



Weatherford

CEMENT BOND  
GAMMA RAY / CCL LOG

COMPANY ALTA MESA SERVICES, LP  
WELL ML INVESTMENTS 2-10  
FIELD WILLOW  
CNTY PAYETTE STATE ID

COMPANY ALTA MESA SERVICES, LP  
WELL ML INVESTMENTS 2-10  
FIELD WILLOW  
COUNTY PAYETTE STATE IDAHO

LOCATION: 1493' FNL & 1201' FEL

SEC. 10 TWP. 8N RGE. 4W

OTHER SERVICES:  
PLUG  
PERF

PERM. DATUM GROUND LEVEL ELEV. 2298'  
LOG MEASURED FROM K.B. 20 FT. ABOVE PERMANENT DATUM  
DRILLING MEASURED FROM K.B. ELEV.: K.B. 2318'  
D.F. 2317'  
G.L. 2298'

DATE 13-AUG-2013

RUN NO. ONE

DEPTH DRILLER 4991'

DEPTH LOGGER 4866'

BIT. LOG INTERVAL 4862'

TOP LOG INTERVAL SURFACE

OPEN HOLE SIZE 8.625"

TYPE FLUID WATER

DENS. VISC. 8.3 N/A

MAX. REC. TEMP. F N/A

EST. CEMENT TOP SEE LOG

TIME WELL READY R.O.A.

TIME LOGGER ON BIT. SEE LOG

EQUIP. NO. 14068

LOCATION GRD. JUNCTION

RECORDED BY P. MAZUR

WITNESSED BY E. WEST

BOREHOLE RECORD

RUN NO. BIT FROM TO

SIZE TO SIZE WGT. FROM TO

CASING RECORD SIZE WT/FT GRADE TYPE JOINT TOP BOTTOM

SURFACE STRING

PROT. STRING 5.5 15.5

PROD. STRING 5.5 15.5

LINER

All interpretations of log data are opinions based on inferences from electrical or other measurements. We do not guarantee the accuracy or correctness of any interpretation or recommendation and we shall not be liable or responsible for any loss, cost, damages or expenses incurred or sustained by anyone resulting from any interpretation or recommendation made by any of our employees or agents.

REMARKS Rig: TD WELL SERVICE #101 Service Order # 202062  
LOG WAS CORRELATED TO SURFACE CASING SHOE  
ALL LOGGED INTERVALS PER CUSTOMER REQUEST

EQUIPMENT DATA

Run No.	Tool Type	Tool No.	Other
ONE	CENA	240	
ONE	CTBA	208	
ONE	GRBA	229	
ONE	CENB	152	
ONE	SBTA	237	
ONE	CENA	217	

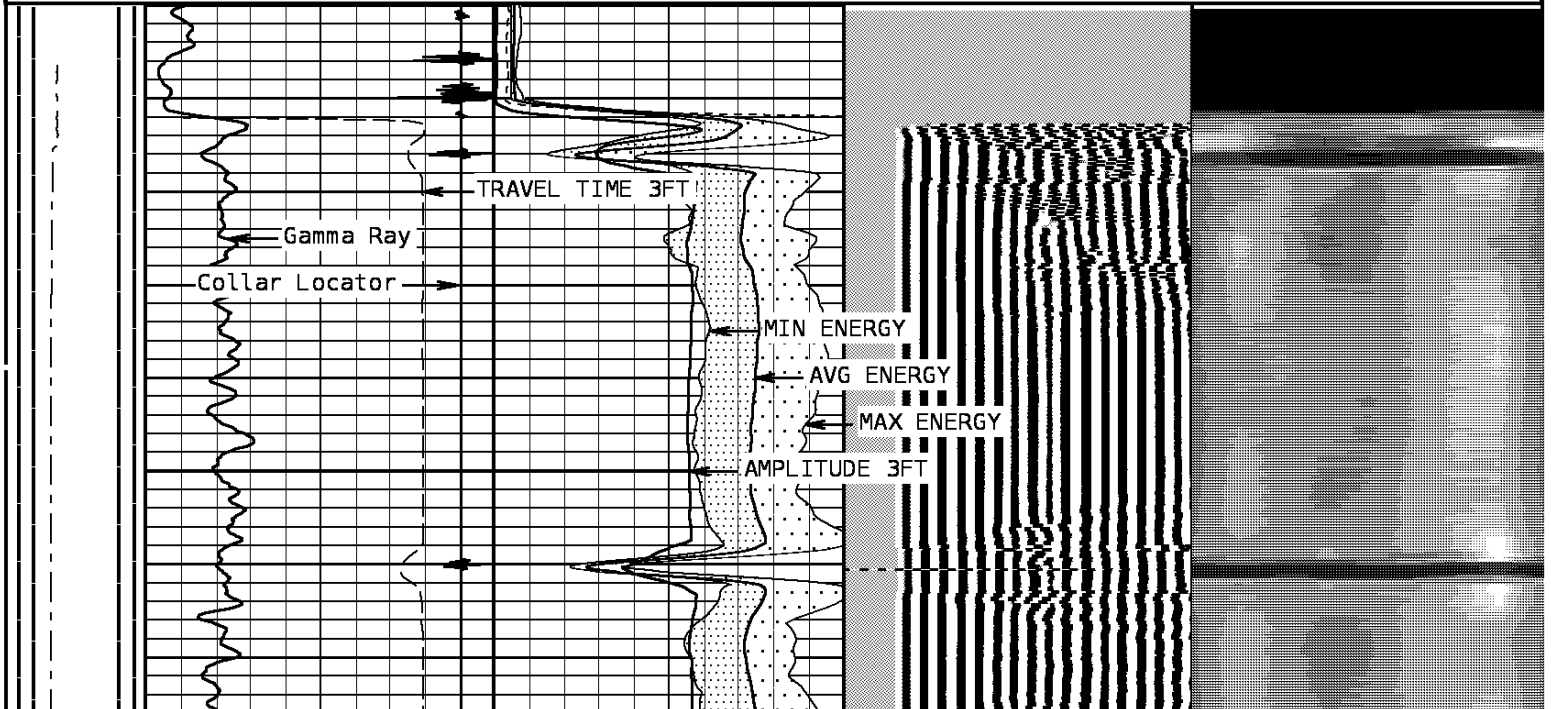

DEPTH SCALE: 5":100'

PROCESSED VERSION: 2012.07.18.162"

202062

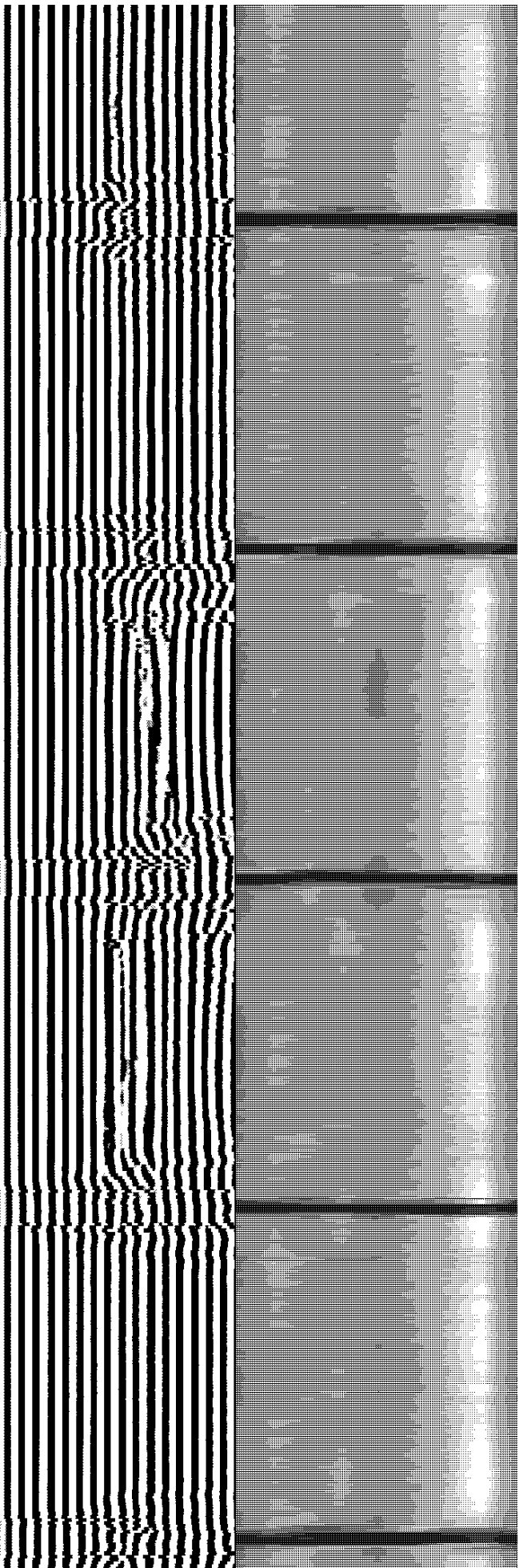
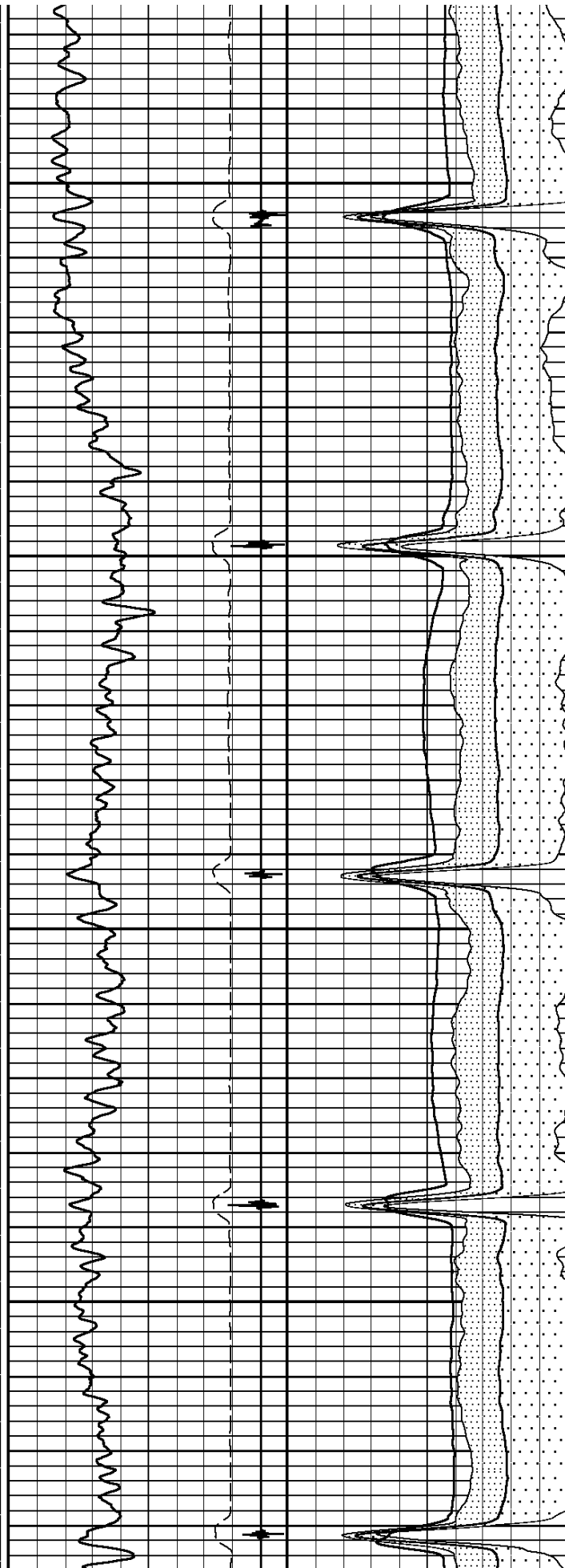
FINISH DEPTH: 6.5 Feet DIRECTION: UP DATE: 08/13/2013 TIME: 12:55 MODE: ORIGINAL

		<b>AMP X 5</b>					
		0	Millivolts	20			
		<b>AMPLITUDE 3FT</b>					
		0	Millivolts	100			
	<b>Collar Locator</b>		<b>MAX ENERGY</b>				
	-8000 Millivolts 800	0	Millivolts	100			
	<b>Gamma Ray</b>		<b>AVG ENERGY</b>				
	0 API 150	0	Millivolts	100			
<b>Tension</b>	<b>TRAVEL TIME 3FT</b>		<b>MIN ENERGY</b>		<b>VARIABLE DENSITY 5FT</b>		<b>VARIABLE ENERGY</b>
0 2000	333 Microseconds 233	0	Millivolts	100	200 Microseconds 1200	0	Millivolts 100



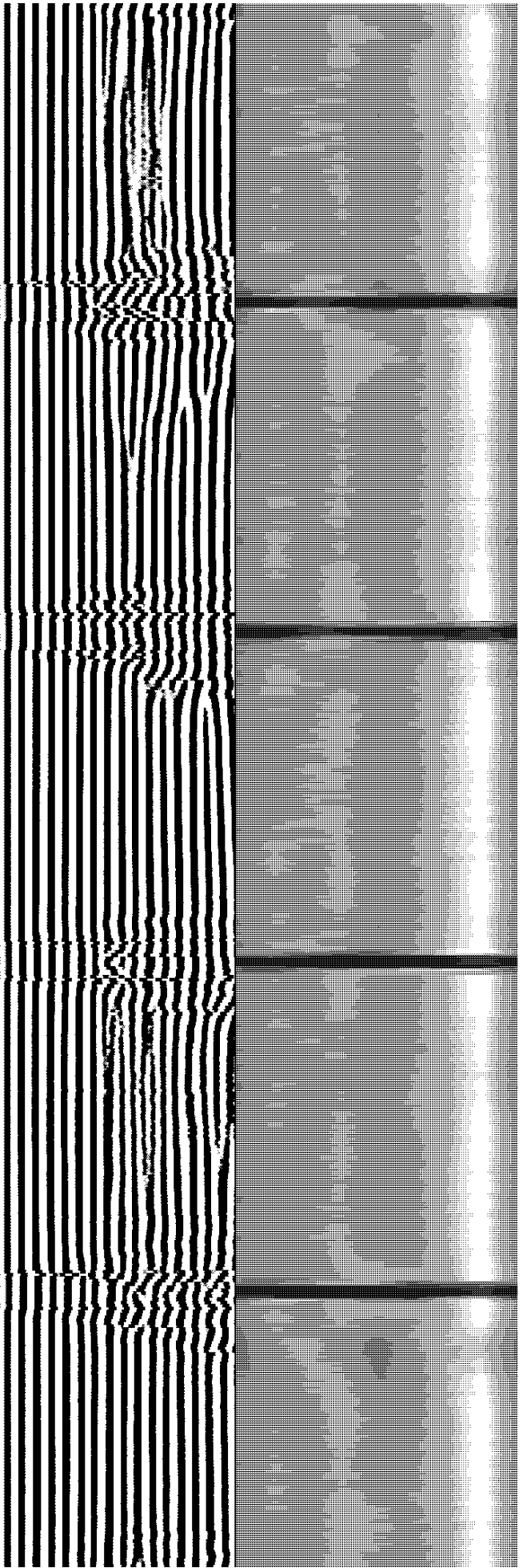
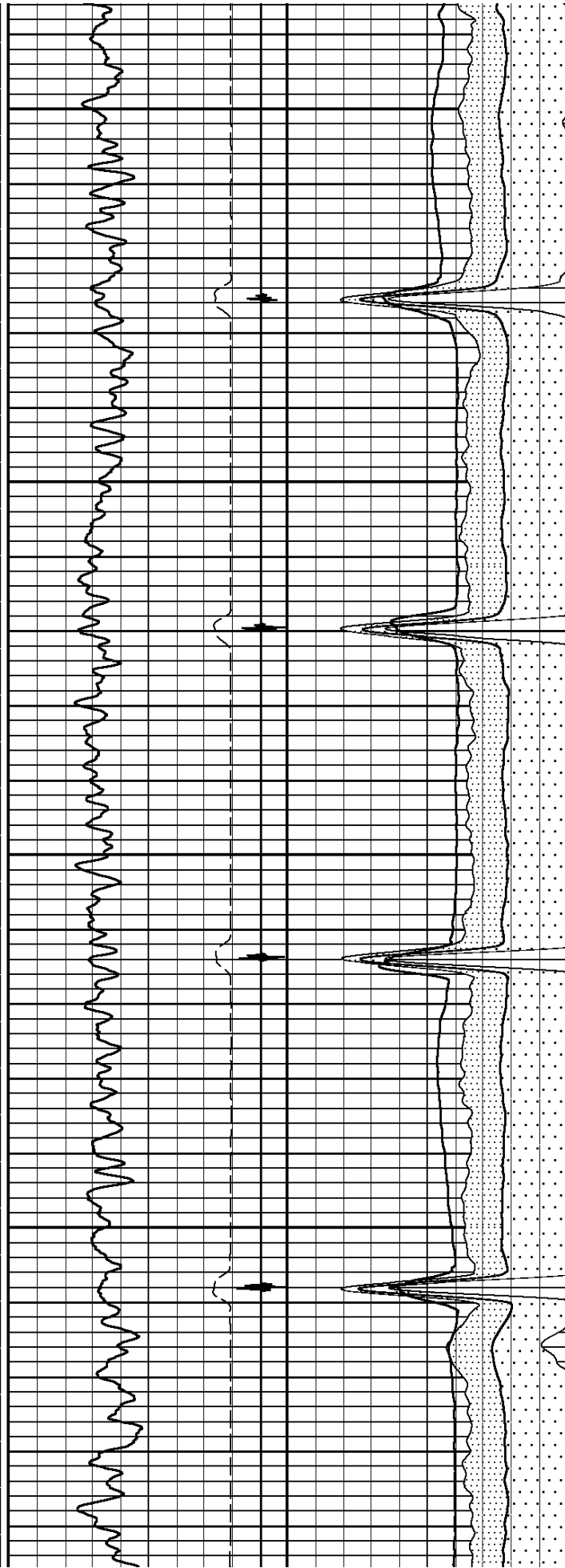
100

