



Pioneer Energy Services

Microresistivity Log

API No. 15-053-21,302-00-00

Company: American Warrior, Inc.
 Well: Grubb Unit No. 2-5
 Field: Stoltenberg
 County: Ellsworth State: Kansas

Location: SE-NE-NE-SW
 2296' FSL & 2611' FEL

Sec: 5 Twp: 16S Rge: 10W

Other Services: CNL/CDL DIL

Permanent Datum	Ground Level	Elevation 1835	
Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum	K.B. 1843
Drilling Measured From	Kelly Bushing		D.F. 1835
Date	1/19/14		G.L. 1835
Run Number	Two		
Depth Driller	3420		
Depth Logger	3420		
Bottom Logged Interval	3419		
Top Log Interval	2650		
Casing Driller	8.625 @ 343		
Casing Logger	335		
Bit Size	7.875		
Type Fluid in Hole	Chemical		
Salinity, ppm CL	6,100		
Density / Viscosity	9.6 58		
pH / Fluid Loss	10.0 8.8		
Source of Sample	Flowline		
Rm @ Meas. Temp	.60 @ 55		
Rmf @ Meas. Temp	.45 @ 55		
Rmc @ Meas. Temp	.81 @ 55		
Source of Rmf / Rmc	Charts		
Rm @ BHT	.30 @ 110		
Operating Rig Time	3 1/2 Hours		
Max Rec. Temp. F	110		
Equipment Number	108		
Location	Hays		
Recorded By	J. Henrickson		
Witnessed By	Wyatt Urban		

<<< 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

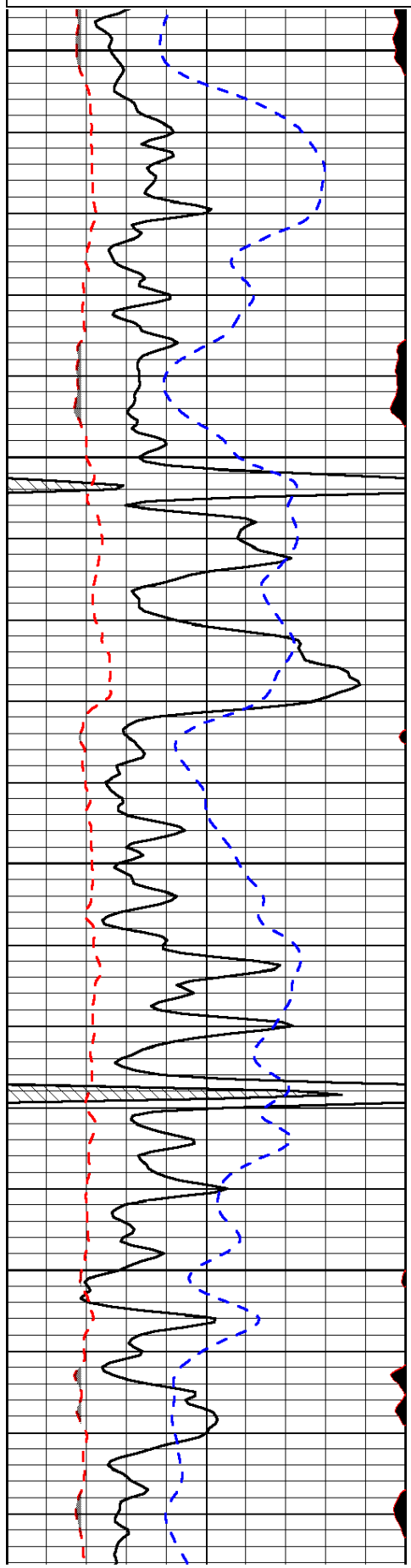
Wilson Kansas
 10 South, 1 1/2 East, North Into at Tank Batteries

Database File: american_warrior_grubb_unit_2_5hd.db
 Dataset Pathname: DIL/awstk
 Presentation Format: micro
 Dataset Creation: Sun Jan 19 05:13:33 2014
 Charted by: Depth in Feet scaled 1:240

