Realtime Log

BAKER HUGHES

Gamma Ray

Scale:

1:240
Measured Depth

Company: Anadarko

Well: DOUTHIT 40N-27HZ

Field: Weld County (Kerr McGee)

Region: Continental US **Country:** U.S.A.

Status:

FINAL PRINT

API Number:

05-123-395880000

Surface Location:

Latitude: 40°11'40.204"N

Longitude: 104°57'43.632"W

Section 36 TWN: 3N Range68W

Other Services:

Wellbore Survey

Permanent Datum (P.D.):	Ground Level	Elevation:	4957.00 ft.
Log Measured From:	Rig Floor	16.00 ft.	Above P.D.
Depth Reference:	Driller's Depth		

Elevations:

KB:	N/A
DF:	4957.00 ft.
GL:	4941.00 ft.

Interval Logged		Dates		Magnetic Field Reference			
Top:	6400.0 ft.	Date From:	28 Oct 14	Dip Angle:	66.86 °	Azi Reference North:	True
Bottom:	12760.0 ft.	Date To:	04 Nov 14	Total		Mag to Reference	
		Spud Date:	28 Oct 14	Field Strength:	52631.0 nT	North Correction:	8.66 °

Borehole Record

Hole Size	From	To
13.500 in.	Surface	1255.0 ft.
8.670 in.	1255.0 ft.	7567.0 ft.
6.125 in.	7567.0 ft.	12760.0 ft.

Casing Record

Size	Weight	From	To
9.625 in.	36.00 lb/ft	Surface	1245.0 ft.
7.000 in.	26.00 lb/ft	Surface	7557.0 ft.

Mud Record

Type	From	To
Water Based	Surface	12760.0 ft.

Deviation Record

Hole Size	Interval	Inc / Az (Start)	Inc / Az (End)
13.500 in.	1255.0 ft.	0.0 ° / 0.0 °	0.4 ° / 236.9 °
8.750 in.	6312.0 ft.	0.7° / 277.5 °	83.5 ° / 270.6 °
6.125 in.	5193.0 ft.	89.0 ° / 270.8 °	88.3 ° / 270.5 °
		/	/
		/	/
		/	/

Acquisition System	Software Version	Other	
Advantage	2.20U4	Rig: / Contractor:	Xtreme 20 / Xtreme Coil Drilling
PATS	6.4.1.34	Job No:	6659615
		District: / Unit:	RMD / D&E

Log Run Summary

LWD Run No.	BHA Run No.	Bit Run No.	Bit Size (in.)	Bit Type	Bit Gauge Length (in.)	Assembly Type	Logged Interval Top (ft)	Logged Interval Bottom (ft)	Bit Depth Interval From (ft)	Bit Depth Interval To (ft)	Date / Time Start	Date / Time End	Circ. Time (hrs.)
1	1	1	8.750	PDC	3.000	Steerable	6400.0	7510.0	1255.0	7657.0	28 Oct 14 23:30	31 Oct 14 03:35	34.7
2	2	2	6.125	PDC	4.000	Steerable	7510.0	12697.0	7657.0	12760.0	01 Nov 14 02:20	03 Nov 14 22:56	53.5

Crew

Name	Arrive	Depart	Name	Arrive	Depart	Name	Arrive	Depart

	Wellsite	Wellsite		Wellsite	Wellsite		Wellsite	Wellsite
Bryan Severson	28 Oct 14	05 Nov 14				Emily Cazzell	28 Oct 14	05 Nov 14
Donald Delay	02 Nov 14	02 Nov 14						

Mud Properties Record

Date / Time	LWD Run No.	Measured Depth (ft)	Mud Type	Density (ppg)	Viscosity (cp)	pH	Fluid Loss (bbls)	Oil / Water	Source	Total Chlorides (ppm)	K+ (%)
28 Oct 14 22:00	1	1255.0	Water Based	8.4	28	8.7	N/A	0/99.4	Active Mud Pit	2100	N/A
29 Oct 14 22:10	1	5727.0	Water Based	9.2	33	9.3	N/A	0.1/95.2	Active Mud Pit	2500	N/A
30 Oct 14 22:00	1	7567.0	Water Based	10.4	48	9.3	N/A	1.5/88.3	Active Mud Pit	2500	N/A
31 Oct 14 23:10	2	7567.0	Water Based	10.5	60	9.2	N/A	1.5/87.7	Active Mud Pit	2600	N/A
01 Nov 14 22:30	2	8375.0	Water Based	9.7	47	9.7	N/A	1.5/90.5	Active Mud Pit	2500	N/A
02 Nov 14 22:00	2	11058.0	Water Based	9.5	48	9.5	N/A	2/91	Active Mud Pit	2100	N/A

Mnemonics

Curve	Description	Units
GRAX	Gamma Ray Apparent, 0.5 ft. Avg.	API
GRIX	Gamma Ray Data Density	Points
GRSI	Gamma Ray Sliding Indicator	Pointless
GRTX	Gamma Ray Time Since Drilled	min
ROPA	Rate of Penetration, 3.0 ft. Avg.	ft/hr
TCDX	Downhole Temperature	deg/F
TVD	True Vertical Depth	ft
WOBA	Surface Weight on Bit, 1.0 ft. Avg.	klbs

Equipment and Service Data

LWD Run No.	Tool	Serial Number	Measurement	Bit Offset (ft)	Max O.D. (in.)	Min I.D. (in.)
1	DIR	12142328	Directional	61.78	6.875	3.313
1	SRIG	12416862	Gamma	58.40	6.875	3.313
2	DIR	12323370	Directional	66.31	4.750	2.688
2	SRIG	12816078	Gamma	62.93	4.750	2.688

Service and Tool Mnemonics

Mnemonic	Name	Description
DIR	Directional	Wellbore directional survey
SRIG	Inclination and Gamma	Probe based gamma ray and inclination module

Comments

1.) Depth measurements were obtained from a depth control system not supplied or operated by Baker Hughes. Due to the lack of control by Baker Hughes LWD logging engineers, depth calibrations and measurements could not be independently verified and the unverified depths as supplied to Baker Hughes are being used

to present logging data.

2.) Baker Hughes LWD run 1 utilized 6 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 8 3/4 inch bit and steerable assembly from 1255 to 7567 ft MD (1255 to 7086 ft TVD).

3.) Baker Hughes LWD run 2 utilized 4 3/4 inch NaviGamma services (Gamma Ray and Directional) behind an 6 1/8 inch bit and steerable assembly from 7567 to 12760 ft MD (7086 to 7084 ft TVD).

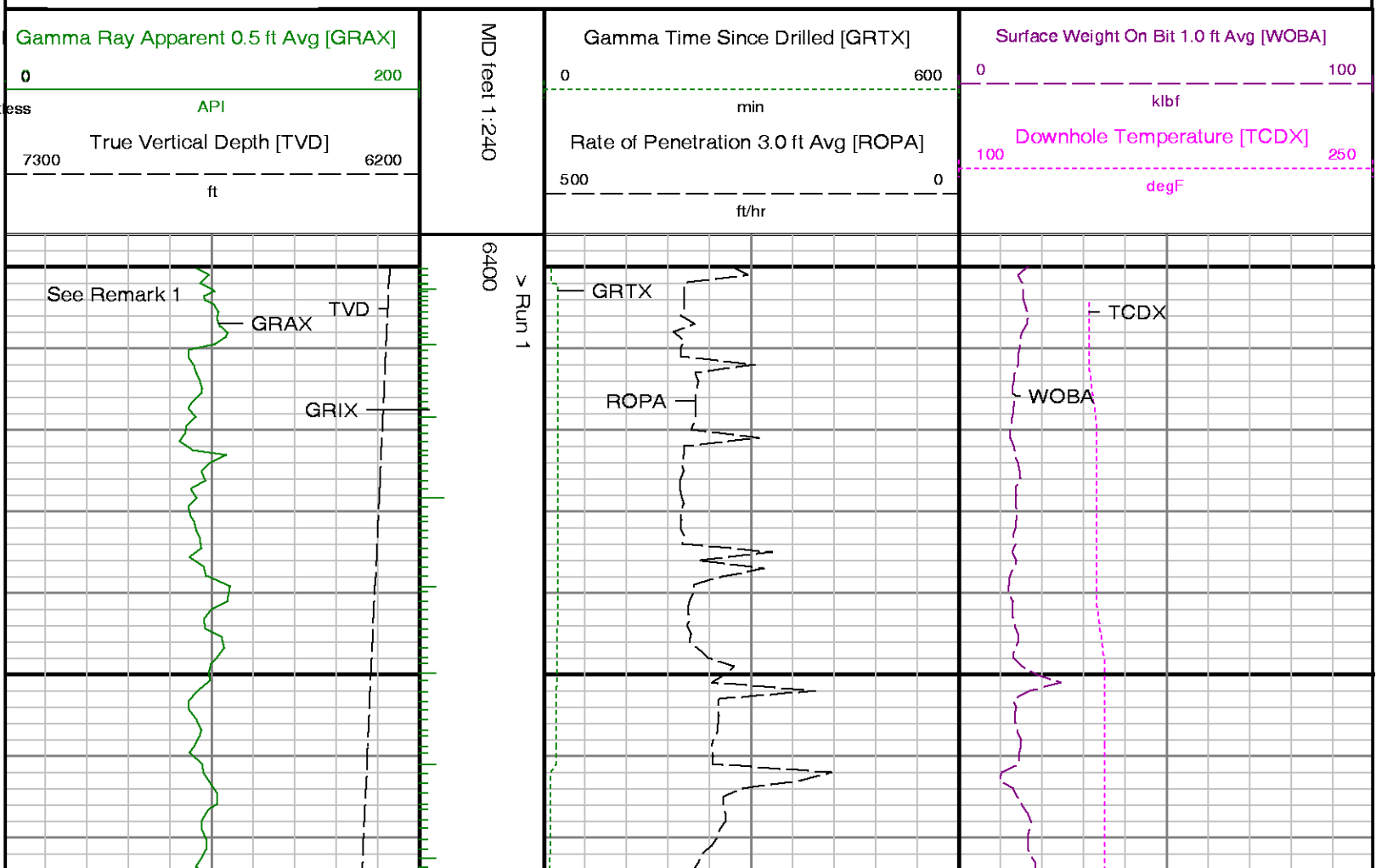
4.) The solid line on the far left track is the sliding indicator.

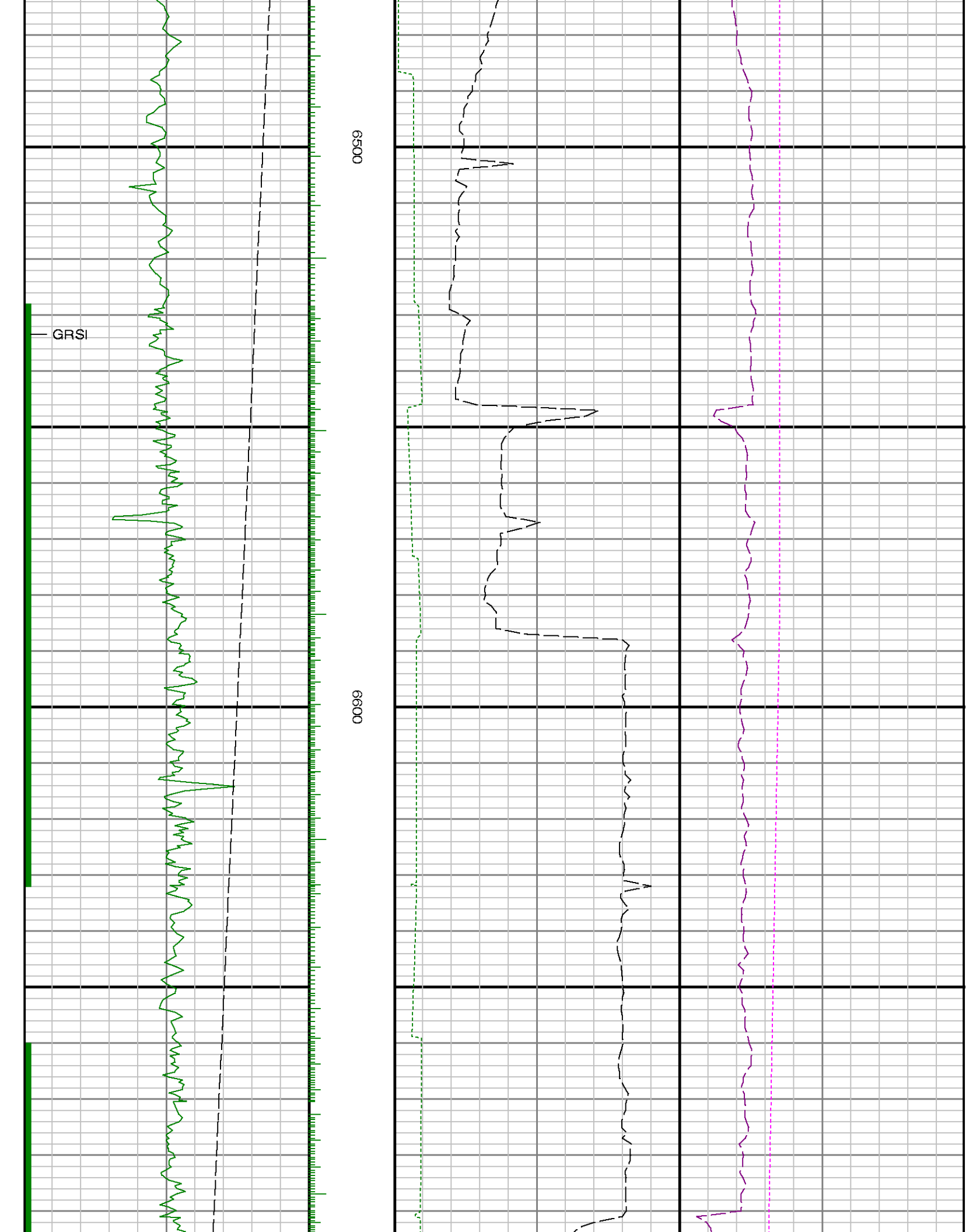
Remarks

Number	Measured Depth (ft.)	Hole Section (in.)	LWD Run No.	Remark
1	6400	8.750	1	Gamma ray logging operations began at 6400 ft MD (6276 ft TVD).
2	7567	8.750	2	The GRTX range from 7510 to 7567 ft MD (7081 to 7086 ft TVD) was logged 23 hours after being drilled due to casing operations.
3	12697	6.125	2	There is no gamma ray data from 12697 to 12760 ft MD (7082 to 7084 ft TVD) due to sensor offset.

