BAKER HUGHES

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

FILE NO: US625272
API NO: 05045221540000

COMPANY WPX ENERGY INC
WELL PUCKETT GM 701-28-HN1
FIELD RULISON
COUNTY GARFIELD STATE CO

Ver. 3.87
S28 T6S R96W
PAD: GM 11-28
RIG: AZTEC 1000

LOCATION:
SHL: 1314' FNL; 1035' FWL
BHL: 535' FNL; 629' FWL
SEC 28 TWP 6S RGE 96W

OTHER SERVICES
XMAC

PERMANENT DATUM GL ELEVATION 5604 FT
LOG MEASURED FROM KB 25 FT ABOVE P.D.
DRILL. MEAS. FROM KB

ELEVATIONS:
KB 5629 FT
DF
GL 5604 FT

DATE		08-Dec-2013		13-Nov-2013	
RUN	TRIP	2	1	1	1
SERVICE ORDER		US625272		US625265	
DEPTH DRILLER		11252 FT		2960 FT	
DEPTH LOGGER		NOT TAGGED		2955 FT	
BOTTOM LOGGED INTERVAL		10432 FT		2939 FT	
TOP LOGGED INTERVAL		2900 FT		0 FT	
CASING DRILLER		13.375 IN @ 2957 FT		20 IN @ 110 FT	
CASING LOGGER		2949 FT		104 FT	
BIT SIZE		12.25 IN		17.5 IN	
TYPE OF FLUID IN HOLE		LSND		LSND	
DENSITY	VISCOSITY	12.7 LB/G	84 CP	9.9 LB/G	60 CP
PH	FLUID LOSS	9.6	4.4 C3	8.6	24 C3
SOURCE OF SAMPLE		FLOWLINE		FLOWLINE	
RM AT MEAS. TEMP.		0.84 OHMM @ 76 DEGF		1.07 OHMM @ 78 DEGF	
RMF AT MEAS. TEMP.		0.63 OHMM @ 76 DEGF		0.8 OHMM @ 78 DEGF	
RMC AT MEAS. TEMP.		1.05 OHMM @ 76 DEGF		1.33 OHMM @ 78 DEGF	
SOURCE OF RMF	RMC	CALCULATED	CALCULATED	CALCULATED	CALCULATED
RM AT BHT		0.688 OHMM @ 246.9 DEGF		1.15 OHMM @ 149 DEGF	
TIME SINCE CIRCULATION		8 HRS		9 HRS	
MAX. RECORDED TEMP.		248.6 DEGF		152 DEGF	
EQUIP. NO.	LOCATION	6670	GRAND JCT	6670	GRAND JCT
RECORDED BY		PATTON		PATTON	
WITNESSED BY		MOORE / BRUNK		ANDREW BRUNK	

CASING RECORD

SIZE	WEIGHT	GRADE	FROM	TO
13.375 IN	68 LB/F		0 FT	2957 FT
20 IN	54 LB/F		0 FT	104 FT

BOREHOLE RECORD

BIT SIZE	FROM	TO
12.25 IN	2957 FT	11252 FT
17.5 IN	0 FT	2955 FT

REMARKS

RUN 2 TRIP 1: XMAC HDIL ZDL CN GR RAN IN COMBINATION

MADE 10509' INTO THE CURVE, PULLED WEIGHT COMING OUT
PULLED 65% AT 10230' SHUT CALIPER TO PULL THROUGH TIGHT SPOT
PULLED 65% AT 8300' SHUT CALIPER TO PULL THROUGH TIGHT SPOT

BVOL CVOL CALCULATED IN CUBIC FEET
BVOL CALCULATED USING PROPOSED 9.625" CASING
CALIPER VERIFIED INSIDE CASING

CN RAN DECENTRALIZED
CN MATRIX: SANDSTONE

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

HDIL RAN WITH 1.5" STANDOFFS
ABC TO CALCULATE: STANDOFF

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
CREW: PATTON/COATE/HOLLAR
RIG: AZTEC 1000

RUN 1 TRIP 1:

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	DHPA	4430XB	12494777	FREE
1	1	SWVL	3944XD	10201370	FREE
1	1	TTRM	3981XA	10203010	FREE
1	1	WTS	3514XB	10240730	FREE
1	1	DSL	1329XA	10196895	FREE
1	1	KNJT	3939XA	10399278	FREE
1	1	CN	2446XA	10202048	DECENTRALIZED
1	1	ZDL	2234XA	153015	DECENTRALIZED
1	1	KNJT	3939XA	10185406	FREE
1	1	CENT	4341XA	10239054	CENTRALIZED
1	1	ORIT	4401XB	10304309	CENTRALIZED
1	1	XMAC	1677EA	179577	CENTRALIZED
1	1	XMF1	1678MC	10084081	CENTRALIZED
1	1	XMAC	1678PB	10086347	CENTRALIZED
1	1	XMAC	1678BA	10070639	CENTRALIZED
1	1	XMAC	1678FA	10083715	CENTRALIZED
1	1	CENT	4341XA	10202020	CENTRALIZED
1	1	HDIL	1515EA	10318637	STOOD OFF
1	1	HDIL	1515MA	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
Patches: 3

Plotted: Sun Dec 8 19:00:47 2013

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625272/n777v02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 7202.169 ft BOTTOM DEPTH: 10539.247 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	12.250	in	TOP	BOTTOM
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	76.0	degF	"	"
	MUD SAMPLE RES	0.840	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	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^)	12.250	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

SP CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
SP CONTROL	Tool/Bridle	TOOL		TOP	BOTTOM

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

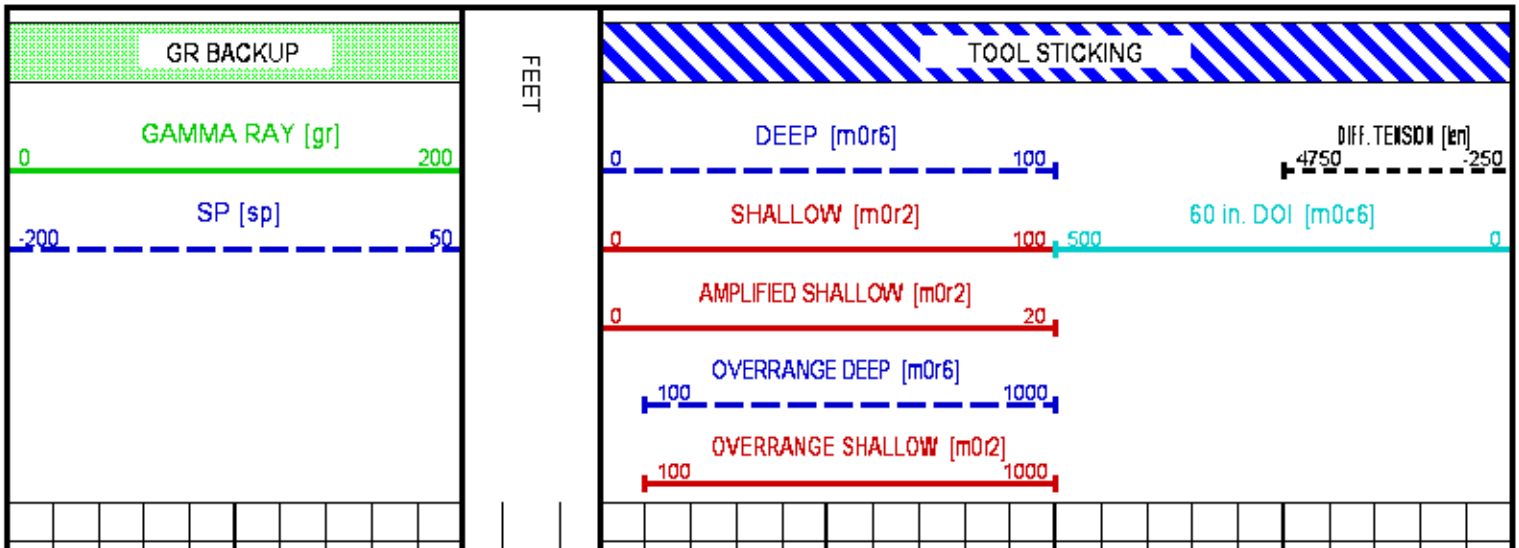
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:GR	Dec 8 11:21:33 2013	GAMMA RAY
F1:MOC6	Dec 8 11:21:33 2013	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:MOR2	Dec 8 11:21:33 2013	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:MOR6	Dec 8 11:21:33 2013	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Dec 8 11:21:33 2013	SPONTANEOUS POTENTIAL
F1:TEN	Dec 8 11:21:33 2013	DIFFERENTIAL TENSION

CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	111.75	MOR2	8.00	SP	14.00		
MOC6	8.00	MOR6	8.00	TEN	0.00		

Presentation : HL6670:/dat1a/625272/WPX_2IN.fvpdf [2"/100' Scale]
Plot Interval : -19.25 - 10550.8 Feet

Data File 1 : F1 : HL6670:/dat1a/625272/n777v02-MAIN1.xtf
Created On : Dec 8 11:21:33 2013
Company : WPX ENERGY INC
Well : PUCKETT GM 701-28-HN1
Field : RULISON
File Interval : -19.25 - 10551 Feet
OCT : n777v



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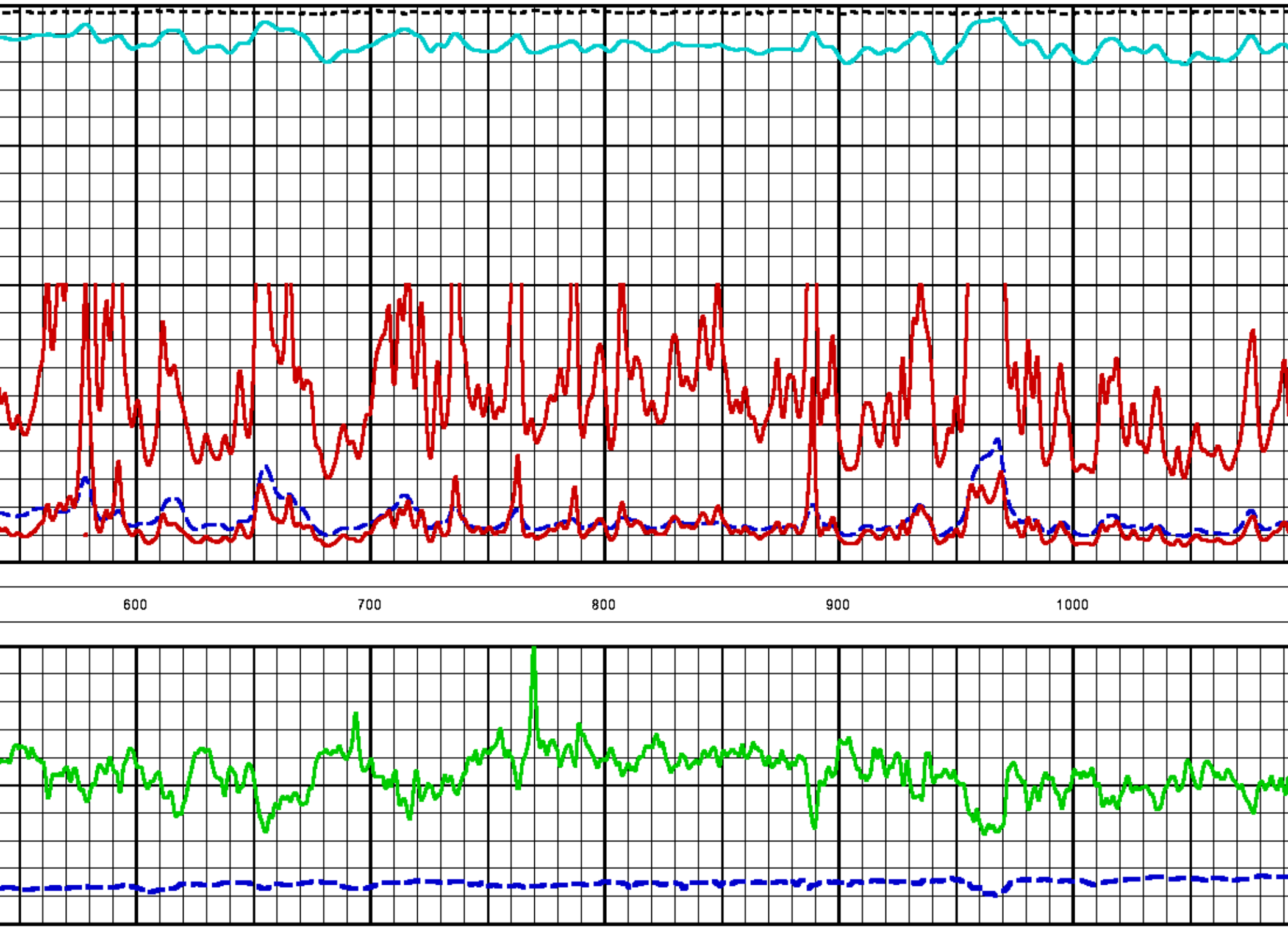
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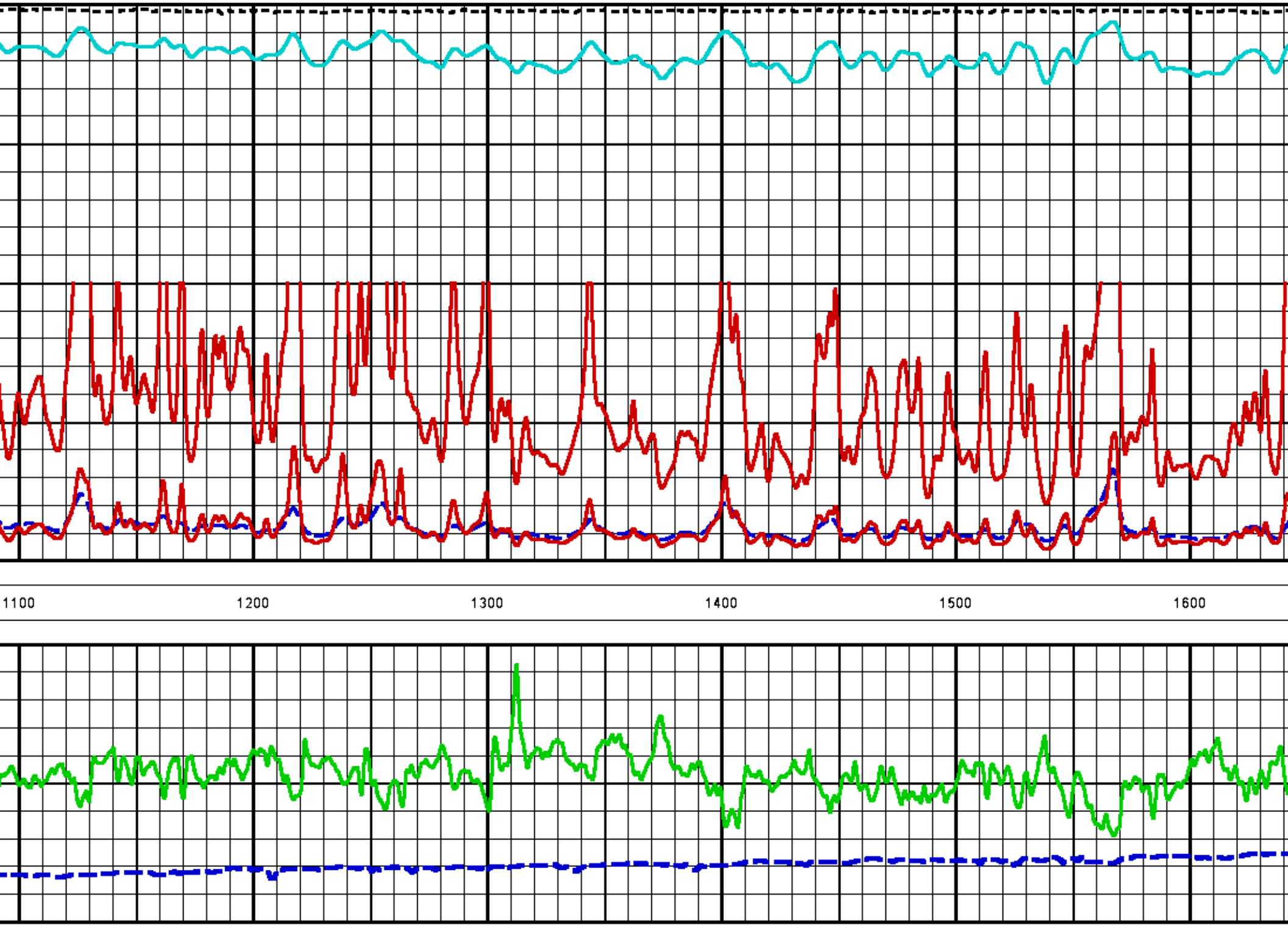
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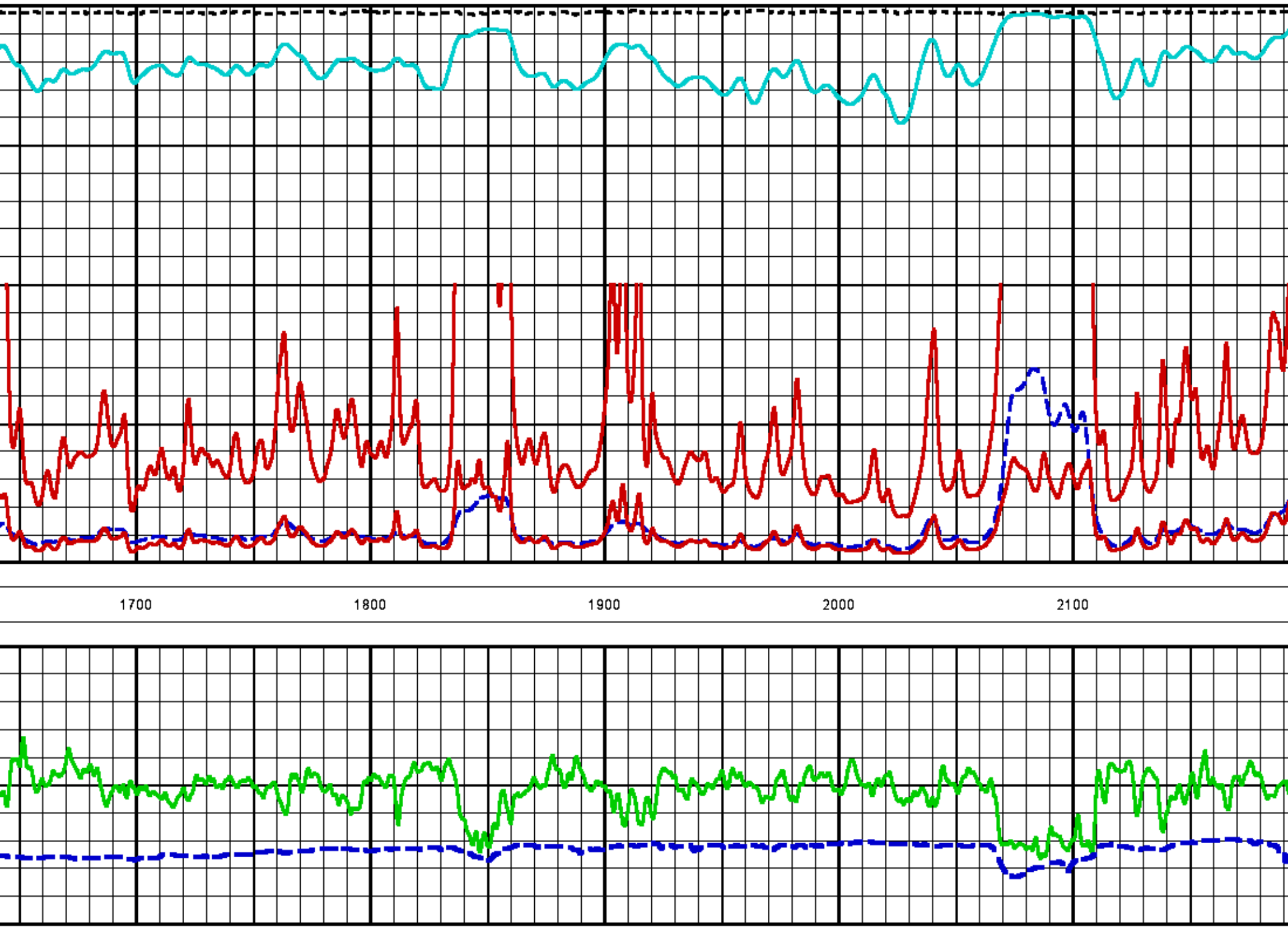
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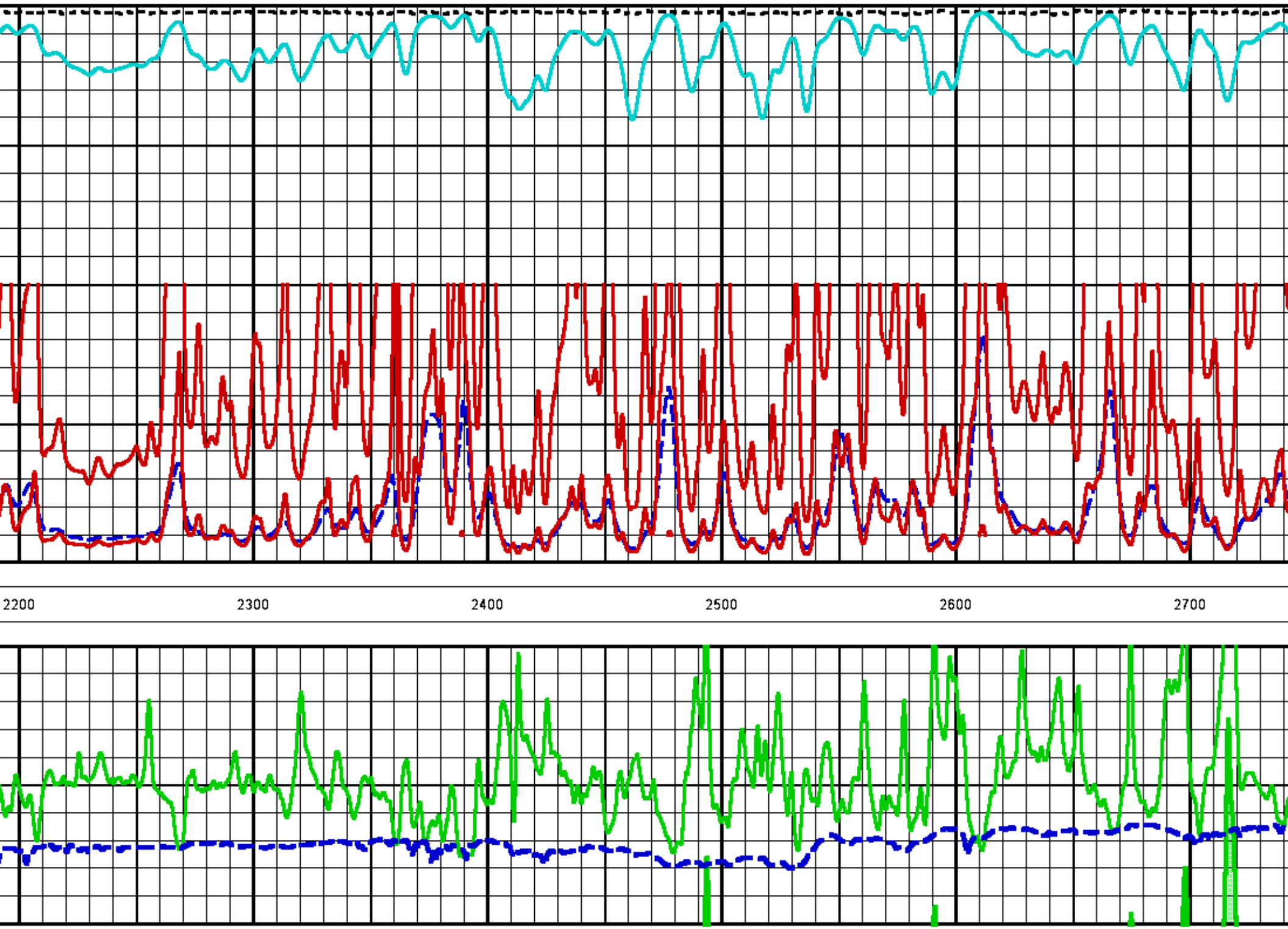
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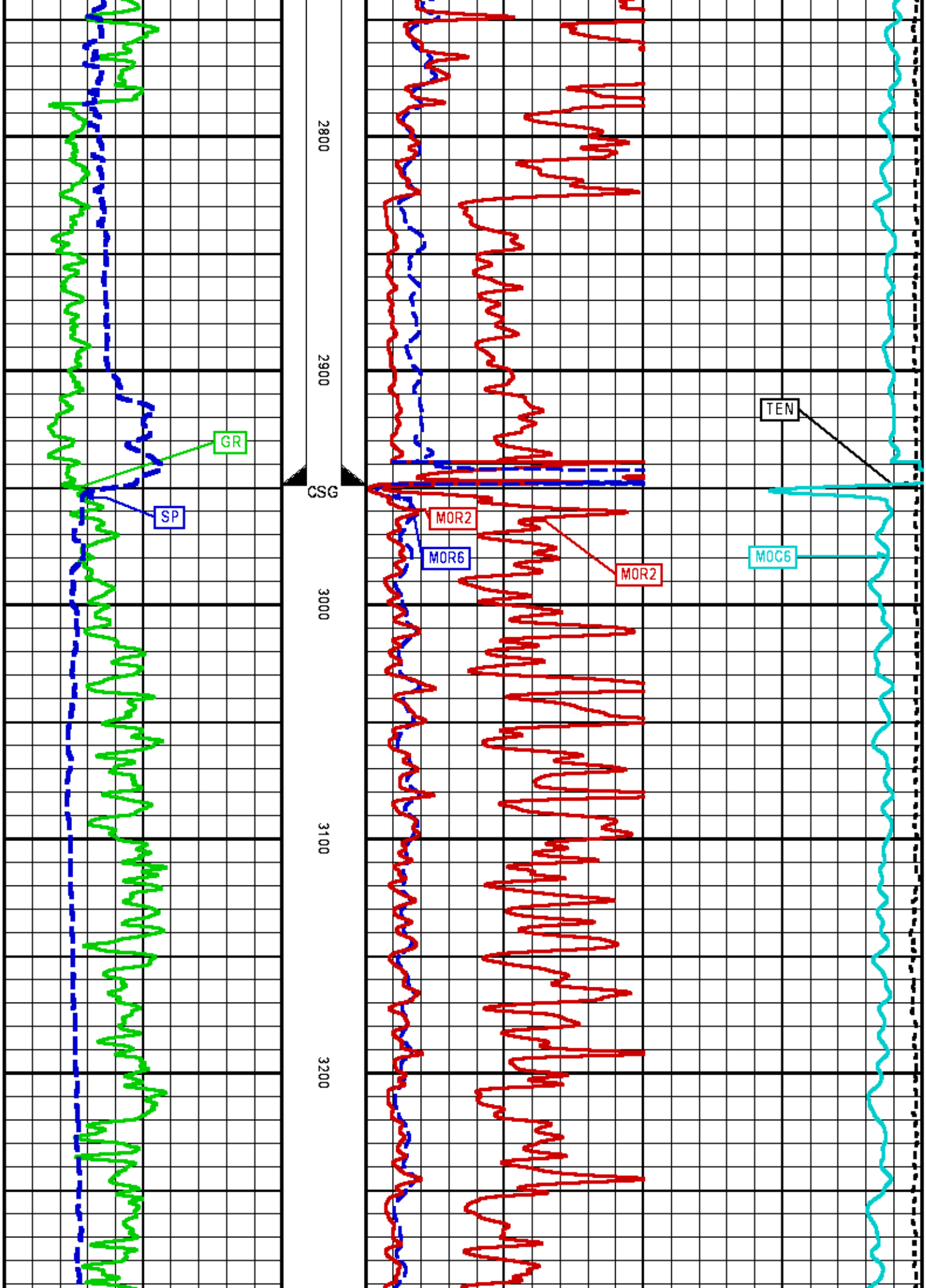
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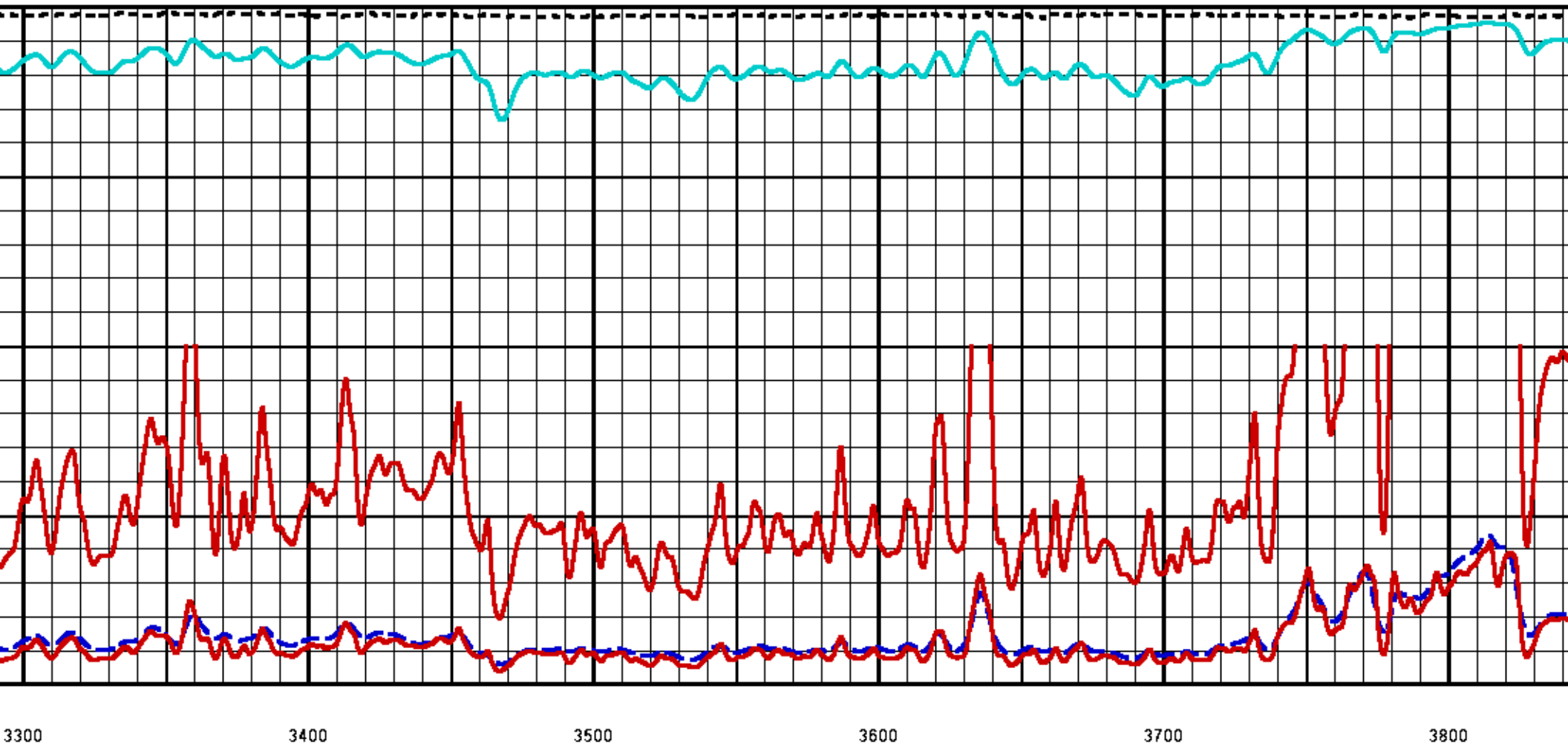
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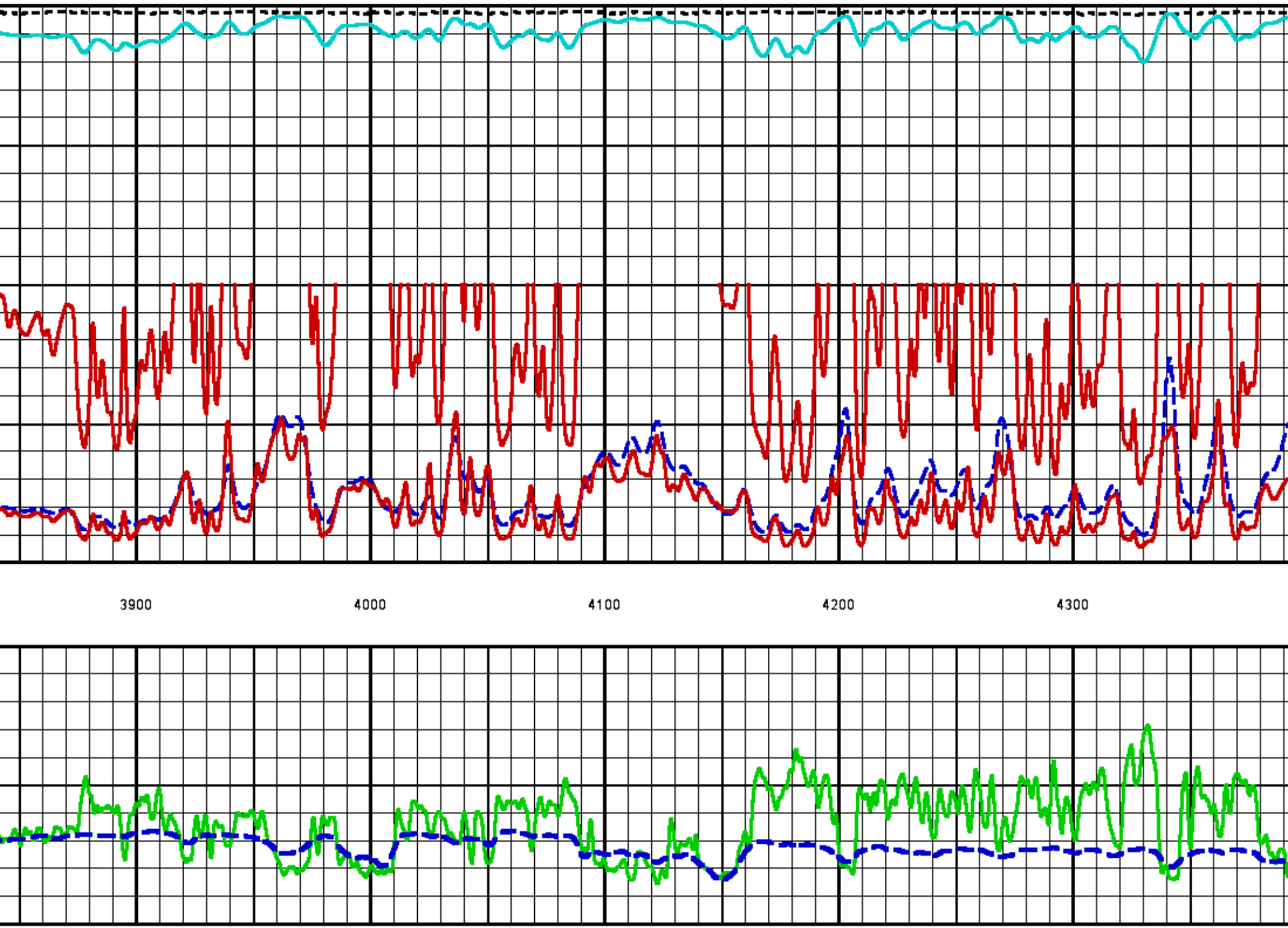
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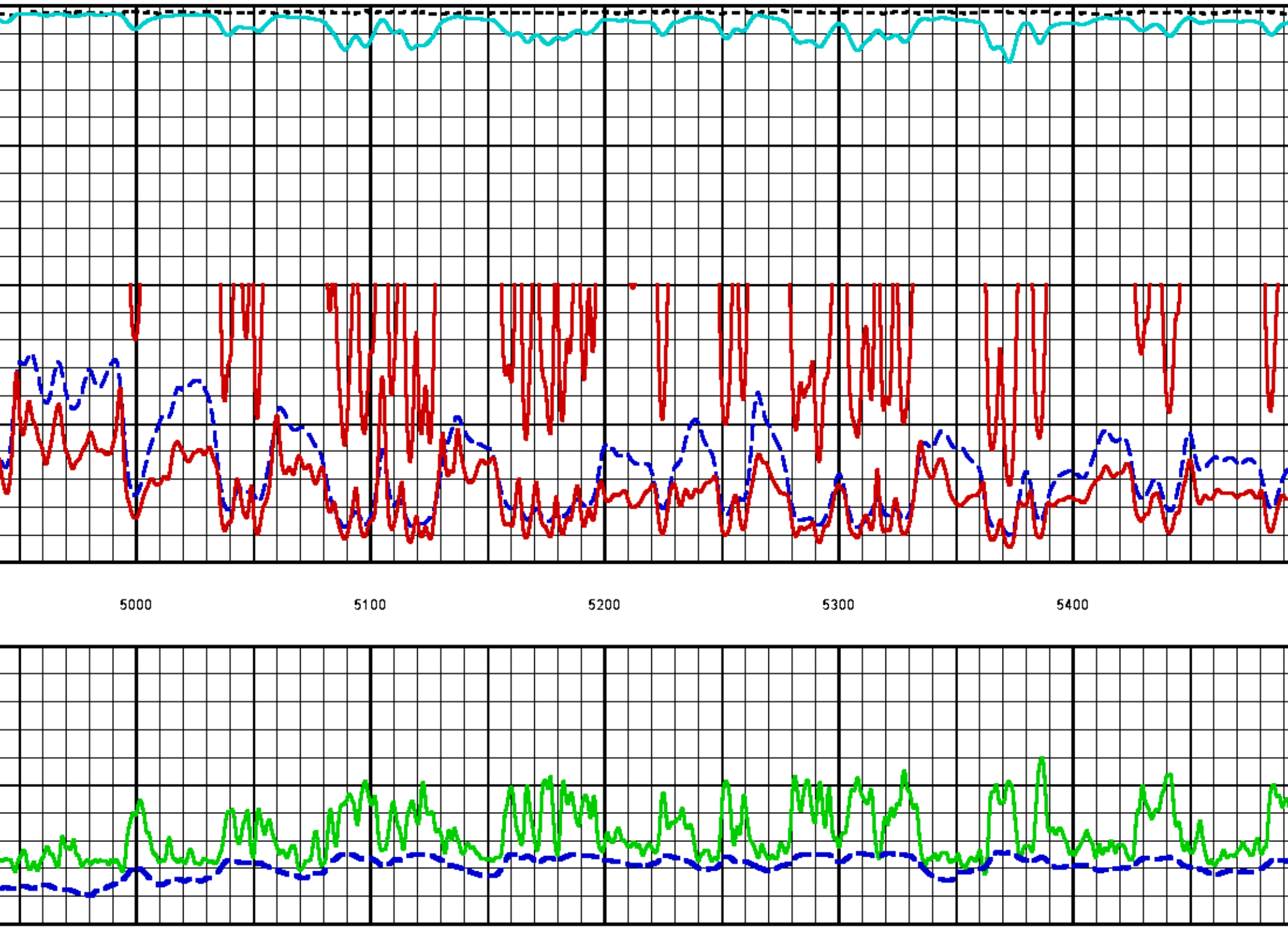
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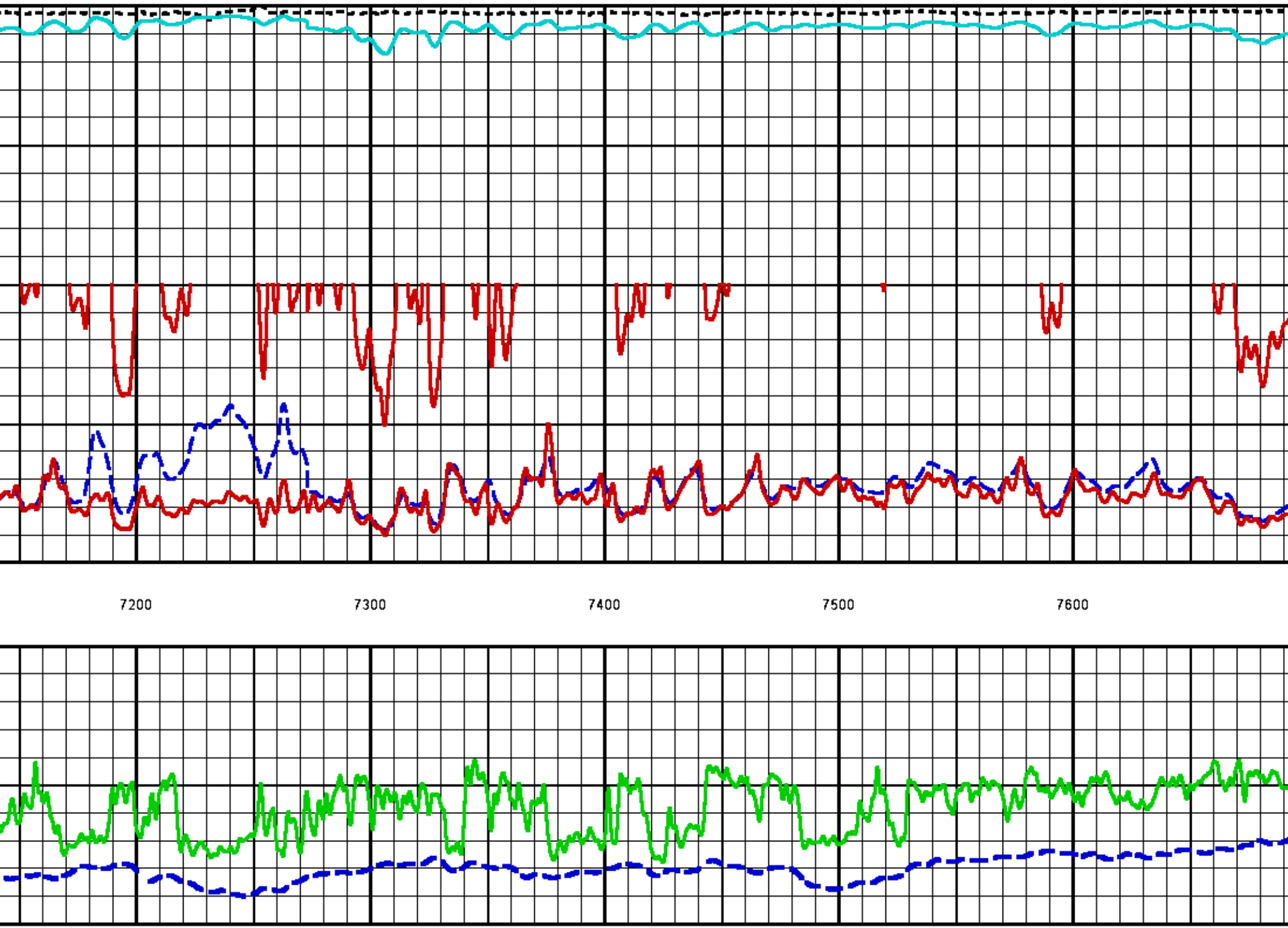
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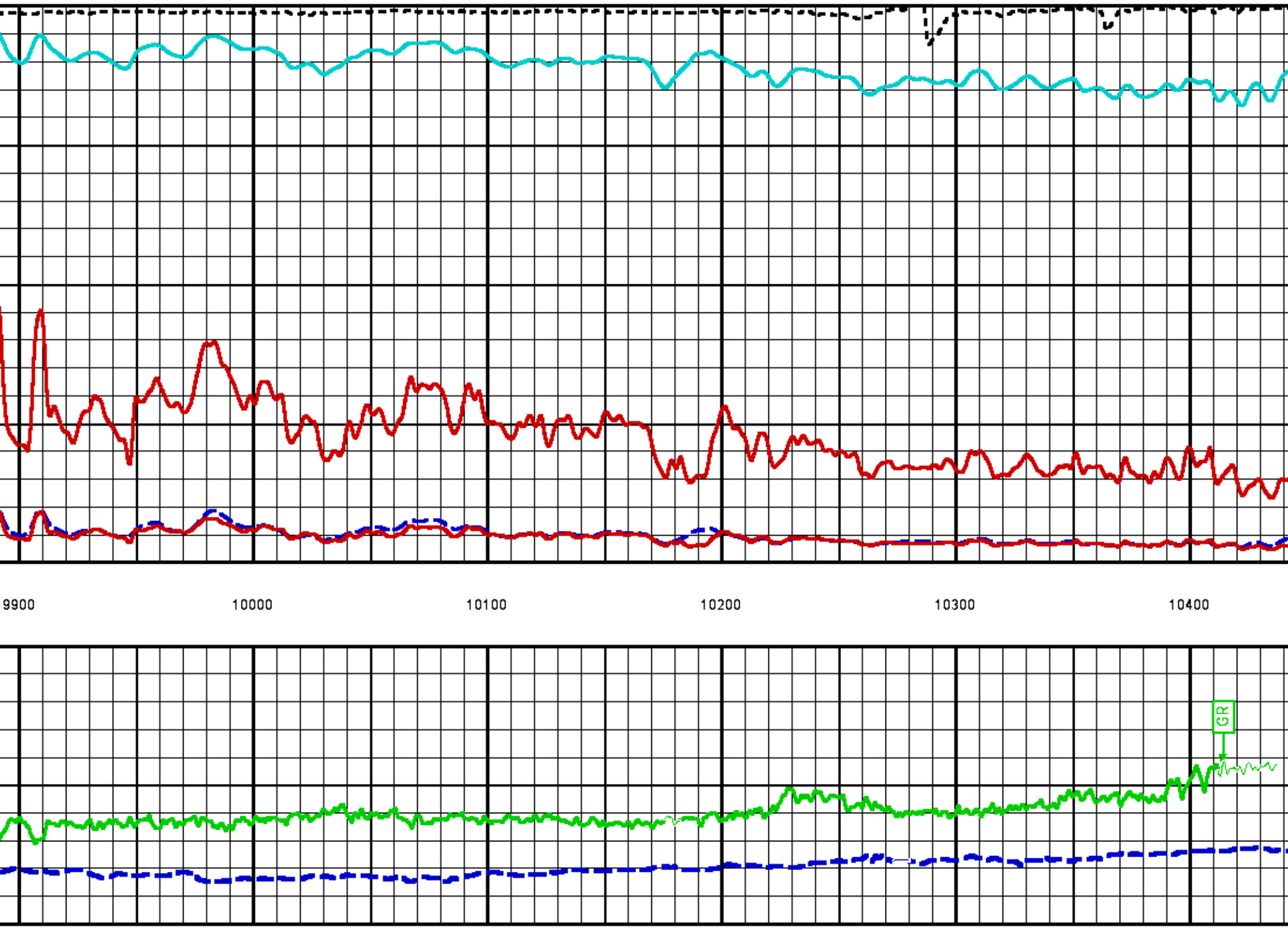
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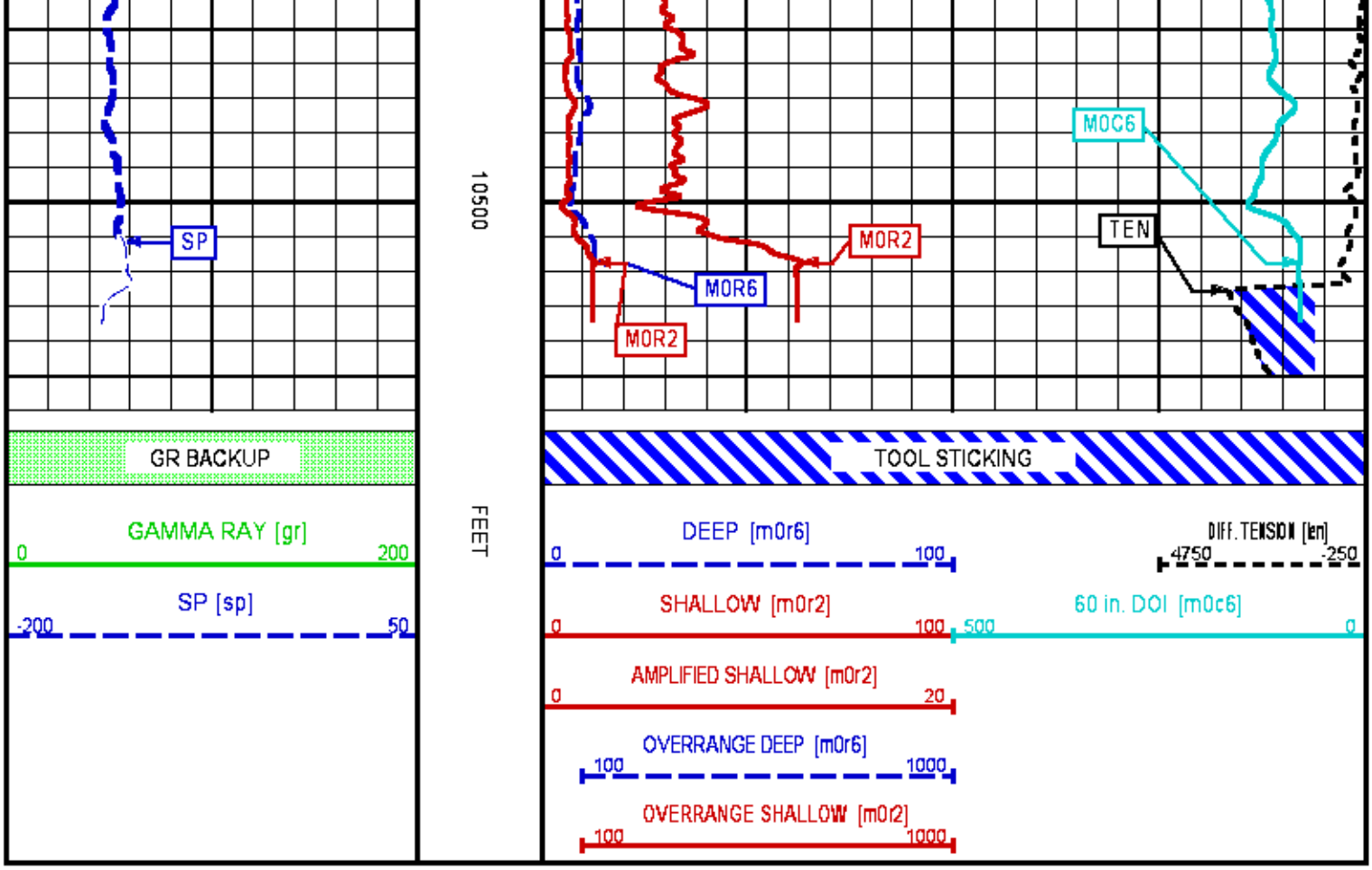


