



| | |
|---|---|
| FILE NO: CH096702 | COMPANY WPX ENERGY |
| WELL FEDERAL RGU 343-26-198 | |
| API NO: 05103119670000 | FIELD SULPHUR CREEK |
| | COUNTY STATE |
| Ver. 4.01 SEC 26 T1S R98W RGU 42-26-198 H&P 318 | LOCATION: SHL: 2448' FNL 910' FEL BHL: 2577' FSL 1229' FEL SEC 26 TWP 1S RGE 98W |
| PERMANENT DATUM LOG MEASURED FROM DRILL. MEAS. FROM | OTHER SERVICES CBL ELEVATIONS: KB 6646 FT DF GL 6622 FT |
| GL ELEVATION 6622 FT KB 24 FT ABOVE P.D. KB | |

| | | | |
|------------------------|-----------------------|------|-----------|
| DATE | 23-May-2015 | | |
| RUN | TRIP | 1 | 1 |
| SERVICE ORDER | US096702J | | |
| DEPTH DRILLER | 12469 FT | | |
| DEPTH LOGGER | 12419 FT | | |
| BOTTOM LOGGED INTERVAL | 12409 FT | | |
| TOP LOGGED INTERVAL | 0 FT | | |
| TIME STARTED | 13:00 | | |
| TIME FINISHED | 22:45 | | |
| OPERATOR RIG TIME | 9:45 | | |
| TYPE OF FLUID IN HOLE | WATER | | |
| FLUID DENSITY | NA | | |
| FLUID SALINITY | NA | | |
| FLUID LEVEL | 184 FT | | |
| LOGGED CEMENT TOP | NA | | |
| WELLHEAD PRESSURE | 0 PSI | | |
| MAXIMUM HOLE DEVIATION | NA | | |
| NOMINAL LOGGING SPEED | 10 F/MN | | |
| MAX. RECORDED TEMP. | 276 DEGF | | |
| REFERENCE LOG | BAKER HUGHES BOND LOG | | |
| REFERENCE LOG DATE | 23-MAY-2015 | | |
| EQUIP. NO. | LOCATION | 6685 | GRAND JCT |
| RECORDED BY | W. QUIGLEY | | |
| WITNESSED BY | MR. COLT STEWART | | |

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 |
| | | |

| CASING RECORD | | | | |
|---------------|-----------|-------|------|----------|
| SIZE | WEIGHT | GRADE | FROM | TO |
| 4.5 IN | 11.6 LB/F | | 0 FT | 12469 FT |

REMARKS

RUN 1 TRIP 1: ALL DATA ON THIS LOG IS CORRELATED TO THE GAMMA RAY CURVE ON BAKER HUGHES BOND LOG DATED 23-MAY-2015

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

BHT = 276 degF

SJ = 7212'-7234'

THANK YOU FOR CHOOSING BAKER HUGHES WIRELINE SERVICES
CREW: HOLLAR/FLEMING/QUIGLEY
RIG: H&P 318

| EQUIPMENT DATA | | | | | |
|----------------|------|---------|------------|------------|----------|
| RUN | TRIP | TOOL | SERIES NO. | SERIAL NO. | POSITION |
| 1 | 1 | PCM | 8250EA | 15100 | FREE |
| 1 | 1 | TEL/CCL | 8248EA | 150623 | FREE |
| 1 | 1 | GR | 8262XA | 10317216 | FREE |
| 1 | 1 | RPM | 8281EA | 10273848 | FREE |
| 1 | 1 | RPM | 8283PA | 10169251 | FREE |
| 1 | 1 | RPM | 8281FA | 10191667 | FREE |
| 1 | 1 | TEMP | 8255XA | 176973 | 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: 7

Plotted: Sat May 23 22:25:24 2015

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH096702/n353a02.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 11207.000 ft BOTTOM DEPTH: 12433.000 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 | 7.88 | in | " | " |
| | CASING SIZE | 4.50 | in | " | " |
| | MATRIX | SANDSTONE | | " | " |
| | CORRECTION BUFFER | 11 | | " | " |

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH096702/n353a03.prm
 LOGGING MODE: DEPTH DIRECTION: UP
 TOP DEPTH: 6997.250 ft BOTTOM DEPTH: 11322.000 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 | 7.88 | in | " | " |
| | CASING SIZE | 4.50 | in | " | " |
| | MATRIX | SANDSTONE | | " | " |
| | CORRECTION BUFFER | 11 | | " | " |

CURVE DESCRIPTION REPORT

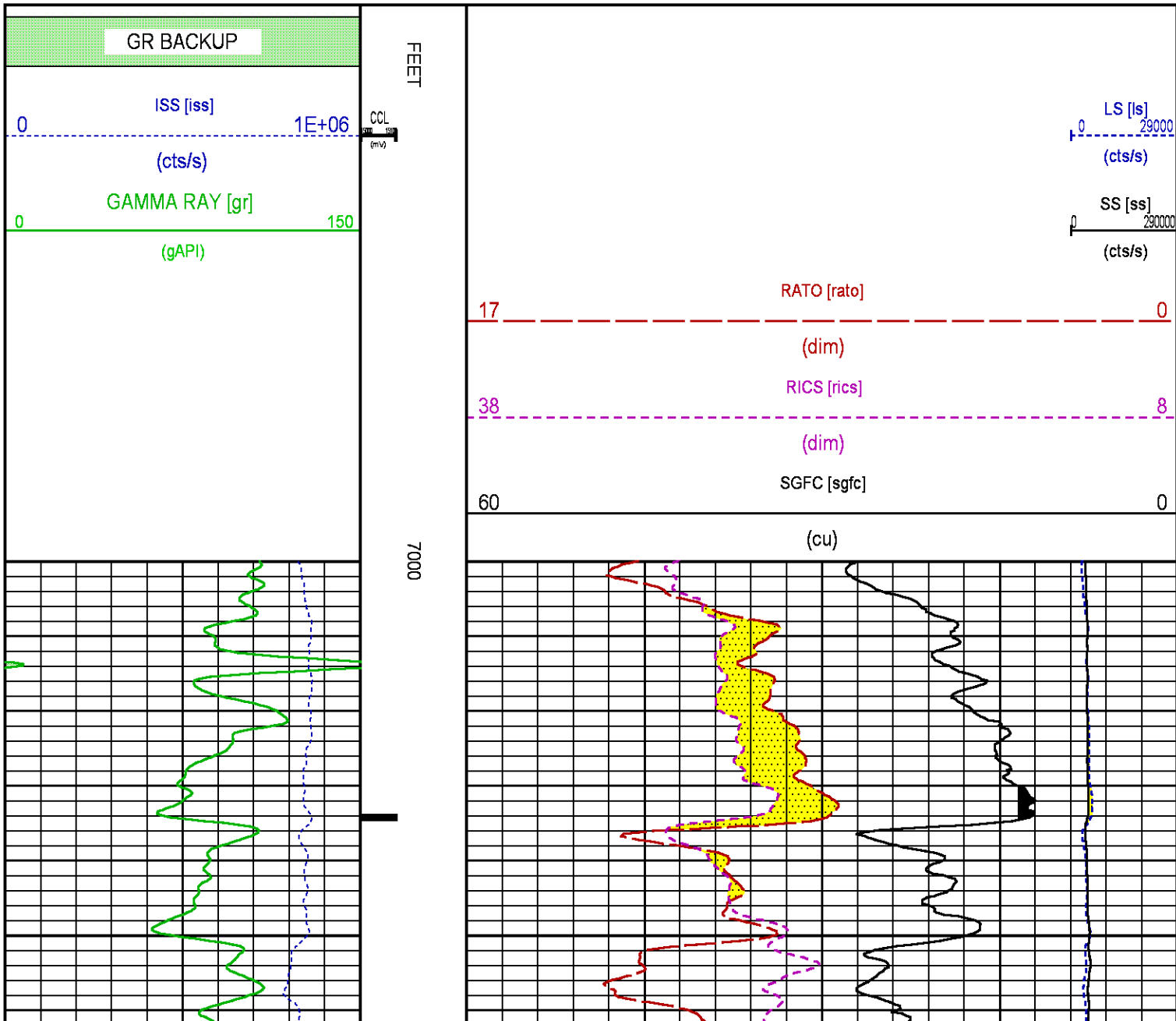
| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|----------------------|---|
| F1:CCL | May 23 17:42:09 2015 | CASING COLLAR LOCATOR |
| F1:GR | May 23 17:42:09 2015 | GAMMA RAY |
| F1:ISS | May 23 17:42:09 2015 | INELASTIC SHORT SPACE COUNT RATE |
| F1:LS | May 23 17:42:09 2015 | LONG SPACE COUNT RATE |
| F1:RATO | May 23 17:42:09 2015 | SHORT/LONG SPACE COUNT RATE RATIO |
| F1:RICS | May 23 17:42:09 2015 | SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS) |
| F1:SGFC | May 23 17:42:09 2015 | CORRECTED FORMATION SIGMA |
| F1:SS | May 23 17:42:09 2015 | SHORT SPACE COUNT RATE |

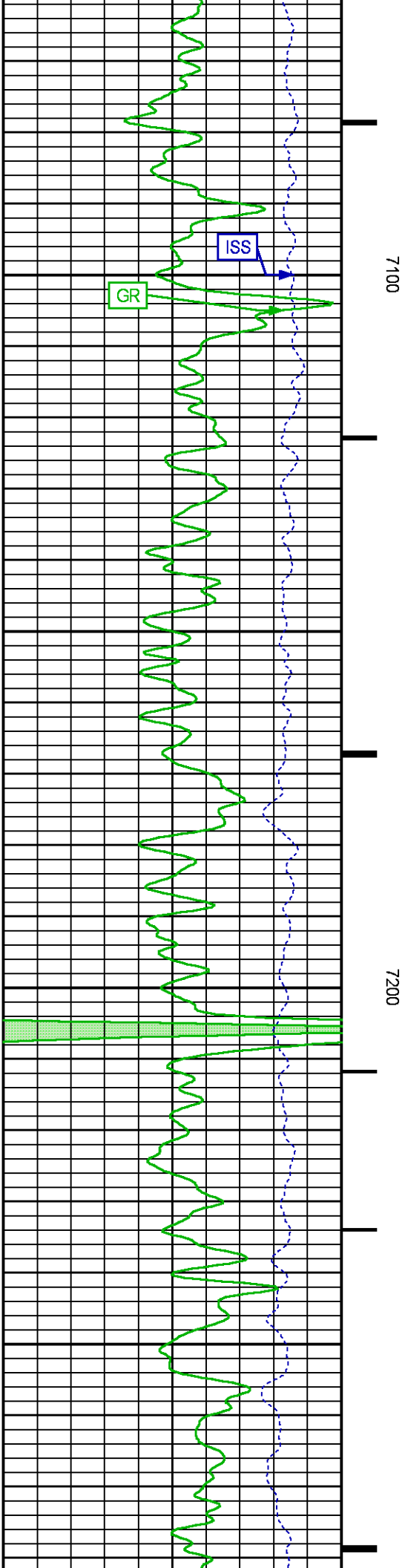
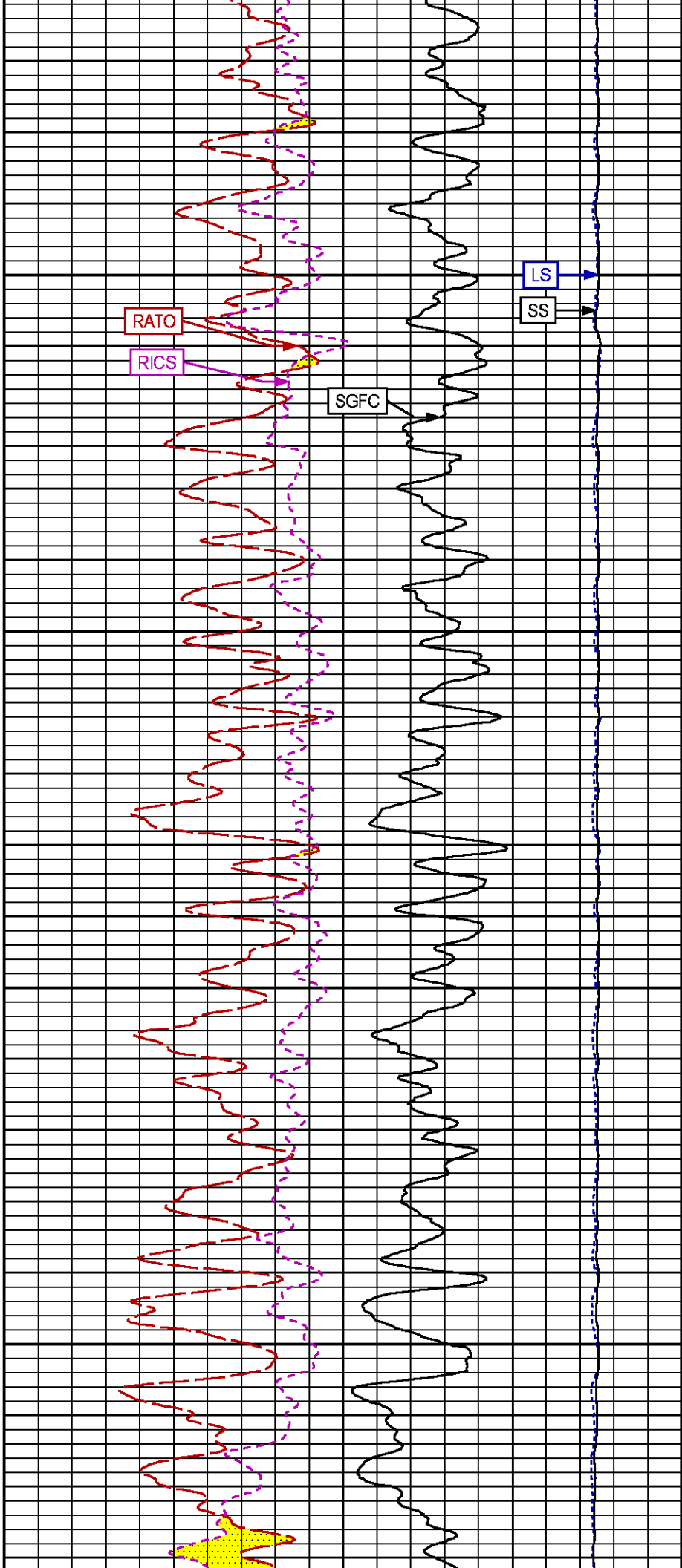
CURVE MEASURE POINT OFFSET

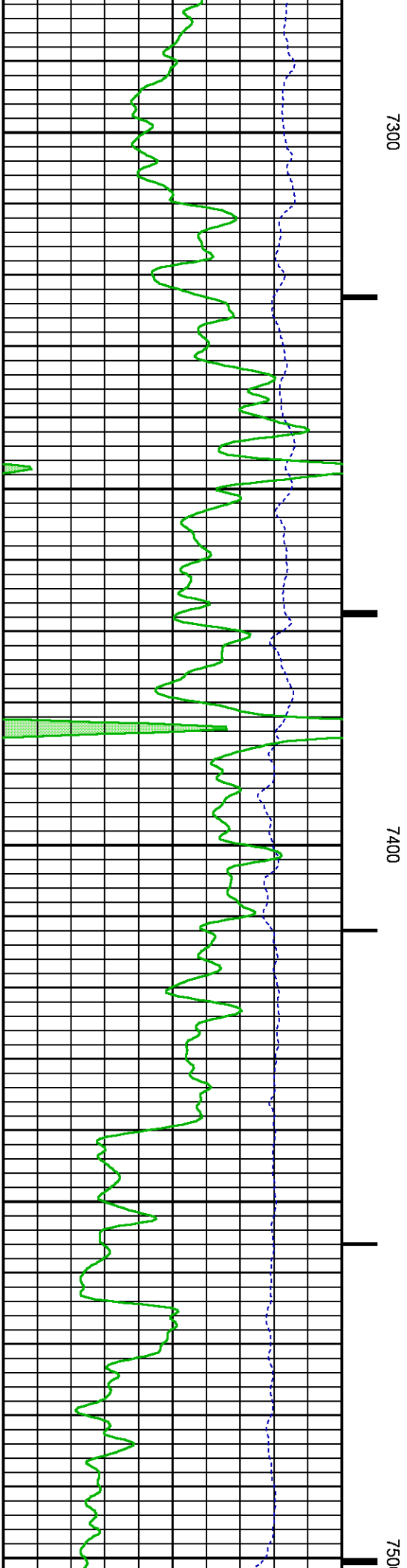
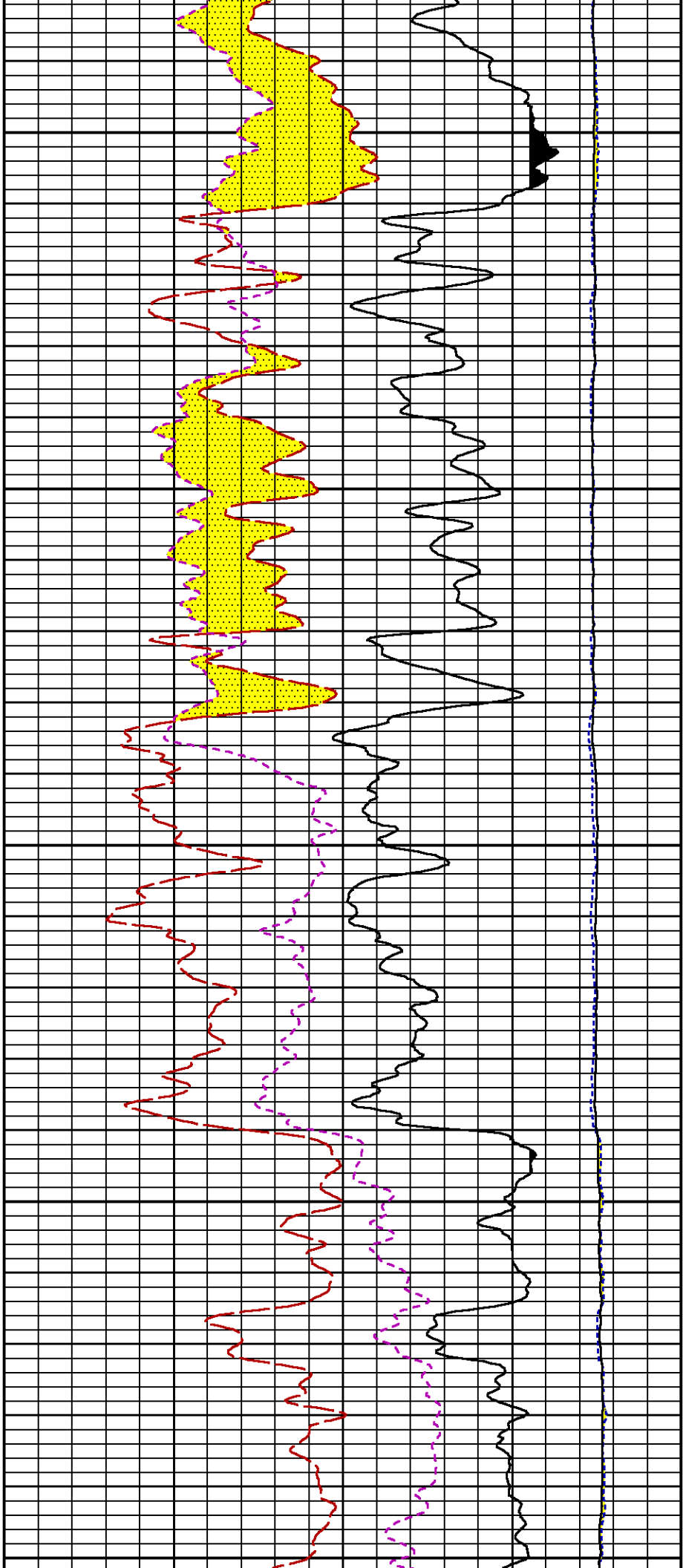
| CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) |
|-------|-------------|-------|-------------|-------|-------------|-------|-------------|
| CCL | 26.00 | ISS | 12.75 | RATO | 12.75 | SGFC | 12.75 |
| GR | 23.00 | LS | 12.75 | RICS | 12.75 | SS | 12.75 |

