



**DUAL
INDUCTION
LOG**

Company **FOURWINDS OIL CORPORATION**
 Well **D.G. HANSEN #1**
 Field **RAY**
 County **PHILLIPS** State **KANSAS**

Location: **API # : 15-147-20759-0000**
1500' FNL & 330' FEL
N2-NE-SE-NE
 SEC 29 TWP 5S RGE 20W
 Permanent Datum **GROUND LEVEL Elevation 2233**
 Log Measured From **KELLY BUSHING 8' A.G.L**
 Drilling Measured From **KELLY BUSHING**
 Other Services **CDL/CNL MEL**
 Elevation **K.B. 2241 D.F. 2239 G.L. 2233**

Date	2/19/22
Run Number	ONE
Depth Driller	3658
Depth Logger	3659
Bottom Logged Interval	3657
Top Log Interval	00
Casing Driller	8 5/8" @ 224
Casing Logger	224
Bit Size	7 7/8
Type Fluid in Hole	CHEMICAL MUD
Density / Viscosity	9.2/53
PH / Fluid Loss	11.0/7.8
Source of Sample	FLOWLINE
Rm @ Meas. Temp	1.20 @ 65F
Rmt @ Meas. Temp	.90 @ 65F
Rmc @ Meas. Temp	1.44 @ 65F
Source of Rmf / Rmc	MEASUREMENT
Rm @ BHT	.69 @ 113F
Time Circulation Stopped	2 HOURS
Time Logger on Bottom	////
Maximum Recorded Temperature	113F
Equipment Number	3802
Location	HAYS, KANSAS
Recorded By	JASON CAPPELLUCCI
Witnessed By	CAMERON BRIN
	TJ DREILING

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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
 STOCKTON, KS. - 11 NORTH TO COZY COVE RD. - 15 WEST - SOUTH INTO

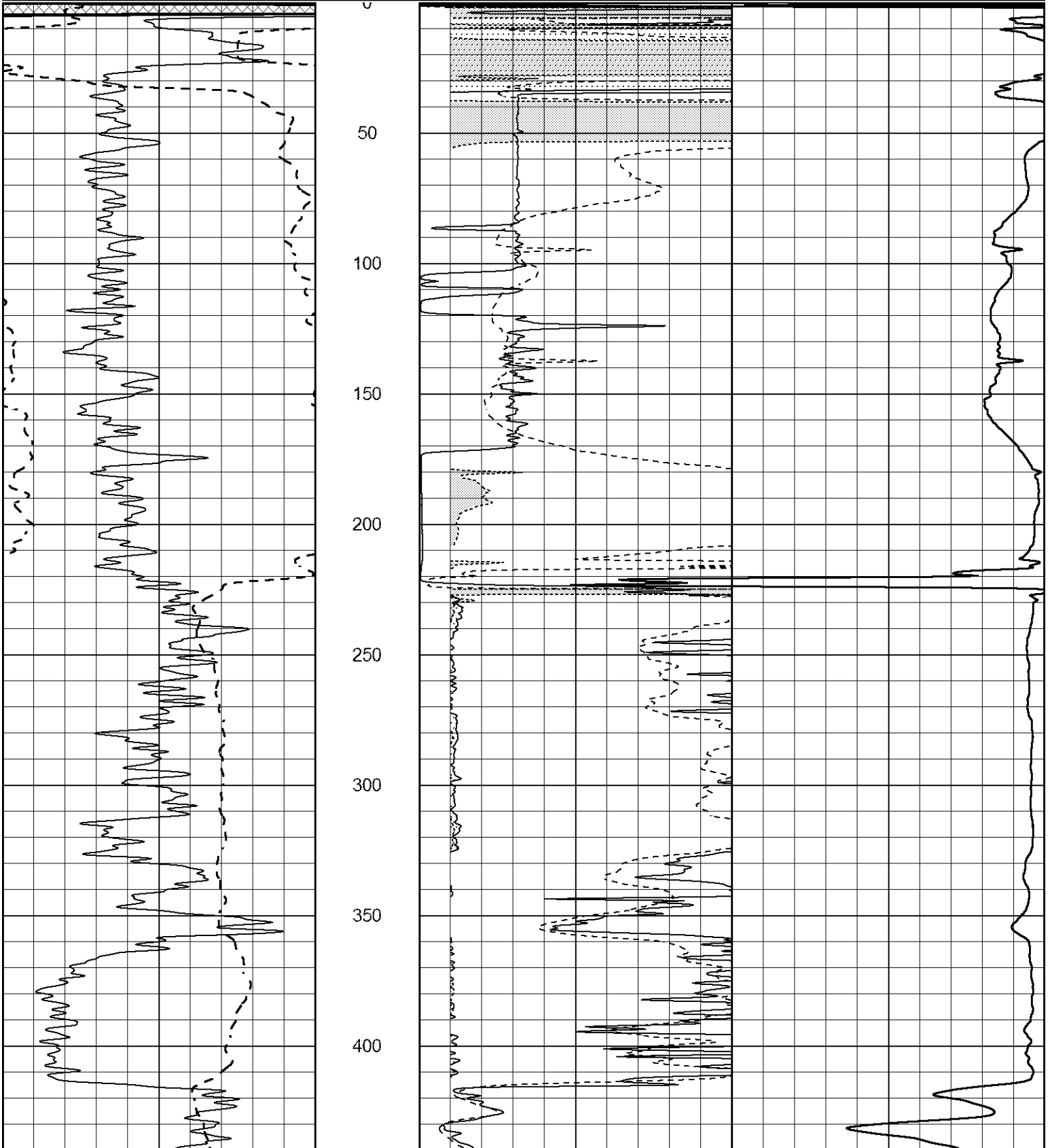


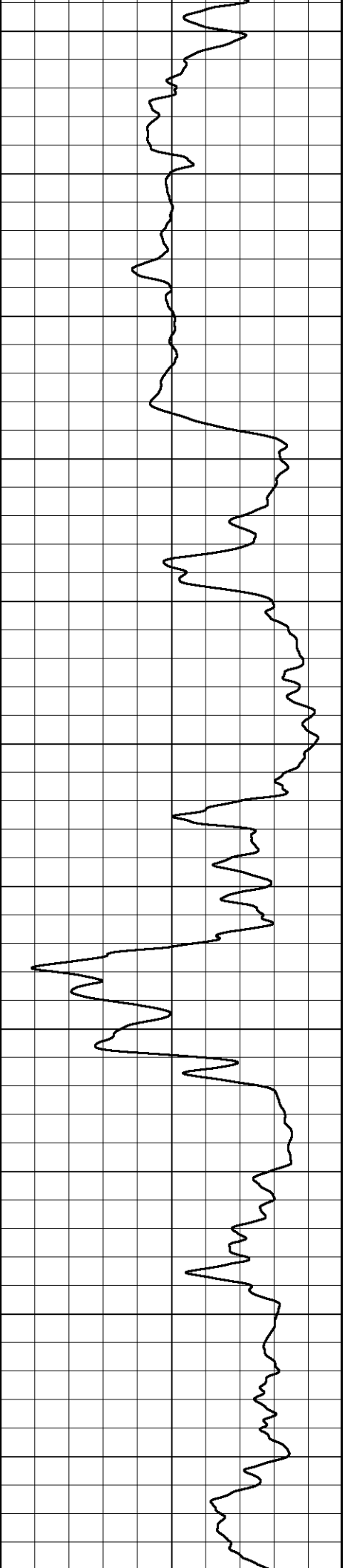
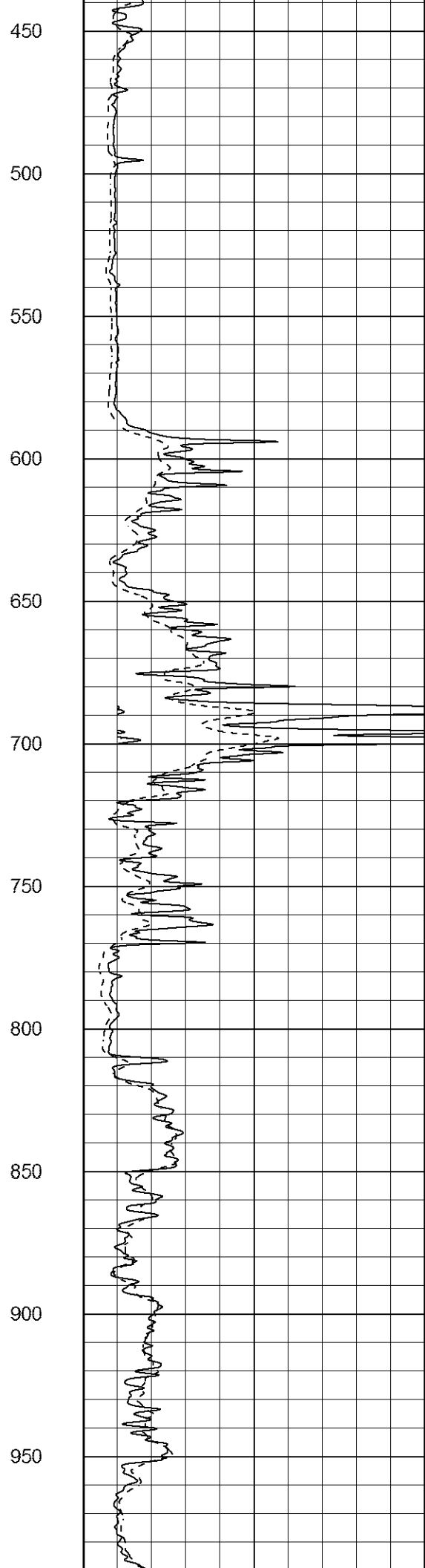
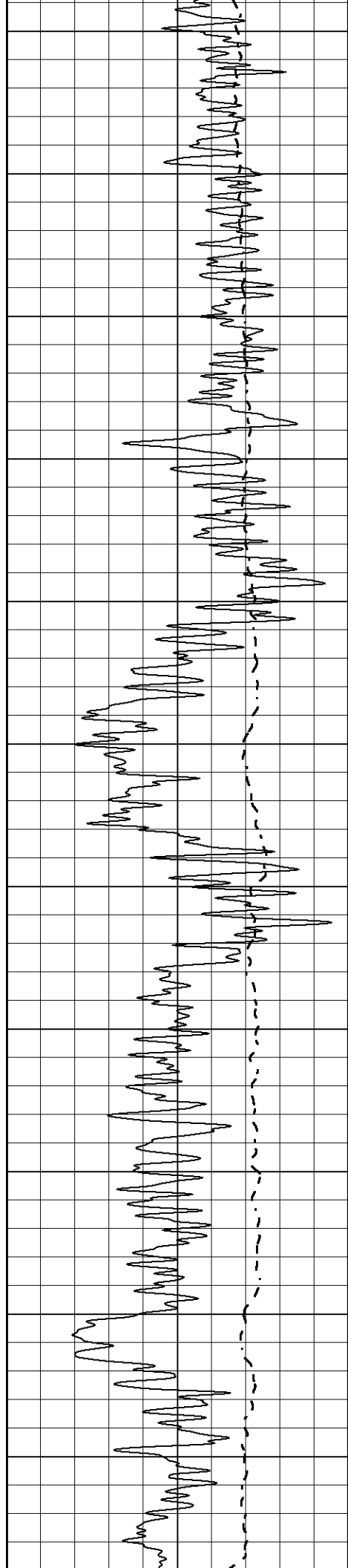
MAIN SECTION

