



FILE NO: US091493J	COMPANY WPX ENERGY INC	
API NO: 05045219540000	WELL FEDERAL SG 432-28	
	FIELD GRAND VALLEY	
	COUNTY GARFIELD	
	STATE COLORADO	
Ver. 3.87 SEC 28 T7S R96W PAD: SG 43-28 RIG: H&P 318	LOCATION: SHL: 2279' FSL 499' FEL BHL: 2248' FNL 2323' FEL SEC 28 TWP 7S RGE 96W	OTHER SERVICES NONE
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	GL KB KB ELEVATION 24 FT ABOVE P.D.	ELEVATIONS: KB 5143 FT DF GL 5119 FT

DATE		07-OCT-2014			
RUN	TRIP	1	1		
SERVICE ORDER		US091493J			
DEPTH DRILLER		5775 FT			
DEPTH LOGGER		5773 FT			
BOTTOM LOGGED INTERVAL		5760 FT			
TOP LOGGED INTERVAL		0 FT			
CASING DRILLER		9.625 IN @ 1617 FT		@	
CASING LOGGER		1616 FT			
BIT SIZE		8.75 IN			
TYPE OF FLUID IN HOLE		LSND			
DENSITY	VISCOSITY	10 LB/G	52 S		
PH	FLUID LOSS	8.2	6.4 C3		
SOURCE OF SAMPLE		FLOWLINE			
RM AT MEAS. TEMP.		1.16 OHMM @ 70.8 DEGF		@	
RMF AT MEAS. TEMP.		0.87 OHMM @ 70.8 DEGF		@	
RMC AT MEAS. TEMP.		1.45 OHMM @ 70.8 DEGF		@	
SOURCE OF RMF	RMC	CALCULATED	CALCULATED		
RM AT BHT		0.68 OHMM @ 159 DEGF	@		
TIME SINCE CIRCULATION		6 HOURS			
MAX. RECORDED TEMP.		159 DEGF			
EQUIP. NO.	LOCATION	6685	GRAND JCT		
RECORDED BY		W. QUIGLEY			
WITNESSED BY		MR. RON 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
8.75 IN	1614 FT	5773 FT

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
9.625 IN	32.3 LB/F	0	0 FT	1614 FT

REMARKS

RUN 1 TRIP 1: HDIL ZDL CN 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 MUD CONDUCTIVITY

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
 CREW: COATE/BAUGHMAN/SANTUCCI/QUIGLEY
 RIG: H&P 318

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3950XA	10102176	FREE
1	1	TTMA	3980XA	10120299	FREE
1	1	TEL/GR	3518FB/EG	10126400/10139870	FREE
1	1	NEUTRON	2436XA	10137930	DECENTRALIZED
1	1	DENSITY	2223XA	10090664	DECENTRALIZED
1	1	KNUCKLE	3930XA	10102172/10087285	FREE
1	1	HDIL	1530XA	10415933	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: 3

Plotted: Wed Oct 8 01:47:48 2014

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/91493J/n970a02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 1516.250 ft BOTTOM DEPTH: 5799.471 ft

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
GR MED RES	FILTER ()	medium (1)		TOP	BOTTOM
CALIPER	FILTER ()	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"
SP-SPDH	FILTER ()	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	"	"
BH MUD RESISTIVITY SOURCE	RMUD SOURCE (HDIL)	TOOL MEASURED		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	70.8	degF	"	"
	MUD SAMPLE RES	1.160	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	70.8	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	"	"
	STANDOFF	50000000		"	"

CURVE DESCRIPTION REPORT

CURVE NAME CREATION DATE CURVE DESCRIPTION

F1:GR	Oct 7 23:24:37 2014	GAMMA RAY
F1:M0C6	Oct 7 23:24:37 2014	FOCUSED CONDUCTIVITY, 60-INCH DOI
F1:M0R2	Oct 7 23:24:37 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 20-INCH DOI
F1:M0R6	Oct 7 23:24:37 2014	TRUE FOCUSED RESISTIVITY FOR HDIL, 60-INCH DOI
F1:SP	Oct 7 23:24:37 2014	SPONTANEOUS POTENTIAL
F1:TEN	Oct 7 23:24:37 2014	DIFFERENTIAL TENSION

CURVE MEASURE POINT OFFSET

CURVE OFFSET (ft) CURVE OFFSET (ft) CURVE OFFSET (ft) CURVE OFFSET (ft)

GR	35.00	M0R2	2.75	SP	1.25		
M0C6	2.75	M0R6	2.75	TEN	0.00		

Presentation : cas6685:/dat1a/91493J/WPX_2IN.fvpdf [2"/100' Scale]
Plot Interval : -2.25 - 5797.25 Feet

Data File 1 : F1 : cas6685:/dat1a/91493J/n970a02_MAIN.xtf
Created On : Oct 7 23:24:37 2014
Company : WPX ENERGY INC
Well : FEDERAL SG 432-28
Field : GRAND VALLEY
File Interval : -2.25 - 5802.75 Feet
OCT : n970a

GR BACKUP

GAMMA RAY [gr]

0 200

SP [sp]

-200 50

FEET

0

100

GR

TOOL STICKING

DEEP [m0r6]

0 100

SHALLOW [m0r2]

0 100 500

AMPLIFIED SHALLOW [m0r2]

0 20

OVERRANGE DEEP [m0r6]

100 1000

OVERRANGE SHALLOW [m0r2]

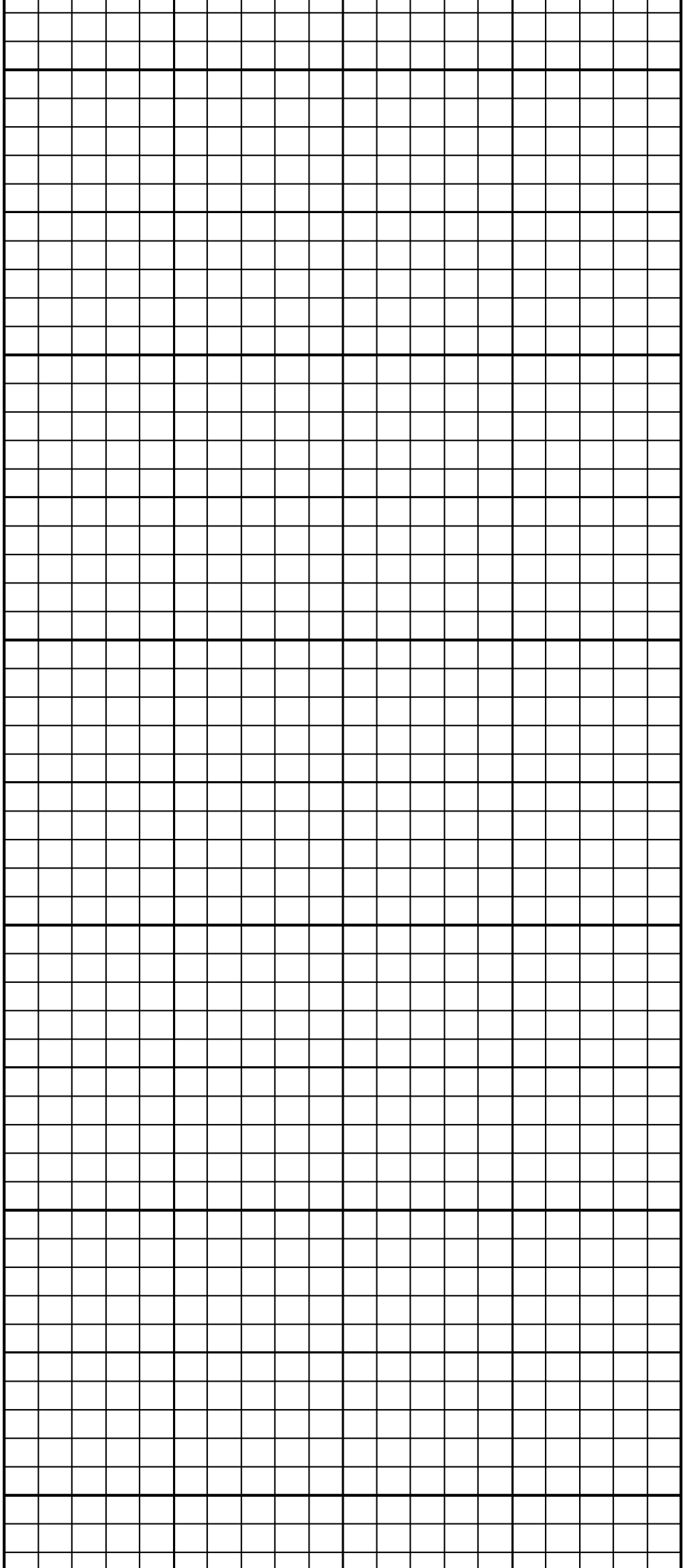
100 1000

DIFF. TENSION [ten]

4750 -250

60 in. DOI [m0c6]

0



200

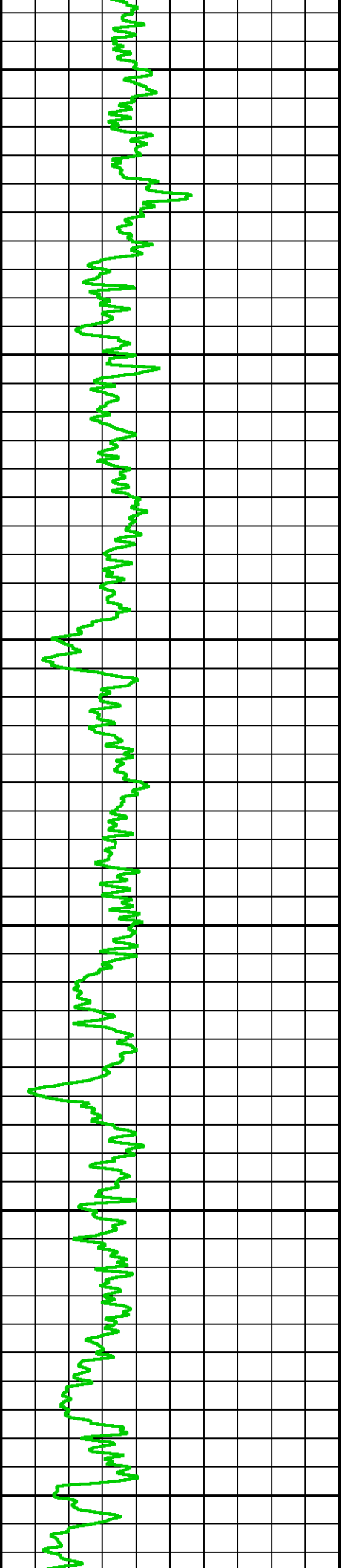
300

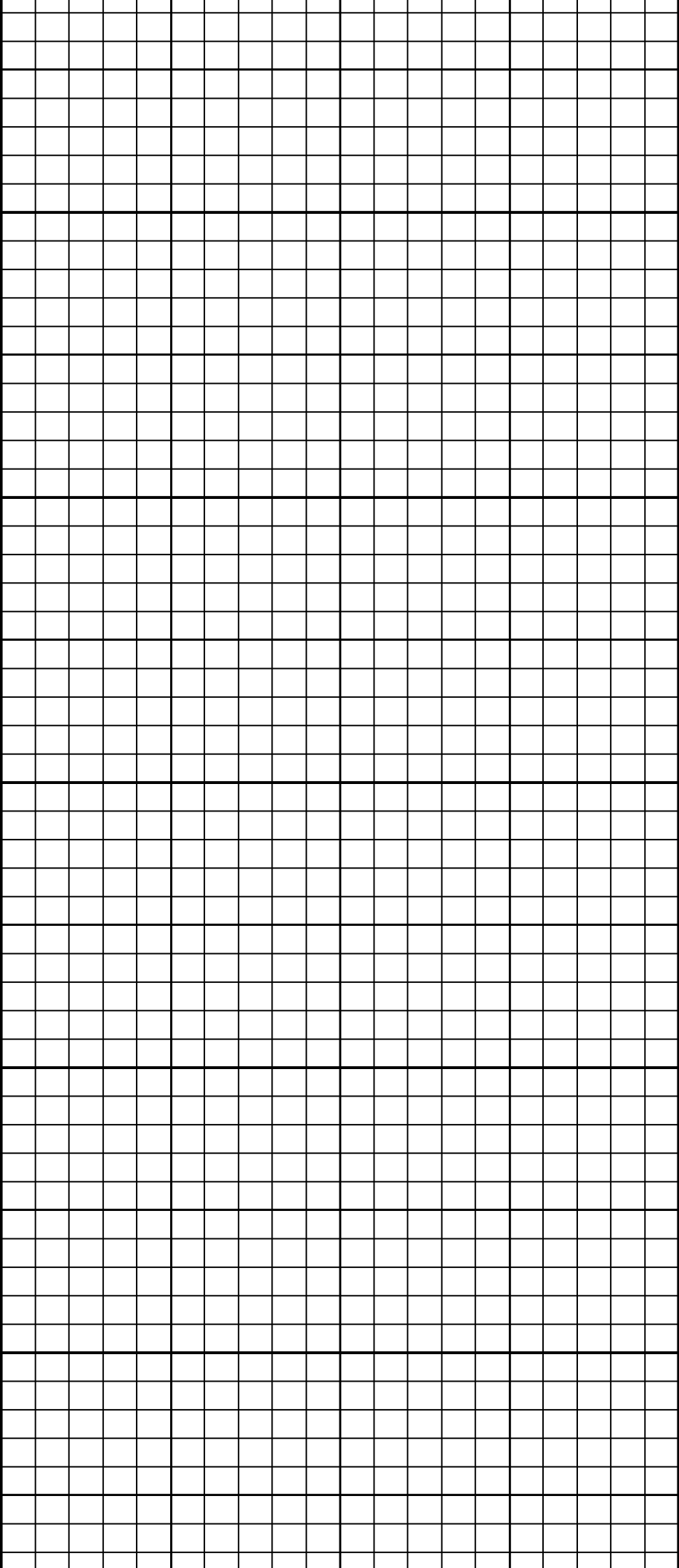
400

500

600

700





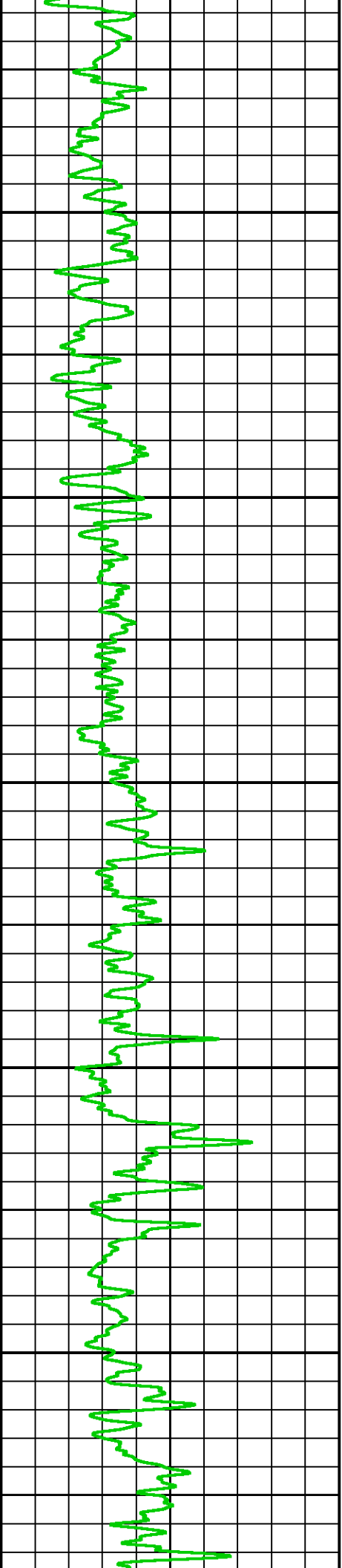
800

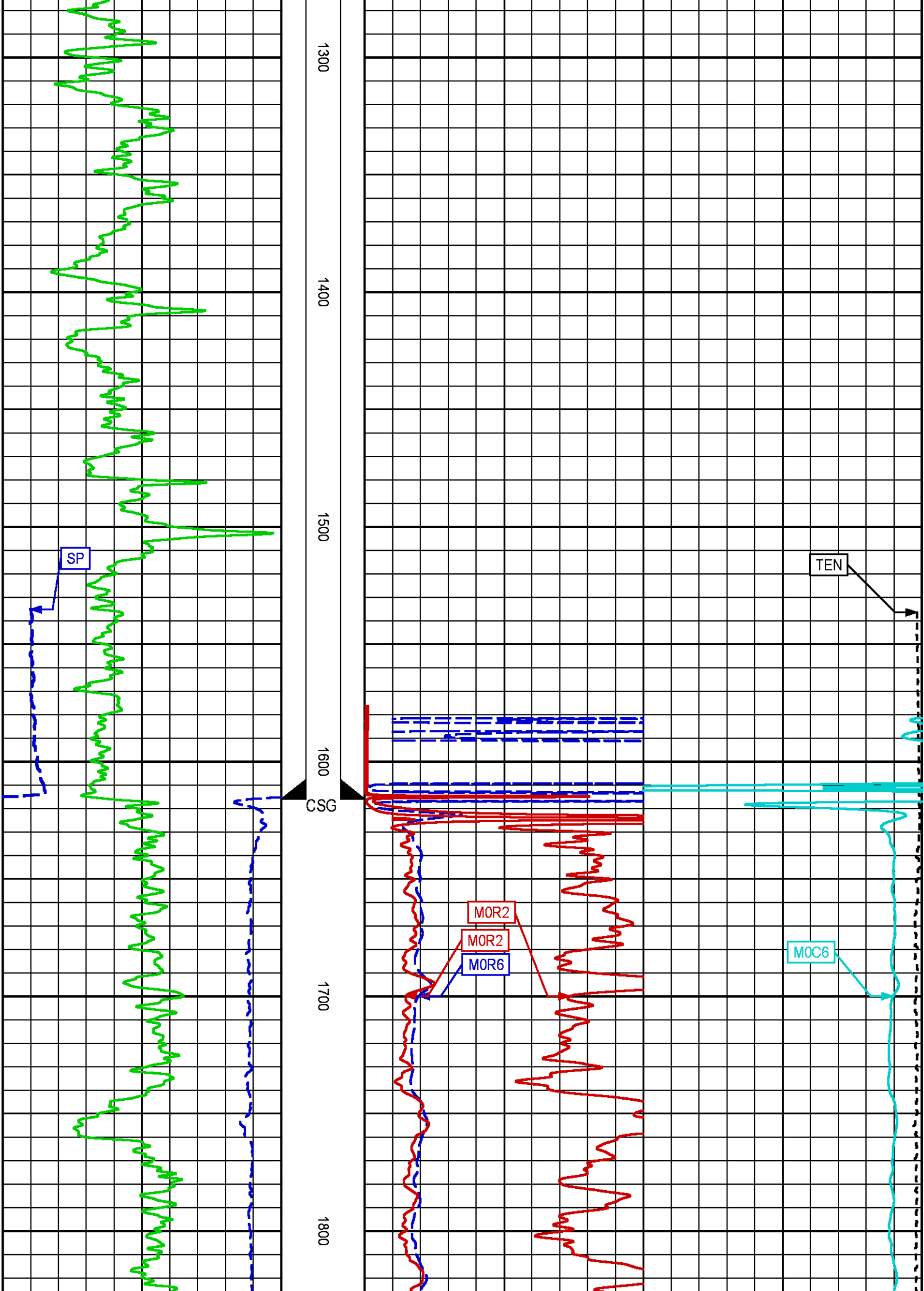
900

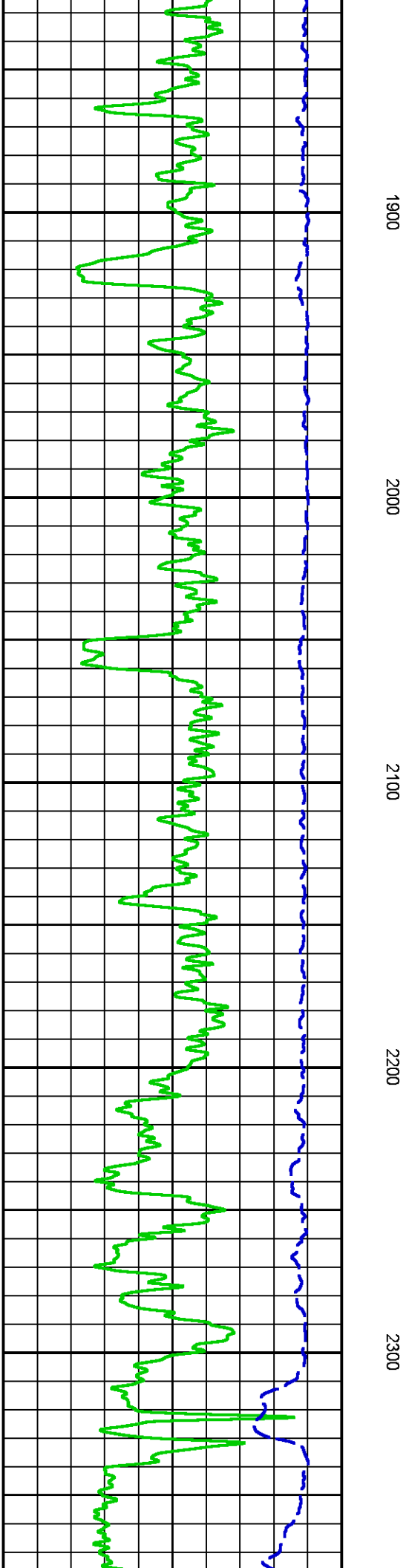
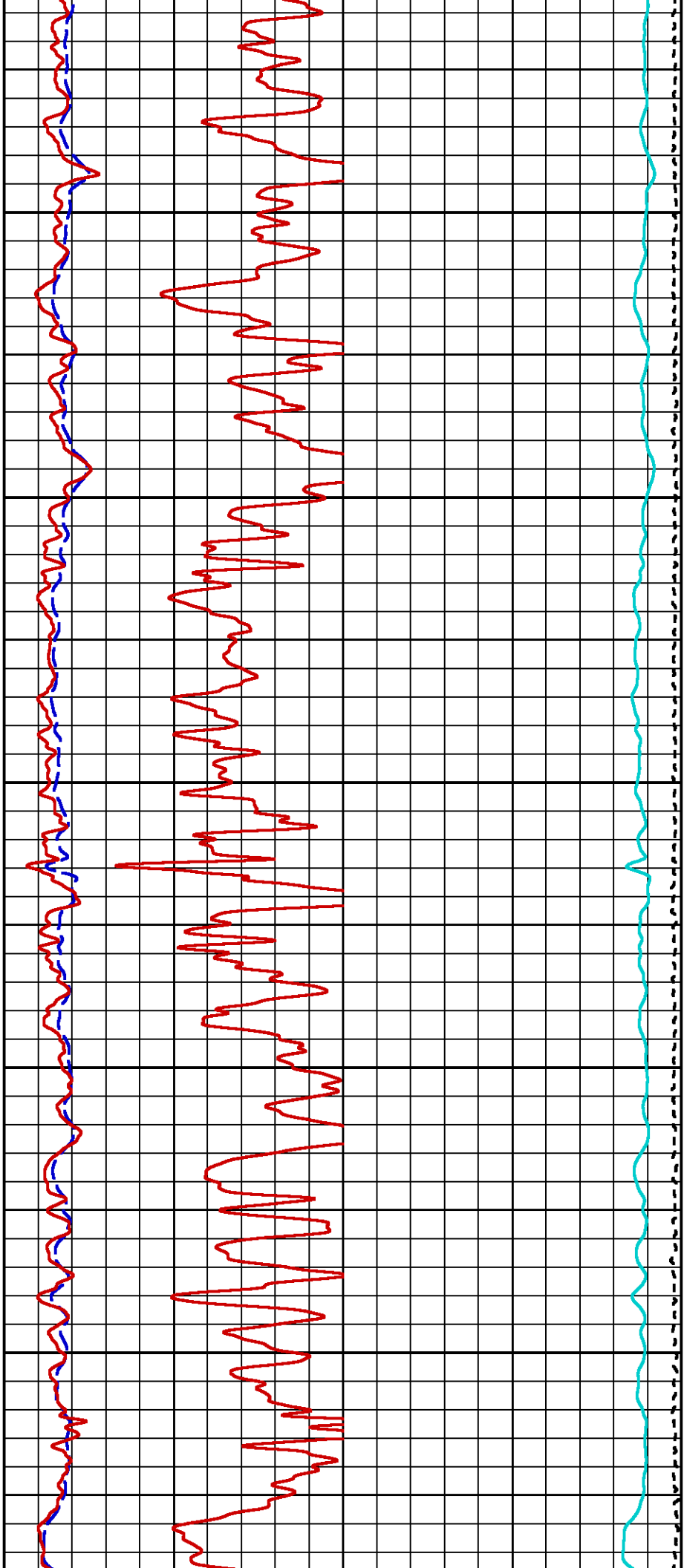
1000

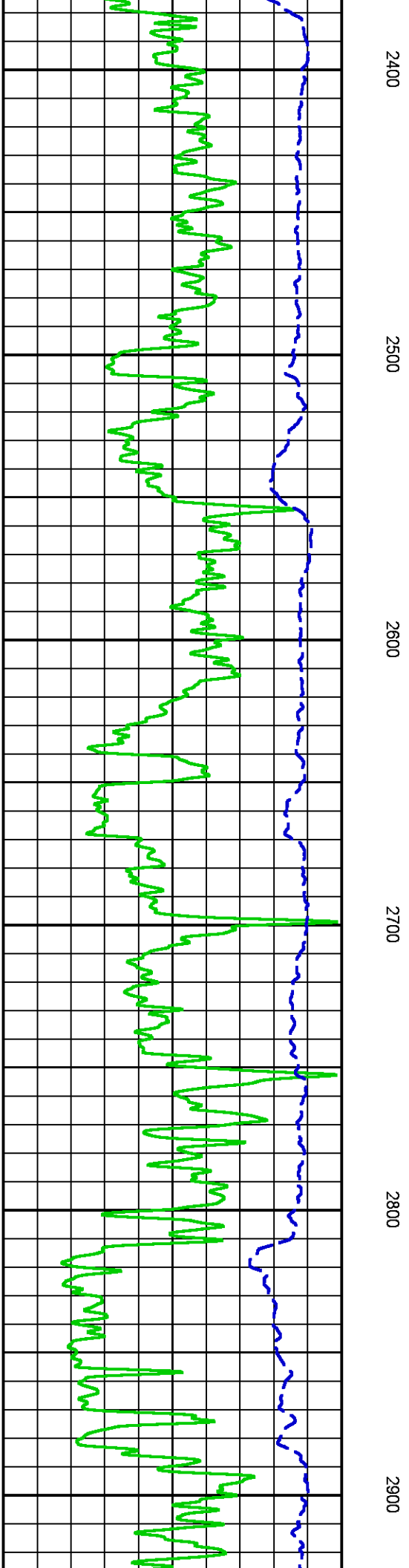
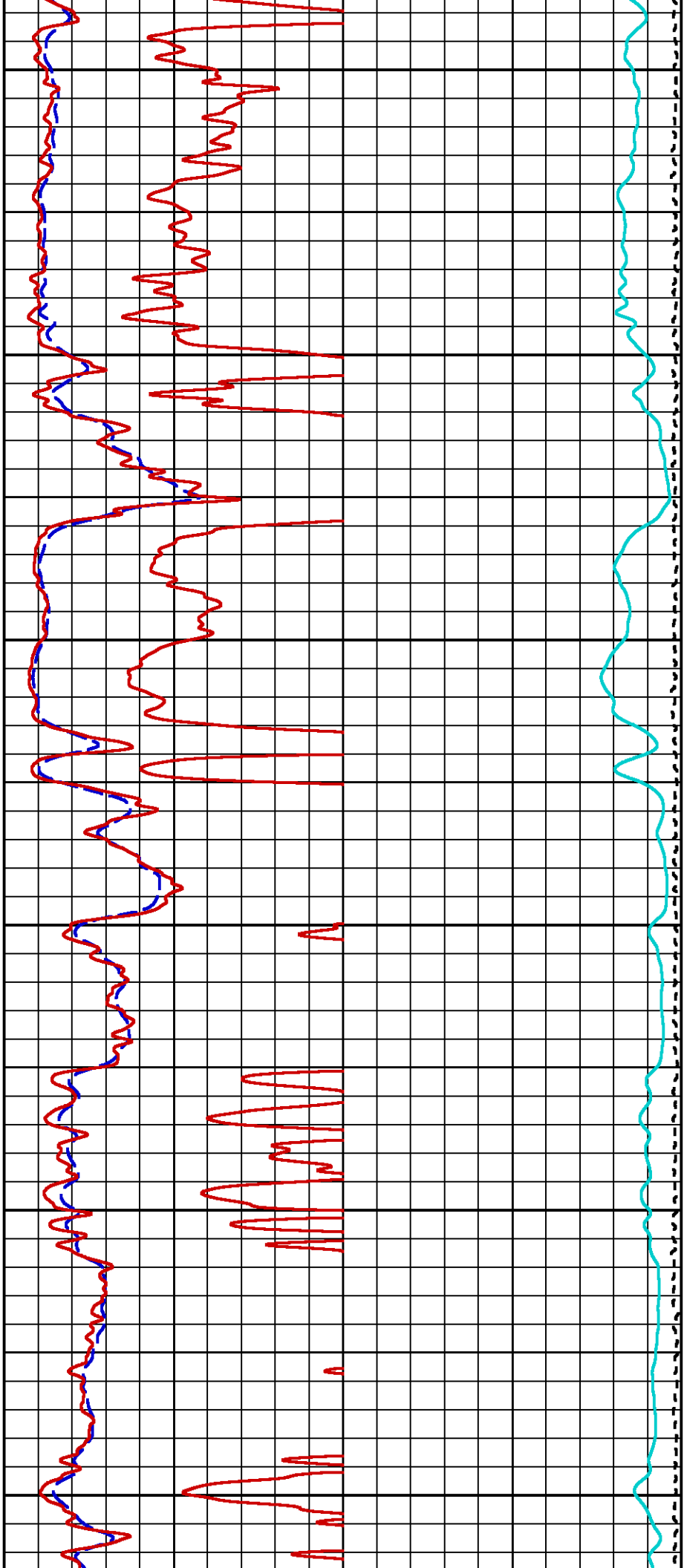
1100

