

**COMPLETION  
& PRODUCTION  
SERVICES CO.**

**TEMPERATURE  
LOG**

Company RITCHIE EXPLORATION, INC.  
Well BEOUGHNER NO. 8 B  
Field  
County GOVE State KANSAS

Location: API # : 15-063-22084-0000

80' N & 60' W OF E/2 - W/2  
1400' FNL & 939' FWL  
SEC 8 TWP 12S RGE 29W

Other Services  
ORRELATION LOG  
PERF  
Elevation

Permanent Datum GROUND LEVEL Elevation 2821  
Log Measured From KELLY BUSHING 5' A.G.L.  
Drilling Measured From KELLY BUSHING

K.B. 2826  
D.F. 2824  
G.L. 2821

|                        |              |
|------------------------|--------------|
| Date                   | 2/27/2013    |
| Run Number             | ONE          |
| Depth Driller          | 4620         |
| Depth Logger           |              |
| Bottom Logged Interval | 2300         |
| Top Log Interval       | 0            |
| Open Hole Size         | 7 7/8        |
| Type Fluid             | WATER        |
| Density / Viscosity    |              |
| Max. Recorded Temp.    |              |
| Estimated Cement Top   |              |
| Time Well Ready        |              |
| Time Logger on Bottom  | 7:47         |
| Equipment Number       | HAYS,KANSAS  |
| Location               | R.SMITH      |
| Recorded By            | TOMMY ATKINS |
| Witnessed By           |              |

| Borehole Record |     | Tubing Record |    |      |        |      |    |
|-----------------|-----|---------------|----|------|--------|------|----|
| Run Number      | Bit | From          | To | Size | Weight | From | To |
|                 |     |               |    |      |        |      |    |
|                 |     |               |    |      |        |      |    |
|                 |     |               |    |      |        |      |    |
|                 |     |               |    |      |        |      |    |
|                 |     |               |    |      |        |      |    |
|                 |     |               |    |      |        |      |    |
|                 |     |               |    |      |        |      |    |
|                 |     |               |    |      |        |      |    |

|                   |       |        |     |        |
|-------------------|-------|--------|-----|--------|
| Casing Record     | Size  | Wgt/Ft | Top | Bottom |
| Surface String    | 8 5/8 |        | 0   | 256    |
| Prot. String      |       |        |     |        |
| Production String | 4 1/2 |        |     |        |
| Liner             |       |        |     |        |

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All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, 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. These interpretations are also subject to our general terms and conditions set out in our current Price Schedule.

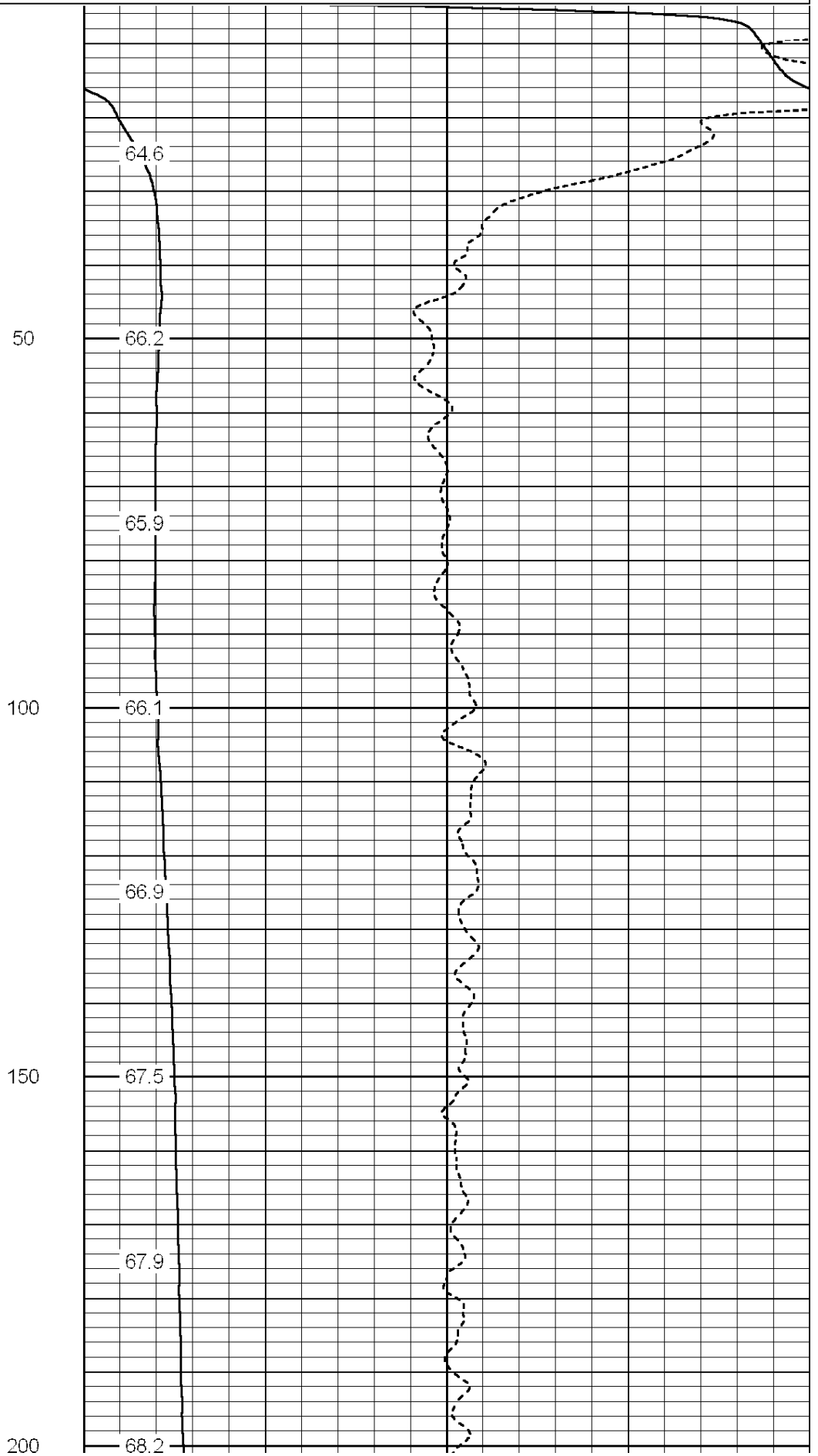
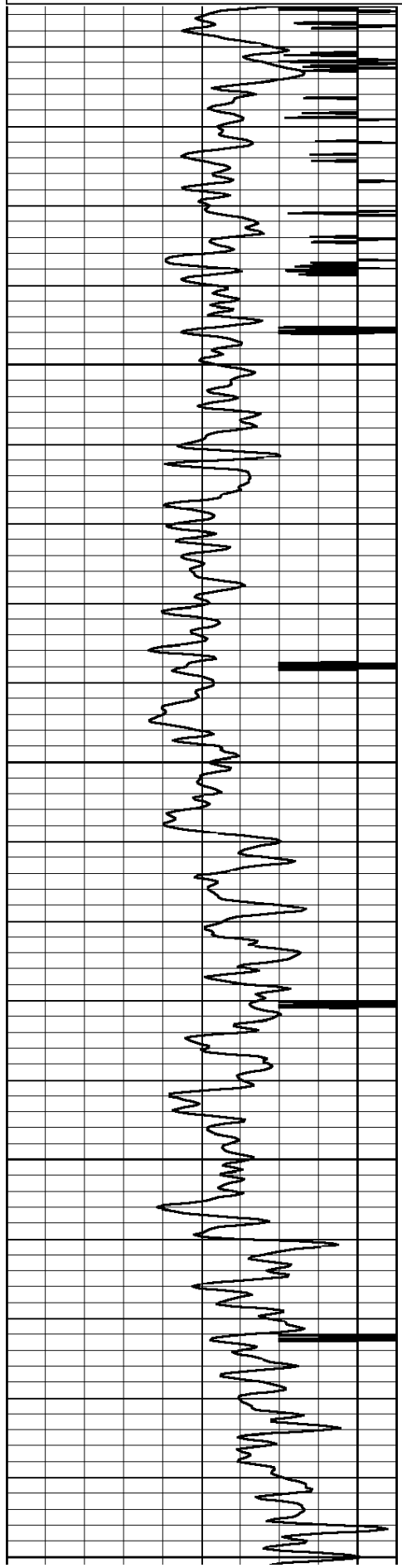
**Comments**