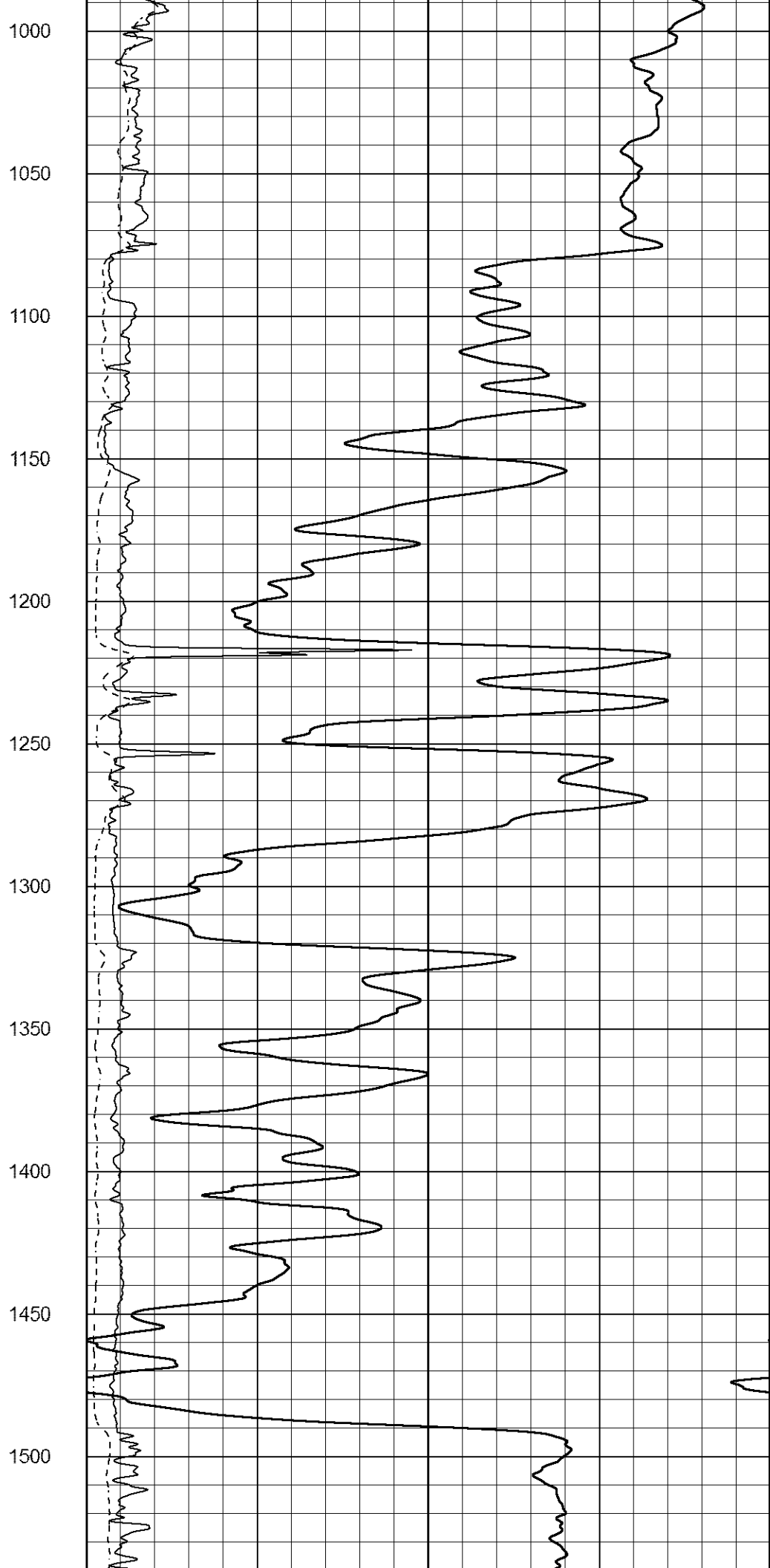
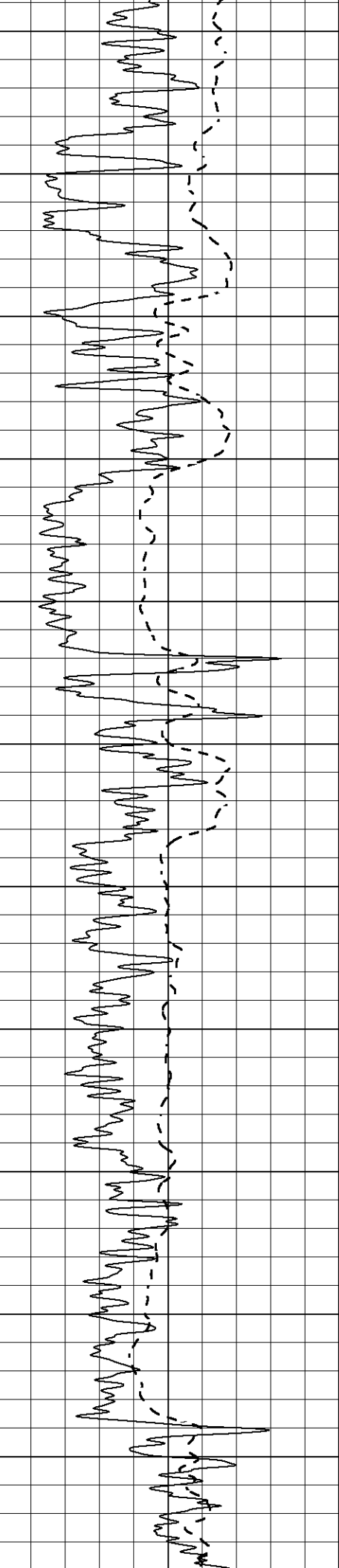
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 Dataset Creation Sat Feb 19 19:49:07 2022
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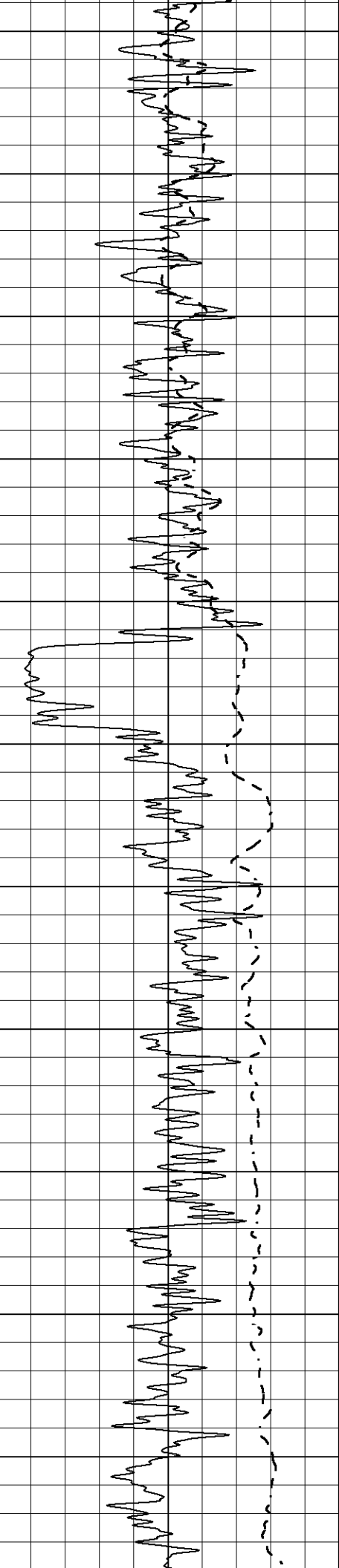
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 -100 SP (mV) 100

