



FILE NO:	COMPANY	HUSKY OIL OPERATIONS LIMITED
API NO:	WELL	LITTLE BEAR N-9
	FIELD	SLATER RIVER
	PROVINCE	NORTHWEST TERRITORIES
Ver. 3.87	LOCATION:	
UID:	SURF LOC:	LAT 64° 58' 55.2"N LONG 128° 31' 20.2"
300ND086500126300	BH LOC, LSD:	LAT 64° 58' 55.2"N LONG 128° 31' 20.2"
LICENSE:		
483		
PERMANENT DATUM	G.L.	ELEVATION
LOG MEASURED FROM	K.B.	253.5 M
DRILL MEAS. FROM	KELLY BUSHING	ABOVE P.D.
		OTHER SERVICES
		ZXL-GR-CAL
		HDIL-GR-CAL, CAL
		XUAC-GR, IREX
		FLEX-EI-CRIL-GR
		CRIL
		ELEVATIONS:
		KB 298.8 M
		DF
		GL 253.5 M

DATE	TRIP	13-FEB-2012	1
SERVICE ORDER		CA212310	
DEPTH DRILLER		1868.0 M	
DEPTH LOGGER		1868.0 M	
BOTTOM LOGGED INTERVAL		1836.5 M	
TOP LOGGED INTERVAL		683.5 M	
CASING DRILLER		244.5 M	639.0 M
CASING LOGGER		639.5 M	
BIT SIZE		222.0 MM	
TYPE OF FLUID IN HOLE		INVERT	
DENSITY	VISCOSITY	1280.0 G/L	39.0 S
PH	FLUID LOSS	N/A	N/A
SOURCE OF SAMPLE		ND SAMPLE	
RM AT MEAS. TEMP.		NA	0
RMF AT MEAS. TEMP.		NA	0
RMC AT MEAS. TEMP.		NA	0
SOURCE OF RMF	RMC	ND SAMPLE	
RM AT BHT		NA	0
TIME SINCE CIRCULATION		11.5 HOURS	
MAX. RECORDED TEMP.		69.8 DEGC	
EQUIP. NO.	LOCATION	Z009872	CANADA OPEN
RECORDED BY		J. COLLIER/I. ZALESKIKH	
WITNESSED BY		H. BARENHOVEN	

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE 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
311.0 MM	0.0 M	639.0 M
222.0 MM	639.0 M	1868.0 M

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
244.5 MM	53.6 KG/M	J-55	0.0 M	639.0 M

REMARKS

RUN 1 TRIP 1: TIME STOPPED CIRCULATION: 12-FEB-2012 05:30 PM

GR AND CN SPIKES IN INITIAL MAIN PASS, RELOG AREAS AND COPY CURVES TO MAIN PASS
 1490 - 1500M
 1602 - 1610M
 1035 - 1030M

DSL WAS RUN DECENTRALISED

RIG: NABORS 23

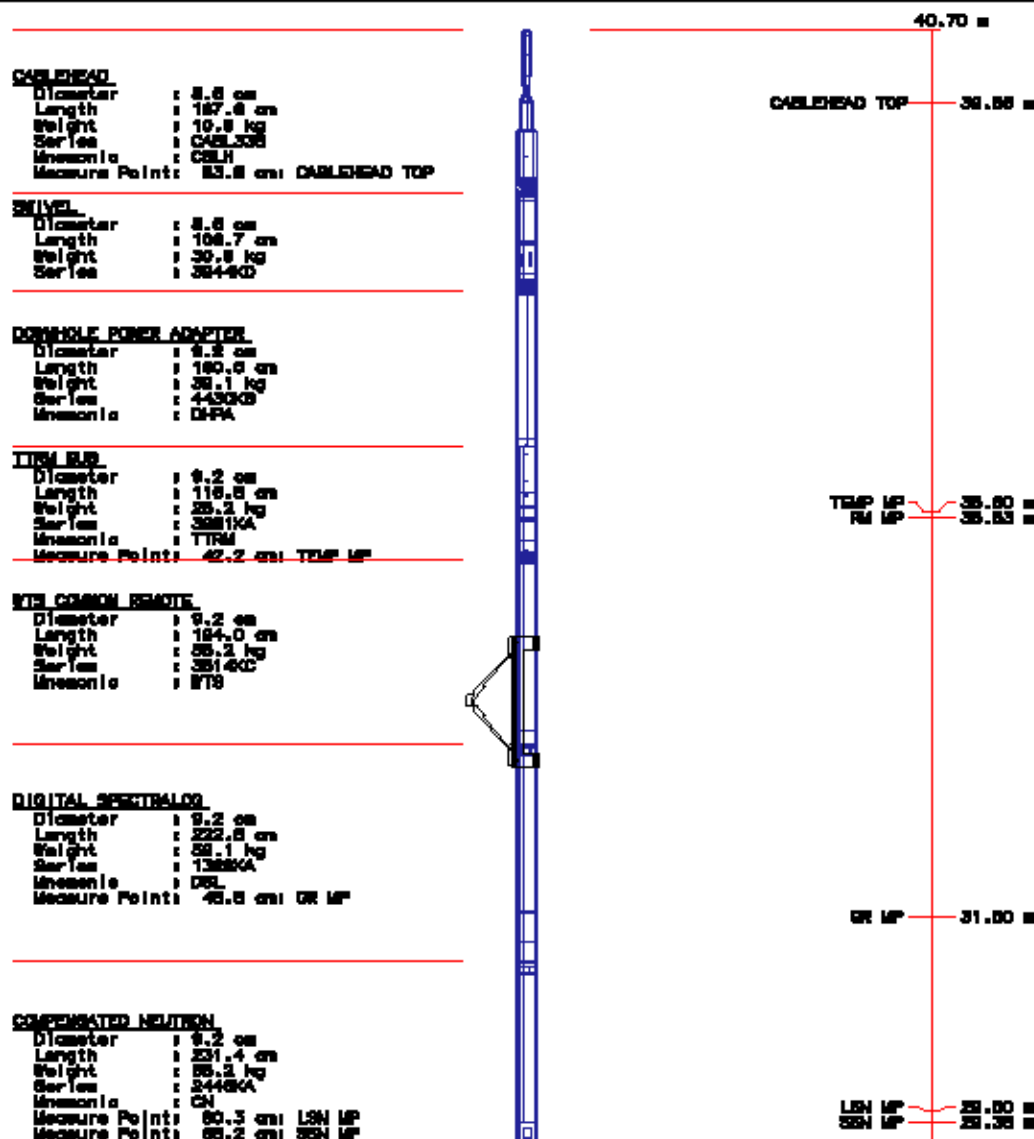
CREW: J. COLLIER, I. ZALESKIKH, D. KIRWAN, D. SCHNEIDER, N. McDERMID, J. VANDER HONING

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
1	1	SWIVEL	3844XD	11848158	FREE
1	1	DHPA	4430KB	12088588	FREE
1	1	TTRM SUB	3881XA	Z173348	FREE
1	1	COMM	3514XC	12079095	FREE
1	1	WTS DGR/SU	1328KB	11738874	FREE
1	1	CN	2448XA	12088884	DECENTRALIZED
1	1	ZDEN	2234XA	168004	PAD DEVICE
1	1	WTS DBL KWI	3838XA	10283200	FREE
1	1	ORT	4401XB	12081717	FREE
1	1	ACOUSTIC FL	1677FA	12045828	CENTRALIZED
1	1	XMAC RX MDR	1678MC	12002082	CENTRALIZED
1	1	XMAC ISO	1678PB	12083102	FREE
1	1	XMAC TX FLC	1678BA	12083108	CENTRALIZED
1	1	XMAC TX FLC	1678FA	12111586	CENTRALIZED
1	1	HDIL ELONS	1515FA	12032417	STANDOFF
1	1	HDIL MANDRI	1515MA	11887888	STANDOFF
1	1	CENTRALIZER	4341XA	Z173381	FREE

INSTRUMENT CONFIGURATION

Source File: /data/husky_CA212510/run1-fdg



Z-ORBITOR

Diameter : 12.4 cm
Length : 341.8 cm
Weight : 183.8 kg
Series : 223-86A
Insonia : ZDL
Measure Point: 87.3 cm: DAL MP
Measure Point: 76.4 cm: LSD MP
Measure Point: 89.2 cm: 86D MP

DAL MP : 28.25 ■
LSD MP : 28.04 ■
86D MP : 28.01 ■

KNUCKLE JOINT (DOUBLE)

Diameter : 8.8 cm
Length : 141.8 cm
Weight : 40.8 kg
Series : 36386A
Insonia : KJMT

DIGITAL ORIENTATION

Diameter : 8.8 cm
Length : 328.4 cm
Weight : 80.0 kg
Series : 4401K8
Insonia : ORIT
Measure Point: 0.0 cm: ORIENT MP

ORIENT MP : 20.07 ■

ARRAY ACQUISITOR ELECTRONICS - 8 CHANNEL

Diameter : 8.8 cm
Length : 236.3 cm
Weight : 46.4 kg
Series : 18776A
Insonia : XMD

GROSS MULTIPOLE ARRAY ACQUISITOR

Diameter : 9.8 cm
Length : 338.4 cm
Weight : 101.8 kg
Series : 18786C
Insonia : XMF1
Measure Point: 167.8 cm: R8
Measure Point: 152.4 cm: R7
Measure Point: 137.2 cm: R6
Measure Point: 121.9 cm: R5
Measure Point: 106.7 cm: R4
Measure Point: 91.4 cm: R3
Measure Point: 76.2 cm: R2
Measure Point: 61.0 cm: R1

R1 : ■
R2 : ■
R3 : ■
R4 : ■
R5 : ■
R6 : ■
R7 : ■
R8 : ■

SHOCK WAVE ACQUISITOR

Diameter : 9.8 cm
Length : 182.4 cm
Weight : 81.4 kg
Series : 18787B
Insonia : XMC

MULTI-POLE ARRAY ACQUISITOR

Diameter : 9.8 cm
Length : 341.3 cm
Weight : 77.3 kg
Series : 18788A
Insonia : XMD
Measure Point: 188.8 cm: QUADRUPOLE T5
Measure Point: 188.8 cm: MONOPOLE T2
Measure Point: 142.2 cm: Y-DIPOLE T4
Measure Point: 142.2 cm: X-DIPOLE T3
Measure Point: 88.8 cm: MONOPOLE T1

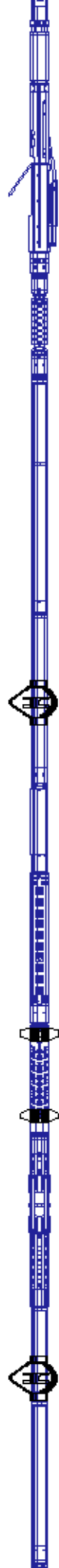
MONOPOLE T2 : 12.88 ■
QUADRUPOLE T5 : 12.88 ■

X-DIPOLE T3 : 12.38 ■
Y-DIPOLE T4 : 12.38 ■

MONOPOLE T1 : 11.81 ■

MULTI-POLE ARRAY ACQUISITOR

Diameter : 8.8 cm
Length : 131.8 cm
Weight : 25.4 kg
Series : 1878FA
Insonia : MAC



HIGH DEFINITION INDUCTION TOOL

Diameter : 9.2 cm
 Length : 827.0 cm
 Weight : 188.8 kg
 Series : 1D10KA
 Mnemonic : HDIL
 Measure Point: 423.0 cm: 0P MP
 Measure Point: 228.8 cm: XMTR MP

0P MP 8.26 m

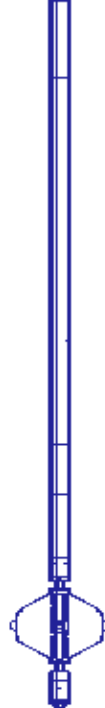
XMTR MP 3.81 m

4 ARM BEV SPRING CENTRALIZER

Diameter : 8.8 cm
 Length : 128.8 cm
 Weight : 32.7 kg
 Series : 4341KA
 Mnemonic : CENT

BALL PLUG 3 3/8

TOTAL LENGTH: 46.70 m
 TOTAL WEIGHT: 1088.5 kg
 MAX DIAMETER: 12.4 cm



MAIN LOG

ECLIPS 6.11 Aug 06, 2010
 Updates: 1 Patches: 1

Mon Feb 13 13:00:12 2012

Perflit /main/62 Cplot Pdf_Cpp /main/16 Fileview 5.51

PARAMETER AND FILTER SUMMARY REPORT

File: /data/husky_CA212310/m77evh_xc03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 614.553 m BOTTOM DEPTH: 1872.150 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER (.h)	medium (1)		''	''
	FILTER (.l)	medium (1)		''	''
SPEED	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
	FILTER (.l)	medium (1)		''	''
TENSION GR	FILTER ()	medium (1)		''	''
	FILTER (.h)	medium (1)		''	''
	FILTER (.l)	medium (1)		''	''
SL-II	FILTER	medium (1)		''	''

SLII PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
E MATRIX	OPEN/CASED HOLE	OPEN HOLE		TOP	BOTTOM
SLII AUTO GAIN	AUTO GAIN	AUTO GAIN ON		''	''
SLII ENERGY RANGE	ENERGY RANGE	NORMAL: 0.25-3.0 MeV		''	''
SPECTRUM CALIBRATION	MODE	AUTOMATIC		''	''

CURVE DESCRIPTION REPORT

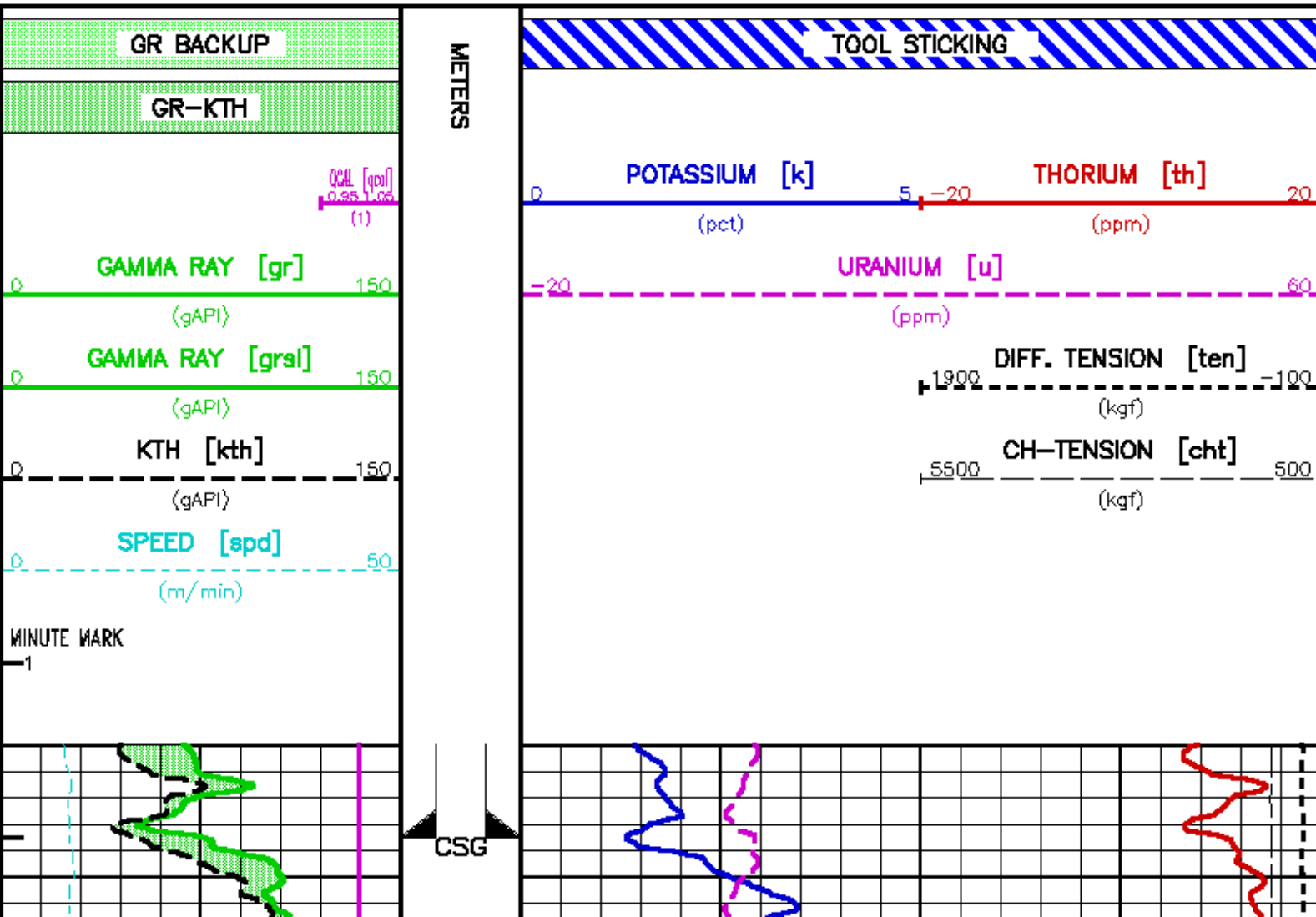
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CHT	Feb 13 04:51:11 2012	CABLE HEAD TENSION
F1:GR	Feb 13 04:51:11 2012	GAMMA RAY
F1:GRSL	Feb 13 04:51:11 2012	GAMMA RAY FROM 132B SPECTRUM
F1:K	Feb 13 04:51:11 2012	POTASSIUM CONTENT
F1:KTH	Feb 13 04:51:11 2012	STRIPPED POTASSIUM-THORIUM
F1:MMRK	Feb 13 04:51:11 2012	MINUTE MARK
F1:QCAL	Feb 13 04:51:11 2012	QUALITY CURVE
F1:SPD	Feb 13 04:51:11 2012	SPEED
F1:TEN	Feb 13 04:51:11 2012	DIFFERENTIAL TENSION
F1:TH	Feb 13 04:51:11 2012	THORIUM CONCENTRATION
F1:U	Feb 13 04:51:11 2012	URANIUM CONTENT

