



SUPERIOR
Hays,
Kansas

**DUAL INDUCTION
LOG**

Company I.A. OPERATING, INC.
Well MADDY #4-1
Field WILDCAT
County NORTON
State KANSAS

Company I.A. OPERATING, INC.
Well MADDY #4-1
Field WILDCAT
County NORTON State KANSAS

Location: API #: 15-137-20512-0000
2060' FSL & 2310' FWL
SEC 4 TWP 3S RGE 24W
Permanent Datum GROUND LEVEL Elevation 2425
Log Measured From KELLY BUSHING 5' A.G.L.
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL
MEL/SONIC
Elevation
K.B. 2430
D.F. 2428
G.L. 2425

Date	3/4/10		
Run Number	ONE		
Depth Driller	3720		
Depth Logger	3708		
Bottom Logged Interval	3706		
Top Log Interval	00		
Casing Driller	8 5/8"@218'		
Casing Logger	218		
Bit Size	7 7/8"		
Type Fluid In Hole	CHEMICAL MUD	CHLORIDES 900 PPM	
Density / Viscosity	9.1/63		
pH / Fluid Loss	10.77 6		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.50@72F		
Rmf @ Meas. Temp	1.13@72F		
Rmc @ Meas. Temp	1.80@72F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.956@113F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	10:15 A.M.		
Maximum Recorded Temperature	113F		
Equipment Number	0836		
Location	HAYS, KANSAS		
Recorded By	JEFF LUEBBERS		
Witnessed By	STEVE MILLER		

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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 SUPERIOR WELL SERVICE HAYS, KANSAS (785) 628-6395
DIRECTIONS
NORTON, KS. 8W. ON HWY 36 TO "RD. 8W", 1S. TO "RD. N", 1/2E., N. INTO



SUPERIOR
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MAIN SECTION

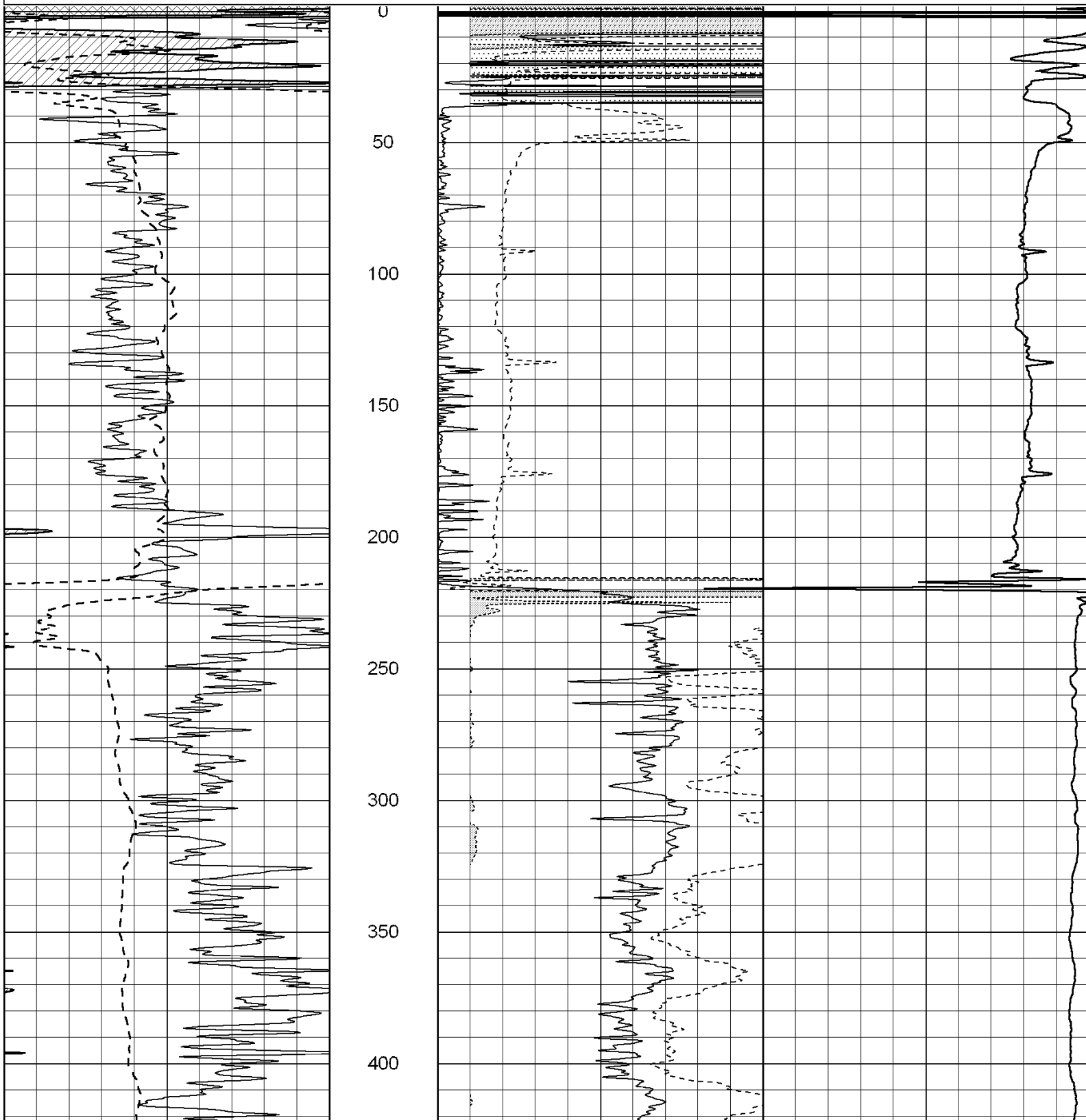
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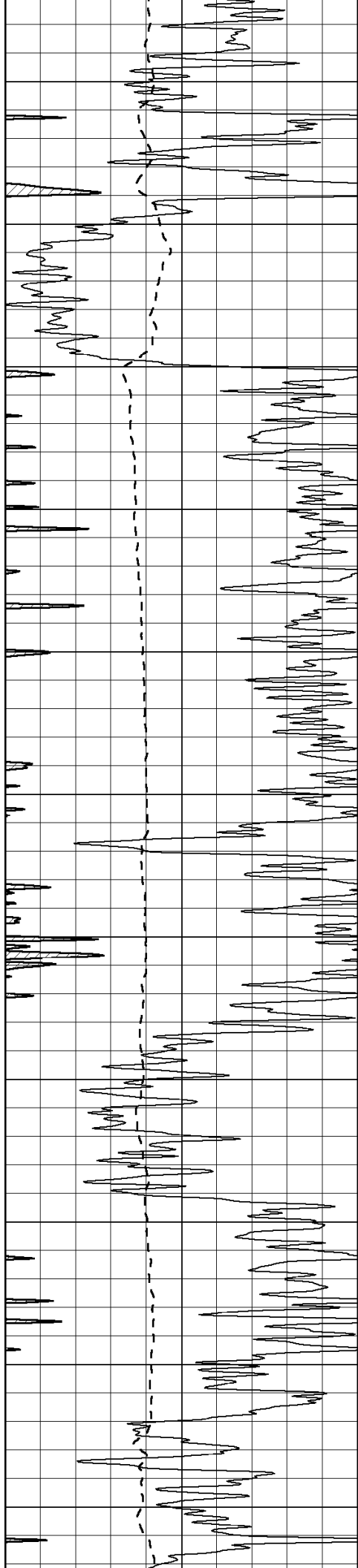
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 -100 SP (mV) 100

