



Pioneer Energy Services

Microresistivity Log

15-051-26,724-00-00

API No.

Company **Cobalt Energy, LLC**

Well **Sack Trust 'A' No. 1-24**

Field
County **Ellis** State **Kansas**

Location **1012' FNL & 335' FWL**

Sec: **24** Twp: **13S** Rge: **19W**

Permanent Datum **Ground Level** Elevation **2038**

Log Measured From **Kelly Bushing** 9 Ft. Above Perm. Datum

Drilling Measured From **Kelly Bushing**

Date **8/13/14**

Run Number **Two**

Depth Driller **3750**

Depth Logger **3748**

Bottom Logged Interval **3747**

Top Log Interval **2900**

Casing Driller **8.625 @ 220**

Casing Logger **219**

Bit Size **7.875**

Type Fluid in Hole **Chemical**

Salinity, ppm CL **10,000**

Density / Viscosity **9.1 48**

pH / Fluid Loss **10.0 10.0**

Source of Sample **Flowline**

Rm @ Meas. Temp **.22 @ 78**

Rmf @ Meas. Temp **.17 @ 78**

Rmc @ Meas. Temp **.30 @ 78**

Source of Rmf / Rmc **Charts**

Rm @ BHT **.15 @ 114**

Operating Rig Time **4 Hours**

Max Rec. Temp. F **114**

Equipment Number **91**

Location **Hays**

Recorded By **J. Henrickson**

Witnessed By **Mike Maune**

Other Services
CNL/CDL
DIL/BHCS

Elevation
K.B. 2047
D.F.
G.L. 2038

<<< Fold Here >>>

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

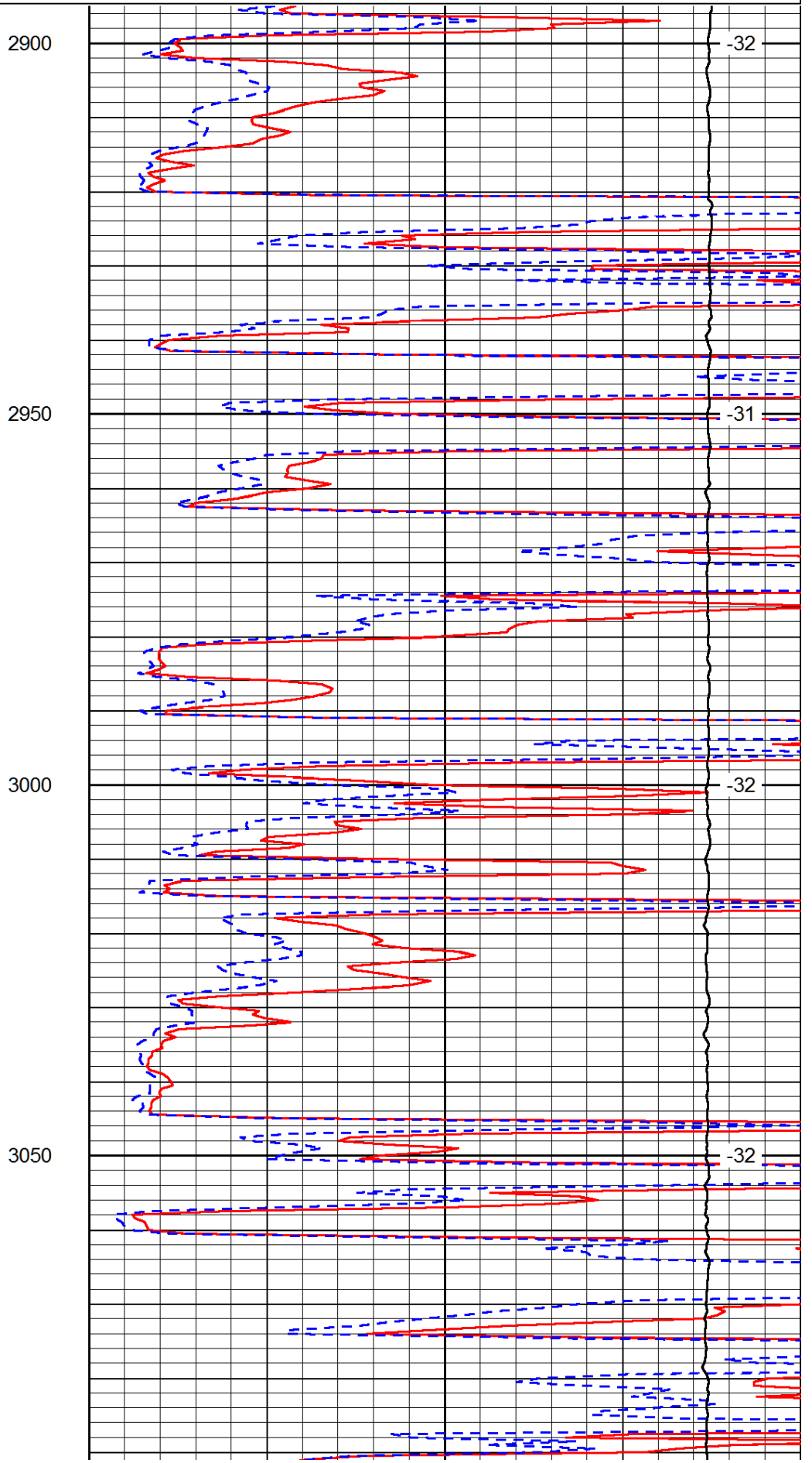
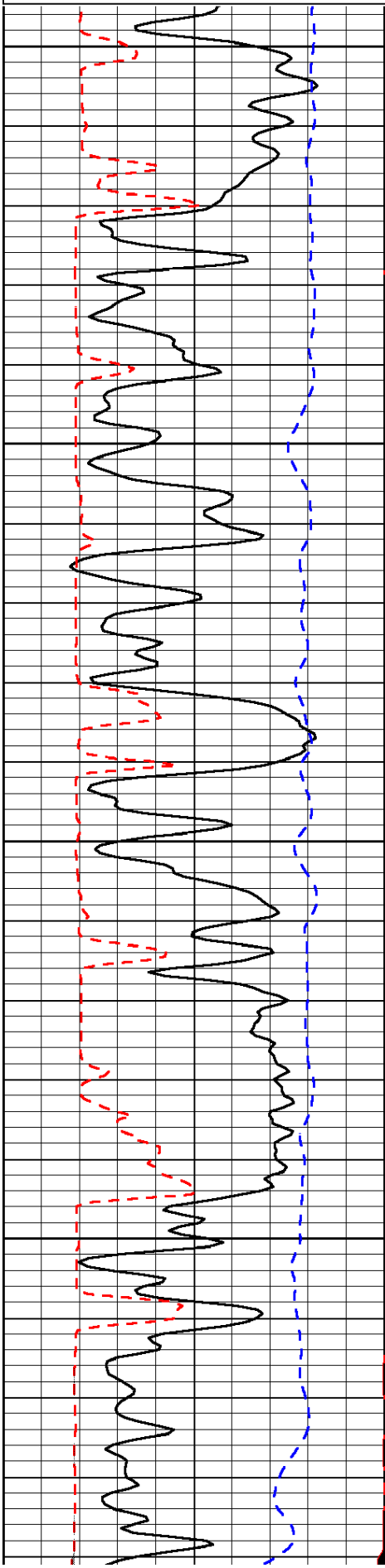
Hays Kansas
West on Old 40 to 210 Ave, 3/4 North, East Into

