

FILE NO: US625569
API NO: 05045218610000
COMPANY: WPRX ENERGY INC
WELL: FEDERAL PA 321-27
FIELD: PARACHUTE
COUNTY: GARFIELD STATE CO

Ver. 3.87
S27 T6S R9SW
PAD DOE 1-W-27
RIG NABORS 573
LOCATION: SHL: 2098' FNL: 1306' FWL
BHL: 499' FNL: 2050' FWL
SEC 27 TWP 6S RGE 9SW
OTHER SERVICES: NONE

PERMANENT DATUM: GL ELEVATION 5840 FT
LOG MEASURED FROM: KB 5866 FT ABOVE P.D.
DRILL MEAS. FROM: KB
ELEVATIONS: KB 5866 FT
DF
GL 5840 FT

DATE	TRIP	12-Aug-2013	20-AUG-2013
RUN	1	1	2
SERVICE ORDER	625569		625571
DEPTH DRILLER	2870 FT		8725 FT
DEPTH LOGGER	2856 FT		8717 FT
BOTTOM LOGGED INTERVAL	2806 FT		8714 FT
TOP LOGGED INTERVAL	22 FT		22 FT
CASING DRILLER	18 IN @ 60 FT		9.625 IN @ 2853 FT
CASING LOGGER	62 FT		2846 FT
BIT SIZE	13.5 IN		8.75 IN
TYPE OF FLUID IN HOLE	WBM		WBM
DENSITY	10.3 LB/G	81 CP	11.7 LB/G
PH	9	5.6 C3	9.9
SOURCE OF SAMPLE	FLOWLINE		FLOWLINE
RM AT MEAS. TEMP.	1.09 OHMM @ 85 DEGF		64 OHMM @ 78 DEGF
RM AT MEAS. TEMP.	0.81 OHMM @ 85 DEGF		48 OHMM @ 73 DEGF
RMC AT MEAS. TEMP.	1.36 OHMM @ 85 DEGF		1.12 OHMM @ 73 DEGF
SOURCE OF RMC	CALCULATED		CALCULATED
RM AT BHT	1.77 OHMM @ 123 DEGF		755 OHMM @ 187 DEGF
TIME SINCE CIRCULATION	6 HRS		12 HR
MAX. RECORDED TEMP.	124 DEGF		190.7 DEGF
EQUIP. NO.	6670	GRAND JUNG	6670
RECORDED BY	PATTON		SMITH
WITNESSED BY	RON TOWERS		R. TOWERS

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
13.5 IN	0 FT	2870 FT
8.75 IN	2853 FT	8725 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
18 IN	47.44 LB/F		0 FT	60 FT
9.625 IN	32 LB/F		0 FT	2853 FT

REMARKS

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

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

CN MATRIX: SANDSTONE

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

HDIL RAN WITH 1.5IN STANDOFFS
ABC TO CALCULATE STANDOFF

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
CREW: PATTON/COATE/OLSON
RIG: NABORS 573

RUN 2 TRIP 1: HDIL-ZDL-CN-GR RUN IN COMBINATION

BVOL/CVOL CALCULATED IN CUBIC FEET
BVOL CALCULATED USING PROPOSED 4.5 INCH CASING
CALIPER VERIFIED IN CASING

CN MATRIX: SANDSTONE

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

HDIL RAN WITH STANDOFF
ABC TO CALCULATE: MUD CONDUCTIVITY

RUN 1/RUN 2 MERGED AT 2846 FT/DATA GAP AT MERGE

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
CREW: SMITH/OLSON/COATE
RIG: NABORS 573

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3944XD	10195796	FREE
1	1	TIRM	3981XA	10203010	FREE
1	1	TEL	3514XA	10240730	FREE
1	1	GR	1329XA	10196895	FREE
1	1	CN	2446XA	10202034	DECENTRALIZED
1	1	ZDL	2234XA	10211833	PAD DEVICE
1	1	KNUCKLE	3939XA	10399278	FREE
1	1	HDIL EA	1515EA	10049592	STOOD OFF
1	1	HDIL MA	1515MA	10037719	STOOD OFF
2	1	TMA	3980XA	1012099	FREE
2	1	TELE/GAMMA	3518EG	10139870	FREE
2	1	CN	2436XA	10362459	DECENTRALIZED
2	1	ZDL	2223XA	10391895	PAD DEVICE
2	1	CAL	2223XA	10391895	PAD DEVICE
2	1	DBL KNUCKLE	3930		FREE
2	1	HDIL	1530XA	10120519	STAND OFF

MAIN LOG 2"/100FT SCALE

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

Plotted: Tue Aug 20 17:43:23 2013

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/625571/MAIN_R01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 2574.750 ft BOTTOM DEPTH: 8739.371 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER Ø	medium (1)		TOP	BOTTOM
CALIPER	FILTER Ø	medium (1)		"	"
TENSION	FILTER Ø	medium (1)		"	"

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
BIT SIZE	BIT SIZE	8.750	in	TOP	BOTTOM
BOREHOLE CORR DIAMETER SOURCE	CALIPER/FIXED DIA. (mbh*)	USE CALIPER		"	"
BOREHOLE CORR DIAMETER	FIXED DIAMETER (mbh*)	8.750	in	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	78.0	degF	"	"
	MUD SAMPLE RES	0.640	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
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	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

HDIL PROCESSING

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

CURVE DESCRIPTION REPORT

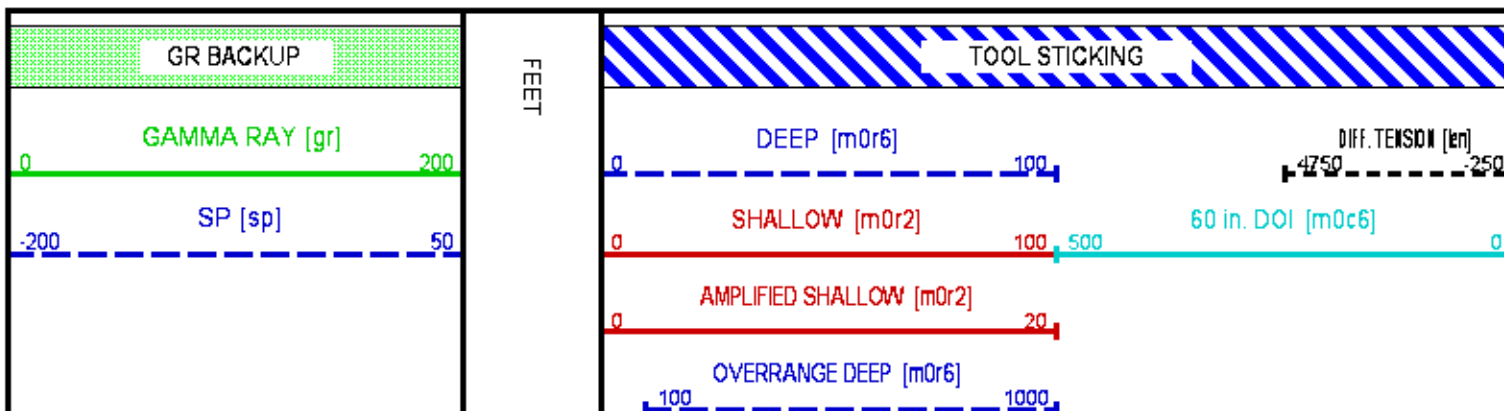
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
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F1:MOC6	Aug 12 13:00:19 2013	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:MOR2	Aug 12 13:00:19 2013	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:MOR6	Aug 12 13:00:19 2013	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Aug 12 13:00:19 2013	SPONTANEOUS POTENTIAL
F1:TEN	Aug 12 13:00:19 2013	DIFFERENTIAL TENSION

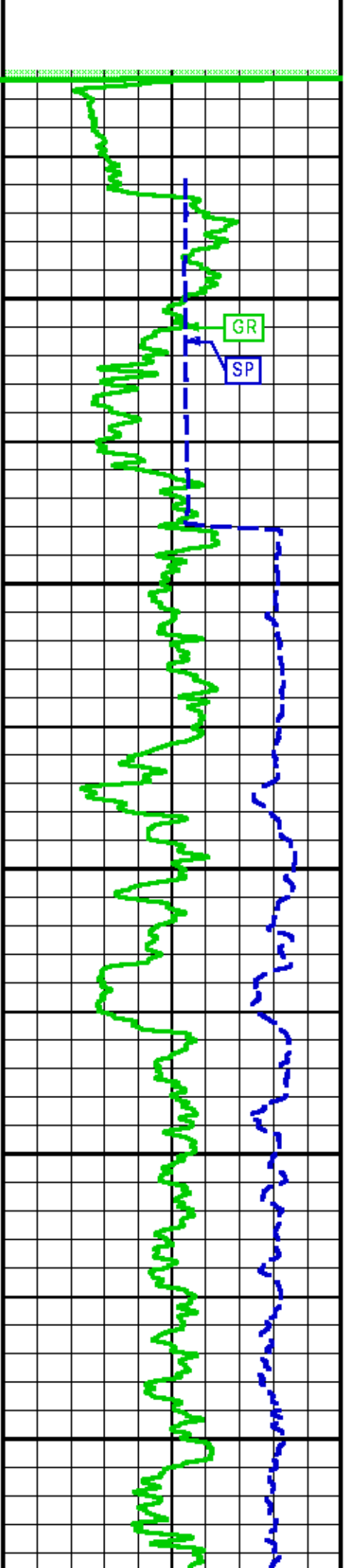
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
GR	52.25	MOR2	8.00	SP	14.00		
MOC6	8.00	MOR6	8.00	TEN	0.00		

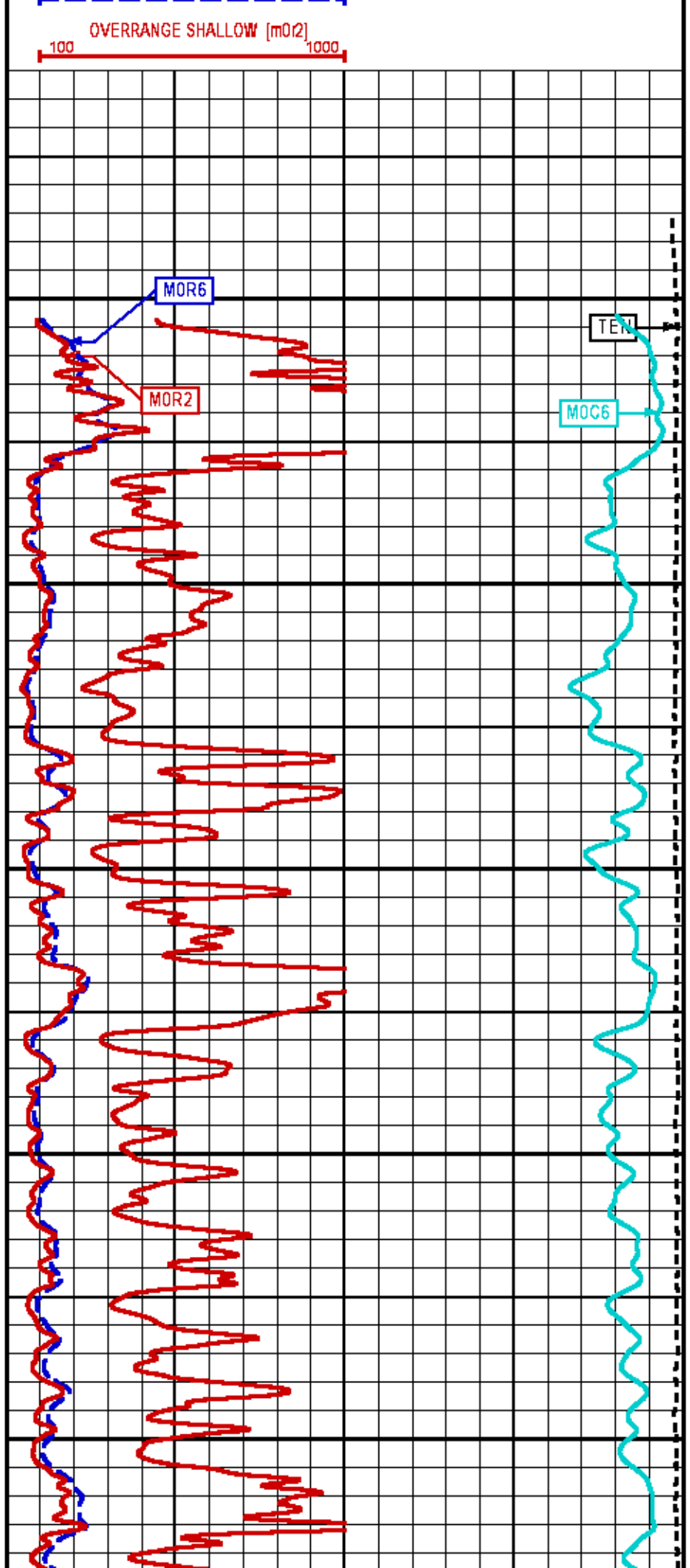
Presentation : HL6670:WPX_2IN.fvpdf [2"/100' Scale]
 Plot Interval : 20 - 8744.25 Feet

Data File 1 : F1 : HL6670:/dat1a/625571/RDRSPLICEMAIN.xtf
 Created On : Aug 12 13:00:19 2013
 Company : WPX ENERGY INC
 Well : FEDERAL PA 321-27
 Field : PARACHUTE
 File Interval : 0 - 8744.25 Feet
 OCT : nu779x

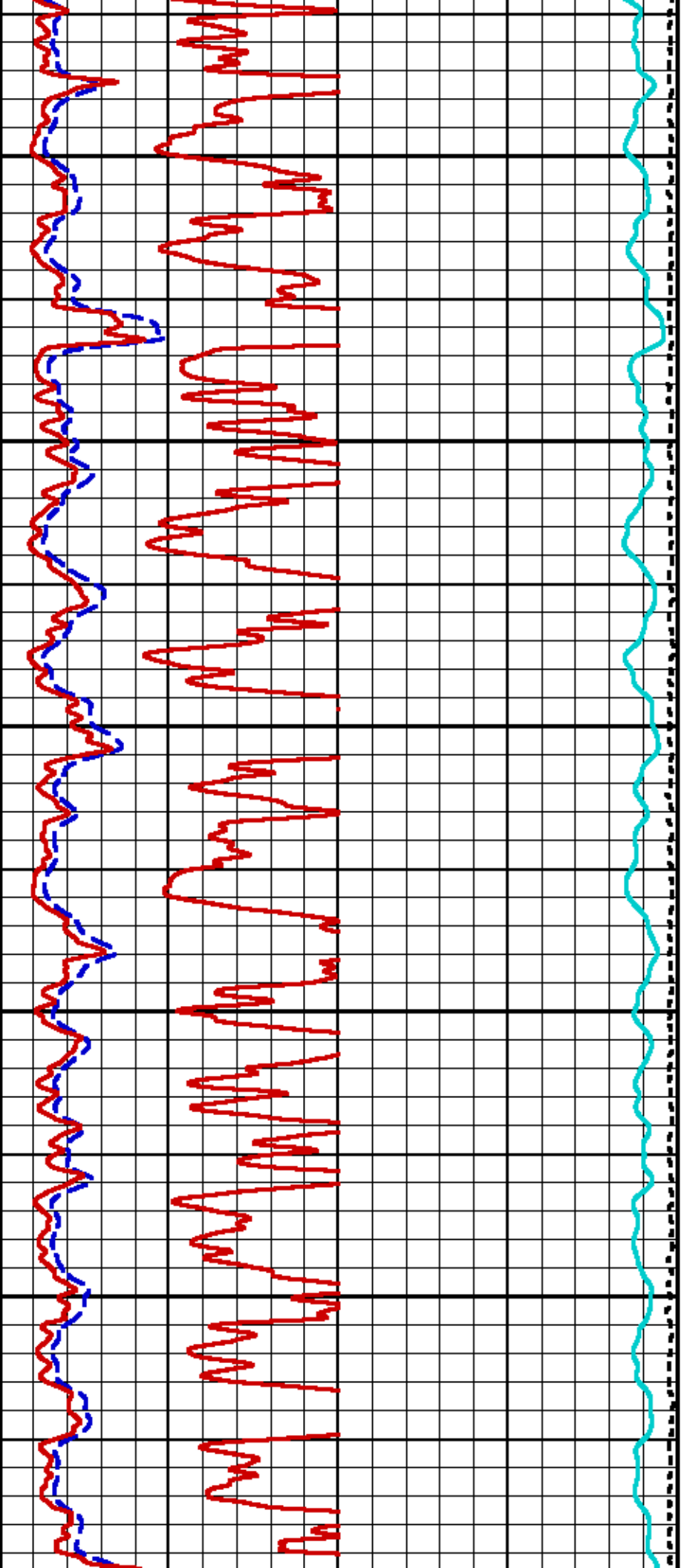




100 200 300 400 500



OVERRRANGE SHALLOW [m02]
100 1000



600

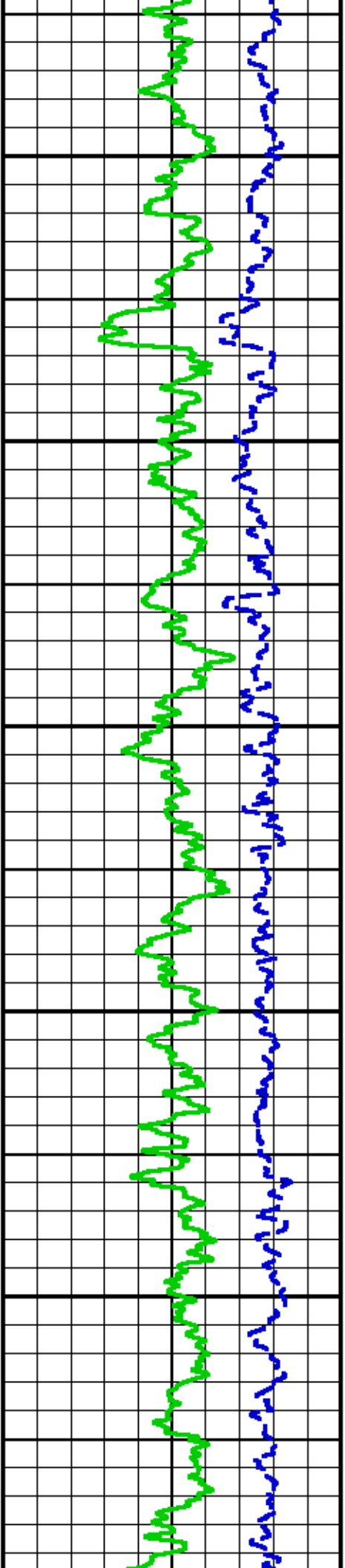
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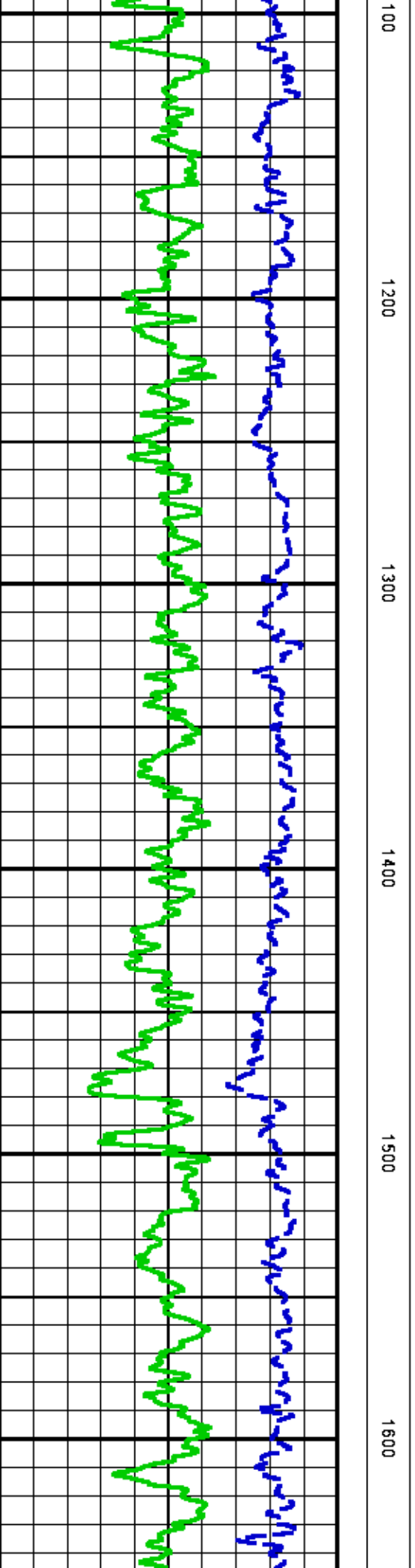
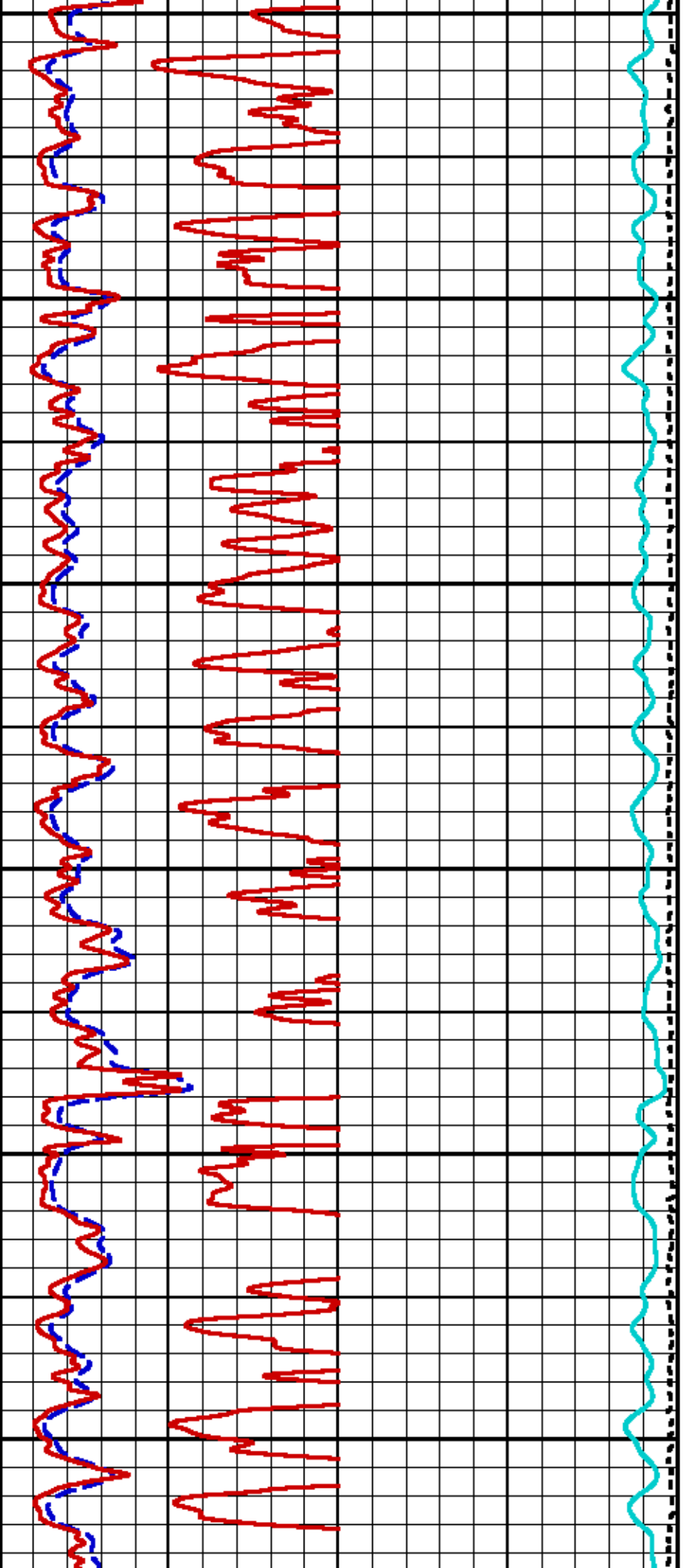
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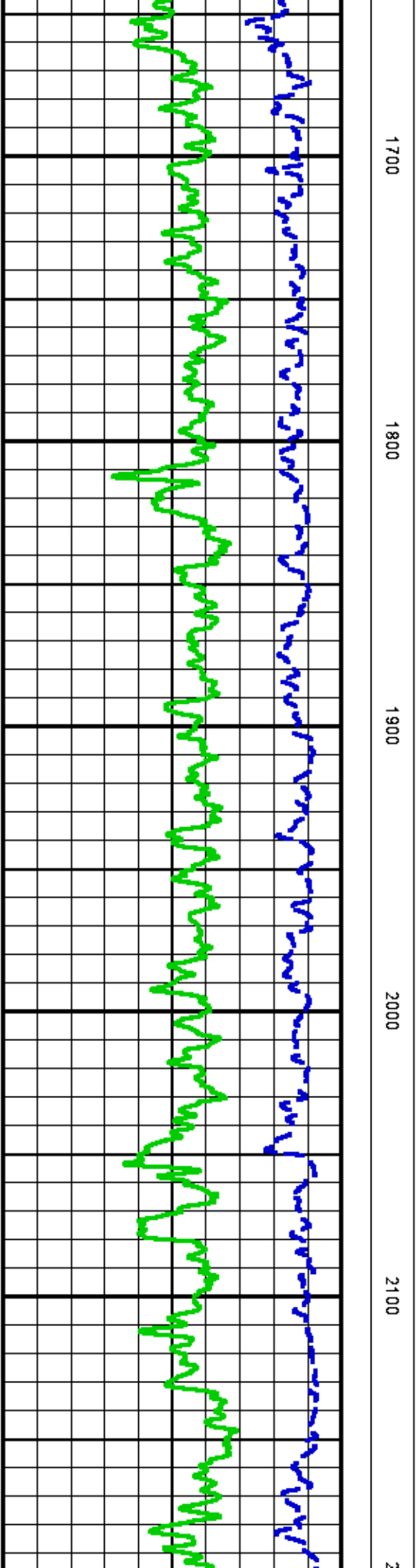
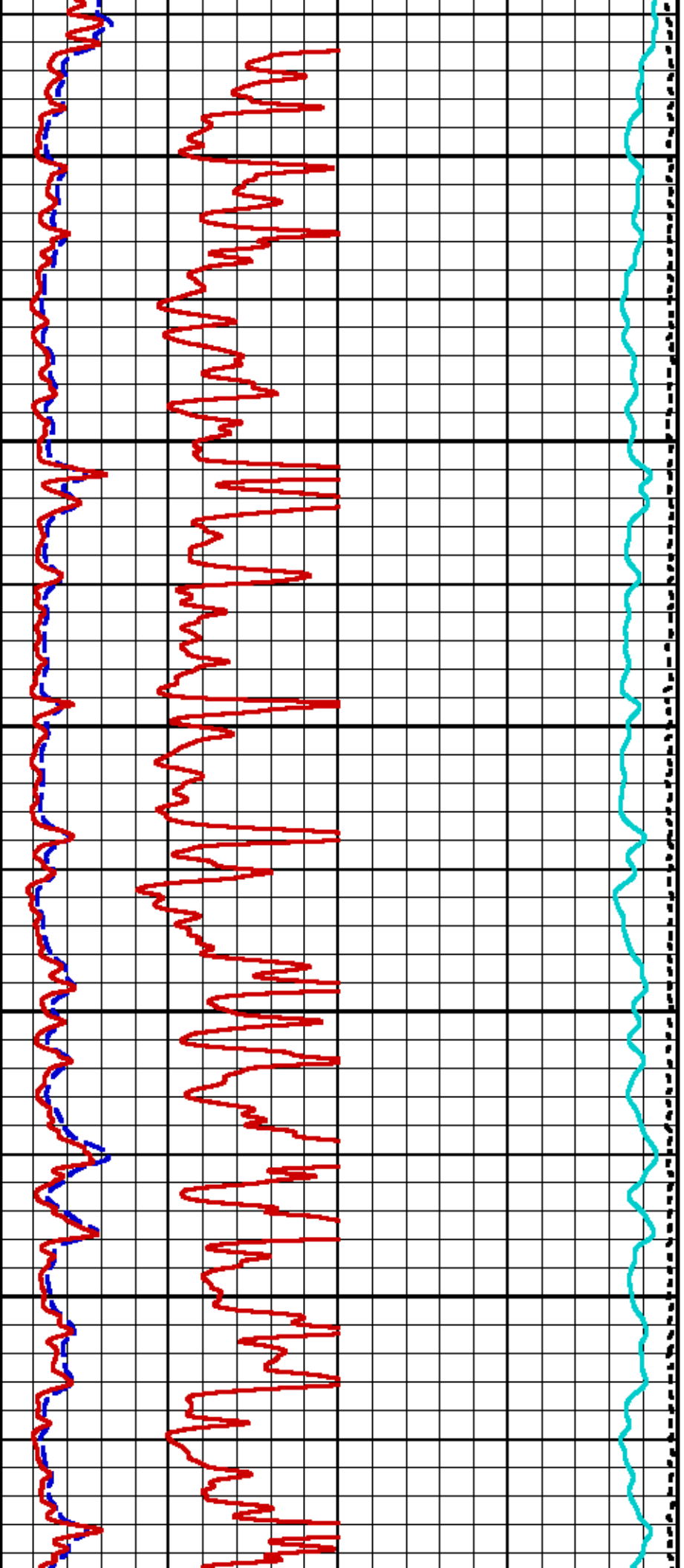
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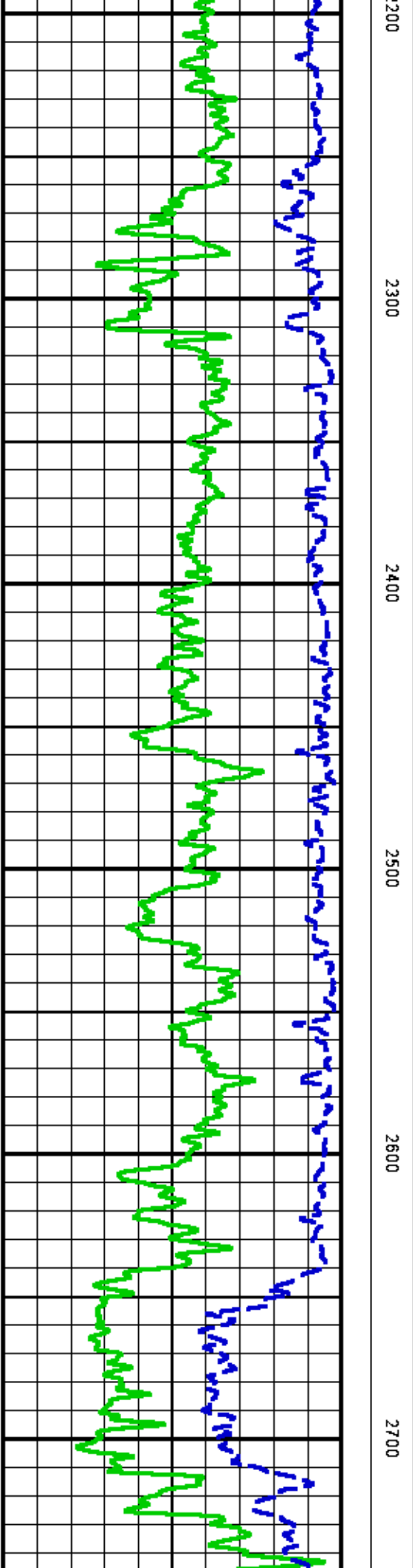
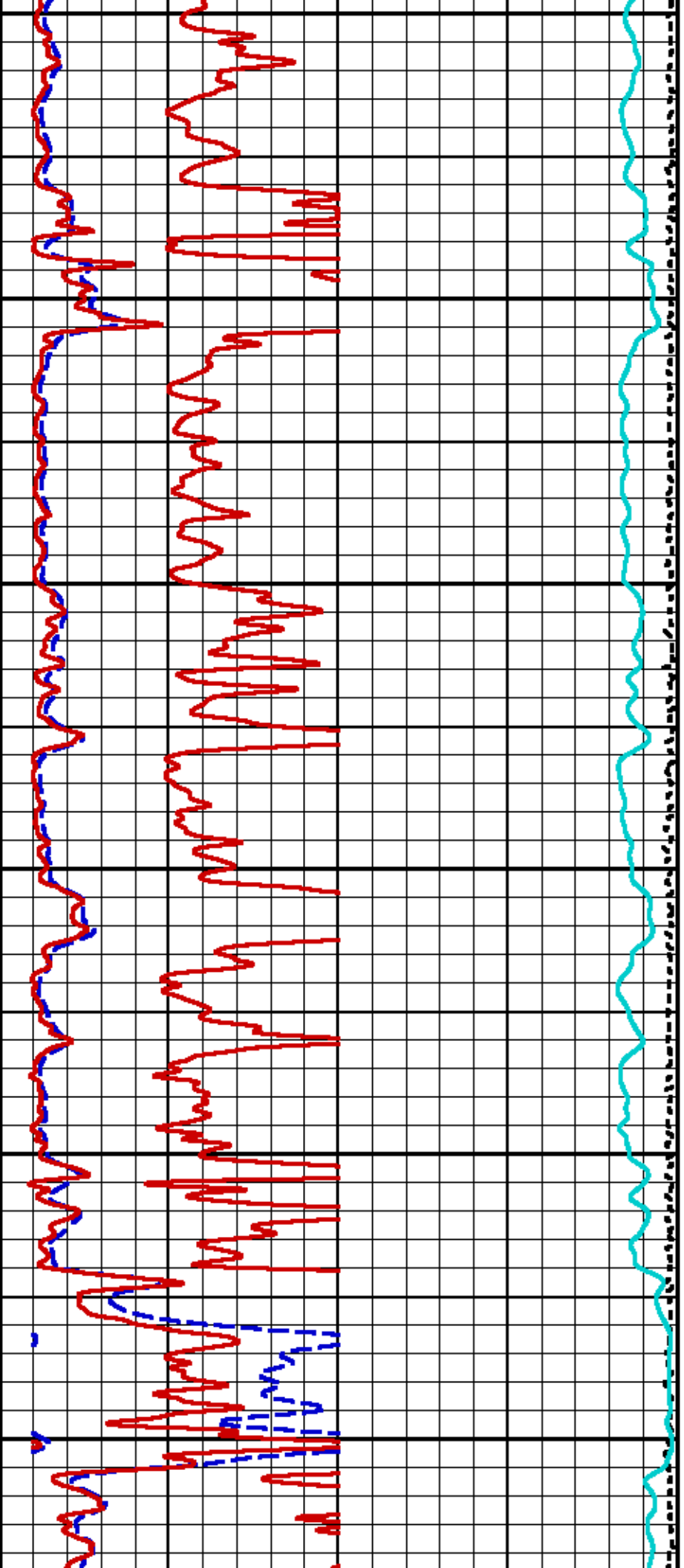
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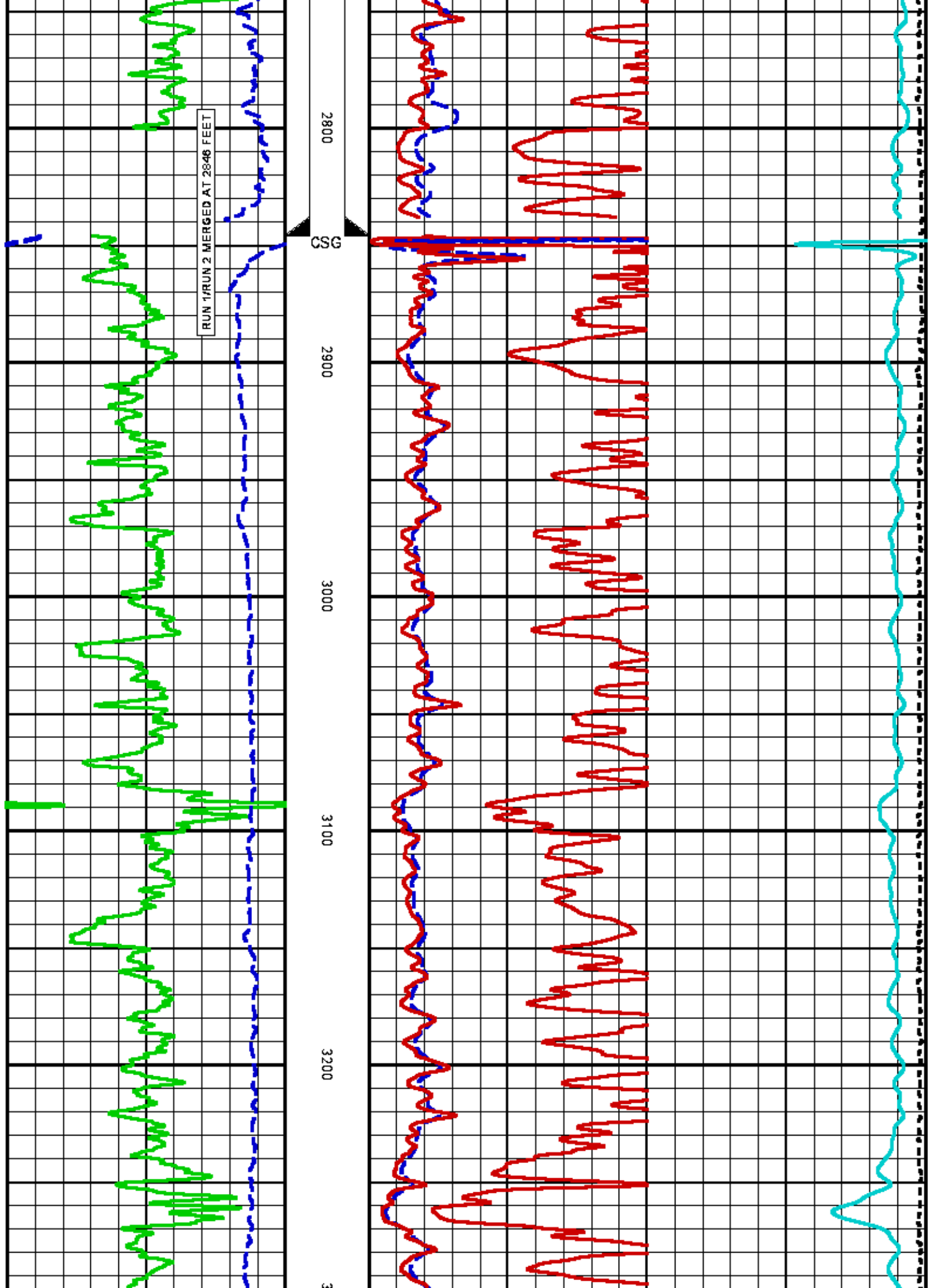
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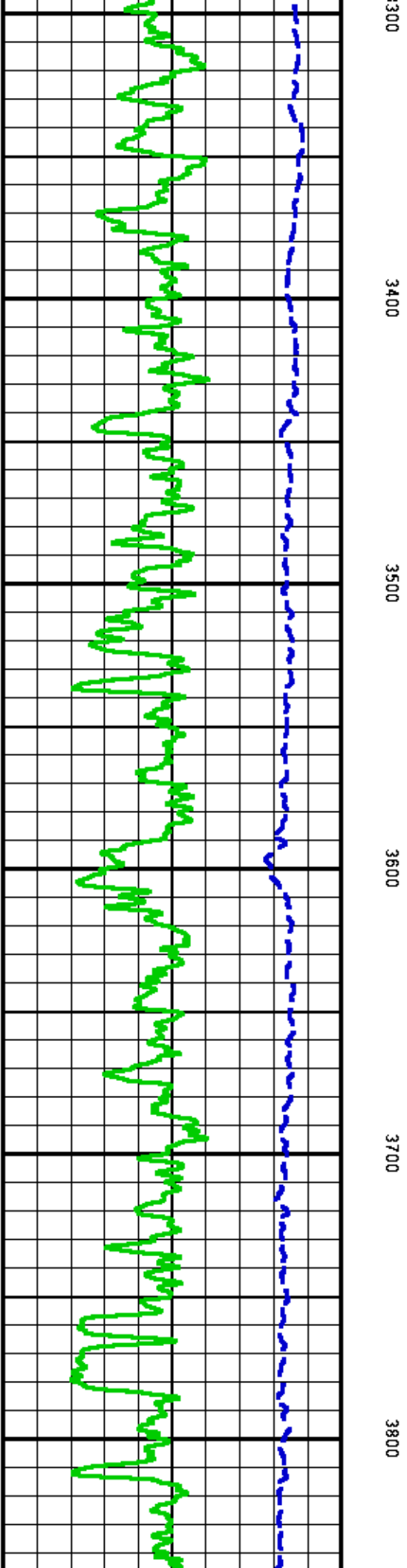
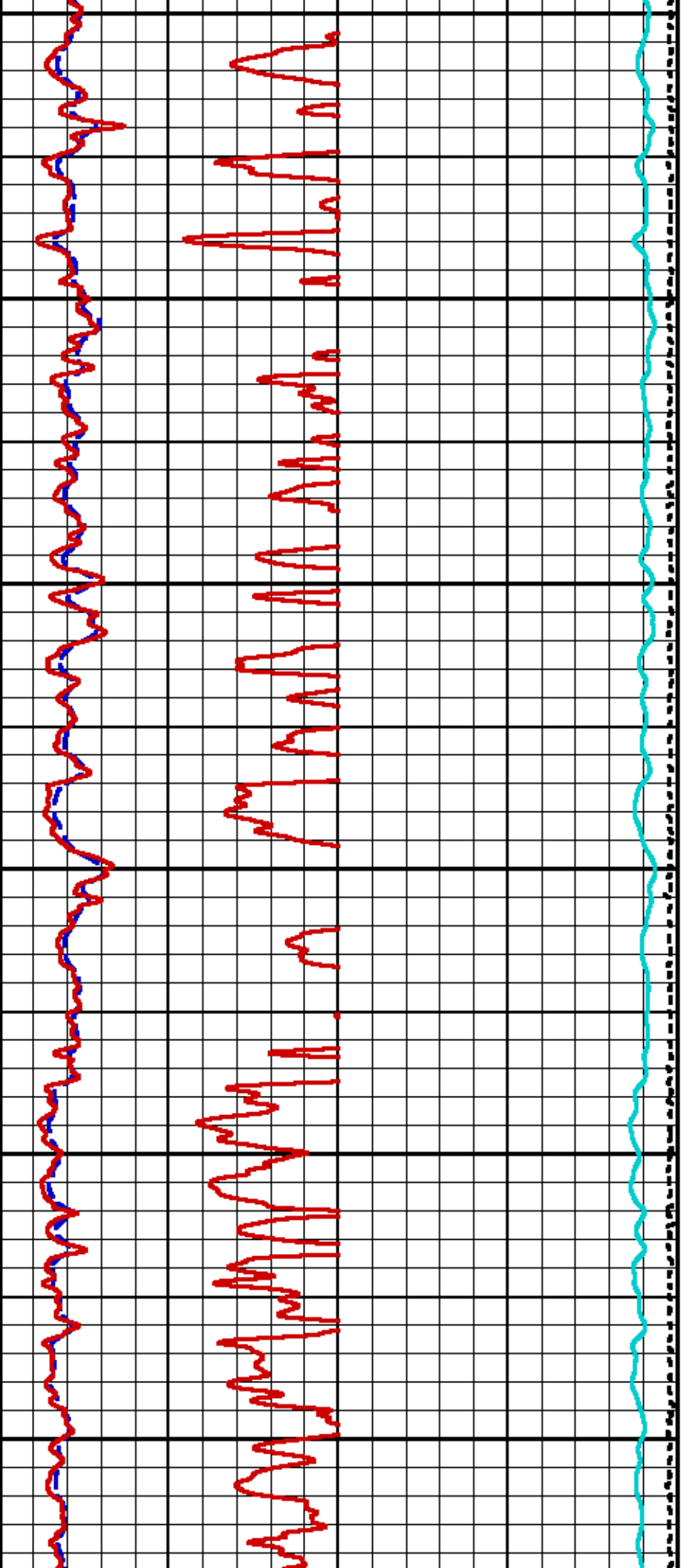