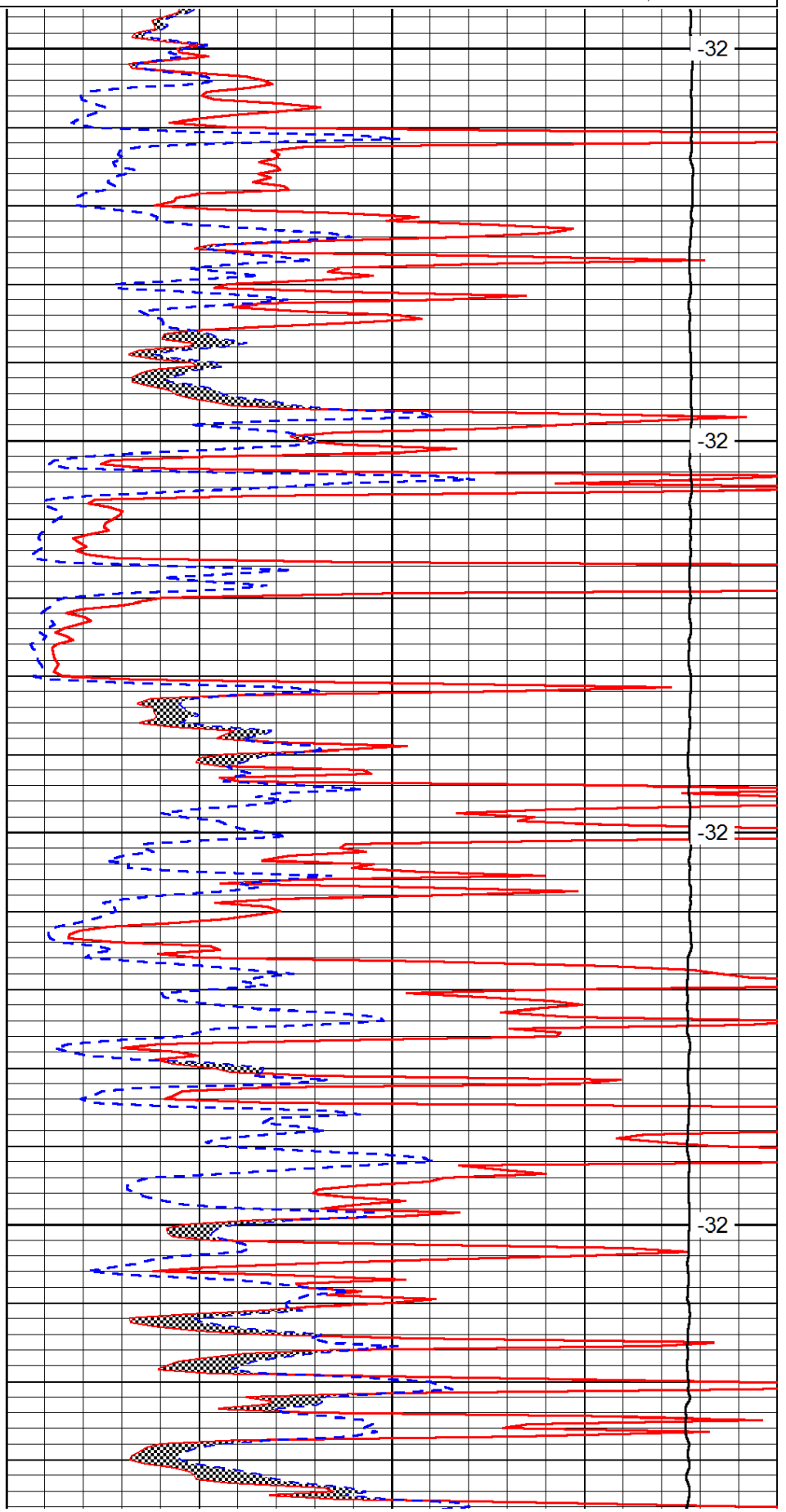
0	Gamma Ray (GAPI)	150
6	MCAL (in)	16
2.875	Mud Cake (in)	7.875
-200	SP (mV)	0

