



MIDWEST WIRELINE

# GAMMA RAY / CALIPER LOG

Company Satchell Creek Petroleum, LLC  
 Well Worcester "A" #2-34  
 Field Last Hope Northeast  
 County Graham  
 State Kansas

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 Well Worcester "A" #2-34  
 Field Last Hope Northeast  
 County Graham State Kansas

**Location:** API #: 15-065-24278  
 NE NE SW SE  
 1217' FSL & 1448' FEL  
 SEC 34 TWP 6S RGE 22W  
 Permanent Datum Ground Level Elevation 2267  
 Log Measured From Kelly Bushing  
 Drilling Measured From Kelly Bushing  
 Other Services  
 CNL/CDL  
 MEL/DIL  
 Elevation  
 K.B. 2274  
 D.F. 2272  
 G.L. 2267

Date	8/8/2023						
Run Number	One						
Type Log	BHV						
Depth Driller	3900						
Depth Logger	3878						
Bottom Logged Interval	3858						
Top Logged Interval	Surface Csg.						
Type Fluid In Hole	Chemical						
Salinity, PPM CL	1,500 ppm						
Density	9.3						
Level	Full						
Max. Rec. Temp. F	117						
Operating Rig Time	4 Hours						
Equipment -- Location	P-108   HAYS						
Recorded By	D. Legleiter						
Witnessed By	Mr. Sean Deenihan						
Borehole Record							
Run No.	Bit	From	To	Size	Wgt.	From	To
1	12.25	00	220	8.625	24#	00	220
2	7.875	220	3900				
Casing Record							

<<< 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.

Hill City, KS 3 East to Rd.310  
 7N to Rd. Y, 3/4 E N Into

Log Measured From: Kelly Bushing                      7 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. Legleiter	Primary Witness: Mr. Sean Deenihan
Operator:	Secondary Witness:
Operator:	Secondary Witness:
Operator:	Secondary Witness:

Case No.	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
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Sensor	Offset (ft)	Schematic	Description	Length (ft)	O.D. (in)	Weight (lb)
GR	32.75		GR-M&W (103)	3.00	3.50	50.00
CNLSC CNSSC	29.65 28.90		CNT-M&W (210)	5.00	3.50	100.00
LSD DCAL SSD	20.60 20.58 20.10		CDL-M&W (303-03)	8.50	4.00	250.00
RLL3F RLL3	15.50 15.50		DIL-M&W (505 HT)	18.25	3.50	220.00
CILD	8.33					
CILM	4.50					
SP	0.20					

Dataset: satchell\_worcester\_a\_2-34.db: field/well/Stack/pass4.4  
 Total length: 34.75 ft  
 Total weight: 620.00 lb  
 O.D.: 4.00 in

# Log Variables

DatabaseC:\ProgramData\Warrior\Data\satchell\_worcester\_a\_2-34.db  
 Dataset field/well/Stack/pass4.4/\_vars\_

## Top - Bottom

A	BOREID in	BOTTEMP degF	CASEOD in	CASETHCK in	FLUIDDEN g/cc	M	MATRXDEN g/cc
1	7.875	100	5.5	0	1	2	2.71
NPORSEL	PERFS	SNDERR mmho/m	SNDERRM mmho/m	SPSHIFT mV	SRFTEMP degF	SZCOR	TDEPTH ft
Limestone	No	4	17	210	80	Off	0