0 RLL3 (Ohm-m) 50
 0 RILD (Ohm-m) 50

1000 CILD (mmho-m) 0

50 RILD X10 (Ohm-m) 500
 50 RLL3 X10 (Ohm-m) 500





450

500

550

600

650

700

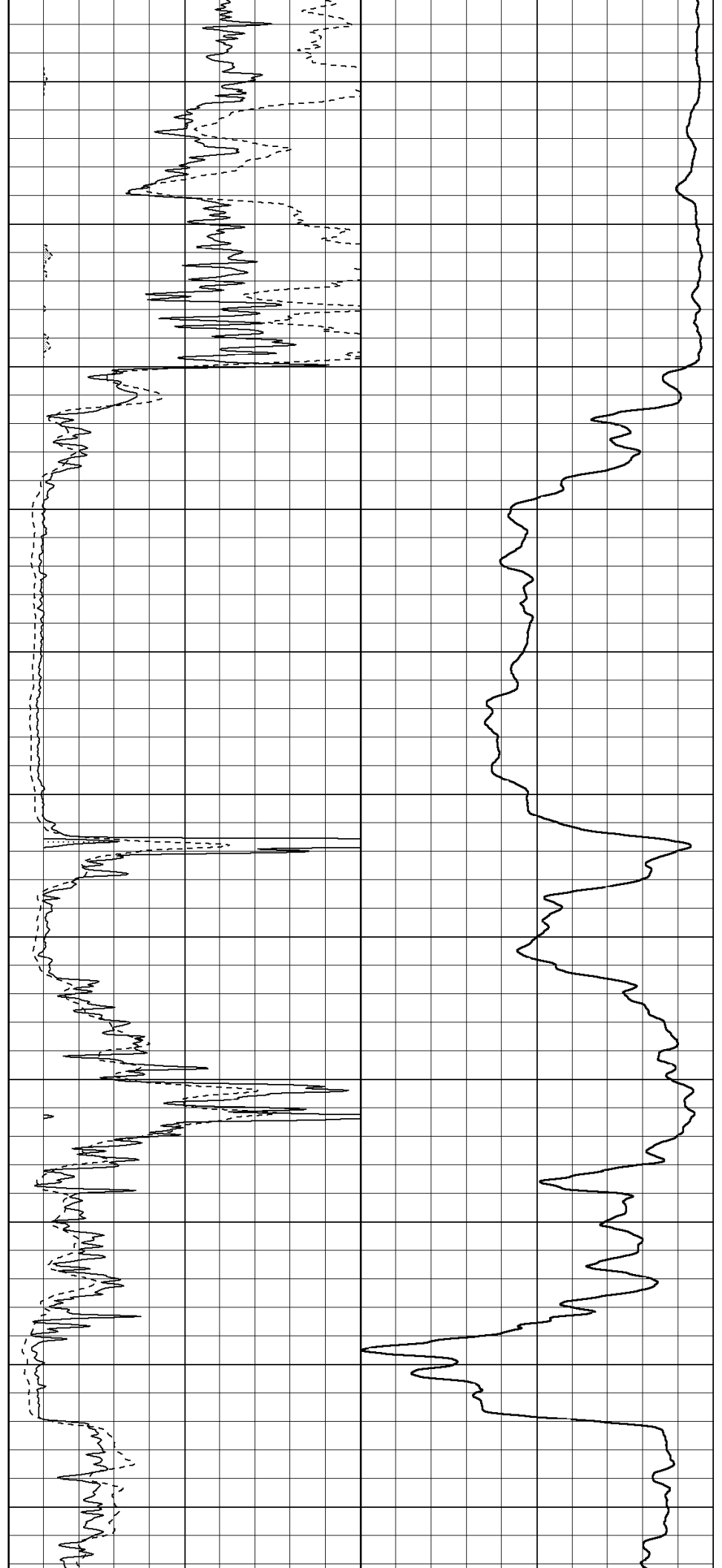
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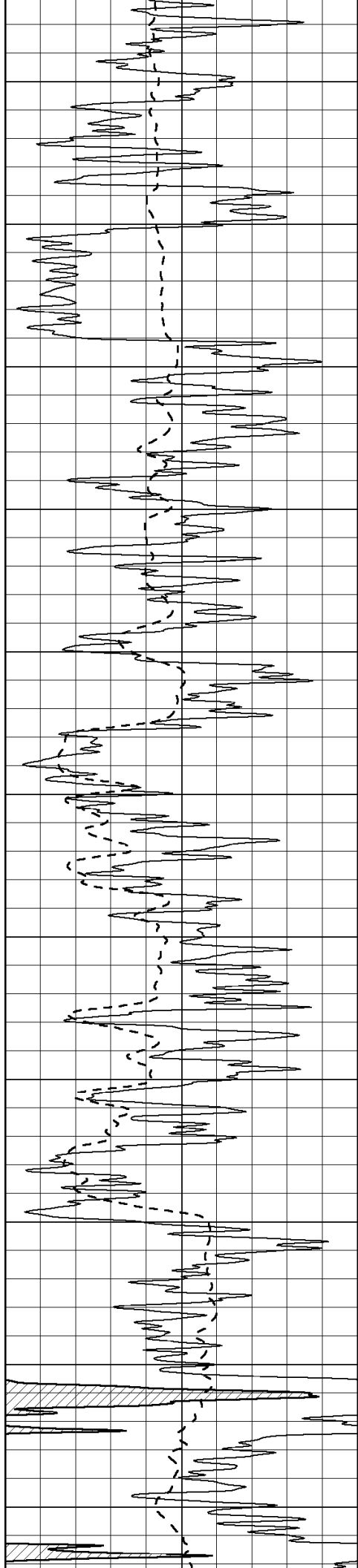
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850

