



NABORS

**COMPLETION
& PRODUCTION
SERVICES CO.**

**DUAL
INDUCTION
LOG**

Company	SHELBY RESOURCES LLC		
Well	C-S UNIT #1		
Field	WILDCAT		
County	BARTON	State	KANSAS
Location:	AP1 # : 15-009-25764-00-00		Other Services CNL/CDL MEL/SON
Permanent Datum		GROUND LEVEL	Elevation
Log Measured From		KELLY BUSHING 9' A.G.L.	1949
Drilling Measured From		KELLY BUSHING	Elevation K.B. 1958 D.F. 1956 G.L. 1949
Date	10/28/2012		
Run Number	ONE		
Depth Driller	3550		
Depth Logger	3548		
Bottom Logged Interval	3537		
Top Log Interval	0		
Casing Driller	8 5/8"@923'		
Casing Logger	921		
Bit Size	7 7/8"		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES	7,900 PPM
Density / Viscosity	9.1/65		
pH / Fluid Loss	11.0/7.2		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.65@80F		
Rmf @ Meas. Temp	.513@80F		
Rmc @ Meas. Temp	.78@80F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.46@113F		
Time Circulation Stopped	3 HOURS		
Time Logger on Bottom	7:15 PM		
Maximum Recorded Temperature	113F		
Equipment Number	4010		
Location	HAYS, KANSAS		
Recorded By	MIKE GARRISON		
Witnessed By	JEREMY SCHWARTZ		
	JEFF LAWLER		

<<< Fold Here >>>

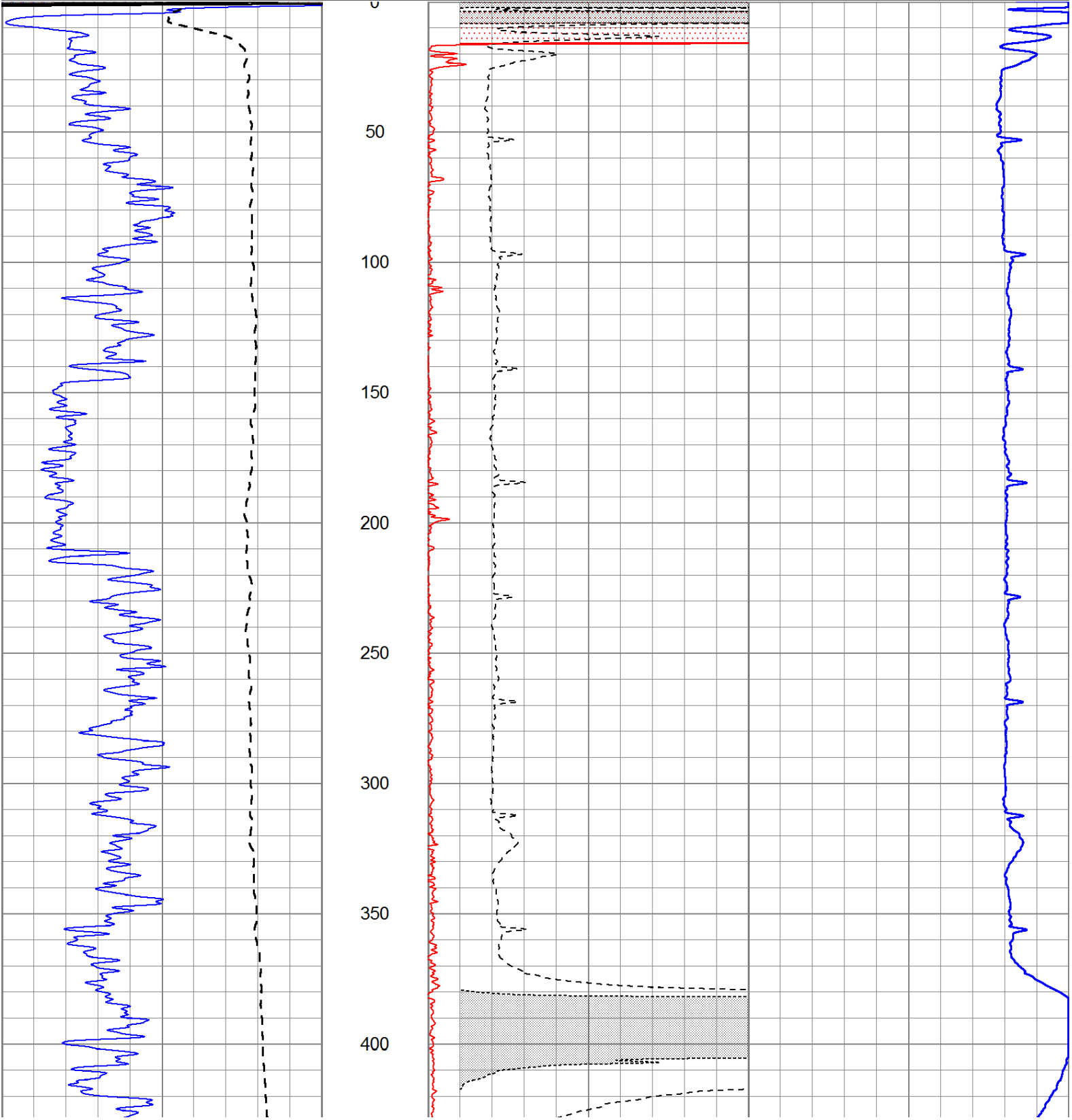
All interpretations are opinions based on inferences from electrical or other measurements and we cannot and do not guarantee the accuracy or correctness of any interpretation, and we shall not, except in the case of gross or willful negligence on our part, be liable or responsible for any loss, costs, 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.

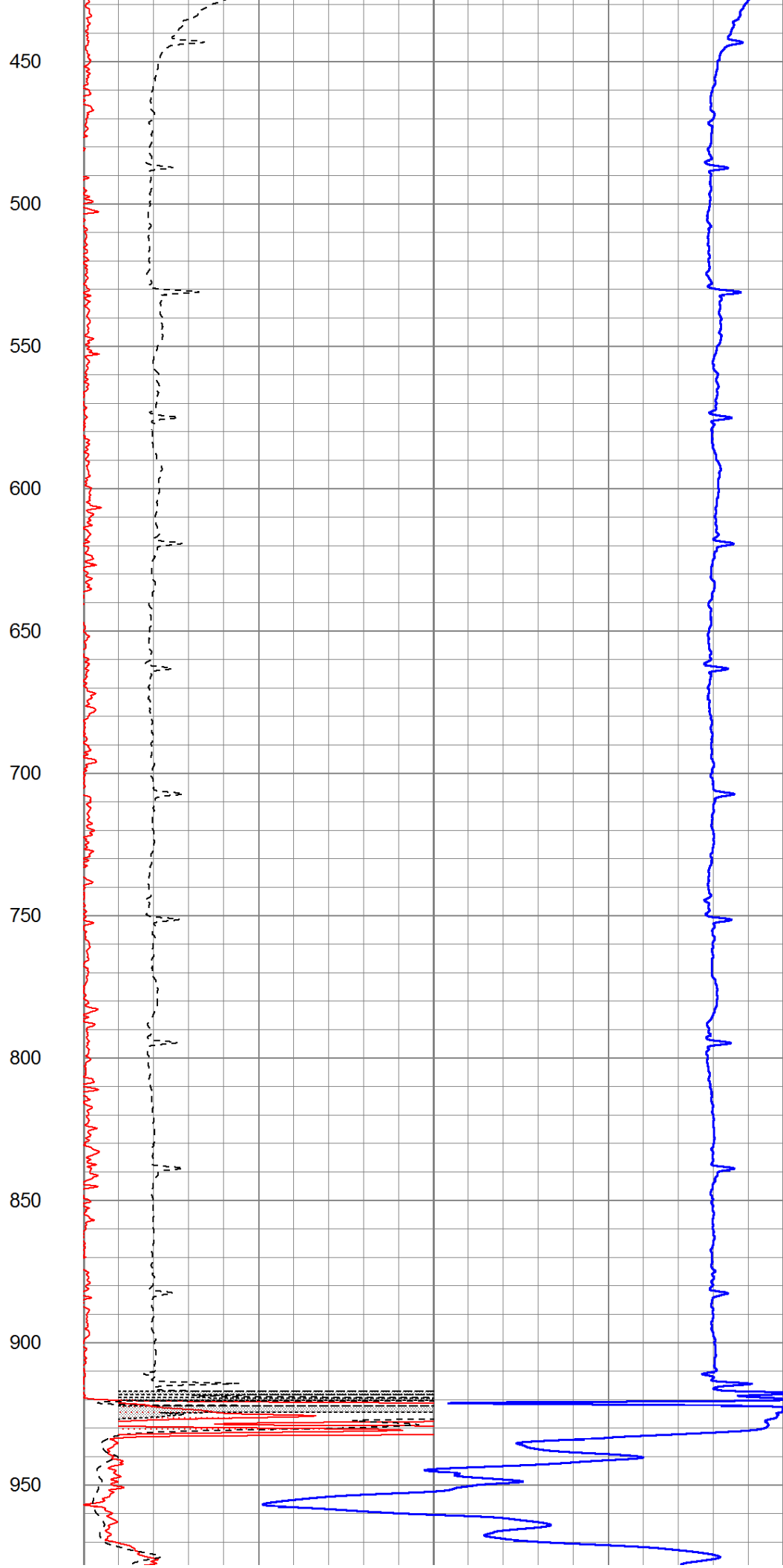
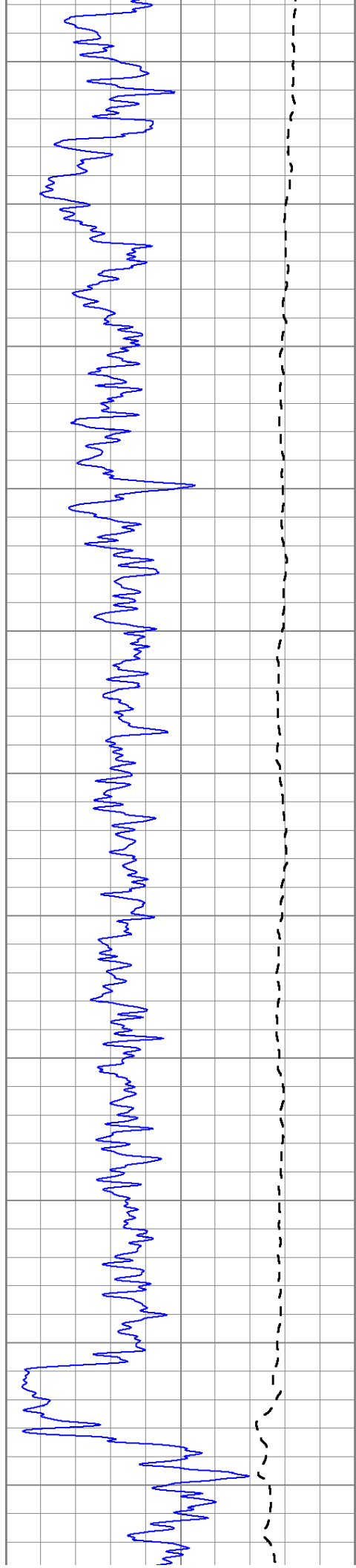
Comments

