BAKER HUGHES

HIGH DEFINITION INDUCTION LOG℠
COMPENSATED Z-DENSILOG℠
COMPENSATED NEUTRON LOG
GAMMA RAY LOG
CALIPER LOG

FLEX

FILE NO:	US625065
API NO:	05103118000000
COMPANY	WPX ENERGY INC
WELL	FEDERAL RG 411-14-298
FIELD	SULPHUR CREEK
COUNTY	RIO BLANCO
STATE	CO

Ver. 3.87
S14 2S 98W
RG 12-14-298
CYCLONE 29

LOCATION:
SHL: 1607' FNL; 513' FWL
BHL: 510' FNL; 649' FWL

SEC 14 TWP 2S RGE 98W

OTHER SERVICES
NONE

PERMANENT DATUM	GL	ELEVATION	6560 FT
LOG MEASURED FROM	KB	21 FT	ABOVE P.D.
DRILL. MEAS. FROM	KB		

ELEVATIONS:

KB	6581 FT
DF	
GL	6560 FT

DATE		03-Mar-2014			
RUN	TRIP	1	1		
SERVICE ORDER		US625065			
DEPTH DRILLER		11124 FT			
DEPTH LOGGER		10884 FT			
BOTTOM LOGGED INTERVAL		10848 FT			
TOP LOGGED INTERVAL		0 FT			
CASING DRILLER		9.625 IN	@ 2864 FT	@	
CASING LOGGER		2858 FT			
BIT SIZE		7.875 IN			
TYPE OF FLUID IN HOLE		LSND			
DENSITY	VISCOSITY	10.3 LB/G	70 CP		
PH	FLUID LOSS	9.5	3.8 C3		
SOURCE OF SAMPLE		FLOWLINE			
RM AT MEAS. TEMP.		0.74 OHMM	@ 65 DEGF	@	
RMF AT MEAS. TEMP.		0.55 OHMM	@ 65 DEGF	@	
RMC AT MEAS. TEMP.		0.93 OHMM	@ 65 DEGF	@	
SOURCE OF RMF	RMC	CALCULATED	CALCULATED		
RM AT BHT		0.45 OHMM	@ 227 DEGF	@	
TIME SINCE CIRCULATION		6 HRS			
MAX. RECORDED TEMP.		229 DEGF			
EQUIP. NO.	LOCATION	6670	GRAND JCT		
RECORDED BY		PATTON			
WITNESSED BY		T. RAGSDALE			

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

CASING RECORD

SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	36 LB/F		0 FT	2864 FT

BOREHOLE RECORD

BIT SIZE	FROM	TO
7.875 IN	8903 FT	11124 FT
8.75 IN	0 FT	8903 FT

REMARKS

RUN 1 TRIP 1: HDIL ZDL CN GR RAN IN COMBINATION

PULLED >60% AT 10655'
BRIDGED OFF 232' SHALLOW OF TD, INSTRUCTED TO LOG OUT BY COMPANY REPRESENTATIVE

BVOL CVOL CALCULATED IN CUBIC FEET
BVOL CALCULATED USING PROPOSED 4.5" CASING
CALIPER VERIFIED INSIDE CASING

RHO MATRIX: 2.68 G/CC
RHO FLUID: 1.00 G/CC

CN MATRIX: SANDSTONE

CN RAN DECENTRALIZED

HDIL RAN WITH 1.5" STANDOFFS
ABC TO CALCULATE: STANDOFF

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
CREW: PATTON/HOLLAR/COATE
RIG: CYCLONE 29

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3944XD	10195796	FREE
1	1	TTRM	3981XA	10203010	FREE
1	1	TEL	3514XB	10240730	FREE
1	1	GR	1329XB	10193895	FREE
1	1	CN	2446XA	10202034	DECENTRALIZED
1	1	ZDL	2234XA	153015	PAD DEVICE
1	1	KNJT	3939XA	10399278	FREE
1	1	HDIL	1515EA/1515MA	10049592/10037719	STOOD OFF

MAIN LOG 2"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 31 Patches: 5

Plotted: Mon Mar 3 06:27:42 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625065/n777q02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2540.000 ft BOTTOM DEPTH: 10904.984 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
TTRM	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
Y AXIS CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
SP-SPDH	FILTER ()	heavy (3)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
BIT SIZE	BIT SIZE	8.750	in	TOP	8788.000
		7.875	in	8788.000	BOTTOM
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	65.0	degF	TOP	BOTTOM
	MUD SAMPLE RES	0.740	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	65.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	8.750	in	TOP	8811.000
		7.875	in	8811.000	BOTTOM
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		TOP	BOTTOM

HDIL PROCESSING

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
				TOP	BOTTOM
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		"	"
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"

CURVE DESCRIPTION REPORT

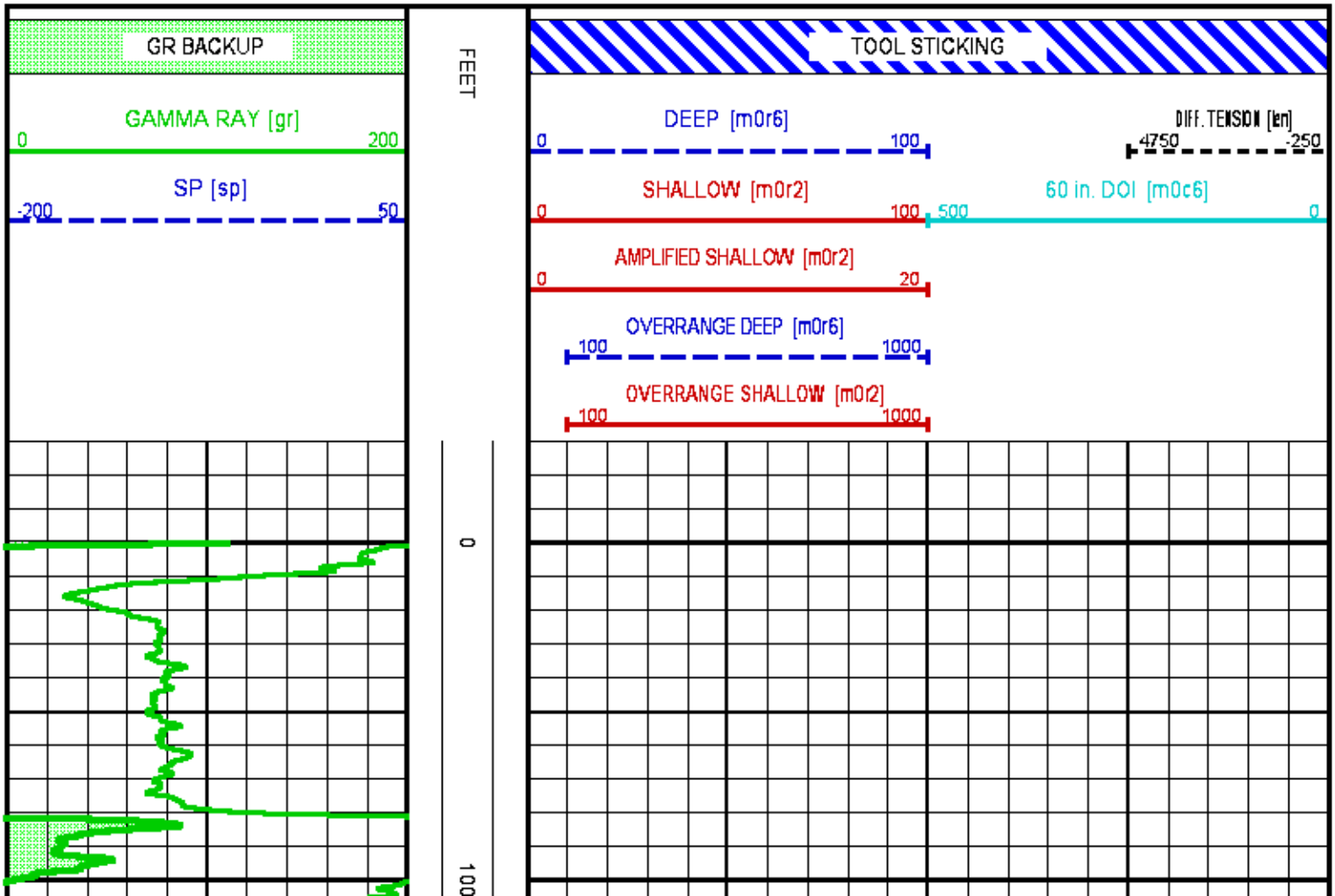
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Mar 3 02:30:16 2014	GAMMA RAY
F1:M0C6	Mar 3 02:30:16 2014	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:M0R2	Mar 3 02:30:16 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:M0R6	Mar 3 02:30:16 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Mar 3 02:30:16 2014	SPONTANEOUS POTENTIAL
F1:TEN	Mar 3 02:30:16 2014	DIFFERENTIAL TENSION

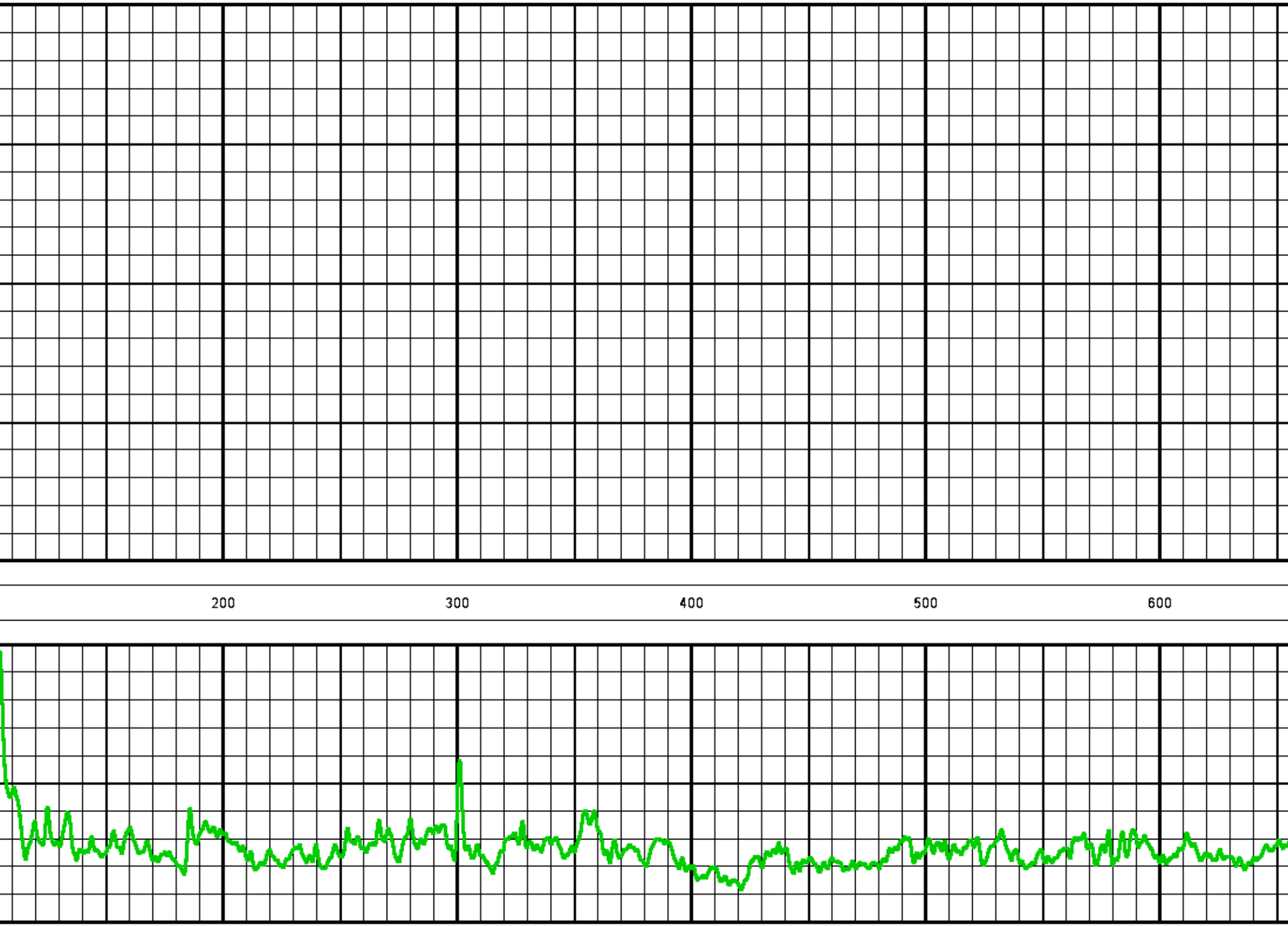
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	52.25	M0R2	8.00	SP	14.00		
M0C6	8.00	M0R6	8.00	TEN	0.00		

Presentation : HL6670:/dat1a/625065/WPX_2IN.fvpdf [2"/100' Scale]
Plot Interval : -24.5 - 10910.2 Feet

Data File 1 : F1 : HL6670:/dat1a/625065/n777q02-MAIN.xtf
Created On : Mar 3 02:30:16 2014
Company : WPX ENERGY INC
Well : FEDERAL RG 411-14-29S
Field : SULPHUR CREEK
File Interval : -24.5 - 10910.2 Feet
OCT : n777q

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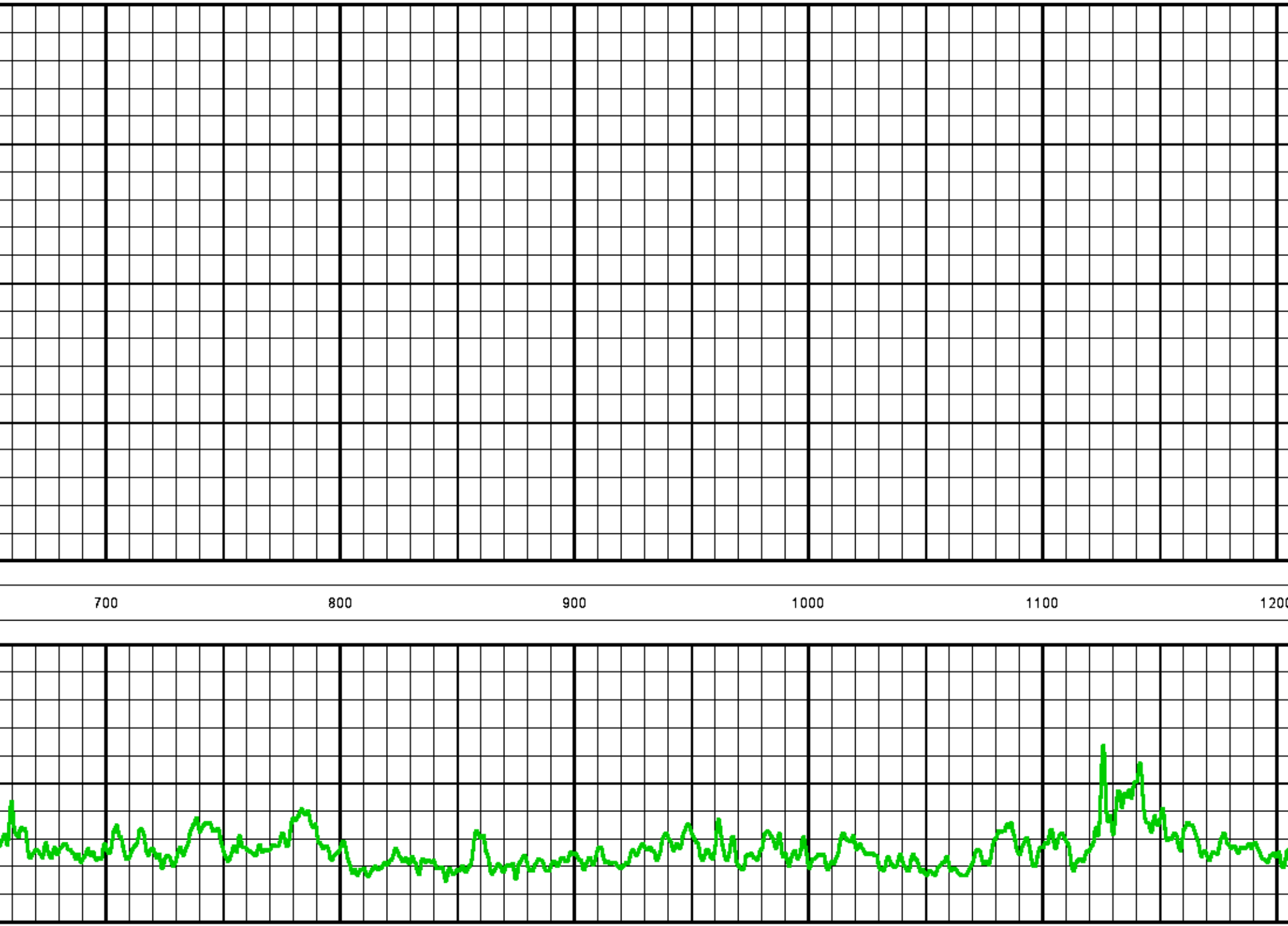
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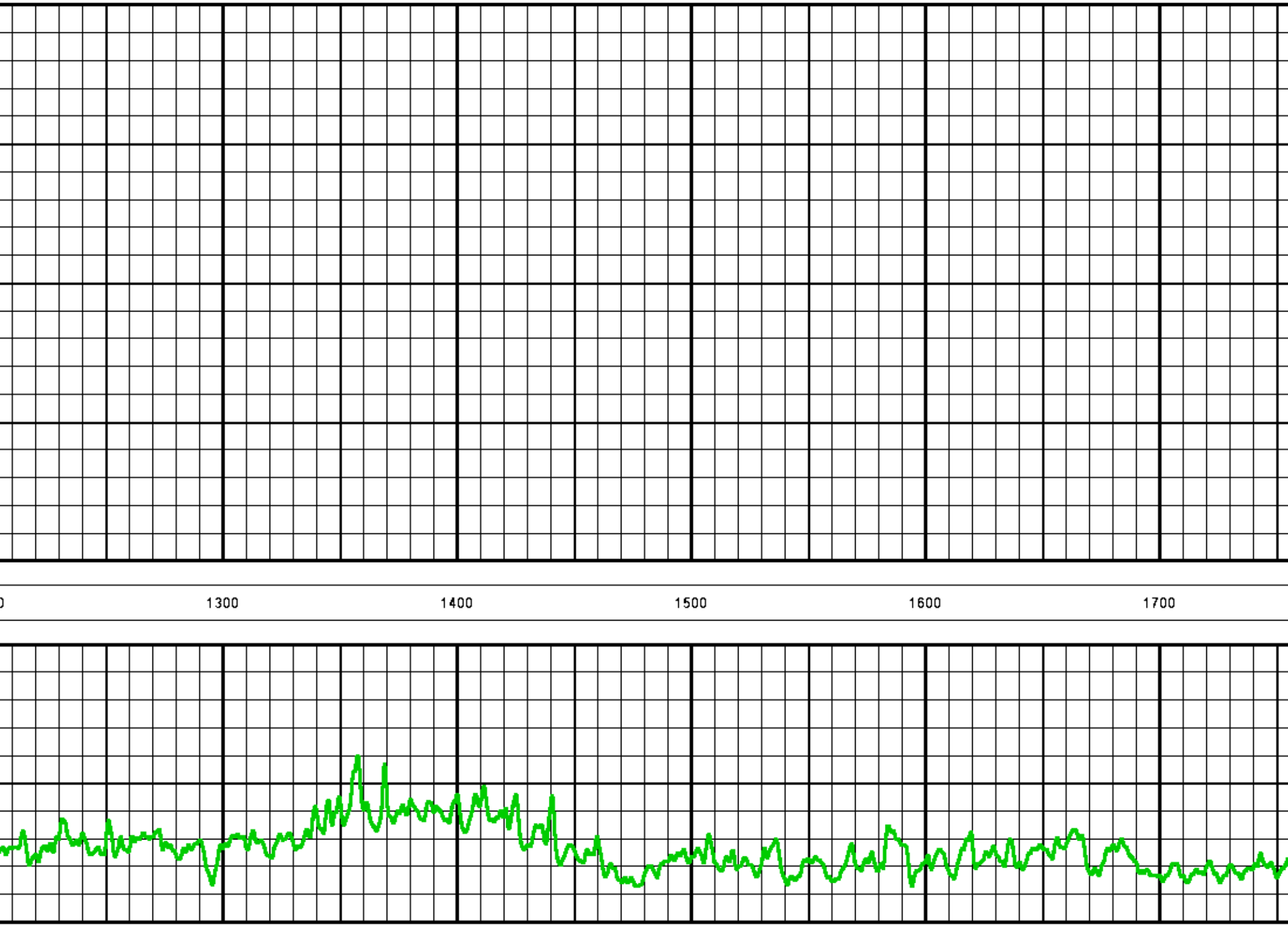
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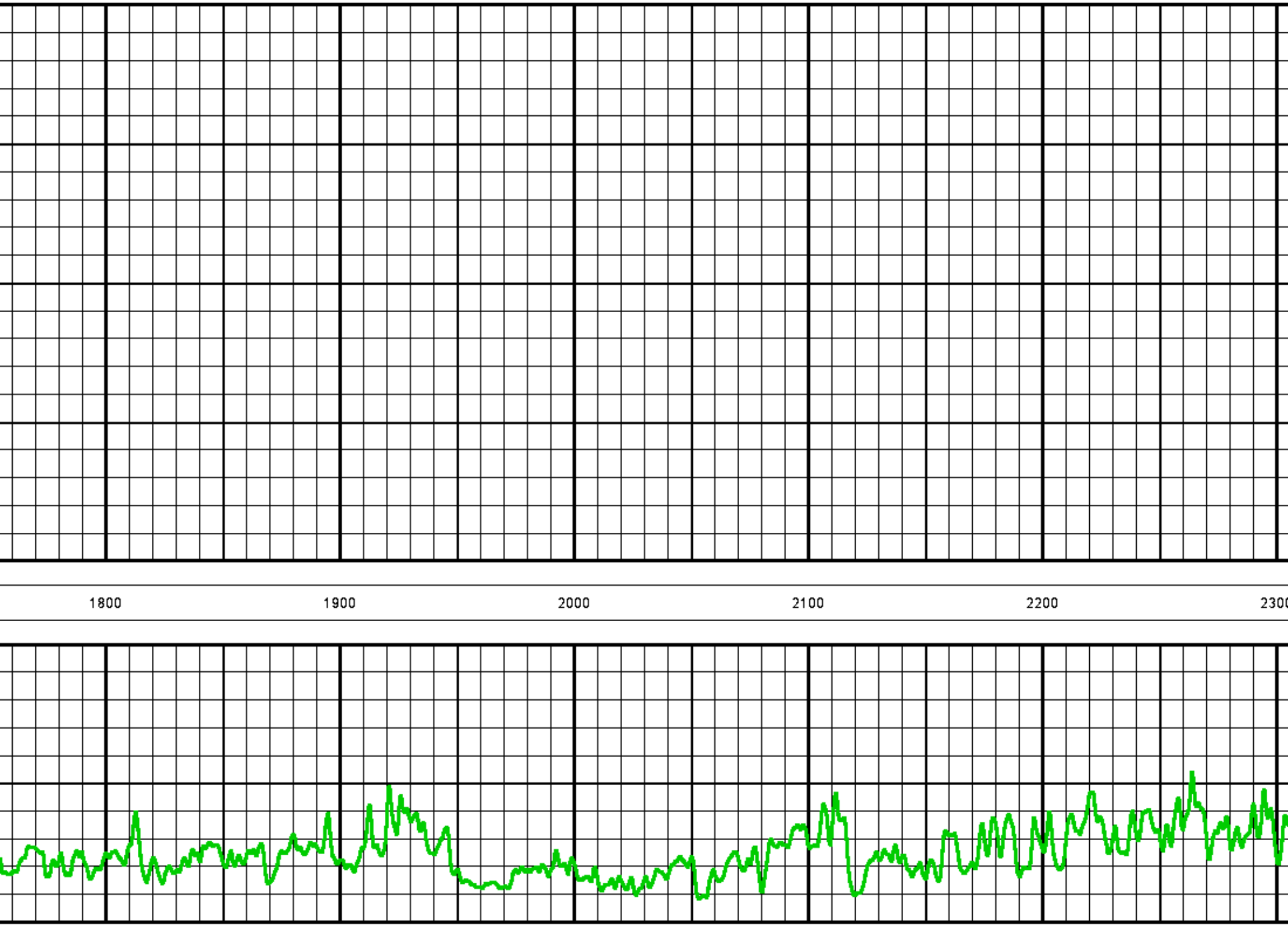
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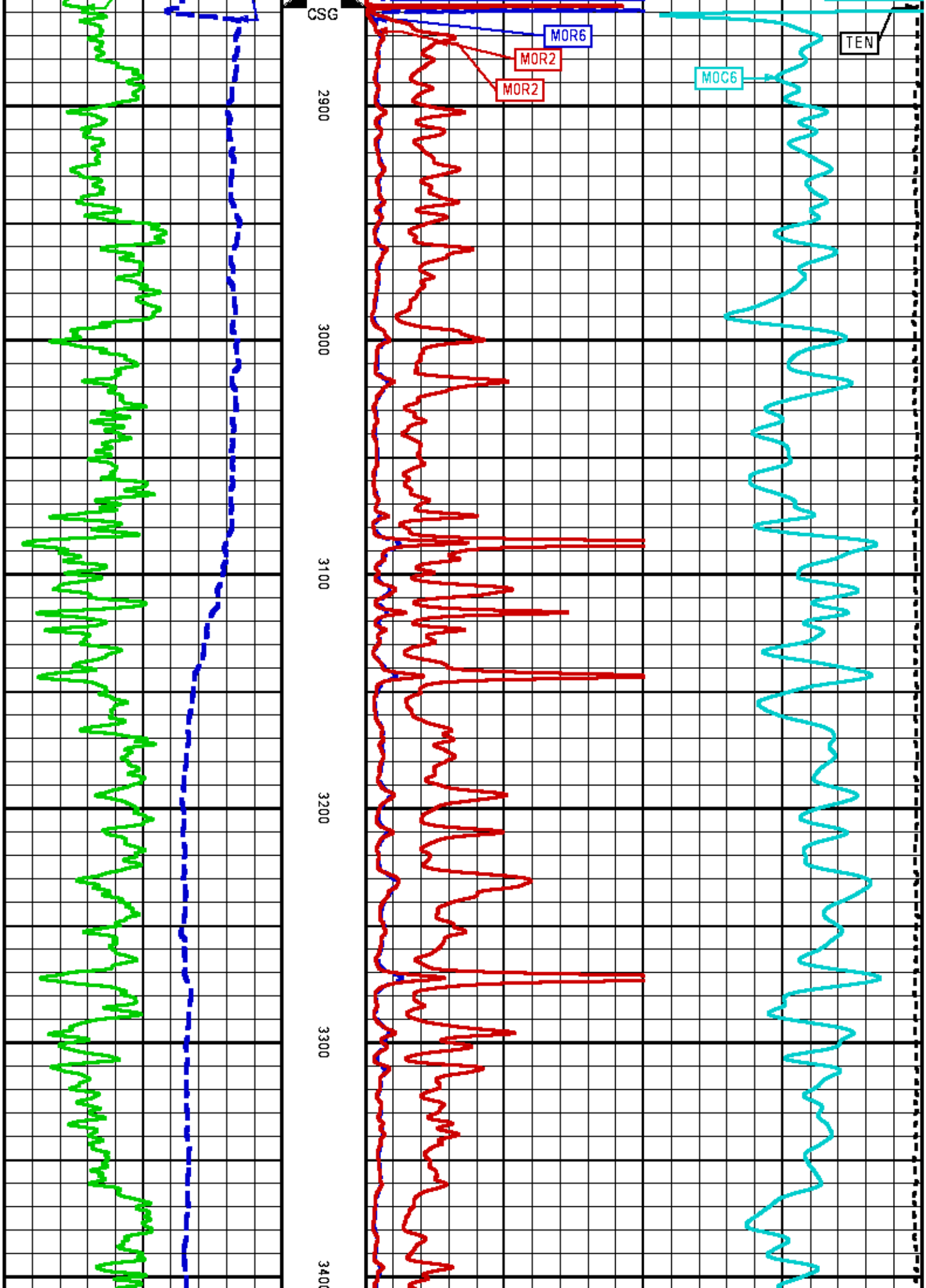
GR
SP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M0R2
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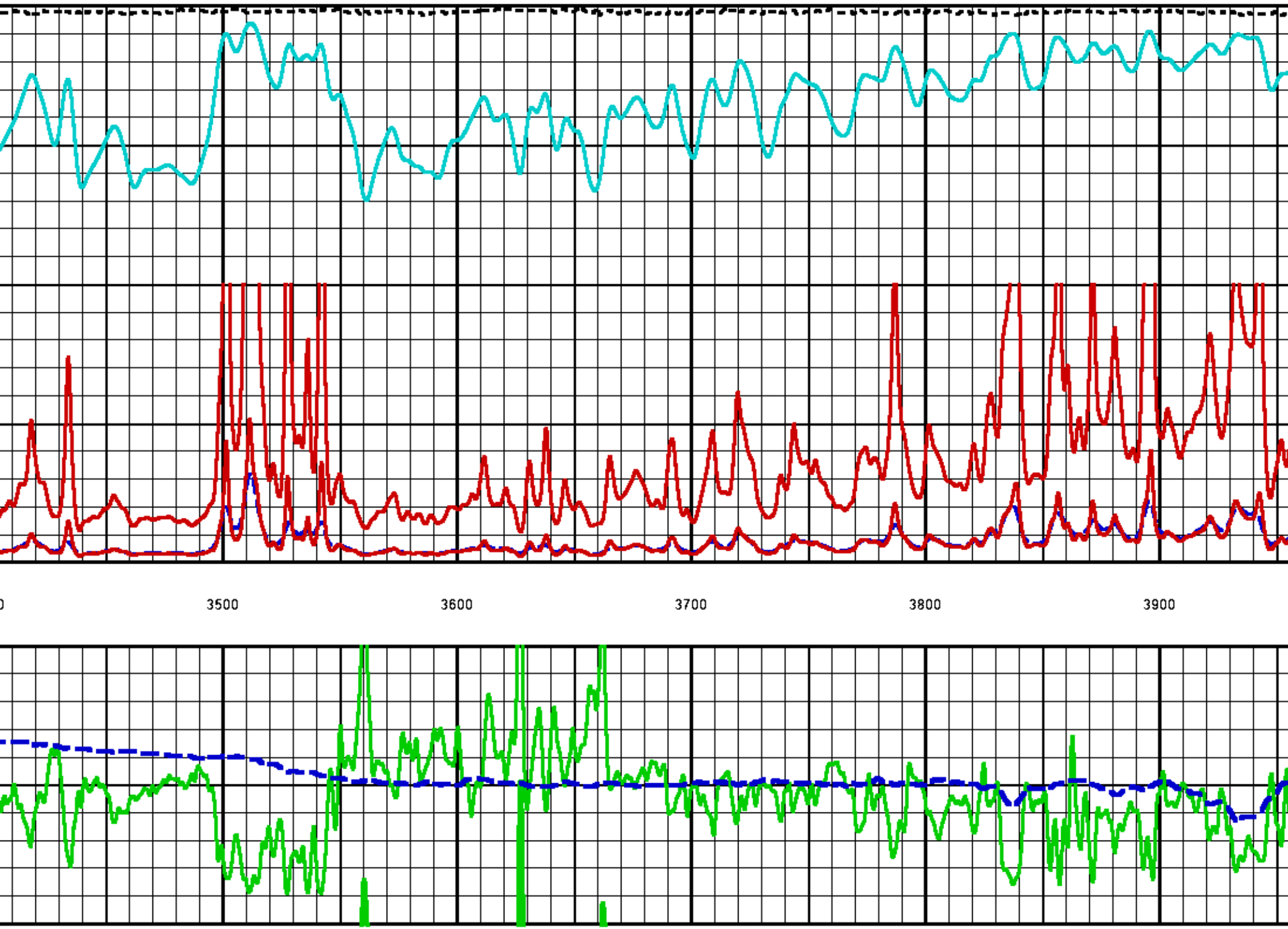
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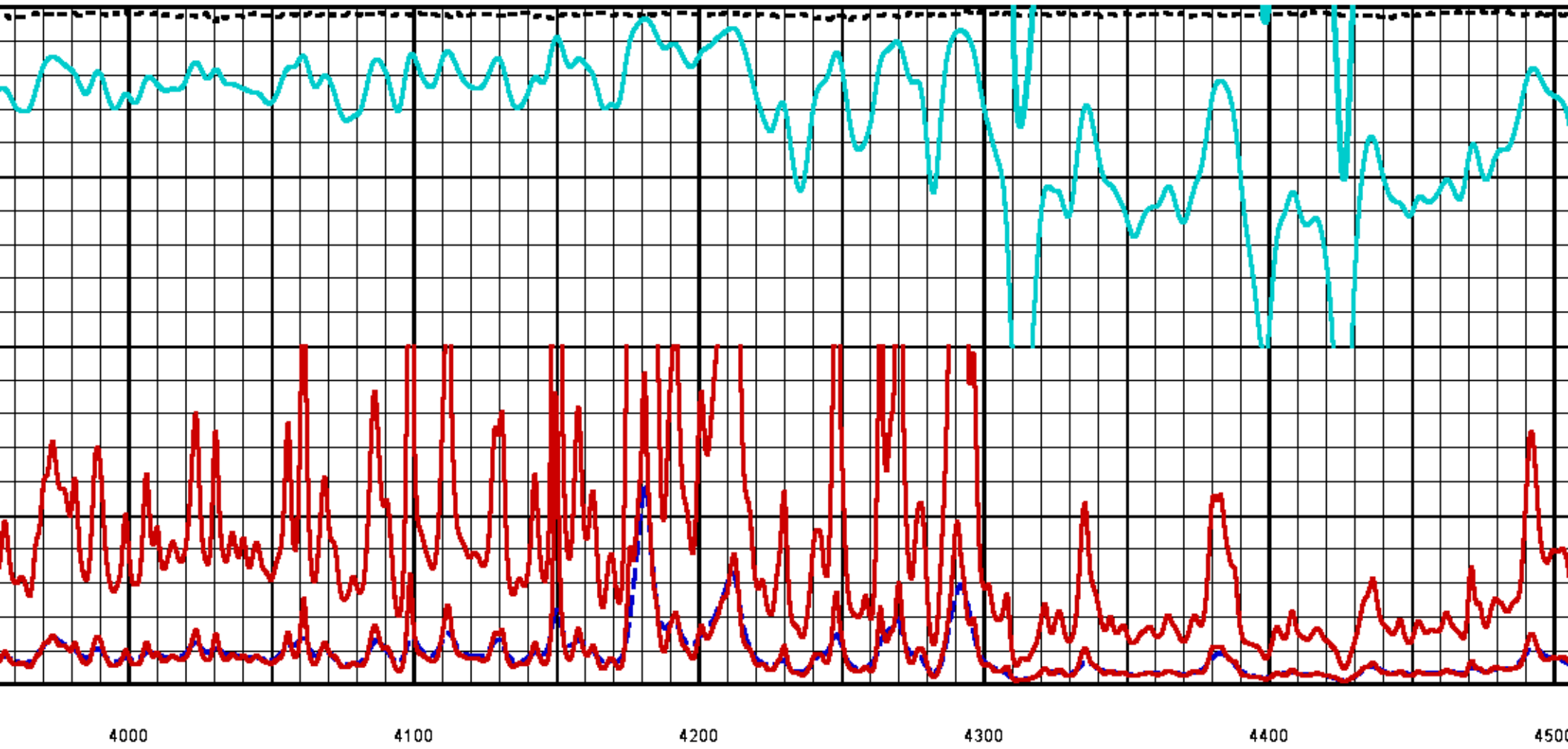
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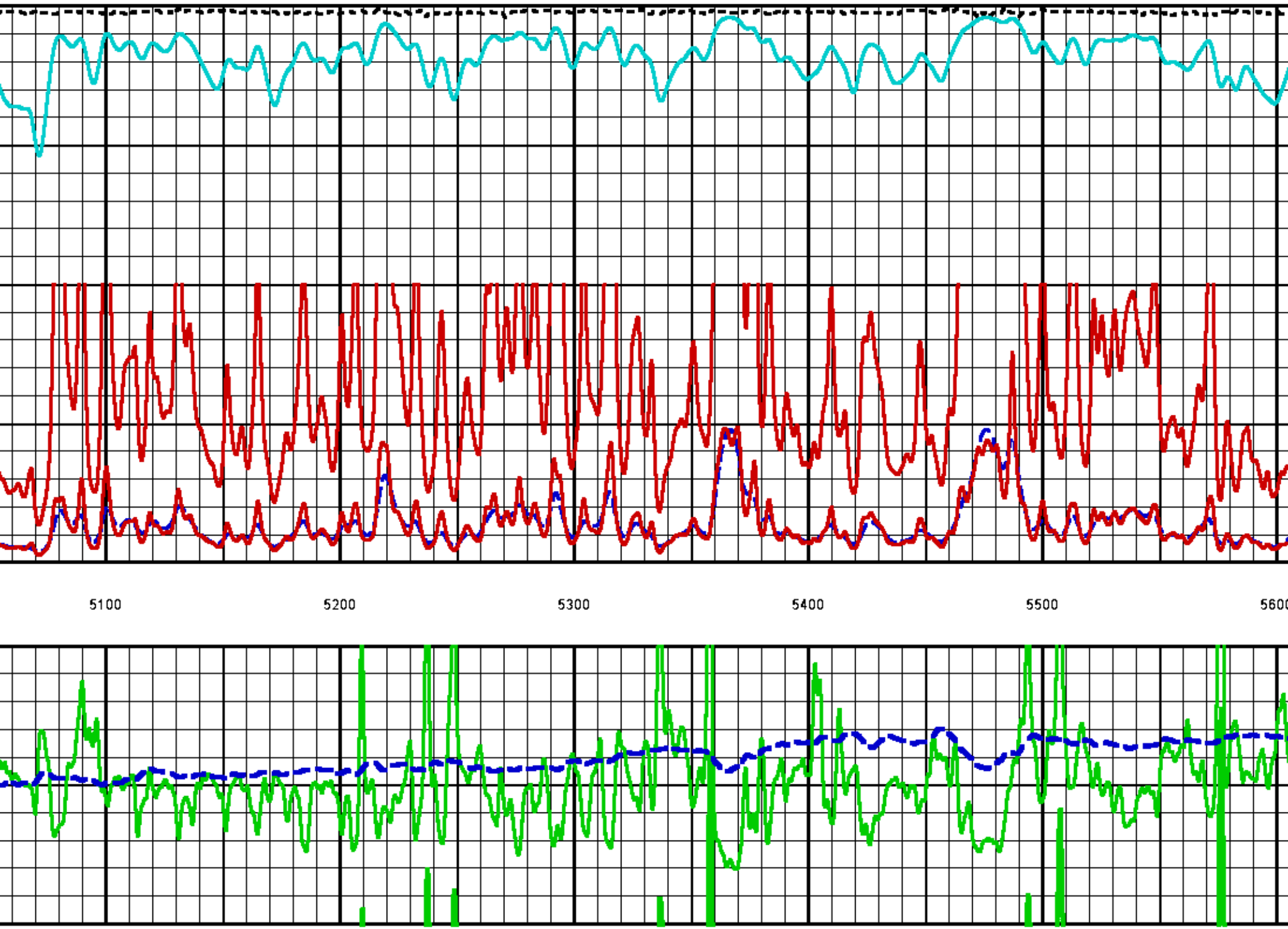
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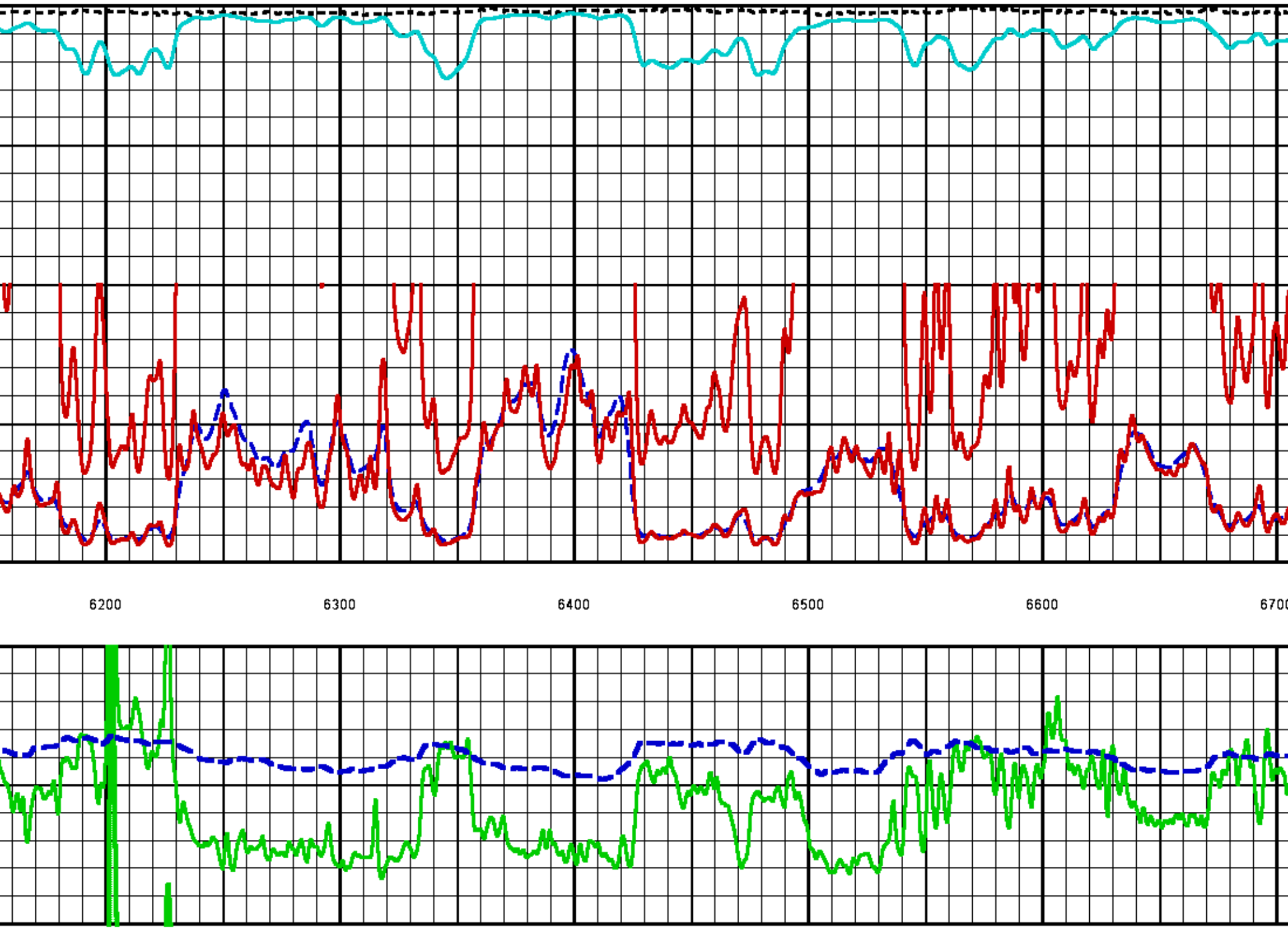
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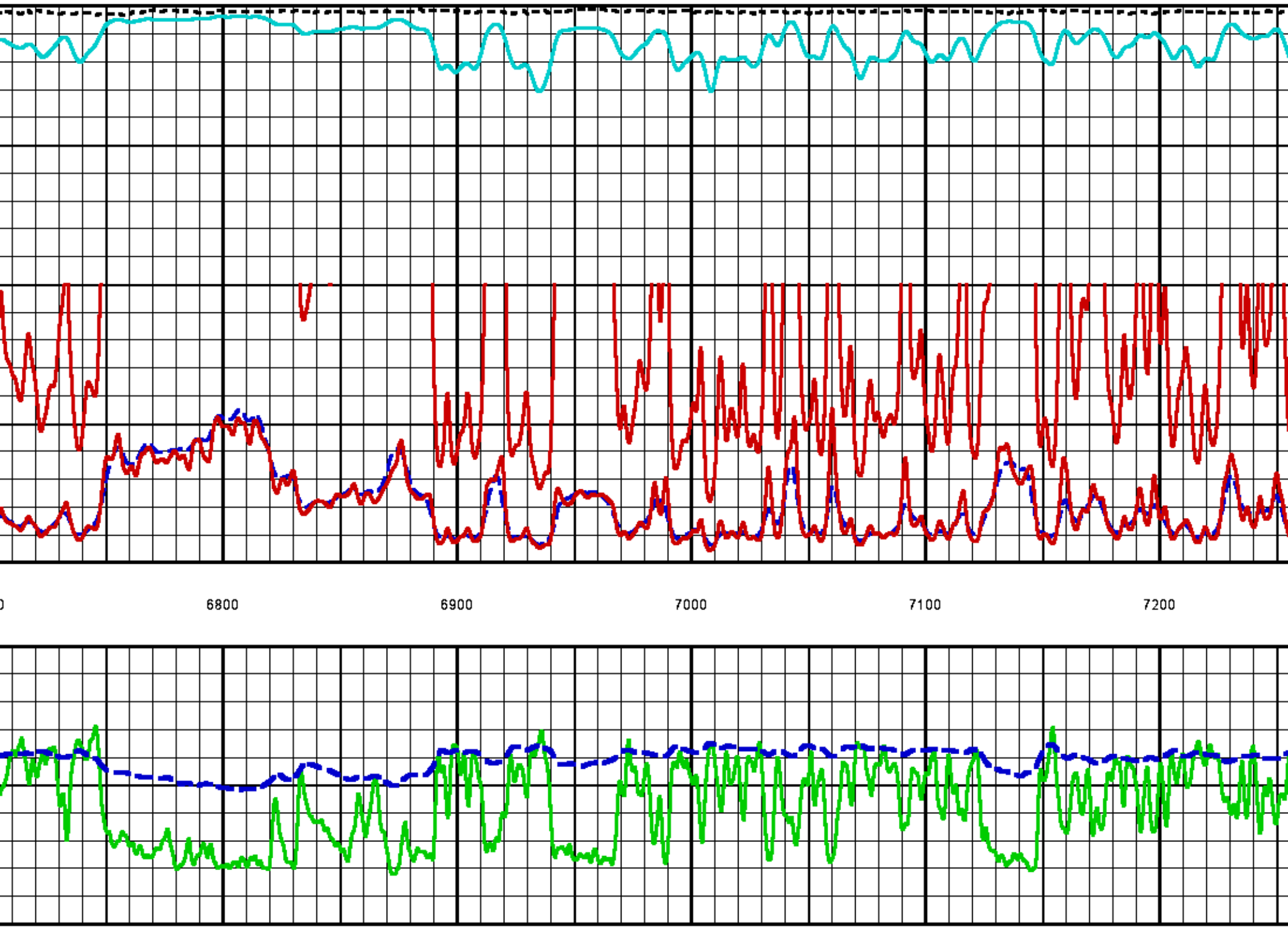
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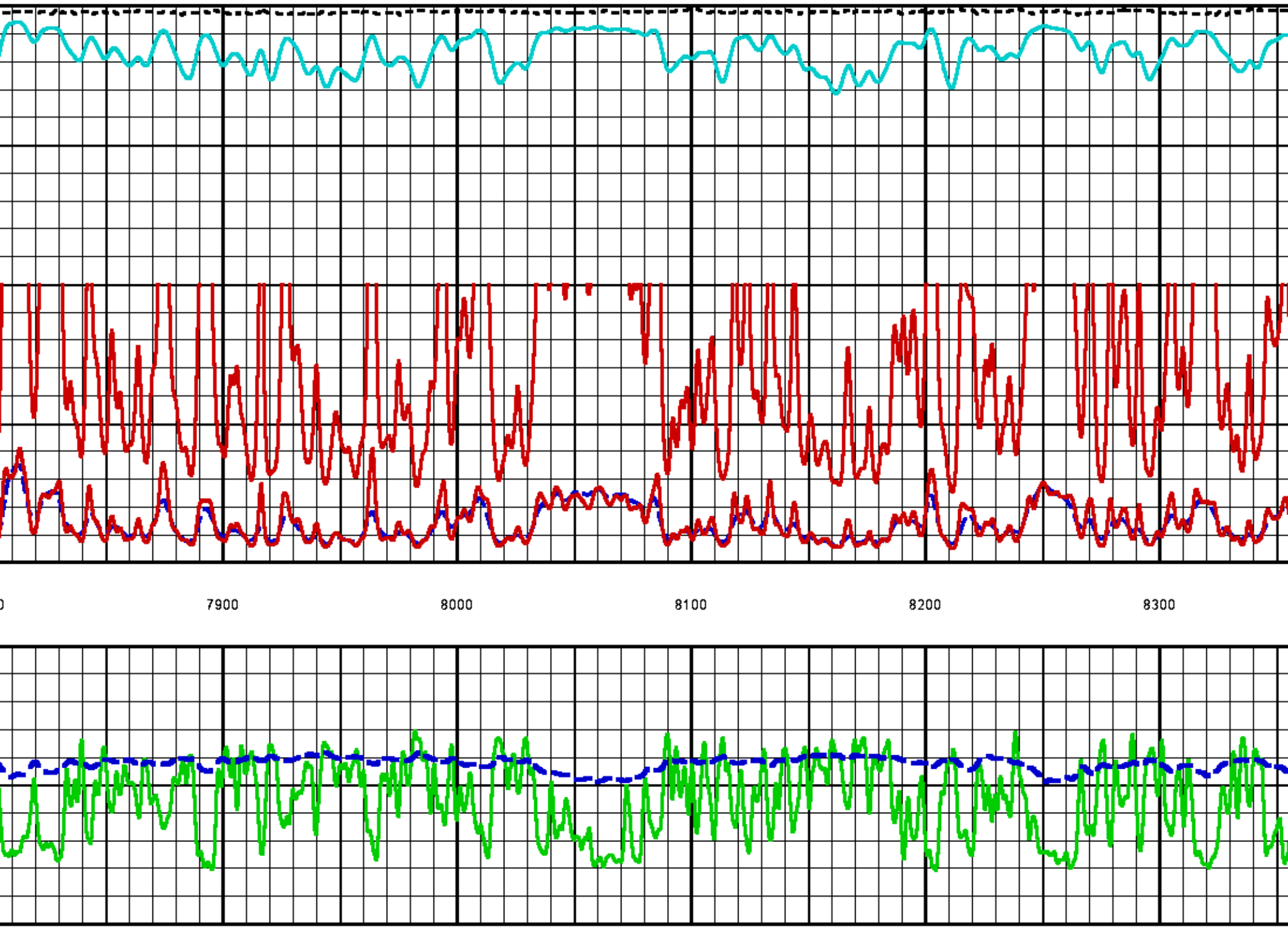
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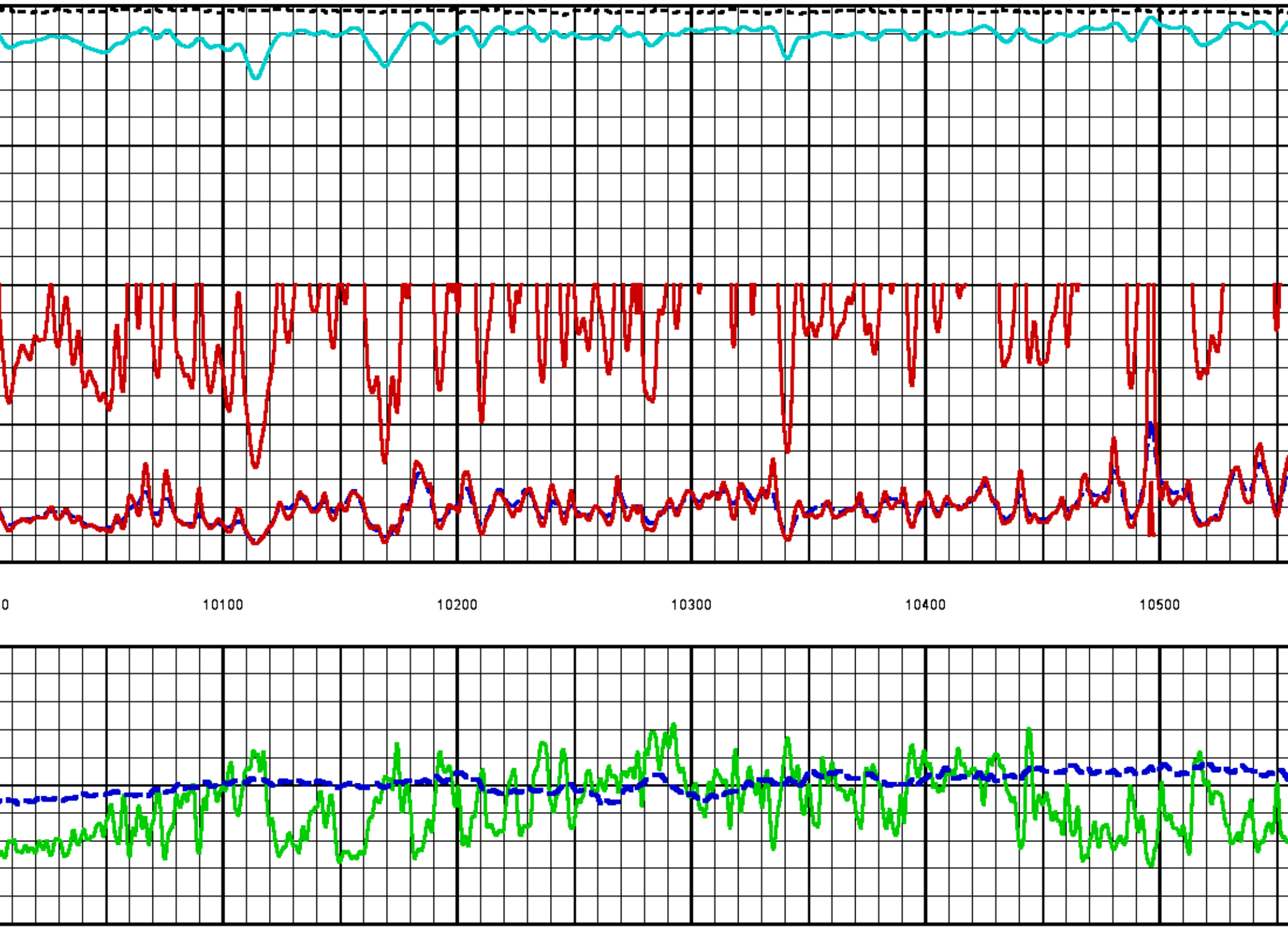
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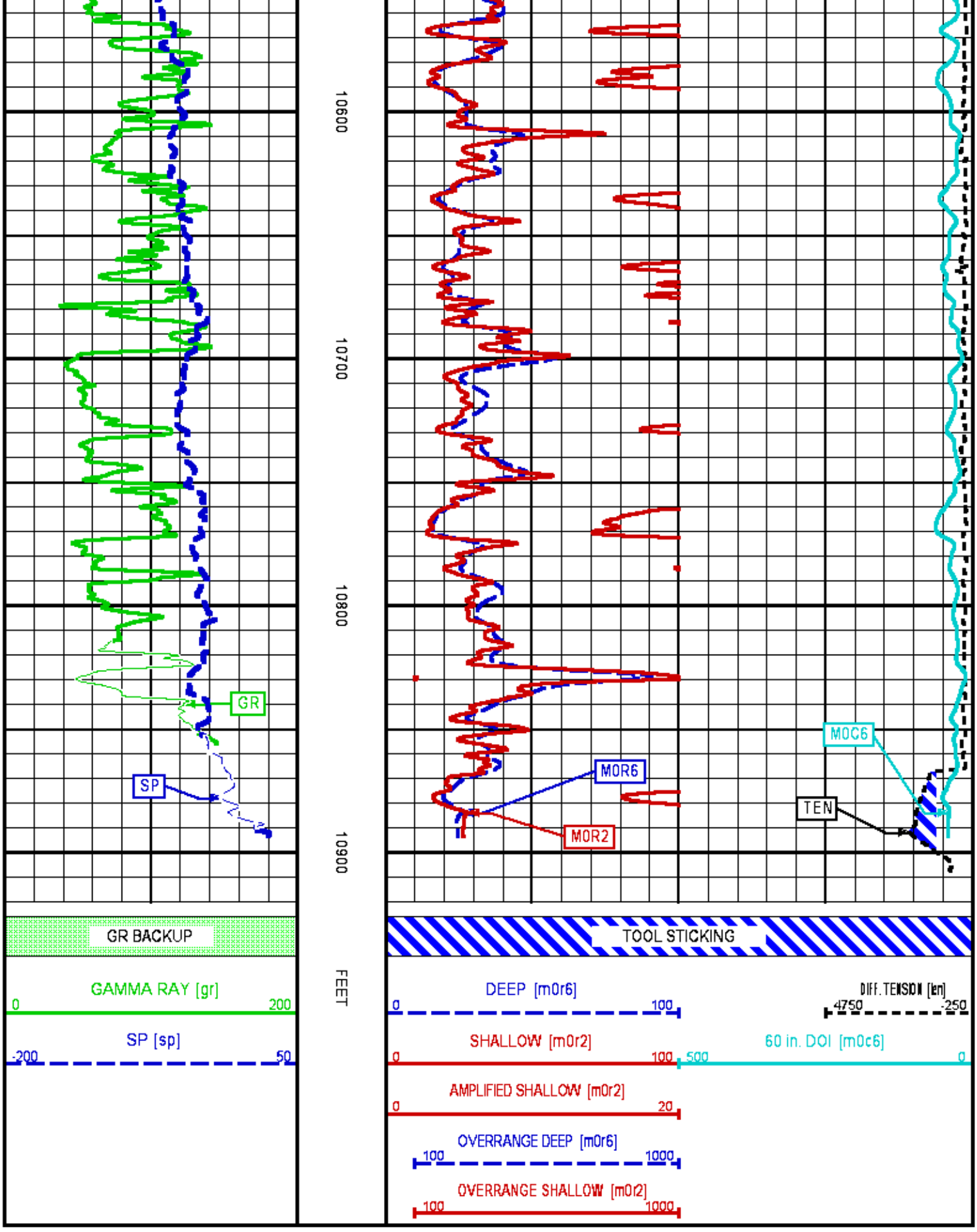
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FEET
GR
SP
M0R6
M0R2
M0C6
TEN
GR BACKUP
TOOL STICKING
GAMMA RAY [gr]
0
200
SP [sp]
-200
50
DEEP [m0r6]
0
100
SHALLOW [m0r2]
0
100
AMPLIFIED SHALLOW [m0r2]
0
20
OVERRANGE DEEP [m0r6]
100
1000
OVERRANGE SHALLOW [m0r2]
100
1000
DIFF. TENSION [ten]
4750
-250
60 in. DOI [m0c6]
500
0