200



300

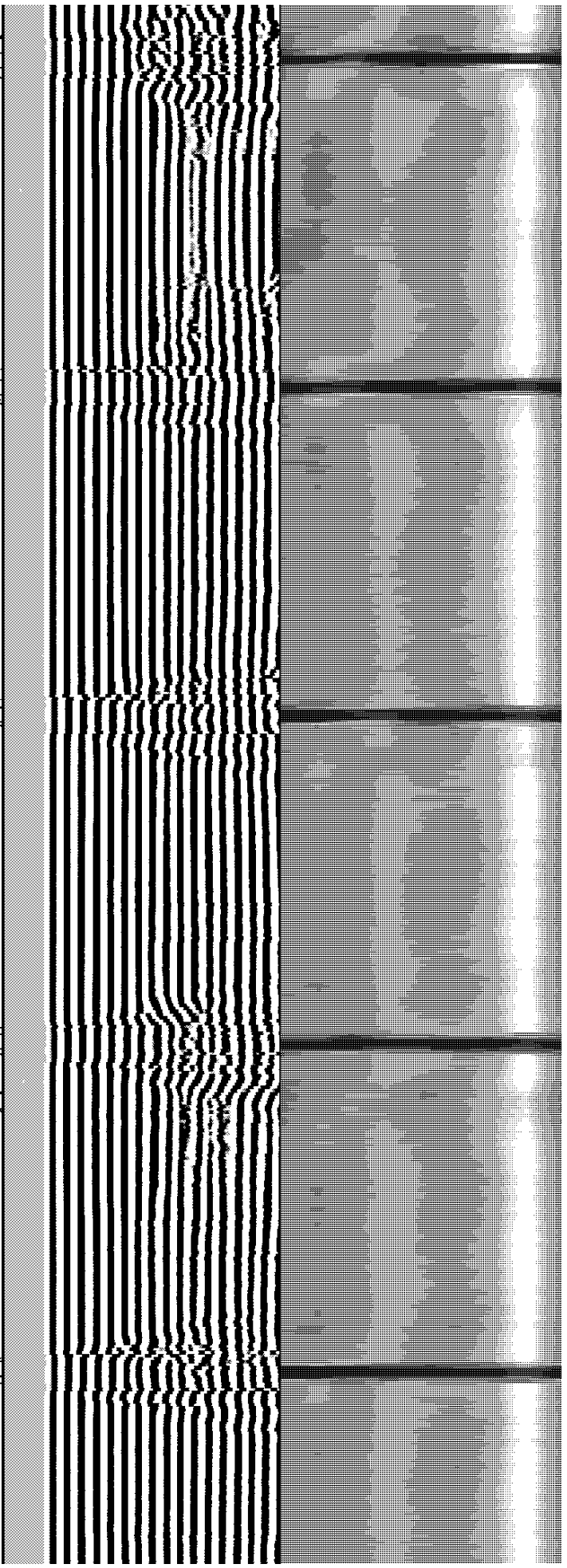
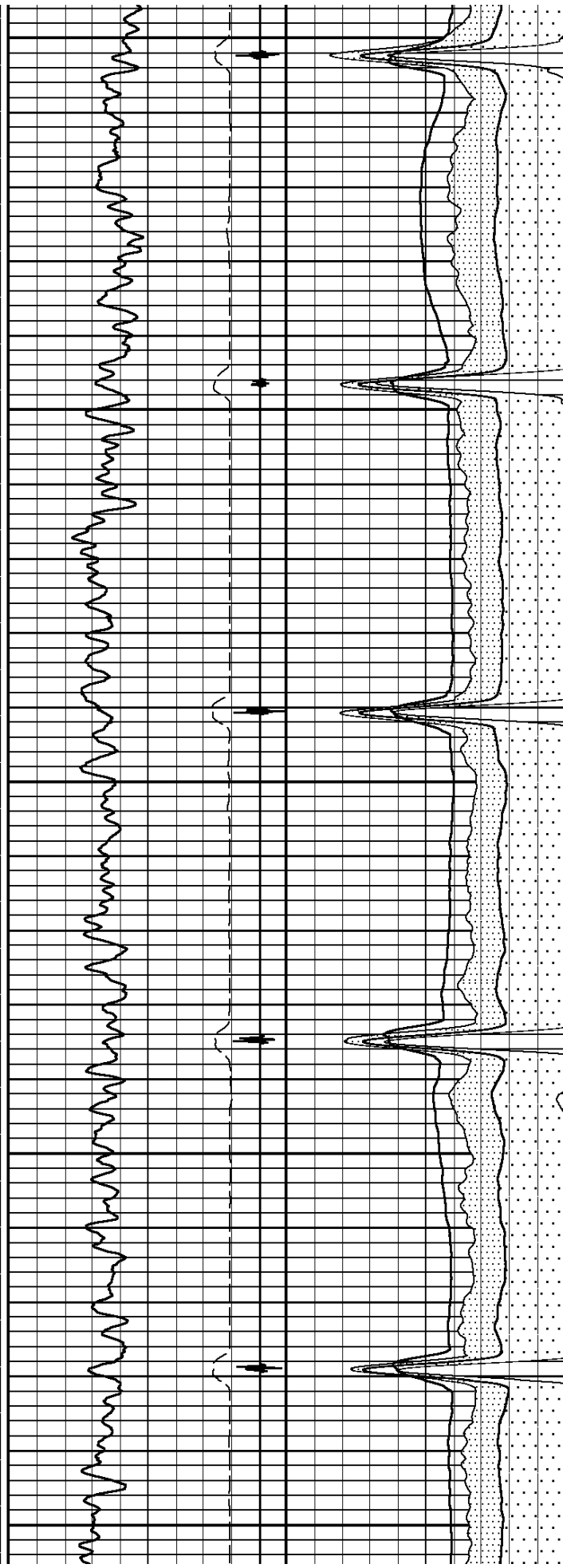
400



500

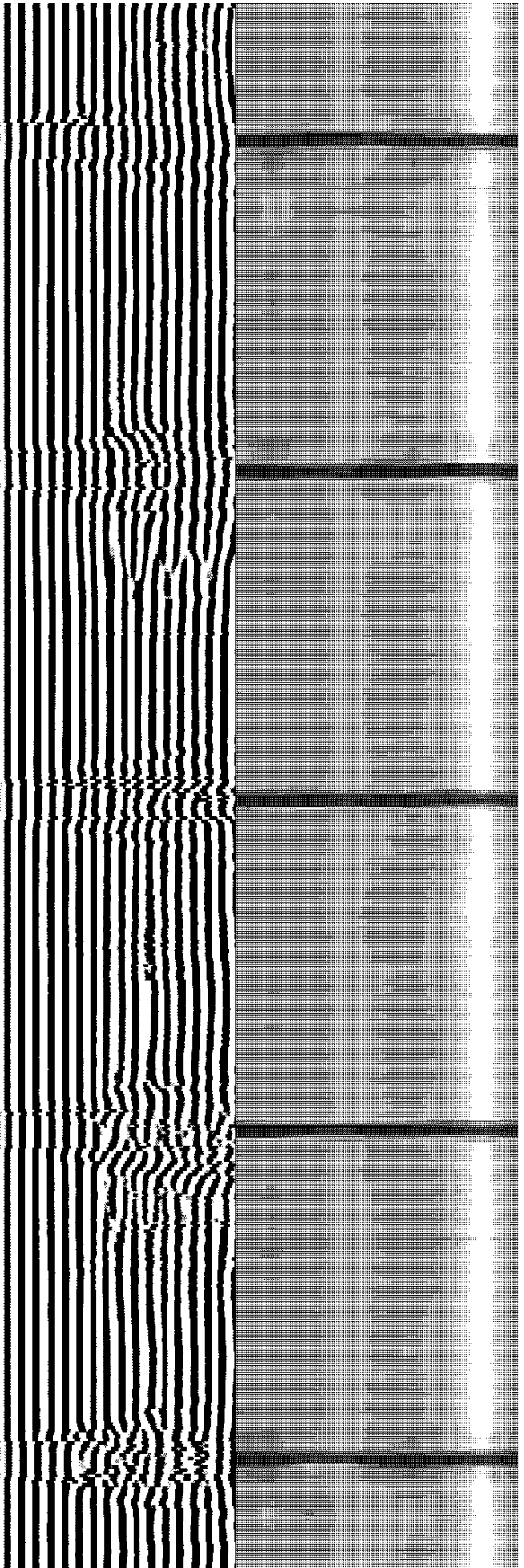
600

700



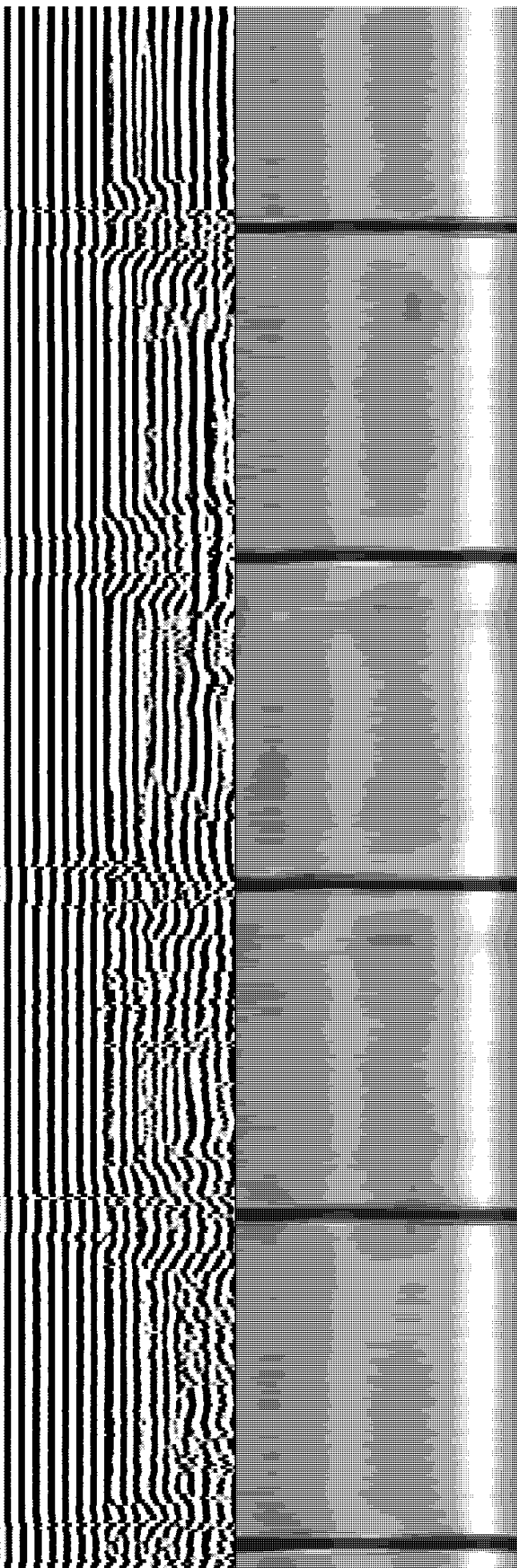
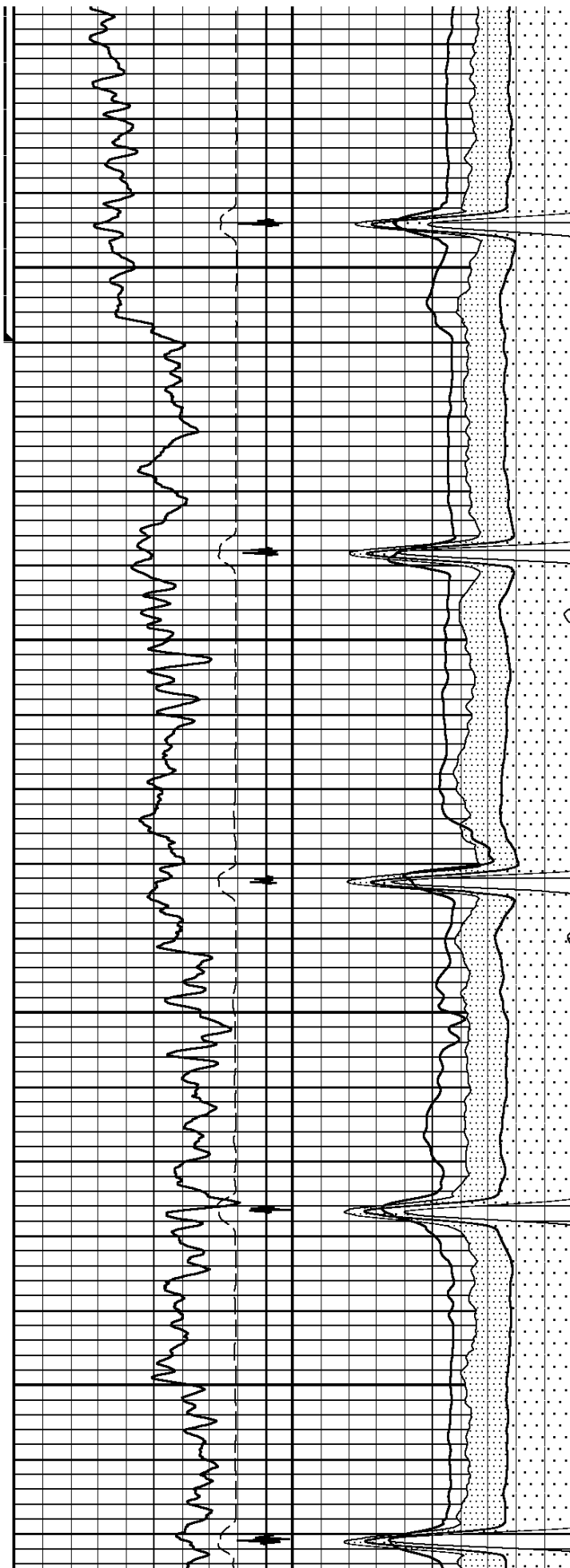
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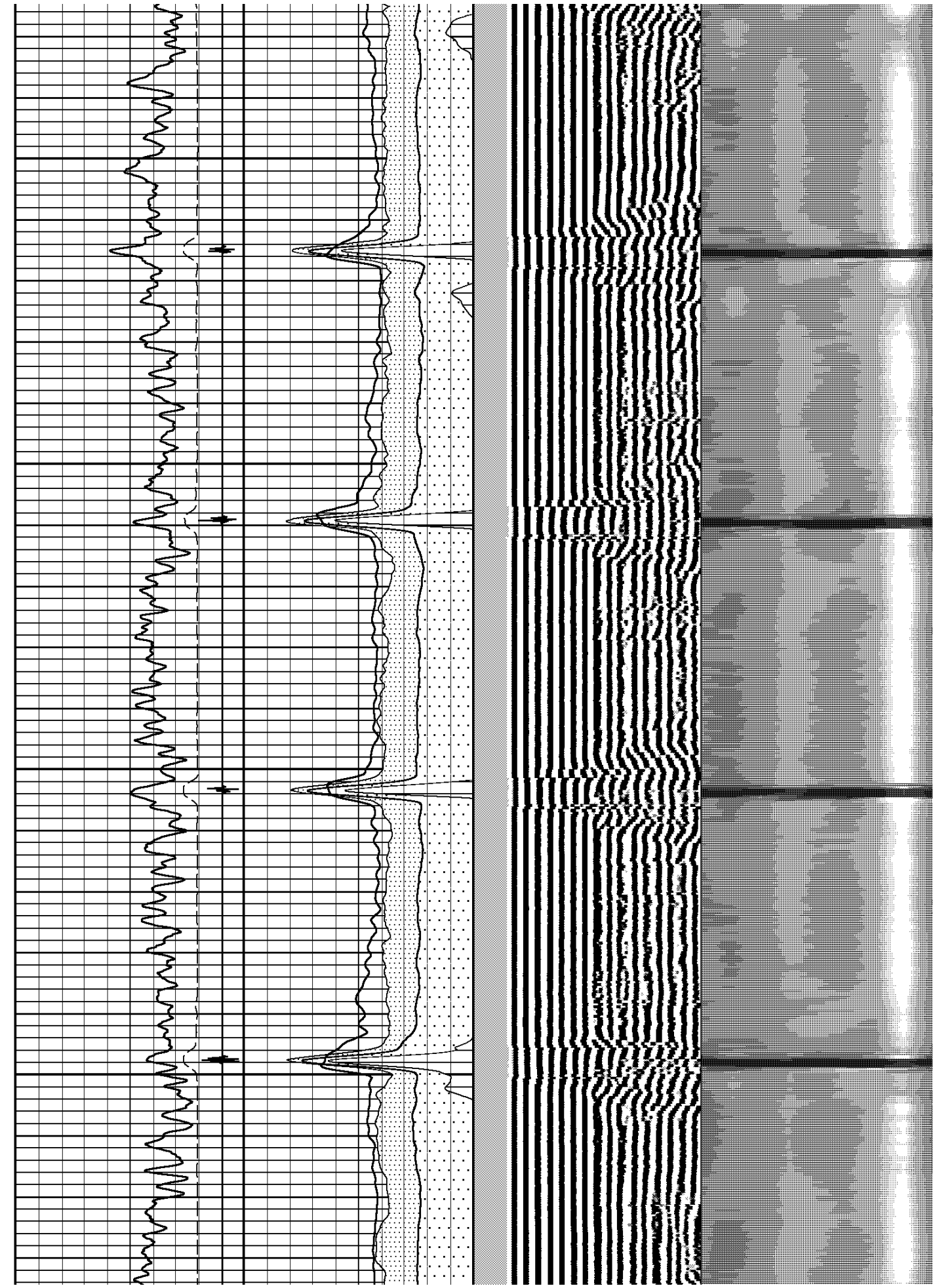
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1100