900

950





1000

1050

1100

1150

1200

1250

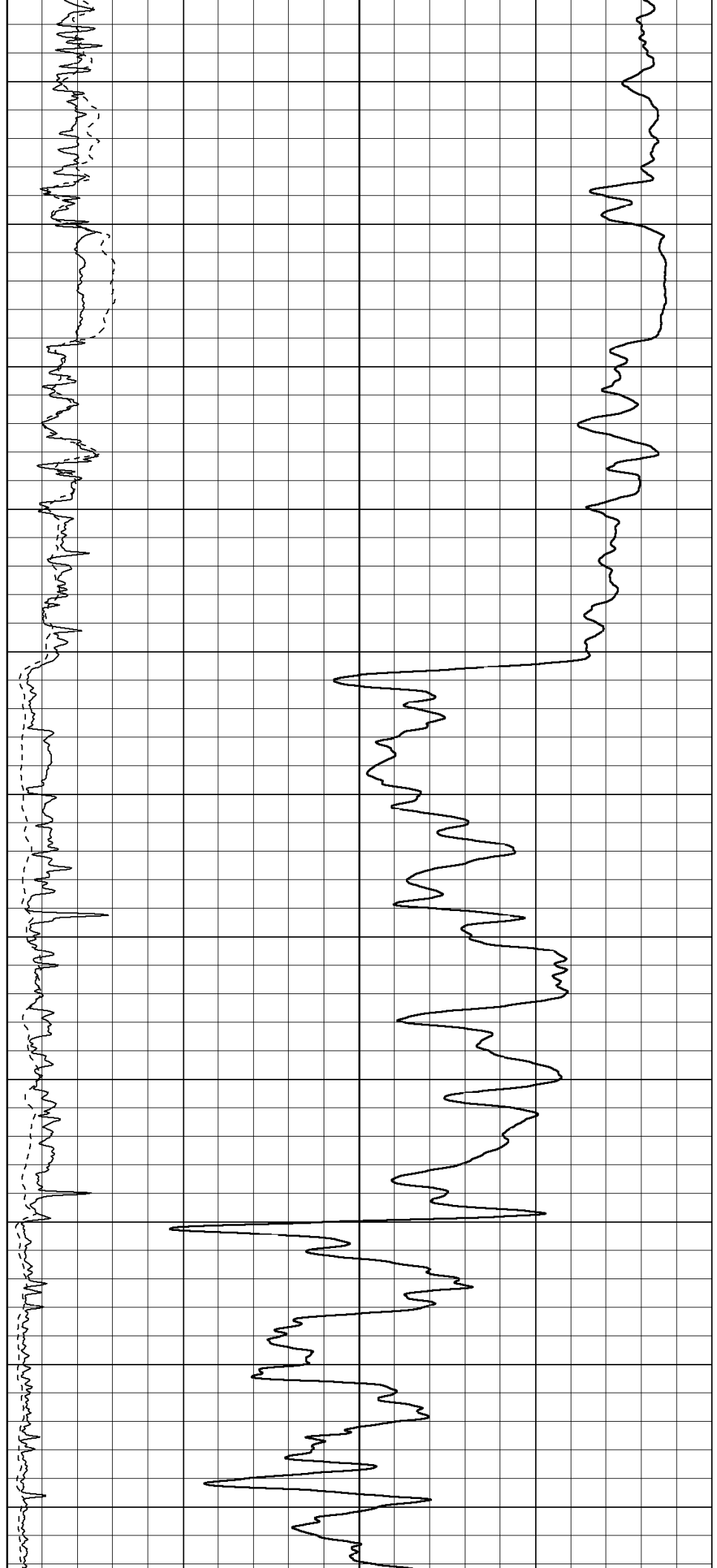
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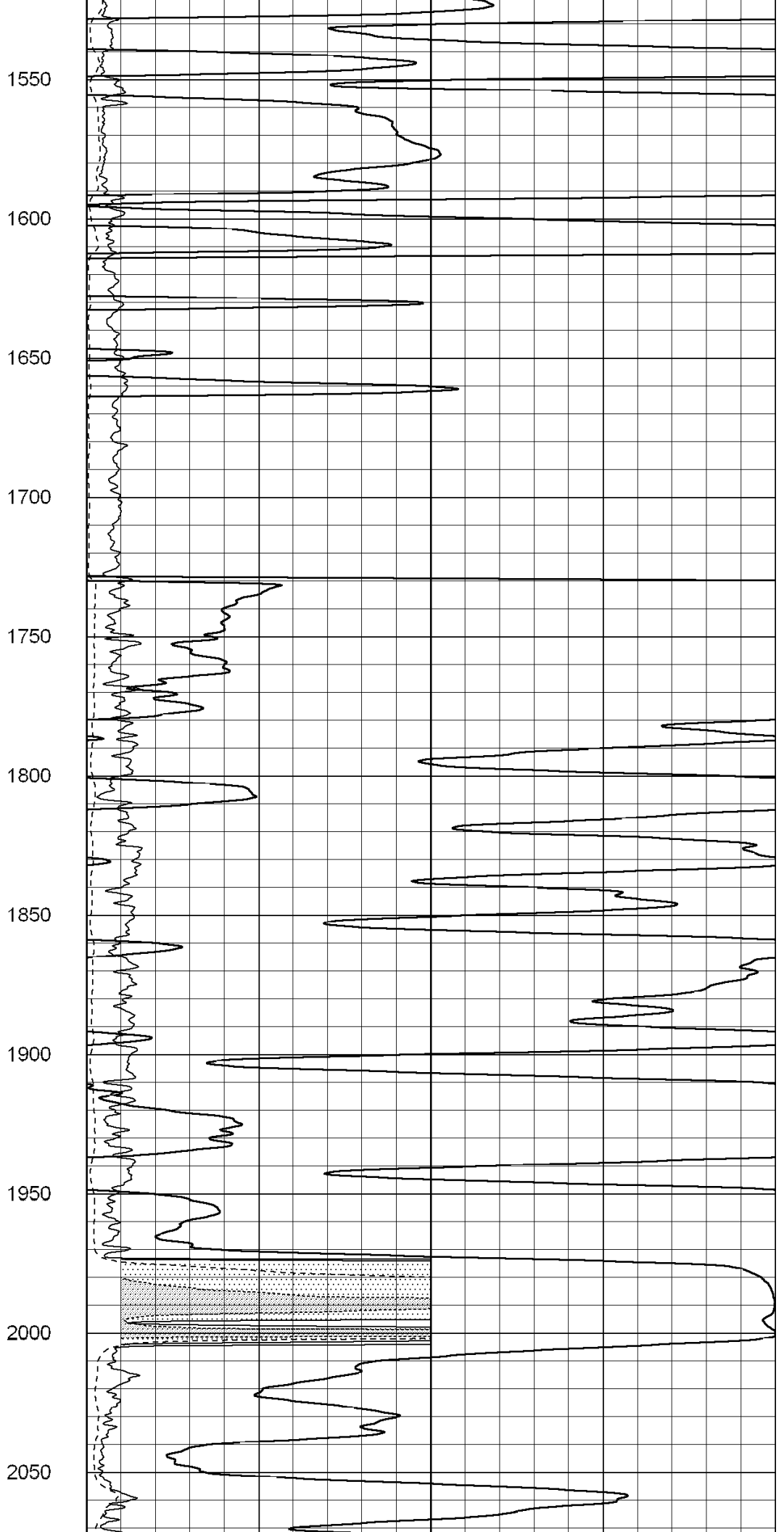
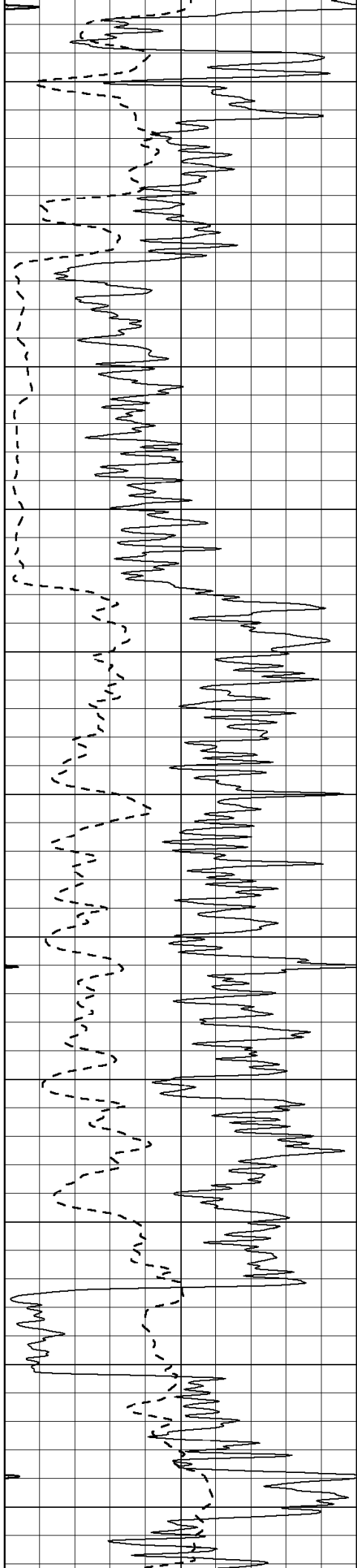
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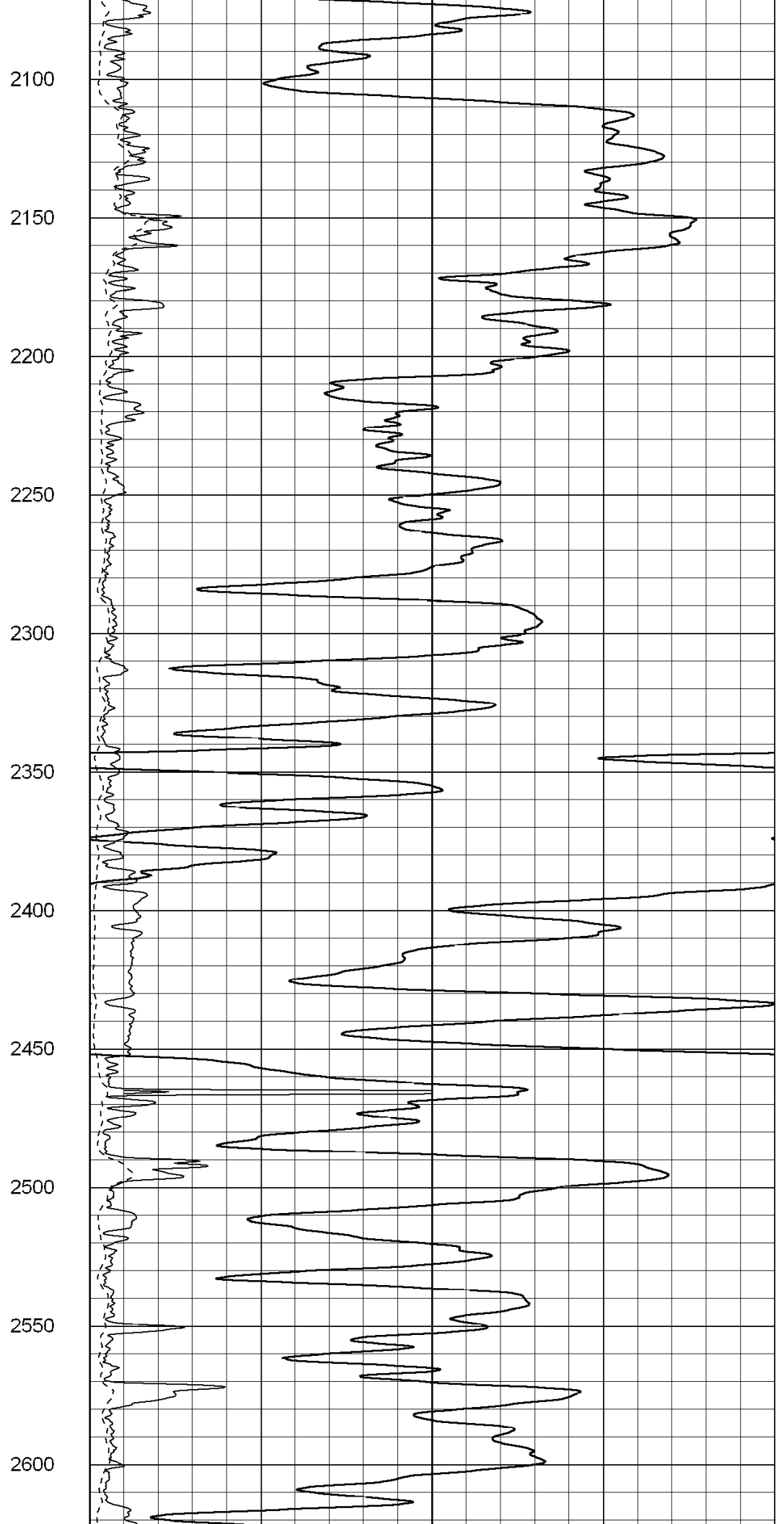
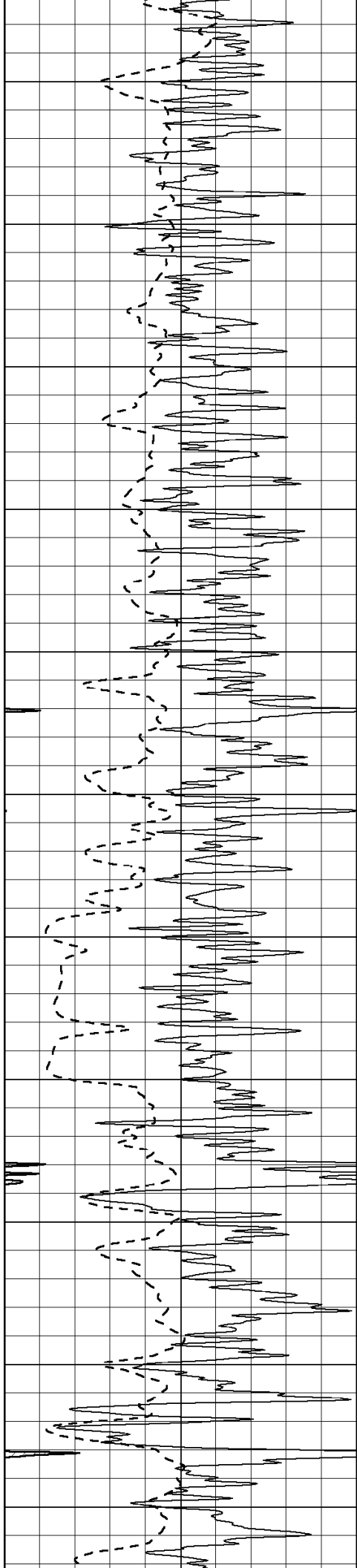