MAIN LOG 5"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 31 Patches: 5

Plotted: Mon Mar 3 06:24:29 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625065/n777q02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2540.000 ft BOTTOM DEPTH: 10904.984 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
TTRM	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
Y AXIS CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CN	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER ()	heavy (3)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	TOP	8788.000
		7.875	in	8788.000	BOTTOM
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	65.0	degF	TOP	BOTTOM
	MUD SAMPLE RES	0.740	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	65.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.750	in	TOP	8773.250
		7.875	in	8773.250	BOTTOM
	FIXED DIAMETER (mbh*)	8.750	in	TOP	8811.000
		7.875	in	8811.000	BOTTOM
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
2446 CN MATRIX	2446 MATRIX	SANDSTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	1700	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	7.875	in	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	RHOmatrix	2.680	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	"	"
ZDL	DENX TRACKING	ON		"	"

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
				TOP	BOTTOM
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP			
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"

CURVE DESCRIPTION REPORT

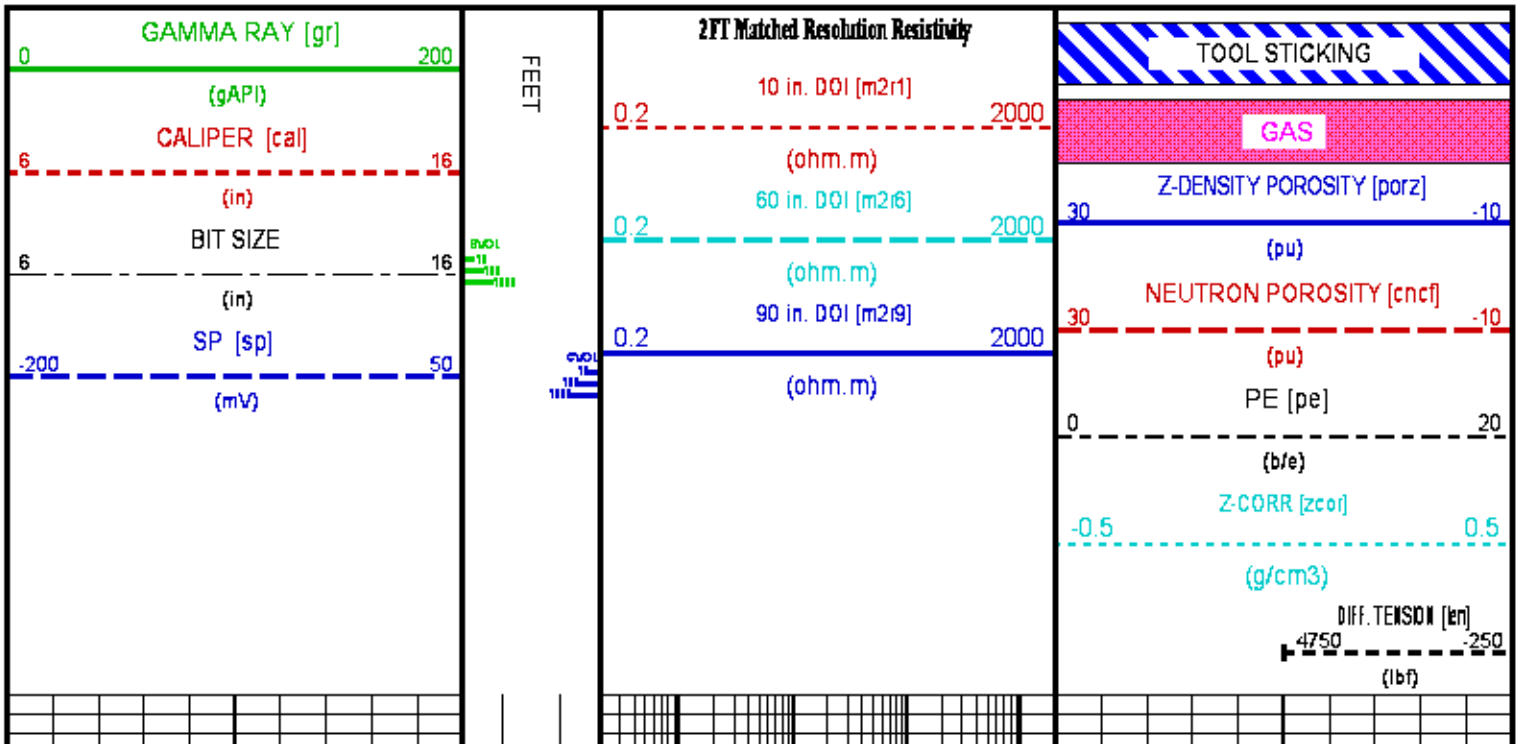
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 3 02:30:16 2014	BIT SIZE
F1:BVOL	Mar 3 02:30:16 2014	BOREHOLE VOLUME
F1:CAL	Mar 3 02:30:16 2014	CALIPER
F1:CNCF	Mar 3 02:30:16 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Mar 3 02:30:16 2014	CEMENT VOLUME
F1:GR	Mar 3 02:30:16 2014	GAMMA RAY
F1:M2R1	Mar 3 02:30:16 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Mar 3 02:30:16 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Mar 3 02:30:16 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Mar 3 02:30:16 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Mar 3 02:30:16 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Mar 3 02:30:16 2014	SPONTANEOUS POTENTIAL
F1:TEN	Mar 3 02:30:16 2014	DIFFERENTIAL TENSION
F1:ZCOR	Mar 3 02:30:16 2014	DENSITY CORRECTION

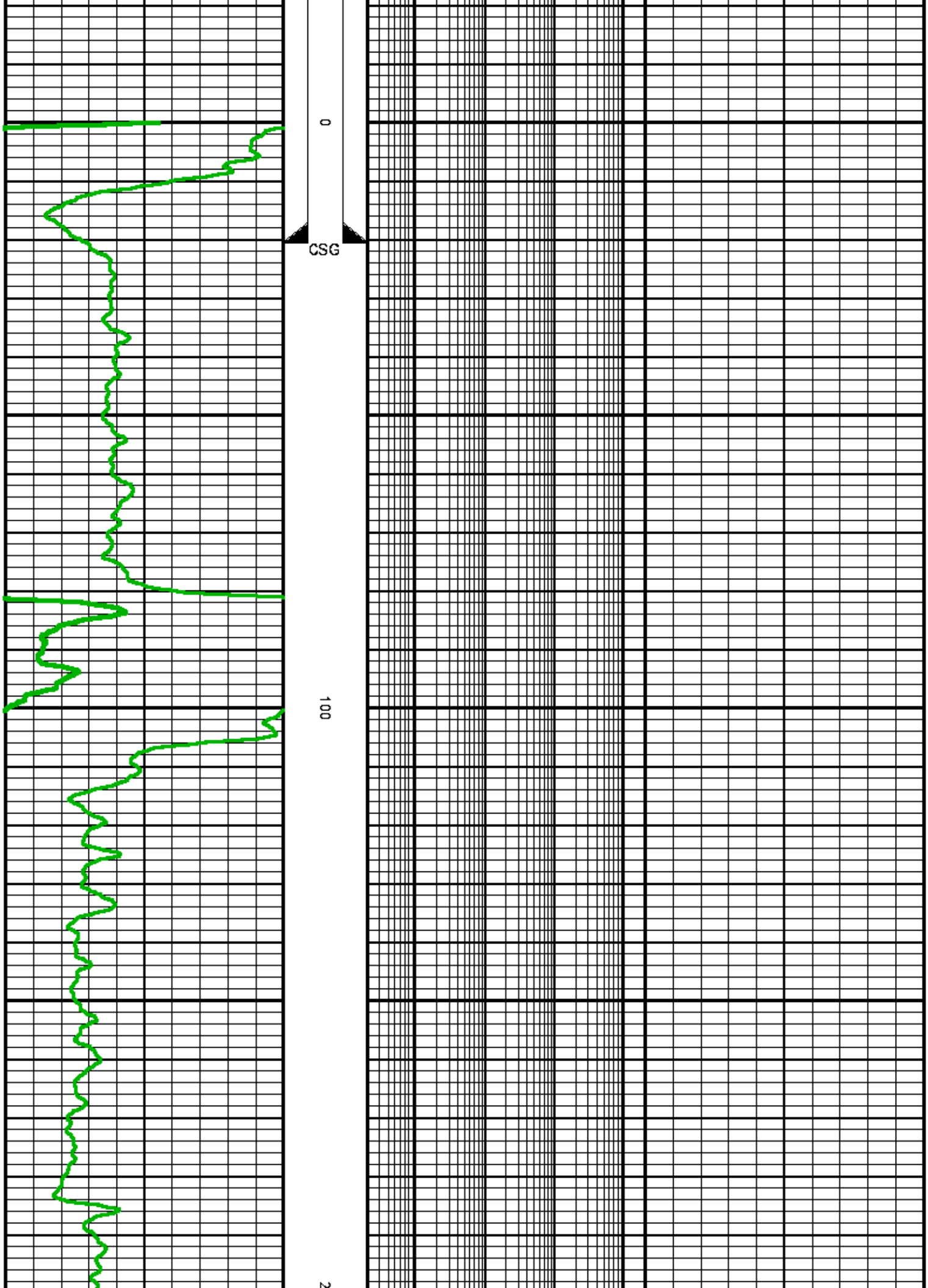
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	52.25	M2R9	8.00	SP	14.00
CAL	35.00	M2R1	8.00	PE	34.25	TEN	0.00
CNCF	45.25	M2R6	8.00	PORZ	34.25	ZCOR	34.25

Presentation : **HL6670:/dat1a/625065/WPX_5IN.fvpdf [5"/100' Scale]**
Plot Interval : **-24.5 - 10910.2 Feet**

Data File 1 : **F1 : HL6670:/dat1a/625065/n777q02-MAIN.xtf**
Created On : **Mar 3 02:30:16 2014**
Company : **WPX ENERGY INC**
Well : **FEDERAL RG 411-14-29S**
Field : **SULPHUR CREEK**
File Interval : **-24.5 - 10910.2 Feet**
OCT : **n777q**

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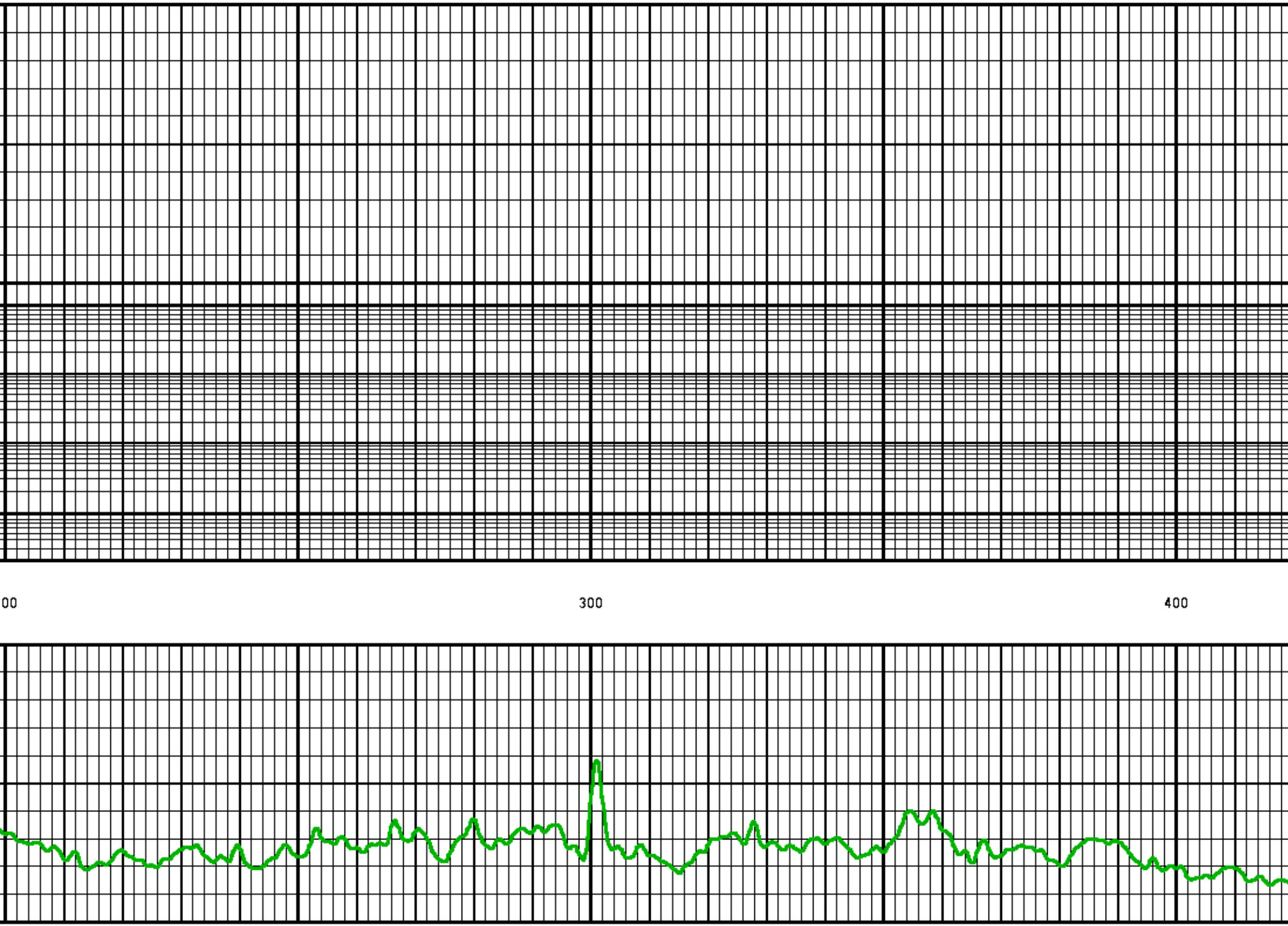
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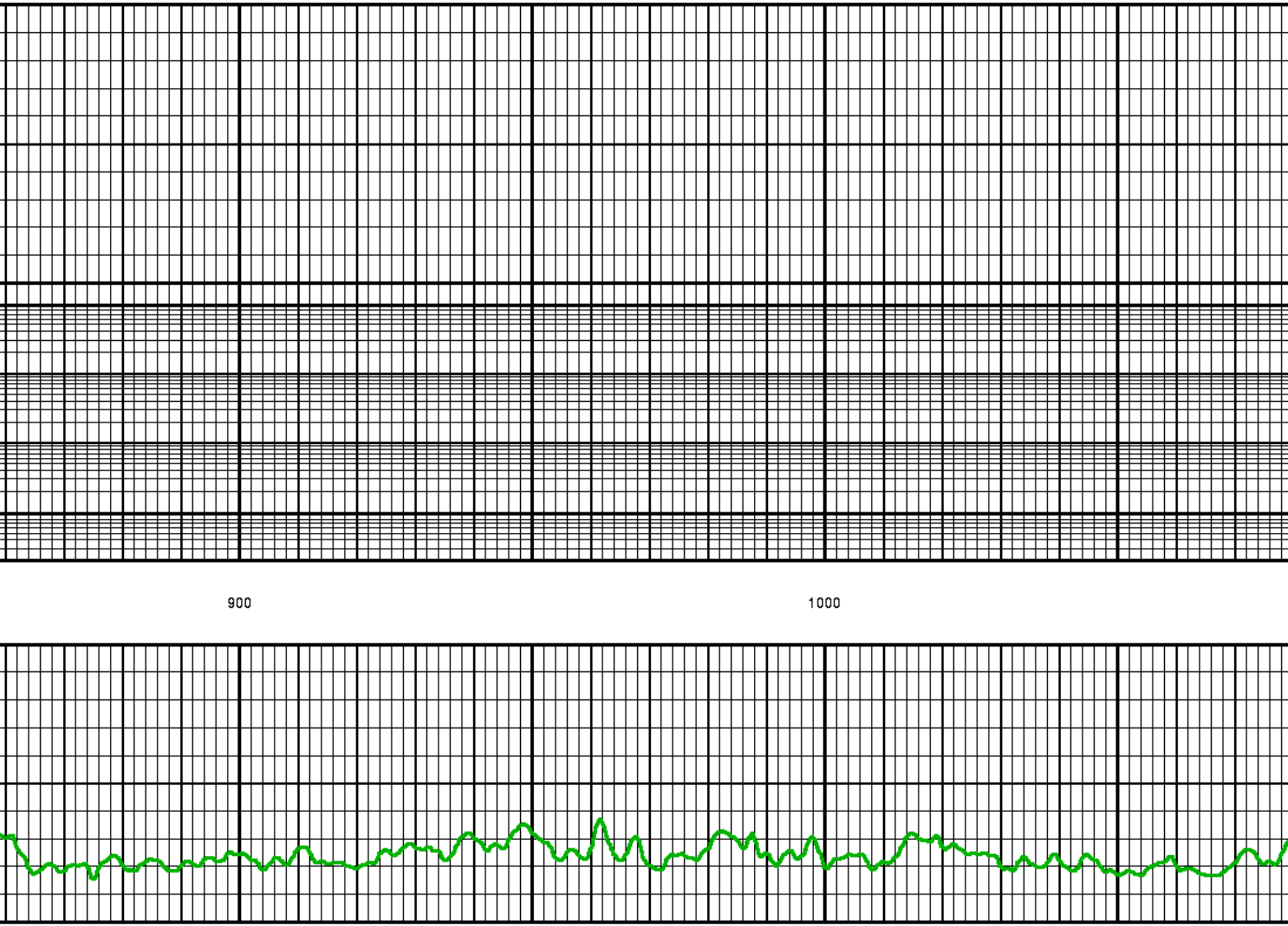
500

