



FILE NO: US093330J	COMPANY WPX ENERGY INC
WELL FEDERAL RGU 333-23-198	
API NO: 05103121430000	FIELD SULPHUR CREEK
	COUNTY RIO BLANCO
	STATE COLORADO
Ver. 4.01 SEC 23 T1S R98W RGU 43-23-198 RIG: AZTEC 1000	LOCATION: SHL: 1050' FSL 635' FEL BHL: 2097' FSL 1908' FEL SEC 23 TWP 1S RGE 98W
	OTHER SERVICES NONE
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	ELEVATIONS: GL 6567 FT KB 6592 FT DF GL 6567 FT

DATE	22-Dec-2014	23-DEC-2014
RUN	TRIP 1	1 2
SERVICE ORDER	US093330J	US093330J
DEPTH DRILLER	12795 FT	12795 FT
DEPTH LOGGER	DID NOT REACH TD	12809 FT
BOTTOM LOGGED INTERVAL	11277 FT	12800 FT
TOP LOGGED INTERVAL	0 FT	0 FT
CASING DRILLER	9.625 IN @ 4035 FT	@
CASING LOGGER	4032 FT	
BIT SIZE	8.75/7.875	7.875 IN
TYPE OF FLUID IN HOLE	LSND	
DENSITY	9.6 LB/G	90 CP
PH	9.3	3.2 C3
SOURCE OF SAMPLE	FLOWLINE	
RM AT MEAS. TEMP.	.636 OHMM @ 64.4 DEGF	@
RMF AT MEAS. TEMP.	0.477 OHMM @ 64.4 DEGF	@
RMC AT MEAS. TEMP.	.795 OHMM @ 64.4 DEGF	@
SOURCE OF RMF	RMC CALCULATED	
RM AT BHT	0.356 OHMM @ 229 DEGF	.343 OHMM @ 255 DEGF
TIME SINCE CIRCULATION	6 HOURS	18 HOURS
MAX. RECORDED TEMP.	229 DEGF	255 DEGF
EQUIP. NO.	6685	GRAND JCT
RECORDED BY	W. QUIGLEY	
WITNESSED BY	MR. BRANDON HAIRE	

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.

BOREHOLE RECORD		
BIT SIZE	FROM	TO
8.75 IN	4032 FT	10517 FT
7.875 IN	10517 FT	12809 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	40 LB/F		0 FT	4032 FT

REMARKS

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

BVOL CVOL CALCULATED IN CUBIC FT
CVOL 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: HOLLAR/COATE/QUIGLEY
RIG: AZTEC 1000

TOOL GOT STUCK, MAX DEPTH 11300. EVENTUALLY WORKED FREE AND LOGGED UP

RUN 1 TRIP 2: 2ND ATTEMPT REACHED TD, NO STANDOFFS OR BOWSPRING.
DATA BELOW 10564 IS WITH SLICK TOOLSTRING
DATA REPEATED WELL WITH WHAT WAS ACQUIRED IN RUN 1 WITH BOWSPRING/STDOFFS

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3944XD	10125796	FREE
1	1	TTRM	3981XA	10516527	FREE
1	1	TELEMETRY	3514XA	10197691	FREE
1	1	GAMMA RAY	1329XA	10196895	DECENTRALIZED
1	1	NEUTRON	2446XA	10202048	DECENTRALIZED
1	1	DENSITY	2234XA	153015	DECENTRALIZED
1	1	ISO	4485XA	12448490	FREE
1	1	KNUCKLE	3939XA	10399278	FREE
1	1	HDIL EA	1515EA	10049592	FREE
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

Updates: 1 Patches: 5

Plotted: Tue Dec 23 09:17:48 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/93330J/n777m03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 13.439 ft BOTTOM DEPTH: 11275.414 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 ()	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
BIT SIZE	BIT SIZE	8.750	in	TOP	10524.250
		7.875	in	10524.250	BOTTOM
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	64.4	degF	TOP	BOTTOM
	MUD SAMPLE RES	0.636	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	64.4	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 USE FIXED SIZE		TOP 10581.962	10581.962 11190.624

BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	8.750	in	TOP	10566.500
		7.875	in	BOTTOM	10566.500
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		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
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F1:GR	Dec 23 02:53:55 2014	GAMMA RAY
F1:M0C6	Dec 23 02:53:55 2014	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:M0R2	Dec 23 02:53:55 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:M0R6	Dec 23 02:53:55 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Dec 23 02:53:55 2014	SPONTANEOUS POTENTIAL
F1:TEN	Dec 23 02:53:55 2014	DIFFERENTIAL TENSION

CURVE MEASURE POINT OFFSET

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

Presentation : cas6685:/dat1a/93330J/WPX_2IN.fvpdf [2"/100' Scale]
Plot Interval : -33.75 - 12828.2 Feet

Data File 1 : F1 : cas6685:/dat1a/93330J/n777mMAIN.xtf
Created On : Dec 23 06:49:52 2014
Company : WPX ENERGY INC
Well : FEDERAL RGU 333-23-198
Field : SULPHUR CREEK
File Interval : -33.75 - 12828.2 Feet
OCT : n777m

GR BACKUP

GAMMA RAY [gr]

0 200

SP [sp]

-200 50

FEET

TOOL STICKING

DEEP [m0r6]

0 100

DIFF. TENSION [ten]

4750 -250

SHALLOW [m0r2]

0 100 500

60 in. DOI [m0c6]

0

AMPLIFIED SHALLOW [m0r2]

0 20

OVERRANGE DEEP [m0r6]

100 1000

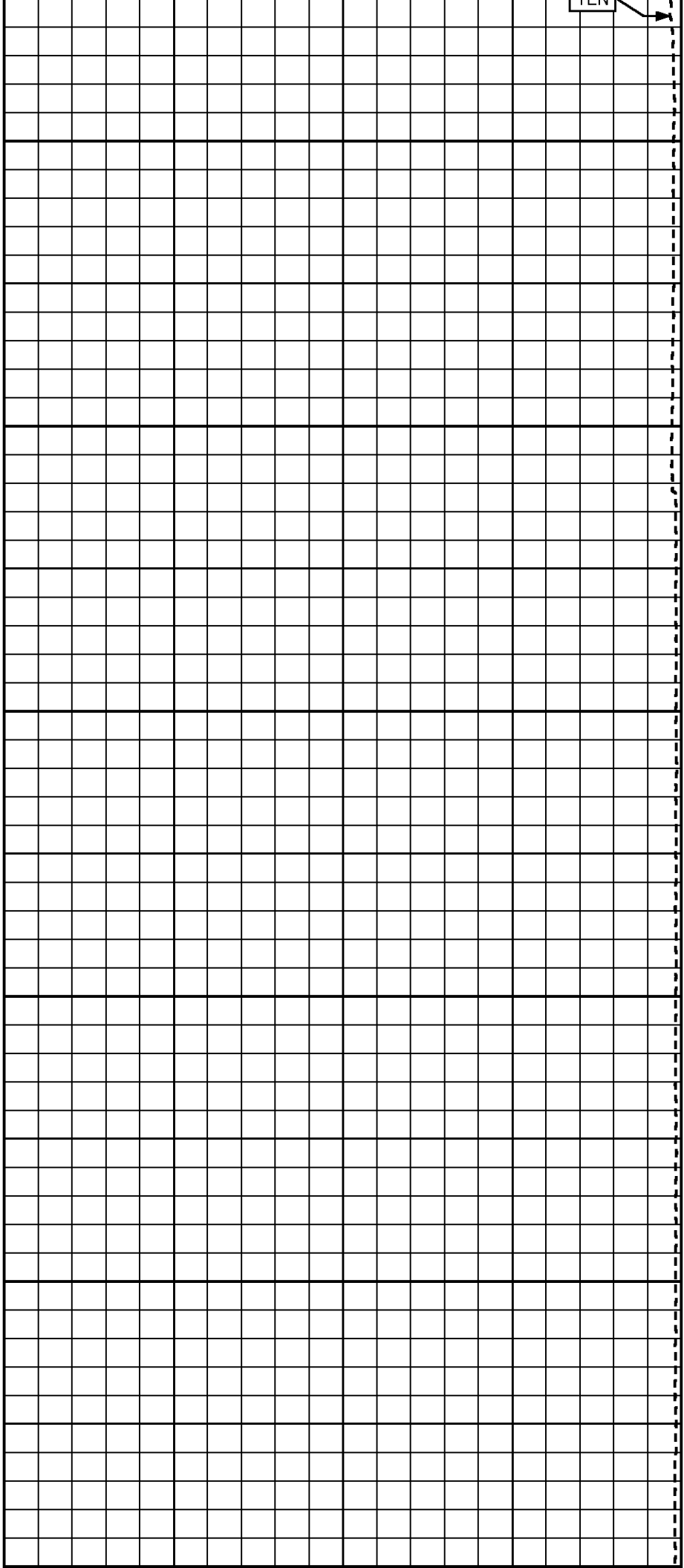
OVERRANGE SHALLOW [m0r2]

100 1000

0

TEN

TEN



100

200

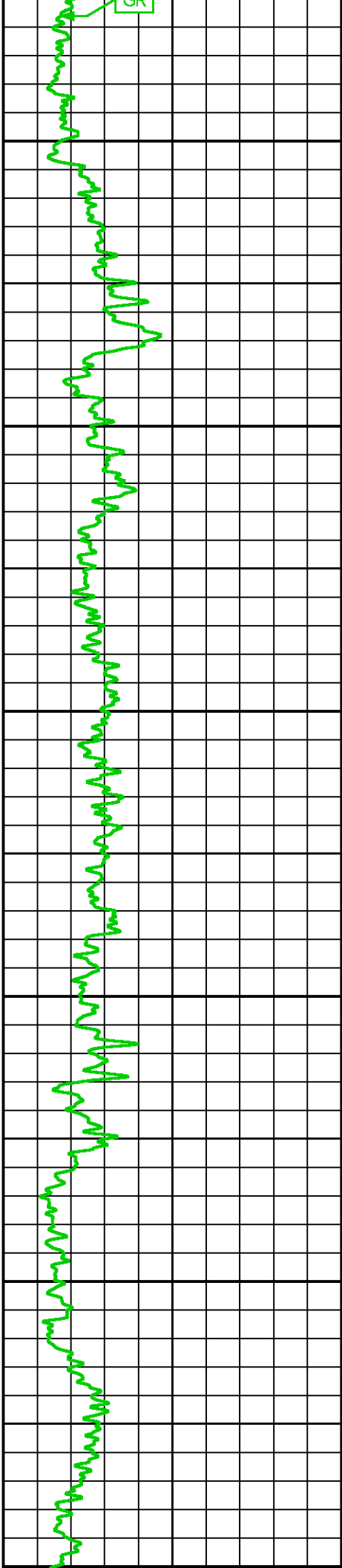
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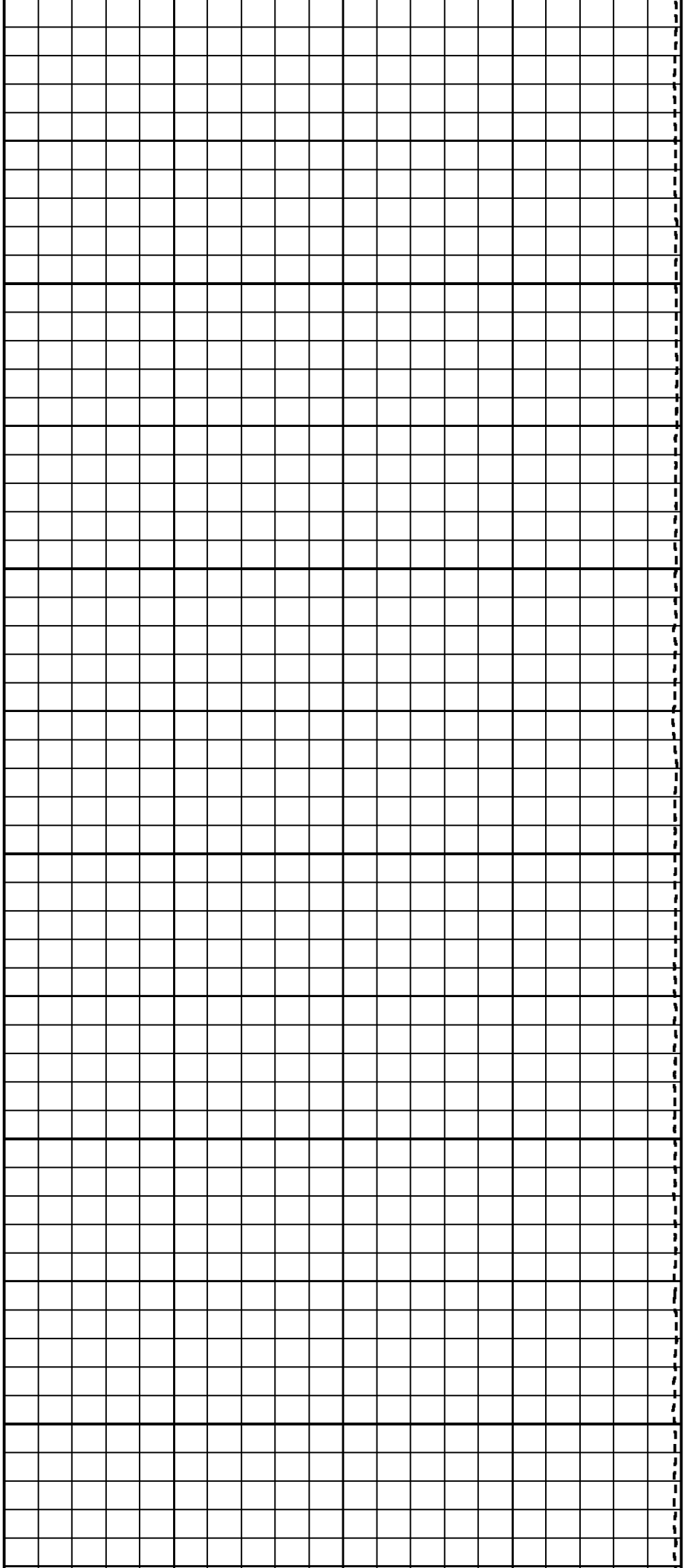
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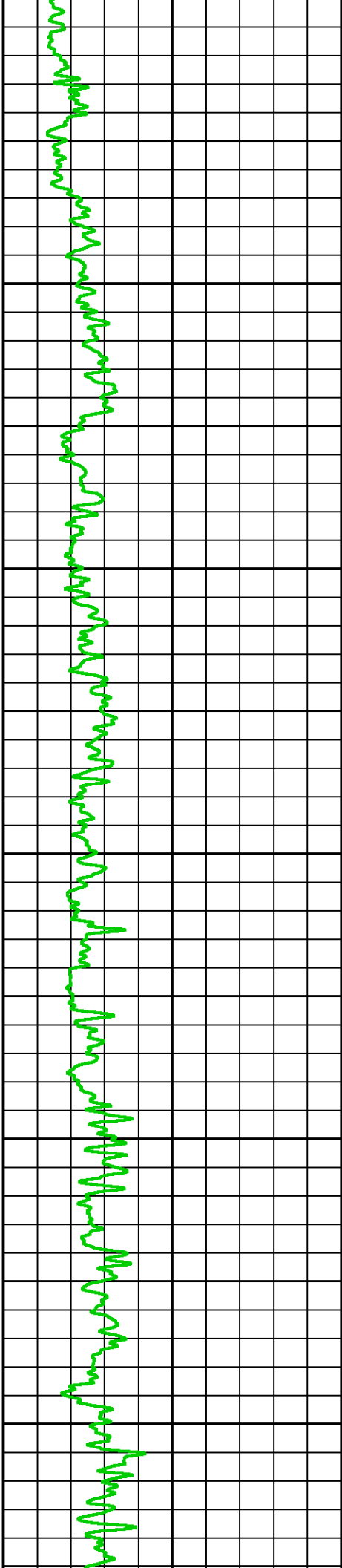
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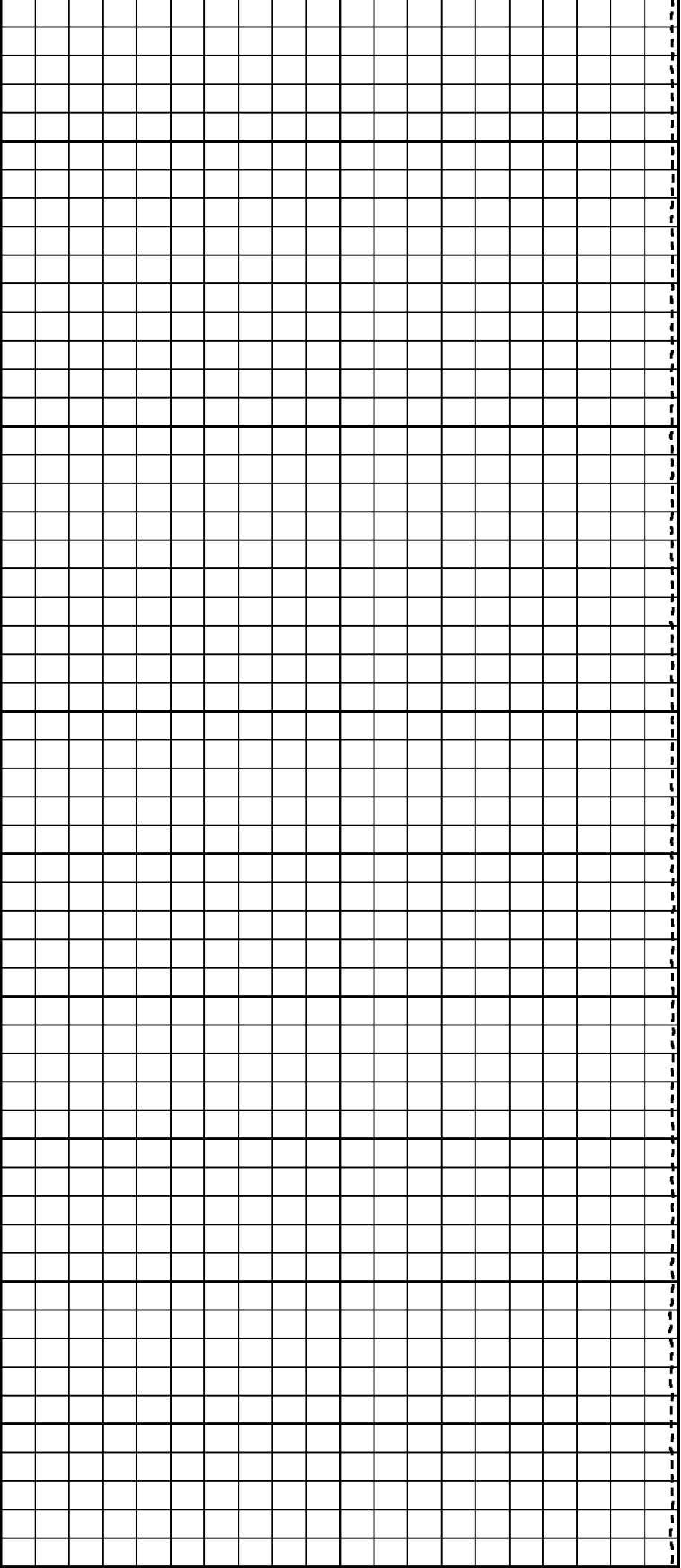
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1200

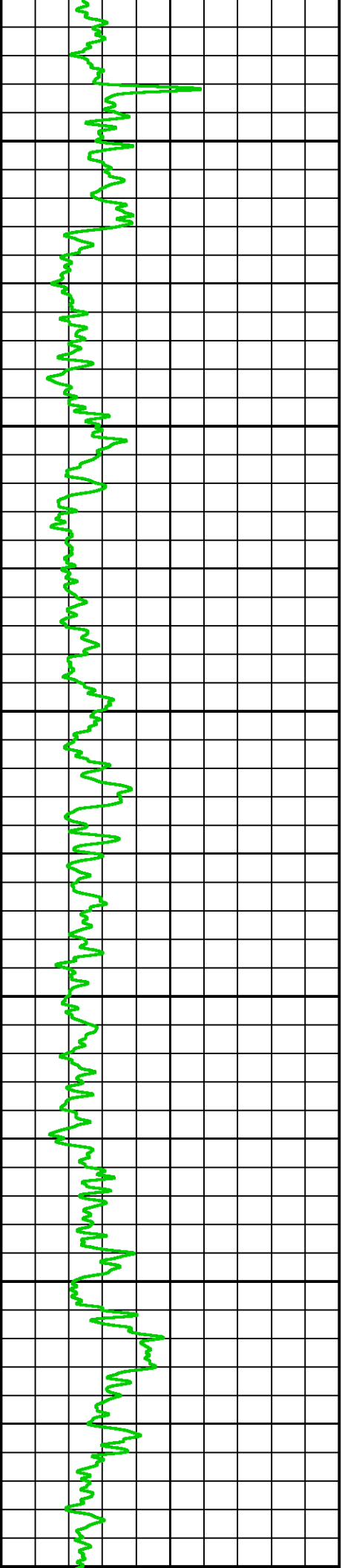
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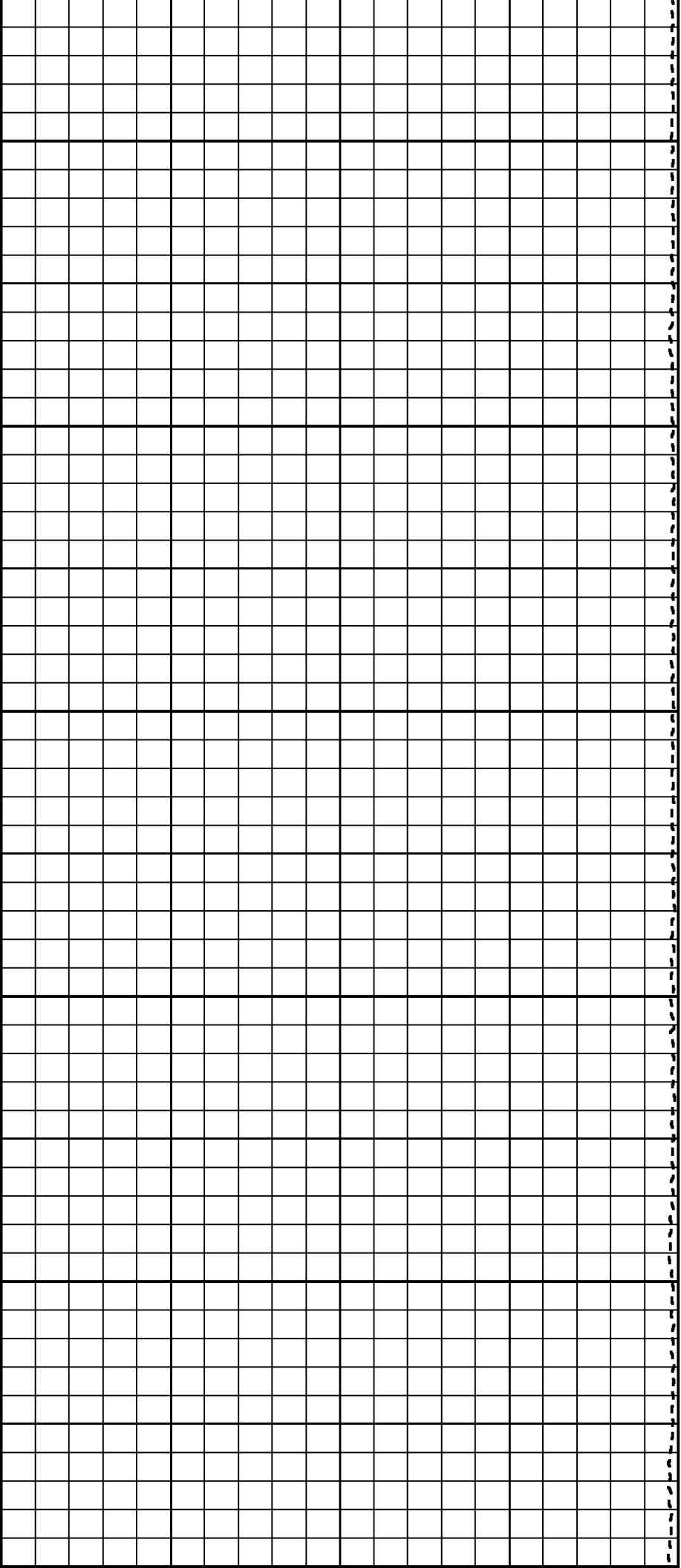
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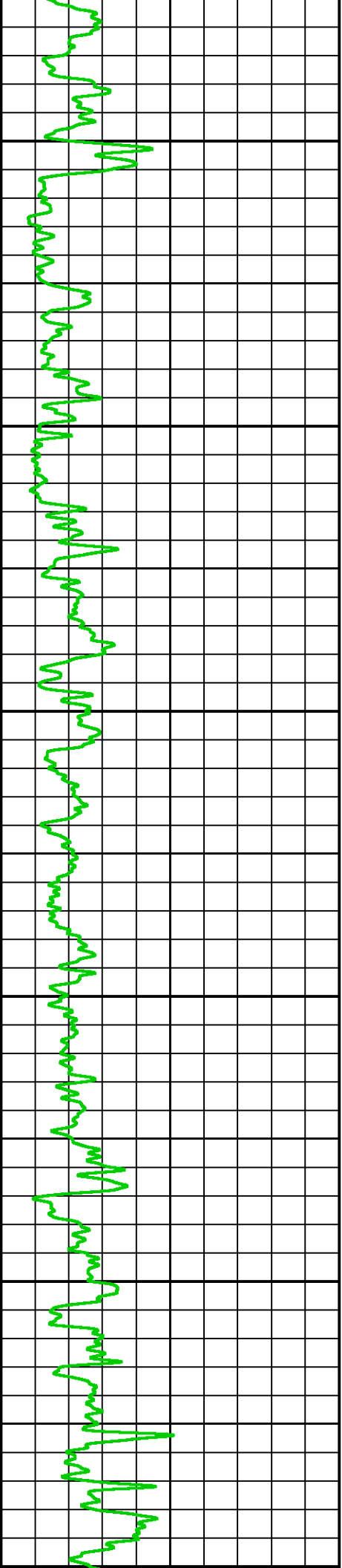
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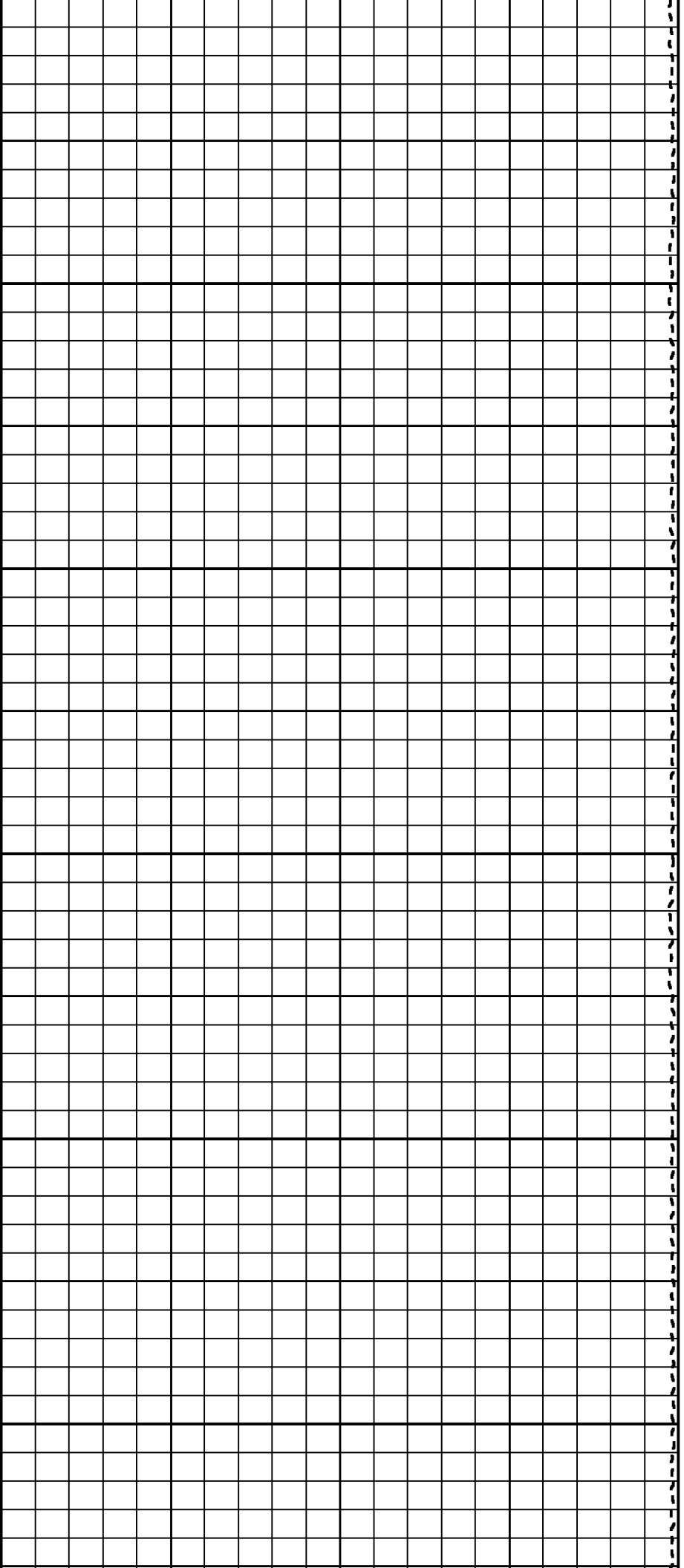
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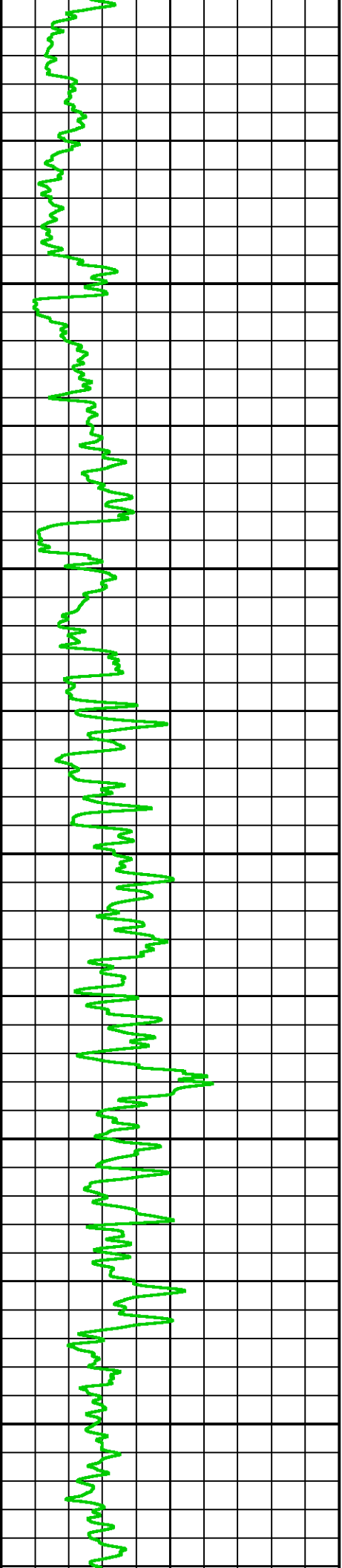
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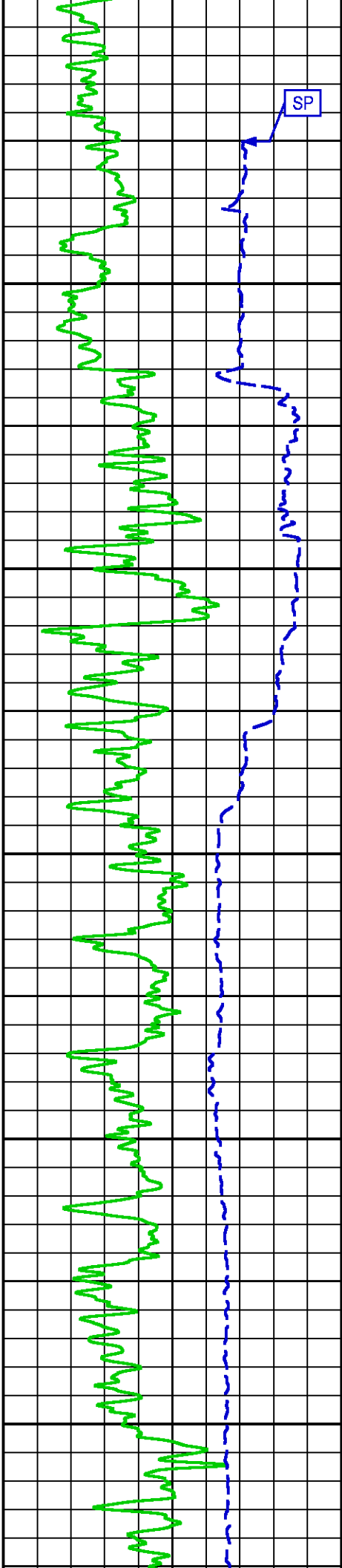
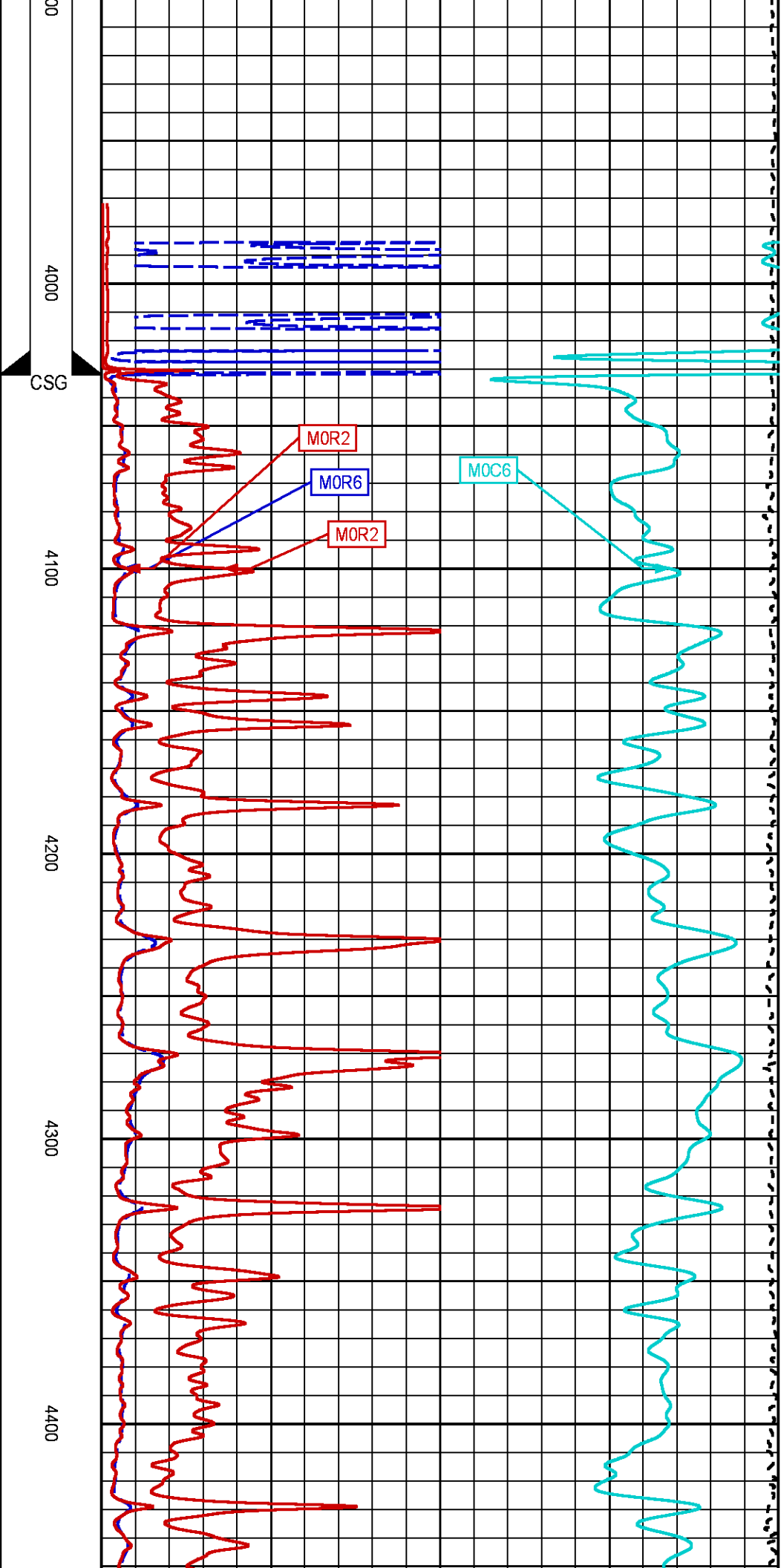
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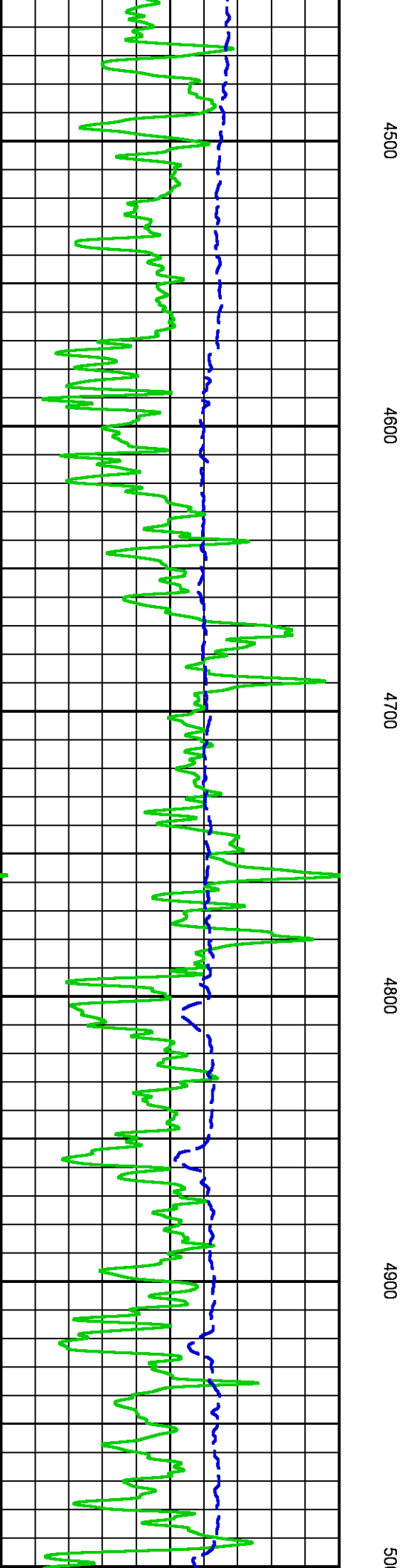
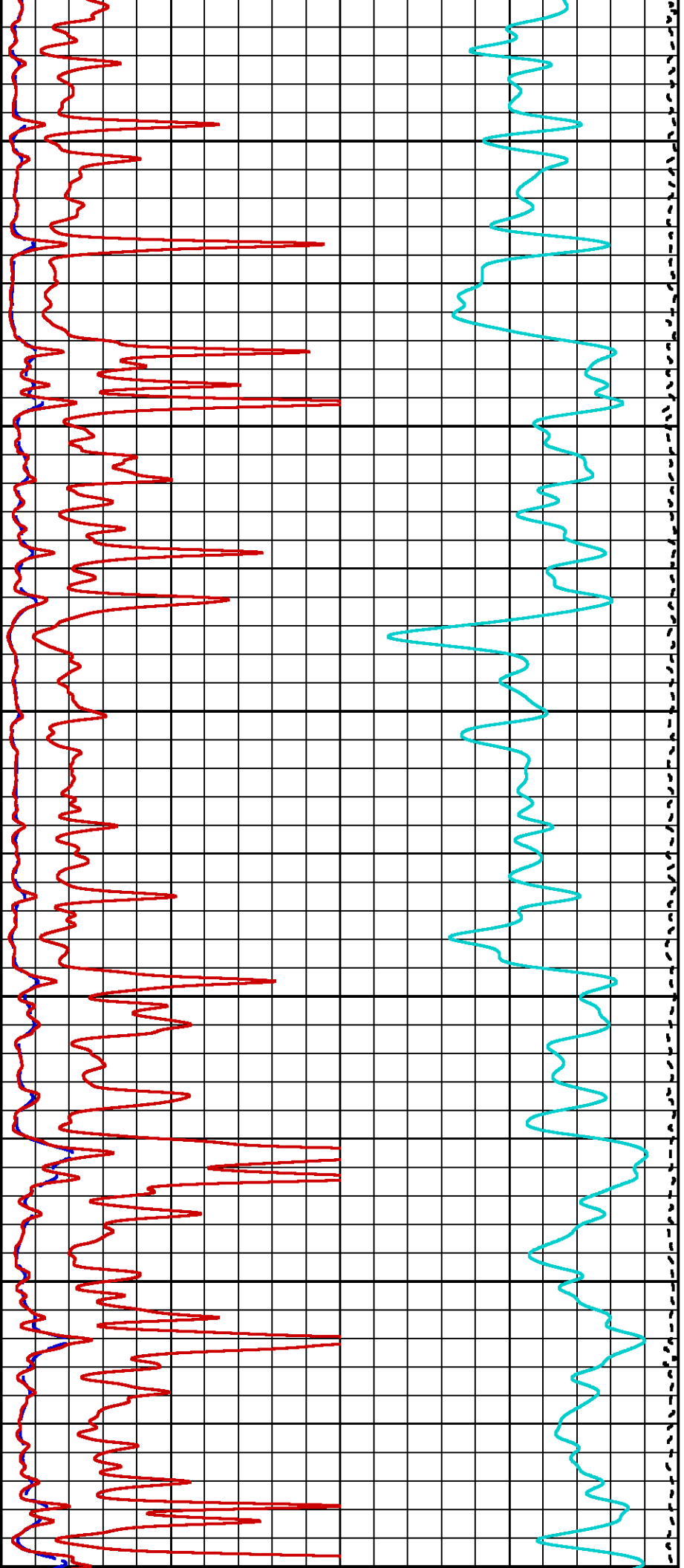


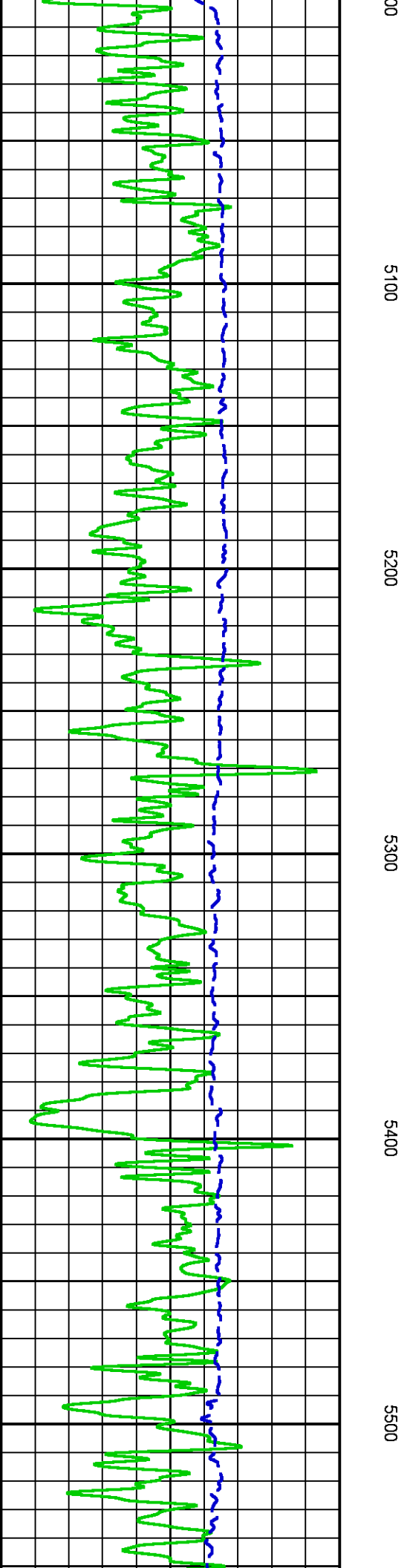
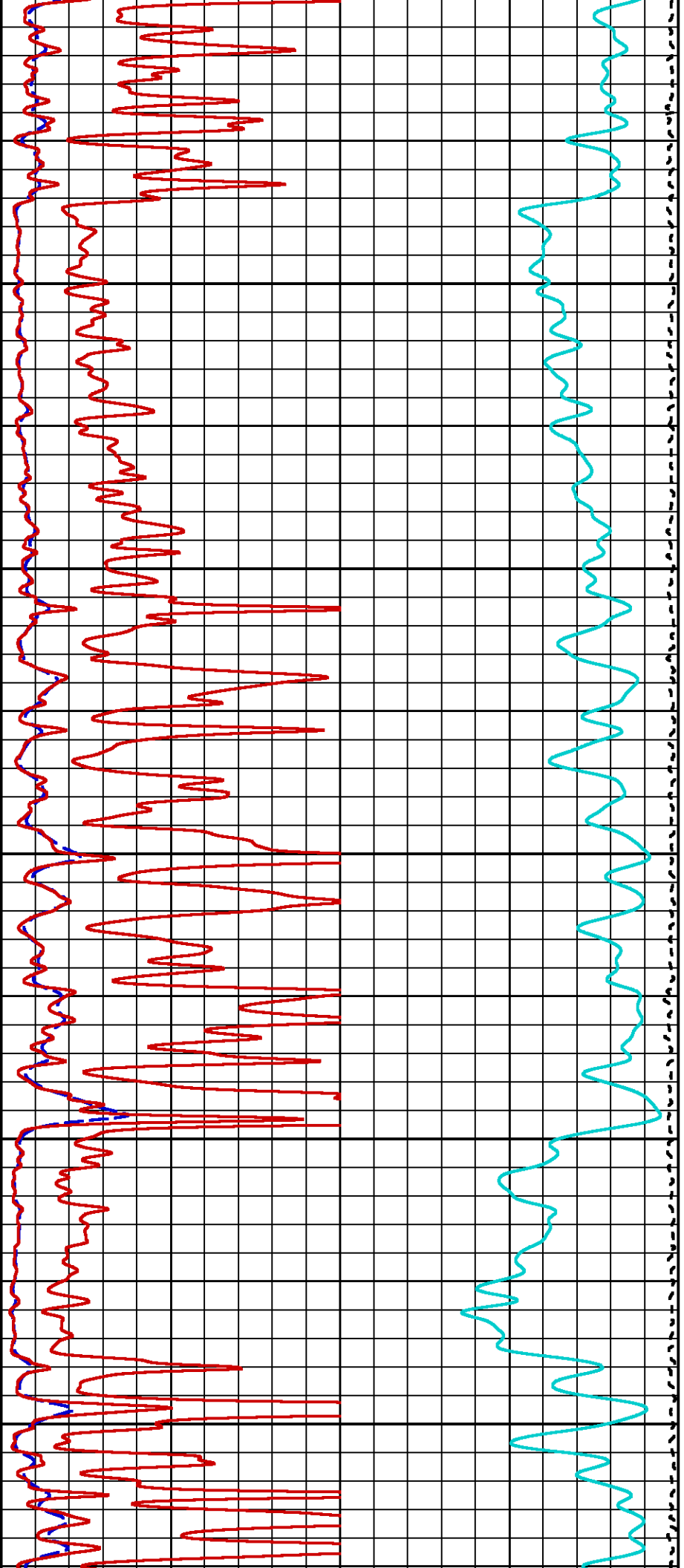


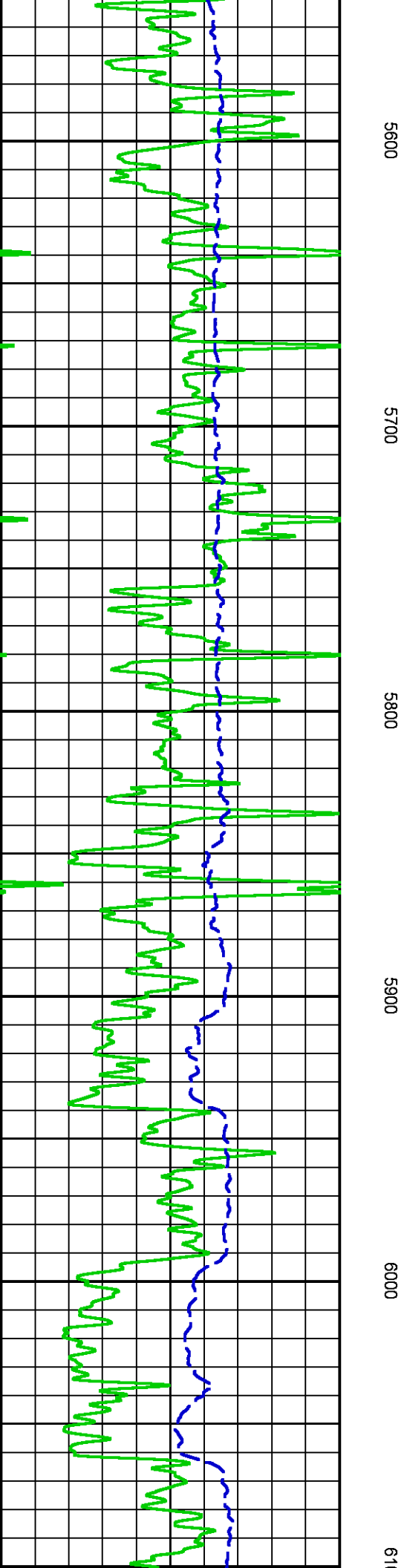
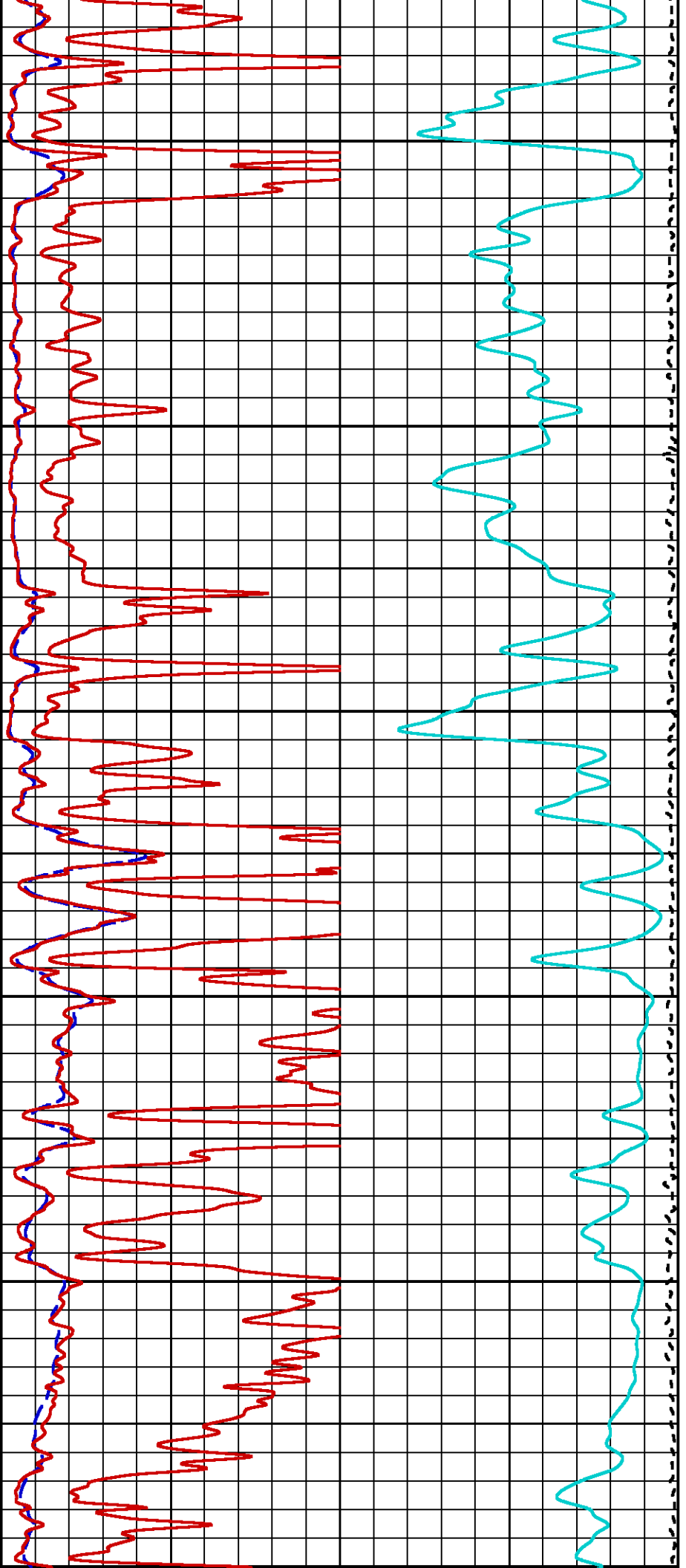
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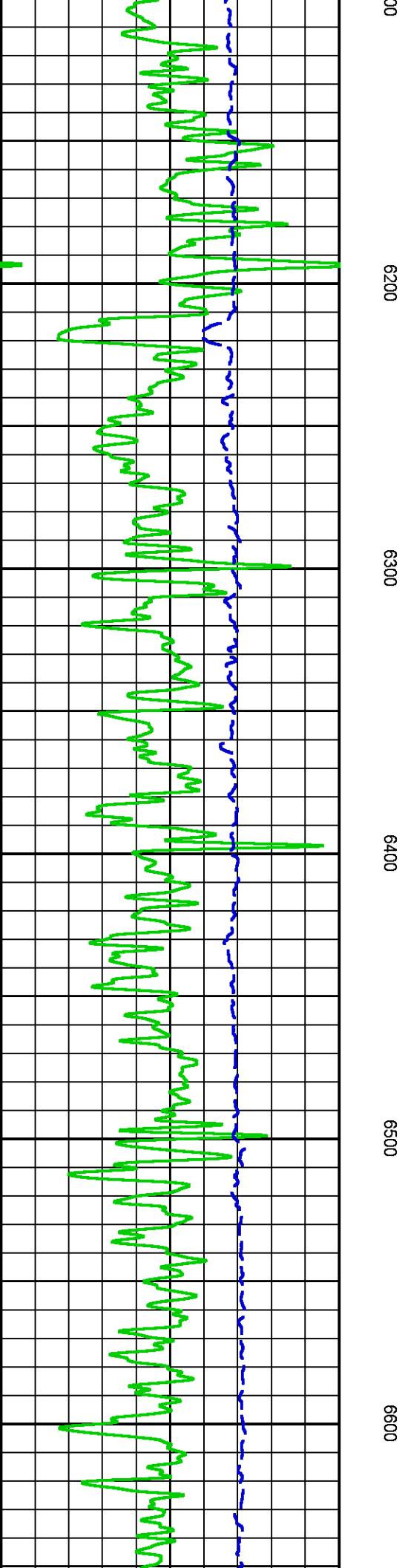
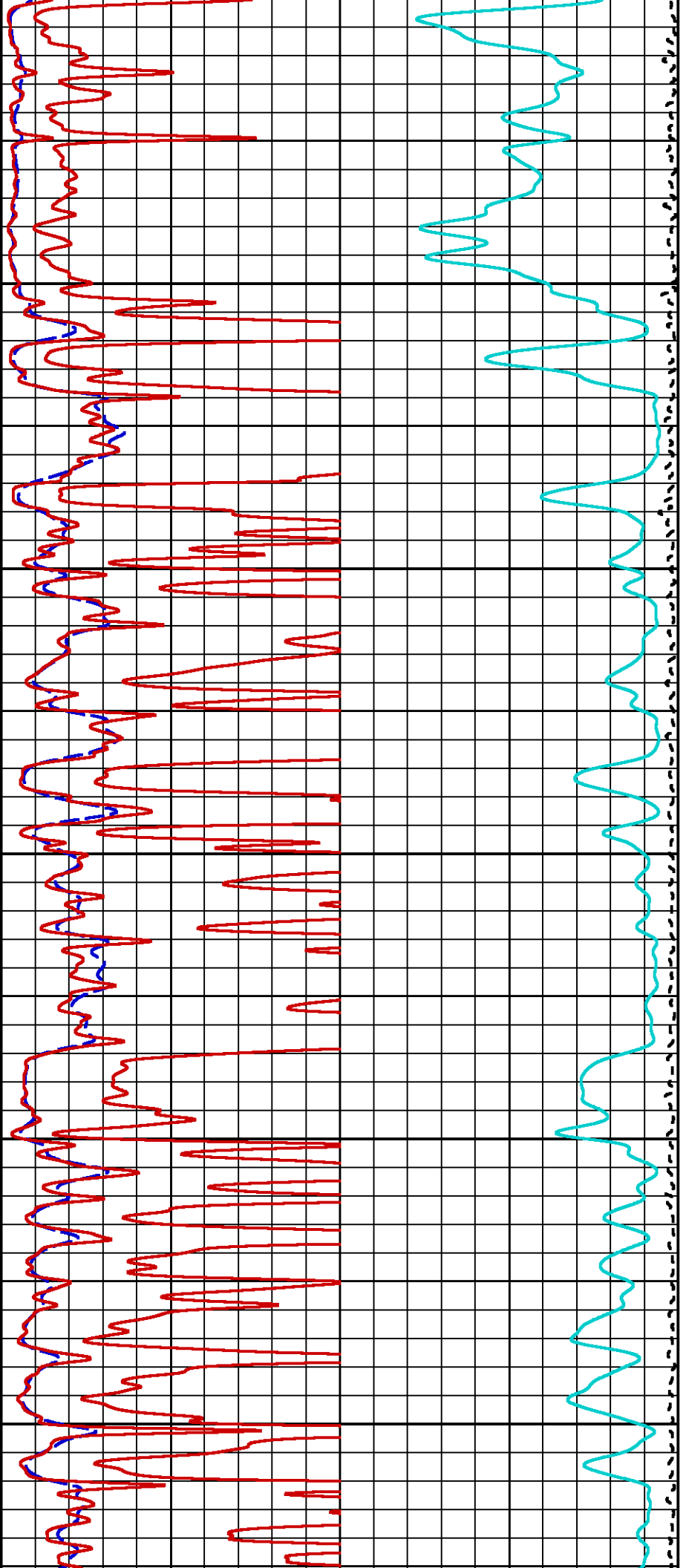