## 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

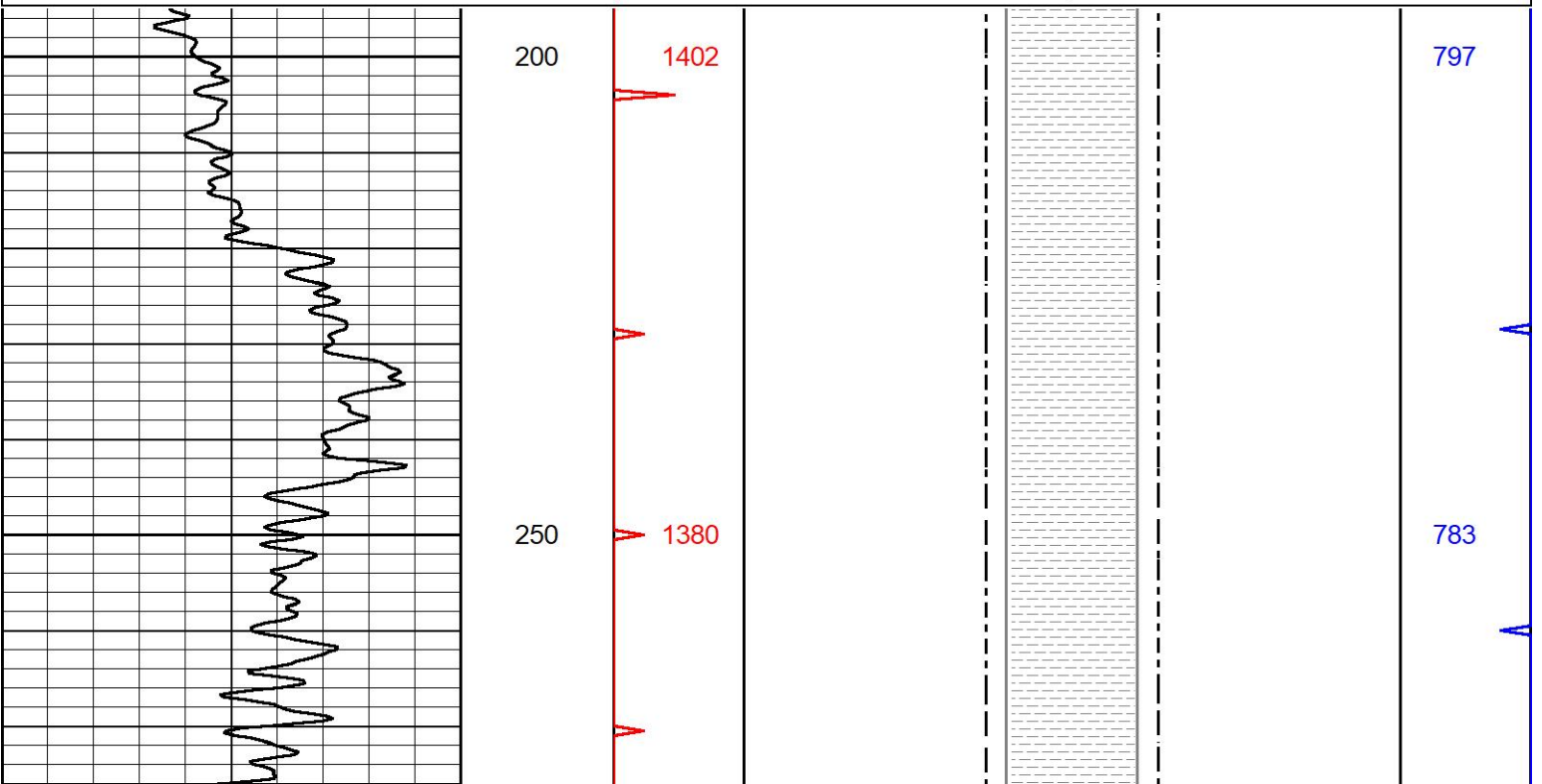


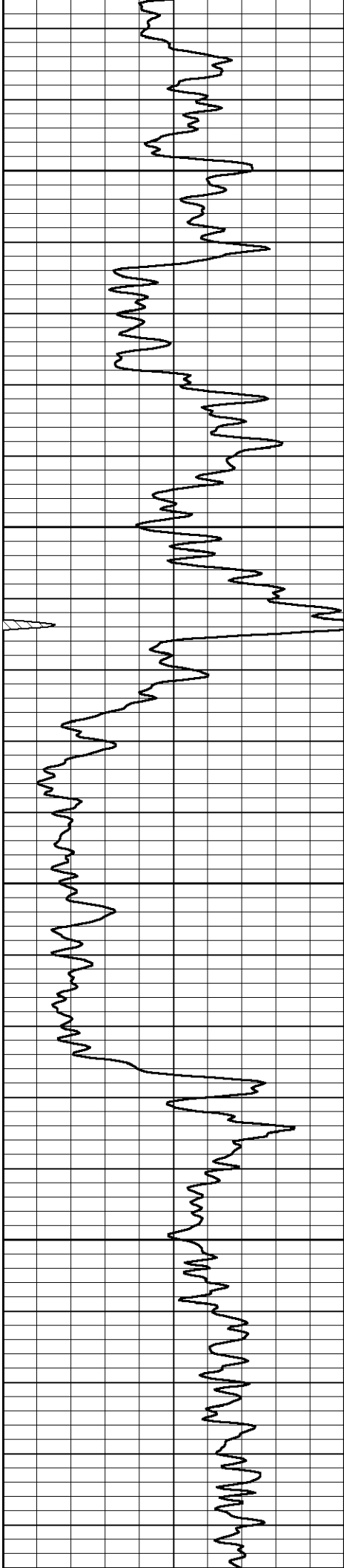
MIDWEST WIRELINE

# Detail Section

Database File satchell\_worcester\_a\_2-34.db  
 Dataset Pathname Stack/pass4.4  
 Presentation Format bhv5half  
 Dataset Creation Tue Aug 08 18:22:38 2023  
 Charted by Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	16	BIT SIZE	6	6	BIT SIZE	16
			0	BVTX (ft3)	15	15	AVTX (ft3)	0





300

1355

350

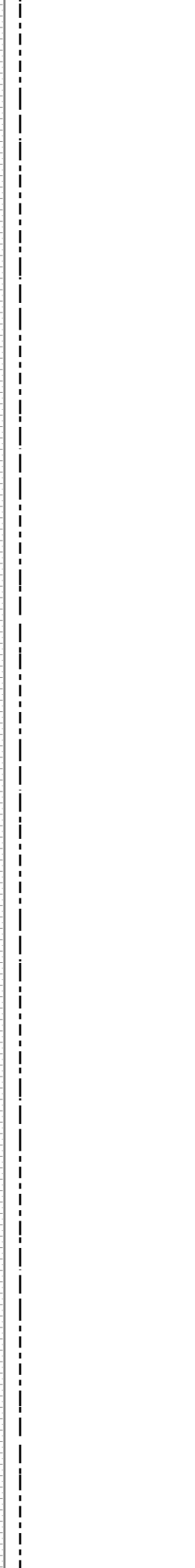
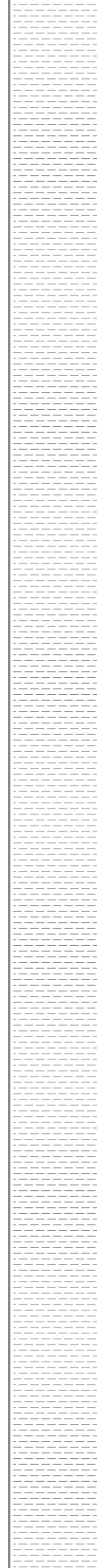
1333

400

1311

450

1289

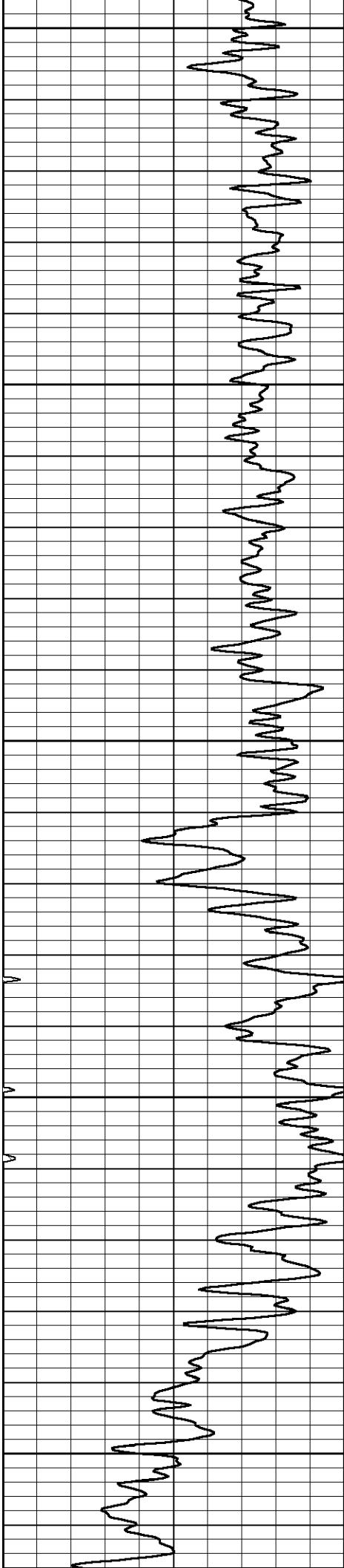


767

753

739

725



500

1267

550

1247

600

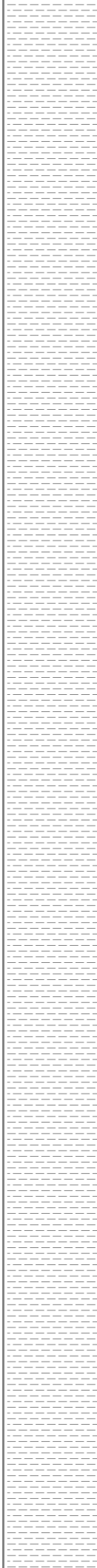
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650