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

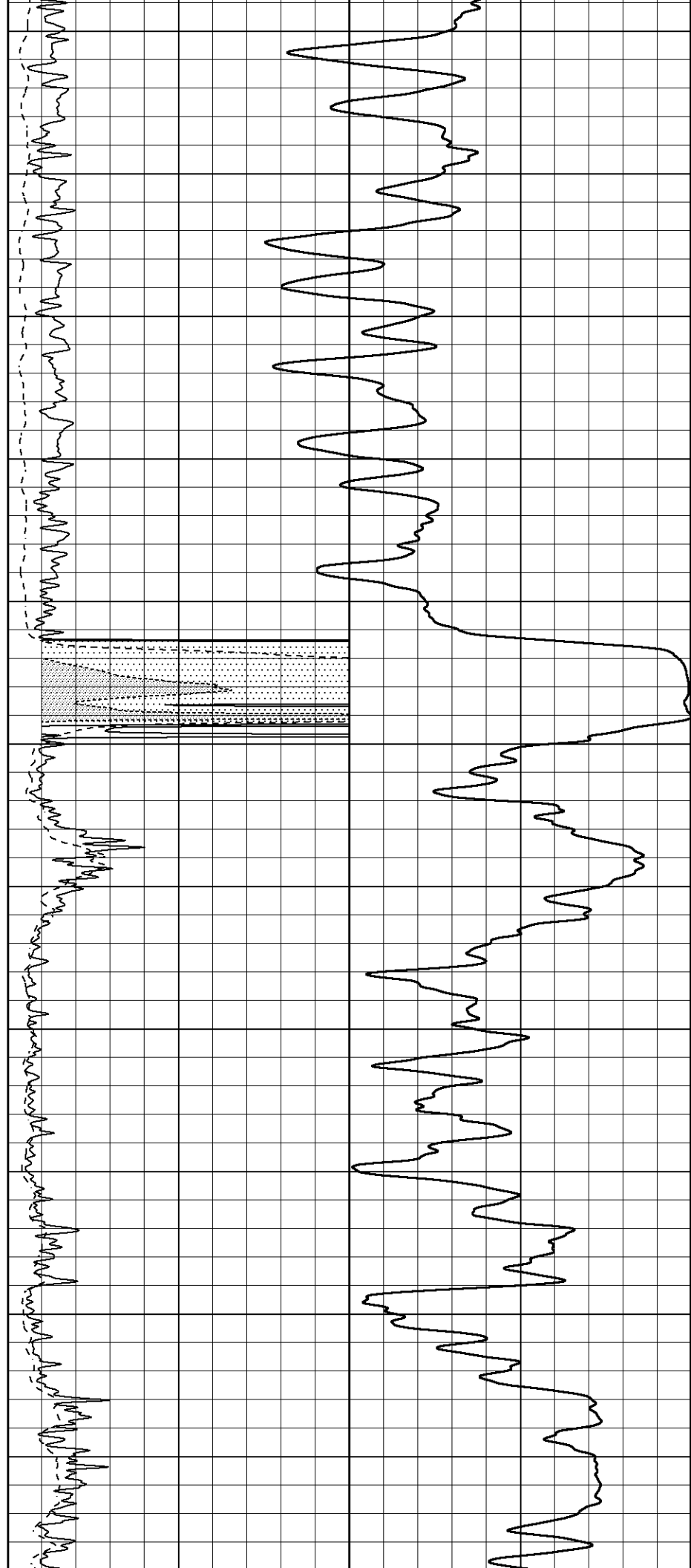


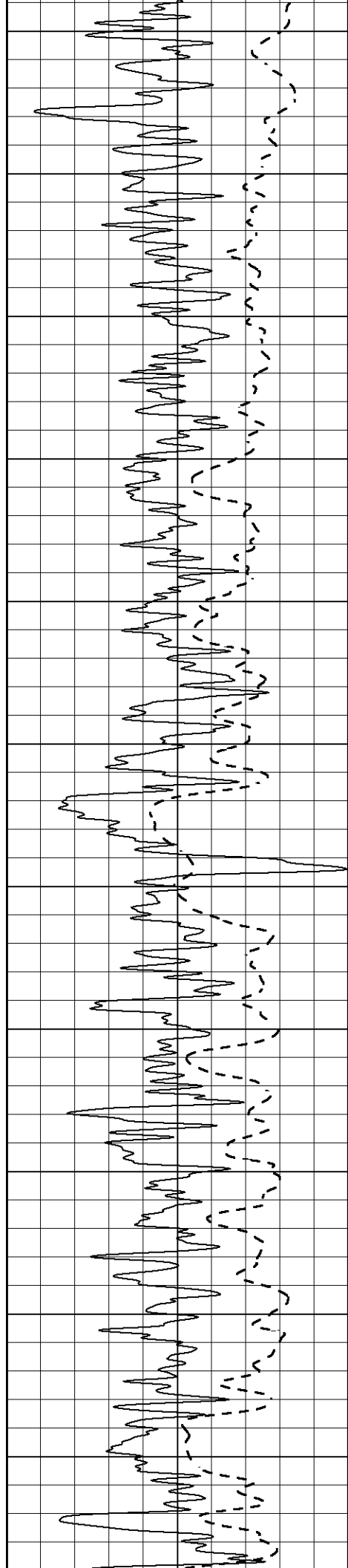






1550
1600
1650
1700
1750
1800
1850
1900
1950
2000
2050





2100

2150

2200

2250

2300

2350

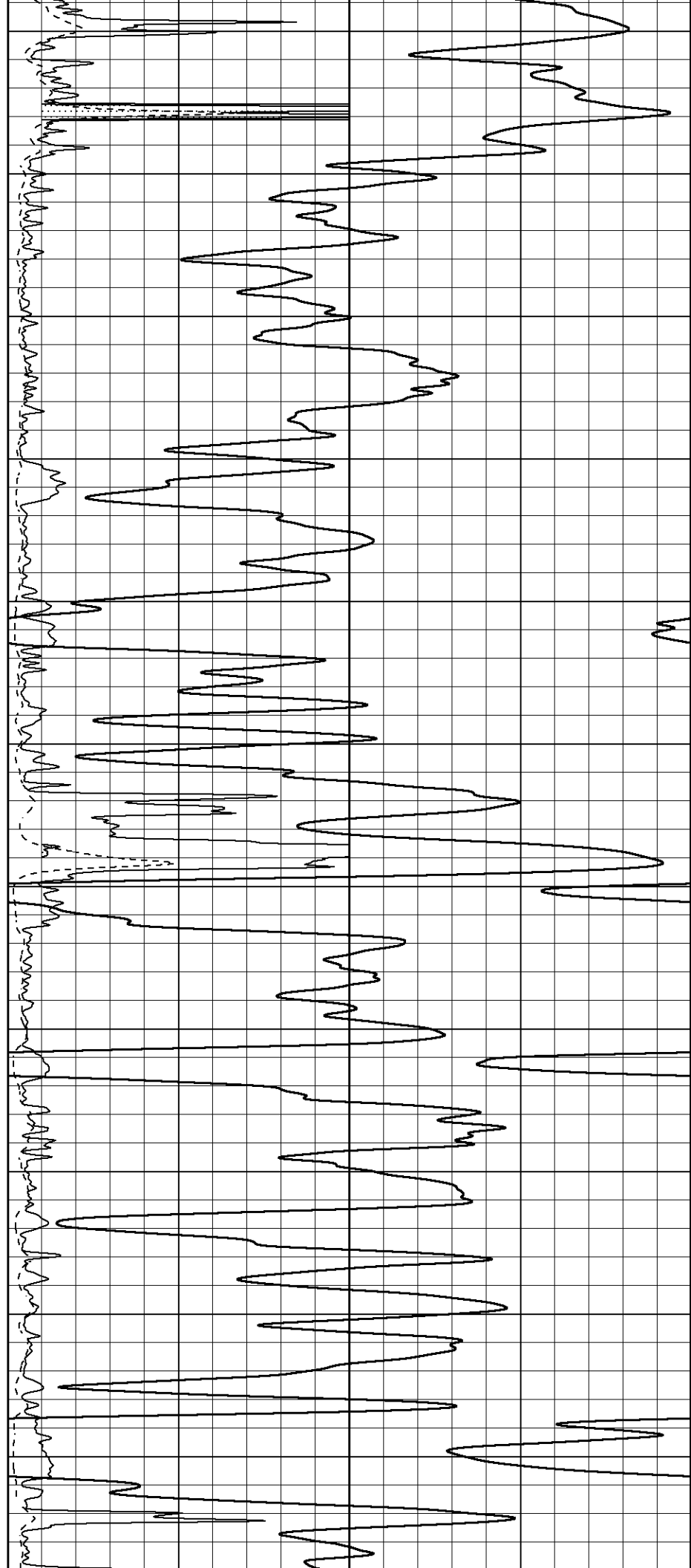
2400

2450

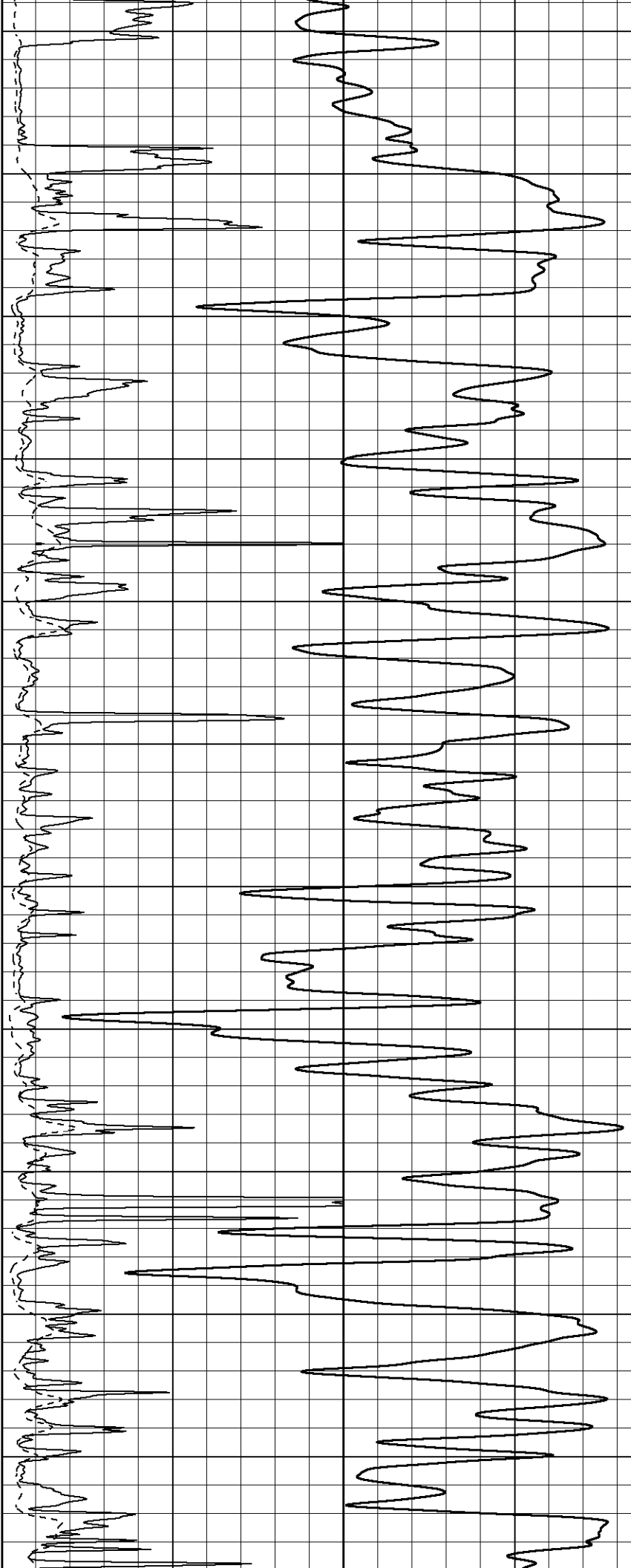
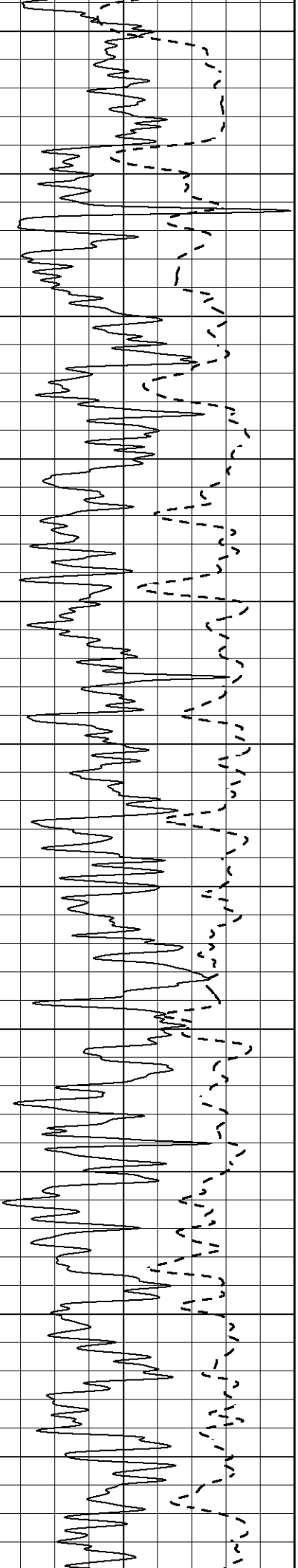
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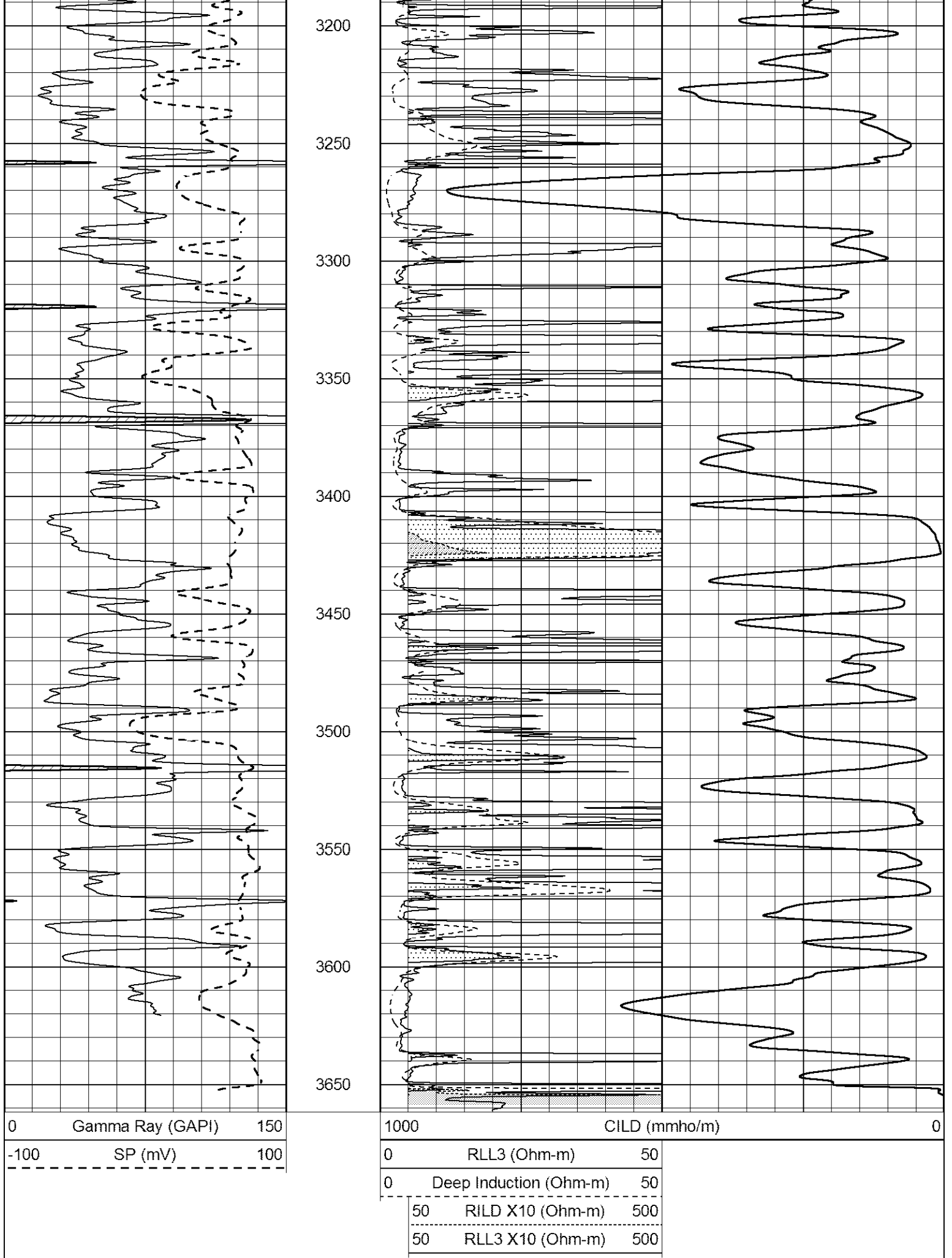
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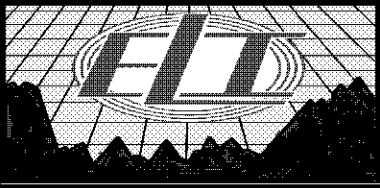
2600