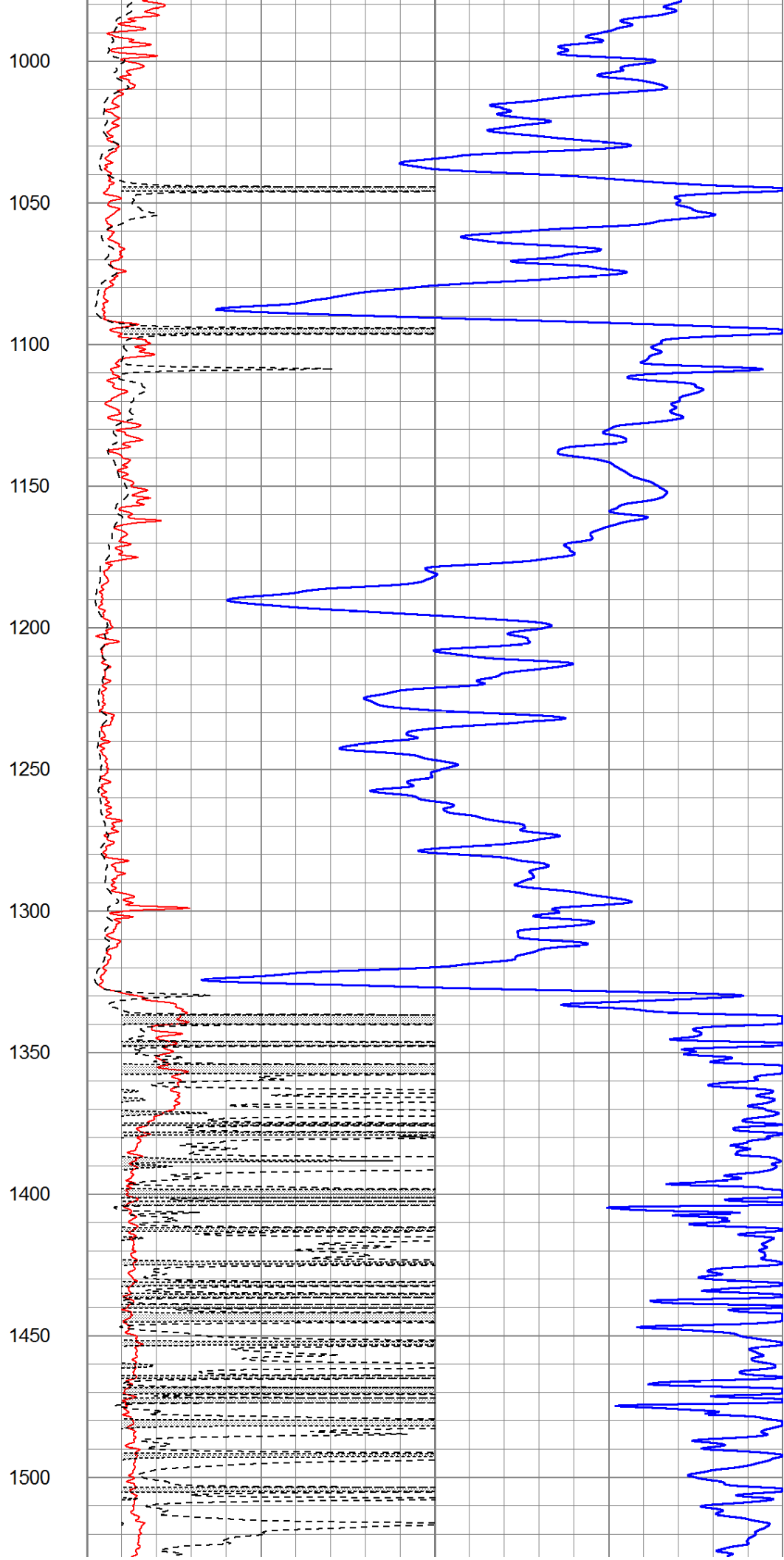
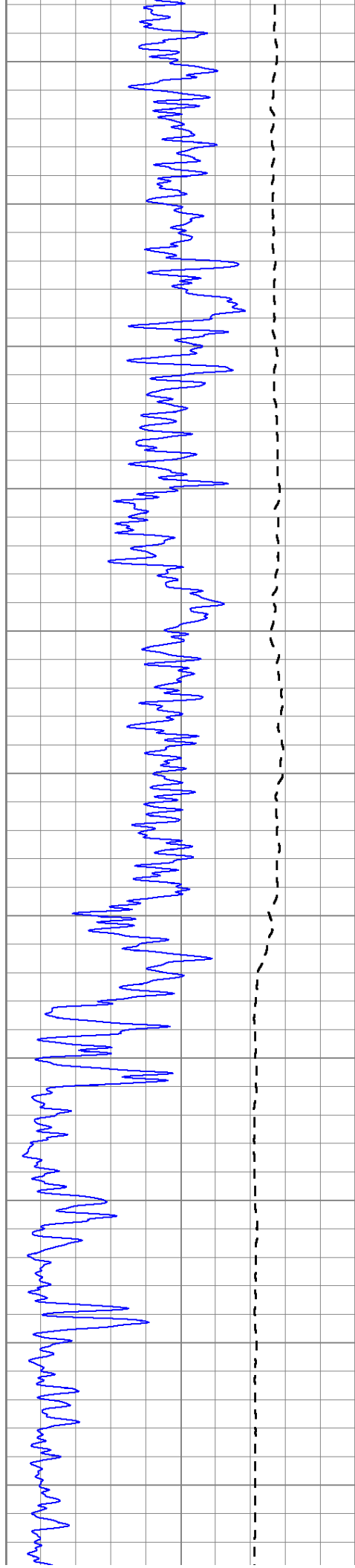
THANK YOU FOR USING NABORS COMPLETION & PRODUCTION SERVICE CO. HAYS, KANSAS (785) 6
DIRECTIONS
RUSSELL SOUTH TO HWY 4, EAST TO NW 20, 1 NORTH, 1/2 WEST, NORTH INTO

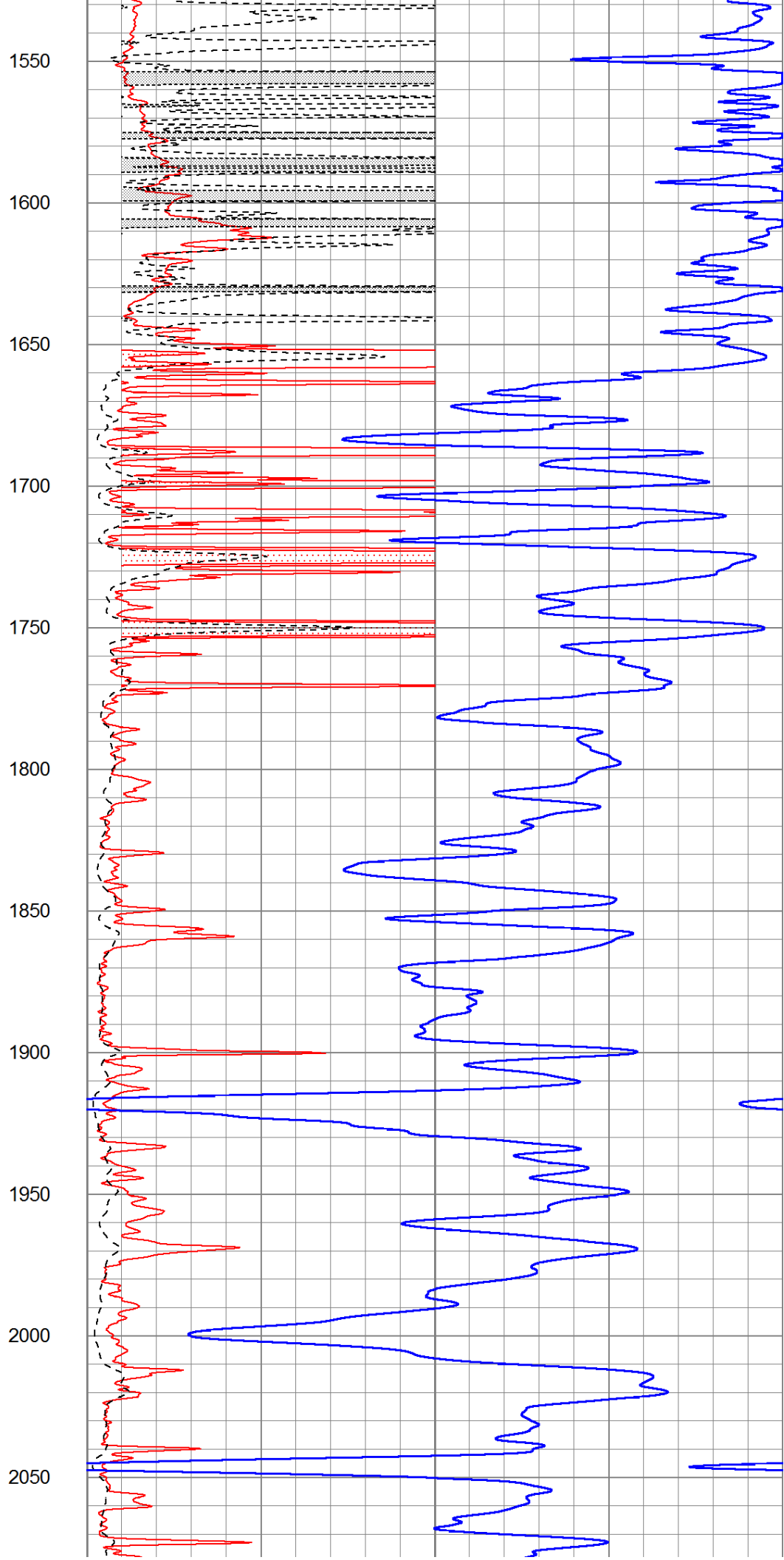
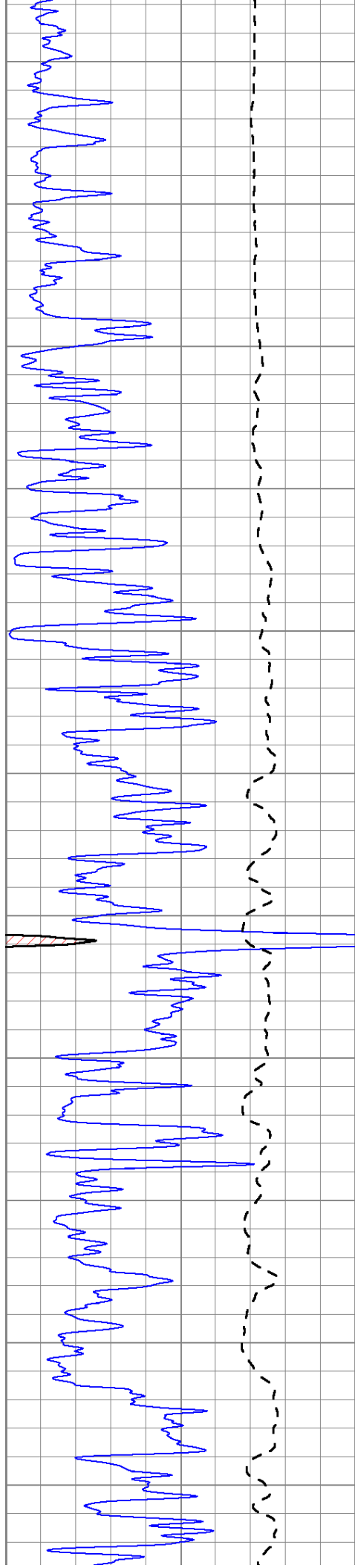
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Presentation Format: _dil2
Dataset Creation: Sun Oct 28 20:32:26 2012 by Calc Open-Cased 110302
Charted by: Depth in Feet scaled 1:600