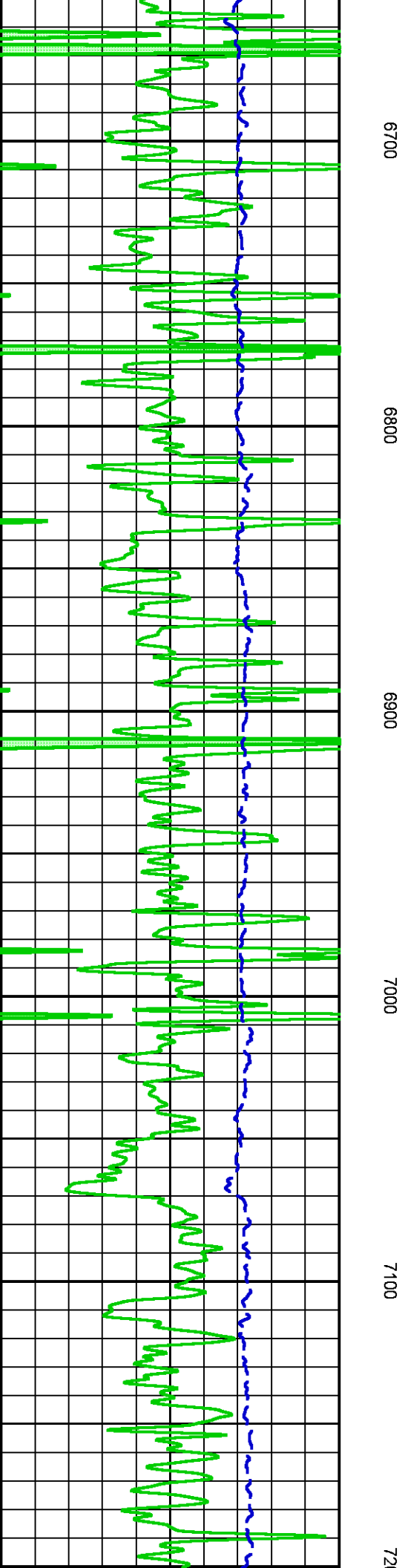
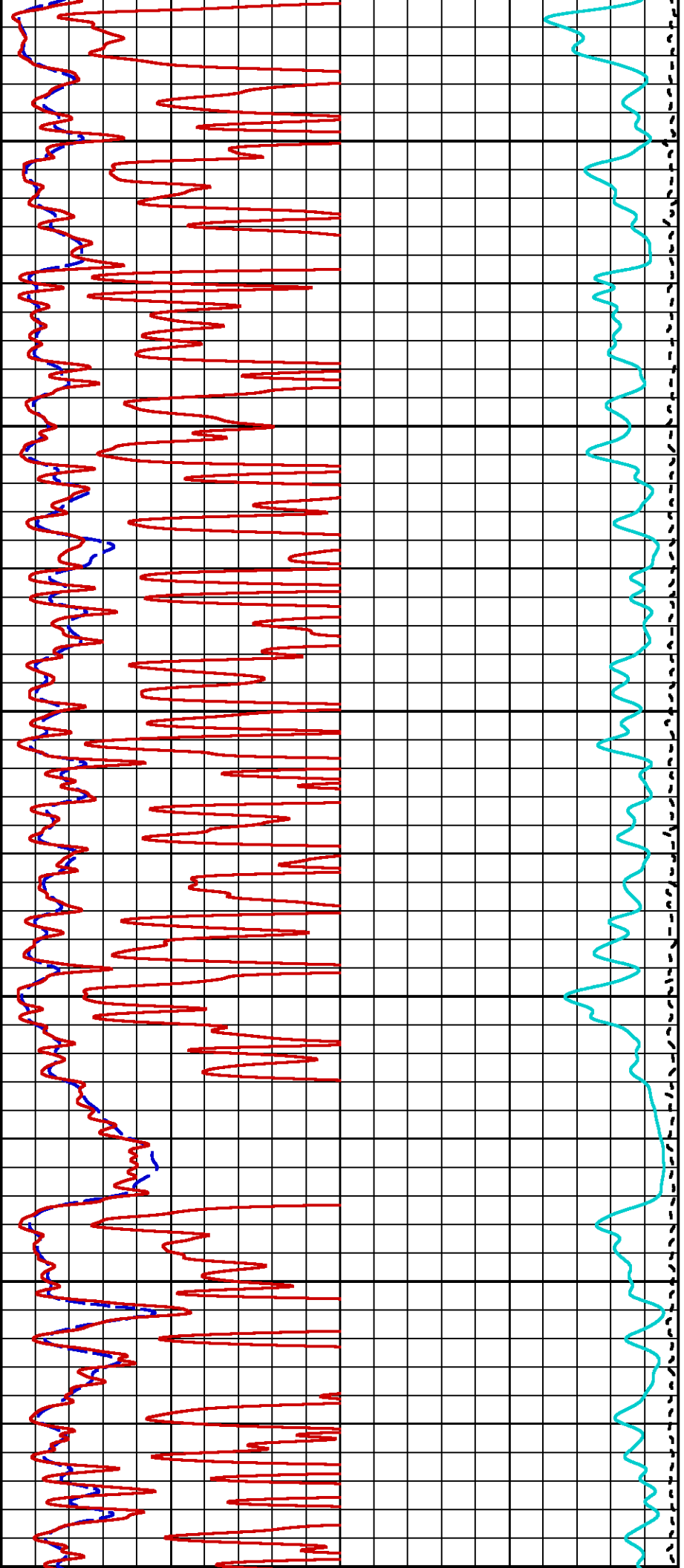


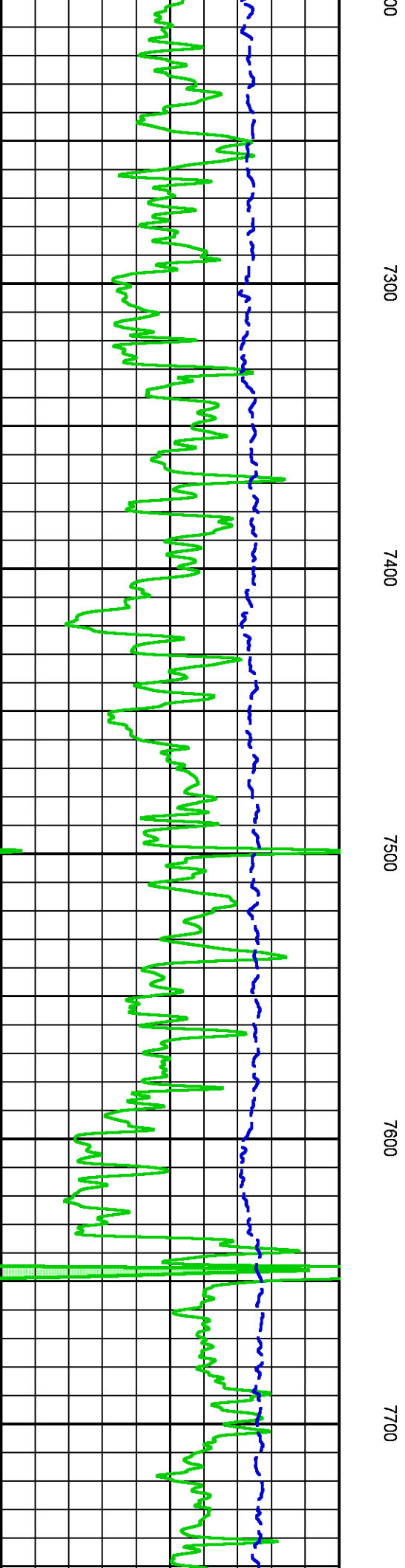
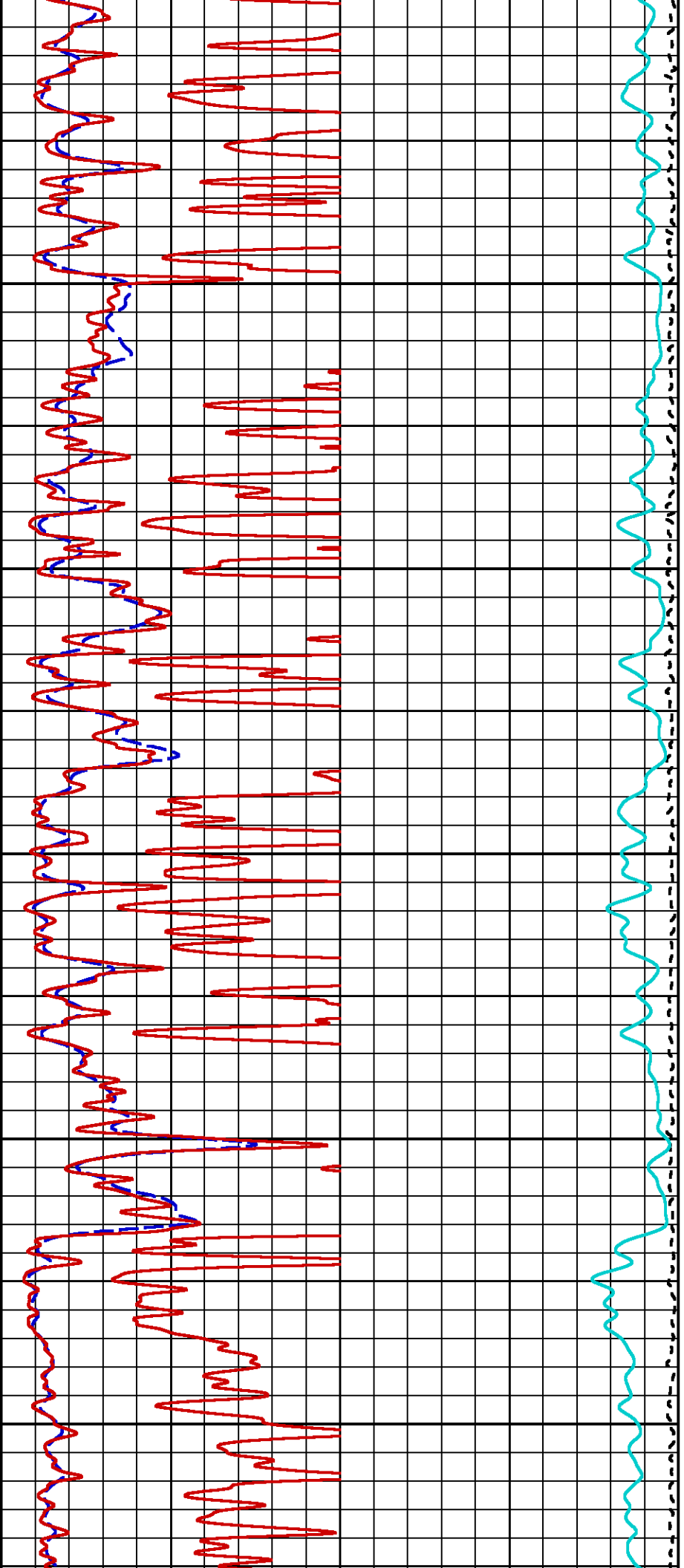


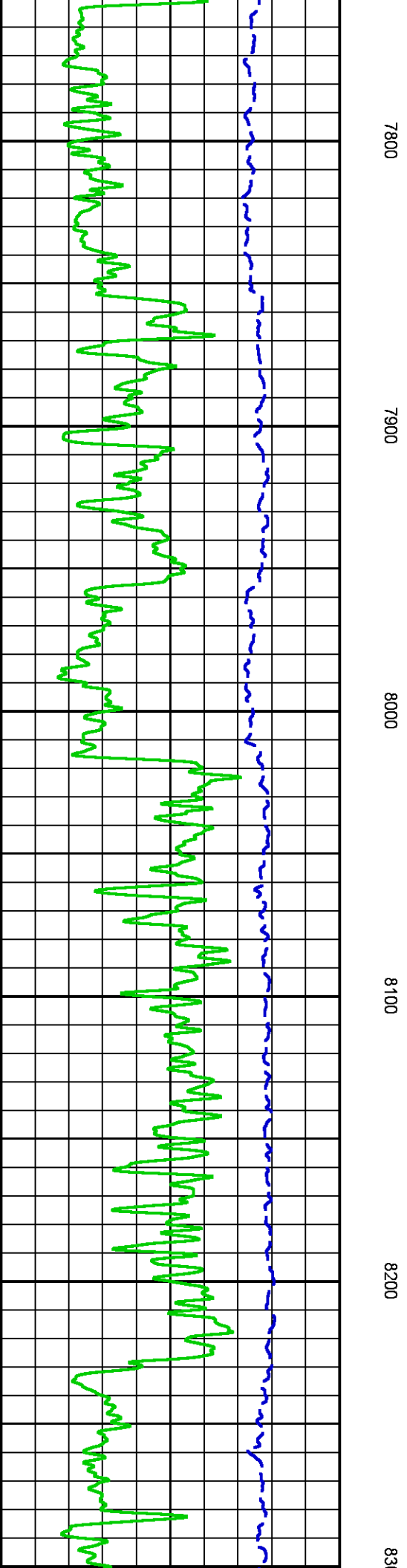
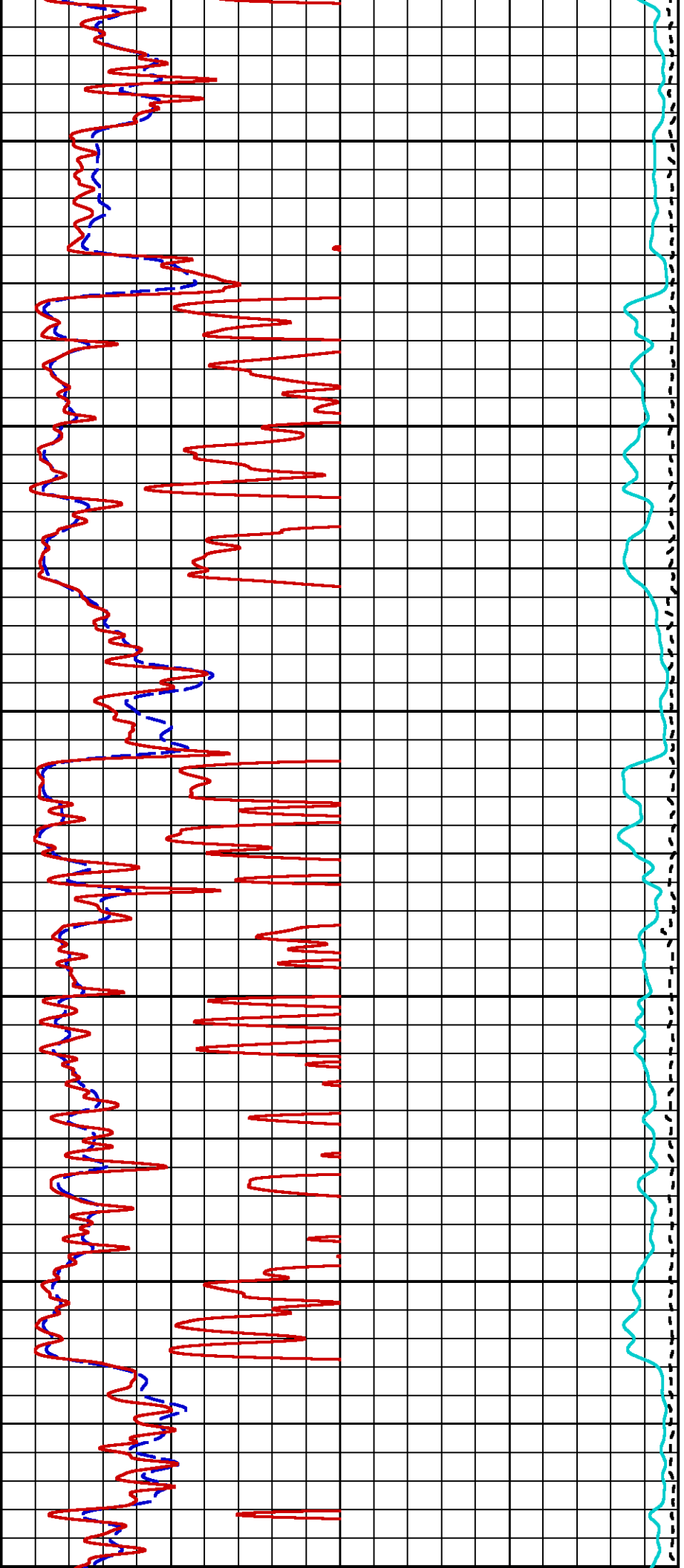


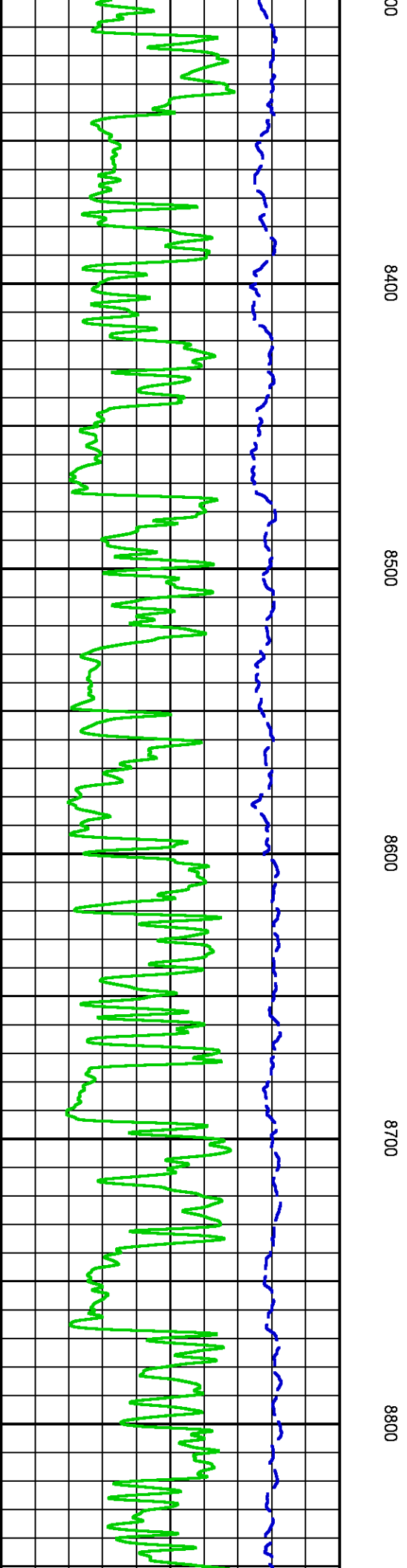
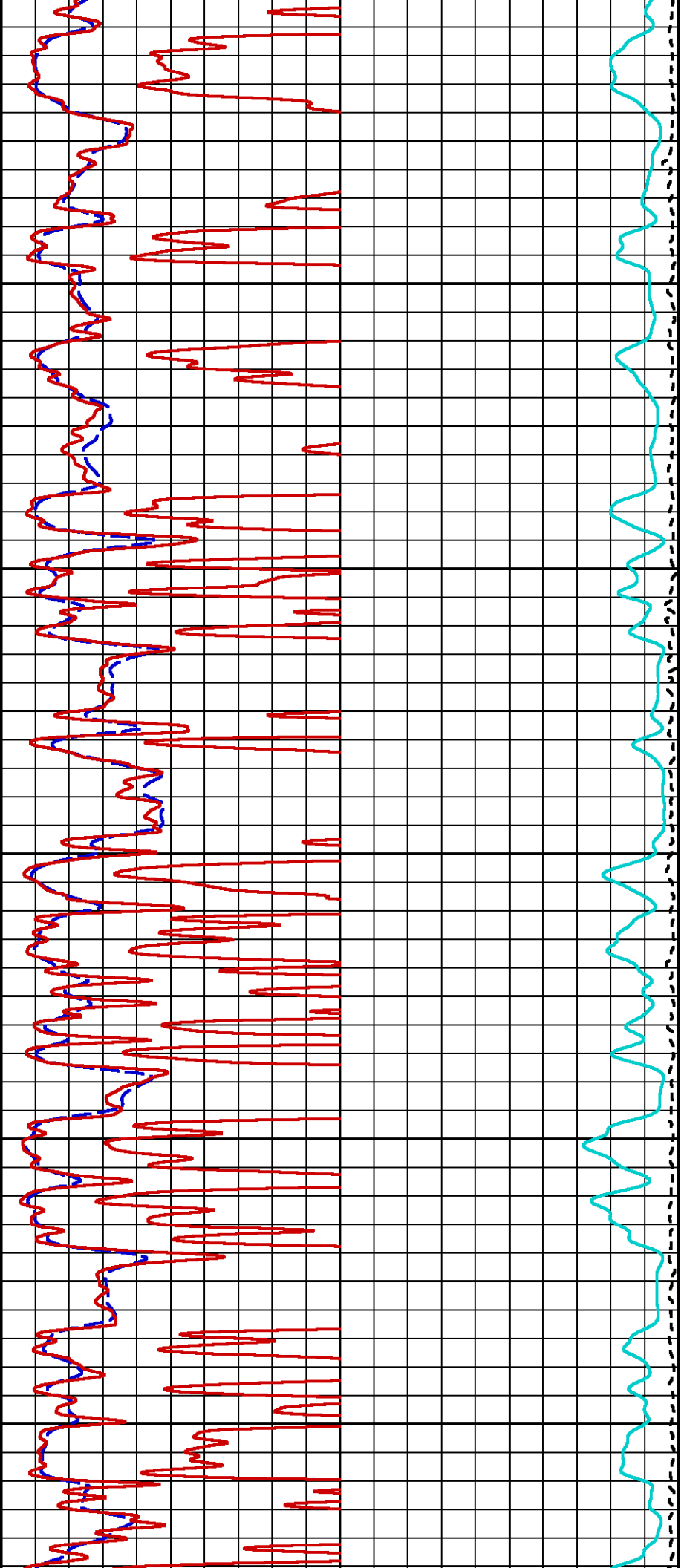


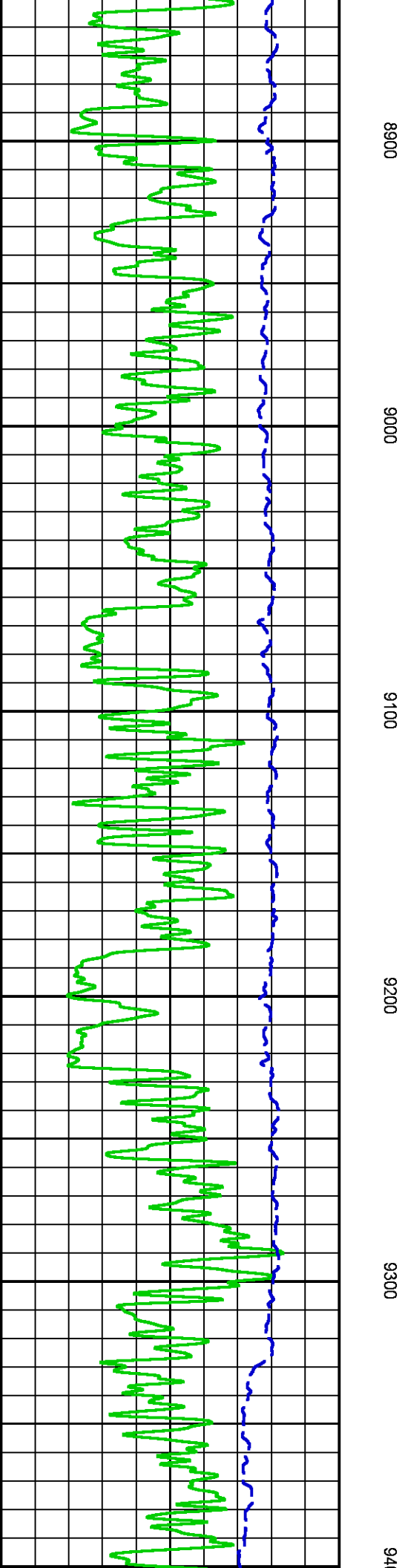
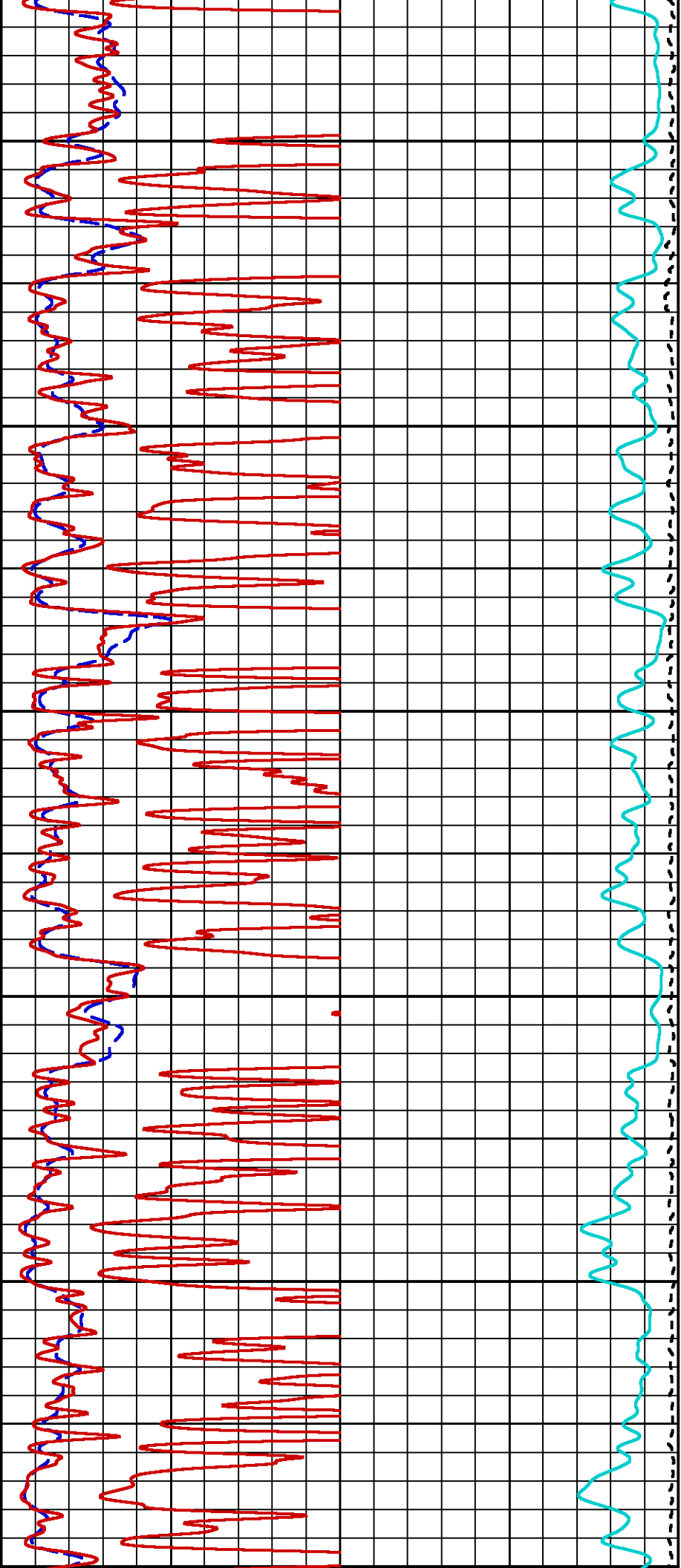


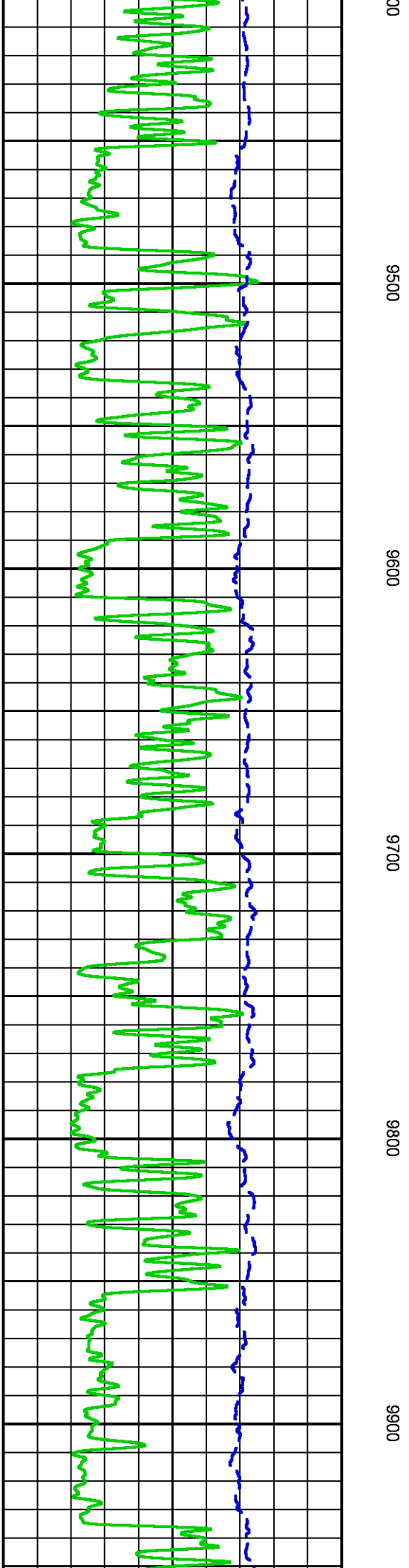
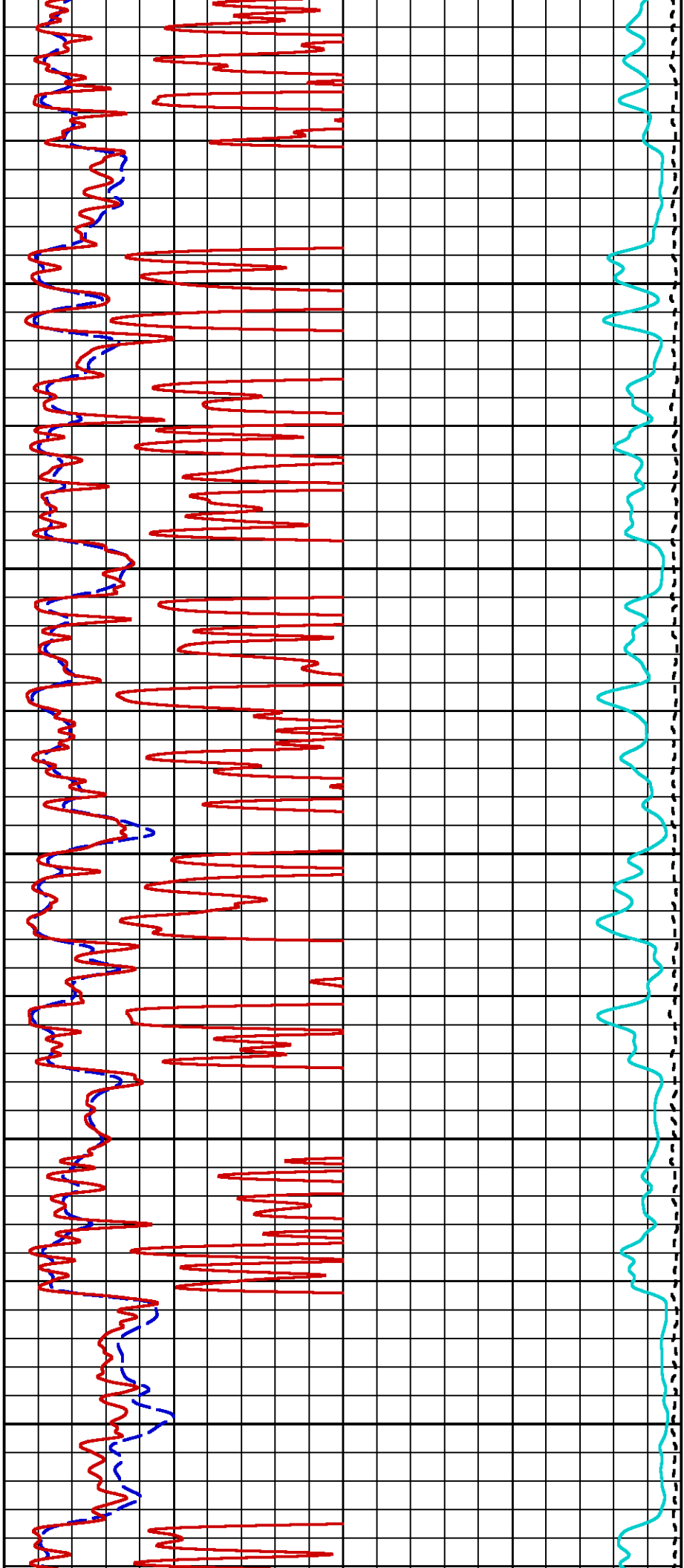


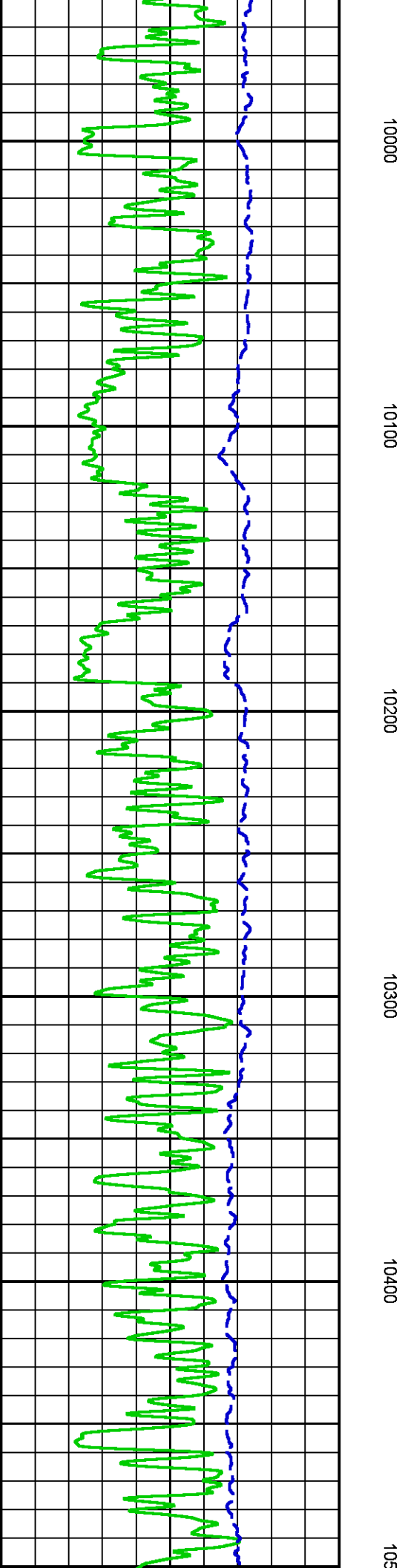
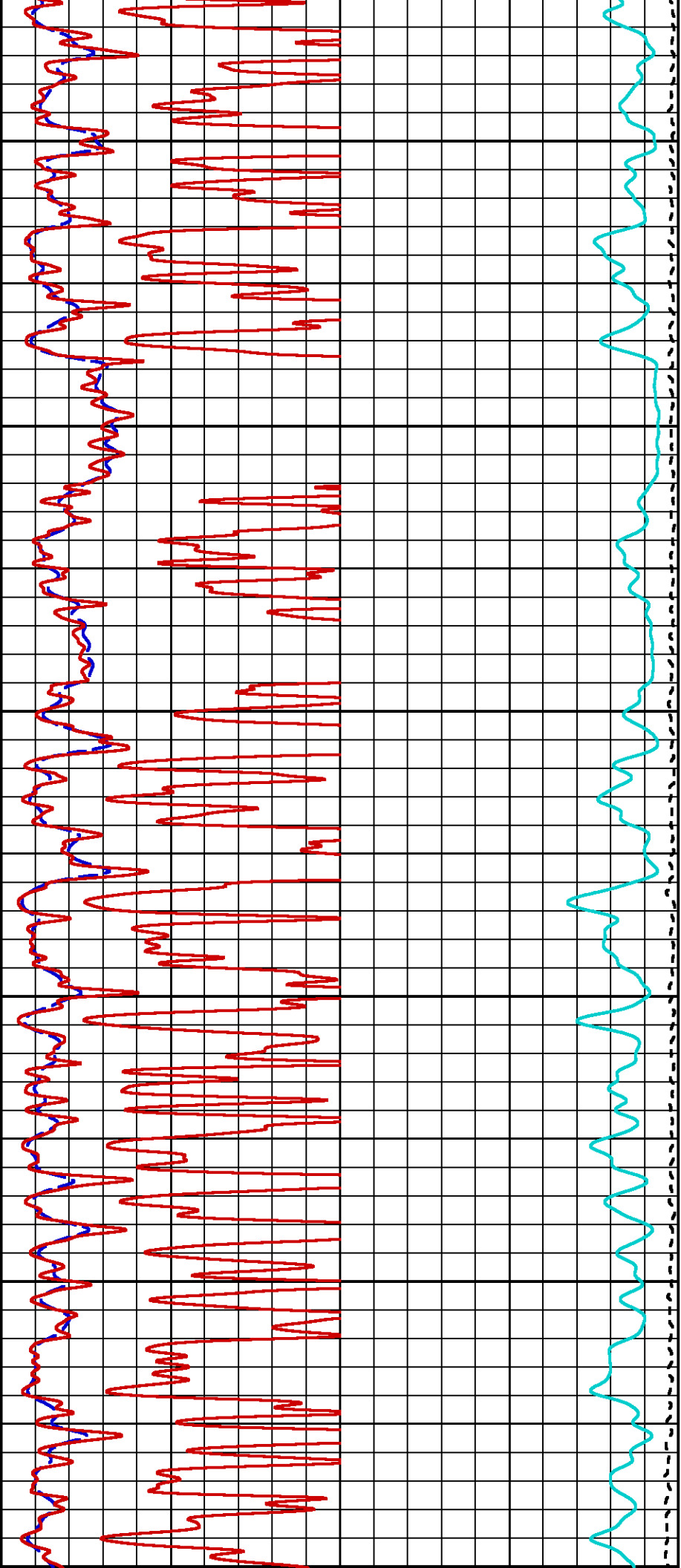


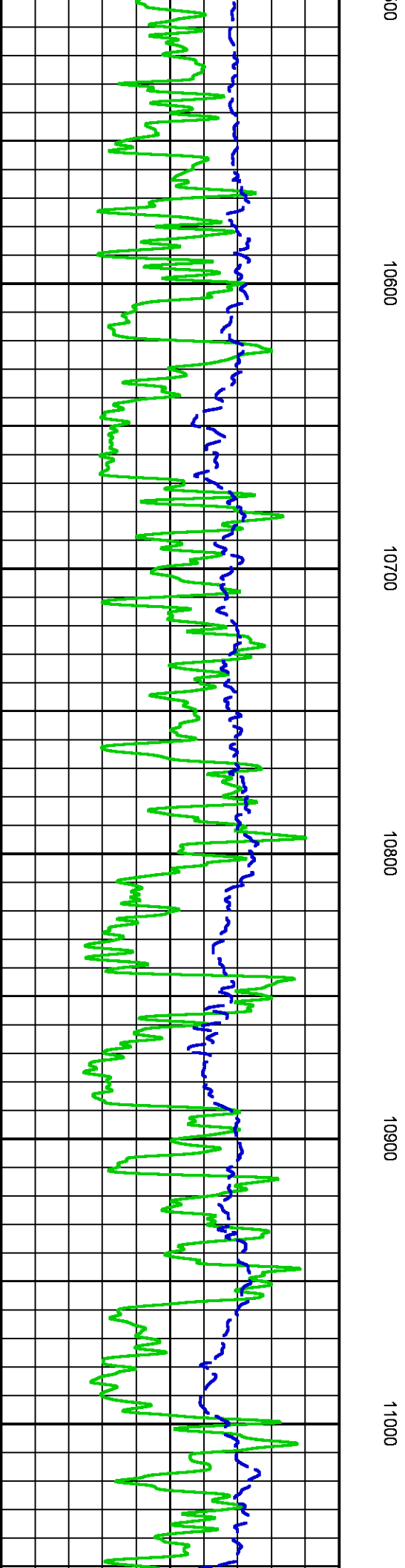
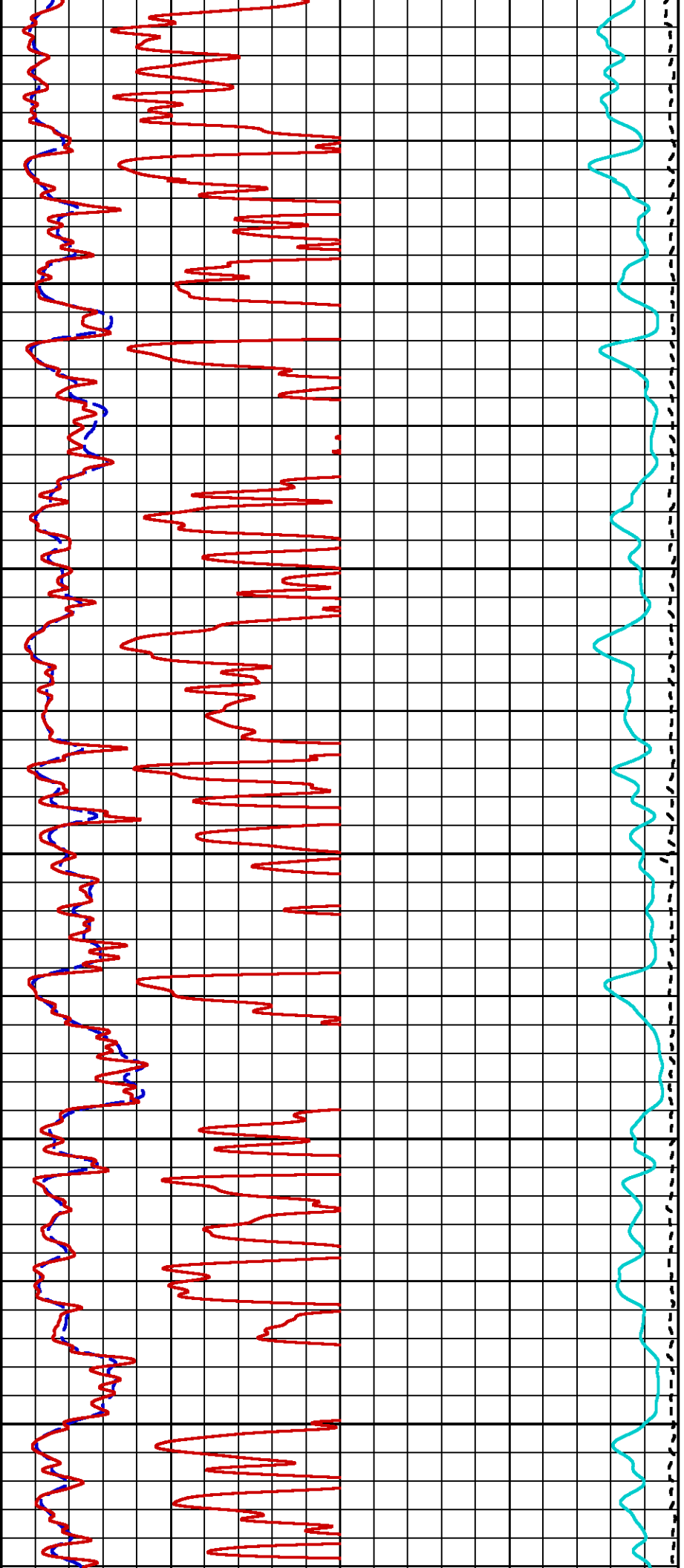


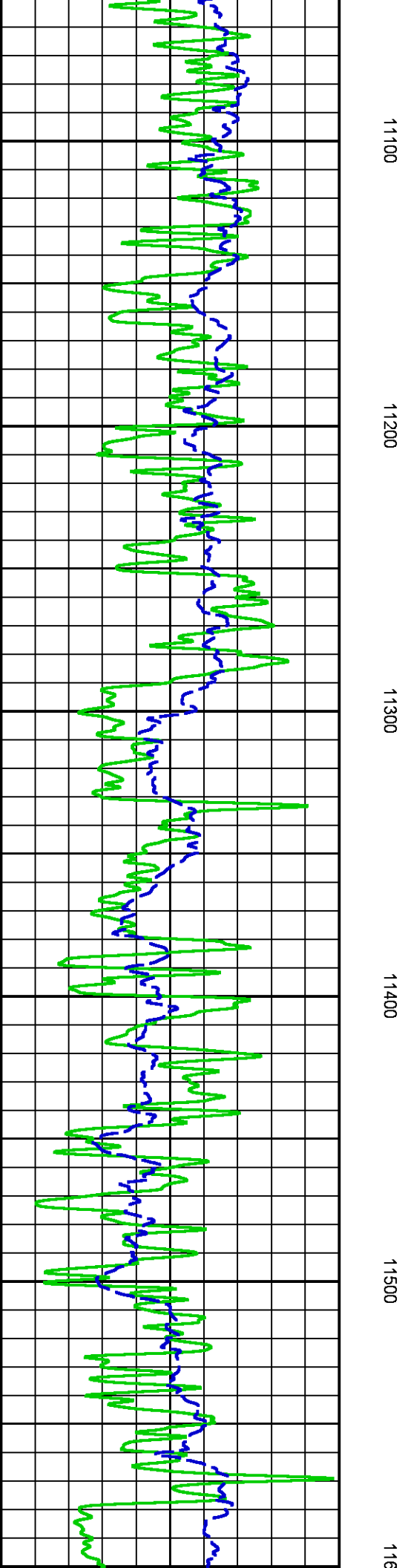
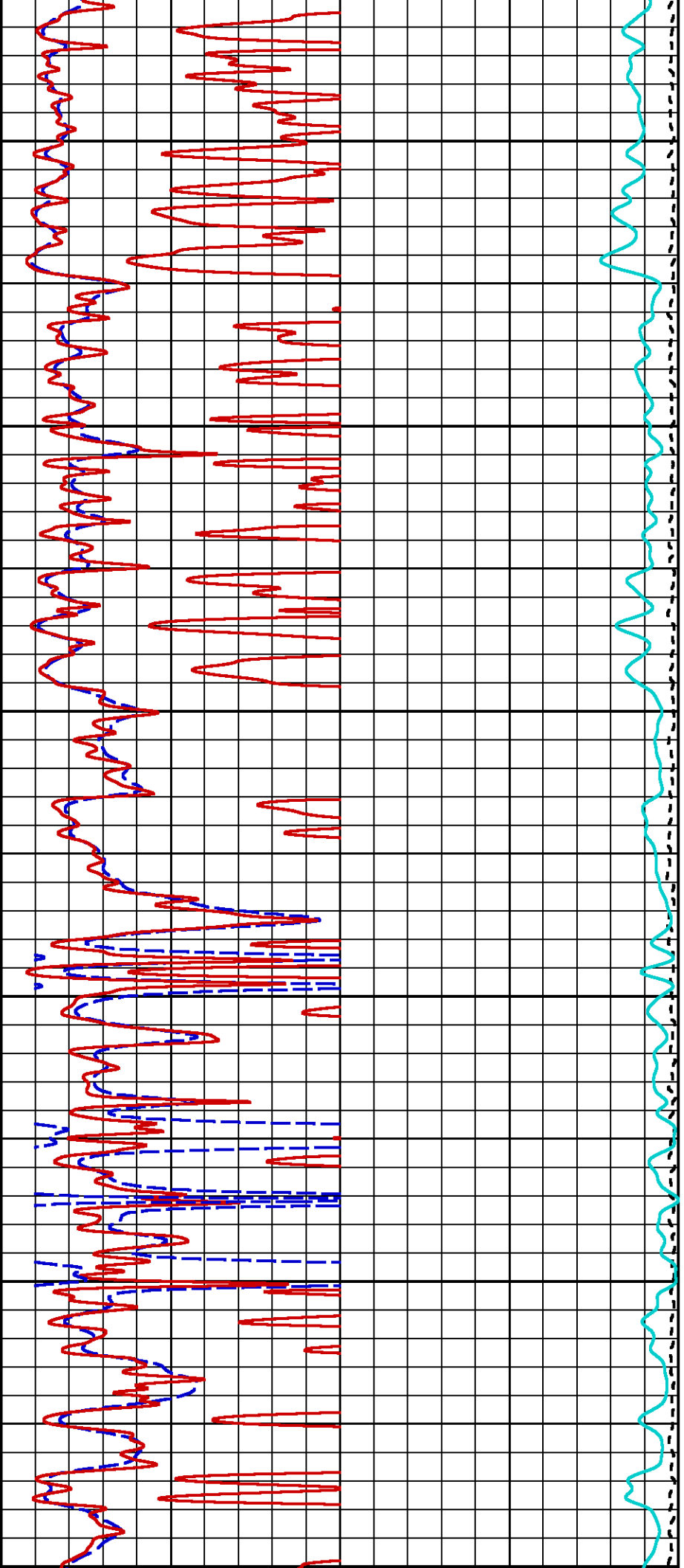


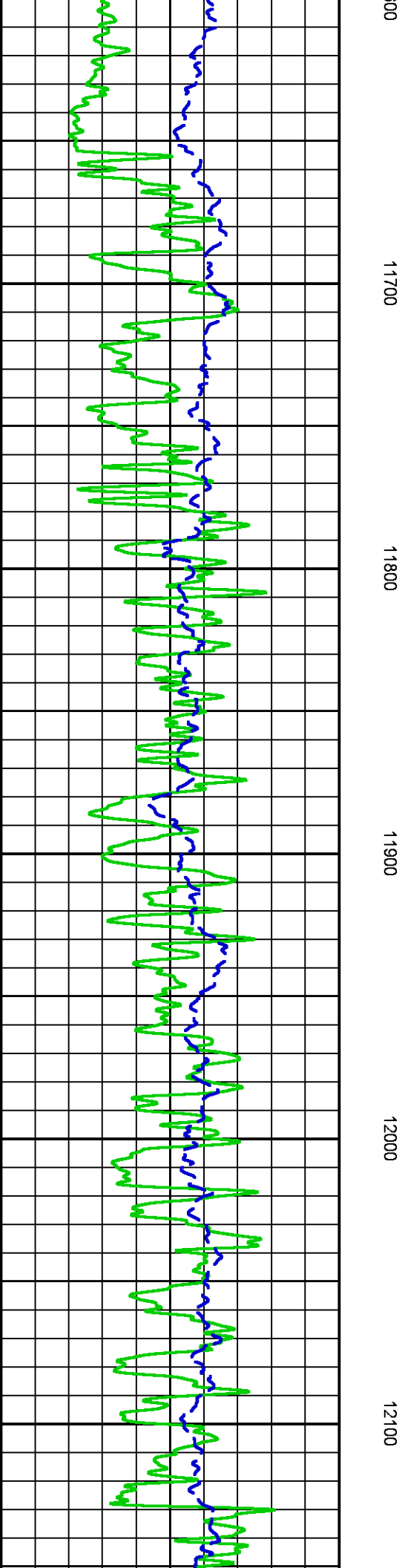
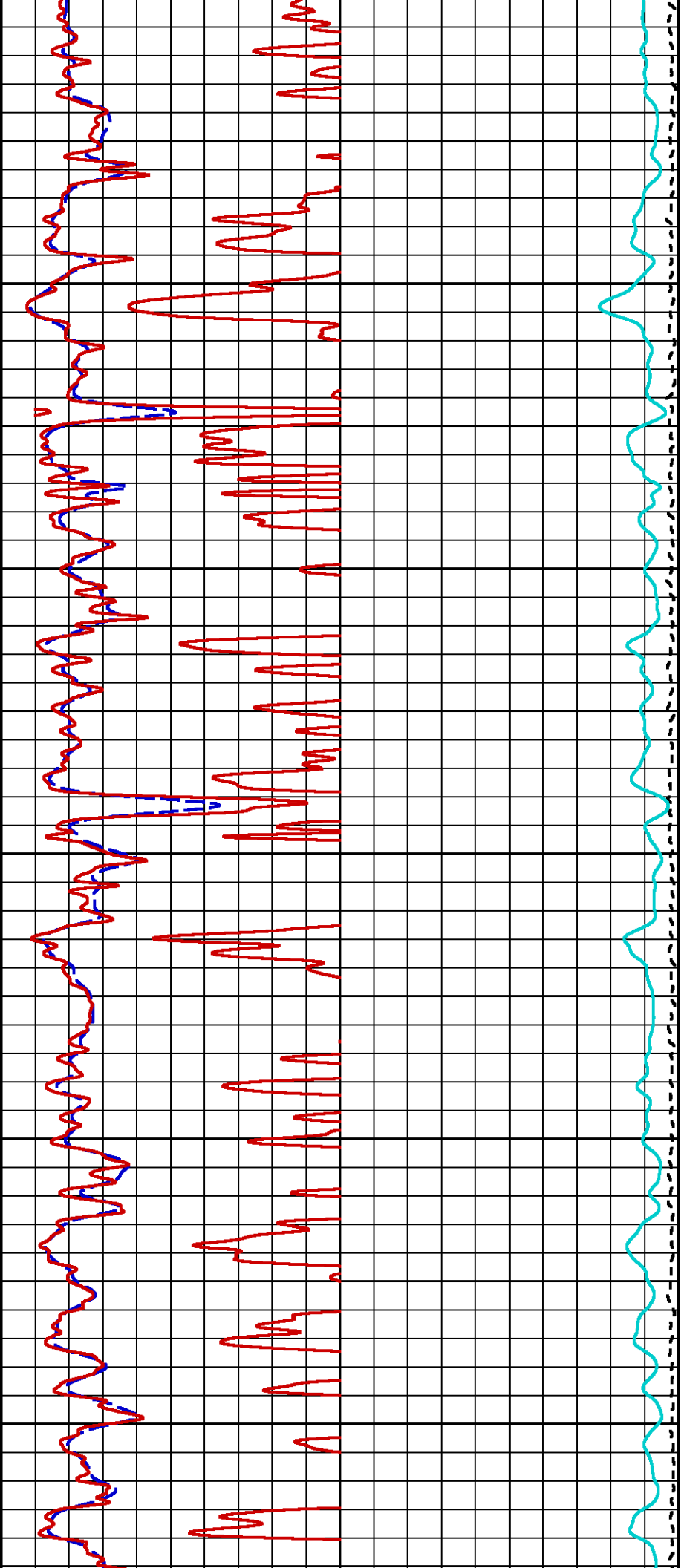