BAKER HUGHES

Company : Anadarko
Well : Douthit 40N-27HZ
Interval : 6396.00 - 12760.87 feet
Created : 01/Nov/2014 8:33:17 PM

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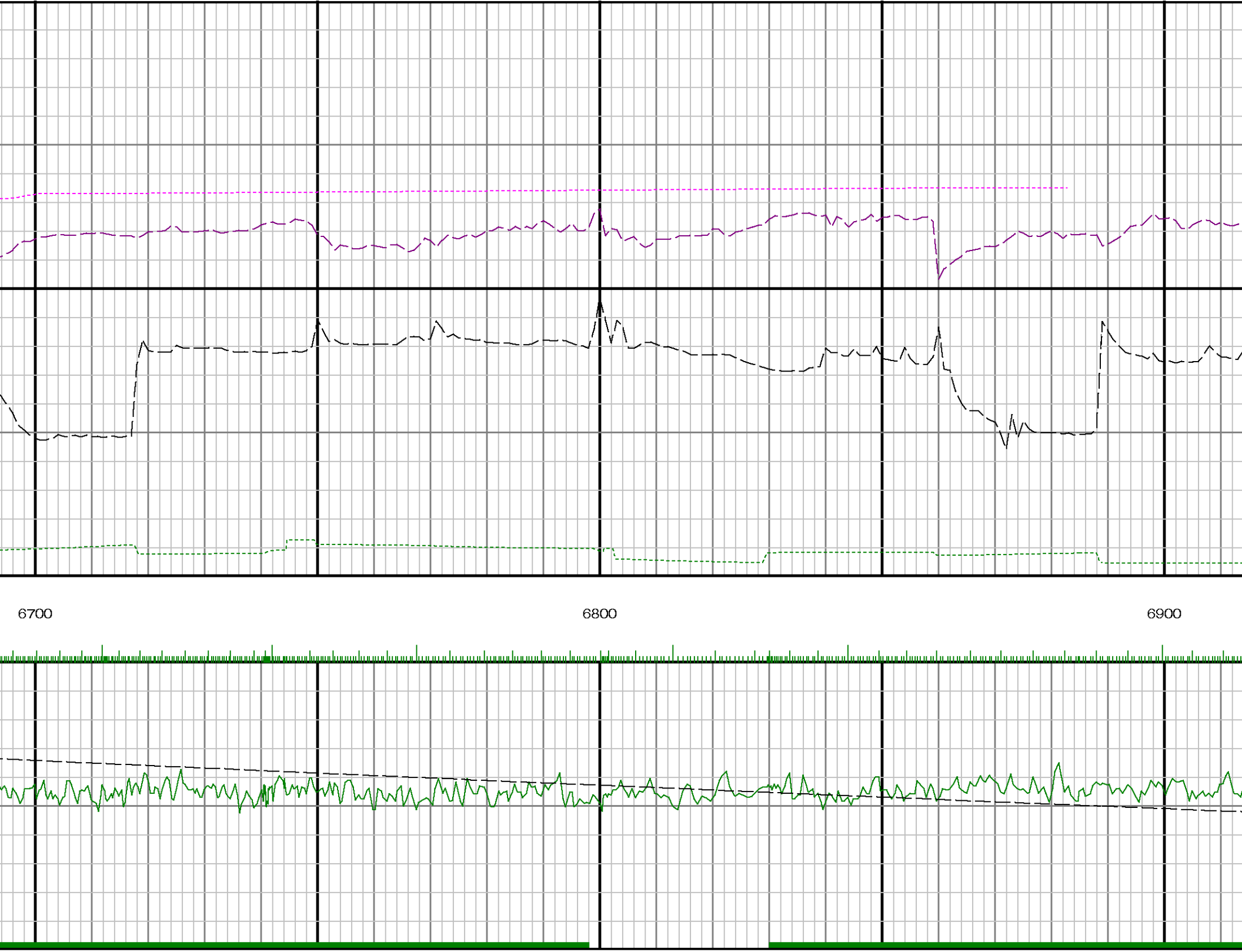
6500
6600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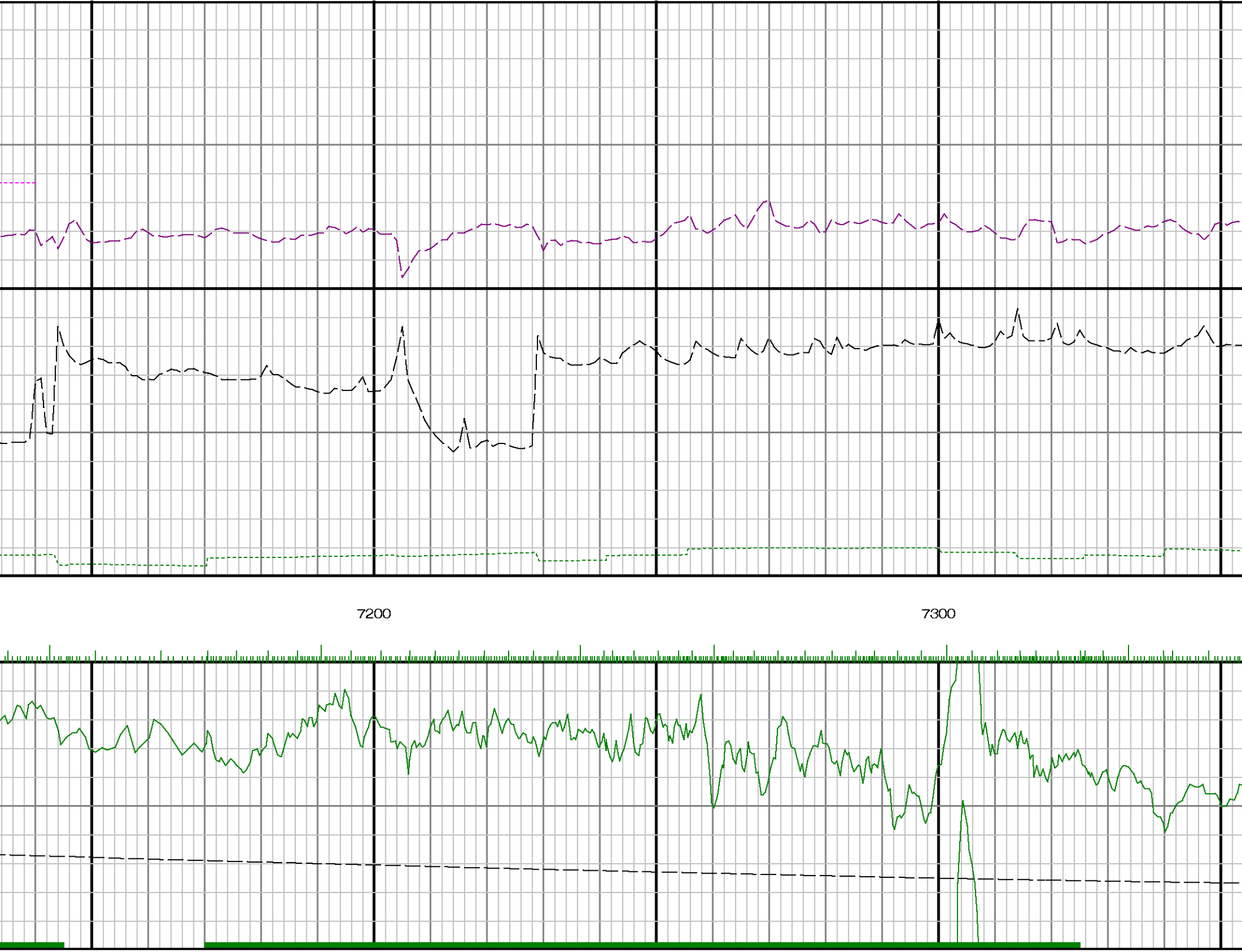
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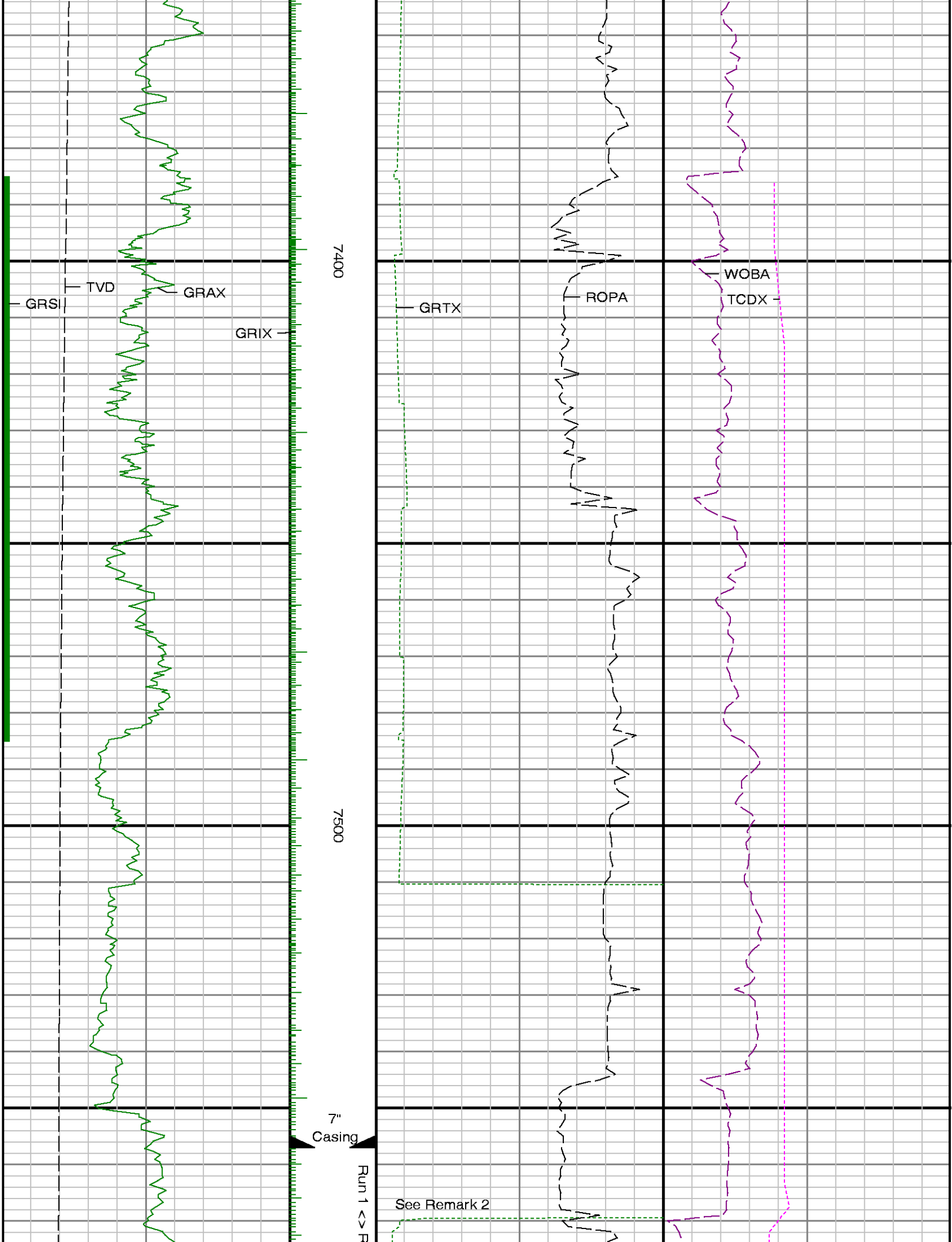
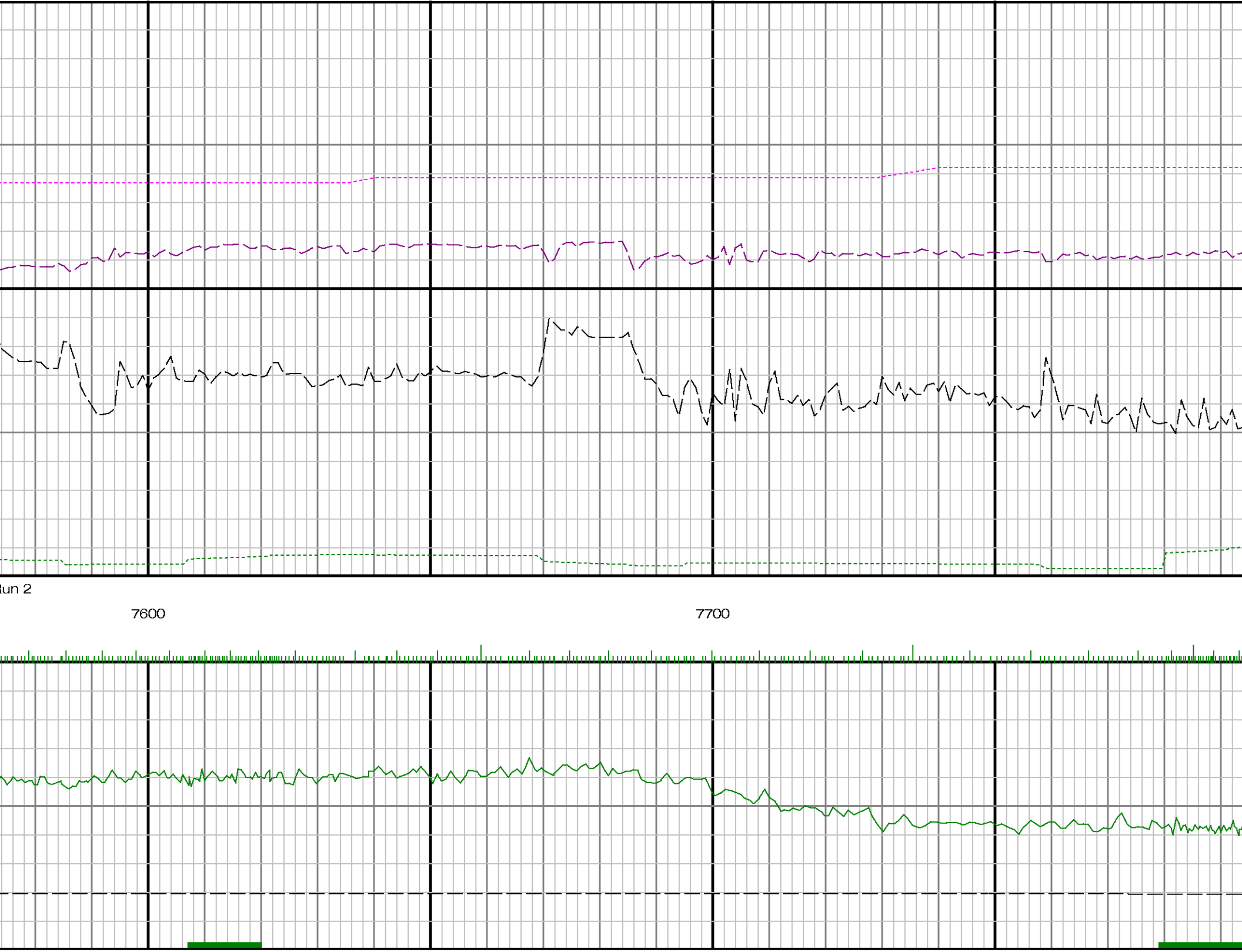