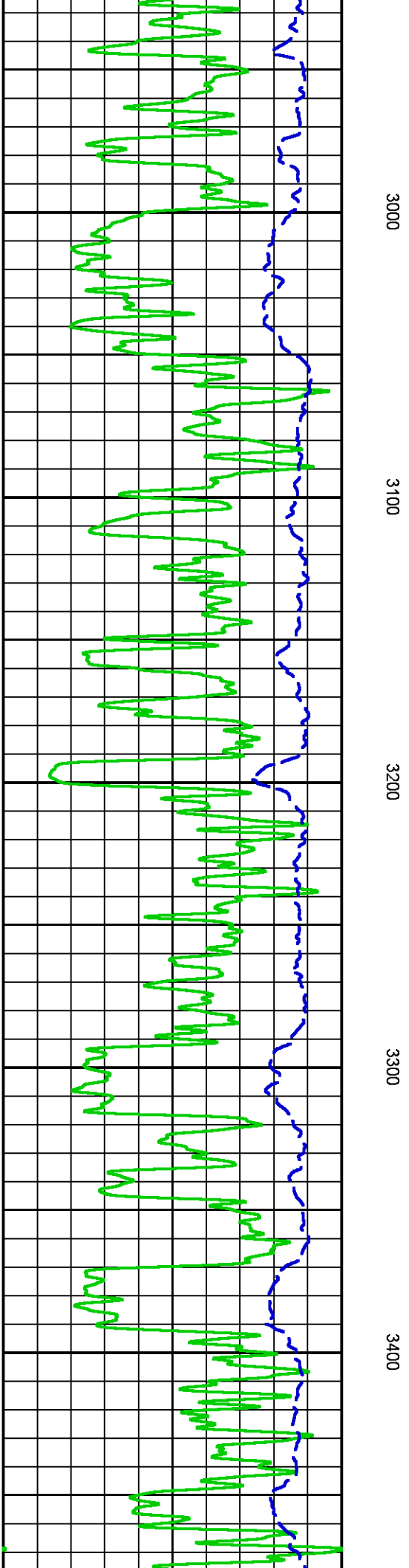
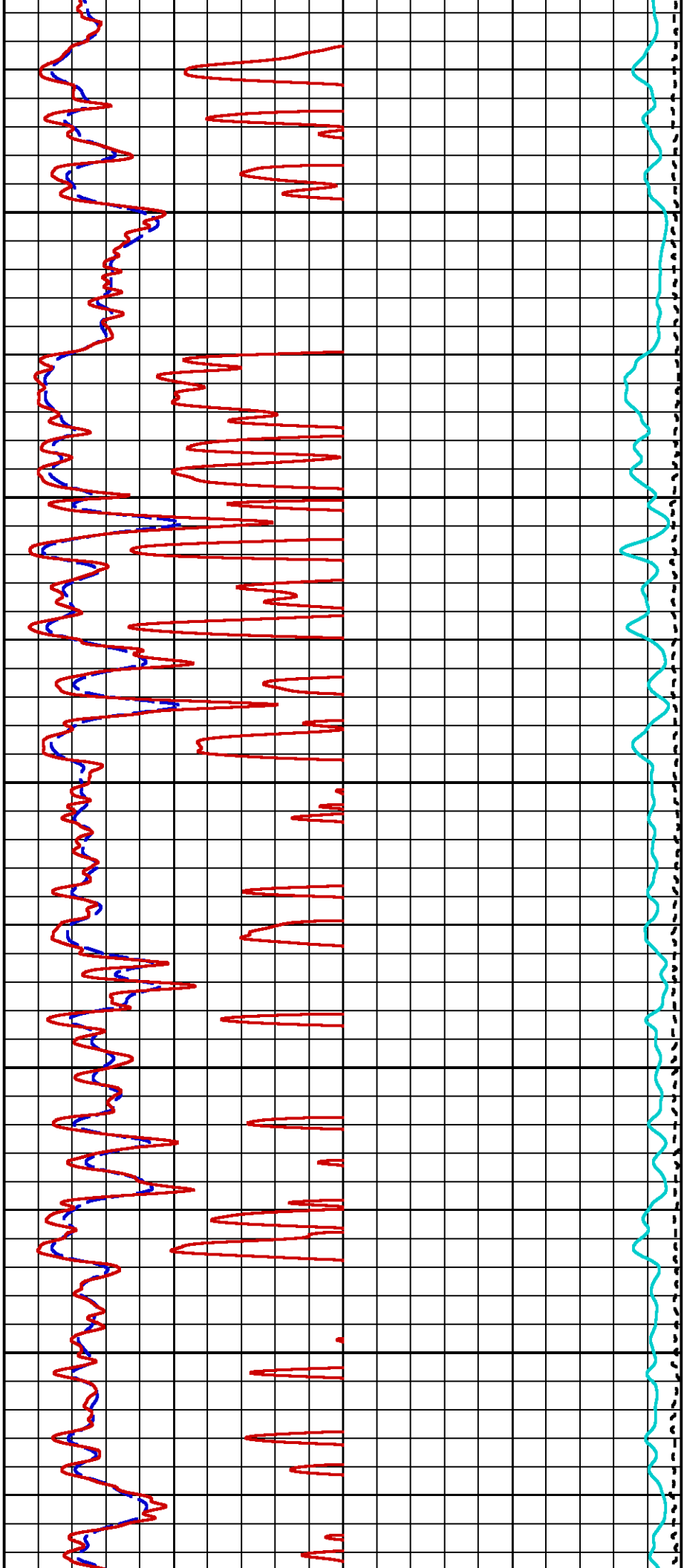
1200

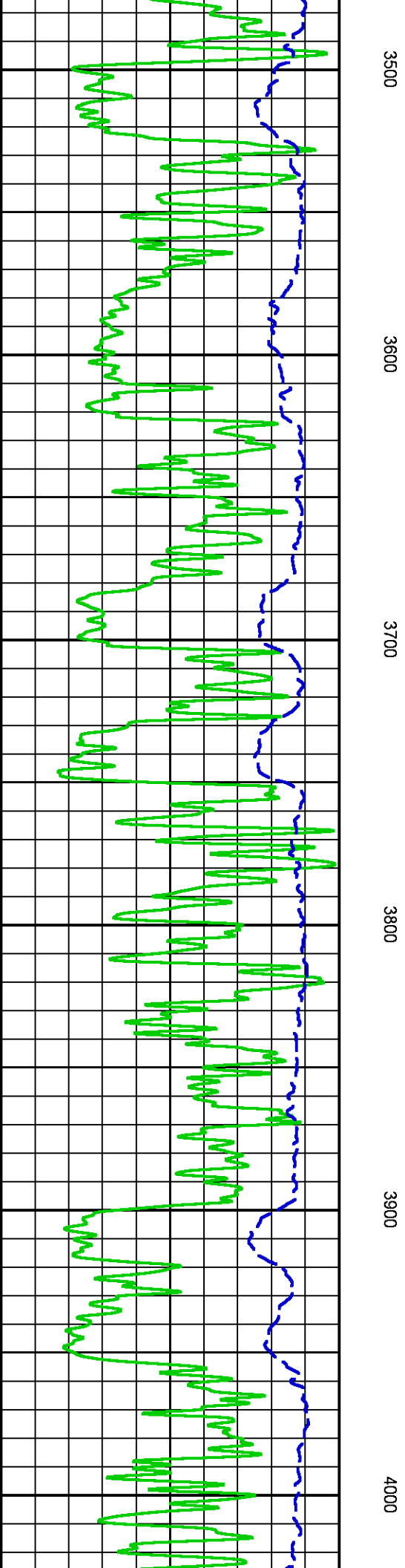
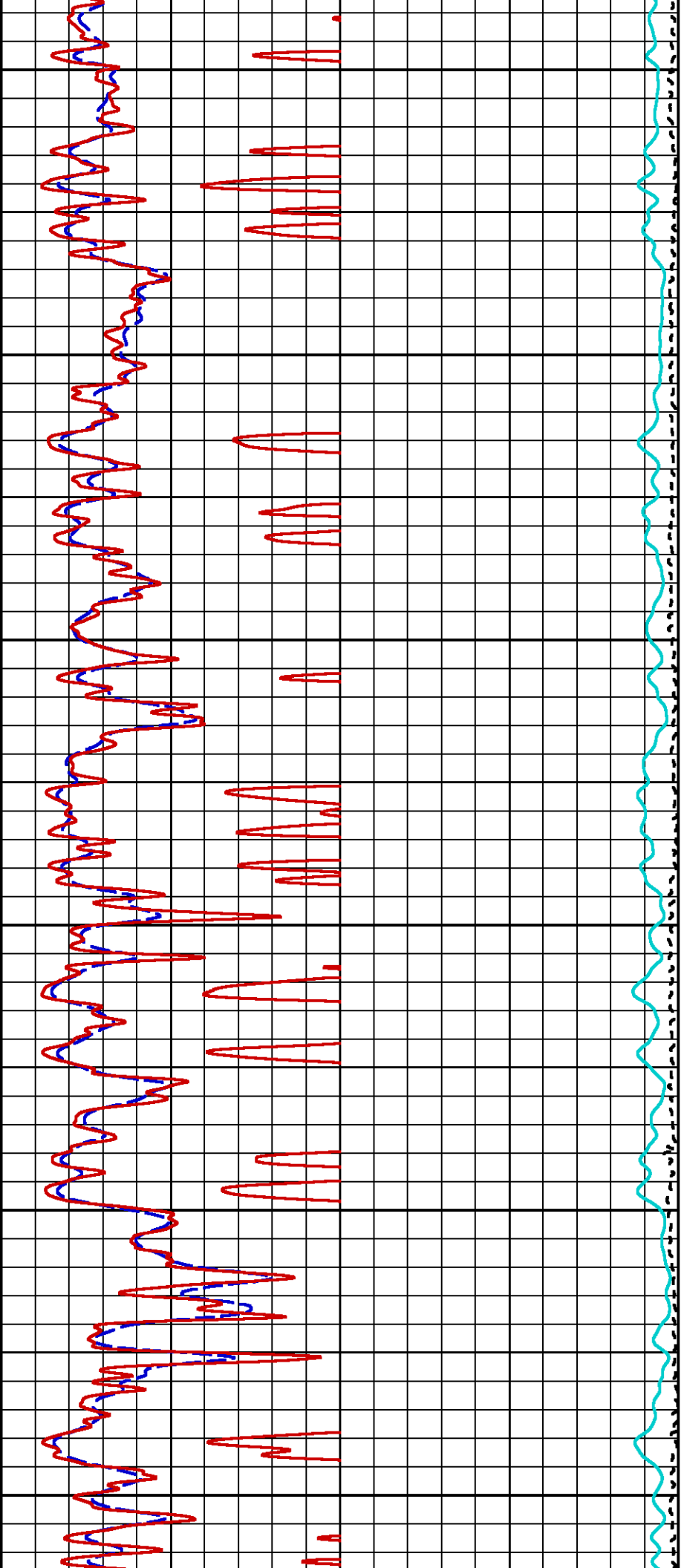


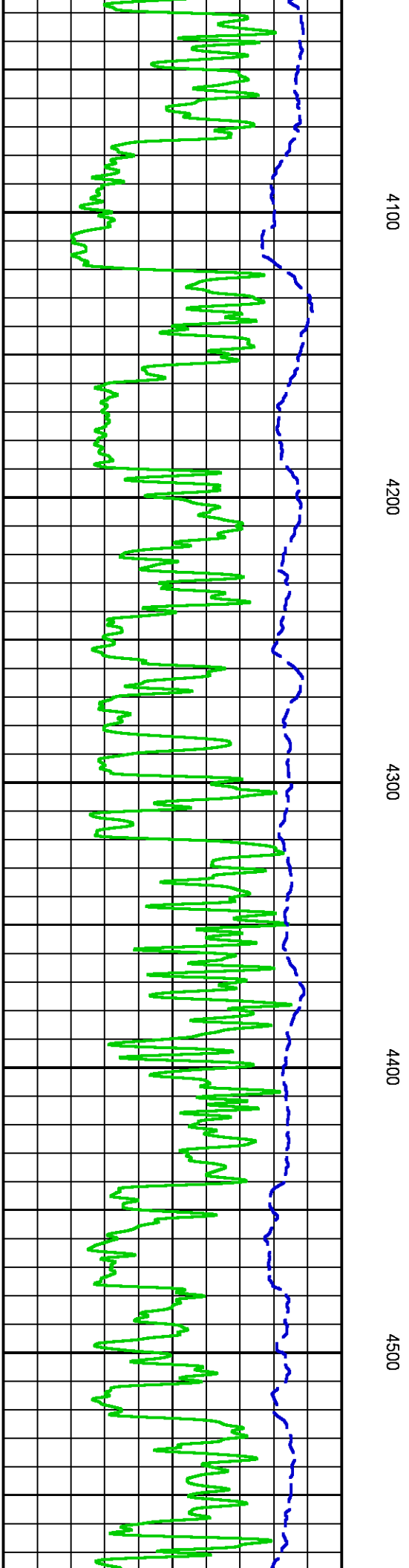
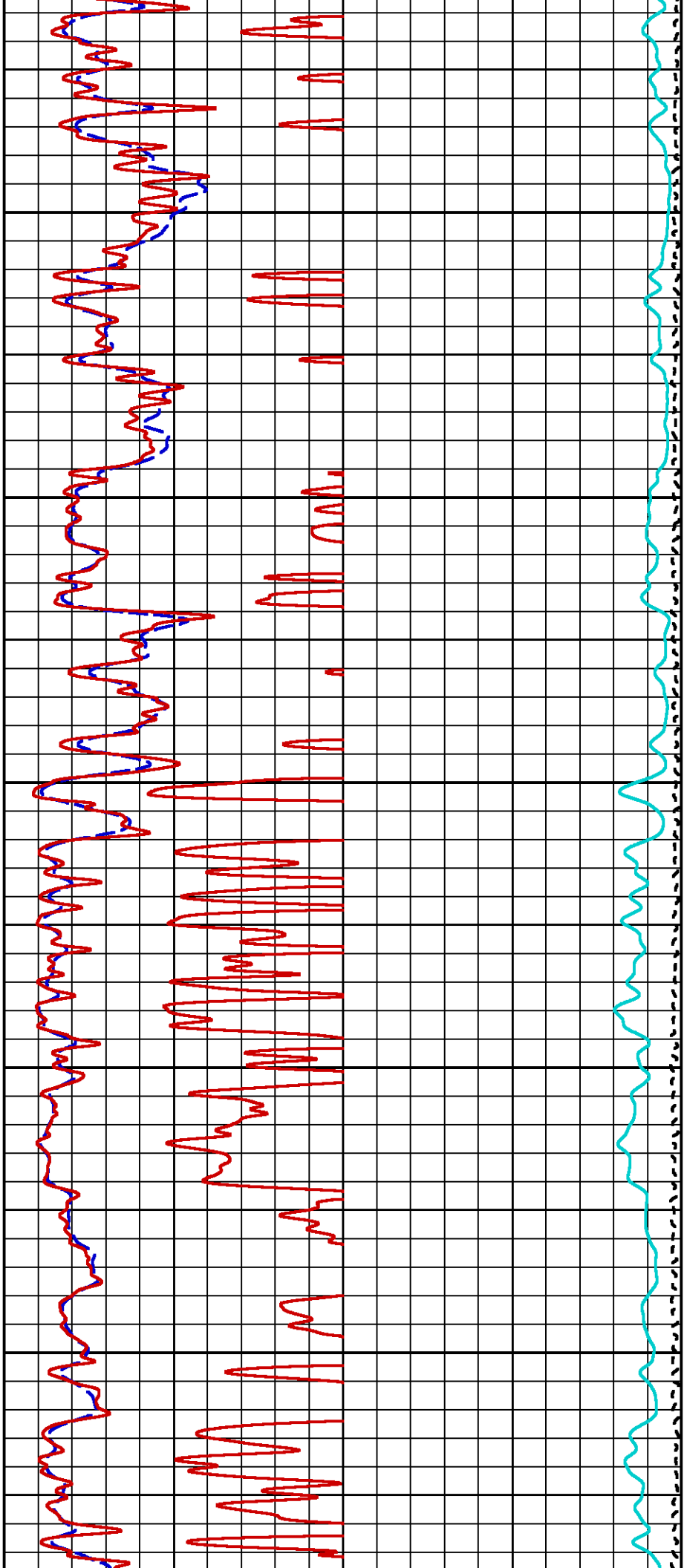


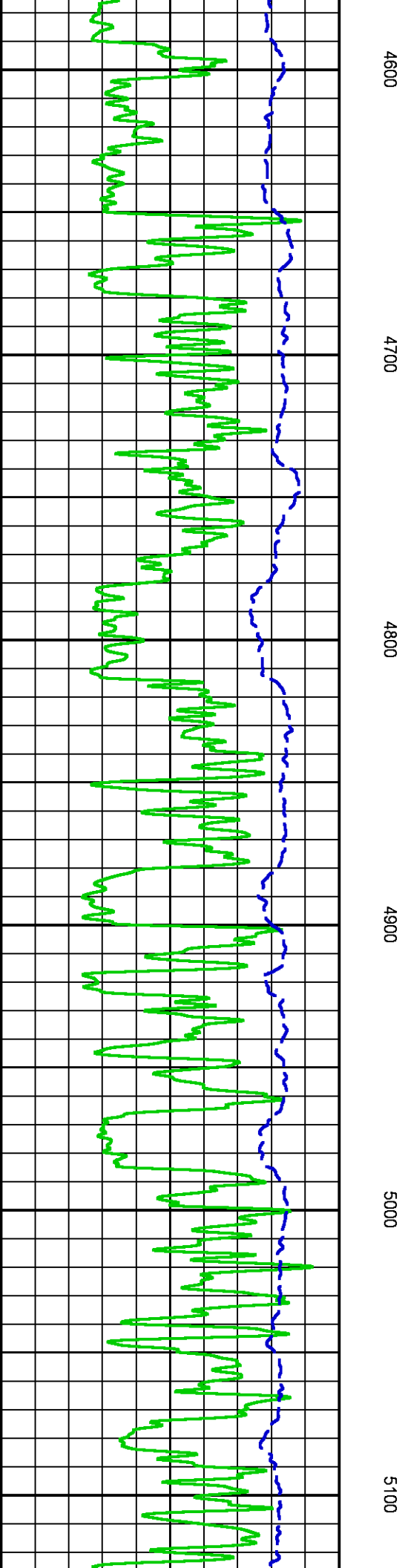
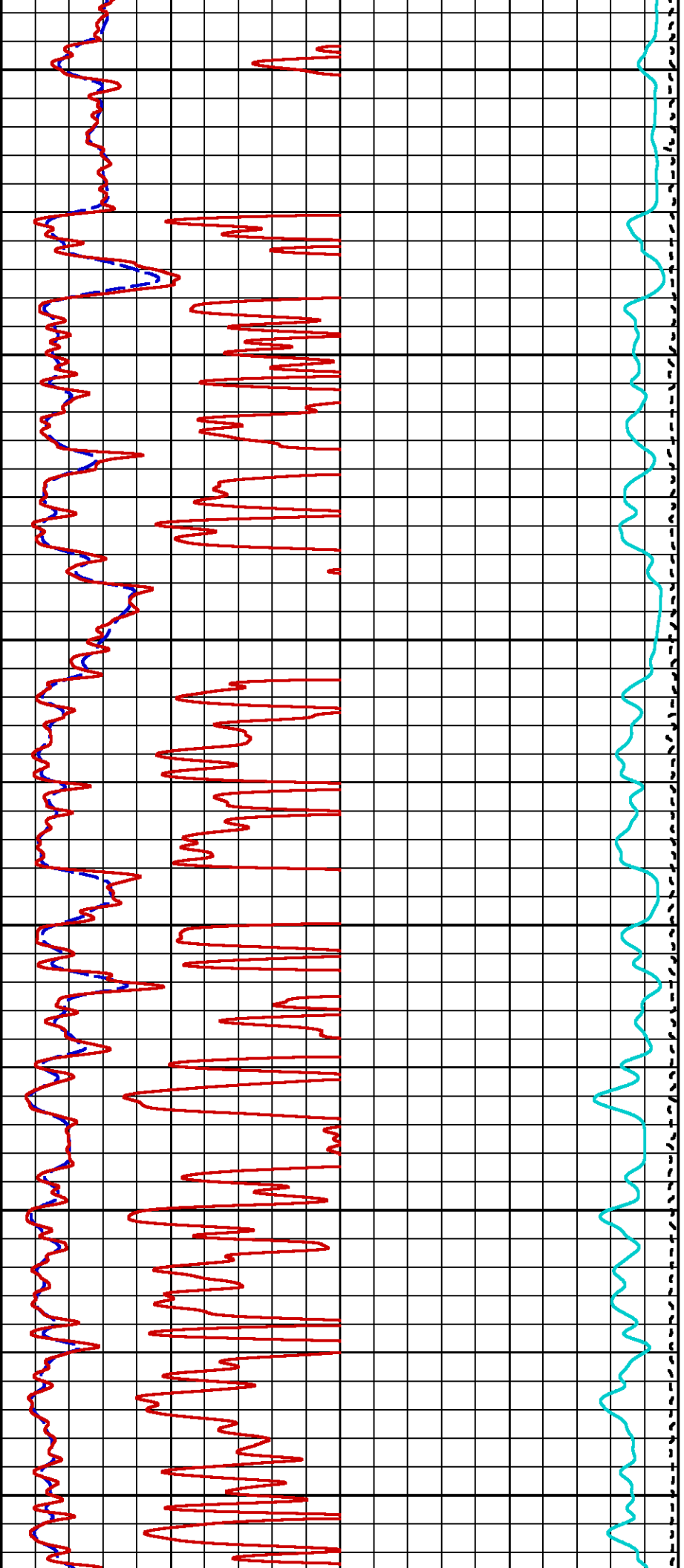


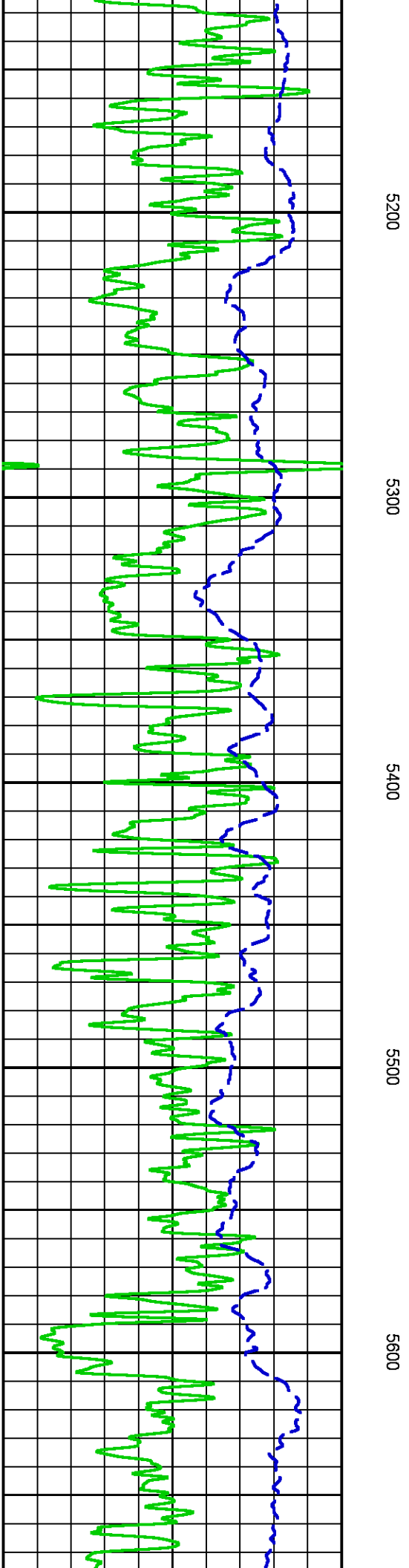
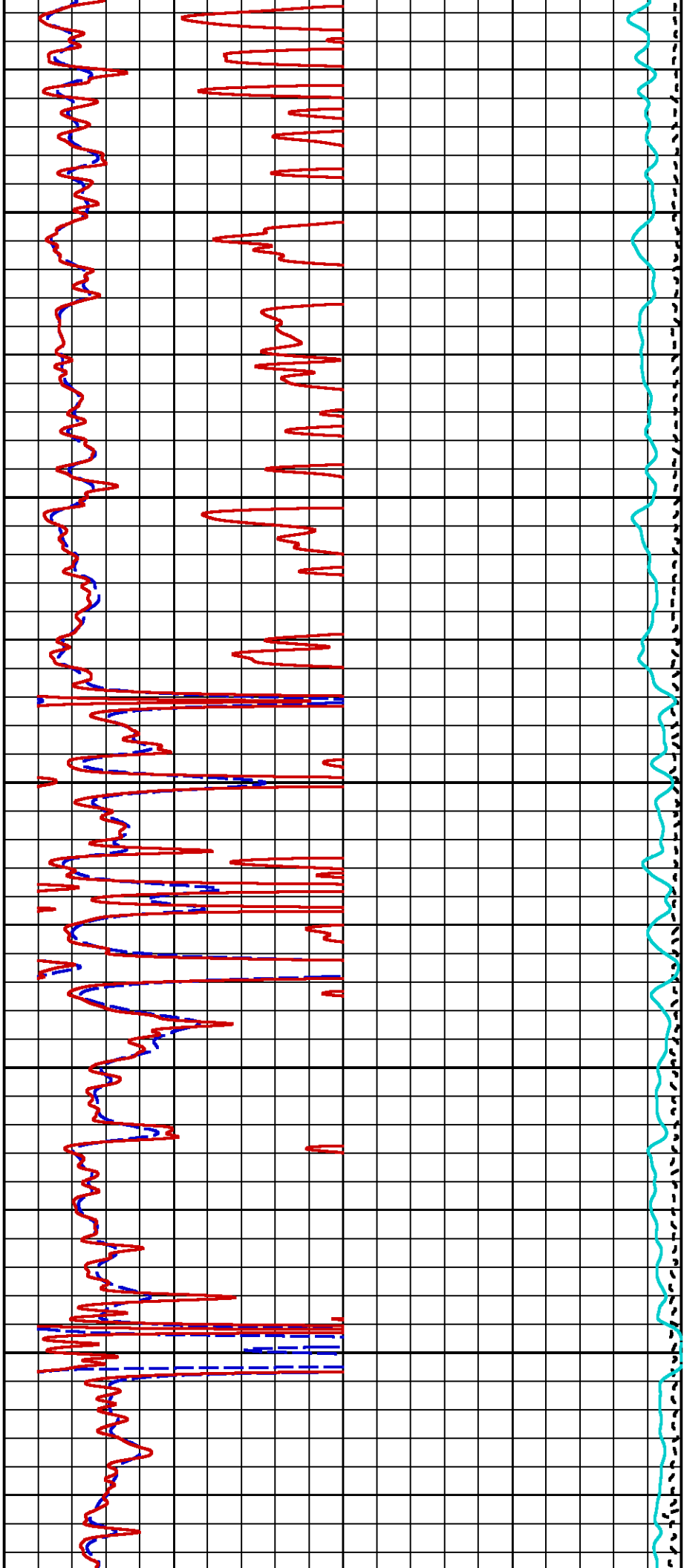


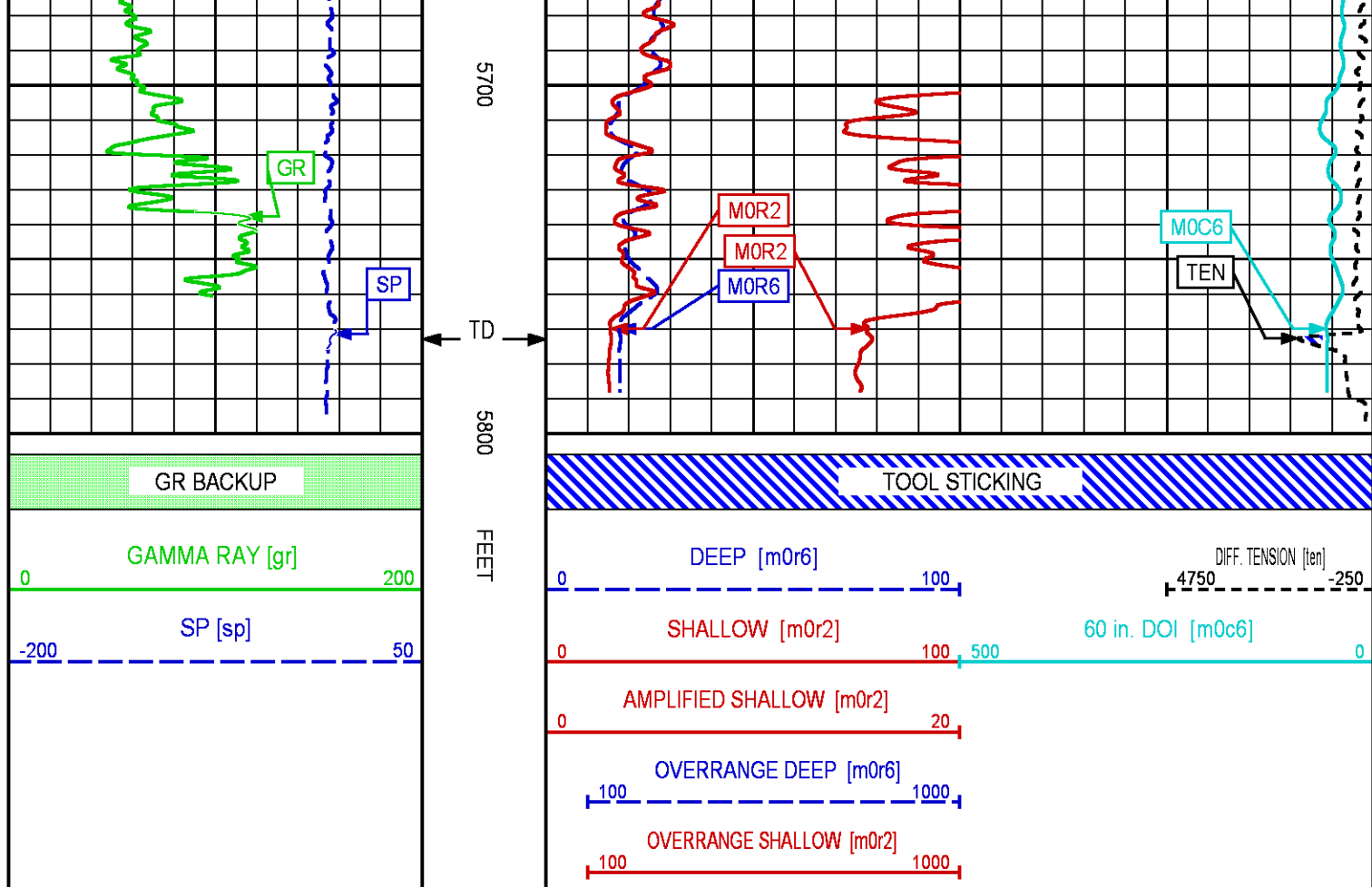












MAIN LOG 5"/100FT SCALE

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

Updates: 1 Patches: 3

Plotted: Wed Oct 8 01:45:59 2014

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/91493J/n970a02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 1516.250 ft BOTTOM DEPTH: 5799.471 ft