1200

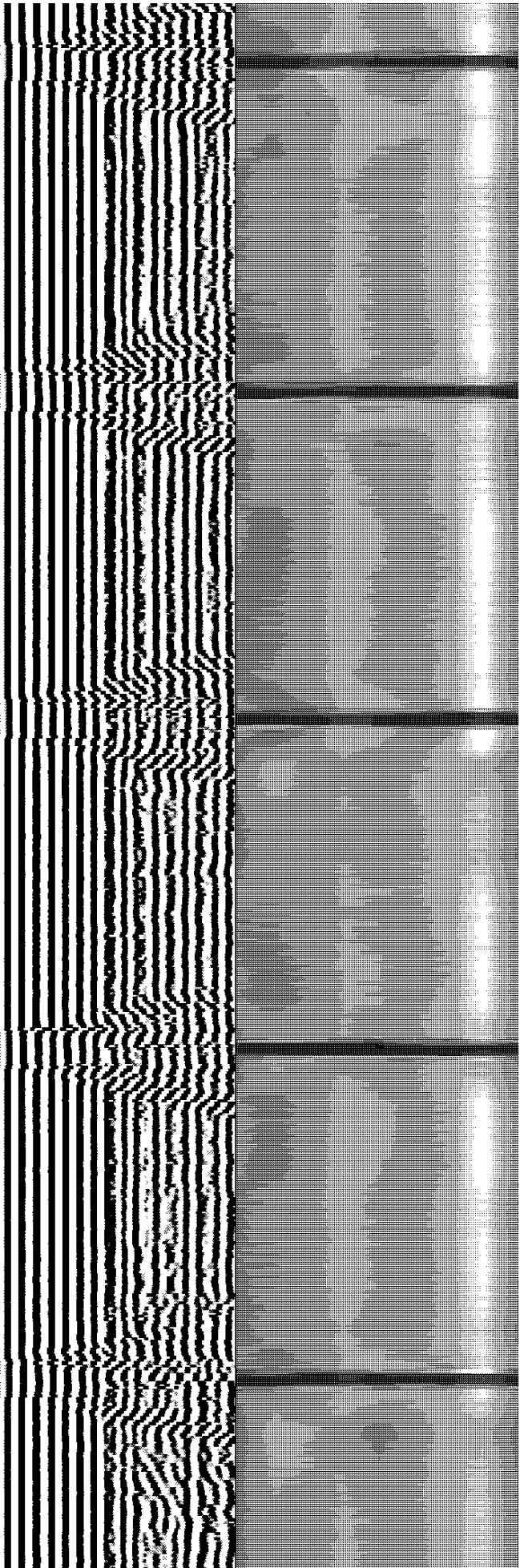
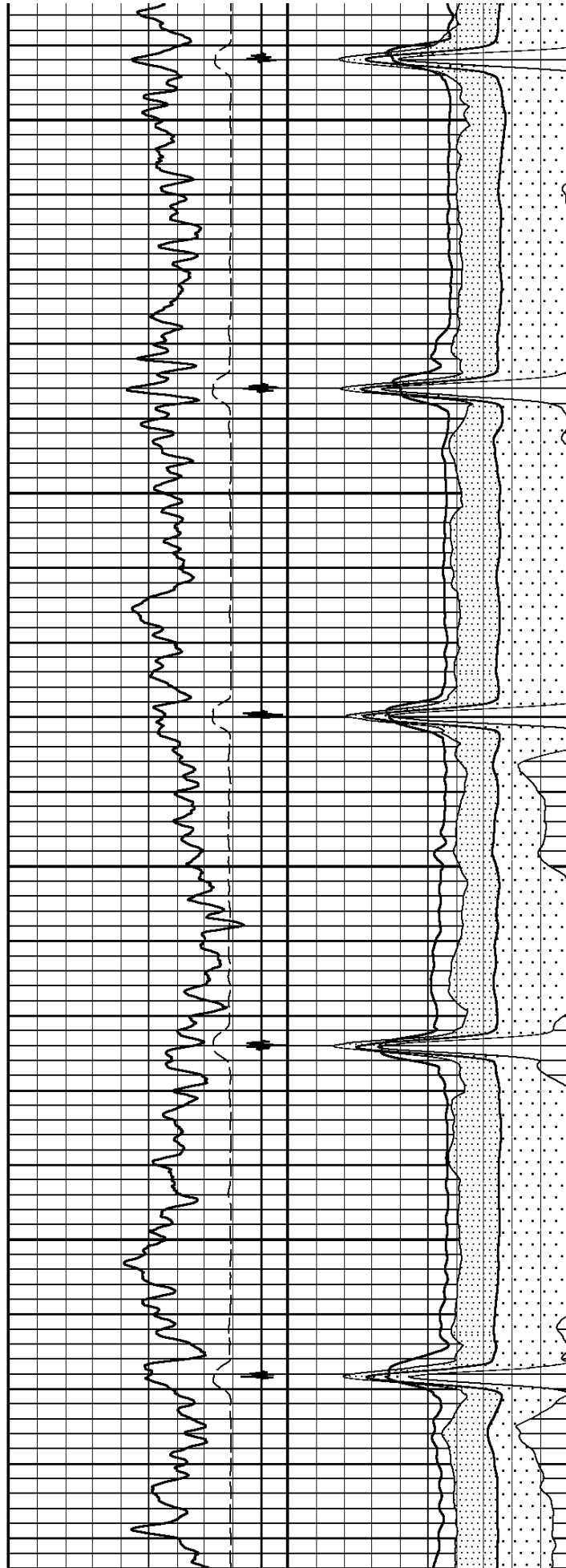
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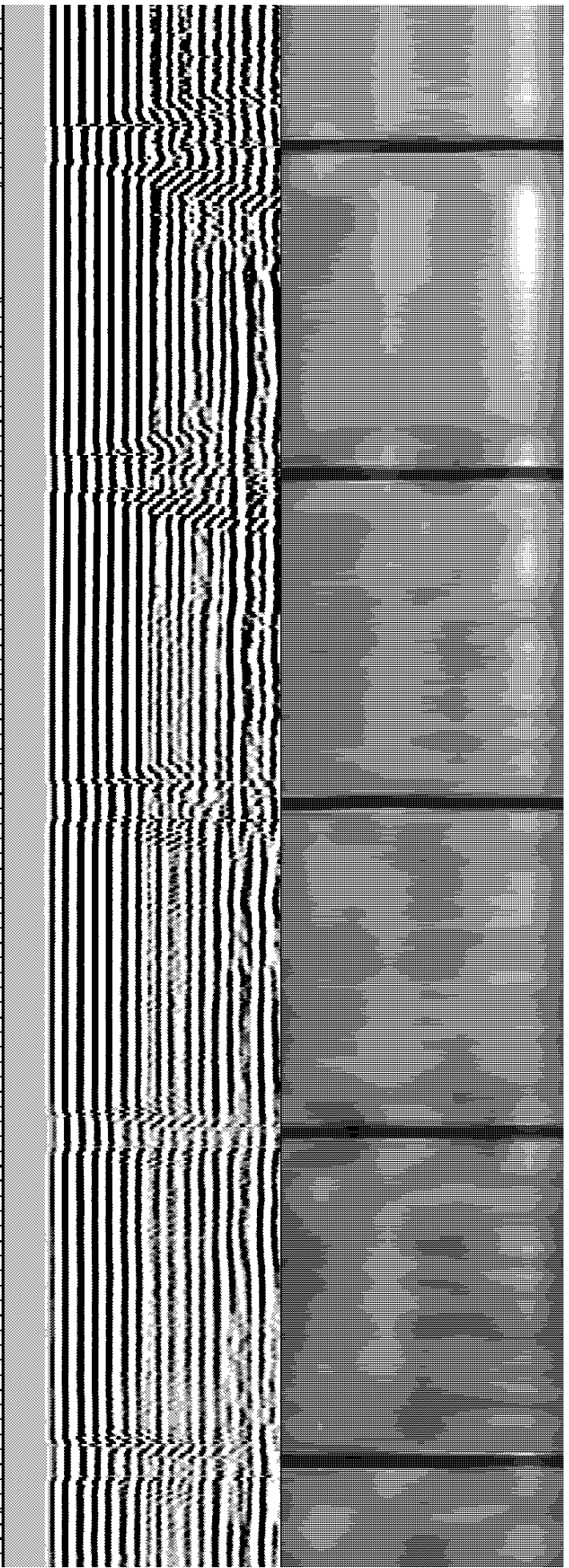
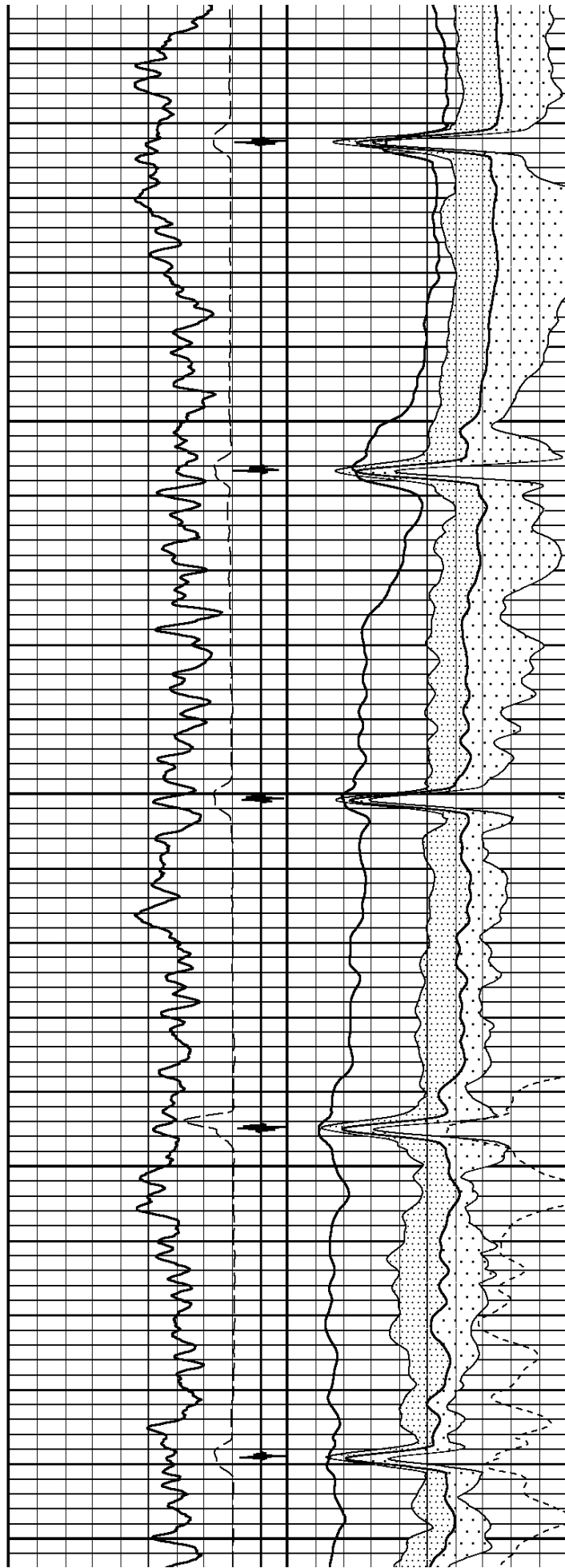
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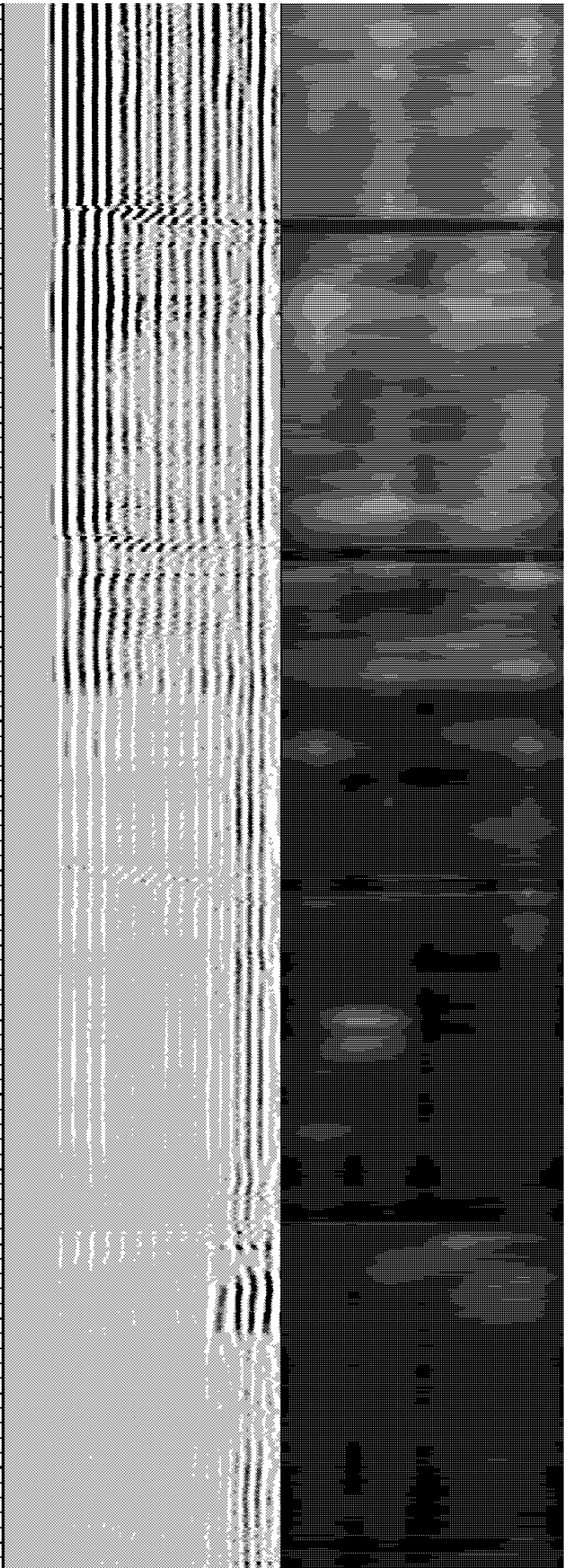
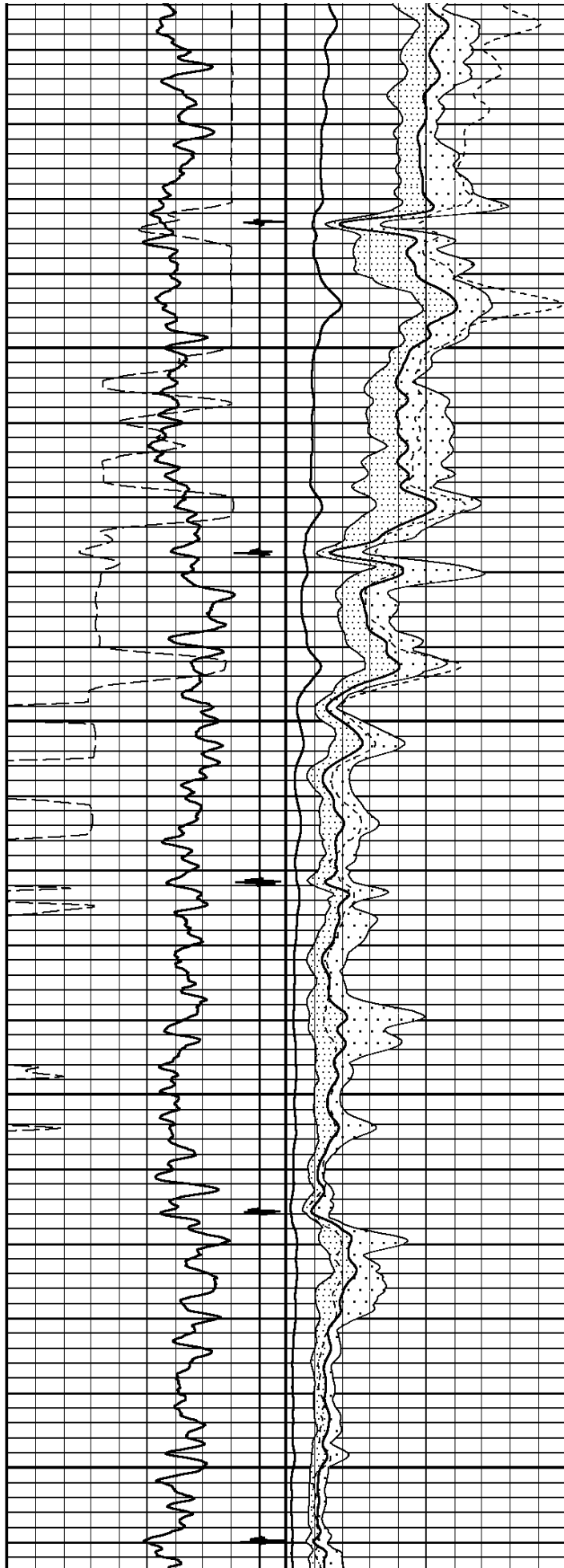
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1700