1209

700

1191



712

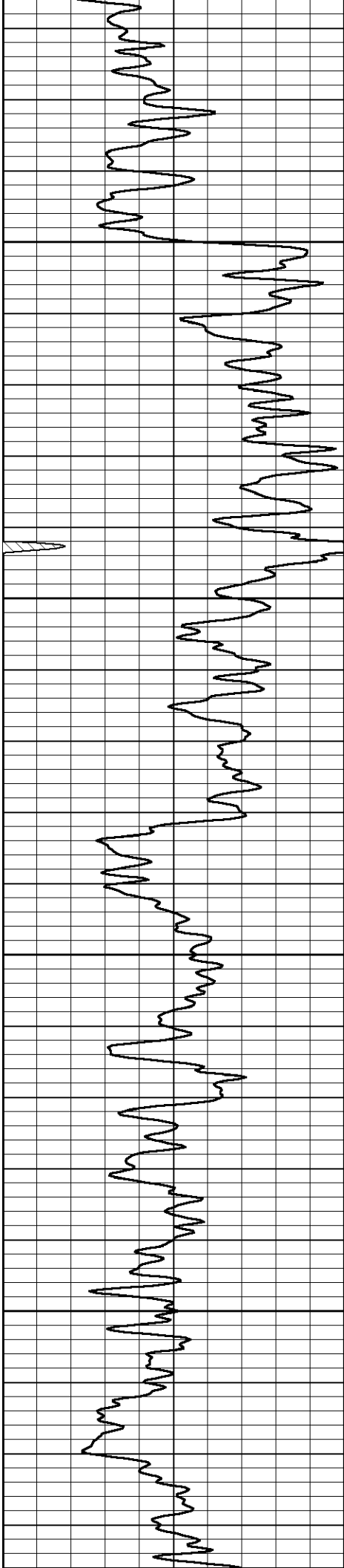
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689

678

669





750

1173

800

1155

850

1134

900

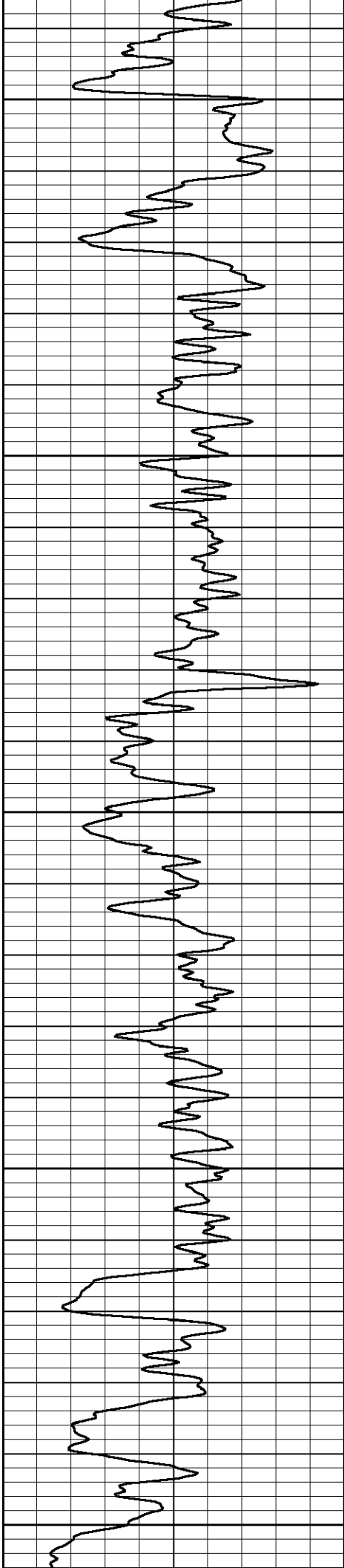
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659

650

637

627



950

1099

1000

1077

1050

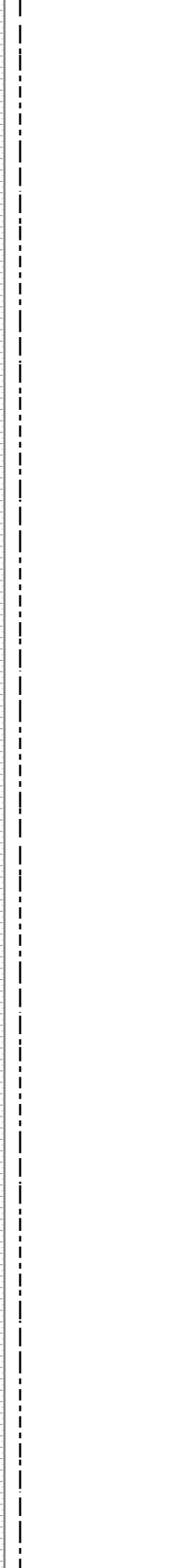
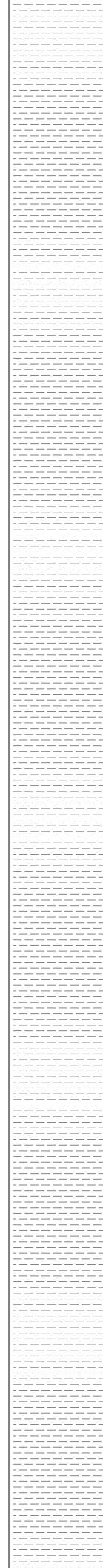
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1100

