



DUAL INDUCTION LOG

Company BIRD DOG OIL, LLC.
Well CURTIS-GATES #1-16
Field KENILWORTH
County STAFFORD State KANSAS

Location: API #: 15-185-24110-00-00
2310' FNL & 990' FEL
SW - SE - NE
SEC 16 TWP 22S RGE 13W
Permanent Datum GROUND LEVEL Elevation 1894
Log Measured From KELLY BUSHING 8' A.G.L
Drilling Measured From KELLY BUSHING
Other Services
CDL/CNL/PE
MEL/SON
Elevation
K.B. 1902
D.F. 1900
G.L. 1894

Date	6/10/22		
Run Number	ONE		
Depth Driller	3940		
Depth Logger	3940		
Bottom Logged Interval	3938		
Top Log Interval	00		
Casing Driller	8 5/8"@350'		
Casing Logger	350'		
Bit Size	7 7/8		
Type Fluid in Hole	CHEMICAL MUD	CHLORIDES 10,000 PPM	
Density / Viscosity	8.5/59		
pH / Fluid Loss	9.5/10.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	.655@75F		
Rmt @ Meas. Temp	.488@75F		
Rmc @ Meas. Temp	.780@75F		
Source of Rmf / Rmc	MEASUREMENT		
Rm @ BHT	.427@115F		
Time Circulation Stopped	2.5 HOURS		
Time Logger on Bottom	11:00 A.M.		
Maximum Recorded Temperature	115F		
Equipment Number	3802		
Location	HAYS, KANSAS		
Recorded By	COLE ROBEN		
Witnessed By	JEFF LAWLER		

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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:

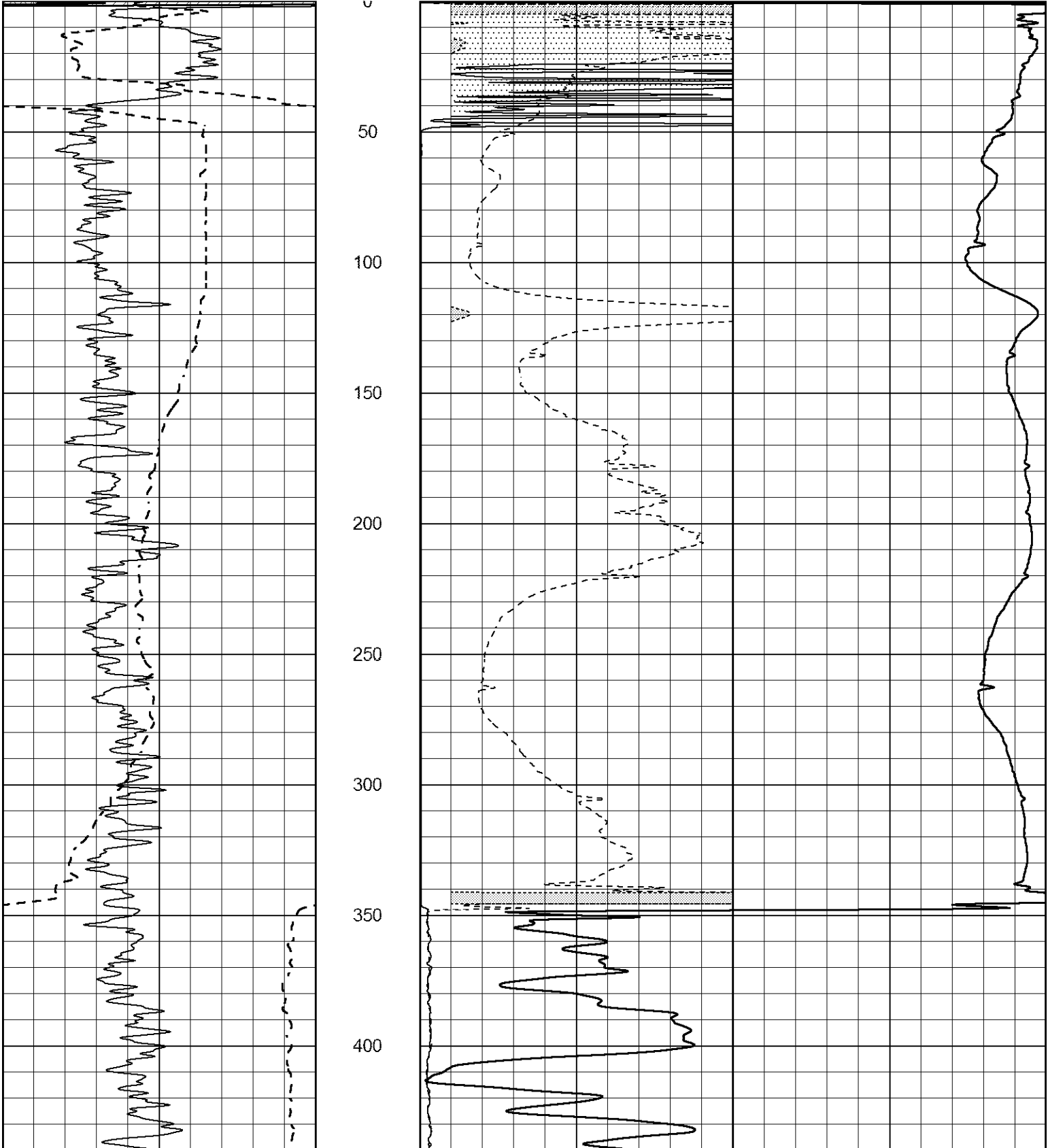
GREAT BEND, KS. 14.5 MILES SOUTH ON HIGHWAY 281, WEST INTO

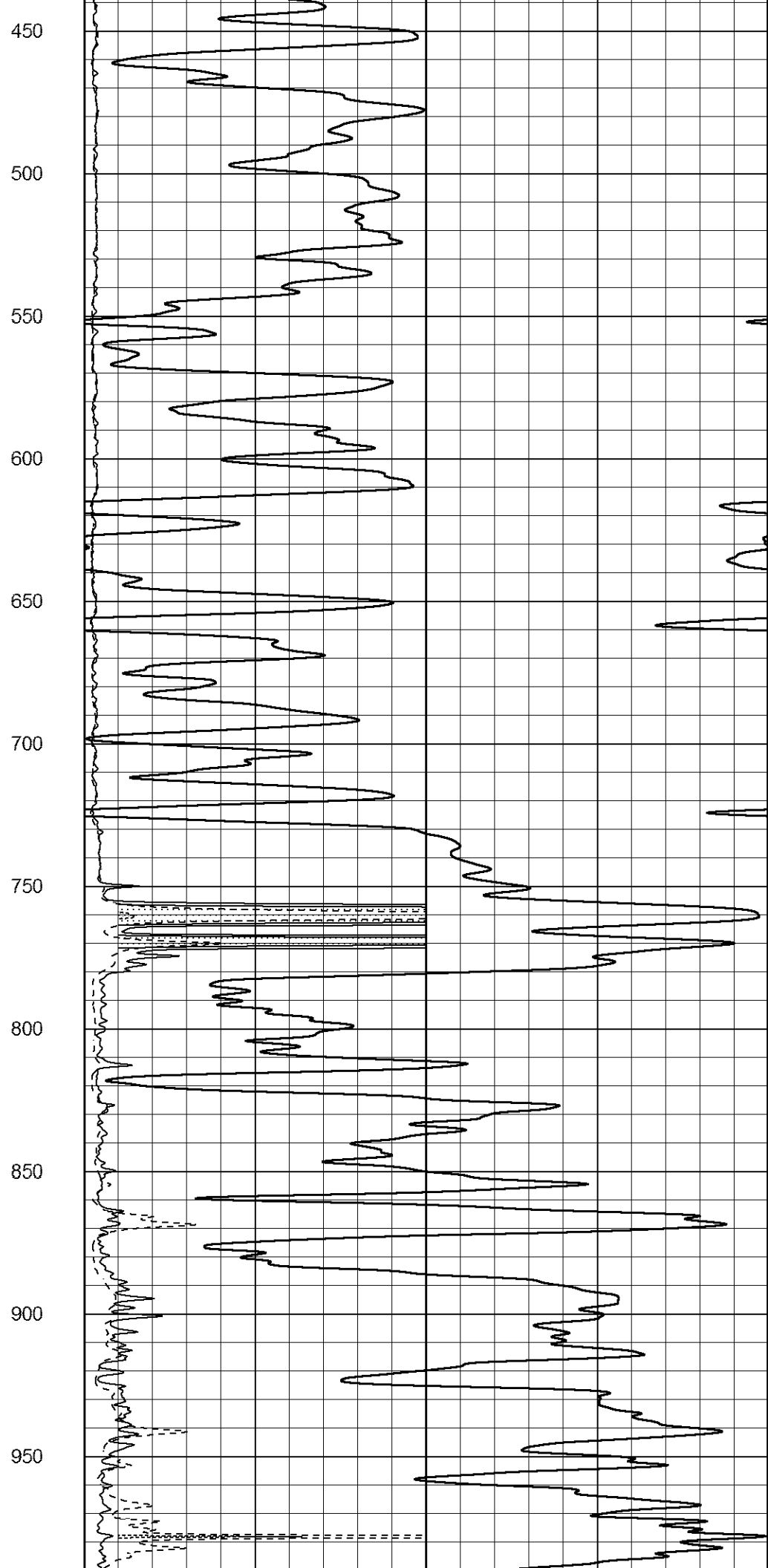
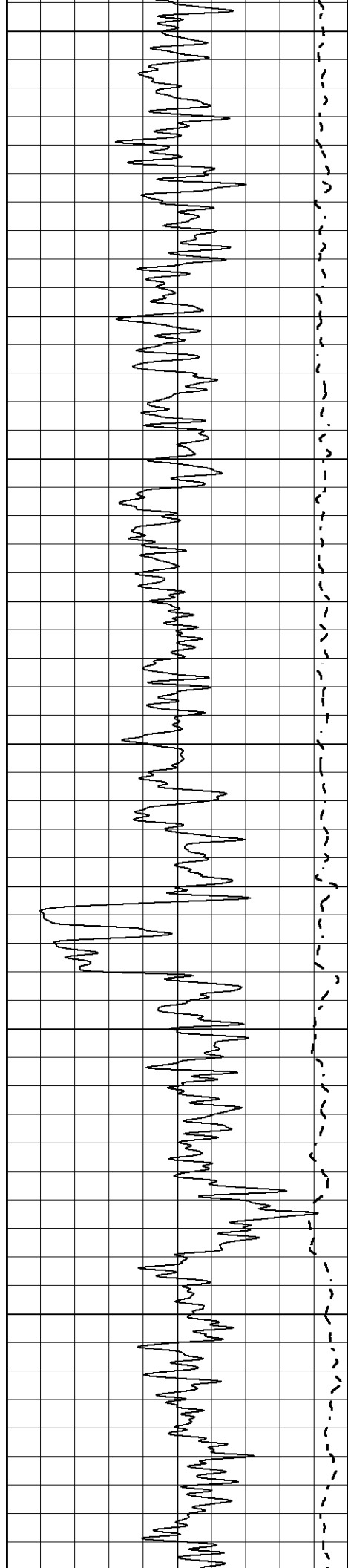