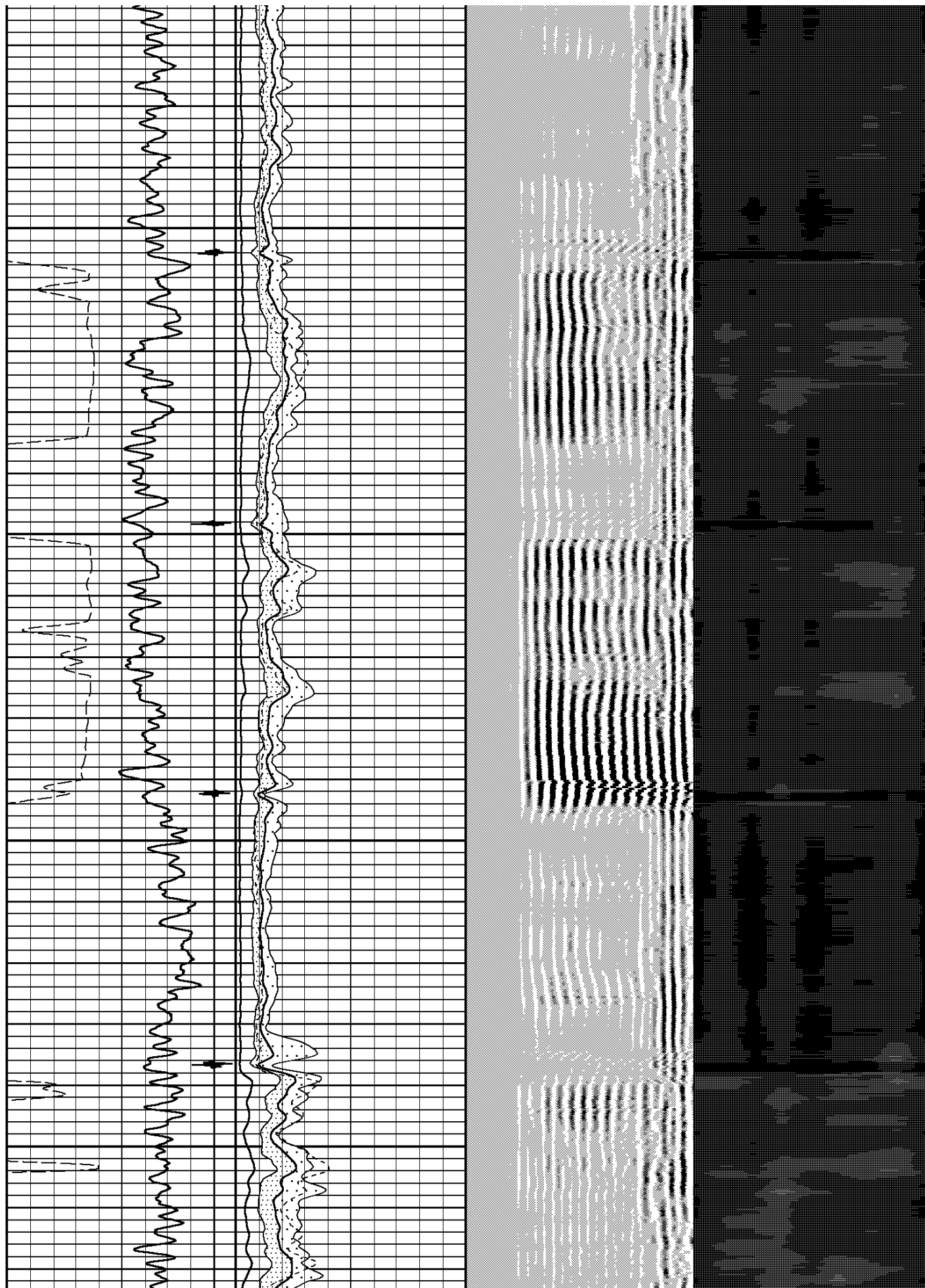
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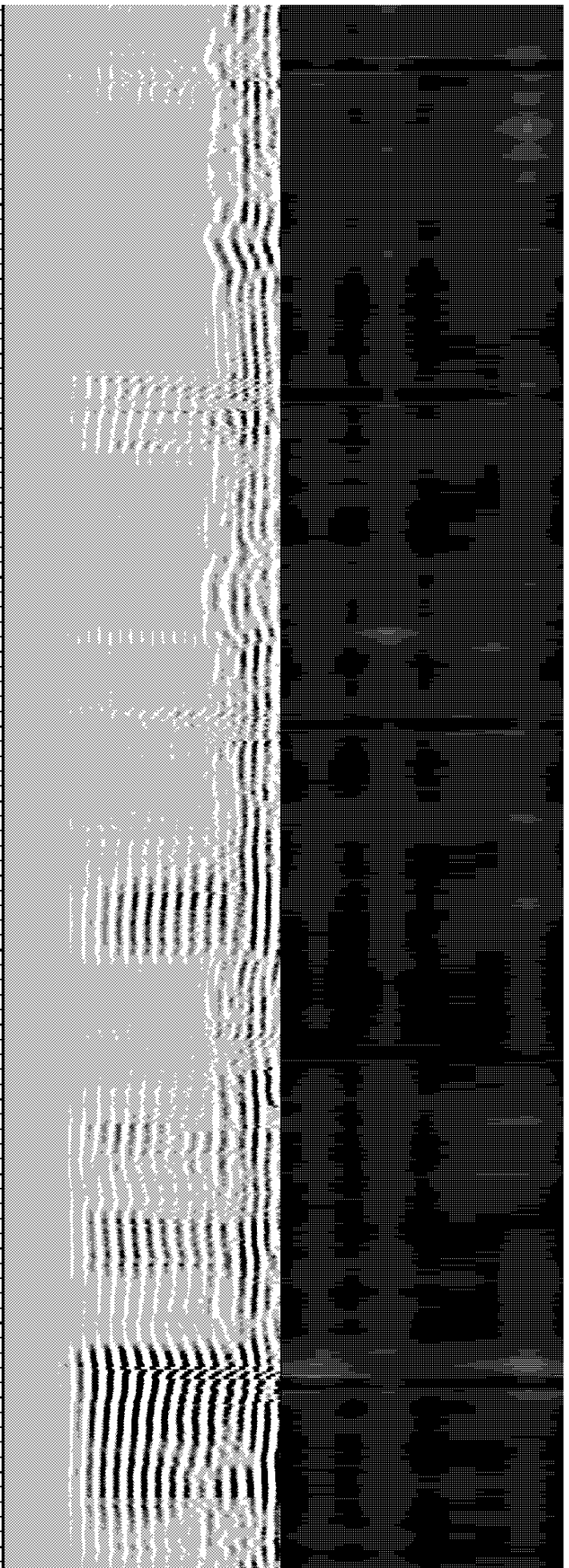
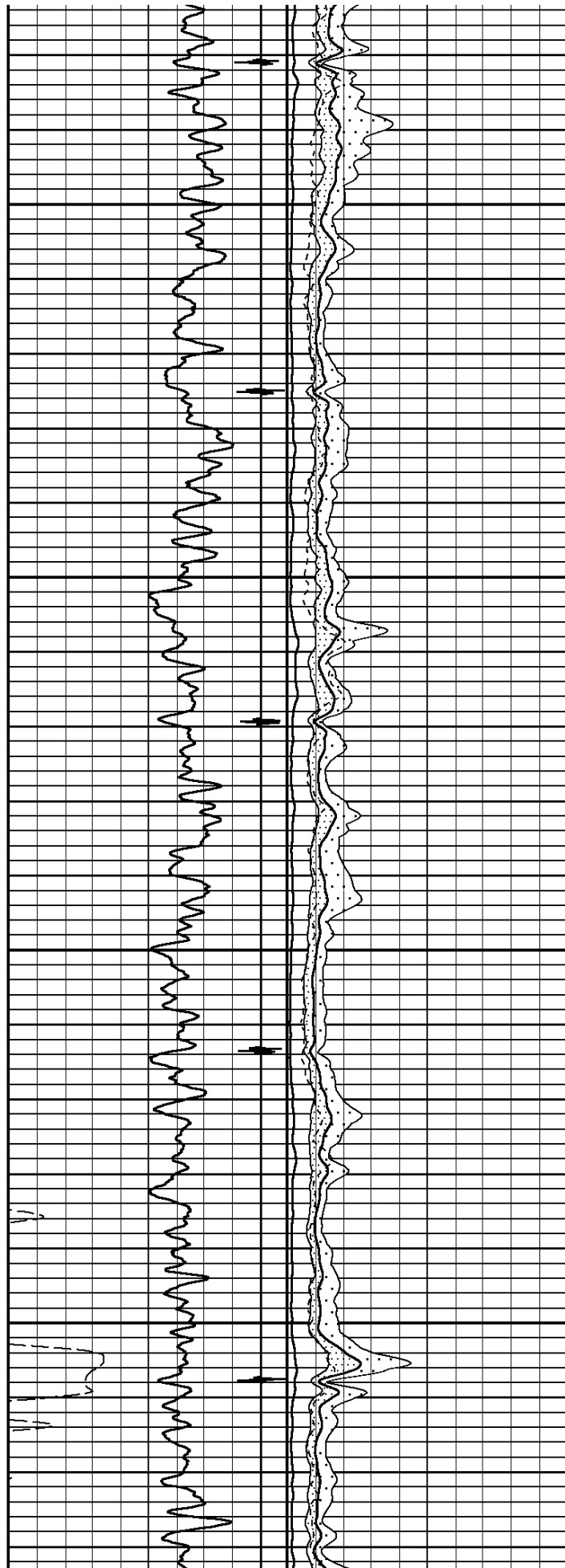
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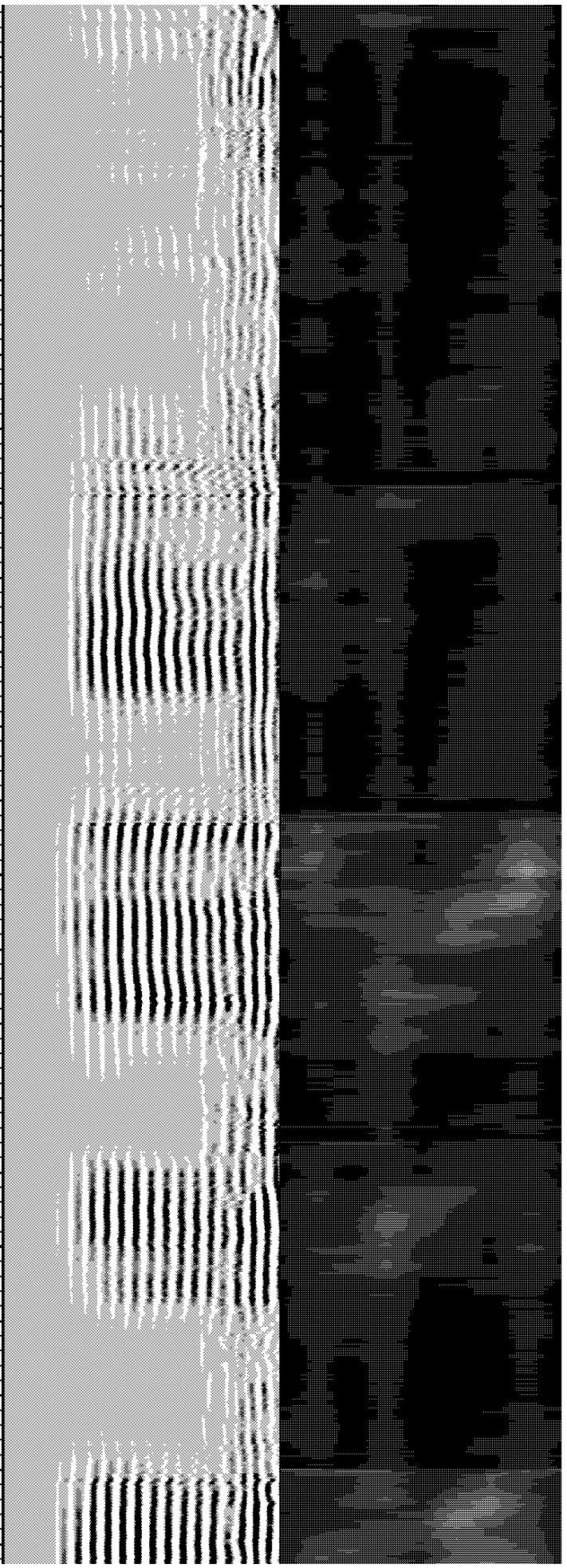
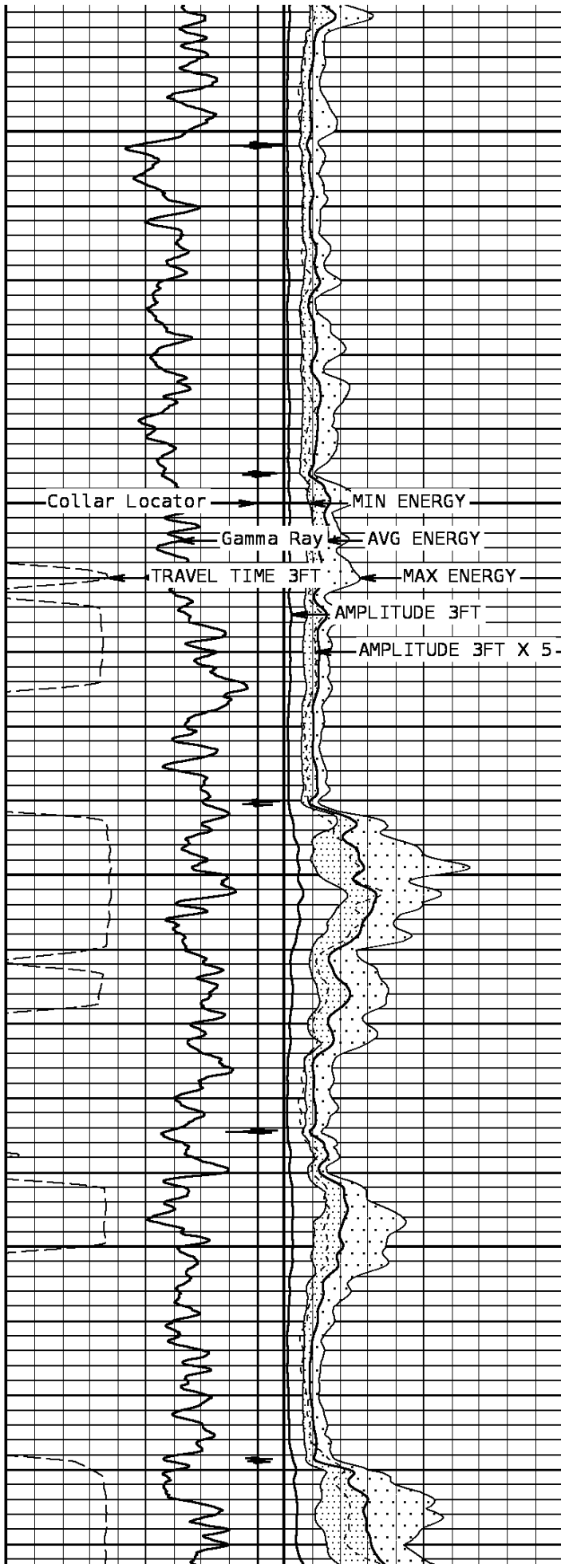


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2300



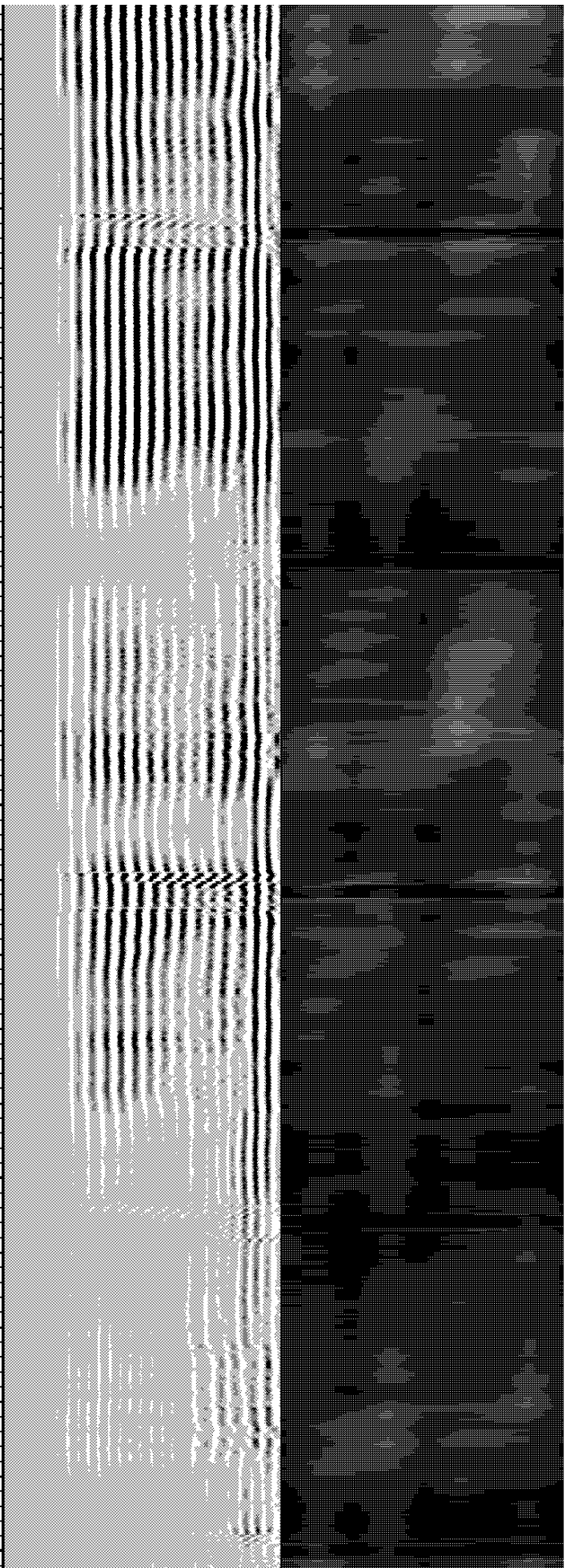
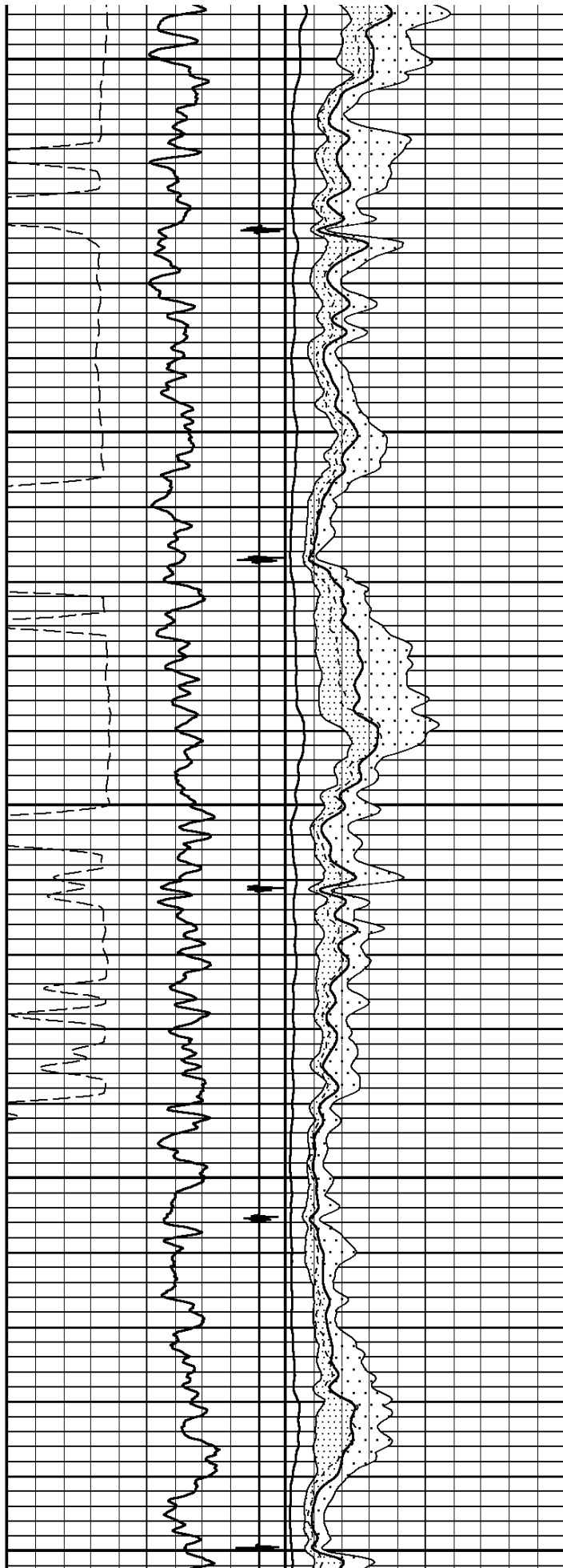
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2600