2650
2700
2750
2800
2850
2900
2950
3000
3050
3100
3150





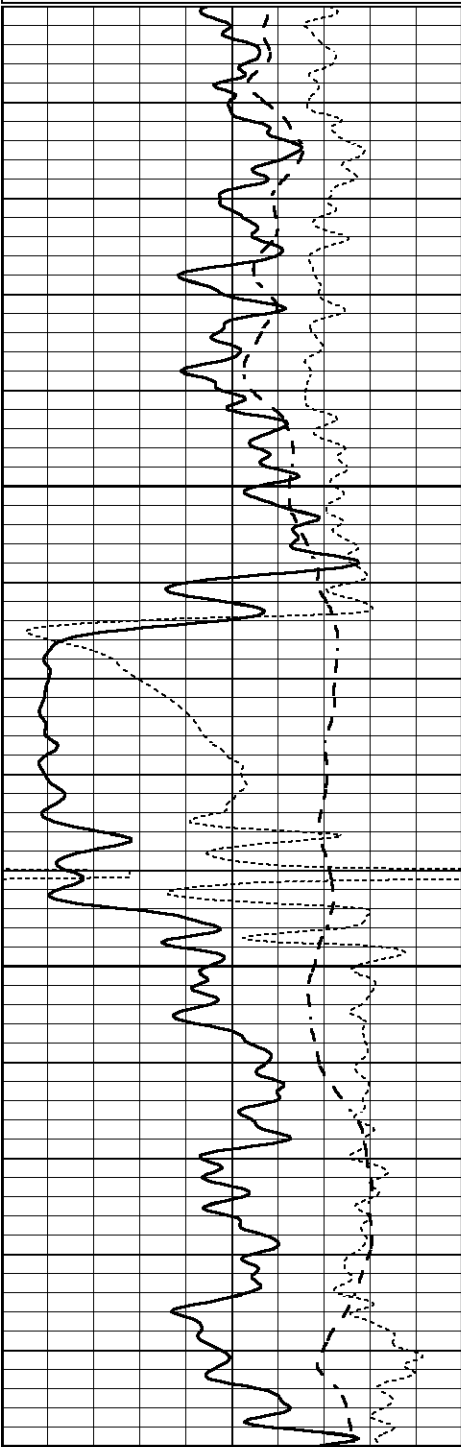


ANHYDRITE

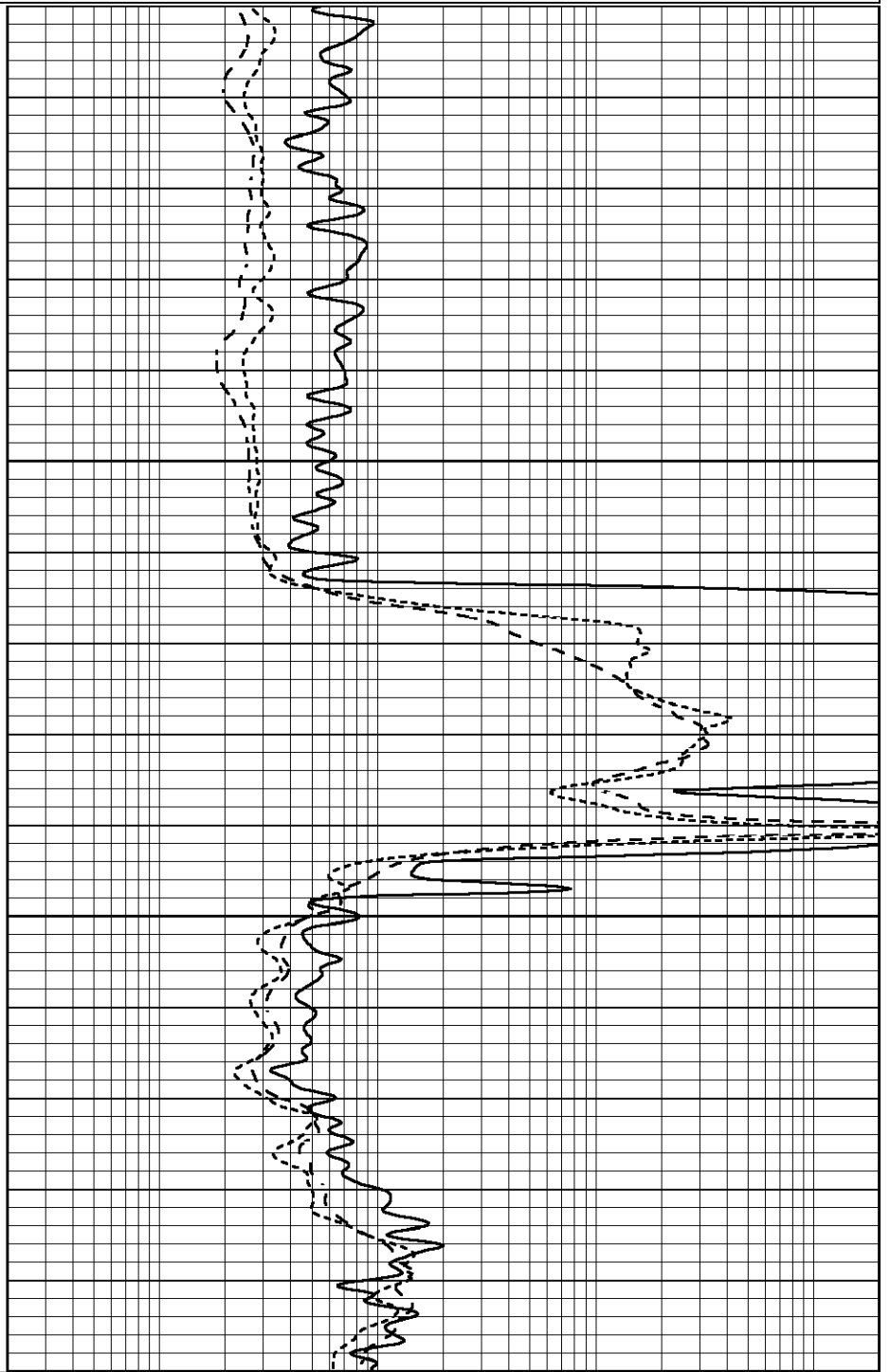
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 Dataset Pathname pass3.2
 Presentation Format _dil
 Dataset Creation Sat Feb 19 19:00:41 2022
 Charted by Depth in Feet scaled 1:240