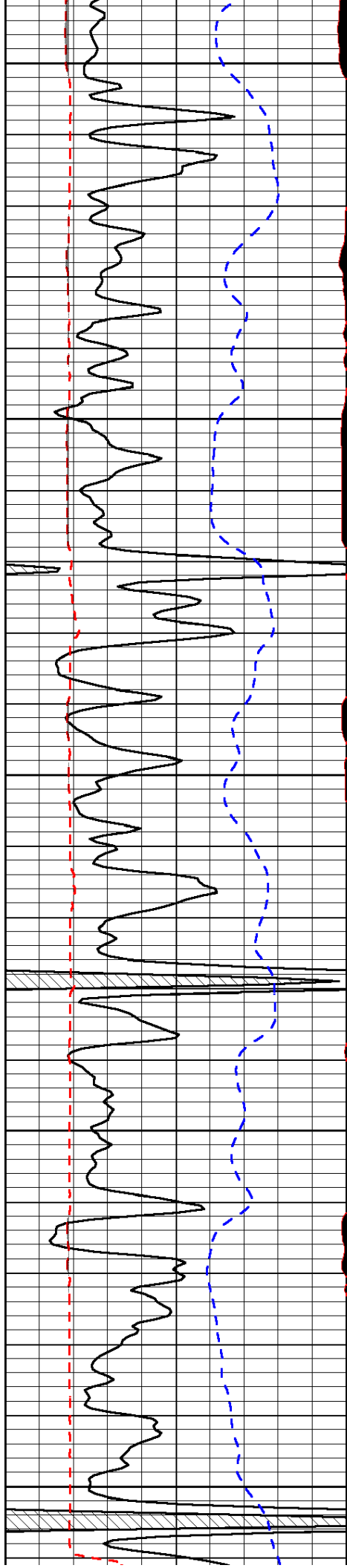
Database File: cobalt_sack_trust_a_1_24hd.db
Dataset Pathname: DIL/cobstk
Presentation Format: micro
Dataset Creation: Wed Aug 13 19:25:53 2014
Charted by: Depth in Feet scaled 1:240