1041

1150

1022



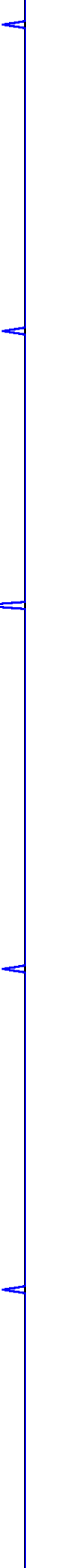
618

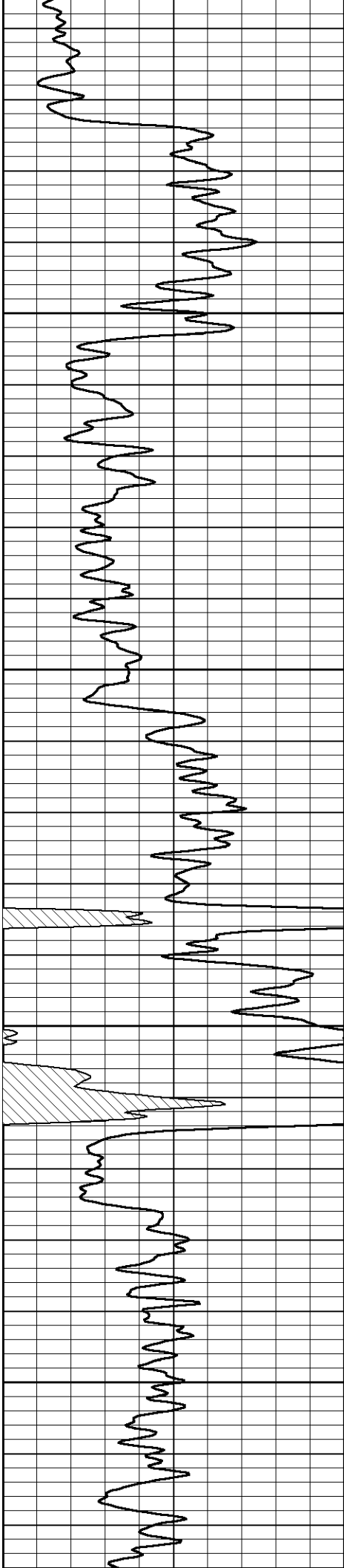
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594

584

574





1200

1001

1250

978

1300

955

1350

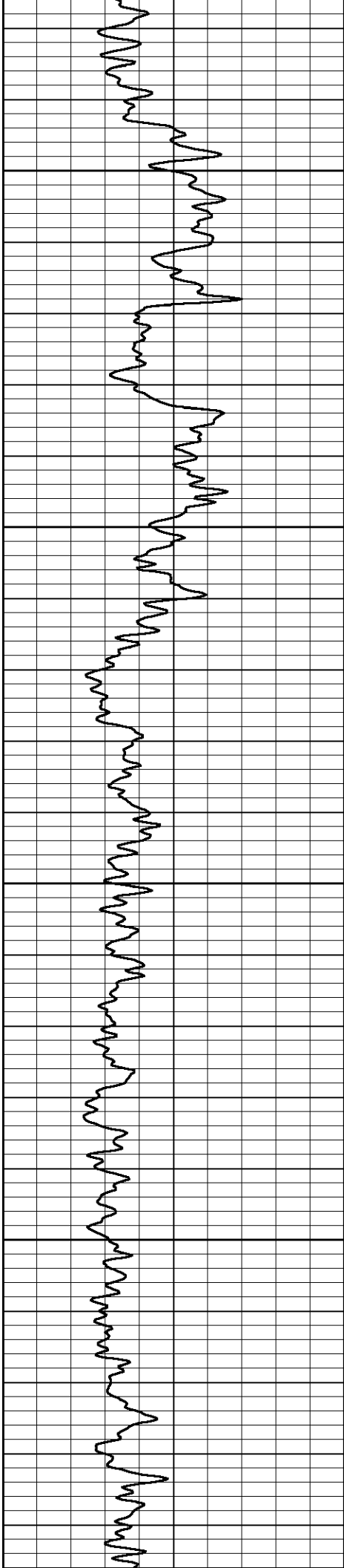
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561

546

532

519



1400

913

1450

892

1500

870

1550

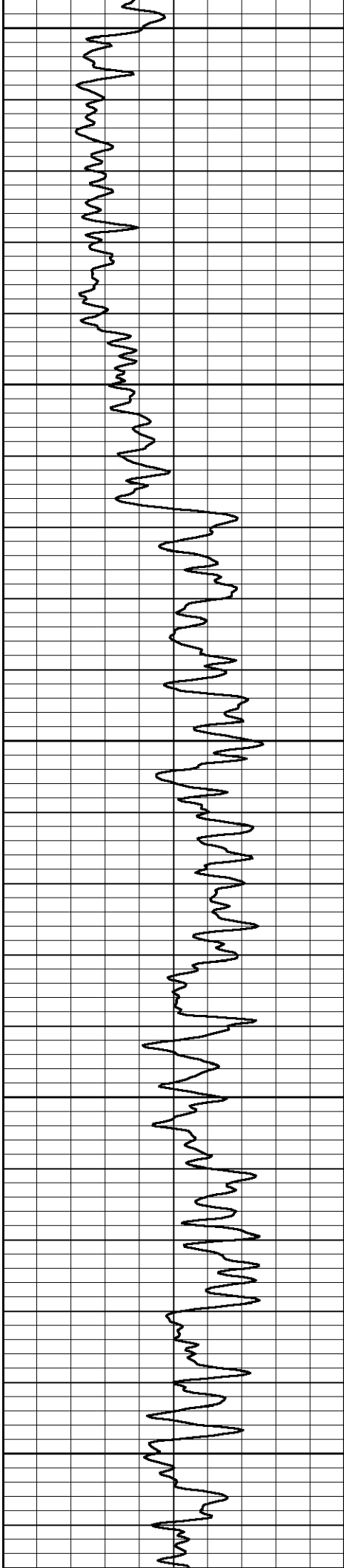
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506

