



Pioneer Energy Services

Microresistivity Log

API No.	15-145-21,697-00-00	
Company	H&D Exploration, LLC.	
Well	Roth A No. 1	
Field	Pawnee Rock	
County	Pawnee	State
Location	SW/NW/NE SW 2297' FSL & 1434' FWL	
Sec:	35	Twp: 20 S Rge: 16 W
Other Services	CNL/CDL DIL	
Elevation	K.B. 2010 D.F. 2003 G.L. 2003	

Permanent Datum	Ground Level	Elevation 2003
Log Measured From	Kelly Bushing	7 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
Date	11/8/2012	
Run Number	Two	
Depth Driller	3840	
Depth Logger	3838	
Bottom Logged Interval	3837	
Top Log Interval	3200	
Casing Driller	8.625 @ 995	
Casing Logger	994	
Bit Size	7.875	
Type Fluid in Hole	Chemical	
Salinity, ppm CL	6600	
Density / Viscosity	9.5	55
pH / Fluid Loss	10.5	7.2
Source of Sample	Flowline	
Rm @ Meas. Temp	.60	@ 68
Rmf @ Meas. Temp	.45	@ 68
Rmc @ Meas. Temp	.81	@ 68
Source of Rmf / Rmc	Charts	
Rm @ BHT	.36	@ 114
Operating Rig Time	3 1/2 Hours	
Max Rec. Temp. F	114	
Equipment Number	15	
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

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(785) 625-3858

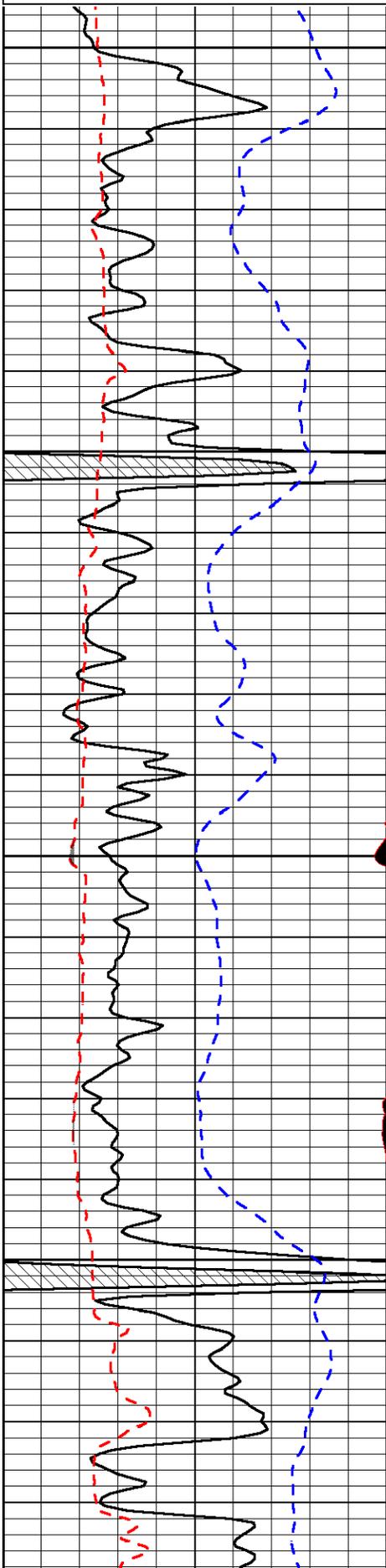
Pawnee Rock, KS, 5 1/2 West On T RD,
North Into

Database File: h&d_roth_a_1hd.db
 Dataset Pathname: DIL/h&dstk
 Presentation Format: micro
 Dataset Creation: Thu Nov 08 09:16:36 2012
 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	0