TVD
GRAX
GRSI
GRIX
GRTX
ROPA
WOBA
TCDX
7400
7500
7"
Casing
Run 1 <>
See Remark 2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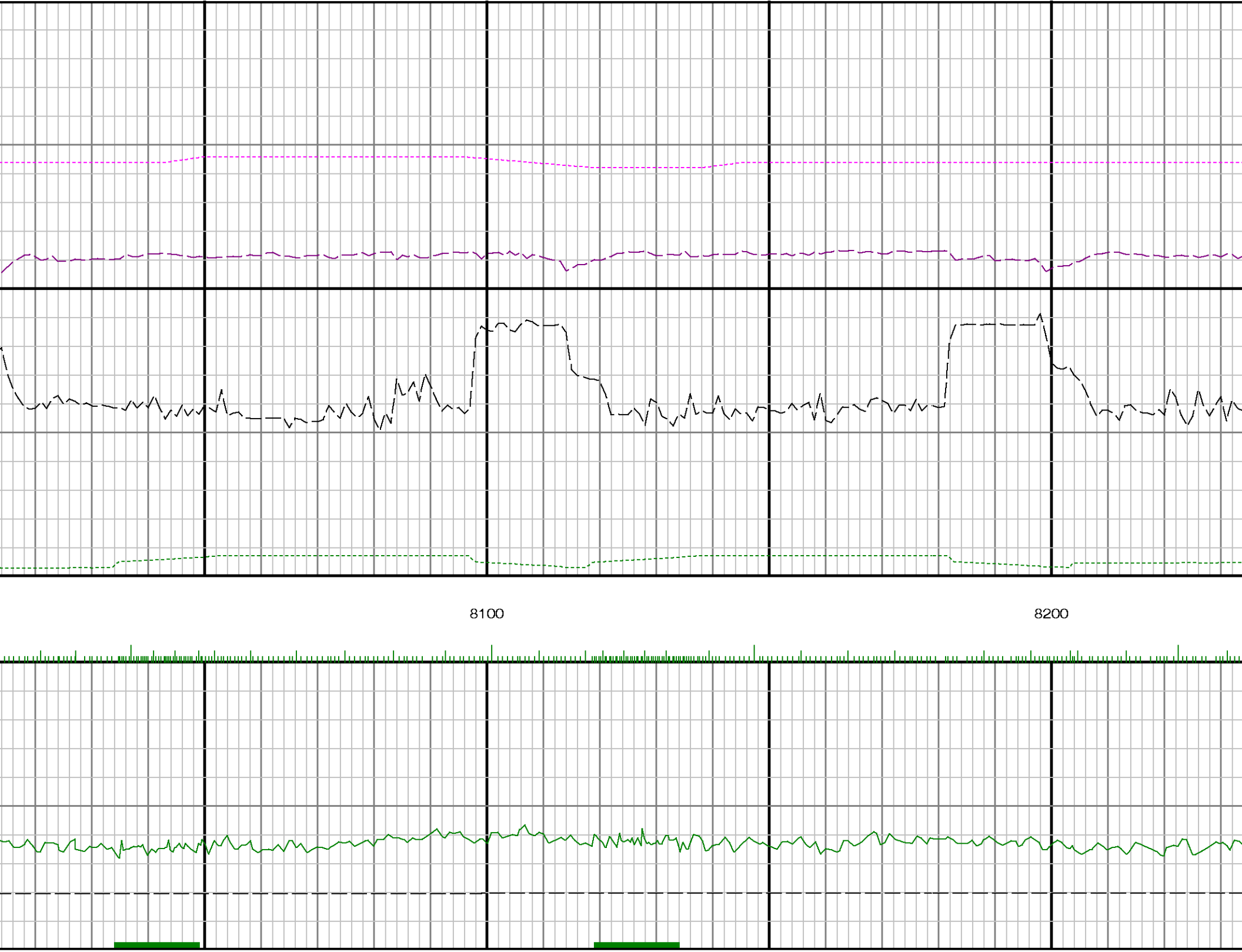
7700