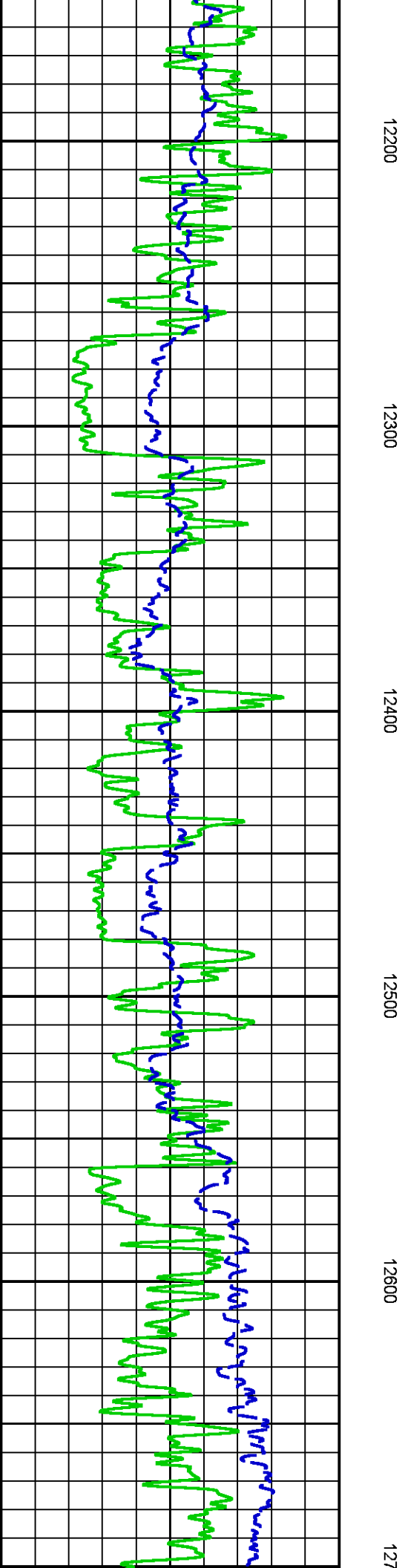
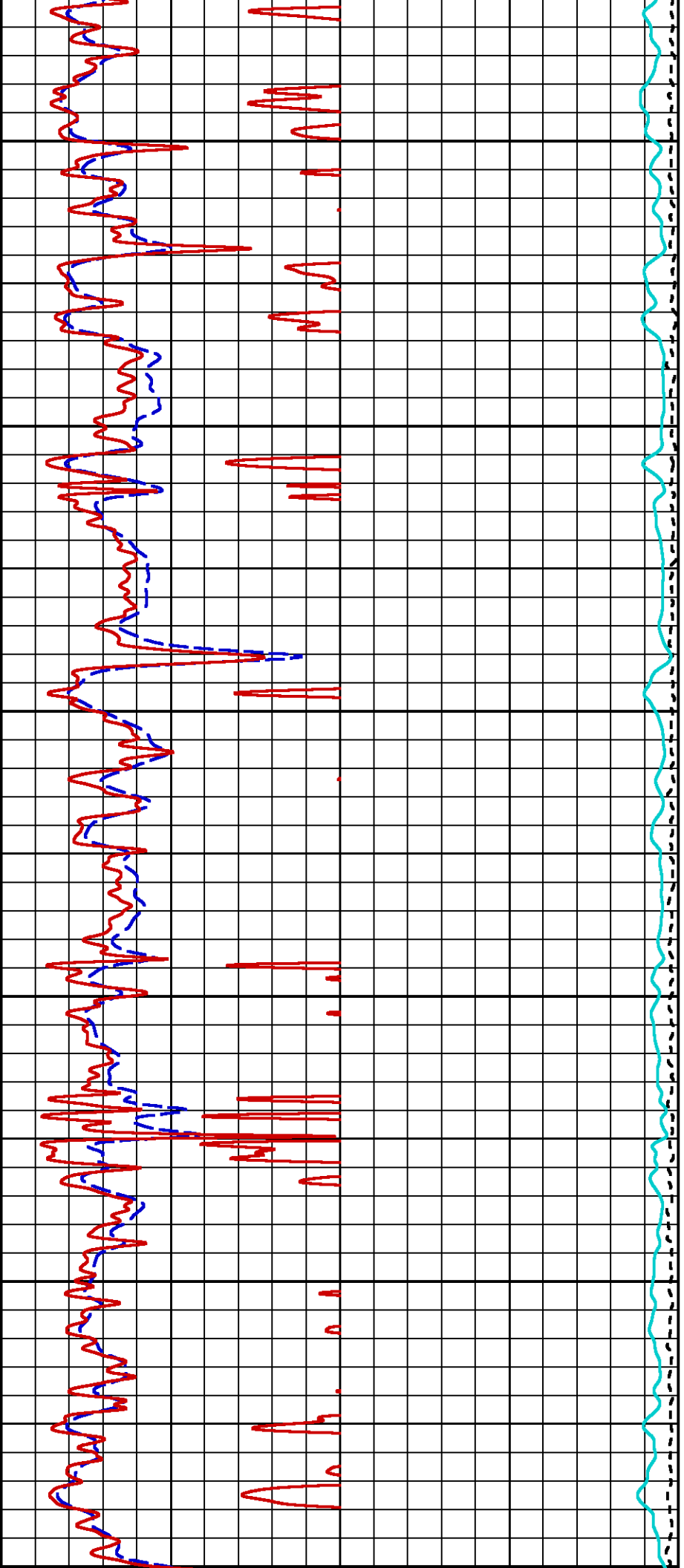


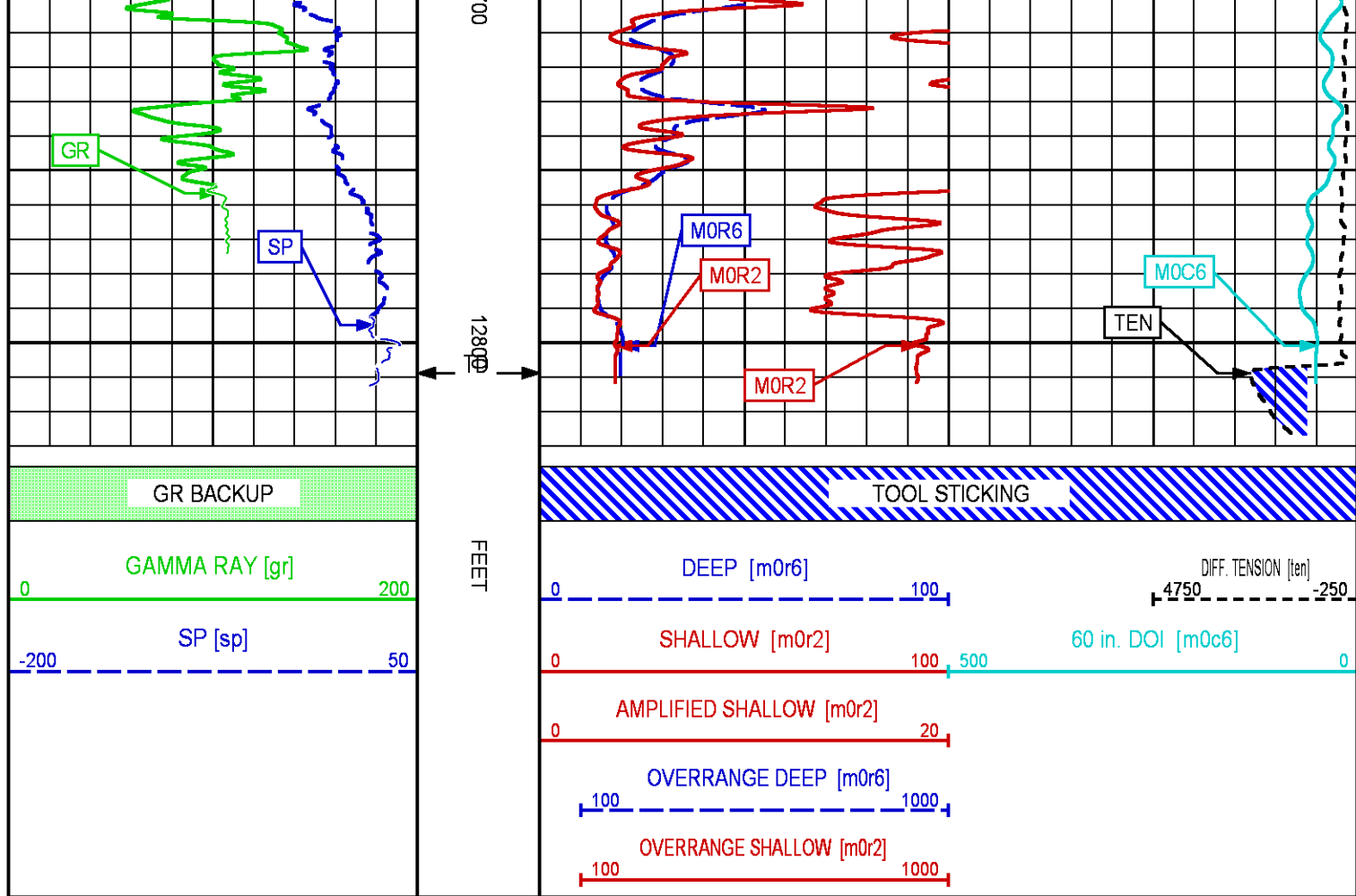












MAIN LOG 5"/100FT SCALE

ECLIPS 6.2i ECLIPS General Release Rel 6.2i Wed Jun 12 12:21:40 CDT 2013
Updates: 1 Patches: 5

Plotted: Tue Dec 23 09:16:08 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/93330J/n777m03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 13.439 ft BOTTOM DEPTH: 11275.414 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		"	"

SP-SPDH	FILTER (hrd2*)	medium	"	"
	FILTER (hrd2s*)	medium	"	"
	FILTER (soft*)	medium	"	"
	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	TOP	10524.250
		7.875	in	10524.250	BOTTOM
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	64.4	degF	TOP	BOTTOM
	MUD SAMPLE RES	0.636	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	64.4	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		TOP	10556.962
		USE FIXED SIZE		10556.962	11084.534
		USE CALIPER		11084.534	BOTTOM
	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		TOP	10581.962
		USE FIXED SIZE		10581.962	11109.534
		USE CALIPER		11109.534	BOTTOM
BOREHOLE CORR DIAMETER	FIXED DIAMETER (cnbh*)	8.750	in	TOP	10528.750
		7.875	in	10528.750	BOTTOM
	FIXED DIAMETER (mbh*)	8.750	in	TOP	10566.500
		7.875	in	10566.500	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	2500	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	13.500	in	"	"

ZDL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	RHOfmatrix	2.680	g/cm3	TOP	BOTTOM
	RHOfluid	1.000	g/cm3	"	"
ZDL	DENX TRACKING	ON		"	"
TRACKING TIME	Logging Spd for Gain	Over 10 ft/min		"	"

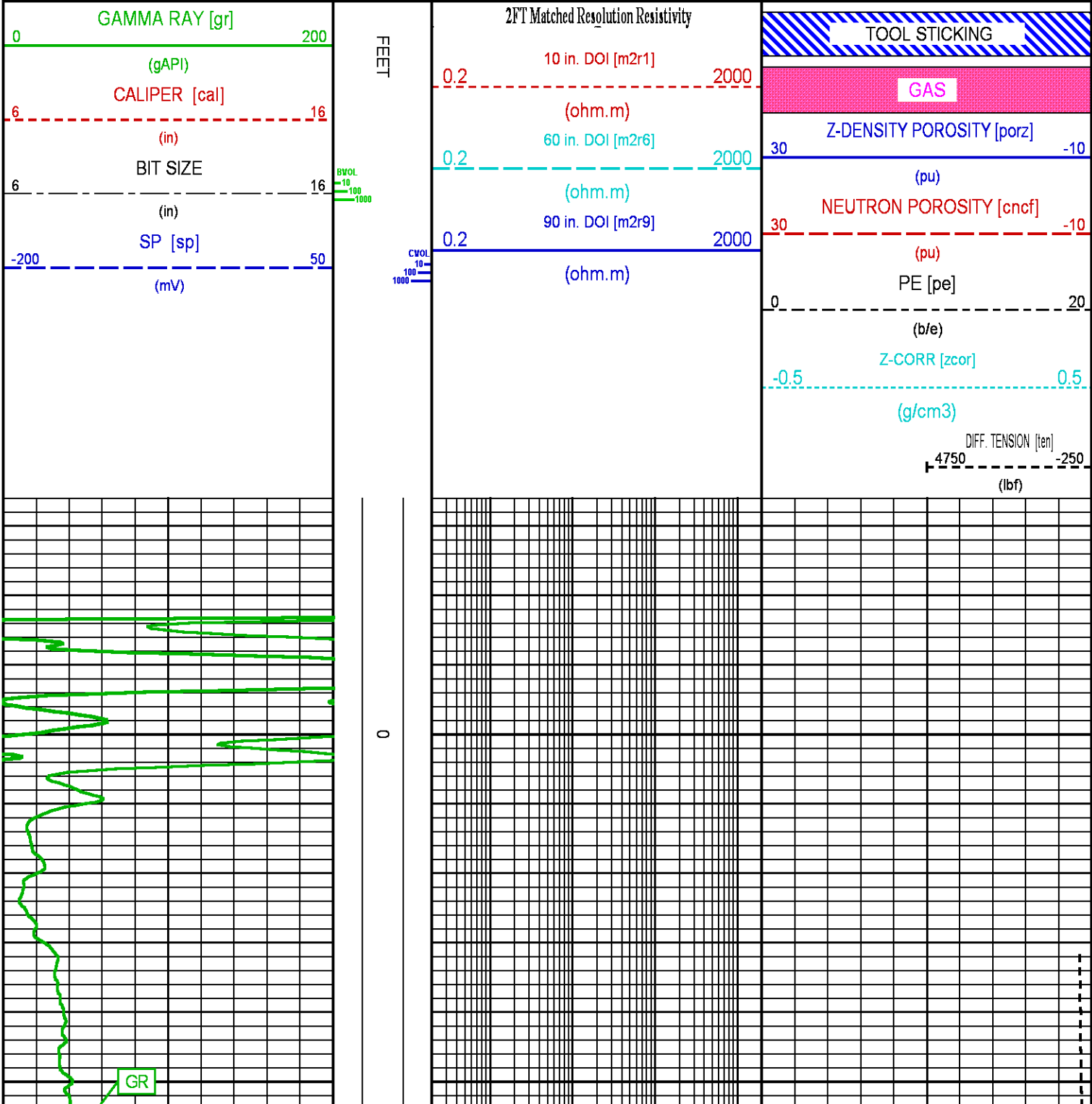
HDIL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORR SOURCE	USE RXTEMP		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	STANDOFF		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000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

CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Dec 23 02:53:55 2014	BIT SIZE
F1:BVOL	Dec 23 02:53:55 2014	BOREHOLE VOLUME
F1:CAL	Dec 23 02:53:55 2014	CALIPER
F1:CNCF	Dec 23 02:53:55 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Dec 23 02:53:55 2014	CEMENT VOLUME
F1:GR	Dec 23 02:53:55 2014	GAMMA RAY
F1:M2R1	Dec 23 02:53:55 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Dec 23 02:53:55 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Dec 23 02:53:55 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Dec 23 02:53:55 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Dec 23 02:53:55 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Dec 23 02:53:55 2014	SPONTANEOUS POTENTIAL
F1:TEN	Dec 23 02:53:55 2014	DIFFERENTIAL TENSION

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

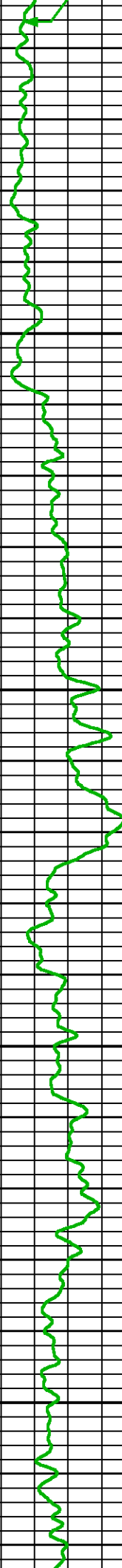
Presentation	: cas6685:/dat1a/93330J/WPX_MAIN.fvpdf [5"/100' Scale]
Plot Interval	: -33.75 - 12828.2 Feet
Data File 1	: F1 : cas6685:/dat1a/93330J/n777mMAIN.xtf
Created On	: Dec 23 06:49:52 2014
Company	: WPX ENERGY INC
Well	: FEDERAL RGU 333-23-198
Field	: SULPHUR CREEK
File Interval	: -33.75 - 12828.2 Feet
OCT	: n777m

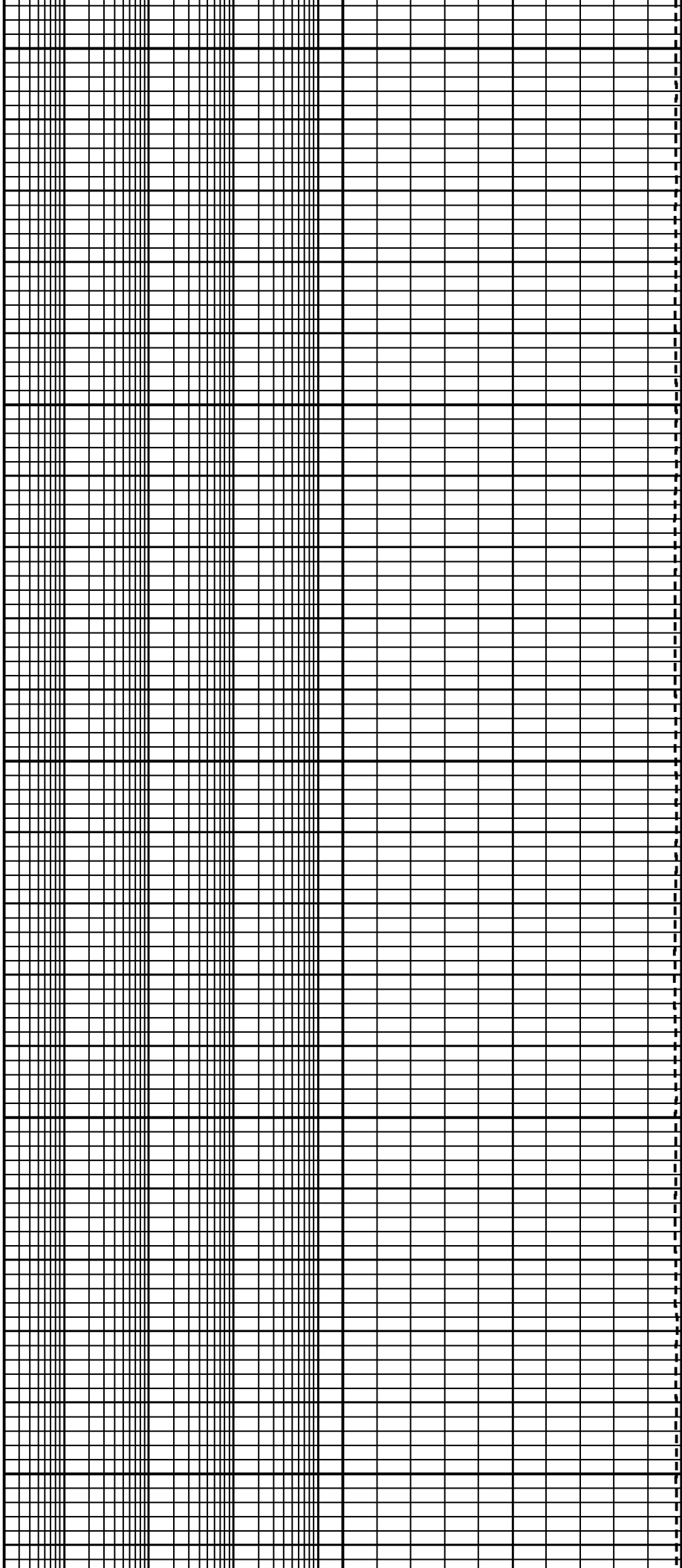


TEN

100

200

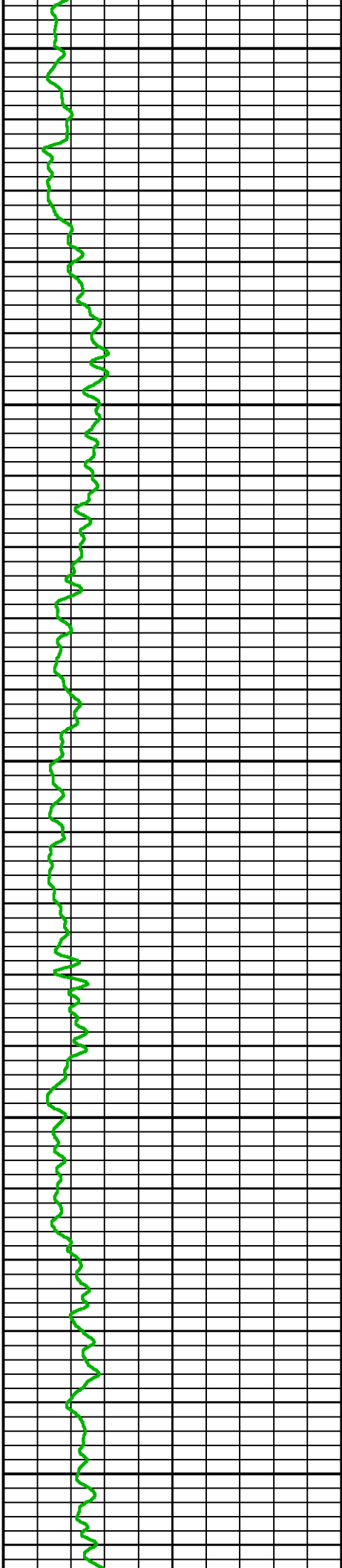


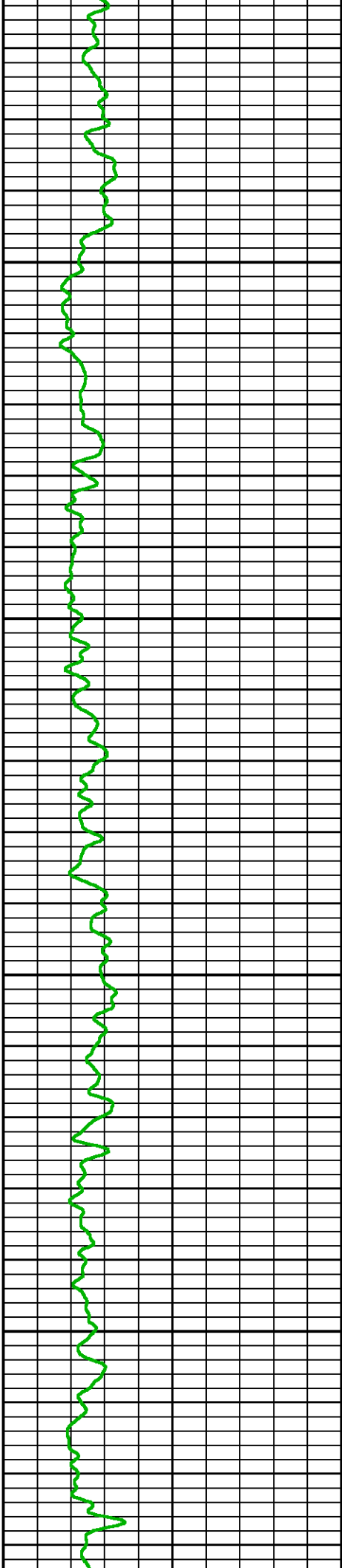


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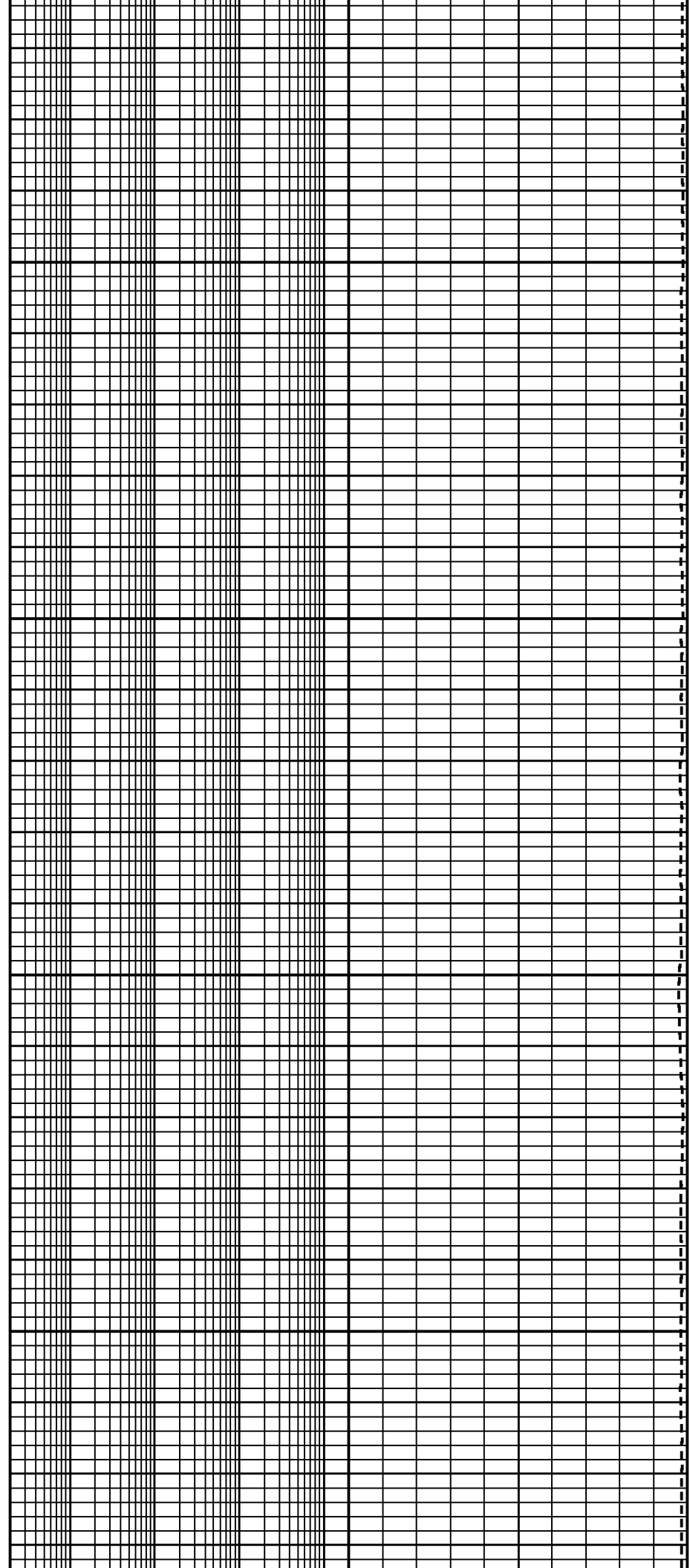
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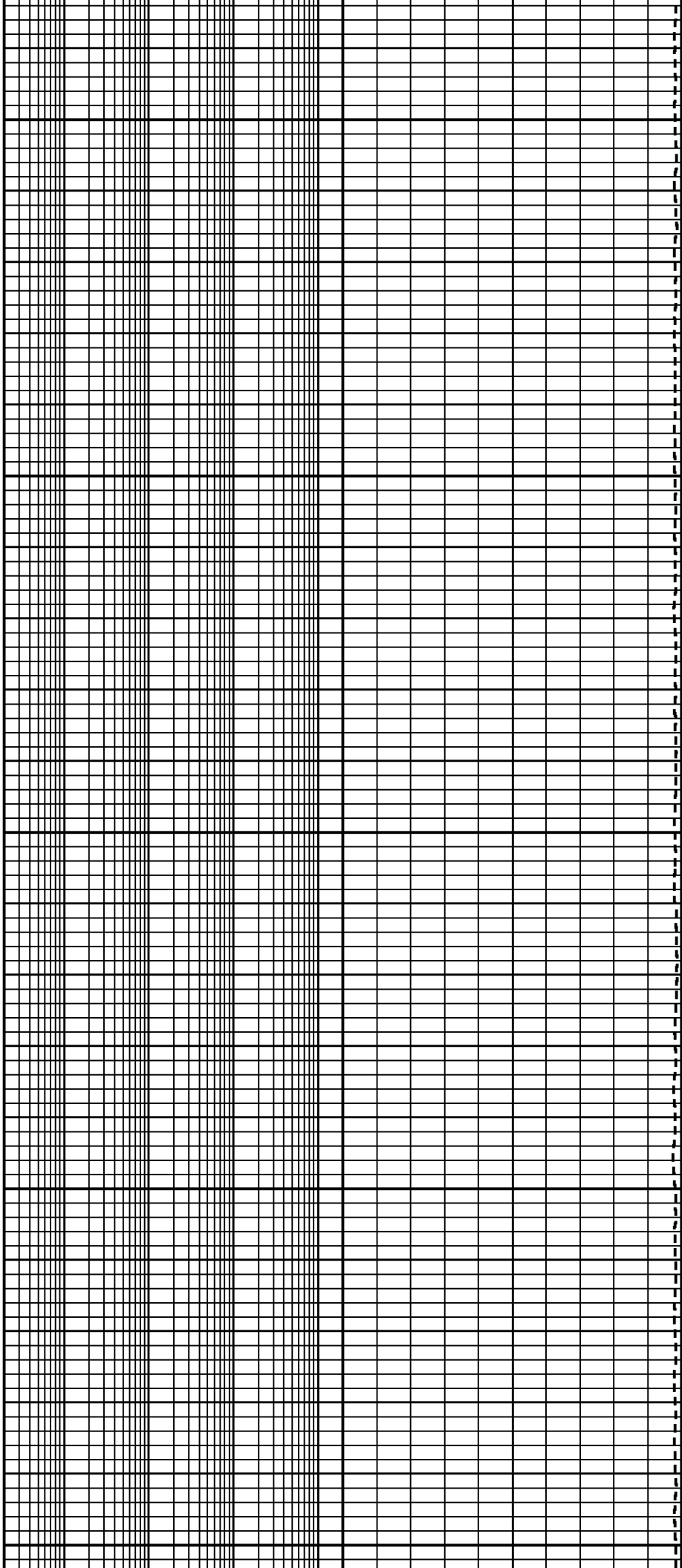




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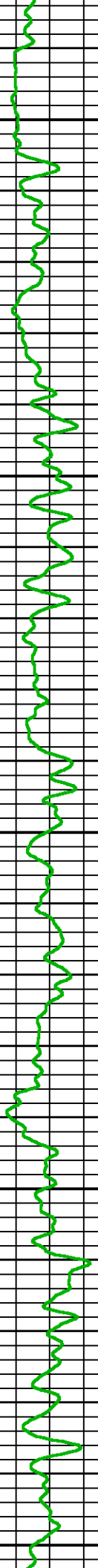
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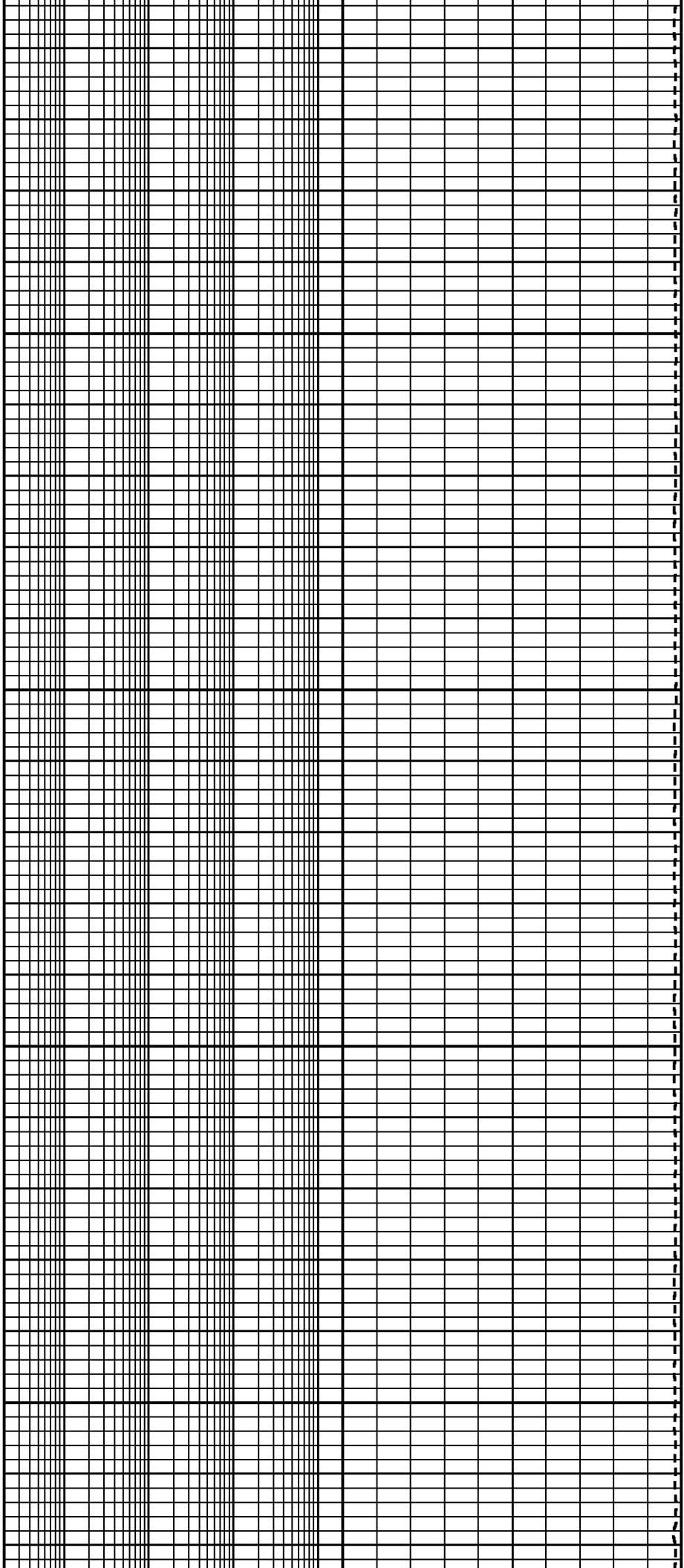




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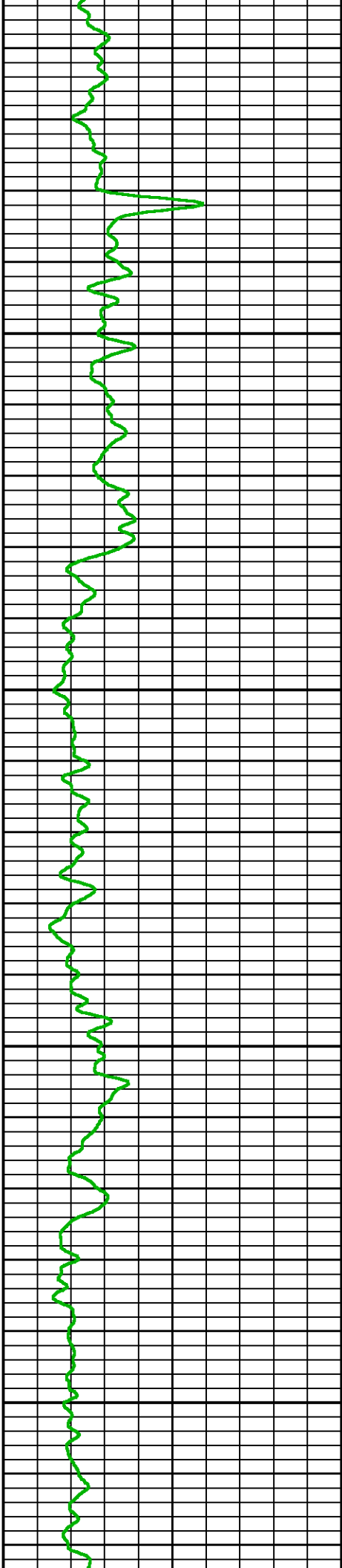
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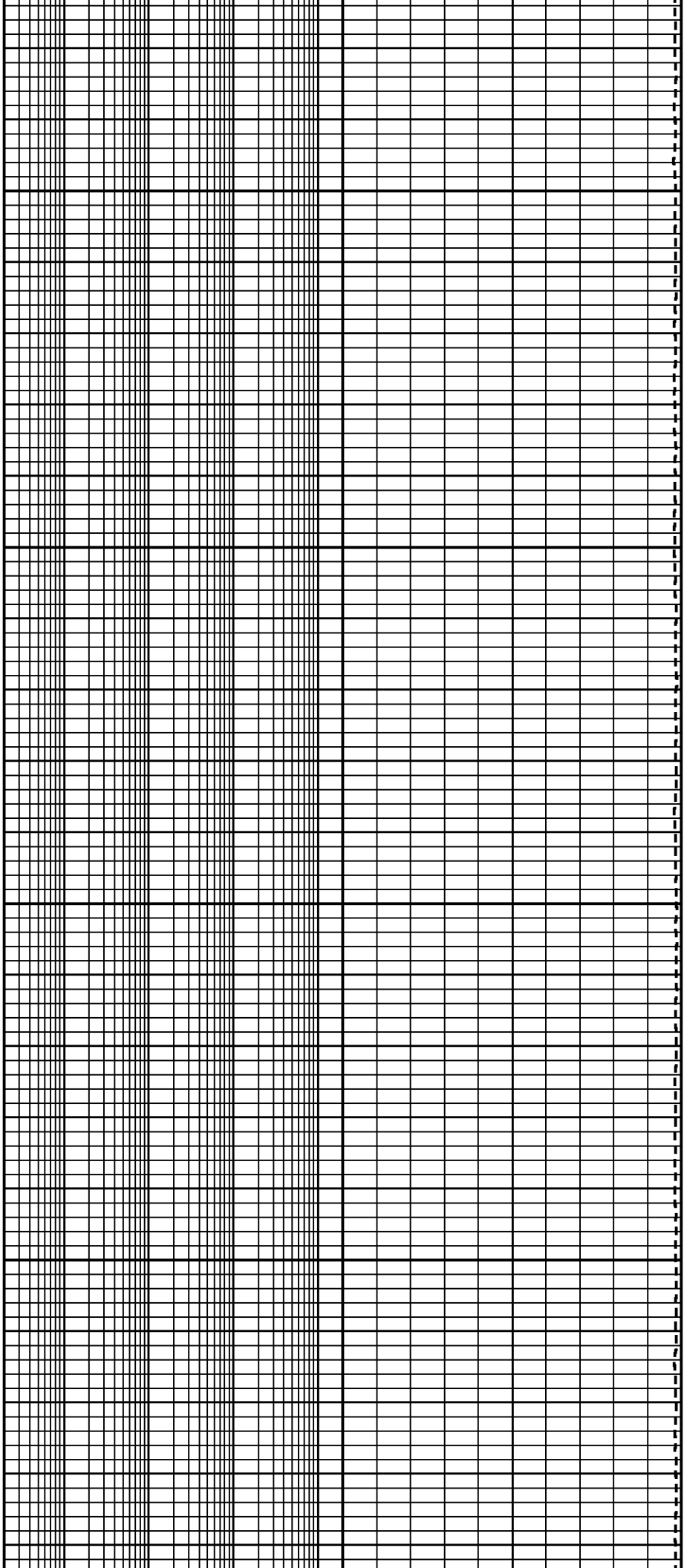




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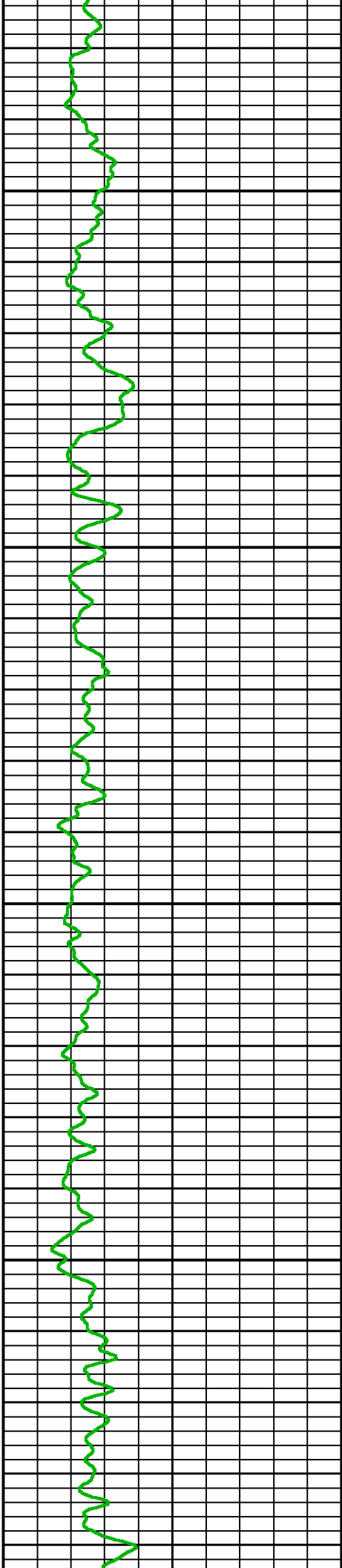
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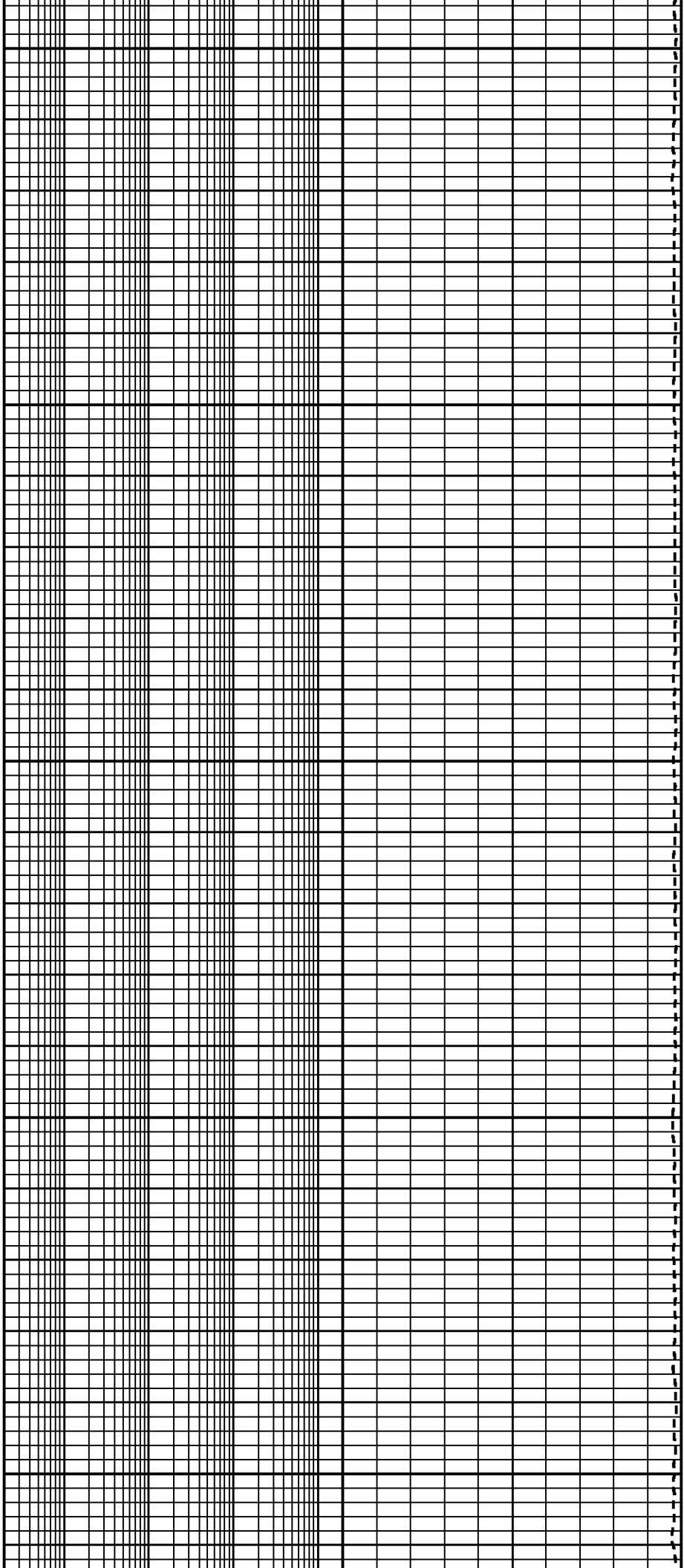




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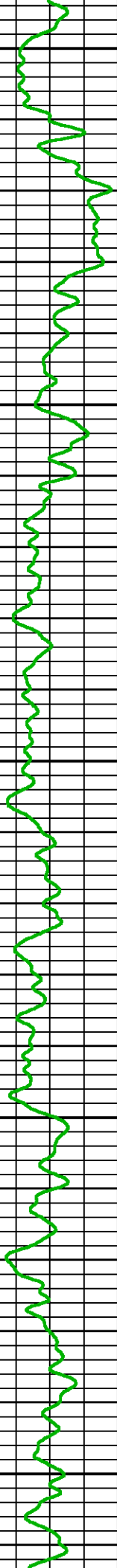


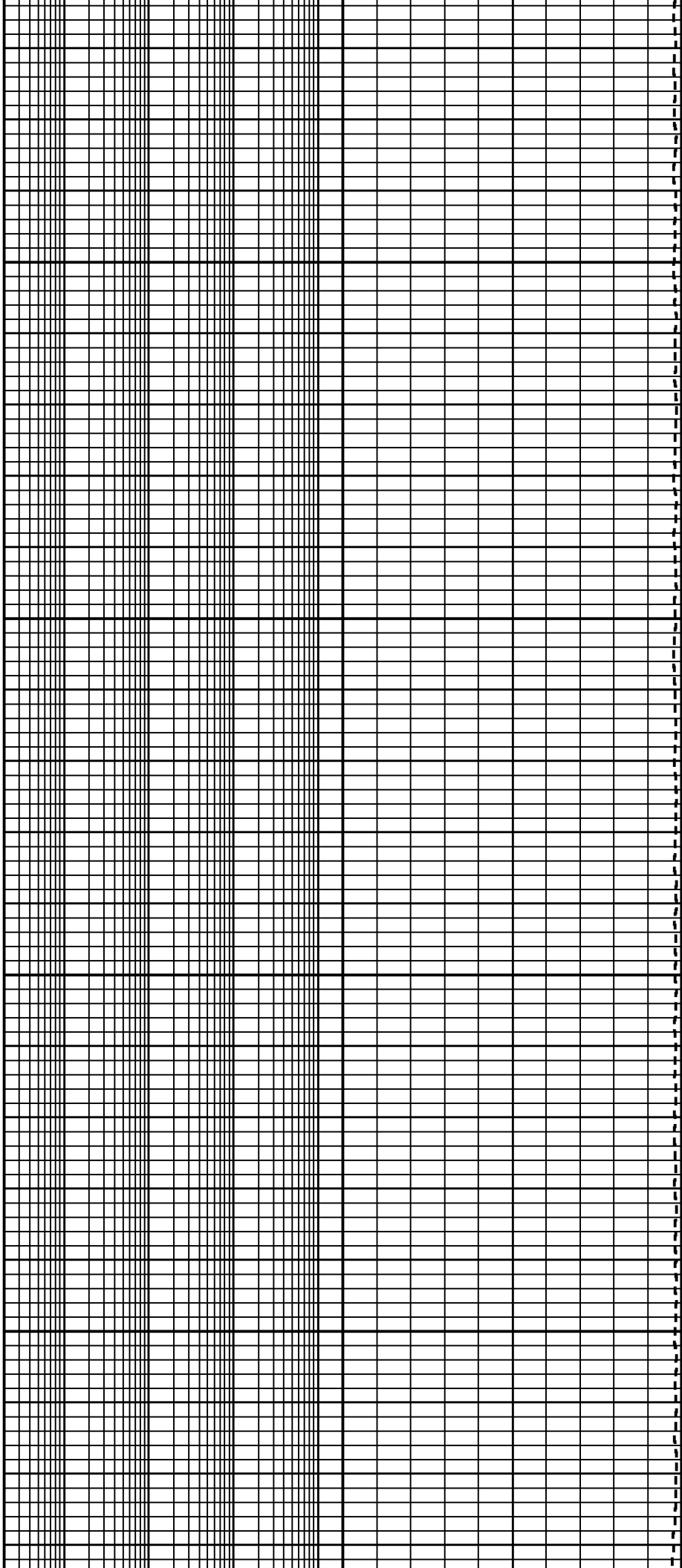


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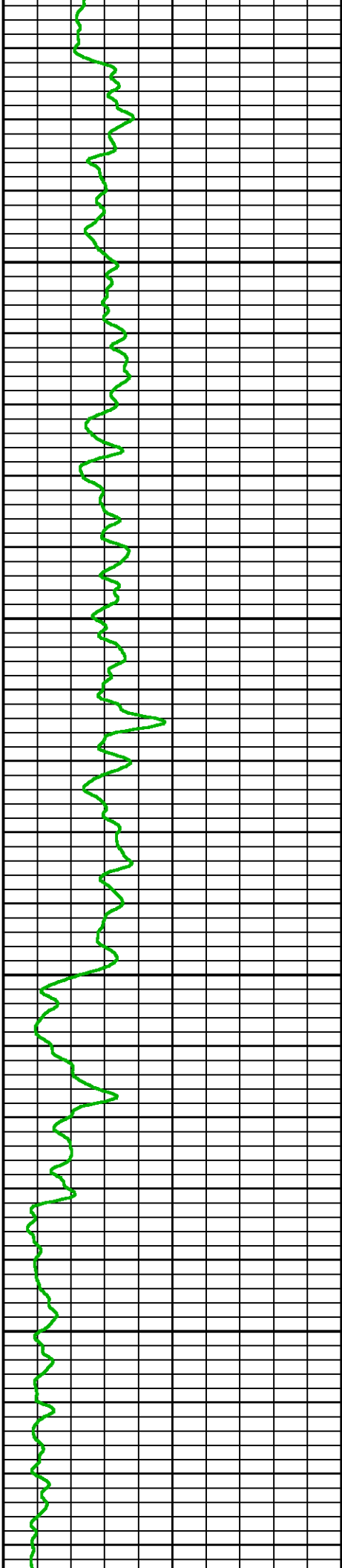
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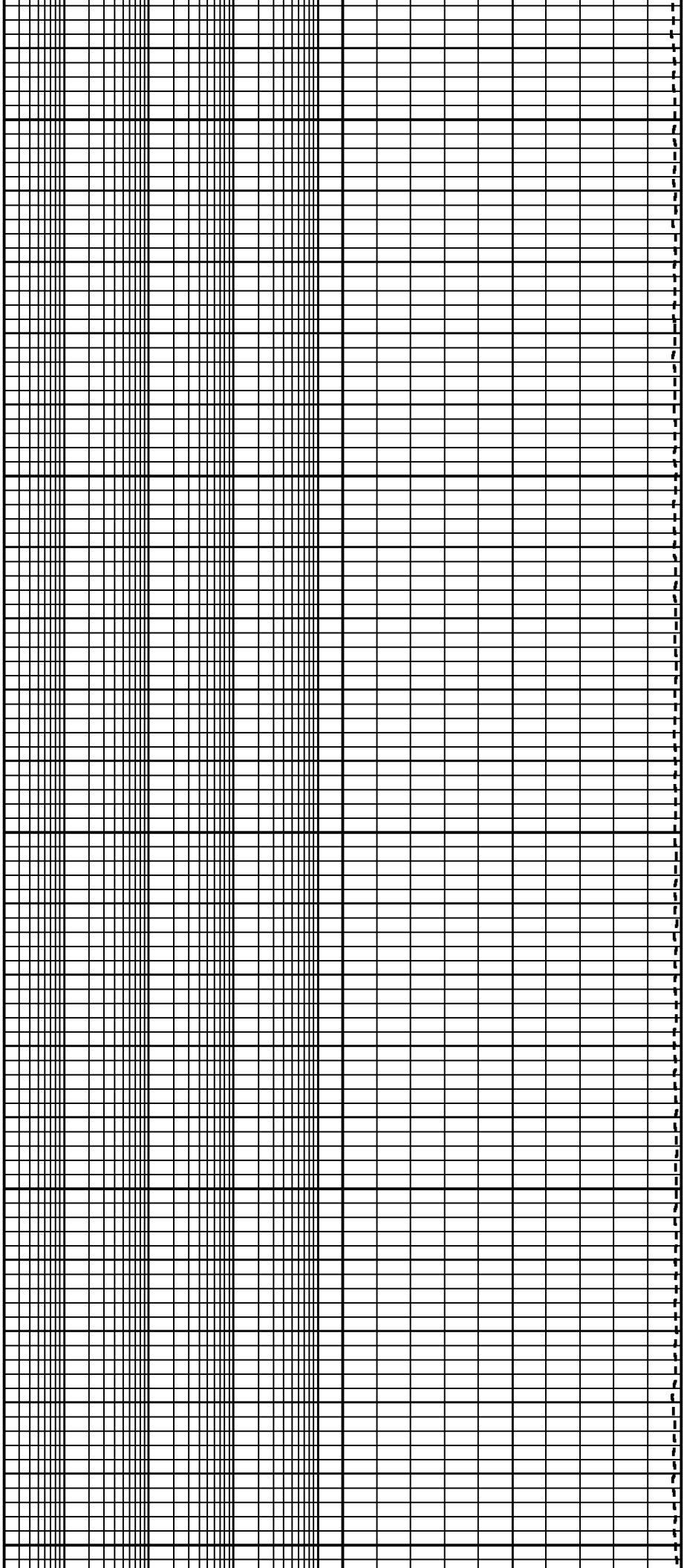