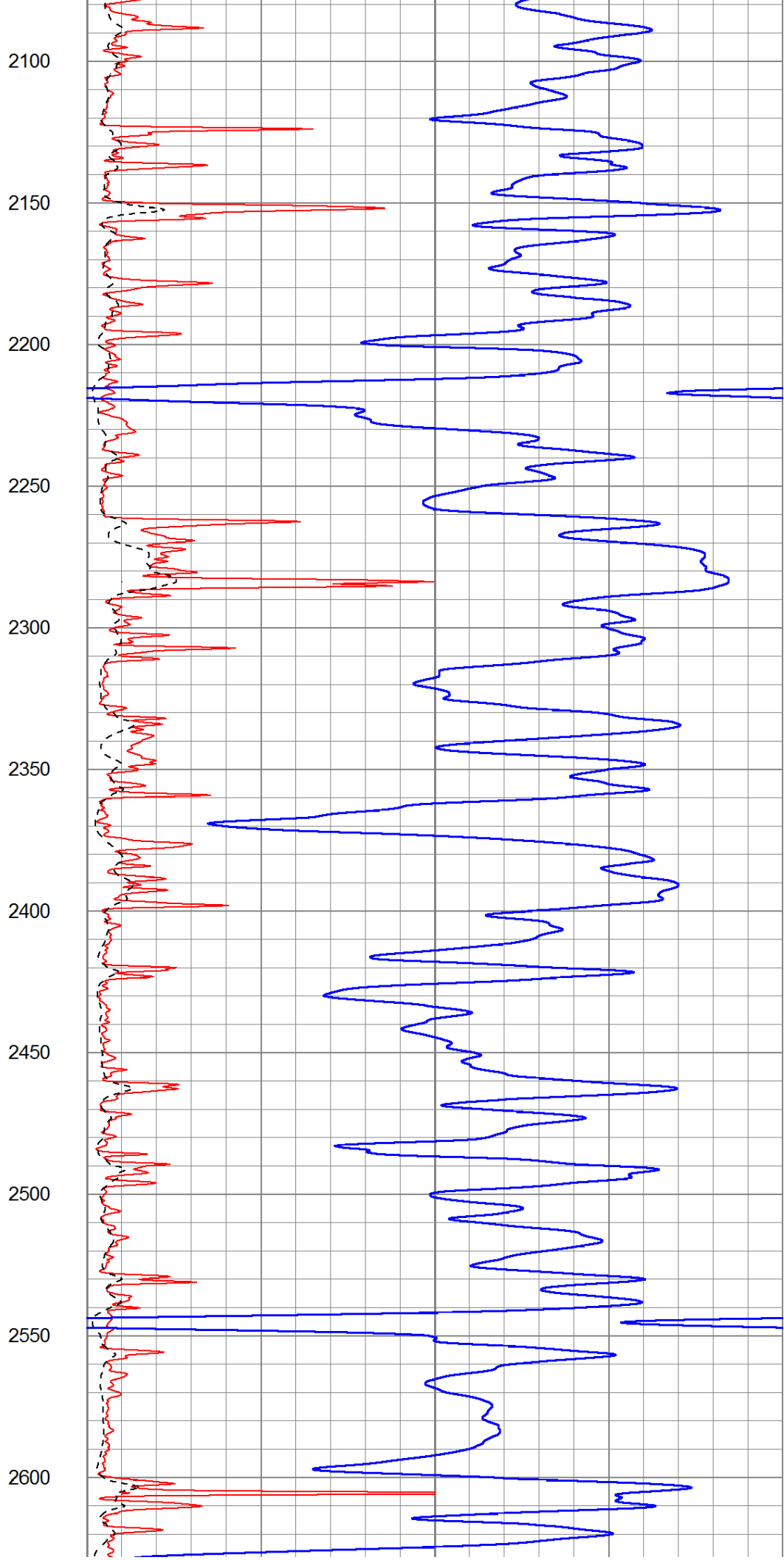
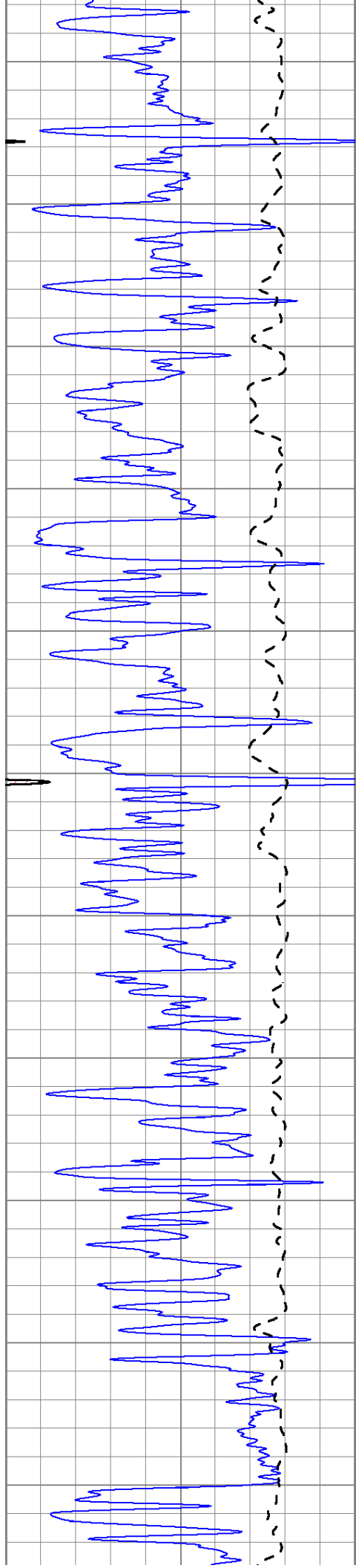
0	Gamma Ray (GAPI)	150	0	RLL3 (Ohm-m)	50
-100	SP (mV)	100	0	RILD (Ohm-m)	50
			1000	CILD (mmho/m)	0
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500

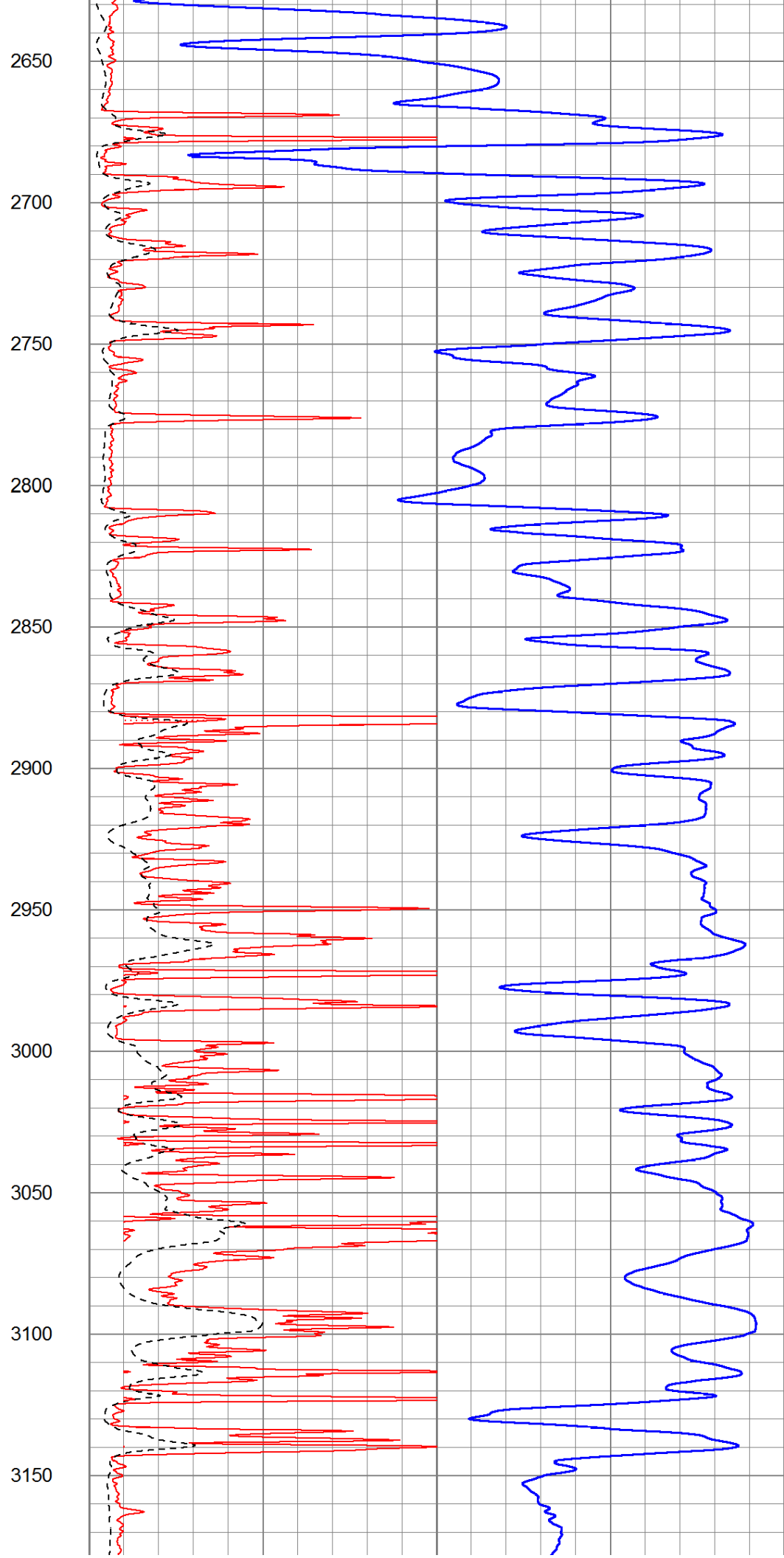
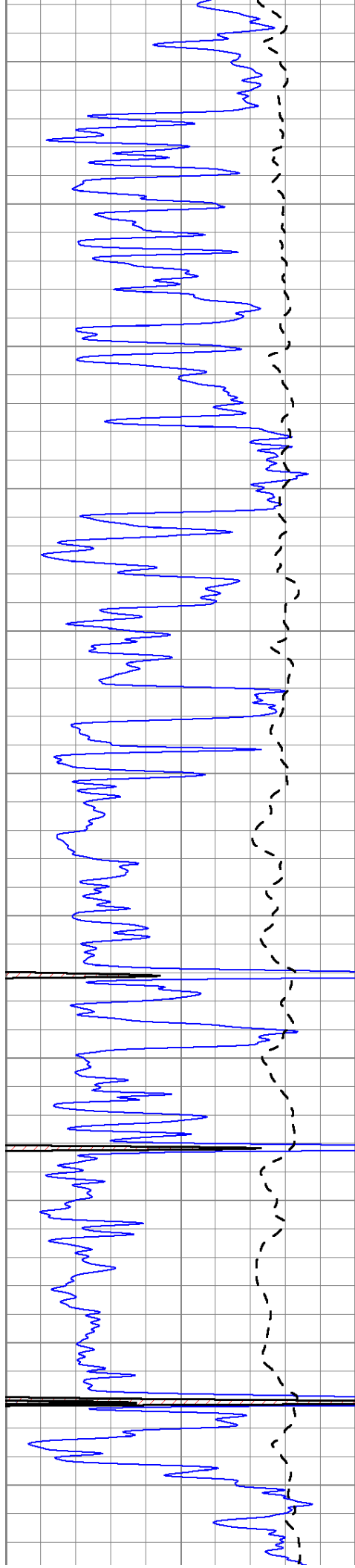


