NABORS
COMPLETION & PRODUCTION SERVICES CO.

DUAL INDUCTION LOG

Company RITCHIE EXPLORATION, INC.

Well ROEMER #1-34C

Field

County GOVE State KANSAS

Location: API # : 15-063-22070

1700' FSL & 495' FWL

SEC 34 TWP 12S RGE 29W

Other Services

CDL/CNL

Elevation

K.B. 2693
D.F.
G.L. 2685

Permanent Datum GROUND LEVEL Elevation 2685
Log Measured From KELLY BUSHING 8' A.G.L.
Drilling Measured From KELLY BUSHING

Company RITCHIE EXPLORATION, INC.
Well ROEMER #1-34C
Field
County GOVE
State KANSAS

Date	1-3-13		
Run Number	ONE		
Depth Driller	4520		
Depth Logger	4522		
Bottom Logged Interval	4500		
Top Log Interval	00		
Casing Driller	238		
Casing Logger	237		
Bit Size	7.875		
Type Fluid in Hole	CHEMICAL MUD		
Density / Viscosity	9.3 / 52		
pH / Fluid Loss	10.5 / 6.4		
Source of Sample	FLOWLINE		
Rm @ Meas. Temp	1.25 @ 68F		
Rmf @ Meas. Temp	0.94 @ 68F		
Rmc @ Meas. Temp	1.50 @ 68F		
Source of Rmf / Rmc	MEASURED		
Rm @ BHT	.710 @ 120F		
Time Circulation Stopped	2:15 P.M.		
Time Logger on Bottom	3:00 P.M.		
Maximum Recorded Temperature	120F		
Equipment Number	860		
Location	HAYS, KS.		
Recorded By	RUPP		
Witnessed By	TERRY McLEOD		

<<< Fold Here >>>

Comments

NABORS COMPLETION & PRODUCTION CO.
785-628-6395
THANK YOU FOR YOUR BUSINESS
DIRECTIONS: GOVE, 1 1/2W TO RD. #40, 1/2N, E INTO.

MAIN SECTION

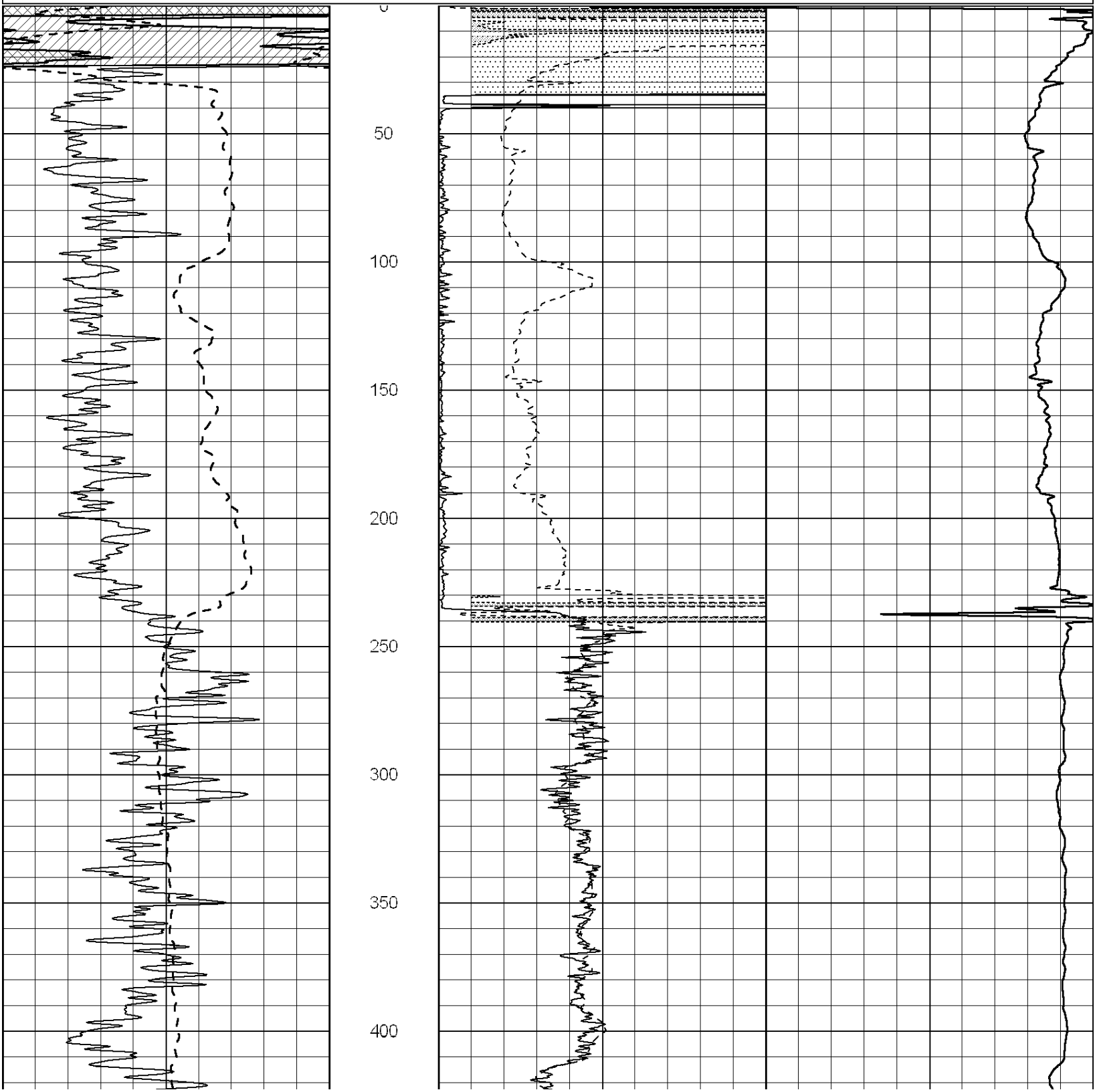
NABORS COMPLETION & PRODUCTION

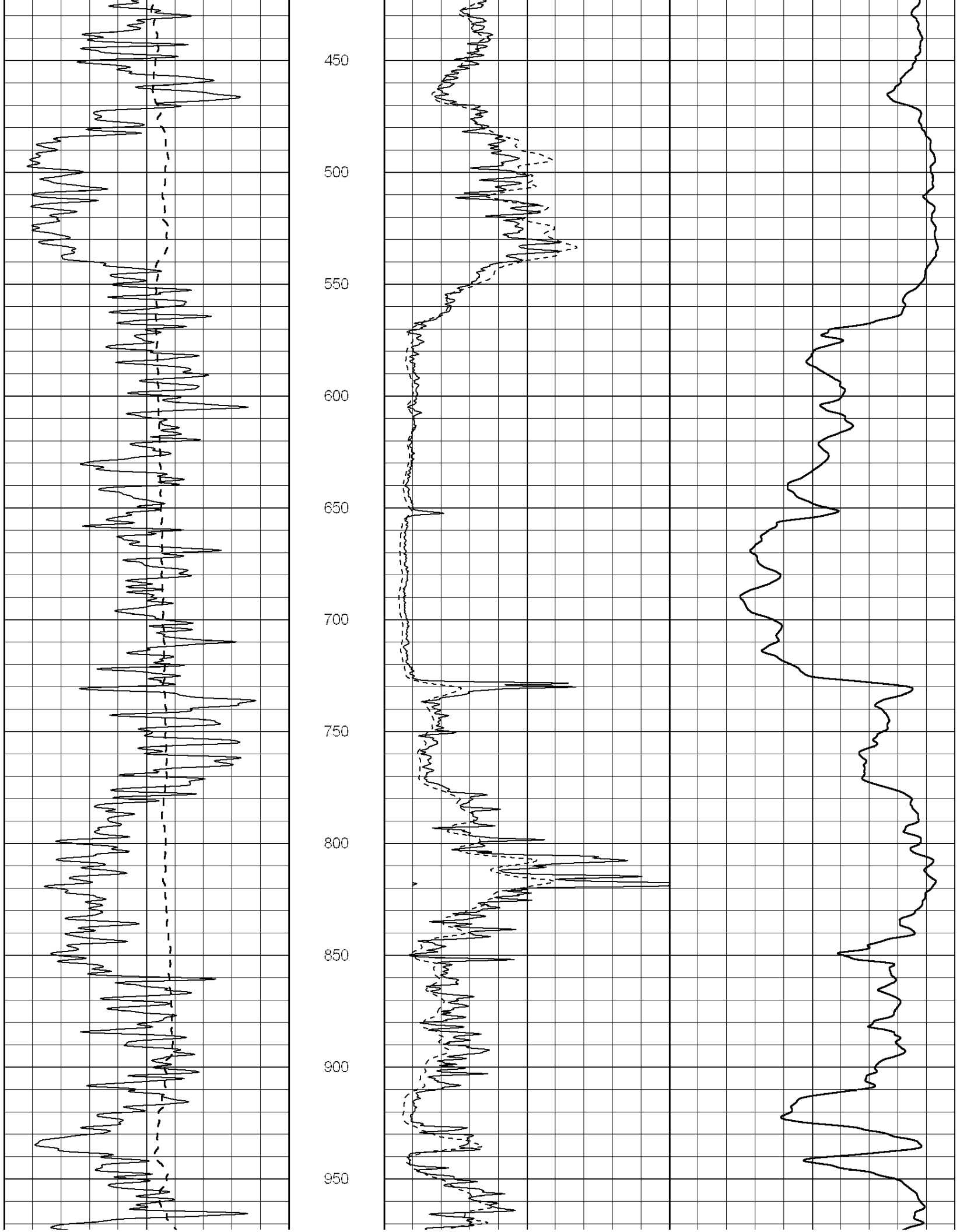
& PRODUCTION
SERVICES CO.

