



Pioneer Energy Services

# Microresistivity Log

15-009-25,842-00-00

API No.

Company **Hamby Oil, LLC**  
 Well **Miller #1**  
 Field **Unknown**  
 County **Barton** State **Kansas**

Location  
 NW SW NW NE  
 950' FNL & 2515' FEL

Sec: 16 Twp: 20S Rge: 11W

Other Services  
 CNL/CDL  
 DIL

Permanent Datum Ground Level Elevation 1766  
 Log Measured From Kelly Bushing 8 Ft. Above Perm. Datum  
 Drilling Measured From Kelly Bushing

Elevation  
 K.B. 1774  
 D.F. 1766  
 G.L. 1766

Date	5/18/2013	
Run Number	Two	
Depth Driller	3340	
Depth Logger	3344	
Bottom Logged Interval	3343	
Top Log Interval	2600	
Casing Driller	8.625 @ 271	
Casing Logger	270	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	6000	
Density / Viscosity	9.3 46	
pH / Fluid Loss	10.0 8.8	
Source of Sample	Flowline	
Rm @ Meas. Temp	0.55 @ 85	
Rmf @ Meas. Temp	0.41 @ 85	
Rmc @ Meas. Temp	0.74 @ 85	
Source of Rmf / Rmc	Charts	
Rm @ BHT	0.43 @ 109	
Operating Rig Time	3 1/2 Hours	
Max Rec. Temp. F	109	
Equipment Number	10	
Location	Hays	
Recorded By	D. Kerr	
Witnessed By	Kurt Talbott	

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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.pioneerenergy.com  
 785 625 3858