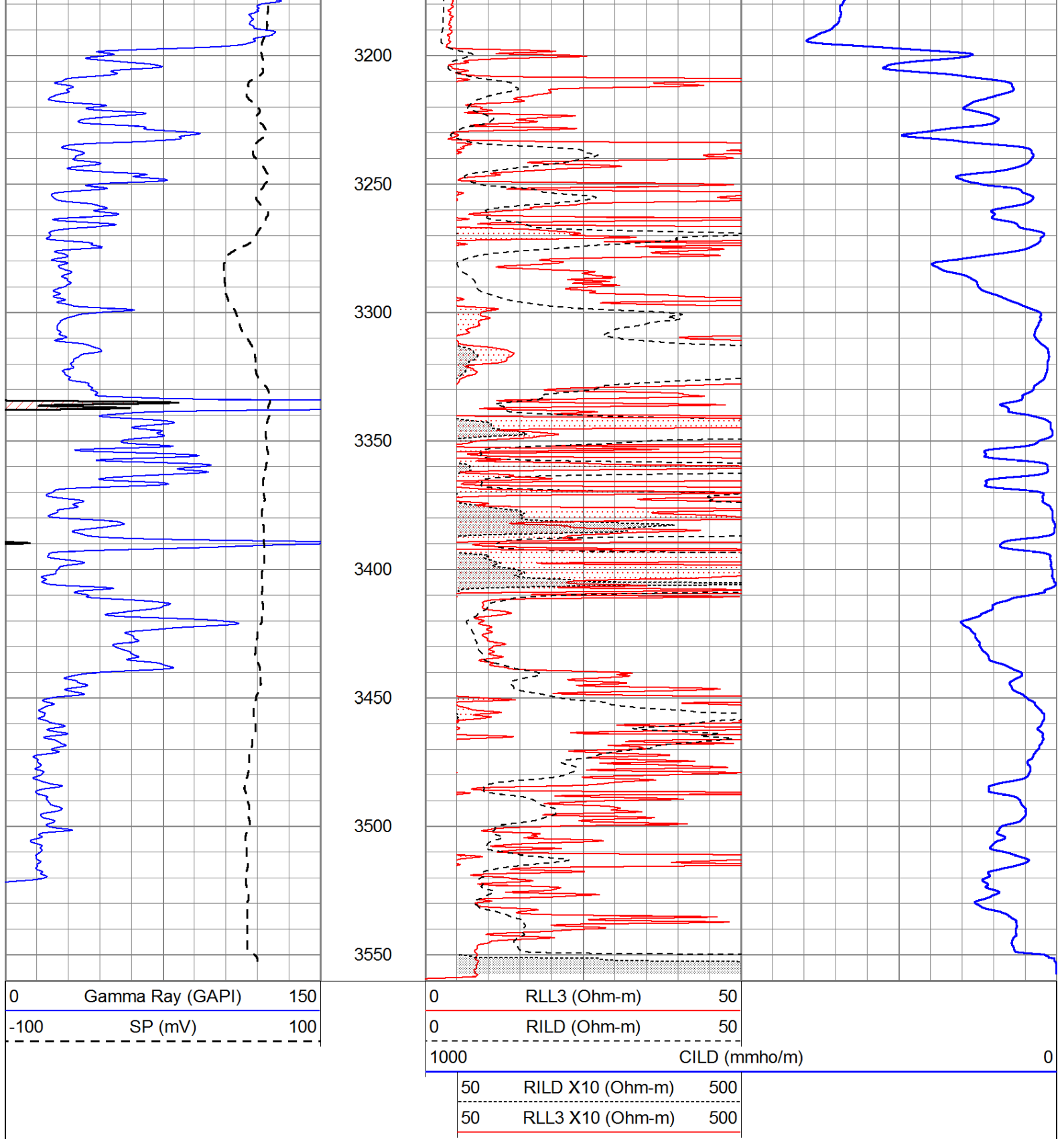




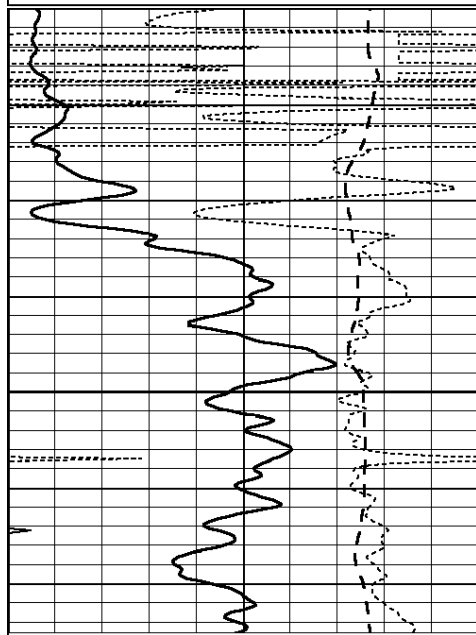








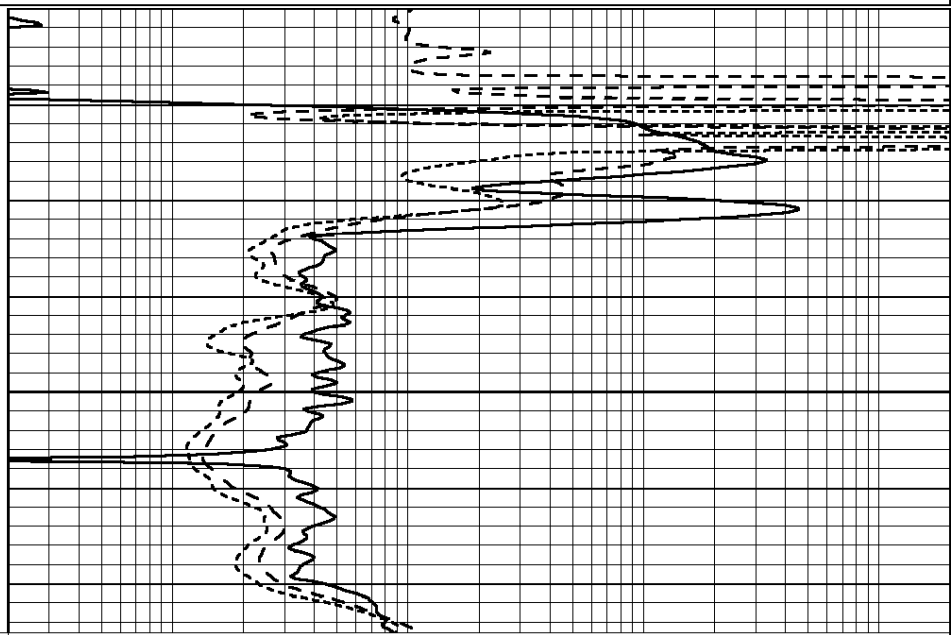
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

950

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



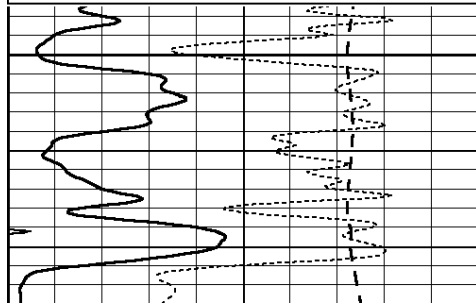
0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

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MAIN SECTION

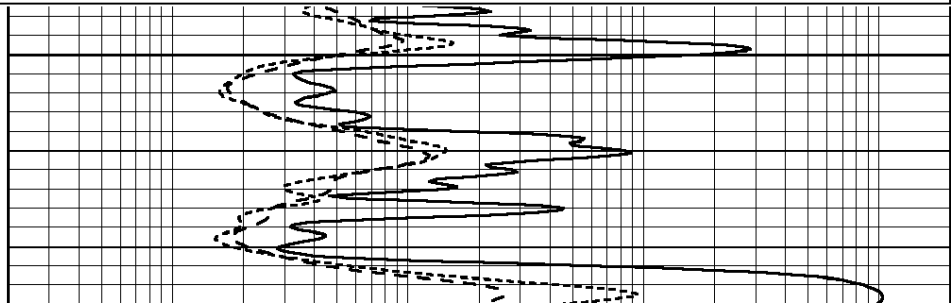
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Charted by: Depth in Feet scaled 1:240