MAIN LOG 5"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Patches: 3

Plotted: Sun Dec 8 18:42:21 2013

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625272/n777v02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 7202.169 ft BOTTOM DEPTH: 10539.247 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 (hrd2#*)	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.	9.625	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	12.250	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	76.0	degF	"	"
	MUD SAMPLE RES	0.840	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	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*)	12.250	in	"	"
	FIXED DIAMETER (mbh*)	12.250	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

SP CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
SP CONTROL	Tool/Bridle	TOOL		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
2446 CN MATRIX	2446 MATRIX	SANDSTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	1000	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	17.500	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

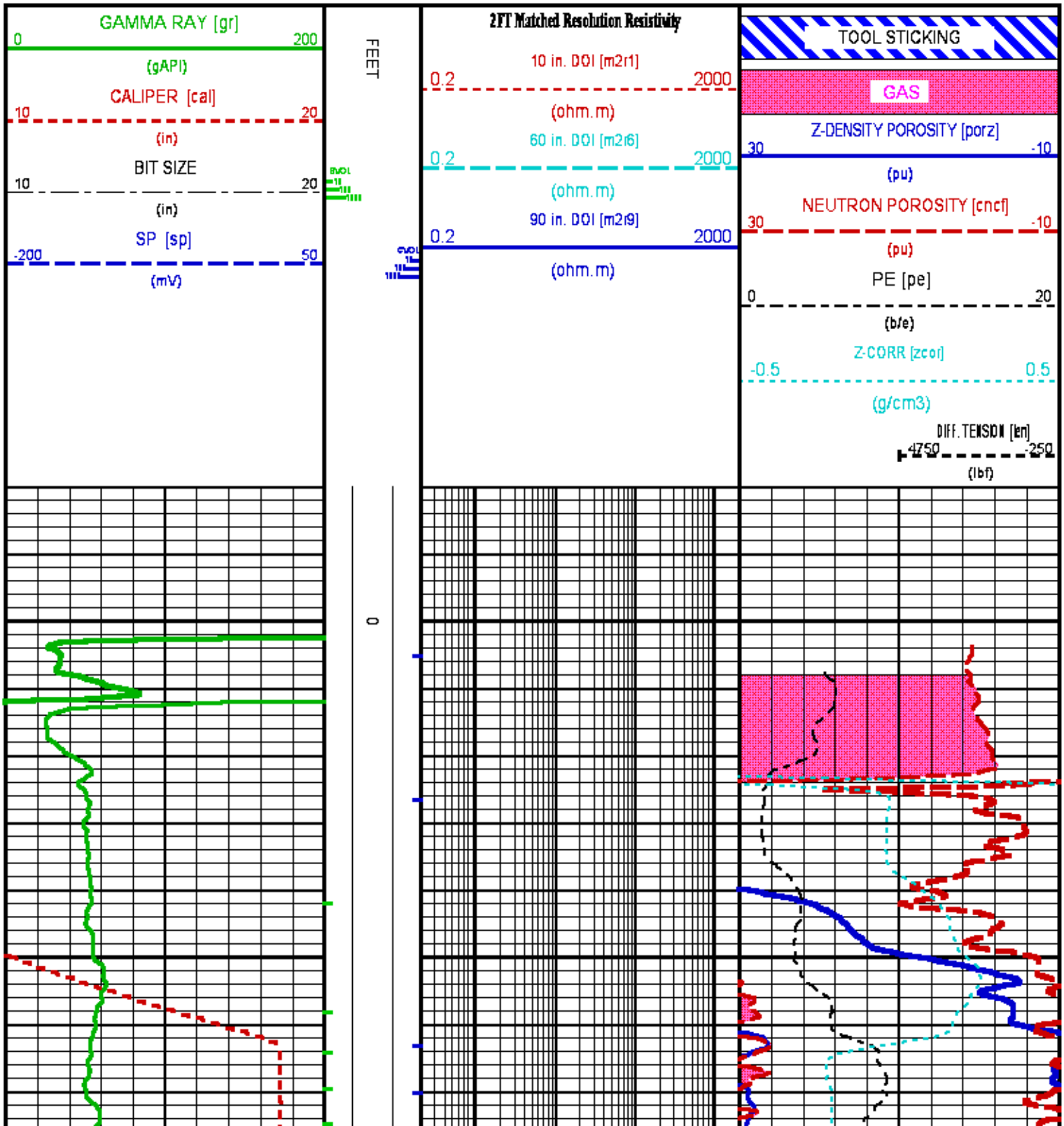
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Dec 8 11:21:33 2013	BIT SIZE
F1:BVOL	Dec 8 11:21:33 2013	BOREHOLE VOLUME
F1:CAL	Dec 8 11:21:33 2013	CALIPER
F1:CNCF	Dec 8 11:21:33 2013	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Dec 8 11:21:33 2013	CEMENT VOLUME
F1:GR	Dec 8 11:21:33 2013	GAMMA RAY
F1:M2R1	Dec 8 11:21:33 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Dec 8 11:21:33 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Dec 8 11:21:33 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Dec 8 11:21:33 2013	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Dec 8 11:21:33 2013	POROSITY FOR SELECTABLE MATRIX
F1:SP	Dec 8 11:21:33 2013	SPONTANEOUS POTENTIAL
F1:TEN	Dec 8 11:21:33 2013	DIFFERENTIAL TENSION
F1:ZCOR	Dec 8 11:21:33 2013	DENSITY CORRECTION

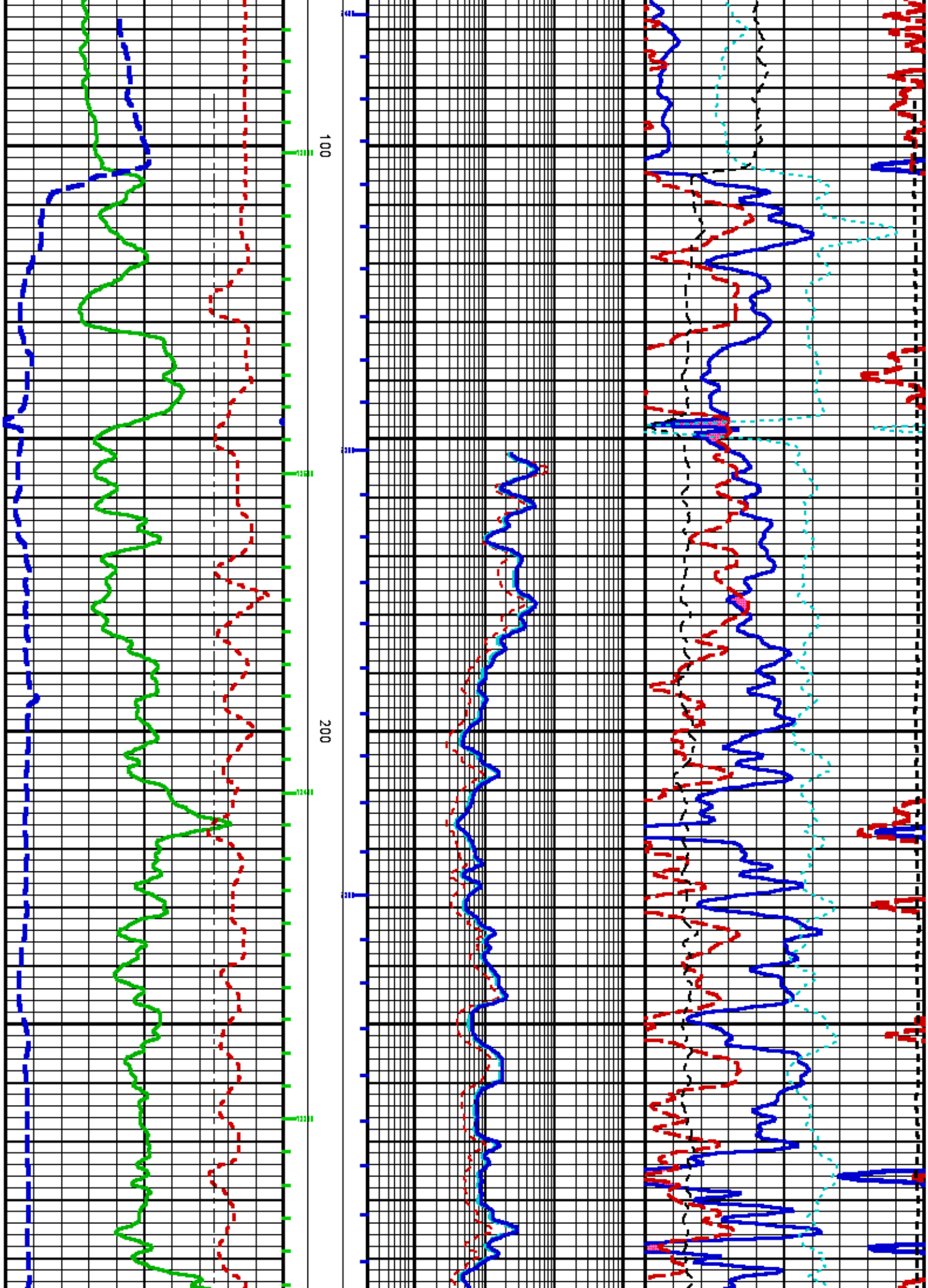
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	111.75	M2R9	8.00	SP	14.00
CAL	90.00	M2R1	8.00	PE	89.25	TEN	0.00
CNCF	100.25	M2R6	8.00	PORZ	89.25	ZCOR	89.25

Presentation : HL6670:/dat1a/625272/WPX_MAIN.fvpdf [5"/100' Scale]
Plot Interval : -19.25 - 10551 Feet

Data File 1 : F1 : HL6670:/dat1a/625272/n777v02-MAIN1.xtf
Created On : Dec 8 11:21:33 2013
Company : WPX ENERGY INC
Well : PUCKETT GM 701-28-HN1
Field : RULISON
File Interval : -19.25 - 10551 Feet
OCT : n777v

