



Pioneer Energy Services

# Microresistivity Log

API No.	15-051-26,400-00-00	
Company	Hertel Oil Company, LLC	
Well	Larry No. 1	
Field	Unnamed	
County	Ellis	State
		Kansas
Location	1635' FNL & 330' FEL	
Sec: 15	Twp: 15 S	Rge: 19 W
Permanent Datum	Ground Level	Elevation 2004
Log Measured From	Kelly Bushing	8 Ft. Above Perm. Datum
Drilling Measured From	Kelly Bushing	
		Other Services CNL/CDL DIL
		Elevation K.B. 2012 D.F. G.L. 2004

Date	10/9/2012
Run Number	Two
Depth Driller	3700
Depth Logger	3701
Bottom Logged Interval	3700
Top Log Interval	2900
Casing Driller	8.625 @ 1219
Casing Logger	1217
Bit Size	7.875
Type Fluid in Hole	Chemical
Salinity, ppm CL	4500
Density / Viscosity	9.4 54
pH / Fluid Loss	10.5 7.8
Source of Sample	Flowline
Rm @ Meas. Temp	.60 @ 70
Rmf @ Meas. Temp	.45 @ 70
Rmc @ Meas. Temp	.81 @ 70
Source of Rmf / Rmc	Charts
Rm @ BHT	.37 @ 113
Operating Rig Time	3 1/2 Hours
Max Rec. Temp. F	113
Equipment Number	15
Location	Hays
Recorded By	D.Kerr
Witnessed By	Herb Deines

<<< 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

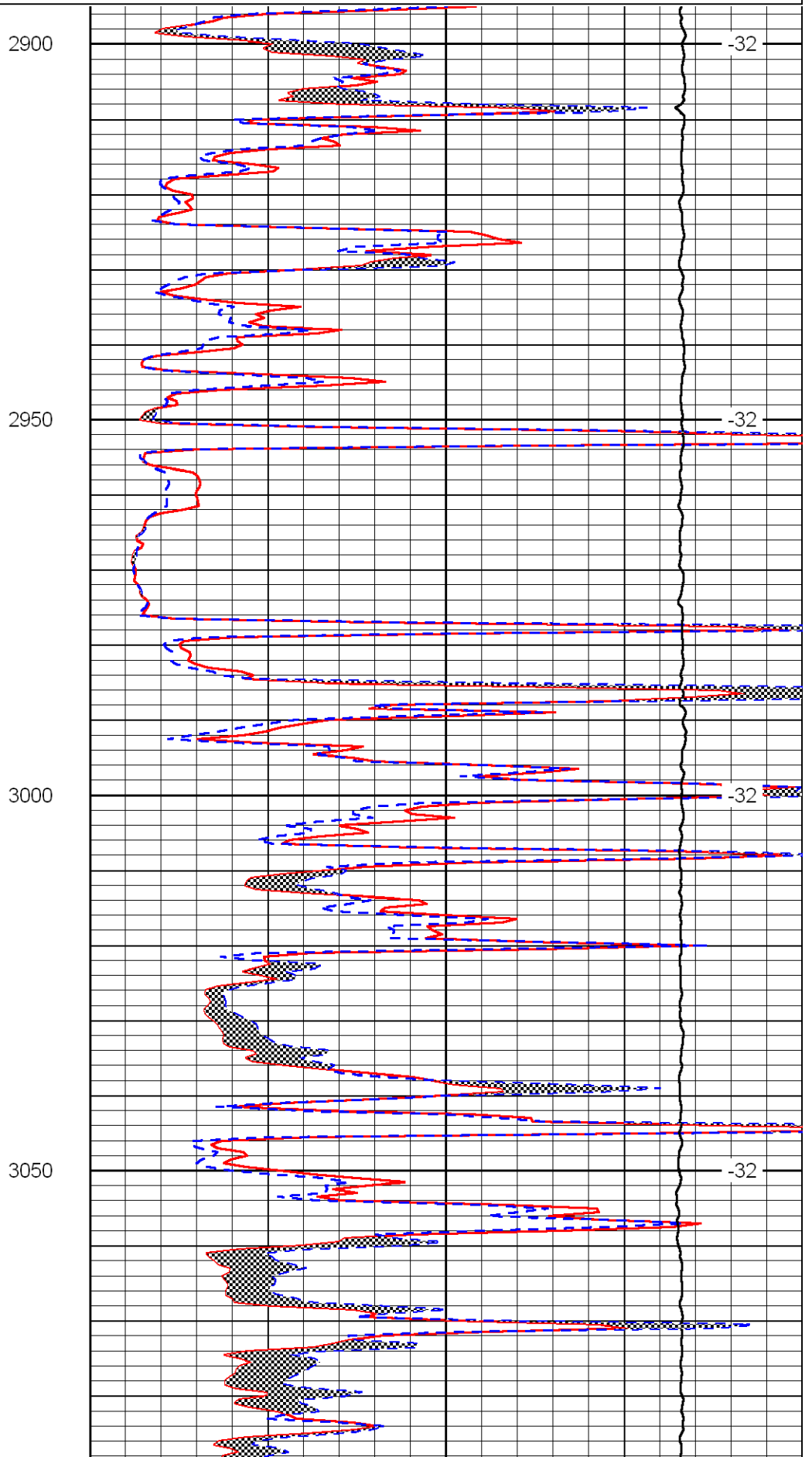
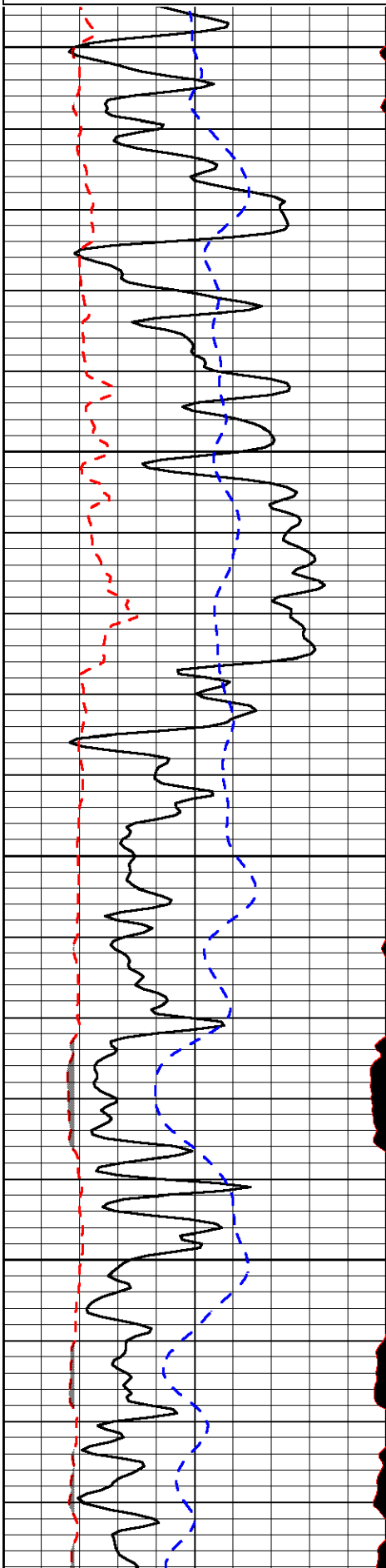
Thank you for using Log-Tech, Inc.  
(785) 625-3858