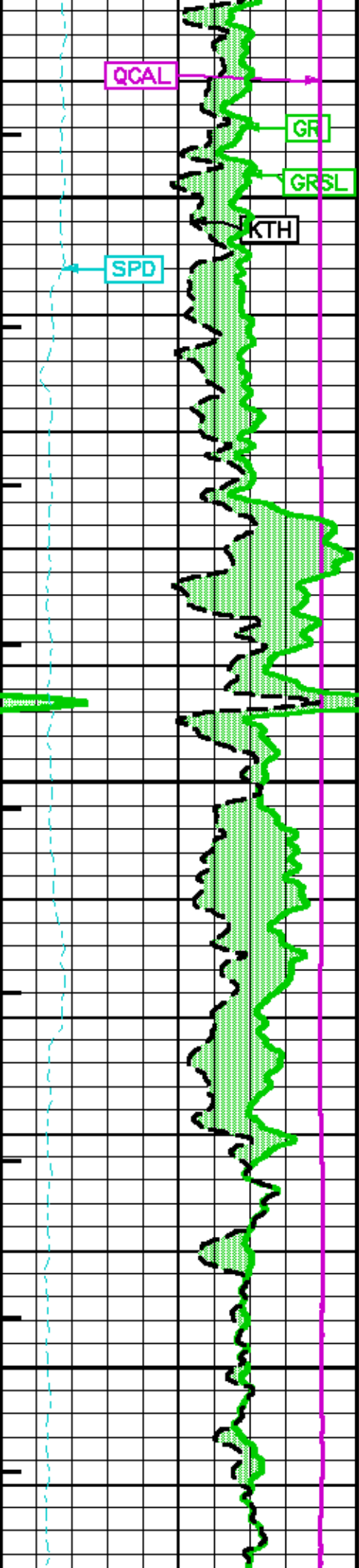
CURVE MEASURE POINT OFFSET

CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
CHT	0.00	K	31.38	SPD	0.00	U	31.38
GR	31.38	KTH	31.38	TEN	0.00		
GRSL	31.38	QCAL	31.38	TH	31.38		

Presentation : epuz/dat1a/husky_CA212310/sl_main.pdf [1:240 Scale]
Plot Interval : 835 - 1870.94 Meters

Data File 1 : F1 : epuz/dat1a/husky_CA212310/r1f1_main.pdf
Created On : Feb 13 04:51:11 2012
Company : HUSKY OIL OPERATIONS LIMITED
Well : LITTLE BEAR N-9
Field : SLATER RIVER
File Interval : 578.198 - 1870.98 Meters
Out : m77wh_x

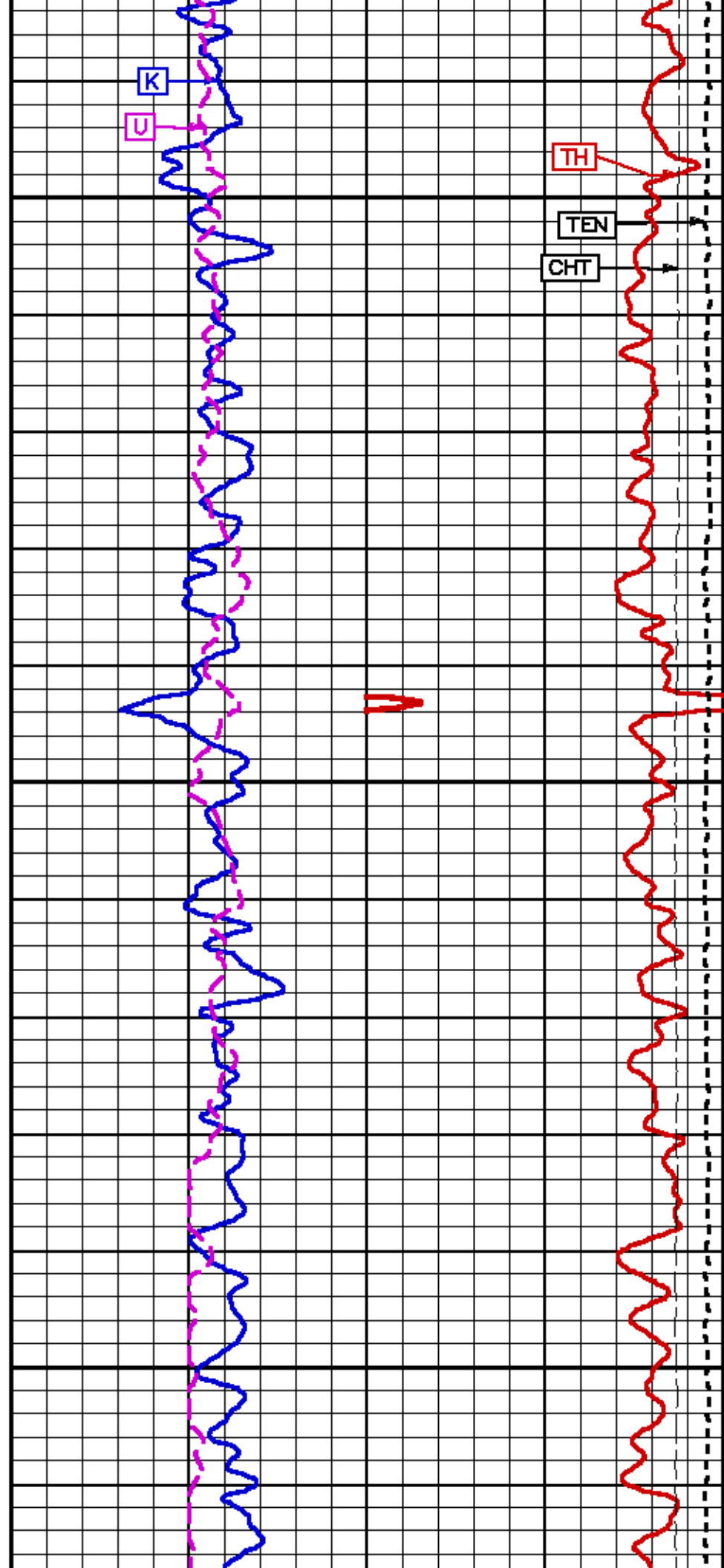




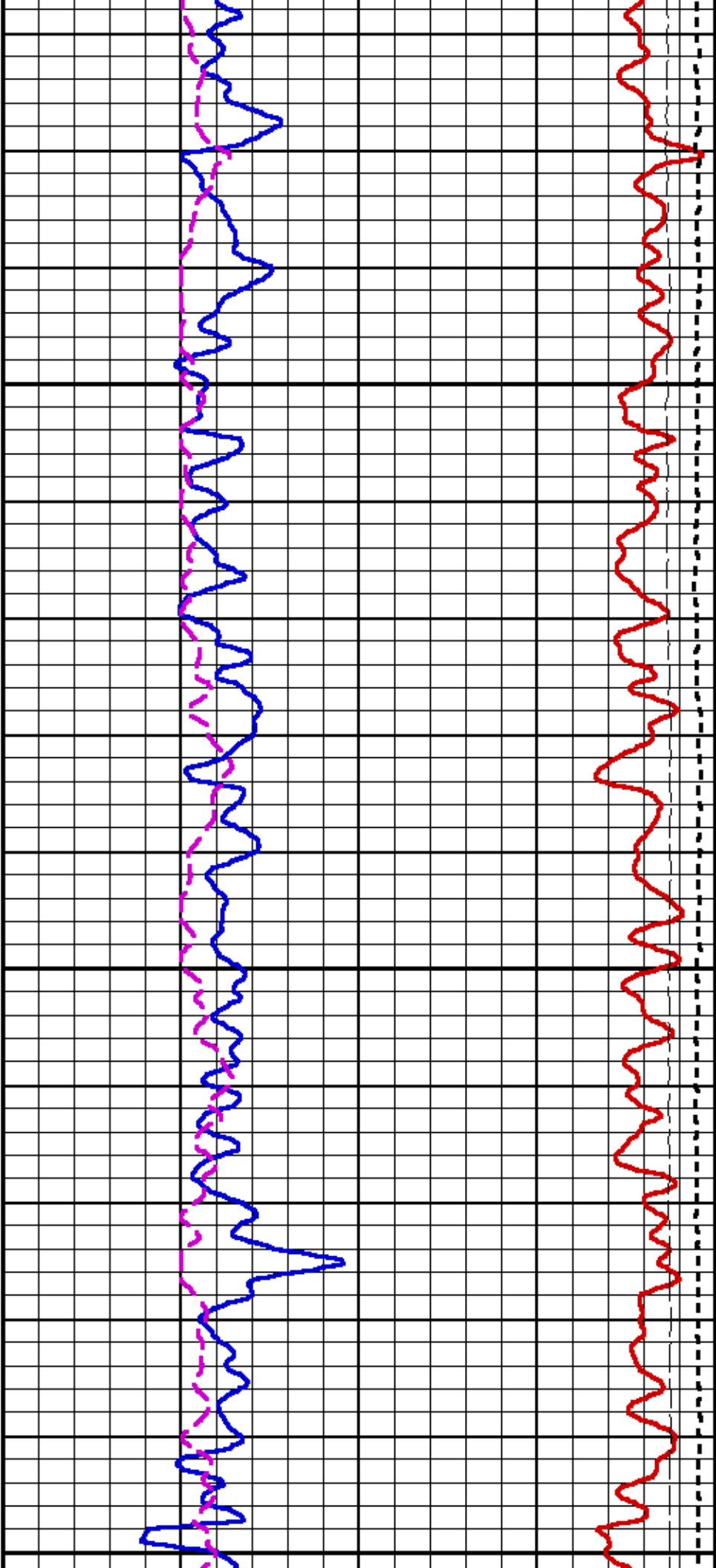
650

675

700



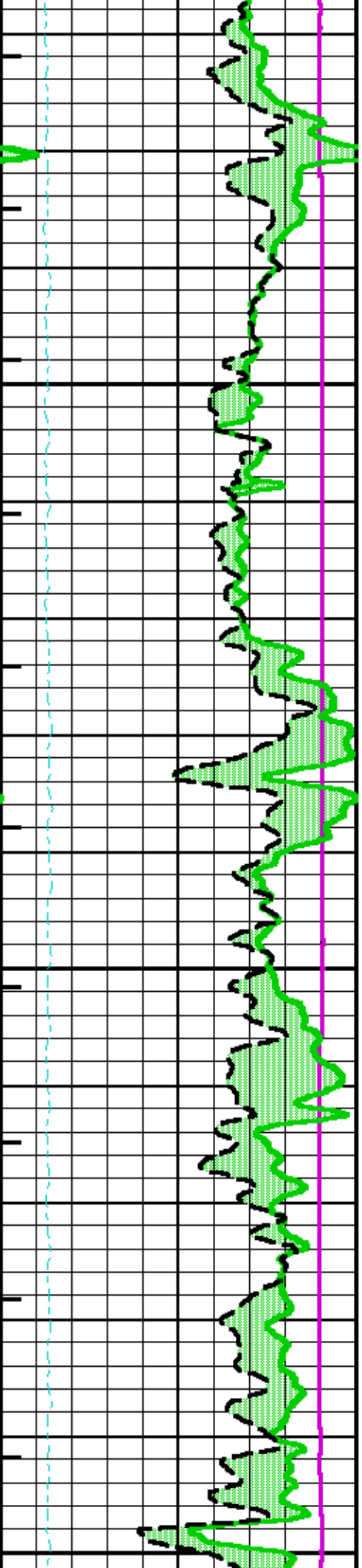
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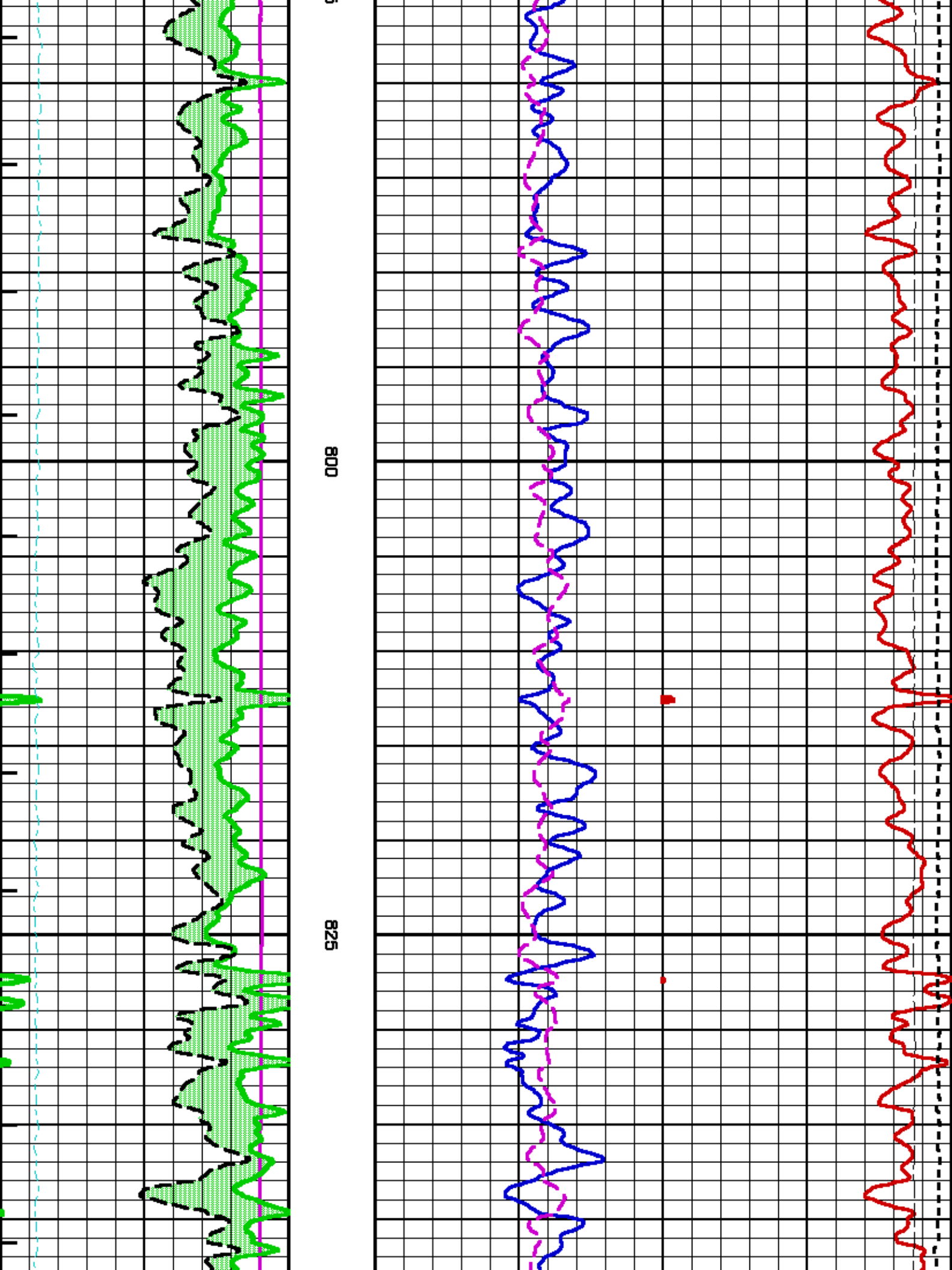


