



| | | | |
|---------------------------|------------------------------------|---|-------------|
| FILE NO: CH094744 | COMPANY WELL FIELD COUNTY | WPX ENERGY YOUBERG RU 331-7 RULISON GARFIELD | STATE CO |
| API NO: 05045223490000 | | | |

| | | |
|--|---|----------------------------|
| Ver. 3.87 7 7S 93W RU 42-7 PAD NABORS 574 | LOCATION: SHL: 2448' FNL & 389' FEL BHL: 378' FNL & 1616' FEL SEC 7 TWP 7S RGE 93W | OTHER SERVICES BOND LOG |
|--|---|----------------------------|

| | | |
|---|----------------------|---|
| PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM | GL KB KB GL | ELEVATION 26 FT ABOVE P.D. 7737 FT 7763 FT 7737 FT |
|---|----------------------|---|

| | |
|------------------------|-----------------------|
| DATE | 09-Feb-2015 |
| RUN | 1 |
| SERVICE ORDER | US094744 |
| DEPTH DRILLER | 10222 FT |
| DEPTH LOGGER | 10167 FT |
| BOTTOM LOGGED INTERVAL | 10157 FT |
| TOP LOGGED INTERVAL | 6179 FT |
| TIME STARTED | 12:00 |
| TIME FINISHED | 17:30 |
| OPERATOR RIG TIME | 5.5 HOURS |
| TYPE OF FLUID IN HOLE | WATER |
| FLUID DENSITY | NA |
| FLUID SALINITY | NA |
| FLUID LEVEL | 89 FT |
| LOGGED CEMENT TOP | NA |
| WELLHEAD PRESSURE | 0 PSI |
| MAXIMUM HOLE DEVIATION | NA |
| NOMINAL LOGGING SPEED | 10 FMIN |
| MAX. RECORDED TEMP. | 246 DEGF |
| REFERENCE LOG | BAKER HUGHES BOND LOG |
| REFERENCE LOG DATE | 09-Feb-2015 |
| EQUIP. NO. | HL-6670 |
| LOCATION | GRAND JCT. |
| RECORDED BY | NEWELL |
| WITNESSED BY | TED VONFELDT |

IN MAKING INTERPRETATIONS OF LOGS OUR EMPLOYEES WILL GIVE THE CUSTOMER THE BENEFIT OF THEIR BEST JUDGEMENT. BUT SINCE ALL INTERPRETATIONS ARE OPINIONS BASED ON INFERENCES FROM ELECTRICAL OR OTHER MEASUREMENTS, WE CANNOT, AND WE DO NOT GUARANTEE THE ACCURACY OR CORRECTNESS OF ANY INTERPRETATION. WE SHALL NOT BE LIABLE OR RESPONSIBLE FOR ANY LOSS, COST, DAMAGES, OR EXPENSES WHATSOEVER INCURRED OR SUSTAINED BY THE CUSTOMER RESULTING FROM ANY INTERPRETATION MADE BY ANY OF OUR EMPLOYEES.

| BOREHOLE RECORD | | |
|-----------------|---------|----------|
| BIT SIZE | FROM | TO |
| 13.5 IN | 0 FT | 1139 FT |
| 8.75 IN | 1139 FT | 10281 FT |

| CASING RECORD | | | | |
|---------------|-----------|-------|------|----------|
| SIZE | WEIGHT | GRADE | FROM | TO |
| 9.625 IN | | | 0 FT | 1139 FT |
| 4.5 IN | 11.6 LB/F | P-110 | 0 FT | 10281 FT |

REMARKS

RUN 1 TRIP 1: All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 09/FEB/2015 at the client's request.

The depth matching process creates potential for collar lengths to vary from those recorded on other cased hole wireline units without a Gamma Ray reference.

The amount of linear shift is 3 feet.

Logged in PNC-3D mode.

BHT = 246 degF
SJ = 6967' - 6989'

EQUIPMENT DATA

| RUN | TRIP | TOOL | SERIES NO. | SERIAL NO. | POSITION |
|-----|------|---------|------------|------------|----------|
| 1 | 1 | PCM | 8250EA | 10586851 | FREE |
| 1 | 1 | TEL/CCL | 8248ED | 10460262 | FREE |
| 1 | 1 | GR | 2812LA | 11701636 | FREE |
| 1 | 1 | RPM | 8281EA | 10273848 | FREE |
| 1 | 1 | RPM | 8283PA | 10169251 | FREE |
| 1 | 1 | RPM | 8281FA | 10238007 | FREE |
| 1 | 1 | TEMP | 8255XA | 11774568 | FREE |

MAIN SECTION PNC-3D MODE

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

Updates: 1 Patches: 4

Plotted: Mon Feb 9 17:10:22 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH094744/n354h02.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 6173.750 ft BOTTOM DEPTH: 10173.750 ft

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) |
|------------------|------------|------------|-------|---------------|
| GR | FILTER () | medium (1) | | TOP BOTTOM |

RPM PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) |
|------------------|-------------------|------------|-------|---------------|
| PNC Parameters | BOREHOLE CONTENTS | FLUID | | TOP BOTTOM |
| | OPEN/CASED HOLE | CASED HOLE | | " " |
| | BOREHOLE SIZE | 8.75 | in | " " |
| | CASING SIZE | 4.50 | in | " " |
| | MATRIX | SANDSTONE | | " " |
| | CORRECTION BUFFER | 11 | | " " |

CURVE DESCRIPTION REPORT

| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|---------------------|---|
| F1:CCL | Feb 9 12:59:26 2015 | CASING COLLAR LOCATOR |
| F1:GR | Feb 9 12:59:26 2015 | GAMMA RAY |
| F1:ISS | Feb 9 12:59:26 2015 | INELASTIC SHORT SPACE COUNT RATE |
| F1:LS | Feb 9 12:59:26 2015 | LONG SPACE COUNT RATE |
| F1:RATO | Feb 9 12:59:26 2015 | SHORT/LONG SPACE COUNT RATE RATIO |
| F1:RICS | Feb 9 12:59:26 2015 | SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS) |
| F1:SGFC | Feb 9 12:59:26 2015 | CORRECTED FORMATION SIGMA |
| F1:SS | Feb 9 12:59:26 2015 | SHORT SPACE COUNT RATE |

CURVE MEASURE POINT OFFSET

| CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) |
|-------|-------------|-------|-------------|-------|-------------|-------|-------------|
| CCL | 25.00 | ISS | 12.75 | RATO | 12.75 | SGFC | 12.75 |
| GR | 22.75 | LS | 12.75 | RICS | 12.75 | SS | 12.75 |

Presentation : HL6670:/dat1a/CH094744/331RPM_MAIN.fvpdf [5"/100' Scale]
Plot Interval : 6175 - 10172 Feet

Data File 1 : F1 : HL6670:/dat1a/CH094744/331RPM_MAIN.xtf
Created On : Feb 9 12:59:26 2015
Company : WBY ENERGY

Company : WPA ENERGY
Well : YOUNBERG RU 331-7
Field : RULISON
File Interval : 26.25 - 10173.8 Feet
OCT : n354h

GR BACKUP

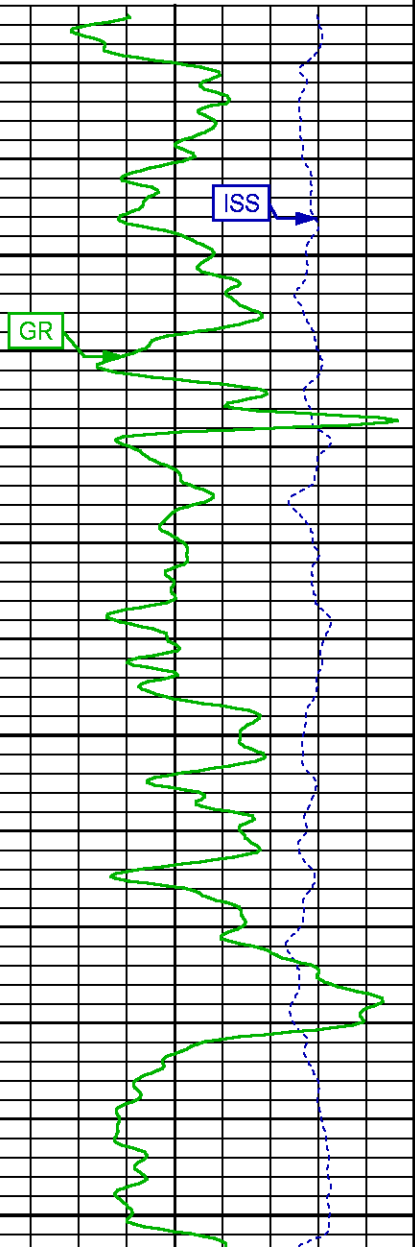
ISS [iss] 0 1E+06
(1)
GAMMA RAY [gr] 0 150
(gAPI)

FEET

CCL
(m)

6200

6300



RATO [rato] 17 0

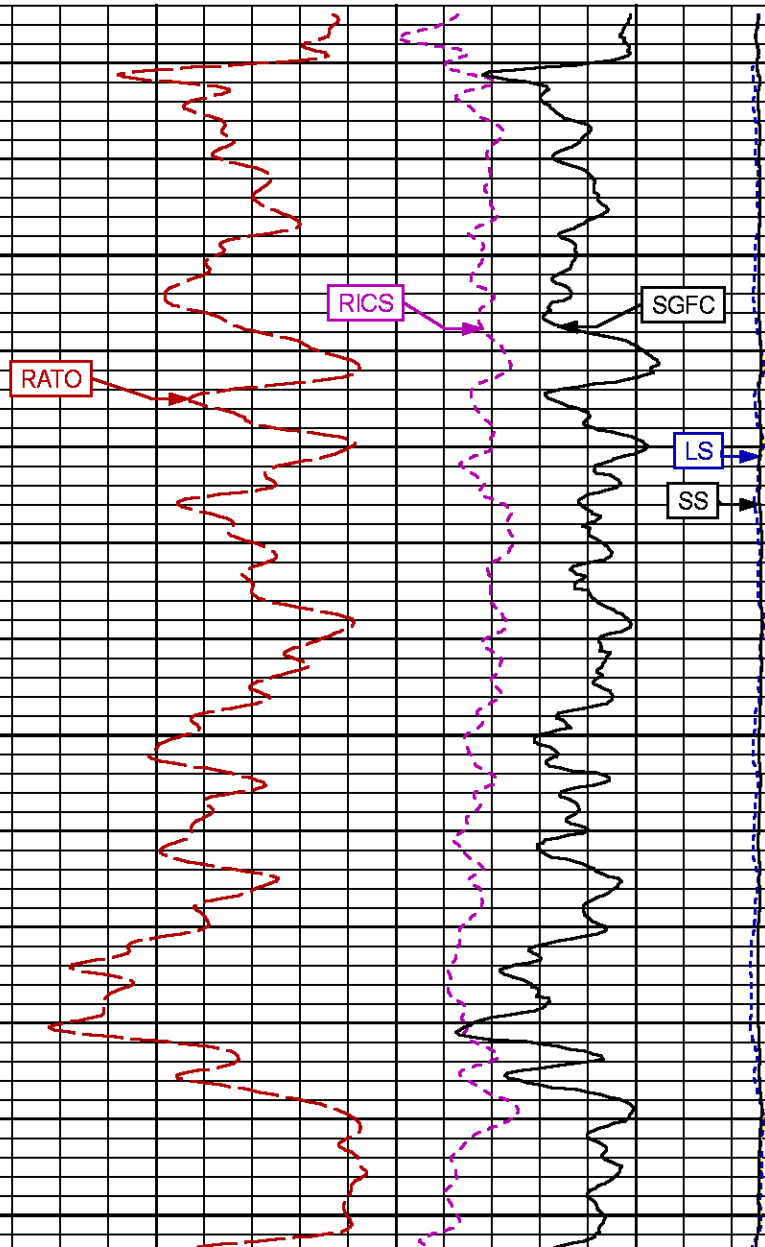
(1)

RICS [rics] 39 9

(1)

SGFC [sgfc] 60 0

(1)

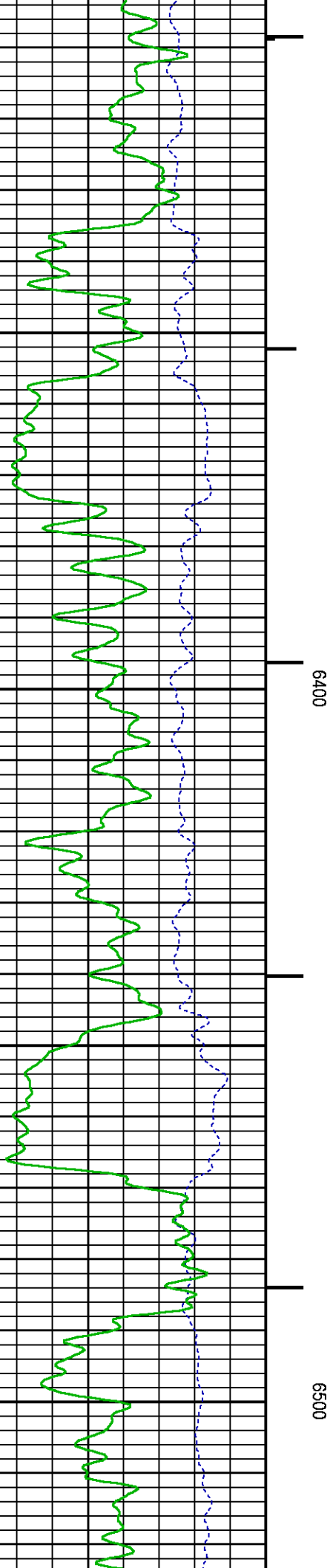
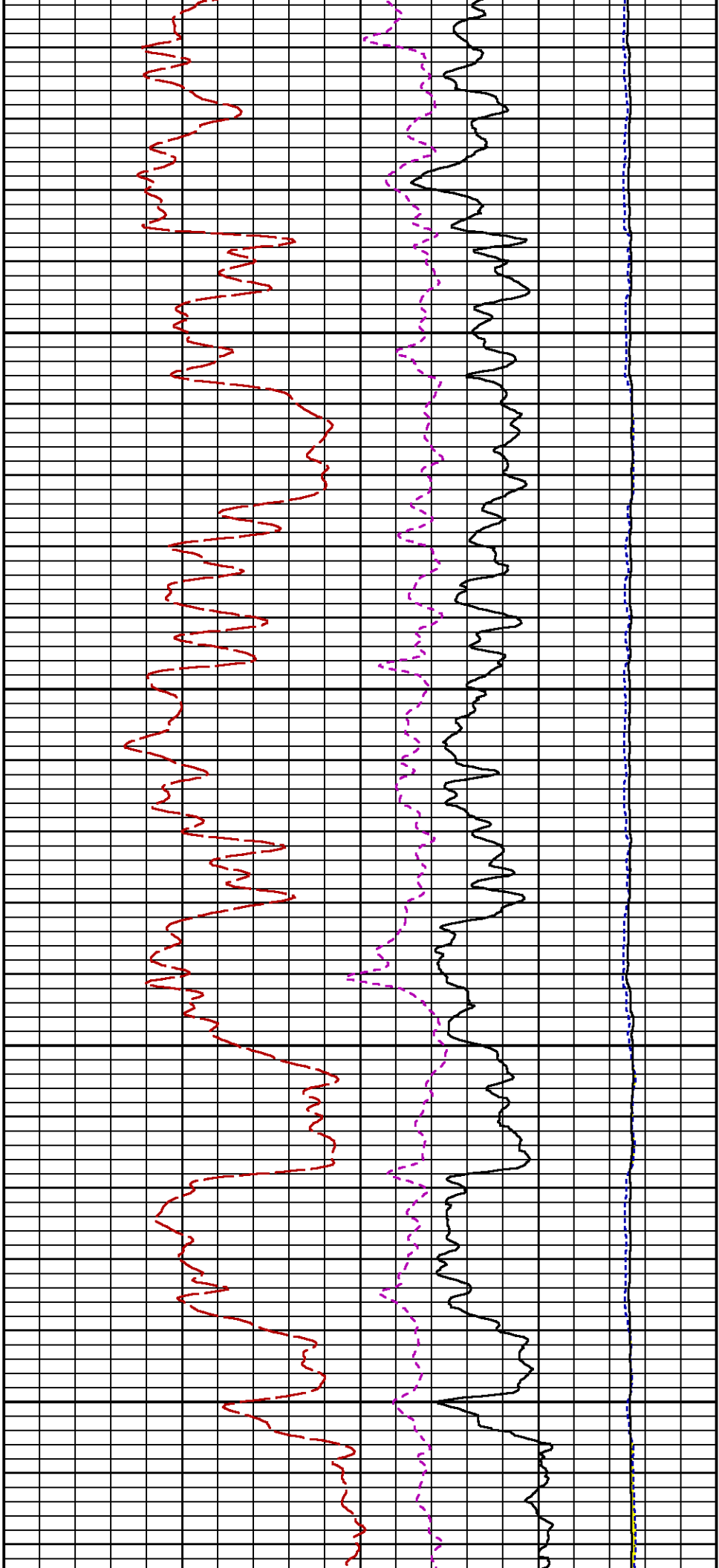


