



# Microresistivity Log

Pioneer Energy Services

API No.

15-171-21,074-00-00

Company New Gulf Operating, LLC.

Well Muench # 1-16

Field

County Scott

State

Kansas

Location

1,240' FSL & 1,430' FEL

Sec: 16

Twp: 17s

Rge: 33w

Elevation

K.B. 3046

D.F. 3037

G.L. 3037

Permanent Datum

Ground Level

Elevation 3037

Log Measured From

Kelly Bushing

9 Ft. Above Perm. Datum

Drilling Measured From

Kelly Bushing

Date

7/23/2014

Run Number

Two

Depth Driller

4815

Depth Logger

4810

Bottom Logged Interval

4809

Top Log Interval

3600

Casing Driller

8.625 @ 266

Casing Logger

257

Bit Size

7.875

Type Fluid in Hole

Chemical

Salinity, ppm CL

7000

Density / Viscosity

9.2 50

pH / Fluid Loss

11.0 8.8

Source of Sample

Flowline

Rm @ Meas. Temp

.30 @ 81

Rmf @ Meas. Temp

.23 @ 81

Rmc @ Meas. Temp

.41 @ 81

Source of Rmf / Rmc

Charts

Rm @ BHT

.20 @ 124

Operating Rig Time

4 Hours

Max Rec. Temp. F

124

Equipment Number

108

Location

Hays

Recorded By

J Long

Witnessed By

John Goldsmith

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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.

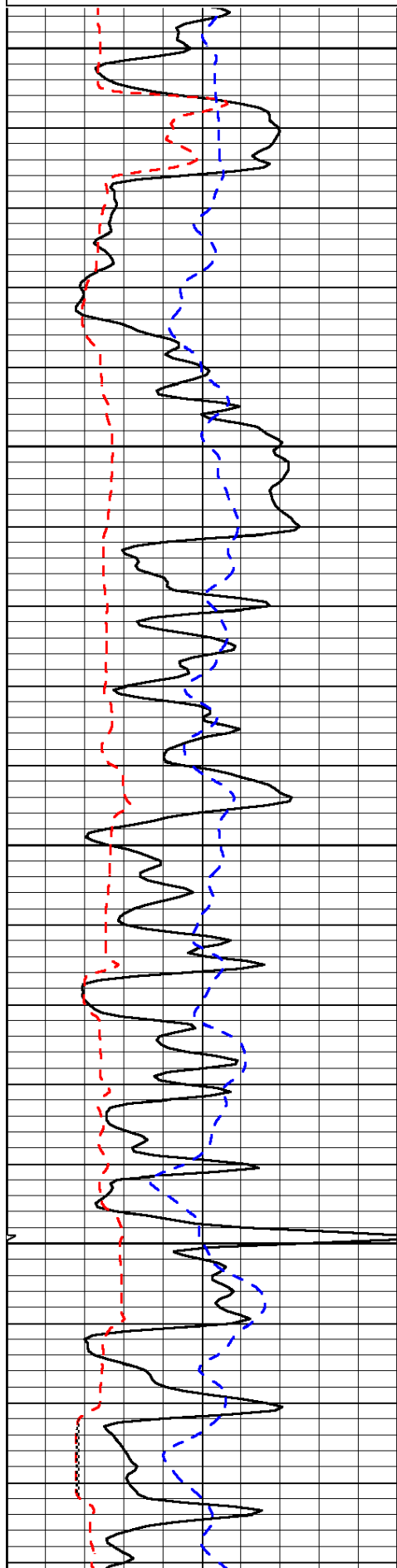
## Comments

Thank you for using Pioneer Energy Services  
www.pioneerres.com  
785 625 3858

Scott City Ks., North to 190 Rd., 4 West to Stop Sign, 1 1/2 North, East Into.

