



MAIL ROOM
SALLE DE COURIER

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2013 MAR -1 A 9:41

February 29, 2013

NEB/ONE

Hand Delivered

National Energy Board
444 Seventh Avenue SW
Calgary, AB T2P 0X8

Attention: Patrick Smyth (Chief Conservation Officer)
Lori-Ann Sharp (Frontier Data Management)

Greetings:

RE: Segmented Bond Tool Log (MGM) East Mackay I-78

Please find enclosed prints and digital format (CD) of the Segmented Bond Tool Log Casing Collar Locator for MGM East Mackay I-78.

For questions or concerns, please contact:

Paul Price P.Geol at 403-781-7817 or paul.price@mgmenergy.com,
Austin Springer at 403-781-7815 or austin.springer@mgmenergy.com.

Yours truly,

MGM ENERGY CORP.

Austin C. Springer
Geoscience Operations

10 Enclosures:

- Segmented Bond Tool Log
 - 1 paper copy
 - 1 digital copy (CD)



FILE NO:	COMPANY	MGM ENERGY CORP
API NO:	WELL	MGM SHELL EAST MACKAY I-78
	FIELD	EAST MACKAY
	PROVINCE	NORTHWEST TERRITORIES
Ver. 3.87 UID: 3001786450125 30 LICENSE:	LOCATION:	OTHER SERVICES
	LAT 64.795 N LONG 125.722 W	JCCR PERF
PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM	G.L. ELEVATION 155.00 M K.B. 6.20 M ABOVE P.D. KELLY BUSHING	ELEVATIONS: KB 161.20 M DF GL 155.00 M

DATE	22-FEB-2013	
RUN	TRIP	3 2
SERVICE ORDER	CA215447	
DEPTH DRILLER	1978.5 M	
DEPTH LOGGER	1973.5 M	
BOTTOM LOGGED INTERVAL	1973.0 M	
TOP LOGGED INTERVAL	390.0 M	
TIME STARTED	22-FEB-2013 12:45	
TIME FINISHED	22-FEB-2013 22:45	
OPERATOR RIG TIME	10.0 HOURS	
TYPE OF FLUID IN HOLE	BRINE OR SALT WATER	
FLUID DENSITY	1125.0 G/L	
FLUID SALINITY	N/A	
FLUID LEVEL	10.0 M	
LOGGED CEMENT TOP	390.0 M	
WELLHEAD PRESSURE	0.0 KPA	
MAXIMUM HOLE DEVIATION	3.1 DEG	
NOMINAL LOGGING SPEED	9.0 M/MIN	
MAX. RECORDED TEMP.	NOT RECORDED	
REFERENCE LOG	BAKER HUGHES WIRELINE	
REFERENCE LOG DATE	17-FEB-2012	
EQUIP. NO.	LOCATION	Z008672 CANADA PERF
RECORDED BY	J. COLLIER/I. ZALESKI KH	
WITNESSED BY	B. MURPHY	

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
222.0 MM	0.0 M	401.8 M
222.0 MM	401.8 M	1978.5 M

CASING RECORD				
SIZE	WEIGHT	GRADE	FROM	TO
244.5 MM	59.5 KG/M	NA	0.0 M	401.8 M
177.8 MM	38.7 KG/M	L-80	0.0 M	1978.5 M

REMARKS	
RUN 3 TRIP 2 :	<p>CEMENT PLUG ON BOTTOM 20:00 21-FEB-2013 FLOW COLLAR @ 1978.5M SBT LOG WAS RECORDED TO 390 M (SURFACE CSG) AS PER CLIENT REQUEST LOG WAS PERFORMED ON 22 HOUR AFTER CEMENT JOB</p> <p>DEPTH REFERENCED TO RIG FLOOR CEMENT JOB WAS DONE WITH 2 TYPES OF CEMENT: 1 - TAIL - TD-1480 M, WITH 1900 KG/M3, CEMENT COMPRESSIVE STRENGHT USED FOR CEMENT MAP: 17113 KPA</p> <p>2 - LEAD - 1480 M - SURFACE, WITH 1400 KG/M3 CEMENT COMPRESSIVE STRENGHT USED FOR CEMENT MAP: 5419 KPA</p> <p>CEMENT JOB WAS DONE WITH GOOD RETURNS ON SURFACE.</p>

RIG: AKITA 37

CREW: J.COLLIER, I.ZALESKIKH, J.WOODS, N.MCDERMID, J.PEREIRA, J.VANDERHONIG, B.W

EQUIPMENT DATA

RUN	TRIP	TOOL	SERIES NO.	SERIAL NO.	POSITION
3	2	CCL/CNTR/DC	2348XA	12633837	FREE
3	2	TITAN GR	1339XA	12616995	FREE
3	2	ACOUSC COMM	1633EA	Z119708	FREE
3	2	SEGMNTD BON	1424XA	Z120950	FREE
3	2	VDL SUB SBT	1424PA	12619213	FREE

INSTRUMENT CONFIGURATION

Source File: /dat1a/MGM/run3_ch/m331d"sbt-fdg

CABLEHEAD

Diameter : 8.8 cm
Length : 187.6 cm
Weight : 10.9 kg
Series : CABL338
Mnemonic : CBLH
Measure Point: 83.8 cm: CABLEHEAD TOP

CCL

Diameter : 11.4 cm
Length : 208.7 cm
Weight : 44.1 kg
Series : 2348XA
Mnemonic : CCL
Measure Point: 126.5 cm: CCL MP

GAMMA RAY

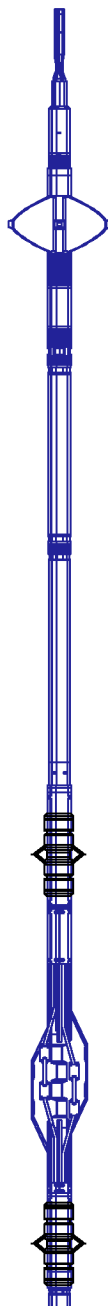
Diameter : 8.8 cm
Length : 187.3 cm
Weight : 50.0 kg
Series : 1339XA
Mnemonic : GR
Measure Point: 43.4 cm: GR MP

ACOUSTIC DIGITIZER

Diameter : 8.8 cm
Length : 243.8 cm
Weight : 80.5 kg
Series : 1633EA
Mnemonic : AC

SEGMENTED BOND TOOL

Diameter : 11.4 cm
Length : 526.3 cm
Weight : 108.1 kg
Series : 1424XA
Mnemonic : SBT
Measure Point: 229.9 cm: ATT MP



16.88 m

CABLEHEAD TOP 16.04 m

CCL MP 14.40 m

GR MP 11.90 m

ATT MP 6.04 m

SEGMENTED BOND TOOL VDL SUB

Diameter : 8.6 cm
 Length : 240.5 cm
 Weight : 49.1 kg
 Series : 1424PA
 Mnemonic : SBT
 Measure Point: 121.9 cm: SBT MP

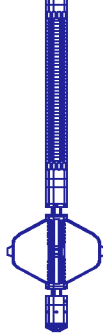
SBT MP 2.56 m

4 ARM BOW SPRING CENTRALIZER

Diameter : 8.6 cm
 Length : 125.5 cm
 Weight : 32.7 kg
 Series : 4341XA
 Mnemonic : CENT

BULL PLUG 3 3/8

TOTAL LENGTH: 16.88 m
 TOTAL WEIGHT: 363.6 kg
 MAX DIAMETER: 24.0 cm



0.00 m

MAIN LOG 1:240 SCALE - CS 5419 KPa

ECLIPS 6.1i Aug 06, 2010
 Updates: 1,2 Patches: 3

Sat Feb 23 04:25:15 2013

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.61

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MGM/run3_ch/main_lead.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 395.630 m BOTTOM DEPTH: 1499.997 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
SBT	FILTER, 2pf	medium (1)		''	''
	FILTER, 4pf	medium (1)		''	''
TENSION	FILTER ()	medium (1)		''	''

SBT PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
SBT	CASING OD	177.800	mm	TOP	BOTTOM
	CASING WT	38.700	kg/m	''	''
	FREE PIPE AMP.	69.513	mV	''	''
	FREE PIPE ATTN.	1.193	dB/ft	''	''
	CORR. FACTOR 1 (1424XA 1)	1.729	dB/ft	''	''
	CORR. FACTOR 2 (1424XA 1)	-0.041	dB/ft	''	''
	CORR. FACTOR 3 (1424XA 1)	-0.007	dB/ft	''	''
	CORR. FACTOR 4 (1424XA 1)	-2.031	dB/ft	''	''
	CORR. FACTOR 5 (1424XA 1)	-0.266	dB/ft	''	''
	CORR. FACTOR 6 (1424XA 1)	0.616	dB/ft	''	''
	SPACING	0.199	m	''	''
	SPREADING FACTOR	4.589	dB/ft	''	''
	CEMENT STRENGTH	5419	kPa	''	''
	HI CUTOFF (1424XA 1)	6.477	dB/ft	''	''
	LOW CUTOFF (1424XA 1)	2.514	dB/ft	''	''

SBT NORMALIZATION RESULTS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS
SBT	CORR. FACTOR1	1.926	dB/ft
	CORR. FACTOR2	-0.156	dB/ft
	CORR. FACTOR3	-0.063	dB/ft
	CORR. FACTOR4	-2.155	dB/ft

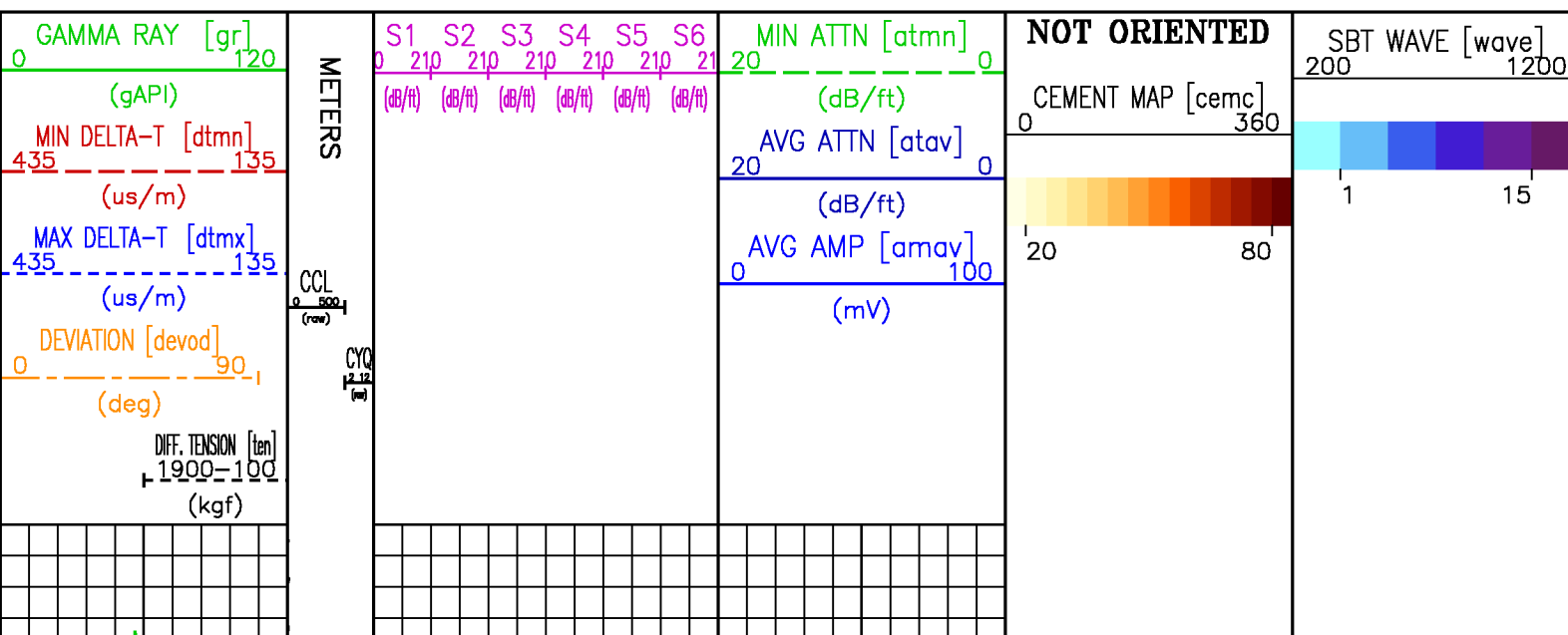
CURVE DESCRIPTION REPORT

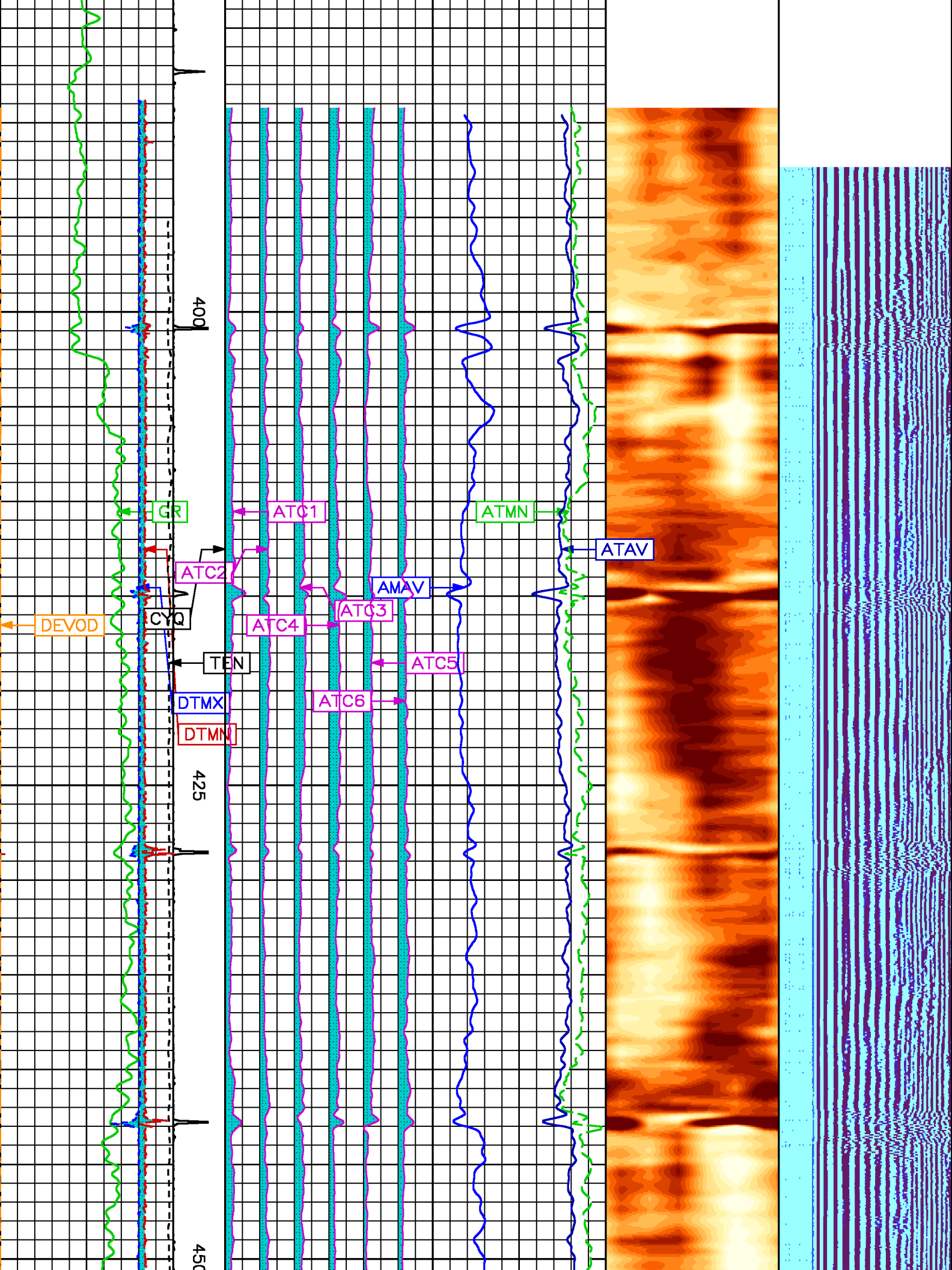
CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AMAV	Feb 22 22:03:46 2013	AVERAGE AMPLITUDE
F1:ATAV	Feb 22 22:03:46 2013	AVERAGE ATTENUATION
F1:ATC1	Feb 22 22:03:46 2013	ATTENUATION PAD 1
F1:ATC2	Feb 22 22:03:46 2013	ATTENUATION PAD 2
F1:ATC3	Feb 22 22:03:46 2013	ATTENUATION PAD 3
F1:ATC4	Feb 22 22:03:46 2013	ATTENUATION PAD 4
F1:ATC5	Feb 22 22:03:46 2013	ATTENUATION PAD 5
F1:ATC6	Feb 22 22:03:46 2013	ATTENUATION PAD 6
F1:ATMN	Feb 22 22:03:46 2013	ATTENUATION MINIMUM
F1:CCL	Feb 22 22:03:46 2013	CASING COLLAR LOCATOR
F1:CEMC	Feb 22 22:03:46 2013	CALIBRATED CEMENT MAP
F1:CYQ	Feb 22 22:03:46 2013	CYCLE QUALITY
F1:DEVOD	Feb 22 22:03:46 2013	DEVIATION
F1:DTMN	Feb 22 22:03:46 2013	MINIMAL SLOWNESS
F1:DTMX	Feb 22 22:03:46 2013	MAXIMAL SLOWNESS
F1:GR	Feb 22 22:03:46 2013	GAMMA RAY
F1:TEN	Feb 22 22:03:46 2013	DIFFERENTIAL TENSION
F1:WAVE	Feb 22 22:03:46 2013	DIGITIZED WAVEFORM