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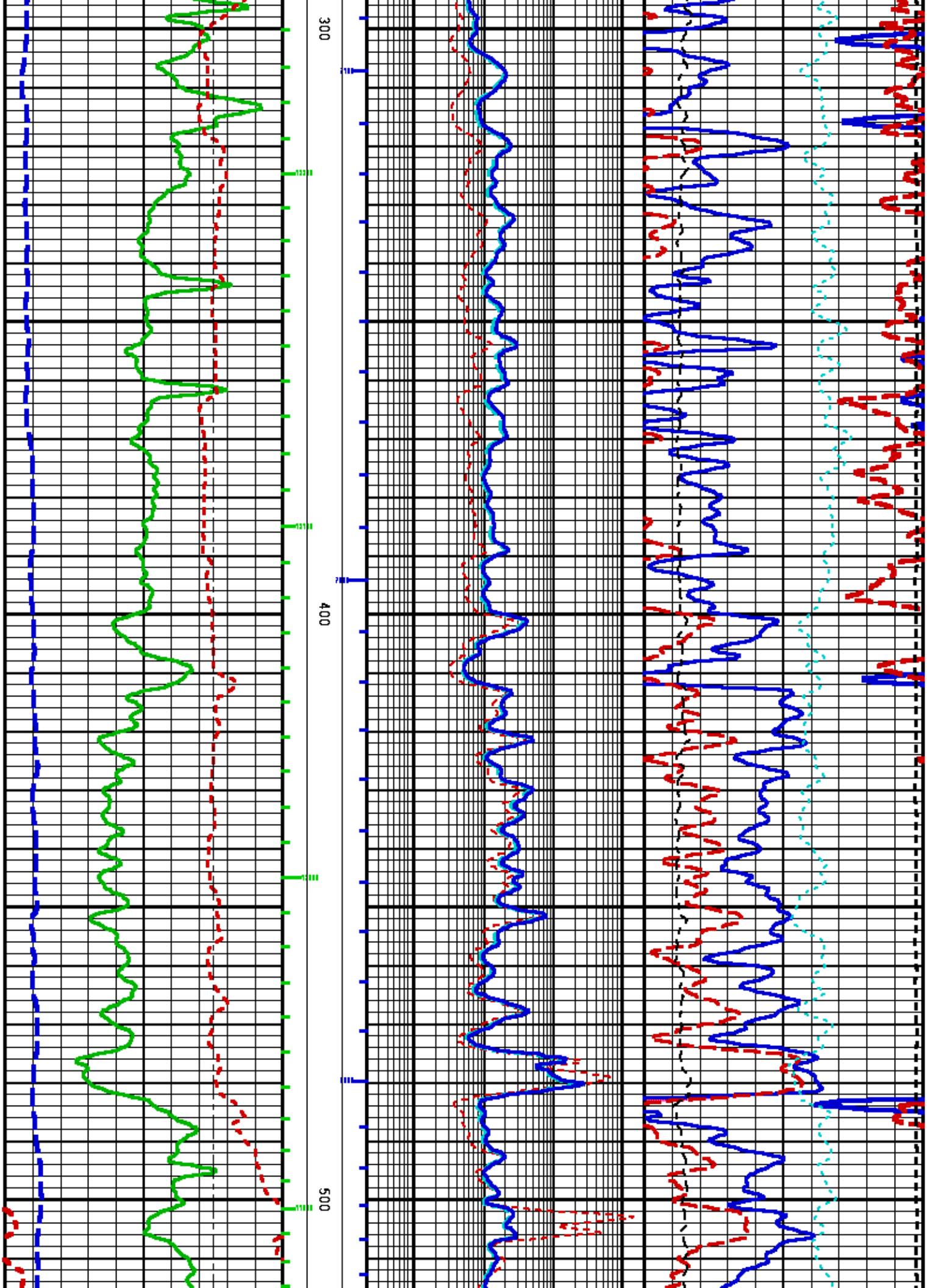
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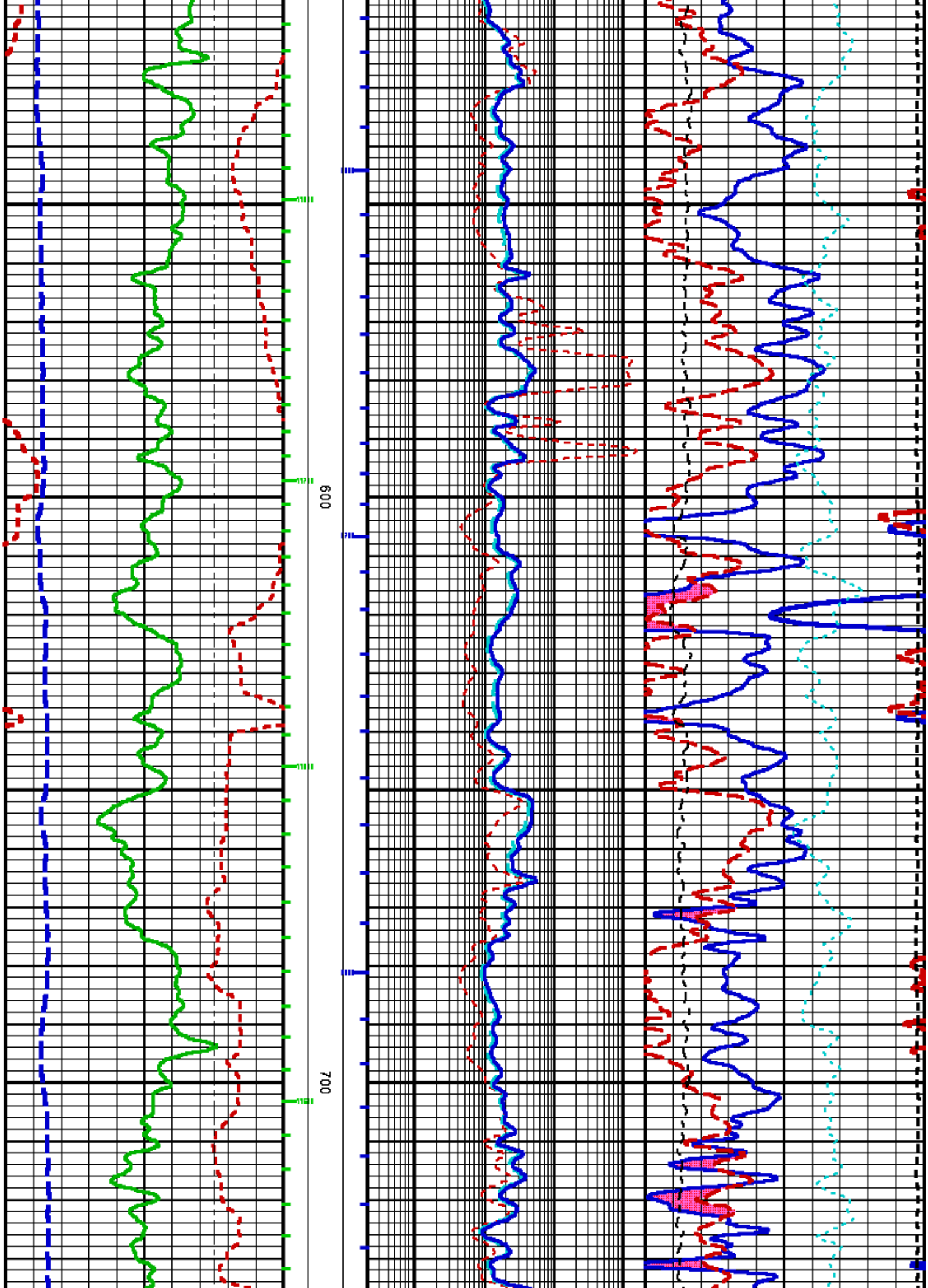
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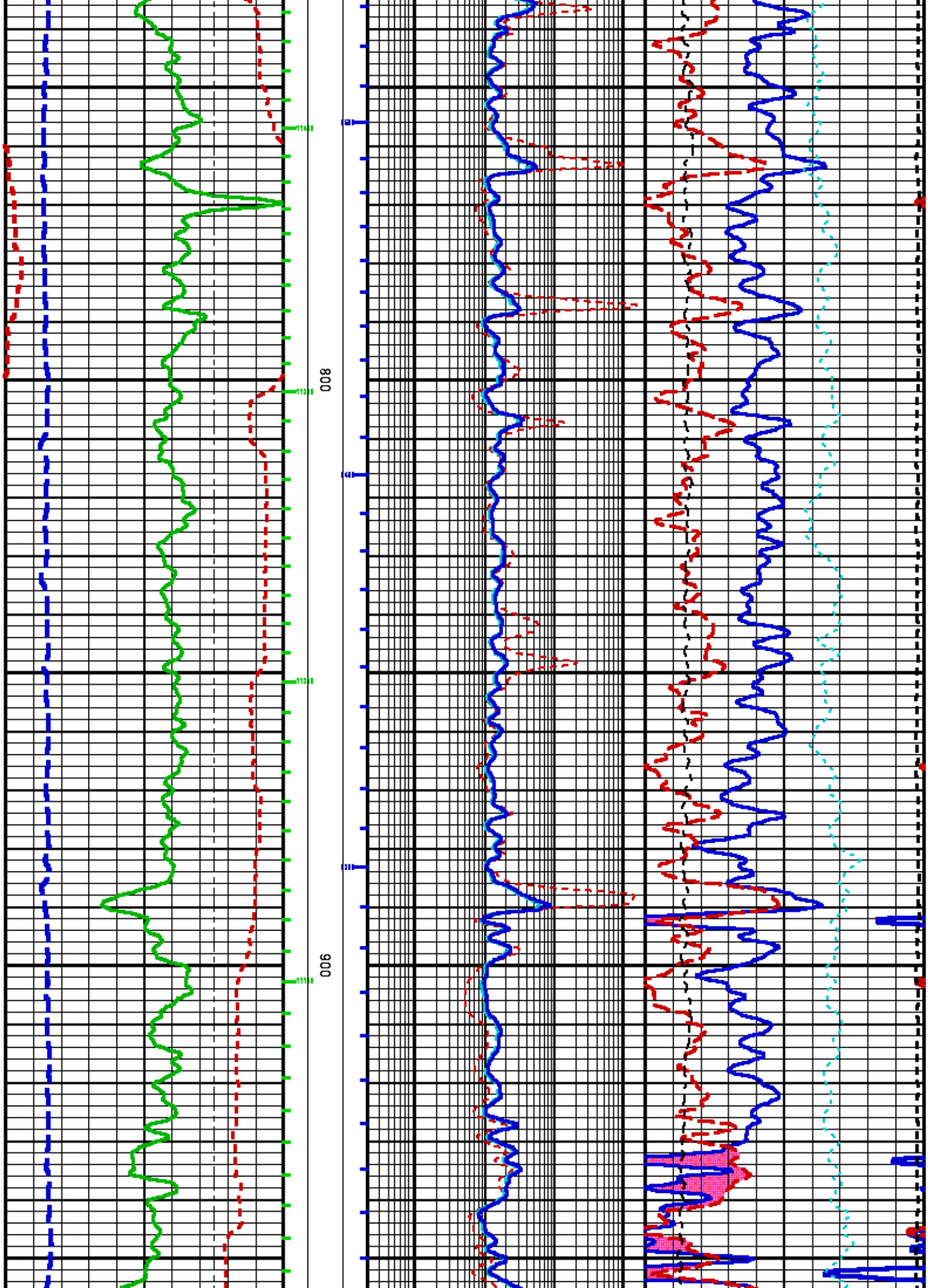
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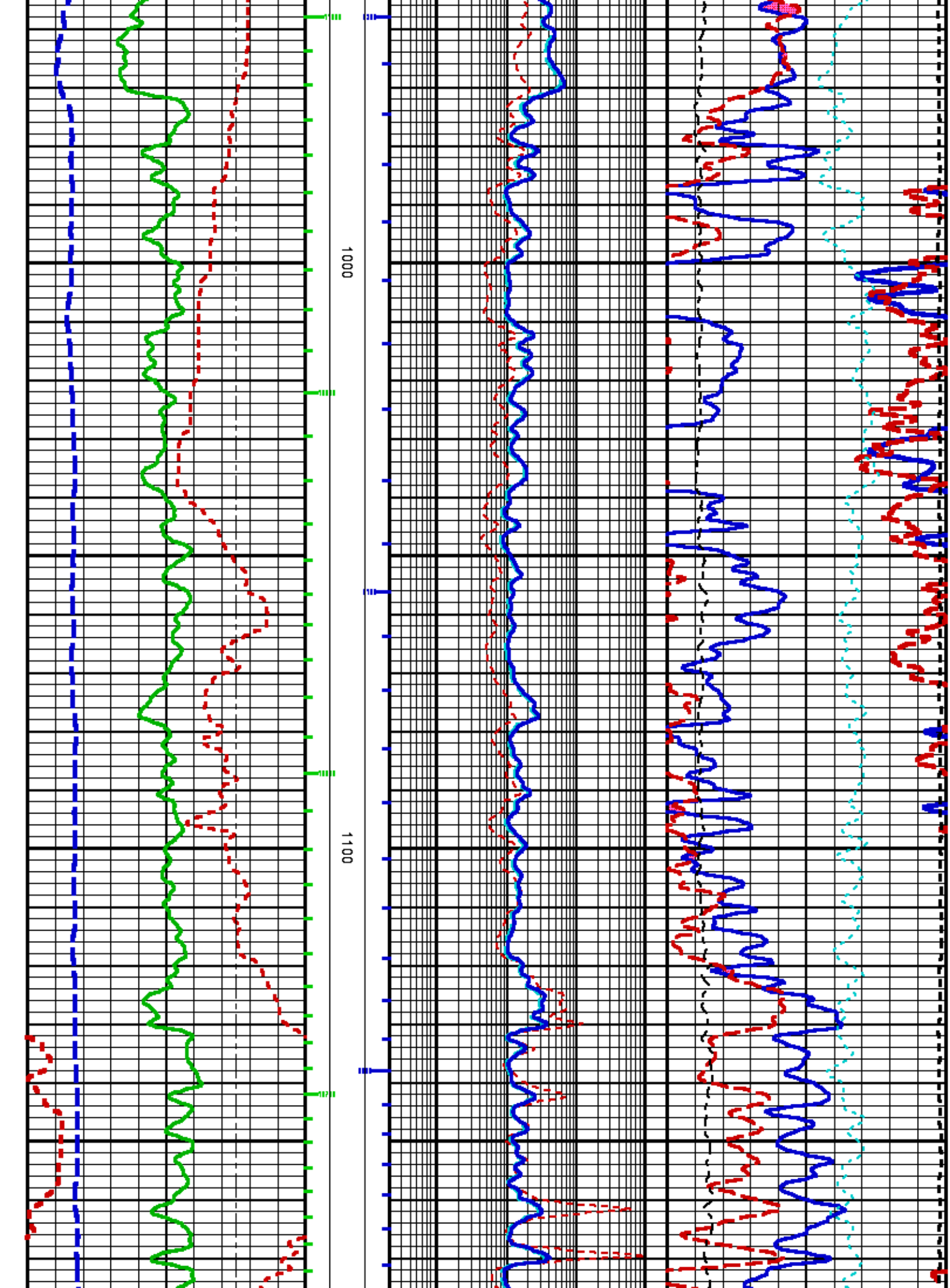
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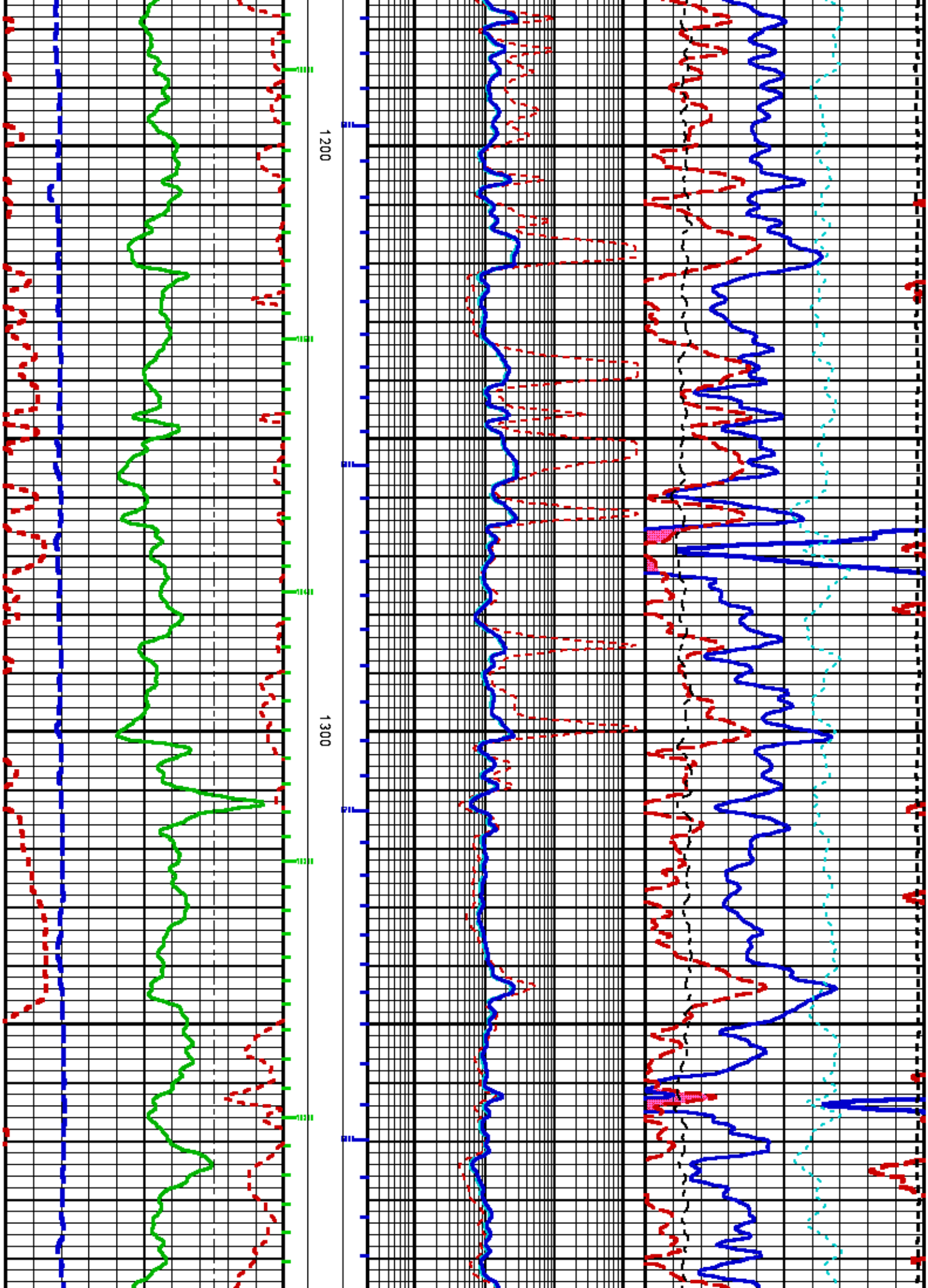
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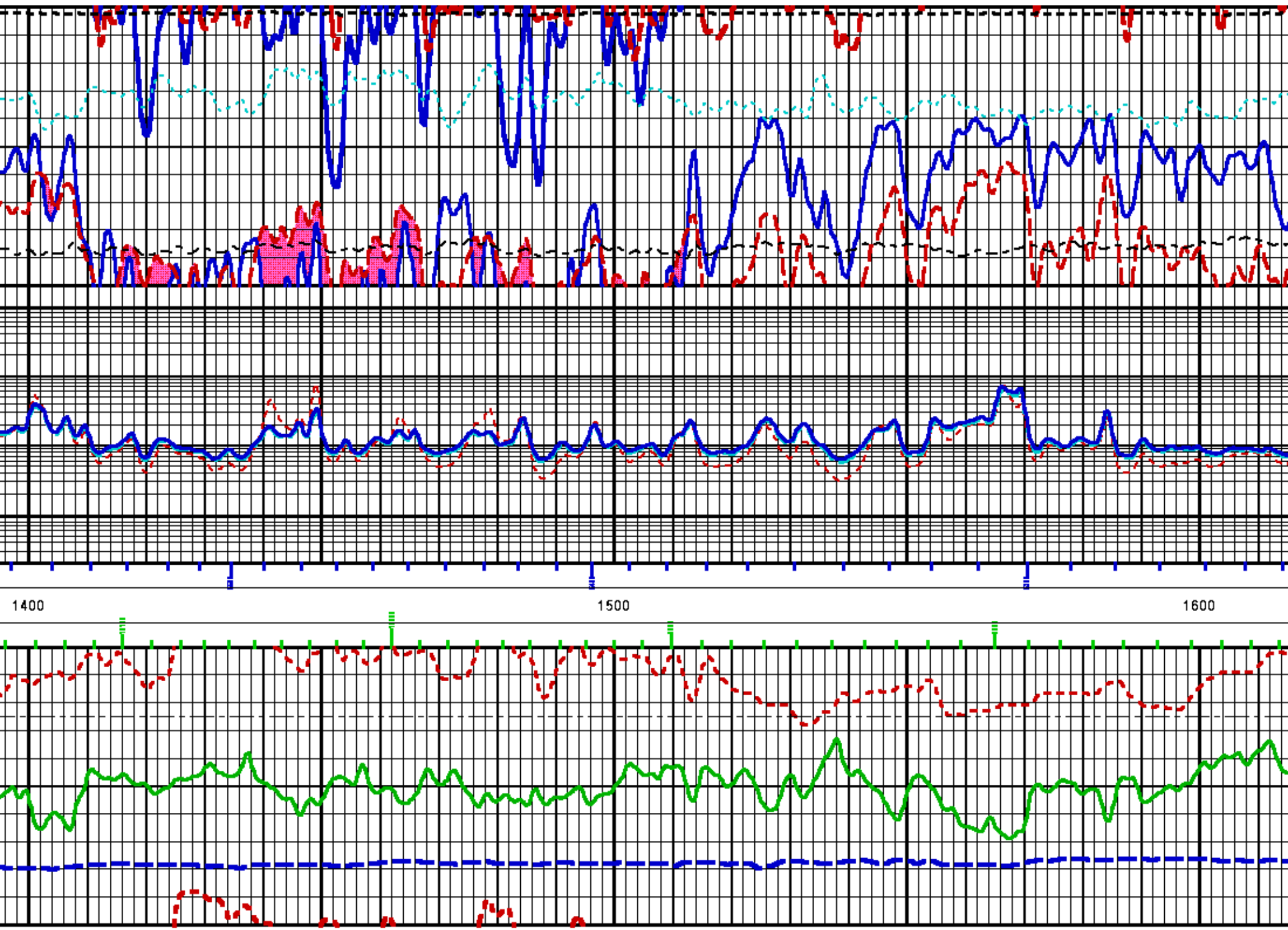
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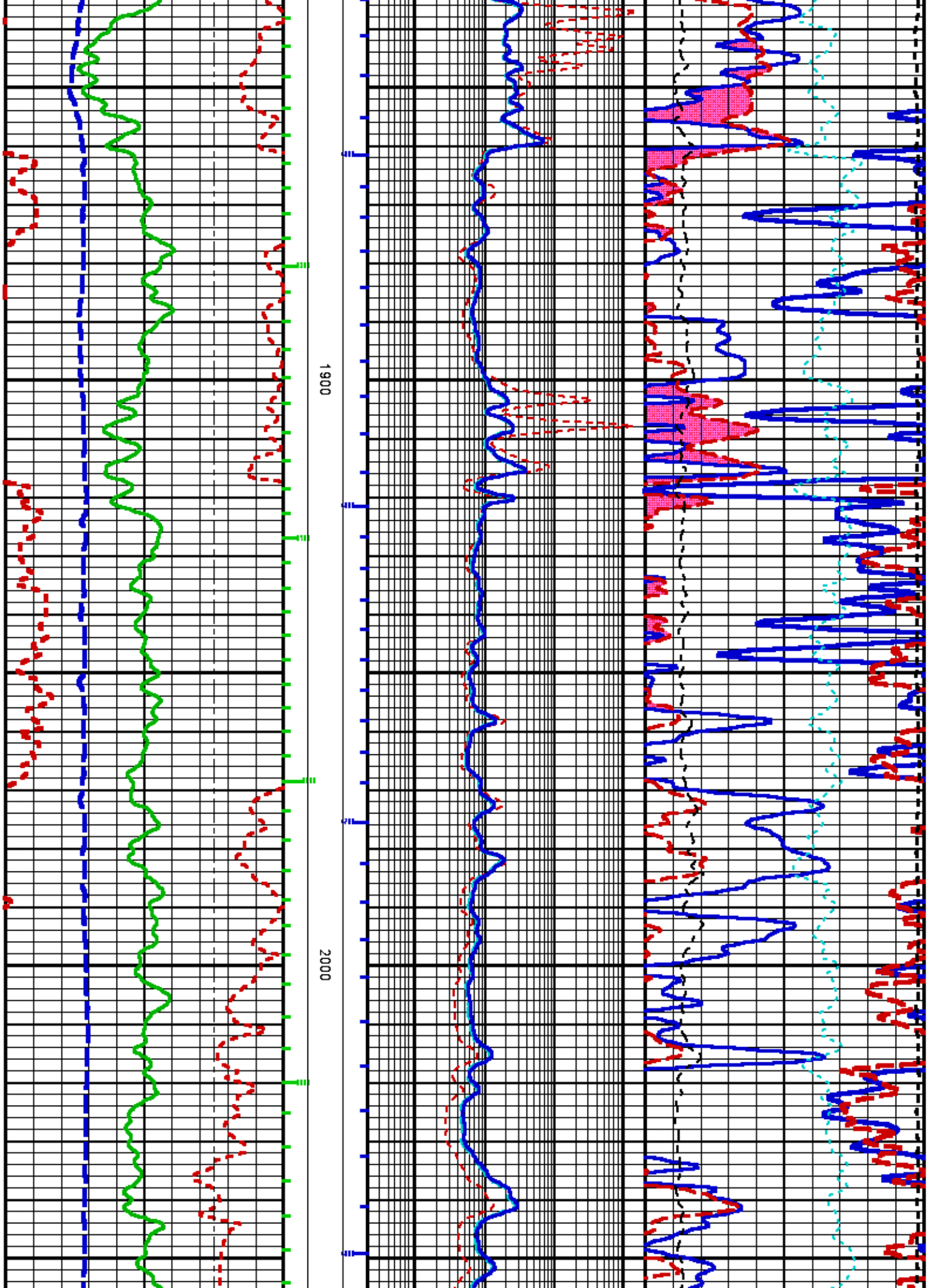
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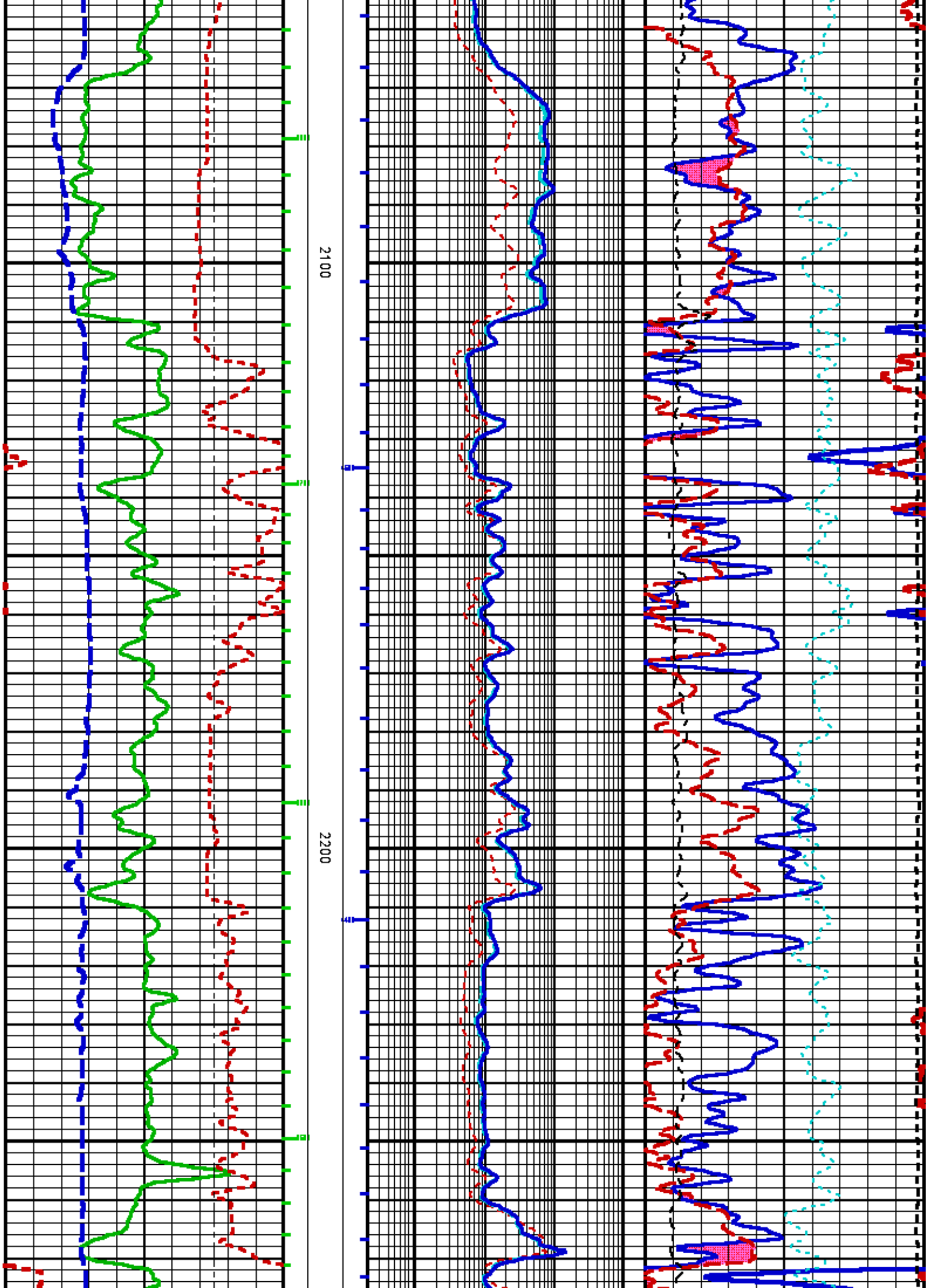
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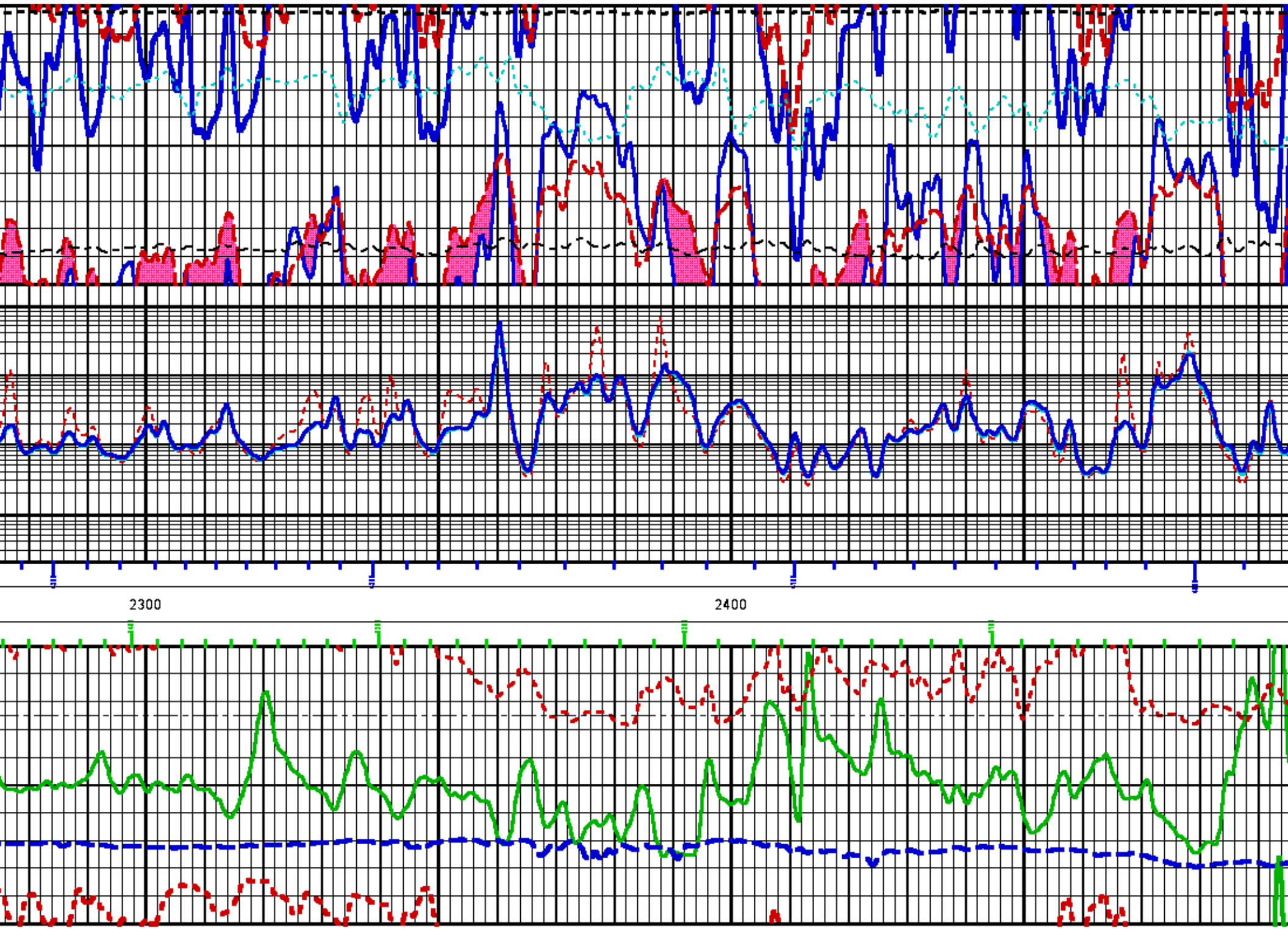
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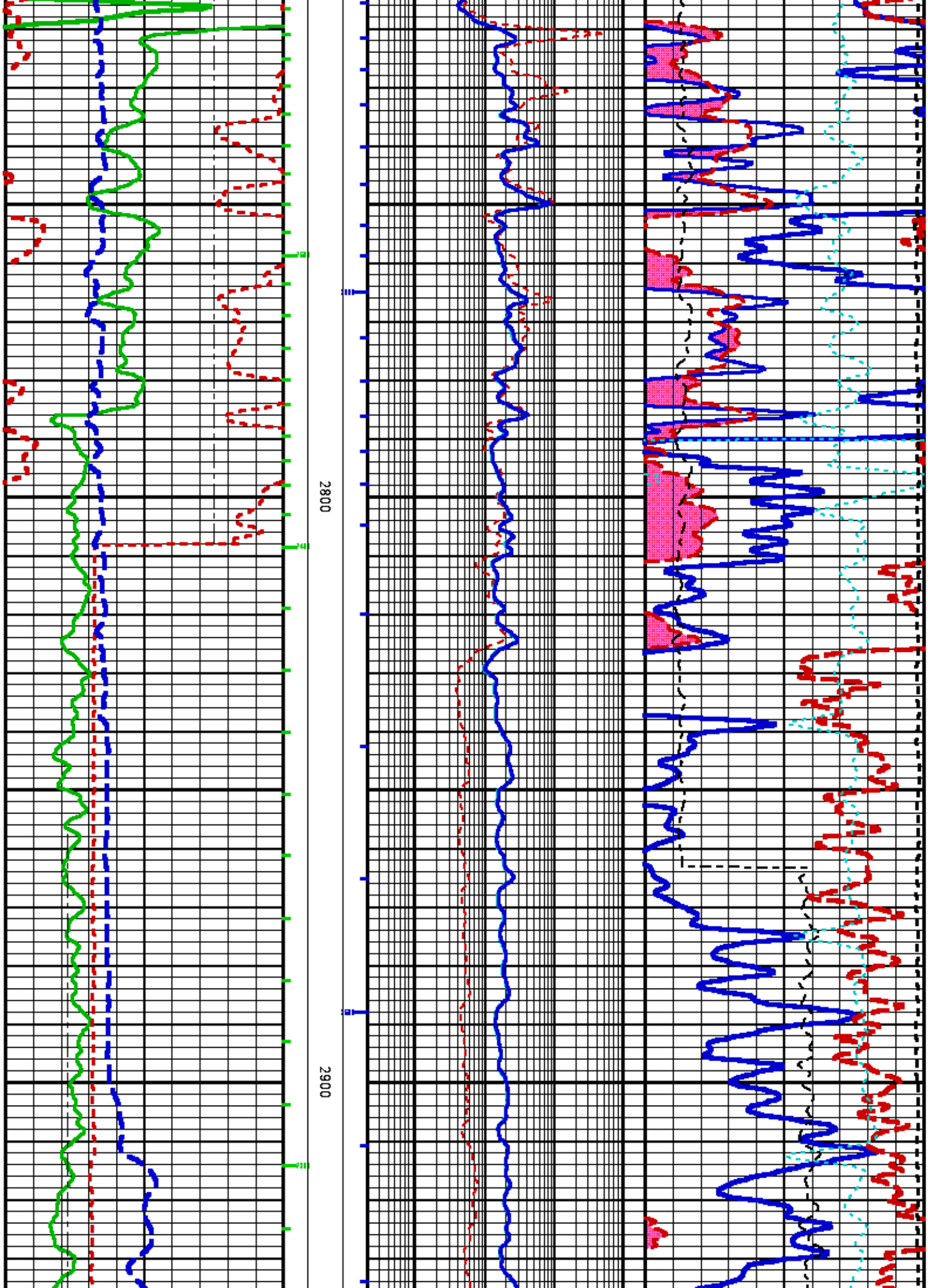
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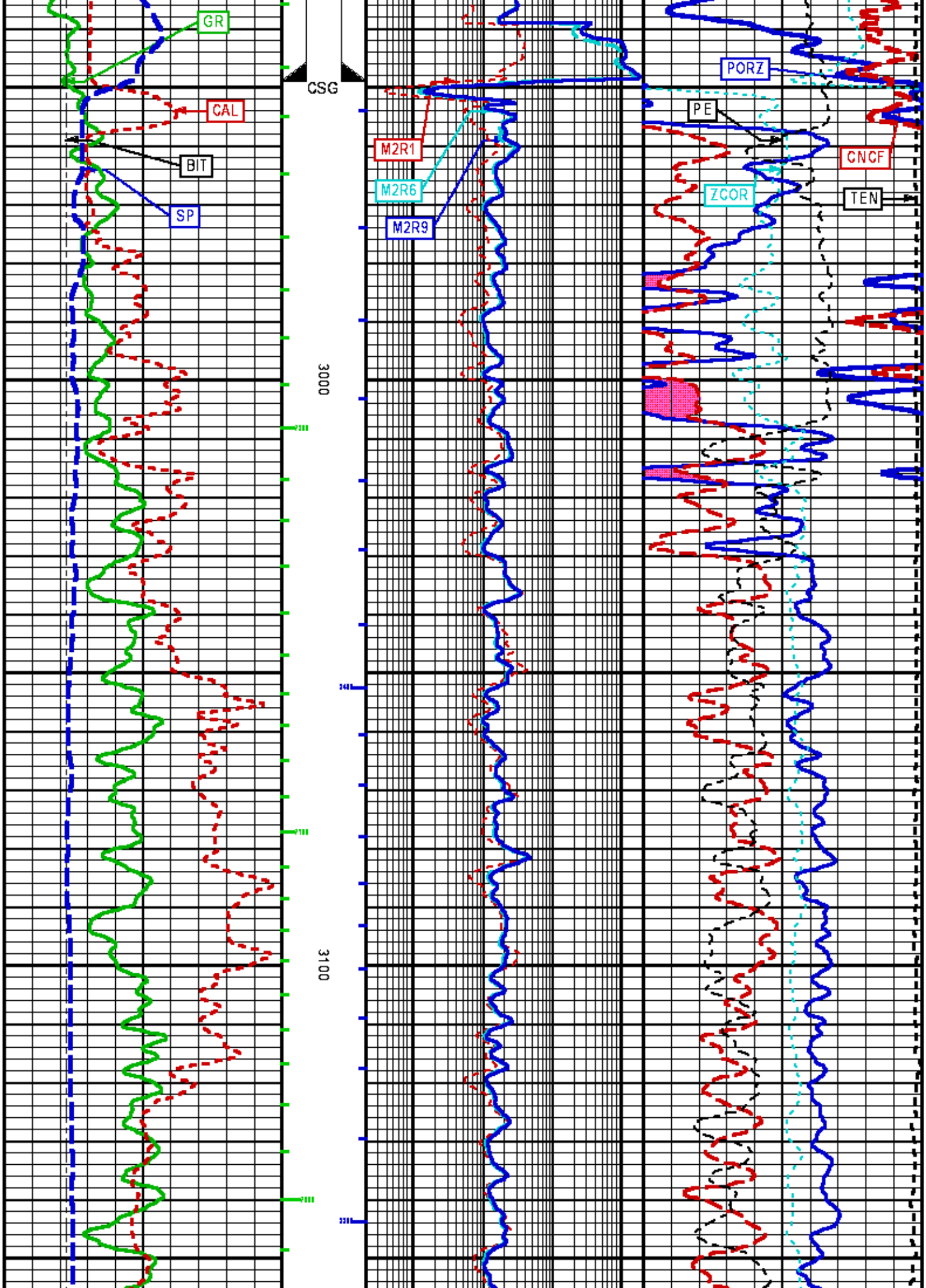