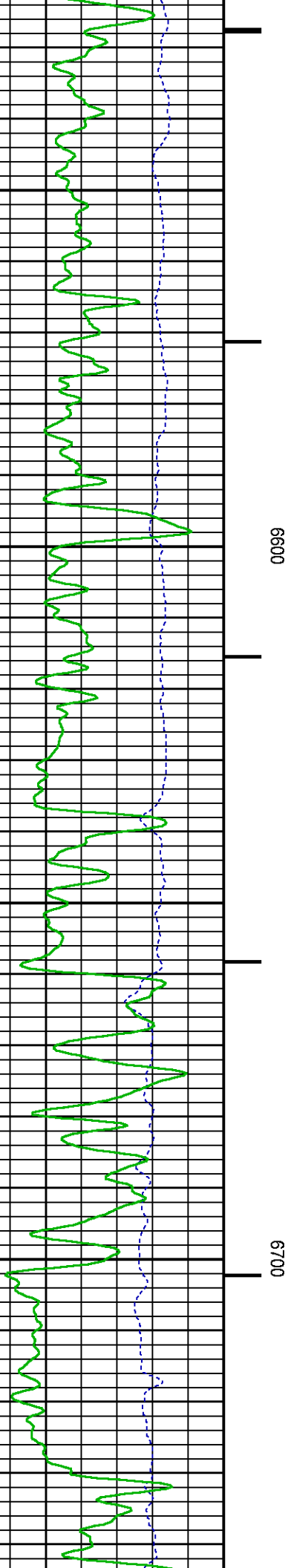
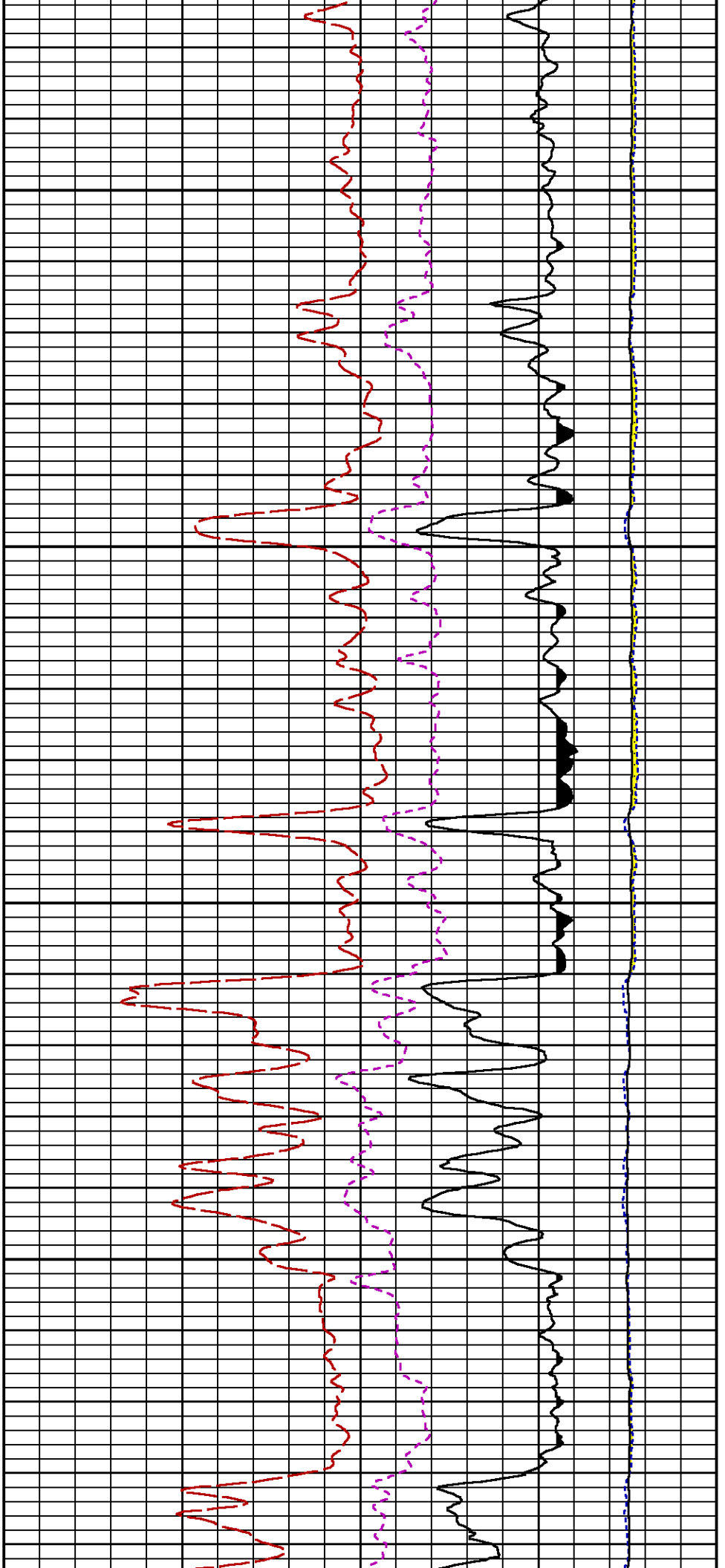
LS [ls] 0 29000

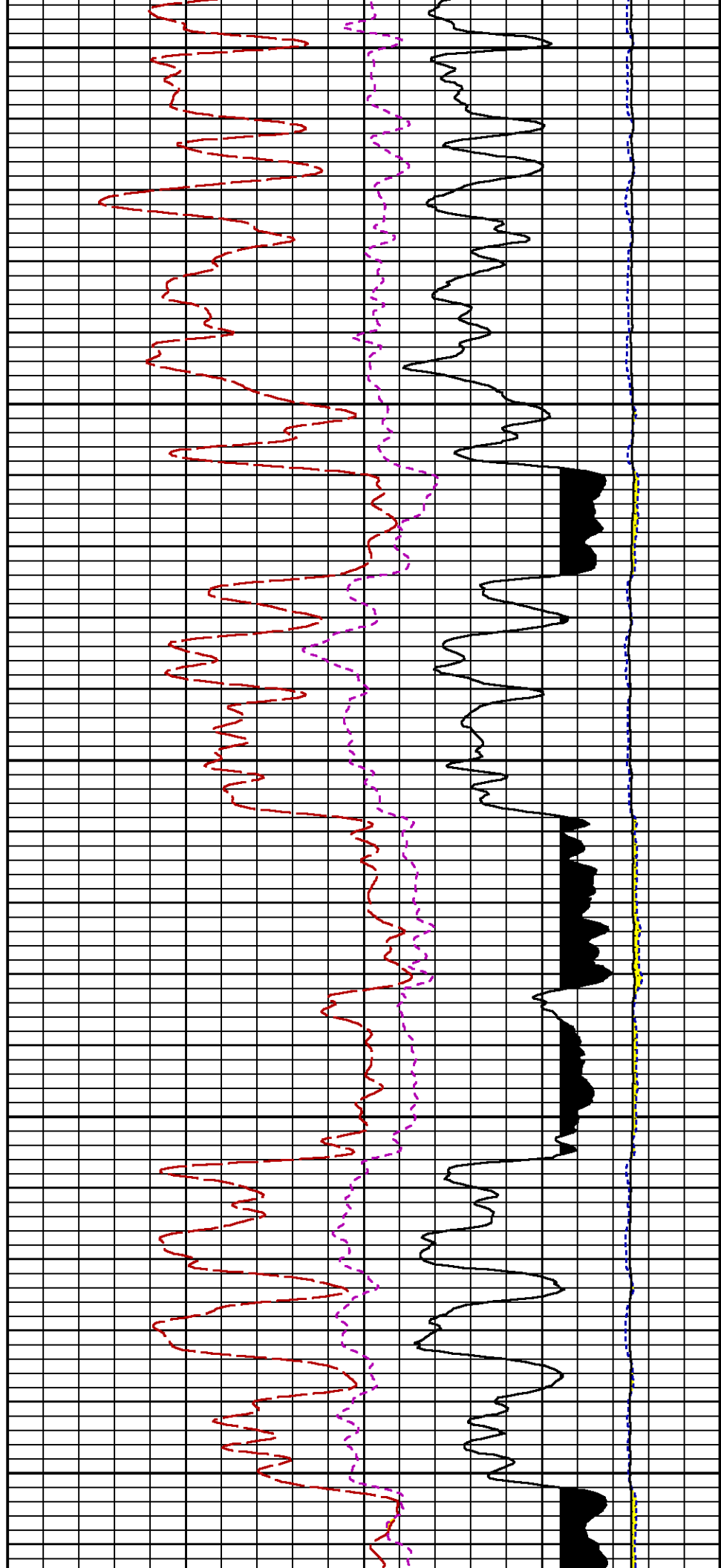
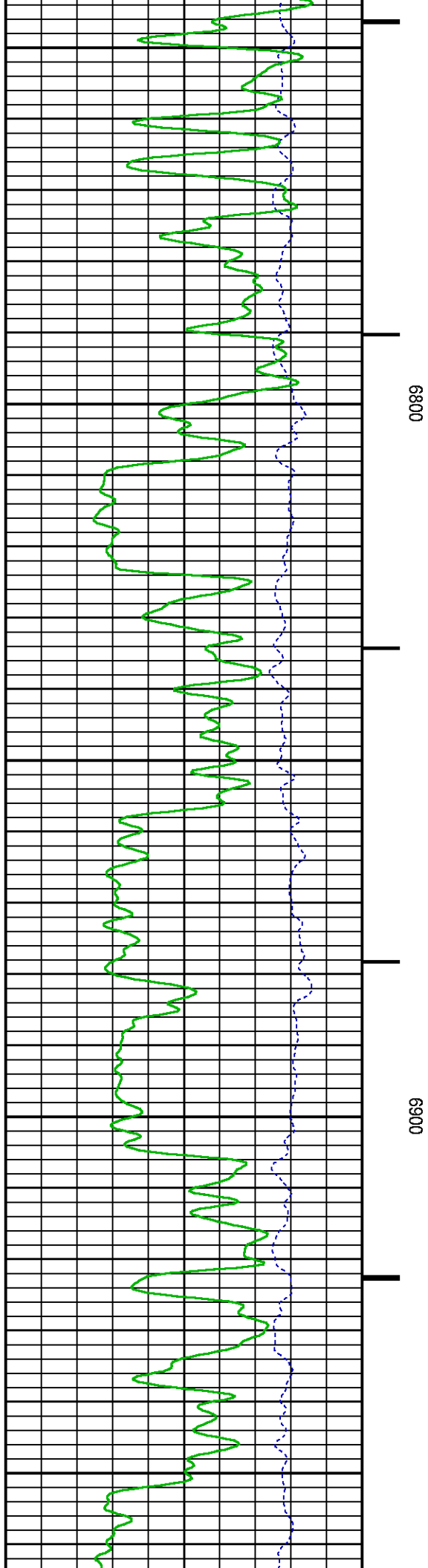
(1)

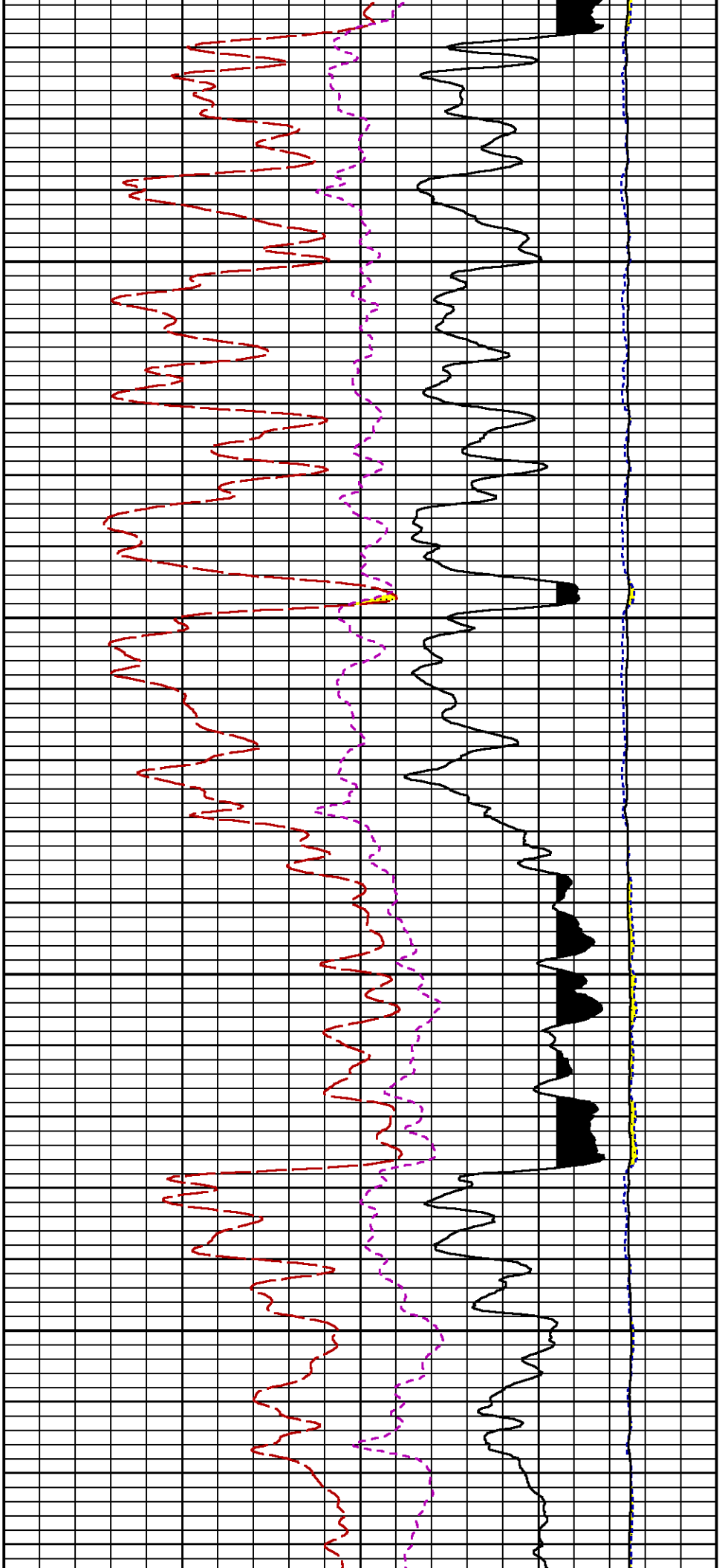
SS [ss] 0 29000

(1)