SYMMETRIC FILTER

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

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	"	"
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		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	70.8	degF	"	"
	MUD SAMPLE RES	1.160	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	70.8	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	1200	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	13.500	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	"	"

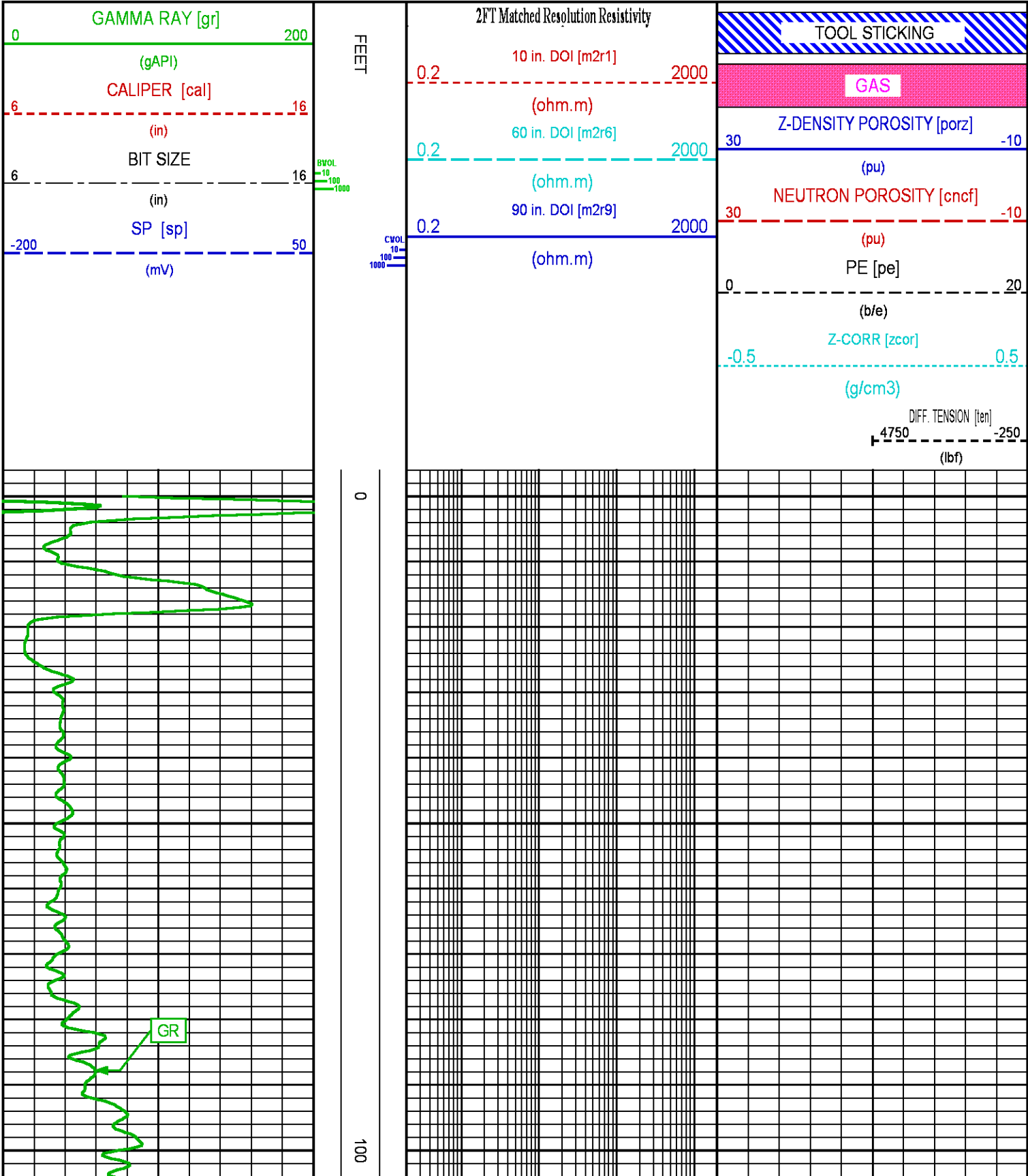
HDIL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000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

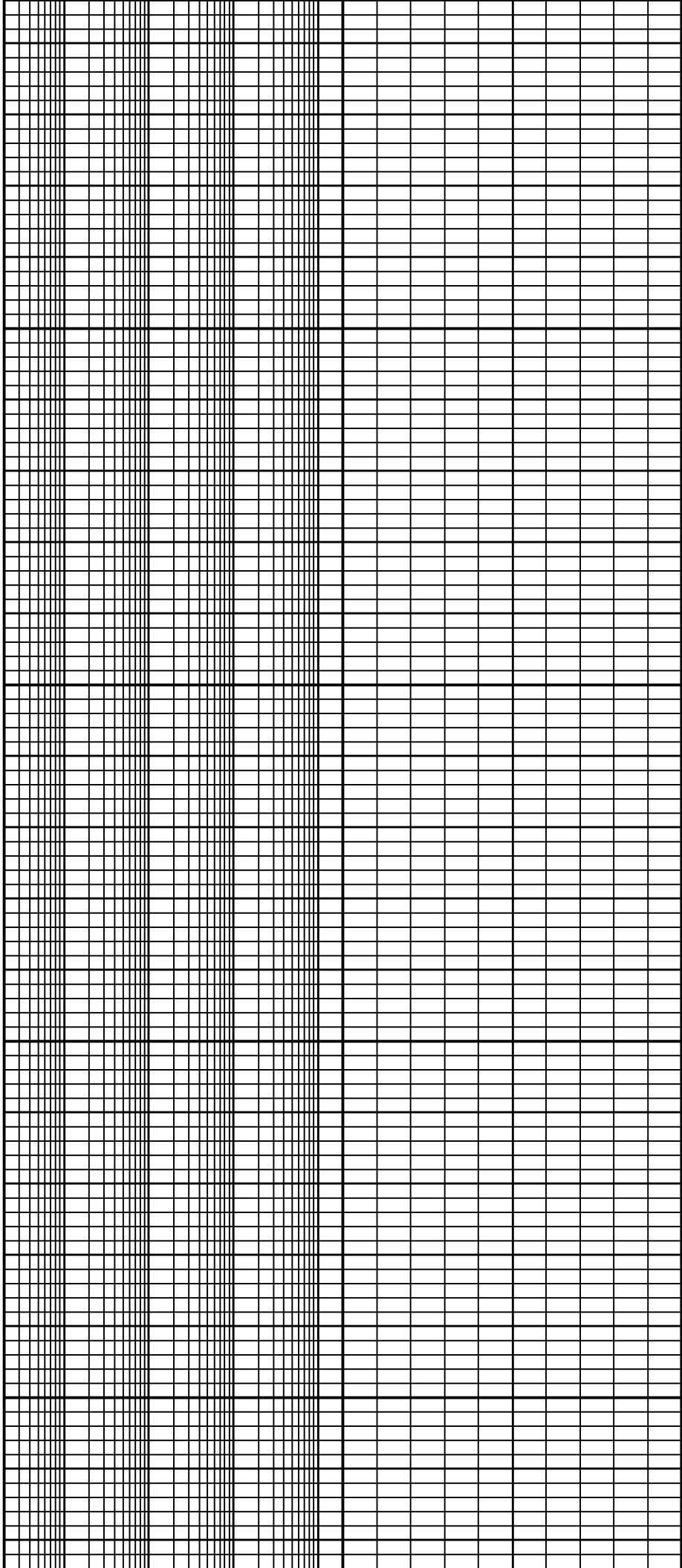
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Oct 7 23:24:37 2014	BIT SIZE
F1:BVOL	Oct 7 23:24:37 2014	BOREHOLE VOLUME
F1:CAL	Oct 7 23:24:37 2014	CALIPER
F1:CNCF	Oct 7 23:24:37 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Oct 7 23:24:37 2014	CEMENT VOLUME
F1:GR	Oct 7 23:24:37 2014	GAMMA RAY
F1:M2R1	Oct 7 23:24:37 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Oct 7 23:24:37 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Oct 7 23:24:37 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Oct 7 23:24:37 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Oct 7 23:24:37 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Oct 7 23:24:37 2014	SPONTANEOUS POTENTIAL
F1:TEN	Oct 7 23:24:37 2014	DIFFERENTIAL TENSION
F1:ZCOR	Oct 7 23:24:37 2014	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

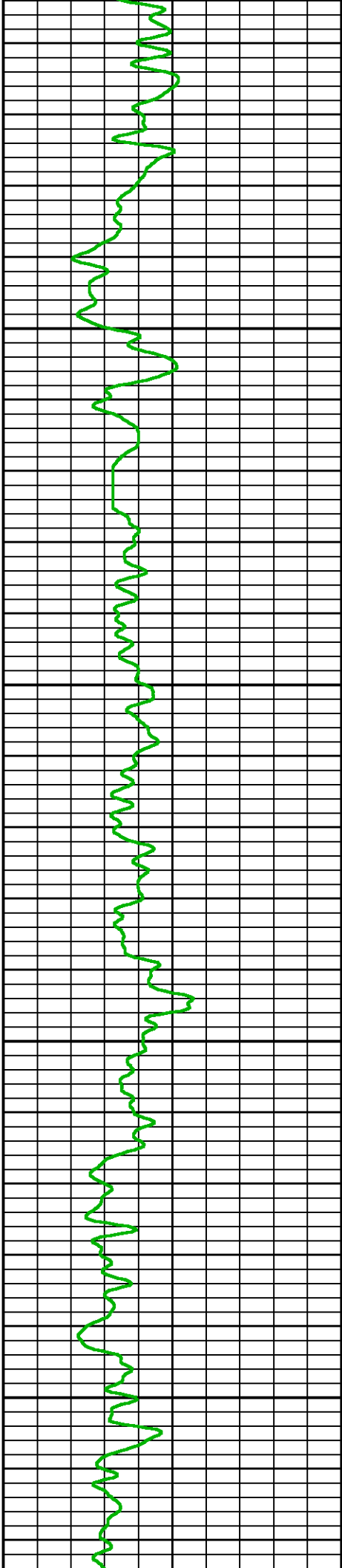
Presentation	: cas6685:/dat1a/91493J/WPX_MAIN.fvpdf [5"/100' Scale]
Plot Interval	: -2.25 - 5801.5 Feet
Data File 1	: F1 : cas6685:/dat1a/91493J/n970a02_MAIN.xtf
Created On	: Oct 7 23:24:37 2014
Company	: WPX ENERGY INC
Well	: FEDERAL SG 432-28
Field	: GRAND VALLEY
File Interval	: -2.25 - 5802.75 Feet
OCT	: n970a





200

300



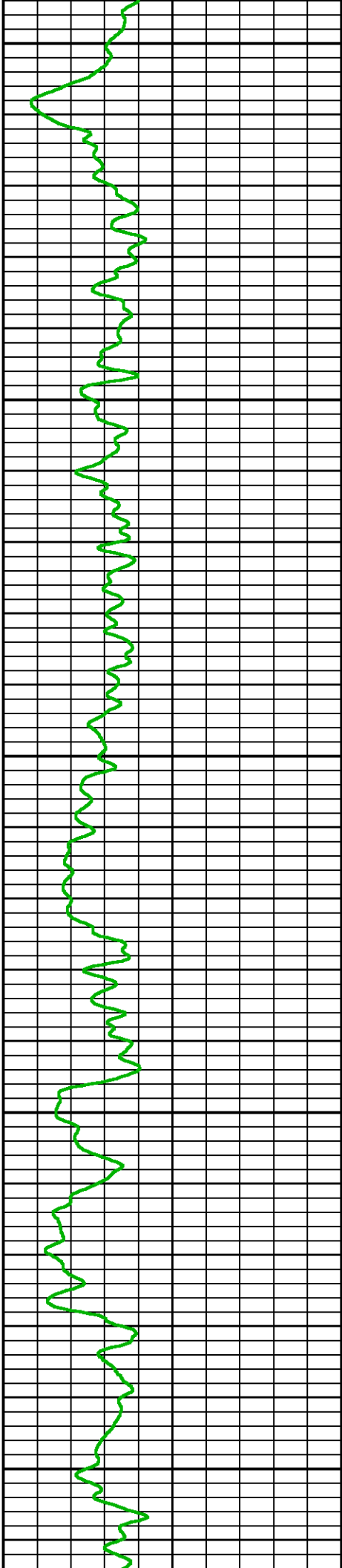
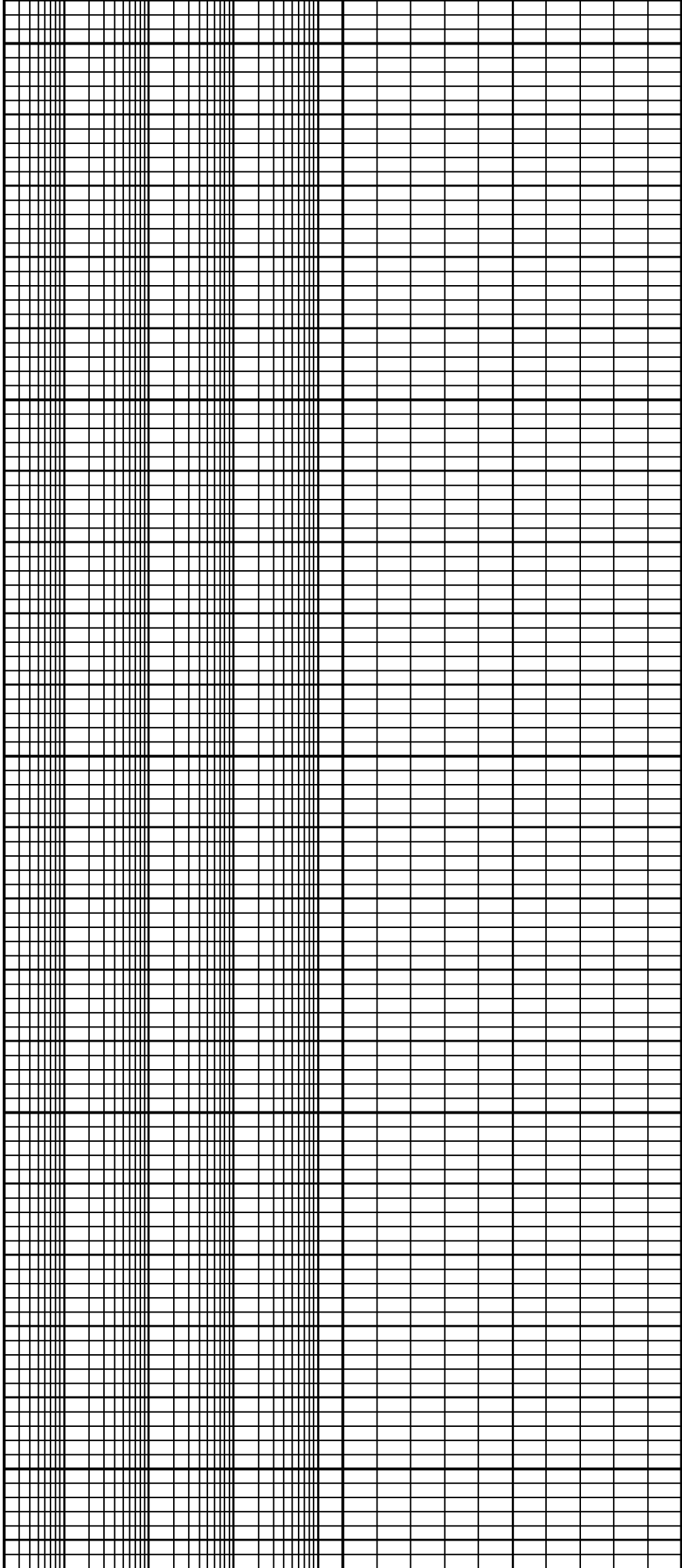
400