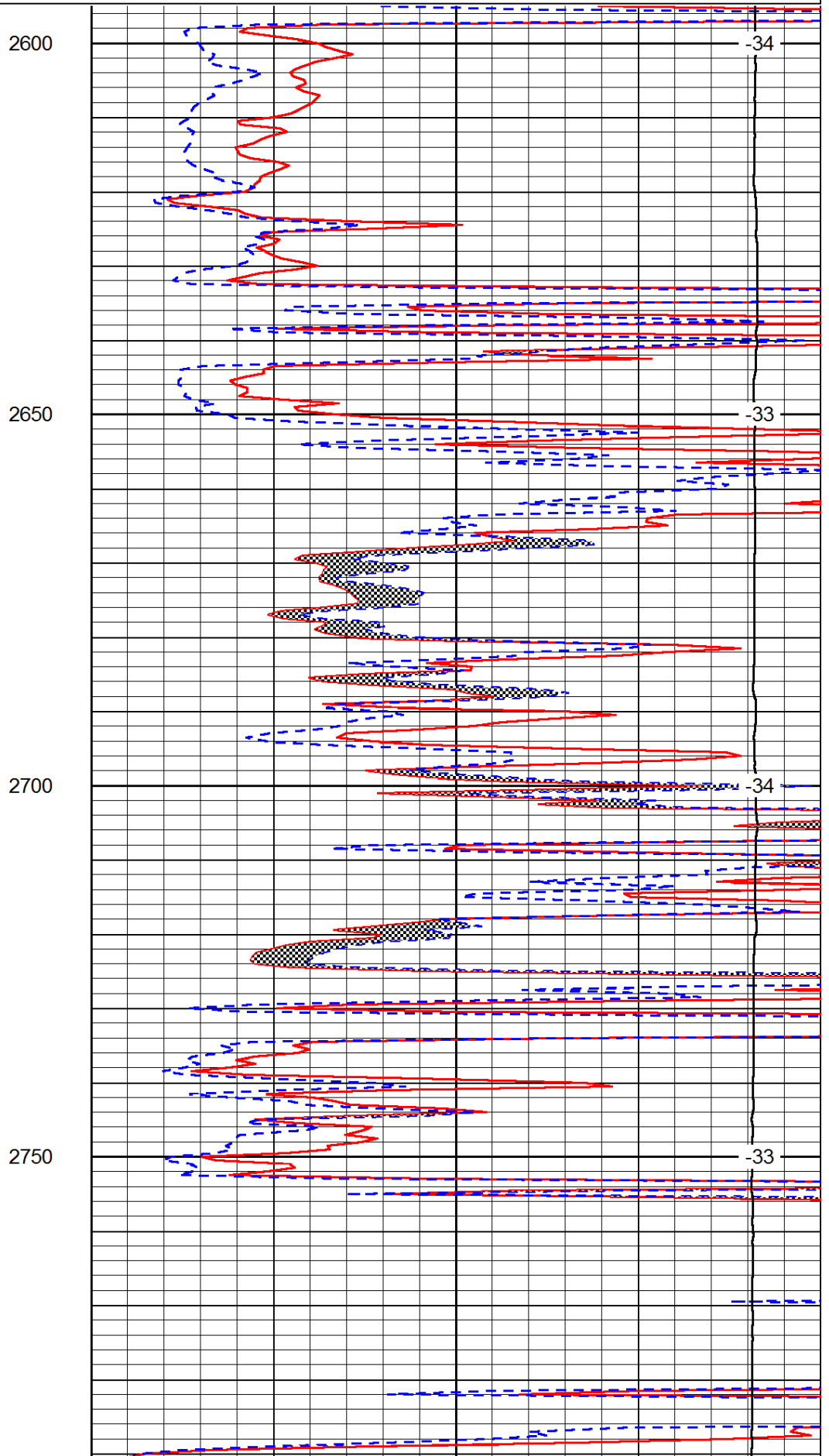
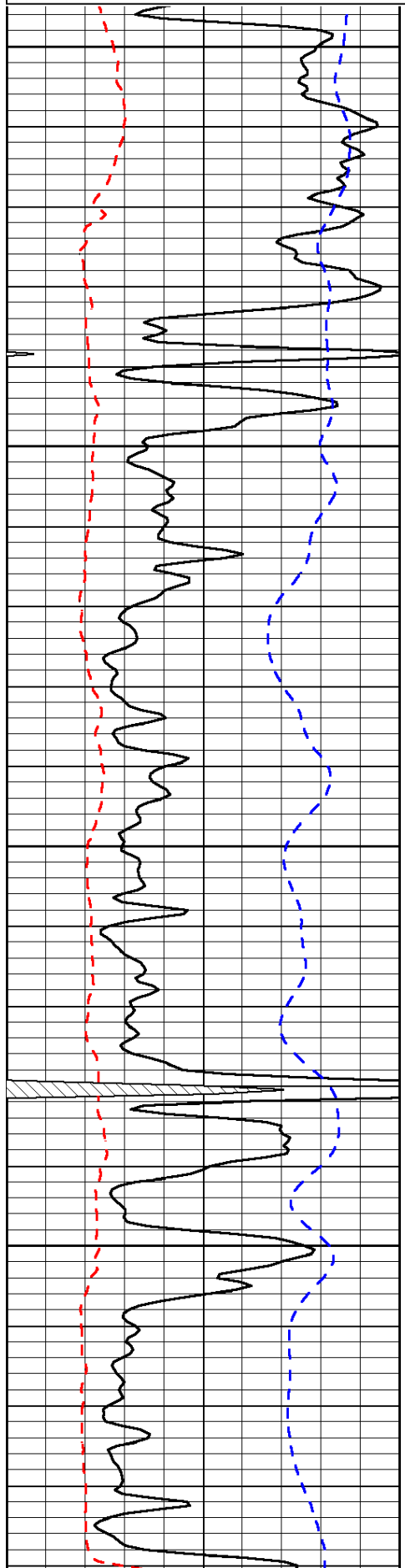
Ellinwood Ks, Southeast to SE 100 Ave, South to 30 RD,  
 2 1/2 East, South Into

Database File: c:\warrior\data\hamby oil\_miller #1\hamby\_miller\_1hd.db  
 Dataset Pathname: DIL\hamstk  
 Presentation Format: micro  
 Dataset Creation: Sat May 18 21:48:44 2013  
 Charted by: Depth in Feet scaled 1:240