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

LSPD

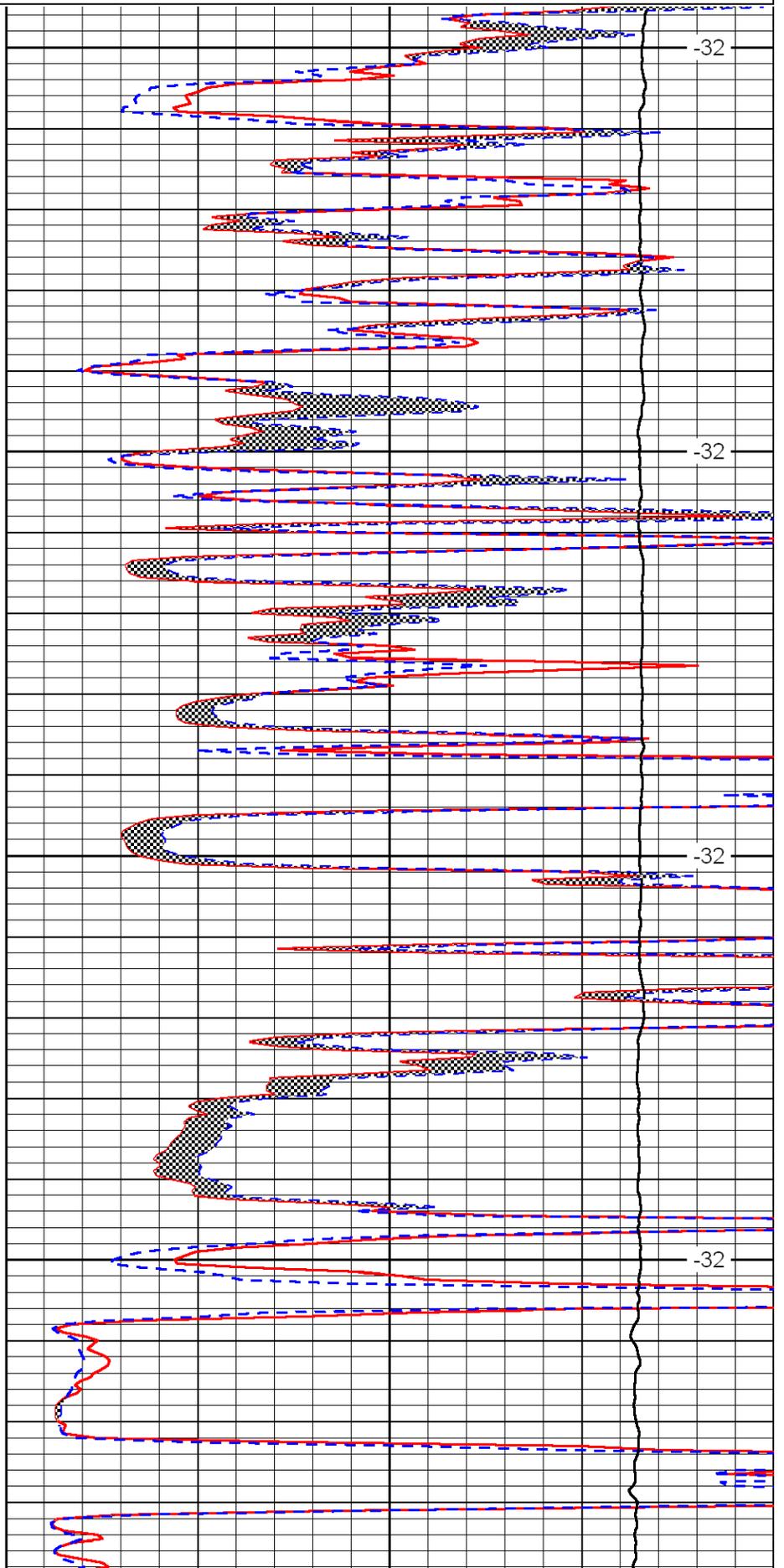


3200

3250

3300

3350

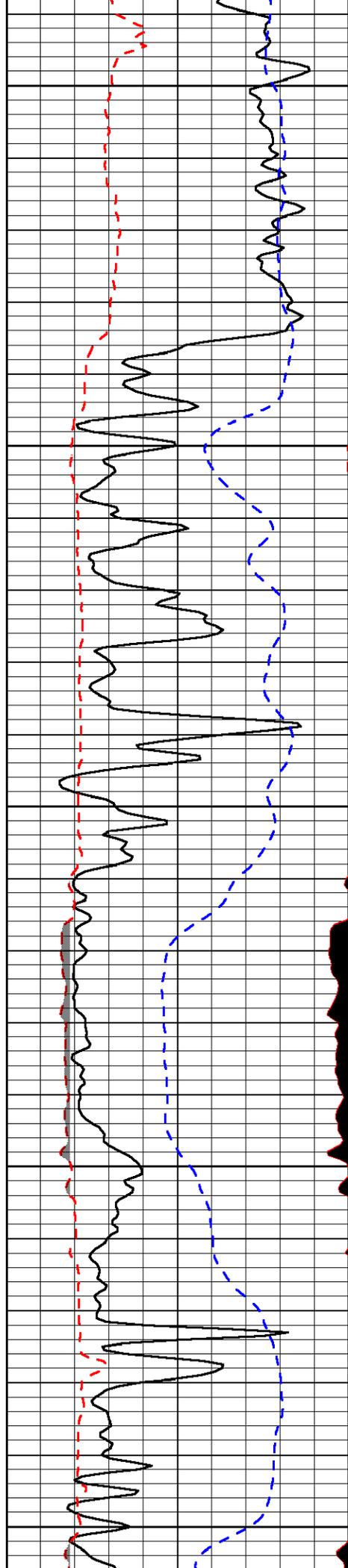