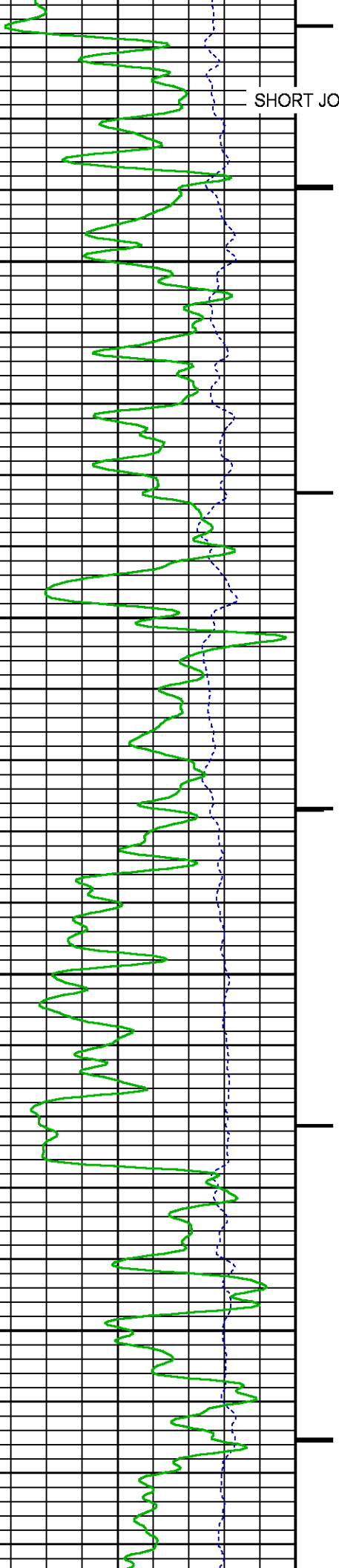


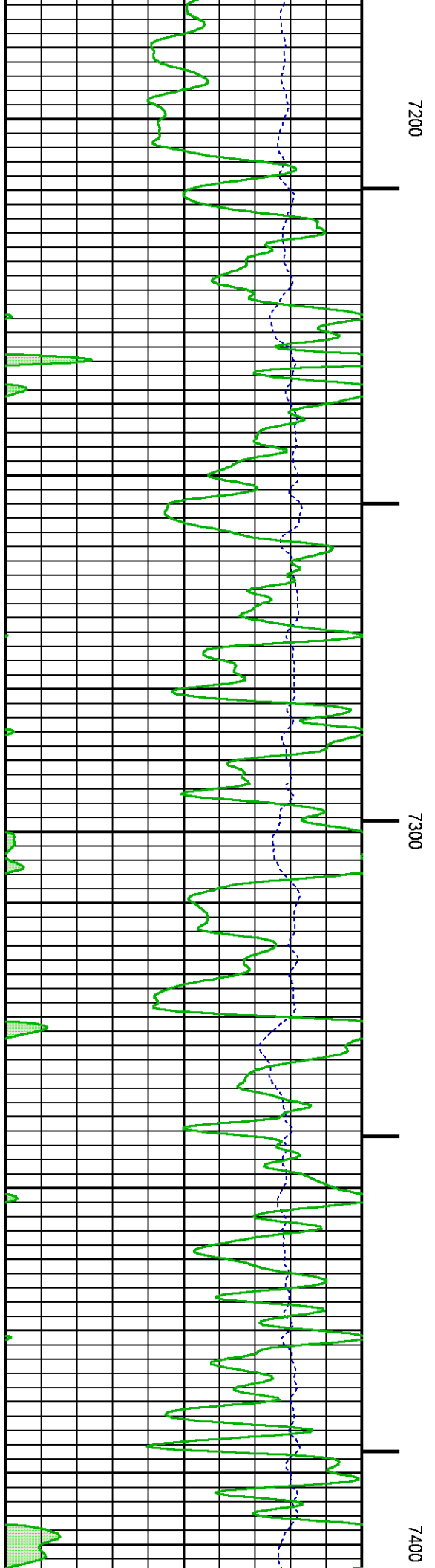
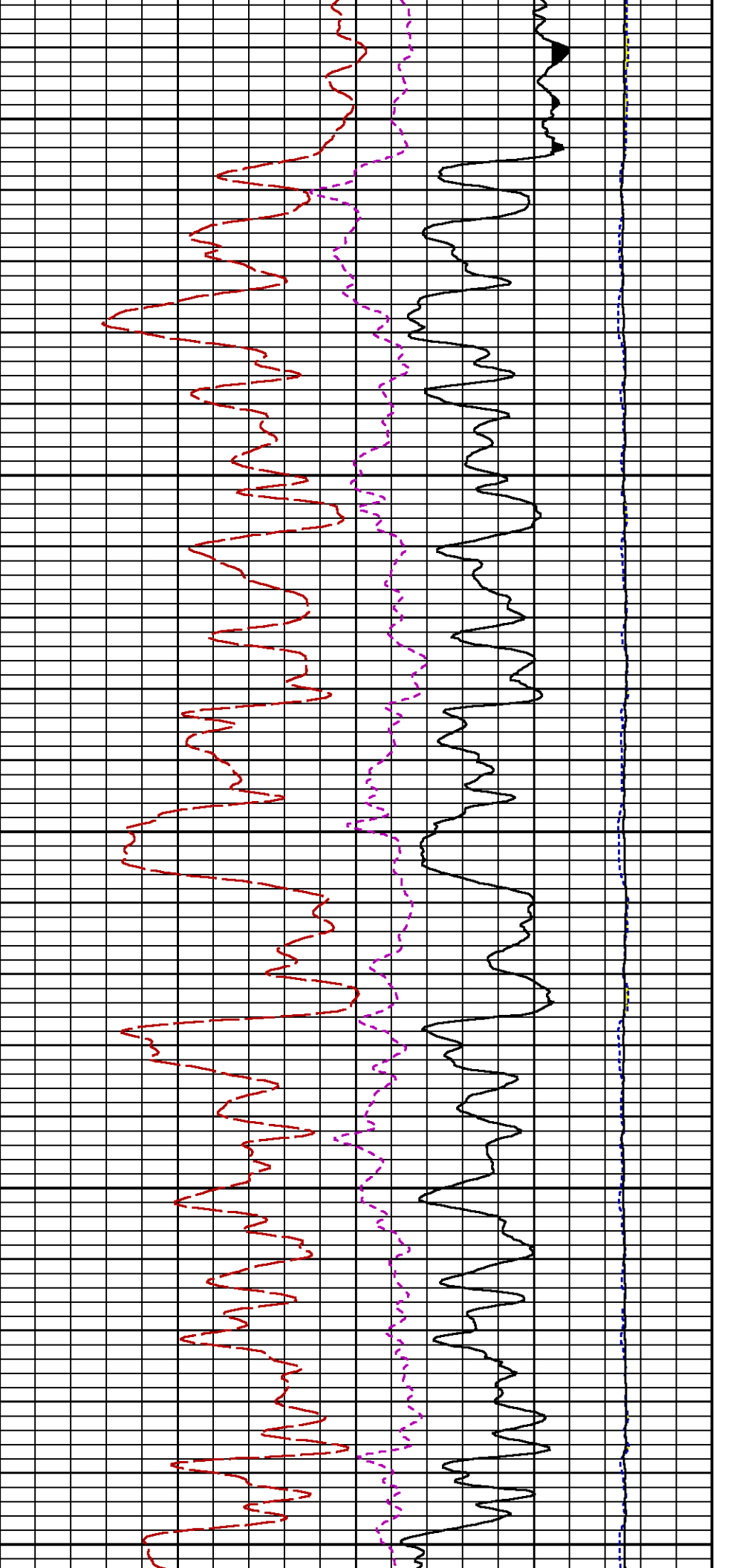


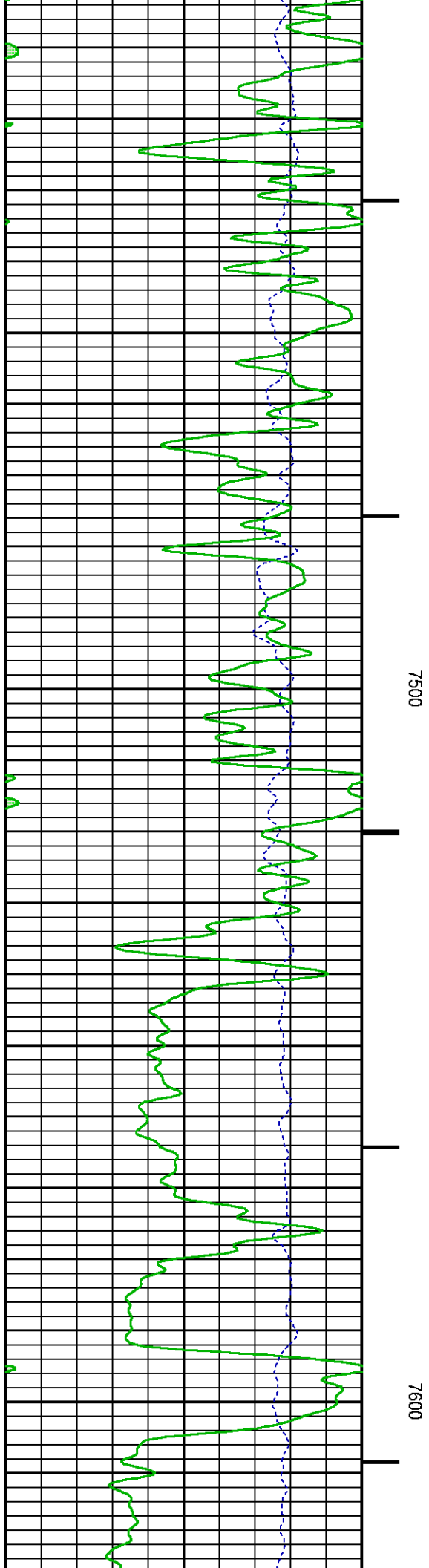
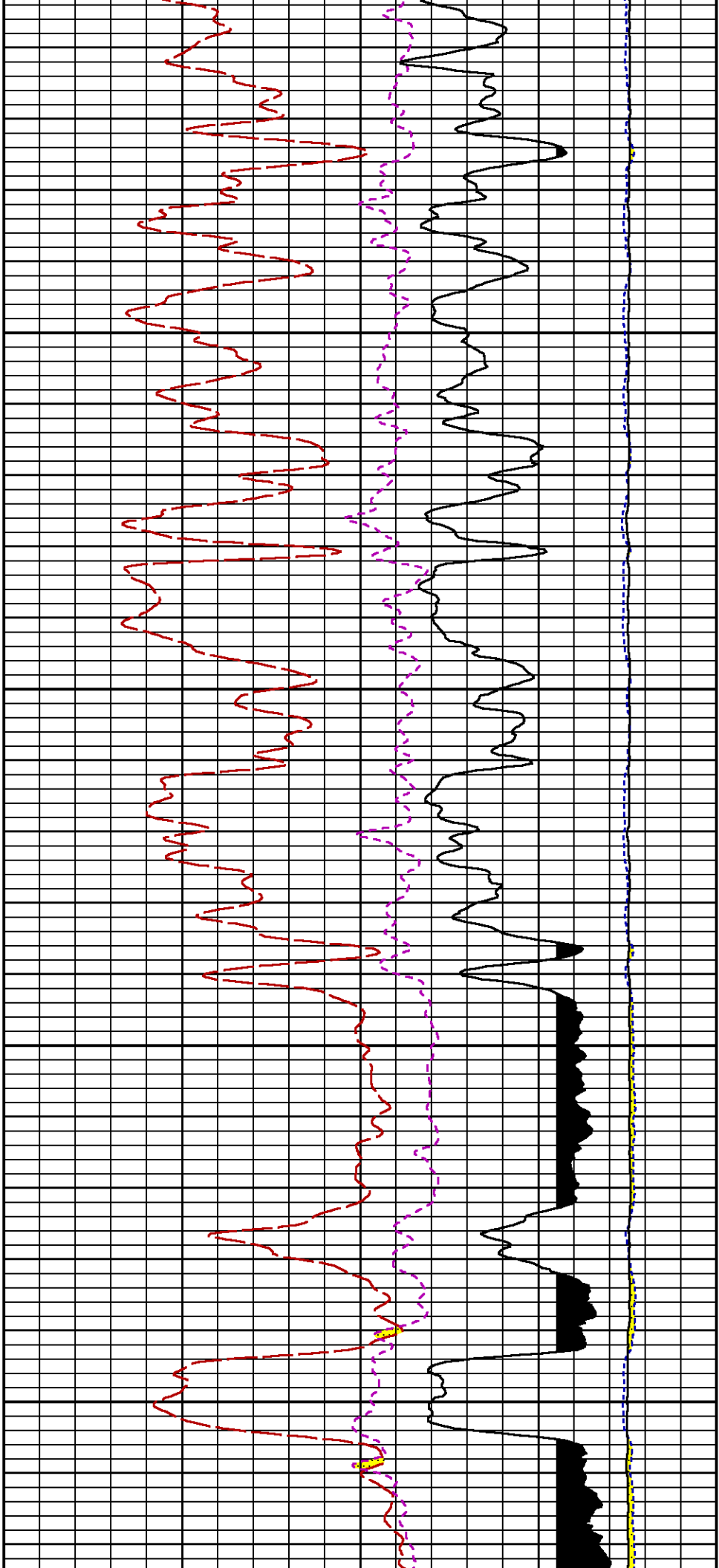
SHORT JOINT

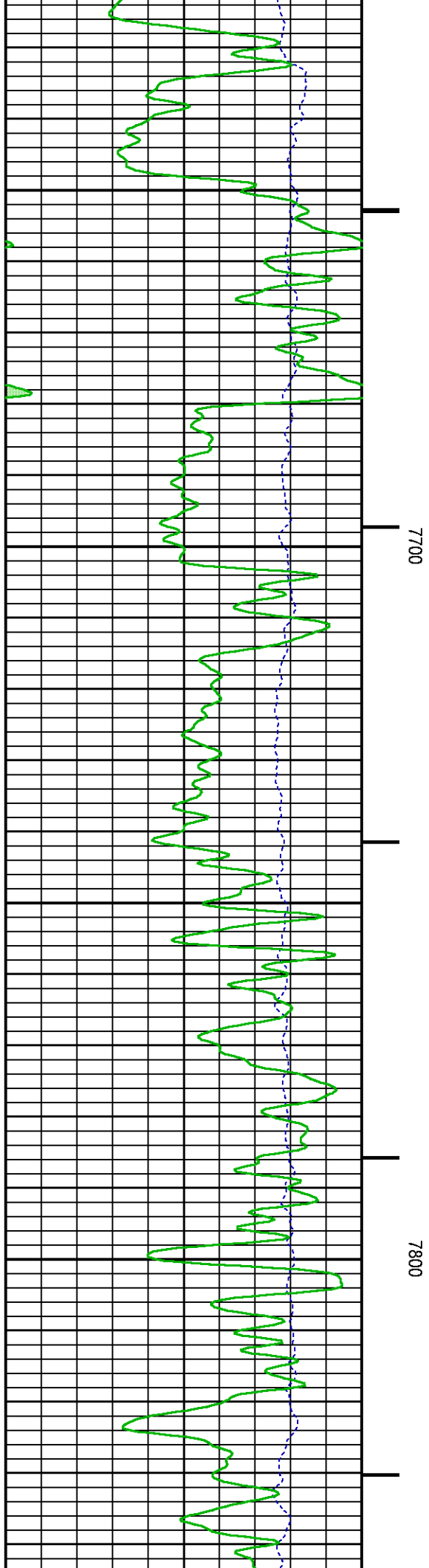
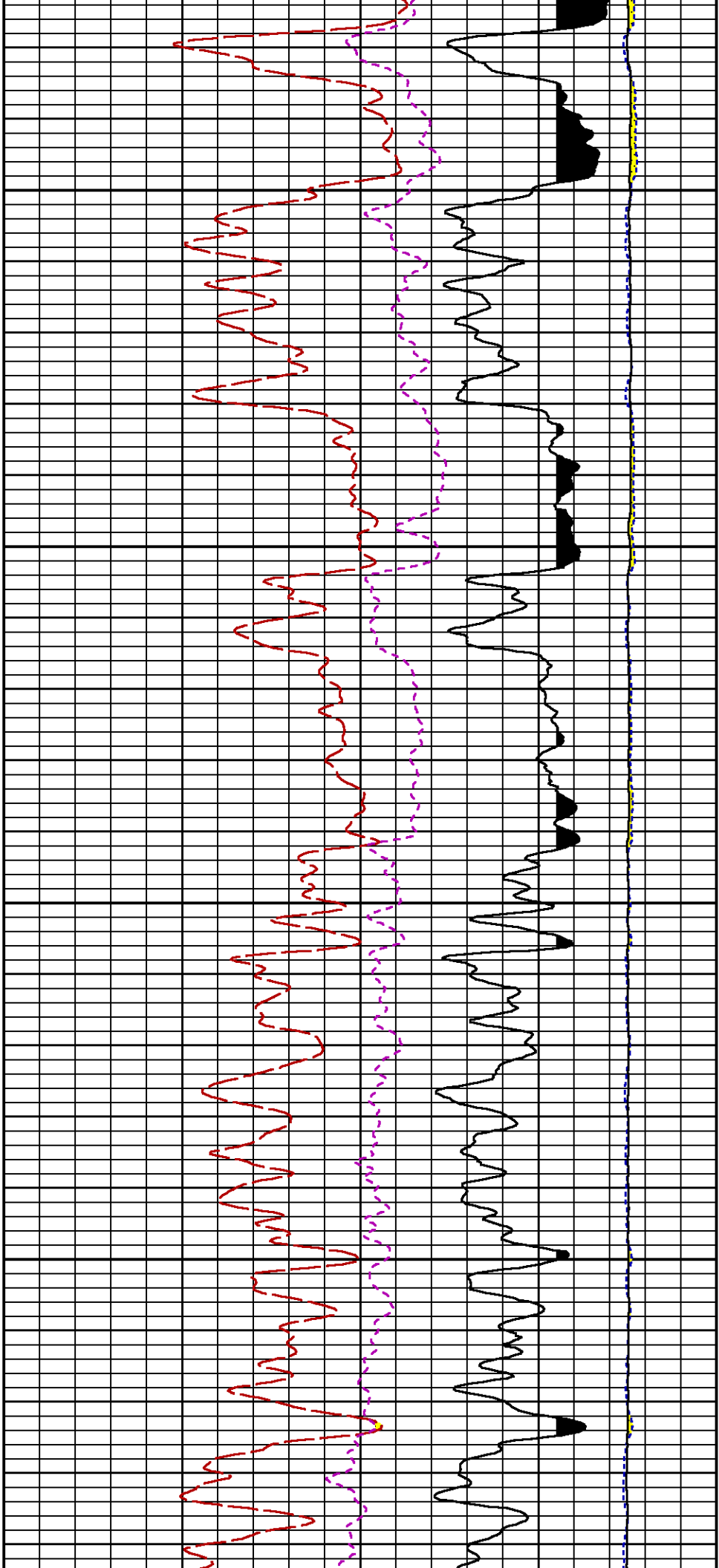
7000