Database File: c:\warrior\data\new gulf\_muench # 1-16\new\_gulf\_muench\_1-16hd.db  
Dataset Pathname: DIL\newstck  
Presentation Format: micro  
Dataset Creation: Wed Jul 23 17:47:19 2014  
Charted by: Depth in Feet scaled 1:240

|      |                          |     |
|------|--------------------------|-----|
| 0    | Gamma Ray                | 150 |
| 6    | Micro Log Caliper (GAPI) | 16  |
| -200 | SP (mV)                  | 0   |



3600

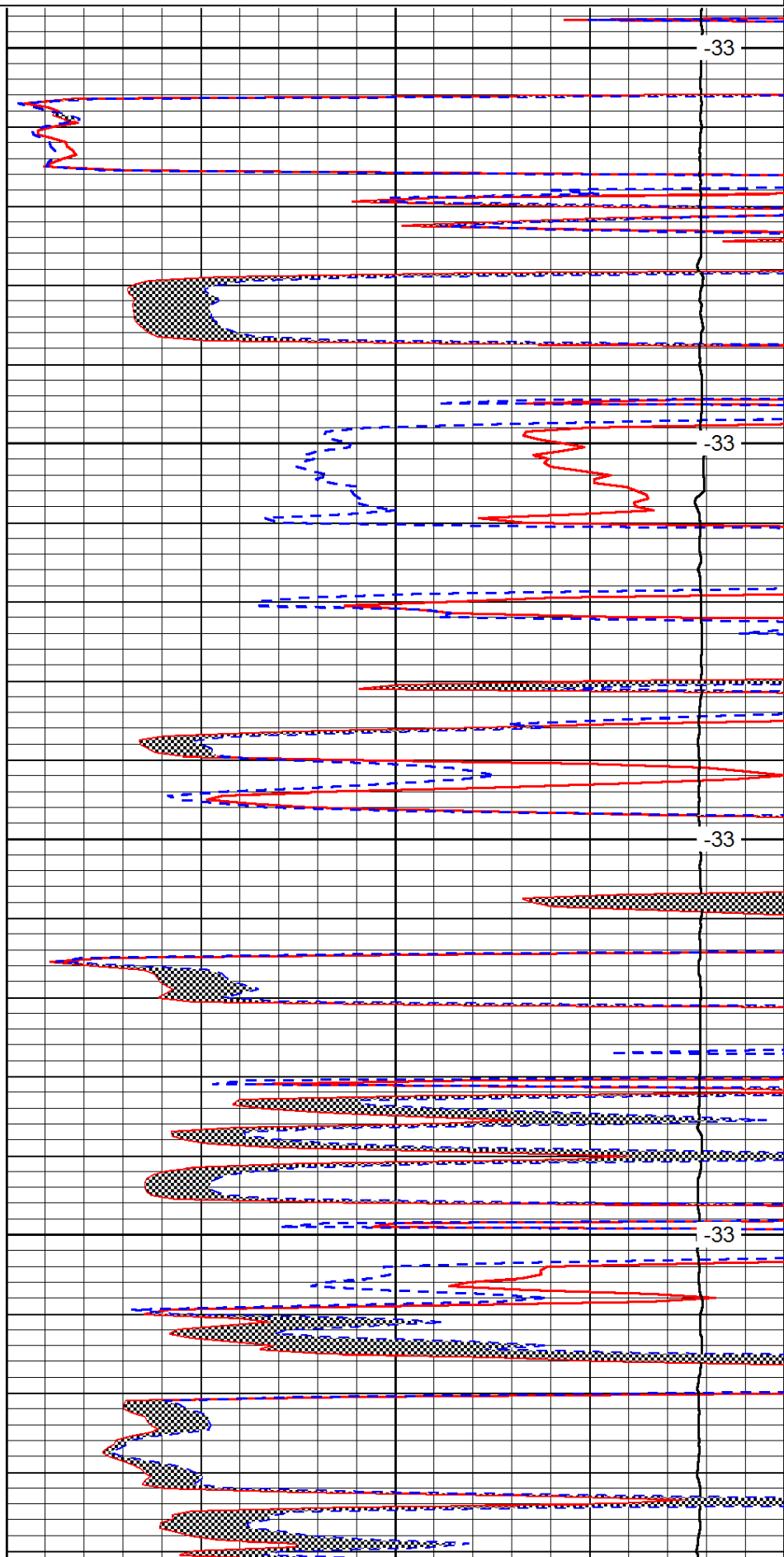
3650

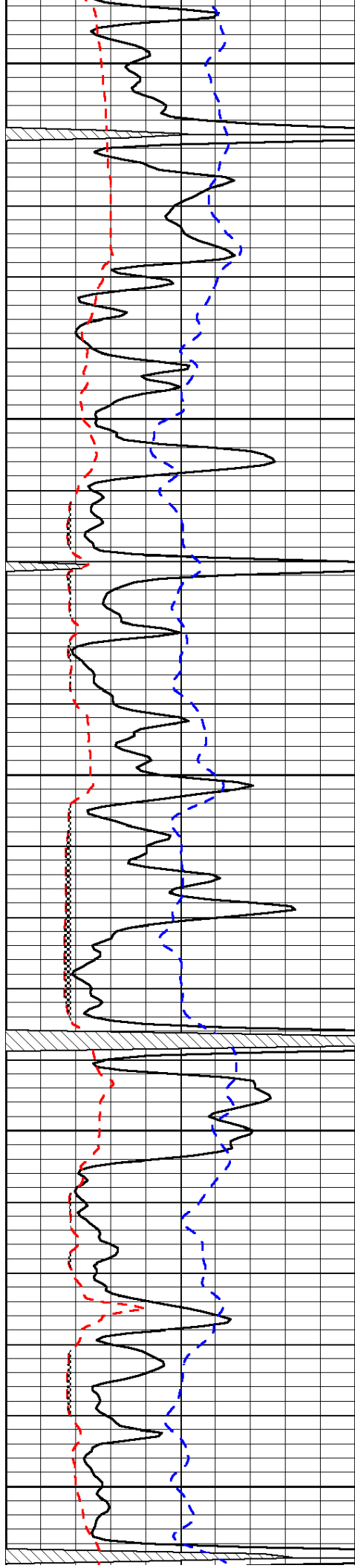
3700

3750

|       |                     |    |
|-------|---------------------|----|
| 0     | Micro Inverse 1 X 1 | 40 |
| 0     | Micro Normal 2"     | 40 |
| 15000 | Line Weight         | 0  |