600

700

800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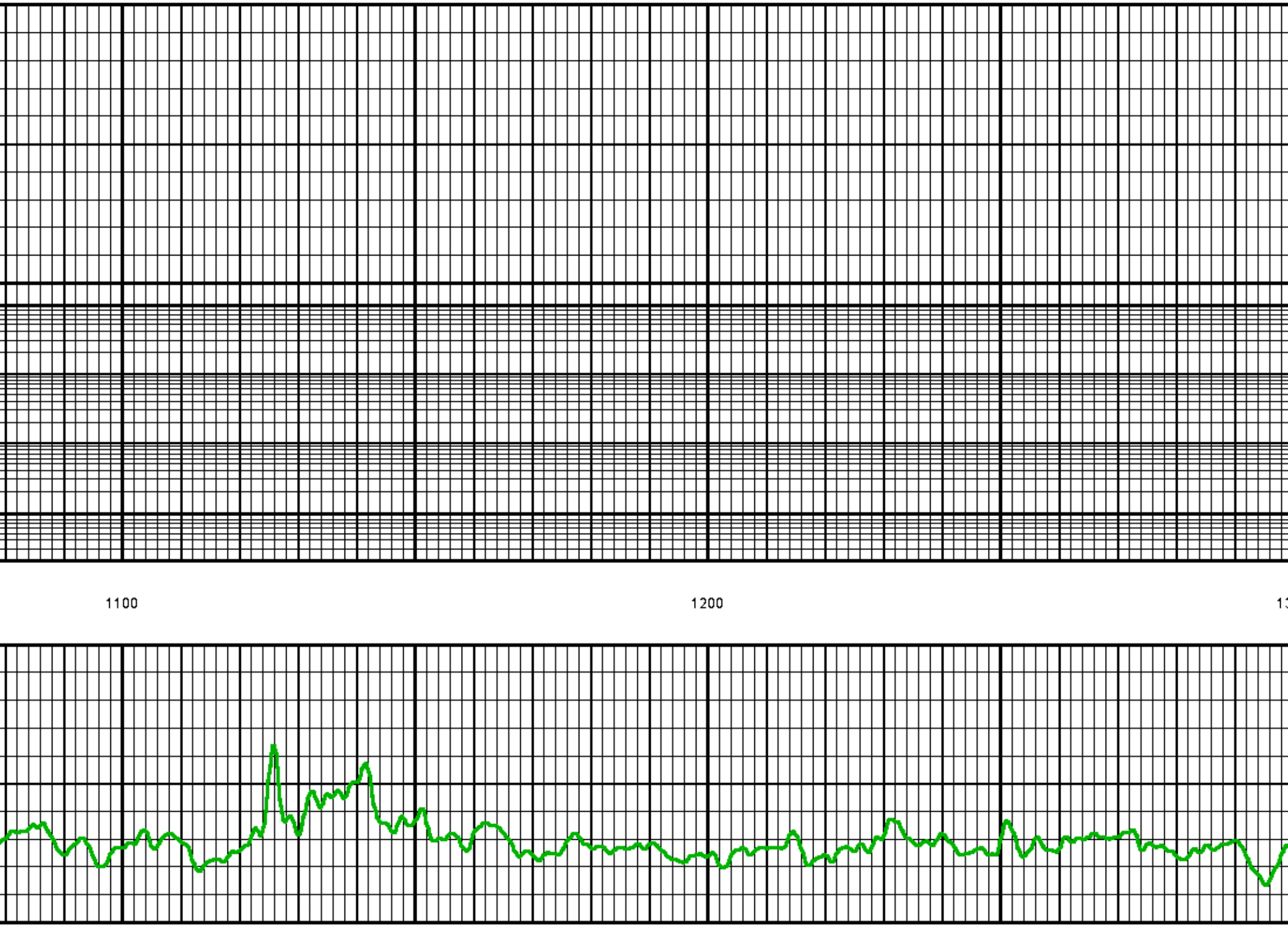
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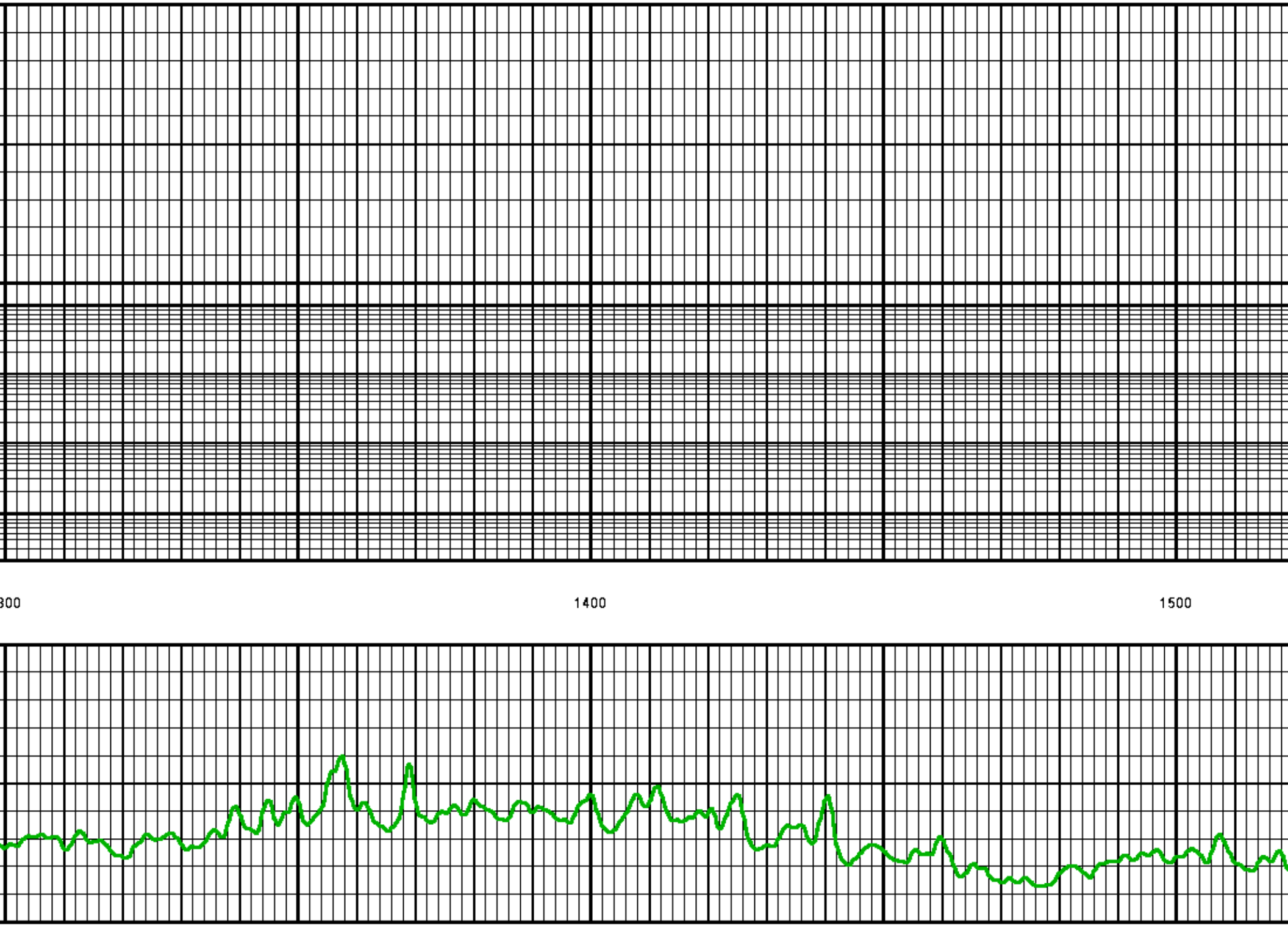
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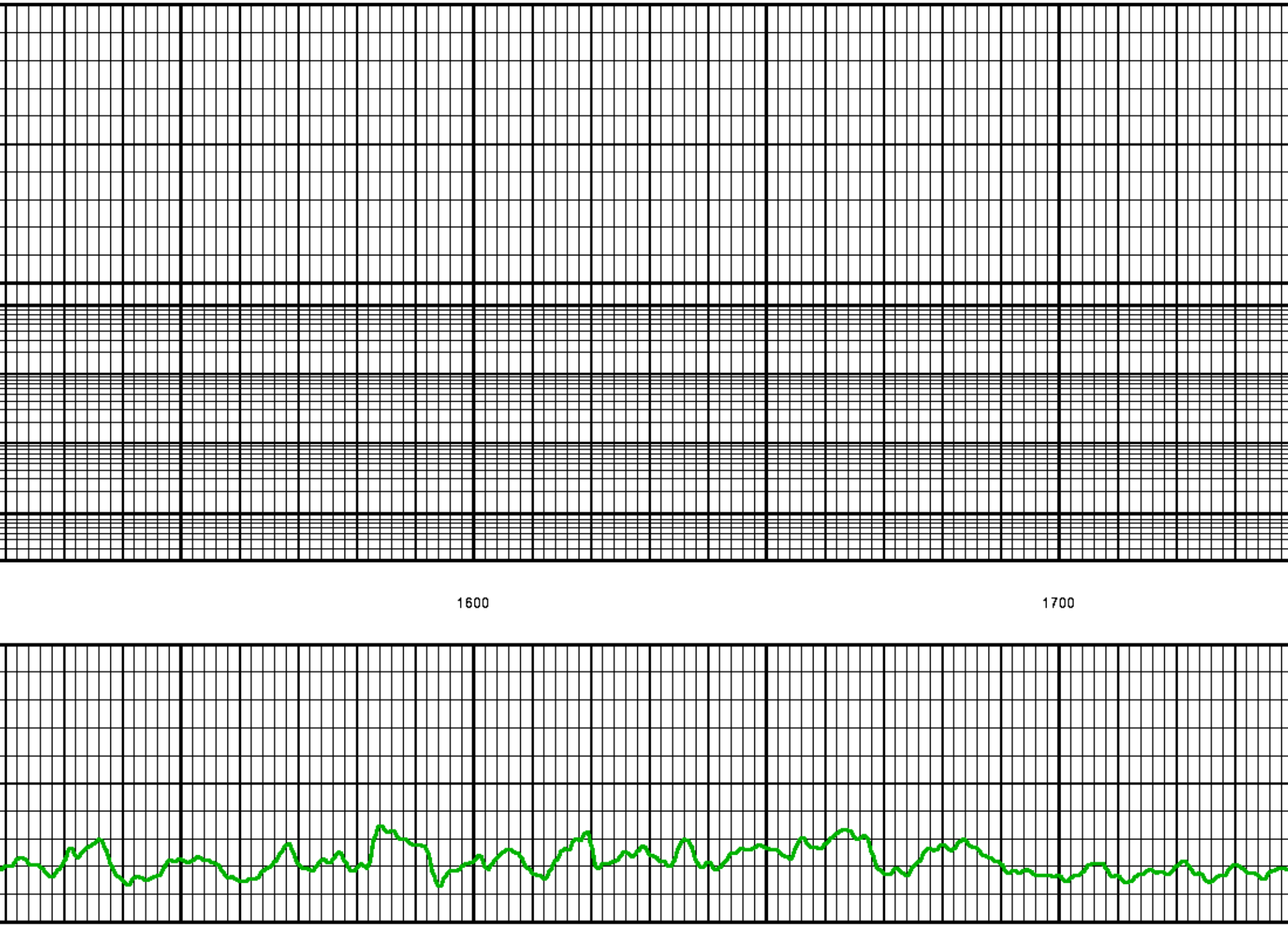
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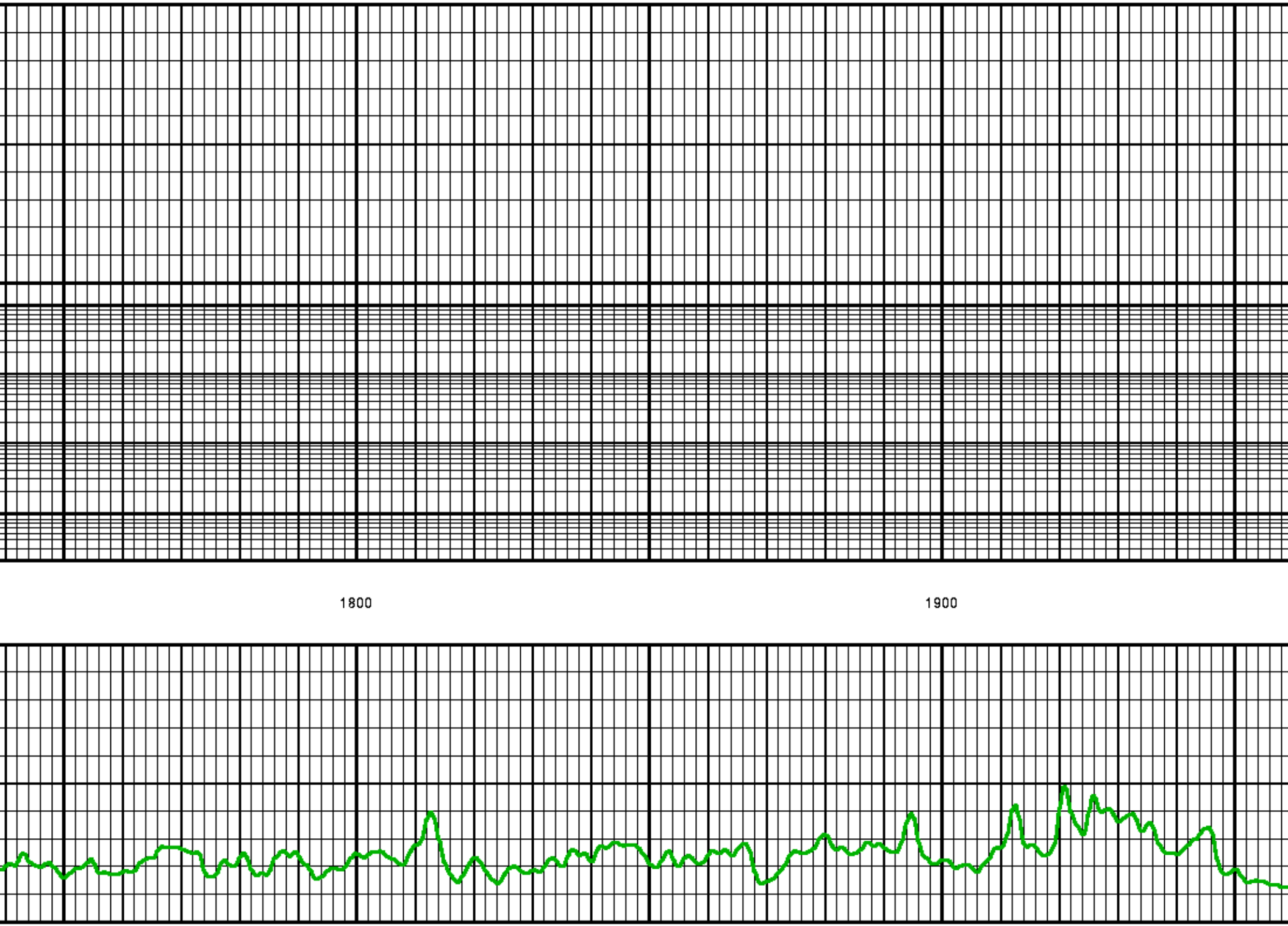
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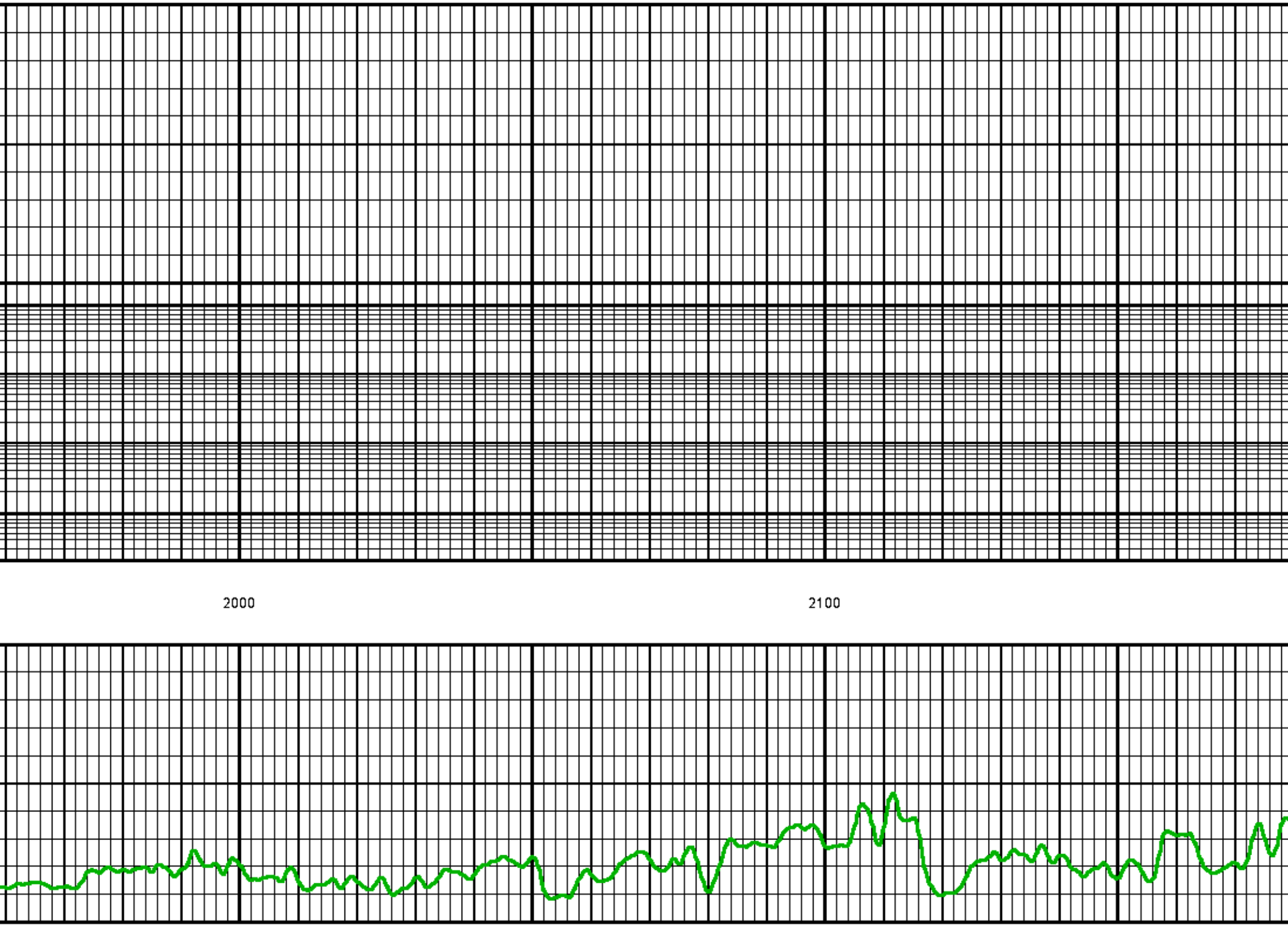
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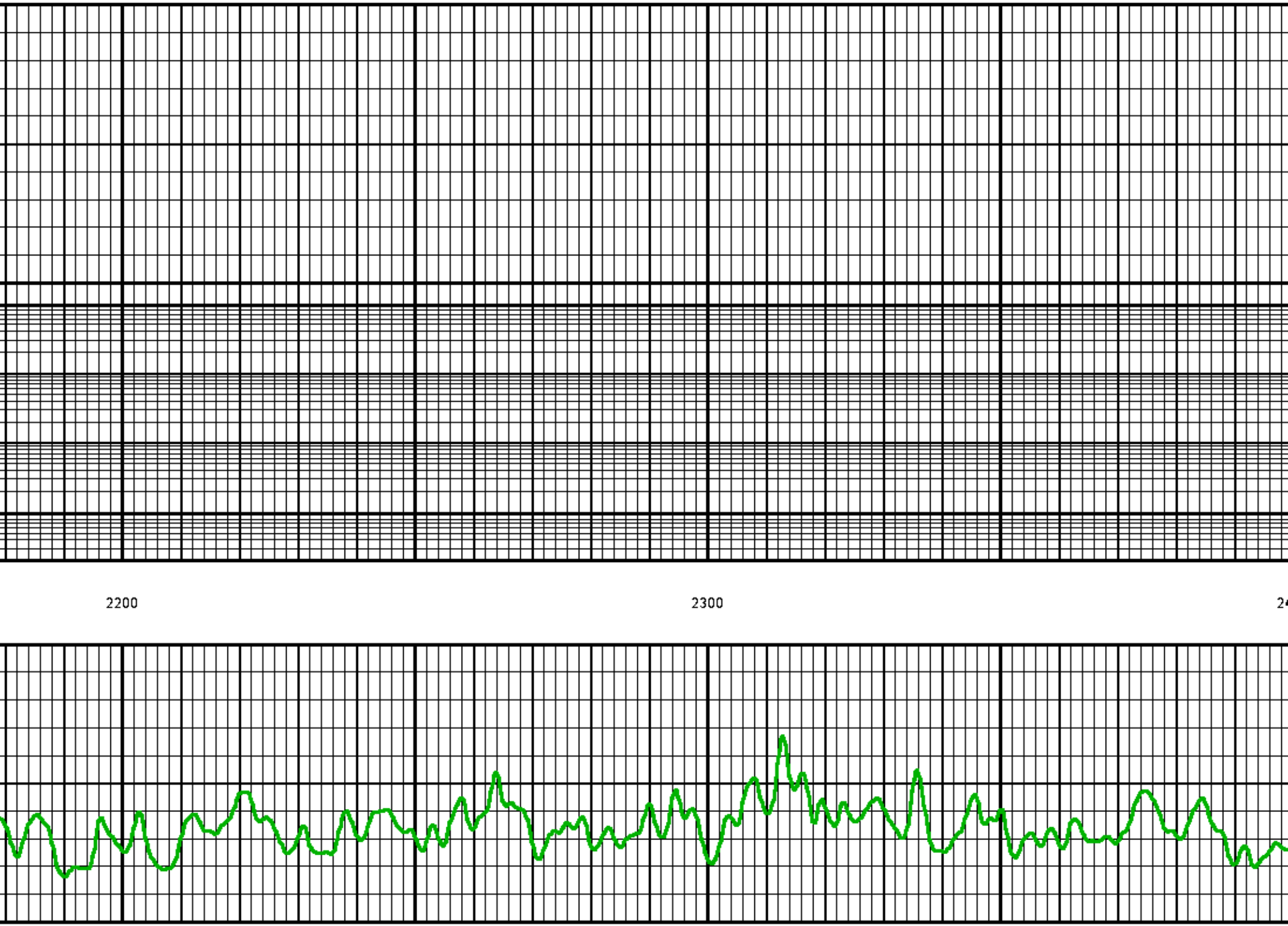
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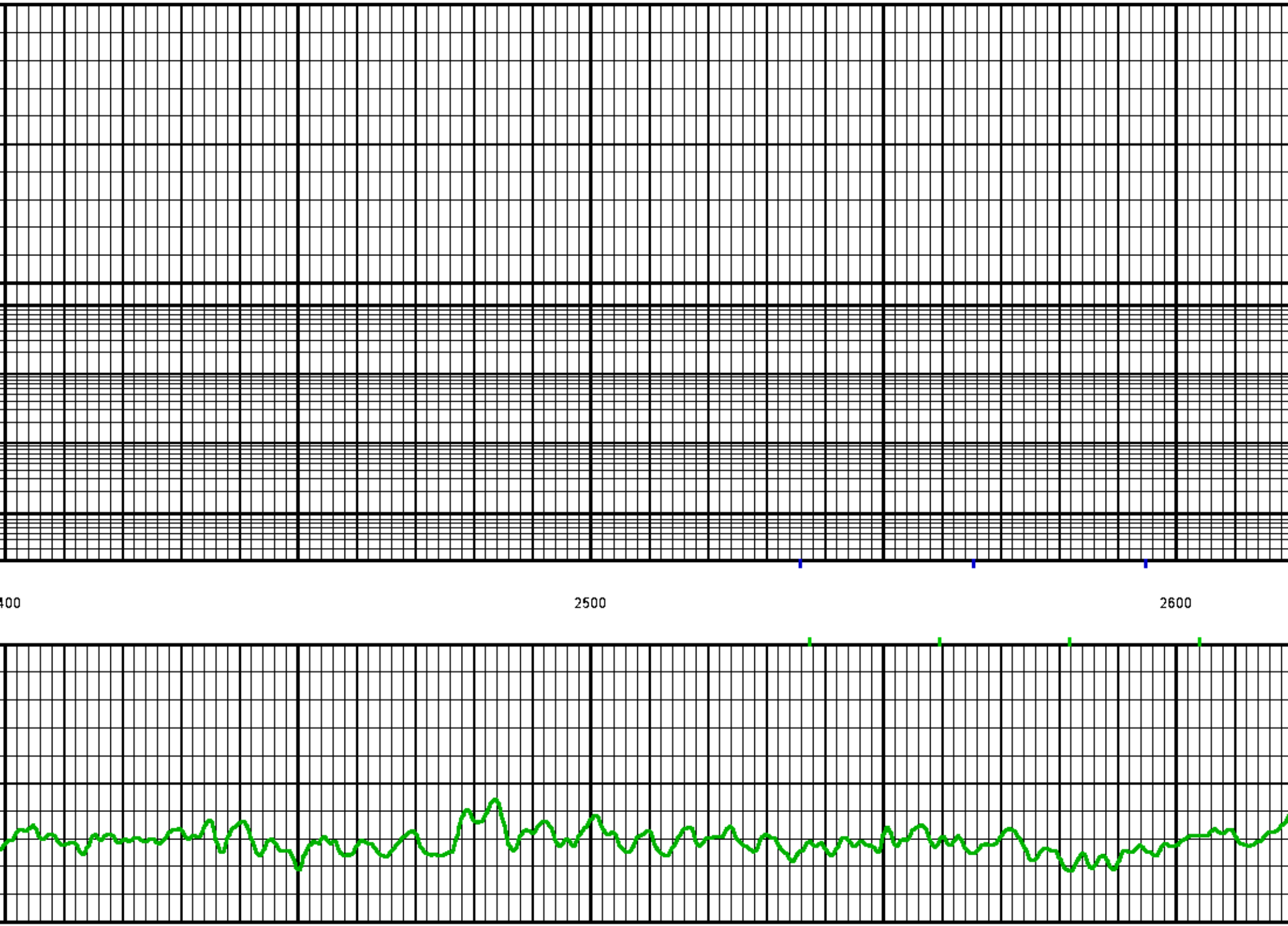
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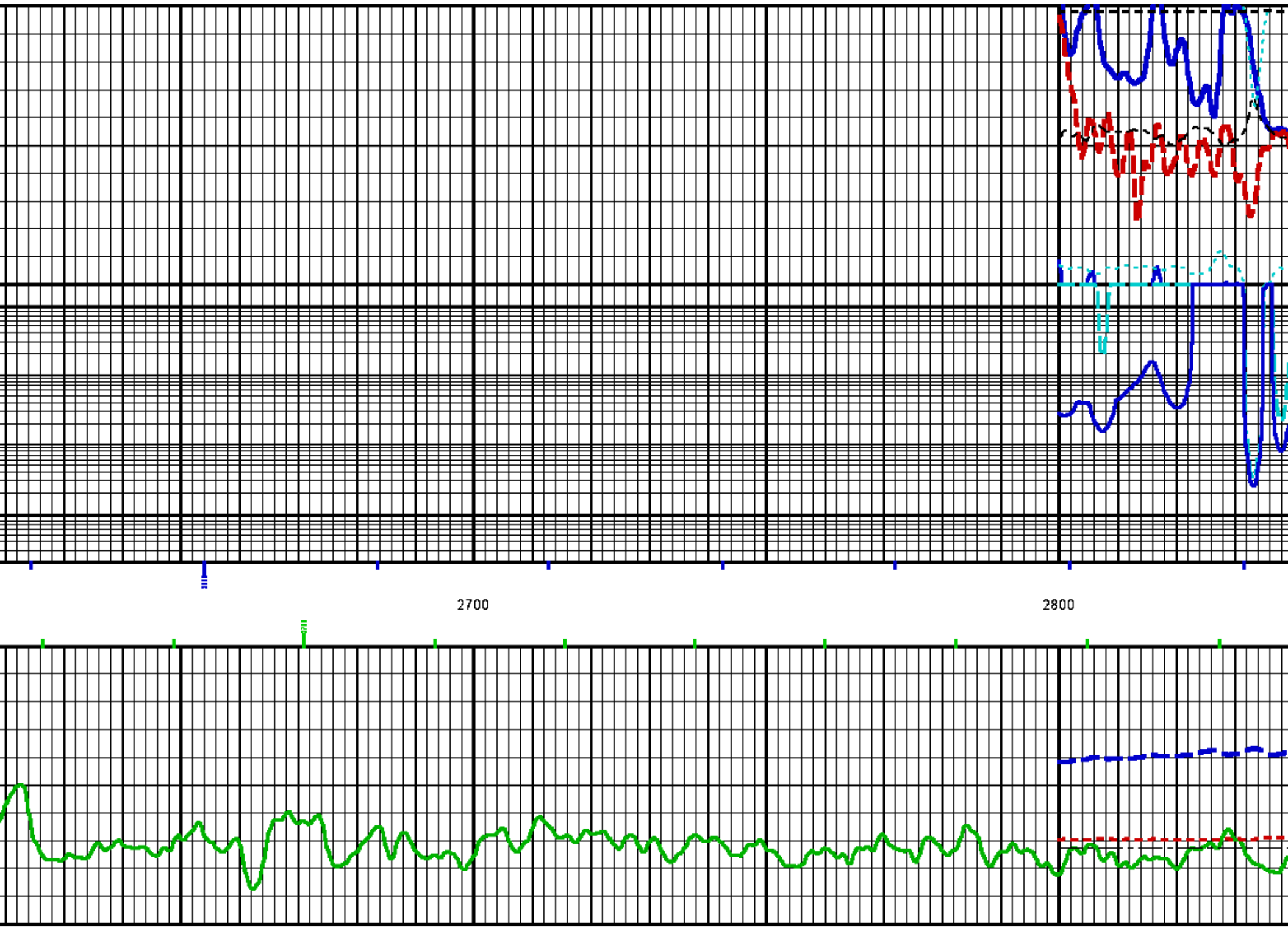
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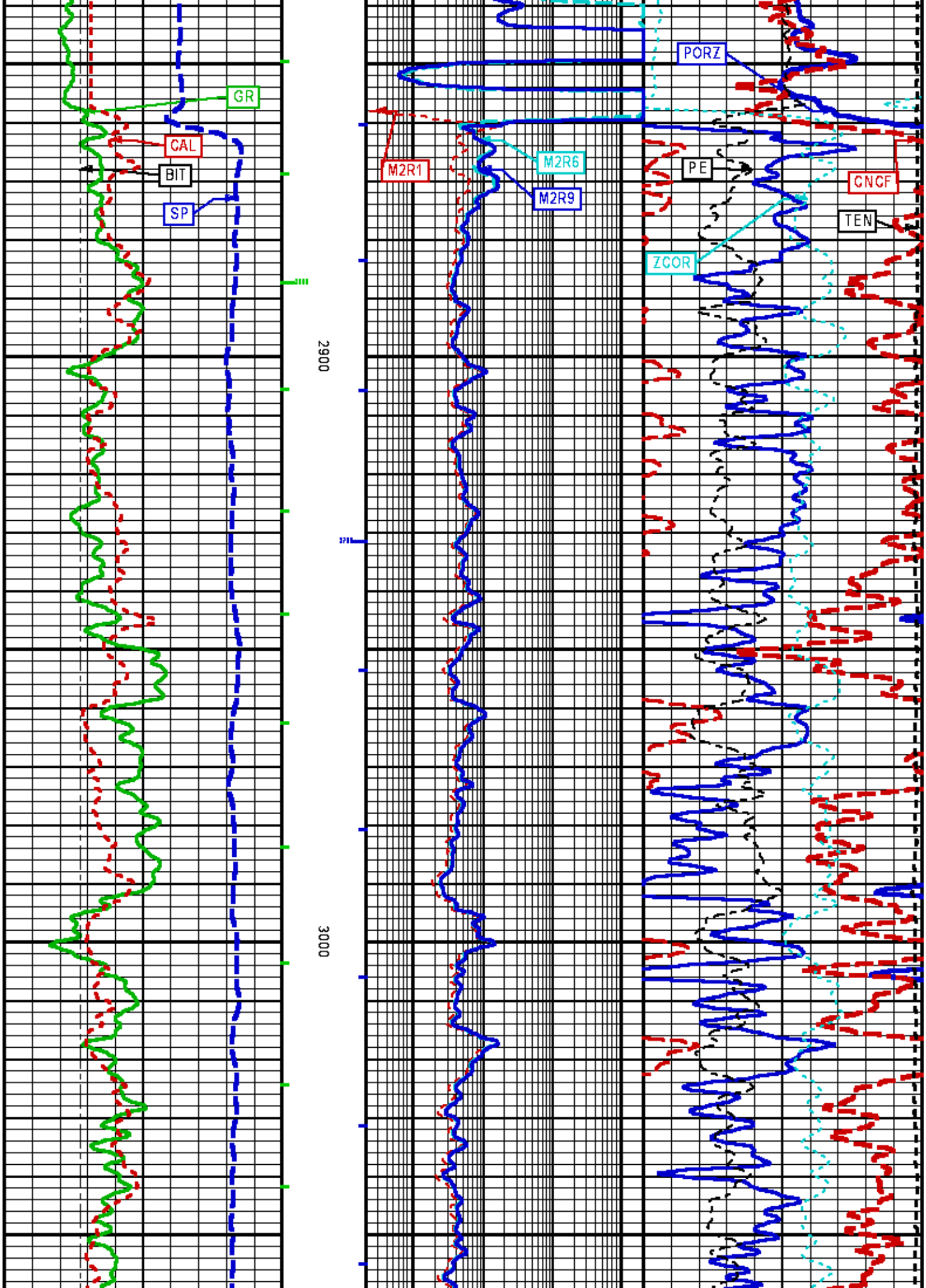
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SP
M2R1
M2R6
M2R9
PORZ
PE
CNCF
TEN
ZCOR
2900
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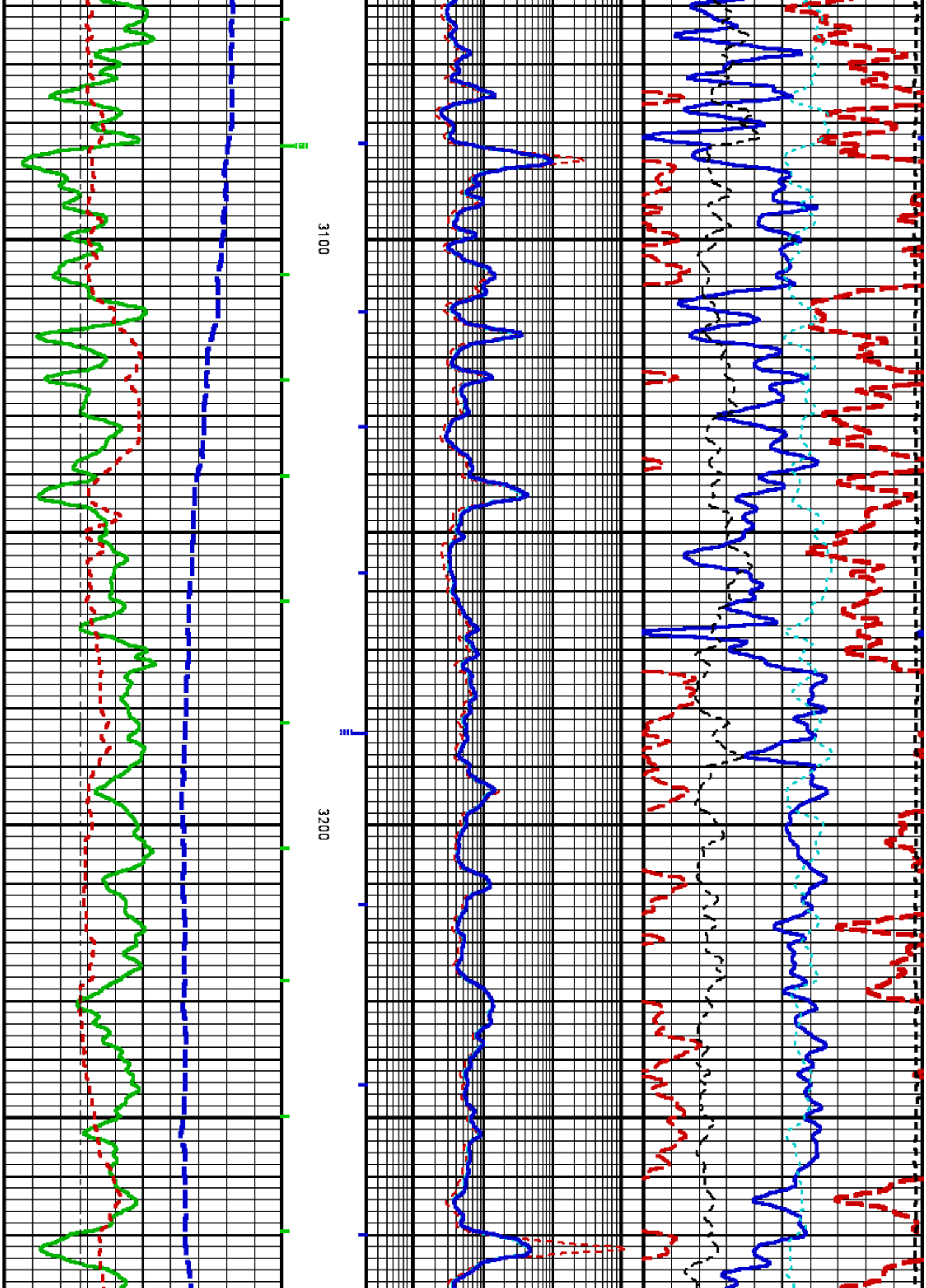
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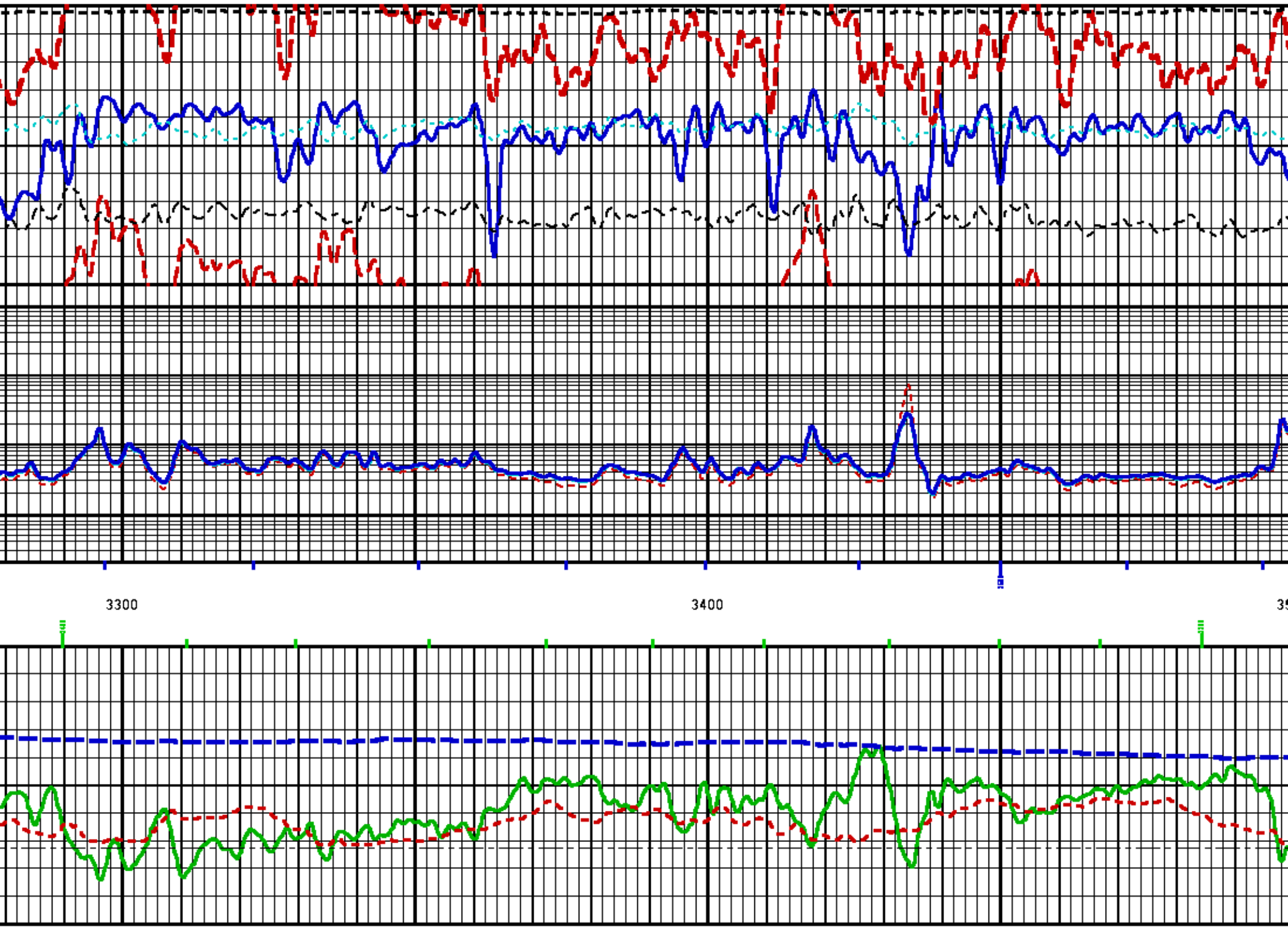
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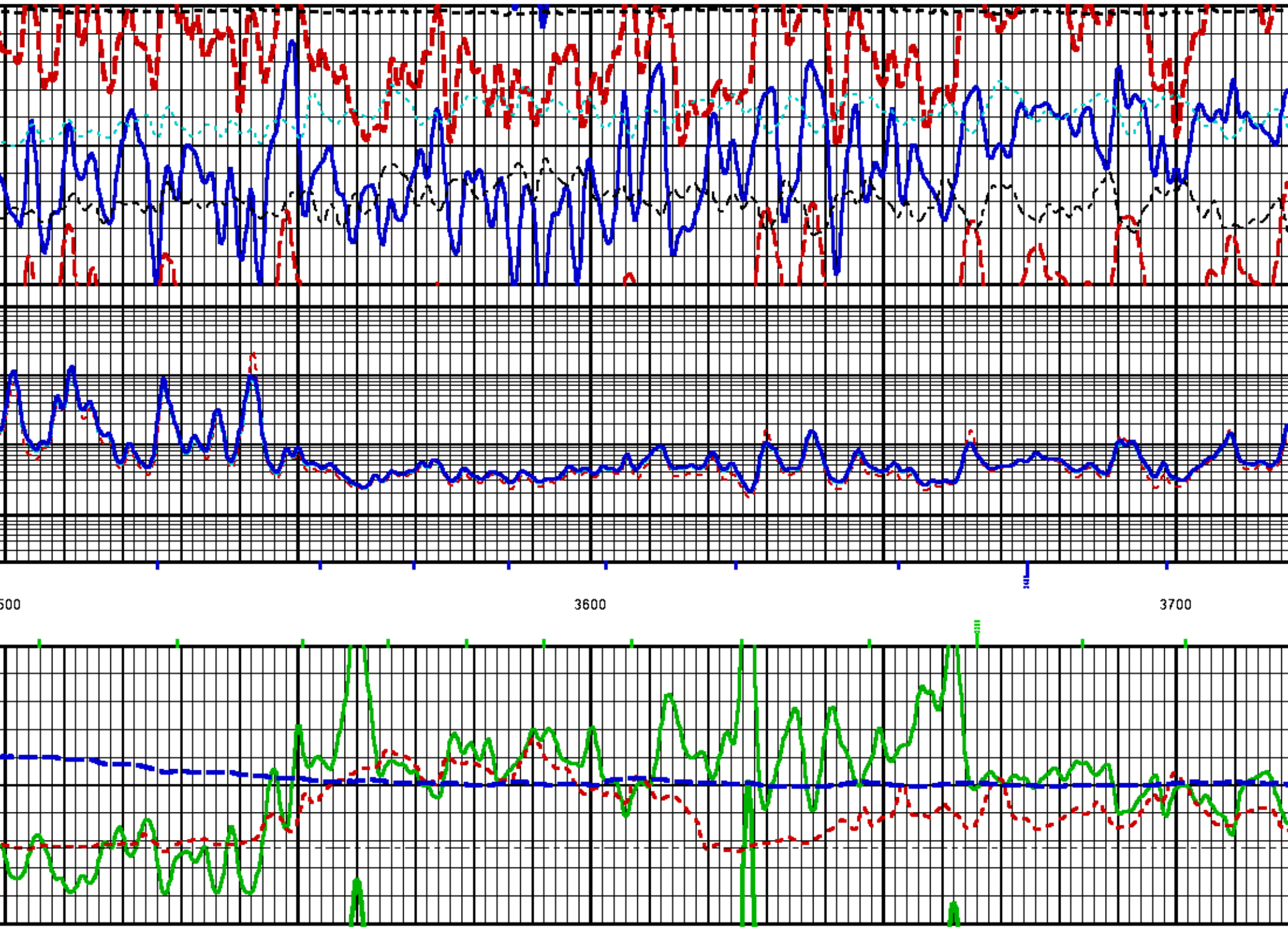