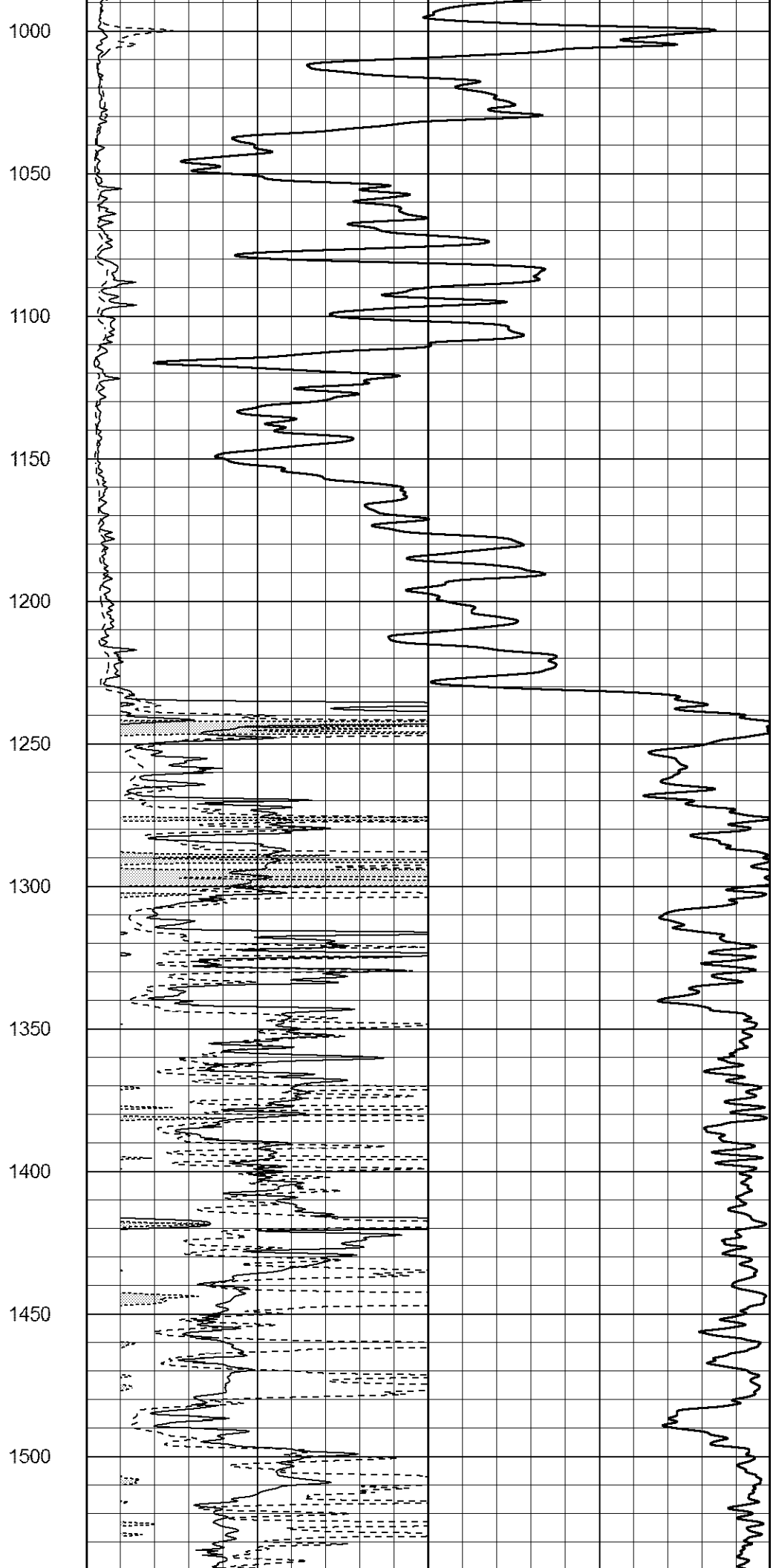
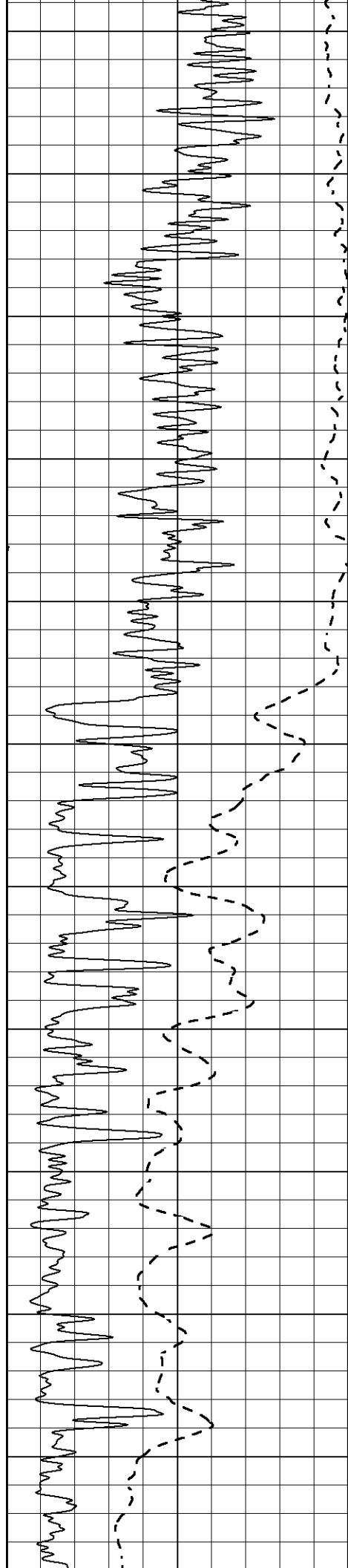
MAIN SECTION

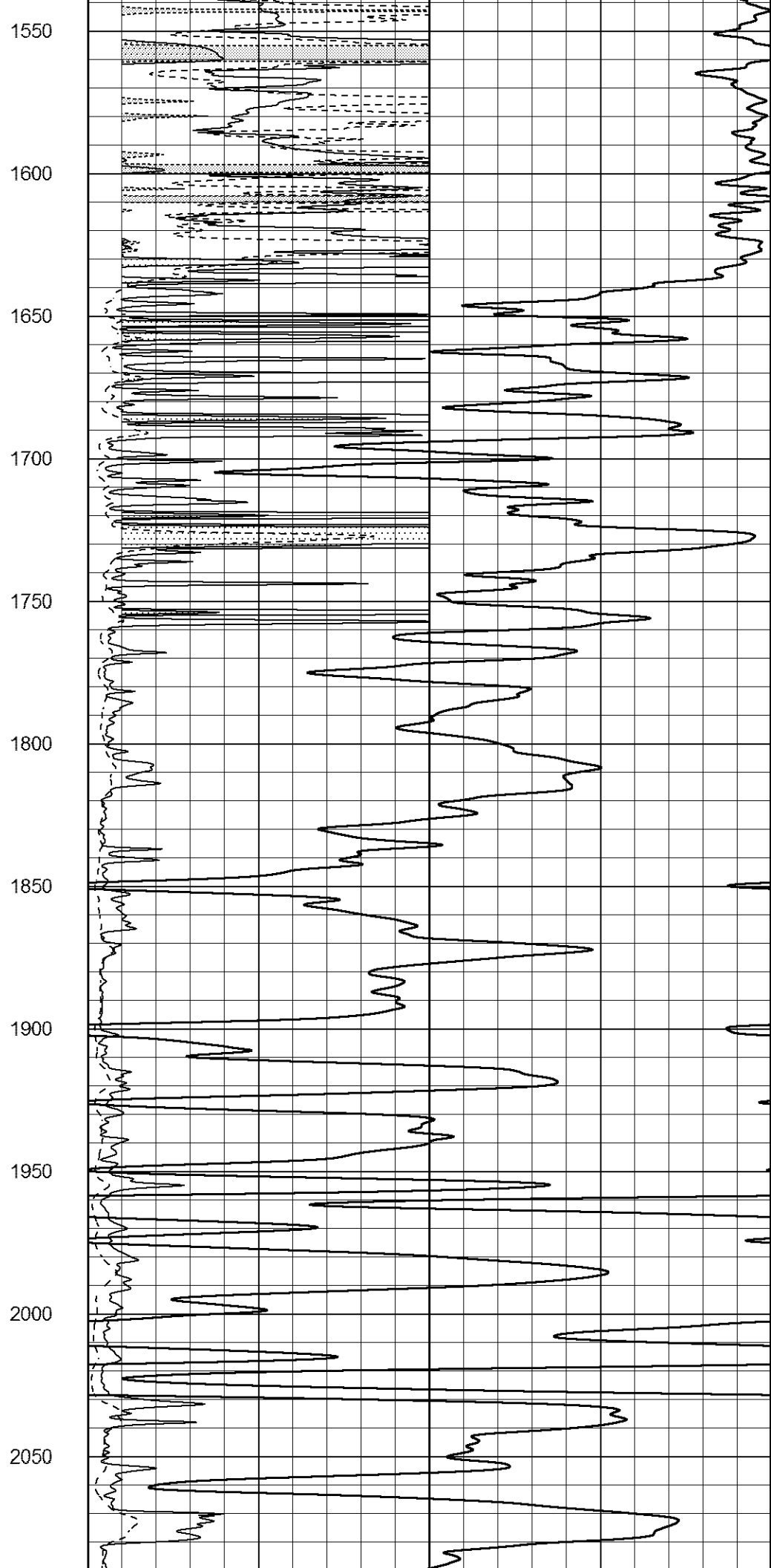
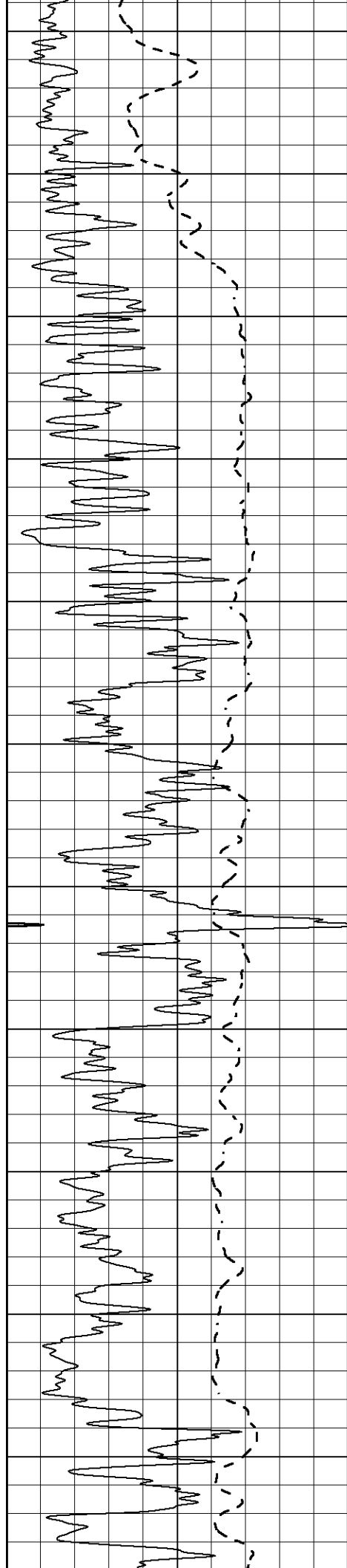
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Presentation Format	_dil2
Dataset Creation	Fri Jun 10 13:24:36 2022
Charted by	Depth in Feet scaled 1:600