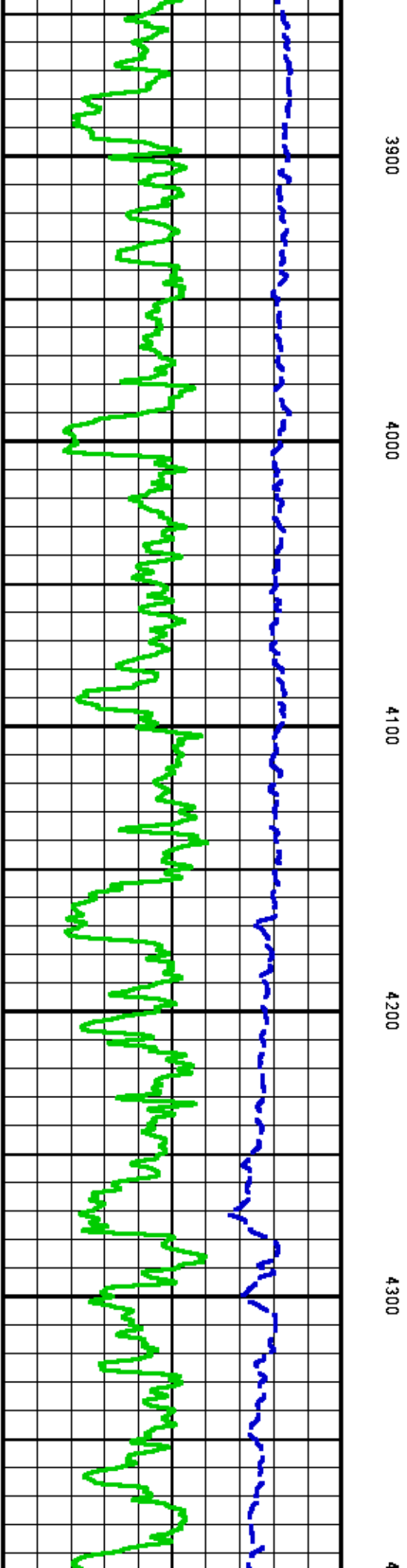
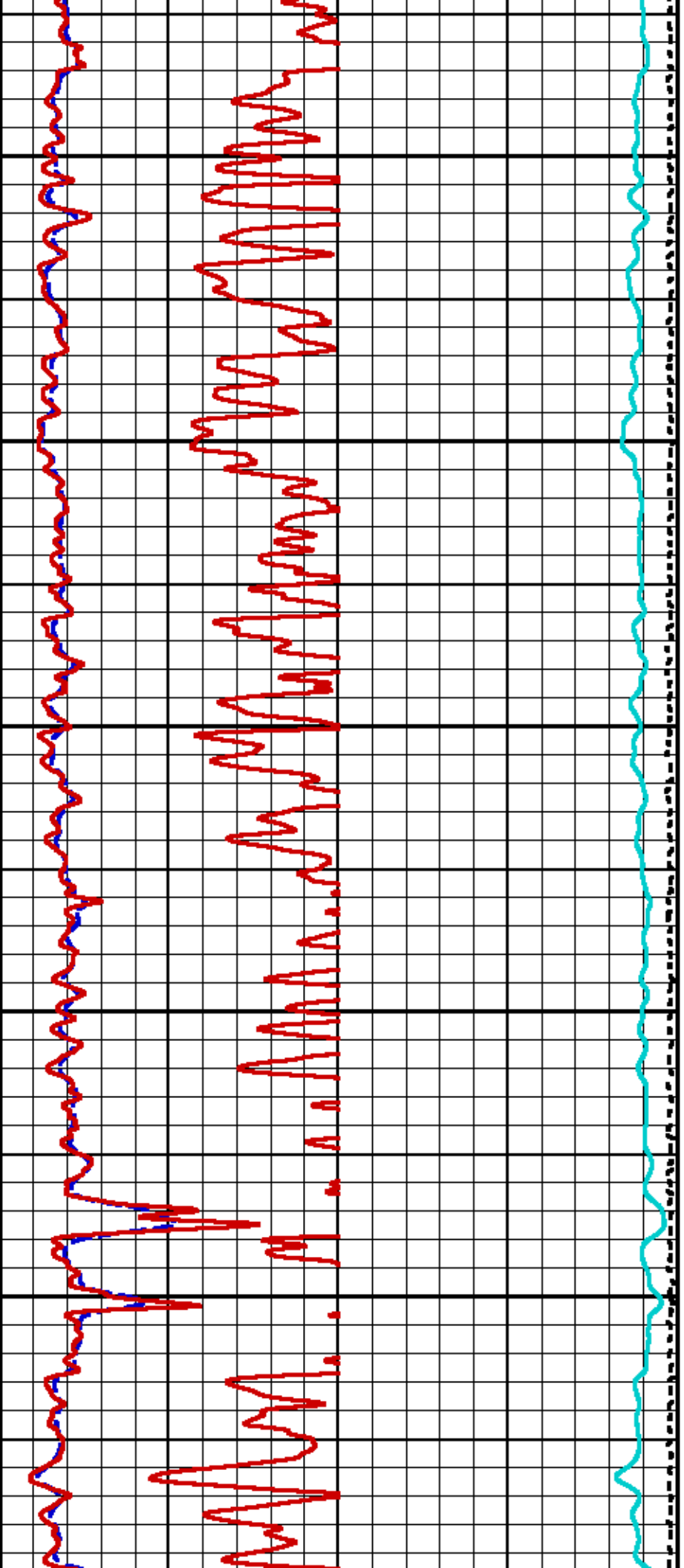


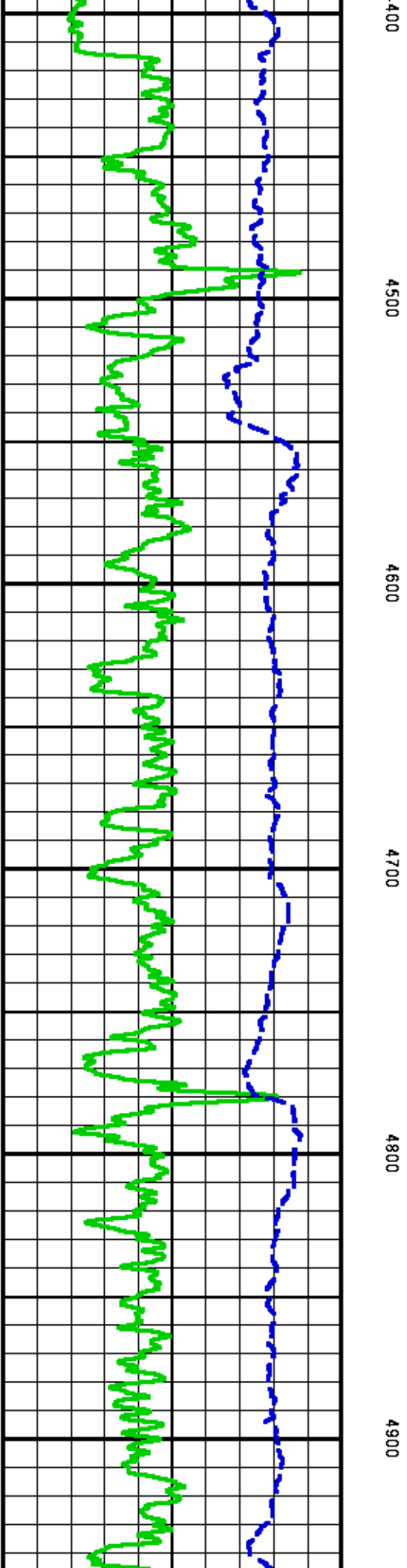
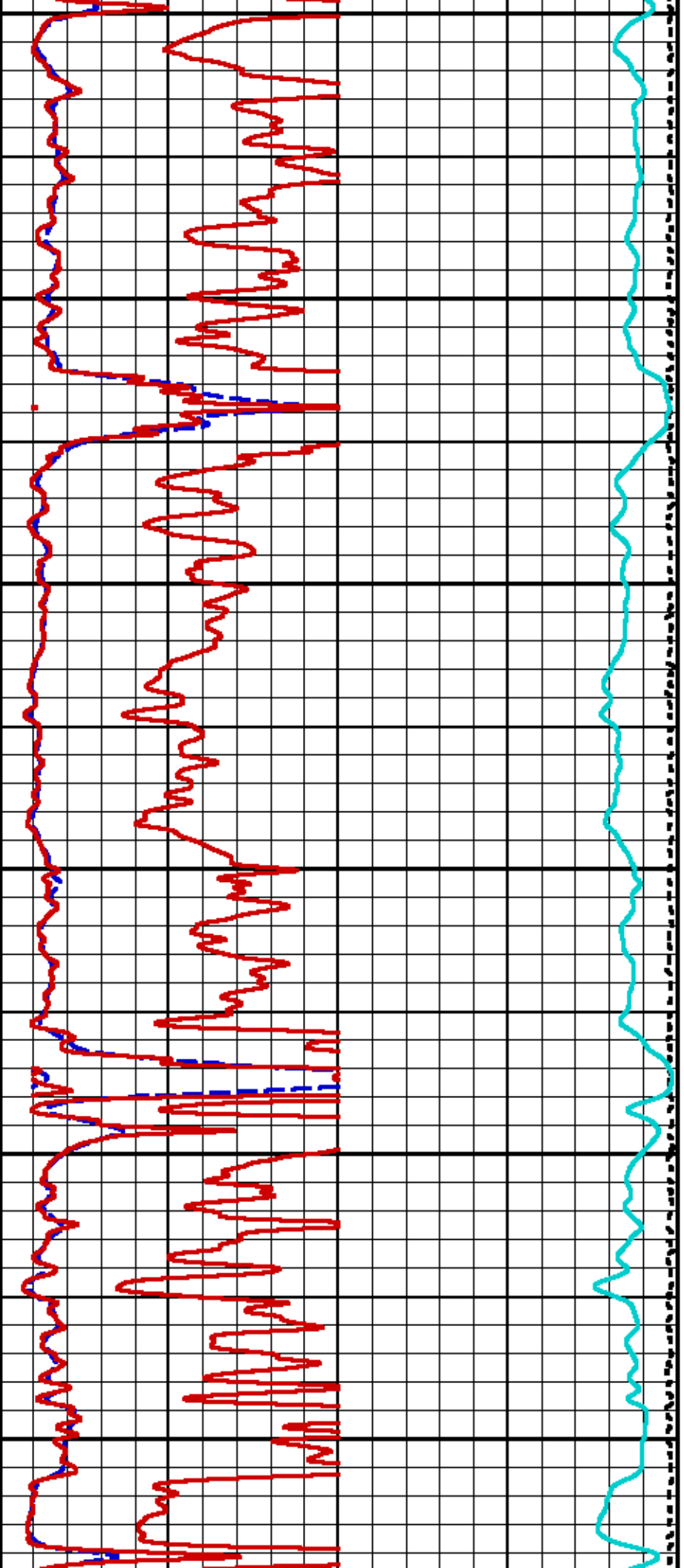


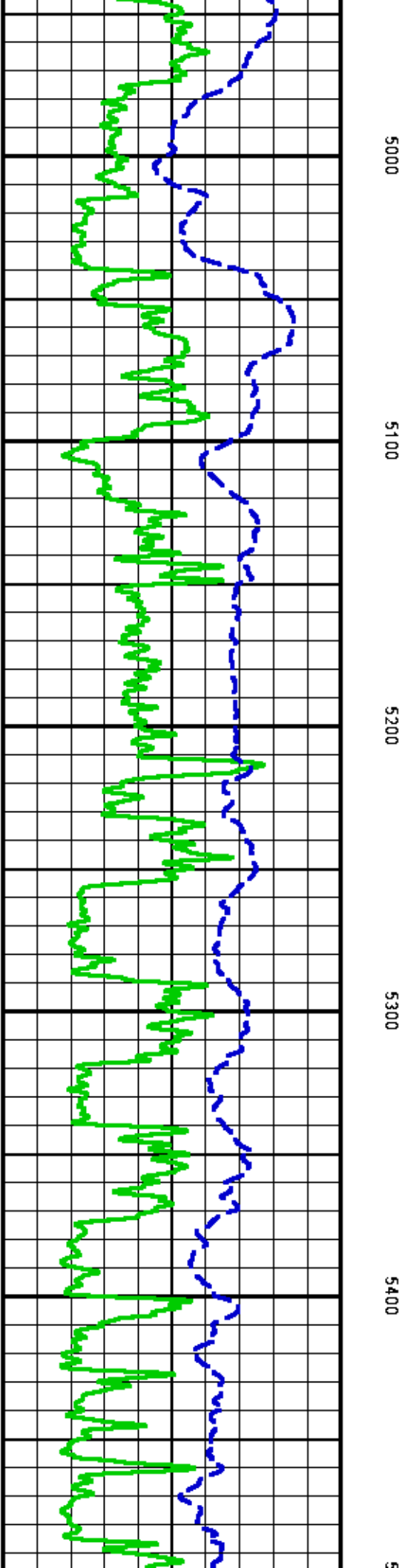
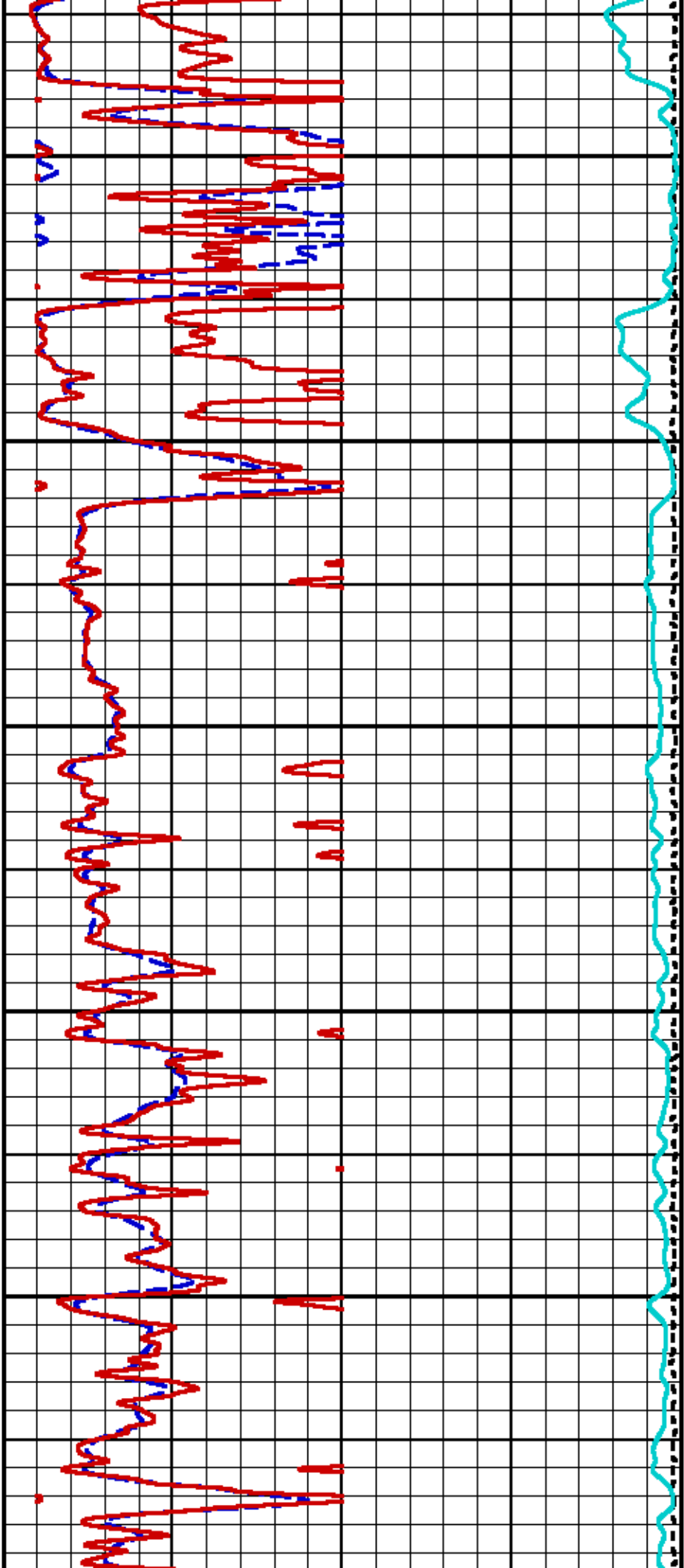


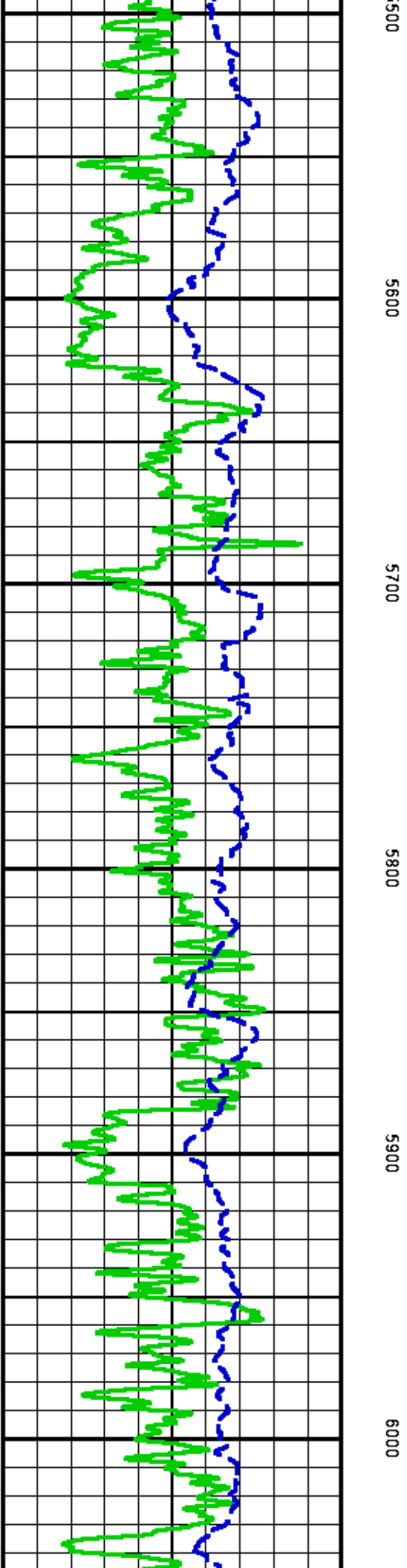
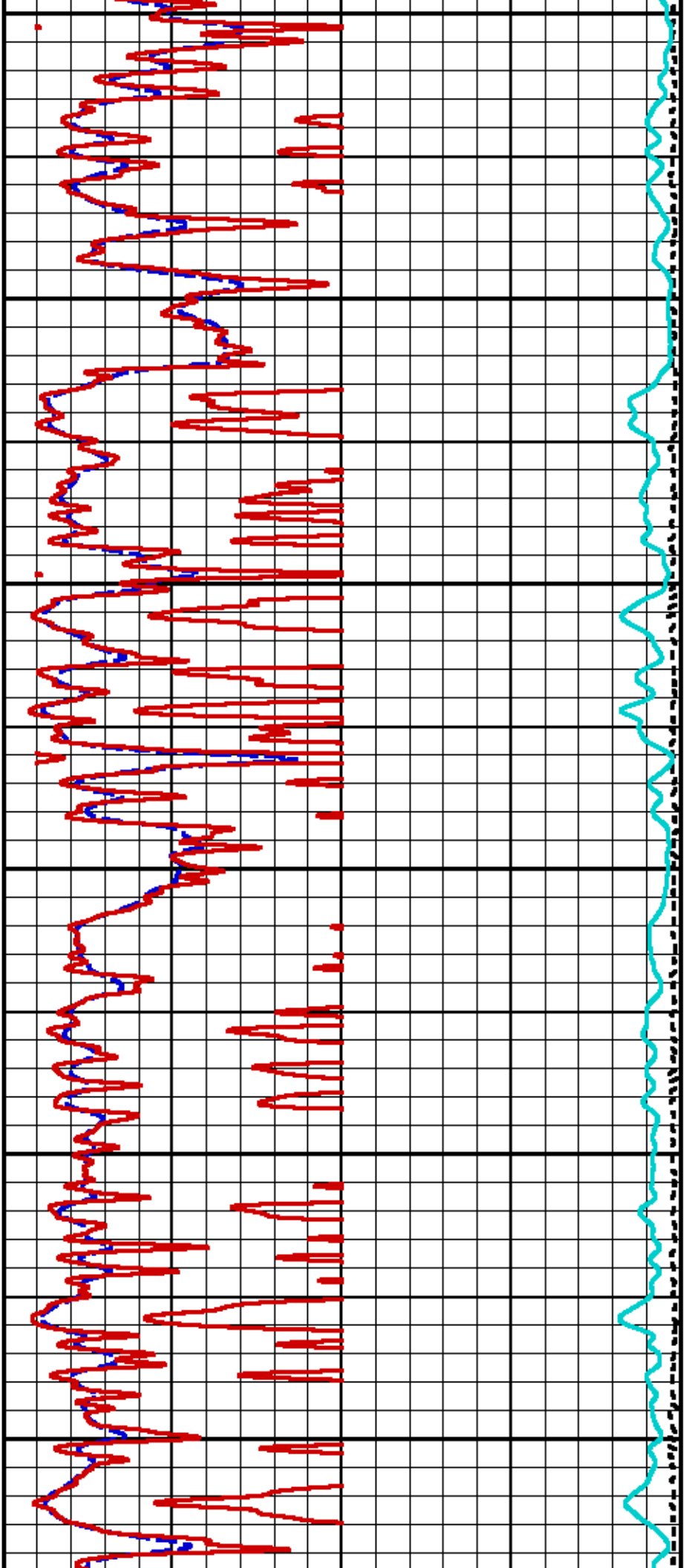


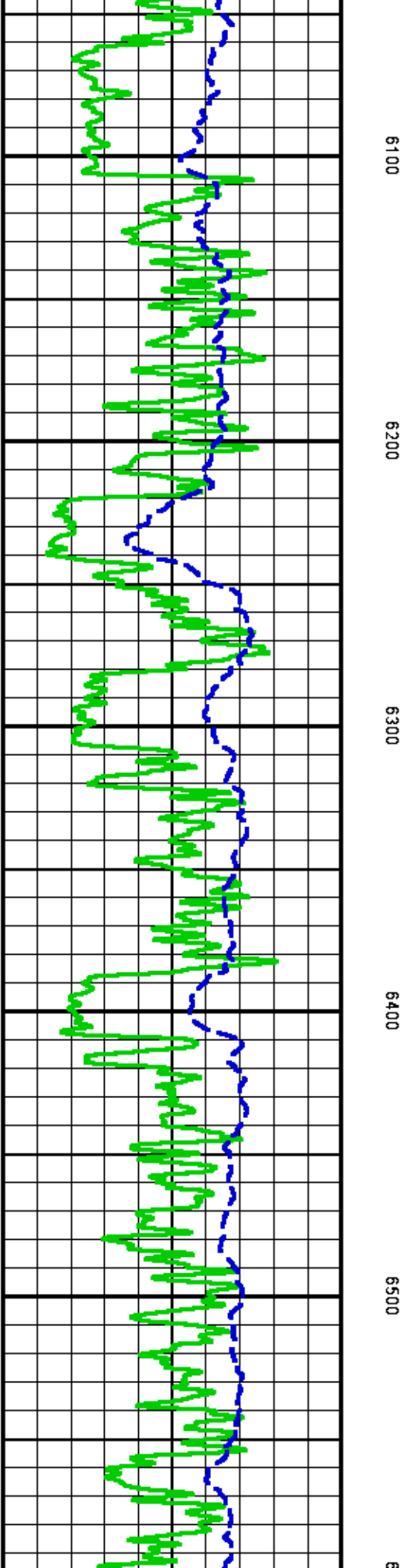
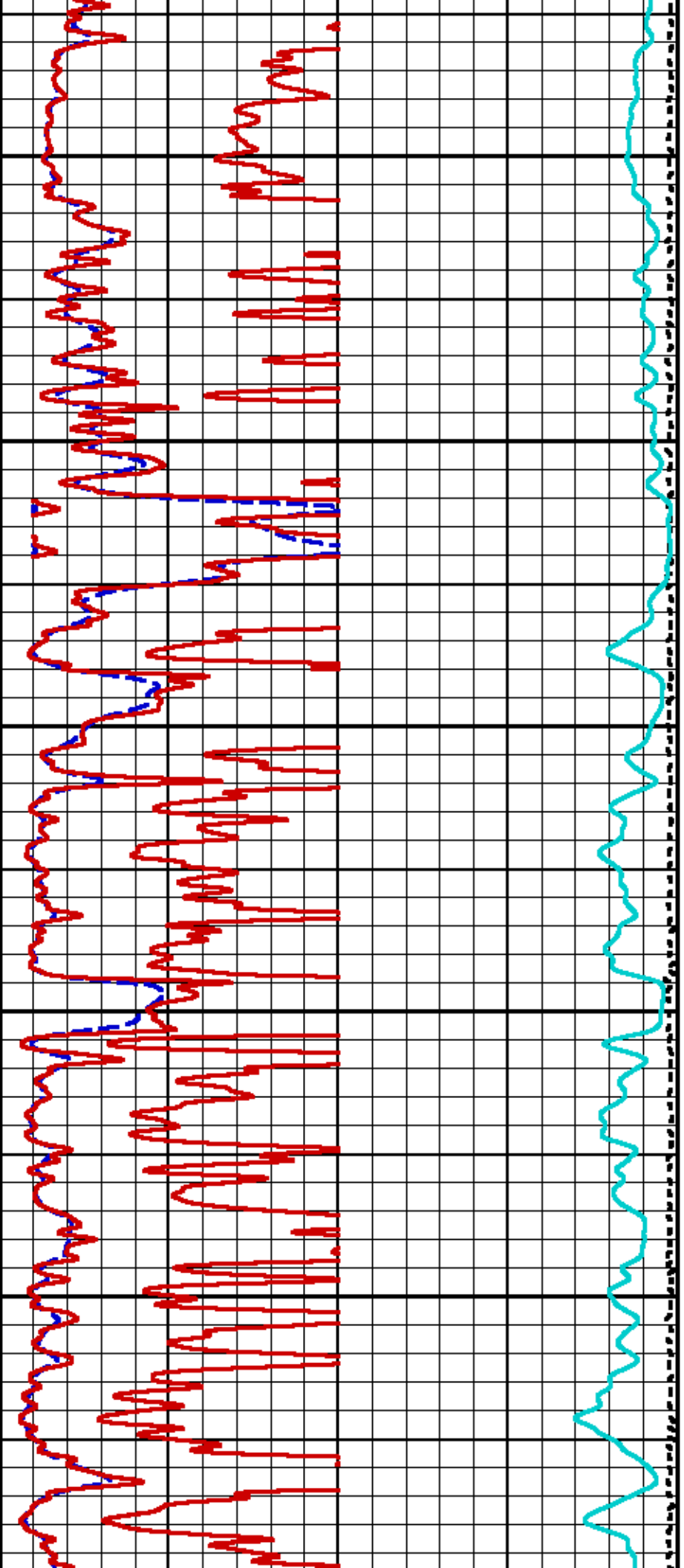


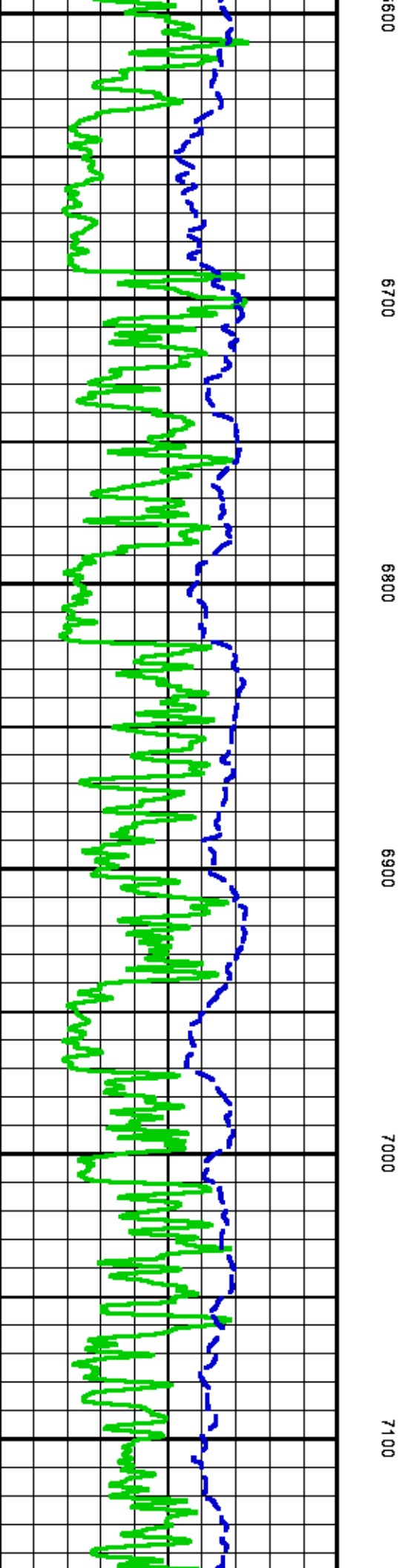
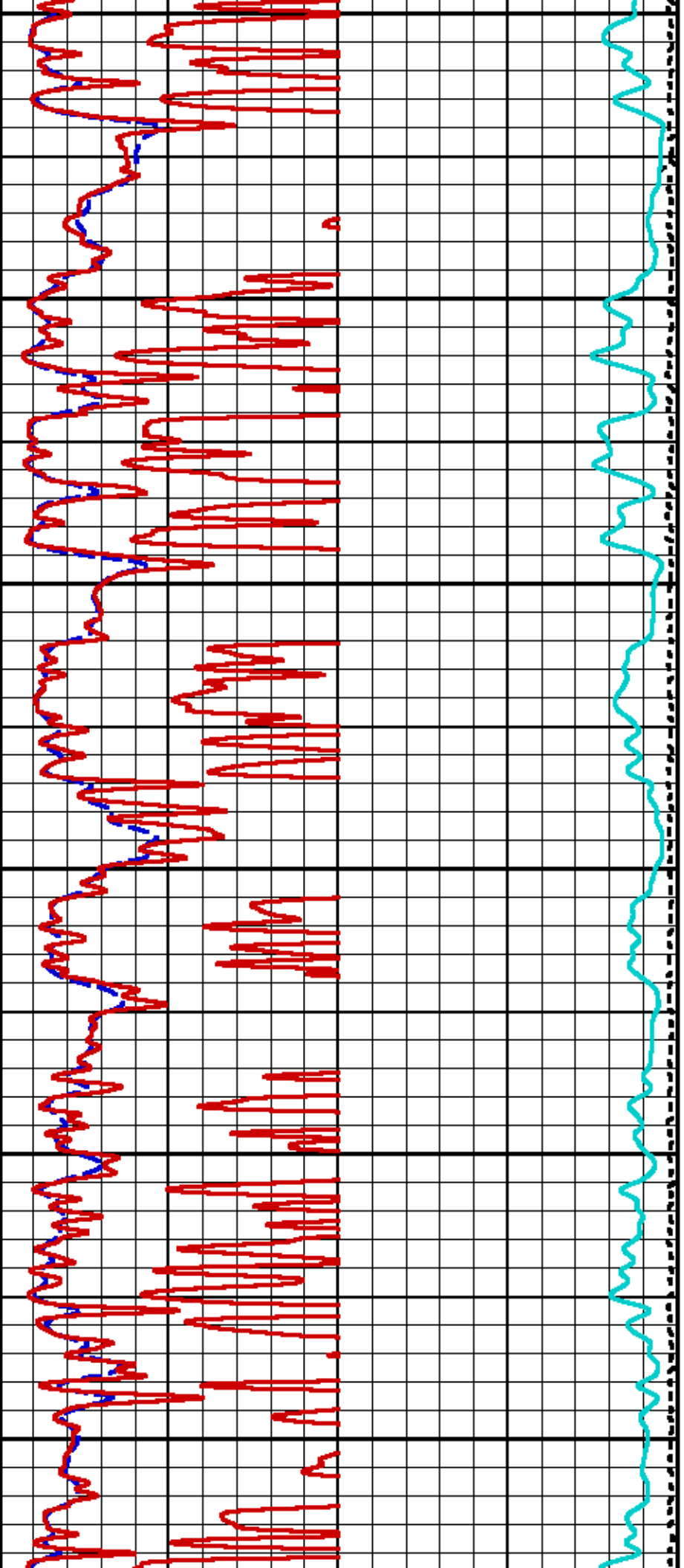