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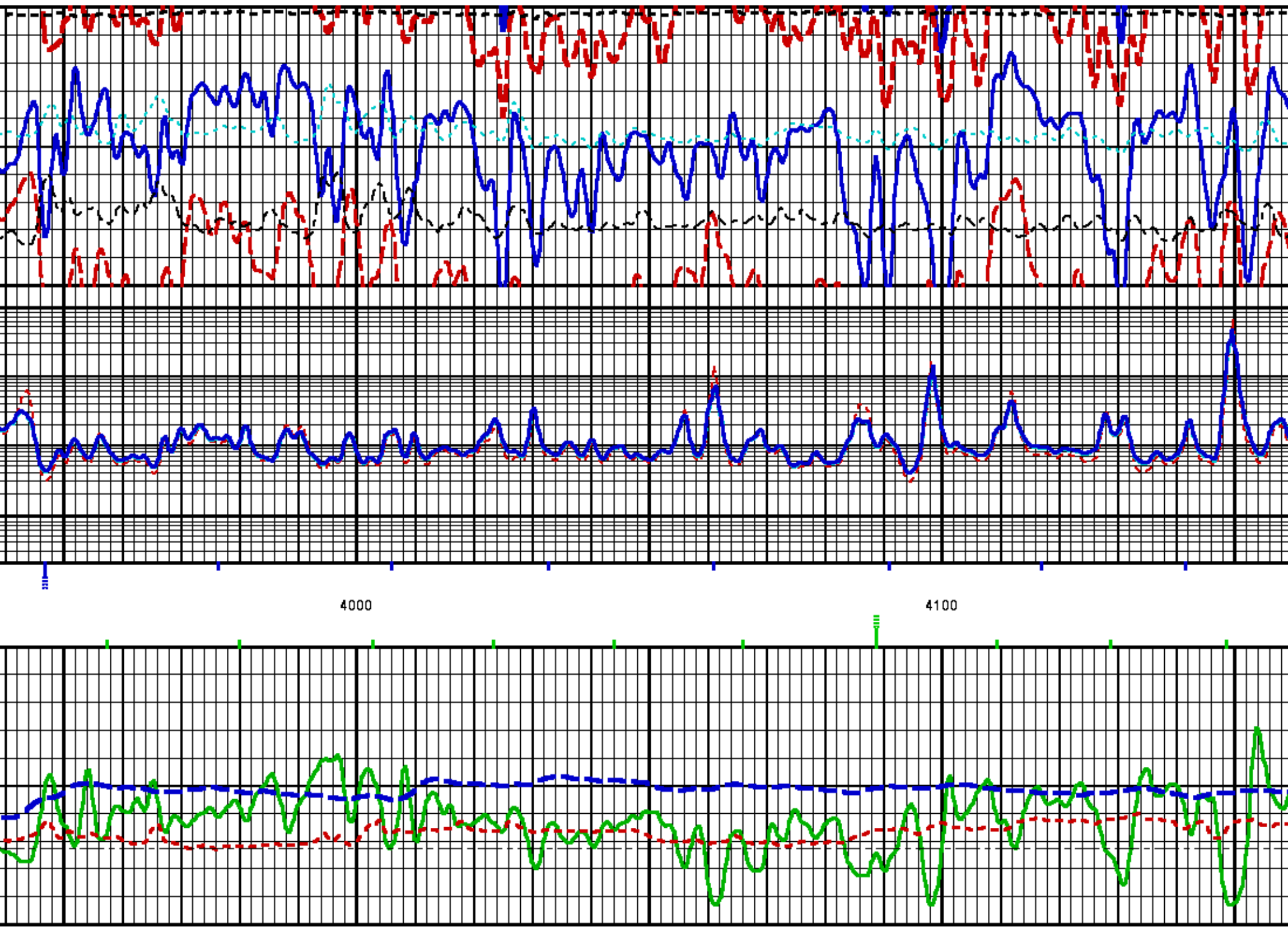
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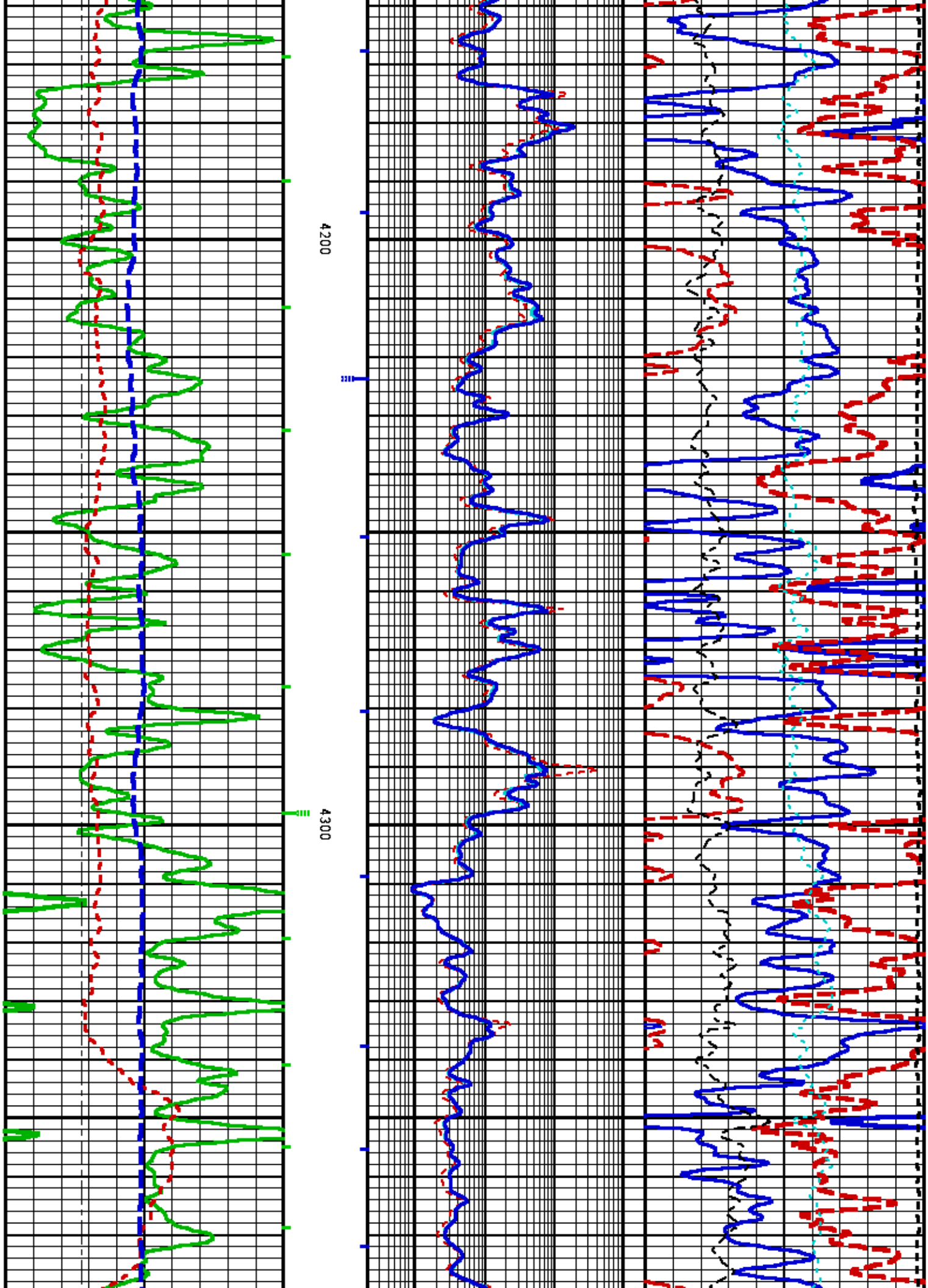
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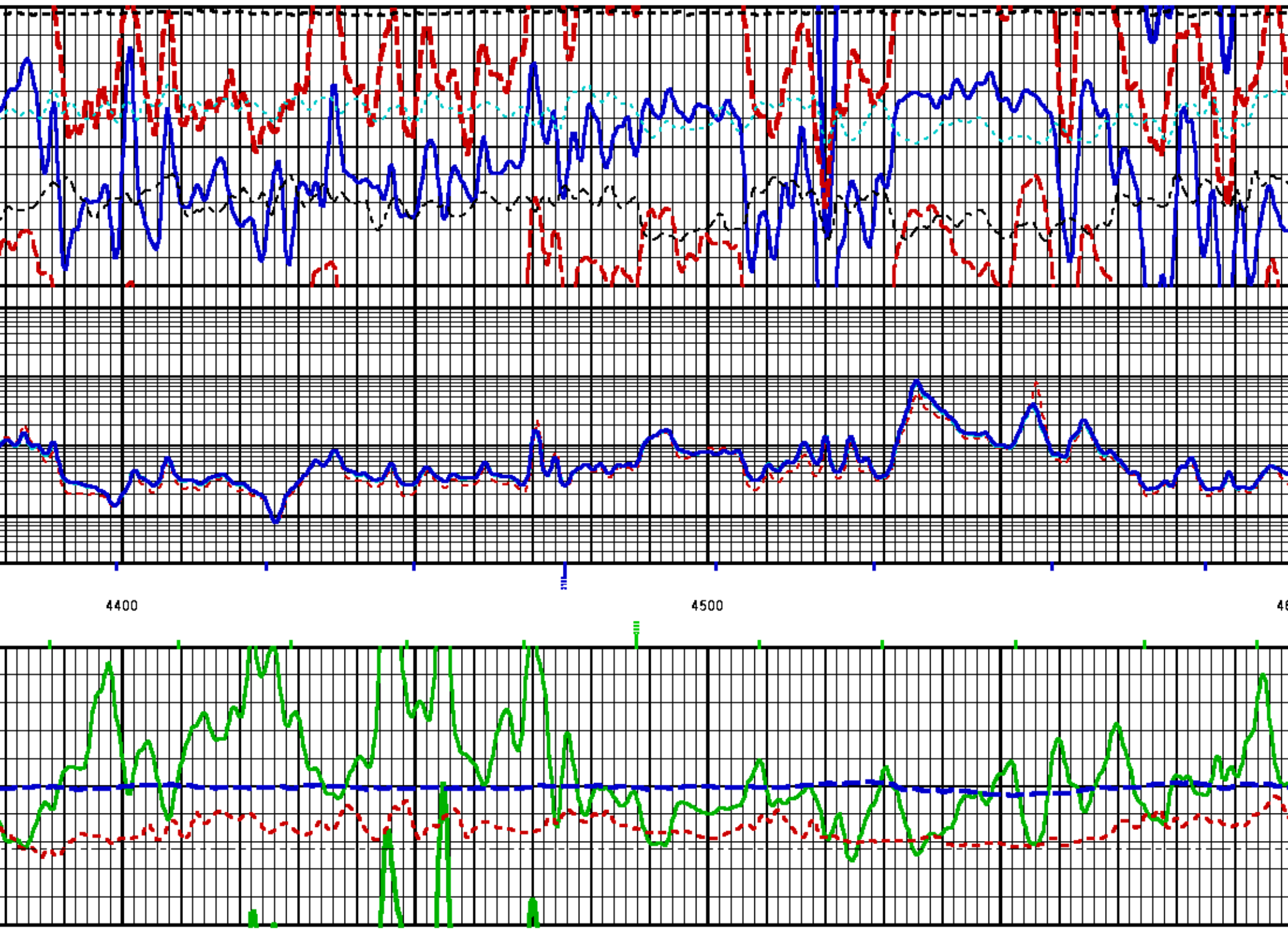
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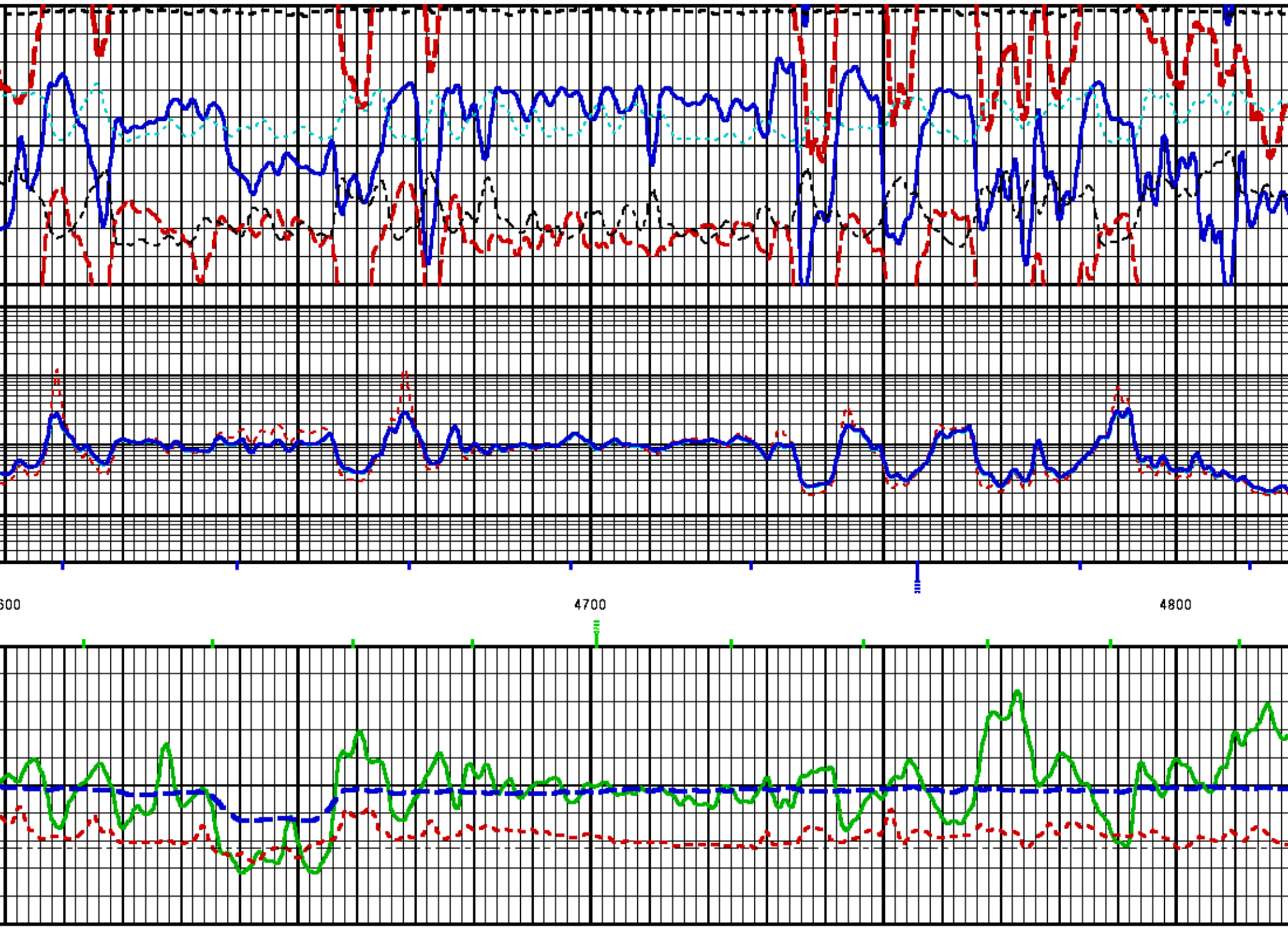
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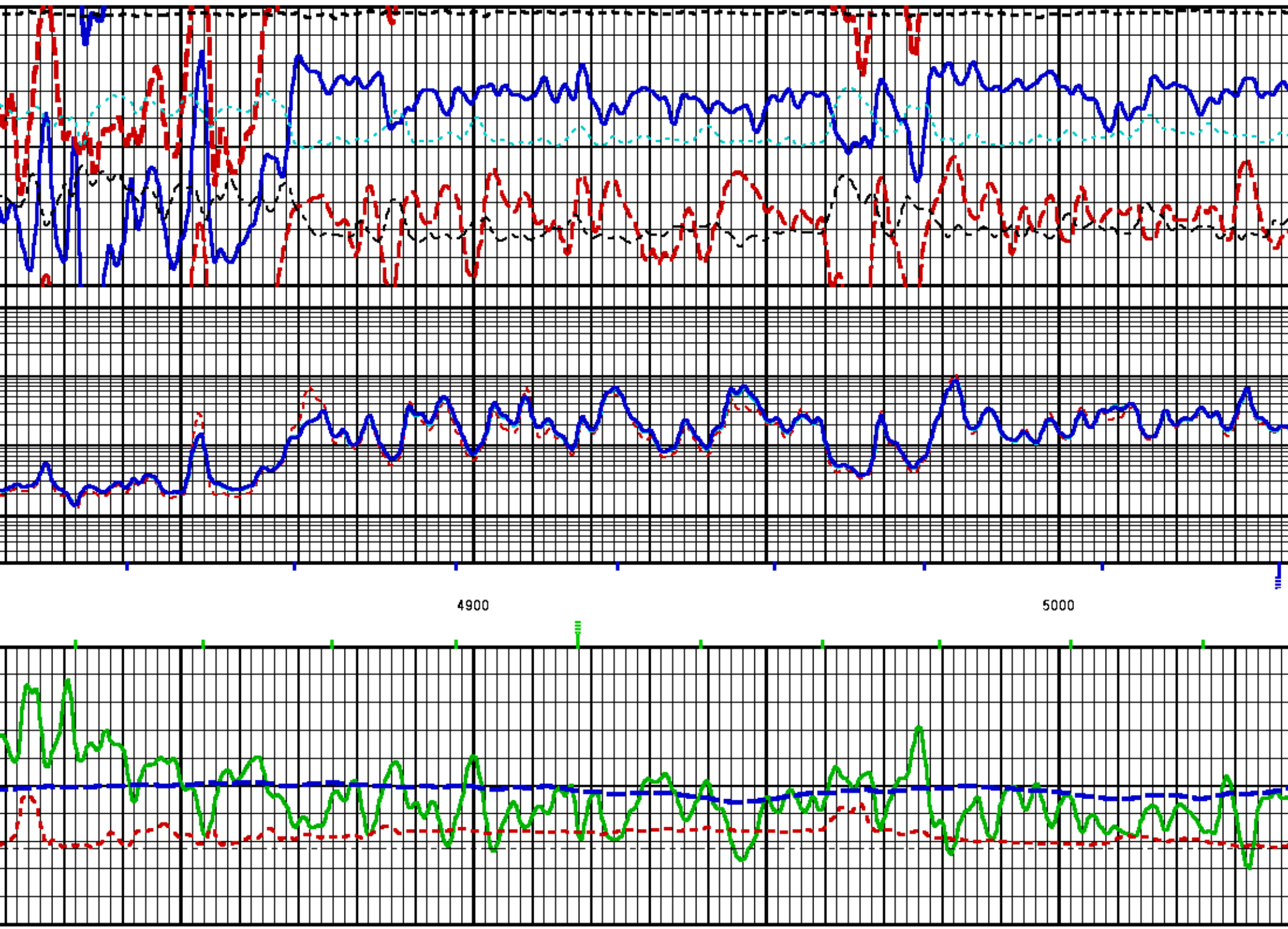
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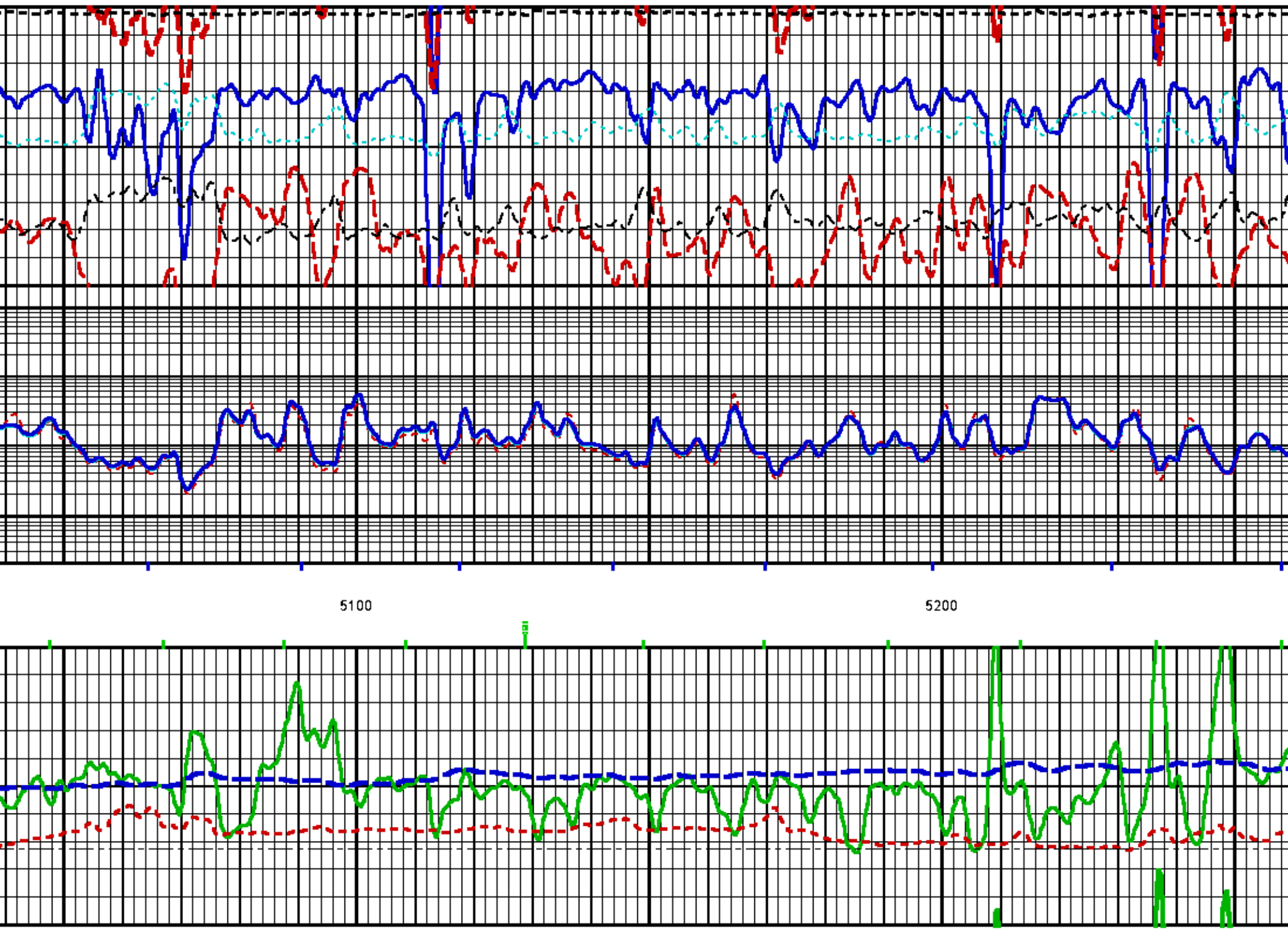
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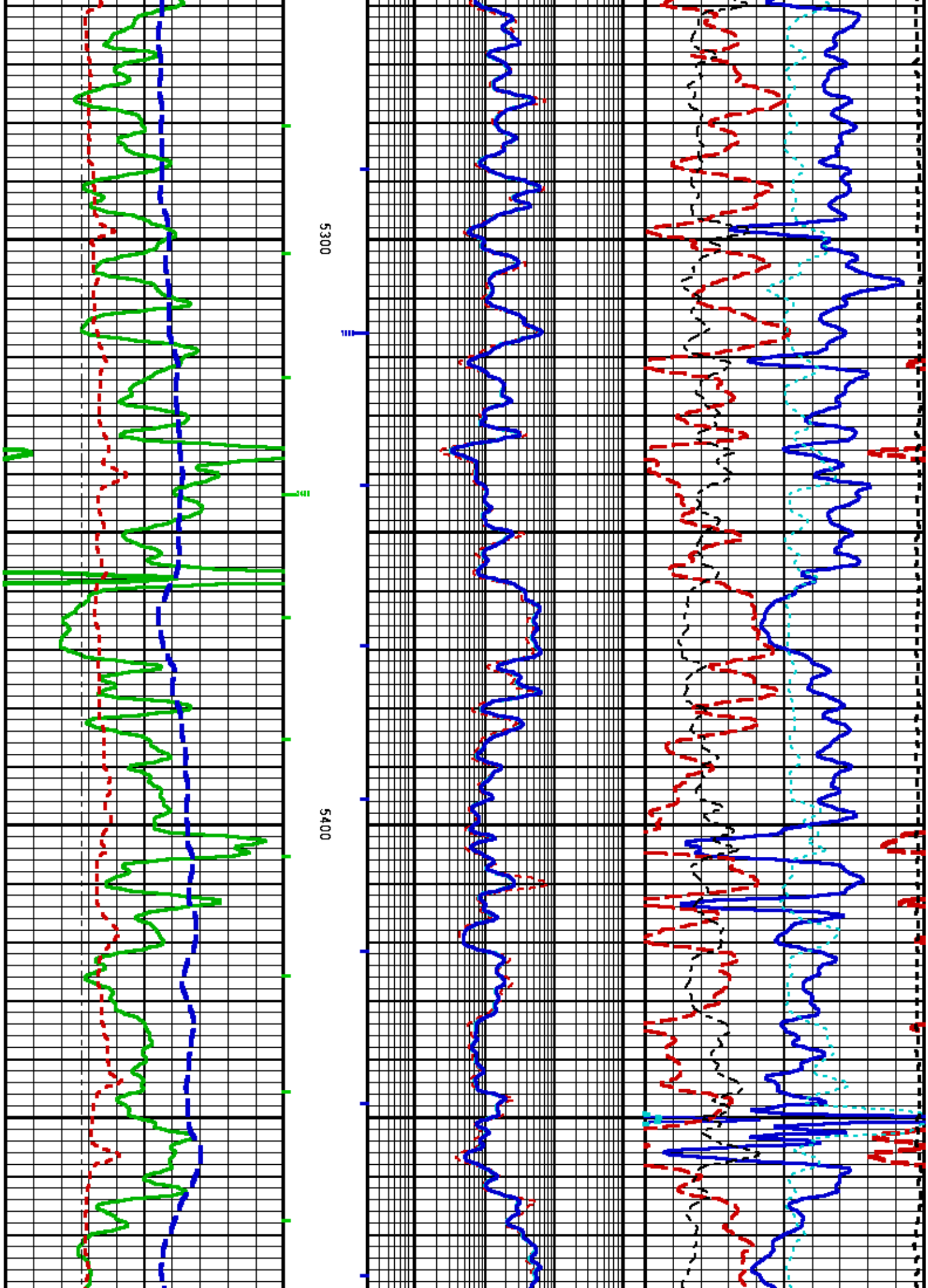
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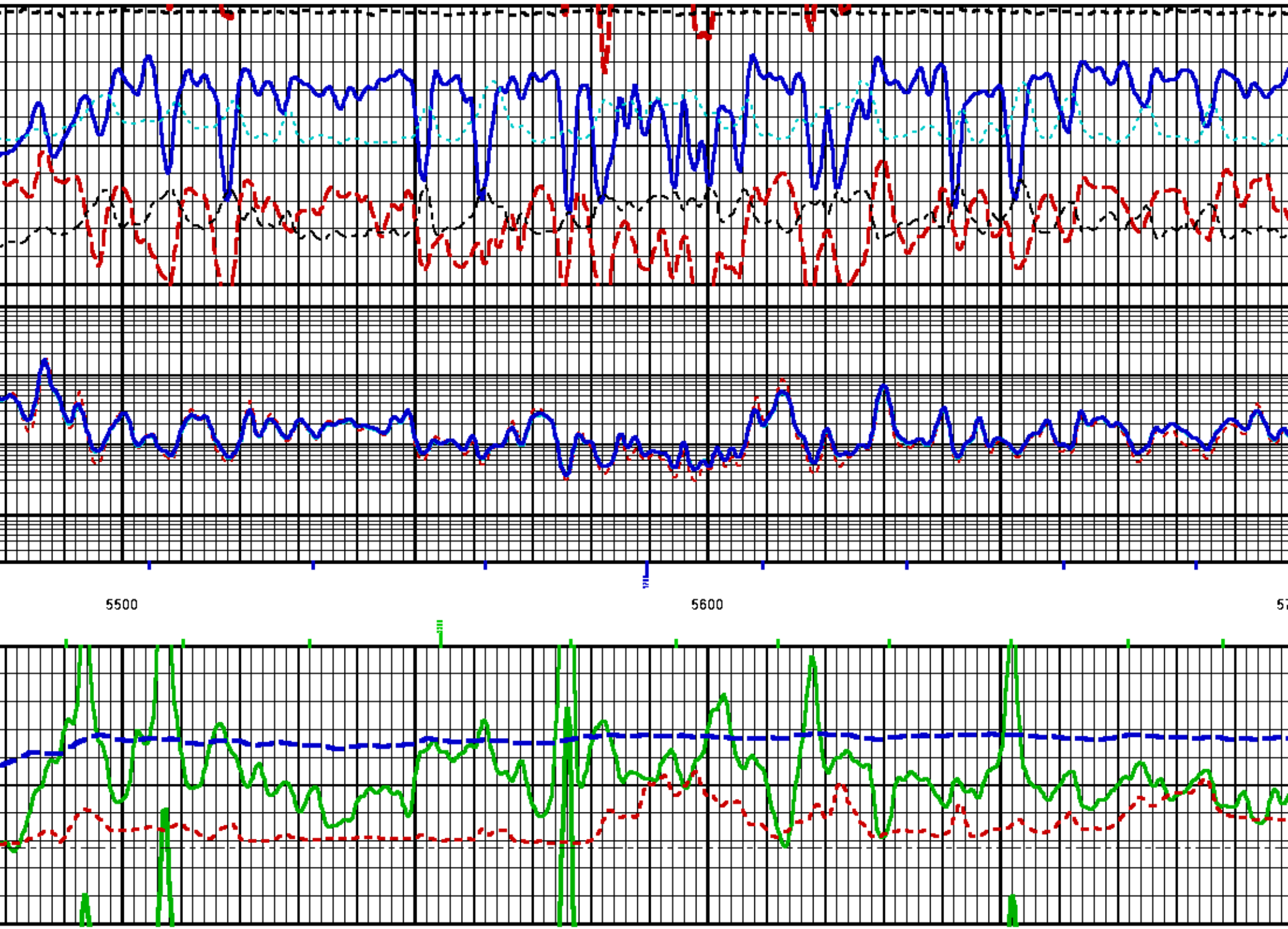
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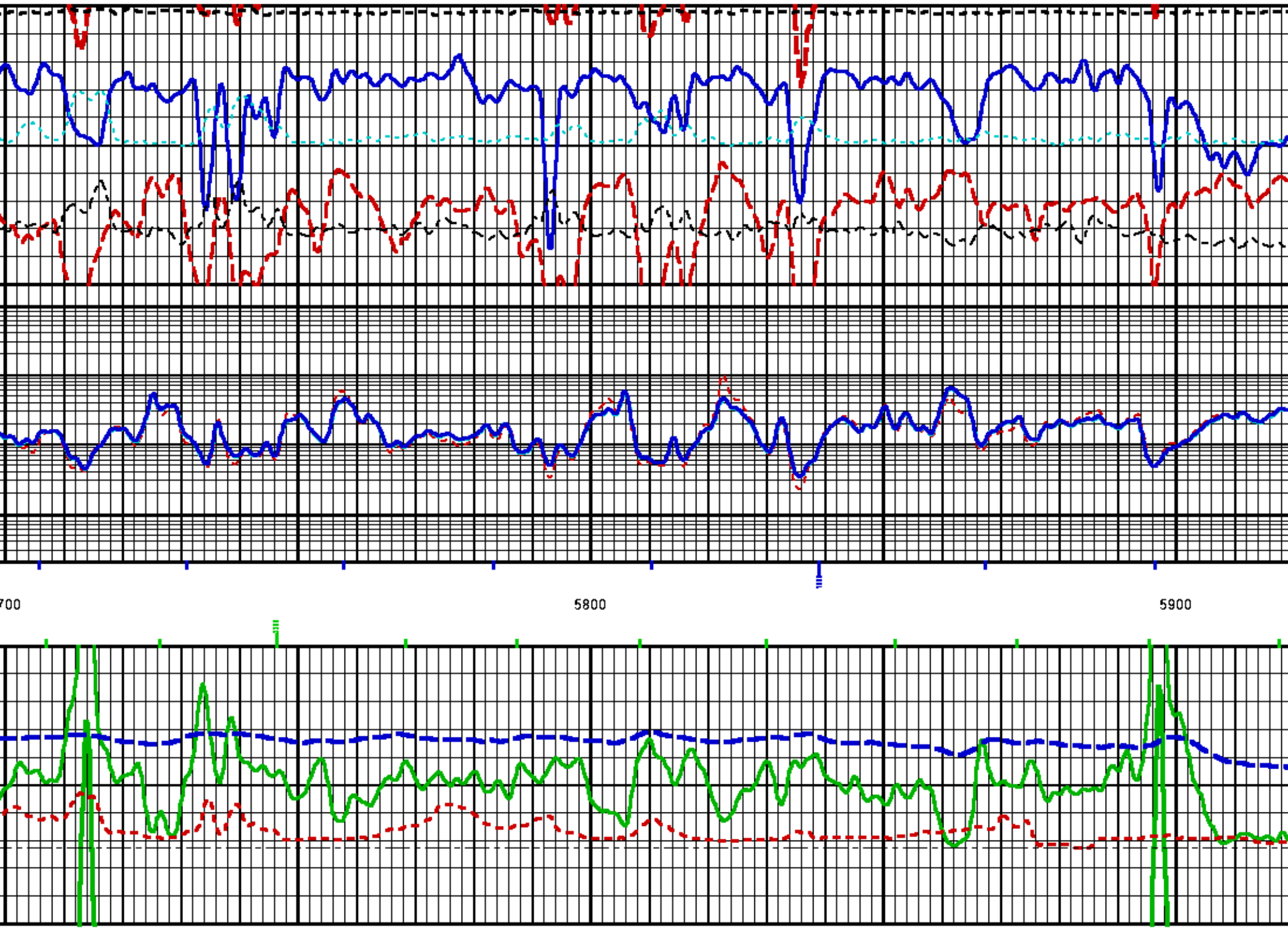
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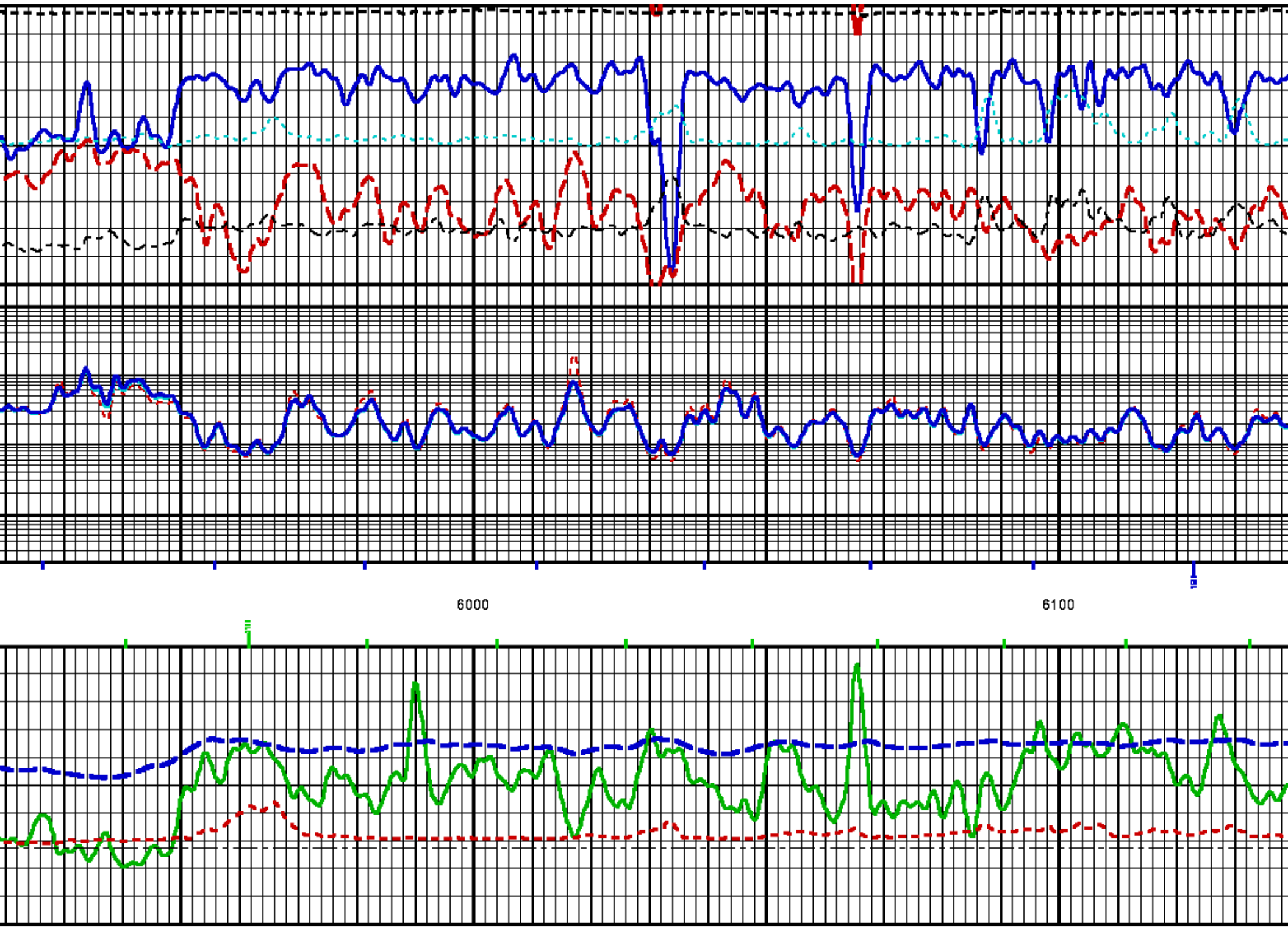
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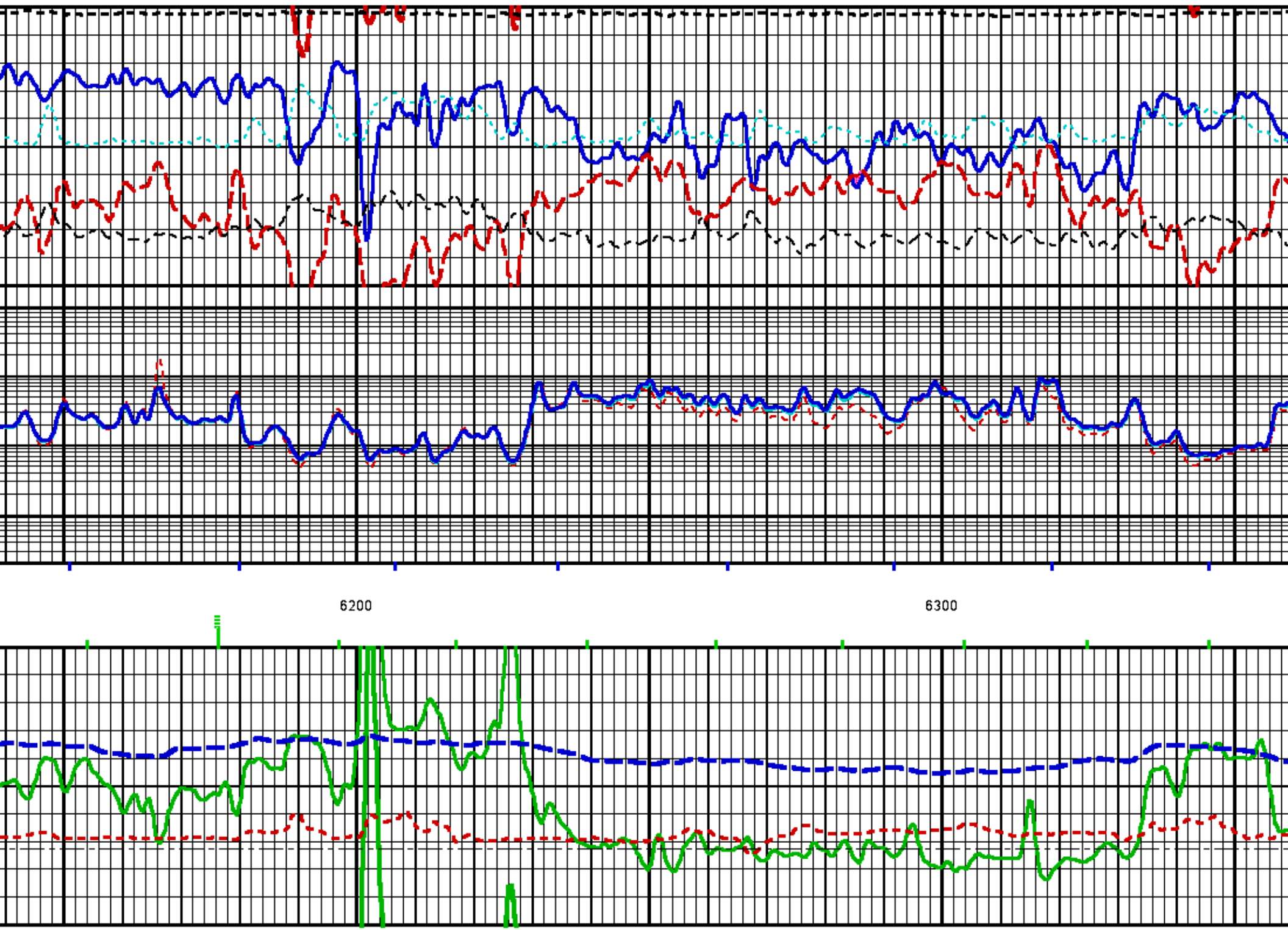
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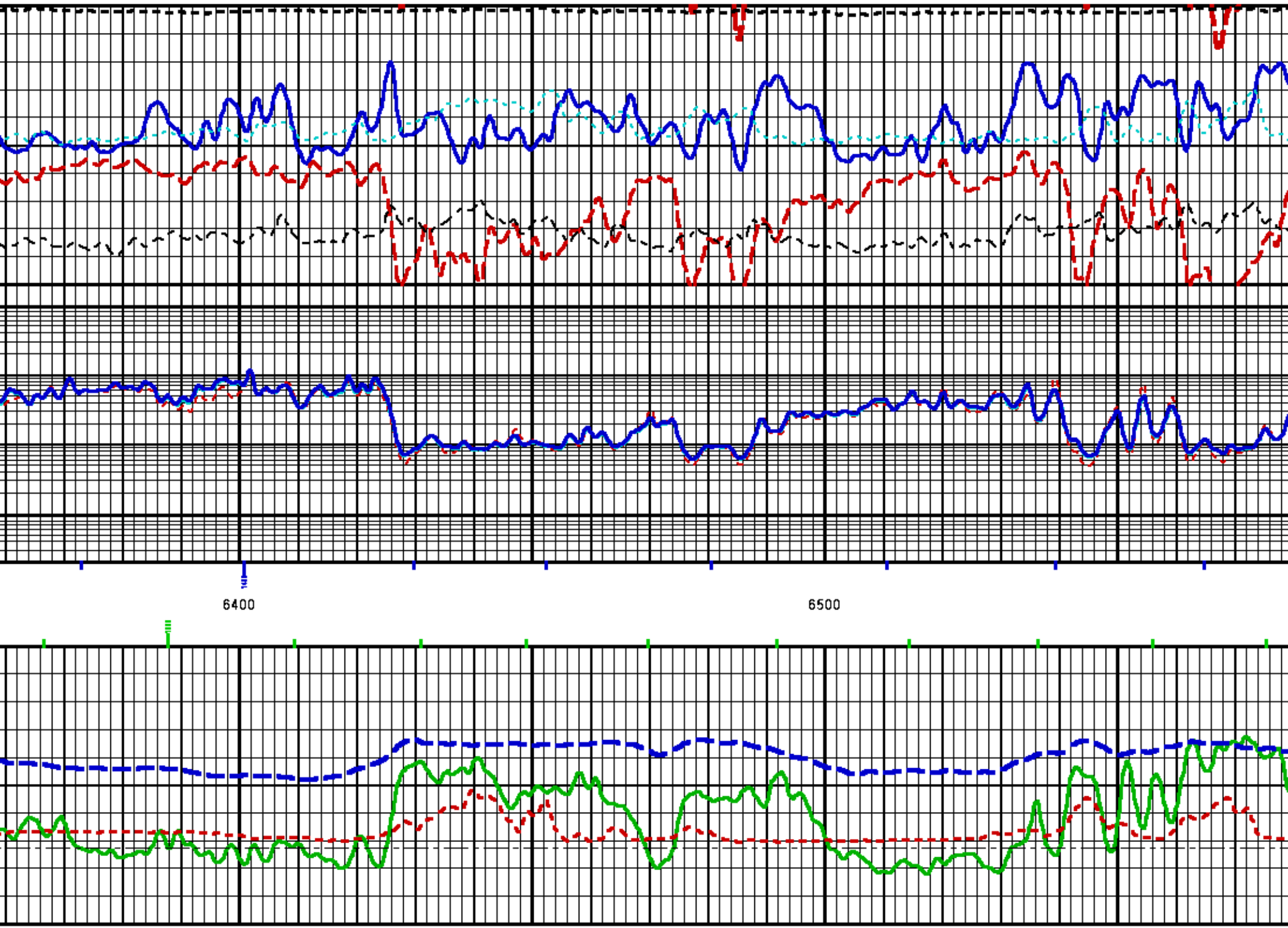