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

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

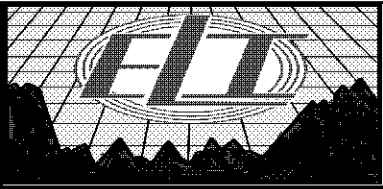


1700
1750
1800
1850



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

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

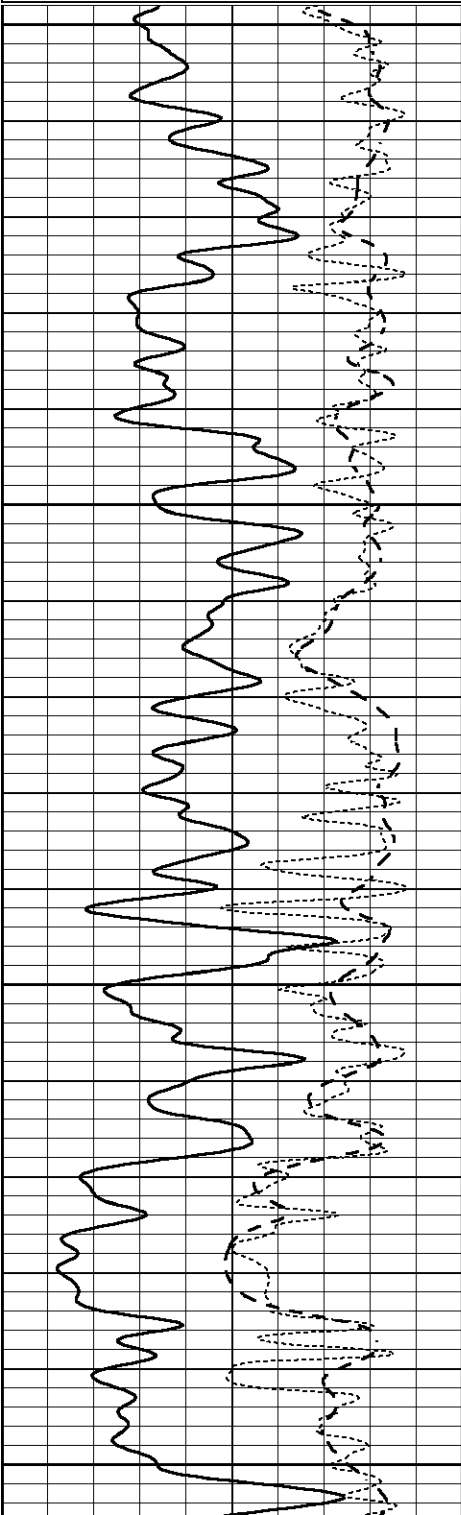


MAIN SECTION

Database File 6242ddn.db
Dataset Pathname pass3.1
Presentation Format _dil
Dataset Creation Sat Feb 19 18:47:07 2022
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	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