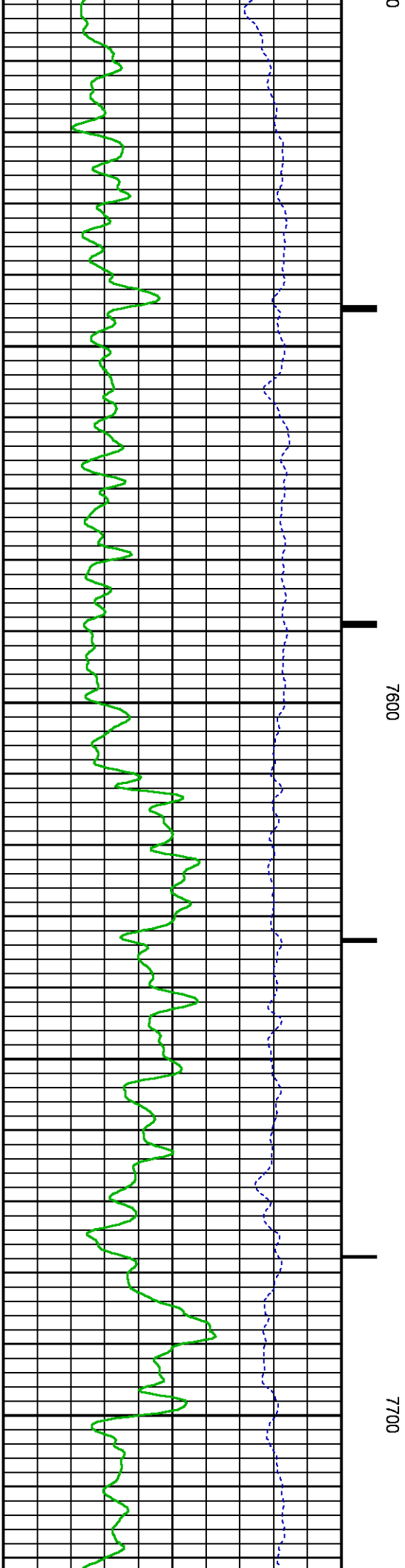
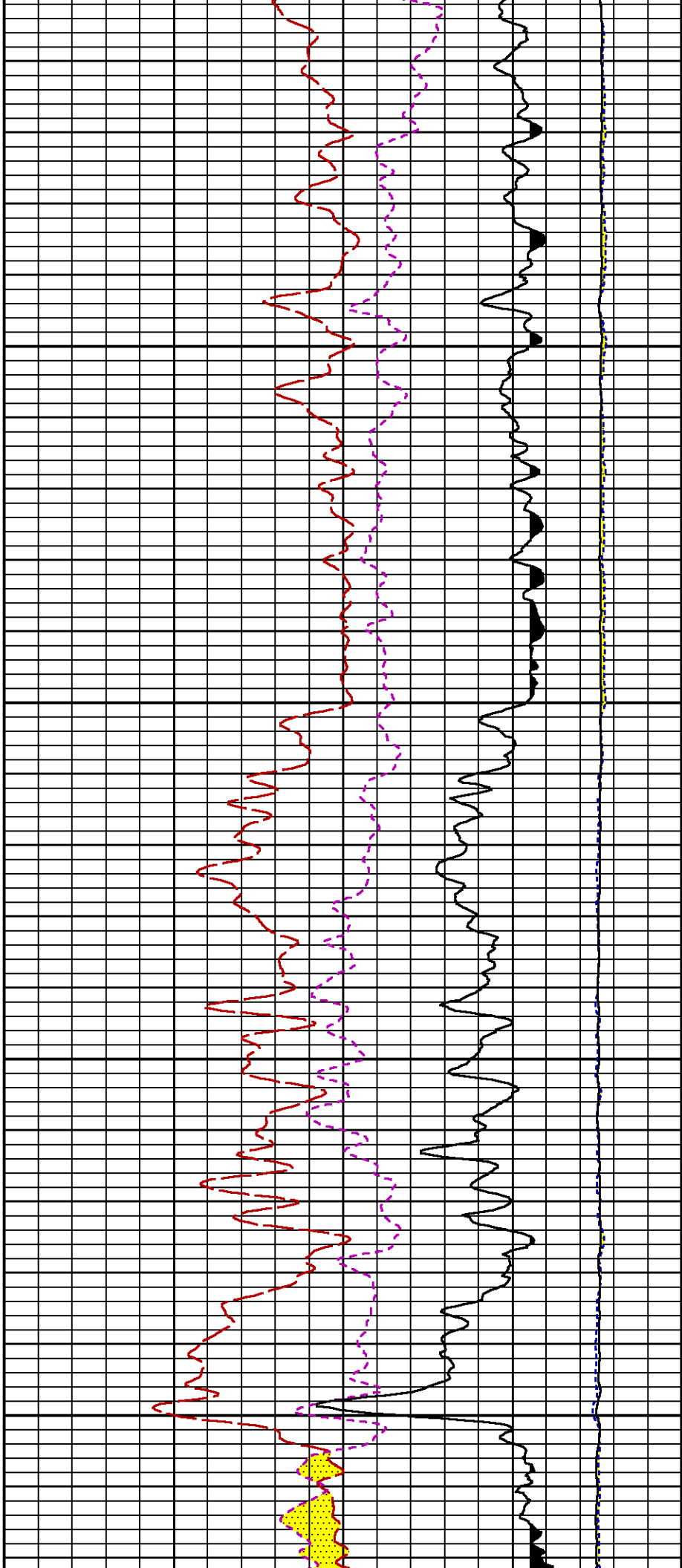
Presentation : cas6685:/dat1a/CH096702/RPM_MAIN.fvpdf [5"/100' Scale]
Plot Interval : 7000 - 12433 Feet

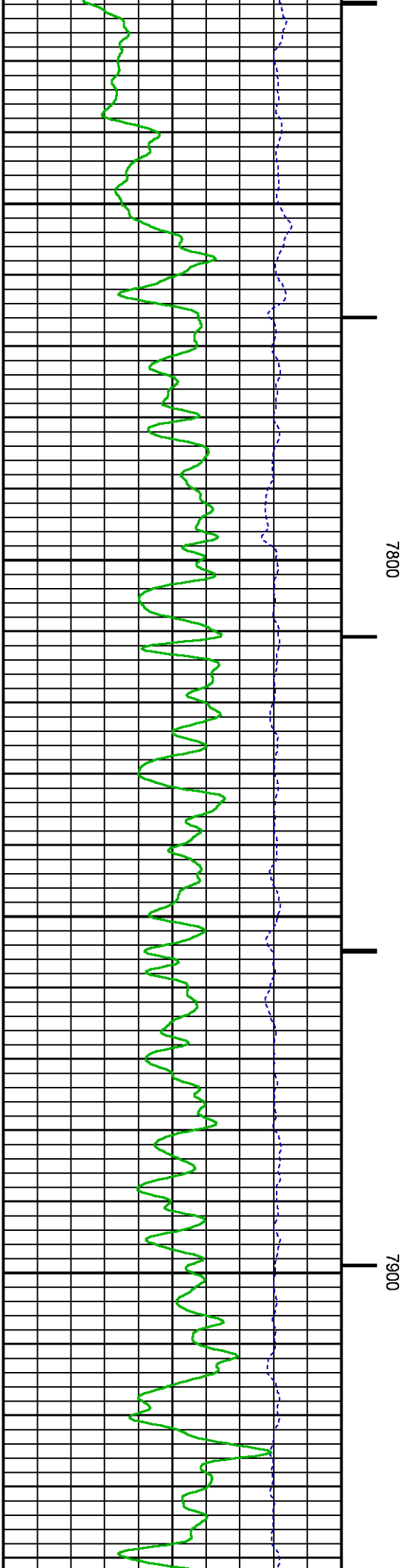
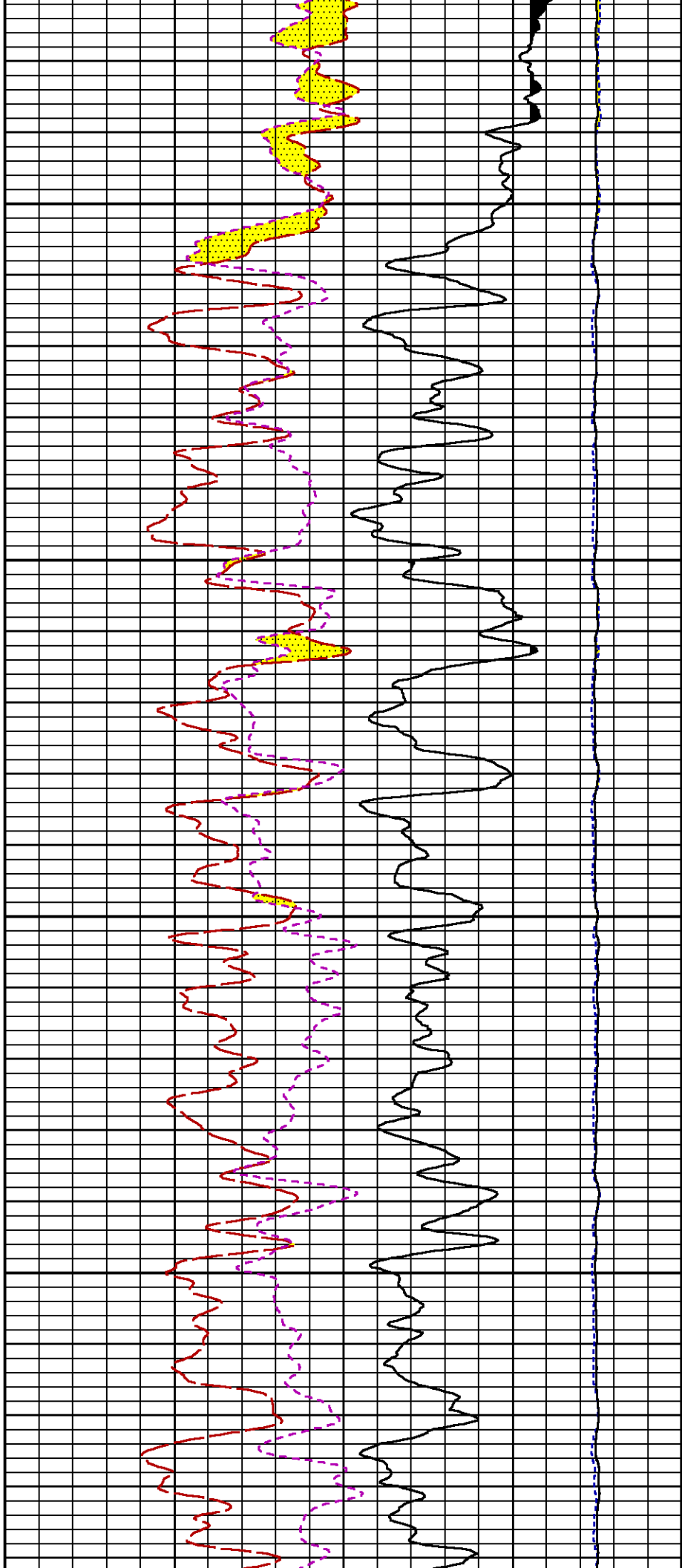
Data File 1 : F1 : cas6685:/dat1a/CH096702/n353aMAIN.xtf
Created On : May 23 14:18:47 2015
Company : WPX ENERGY
Well : FEDERAL RGU 343-26-198
Field : SULPHUR CREEK
File Interval : 10.25 - 12433 Feet
OCT : n353a

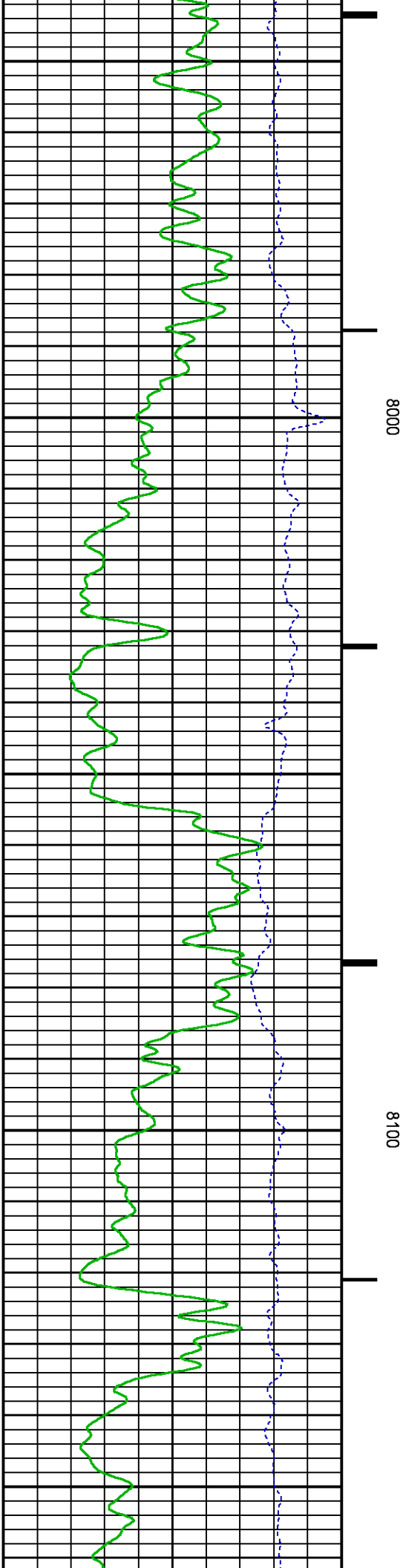
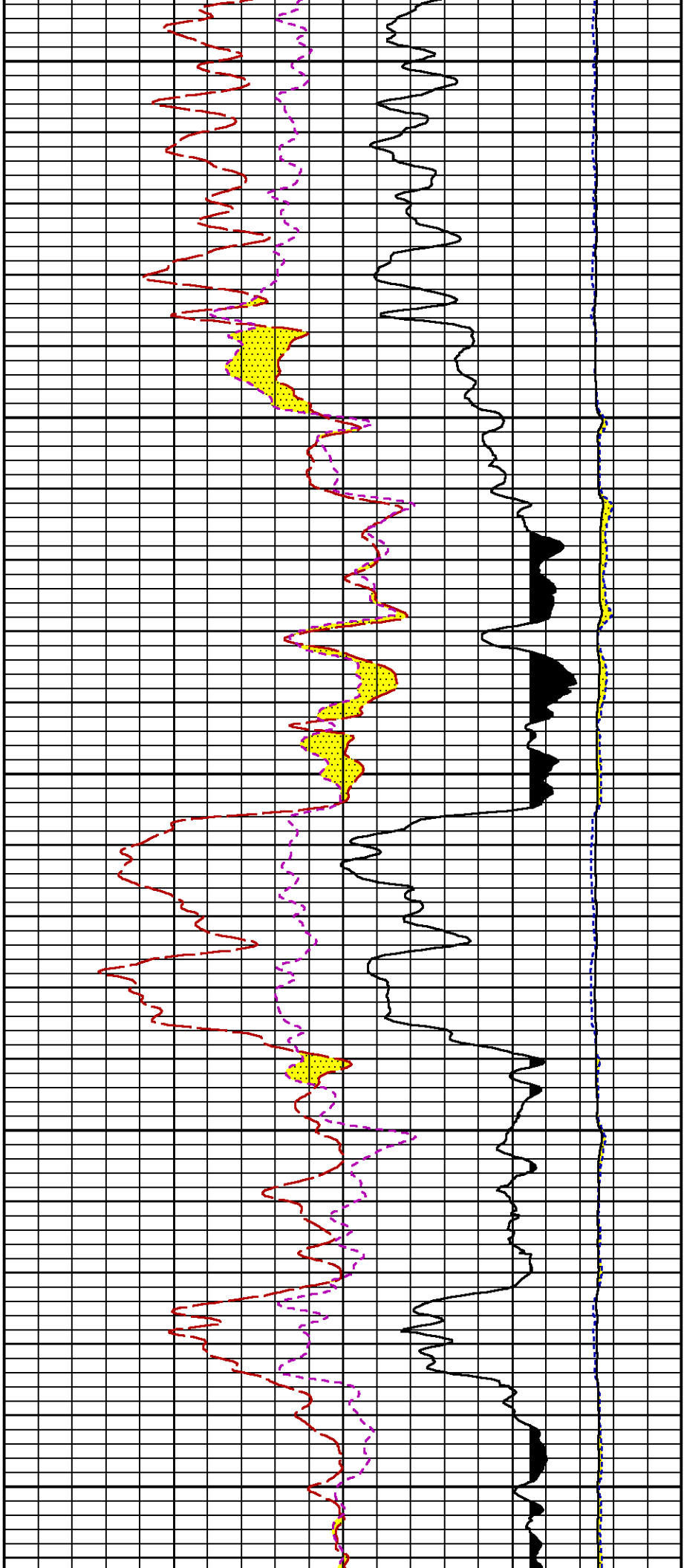