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CAL
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CSG
M2R1
M2R6
M2R9
PORZ
PE
CNCF
ZCOR
TEN
3000
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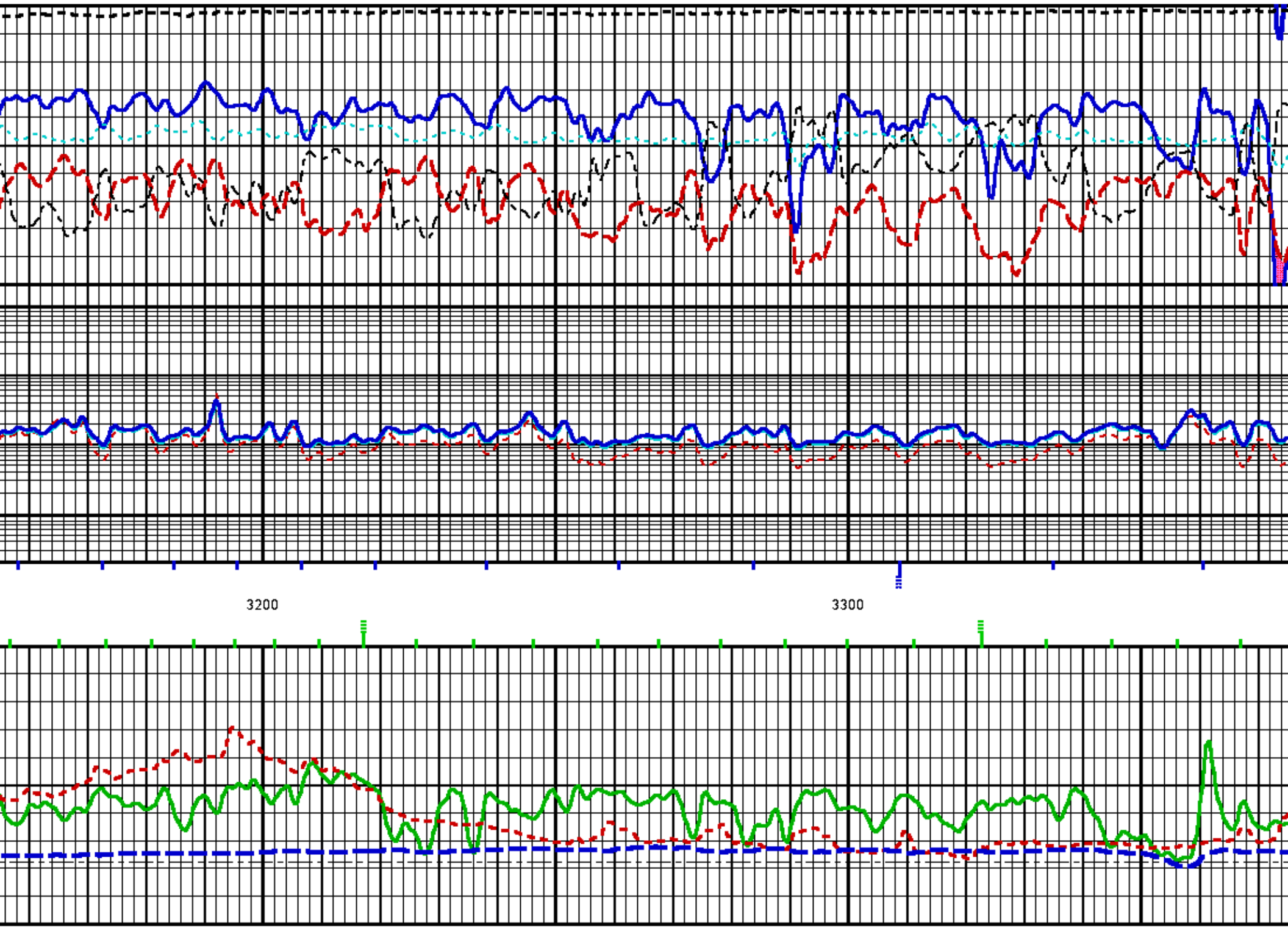
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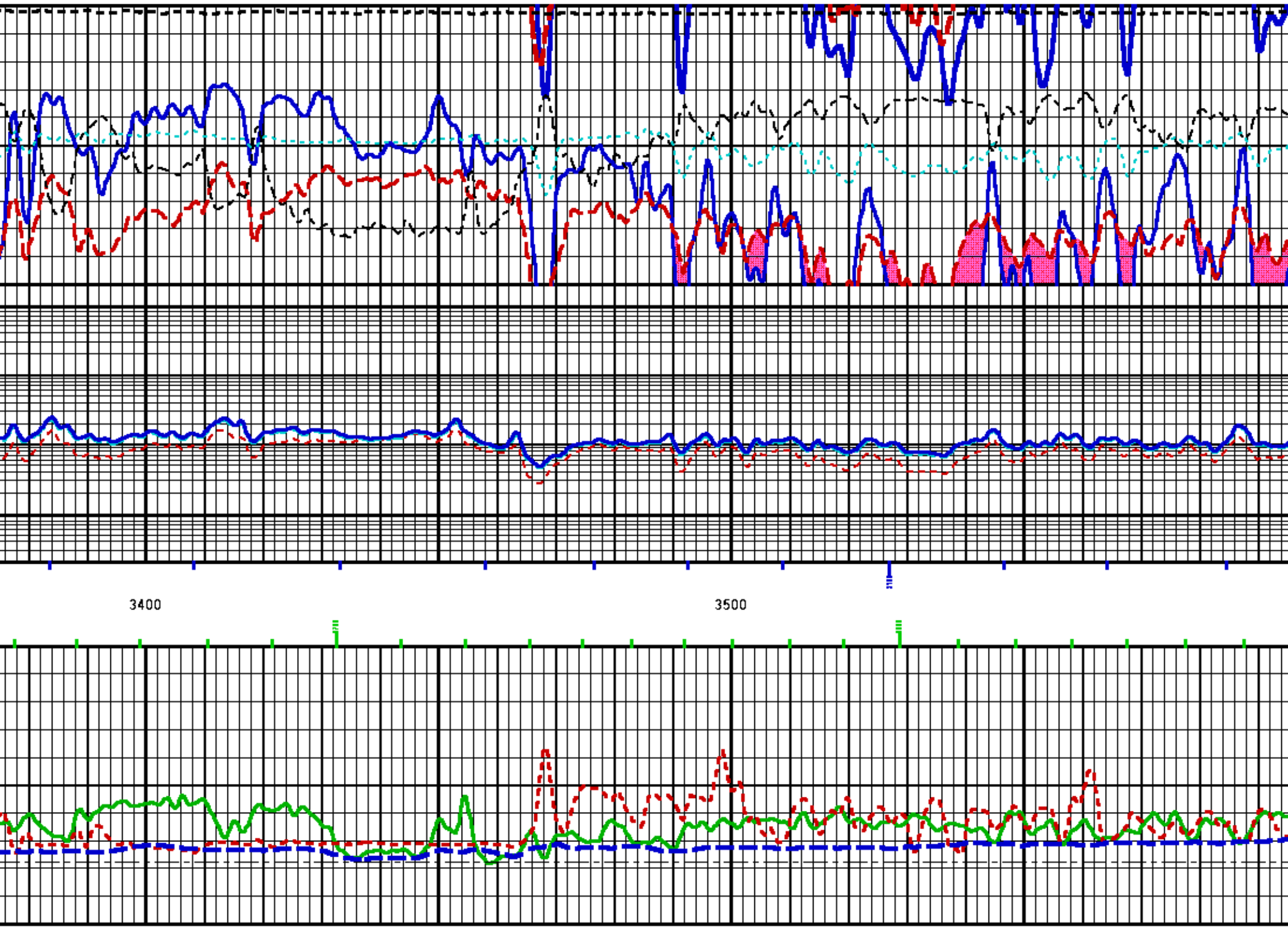
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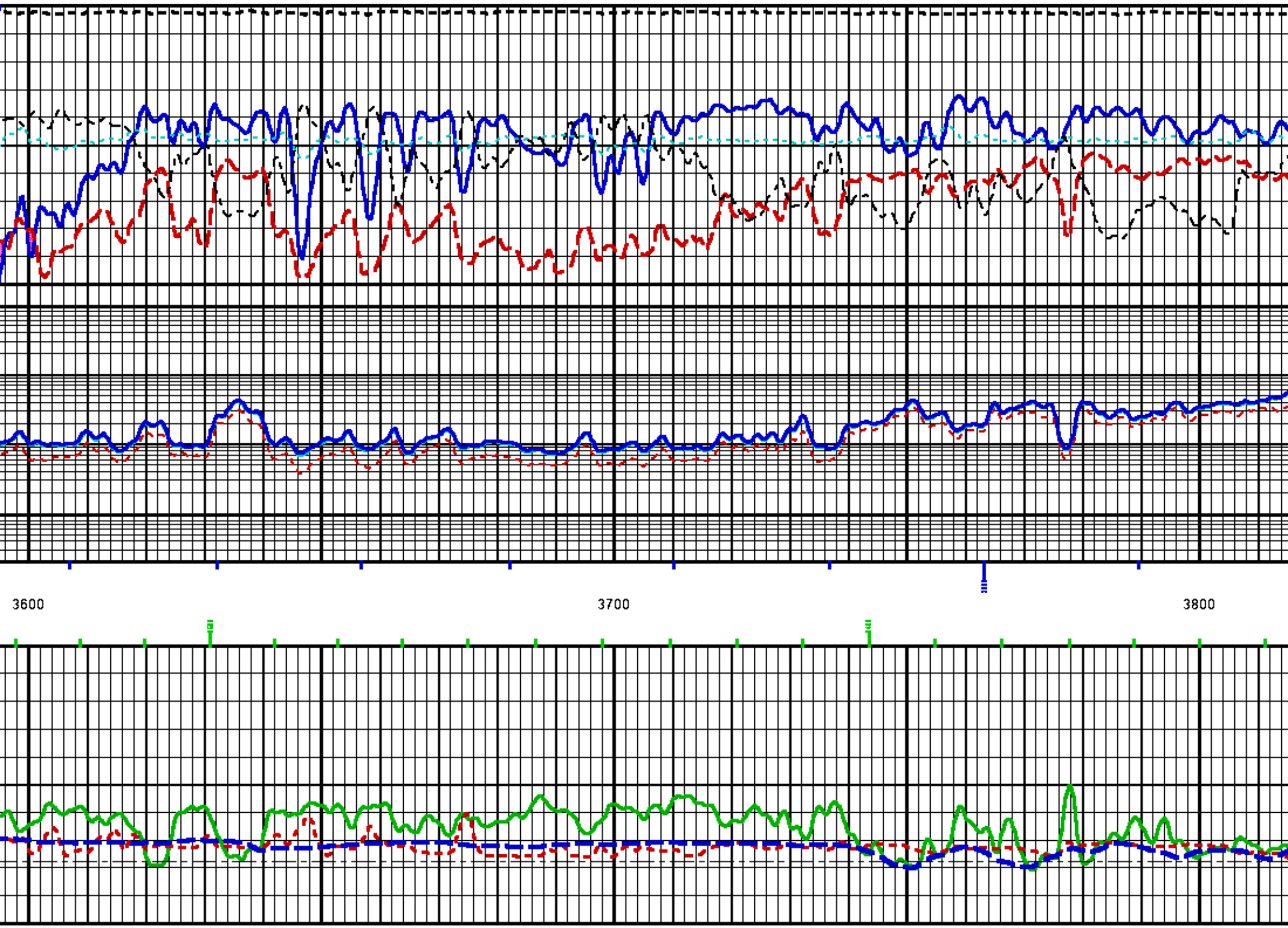
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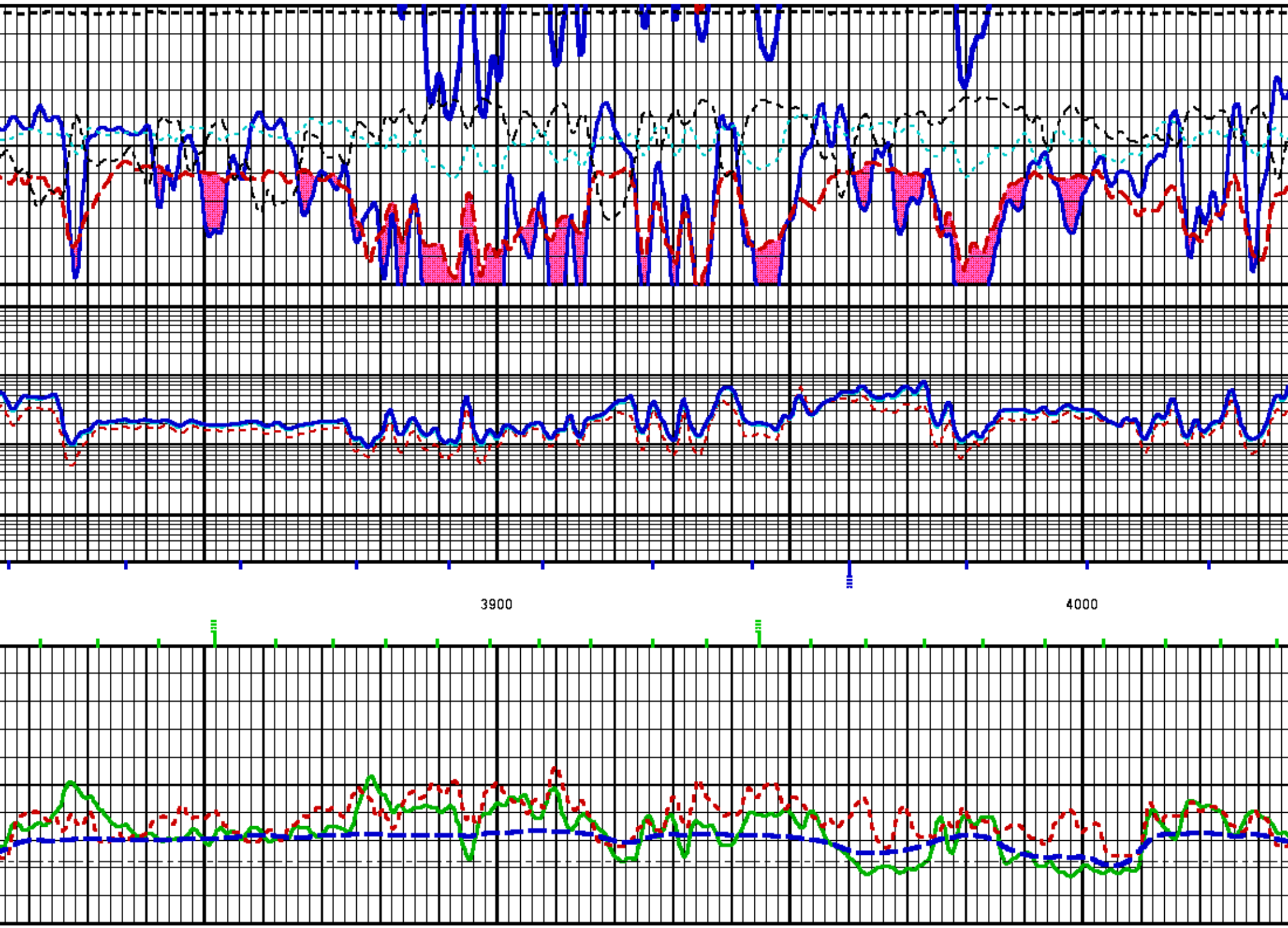
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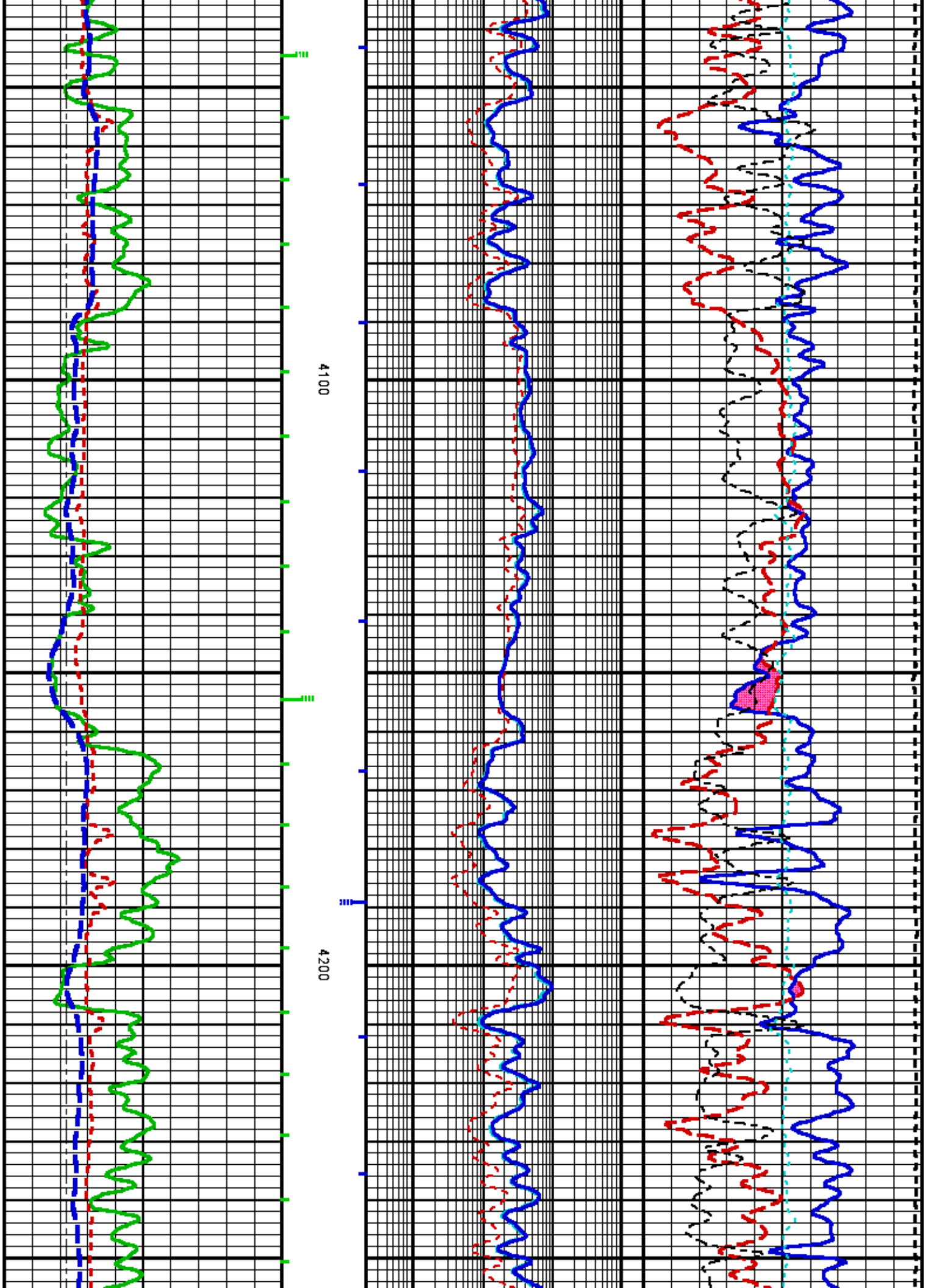
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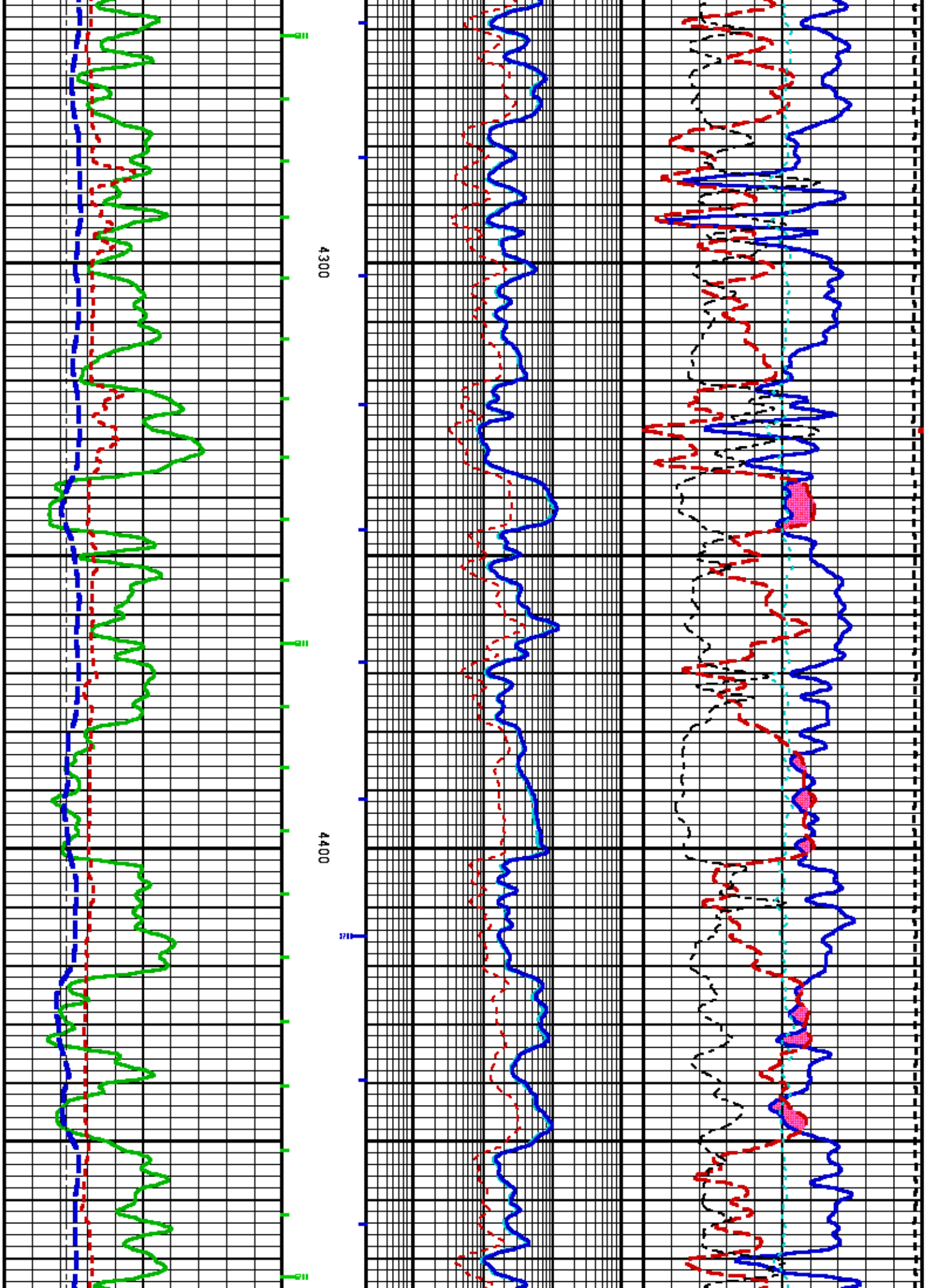
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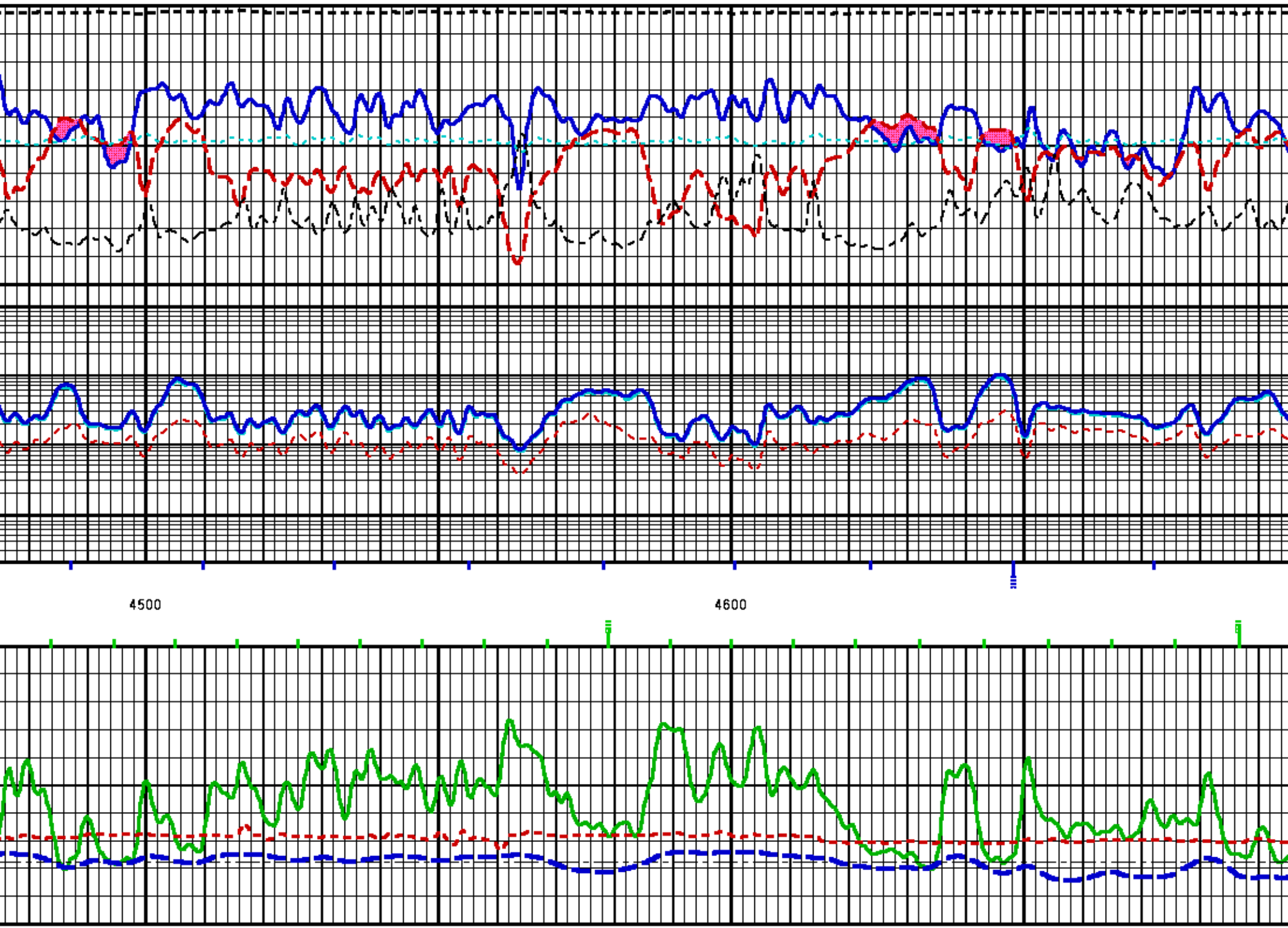
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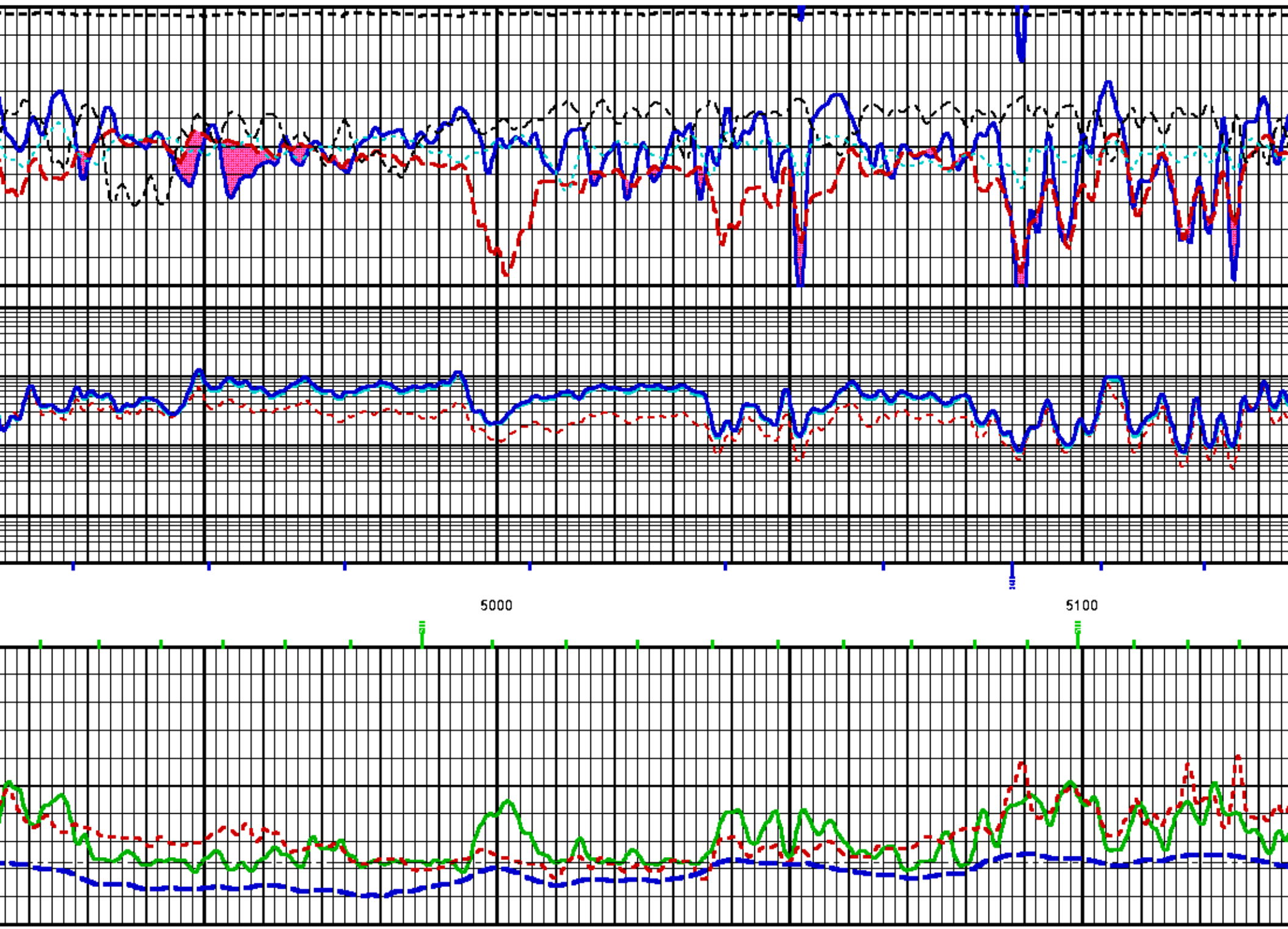
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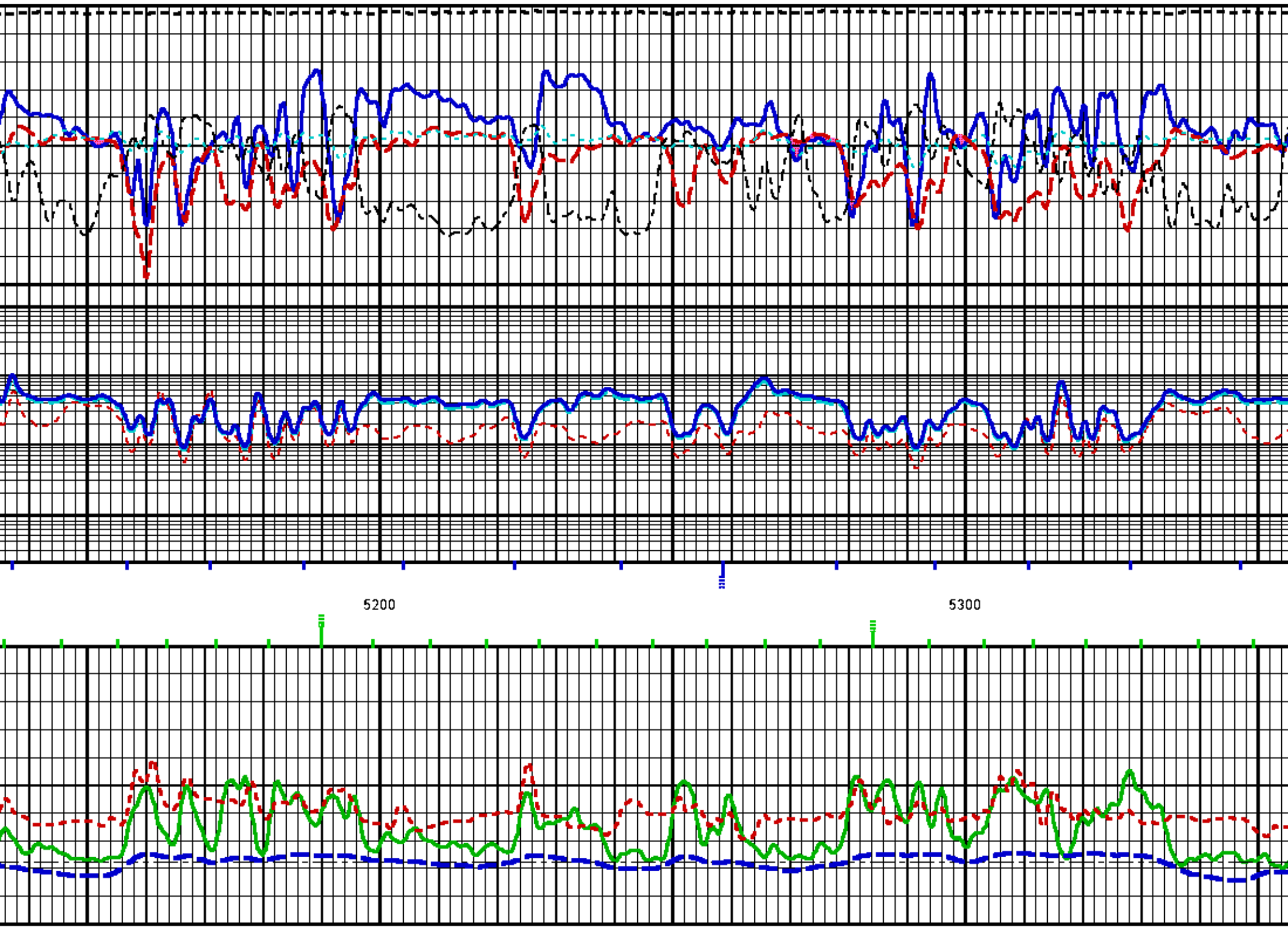
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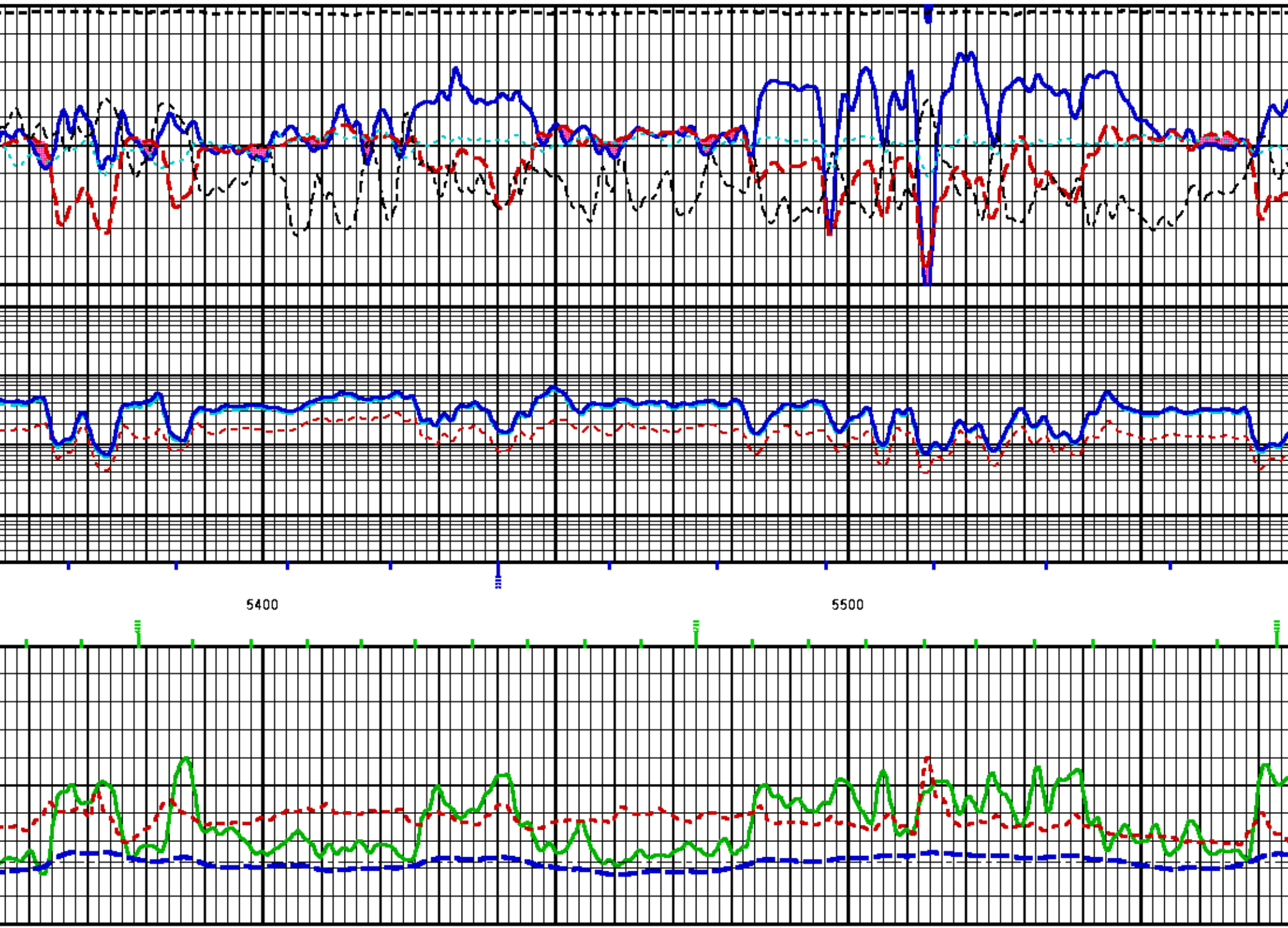
