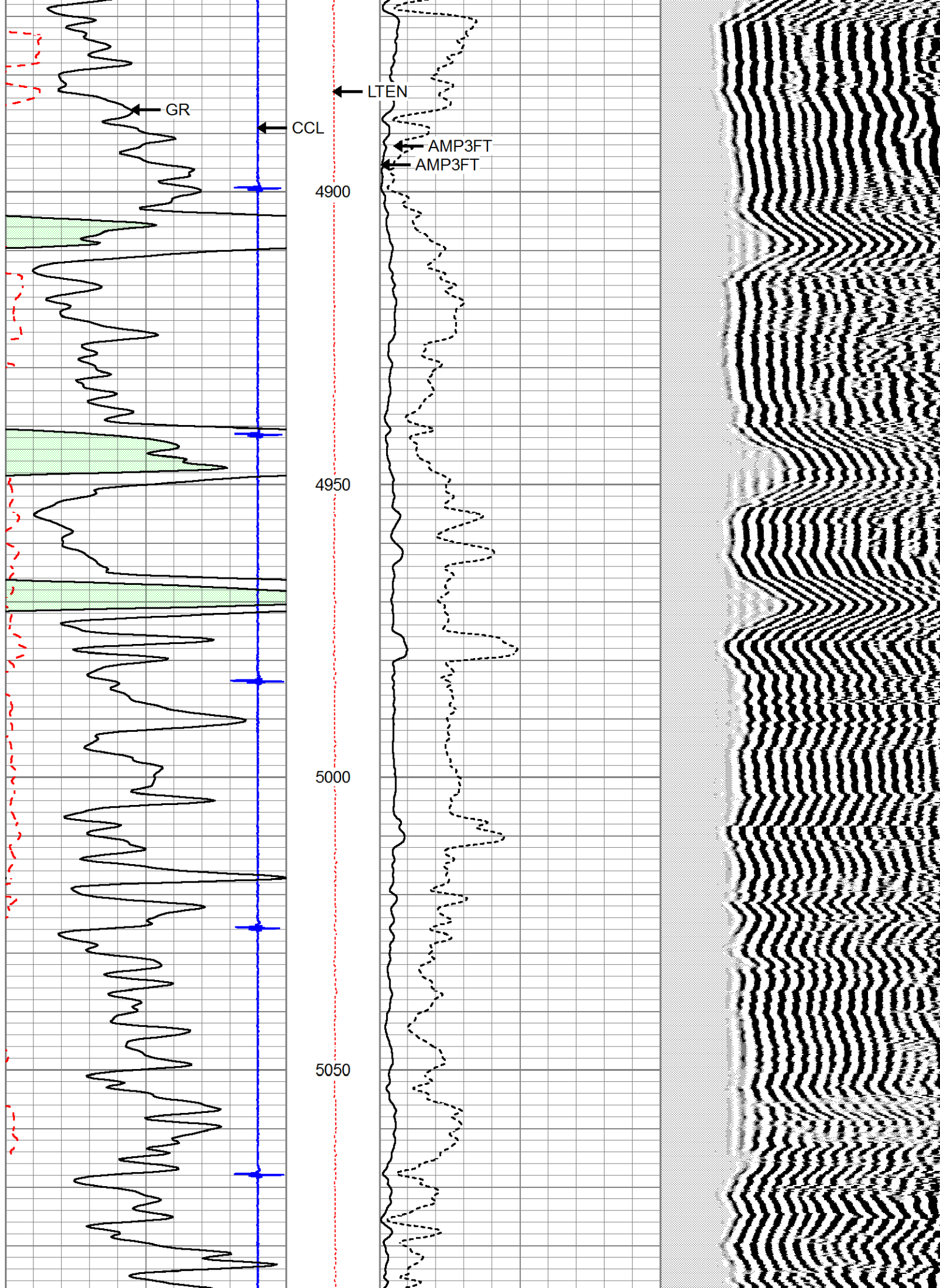
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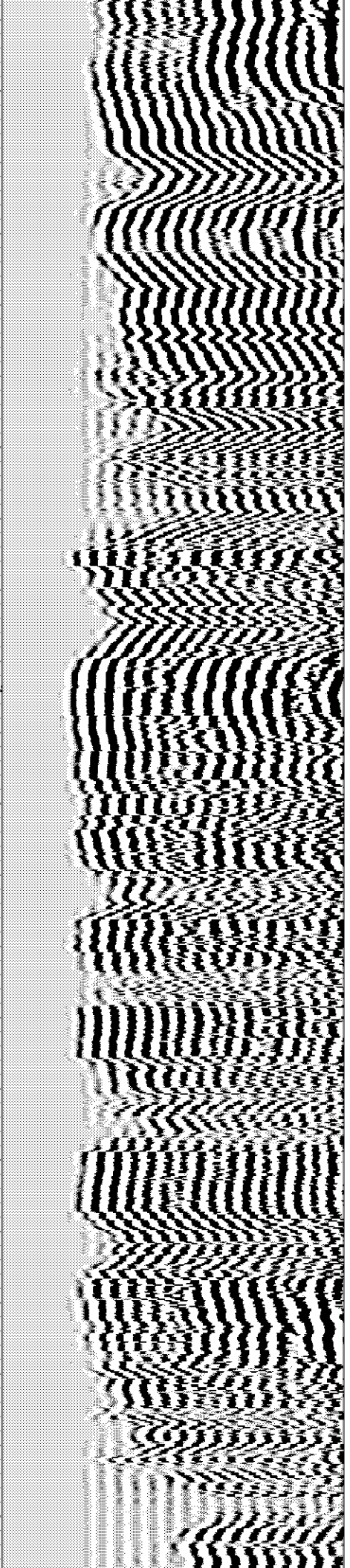