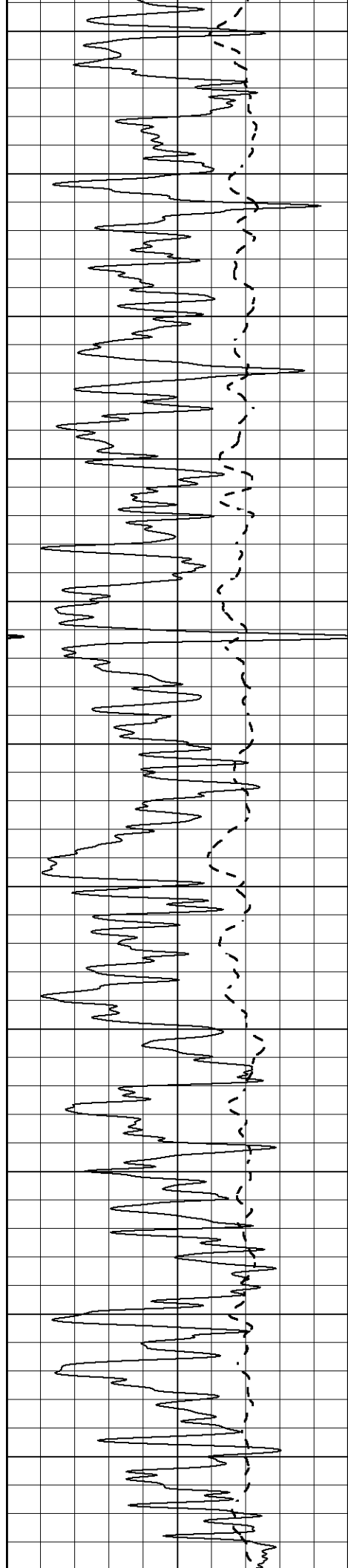
0	Gamma Ray (GAPI)	150	1000	CILD (mmho/m)	0
-100	SP (mV)	100	0	RLL3 (Ohm-m)	50
-----			0	Deep Induction (Ohm-m)	50
			50	RILD X10 (Ohm-m)	500
			50	RLL3 X10 (Ohm-m)	500











2100

2150

2200

2250

2300

2350

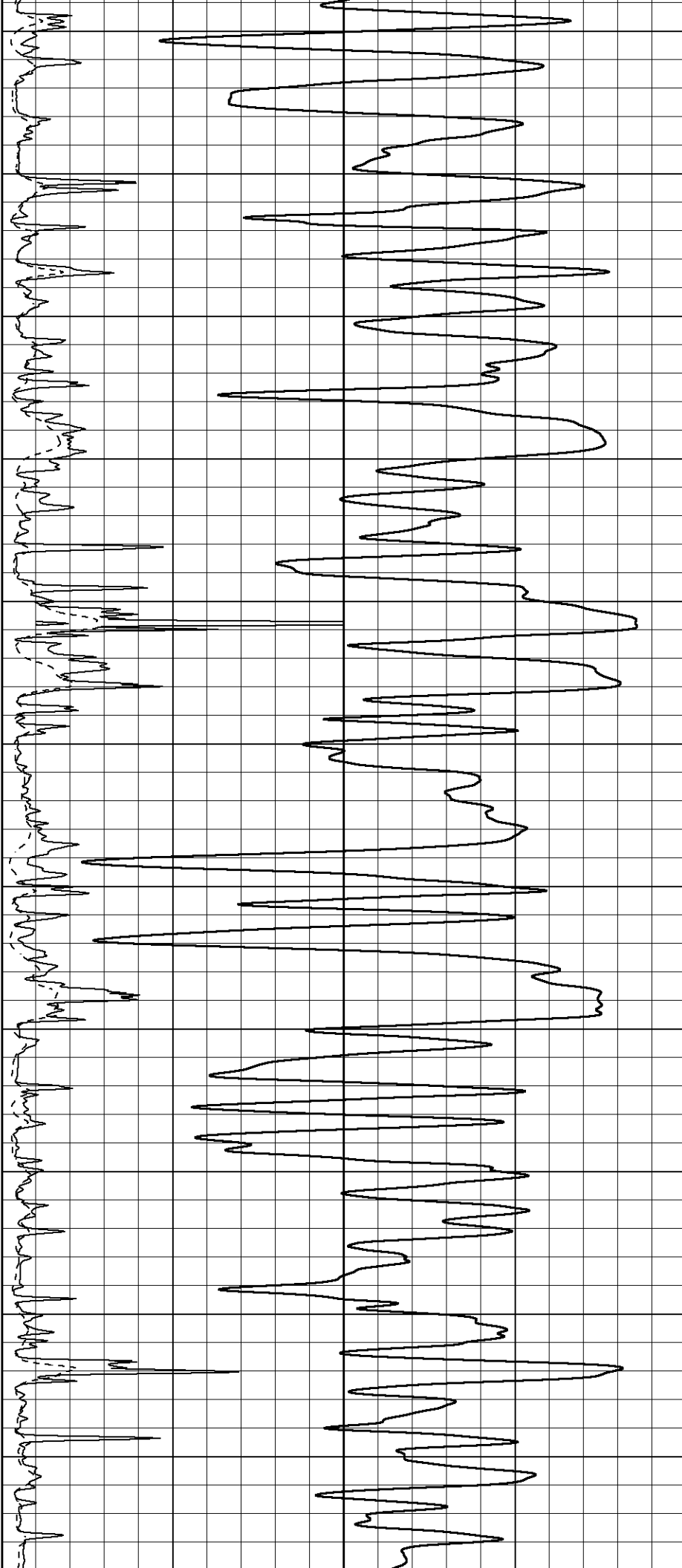
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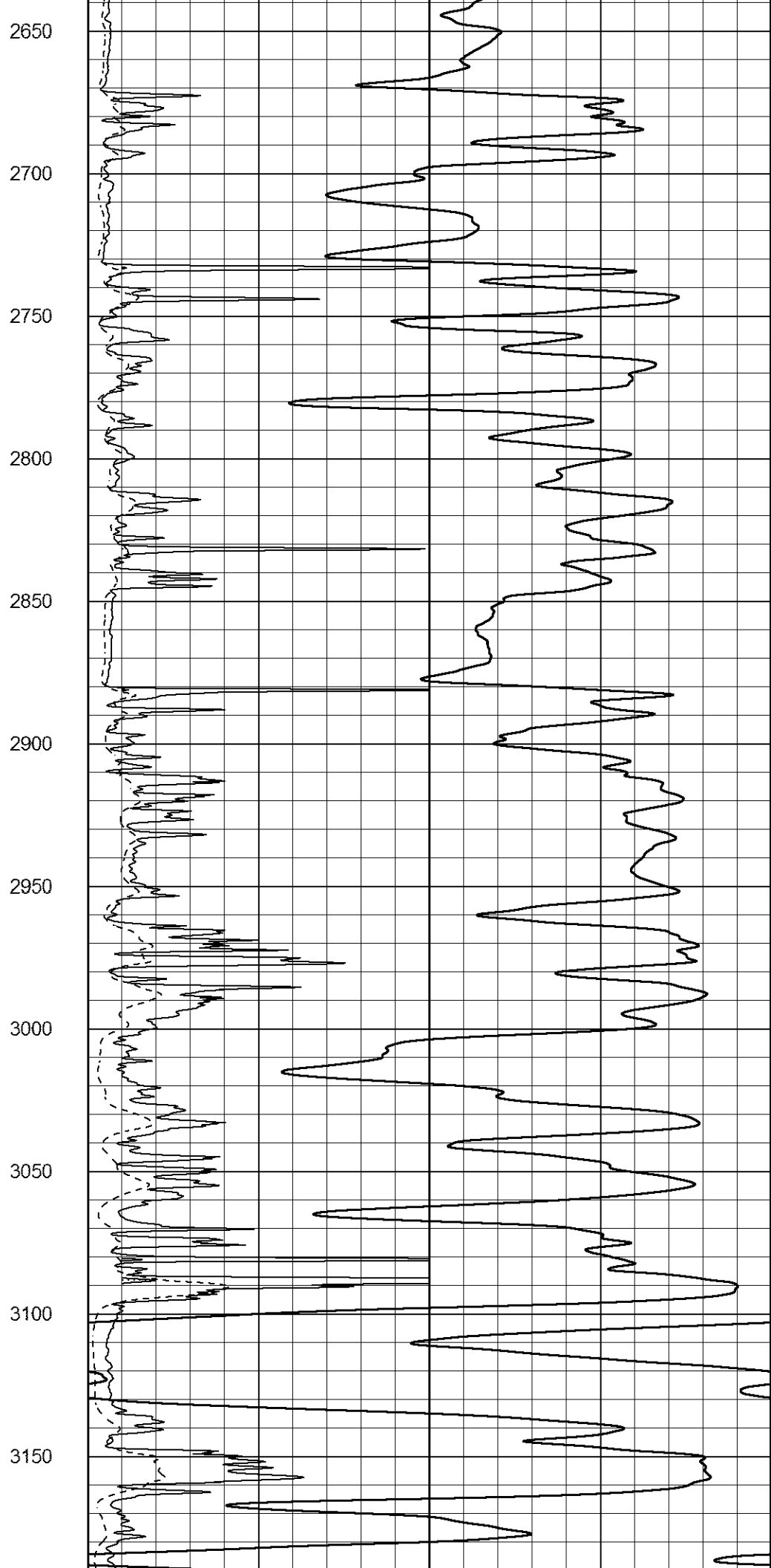
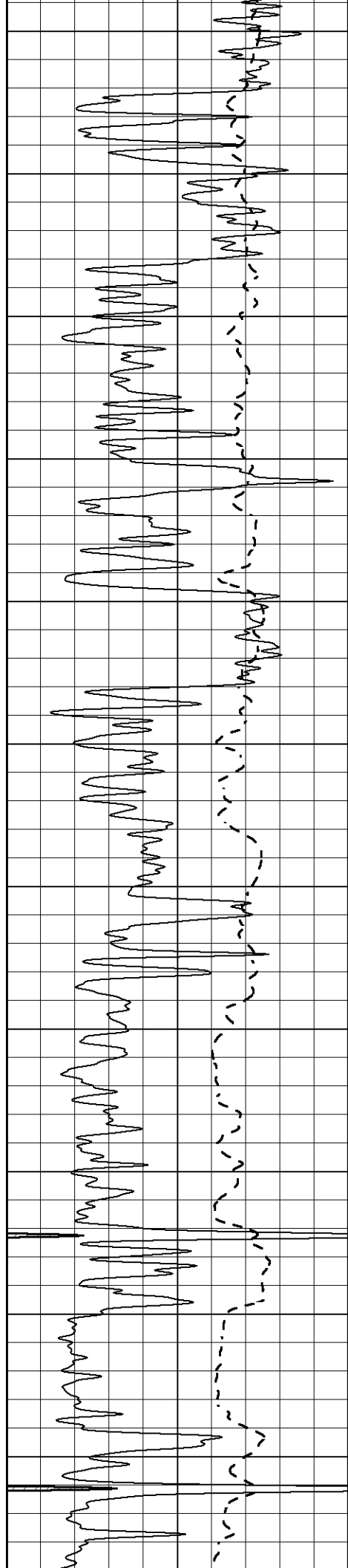
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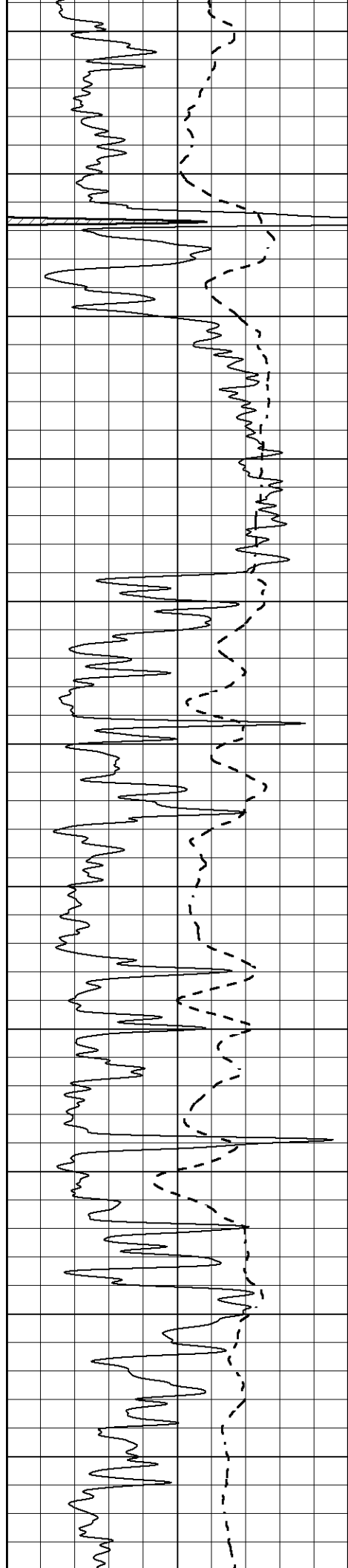
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2550