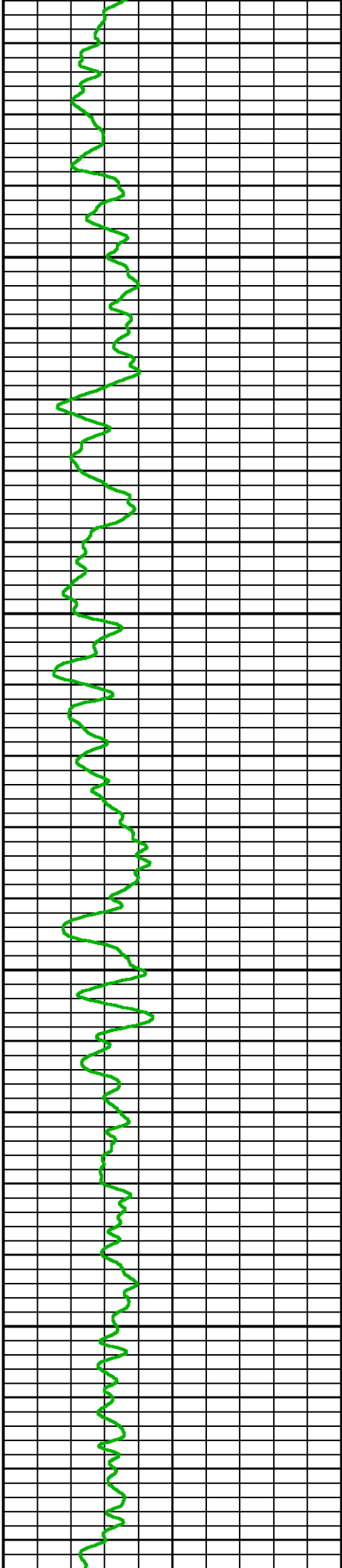
500



600

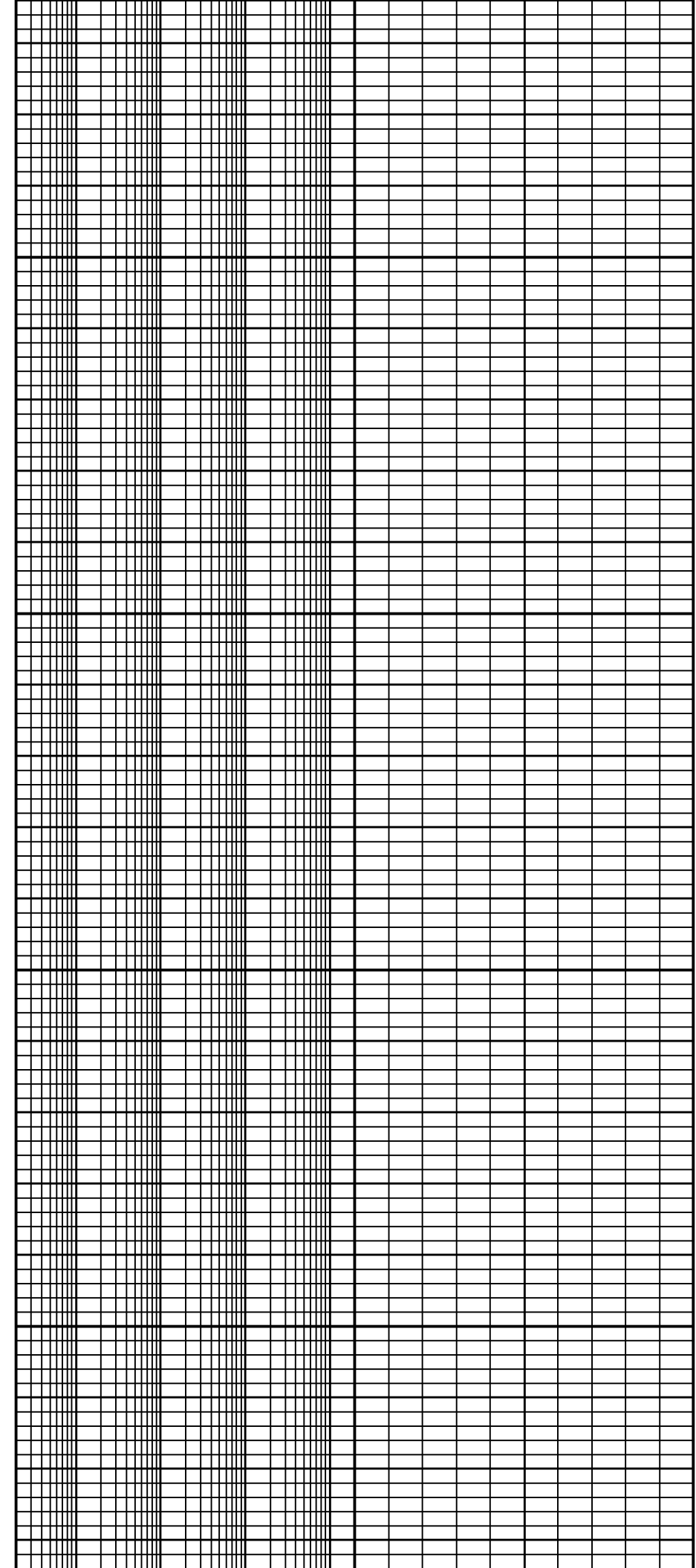
700

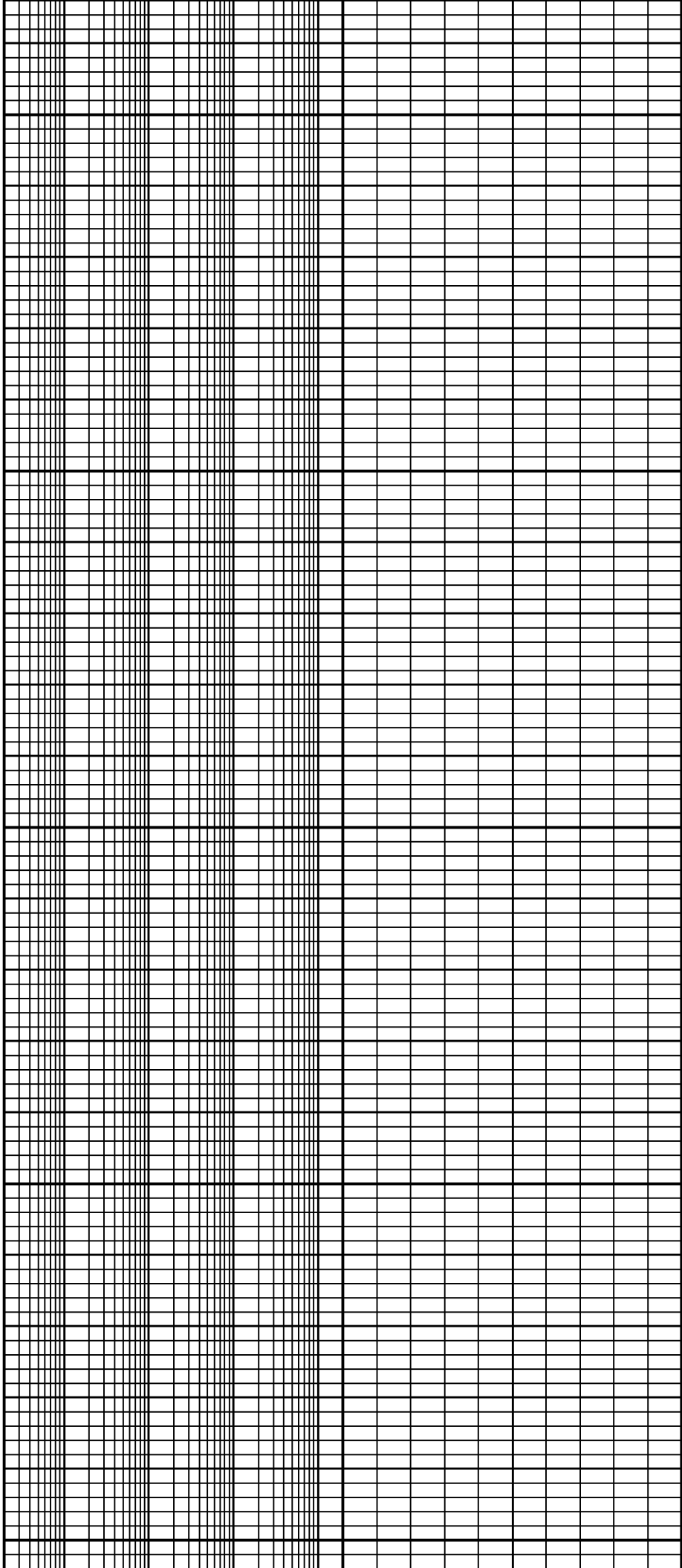




008

006

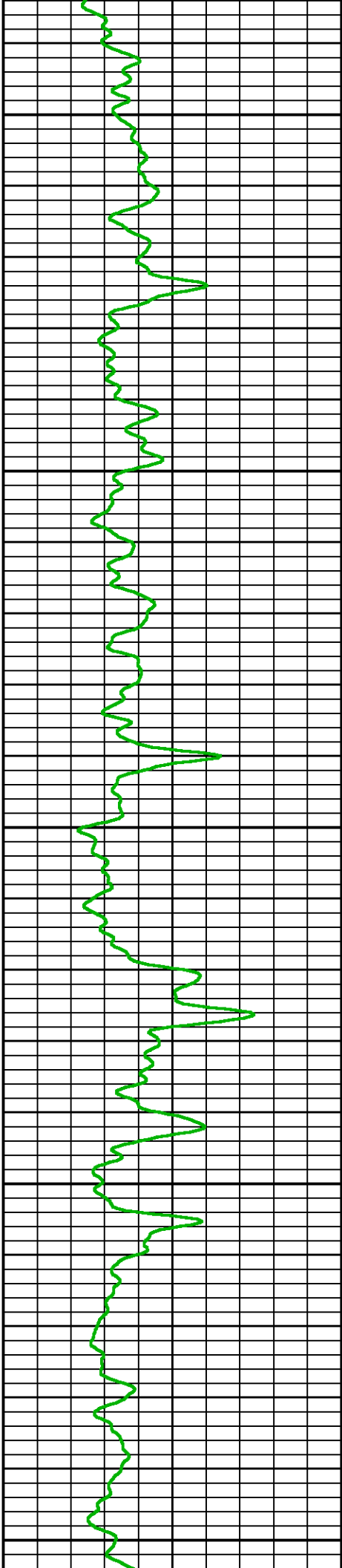


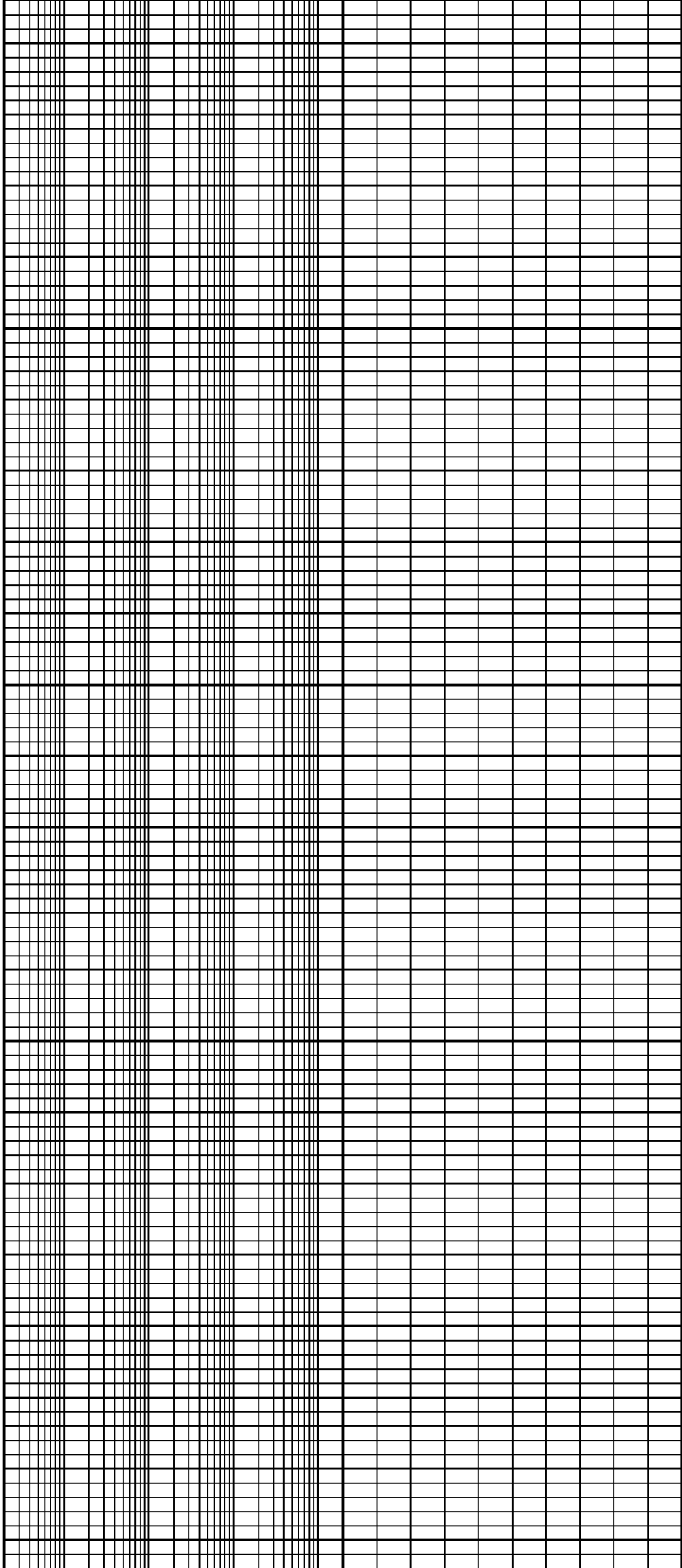


1000

1100

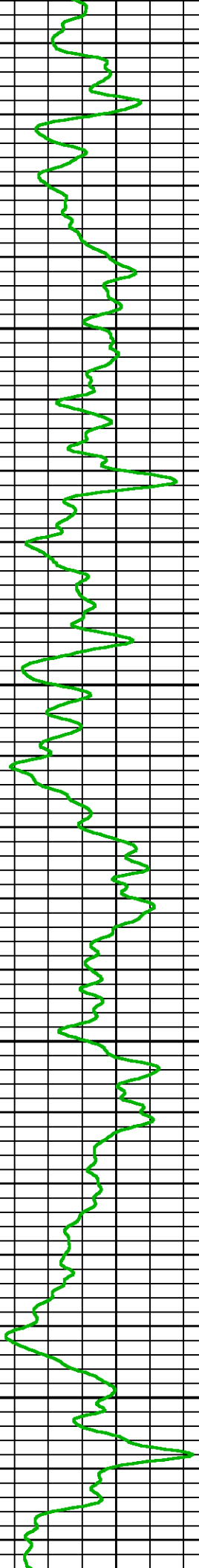
1200

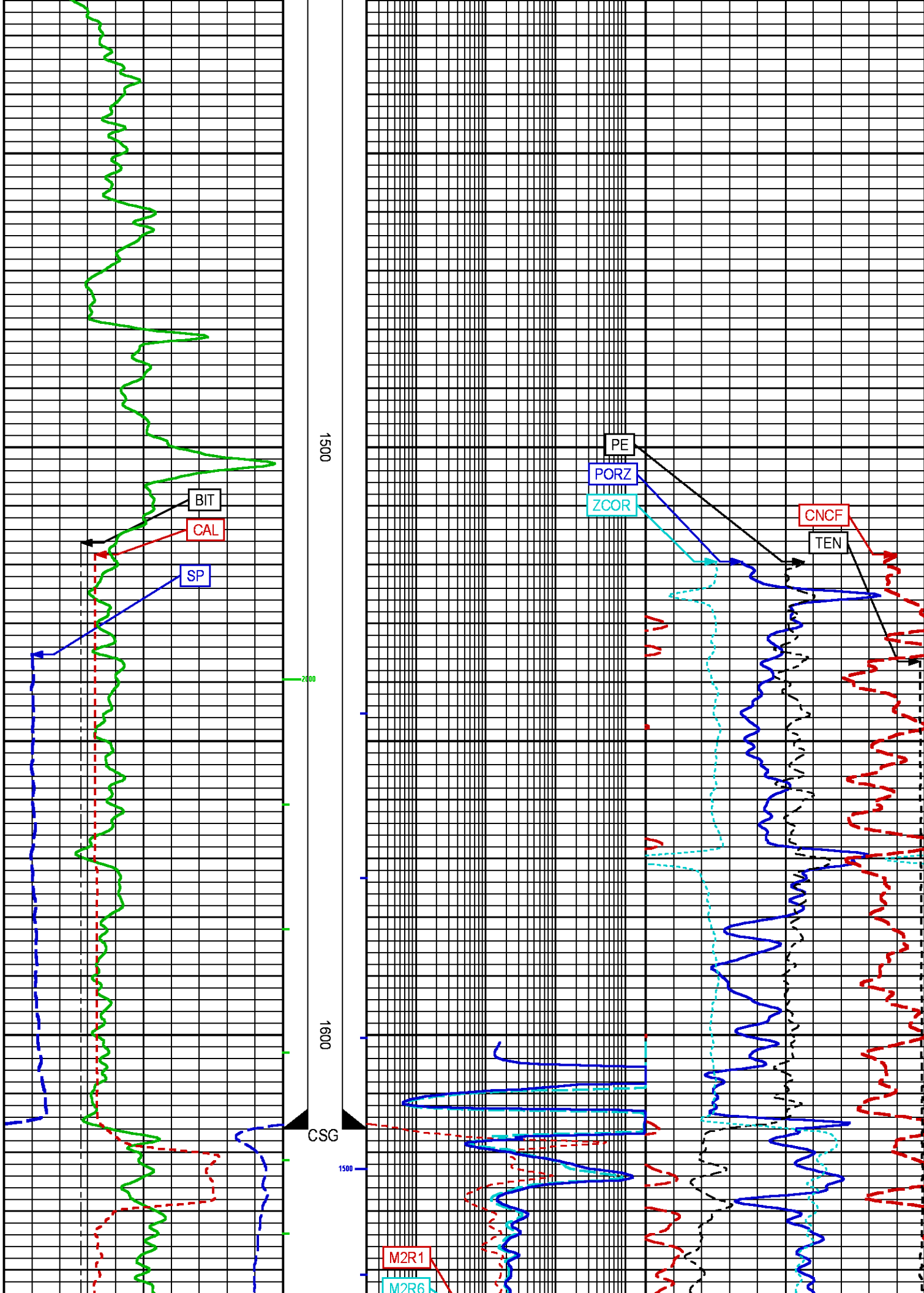


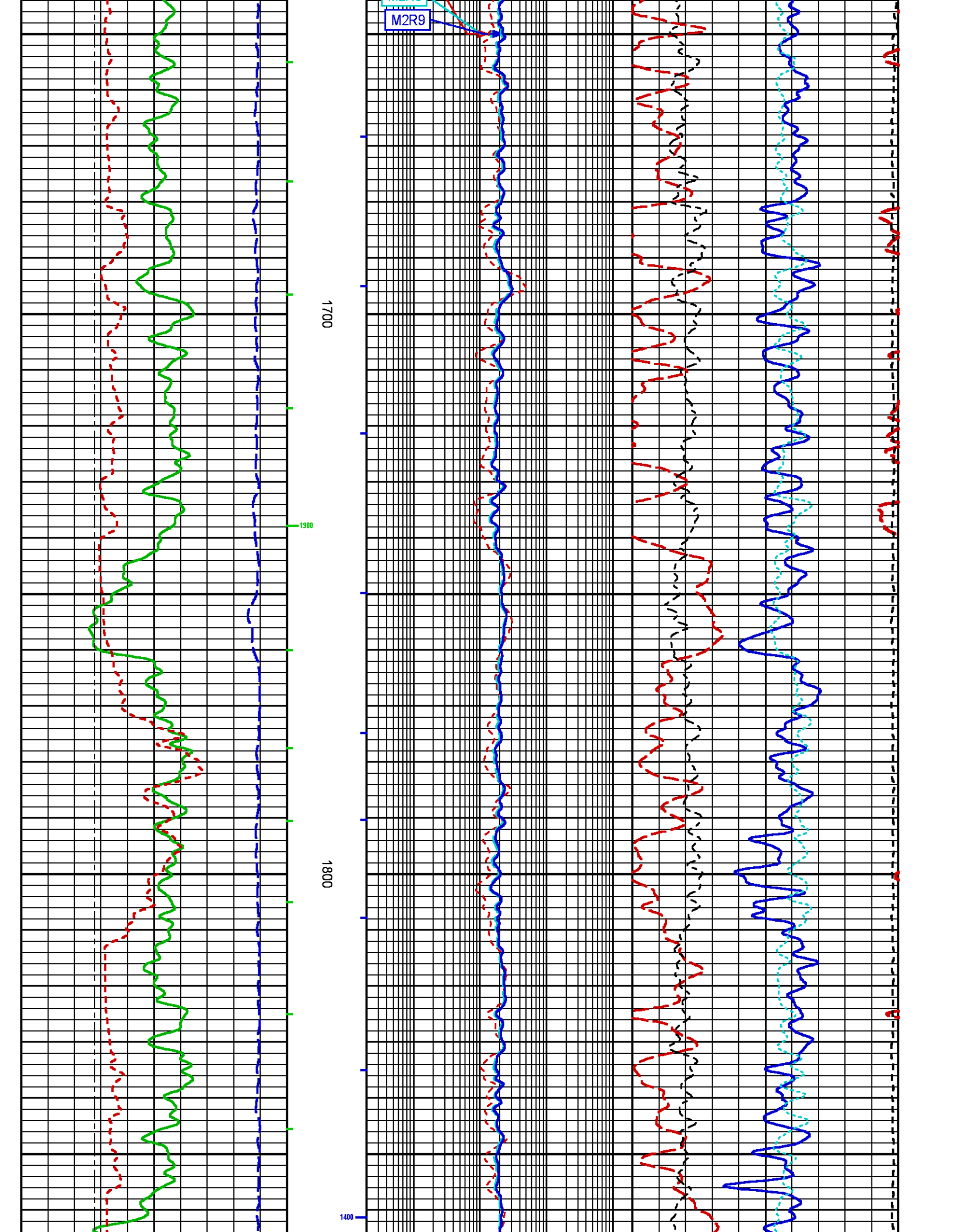


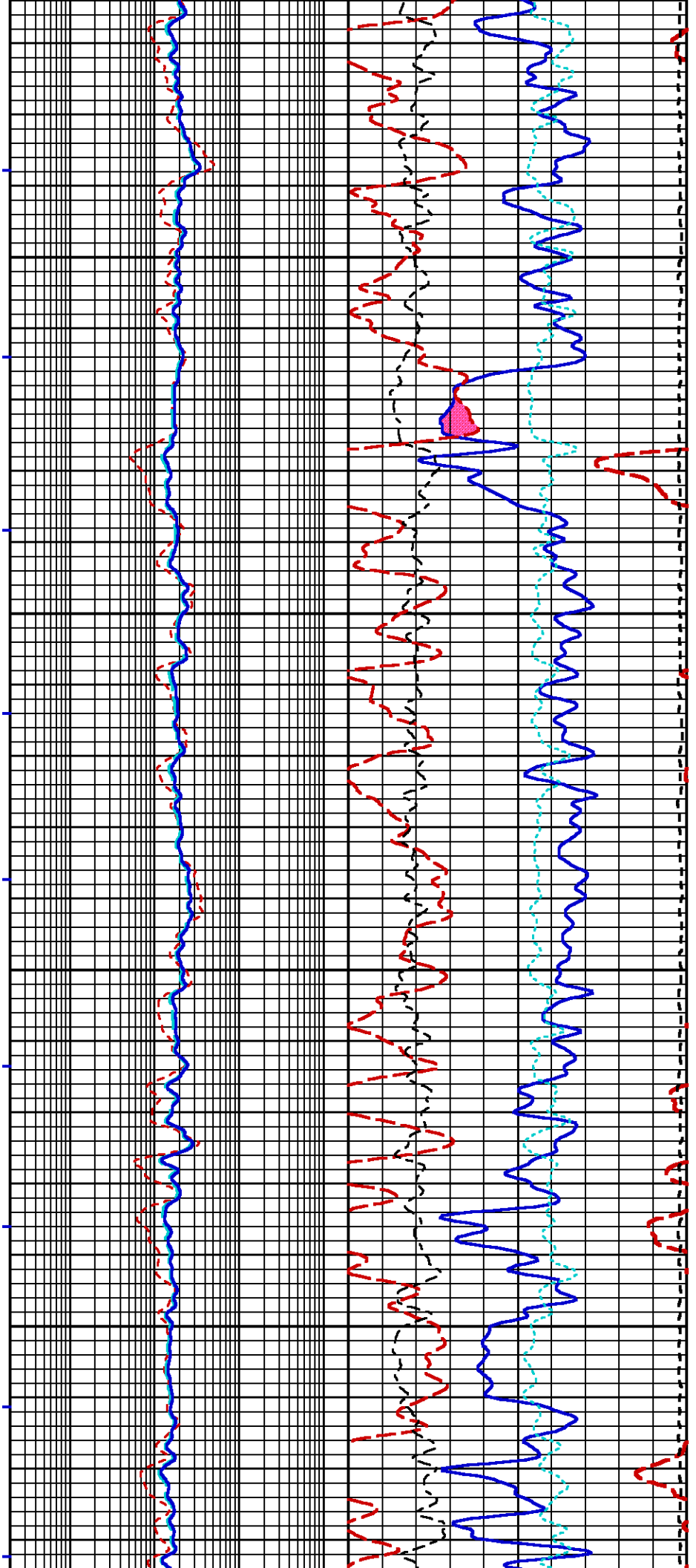
1300

1400





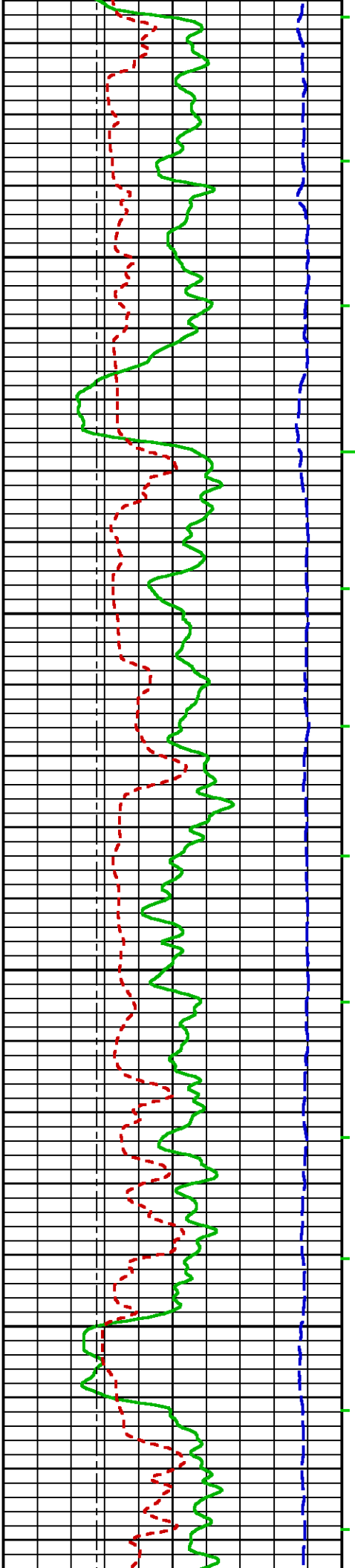


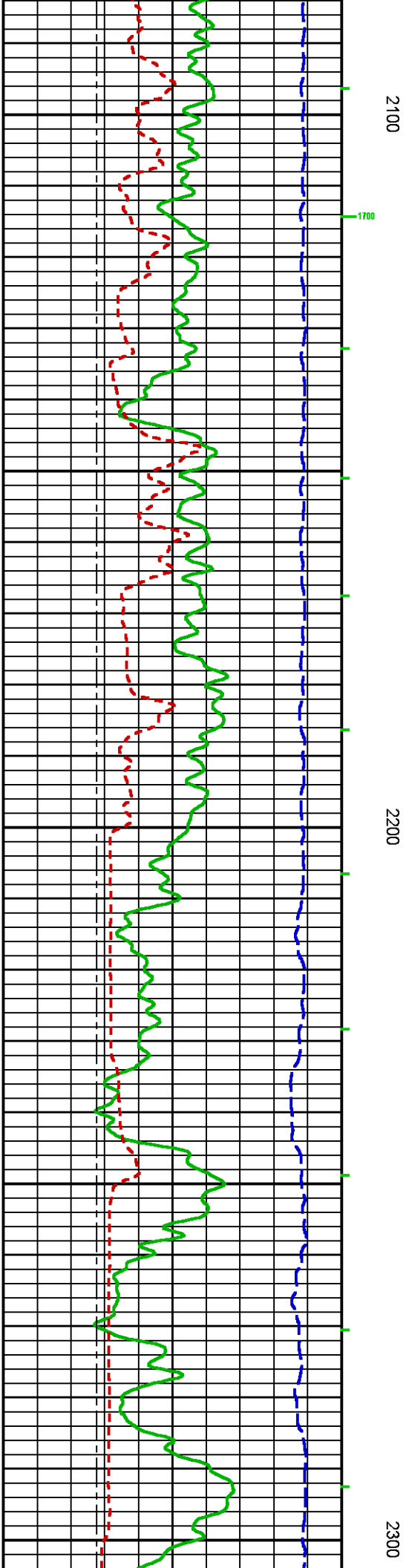
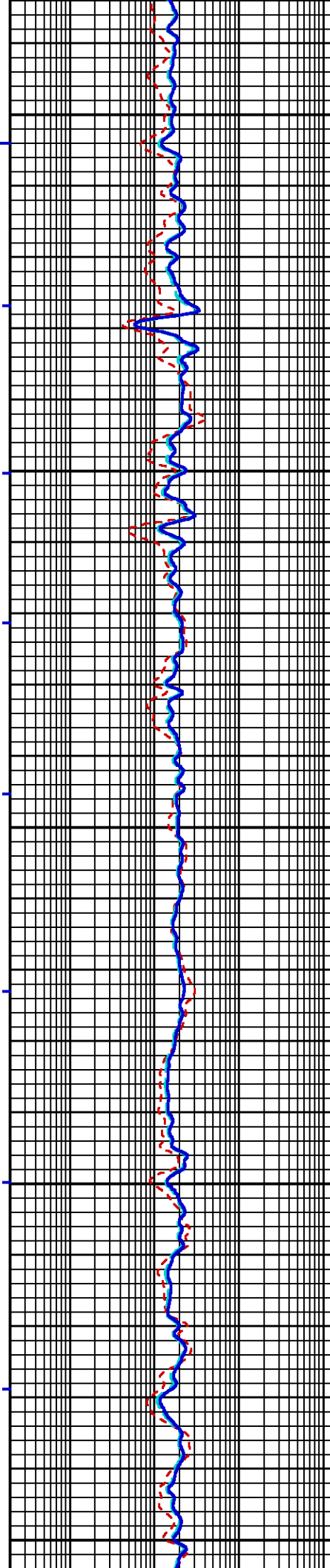
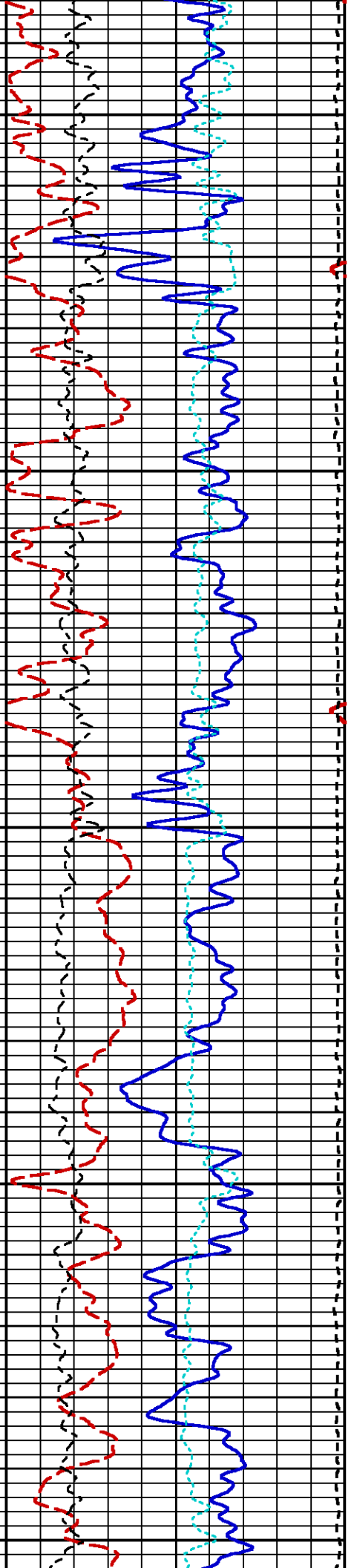


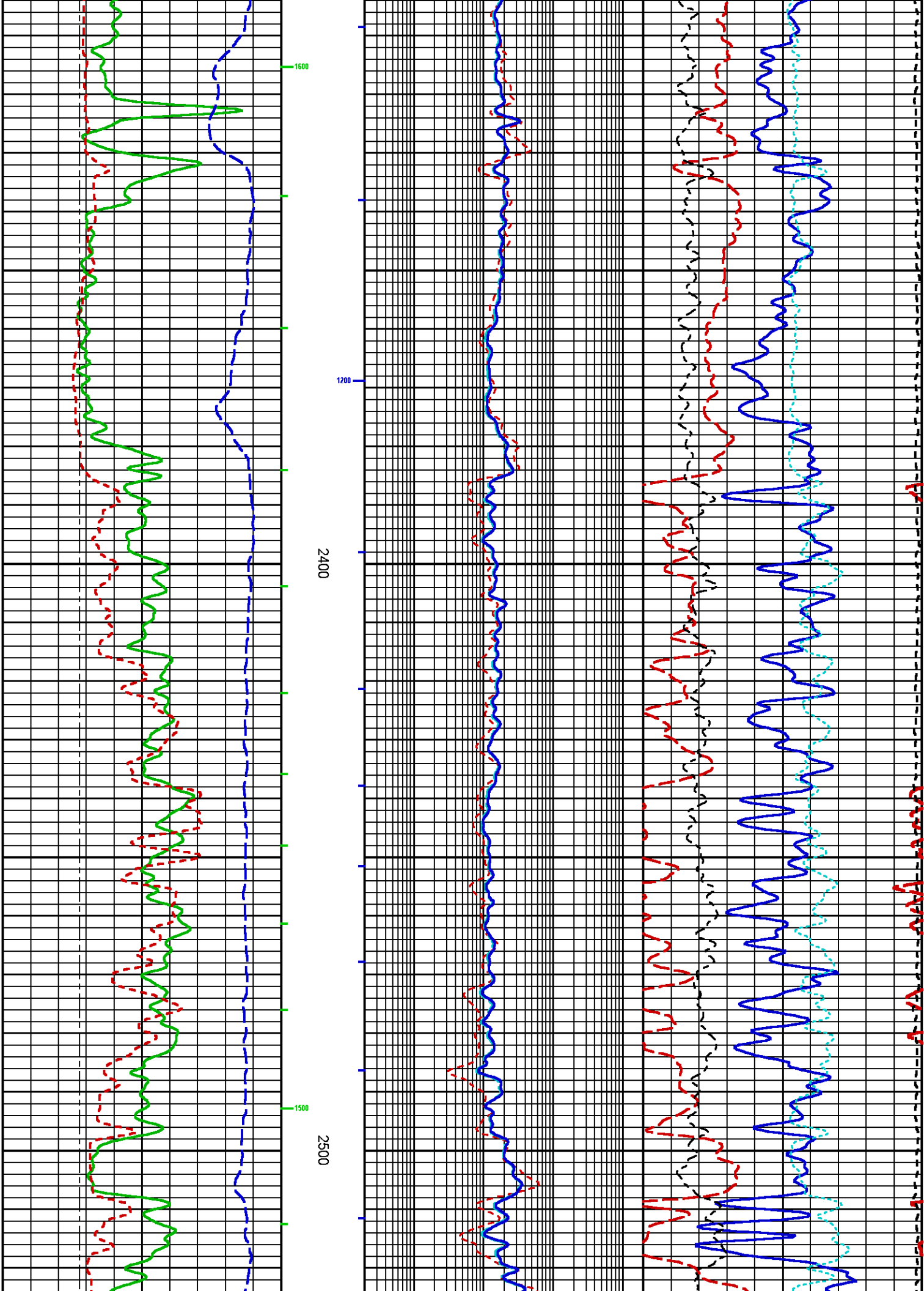
1900

2000

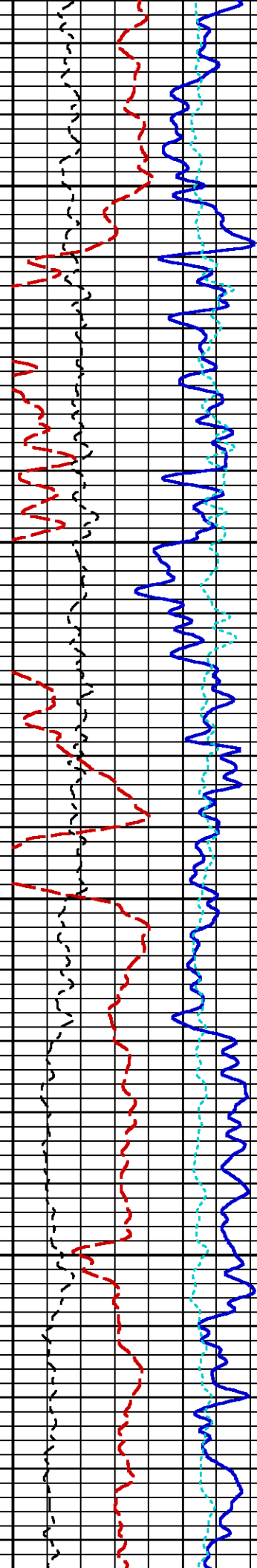
1800



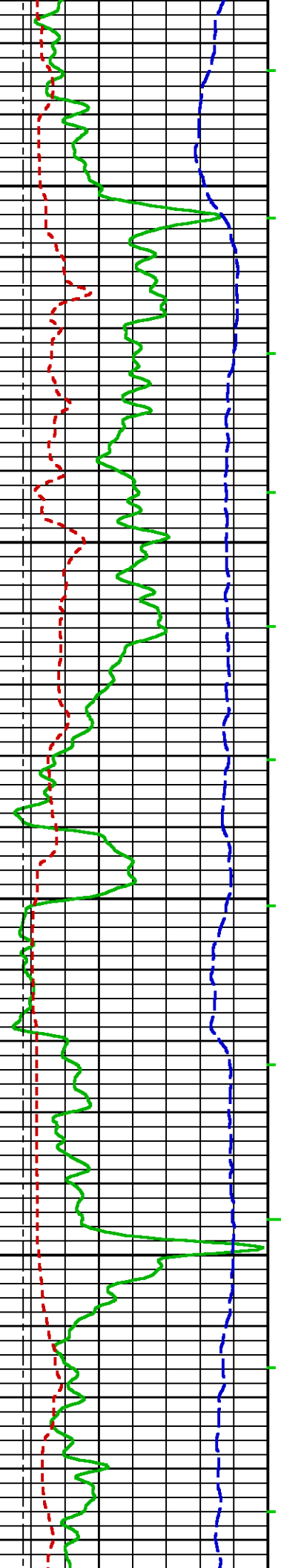


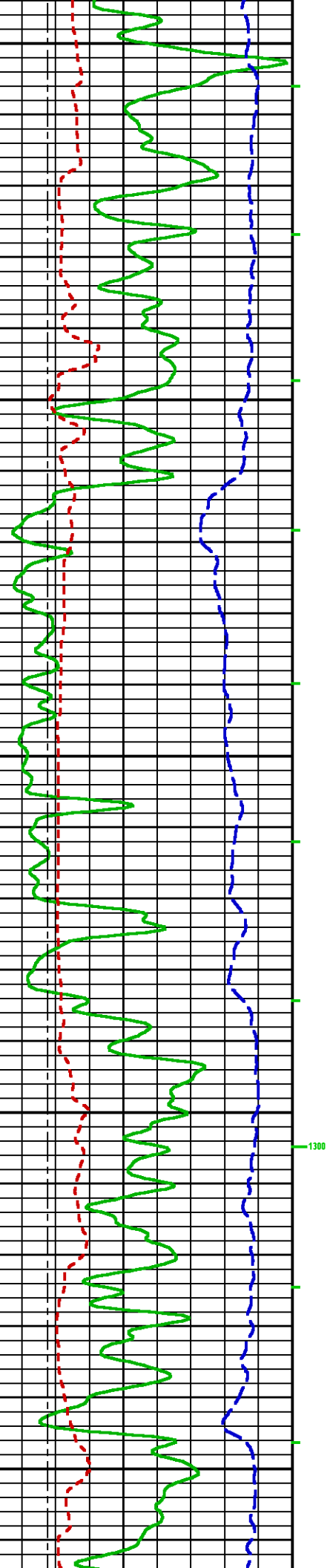
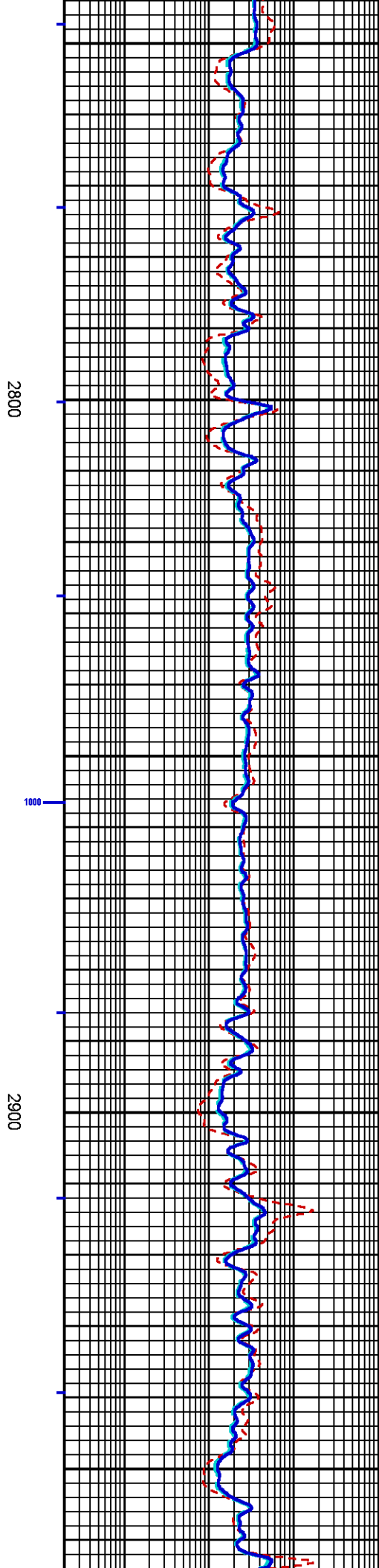
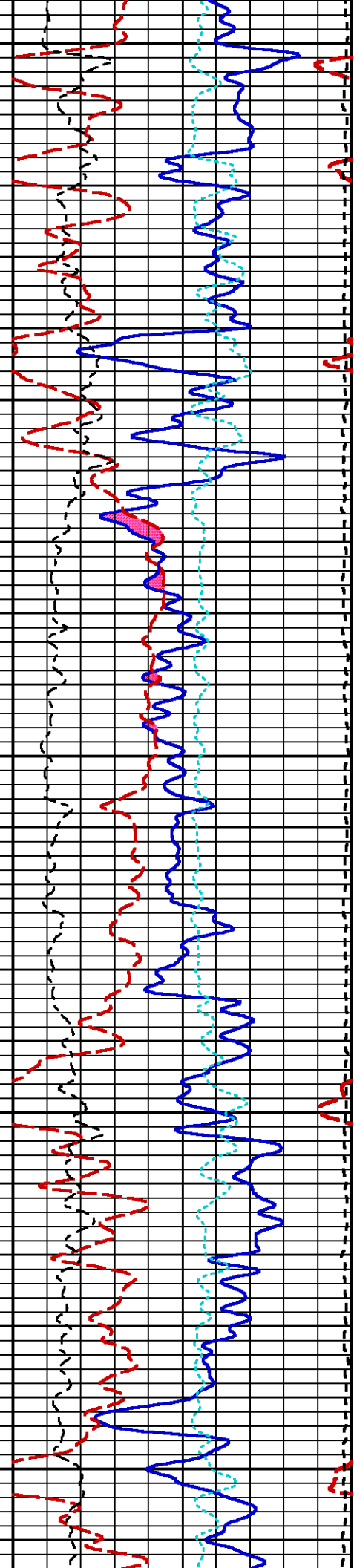