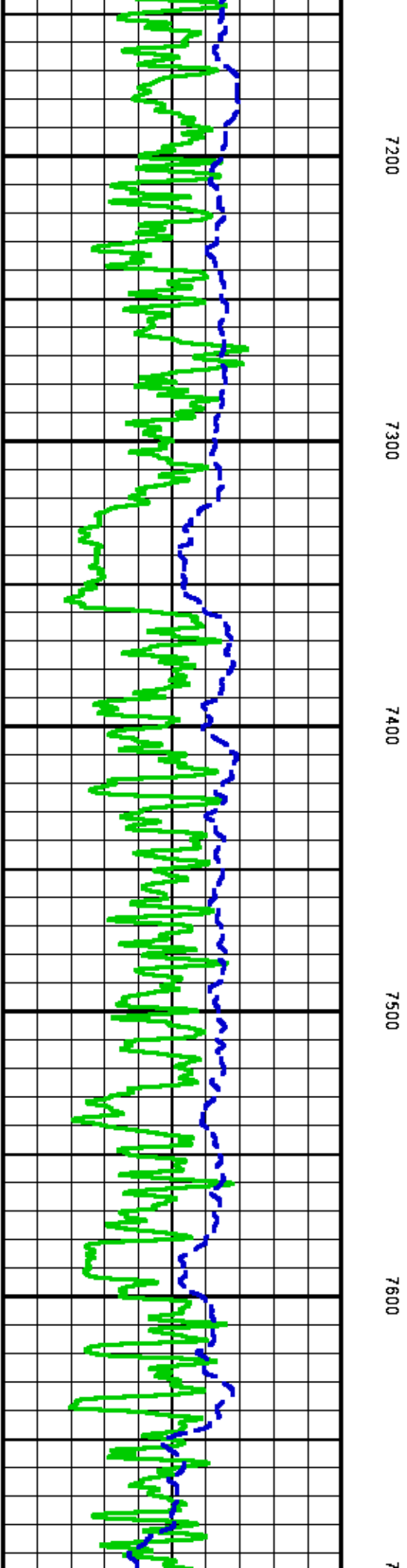
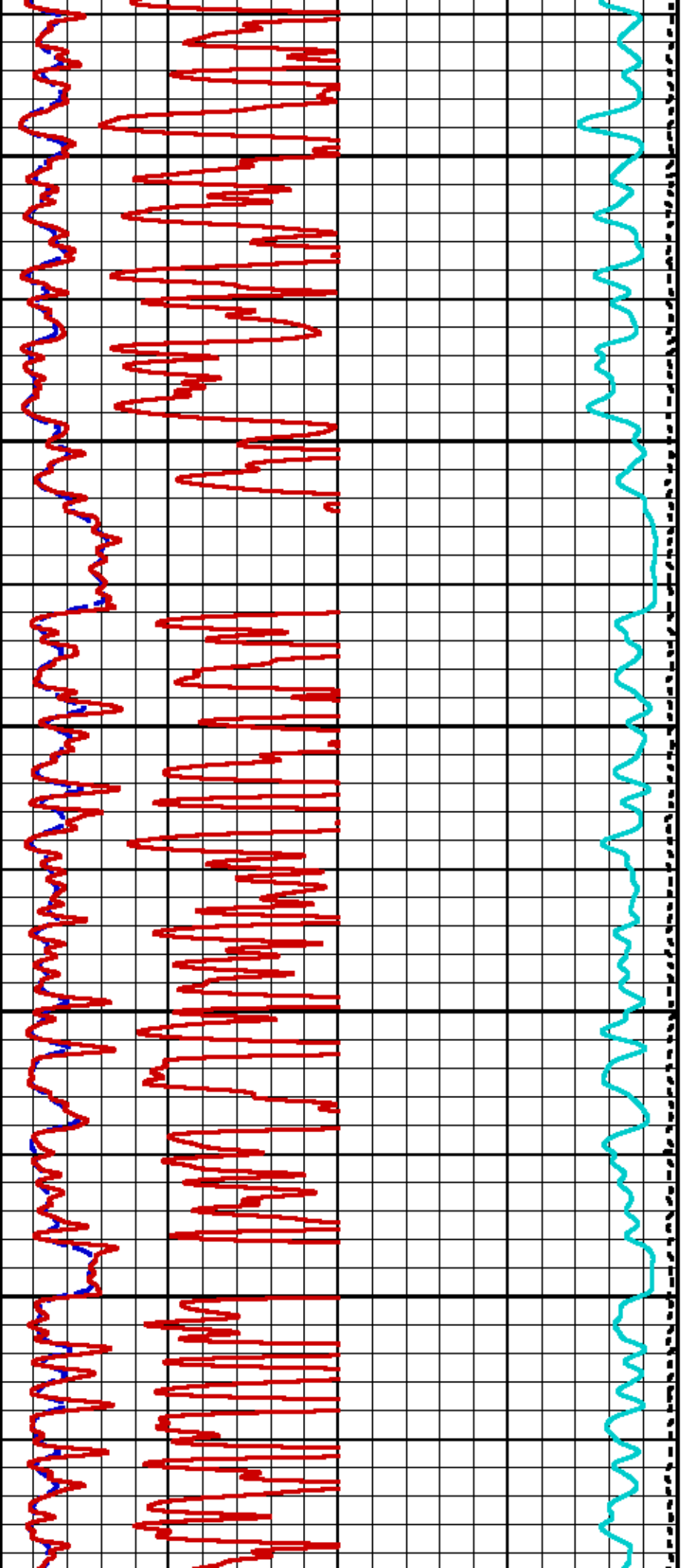


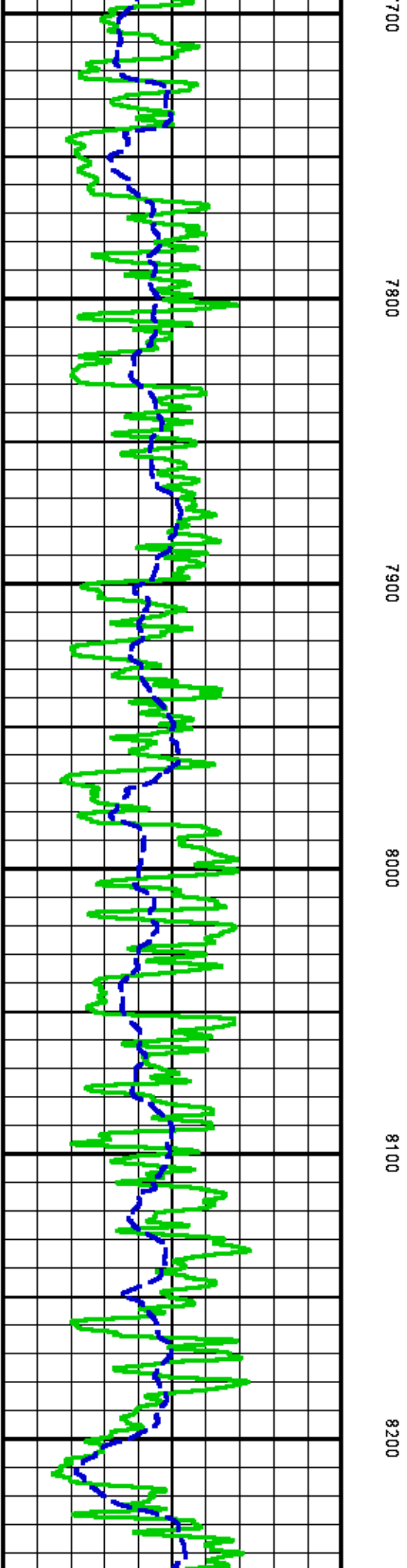
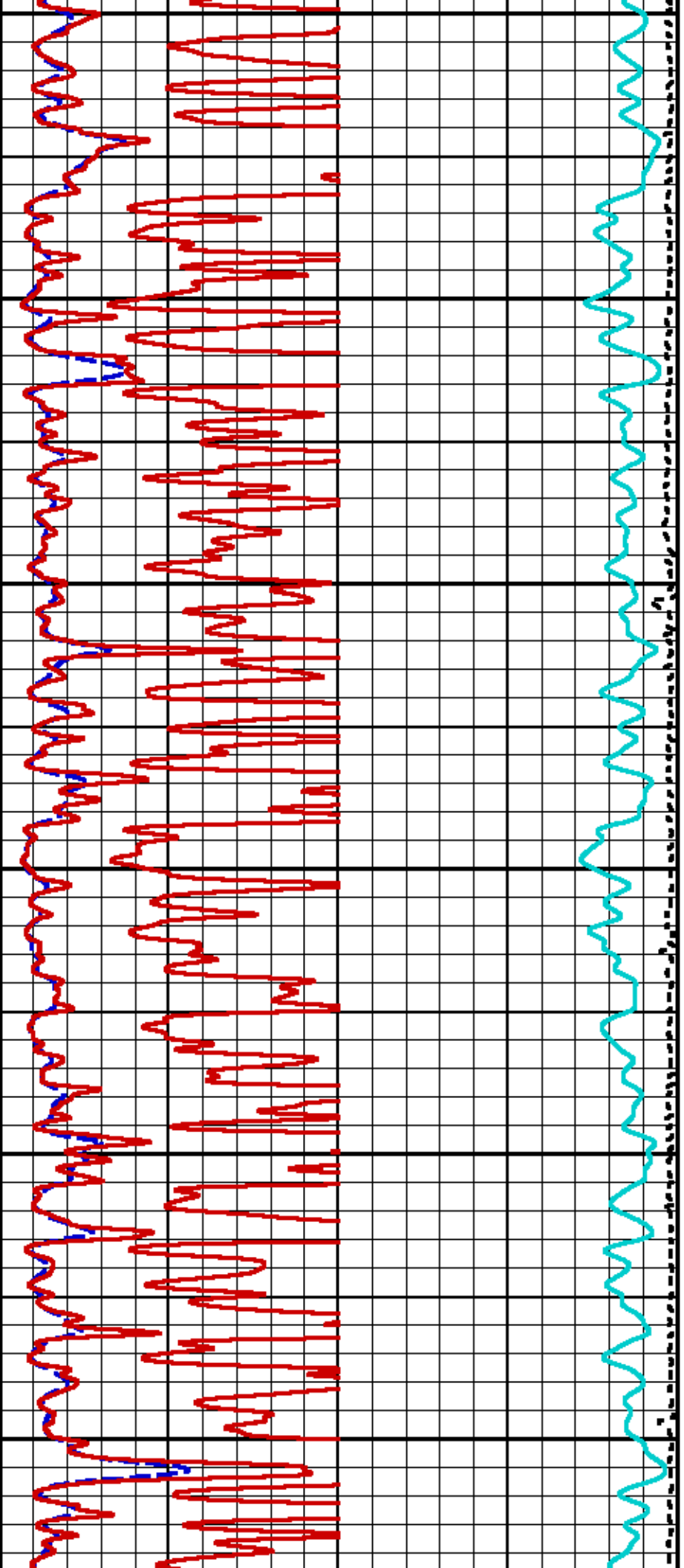


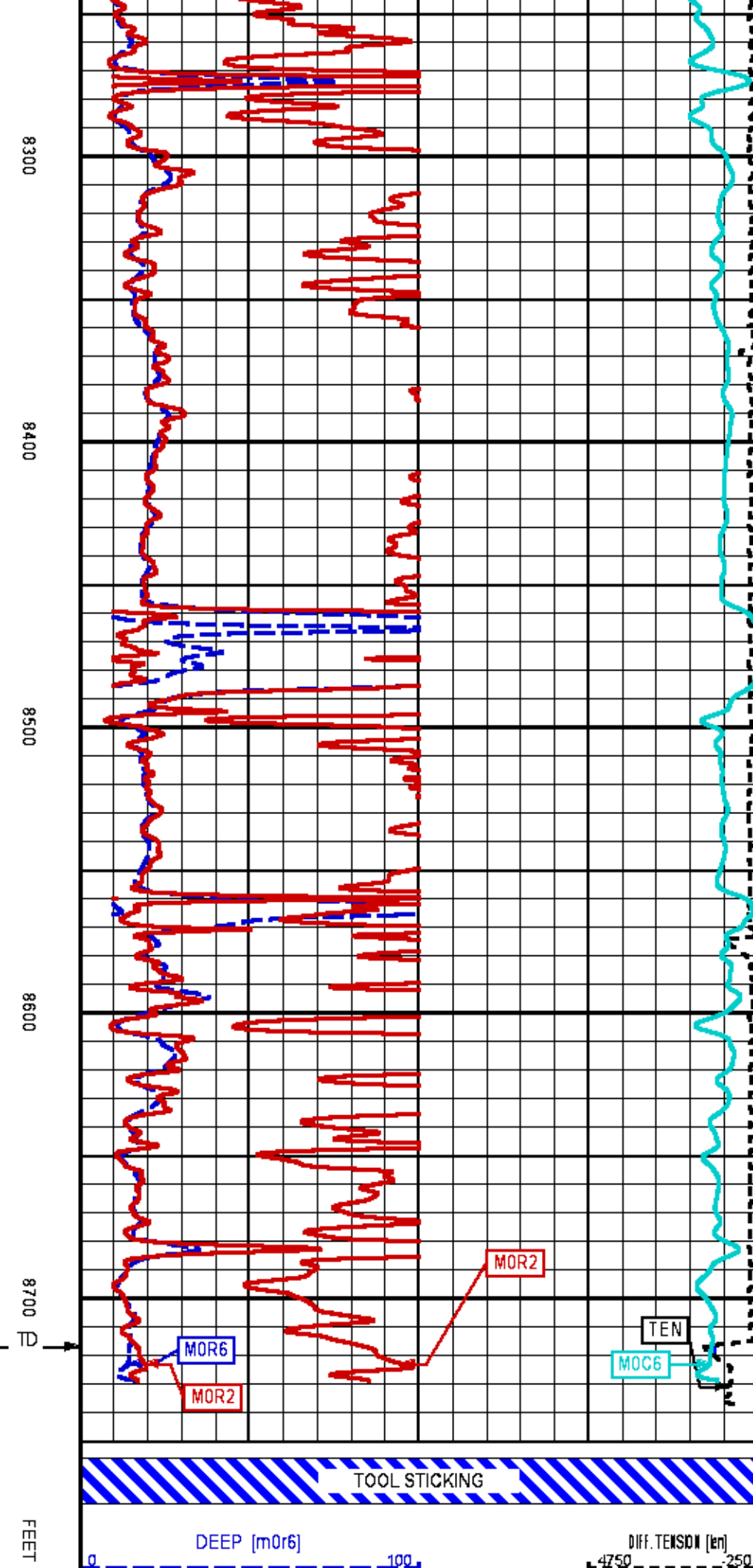
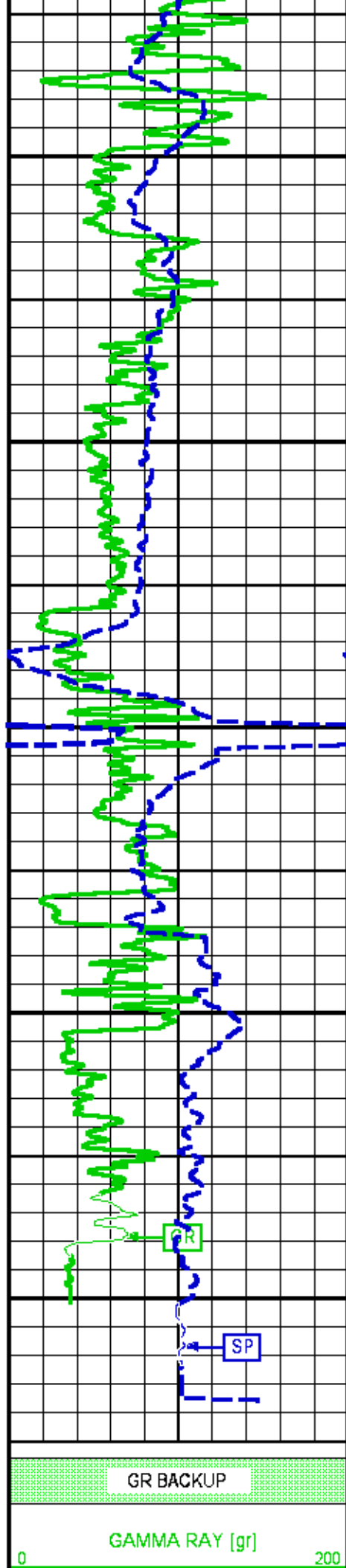


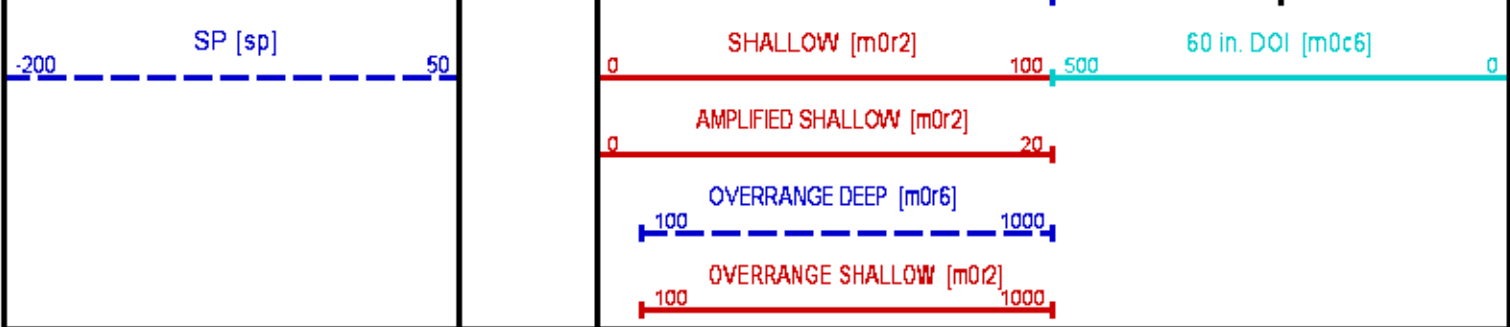












MAIN LOG 5"/100FT SCALE

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

Plotted: Wed Aug 21 17:42:28 2013

PARAMETER AND FILTER SUMMARY REPORT					
File: /data/625571/MAIN_R01.prm LOGGING MODE: DEPTH DIRECTION: UP TOP DEPTH: 2574.750 ft BOTTOM DEPTH: 8739.371 ft					
SYMMETRIC FILTER					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER Q	medium (1)		TOP	BOTTOM
CALIPER	FILTER Q	medium (1)		"	"
TENSION	FILTER Q	medium (1)		"	"
CN MED RES	FILTER Q	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1a*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2a*)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER Q	heavy (3)		"	"
BOREHOLE & CEMENT					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	"	"
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	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	78.0	degF	"	"
	MUD SAMPLE RES	0.640	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
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	"	"
ACCELERATION PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM
CN PROCESSING					

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	908	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	8.750	in	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	Air Filled Borehole	NO		TOP	BOTTOM
	RHOmatrix	2.680	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"

HDIL PROCESSING

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

CURVE DESCRIPTION REPORT

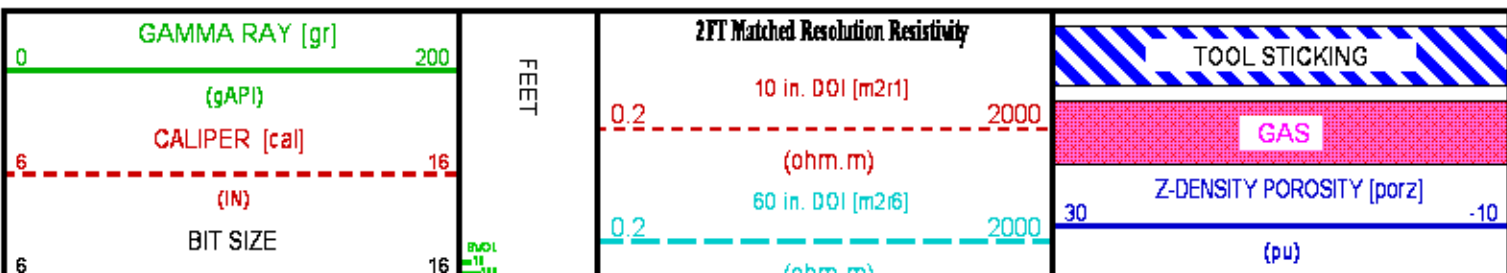
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Aug 12 13:00:19 2013	BIT SIZE
F1:BVOL	Aug 12 13:00:19 2013	BOREHOLE VOLUME
F1:CAL	Aug 12 13:00:19 2013	CALIPER
F1:CNCf	Aug 12 13:00:19 2013	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Aug 12 13:00:19 2013	CEMENT VOLUME
F1:GR	Aug 12 13:00:19 2013	GAMMA RAY
F1:M2R1	Aug 12 13:00:19 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Aug 12 13:00:19 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Aug 12 13:00:19 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Aug 12 13:00:19 2013	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Aug 12 13:00:19 2013	POROSITY FOR SELECTABLE MATRIX
F1:SP	Aug 12 13:00:19 2013	SPONTANEOUS POTENTIAL
F1:TEN	Aug 12 13:00:19 2013	DIFFERENTIAL TENSION
F1:ZCOR	Aug 12 13:00:19 2013	DENSITY CORRECTION

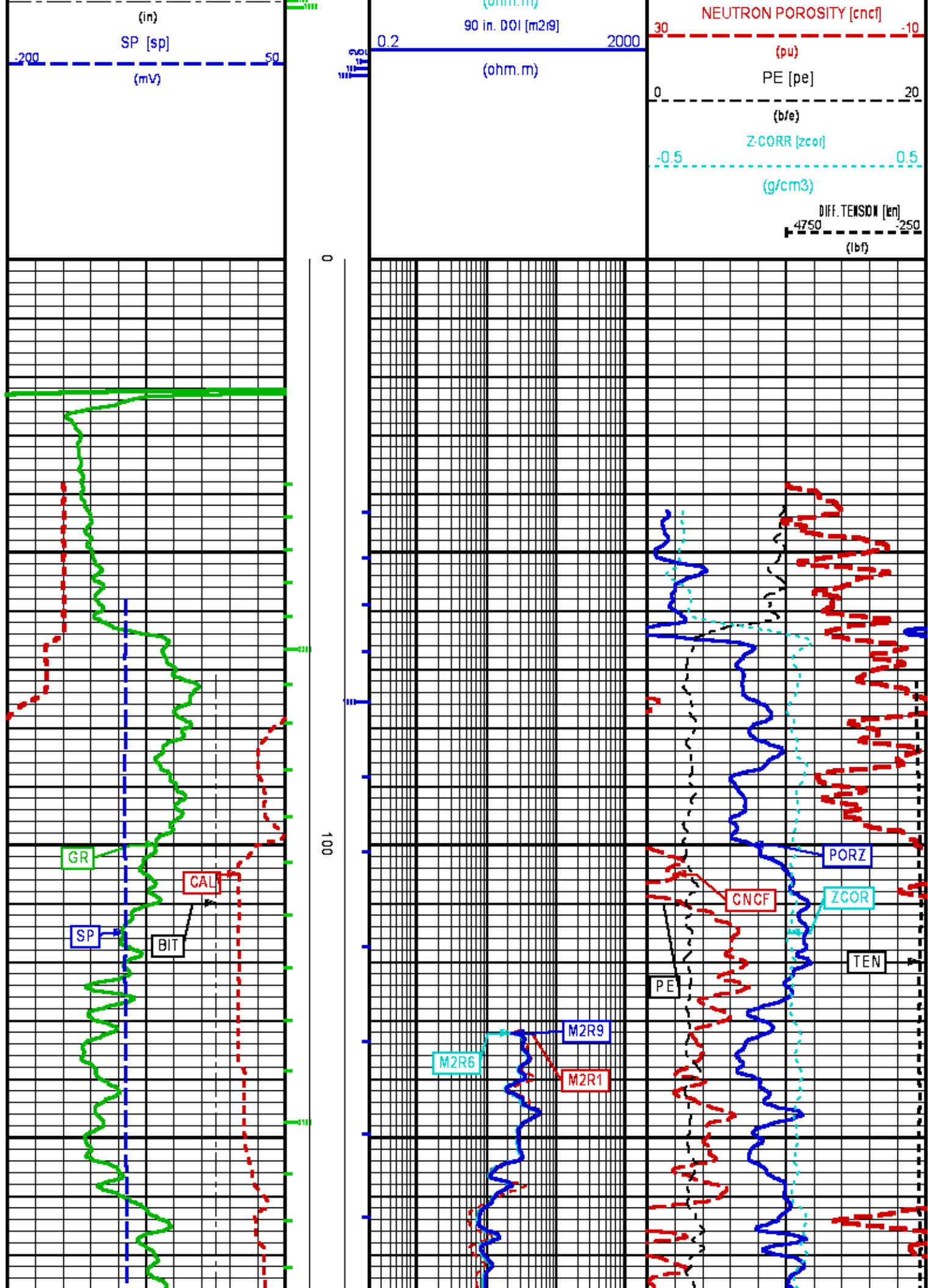
CURVE MEASURE POINT OFFSET

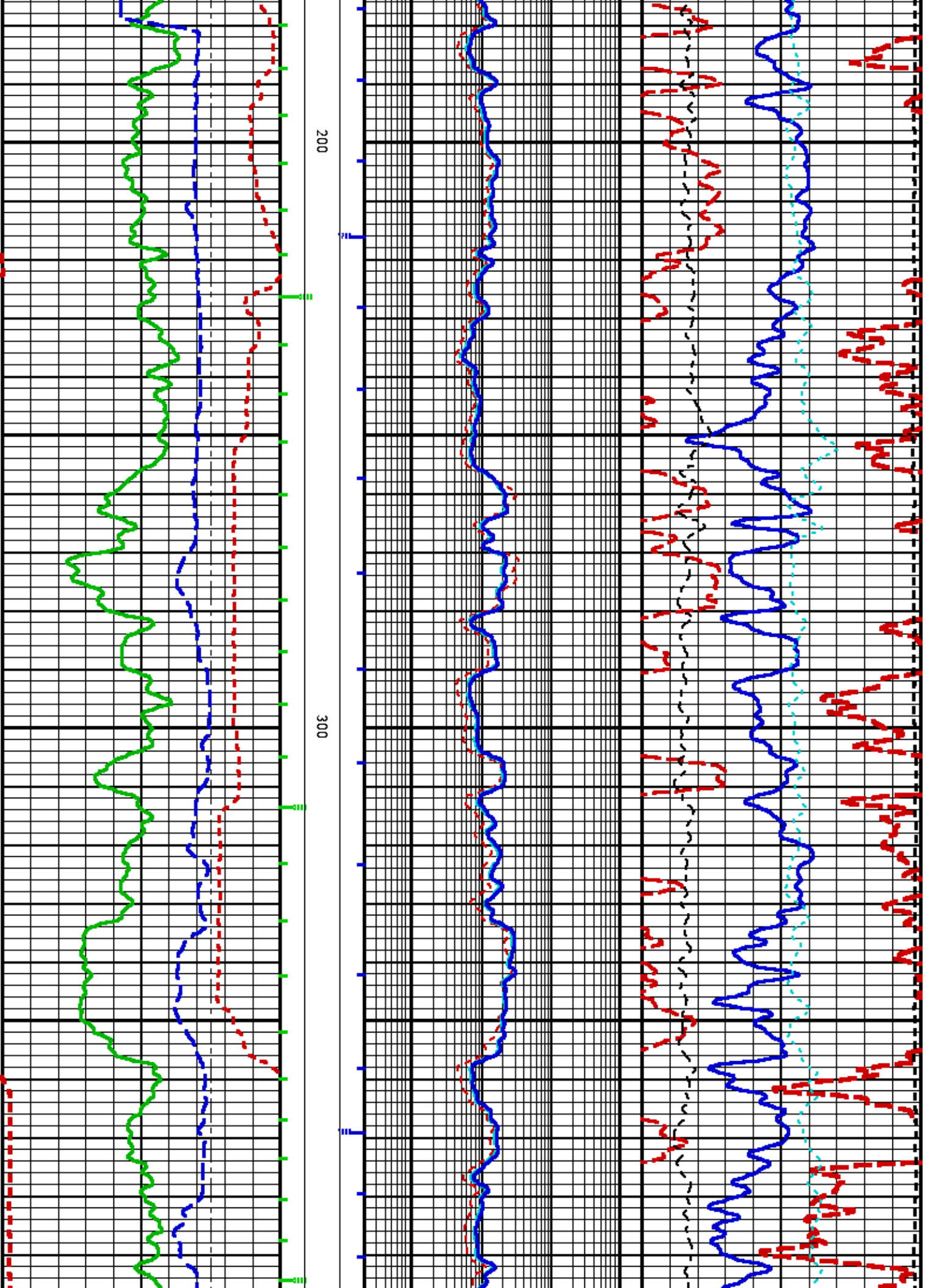
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	52.25	M2R9	8.00	SP	14.00
CAL	35.00	M2R1	8.00	PE	34.25	TEN	0.00
CNCf	45.25	M2R6	8.00	PORZ	34.25	ZCOR	34.25

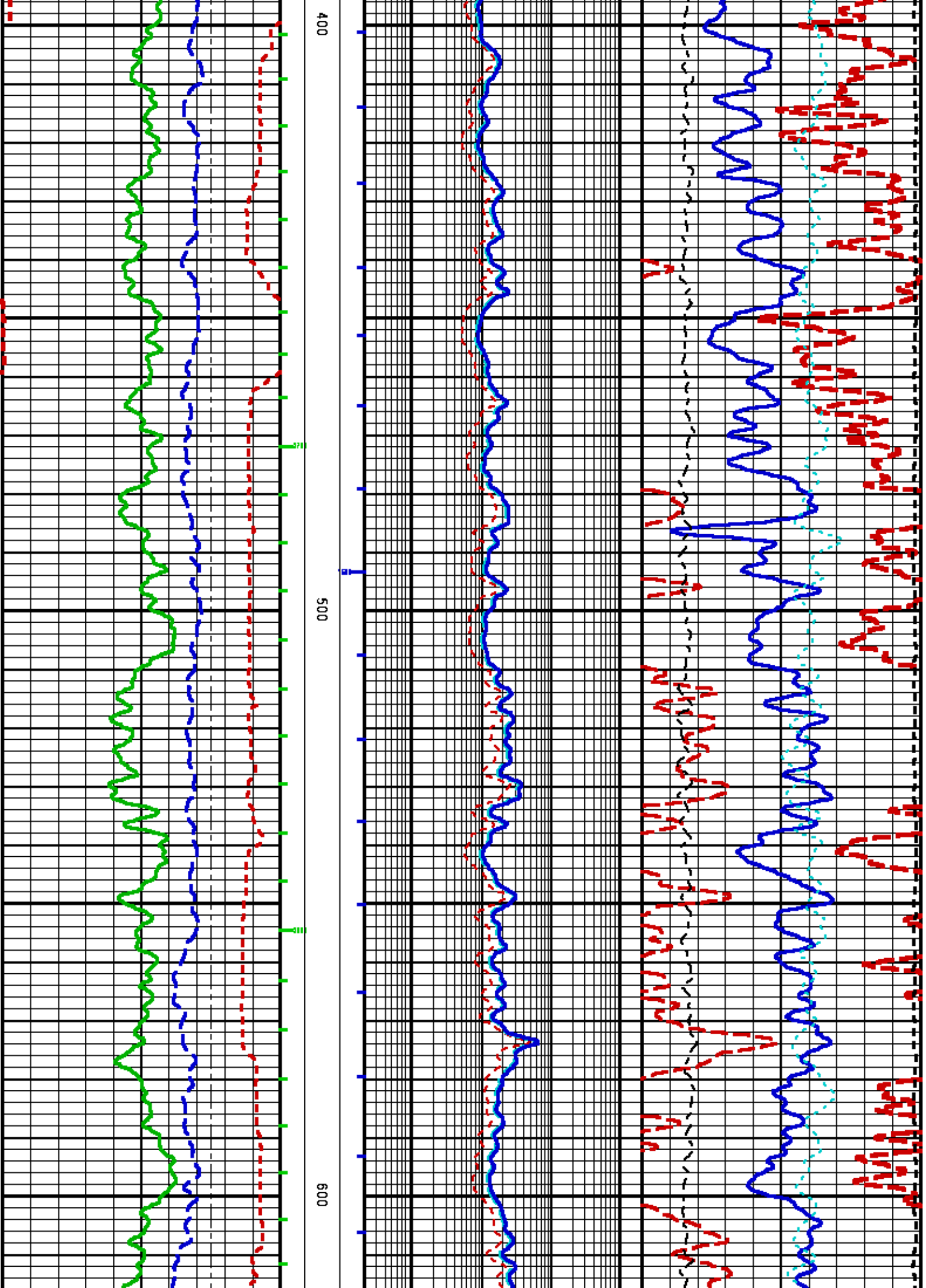
Presentation : HL6670:/dat1a/625571/WPX_MAIN_RDR_CAL.fvpdf [5"/100' Scale]
Plot Interval : 0 - 8744.25 Feet

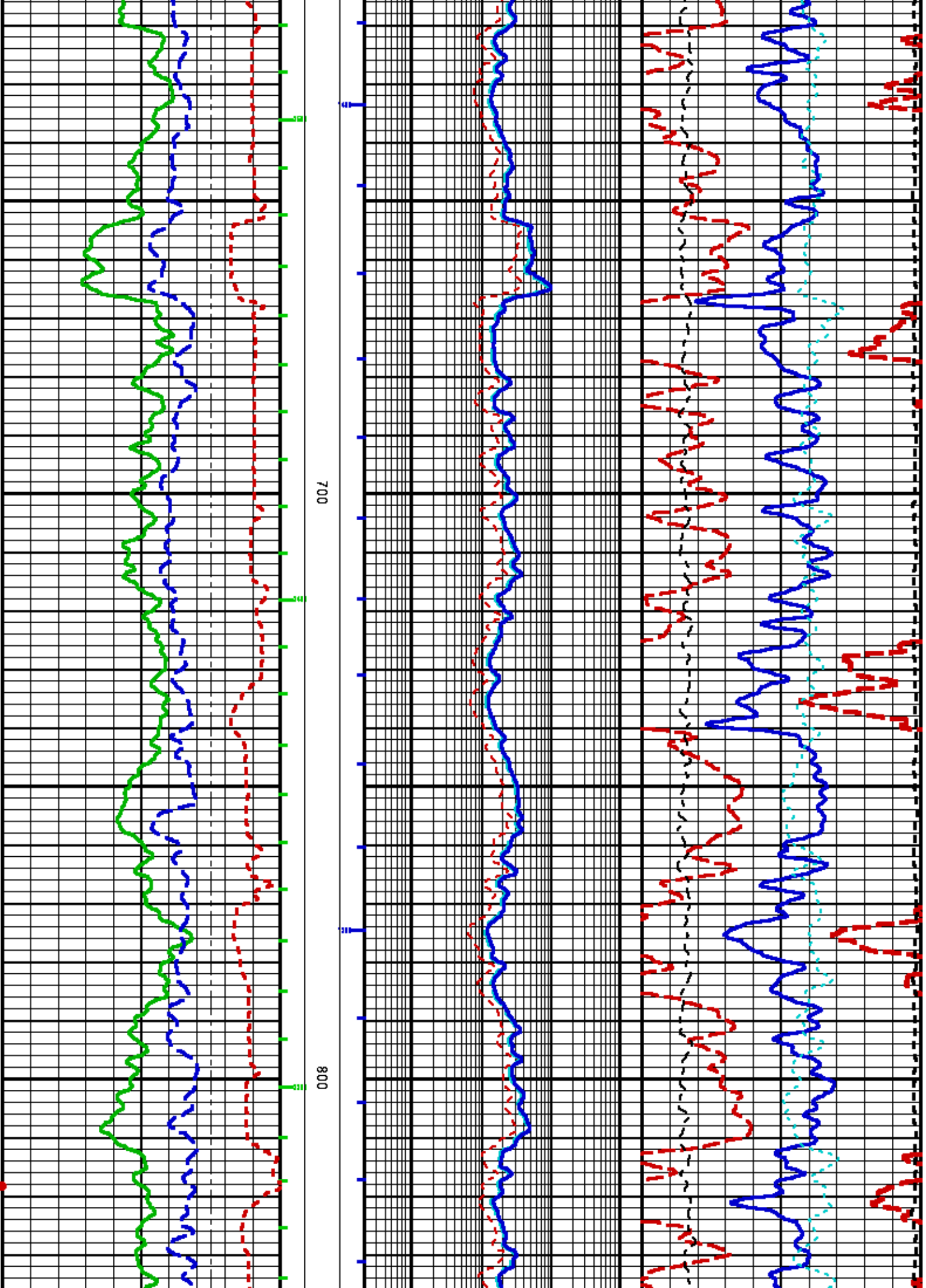
Data File 1 : F1 : HL6670:/dat1a/625571/RDRCALFINAL.xtf
Created On : Aug 12 13:00:19 2013
Company : WPX ENERGY INC
Well : FEDERAL PA 321-27
Field : PARACHUTE
File Interval : 0 - 8744.25 Feet
OCT : nu779x