Database File: 010171ddn.db
Dataset Pathname: pass6.A
Presentation Format: dil2
Dataset Creation: Thu Jan 03 17:56:42 2013
Charted by: Depth in Feet scaled 1:600

0	Gamma Ray (GAPI)	150

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

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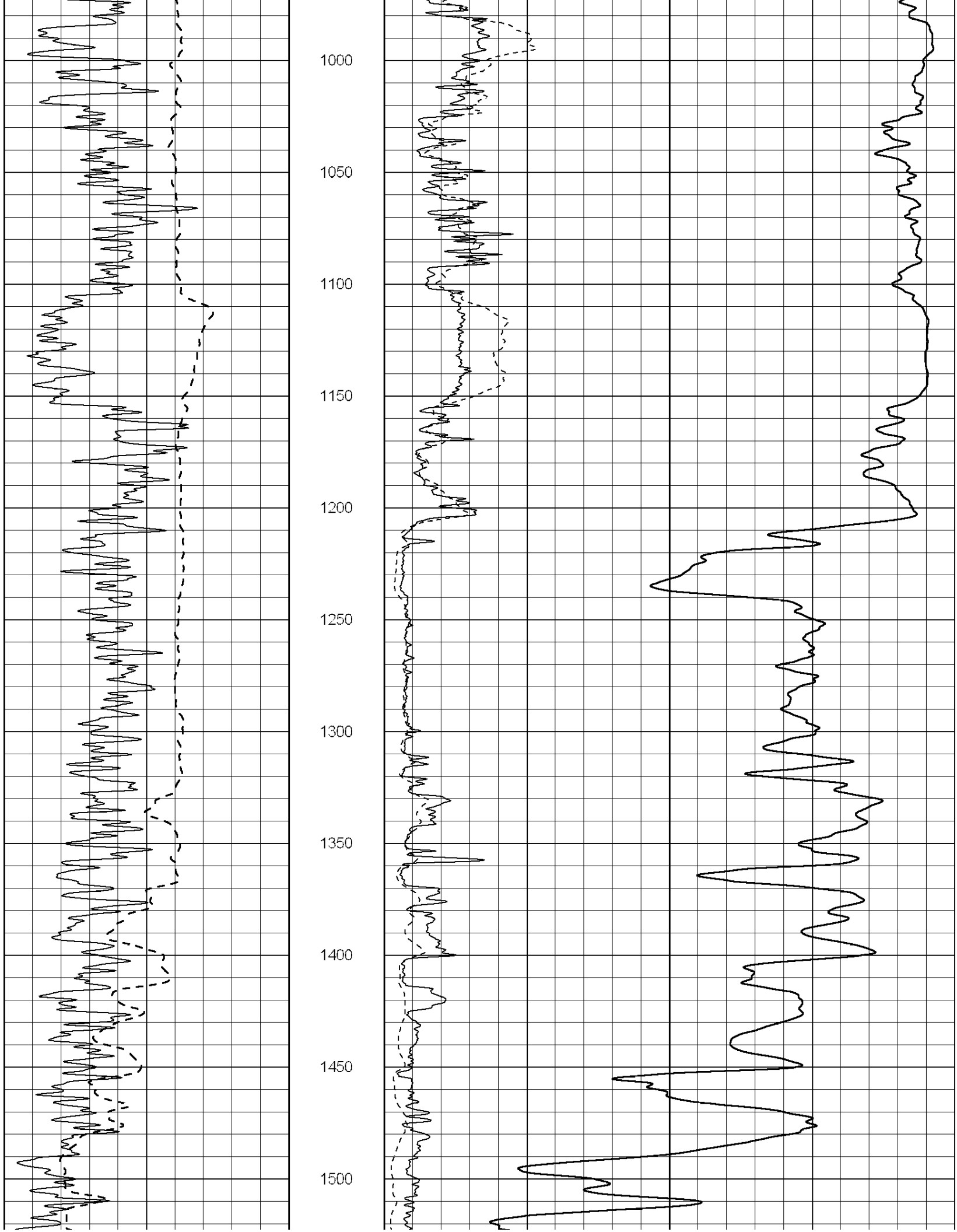