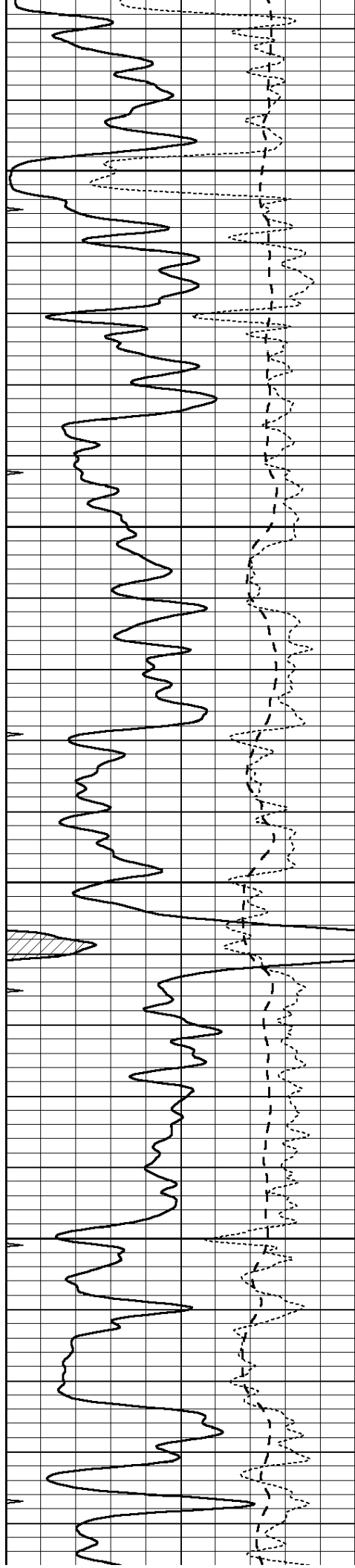
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20



1700

0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000



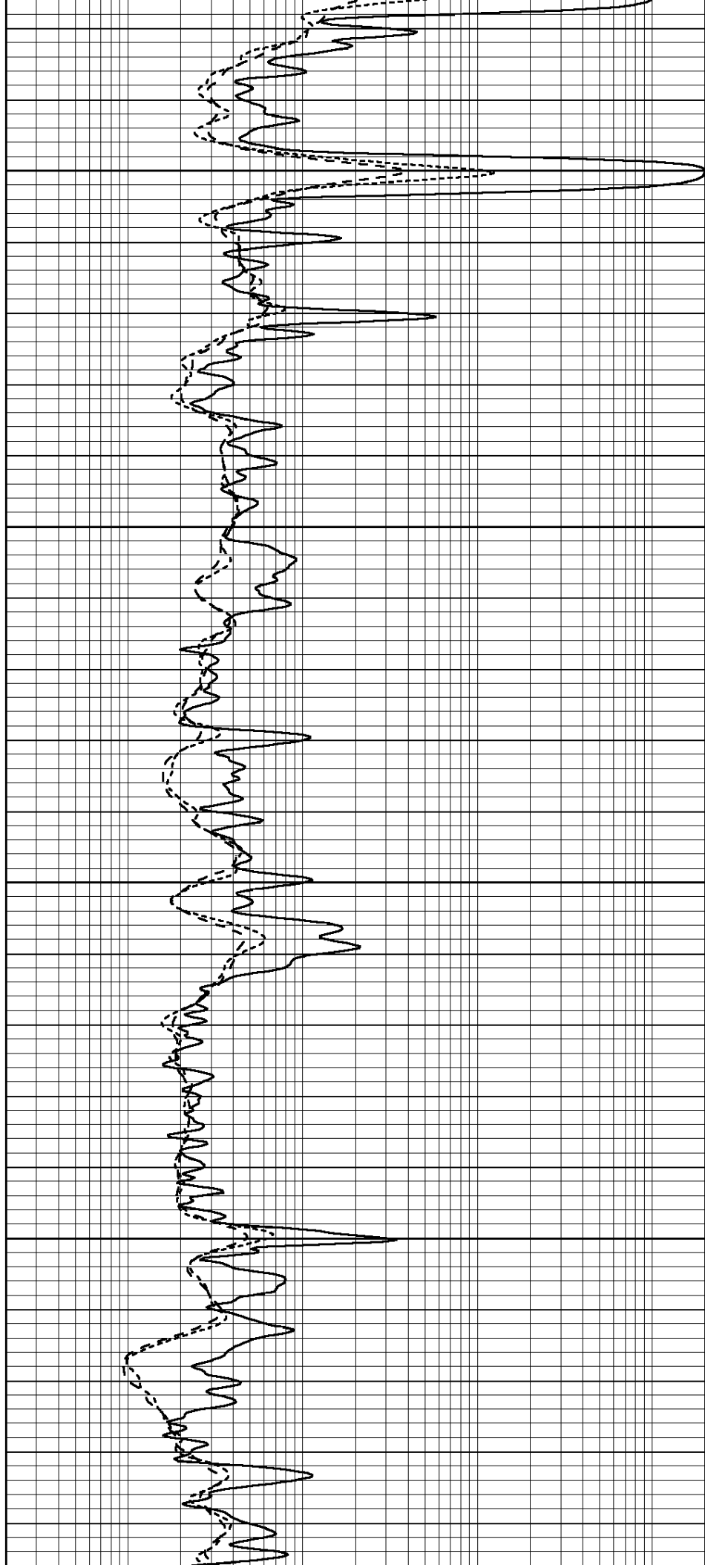


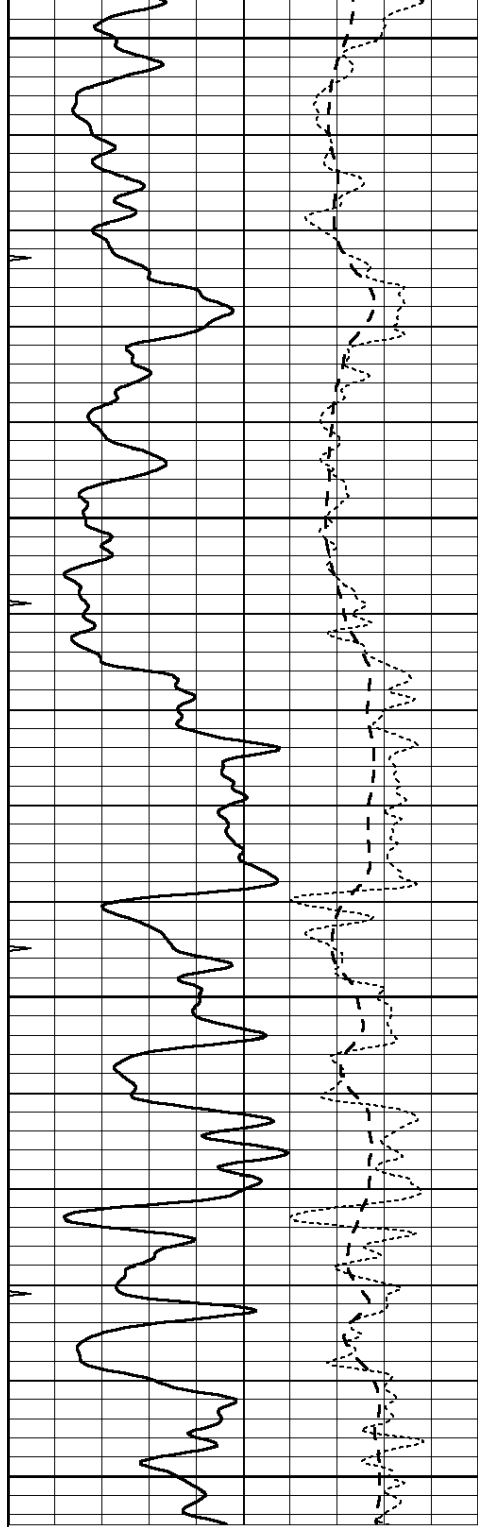
1750

1800

1850

1900





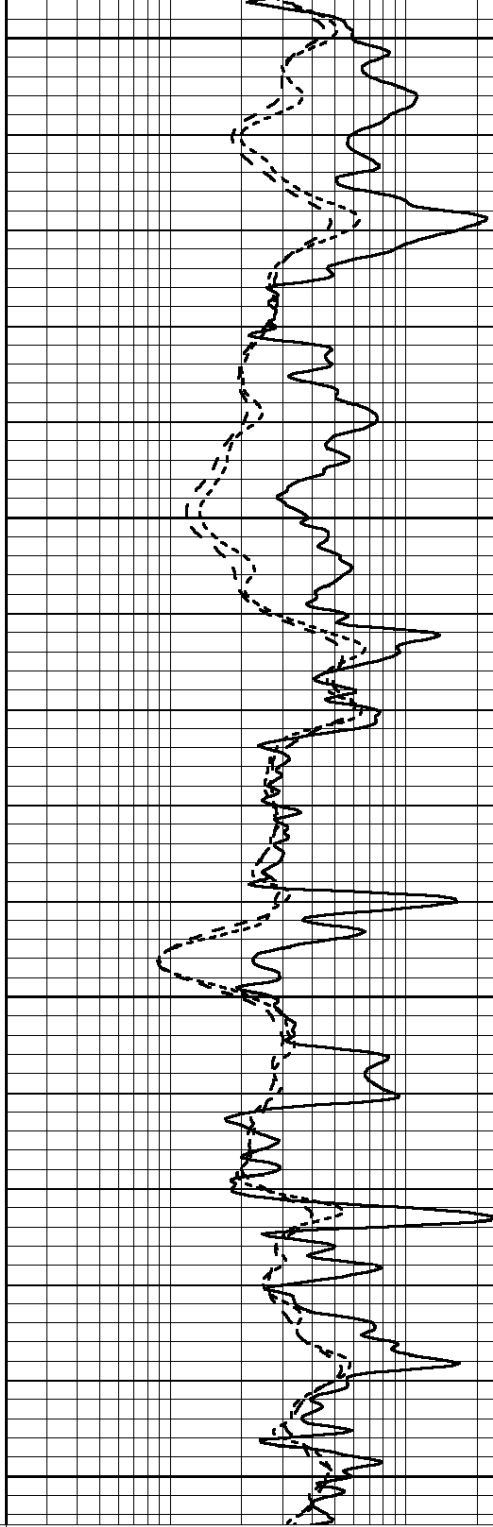
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-100	SP (mV)	100
-250	Rxo/Rt	50
0	MINMK	20