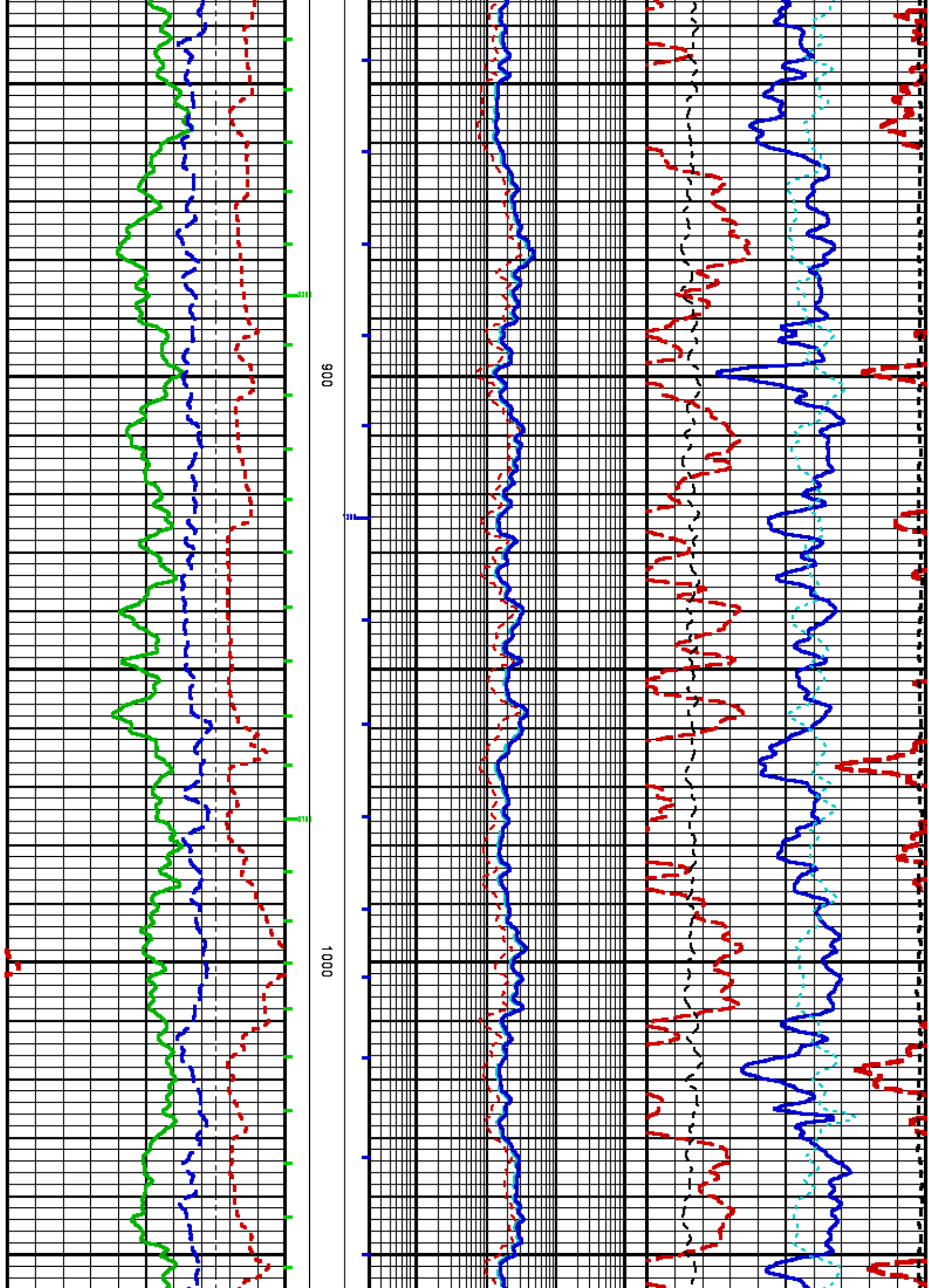


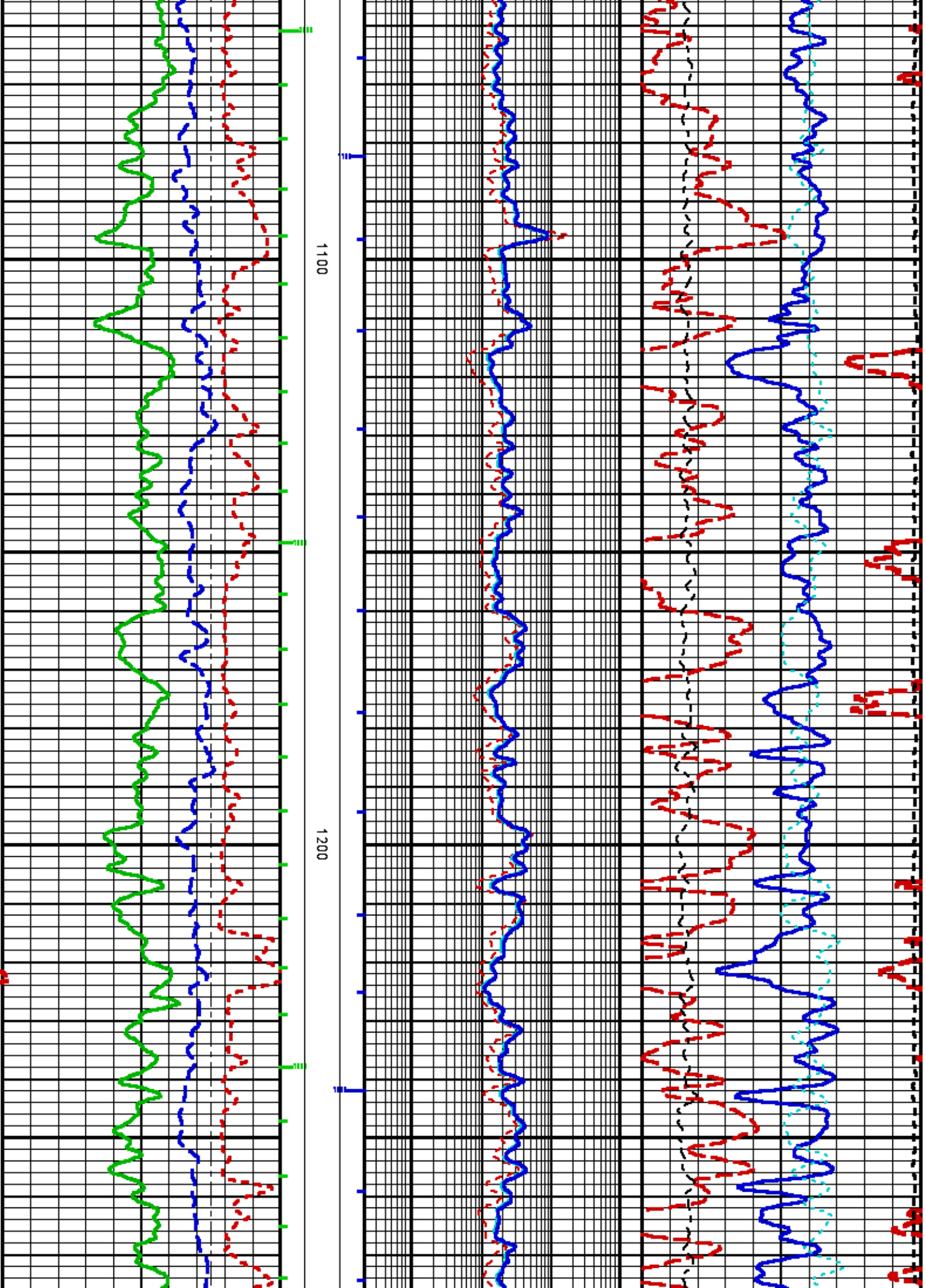


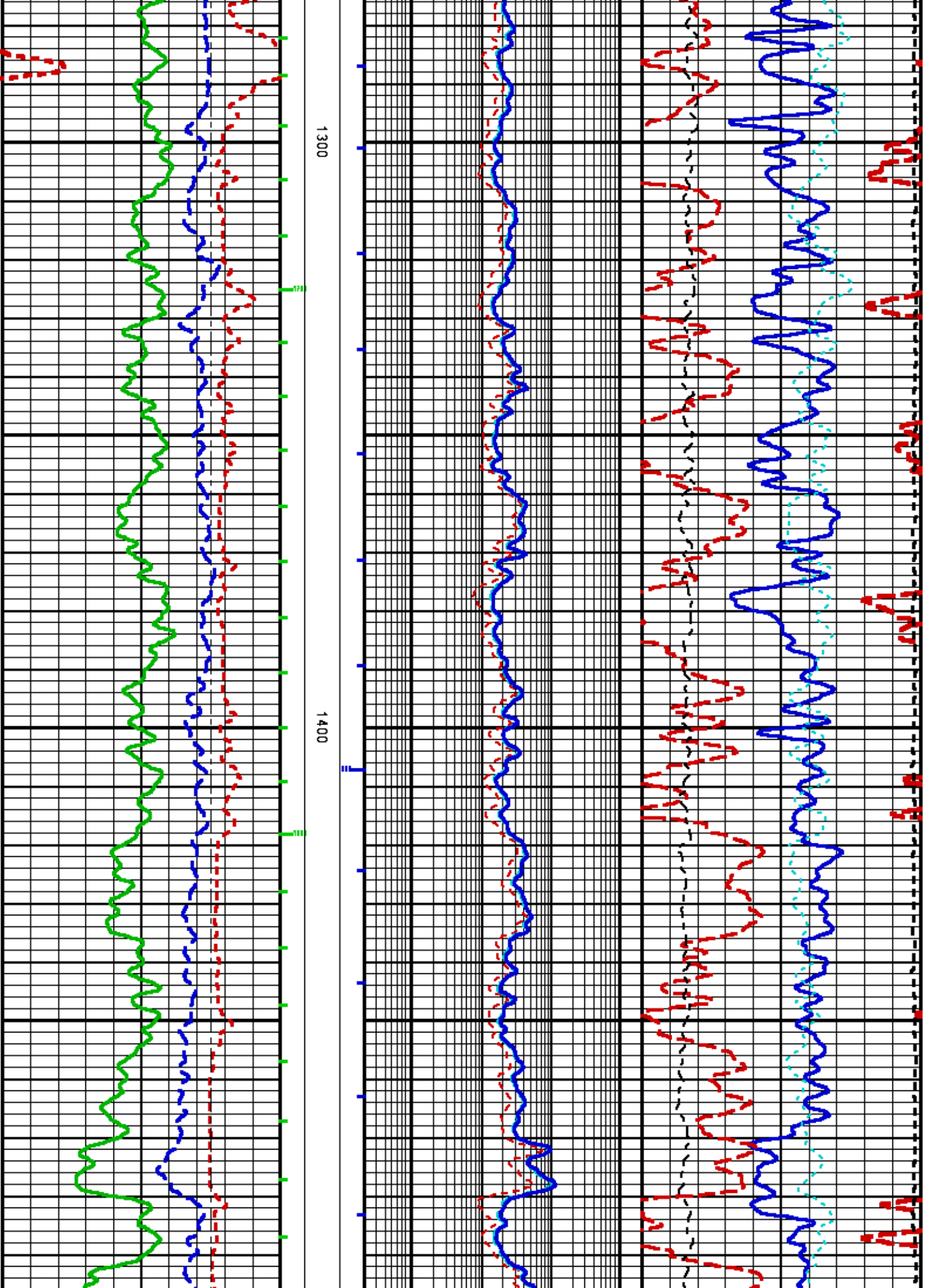


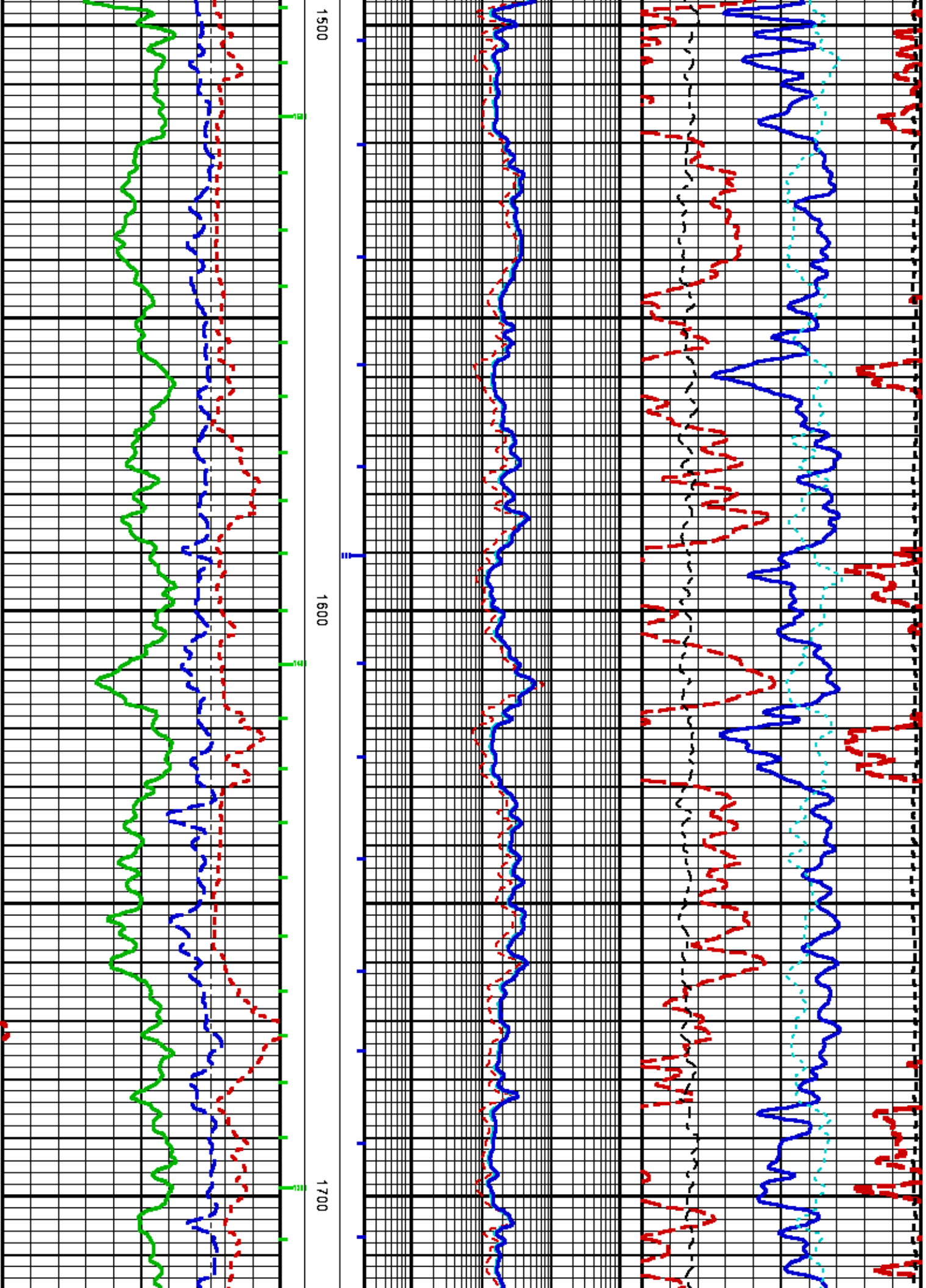


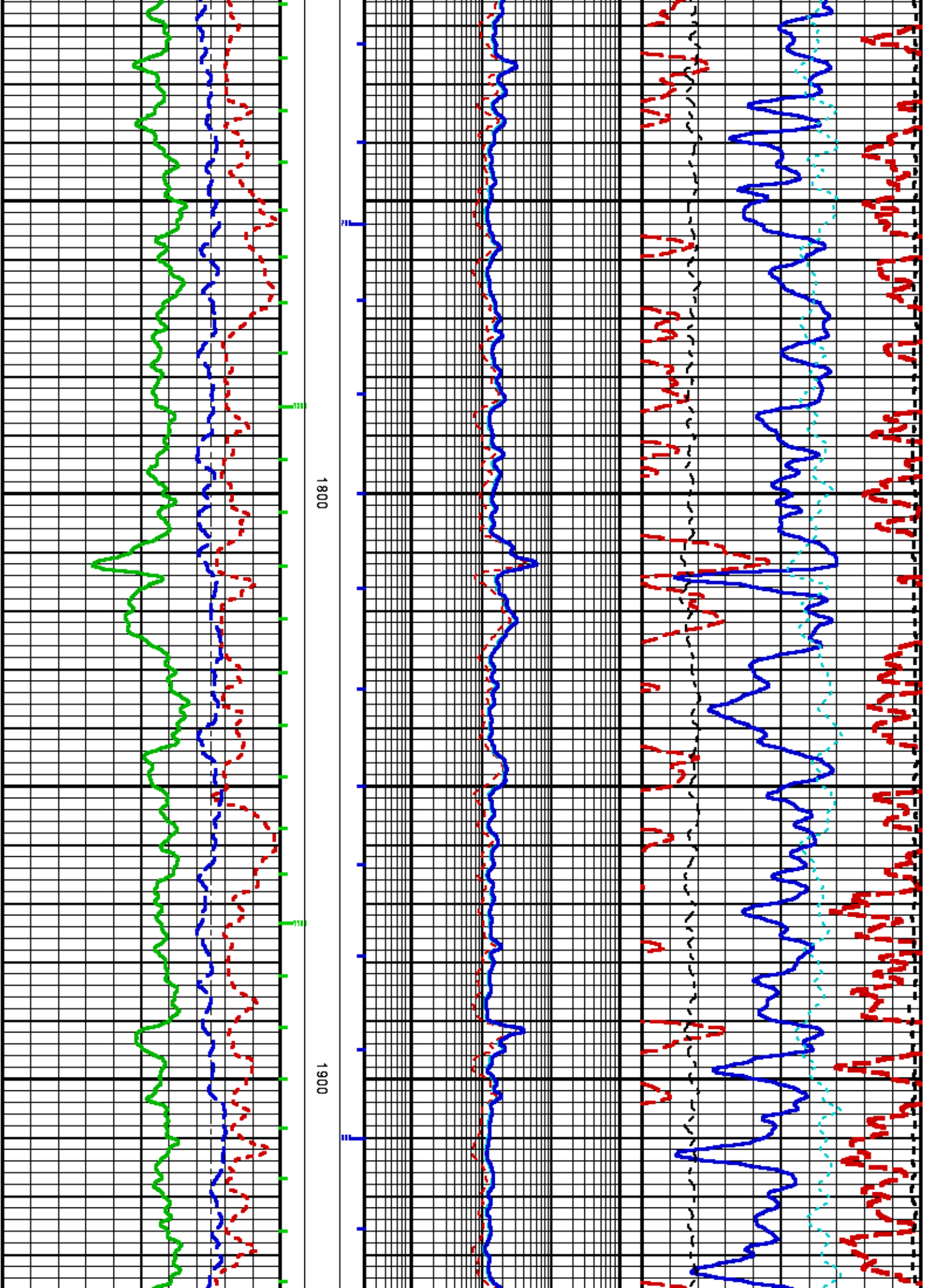


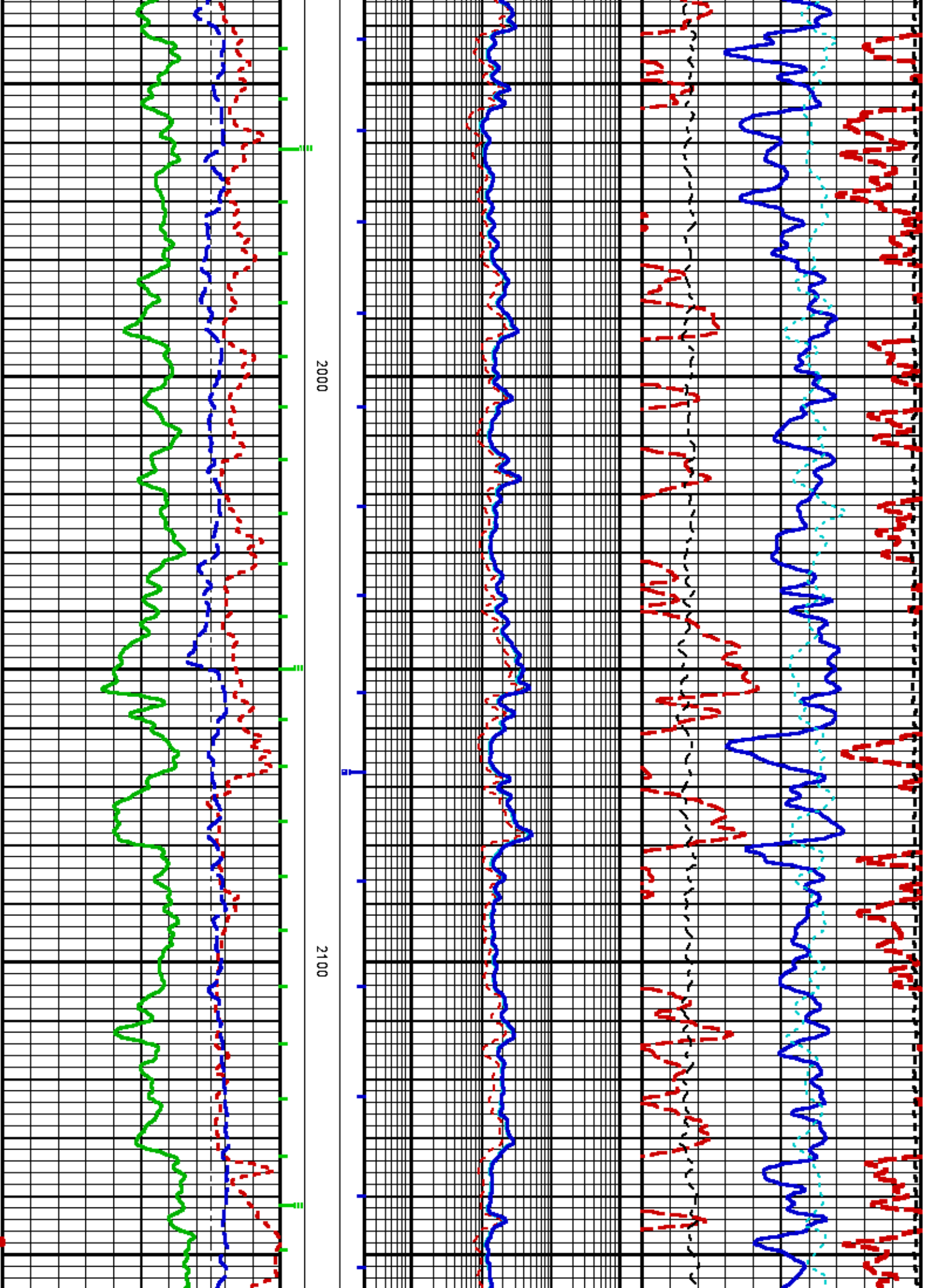


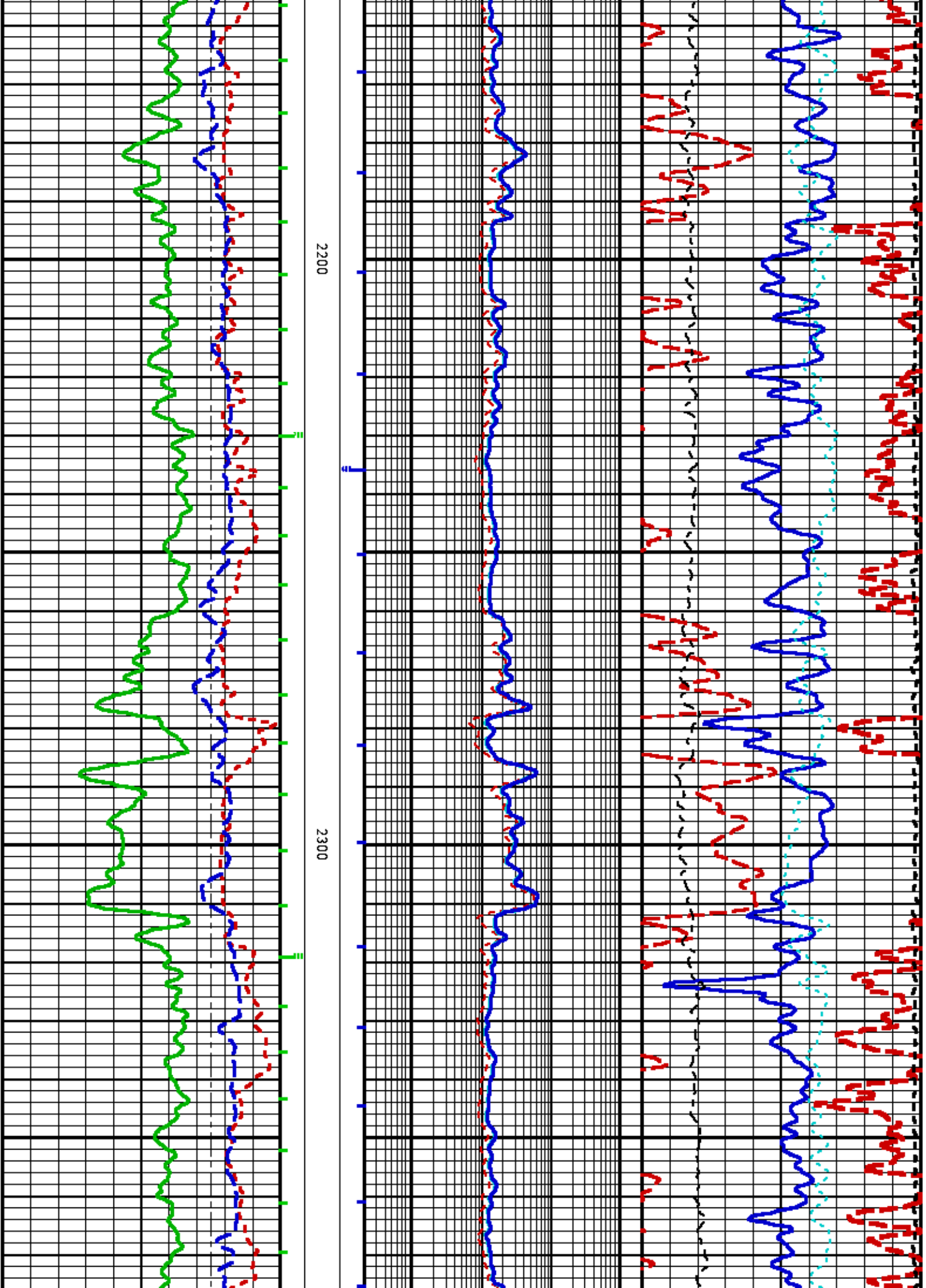


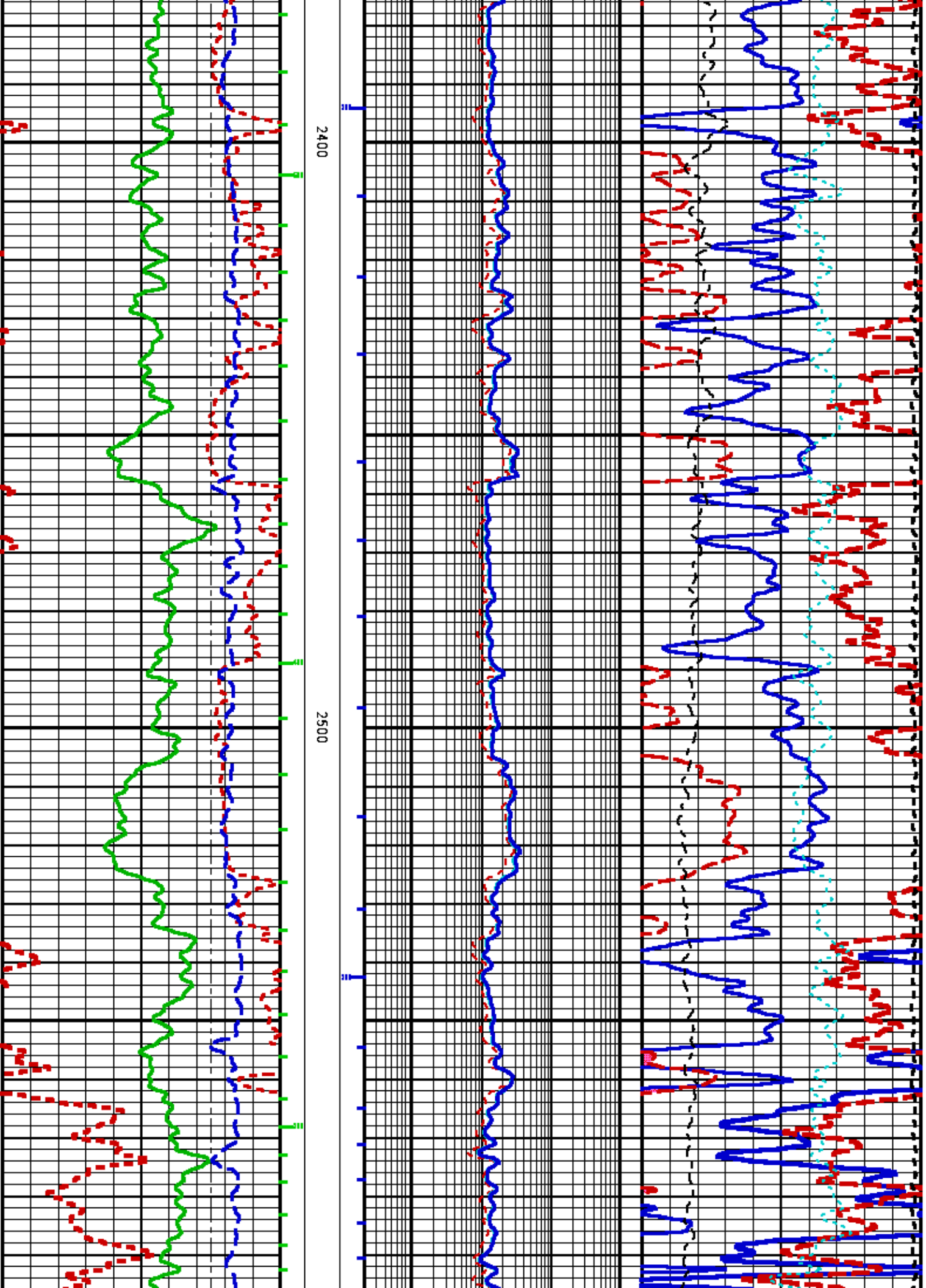


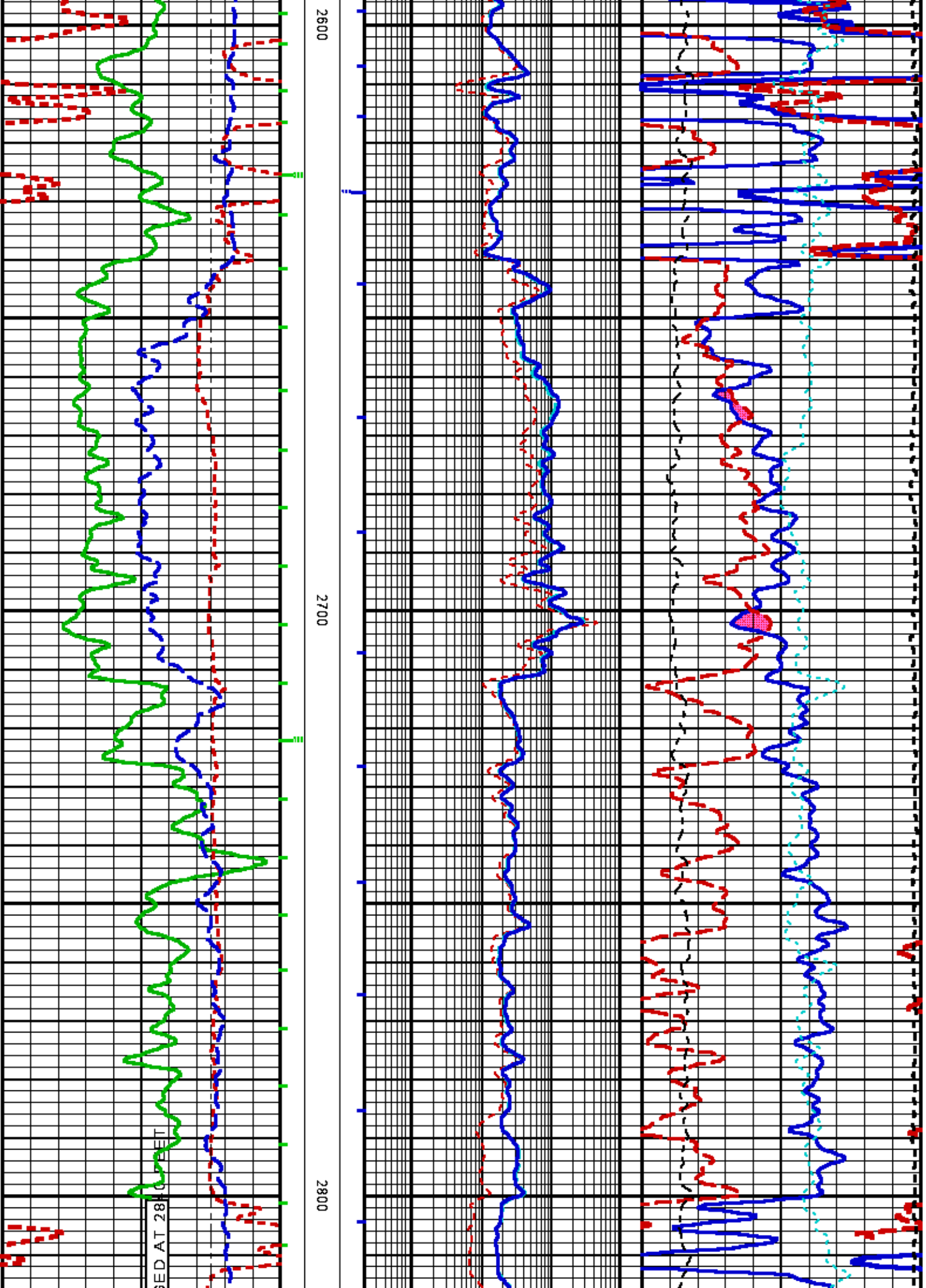