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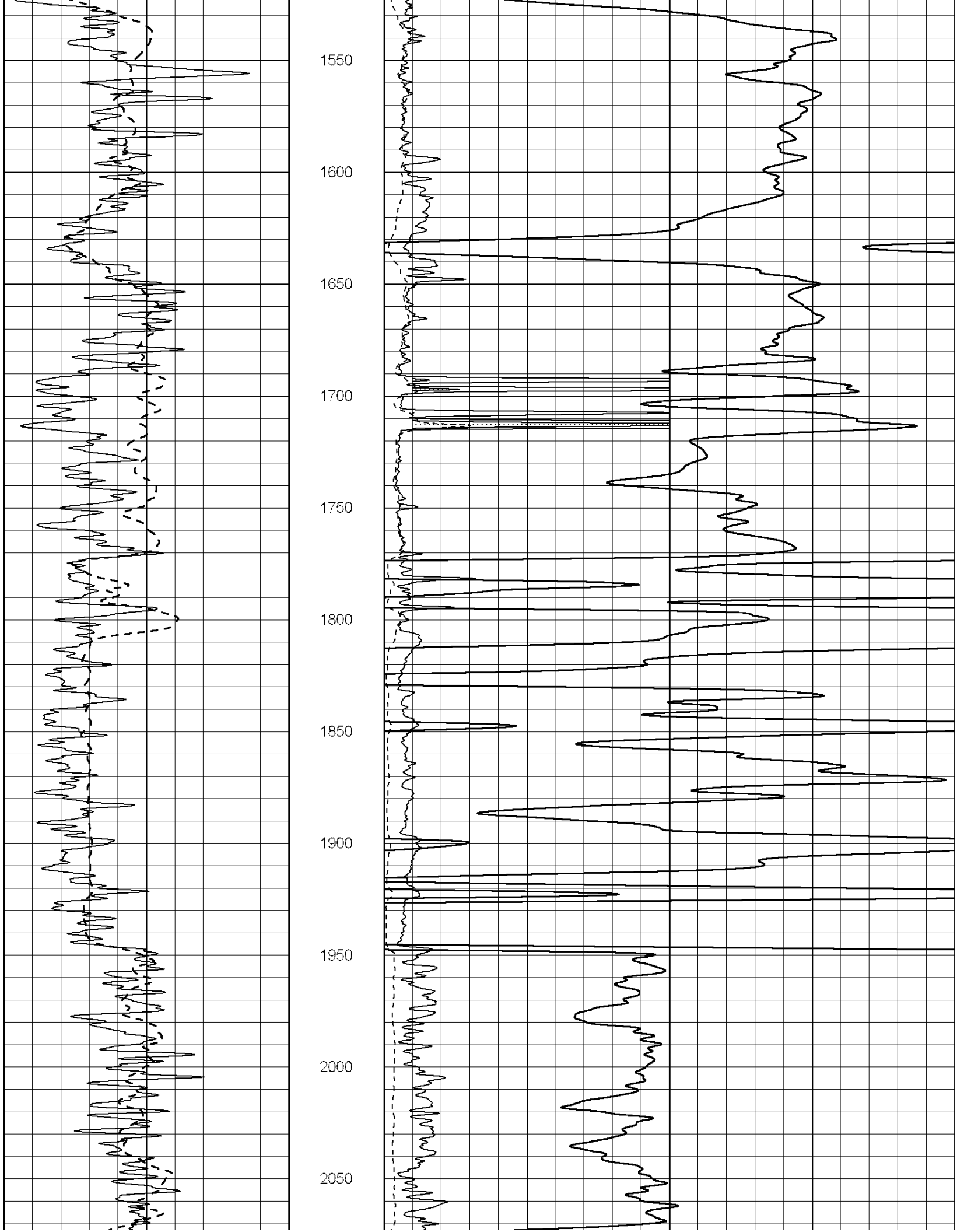
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1900
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2000
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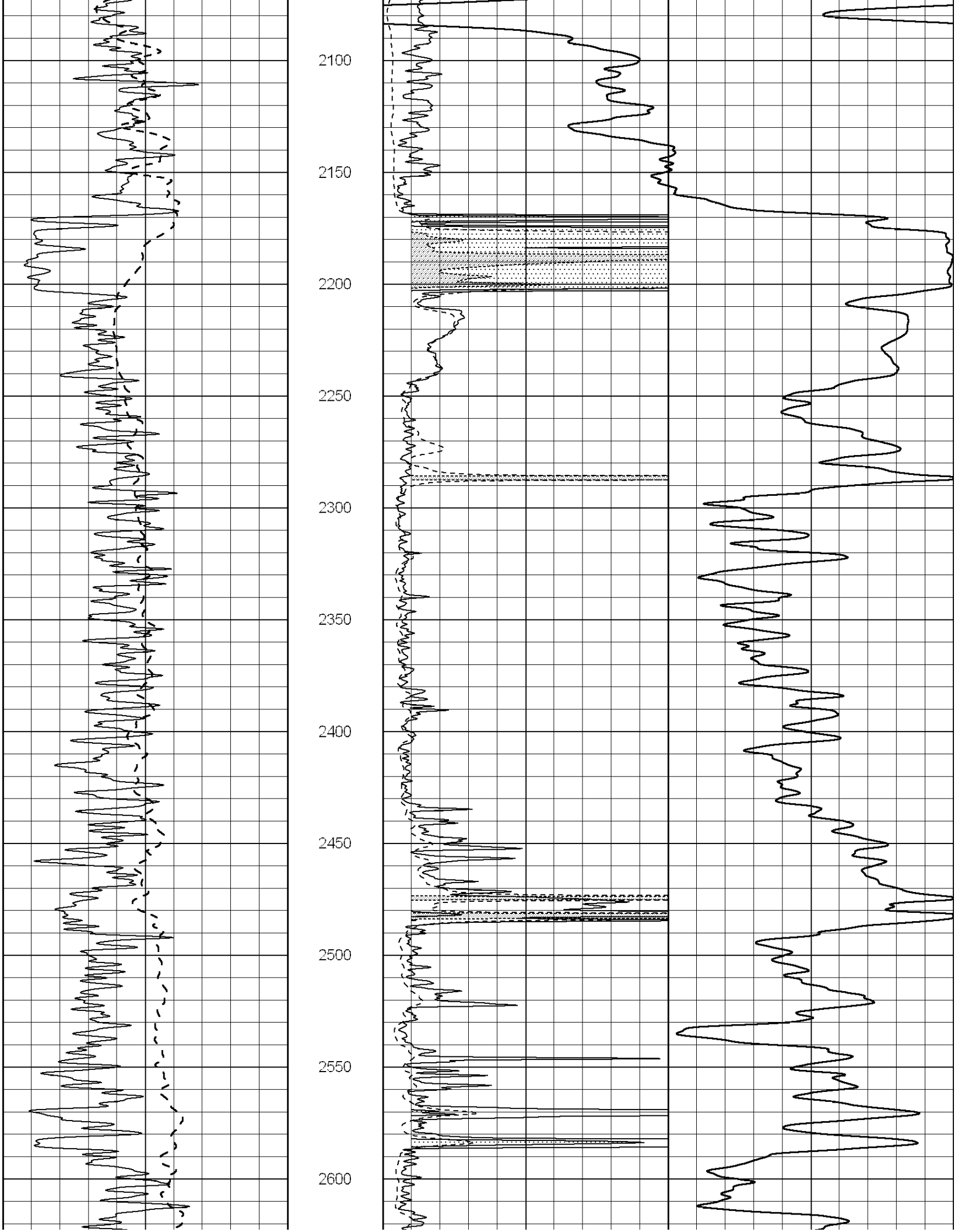
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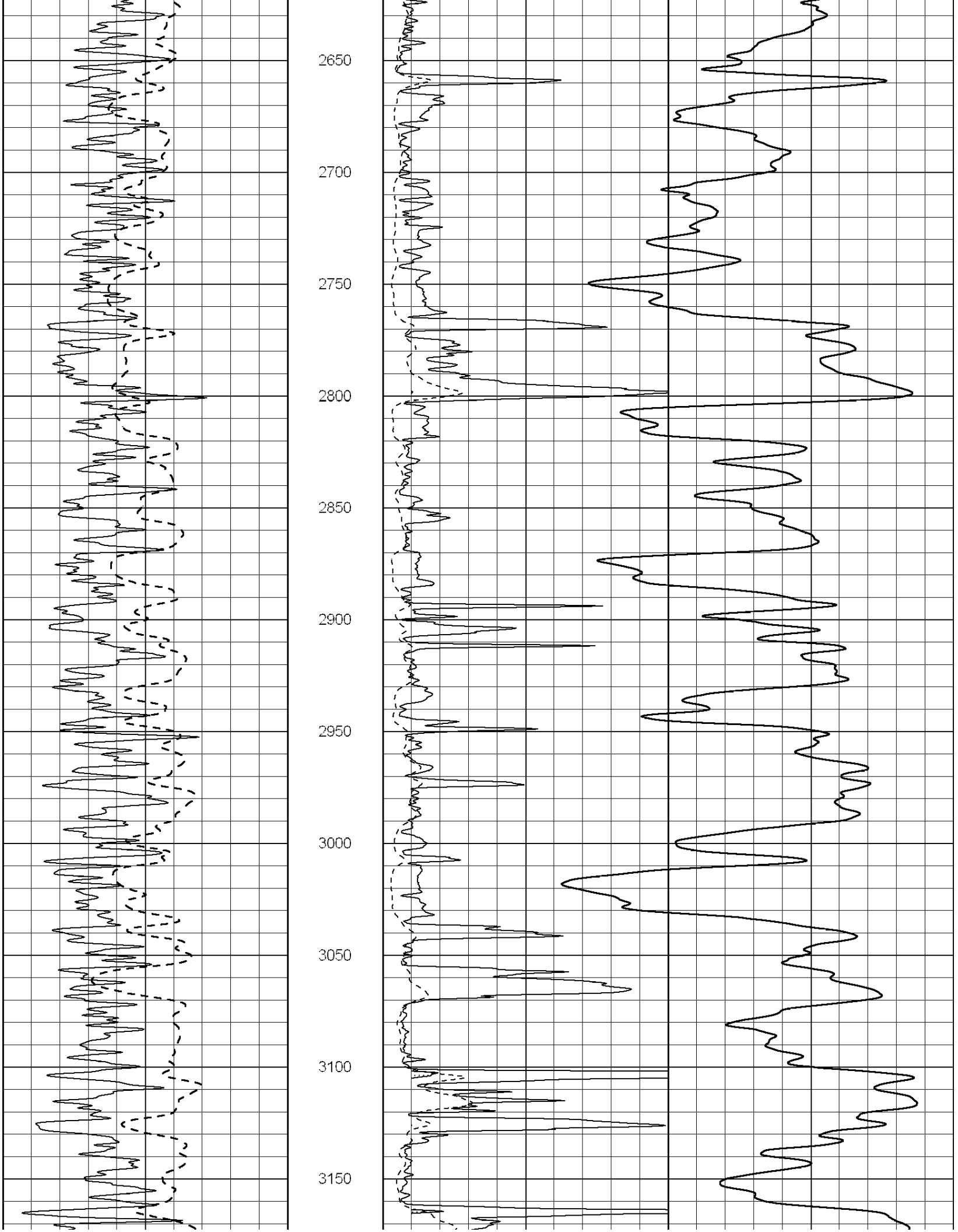