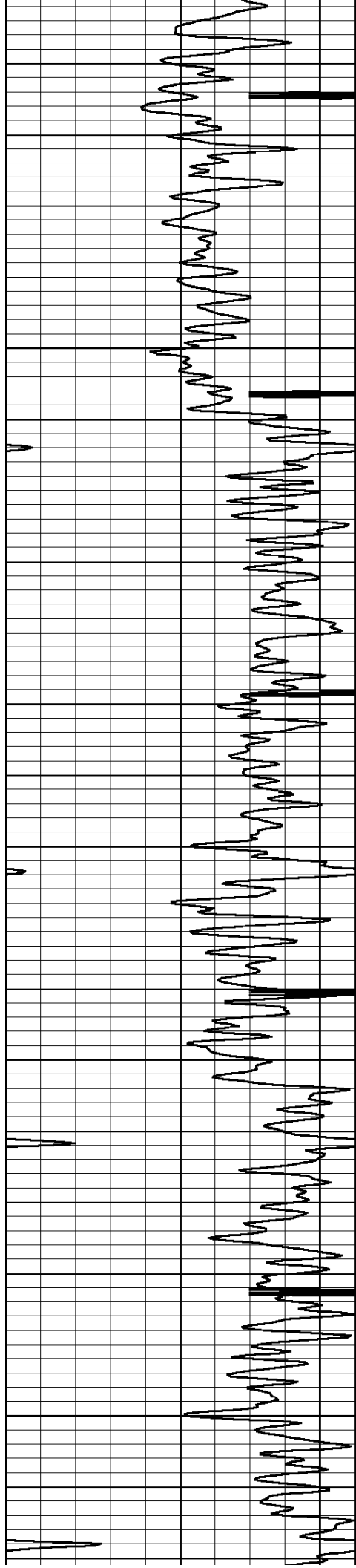
THANK YOU FOR USING NABORS COMPLETION & PRODUCTION CO.  
785 628-6395  
DIRECTIONS  
GRAINFIELD EXIT 3 SOUTH TO RD. Z - 5 WEST - 2 SOUTH - EAST & SOUTH INTO

|   |                  |     |
|---|------------------|-----|
| 0 | GAMMA RAY (GAPI) | 150 |
| 9 | CCL              | -1  |

|      |                    |     |
|------|--------------------|-----|
| 60   | TEMPERATURE (degF) | 120 |
| -0.5 | DTEMP (degF)       | 0.5 |

TEMP  
(degF)