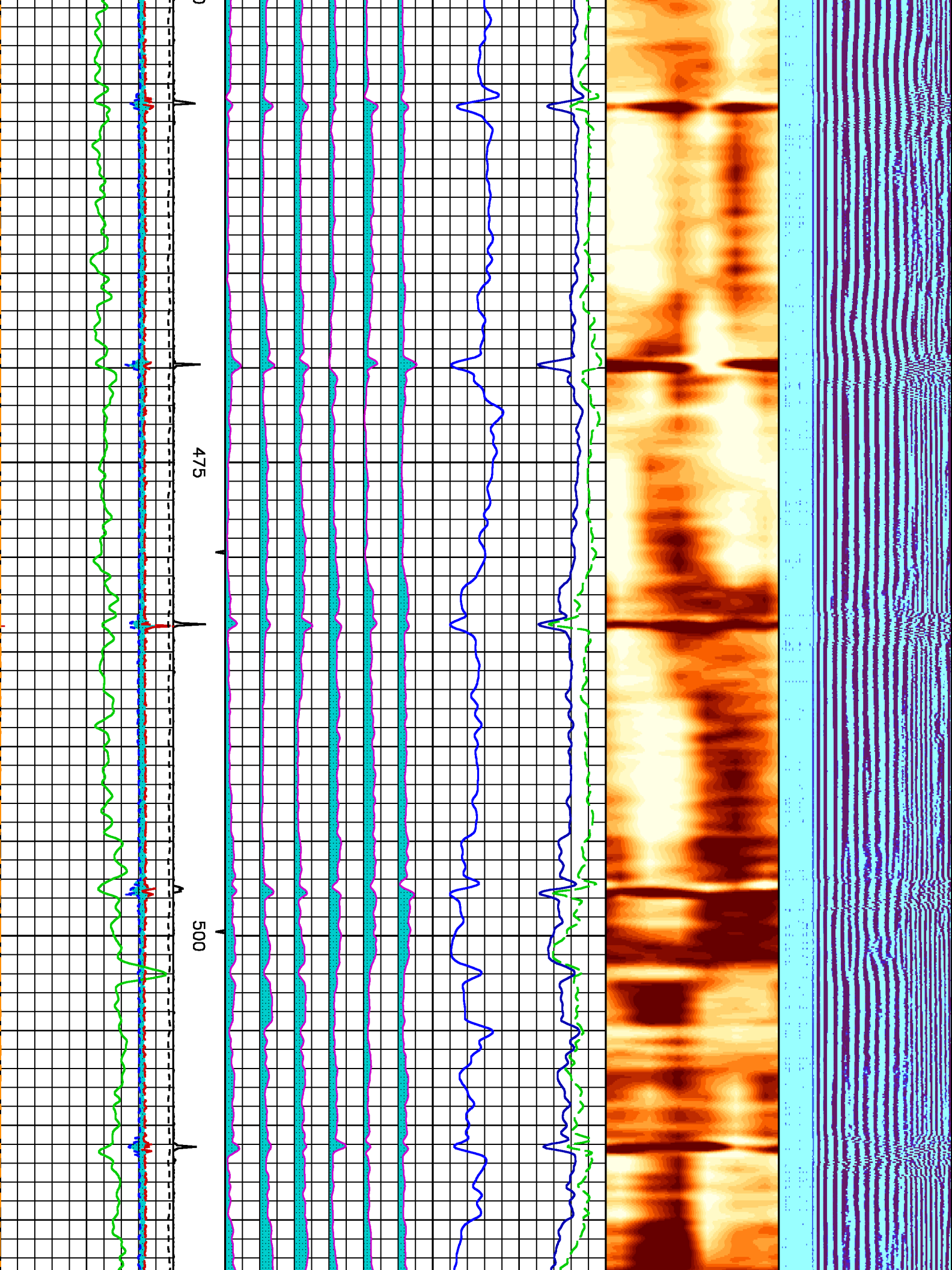
CURVE MEASURE POINT OFFSET

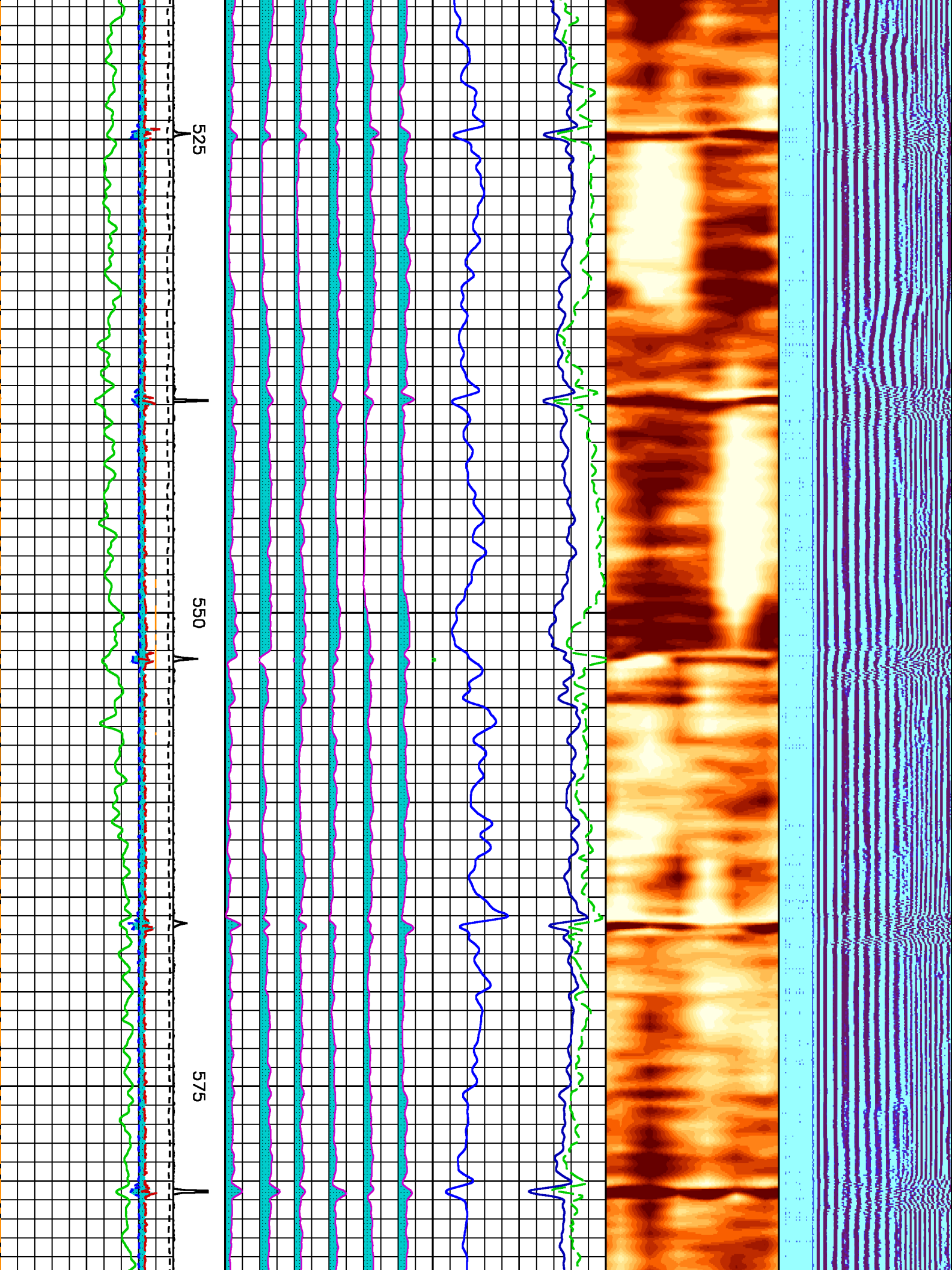
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
AMAV	6.02	ATC3	6.02	ATMN	6.02	DTMN	6.02
ATAV	6.02	ATC4	6.02	CCL	14.33	DTMX	6.02
ATC1	6.02	ATC5	6.02	CYQ	6.02	GR	11.81
ATC2	6.02	ATC6	6.02	DEVOD	6.02	TEN	0.00

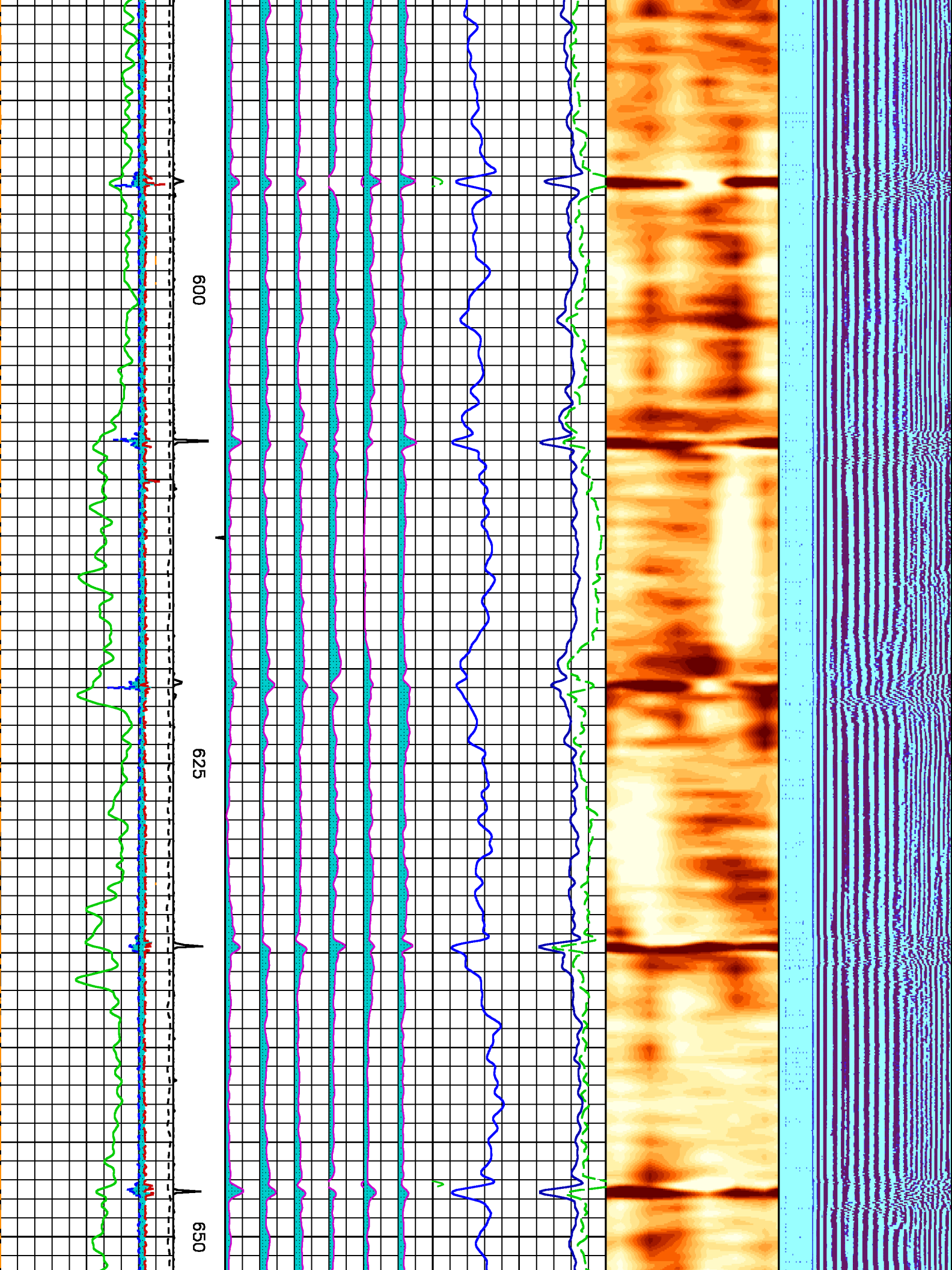
Presentation	: sysa:/dat1a/MGM/run3_ch/sbtmon-no-rb_main_lead.pdf [1:240 Scale]
Plot Interval	: 380.543 - 1500 Meters
Data File 1	: F1 : sysa:/dat1a/MGM/run3_ch/main_lead.aff
Created On	: Feb 22 22:03:46 2013
Company	: MGM ENERGY CORP
Well	: MGM SHELL EAST MACKAY I-78
Field	: EAST MACKAY
File Interval	: 380.543 - 1500 Meters
Oct	: m331d