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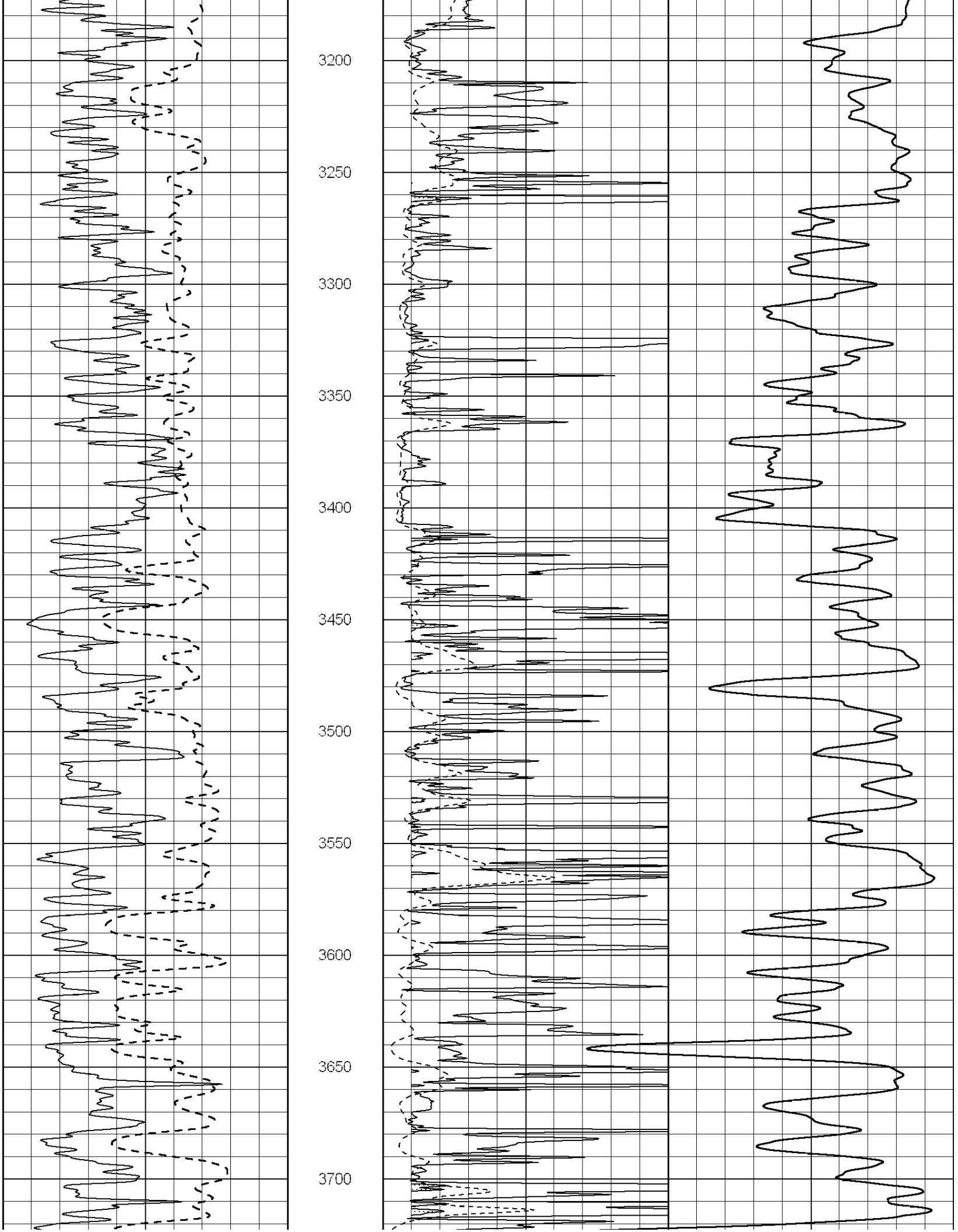
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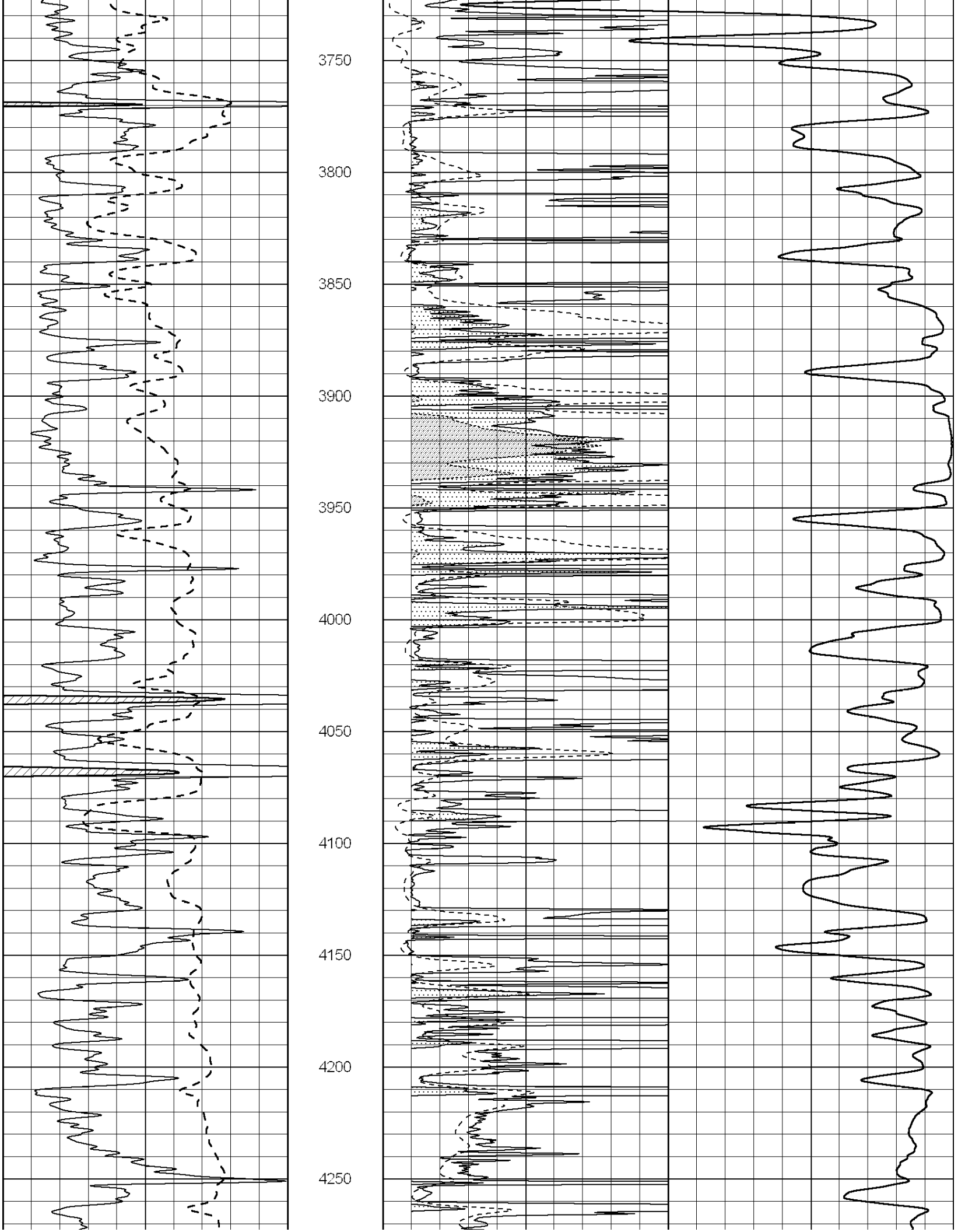
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4200
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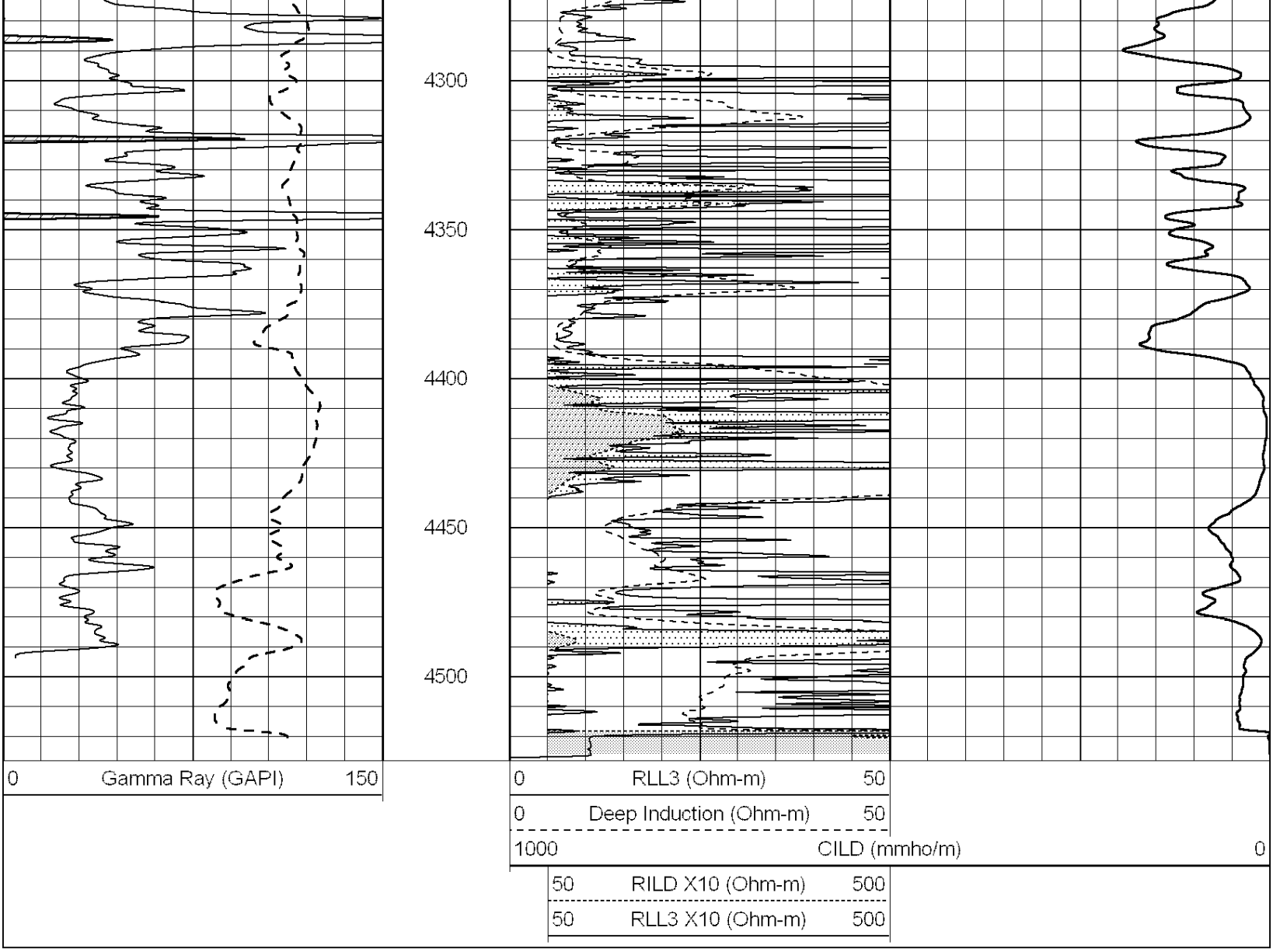