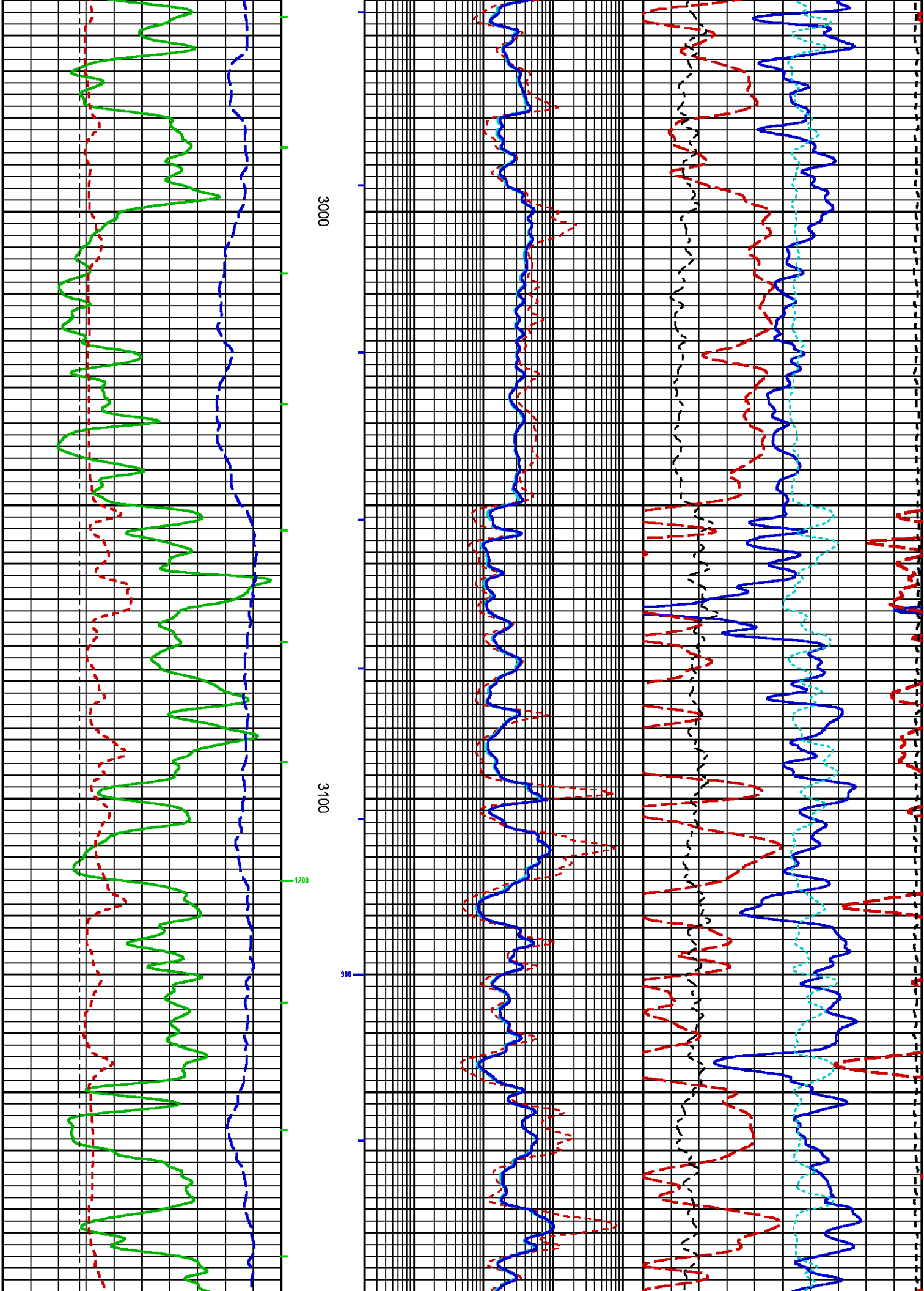
10/10/10
11/11/11
12/12/12

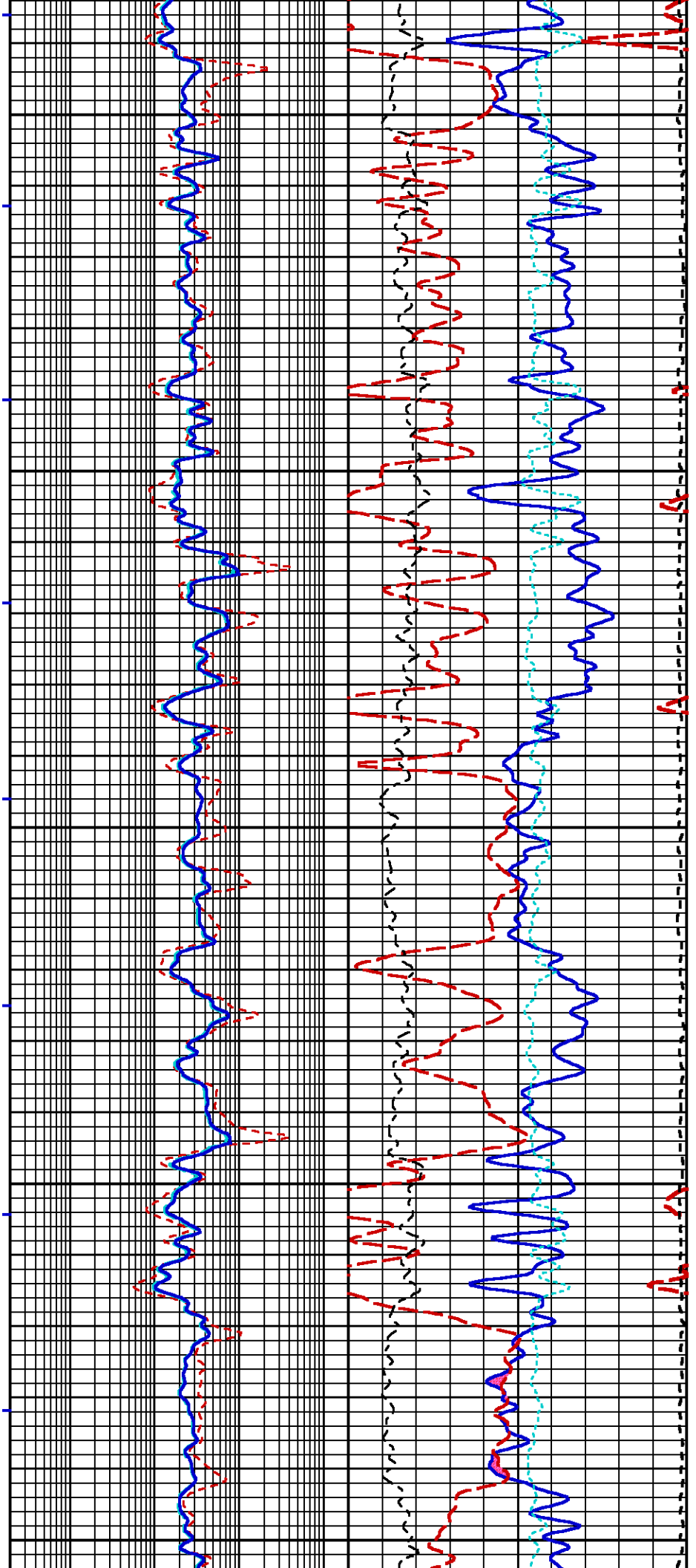


1100
2600
2700
1400





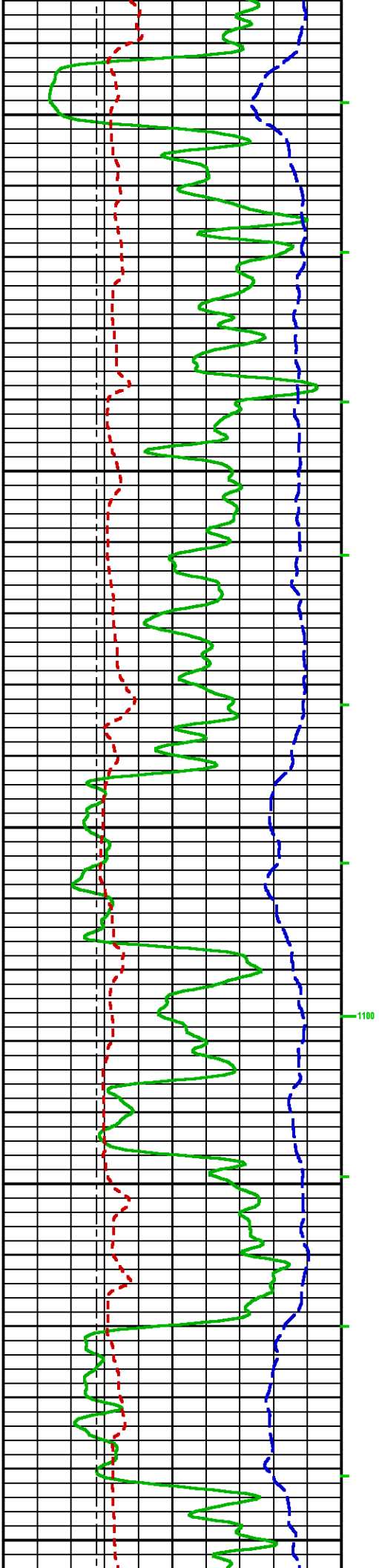


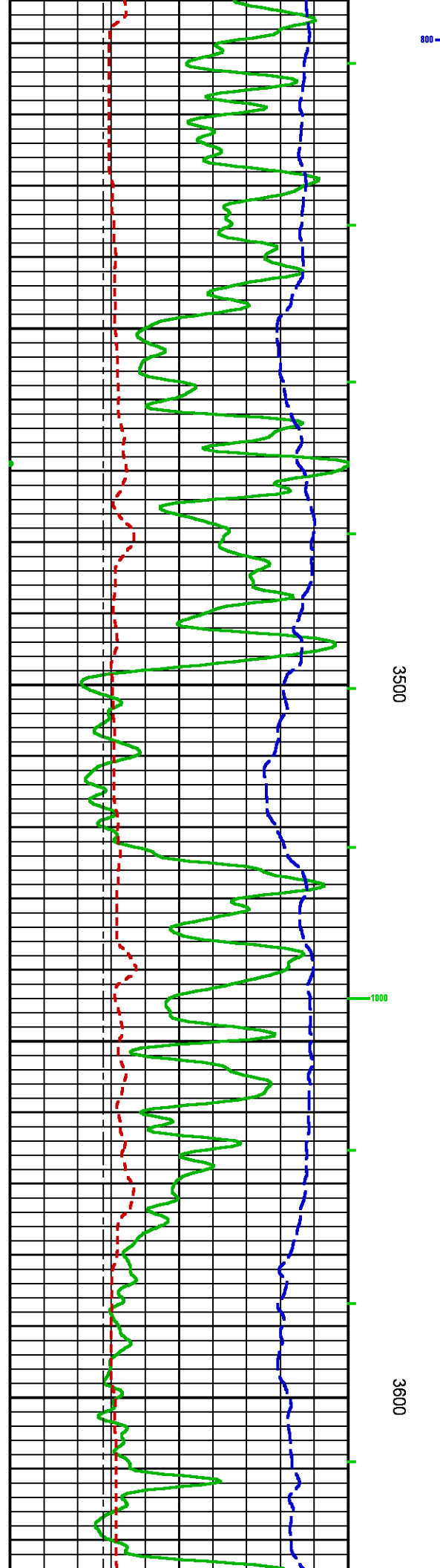
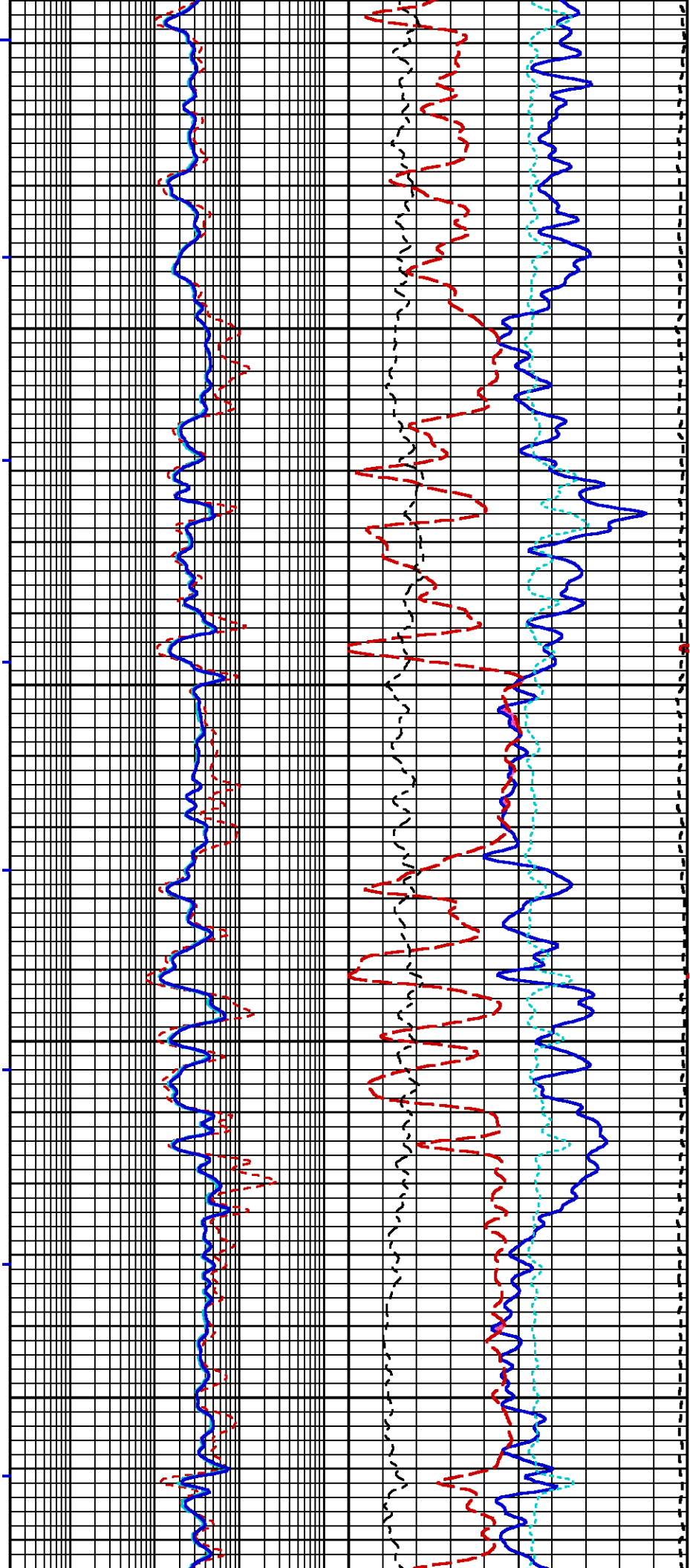


