



**DUAL
INDUCTION
LOG**

Company DOWNING NELSON OIL COMPANY, INC.
 Well FIDELIS SCHMEIDLER "B" #1
 Field SCHMEIDLER
 County ELLIS State KANSAS

Location: API #: 15-051-26911-0000
 2230' FSL & 60' FEL
 SEC 21 TWP 12S RGE 17W
 Permanent Datum GROUND LEVEL Elevation 2125
 Log Measured From KELLY BUSHING 8' A.G.L.
 Drilling Measured From KELLY BUSHING
 Other Services
 CDL/CNL
 MEL/SON
 Elevation
 K.B. 2133
 D.F. 2131
 G.L. 2125

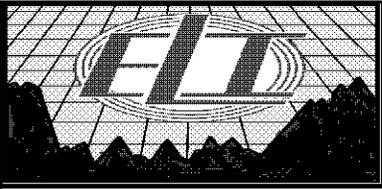
Date	5/8/18		
Run Number	ONE		
Depth Driller	3783		
Depth Logger	3783		
Bottom Logged Interval	3781		
Top Log Interval	00		
Casing Driller	8 5/8" @ 220'		
Casing Logger	220		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 16000 PPM	
Density / Viscosity	9.2/49		
PH / Fluid Loss	9.0/10.8		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.42 @ 82F		
Rmt @ Meas. Temp	.31 @ 82F		
Rmc @ Meas. Temp	.50 @ 82F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.30 @ 114F		
Time Circulation Stopped	2 HOURS		
Time Logger on Bottom	////		
Maximum Recorded Temperature	114F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	JASON CAPPELLUCCI		
Witnessed By	MARC DOWNING		

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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 ELI WIRELINE SERVICES, HAYS, KS. (785) 628-6395
 DIRECTIONS
 HAYS, KS. - NORTH TO BUCKEYE RD. - 6 EAST TO 310 RD. - 1/4 SOUTH - WEST INTO