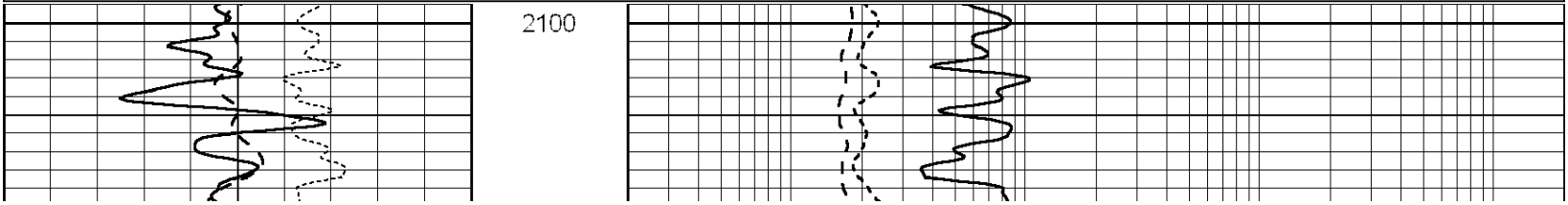
NABORS
COMPLETION & PRODUCTION SERVICES CO.

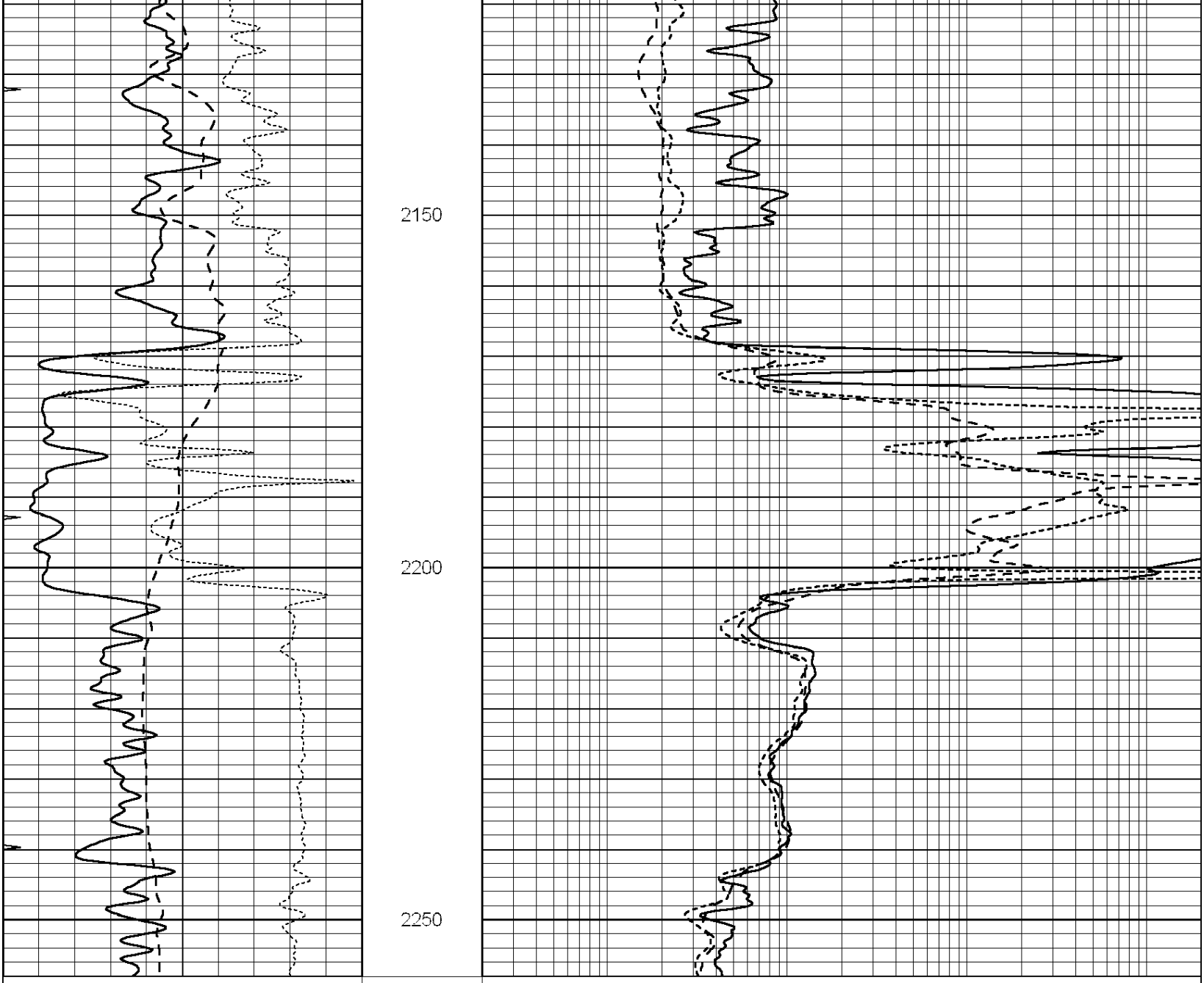
MAIN SECTION

Database File:	010171ddn.db
Dataset Pathname:	pass6.A
Presentation Format:	dil
Dataset Creation:	Thu Jan 03 17:56:42 2013
Charted by:	Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (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	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

NABORS
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MAIN SECTION

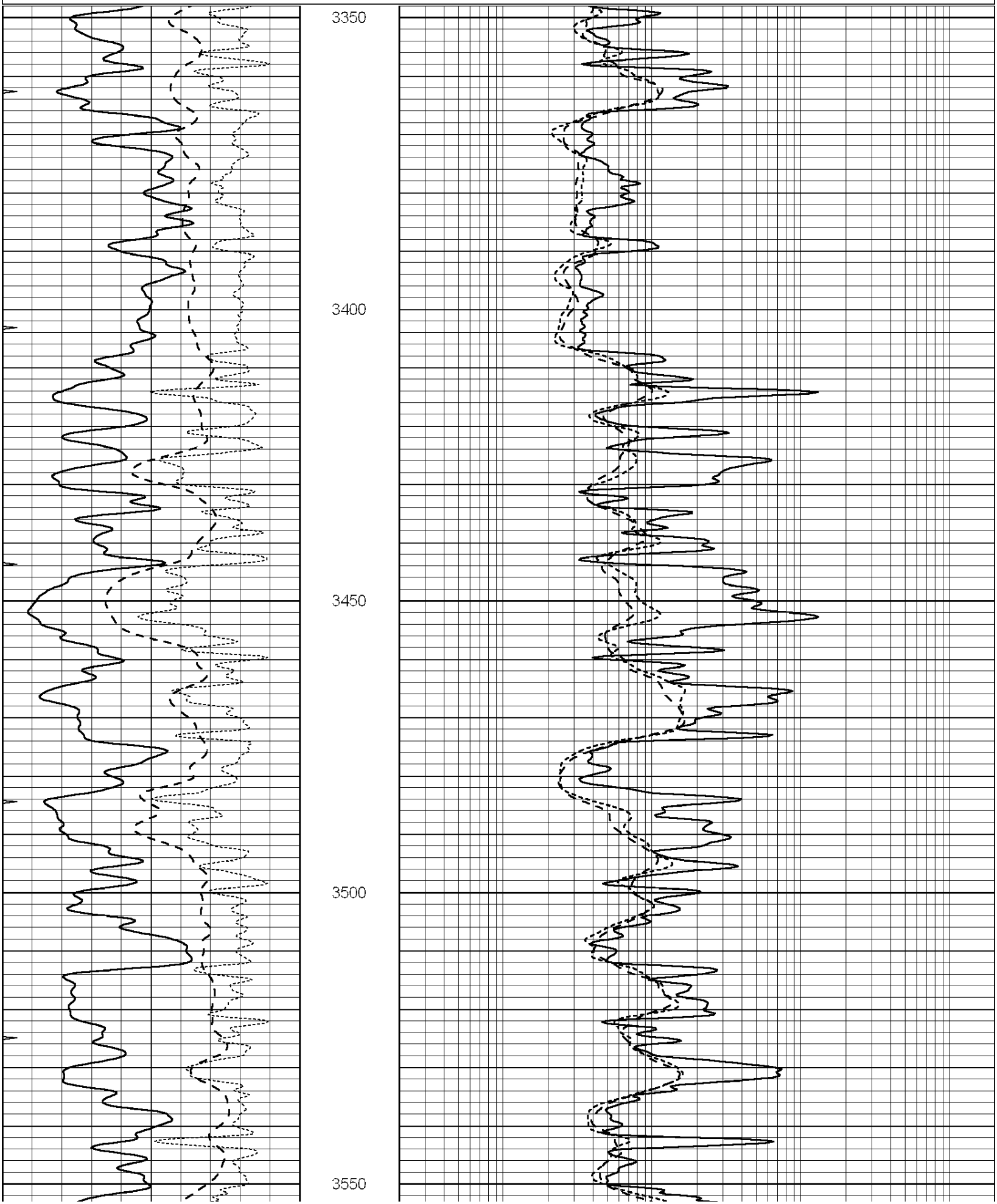
Database File:	010171ddn.db
Dataset Pathname:	pass6.A
Presentation Format:	dil
Dataset Creation:	Thu Jan 03 17:56:42 2013
Charted by:	Depth in Feet scaled 1:240