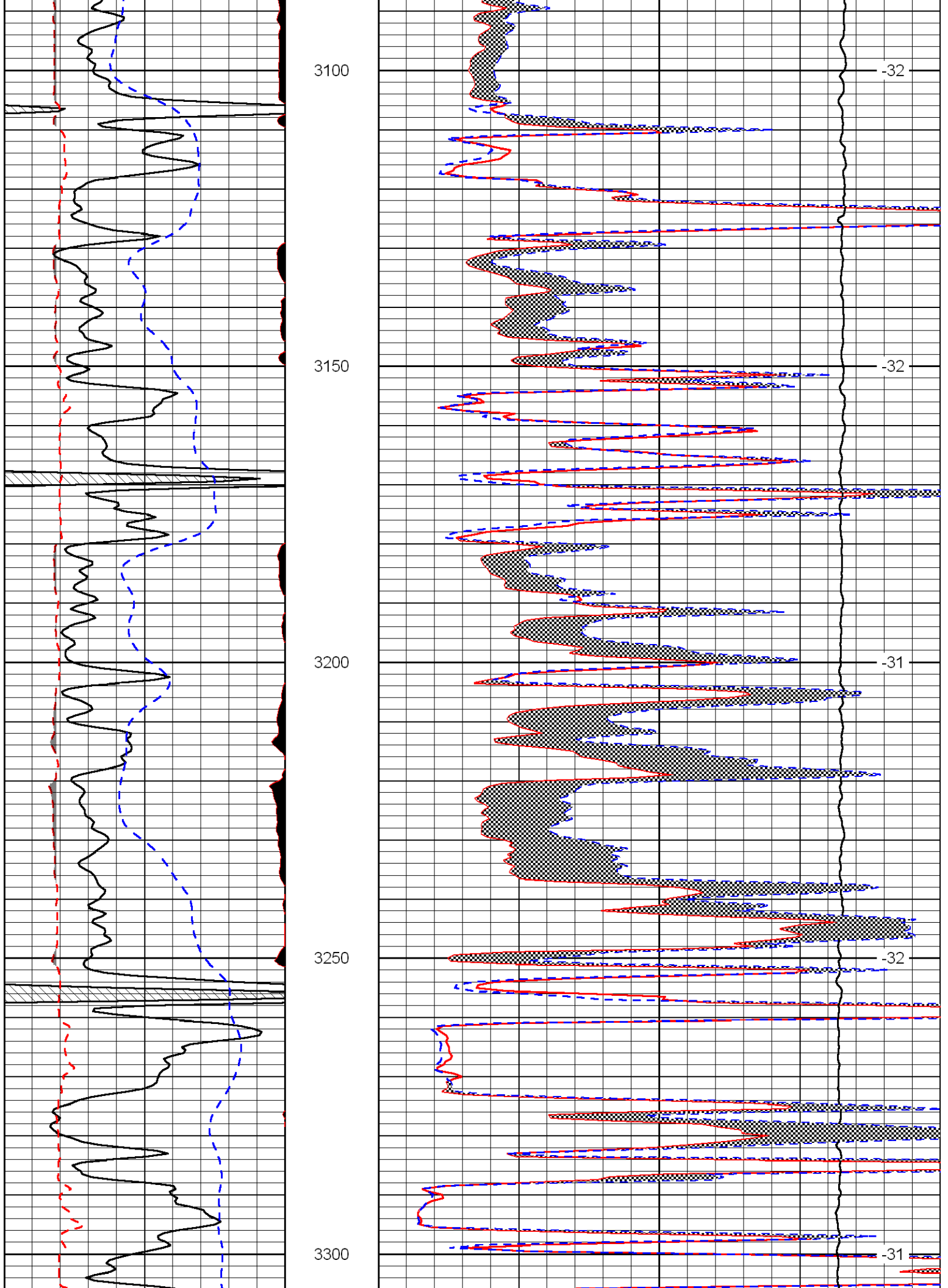
Antonino KS, 1 West,  
2 1/2 South, West North Into