2600







3200

3250

3300

3350

3400

3450

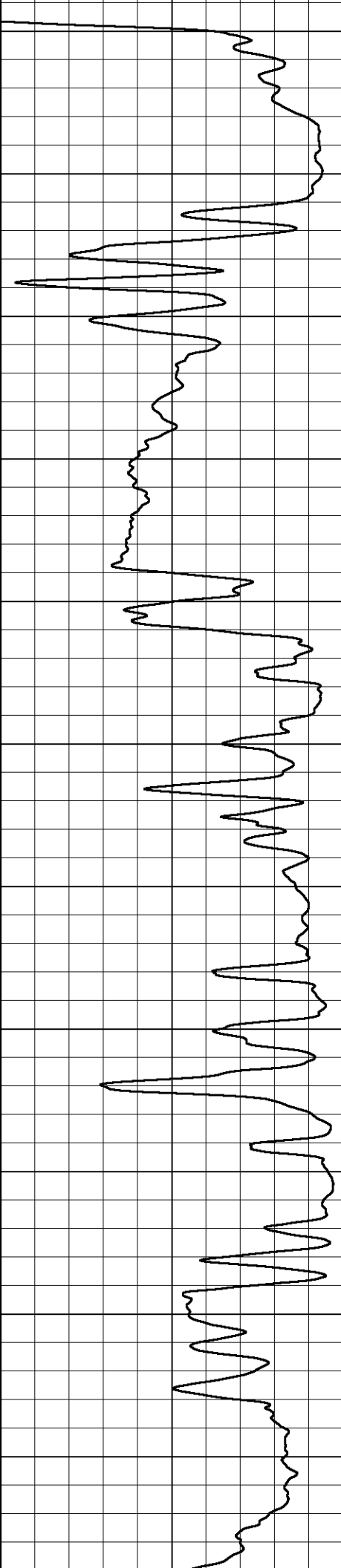
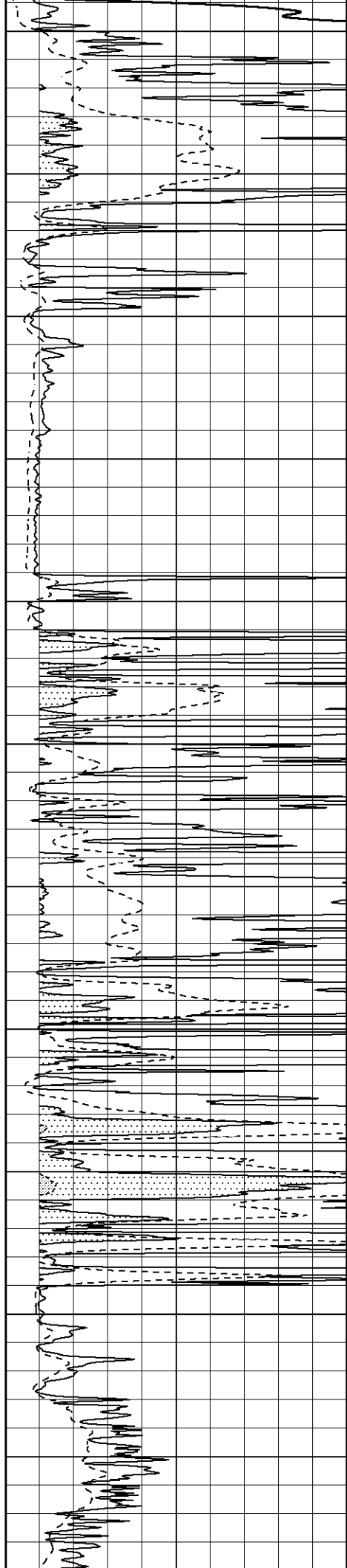
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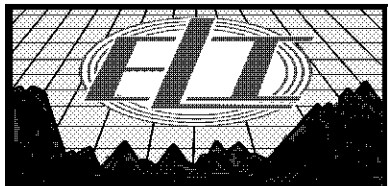
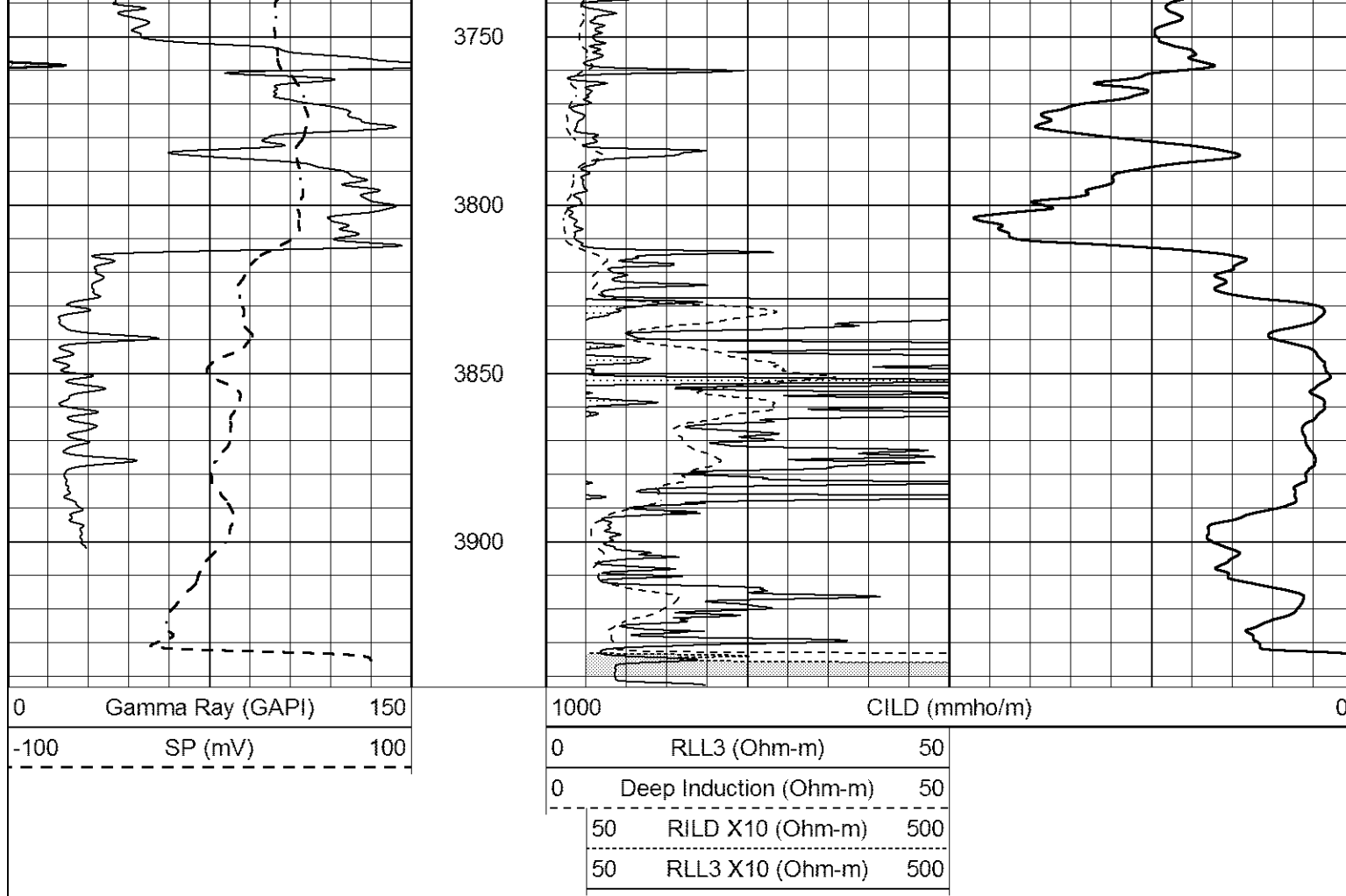
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3600