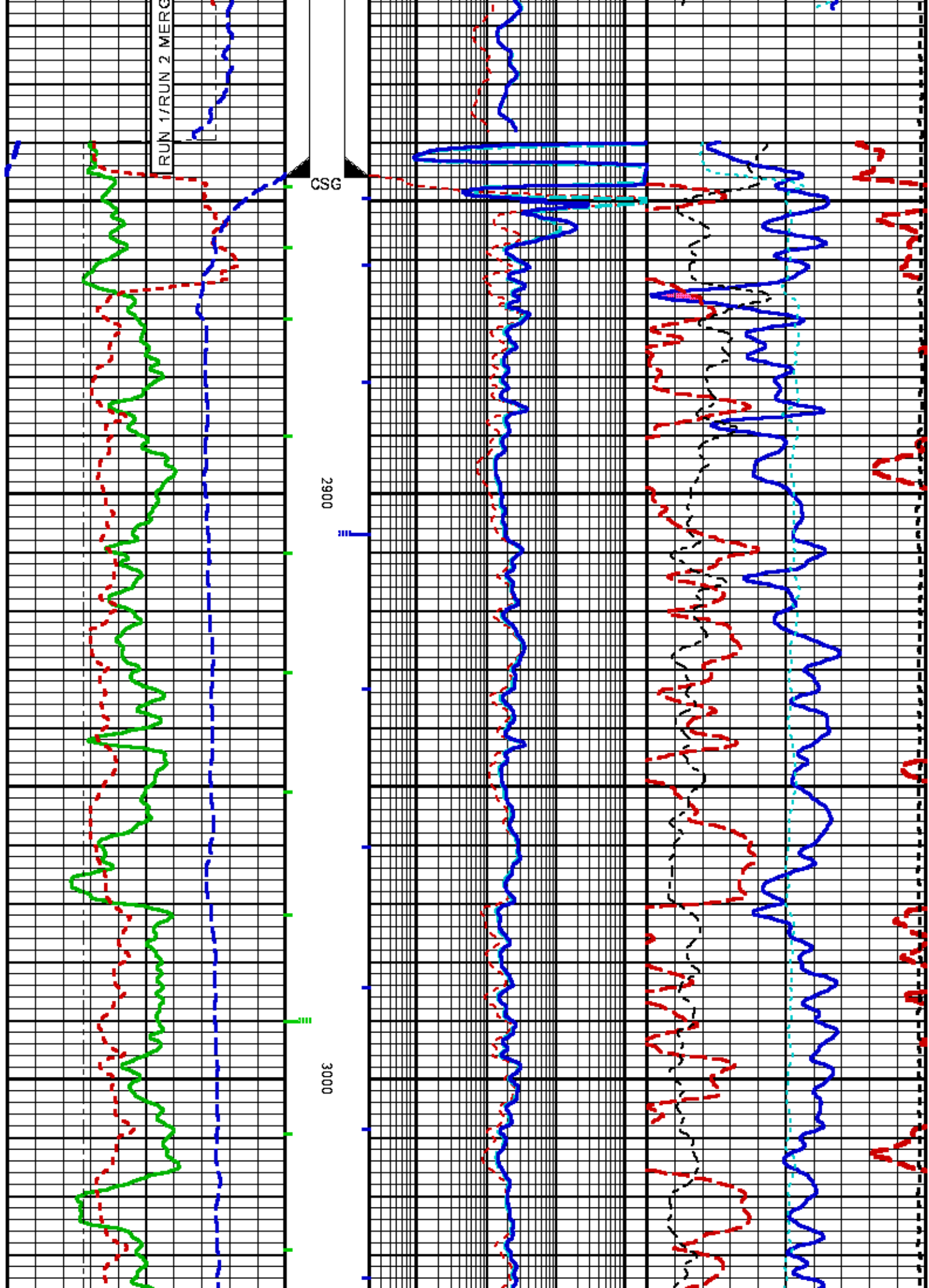


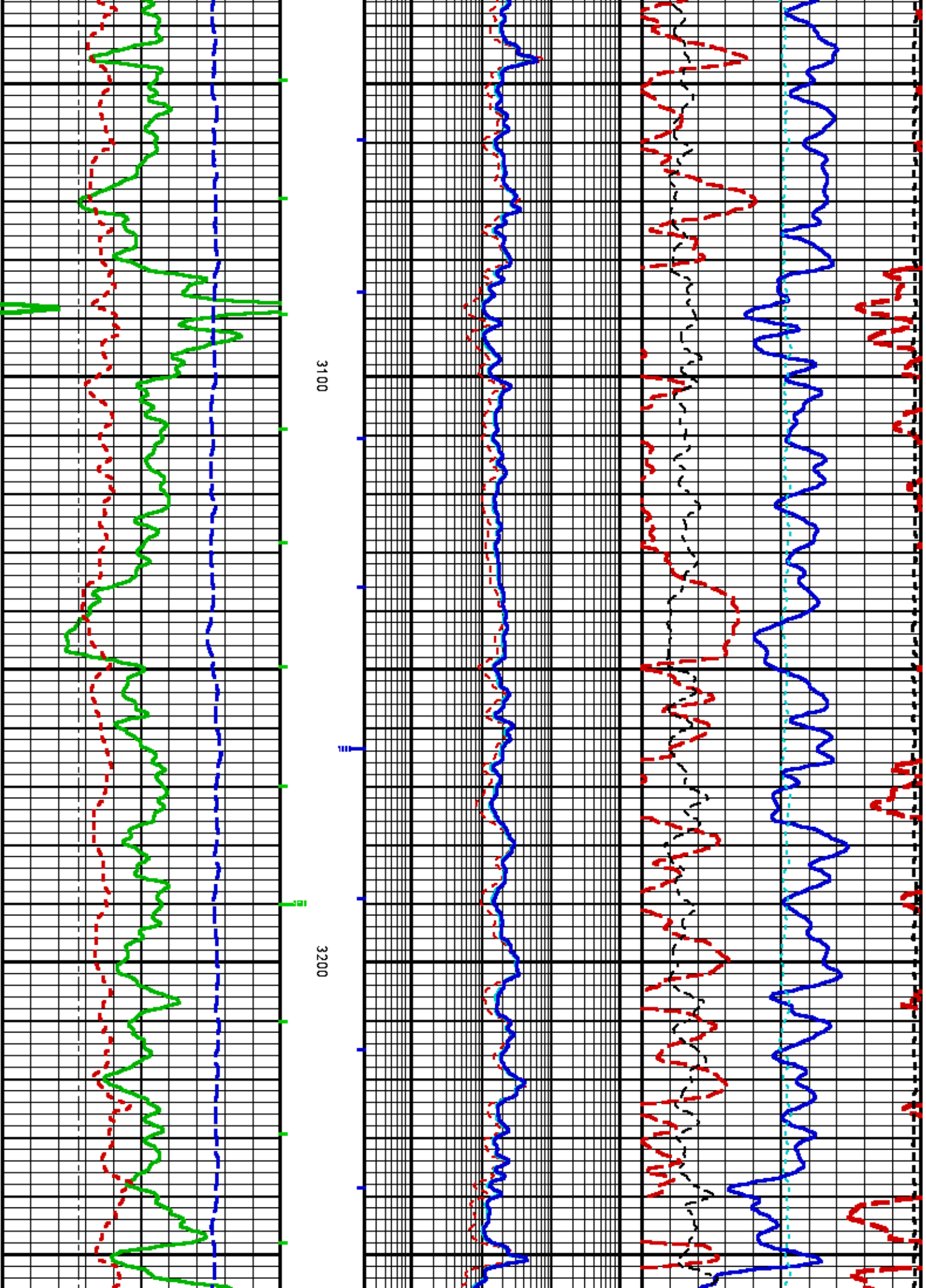
RUN 1/RUN 2 MERG

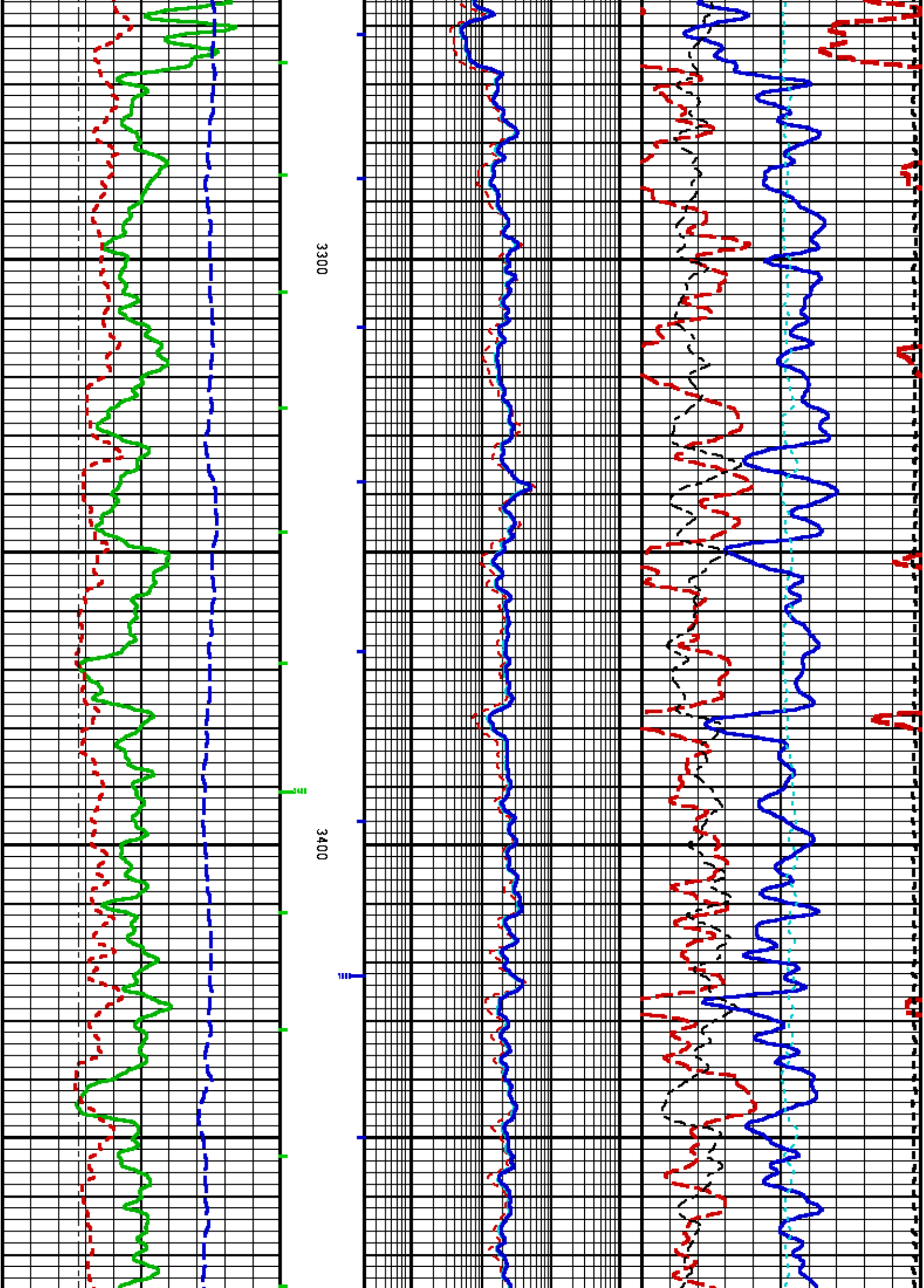
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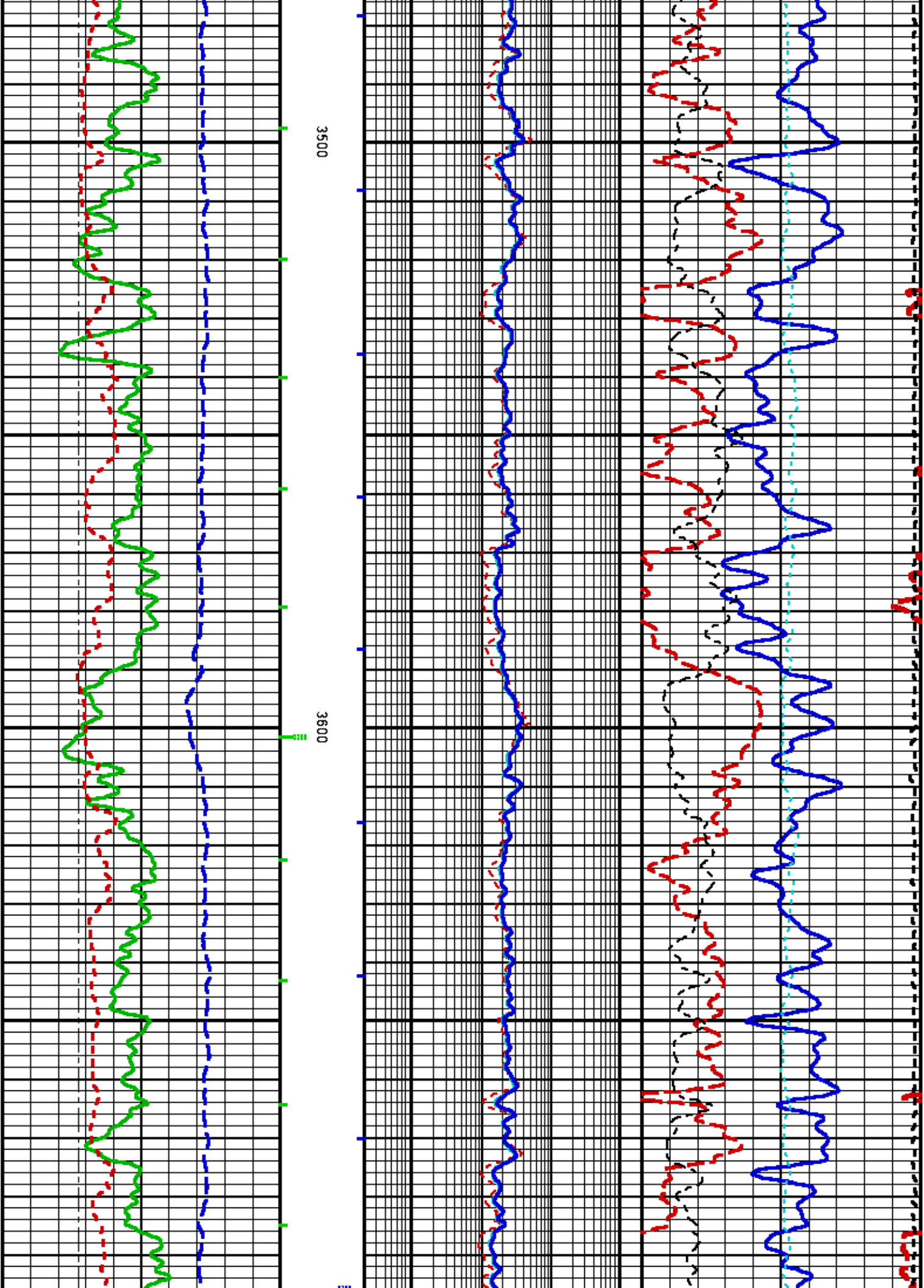
2900

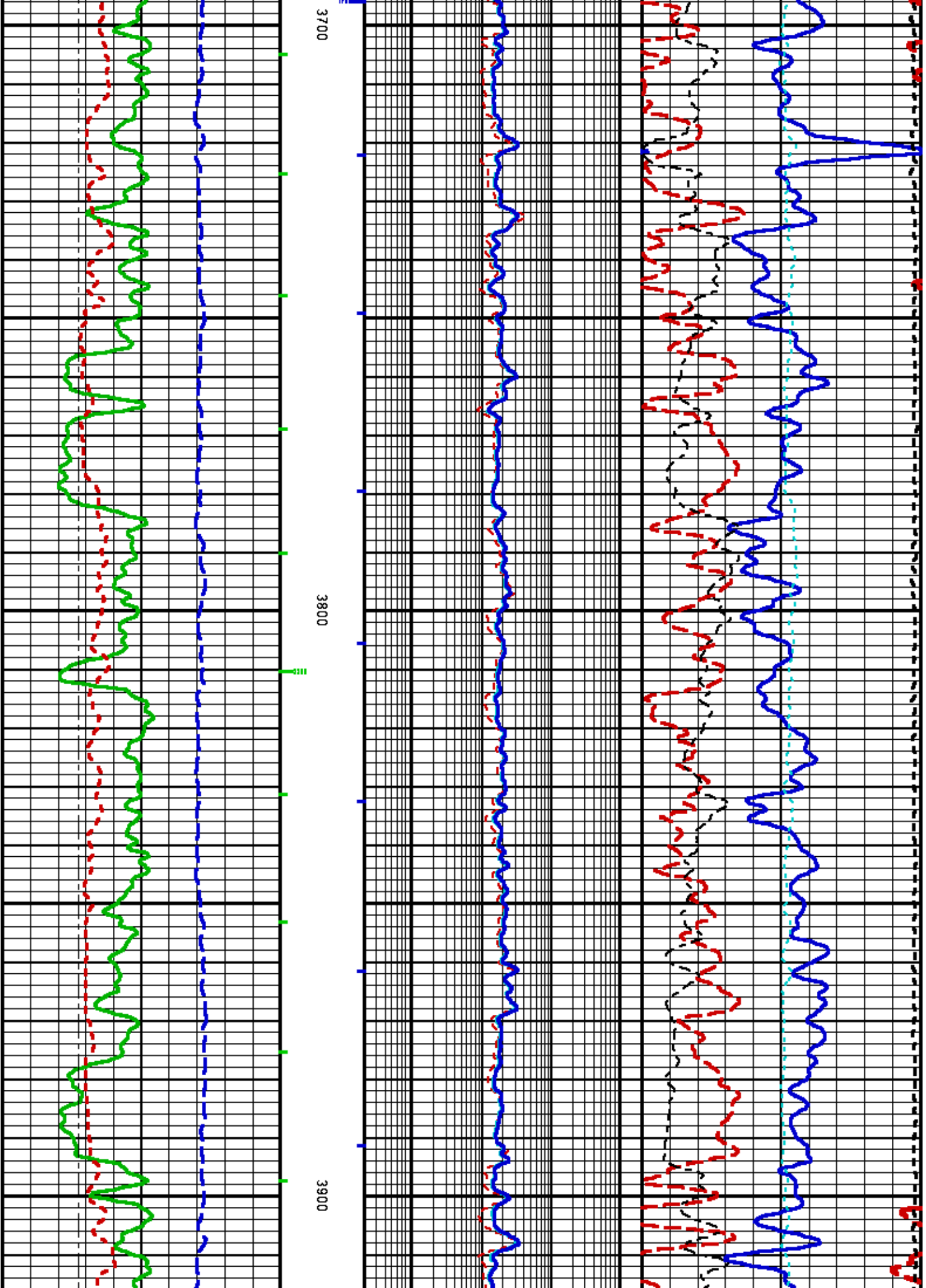
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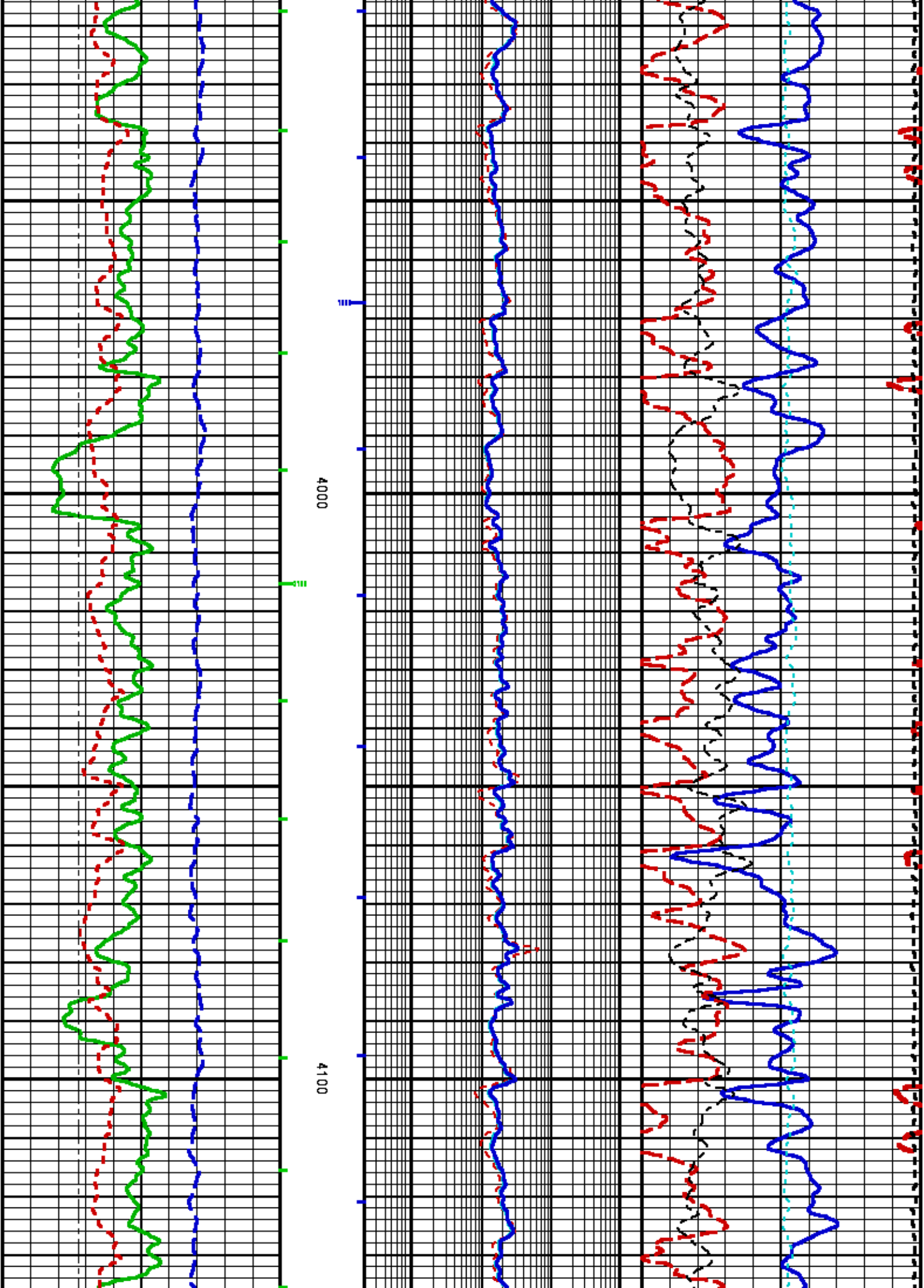