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

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

LSPD



2600

-34

2650

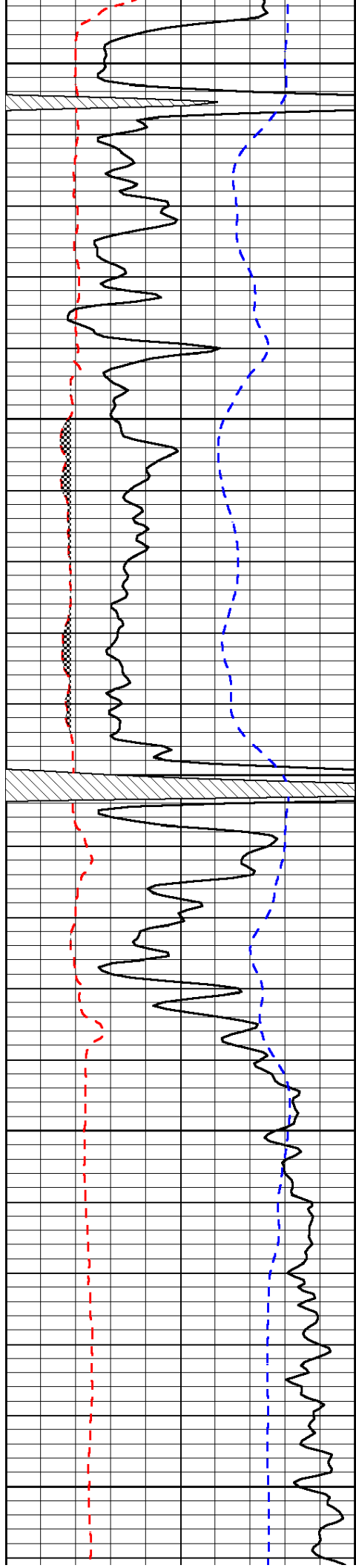
-33

2700

-34

2750

-33



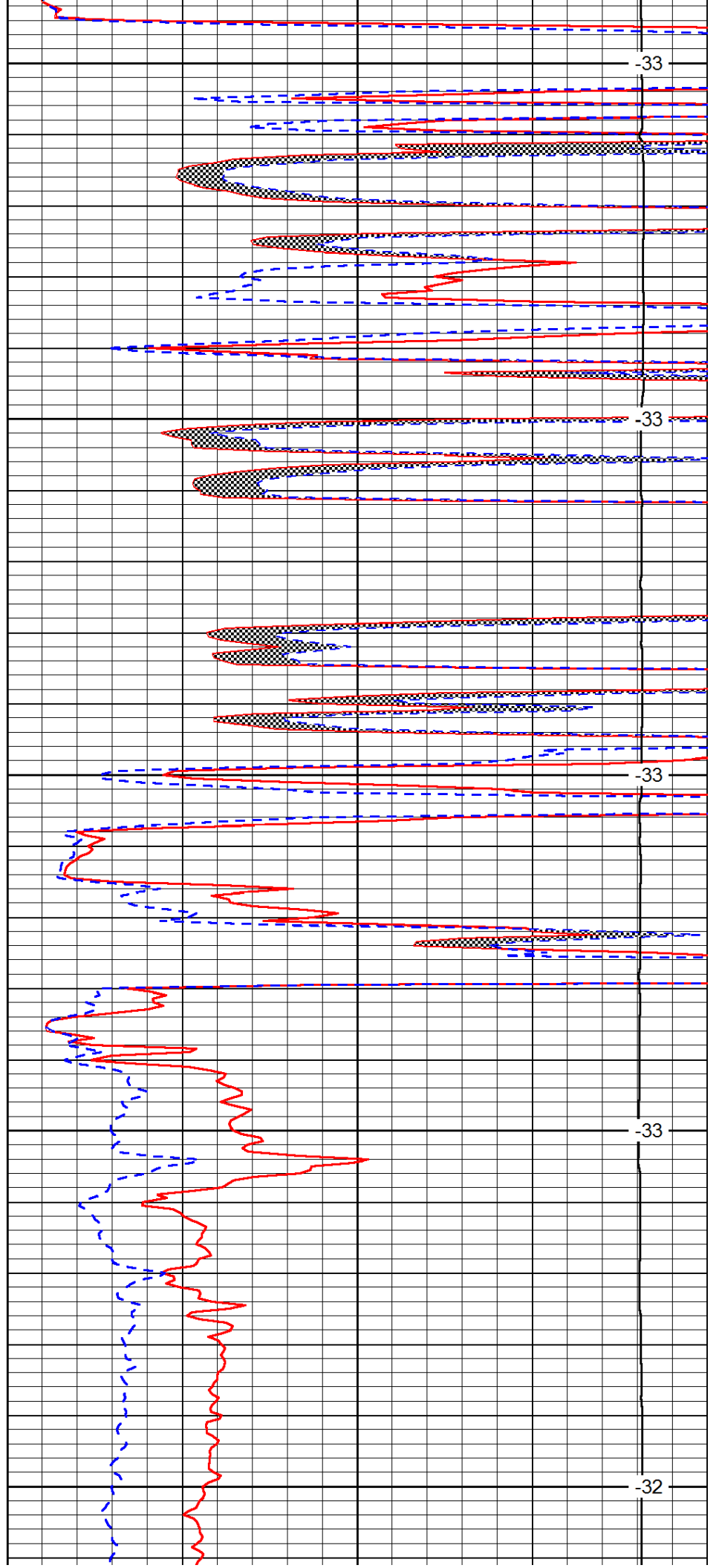
2800

2850

2900

2950

3000