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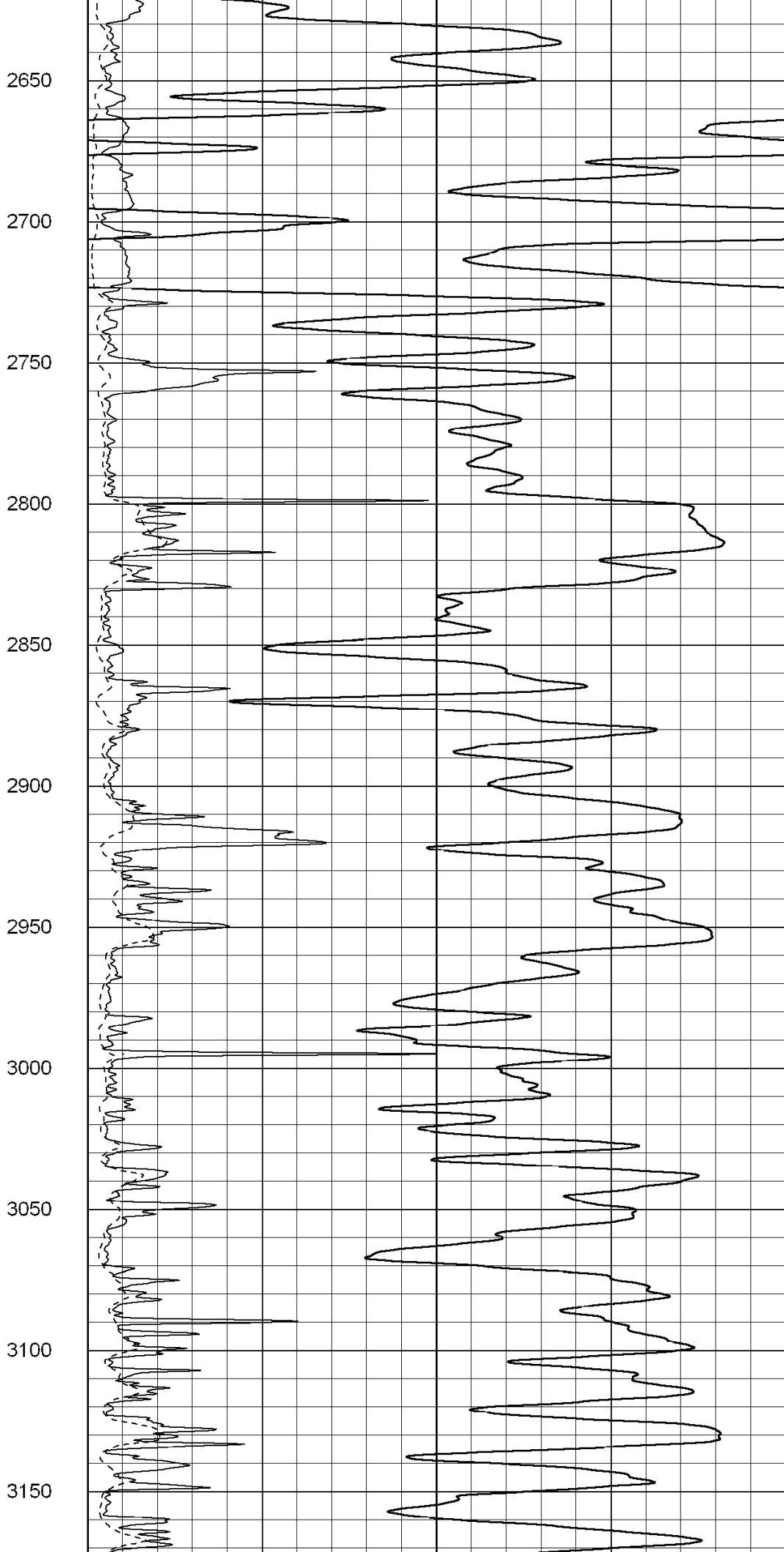
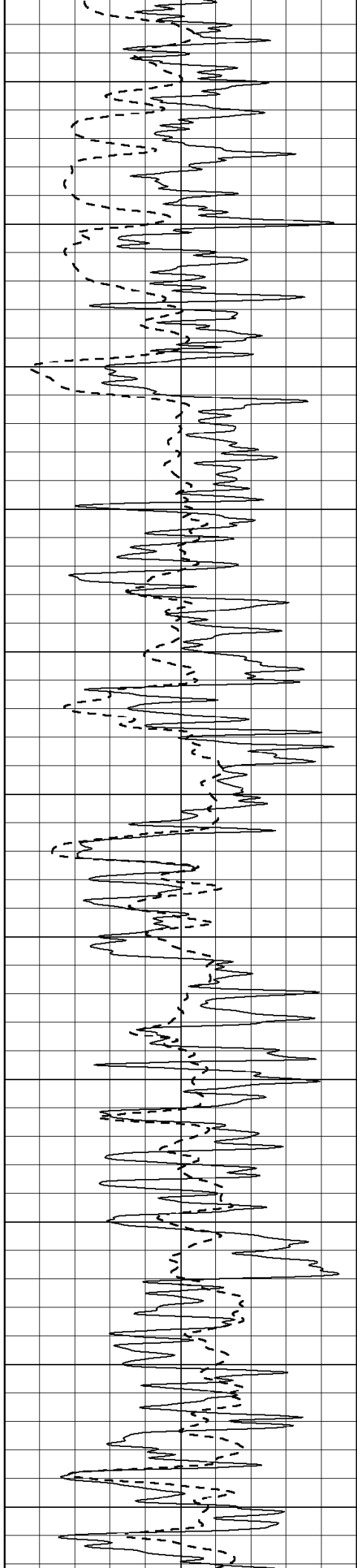
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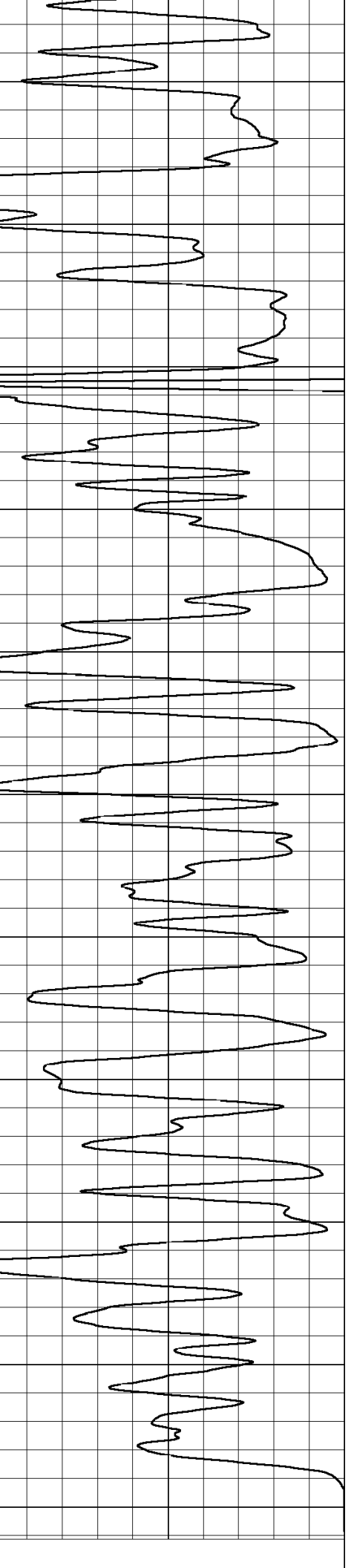
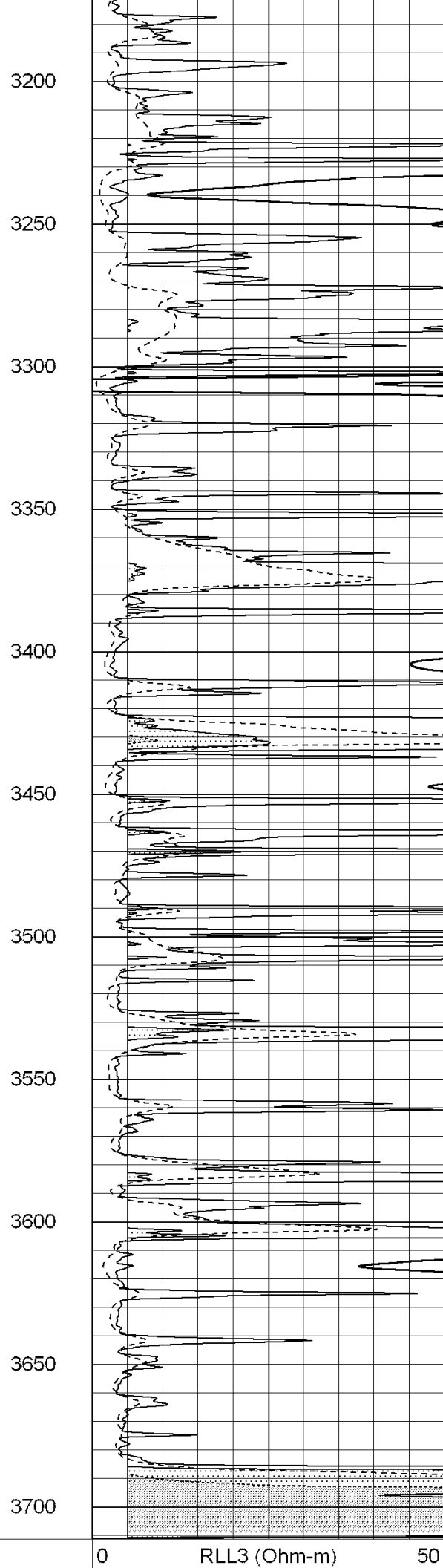
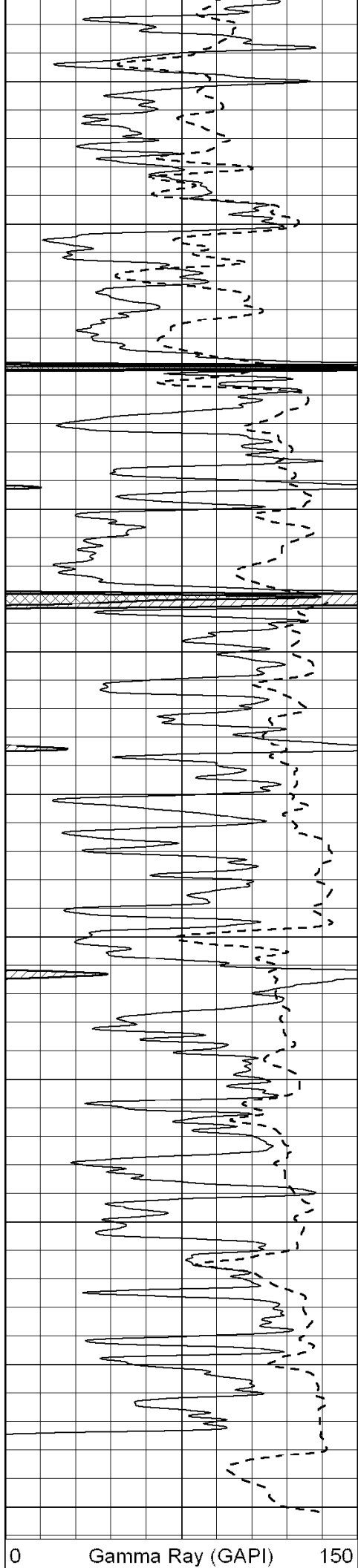
1500