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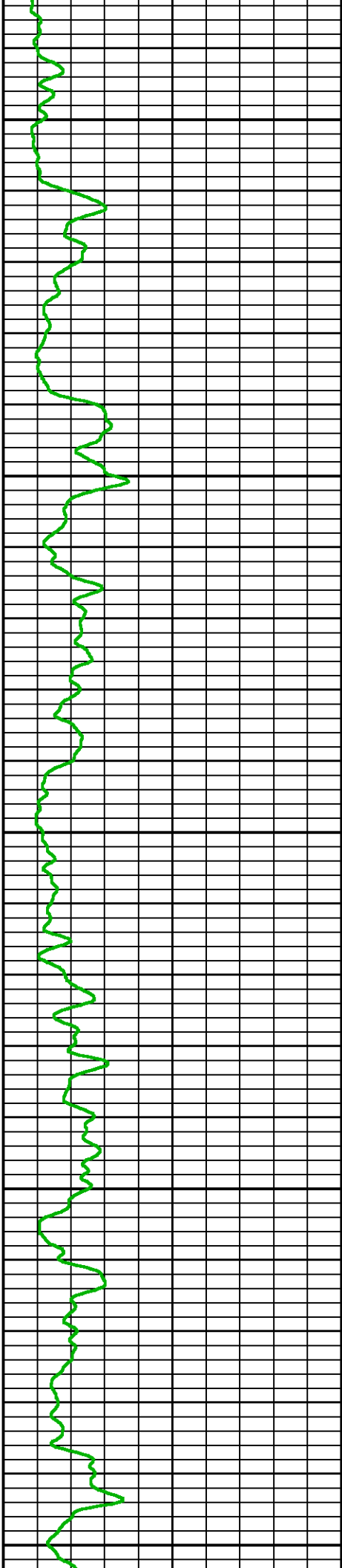
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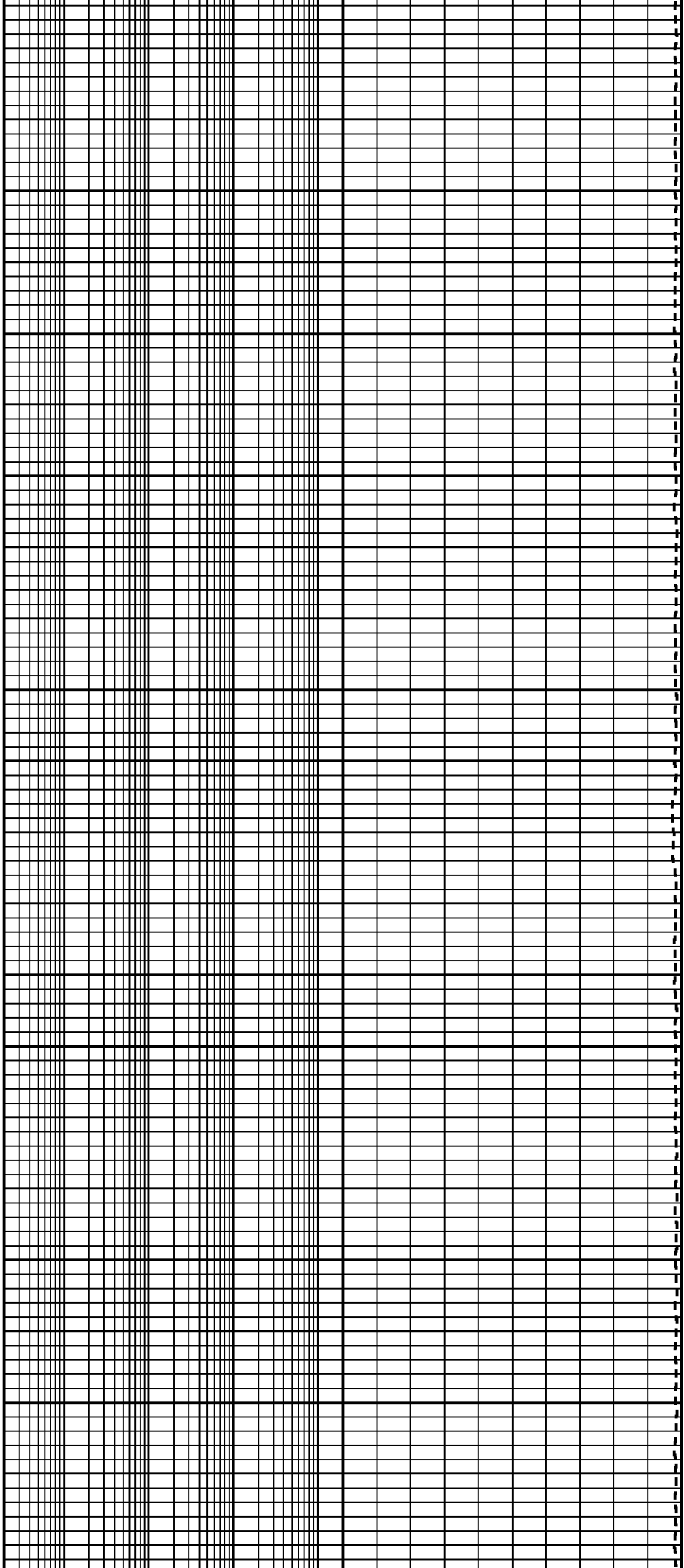




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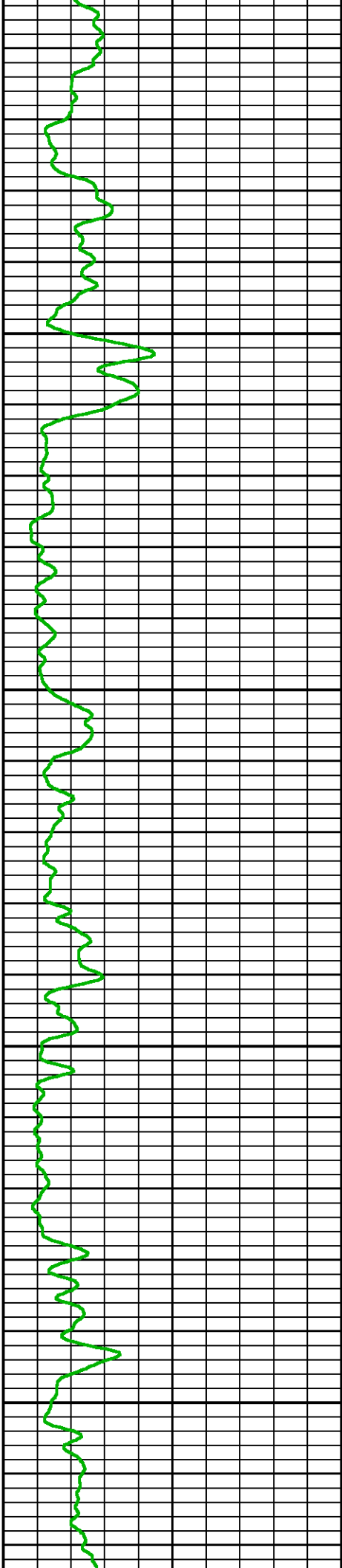
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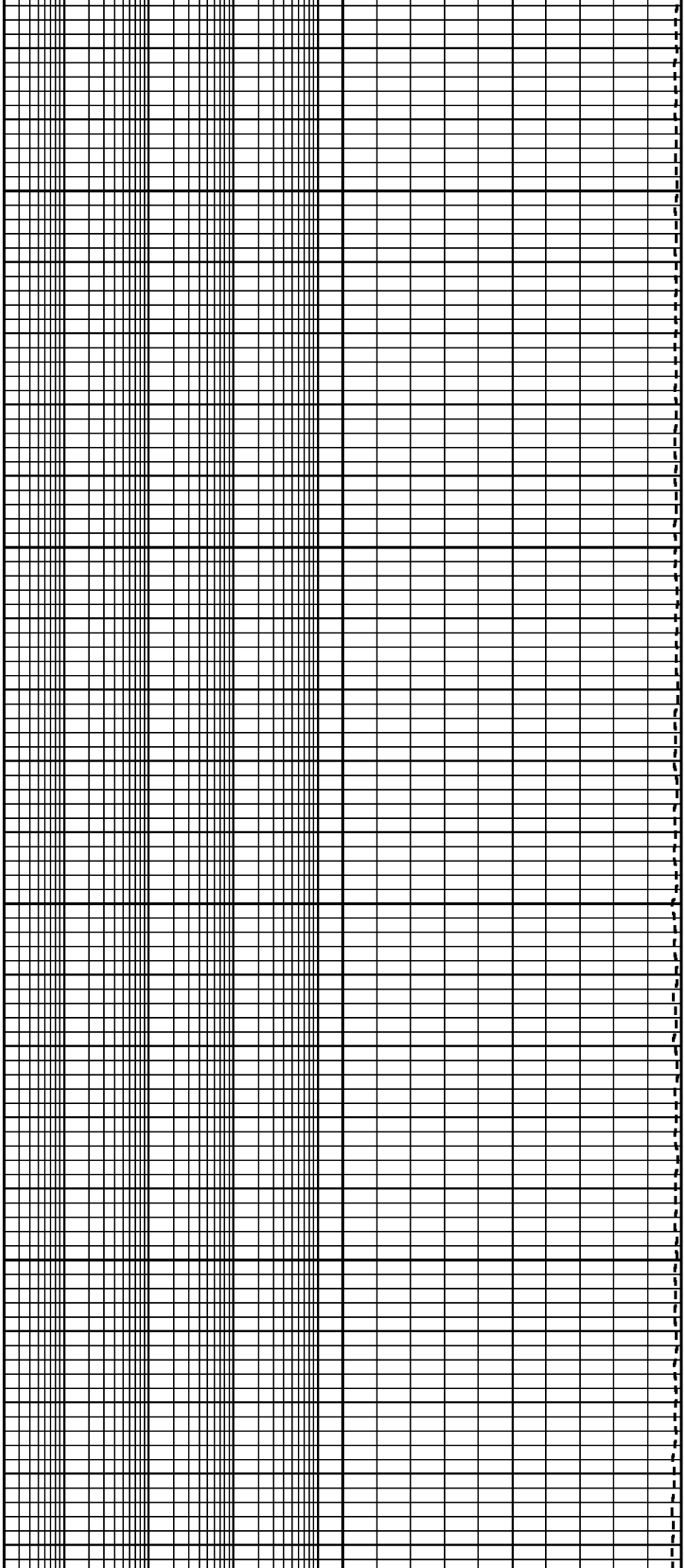




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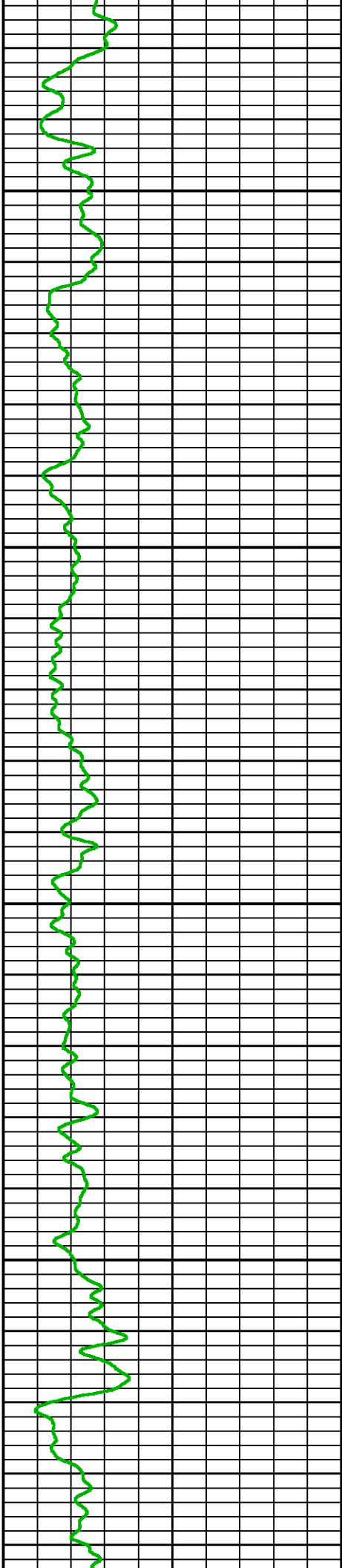
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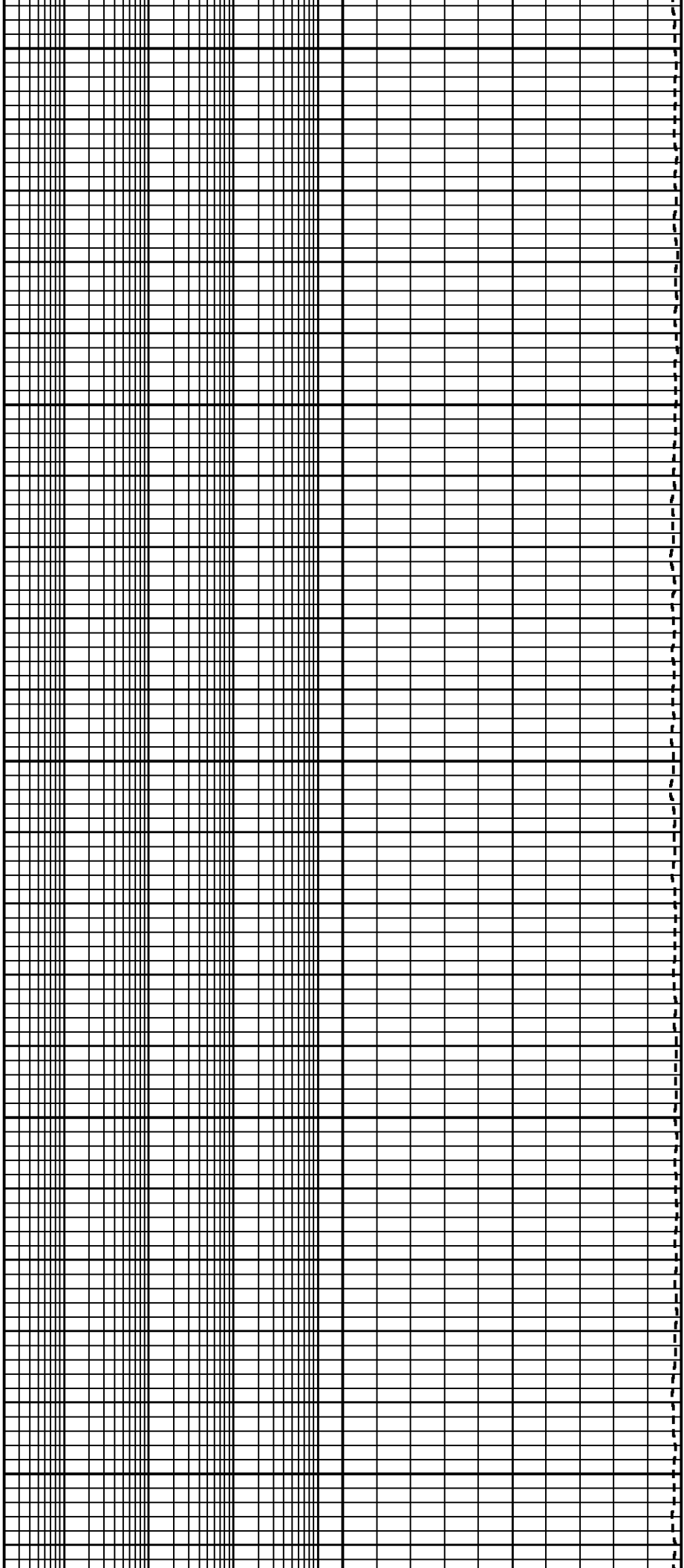




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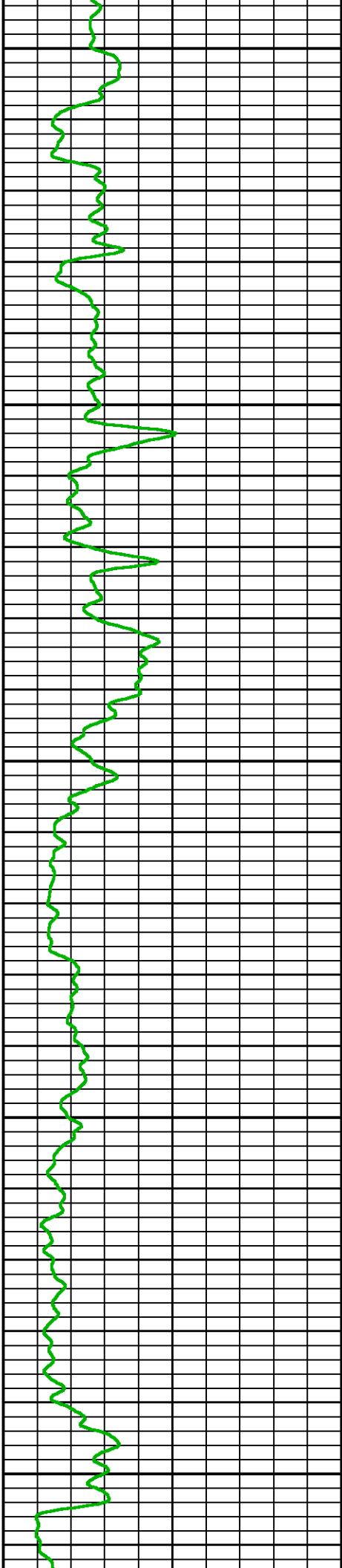


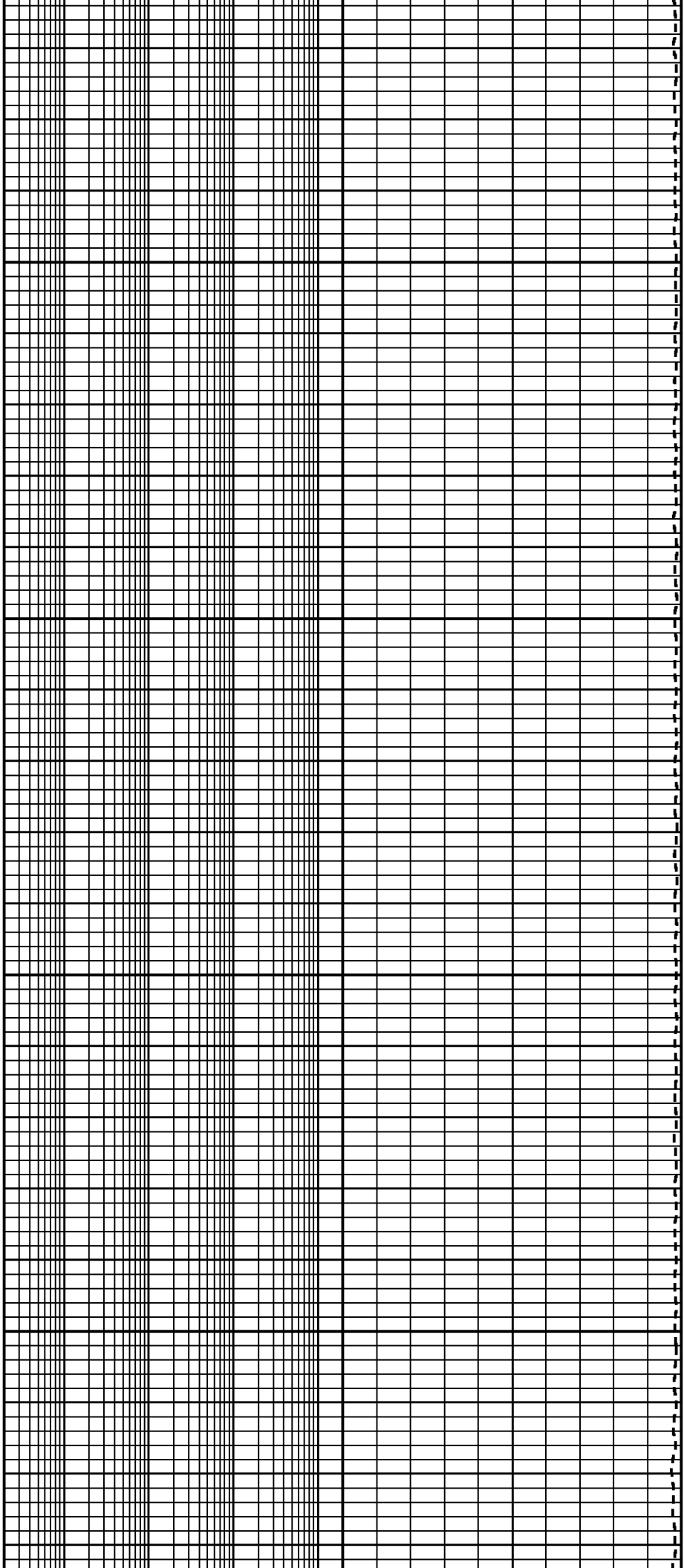


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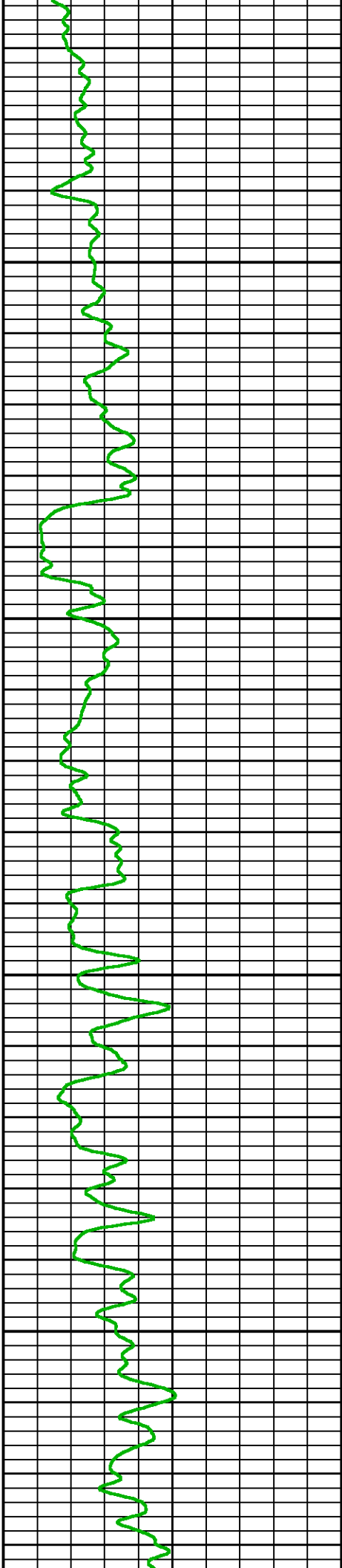
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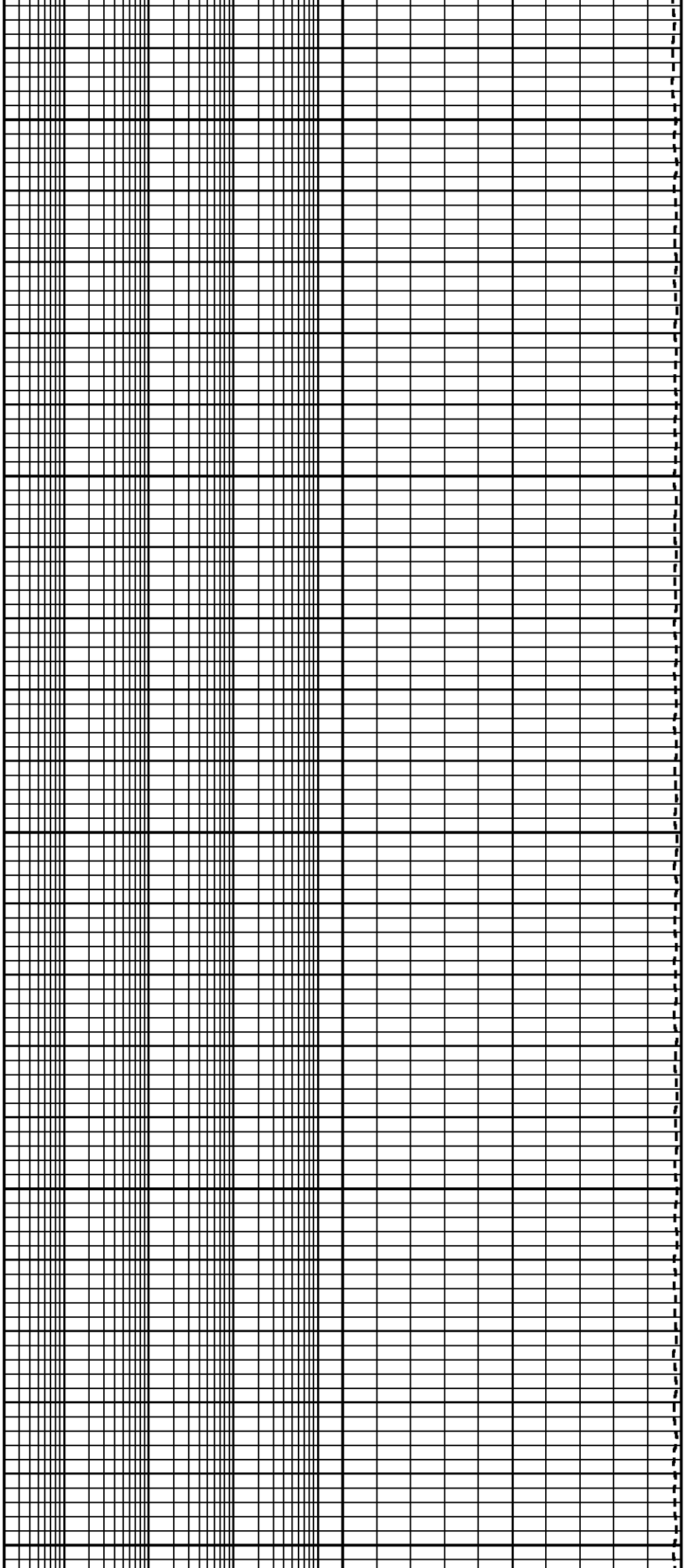




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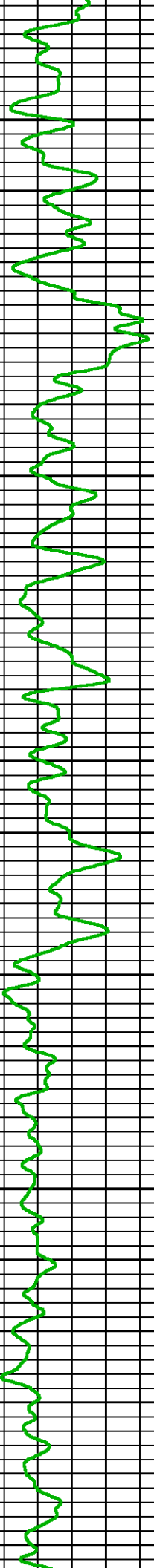
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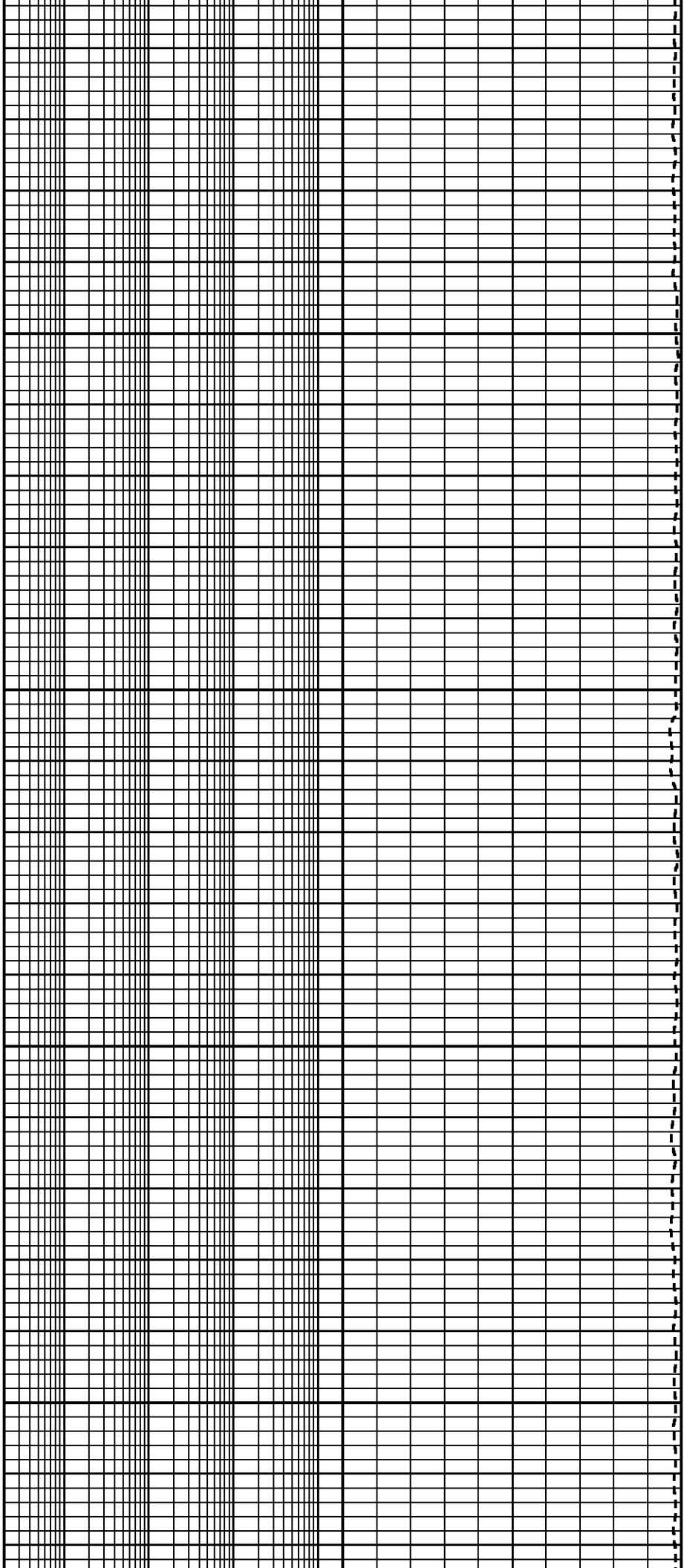




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3300





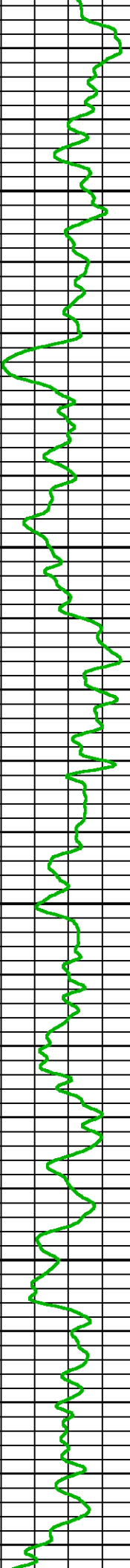
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3500



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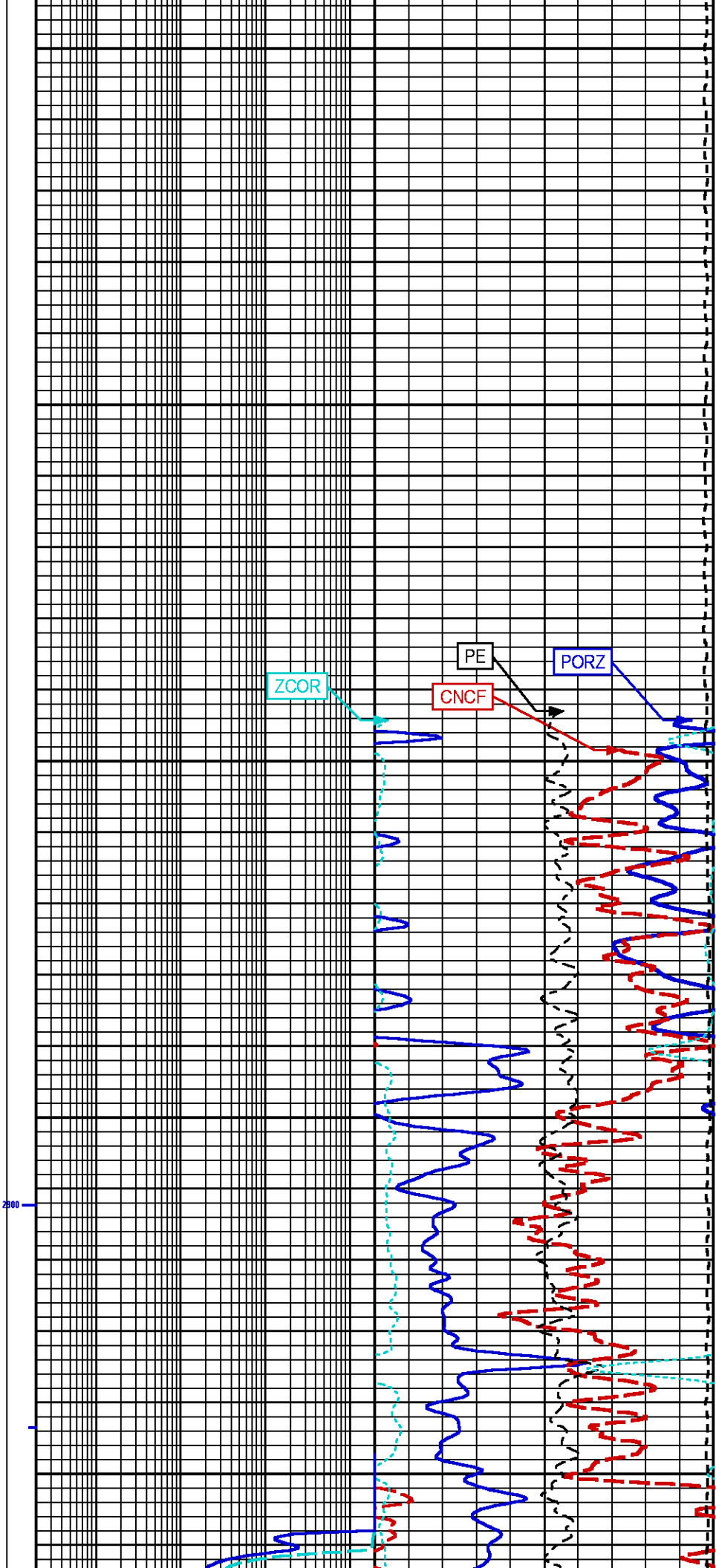
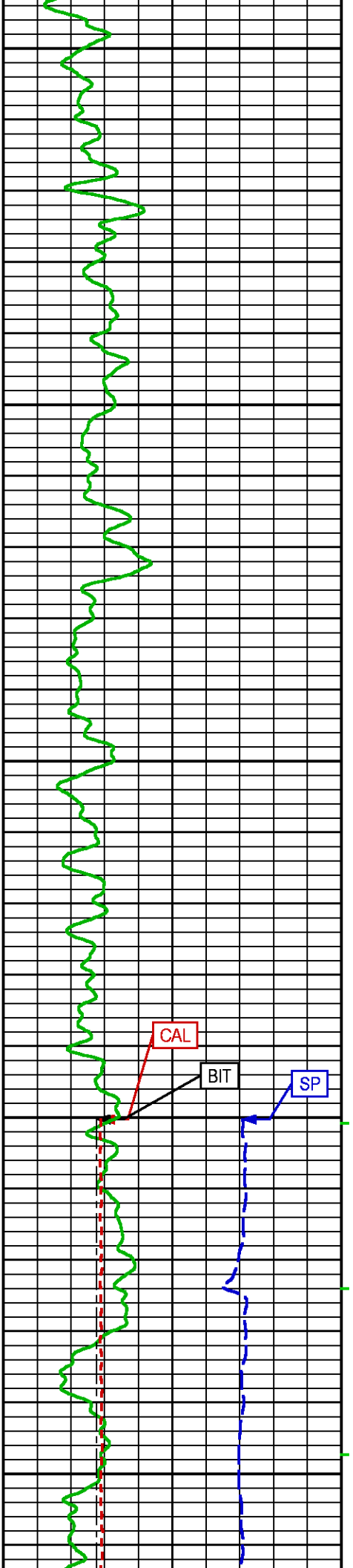
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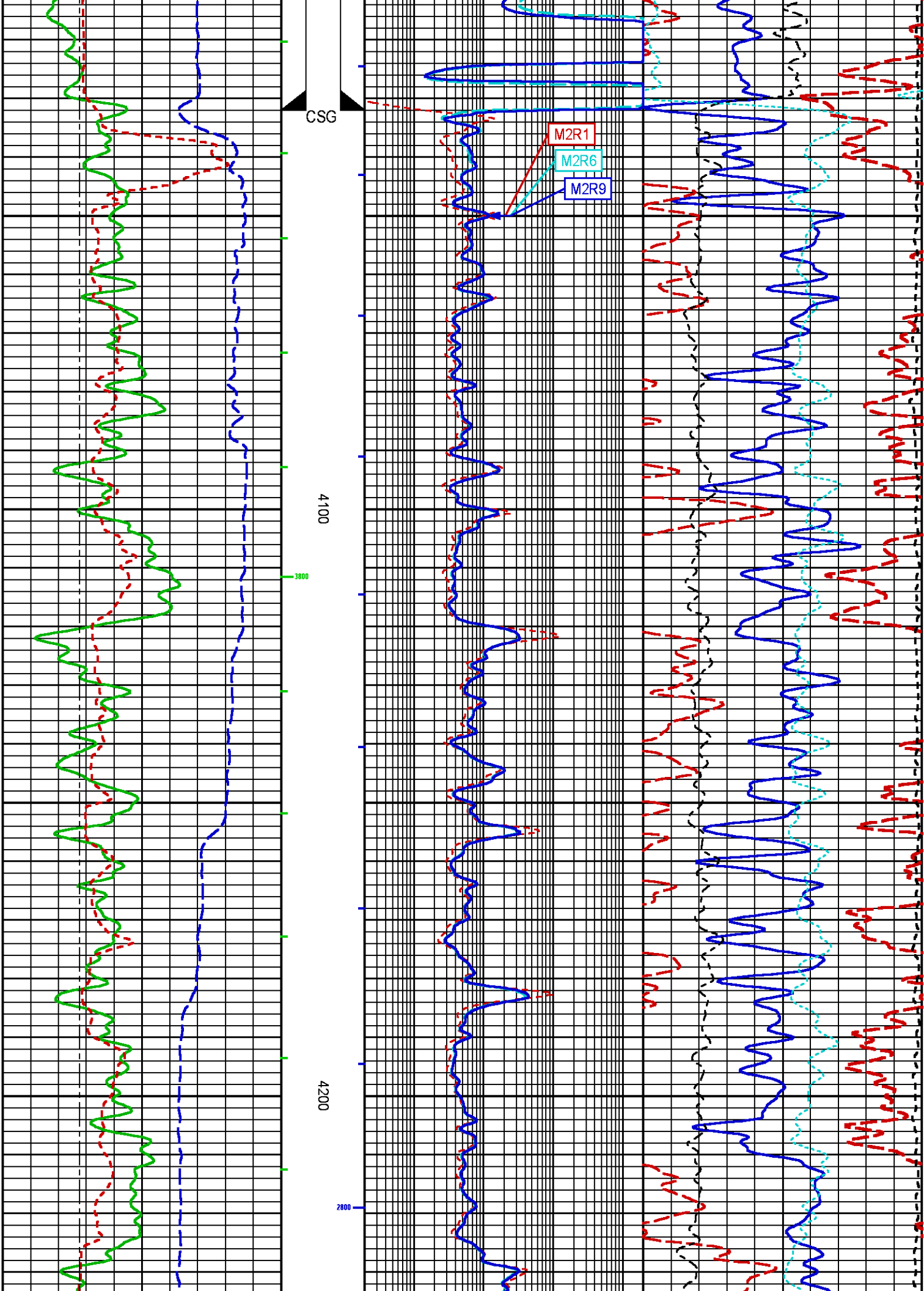


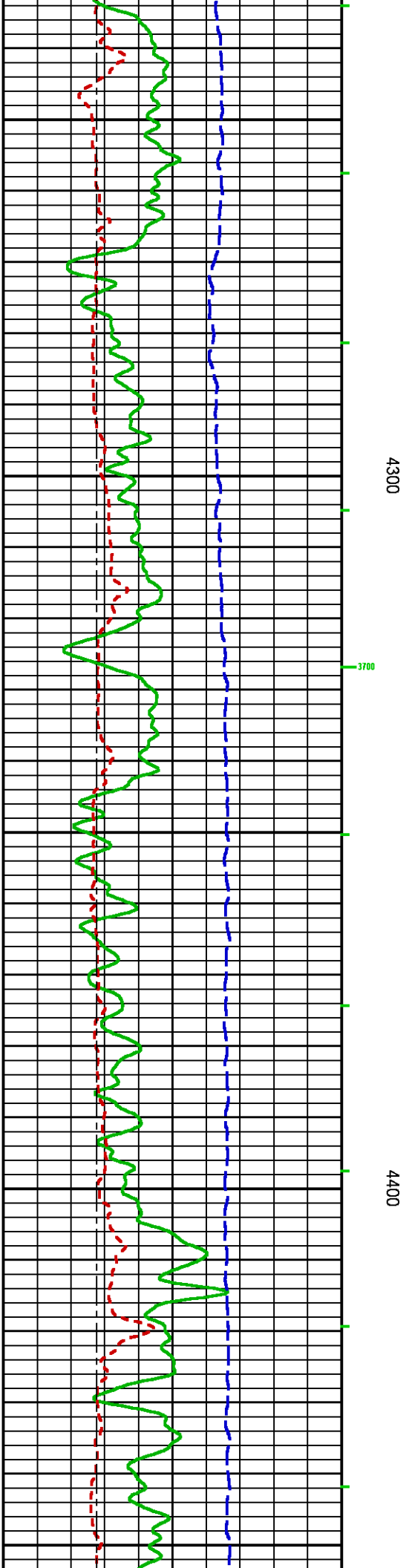
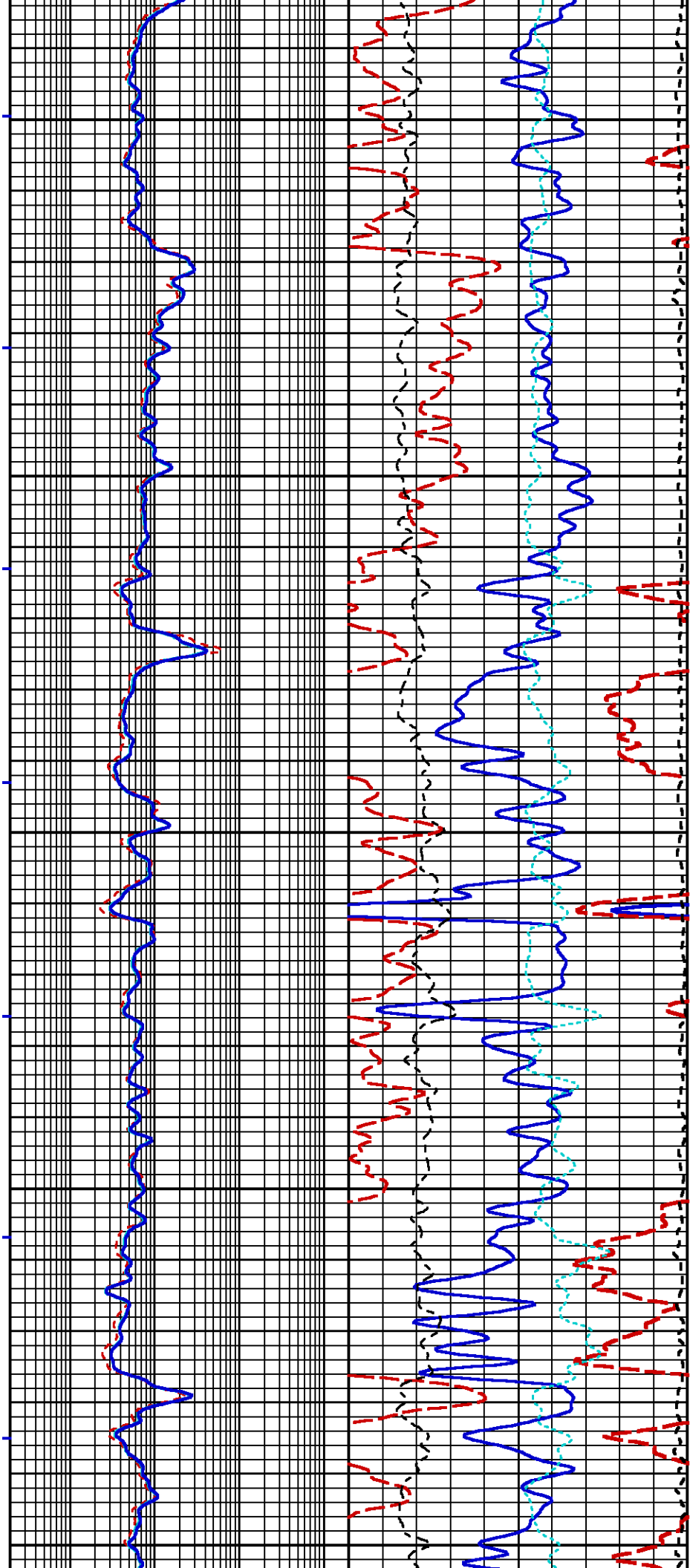
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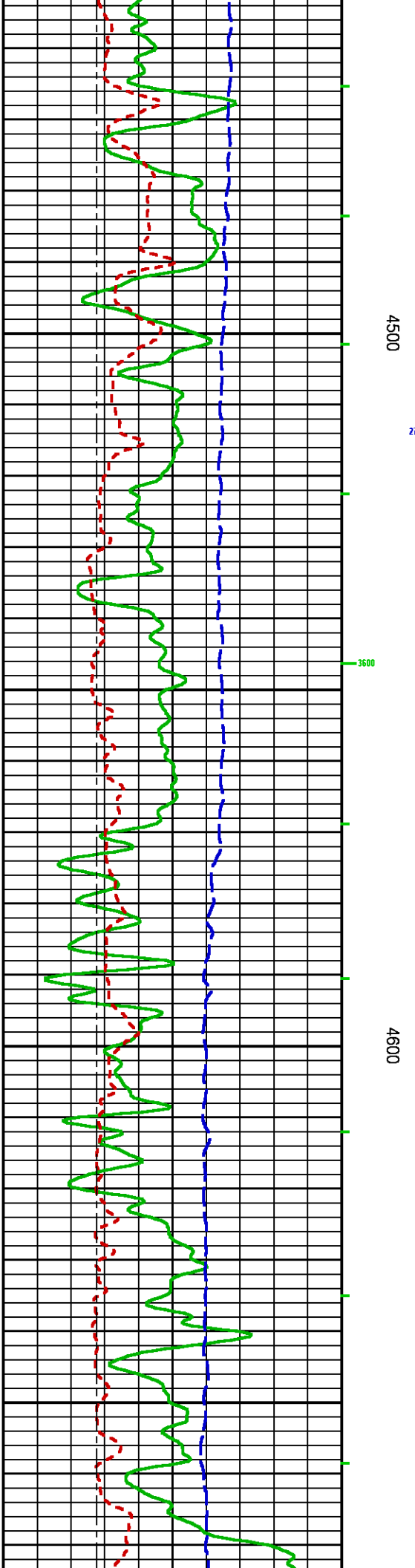
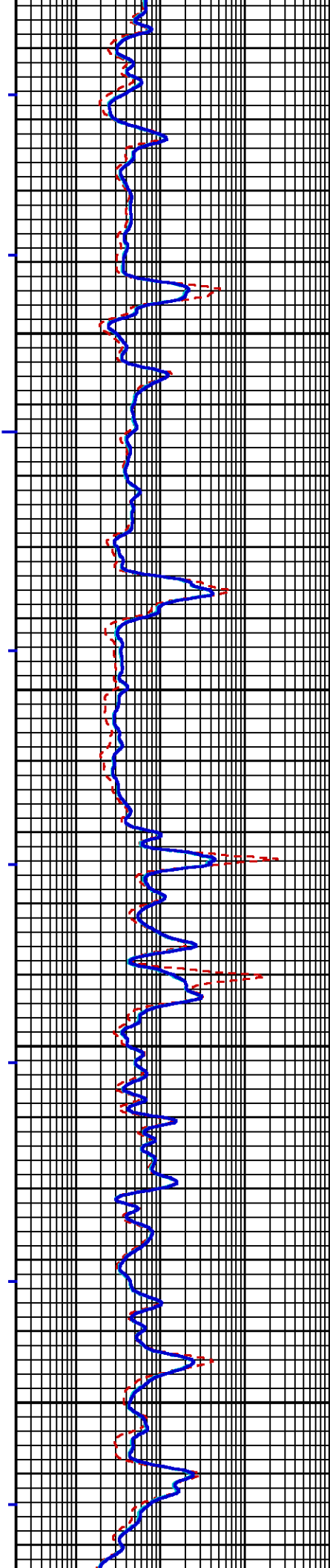
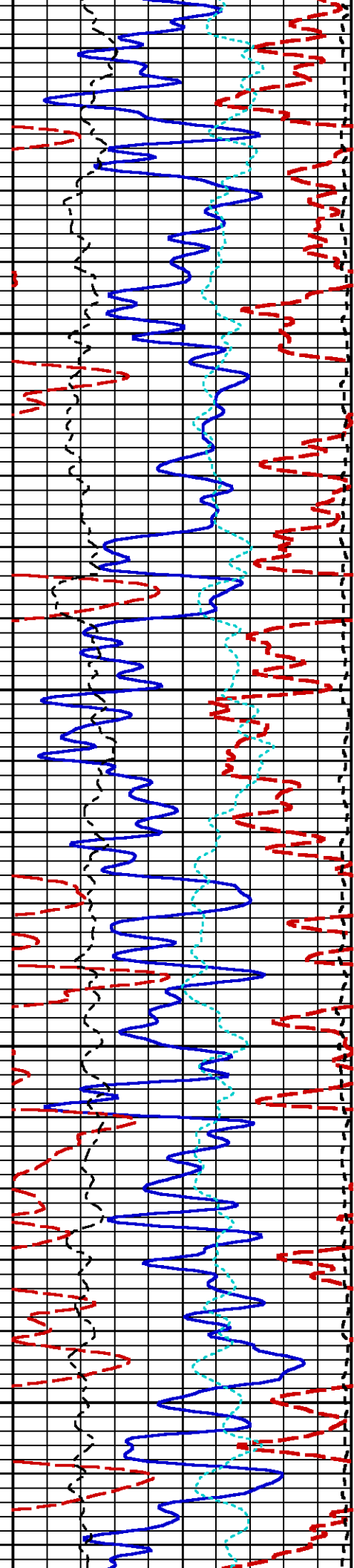
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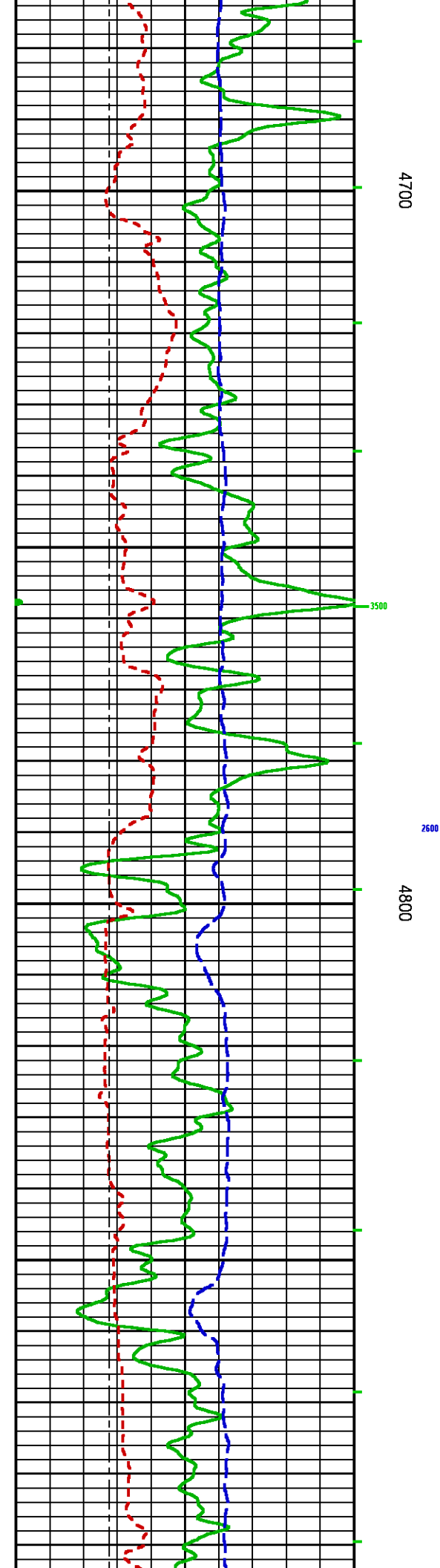
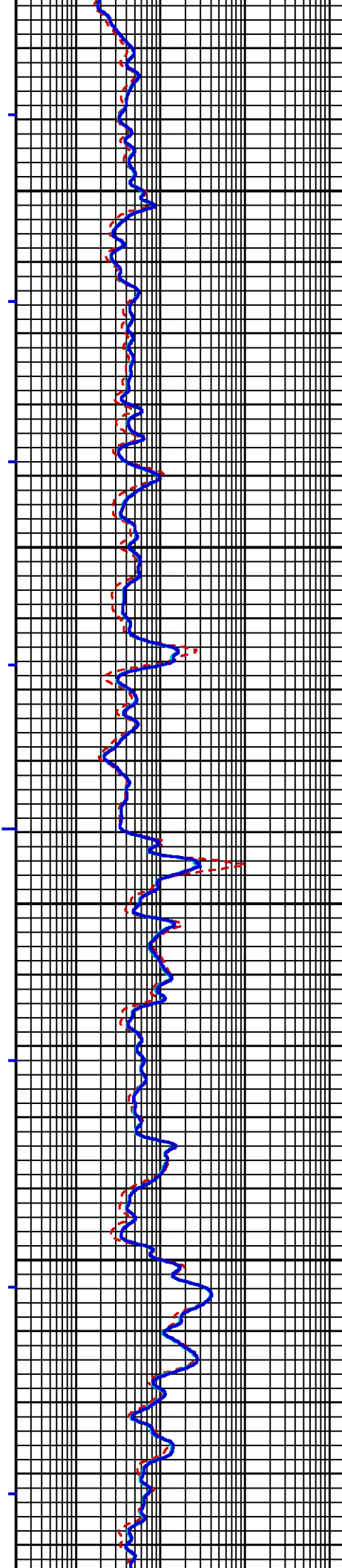
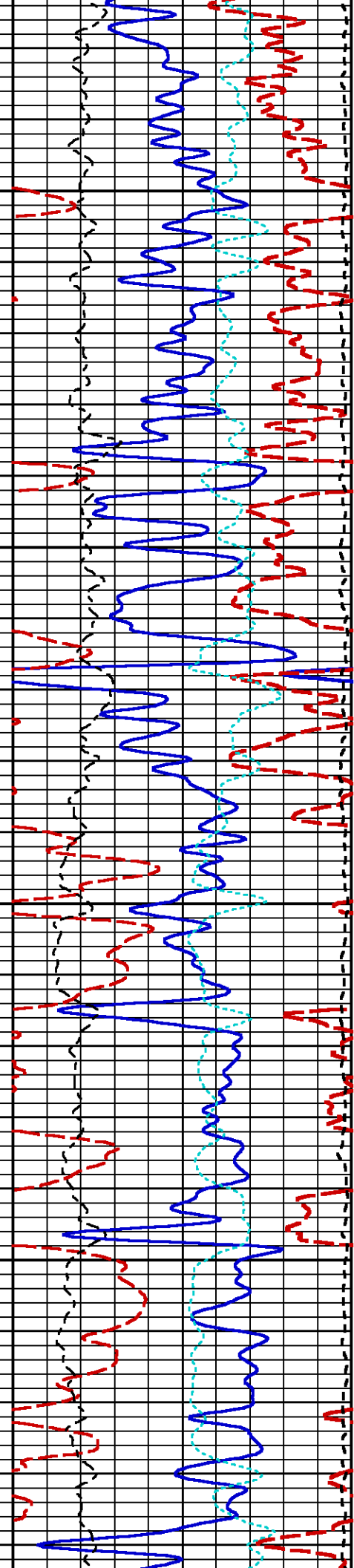
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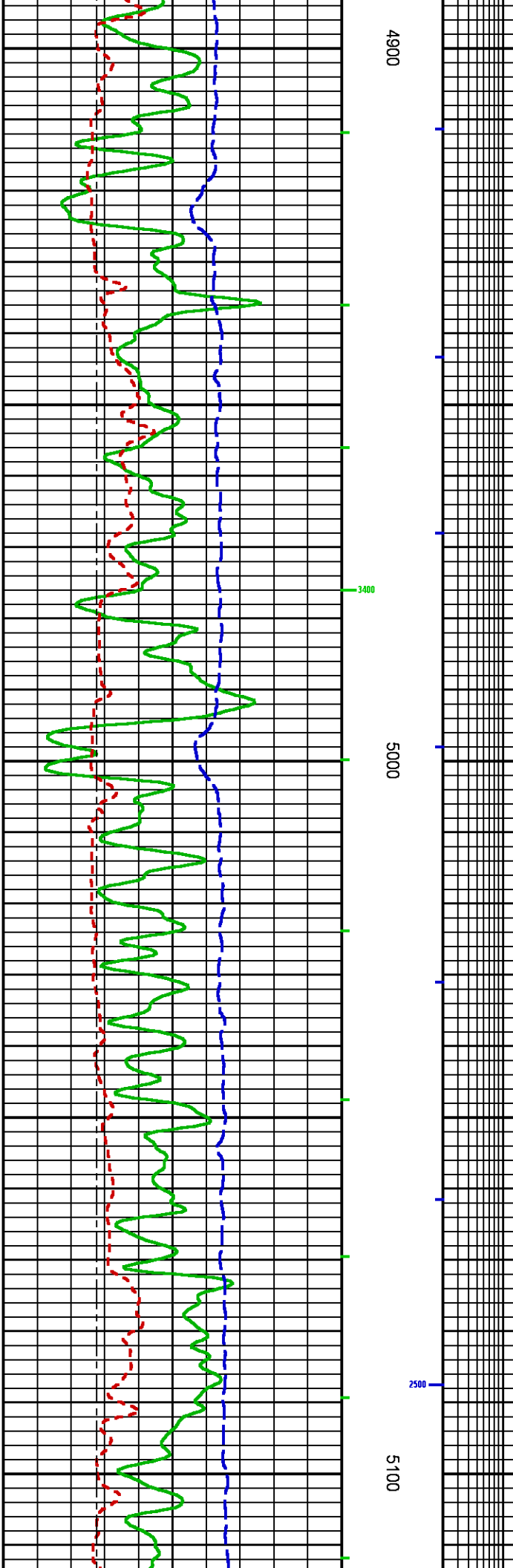
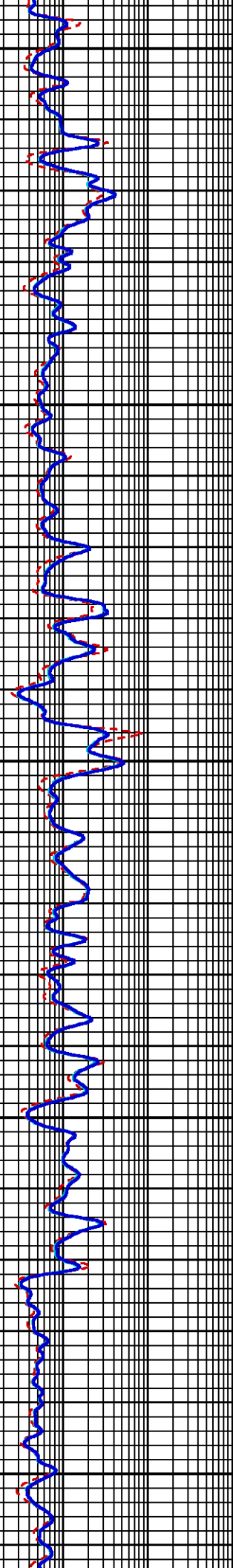
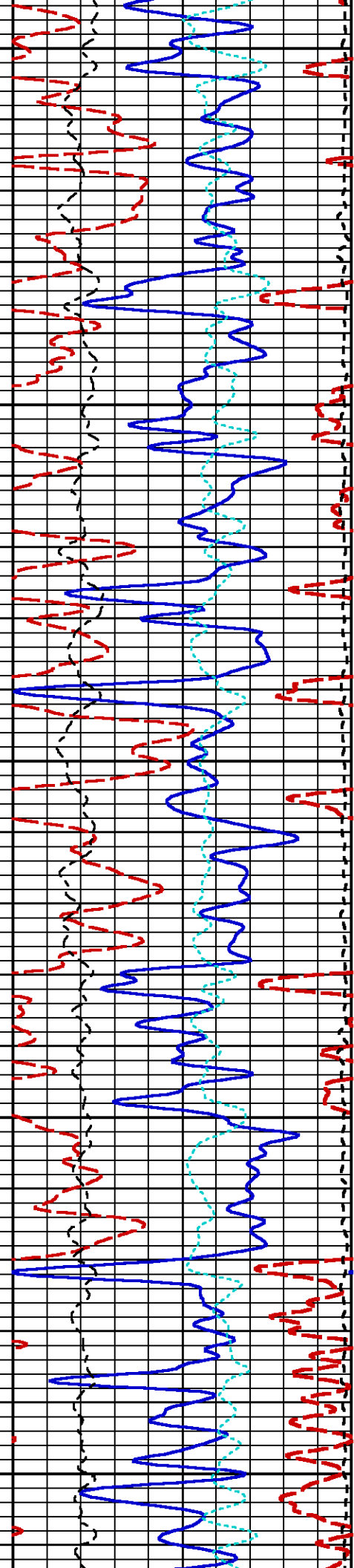