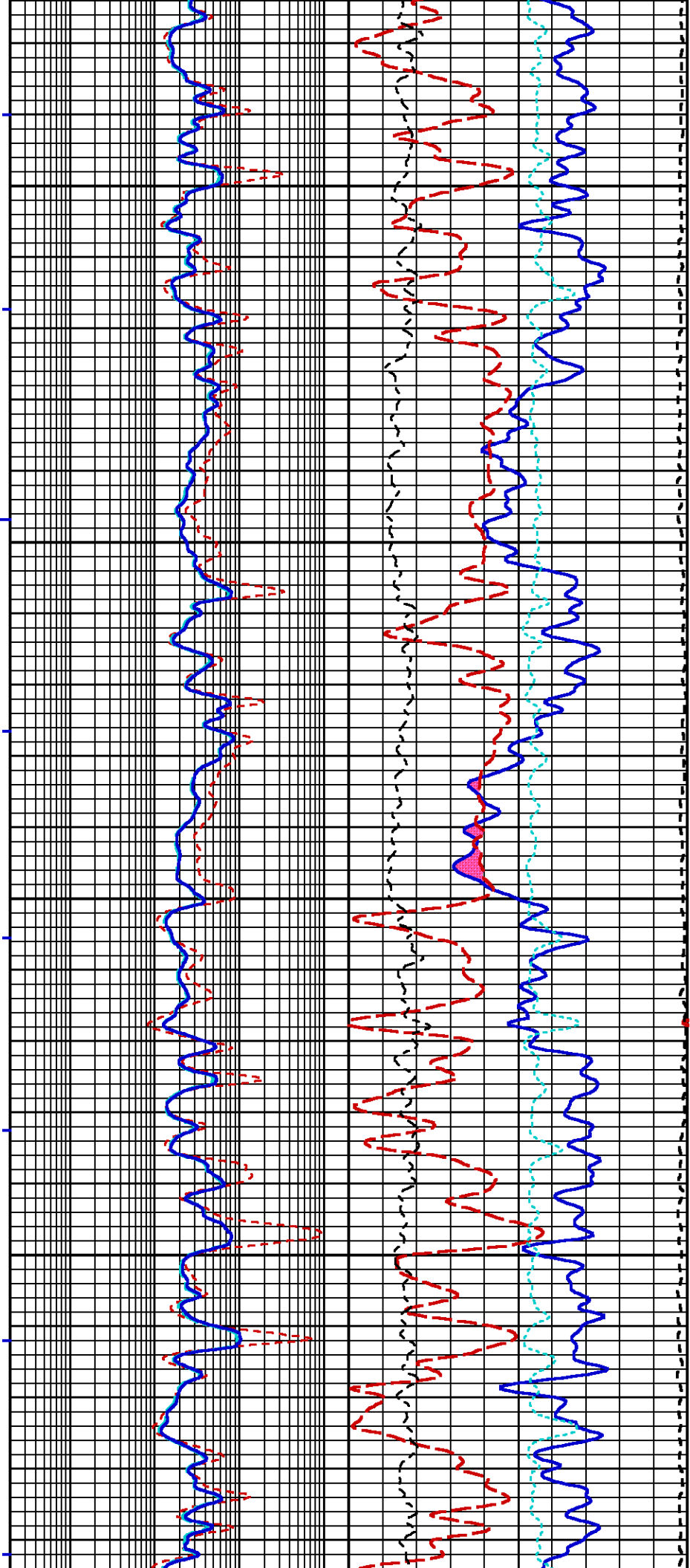
3200

3300

3400





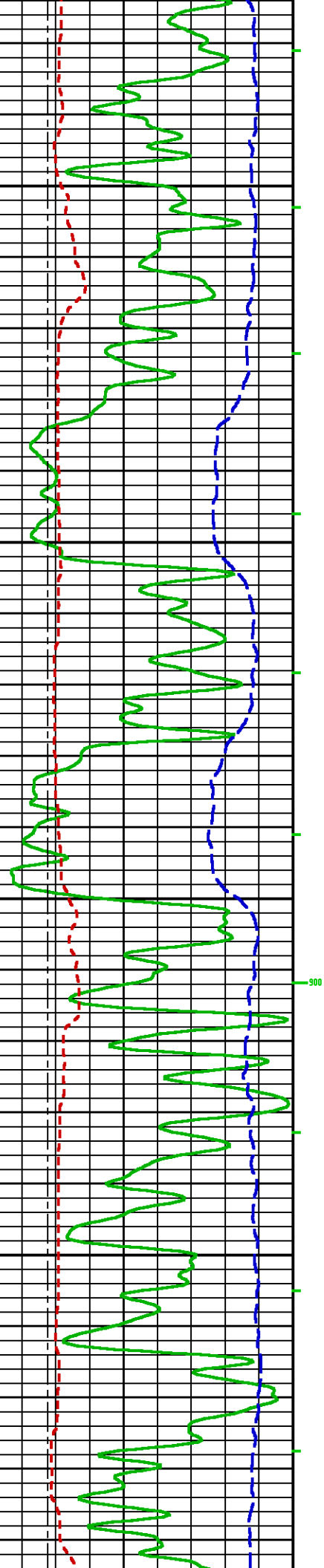


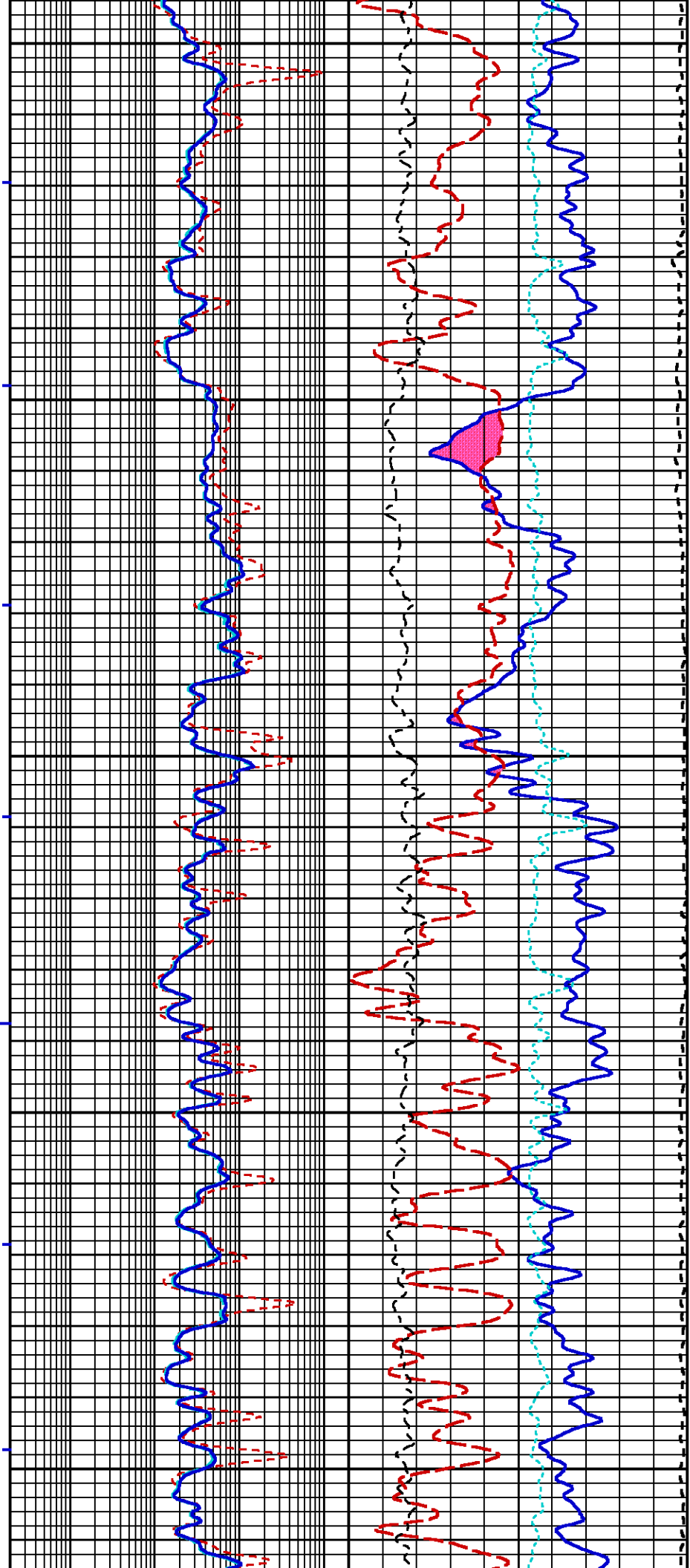
700

900

3700

3800



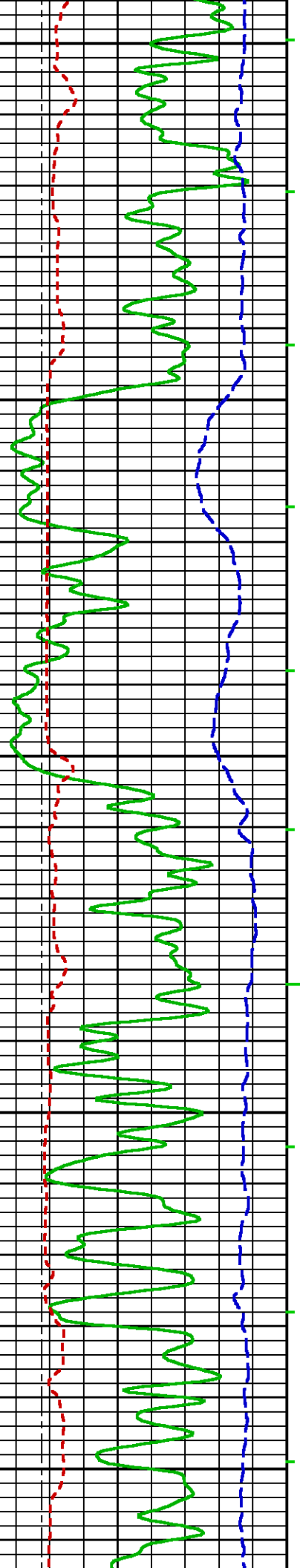


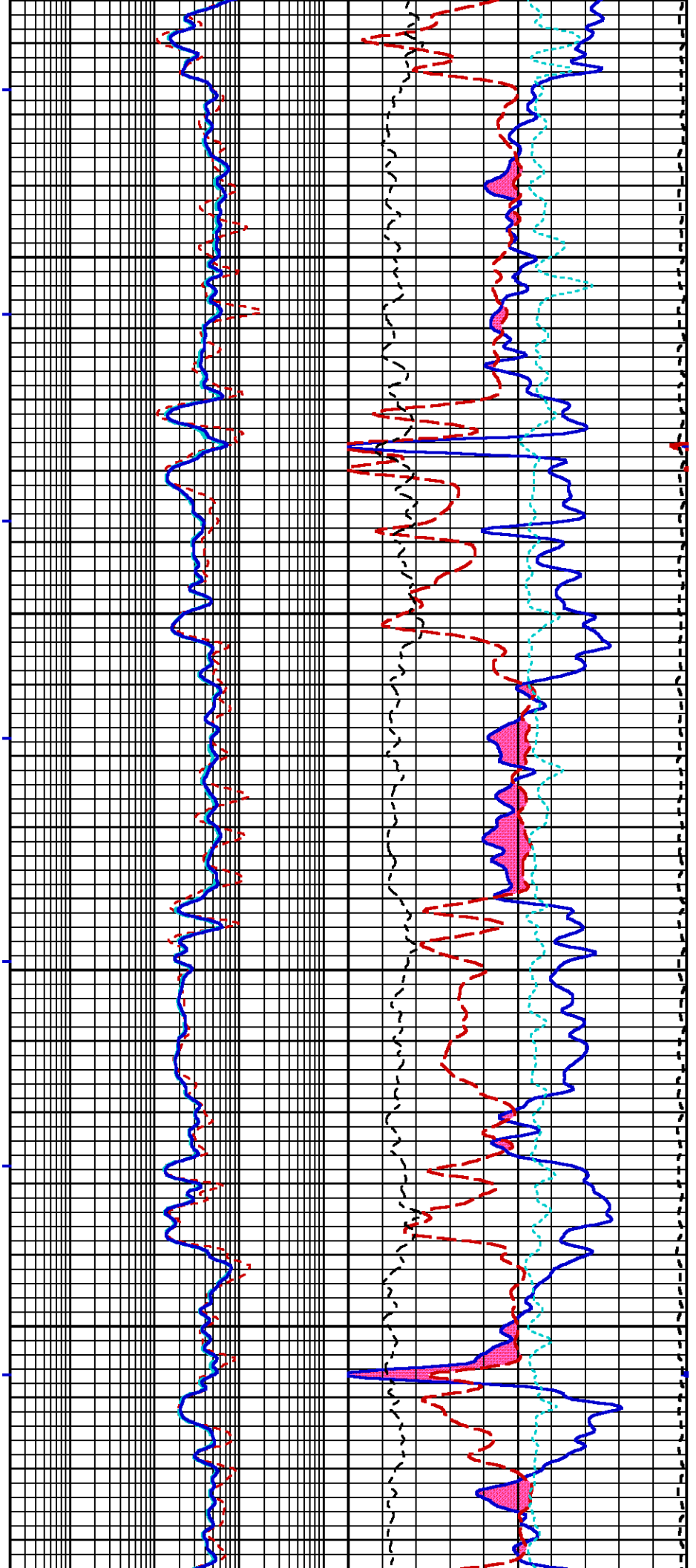
3900

600

4000

800

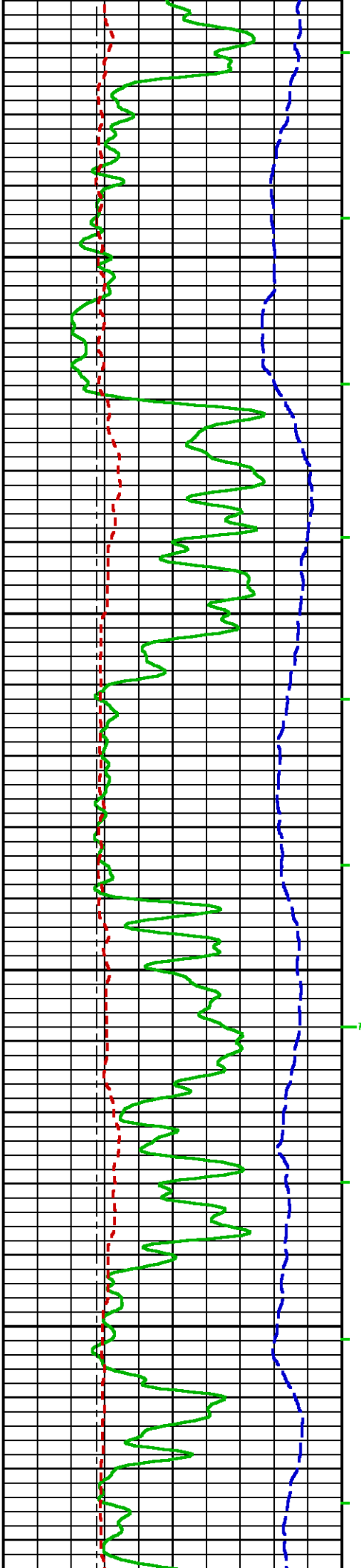


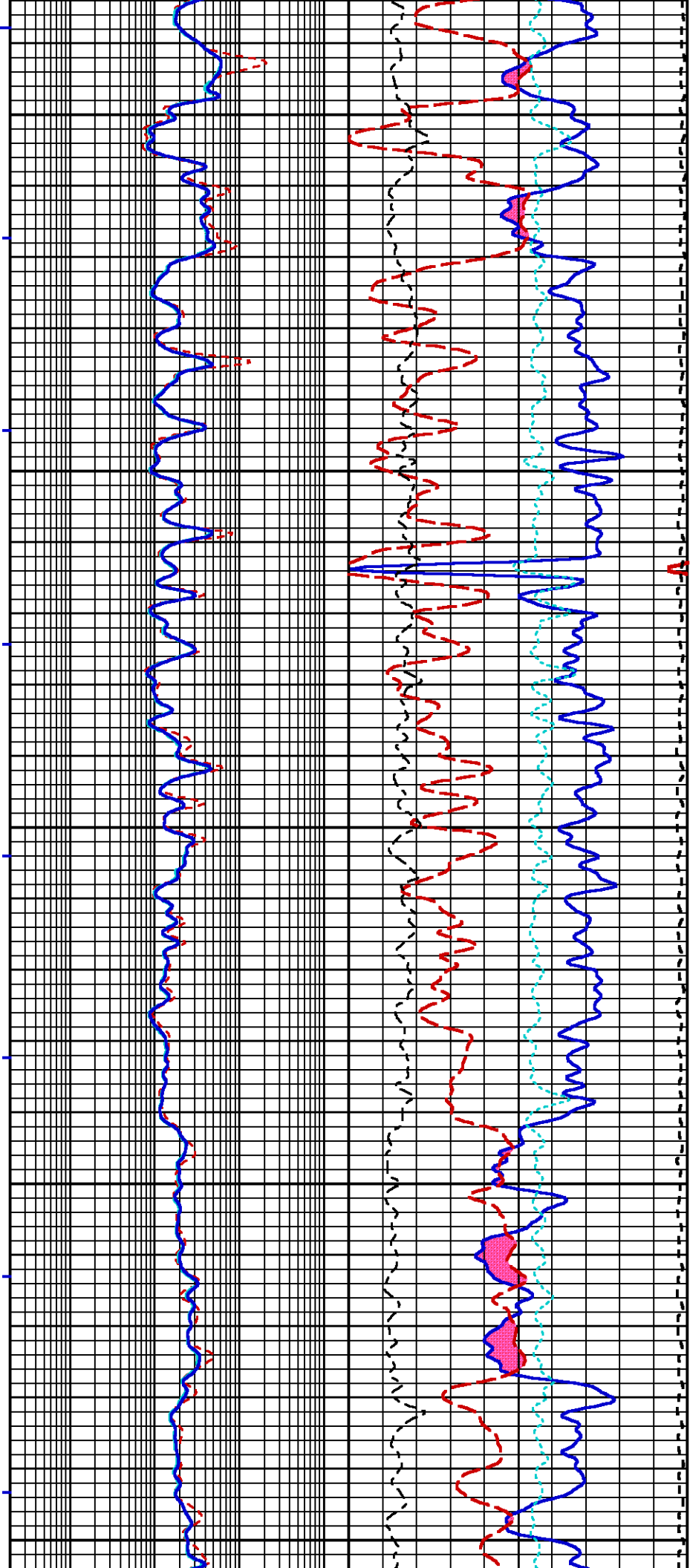


4100

4200

700



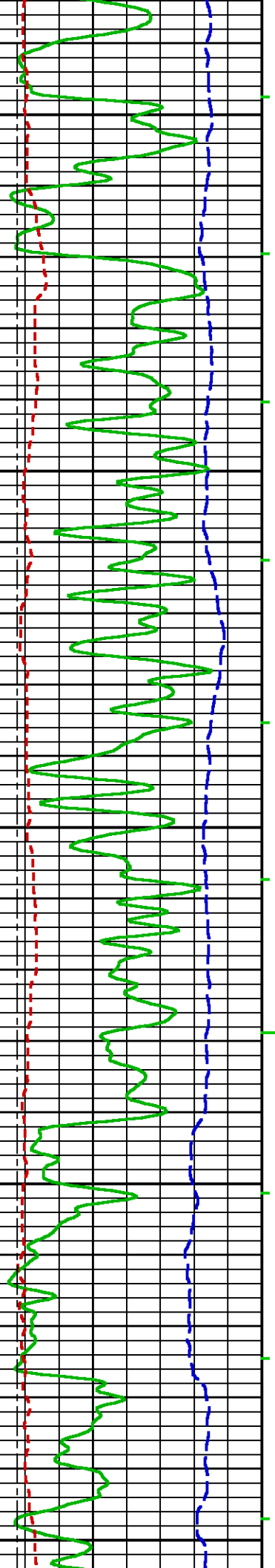


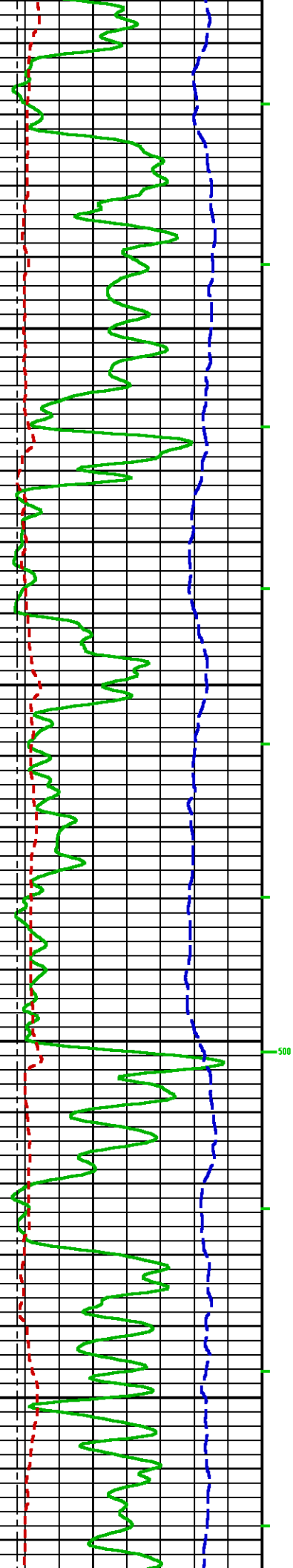
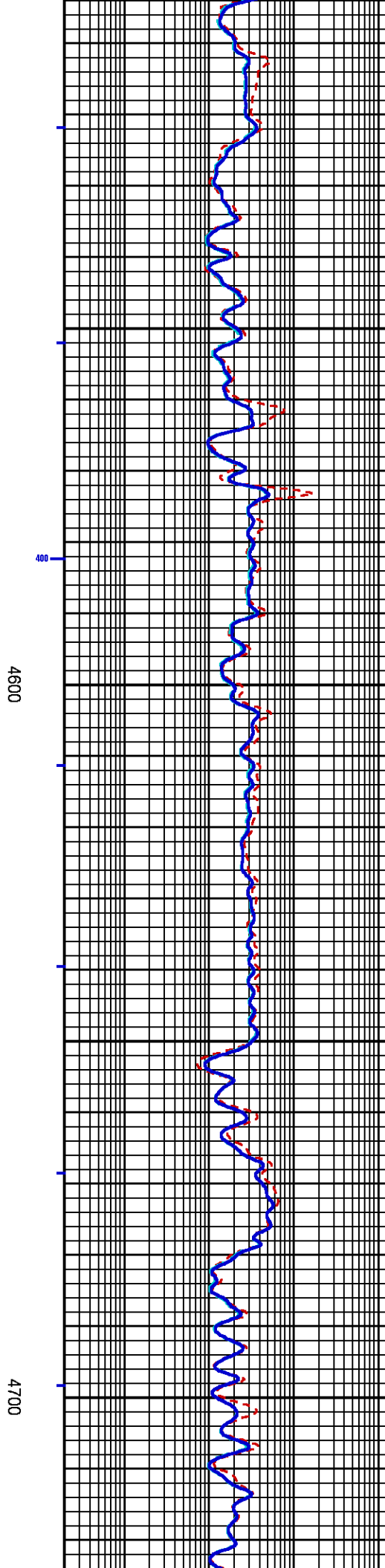
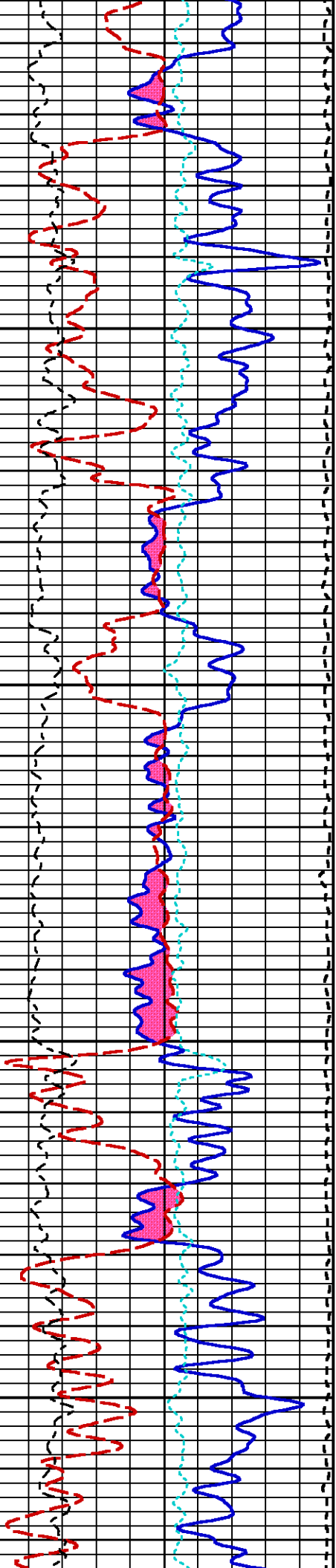
4300

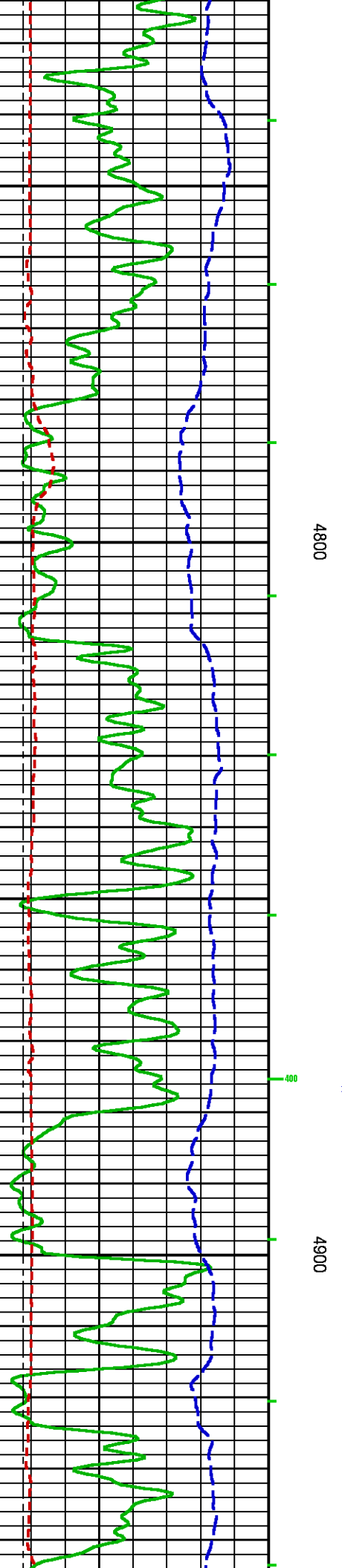
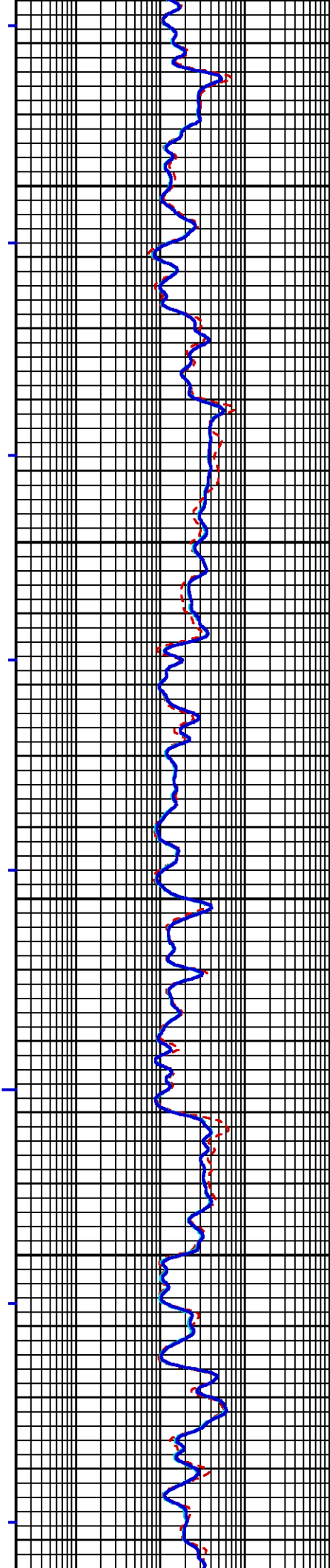
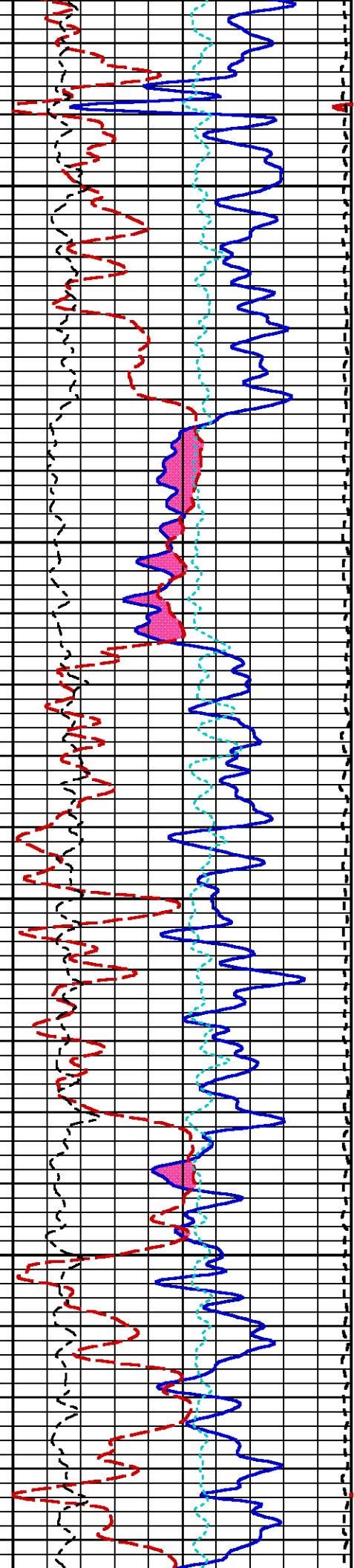
4400

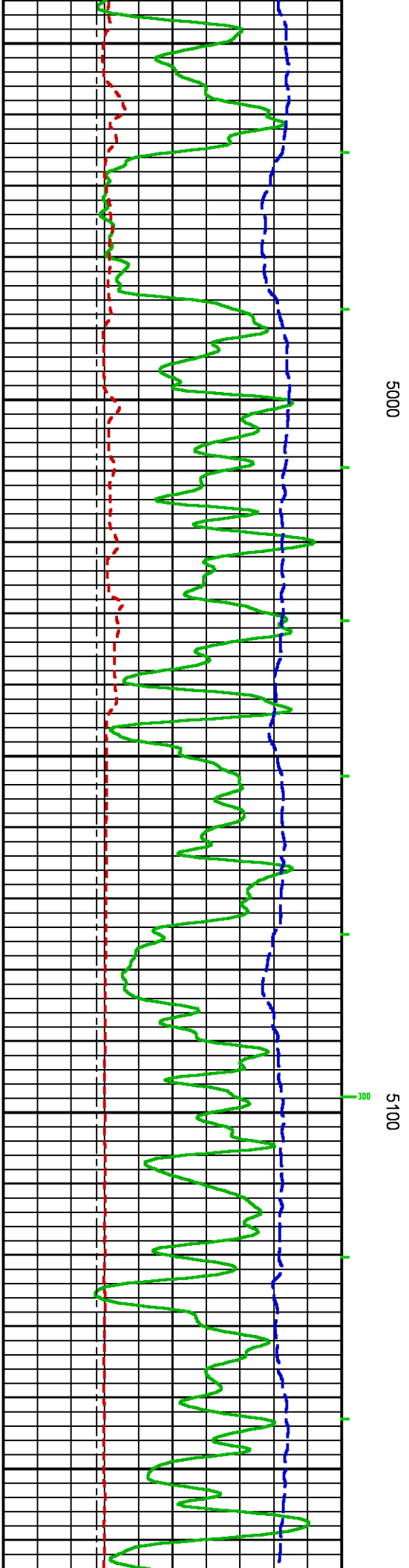
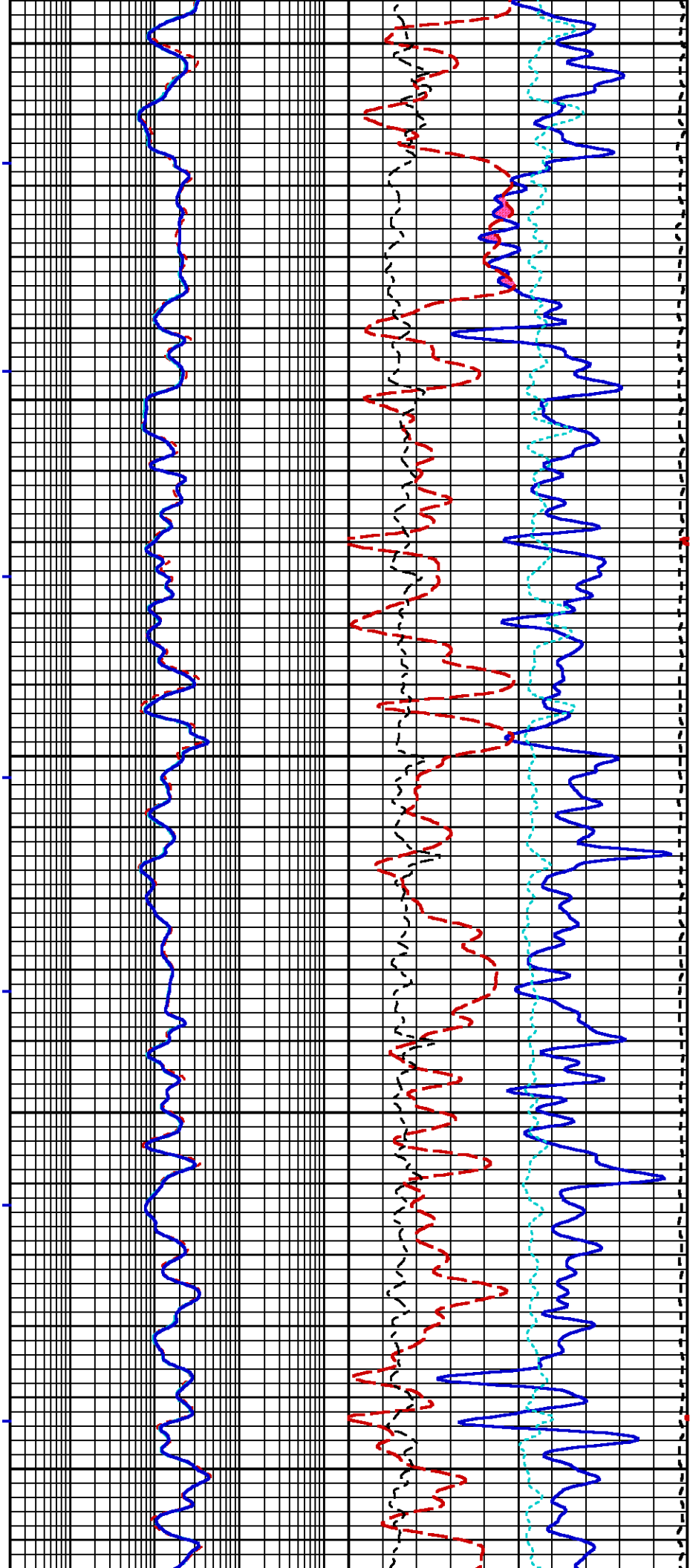
4500

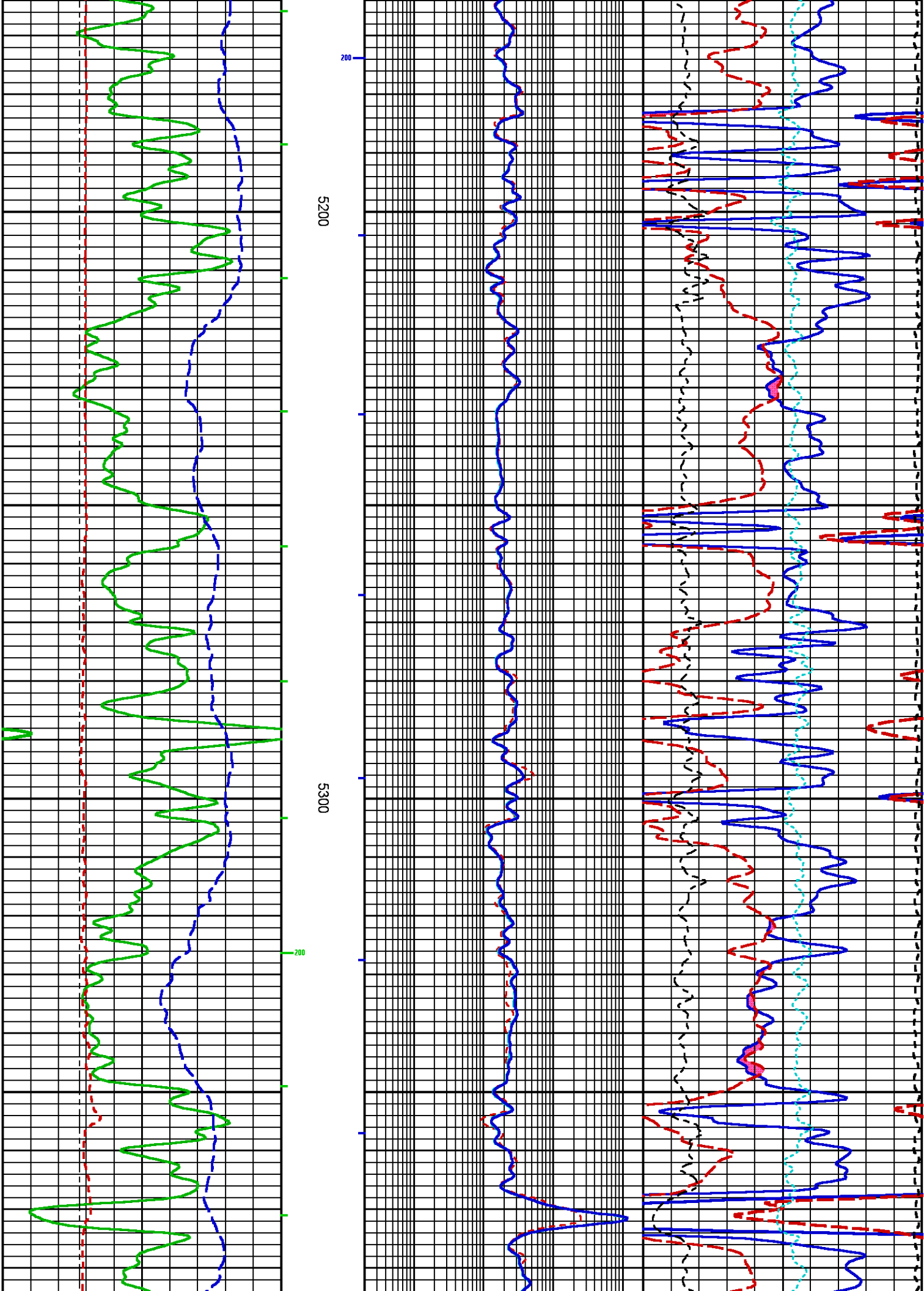
500

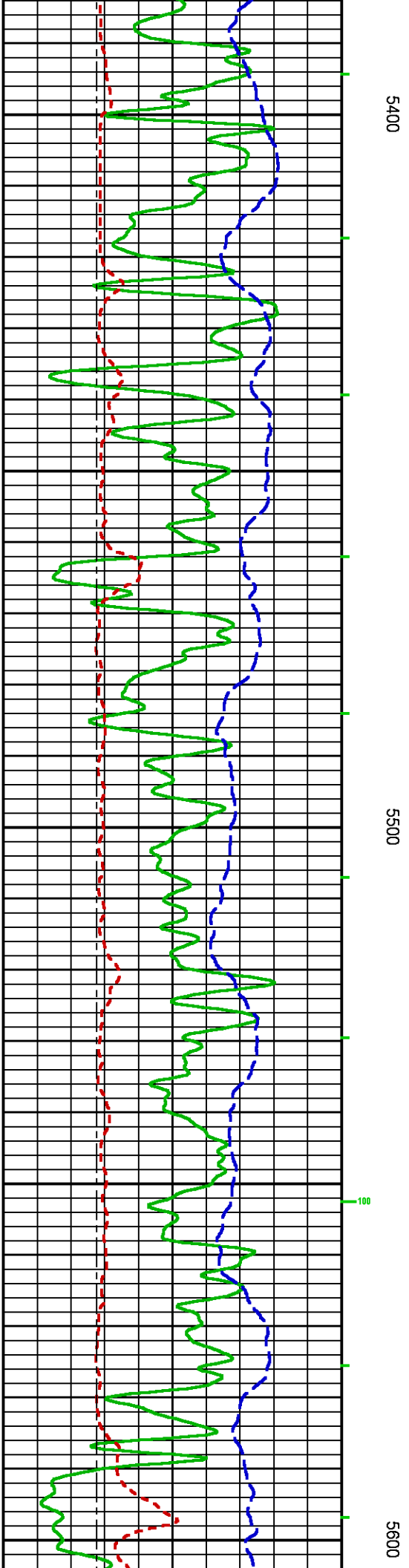
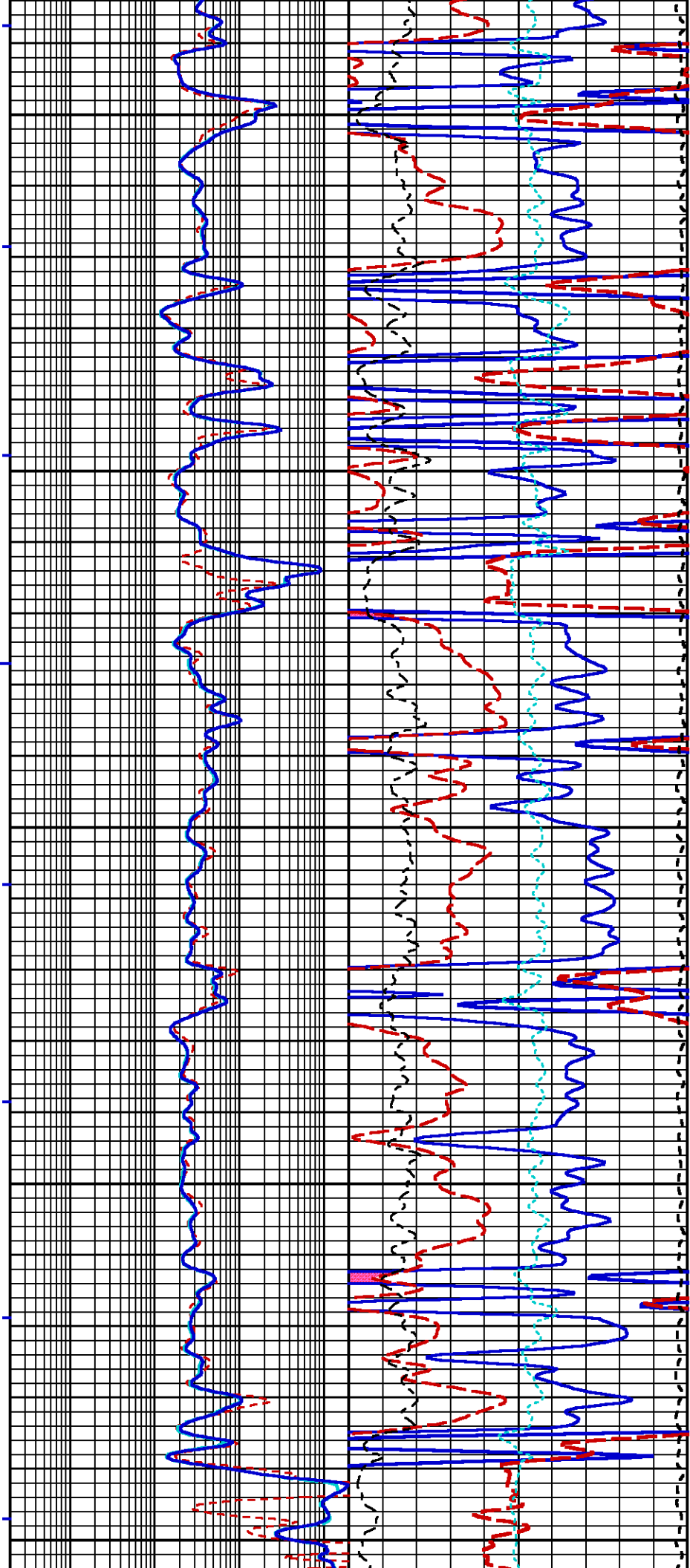