0 Gamma Ray (GAPI) 150

0 RLL3 (Ohm-m) 50

-100	SP (mV)	100
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0	RILD (Ohm-m)	50
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1000	CILD (mmho-m)	0
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50	RILD X10 (Ohm-m)	500
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50	RLL3 X10 (Ohm-m)	500
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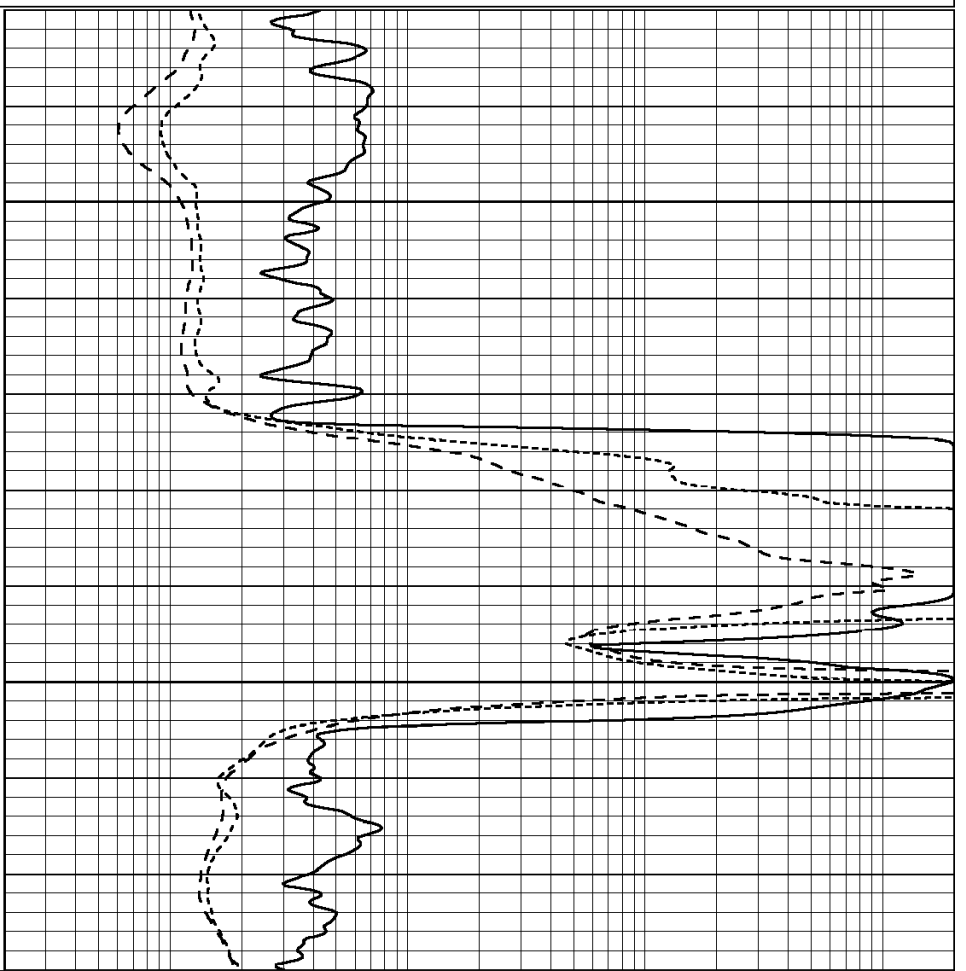
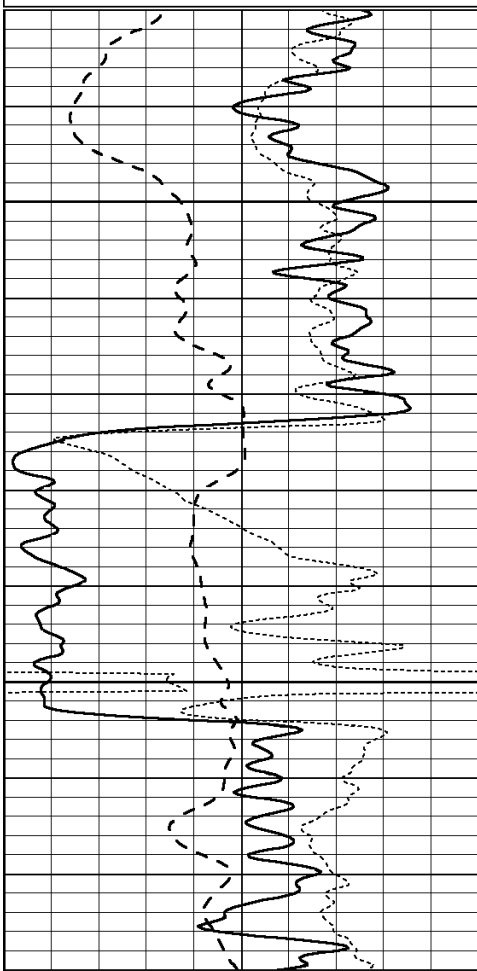
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ANHYDRITE

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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

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



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

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



SUPERIOR



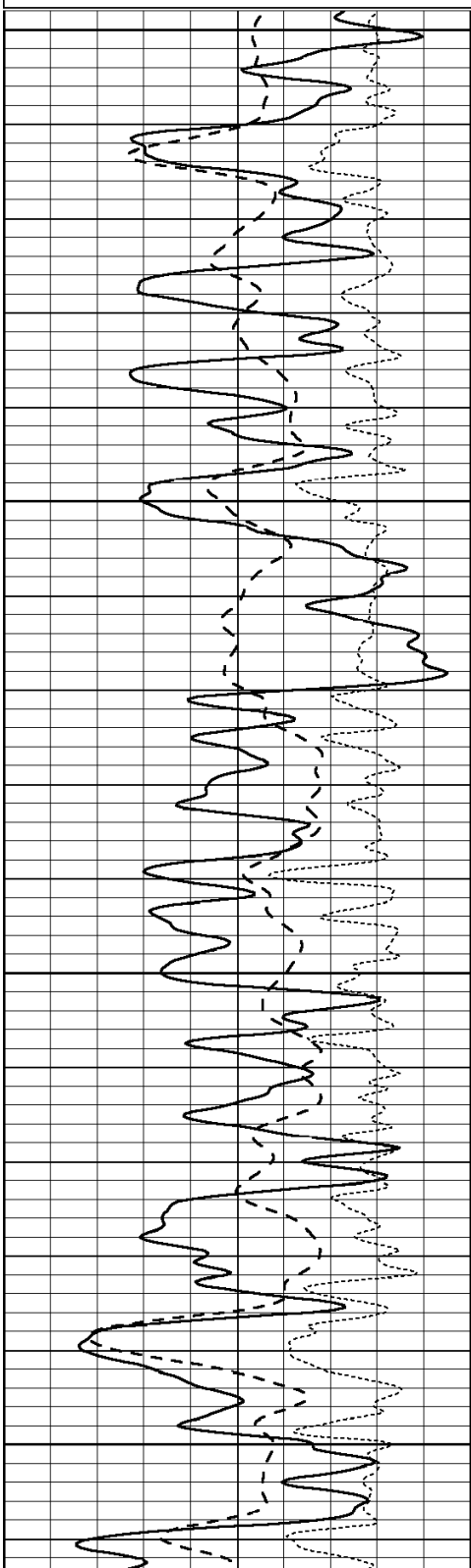
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MAIN SECTION