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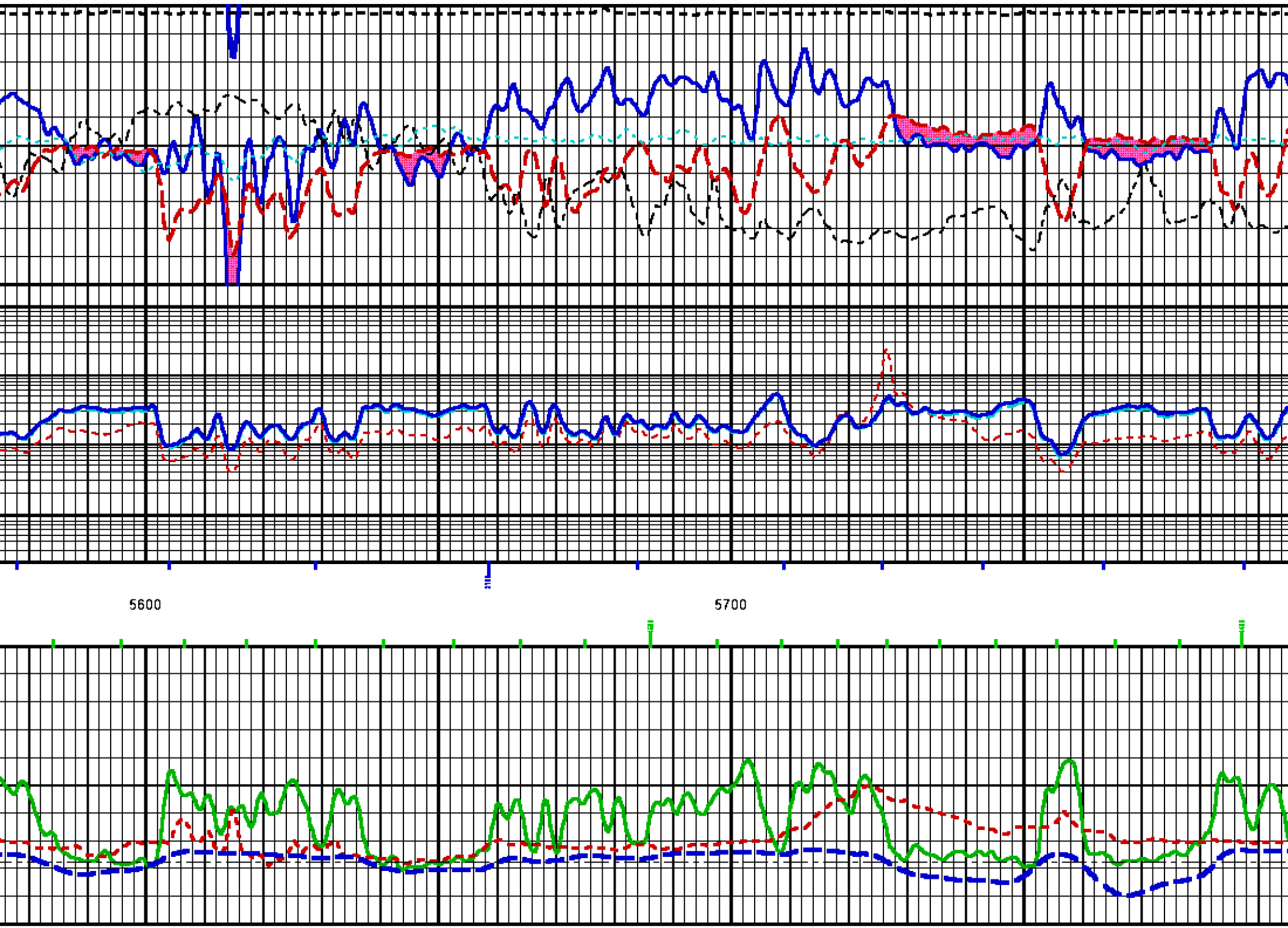
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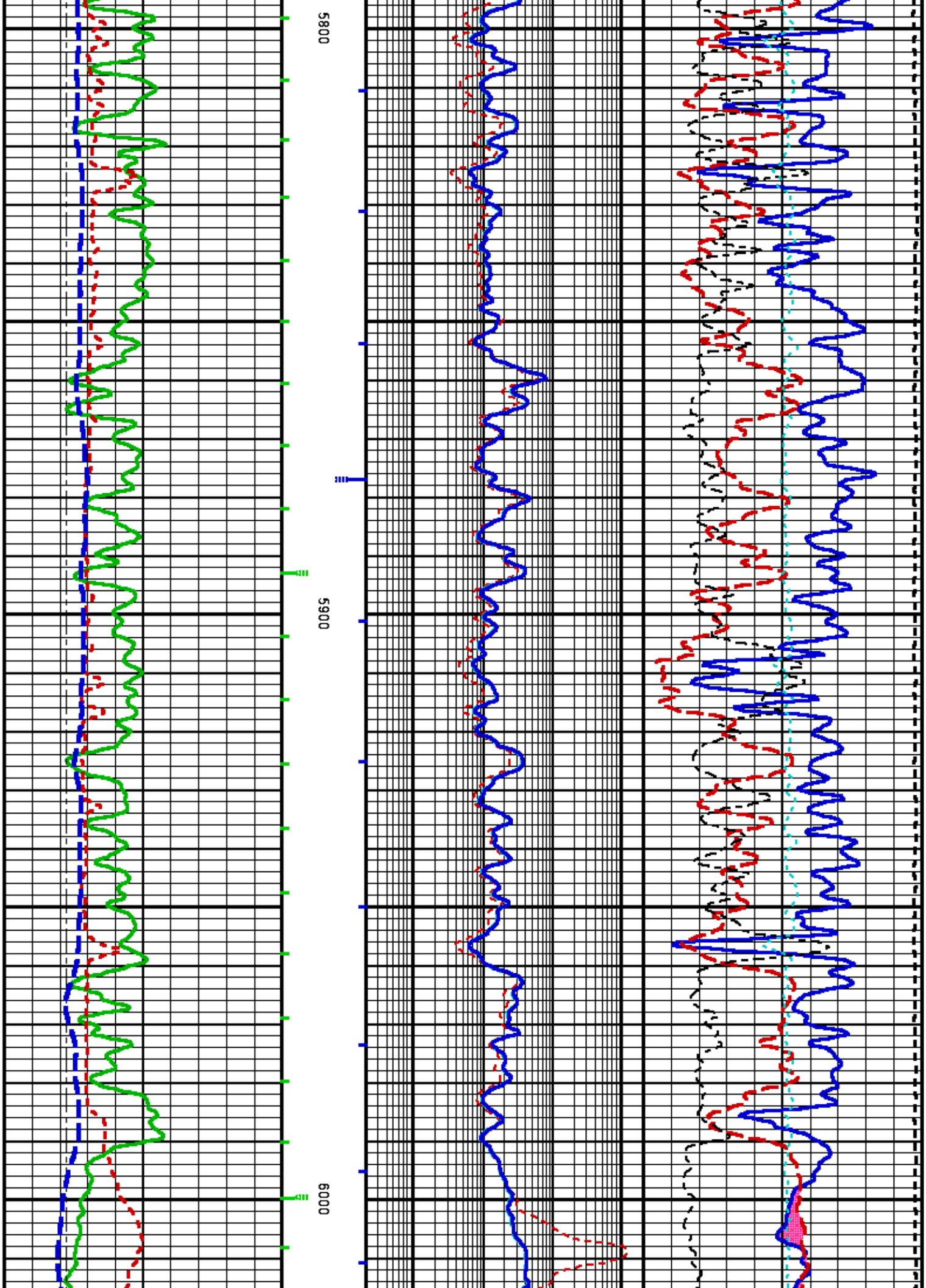
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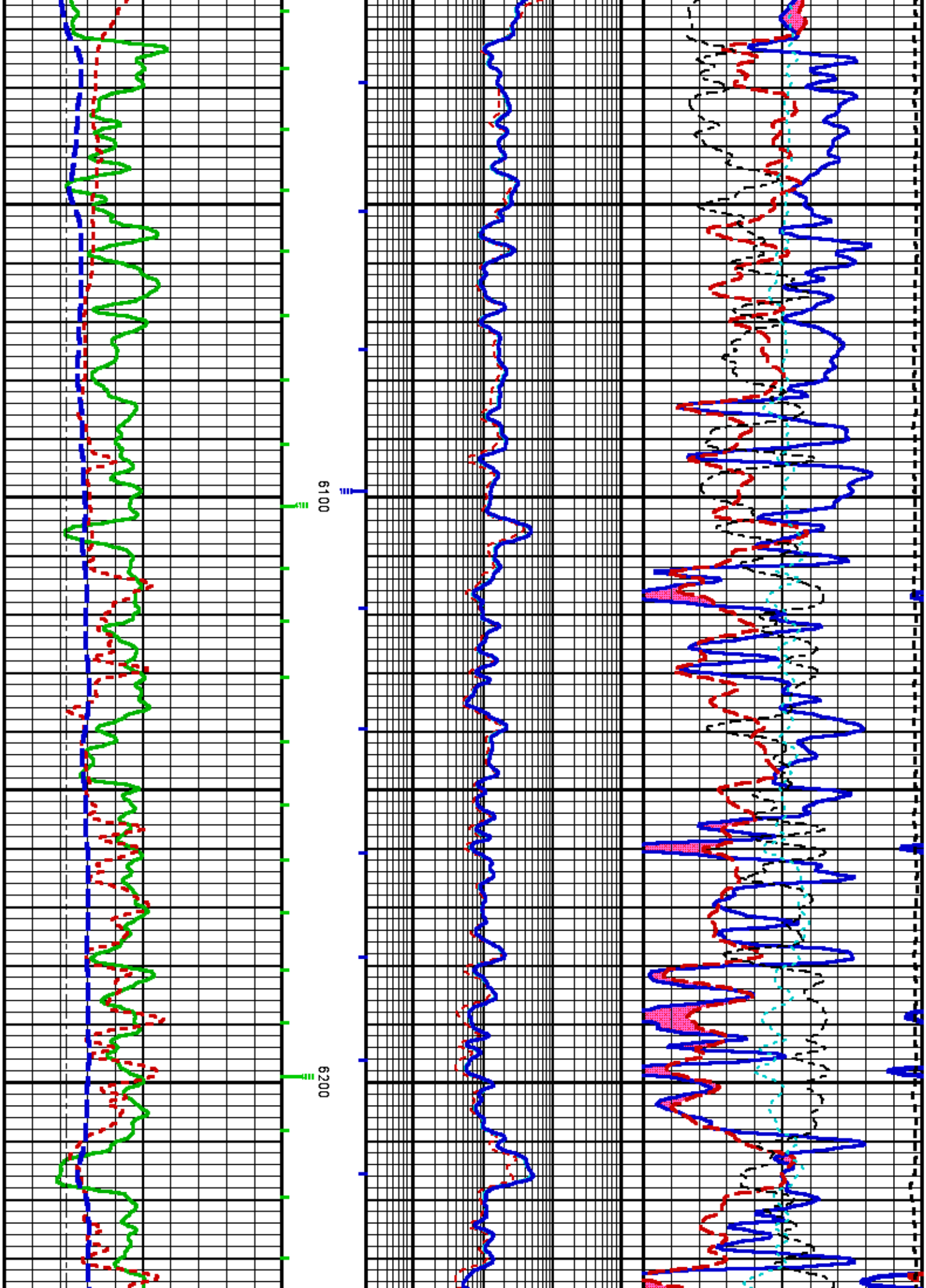
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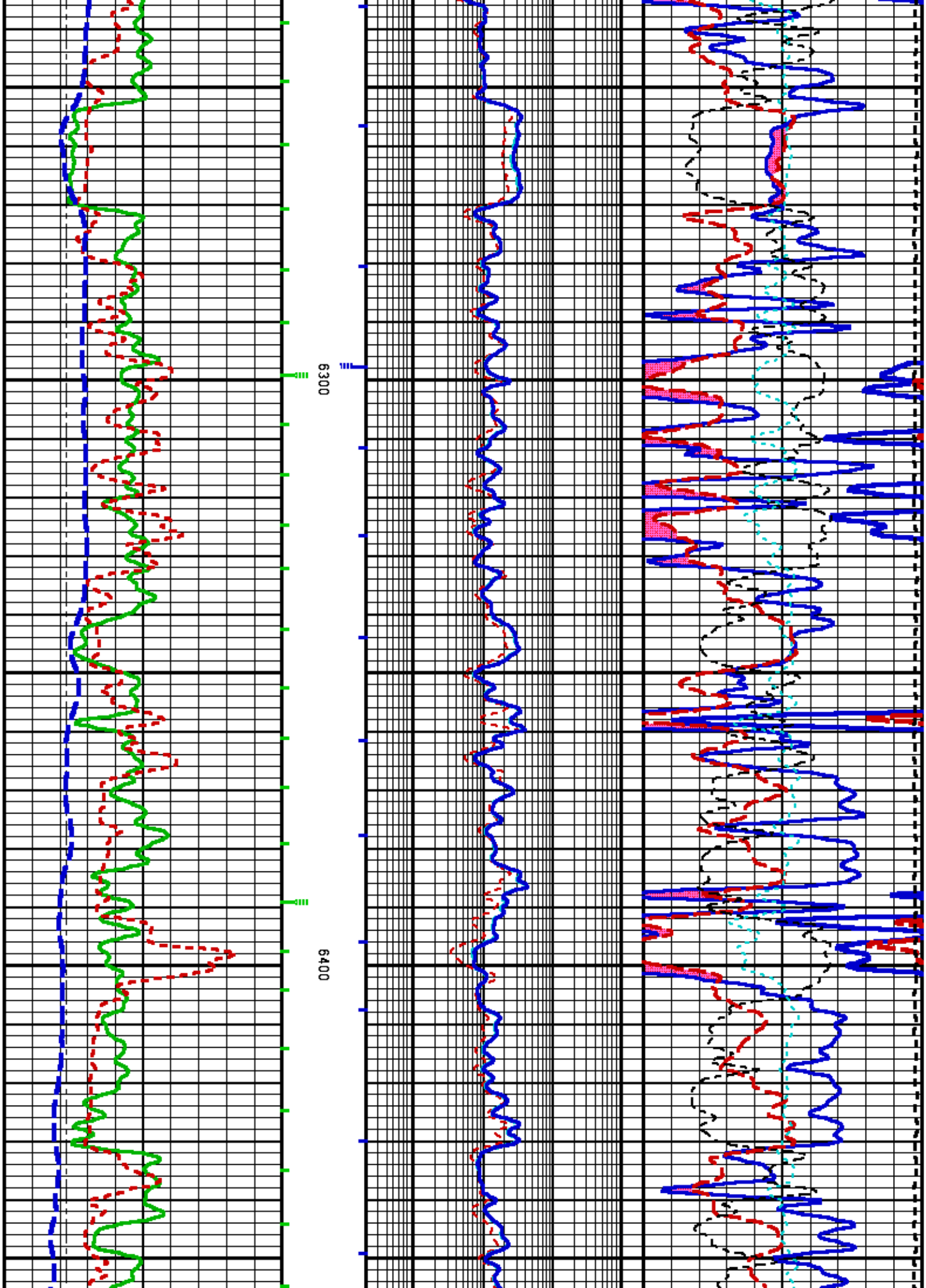
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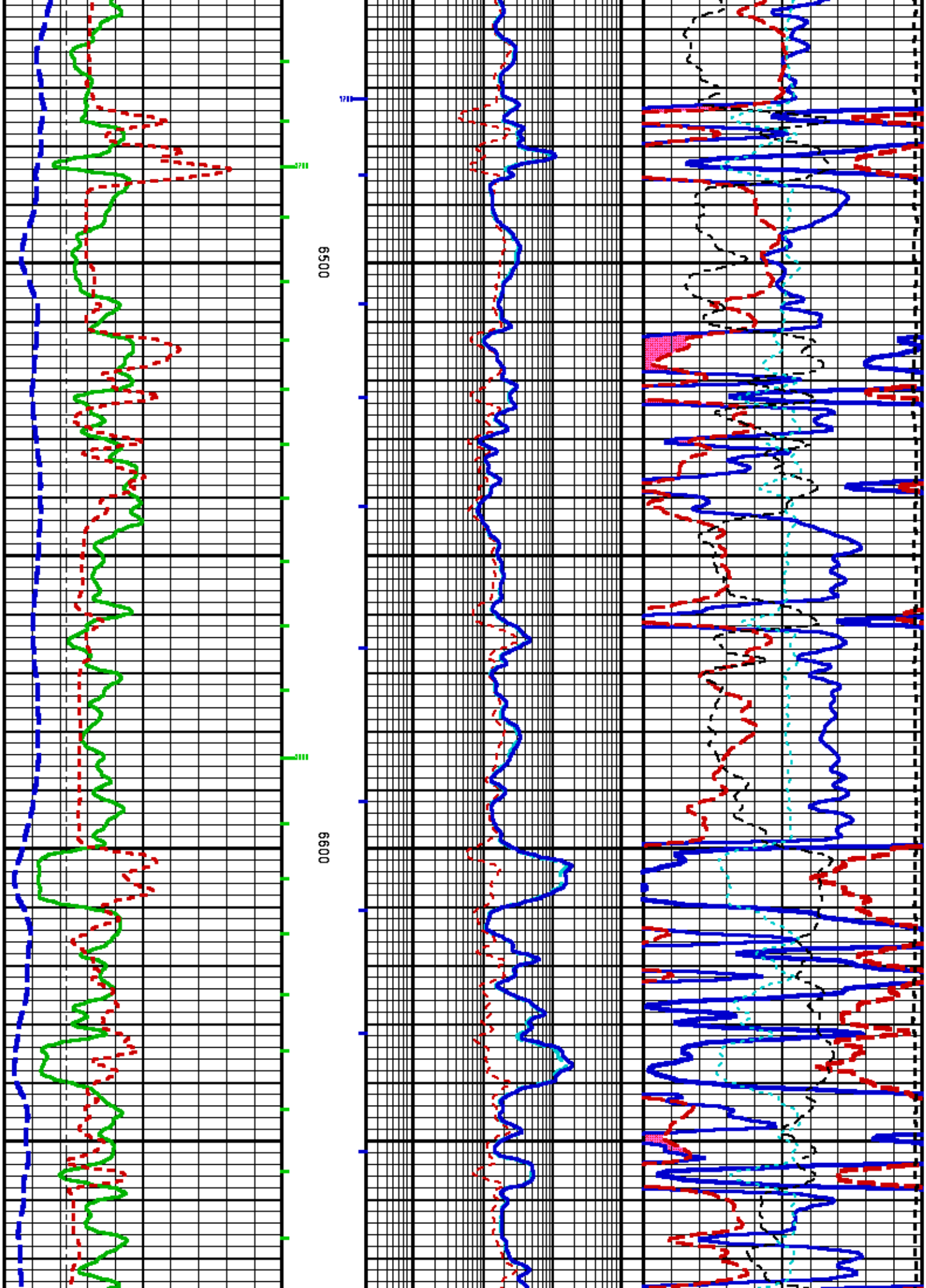
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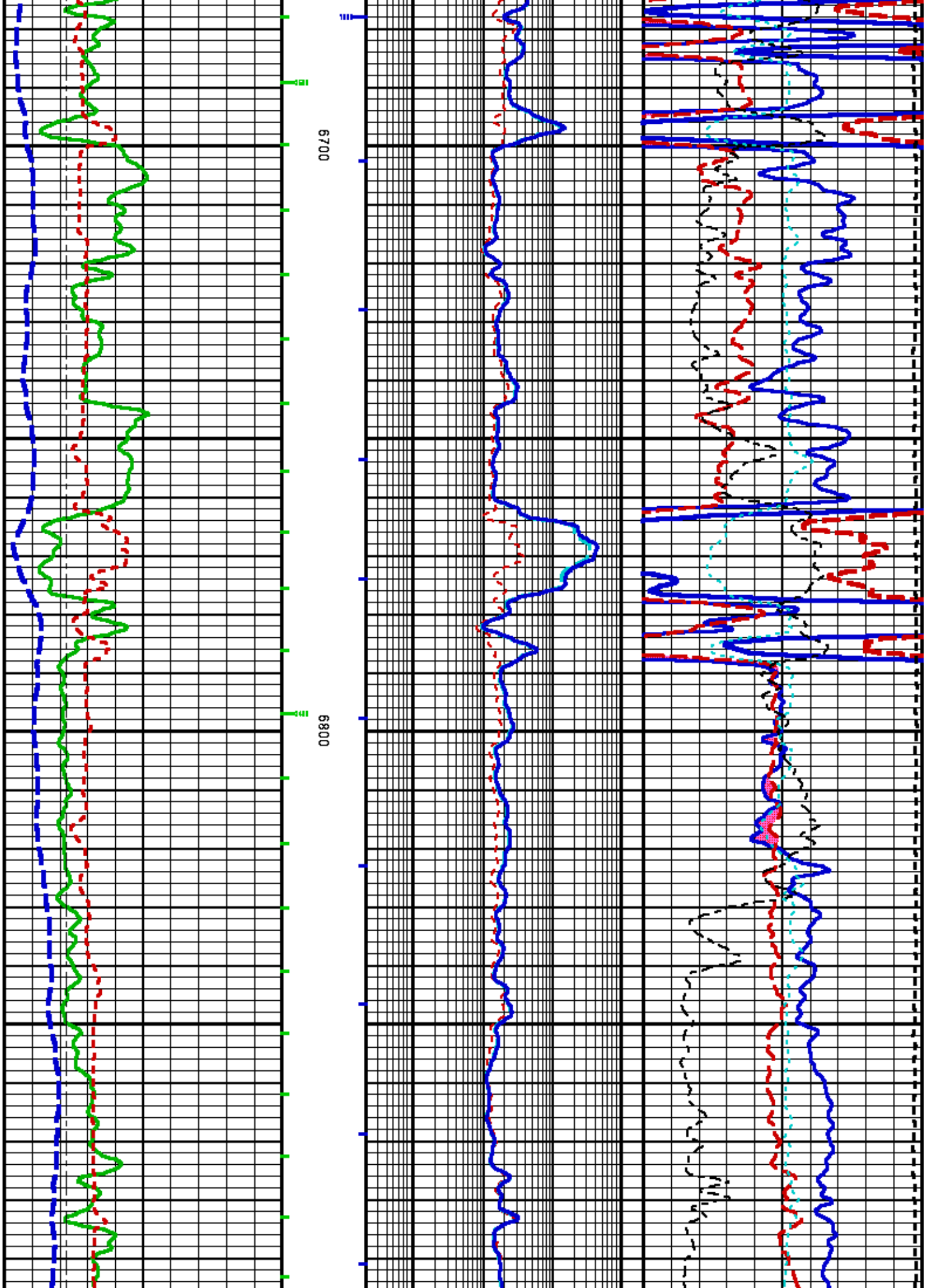
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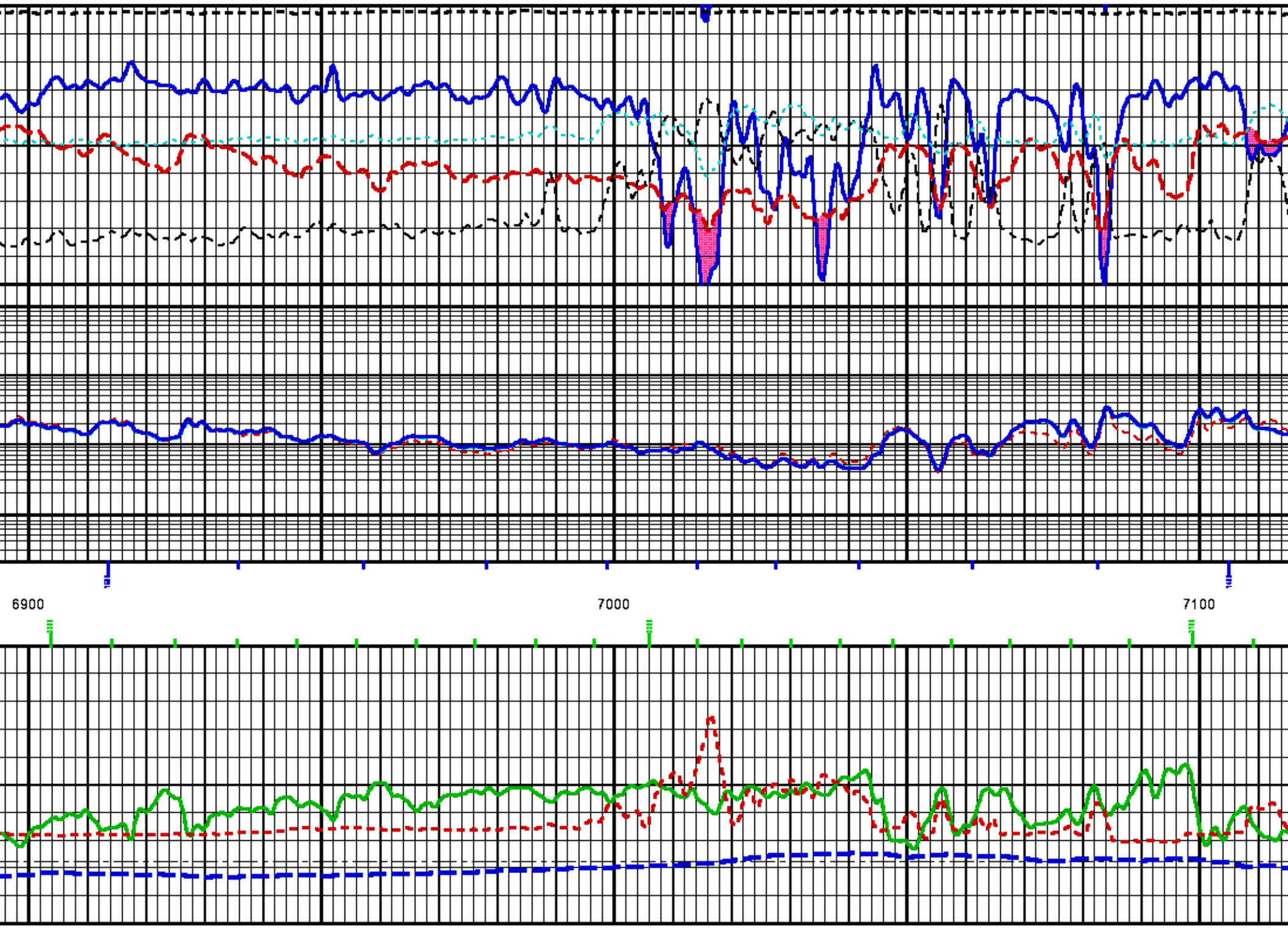
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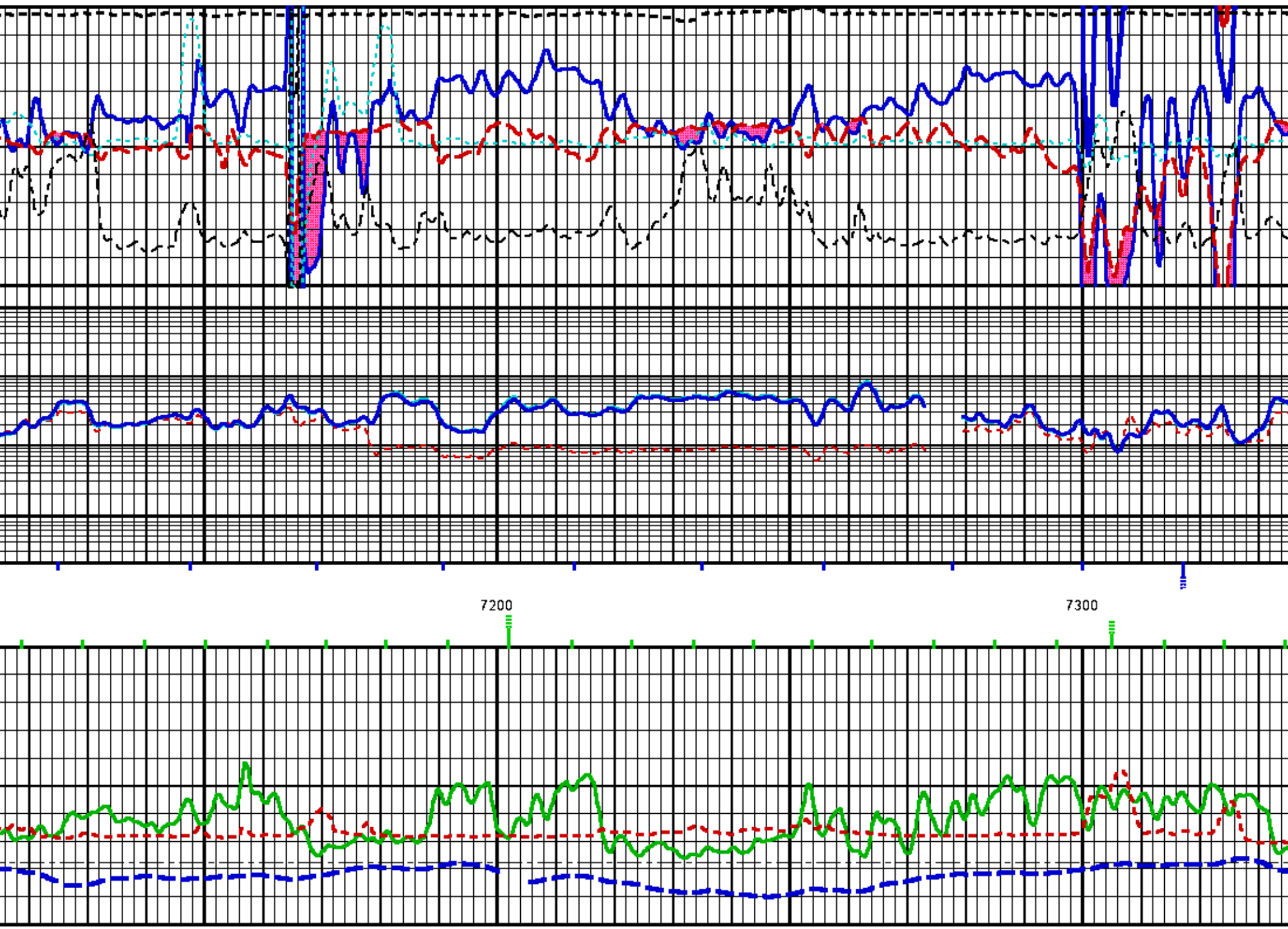
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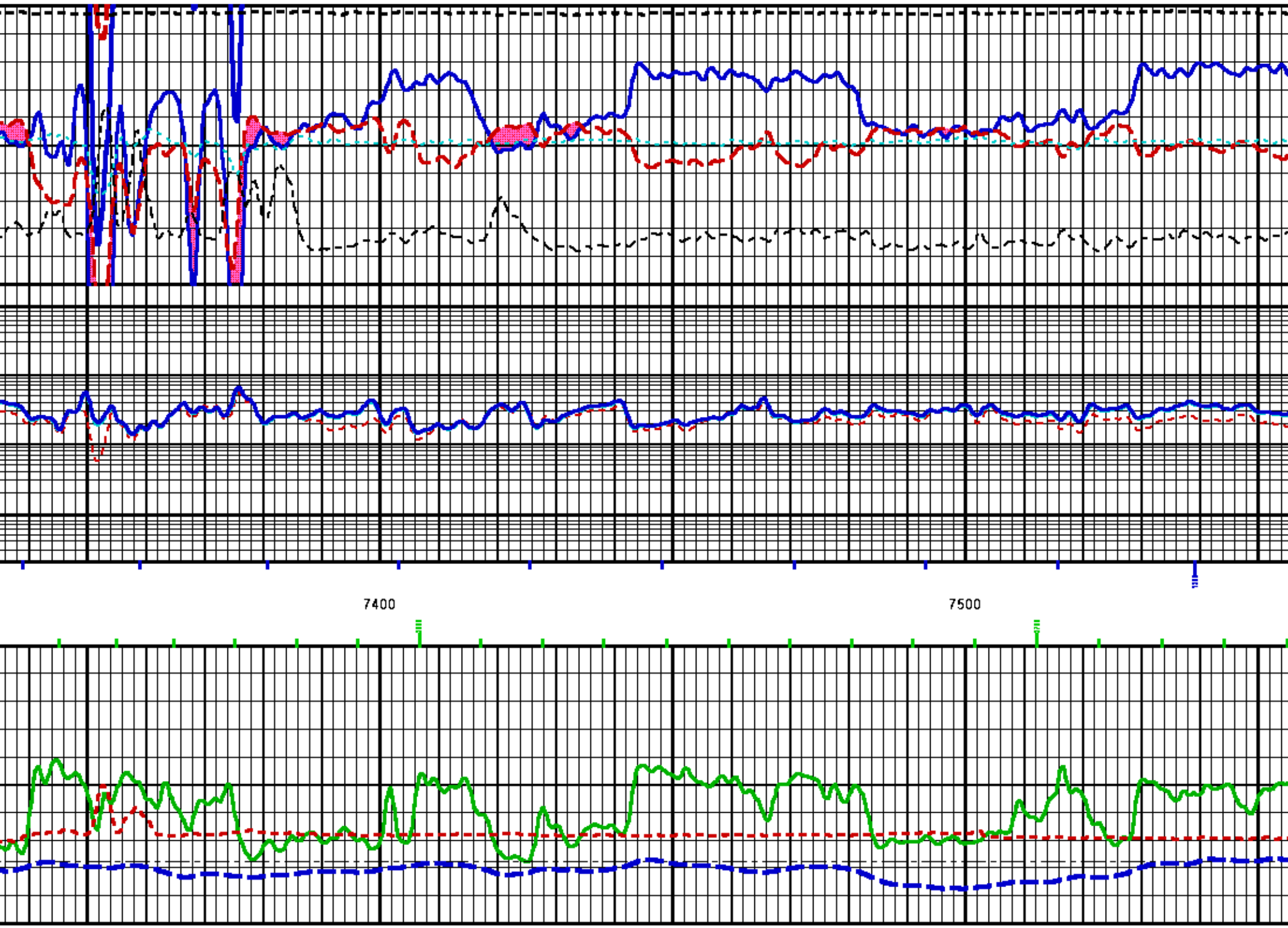
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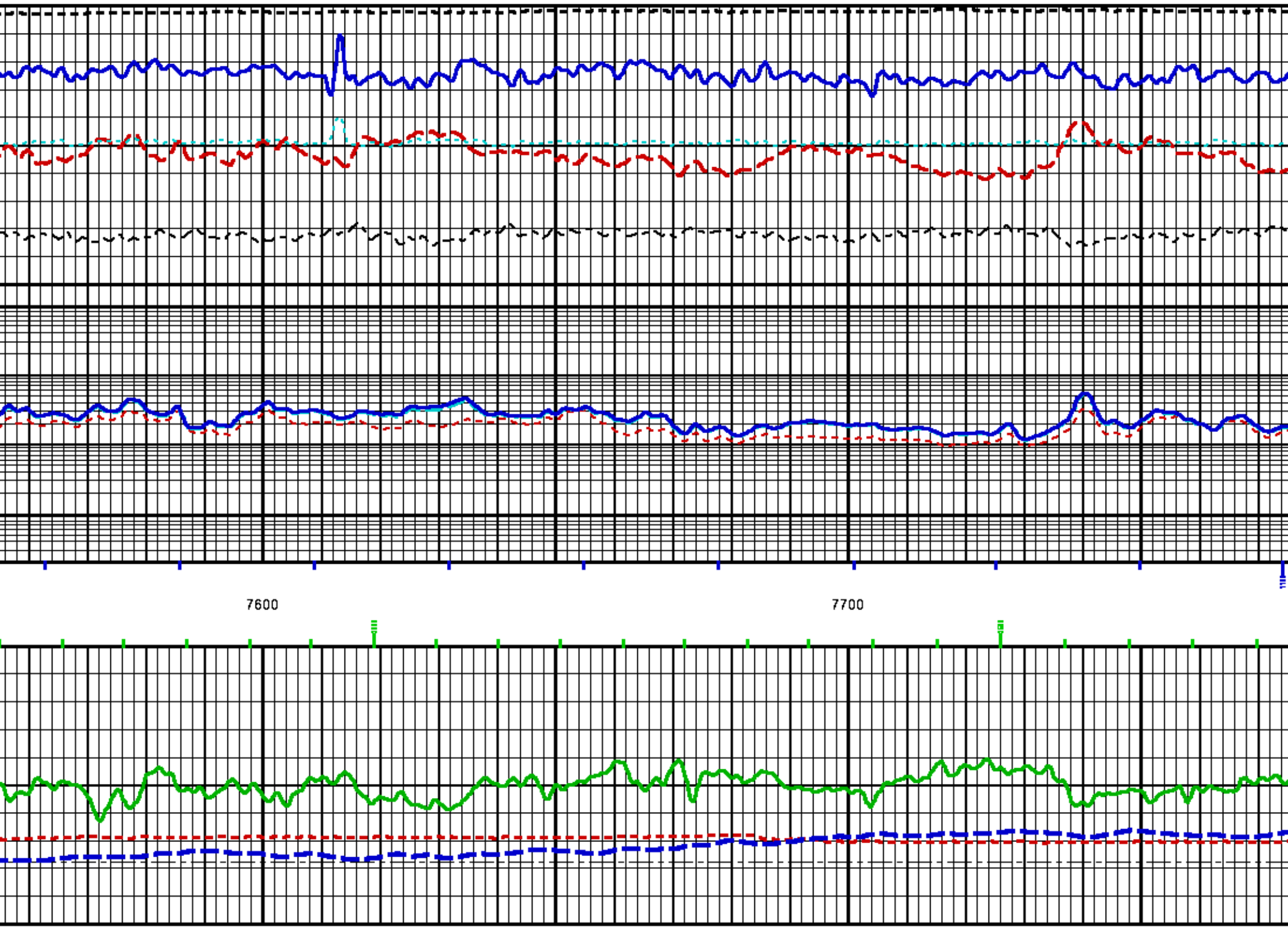
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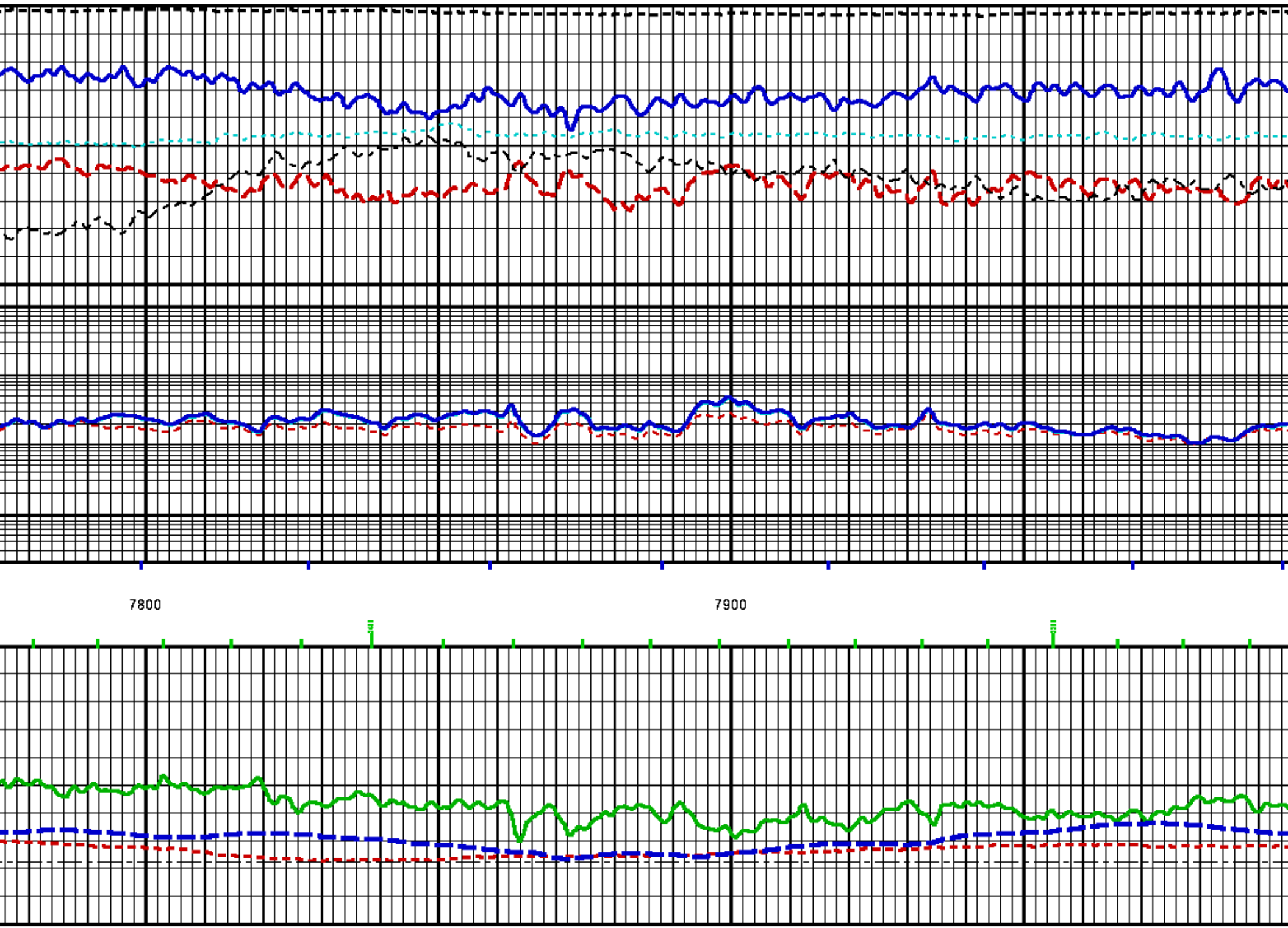