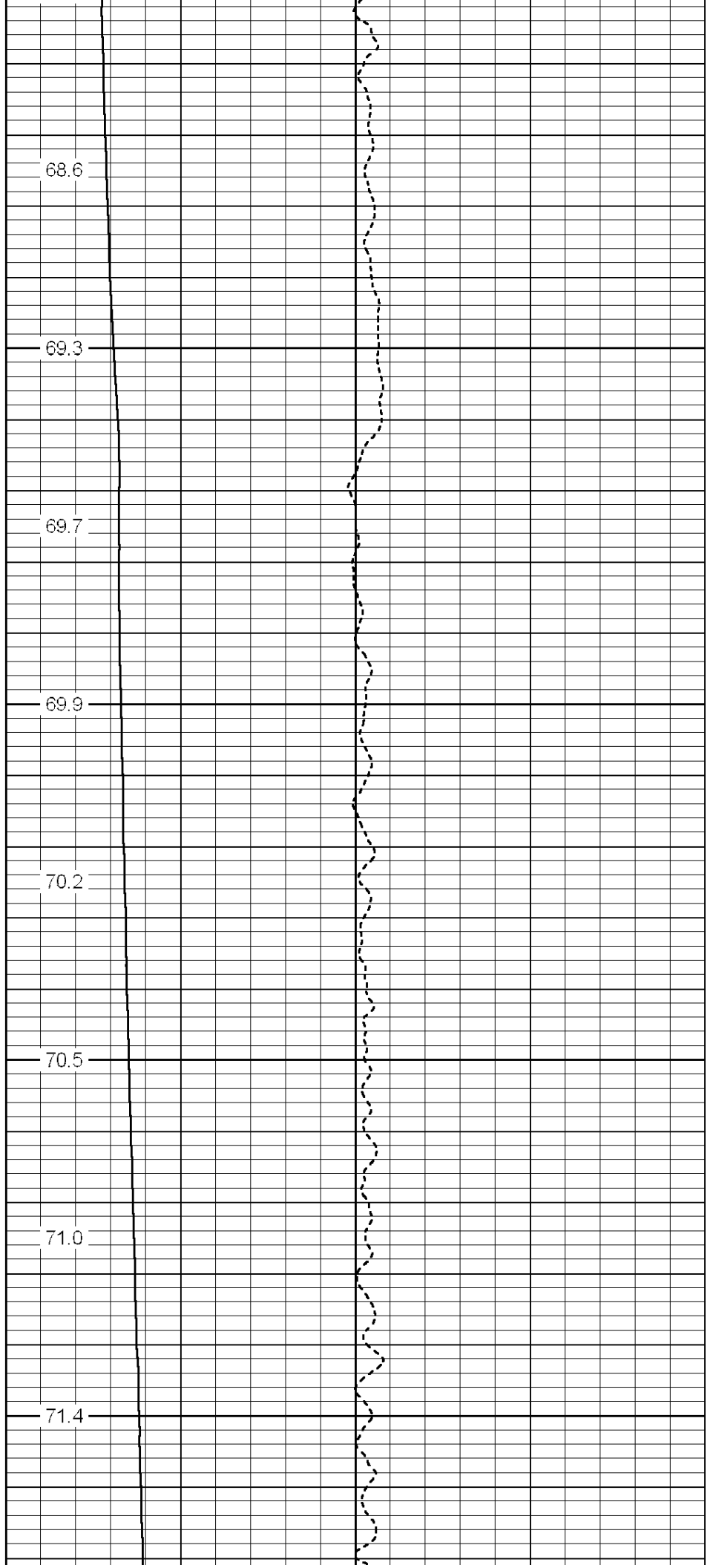


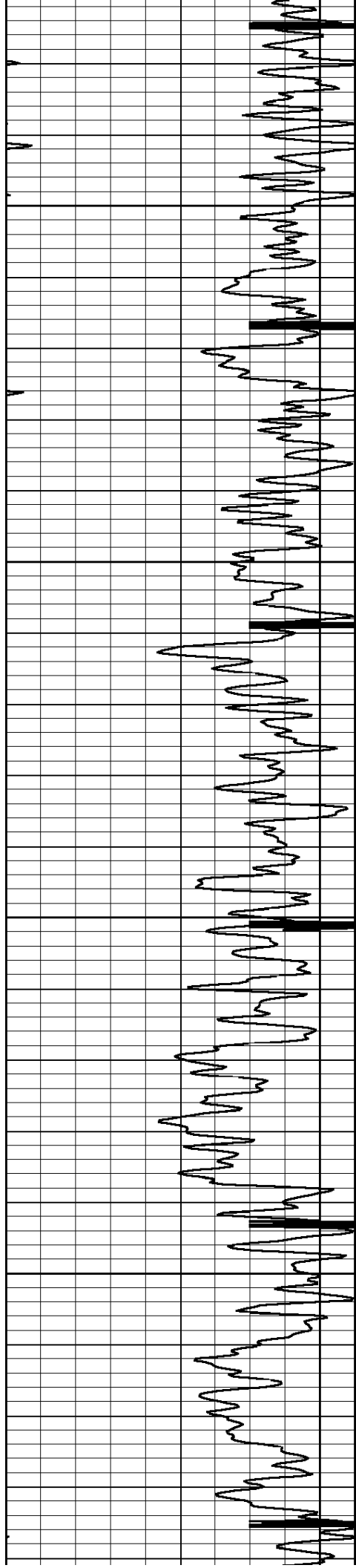
250

300

350

400





450

500

550

600

72.0

73.2

73.9

74.8

77.9

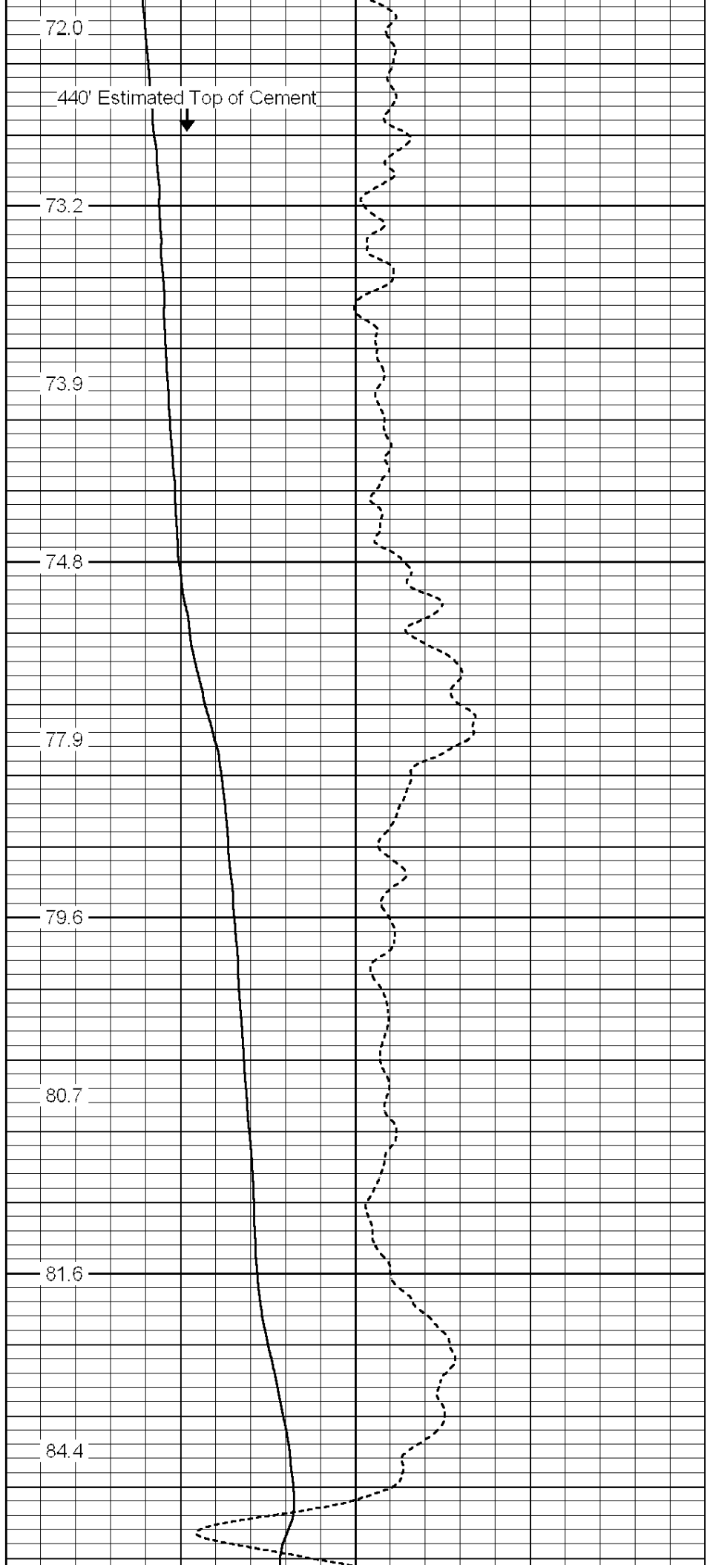
79.6