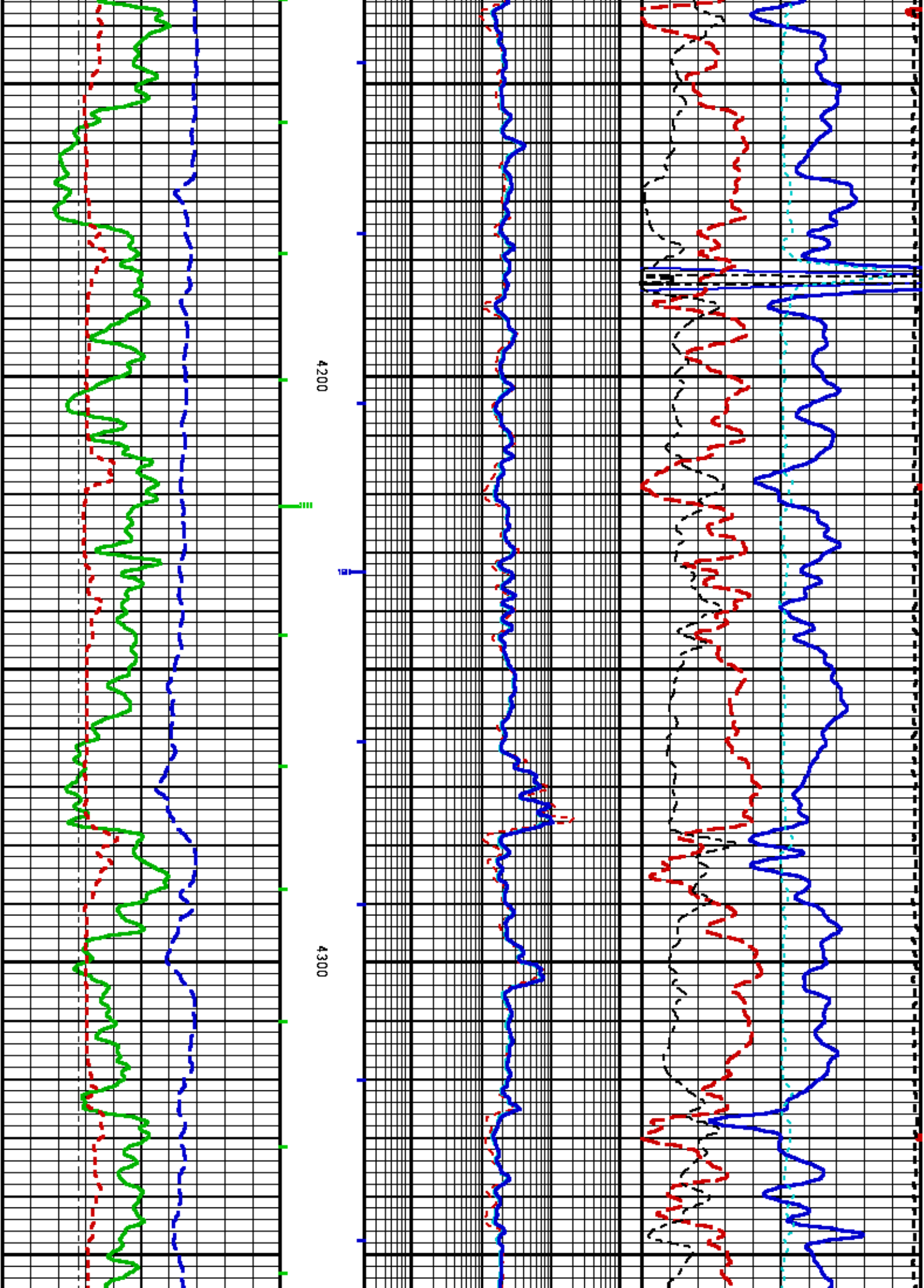


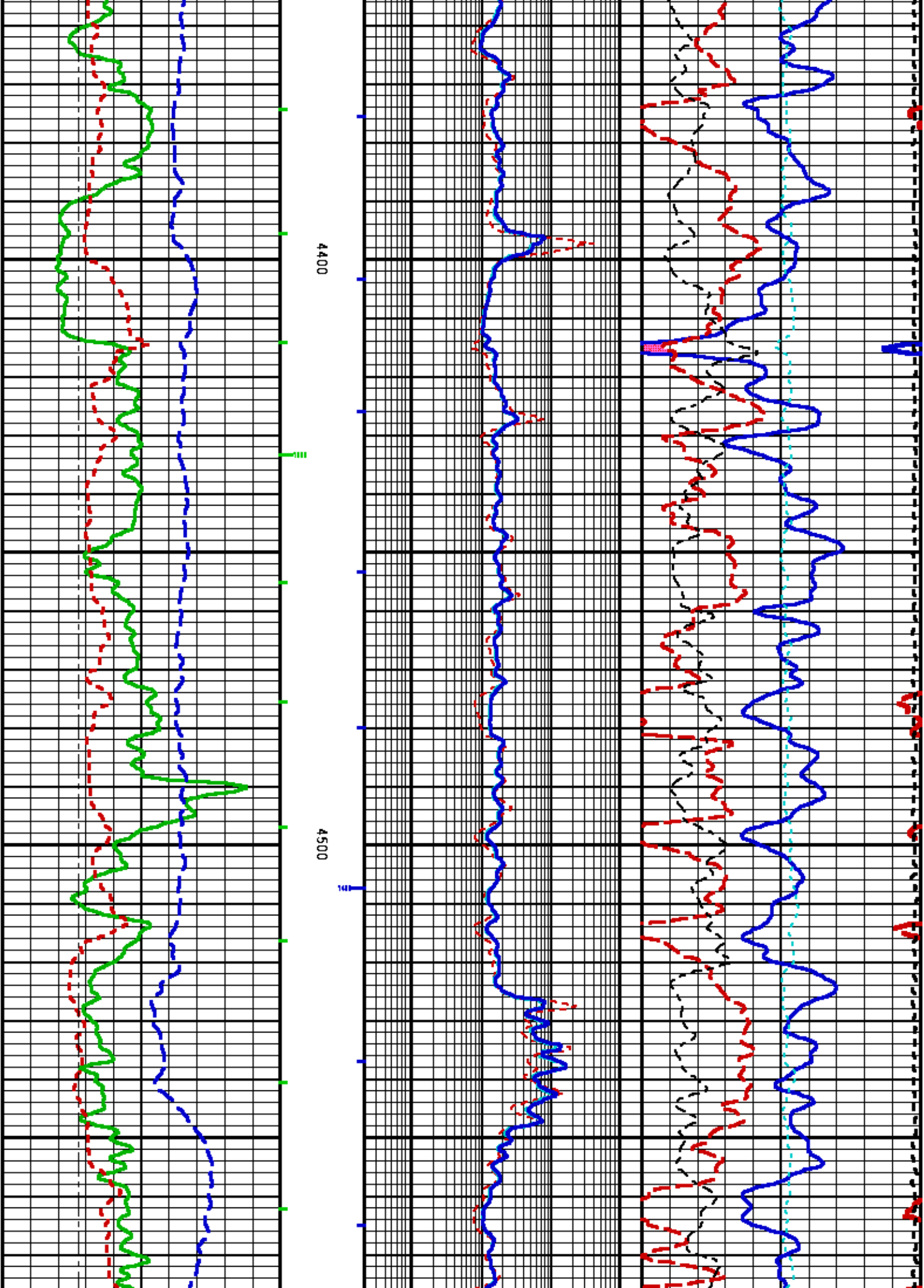


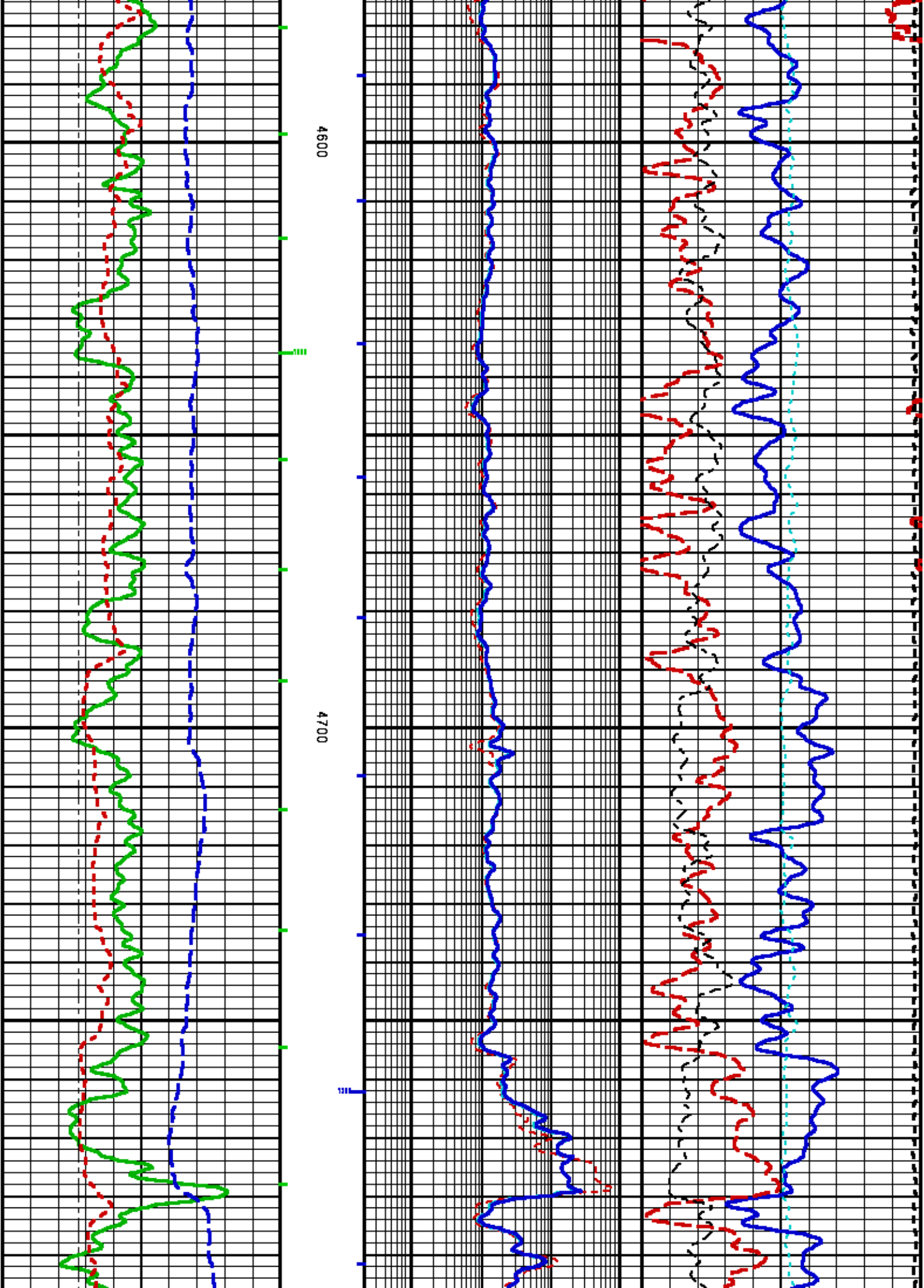


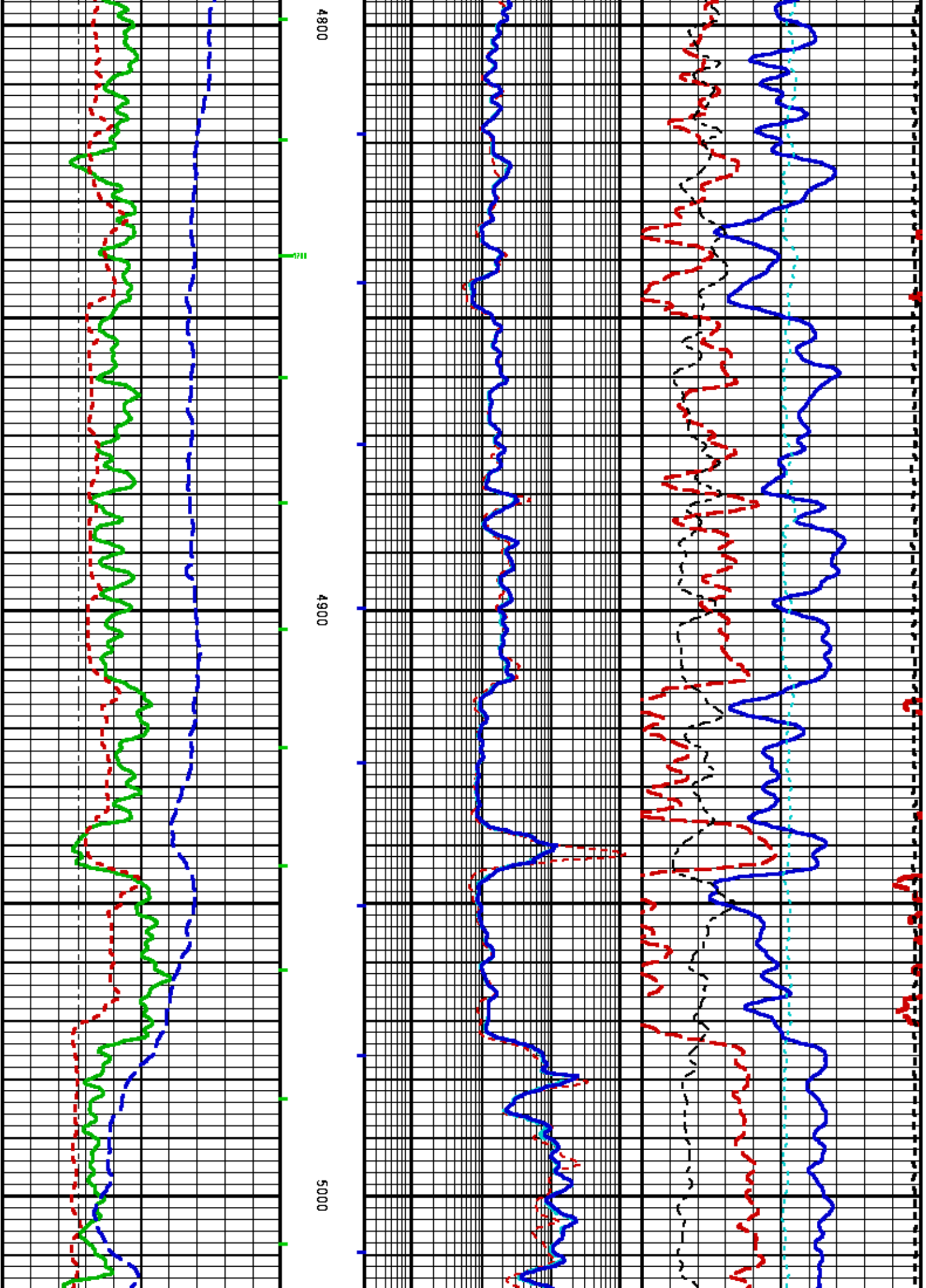


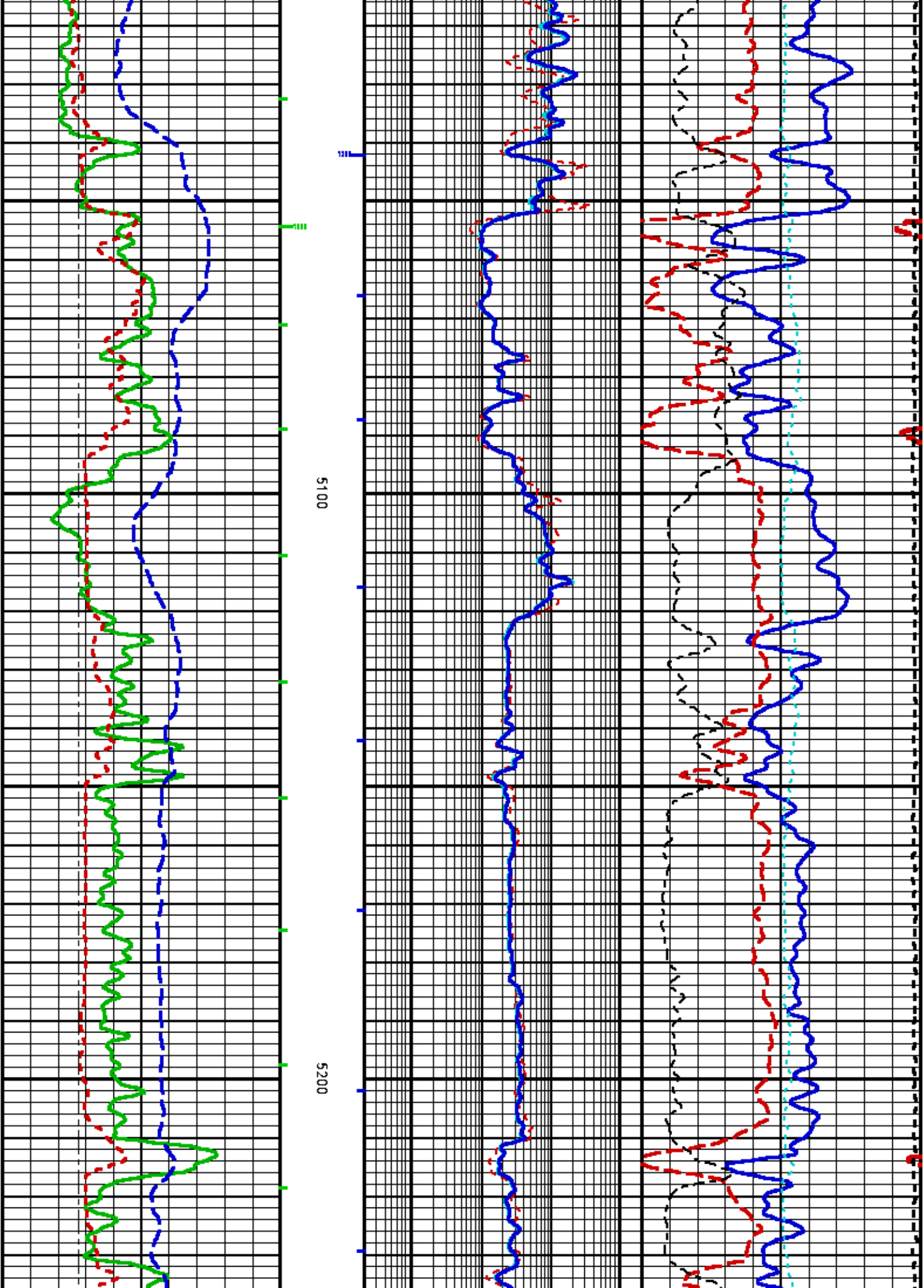


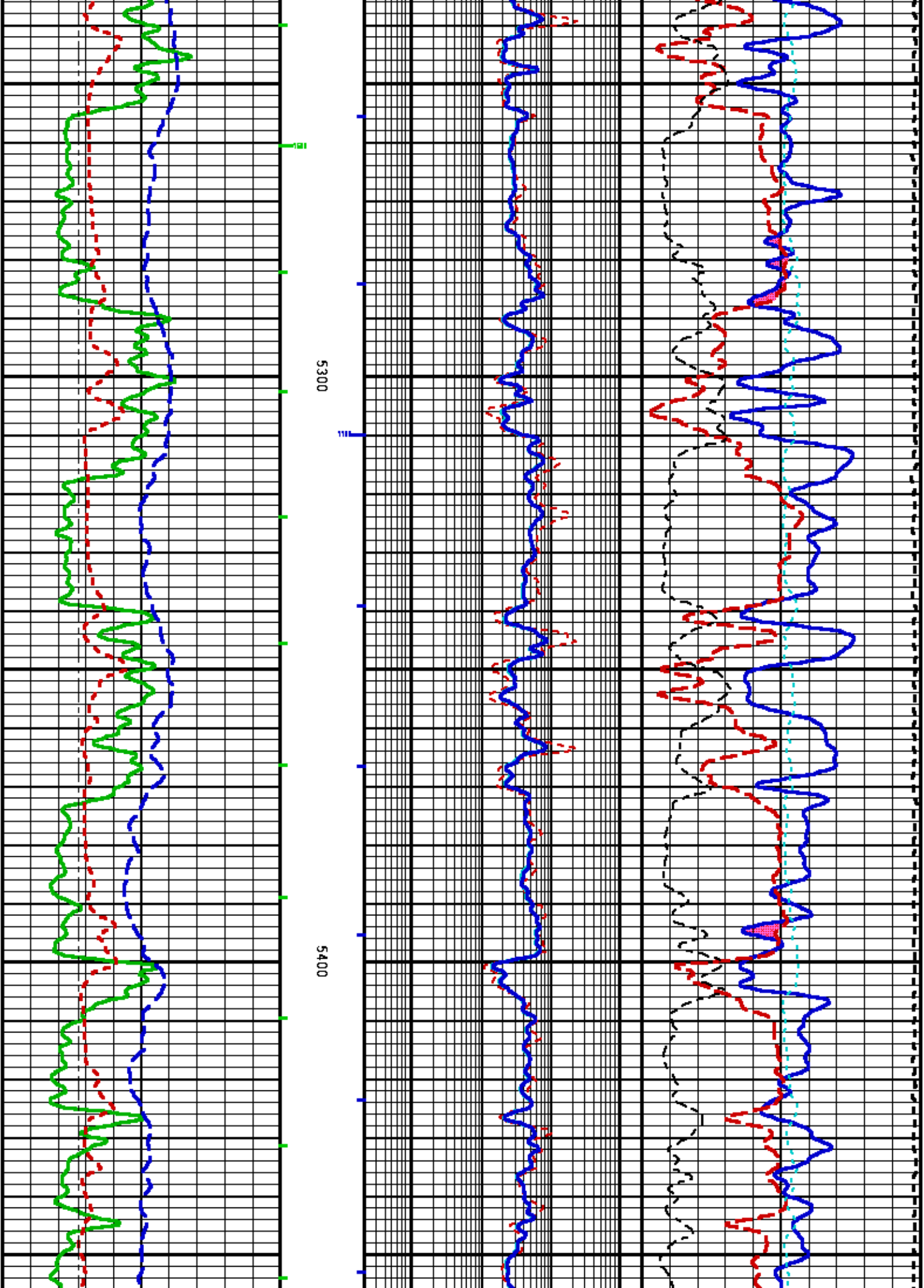


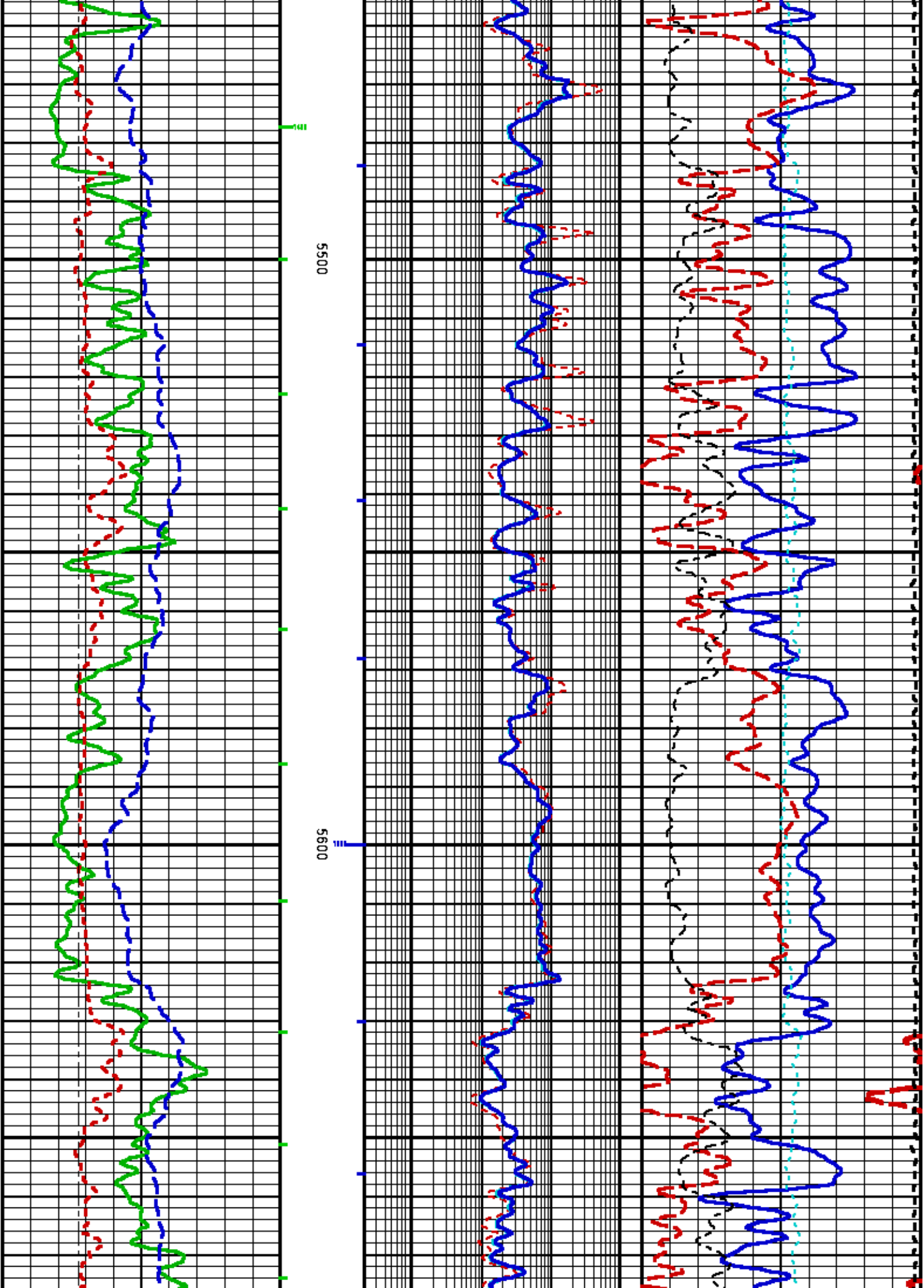


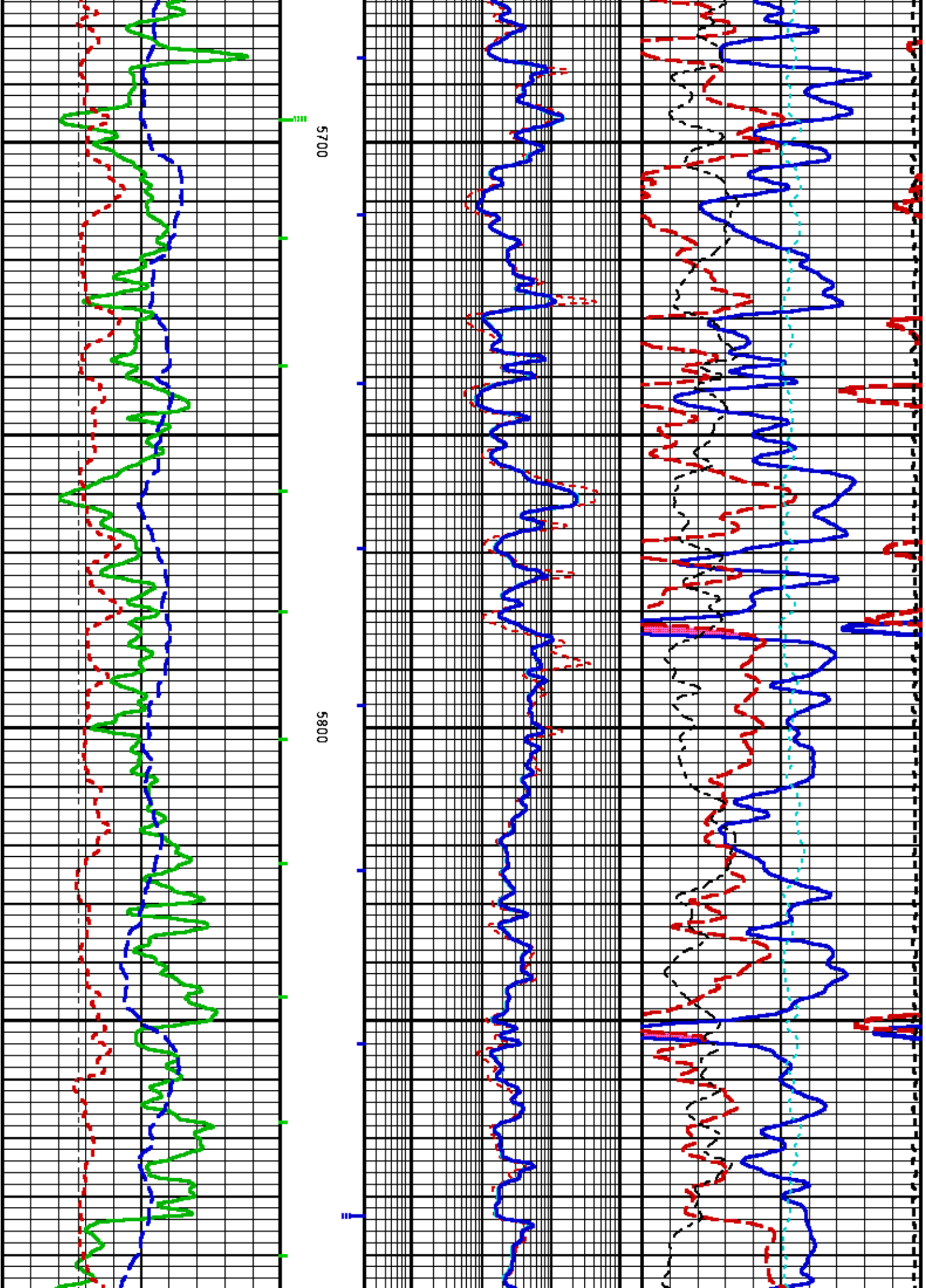


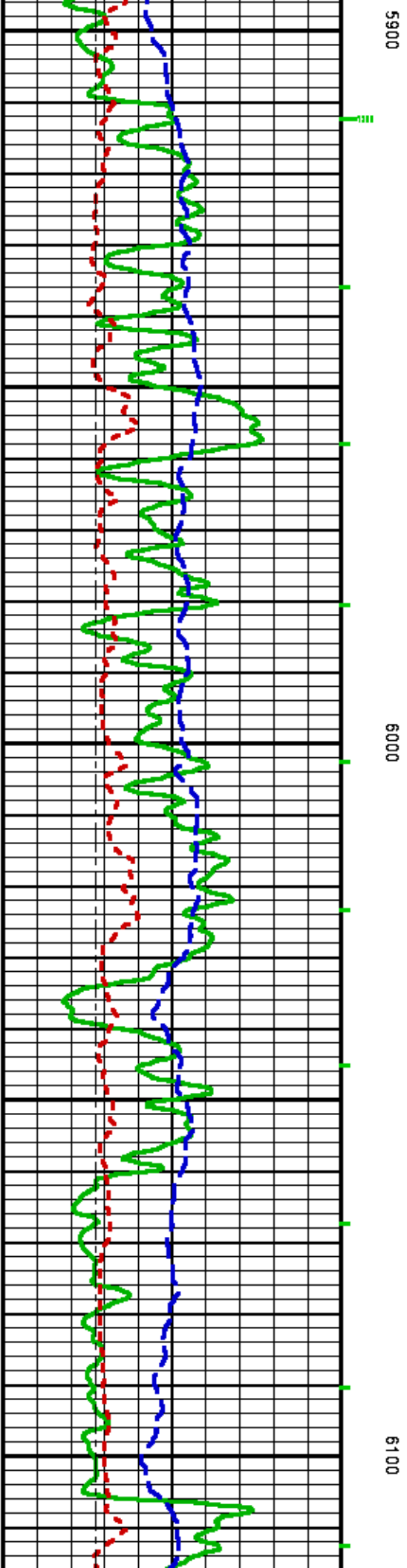
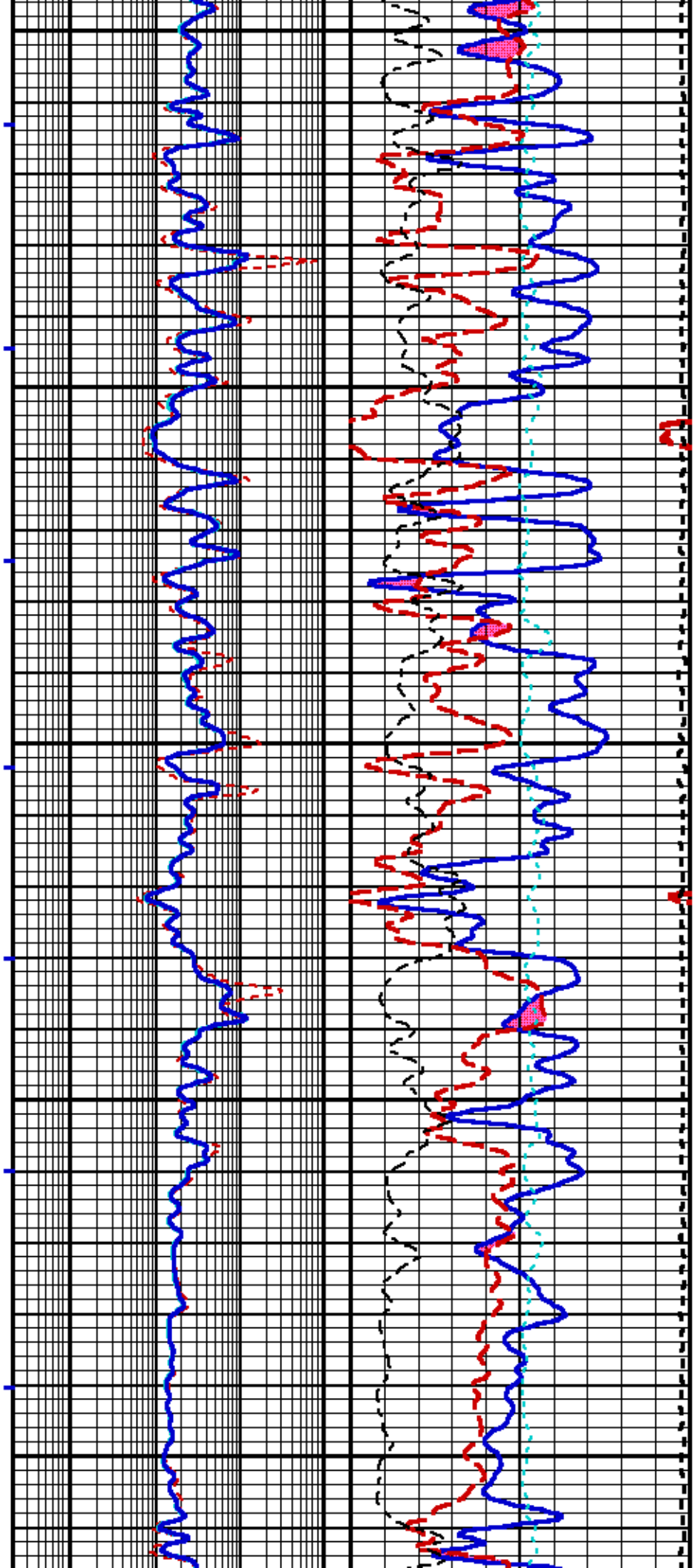


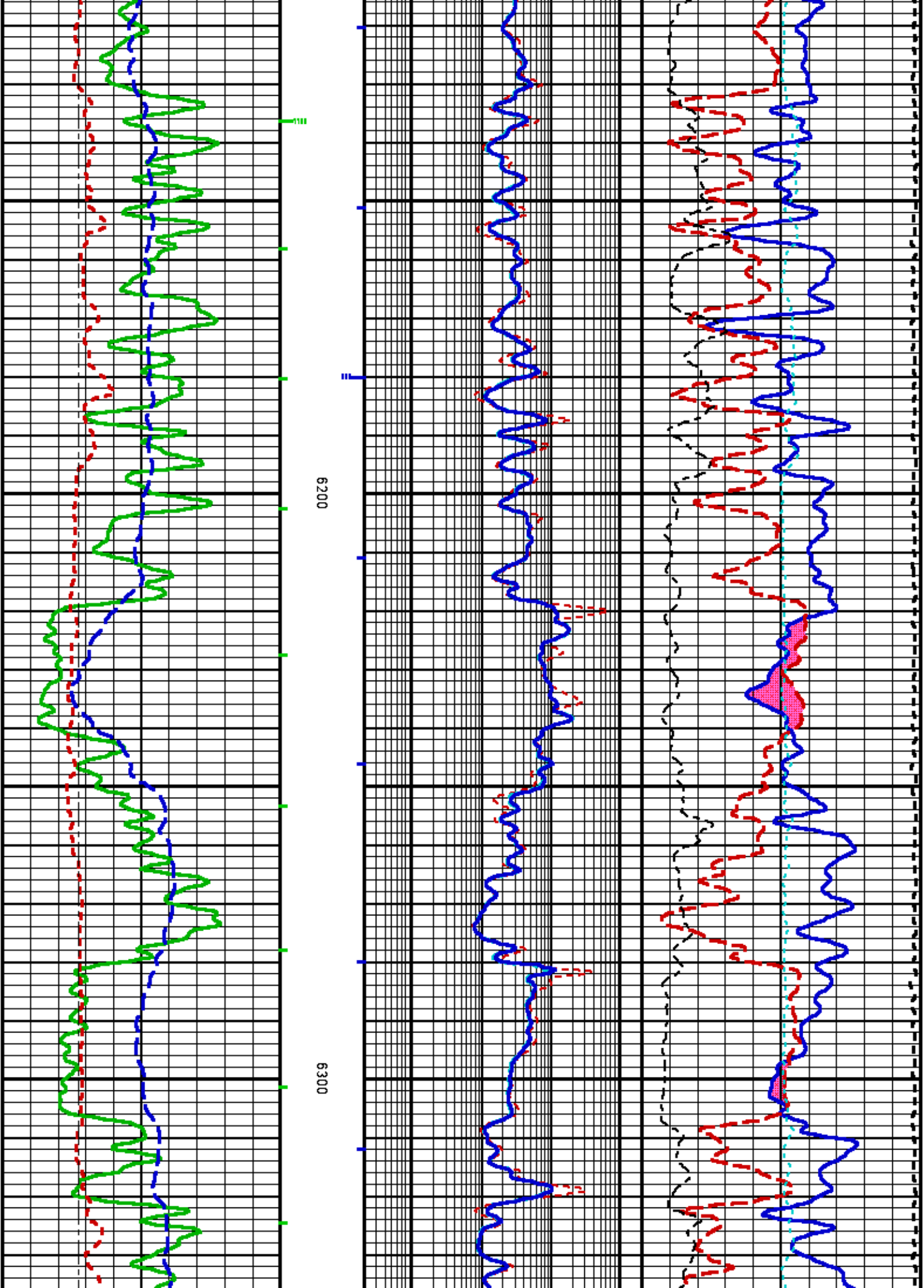


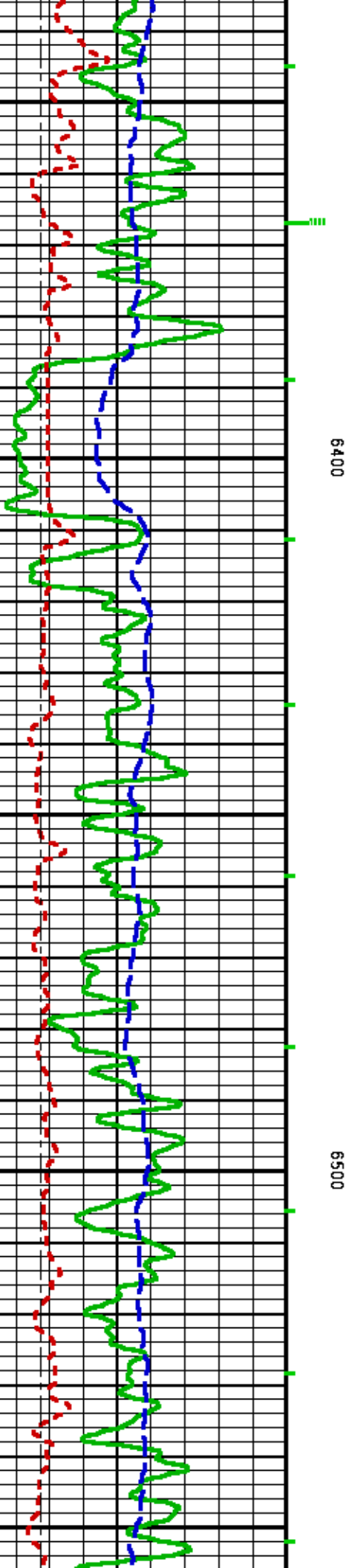
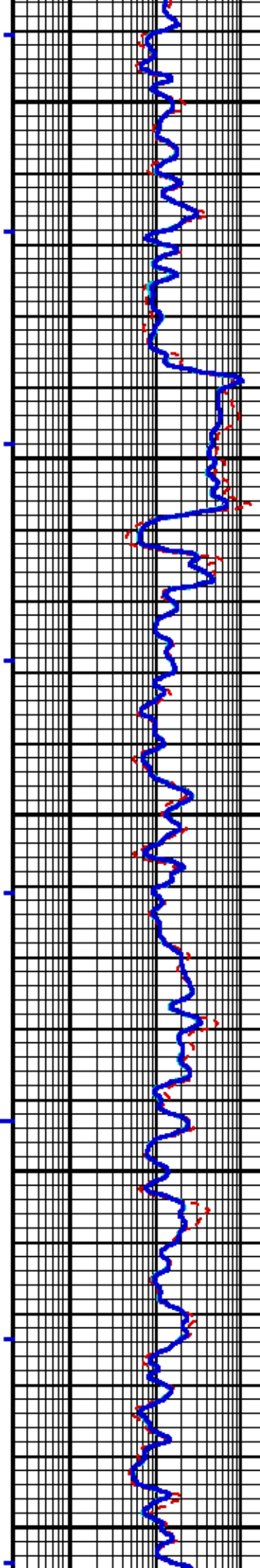
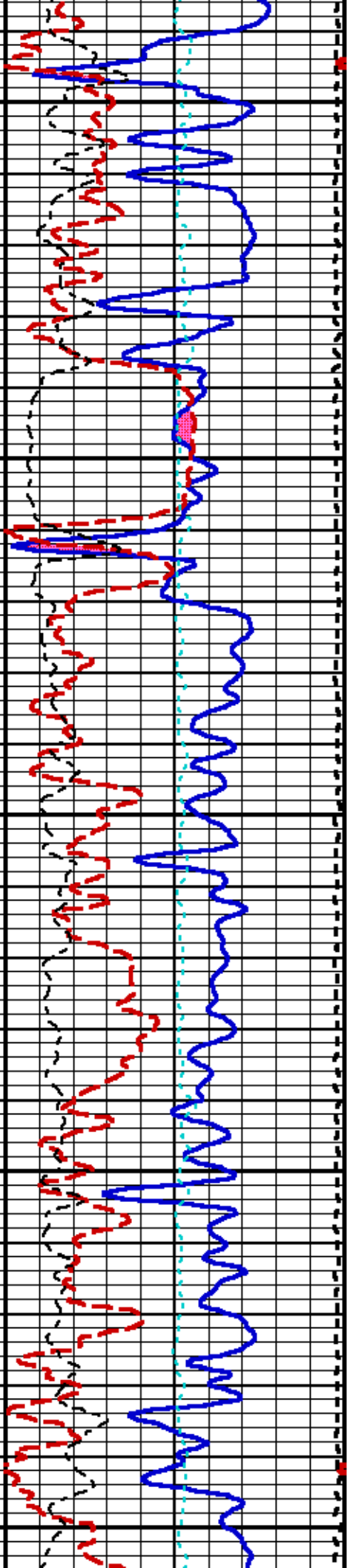


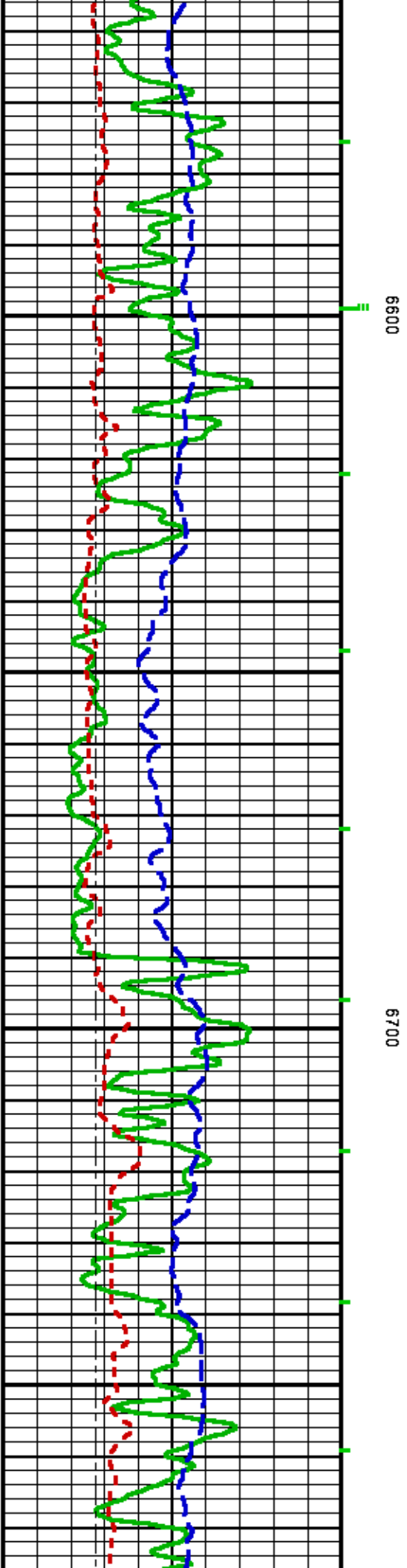
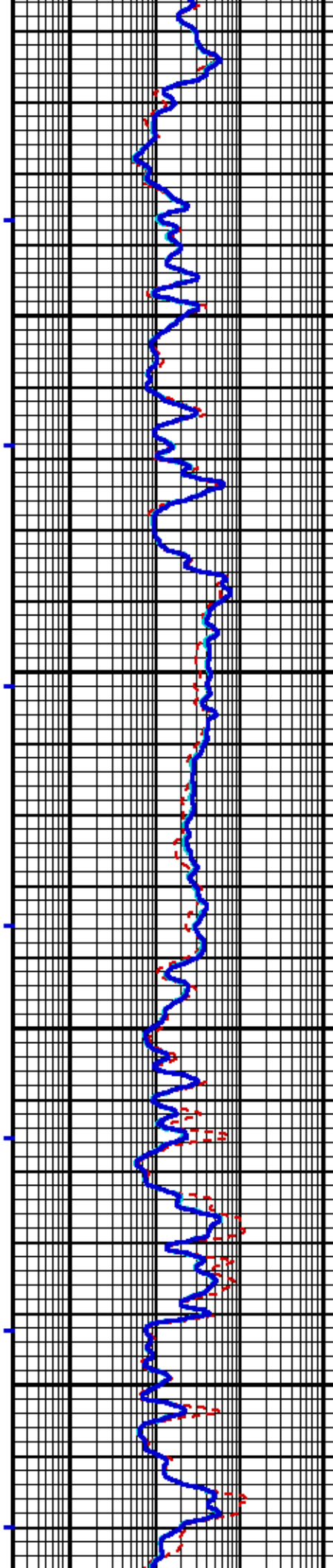
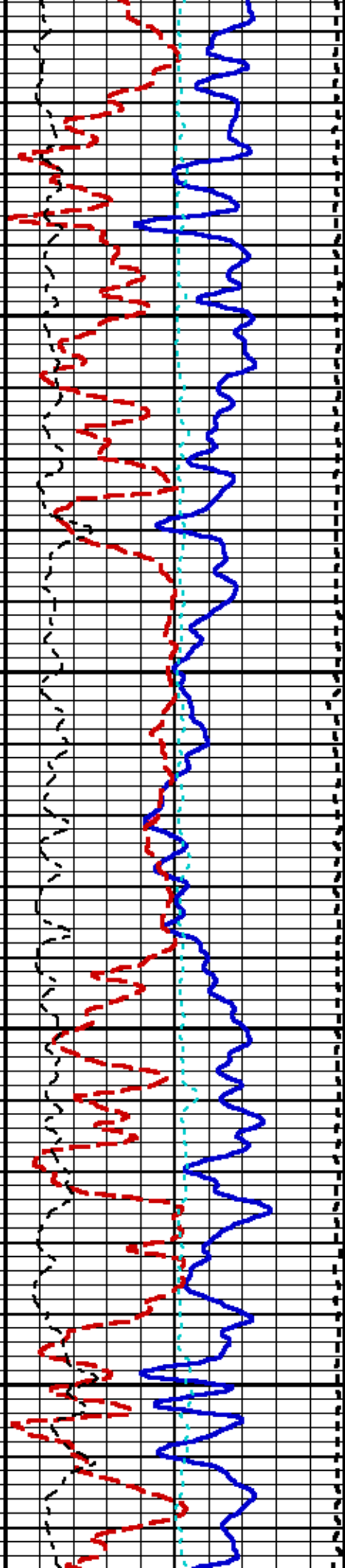


