



# Microresistivity Log

Pioneer Energy Services

API No.

15-165-22,000-00-00

Company Black Tea Oil, LLC

Well Revis No.1

Field Otis-Albert

County Rush State Kansas

Location 2310' FNL & 800' FWL

Sec: 27 Twp: 18S Rge: 16W

Other Services  
CNL/CDL  
DIL/BHCS

Permanent Datum Ground Level Elevation 1999

Log Measured From Kelly Bushing 7 Ft. Above Perm. Datum

Drilling Measured From Kelly Bushing K.B. 2006  
D.F. 1999  
G.L. 1999

Date 12/3/2012

Run Number Two

Depth Driller 3693

Depth Logger 3692

Bottom Logged Interval 3691

Top Log Interval 2900

Casing Driller 8.625 @ 1060

Casing Logger 1050

Bit Size 7.875

Type Fluid in Hole Chemical

Salinity,ppm CL 5,000

Density / Viscosity 9.2 49

pH / Fluid Loss 10.0 9.6

Source of Sample Flowline

Rm @ Meas. Temp .75 @ 51

Rmf @ Meas. Temp .56 @ 51

Rmc @ Meas. Temp 1.01 @ 51

Source of Rmf / Rmc Charts

Rm @ BHT .34 @ 113

Operating Rig Time 4 Hours

Max Rec. Temp. F 113

Equipment Number 17

Location Hays

Recorded By C. Desaire

Witnessed By Marc Downing

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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.