LSPD





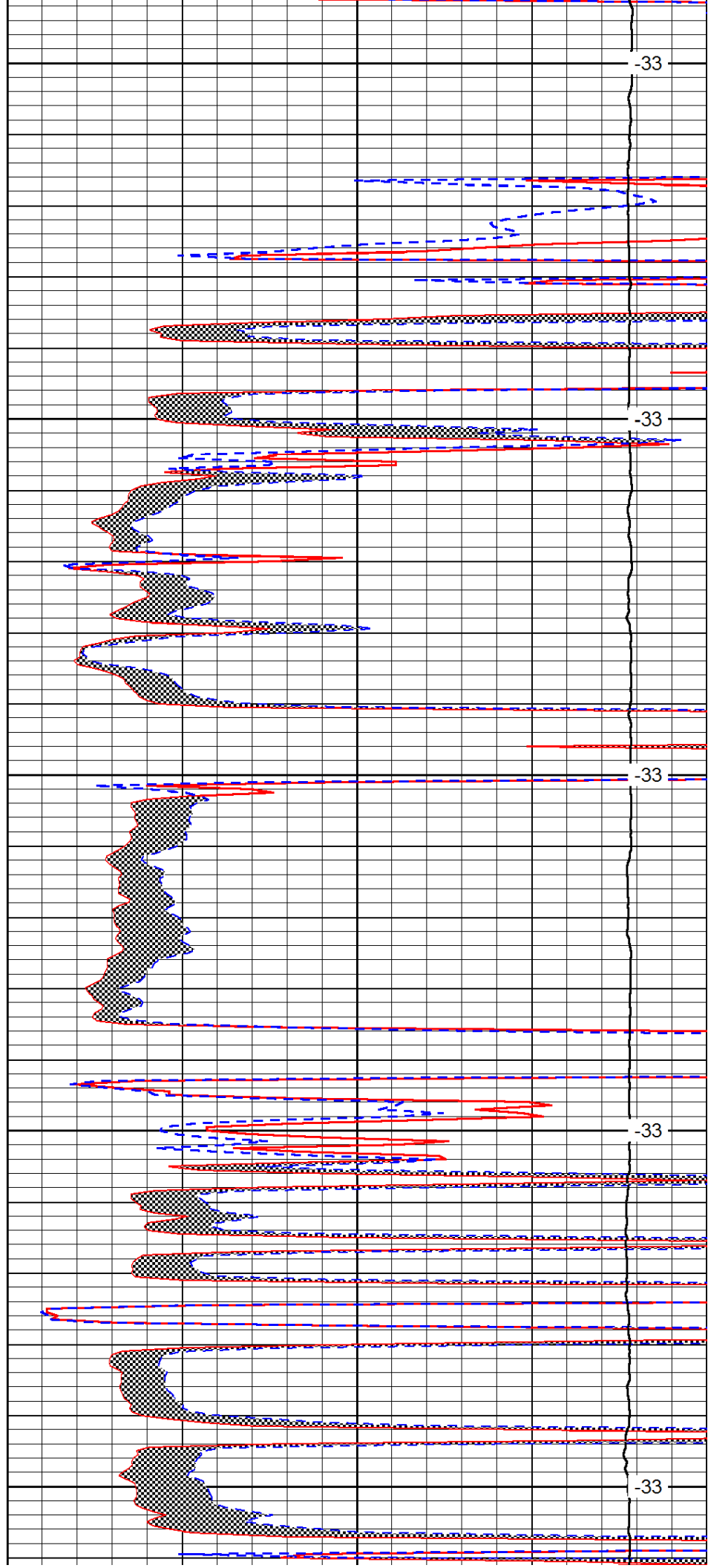
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3850