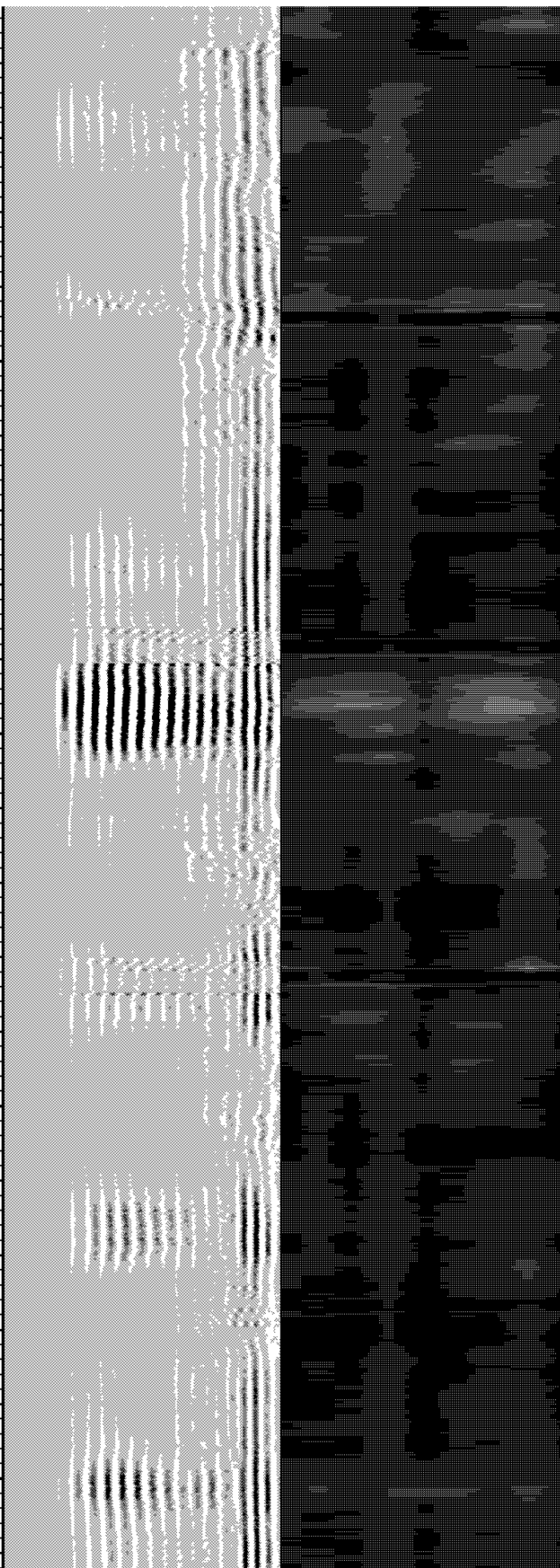
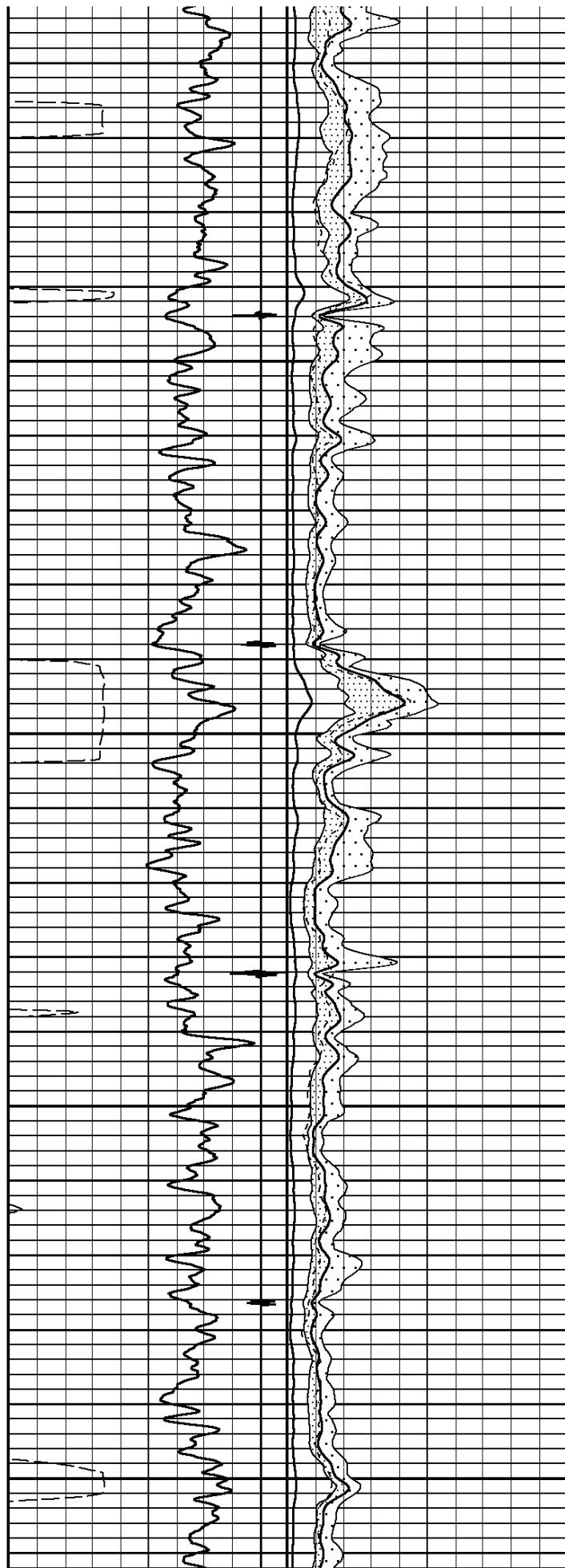
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2900

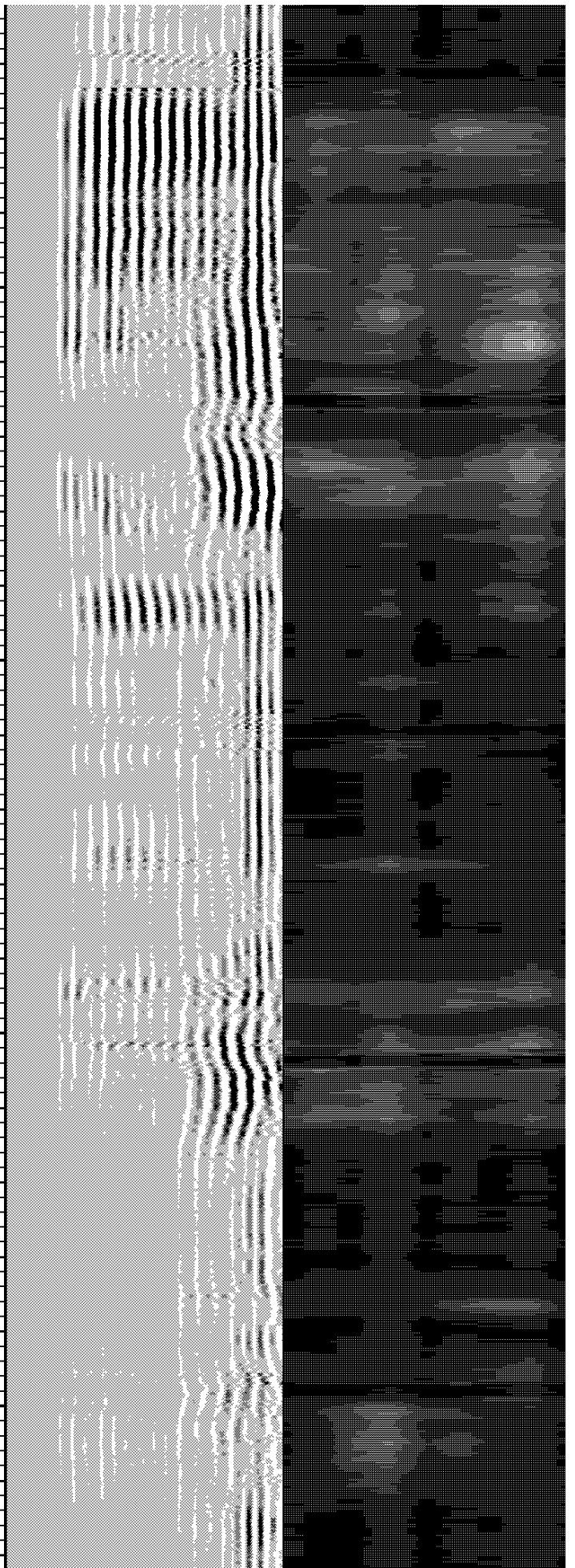
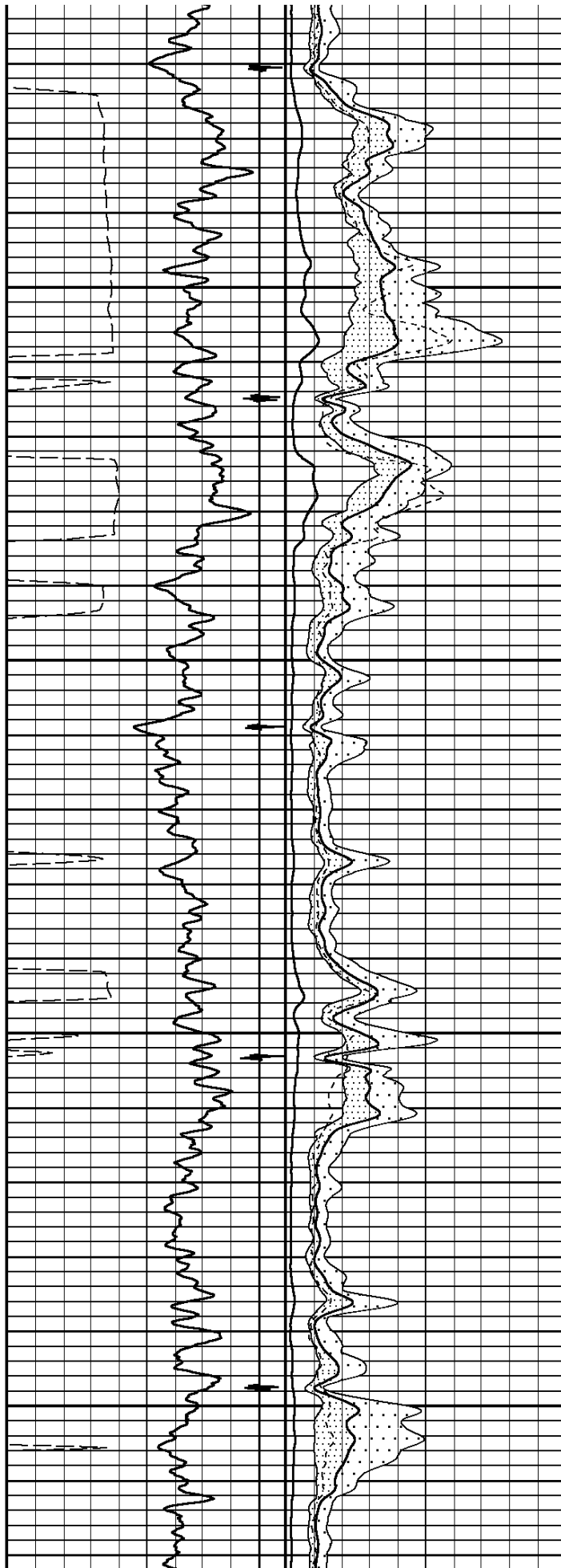
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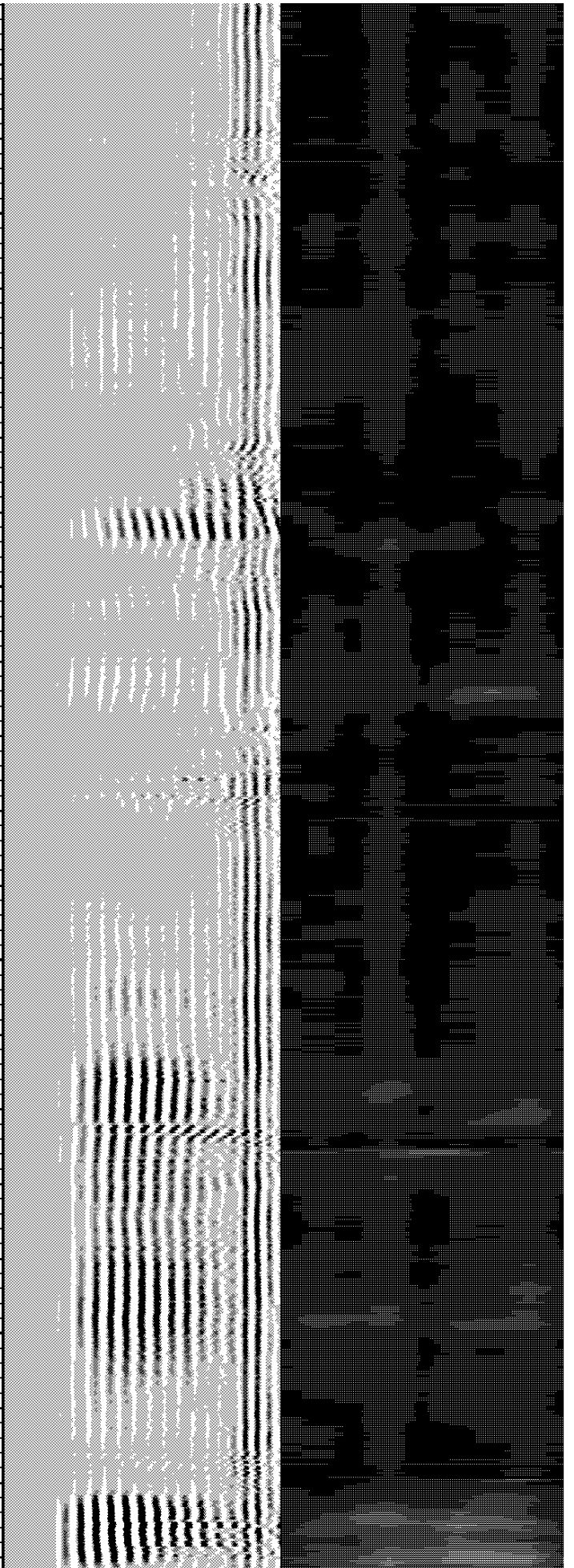
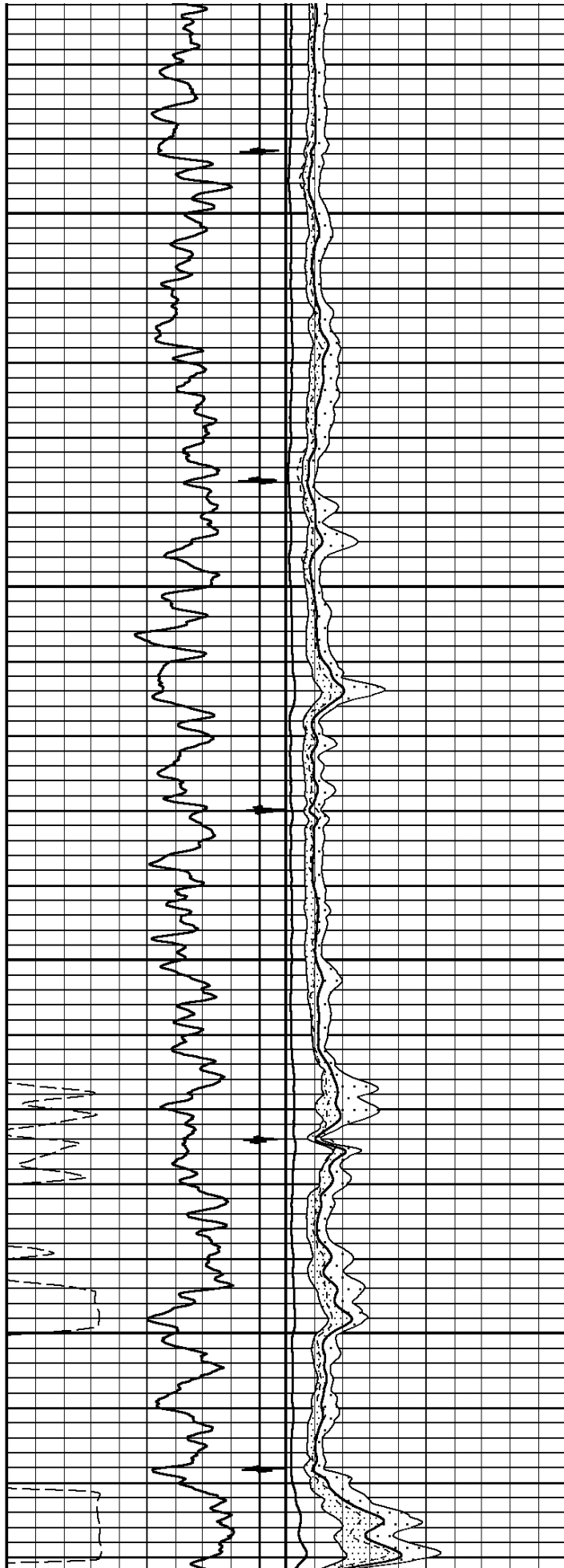
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3200