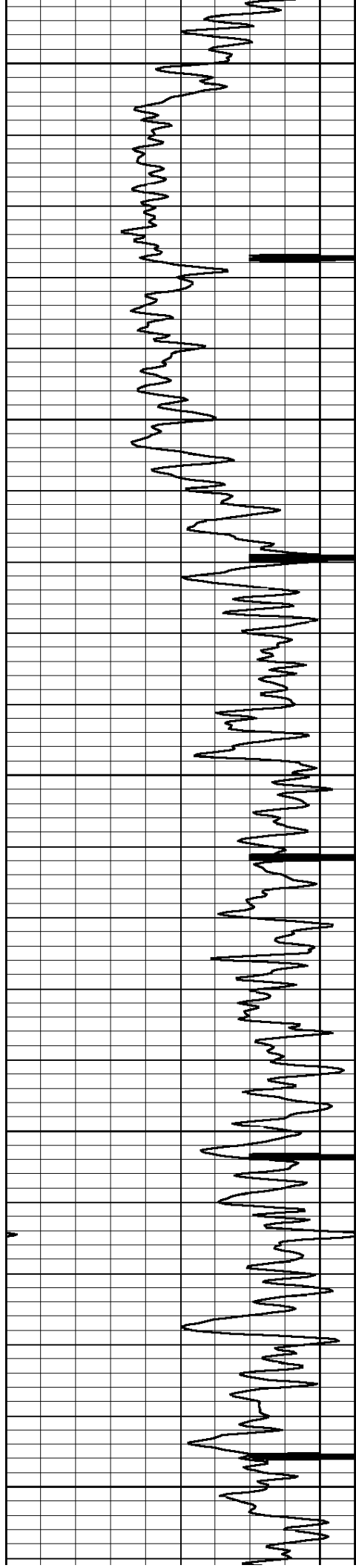
80.7

81.6

84.4

440' Estimated Top of Cement





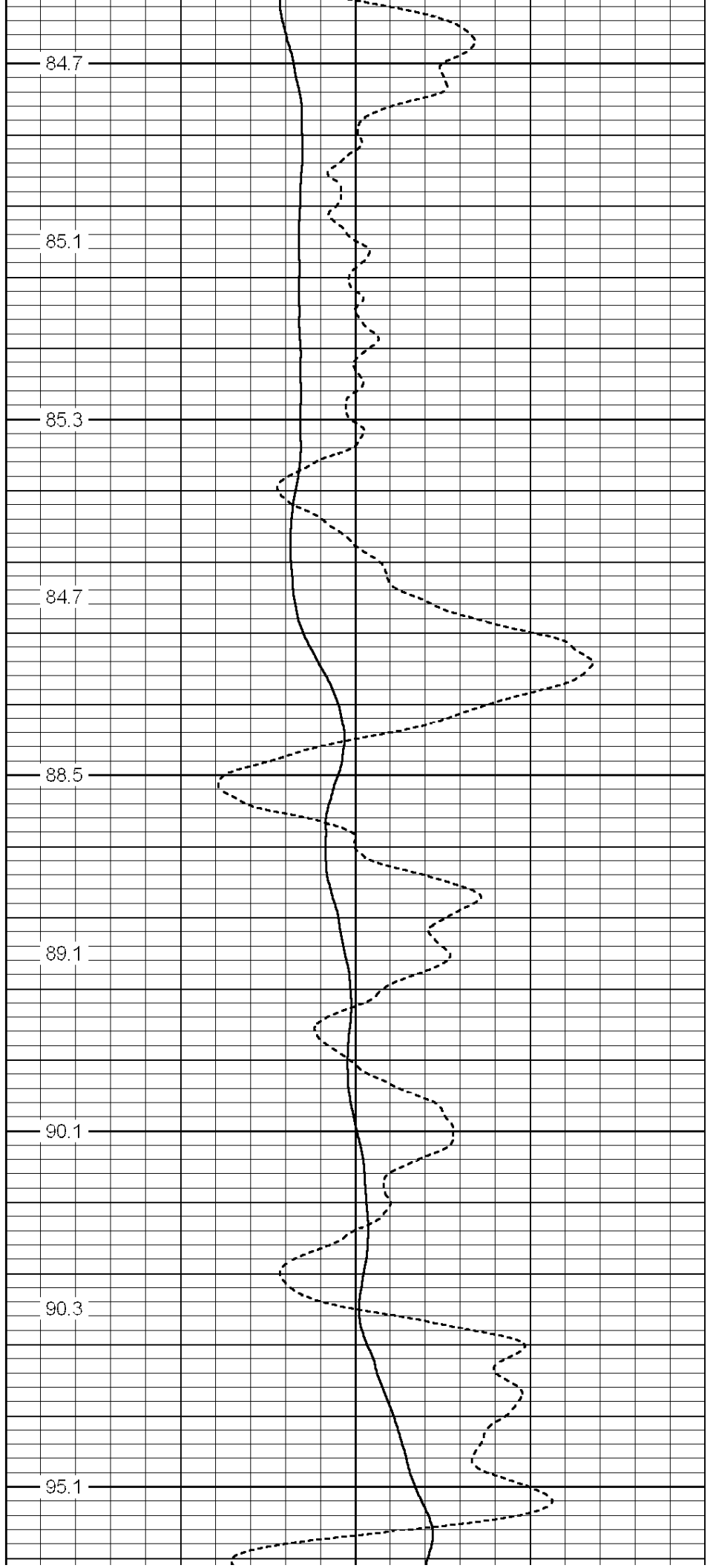
650

700

750

800

850



84.7

85.1

85.3

84.7

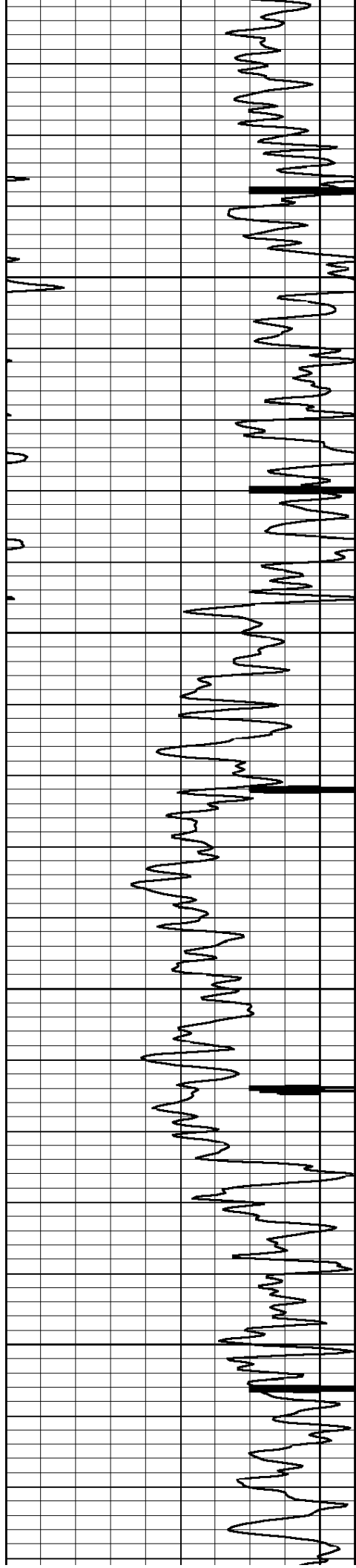