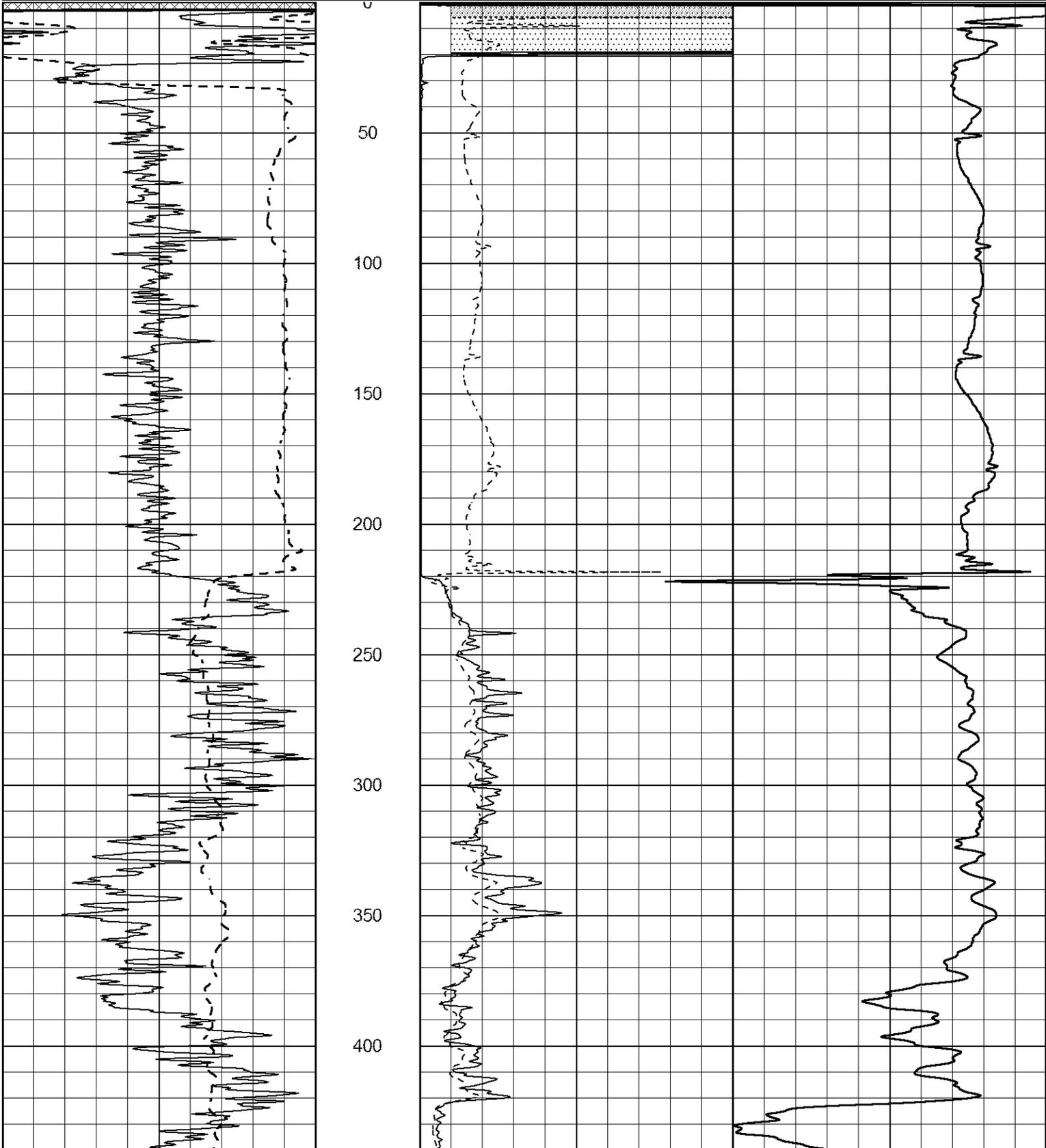


MAIN SECTION

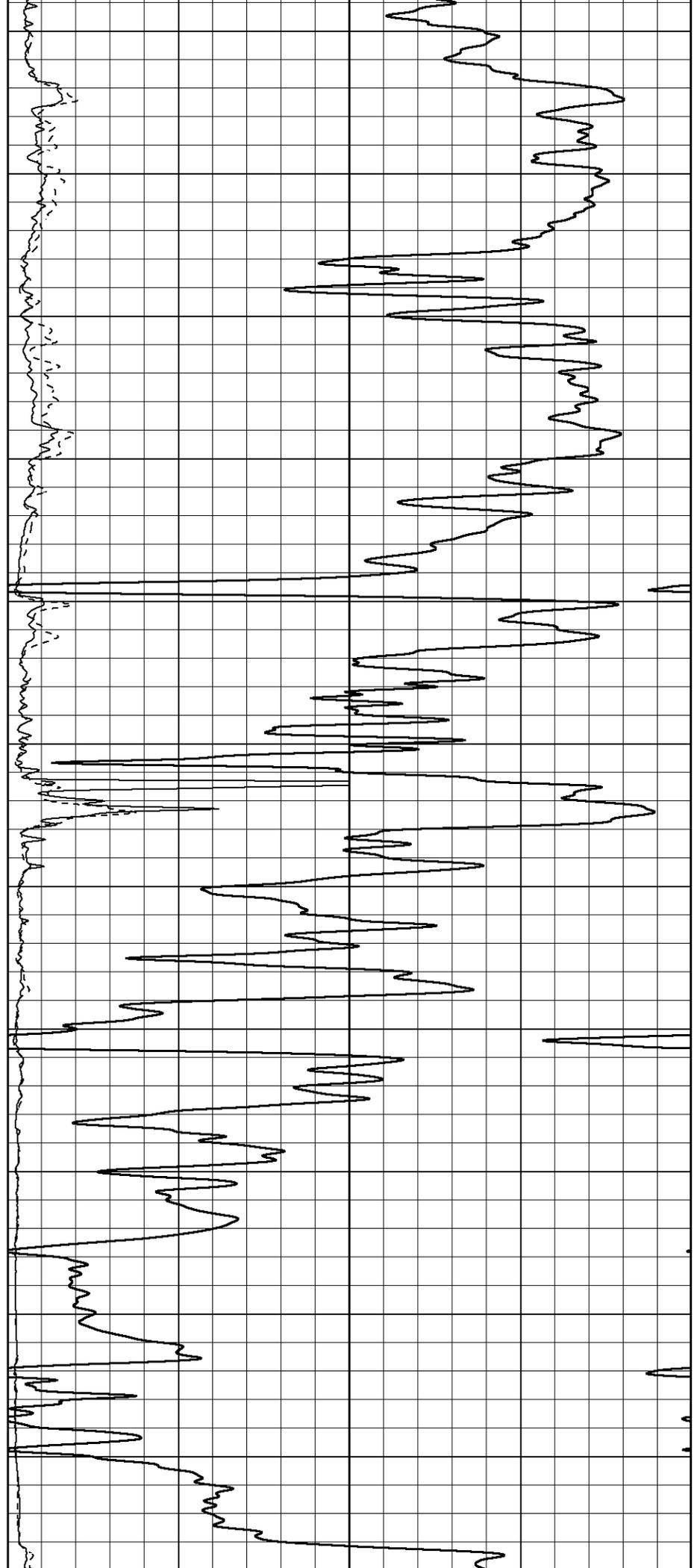
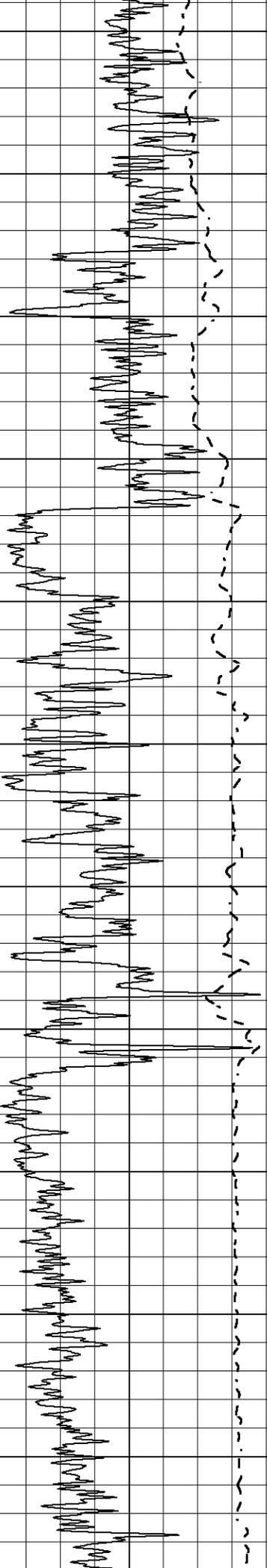
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 Dataset Creation Tue May 08 09:15:27 2018
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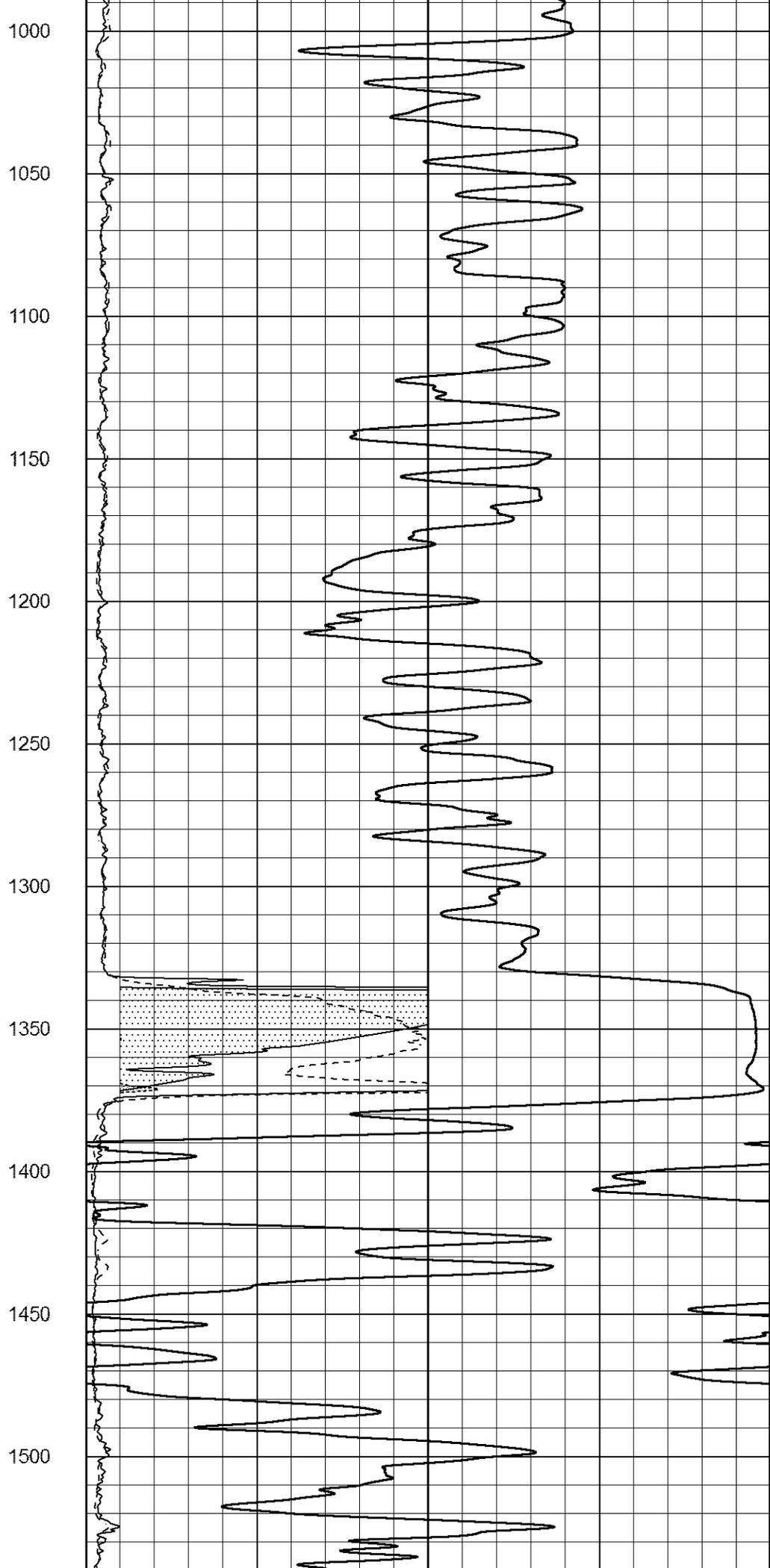
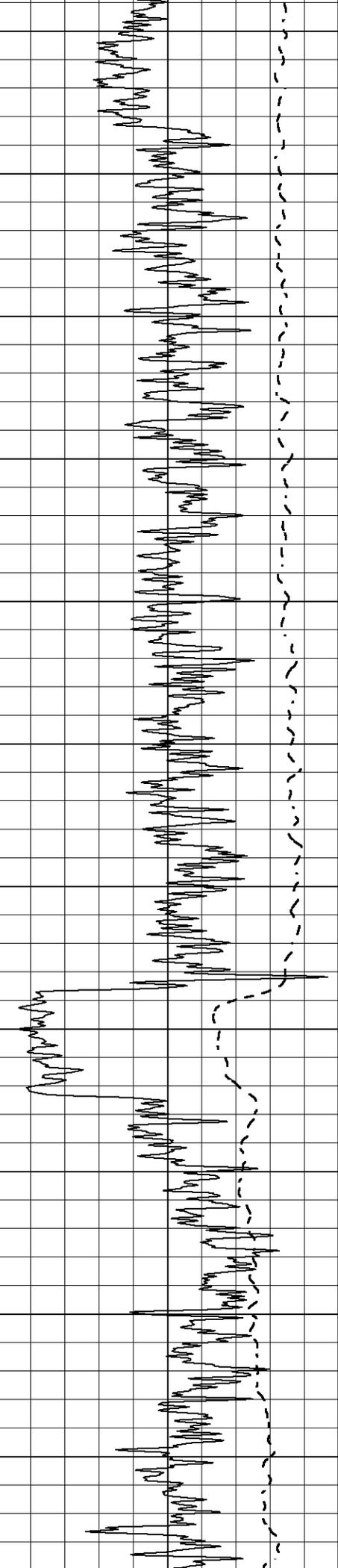
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-100	SP (mV)	100

1000	CILD (mmho/m)	0
0	RLL3 (Ohm-m)	50
0	Deep Induction (Ohm-m)	50
50	RILD X10 (Ohm-m)	500
50	RLL3 X10 (Ohm-m)	500

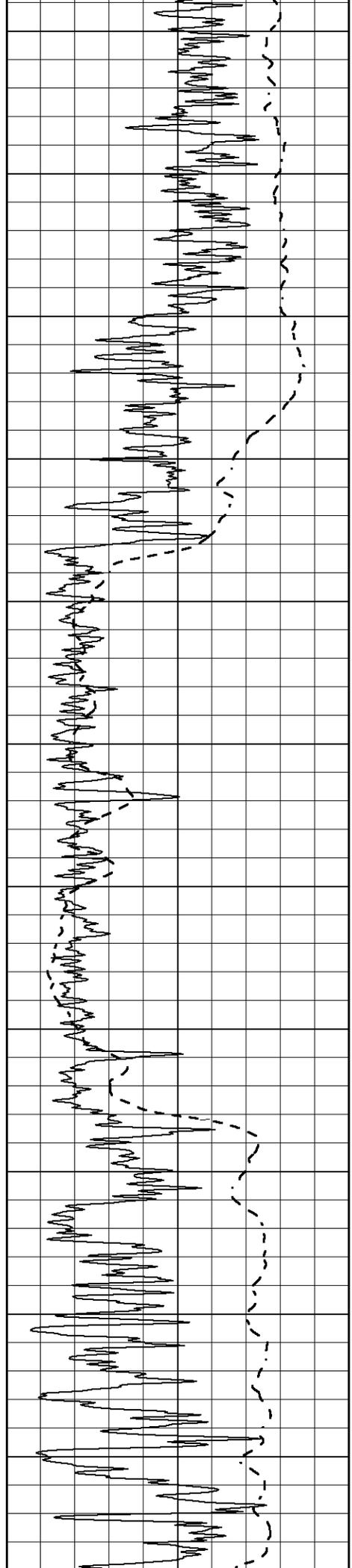
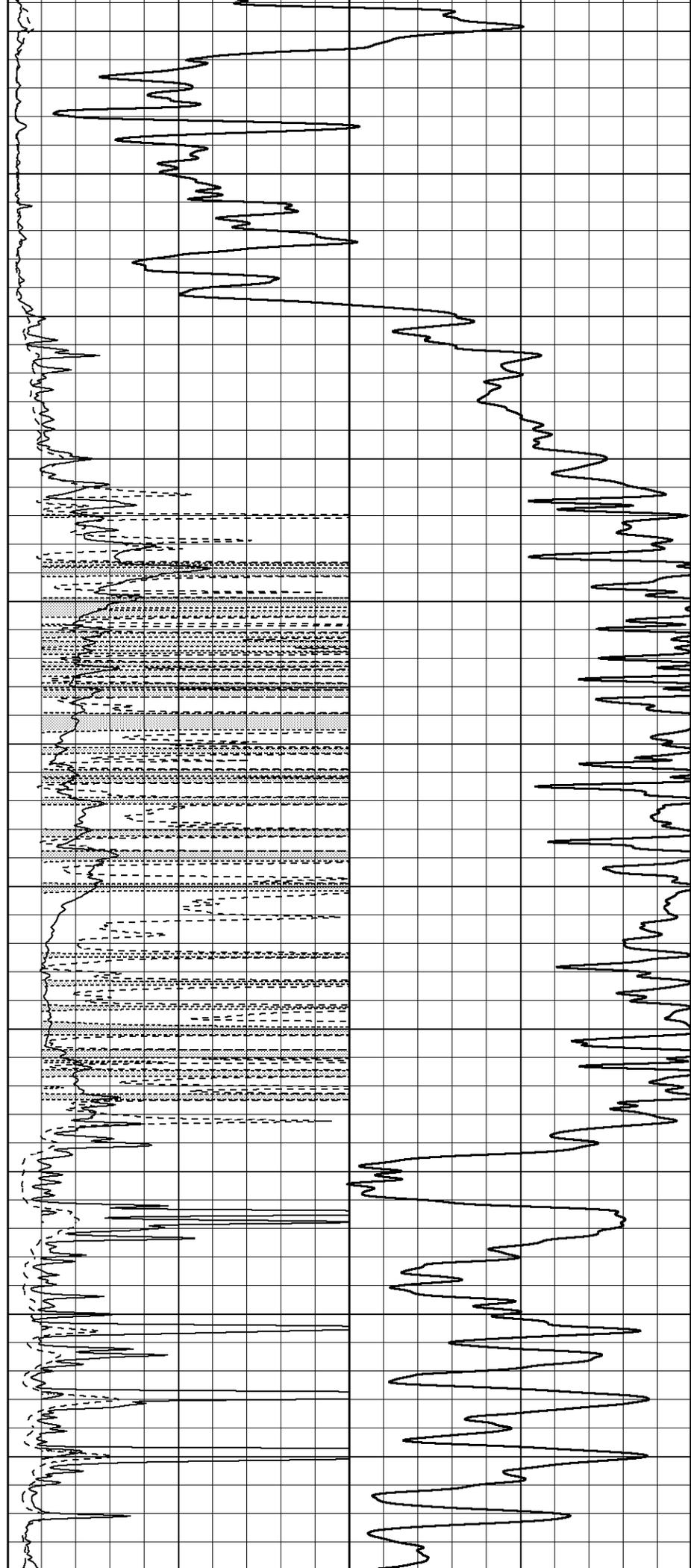