3650

3700

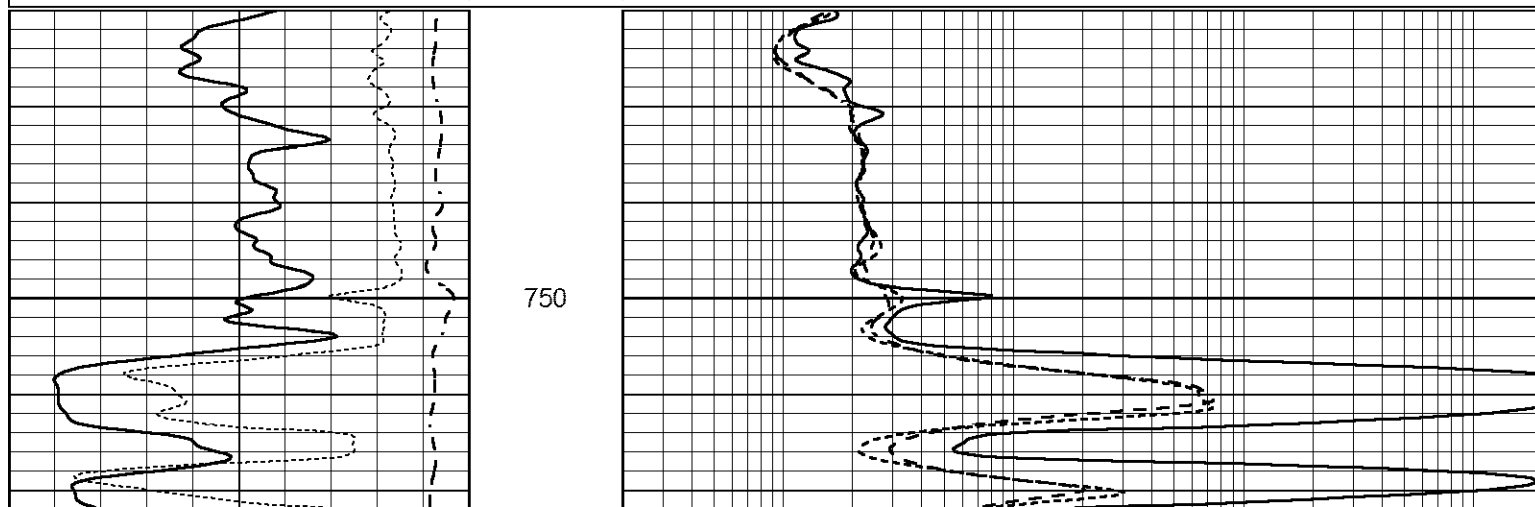


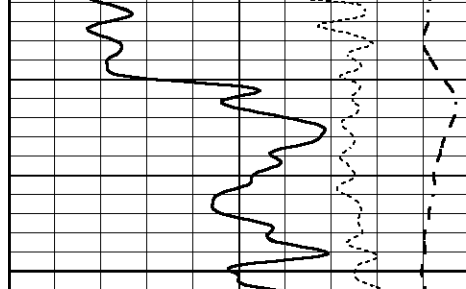


ANHYDRITE SECTION

Database File 6540pe.db
Dataset Pathname pass5.5A
Presentation Format _dil
Dataset Creation Fri Jun 10 13:26:19 2022
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	MEDIUM INDUCTION (Ohm-m)	2000
-250	Rxo/Rt	50	0.2	DEEP INDUCTION (Ohm-m)	2000





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

800



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



MAIN SECTION

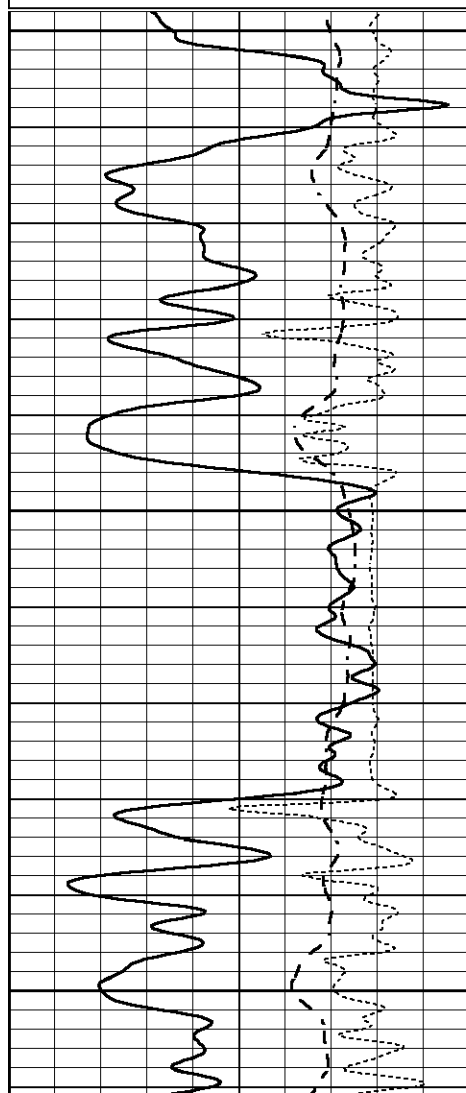
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 Presentation Format _dil
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-100	SP (mV)	100
-250	Rxo/Rt	50

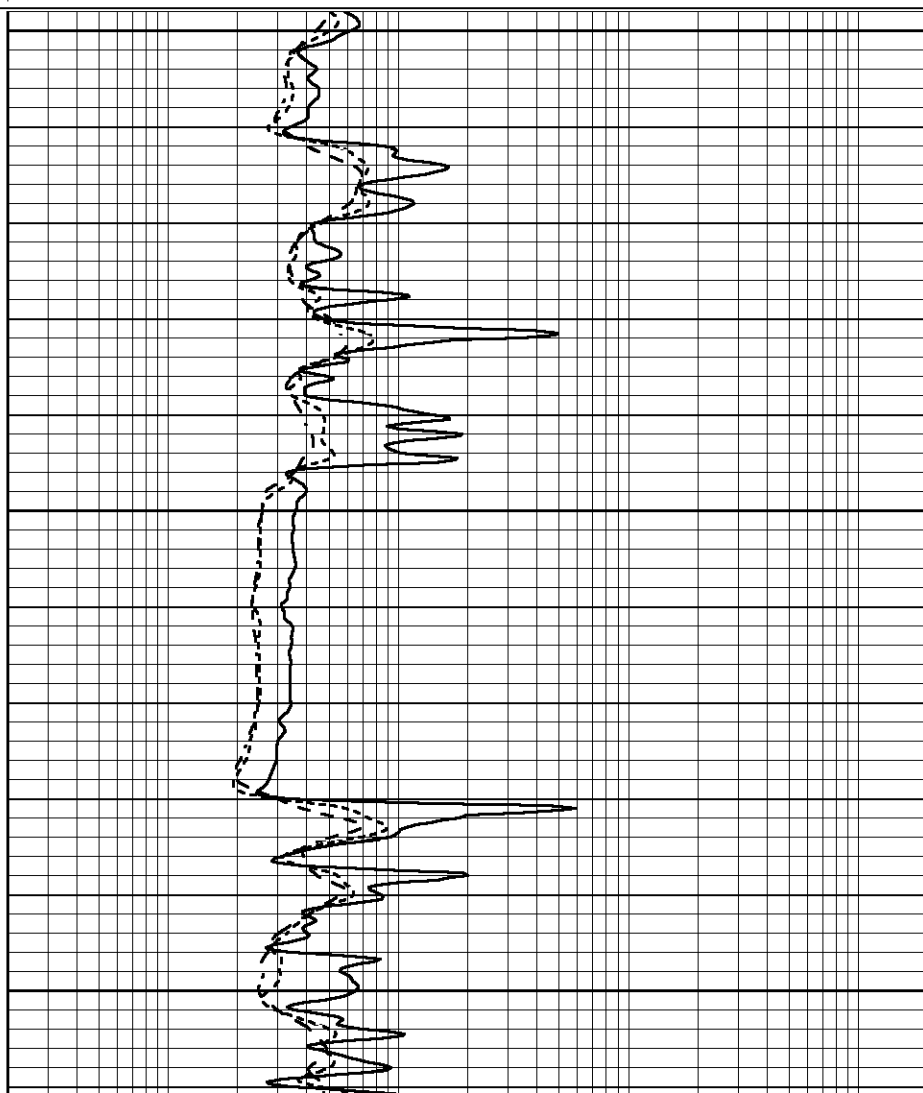
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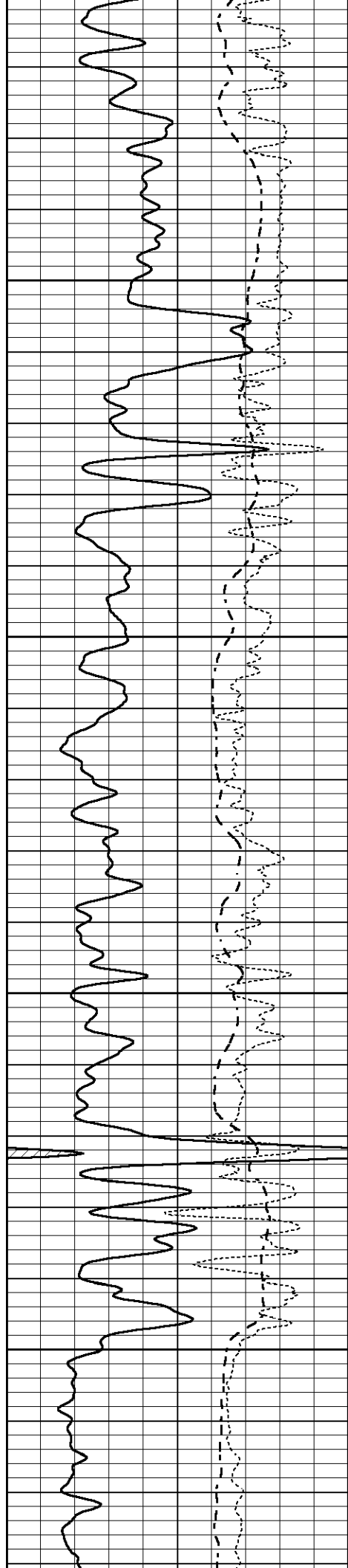
2850