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

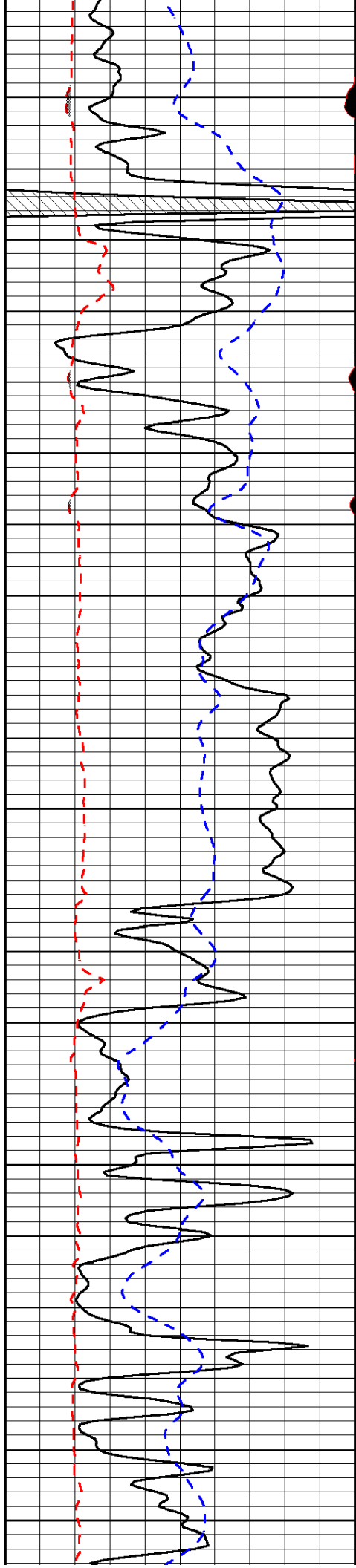
LSPD
(ft/min)