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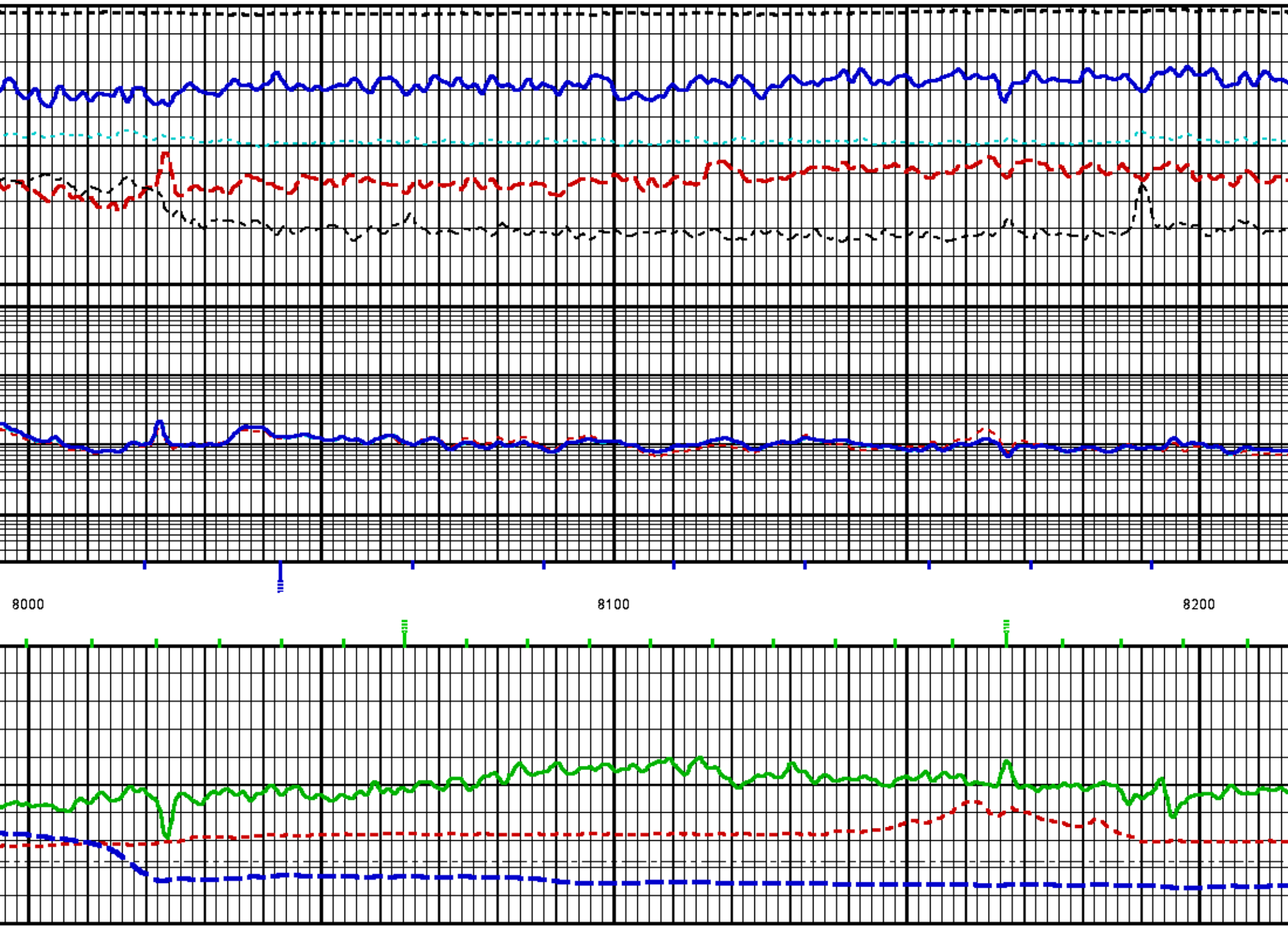
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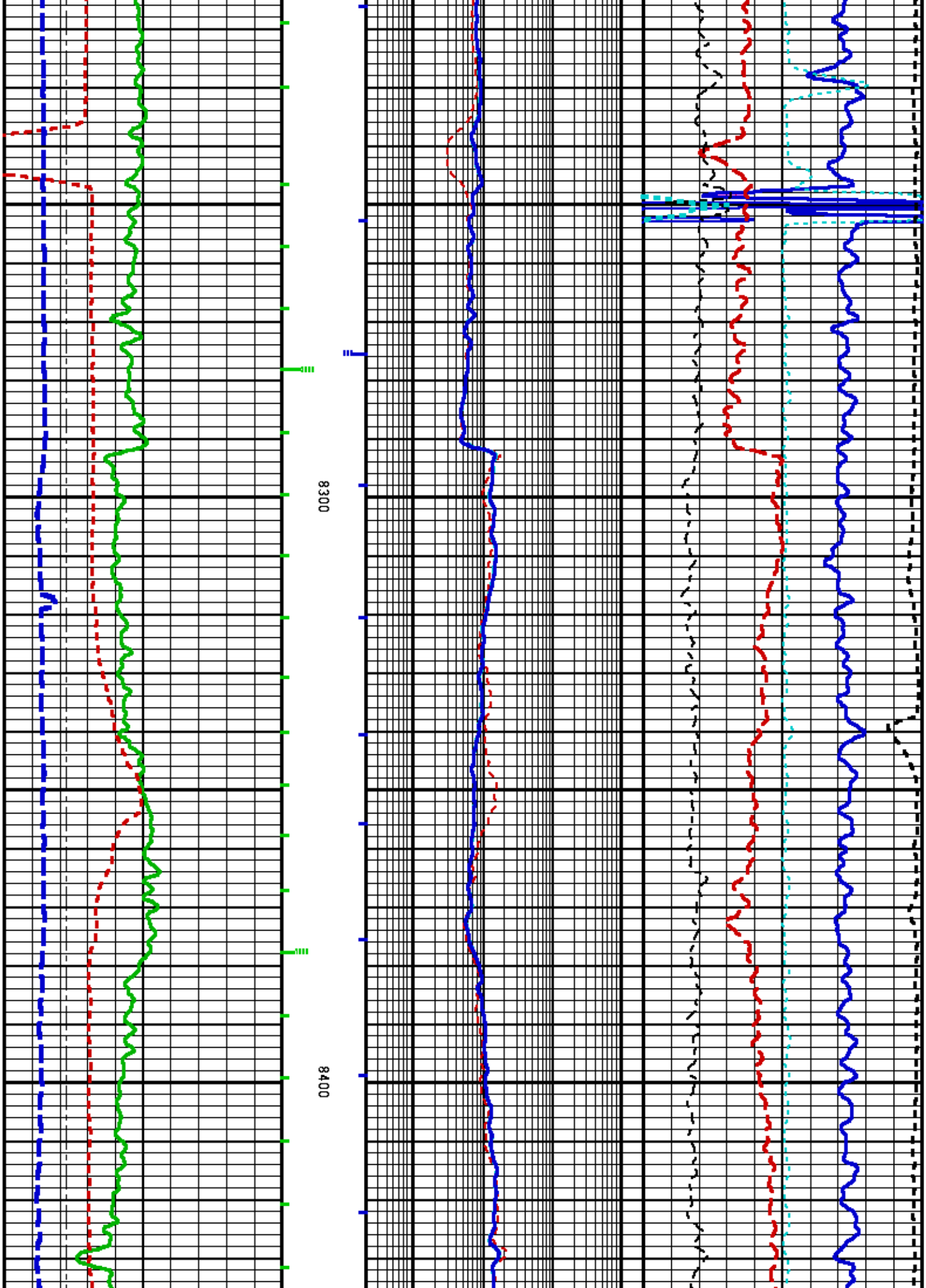
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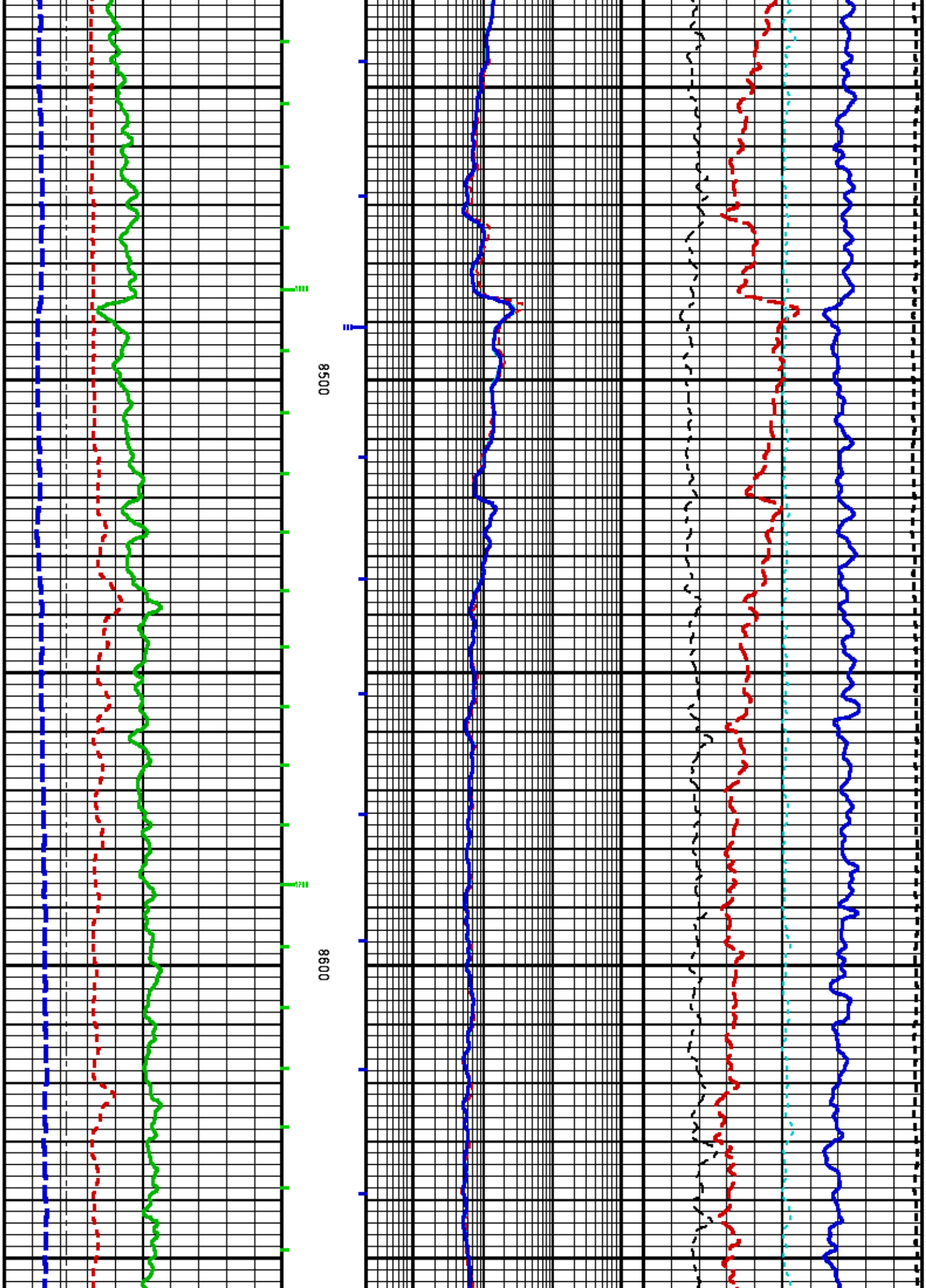
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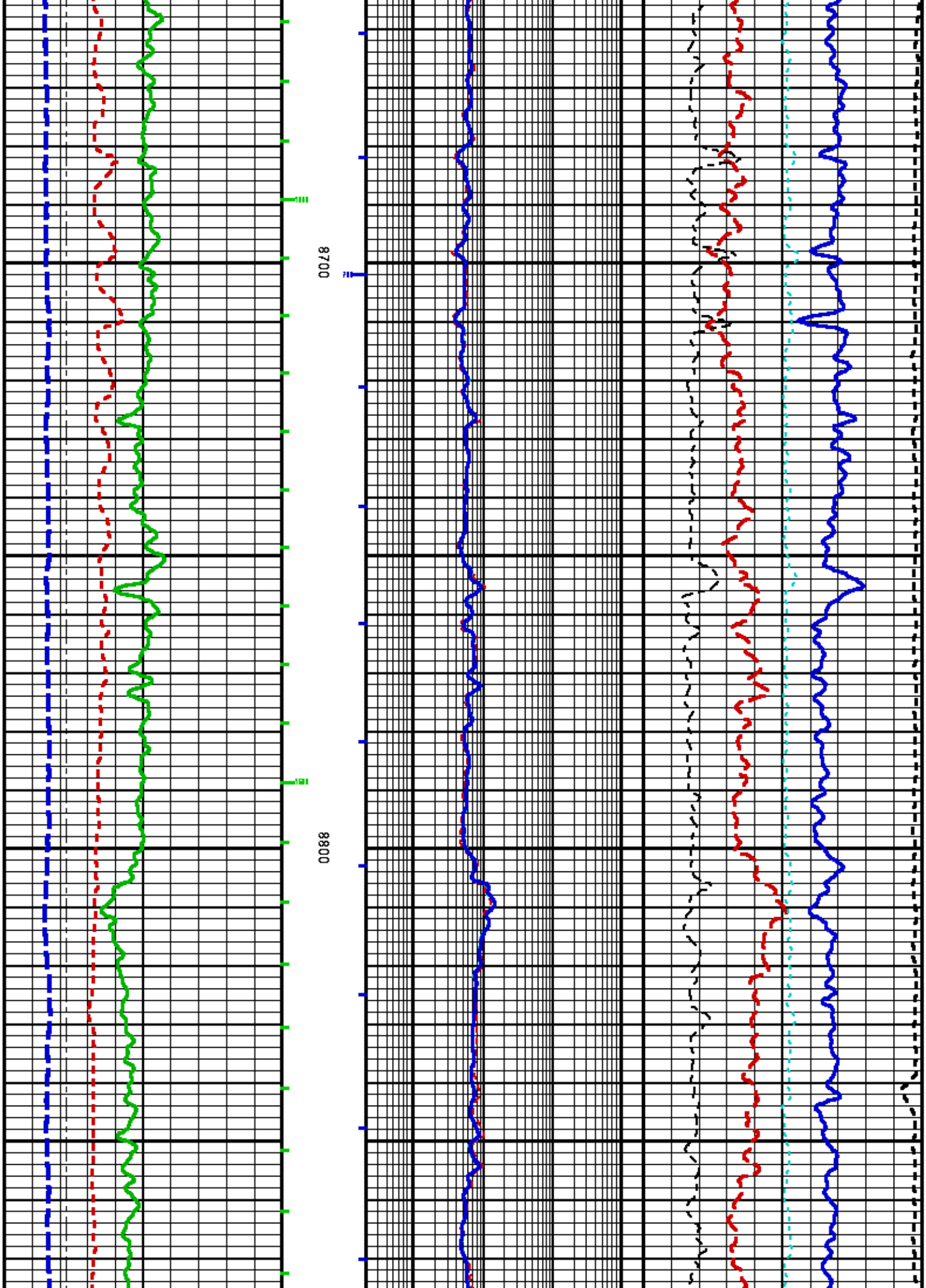
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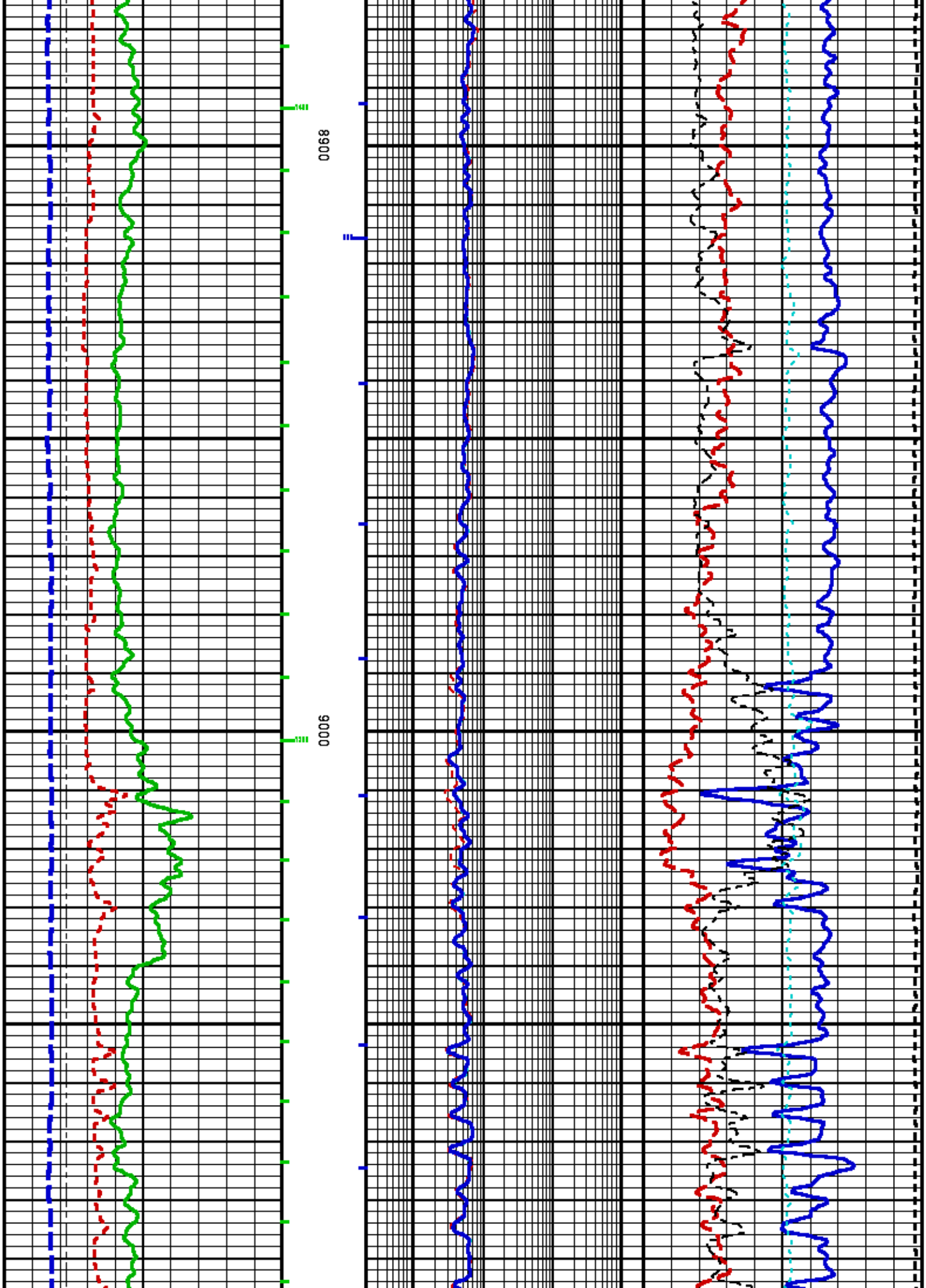
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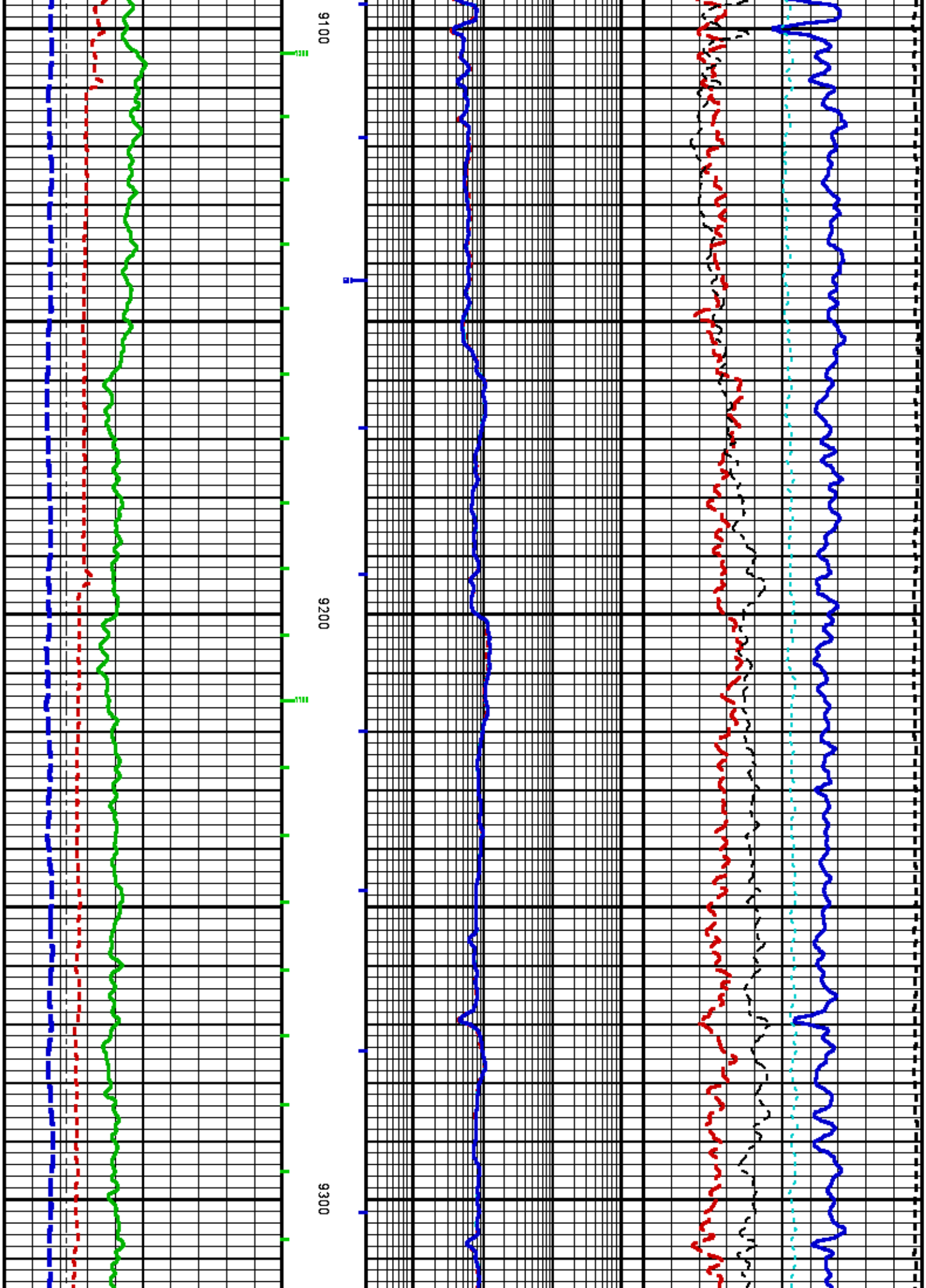
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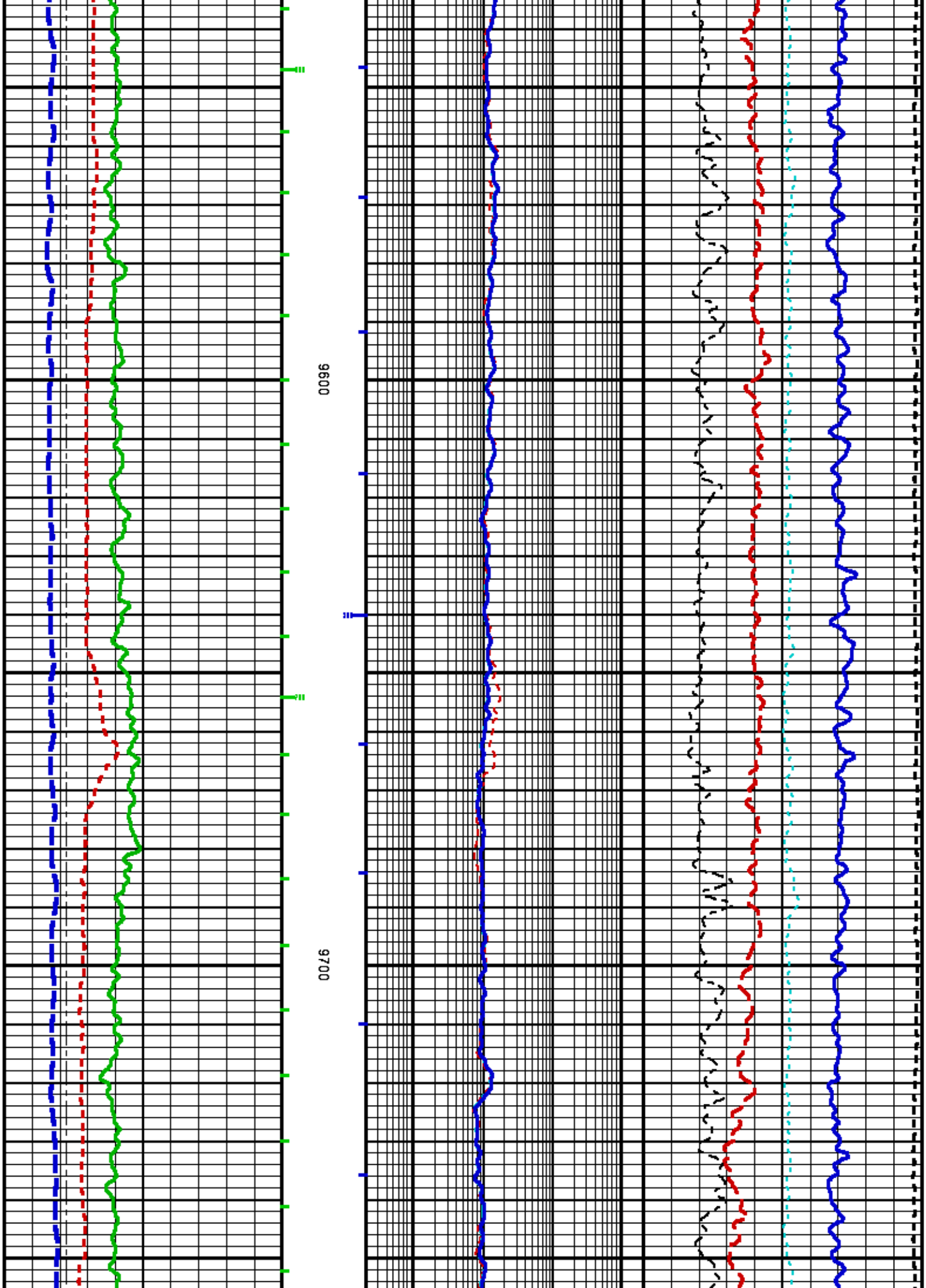
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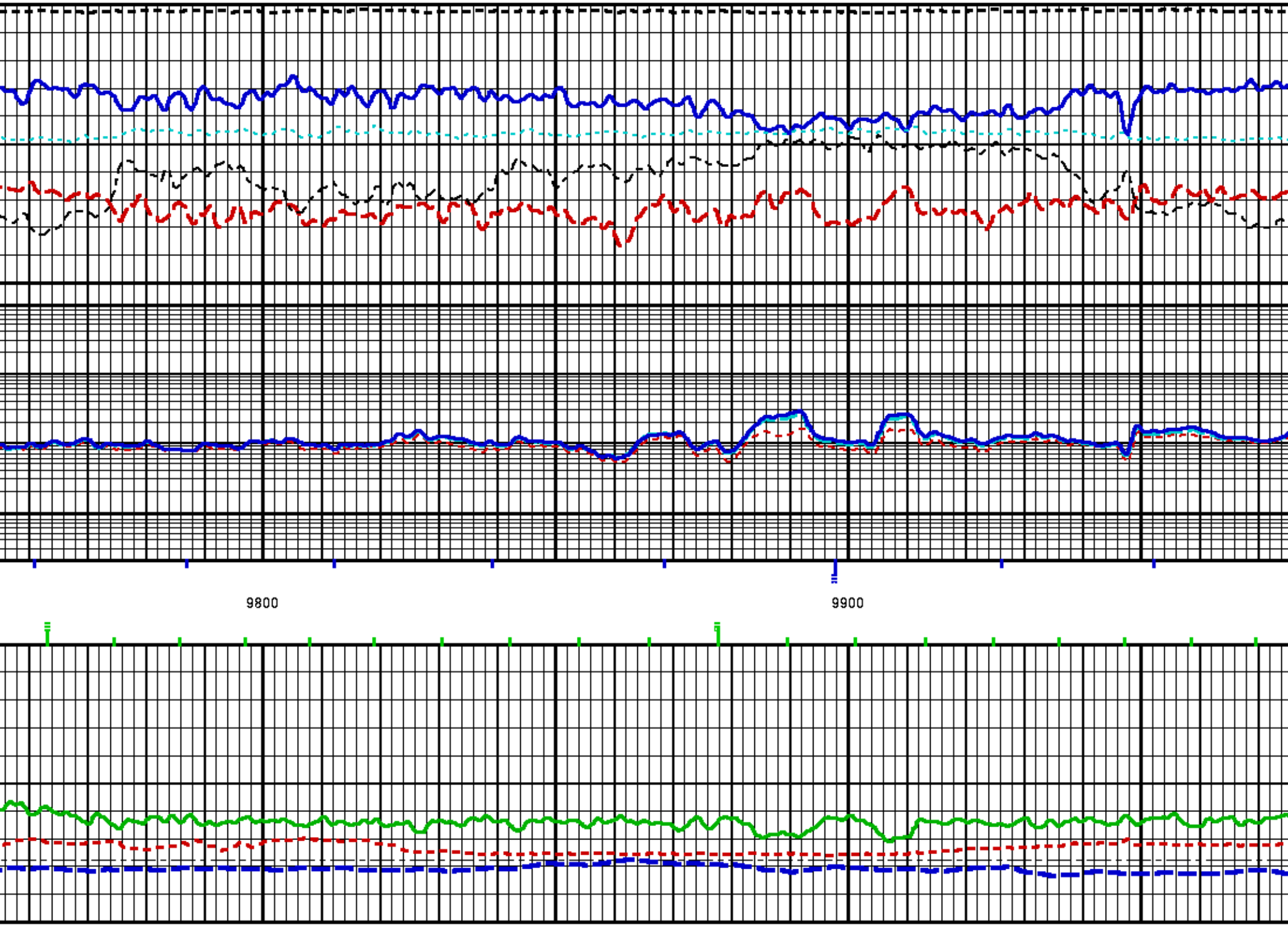
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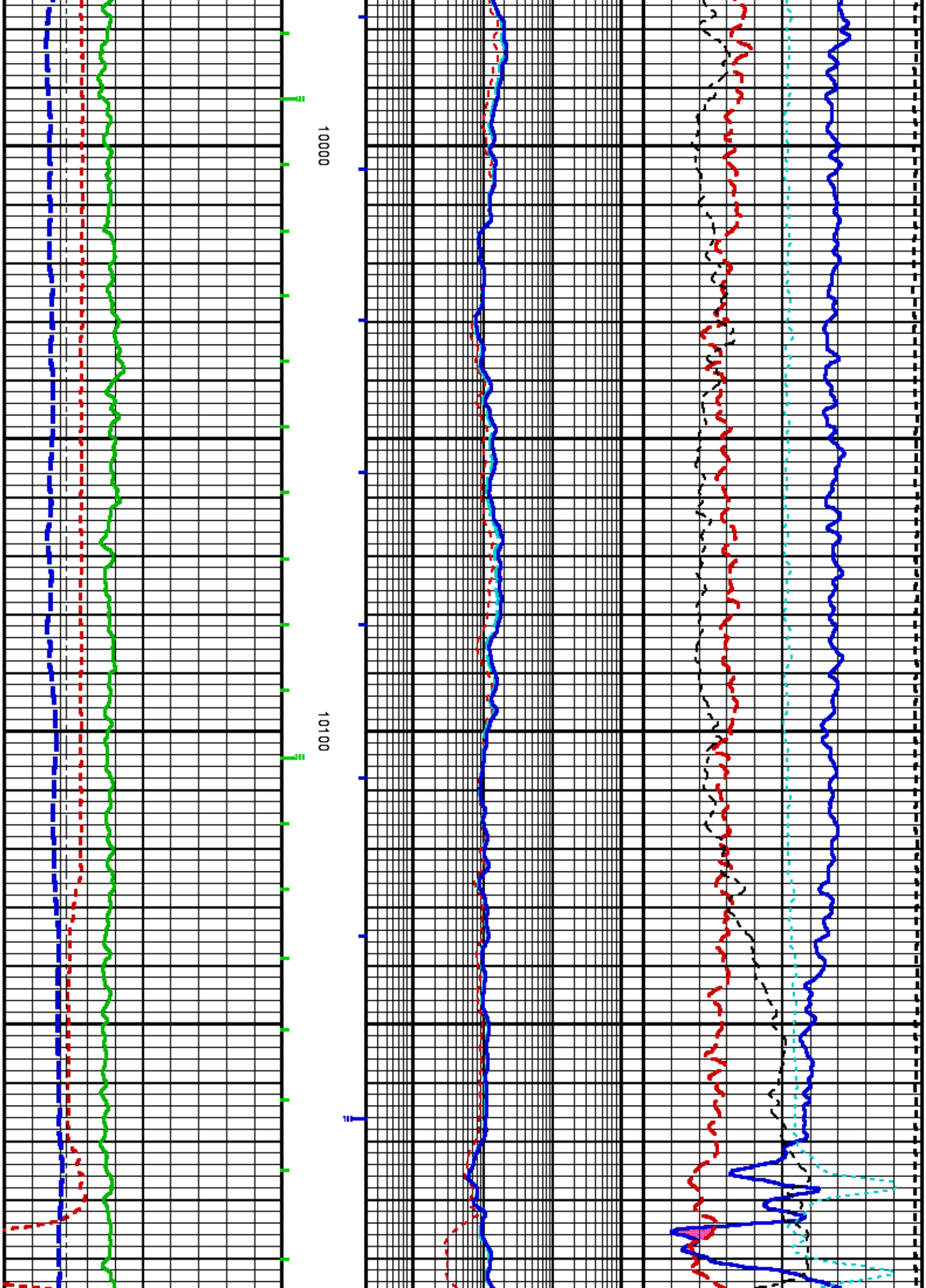
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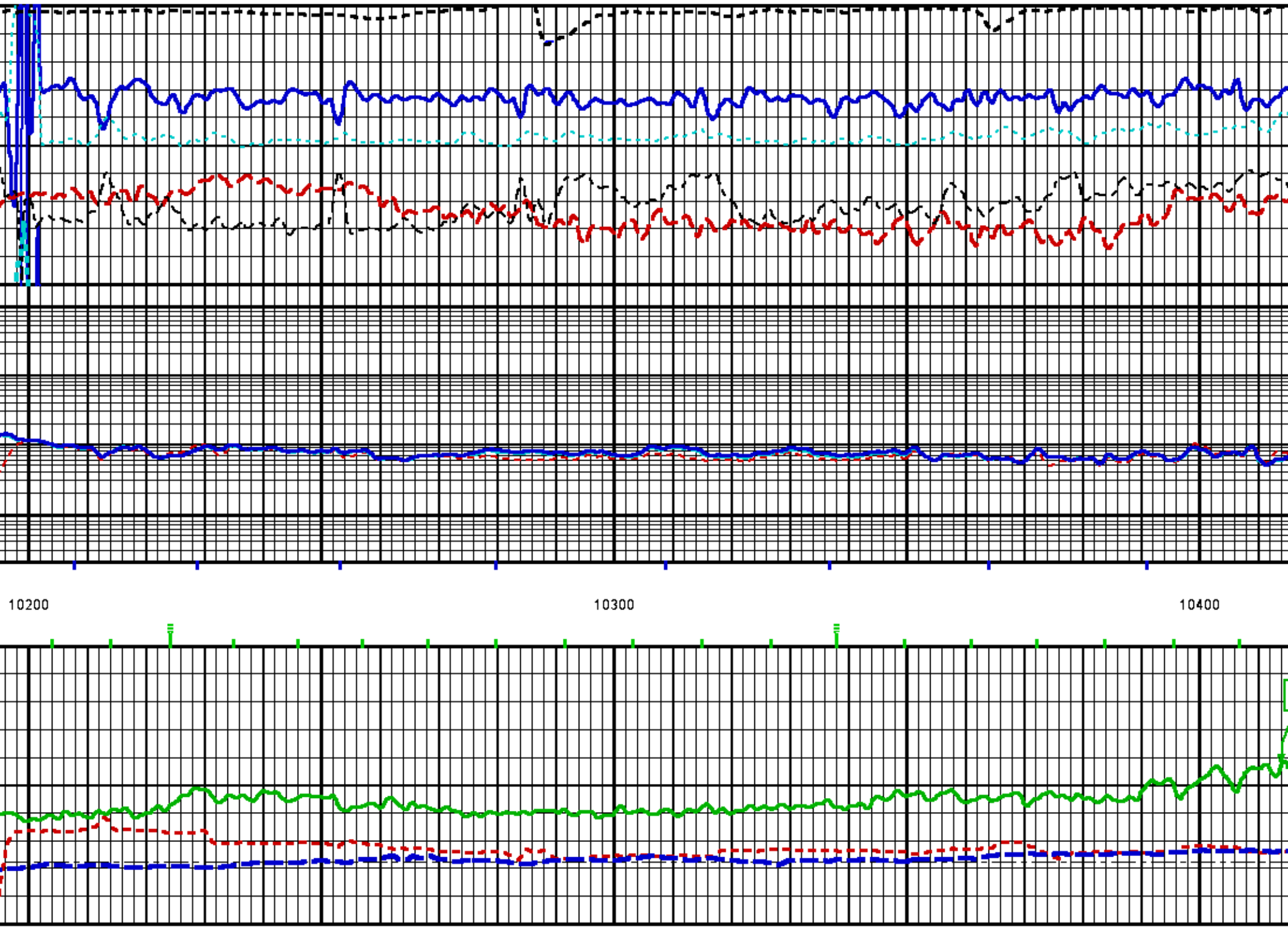
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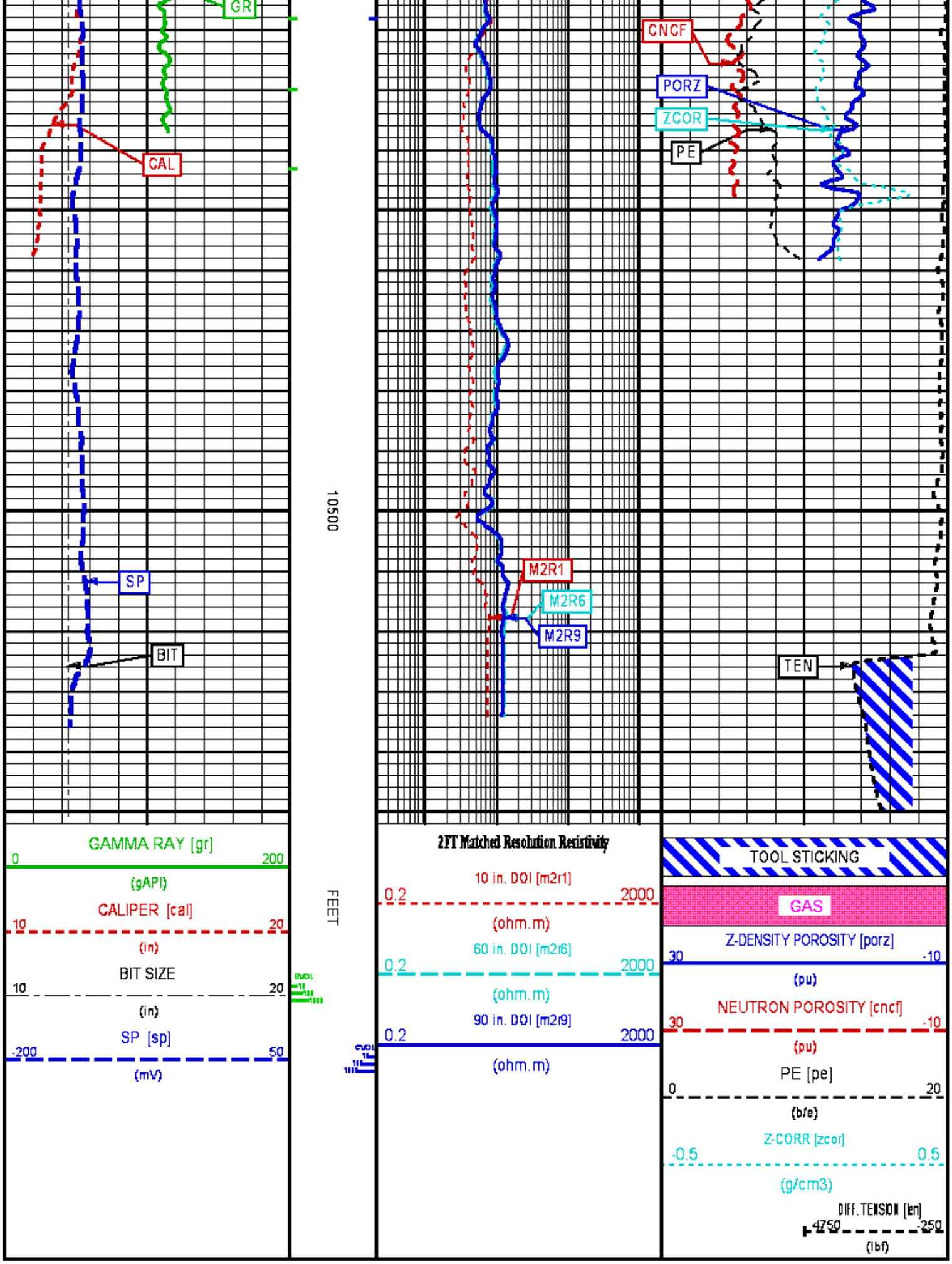