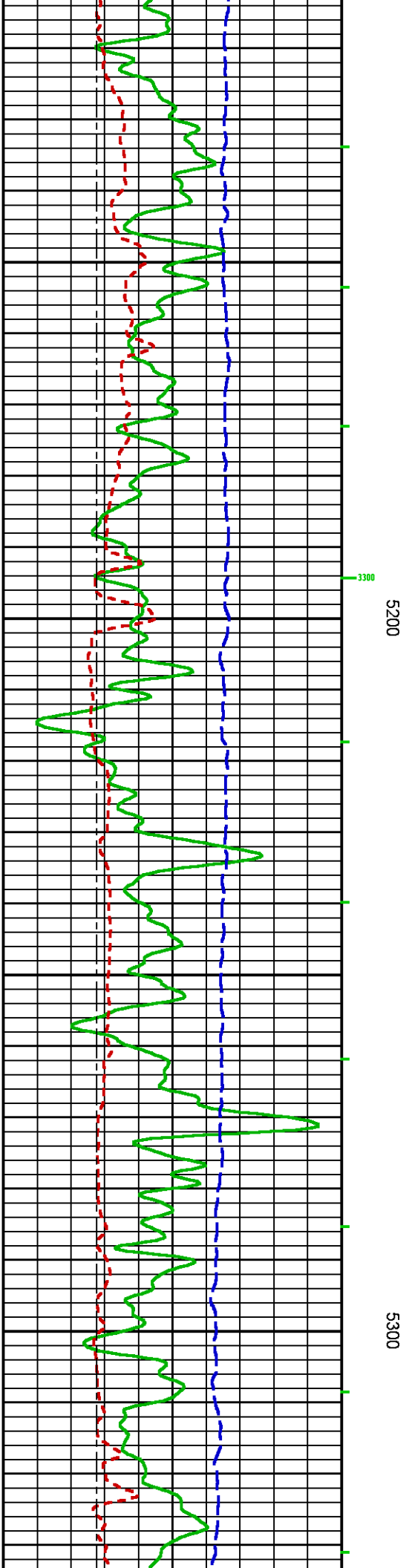
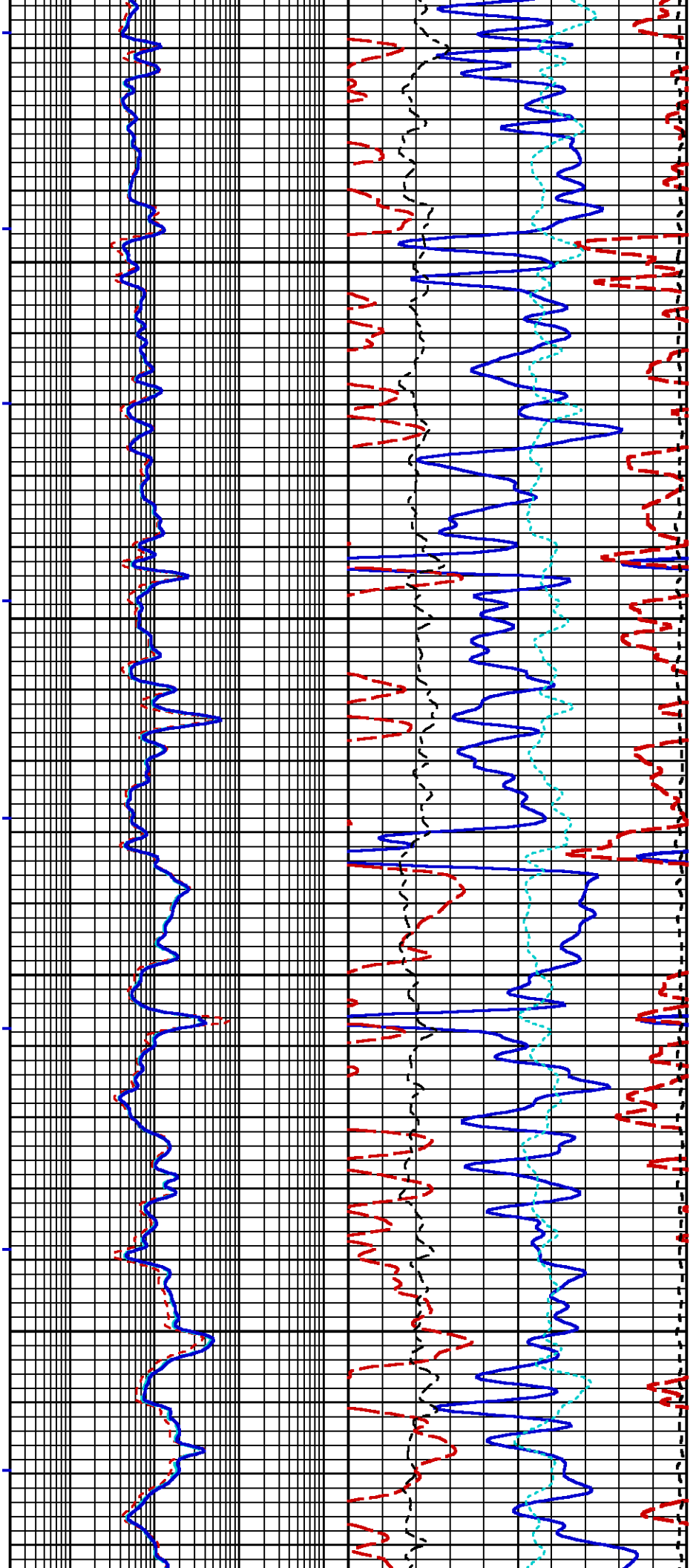


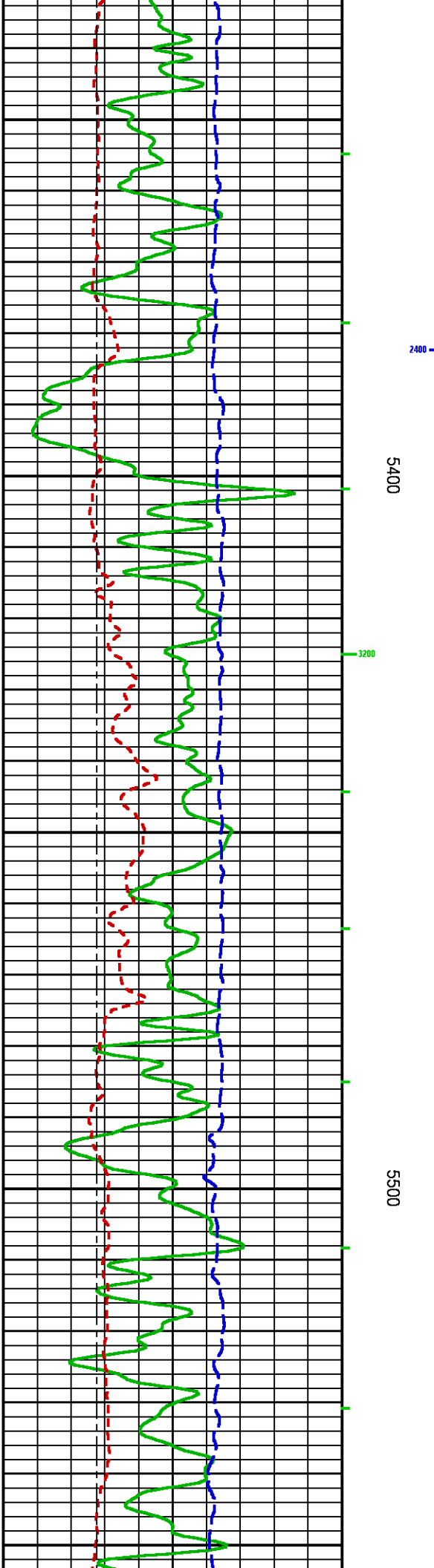
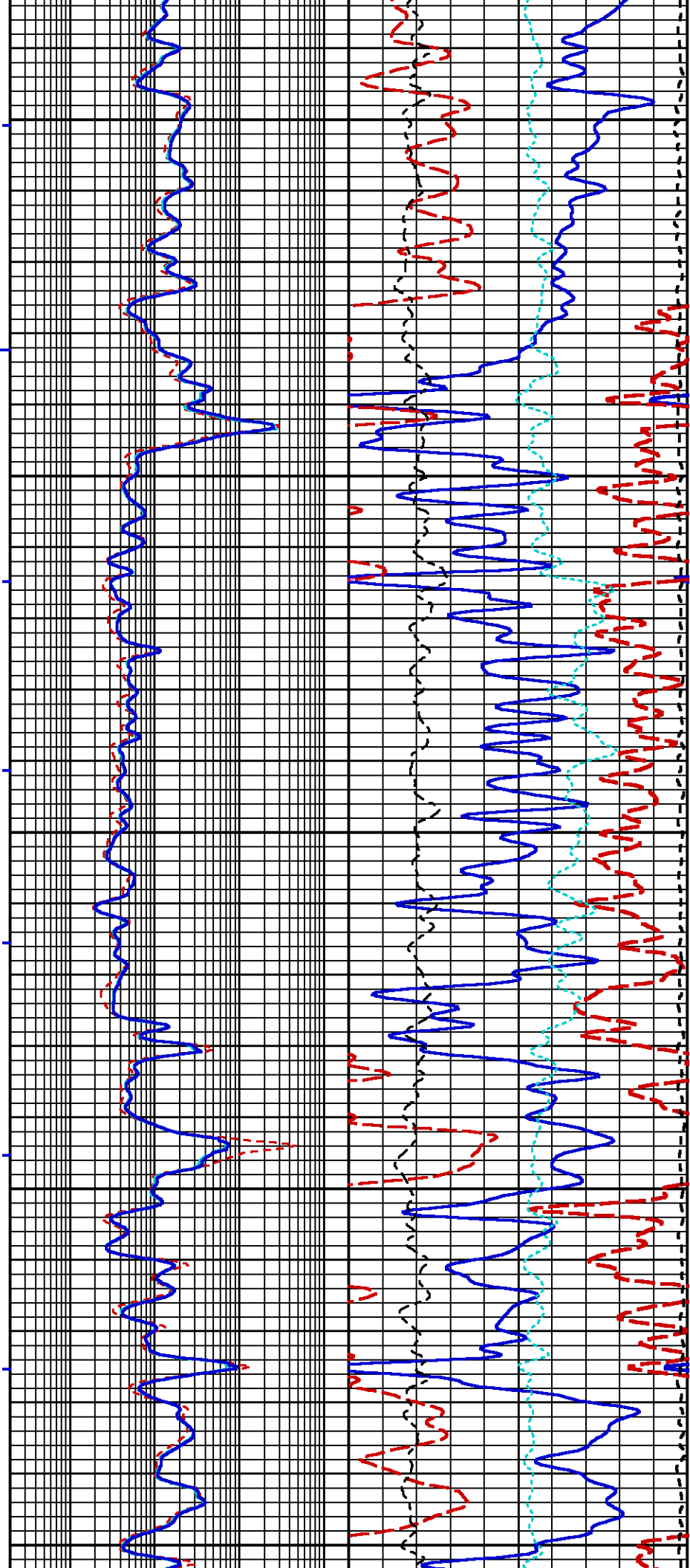


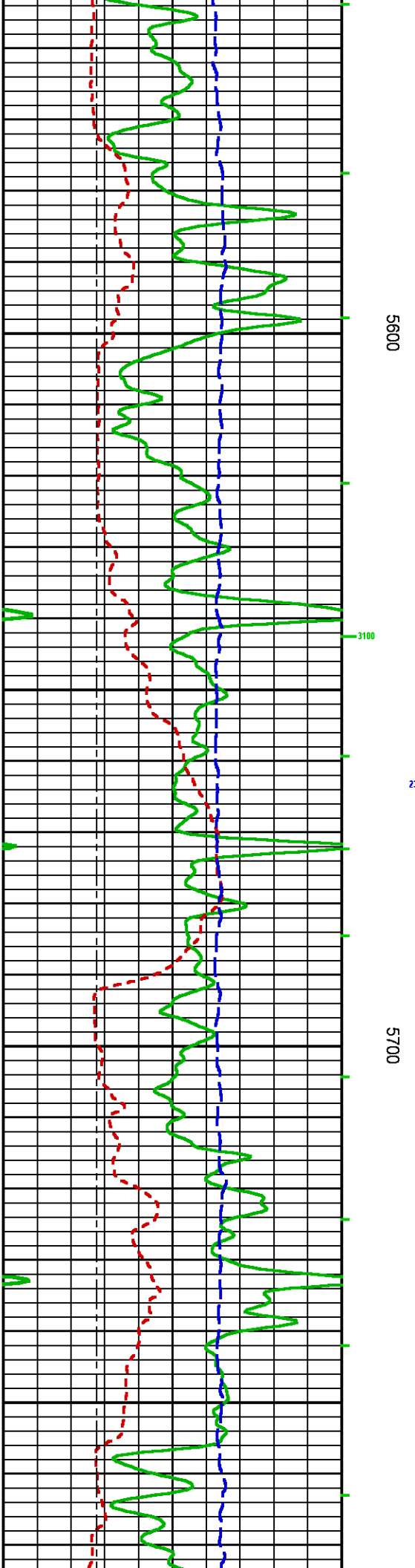
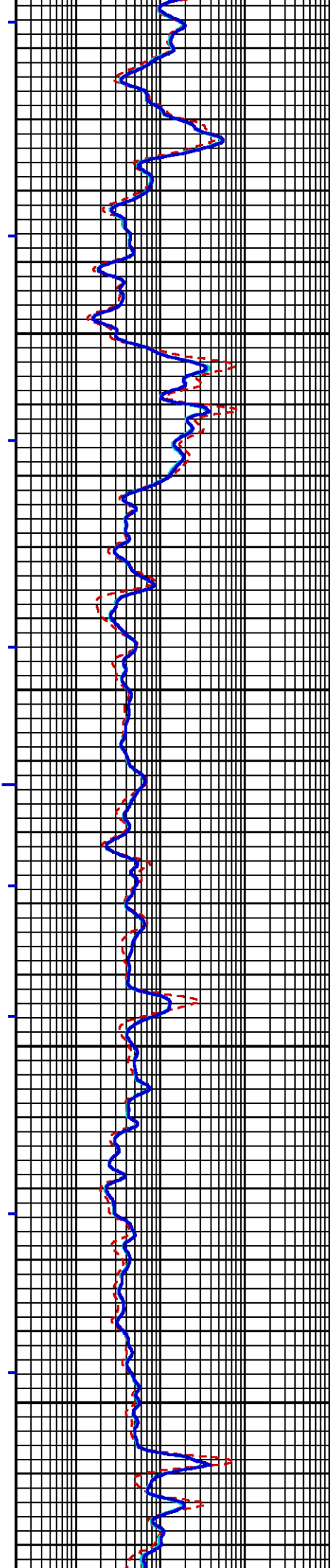
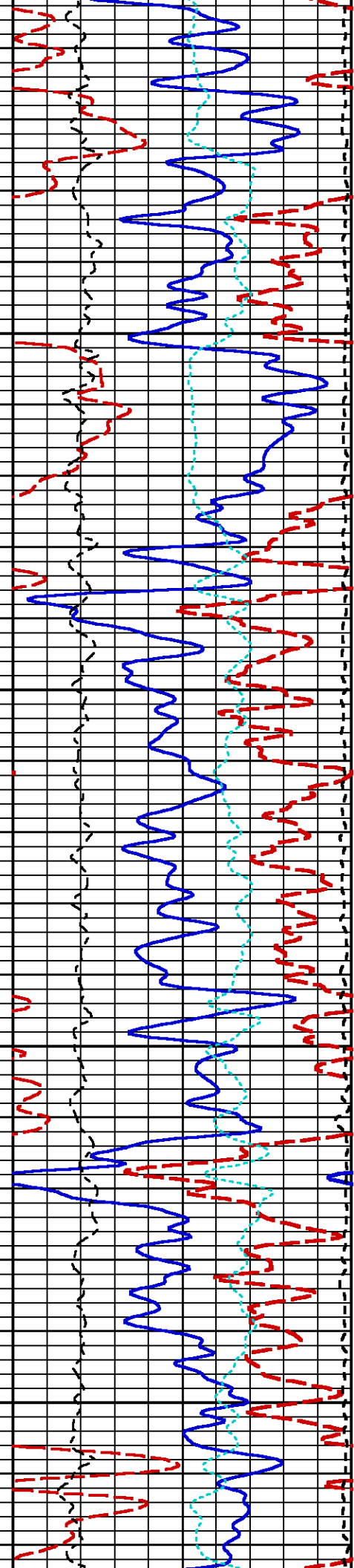


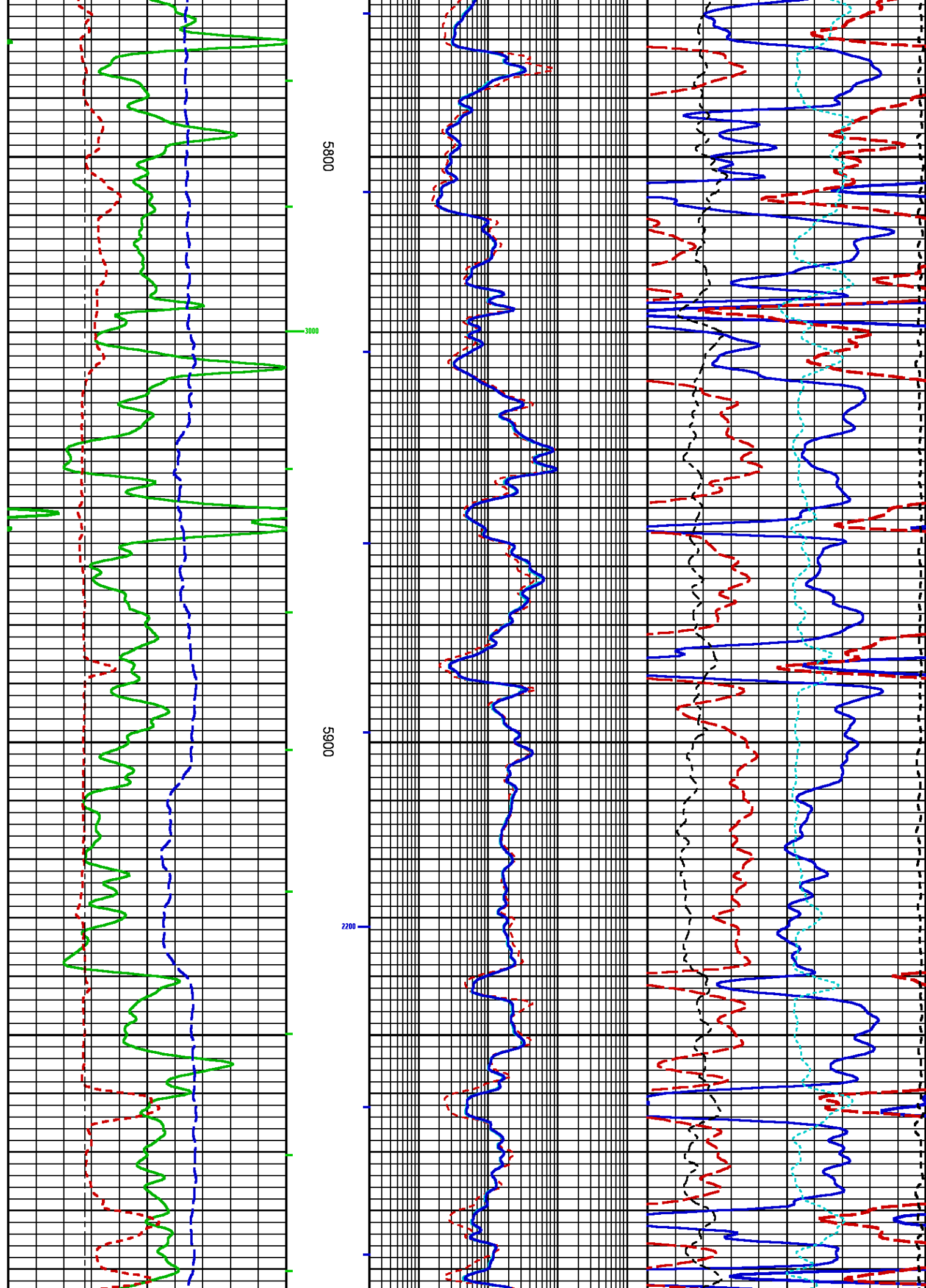


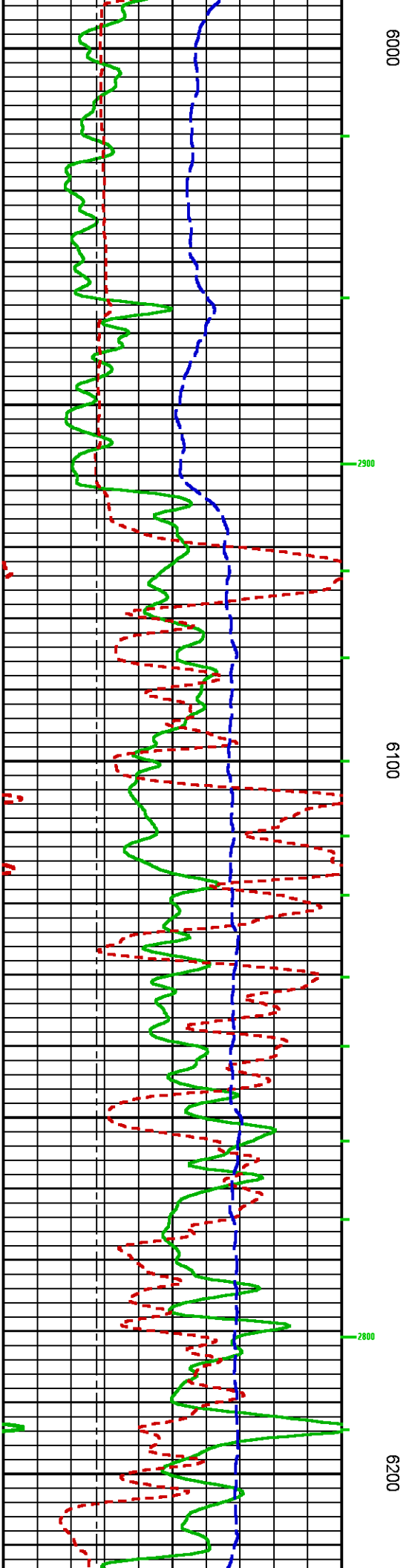
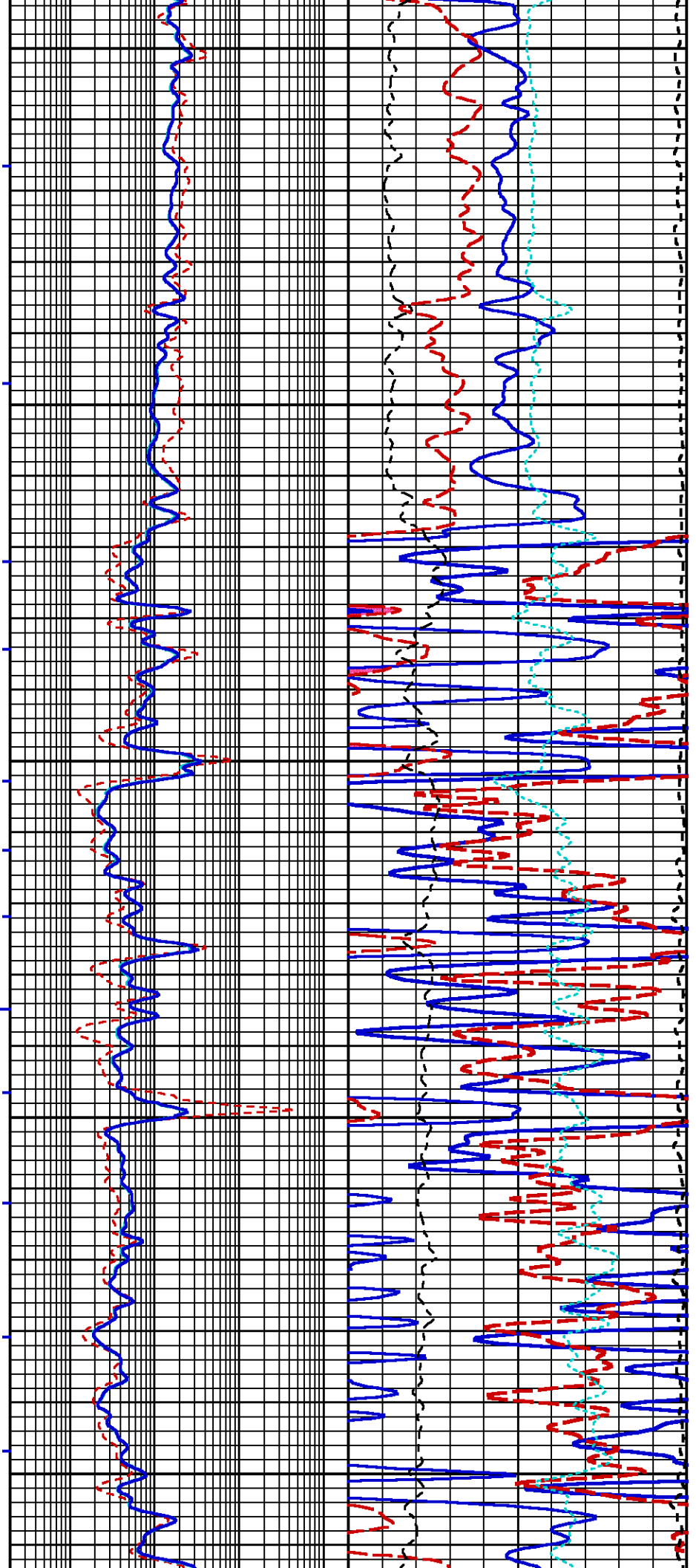


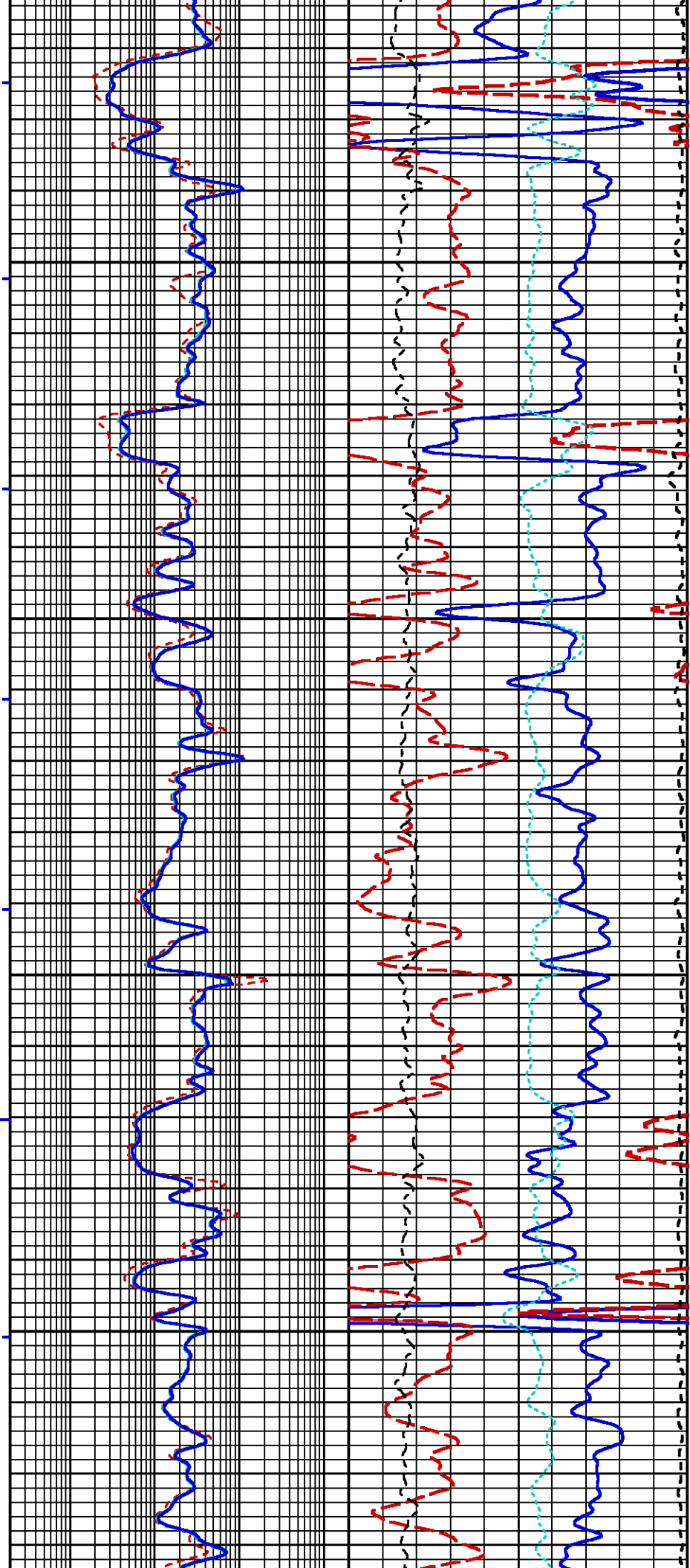








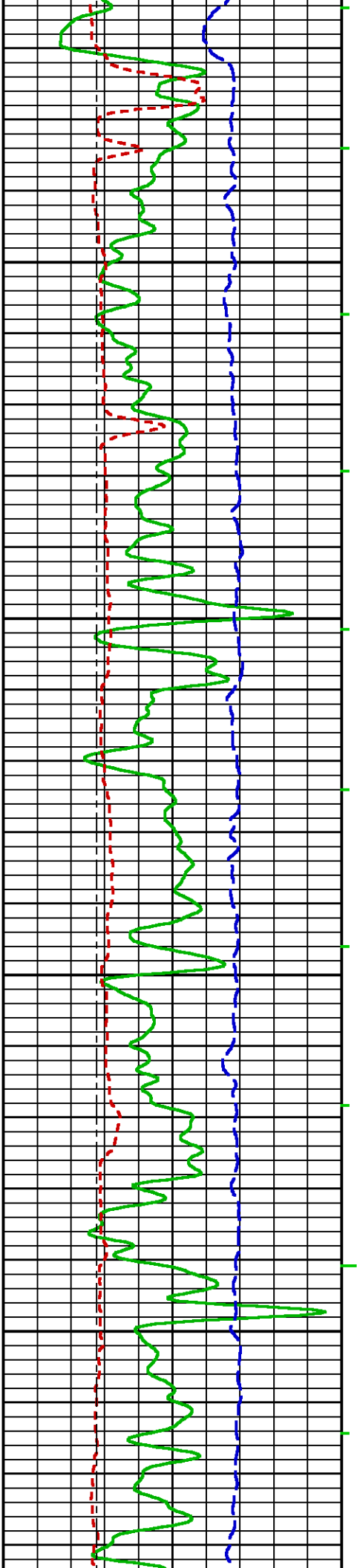


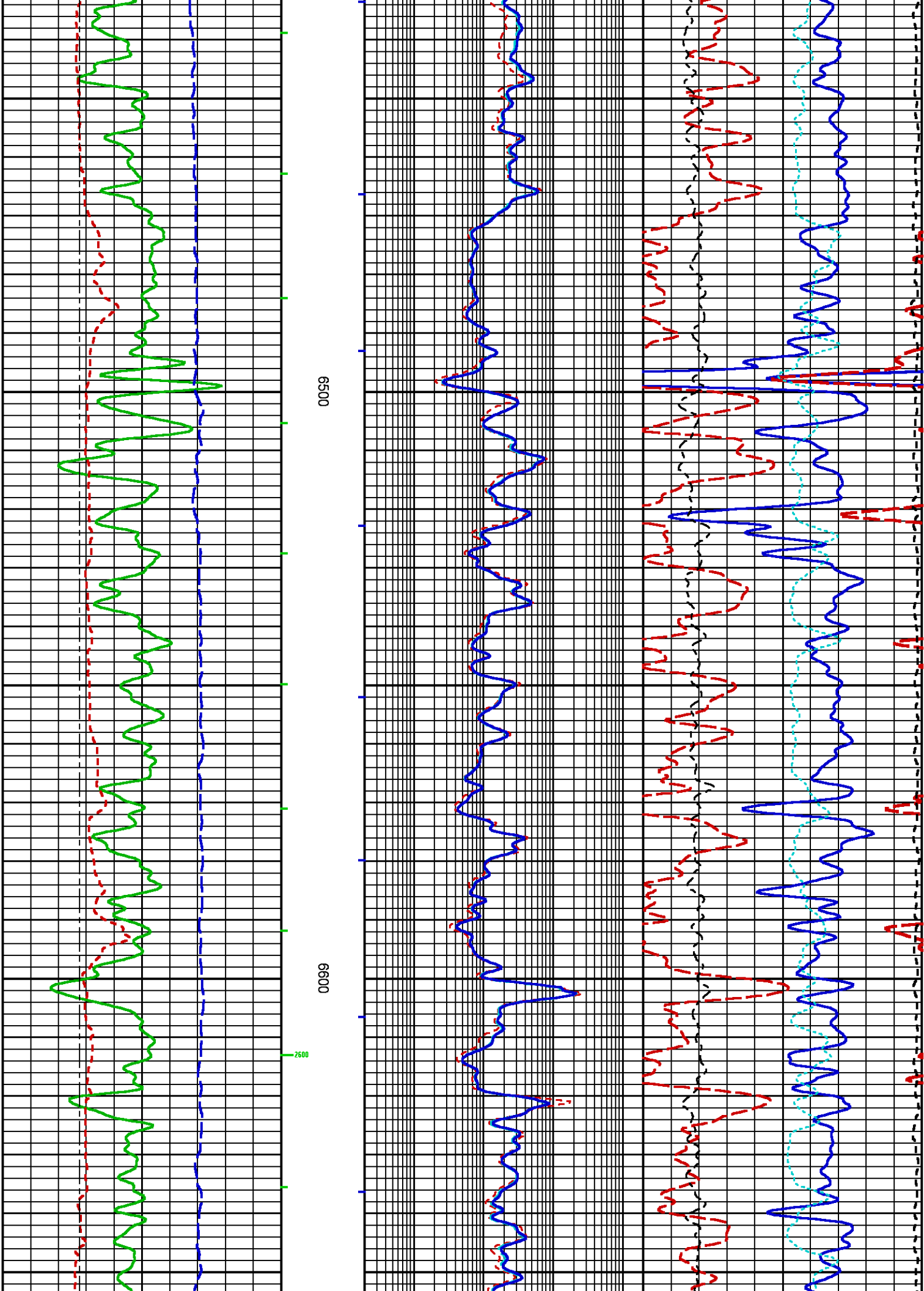


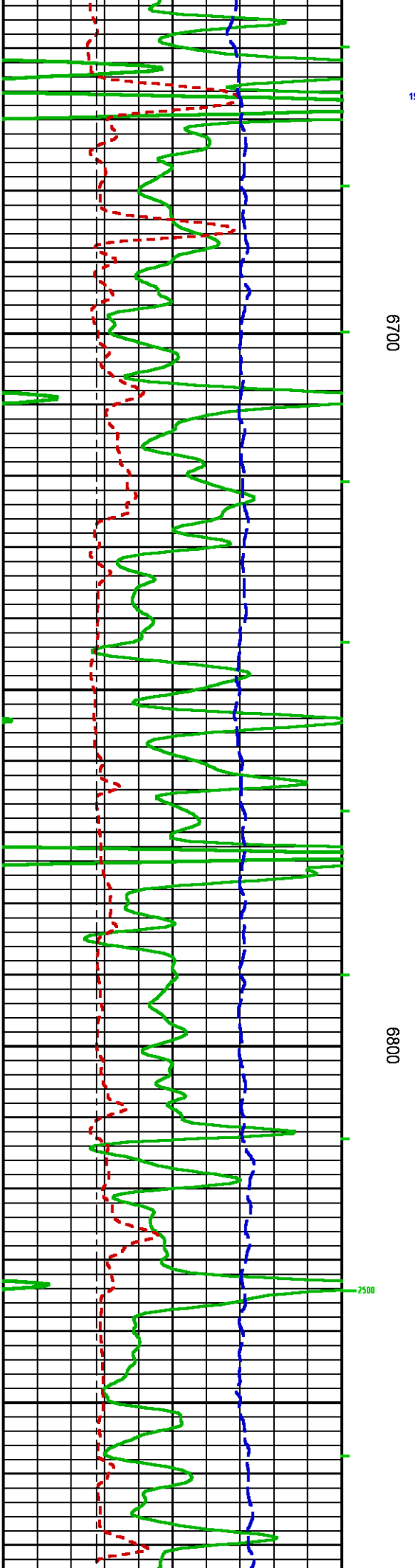
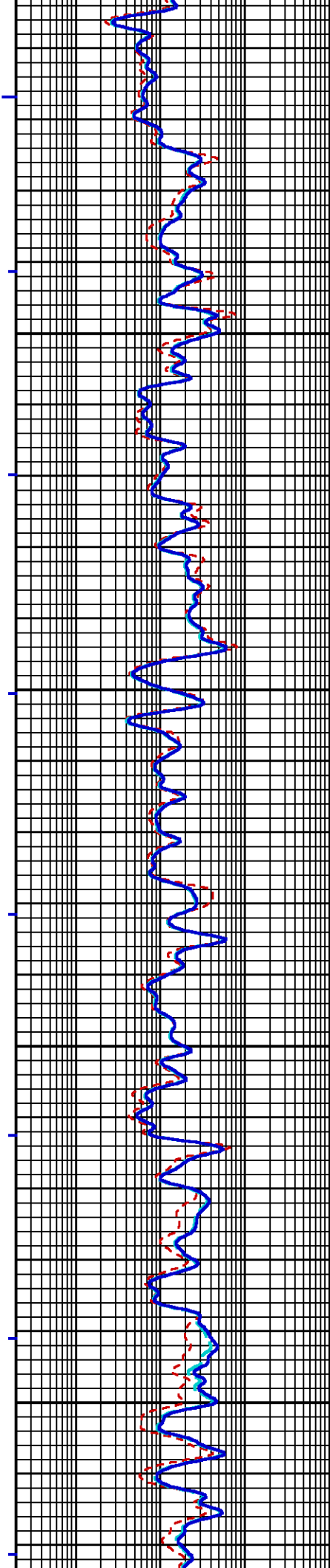
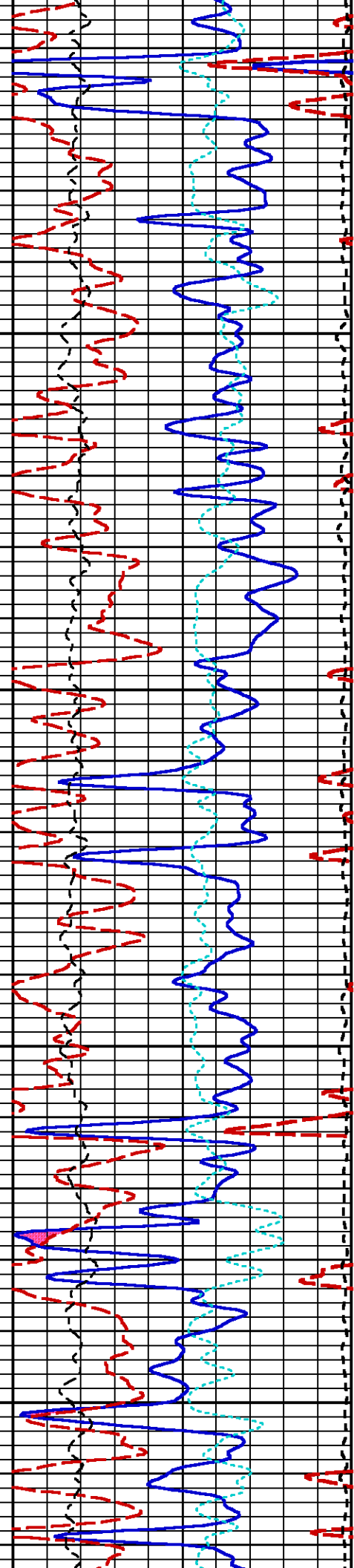
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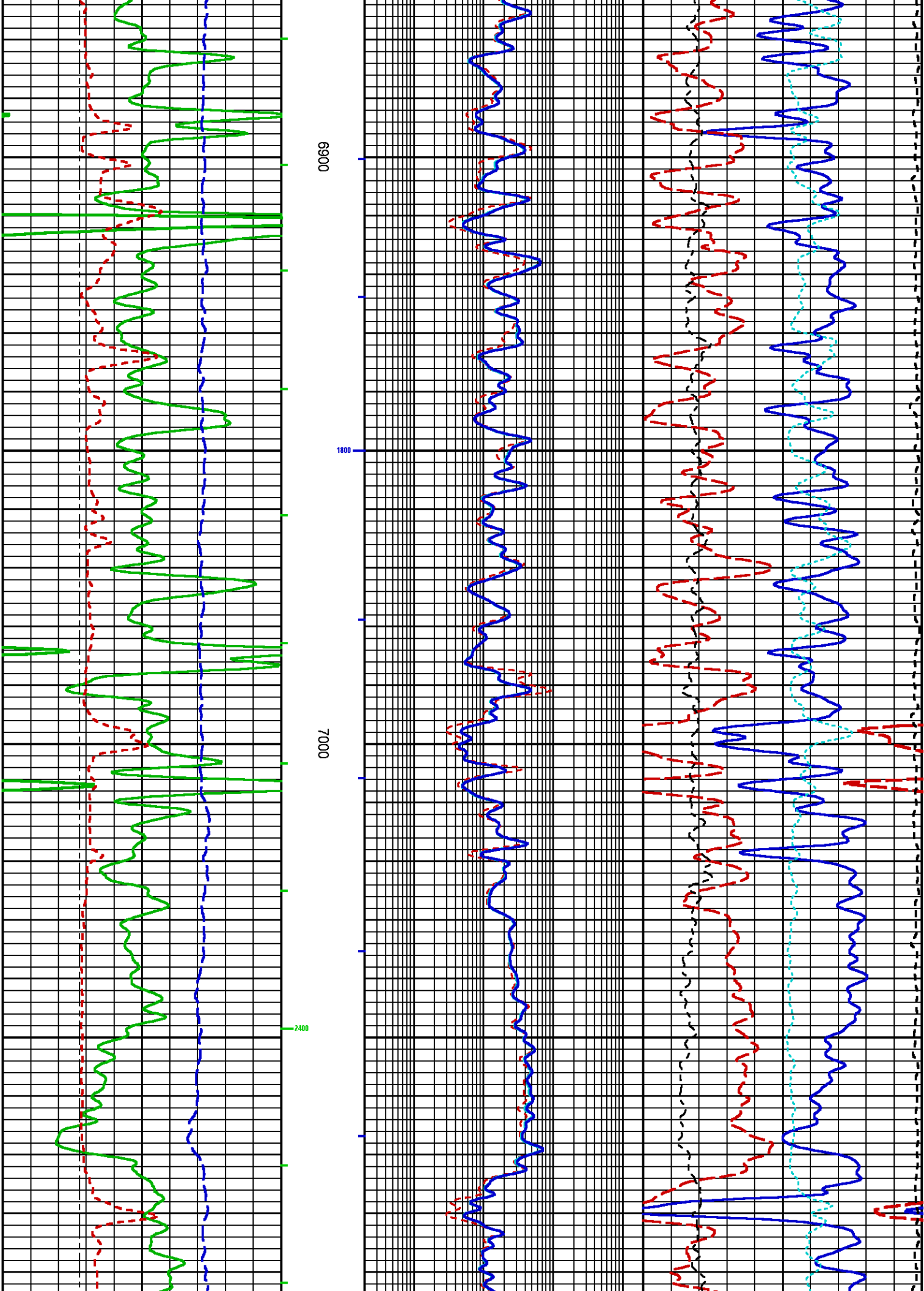
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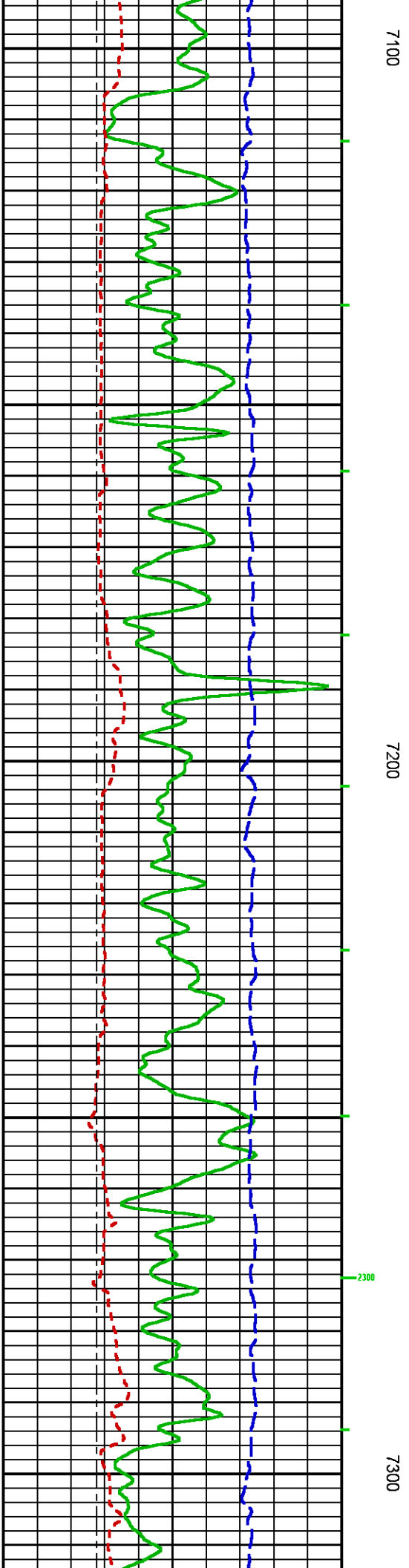
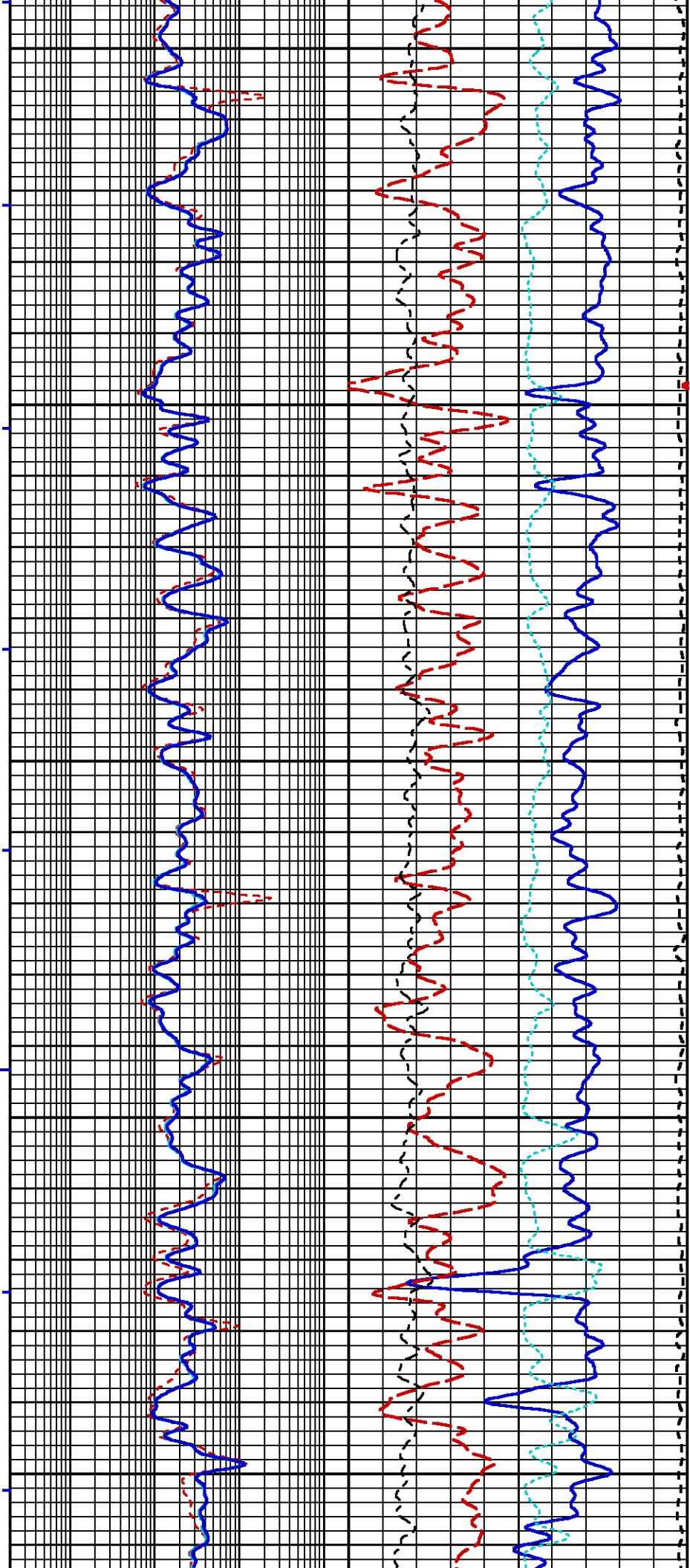
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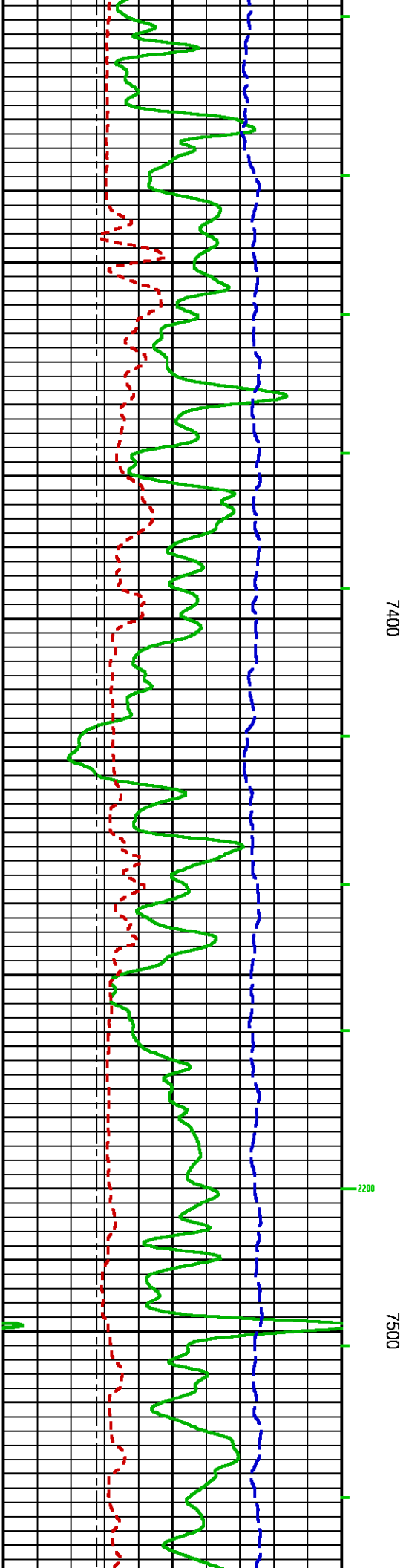
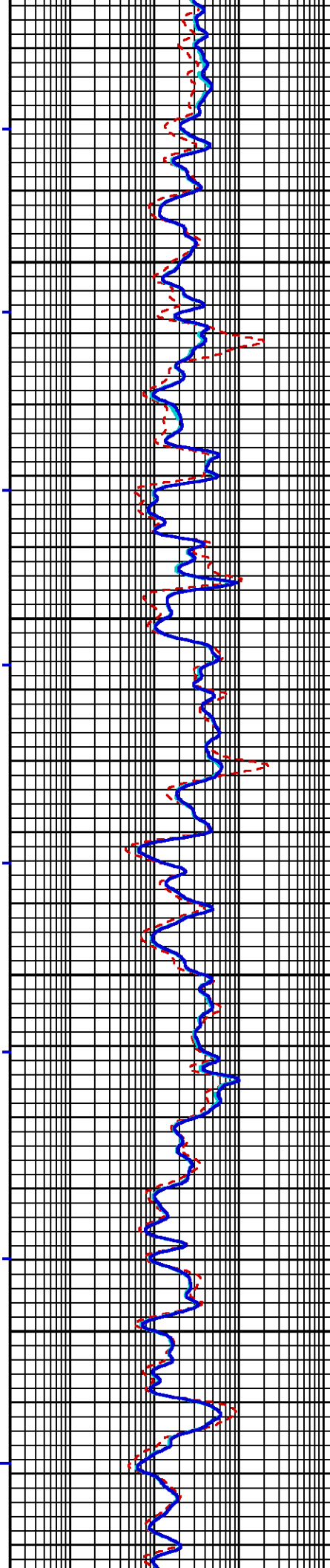
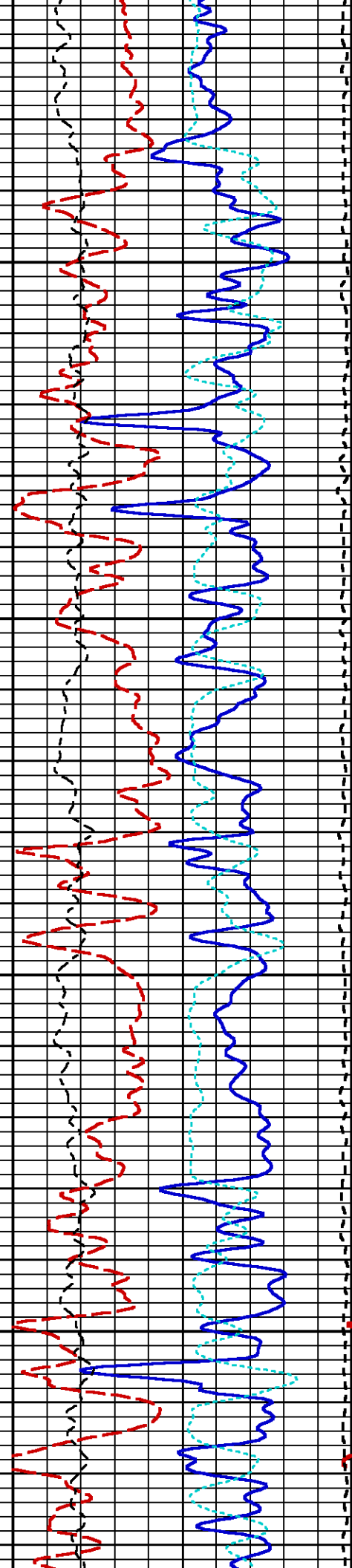