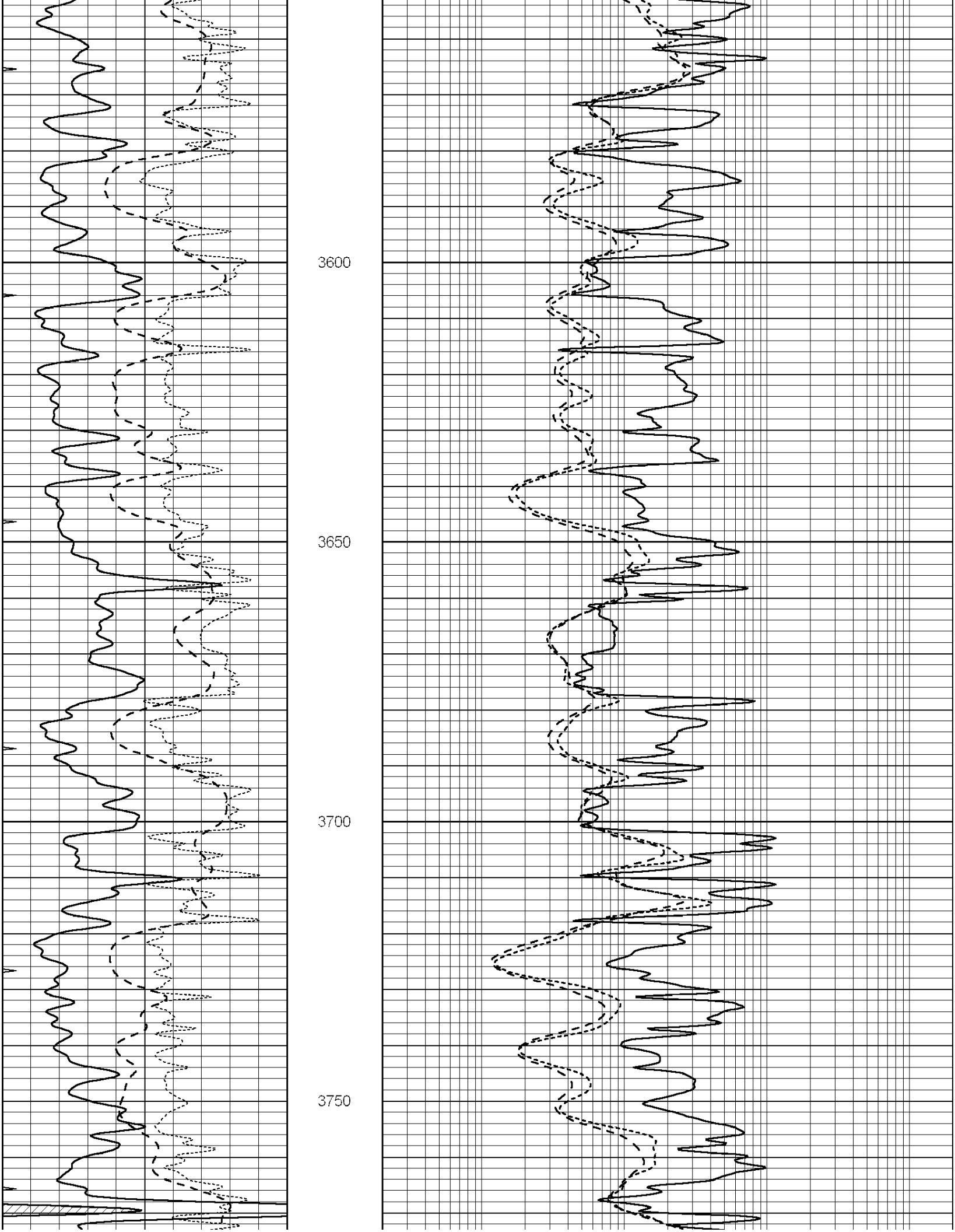
0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000