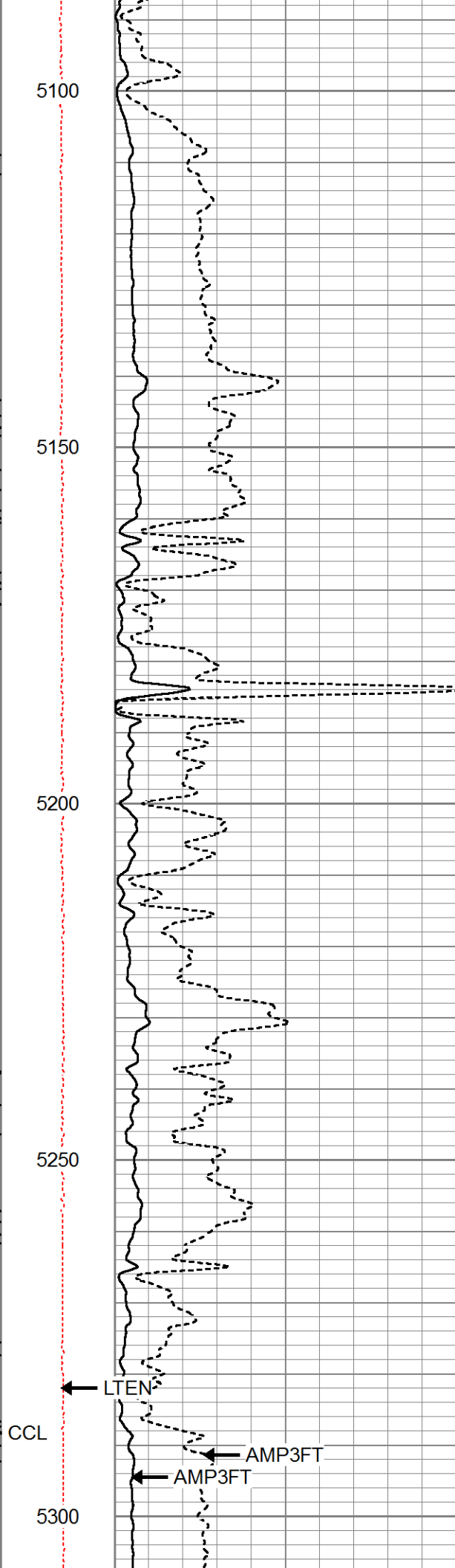
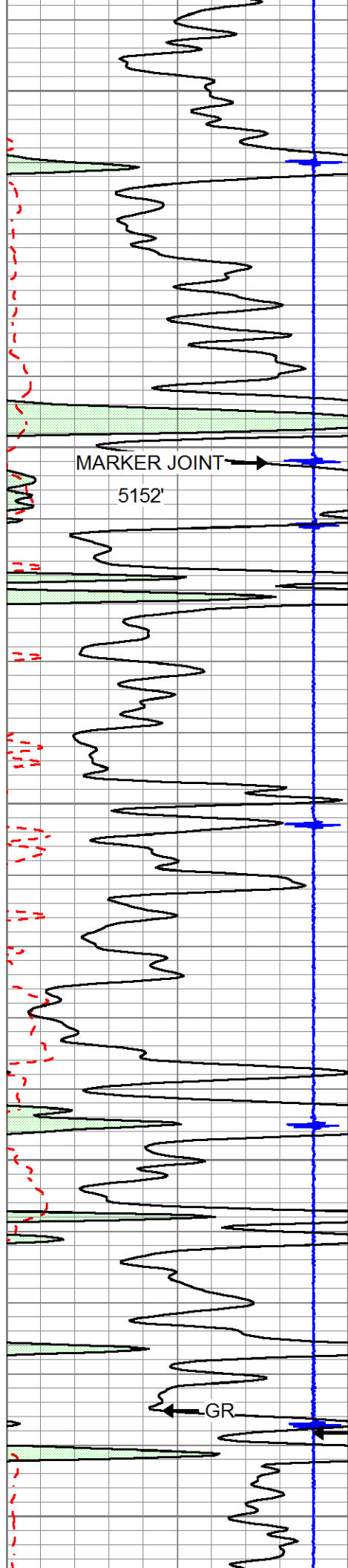
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4800