3900

3950

4000



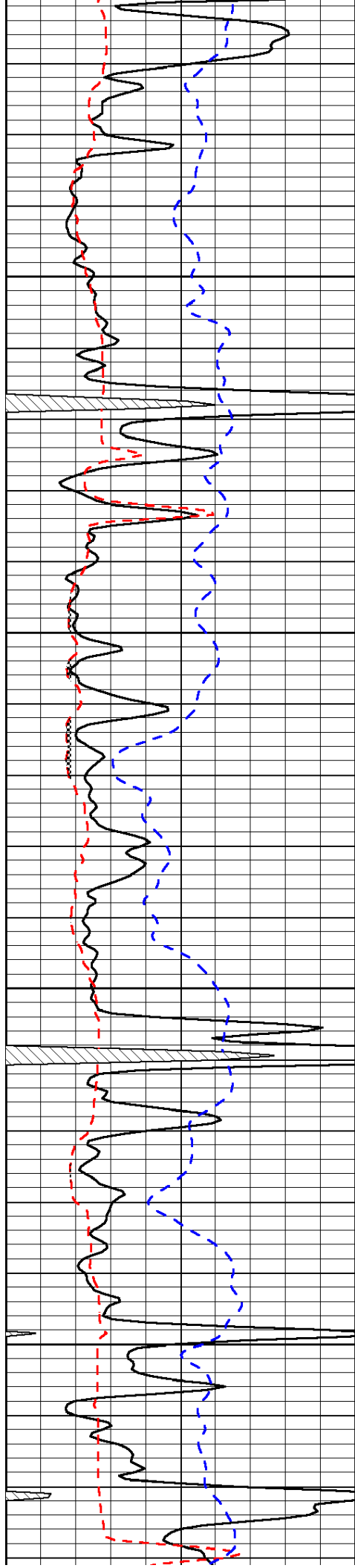
-33

-33

-33

-33

-33

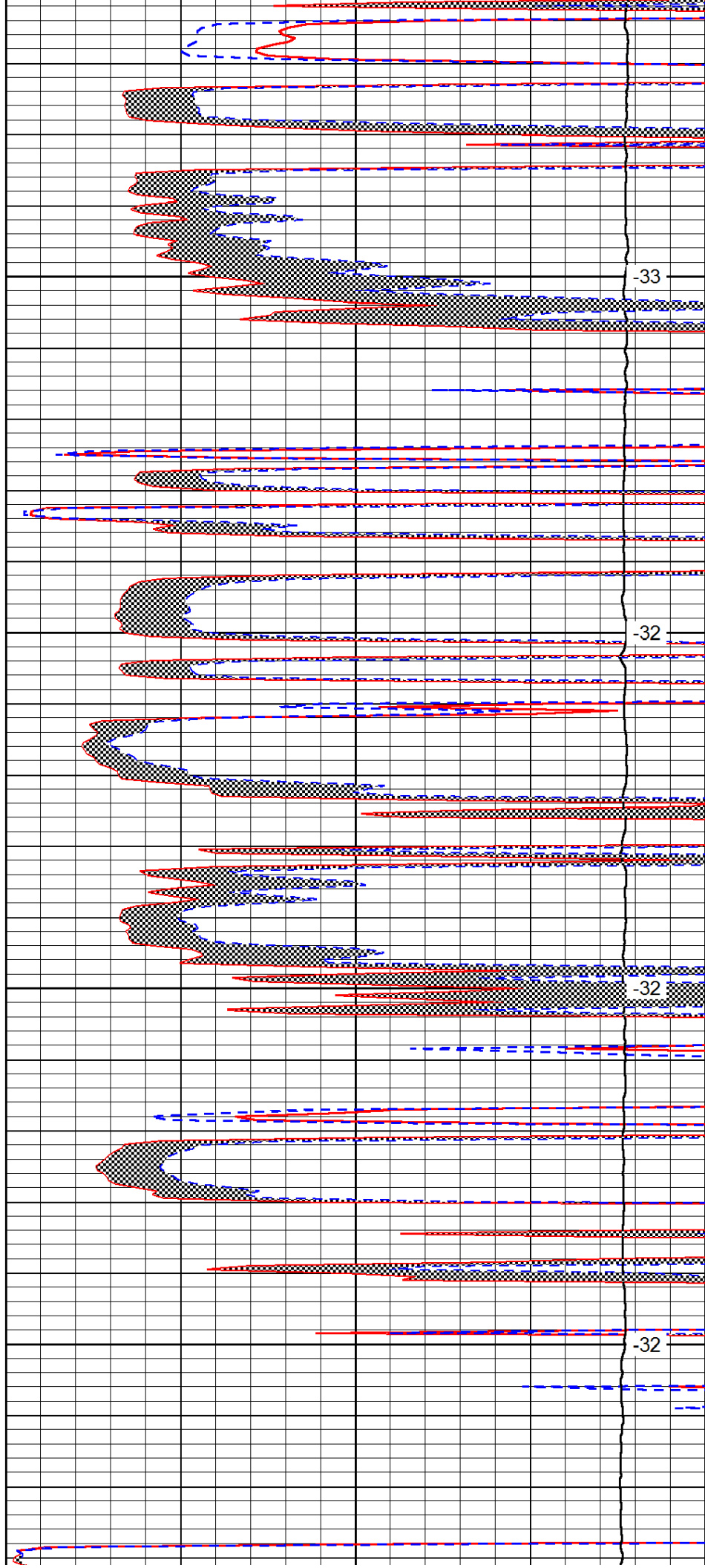


4050

4100