7800
7900
8000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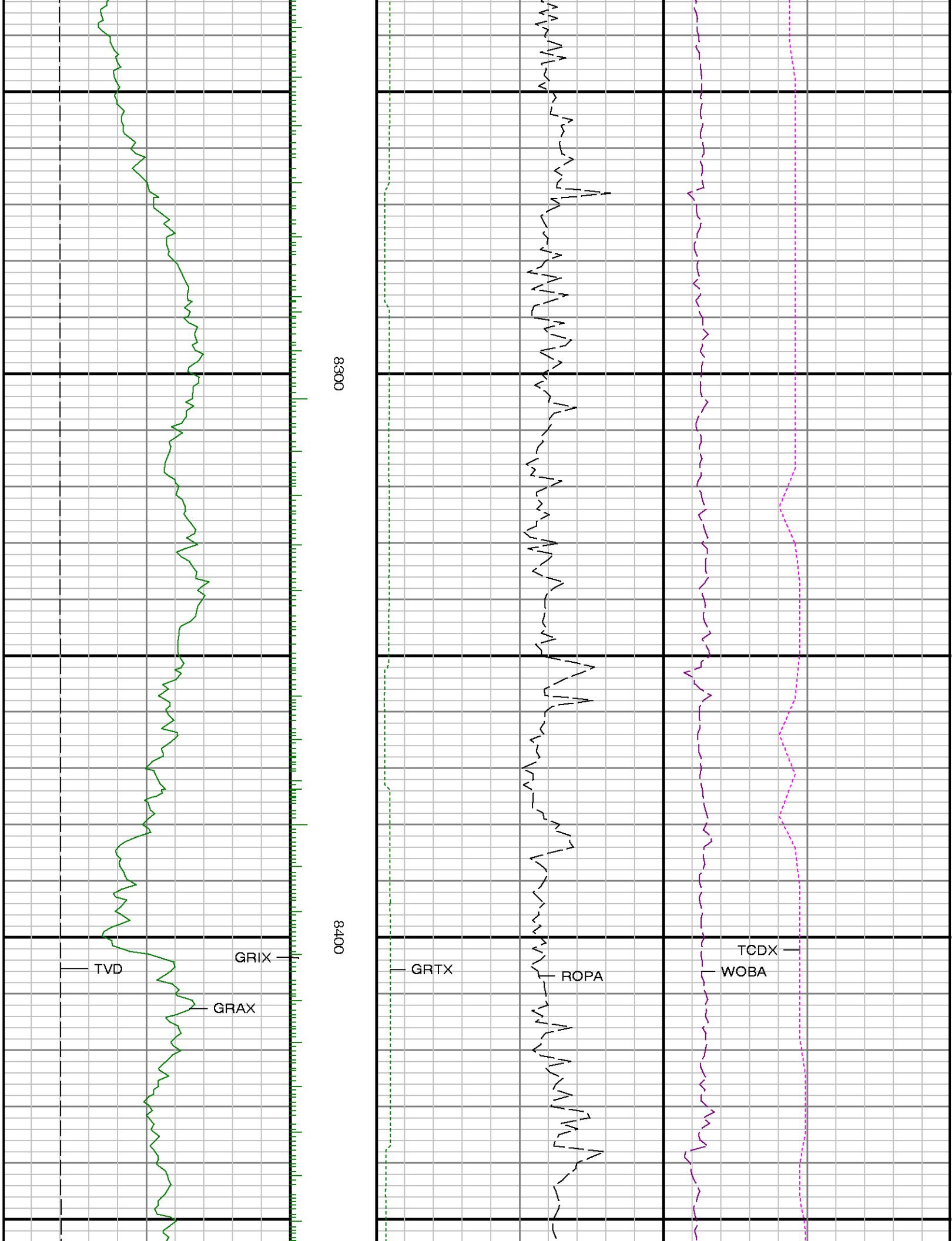
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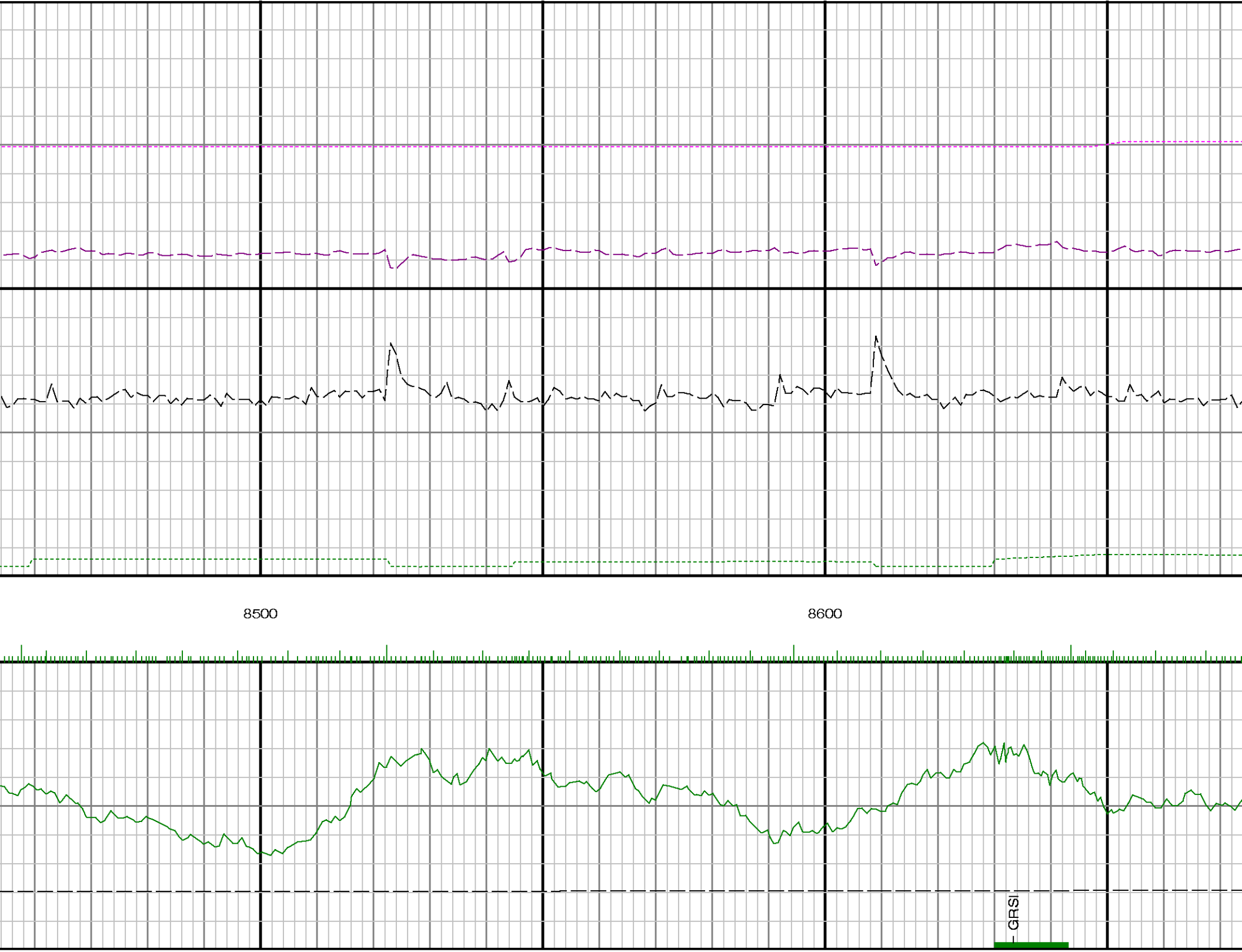
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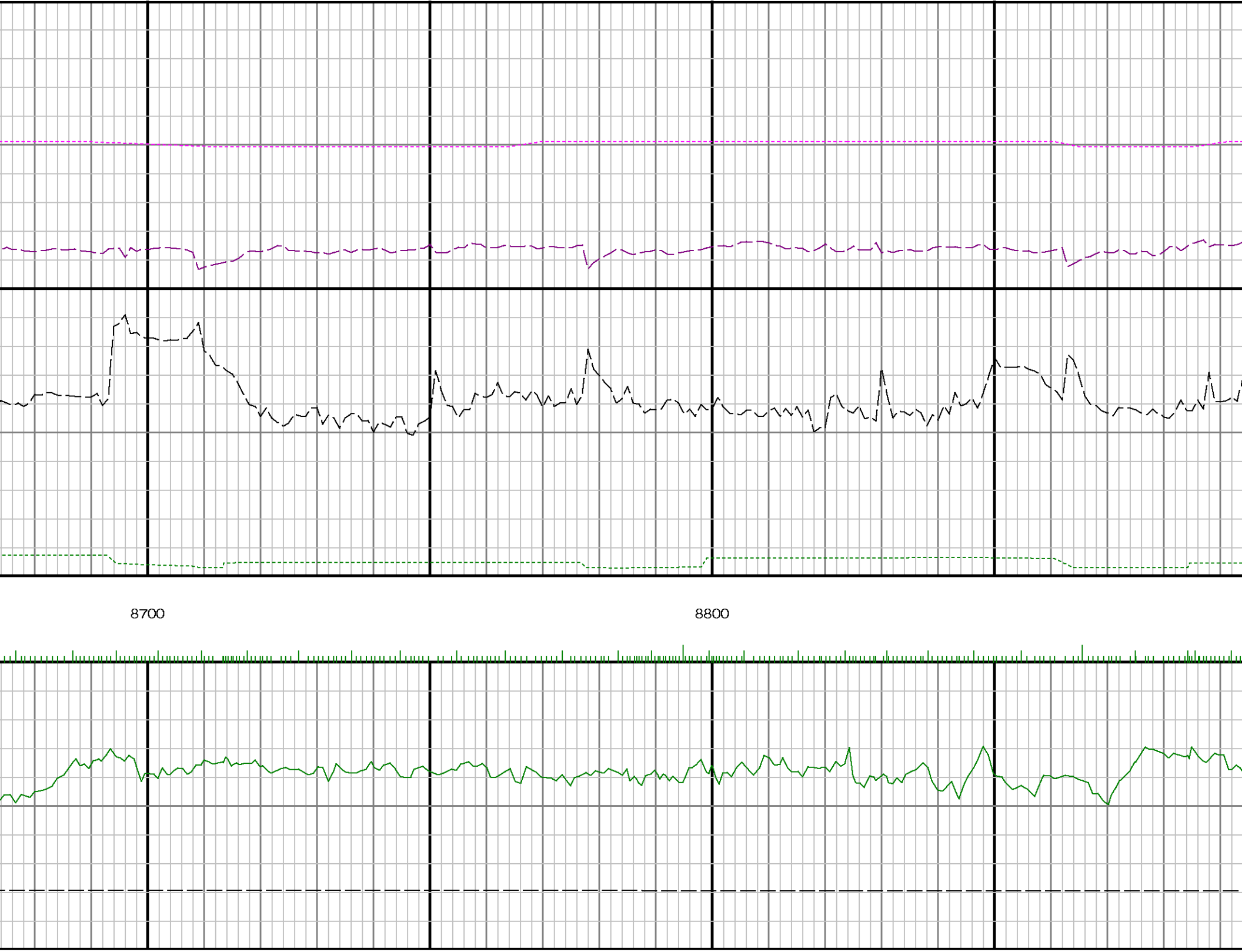
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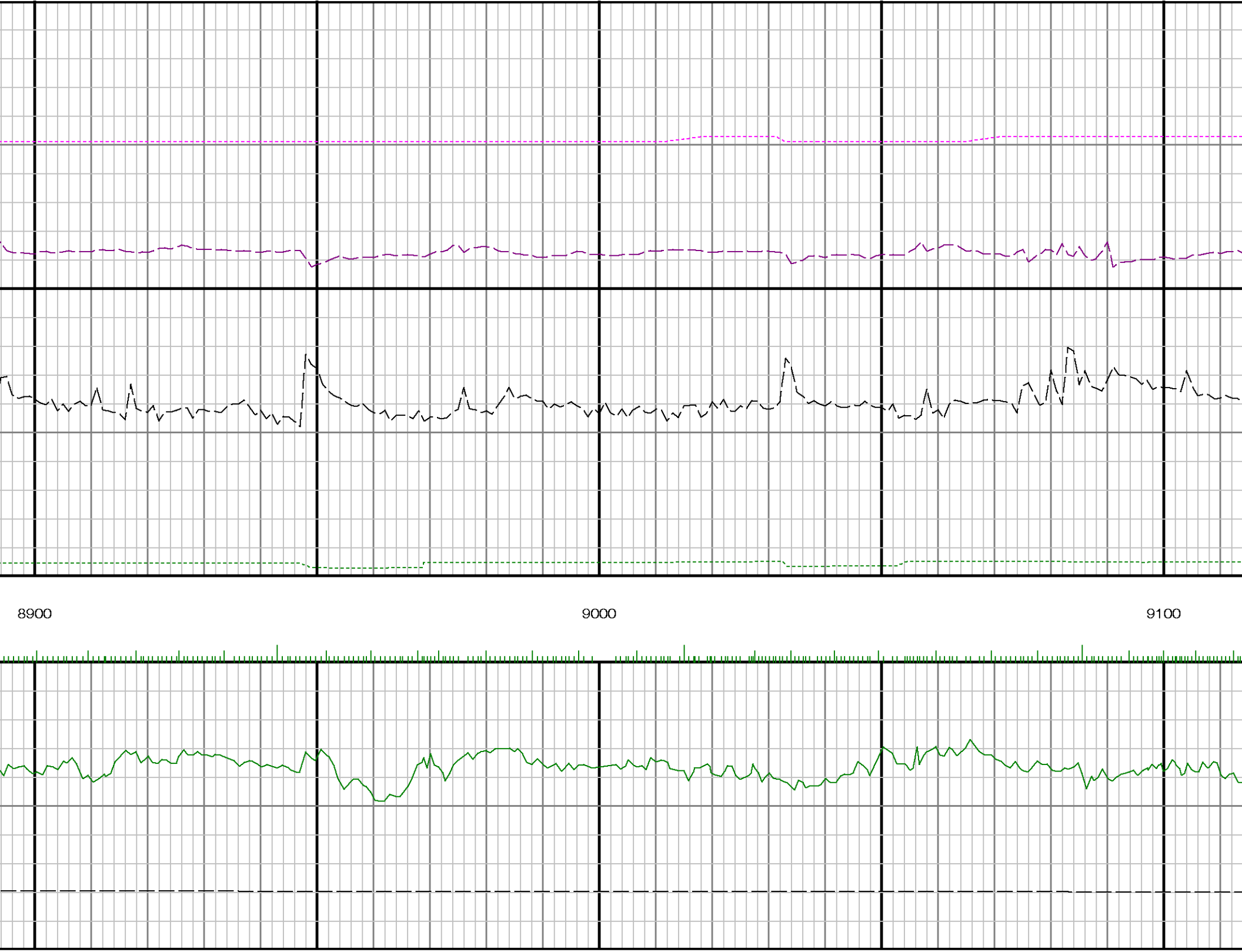
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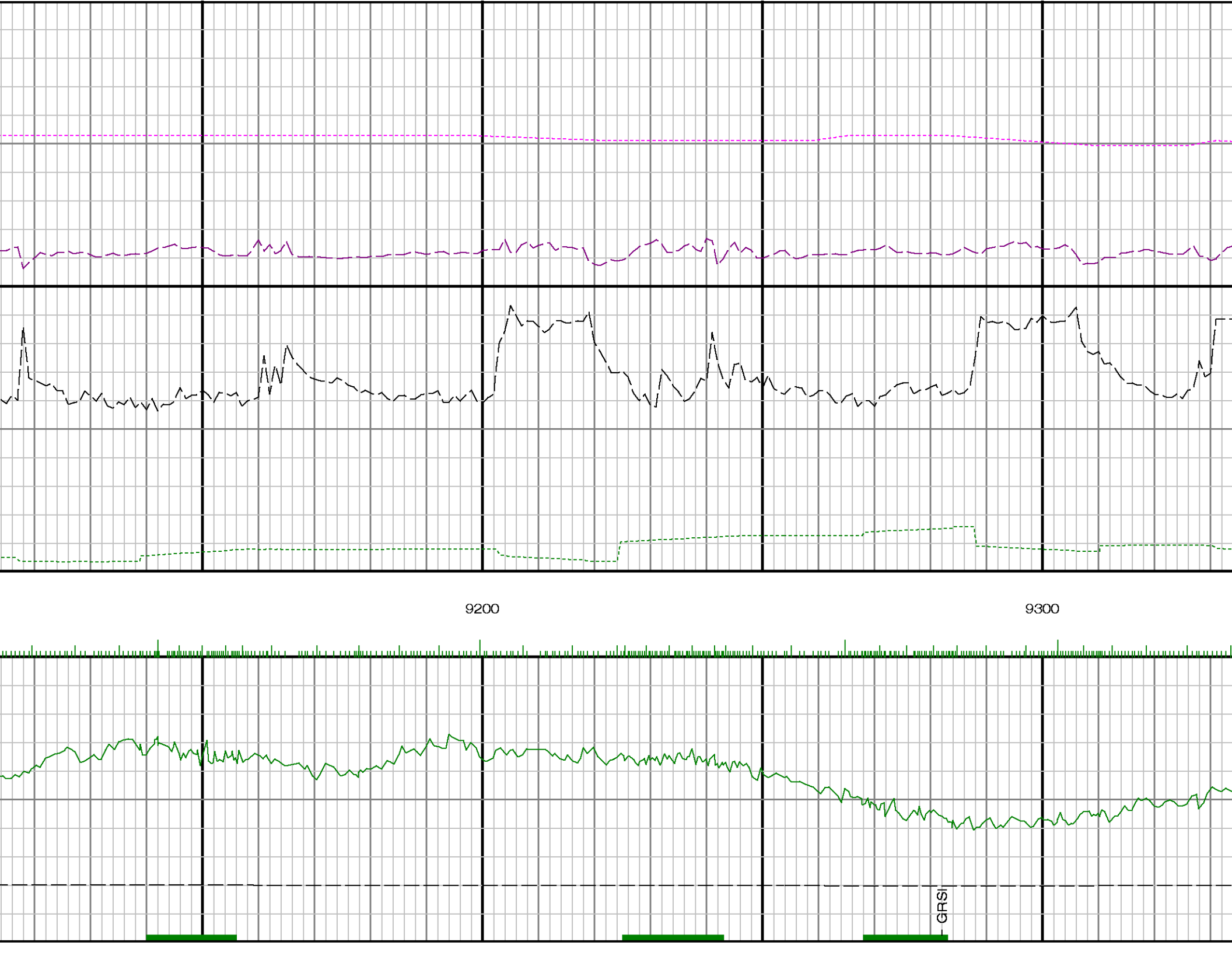