494

480

469



1600

833

1650

815

1700

798

1750

781

1800

764



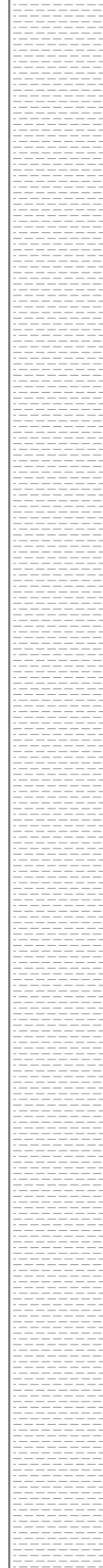
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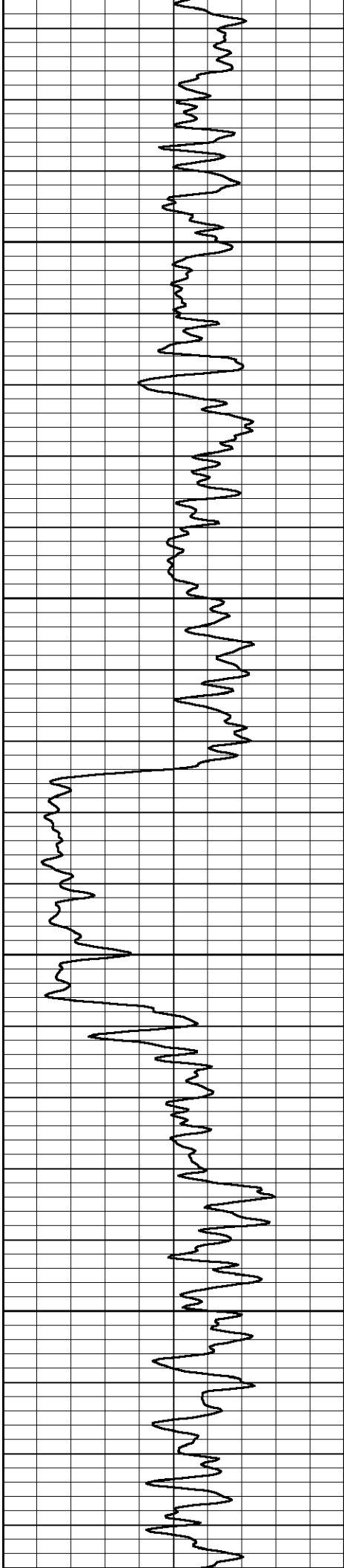
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440

432

423





1850

748

1900

731

1950

714

2000

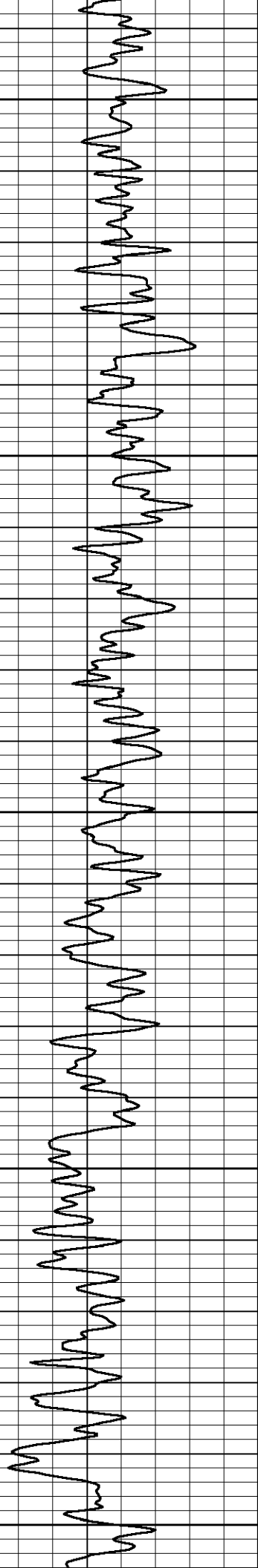
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415

407

398

389



2050

679

2100

661

2150

644

2200

626

2250

609

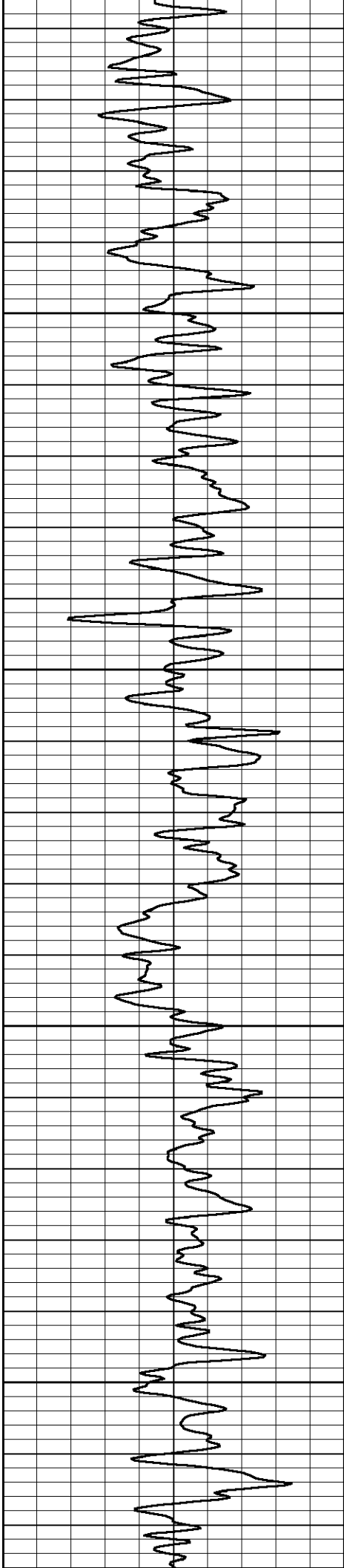
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370

361

351

342



2300

591

2350

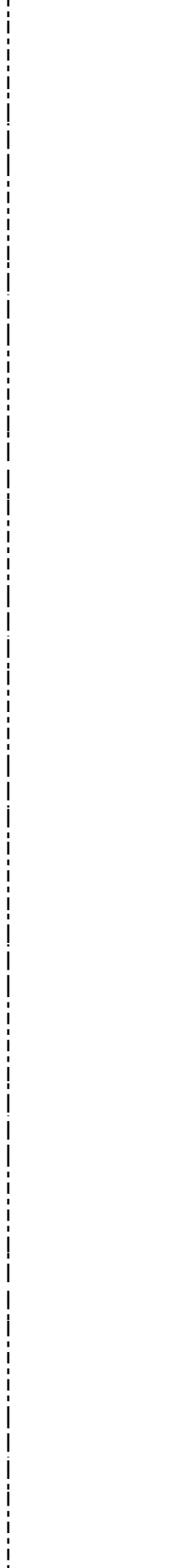
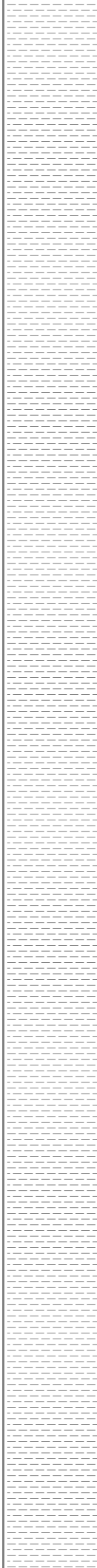
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2400