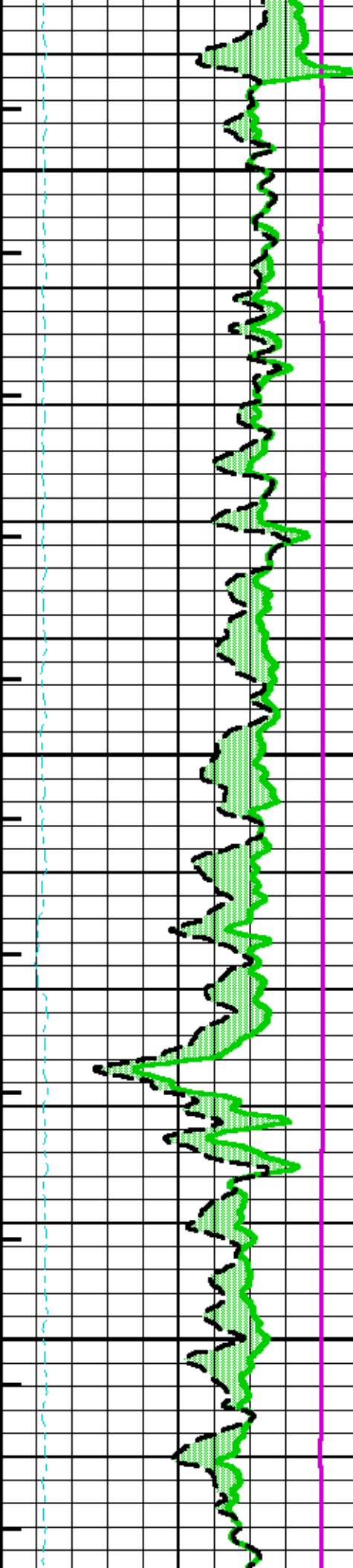
725

750

775



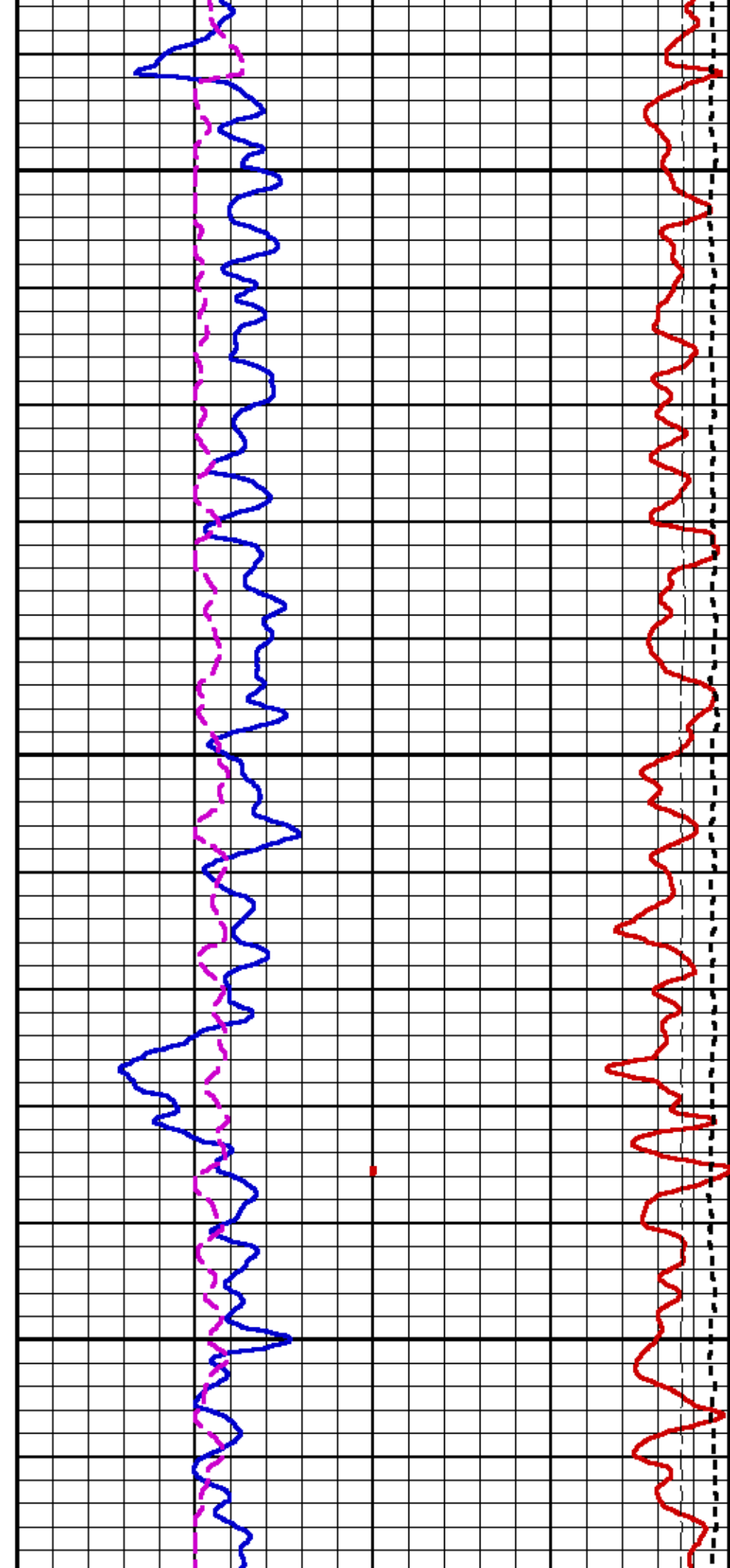


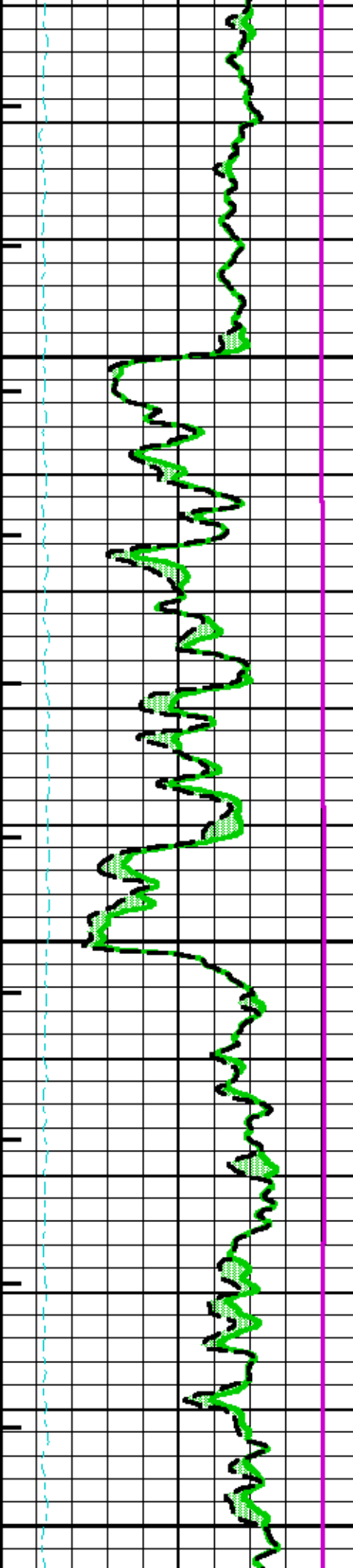


900

875

850

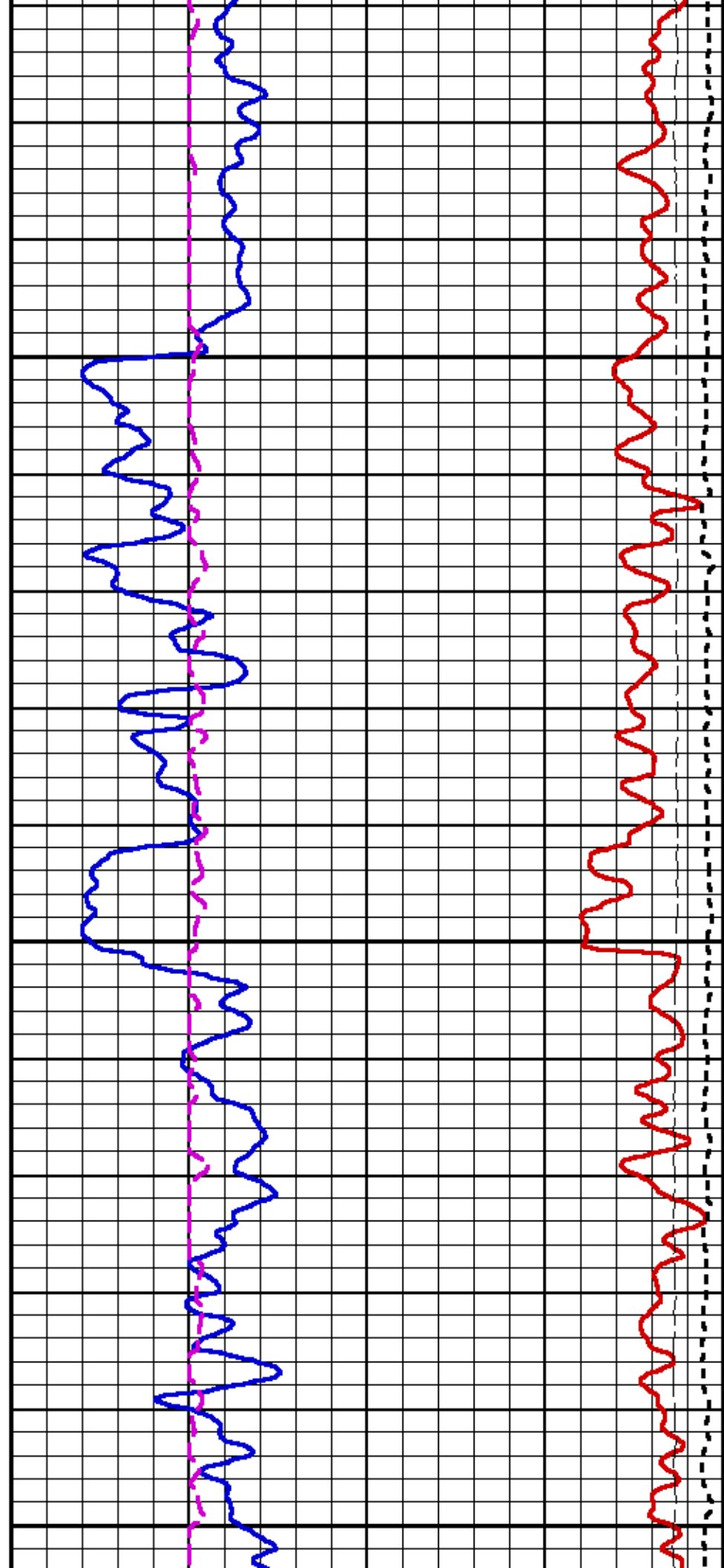


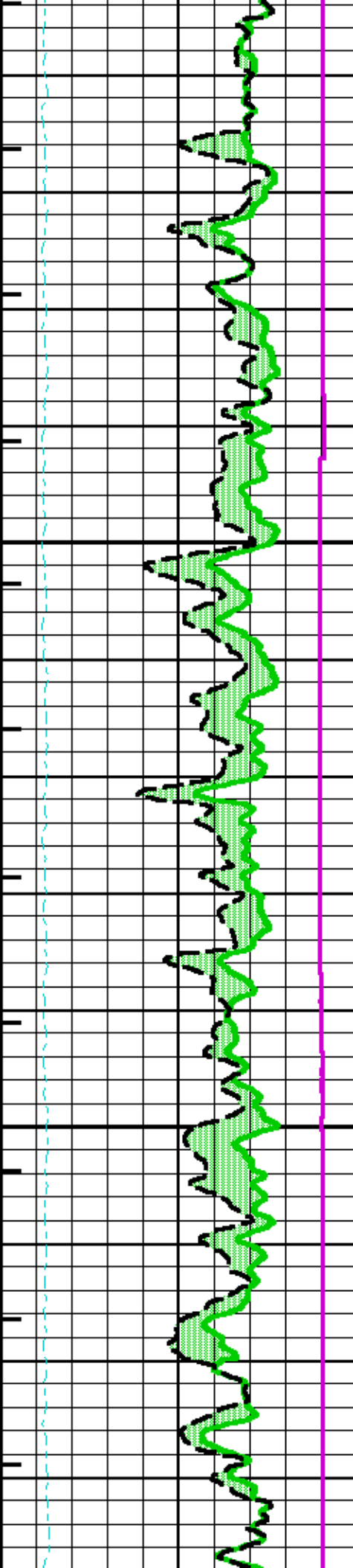


925

950

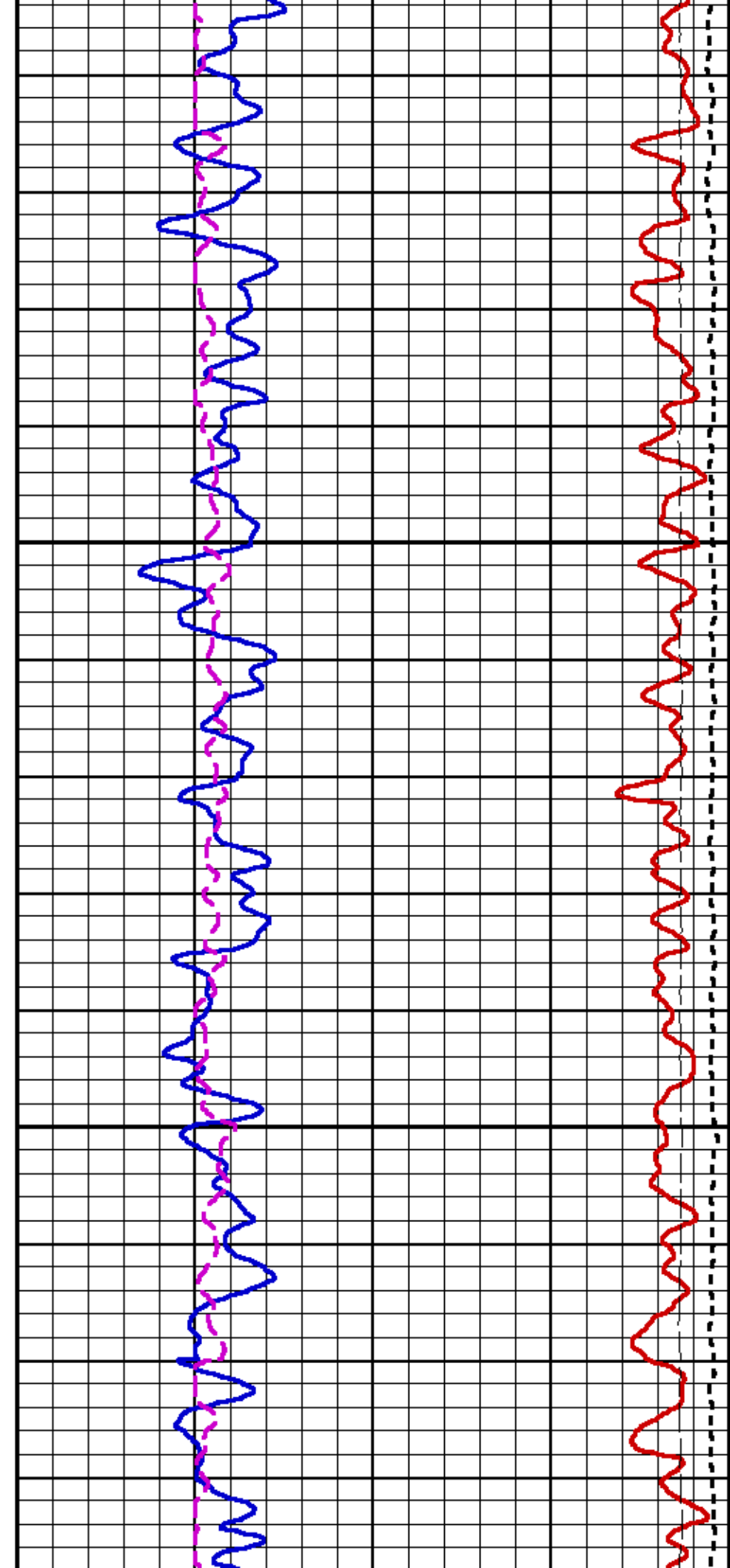
975

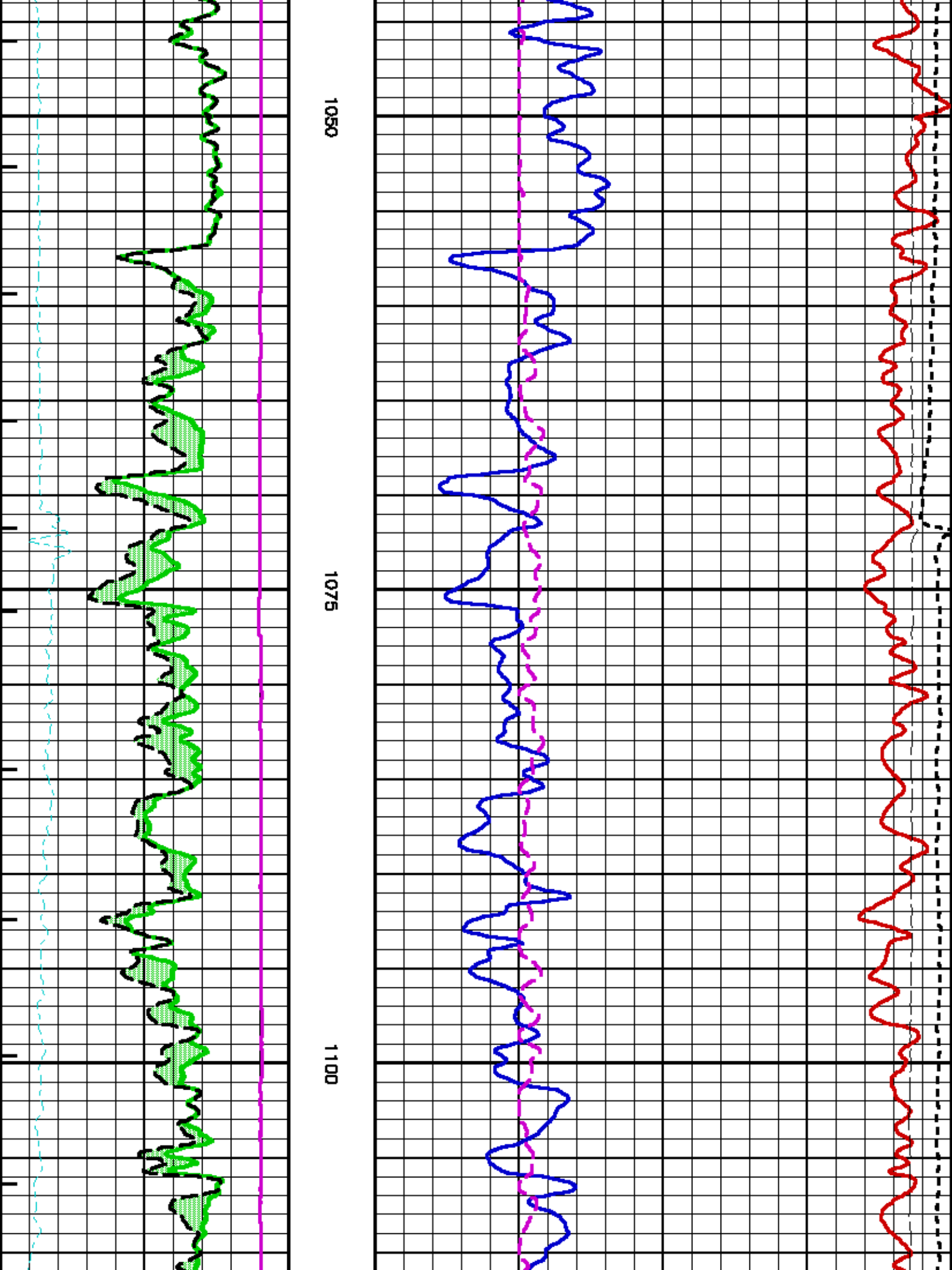


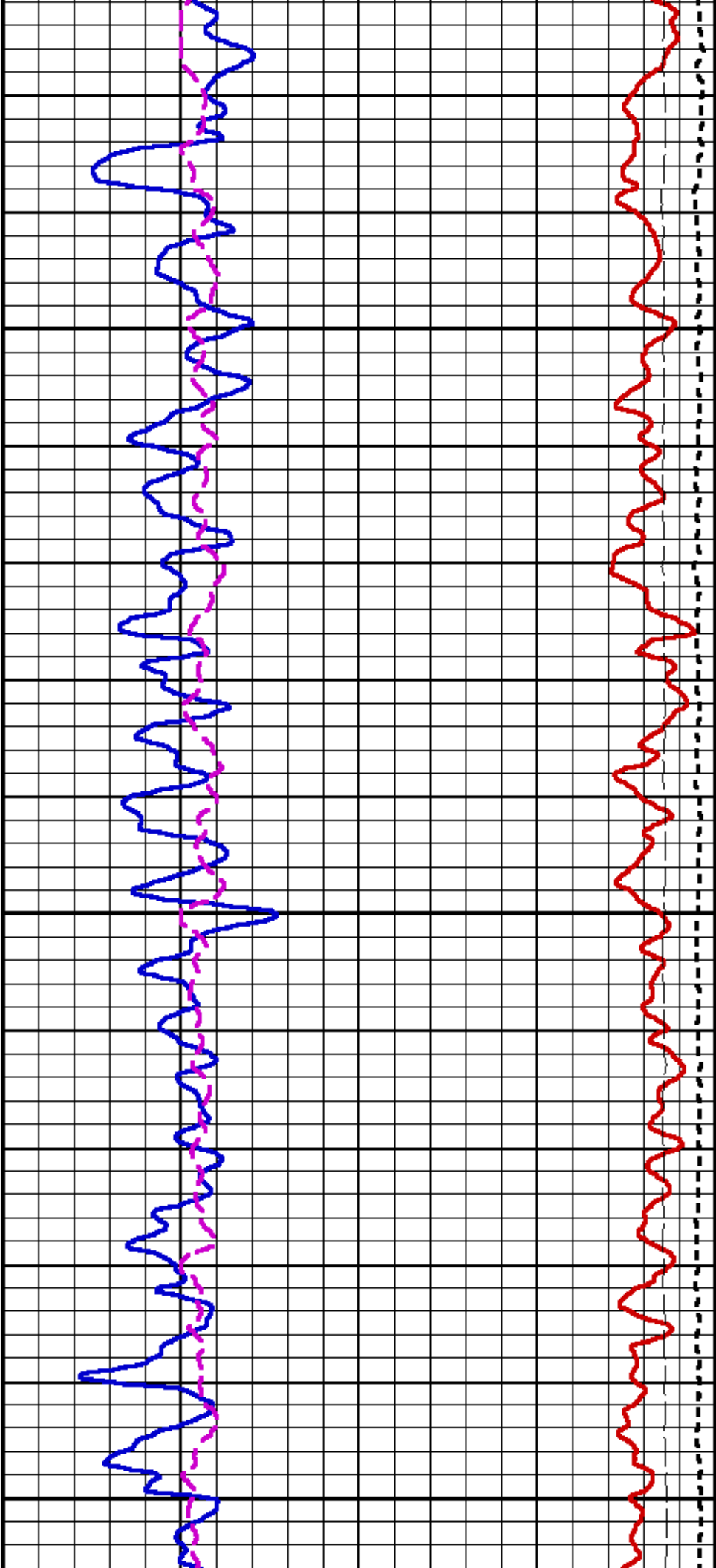


1000

1025