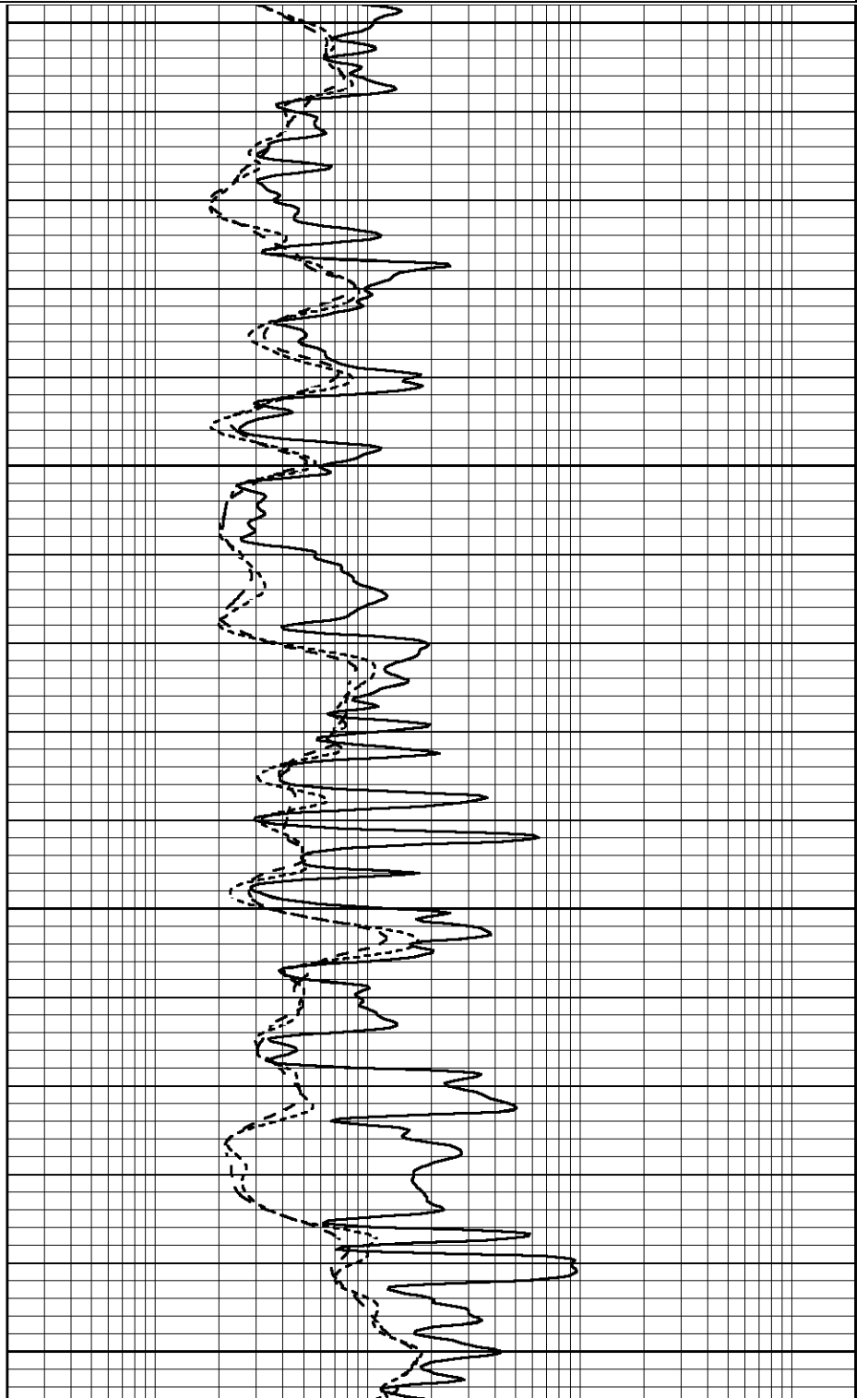


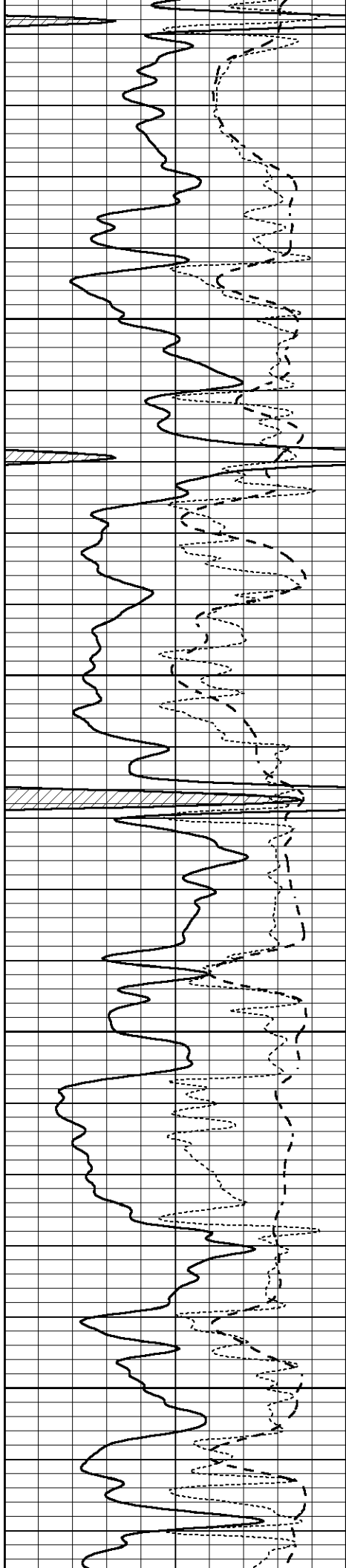
3100

3150

3200

3250



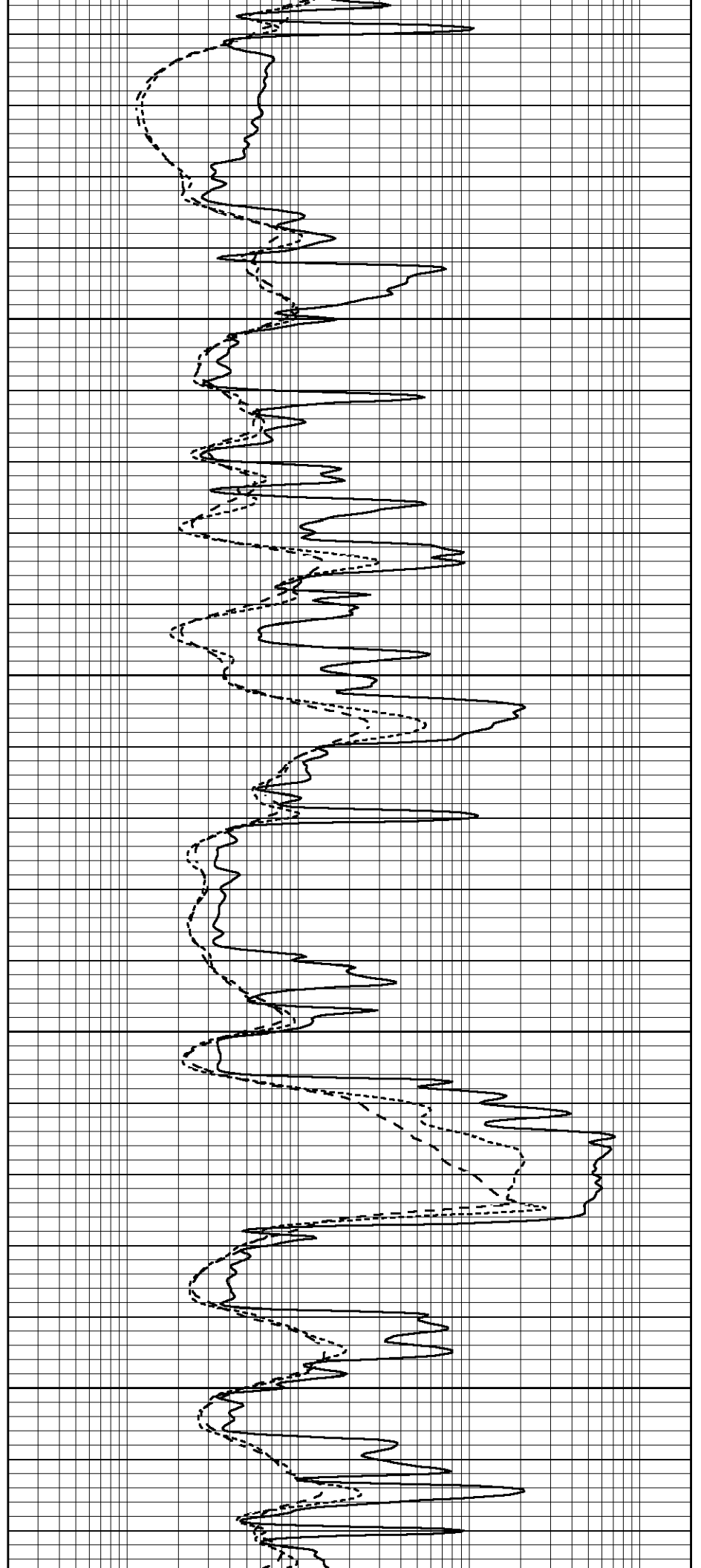