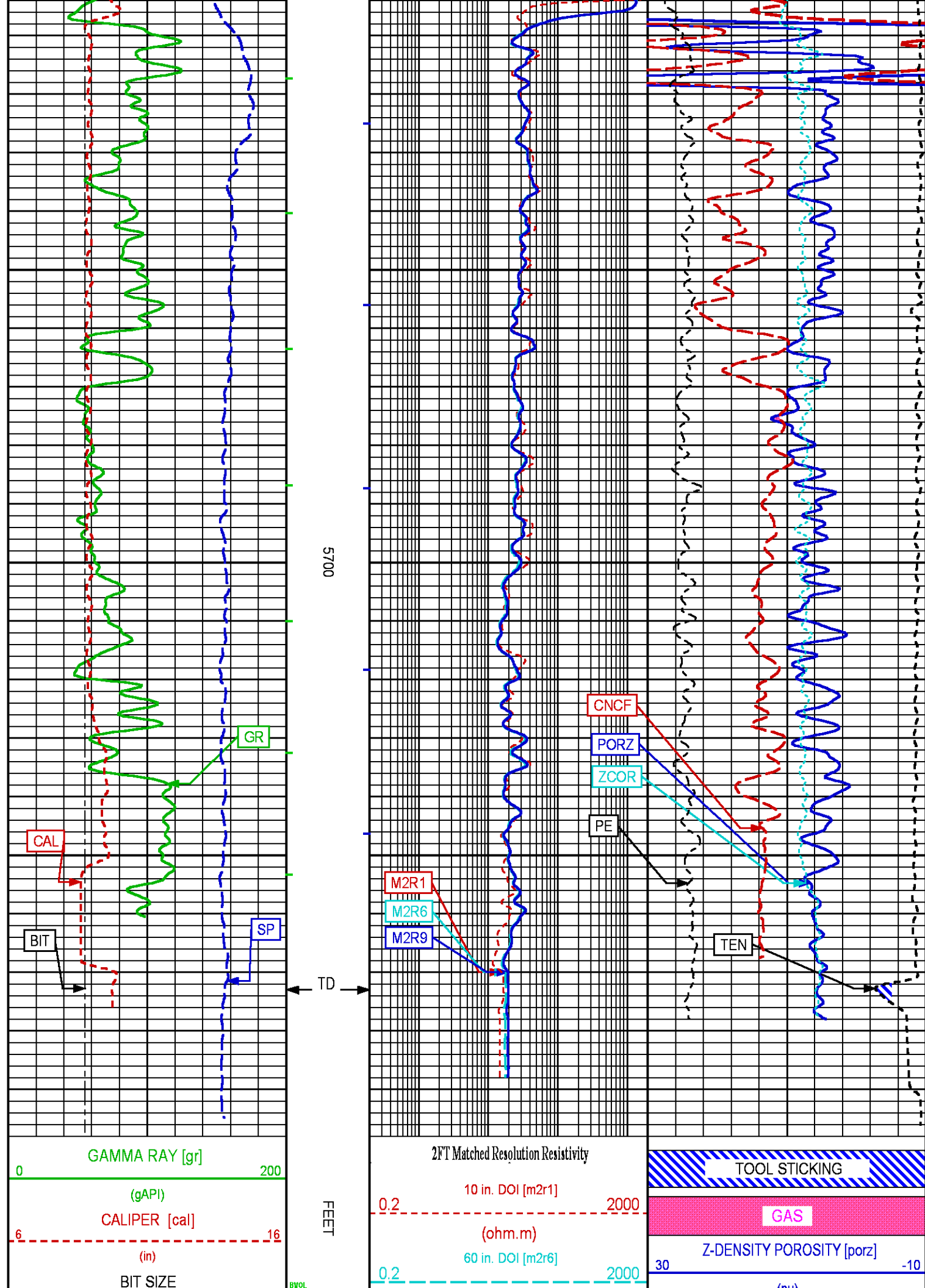


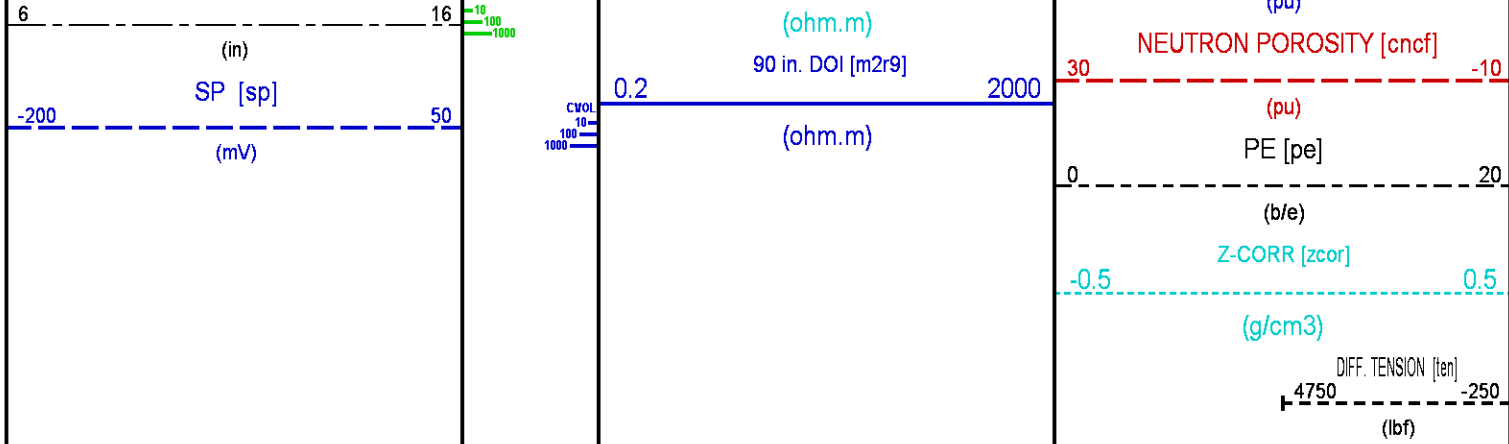












REPEAT LOG 5"/100FT SCALE

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

Updates: 1 Patches: 3

Plotted: Wed Oct 8 00:57:08 2014

PARAMETER AND FILTER SUMMARY REPORT

File: /dat1a/91493J/n970a03.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 1512.500 ft BOTTOM DEPTH: 1917.331 ft

SYMMETRIC FILTER

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

BOREHOLE & CEMENT

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
CASING - BOREHOLE & CEMENT VOLUME	CASING O.D.	4.500	in	TOP	BOTTOM
	CASING THICKNESS	0.000	in	"	"
BIT SIZE	BIT SIZE	8.750	in	"	"
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		"	"
MUD SAMPLE RESISTIVITY	MUD SAMPLE TEMP	70.8	degF	"	"
	MUD SAMPLE RES	1.160	ohm.m	"	"
BOREHOLE TEMP from GRADIENT	Known BH REF TEMP	70.8	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	1200	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	13.500	in	"	"

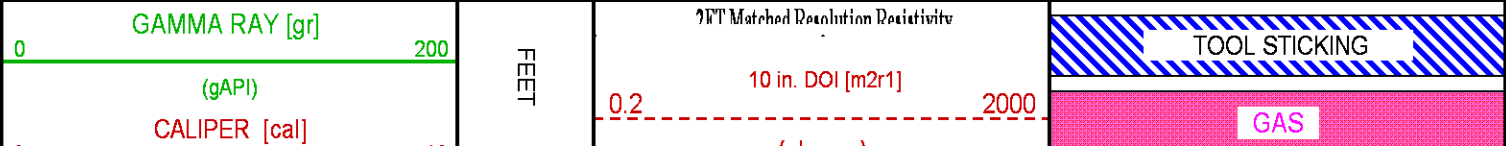
ZDL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
DENSITY POROSITY	Air Filled Borehole	NO		TOP	BOTTOM
	RHOmatrix	2.680	g/cm3	"	"
	RHOfluid	1.000	g/cm3	"	"

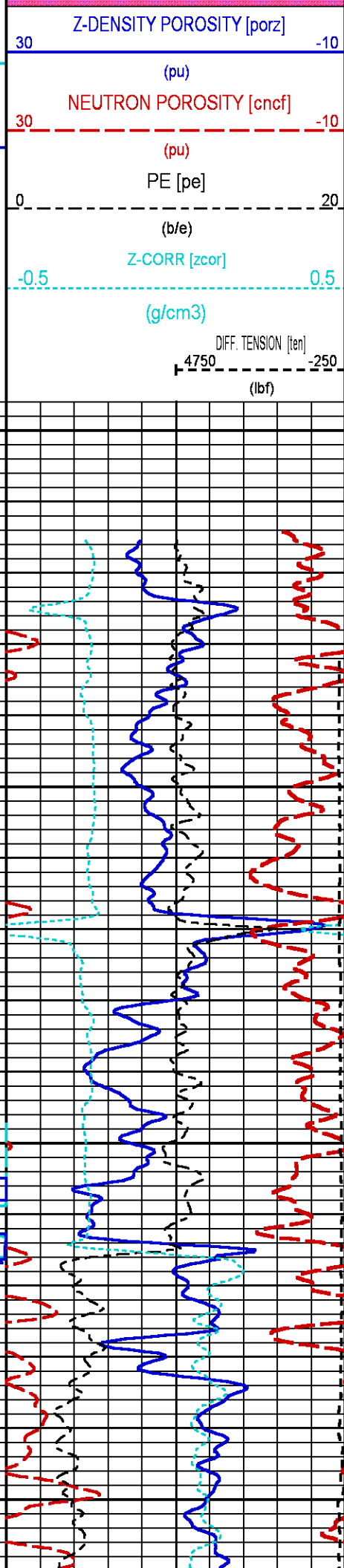
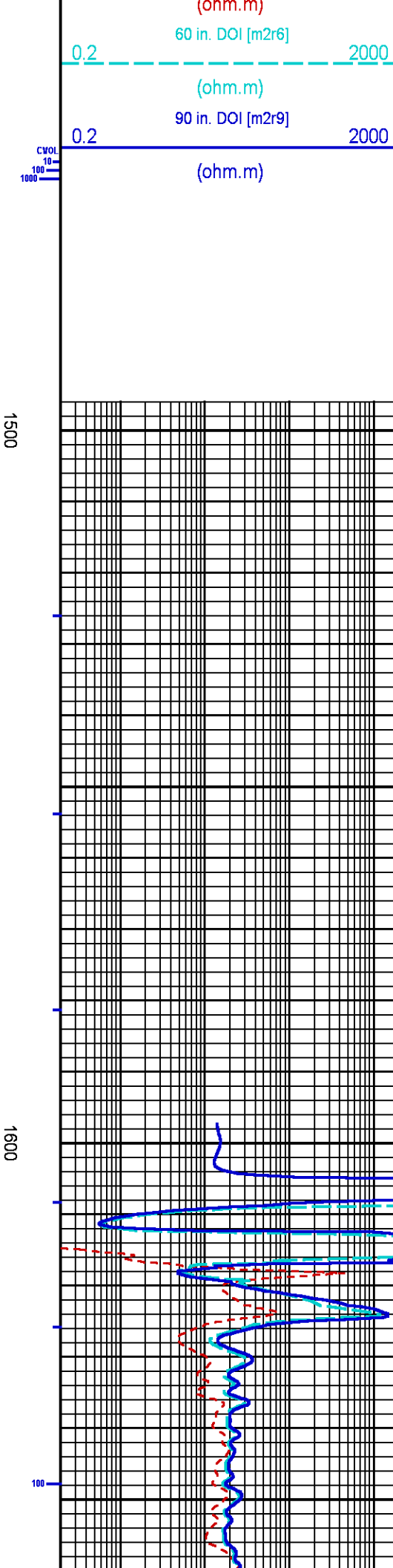
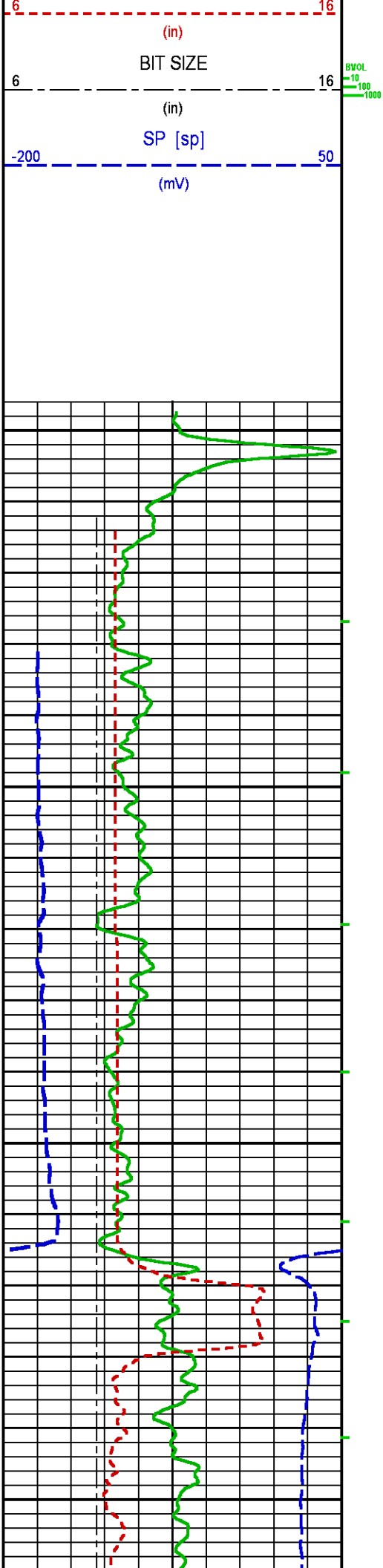
HDIL PROCESSING					
MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (ft)	
HDIL TEMPERATURE CORRECTION	TEMP CORRECTION	ON		TOP	BOTTOM
ADAPTIVE BOREHOLE CORRECTION	ABC PROCESSING	ON		"	"
	ABC to CALCULATE	MUD CONDUCTIVITY		"	"
	STANDOFF	1.50	in	"	"
	TOOL POSITION	ECCENTERED		"	"
	Rmud MULTIPLIER	1.000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

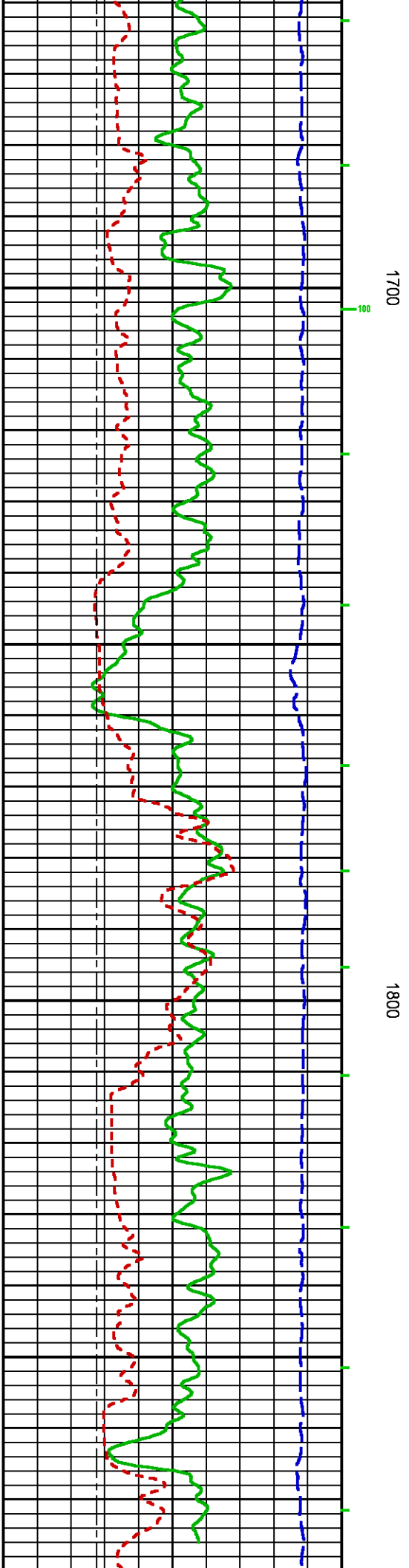
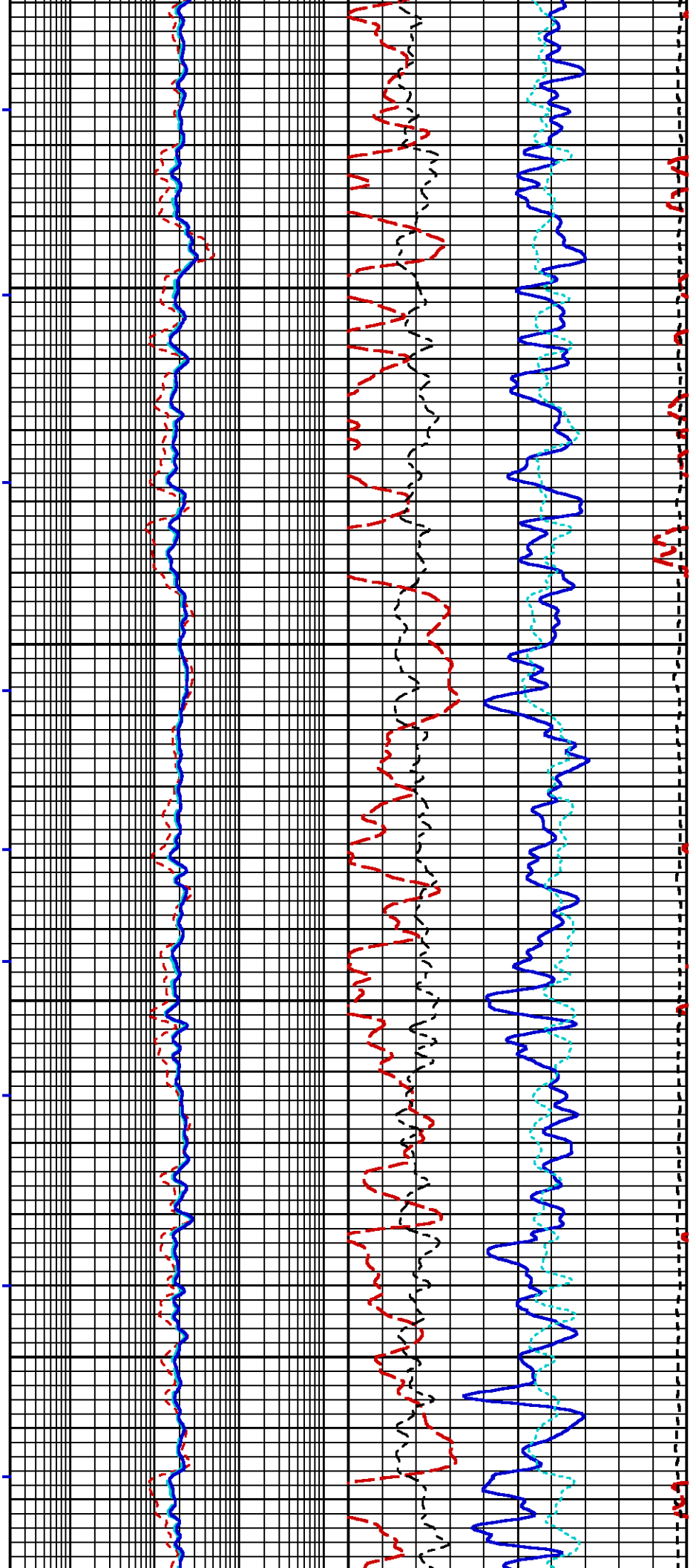
CURVE DESCRIPTION REPORT		
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:BIT	Oct 8 00:46:35 2014	BIT SIZE
F1:BVOL	Oct 8 00:46:35 2014	BOREHOLE VOLUME
F1:CAL	Oct 8 00:46:35 2014	CALIPER
F1:CNCF	Oct 8 00:46:35 2014	FIELD NORMALIZED COMPENSATED NEUTRON POROSITY
F1:CVOL	Oct 8 00:46:35 2014	CEMENT VOLUME
F1:GR	Oct 8 00:46:35 2014	GAMMA RAY
F1:M2R1	Oct 8 00:46:35 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 10-INCH DOI
F1:M2R6	Oct 8 00:46:35 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 60-INCH DOI
F1:M2R9	Oct 8 00:46:35 2014	VERTICAL 2-FOOT RESOLUTION MATCHED RESISTIVITY, 90-INCH DOI
F1:PE	Oct 8 00:46:35 2014	PHOTO ELECTRIC CROSS-SECTION
F1:PORZ	Oct 8 00:46:35 2014	POROSITY FOR SELECTABLE MATRIX
F1:SP	Oct 8 00:46:35 2014	SPONTANEOUS POTENTIAL
F1:TEN	Oct 8 00:46:35 2014	DIFFERENTIAL TENSION
F1:ZCOR	Oct 8 00:46:35 2014	DENSITY CORRECTION

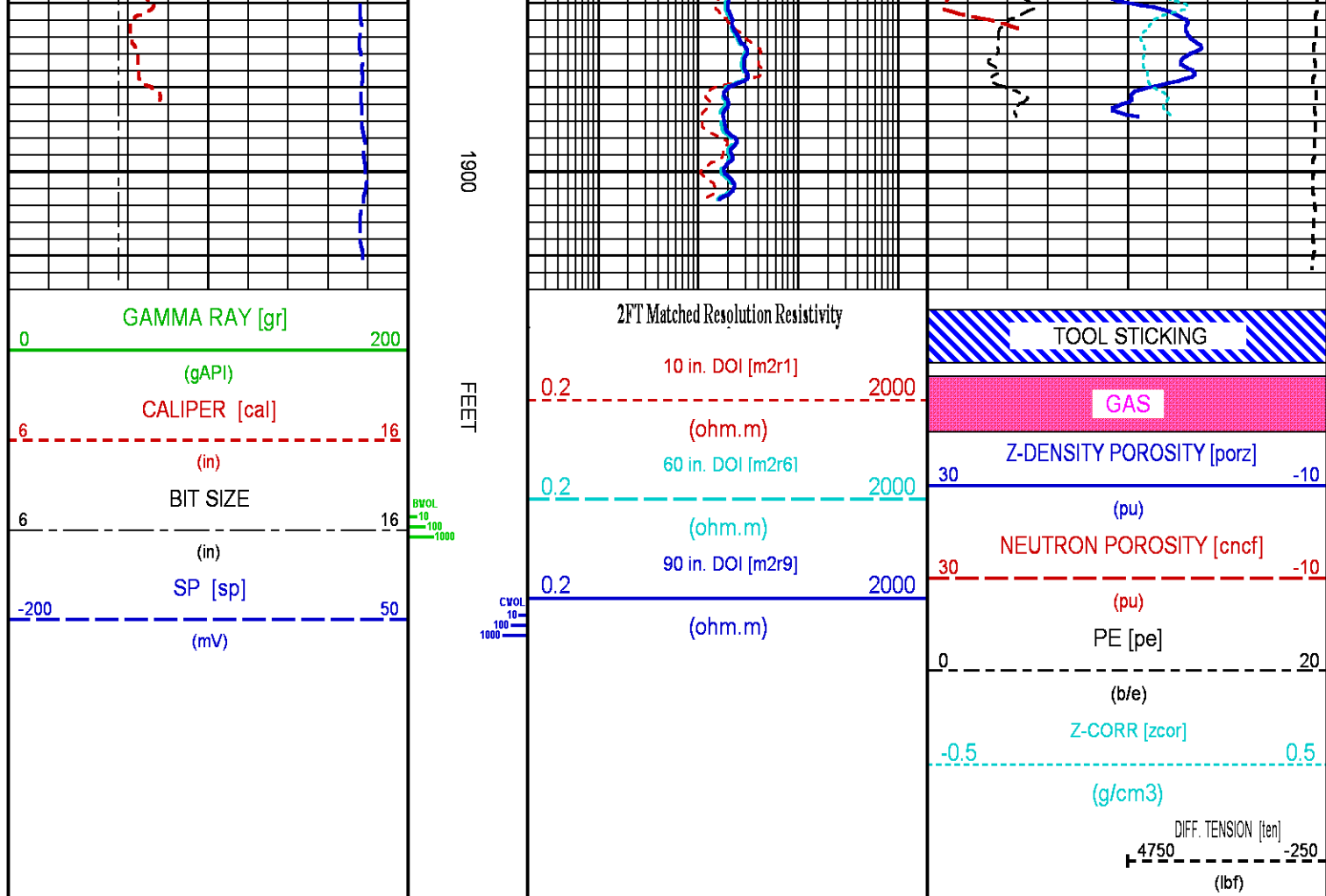
CURVE MEASURE POINT OFFSET							
CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)	CURVE	OFFSET (ft)
BIT	0.00	GR	35.00	M2R9	2.75	SP	1.25
CAL	18.12	M2R1	2.75	PE	18.00	TEN	0.00
CNCF	27.38	M2R6	2.75	PORZ	18.00	ZCOR	18.00

Presentation	: cas6685:/dat1a/91493J/WPX_REPEAT.fvpdf [5"/100' Scale]
Plot Interval	: 1497.5 - 1917.5 Feet
Data File 1	: F1 : cas6685:/dat1a/91493J/n970a03_REPEAT.xtf
Created On	: Oct 8 00:46:35 2014
Company	: WPX ENERGY INC
Well	: FEDERAL SG 432-28
Field	: GRAND VALLEY
File Interval	: 0 - 1918.75 Feet
OCT	: n970a









CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/91493J/n970a.tp1

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
	0.20 0.30	8.00 12.00				

TTMA BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3980XA 10120299

DATE/TIME PERFORMED: Tue Oct 7 22:28:45 2014

DAYS SINCE CAL: 433

UNIT #: 3885TC 6685

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	18822	498.18	9.97	998.01
	18030 19630	491.36 505.76	8.00 12.00	980.00 1020.00
ZERO	-23331	-436.02	0.249	998.202
	-24131 -22531	-443.20 -428.80	0.200 0.300	980.000 1020.000

TTMA AFTER LOG VERIFICATION SUMMARY

TOOL #: 3980XA 10120299

DATE/TIME PERFORMED: Wed Oct 8 00:55:57 2014

DAYS SINCE CAL: 433

UNIT #: 3885TC 6685

	CHT (lbf)	MUD TEMP (degF)	RES M Q (ohm)	ACCEL Q
CAL	18837	499.86	9.95	998.02
	18030 19630	491.36 505.76	8.00 12.00	980.00 1020.00
ZERO	-23331	-436.02	0.249	997.812
	-24131 -22531	-443.20 -428.80	0.200 0.300	980.000 1020.000

GR PRIMARY CALIBRATION SUMMARY

Tool #: 3518EG 10139870

DATE/TIME PERFORMED: Sat Oct 4 18:30:11 2014

Unit #: 3885TC 6685

Jig Series: 4702NK VBA-905

Background	Calibrator ON	Jig Value (gAPI)	Mult	Background (gAPI)	Calibrator ON (gAPI)
114.19	796.91	185	0.271	30.94	215.94
			0.230 0.280		

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10139870

DATE/TIME PERFORMED: Tue Oct 7 22:28:29 2014

DAYS SINCE CAL: 3

UNIT #: 3885TC 6685

Jig: INTRNL N/A

Counts	TEMP (degF)	HV (V)
976.67	65.46	1355.09
929.00 1027.00	536.00	1237.00 1512.00

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 3518EG 10139870 DATE/TIME PERFORMED: Wed Oct 8 00:55:31 2014 DAYS SINCE CAL: 3

UNIT #: 3885TC 6685 Jig: INTRNL N/A

Counts		TEMP (degF)	HV (V)	
976.33		128.71	1363.22	
929.00	1027.00	536.00	1237.00	1512.00

CN PRIMARY CALIBRATION SUMMARY

TOOL #: 2436XA 10137930 DATE/TIME PERFORMED: Thu Sep 25 10:26:17 2014

UNIT #: 3885TC 6685 CALIBRATOR #: 2437XB 112674 SOURCE #: 4718XA N-0897

SSN DT CPS	LSN DT CPS	SSN/LSN	MCF	CNRATIO	CN PU
4635.00	804.17	5.76373	0.99536	5.73700	25.241
			0.95000 1.05000		

CN BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10137930 DATE/TIME PERFORMED: Tue Oct 7 22:27:43 2014 DAYS SINCE CAL: 12