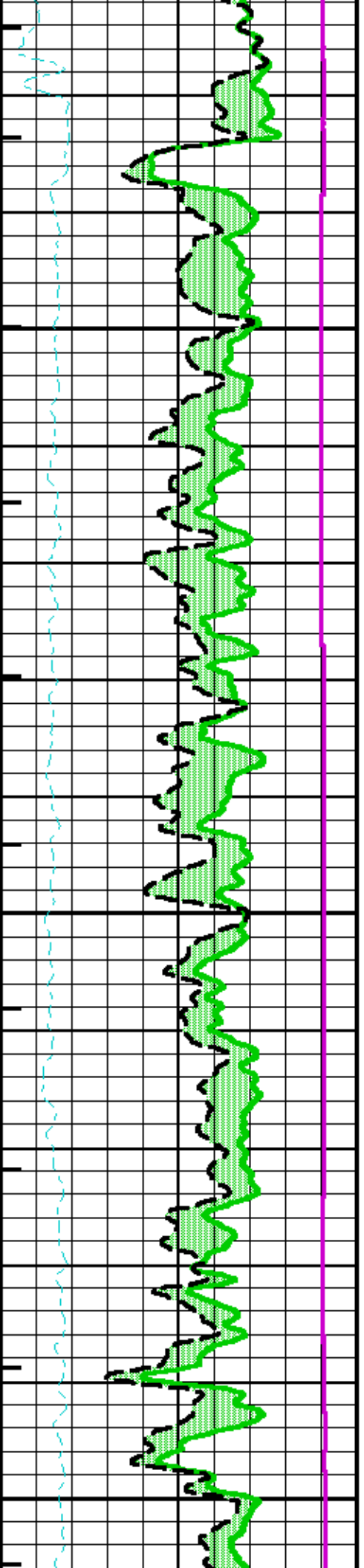


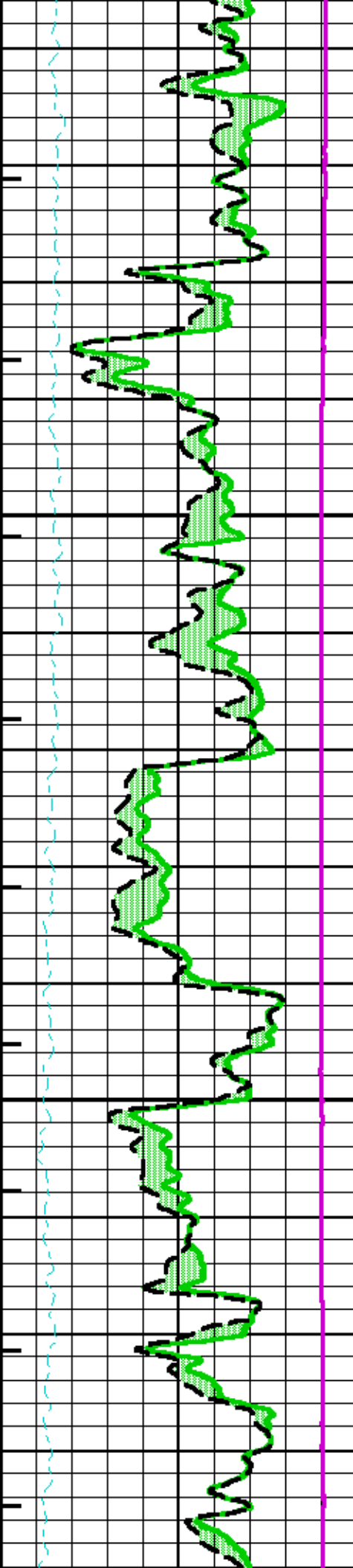


1125

1150

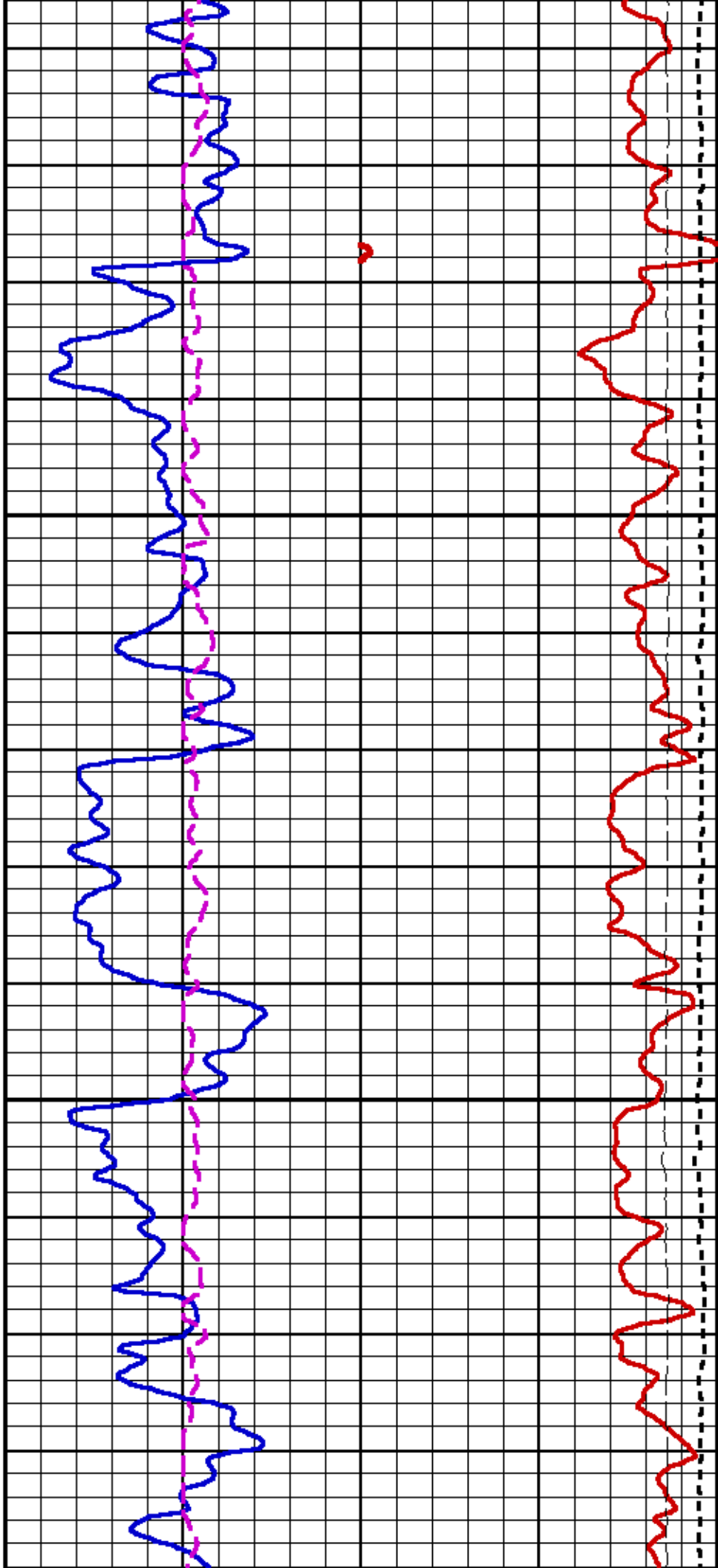
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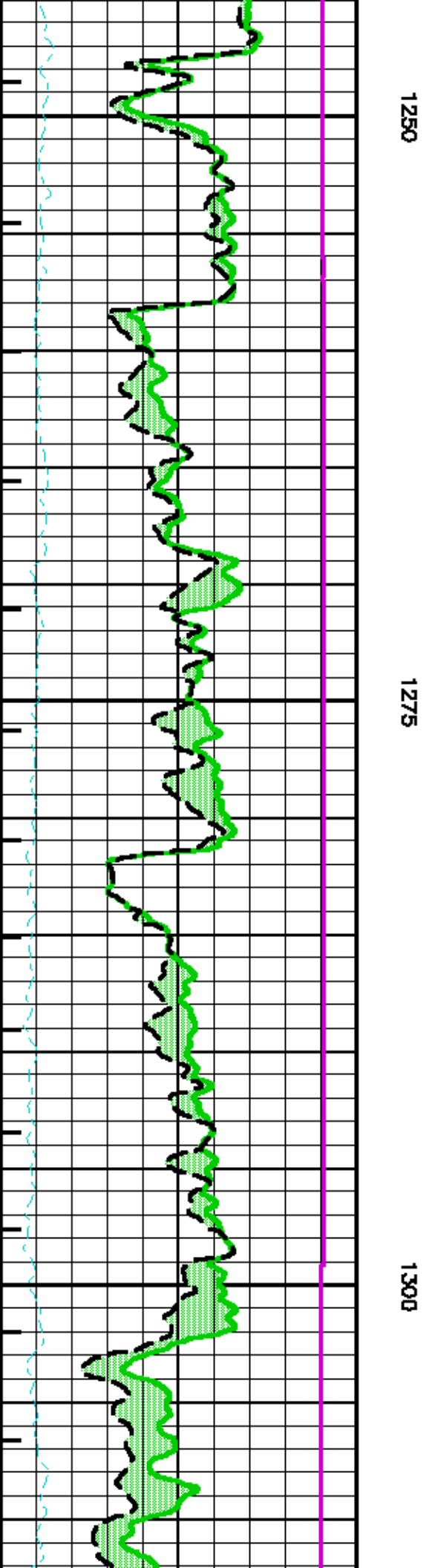
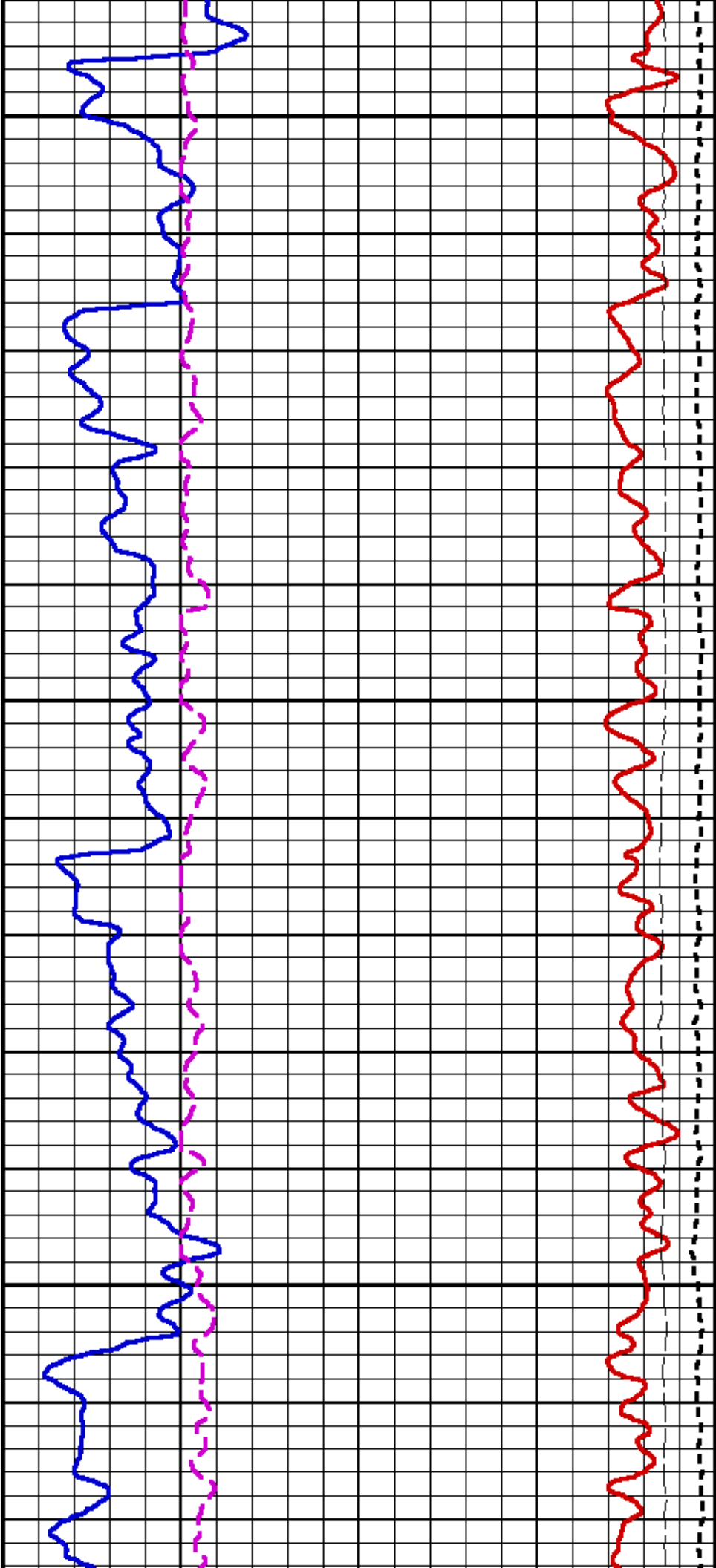


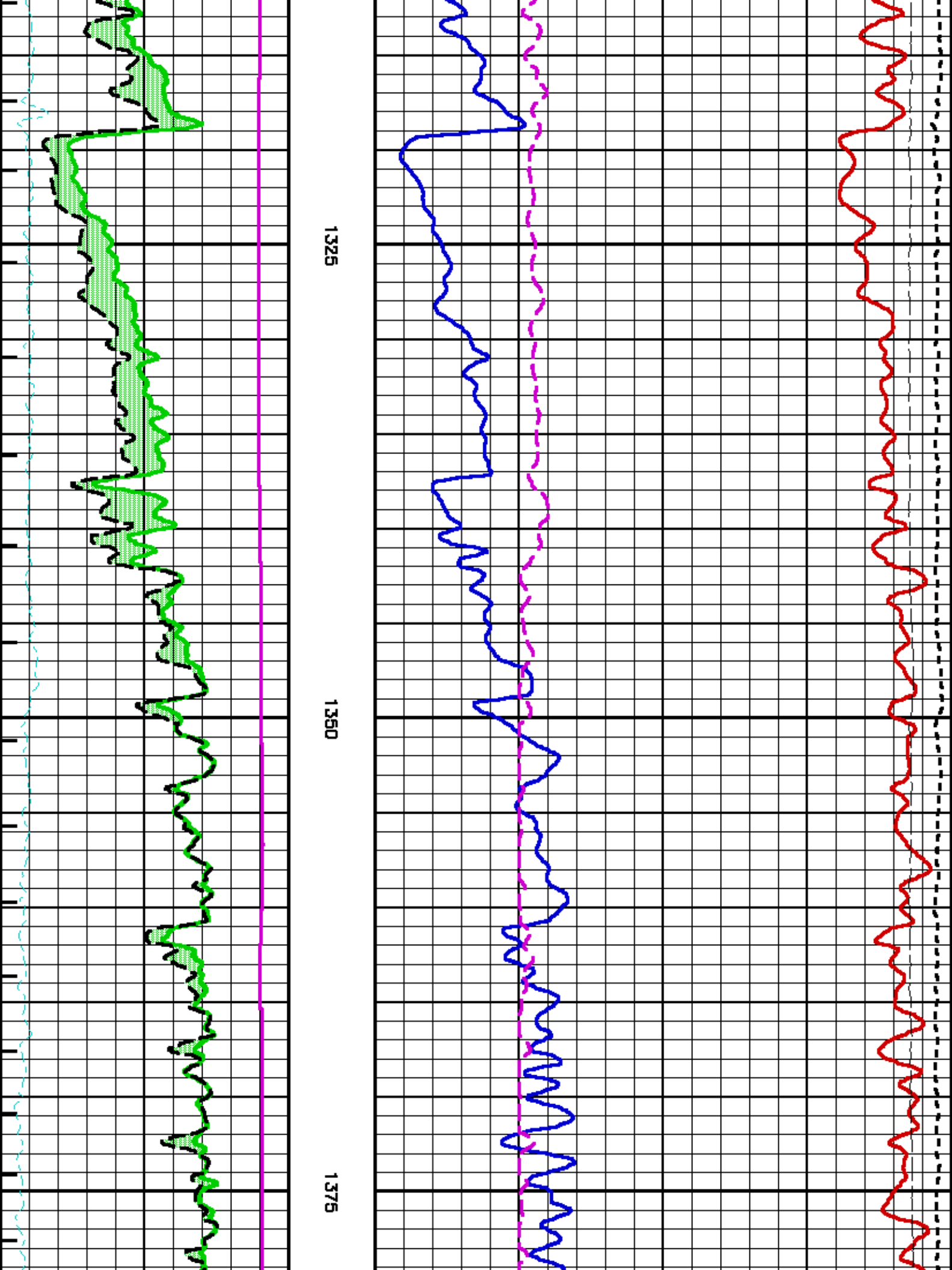


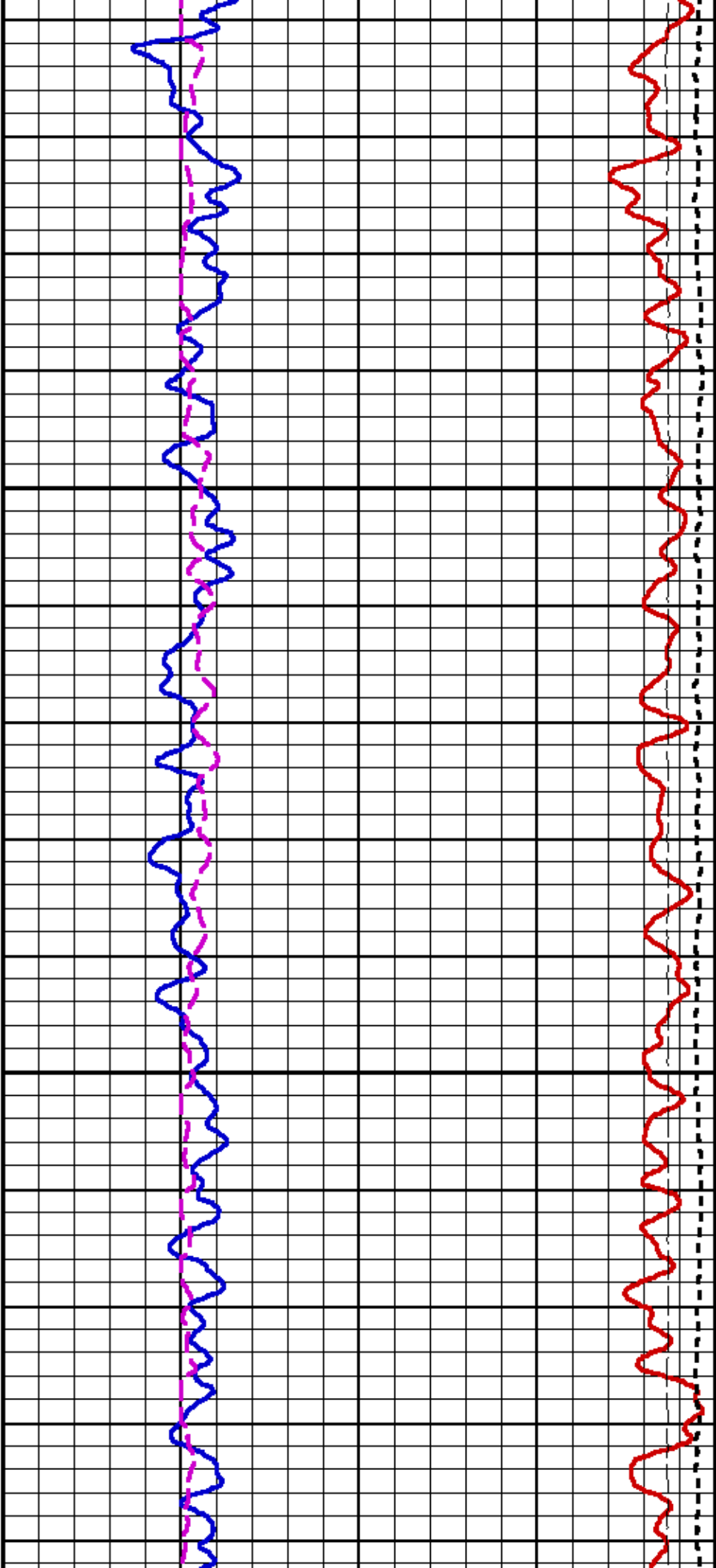
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1225