-250	RxoRt	50
0	MINMK	20

0.2	MEDIUM INDUCTION (Ohm-m)	2000

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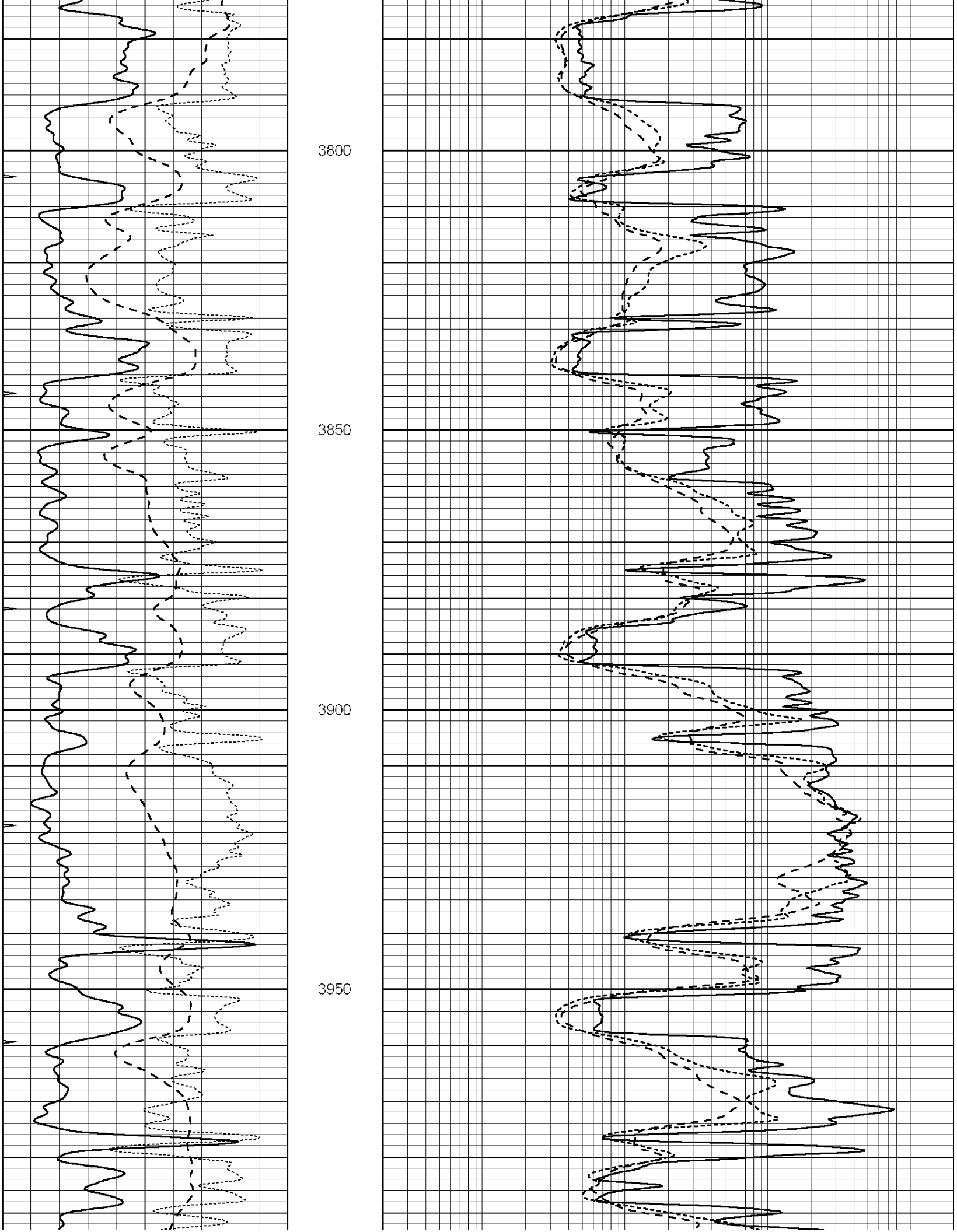
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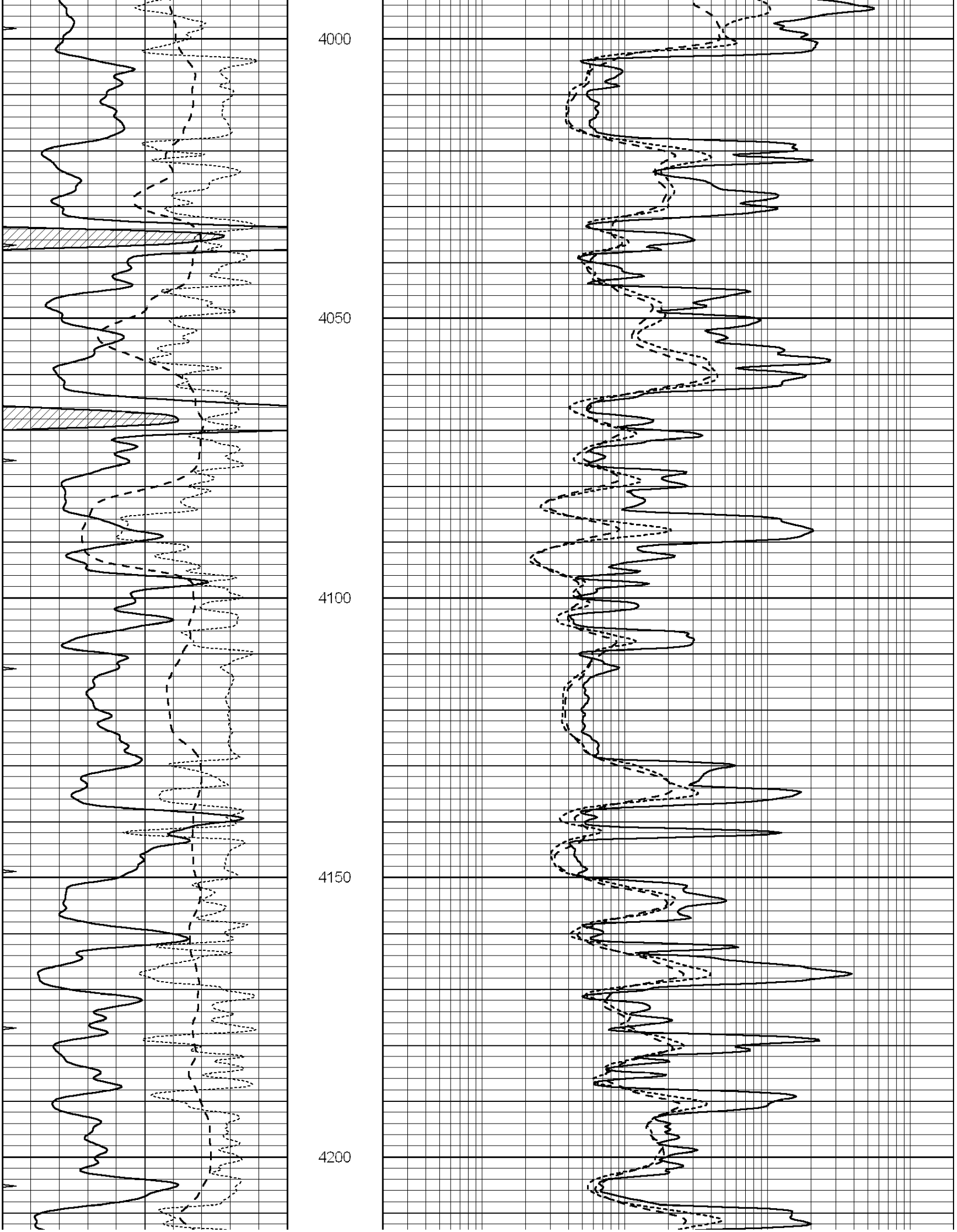
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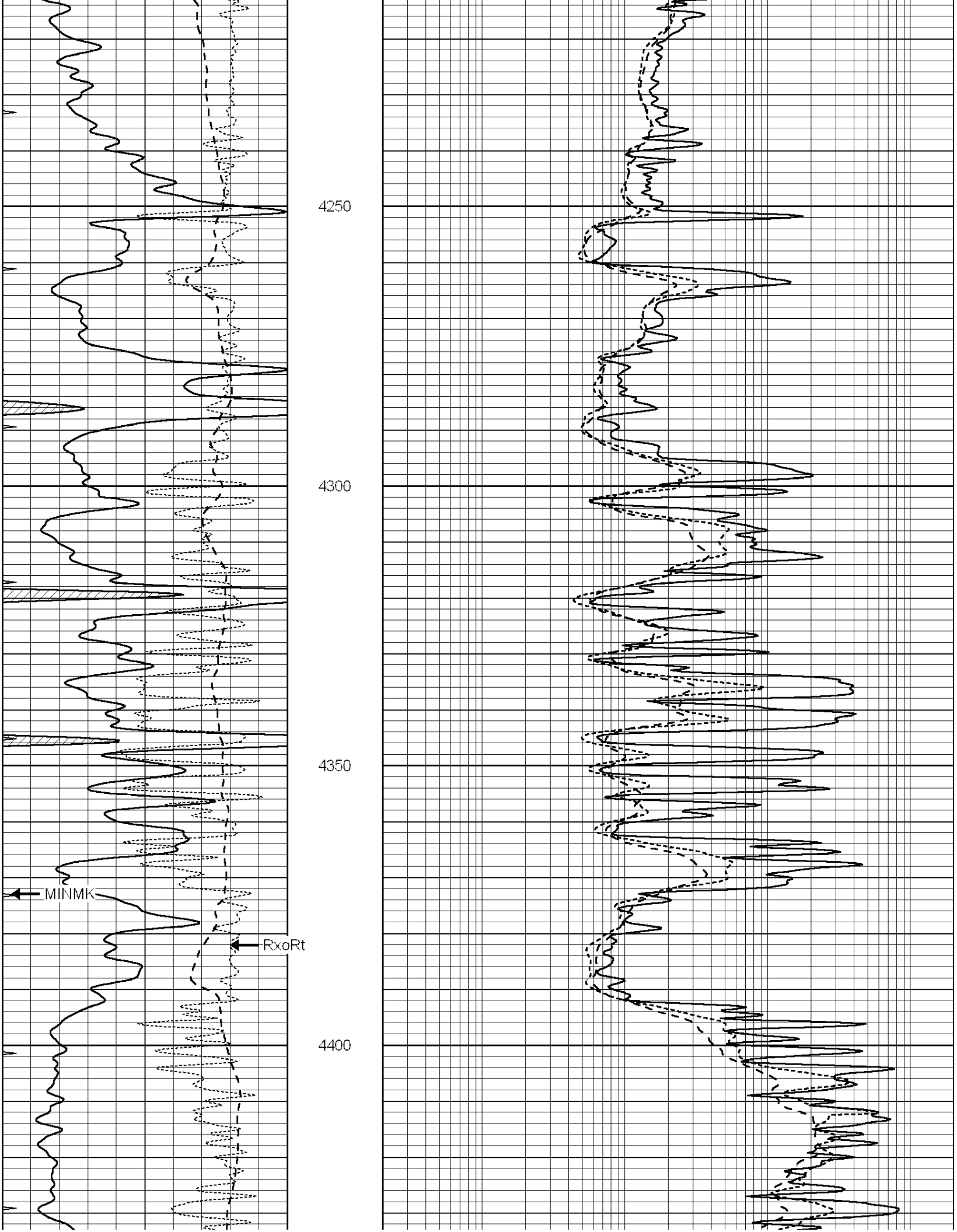
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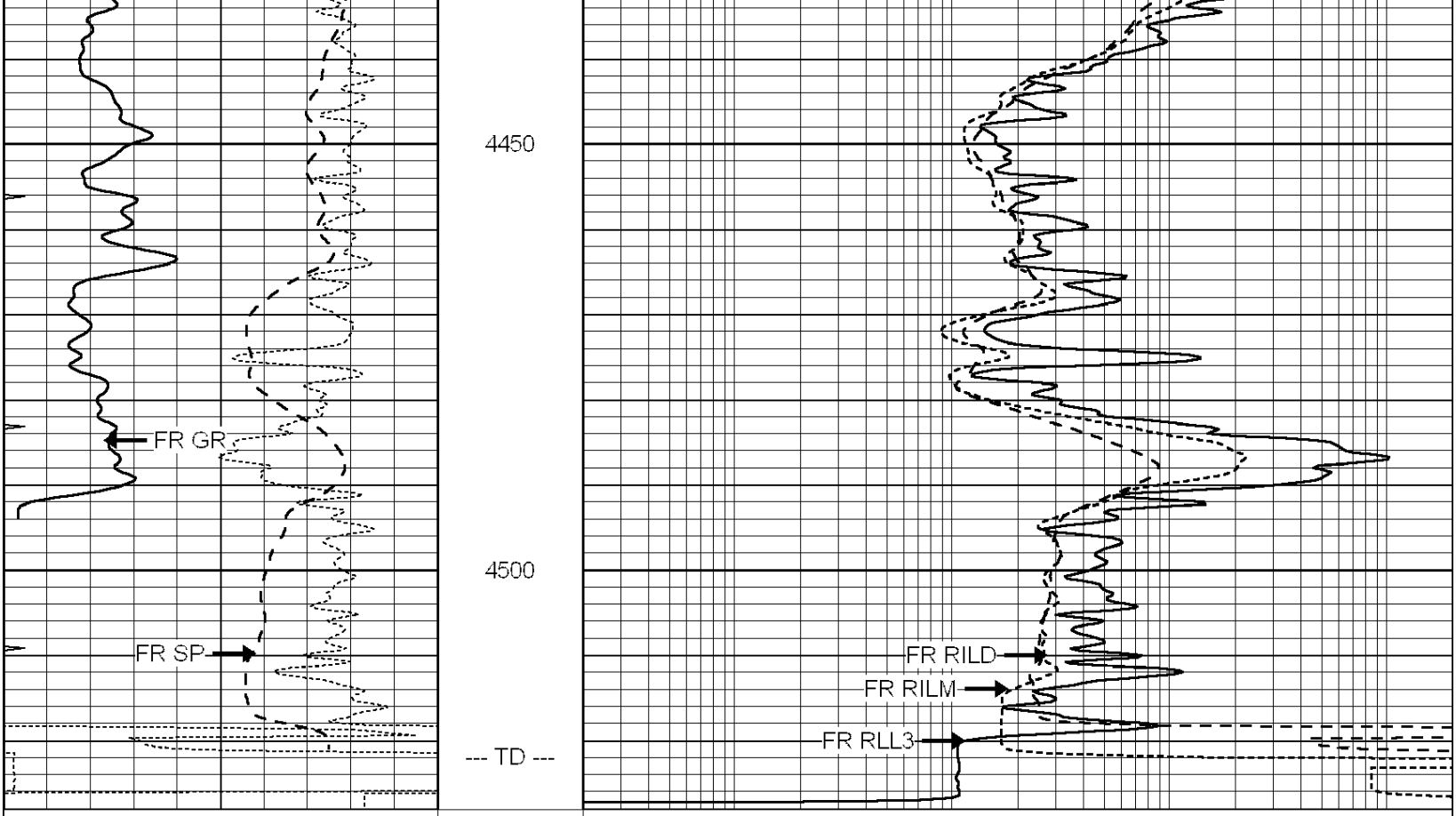
4300
4350
4400
MINMK
RxoRt