4850







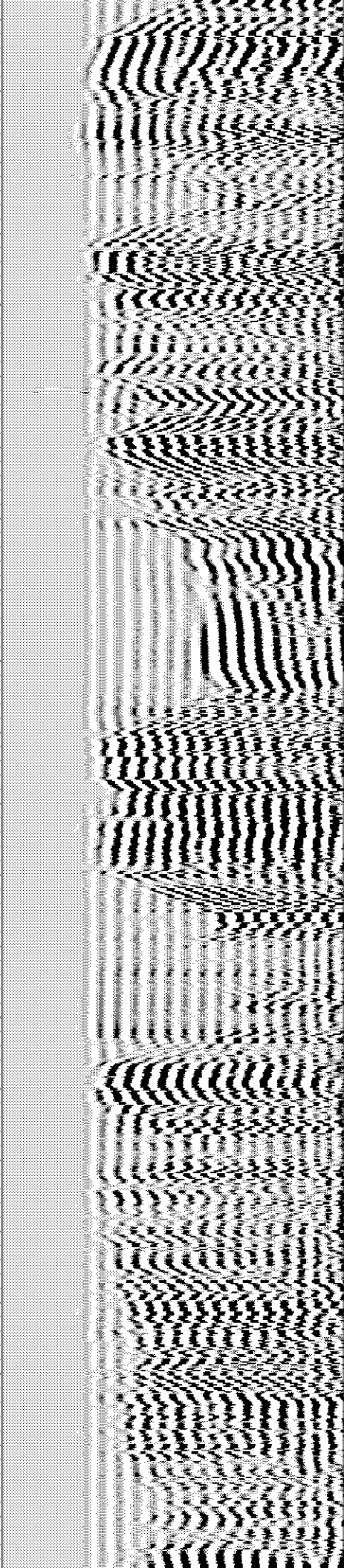
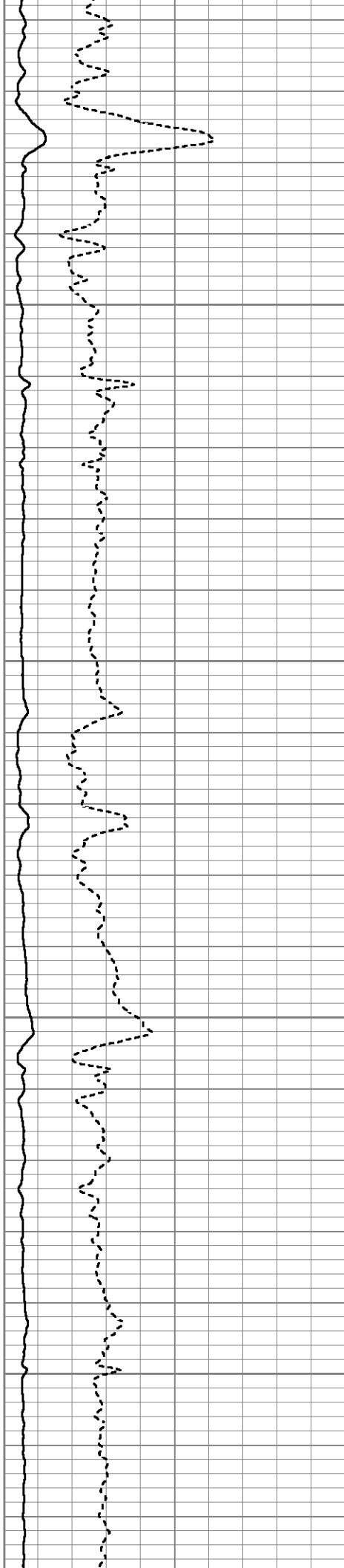