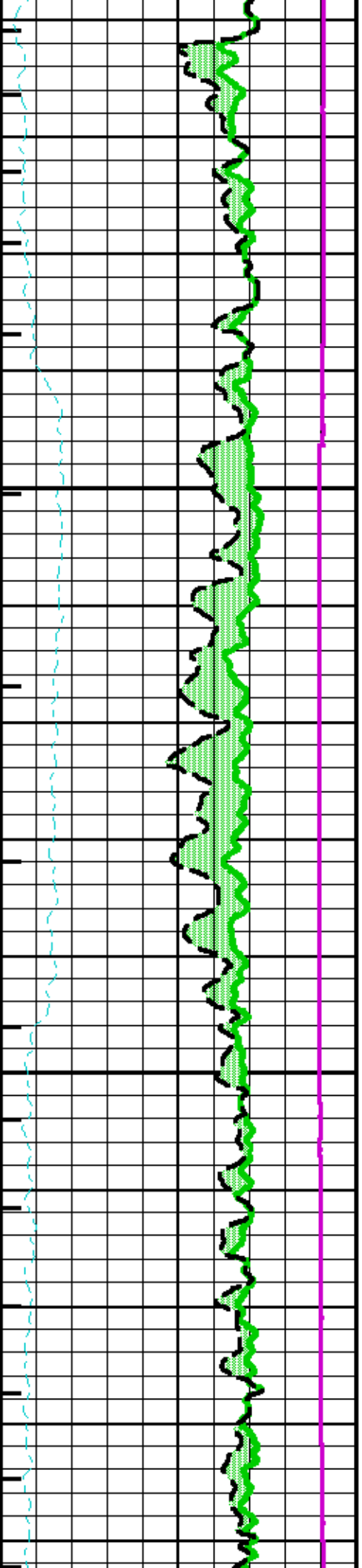


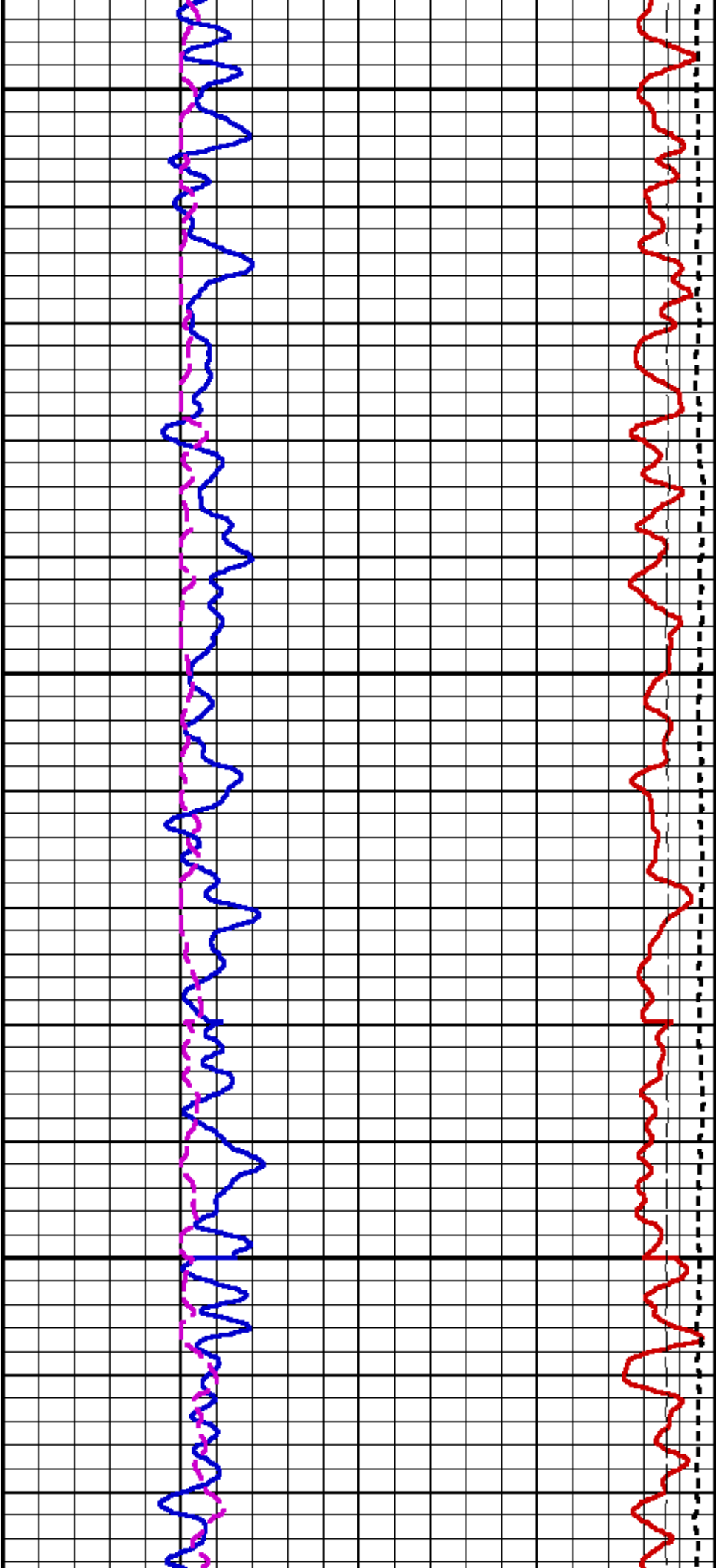




1400

1425

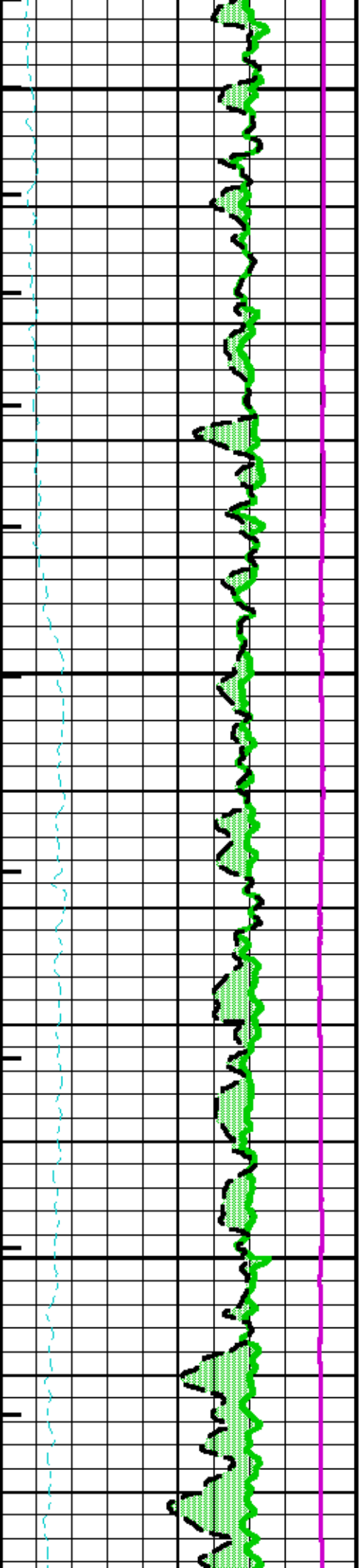


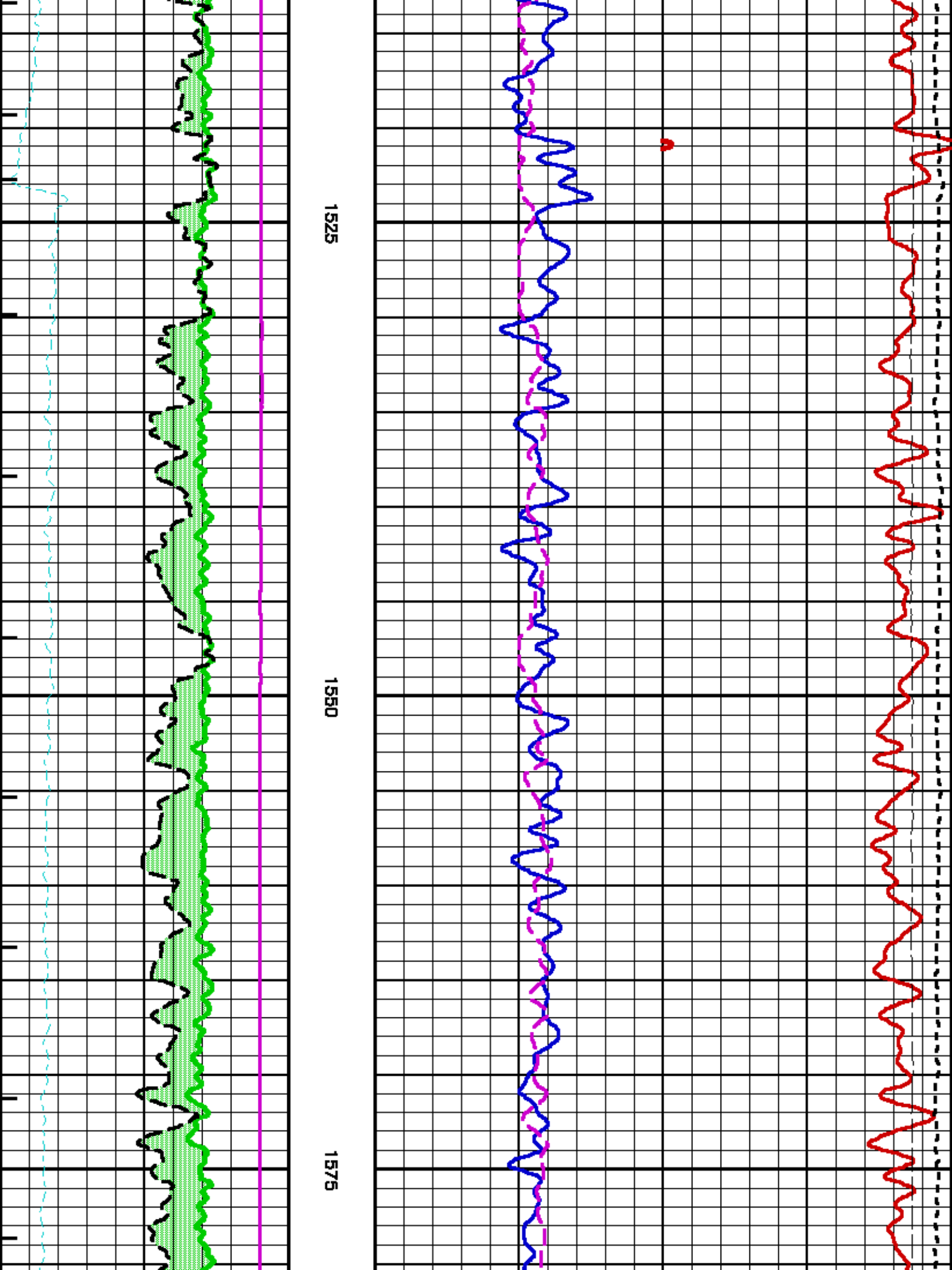


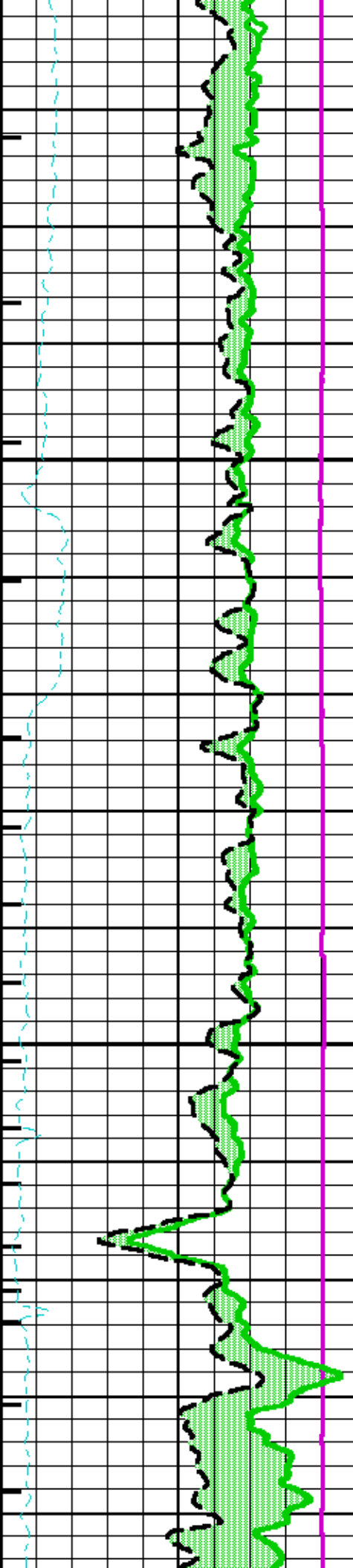
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1475