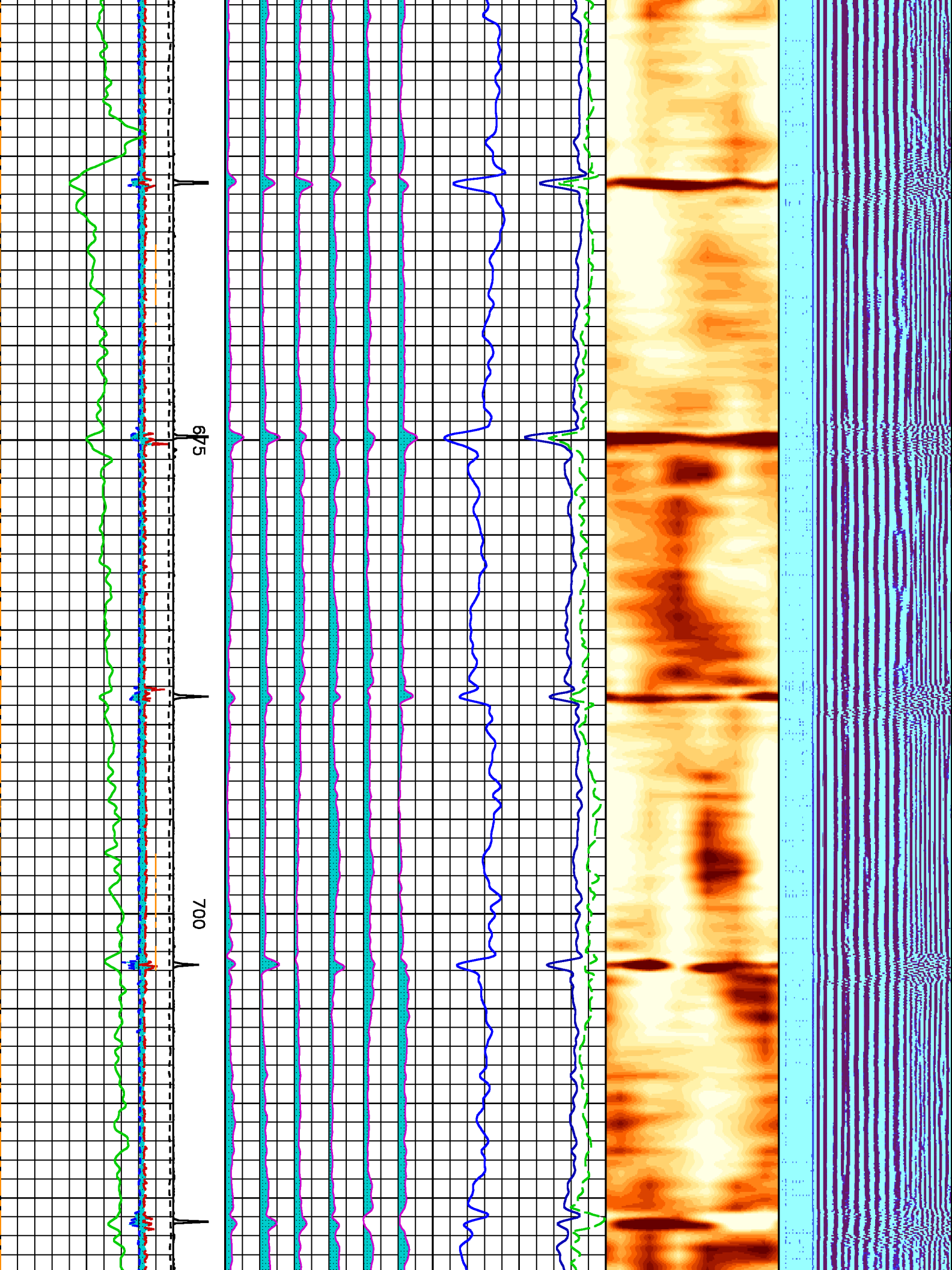


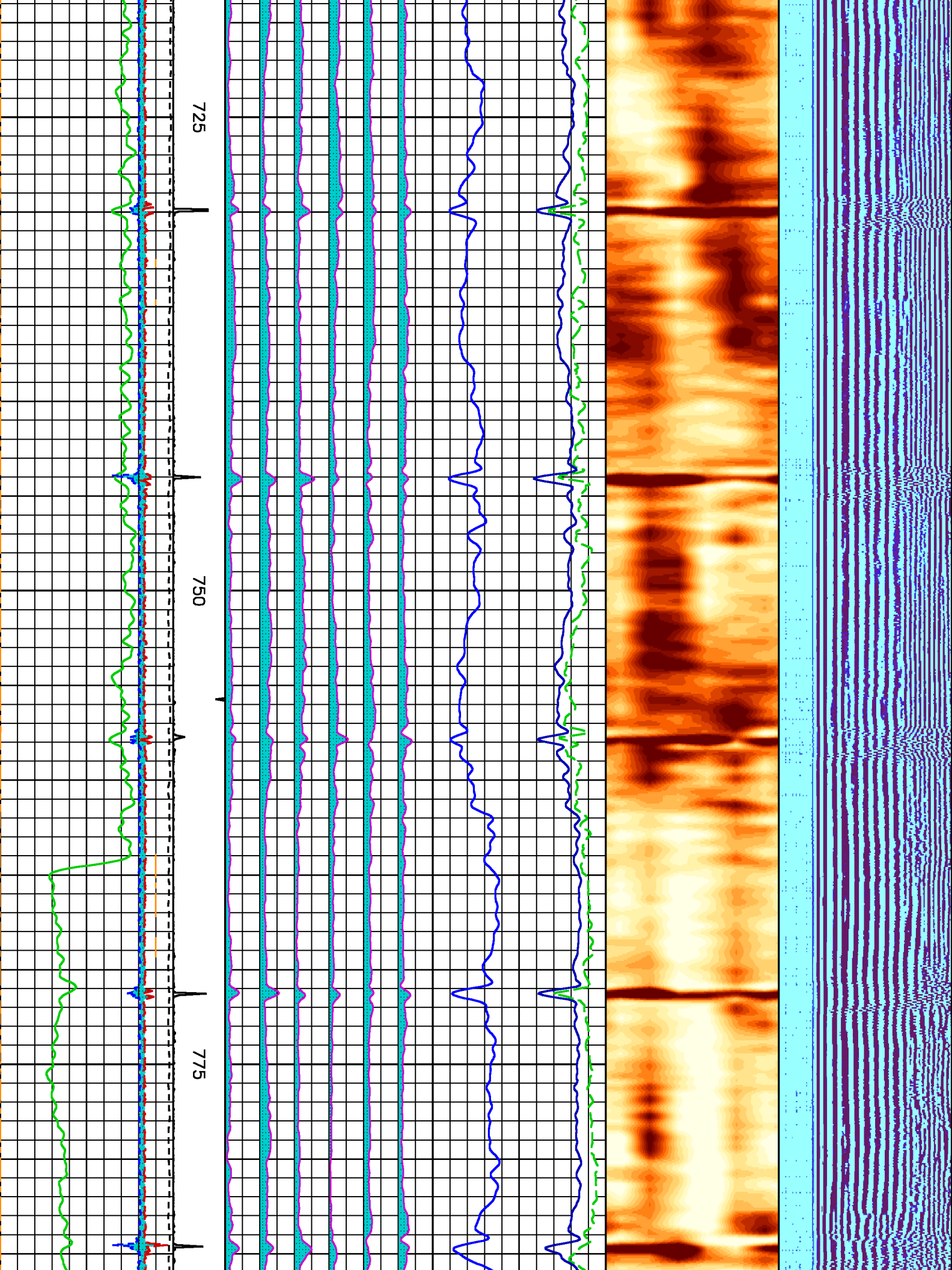


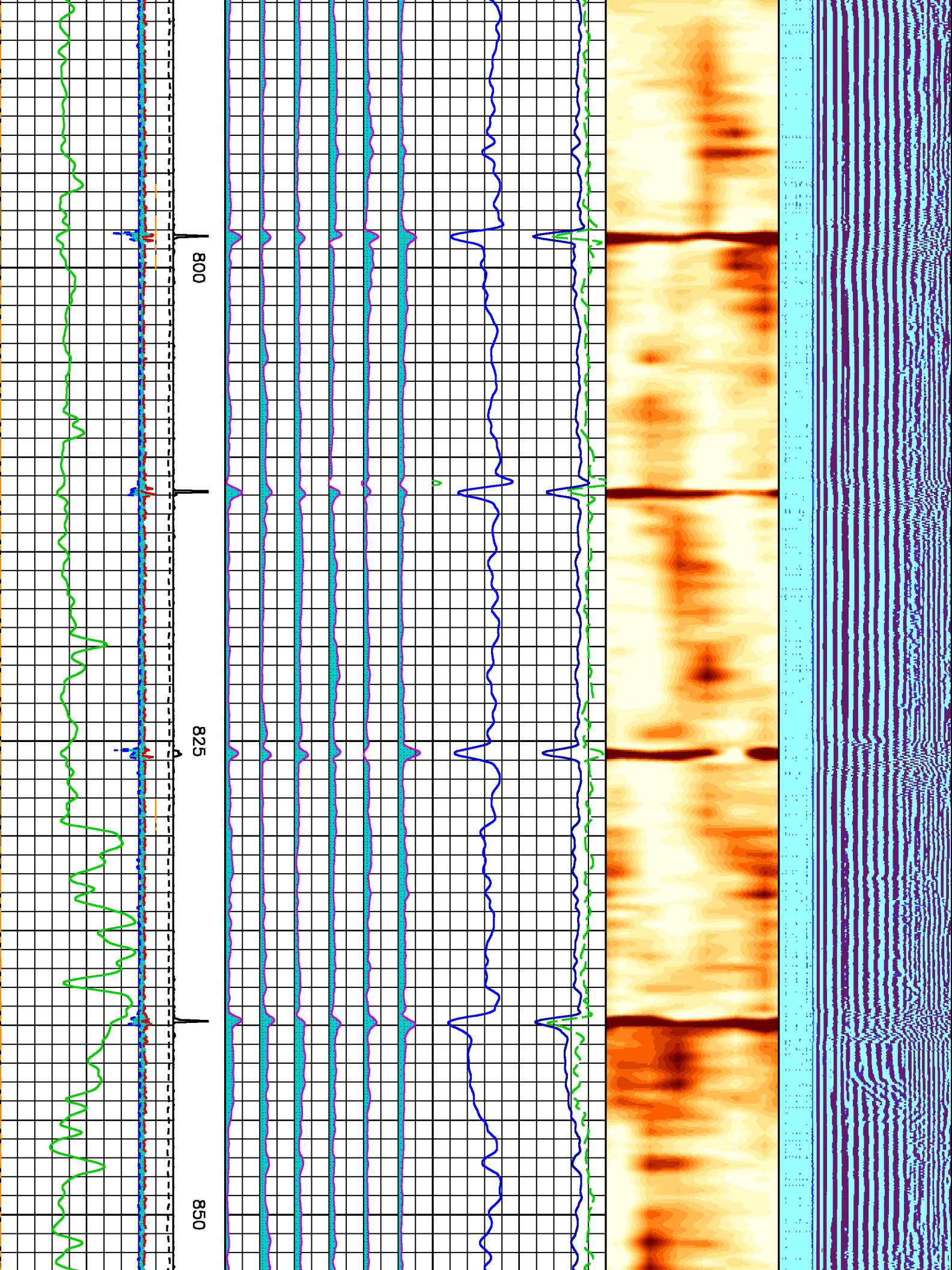


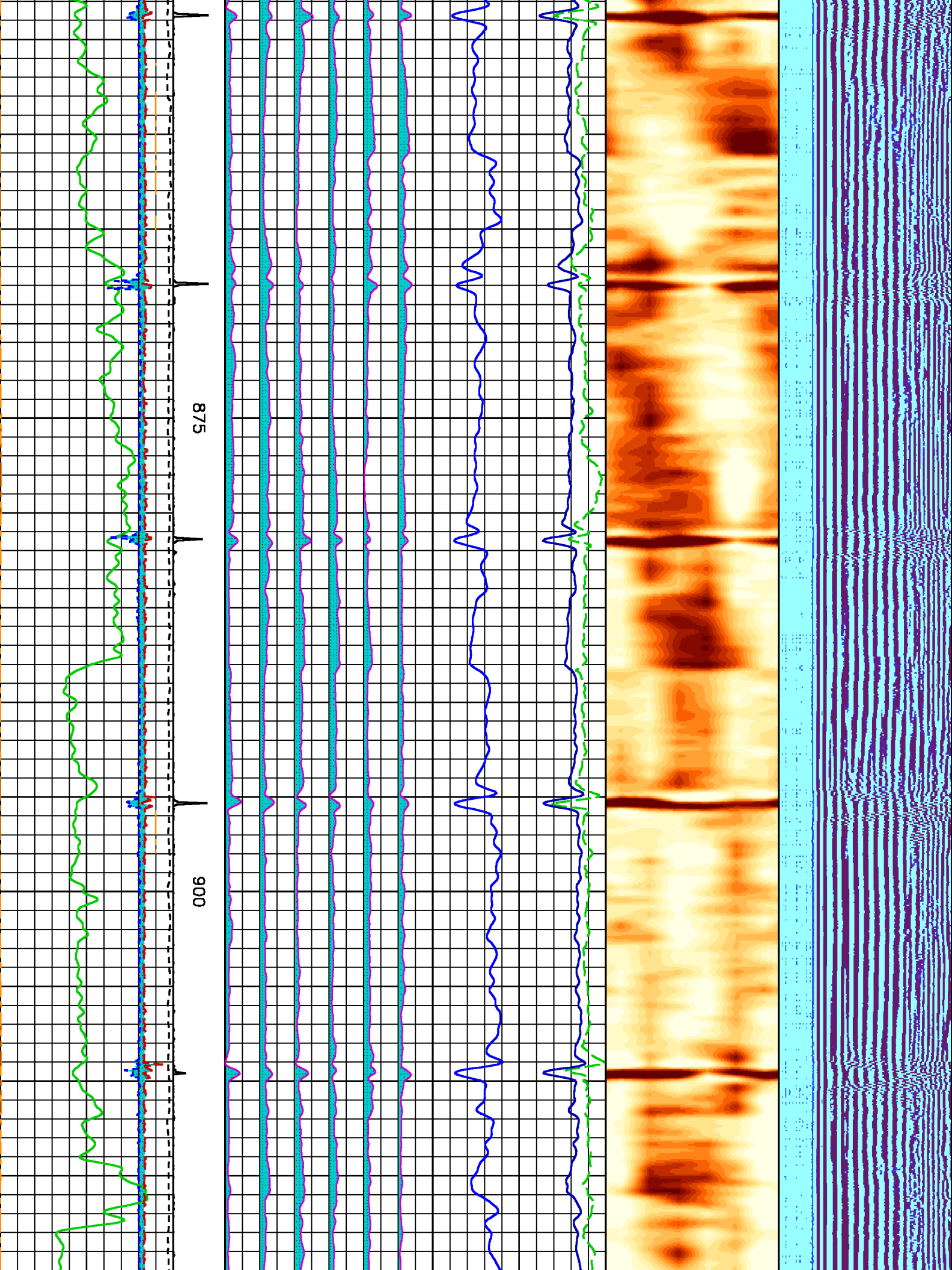


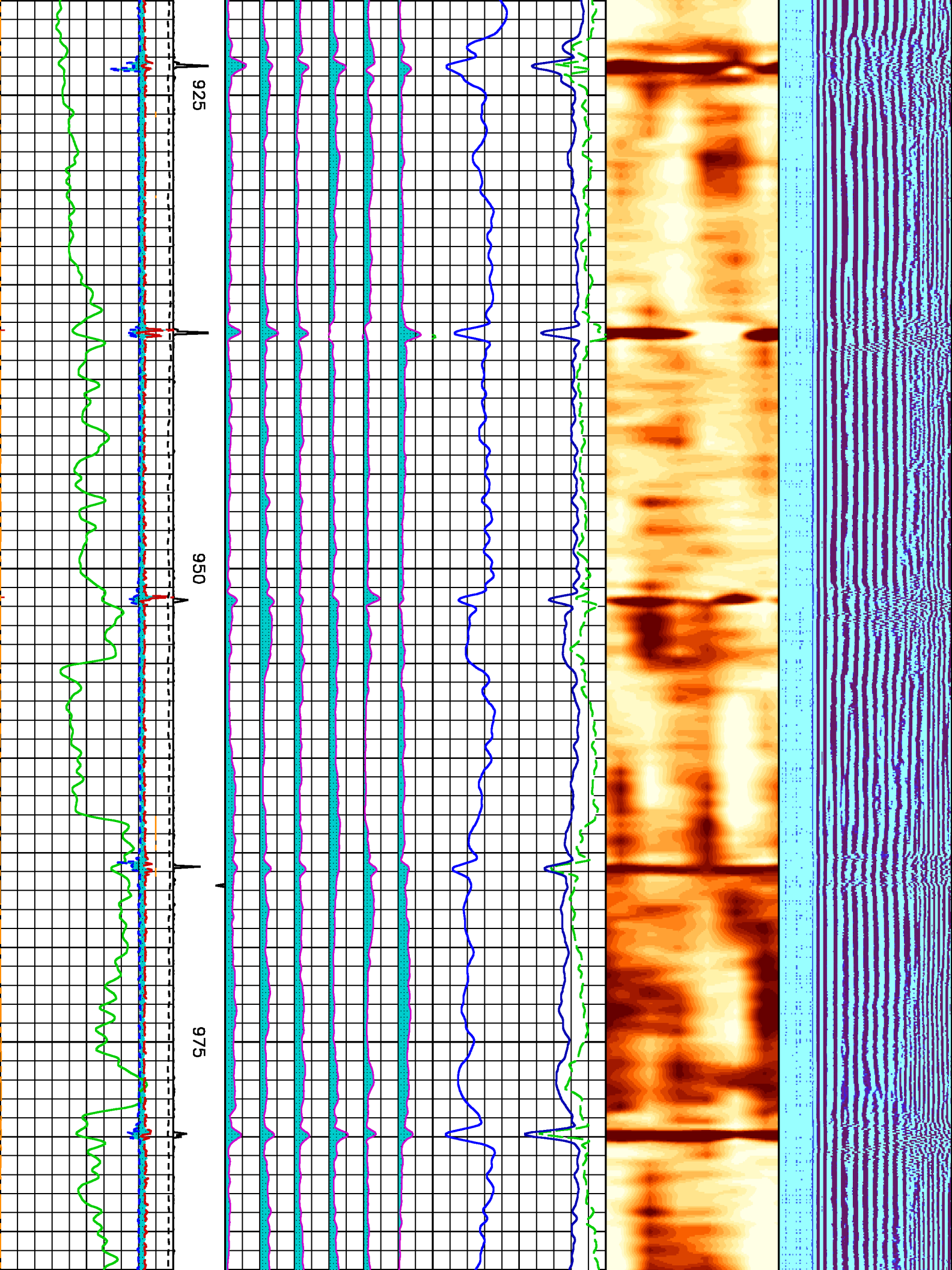


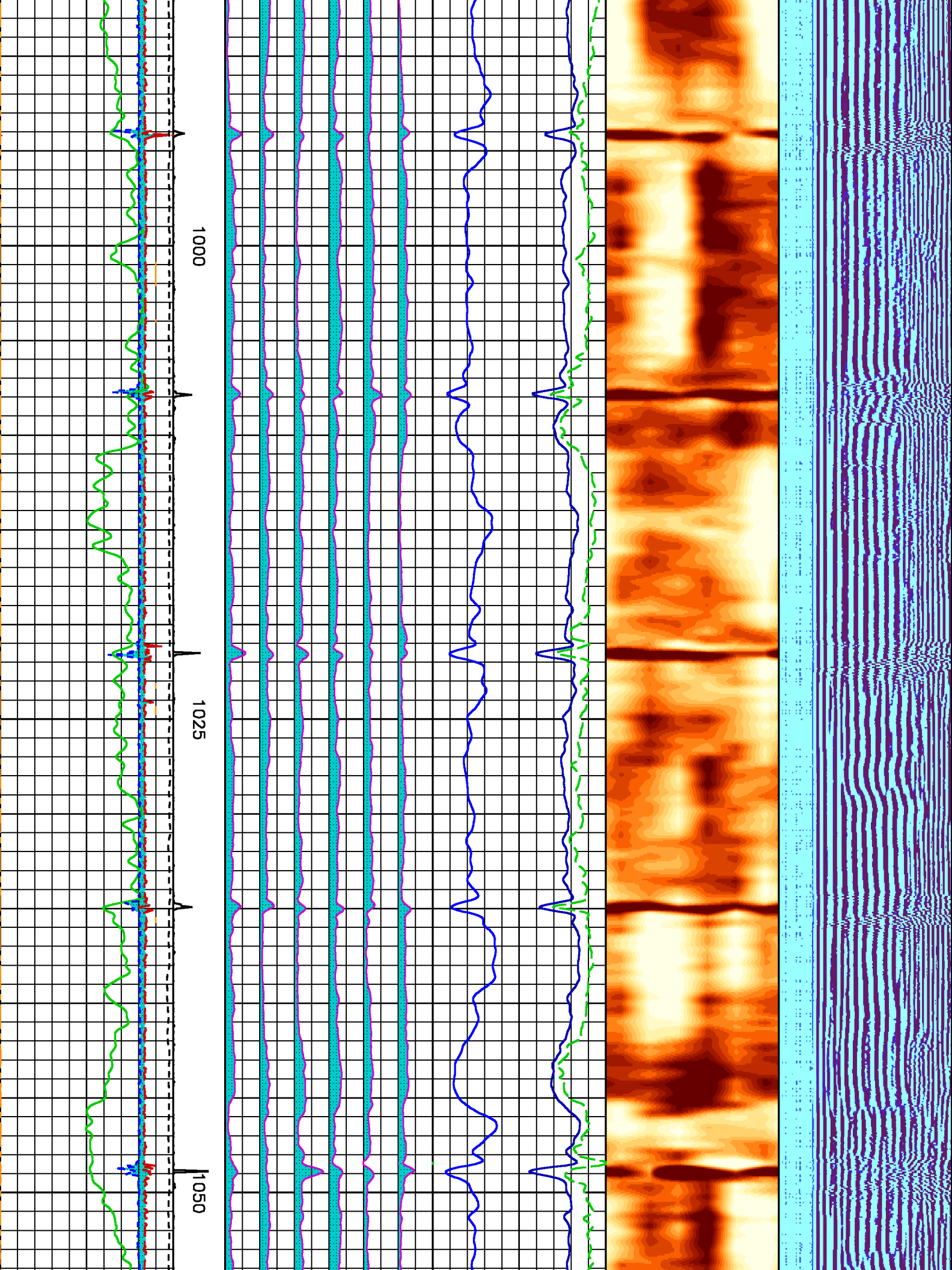


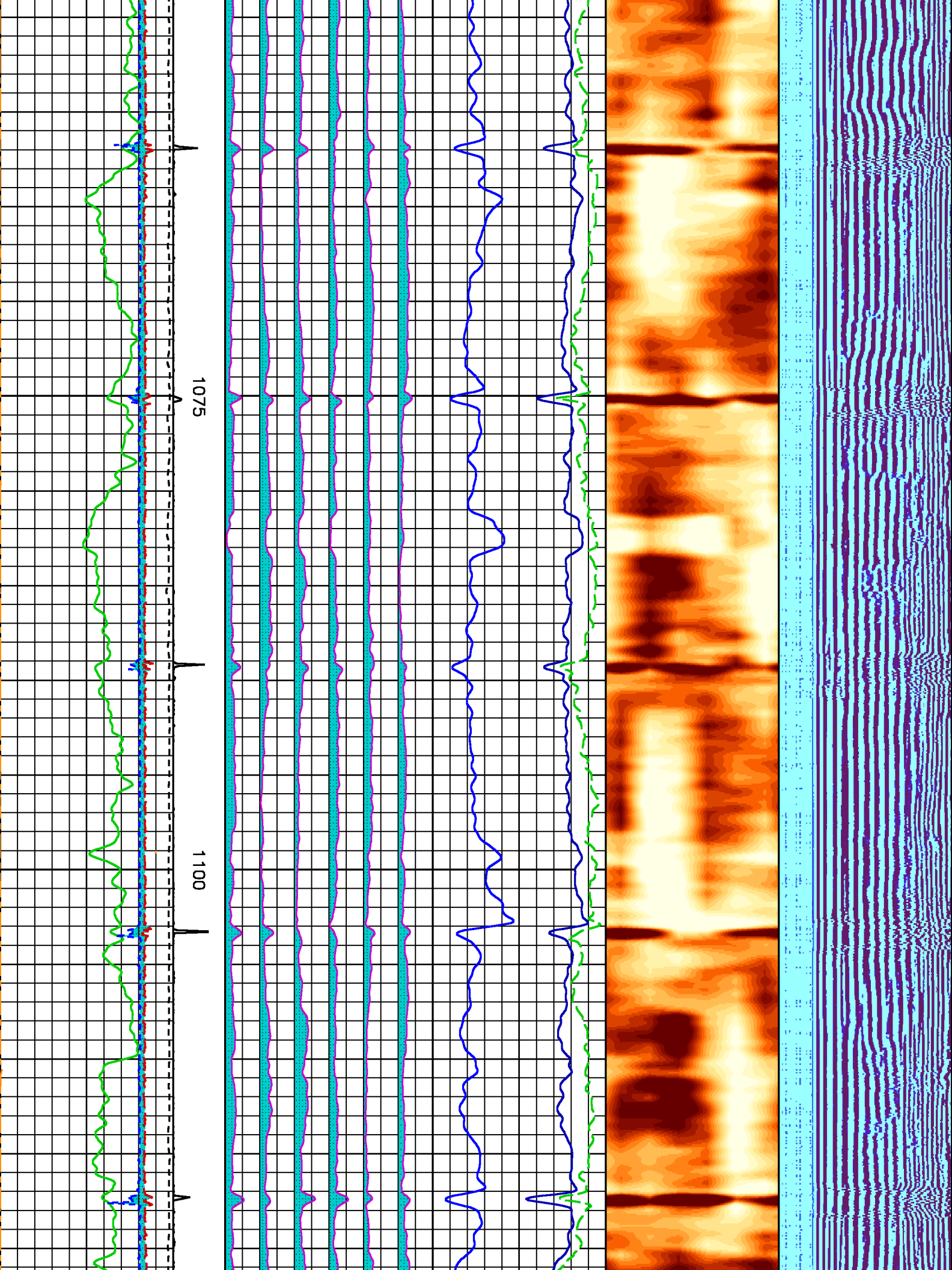


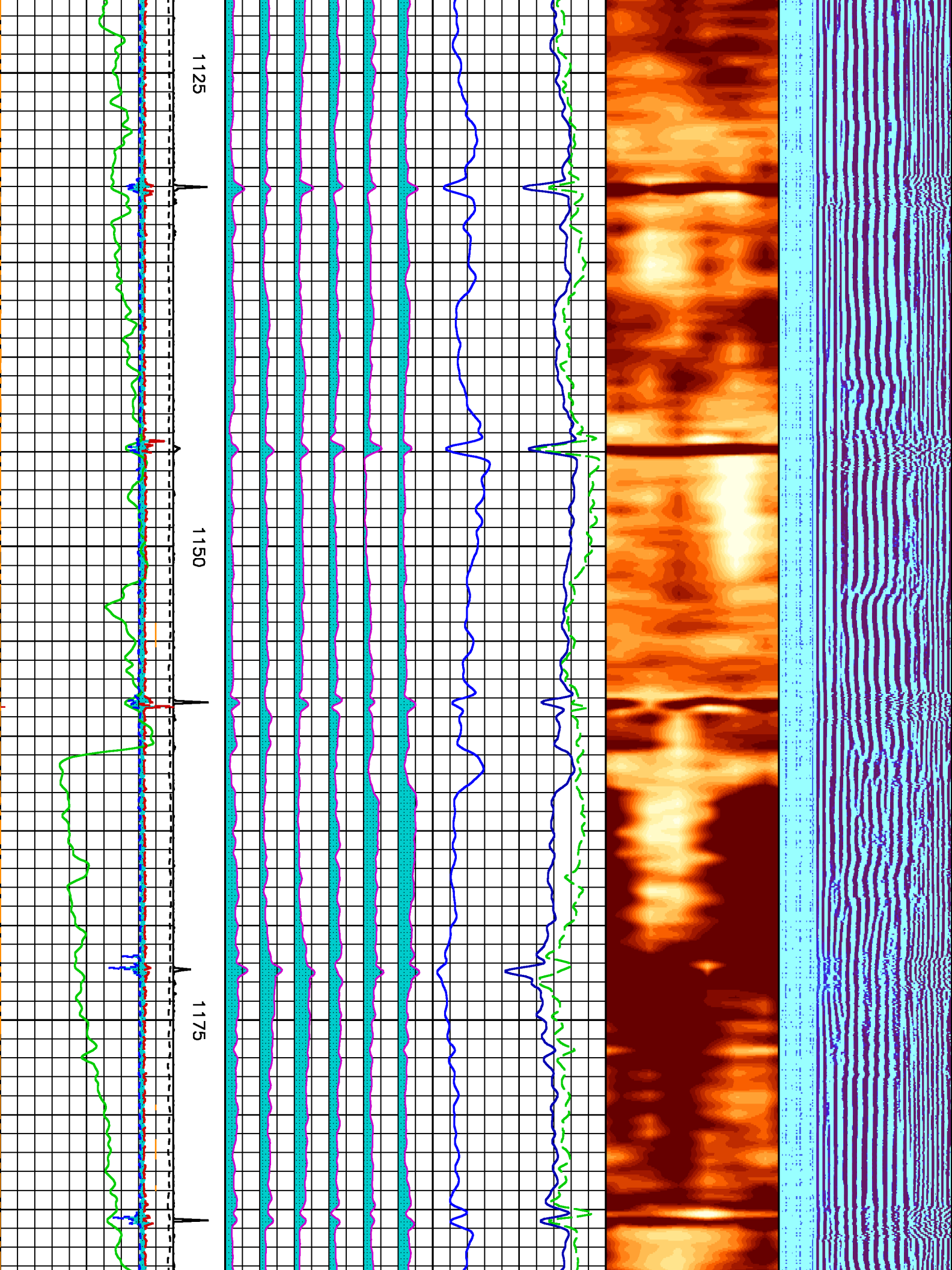


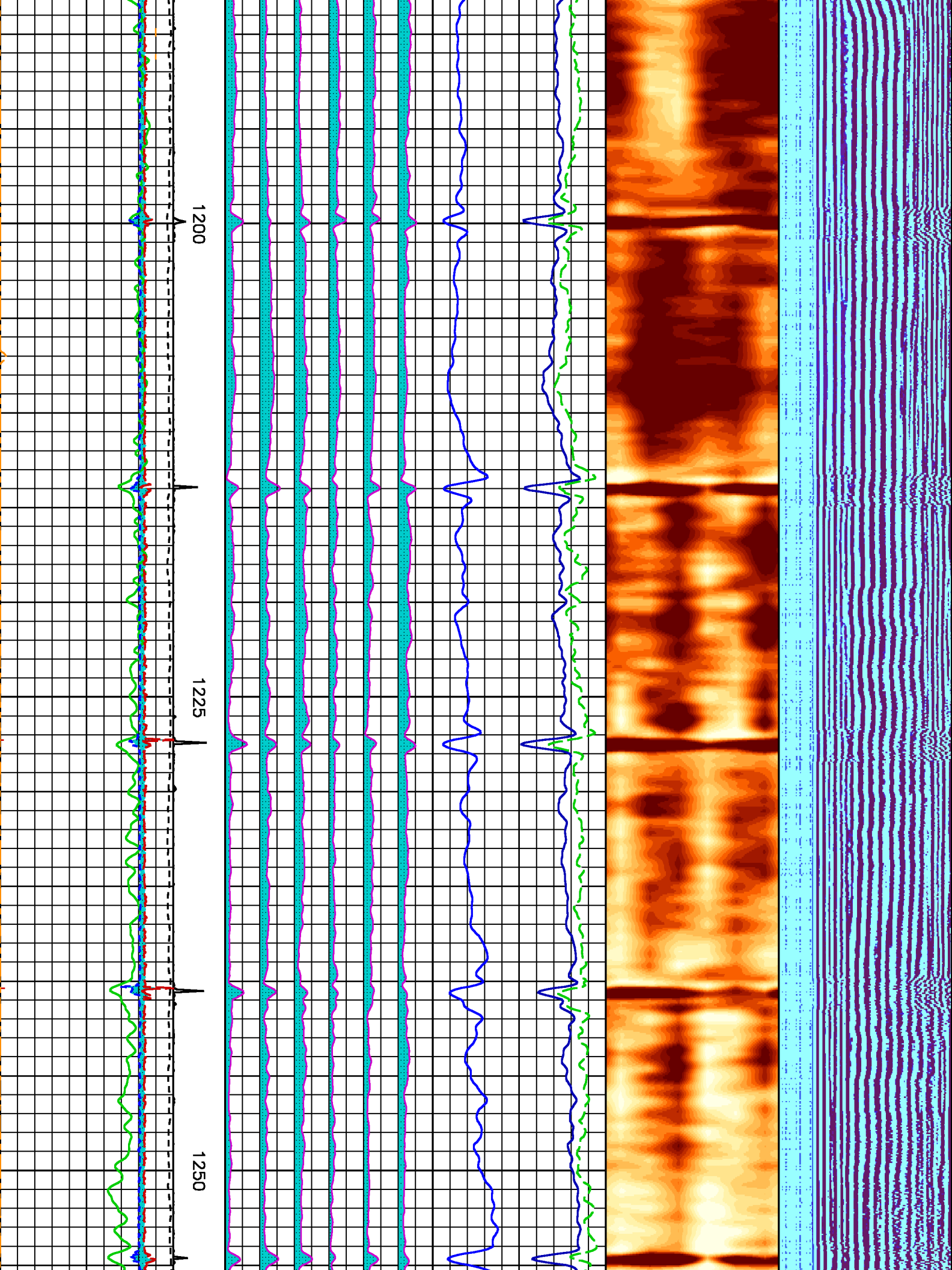


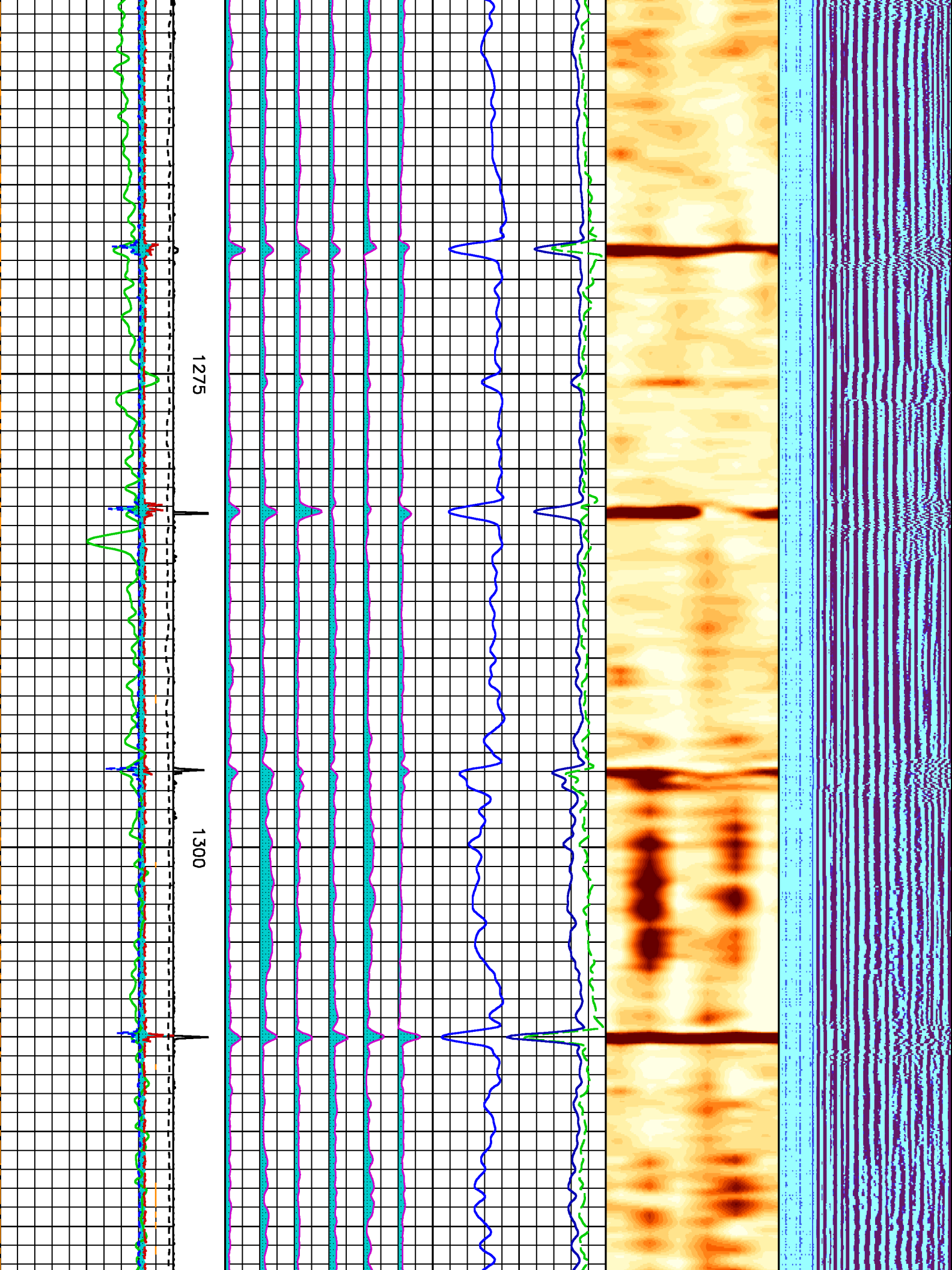


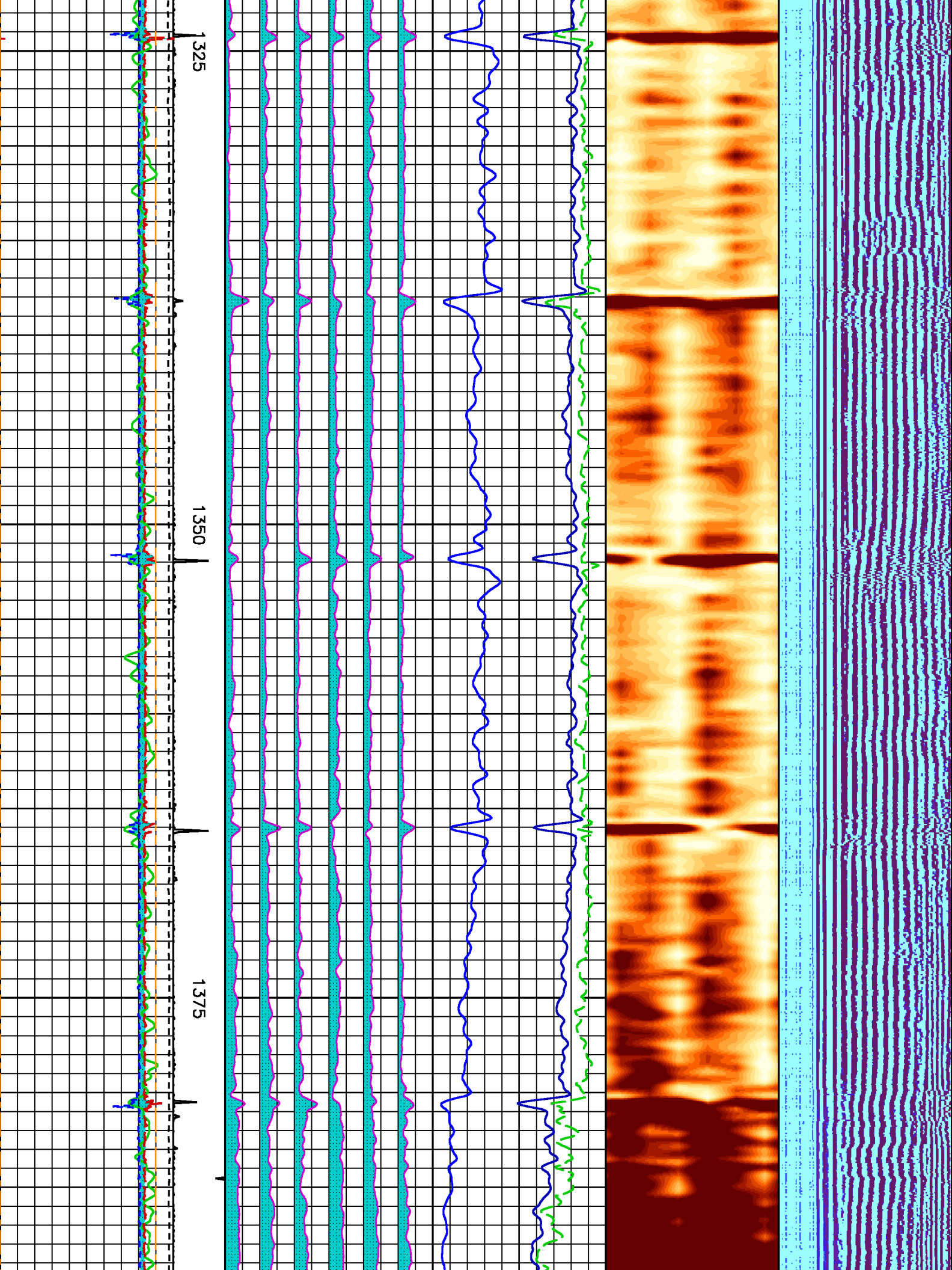


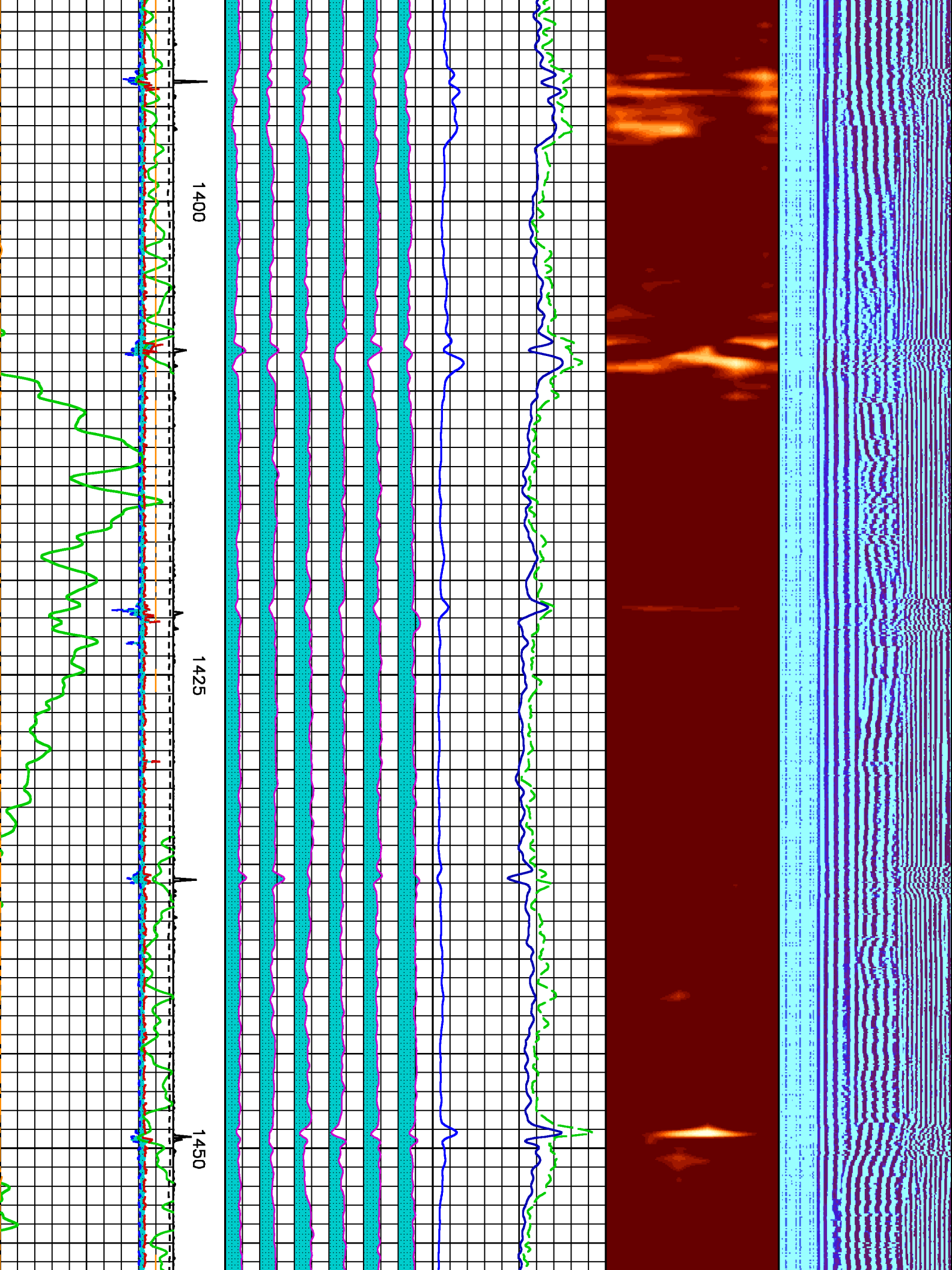


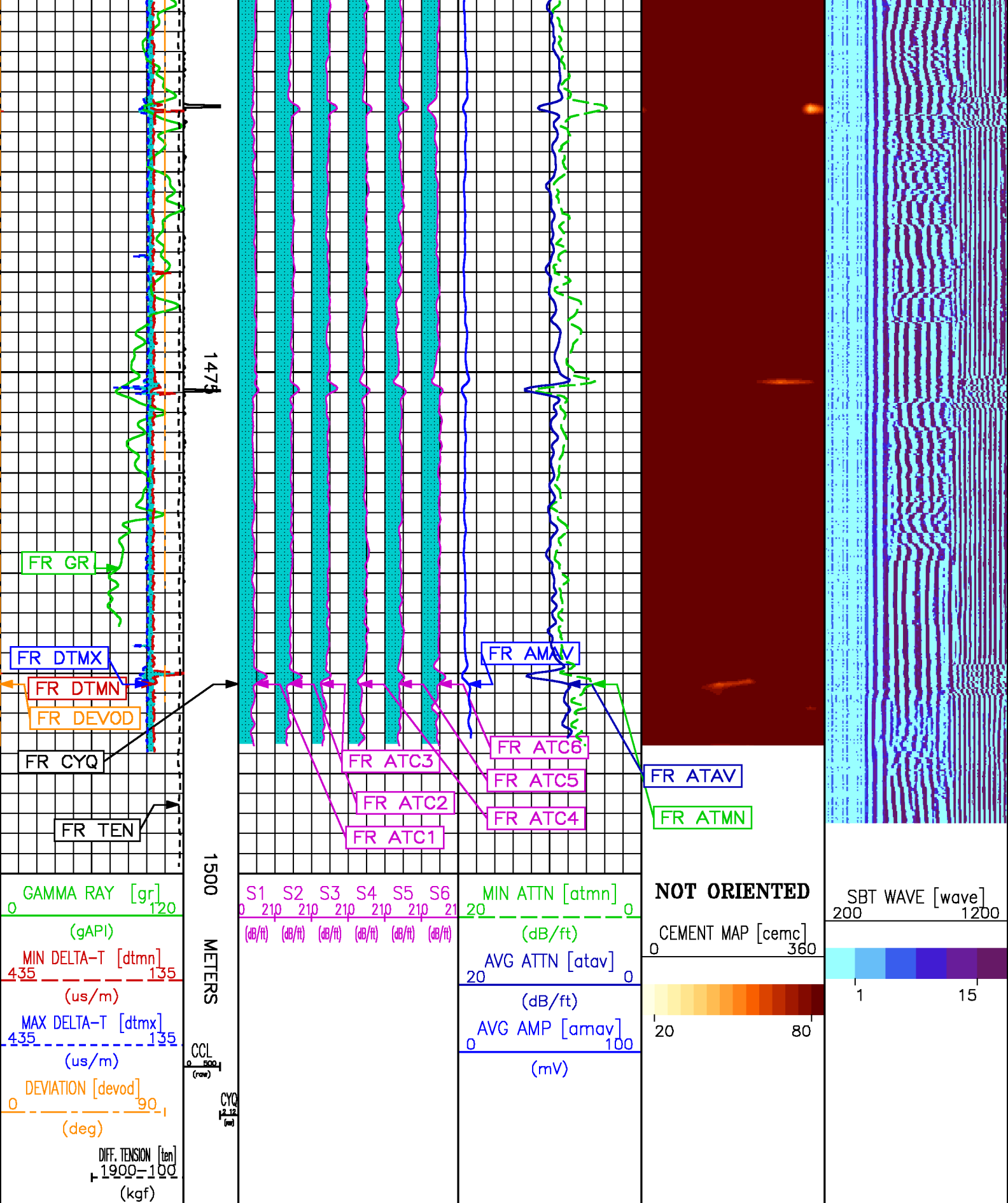












ECLIPS 6.1i Aug 06, 2010
 Updates: 1,2 Patches: 3

Sat Feb 23 04:25:39 2013

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.61

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MGM/run3_ch/m331d05.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 394.868 m BOTTOM DEPTH: 1977.009 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
SBT	FILTER, 2pf	medium (1)		''	''
	FILTER, 4pf	medium (1)		''	''
TENSION	FILTER ()	medium (1)		''	''

SBT PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