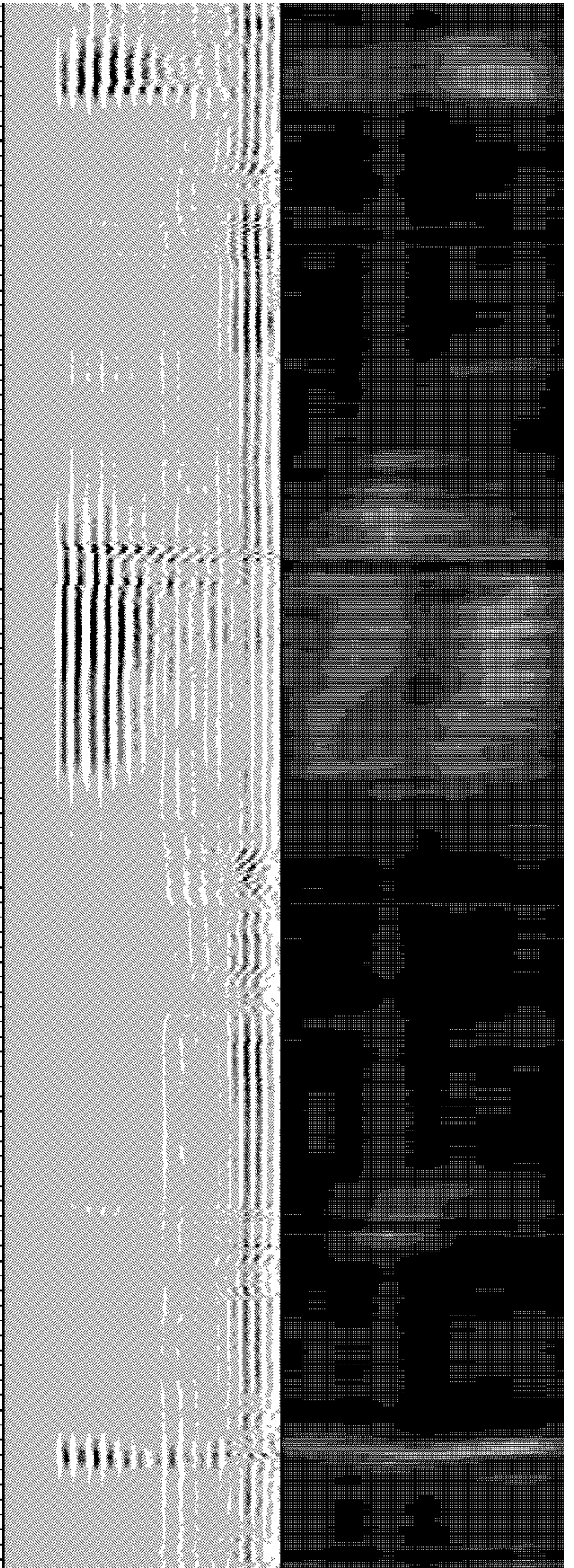
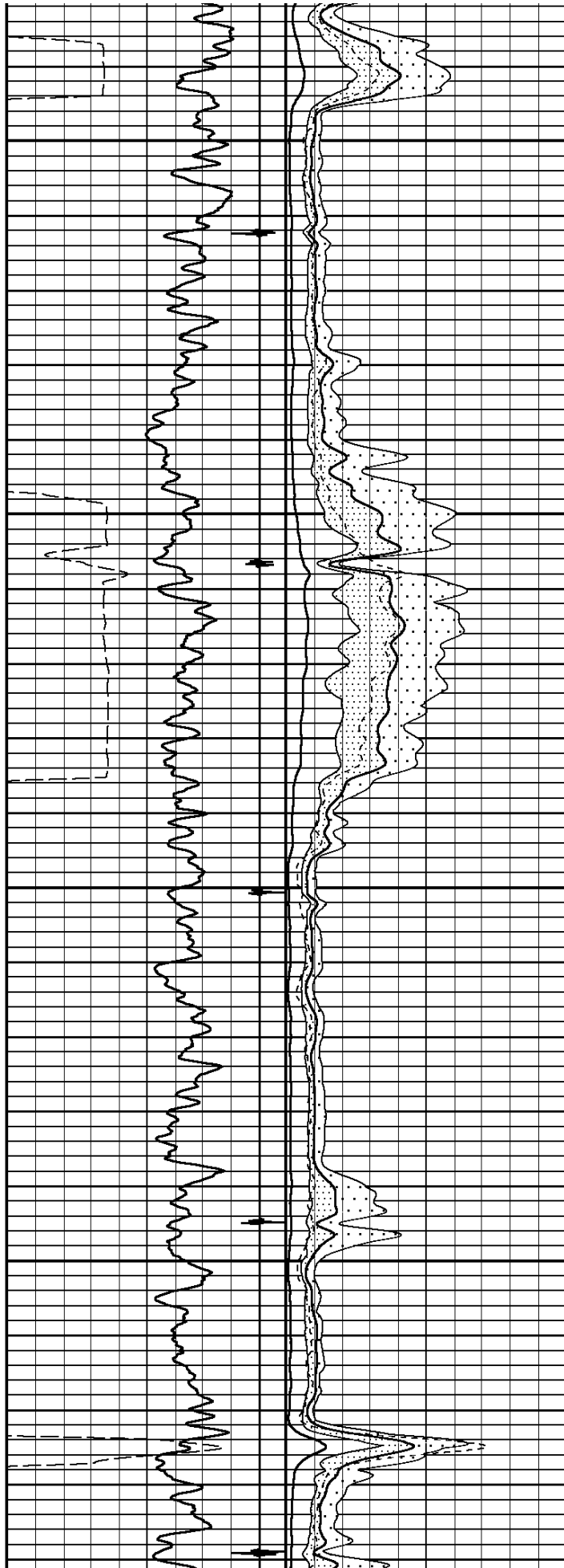
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3400



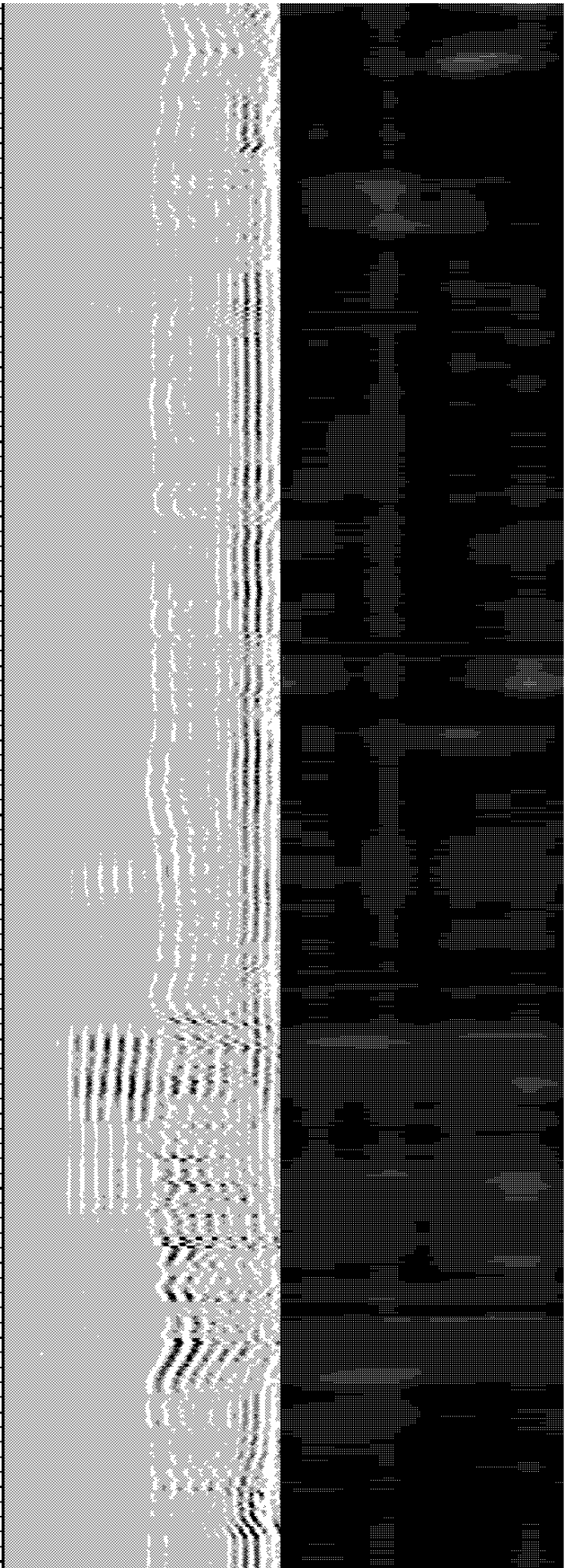
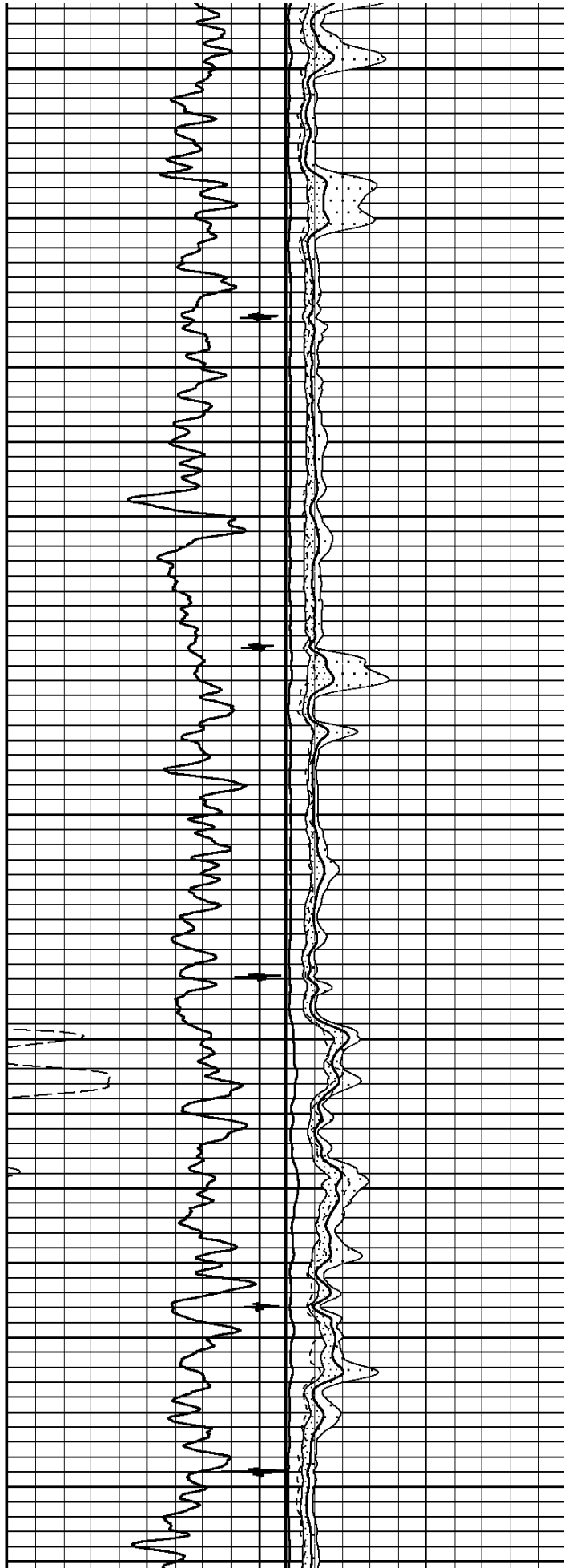
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3600



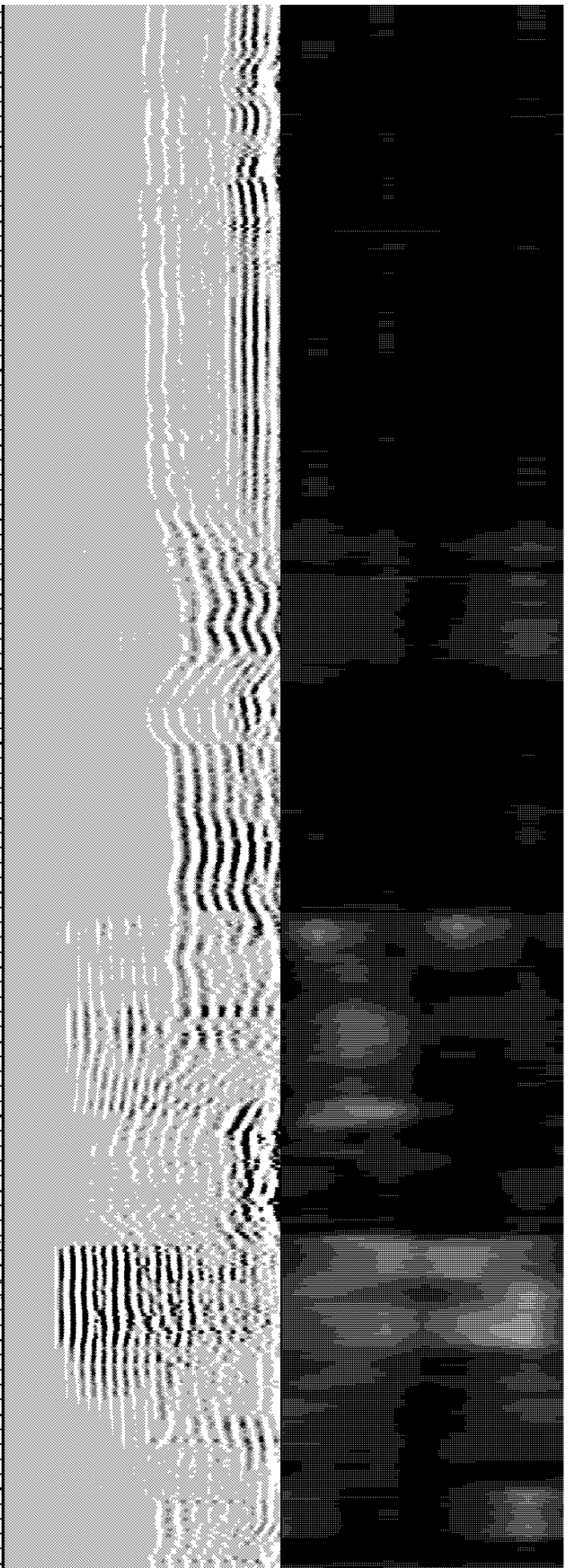
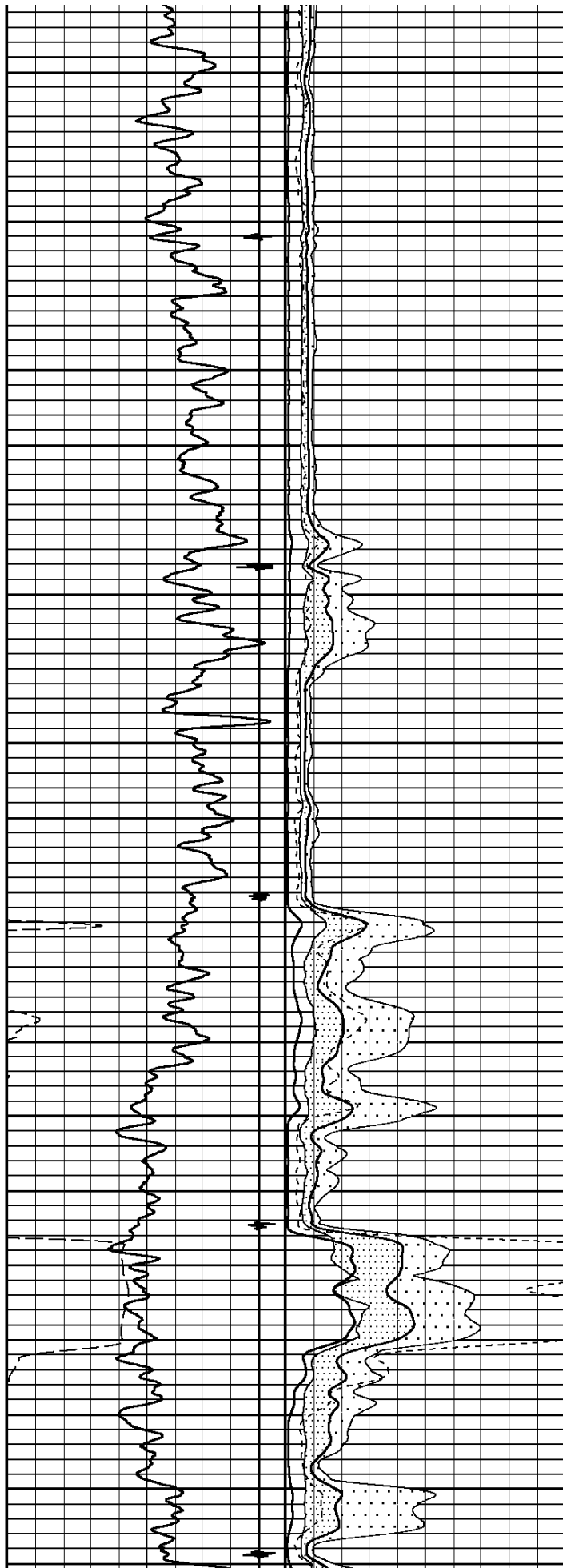
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3800