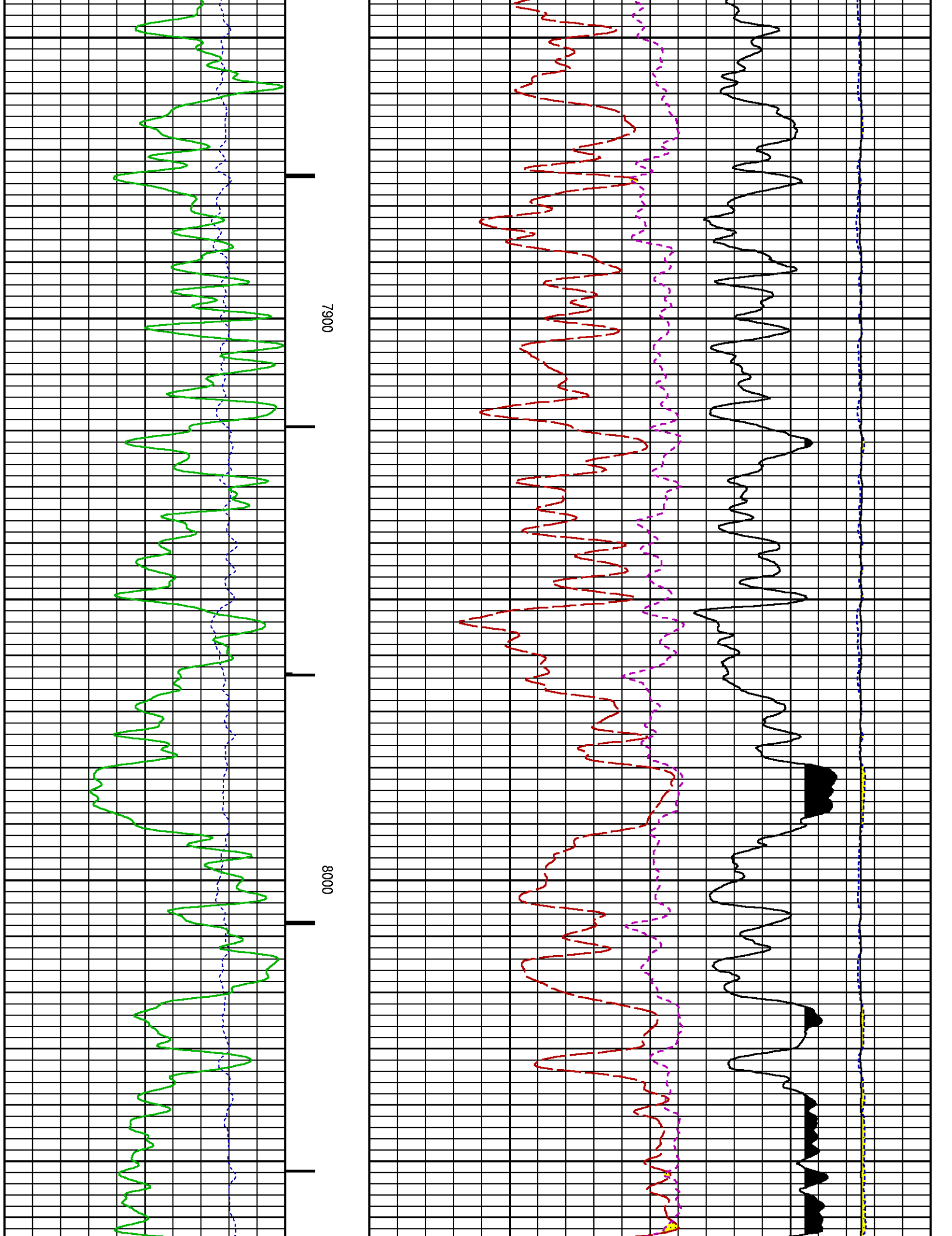
7100

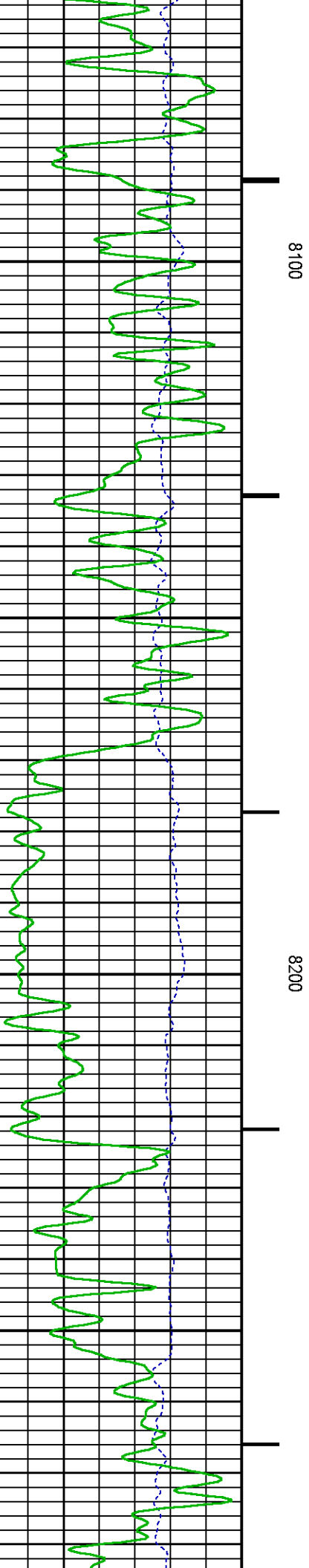
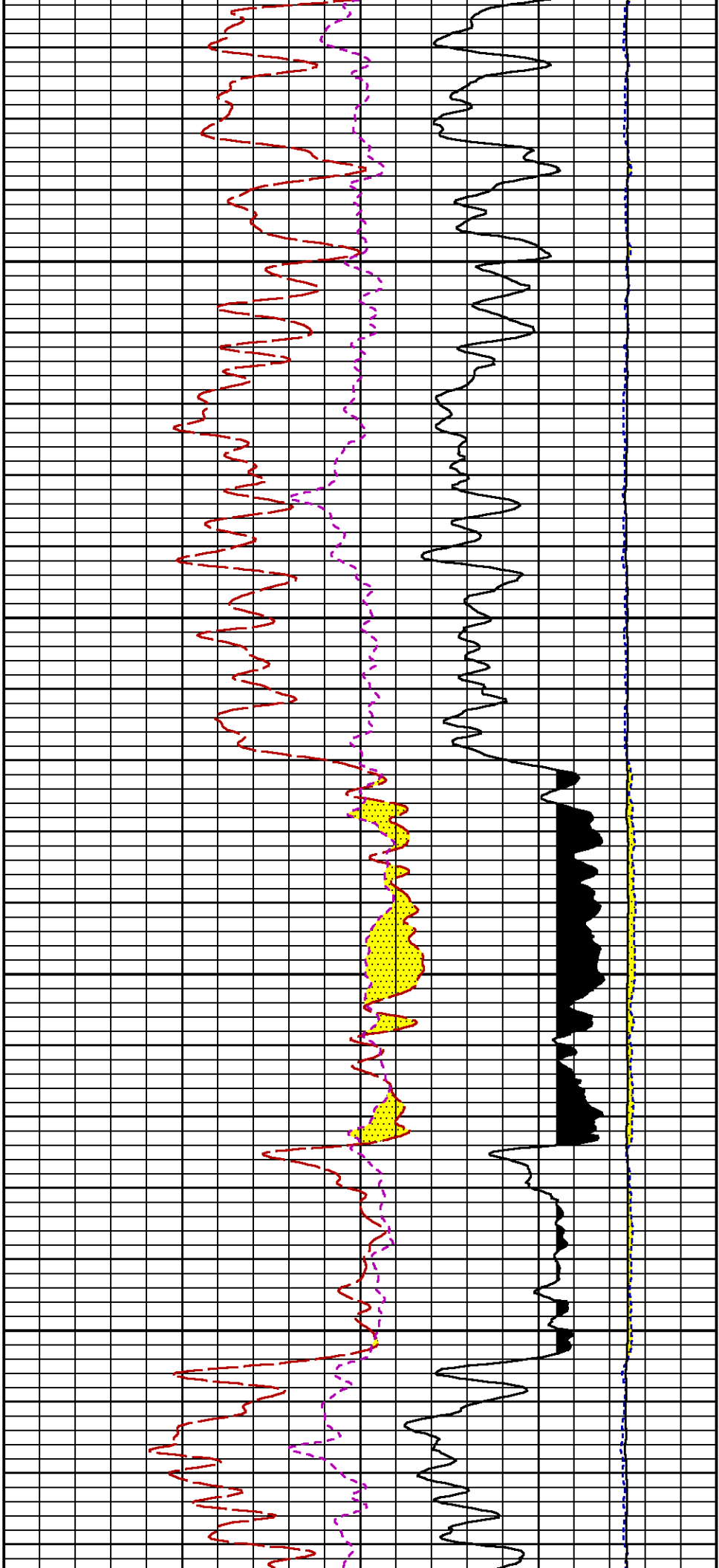