1950

2000

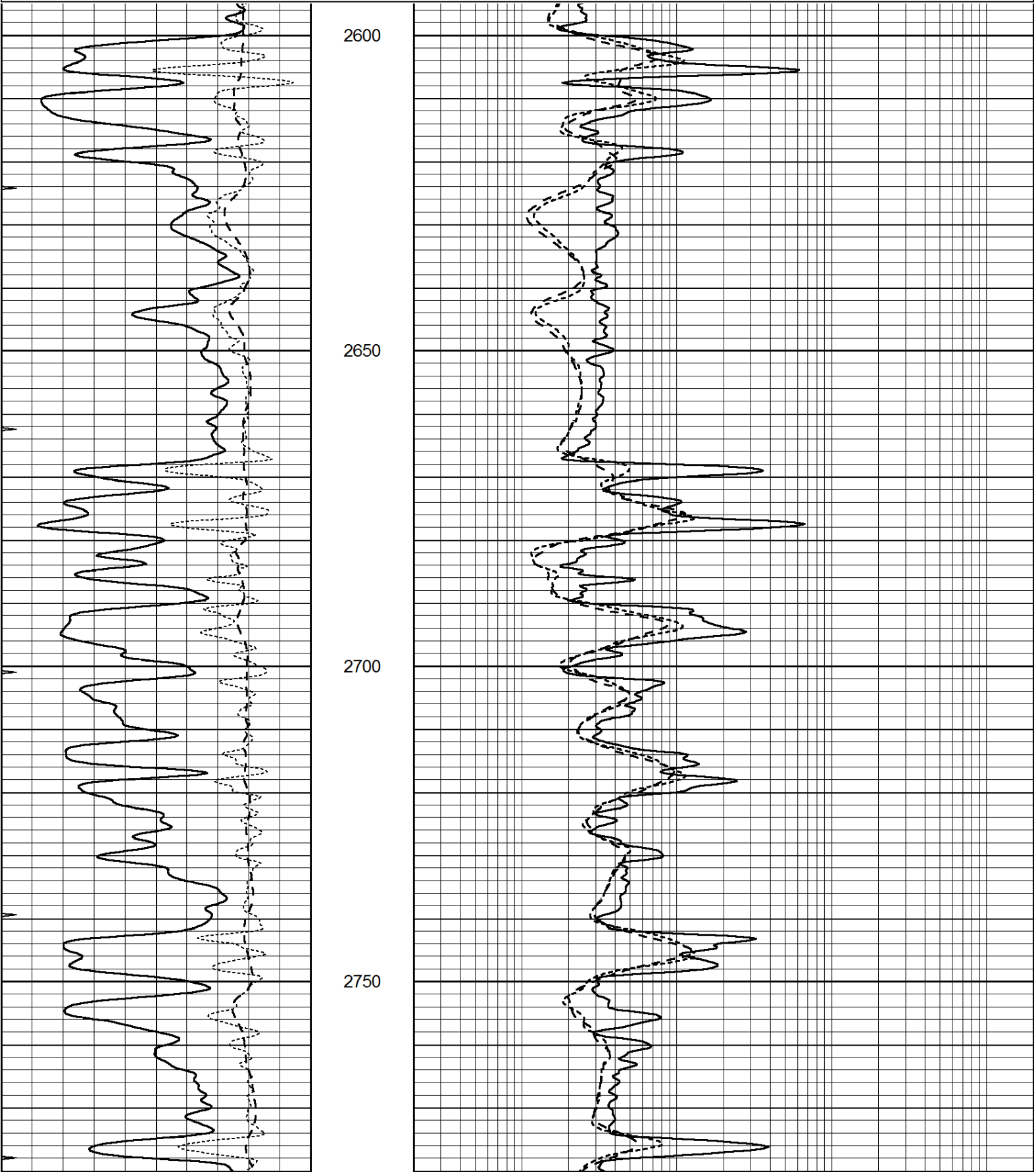
2050

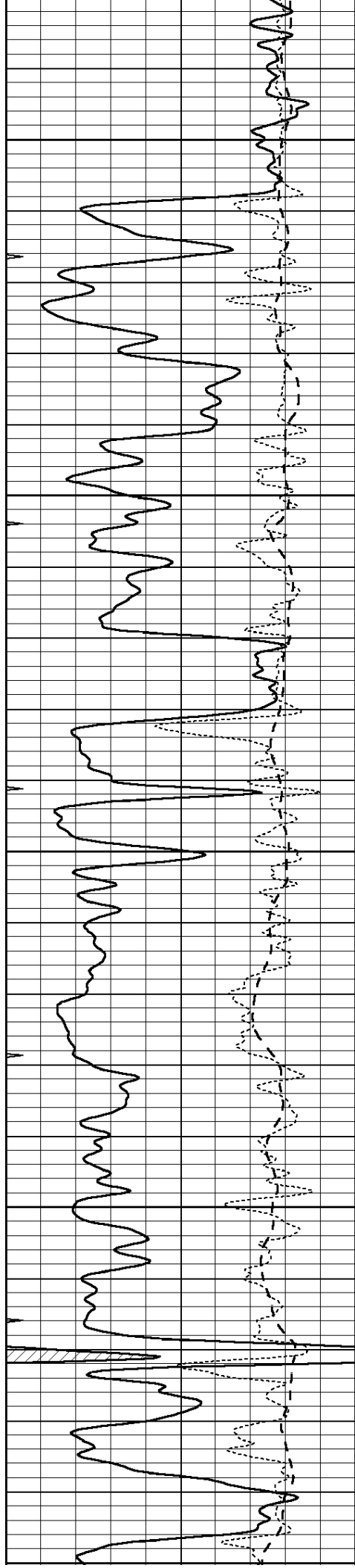
2100



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			





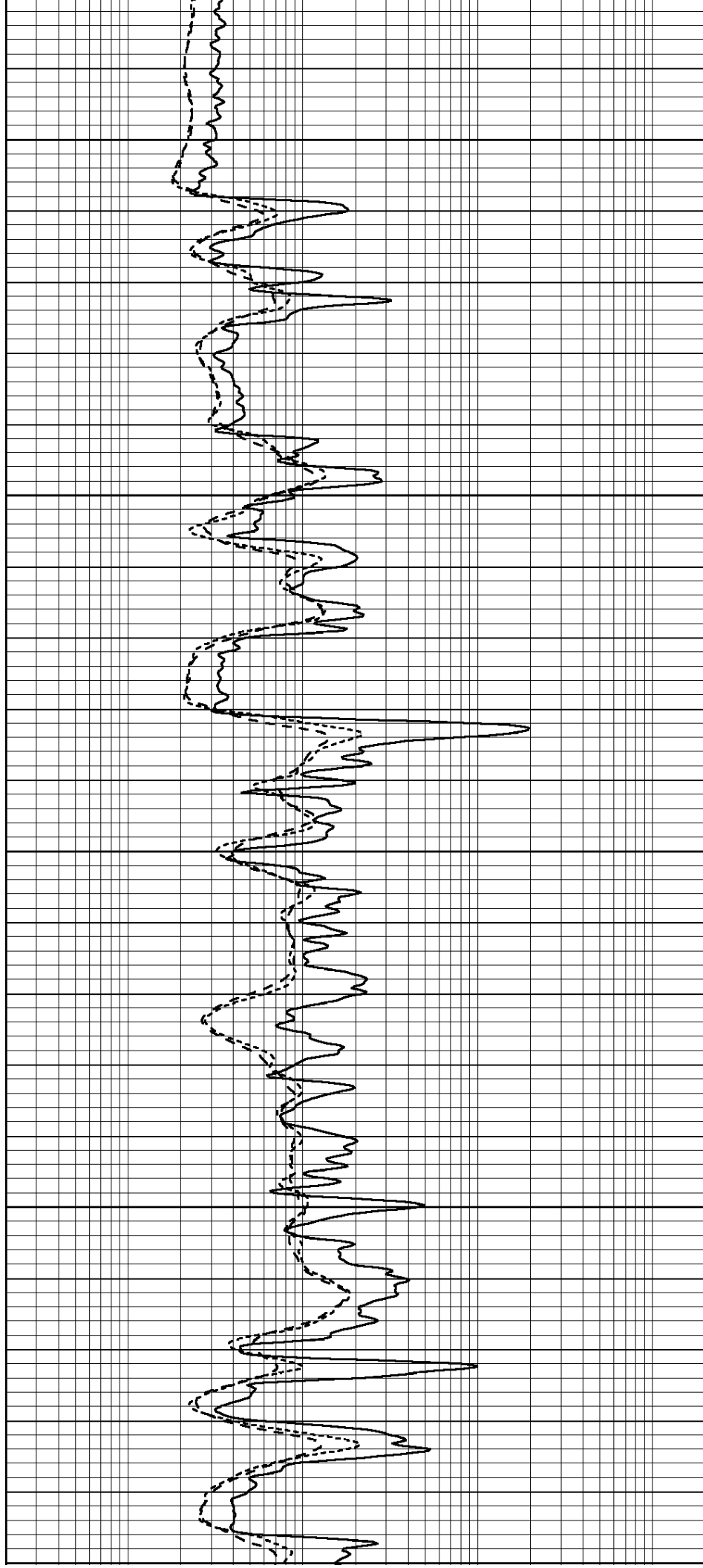
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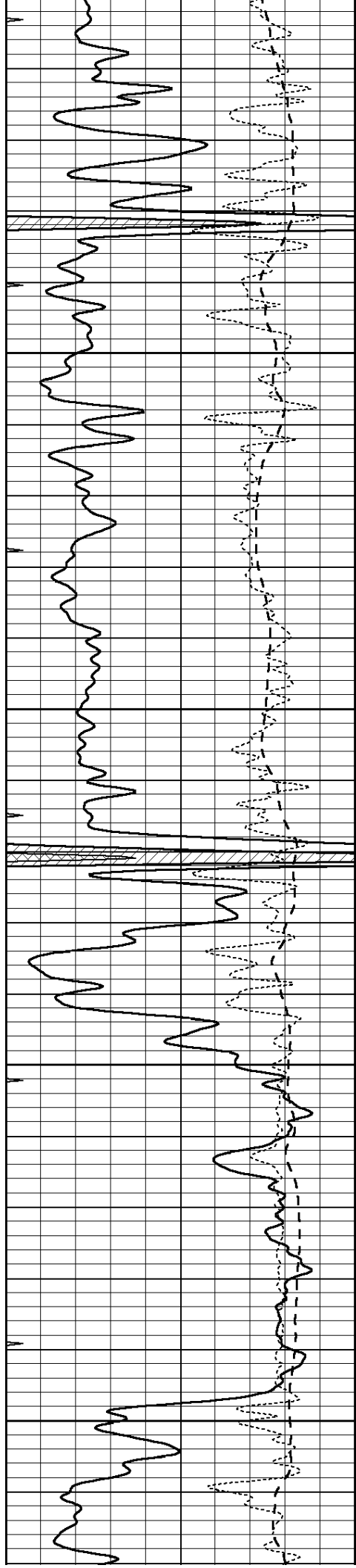
2850