88.5

89.1

90.1

90.3

95.1



900

950

1000

1050

94.3

90.2

90.9

91.0

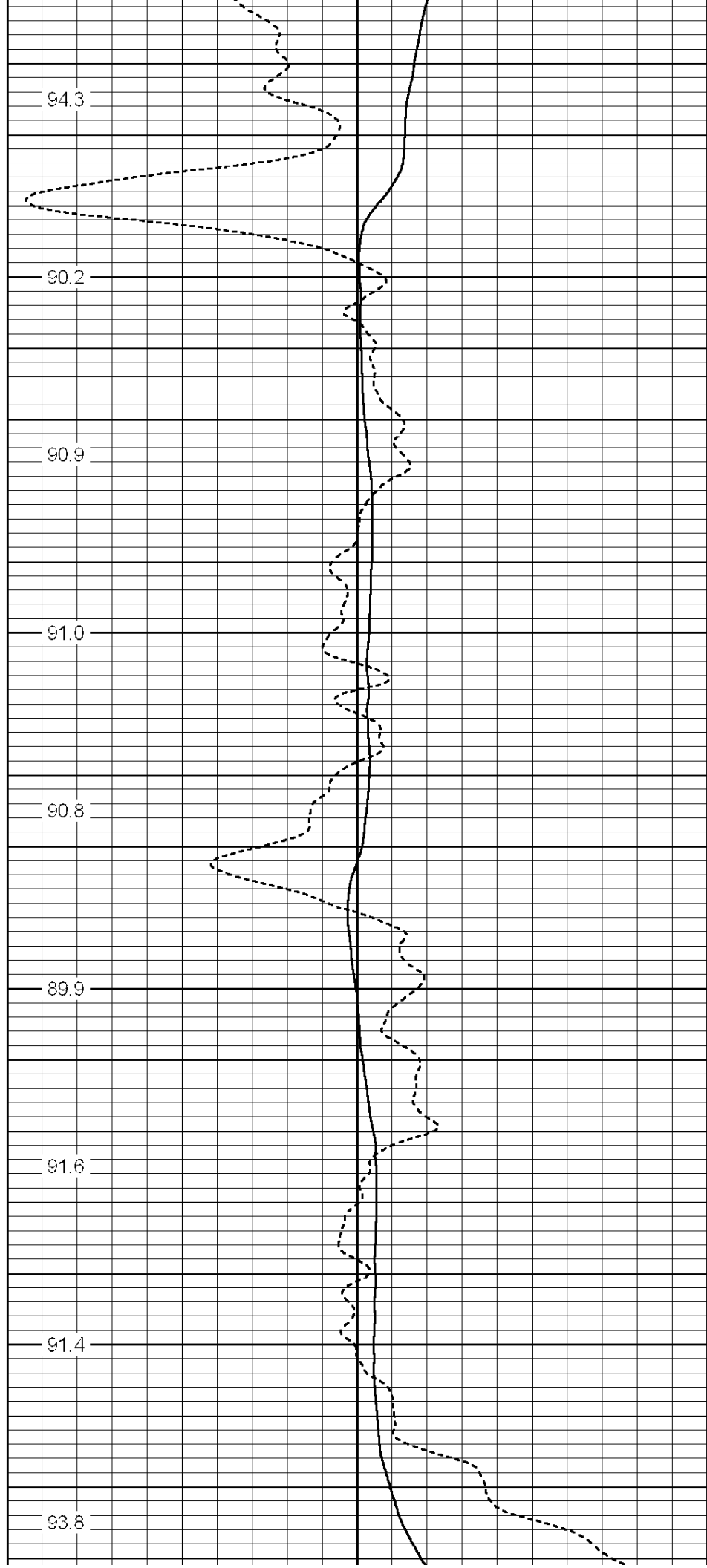
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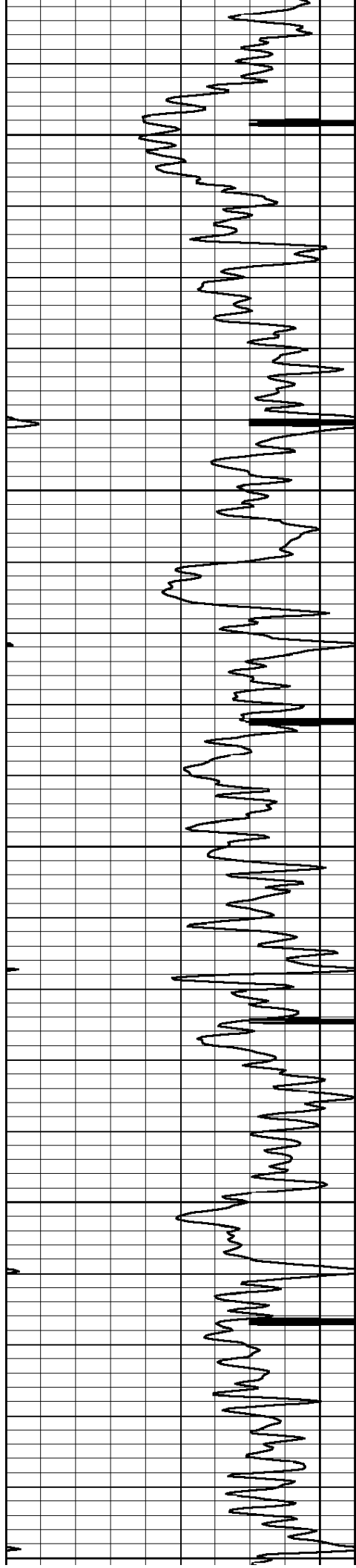
89.9