SBT	CASING OD	177.800	mm	TOP	BOTTOM
	CASING WT	38.700	kg/m	''	''
	FREE PIPE AMP.	69.513	mV	''	''
	FREE PIPE ATTN.	1.193	dB/ft	''	''
	CORR. FACTOR 1 (1424XA 1)	2.342	dB/ft	''	''
	CORR. FACTOR 2 (1424XA 1)	-0.347	dB/ft	''	''
	CORR. FACTOR 3 (1424XA 1)	-0.209	dB/ft	''	''
	CORR. FACTOR 4 (1424XA 1)	-1.998	dB/ft	''	''
	CORR. FACTOR 5 (1424XA 1)	-0.019	dB/ft	''	''
	CORR. FACTOR 6 (1424XA 1)	0.232	dB/ft	''	''
	SPACING	0.199	m	''	''
	SPREADING FACTOR	4.589	dB/ft	''	''
	CEMENT STRENGTH	17113	kPa	''	''
	HI CUTOFF (1424XA 1)	9.563	dB/ft	''	''
	LOW CUTOFF (1424XA 1)	3.286	dB/ft	''	''

SBT NORMALIZATION RESULTS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS
SBT	CORR. FACTOR1	1.930	dB/ft
	CORR. FACTOR2	-0.161	dB/ft
	CORR. FACTOR3	-0.122	dB/ft
	CORR. FACTOR4	-2.135	dB/ft
	CORR. FACTOR5	-0.171	dB/ft
	CORR. FACTOR6	0.659	dB/ft
FILE: /dat1a/MGM/run3_ch/m331d05.sbt.qc.meta			

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
F1:AMAV	Feb 22 18:19:04 2013	AVERAGE AMPLITUDE
F1:ATAV	Feb 22 18:19:04 2013	AVERAGE ATTENUATION
F1:ATC1	Feb 22 18:19:04 2013	ATTENUATION PAD 1