556

2450

538

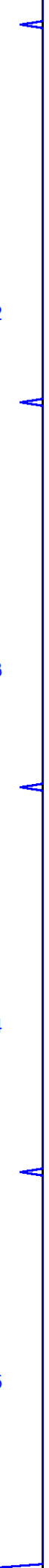


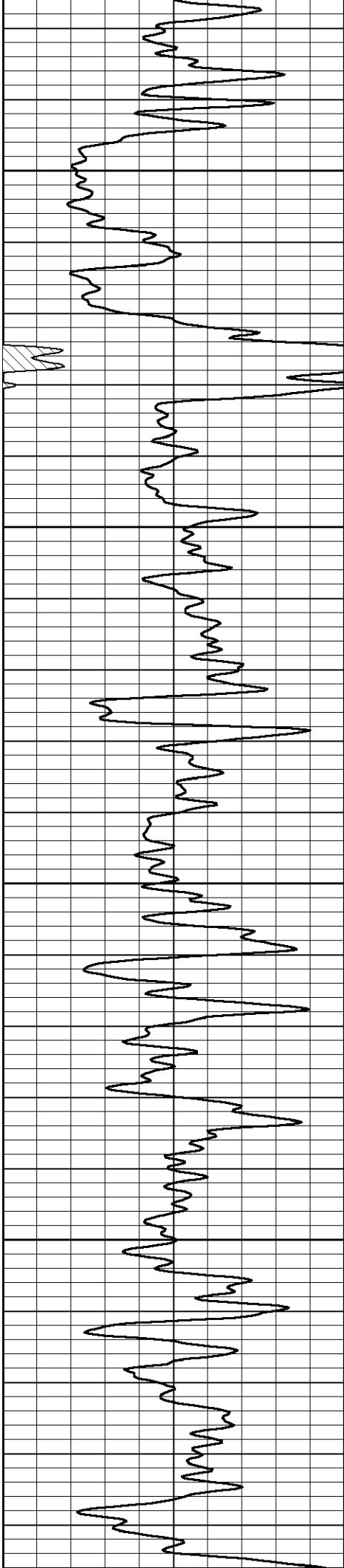
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323

314

305





2500

521

2550

504

2600

487

2650

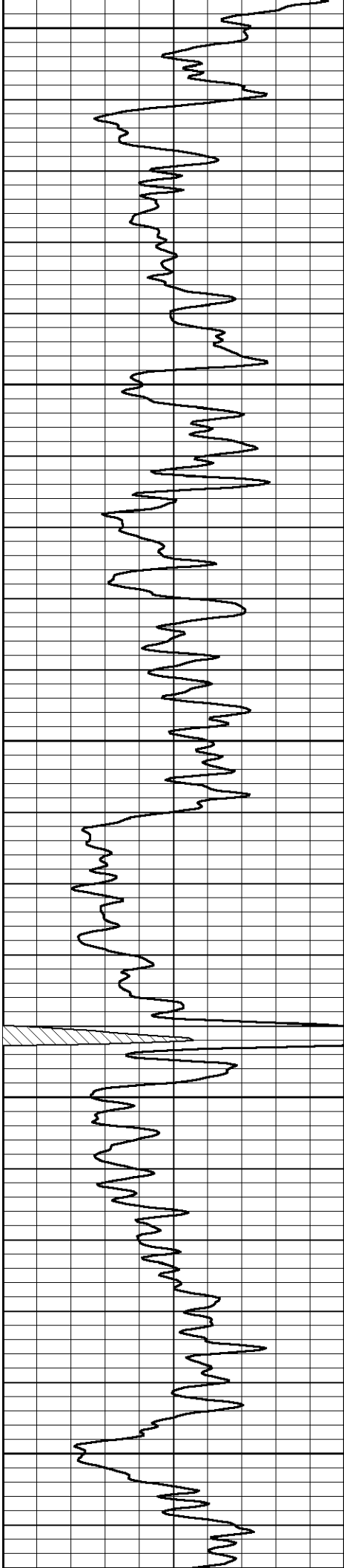
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296

287

278

269



2700

451

2750

434

2800

417

2850

399

2900

382

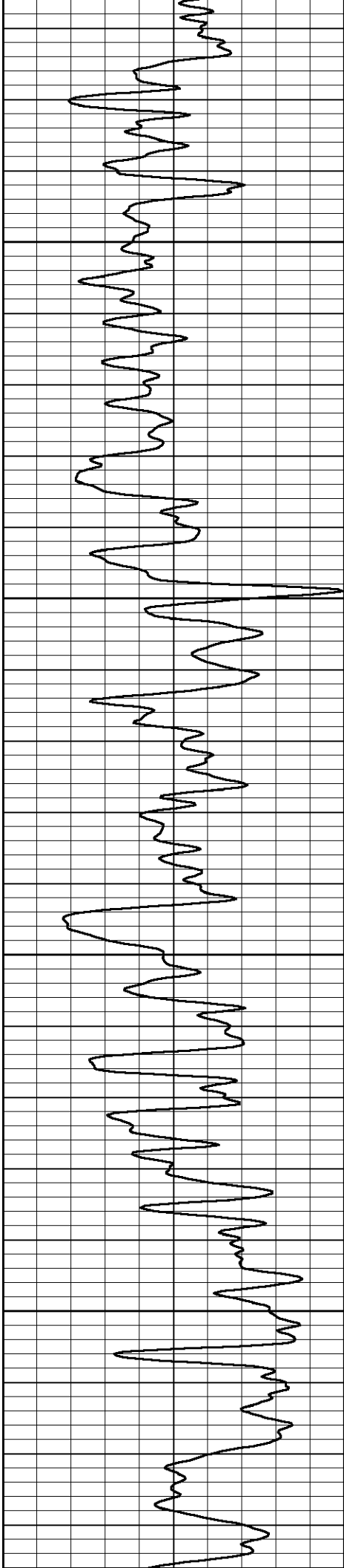
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250