2900



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



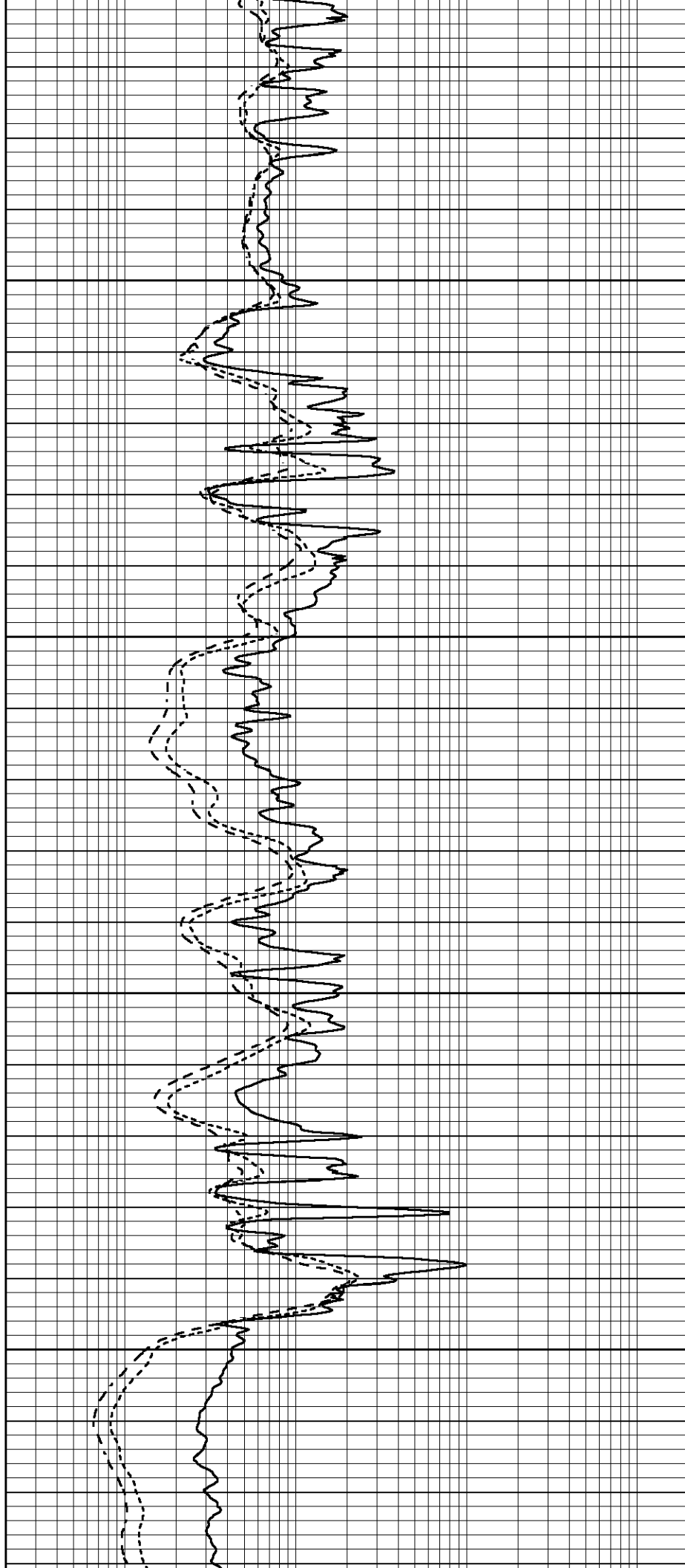


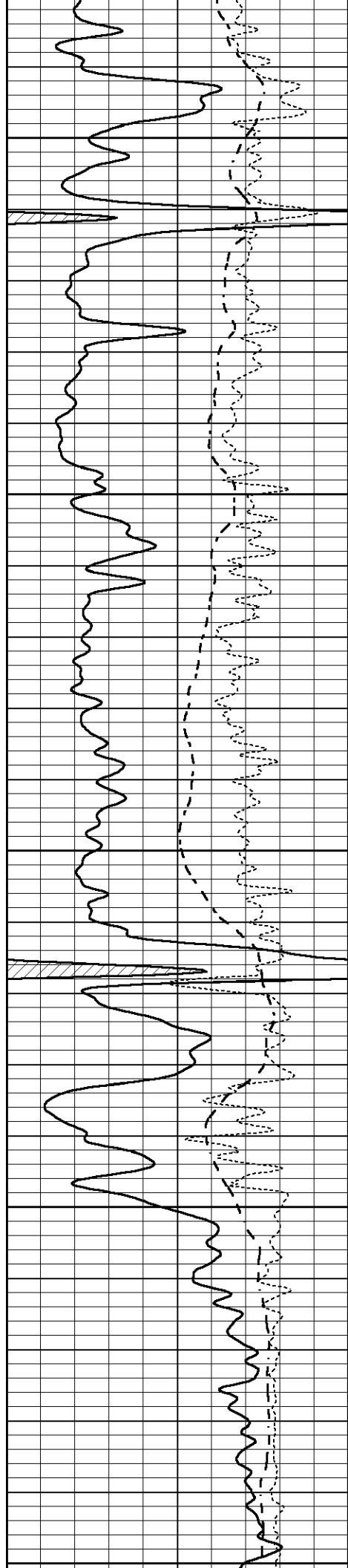
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3000