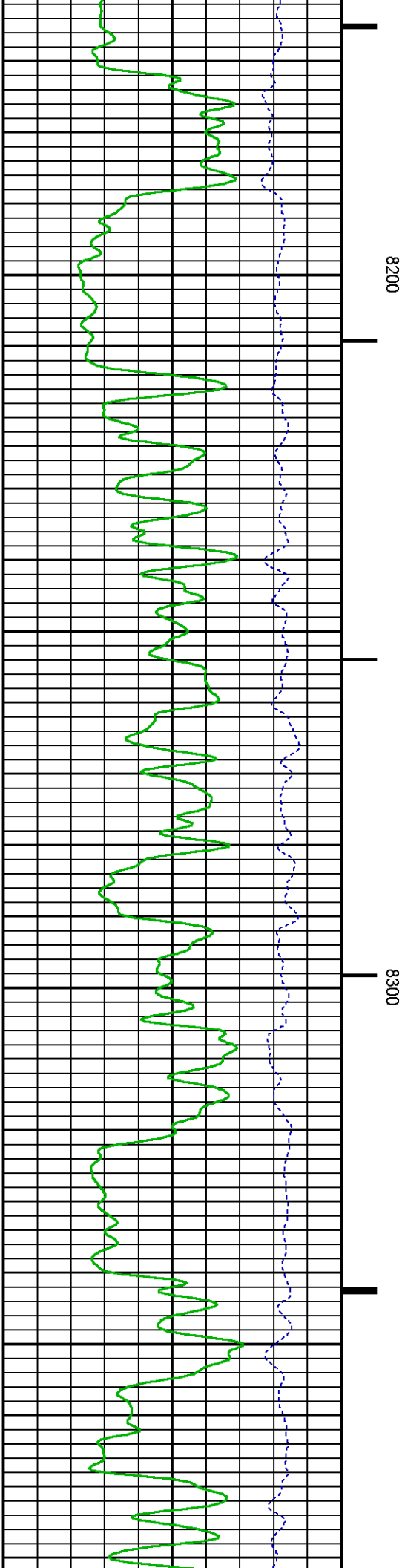
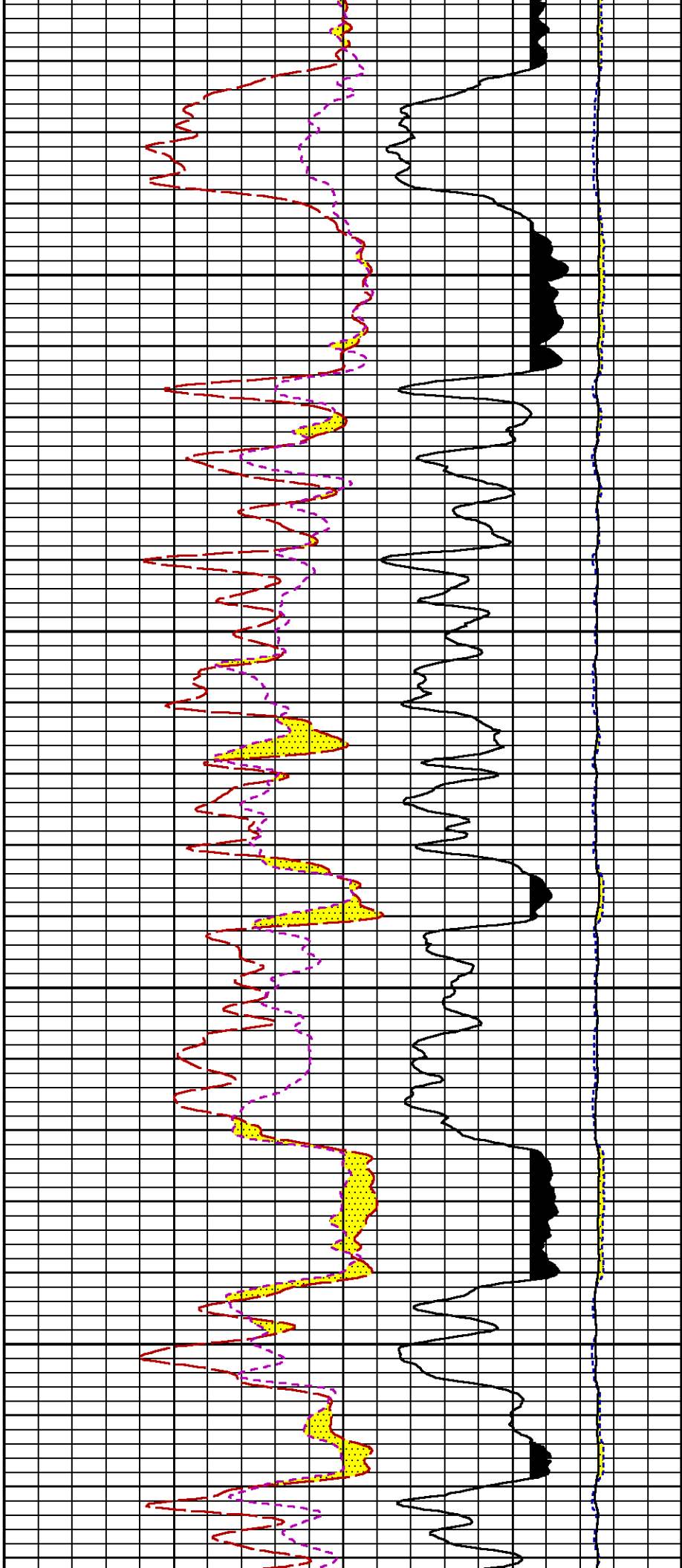


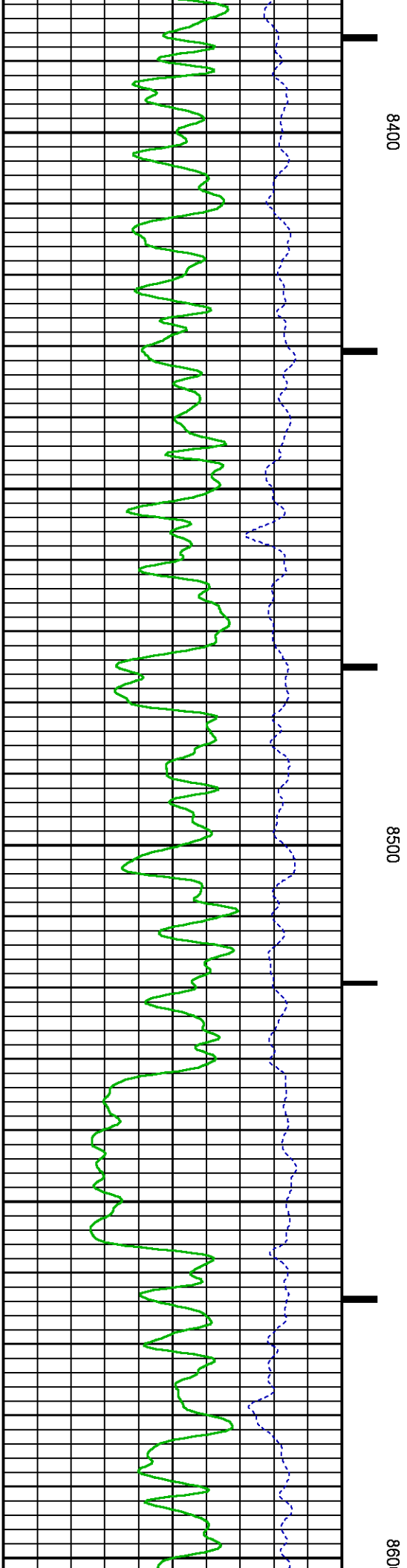
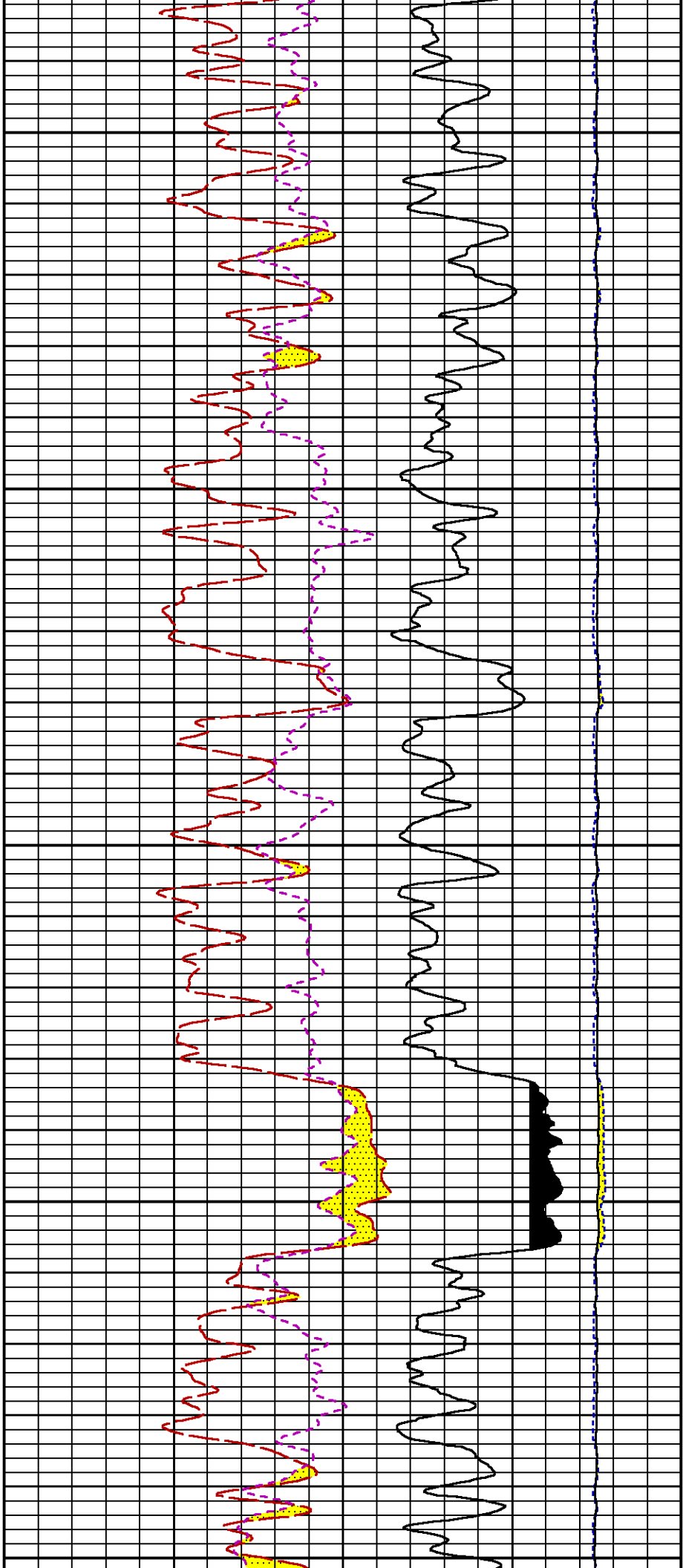


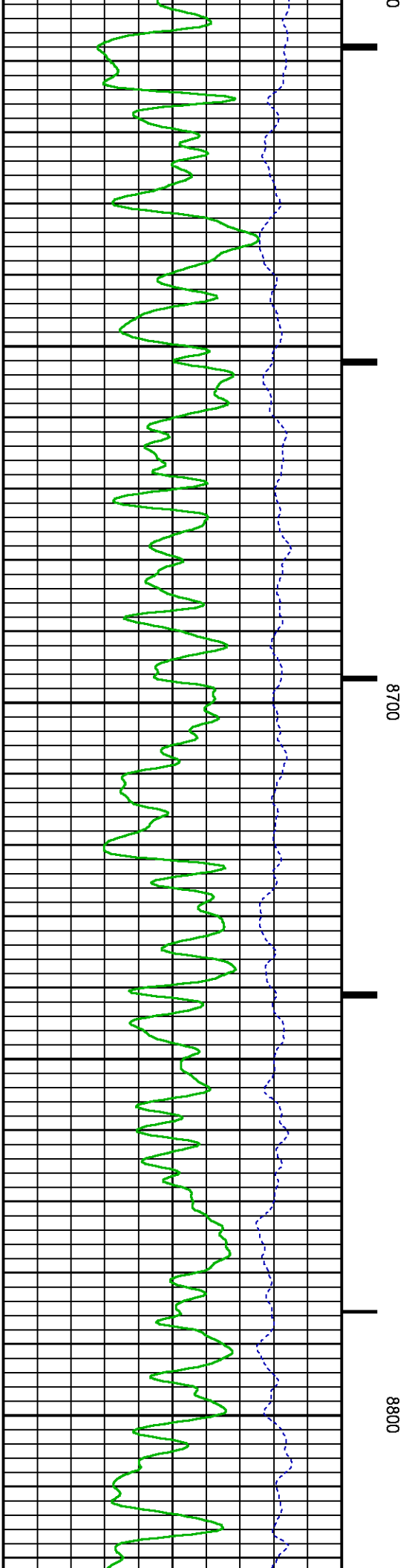
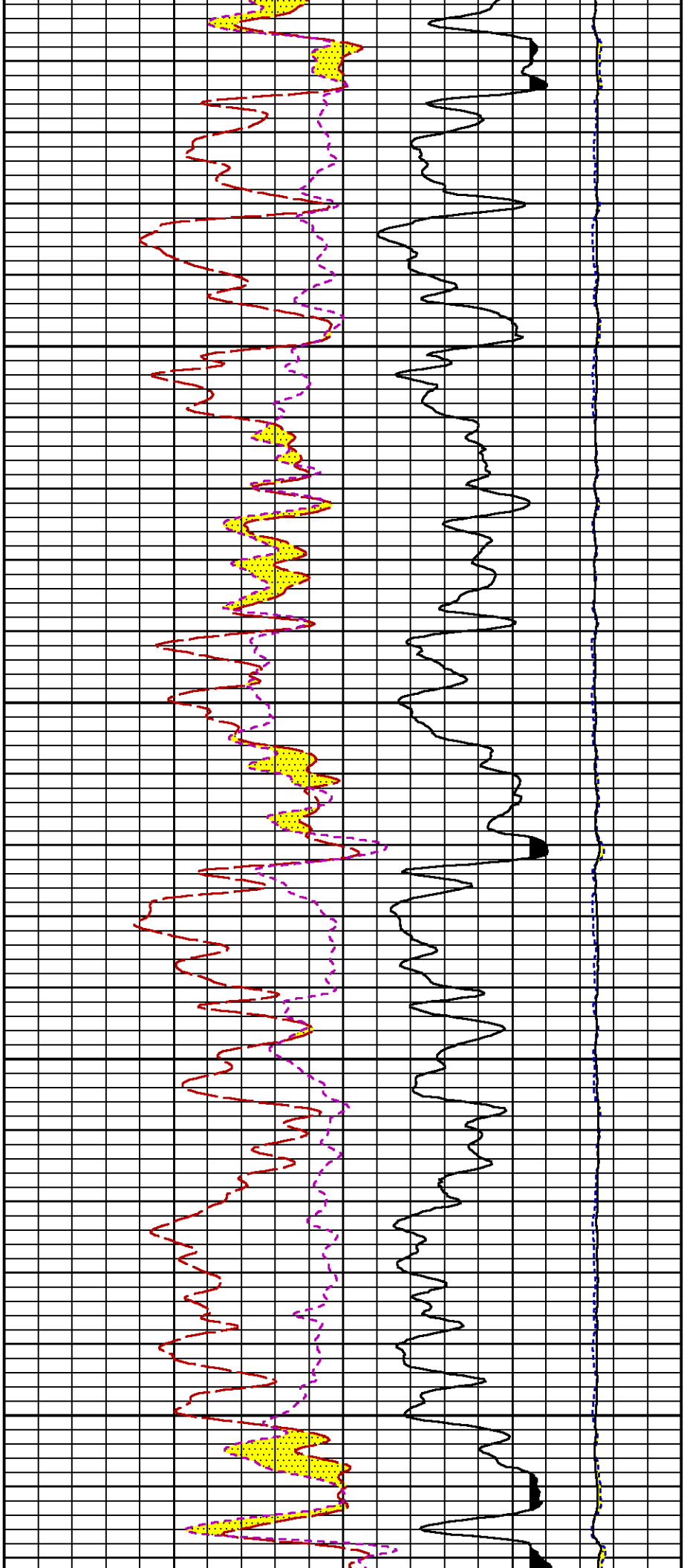






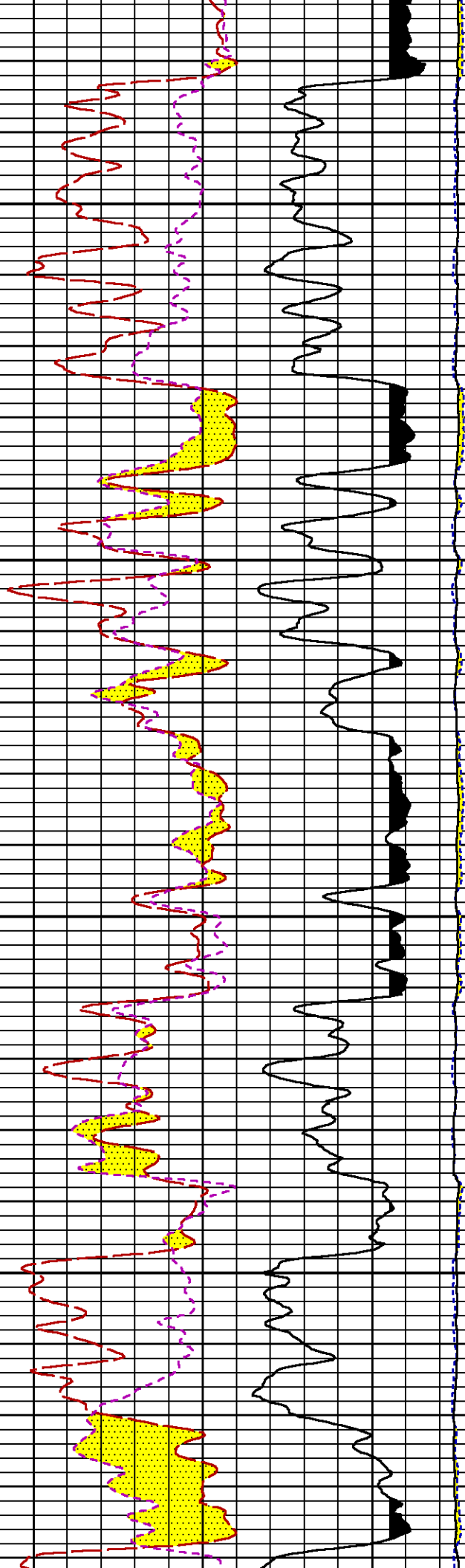
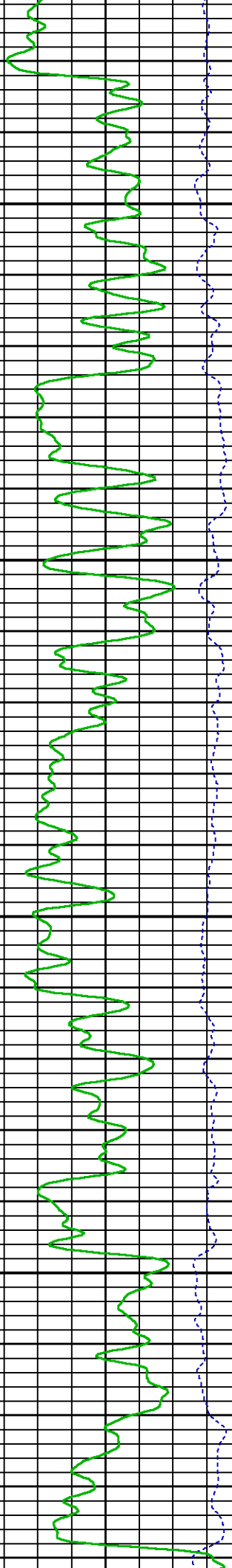