91.6

91.4

93.8





1100

1150

1200

1250

1300

91.5

88.5

89.7

90.8

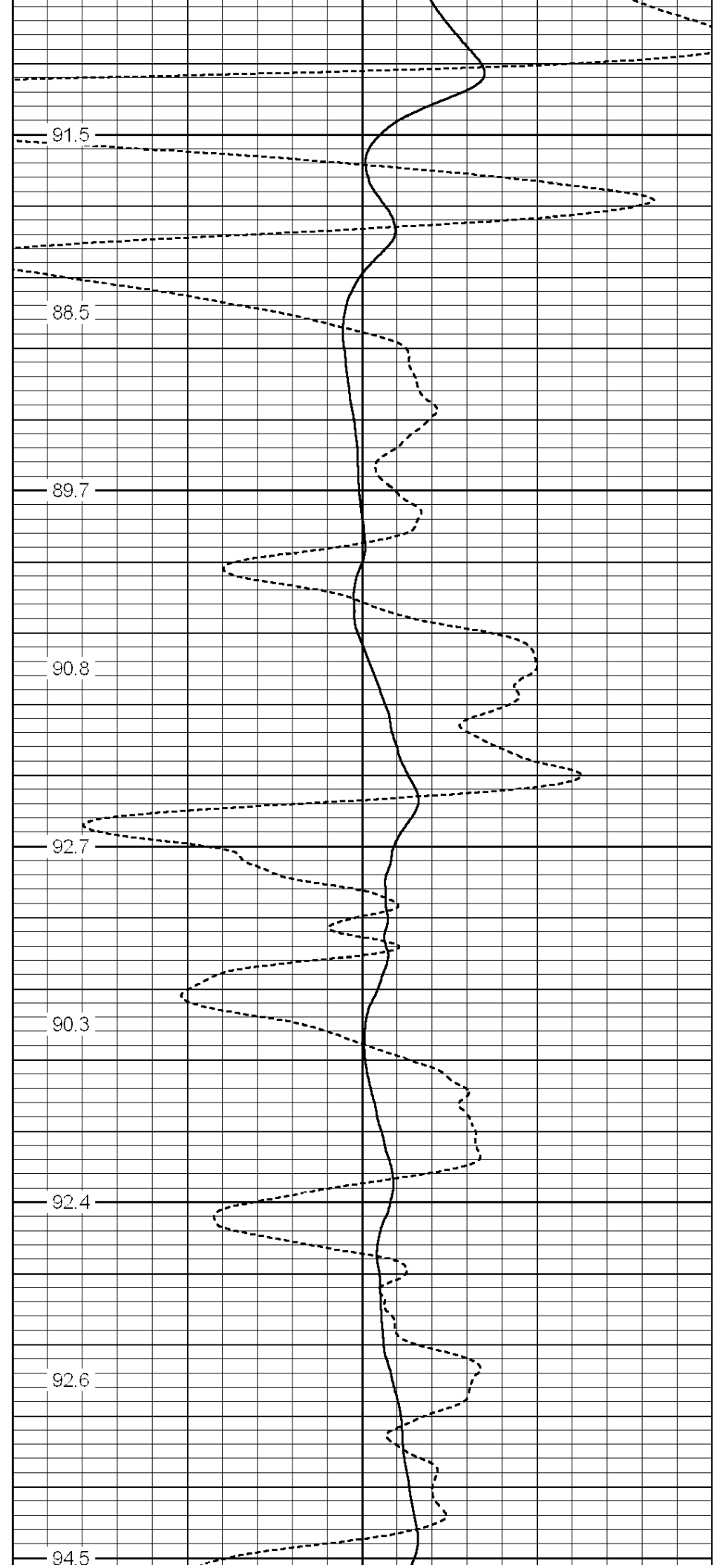
92.7

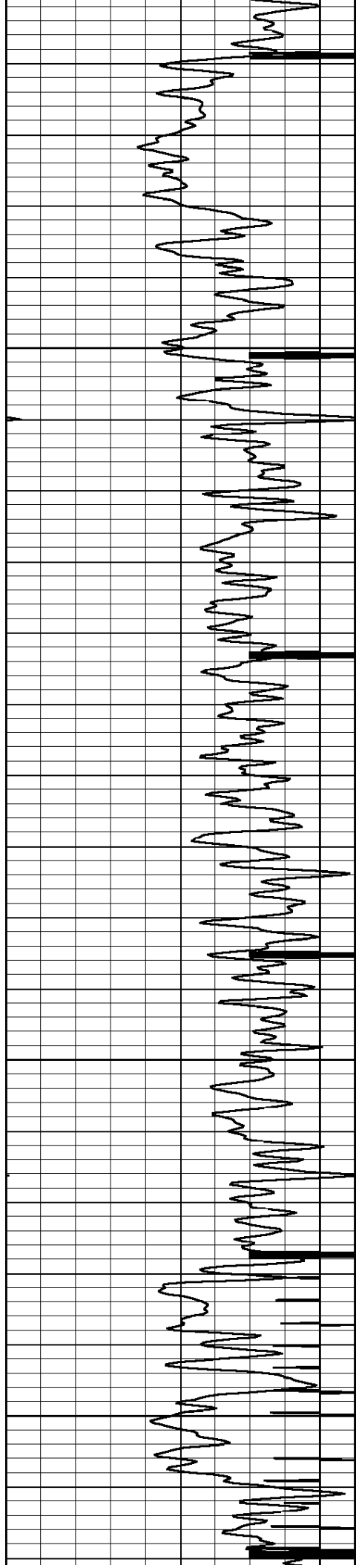
90.3

92.4

92.6

94.5



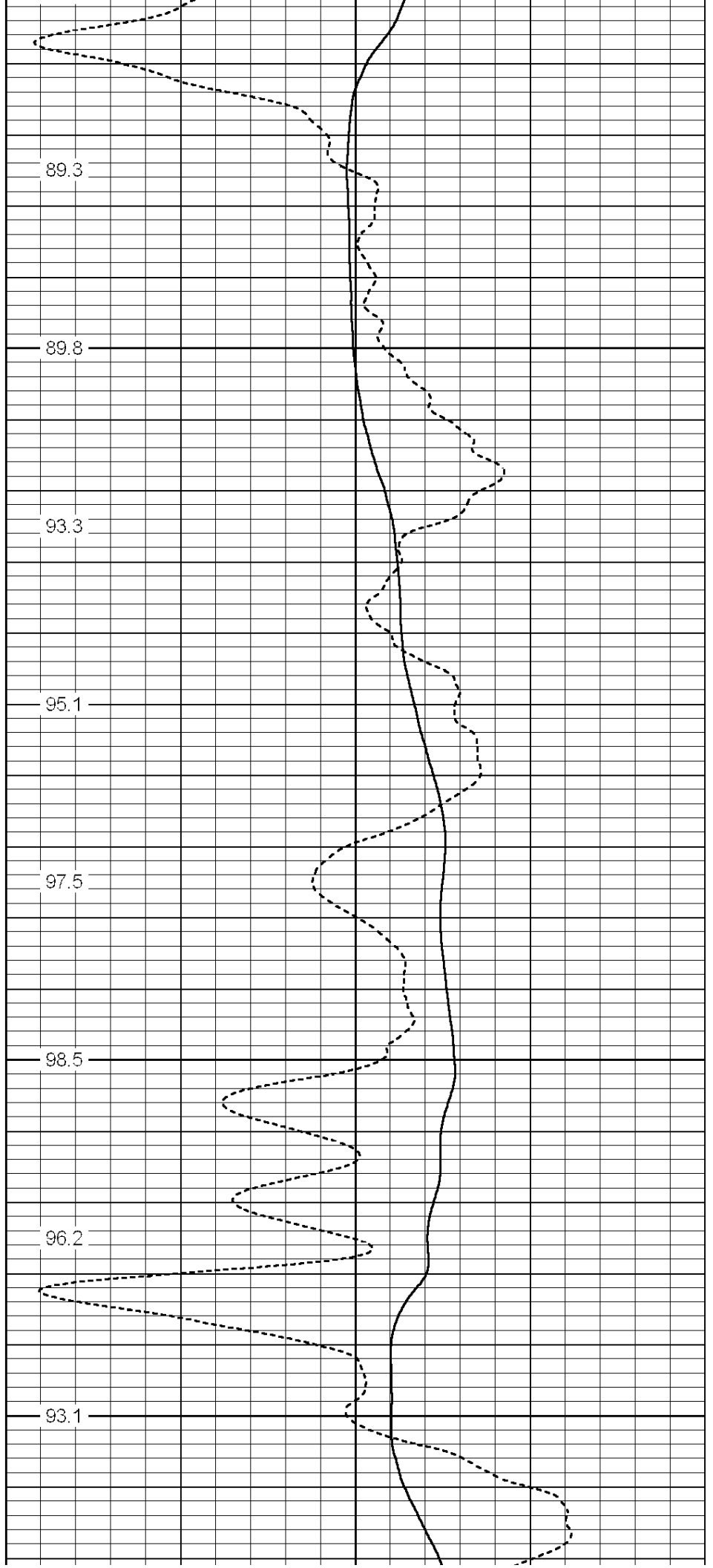


1350

1400

1450

1500



89.3

89.8

93.3

95.1

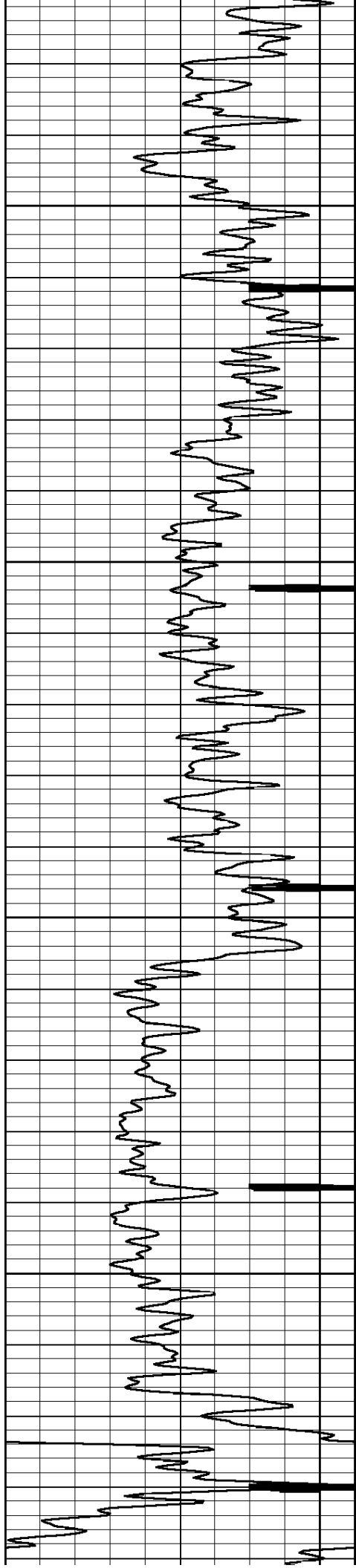
97.5