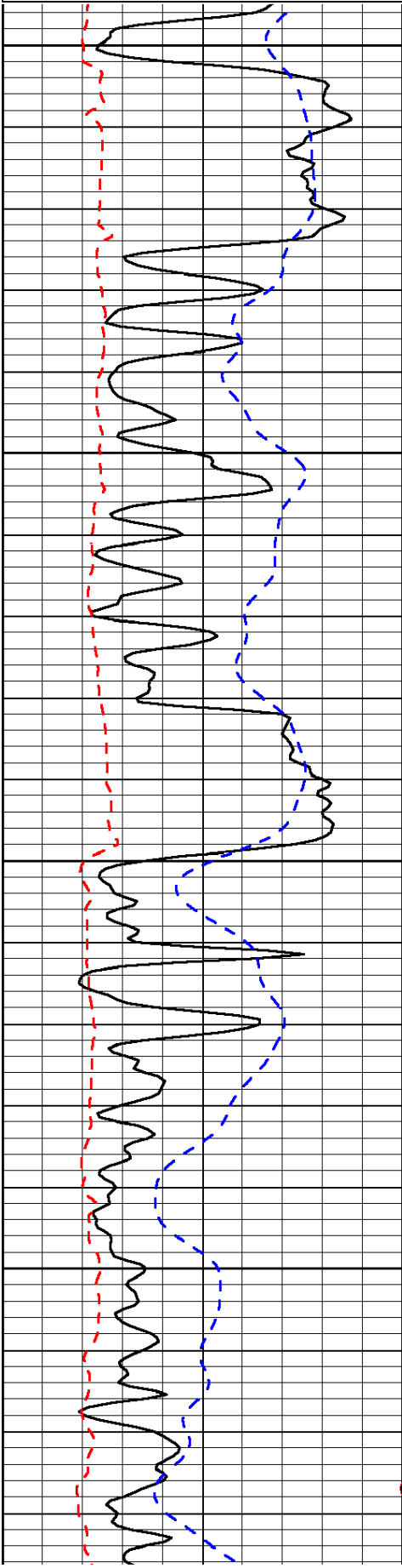
## Comments

Thank you for using Log-Tech, Inc.  
(785) 625-3858

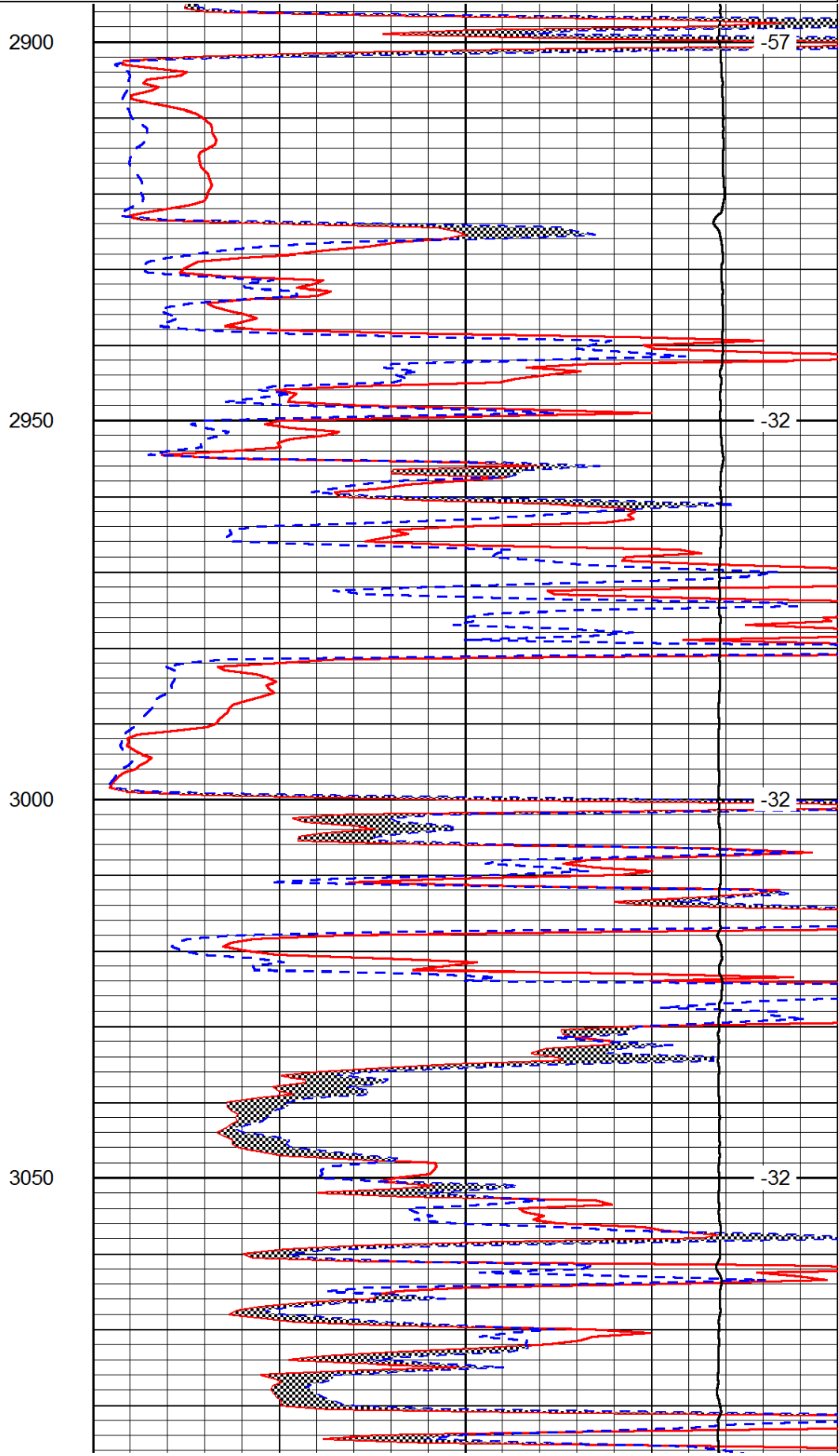
Rush Center KS, 12 E, 1/2 S, E Into