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

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0

LSPD





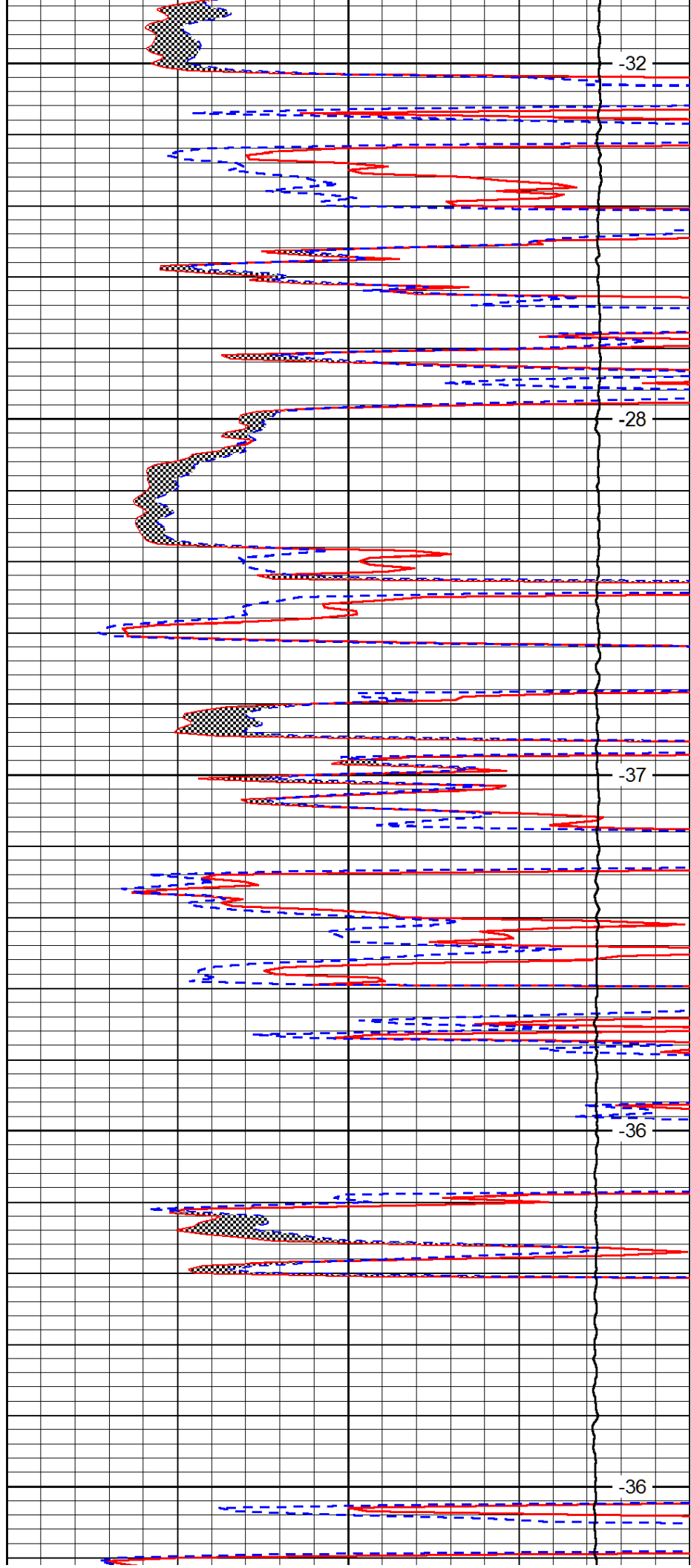
3100

3150

3200

3250

3300