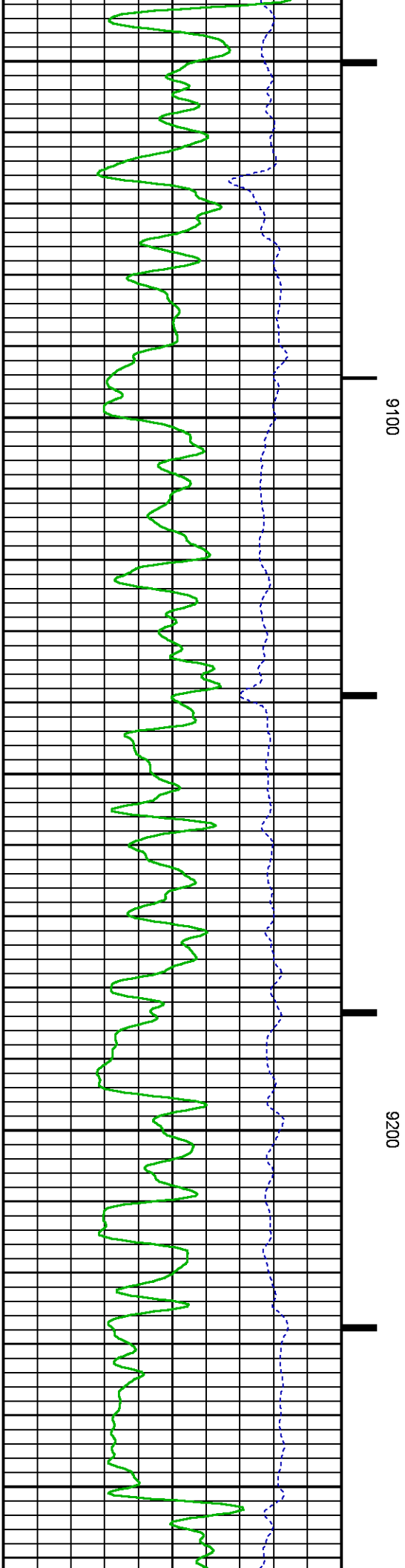
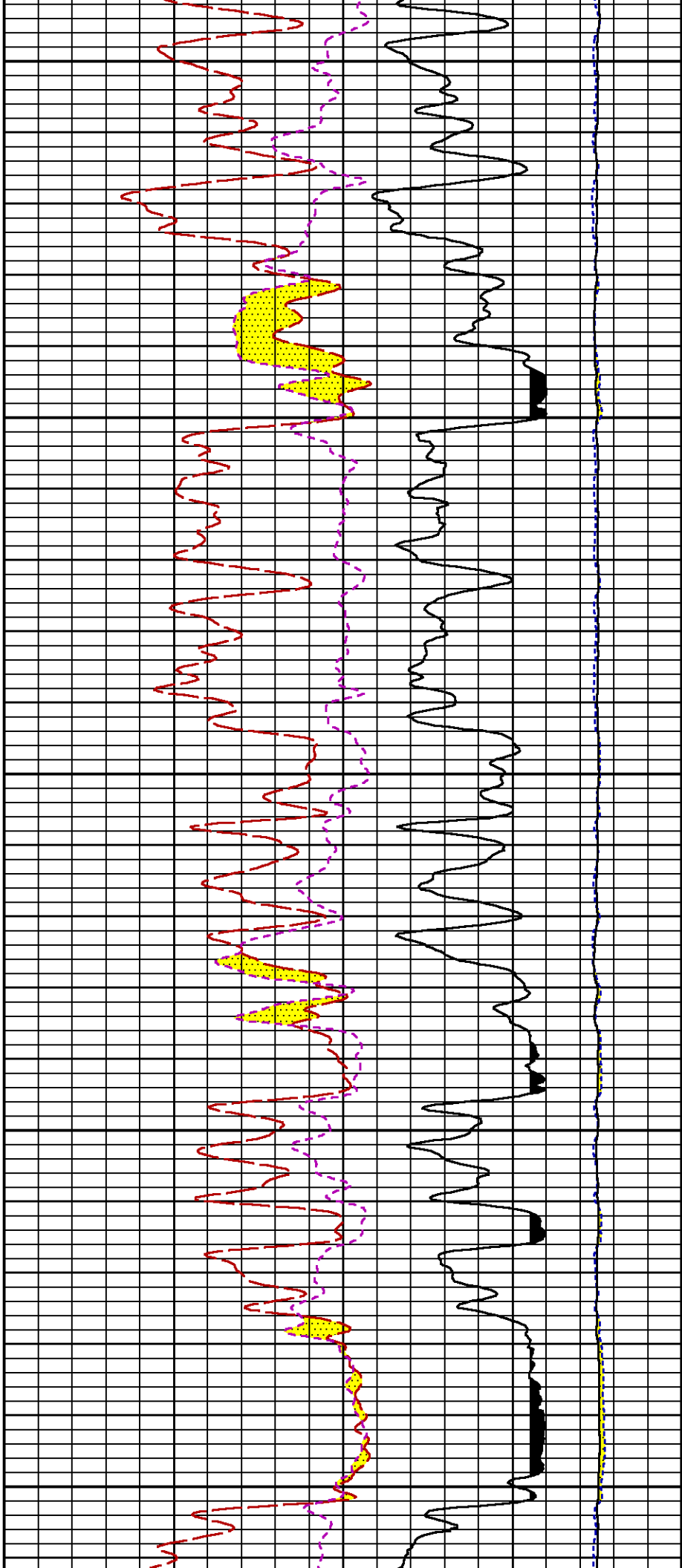


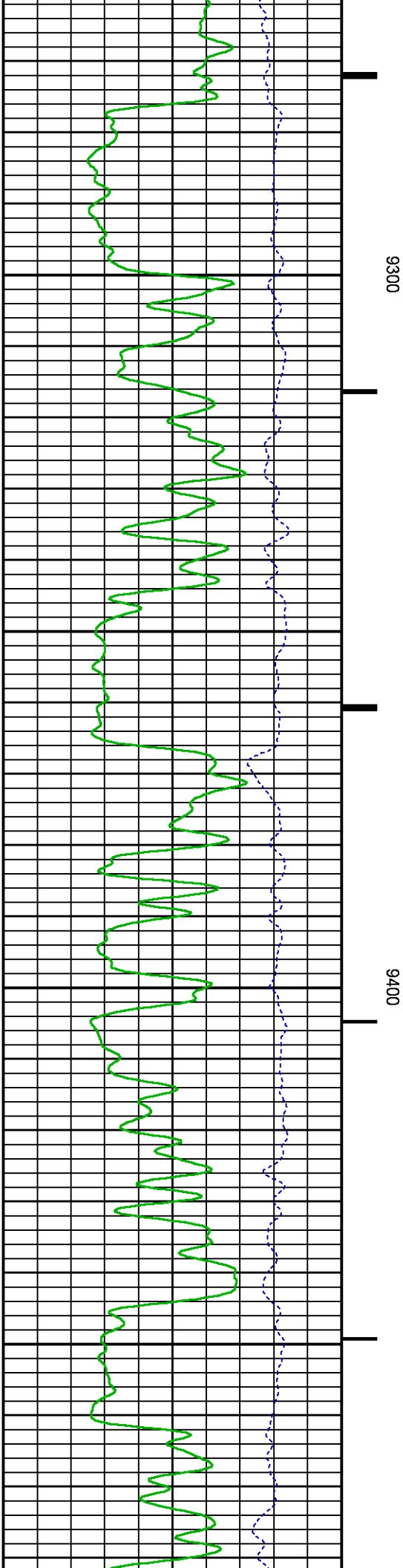
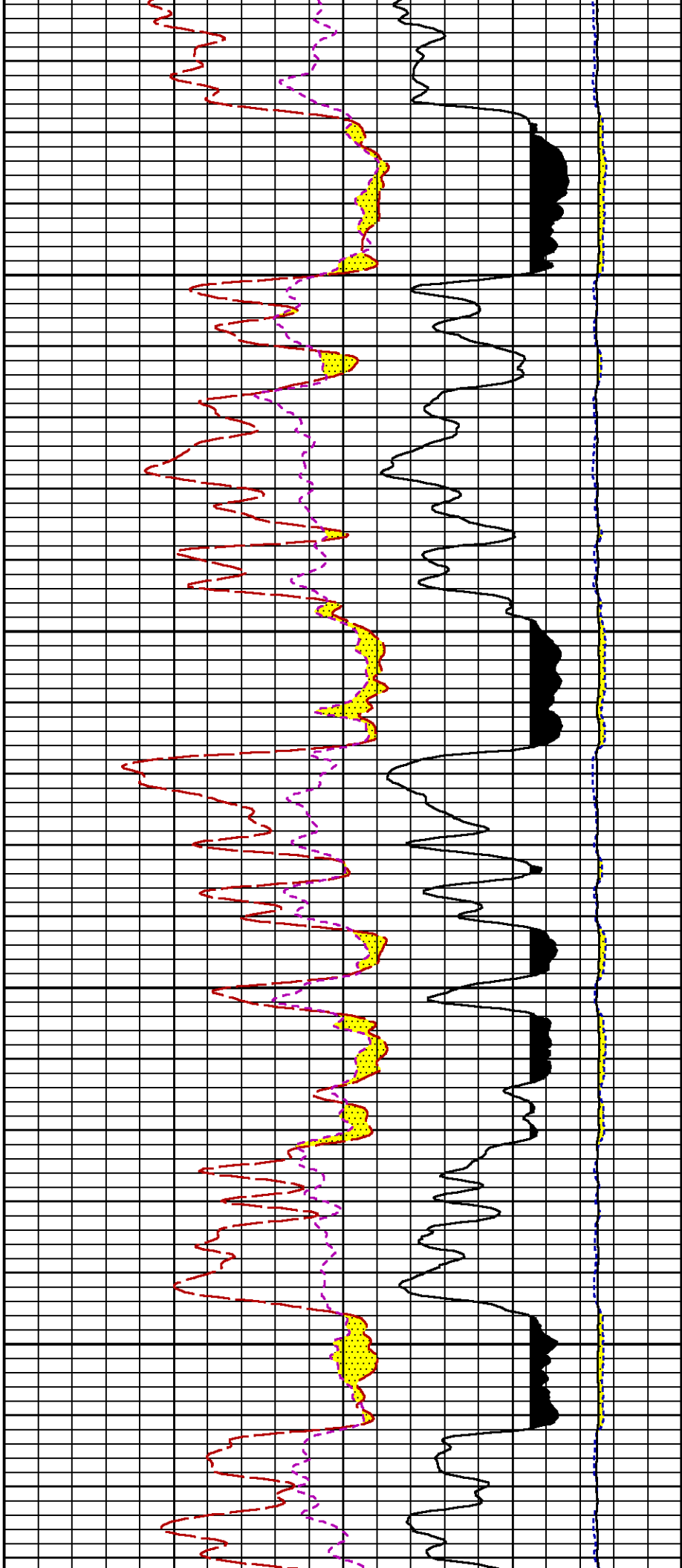


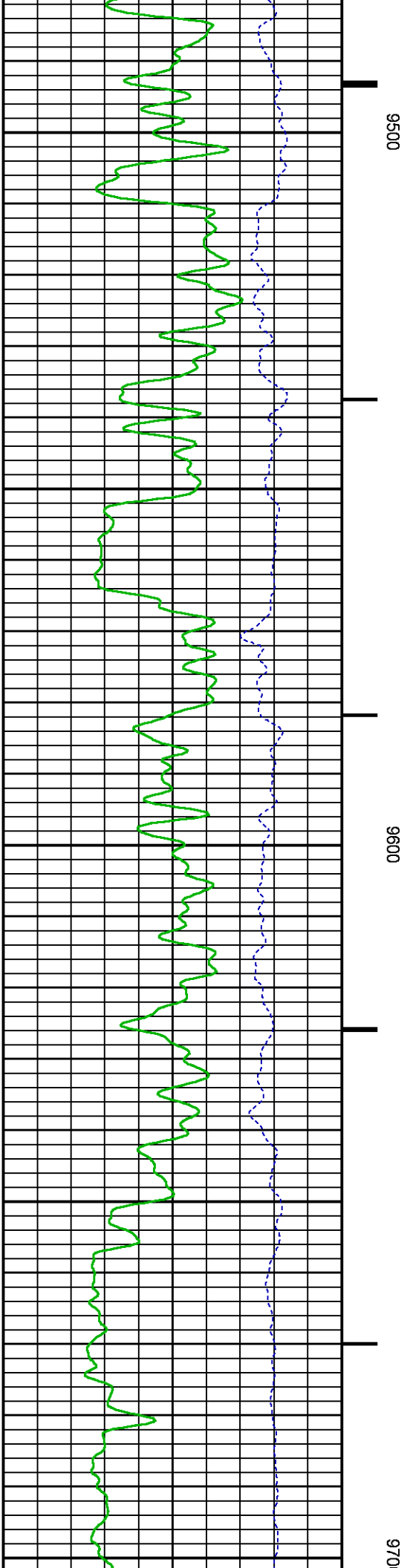
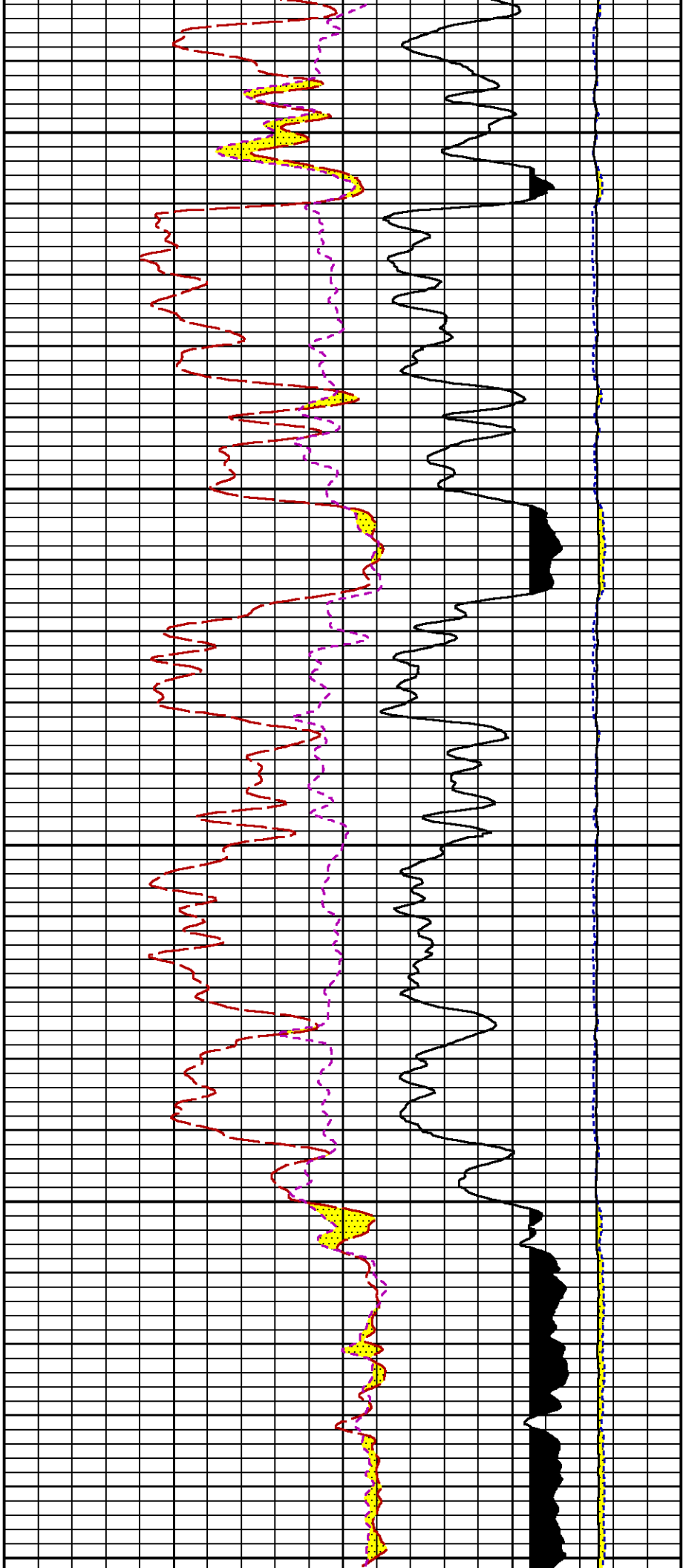
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0006





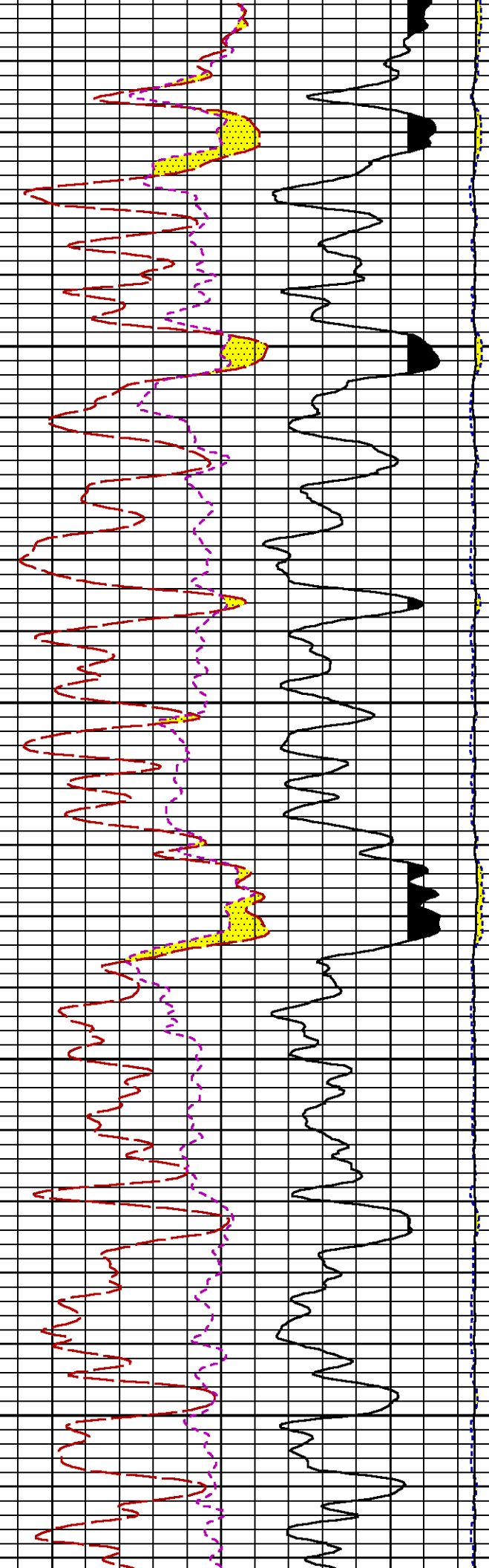
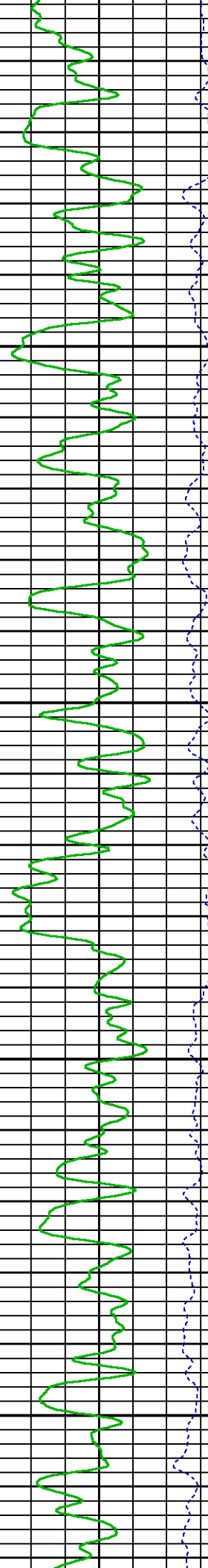