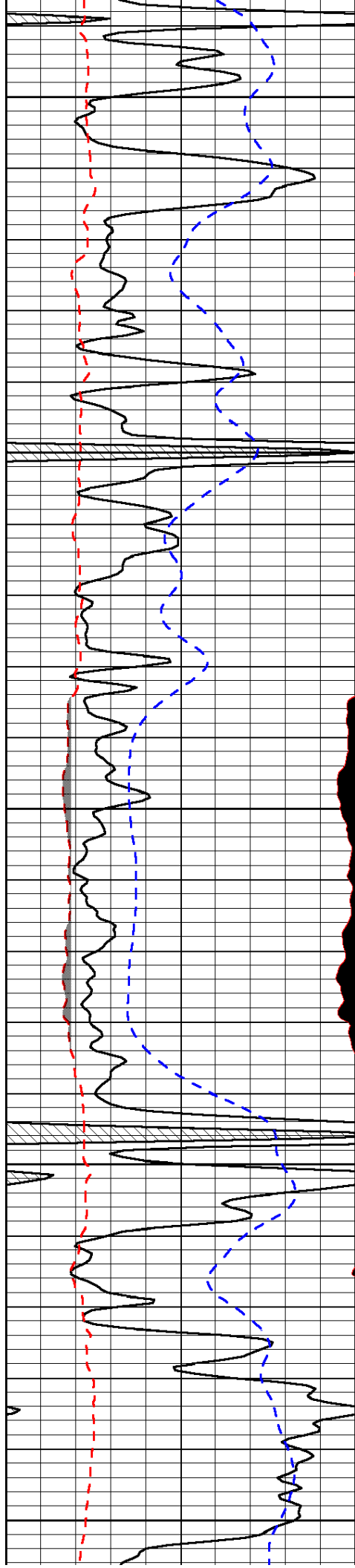
Database File: blackteahd.db  
Dataset Pathname: dil/btstk  
Presentation Format: micro  
Dataset Creation: Mon Dec 03 07:42:06 2012  
Charted by: Depth in Feet scaled 1:240