UNIT #: 3885TC 6685 CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.08	994.10	0.99797	54.3	1355.7	4.612
		0.95000 1.05000	280.4	1250.0 1450.0	4.300 5.000

CN AFTER LOG VERIFICATION SUMMARY

TOOL #: 2436XA 10137930 DATE/TIME PERFORMED: Wed Oct 8 00:55:35 2014 DAYS SINCE CAL: 12

UNIT #: 3885TC 6685 CALIBRATOR #: INTRNL N/A

SSN DT CPS	LSN DT CPS	SSN/LSN	TEMP (degF)	HV (V)	LV (V)
992.42	994.44	0.99797	120.8	1364.4	4.612
		0.95000 1.05000	280.4	1250.0 1450.0	4.300 5.000

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2232XA 10090664 DATE/TIME PERFORMED: Fri Oct 3 11:26:44 2014

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED:

TUE OCT 7 11:20:44 2014

UNIT #: 3885TC 6685

	SIZE (in)	VALUE	MULTIPLIER	ADD
SMALL RING (Arm)	7.000	1132.0		
LARGE RING (Arm)	11.000	2372.0	0.00323	3.34839
PAD CLOSED		1610.8	0.00250	-4.02700

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED: Tue Oct 7 22:50:50 2014

DAYS SINCE CAL: 4

UNIT #: 3885TC 6685

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	1872.0	0.00323	3.34839	9.4
PAD	1752.0	0.00250	-4.02700	0.4

	ACTUAL (in)	MEASURED (in)
DIAMETER (arm+pad)	9.001	9.0
		8.6 9.4

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED: Wed Oct 8 00:54:44 2014

DAYS SINCE CAL: 4

UNIT #: 3885TC 6685

	VALUE	MULTIPLIER	ADD	SIZE (in)
ARM	1956.0	0.00323	3.34839	9.7
PAD	1748.0	0.00250	-4.02700	0.3

	ACTUAL (in)	MEASURED (in)
DIAMETER (arm+pad)	9.001	9.3
		8.6 9.4

ZDL PRIMARY CALIBRATION SUMMARY

TOOL: 2223XA 10090664

DATE/TIME PERFORMED: Fri Oct 3 11:15:57 2014

UNIT: 3885TC 6685

CALB BLKS: 2225XA 094292F

CS SRC: 4705XA PP168068B

PAD TYPE: PADTYP 7.5" PAD

	SS CS PK (Channel)	LS CS PK (Channel)	SS_BKGD (cps)	LS BKGD (cps)		
	224.5	224.7	1251.9	1631.4		
	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)	33439.7	12106.3	0.765	1.679	0.000	1.900
			0.720 0.890			
AL	20980.7	1364.3		2.667	-0.016	
AL + SHIM	27859.2	2375.2		2.558	0.098	
MG + SHIM (HI PE)	16453.8	5761.3	0.303			8.550
			0.280 0.360			
RATIO AL + SHIM/AL	1.33	1.74				
	1.30 1.40	1.60 1.80				
RATIO MG/AL	1.59	8.87				
	1.58 1.70	8.55 9.55				

ZDL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED: Tue Oct 7 22:26:34 2014

DAYS SINCE CAL: 4

UNIT #: 3885TC 6685

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	224.9	1310.7
	3332.1 3352.1	220.0 230.0	1250.0 1550.0
SS	22354.8	224.2	1293.7
	22344.8 22364.8	220.0 230.0	1250.0 1550.0
	LV (V)	PAD CURRENT (mA)	
	5.0	73.6	
	4.8 5.2	50.0 120.0	

ZDL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2223XA 10090664

DATE/TIME PERFORMED: Wed Oct 8 00:55:38 2014

DAYS SINCE CAL: 4

UNIT #: 3885TC 6685

	TOTAL (cps)	CSPK (Channel)	HV (V)
LS	3342.1	227.0	1405.1
	3332.1 3352.1	220.0 230.0	1250.0 1550.0
SS	22354.6	225.0	1372.8
	22344.6 22364.6	220.0 230.0	1250.0 1550.0

HDIL PRIMARY CALIBRATION SUMMARY

DATE/TIME PERFORMED: Mon Feb 10 13:06:36 2014

GRCOND ID & DATE: a.30 101801

ELEC. GAINS	10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
-------------	--------	--------	--------	--------	--------	---------	---------	---------

Coil 0 M	163.38		161.99		159.19		155.01		149.45		142.56		134.38		124.92	
	136.00	186.00	134.00	184.00	131.00	181.00	126.00	176.00	122.00	170.00	118.00	161.00	112.00	150.00	105.00	139.00
Coil 0 P	7.754		25.547		42.912		60.252		77.627		95.047		112.501		129.968	
	6.000	9.000	21.000	30.000	35.000	50.000	49.000	71.000	63.000	91.000	77.000	109.000	92.000	130.000	106.000	151.000
Coil 1 M	285.71		282.98		277.52		269.52		259.02		246.32		231.62		214.97	
	238.00	328.00	235.00	325.00	230.00	320.00	225.00	312.00	218.00	302.00	208.00	288.00	196.00	266.00	184.00	244.00
Coil 1 P	7.781		25.654		43.064		60.385		77.678		94.950		112.182		129.351	
	6.000	9.000	21.000	30.000	35.000	51.000	49.000	71.000	63.000	92.000	78.000	112.000	93.000	130.000	107.000	151.000
Coil 2 M	583.82		578.36		567.43		551.41		530.44		504.96		475.41		441.68	
	479.00	659.00	474.00	654.00	463.00	643.00	450.00	622.00	432.00	602.00	412.00	572.00	390.00	540.00	359.00	499.00
Coil 2 P	7.824		25.812		43.228		60.765		78.182		95.601		112.005		129.206	
	6.000	9.000	21.000	30.000	35.000	51.000	49.000	71.000	63.000	92.000	78.000	112.000	93.000	130.000	107.000	151.000

Coil 2 P	7.834 6.000 9.000	25.812 21.000 31.000	43.328 35.000 51.000	60.763 49.000 71.000	78.183 63.000 92.000	95.601 76.000 115.000	113.009 92.000 135.000	130.396 105.000 155.000
Coil 3 M	933.45 772.00 1060.00	925.40 764.00 1050.00	908.99 752.00 1030.00	884.53 728.00 1010.00	852.16 700.00 970.00	812.35 665.00 925.00	765.22 628.00 868.00	711.37 589.00 799.00
Coil 3 P	7.835 6.000 10.000	25.770 21.000 30.000	43.278 35.000 51.000	60.742 49.000 72.000	78.215 63.000 93.000	95.715 76.000 114.000	113.236 90.000 135.000	130.713 104.000 156.000
Coil 4 M	1500.6 1210.0 1700.0	1487.1 1205.0 1690.0	1459.5 1180.0 1650.0	1418.6 1140.0 1590.0	1364.6 1120.0 1530.0	1298.8 1070.0 1450.0	1221.8 1000.0 1350.0	1133.9 942.0 1240.0
Coil 4 P	7.855 6.000 10.000	25.962 21.000 31.000	43.609 35.000 52.000	61.191 49.000 73.000	78.764 63.000 93.000	96.351 77.000 114.000	113.911 91.000 135.000	131.391 105.000 156.000
Coil 5 M	3023.6 2450.0 3450.0	2996.4 2420.0 3400.0	2939.0 2410.0 3320.0	2854.6 2350.0 3200.0	2744.7 2280.0 3080.0	2609.4 2150.0 2950.0	2454.4 2020.0 2750.0	2274.5 1870.0 2570.0
Coil 5 P	8.028 6.000 10.000	26.397 20.000 31.000	44.316 35.000 52.000	62.168 49.000 73.000	80.004 63.000 94.000	97.841 79.000 113.000	115.653 93.000 134.000	133.403 106.000 156.000

AM Factor 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 R	-1688 -3200 940	-837 -1400 -20	-585 -930 -150	-467 -760 -160	-399 -660 -130	-356 -600 -120	-323 -550 -110	-299 -520 -92
Coil 0 Q	-895 -15000 11000	-840 -5800 3800	-684 -3700 2100	-592 -2700 1400	-536 -2200 1000	-499 -1800 790	-476 -1600 620	-462 -1500 490
Coil 1 R	-248 -750 460	-188 -360 83	-160 -280 9	-141 -230 -10	-127 -200 -26	-116 -180 -35	-107 -160 -46	-99 -150 -49
Coil 1 Q	-180 -3300 3300	-136 -1100 960	-116 -630 530	-108 -470 360	-103 -380 260	-99 -320 190	-96 -290 150	-94 -260 120
Coil 2 R	-7.6 -85.0 76.0	-36.3 -64.0 -0.4	-37.4 -57.0 -12.0	-35.3 -51.0 -16.0	-31.9 -46.0 -17.0	-29.5 -42.0 -16.0	-26.7 -39.0 -15.0	-24.7 -37.0 -13.0
Coil 2 Q	-245.0 -1500.0 1900.0	-83.2 -500.0 610.0	-53.9 -290.0 350.0	-41.6 -220.0 260.0	-33.9 -160.0 190.0	-28.8 -140.0 160.0	-23.7 -110.0 130.0	-19.5 -99.0 120.0
Coil 3 R	-0.4 -23.0 21.0	-10.0 -22.0 1.6	-10.4 -21.0 -1.3	-10.3 -20.0 -1.8	-9.7 -19.0 -2.0	-8.6 -19.0 -1.3	-8.5 -19.0 -0.8	-7.4 -19.0 -0.0
Coil 3 Q	-53.1 -540.0 530.0	-14.2 -180.0 180.0	-5.8 -100.0 110.0	-1.2 -71.0 81.0	2.5 -51.0 66.0	6.0 -37.0 58.0	9.1 -28.0 53.0	12.3 -21.0 51.0
Coil 4 R	-6.79 -18.00 13.00	-4.60 -12.00 2.70	-5.01 -11.00 1.50	-4.58 -9.80 0.52	-4.33 -9.90 0.96	-4.19 -10.00 1.50	-3.82 -11.00 2.30	-3.30 -11.00 2.60
Coil 4 Q	24.45 -250.00 280.00	10.18 -79.00 98.00	10.25 -43.00 64.00	11.62 -27.00 51.00	13.81 -18.00 46.00	15.96 -11.00 42.00	19.15 -5.50 42.00	21.53 -1.00 42.00
Coil 5 R	-1.68 -56.00 51.00	-3.30 -8.40 3.60	-3.19 -6.90 1.10	-2.77 -6.90 1.20	-2.59 -9.30 2.90	-2.46 -14.00 6.30	-2.34 -19.00 9.60	-2.17 -24.00 13.00
Coil 5 Q	-26.27 -88.00 69.00	-4.32 -26.00 27.00	1.59 -14.00 22.00	5.72 -7.00 22.00	9.22 -2.50 24.00	12.77 1.10 26.00	16.14 4.10 29.00	19.42 7.10 32.00

MM Factor 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 M	0.966 0.850 1.100	0.974 0.860 1.100	0.979 0.870 1.100	0.981 0.880 1.100	0.982 0.880 1.100	0.982 0.880 1.100	0.983 0.880 1.100	0.983 0.880 1.100
Coil 0 P	-0.312 -1.500 1.500	-0.489 -1.500 1.500	-0.380 -1.500 1.500	-0.257 -1.500 1.500	-0.162 -1.500 1.500	-0.094 -1.500 1.500	-0.049 -1.500 1.500	0.008 -1.500 1.500
Coil 1 M	0.959 0.850 1.100	0.967 0.860 1.100	0.971 0.870 1.100	0.974 0.880 1.100	0.974 0.880 1.100	0.975 0.880 1.100	0.975 0.880 1.100	0.975 0.880 1.100
Coil 1 P	-0.292 -1.500 1.500	-0.476 -1.500 1.500	-0.356 -1.500 1.500	-0.249 -1.500 1.500	-0.145 -1.500 1.500	-0.068 -1.500 1.500	-0.032 -1.500 1.500	0.016 -1.500 1.500
Coil 2 M	0.984 0.890 1.100	0.984 0.890 1.100	0.985 0.890 1.100	0.985 0.890 1.100	0.984 0.890 1.100	0.984 0.890 1.100	0.984 0.890 1.100	0.984 0.890 1.100
Coil 2 P	0.024 -1.500 1.500	0.031 -1.500 1.500	0.079 -1.500 1.500	0.107 -1.500 1.500	0.138 -1.500 1.500	0.163 -1.500 1.500	0.182 -1.500 1.500	0.192 -1.500 1.500
Coil 3 M	0.992 0.850 1.100	0.992 0.860 1.100	0.992 0.870 1.100	0.992 0.880 1.100	0.992 0.880 1.100	0.991 0.880 1.100	0.991 0.880 1.100	0.990 0.880 1.100

Coil 0 R	<div>0.002</div> <div>0.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000</div>
Coil 3 P	<div>0.042</div> <div>-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500</div>
Coil 4 M	<div>0.998</div> <div>0.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000</div>
Coil 4 P	<div>0.023</div> <div>-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500</div>
Coil 5 M	<div>0.998</div> <div>0.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000.9001.1000</div>
Coil 5 P	<div>0.018</div> <div>-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500-1.5001.500</div>
<div>PARMS</div> <div>TCID 0</div> <div>TCID 1</div> <div>Cal Temp</div> <div>T Factor</div> <div>(degF)</div> <div>IDs</div> <div>3.659</div> <div>0.987</div> <div>71.1</div> <div>1.00</div>	

HDIL BEFORE LOG VERIFICATION SUMMARY

TOOL #:	1530XA 10415933	DATE/TIME PERFORMED:	Tue Oct 7 23:08:09 2014	DAYS SINCE CAL:	239
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	0.001	0.000	-0.000	0.001	0.001	-0.000	-0.000	-0.001	
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	
Coil 0 Q	-0.003	-0.000	0.001	0.002	-0.000	-0.000	0.001	-0.000	
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	
Coil 1 R	0.000	0.002	-0.001	0.002	0.000	0.001	0.001	0.002	
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	
Coil 1 Q	-0.006	-0.002	-0.002	0.001	-0.002	-0.001	0.000	-0.000	
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	
Coil 2 R	0.009	-0.001	0.005	-0.007	-0.001	0.001	-0.001	0.002	
	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	
Coil 2 Q	0.005	0.000	-0.001	0.002	-0.000	0.000	-0.002	-0.002	
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	
Coil 3 R	0.012	-0.005	0.000	0.003	-0.002	0.005	0.003	-0.002	
	-0.300 0.300	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	
Coil 3 Q	0.001	-0.001	0.005	0.000	-0.001	0.003	-0.000	-0.001	
	-0.500 0.500	-0.200 0.200	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	-0.100 0.100	
Coil 4 R	0.022	0.002	-0.003	0.005	0.010	-0.000	-0.002	0.002	
	-0.500 0.500	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	
Coil 4 Q	-0.010	-0.012	0.008	-0.002	-0.005	0.003	-0.002	0.002	
	-1.000 1.000	-0.400 0.400	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	-0.200 0.200	
Coil 5 R	0.008	-0.012	0.008	0.018	0.003	-0.007	-0.020	0.011	
	-1.200 1.200	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	
Coil 5 Q	-0.014	-0.006	0.010	-0.001	0.008	-0.003	-0.016	-0.027	
	-1.500 1.500	-0.800 0.800	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	-0.400 0.400	
ELEC. GAINS		10 KHz	30 KHz	50 KHz	70 KHz	90 KHz	110 KHz	130 KHz	150 KHz
Coil 0 M	163.03	161.65	158.86	154.69	149.14	142.28	134.10	124.68	
	136.00 186.00	134.00 184.00	131.00 181.00	126.00 176.00	122.00 170.00	118.00 161.00	112.00 150.00	105.00 139.00	
Coil 1 M	7.200	25.478	42.072	60.412	77.862	95.250	112.002	129.444	
	25.478 77.862	42.072 112.002	60.412 129.444	77.862 150.000	95.250 181.000	112.002 212.000	129.444 243.000	150.000 274.000	
Coil 2 M	158.86	154.69	149.14	142.28	134.10	124.68	112.00	105.00	
	131.00 181.00	126.00 176.00	122.00 170.00	118.00 161.00	112.00 150.00	105.00 139.00	98.00 132.00	91.00 125.00	
Coil 3 M	149.14	142.28	134.10	124.68	112.00	105.00	98.00	91.00	
	122.00 170.00	118.00 161.00	112.00 150.00	105.00 139.00	98.00 132.00	91.00 125.00	84.00 118.00	77.00 111.00	
Coil 4 M	142.28	134.10	124.68	112.00	105.00	98.00	91.00	84.00	
	118.00 161.00	112.00 150.00	105.00 139.00	98.00 132.00	91.00 125.00	84.00 118.00	77.00 111.00	70.00 104.00	
Coil 5 M	134.10	124.68	112.00	105.00	98.00	91.00	84.00	77.00	
	112.00 150.00	105.00 139.00	98.00 132.00	91.00 125.00	84.00 118.00	77.00 111.00	70.00 104.00	63.00 97.00	

Coil 0 P	7.290	25.478	42.973	60.412	77.863	95.359	112.903	130.444
	-1.000 12.000	19.000 30.000	35.000 50.000	49.000 71.000	63.000 91.000	77.000 110.000	92.000 130.000	105.000 151.000
Coil 1 M	285.84	283.12	277.67	269.64	259.15	246.48	231.73	215.06
	237.00 327.00	235.00 325.00	230.00 320.00	225.00 312.00	218.00 302.00	208.00 288.00	196.00 266.00	184.00 244.00
Coil 1 P	7.330	25.589	43.120	60.542	77.909	95.252	112.560	129.815
	-1.000 12.000	19.000 30.000	35.000 51.000	49.000 71.000	63.000 92.000	77.000 112.000	92.000 132.000	105.000 153.000
Coil 2 M	581.68	576.22	565.39	549.29	528.48	503.25	473.63	440.06
	479.00 659.00	474.00 654.00	463.00 643.00	450.00 622.00	432.00 602.00	412.00 572.00	390.00 540.00	359.00 499.00
Coil 2 P	7.349	25.737	43.385	60.921	78.420	95.908	113.403	130.873
	-1.000 12.000	19.000 31.000	35.000 51.000	49.000 71.000	63.000 92.000	77.000 114.000	92.000 135.000	105.000 156.000
Coil 3 M	932.84	924.77	908.44	883.87	851.79	811.90	764.76	710.94
	772.00 1060.00	764.00 1050.00	752.00 1030.00	728.00 1010.00	700.00 970.00	665.00 925.00	628.00 868.00	589.00 799.00
Coil 3 P	7.359	25.700	43.334	60.891	78.455	96.019	113.613	131.168
	-2.000 13.000	19.000 31.000	35.000 52.000	49.000 72.000	63.000 93.000	77.000 114.000	92.000 135.000	105.000 156.000
Coil 4 M	1501.9	1488.4	1460.9	1419.8	1365.9	1299.9	1222.5	1134.8
	1210.0 1700.0	1205.0 1690.0	1180.0 1650.0	1140.0 1590.0	1120.0 1530.0	1070.0 1450.0	1000.0 1350.0	942.0 1240.0
Coil 4 P	7.386	25.910	43.692	61.385	79.058	96.693	114.357	131.945
	-2.000 13.000	19.000 31.000	35.000 52.000	49.000 73.000	63.000 93.000	78.000 114.000	92.000 135.000	105.000 156.000
Coil 5 M	3018.8	2991.6	2935.0	2850.4	2740.6	2606.6	2449.2	2271.0
	2450.0 3450.0	2420.0 3400.0	2410.0 3320.0	2350.0 3200.0	2280.0 3080.0	2150.0 2950.0	2020.0 2750.0	1870.0 2570.0
Coil 5 P	7.590	26.340	44.391	62.341	80.249	98.185	116.056	133.964
	-2.000 13.000	19.000 31.000	35.000 52.000	49.000 73.000	63.000 94.000	79.000 114.000	93.000 135.000	106.000 156.000

HDIL AFTER LOG VERIFICATION SUMMARY

TOOL #: 1530XA 10415933 DATE/TIME PERFORMED: Wed Oct 8 00:55:51 2014 DAYS SINCE CAL: 239

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	0.000	0.000	-0.001	-0.001	-0.000	-0.000	-0.000	-0.001
	-0.079 0.081	-0.060 0.060	-0.030 0.030	-0.029 0.031	-0.029 0.031	-0.030 0.030	-0.030 0.030	-0.031 0.029
Coil 0 Q	-0.003	0.000	-0.000	-0.001	0.000	0.001	-0.001	-0.001
	-0.043 0.037	-0.120 0.120	-0.029 0.031	-0.028 0.032	-0.030 0.030	-0.030 0.030	-0.029 0.031	-0.030 0.030
Coil 1 R	-0.000	0.000	-0.002	0.002	-0.003	0.002	-0.000	0.001
	-0.080 0.080	-0.048 0.052	-0.031 0.029	-0.028 0.032	-0.030 0.030	-0.029 0.031	-0.029 0.031	-0.028 0.032
Coil 1 Q	-0.007	0.002	0.001	0.001	-0.000	-0.001	0.000	-0.000
	-0.406 0.394	-0.102 0.098	-0.032 0.028	-0.029 0.031	-0.032 0.028	-0.031 0.029	-0.030 0.030	-0.030 0.030
Coil 2 R	0.010	-0.001	-0.003	-0.002	-0.003	0.002	-0.001	-0.000
	-0.061 0.079	-0.031 0.029	-0.025 0.035	-0.037 0.023	-0.031 0.029	-0.029 0.031	-0.031 0.029	-0.028 0.032
Coil 2 Q	0.004	-0.005	-0.002	-0.001	0.002	-0.006	0.001	0.001
	-0.345 0.355	-0.100 0.100	-0.031 0.029	-0.028 0.032	-0.030 0.030	-0.030 0.030	-0.032 0.028	-0.032 0.028
Coil 3 R	0.015	0.002	0.000	0.000	0.003	-0.008	0.003	-0.000
	-0.028 0.052	-0.045 0.035	-0.040 0.040	-0.037 0.043	-0.042 0.038	-0.035 0.045	-0.037 0.043	-0.042 0.038
Coil 3 Q	0.006	-0.003	-0.000	0.005	0.000	-0.001	-0.000	0.009
	-0.199 0.201	-0.081 0.079	-0.035 0.045	-0.040 0.040	-0.041 0.039	-0.037 0.043	-0.040 0.040	-0.041 0.039
Coil 4 R	0.013	-0.001	-0.004	-0.010	-0.007	0.005	-0.002	0.006
	-0.038 0.082	-0.058 0.062	-0.063 0.057	-0.055 0.065	-0.050 0.070	-0.060 0.060	-0.062 0.058	-0.058 0.062
Coil 4 Q	-0.001	0.001	-0.005	-0.008	0.002	0.003	0.005	0.001
	-0.310 0.290	-0.112 0.088	-0.052 0.068	-0.062 0.058	-0.065 0.055	-0.057 0.063	-0.062 0.058	-0.058 0.062
Coil 5 R	0.042	0.014	0.024	0.000	-0.000	-0.011	-0.000	0.005
	-0.112 0.128	-0.132 0.108	-0.112 0.128	-0.102 0.138	-0.117 0.123	-0.127 0.113	-0.140 0.100	-0.109 0.131
Coil 5 Q	-0.015	-0.025	-0.014	0.006	-0.008	0.002	-0.017	-0.022
	-0.614 0.586	-0.256 0.244	-0.110 0.130	-0.121 0.119	-0.112 0.128	-0.123 0.117	-0.136 0.104	-0.147 0.093

ELEC. GAINS 10 KHz 30 KHz 50 KHz 70 KHz 90 KHz 110 KHz 130 KHz 150 KHz

Coil 0 M	163.04	161.66	158.87	154.69	149.16	142.25	134.04	124.64
	159.76 166.29	158.42 164.89	155.69 162.04	151.59 157.78	146.15 152.12	139.43 145.12	131.42 136.78	122.18 127.17
Coil 0 P	7.278	25.482	42.986	60.428	77.880	95.385	112.927	130.477
	4.290 10.290	22.478 28.478	39.973 45.973	57.412 63.412	74.863 80.863	92.359 98.359	109.903 115.903	127.444 133.444
Coil 1 M	285.89	283.16	277.69	269.66	259.21	246.45	231.65	215.05
	280.13 291.56	277.46 288.78	272.12 283.22	264.24 275.03	253.97 264.33	241.55 251.41	227.09 236.36	210.75 219.36
Coil 1 P	7.321	25.592	43.134	60.556	77.925	95.271	112.580	129.852
	4.330 10.330	22.589 28.589	40.120 46.120	57.542 63.542	74.909 80.909	92.252 98.252	109.560 115.560	126.815 132.815
Coil 2 M	581.68	576.25	565.34	549.29	528.42	503.05	473.41	439.90
	570.05 593.32	564.70 587.75	554.08 576.69	538.30 560.28	517.91 539.05	493.18 513.31	464.15 483.10	431.26 448.87
Coil 2 P	7.332	25.741	43.396	60.937	78.436	95.937	113.436	130.915
	4.349 10.349	22.737 28.737	40.385 46.385	57.921 63.921	75.420 81.420	92.908 98.908	110.403 116.403	127.873 133.873
Coil 3 M	932.85	924.80	908.35	883.89	851.56	811.71	764.41	710.59
	914.18 951.49	906.27 943.26	890.27 926.61	866.20 901.55	834.75 868.82	795.66 828.14	749.46 780.05	696.72 725.16
Coil 3 P	7.346	25.705	43.350	60.909	78.464	96.058	113.641	131.207
	4.359 10.359	22.700 28.700	40.334 46.334	57.891 63.891	75.455 81.455	93.019 99.019	110.613 116.613	128.168 134.168
Coil 4 M	1502.0	1488.5	1460.9	1419.7	1366.1	1299.8	1222.2	1134.4
	1471.9 1531.9	1458.6 1518.2	1431.7 1490.1	1391.5 1448.2	1338.6 1393.2	1273.9 1325.9	1198.0 1246.9	1112.1 1157.5
Coil 4 P	7.380	25.914	43.702	61.389	79.055	96.726	114.371	131.981
	4.386 10.386	22.910 28.910	40.692 46.692	58.385 64.385	76.058 82.058	93.693 99.693	111.357 117.357	128.945 134.945
Coil 5 M	3018.6	2991.6	2934.4	2850.1	2740.1	2606.0	2449.3	2271.1
	2958.4 3079.2	2931.7 3051.4	2876.3 2993.7	2793.4 2907.4	2685.8 2795.4	2554.5 2658.7	2400.3 2498.2	2225.6 2316.4
Coil 5 P	7.583	26.351	44.412	62.365	80.288	98.219	116.129	133.997
	4.590 10.590	23.340 29.340	41.391 47.391	59.341 65.341	77.249 83.249	95.185 101.185	113.056 119.056	130.964 136.964

INSTRUMENT CONFIGURATION

Source File: /dat1a/91493J/n970a~ldg

FOCUS_CABLEHEAD
Diameter : 3.12"
Length : 3.17'
Weight : 15 lbs
Series : CABL318
Mnemonic : CBLH

FOCUS_SWIVEL
Diameter : 3.13"
Length : 2.58'
Weight : 50 lbs
Series : 3950XA
Mnemonic : SWVL

FOCUS_TEN/TEMP/MUD_RES/ACCEL
Diameter : 3.13"
Length : 4.31'
Weight : 61 lbs
Series : 3980XA
Mnemonic : TTMA

FOCUS_TELEMETRY (POWER SECTION)
Diameter : 3.13"
Length : 3.71'
Weight : 48 lbs
Series : 3518FB
Mnemonic : TMGR

FOCUS_EB/EG TELEMETRY GAMMA RAY
Diameter : 3.12"
Length : 5.83'
Weight : 63 lbs
Series : 3518EG
Mnemonic : GR

52.34'

GR MP 36.97'

Measure Point: 4.24': GR MP

FOCUS COMPENSATED NEUTRON

Diameter : 3.13"
Length : 4.81"
Weight : 65 lbs
Series : 2436XA
Mnemonic : CN
Measure Point: 1.92': LSN MP
Measure Point: 1.46': SSN MP

LSN MP — 29.83'
SSN MP — 29.38'

FOCUS Z-DENSILOG

Diameter : 3.75"
Length : 9.58"
Weight : 200 lbs
Series : 2223XA
Mnemonic : ZDL
Measure Point: 4.33': CR1 MP
Measure Point: 1.69': LSD / CR2 MP
Measure Point: 1.29': SSD MP

CR1 MP — 22.67'

LSD / CR2 MP — 20.02'
SSD MP — 19.63'

FOCUS KNUCKLE JOINT

Diameter : 3.13"
Length : 1.50'

FOCUS KNUCKLE JOINT

Diameter : 3.13"
Length : 1.50'

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: 5.67': COIL 4 MP
Measure Point: 4.17': COIL 3 MP
Measure Point: 3.67': COIL 2 MP
Measure Point: 3.17': COIL 1 MP
Measure Point: 2.67': COIL 0 MP
Measure Point: 1.14': SP MP

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'

FOCUS PINEAPPLE / CABBAGE

HOLE FINDER

Diameter : 2.62"
Length : 1.50'

0.00'

TOTAL LENGTH: 52.34'
TOTAL WEIGHT: 756 lbs
MAX DIAMETER: 0' 6.13"



COMPANY
WELL
FIELD
COUNTY

WPX ENERGY INC
FEDERAL SG 432-28
GRAND VALLEY
GARFIELD

STATE COLORADO

FILE NO:

US091493J

API NO:

05045219540000

LOCATION:

SHL: 2279' FSL 499' FEL
BHL: 2248' FNL 2323' FEL

ELEVATIONS:

KB 5143 FT
DF
GL 5119 FT

SEC 28 T7S R96W
PAD: SG 43-28
RIG: H&P 318

SEC 28 TWP 7S RGE 96W

DATE 07-OCT-2014