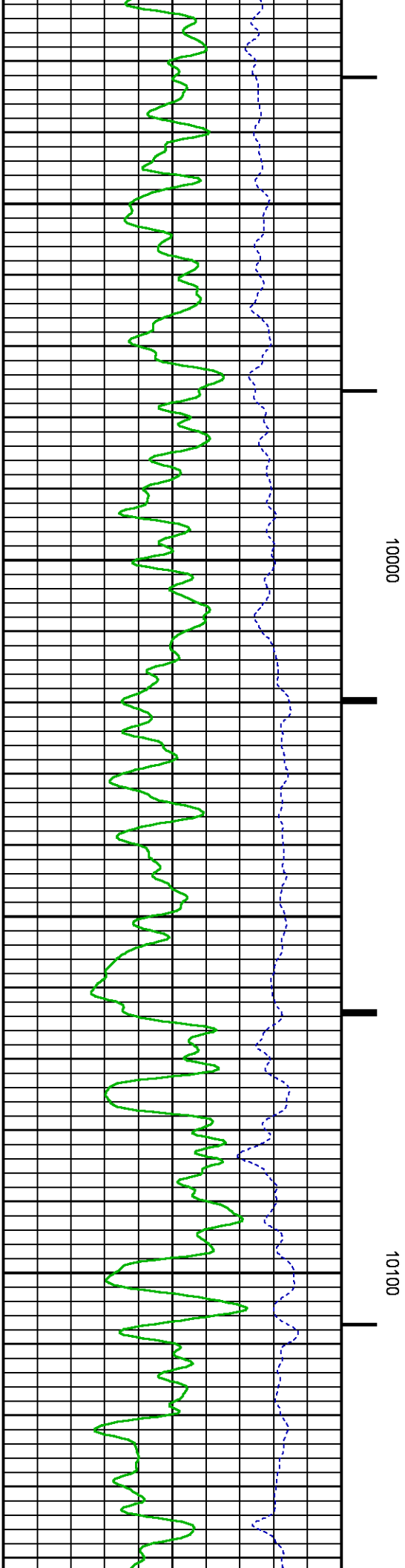
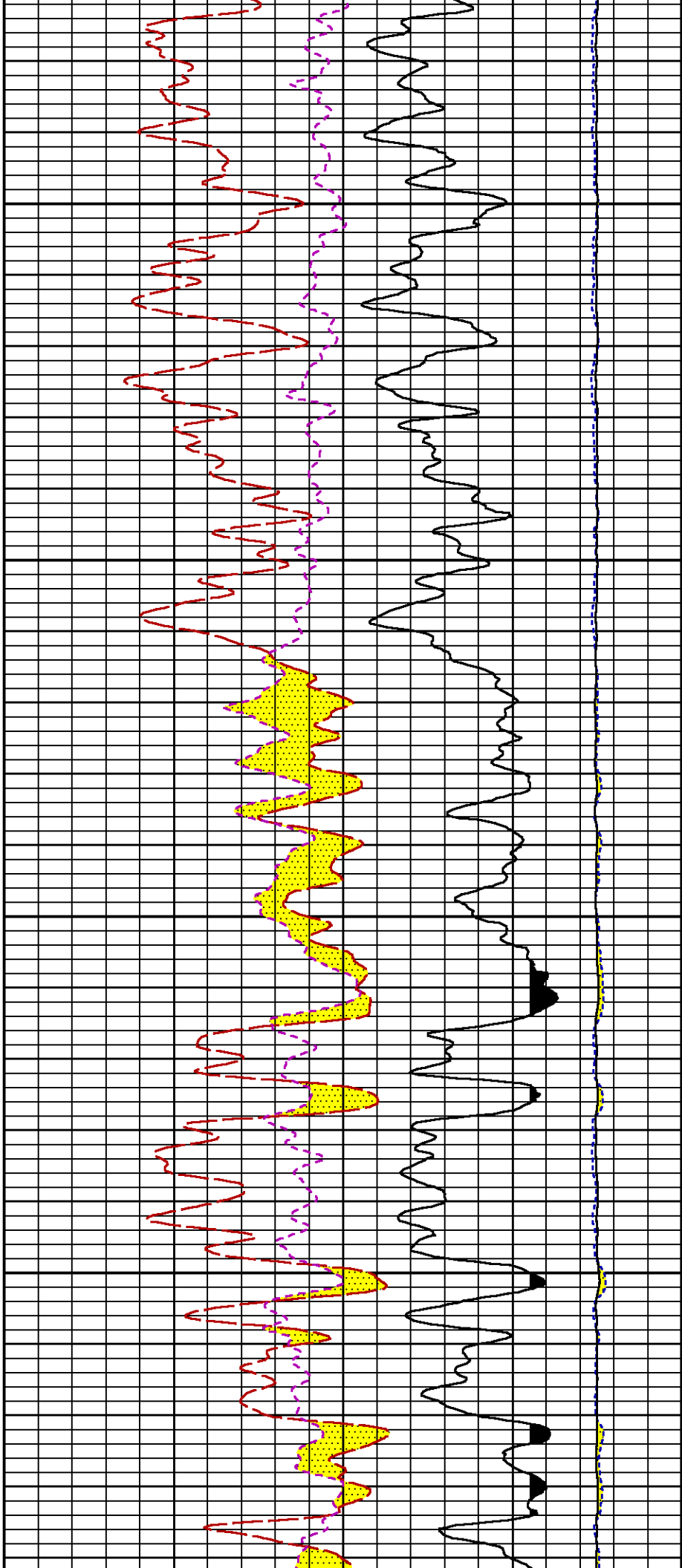


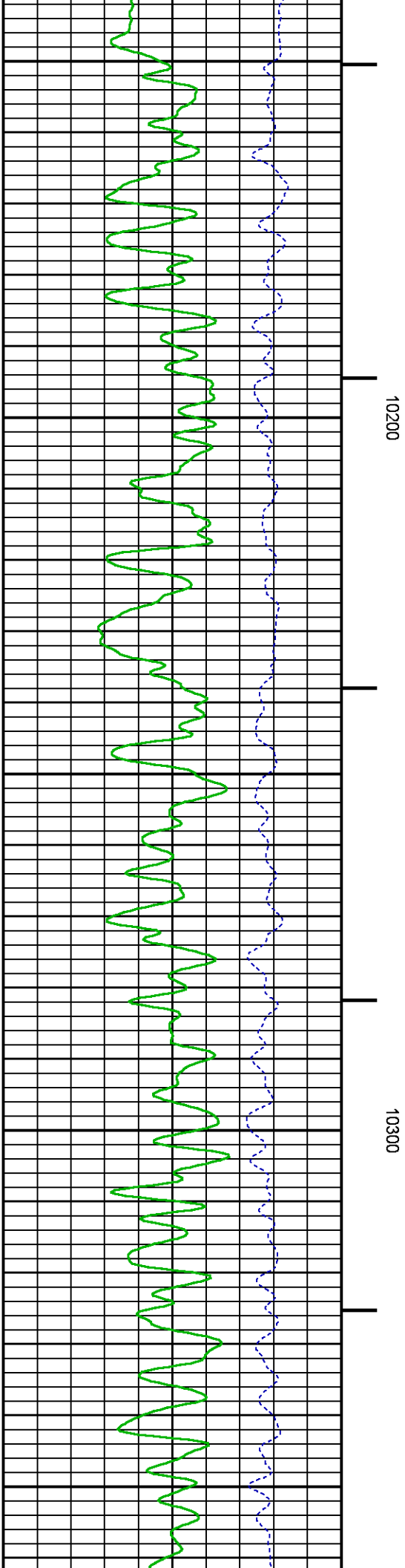
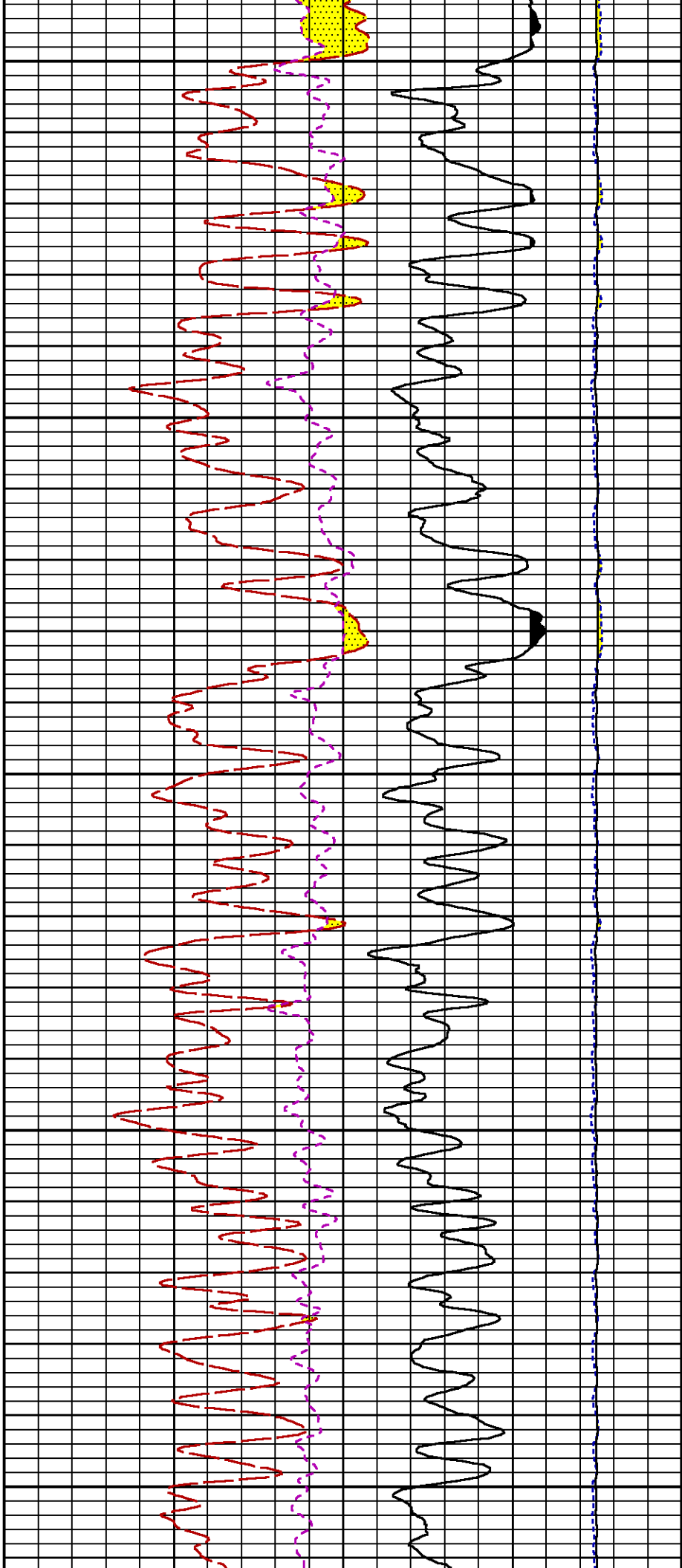
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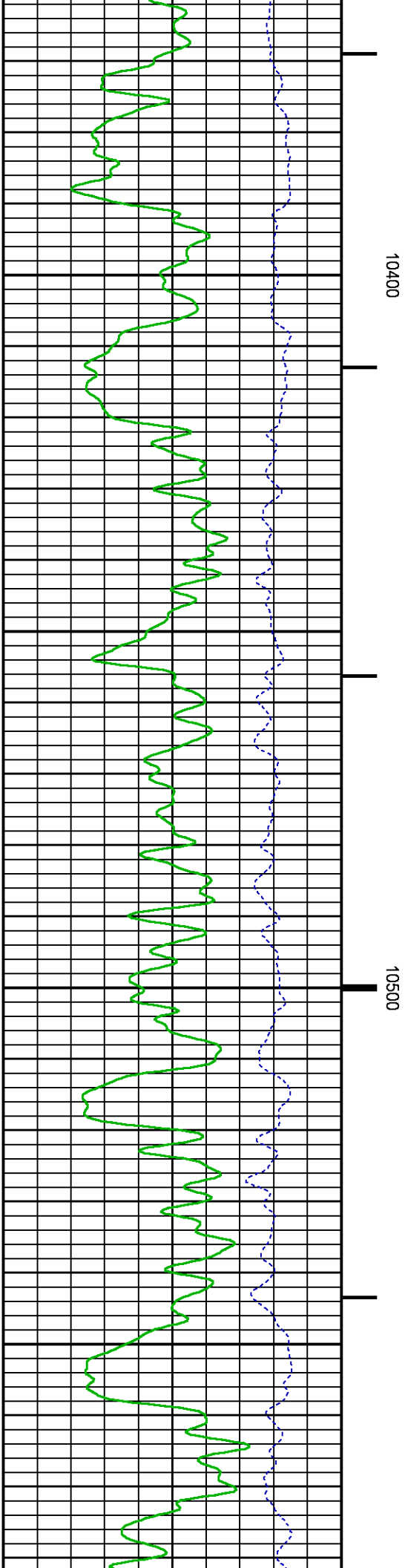
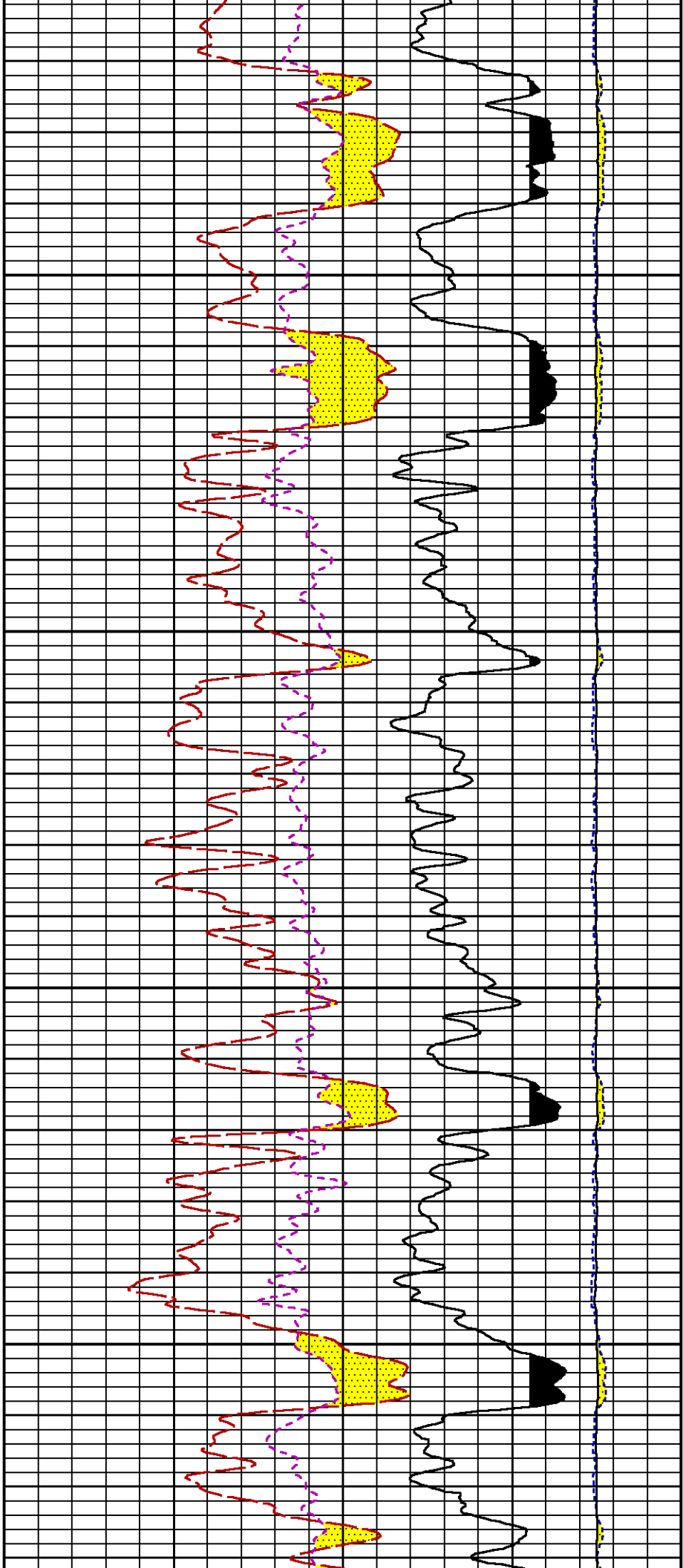
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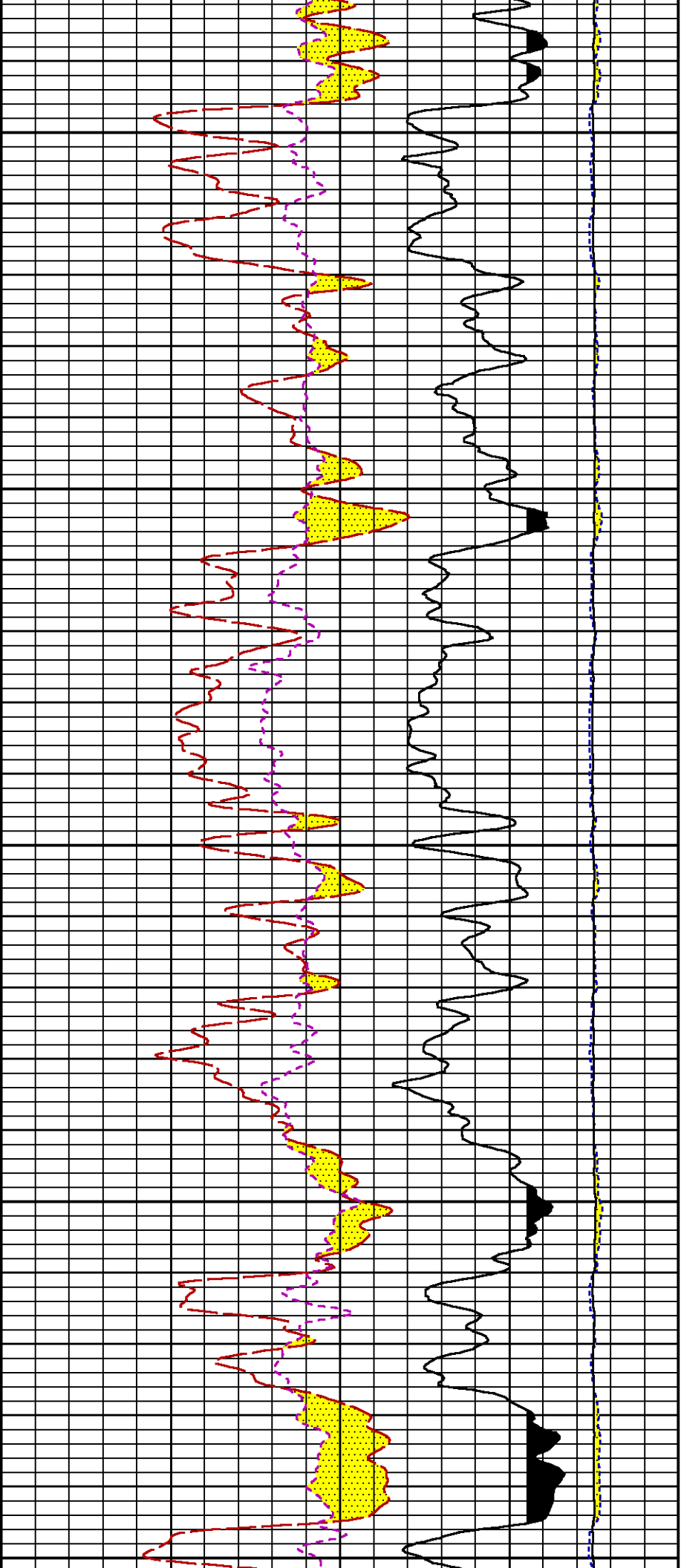
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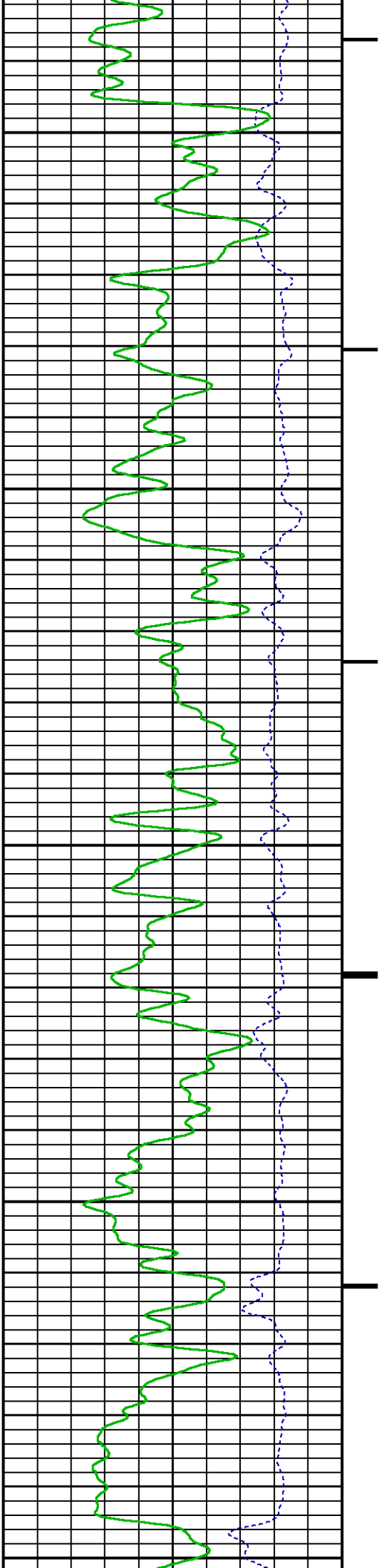