|       |                  |       |
|-------|------------------|-------|
| 0     | Gamma Ray (GAPI) | 150   |
| 6     | MCAL (in)        | 16    |
| 2.875 | Mud Cake (in)    | 7.875 |
| -200  | SP (mV)          | 0     |



|       |                             |               |
|-------|-----------------------------|---------------|
| 0     | Micro Inverse 1 X 1 (Ohm-m) | 40            |
| 0     | Micro Normal 2" (Ohm-m)     | 40            |
| 10000 | Line Weight (lb)            | 0             |
|       |                             | LSPD (ft/min) |





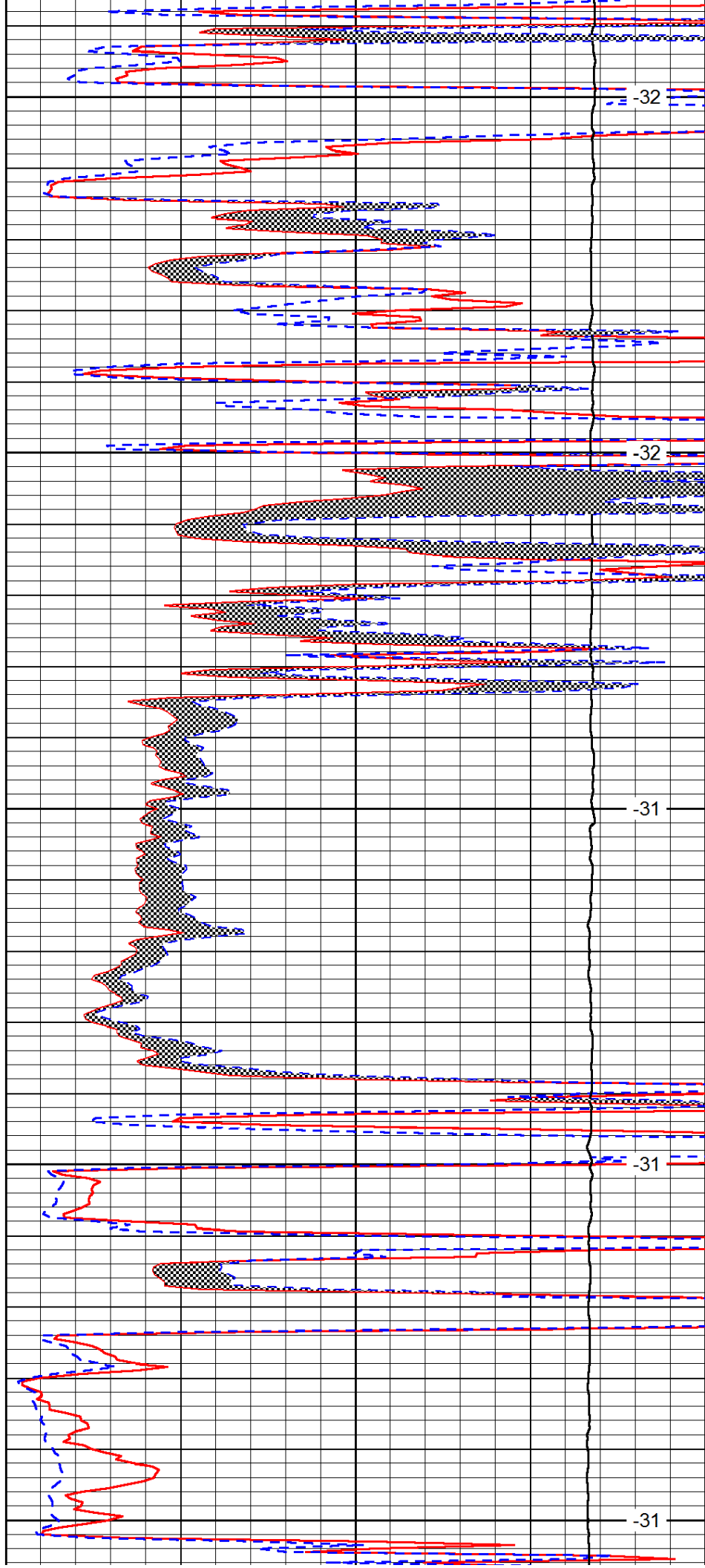
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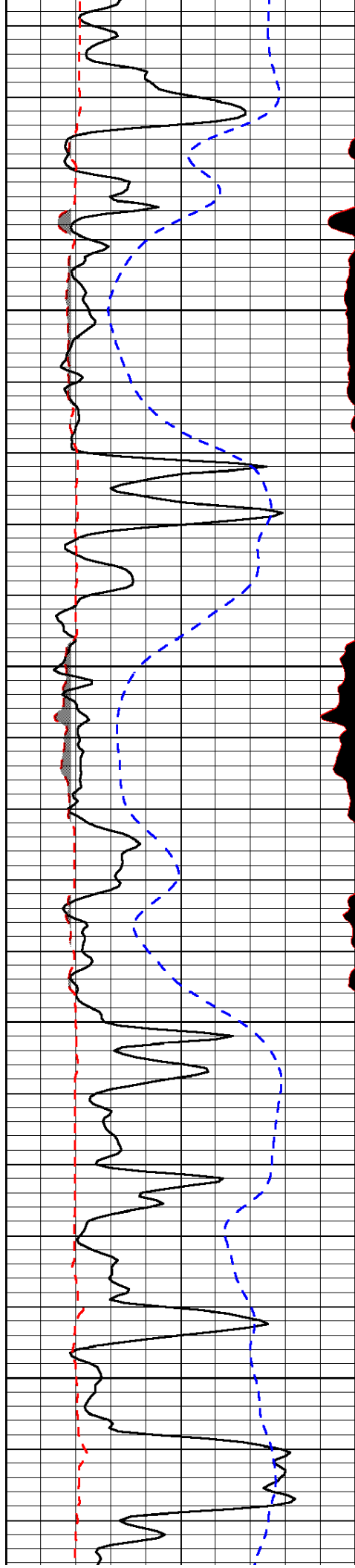
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3200