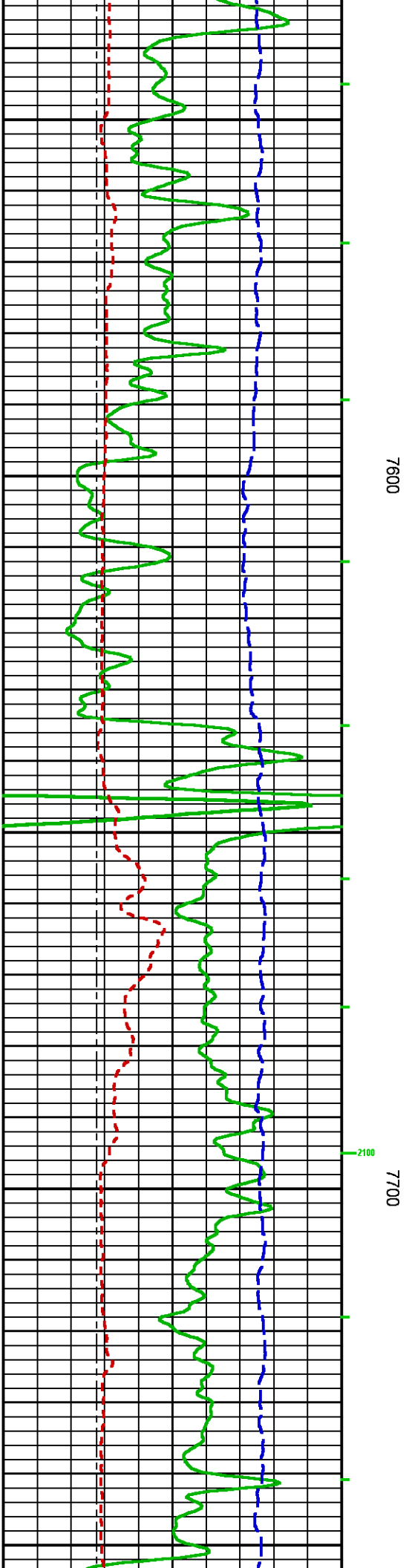
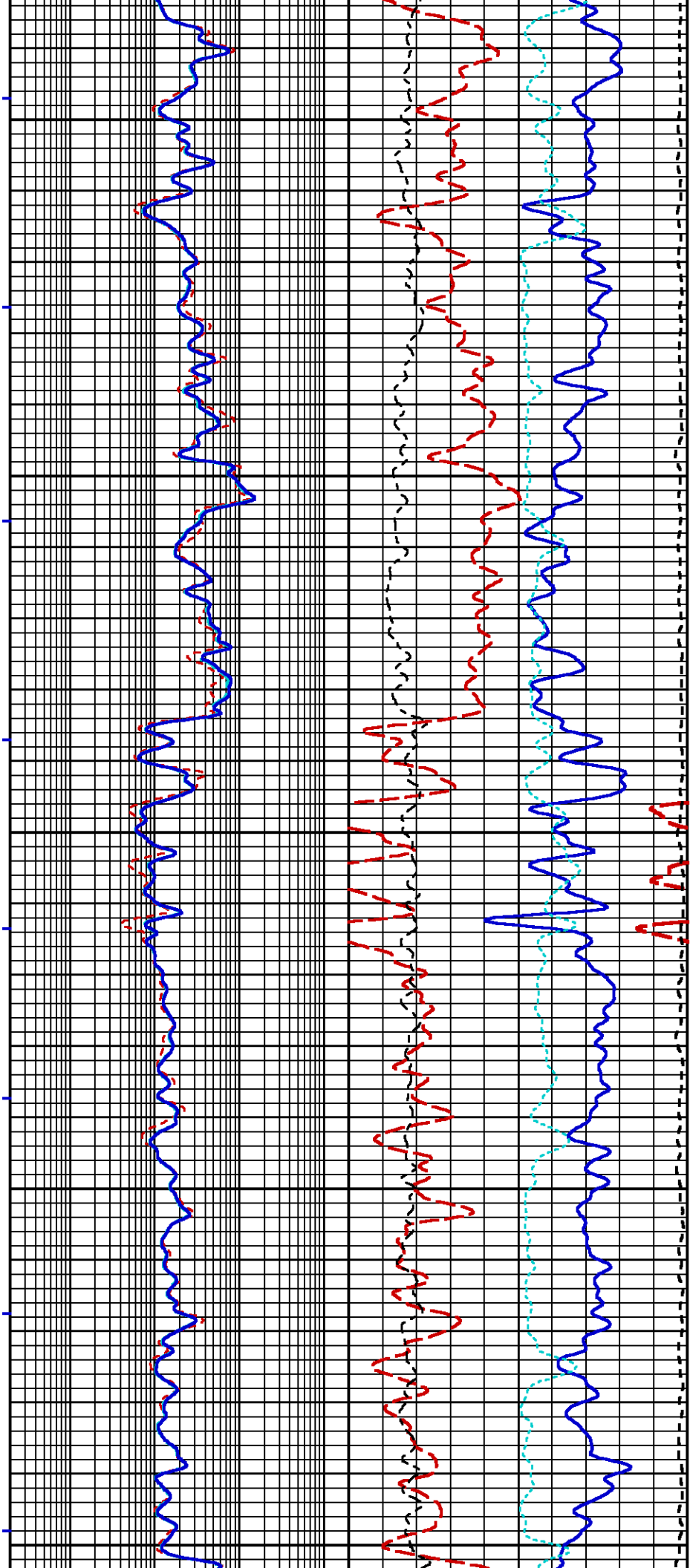


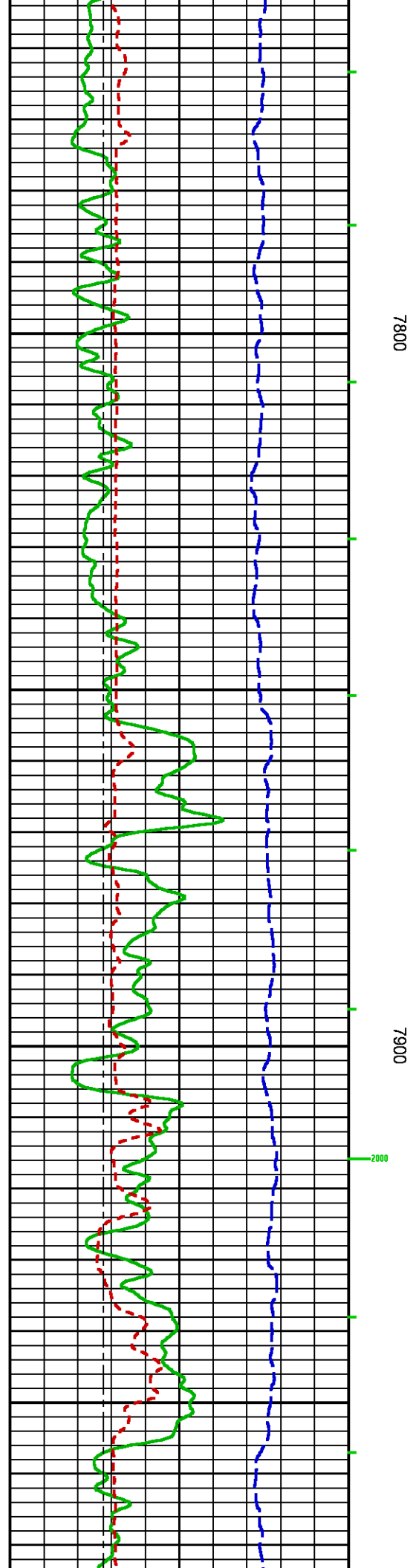
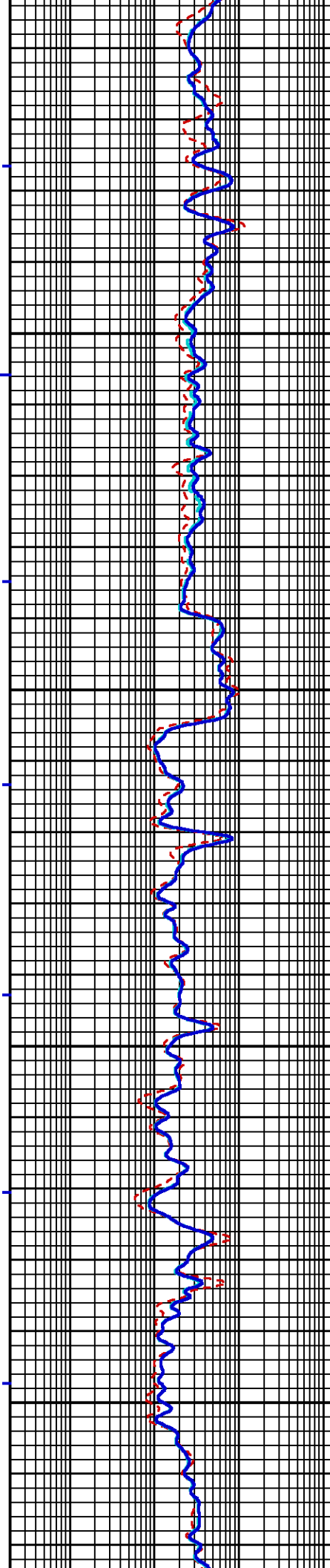
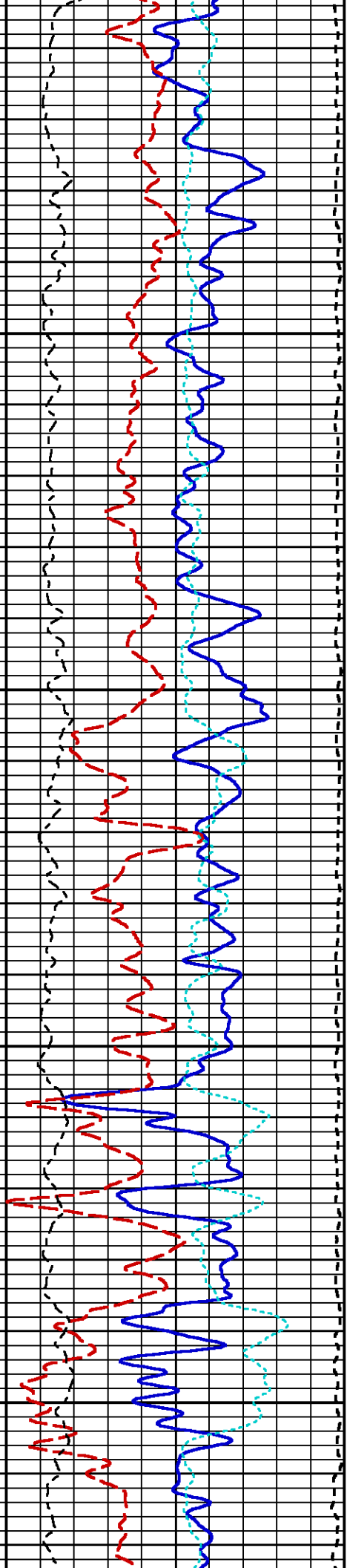


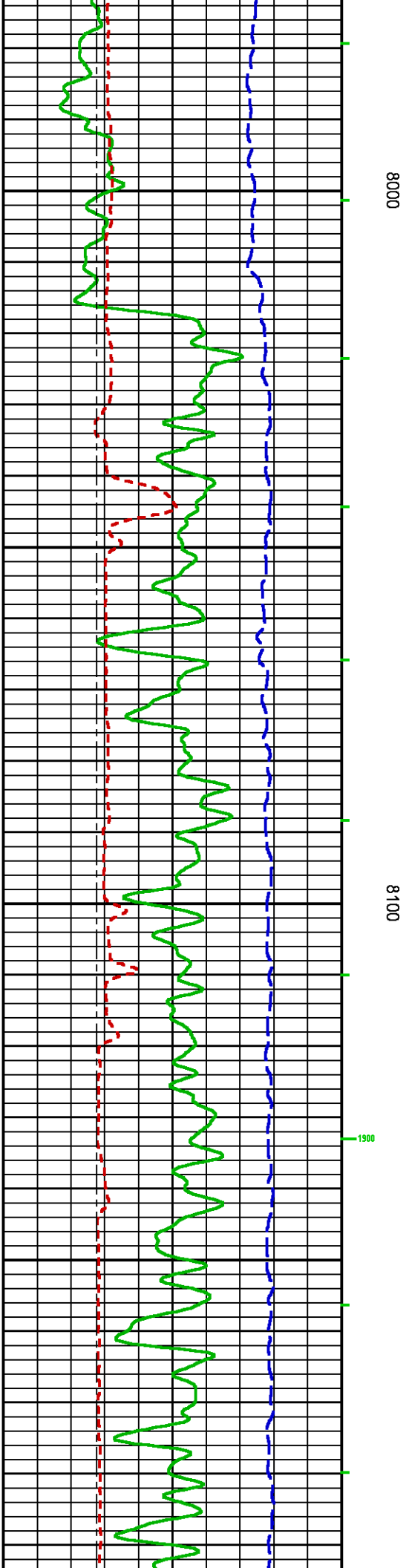
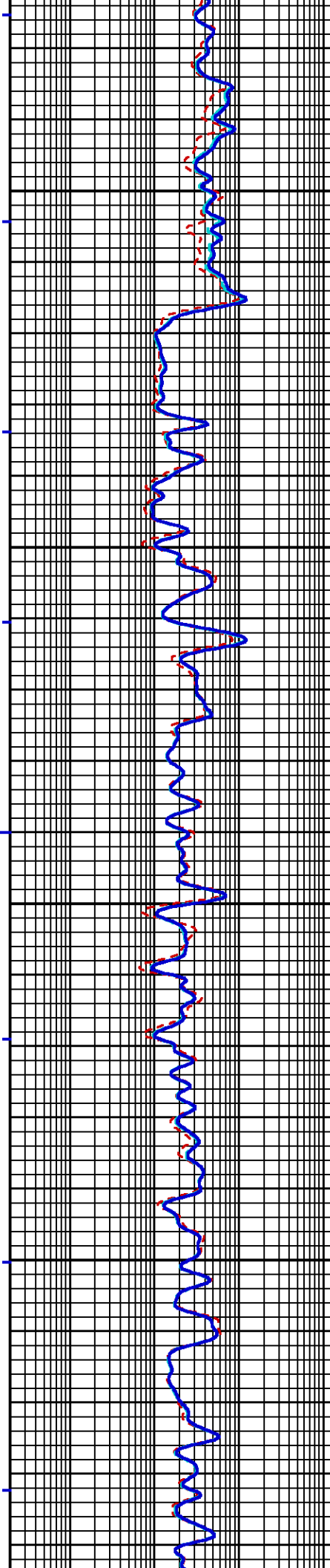
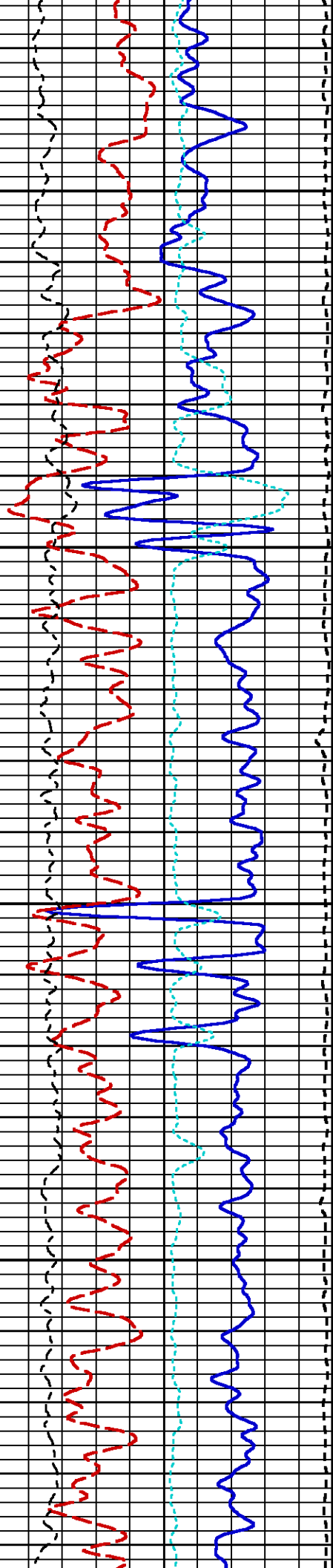


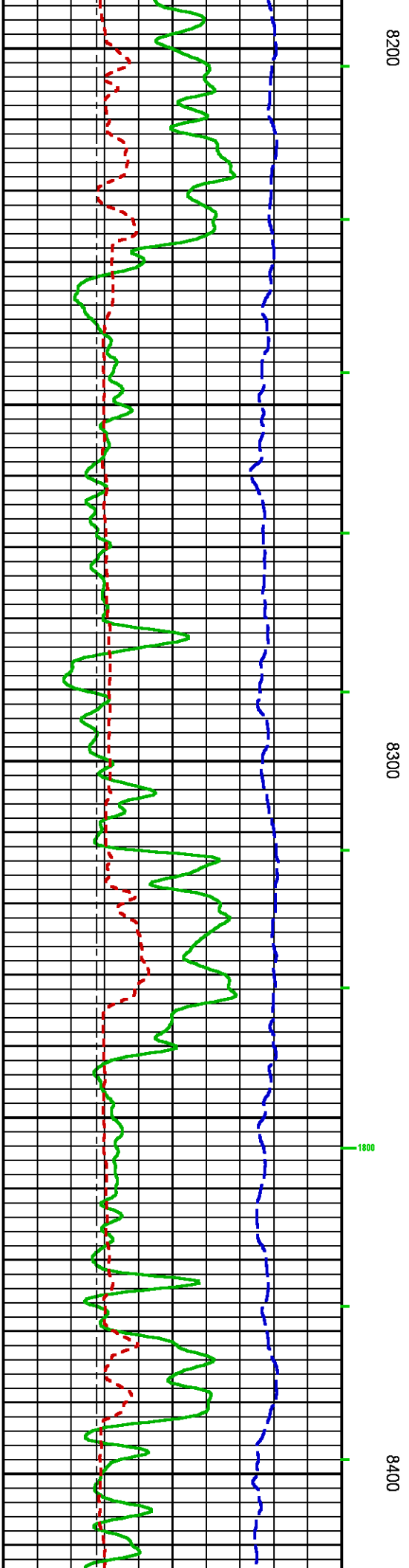
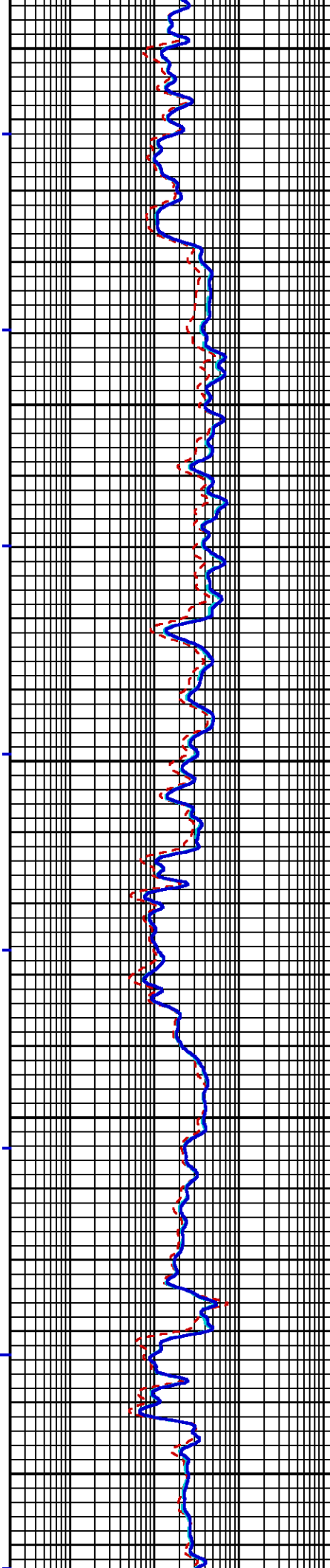
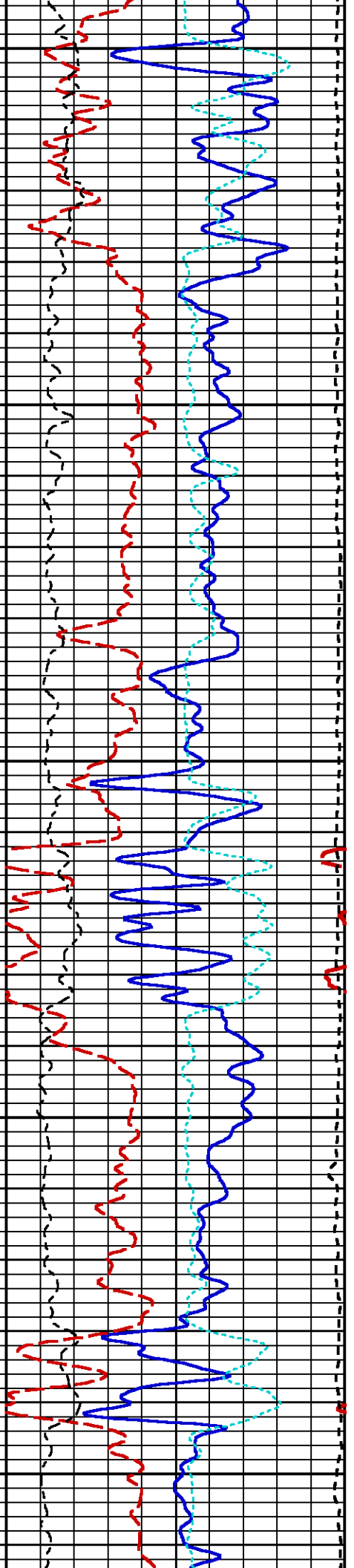


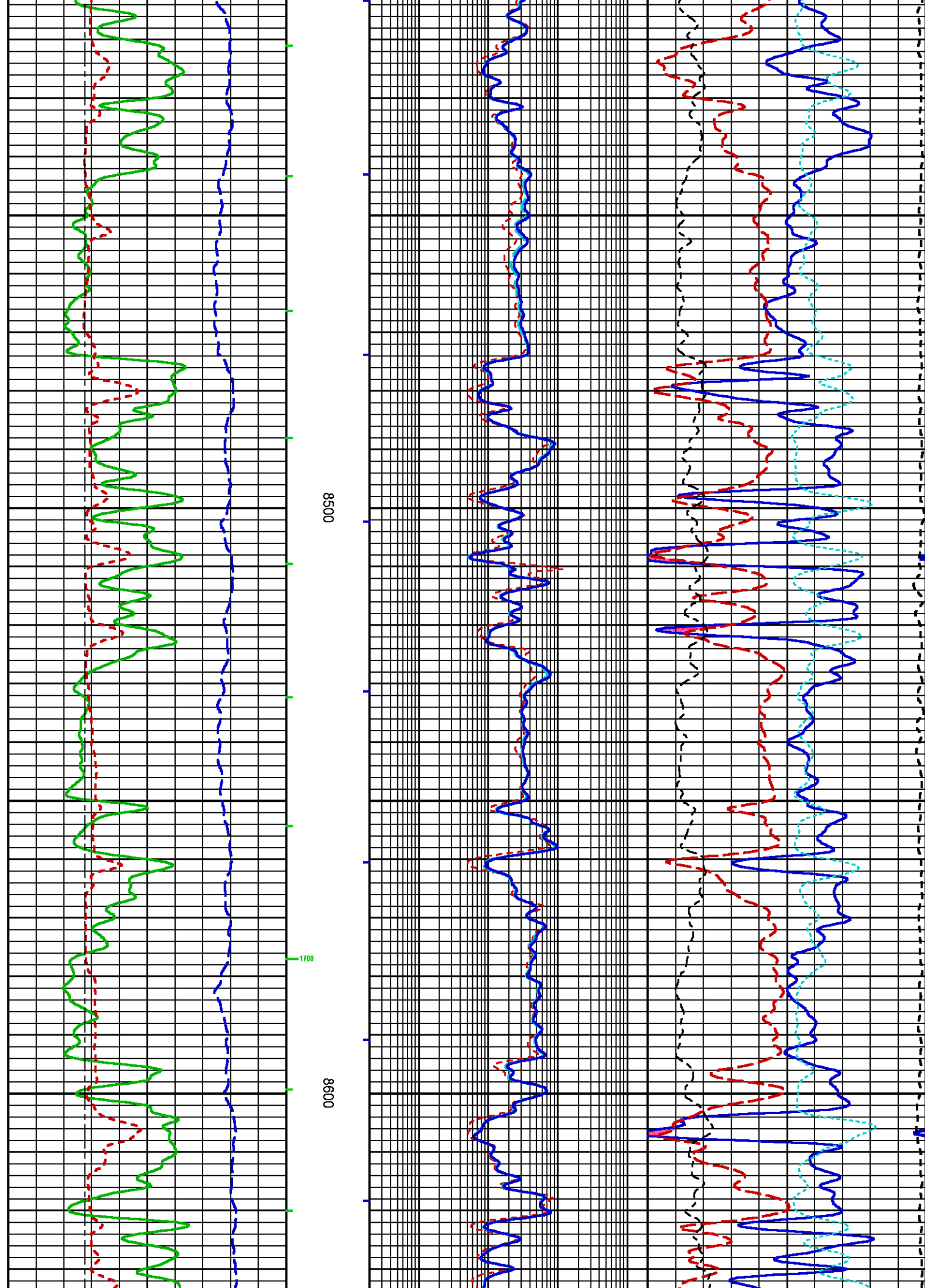


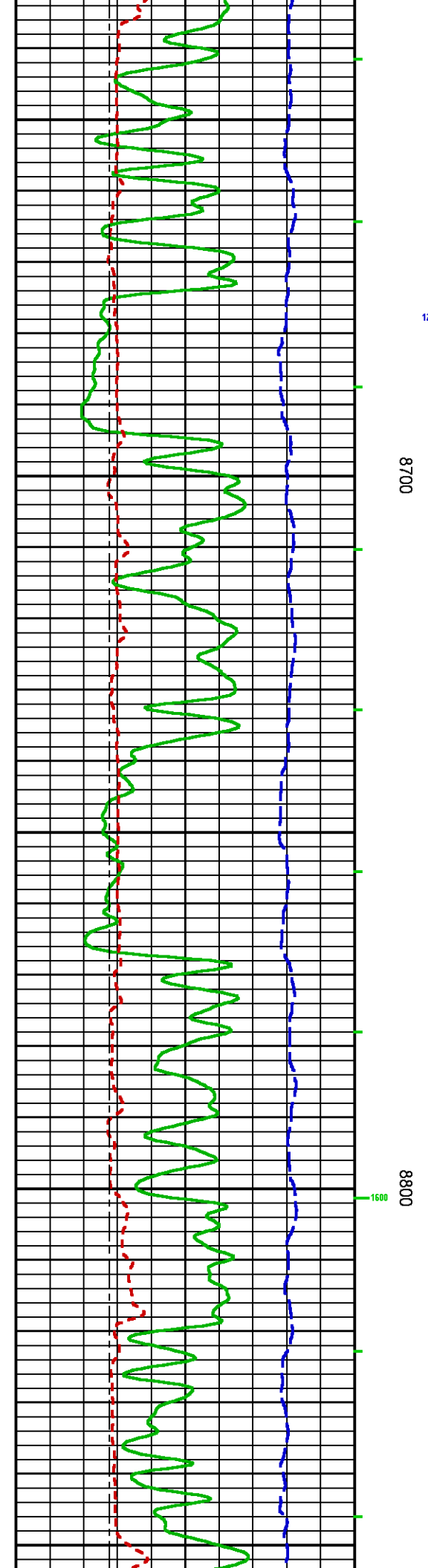
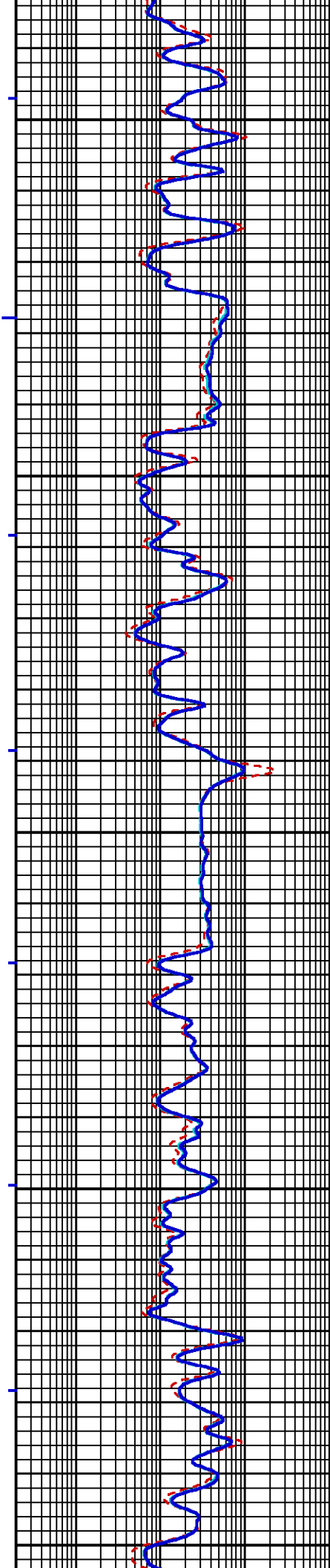
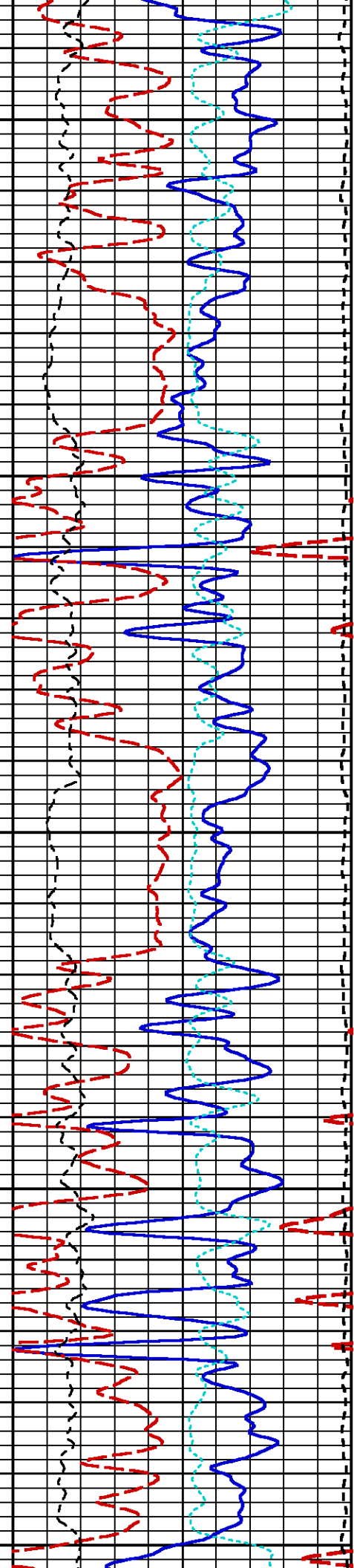


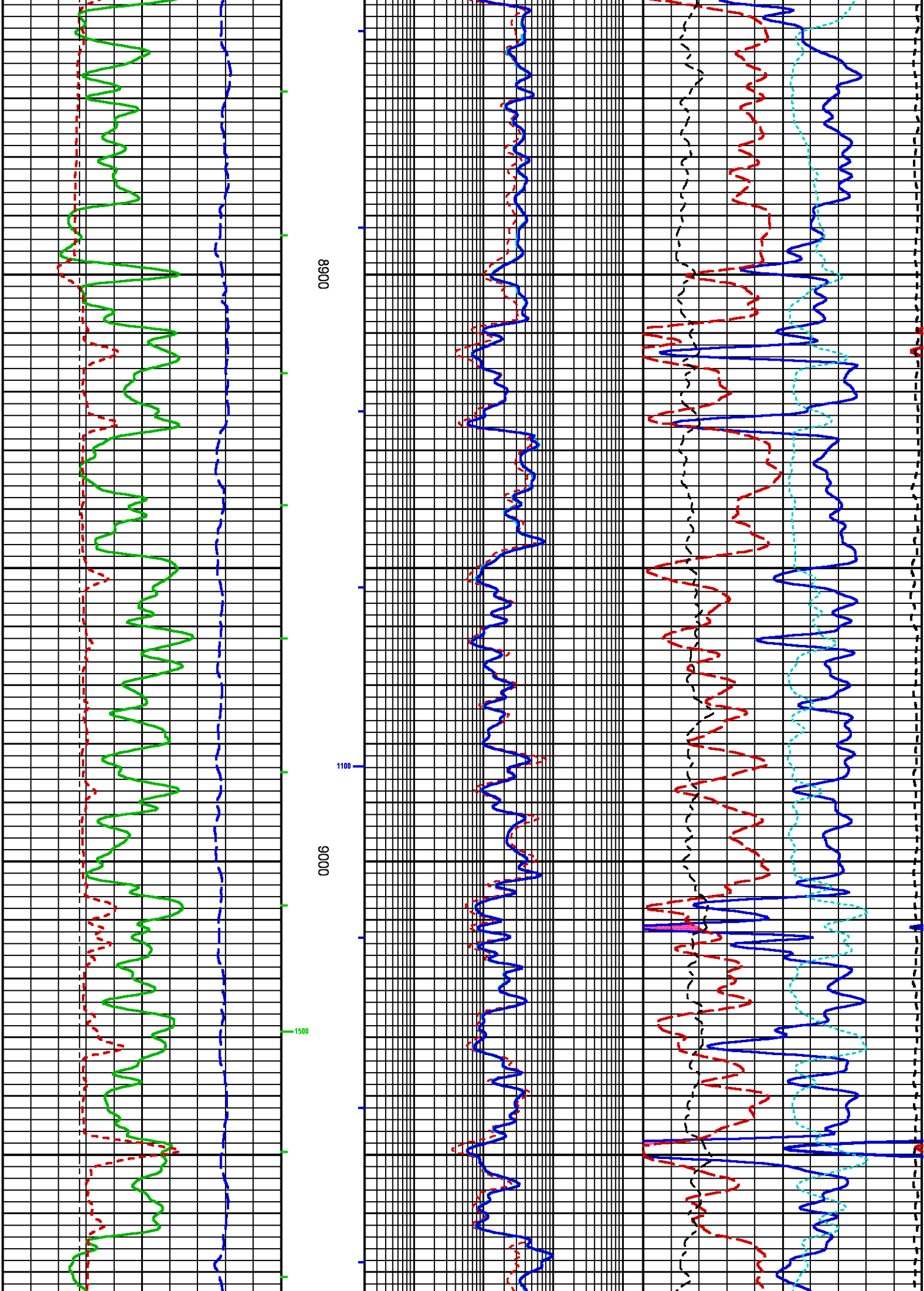


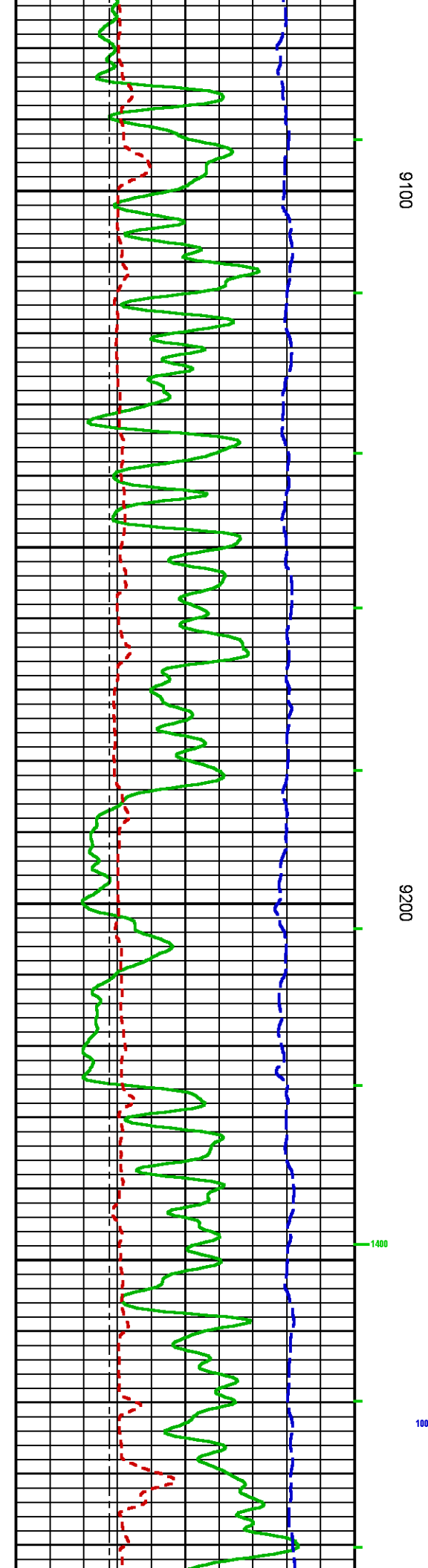
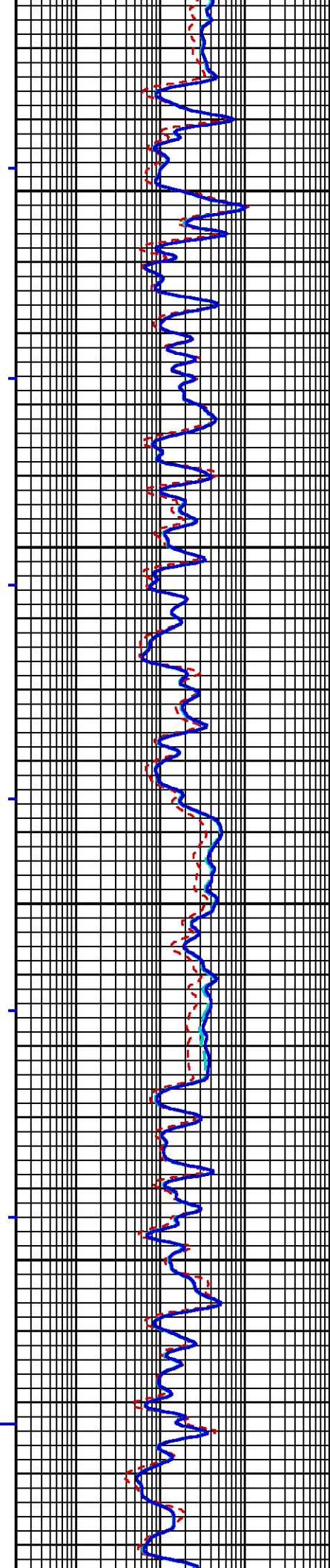
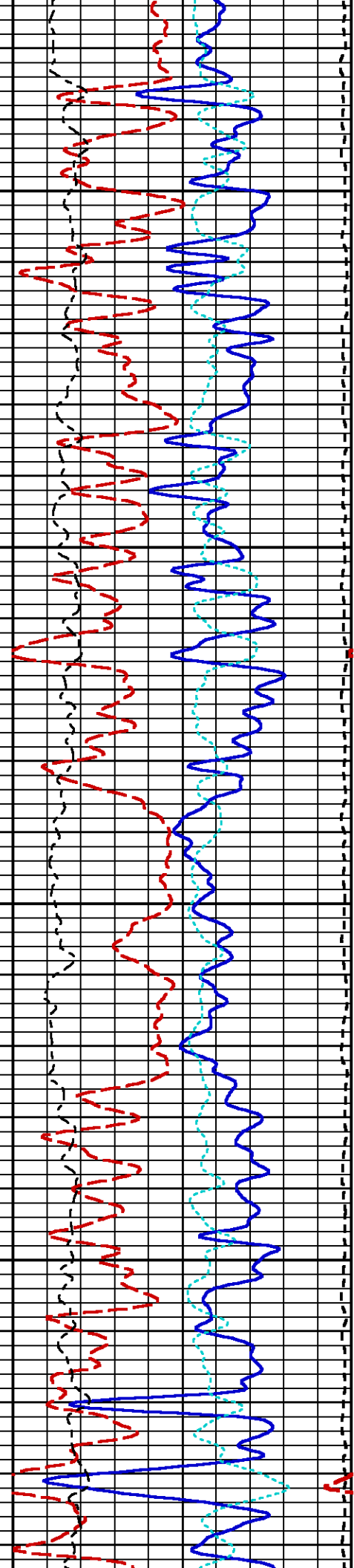


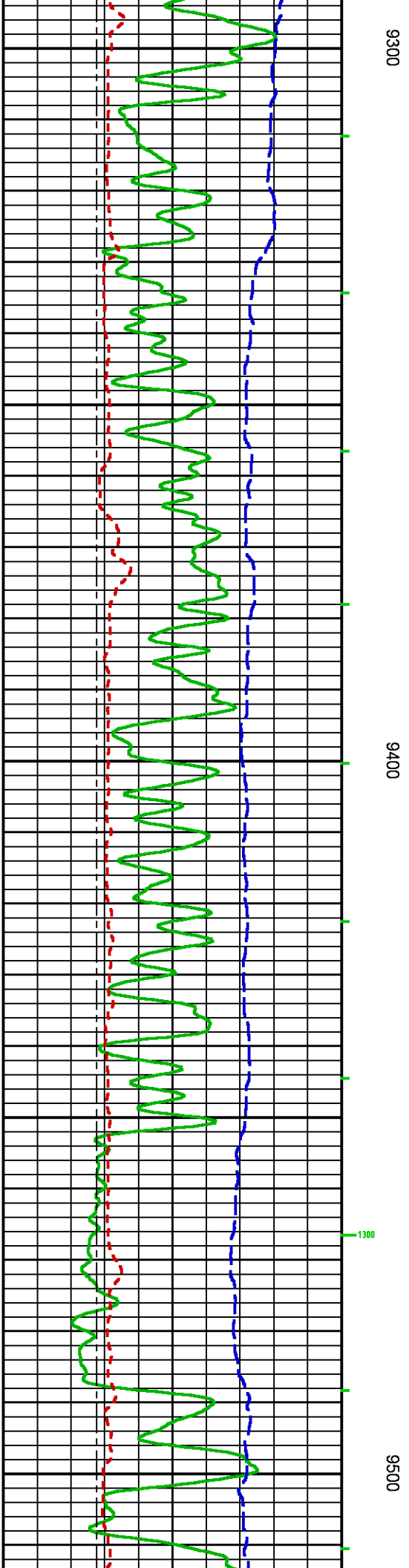
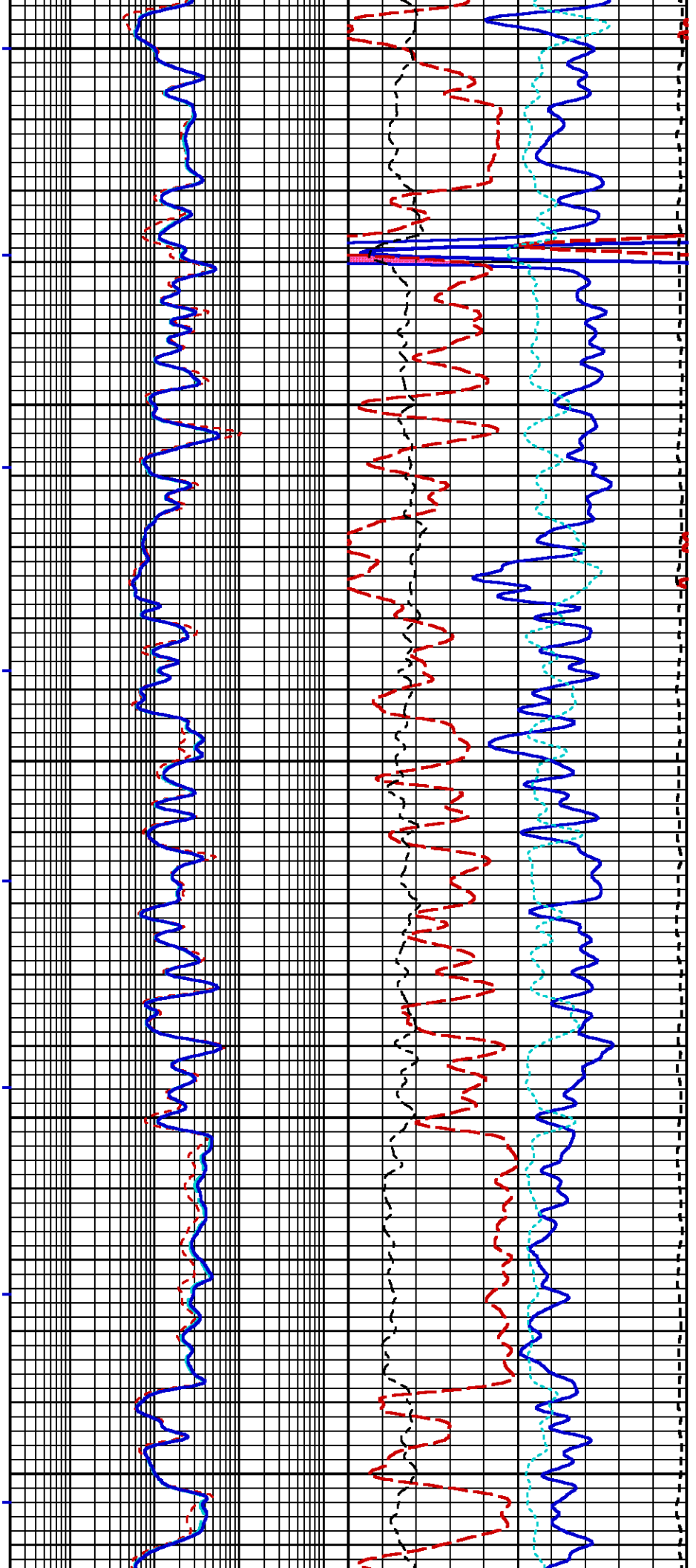


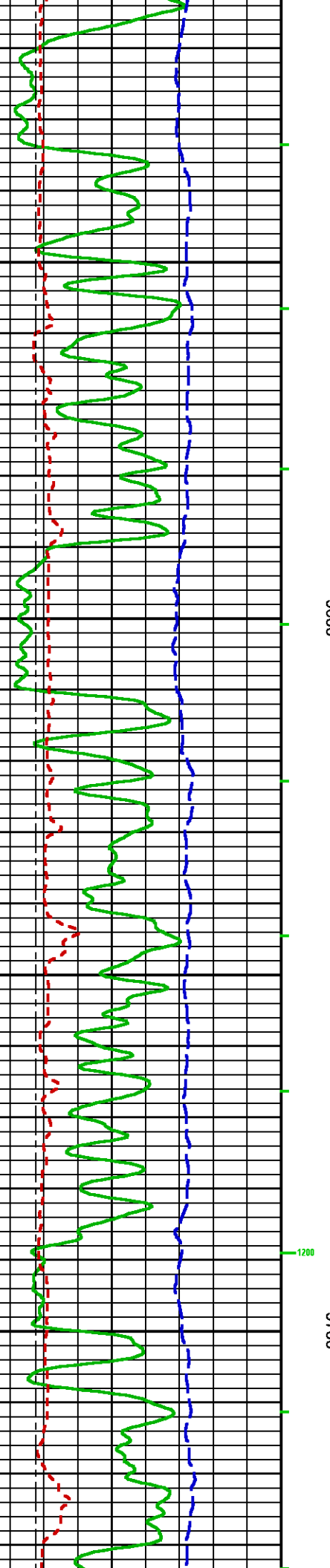
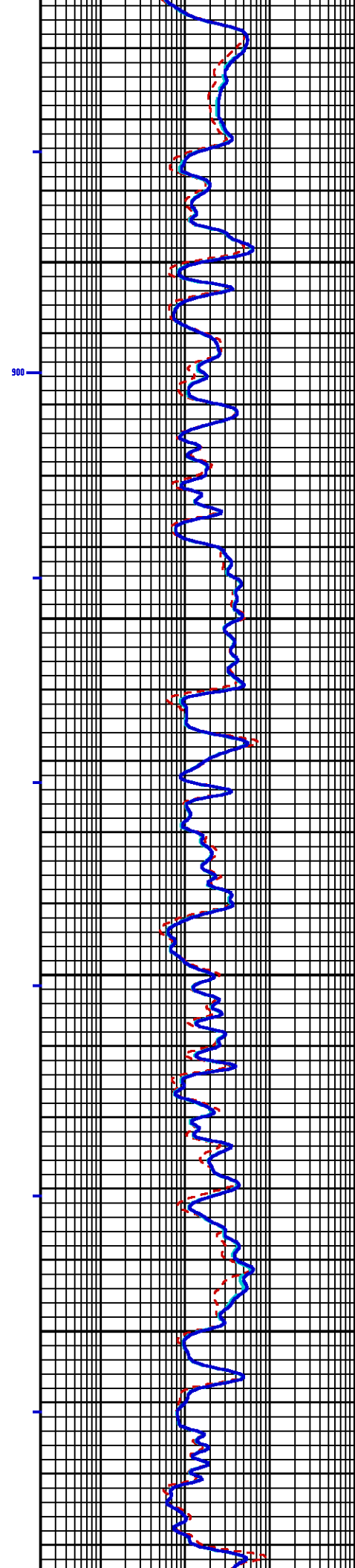
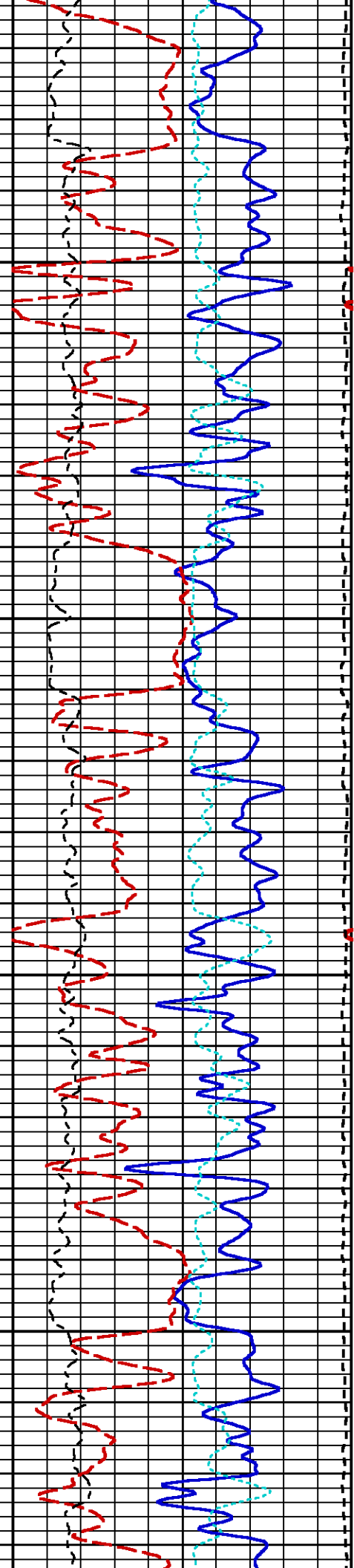


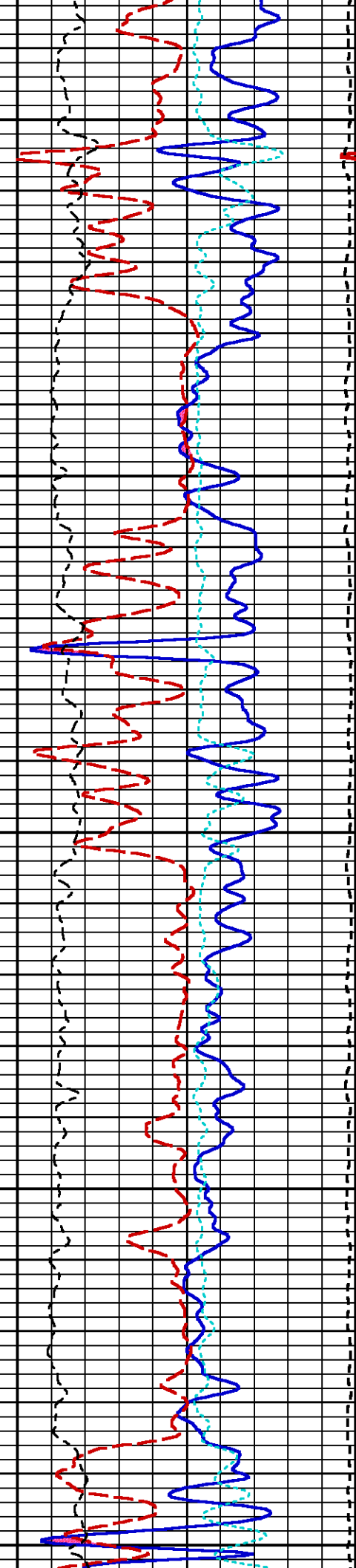
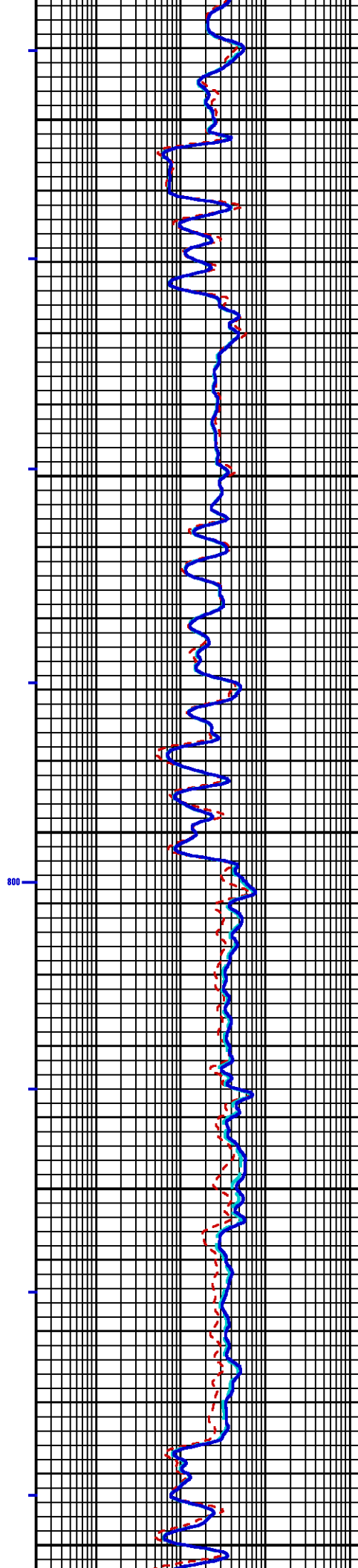
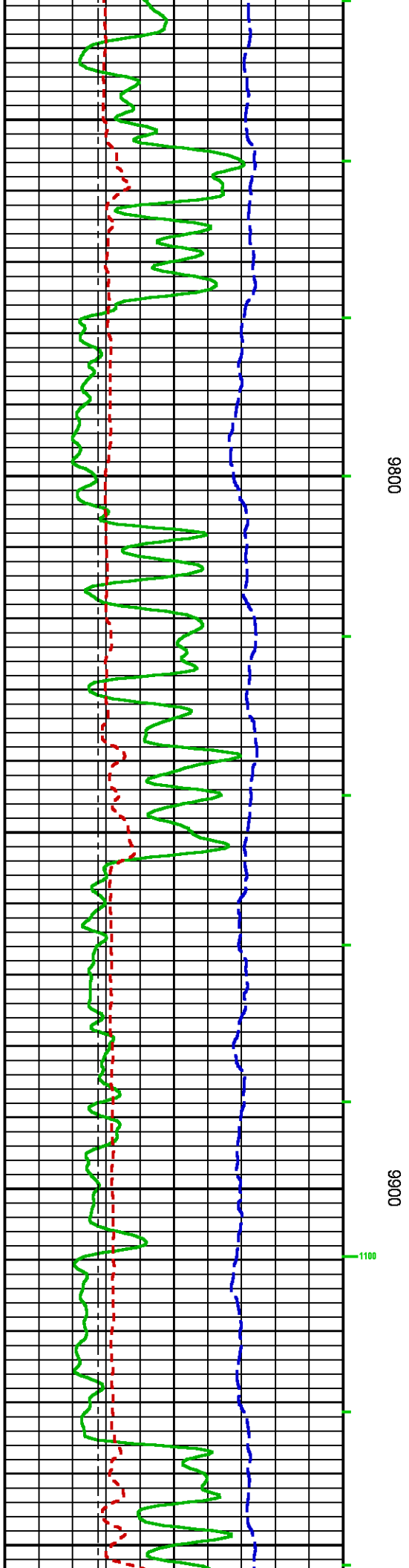