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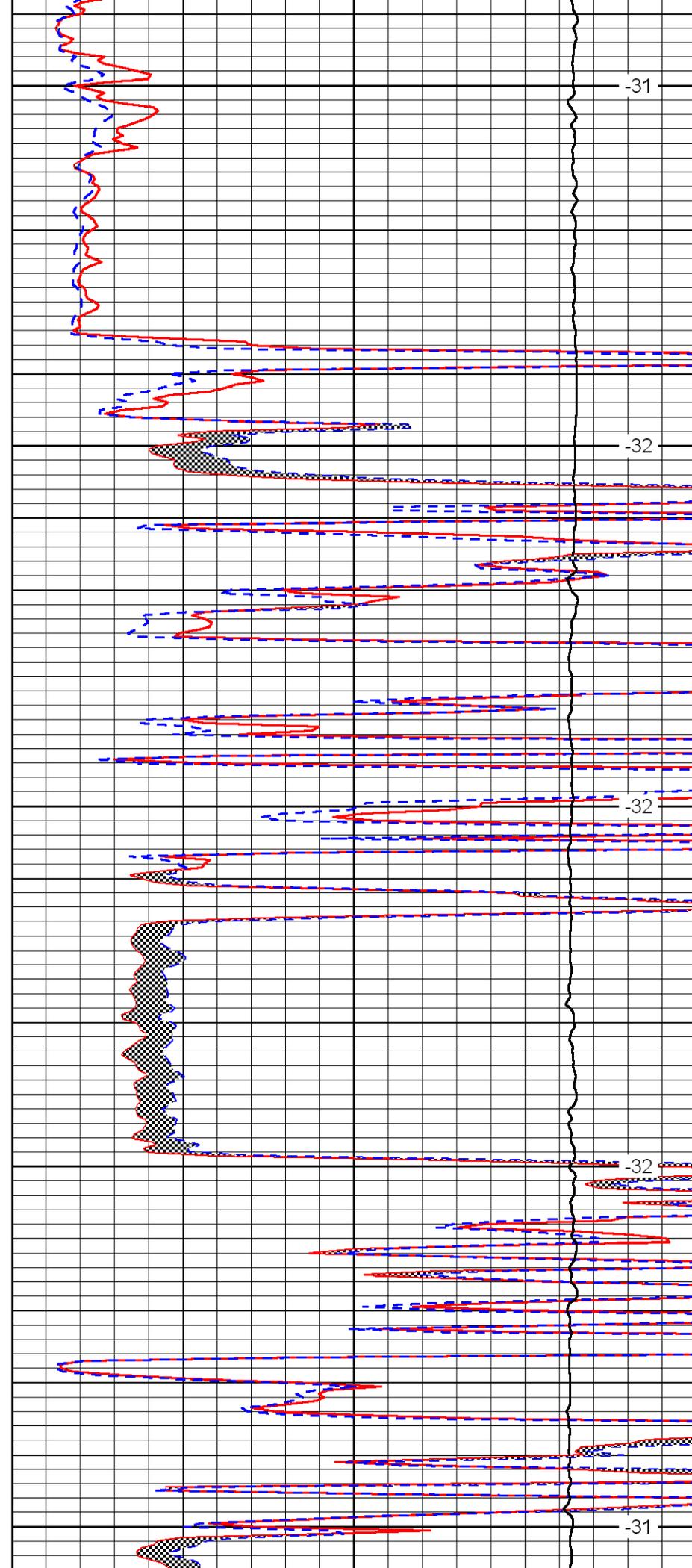
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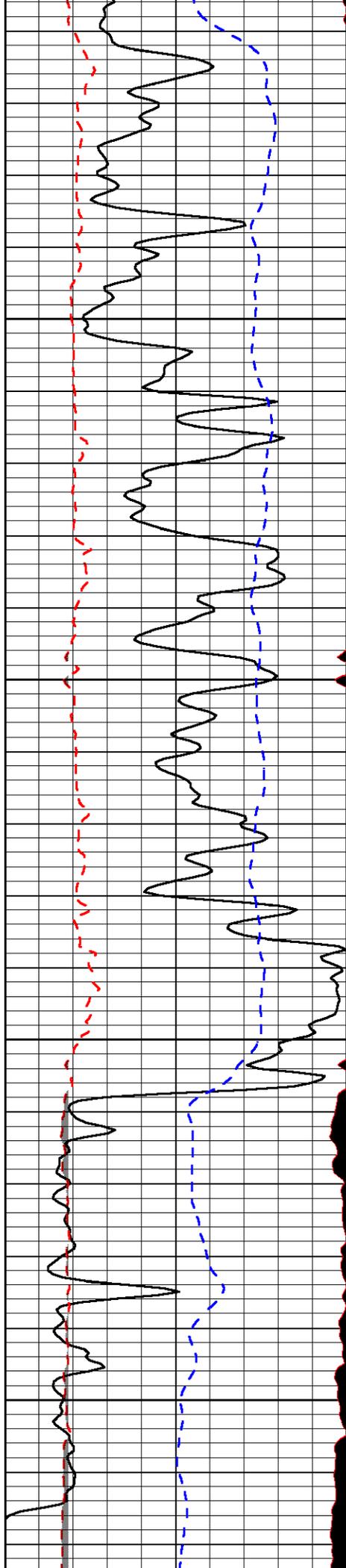