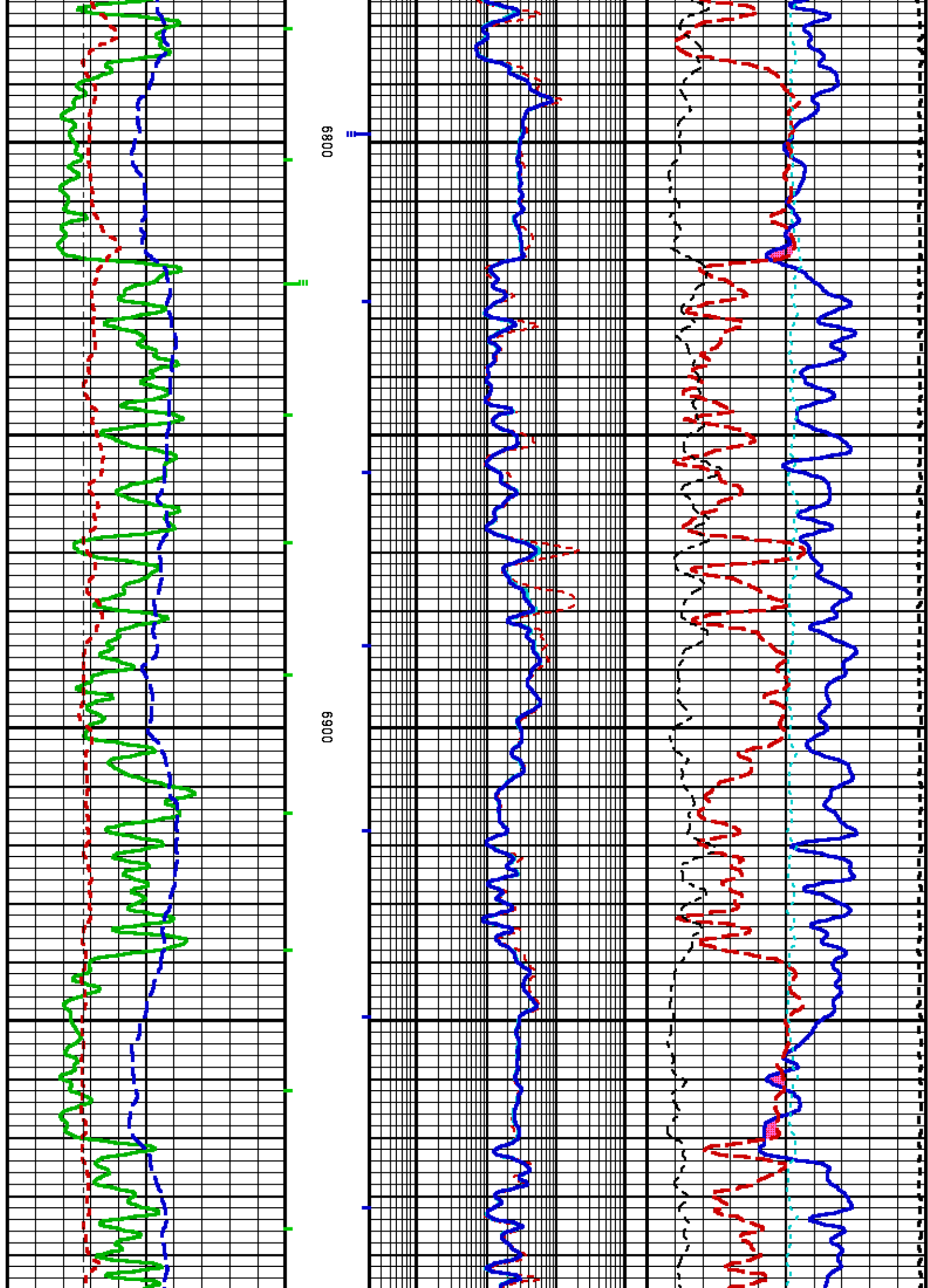


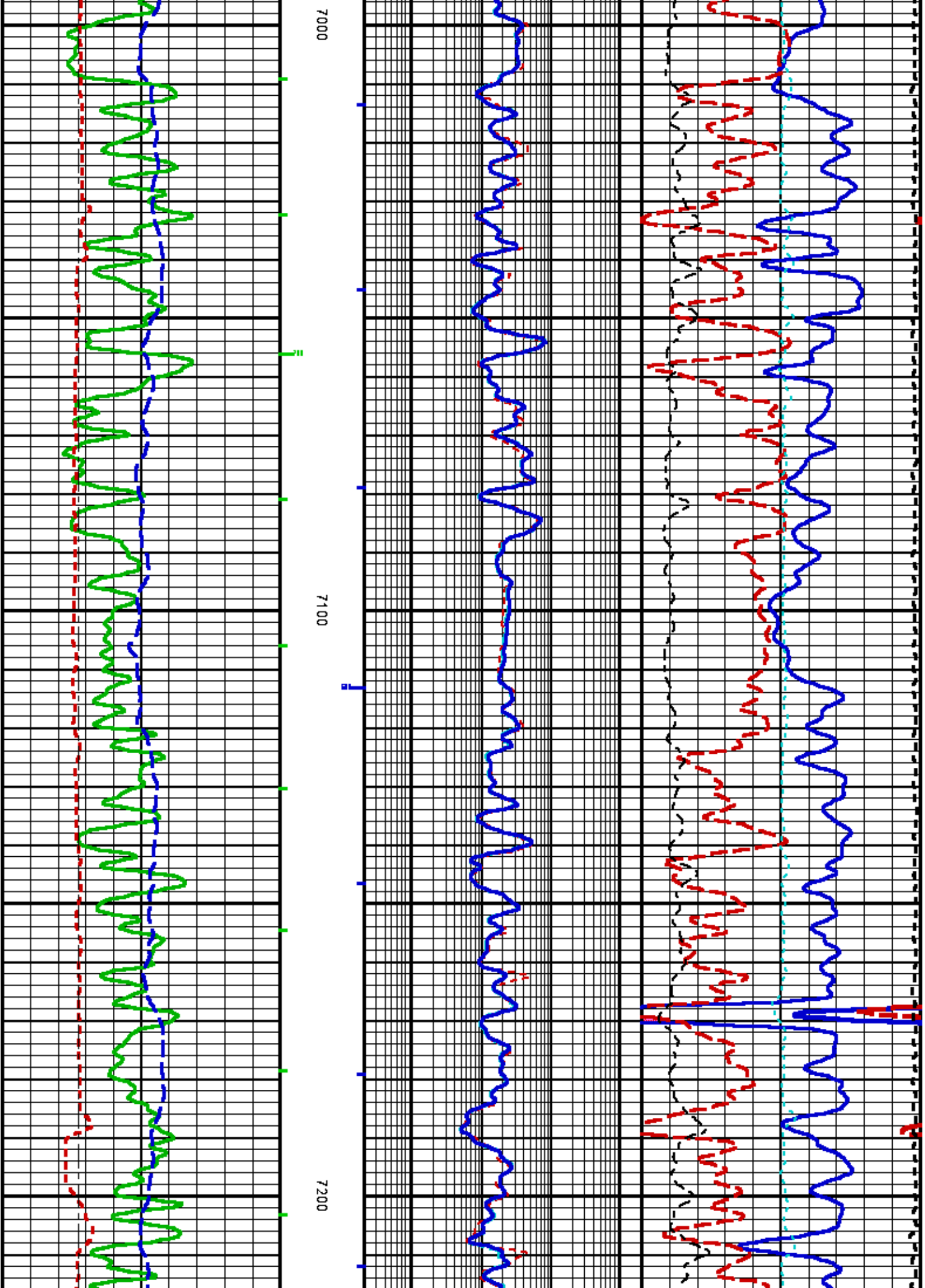


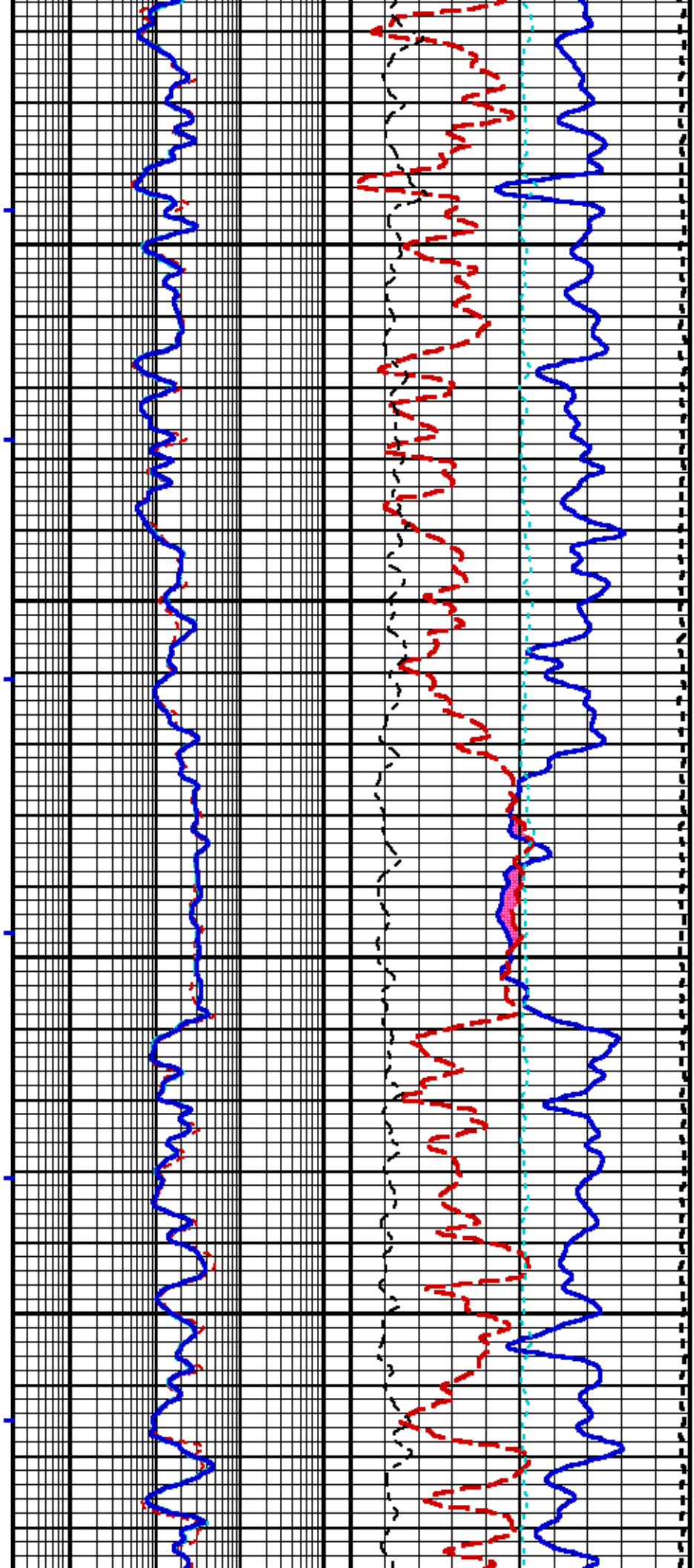






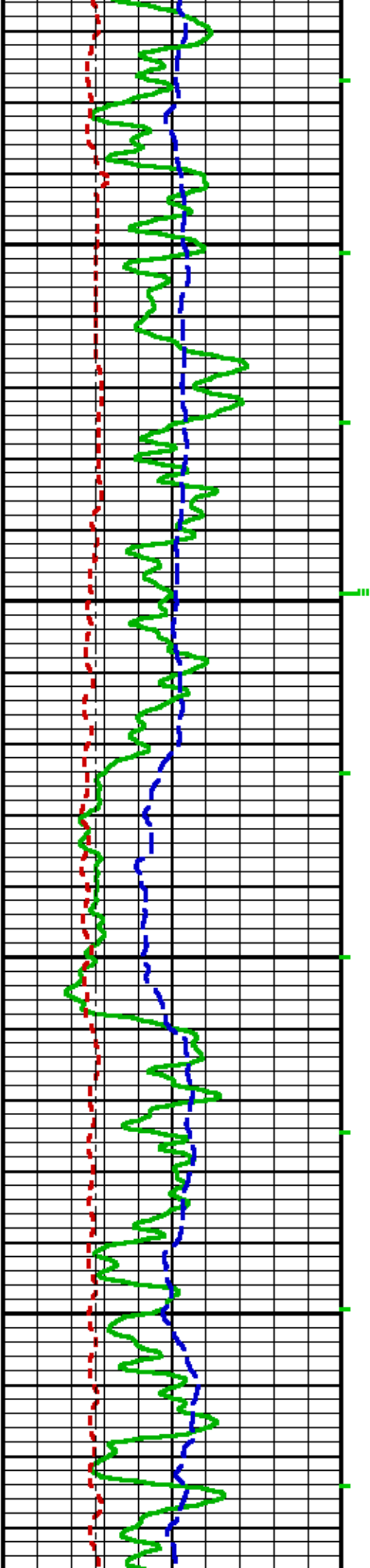


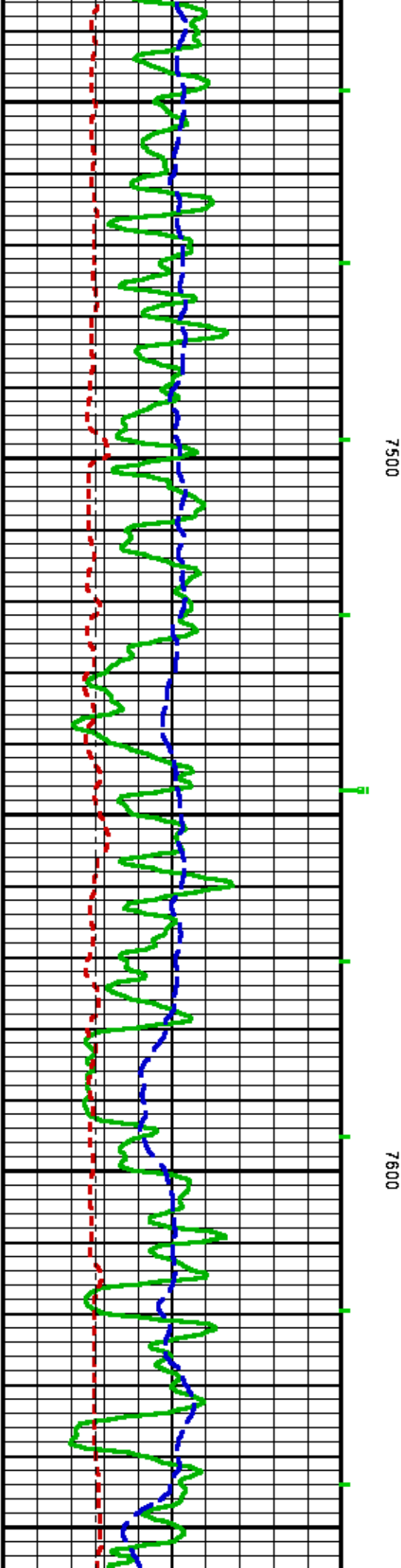
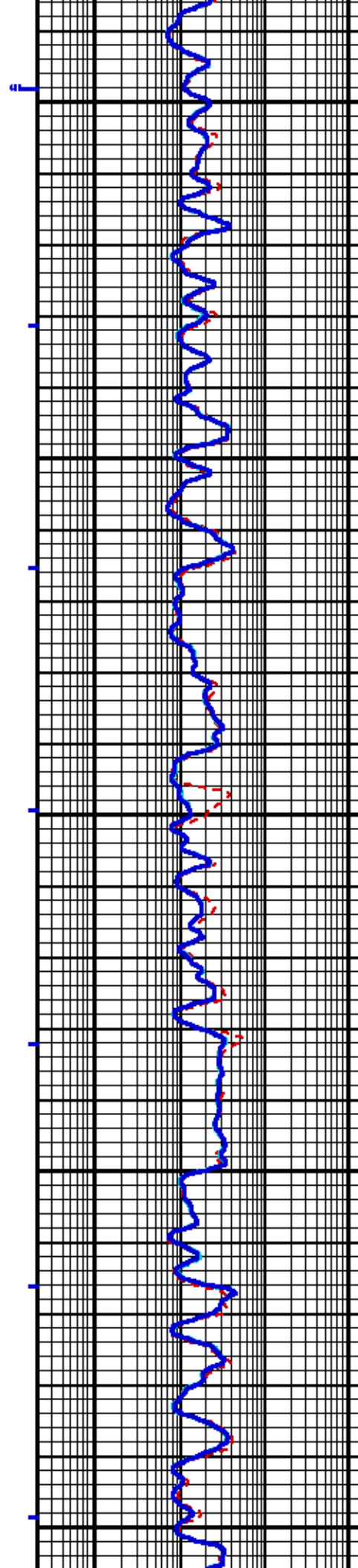
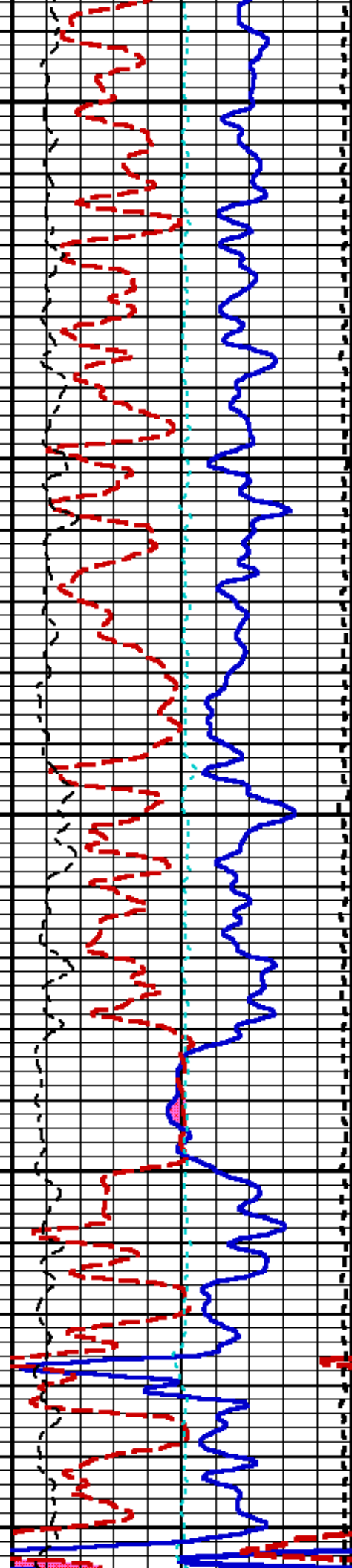


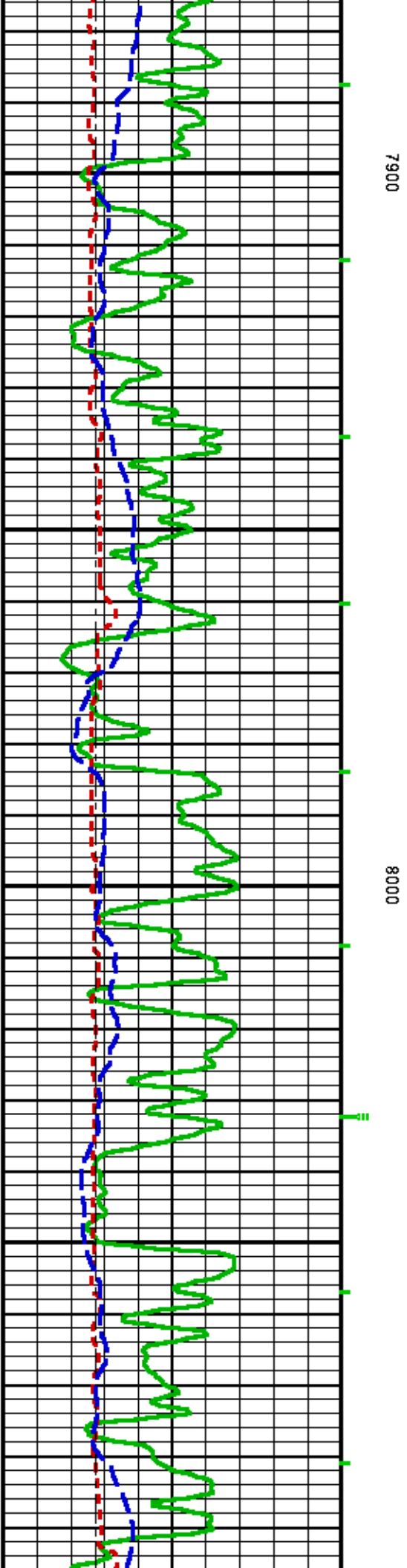
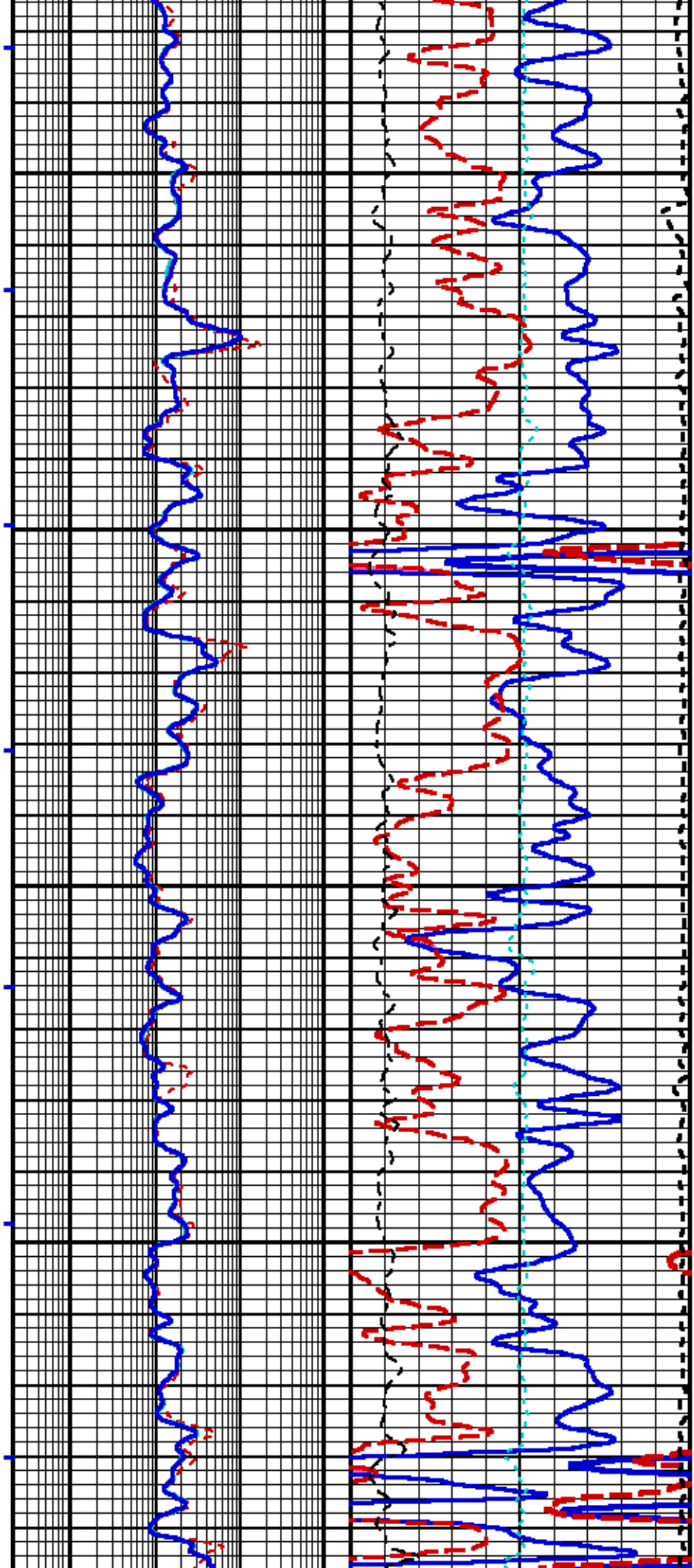


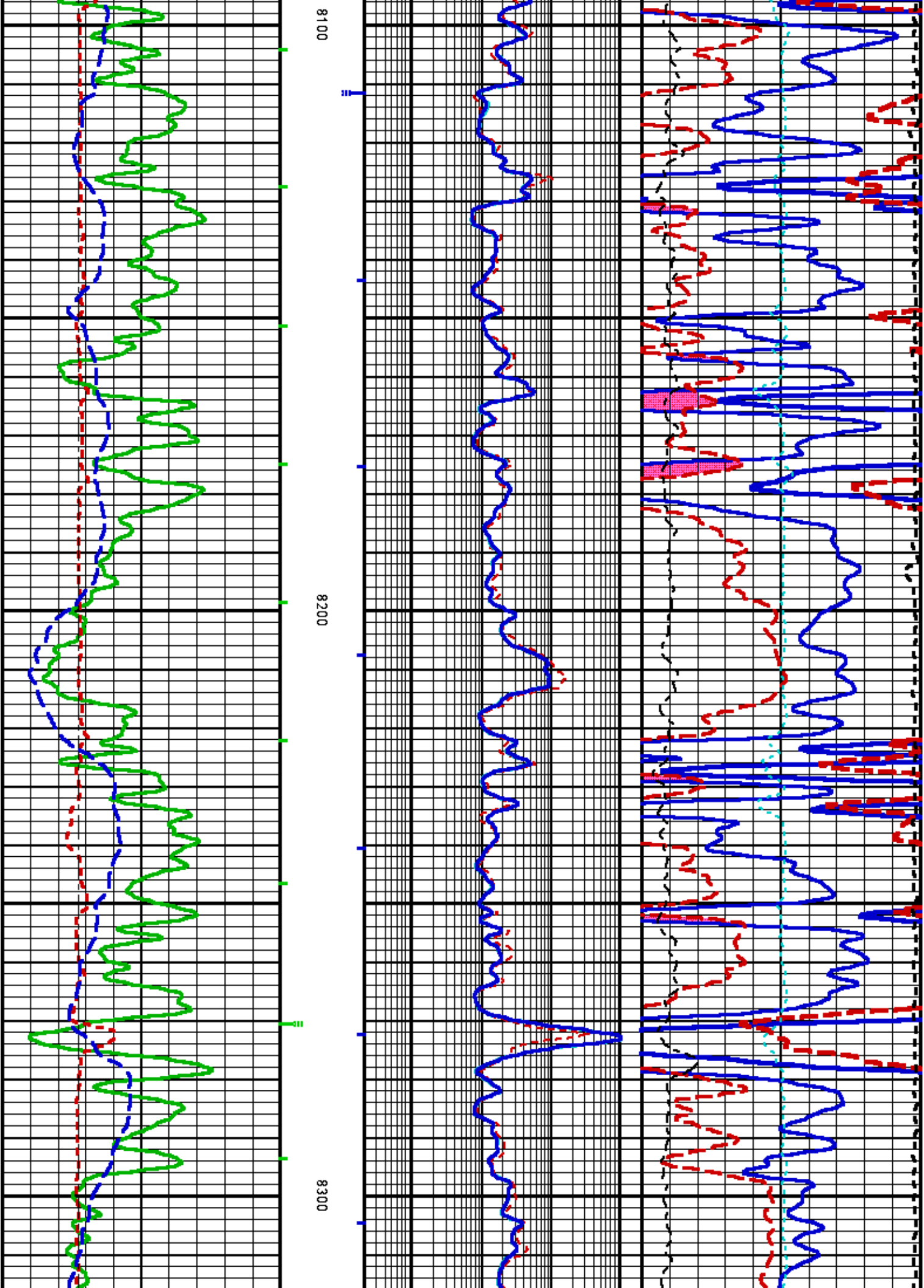
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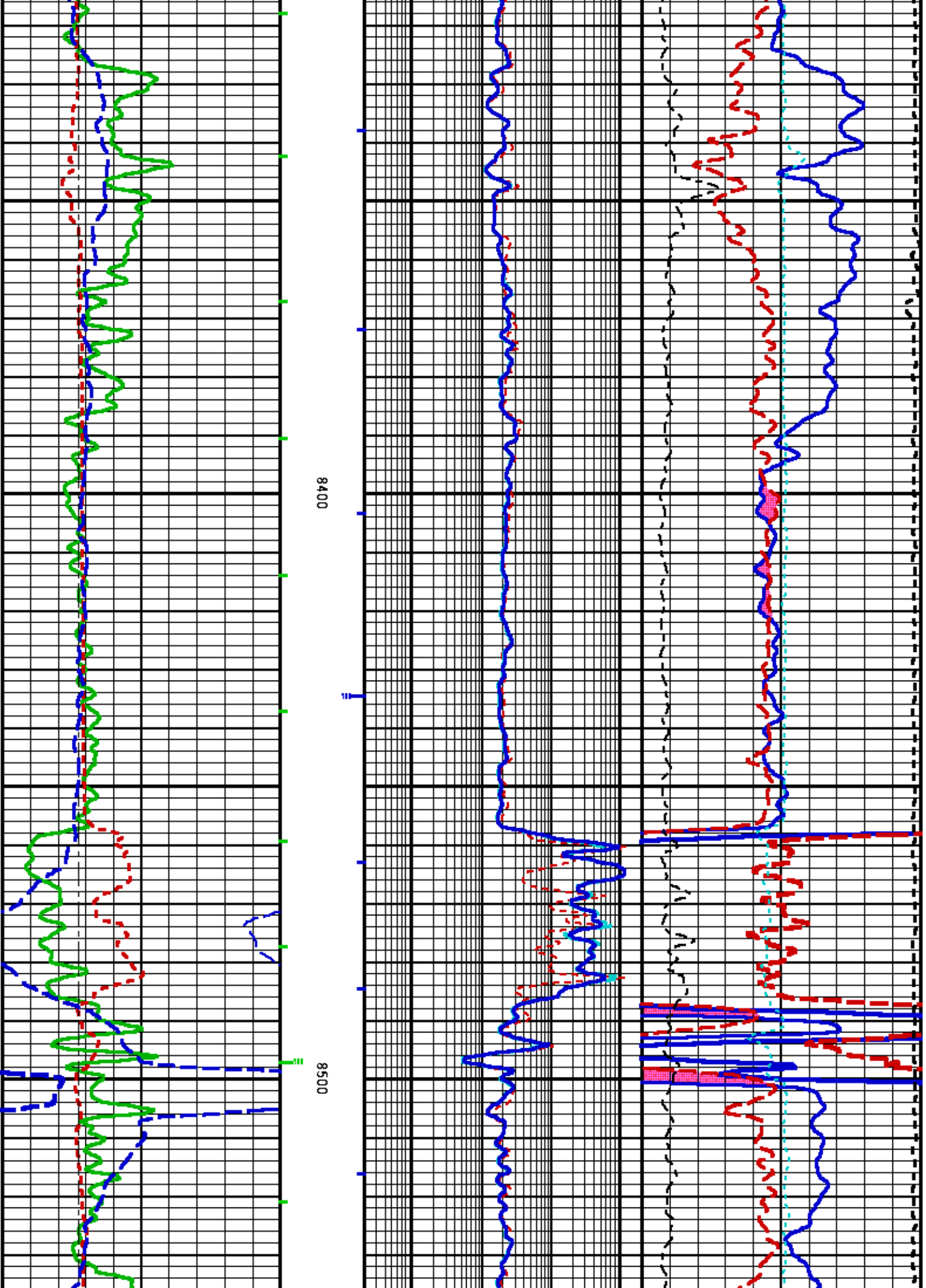
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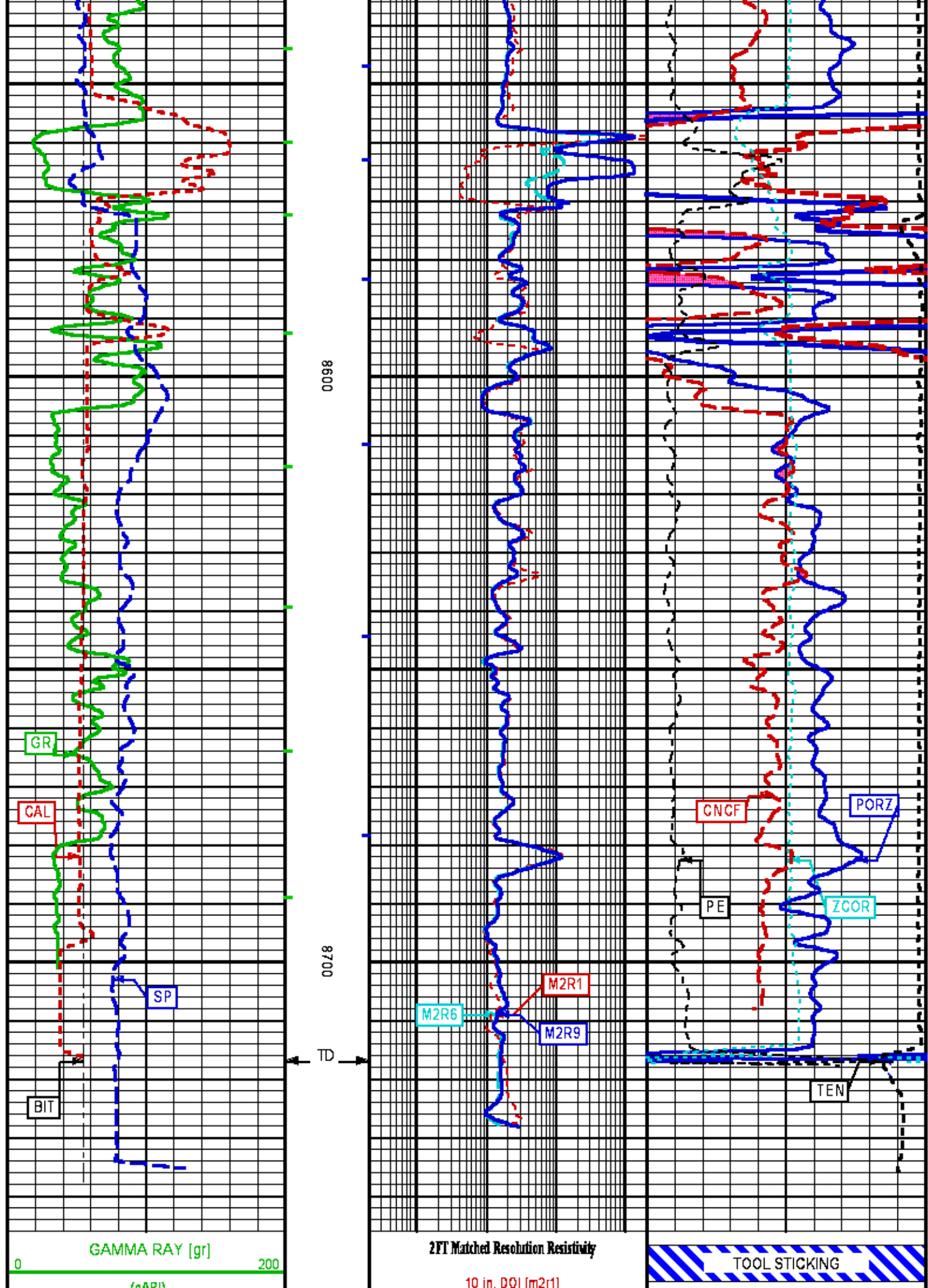


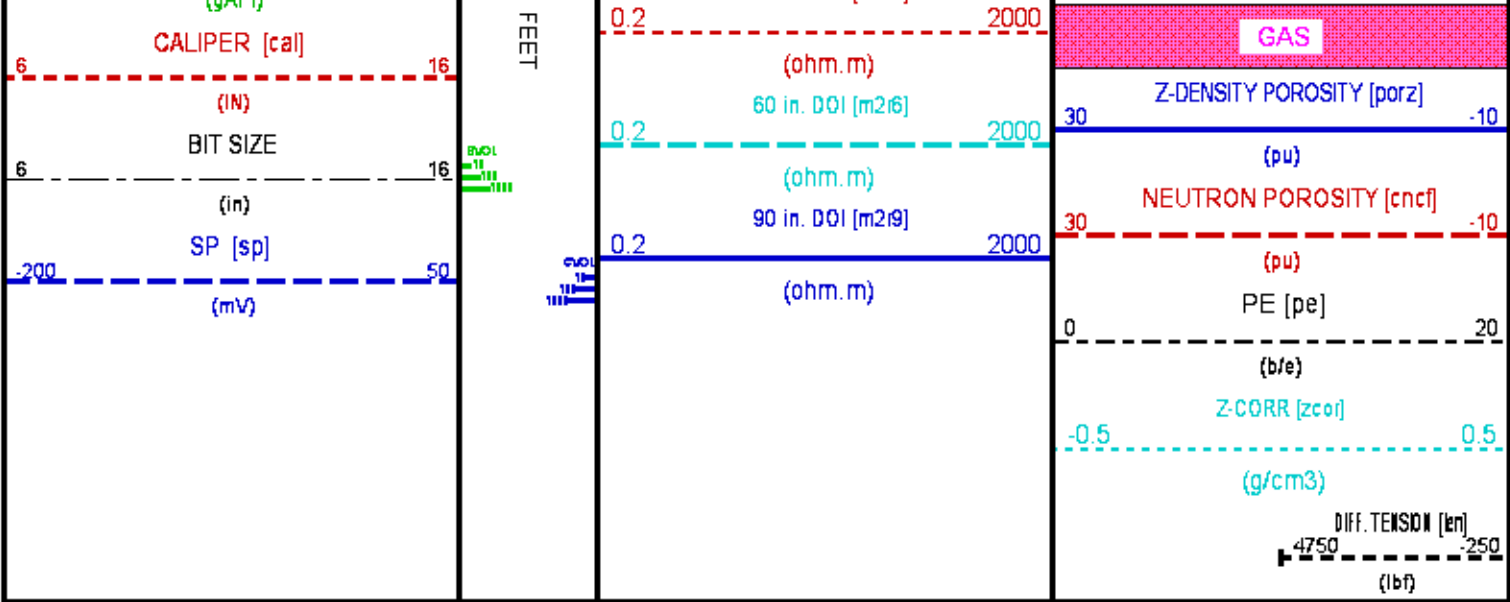












REPEAT LOG

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

Plotted: Wed Aug 21 17:47:16 2013

PARAMETER AND FILTER SUMMARY REPORT					
File: /dat1a/625571/REPAT_R01.prm					
LOGGING MODE: DEPTH DIRECTION: UP					
TOP DEPTH: 2691.419 ft BOTTOM DEPTH: 3133.881 ft					
SYMMETRIC FILTER					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER Q	medium (1)		TOP	BOTTOM
CAL IPFR	FILTER Q	medium (1)		"	"
TENSION	FILTER Q	medium (1)		"	"
CN MED RES	FILTER Q	medium (1)		"	"
ZDL MED RES	FILTER (hrd1*)	medium		"	"
	FILTER (hrd1s*)	medium		"	"
	FILTER (hrd2*)	medium		"	"
	FILTER (hrd2s*)	medium		"	"
	FILTER (soft*)	medium		"	"
SP-SPDH	FILTER Q	heavy (3)		"	"
BOREHOLE & CEMENT					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	"	"
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	"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	78.0	degF	"	"
	MUD SAMPLE RES	0.640	ohm.m	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
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	"	"

ACCELERATION PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
ACCEL CORR SWITCH	ACCEL DEPTH CORR	CORRECTION ON		TOP	BOTTOM

CN PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CN MATRIX	2436 MATRIX	SANDSTONE		TOP	BOTTOM
CN BOREHOLE CORRECTION	SALINITY	908	ppm	"	"
	BOREHOLE CORRECTION	ON		"	"
CN TOOL STANDOFF	ENABLE STANDOFF CORR	OFF		"	"
	STANDOFF AMOUNT	0.00	in	"	"
CN CASING & CEMENT CORRECTION	CORRECTION	OFF		"	"
	BIT SIZE BEHIND CSNG	8.750	in	"	"

ZDL PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	Air Filled Borehole	NO		TOP	BOTTOM
	RHOmatrix	2.680	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"

HDIL PROCESSING

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

CURVE DESCRIPTION REPORT

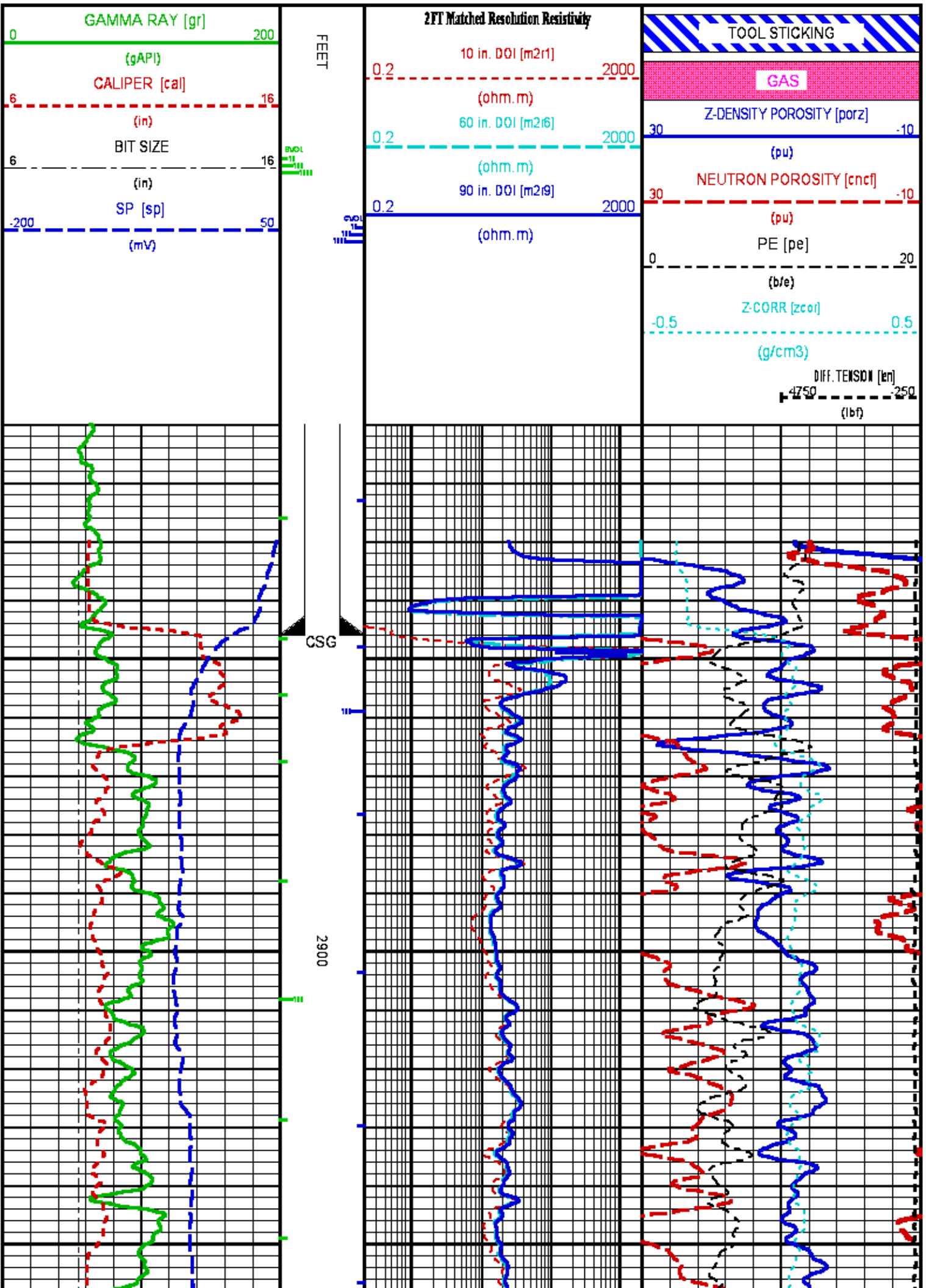
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Aug 20 16:13:18 2013	BIT SIZE
F1:BVOL	Aug 20 16:13:18 2013	BOREHOLE VOLUME
F1:CAL	Aug 20 16:13:18 2013	CALIPER
F1:CNCF	Aug 20 16:13:18 2013	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Aug 20 16:13:18 2013	CEMENT VOLUME
F1:GR	Aug 20 16:13:18 2013	GAMMA RAY
F1:M2R1	Aug 20 16:13:18 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Aug 20 16:13:18 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Aug 20 16:13:18 2013	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Aug 20 16:13:18 2013	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Aug 20 16:13:18 2013	POROSITY FOR SELECTABLE MATRIX
F1:SP	Aug 20 16:13:18 2013	SPONTANEOUS POTENTIAL
F1:TEN	Aug 20 16:13:18 2013	DIFFERENTIAL TENSION
F1:ZCOR	Aug 20 16:13:18 2013	DENSITY CORRECTION

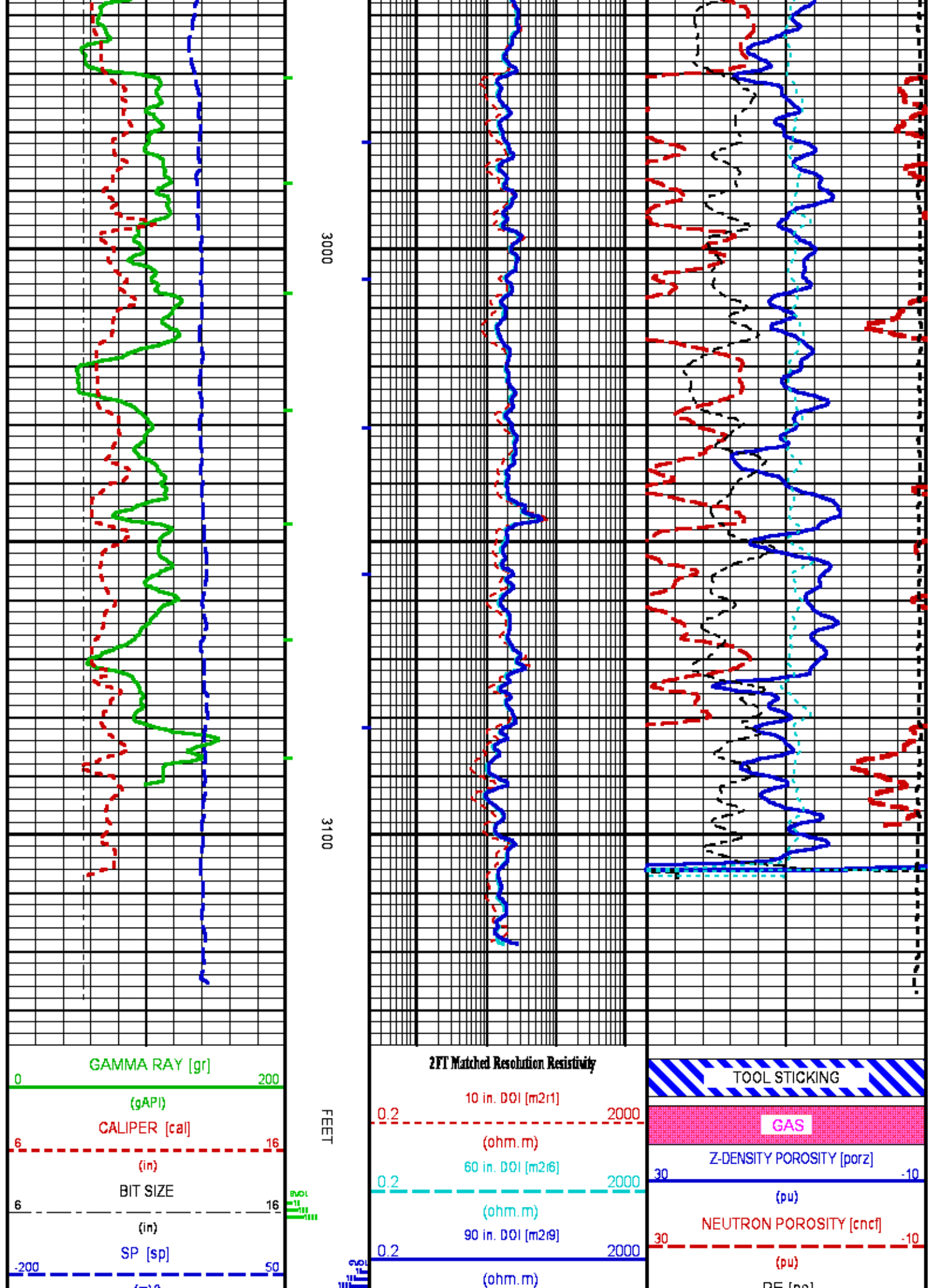
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	35.00	M2R9	2.75	SP	1.25
CAL	18.12	M2R1	2.75	PE	18.00	TEN	0.00
CNCF	27.38	M2R6	2.75	PORZ	18.00	ZCOR	18.00

Presentation : HL6670:/dat1a/625571_RDRAWPX_REPEAT_FINAL_RDR.fvpdf [5"/100' Scale]
Plot Interval : 2810 - 3134.25 Feet