1500

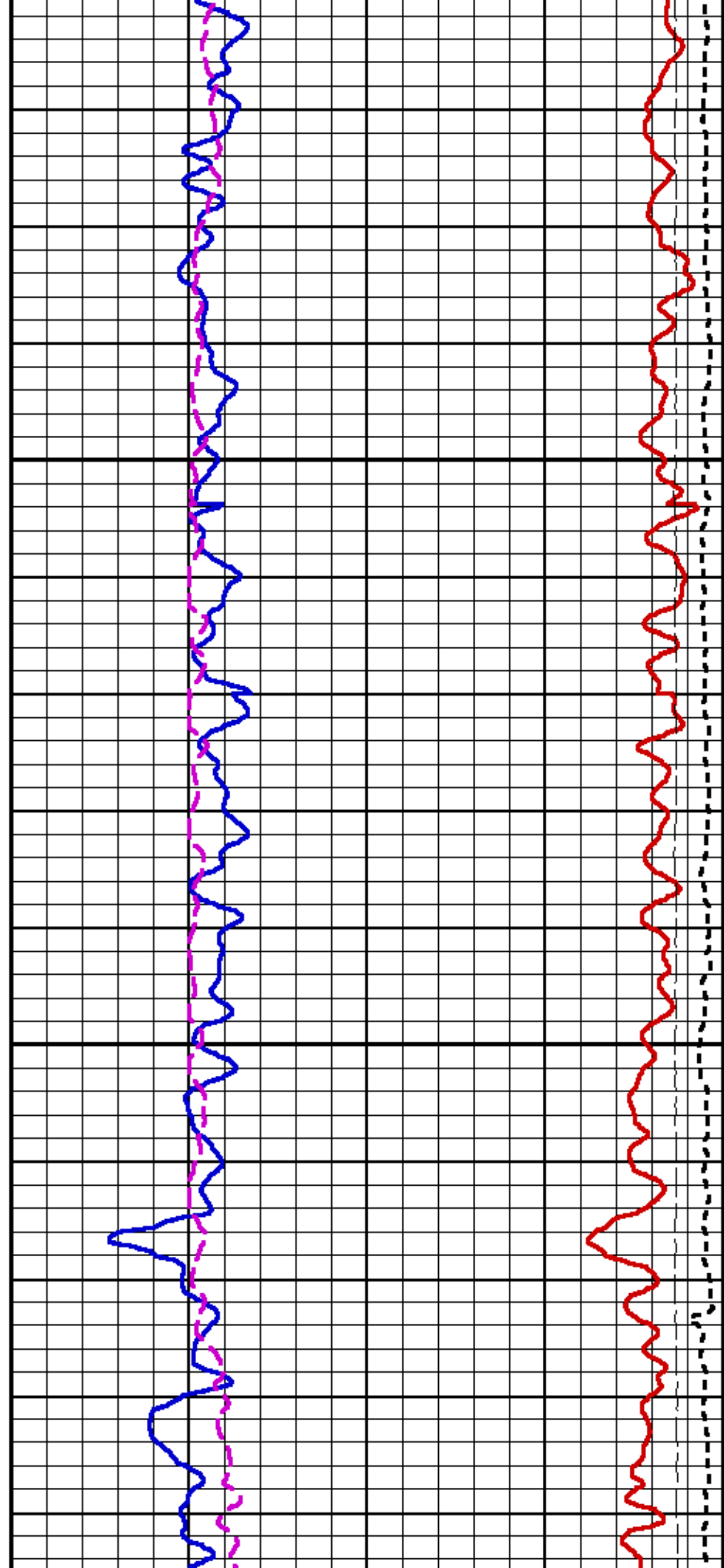


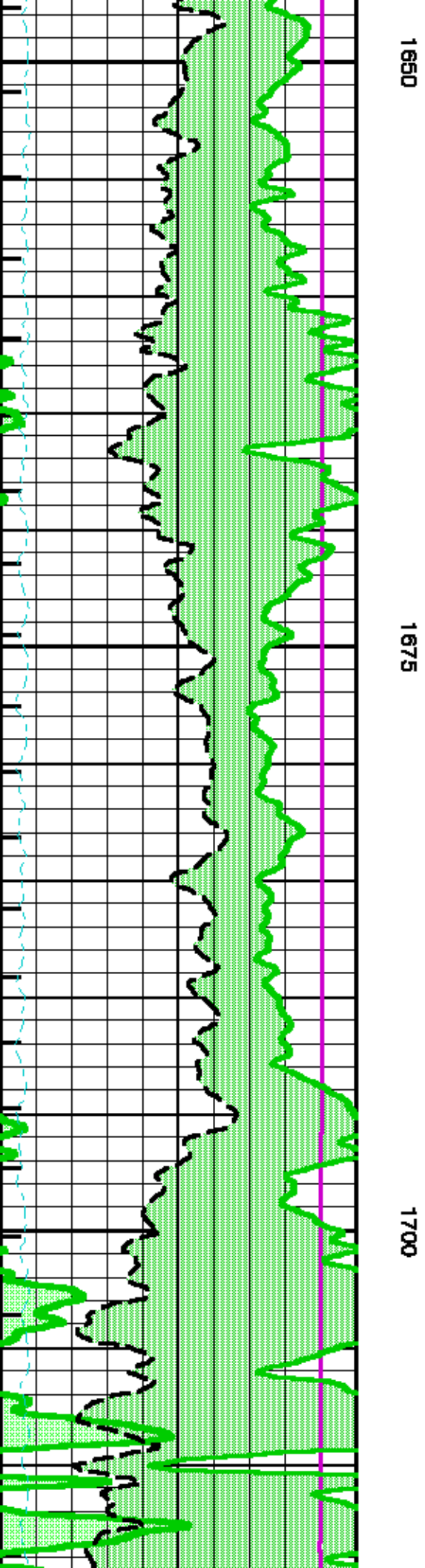
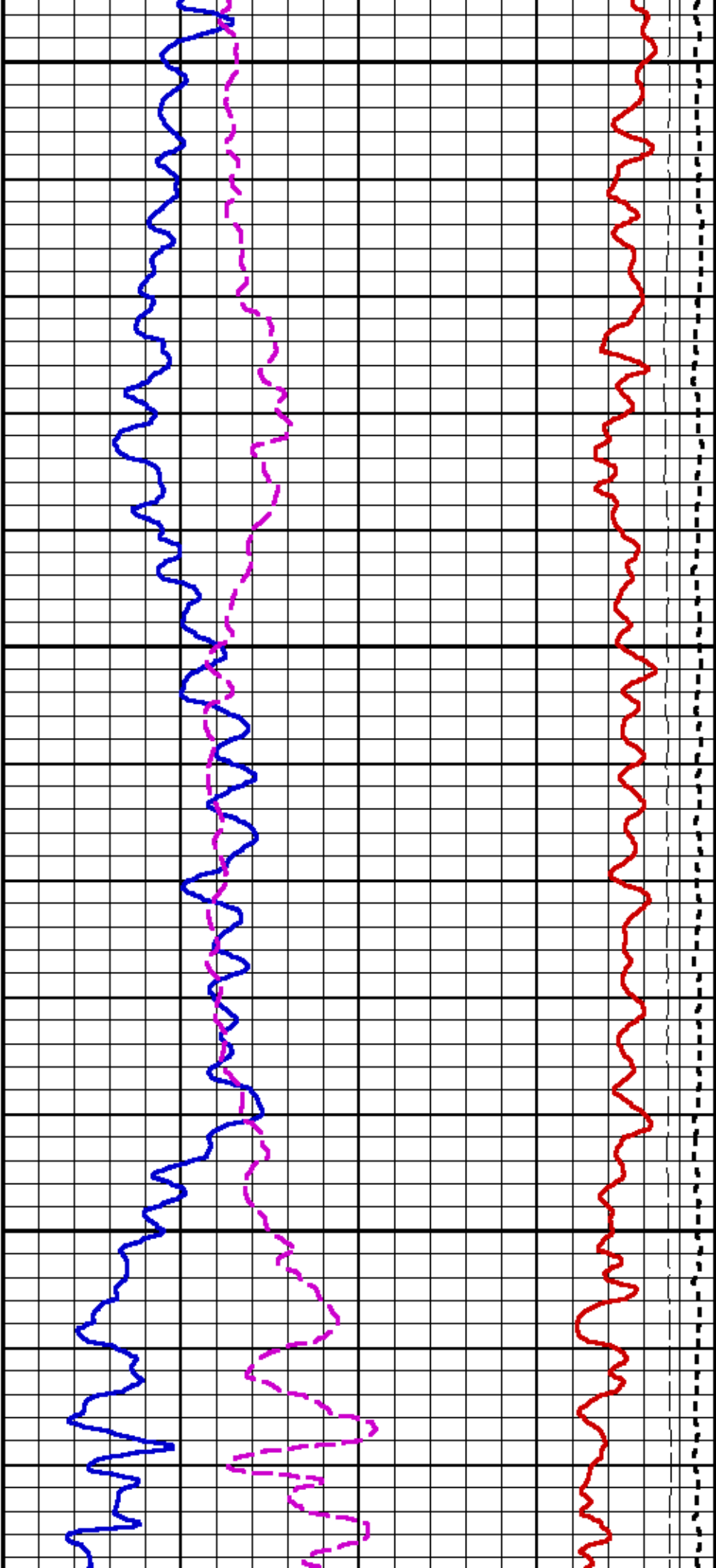


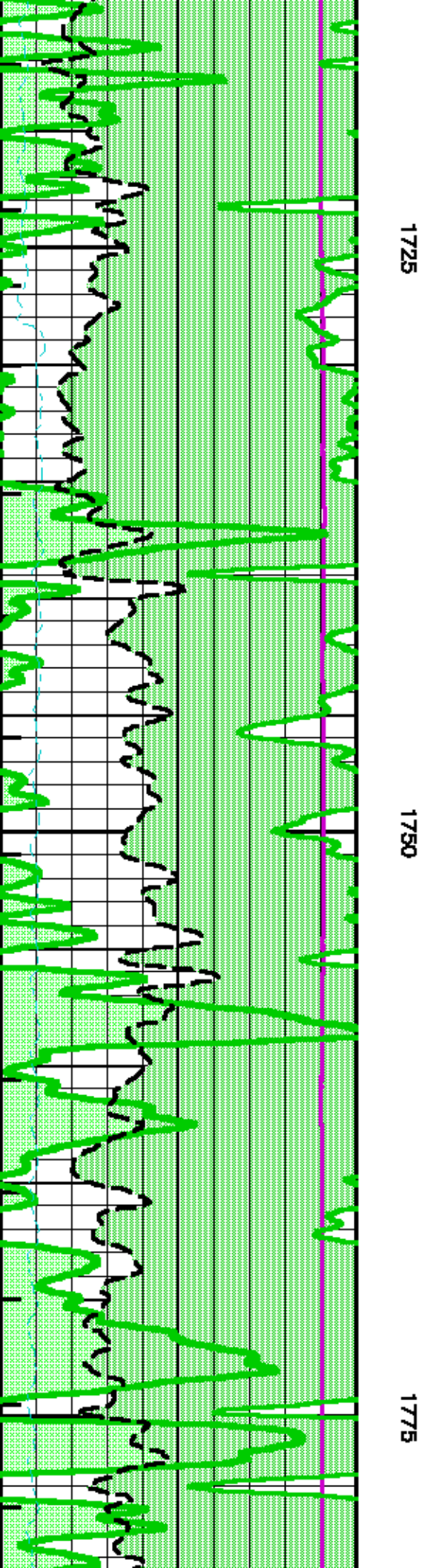
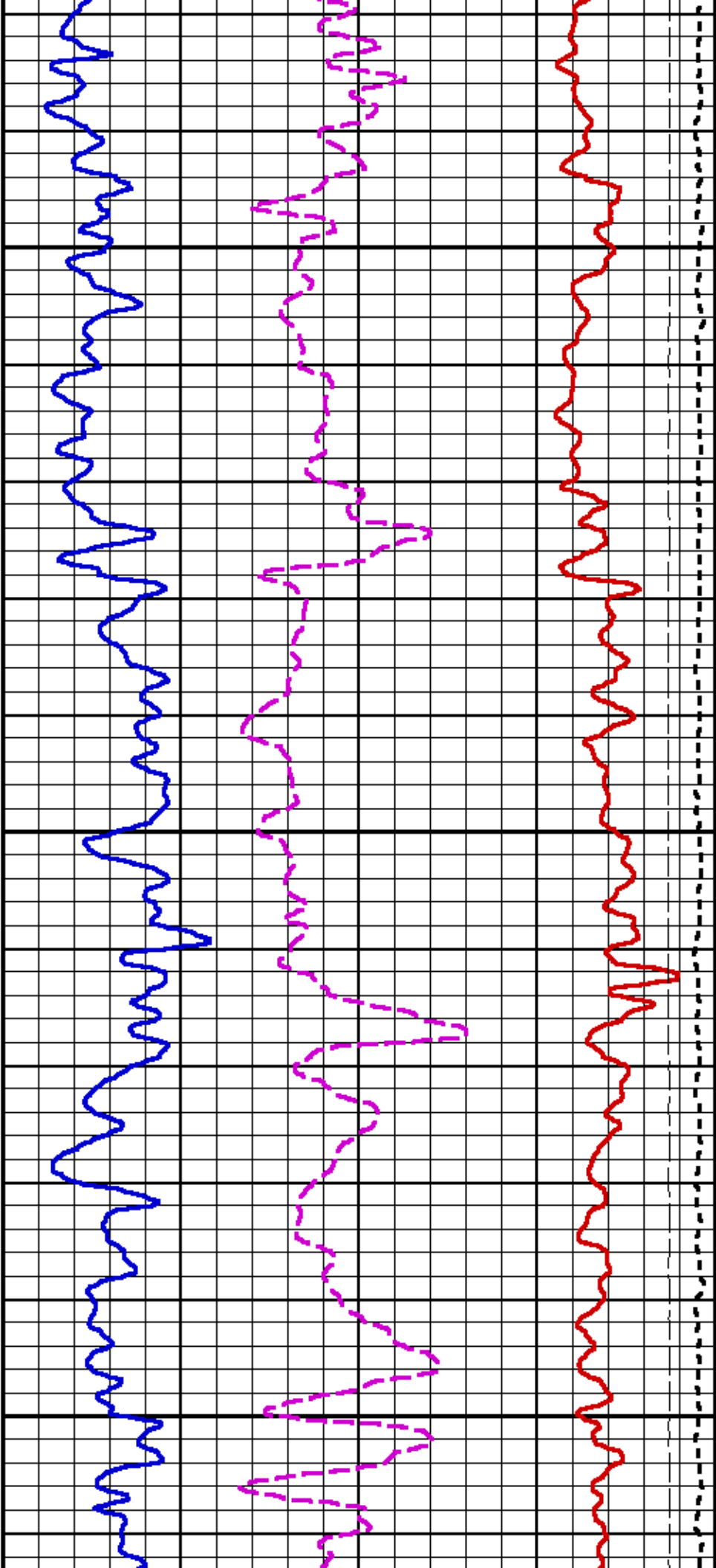


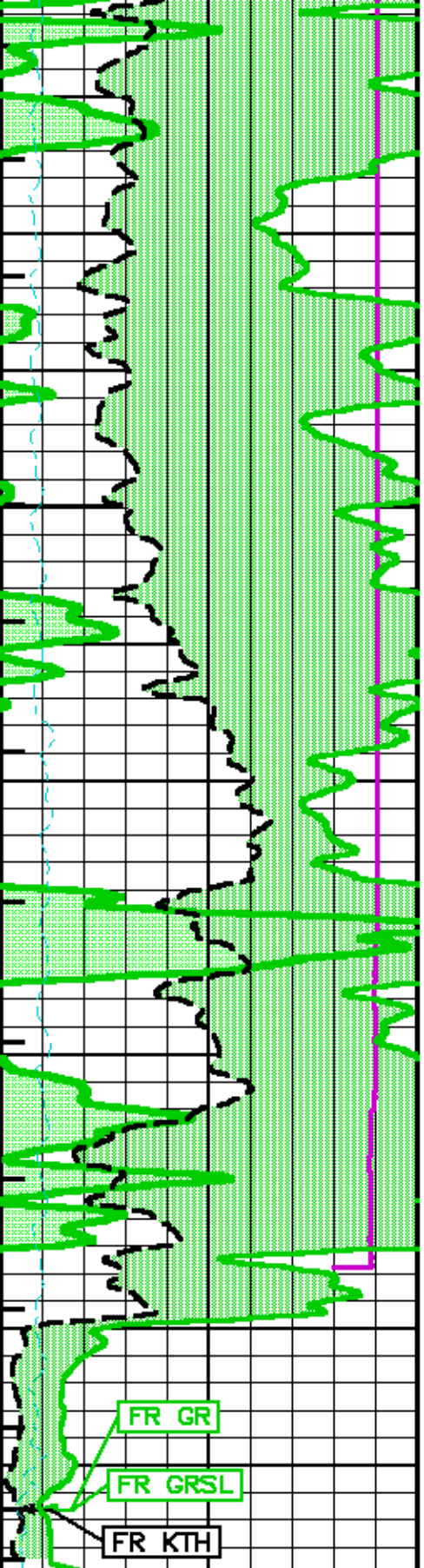
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1625



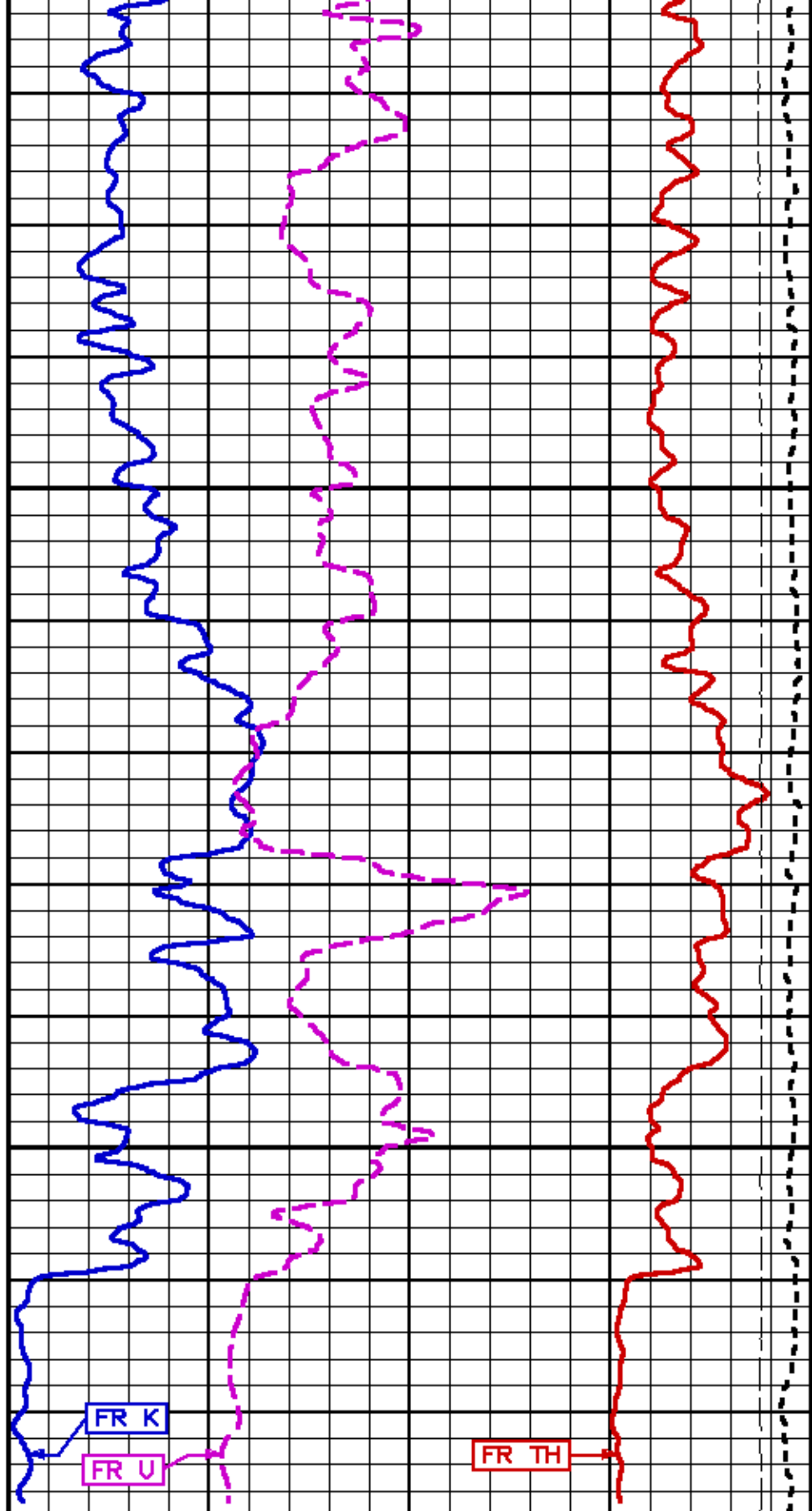


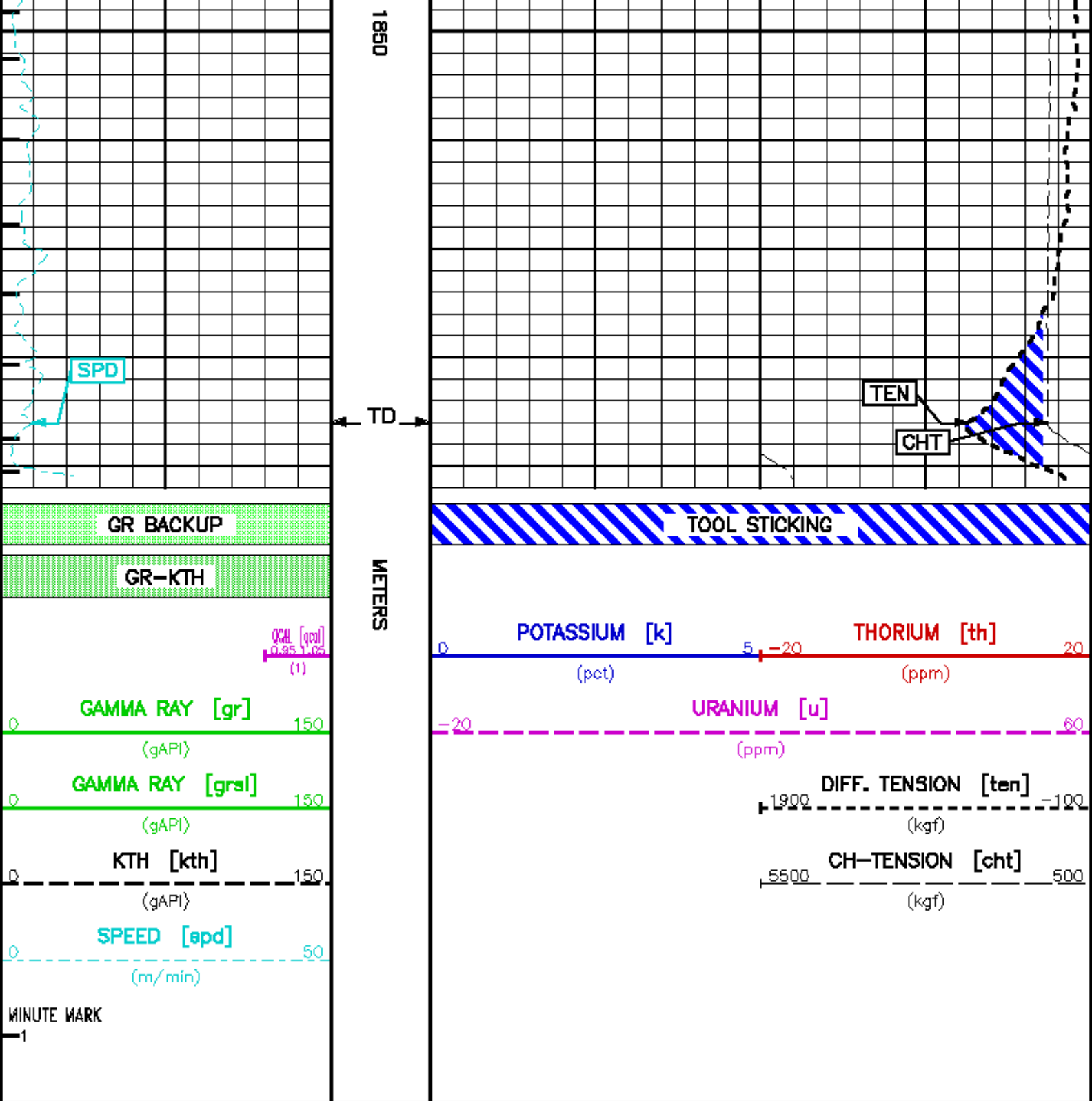




1800

1825





REPEAT LOG

SUMMARY AND FILTER SUMMARY REPORT

File: /data/husky_CA212310/m77evh_xc02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 1841.734 m BOTTOM DEPTH: 1872.082 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
CHT	FILTER ()	medium (1)		TOP	BOTTOM
	FILTER (.h)	medium (1)		..	..
	FILTER (.l)	medium (1)		..	..
SPEED	FILTER (.h)	medium (1)		..	..
	FILTER (.l)	medium (1)		..	..
	FILTER ()	medium (1)		..	..
TENSION GR	FILTER ()	medium (1)		..	..
	FILTER (.h)	medium (1)		..	..
	FILTER (.l)	medium (1)		..	..
SL-II	FILTER	medium (1)		..	..