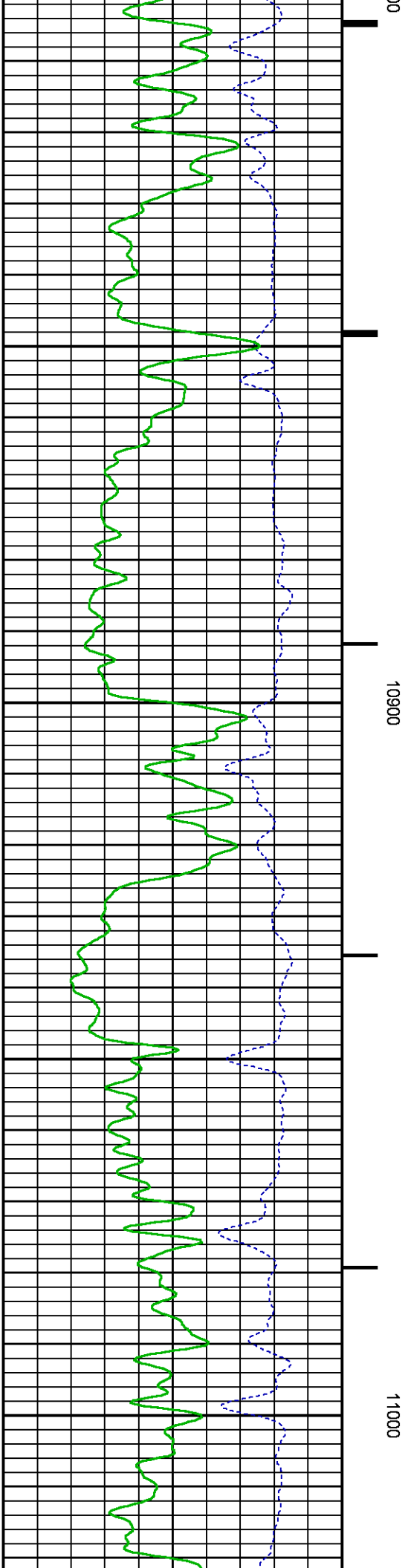
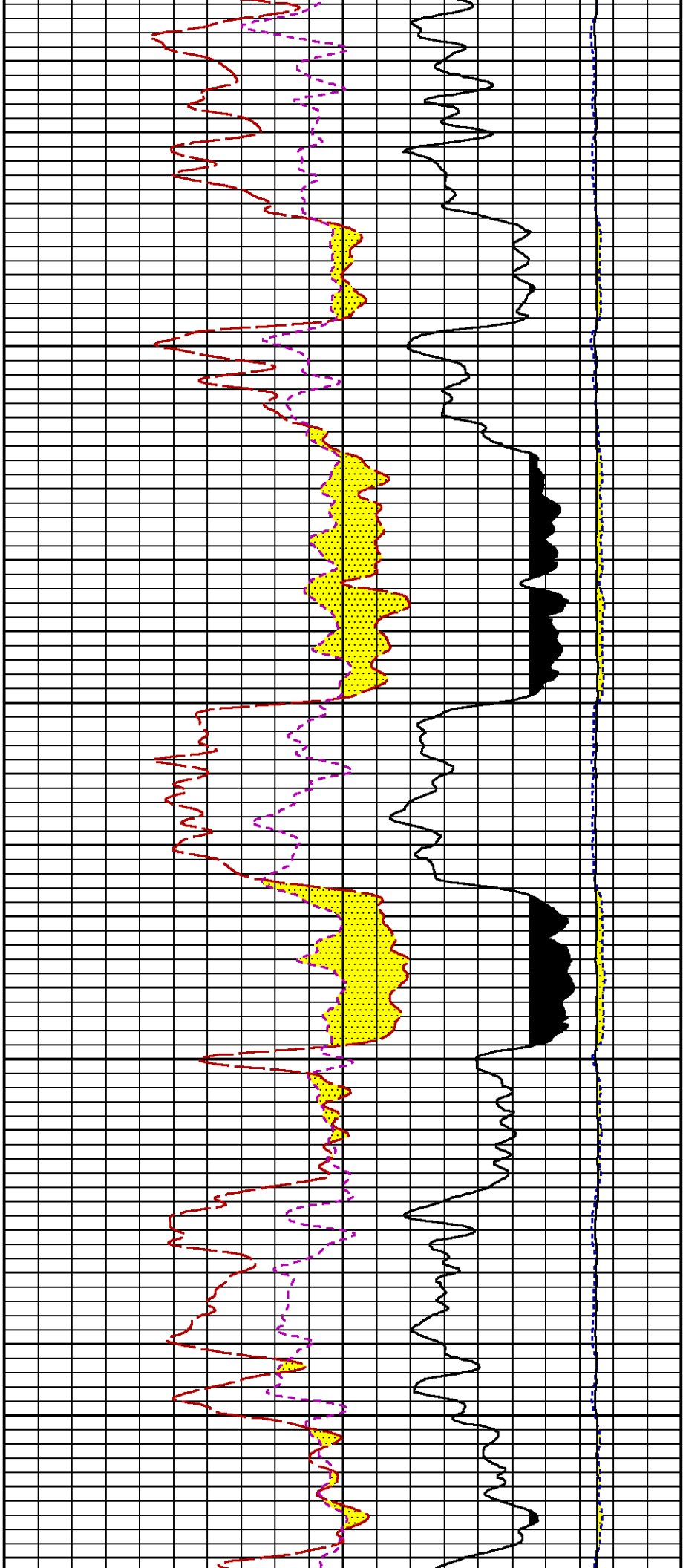


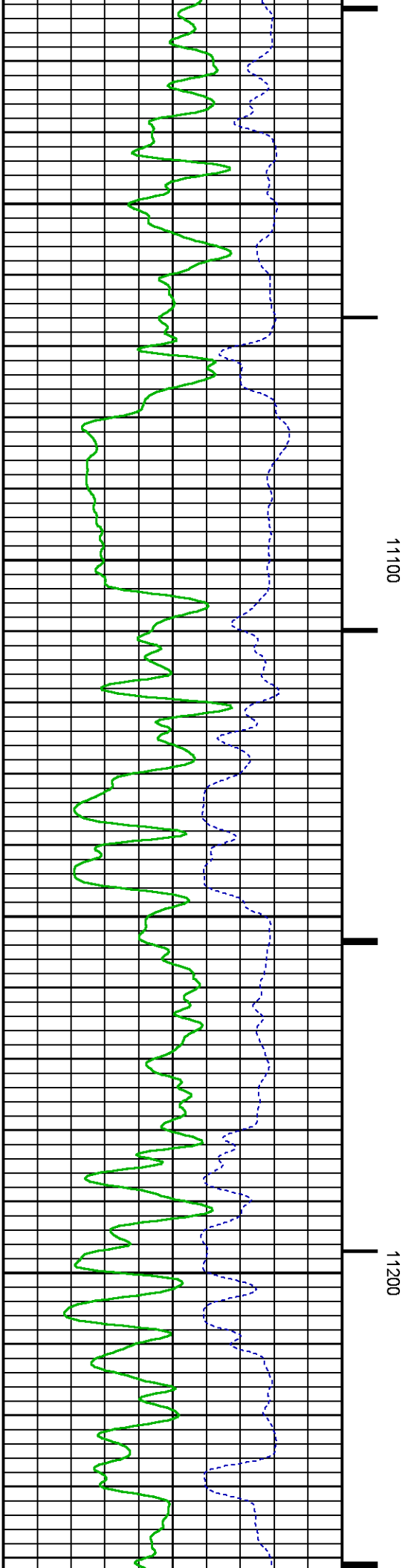
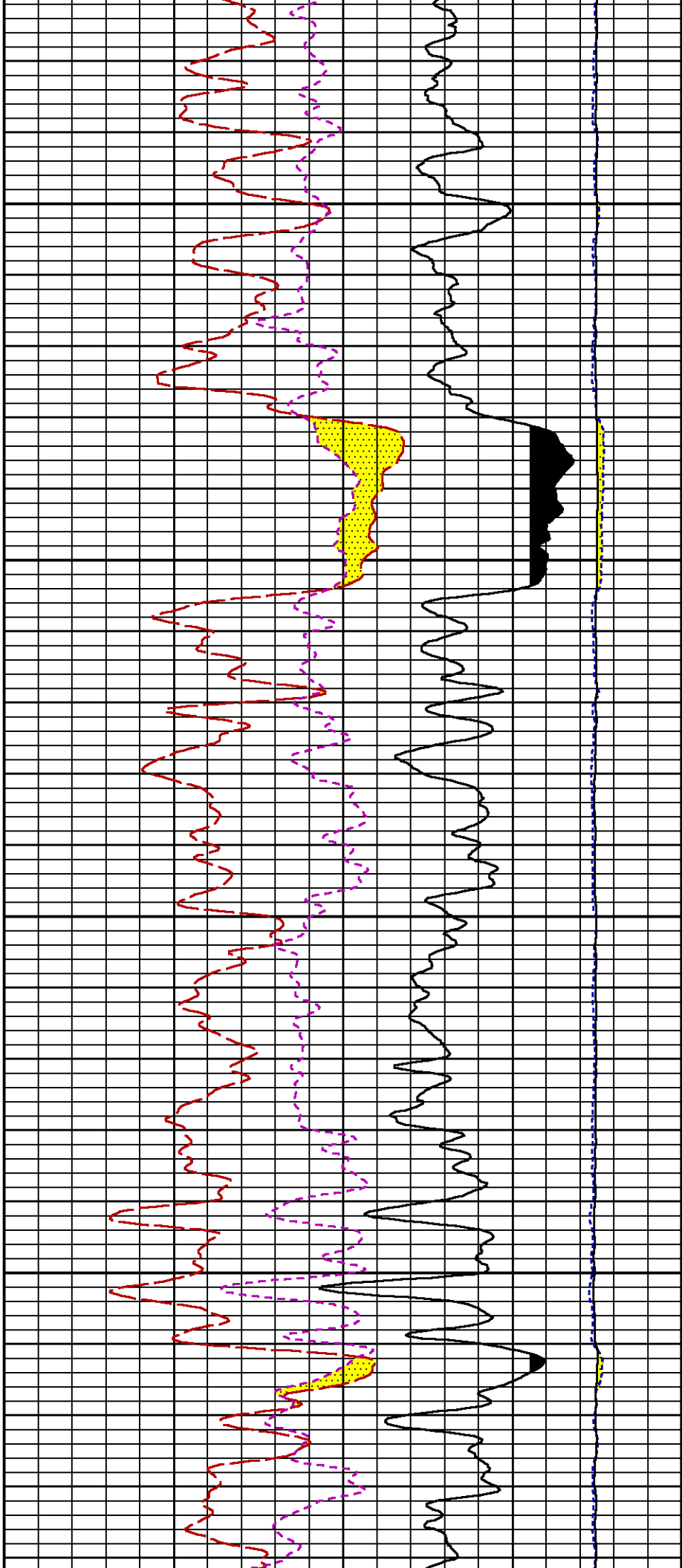
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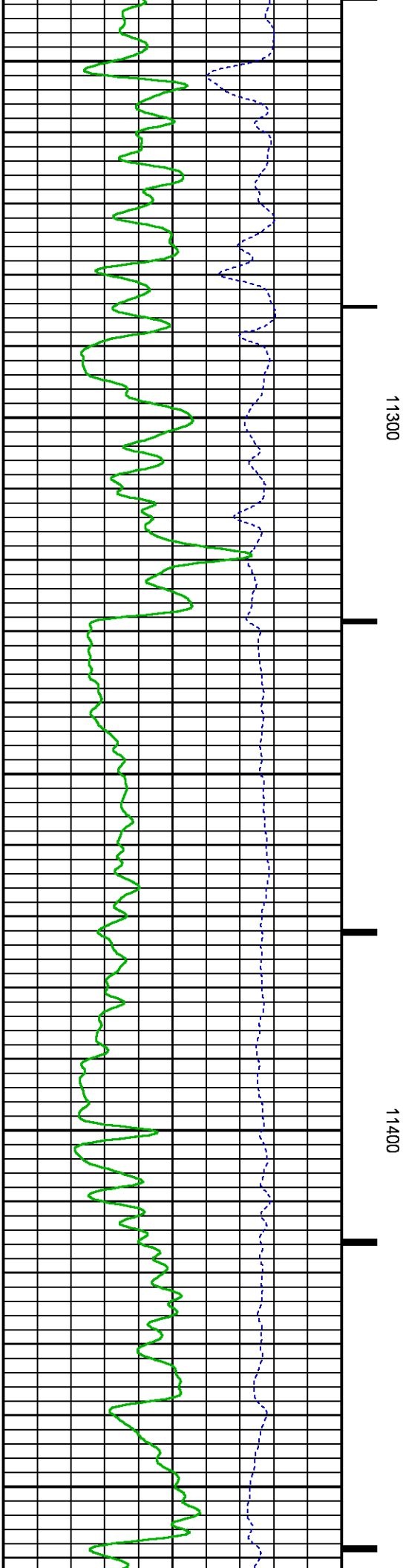
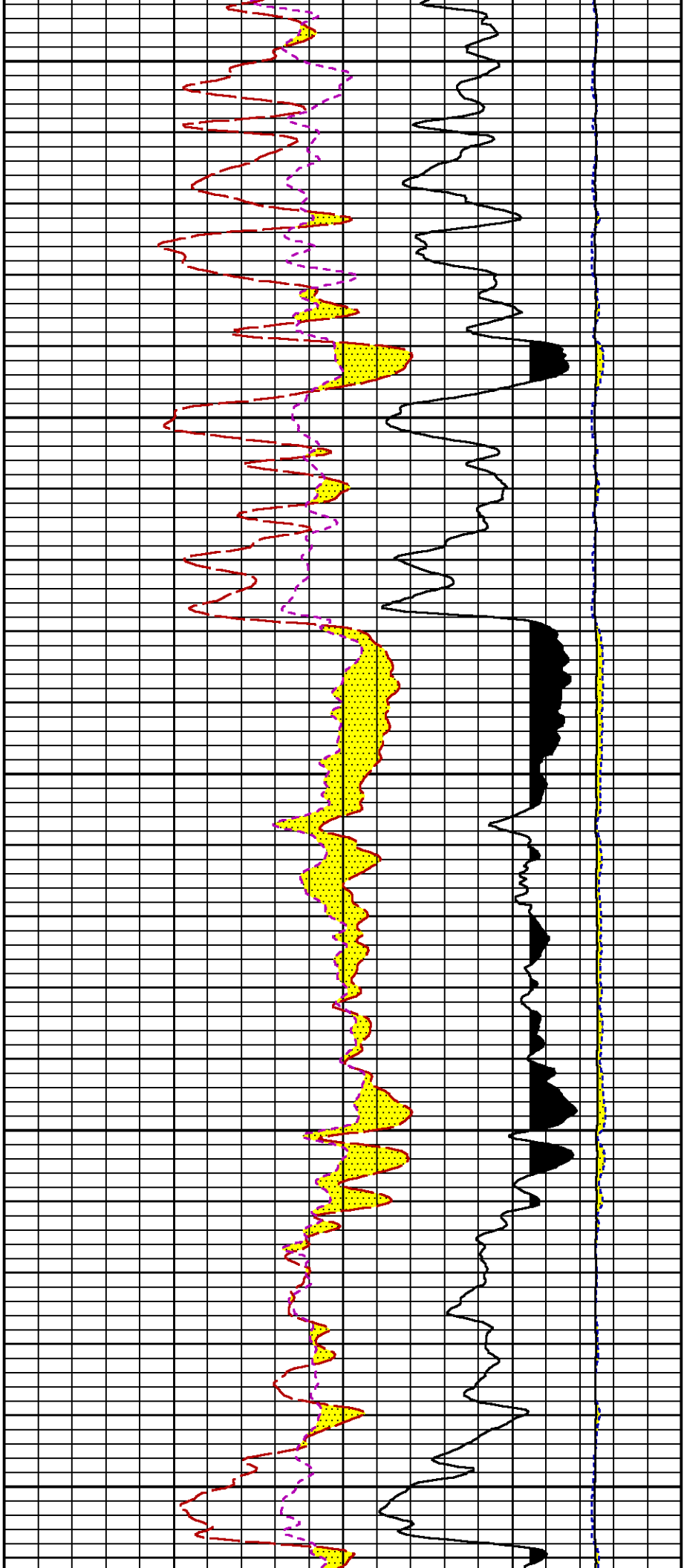
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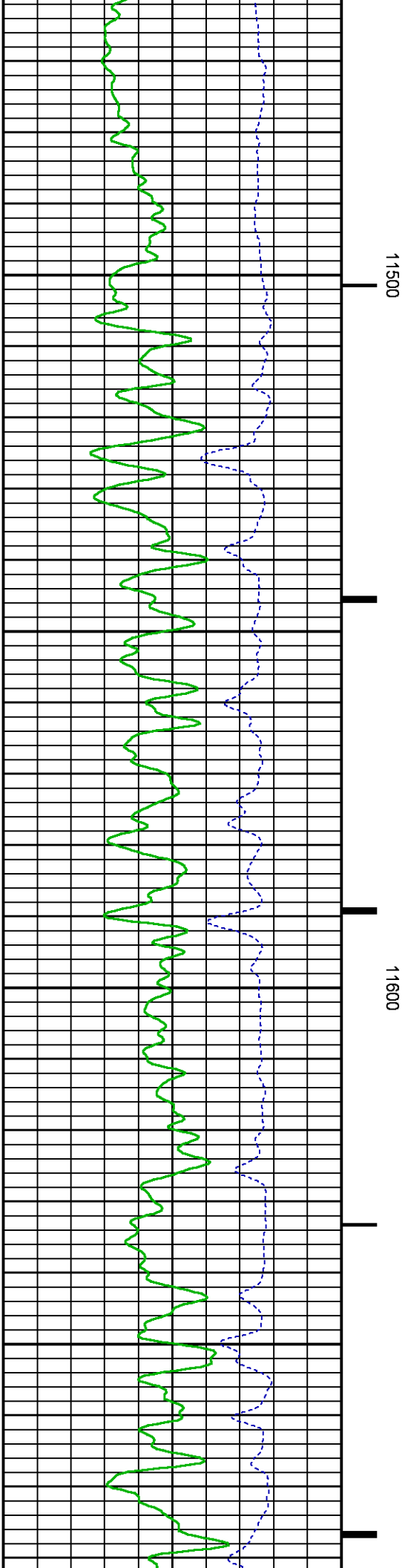
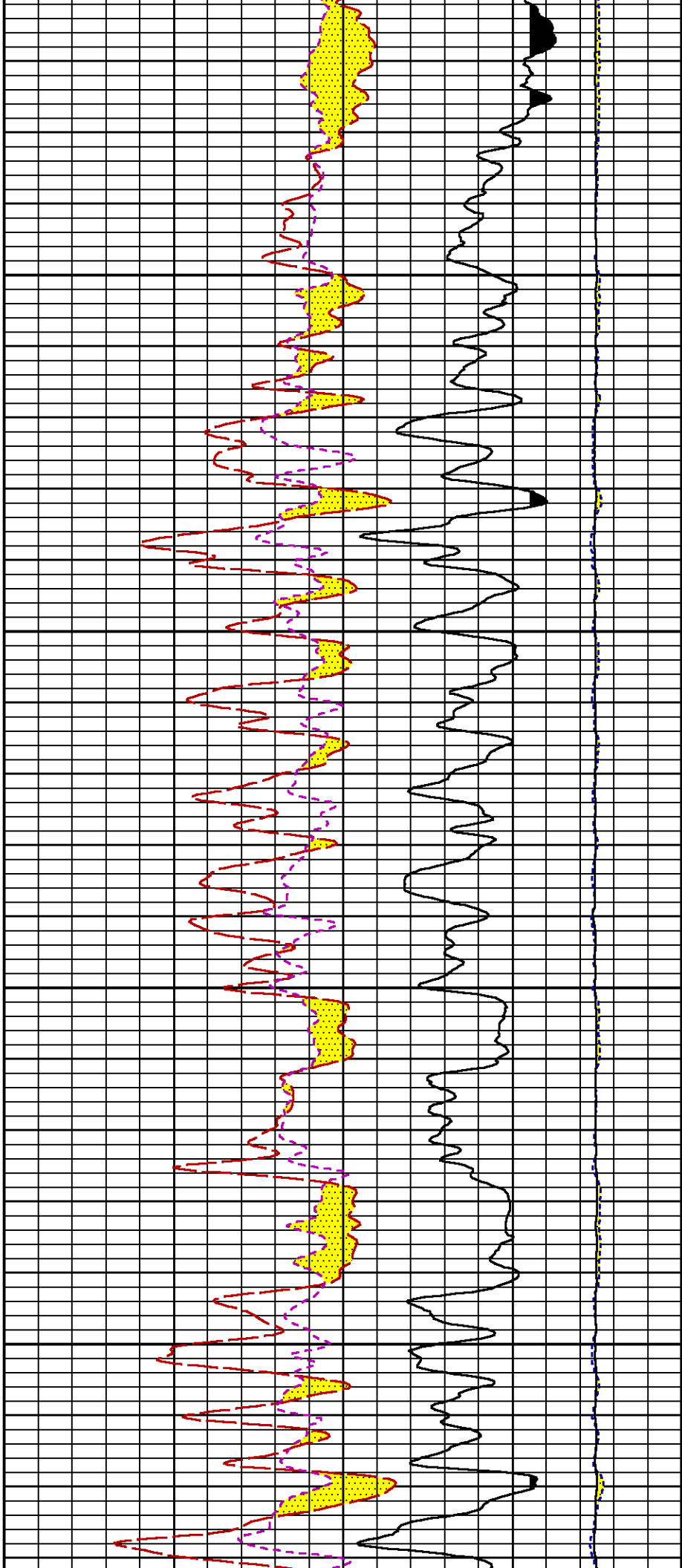
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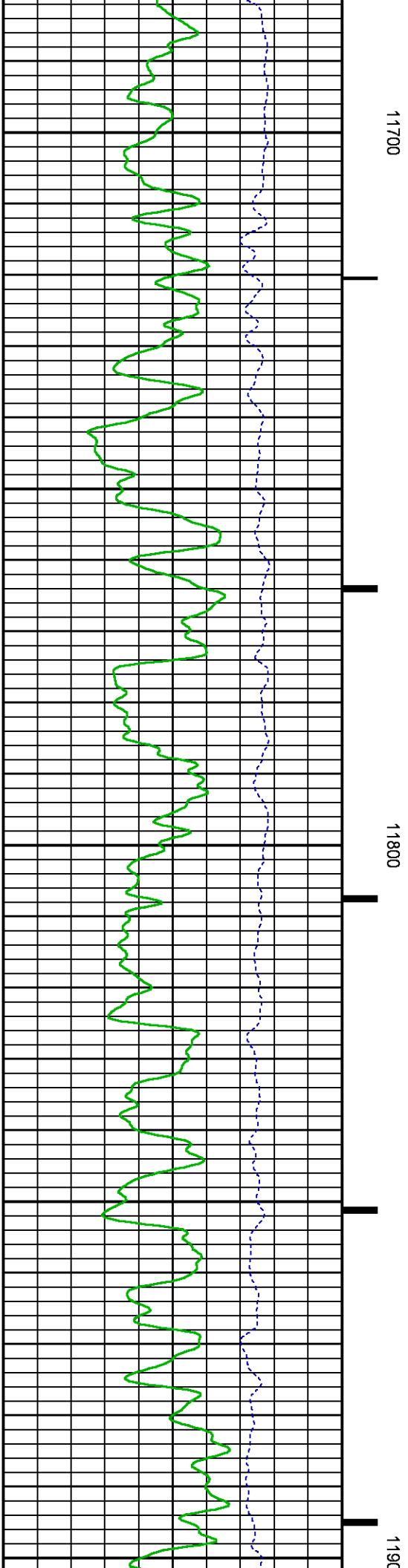
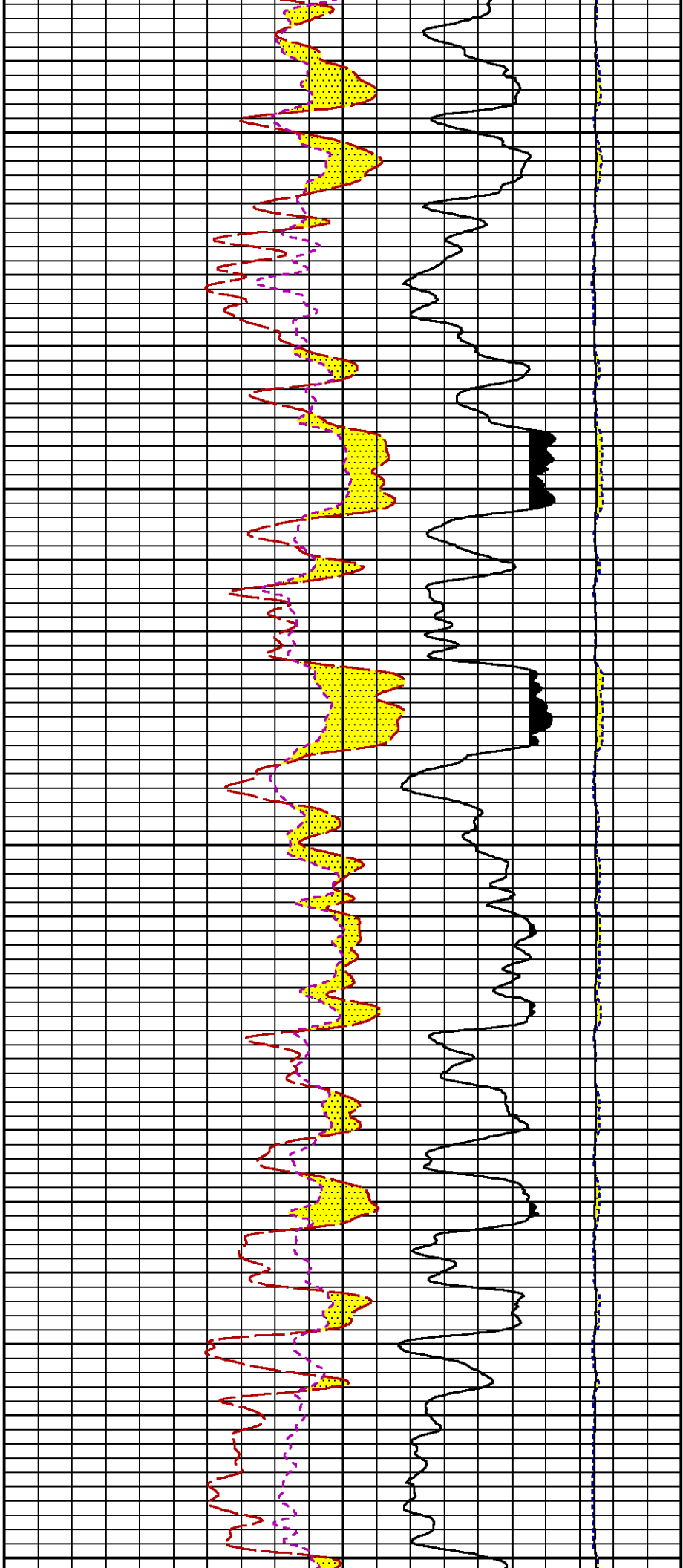