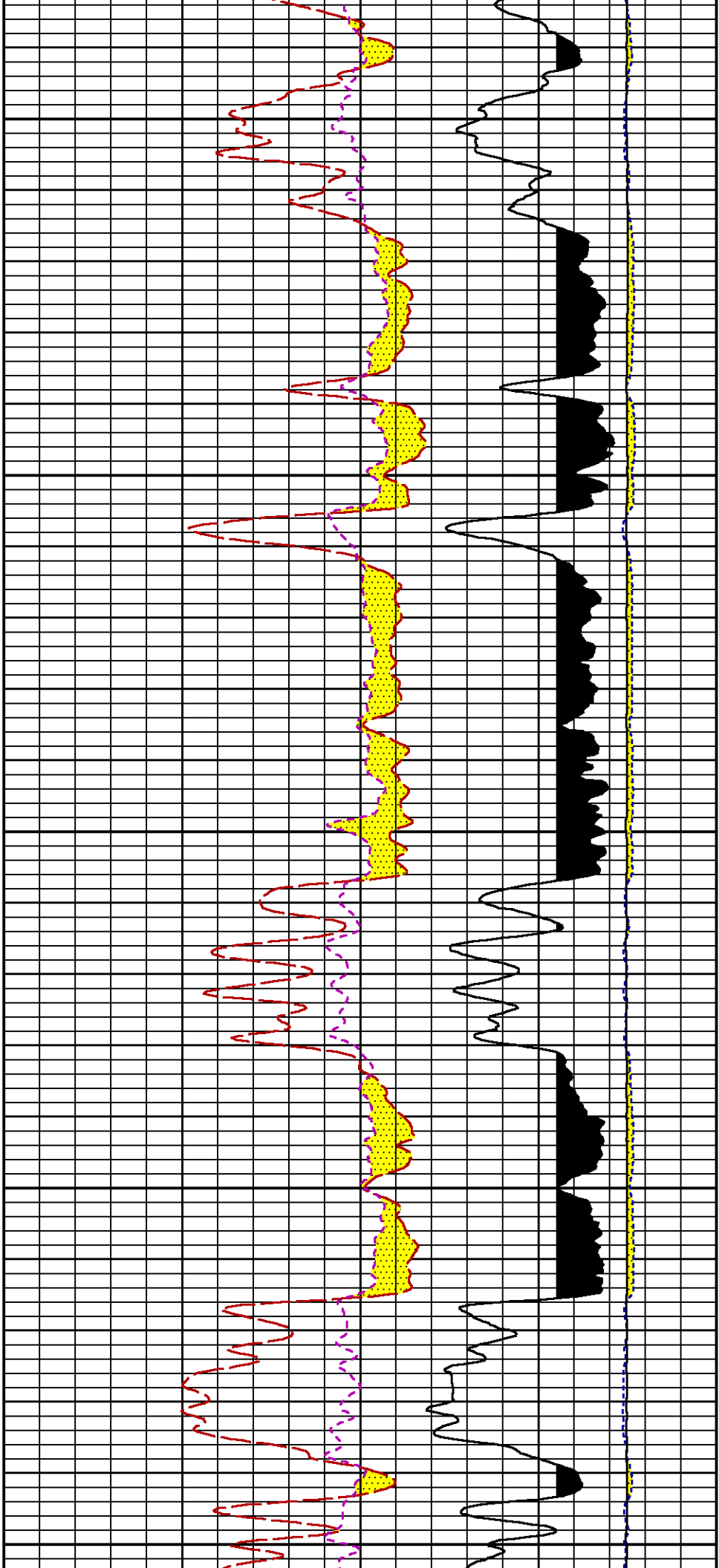








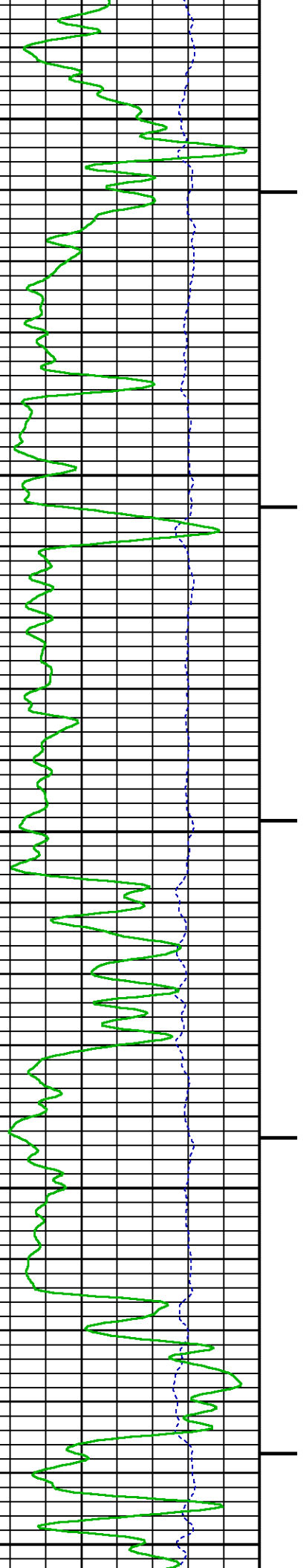


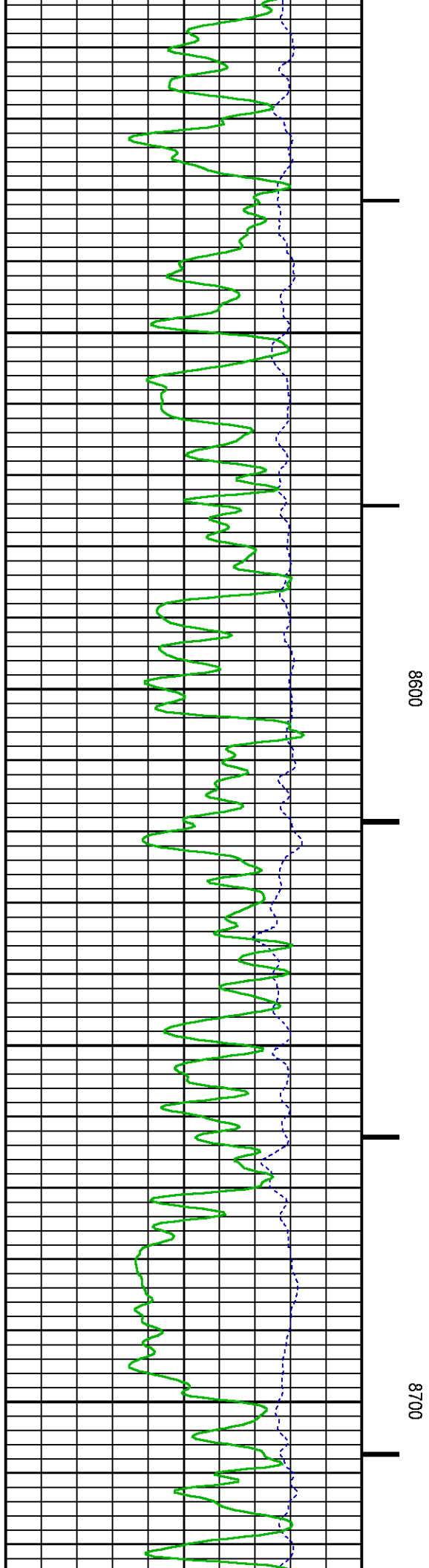
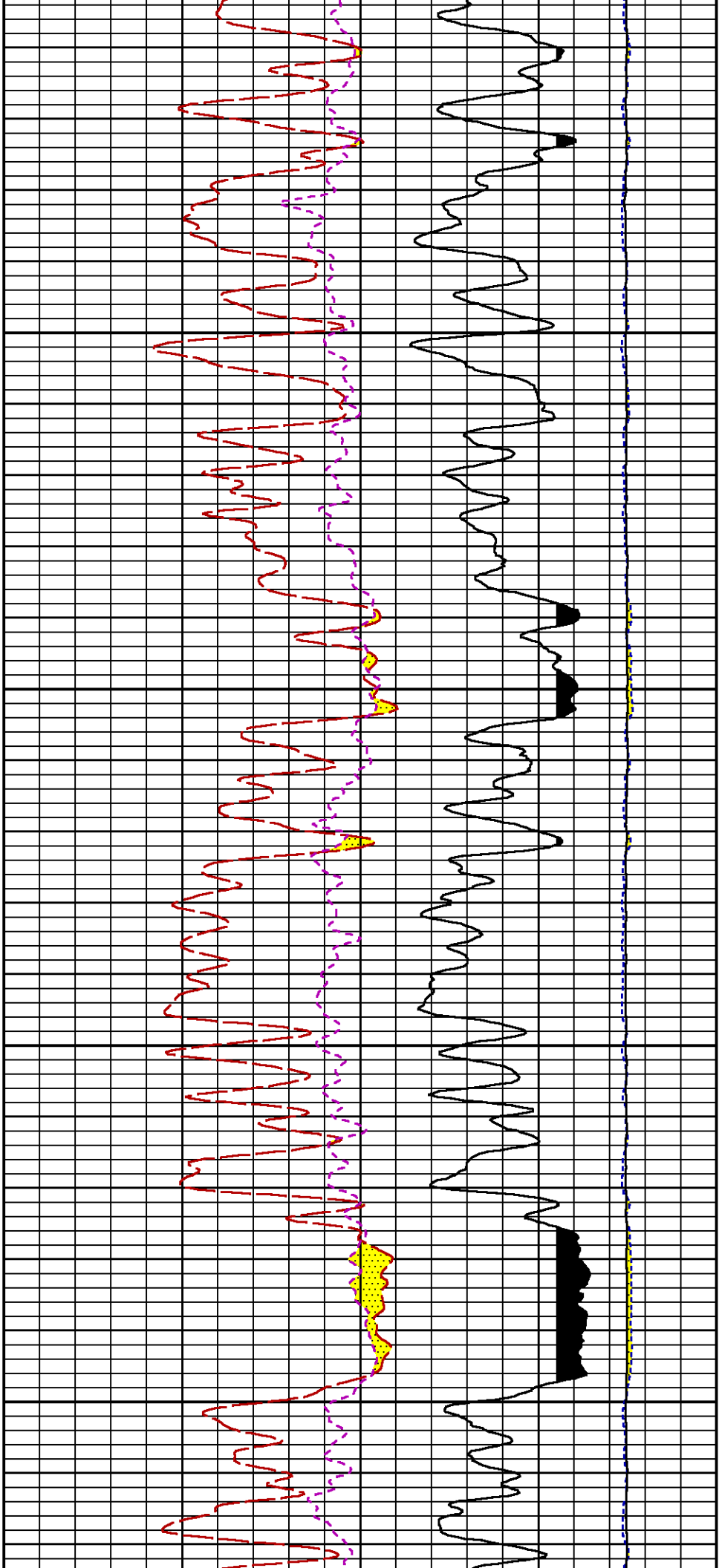


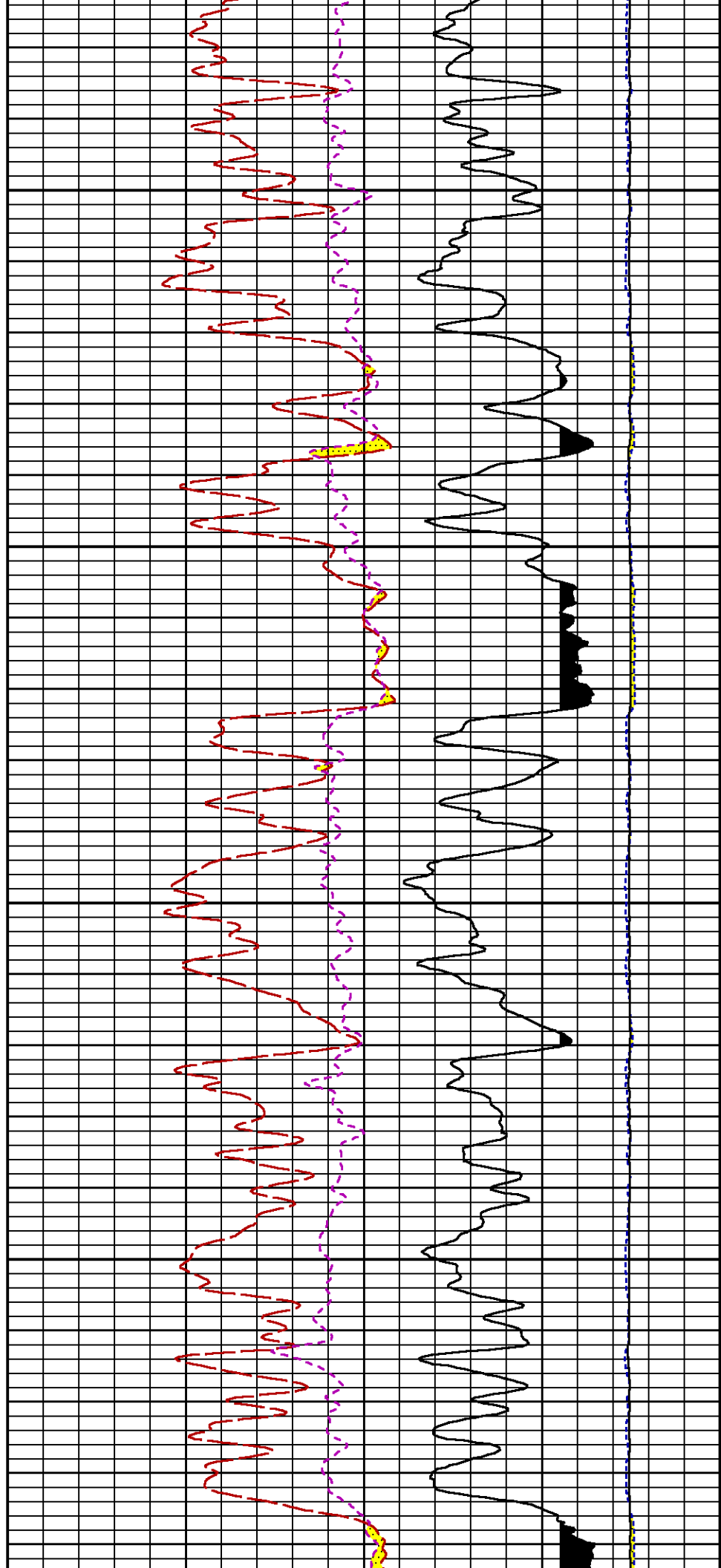
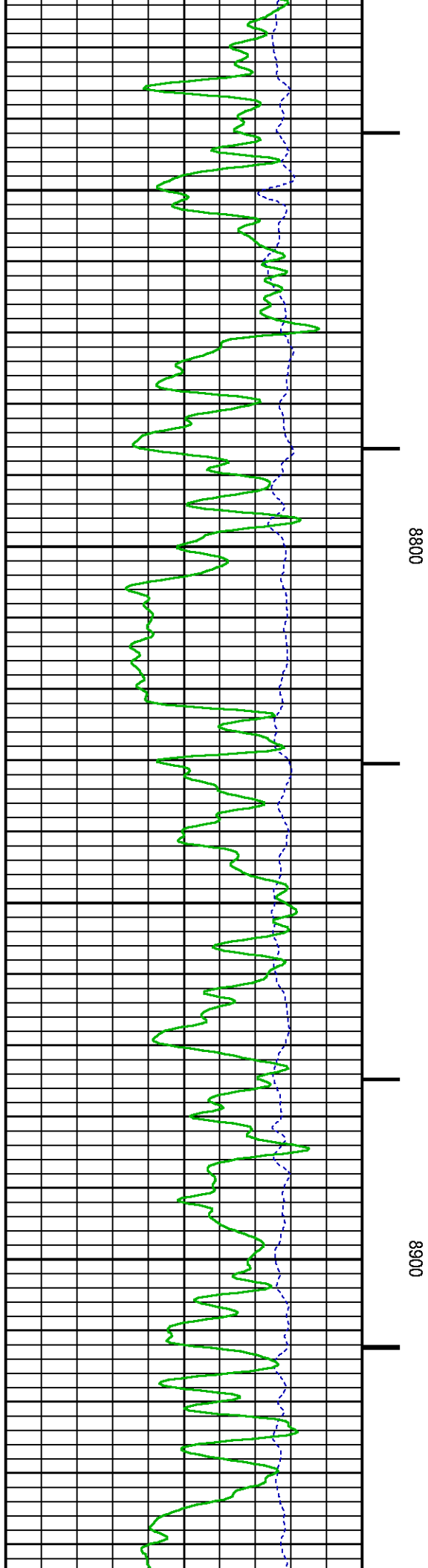
8300

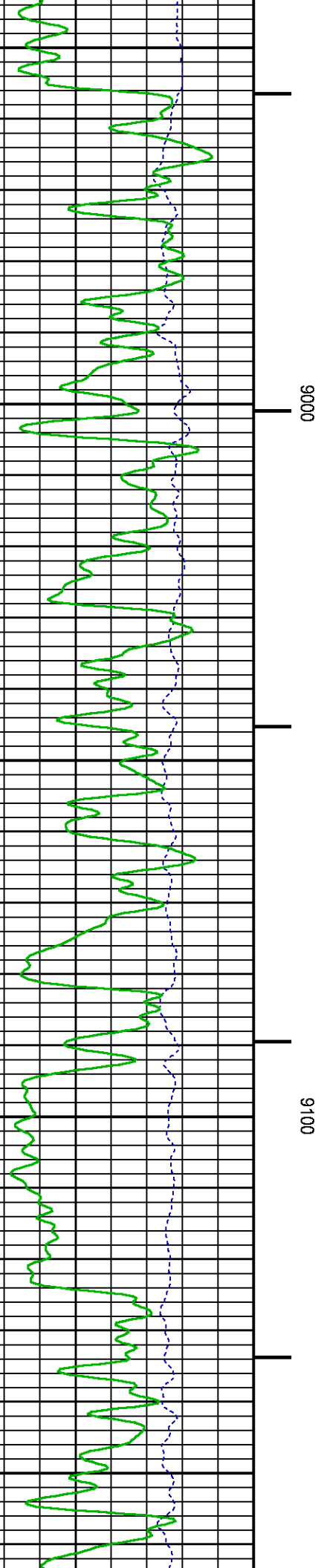
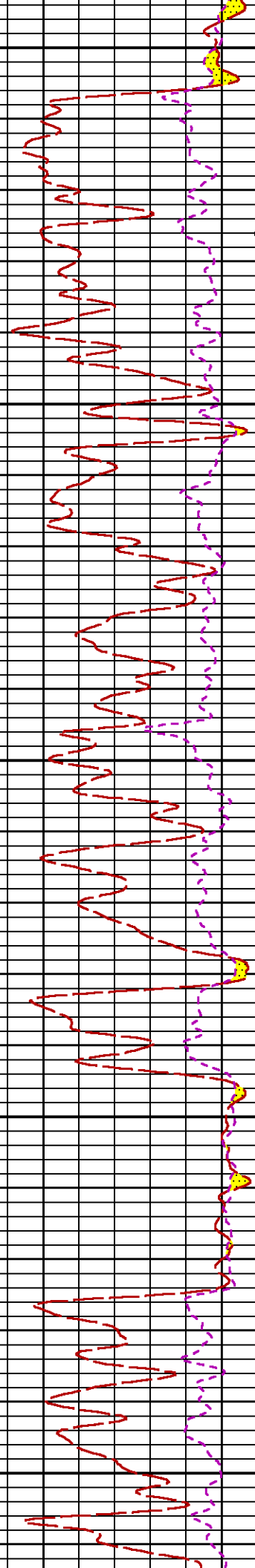
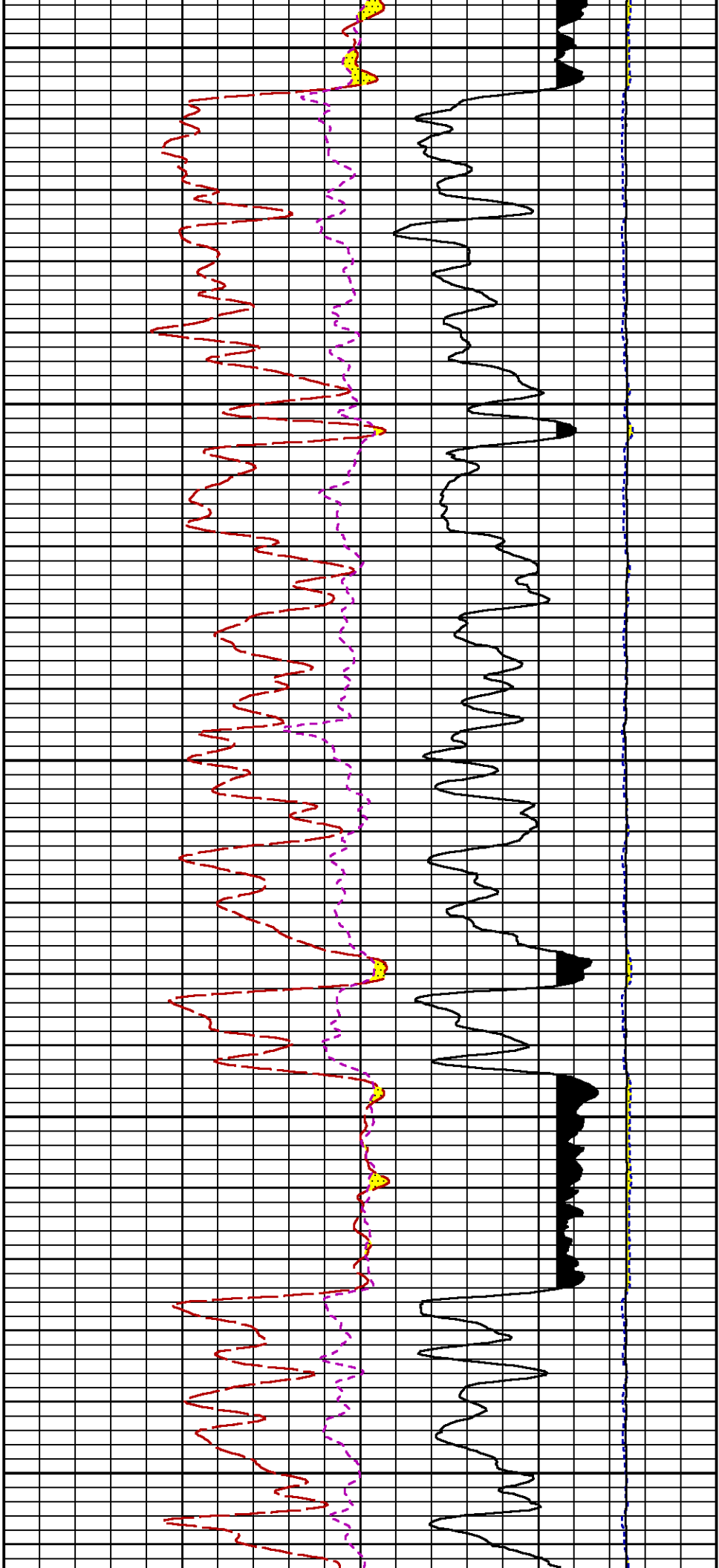
8400