GR
CAL
SP
BIT
CNCF
PORZ
ZCOR
PE
M2R1
M2R6
M2R9
TEN
10500
FEET
GAMMA RAY [gr]
0
200
(gAPI)
CALIPER [cal]
10
20
(in)
BIT SIZE
10
20
(in)
SP [sp]
-200
50
(mV)
2FT Matched Resolution Resistivity
10 in. DOI [m2r1]
0.2
2000
(ohm.m)
60 in. DOI [m2r6]
0.2
2000
(ohm.m)
90 in. DOI [m2r9]
0.2
2000
(ohm.m)
TOOL 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]
4750
-250
(lbf)

REPEAT LOG

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Patches: 3

Plotted: Sun Dec 8 17:02:45 2013

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/625272/n777v04.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2835.571 ft BOTTOM DEPTH: 3252.138 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft) TOP	BOTTOM
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) TOP	BOTTOM
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	9.625	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	12.250	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	76.0	degF	"	"
	MUD SAMPLE RES	0.840	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	77.0	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*)	12.250	in	"	"
	FIXED DIAMETER (mbh*)	12.250	in	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"

SP CONTROL

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft) TOP	BOTTOM
SP CONTROL	Tool/Bridle	TOOL		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft) TOP	BOTTOM
2446 CN MATRIX	2446 MATRIX	SANDSTONE		TOP	BOTTOM
CN SALINITY CORRECTION	SALINITY	1000	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	17.500	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

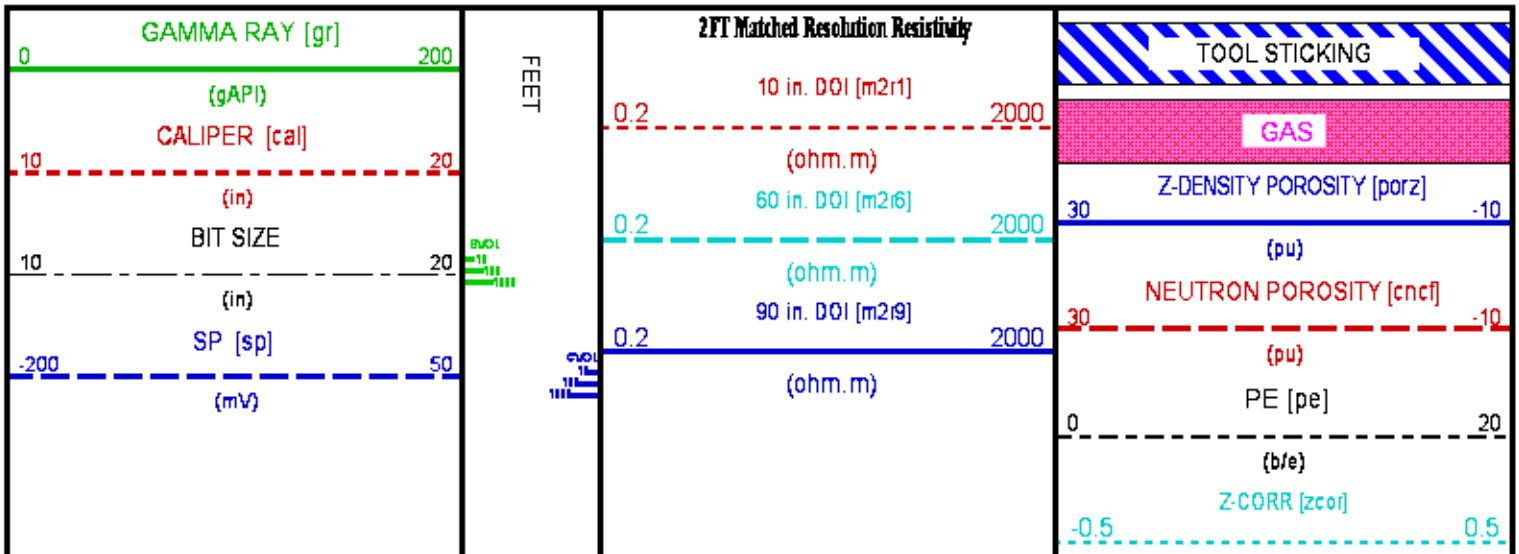
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Dec 8 16:26:05 2013	BIT SIZE
F1:BVOL	Dec 8 16:26:05 2013	BOREHOLE VOLUME
F1:CAL	Dec 8 16:26:05 2013	CALIPER
F1:CNCF	Dec 8 16:26:05 2013	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Dec 8 16:26:05 2013	CEMENT VOLUME
F1:GR	Dec 8 16:26:05 2013	GAMMA RAY
F1:M2R1	Dec 8 16:26:05 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Dec 8 16:26:05 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Dec 8 16:26:05 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Dec 8 16:26:05 2013	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Dec 8 16:26:05 2013	POROSITY FOR SELECTABLE MATRIX
F1:SP	Dec 8 16:26:05 2013	SPONTANEOUS POTENTIAL
F1:TEN	Dec 8 16:26:05 2013	DIFFERENTIAL TENSION
F1:ZCOR	Dec 8 16:26:05 2013	DENSITY CORRECTION

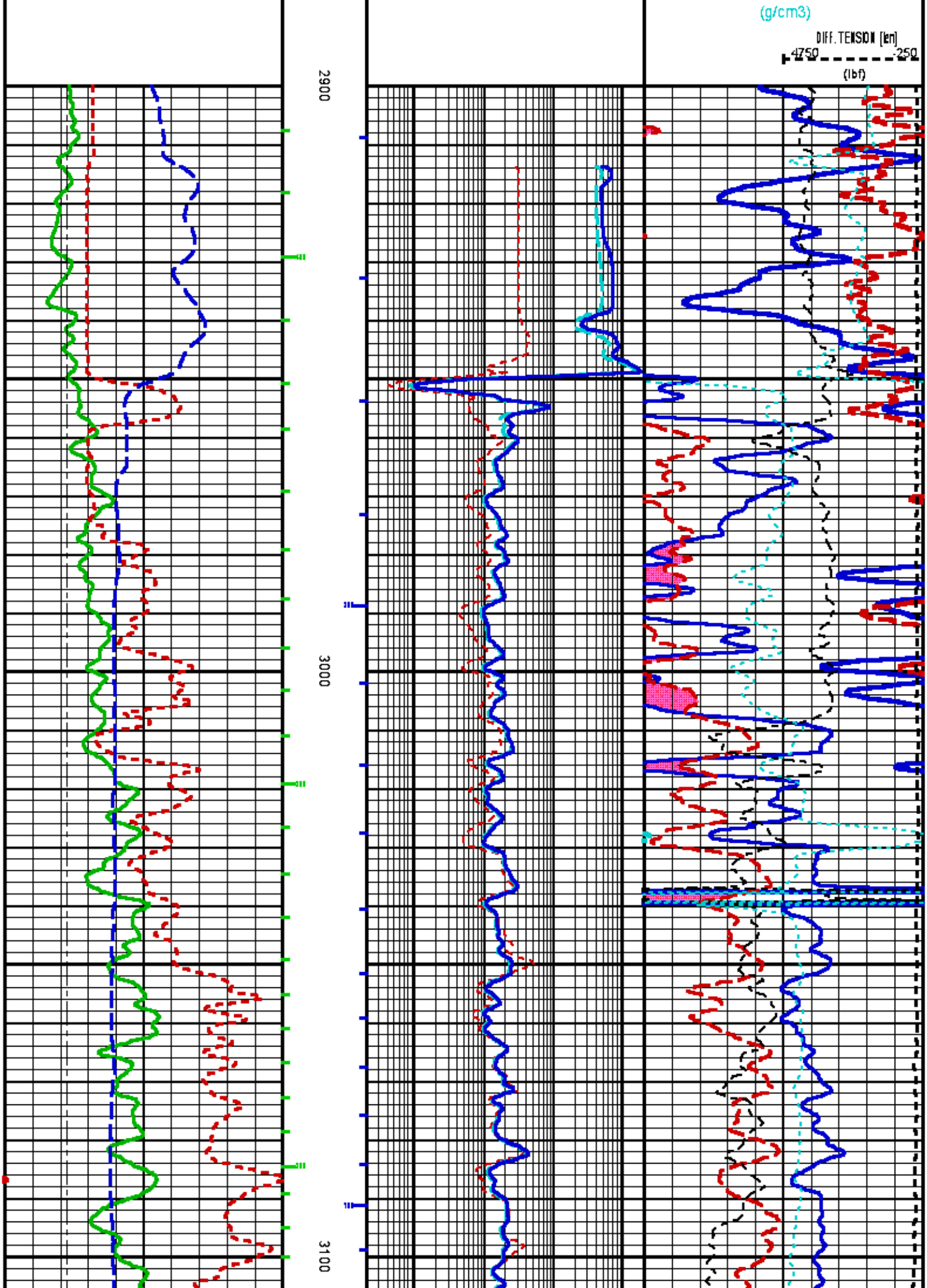
CURVE MEASURE POINT OFFSET

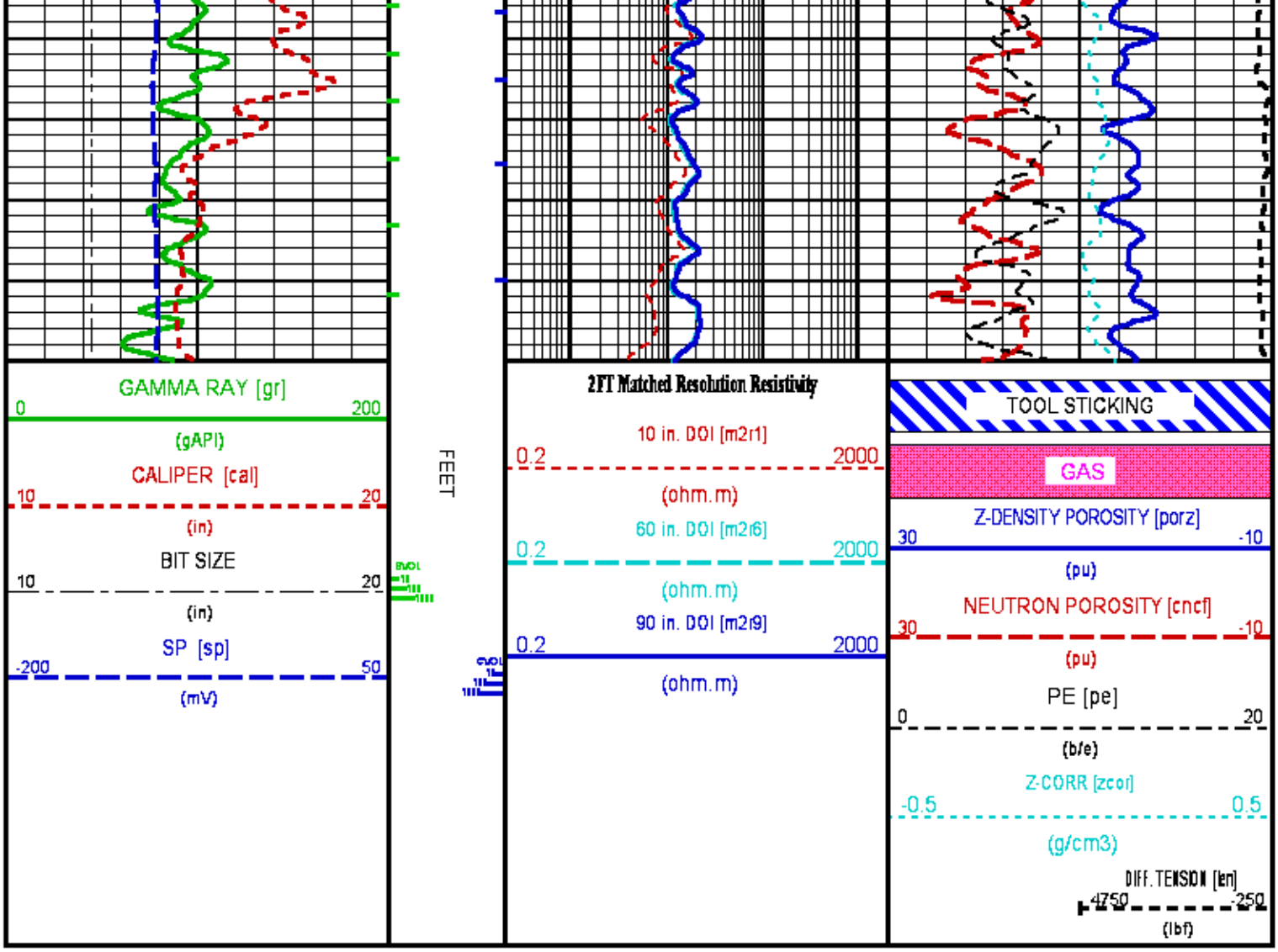
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	111.75	M2R9	8.00	SP	14.00
CAL	90.00	M2R1	8.00	PE	89.25	TEN	0.00
CNCF	100.25	M2R6	8.00	PORZ	89.25	ZCOR	89.25

Presentation : **HL6670:/dat1a/625272/WPX_REPEAT.fvpdf [5"/100' Scale]**
Plot Interval : **2900 - 3150 Feet**

Data File 1 : **F1 : HL6670:/dat1a/625272/n777v04-REPEAT2.xtf**
Created On : **Dec 8 16:26:05 2013**
Company : **WPX ENERGY INC**
Well : **PUCKETT GM 701-28-HN1**
Field : **RULISON**
File Interval : **2728.25 - 3268.25 Feet**
OCT : **n777v**




(g/cm3)
DIFF. TENSION [ln]
4750
-250
(lbf)
2900
3000
3100



CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/625272/n777v1.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Dec 2 07:30:46 2013

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	338.13	1194.16	856.0 (850.0 – 960.0)	0.175	59.25	209.25	150

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Mon Dec 2 07:50:33 2013

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

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	340.51	1190.40	0.175	59.67	208.59	148.93 (140.00 – 160.00)

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 1D196895 DATE/TIME PERFORMED: Sun Dec 8 07:56:08 2013 DAYS SINCE CAL: 6

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

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	218.38	1113.73	0.175	38.27	195.16	156.89 (138.53 – 158.53)

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 1D196895 DATE/TIME PERFORMED: Sun Dec 8 17:16:34 2013 DAYS SINCE CAL: 6

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

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	177.51	1037.87	0.175	31.11	181.86	150.76 (146.89 – 166.89)

SL PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 1D196895 DATE/TIME PERFORMED: Mon Dec 2 07:46:44 2013

UNIT #: 388DTA HL667D CALIBRATOR ID: 4702NA VBA-905

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	332.40	1182.29	0.176	58.66	208.66	150

	Std Rate (cts/s)	Meas Rate (cts/s)	Tool Norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	526.6	1.052 (0.900 – 1.100)			
K				0.01602	0.01685	8.900
U				0.03851	0.04051	21.300
TH				0.10135	0.10662	56.100

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	71.875	0.415	0.398	0.999 (0.980 – 1.020)	3036	8.79

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.14 (22.80 – 28.80)	44.41 (40.20 – 48.20)	81.45 (76.00 – 86.00)	127.56 (121.40 – 133.40)	158.35 (152.00 – 166.00)
Fit Pk	25.71	44.19	80.91	127.27	158.83

SL PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 1D196895 DATE/TIME PERFORMED: Mon Dec 2 07:57:49 2013

UNIT #: 388DTA HL667D CALIBRATOR ID: 4702NA VBA-905

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	335.25	1178.05	0.176	59.04	207.53	148 (135 – 165)

	Std rate	Meas rate	Tool norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	510.6	1.052			

K	0.01602	0.01685	8.605	8.010 9.790
U	0.03851	0.04051	20.685	19.170 23.430
TH	0.01602	0.10662	54.437	50.490 61.710

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	71.503	0.907	0.610	0.998 (0.980 1.020)	3036	8.84

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.49 (22.80 28.80)	44.46 (40.20 48.20)	81.92 (76.00 86.00)	127.27 (121.40 133.40)	157.99 (152.00 166.00)
Fit Pk	26.08	44.45	80.99	127.11	158.50

SL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 10196895 DATE/TIME PERFORMED: Sun Dec 8 07:58:14 2013 DAYS SINCE CAL: 6

UNIT #: 3880TA HL6670 CALIBRATOR ID: 4702NA VBA-905

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	211.45	1048.43	0.176	37.26	184.80	148 (135 165)

	Std rate	Meas rate	Tool norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	535.9	1.052			
K				0.01602	0.01685	9.032 (8.010 9.790)
U				0.03851	0.04051	21.712 (19.170 23.430)
TH				0.01602	0.10662	57.142 (50.490 61.710)

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	72.437	0.744	0.625	1.010 (0.980 1.020)	3036	7.94

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.70 (22.80 28.80)	44.89 (40.20 48.20)	82.53 (76.00 86.00)	129.15 (121.40 133.40)	159.69 (152.00 166.00)
Fit Pk	26.24	44.86	81.87	128.59	160.39

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2446XA 10202048 DATE/TIME PERFORMED: Fri Nov 8 16:40:47 2013

UNIT #: 3880TA HL6670 CALIBRATOR #: 2437XB 112674 SOURCE #: 4717XS VBA-0897

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	NOMINAL SSN/LSN	CORRECTION FACTOR	POROSITY (pu)
LSN	565.85	573.64				
SSN	1496.03	1542.17				
RATIO			2.68841	2.75100	1.02328 (0.970000 1.070000)	
CN						21.358

CN PRIMARY VERIFICATION SUMMARY

TOOL #: 2446XA 10202048 DATE/TIME PERFORMED: Fri Nov 8 16:47:59 2013

UNIT #: 388DTA HL6670 ICE BLOCK #: 4717ND D-0147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1514.30	1571.45				
SSN	3613.28	3894.81				
RATIO			2.47848	1.02328	2.53767	
CN						18.370

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2446XA 10202048 DATE/TIME PERFORMED: Sun Dec 8 07:47:29 2013 DAYS SINCE CAL: 29

UNIT #: 388DTA HL6670 ICE BLOCK #: 4717ND D-0147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1452.20	1504.67				
SSN	3583.17	3859.86				
RATIO			2.56525	1.02328	2.62663	
CN						19.602 (16.370 – 20.370)

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2446XA 10202048 DATE/TIME PERFORMED: Sun Dec 8 17:25:46 2013 DAYS SINCE CAL: 30

UNIT #: 388DTA HL6670 ICE BLOCK #: 4717ND D-0147

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	CORRECTION FACTOR	DTC CORR SSN/LSN	POROSITY (pu)
LSN	1470.02	1523.81				
SSN	3580.19	3856.41				
RATIO			2.53076	1.02328	2.59094	
CN						19.102 (17.602 – 21.602)

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Sun Nov 17 16:44:50 2013

UNIT #: 388DTA HL6670

	SMALL RING	LARGE RING	MULT	ADD	SMALL RING (in)	LARGE RING (in)
CALIPER	1433.2	1952.4	0.00770	-4.04160	7.000	11.000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Sun Dec 8 10:04:19 2013 DAYS SINCE CAL: 20

UNIT #: 388DTA HL6670

	I.D.	MULT	ADD	I.D. (in)
CALIPER	2117.6	0.00770	-3.59933	12.715

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Sun Dec 8 16:47:54 2013 DAYS SINCE CAL: 21

UNIT #: 3880TA HL6670

	I.D.	MULT	ADD	I.D. (in)
CALIPER	2138.0	0.00770	-3.59933	12.872 (12.215 – 13.215)

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2234XA 153015 DATE/TIME PERFORMED: Sun Nov 17 16:39:02 2013

UNIT: 3880TA HL6670 CALB BLKS: 2225XA 094292 CS SRC: 4703NT 34631B

SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)
225.3 (220.0 – 230.0)	226.5 (220.0 – 230.0)	1214.1	1568.0