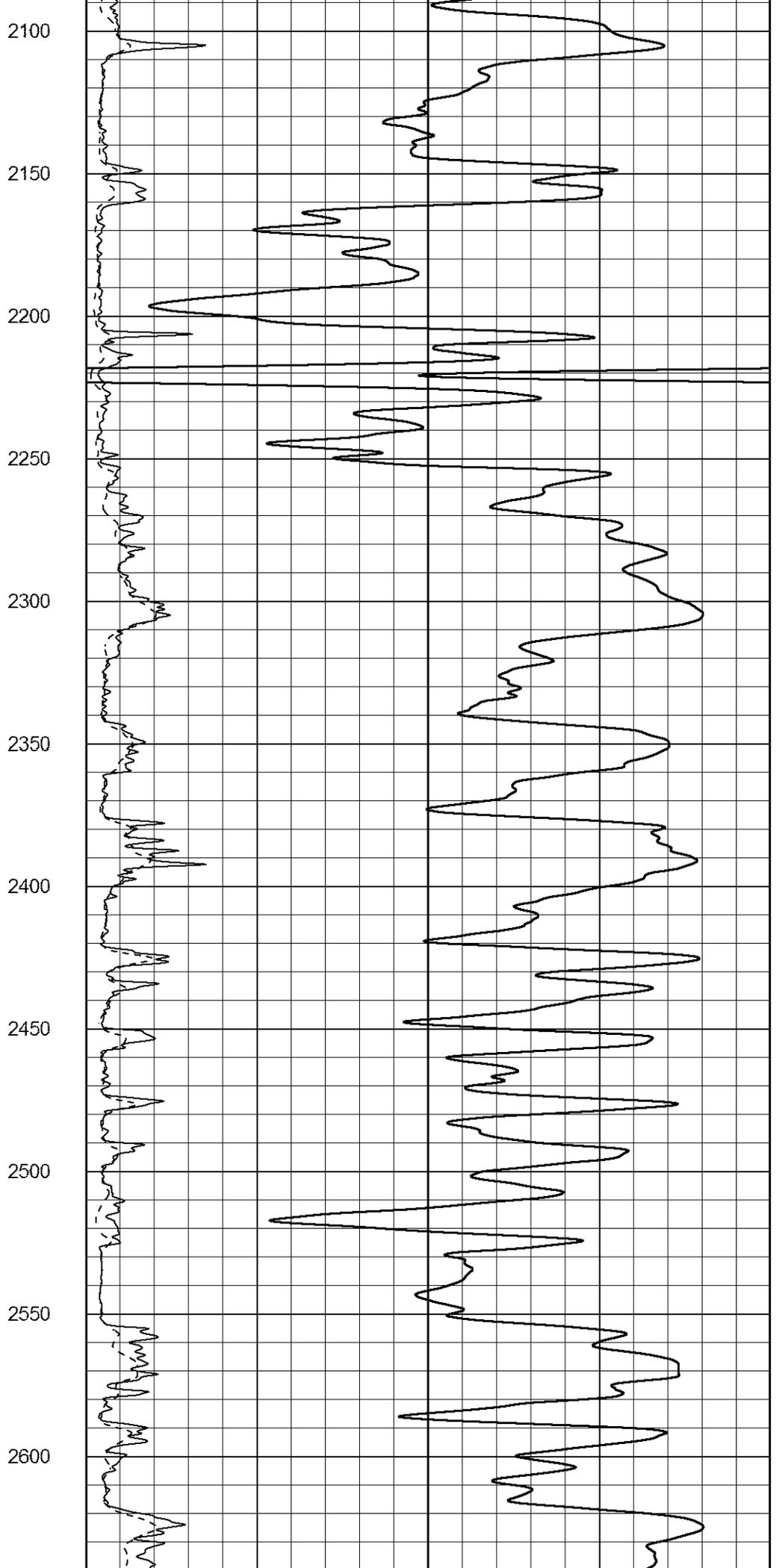
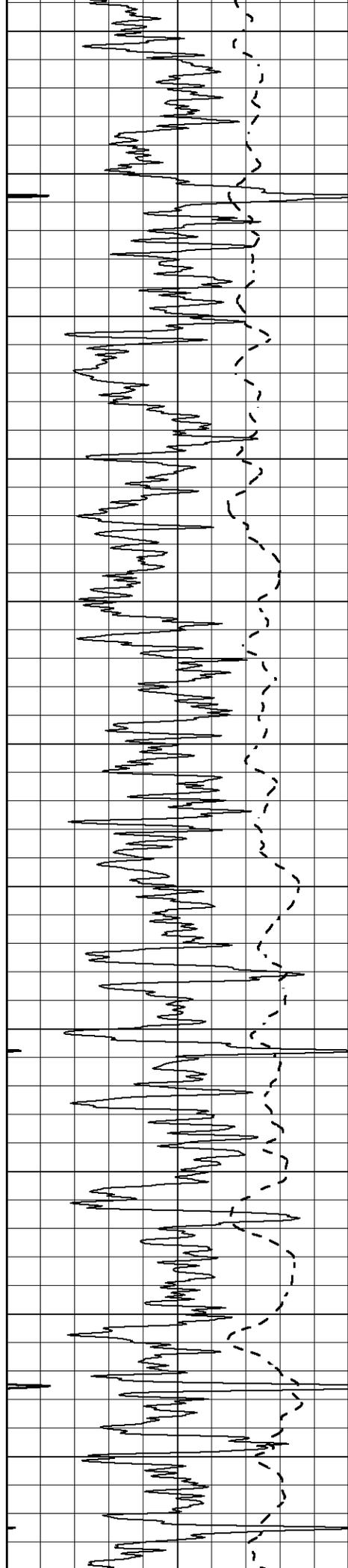
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950



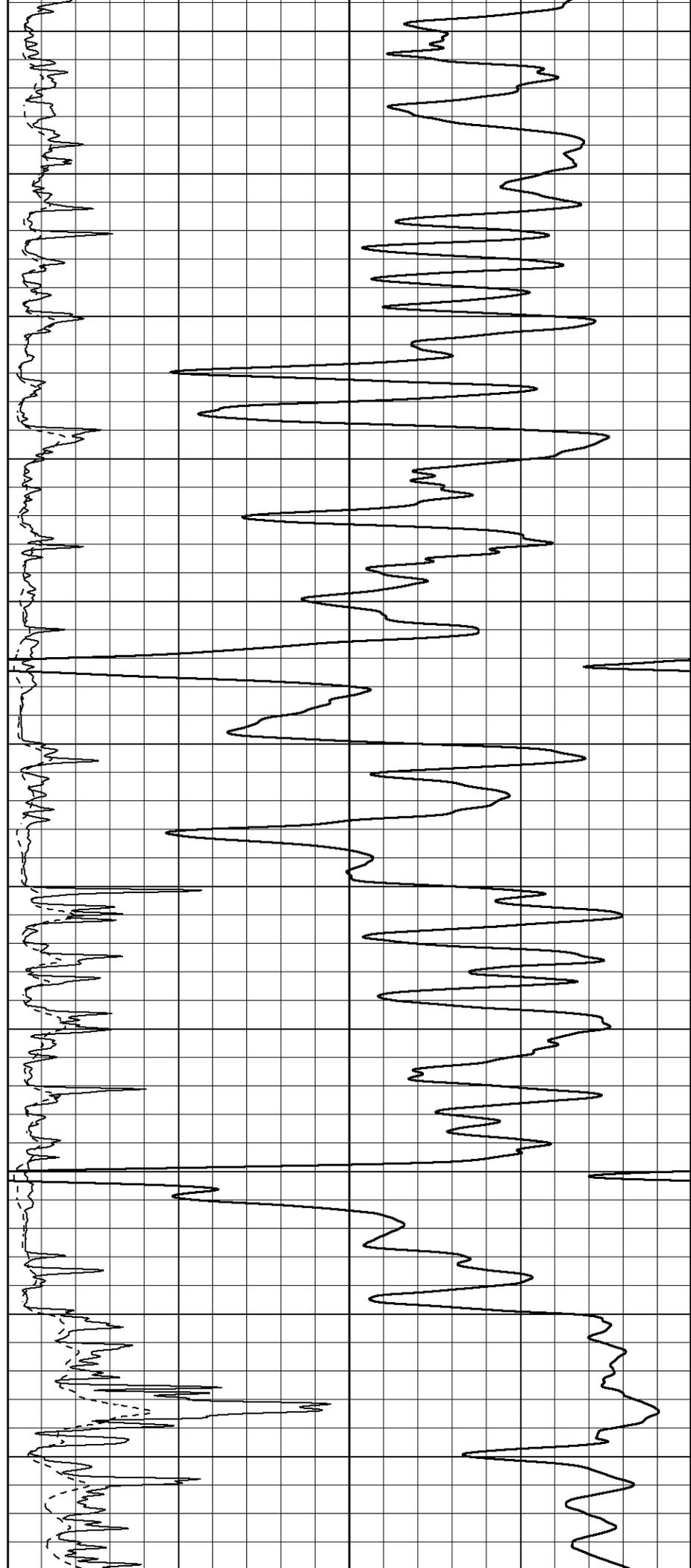
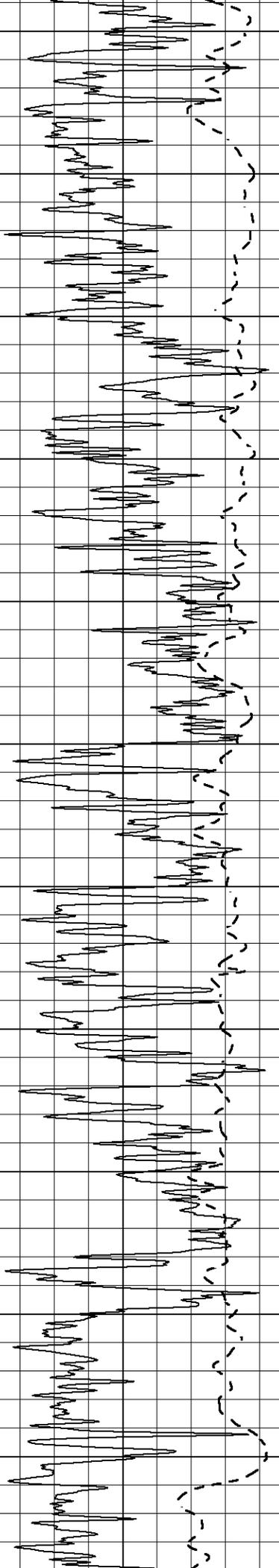