2650
2700
2750
2800



-32
-32
-32
-32



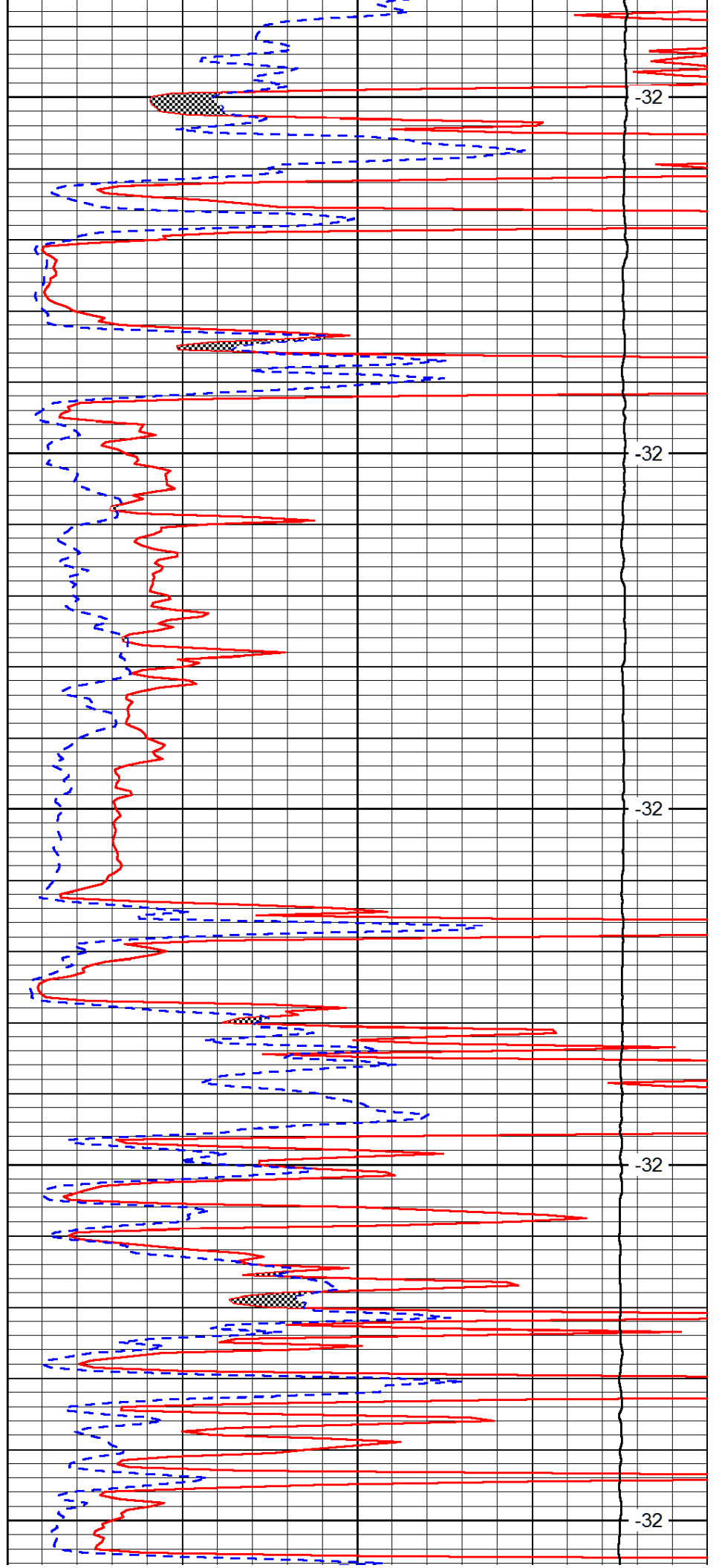
2850

2900

2950

3000

3050



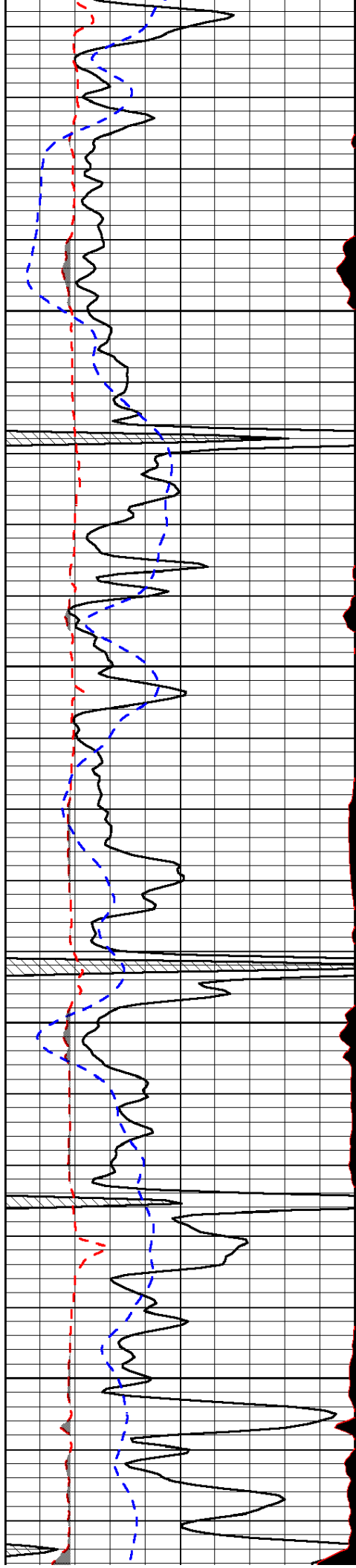