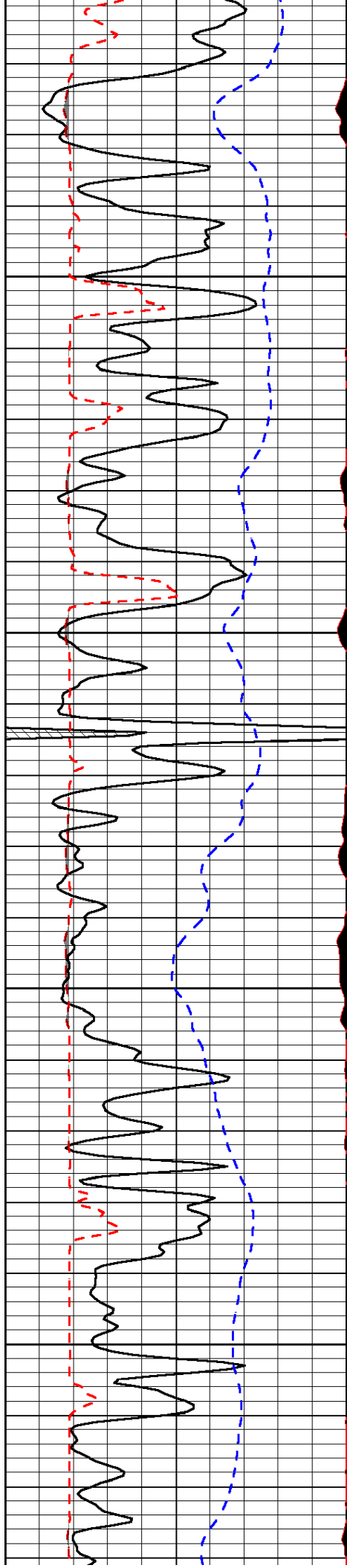
-32

-28

-37

-36

-36

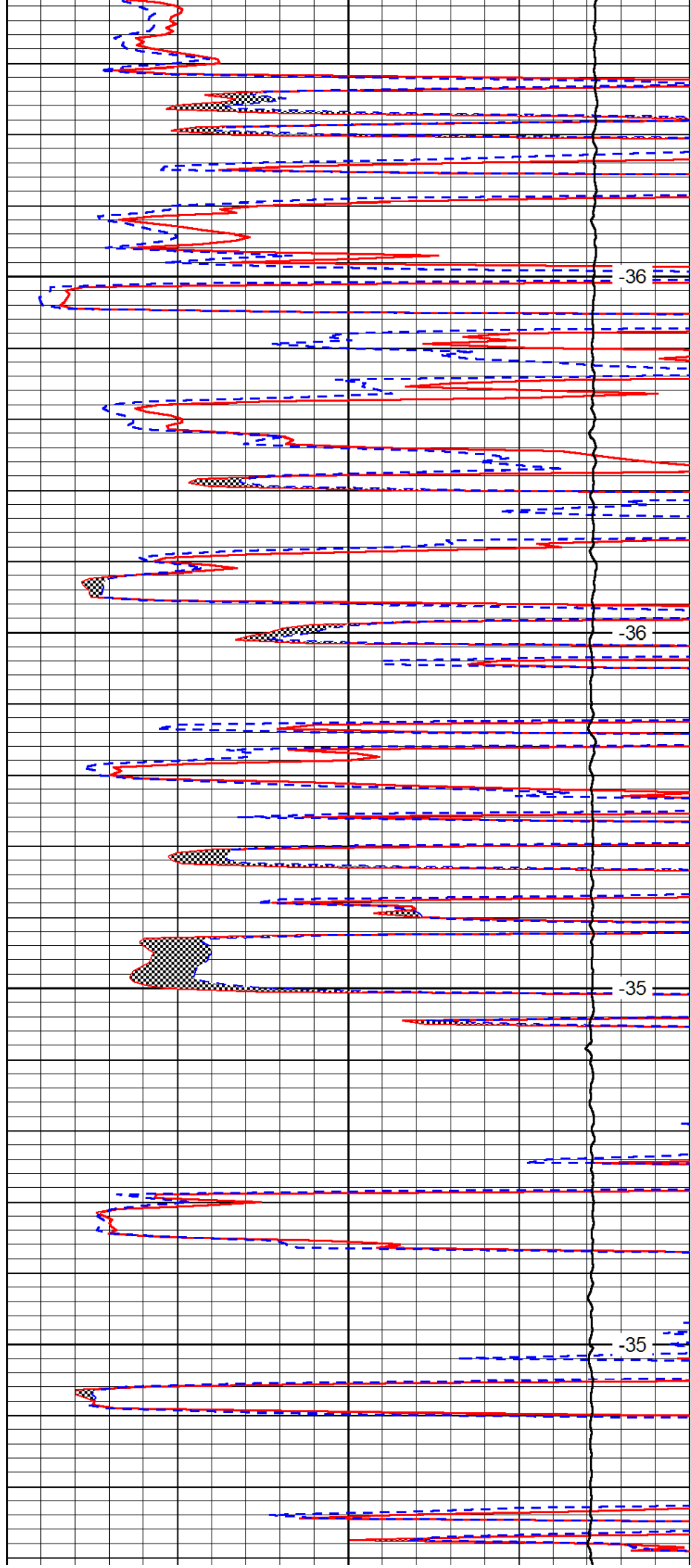


3350

3400

3450

3500

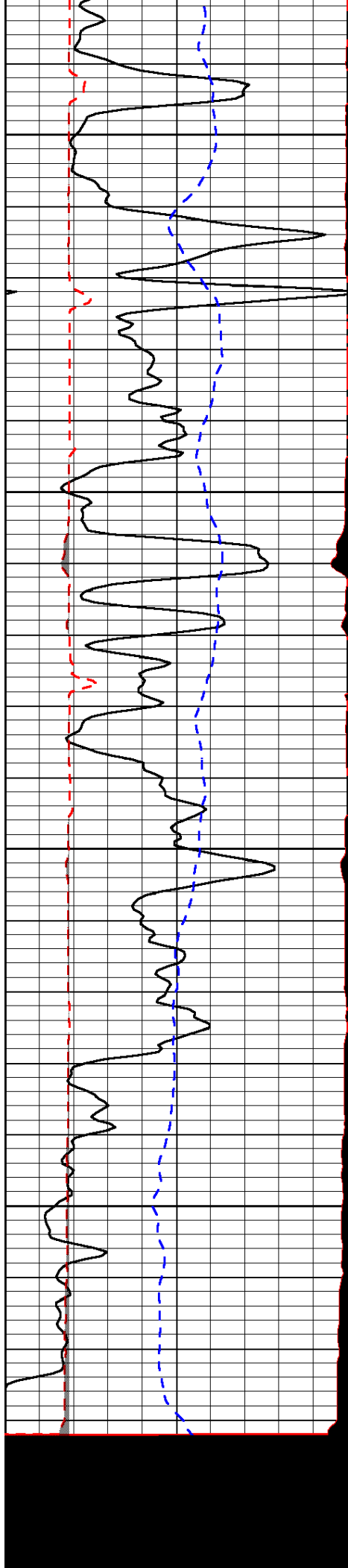


-36

-36

-35

-35