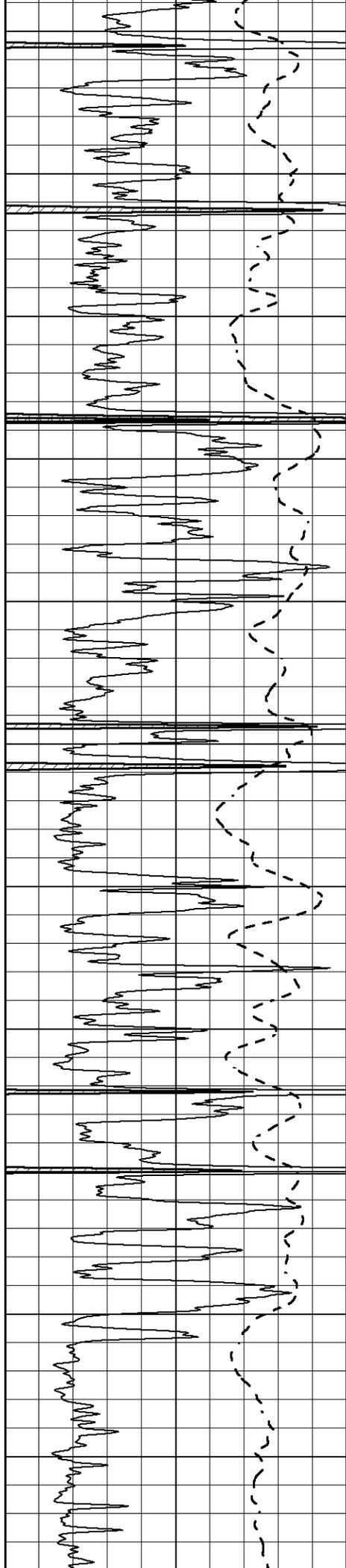
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1950
2000
2050



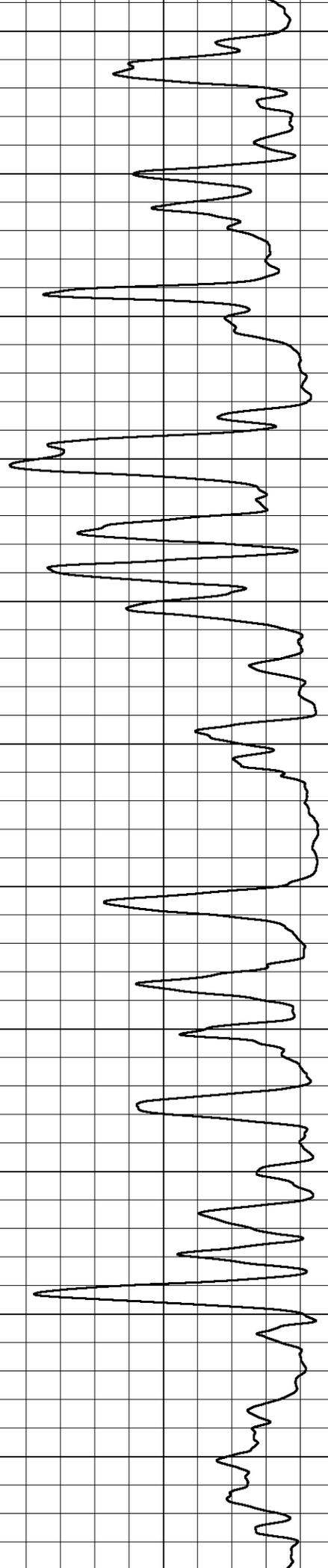
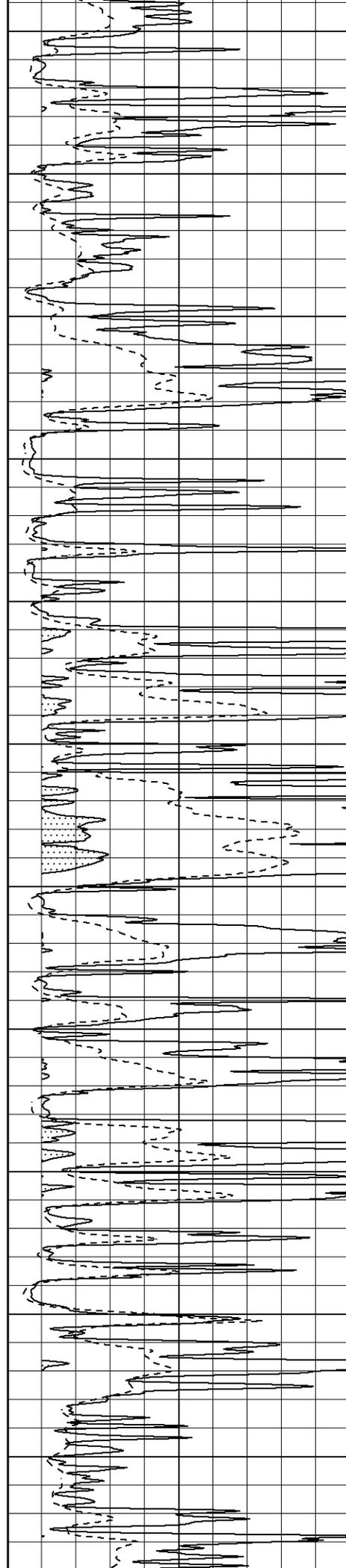


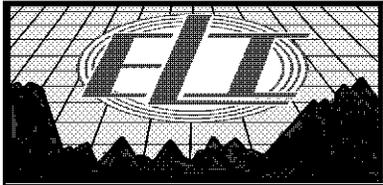
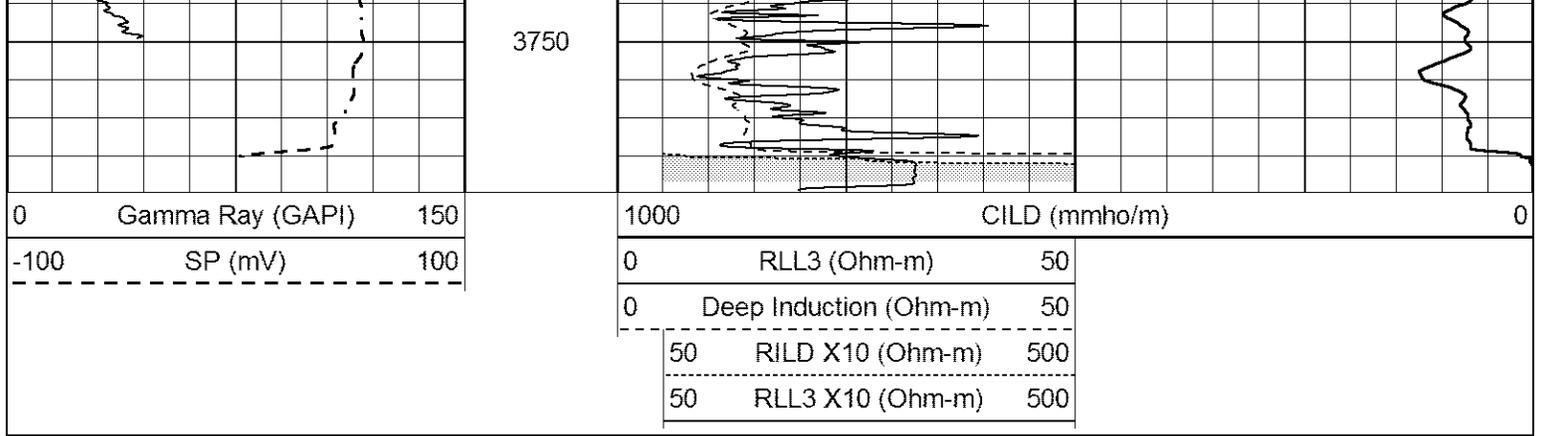
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2900
2950
3000
3050
3100
3150