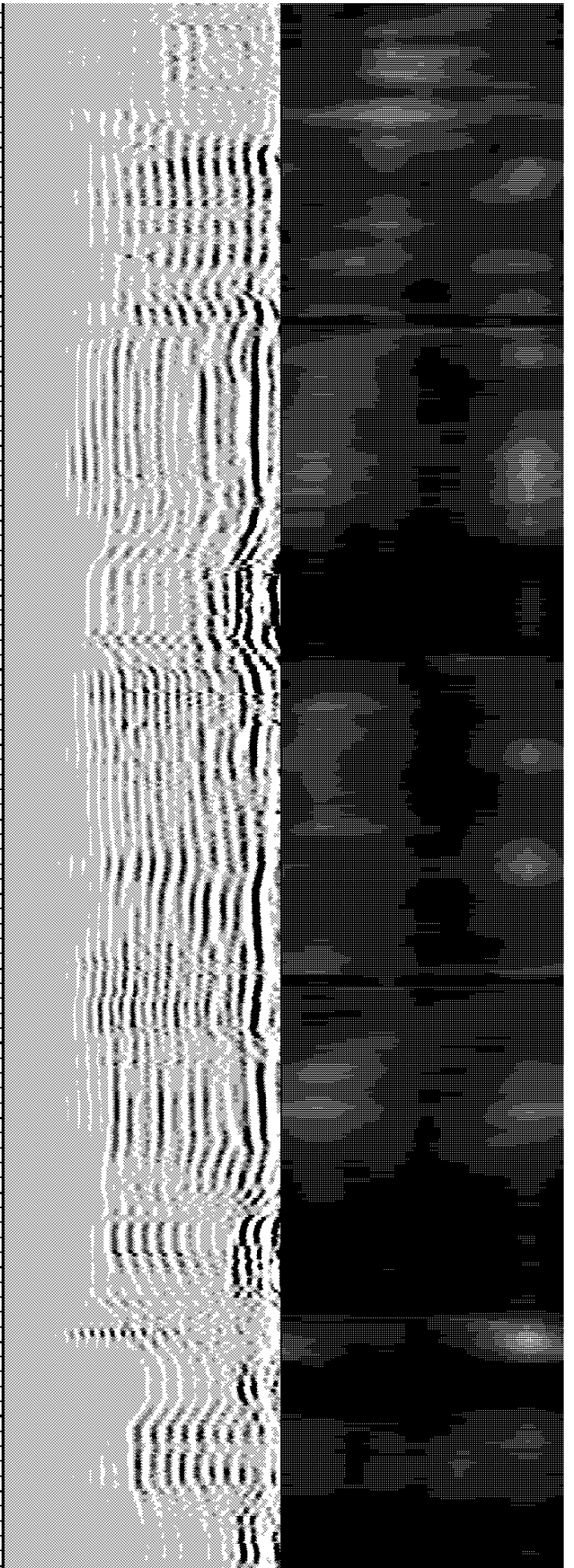
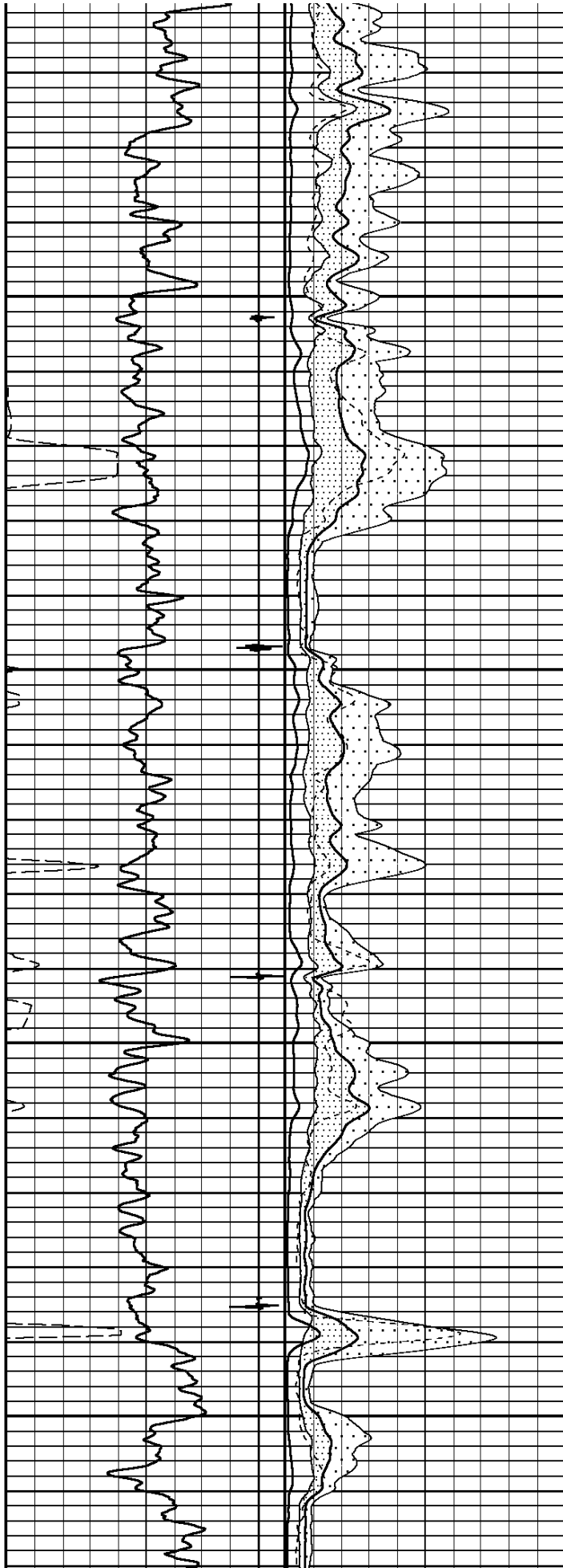
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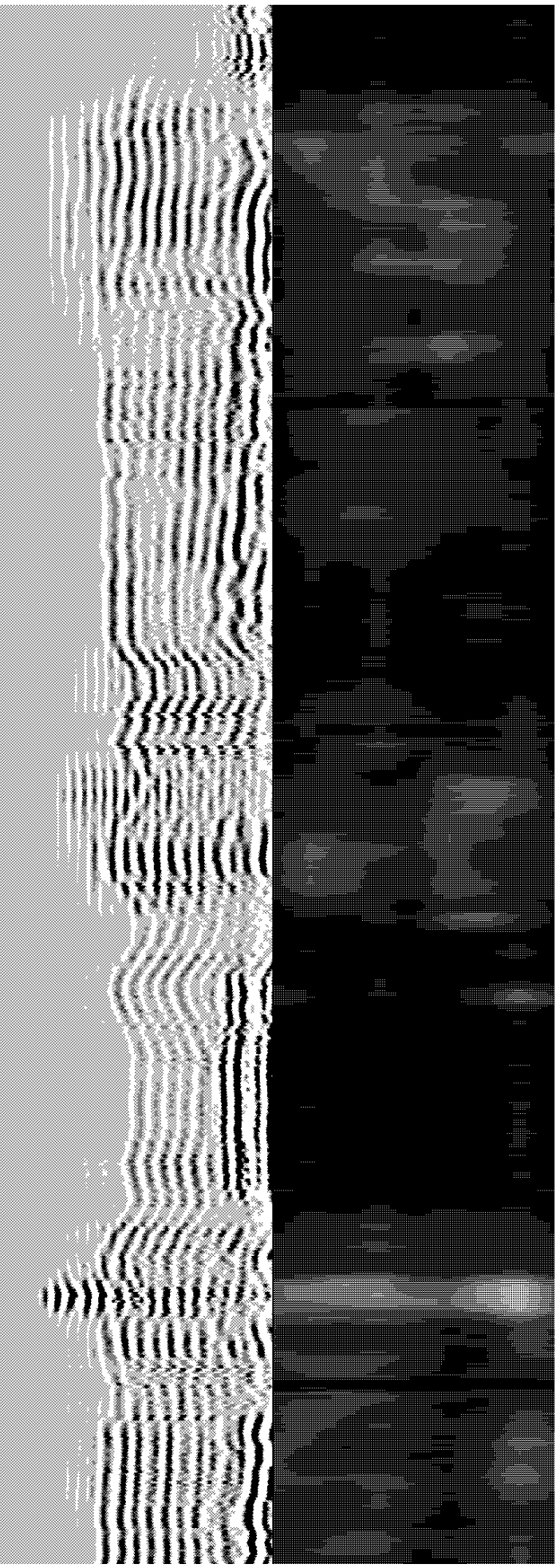
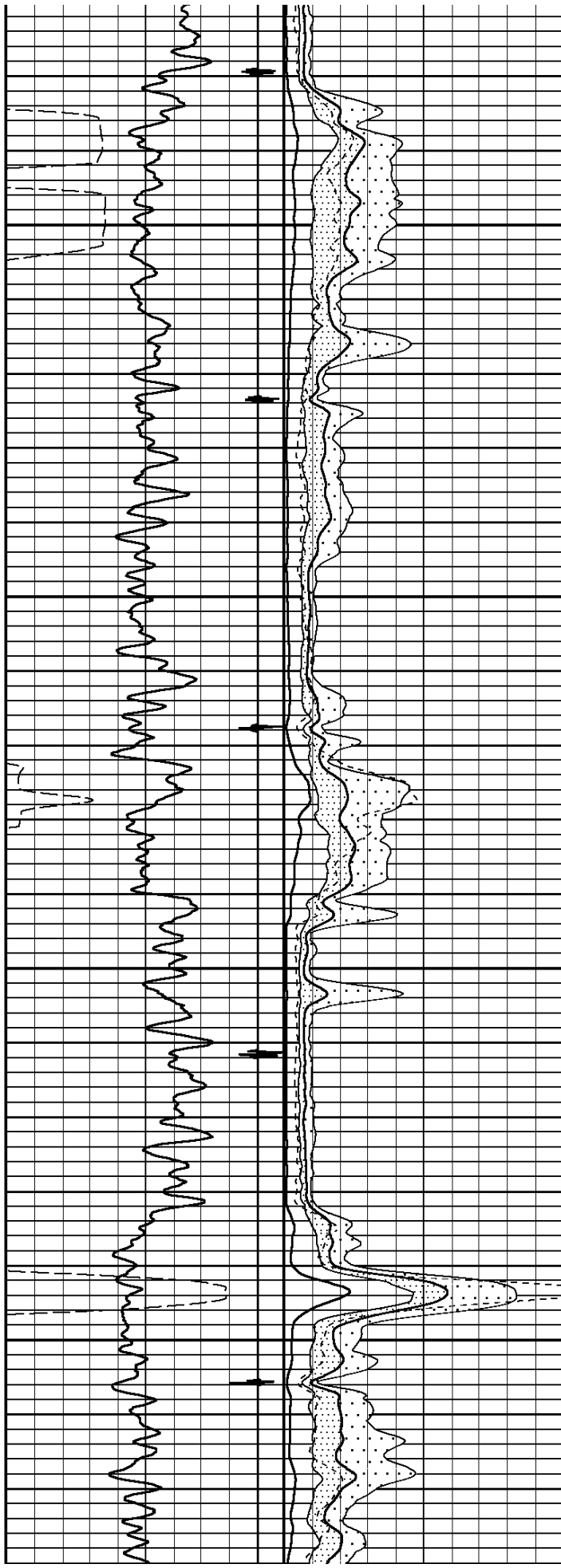
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4200



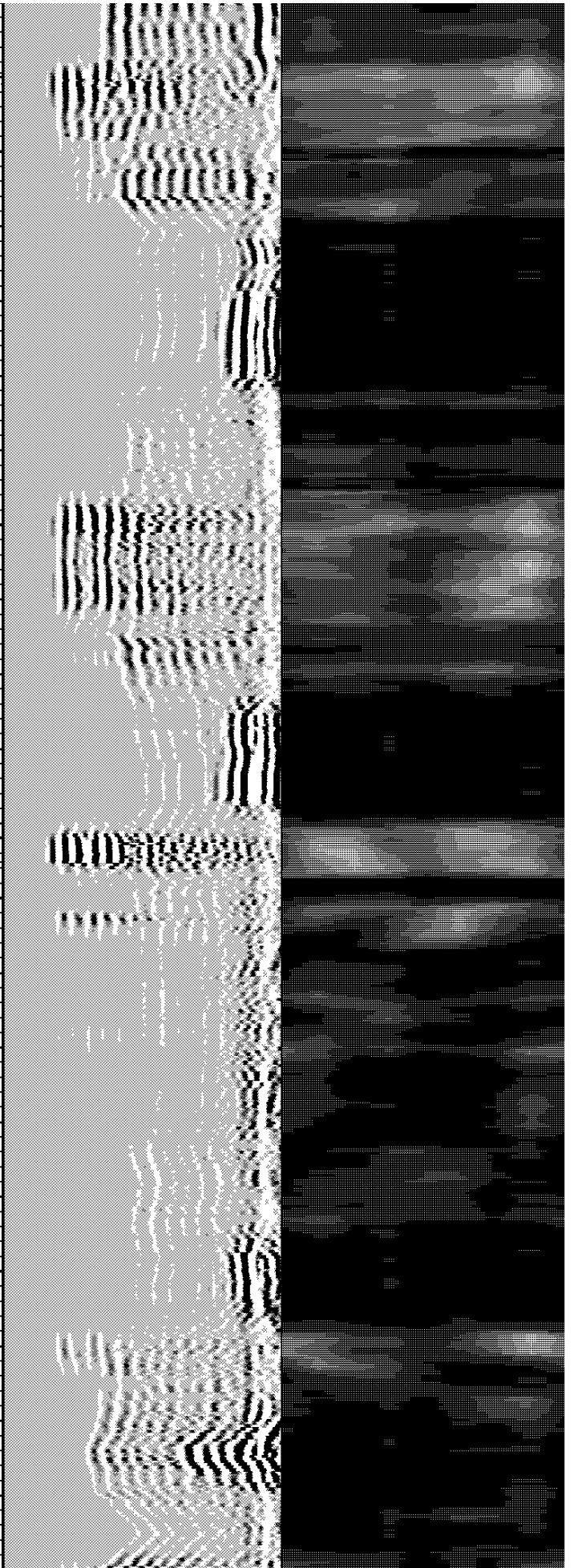
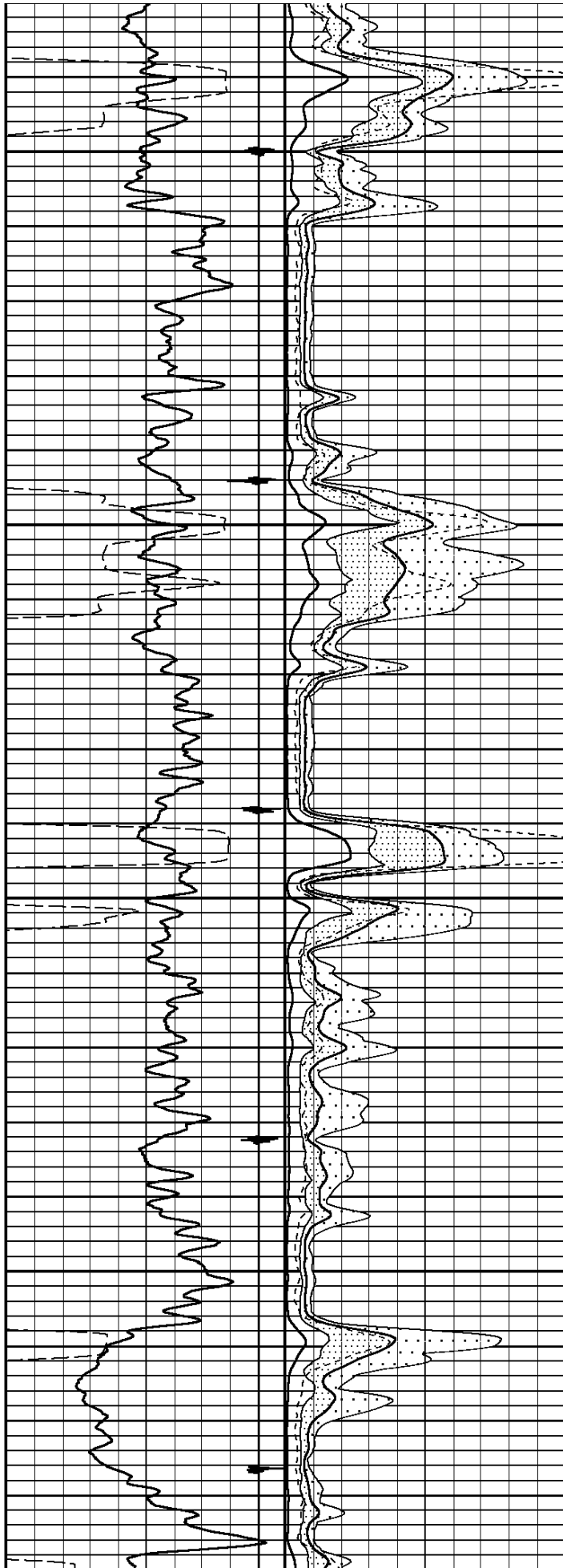
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4400



4500

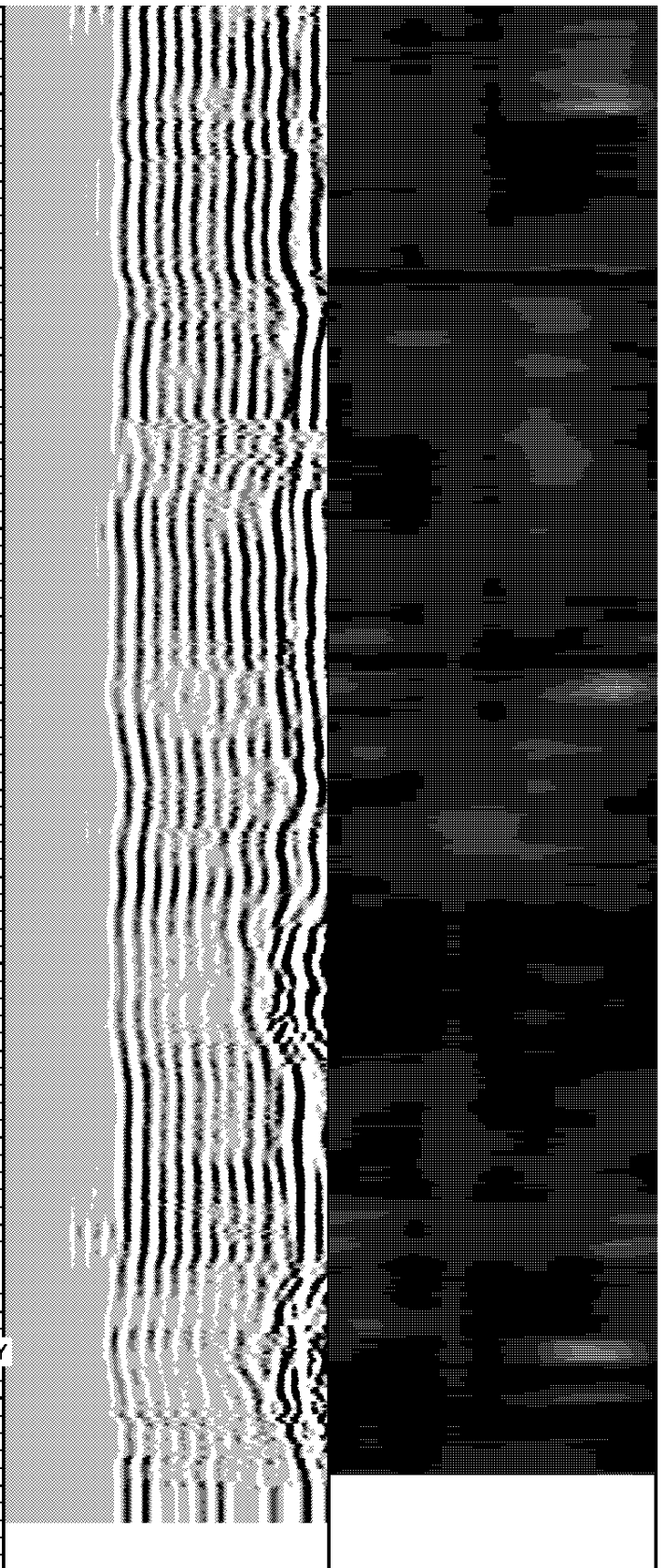
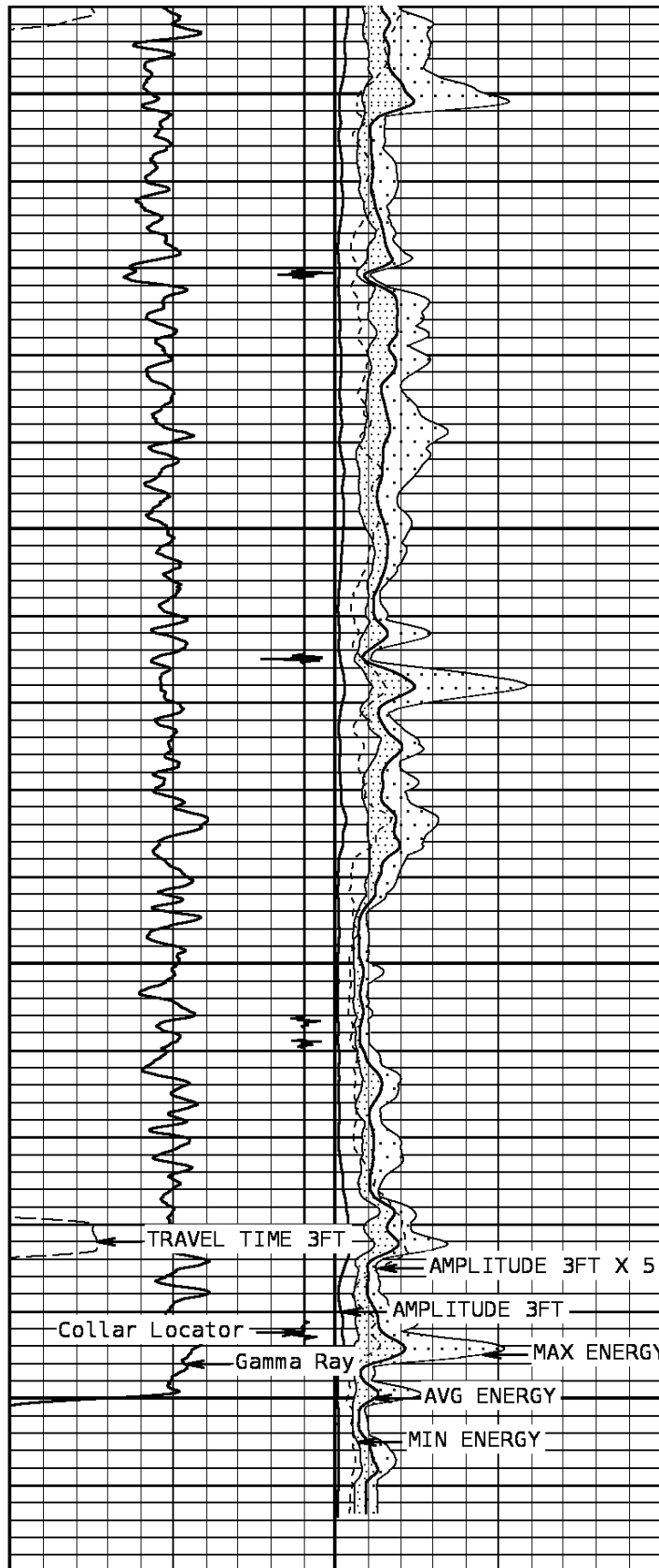
4600