F1:ATC2	Feb 22 18:19:04 2013	ATTENUATION PAD 2
F1:ATC3	Feb 22 18:19:04 2013	ATTENUATION PAD 3
F1:ATC4	Feb 22 18:19:04 2013	ATTENUATION PAD 4
F1:ATC5	Feb 22 18:19:04 2013	ATTENUATION PAD 5
F1:ATC6	Feb 22 18:19:04 2013	ATTENUATION PAD 6
F1:ATVN	Feb 22 18:19:04 2013	ATTENUATION MINIMUM

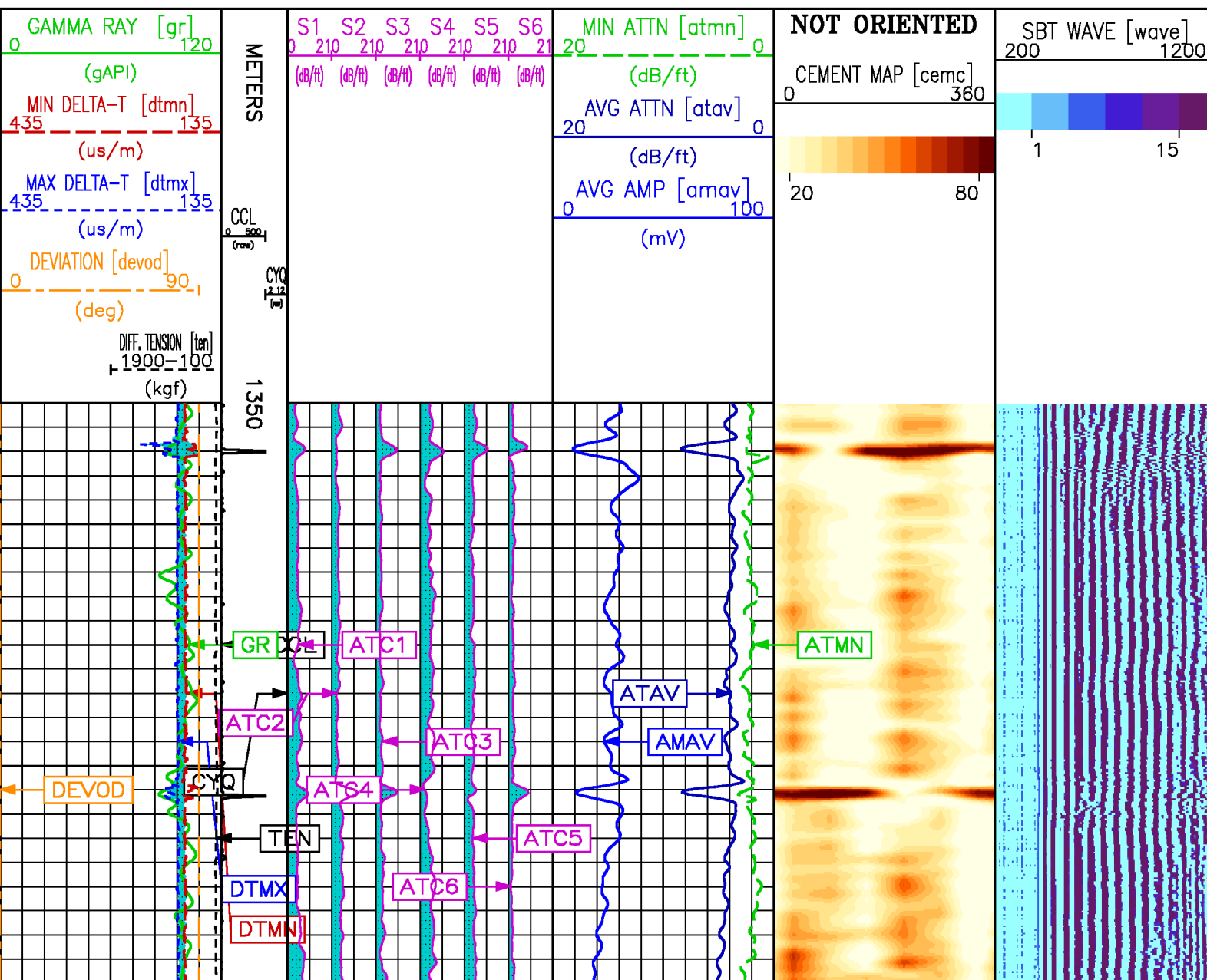
F1:ATMN	Feb 22 18:19:04 2013	ATTENUATION MINIMUM
F1:CCL	Feb 22 18:19:04 2013	CASING COLLAR LOCATOR
F1:CEMC	Feb 22 18:19:04 2013	CALIBRATED CEMENT MAP
F1:CYQ	Feb 22 18:19:04 2013	CYCLE QUALITY
F1:DEVOD	Feb 22 18:19:04 2013	DEVIATION
F1:DTMN	Feb 22 18:19:04 2013	MINIMAL SLOWNESS
F1:DTMX	Feb 22 18:19:04 2013	MAXIMAL SLOWNESS
F1:GR	Feb 22 18:19:04 2013	GAMMA RAY
F1:TEN	Feb 22 18:19:04 2013	DIFFERENTIAL TENSION
F1:WAVE	Feb 22 18:19:04 2013	DIGITIZED WAVEFORM

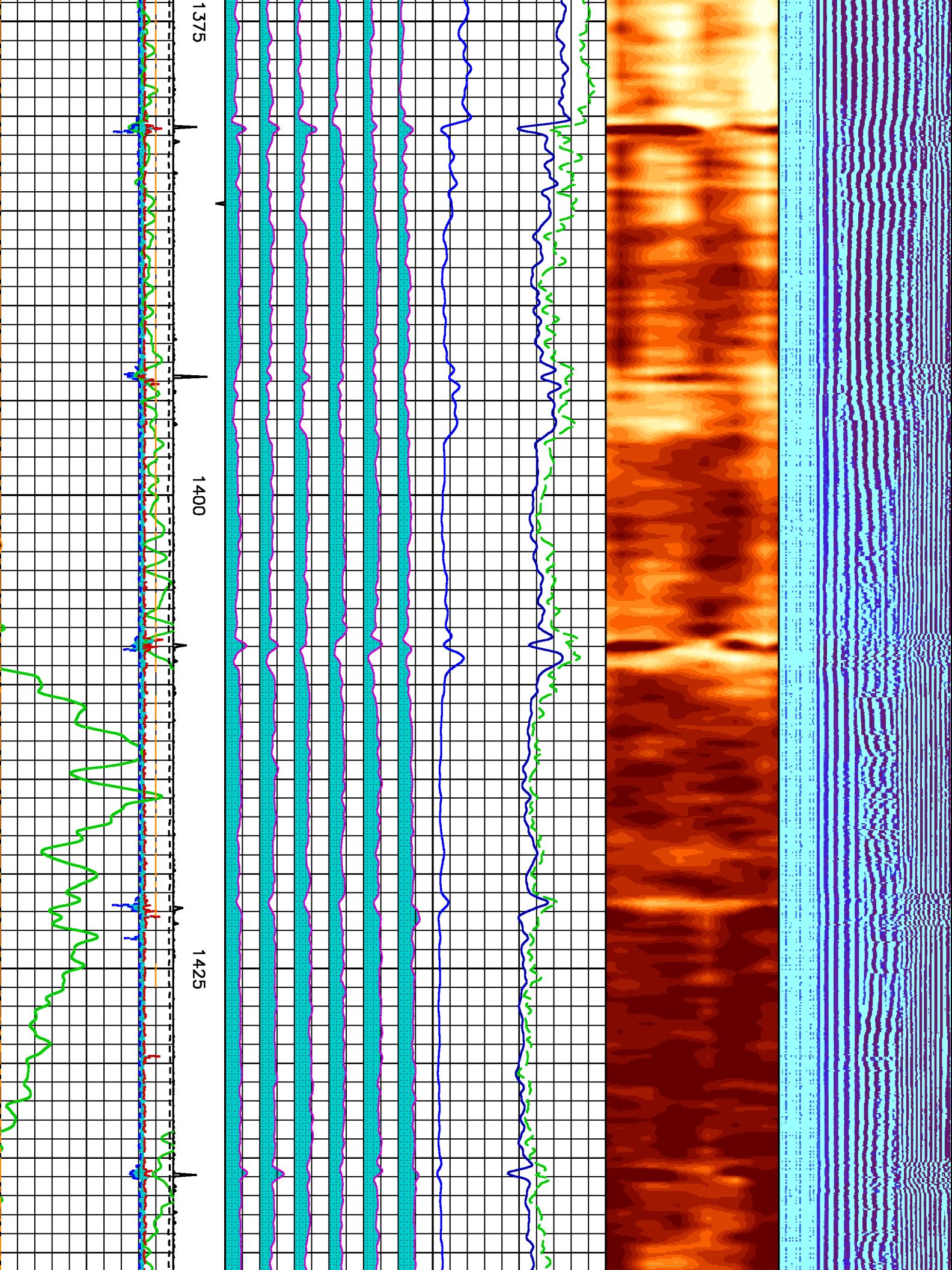
CURVE MEASURE POINT OFFSET

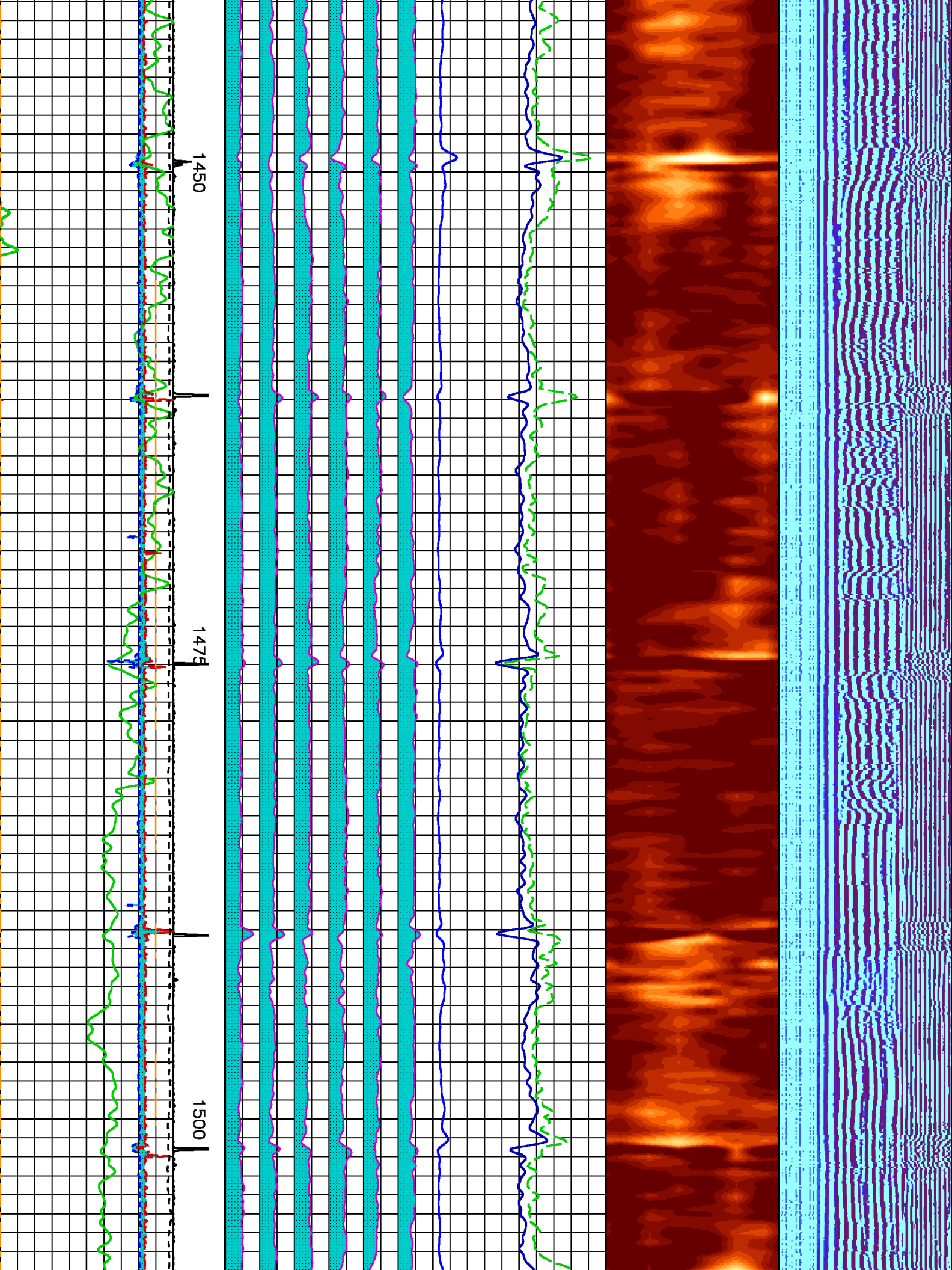
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
AMAV	6.02	ATC3	6.02	ATMN	6.02	DTMN	6.02
ATAV	6.02	ATC4	6.02	CCL	14.33	DTMX	6.02
ATC1	6.02	ATC5	6.02	CYQ	6.02	GR	11.81
ATC2	6.02	ATC6	6.02	DEVOD	6.02	TEN	0.00