3050

3100





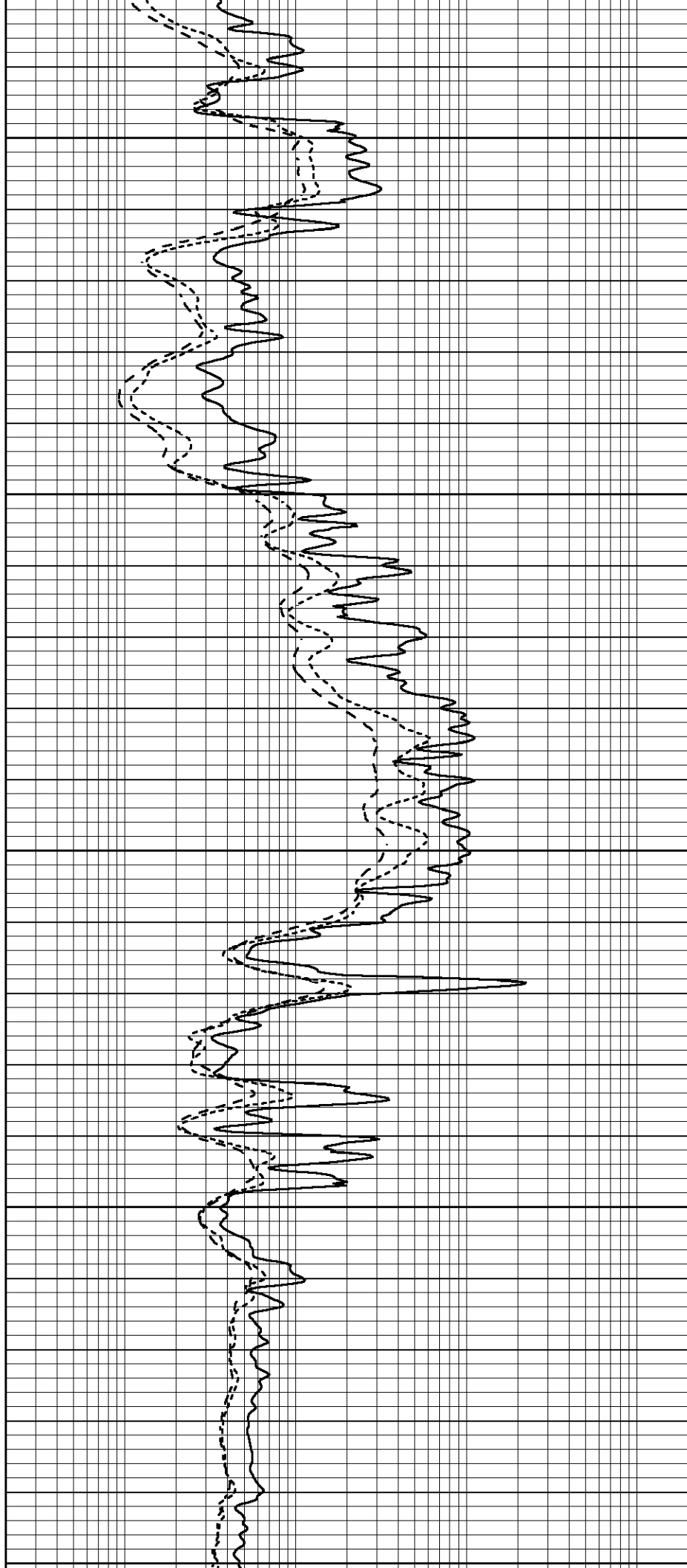
3150

3200

3250

3300

3350



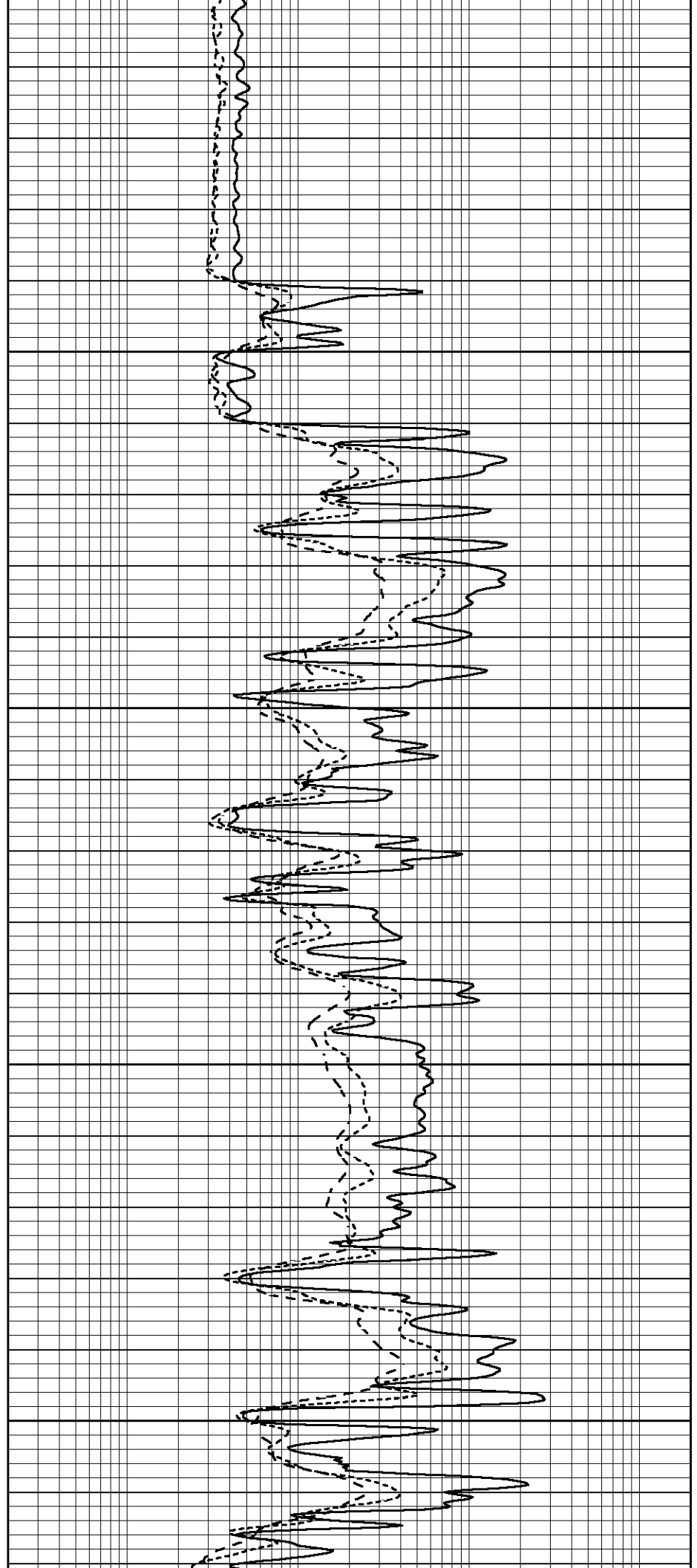
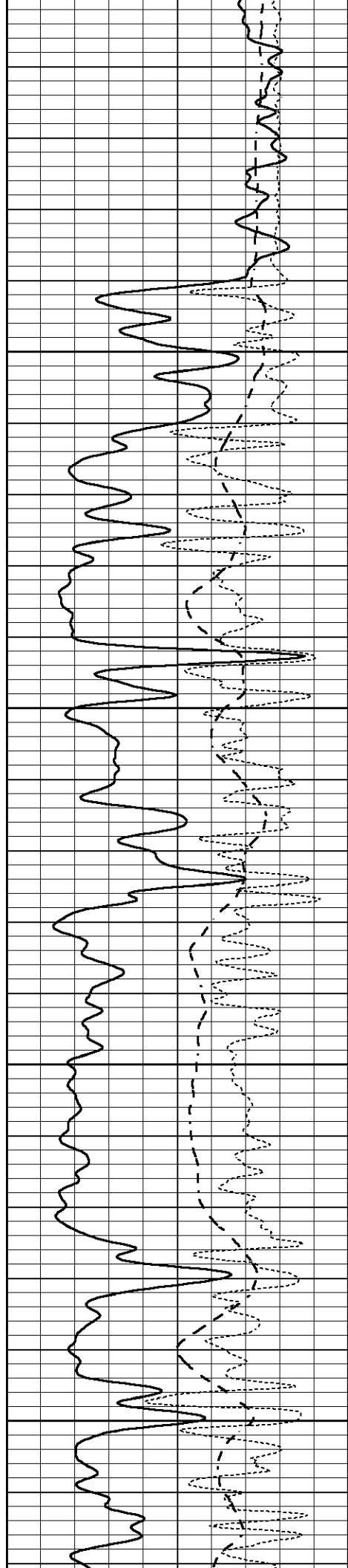
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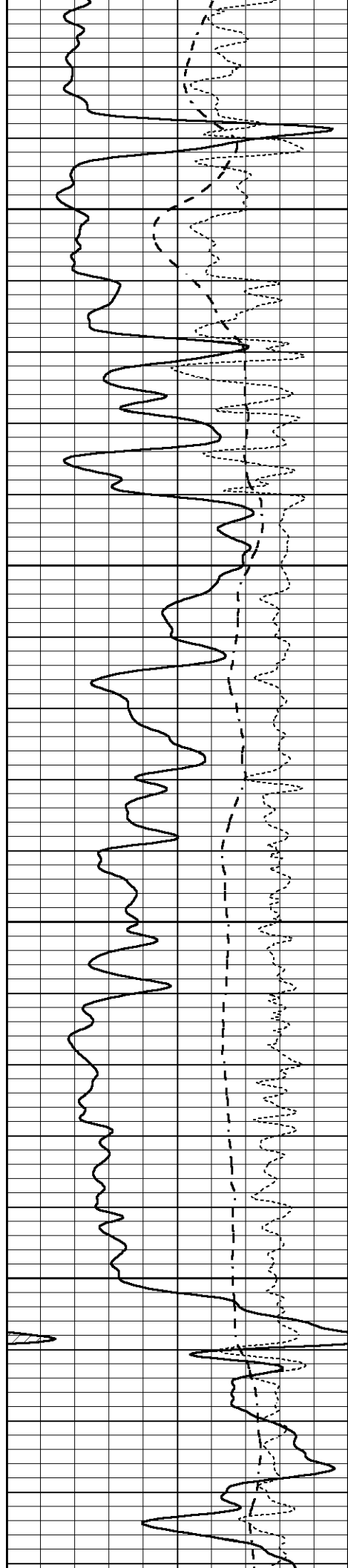
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3450

3500

3550



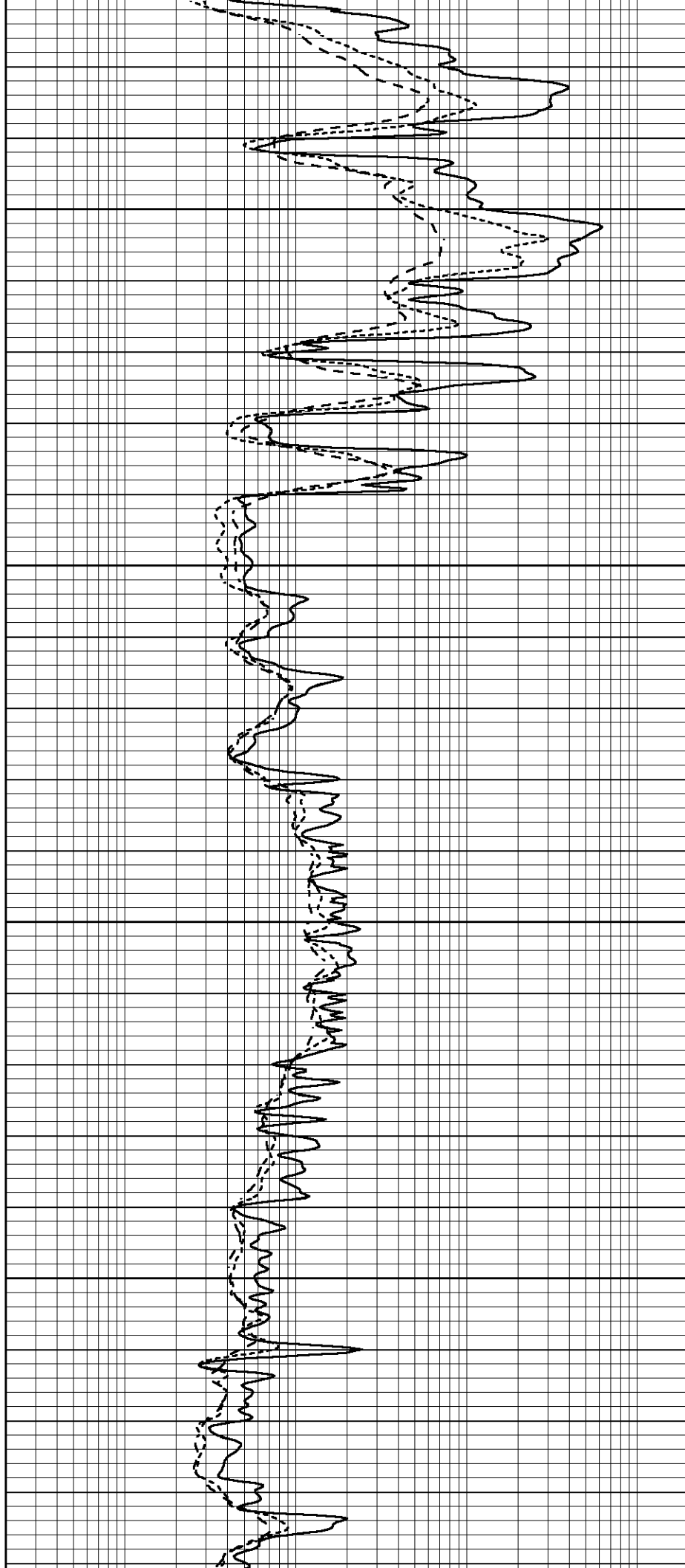


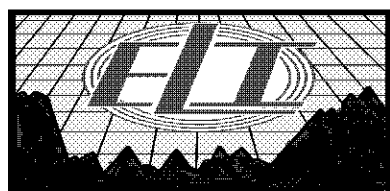
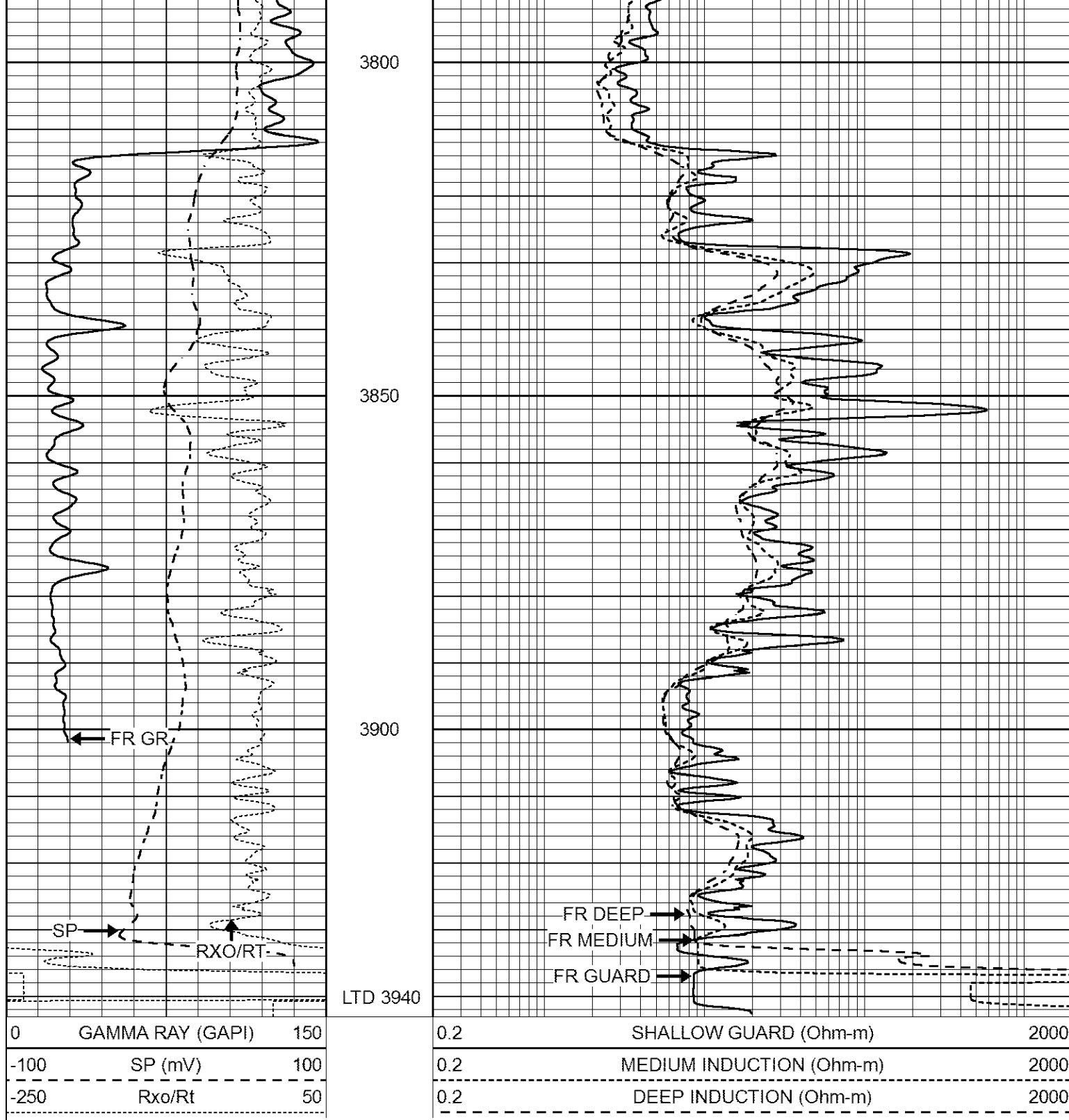
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3700