4150

4200

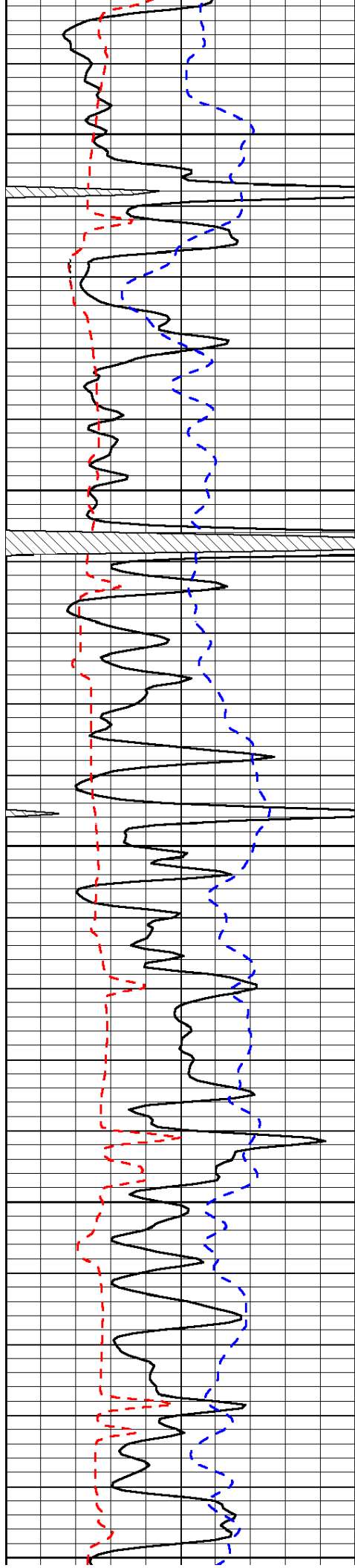


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-32

-32

-32



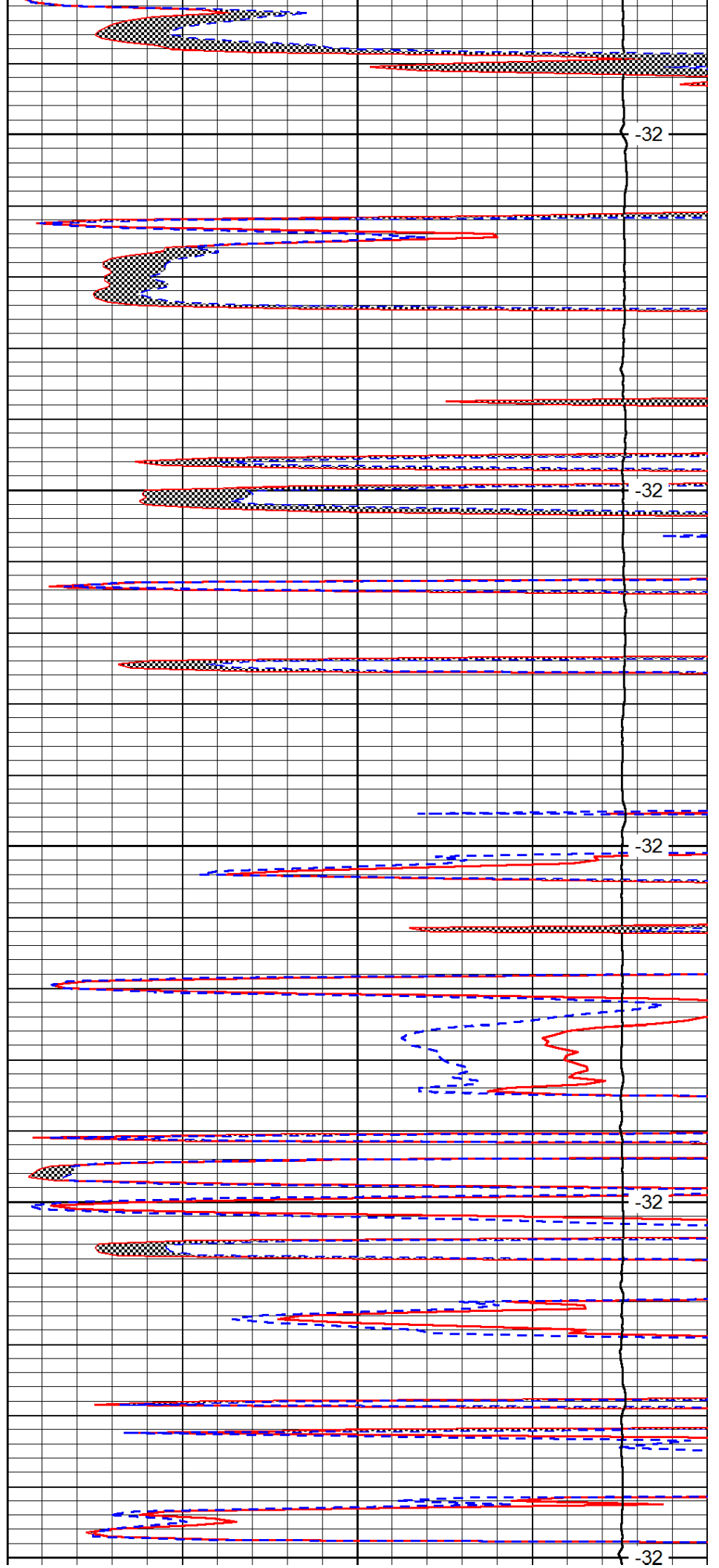