2900

2950

3000





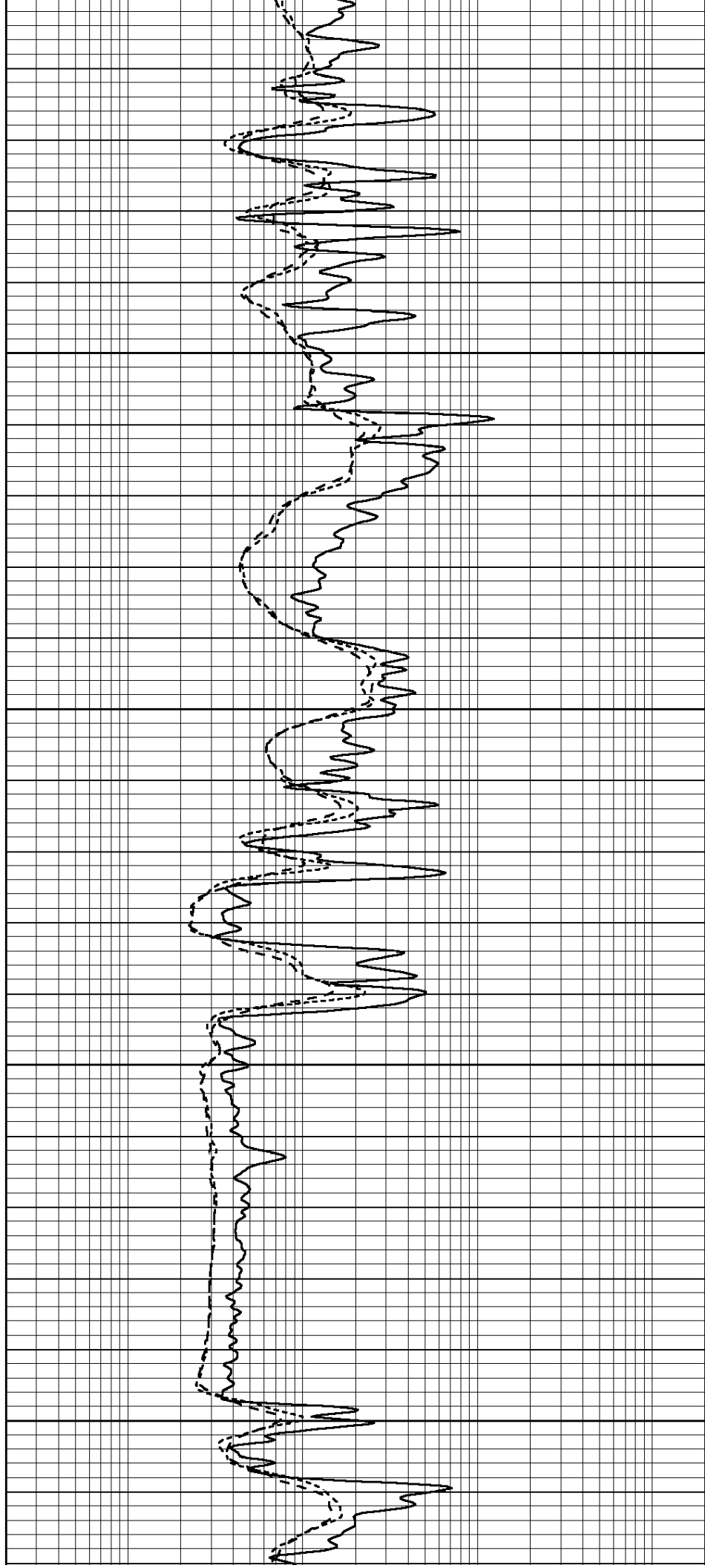
3000

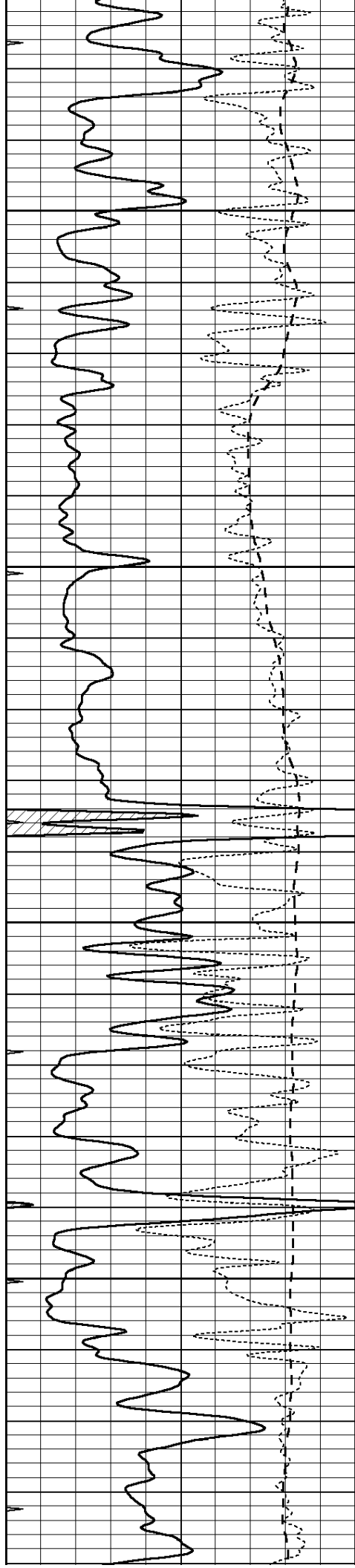
3050

3100

3150

3200



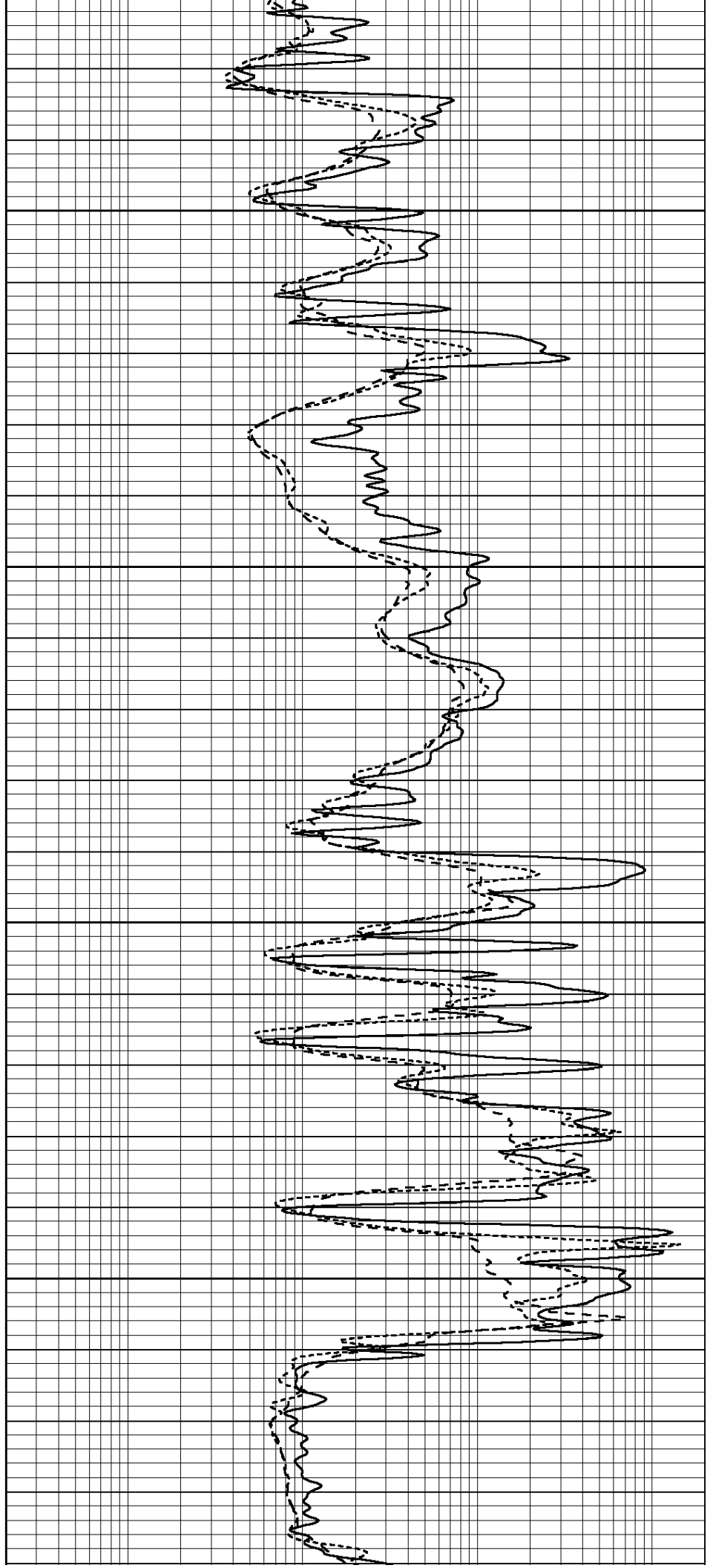


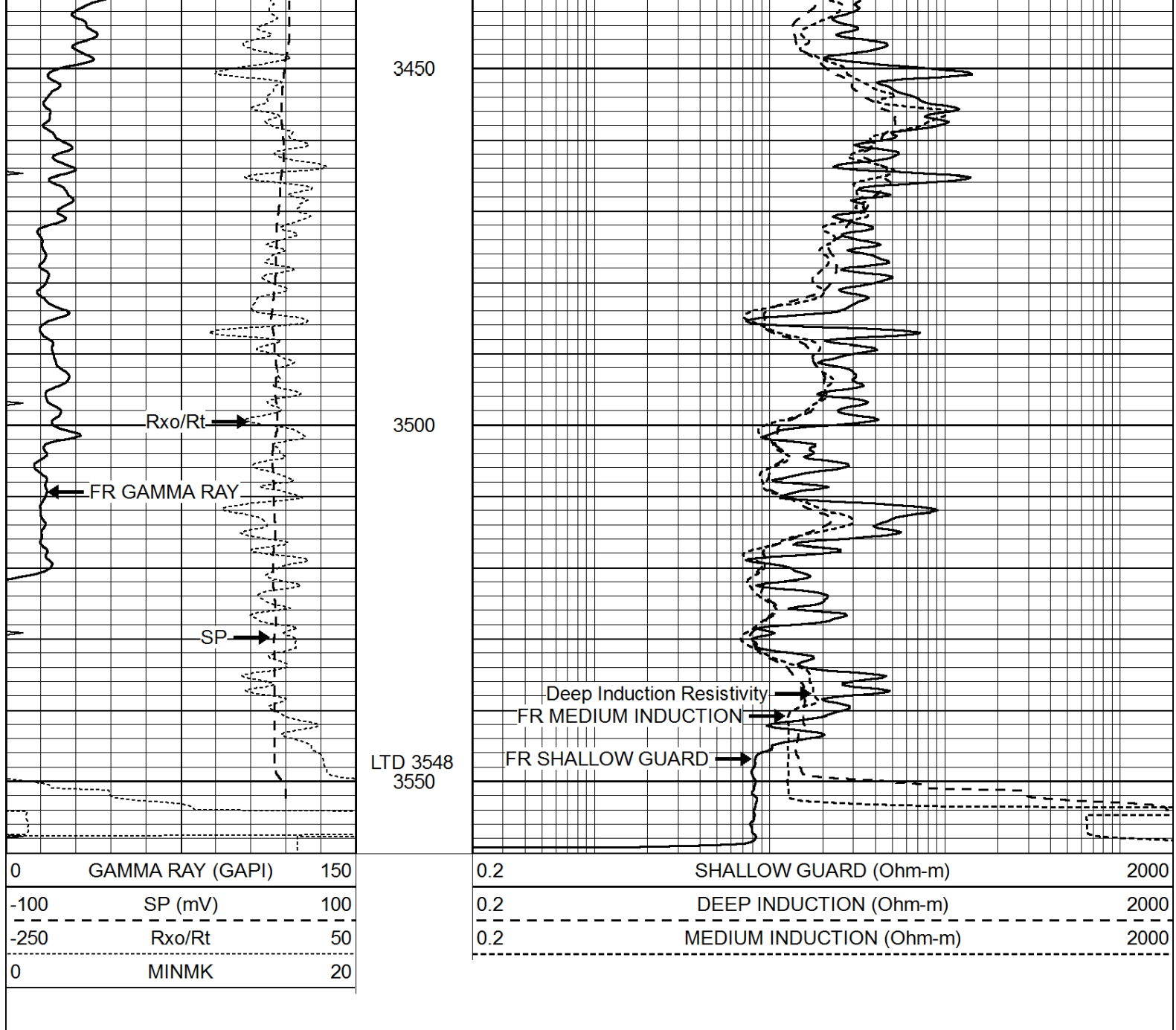
3250

3300

3350

3400

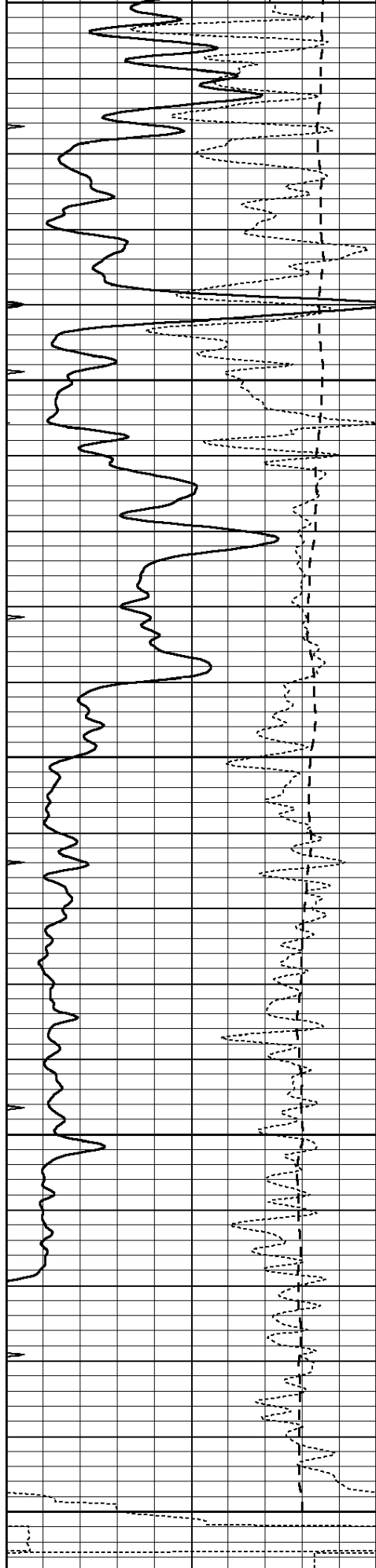




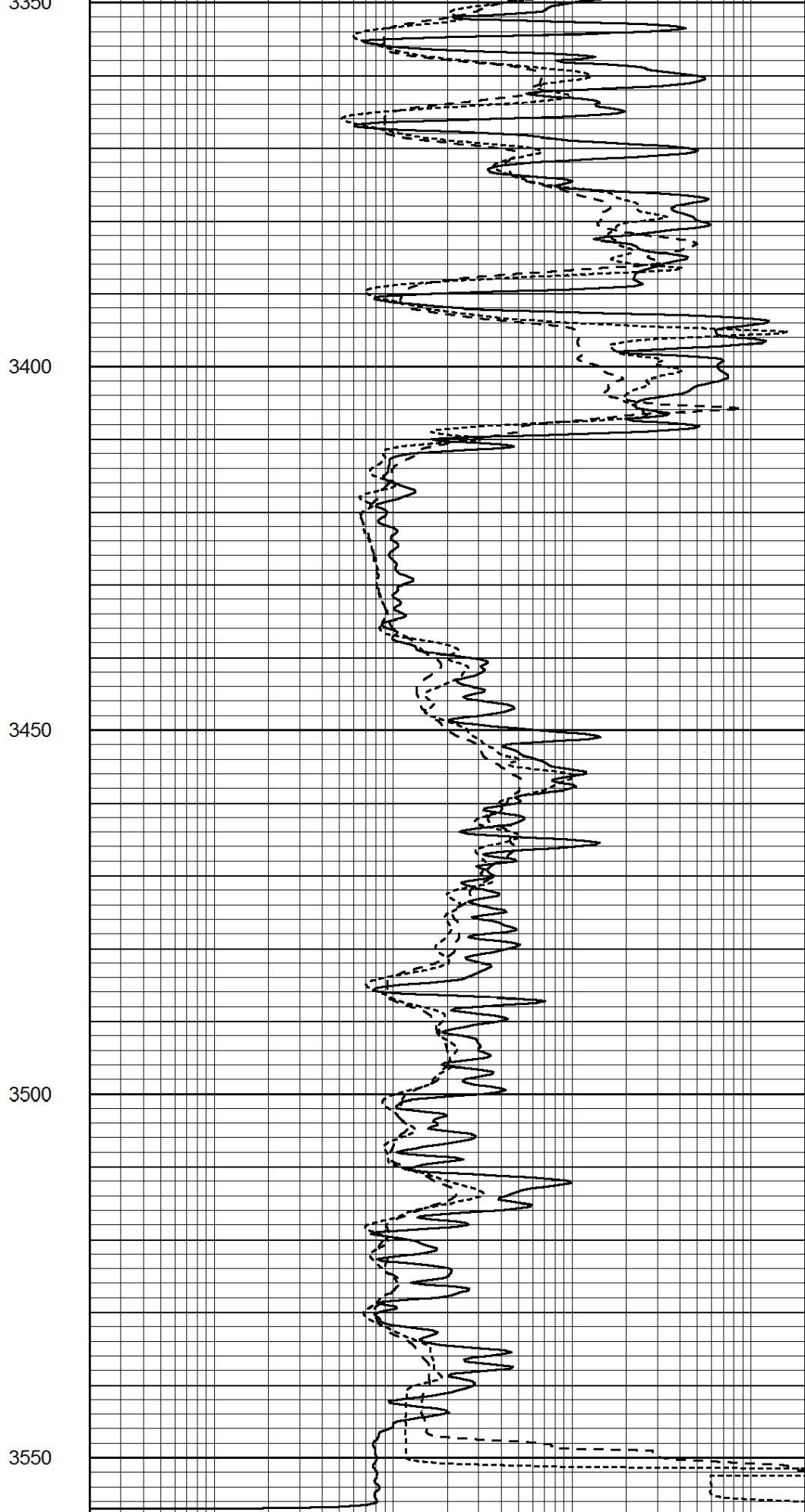
REPEAT SECTION

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 Presentation Format: _dil
 Dataset Creation: Sun Oct 28 20:30:02 2012 by Calc Open-Cased 110302
 Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150	0.2	SHALLOW GUARD (Ohm-m)	2000
-100	SP (mV)	100	0.2	DEEP INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	MEDIUM INDUCTION (Ohm-m)	2000
0	MINMK	20			



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
50	Dv+/D+	50



0.2	SHALLOW GUARD (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

230	Rx0/Rt	50	0.2	MEDIUM INDUCTION (OHM-Ft)	2000
0	MINMK	20			

Calibration Report	
Database File:	40-009778cnldl.db
Dataset Pathname:	pass3.1
Dataset Creation:	Sun Oct 28 20:32:26 2012 by Calc Open-Cased 110302

Dual Induction Calibration Report

Serial-Model:	DIL3-GEAR
Performed:	Wed Oct 24 10:22:26 2012

Readings		References		Results	
Loop:	Air	Loop	Air	Loop	
Deep	0.011	0.656	V	0.000	400.000
Medium	0.013	0.740	V	0.000	462.500
				mmho/m	640.000
				mmho/m	700.000