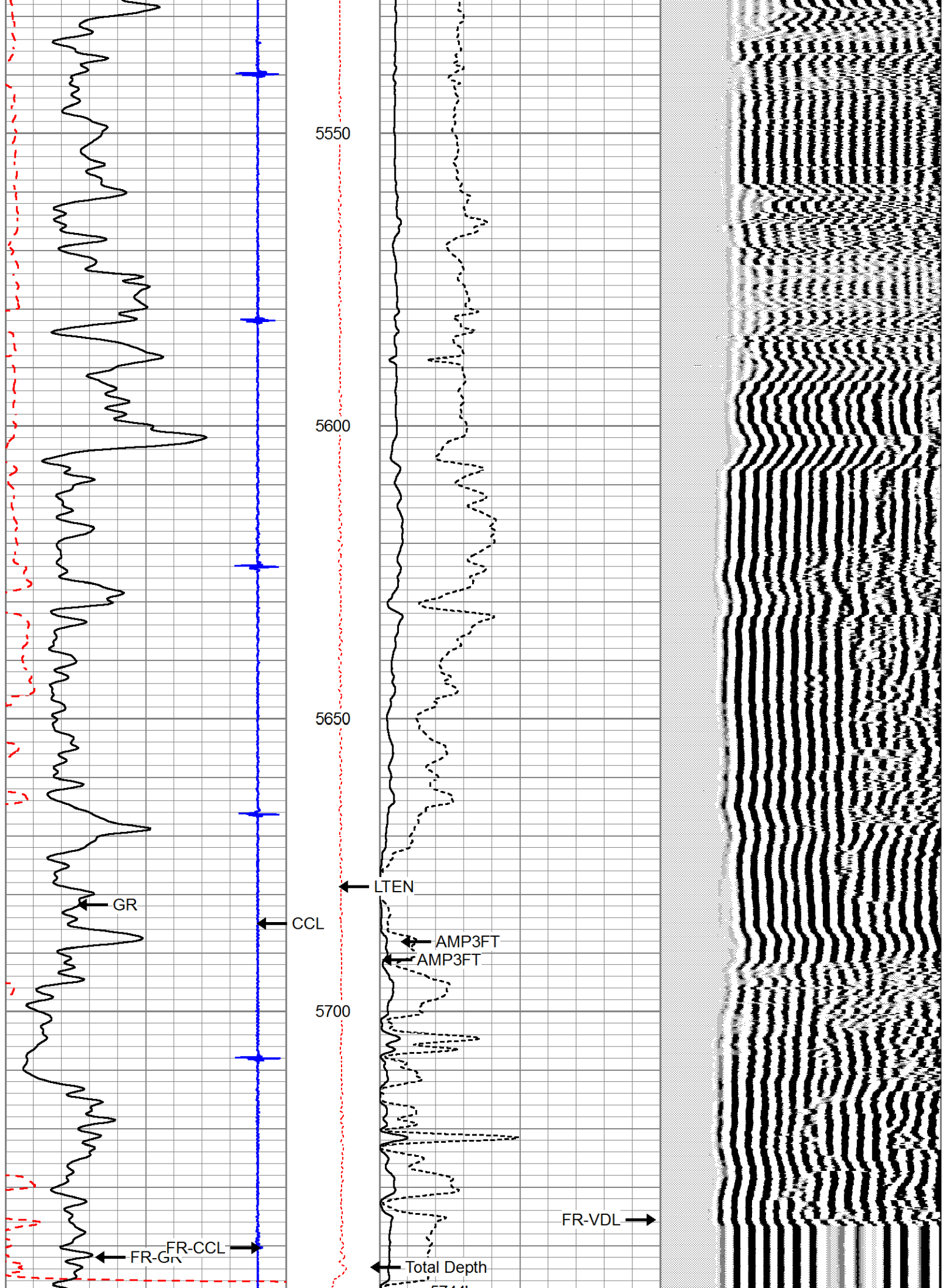
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