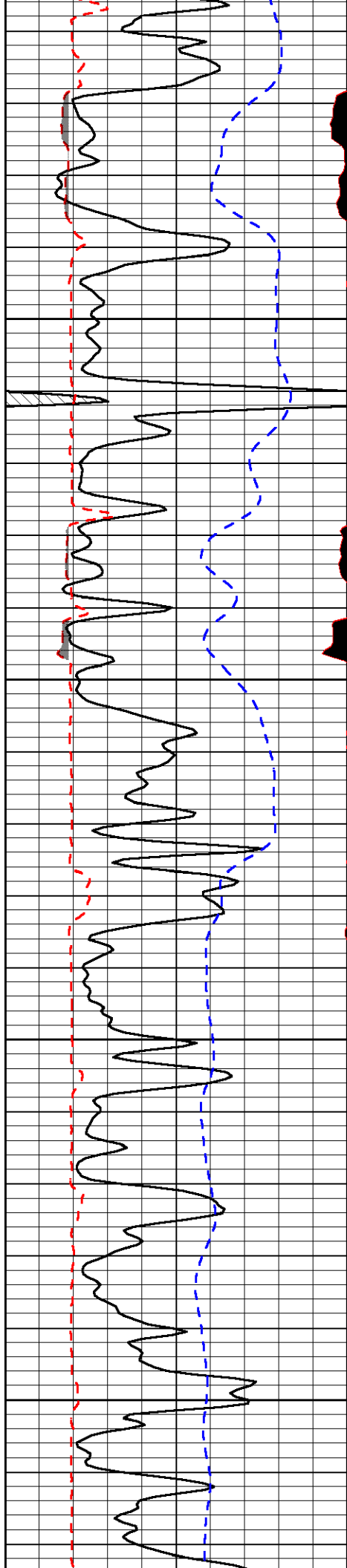
Database File: hertel\_larry\_1hd.db  
 Dataset Pathname: DIL/hertstk  
 Presentation Format: micro  
 Dataset Creation: Tue Oct 09 07:53:06 2012  
 Charted by: Depth in Feet scaled 1:240