SLII PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
E MATRIX	OPEN/CASED HOLE	OPEN HOLE		TOP	BOTTOM
SLII AUTOGAIN	AUTO GAIN	AUTO GAIN ON		..	..
SLII ENERGY RANGE	ENERGY RANGE	NORMAL: 0.25-3.0 MeV		..	..
SPECTRUM CALIBRATION	MODE	AUTOMATIC		..	..

CURVE DESCRIPTION REPORT

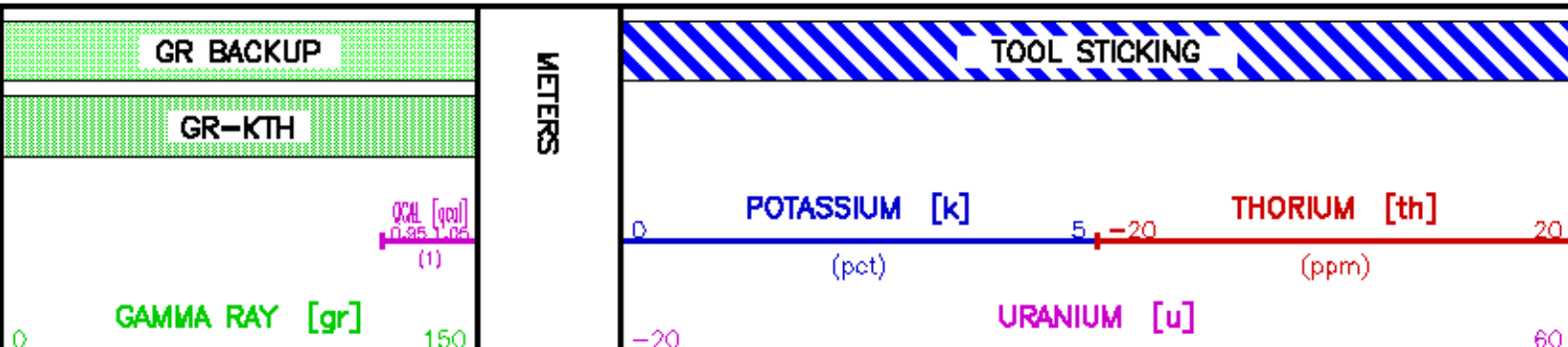
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:CHT	Feb 13 04:06:43 2012	CABLE HEAD TENSION
F1:GR	Feb 13 04:06:43 2012	GAMMA RAY
F1:GRSL	Feb 13 04:06:43 2012	GAMMA RAY FROM 1328 SPECTRUM
F1:K	Feb 13 04:06:43 2012	POTASSIUM CONTENT
F1:KTH	Feb 13 04:06:43 2012	STRIPPED POTASSIUM-THORIUM
F1:MARK	Feb 13 04:06:43 2012	MINUTE MARK
F1:QCAL	Feb 13 04:06:43 2012	QUALITY CURVE
F1:TEN	Feb 13 04:06:43 2012	DIFFERENTIAL TENSION
F1:TH	Feb 13 04:06:43 2012	THORIUM CONCENTRATION
F1:U	Feb 13 04:06:43 2012	URANIUM CONTENT

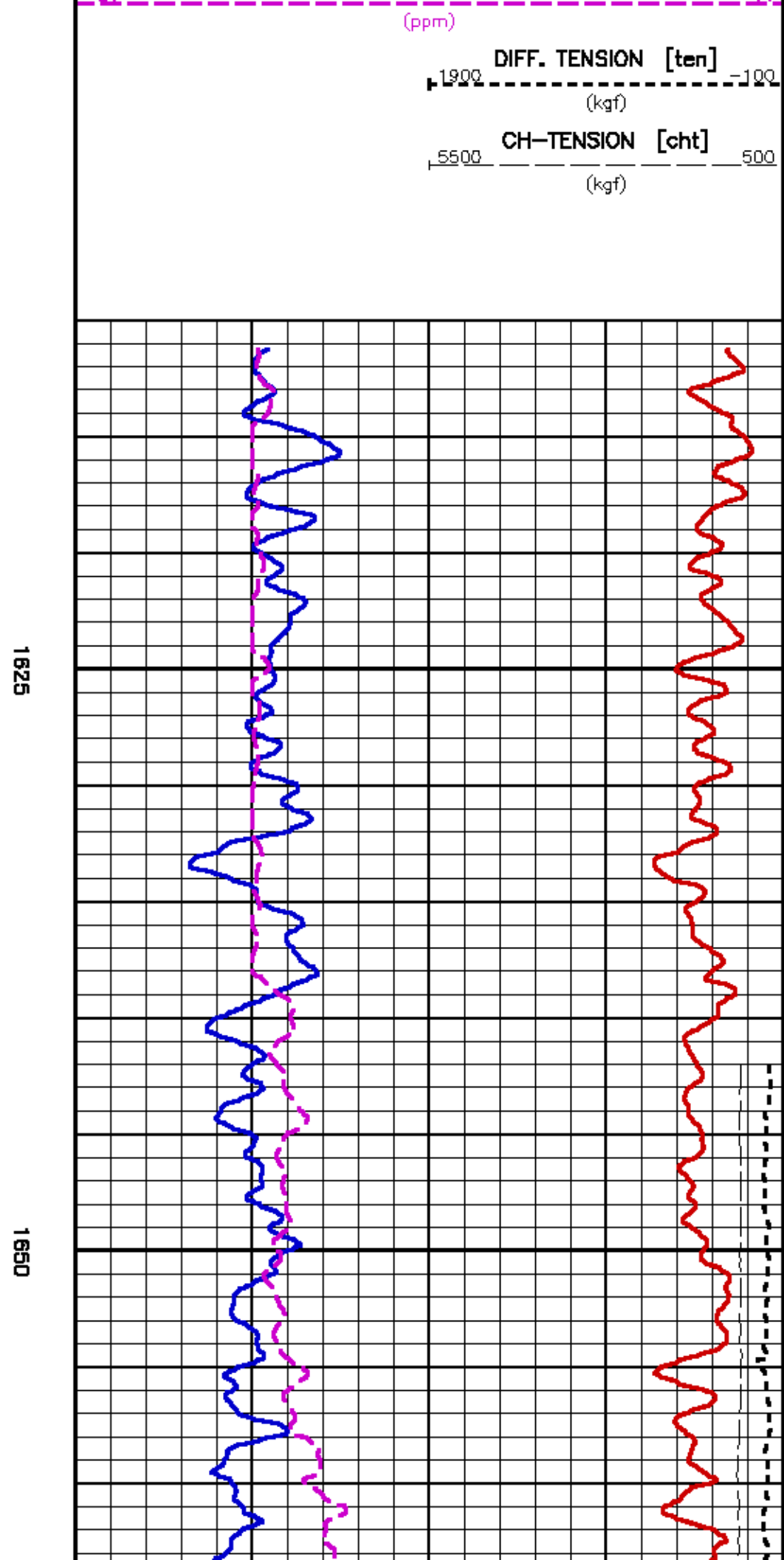
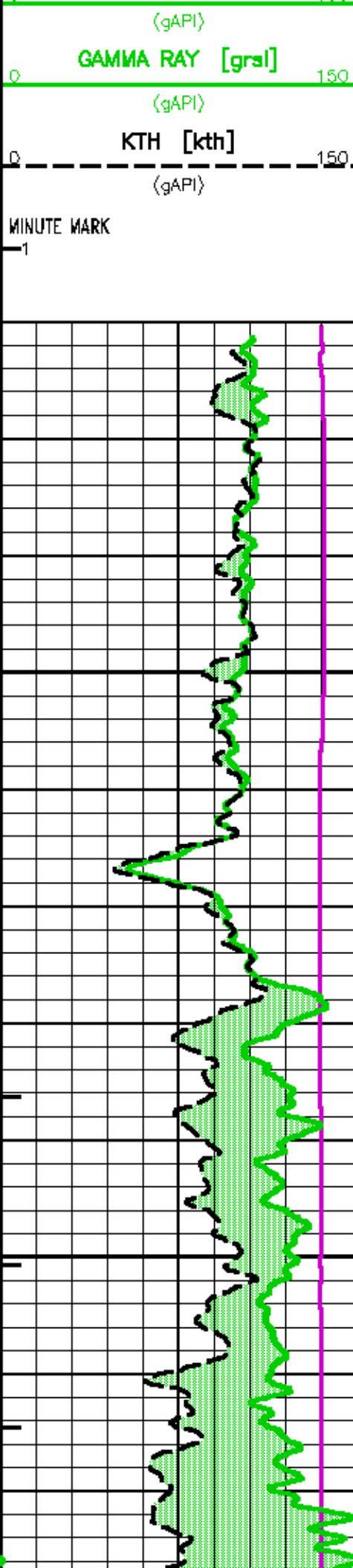
CURVE MEASURE POINT OFFSET

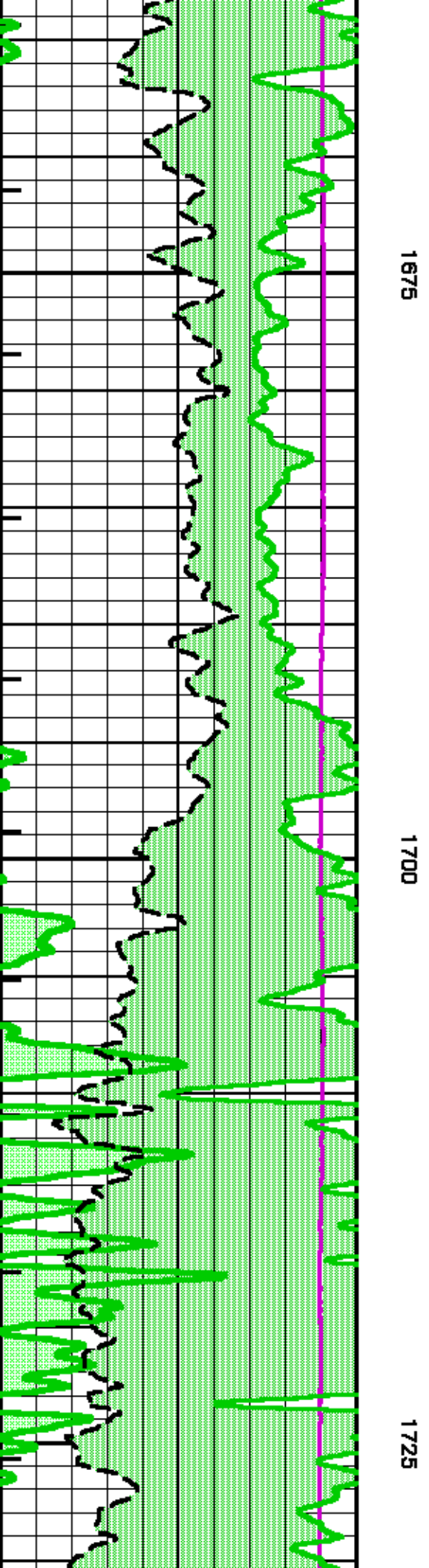
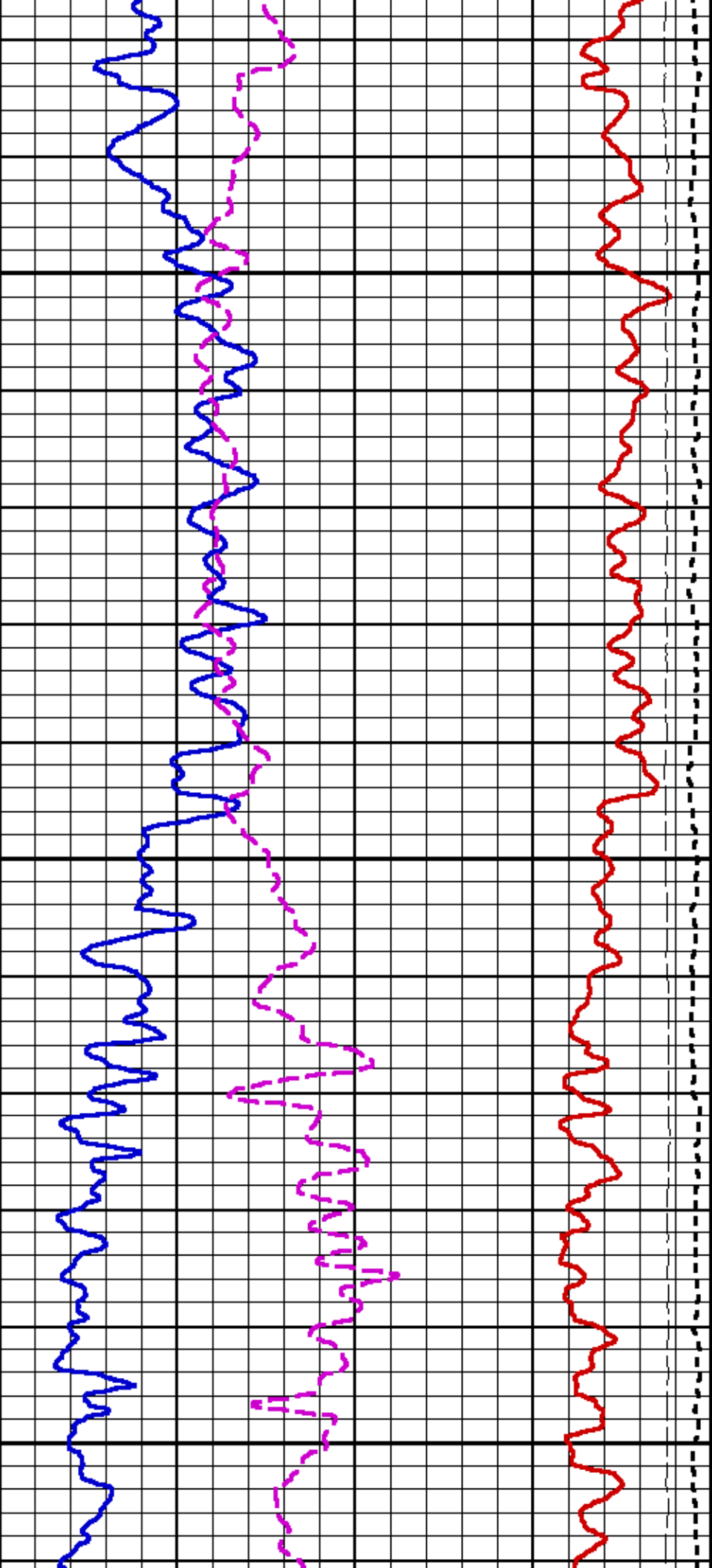
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
CHT	0.00	K	31.38	TEN	0.00		
GR	31.38	KTH	31.38	TH	31.38		
GRSL	31.38	QCAL	31.38	U	31.38		

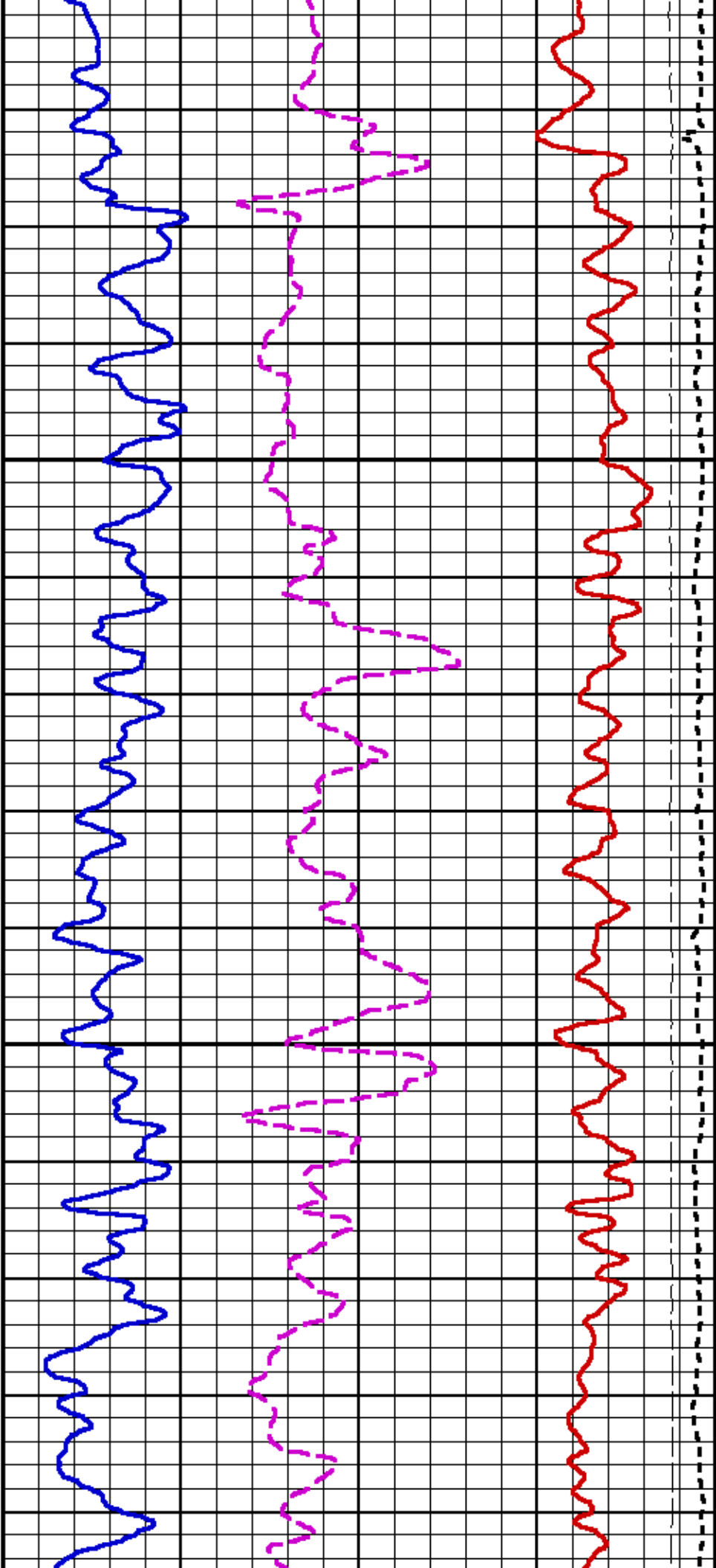
Presentation : epuz/data/husky_CA212310/sl_rpt.pdf [1:240 Scale]
 Plot Interval : 1810.18 - 1870.94 Meters