4250

4300

4350

4400

4450



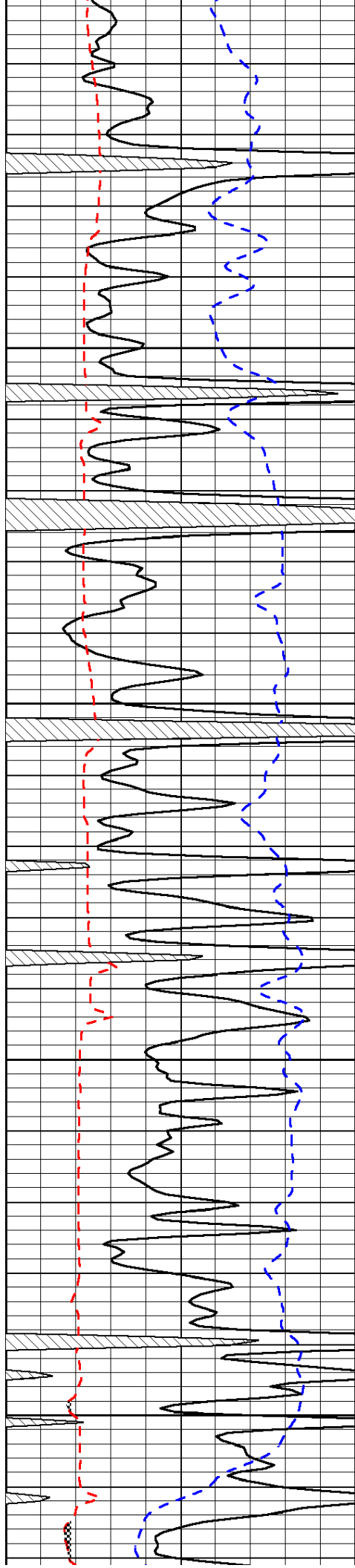
-32

-32

-32

-32

-32



4500

4550

4600

4650