8500



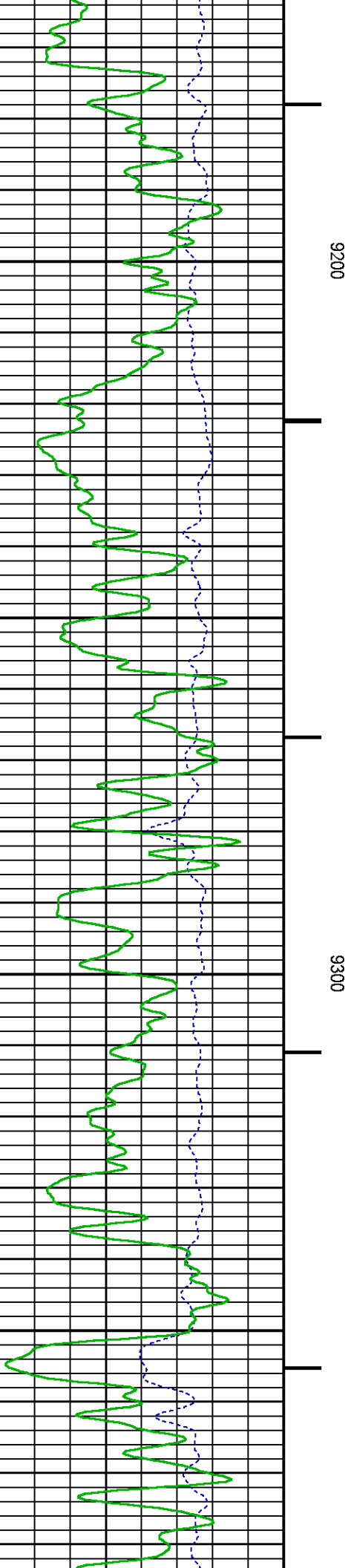
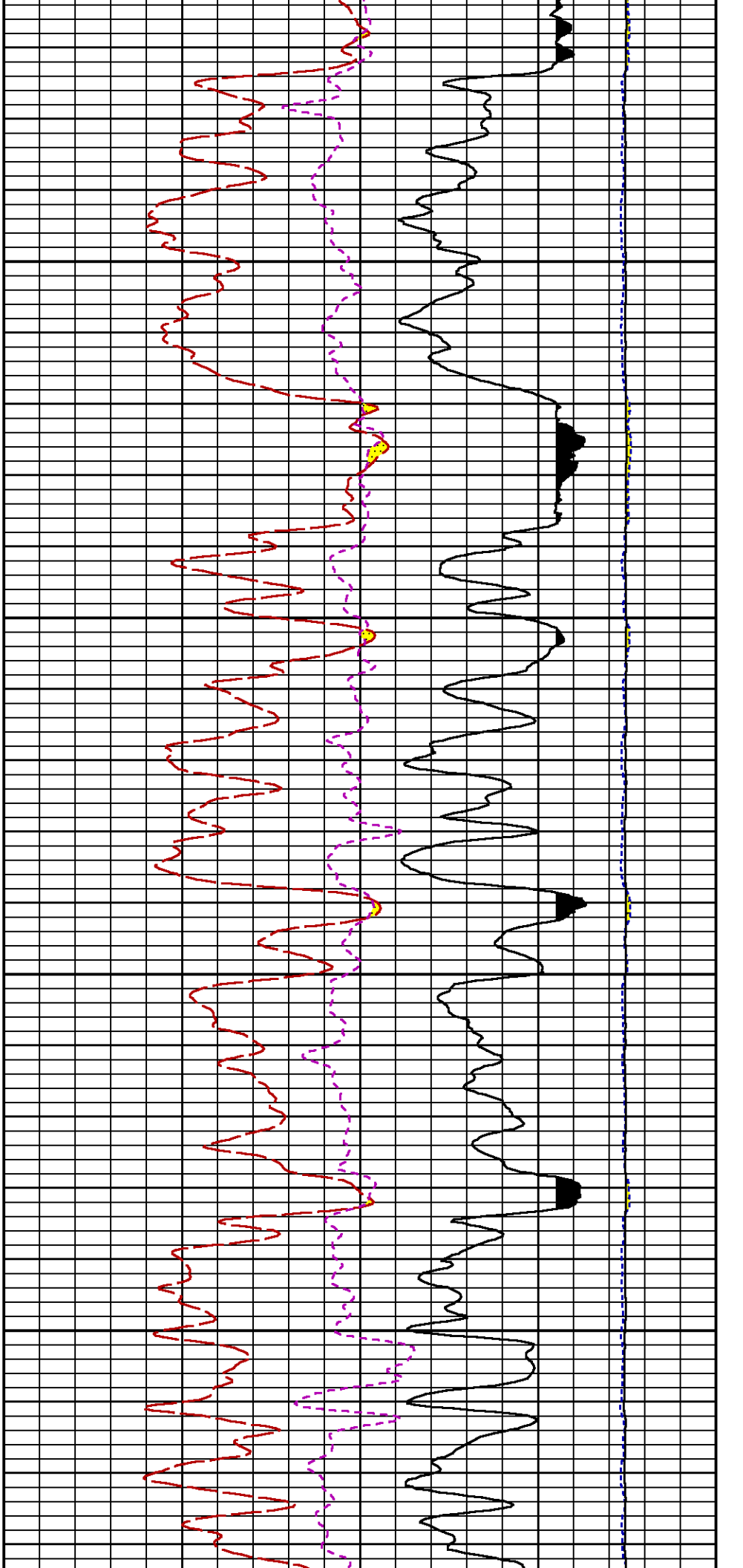


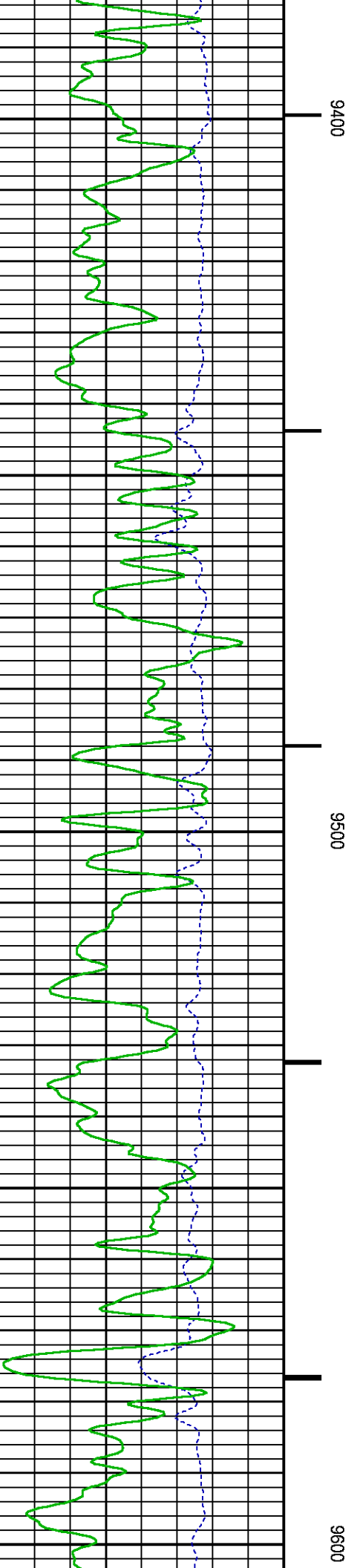
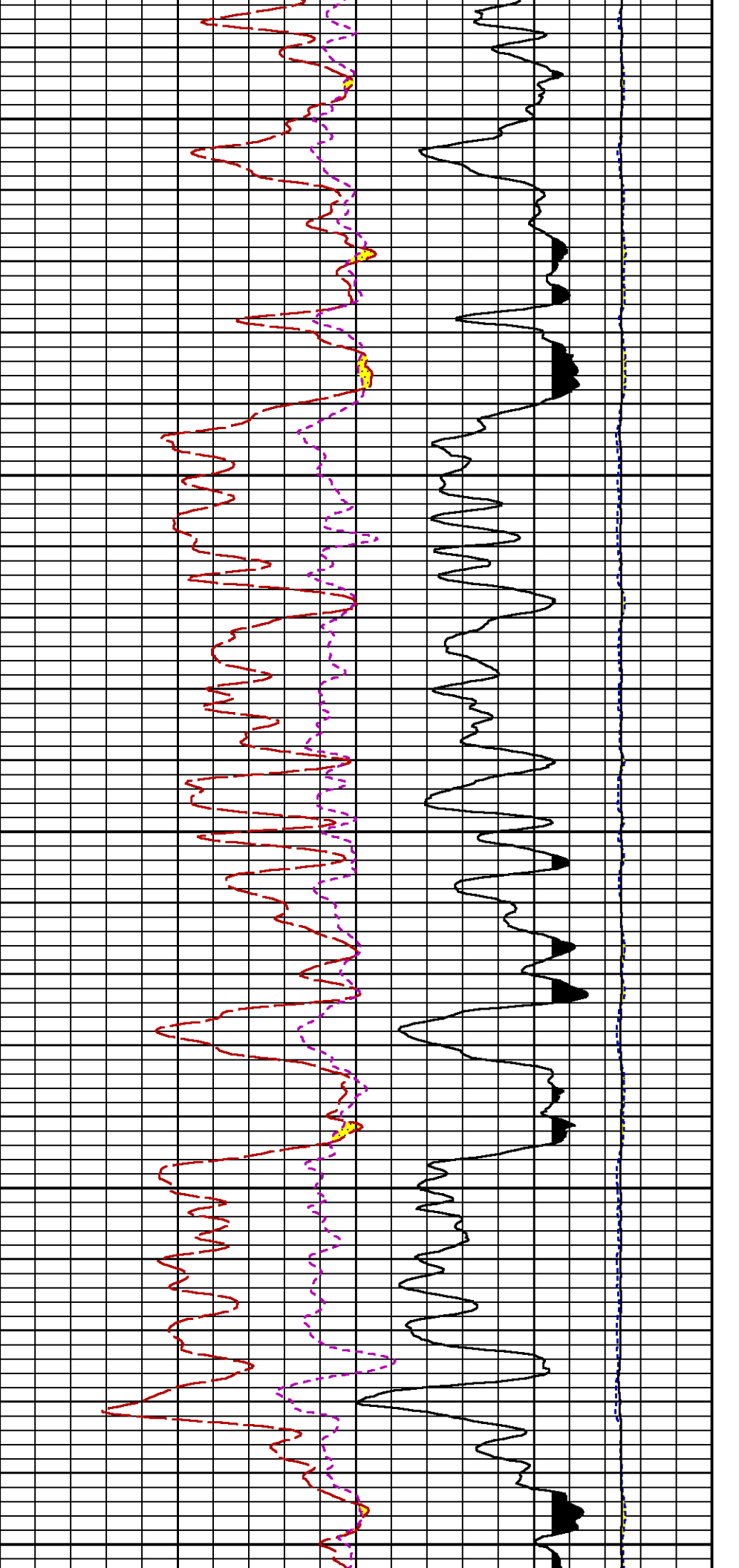


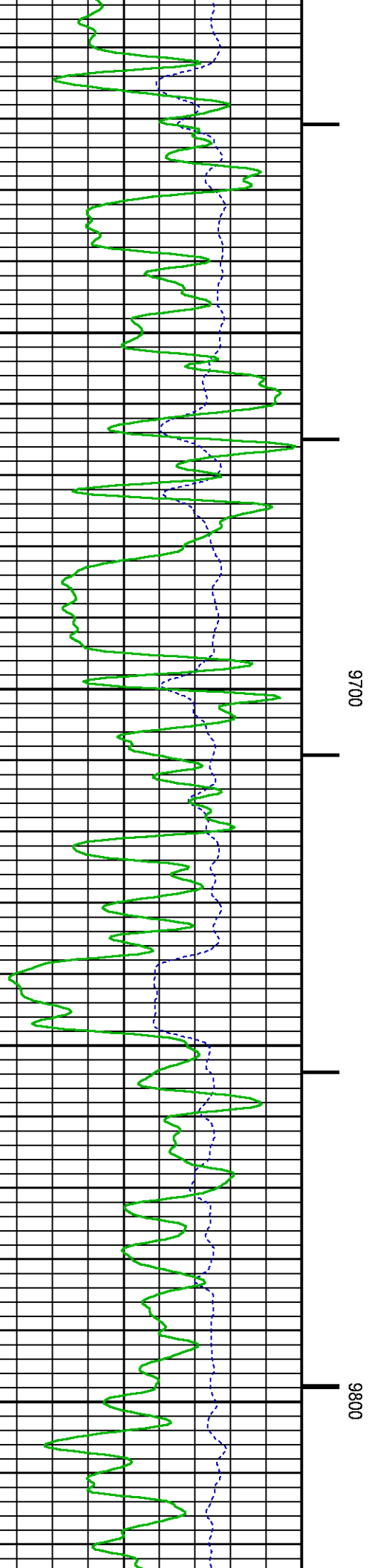
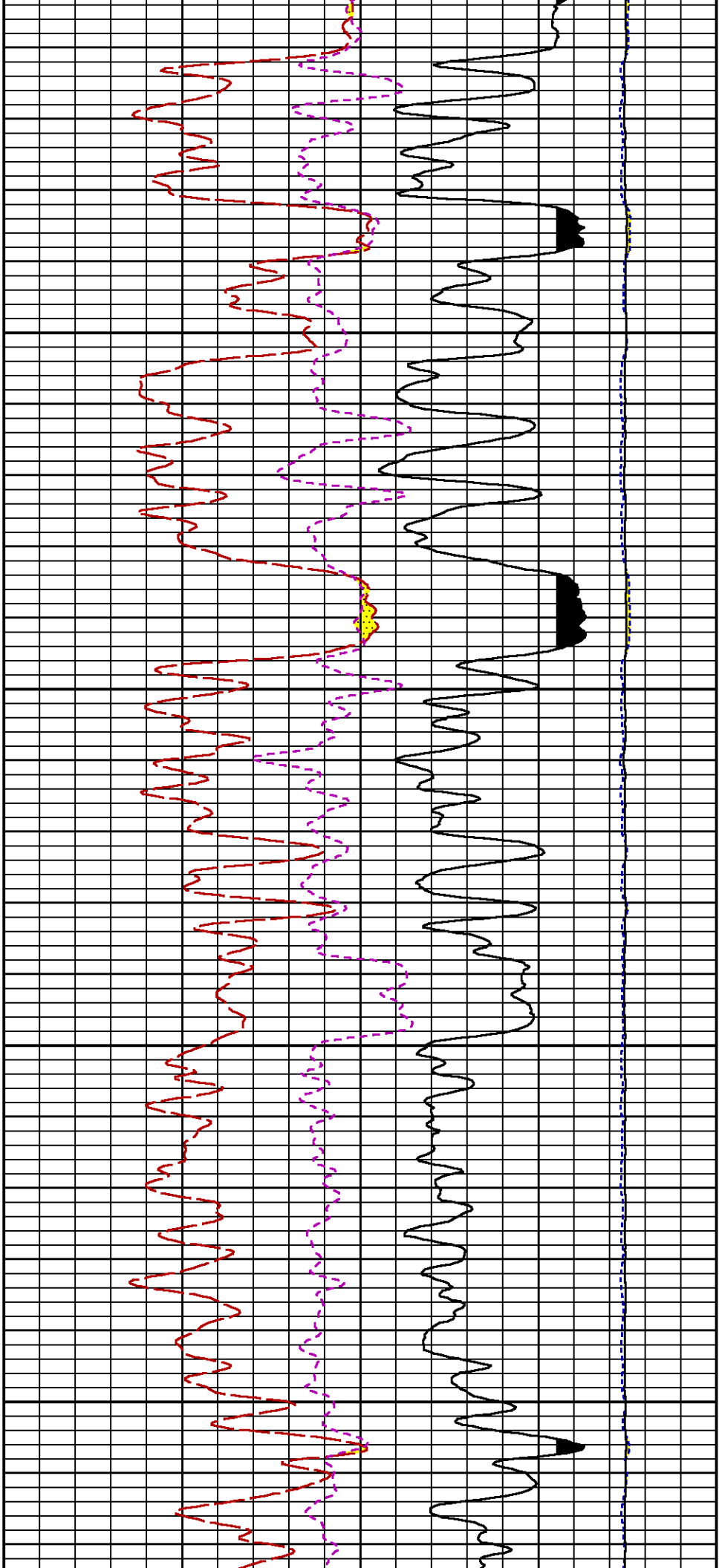