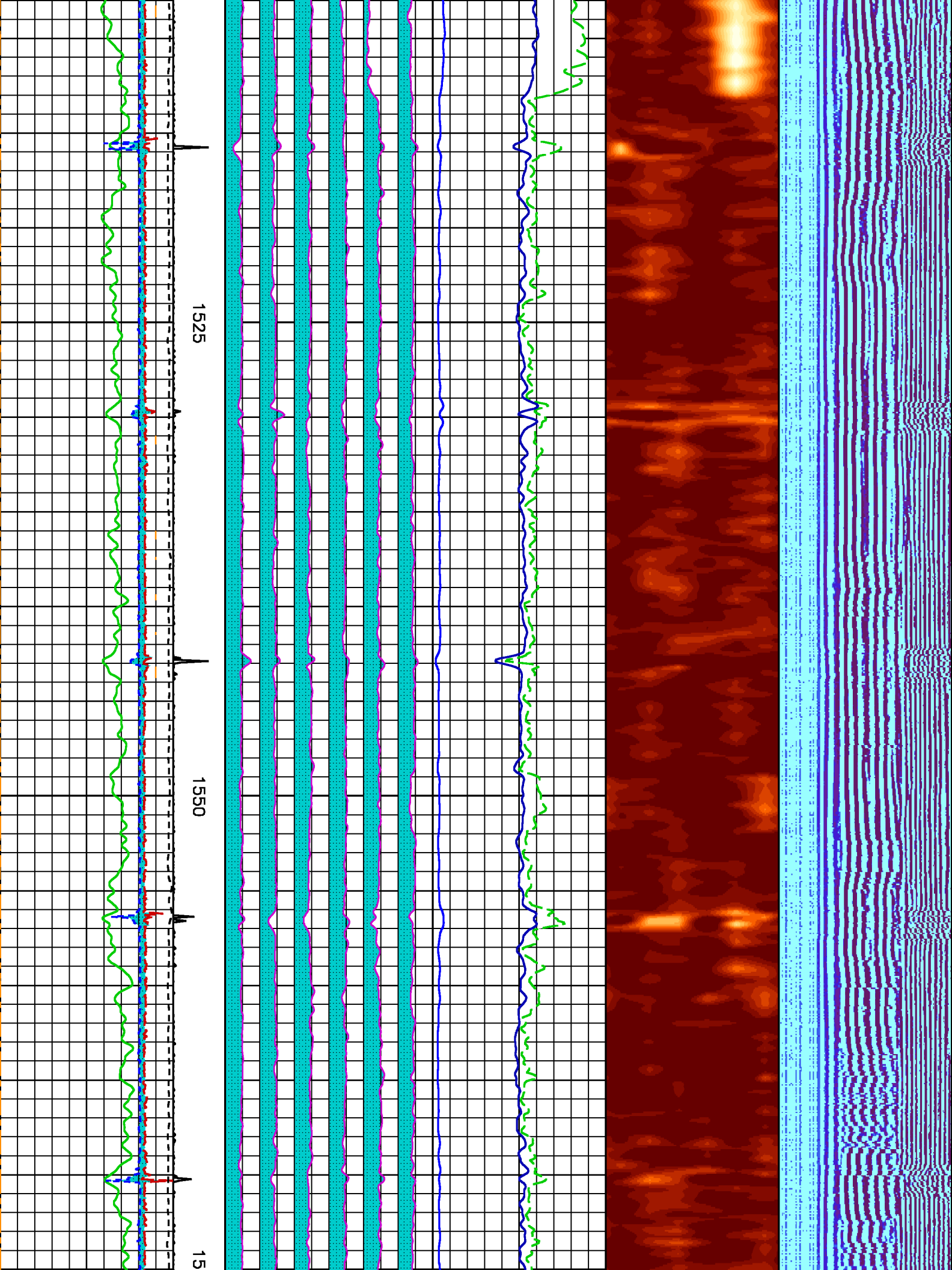
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Plot Interval : 1350 - 1977.09 Meters

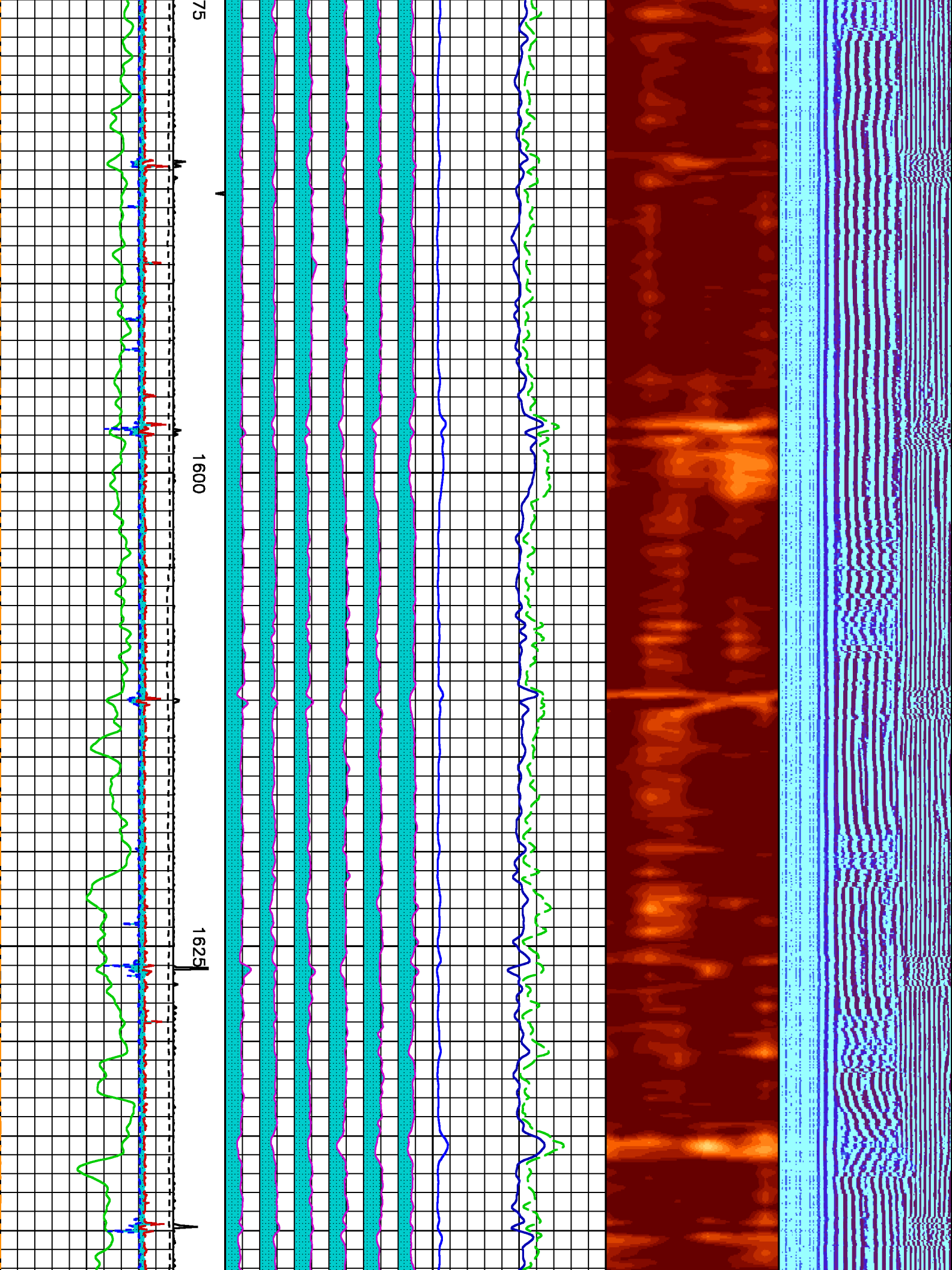
Data File 1 : F1 : sysa:/dat1a/MGM/run3_ch/m331d05.aff
Created On : Feb 22 18:19:04 2013
Company : MGM ENERGY CORP
Well : MGM SHELL EAST MACKAY I-78
Field : EAST MACKAY
File Interval : 380.619 - 1977.09 Meters
Oct : m331d