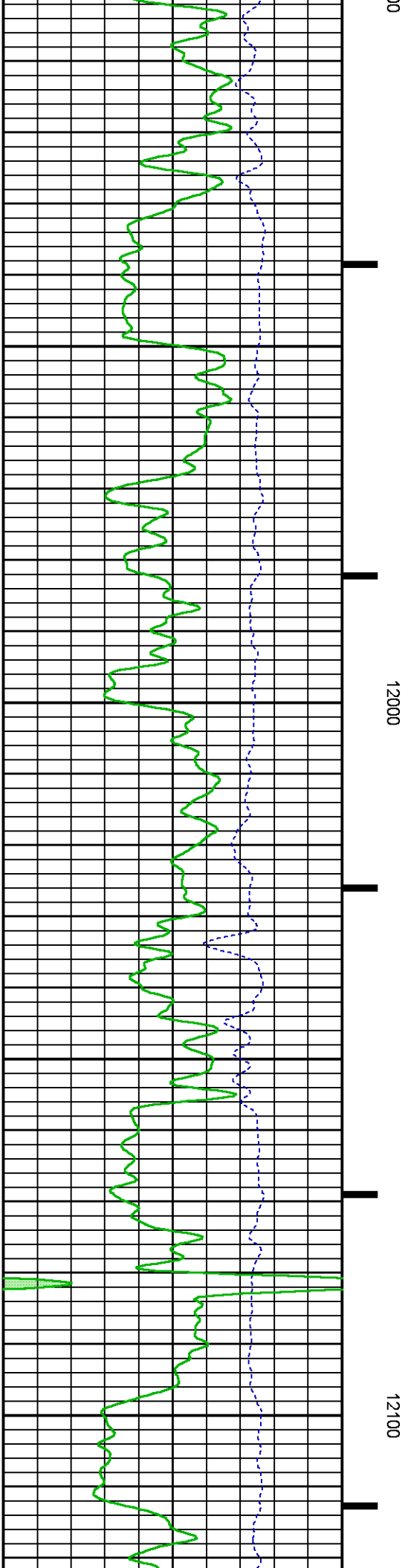
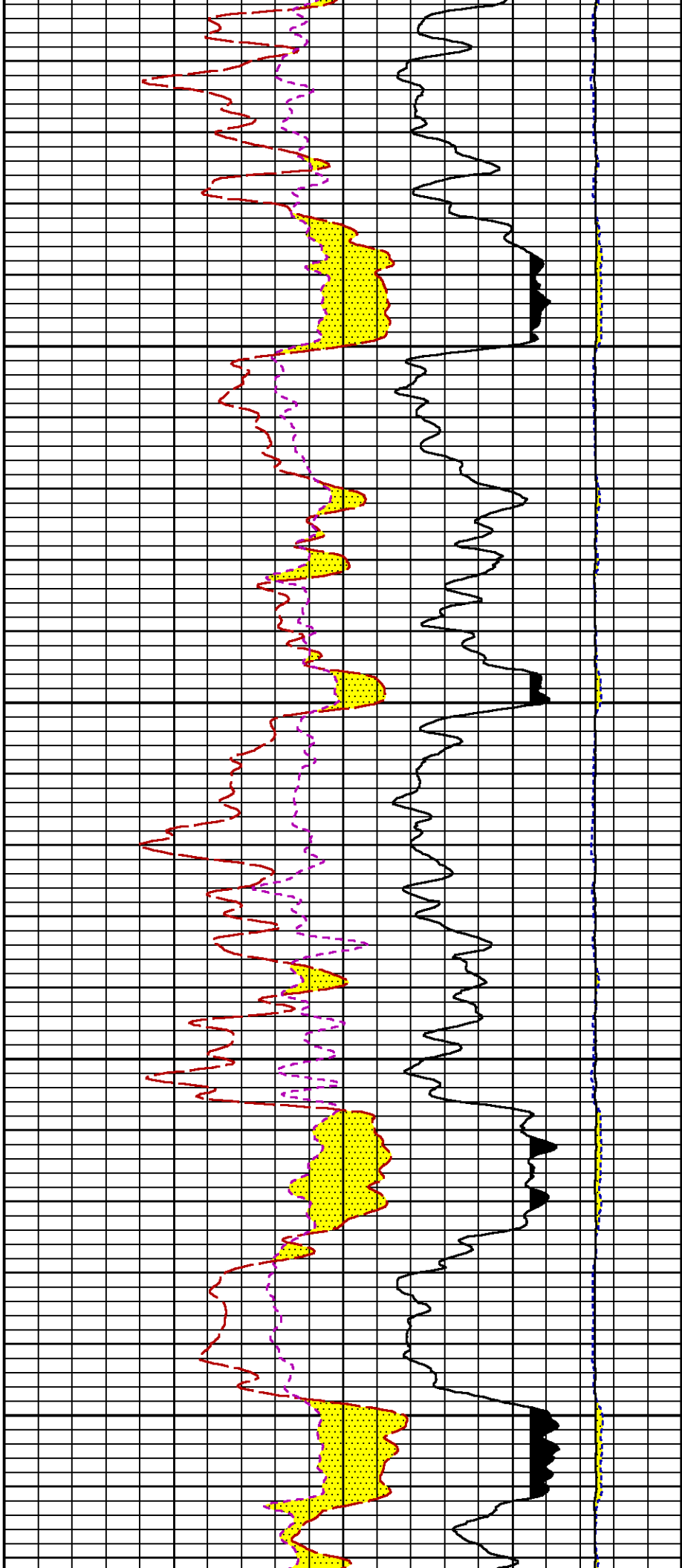


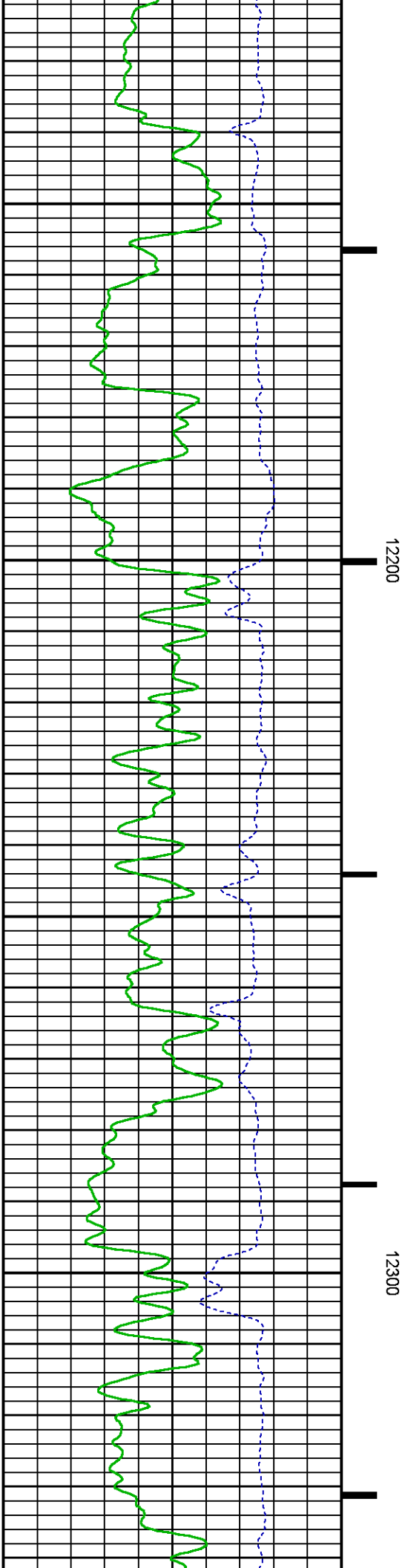
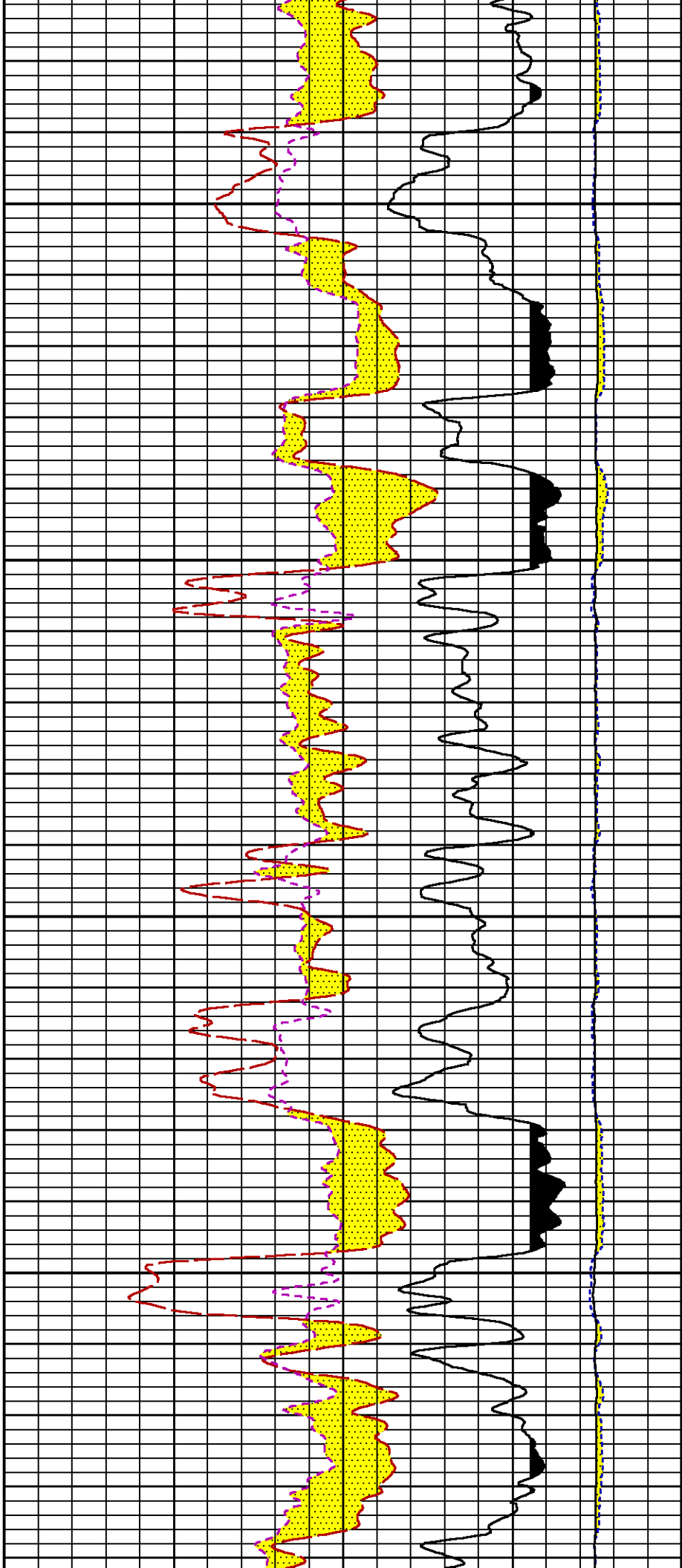