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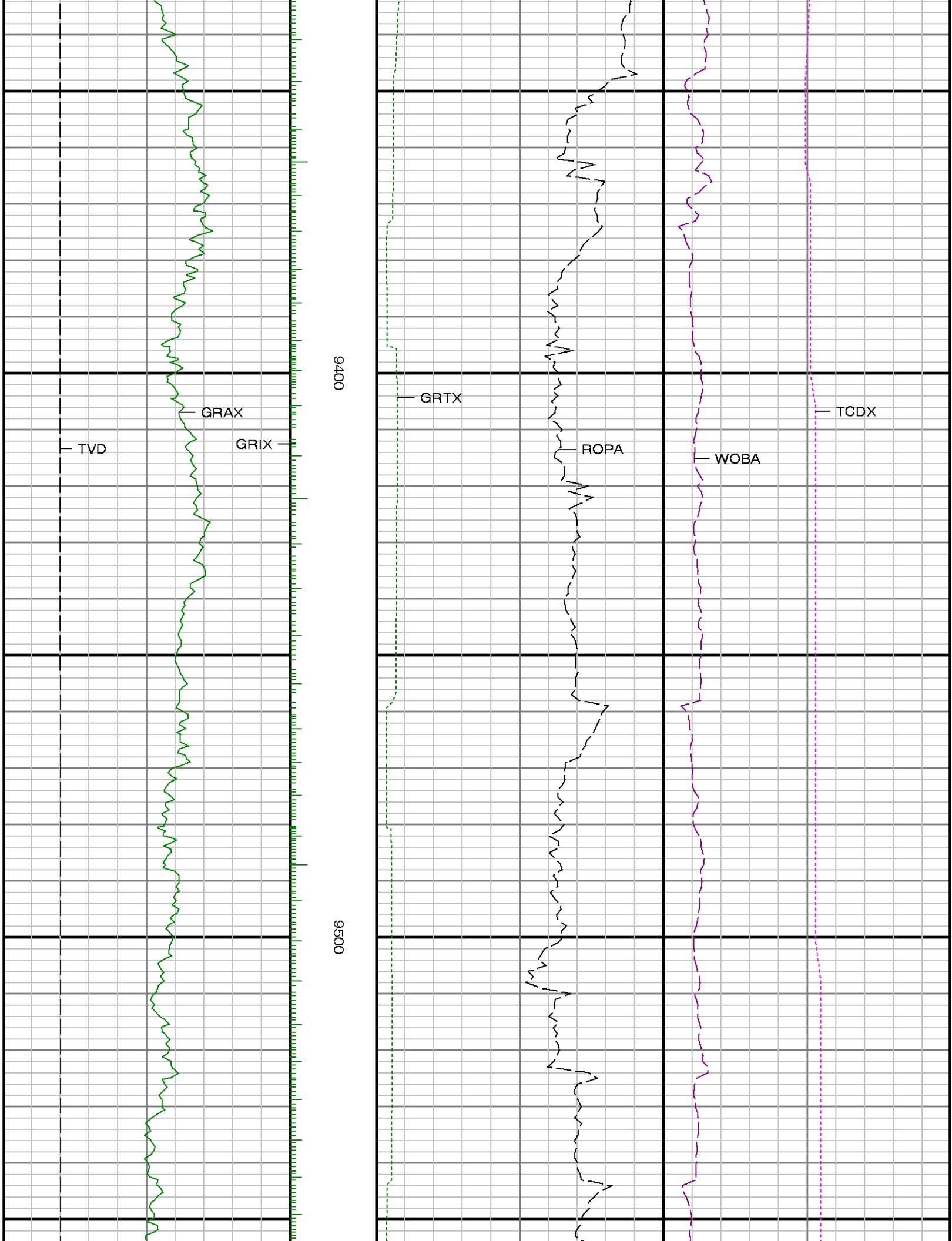
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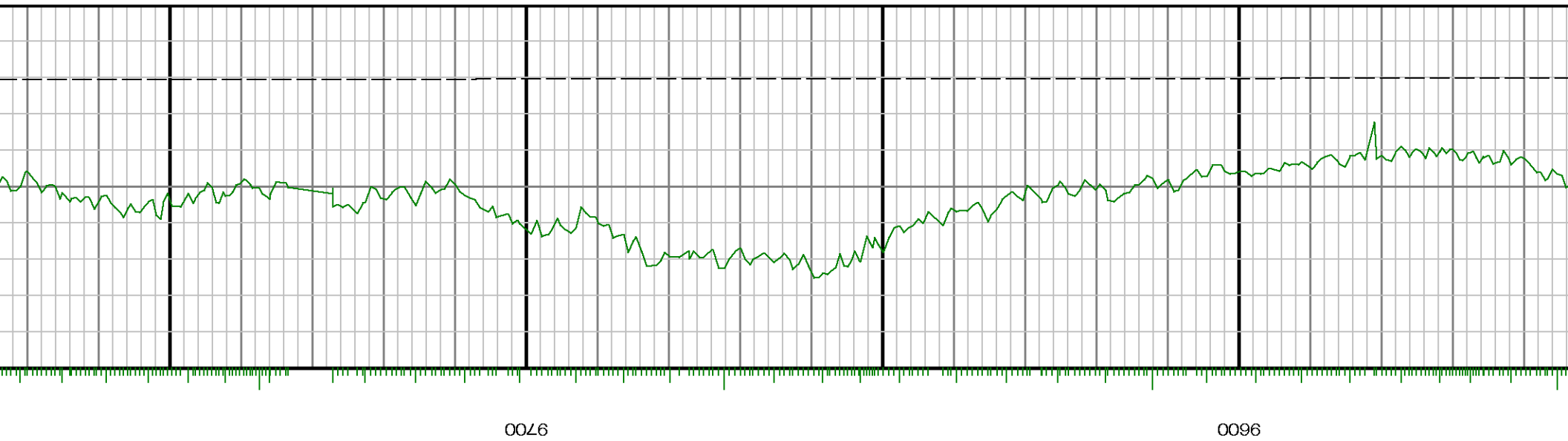
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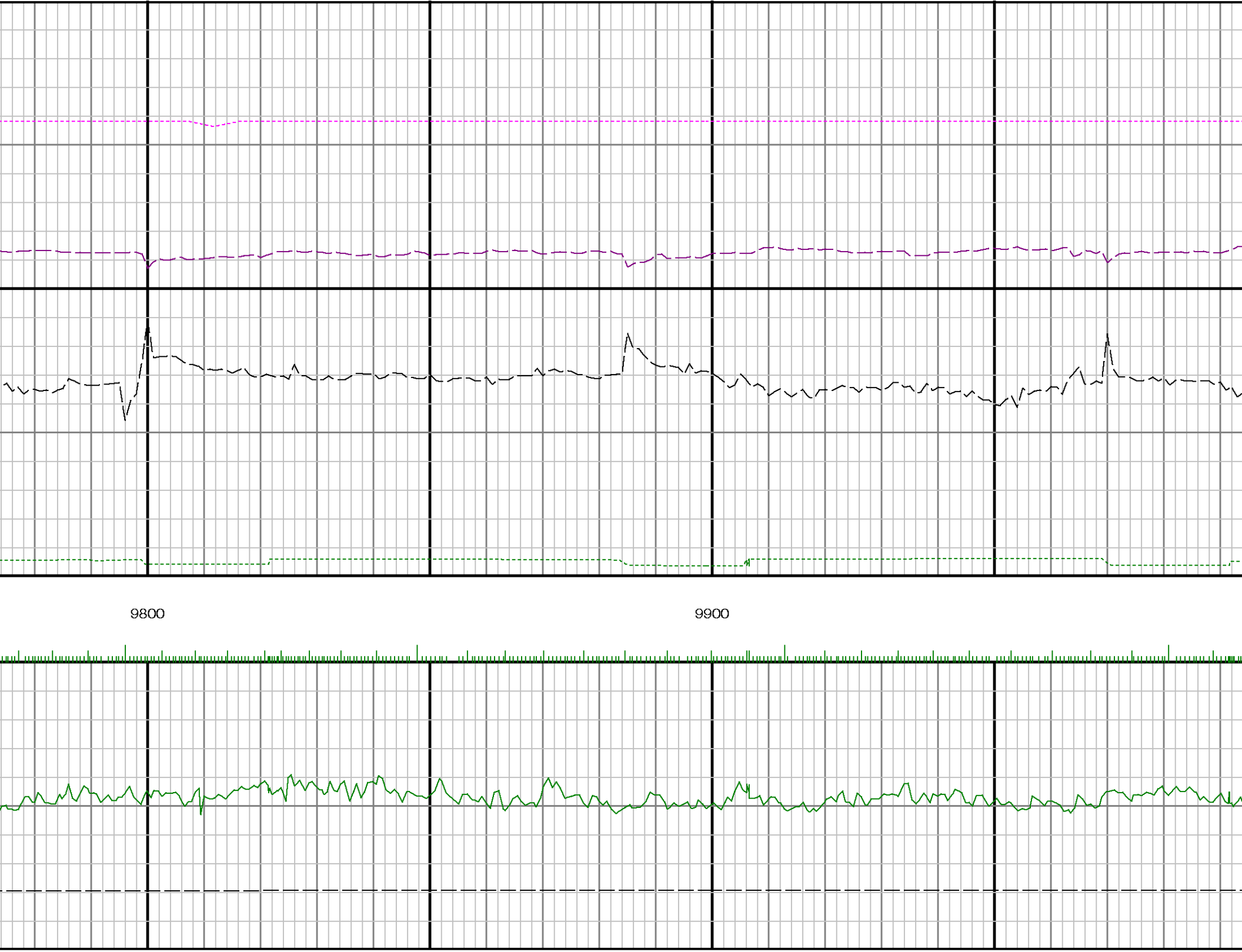
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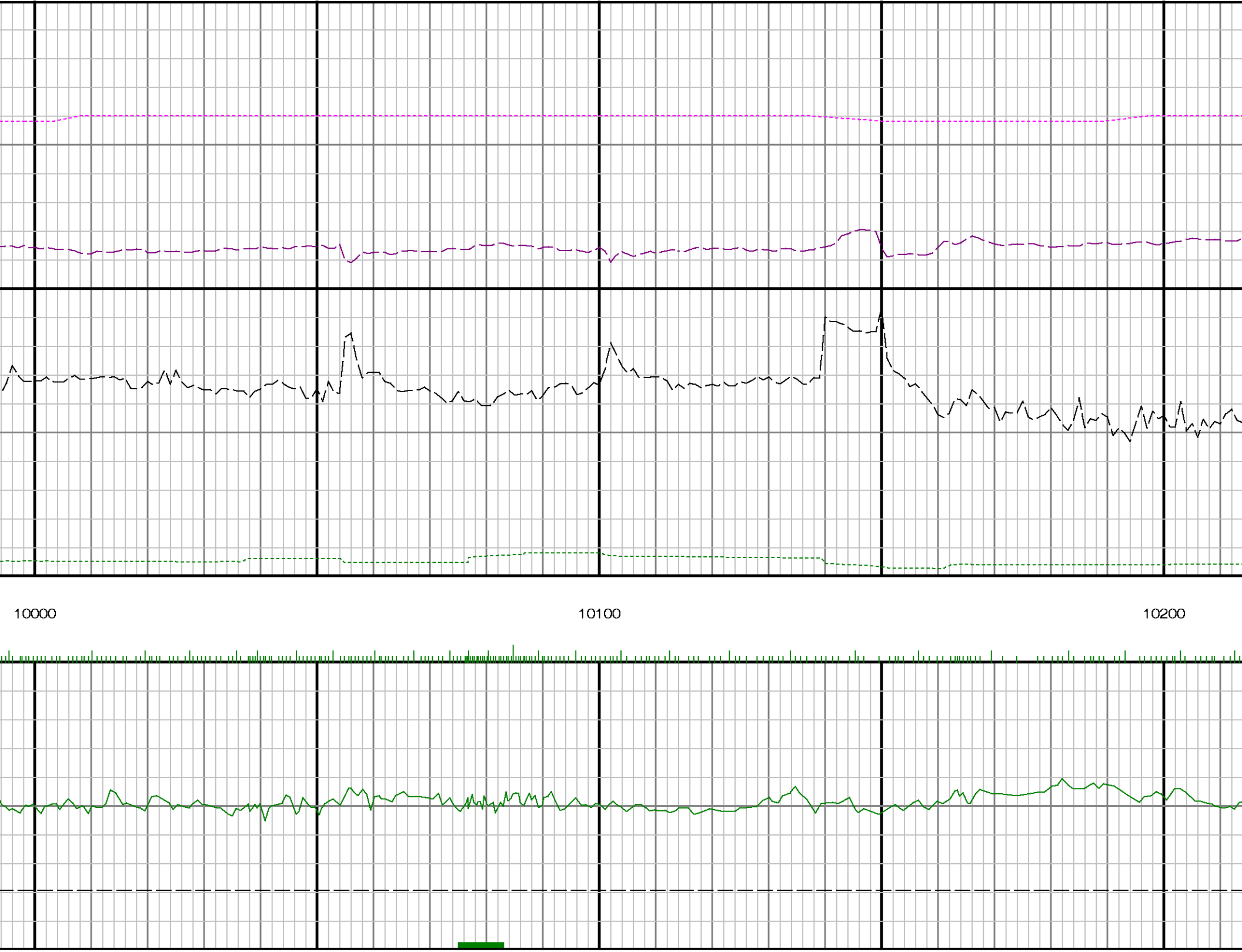
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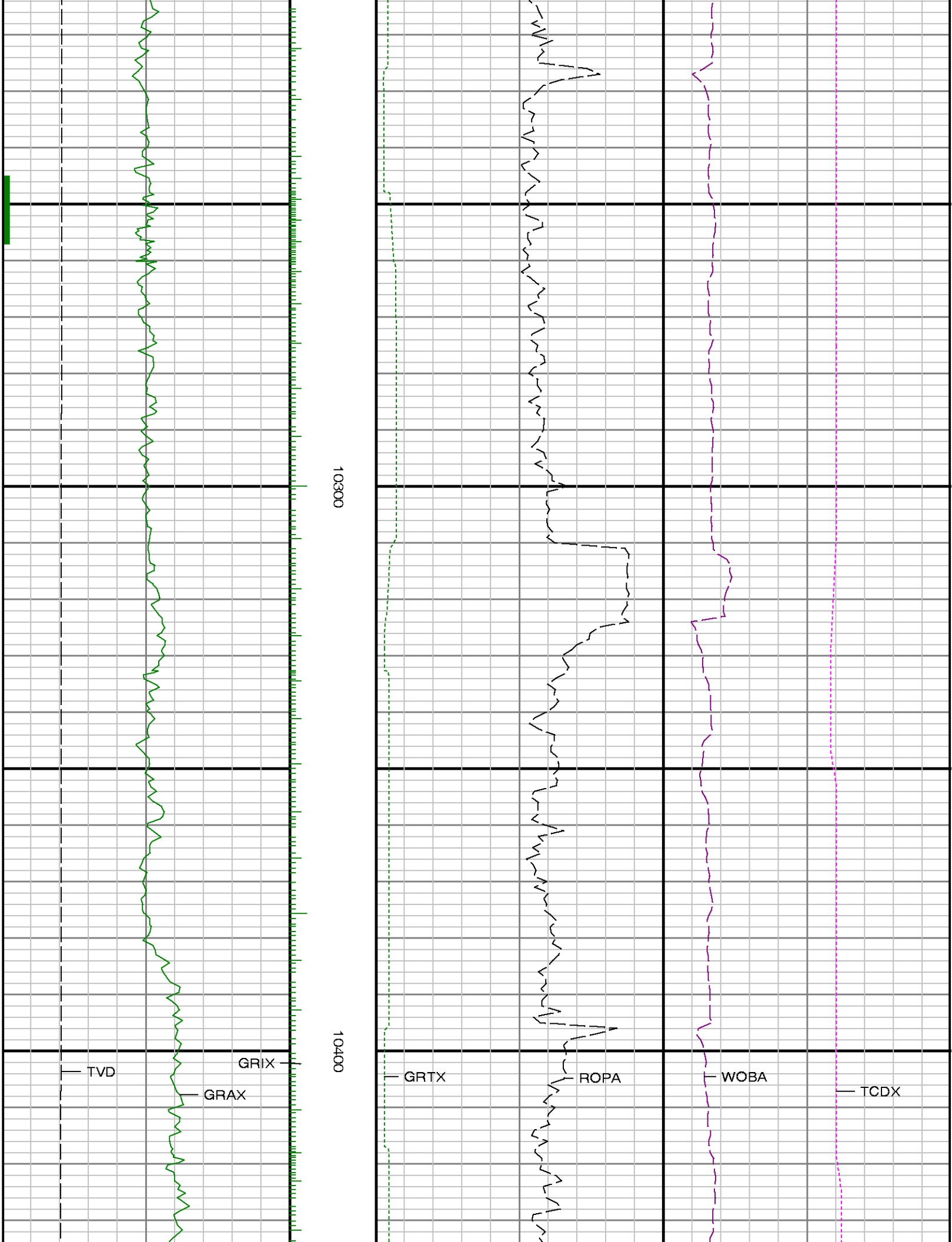