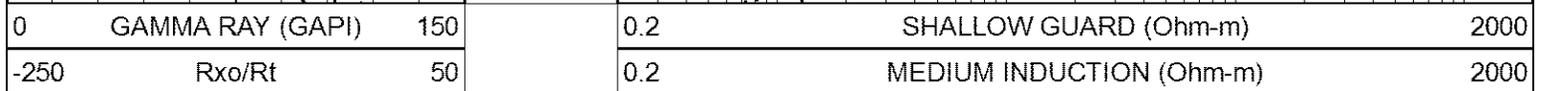
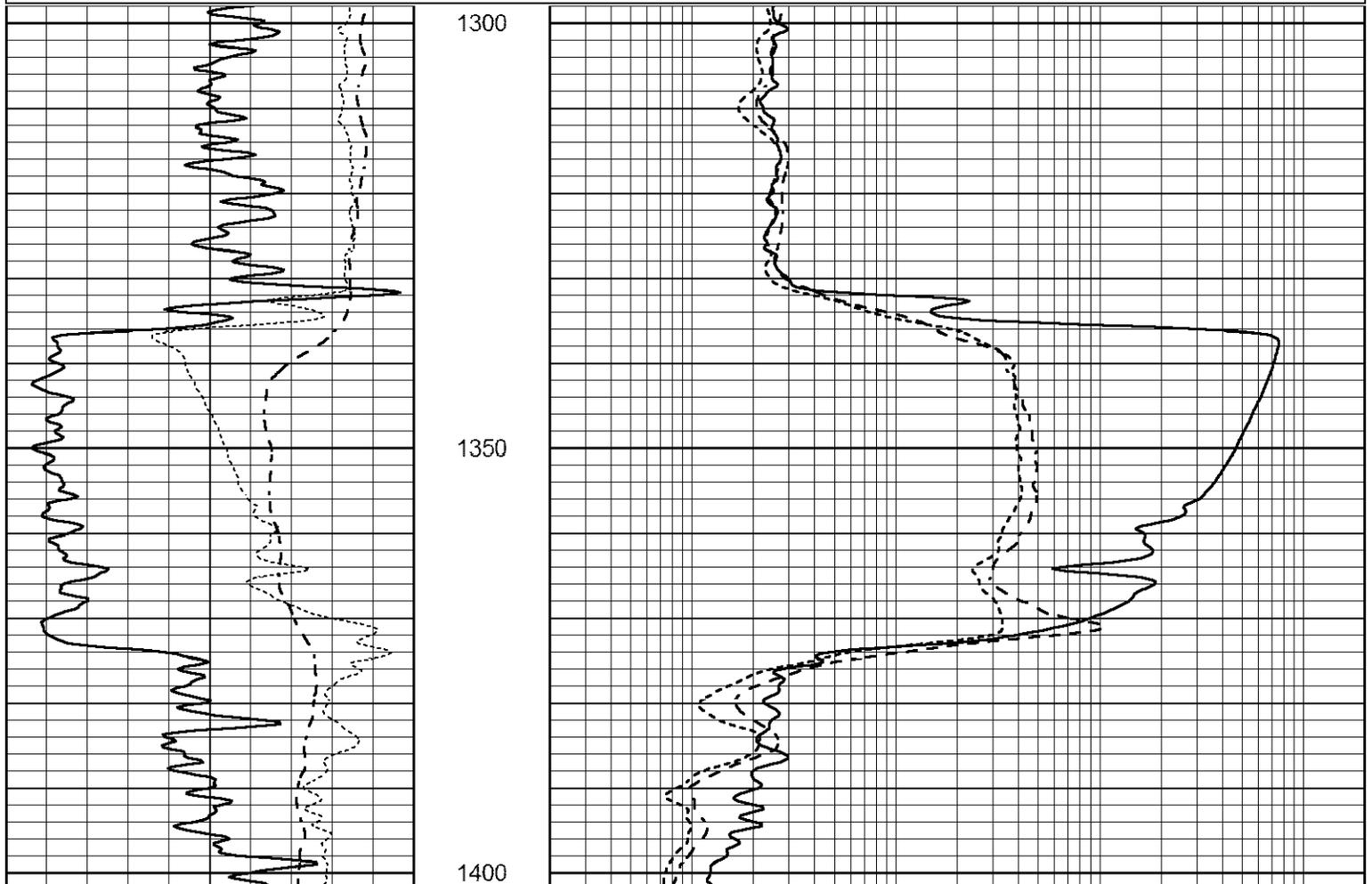
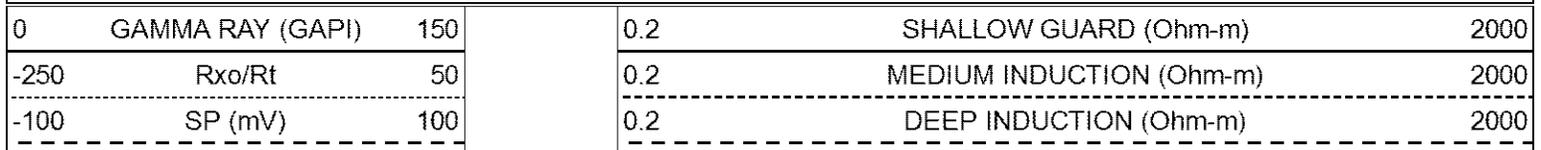
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3350
3400
3450
3500
3550
3600
3650
3700





ANHYDRITE

Database File 2502ddn8.db
 Dataset Pathname pass3.2
 Presentation Format _dil
 Dataset Creation Tue May 08 08:00:54 2018
 Charted by Depth in Feet scaled 1:240



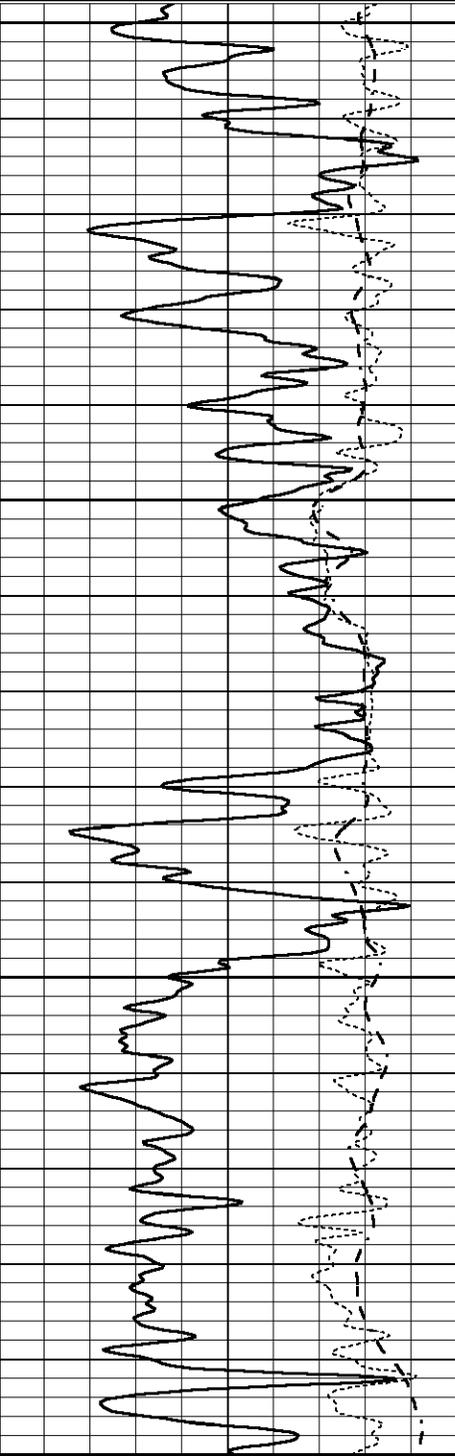


MAIN SECTION

Database File 2502ddn8.db
 Dataset Pathname pass3.1
 Presentation Format _dil
 Dataset Creation Tue May 08 07:45:22 2018
 Charted by Depth in Feet scaled 1:240