98.5

96.2

93.1





1550

1600

1650

1700

98.1

95.2

99.9

93.4

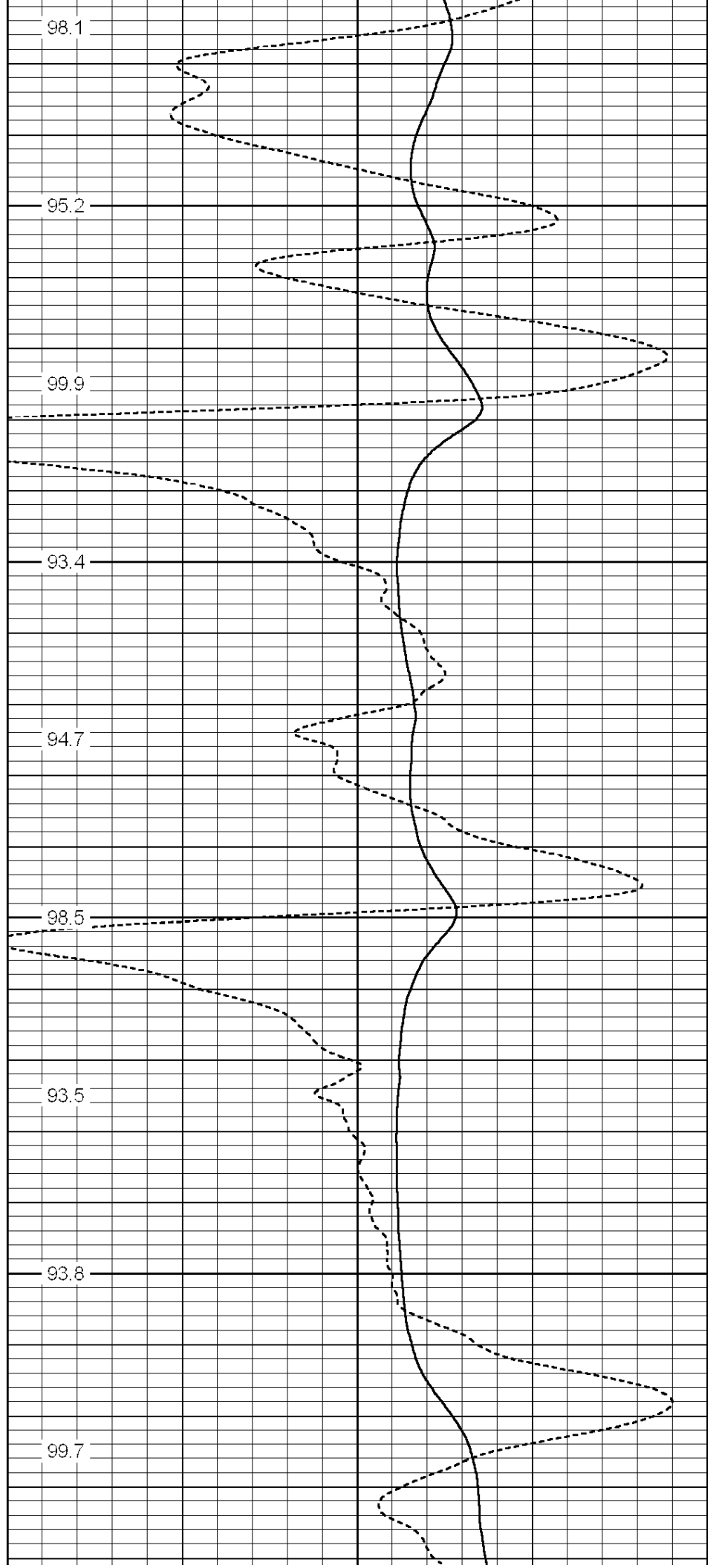
94.7

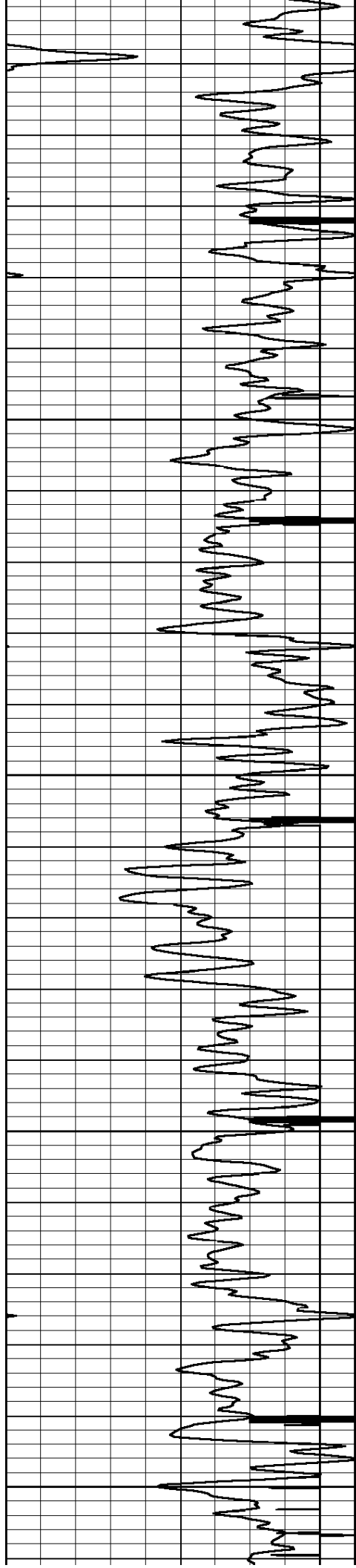
98.5

93.5

93.8

99.7





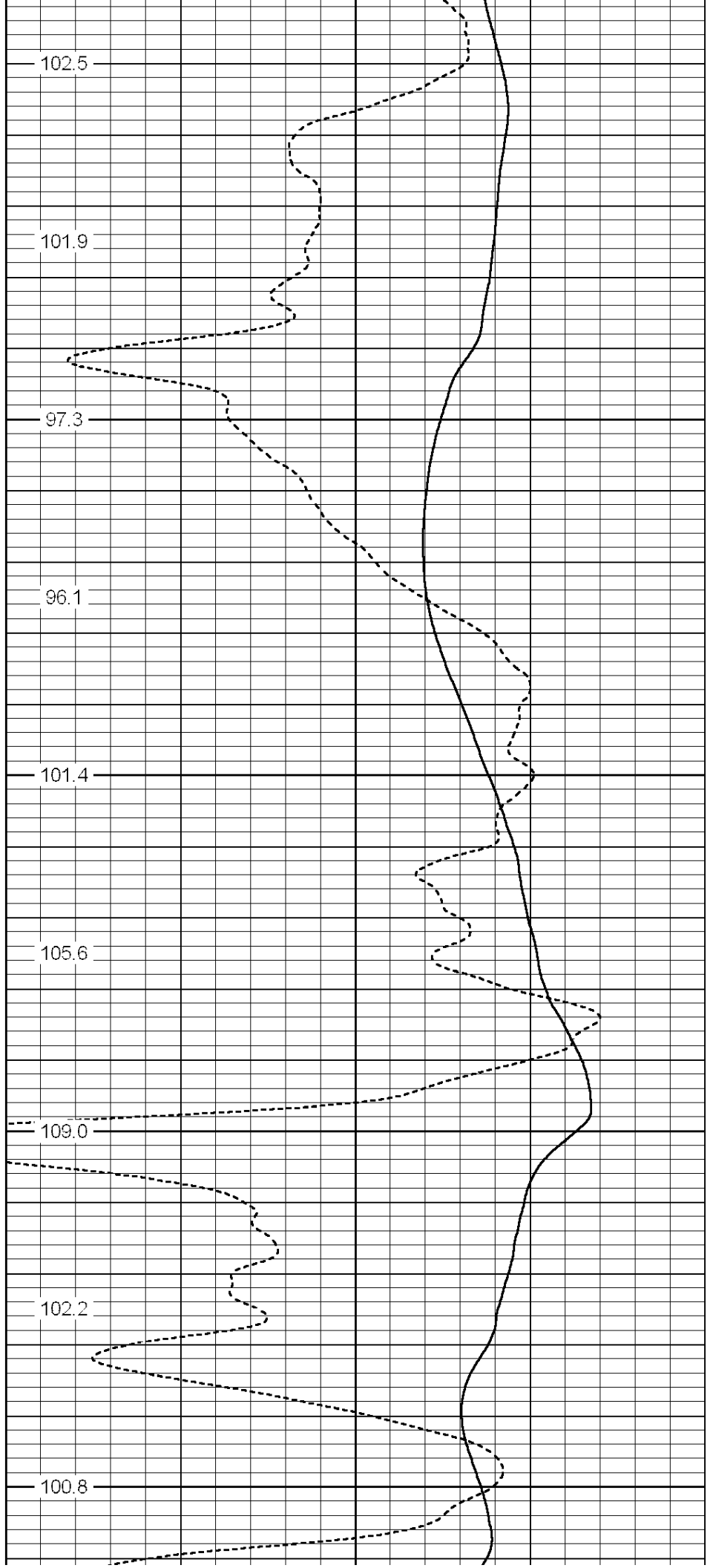
1750

1800

1850

1900

1950



102.5

101.9

97.3

96.1

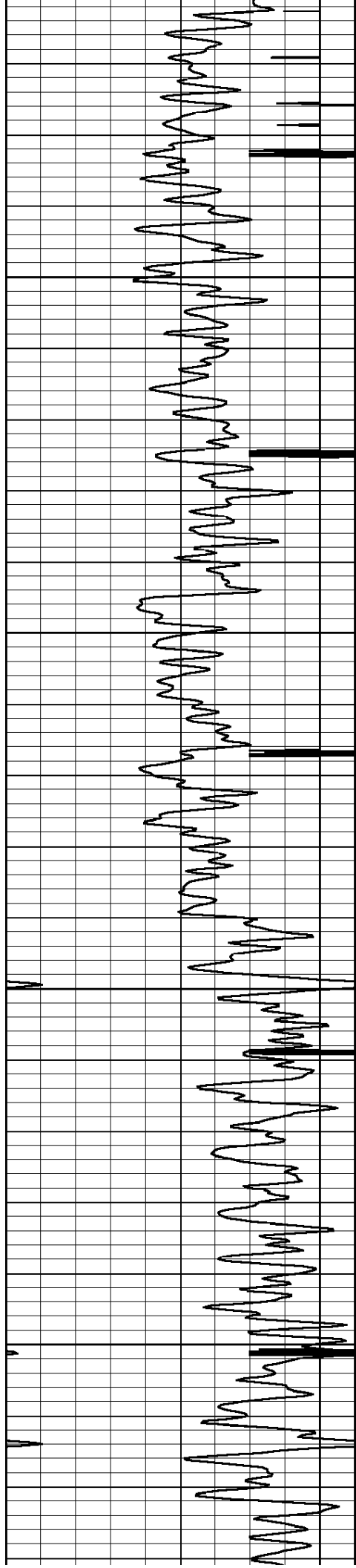