Internal:	Zero	Cal	Zero	Cal	
Deep	0.002	0.645	V	0.000	400.000
Medium	0.007	0.740	V	0.000	462.500
				mmho/m	622.059
				mmho/m	631.393
				m	b

Litho Density Calibration Report	
Serial: 006	Model: PRB
Performed Sun Aug 15 09:48:41 2010	

Litho Density Calibration					
	Background	Magnesium	Aluminum	Sandstone	
Window 1	1686.6	11612.8	3932.0	12718.8	cps
Window 2	1531.4	9204.7	3267.8	9851.9	cps
Window 3	1198.3	4733.6	1952.5	4920.6	cps
Window 4	317.3	321.2	325.9	303.6	cps
Long Space	0.0	7673.3	1736.4	8320.4	cps
Short Space	1.7	2548.5	1657.2	2628.8	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 43.8	Rib Slope	: 0.961	Density/Spine Ratio	: 0.569
Spine Angle	: 73.8	Spine Slope	: 3.453	Spine Intercept	: -18.1

Caliper	
Low Ref	Readings 3.5
High Ref	Reference 6.7
	15.0
	Gain: 4.3
	Offset: -8.6

Compensated Neutron Calibration Report
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Serial Number:	070808
Tool Model:	Probe

PRE-SURVEY VERIFICATION			
Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu

POST-SURVEY VERIFICATION

Detector	Readings	Measured	Target
Short Space	cps		
Long Space	cps	pu	pu
Gamma Ray Calibration Report			
Serial Number:	070559		
Tool Model:	OPEN_GR		
Performed:	Wed Sep 19 15:58:00 2012		
Calibrator Value:	1.0	GAPI	
Background Reading:	0.0	cps	
Calibrator Reading:	1.0	cps	
Sensitivity:	0.3000	GAPI/cps	