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GRTX
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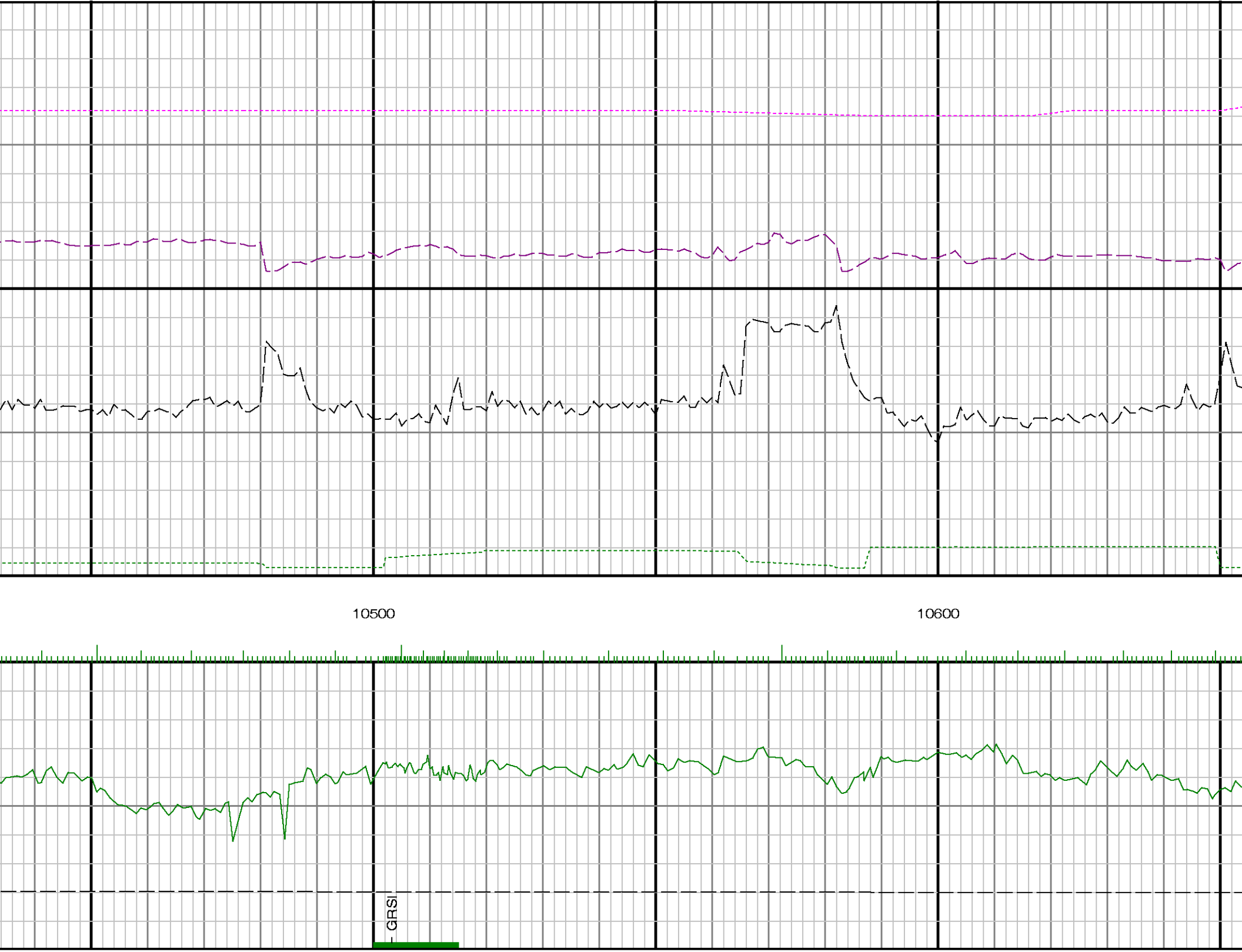
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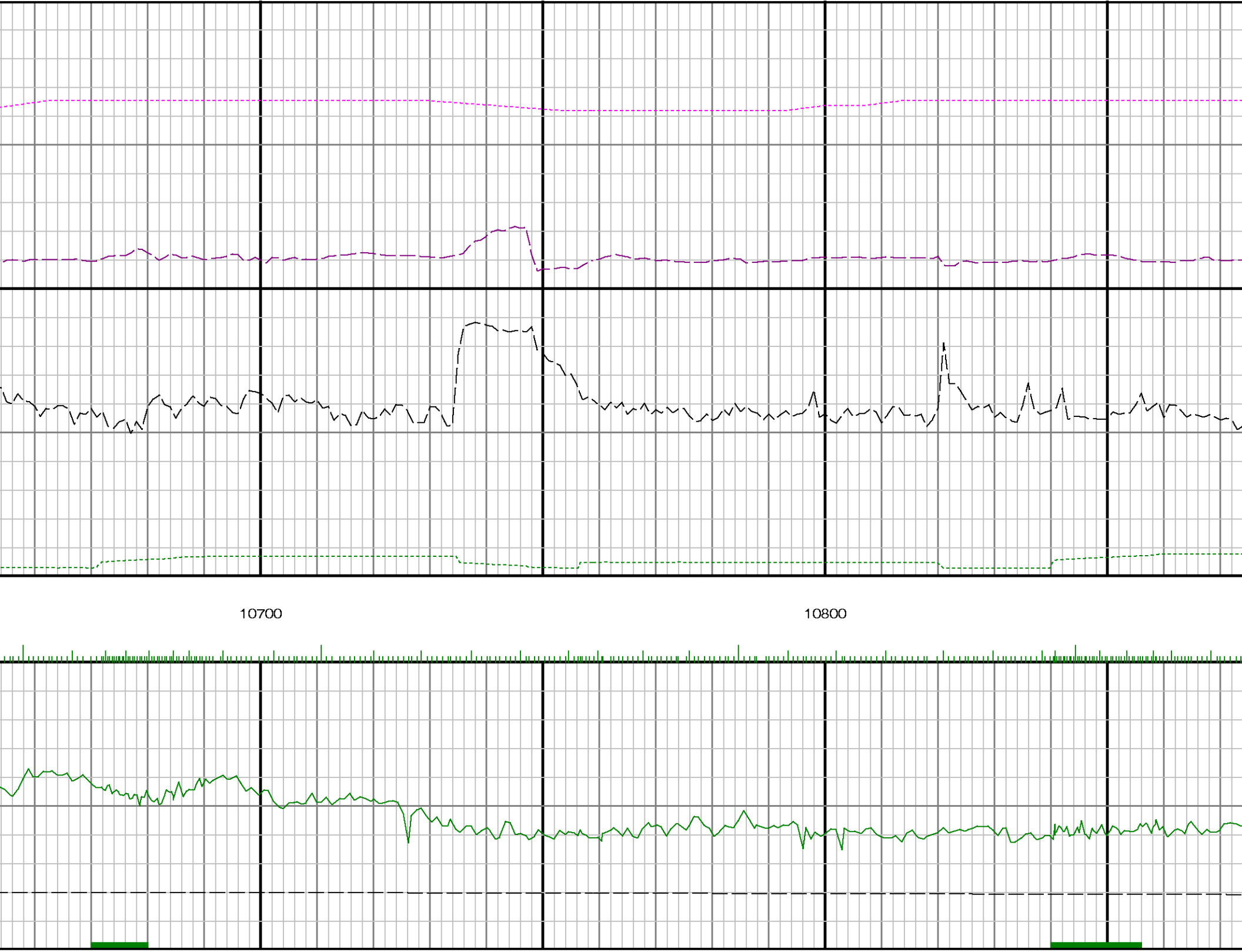
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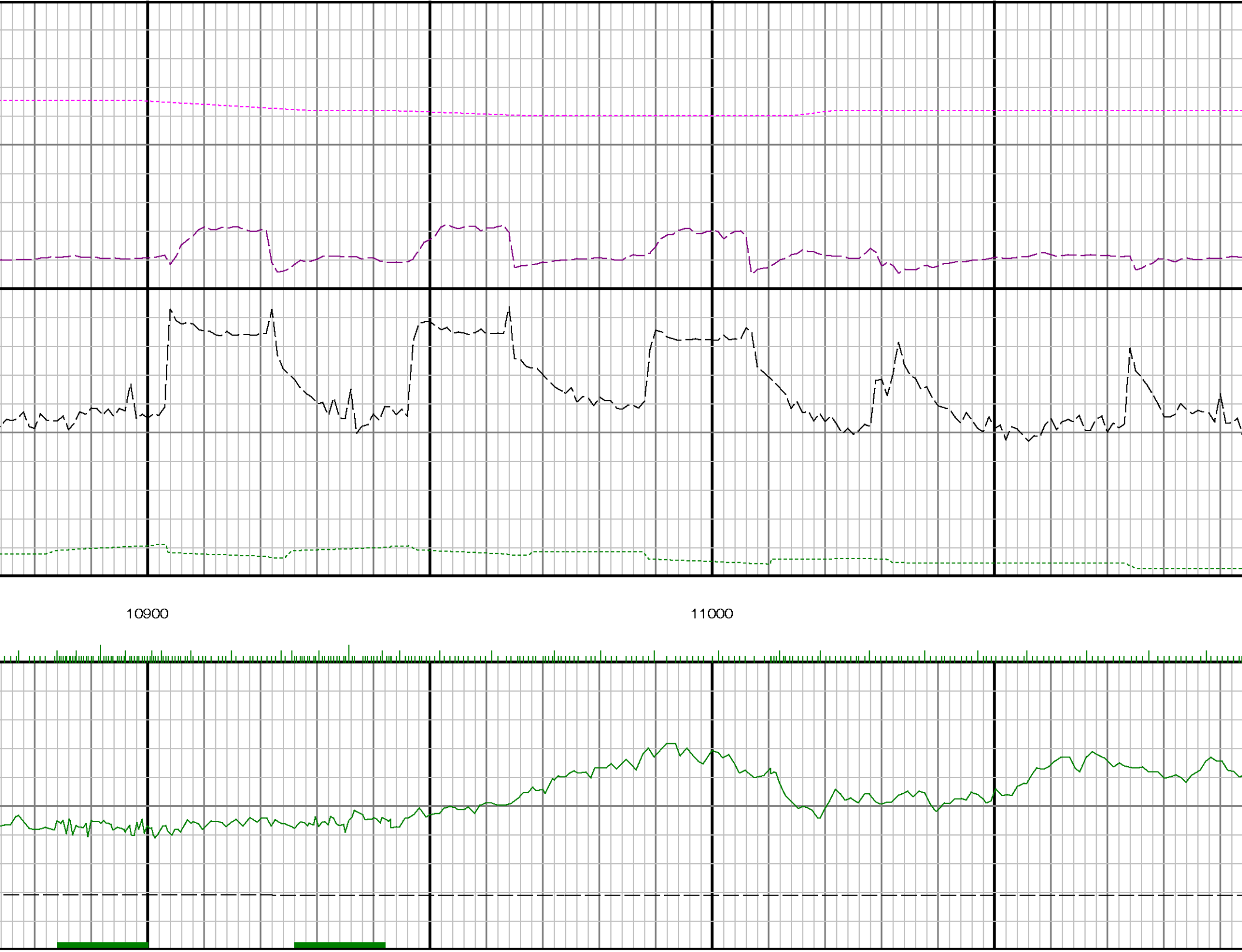
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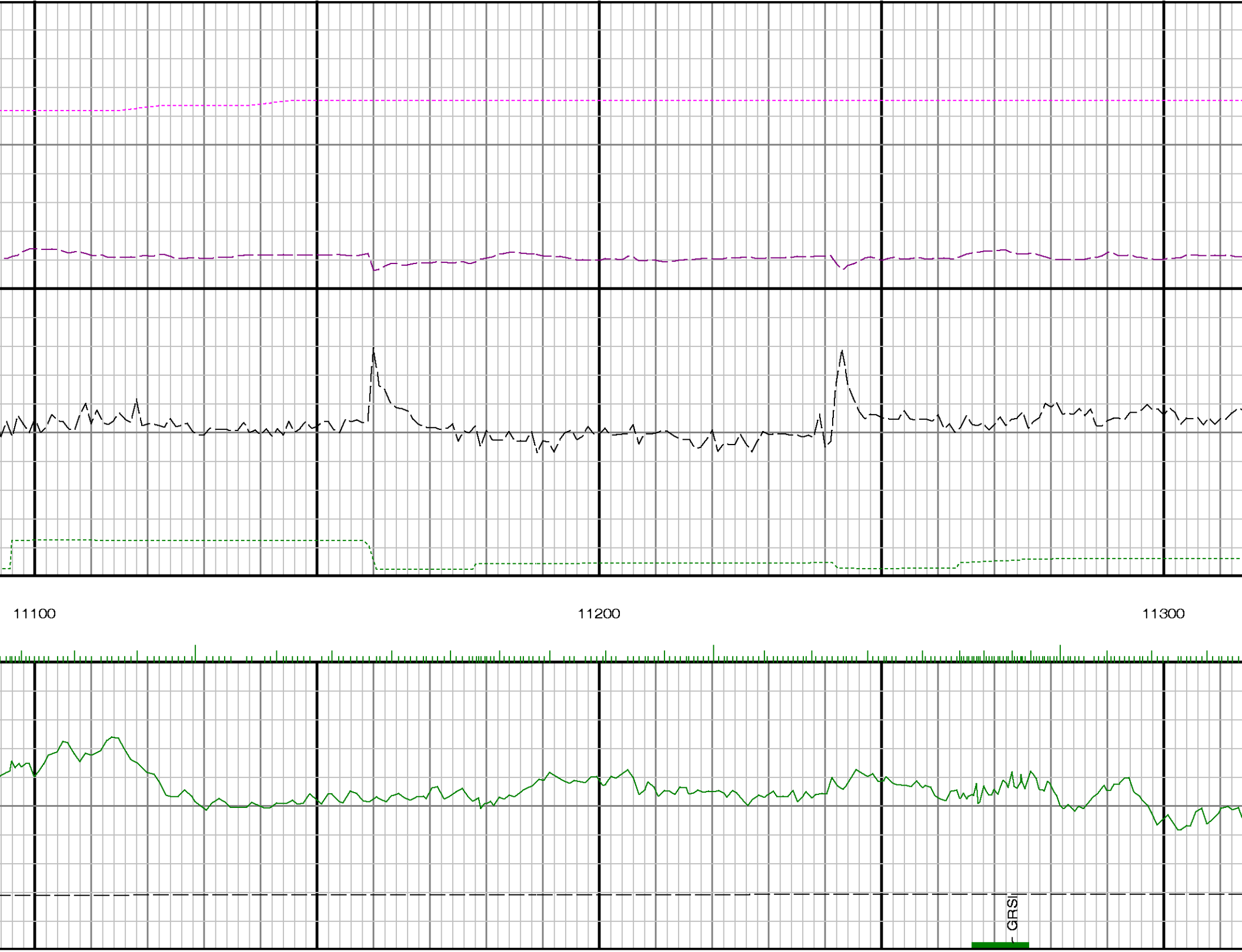
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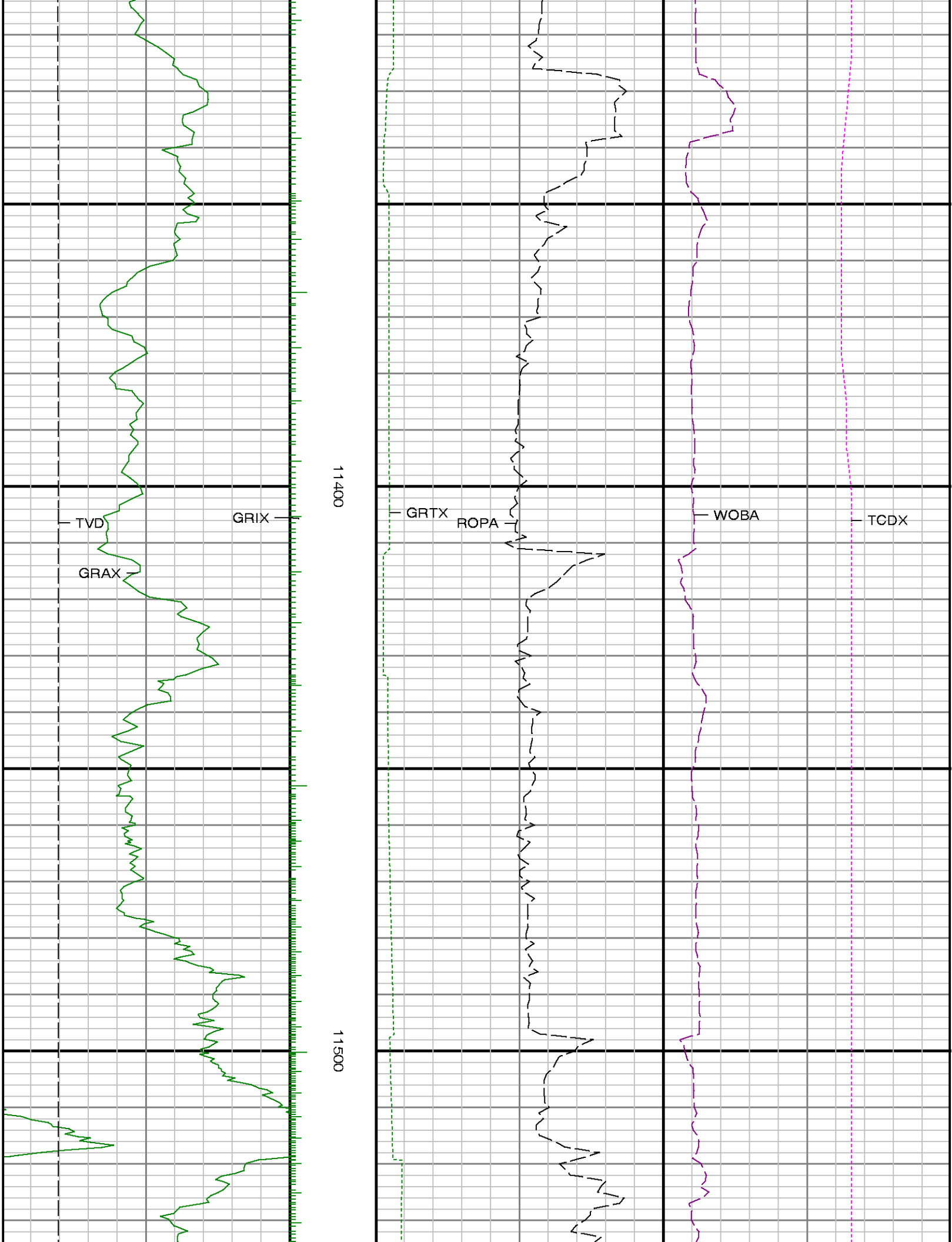