241

232

223



2950

3000

3050

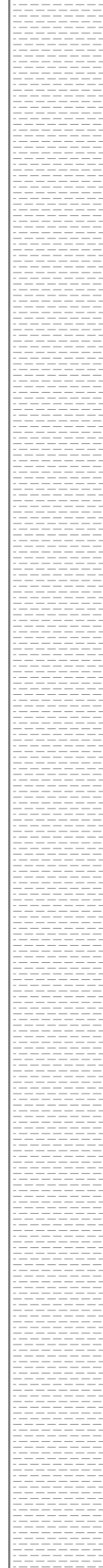
3100

365

347

330

313



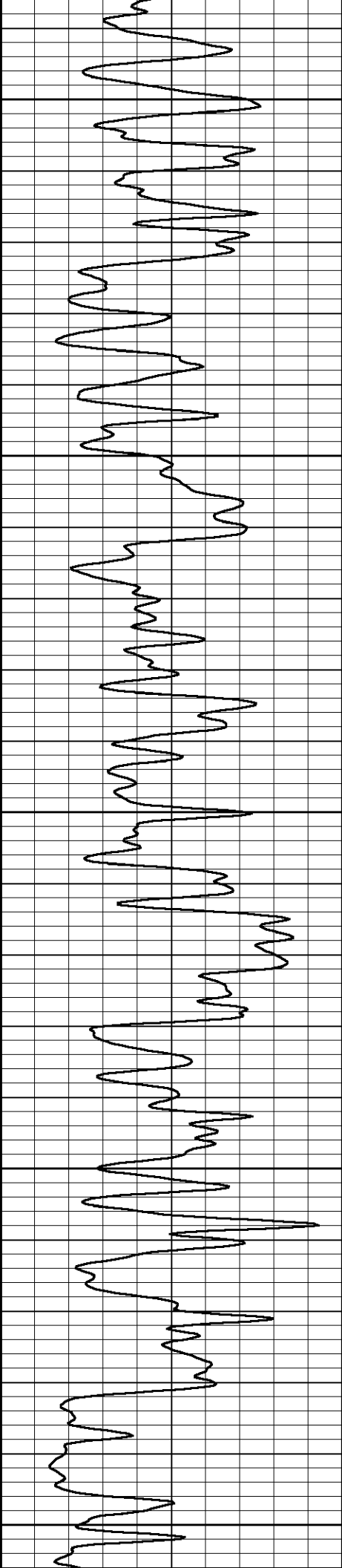
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204

195

186





3150

295

3200

278

3250

261

3300

244

3350

227

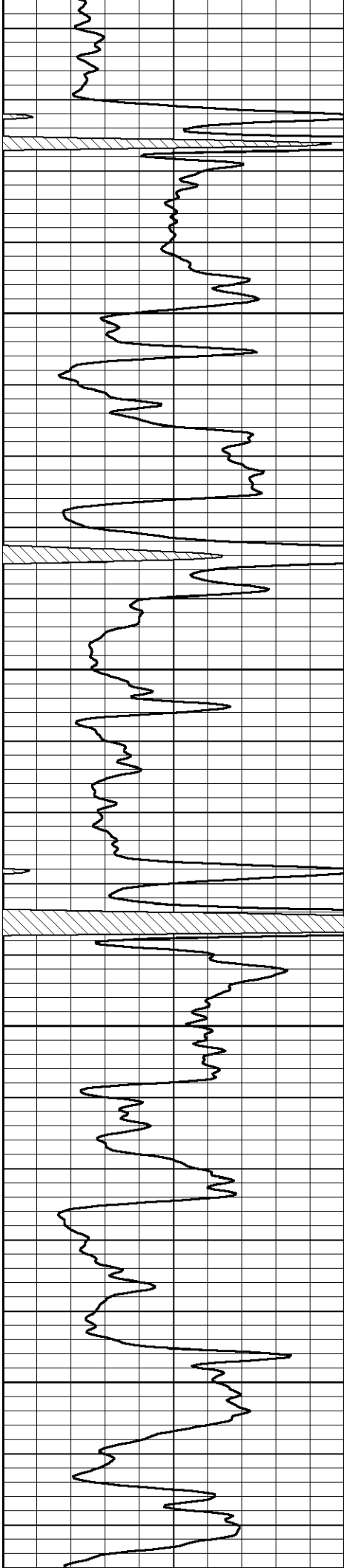
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168

159

150

142



3400

210

3450

192

3500

175

3550

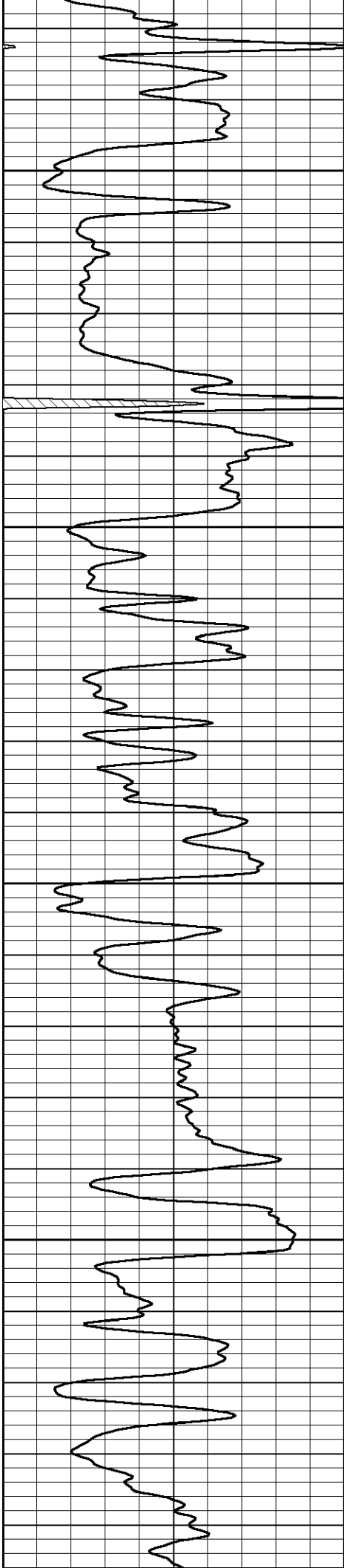
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133