Database File: 004827ddn.db
 Dataset Pathname: pass4.5
 Presentation Format: dil
 Dataset Creation: Thu Mar 04 11:41:26 2010 by Calc Open-Cased 060407
 Charted by: Depth in Feet scaled 1:240

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

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

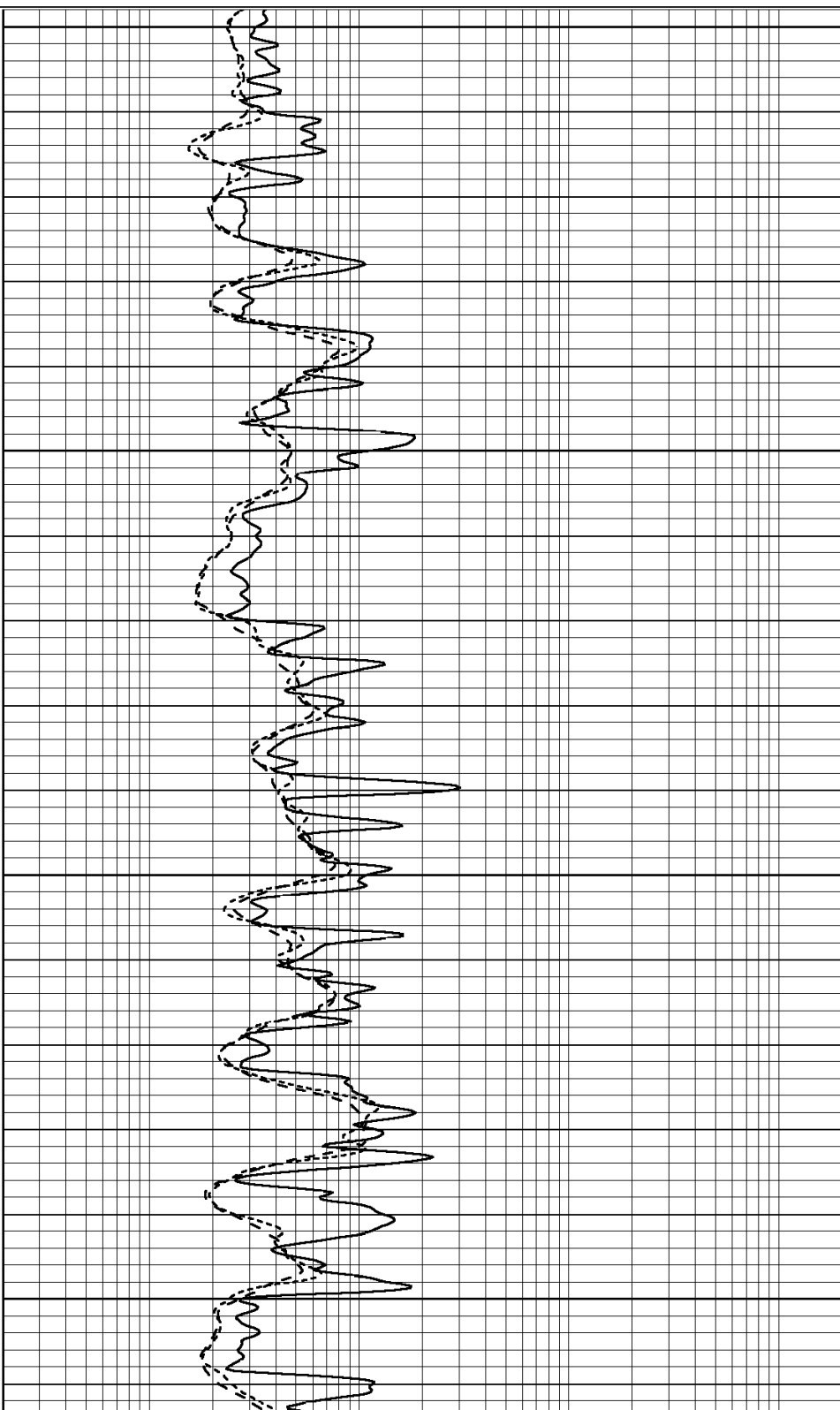


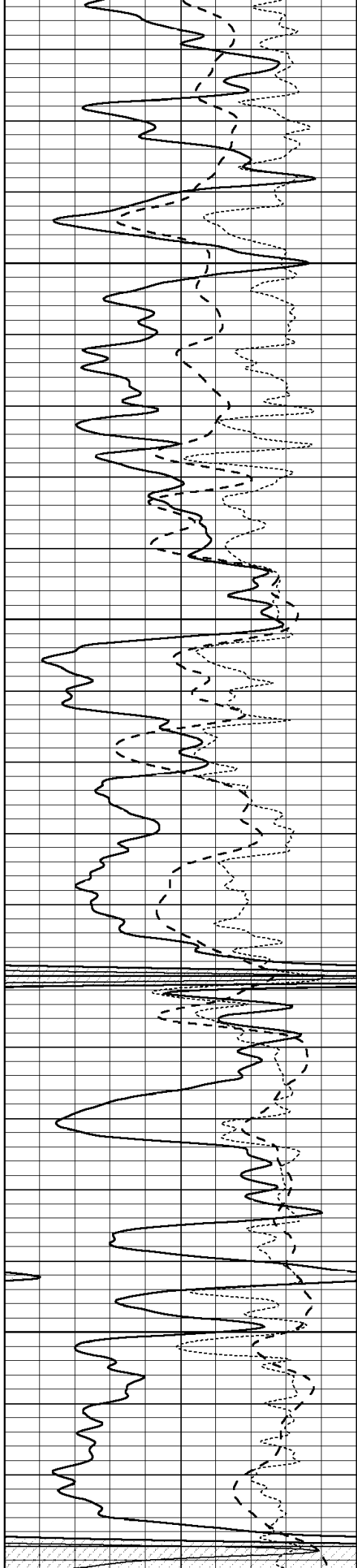
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3050

3100

3150



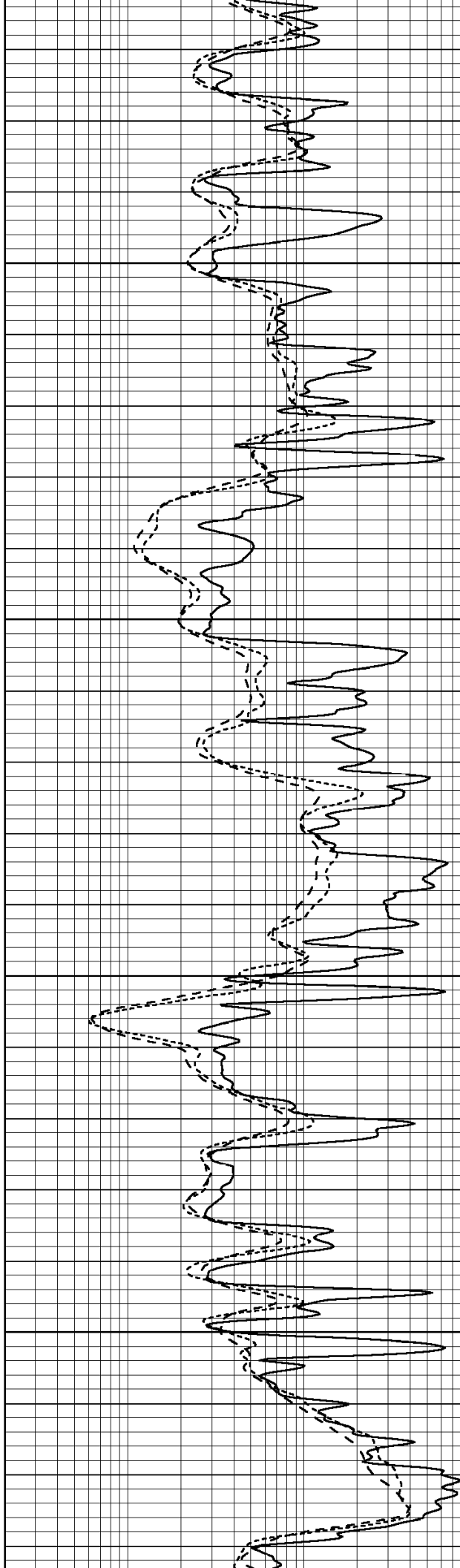


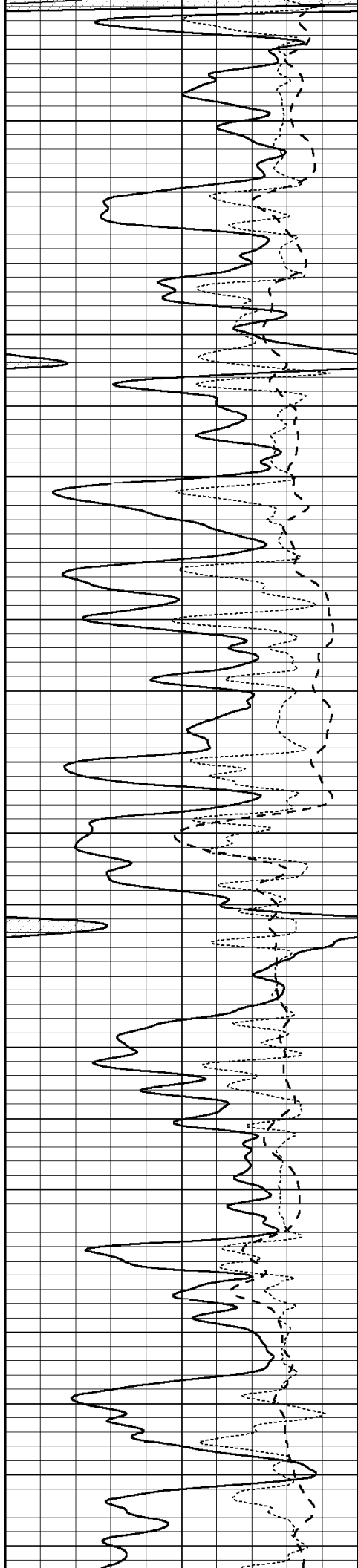
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3250