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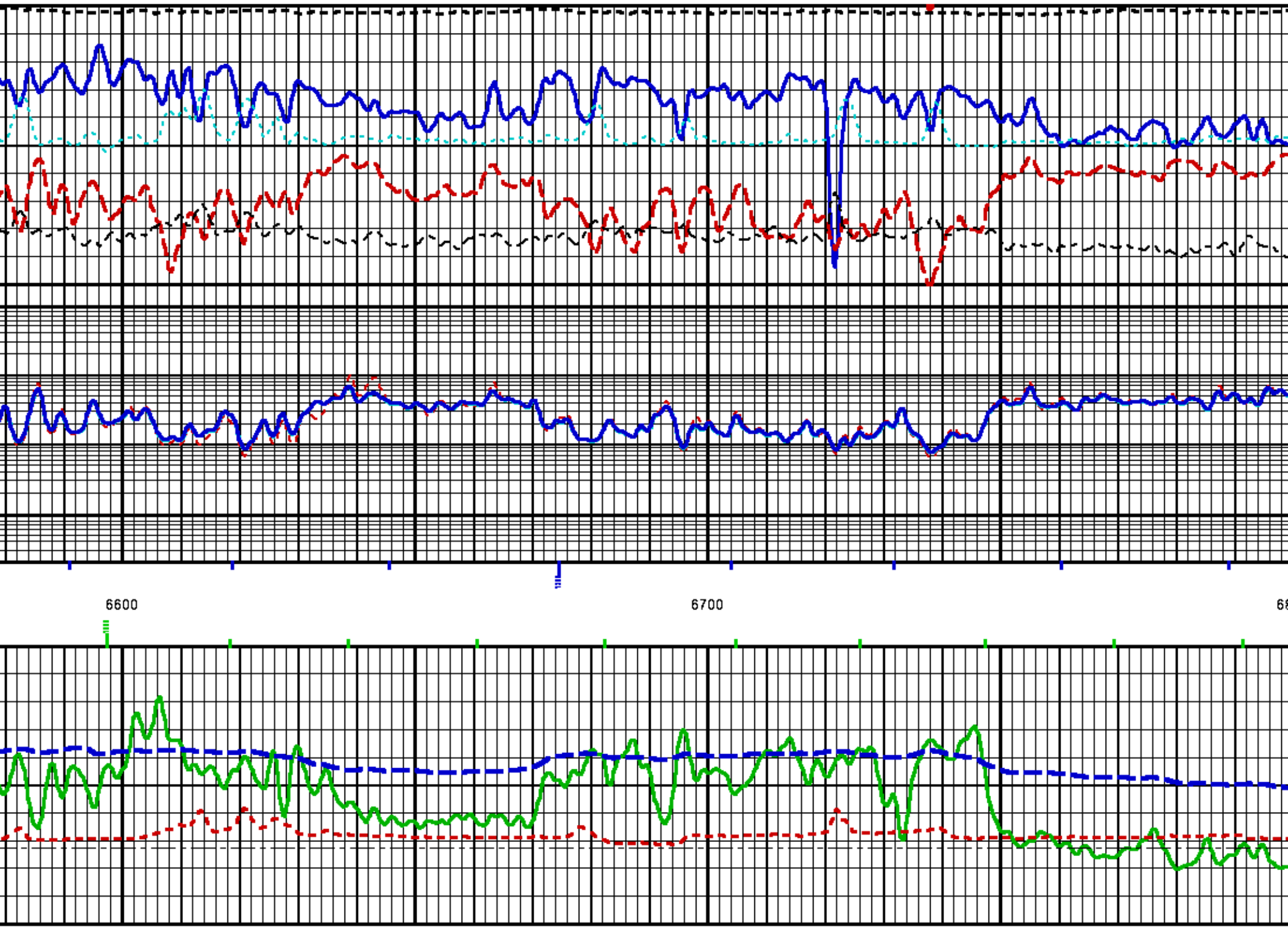
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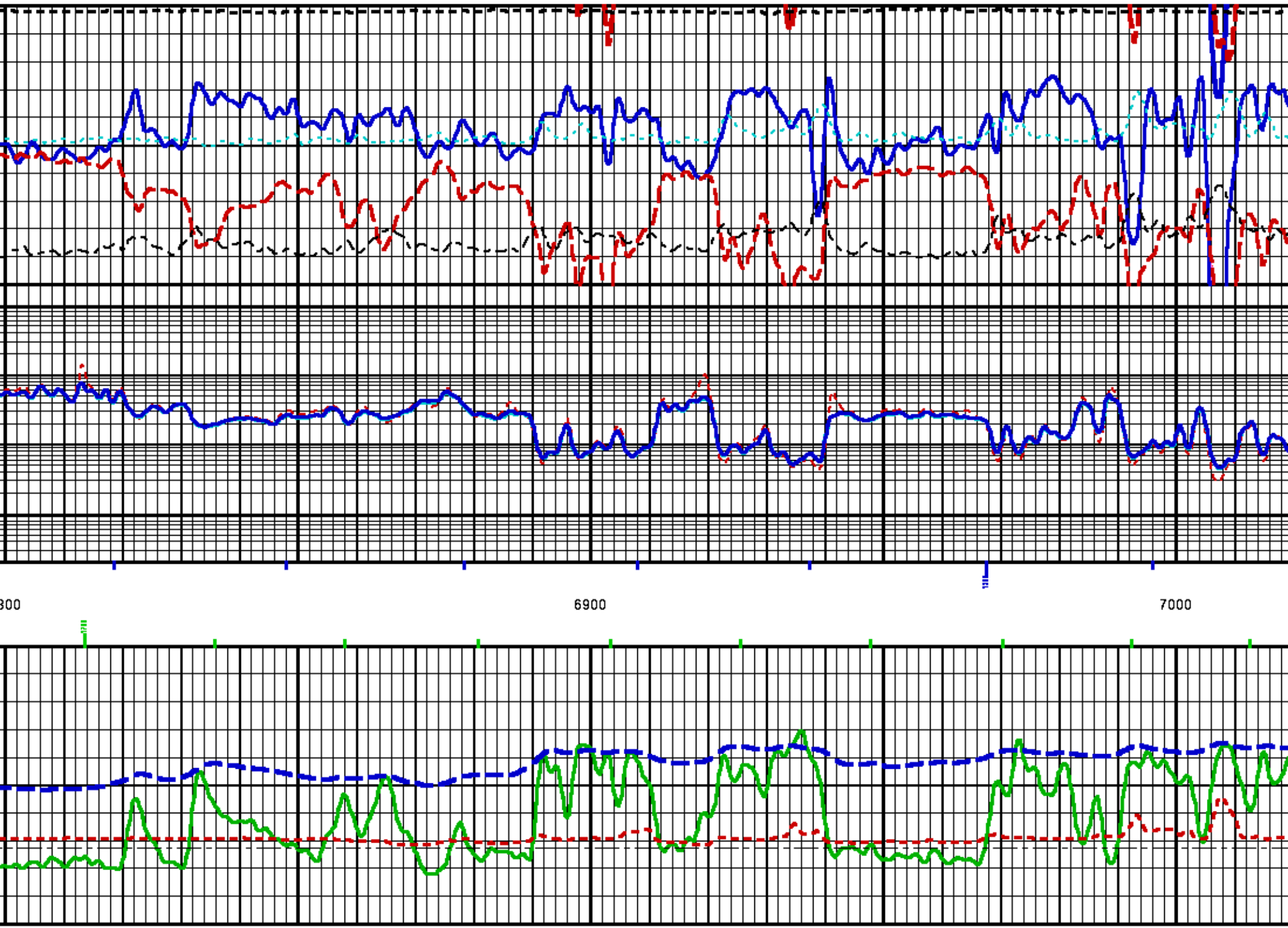
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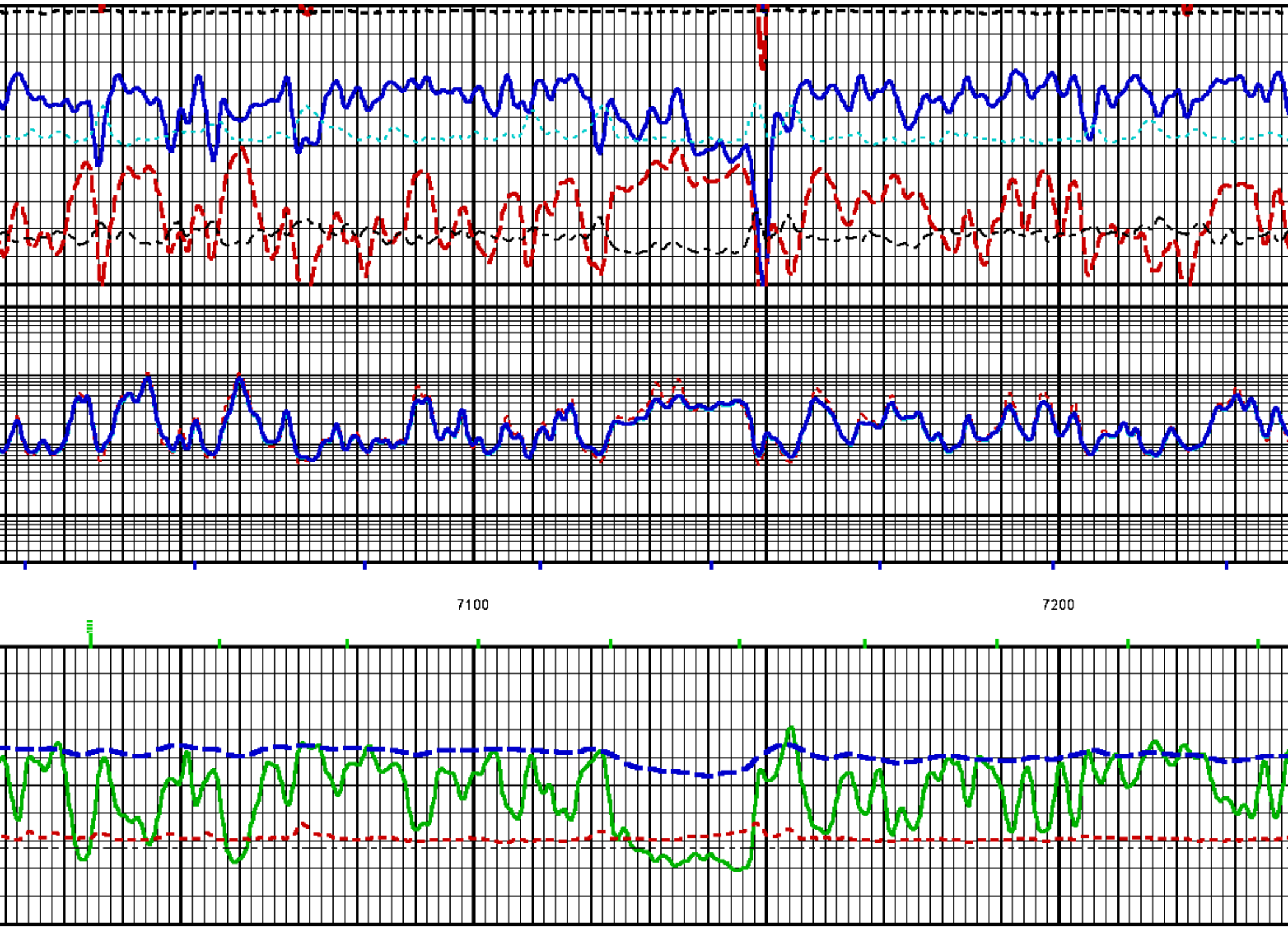
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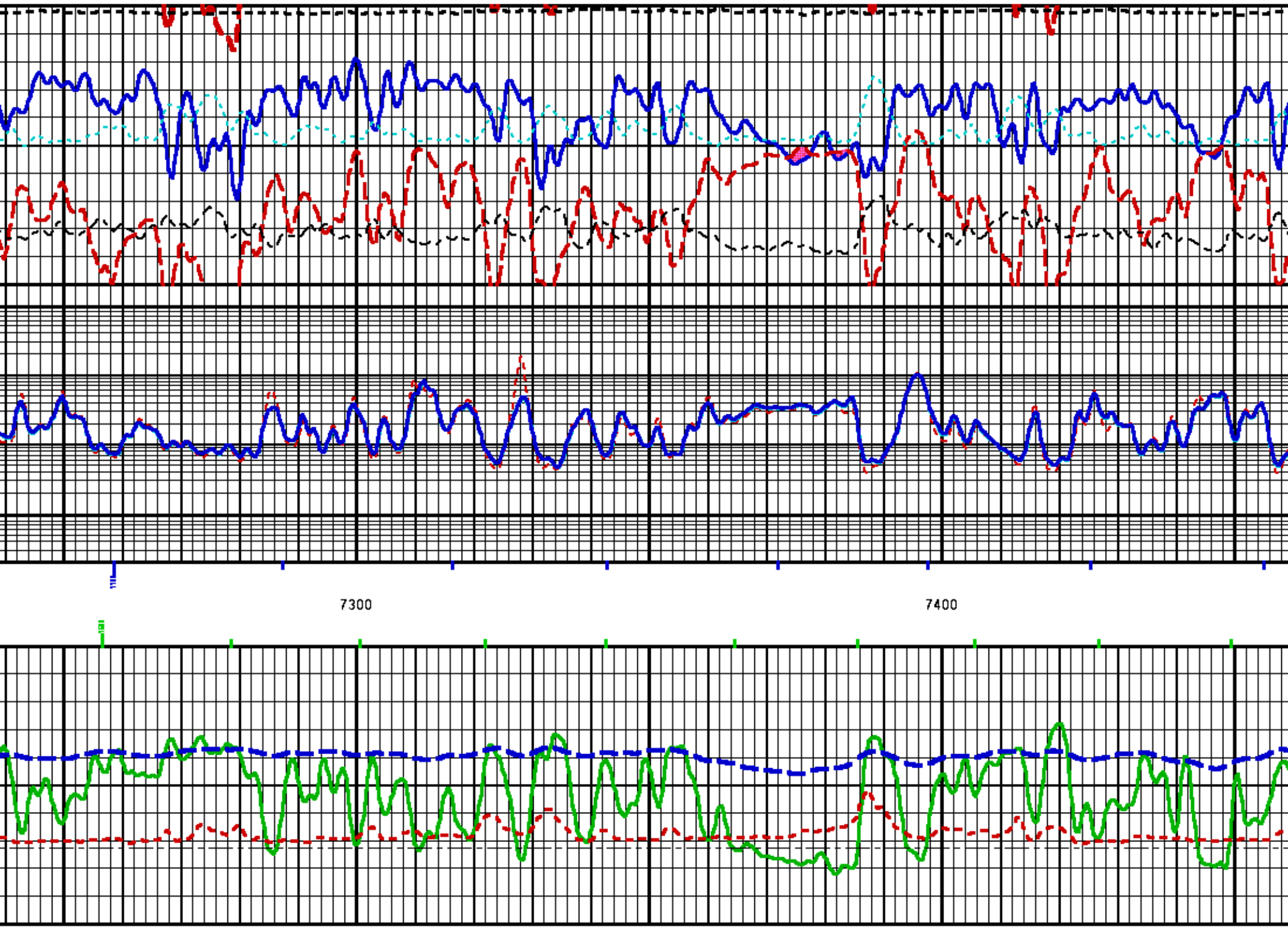
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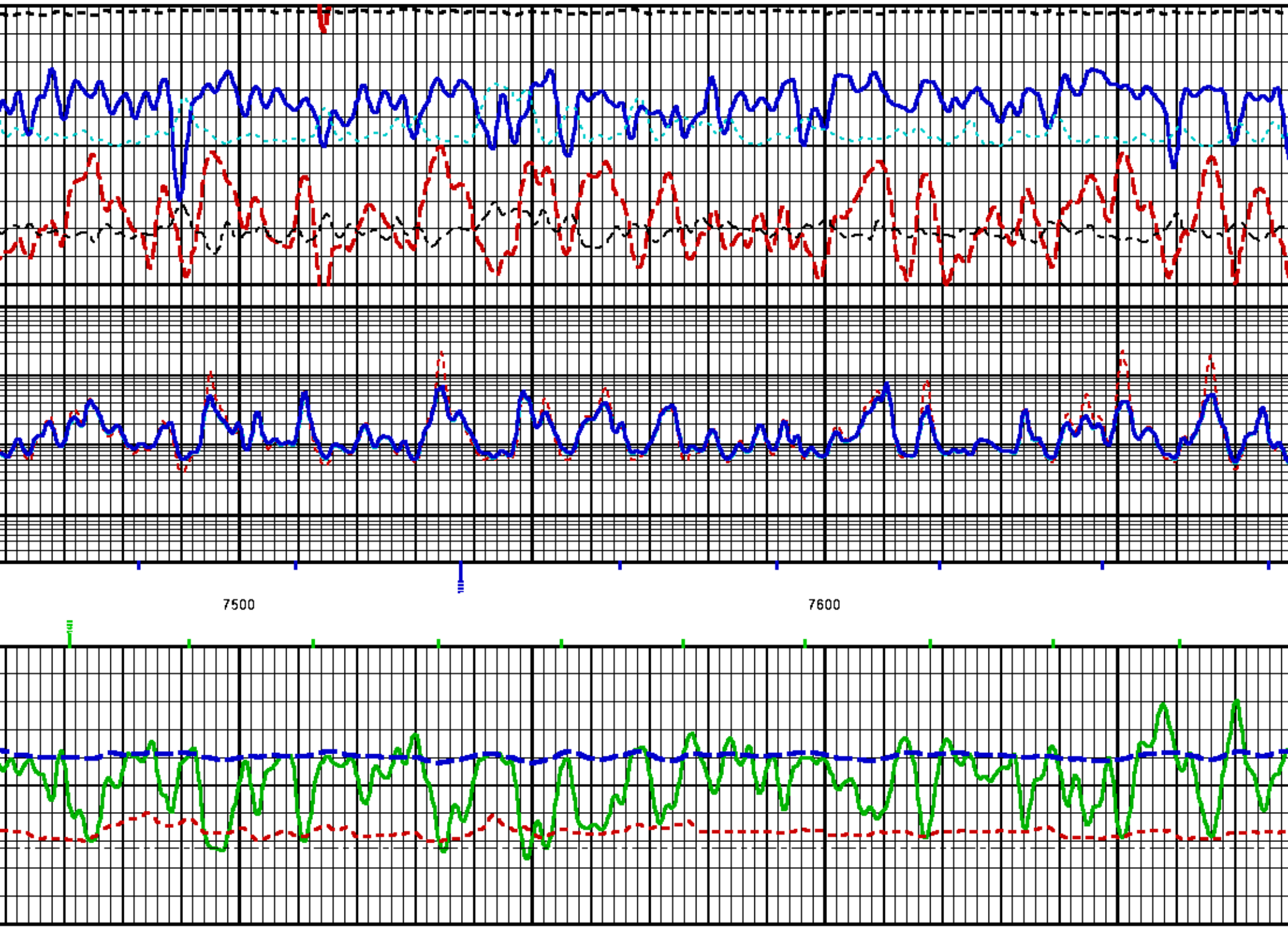
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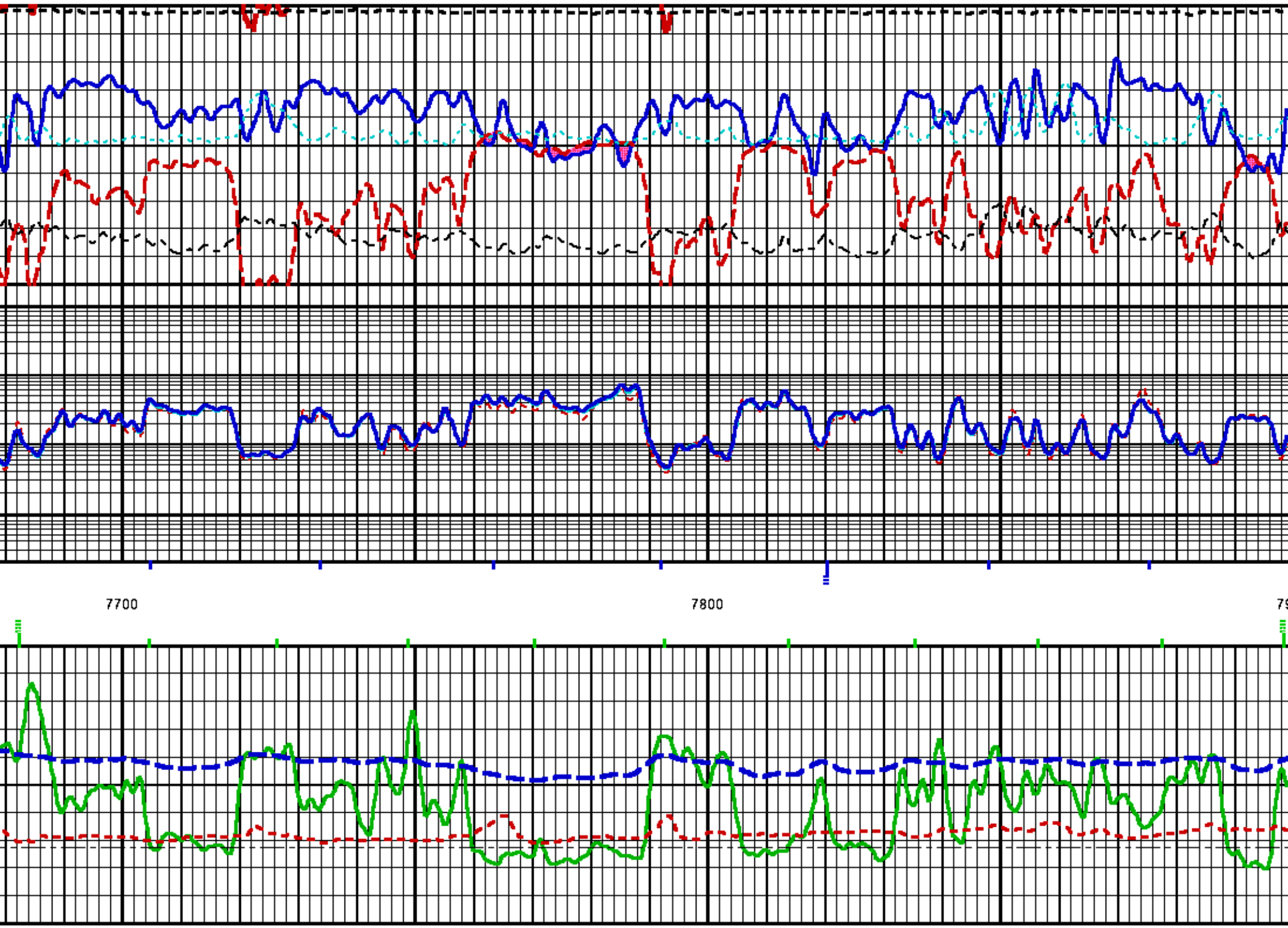
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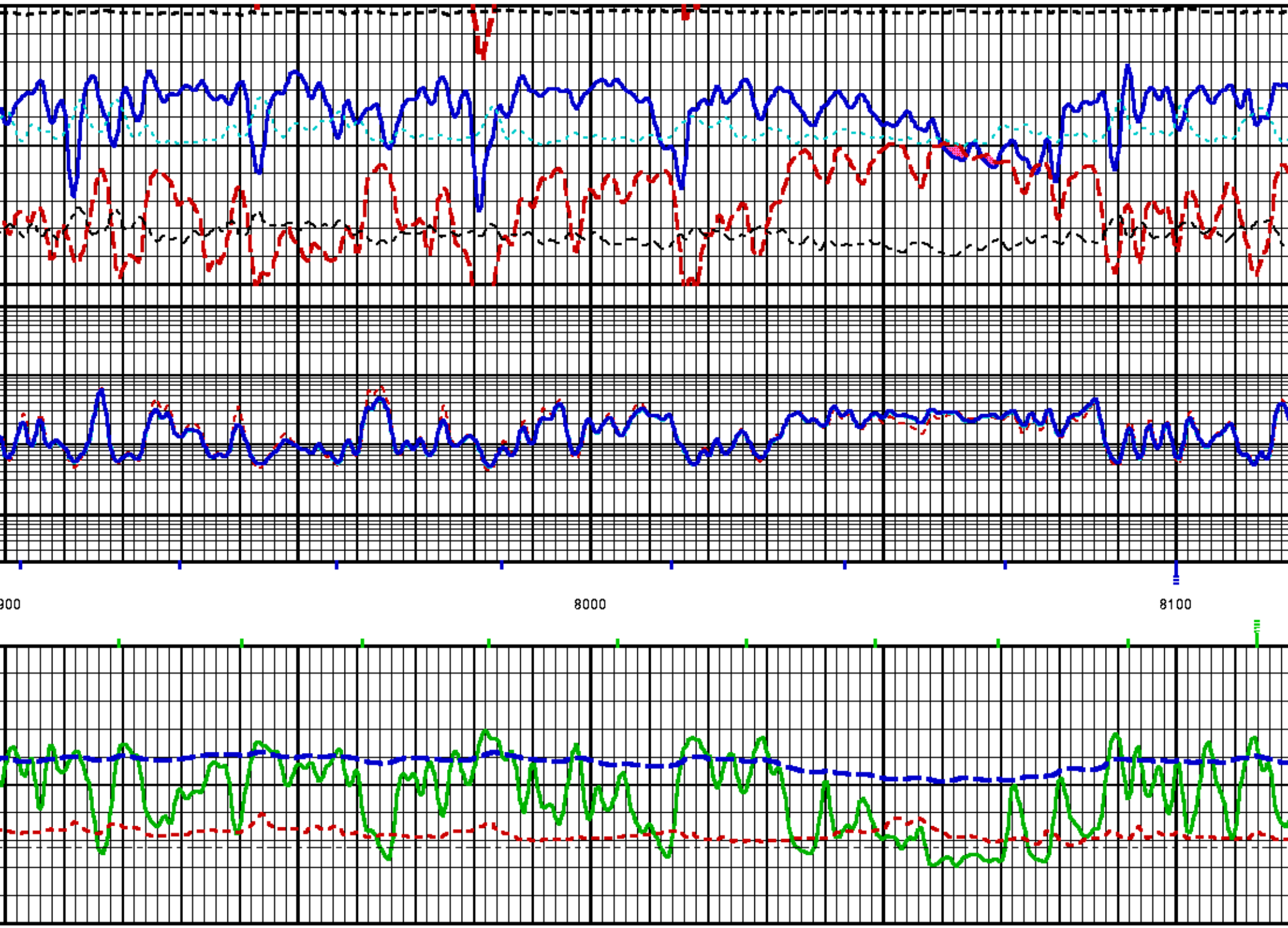
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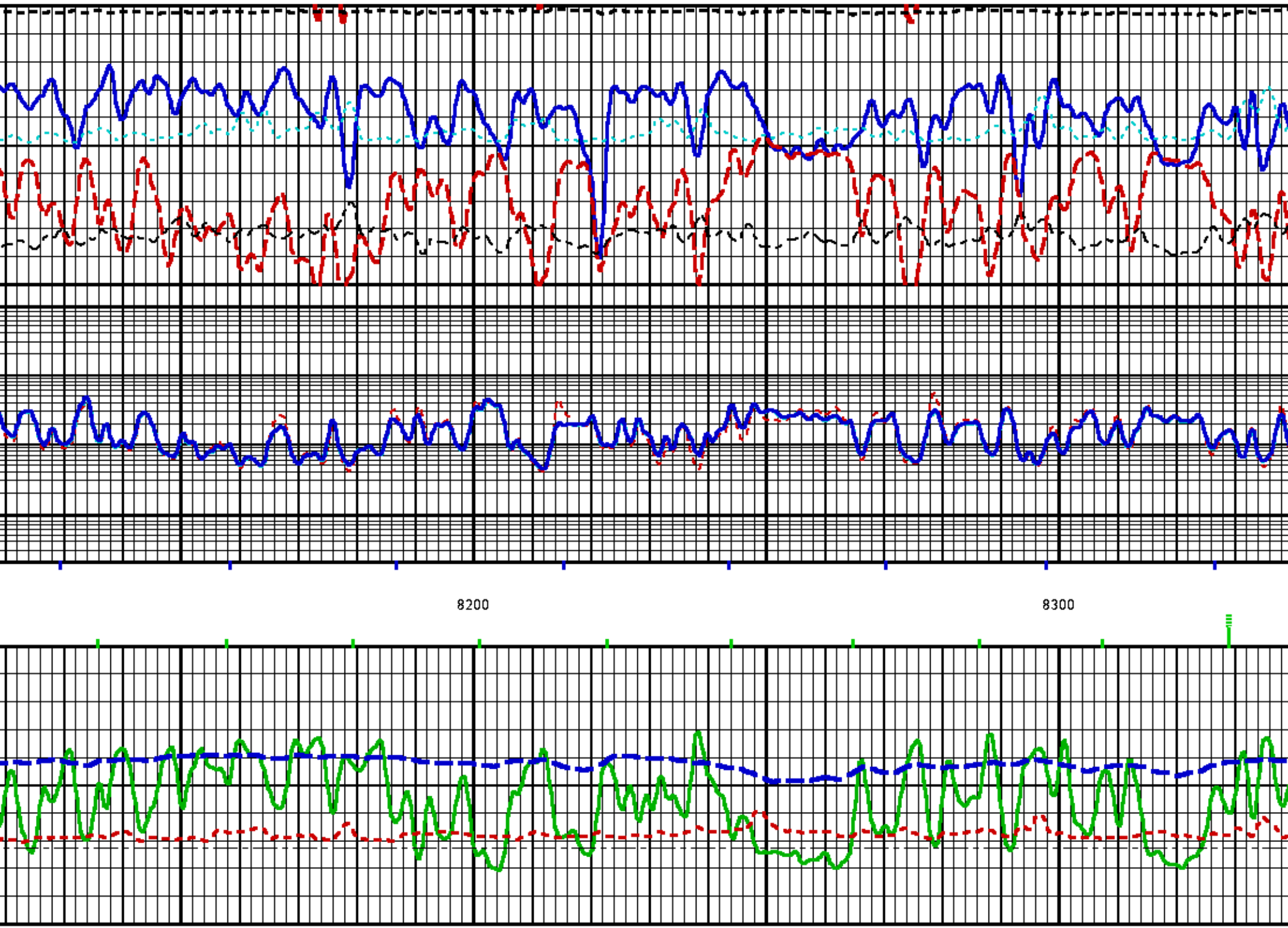
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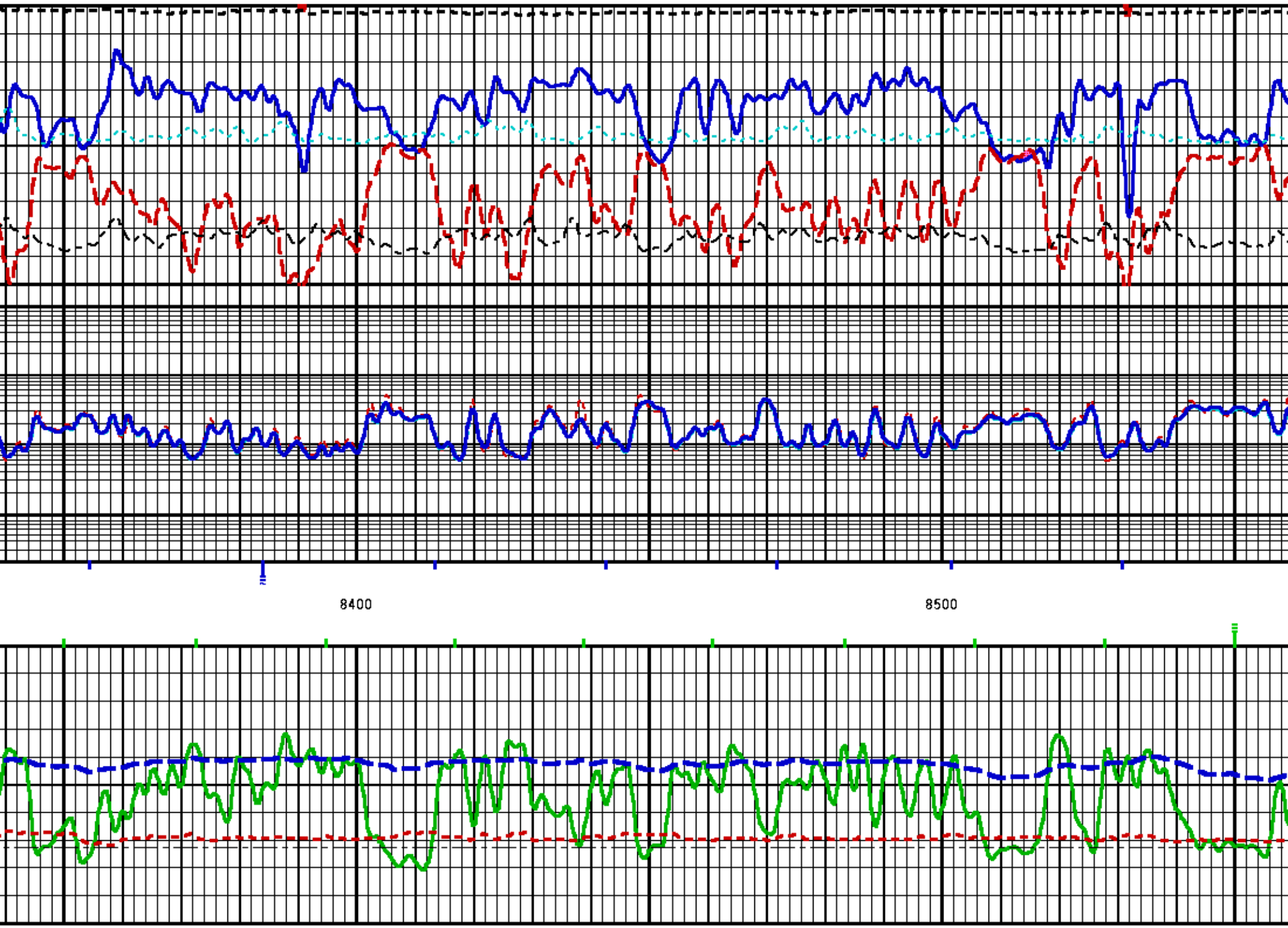
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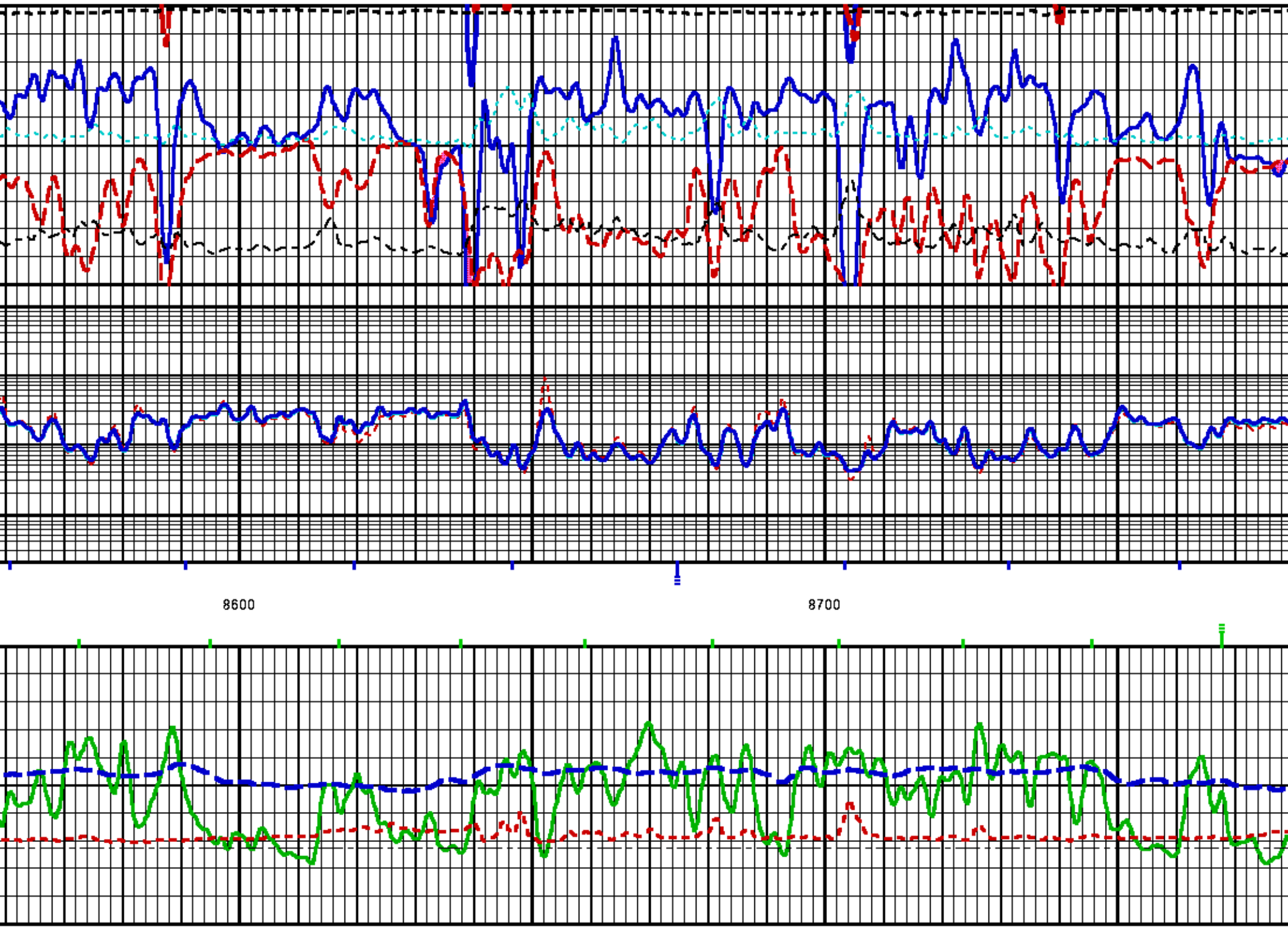
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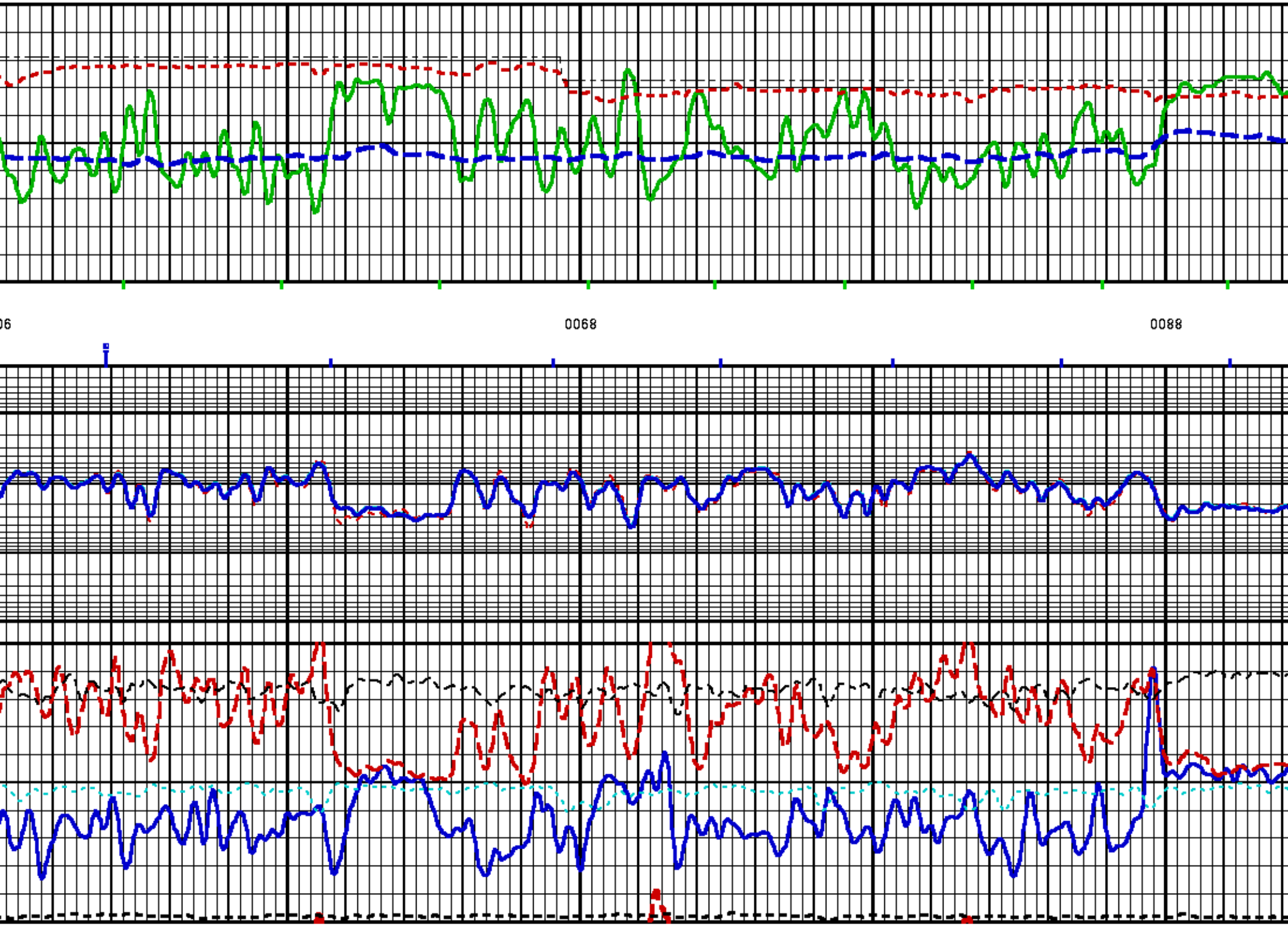
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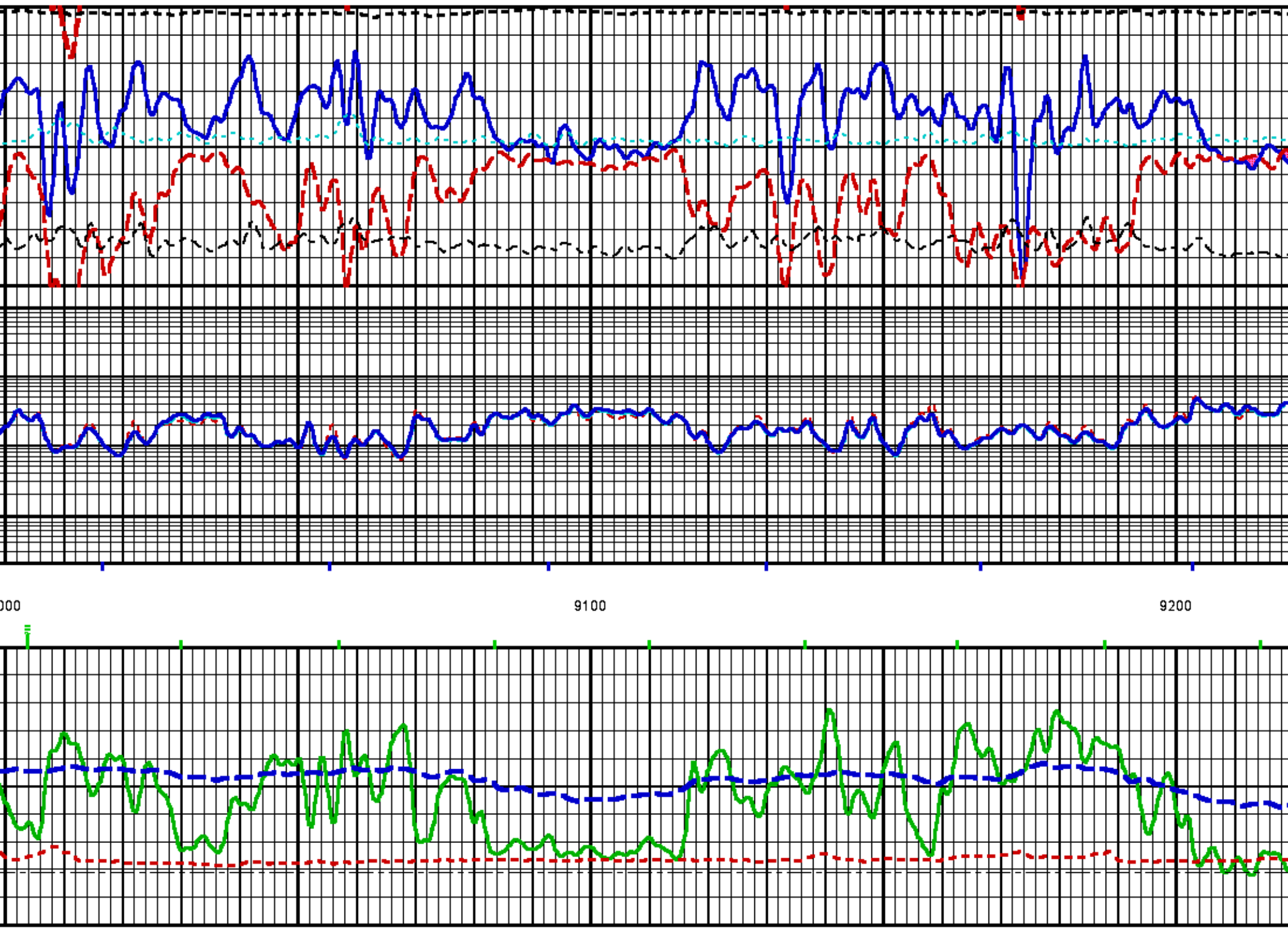
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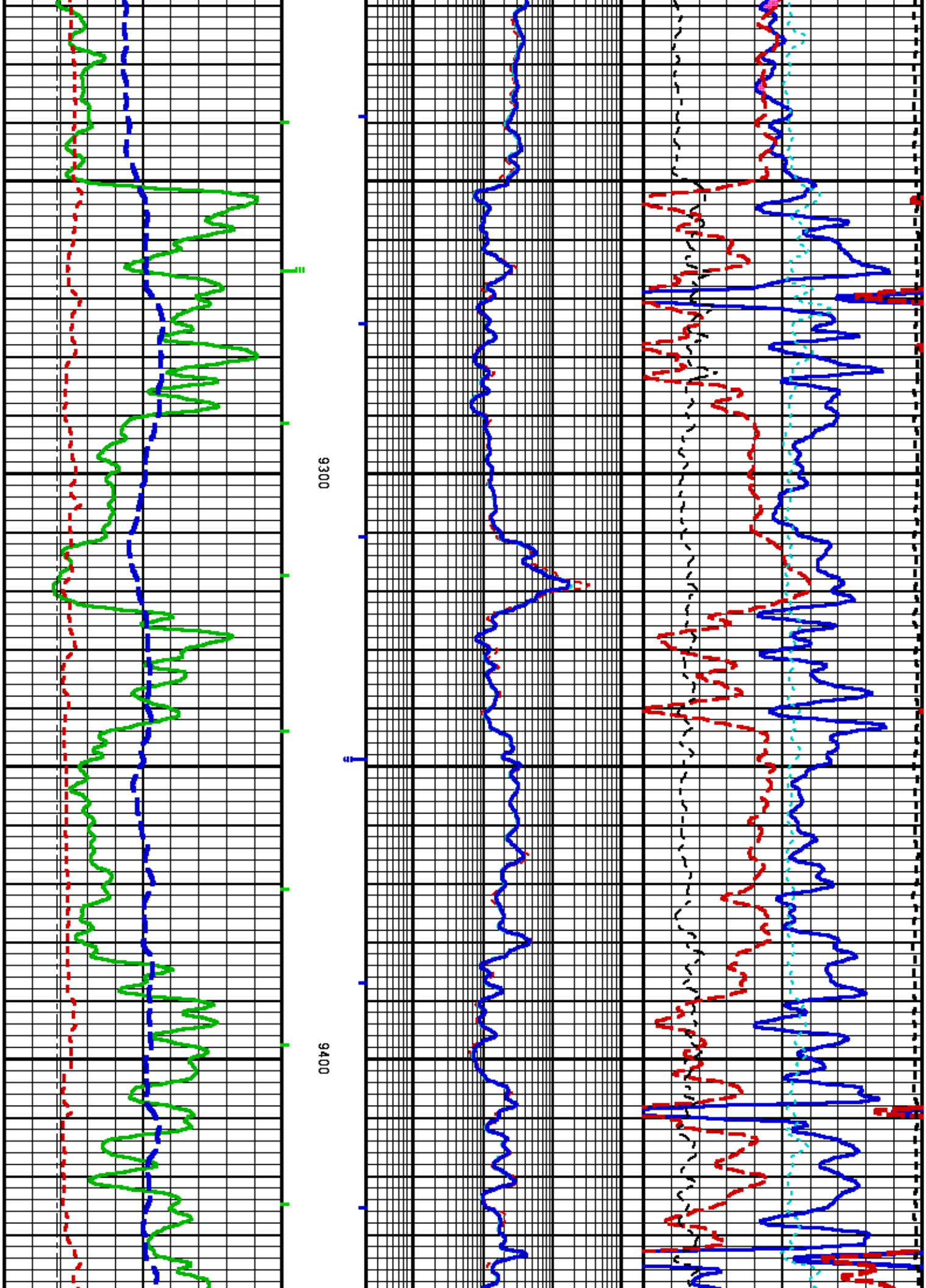