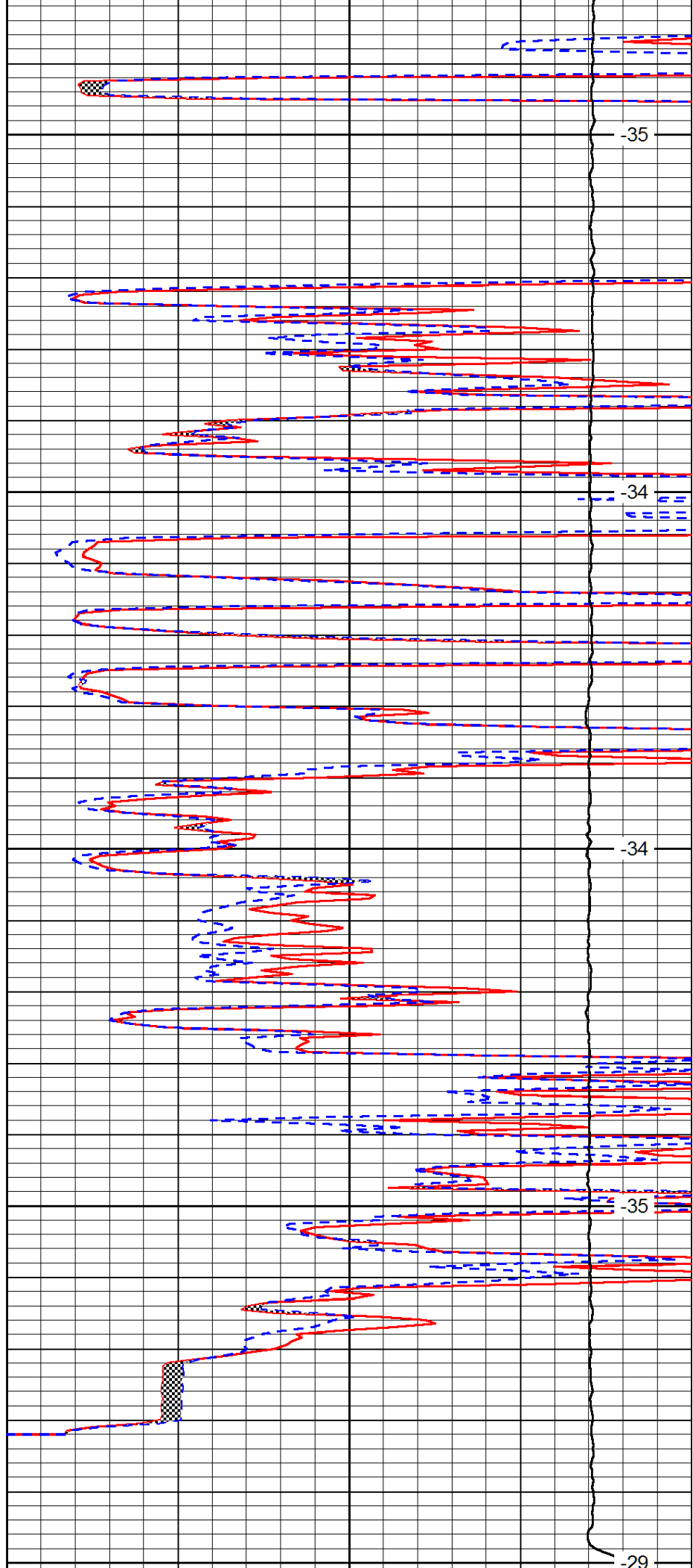
3550

3600

3650

3700

3750



-35

-34

-34

-35

-29

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

0	Micro Inverse 1 X 1	40
0	Micro Normal 2"	40
10000	Line Weight	0
		LSPD