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





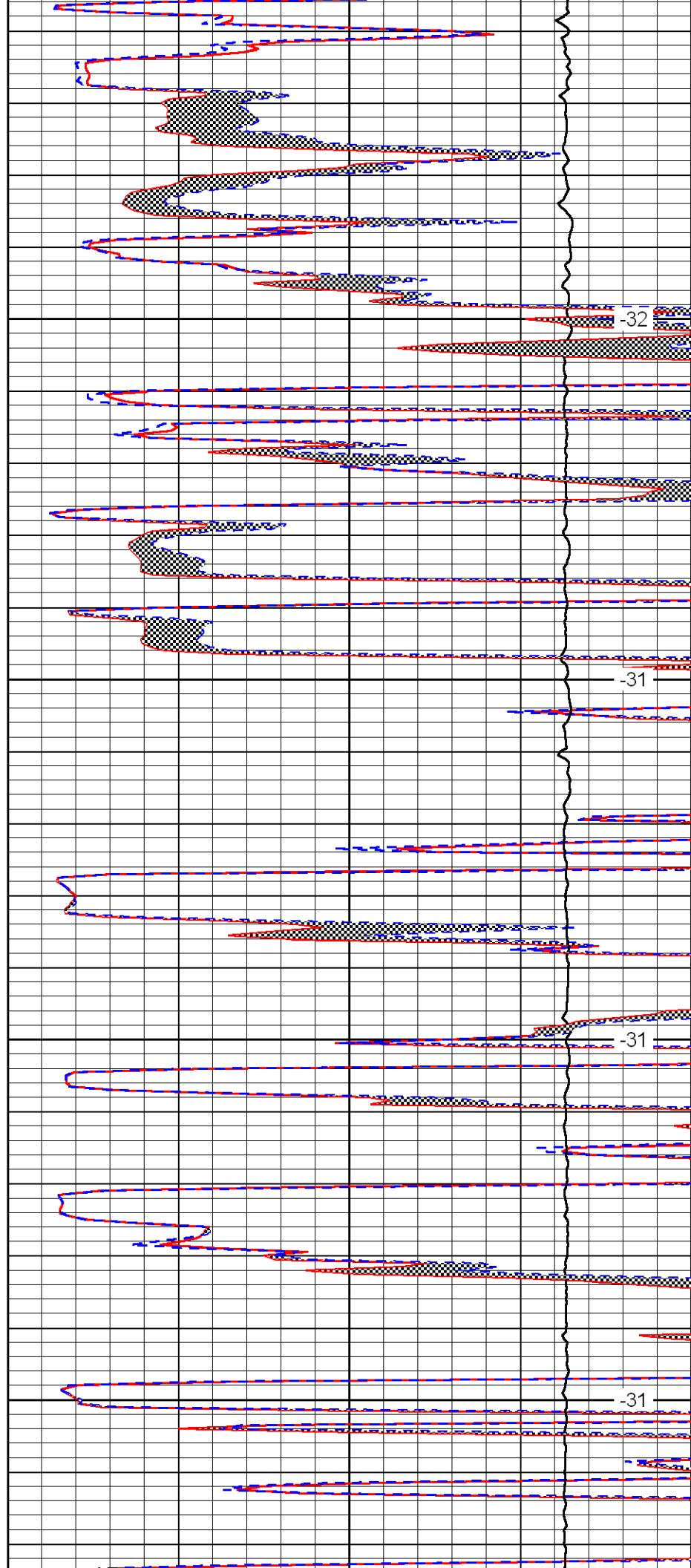


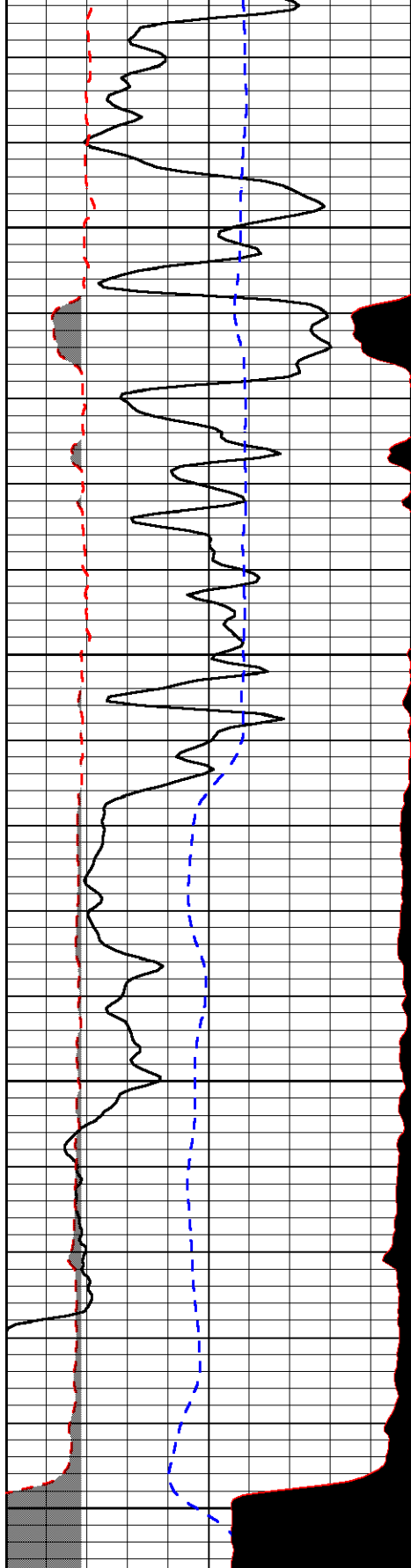