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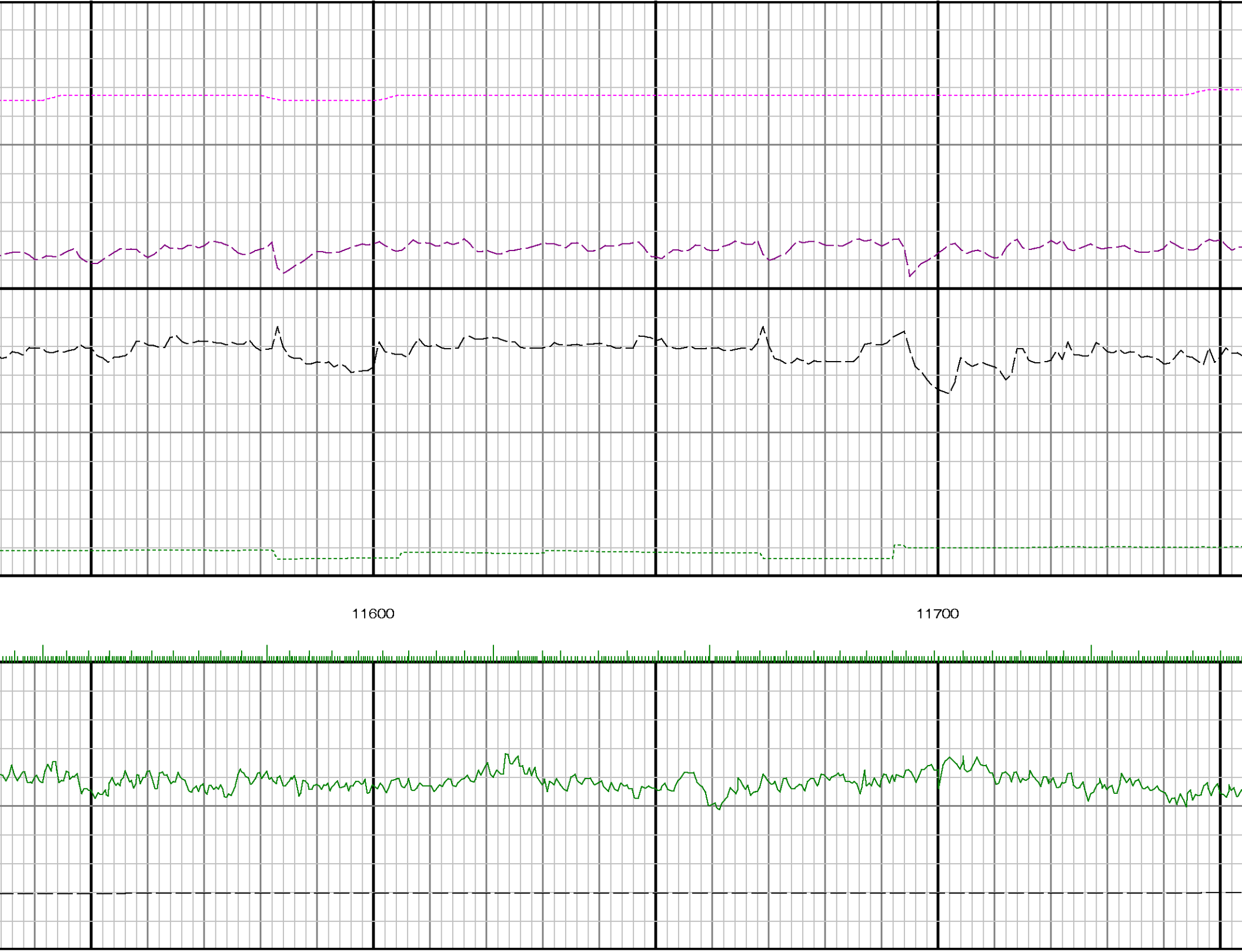
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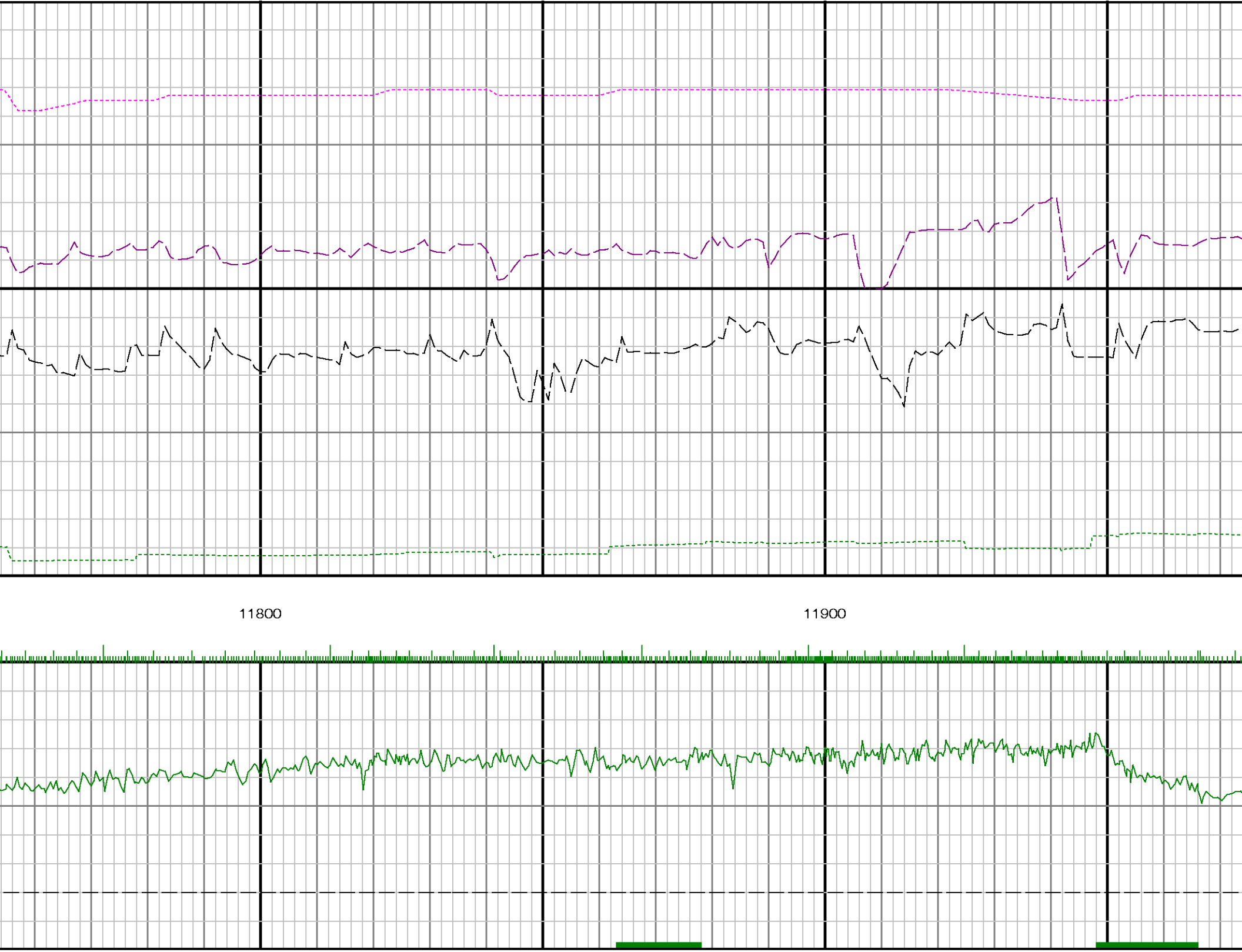
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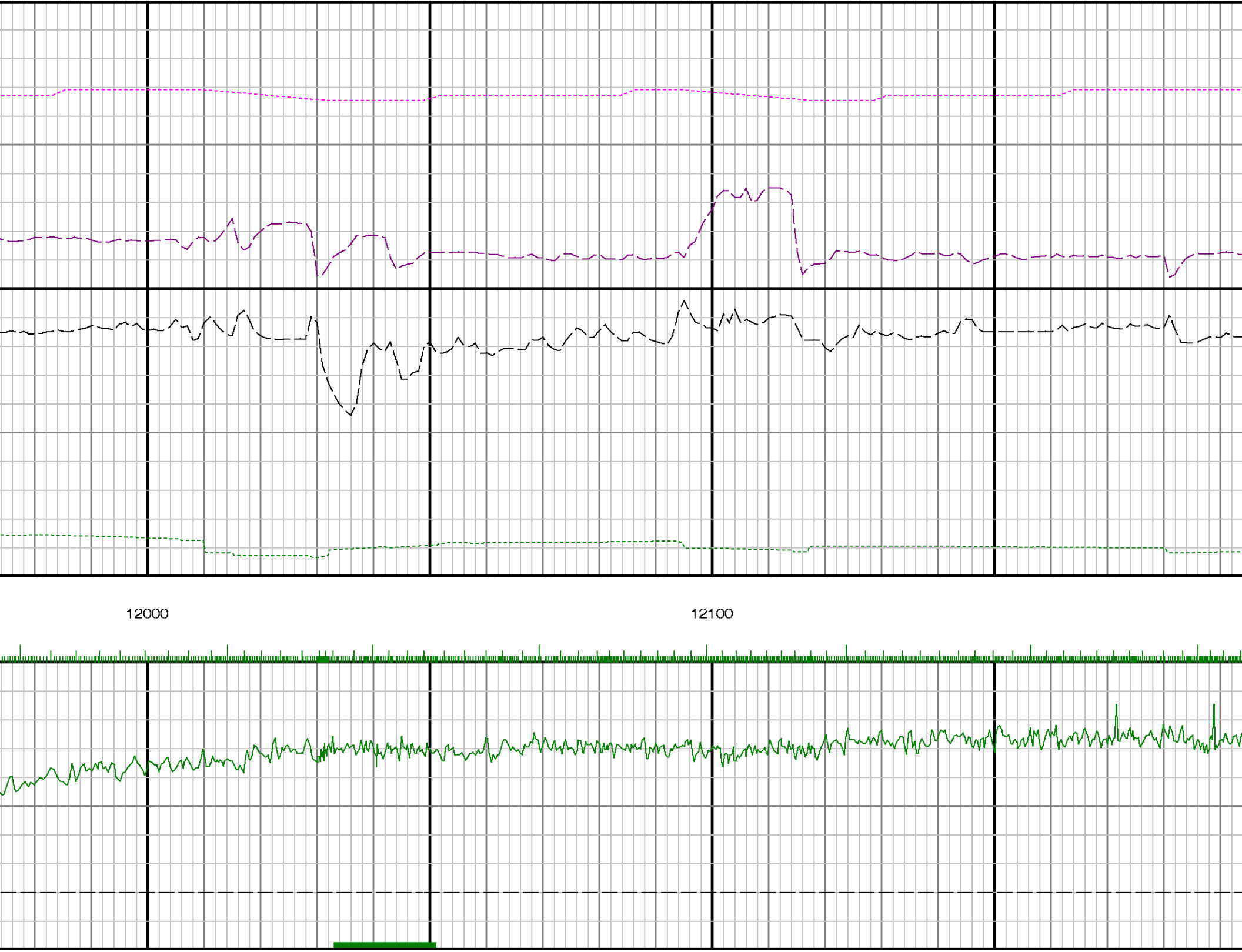
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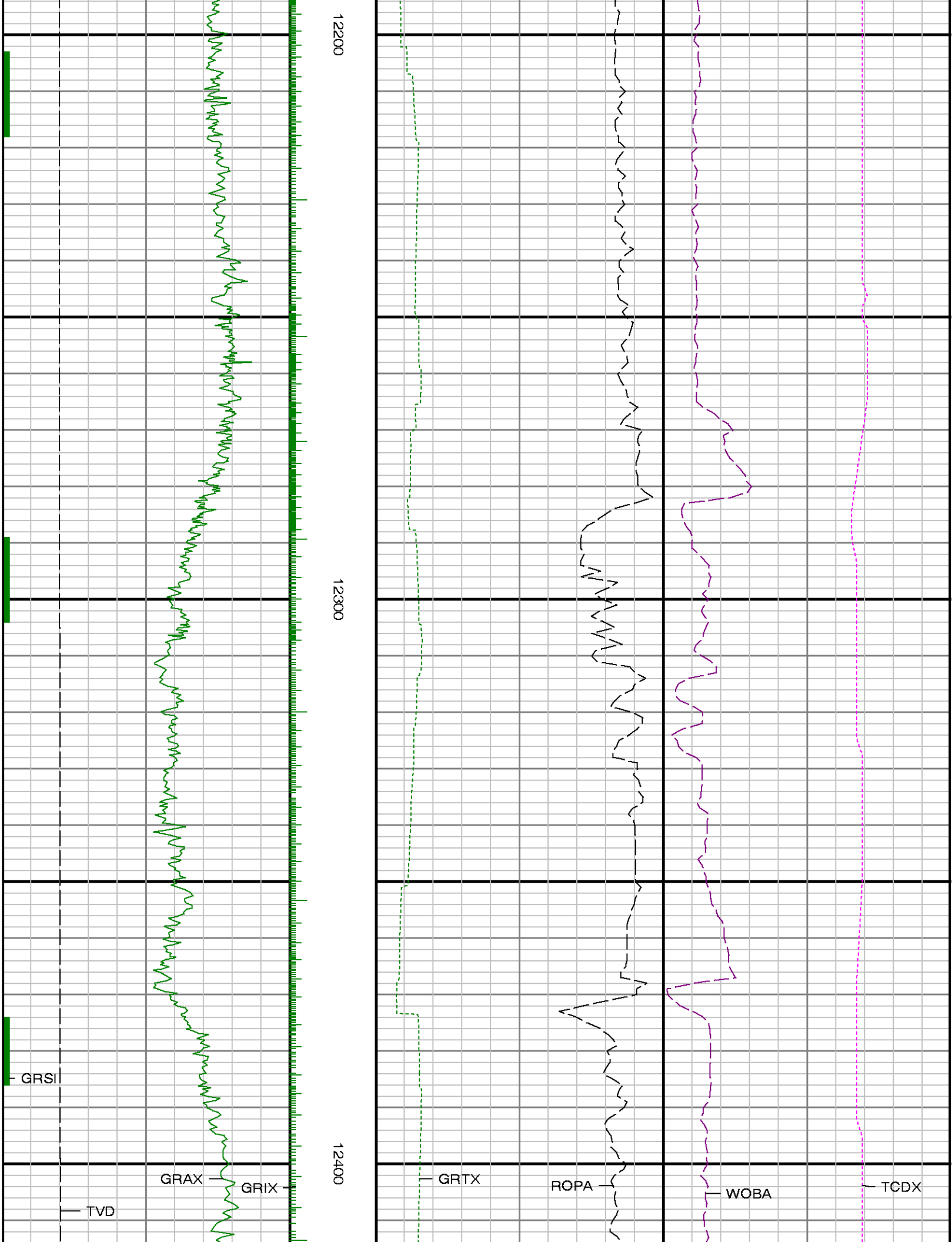
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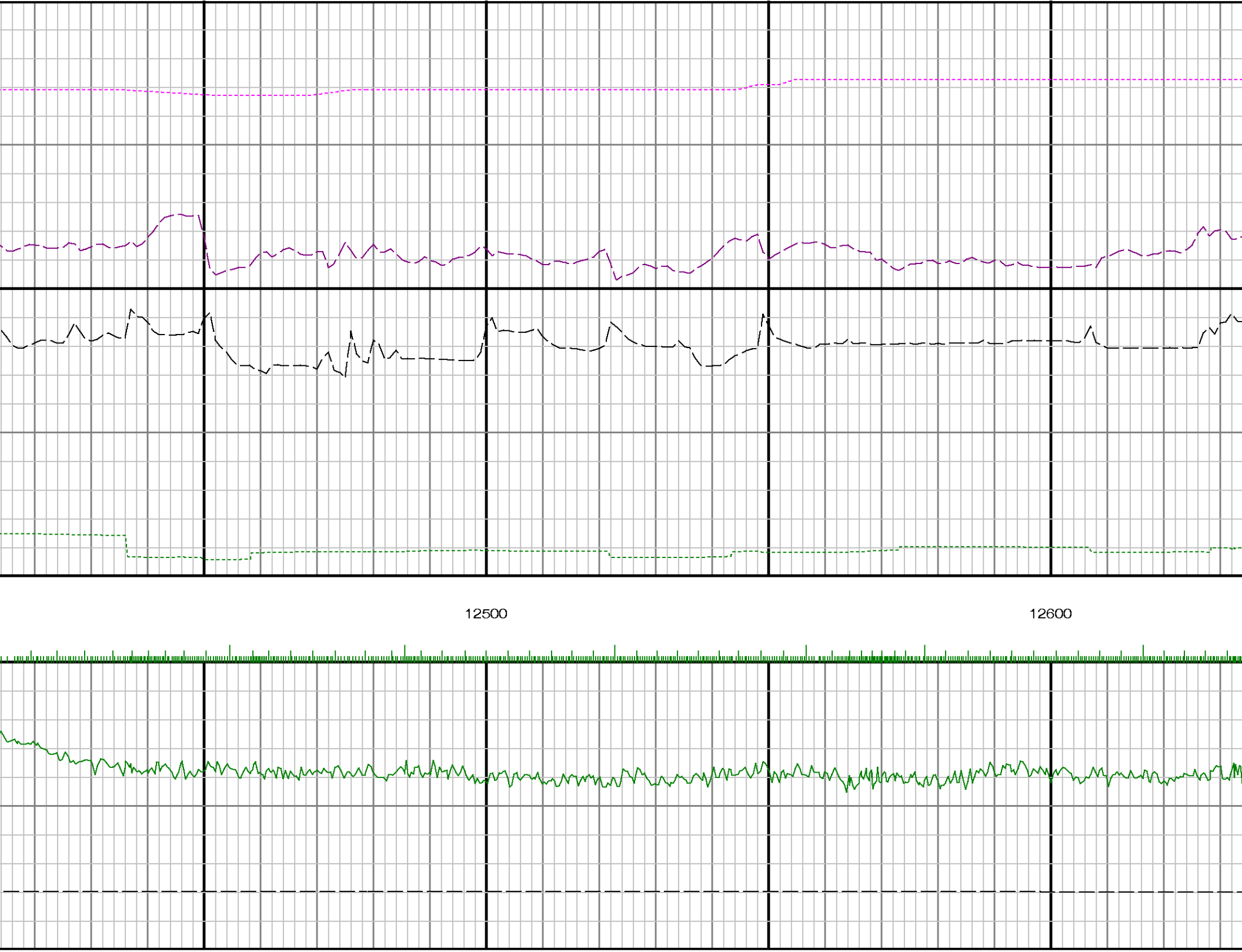