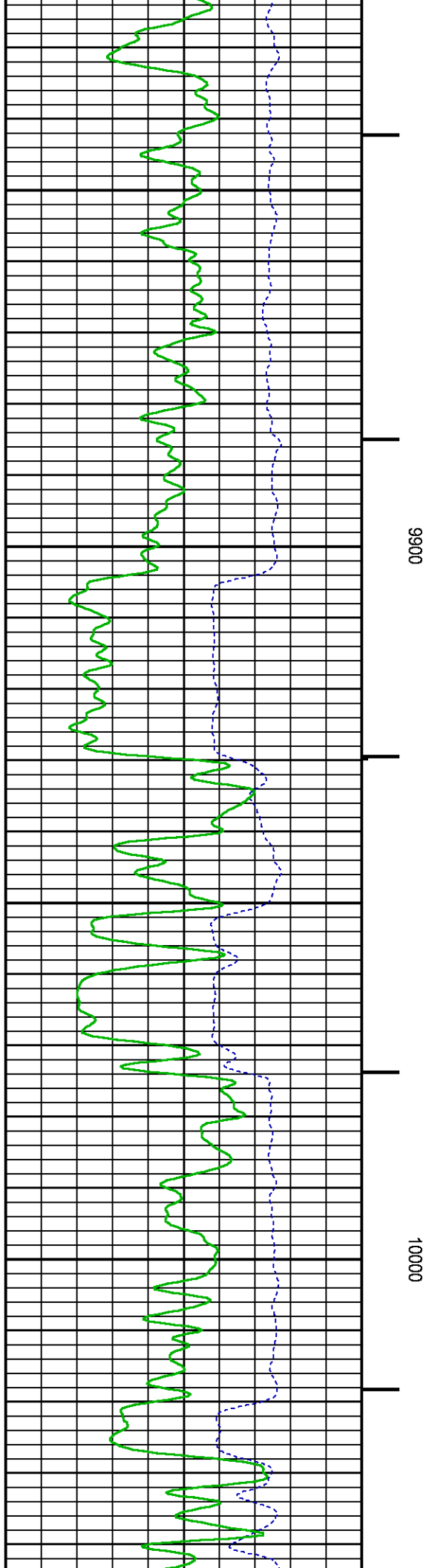
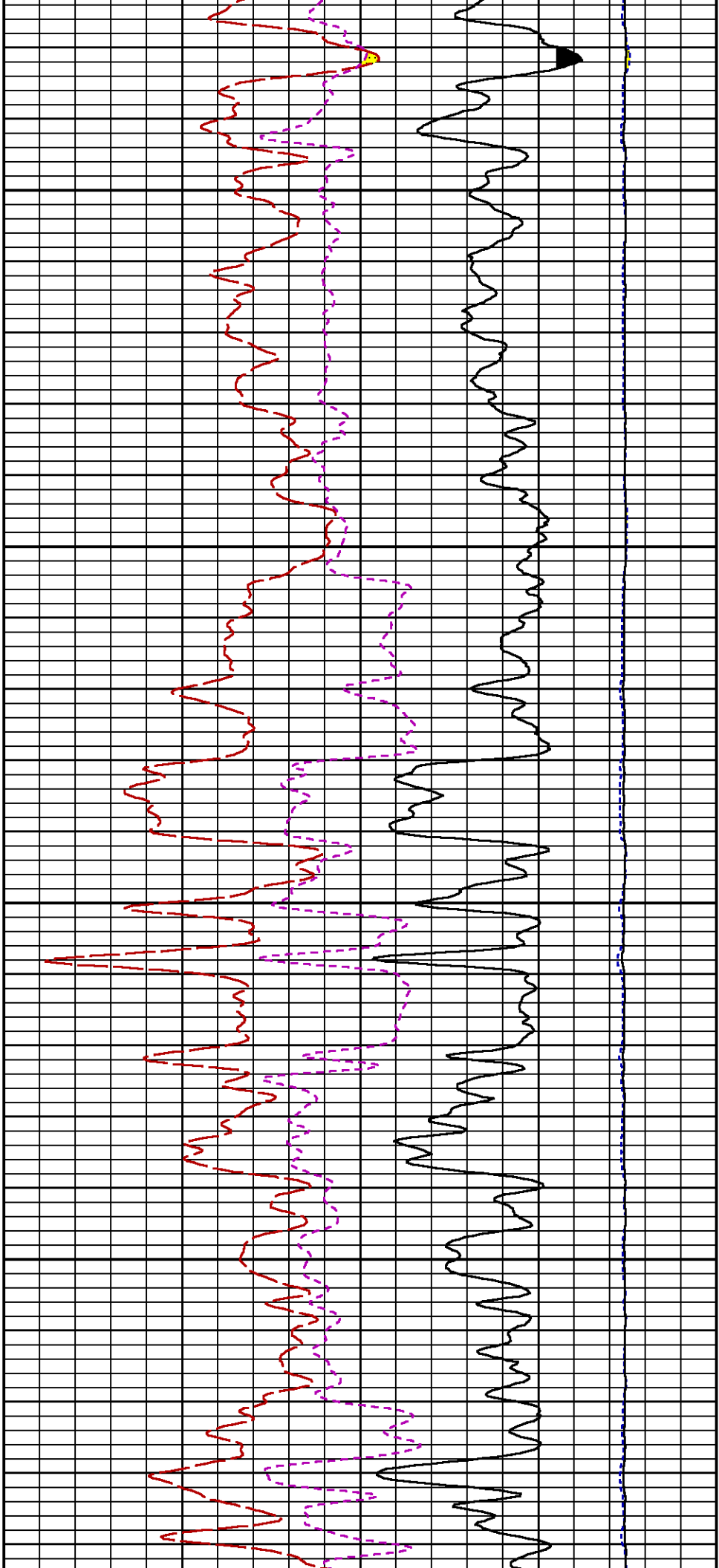
9000

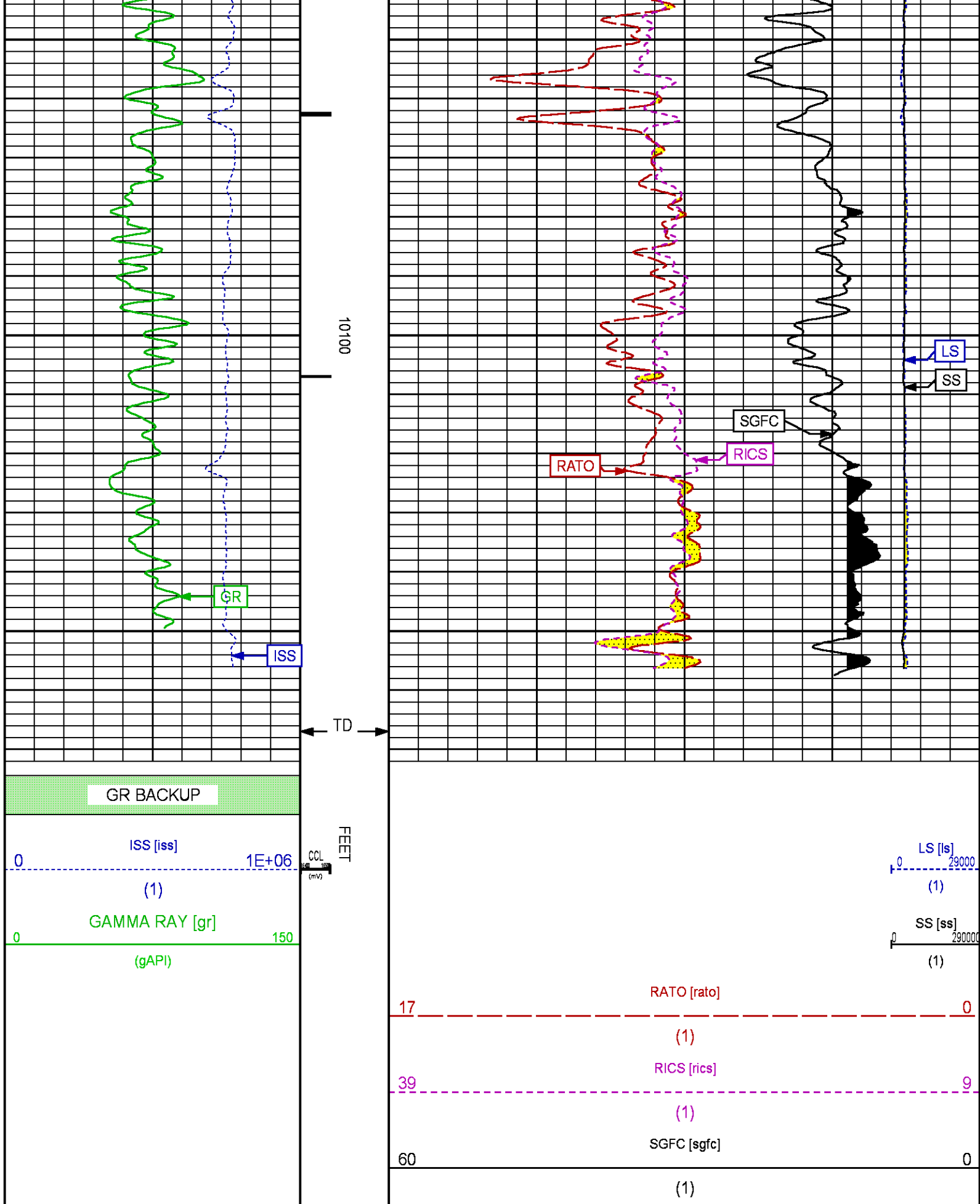
9100











REPEAT SECTION PNC-3D MODE

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

Updates: 1 Patches: 4

Plotted: Mon Feb 9 17:10:36 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH094744/n354h01.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 9360.500 ft BOTTOM DEPTH: 9685.000 ft

SYMMETRIC FILTER

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) |
|------------------|------------|------------|-------|---------------|
| GR | FILTER () | medium (1) | | TOP BOTTOM |

RPM PROCESSING

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | INTERVAL (ft) |
|------------------|-------------------|------------|-------|---------------|
| PNC Parameters | BOREHOLE CONTENTS | FLUID | | TOP BOTTOM |
| | OPEN/CASED HOLE | CASED HOLE | | " " |
| | BOREHOLE SIZE | 8.75 | in | " " |
| | CASING SIZE | 4.50 | in | " " |
| | MATRIX | SANDSTONE | | " " |
| | CORRECTION BUFFER | 11 | | " " |

CURVE DESCRIPTION REPORT

| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|---------------------|---|
| F1:CCL | Feb 9 12:33:16 2015 | CASING COLLAR LOCATOR |
| F1:GR | Feb 9 12:33:16 2015 | GAMMA RAY |
| F1:ISS | Feb 9 12:33:16 2015 | INELASTIC SHORT SPACE COUNT RATE |
| F1:LS | Feb 9 12:33:16 2015 | LONG SPACE COUNT RATE |
| F1:RATO | Feb 9 12:33:16 2015 | SHORT/LONG SPACE COUNT RATE RATIO |
| F1:RICS | Feb 9 12:33:16 2015 | SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS) |
| F1:SGFC | Feb 9 12:33:16 2015 | CORRECTED FORMATION SIGMA |
| F1:SS | Feb 9 12:33:16 2015 | SHORT SPACE COUNT RATE |

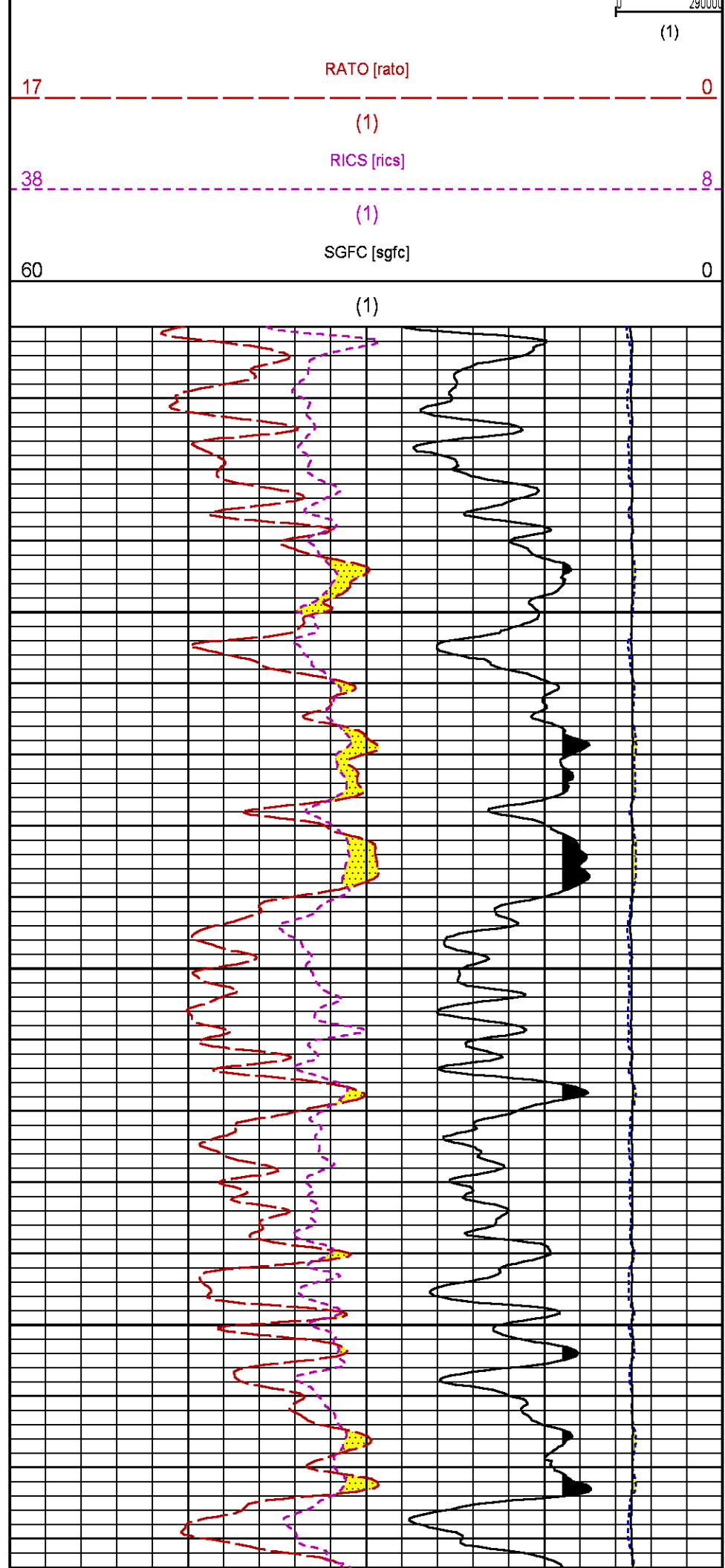
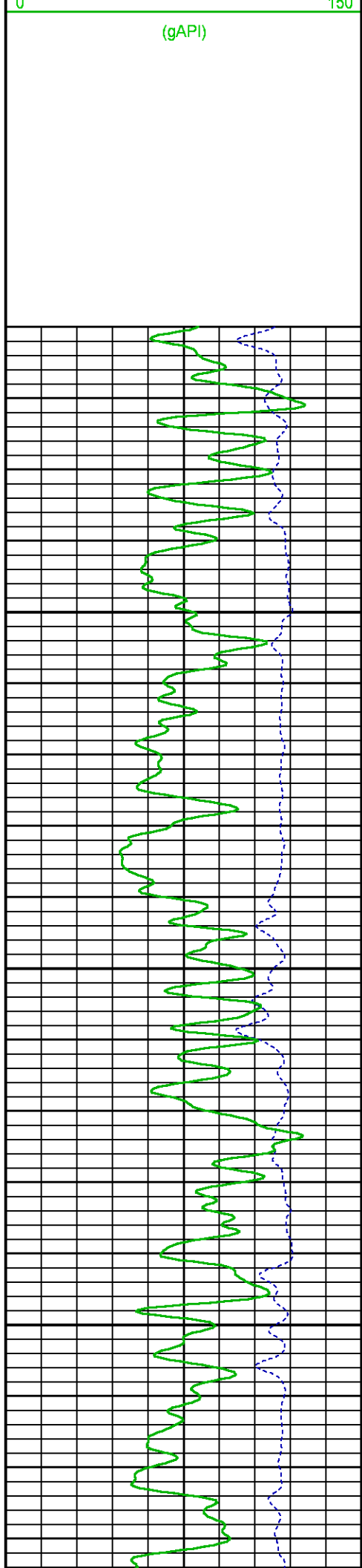
CURVE MEASURE POINT OFFSET