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

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

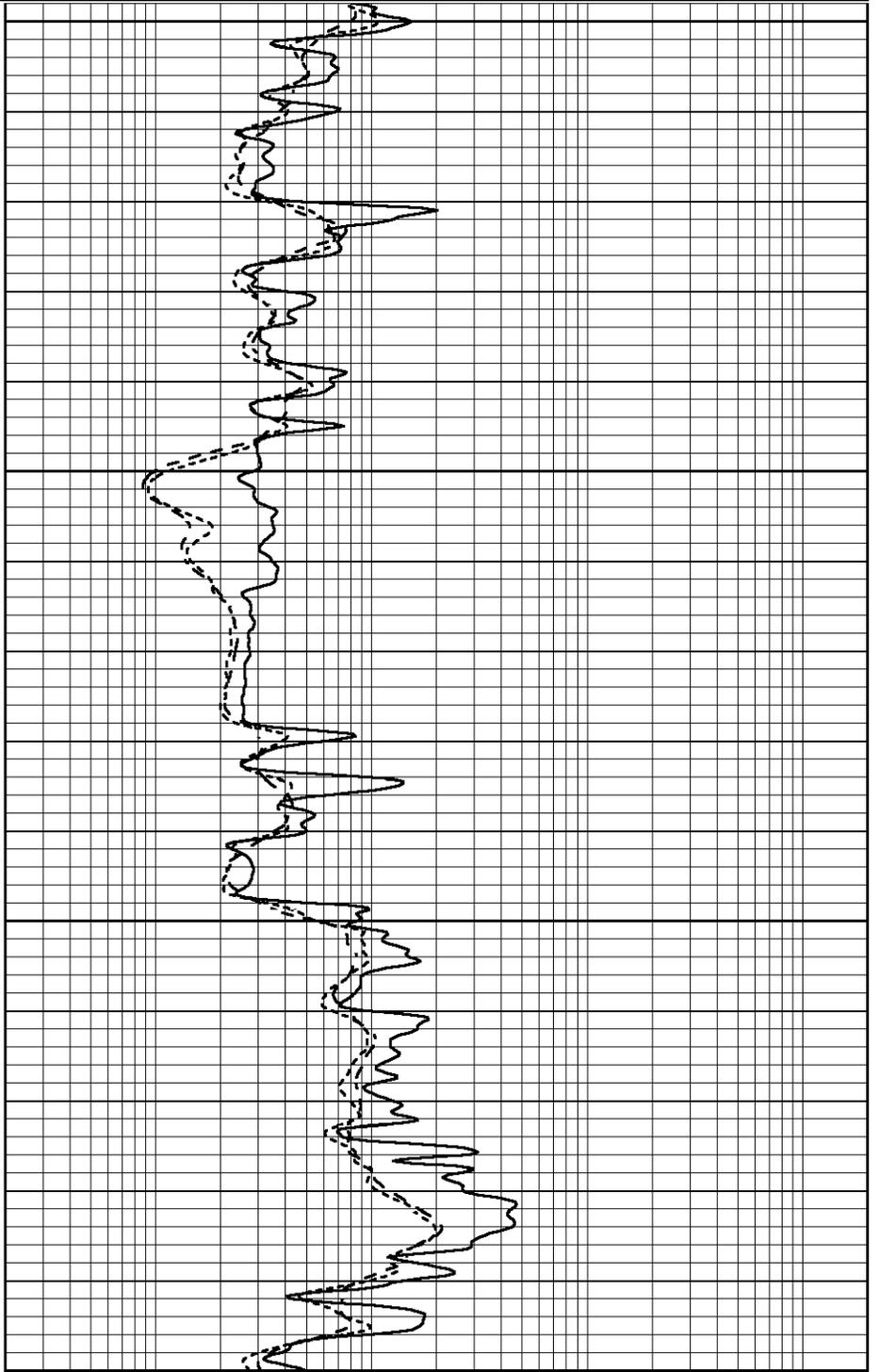


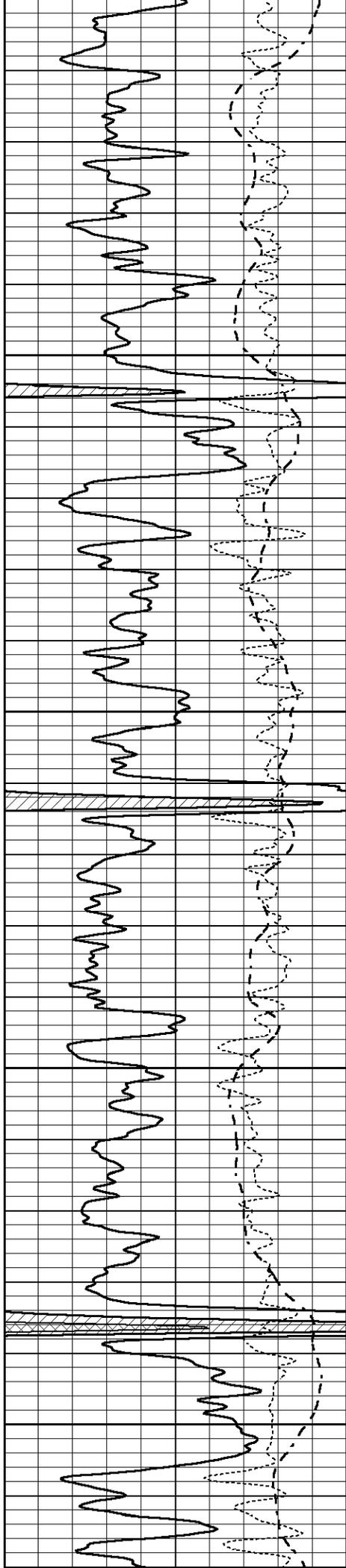
3000

3050

3100

3150





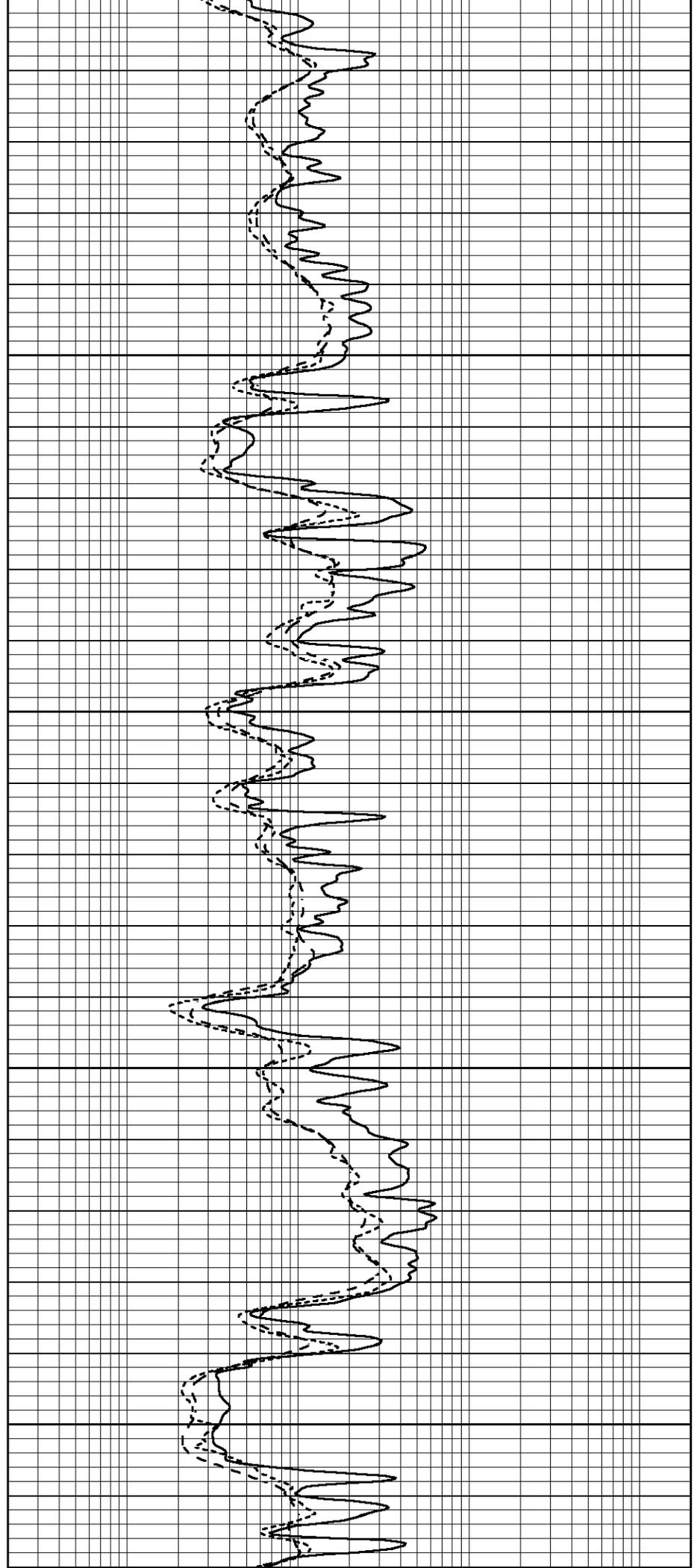
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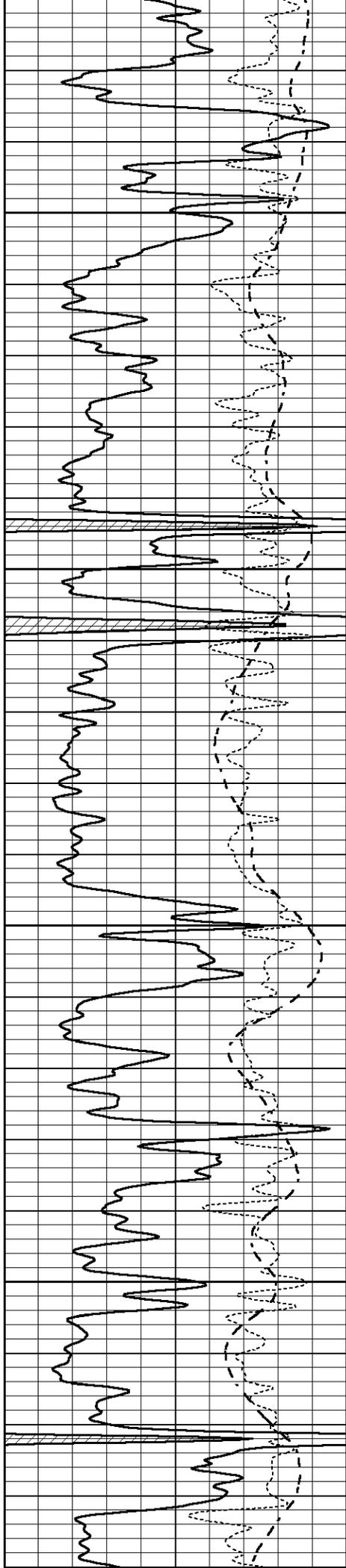
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3250