Data File 1 : F1 : HL6670:/dat1a/625571/REPEAT_COR_F.pdf
Created On : Aug 20 16:13:18 2013
Company : WPX ENERGY
Well : FEDERAL PA 321-27
Field : PARACHUTE
File Interval : 2653 - 3134.25 Feet
OCT : n970a







CALIBRATION / VERIFICATION SUMMARY

Source File: /mnt1/625571/n970.mt1

TTMA PRIMARY CALIBRATION SUMMARY

TOOL #: 3980XA 10120299 DATE/TIME PERFORMED: Wed Jul 31 10:29:42 2013
 UNIT #: 3880TA HL6670 ACCEL #: 3980XA 10120299 ACCEL CAL DATE: 14:43 05/21/2004

GAIN OFFSET (ohm.m)
 Rm K Factors 0.14570 -0.01679

Sig Low (ohm) Sig High (ohm) Mult Factor Add Factor Engr Low (ohm) Engr High (ohm)
 Rm Measurements 0.25 9.97 1.003059 0.000362 0.25 10.00

TTMA BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3980XA 10120299 DATE/TIME PERFORMED: Tue Aug 20 09:11:29 2013 DAYS SINCE CAL: 19
 UNIT #: 3880TA HL6670

	CHT (lb/f)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	18830	498.55	9.97	998.10
ZERO	-23331	-436.02	0.249	998.207

TTMA AFTER LOG VERIFICATION SUMMARY

TOOL #: 3980XA 10120299 DATE/TIME PERFORMED: Tue Aug 20 12:05:10 2013 DAYS SINCE CAL: 20
 UNIT #: 3880TA HL6670

	CHT (lb/f)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	18835	500.44	9.95	999.56
ZERO	-23331	-436.02	0.250	999.194

GR PRIMARY CALIBRATION SUMMARY

Tool #: 3518EG 10139870 DATE/TIME PERFORMED: Tue Aug 20 07:26:44 2013
 Unit #: 3880TA HL6670 Jlg Series: 4702NK VD-905

Background	Calibrator ON	Jlg Value (gAPI)	Mult	Background (gAPI)	Calibrator ON (gAPI)
290.84	1048.78	185	0.244	70.99	255.99

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10139870 DATE/TIME PERFORMED: Tue Aug 20 09:11:51 2013 DAYS SINCE CAL: 0
 UNIT #: 3880TA HL6670 Jlg: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67	89.77	1363.96
629.00 1029.00	539.00 1239.00	1512.00

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10139870 DATE/TIME PERFORMED: Tue Aug 20 12:04:37 2013 DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670 Jlg: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67	144.09	1372.09
629.00 1029.00	539.00 1239.00	1512.00

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2436XA 10362459 DATE/TIME PERFORMED: Tue Aug 20 16:08:13 2013

UNIT #: 3880TA HL6670 CALIBRATOR #: 2437XB 112674 SOURCE #: 4718XA VBA-0897

SSN DT CPS	LSN DT CPS	SSN/LSN	MCF	CNRATIO	CN PU
4586.77	791.86	5.79239	0.99044	5.73700	25.241
			0.25000 1.05000		

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10362459 DATE/TIME PERFORMED: Tue Aug 20 16:08:42 2013 DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670 CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.07	994.44	0.99762	71.4	1346.9	4.648
		0.25000 1.05000	280.4	1250.0 1450.0	4.300 5.000

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10362459 DATE/TIME PERFORMED: Tue Aug 20 16:08:57 2013 DAYS SINCE CAL: 0

UNIT #: 3880TA HL6670 CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.08	994.10	0.99797	71.4	1346.9	4.648
		0.25000 1.05000	280.4	1250.0 1450.0	4.300 5.000

CALIBRATION / VERIFICATION SUMMARY

Source File: /mnt1a/625571/main.tp1

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2223XA 10391895 DATE/TIME PERFORMED: Fri Jul 26 10:30:25 2013

UNIT #: 3880TA HL6670

	SIZE (in)	VALUE	MULTIPLIER	ADD
SMALL RING (Arm)	7.000	1384.0		
LARGE RING (Arm)	11.000	2644.0	0.00317	2.60635
PAD CLOSED		1486.0	0.00250	-3.71500

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10391895 DATE/TIME PERFORMED: Tue Aug 20 09:17:27 2013 DAYS SINCE CAL: 24

UNIT #: 3880TA HL6670

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	2024.8	0.00317	2.60635	9.0
PAD	1565.2	0.00250	-3.71500	0.2
	ACTUAL (in)	MEASURED (in)		
DIAMETER (arm+pad)	9.001	9.0	0.0	0.1

CAL AFTER LOG VERIFICATION SUMMARY					
TOOL #:	2223XA 10391895	DATE/TIME PERFORMED:	Tue Aug 20 12:03:14 2013	DAYS SINCE CAL:	25
		UNIT #:	3880TA HL6670		
	VALUE	MULTIPLIER	ADD	SIZE (in)	
ARM	2165.2	0.00317	2.60635	9.5	
PAD	1604.0	0.00250	-3.71500	0.3	
	ACTUAL (in)	MEASURED (in)			
DIAMETER (arm+pad)	9.001	9.0			
		0.0	0.1		

ZDL PRIMARY CALIBRATION SUMMARY						
TOOL: 2223XA 10391895		DATE/TIME PERFORMED: Fri Jul 26 10:17:37 2013				
UNIT: 3880TA HL6670	CALB BLKS: 2225XA 094292F	CS SRC: 4705XA 16068B	PAD TYPE: PADTYP 7.5" PAD			
	SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)		
	224.0	223.2	1094.8	1570.3		
	200.0 200.0	200.0 200.0				
	SS (cps)	LS (cps)	SHR	DEN (g/cm3)	CORR (g/cm3)	PE (b/e)
MG (LO PE)	32007.8	11996.9	0.754	1.679	0.000	1.900
			0.720 0.560			
AL	19982.1	1336.9		2.667	-0.016	
AL + SHIM	26426.4	2302.0		2.558	0.098	
MG + SHIM (HI PE)	15779.1	5706.8	0.295			8.550
			0.260 0.360			
RATIO AL + SHIM/AL	1.32	1.72				
	1.30 1.40	1.60 1.80				
RATIO MG/AL	1.60	8.97				
	1.58 1.90	8.58 9.58				

ZDL BEFORE LOG VERIFICATION SUMMARY						
TOOL #:	2223XA 10391895	DATE/TIME PERFORMED:	Tue Aug 20 09:59:41 2013	DAYS SINCE CAL:	24	
		UNIT #:	3880TA HL6670			
	TOTAL (cps)	CSPK (Channel)	HV (V)			
LS	3342.1	225.1	1468.2			
	3332.1	3352.1	200.0	200.0	1200.0	1500.0
SS	22355.0	224.1	1426.5			
	22311.8	22381.8	200.0	200.0	1200.0	1500.0
	LV (V)	PAD CURRENT (mA)				
	5.0	91.2	1.8	5.2	90.0	120.0

ZDL AFTER LOG VERIFICATION SUMMARY						
TOOL #:	2223XA 10391895	DATE/TIME PERFORMED:	Tue Aug 20 12:05:06 2013	DAYS SINCE CAL:	25	
		UNIT #:	3880TA HL6670			
	TOTAL (cps)	CSPK (Channel)	HV (V)			
LS	3342.1	224.8	1472.2			
	3332.1	3352.1	200.0	200.0	1200.0	1500.0
SS	22355.0	224.1	1425.5			
	22311.8	22381.8	200.0	200.0	1200.0	1500.0

LV (V)		PAD CURRENT (mA)	
5.0		89.6	
4.8	5.2	90.0	180.0

HDIL PRIMARY CALIBRATION SUMMARY

TOOL #: 1530XA 10120519

DATE/TIME PERFORMED: Fri Jul 5 11:37:29 2013

UNIT #: 3880TA HL6670

GRCOND ID & DATE: 30 101801

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Cell 0 R	0.0063 -0.2000 0.2000	-0.0002 -0.1000 0.1000	-0.0008 -0.1000 0.1000	0.0002 -0.1000 0.1000	0.0000 -0.1000 0.1000	0.0001 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0002 -0.1000 0.1000
Cell 0 Q	0.0018 -0.5000 0.5000	-0.0014 -0.2000 0.2000	0.0003 -0.1000 0.1000	0.0005 -0.1000 0.1000	-0.0002 -0.1000 0.1000	0.0006 -0.1000 0.1000	0.0005 -0.1000 0.1000	-0.0003 -0.1000 0.1000
Cell 1 R	0.0172 -0.2000 0.2000	0.0020 -0.1000 0.1000	-0.0012 -0.1000 0.1000	0.0025 -0.1000 0.1000	0.0002 -0.1000 0.1000	-0.0004 -0.1000 0.1000	-0.0003 -0.1000 0.1000	-0.0005 -0.1000 0.1000
Cell 1 Q	0.0084 -0.5000 0.5000	-0.0040 -0.2000 0.2000	0.0006 -0.1000 0.1000	0.0011 -0.1000 0.1000	-0.0007 -0.1000 0.1000	0.0012 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0005 -0.1000 0.1000
Cell 2 R	0.0119 -0.2000 0.2000	0.0016 -0.1000 0.1000	-0.0016 -0.1000 0.1000	0.0007 -0.1000 0.1000	-0.0028 -0.1000 0.1000	-0.0009 -0.1000 0.1000	0.0010 -0.1000 0.1000	0.0005 -0.1000 0.1000
Cell 2 Q	0.0122 -0.5000 0.5000	-0.0003 -0.2000 0.2000	0.0023 -0.1000 0.1000	-0.0001 -0.1000 0.1000	-0.0003 -0.1000 0.1000	-0.0027 -0.1000 0.1000	-0.0002 -0.1000 0.1000	-0.0003 -0.1000 0.1000
Cell 3 R	0.0517 -0.3000 0.3000	-0.0044 -0.1000 0.1000	-0.0019 -0.1000 0.1000	0.0055 -0.1000 0.1000	-0.0017 -0.1000 0.1000	-0.0028 -0.1000 0.1000	0.0016 -0.1000 0.1000	0.0020 -0.1000 0.1000
Cell 3 Q	0.0356 -0.5000 0.5000	-0.0147 -0.2000 0.2000	-0.0002 -0.1000 0.1000	0.0009 -0.1000 0.1000	0.0033 -0.1000 0.1000	0.0008 -0.1000 0.1000	-0.0005 -0.1000 0.1000	0.0003 -0.1000 0.1000
Cell 4 R	0.1383 -0.5000 0.5000	-0.0025 -0.2000 0.2000	-0.0063 -0.2000 0.2000	0.0064 -0.2000 0.2000	-0.0060 -0.2000 0.2000	-0.0019 -0.2000 0.2000	0.0021 -0.2000 0.2000	-0.0001 -0.2000 0.2000
Cell 4 Q	0.0634 -1.0000 1.0000	-0.0354 -0.1000 0.1000	0.0149 -0.2000 0.2000	0.0007 -0.2000 0.2000	-0.0065 -0.2000 0.2000	0.0107 -0.2000 0.2000	0.0038 -0.2000 0.2000	-0.0070 -0.2000 0.2000
Cell 5 R	0.3048 -1.2000 1.2000	0.0114 -0.1000 0.1000	-0.0393 -0.1000 0.1000	0.0226 -0.1000 0.1000	-0.0156 -0.1000 0.1000	-0.0041 -0.1000 0.1000	0.0032 -0.1000 0.1000	-0.0005 -0.1000 0.1000
Cell 5 Q	0.1837 -1.5000 1.5000	-0.0772 -0.2000 0.2000	0.0049 -0.1000 0.1000	-0.0076 -0.1000 0.1000	-0.0079 -0.1000 0.1000	0.0068 -0.1000 0.1000	-0.0067 -0.1000 0.1000	-0.0017 -0.1000 0.1000

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Cell 0 M	163.01 138.00 188.00	161.55 134.00 184.00	158.64 131.00 181.00	154.30 128.00 178.00	148.62 122.00 170.00	141.64 118.00 181.00	133.46 112.00 150.00	124.09 105.00 139.00
Cell 0 P	7.735 8.000 8.000	25.443 21.000 30.000	42.708 35.000 50.000	59.923 48.000 71.000	77.144 63.000 91.000	94.373 77.000 108.000	111.621 92.000 130.000	128.851 105.000 151.000
Cell 1 M	282.41 258.00 308.00	279.84 255.00 305.00	274.69 250.00 300.00	266.99 245.00 312.00	256.84 218.00 302.00	244.34 208.00 288.00	229.70 198.00 268.00	212.90 184.00 241.00
Cell 1 P	7.793 8.000 8.000	25.646 21.000 30.000	43.061 35.000 51.000	60.434 48.000 71.000	77.806 63.000 92.000	95.182 78.000 112.000	112.541 93.000 130.000	129.846 109.000 151.000
Cell 2 M	560.30 478.00 658.00	555.10 474.00 654.00	544.74 463.00 643.00	529.36 450.00 628.00	509.30 432.00 602.00	484.72 412.00 572.00	456.09 380.00 540.00	423.35 358.00 488.00
Cell 2 P	7.706 8.000 8.000	25.401 21.000 31.000	42.640 35.000 51.000	59.819 48.000 71.000	76.985 63.000 92.000	94.153 78.000 115.000	111.322 92.000 128.000	128.449 105.000 128.000
Cell 3 M	918.18 772.00 1080.00	909.15 764.00 1050.00	891.03 752.00 1030.00	864.23 728.00 1010.00	829.32 700.00 970.00	786.95 668.00 928.00	737.70 628.00 888.00	682.41 588.00 798.00
Cell 3 P	8.004 8.000 10.000	26.204 21.000 30.000	43.959 35.000 51.000	61.648 48.000 72.000	79.292 63.000 95.000	96.908 78.000 114.000	114.475 90.000 138.000	131.947 104.000 158.000
Cell 4 M	1421.1 1210.0 1700.0	1409.0 1205.0 1690.0	1384.5 1180.0 1690.0	1347.5 1140.0 1590.0	1298.9 1120.0 1590.0	1238.6 1070.0 1490.0	1167.0 1000.0 1390.0	1085.1 942.0 1240.0
Cell 4 P	7.777 8.000 10.000	25.610 21.000 31.000	43.008 35.000 52.000	60.385 48.000 73.000	77.776 63.000 92.000	95.199 77.000 114.000	112.639 91.000 135.000	130.098 105.000 158.000
Cell 5 M	2952.6 2480.0 3480.0	2928.6 2480.0 3400.0	2877.3 2410.0 3380.0	2800.6 2280.0 3380.0	2699.2 2280.0 3080.0	2573.1 2150.0 2980.0	2424.6 2080.0 2790.0	2253.2 1870.0 2590.0
Cell 5 P	7.853 8.000 10.000	25.815 20.000 31.000	43.370 35.000 52.000	60.874 48.000 73.000	78.404 63.000 94.000	95.967 78.000 113.000	113.517 93.000 134.000	131.059 108.000 158.000

AM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Cell 0 R	-928 -3500 840	-610 -1400 -80	-492 -630 -150	-424 -780 -180	-377 -680 -130	-343 -600 -120	-316 -580 -110	-295 -580 -62
Cell 0 Q	429 -15000 11000	-143 -6000 3800	-216 -3700 2100	-245 -2700 1400	-261 -2800 1000	-274 -1800 780	-285 -1800 680	-295 -1500 480
Cell 1 R	-114 -750 480	-137 -300 85	-133 -280 8	-126 -280 -10	-119 -200 -28	-111 -180 -38	-105 -180 -48	-99 -150 -48
Cell 1 Q	356 -3500 3500	87 -1100 680	33 -630 530	5 -470 380	-12 -380 280	-23 -580 180	-31 -680 150	-36 -680 120
Cell 2 R	-2.3 -68.0 78.0	-30.6 -84.0 -0.4	-32.8 -87.0 -12.0	-31.5 -81.0 -18.0	-29.1 -88.0 -19.0	-26.7 -82.0 -18.0	-24.8 -88.0 -15.0	-22.8 -87.0 -13.0
Cell 2 Q	143.3 -1500.0 1800.0	48.7 -200.0 810.0	26.9 -280.0 390.0	17.2 -280.0 280.0	12.7 -180.0 180.0	9.7 -140.0 180.0	9.3 -110.0 130.0	9.2 -88.0 120.0
Cell 3 R	-2.2 -83.0 21.0	-9.1 -82.0 1.8	-9.8 -81.0 -1.3	-9.7 -80.0 -1.8	-8.9 -88.0 -8.0	-8.4 -88.0 -1.3	-7.8 -88.0 -0.8	-7.2 -88.0 -0.8
Cell 3 Q	84.0 -840.0 880.0	31.3 -180.0 180.0	21.6 -100.0 110.0	18.9 -71.0 81.0	18.2 -81.0 88.0	18.9 -87.0 88.0	20.3 -88.0 88.0	21.9 -81.0 81.0
Cell 4 R	-0.93 -18.00 13.00	-2.31 -12.00 2.70	-2.11 -11.00 1.80	-2.36 -8.80 0.92	-2.60 -8.80 0.88	-1.54 -10.00 1.90	-1.65 -11.00 2.30	-1.67 -11.00 2.80
Cell 4 Q	27.85 -280.0 280.0	11.03 -78.00 88.00	8.54 -43.00 84.00	7.96 -37.00 51.00	11.51 -18.00 48.00	9.69 -11.00 42.00	11.03 -9.50 42.00	11.69 -1.00 42.00
Cell 5 R	0.41 -98.00 51.00	-0.81 -8.40 3.80	-1.25 -8.80 1.10	-0.89 -8.80 1.20	-4.53 -8.30 2.80	-1.16 -14.00 8.30	-0.44 -18.00 8.80	-0.73 -24.00 13.00

Coll 5 Q	3.44 -66.00 86.00	2.06 -26.00 29.00	2.86 -14.00 22.00	3.88 -9.00 32.00	3.06 -2.50 24.00	6.47 1.10 26.00	7.26 4.10 26.00	8.48 9.10 32.00
MM Factor	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coll 0 M	0.965 0.260 1.100	0.973 0.260 1.100	0.977 0.290 1.100	0.979 0.260 1.100	0.981 0.260 1.100	0.981 0.260 1.100	0.981 0.260 1.100	0.981 0.260 1.100
Coll 0 P	-0.305 -1.500 1.500	-0.468 -1.500 1.500	-0.374 -1.500 1.500	-0.258 -1.500 1.500	-0.175 -1.500 1.500	-0.121 -1.500 1.500	-0.057 -1.500 1.500	-0.021 -1.500 1.500
Coll 1 M	0.959 0.260 1.100	0.967 0.260 1.100	0.971 0.290 1.100	0.973 0.260 1.100	0.974 0.260 1.100	0.974 0.260 1.100	0.975 0.260 1.100	0.973 0.260 1.100
Coll 1 P	-0.259 -1.500 1.500	-0.449 -1.500 1.500	-0.344 -1.500 1.500	-0.231 -1.500 1.500	-0.141 -1.500 1.500	-0.087 -1.500 1.500	-0.051 -1.500 1.500	-0.012 -1.500 1.500
Coll 2 M	0.984 0.260 1.100	0.984 0.260 1.100	0.984 0.260 1.100	0.984 0.260 1.100	0.983 0.260 1.100	0.983 0.260 1.100	0.983 0.260 1.100	0.982 0.260 1.100
Coll 2 P	0.059 -1.500 1.500	0.045 -1.500 1.500	0.075 -1.500 1.500	0.099 -1.500 1.500	0.116 -1.500 1.500	0.138 -1.500 1.500	0.157 -1.500 1.500	0.133 -1.500 1.500
Coll 3 M	0.989 0.260 1.100	0.990 0.260 1.100	0.990 0.260 1.100	0.989 0.260 1.100	0.989 0.260 1.100	0.989 0.260 1.100	0.988 0.260 1.100	0.987 0.260 1.100
Coll 3 P	0.057 -1.500 1.500	0.075 -1.500 1.500	0.105 -1.500 1.500	0.157 -1.500 1.500	0.185 -1.500 1.500	0.228 -1.500 1.500	0.252 -1.500 1.500	0.249 -1.500 1.500
Coll 4 M	0.995 0.260 1.100	0.995 0.260 1.100	0.996 0.260 1.100	0.996 0.260 1.100	0.997 0.260 1.100	0.997 0.260 1.100	0.997 0.260 1.100	0.998 0.260 1.100
Coll 4 P	0.685 -1.500 1.500	0.273 -1.500 1.500	0.238 -1.500 1.500	0.259 -1.500 1.500	0.251 -1.500 1.500	0.340 -1.500 1.500	0.367 -1.500 1.500	0.467 -1.500 1.500
Coll 5 M	1.040 0.260 1.100	1.038 0.260 1.100	1.039 0.260 1.100	1.040 0.260 1.100	1.046 0.260 1.100	1.045 0.260 1.100	1.048 0.260 1.100	1.050 0.260 1.100
Coll 5 P	0.097 -1.500 1.500	0.099 -1.500 1.500	0.220 -1.500 1.500	0.288 -1.500 1.500	0.469 -1.500 1.500	0.559 -1.500 1.500	0.620 -1.500 1.500	0.736 -1.500 1.500
PARMS								
ID#		TCID 0		TCID 1		Cal Temp (degF)		T Factor
		2.733		0.716		85.1		1.00

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1530XA 10120519 DATE/TIME PERFORMED: Tue Aug 20 10:01:09 2013 DAYS SINCE CAL: 45

UNIT #: 3880TA HL6670

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coll 0 R	0.003 -0.200 0.200	0.000 -0.100 0.100	-0.001 -0.100 0.100	0.002 -0.100 0.100	0.000 -0.100 0.100	-0.000 -0.100 0.100	0.001 -0.100 0.100	-0.000 -0.100 0.100
Coll 0 Q	0.001 -0.500 0.500	-0.000 -0.200 0.200	0.000 -0.100 0.100	0.000 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100	0.000 -0.100 0.100	-0.000 -0.100 0.100
Coll 1 R	0.022 -0.200 0.200	0.000 -0.100 0.100	-0.003 -0.100 0.100	0.002 -0.100 0.100	-0.000 -0.100 0.100	0.000 -0.100 0.100	0.001 -0.100 0.100	-0.000 -0.100 0.100
Coll 1 Q	0.012 -0.500 0.500	-0.003 -0.200 0.200	0.001 -0.100 0.100	-0.001 -0.100 0.100	-0.001 -0.100 0.100	-0.001 -0.100 0.100	-0.001 -0.100 0.100	0.000 -0.100 0.100
Coll 2 R	0.015 -0.200 0.200	0.001 -0.100 0.100	-0.002 -0.100 0.100	-0.002 -0.100 0.100	-0.002 -0.100 0.100	0.000 -0.100 0.100	0.001 -0.100 0.100	0.002 -0.100 0.100
Coll 2 Q	0.011 -0.500 0.500	-0.000 -0.200 0.200	0.003 -0.100 0.100	0.002 -0.100 0.100	0.001 -0.100 0.100	0.001 -0.100 0.100	0.001 -0.100 0.100	-0.000 -0.100 0.100
Coll 3 R	0.056 -0.500 0.500	-0.001 -0.100 0.100	-0.001 -0.100 0.100	0.003 -0.100 0.100	-0.000 -0.100 0.100	-0.000 -0.100 0.100	0.001 -0.100 0.100	-0.004 -0.100 0.100
Coll 3 Q	0.029 -0.500 0.500	-0.012 -0.200 0.200	0.004 -0.100 0.100	0.001 -0.100 0.100	-0.003 -0.100 0.100	0.003 -0.100 0.100	-0.001 -0.100 0.100	-0.001 -0.100 0.100
Coll 4 R	0.138 -0.500 0.500	0.004 -0.200 0.200	-0.012 -0.200 0.200	0.007 -0.200 0.200	-0.002 -0.200 0.200	-0.004 -0.200 0.200	-0.000 -0.200 0.200	-0.001 -0.200 0.200
Coll 4 Q	0.060 -1.000 1.000	-0.038 -0.400 0.400	0.002 -0.200 0.200	0.003 -0.200 0.200	-0.004 -0.200 0.200	0.009 -0.200 0.200	0.001 -0.200 0.200	0.002 -0.200 0.200
Coll 5 R	0.336 -1.200 1.200	0.025 -0.400 0.400	-0.026 -0.400 0.400	0.022 -0.400 0.400	-0.013 -0.400 0.400	0.000 -0.400 0.400	0.008 -0.400 0.400	-0.009 -0.400 0.400
Coll 5 Q	0.136 -1.500 1.500	-0.071 -0.600 0.600	0.026 -0.400 0.400	0.000 -0.400 0.400	-0.016 -0.400 0.400	0.002 -0.400 0.400	-0.005 -0.400 0.400	0.003 -0.400 0.400

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coll 0 M	162.28 136.00 188.00	160.85 134.00 184.00	157.96 131.00 181.00	153.66 128.00 178.00	148.00 122.00 170.00	141.08 118.00 161.00	132.82 112.00 150.00	123.54 105.00 139.00
Coll 0 P	6.787 -1.000 12.000	25.215 19.000 30.000	42.685 35.000 50.000	60.035 49.000 71.000	77.354 63.000 91.000	94.701 79.000 110.000	112.044 92.000 130.000	129.353 105.000 151.000
Coll 1 M	282.65 229.00 329.00	280.15 225.00 325.00	275.03 220.00 320.00	267.42 225.00 312.00	257.31 215.00 302.00	244.77 205.00 289.00	230.06 195.00 285.00	213.29 184.00 241.00
Coll 1 P	6.860 -1.000 12.000	25.403 19.000 30.000	43.001 35.000 51.000	60.493 49.000 71.000	77.963 63.000 92.000	95.432 79.000 112.000	112.892 92.000 132.000	130.284 105.000 155.000
Coll 2 M	559.31 459.00 659.00	554.24 454.00 654.00	543.97 443.00 643.00	528.74 430.00 628.00	508.75 402.00 608.00	484.26 382.00 592.00	455.46 360.00 540.00	422.56 335.00 489.00
Coll 2 P	6.706 -1.000 12.000	25.131 19.000 31.000	42.561 35.000 51.000	59.866 49.000 71.000	77.123 63.000 92.000	94.373 79.000 114.000	111.663 92.000 135.000	128.886 105.000 150.000
Coll 3 M	917.27 752.00 1080.00	908.39 744.00 1060.00	890.45 725.00 1050.00	863.86 700.00 1010.00	829.19 665.00 970.00	786.91 625.00 925.00	737.57 585.00 885.00	682.18 545.00 840.00
Coll 3 P	7.077 -2.000 13.000	25.954 19.000 31.000	43.882 35.000 52.000	61.677 49.000 72.000	79.405 63.000 95.000	97.104 79.000 114.000	114.766 92.000 135.000	132.336 105.000 159.000
Coll 4 M	1425.6 1210.0 1700.0	1413.8 1205.0 1690.0	1389.3 1180.0 1690.0	1352.6 1140.0 1590.0	1303.8 1120.0 1590.0	1243.2 1090.0 1490.0	1171.0 1000.0 1290.0	1088.9 942.0 1240.0
Coll 4 P	6.849 -2.000 13.000	25.374 19.000 31.000	42.959 35.000 52.000	60.447 49.000 73.000	77.932 63.000 95.000	95.448 78.000 114.000	113.003 92.000 135.000	130.505 105.000 156.000
Coll 5 M	2944.5 2450.0 3450.0	2921.1 2420.0 3400.0	2870.6 2410.0 3390.0	2794.7 2350.0 3500.0	2694.5 2280.0 3500.0	2567.3 2150.0 3550.0	2418.6 2000.0 3490.0	2247.7 1890.0 3290.0

Coll 5 P	6.953	25.575	43.295	60.913	78.539	96.163	113.811	131.412
	-0.000	0.000	0.000	0.000	0.000	0.000	0.000	0.000

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1530XA 10120519 DATE/TIME PERFORMED: Tue Aug 20 12:04:41 2013 DAYS SINCE CAL: 46

UNIT #: 3880TA HL6670

ZERO DATA(mv)	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coll 0 R	0.005 -0.097 0.005	0.000 -0.000 0.000	-0.001 -0.001 0.000	0.000 -0.000 0.000	0.001 -0.000 0.000	-0.000 -0.000 0.000	0.000 -0.000 0.001	-0.001 -0.000 0.000
Coll 0 Q	-0.001 -0.000 0.011	-0.001 -0.100 0.100	0.001 -0.000 0.000	0.000 -0.000 0.000	-0.001 -0.001 0.000	-0.000 -0.000 0.000	0.001 -0.000 0.000	-0.000 -0.000 0.000
Coll 1 R	0.023 -0.000 0.100	0.002 -0.000 0.000	-0.003 -0.000 0.000	0.002 -0.000 0.000	-0.001 -0.000 0.000	-0.001 -0.000 0.000	-0.000 -0.000 0.001	0.000 -0.000 0.000
Coll 1 Q	0.010 -0.000 0.110	-0.005 -0.100 0.000	0.002 -0.000 0.001	0.001 -0.001 0.000	-0.002 -0.001 0.000	0.000 -0.001 0.000	-0.000 -0.001 0.000	-0.001 -0.000 0.000
Coll 2 R	0.018 -0.000 0.000	-0.001 -0.000 0.001	-0.000 -0.000 0.000	-0.001 -0.000 0.000	-0.000 -0.000 0.000	0.001 -0.000 0.000	-0.000 -0.000 0.001	0.000 -0.000 0.000
Coll 2 Q	0.014 -0.000 0.001	-0.005 -0.100 0.100	-0.001 -0.000 0.000	0.001 -0.000 0.000	-0.000 -0.000 0.001	-0.000 -0.000 0.001	0.001 -0.000 0.001	-0.001 -0.000 0.000
Coll 3 R	0.053 0.010 0.000	-0.002 -0.011 0.000	-0.004 -0.011 0.000	0.002 -0.000 0.010	-0.003 -0.010 0.010	0.001 -0.010 0.010	-0.000 -0.000 0.011	0.002 -0.011 0.000
Coll 3 Q	0.039 -0.101 0.000	-0.011 -0.000 0.000	0.005 -0.000 0.011	-0.001 -0.000 0.011	-0.003 -0.000 0.000	0.000 -0.000 0.010	0.000 -0.011 0.000	-0.003 -0.011 0.000
Coll 4 R	0.153 0.010 0.100	0.001 -0.000 0.001	-0.016 -0.010 0.010	0.009 -0.000 0.000	-0.002 -0.000 0.000	-0.000 -0.000 0.000	0.002 -0.000 0.000	-0.002 -0.001 0.000
Coll 4 Q	0.059 -0.010 0.000	-0.044 -0.100 0.000	0.008 -0.000 0.000	0.007 -0.000 0.000	-0.004 -0.001 0.000	0.003 -0.001 0.000	-0.001 -0.000 0.001	-0.000 -0.000 0.000
Coll 5 R	0.346 0.210 0.100	0.008 -0.000 0.110	-0.035 -0.110 0.001	0.022 -0.000 0.110	-0.003 -0.100 0.100	0.003 -0.100 0.100	0.016 -0.110 0.100	-0.001 -0.100 0.110
Coll 5 Q	0.157 -0.001 0.100	-0.103 -0.001 0.100	0.022 -0.001 0.110	0.002 -0.100 0.100	-0.003 -0.100 0.101	0.003 -0.110 0.100	-0.007 -0.100 0.110	-0.004 -0.110 0.100

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coll 0 M	162.28 150.00 160.00	160.84 151.00 161.00	157.94 151.00 161.11	153.63 150.00 150.00	147.98 145.01 150.00	141.02 130.00 145.00	132.82 130.10 135.00	123.48 121.00 125.00
Coll 0 P	6.922 3.900 9.900	25.257 22.210 28.210	42.703 30.000 45.000	60.041 50.000 65.000	77.358 71.000 80.000	94.682 81.000 99.000	112.027 100.011 115.011	129.355 120.000 135.000
Coll 1 M	282.58 271.00 290.00	280.05 271.01 289.00	274.94 260.00 290.00	267.28 252.00 282.00	257.17 252.10 262.10	244.69 230.00 259.00	229.89 220.10 239.00	213.17 200.00 219.00
Coll 1 P	6.998 3.000 9.000	25.449 22.100 28.400	43.025 30.001 45.001	60.505 50.000 65.000	77.965 71.000 80.000	95.428 82.100 98.400	112.883 100.000 115.000	130.282 120.000 135.000
Coll 2 M	559.10 510.10 590.10	553.99 510.10 590.00	543.69 500.00 594.00	528.44 510.10 530.00	508.46 480.00 510.00	483.96 474.00 490.00	455.20 440.00 464.00	422.37 414.11 431.01
Coll 2 P	6.836 3.900 9.700	25.176 22.101 28.101	42.588 30.001 45.001	59.873 50.000 65.000	77.138 71.100 80.100	94.381 81.000 99.000	111.646 100.000 114.000	128.878 120.000 131.000
Coll 3 M	916.76 800.00 900.00	907.85 800.00 900.00	889.91 800.00 900.00	863.23 810.00 851.11	828.60 810.00 845.00	786.16 771.10 800.00	736.89 722.00 750.00	681.56 600.00 650.00
Coll 3 P	7.205 4.000 10.000	25.997 22.001 28.001	43.912 30.000 45.000	61.691 50.000 65.000	79.422 70.000 80.000	97.098 84.101 100.101	114.768 111.000 117.000	132.333 120.000 135.000
Coll 4 M	1424.6 1300.1 1450.1	1412.7 1300.0 1442.1	1388.1 1301.0 1419.0	1351.2 1300.0 1390.0	1302.7 1270.0 1330.0	1242.0 1210.0 1260.1	1170.0 1140.0 1190.1	1087.7 1000.1 1110.0
Coll 4 P	6.993 3.010 9.010	25.416 22.011 28.011	42.983 30.000 45.000	60.460 50.110 65.110	77.936 71.000 80.000	95.452 82.110 98.410	112.980 110.000 115.000	130.499 120.000 135.000
Coll 5 M	2944.2 2000.0 3000.0	2920.9 2000.0 2900.0	2870.2 2010.0 2900.0	2793.5 2000.0 2900.0	2692.3 2010.0 2900.0	2566.4 2010.0 2900.0	2417.6 2010.0 2800.0	2246.0 2000.0 2500.0
Coll 5 P	7.096 3.000 9.000	25.619 22.000 28.000	43.323 30.000 45.000	60.932 50.000 65.000	78.534 70.000 81.000	96.173 80.100 98.100	113.828 110.011 115.011	131.438 120.112 134.112

INSTRUMENT CONFIGURATION

Source File: /mnt1a/625571/625571-1.d

53.34'

FOCUS CABLEHEAD
Diameter : 3.13"
Length : 3.17'
Weight : 15 lbs
Series : CABL31B
Mnemonic : CBLH

FOCUS SWIVEL
Diameter : 3.13"
Length : 3.58'
Weight : 50 lbs
Series : 3950XA
Mnemonic : SWVL

FOCUS TEN/TEMP/MUD RES/ACCEL
Diameter : 3.13"

Length : 4.31'
Weight : 6.1 lbs
Series : 3980XA
Mnemonic : TTMA

FOCUS TELEMETRY (POWER SECTION)

Diameter : 3.13"
Length : 4.74'
Weight : 3518FB
Series : TMCR
Mnemonic : TMCR

FOCUS EB/EC TELEMETRY GAMMA RAY

Diameter : 3.13"
Length : 5.83'
Weight : 63.1 lbs
Series : 3518EC
Mnemonic : CR
Measure Point: 4.34' : CR MP

FOCUS COMPENSATED NEUTRON

Diameter : 3.13"
Length : 4.83'
Weight : 65.1 lbs
Series : 3436XA
Mnemonic : CN
Measure Point: 1.93' : LSN MP
Measure Point: 1.46' : SSN MP

FOCUS Z-DENSILOC

Diameter : 3.75"
Length : 9.58'
Weight : 200 lbs
Series : 2223XA
Mnemonic : ZDL
Measure Point: 4.33' : CR1 MP
Measure Point: 1.69' : LSD / CR3 MP
Measure Point: 1.39' : SSD MP

FOCUS KNUCKLE JOINT

Diameter : 3.13"
Length : 1.50'
Weight : 30 lbs
Series : 3930XA

FOCUS KNUCKLE JOINT

Diameter : 3.13"
Length : 1.50'
Weight : 30 lbs
Series : 3930XA

FOCUS HIGH DEFINITION INDUCTION TOOL

Diameter : 3.13"
Length : 13.33'
Weight : 115 lbs
Series : 1530XA
Mnemonic : HDIL
Measure Point: 7.17' : COIL 5 MP
Measure Point: 6.17' : COIL 4 MP
Measure Point: 5.17' : COIL 3 MP
Measure Point: 4.17' : COIL 2 MP
Measure Point: 3.17' : COIL 1 MP
Measure Point: 2.17' : COIL 0 MP
Measure Point: 1.14' : SP MP

FOCUS PINEAPPLE / CABBAGE

HOLE FINDER

Diameter : 2.63"
Length : 1.50'
Weight : 2 lbs
Series : HFND1B

TOTAL LENGTH: 52.34'

CR MP : 36.97'

LSN MP : 29.83'

SSN MP : 29.38'

CR1 MP : 22.67'

LSD / CR3 MP : 20.03'

SSD MP : 19.63'

COIL 5 MP : 9.17'

COIL 4 MP : 7.67'

COIL 3 MP : 6.17'


COIL 2 MP : 5.67'

COIL 1 MP : 5.17'

COIL 0 MP : 4.67'

SP MP : 3.14'

0.00'

	COMPANY	<u>WPX ENERGY INC</u>		FILE NO:	<u>US625569</u>				
	WELL	<u>FEDERAL PA 321-27</u>		API NO:	<u>05045218610000</u>				
	FIELD	<u>PARACHUTE</u>							
	COUNTY	<u>GARFIELD</u>	STATE	<u>CO</u>					
	LOCATION:		ELEVATIONS:						
	SHL: 2098' FNL; 1306' FWL BHL: 499' FNL; 2050' FWL		KB 5866 FT DF GL 5840 FT		S27 T6S R95W PAD DOE 1-W-27 RIG NABORS 573				
	SEC	<u>27</u>	TWP	<u>6S</u>	RGE	<u>95W</u>	DATE	<u>12-Aug-2013</u>	