101.4

105.6

109.0

102.2

100.8

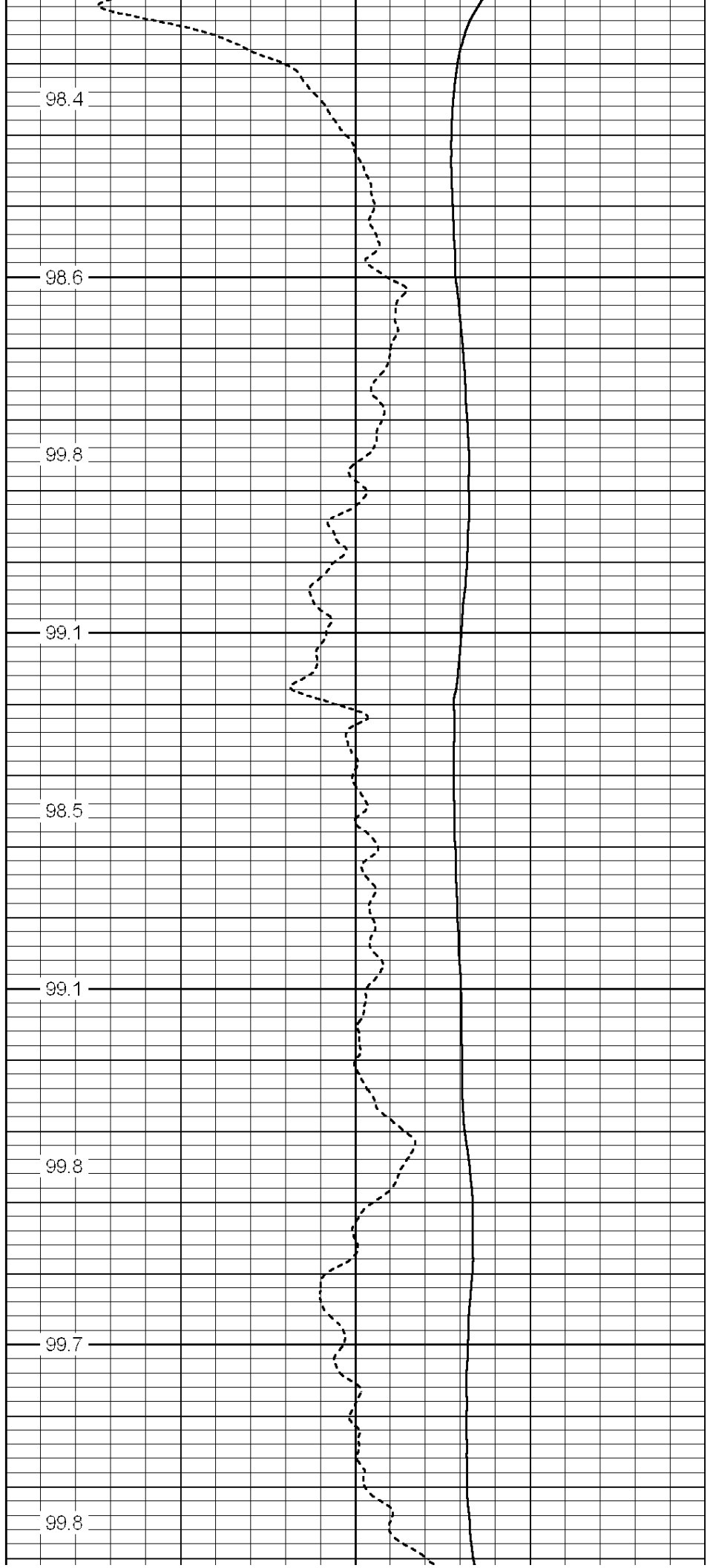


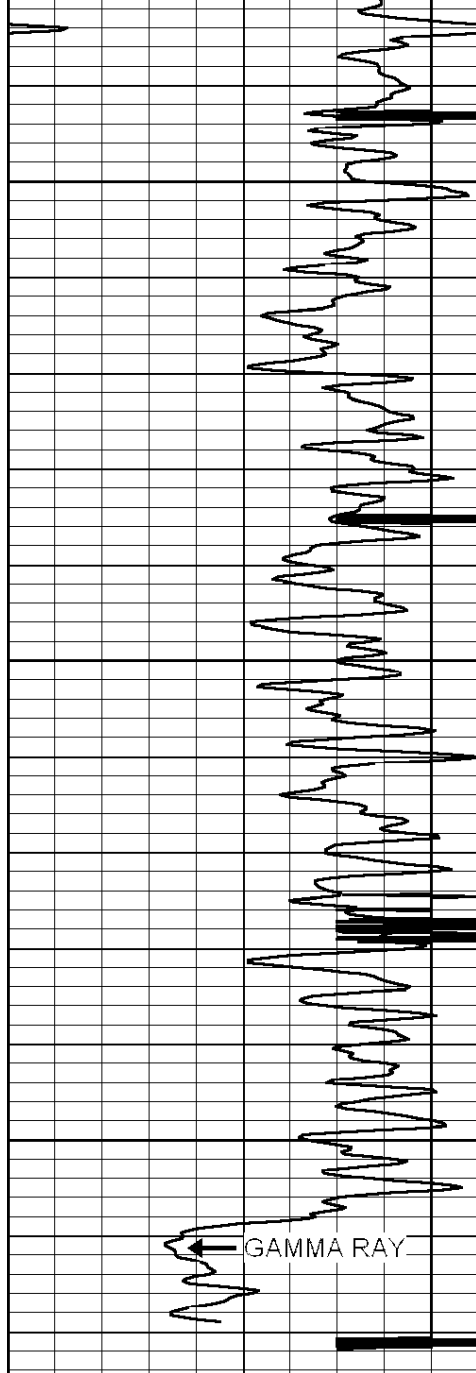
2000

2050

2100

2150





2200

100.7

2250

101.2

2300

104.0

GAMMA RAY

TEMPERATURE →

← Delta Temperature

0 GAMMA RAY (GAPI) 150

9 CCL -1

60 TEMPERATURE (degF) 120

-0.5 DTEMP (degF) 0.5

TEMP  
(degF)