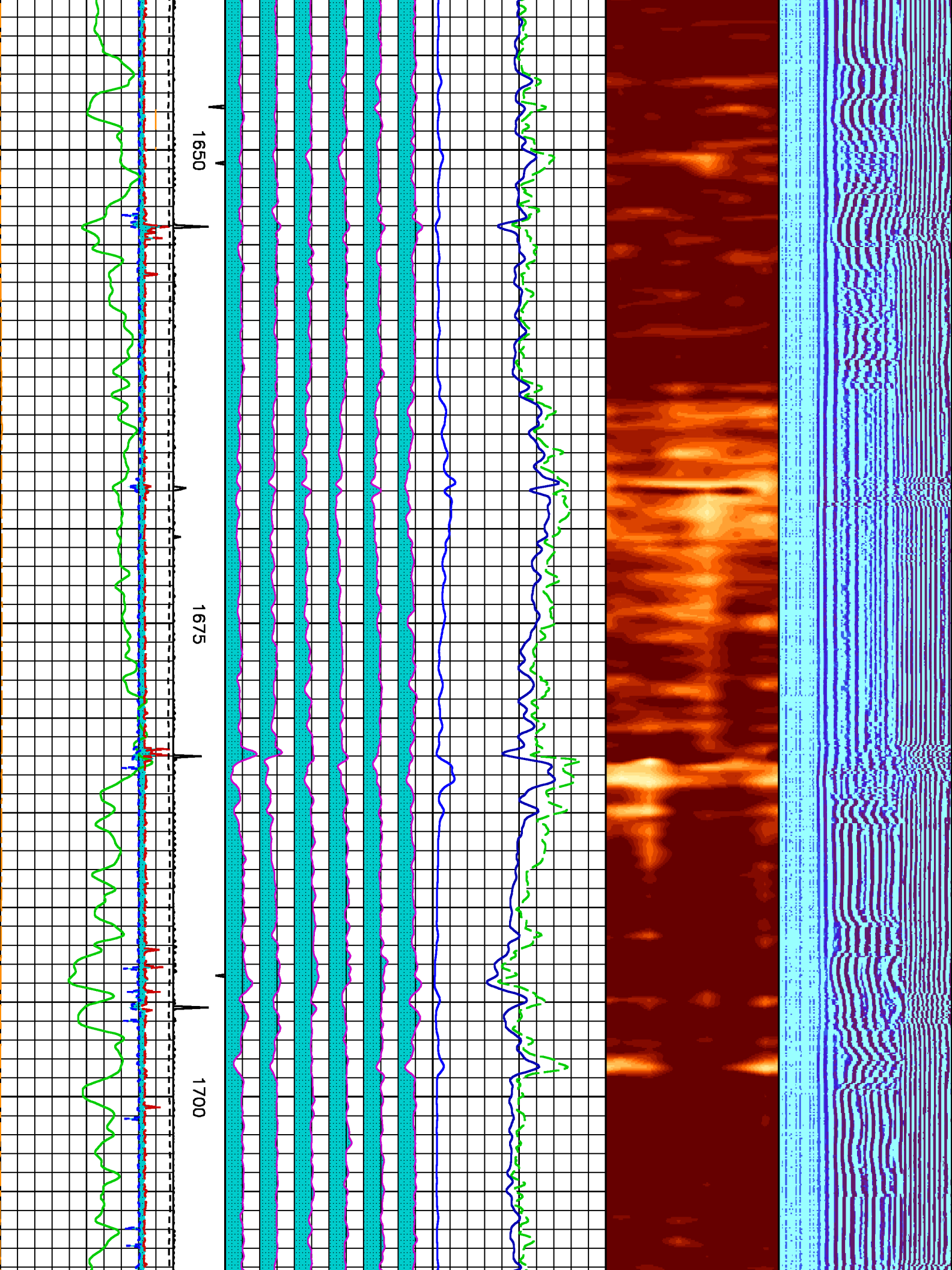


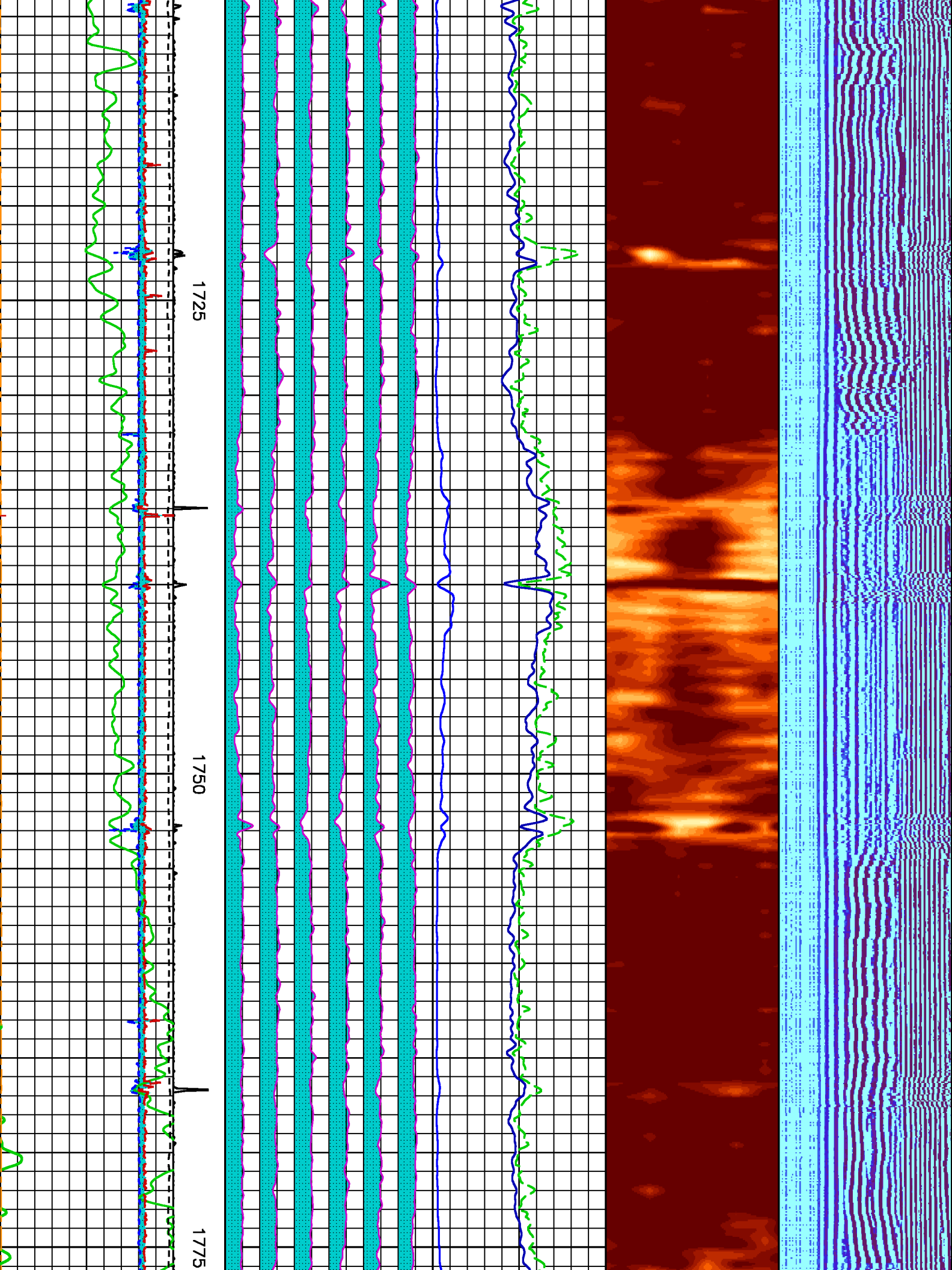


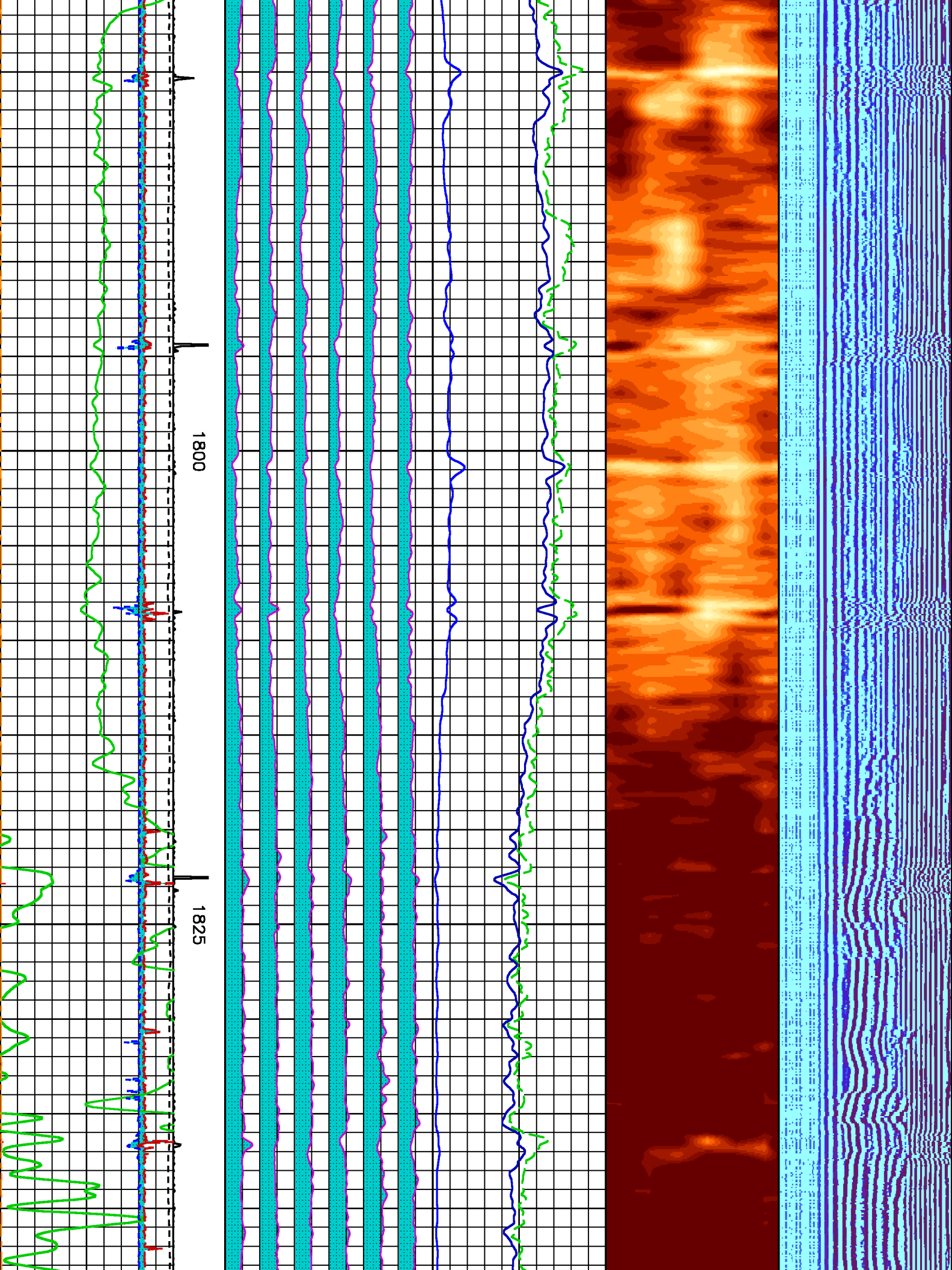


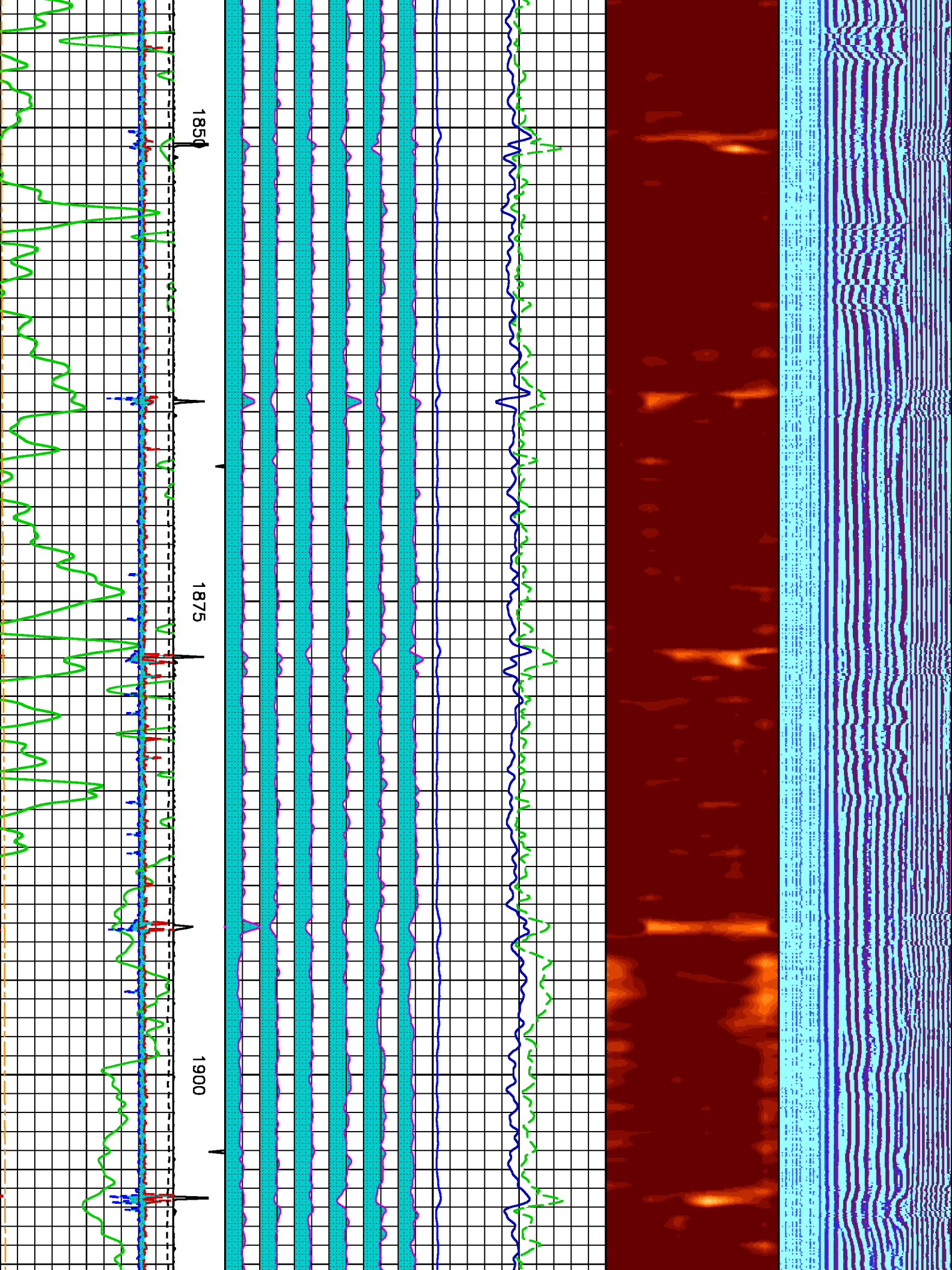


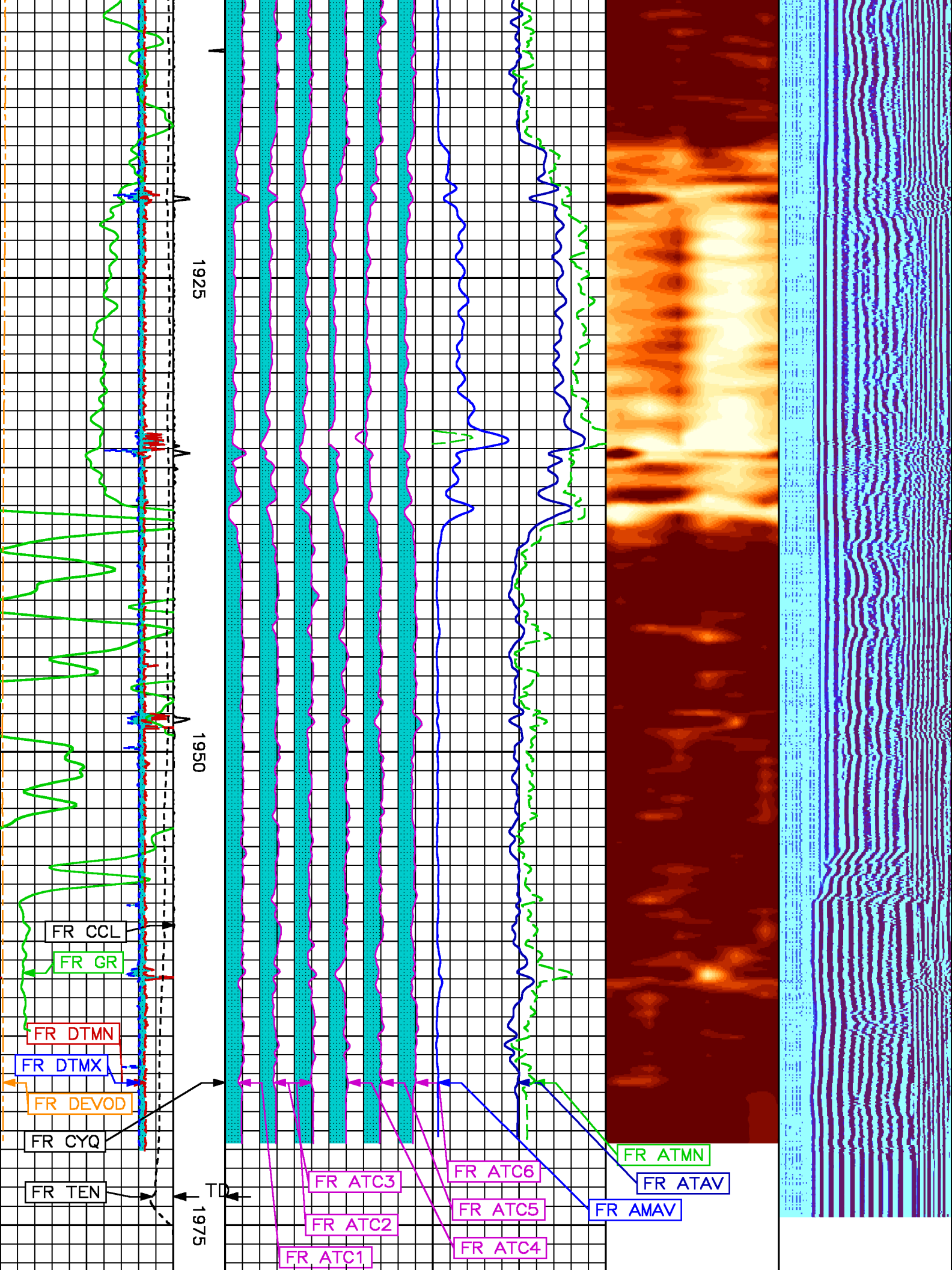


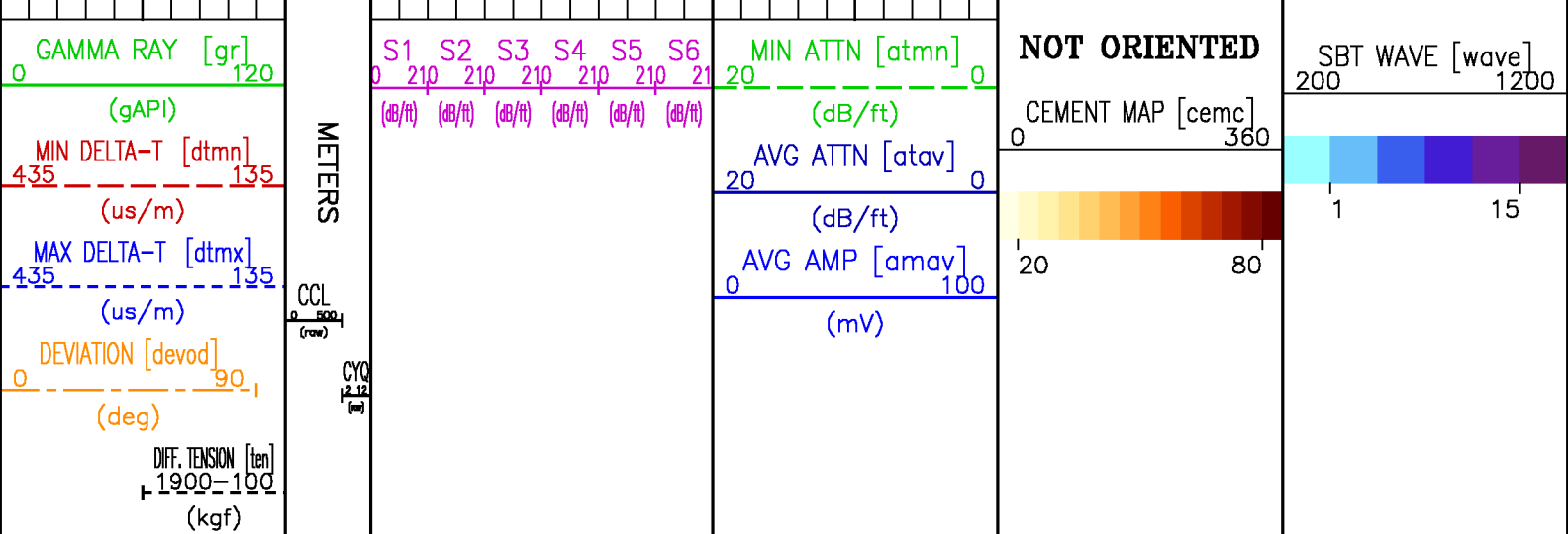












REPEAT LOG 1:240 SCALE - CS 17113 KPa

ECLIPS 6.1i Aug 06, 2010
Updates: 1,2 Patches: 3

Sat Feb 23 04:18:44 2013

Pcrplt /main/62

Cplot

Pdf_Cpp /main/16

Fileview 5.61

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/MGM/run3_ch/repeat02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 1808.150 m BOTTOM DEPTH: 1976.018 m

SYMMETRIC FILTER

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
GR	FILTER ()	medium (1)		TOP	BOTTOM
SBT	FILTER, 2pf	medium (1)		"	"
	FILTER, 4pf	medium (1)		"	"
TENSION	FILTER ()	medium (1)		"	"

SBT PROCESSING

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS	INTERVAL (m)	
SBT	CASING OD	177.800	mm	TOP	BOTTOM
	CASING WT	38.700	kg/m	"	"
	FREE PIPE AMP.	69.513	mV	"	"
	FREE PIPE ATTN.	1.193	dB/ft	"	"
	CORR. FACTOR 1 (1424XA 1)	1.729	dB/ft	"	"
	CORR. FACTOR 2 (1424XA 1)	-0.041	dB/ft	"	"
	CORR. FACTOR 3 (1424XA 1)	-0.007	dB/ft	"	"
	CORR. FACTOR 4 (1424XA 1)	-2.031	dB/ft	"	"
	CORR. FACTOR 5 (1424XA 1)	-0.266	dB/ft	"	"
	CORR. FACTOR 6 (1424XA 1)	0.616	dB/ft	"	"
	SPACING	0.199	m	"	"
	SPREADING FACTOR	4.589	dB/ft	"	"
	CEMENT STRENGTH	17113	kPa	"	"
	HI CUTOFF (1424XA 1)	9.563	dB/ft	"	"
	LOW CUTOFF (1424XA 1)	3.286	dB/ft	"	"

SBT NORMALIZATION RESULTS

MEASUREMENT TYPE	PARAMETER	VALUE	UNITS
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SBT	CORR. FACTOR1	1.729	dB/ft
	CORR. FACTOR2	-0.041	dB/ft
	CORR. FACTOR3	-0.007	dB/ft
	CORR. FACTOR4	-2.031	dB/ft
	CORR. FACTOR5	-0.266	dB/ft
	CORR. FACTOR6	0.616	dB/ft

FILE: /data/MGM/run3_ch/repeat02.sbt.qc.meta

CURVE DESCRIPTION REPORT

CURVE NAME	CREATION DATE	CURVE DESCRIPTION
------------	---------------	-------------------

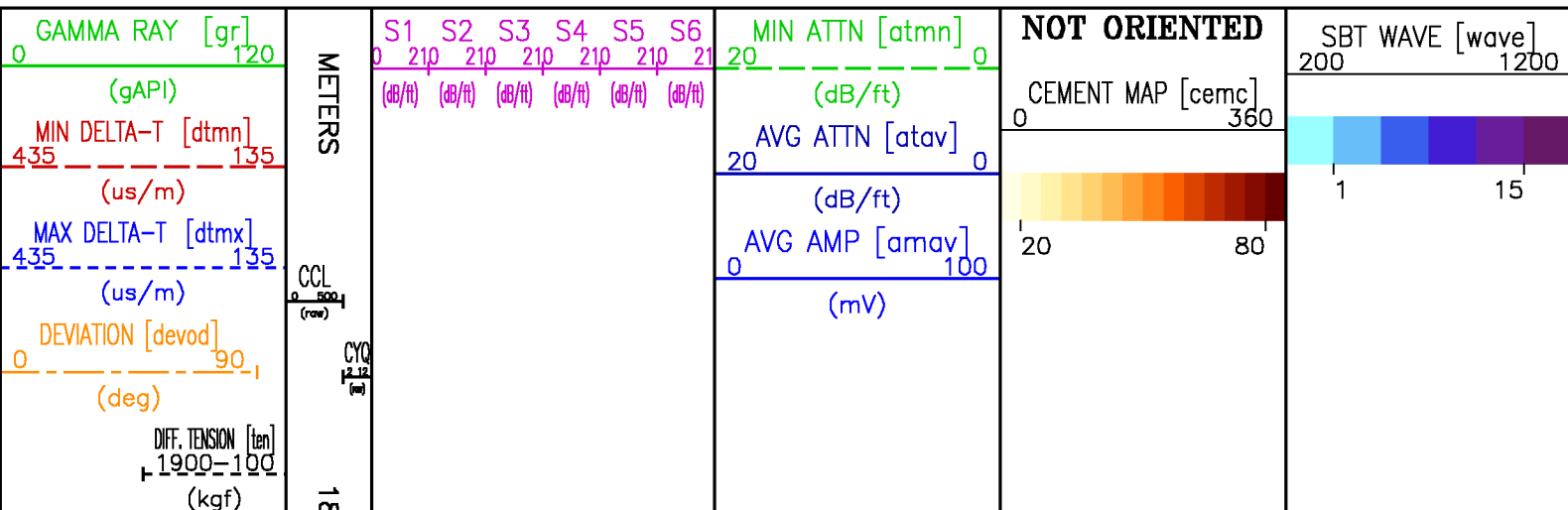
F1:AMAV	Feb 22 20:09:25 2013	AVERAGE AMPLITUDE
F1:ATAV	Feb 22 20:09:25 2013	AVERAGE ATTENUATION
F1:ATC1	Feb 22 20:09:25 2013	ATTENUATION PAD 1
F1:ATC2	Feb 22 20:09:25 2013	ATTENUATION PAD 2
F1:ATC3	Feb 22 20:09:25 2013	ATTENUATION PAD 3
F1:ATC4	Feb 22 20:09:25 2013	ATTENUATION PAD 4
F1:ATC5	Feb 22 20:09:25 2013	ATTENUATION PAD 5
F1:ATC6	Feb 22 20:09:25 2013	ATTENUATION PAD 6
F1:ATMN	Feb 22 20:09:25 2013	ATTENUATION MINIMUM
F1:CCL	Feb 22 20:09:25 2013	CASING COLLAR LOCATOR
F1:CEMC	Feb 22 20:09:25 2013	CALIBRATED CEMENT MAP
F1:CYQ	Feb 22 20:09:25 2013	CYCLE QUALITY
F1:DEVOD	Feb 22 20:09:25 2013	DEVIATION
F1:DTMN	Feb 22 20:09:25 2013	MINIMAL SLOWNESS
F1:DTMX	Feb 22 20:09:25 2013	MAXIMAL SLOWNESS
F1:GR	Feb 22 20:09:25 2013	GAMMA RAY
F1:TEN	Feb 22 20:09:25 2013	DIFFERENTIAL TENSION
F1:WAVE	Feb 22 20:09:25 2013	DIGITIZED WAVEFORM