3250

3300



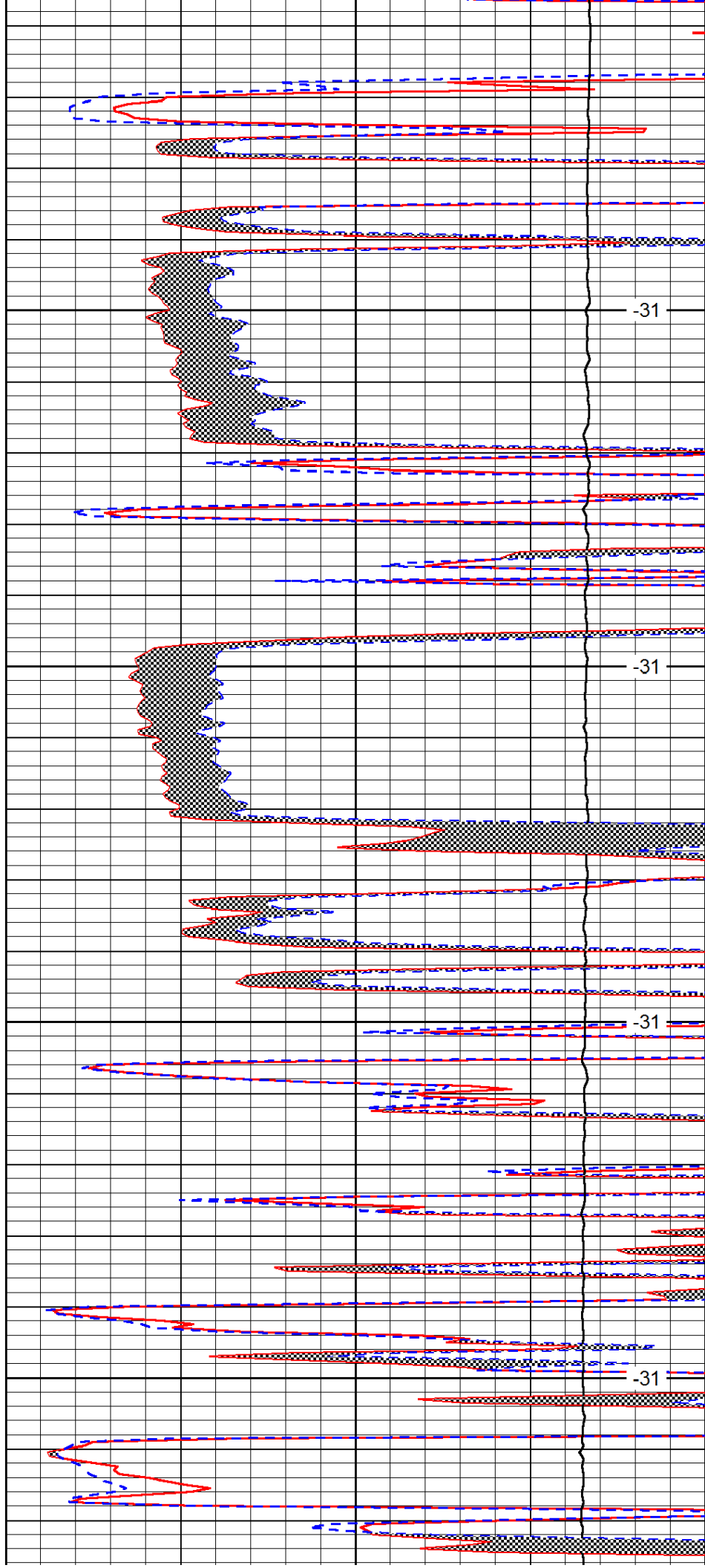


3350

3400

3450

3500

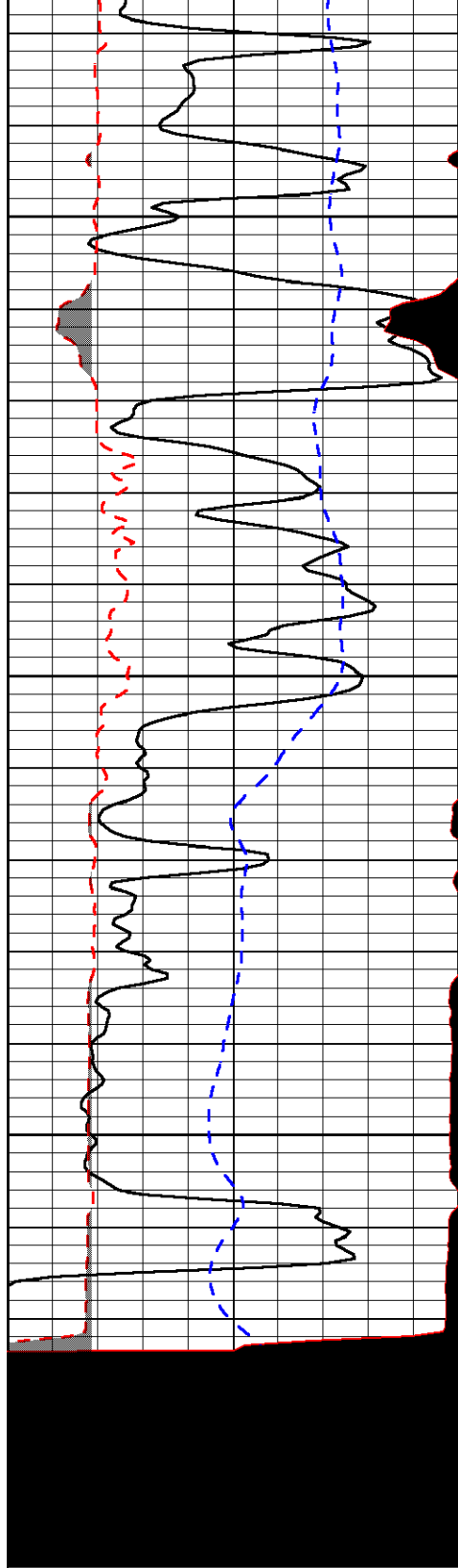


-31

-31

-31

-31

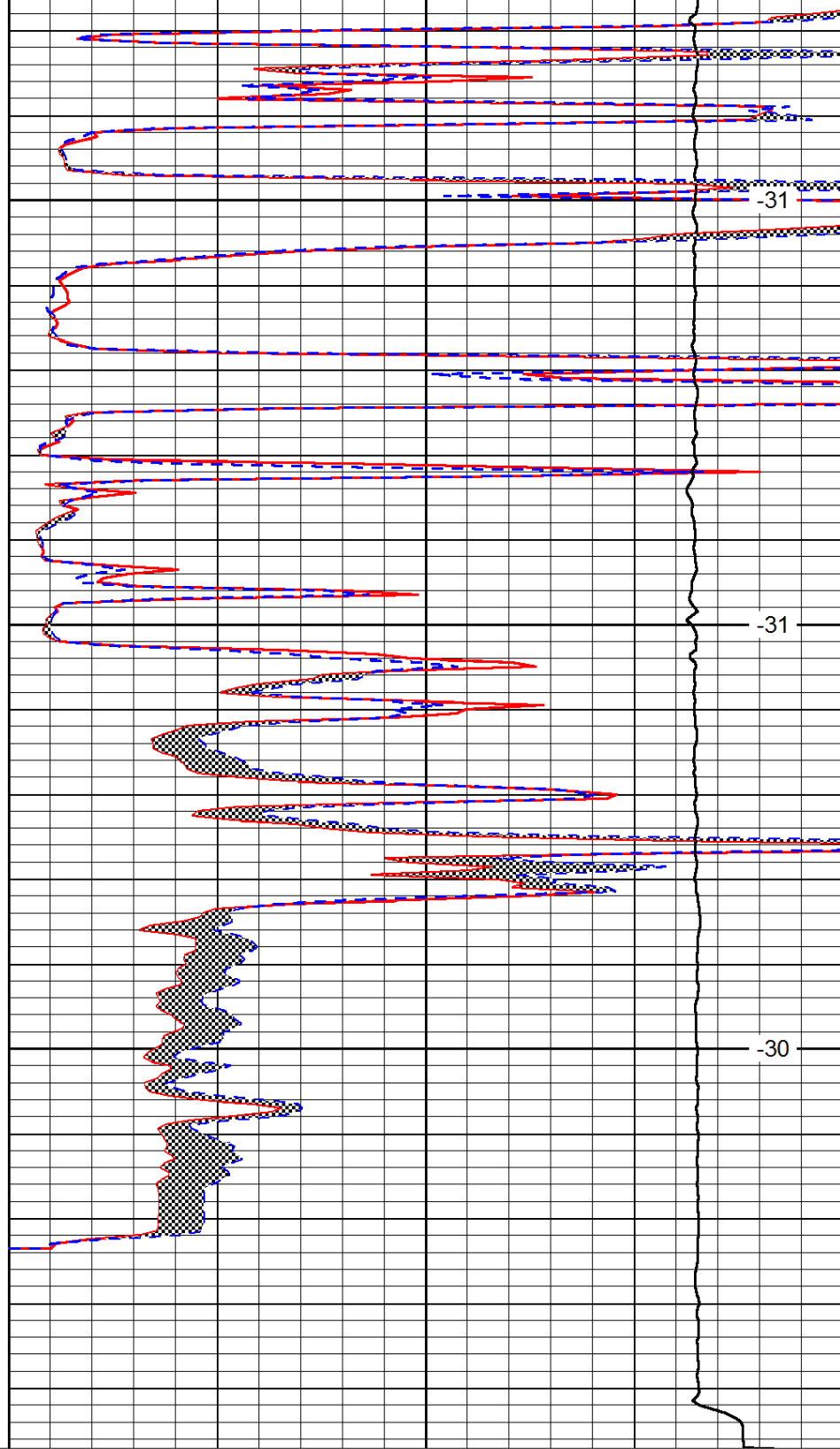


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| -200  | SP (mV)          | 0     |

3550

3600

3650



|       |                             |    |
|-------|-----------------------------|----|
| 0     | Micro Inverse 1 X 1 (Ohm-m) | 40 |
| 0     | Micro Normal 2" (Ohm-m)     | 40 |
| 10000 | Line Weight (lb)            | 0  |

LSPD  
(ft/min)