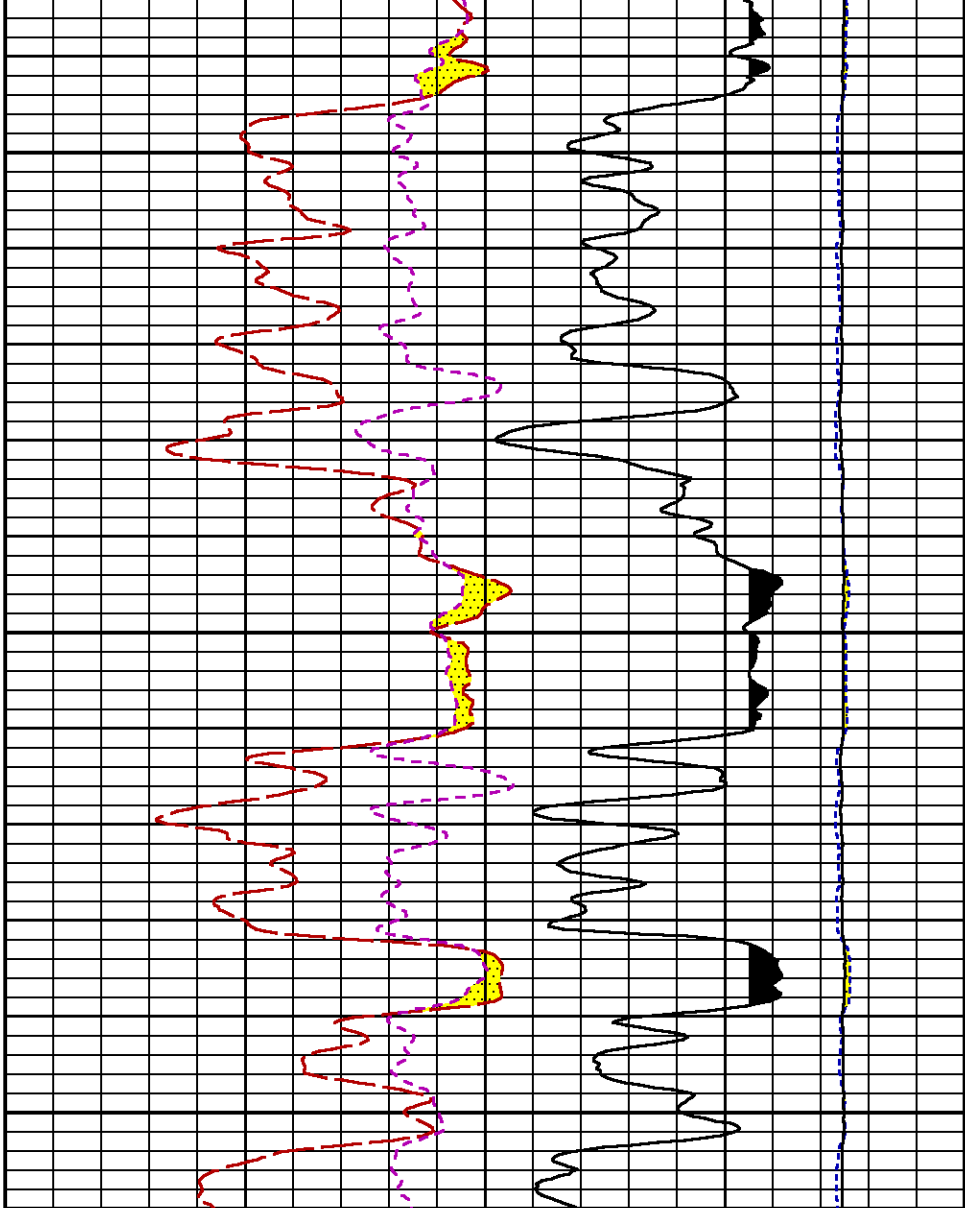
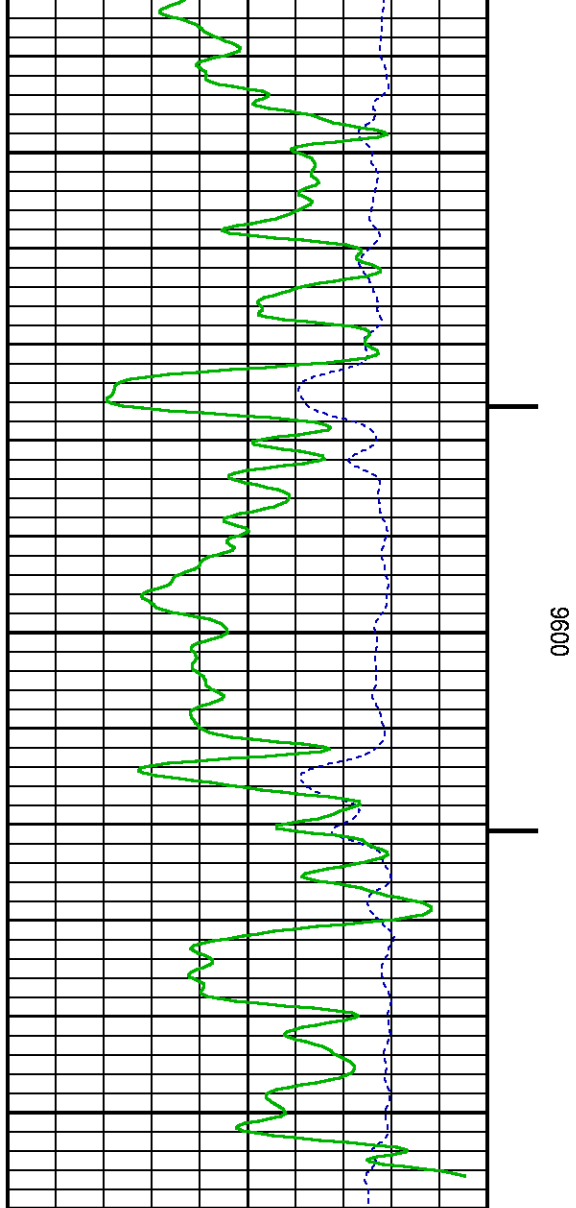
| CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) |
|-------|-------------|-------|-------------|-------|-------------|-------|-------------|
| CCL | 25.00 | ISS | 12.75 | RATO | 12.75 | SGFC | 12.75 |
| GR | 22.75 | LS | 12.75 | RICS | 12.75 | SS | 12.75 |

Presentation : HL6670:/dat1a/CH094744/331RPM_REPEAT.fvpdf [5"/100' Scale]
 Plot Interval : 9360 - 9660 Feet

Data File 1 : F1 : HL6670:/dat1a/CH094744/331RPM_REPEAT.xtf
 Created On : Feb 9 12:33:16 2015
 Company : WPX ENERGY
 Well : YOUNBERG RU 331-7
 Field : RULISON
 File Interval : 9330.75 - 9679.75 Feet
 OCT : n354h







| GR BACKUP | |
|----------------|---------|
| ISS [iss] | 0 1E+06 |
| (1) | |
| GAMMA RAY [gr] | 0 150 |
| (gAPI) | |

| | |
|-------------|----------|
| LS [ls] | 0 29000 |
| (1) | |
| SS [ss] | 0 290000 |
| (1) | |
| RATO [rato] | 17 0 |
| (1) | |
| RICS [rics] | 38 8 |
| (1) | |
| SGFC [sgfc] | 60 0 |
| (1) | |

CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH094744/n354h.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 2812LA 11701636 DATE/TIME PERFORMED: Tue Jan 27 10:08:15 2015

UNIT #: 3880TA HL6670 CALB JIG #: 4702NK DA-041

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | CR DIFF (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | CALBRTR (gAPI) |
|----|-----------------------|-----------------------|--------------------|-------|----------------------|----------------------|-------------------|
| GR | 67.64 | 269.00 | 201.4 | 1.043 | 70.55 | 280.55 | 210 |

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 2812LA 11701636 DATE/TIME PERFORMED: Tue Jan 27 10:10:48 2015

UNIT #: 3880TA HL6670 VERI JIG #: 4702NK DA-041

| | BACKGROUND (cts/s) | CALBRTR ON (cts/s) | MULT | BACKGROUND (gAPI) | CALBRTR ON (gAPI) | DIFF. (gAPI) |
|----|-----------------------|-----------------------|-------|----------------------|----------------------|------------------|
| GR | 67.49 | 265.24 | 1.043 | 70.39 | 276.63 | 206.25 |
| | | | | | | 200.00 220.00 |

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10169251 DATE/TIME PERFORMED: Tue Jan 27 10:04:14 2015

UNIT: 3880TA HL6670 CALIBRATOR: 2437XB 112674 SOURCE: 8281AA 10220684 HOURS: 8281AA 268

| | ISS | Mtr Vits (V) | SS Gain | LS Gain | XLS Gain | EA Temp (degF) | Sync Delay (usec) | RCAL |
|--------------|---------|-----------------|---------|---------|----------|-------------------|----------------------|--------|
| Raw Data | 803394 | 122 | 2321 | 2309 | 2329 | 93 | 7 | 0.9803 |
| Interpolated | 1300000 | 146 | 2297 | 2301 | 2324 | | | |

| | ISS | BKS | BKL | BKX | SGA1 | SDA1 | SGA2 | SDA2 |
|----------|--------|------|------|-----|----------------|--------------|----------------|--------------|
| Raw Data | 803394 | 7751 | 1281 | 156 | 26.03 | 0.15 | 24.25 | 0.33 |
| | | | | | 25.35 26.40 | 0.00 0.20 | 23.60 24.80 | 0.00 0.40 |

| | ISS | ILS | IXS | SS | SS2 | LS | CSS | CLS |
|---------------|--------|--------|-------|-------|-------|-------|-------|-------|
| Raw Data | 803394 | 169527 | 26361 | 88858 | 31643 | 8252 | 53759 | 13211 |
| Fit Quality % | | 1.273 | 1.202 | 1.268 | 1.285 | 1.237 | 1.182 | 1.269 |

| | ISS | RBOR | RIN ISS/ILS | RIN13 ISS/IXS | RICS ISS/CSS | RATO SS/LS | RTWO SS2/LS | RONE CSS/CLS |
|---------------|---------|--------------|----------------|------------------|-----------------|----------------|----------------|-----------------|
| Raw Data | 803394 | 1.43 | 4.74 | 30.49 | 14.95 | 10.77 | 3.84 | 4.07 |
| | | 1.42 1.45 | 3.55 5.52 | 22.20 32.70 | 10.99 16.34 | 10.06 11.10 | 3.57 3.95 | 3.76 4.22 |
| Fit Quality % | | 0.044 | 0.072 | 0.089 | 0.025 | 0.185 | 0.202 | 0.178 |
| Reduced | 1409820 | 1.43 | 4.74 | 30.55 | 14.96 | 10.74 | 3.82 | 4.06 |
| | | 1.42 1.45 | 4.33 5.52 | 27.60 32.70 | 13.70 16.34 | 10.06 11.10 | 3.57 3.95 | 3.76 4.22 |

TPSETEMP PRIMARY CALIBRATION SUMMARY

TOOL #: 8255XA 11774568 DATE/TIME PERFORMED: Wed May 14 12:39:45 2014

UNIT #: 3880TA HL6670

| | T(0) | T(1) | T(2) | T(3) |
|---------------------|---------------|--------------|--------------|---------------|
| Corr Coeff for Temp | -9.274653E+00 | 1.055639E-01 | 2.143764E-06 | -2.782846E-10 |

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH094744/RPM-tdg

A3 CABLEHEAD

Diameter : 1.37"

PCM POWER SUPPLY

Diameter : 1.70"
Length : 3.86'
Weight : 18 lbs
Series : 8250EA
Mnemonic : PCM

TELEMETRY / CCL

Diameter : 1.70"
Length : 4.46'
Weight : 20 lbs
Series : 8248ED
Mnemonic : PCM
Measure Point: 1.00': CCL MP

SONDEX GAMMA RAY

Diameter : 1.69"
Length : 2.17'
Weight : 10 lbs
Series : 2812LA
Mnemonic : GR
Measure Point: 0.62': GR MP

RPM ELECTRONICS

Diameter : 1.70"
Length : 4.48'
Weight : 16 lbs
Series : 8281EA
Mnemonic : RPM

RPM C DETECTOR SECTION

Diameter : 1.70"
Length : 9.40'
Weight : 41 lbs
Series : 8283PA

33.24'

CCL MP 25.19'

GR MP 22.64'

XLS DETECTOR 13.58'
LS DETECTOR 13.16'
SS DETECTOR 12.91'

Mnemonic : RPM
Measure Point: 5.45': XLS DETECTOR
Measure Point: 5.04': LS DETECTOR
Measure Point: 4.79': SS DETECTOR

RPM SOURCE SECTION

Diameter : 1.70"
Length : 4.70'
Weight : 18 lbs
Series : 8281FA
Mnemonic : RPM

TEMPERATURE / PRESSURE


Diameter : 1.70"
Length : 3.30'
Weight : 13 lbs
Series : 8255XA
Mnemonic : SRPL
Measure Point: 1.52': TEMP MP

TEMP MP
PRES MP 1.65'

BULL PLUG 1 11/16

0.00'

TOTAL LENGTH: 33.24'
TOTAL WEIGHT: 140 lbs
MAX DIAMETER: 0'1.70"

| | | | |
|--|------------------------------|--------------------------------|---------------------------------------|
|  | COMPANY <u>WPX ENERGY</u> | | FILE NO: |
| | WELL <u>YOUBERG RU 331-7</u> | | <u>CH094744</u> |
| | FIELD <u>RULISON</u> | | API NO: |
| | COUNTY <u>GARFIELD</u> | STATE <u>CO</u> | <u>05045223490000</u> |
| LOCATION: | | ELEVATIONS: | 7 7S 93W RU 42-7 PAD NABORS 574 |
| SHL: 2448' FNL & 389' FEL BHL: 378' FNL & 1616' FEL | | KB 7763 FT DF GL 7737 FT | |
| SEC <u>7</u> | TWP <u>7S</u> | RGE <u>93W</u> | DATE <u>09-Feb-2015</u> |