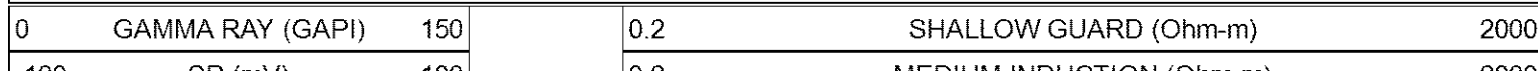
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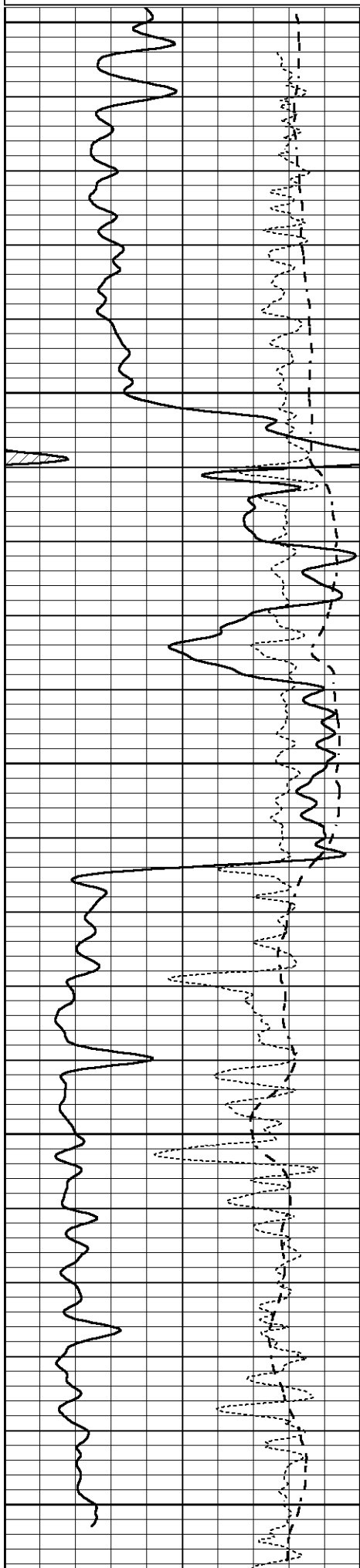


REPEAT SECTION

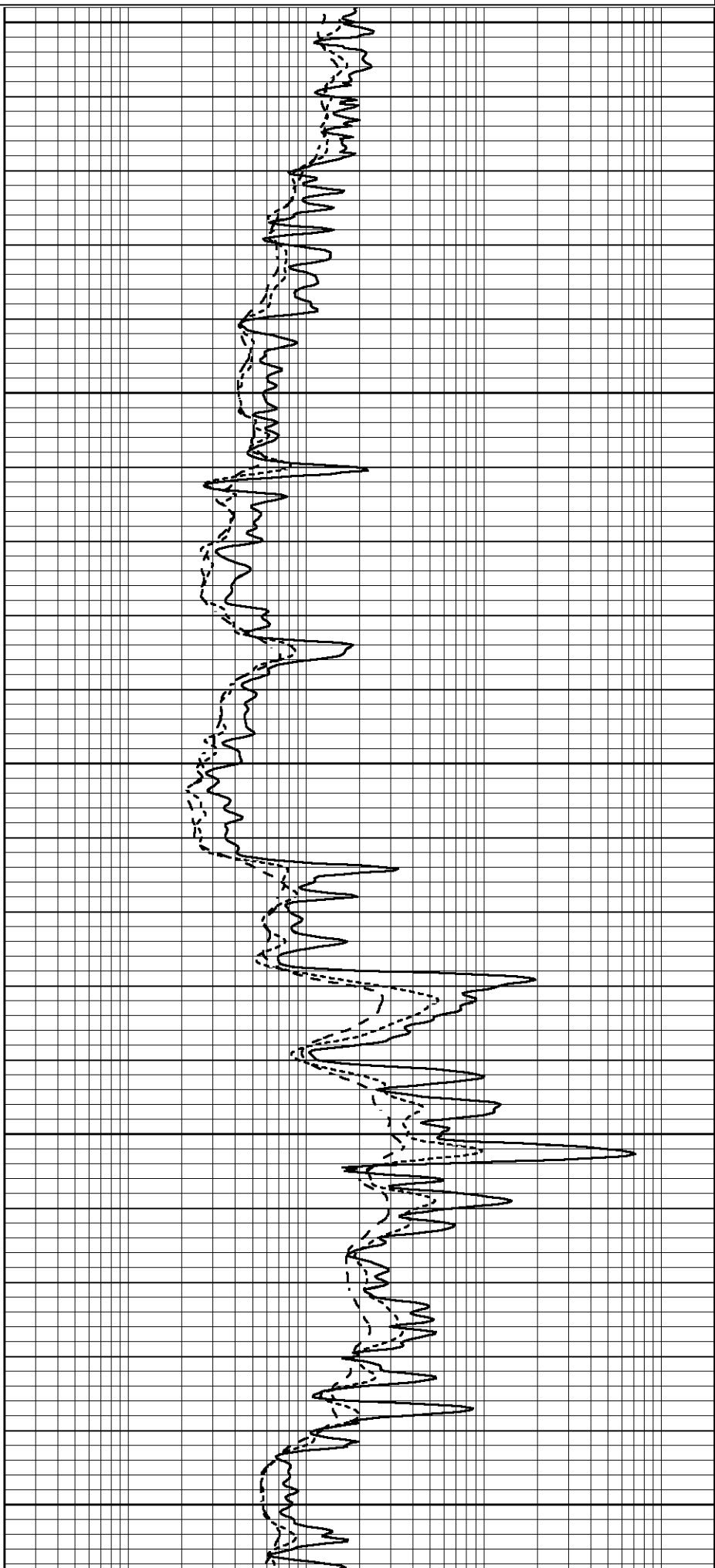
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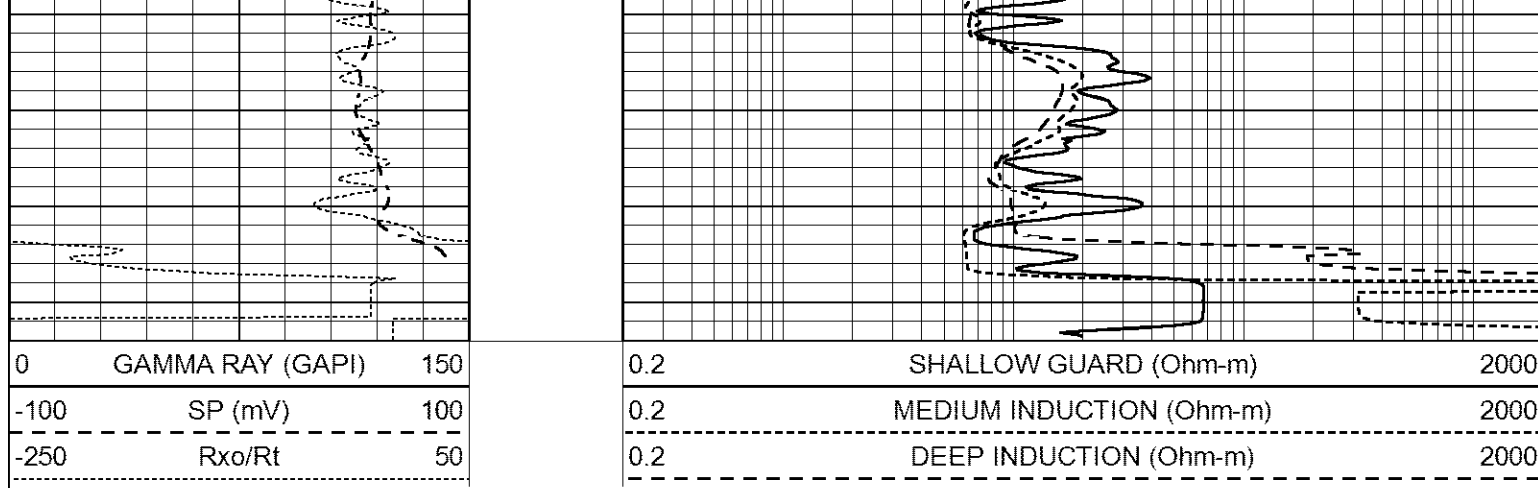


-100 SP (mv) 100
-250 Rxo/Rt 50



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





Calibration Report		
Database File	6540pe.db	
Dataset Pathname	pass5.5M	
Dataset Creation	Fri Jun 10 13:24:36 2022	

Dual Induction Calibration Report		
Serial-Model:	FW1410-55-Probe	
Surface Cal Performed:	Sun May 15 19:17:36 2022	
Downhole Cal Performed:	Tue Feb 19 11:44:24 2019	
After Survey Verification Performed:	Tue Feb 19 11:44:27 2019	

Surface Calibration								
Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.011	0.656	V	1.000	400.000	mmho/m	650.000	-2.000
Medium	-0.000	0.731	V	1.000	464.000	mmho/m	632.856	-15.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.007	0.649	V	0.000	400.000	mmho/m	623.784	-4.595
Medium	0.004	0.743	V	0.000	464.000	mmho/m	627.284	-2.251

Downhole Calibration								
	Readings			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	
	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:	140704	
Model:	V4_10P	
Serial:	7102	

Master Calibration			Performed: Mon May 23 14:22:47 2022		
	Background	Aluminum	Magnesium		
Window 1	511.07	5437.36	23664.68	cps	
Window 2	40.76	1220.39	5745.34	cps	
Window 4	223.73	1233.64	5301.27	cps	
Window 5	531.57	7878.13	15405.81	cps	
Window 6	48.52	1245.17	2497.97	cps	
Window 8	246.02	2578.14	4974.07	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8413	SS Alpha:	: -0.8034	LS CPE:	: 1.1579
LS Beta:	: 124864.8423	SS Beta:	: 19537.1506	SS CPE:	: 1.6371

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 May 23 14:22:47 2022		
Results	Readings	References (in)			
Low	High	Low	High	Gain	Offset
8210.8	12139.3	7.0	14.0	0.0	-7.3

Before Survey Caliper Verification			Performed:		
	Reference	Reading			
Caliper (in)	_____	_____			

After Survey Caliper Verification			Performed:		
	Reference	Reading			
Caliper (in)	_____	_____			

Compensated Neutron Calibration Report					
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Serial Number:		080621PMC			
Tool Model:		N12022			

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:	7	
Tool Model:	Probe1	
Performed:	Thu May 26 08:56:46 2022	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5500	GAPI/cps