-32

-32

-32

-32

-32

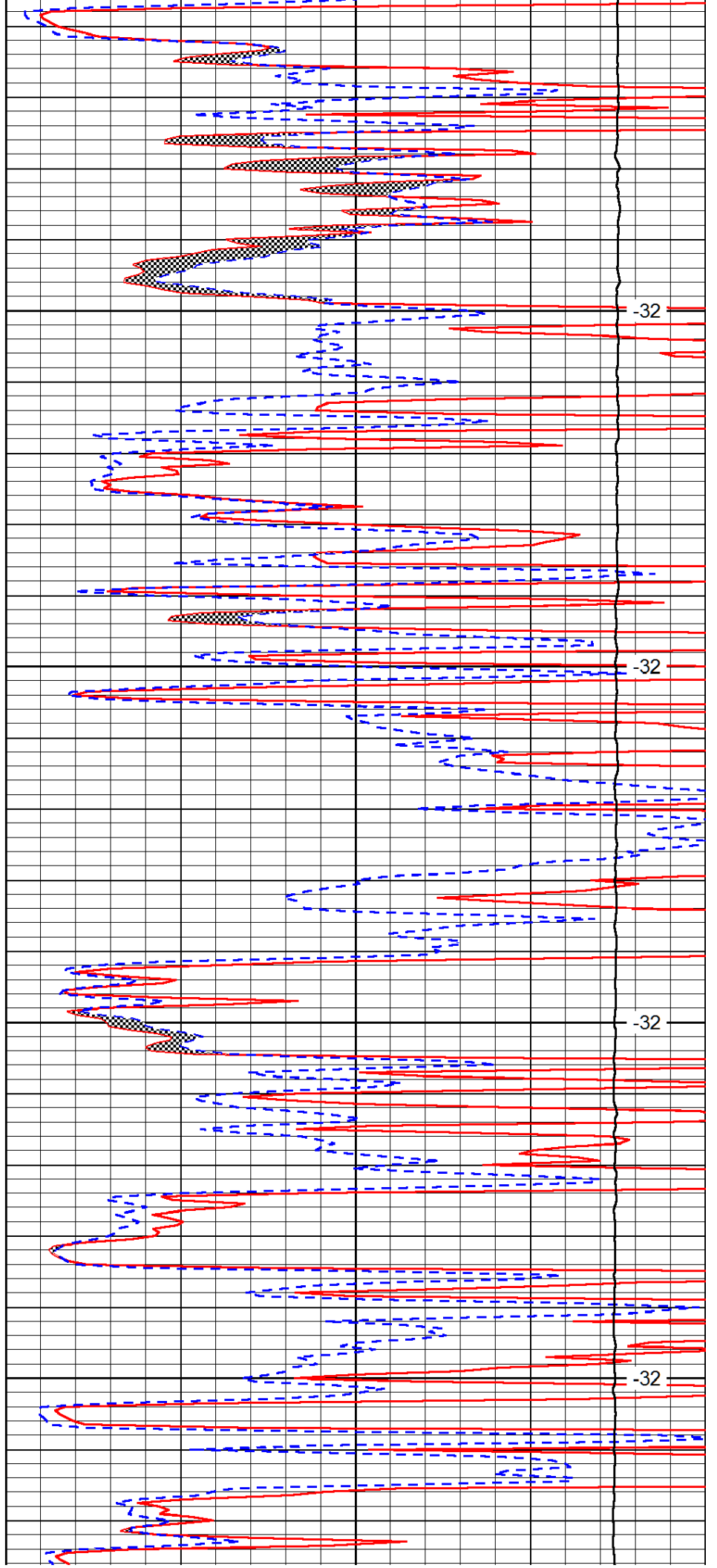


3100

3150

3200

3250

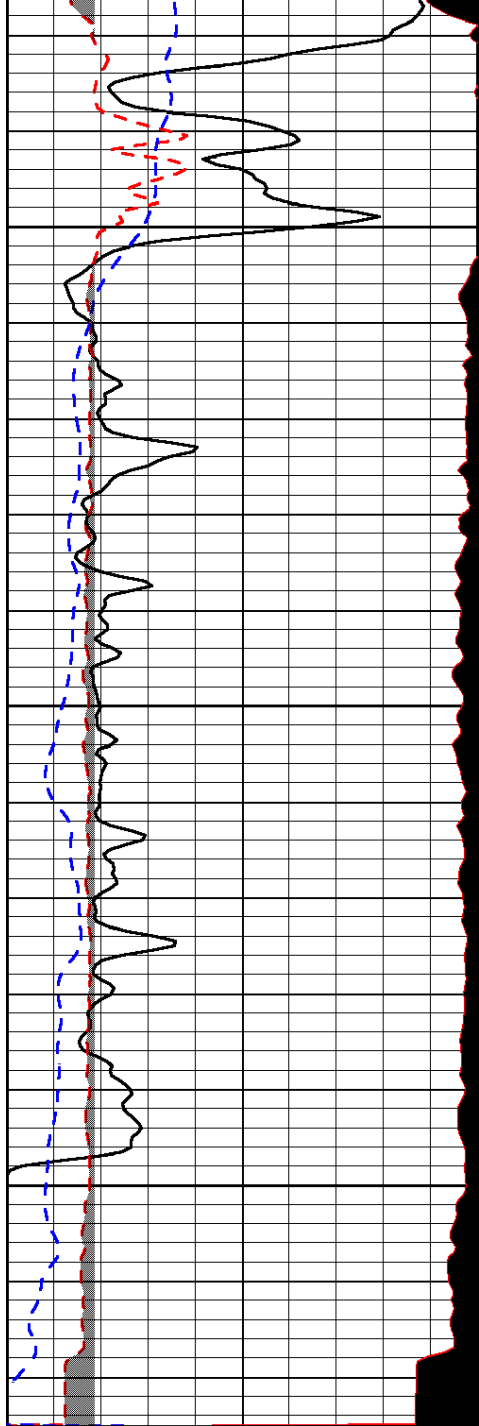