3300

3350





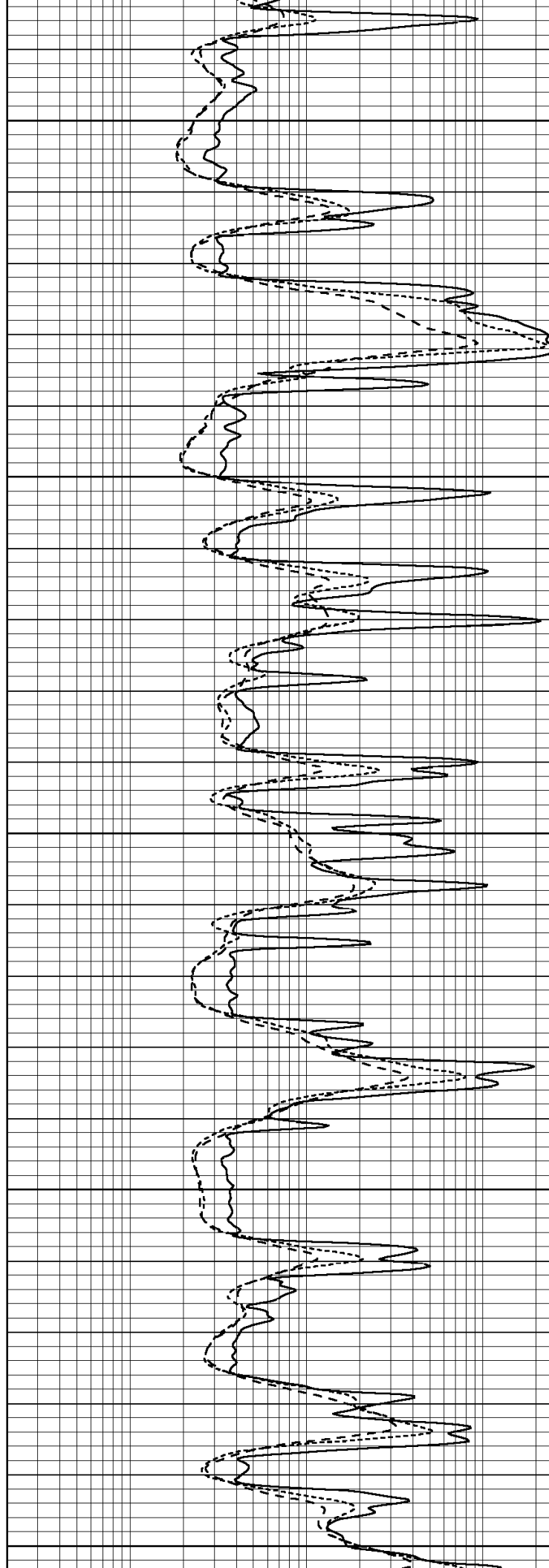
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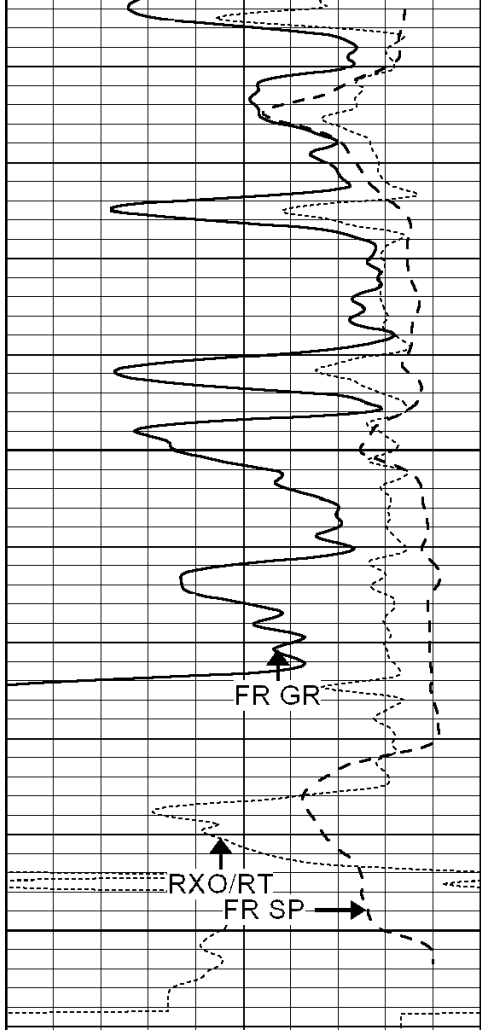
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3550

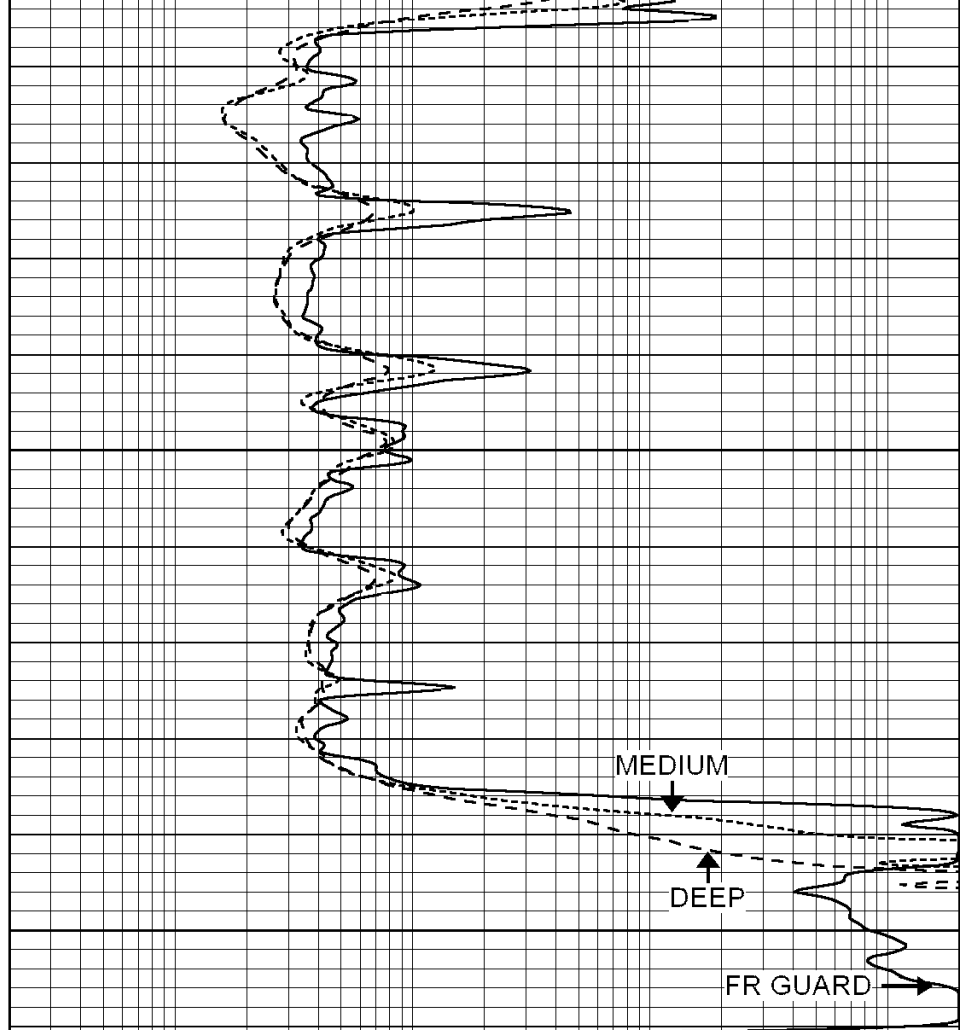
3600





3650
3700
LTD 3708

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



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



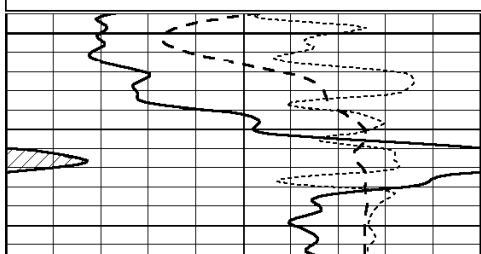
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REPEAT SECTION