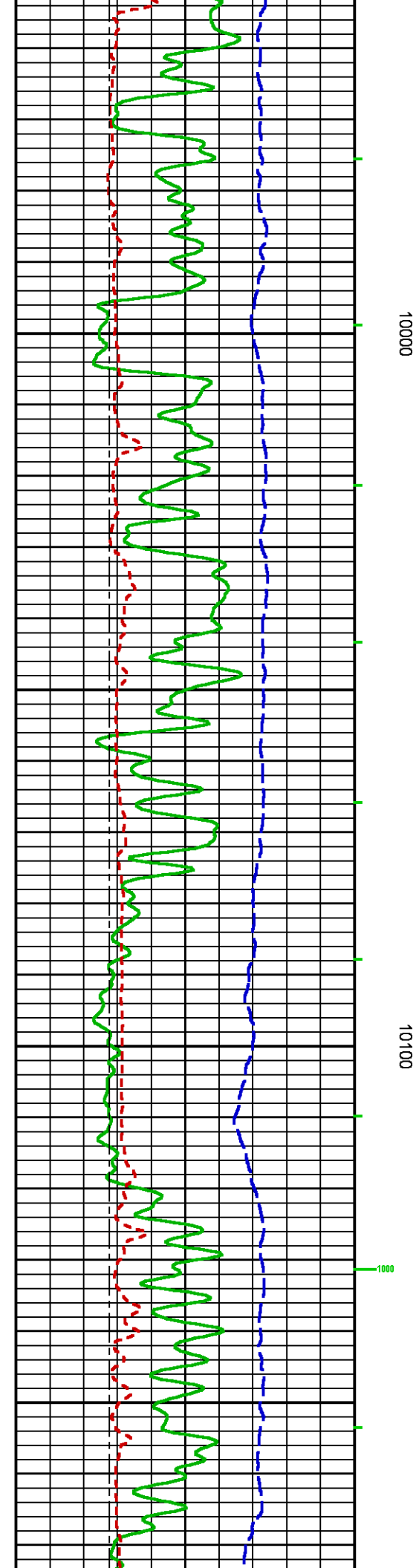
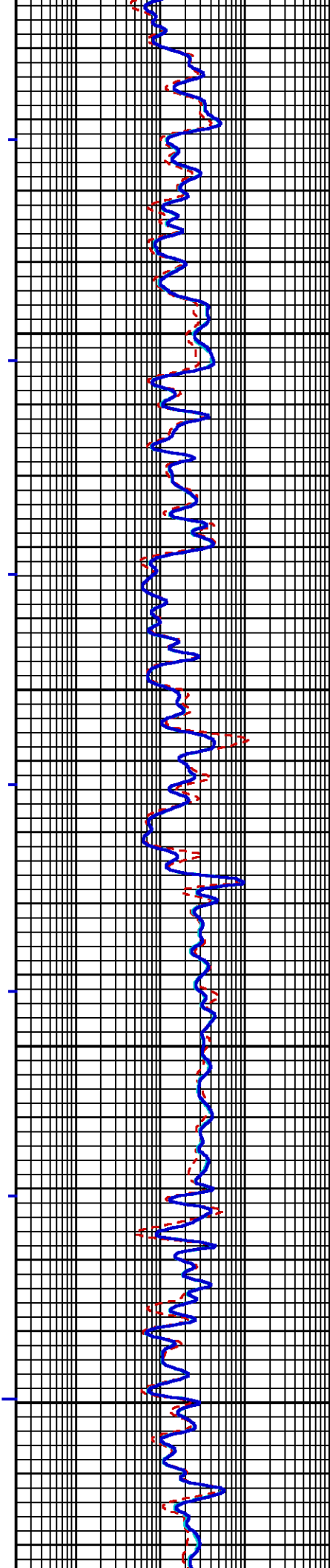
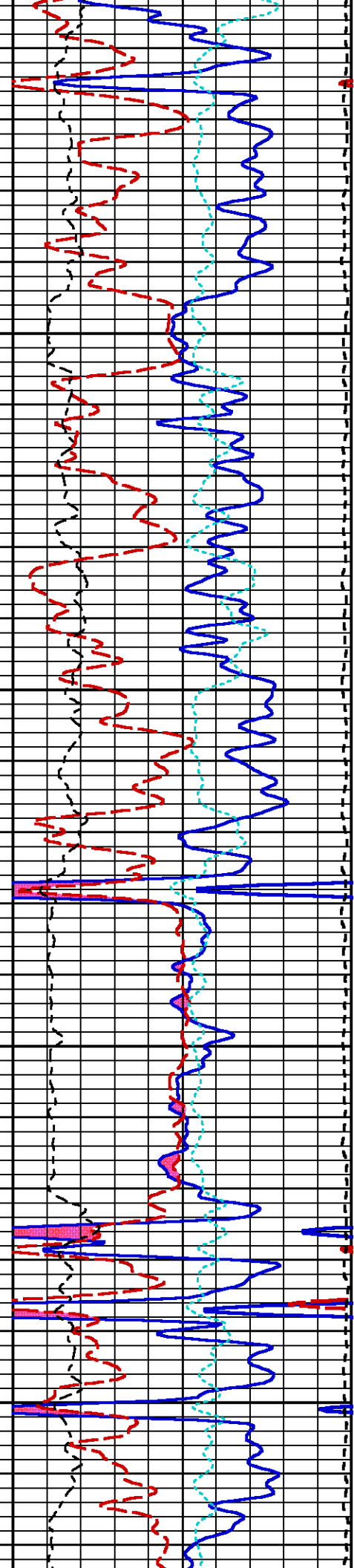


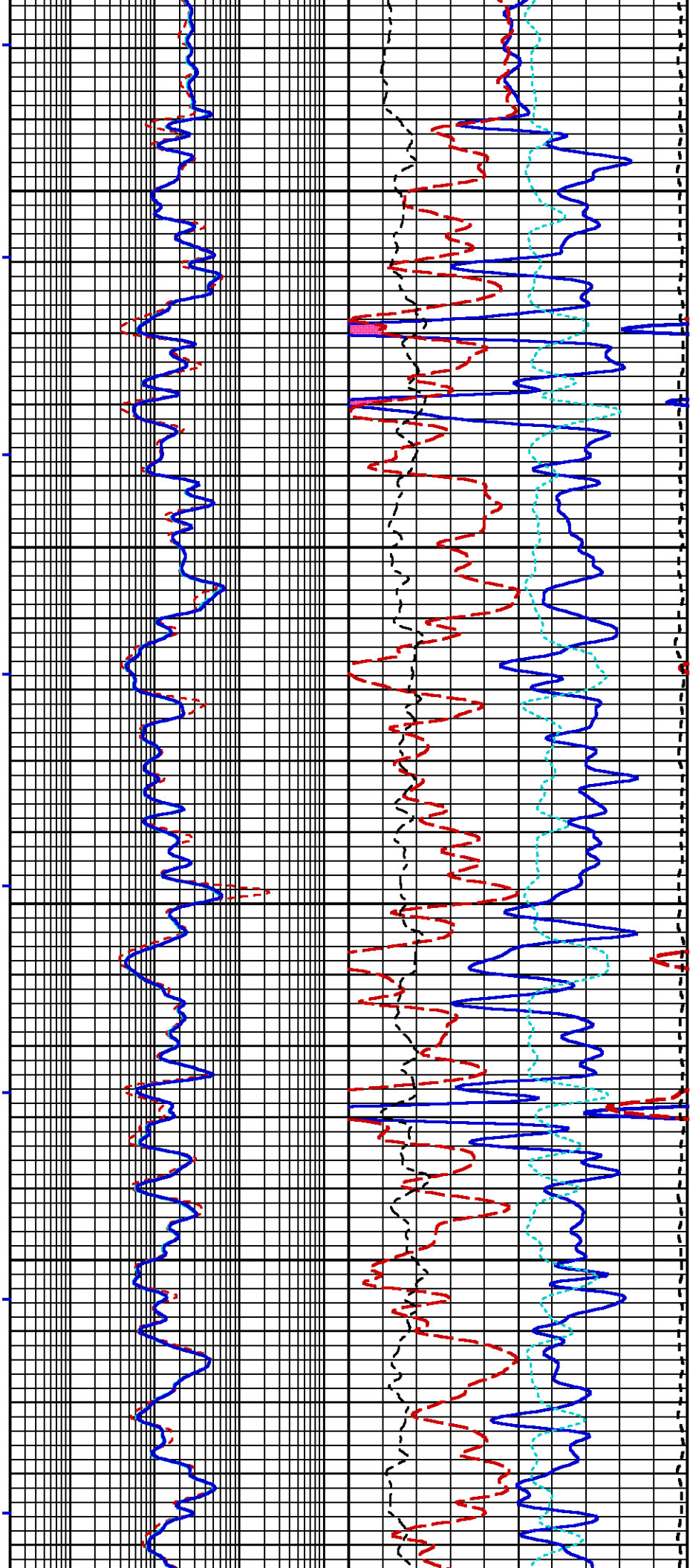






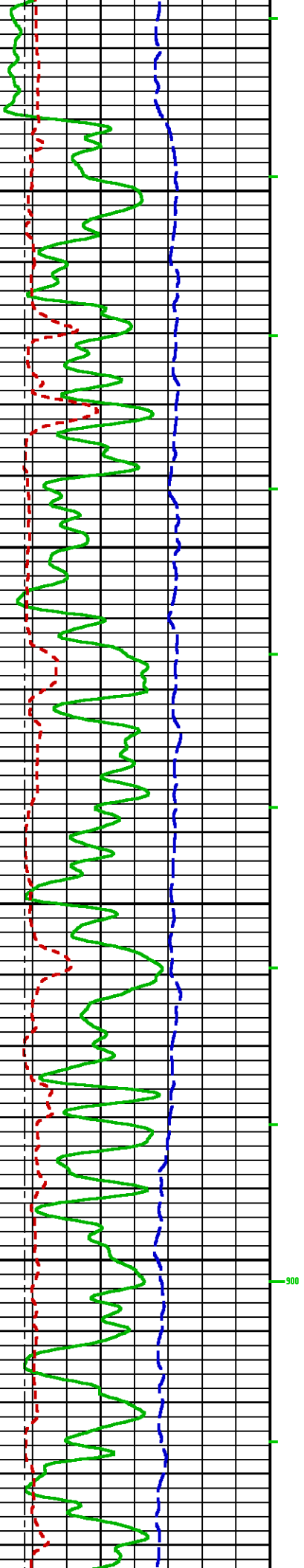


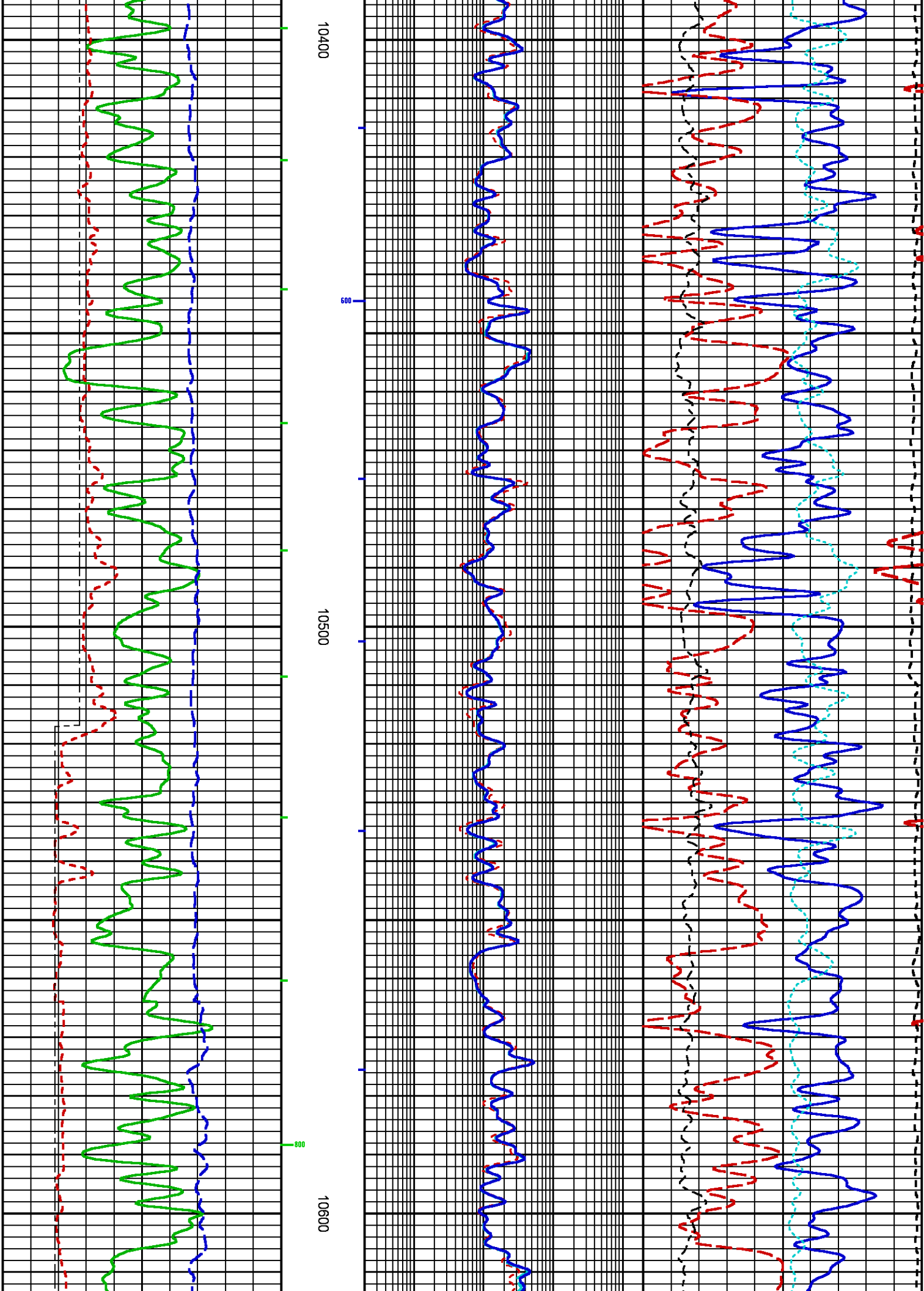


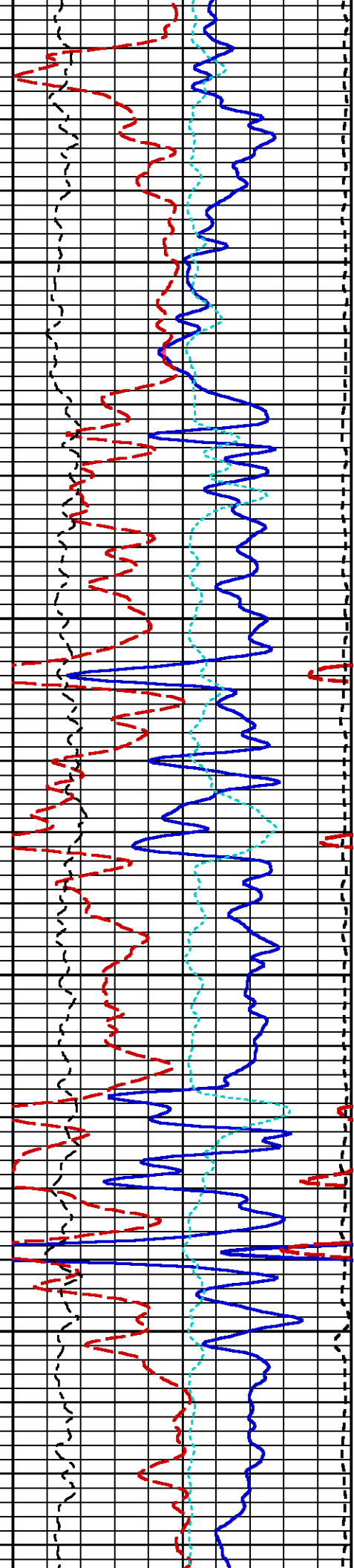


10200

10300



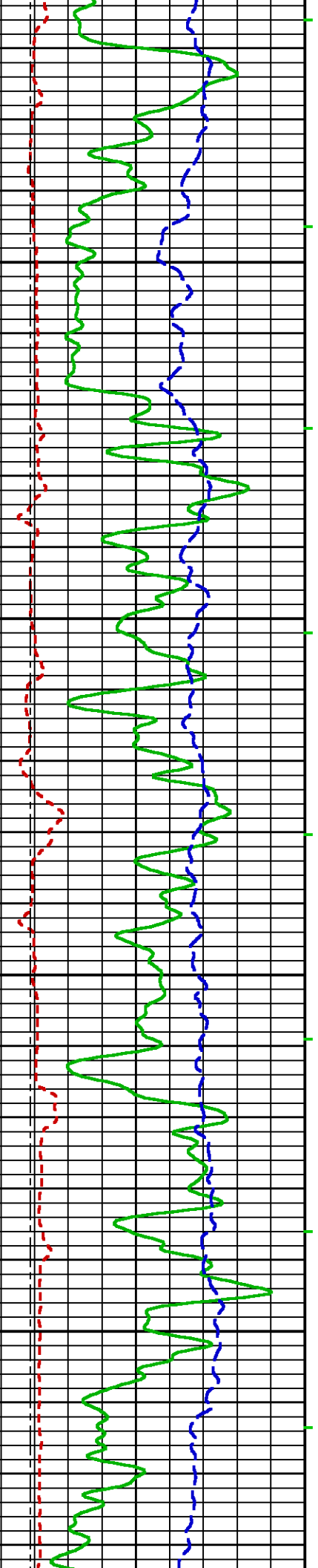


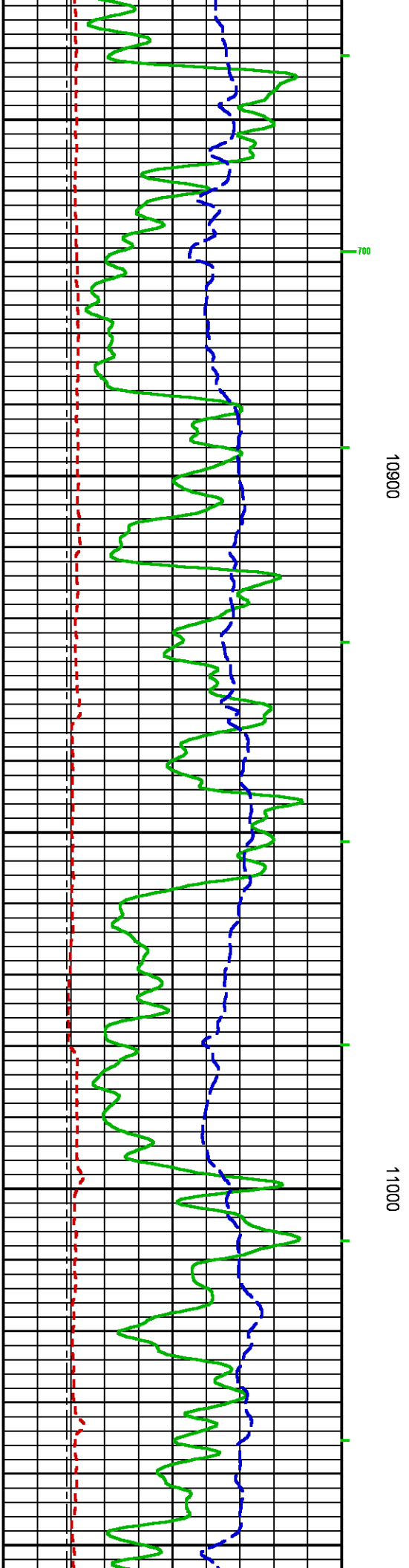
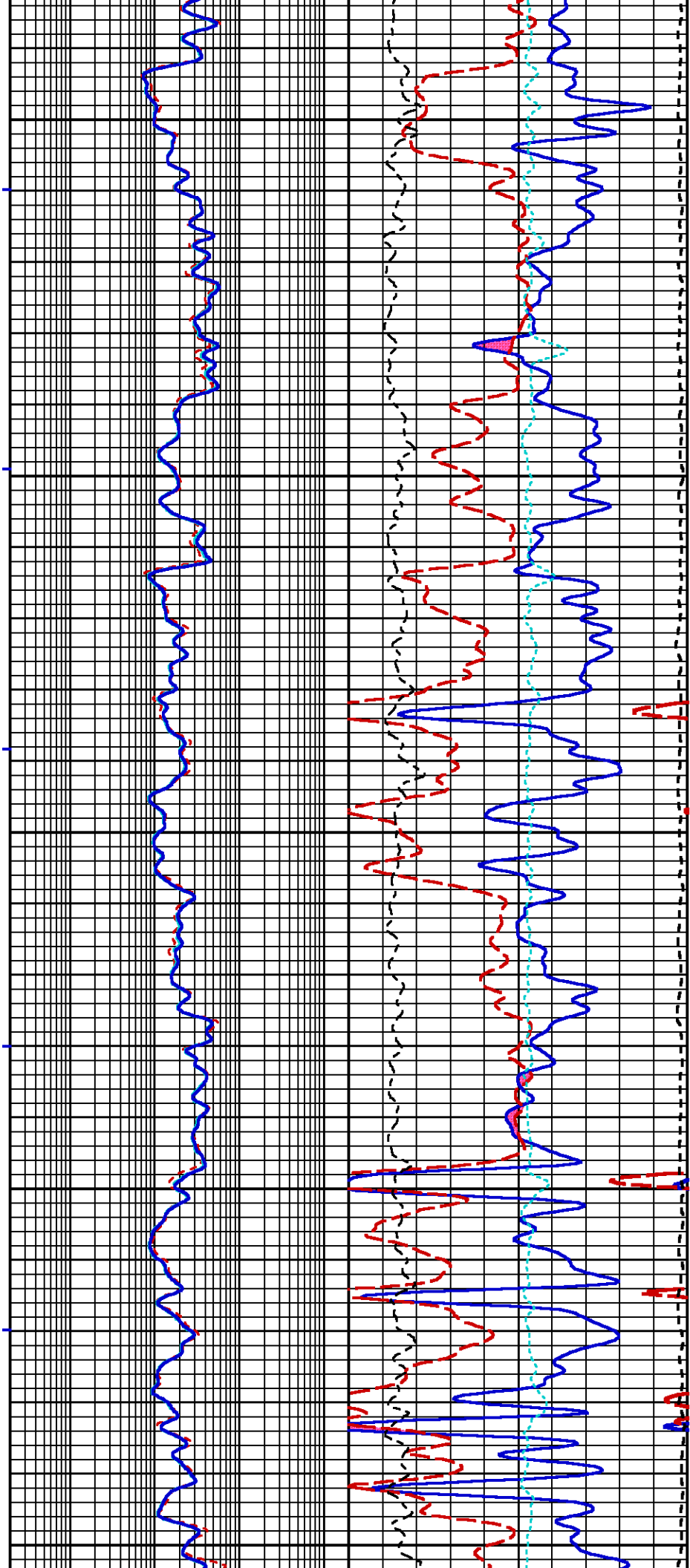


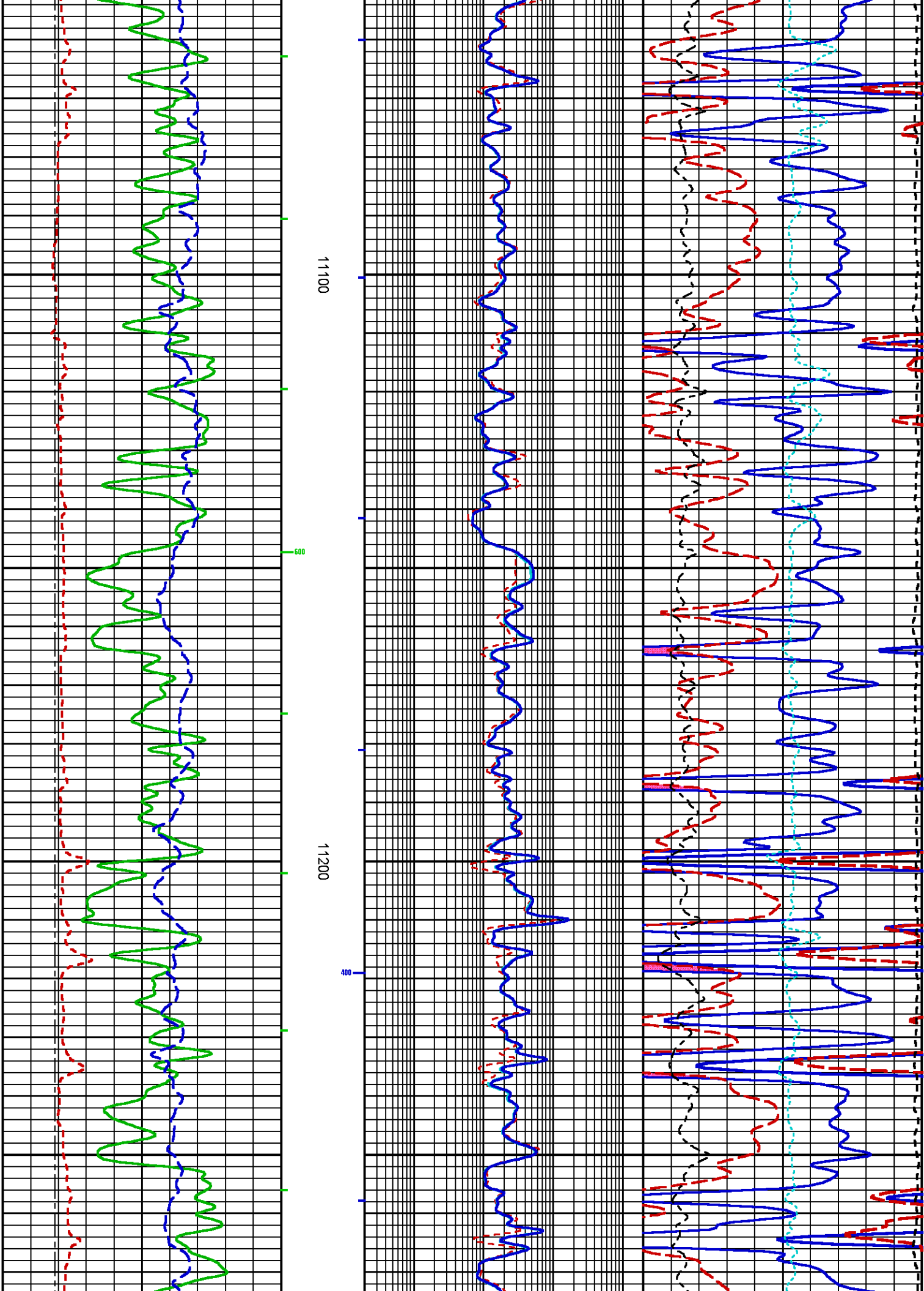
10700

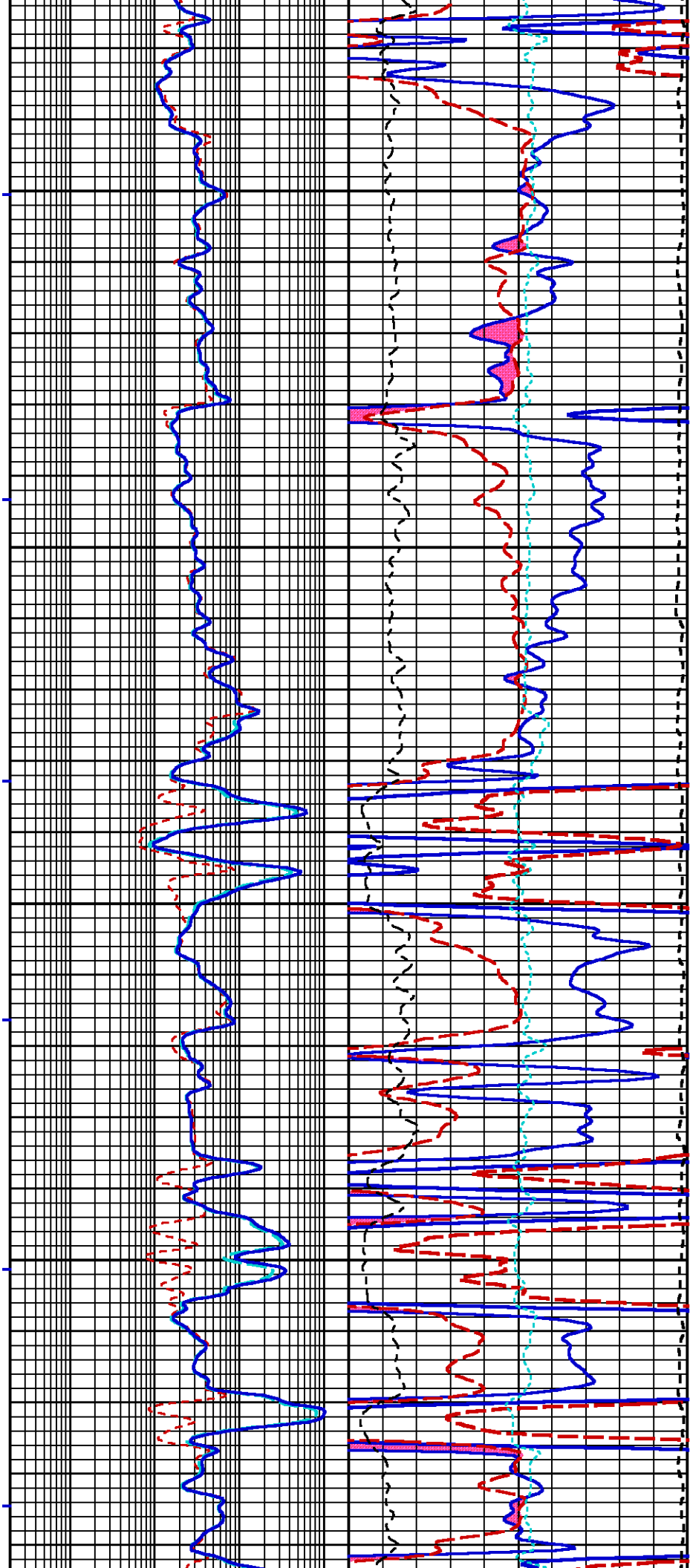
10800

500





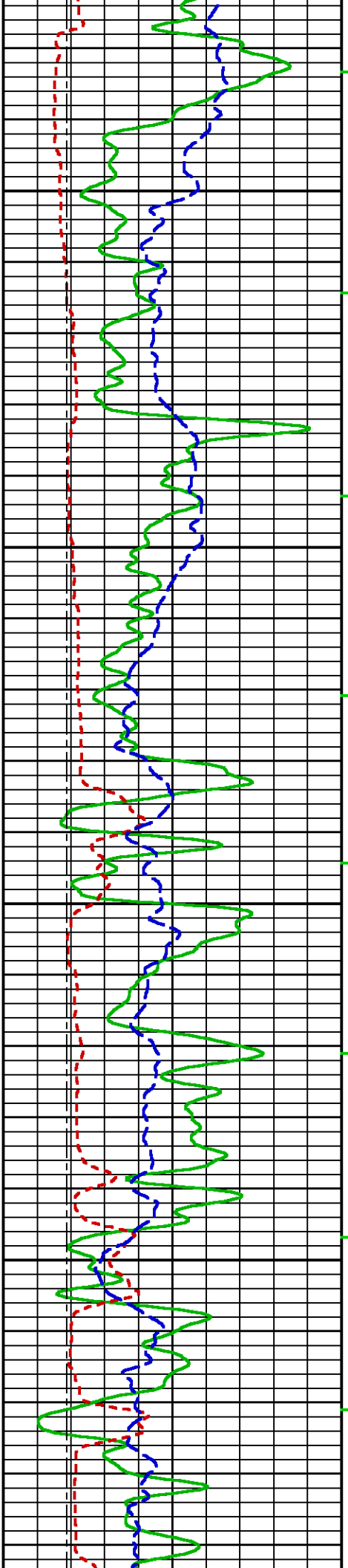


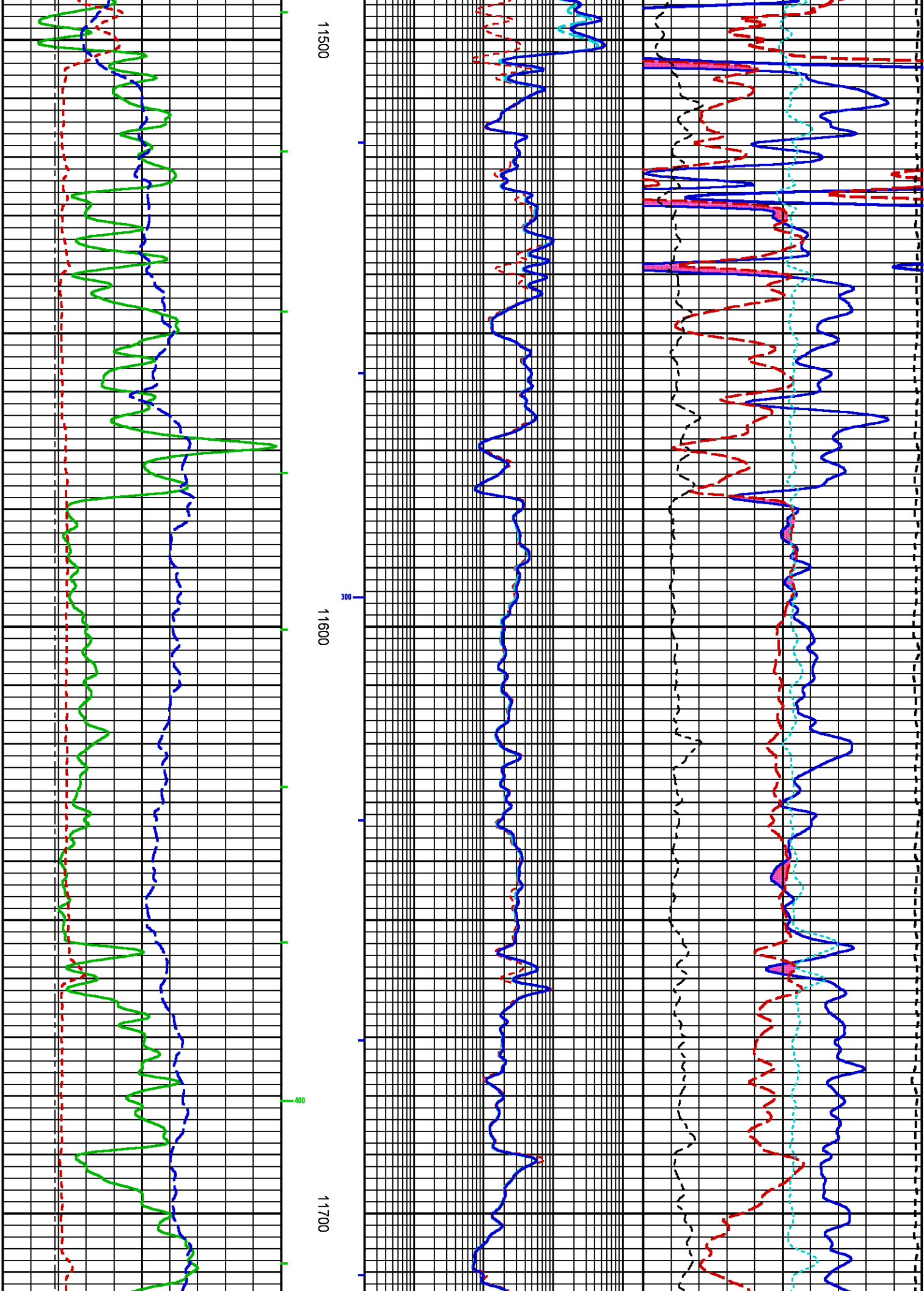


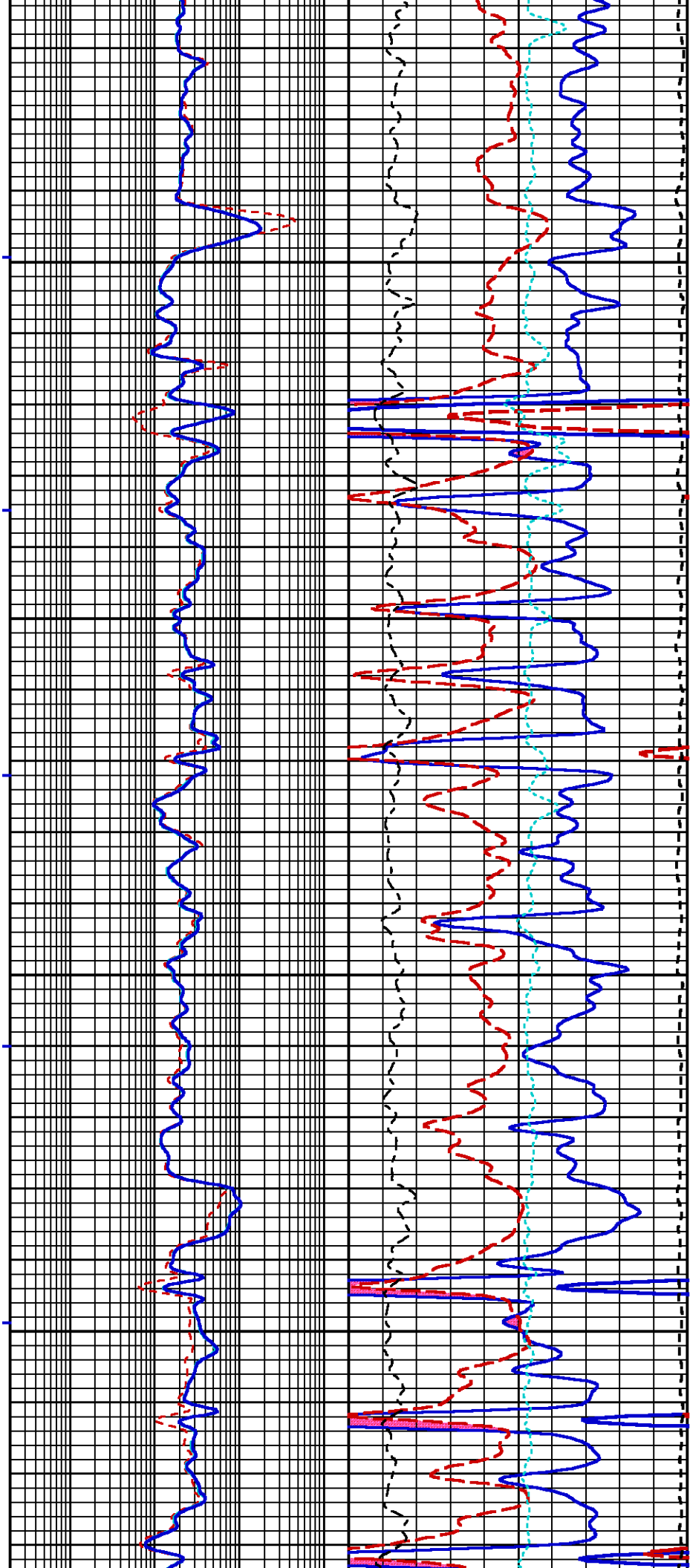
11300

11400

500

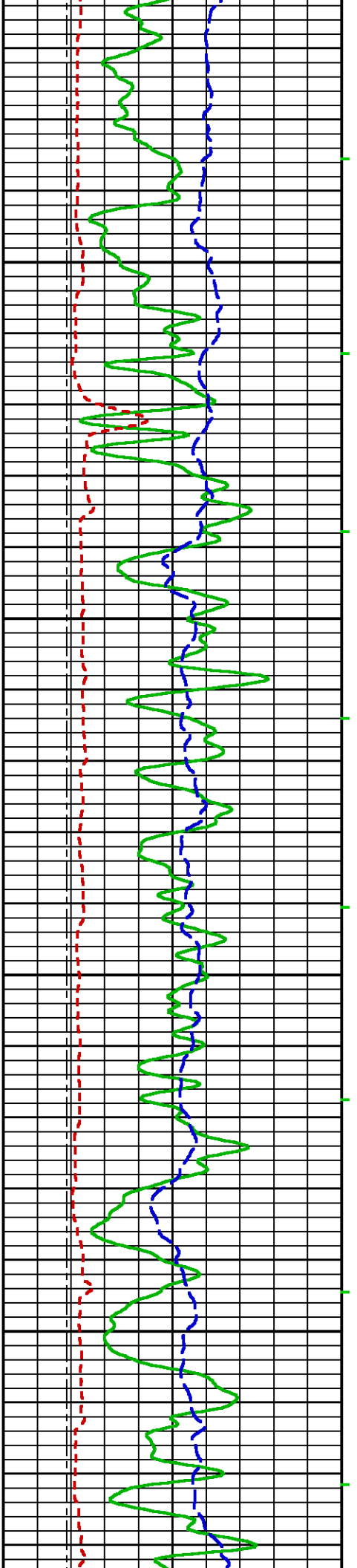


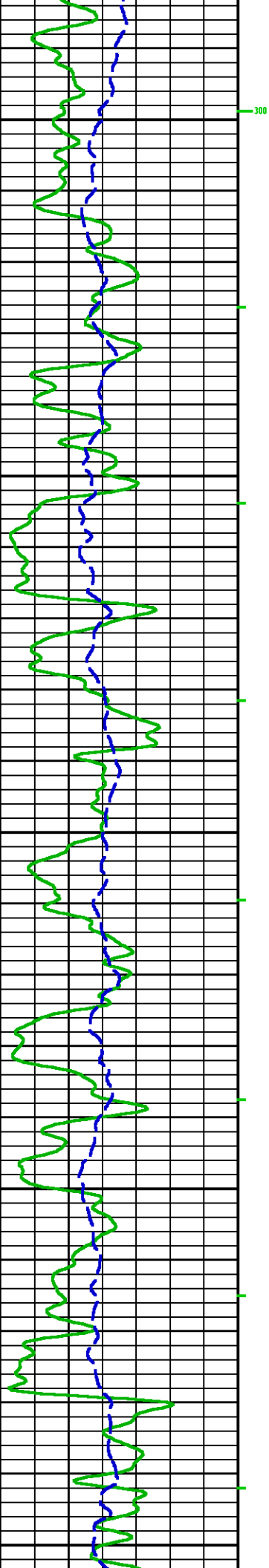
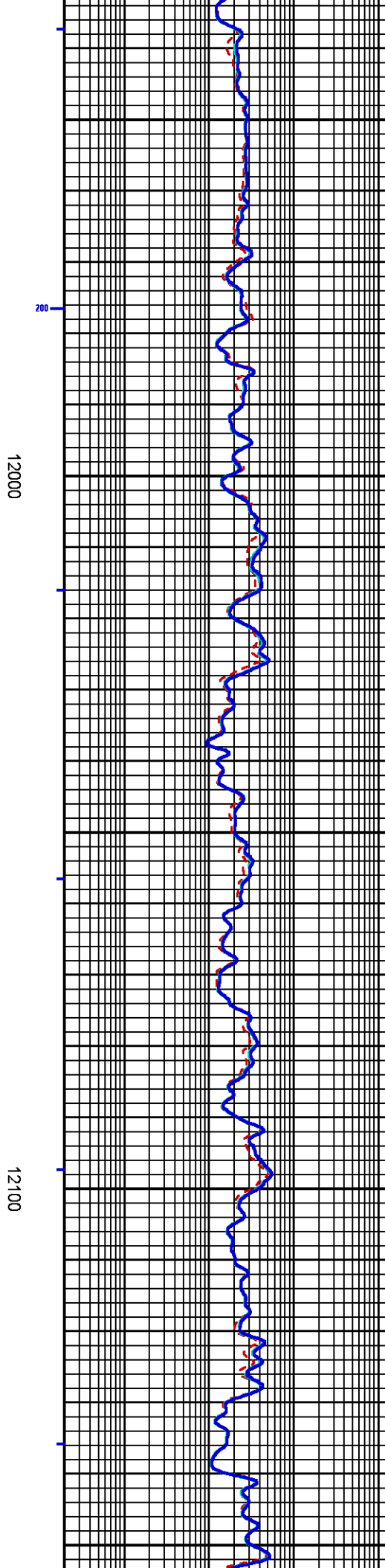
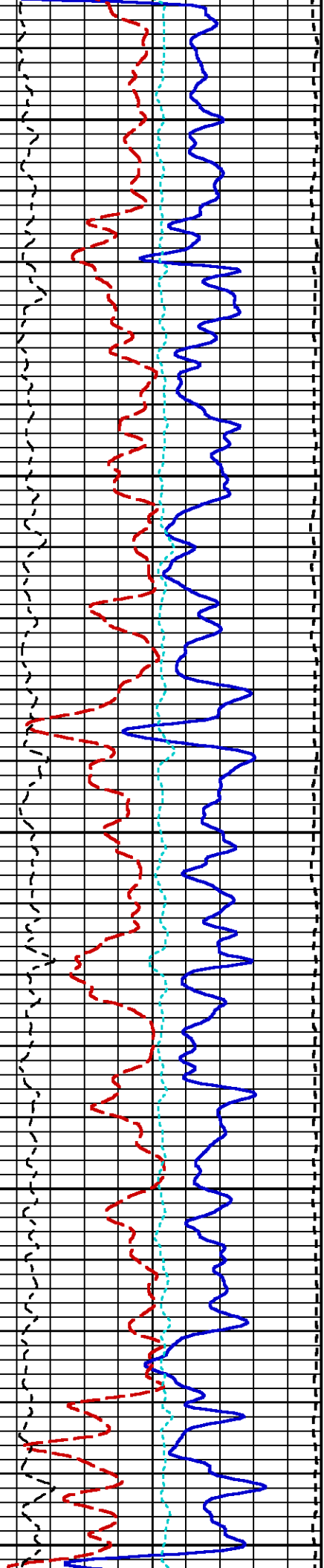




11800

11900



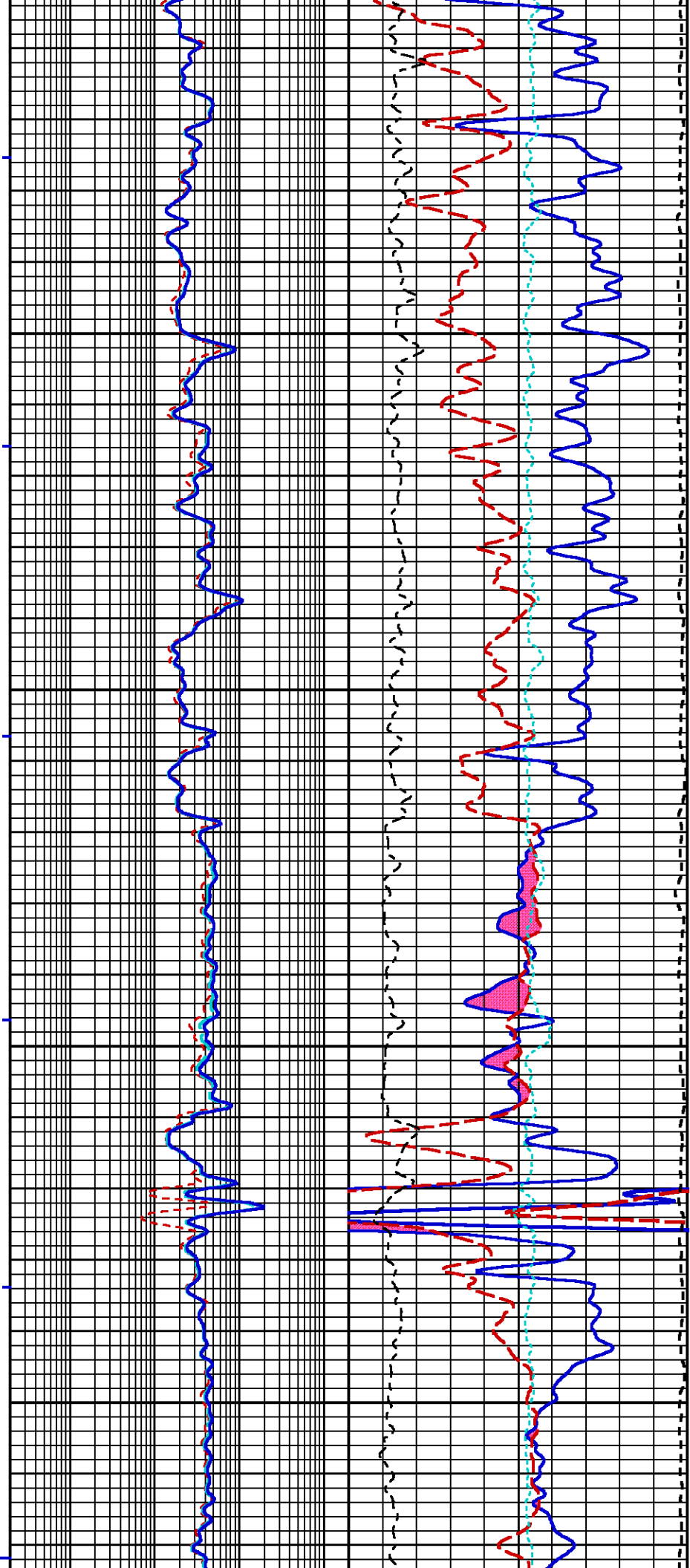


200

12000

12100

300

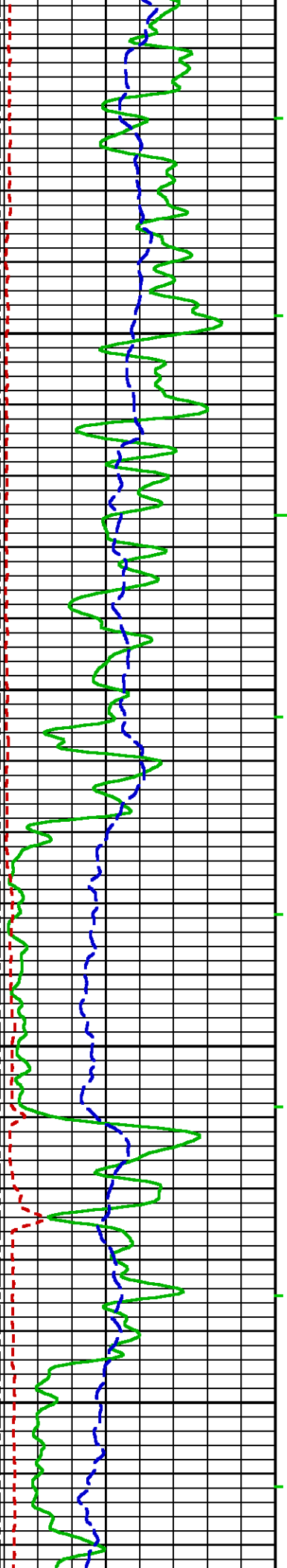


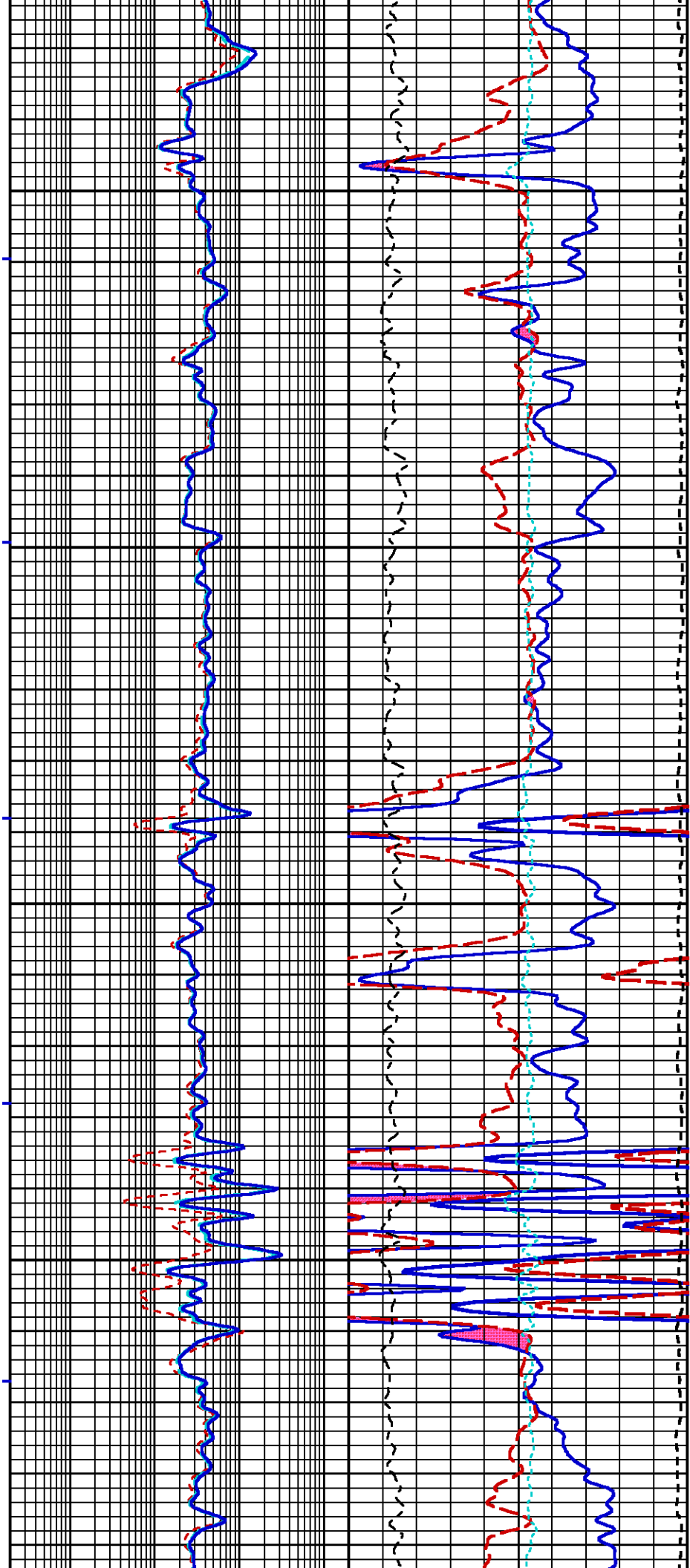
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12300