Data File 1 : F1 : epuz/data/husky_CA212310/r1t1_rpt.xtf
 Created On : Feb 13 04:08:45 2012
 Company : HUSKY OIL OPERATIONS LIMITED
 Well : LITTLE BEAR N-8
 Field : SLATER RIVER
 File Interval : 1806.37 - 1870.98 Meters
 Out : m77evh_x



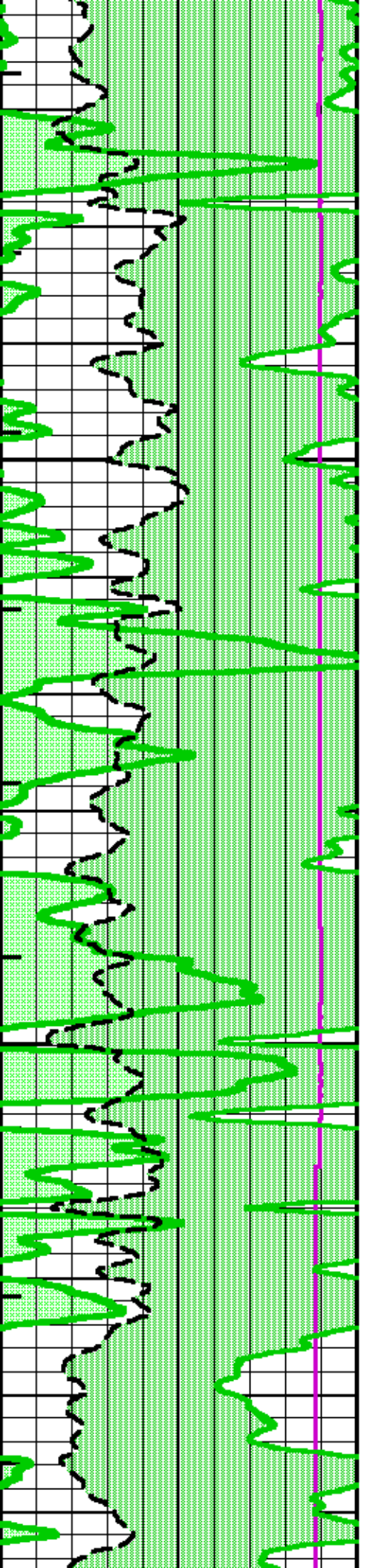


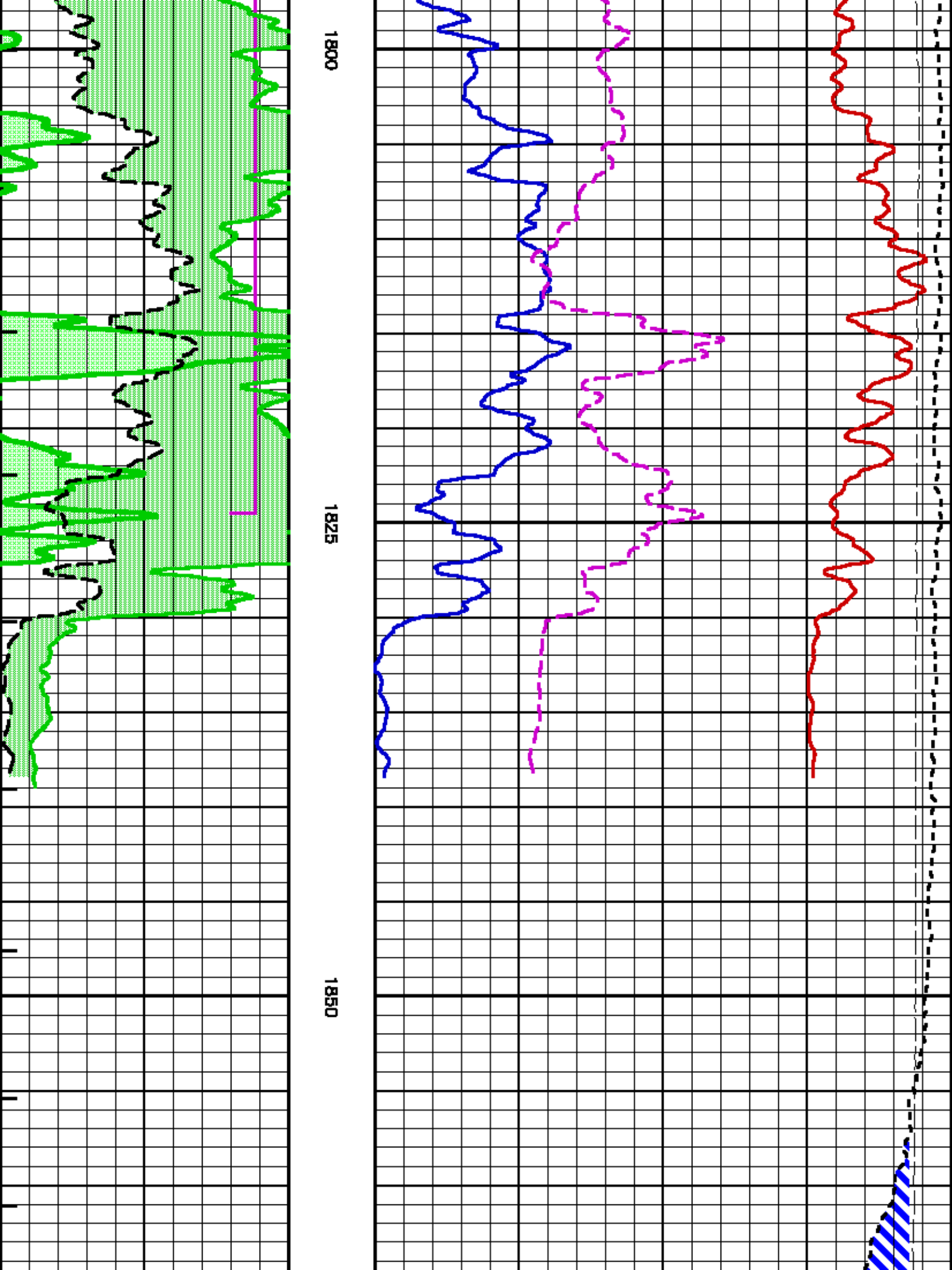


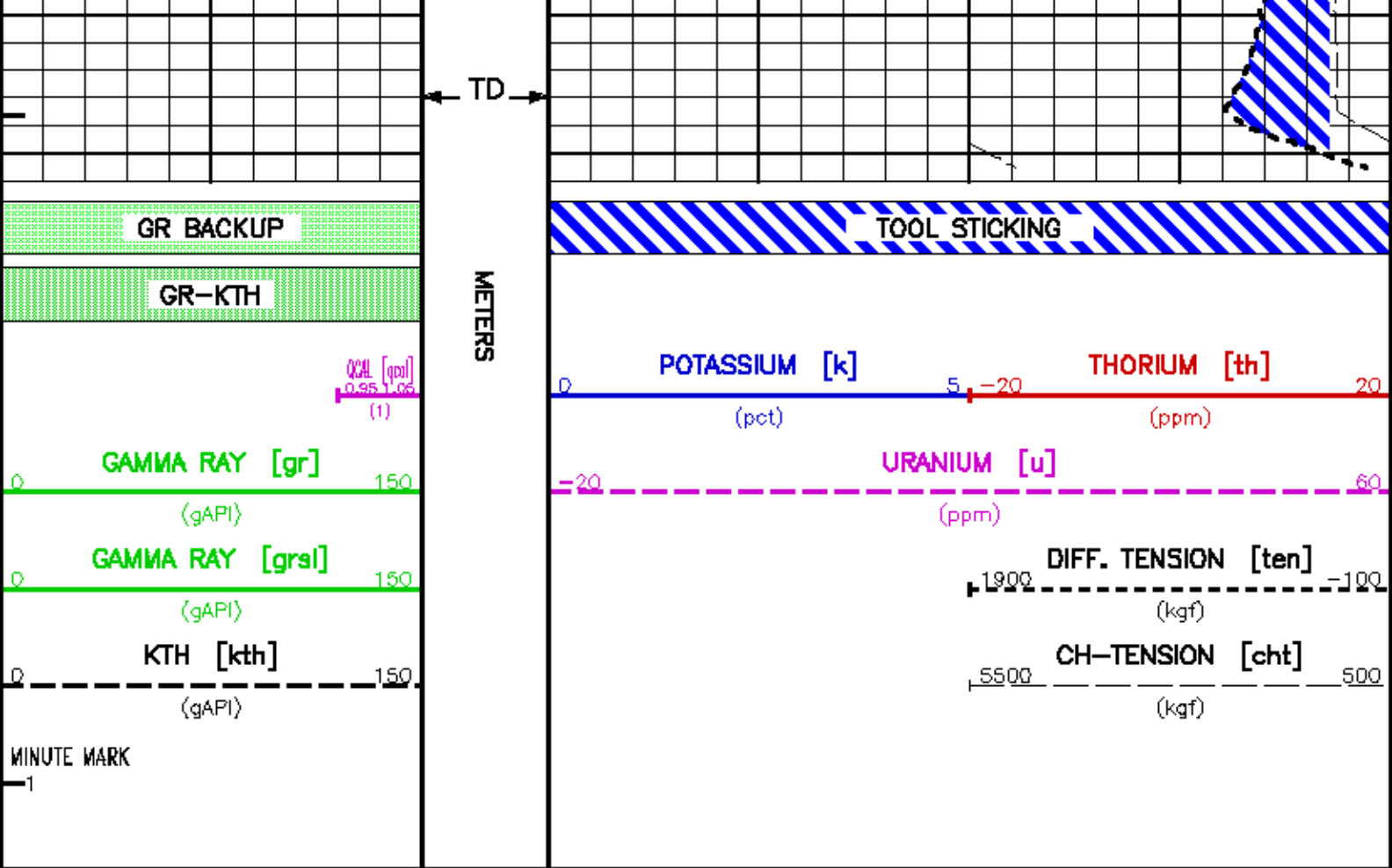


1750

1775







CALIBRATION / VERIFICATION SUMMARY

Source File: /data/humky_CA212510/m77wrh_xc_calis.jp1

CHTEN PRIMARY CALIBRATION SUMMARY

TOOL #: 3981XA 173348

DATE/TIME PERFORMED: Mon Feb 13 03:05:54 2012

UNIT #: 38545A 008672

	Signal (raw)	Low Signal (raw)	High Signal	Scale Mult	Scale Add	Engr Low (kgf)	Engr High (kgf)
CHT	2014.20	2119.20	22.89	-20989.31	-80.00	1010.00	

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Sat Feb 11 15:40:57 2012

UNIT #: 3854SA 008672 CALB JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	34.36	938.07	903.7 830.0 980.0	0.166	5.70	155.70	150

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 15:55:48 2012

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	33.04	928.56	0.166	5.48	154.12	148.64 140.00 160.00

GR BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 16:23:14 2012 DAYS SINCE CAL: 0

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	36.04	928.44	0.166	5.98	154.11	148.12 138.64 156.64

GR AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Feb 13 12:23:20 2012 DAYS SINCE CAL: 1

UNIT #: 3854SA 008672 VERI JIG #: 4702NK DA-554

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	181.31	1042.73	0.166	30.09	173.08	142.98 138.12 156.12

SL_I1 PRIMARY CALIBRATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 16:07:57 2012

UNIT #: 3854SA 008672 CALIBRATOR ID: 4702NA DA-554

Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
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GR-SL (.06-3.5) 31.88 930.89 0.168 5.31 155.31 150

	Std Rate (cts/s)	Meas Rate (cts/s)	Tool Norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	549.0	1.009 0.900 1.100			
K				0.01602	0.01617	8.900
U				0.03851	0.03886	21.300
TH				0.10135	0.10227	56.100

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	70.980	1.124	0.969 0.000 1.000	0.993 0.980 1.020	3042 2950 3050	8.55 10.00

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.32 22.80 28.80	44.52 40.20 48.20	81.49 78.00 86.00	126.96 121.40 133.40	156.75 152.00 166.00
Fit Pk	26.11	44.35	80.62	126.40	157.56

SL_II PRIMARY VERIFICATION SUMMARY

TOOL #: 1329XA 11756674

DATE/TIME PERFORMED: Sat Feb 11 16:13:30 2012

UNIT #: 38545A 008672

CALIBRATOR ID: 4702NA DA-554

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	32.83	930.43	0.168	5.49	155.34	150 135 165

	Std rate (cts/s)	Meas rate (cts/s)	Tool norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	552.2	1.009			
K				0.01602	0.01617	8.927 8.010 9.790
U				0.03851	0.03886	21.460 19.170 23.430
TH				0.01602	0.10227	56.479 50.490 61.710

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	71.411	1.016	0.848 0.000 1.000	0.998 0.980 1.020	3042	9.13

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.30	44.79	82.01	127.11	157.91
	22.80 28.80	40.20 48.20	78.00 86.00	121.40 133.40	152.00 168.00
Fit Pk	26.15	44.51	81.00	127.06	158.41

SL_I1 BEFORE LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Sat Feb 11 16:22:42 2012 DAYS SINCE CAL: 0

UNIT #: 38545A 008672 CALIBRATOR ID: 4702NA DA-554

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
GR-SL (.06-3.5)	33.23	928.28	0.168	5.55	155.07	150
						135 185

	Std rate (cts/s)	Meas rate (cts/s)	Tool norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	551.1	1.009			

K	0.01602	0.01617	8.909	8.010	9.790
U	0.03851	0.03888	21.417	19.170	23.430
TH	0.01602	0.10227	56.364	50.490	61.710

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	71.472	0.896	0.826	0.997	3039	9.01
			0.000 1.000	0.980 1.020		

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.32	44.55	82.09	126.85	158.08
	22.80 28.80	40.20 48.20	78.00 86.00	121.40 133.40	152.00 168.00
Fit Pk	26.05	44.42	80.94	127.04	158.42

SL_I1 AFTER LOG VERIFICATION SUMMARY

TOOL #: 1329XA 11756674 DATE/TIME PERFORMED: Mon Feb 13 12:28:11 2012 DAYS SINCE CAL: 1

UNIT #: 38545A 008672 CALIBRATOR ID: 4702NA DA-554

	Bkgnd (cts/s)	Cal ON (cts/s)	Mult (gAPI/(cts/s))	Bkgnd (gAPI)	Cal ON (gAPI)	Cal Value (gAPI)
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GR-SL (.06-3.5) (cts/s) (cts/s) (gAPI/(cts/s)) (gAPI) (gAPI) (gAPI)

179.12	1028.92	0.168	29.94	172.07	142
					135 165

	Std rate (cts/s)	Meas rate (cts/s)	Tool norm	Std Mult	Log Mult	App Con (pct ppm)
E (.25-3.0)	554	529.2	1.009			
K				0.01602	0.01617	8.555 8.010 9.790
U				0.03851	0.03886	20.564 19.170 23.430
TH				0.01602	0.10227	54.121 50.490 61.710

	Mult chnl/MeV	Add chnls	QSA	QCAL	GAIN	U Pk Res %
SPECTRUM	72.017	0.736	0.906 0.000 1.000	1.004 0.980 1.020	3015	10.77

	P1 .352 MeV	P2 .609 MeV	P3 1.120 MeV	P4 1.765 MeV	P5 2.204 MeV
Std Pk	25.80	44.20	81.00	127.40	159.00
Meas Pk	25.22 22.80 28.50	44.88 40.20 48.20	82.34 78.00 86.00	128.12 121.40 133.40	158.82 152.00 166.00
Fit Pk	26.09	44.59	81.39	127.85	159.46

CAL PRIMARY CALIBRATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Sat Jan 14 10:11:09 2012

UNIT #: 38545A 008672

	SMALL RING	LARGE RING	MULT	ADD	SMALL RING (mm)	LARGE RING (mm)
CALIPER	883.6	1429.6	0.18535	14.02653	177.800	279.000

CAL BEFORE LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Mon Feb 13 03:36:21 2012 DAYS SINCE CAL: 29

UNIT #: 38545A 008672

	I.D.	MULT	ADD	I.D. (mm)
CALIPER	1162.0	0.18535	12.02664	227.401

CAL AFTER LOG VERIFICATION SUMMARY

TOOL #: 2234XA 168004 DATE/TIME PERFORMED: Mon Feb 13 08:52:36 2012 DAYS SINCE CAL: 29

UNIT #: 38545A 008672

	I.D.	MULT	ADD	I.D. (mm)
CALIPER	1159.2	0.18535	12.02664	226.882
				214.701 240.101



COMPANY	<u>HUSKY OIL OPERATIONS LIMITED</u>
WELL	<u>LITTLE BEAR N-9</u>
FIELD	<u>SLATER RIVER</u>
PROVINCE	<u>NORTHWEST TERRITORIES</u>

FILE NO:
API NO:

LOCATION:
 SURF LOC: LAT 64° 58' 55.2"N LONG 126° 31' 20.2"
 BH LOC. LSD:
 LAT 64° 58' 55.2"N LONG 126° 31' 20.2"

ELEVATIONS:
 KB 258.8 M
 DF
 GL 253.5 M
 DATE 13-FEB-2012

UID:
 300N086500126300
LICENSE:
 483