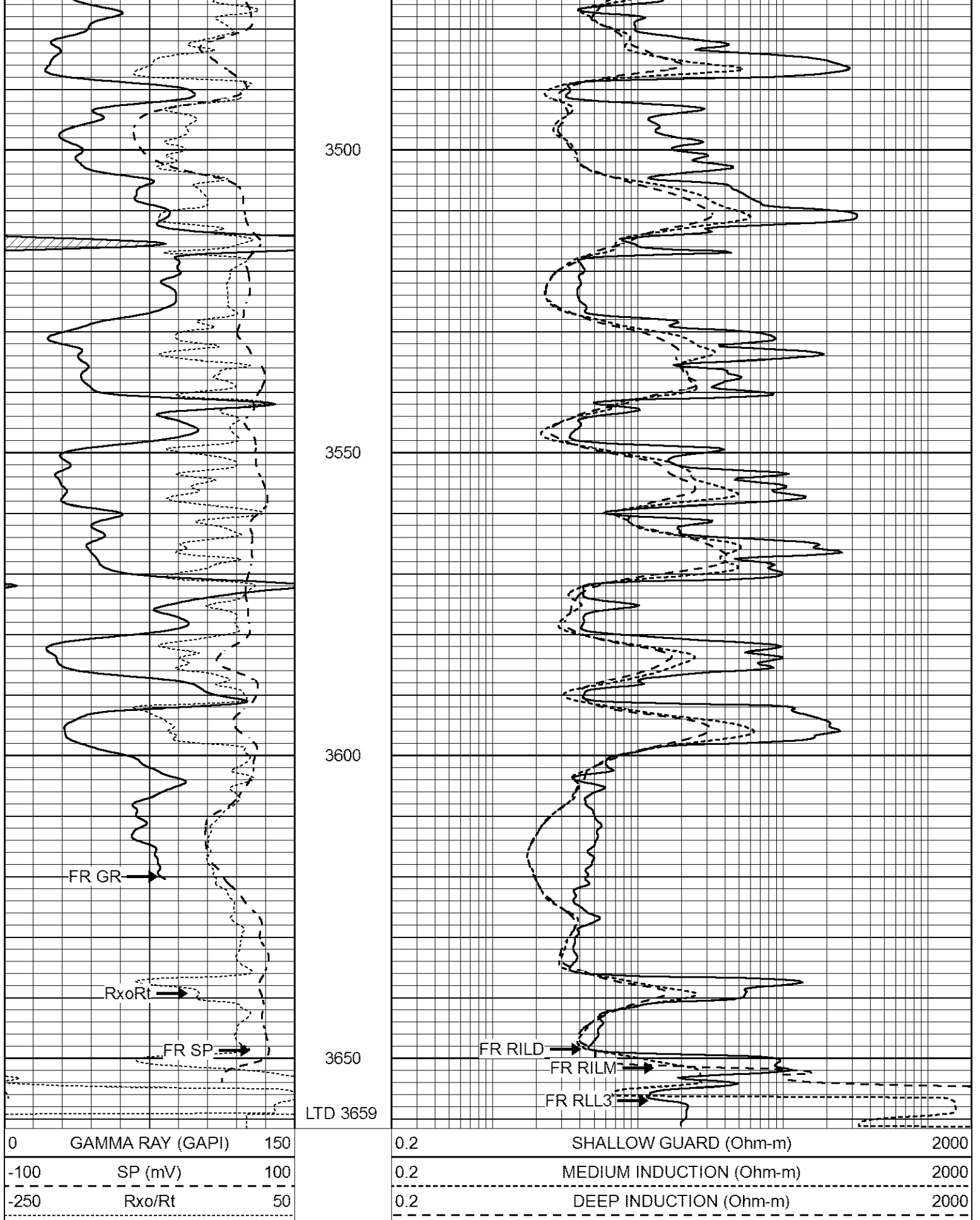
3300

3350

3400

3450



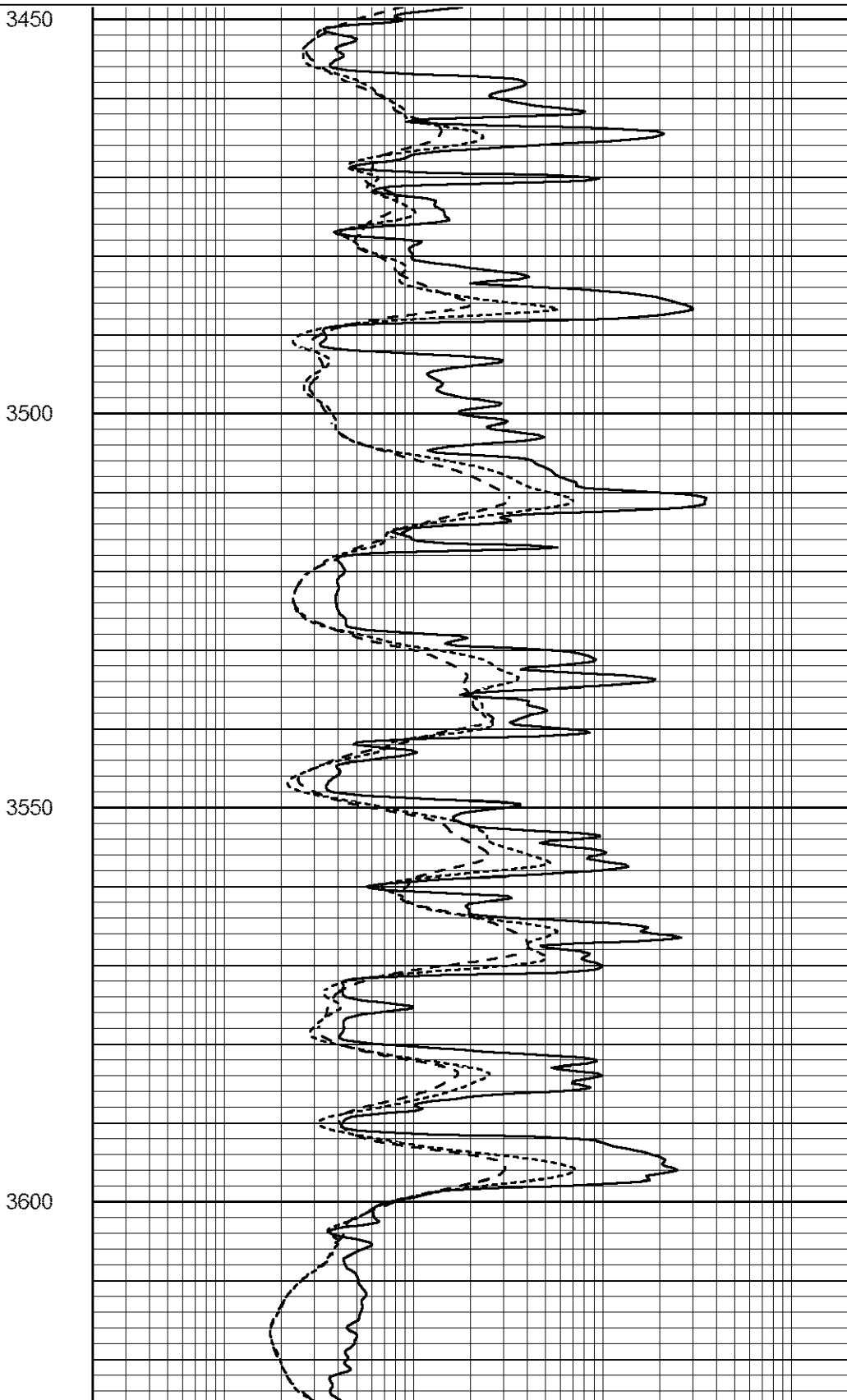
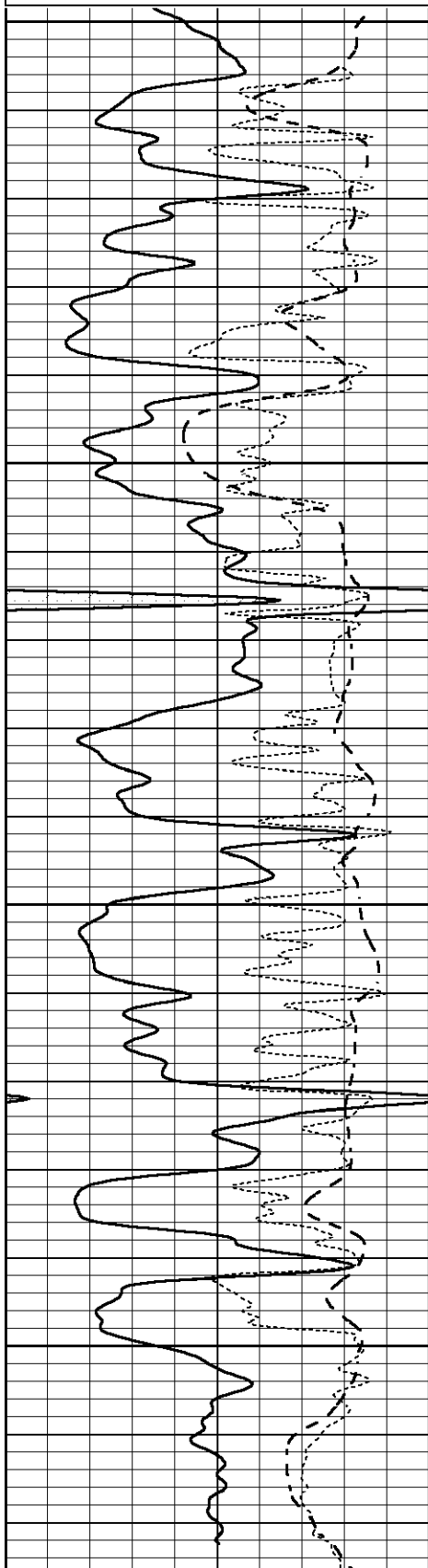