3300

3350



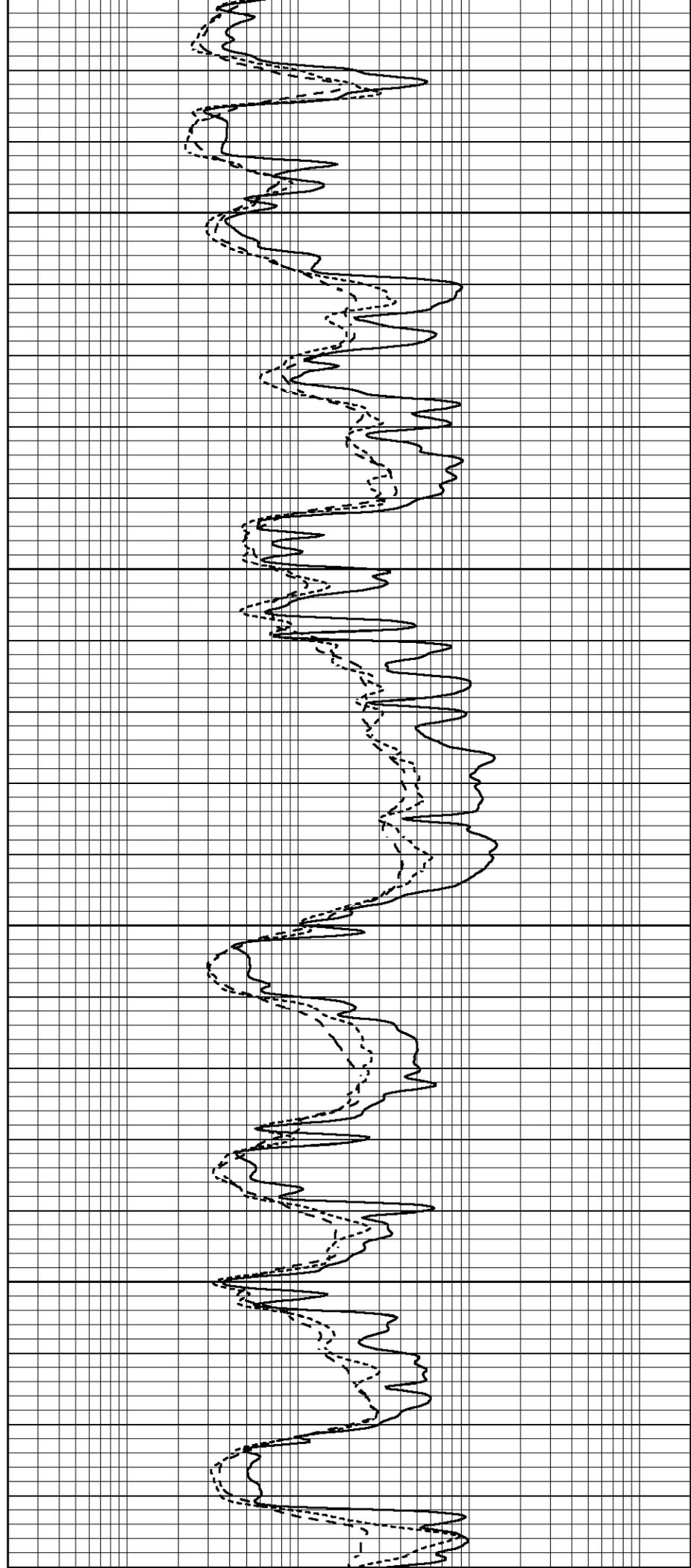


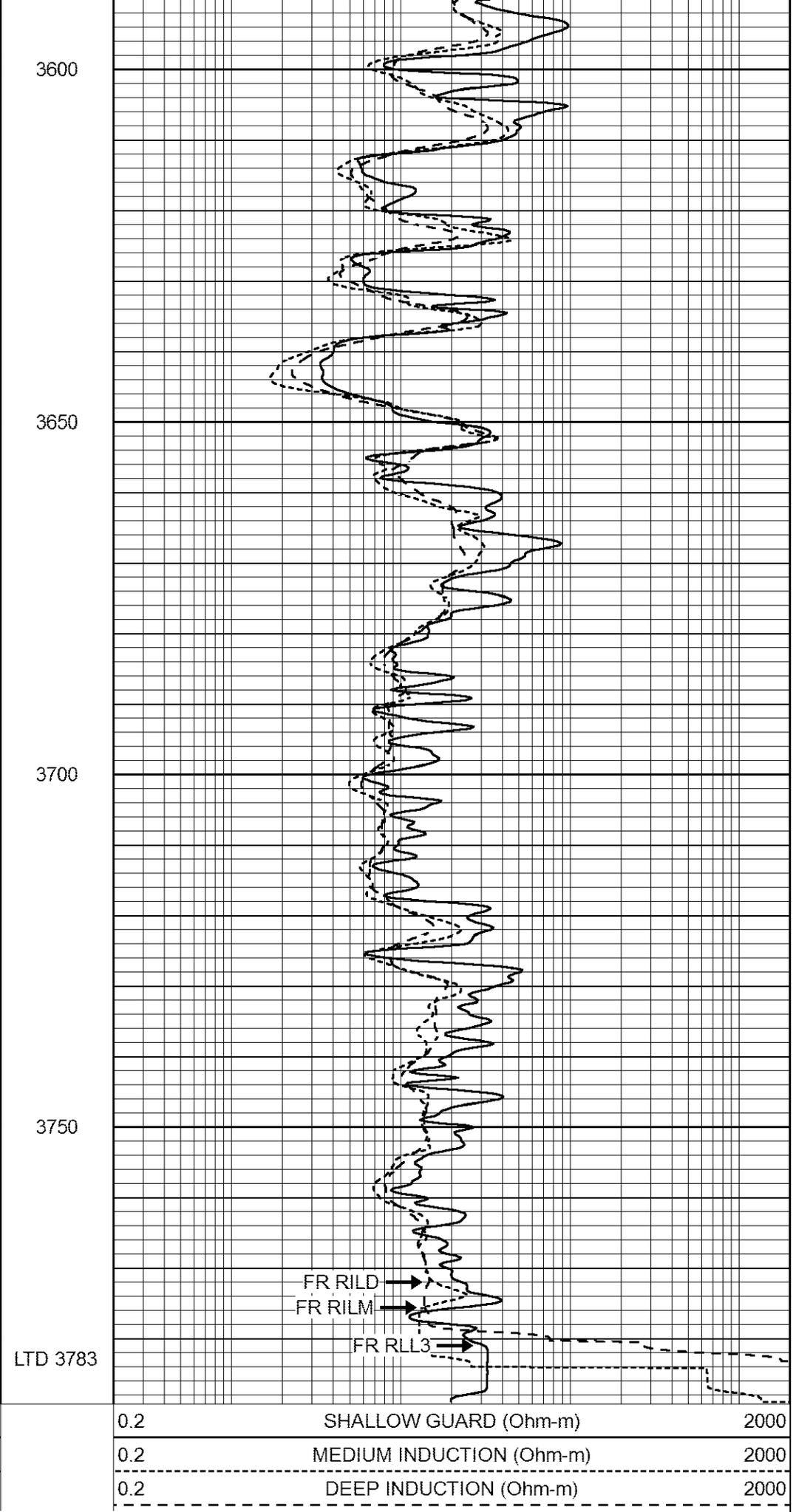
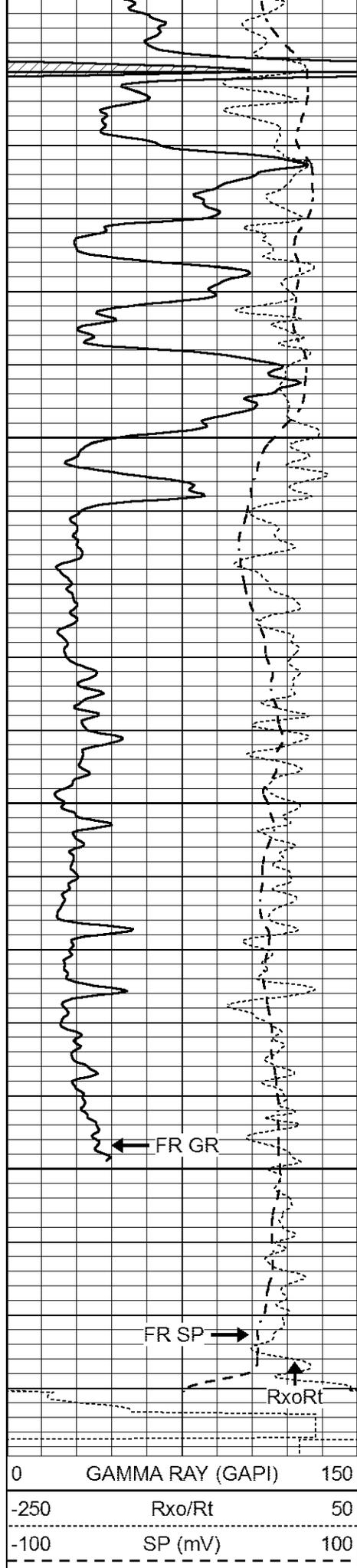
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3450

3500

3550





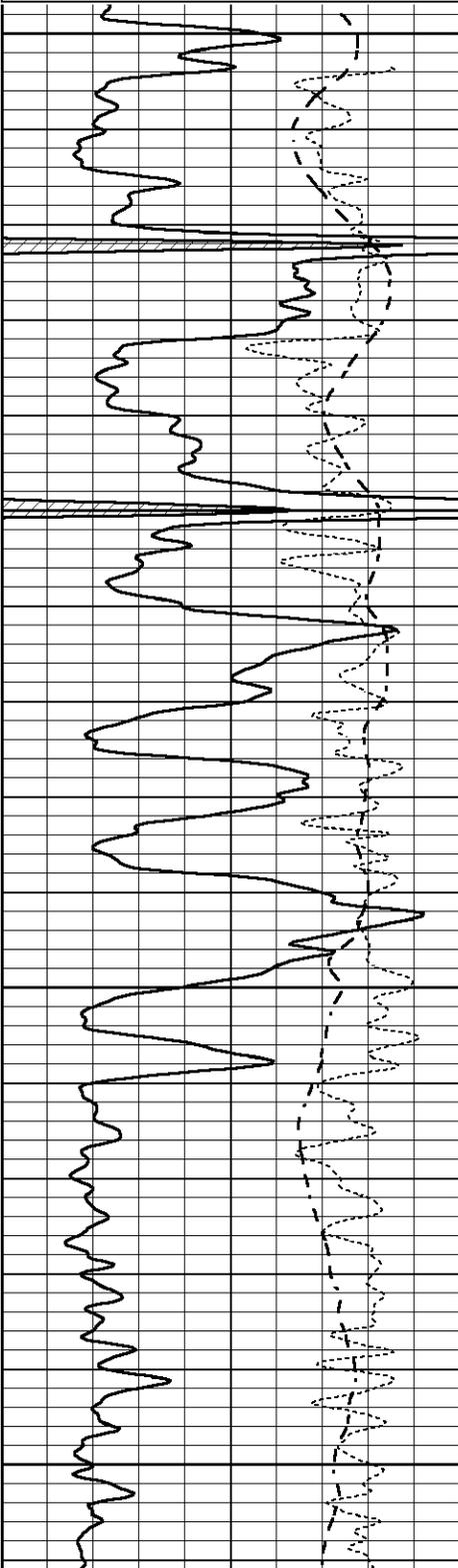


REPEAT SECTION

Database File 2502ddn8.db
Dataset Pathname pass2.1
Presentation Format _dil
Dataset Creation Tue May 08 07:44:12 2018
Charted by Depth in Feet scaled 1:240