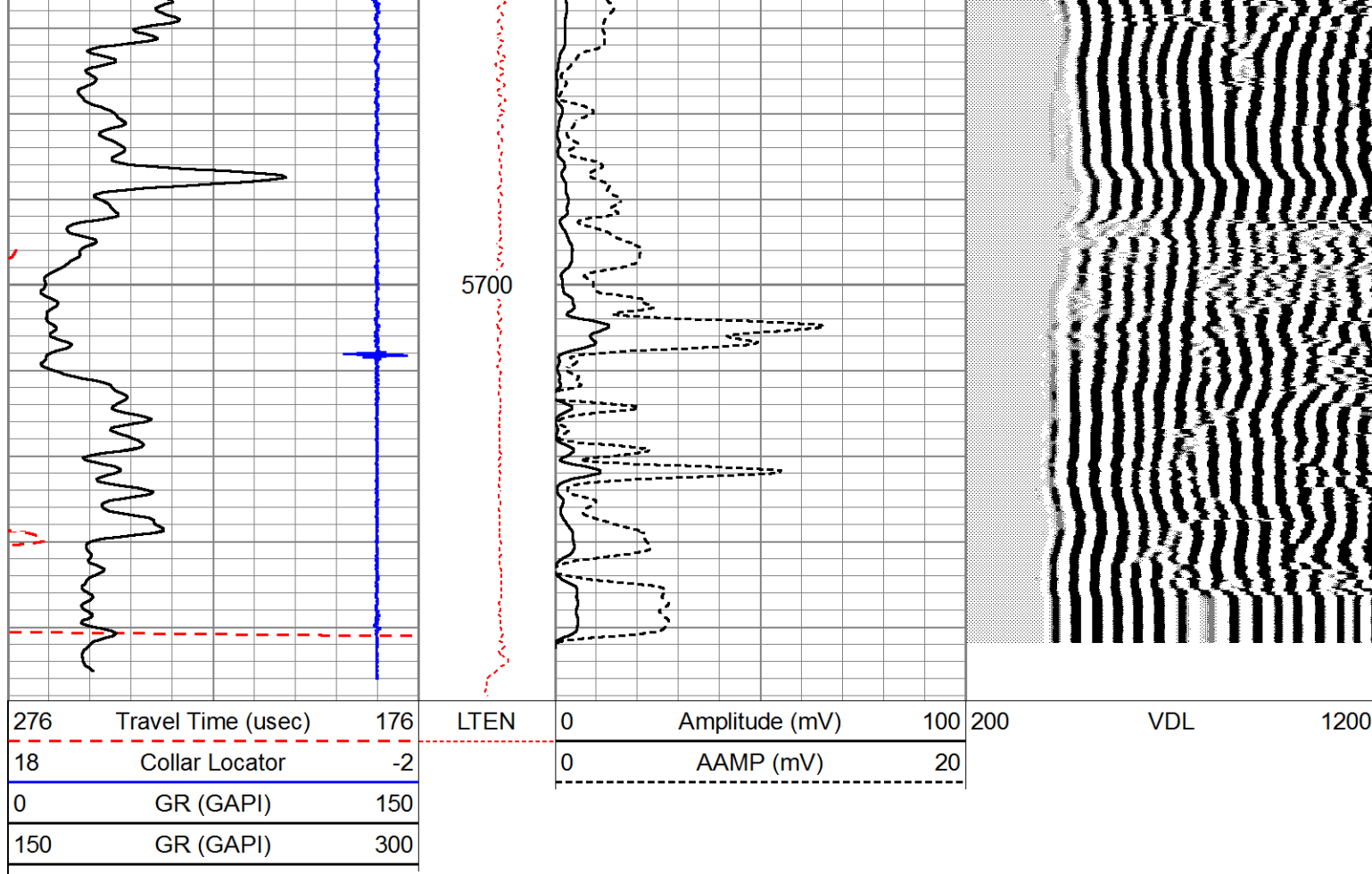
5400