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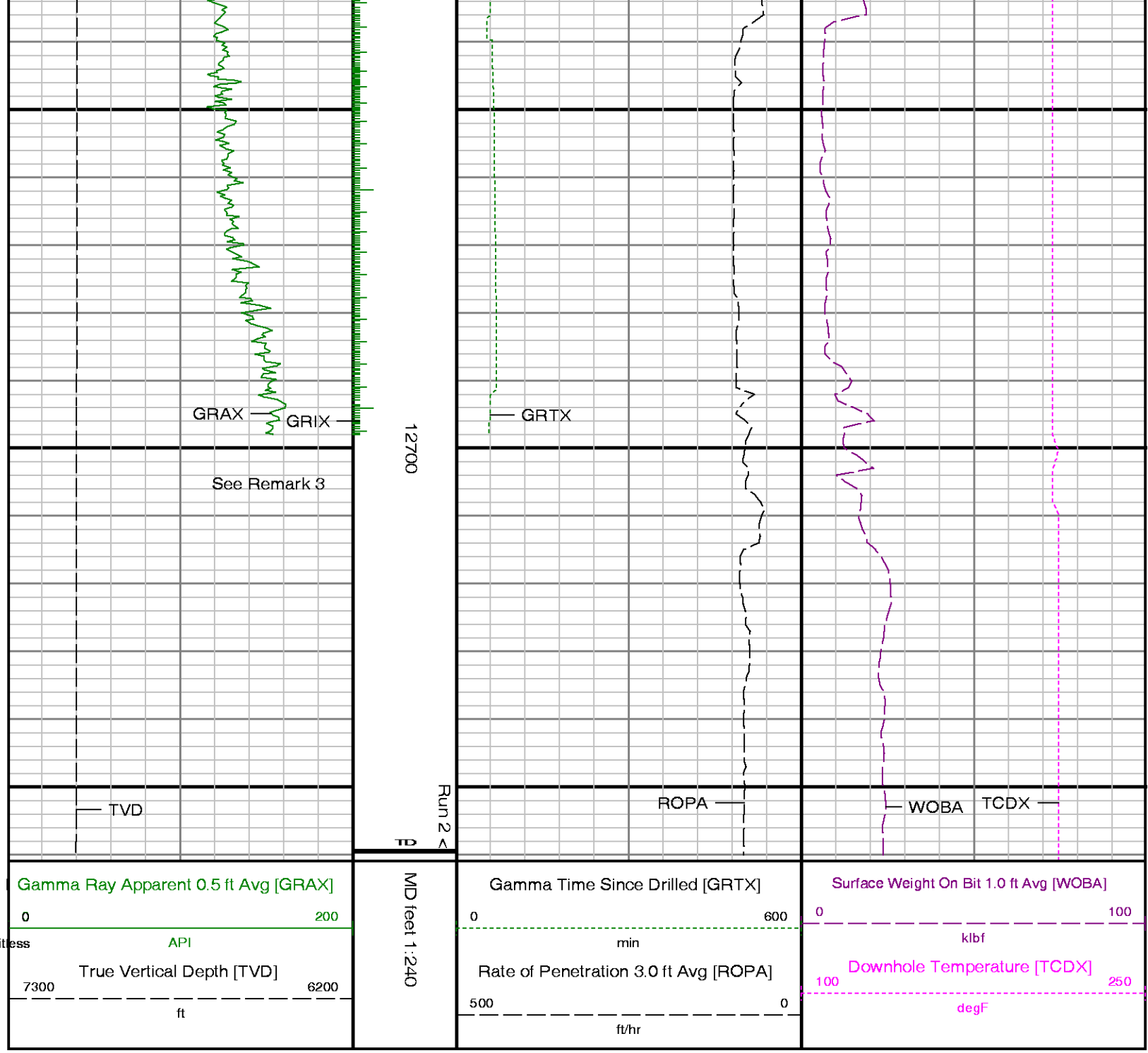
GRAX
GRIX
See Remark 3
TVD
12700
Run 2
GRTX
ROPA
WOBA
TCDX
Gamma Ray Apparent 0.5 ft Avg [GRAX]
0
200
unitless
API
True Vertical Depth [TVD]
7300
6200
ft
MD feet 1:240
Gamma Time Since Drilled [GRTX]
0
600
min
Rate of Penetration 3.0 ft Avg [ROPA]
500
0
ft/hr
Surface Weight On Bit 1.0 ft Avg [WOBA]
0
100
klbf
Downhole Temperature [TCDX]
100
250
degF