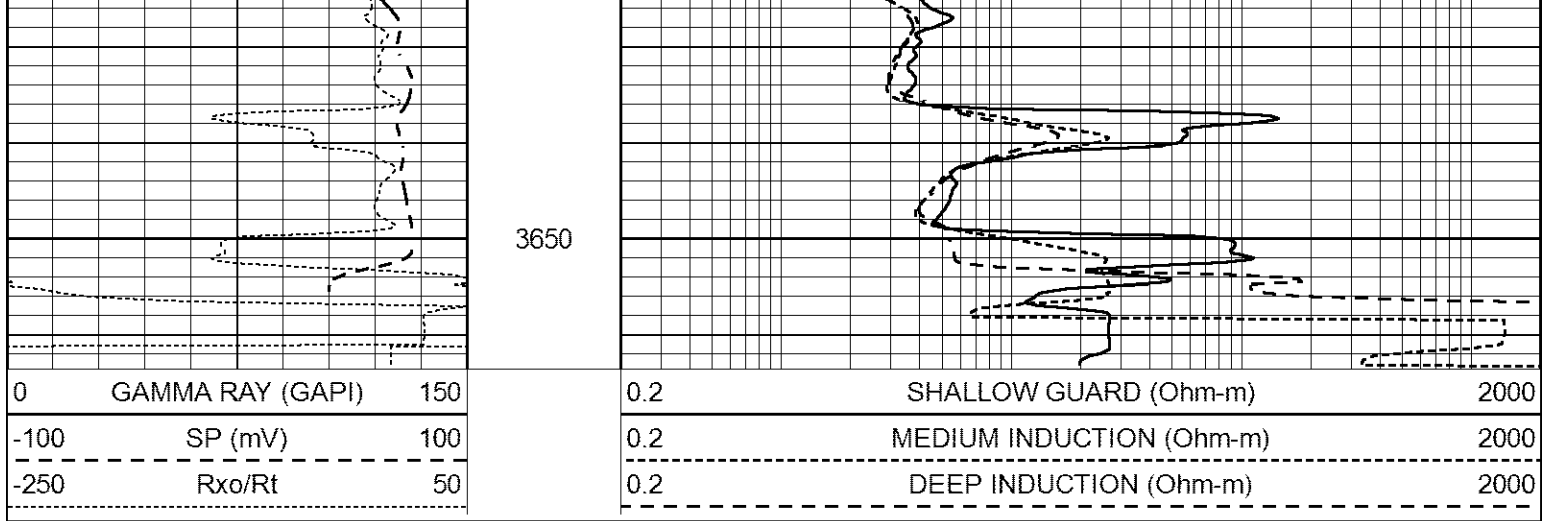
REPEAT SECTION

Database File 6242ddn.db
 Dataset Pathname pass2.1
 Presentation Format _dil
 Dataset Creation Sat Feb 19 18:45:31 2022
 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	MEDIUM INDUCTION (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000





Calibration Report

Database File 6242ddn.db
 Dataset Pathname pass2.1
 Dataset Creation Sat Feb 19 18:45:31 2022

Dual Induction Calibration Report

Serial-Model: FW1410-56-Probe
 Surface Cal Performed: Mon Jun 15 22:52:02 2020
 Downhole Cal Performed: Tue Jul 25 12:15:37 2017
 After Survey Verification Performed: Tue Jul 25 12:15:38 2017

Surface Calibration

Loop:	Readings			References			Results	
	Air	Loop		Air	Loop		m	b
Deep	0.008	0.765	V	1.000	400.000	mmho/m	400.061	-3.201
Medium	-0.056	0.761	V	1.000	464.000	mmho/m	425.187	32.510
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.005	0.624	V	0.000	400.000	mmho/m	645.611	-3.034
Medium	0.012	0.721	V	0.000	464.000	mmho/m	653.591	-7.532

Downhole Calibration

	Readings			References			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	-0.647	301.329	mmho/m	-0.780	336.378	mmho/m	1.117	-0.058
Medium	38.256	411.013	mmho/m	39.046	441.706	mmho/m	1.080	-2.280
LL3		7.471	V		2500.000	Ohm-m		
		0.001	V		20.000	Ohm-m		
		-7.085	V		4000.000	mmho-m		

After Survey Verification

	Readings			Targets			Results	
	Zero	Cal		Zero	Cal		m'	b'
Deep	0.000	0.000	mmho/m	-0.647	301.329	mmho/m	1.000	0.000
Medium	0.000	0.000	mmho/m	38.256	411.013	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: 1410P

Master Calibration Performed: Fri Feb 18 15:41:27 2022

	Background	Aluminum	Magnesium		
Window 1	515.75	5443.58	23734.91	cps	
Window 2	41.45	1226.32	5757.32	cps	
Window 4	224.78	1223.03	5315.97	cps	
Window 5	549.25	7983.61	15349.73	cps	
Window 6	43.12	1271.88	2496.98	cps	
Window 8	261.02	2595.65	4928.92	cps	
Bulk Density	-	2.6020	1.6830	g/cc	
Pe	-	3.0000	2.5070	b/e	
LS Alpha:	: -1.8571	SS Alpha:	: -0.7875	LS CPE:	: 1.1396
LS Beta:	: 128618.9672	SS Beta:	: 18780.4869	SS CPE:	: 1.5966

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: Fri Feb 18 15:41:27 2022

Results		Readings		References (in)		Gain	Offset
Low	High	Low	High	Low	High		
8107.9	11082.1	8.0	14.0			0.0	-8.1

Before Survey Caliper Verification Performed:

Reference	Reading
_____	_____
Caliper (in)	

After Survey Caliper Verification Performed:

Reference	Reading
_____	_____
Caliper (in)	

Serial Number:
Tool Model:

080621P1MC
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:	7	
Tool Model:	Probe1	
Performed:	Tue Jan 19 17:50:08 2021	
Calibrator Value:	1.0	GAPI
Background Reading:	0.0	cps
Calibrator Reading:	1.0	cps
Sensitivity:	0.5300	GAPI/cps