0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

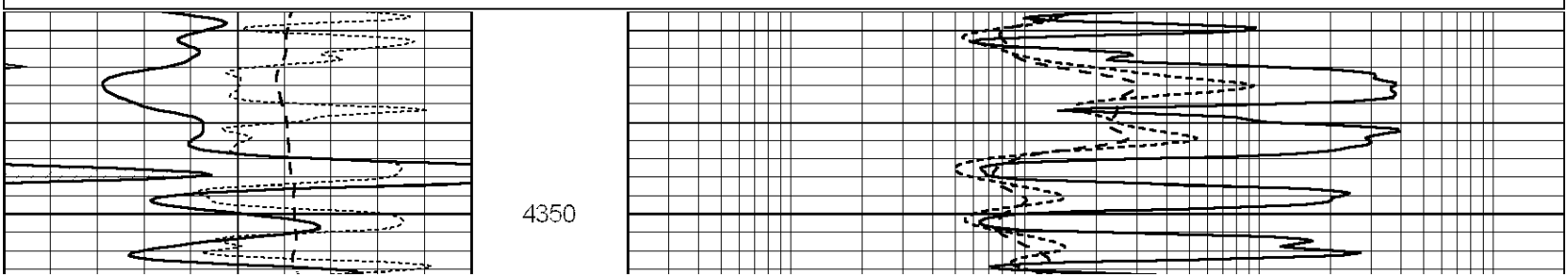
NABORS
COMPLETION & PRODUCTION SERVICES CO.

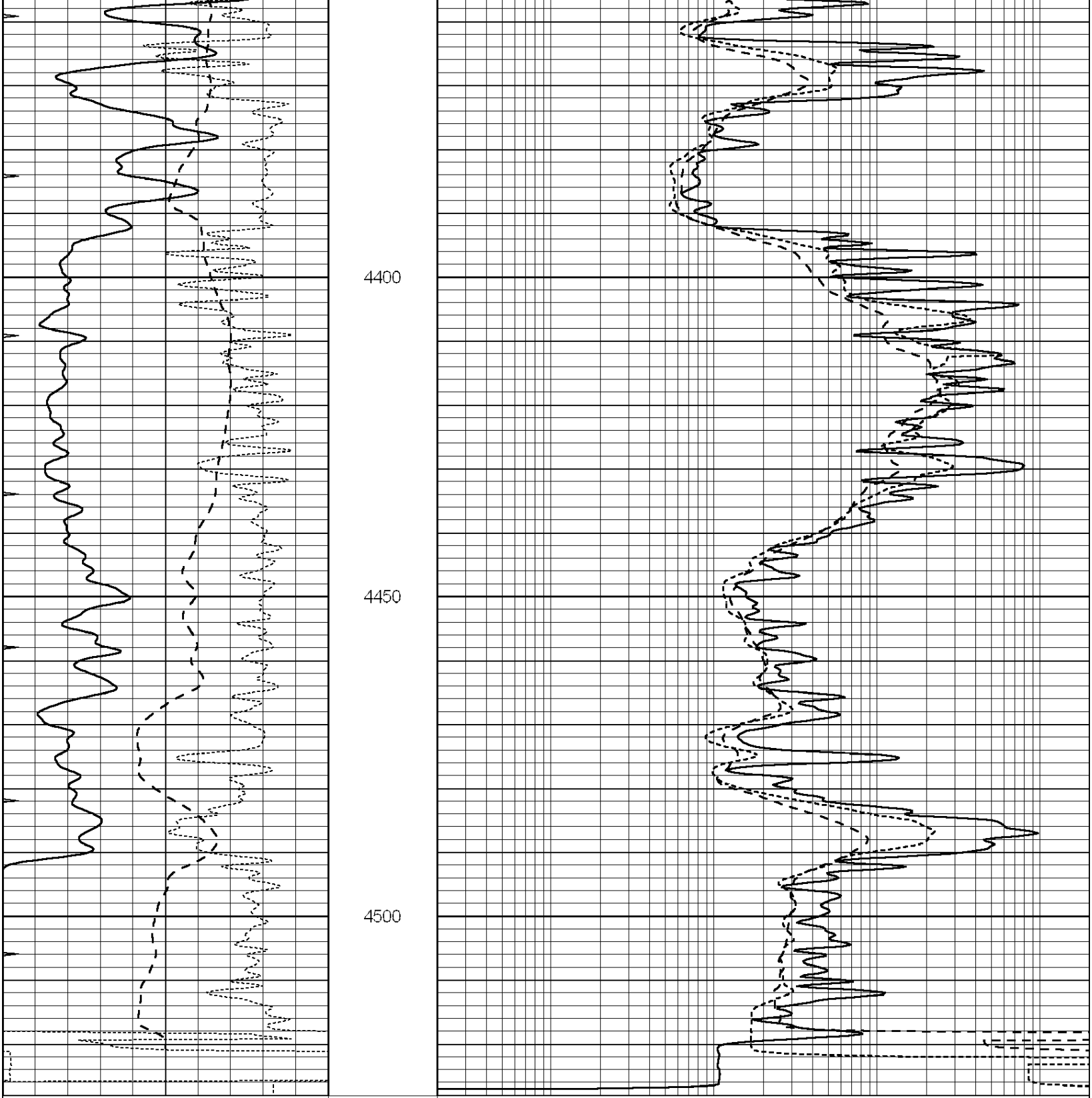
REPEAT SECTION

Database File: 010171ddn.db
Dataset Pathname: pass5.A
Presentation Format: dil
Dataset Creation: Thu Jan 03 18:18:09 2013
Charted by: Depth in Feet scaled 1:240

0	GAMMA RAY (GAPI)	150
-100	SP (mV)	100
-250	RxoRt	50
0	MINMK	20

0.2	RLL3 (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	RxoRt	50
0	MINMK	20

0.2	RLL3 (Ohm-m)	2000
0.2	DEEP INDUCTION (Ohm-m)	2000
0.2	MEDIUM INDUCTION (Ohm-m)	2000

Calibration Report

Database File: 010171ddn.db
Dataset Pathname: pass6.A
Dataset Creation: Thu Jan 03 17:56:42 2013

Dual Induction Calibration Report

Serial-Model: DIL5-GEAR
Performed: Thu Jan 03 15:26:08 2013

	Readings			References			Results	
Loop:	Air	Loop		Air	Loop		m	b
Deep	0.004	0.654	V	0.000	400.000	mmho/m	450.000	-9.000
Medium	-0.005	0.737	V	0.000	462.500	mmho/m	500.000	-5.000
Internal:	Zero	Cal		Zero	Cal		m	b
Deep	0.006	0.655	V	0.000	400.000	mmho/m	615.668	-3.483
Medium	0.010	0.747	V	0.000	462.500	mmho/m	627.607	-6.064

Litho Density Calibration Report

Serial: 002 Model: PRB
Performed Mon Apr 02 17:56:53 2012

Litho Density Calibration

	Background	Magnesium	Aluminum	Sandstone	
Window 1	872.3	7266.3	2292.6	7931.5	cps
Window 2	822.9	5957.5	1958.0	6389.6	cps
Window 3	670.4	3219.9	1211.9	3388.2	cps
Window 4	201.6	201.1	202.3	204.6	cps
Long Space	0.0	5134.6	1135.0	5566.6	cps
Short Space	1.1	994.2	674.4	1059.2	cps
Rho		1.7100	2.5960	1.3800	g/cc
Pe			2.5700	1.5500	

Rib Angle	: 45.6	Rib Slope	: 1.020	Density/Spine Ratio	: 0.569
Spine Angle	: 75.6	Spine Slope	: 3.888	Spine Intercept	: -18.3

Caliper

	Readings	Reference
Low Ref	4.3	8.4
High Ref	6.1	14.0

Gain: 3.0 Offset: -4.4

Compensated Neutron Calibration Report

Serial Number: NUE_2I
Tool Model: G

CALIBRATION

Detector	Readings		Target		Normalization
Short Space	1.00	cps	1.00	cps	1.0000
Long Space	1.00	cps	1.00	cps	1.0000

Gamma Ray Calibration Report

Serial Number: GR2
Tool Model: OPEN
Performed: Thu Jan 03 16:39:00 2013

Calibrator Value: 200.0 GAPI

Background Reading: 0.0 cps
Calibrator Reading: 740.0 cps

Sensitivity: 1.9000 GAPI/cps