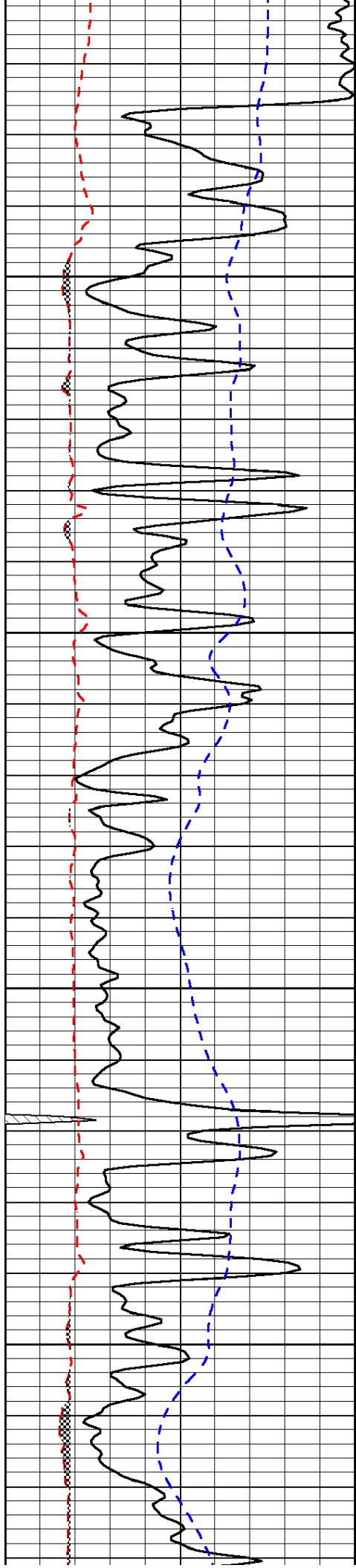
-33

-33

-33

-33

-32

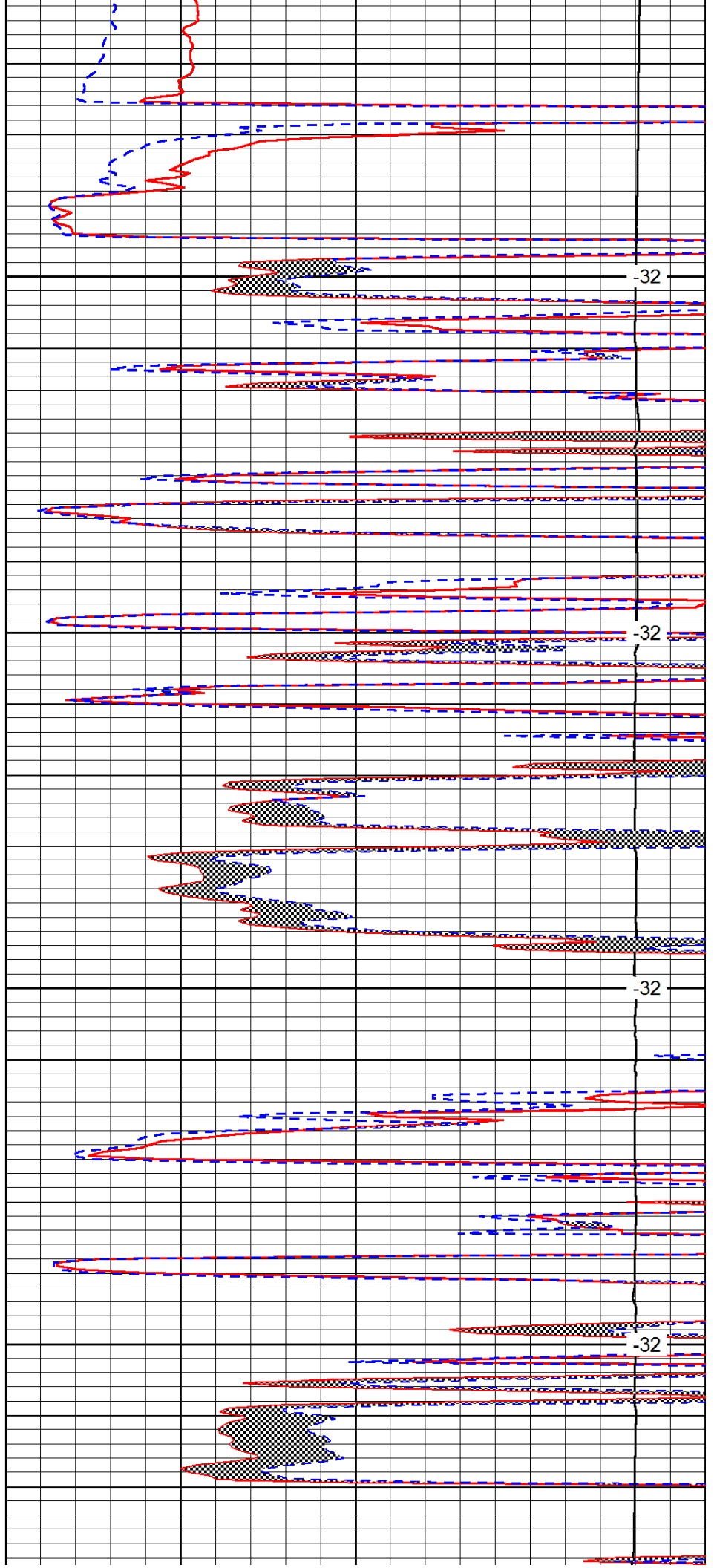


3050

3100

3150

3200