3350

3400

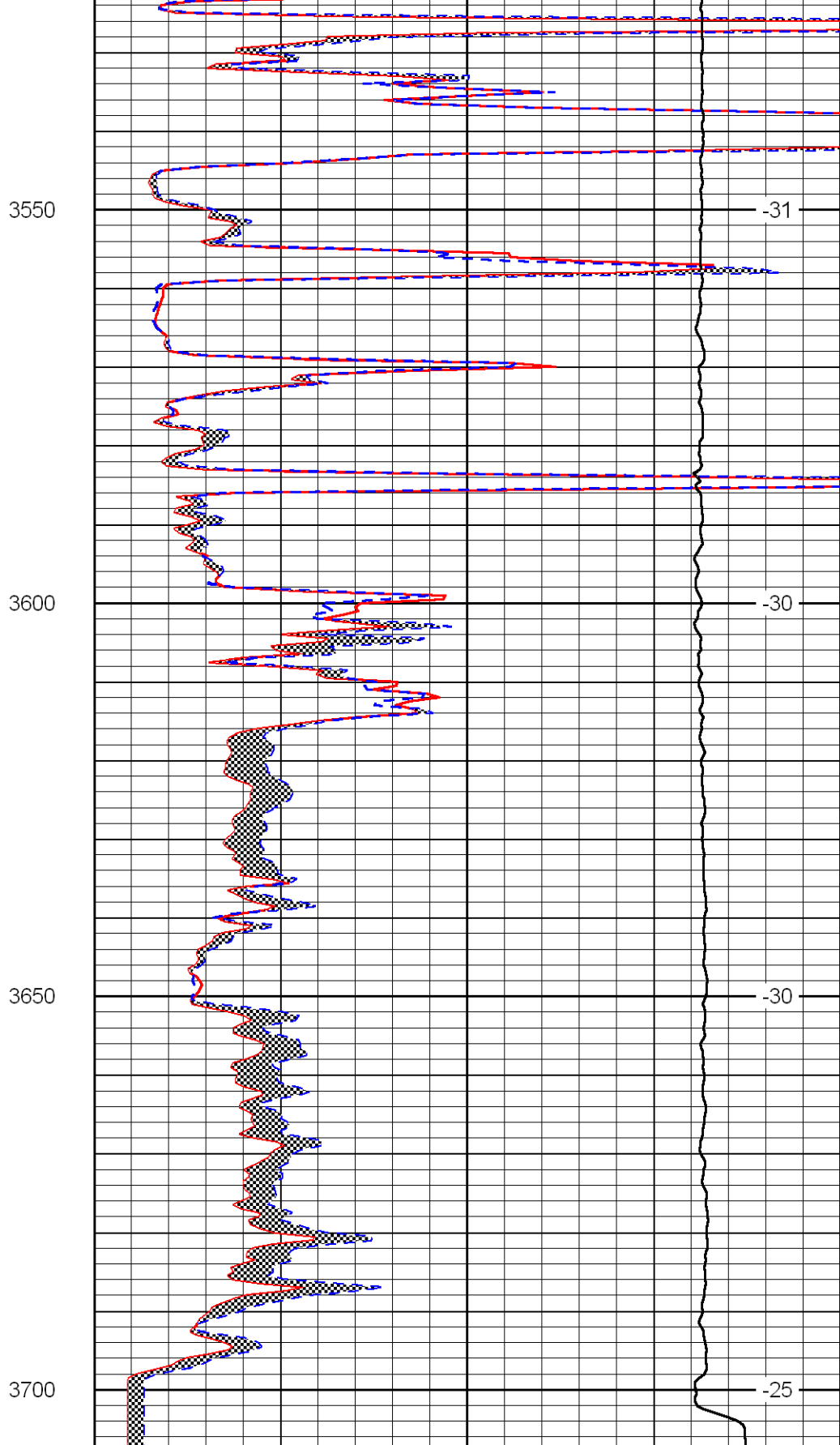
3450

3500





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