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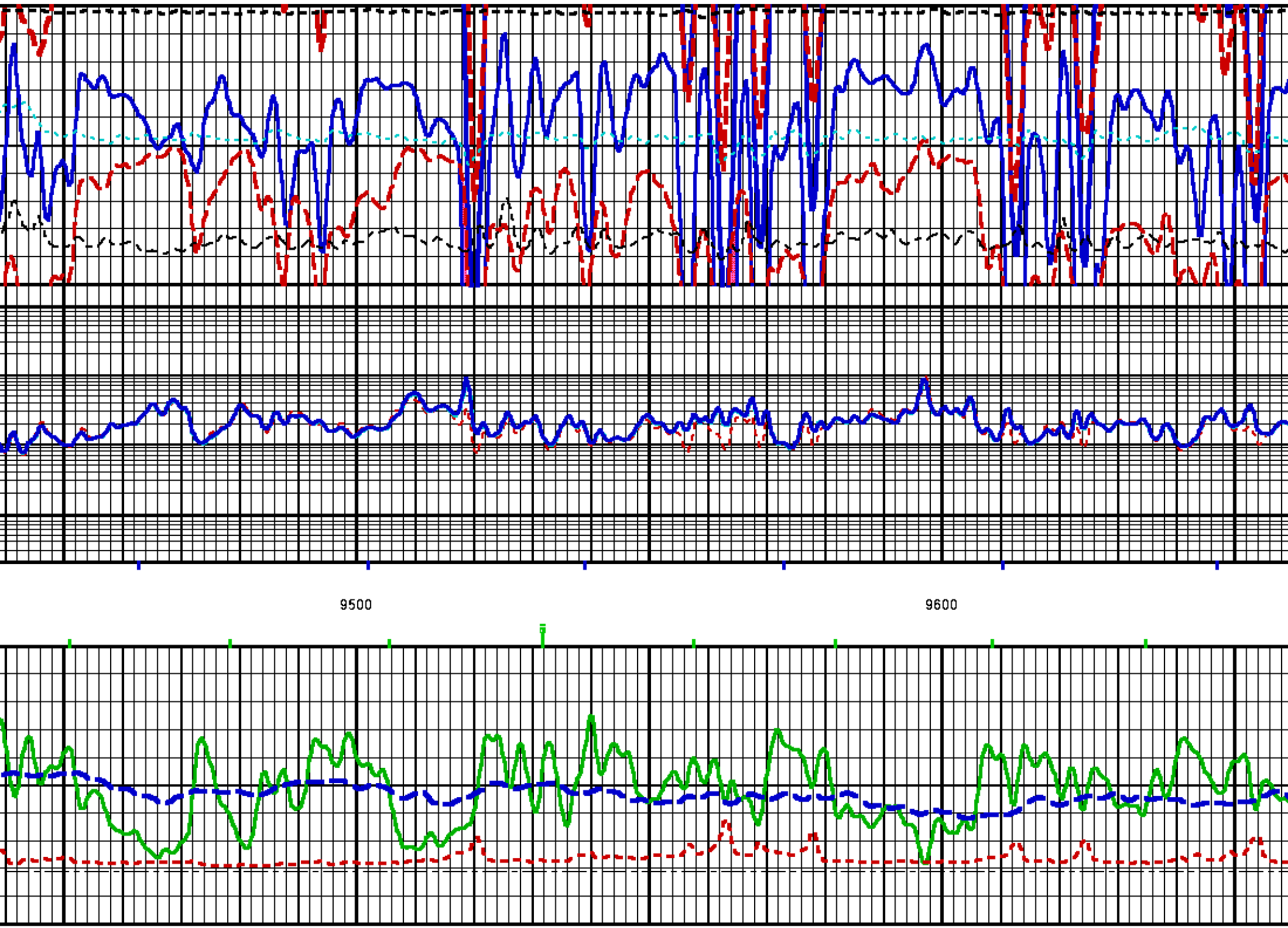
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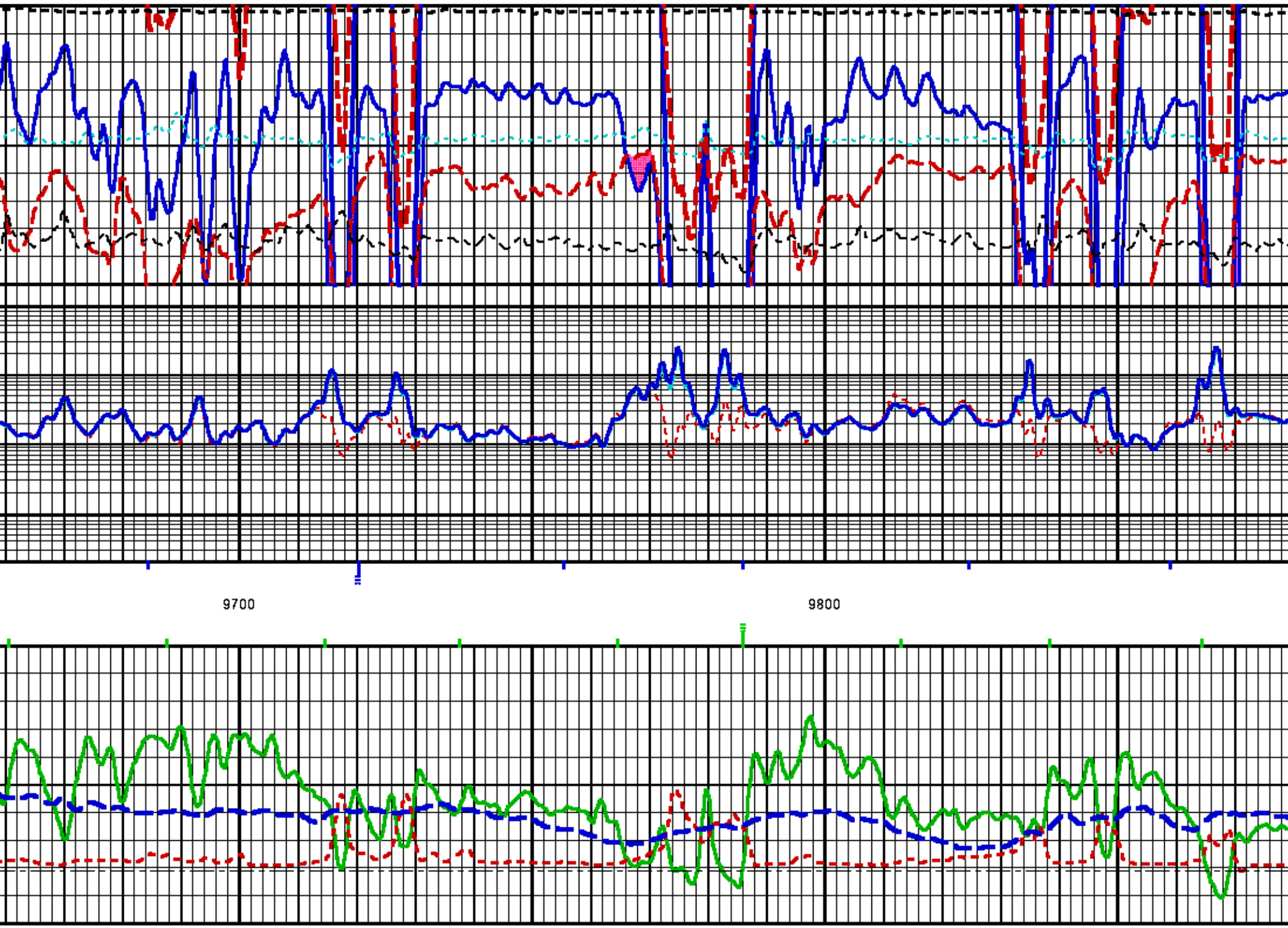
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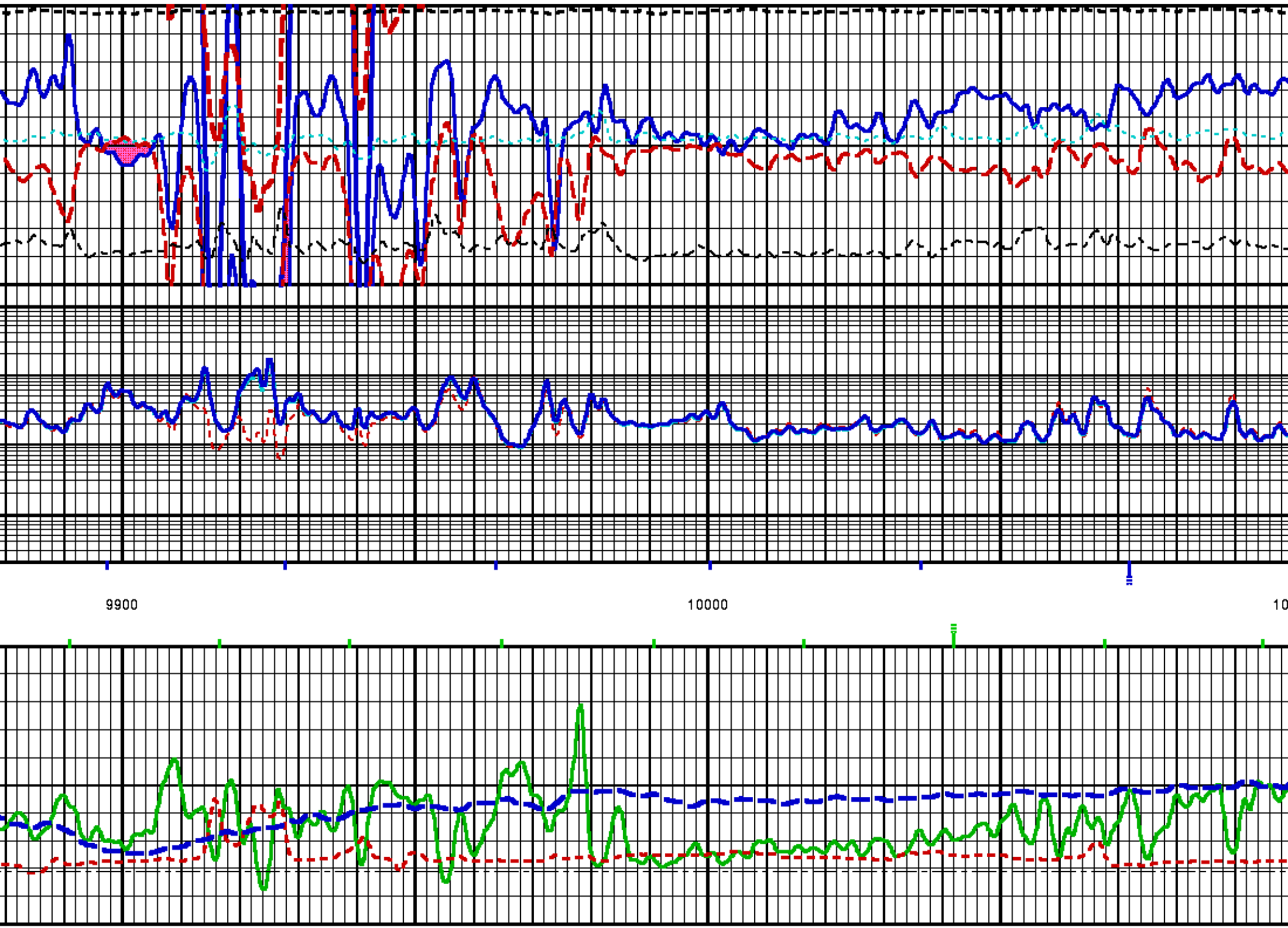
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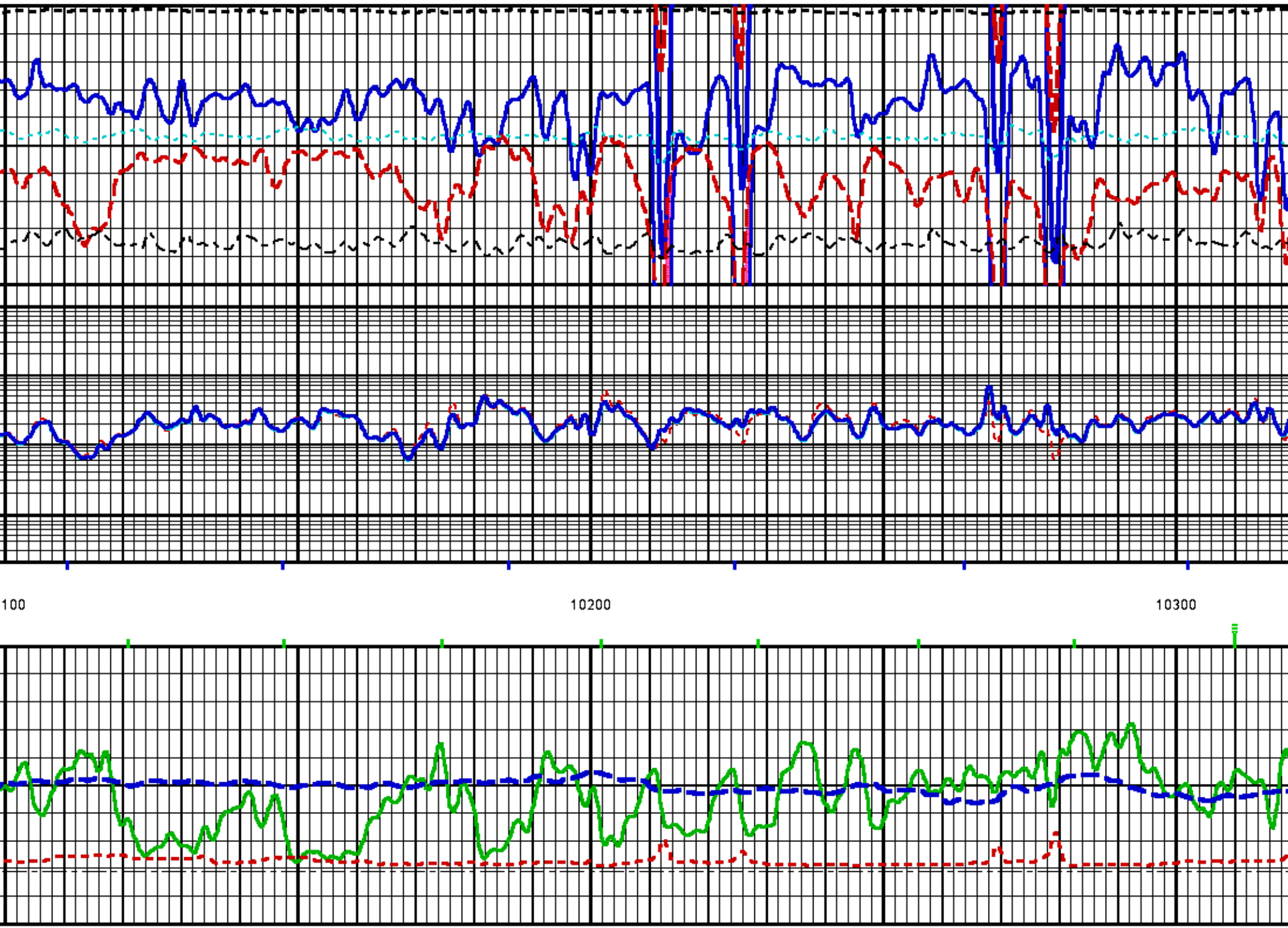
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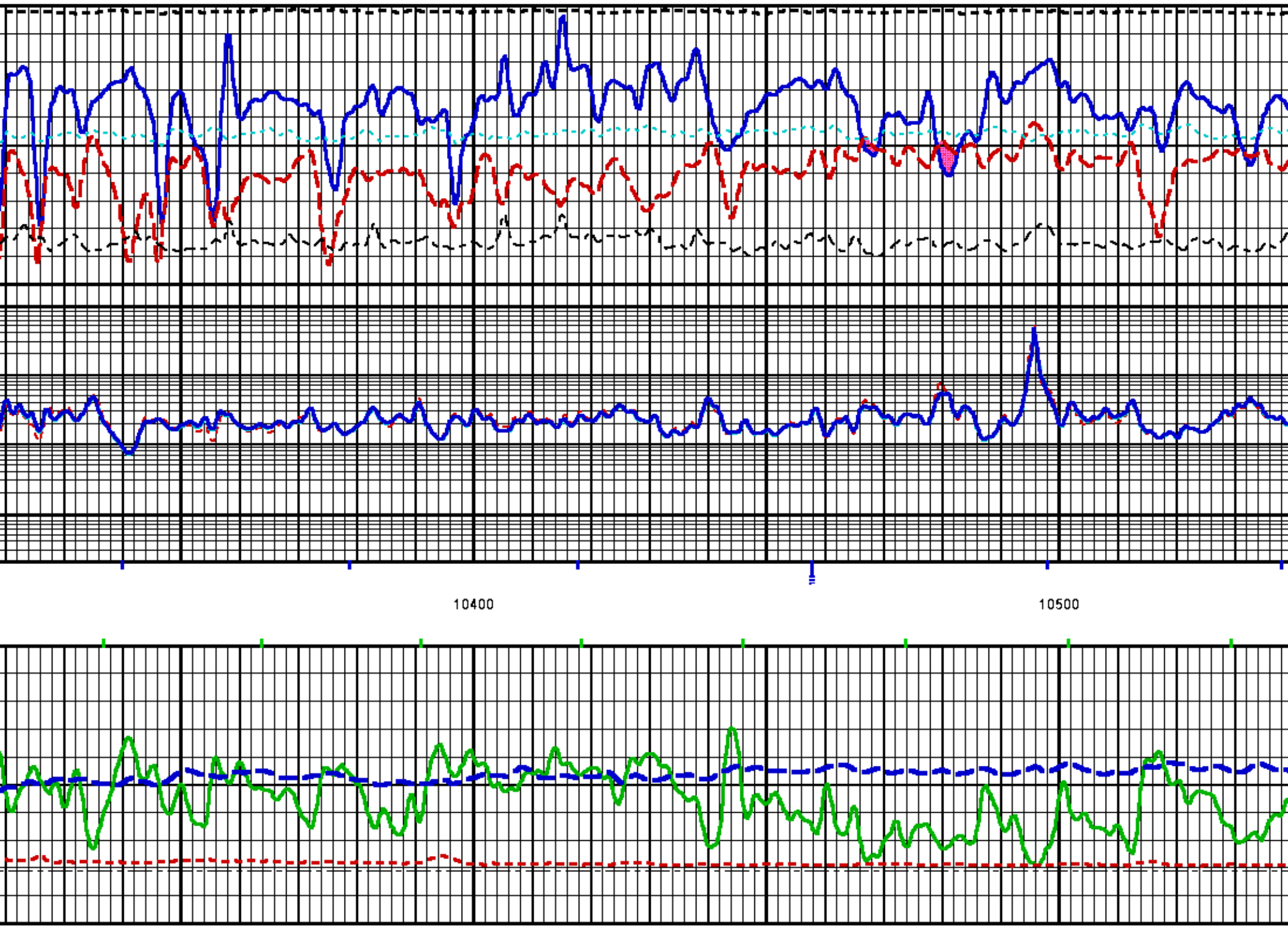
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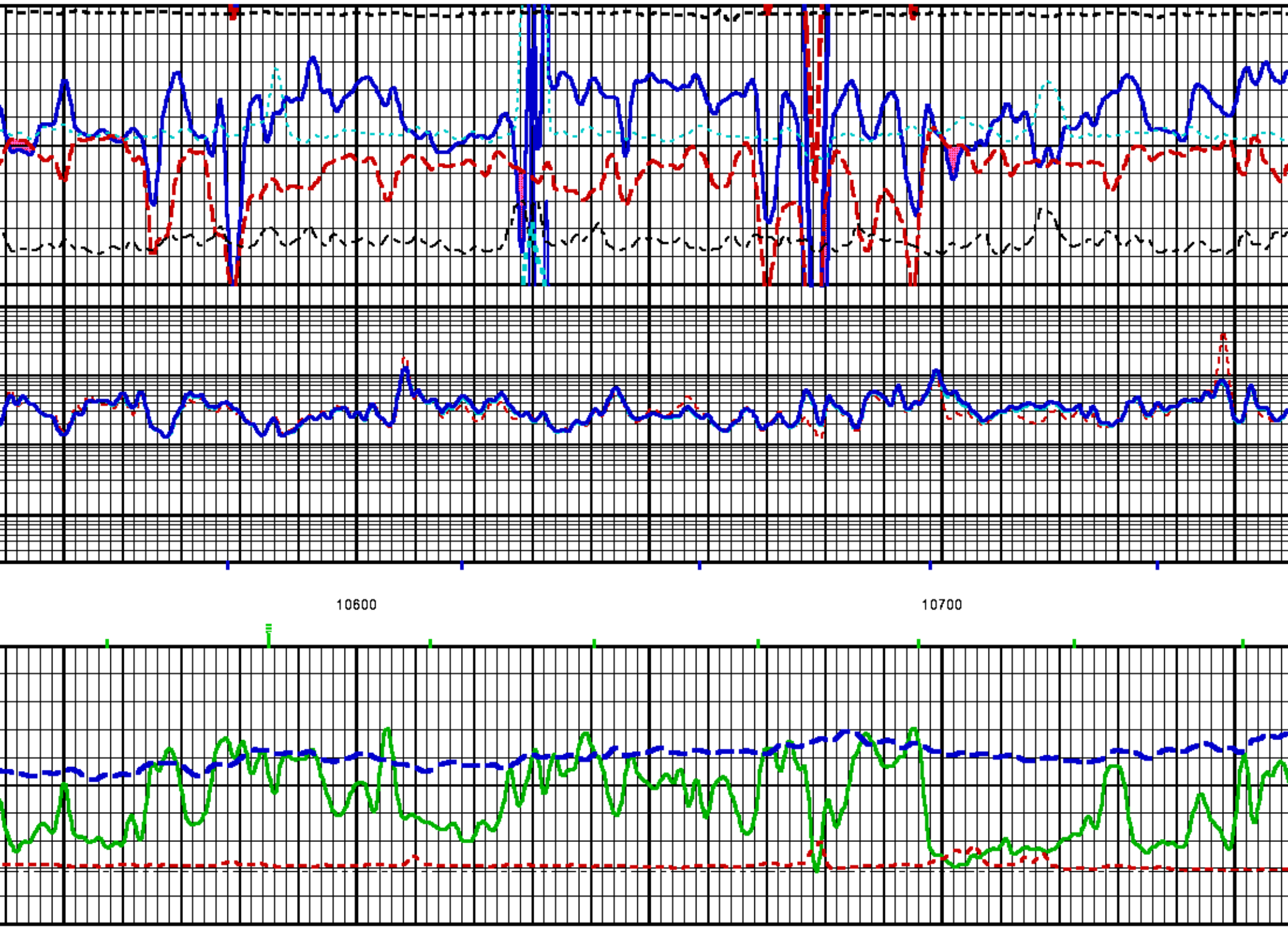
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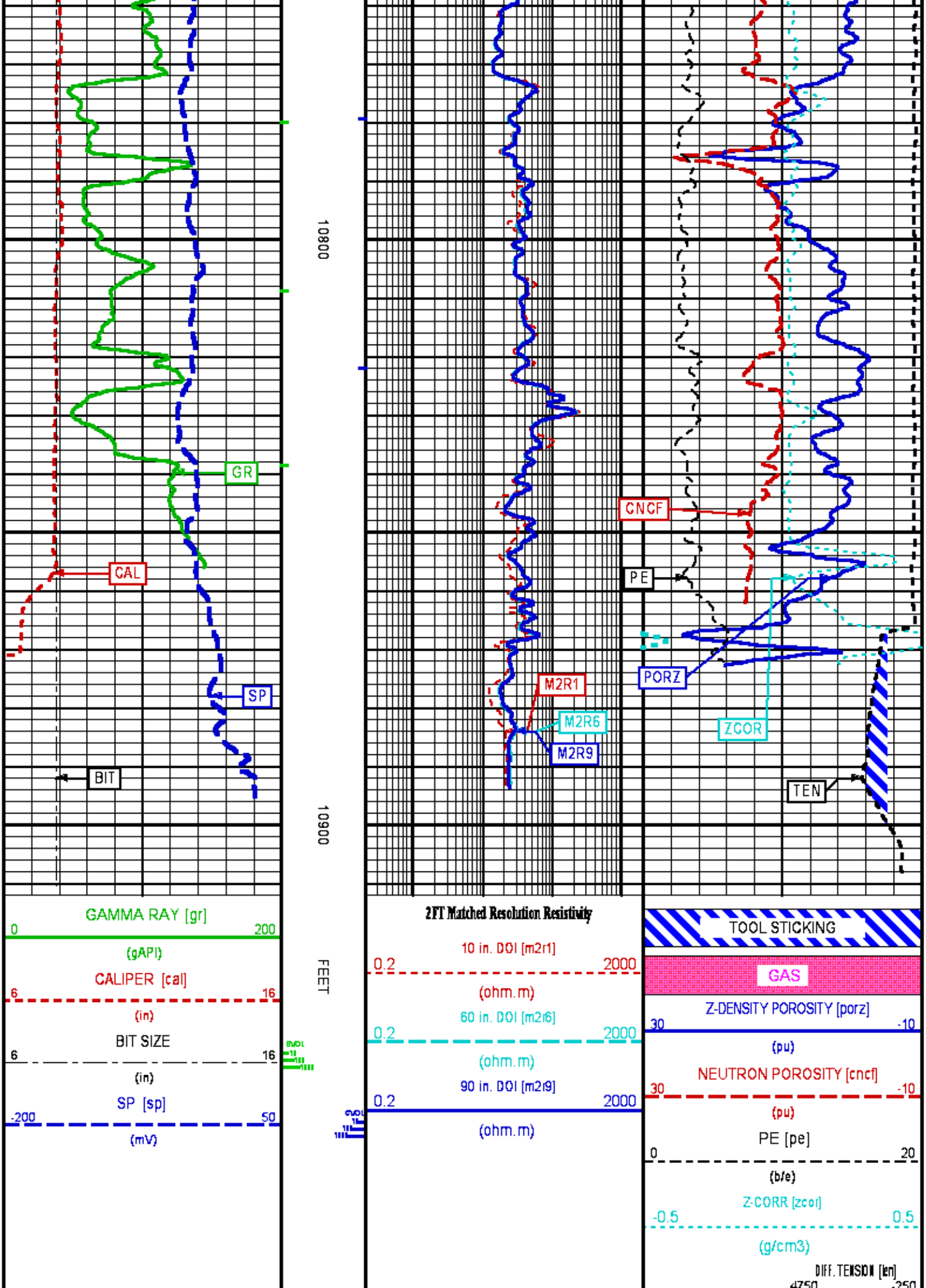
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10900
FEET
GR
CAL
SP
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M2R6
M2R9
CNCF
PE
PORZ
ZCOR
TEN
GAMMA RAY [gr]
0
200
(gAPI)
CALIPER [cal]
6
16
(in)
BIT SIZE
6
16
(in)
SP [sp]
-200
50
(mV)
2FT Matched Resolution Resistivity
10 in. DOI [m2r1]
0.2
2000
(ohm.m)
60 in. DOI [m2r6]
0.2
2000
(ohm.m)
90 in. DOI [m2r9]
0.2
2000
(ohm.m)
TOOL STICKING
GAS
Z-DENSITY POROSITY [porz]
30
-10
(pu)
NEUTRON POROSITY [cncf]
30
-10
(pu)
PE [pe]
0
20
(b/e)
Z-CORR [zcor]
-0.5
0.5
(g/cm3)
DIFF. TENSION [ten]