4700

4800



Tension		TRAVEL TIME 3FT		MIN ENERGY		VARIABLE DENSITY 5FT		VARIABLE ENERGY						
0	2000	333	Microseconds	233	0	Millivolts	100	200	Microseconds	1200	0	Millivolts	100	
		Gamma Ray		AVG ENERGY										
0	API	150		0	Millivolts	100								

<b>Collar Locator</b>			<b>MAX ENERGY</b>		
-8000	Millivolts	800	0	Millivolts	100
<b>AMPLITUDE 3FT</b>					
0	Millivolts		0	Millivolts	100
<b>AMP X 5</b>					
0	Millivolts		0	Millivolts	20

START DEPTH: **4870.0** DIRECTION: **UP** DATE: **08/13/2013** TIME: **12:52** MODE: **ORIGINAL**

**202062**

DEPTH SCALE: **5":100'**

LOGGED VERSION: **2012.07.18.162"**

DEPTH SCALE: **5":100'**

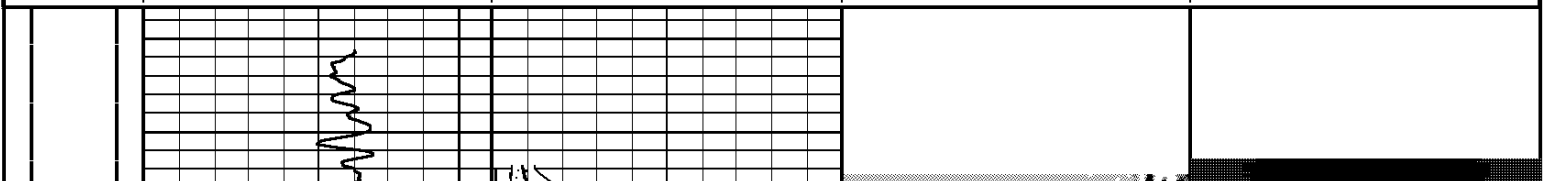
PROCESSED VERSION: **2012.07.18.162"**

**REPEAT PASS**

**202062 CBLREPEAT**

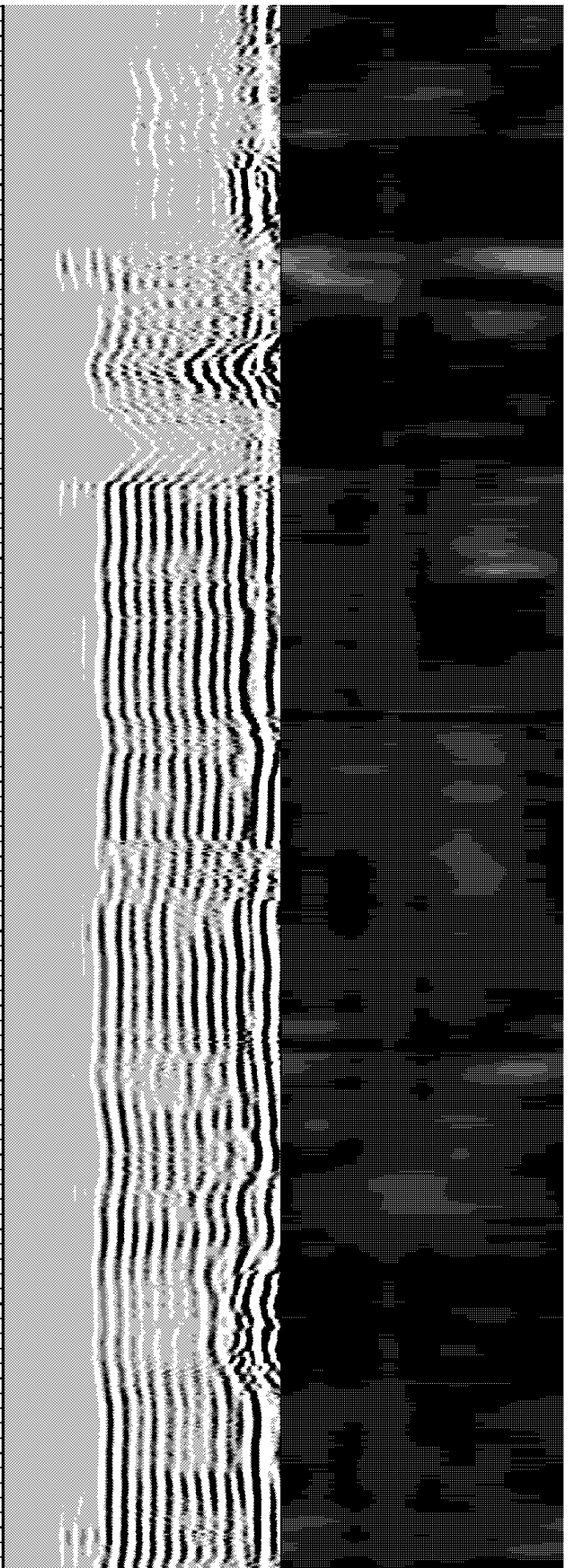
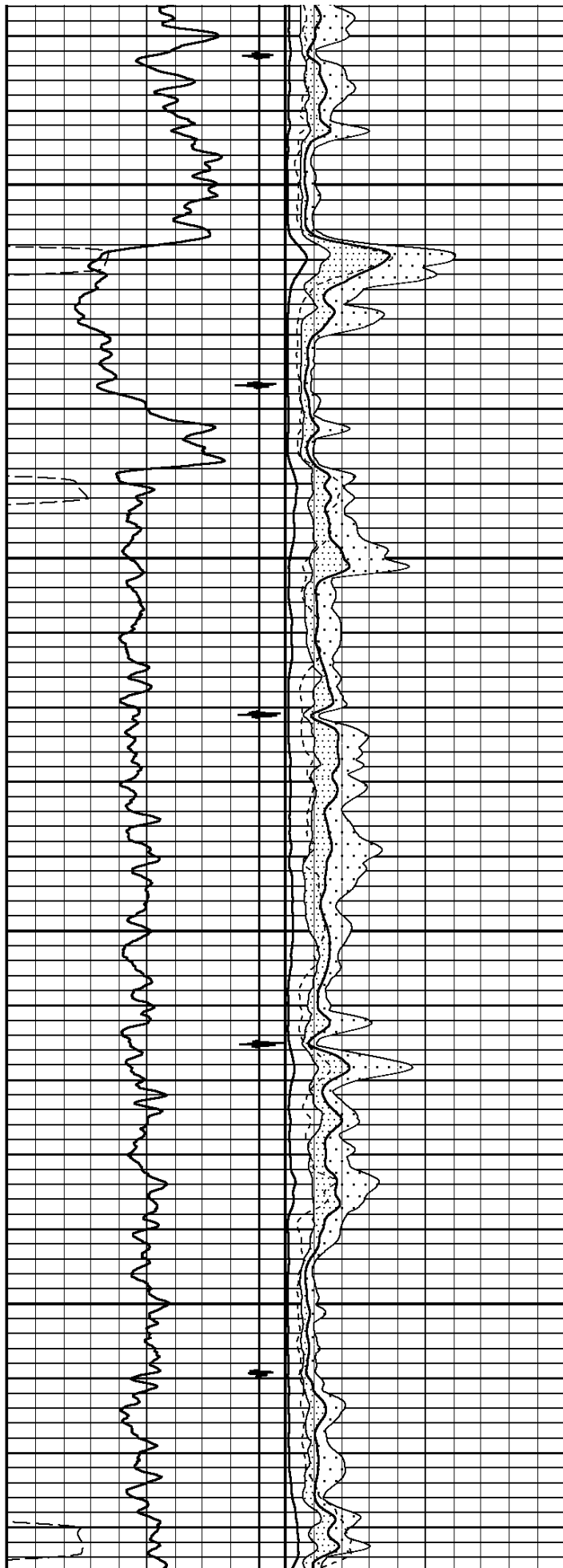
FINISH DEPTH: **4630.4** Feet DIRECTION: **UP** DATE: **08/13/2013** TIME: **13:00** MODE: **ORIGINAL**

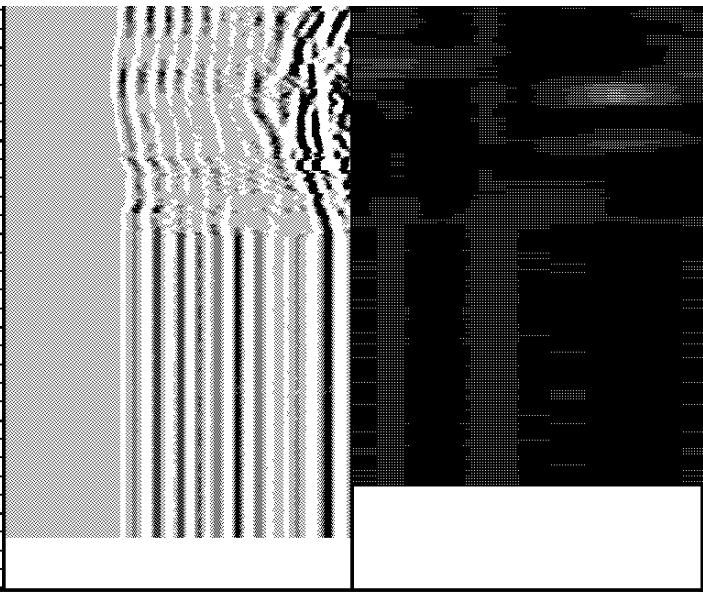
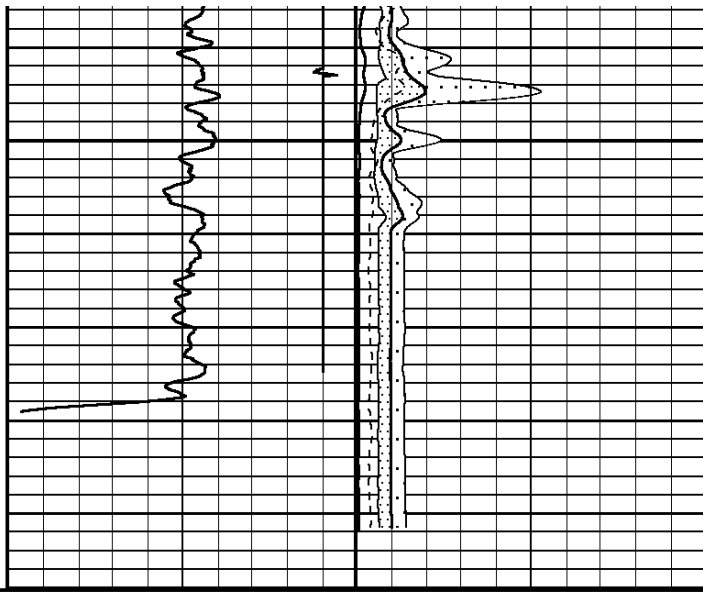
			<b>AMP X 5</b>													
			0	Millivolts	20											
			<b>AMPLITUDE 3FT</b>													
			0	Millivolts	100											
			<b>Collar Locator</b>			<b>MAX ENERGY</b>										
			-8000	Millivolts	800	0	Millivolts	100								
			<b>Gamma Ray</b>			<b>AVG ENERGY</b>										
			0	API	150	0	Millivolts	100								
			<b>TRAVEL TIME 3FT</b>			<b>MIN ENERGY</b>			<b>VARIABLE DENSITY 5FT</b>							
<b>Tension</b>			0	2000	333	Microseconds	233	0	Millivolts	100	200	Microseconds	1200	0	Millivolts	100



4700

4800





<b>Tension</b>	<b>TRAVEL TIME 3FT</b>	<b>MIN ENERGY</b>	<b>VARIABLE DENSITY 5FT</b>	<b>VARIABLE ENERGY</b>
0 2000	333 Microseconds 233	0 Millivolts 100	200 Microseconds 1200	0 Millivolts 100
	<b>Gamma Ray</b>	<b>AVG ENERGY</b>		
	0 API 150	0 Millivolts 100		
	<b>Collar Locator</b>	<b>MAX ENERGY</b>		
	-8000 Millivolts 800	0 Millivolts 100		
		<b>AMPLITUDE 3FT</b>		
		0 Millivolts 100		
		<b>AMP X 5</b>		
		0 Millivolts 20		

START DEPTH: **4898.3** DIRECTION: **UP** DATE: **08/13/2013** TIME: **13:00** MODE: **ORIGINAL**

**202062 CBLREPEAT**

**REPEAT PASS**

DEPTH SCALE: **5':100'** LOGGED VERSION: **2012.07.18.162"**

08/13/13 10:47 144.4 F Ver 162R 2.0b Job 202062

Sector Bond Before Calibration

Tool Type SBT-AA

Serial No

SBTA237

Sensor	Description	Standard	Measured
AMP 3FT	ZERO	0.70	0.20
	PLUS	72.00	1086.70
AMP 5FT	ZERO	5.00	1.80
	PLUS	95.00	1275.60
1 SECTOR AMP	ZERO	5.00	16.50
	PLUS	95.00	1802.40
2 SECTOR AMP	ZERO	5.00	33.90
	PLUS	95.00	1614.40
3 SECTOR AMP	ZERO	5.00	9.50
	PLUS	95.00	1676.00
4 SECTOR AMP	ZERO	5.00	6.40
	PLUS	95.00	1618.10
5 SECTOR AMP	ZERO	5.00	6.70
	PLUS	95.00	1591.70
6 SECTOR AMP	ZERO	5.00	10.40
	PLUS	95.00	1666.00
7 SECTOR AMP	ZERO	5.00	22.30
	PLUS	95.00	1597.50
8 SECTOR AMP	ZERO	5.00	71.00
	PLUS	95.00	1632.60

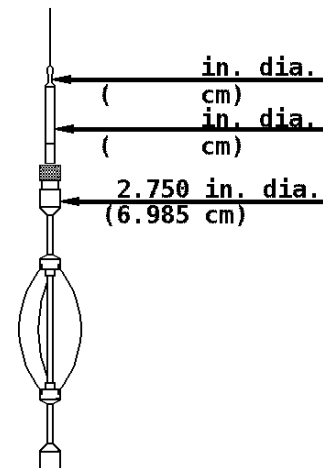
### Cased Hole Cablehead

Weight 2.2 lb  
Length 1.02 ft  
Max. Diameter 1.685 in

Total Stack Weight 219.2 lb in air  
Total Stack Length 27.85 ft

### Slim Hole Centralizer

Weight 11.9 lb  
Length 2.49 ft  
Max. Diameter 2.717 in



### Collar Locator

Weight 39.8 lb  
Length 3.40 ft  
Max. Diameter 2.717 in

### Slim Hole Gamma Ray

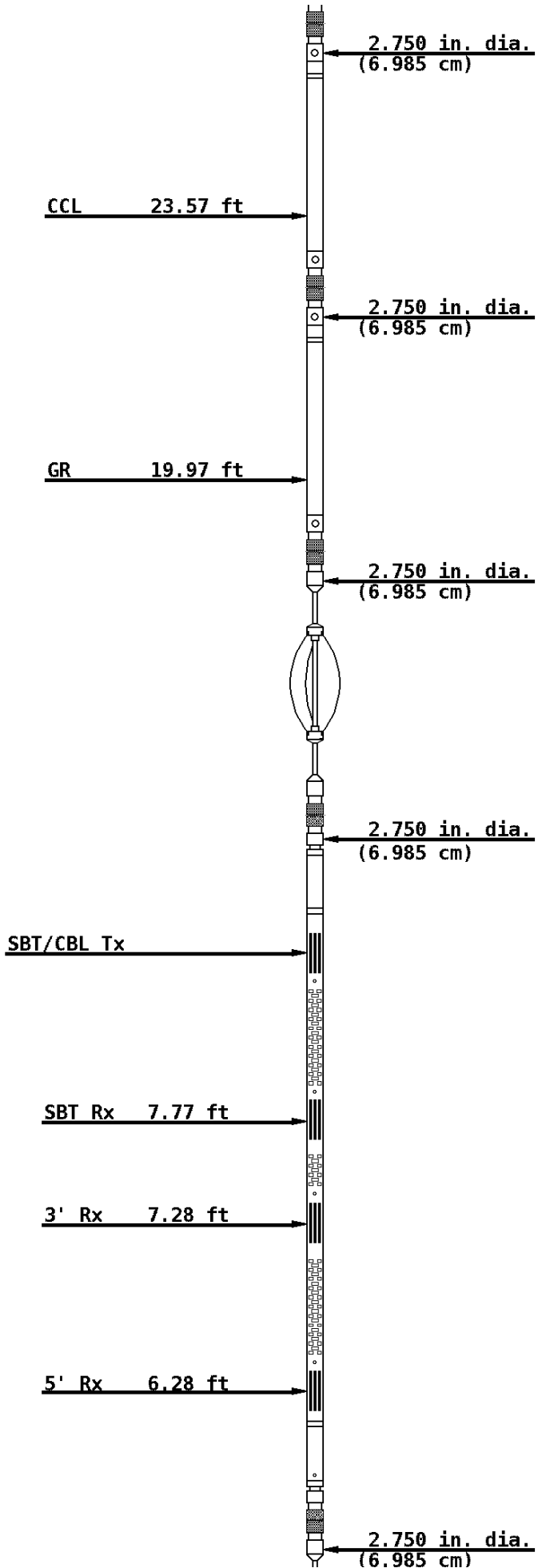
Weight 39.8 lb  
Length 4.71 ft  
Max. Diameter 2.717 in

### Slim Hole Centralizer

Weight 23.8 lb  
Length 3.08 ft  
Max. Diameter 2.717 in

### Sector Bond

Weight 89.8 lb  
Length 10.32 ft  
Max. Diameter 2.717 in



**Slim Hole Centralizer**

Weight 11.9 lb  
Length 2.82 ft  
Max. Diameter 2.717 in



COMPANY ALTA MESA SERVICES, LP  
WELL ML INVESTMENTS 2-10  
FIELD WILLOW  
COUNTY PAYETTE STATE IDAHO



**Weatherford®**