124

115

106



3600

141

3650

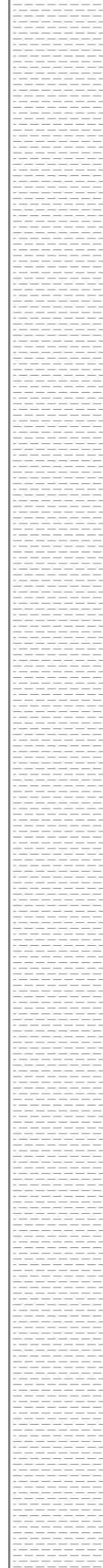
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3700

107

3750

90

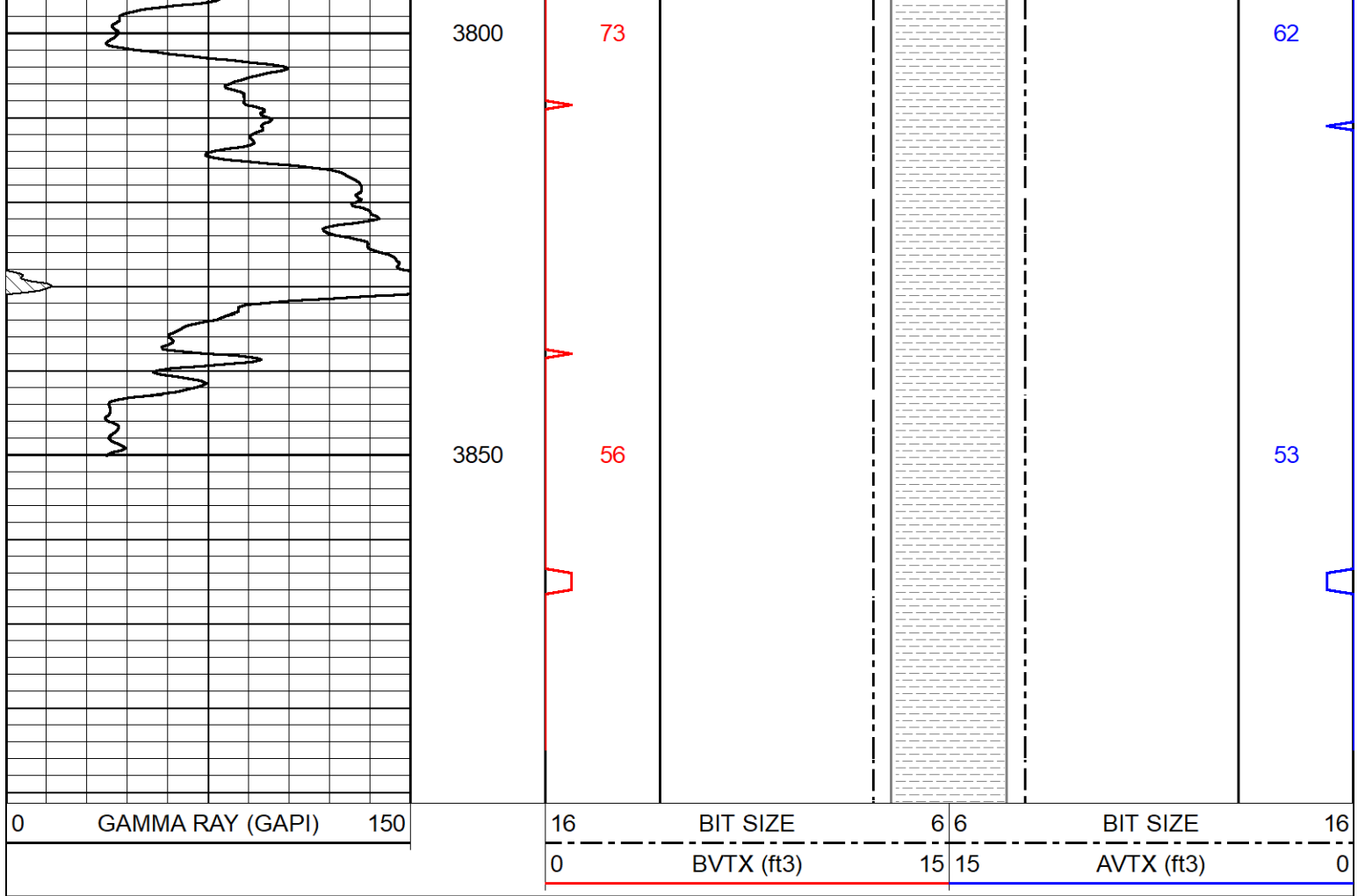


97

88

79

71



### Calibration Report

Database File satchell\_worcester\_a\_2-34.db  
 Dataset Pathname Stack/pass4.4  
 Dataset Creation Tue Aug 08 18:22:38 2023

### Dual Induction Calibration Report

Serial-Model: 505 HT-M&W  
 Surface Cal Performed: Mon Jul 24 01:33:00 2023

Loop:	Readings		References			Results	
	Air	Loop	Air	Loop		m	b
Deep	167.000	835.000	0.000	255.800	mmho/m	0.480	-55.000
Medium	1348.000	1348.000	0.000	255.800	mmho/m	0.400	-60.000

### Compensated Density Calibration Report

Serial-Model: 303-03-M&W  
 Source #: 21170B  
 Master Calibration Performed: Wed Jun 21 06:11:17 2023

### Master Calibration

	Density		Far Detector	Near Detector	
Magnesium	1.755	g/cc	4162.25	5570.06	cps
Aluminum	2.590	g/cc	913.18	3747.07	cps

Spine Angle = 75.35

Density/Spine Ratio = 0.533

Size

Reading

Small Ring  
Large Ring

4.00 in  
14.00 in

1.17  
1.07

Compensated Neutron Calibration Report

Serial Number: 210  
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: 103  
Tool Model: M&W  
Performed: Fri May 26 12:04:43 2023

Calibrator Value: 1.0 GAPI

Background Reading: 0.0 cps  
Calibrator Reading: 1.0 cps

Sensitivity: 0.5700 GAPI/cps