(lbf)

REPEAT LOG 5"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 31 Patches: 5

Plotted: Mon Mar 3 01:45:26 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625065/n777qR01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2759.000 ft BOTTOM DEPTH: 3206.014 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
TTRM	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
Y AXIS CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
CN	FILTER ()	medium (1)		"	"
CALIPER	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	65.0	degF	"	"
	MUD SAMPLE RES	0.740	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	65.0	degF	"	"
	at BH REF DEPTH	0.0	ft	"	"
	with TEMP GRADIENT	1.200	0.01 degF/ft	"	"
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (cnbh*)	USE CALIPER		"	"
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.750	in	"	"
	FIXED DIAMETER (mbh*)	8.750	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
2446 CN MATRIX	2446 MATRIX	SANDSTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	1700	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	7.875	in	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	RHOmatrix	2.680	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	"	"
ZDL	DENX TRACKING	ON		"	"

HDIL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000		"	"

CURVE DESCRIPTION REPORT

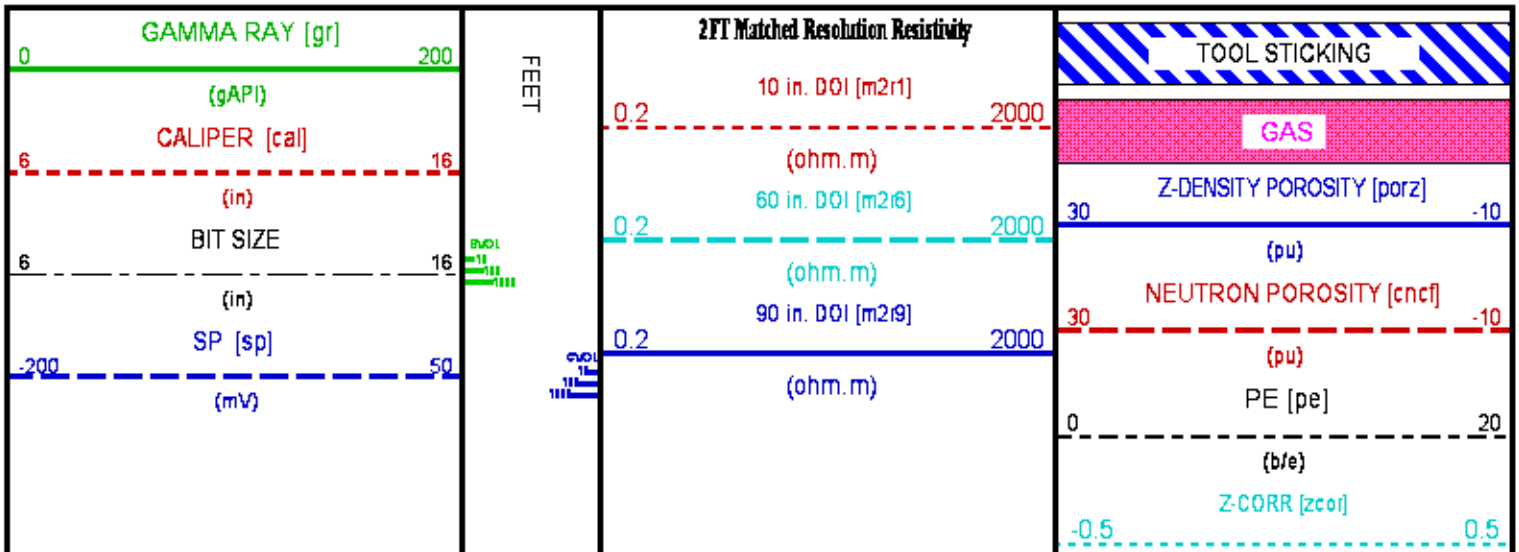
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Mar 3 01:42:27 2014	BIT SIZE
F1:BVOL	Mar 3 01:42:27 2014	BOREHOLE VOLUME
F1:CAL	Mar 3 01:42:27 2014	CALIPER
F1:CNCF	Mar 3 01:42:27 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Mar 3 01:42:27 2014	CEMENT VOLUME
F1:GR	Mar 3 01:42:27 2014	GAMMA RAY
F1:M2R1	Mar 3 01:42:27 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Mar 3 01:42:27 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Mar 3 01:42:27 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Mar 3 01:42:27 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Mar 3 01:42:27 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Mar 3 01:42:27 2014	SPONTANEOUS POTENTIAL
F1:TEN	Mar 3 01:42:27 2014	DIFFERENTIAL TENSION
F1:ZCOR	Mar 3 01:42:27 2014	DENSITY CORRECTION

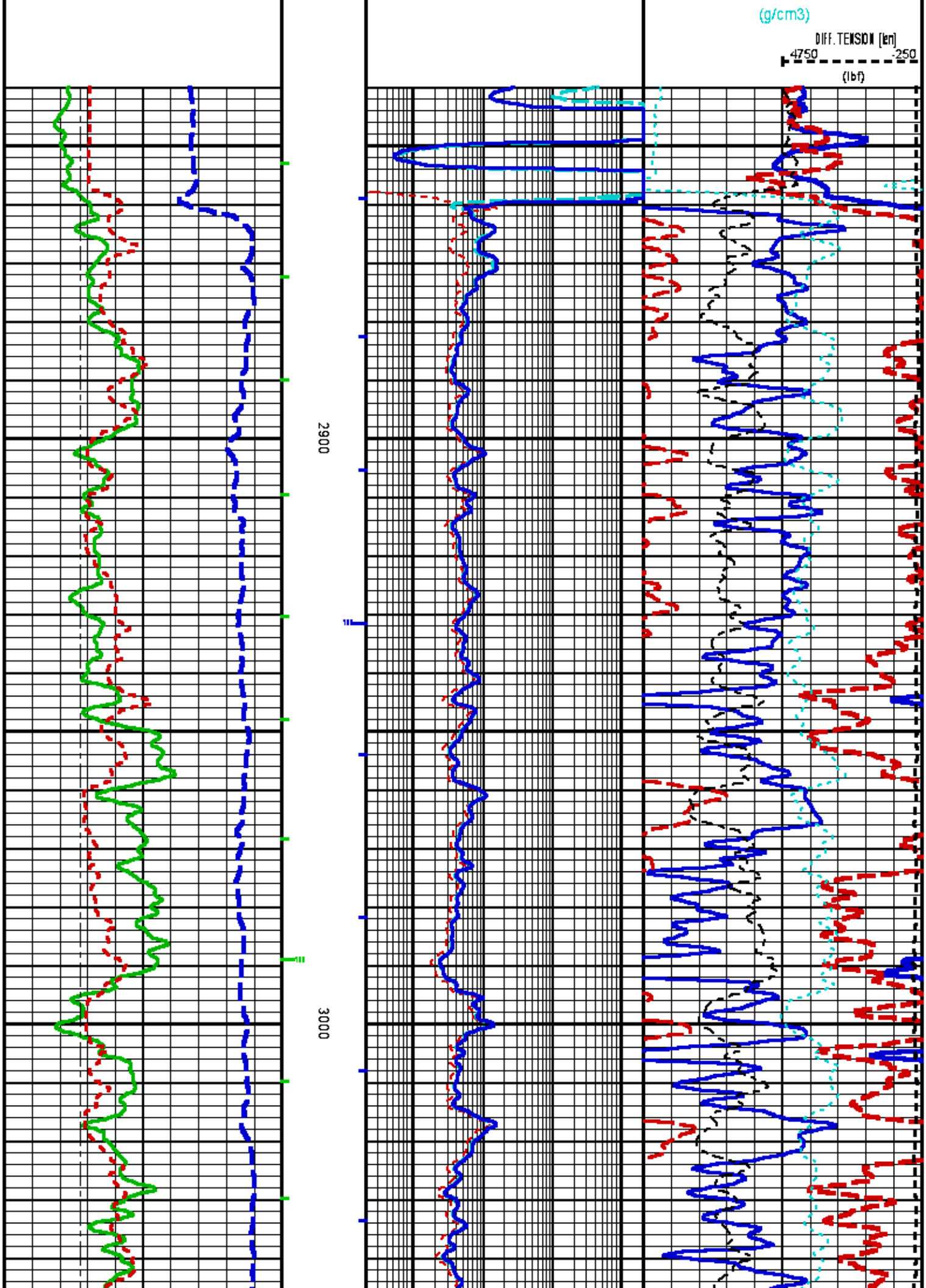
CURVE MEASURE POINT OFFSET

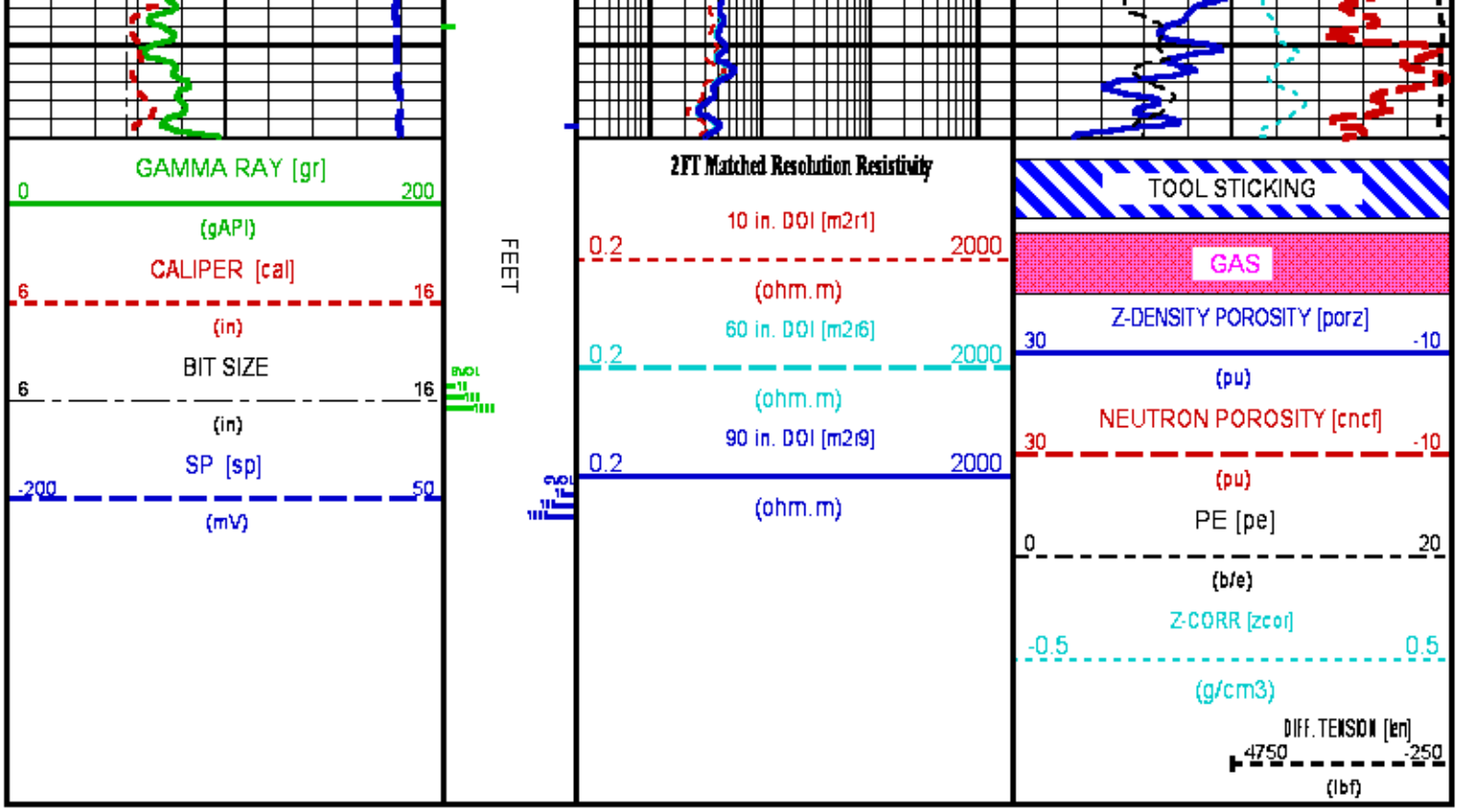
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	52.25	M2R9	8.00	SP	14.00
CAL	35.00	M2R1	8.00	PE	34.25	TEN	0.00
CNCF	45.25	M2R6	8.00	PORZ	34.25	ZCOR	34.25

Presentation : **HL6670:/dat1a/625065/WPX_REPEAT.fvpdf [5"/100' Scale]**
Plot Interval : **2840 - 3060 Feet**

Data File 1 : **F1 : HL6670:/dat1a/625065/n777qR01-REPEAT.xtf**
Created On : **Mar 3 01:42:27 2014**
Company : **WPX ENERGY INC**
Well : **FEDERAL RG 411-14-29S**
Field : **SULPHUR CREEK**
File Interval : **5 - 3202 Feet**
OCT : **n777q**




(g/cm3)
DIFF. TENSION [ten]
4750
-250
(lbf)
2900
3000



CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/625065/n777q.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Feb 3 14:37:11 2014

UNIT #: 3880TA HL6670 CALB JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	360.67	1252.67	892.0 (880.0 – 960.0)	0.168	60.65	210.65	150

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Feb 3 15:05:01 2014

UNIT #: 3880TA HL6670 VERI JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	362.00	1252.56	0.168	60.87	210.63	149.76 (140.00 – 160.00)

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Mar 3 01:04:00 2014 DAYS SINCE CAL: 27

UNIT #: 3880TA HL6670 VERI JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	134.96	1044.62	0.168	22.69	175.67	152.97 (139.76 – 159.76)

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Mar 3 06:25:35 2014 DAYS SINCE CAL: 27

UNIT #: 388DTA HL667D VERI JIG #: 4702NK VBA-905

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	257.36	1123.84	0.168	43.28	188.99	145.71 (142.57 – 162.57)

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2446XA 10202034 DATE/TIME PERFORMED: Sat Jan 18 09:41:38 2014

UNIT #: 388DTA HL667D CALIBRATOR #: 2437XB 112674 SOURCE #: 4717XS N-0897

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	NOMINAL SSN/LSN	CORRECTION FACTOR	POROSITY (pu)
LSN	580.64	588.84				
SSN	1530.88	1579.23				
RATIO			2.68193	2.75100	1.02575 (0.97000 – 1.07000)	
CN						21.358

CN PRIMARY VERIFICATION SUMMARY

TOOL #: 2446XA 10202034 DATE/TIME PERFORMED: Sat Jan 18 10:11:47 2014

UNIT #: 388DTA HL667D ICE BLOCK #: 4717ND D-0147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1531.18	1589.63				
SSN	3620.68	3903.43				
RATIO			2.45555	1.02575	2.52025	
CN						18.134

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2446XA 10202034 DATE/TIME PERFORMED: Mon Mar 3 01:01:00 2014 DAYS SINCE CAL: 43

UNIT #: 388DTA HL667D ICE BLOCK #: 4717ND D-0147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1547.14	1606.84				
SSN	3667.85	3958.28				
RATIO			2.46340	1.02575	2.52849	
CN						18.247 (16.134 – 20.134)

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2446XA 10202034 DATE/TIME PERFORMED: Mon Mar 3 06:22:02 2014 DAYS SINCE CAL: 43

UNIT #: 388DTA HL667D ICE BLOCK #: 4717ND D-0147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)

LSN	1530.54	1588.96			
SSN	3736.97	4038.92			
RATIO			2.54187	1.02575	2.60917
CN					19.358 16.247 20.247

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Wed Feb 26 11:40:43 2014

UNIT #: 388DTA HL667D

	SMALL RING	LARGE RING	MULT	ADD	SMALL RING (in)	LARGE RING (in)
CALIPER	1419.6	1939.6	0.00769	-3.92000	7.000	11.000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Mon Mar 3 01:22:08 2014 DAYS SINCE CAL: 4

UNIT #: 388DTA HL667D

	I.D.	MULT	ADD	I.D. (in)
CALIPER	1726.8	0.00769	-4.36208	8.921

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Mon Mar 3 05:31:20 2014 DAYS SINCE CAL: 4

UNIT #: 388DTA HL667D

	I.D.	MULT	ADD	I.D. (in)
CALIPER	1746.8	0.00769	-4.36208	9.075 8.421 9.421

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2234XA 153015 DATE/TIME PERFORMED: Wed Feb 26 11:33:30 2014

UNIT: 388DTA HL667D CALB BLKS: 2225XA 094292 CS SRC: 4703NT 34631B

	SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)
	223.9 220.0 230.0	223.7 220.0 230.0	1206.7	1553.0