100

200

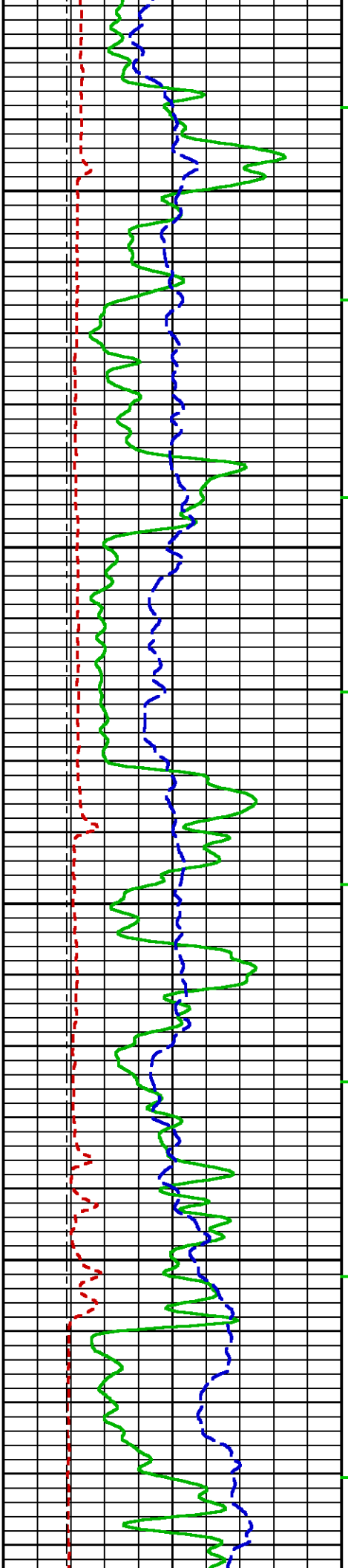


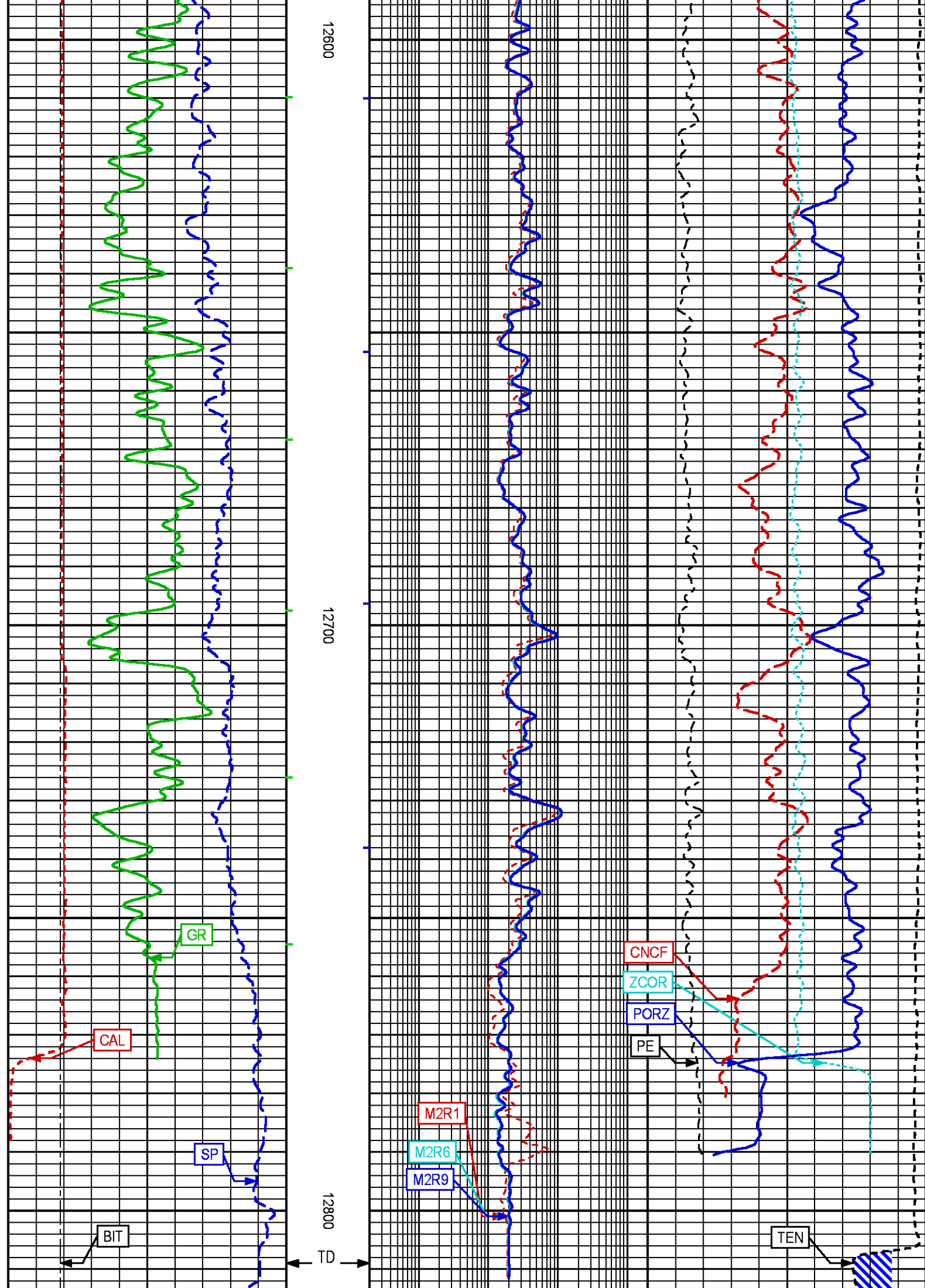


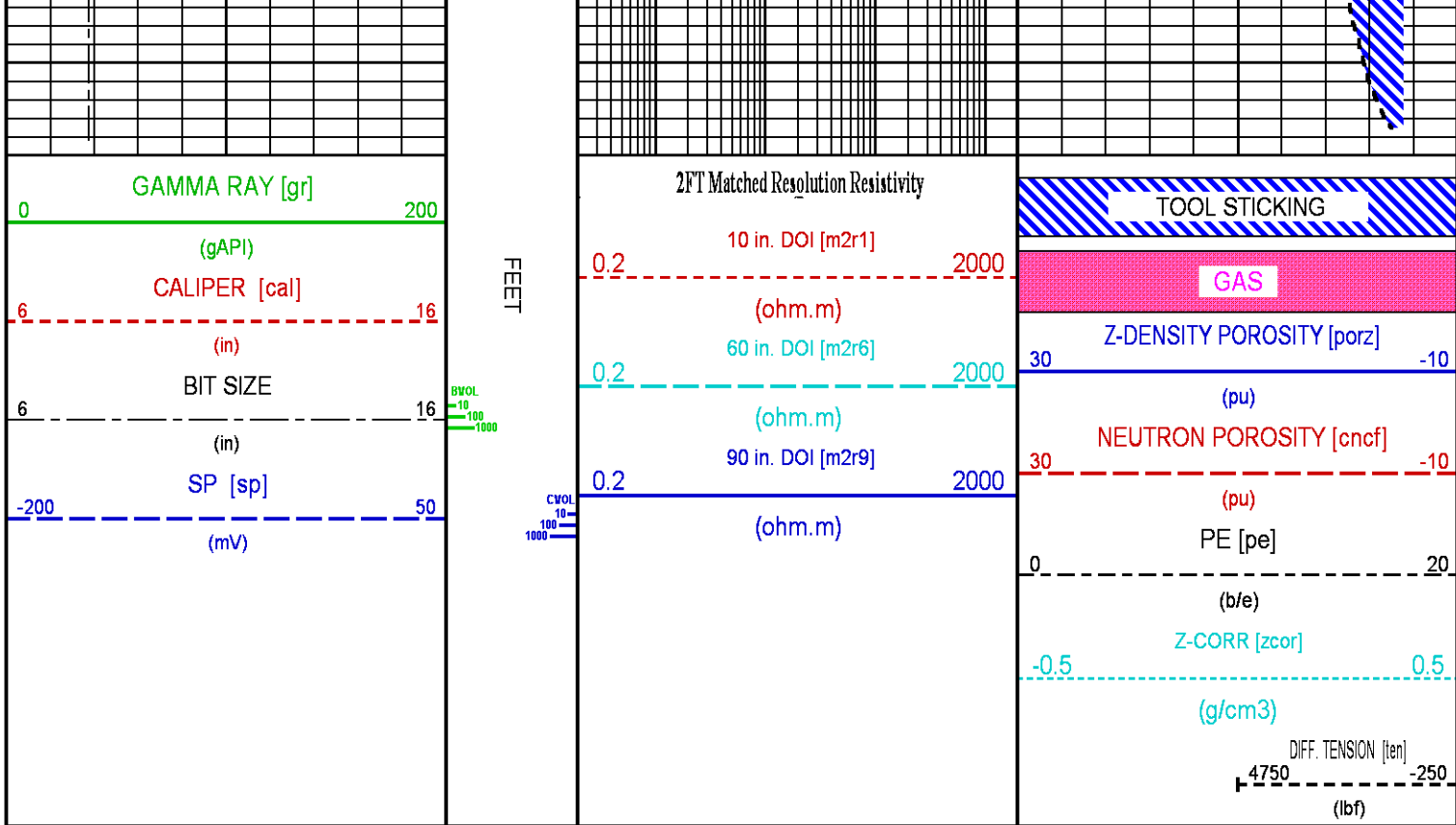
12400

12500

100







REPEAT LOG 5"/100FT SCALE

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

Updates: 1 Patches: 5

Plotted: Mon Dec 22 22:39:22 2014

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/93330J/n777mR01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 3951.692 ft BOTTOM DEPTH: 4308.220 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)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
GR	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	medium (1)		"	"
CN	FILTER ()	medium (1)		"	"
	FILTER (.h)	medium (1)		"	"
	FILTER (.i)	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		"	"
SP-SPDH	FILTER (hrd2s*)	medium		"	"
	FILTER (soft*)	medium		"	"
	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	64.4	degF	TOP	4300.171
		77.0	degF	4300.171	BOTTOM
	MUD SAMPLE RES	0.636	ohm.m	TOP	4300.171
		1.000	ohm.m	4300.171	BOTTOM
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	64.4	degF	TOP	4300.171
		77.0	degF	4300.171	BOTTOM
	at BH REF DEPTH	0.0	ft	TOP	BOTTOM
	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	2500	ppm	"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	13.500	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		"	"
TRACKING TIME	Logging Spd for Gain	Over 10 ft/min		"	"

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 22 22:36:44 2014	BIT SIZE
F1:BVOL	Dec 22 22:36:44 2014	BOREHOLE VOLUME
F1:CAL	Dec 22 22:36:44 2014	CALIPER
F1:CNCF	Dec 22 22:36:44 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Dec 22 22:36:44 2014	CEMENT VOLUME
F1:GR	Dec 22 22:36:44 2014	GAMMA RAY
F1:M2R1	Dec 22 22:36:44 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Dec 22 22:36:44 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Dec 22 22:36:44 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Dec 22 22:36:44 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Dec 22 22:36:44 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Dec 22 22:36:44 2014	SPONTANEOUS POTENTIAL
F1:TEN	Dec 22 22:36:44 2014	DIFFERENTIAL TENSION
F1:ZCOR	Dec 22 22:36:44 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

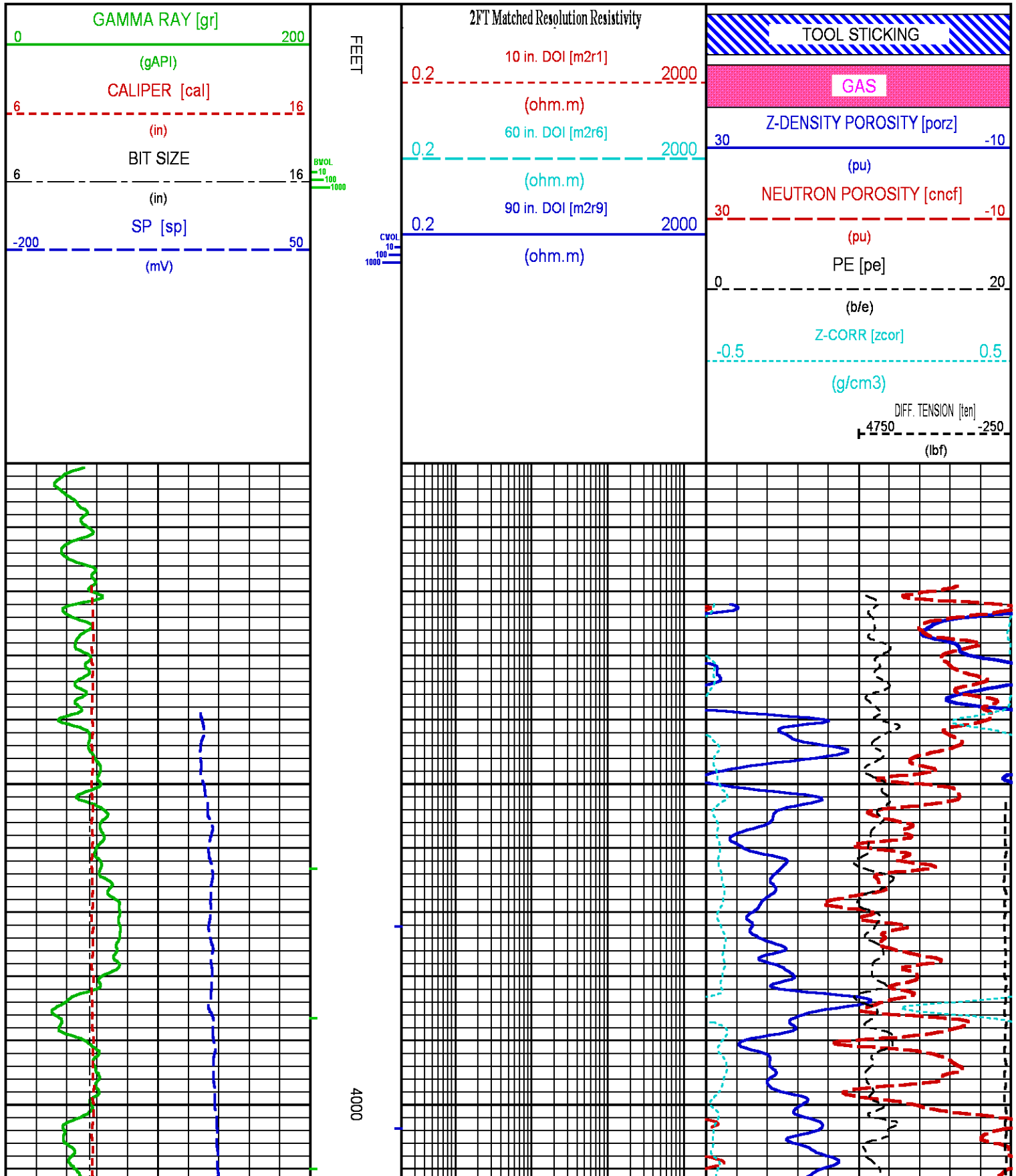
34.25

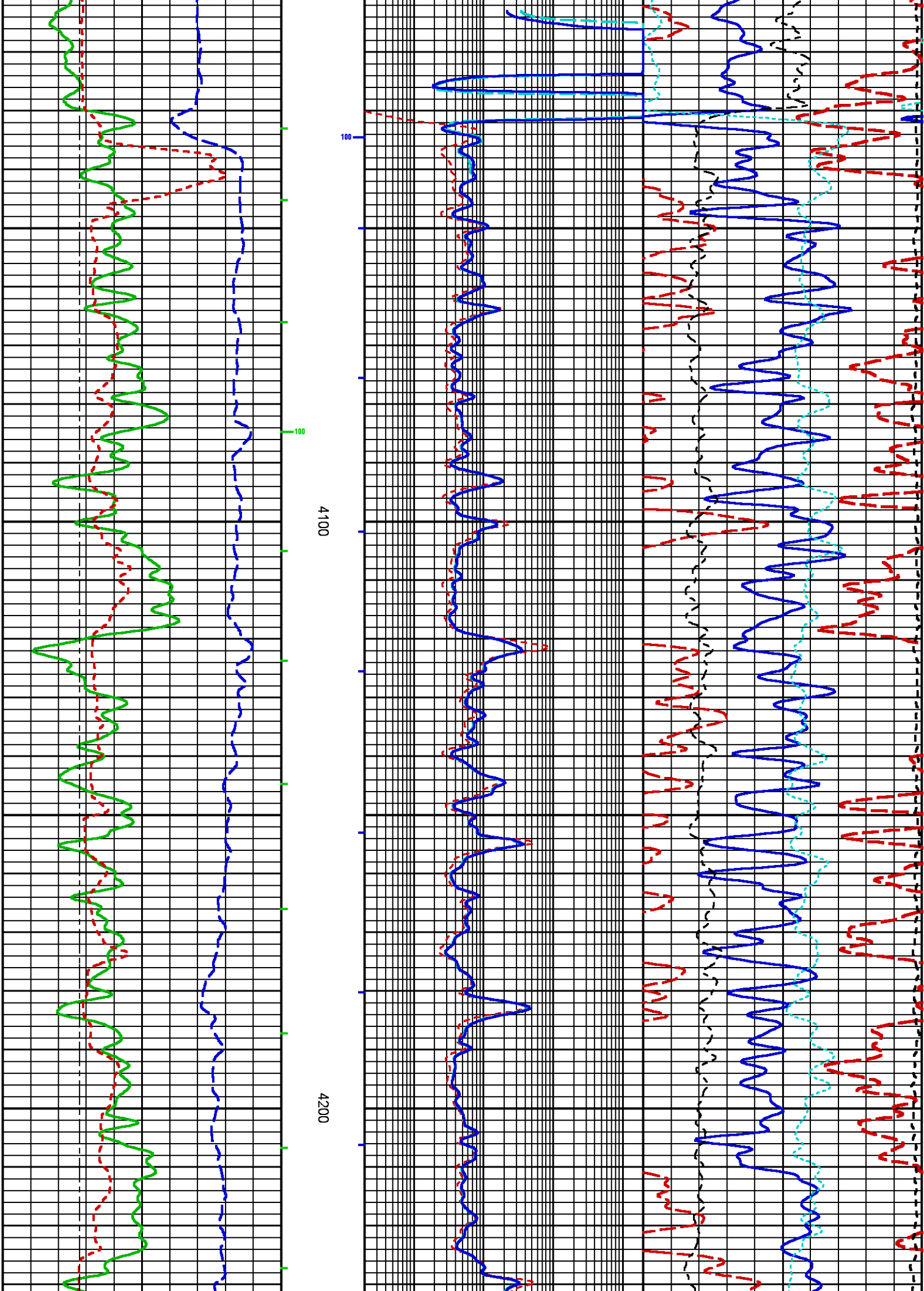
ZCOR

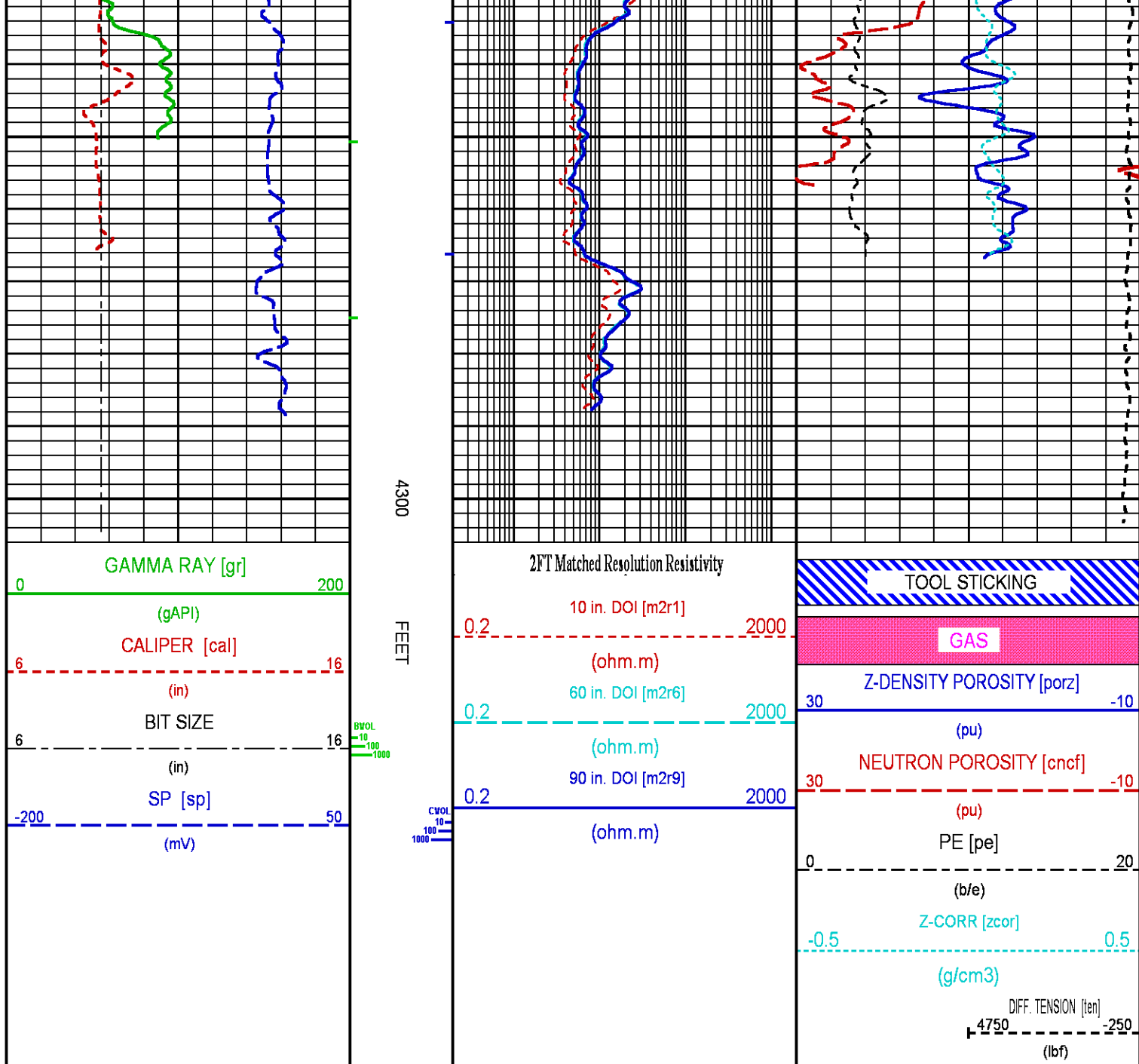
34.25

Presentation : cas6685:/dat1a/93330J/WPX_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 3900.75 - 4304.5 Feet

Data File 1 : F1 : cas6685:/dat1a/93330J/n777mR01_REPEAT.xtf
Created On : Dec 22 22:36:44 2014
Company : WPX ENERGY INC
Well : FEDERAL RGU 333-23-198
Field : SULPHUR CREEK
File Interval : 5 - 4304.5 Feet
OCT : n777m







CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/93330J/n777m.tp1

CHT PRIMARY CALIBRATION SUMMARY

TOOL #: 3981XA 10516527

DATE/TIME PERFORMED: Thu Dec 18 18:29:04 2014

UNIT #: 3885TC 6685

	Signal Low (raw)	Signal High (raw)	Scale Mult	Scale Add	Engr Low (lbf)	Engr High (lbf)
CHT	-87.97	284.28	4.74	217.33	-200.00	1566.00

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 10196895

DATE/TIME PERFORMED: Thu Dec 18 18:41:32 2014

UNIT #: 3885TC 6685

CALB JIG #: 4702NK VBA-905

	BACKGROUND CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	114.42	957.00	0.178	20.37	170.37
		842.6			150
		830.0 960.0			

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 10196895

DATE/TIME PERFORMED: Mon Dec 22 21:51:19 2014

DAYS SINCE CAL: 4

UNIT #: 3885TC 6685

VERI JIG #: 4702NK VBA-905

	BACKGROUND CALBRTR ON (cts/s)	MULT	BACKGROUND CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	133.38	0.178	23.74	176.32
				152.58
				140.00 160.00

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 10196895

DATE/TIME PERFORMED: Tue Dec 23 10:06:53 2014

DAYS SINCE CAL: 4

UNIT #: 3885TC 6685

VERI JIG #: 4702NK VBA-905

	BACKGROUND CALBRTR ON (cts/s)	MULT	BACKGROUND CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	185.60	0.178	33.04	190.69
				157.65
				142.58 162.58

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2446XA 10202048

DATE/TIME PERFORMED: Fri Nov 28 11:56:25 2014

UNIT #: 3885TC 6685

CALIBRATOR #: 2437XB 112674

SOURCE #: 4717XS N-1026

	MEASURED CPS	DEADTM CORR CPS	DTC SSN/LSN	NOMINAL SSN/LSN	CORRECTION FACTOR	POROSITY (pu)
LSN	604.84	613.75				

SSN	1578.25	1629.69			
RATIO		2.65530	2.75100	1.03604	
				0.97000	1.07000
CN					21.358

CN PRIMARY VERIFICATION SUMMARY

TOOL #:	2446XA 10202048	DATE/TIME PERFORMED:	Fri Nov 28 12:04:12 2014
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UNIT #:	3885TC 6685	ICE BLOCK #:	4717ND VD-147
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	MEASURED	DEADTM CORR	DTC	CORRECTION	DTC CORR	POROSITY
	CPS	CPS	SSN/LSN	FACTOR	SSN/LSN	(pu)
LSN	1521.10	1578.78				
SSN	3625.93	3909.53				
RATIO			2.47630	1.03604	2.56741	
CN						18.781

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #:	2446XA 10202048	DATE/TIME PERFORMED:	Mon Dec 22 21:56:14 2014	DAYS SINCE CAL:	24
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UNIT #:	3885TC 6685	ICE BLOCK #:	4717ND VD-147
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	MEASURED	DEADTM CORR	DTC	CORRECTION	DTC CORR	POROSITY
	CPS	CPS	SSN/LSN	FACTOR	SSN/LSN	(pu)
LSN	1488.52	1543.71				
SSN	3603.11	3882.99				
RATIO			2.51537	1.03604	2.60785	
CN						19.338
						16.781 20.781

CN AFTER LOG VERIFICATION SUMMARY

TOOL #:	2446XA 10202048	DATE/TIME PERFORMED:	Tue Dec 23 10:03:37 2014	DAYS SINCE CAL:	24
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UNIT #:	3885TC 6685	ICE BLOCK #:	4717ND VD-147
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	MEASURED	DEADTM CORR	DTC	CORRECTION	DTC CORR	POROSITY
	CPS	CPS	SSN/LSN	FACTOR	SSN/LSN	(pu)
LSN	1467.10	1520.67				

SSN 3558.44 3831.19

RATIO 2.51940 1.03604 2.61174

CN 19.393
17.338 21.338

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Mon Dec 8 16:27:24 2014

UNIT #: 3885TC 6685

	SMALL RING	LARGE RING	MULT	ADD	SMALL RING	LARGE RING
					(in)	(in)
CALIPER	1430.0	1955.2	0.00762	-3.89109	7.000	11.000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Mon Dec 22 22:27:14 2014 DAYS SINCE CAL: 14

UNIT #: 3885TC 6685

	I.D.	MULT	ADD	I.D.
				(in)
CALIPER	1745.2	0.00762	-4.45670	8.835

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Tue Dec 23 09:32:47 2014 DAYS SINCE CAL: 14

UNIT #: 3885TC 6685

	I.D.	MULT	ADD	I.D.
				(in)
CALIPER	1717.6	0.00762	-4.45670	8.625
				8.335 9.335

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2234XA 153015 DATE/TIME PERFORMED: Mon Dec 8 16:54:31 2014

UNIT: 3885TC 6685 CALB BLKS: 2225XA 094292 CS SRC: 4703NT 34631B

SS CS PK | S CS PK SS BKGD | S BKGD

(Channel)	(Channel)	(cps)	(cps)
225.6	226.7	1194.1	1535.3
220.0 230.0	220.0 230.0		

	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	22131.9	11509.6	0.593 0.565 0.665	1.697	0.002	2.300
AL	12827.9	1132.5		2.717	-0.004	
AL + SHIM	17702.1	1989.8		2.629	0.157	
MG + SHIM (HI PE)	10573.2	5366.1	0.238 0.210 0.270			8.730
RATIO AL + SHIM/AL	1.38 1.32 1.42	1.76 1.64 1.84				
RATIO MG/AL	1.73 1.65 1.78	10.16 9.40 10.20				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Mon Dec 22 21:57:36 2014 DAYS SINCE CAL: 14

UNIT #: 3885TC 6685

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1518.7 1435.3 1635.3	228.7 220.0 230.0	1161.6 1100.0 1550.0
SS	1190.5 1094.1 1294.1	223.4 220.0 230.0	1266.2 1100.0 1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0 4.8 5.2	74.4 50.0 120.0	

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 153015 DATE/TIME PERFORMED: Tue Dec 23 10:02:57 2014 DAYS SINCE CAL: 14

UNIT #: 3885TC 6685

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	1520.6 1435.3 1635.3	223.5 220.0 230.0	1166.4 1100.0 1550.0
SS	1170.7 1094.1 1294.1	223.2 220.0 230.0	1266.0 1100.0 1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	66.8	

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1515MA 10037719

DATE/TIME PERFORMED: Thu Nov 13 09:50:32 2014

UNIT #: 3885TC 6685

GRCOND ID & DATE: 86 082996

ZERO DATA(mv) 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 R	-0.014 -0.200 0.200	-0.007 -0.100 0.100	-0.004 -0.100 0.100	-0.005 -0.100 0.100	-0.007 -0.100 0.100	-0.004 -0.100 0.100	-0.005 -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	0.003 -0.100 0.100	0.000 -0.100 0.100	0.003 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	0.001 -0.100 0.100
Coil 1 R	0.003 -0.200 0.200	0.001 -0.100 0.100	0.001 -0.100 0.100	0.005 -0.100 0.100	0.005 -0.100 0.100	0.000 -0.100 0.100	-0.001 -0.100 0.100	-0.003 -0.100 0.100
Coil 1 Q	-0.005 -1.000 1.000	-0.005 -0.200 0.200	-0.004 -0.100 0.100	0.000 -0.100 0.100	0.002 -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	-0.003 -0.200 0.200	0.004 -0.100 0.100	0.004 -0.100 0.100	0.001 -0.100 0.100	-0.001 -0.100 0.100	0.001 -0.100 0.100	0.005 -0.100 0.100	0.008 -0.100 0.100
Coil 2 Q	0.000 -1.000 1.000	0.003 -0.200 0.200	0.002 -0.100 0.100	-0.001 -0.100 0.100	-0.003 -0.100 0.100	-0.005 -0.100 0.100	-0.008 -0.100 0.100	-0.007 -0.100 0.100
Coil 3 R	0.008 -0.100 0.100	0.003 -0.100 0.100	0.001 -0.100 0.100	0.000 -0.100 0.100	0.002 -0.100 0.100	-0.003 -0.100 0.100	-0.001 -0.100 0.100	0.003 -0.100 0.100
Coil 3 Q	-0.008 -0.500 0.500	-0.010 -0.200 0.200	-0.001 -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	-0.002 -0.100 0.100
Coil 4 R	-0.018 -0.200 0.200	-0.002 -0.200 0.200	-0.003 -0.200 0.200	0.002 -0.200 0.200	0.000 -0.200 0.200	0.003 -0.200 0.200	0.004 -0.200 0.200	0.004 -0.200 0.200
Coil 4 Q	-0.005 -1.000 1.000	0.000 -0.400 0.400	-0.001 -0.200 0.200	-0.002 -0.200 0.200	-0.002 -0.200 0.200	-0.005 -0.200 0.200	-0.006 -0.200 0.200	-0.001 -0.200 0.200
Coil 5 R	0.006 -0.400 0.400	0.006 -0.400 0.400	0.010 -0.400 0.400	0.004 -0.400 0.400	0.007 -0.400 0.400	0.003 -0.400 0.400	-0.004 -0.400 0.400	0.000 -0.400 0.400
Coil 5 Q	0.002 -2.000 2.000	0.008 -0.800 0.800	0.005 -0.400 0.400	0.006 -0.400 0.400	0.003 -0.400 0.400	0.007 -0.400 0.400	-0.004 -0.400 0.400	-0.003 -0.400 0.400
Coil 6 R	-0.009 -1.000 1.000	0.025 -1.000 1.000	-0.004 -1.000 1.000	-0.010 -1.000 1.000	-0.010 -1.000 1.000	0.007 -1.000 1.000	0.018 -1.000 1.000	0.024 -1.000 1.000
Coil 6 Q	-0.007 -5.000 5.000	-0.009 -2.000 2.000	-0.005 -1.000 1.000	-0.003 -1.000 1.000	-0.009 -1.000 1.000	-0.016 -1.000 1.000	-0.025 -1.000 1.000	-0.019 -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	126.10 100.00 150.00	124.58 100.00 150.00	121.66 98.00 150.00	117.42 96.00 140.00	111.99 92.00 140.00	105.53 87.00 130.00	98.07 82.00 120.00	89.86 76.00 110.00
Coil 0 P	7.576 6.000 9.000	23.866 19.000 28.000	39.857 32.000 47.000	55.806 44.000 66.000	71.652 57.000 85.000	87.561 70.000 100.000	103.363 82.000 120.000	119.210 95.000 140.000
Coil 1 M	218.74 180.00 270.00	216.13 180.00 270.00	211.04 170.00 260.00	203.71 170.00 250.00	194.40 160.00 250.00	183.22 160.00 230.00	170.23 150.00 220.00	155.86 140.00 200.00
Coil 1 P	7.672 6.000 9.000	24.163 19.000 28.000	40.380 32.000 48.000	56.559 45.000 67.000	72.622 57.000 86.000	88.727 70.000 110.000	104.795 83.000 120.000	120.846 96.000 140.000
Coil 2 M	439.55 360.00 540.00	434.39 360.00 540.00	424.49 350.00 530.00	410.17 340.00 510.00	391.82 330.00 500.00	369.24 310.00 470.00	343.63 300.00 440.00	314.98 270.00 410.00
Coil 2 P	7.854 6.000 9.000	24.676 19.000 29.000	41.254 32.000 48.000	57.796 45.000 67.000	74.247 58.000 87.000	90.778 71.000 110.000	107.177 84.000 130.000	123.719 96.000 140.000

Coil 1 P	<div>0.133</div> <div>-2.0002.000</div>	<div>0.273</div> <div>-2.0002.000</div>	<div>0.361</div> <div>-2.0002.000</div>	<div>0.365</div> <div>-2.0002.000</div>	<div>0.362</div> <div>-2.0002.000</div>	<div>0.306</div> <div>-2.0002.000</div>	<div>0.306</div> <div>-2.0002.000</div>	<div>0.245</div> <div>-2.0002.000</div>
Coil 2 M	<div>1.009</div> <div>0.9001.100</div>	<div>1.006</div> <div>0.9001.100</div>	<div>1.005</div> <div>0.9001.100</div>	<div>1.004</div> <div>0.9001.100</div>	<div>1.003</div> <div>0.9001.100</div>	<div>1.002</div> <div>0.9001.100</div>	<div>1.003</div> <div>0.9001.100</div>	<div>1.001</div> <div>0.9001.100</div>
Coil 2 P	<div>0.111</div> <div>-2.0002.000</div>	<div>0.082</div> <div>-2.0002.000</div>	<div>0.123</div> <div>-2.0002.000</div>	<div>0.150</div> <div>-2.0002.000</div>	<div>0.179</div> <div>-2.0002.000</div>	<div>0.157</div> <div>-2.0002.000</div>	<div>0.142</div> <div>-2.0002.000</div>	<div>0.198</div> <div>-2.0002.000</div>
Coil 3 M	<div>1.013</div> <div>0.9001.100</div>	<div>1.012</div> <div>0.9001.100</div>	<div>1.011</div> <div>0.9001.100</div>	<div>1.009</div> <div>0.9001.100</div>	<div>1.008</div> <div>0.9001.100</div>	<div>1.007</div> <div>0.9001.100</div>	<div>1.008</div> <div>0.9001.100</div>	<div>1.009</div> <div>0.9001.100</div>
Coil 3 P	<div>0.048</div> <div>-2.0002.000</div>	<div>0.110</div> <div>-2.0002.000</div>	<div>0.182</div> <div>-2.0002.000</div>	<div>0.212</div> <div>-2.0002.000</div>	<div>0.185</div> <div>-2.0002.000</div>	<div>0.162</div> <div>-2.0002.000</div>	<div>0.101</div> <div>-2.0002.000</div>	<div>0.150</div> <div>-2.0002.000</div>
Coil 4 M	<div>1.024</div> <div>0.9001.100</div>	<div>1.023</div> <div>0.9001.100</div>	<div>1.023</div> <div>0.9001.100</div>	<div>1.022</div> <div>0.9001.100</div>	<div>1.021</div> <div>0.9001.100</div>	<div>1.020</div> <div>0.9001.100</div>	<div>1.020</div> <div>0.9001.100</div>	<div>1.019</div> <div>0.9001.100</div>
Coil 4 P	<div>0.096</div> <div>-2.0002.000</div>	<div>0.143</div> <div>-2.0002.000</div>	<div>0.156</div> <div>-2.0002.000</div>	<div>0.206</div> <div>-2.0002.000</div>	<div>0.233</div> <div>-2.0002.000</div>	<div>0.259</div> <div>-2.0002.000</div>	<div>0.209</div> <div>-2.0002.000</div>	<div>0.224</div> <div>-2.0002.000</div>
Coil 5 M	<div>1.029</div> <div>0.9001.100</div>	<div>1.028</div> <div>0.9001.100</div>	<div>1.028</div> <div>0.9001.100</div>	<div>1.026</div> <div>0.9001.100</div>	<div>1.024</div> <div>0.9001.100</div>	<div>1.024</div> <div>0.9001.100</div>	<div>1.022</div> <div>0.9001.100</div>	<div>1.021</div> <div>0.9001.100</div>
Coil 5 P	<div>0.057</div> <div>-2.0002.000</div>	<div>0.041</div> <div>-2.0002.000</div>	<div>0.110</div> <div>-2.0002.000</div>	<div>0.135</div> <div>-2.0002.000</div>	<div>0.114</div> <div>-2.0002.000</div>	<div>0.048</div> <div>-2.0002.000</div>	<div>0.061</div> <div>-2.0002.000</div>	<div>0.025</div> <div>-2.0002.000</div>
Coil 6 M	<div>1.029</div> <div>0.9001.100</div>	<div>1.030</div> <div>0.9001.100</div>	<div>1.029</div> <div>0.9001.100</div>	<div>1.026</div> <div>0.9001.100</div>	<div>1.025</div> <div>0.9001.100</div>	<div>1.030</div> <div>0.9001.100</div>	<div>1.030</div> <div>0.9001.100</div>	<div>1.027</div> <div>0.9001.100</div>
Coil 6 P	<div>0.051</div> <div>-2.0002.000</div>	<div>0.196</div> <div>-2.0002.000</div>	<div>0.173</div> <div>-2.0002.000</div>	<div>0.301</div> <div>-2.0002.000</div>	<div>0.215</div> <div>-2.0002.000</div>	<div>0.140</div> <div>-2.0002.000</div>	<div>0.156</div> <div>-2.0002.000</div>	<div>0.059</div> <div>-2.0002.000</div>
<div> <div>PARMS</div> <div>TCID 0</div> <div>TCID 1</div> <div>Cal Temp (degF)</div> <div>T Factor</div> </div> <div> <div>IDs</div> <div>1.617</div> <div>0.832</div> <div>48.8</div> <div>1.04</div> </div>								

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #:	1515MA 10037719	DATE/TIME PERFORMED:	Mon Dec 22 21:58:24 2014	DAYS SINCE CAL:	39
UNIT #:		3885TC 6685			

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 R	<div>-0.015</div> <div>-0.2000.200</div>	<div>-0.009</div> <div>-0.1000.100</div>	<div>-0.007</div> <div>-0.1000.100</div>	<div>-0.009</div> <div>-0.1000.100</div>	<div>-0.011</div> <div>-0.1000.100</div>	<div>-0.008</div> <div>-0.1000.100</div>	<div>-0.008</div> <div>-0.1000.100</div>	<div>-0.010</div> <div>-0.1000.100</div>
Coil 0 Q	<div>0.008</div> <div>-1.0001.000</div>	<div>0.012</div> <div>-0.2000.200</div>	<div>0.002</div> <div>-0.1000.100</div>	<div>0.002</div> <div>-0.1000.100</div>	<div>0.003</div> <div>-0.1000.100</div>	<div>0.001</div> <div>-0.1000.100</div>	<div>-0.001</div> <div>-0.1000.100</div>	<div>-0.000</div> <div>-0.1000.100</div>
Coil 1 R	<div>0.001</div> <div>-0.2000.200</div>	<div>-0.002</div> <div>-0.1000.100</div>	<div>-0.002</div> <div>-0.1000.100</div>	<div>0.000</div> <div>-0.1000.100</div>	<div>-0.003</div> <div>-0.1000.100</div>	<div>-0.006</div> <div>-0.1000.100</div>	<div>-0.009</div> <div>-0.1000.100</div>	<div>-0.009</div> <div>-0.1000.100</div>
Coil 1 Q	<div>-0.005</div> <div>-1.0001.000</div>	<div>-0.003</div> <div>-0.2000.200</div>	<div>-0.003</div> <div>-0.1000.100</div>	<div>0.002</div> <div>-0.1000.100</div>	<div>0.004</div> <div>-0.1000.100</div>	<div>0.003</div> <div>-0.1000.100</div>	<div>0.002</div> <div>-0.1000.100</div>	<div>-0.000</div> <div>-0.1000.100</div>
Coil 2 R	<div>0.004</div> <div>-0.2000.200</div>	<div>0.009</div> <div>-0.1000.100</div>	<div>0.007</div> <div>-0.1000.100</div>	<div>0.002</div> <div>-0.1000.100</div>	<div>0.001</div> <div>-0.1000.100</div>	<div>0.003</div> <div>-0.1000.100</div>	<div>0.006</div> <div>-0.1000.100</div>	<div>0.009</div> <div>-0.1000.100</div>
Coil 2 Q	<div>0.002</div> <div>-1.0001.000</div>	<div>0.006</div> <div>-0.2000.200</div>	<div>0.006</div> <div>-0.1000.100</div>	<div>0.005</div> <div>-0.1000.100</div>	<div>-0.000</div> <div>-0.1000.100</div>	<div>-0.006</div> <div>-0.1000.100</div>	<div>-0.007</div> <div>-0.1000.100</div>	<div>-0.006</div> <div>-0.1000.100</div>
Coil 3 R	<div>0.012</div> <div>-0.1000.100</div>	<div>0.006</div> <div>-0.1000.100</div>	<div>0.003</div> <div>-0.1000.100</div>	<div>0.007</div> <div>-0.1000.100</div>	<div>0.005</div> <div>-0.1000.100</div>	<div>0.004</div> <div>-0.1000.100</div>	<div>0.000</div> <div>-0.1000.100</div>	<div>0.001</div> <div>-0.1000.100</div>
Coil 3 Q	<div>-0.008</div> <div>-0.5000.500</div>	<div>-0.012</div> <div>-0.2000.200</div>	<div>-0.004</div> <div>-0.1000.100</div>	<div>0.002</div> <div>-0.1000.100</div>	<div>0.001</div> <div>-0.1000.100</div>	<div>0.002</div> <div>-0.1000.100</div>	<div>0.002</div> <div>-0.1000.100</div>	<div>0.000</div> <div>-0.1000.100</div>
Coil 4 R	<div>-0.012</div> <div>-0.2000.200</div>	<div>-0.005</div> <div>-0.2000.200</div>	<div>-0.001</div> <div>-0.2000.200</div>	<div>-0.007</div> <div>-0.2000.200</div>	<div>-0.002</div> <div>-0.2000.200</div>	<div>0.001</div> <div>-0.2000.200</div>	<div>-0.000</div> <div>-0.2000.200</div>	<div>-0.001</div> <div>-0.2000.200</div>
Coil 4 Q	<div>-0.000</div> <div>-0.2000.200</div>	<div>0.003</div> <div>-0.2000.200</div>	<div>-0.004</div> <div>-0.2000.200</div>	<div>-0.005</div> <div>-0.2000.200</div>	<div>-0.002</div> <div>-0.2000.200</div>	<div>-0.003</div> <div>-0.2000.200</div>	<div>-0.004</div> <div>-0.2000.200</div>	<div>-0.001</div> <div>-0.2000.200</div>

	-1.000	1.000	-0.400	0.400	-0.200	0.200	-0.200	0.200	-0.200	0.200	-0.200	0.200
Coil 5 R	0.007	0.001	0.013	0.005	0.004	0.002	0.001	0.002				
	-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	-0.000	0.004	0.003	0.009	-0.000	0.005	-0.000	-0.009				
	-2.000	2.000	-0.800	0.800	-0.400	0.400	-0.400	0.400	-0.400	0.400	-0.400	0.400
Coil 6 R	0.021	0.002	-0.005	-0.001	-0.024	-0.009	0.001	0.015				
	-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	-0.004	-0.003	0.007	-0.010	-0.010	-0.017	-0.023	-0.002				
	-5.000	5.000	-2.000	2.000	-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	126.04		124.51		121.62		117.17		111.73		105.00		97.48		88.94	
	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	7.577		23.902		39.937		55.969		71.797		87.761		103.441		119.351	
	6.000	9.000	19.000	28.000	32.000	47.000	44.000	66.000	57.000	85.000	70.000	100.000	82.000	120.000	95.000	140.000
Coil 1 M	218.50		215.85		210.83		203.20		193.77		182.10		169.11		154.35	
	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	220.00	140.00	200.00
Coil 1 P	7.676		24.205		40.475		56.720		72.773		88.950		104.875		121.028	
	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	439.47		434.24		424.53		409.48		390.90		367.63		341.68		312.09	
	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	7.857		24.722		41.351		57.962		74.396		91.011		107.311		123.900	
	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	711.18		702.13		684.94		658.64		626.11		587.32		544.06		496.54	
	590.00	880.00	580.00	870.00	570.00	850.00	550.00	830.00	530.00	800.00	500.00	780.00	470.00	710.00	440.00	650.00
Coil 3 P	7.714		24.344		40.668		56.939		72.947		88.996		104.678		120.465	
	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	1138.4		1121.6		1089.5		1042.3		985.7		919.2		848.2		771.9	
	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	7.960		25.075		41.777		58.347		74.516		90.640		106.229		121.914	
	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	2338.4		2316.3		2273.4		2204.3		2114.6		1998.1		1862.1		1703.6	
	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	8.031		25.381		42.534		59.812		77.024		94.497		111.790		129.327	
	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	6071.2		5989.7		5835.8		5605.8		5322.4		4980.0		4602.9		4185.1	
	4700.0	7100.0	4700.0	7000.0	4600.0	6900.0	4400.0	6800.0	4200.0	6400.0	4000.0	6000.0	3700.0	5800.0	3400.0	5100.0
Coil 6 P	8.236		26.285		43.940		61.535		78.870		96.266		113.307		130.528	
	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

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1515MA 10037719 DATE/TIME PERFORMED: Tue Dec 23 09:36:29 2014 DAYS SINCE CAL: 39

UNIT #: 3885TC 6685

ZERO DATA(mv) 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 R	-0.008		-0.003		-0.003		-0.006		-0.010		-0.008		-0.008		-0.009	
	-0.095	0.065	-0.069	0.051	-0.037	0.023	-0.039	0.021	-0.041	0.019	-0.038	0.022	-0.038	0.022	-0.040	0.020
Coil 0 Q	0.008		0.013		0.006		0.004		0.005		0.001		-0.003		-0.002	
	-0.032	0.048	-0.108	0.132	-0.028	0.032	-0.028	0.032	-0.027	0.033	-0.029	0.031	-0.031	0.029	-0.030	0.030
Coil 1 R	0.007		0.003		0.003		0.003		0.001		-0.004		-0.005		-0.006	
	-0.079	0.081	-0.052	0.048	-0.032	0.028	-0.030	0.030	-0.033	0.027	-0.036	0.024	-0.039	0.021	-0.039	0.021

Coil 1 Q	-0.003	-0.003	-0.001	0.003	0.004	0.003	0.003	-0.001
	-0.4050.395	-0.1030.097	-0.0330.027	-0.0280.032	-0.0260.034	-0.0270.033	-0.0280.032	-0.0300.030
Coil 2 R	0.003	0.010	0.012	0.009	0.010	0.014	0.014	0.018
	-0.0660.074	-0.0210.039	-0.0230.037	-0.0280.032	-0.0290.031	-0.0270.033	-0.0240.036	-0.0210.039
Coil 2 Q	0.001	-0.001	-0.001	-0.004	-0.006	-0.004	-0.005	-0.004
	-0.3480.352	-0.0940.106	-0.0240.036	-0.0250.035	-0.0300.030	-0.0360.024	-0.0370.023	-0.0360.024
Coil 3 R	0.010	0.011	0.012	0.012	0.014	0.007	0.011	0.009
	-0.0280.052	-0.0340.046	-0.0370.043	-0.0330.047	-0.0350.045	-0.0360.044	-0.0400.040	-0.0390.041
Coil 3 Q	-0.011	-0.013	-0.004	-0.002	0.002	0.001	0.001	0.001
	-0.2080.192	-0.0920.068	-0.0440.036	-0.0380.042	-0.0390.041	-0.0380.042	-0.0380.042	-0.0400.040
Coil 4 R	-0.009	-0.005	-0.001	-0.000	-0.002	-0.002	0.002	-0.002
	-0.0720.048	-0.0650.055	-0.0610.059	-0.0670.053	-0.0620.058	-0.0590.061	-0.0600.060	-0.0610.059
Coil 4 Q	0.000	0.003	-0.002	-0.004	-0.001	-0.004	-0.007	-0.003
	-0.3000.300	-0.0970.103	-0.0640.056	-0.0650.055	-0.0620.058	-0.0630.057	-0.0640.056	-0.0610.059
Coil 5 R	0.005	0.003	0.019	0.016	0.008	0.018	-0.001	0.005
	-0.1130.127	-0.1190.121	-0.1070.133	-0.1150.125	-0.1160.124	-0.1180.122	-0.1190.121	-0.1180.122
Coil 5 Q	0.002	0.005	-0.001	-0.001	0.012	0.014	0.002	0.000
	-0.6000.600	-0.2460.254	-0.1170.123	-0.1110.129	-0.1200.120	-0.1150.125	-0.1200.120	-0.1290.111
Coil 6 R	-0.020	-0.005	0.014	-0.006	-0.020	0.013	0.024	0.019
	-0.2790.321	-0.2980.302	-0.3050.295	-0.3010.299	-0.3240.276	-0.3090.291	-0.2990.301	-0.2850.315
Coil 6 Q	-0.014	0.009	0.007	-0.019	-0.020	-0.016	-0.013	0.005
	-1.5041.496	-0.6030.597	-0.2930.307	-0.3100.290	-0.3100.290	-0.3170.283	-0.3230.277	-0.3020.298
ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	126.17	124.73	121.78	117.49	111.90	105.29	97.64	89.17
	123.52128.56	122.02127.00	119.18124.05	114.83119.52	109.49113.96	102.90107.10	95.5399.43	87.1690.72
Coil 0 P	7.622	24.066	40.252	56.375	72.417	88.428	104.450	120.381
	4.57710.577	20.90226.902	36.93742.937	52.96958.969	68.79774.797	84.76190.761	100.441106.441	116.351122.351
Coil 1 M	217.85	215.34	210.25	202.88	193.23	181.79	168.73	154.03
	214.13222.87	211.53220.16	206.61215.05	199.13207.26	189.89197.64	178.46185.74	165.72172.49	151.26157.44
Coil 1 P	7.724	24.387	40.815	57.164	73.430	89.684	105.933	122.124
	4.67610.676	21.20527.205	37.47543.475	53.72059.720	69.77375.773	85.95091.950	101.875107.875	118.028124.028
Coil 2 M	441.34	436.37	426.48	411.81	392.61	369.72	343.29	313.74
	430.68448.26	425.55442.92	416.04433.02	401.29417.67	383.08398.72	360.27374.98	334.84348.51	305.85318.33
Coil 2 P	7.895	24.877	41.650	58.344	75.000	91.638	108.277	124.874
	4.85710.857	21.72227.722	38.35144.351	54.96260.962	71.39677.396	88.01194.011	104.311110.311	120.900126.900
Coil 3 M	713.85	705.23	687.66	662.01	628.77	590.34	546.43	498.95
	696.96725.41	688.09716.18	671.25698.64	645.47671.82	613.59638.63	575.57599.06	533.18554.94	486.61506.47
Coil 3 P	7.774	24.520	40.999	57.366	73.603	89.698	105.714	121.526
	4.71410.714	21.34427.344	37.66843.668	53.93959.939	69.94775.947	85.99691.996	101.678107.678	117.465123.465
Coil 4 M	1145.0	1128.8	1096.1	1049.9	991.7	925.9	853.4	777.4
	1115.61161.1	1099.21144.0	1067.71111.3	1021.51063.2	966.01005.4	900.8937.6	831.3865.2	756.4787.3
Coil 4 P	8.015	25.252	42.110	58.774	75.182	91.334	107.292	122.982
	4.96010.960	22.07528.075	38.77744.777	55.34761.347	71.51677.516	87.64093.640	103.229109.229	118.914124.914
Coil 5 M	2344.9	2324.1	2280.0	2212.6	2119.9	2004.9	1866.7	1707.8
	2291.62385.1	2270.02362.6	2227.92318.8	2160.22248.4	2072.32156.9	1958.12038.1	1824.91899.4	1669.51737.7
Coil 5 P	8.081	25.545	42.847	60.205	77.630	95.123	112.730	130.257
	5.03111.031	22.38128.381	39.53445.534	56.81262.812	74.02480.024	91.49797.497	108.790114.790	126.327132.327
Coil 6 M	6061.7	5984.9	5831.1	5606.9	5318.2	4983.6	4600.9	4187.6
	5949.86192.7	5869.96109.5	5719.15952.5	5493.75718.0	5216.05428.9	4880.45079.6	4510.84694.9	4101.44268.8
Coil 6 P	8.271	26.406	44.182	61.832	79.364	96.777	114.148	131.344
	5.23611.236	23.28529.285	40.94046.940	58.53564.535	75.87081.870	93.26699.266	110.307116.307	127.528133.528

INSTRUMENT CONFIGURATION

Source File: /dat1a/93330J/n777m~.ldg

CABLEHEAD

Diameter : 3.38"
Length : 5.50'
Weight : 24 lbs
Series : CABL338
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-DENSLOG

Diameter : 4.88"
Length : 11.22'
Weight : 360 lbs
Series : 2234XA
Mnemonic : ZDL
Measure Point: 3.19': CAL MP
Measure Point: 2.47': LSD MP
Measure Point: 2.07': SSD MP

77.38'

CABLEHEAD TOP 74.63'

TEMP MP 65.93'
RM MP 65.68'

GR MP 52.48'

LSN MP 45.92'
SSN MP 45.52'

CAL MP 35.26'
LSD MP 34.54'
SSD MP 34.14'

NUCKLE JOINT (DOUBLE)

Diameter : 3.38"
 Length : 4.65'
 Weight : 90 lbs
 Series : 3939XA
 Mnemonic : KNJT

HIGH DEFINITION INDUCTION TOOL

Diameter : 3.62"
 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"

**COMPANY****WPX ENERGY INC****WELL****FEDERAL RGU 333-23-198****FIELD****SULPHUR CREEK****COUNTY****RIO BLANCO****STATE COLORADO****FILE NO:****US093330J****API NO:****05103121430000****LOCATION:**

SHL: 1050' FSL 635' FEL
 BHL: 2097' FSL 1908' FEL

ELEVATIONS:

KB 6592 FT

DF

GL 6567 FT

SEC 23 T1S R98W**RGU 43-23-198****RIG: AZTEC 1000**SEC **23** TWP **1S** RGE **98W**DATE **22-Dec-2014**