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

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

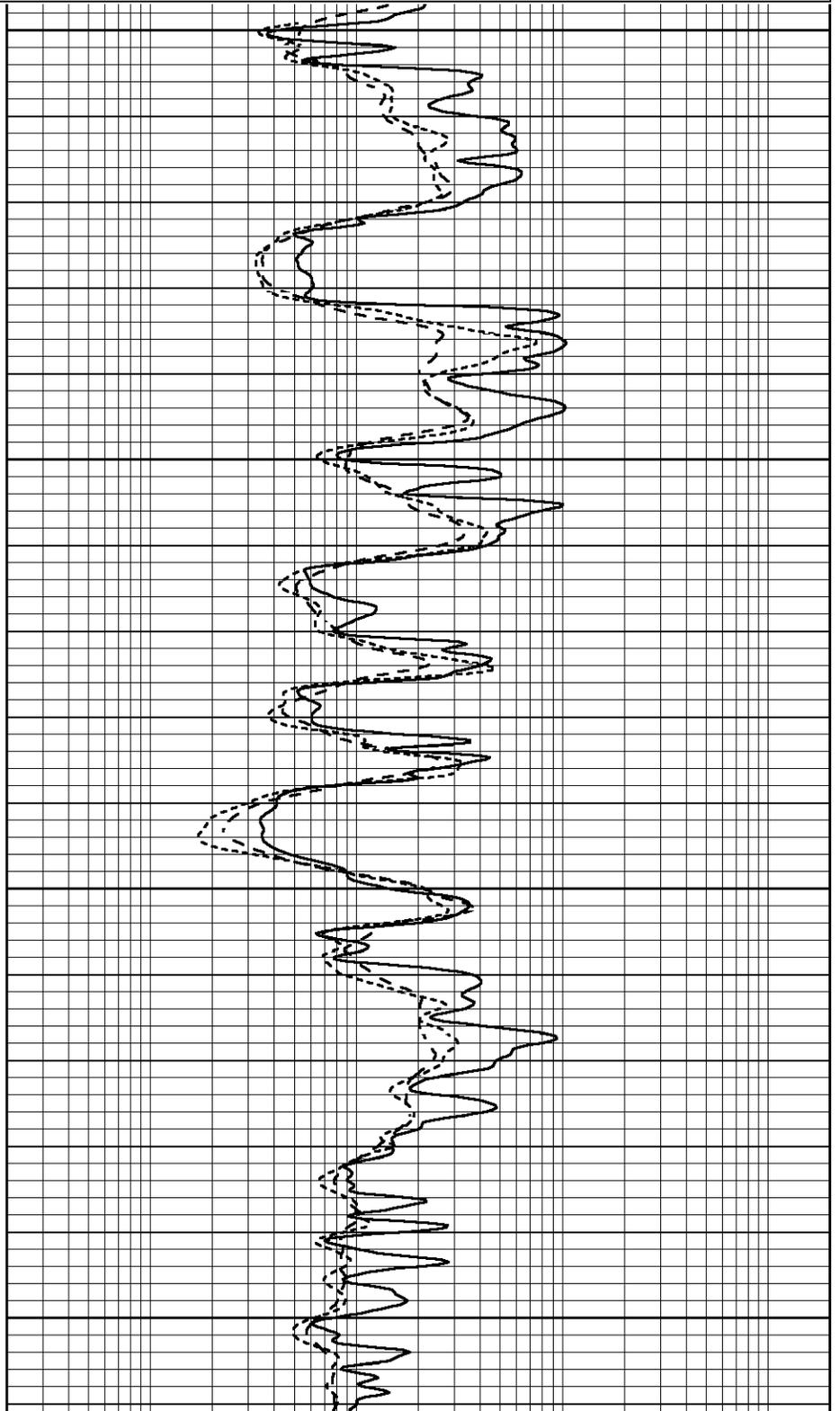


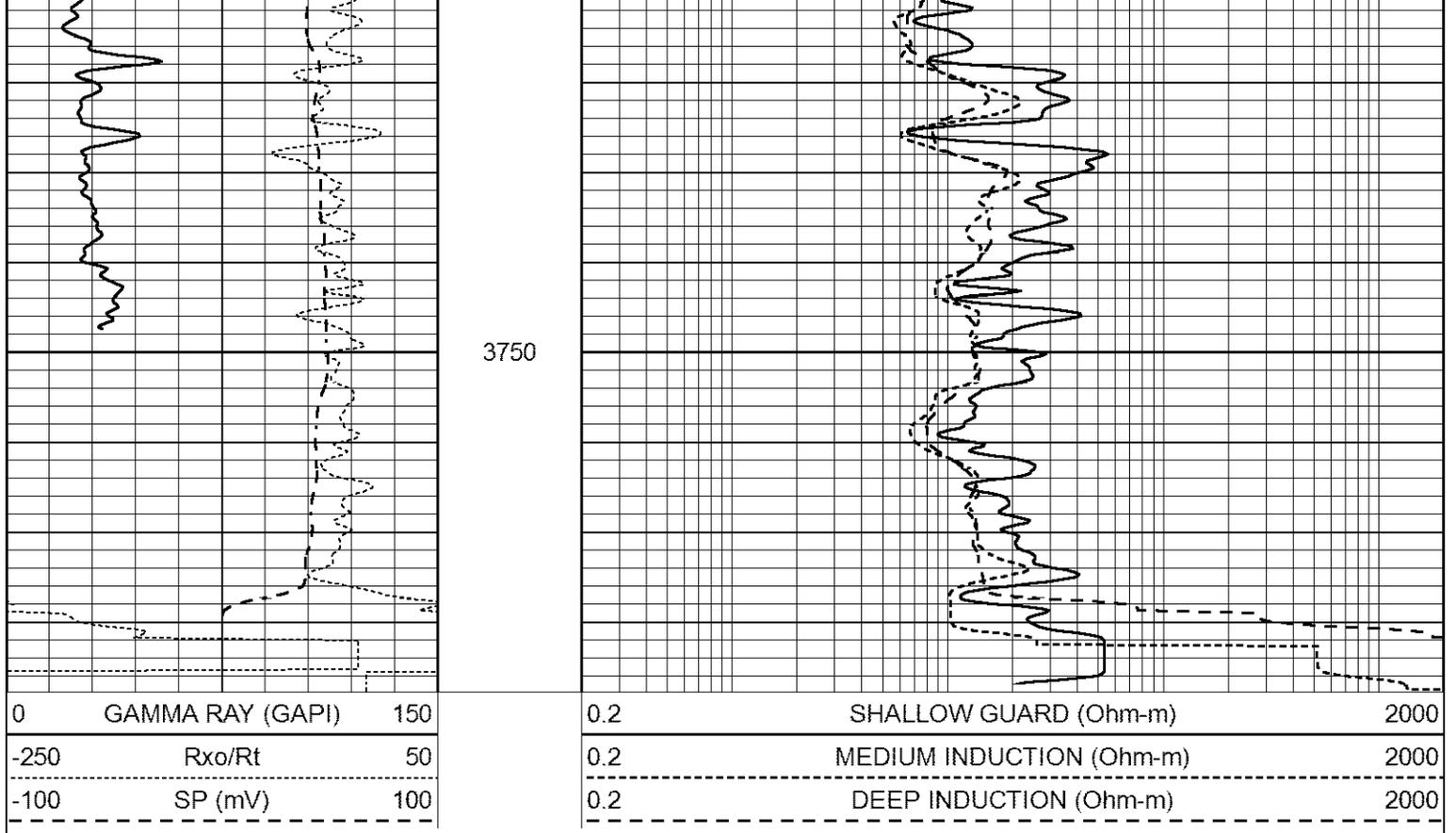
3550

3600

3650

3700





Calibration Report

Database File 2502ddn8.db
 Dataset Pathname pass2.1
 Dataset Creation Tue May 08 07:44:12 2018

Dual Induction Calibration Report

Serial-Model: FW1410-55-Probe
 Surface Cal Performed: Mon May 22 14:23:32 2017
 Downhole Cal Performed: Thu Mar 12 09:29:20 2015
 After Survey Verification Performed: Thu Mar 12 09:29:20 2015

Surface Calibration

Loop:	Readings			V	References			Results	
	Air	Loop			Air	Loop		m	b
Deep	0.011	0.656			1.000	400.000	mmho/m	618.595	-5.524
Medium	-0.000	0.731			1.000	464.000	mmho/m	632.856	1.197
Internal:	Zero			V	Cal			m	
Deep	0.007	0.649			0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743		0.000	464.000	mmho/m	627.284	-2.251	

Downhole Calibration

	Readings			mmho/m	References			Results	
	Zero	Cal			Zero	Cal		m'	b'
Deep	-0.824	395.917	mmho/m	-0.976	397.550	mmho/m	1.004	-0.149	
Medium	3.565	471.327	mmho/m	3.468	471.590	mmho/m	1.001	-0.099	
LL3		7.503	V		1500.000	Ohm-m			
		0.001	V		20.000	Ohm-m			
		-7.481	V		3745.000	mmho-m			

After Survey Verification

Readings Targets Results

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.824	395.917	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	3.565	471.327	mmho/m	1.000	0.000
LL3		0.000	Ohm-m		1500.000	Ohm-m		
		0.000	Ohm-m		20.000	Ohm-m		
		0.000	mmho-m		3745.000	mmho-m		

Litho Density Calibration Report
Serial: 140703
Model: V4_10P
Source Number: 74GBq-19

Master Calibration

Performed: Mon Aug 21 14:39:50 2017

	Background	Aluminum	Magnesium		
Window 1	563.01	5659.65	25383.60	cps	
Window 2	43.42	1259.39	6140.77	cps	
Window 4	248.07	1324.17	5675.19	cps	
Window 5	599.68	9371.77	17733.30	cps	
Window 6	46.92	1569.43	3067.35	cps	
Window 8	287.05	2988.84	5549.20	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8521	SS Alpha:	: -0.7639	LS CPE:	: 1.1973
LS Beta:	: 137014.5596	SS Beta:	: 20562.3109	SS CPE:	: 1.4917

Before Survey Background Counts Verification

Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

After Survey Background Counts Verification

Performed: Wed Dec 31 18:00:00 1969

Window 1	0.00	cps
Window 2	0.00	cps
Window 4	0.00	cps
Window 5	0.00	cps
Window 6	0.00	cps
Window 8	0.00	cps

Lithodensity Caliper Calibration

Performed: Mon Aug 21 14:39:50 2017

Results	Readings	References (in)		Gain	Offset
Low	High	Low	High		
1930.3	7266.6	8.0	15.0	0.0	5.5

Before Survey Caliper Verification

Performed:

	Reference	Reading
Caliper (in)	_____	_____

After Survey Caliper Verification

Performed:

Reference

Reading

Caliper (in)

Compensated Neutron Calibration Report

Serial Number:

080621PMC

Tool Model:

NABORS

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:

070558

Tool Model:

Probe1

Performed:

Tue Jul 25 12:16:33 2017

Calibrator Value:

1.0

GAPI

Background Reading:

0.0

cps

Calibrator Reading:

1.0

cps

Sensitivity:

0.4000

GAPI/cps