	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	22516.2	11762.7	0.594 0.565 0.665	1.697	0.002	2.300
AL	13085.5	1177.2		2.717	-0.004	
AL + SHIM	18020.0	2042.3		2.629	0.157	
MG + SHIM (HI PE)	10821.4	5503.3	0.238 0.210 0.270			8.730
RATIO AL + SHIM/AL	1.38 1.32 1.42	1.73 1.64 1.84				
RATIO MG/AL	1.72 1.65 1.78	9.99 9.40 10.20				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Mon Mar 3 01:04:31 2014 DAYS SINCE CAL: 4

UNIT #: 3880TA HL6670

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1547.1 (1450.0 – 1650.0)	223.4 (220.0 – 230.0)	1164.0 (1100.0 – 1550.0)
SS	1226.3 (1106.7 – 1306.7)	227.4 (220.0 – 230.0)	1280.0 (1100.0 – 1550.0)

LV (V)	PAD CURRENT (mA)
5.0 (4.8 – 5.2)	80.0 (50.0 – 120.0)

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Mon Mar 3 06:21:48 2014 DAYS SINCE CAL: 4

UNIT #: 3880TA HL6670

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1551.7 (1450.0 – 1650.0)	222.9 (220.0 – 230.0)	1157.7 (1100.0 – 1550.0)
SS	1207.3 (1106.7 – 1306.7)	224.0 (220.0 – 230.0)	1263.7 (1100.0 – 1550.0)

LV (V)	PAD CURRENT (mA)
5.0 (4.8 – 5.2)	67.4 (50.0 – 120.0)

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Mon Jan 20 14:47:06 2014

UNIT #: 3880TA HL6670 GRCOND ID & DATE: 126 083096

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	0.002 (-0.200 – 0.200)	0.002 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)	0.000 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	-0.000 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)
Coil 0 Q	0.007 (-1.000 – 1.000)	0.009 (-0.200 – 0.200)	0.002 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.004 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)	-0.000 (-0.100 – 0.100)	-0.000 (-0.100 – 0.100)
Coil 1 R	-0.004 (-0.200 – 0.200)	-0.002 (-0.100 – 0.100)	0.000 (-0.100 – 0.100)	0.005 (-0.100 – 0.100)	0.004 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	-0.002 (-0.100 – 0.100)
Coil 1 Q	-0.008 (-1.000 – 1.000)	-0.009 (-0.200 – 0.200)	-0.006 (-0.100 – 0.100)	-0.002 (-0.100 – 0.100)	0.000 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)
Coil 2 R	0.004 (-0.200 – 0.200)	0.006 (-0.100 – 0.100)	0.006 (-0.100 – 0.100)	0.004 (-0.100 – 0.100)	0.004 (-0.100 – 0.100)	0.006 (-0.100 – 0.100)	0.009 (-0.100 – 0.100)	0.010 (-0.100 – 0.100)
Coil 2 Q	-0.002 (-1.000 – 1.000)	0.001 (-0.200 – 0.200)	0.000 (-0.100 – 0.100)	-0.000 (-0.100 – 0.100)	-0.004 (-0.100 – 0.100)	-0.004 (-0.100 – 0.100)	-0.004 (-0.100 – 0.100)	-0.002 (-0.100 – 0.100)
Coil 3 R	0.006 (-0.100 – 0.100)	0.007 (-0.100 – 0.100)	0.008 (-0.100 – 0.100)	0.006 (-0.100 – 0.100)	0.006 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.004 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)
Coil 3 Q	-0.008 (-0.500 – 0.500)	-0.004 (-0.200 – 0.200)	0.002 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	-0.002 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)
Coil 4 R	-0.004 (-0.200 – 0.200)	-0.003 (-0.200 – 0.200)	0.000 (-0.200 – 0.200)	-0.000 (-0.200 – 0.200)	0.005 (-0.200 – 0.200)	0.006 (-0.200 – 0.200)	0.005 (-0.200 – 0.200)	0.007 (-0.200 – 0.200)
Coil 4 Q	-0.008 (-1.000 – 1.000)	-0.001 (-0.400 – 0.400)	-0.001 (-0.200 – 0.200)	0.000 (-0.200 – 0.200)	-0.007 (-0.200 – 0.200)	-0.004 (-0.200 – 0.200)	-0.003 (-0.200 – 0.200)	0.000 (-0.200 – 0.200)
Coil 5 R	0.005 (-0.400 – 0.400)	0.003 (-0.400 – 0.400)	0.009 (-0.400 – 0.400)	0.009 (-0.400 – 0.400)	-0.002 (-0.400 – 0.400)	0.004 (-0.400 – 0.400)	0.005 (-0.400 – 0.400)	0.004 (-0.400 – 0.400)
Coil 5 Q	-0.005 (-2.000 – 2.000)	0.002 (-0.800 – 0.800)	0.006 (-0.400 – 0.400)	0.008 (-0.400 – 0.400)	0.003 (-0.400 – 0.400)	0.012 (-0.400 – 0.400)	-0.000 (-0.400 – 0.400)	-0.005 (-0.400 – 0.400)
Coil 6 R	-0.013 (-1.000 – 1.000)	0.016 (-1.000 – 1.000)	-0.019 (-1.000 – 1.000)	-0.002 (-1.000 – 1.000)	-0.008 (-1.000 – 1.000)	0.002 (-1.000 – 1.000)	0.001 (-1.000 – 1.000)	0.032 (-1.000 – 1.000)
Coil 6 Q	0.010 (-5.000 – 5.000)	-0.003 (-2.000 – 2.000)	0.006 (-1.000 – 1.000)	-0.003 (-1.000 – 1.000)	-0.005 (-1.000 – 1.000)	-0.017 (-1.000 – 1.000)	-0.012 (-1.000 – 1.000)	-0.005 (-1.000 – 1.000)

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	125.56 (100.00 – 150.00)	124.07 (100.00 – 150.00)	121.17 (98.00 – 150.00)	116.96 (96.00 – 140.00)	111.53 (92.00 – 140.00)	105.14 (87.00 – 130.00)	97.64 (82.00 – 120.00)	89.46 (76.00 – 110.00)

Coil D P	7.720 6.000 9.000	24.297 19.000 28.000	40.614 32.000 47.000	56.846 44.000 66.000	73.005 57.000 86.000	89.211 70.000 100.000	105.261 82.000 120.000	121.397 95.000 140.000
Coil 1 M	217.91 180.00 270.00	215.29 180.00 270.00	210.30 170.00 260.00	202.98 170.00 250.00	193.60 160.00 250.00	182.50 160.00 230.00	169.46 150.00 220.00	155.27 140.00 200.00
Coil 1 P	7.696 6.000 9.000	24.246 19.000 28.000	40.521 32.000 48.000	56.735 45.000 67.000	72.881 57.000 86.000	89.012 70.000 110.000	105.062 83.000 120.000	121.231 96.000 140.000
Coil 2 M	436.05 360.00 540.00	430.98 360.00 540.00	421.26 350.00 530.00	407.00 340.00 510.00	388.43 330.00 500.00	366.45 310.00 470.00	340.70 300.00 440.00	312.16 270.00 410.00
Coil 2 P	7.883 6.000 9.000	24.793 19.000 29.000	41.460 32.000 48.000	58.064 45.000 67.000	74.574 58.000 87.000	91.207 71.000 110.000	107.653 84.000 130.000	124.246 96.000 140.000
Coil 3 M	707.25 590.00 880.00	698.26 590.00 870.00	681.02 570.00 850.00	655.98 550.00 830.00	624.05 530.00 800.00	586.83 500.00 760.00	544.23 470.00 710.00	498.72 440.00 650.00
Coil 3 P	7.849 6.000 10.000	24.750 20.000 29.000	41.335 33.000 49.000	57.794 46.000 69.000	74.101 59.000 89.000	90.378 72.000 110.000	106.417 85.000 130.000	122.488 98.000 150.000
Coil 4 M	1138.1 900.0 1400.0	1121.1 900.0 1300.0	1089.1 900.0 1300.0	1043.5 850.0 1300.0	986.7 800.0 1200.0	922.7 800.0 1200.0	851.5 750.0 1100.0	777.1 700.0 1000.0
Coil 4 P	8.082 6.000 10.000	25.375 20.000 30.000	42.288 33.000 50.000	59.012 46.000 70.000	75.437 60.000 90.000	91.687 73.000 110.000	107.650 86.000 130.000	123.478 99.000 150.000
Coil 5 M	2364.9 1900.0 2800.0	2334.3 1800.0 2800.0	2275.3 1800.0 2700.0	2190.0 1800.0 2600.0	2080.7 1700.0 2500.0	1953.9 1600.0 2400.0	1808.5 1500.0 2200.0	1653.5 1400.0 2100.0
Coil 5 P	8.215 6.000 10.000	25.787 20.000 31.000	43.065 34.000 51.000	60.223 48.000 72.000	77.222 62.000 93.000	94.151 76.000 110.000	110.852 89.000 130.000	127.528 100.000 150.000
Coil 6 M	6019.4 4700.0 7100.0	5941.0 4700.0 7000.0	5788.5 4600.0 6900.0	5570.2 4400.0 6600.0	5290.0 4300.0 6400.0	4963.2 4000.0 6000.0	4587.5 3700.0 5600.0	4184.2 3400.0 5100.0
Coil 6 P	8.163 7.000 10.000	25.893 22.000 32.000	43.275 36.000 54.000	60.549 51.000 76.000	77.668 65.000 98.000	94.722 80.000 120.000	111.567 94.000 140.000	128.365 110.000 160.000

AM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D R	483 -200 800	-87 -500 200	-144 -600 100	-156 -600 50	-157 -500 20	-155 -500 20	-153 -500 20	-150 -500 20
Coil D Q	2334 -3000 8000	826 -1000 2000	459 -1000 1200	286 -500 900	182 -400 700	109 -400 600	53 -400 500	7 -400 400
Coil 1 R	568 450 650	87 20 130	22 -30 60	1 -50 40	-10 -55 30	-16 -60 20	-20 -60 10	-23 -60 10
Coil 1 Q	1327 0 2500	526 0 900	327 0 600	236 0 450	184 0 350	146 0 300	121 0 250	100 0 250
Coil 2 R	186.9 140.0 230.0	27.5 0.0 51.0	7.0 -10.0 25.0	0.6 -15.0 15.0	-2.9 -16.0 10.0	-4.5 -16.0 7.0	-5.8 -16.0 5.0	-6.8 -16.0 3.0
Coil 2 Q	442.6 -200.0 1000.0	177.0 0.0 350.0	113.2 0.0 220.0	85.0 0.0 160.0	69.9 0.0 130.0	60.3 0.0 110.0	53.5 0.0 100.0	49.4 0.0 90.0
Coil 3 R	49.6 37.0 62.0	7.2 0.0 12.0	2.0 -3.0 6.0	0.5 -4.0 4.0	-0.4 -5.0 2.0	-0.9 -5.0 1.0	-1.5 -6.0 1.0	-2.1 -6.0 1.0
Coil 3 Q	83.4 -140.0 380.0	37.1 -40.0 100.0	26.8 -20.0 70.0	23.1 -10.0 60.0	22.0 -10.0 50.0	22.1 -10.0 50.0	22.6 -10.0 50.0	23.4 -10.0 50.0
Coil 4 R	11.61 2.00 18.00	1.33 -3.00 6.00	-0.19 -3.50 3.00	-0.74 -3.50 2.00	-1.01 -4.20 2.00	-1.24 -4.50 2.00	-1.43 -4.70 2.00	-1.41 -5.00 2.00
Coil 4 Q	21.84 -100.00 100.00	12.42 -30.00 50.00	11.77 -20.00 40.00	12.79 -10.00 40.00	14.35 -10.00 40.00	16.30 -10.00 45.00	18.31 -10.00 50.00	20.31 -10.00 60.00
Coil 5 R	2.57 -2.00 5.80	0.12 -3.20 2.40	-0.24 -4.50 3.10	-0.30 -4.70 3.20	-0.36 -4.80 3.20	-0.62 -5.00 3.30	-0.48 -5.20 3.40	-0.50 -5.40 3.50
Coil 5 Q	16.74 -60.00 70.00	8.87 -20.00 30.00	9.13 -20.00 30.00	10.52 -20.00 35.00	12.26 -20.00 45.00	14.38 -20.00 50.00	16.33 -20.00 60.00	18.50 -30.00 70.00
Coil 6 R	-2.45 -4.80 1.00	-0.38 -5.70 3.80	-0.16 -6.50 4.50	-0.16 -6.50 5.40	-0.21 -7.30 5.80	-0.22 -7.50 6.00	-0.30 -7.70 6.10	-0.34 -7.50 6.30
Coil 6 Q	2.55 -30.00 30.00	3.41 -20.00 25.00	5.61 -20.00 35.00	7.98 -30.00 50.00	10.23 -35.00 60.00	12.54 -40.00 70.00	14.73 -50.00 80.00	17.02 -60.00 100.00

MM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D M	1.005 0.500 1.100	1.000 0.500 1.100	0.994 0.500 1.100	0.993 0.500 1.100	0.991 0.500 1.100	0.990 0.500 1.100	0.990 0.500 1.100	0.990 0.500 1.100
Coil D P	0.340 -2.000 2.000	0.477 -2.000 2.000	0.518 -2.000 2.000	0.444 -2.000 2.000	0.381 -2.000 2.000	0.301 -2.000 2.000	0.250 -2.000 2.000	0.214 -2.000 2.000
Coil 1 M	0.986 0.500 1.100	0.983 0.500 1.100	0.978 0.500 1.100	0.977 0.500 1.100	0.975 0.500 1.100	0.974 0.500 1.100	0.973 0.500 1.100	0.973 0.500 1.100
Coil 1 P	0.188 -2.000 2.000	0.359 -2.000 2.000	0.431 -2.000 2.000	0.447 -2.000 2.000	0.416 -2.000 2.000	0.344 -2.000 2.000	0.298 -2.000 2.000	0.280 -2.000 2.000
Coil 2 M	1.010 0.500 1.100	1.007 0.500 1.100	1.006 0.500 1.100	1.005 0.500 1.100	1.004 0.500 1.100	1.003 0.500 1.100	1.003 0.500 1.100	1.001 0.500 1.100
Coil 2 P	0.091 -2.000 2.000	0.101 -2.000 2.000	0.155 -2.000 2.000	0.193 -2.000 2.000	0.175 -2.000 2.000	0.202 -2.000 2.000	0.170 -2.000 2.000	0.202 -2.000 2.000
Coil 3 M	1.000 0.500 1.100	0.999 0.500 1.100	0.998 0.500 1.100	0.997 0.500 1.100	0.996 0.500 1.100	0.995 0.500 1.100	0.996 0.500 1.100	0.998 0.500 1.100
Coil 3 P	0.078 -2.000 2.000	0.117 -2.000 2.000	0.193 -2.000 2.000	0.220 -2.000 2.000	0.220 -2.000 2.000	0.201 -2.000 2.000	0.152 -2.000 2.000	0.217 -2.000 2.000
Coil 4 M	1.009 0.500 1.100	1.008 0.500 1.100	1.008 0.500 1.100	1.007 0.500 1.100	1.006 0.500 1.100	1.005 0.500 1.100	1.004 0.500 1.100	1.003 0.500 1.100
Coil 4 P	0.082 -2.000 2.000	0.127 -2.000 2.000	0.159 -2.000 2.000	0.244 -2.000 2.000	0.248 -2.000 2.000	0.255 -2.000 2.000	0.256 -2.000 2.000	0.221 -2.000 2.000
Coil 5 M	1.018 0.500 1.100	1.018 0.500 1.100	1.018 0.500 1.100	1.017 0.500 1.100	1.015 0.500 1.100	1.016 0.500 1.100	1.014 0.500 1.100	1.013 0.500 1.100

	0.500 1.100	0.500 1.100	0.500 1.100	0.500 1.100	0.500 1.100	0.500 1.100	0.500 1.100	0.500 1.100
Coil 5 P	0.072 -2.000 2.000	0.010 -2.000 2.000	0.089 -2.000 2.000	0.115 -2.000 2.000	0.074 -2.000 2.000	0.027 -2.000 2.000	0.032 -2.000 2.000	0.025 -2.000 2.000
Coil 6 M	1.011 0.500 1.100	1.013 0.500 1.100	1.012 0.500 1.100	1.011 0.500 1.100	1.010 0.500 1.100	1.016 0.500 1.100	1.015 0.500 1.100	1.013 0.500 1.100
Coil 6 P	0.004 -2.000 2.000	0.087 -2.000 2.000	0.037 -2.000 2.000	0.132 -2.000 2.000	0.034 -2.000 2.000	-0.055 -2.000 2.000	-0.066 -2.000 2.000	-0.194 -2.000 2.000

PARMS	TCID 0	TCID 1	Cal Temp (degF)	T Factor
IDs	1.617	0.832	61.0	1.04

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Mon Mar 3 02:16:49 2014 DAYS SINCE CAL: 41

UNIT #: 3880TA HL667D

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-0.000 -0.200 0.200	0.002 -0.100 0.100	0.003 -0.100 0.100	0.002 -0.100 0.100	-0.000 -0.100 0.100	0.002 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100
Coil 0 Q	0.007 -1.000 1.000	0.008 -0.200 0.200	0.003 -0.100 0.100	0.002 -0.100 0.100	0.002 -0.100 0.100	0.000 -0.100 0.100	0.001 -0.100 0.100	0.001 -0.100 0.100
Coil 1 R	0.000 -0.200 0.200	0.002 -0.100 0.100	0.002 -0.100 0.100	0.003 -0.100 0.100	-0.001 -0.100 0.100	-0.002 -0.100 0.100	-0.006 -0.100 0.100	-0.004 -0.100 0.100
Coil 1 Q	-0.007 -1.000 1.000	-0.004 -0.200 0.200	-0.002 -0.100 0.100	0.002 -0.100 0.100	0.002 -0.100 0.100	0.003 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100
Coil 2 R	0.000 -0.200 0.200	0.002 -0.100 0.100	0.002 -0.100 0.100	0.001 -0.100 0.100	0.001 -0.100 0.100	0.006 -0.100 0.100	0.007 -0.100 0.100	0.009 -0.100 0.100
Coil 2 Q	-0.002 -1.000 1.000	-0.002 -0.200 0.200	-0.001 -0.100 0.100	-0.004 -0.100 0.100	-0.004 -0.100 0.100	-0.004 -0.100 0.100	-0.002 -0.100 0.100	0.000 -0.100 0.100
Coil 3 R	0.005 -0.100 0.100	0.006 -0.100 0.100	0.003 -0.100 0.100	0.001 -0.100 0.100	0.004 -0.100 0.100	0.001 -0.100 0.100	0.004 -0.100 0.100	0.001 -0.100 0.100
Coil 3 Q	-0.006 -0.500 0.500	-0.004 -0.200 0.200	0.000 -0.100 0.100	-0.001 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100	-0.003 -0.100 0.100	0.001 -0.100 0.100
Coil 4 R	-0.003 -0.200 0.200	-0.005 -0.200 0.200	0.006 -0.200 0.200	-0.006 -0.200 0.200	-0.003 -0.200 0.200	-0.001 -0.200 0.200	0.005 -0.200 0.200	0.002 -0.200 0.200
Coil 4 Q	-0.005 -1.000 1.000	0.007 -0.400 0.400	-0.001 -0.200 0.200	-0.001 -0.200 0.200	-0.001 -0.200 0.200	-0.004 -0.200 0.200	-0.004 -0.200 0.200	-0.002 -0.200 0.200
Coil 5 R	-0.014 -0.400 0.400	0.016 -0.400 0.400	0.011 -0.400 0.400	-0.005 -0.400 0.400	0.005 -0.400 0.400	0.013 -0.400 0.400	0.001 -0.400 0.400	-0.001 -0.400 0.400
Coil 5 Q	-0.008 -2.000 2.000	-0.002 -0.800 0.800	0.001 -0.400 0.400	-0.002 -0.400 0.400	0.011 -0.400 0.400	0.008 -0.400 0.400	0.006 -0.400 0.400	-0.001 -0.400 0.400
Coil 6 R	0.022 -1.000 1.000	0.002 -1.000 1.000	-0.028 -1.000 1.000	-0.046 -1.000 1.000	-0.016 -1.000 1.000	0.003 -1.000 1.000	0.011 -1.000 1.000	0.004 -1.000 1.000
Coil 6 Q	-0.002 -5.000 5.000	-0.015 -2.000 2.000	0.006 -1.000 1.000	0.002 -1.000 1.000	-0.002 -1.000 1.000	-0.015 -1.000 1.000	-0.006 -1.000 1.000	-0.014 -1.000 1.000

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	125.61 100.00 150.00	124.04 100.00 150.00	121.15 98.00 150.00	116.81 96.00 140.00	111.49 92.00 140.00	104.92 87.00 130.00	97.46 82.00 120.00	89.10 76.00 110.00
Coil 0 P	7.776 6.000 9.000	24.505 19.000 28.000	40.937 32.000 47.000	57.320 44.000 66.000	73.620 57.000 85.000	89.990 70.000 100.000	106.192 82.000 120.000	122.627 95.000 140.000
Coil 1 M	216.95 180.00 270.00	214.17 180.00 270.00	209.10 170.00 260.00	201.63 170.00 250.00	192.39 160.00 250.00	181.03 160.00 230.00	168.31 150.00 220.00	153.84 140.00 200.00
Coil 1 P	7.782 6.000 9.000	24.505 19.000 28.000	40.911 32.000 48.000	57.290 45.000 67.000	73.539 57.000 86.000	89.900 70.000 110.000	106.126 83.000 120.000	122.537 96.000 140.000
Coil 2 M	437.62 360.00 540.00	431.86 360.00 540.00	421.73 350.00 530.00	406.97 340.00 510.00	388.61 330.00 500.00	366.12 310.00 470.00	340.69 300.00 440.00	311.87 270.00 410.00
Coil 2 P	7.997 6.000 9.000	25.094 19.000 29.000	41.879 32.000 48.000	58.606 45.000 67.000	75.268 58.000 87.000	92.051 71.000 110.000	108.627 84.000 130.000	125.495 96.000 140.000
Coil 3 M	710.04 550.00 880.00	700.65 580.00 870.00	683.46 570.00 850.00	657.85 550.00 820.00	626.50 530.00 800.00	588.68 500.00 760.00	546.31 470.00 710.00	499.67 440.00 650.00
Coil 3 P	7.931 6.000 10.000	24.999 20.000 29.000	41.718 33.000 49.000	58.350 46.000 69.000	74.827 59.000 89.000	91.350 72.000 110.000	107.581 85.000 130.000	123.941 98.000 150.000
Coil 4 M	1145.8 900.0 1400.0	1127.5 900.0 1300.0	1094.9 900.0 1300.0	1047.8 850.0 1300.0	991.7 800.0 1200.0	926.1 800.0 1200.0	855.5 750.0 1100.0	780.0 700.0 1000.0
Coil 4 P	8.182 6.000 10.000	25.664 20.000 30.000	42.717 33.000 50.000	59.589 46.000 70.000	76.157 60.000 90.000	92.624 73.000 110.000	108.736 86.000 130.000	124.885 99.000 150.000
Coil 5 M	2379.8 1900.0 2800.0	2347.3 1800.0 2800.0	2287.6 1800.0 2700.0	2198.8 1800.0 2600.0	2090.7 1700.0 2500.0	1960.0 1600.0 2400.0	1815.3 1500.0 2300.0	1656.5 1400.0 2100.0
Coil 5 P	8.308 6.000 10.000	26.091 20.000 31.000	43.540 34.000 51.000	60.889 48.000 72.000	78.071 62.000 93.000	95.230 76.000 110.000	112.150 89.000 130.000	129.138 100.000 150.000
Coil 6 M	6013.5 4700.0 7100.0	5923.3 4700.0 7000.0	5764.2 4600.0 6800.0	5533.3 4400.0 6600.0	5256.4 4200.0 6400.0	4920.5 4000.0 6000.0	4549.3 3700.0 5600.0	4144.4 3400.0 5100.0
Coil 6 P	8.328 6.000 10.000	26.326 20.000 31.000	43.914 34.000 52.000	61.370 48.000 73.000	78.663 62.000 94.000	96.039 77.000 110.000	113.030 90.000 130.000	130.070 101.000 150.000

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1515MA 10037719 | DATE/TIME PERFORMED: Mon Mar 3 06:20:26 2014 | DAYS SINCE CAL: 41

UNIT #: 388DTA HL667D

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D R	0.001 -0.080 0.080	0.003 -0.058 0.062	0.003 -0.027 0.033	0.002 -0.028 0.032	0.000 -0.030 0.030	0.002 -0.028 0.032	0.001 -0.029 0.031	-0.001 -0.031 0.029
Coil D Q	0.006 -0.033 0.047	0.008 -0.112 0.128	0.001 -0.027 0.033	0.002 -0.028 0.032	0.003 -0.028 0.032	0.001 -0.030 0.030	0.001 -0.029 0.031	0.001 -0.029 0.031
Coil 1 R	0.001 -0.080 0.080	0.000 -0.048 0.052	0.002 -0.028 0.032	0.003 -0.027 0.033	0.003 -0.031 0.029	-0.001 -0.032 0.028	-0.004 -0.026 0.024	-0.004 -0.034 0.026
Coil 1 Q	-0.006 -0.407 0.393	-0.008 -0.104 0.096	-0.003 -0.032 0.026	0.000 -0.028 0.032	0.003 -0.028 0.032	0.002 -0.027 0.033	0.003 -0.029 0.031	0.000 -0.031 0.029
Coil 2 R	0.002 -0.070 0.070	0.003 -0.028 0.032	0.005 -0.028 0.032	0.004 -0.029 0.031	0.005 -0.029 0.031	0.007 -0.024 0.036	0.009 -0.023 0.037	0.010 -0.021 0.039
Coil 2 Q	-0.002 -0.352 0.348	0.000 -0.102 0.098	-0.002 -0.031 0.029	-0.002 -0.034 0.026	-0.004 -0.034 0.026	-0.004 -0.034 0.026	-0.001 -0.032 0.028	-0.000 -0.030 0.030
Coil 3 R	0.007 -0.035 0.049	0.006 -0.034 0.046	0.008 -0.037 0.043	0.006 -0.039 0.041	0.008 -0.036 0.044	0.006 -0.039 0.041	0.004 -0.036 0.044	0.005 -0.039 0.041
Coil 3 Q	-0.006 -0.206 0.194	-0.008 -0.084 0.076	-0.002 -0.040 0.040	0.002 -0.041 0.039	0.001 -0.041 0.039	0.002 -0.040 0.040	0.001 -0.043 0.037	-0.000 -0.039 0.041
Coil 4 R	-0.000 -0.063 0.057	-0.000 -0.066 0.066	-0.000 -0.064 0.066	0.000 -0.066 0.064	-0.004 -0.063 0.057	0.001 -0.061 0.059	0.004 -0.066 0.066	0.006 -0.068 0.062
Coil 4 Q	-0.003 -0.305 0.295	0.002 -0.093 0.107	0.002 -0.061 0.059	-0.006 -0.061 0.059	0.000 -0.061 0.059	-0.004 -0.064 0.056	-0.006 -0.064 0.056	-0.001 -0.062 0.058
Coil 5 R	0.002 -0.134 0.106	0.013 -0.104 0.136	0.008 -0.109 0.131	0.006 -0.125 0.115	0.010 -0.115 0.125	-0.000 -0.107 0.133	-0.007 -0.119 0.121	0.006 -0.121 0.119
Coil 5 Q	0.002 -0.608 0.592	-0.006 -0.252 0.248	-0.003 -0.119 0.121	0.004 -0.122 0.118	0.008 -0.109 0.131	0.007 -0.112 0.126	-0.007 -0.114 0.126	-0.005 -0.121 0.119
Coil 6 R	0.011 -0.278 0.322	-0.004 -0.298 0.302	0.017 -0.308 0.272	-0.012 -0.346 0.254	-0.002 -0.316 0.284	-0.006 -0.297 0.303	0.010 -0.289 0.311	0.018 -0.296 0.304
Coil 6 Q	0.006 -1.502 1.490	0.022 -0.615 0.595	-0.017 -0.294 0.306	-0.002 -0.298 0.302	-0.018 -0.302 0.266	0.005 -0.315 0.285	-0.006 -0.306 0.294	-0.008 -0.314 0.298

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil D M	125.74 123.10 128.12	124.24 121.56 126.52	121.38 118.73 123.57	116.91 114.48 119.15	111.53 109.26 113.72	104.82 102.82 107.02	97.33 95.51 99.41	88.77 87.32 90.88
Coil D P	7.738 4.776 10.776	24.409 21.505 27.505	40.813 37.937 43.937	57.175 54.300 60.300	73.393 70.620 76.620	89.712 86.980 92.980	105.757 103.152 108.152	122.059 119.627 125.627
Coil 1 M	217.72 212.61 221.29	215.12 209.88 218.45	210.14 204.52 213.29	202.46 197.60 205.67	193.13 188.55 196.24	181.46 177.41 184.65	168.57 164.94 171.67	153.74 150.76 156.91
Coil 1 P	7.723 4.782 10.782	24.383 21.505 27.505	40.764 37.911 43.911	57.119 54.250 60.250	73.314 70.539 76.539	89.592 86.900 92.900	105.678 103.126 108.126	121.985 119.537 125.537
Coil 2 M	437.51 428.87 446.37	432.35 423.22 440.50	422.57 413.30 430.17	407.59 398.83 415.11	388.95 380.84 396.38	365.82 358.80 373.45	340.01 333.87 347.50	310.40 305.63 318.11
Coil 2 P	7.914 4.997 10.997	24.934 22.094 28.094	41.696 38.879 44.879	58.425 55.606 61.606	75.033 72.268 78.268	91.780 89.051 95.051	108.218 105.627 111.627	124.971 122.495 128.495
Coil 3 M	709.52 695.84 724.24	700.43 686.63 714.66	683.28 669.79 697.13	656.90 644.69 671.01	624.87 613.97 639.03	585.88 576.50 600.45	543.01 535.39 557.24	495.31 489.68 509.67
Coil 3 P	7.892 4.931 10.931	24.897 21.999 27.999	41.589 38.718 44.718	58.193 55.350 61.350	74.574 71.827 77.827	91.008 88.360 94.360	107.058 104.581 110.581	123.278 120.941 126.941
Coil 4 M	1142.5 1122.9 1168.7	1125.2 1105.0 1150.1	1093.1 1073.0 1116.8	1045.2 1026.9 1068.8	988.3 971.8 1011.5	921.2 907.6 944.7	849.8 838.4 872.6	772.5 764.4 795.6
Coil 4 P	8.125 5.182 11.182	25.530 22.664 28.664	42.554 39.717 45.717	59.403 56.589 62.589	75.911 73.157 79.157	92.299 89.624 95.624	108.251 105.736 111.736	124.250 121.885 127.885
Coil 5 M	2374.1 2302.2 2427.4	2343.6 2300.4 2394.3	2284.9 2241.8 2333.3	2194.9 2154.9 2242.8	2086.0 2048.9 2132.5	1952.7 1920.8 1999.2	1807.6 1779.0 1851.6	1646.0 1623.4 1689.7
Coil 5 P	8.245 5.308 11.308	25.915 23.091 29.091	43.294 40.540 46.540	60.581 57.889 63.889	77.645 75.071 81.071	94.717 92.230 98.230	111.433 109.150 115.150	128.270 126.136 132.136
Coil 6 M	6022.6 5893.3 6133.8	5942.7 5804.8 6041.7	5792.9 5648.9 5879.5	5561.9 5422.6 5643.9	5282.4 5151.3 5361.5	4942.7 4822.1 5018.9	4569.3 4458.3 4640.3	4151.8 4061.5 4227.2
Coil 6 P	8.199 5.308 11.308	26.029 23.326 29.326	43.510 40.914 46.914	60.905 58.370 64.370	78.078 75.662 81.662	95.272 92.929 98.929	112.100 109.930 115.930	129.091 127.070 133.070

INSTRUMENT CONFIGURATION

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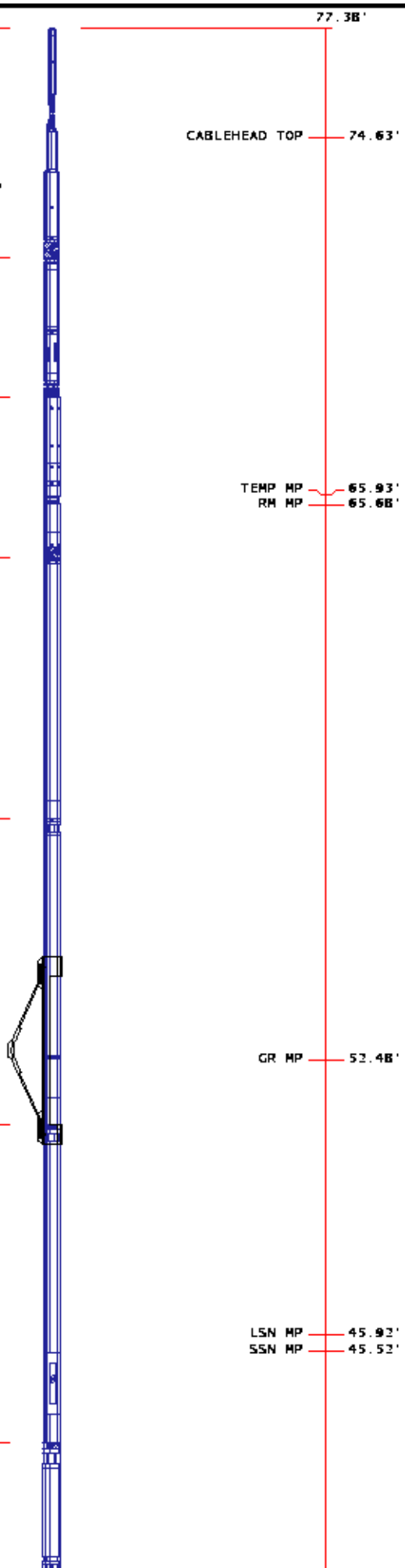


CABLEHEAD
- Diameter : 3.38"
- Length : 5.50'
- Weight : 24 lbs
- Series : CABL33B
- Mnemonic : CBLH
- Measure Point: 2.75': CABLEHEAD TOP

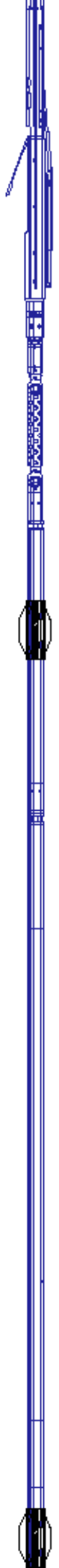
SWIVEL
- Diameter : 3.38"
- Length : 3.50'
- Weight : 68 lbs
- Series : 3944XD
- Mnemonic : SWVL

TTRM SUB
- Diameter : 3.63"
- Length : 3.83'
- Weight : 62 lbs
- Series : 3981XA
- Mnemonic : TTRM
- Measure Point: 1.38': TEMP MP
- Measure Point: 1.13': RM MP

WTS COMMON REMOTE
- Diameter : 3.63"
- Length : 6.36'
- Weight : 126 lbs
- Series : 3514XB
- Mnemonic : WTS

DIGITAL SPECTRALOG
- Diameter : 3.63"
- Length : 7.31'
- Weight : 130 lbs
- Series : 1329XA
- Mnemonic : DSL
- Measure Point: 1.60': GR MP

COMPENSATED NEUTRON
- Diameter : 3.63"
- Length : 7.59'
- Weight : 150 lbs
- Series : 2446XA
- Mnemonic : CN
- Measure Point: 2.63': LSN MP
- Measure Point: 2.24': SSN MP



Z-DENSILOG
- Diameter : 4.88"
- Length : 11.22'
- Weight : 360 lbs
- Series : 3234XA
- Mnemonic : ZDL
- Measure Point: 3.19': CAL MP
- Measure Point: 2.47': LSD MP
- Measure Point: 2.07': SSD MP

CAL MP — 35.26'

LSD MP — 34.54'

SSD MP — 34.14'

KNUCKLE JOINT (DOUBLE)
- Diameter : 3.38"
- Length : 4.65'
- Weight : 90 lbs
- Series : 3939XA
- Mnemonic : KNJT

HIGH DEFINITION INDUCTION TOOL
- Diameter : 3.63"
- Length : 27.13'
- Weight : 415 lbs
- Series : 1515XA
- Mnemonic : HDIL
- Measure Point: 13.91': SP MP
- Measure Point: 7.44': XMTR MP

SP MP — 14.19'

XMTR MP — 7.72'

0.00'

BULL PLUG 3 3/8

TOTAL LENGTH: 77.38'
TOTAL WEIGHT: 1446 lbs
MAX DIAMETER: 0'4.88"

BAKER HUGHES

ECLIPS

COMPANY	WPX ENERGY INC		FILE NO: US625065
WELL	FEDERAL RG 411-14-298		API NO: 05103118000000
FIELD	SULPHUR CREEK		
COUNTY	RIO BLANCO	STATE CO	

LOCATION:

SHL: 1607' FNL; 513' FWL
BHL: 510' FNL; 649' FWL

SEC 14 TWP 2S RGE 98W

ELEVATIONS:

KB 6581 FT
DF
GL 6560 FT

S14 2S 98W
RG 12-14-298
CYCLONE 29

DATE 03-Mar-2014