	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	22500.0	11695.1	0.597 (0.565 – 0.665)	1.697	0.002	2.300
AL	13214.8	1179.5		2.717	-0.004	
AL + SHIM	18175.9	2051.2		2.629	0.157	
MG + SHIM (HI PE)	10810.6	5472.8	0.239 (0.210 – 0.270)			8.730
RATIO AL + SHIM/AL	1.38 (1.32 – 1.42)	1.74 (1.64 – 1.84)				
RATIO MG/AL	1.70 (1.65 – 1.78)	9.92 (9.40 – 10.20)				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Sun Dec 8 09:47:04 2013 DAYS SINCE CAL: 20

UNIT #: 3880TA HL6670

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1558.1 (1468.0 – 1668.0)	226.3 (220.0 – 230.0)	1156.0 (1100.0 – 1550.0)
SS	1217.7 (1114.1 – 1314.1)	227.6 (220.0 – 230.0)	1269.6 (1100.0 – 1550.0)

LV (V)	PAD CURRENT (mA)
5.0 (4.8 – 5.2)	75.5 (50.0 – 120.0)

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Sun Dec 8 17:16:31 2013 DAYS SINCE CAL: 21

UNIT #: 3880TA HL6670

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1548.6 (1468.0 – 1668.0)	225.3 (220.0 – 230.0)	1159.9 (1100.0 – 1550.0)
SS	1204.0 (1114.1 – 1314.1)	222.5 (220.0 – 230.0)	1260.3 (1100.0 – 1550.0)

LV (V)	PAD CURRENT (mA)
5.0 (4.8 – 5.2)	66.3 (50.0 – 120.0)

XMACE_OR PRIMARY CALIBRATION SUMMARY

TOOL #: 1678MC 10084081 DATE/TIME PERFORMED: Mon Dec 2 10:58:46 2013

UNIT #: 3880TA HL6670 ORIENTATION #: 4401XB 186393

	DEV (deg)	QA (mG)	MEAS RB (deg)	RB OFFSET (deg)	ROTATED RB (deg)
ORIT TBM CHECK	90.0	1001.3 (950.0 – 1010.0)	358.6 (357.5 – 2.5)		
XMAC-F1 ORIENT			342.1	342.1	0.0

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Mon Nov 11 11:40:28 2013

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	-0.012 (-0.200 – 0.200)	-0.004 (-0.100 – 0.100)	-0.003 (-0.100 – 0.100)	-0.004 (-0.100 – 0.100)	-0.006 (-0.100 – 0.100)	-0.002 (-0.100 – 0.100)	-0.003 (-0.100 – 0.100)	-0.007 (-0.100 – 0.100)
Coil 0 Q	0.007 (-1.000 – 1.000)	0.010 (-0.200 – 0.200)	0.001 (-0.100 – 0.100)	0.000 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	-0.000 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)
Coil 1 R	0.002 (-0.200 – 0.200)	0.001 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	0.004 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	-0.000 (-0.100 – 0.100)	-0.003 (-0.100 – 0.100)	-0.005 (-0.100 – 0.100)
Coil 1 Q	-0.006 (-1.000 – 1.000)	-0.004 (-0.200 – 0.200)	-0.004 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)
Coil 2 R	-0.003 (-0.200 – 0.200)	0.004 (-0.100 – 0.100)	0.004 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.007 (-0.100 – 0.100)	0.006 (-0.100 – 0.100)	0.009 (-0.100 – 0.100)
Coil 2 Q	0.001 (-1.000 – 1.000)	-0.000 (-0.200 – 0.200)	0.002 (-0.100 – 0.100)	-0.001 (-0.100 – 0.100)	-0.004 (-0.100 – 0.100)	-0.003 (-0.100 – 0.100)	-0.006 (-0.100 – 0.100)	-0.005 (-0.100 – 0.100)
Coil 3 R	0.007 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	0.005 (-0.100 – 0.100)	0.005 (-0.100 – 0.100)	0.003 (-0.100 – 0.100)	0.000 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)
Coil 3 Q	-0.011 (-0.500 – 0.500)	-0.010 (-0.200 – 0.200)	-0.001 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	-0.000 (-0.100 – 0.100)	0.001 (-0.100 – 0.100)	0.002 (-0.100 – 0.100)	-0.002 (-0.100 – 0.100)
Coil 4 R	-0.022 (-0.200 – 0.200)	-0.004 (-0.200 – 0.200)	-0.004 (-0.200 – 0.200)	-0.004 (-0.200 – 0.200)	-0.002 (-0.200 – 0.200)	0.004 (-0.200 – 0.200)	-0.002 (-0.200 – 0.200)	0.001 (-0.200 – 0.200)
Coil 4 Q	-0.005 (-1.000 – 1.000)	0.002 (-0.400 – 0.400)	-0.007 (-0.200 – 0.200)	-0.001 (-0.200 – 0.200)	-0.005 (-0.200 – 0.200)	-0.007 (-0.200 – 0.200)	-0.005 (-0.200 – 0.200)	0.001 (-0.200 – 0.200)
Coil 5 R	-0.005 (-0.400 – 0.400)	0.009 (-0.400 – 0.400)	0.001 (-0.400 – 0.400)	0.011 (-0.400 – 0.400)	0.013 (-0.400 – 0.400)	-0.001 (-0.400 – 0.400)	-0.005 (-0.400 – 0.400)	0.001 (-0.400 – 0.400)
Coil 5 Q	-0.010 (-2.000 – 2.000)	0.005 (-0.800 – 0.800)	-0.000 (-0.400 – 0.400)	0.002 (-0.400 – 0.400)	0.006 (-0.400 – 0.400)	0.005 (-0.400 – 0.400)	0.001 (-0.400 – 0.400)	-0.001 (-0.400 – 0.400)
Coil 6 R	-0.007 (-1.000 – 1.000)	-0.011 (-1.000 – 1.000)	-0.021 (-1.000 – 1.000)	-0.003 (-1.000 – 1.000)	-0.014 (-1.000 – 1.000)	-0.001 (-1.000 – 1.000)	0.021 (-1.000 – 1.000)	0.030 (-1.000 – 1.000)
Coil 6 Q	-0.022 (-5.000 – 5.000)	0.004 (-2.000 – 2.000)	-0.005 (-1.000 – 1.000)	-0.012 (-1.000 – 1.000)	-0.023 (-1.000 – 1.000)	-0.009 (-1.000 – 1.000)	-0.013 (-1.000 – 1.000)	-0.010 (-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	126.04 (100.00 – 150.00)	124.54 (100.00 – 150.00)	121.62 (98.00 – 150.00)	117.37 (96.00 – 140.00)	112.01 (92.00 – 140.00)	105.55 (87.00 – 130.00)	98.09 (82.00 – 120.00)	89.90 (76.00 – 110.00)
Coil 0 P	7.573 (6.000 – 9.000)	23.863 (19.000 – 28.000)	39.853 (32.000 – 47.000)	55.822 (44.000 – 66.000)	71.653 (57.000 – 85.000)	87.574 (70.000 – 100.000)	103.376 (82.000 – 120.000)	119.216 (95.000 – 140.000)
Coil 1 M	218.49 (180.00 – 270.00)	215.91 (180.00 – 270.00)	210.86 (170.00 – 260.00)	203.52 (170.00 – 250.00)	194.26 (160.00 – 250.00)	183.03 (160.00 – 230.00)	170.24 (150.00 – 220.00)	155.89 (140.00 – 200.00)
Coil 1 P	7.669 (6.000 – 9.000)	24.164 (19.000 – 28.000)	40.386 (32.000 – 48.000)	56.579 (45.000 – 67.000)	72.632 (57.000 – 86.000)	88.774 (70.000 – 110.000)	104.792 (83.000 – 120.000)	120.926 (96.000 – 140.000)
Coil 2 M	439.52 (360.00 – 540.00)	434.44 (360.00 – 540.00)	424.57 (350.00 – 530.00)	410.21 (340.00 – 510.00)	392.00 (330.00 – 500.00)	369.59 (310.00 – 470.00)	343.91 (300.00 – 440.00)	315.17 (270.00 – 410.00)
Coil 2 P	7.850 (6.000 – 9.000)	24.673 (19.000 – 29.000)	41.262 (32.000 – 48.000)	57.793 (45.000 – 67.000)	74.240 (58.000 – 87.000)	90.797 (71.000 – 110.000)	107.201 (84.000 – 130.000)	123.755 (96.000 – 140.000)
Coil 3 M	711.05 (580.00 – 880.00)	702.16 (580.00 – 870.00)	684.85 (570.00 – 850.00)	659.55 (550.00 – 830.00)	627.52 (530.00 – 800.00)	590.10 (500.00 – 760.00)	547.27 (470.00 – 710.00)	501.57 (440.00 – 650.00)
Coil 3 P	7.707 (6.000 – 10.000)	24.303 (20.000 – 29.000)	40.587 (33.000 – 49.000)	56.789 (46.000 – 69.000)	72.777 (59.000 – 89.000)	88.818 (72.000 – 110.000)	104.559 (85.000 – 130.000)	120.317 (98.000 – 150.000)
Coil 4 M	1138.1 (900.0 – 1400.0)	1121.5 (900.0 – 1300.0)	1089.4 (900.0 – 1300.0)	1043.9 (850.0 – 1300.0)	987.8 (800.0 – 1200.0)	923.5 (800.0 – 1200.0)	853.4 (750.0 – 1100.0)	779.7 (700.0 – 1000.0)
Coil 4 P	7.949 (6.000 – 10.000)	25.031 (20.000 – 30.000)	41.689 (33.000 – 50.000)	58.197 (46.000 – 70.000)	74.359 (60.000 – 90.000)	90.442 (73.000 – 110.000)	106.127 (86.000 – 130.000)	121.790 (99.000 – 150.000)
Coil 5 M	2365.0	2334.7	2275.5	2190.3	2082.5	1954.7	1811.2	1656.9

Coil 5 P	8.213	25.805	43.088	60.283	77.270	94.262	110.977	127.702
	6.000 10.000	20.000 31.000	34.000 51.000	48.000 72.000	62.000 93.000	76.000 110.000	88.000 130.000	100.000 150.000
Coil 6 M	6035.4	5956.8	5804.9	5585.1	5307.7	4980.1	4606.5	4204.9
	4700.0 7100.0	4700.0 7000.0	4600.0 6900.0	4400.0 6600.0	4200.0 6400.0	4000.0 6000.0	3700.0 5600.0	3400.0 5100.0
Coil 6 P	8.132	25.834	43.166	60.420	77.476	94.545	111.336	128.179
	7.000 10.000	22.000 32.000	36.000 54.000	51.000 76.000	65.000 98.000	80.000 120.000	94.000 140.000	110.000 160.000

AM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	481	-85	-142	-154	-155	-154	-152	-151
	-200 800	-500 200	-600 100	-600 50	-500 20	-500 20	-500 20	-500 20
Coil 0 Q	2197	791	451	294	202	140	93	57
	-3000 8000	-1000 2000	-1000 1200	-500 900	-400 700	-400 600	-400 500	-400 400
Coil 1 R	569	87	23	0	-10	-17	-21	-25
	450 650	20 130	-30 60	-50 40	-55 30	-60 20	-60 10	-60 10
Coil 1 Q	1305	529	344	263	217	191	172	163
	0 2500	0 900	0 600	0 450	0 350	0 300	0 250	0 250
Coil 2 R	188.7	27.6	6.6	0.1	-3.6	-6.5	-8.9	-8.7
	140.0 230.0	0.0 51.0	-10.0 25.0	-15.0 15.0	-16.0 10.0	-16.0 7.0	-16.0 5.0	-16.0 3.0
Coil 2 Q	445.3	184.8	126.5	103.9	93.6	90.2	86.0	86.6
	-3000.0 10000.0	0.0 350.0	0.0 220.0	0.0 160.0	0.0 130.0	0.0 110.0	0.0 100.0	0.0 90.0
Coil 3 R	49.1	7.0	1.8	0.2	-0.4	-1.1	-2.0	-2.9
	37.0 62.0	0.0 12.0	-3.0 6.0	-4.0 4.0	-5.0 2.0	-5.0 1.0	-5.0 1.0	-5.0 1.0
Coil 3 Q	80.1	37.5	28.9	26.7	26.9	28.4	30.1	31.1
	-140.0 280.0	-40.0 100.0	-20.0 70.0	-10.0 60.0	-10.0 50.0	-10.0 50.0	-10.0 50.0	-10.0 50.0
Coil 4 R	10.71	0.77	-0.41	-0.90	-1.07	-1.17	-1.52	-1.65
	2.00 18.00	-3.00 6.00	-3.50 3.00	-3.50 2.00	-4.20 2.00	-4.50 2.00	-4.70 2.00	-5.00 2.00
Coil 4 Q	20.45	11.86	11.47	12.69	14.34	16.53	18.79	21.10
	-100.00 100.00	-30.00 50.00	-20.00 40.00	-10.00 40.00	-10.00 40.00	-10.00 45.00	-10.00 50.00	-10.00 60.00
Coil 5 R	1.87	-0.37	-0.46	-0.62	-0.76	-0.76	-0.49	-0.85
	-2.00 5.80	-3.20 2.40	-4.50 3.10	-4.70 3.20	-4.80 3.20	-5.00 3.30	-5.20 3.40	-5.40 3.50
Coil 5 Q	16.13	8.50	8.78	10.34	12.13	14.20	15.87	18.31
	-60.00 70.00	-20.00 30.00	-20.00 30.00	-20.00 35.00	-20.00 45.00	-20.00 50.00	-20.00 60.00	-30.00 70.00
Coil 6 R	-3.08	-0.78	-0.41	-0.40	-0.43	-0.50	-0.50	-0.52
	-4.80 1.00	-5.70 3.80	-6.50 4.90	-6.50 5.40	-7.30 5.80	-7.50 6.00	-7.70 6.10	-7.90 6.30
Coil 6 Q	1.88	2.71	5.03	7.37	9.68	11.93	14.12	16.44
	-30.00 30.00	-20.00 25.00	-20.00 35.00	-30.00 50.00	-35.00 60.00	-40.00 70.00	-50.00 80.00	-60.00 100.00

MM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	0.998	0.996	0.991	0.989	0.987	0.984	0.982	0.981
	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 0 P	0.115	0.219	0.274	0.211	0.145	0.073	0.024	-0.054
	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000
Coil 1 M	0.983	0.981	0.976	0.974	0.972	0.969	0.967	0.965
	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 1 P	0.116	0.255	0.324	0.333	0.305	0.246	0.213	0.149
	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000
Coil 2 M	1.007	1.005	1.004	1.002	1.002	1.000	0.999	0.996
	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 2 P	0.075	0.008	0.008	-0.015	-0.026	-0.057	-0.103	-0.104
	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000
Coil 3 M	1.004	1.003	1.003	1.001	0.999	0.998	0.998	1.000
	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 3 P	0.012	0.070	0.135	0.150	0.125	0.097	0.018	0.029
	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000
Coil 4 M	1.012	1.011	1.011	1.010	1.010	1.009	1.009	1.008
	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 4 P	0.055	0.105	0.119	0.189	0.192	0.212	0.159	0.151
	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000
Coil 5 M	1.022	1.021	1.021	1.020	1.019	1.020	1.017	1.017
	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	0.048	-0.004	0.059	0.072	0.053	0.005	-0.050	-0.055
	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000
Coil 6 M	1.017	1.019	1.018	1.017	1.017	1.022	1.022	1.021
	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 6 P	-0.016	0.088	0.037	0.124	0.022	-0.047	-0.082	-0.158
	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000	-2.000 2.000

PARMS	TCID 0	TCID 1	Cal Temp (degF)	T Factor
IDs	1.617	0.832	68.0	1.04

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Sun Dec 8 11:11:25 2013 DAYS SINCE CAL: 26

UNIT #: 3880TA HL6670

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-0.009	-0.004	-0.000	-0.004	-0.006	-0.004	-0.004	-0.006
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 0 Q	0.006	0.010	0.004	0.001	0.003	0.001	-0.000	0.000
	-1.000 1.000	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 1 R	0.006	0.003	0.002	0.004	0.001	-0.002	-0.005	-0.004
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 1 Q	-0.005	-0.003	-0.001	0.002	0.004	0.004	0.002	-0.000
	-1.000 1.000	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 2 R	-0.005	0.003	0.006	0.003	0.004	0.005	0.013	0.012
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 2 Q	-0.000	-0.002	0.001	-0.004	-0.006	-0.004	-0.003	-0.001
	-1.000 1.000	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 3 R	0.009	0.004	0.001	0.006	0.003	0.002	0.001	0.005
	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 3 Q	-0.009	-0.009	-0.001	0.000	-0.001	-0.001	0.001	0.000
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100
Coil 4 R	-0.018	-0.004	-0.004	-0.005	-0.009	-0.003	-0.006	0.001
	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200
Coil 4 Q	-0.003	0.003	-0.000	-0.001	-0.004	-0.006	-0.001	-0.004
	-1.000 1.000	-0.400 0.400	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200
Coil 5 R	0.008	0.007	0.009	-0.001	0.008	-0.004	0.010	0.003
	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400
Coil 5 Q	-0.008	-0.006	0.003	0.010	-0.002	0.001	-0.007	-0.002
	-2.000 2.000	-0.800 0.800	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400
Coil 6 R	-0.009	-0.008	-0.030	0.016	-0.017	-0.001	-0.000	0.039
	-1.000 1.000	-1.000 1.000	-1.000 1.000	-1.000 1.000	-1.000 1.000	-1.000 1.000	-1.000 1.000	-1.000 1.000
Coil 6 Q	-0.031	-0.001	0.002	-0.001	0.002	-0.009	-0.008	-0.004
	-5.000 5.000	-2.000 2.000	-1.000 1.000	-1.000 1.000	-1.000 1.000	-1.000 1.000	-1.000 1.000	-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	126.20	124.66	121.82	117.54	112.32	105.86	98.49	90.14
	100.00 150.00	100.00 150.00	98.00 150.00	96.00 140.00	92.00 140.00	87.00 130.00	82.00 120.00	76.00 110.00
Coil 0 P	7.610	24.047	40.159	56.267	72.212	88.342	104.262	120.464
	6.000 9.000	19.000 28.000	32.000 47.000	44.000 66.000	57.000 86.000	70.000 100.000	82.000 120.000	95.000 140.000
Coil 1 M	217.65	214.98	209.99	202.65	193.61	182.43	169.88	155.55
	180.00 270.00	180.00 270.00	170.00 260.00	170.00 250.00	160.00 250.00	160.00 230.00	150.00 230.00	140.00 200.00
Coil 1 P	7.727	24.401	40.771	57.110	73.289	89.645	105.817	122.273
	6.000 9.000	19.000 28.000	32.000 48.000	45.000 67.000	57.000 86.000	70.000 110.000	83.000 120.000	96.000 140.000
Coil 2 M	442.53	437.11	427.31	412.67	394.63	372.02	346.92	317.74
	360.00 540.00	360.00 540.00	350.00 530.00	340.00 510.00	330.00 500.00	310.00 470.00	300.00 440.00	270.00 410.00
Coil 2 P	7.914	24.924	41.652	58.349	74.912	91.662	108.212	125.128
	6.000 9.000	19.000 29.000	32.000 48.000	45.000 67.000	58.000 87.000	71.000 110.000	84.000 130.000	96.000 140.000
Coil 3 M	715.17	705.77	688.46	662.74	631.35	593.70	551.20	504.66
	550.00 880.00	550.00 870.00	570.00 850.00	550.00 830.00	530.00 800.00	500.00 760.00	470.00 710.00	440.00 660.00
Coil 3 P	7.797	24.579	41.013	57.381	73.520	89.785	105.697	121.805
	6.000 10.000	20.000 29.000	33.000 49.000	46.000 69.000	59.000 89.000	72.000 110.000	85.000 130.000	98.000 150.000
Coil 4 M	1148.4	1130.9	1098.6	1052.3	996.9	932.0	863.0	787.7
	900.0 1400.0	900.0 1300.0	900.0 1300.0	850.0 1300.0	800.0 1200.0	800.0 1200.0	750.0 1100.0	700.0 1000.0
Coil 4 P	8.030	25.303	42.112	58.777	75.081	91.367	107.233	123.230
	6.000 10.000	20.000 30.000	33.000 50.000	46.000 70.000	60.000 90.000	73.000 110.000	86.000 130.000	99.000 150.000
Coil 5 M	2384.0	2353.0	2294.9	2208.6	2102.5	1974.5	1831.7	1675.1
	1900.0 2800.0	1800.0 2800.0	1800.0 2700.0	1800.0 2600.0	1700.0 2500.0	1600.0 2400.0	1500.0 2200.0	1400.0 2100.0
Coil 5 P	8.262	26.028	43.457	60.826	77.943	95.168	112.060	129.160
	6.000 10.000	20.000 31.000	34.000 51.000	48.000 72.000	62.000 93.000	76.000 110.000	89.000 130.000	100.000 150.000
Coil 6 M	6034.8	5953.5	5803.1	5584.1	5312.5	4984.1	4619.8	4214.1
	4700.0 7100.0	4700.0 7000.0	4600.0 6900.0	4400.0 6600.0	4200.0 6400.0	4000.0 6000.0	3700.0 5600.0	3400.0 5100.0
Coil 6 P	8.194	26.084	43.570	60.990	78.188	95.453	112.452	129.587
	7.000 10.000	22.000 32.000	36.000 54.000	51.000 76.000	66.000 98.000	80.000 120.000	94.000 140.000	110.000 160.000

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Sun Dec 8 16:49:42 2013 DAYS SINCE CAL: 27

UNIT #: 3880TA HL6670

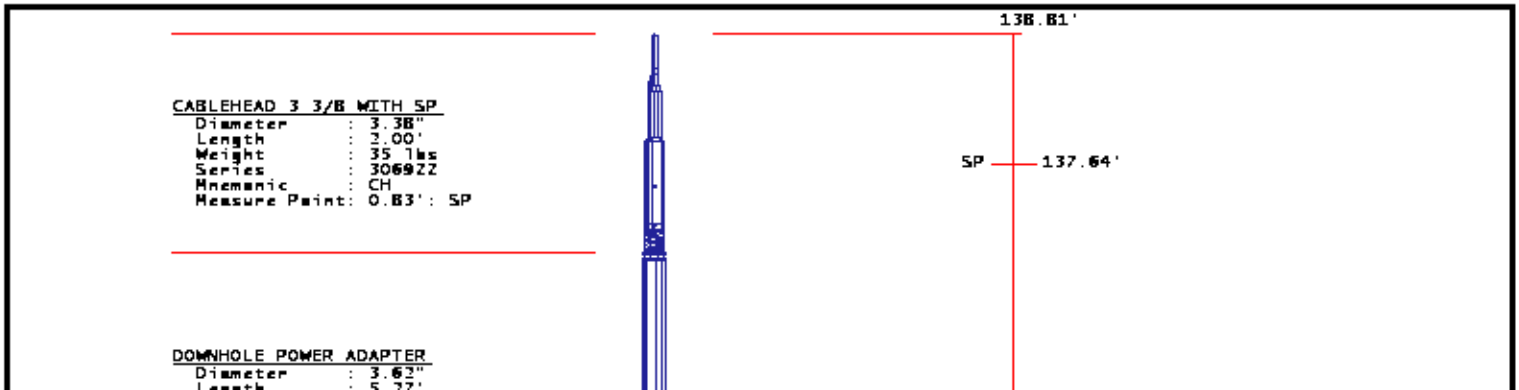
ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	-0.009	-0.003	-0.001	-0.004	-0.005	-0.003	-0.003	-0.005
	-0.089 0.071	-0.064 0.056	-0.090 0.090	-0.034 0.026	-0.036 0.024	-0.034 0.026	-0.034 0.026	-0.036 0.024
Coil 0 Q	0.006	0.009	0.003	0.001	0.002	0.000	-0.001	-0.001
	-0.034 0.046	-0.110 0.130	-0.026 0.034	-0.029 0.031	-0.027 0.033	-0.029 0.031	-0.030 0.030	-0.030 0.030
Coil 1 R	0.006	0.002	0.001	0.002	0.001	-0.002	-0.003	-0.004
	-0.074 0.086	-0.047 0.053	-0.028 0.032	-0.026 0.034	-0.029 0.031	-0.032 0.028	-0.026 0.025	-0.034 0.026
Coil 1 Q	-0.004	-0.003	-0.002	0.000	0.003	0.002	0.002	0.000

	-0.405 0.395	-0.103 0.097	-0.031 0.029	-0.028 0.032	-0.026 0.034	-0.026 0.034	-0.028 0.032	-0.030 0.030
Coil 2 R	-0.007 -0.075 0.065	-0.001 -0.027 0.033	0.003 -0.024 0.036	-0.000 -0.027 0.033	0.003 -0.026 0.034	0.004 -0.025 0.035	0.007 -0.017 0.043	0.011 -0.018 0.042
Coil 2 Q	0.002 -0.360 0.360	0.000 -0.102 0.098	0.002 -0.029 0.031	-0.003 -0.034 0.026	-0.008 -0.036 0.024	-0.004 -0.034 0.026	-0.003 -0.033 0.027	-0.002 -0.031 0.029
Coil 3 R	0.010 -0.031 0.049	0.003 -0.036 0.044	-0.002 -0.039 0.041	0.002 -0.034 0.046	0.004 -0.037 0.043	0.006 -0.038 0.042	0.002 -0.039 0.041	0.003 -0.036 0.045
Coil 3 Q	-0.008 -0.209 0.191	-0.008 -0.089 0.071	-0.004 -0.041 0.039	-0.003 -0.040 0.040	-0.004 -0.041 0.039	-0.003 -0.041 0.039	0.000 -0.039 0.041	0.001 -0.040 0.040
Coil 4 R	-0.011 -0.078 0.042	-0.003 -0.064 0.056	-0.008 -0.064 0.056	-0.004 -0.065 0.055	-0.006 -0.063 0.057	-0.004 -0.063 0.057	0.001 -0.065 0.054	0.001 -0.059 0.061
Coil 4 Q	-0.001 -0.303 0.297	0.006 -0.097 0.103	-0.001 -0.060 0.060	-0.001 -0.061 0.059	-0.007 -0.064 0.056	-0.001 -0.066 0.054	-0.004 -0.061 0.059	-0.006 -0.064 0.056
Coil 5 R	-0.002 -0.112 0.108	0.016 -0.113 0.127	-0.006 -0.111 0.129	-0.001 -0.121 0.119	-0.001 -0.112 0.128	-0.006 -0.124 0.116	-0.009 -0.110 0.130	-0.007 -0.117 0.123
Coil 5 Q	0.003 -0.608 0.592	0.005 -0.256 0.244	-0.001 -0.117 0.123	-0.004 -0.110 0.130	0.009 -0.122 0.118	0.007 -0.119 0.121	0.005 -0.127 0.113	-0.004 -0.122 0.118
Coil 6 R	0.010 -0.309 0.291	-0.002 -0.308 0.292	-0.021 -0.390 0.270	0.001 -0.284 0.316	-0.013 -0.317 0.283	-0.002 -0.301 0.299	0.020 -0.300 0.300	0.013 -0.261 0.309
Coil 6 Q	-0.021 -1.531 1.489	0.008 -0.601 0.585	-0.017 -0.298 0.302	-0.020 -0.301 0.299	-0.003 -0.298 0.302	0.021 -0.309 0.291	-0.012 -0.308 0.292	-0.024 -0.304 0.256

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	126.16 123.67 128.72	124.66 122.17 127.16	121.81 119.38 124.26	117.51 115.19 119.89	112.24 110.09 114.57	105.72 103.74 107.98	98.34 96.52 100.46	89.96 88.34 91.94
Coil 0 P	7.603 4.610 10.610	24.000 21.047 27.047	40.097 37.159 43.159	56.183 53.267 59.267	72.114 69.212 75.212	88.210 85.342 91.342	104.096 101.262 107.262	120.223 117.464 123.464
Coil 1 M	217.90 213.30 222.01	215.30 210.68 219.28	210.37 205.79 214.19	202.88 198.60 206.71	193.87 189.74 197.49	182.55 178.78 186.09	170.01 166.49 173.28	155.34 152.44 158.66
Coil 1 P	7.706 4.727 10.727	24.325 21.401 27.401	40.666 37.771 43.771	56.994 54.110 60.110	73.119 70.289 76.289	89.445 86.645 92.645	105.631 102.817 108.817	122.000 119.273 125.273
Coil 2 M	441.30 433.68 451.39	436.13 428.37 445.85	426.50 418.77 435.86	411.90 404.42 420.52	393.73 386.74 402.53	370.98 364.58 379.46	345.88 339.98 353.85	316.39 311.39 324.09
Coil 2 P	7.879 4.914 10.914	24.817 21.924 27.924	41.510 38.652 44.652	58.178 55.349 61.349	74.721 71.912 77.912	91.409 88.662 94.662	107.939 105.212 111.212	124.760 122.128 128.128
Coil 3 M	713.57 700.87 729.48	704.54 691.66 719.88	687.44 674.69 702.23	661.68 649.49 676.00	630.20 618.73 643.98	592.33 581.83 605.58	549.84 540.18 562.23	502.95 494.57 514.76
Coil 3 P	7.761 4.797 10.797	24.469 21.579 27.579	40.866 38.013 44.013	57.197 54.381 60.381	73.298 70.520 76.520	89.521 86.785 92.785	105.373 102.697 108.697	121.416 118.805 124.805
Coil 4 M	1144.7 1125.5 1171.4	1127.9 1108.3 1153.5	1096.1 1076.7 1120.6	1049.7 1031.2 1073.3	994.2 976.9 1016.8	929.0 913.4 950.7	859.6 845.8 880.3	783.6 771.9 803.4
Coil 4 P	7.994 5.030 11.030	25.192 22.303 28.303	41.959 39.112 45.112	58.599 55.777 61.777	74.860 72.081 78.081	91.119 88.367 94.367	106.934 104.233 110.233	122.853 120.230 126.230
Coil 5 M	2376.2 2336.4 2431.7	2345.7 2306.0 2400.1	2287.6 2249.0 2340.8	2200.9 2164.5 2252.8	2094.6 2060.4 2144.5	1965.9 1935.0 2014.0	1823.4 1795.1 1868.4	1665.6 1641.6 1708.6
Coil 5 P	8.240 5.262 11.262	25.935 23.038 29.038	43.306 40.457 46.457	60.620 57.826 63.826	77.685 74.943 80.943	94.835 92.168 98.168	111.676 109.080 115.080	128.644 126.160 132.160
Coil 6 M	6034.6 5914.1 6155.5	5956.2 5834.4 6072.6	5808.0 5687.0 5919.2	5587.1 5472.4 5695.8	5316.2 5206.3 5418.8	4987.1 4884.4 5083.7	4617.6 4527.4 4712.2	4210.3 4129.8 4298.4
Coil 6 P	8.154 5.194 11.194	25.940 23.084 29.084	43.351 40.570 46.570	60.715 57.950 63.950	77.837 75.188 81.188	95.051 92.453 98.453	111.976 109.452 115.452	129.053 126.587 132.587

INSTRUMENT CONFIGURATION

Source File: /dat1a/625272/n777vw-tdg



Weight : 86 lbs
Series : 4430XB
Mnemonic : DHPA

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

TEMP MP — 125.58'
RM MP — 125.33'

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

GR MP — 112.13'

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

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

LSN MP — 100.92'
SSN MP — 100.52'

Z-DENSILOG
- Diameter : 4.88"
- Length : 11.23'
- Weight : 360 lbs
- Series : 3234XA
- Mnemonic : ZDL
- Measure Point: 3.19': CAL MP
- Measure Point: 2.47': LSD MP
- Measure Point: 3.07': SSD MP

CAL MP — 90.26'

LSD MP — 89.54'

SSD MP — 89.14'

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

DIGITAL ORIENTATION
- Diameter : 3.38"
- Length : 10.81'
- Weight : 110 lbs
- Series : 4401XB
- Mnemonic : ORIT
- Measure Point: 0.00': ORIENT MP

ORIENT MP — 71.60'

4 ARM BOW SPRING CENTRALIZER
- Diameter : 3.38"
- Length : 4.12'
- Weight : 72 lbs
- Series : 4341XA
- Mnemonic : CENT

ARRAY ACOUSTILOG ELECTRONICS, B CHANNEL
- Diameter : 3.38"
- Length : 7.83'
- Weight : 103 lbs
- Series : 1677EA
- Mnemonic : XMAC

CROSS MULTIPOLE ARRAY ACOUSTILOG

Diameter : 3.75"
Length : 10.91'
Weight : 324 lbs
Series : 167BMC
Mnemonic : XMF1
Measure Point: 5.50': R8
Measure Point: 5.00': R7
Measure Point: 4.50': R6
Measure Point: 4.00': R5
Measure Point: 3.50': R4
Measure Point: 3.00': R3
Measure Point: 2.50': R2
Measure Point: 2.00': R1

R8 — 54.26'
R7 — 53.76'
R6 — 53.26'
R5 — 52.76'
R4 — 52.26'
R3 — 51.76'
R2 — 51.26'
R1 — 50.76'

SHEAR WAVE ACOUSTILOG
Diameter : 3.63"
Length : 5.00'
Weight : 135 lbs
Series : 167BPB
Mnemonic : XMAC

MONOPOLE T2 — 42.26'
QUADRUPOLE T5 — 42.26'

MULTI-POLE ARRAY ACOUSTIC
Diameter : 3.88"
Length : 7.92'
Weight : 170 lbs
Series : 167BBA
Mnemonic : XMAC
Measure Point: 6.42': QUADRUPOLE T5
Measure Point: 6.42': MONOPOLE T2
Measure Point: 4.67': Y-DIPOLE T4
Measure Point: 4.67': X-DIPOLE T3
Measure Point: 2.92': MONOPOLE T1

X-DIPOLE T3 — 40.51'
Y-DIPOLE T4 — 40.51'

MONOPOLE T1 — 38.76'

MULTI-POLE ARRAY ACOUSTIC
Diameter : 3.38"
Length : 4.33'
Weight : 58 lbs
Series : 167BFA
Mnemonic : MAC

4 ARM BOW SPRING CENTRALIZER
Diameter : 3.38"
Length : 4.13'
Weight : 72 lbs
Series : 4341XA
Mnemonic : CENT

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: 138.81'
TOTAL WEIGHT: 3583 lbs
MAX DIAMETER: 0'4.88"

BAKER HUGHES / ECLIPS	COMPANY: WPX ENERGY INC WELL: PUCKETT GM 701-28-HN1 FIELD: RULISON COUNTY: GARFIELD STATE: CO		FILE NO: US625272 API NO: 05045221540000
	LOCATION: SHL: 1314' FNL; 1035' FWL BHL: 535' FNL; 629' FWL SEC 28 TWP 6S RGE 96W	ELEVATIONS: KB 5629 FT DF GL 5604 FT	S28 T6S R96W PAD: GM 11-28 RIG: AZTEC 1000
		DATE 08-Dec-2013	