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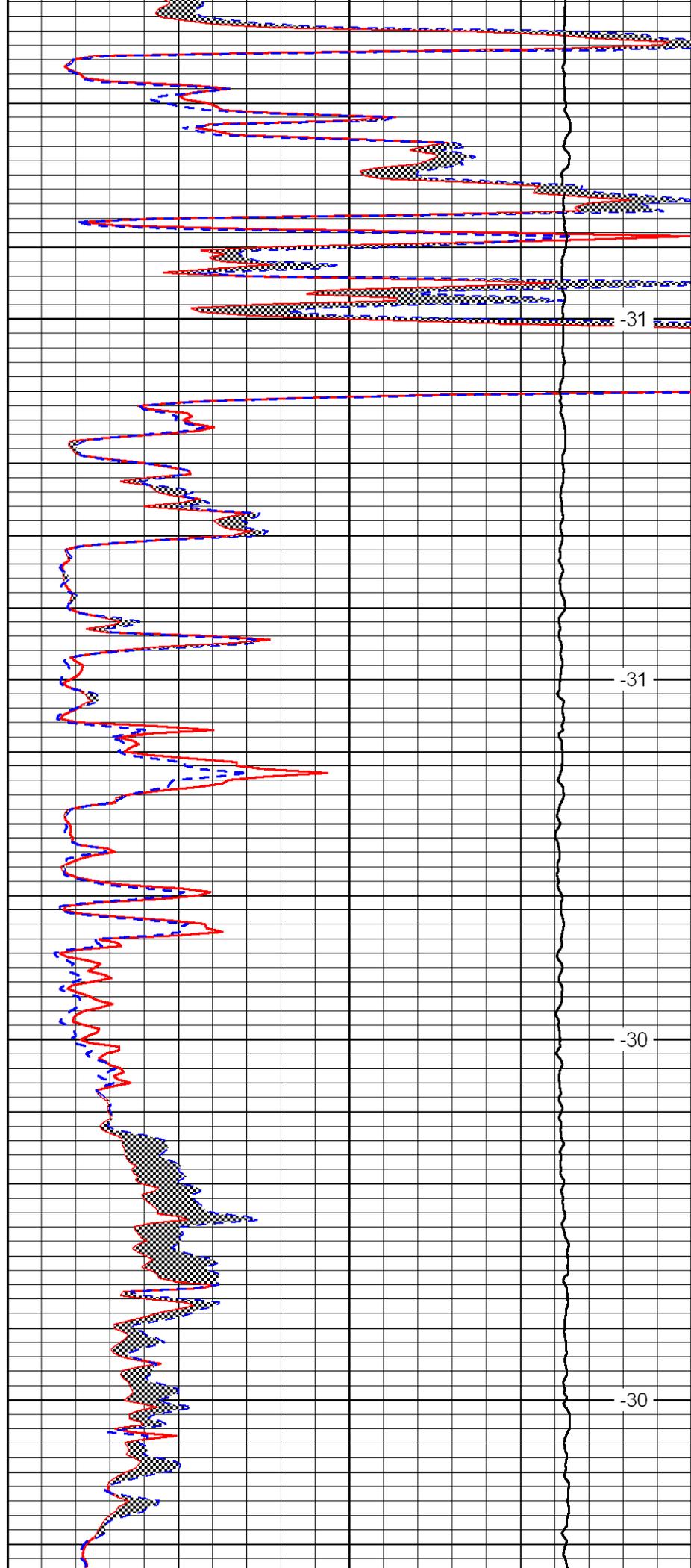


3650

3700

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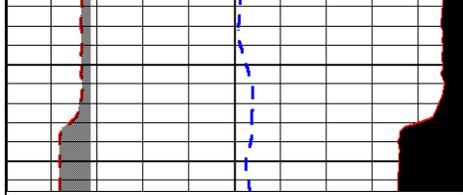


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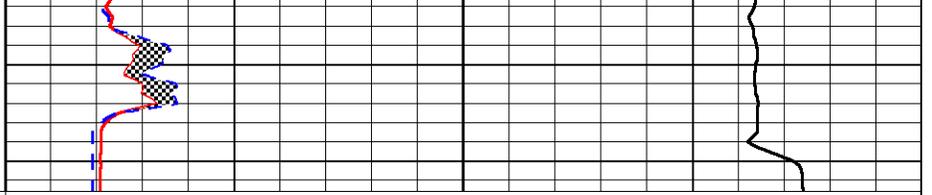
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