5450

5500







Calibration Report						
Database File	merit_frank_d_1_1517522207_2_27_2017_cbl.db					
Dataset Pathname	pass3					
Dataset Creation	Mon Feb 27 13:36:12 2017					
Gamma Ray Calibration Report						
Type / Serial:		Probe275dig / 060725				
SHOP CALIBRATION		Mon Feb 27 12:50:29 2017				
	Counts/Sec.	Gain	Offset	Jig	Units	
Background	56.6				cps	
Calibrator	267.2				cps	
		1.0650			GAPI/cps	
PRIMARY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0				cps	
Difference				0.0	GAPI	
BEFORE SURVEY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0				cps	
Difference				0.0	GAPI	
AFTER SURVEY VERIFICATION						
Background	0.0				cps	
Calibrator	0.0				cps	
Difference				0.0	GAPI	

Serial Number: 2750_5_5_N
 Tool Model: Probe
 Calibration Casing Diameter: 5.500 in
 Calibration Depth: 512.724 ft

Master Calibration, performed Mon Feb 27 14:06:20 2017:

	Raw (v)		Calibrated (mv)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
3'	0.011	1.915	0.000	71.921	37.792	-0.434
CAL	0.008	2.295				
5'	0.012	1.751	0.000	71.921	41.354	-0.491
SUM						
S1	0.548	1.804	0.000	100.000	79.629	-43.642
S2	0.009	1.918	0.000	100.000	52.368	-0.469
S3	0.009	1.950	0.000	100.000	51.528	-0.459
S4	0.009	1.951	0.000	100.000	51.494	-0.457
S5	0.010	1.947	0.000	100.000	51.615	-0.503
S6	0.010	1.910	0.000	100.000	52.642	-0.542
S7	0.010	1.884	0.000	100.000	53.363	-0.521
S8	0.010	1.862	0.000	100.000	53.982	-0.522

Internal Reference Calibration, performed (Not Performed):

	Raw (v)		Calibrated (v)		Results	
	Zero	Cal	Zero	Cal	Gain	Offset
CAL	0.000	0.000	0.008	2.295	1.000	0.000

Air Zero Calibration, performed Mon Feb 27 12:50:56 2017:

	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



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 Field HUGOTON GAS AREA
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 State KANSAS