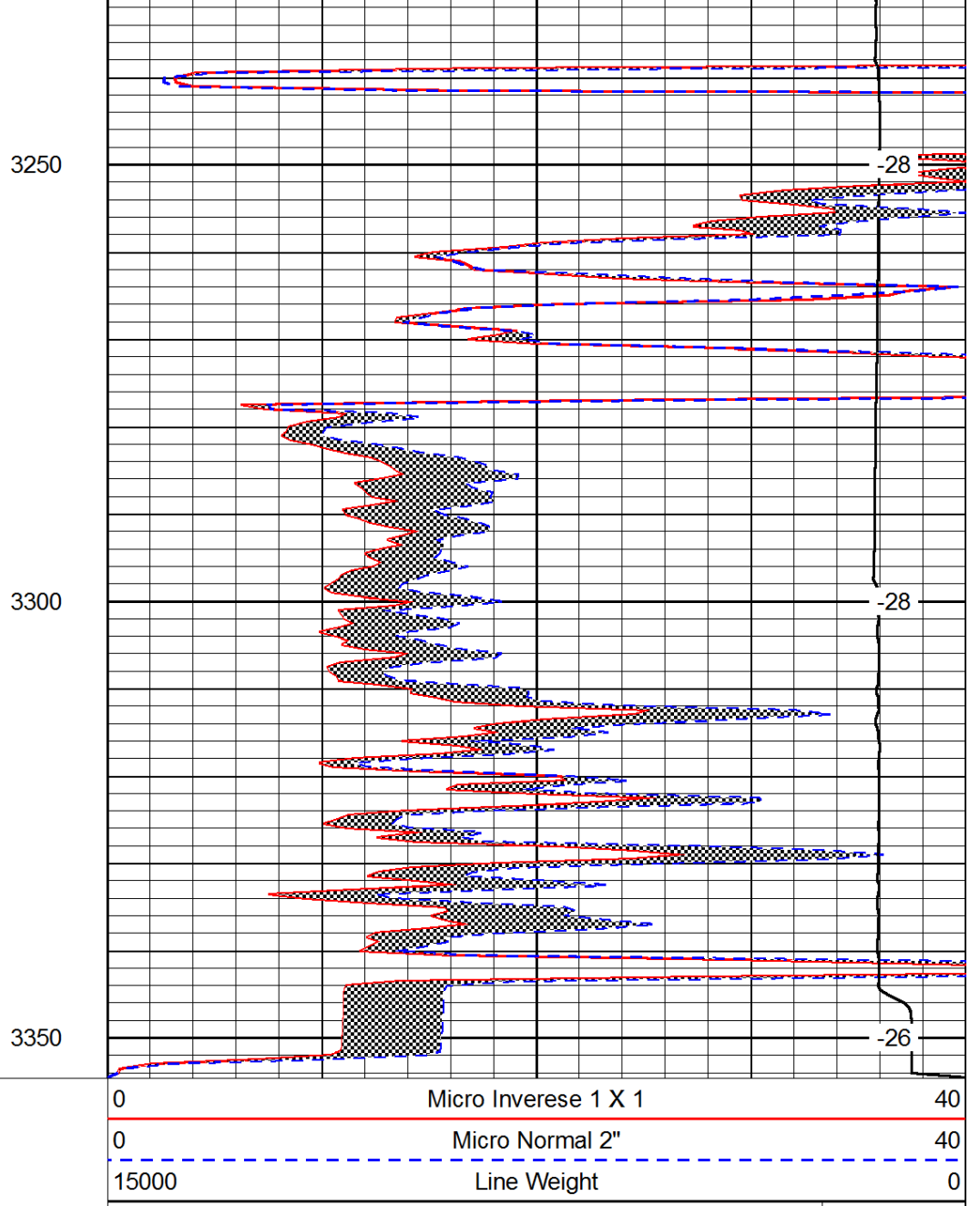
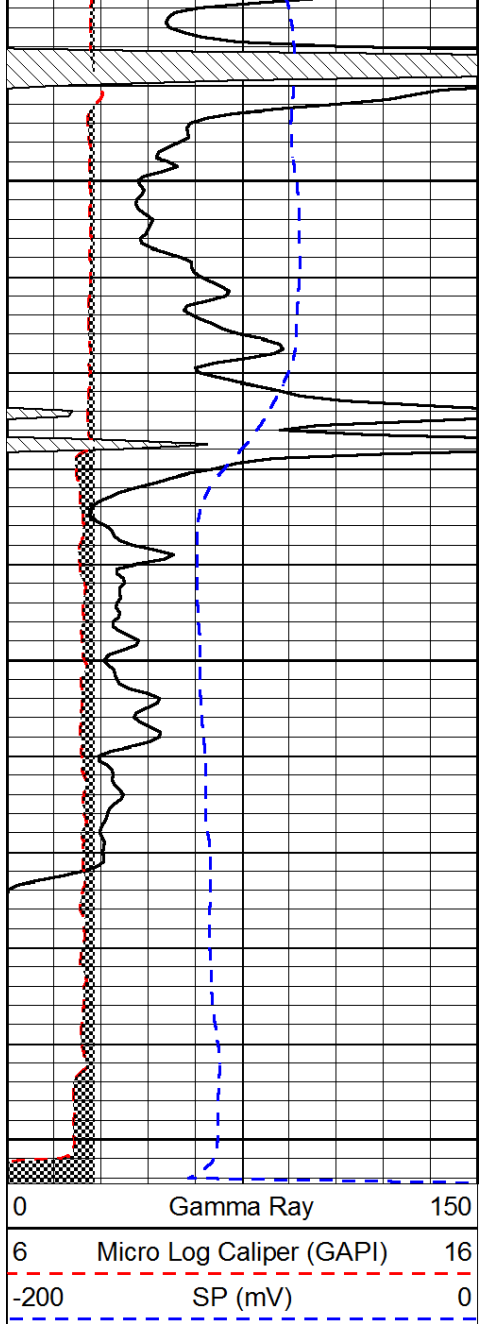


-32

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LSPD