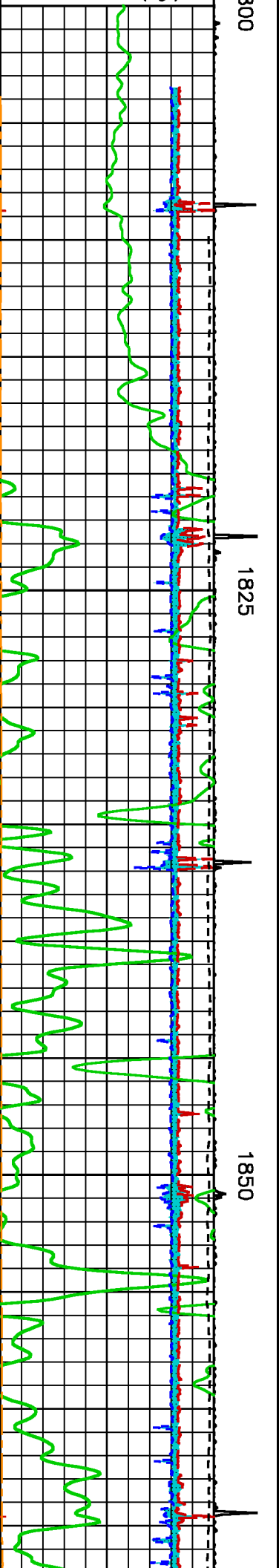
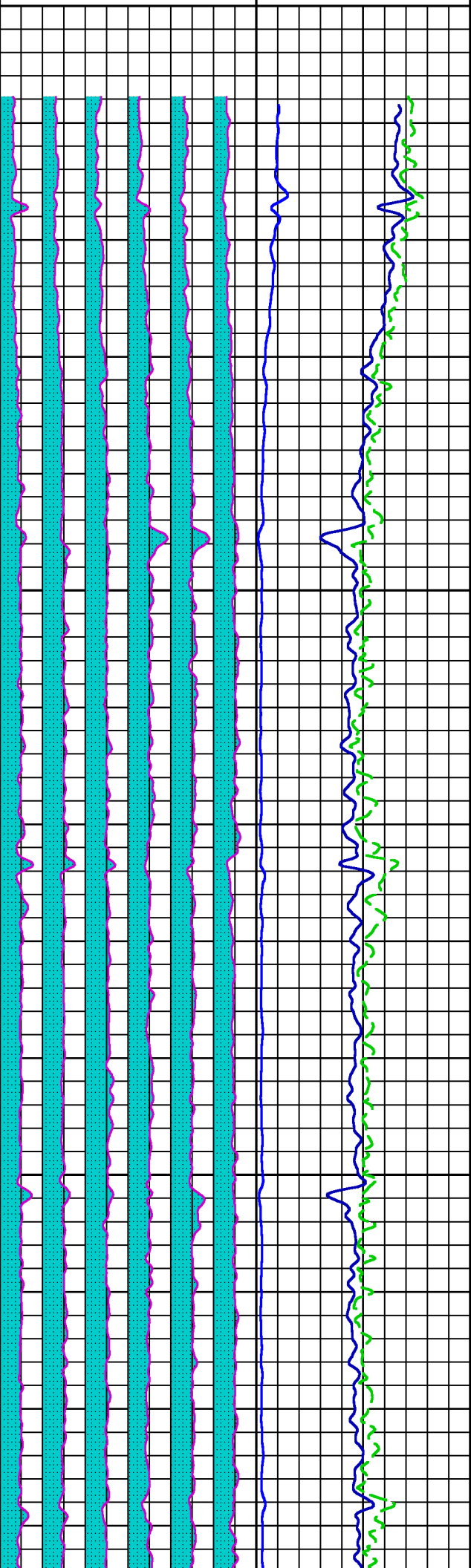
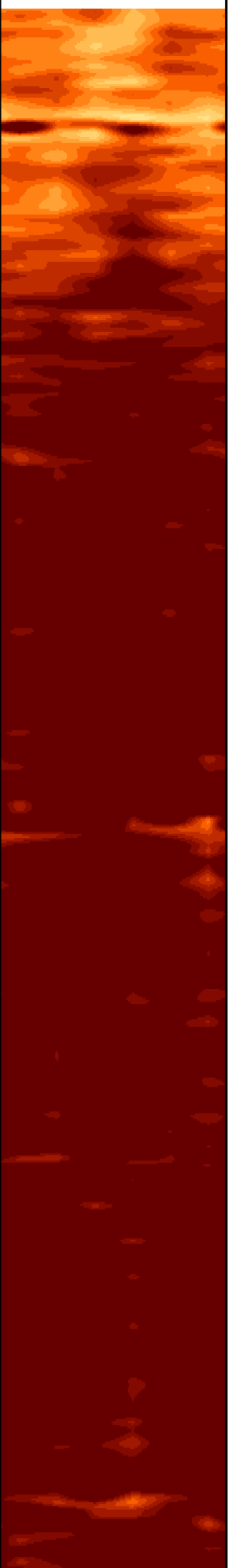
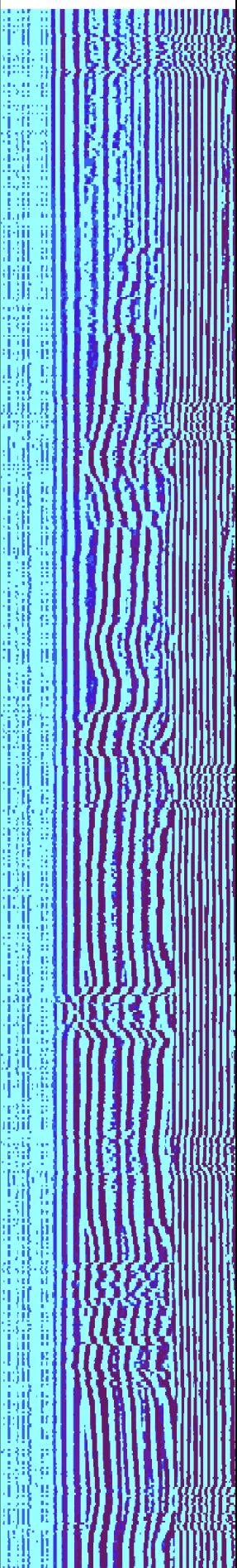
CURVE MEASURE POINT OFFSET

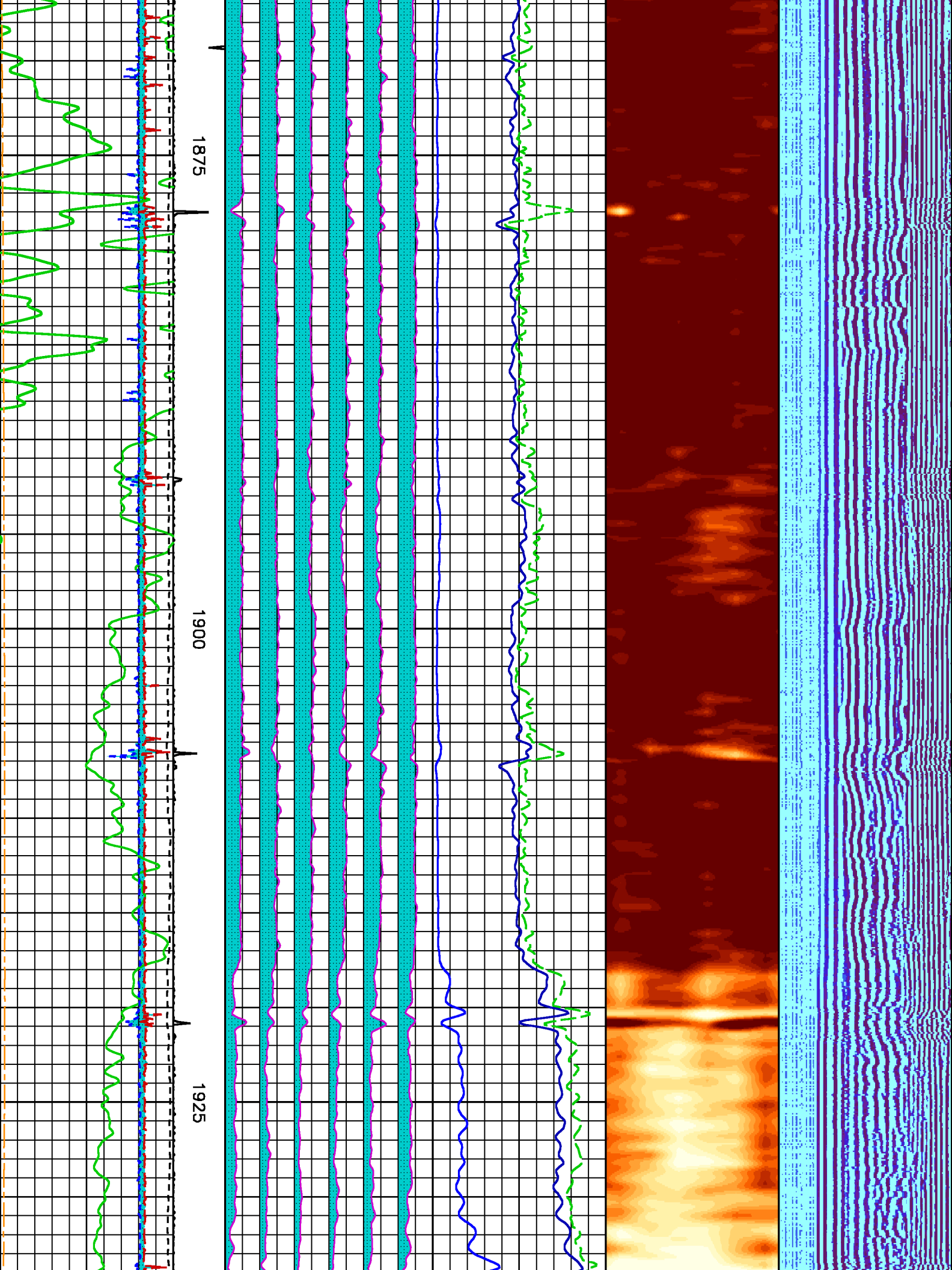
CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)	CURVE	OFFSET (m)
AMAV	6.02	ATC3	6.02	ATMN	6.02	DTMN	6.02
ATAV	6.02	ATC4	6.02	CCL	14.33	DTMX	6.02
ATC1	6.02	ATC5	6.02	CYQ	6.02	GR	11.81
ATC2	6.02	ATC6	6.02	DEVOD	6.02	TEN	0.00

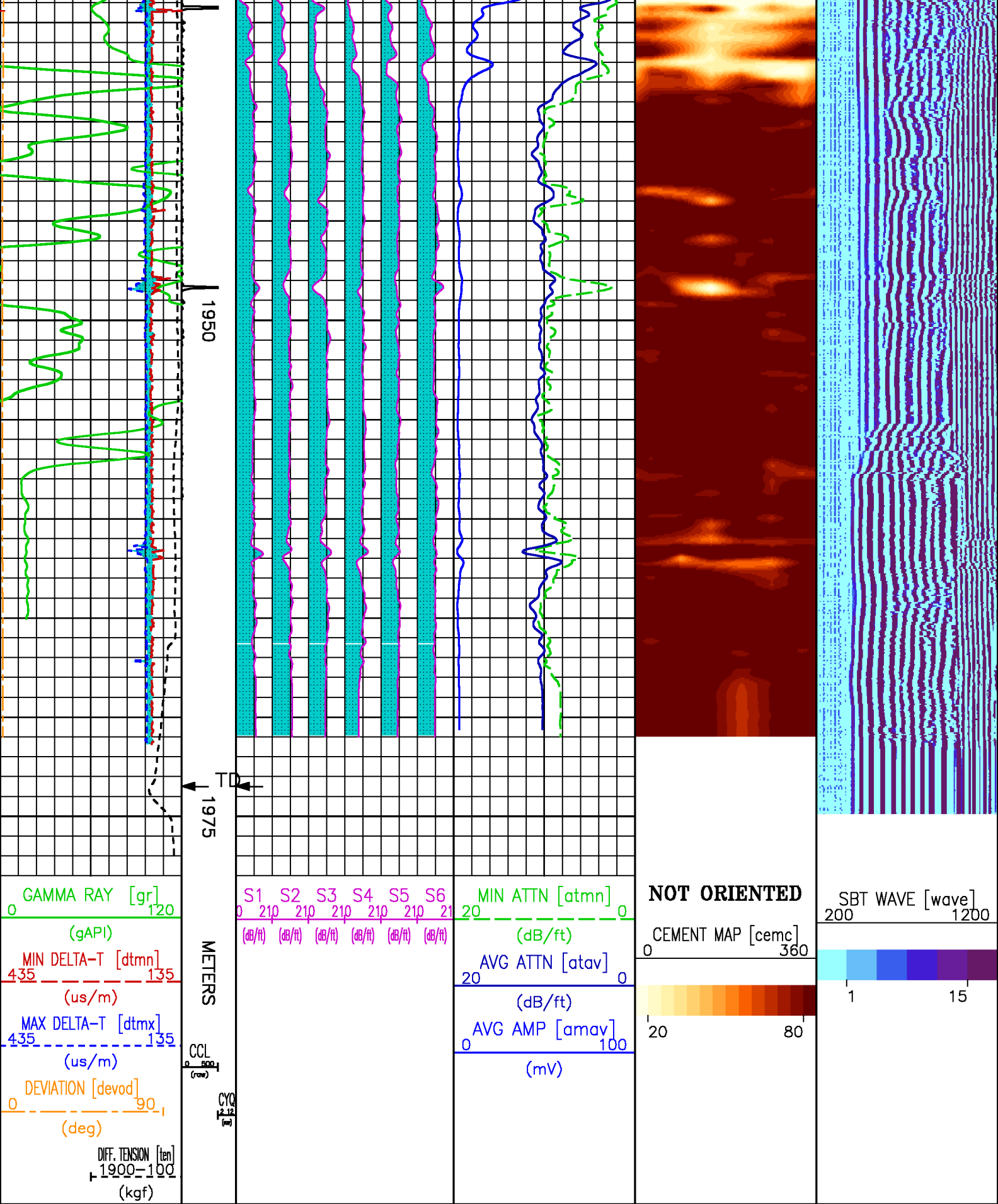
Presentation : sysa:/data/MGM/run3_ch/sbtmon--no--rb_rpt2.pdf [1:240 Scale]
Plot Interval : 1800 - 1977.39 Meters

Data File 1 : F1 : sysa:/data/MGM/run3_ch/repeat02.aff
Created On : Feb 22 20:09:25 2013
Company : MGM ENERGY CORP
Well : MGM SHELL EAST MACKAY I-78
Field : EAST MACKAY
File Interval : 1795.2 - 1977.39 Meters
Oct : m331d









CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/MGM/run3_ch/m331d_sbt.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 1339XA 12616995

DATE/TIME PERFORMED: Sat Jan 26 15:58:04 2013

UNIT #: 5753XB 10108816

CALB JIG #: 4702NK DA-479

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	CR DIFF (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	CALBRTR (gAPI)
GR	33.91	195.91	162.0 155.0 195.0	0.926	31.40	181.40	150

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 1339XA 12616995

DATE/TIME PERFORMED: Sat Jan 26 16:00:15 2013

UNIT #: 5753XB 10108816

VERI JIG #: 4702NK DA-479

	BACKGROUND (cts/s)	CALBRTR ON (cts/s)	MULT	BACKGROUND (gAPI)	CALBRTR ON (gAPI)	DIFF. (gAPI)
GR	35.13	200.29	0.926	32.53	185.45	152.92 140.00 160.00

RB PRIMARY CALIBRATION SUMMARY

TOOL #: 1424XA 120950

DATE/TIME PERFORMED: Sat Jan 26 15:45:33 2013

UNIT #: 5753XB 10108816

	X-ATT (raw)	Y-ATT (raw)	OFFSET (deg)	X-MAX	Y-MAX	RB (deg)
PAD 2	-109.4	-422.7				0.00 355.00 5.00
PAD 3	-431.6	-110.4				61.14 55.00 65.00
			-75.89	-448.75	435.85	

SBT PRIMARY CALIBRATION SUMMARY

TOOL #: 1424XA 120950

DATE/TIME PERFORMED: Sat Jan 26 15:43:18 2013

UNIT #: 5753XB 10108816

UNIT #: 5753XB 10108816

PAD 1

PAD 2

PAD 3

PAD 4

PAD 5

PAD 6

NOISE LEVEL

1.2

2.0

2.6

1.8

1.4

2.0

10.0

10.0

10.0

10.0

10.0

10.0

PAD SENS

359.8

295.6

287.6

313.0

239.7

321.0

150.0

150.0

150.0

150.0

150.0

150.0


 COMPANY
WELL
FIELD
PROVINCE

 MGM ENERGY CORP
MGM SHELL EAST MACKAY I-78
EAST MACKAY
NORTHWEST TERRITORIES

FILE NO:

API NO:

LOCATION:

ELEVATIONS:

KB 161.20 M

DF

GL 155.00 M

UID:

3001786450125 30

LICENSE:

1202

LAT 64.795 N

LONG 125.722 W

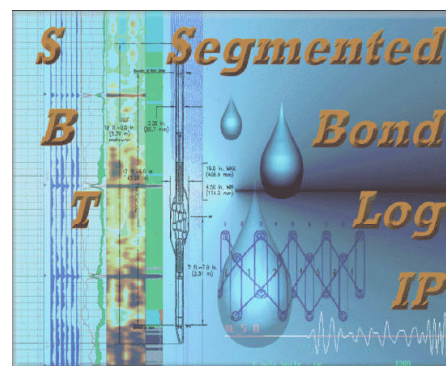
DATE

22-FEB-2013



Cement Bond Log Report

Company Name: MGM ENERGY CORP
Well Name: MGM SHELL EAST MACKAY I-78
UWI: 3001786450125 30
License: 1202



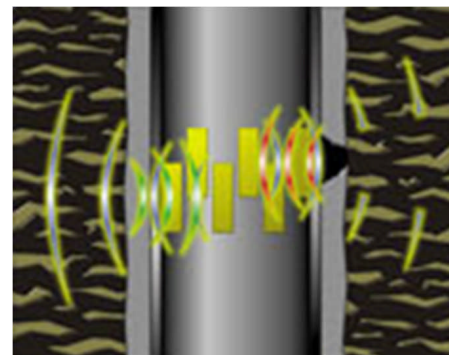
Service Order Number: 215447

Log date: 22-Feb-2013

Prepared By: A. Kotov

Report Date: 25-Feb-2013

BAKER HUGHES WIRELINE SYSTEMS
1000, 401 - 9th Avenue S.W., Calgary, AB T2P 3C5
Phone (403) 537-3400 Fax (403) 537-3767



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CASING DATA				
Size [mm]	Weight [kg/m]	Grade	From [m]	To [m]
244.5	59.5	N/A	SURFACE	401.8
177.8	38.7	I-80	SURFACE	1978.5

In making interpretations of logs, our employees will give the customer the benefit of their best judgment. But since all interpretations are based on inferences from electrical or other measurements, we cannot, and we do not guarantee the accuracy or correctness of any interpretation. Baker Hughes 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.

1. Logs ran:

- Segmented Bond Log Tractor/(SBT)/Gamma Ray (GR)/Casing Collar Locator (CCL)
(Log interval 1971m- 390m)

2. Purpose:

- To determine cement quality behind the 177.8 mm casing string.

3. Comments:

- Main and repeat passes logged with no wellhead pressure.
- The cement map normalized for cement compressive strength of 5419 kPa for interval 390m-1412.
- The cement map normalized for cement compressive strength of 17113 kPa for interval 1412m-1971m.

4. Interpretation:

<u>From</u>	<u>To</u>	<u>Bond</u>	<u>Remarks</u>
1971	1931	Very Good	Dominating excellent bond cement.
1931	1920	Fair to Poor	Fair bond cement, possible channeling
1920	1816	Excellent	Dominating excellent bond cement.
1816	1776	Good to Fair	Equal mix of good and bond cement.
1776	1753	Excellent	Only excellent bond cement.
1753	1733	Good Fair	Alternating good and fair cement.
1733	1692	Excellent	Homogeneous interval, excellent bond cement only.
1692	1675	Good	Averages to good bond cement.
1675	1662	Fair	Fair bond cement.

1662	1513	Good	Primarily good bond cement
1513	1508	Fair	Range of poor bond cement over good bond interval.
1508	1412	Good to Fair	Alternating good and fair bond cement.
1412	1380	Very Good	Mostly excellent bond cement.
1380	1291	Fair	Mostly fair bond cement, isolated poorly bonded ranges.
1291	1250	Fair to Poor	Equal mix of fair and poor bond cement.
1250	1213	Fair	Averages to fair bond cement.
1213	1171	Good to Fair	Alternating good and fair bond cement.
1171	1081	Fair to Poor	Fair bond cement with segmental poorly bonded ranges.
1081	1071	Fair	Fair bond cement.
1071	1062	Fair to Poor	Fair bond cement with segmental poorly bonded ranges.
1062	1017	Fair	Fair bond cement.
1017	956	Fair to Poor	Fair bond cement with possible channeling.
956	881	Fair	Fair bond cement.
881	876	Fair to Poor	Fair bond cement with possible channeling.
876	762	Fair	Fair bond cement.
762	752	Good to Fair	Mix of good and fair bond cement.
752	619	Fair	Fair bond cement.
619	609	Fair to Poor	Fair bond cement with possible channeling.
609	552	Fair	Fair bond cement.

552	540	Fair to Poor	Fair bond cement with possible channeling.
540	390	Fair	Fair bond cement.

Notes:

- Attenuation values at collars are not valid and may appear as poor bond or excellent bond, these should be ignored.
- Definition of micro-annulus size is relative and not pertaining to absolute values.