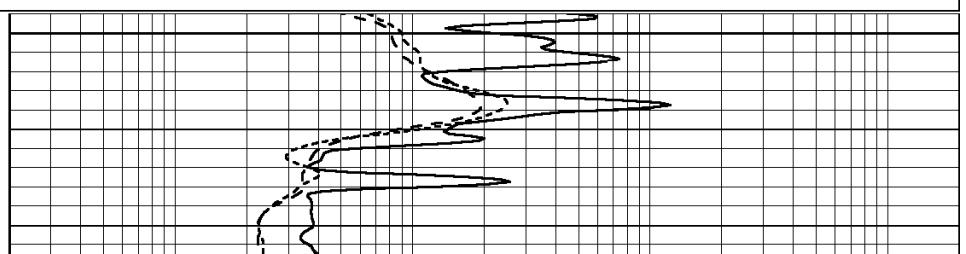
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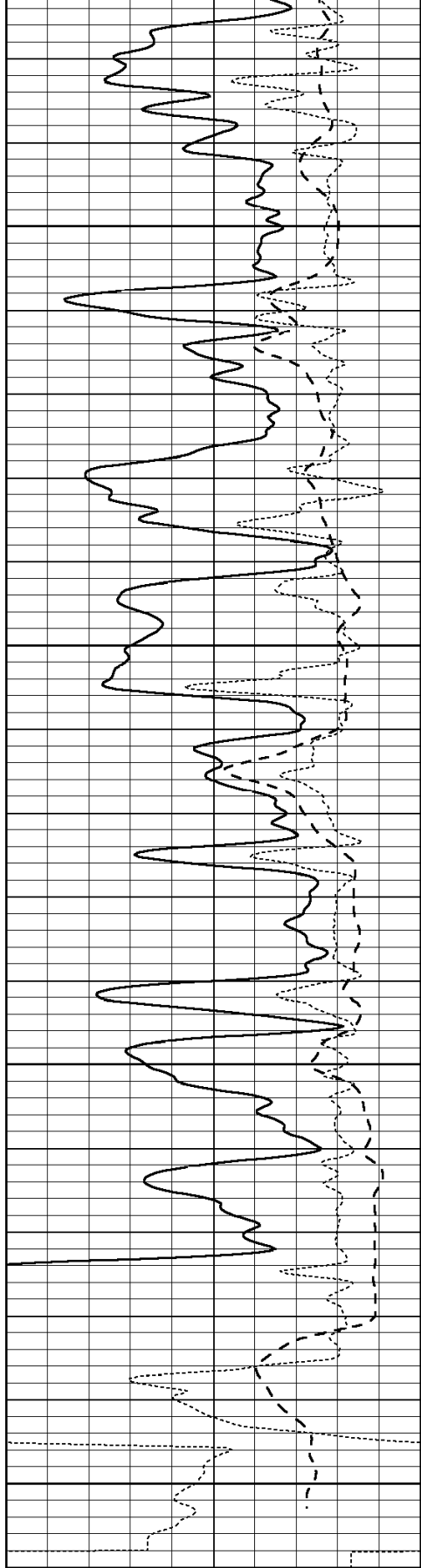
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

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



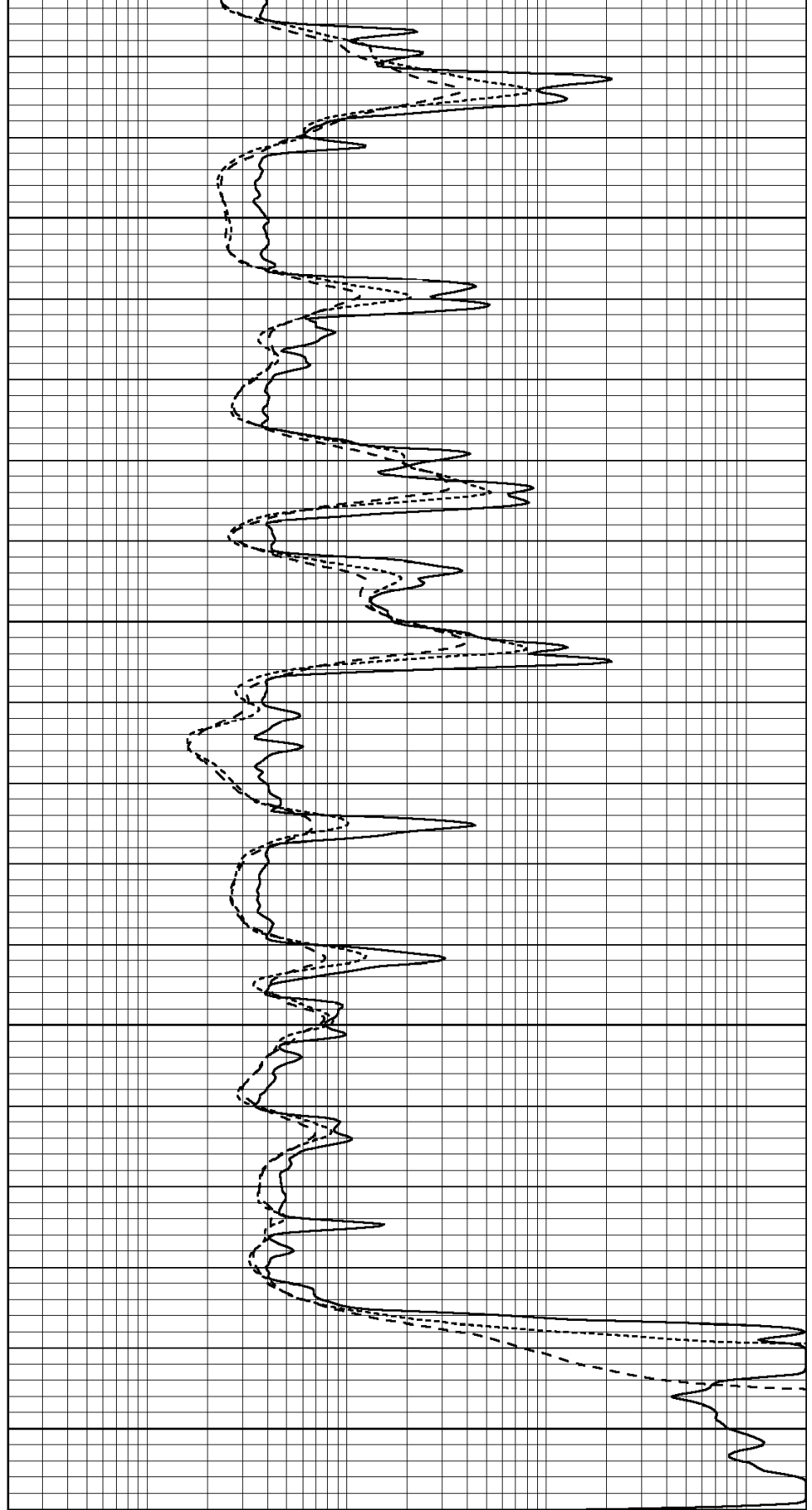
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0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	Rxo/Rt	50

3550
3600
3650
3700



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

Calibration Report

Dual Induction Calibration Report

Serial-Model: DIL3-GEAR
 Performed: Thu Mar 04 04:56:10 2010

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	0.000	400.000	mmho-m	640.000	-5.000
Medium	0.013	0.740	V	0.000	462.500	mmho-m	700.000	-15.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.002	0.645	V	0.000	400.000	mmho-m	622.059	-1.071
Medium	0.007	0.740	V	0.000	462.500	mmho-m	631.393	-4.555

Litho Density Calibration Report
 Serial: 003N Model: PRB
 Performed Tue Sep 08 14:14:44 2009

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	2042.6	12312.8	4225.8	13758.4	cps
Window 2	1855.8	10134.7	3624.2	11113.1	cps
Window 3	1639.4	6760.2	2716.3	7260.3	cps
Window 4	466.4	469.2	466.1	476.5	cps
Long Space	0.0	8278.9	1768.4	9257.4	cps
Short Space	2.2	2377.3	1544.1	2574.2	cps
Rho		1.7100	2.5900	1.3800	g/cc
Pe			2.5700	1.5500	
Rib Angle	: 44.4	Rib Slope	: 0.979	Density/Spine Ratio	: 0.549
Spine Angle	: 74.4	Spine Slope	: 3.577	Spine Intercept	: -18.8

Caliper

	Readings	Reference
Low Ref	2.2	6.8
High Ref	4.6	14.0
Gain: 3.0		Offset: 0.4

Compensated Neutron Calibration Report

Serial Number: NEU_3I
 Tool Model: G

CALIBRATION

Detector	Readings	Target	Normalization
Short Space	997.00 cps	1000.00 cps	1.0000
Long Space	986.00 cps	1000.00 cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR3
 Tool Model: OPEN
 Performed: Thu Mar 04 10:36:30 2010

Calibrator Value: 200.0 GAPI

Background Reading: 3.0 cps

Calibrator Reading: 186.0 cps

Sensitivity: 0.6500 GAPI/cps