-32

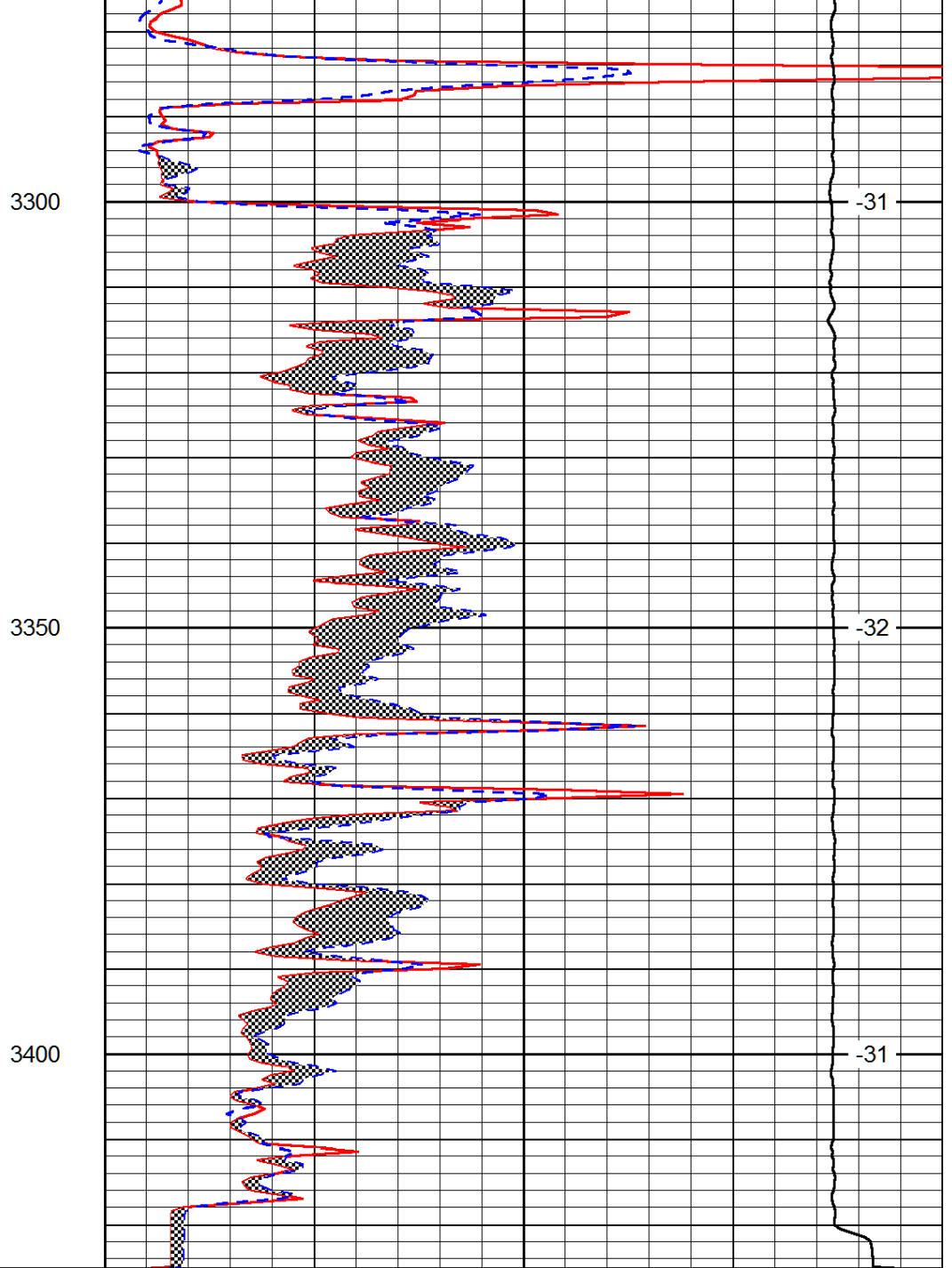
-32

-32

-32



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)