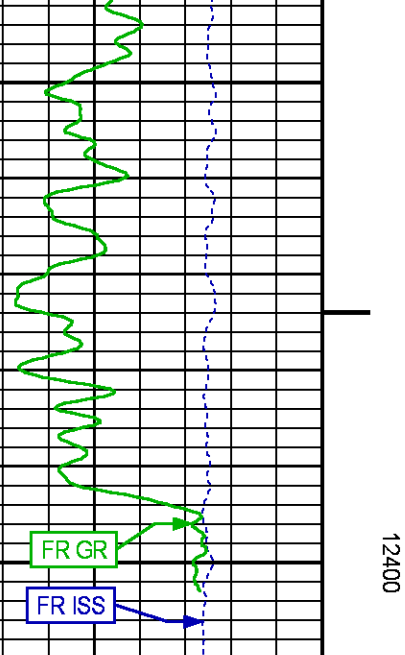












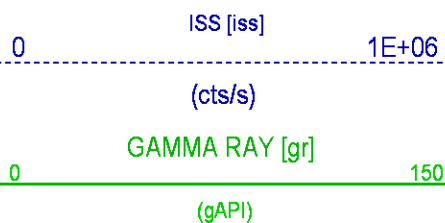
FR GR

FR ISS

12400

TD

GR BACKUP



FEET
CCL (mV)

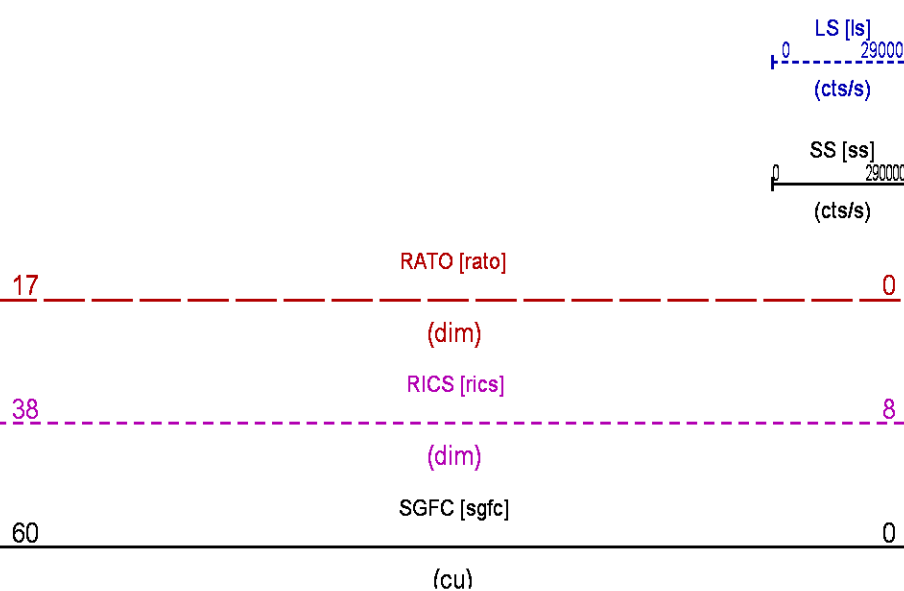
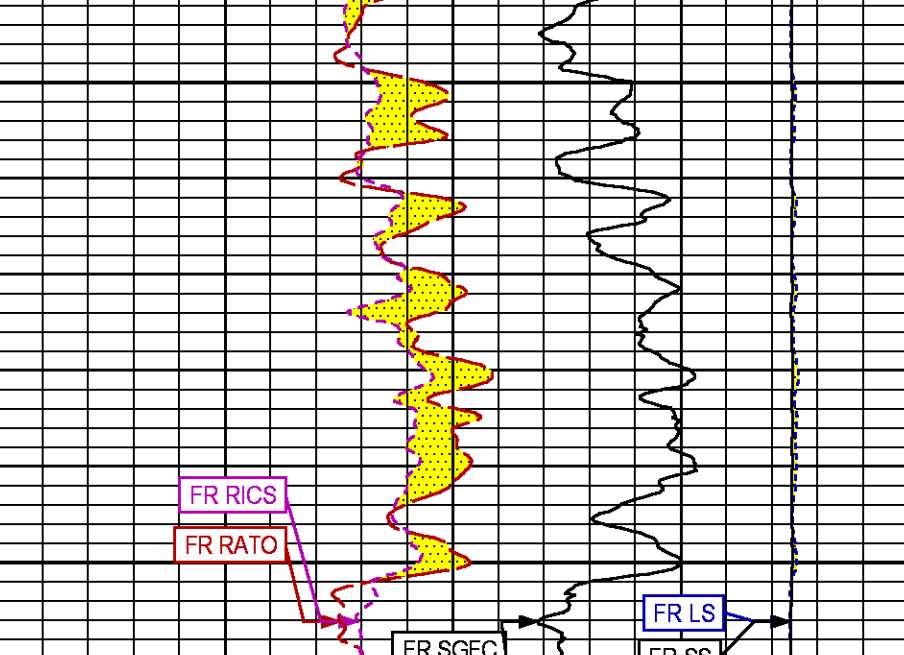
FR RICS

FR RATO

FR SGFC

FR LS

FR SS



REPEAT SECTION PNC-3D MODE

PARAMETER AND FILTER SUMMARY REPORT

FILE: /dat1a/CH096702/n353a01.prm
LOGGING MODE: DEPTH DIRECTION: UP
TOP DEPTH: 11772.250 ft BOTTOM DEPTH: 12006.250 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 | 7.88 | in | " " |
| | CASING SIZE | 4.50 | in | " " |
| | MATRIX | SANDSTONE | | " " |
| | CORRECTION BUFFER | 11 | | " " |

CURVE DESCRIPTION REPORT

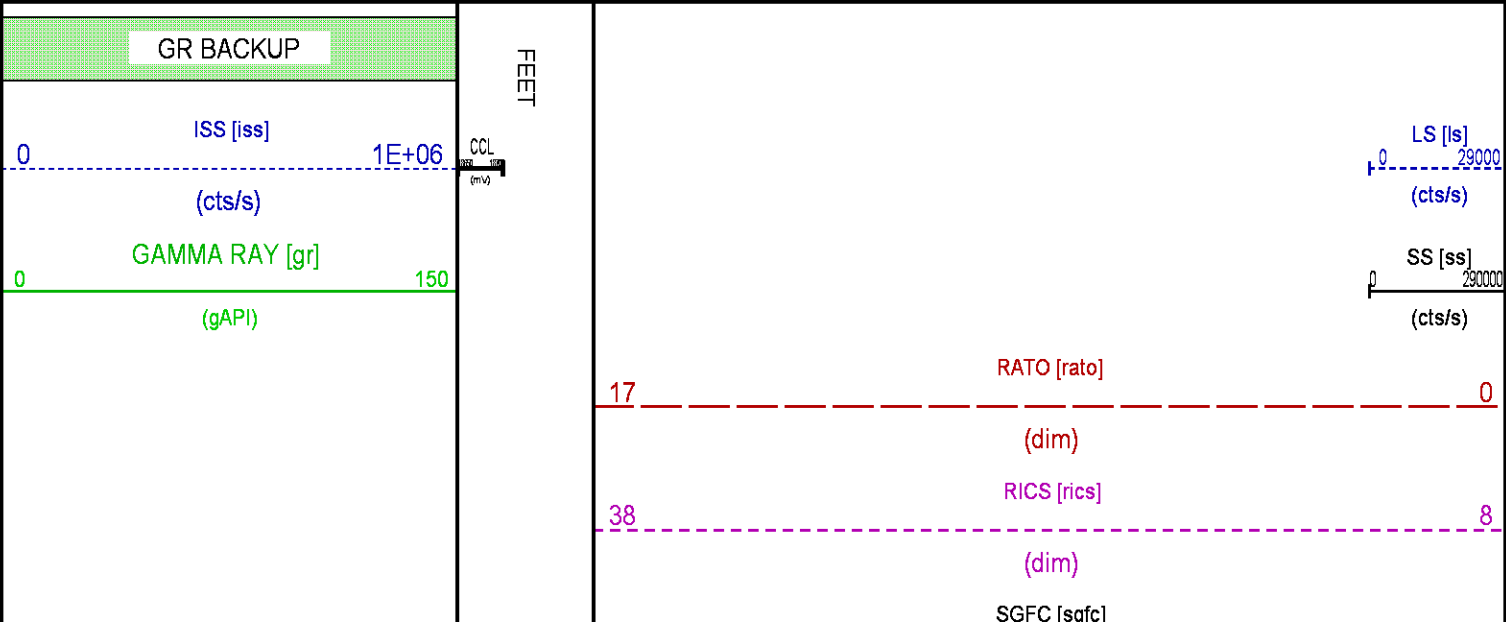
| CURVE NAME | CREATION DATE | CURVE DESCRIPTION |
|------------|----------------------|---|
| F1:CCL | May 23 13:56:44 2015 | CASING COLLAR LOCATOR |
| F1:GR | May 23 13:56:44 2015 | GAMMA RAY |
| F1:ISS | May 23 13:56:44 2015 | INELASTIC SHORT SPACE COUNT RATE |
| F1:LS | May 23 13:56:44 2015 | LONG SPACE COUNT RATE |
| F1:RATO | May 23 13:56:44 2015 | SHORT/LONG SPACE COUNT RATE RATIO |
| F1:RICS | May 23 13:56:44 2015 | SHORT SPACE INELASTIC TO CAPTURE COUNT RATE RATIO (ISS/CSS) |
| F1:SGFC | May 23 13:56:44 2015 | CORRECTED FORMATION SIGMA |
| F1:SS | May 23 13:56:44 2015 | SHORT SPACE COUNT RATE |

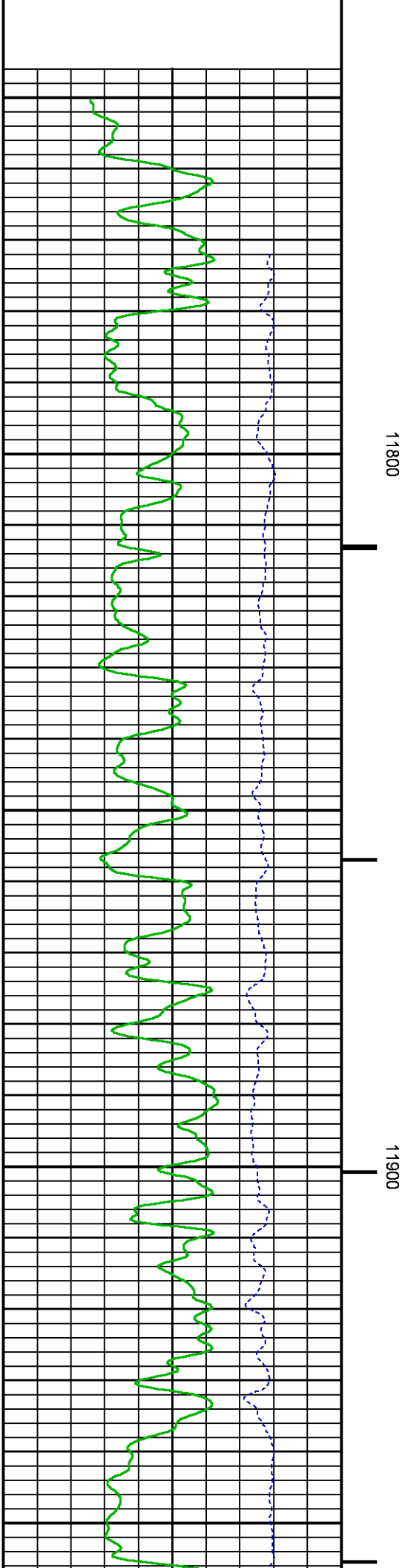
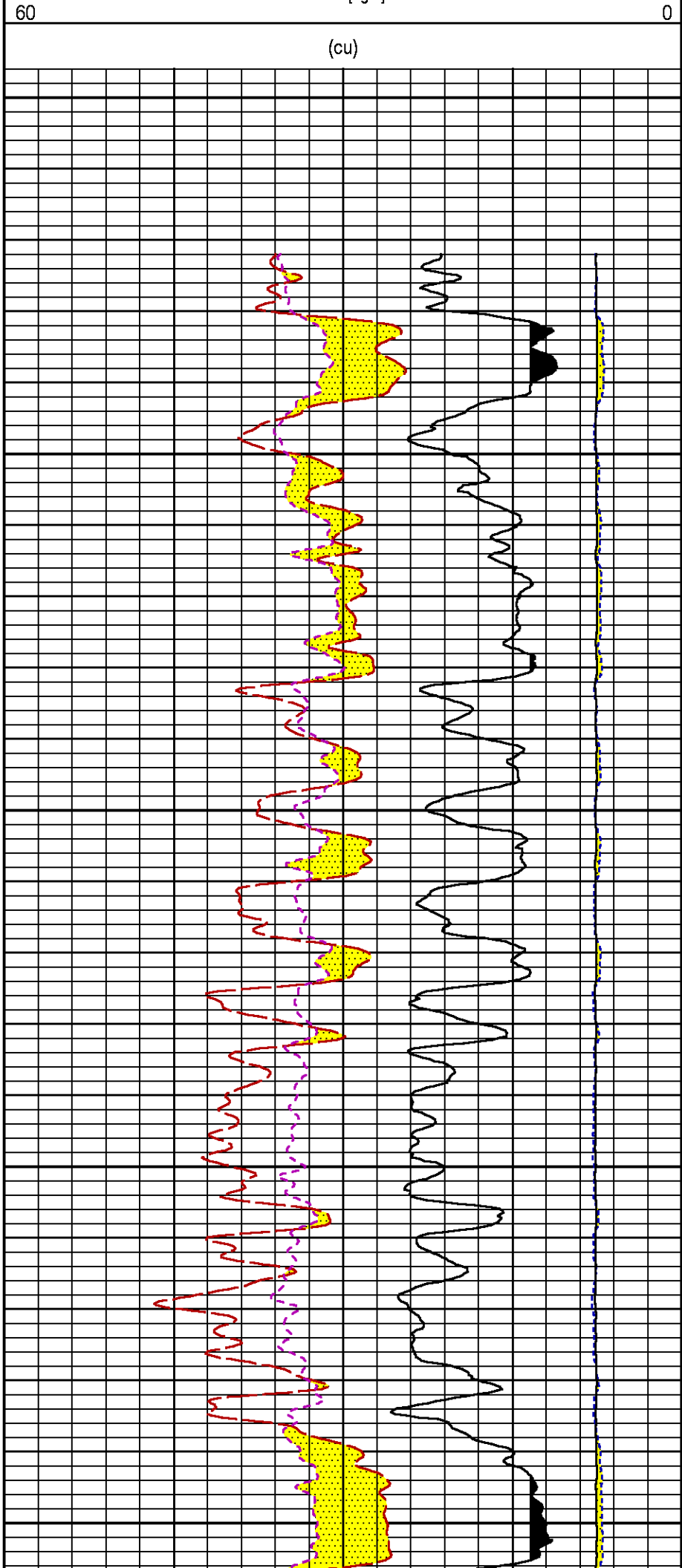
CURVE MEASURE POINT OFFSET

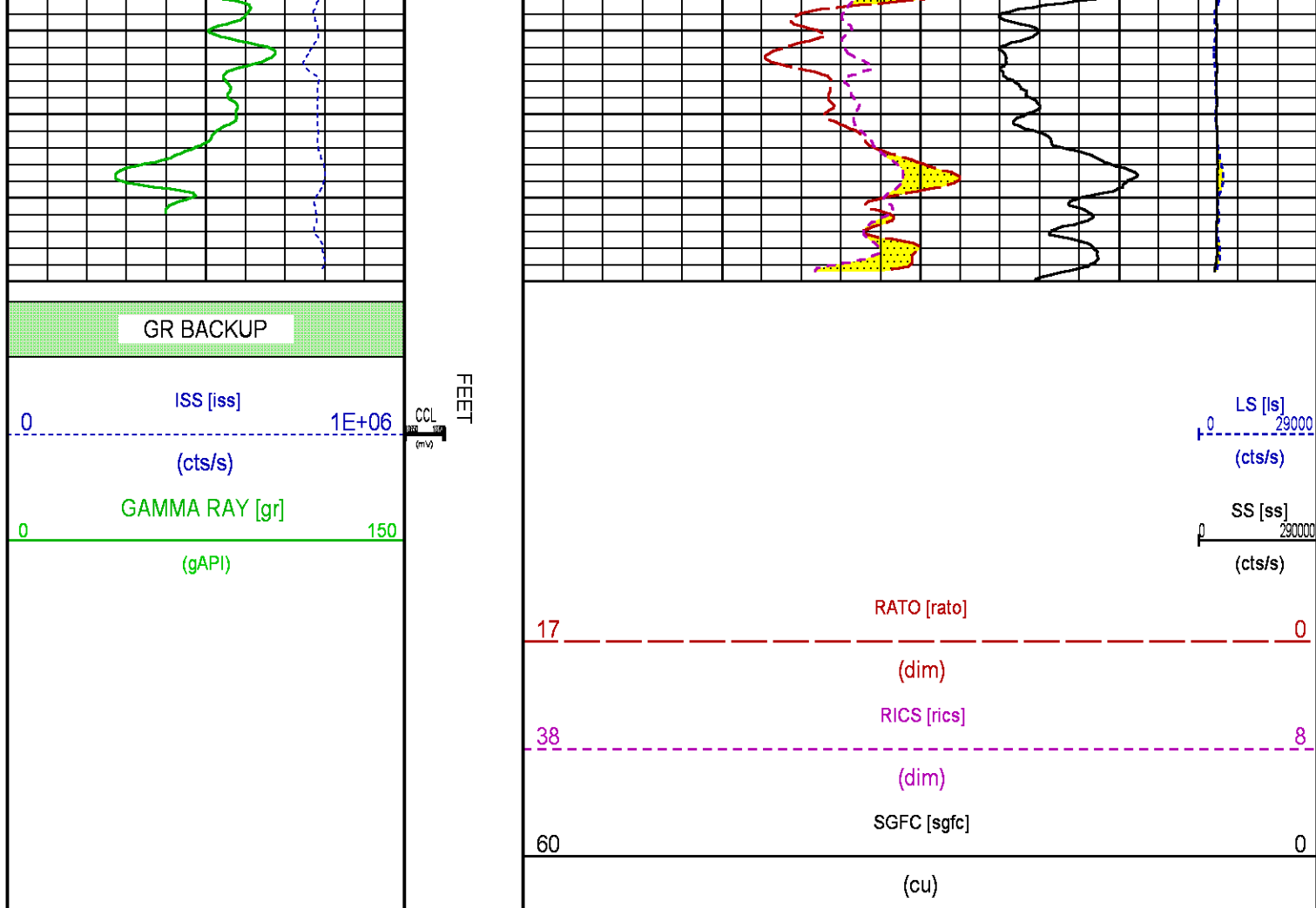
| CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) | CURVE | OFFSET (ft) |
|-------|-------------|-------|-------------|-------|-------------|-------|-------------|
| CCL | 26.00 | ISS | 12.75 | RATO | 12.75 | SGFC | 12.75 |
| GR | 23.00 | LS | 12.75 | RICS | 12.75 | SS | 12.75 |

Presentation : cas6685:/dat1a/CH096702/RPM_REPEAT.fvpdf [5"/100' Scale]
Plot Interval : 11746 - 11990 Feet

Data File 1 : F1 : cas6685:/dat1a/CH096702/n353a01_REPEAT.xtf
Created On : May 23 13:56:44 2015
Company : WPX ENERGY
Well : FEDERAL RGU 343-26-198
Field : SULPHUR CREEK
File Interval : 11745.2 - 12006.2 Feet
OCT : n353a







CALIBRATION / VERIFICATION SUMMARY

Source File: /dat1a/CH096702/n353a.tp1

GR PRIMARY CALIBRATION SUMMARY

TOOL #: 8262XA 10317216

DATE/TIME PERFORMED: Fri May 22 13:01:47 2015

UNIT #: 3885TC 6685

CALB JIG #: 4702NK VBA-905

| | BACKGROUND CALBRTR ON | CR DIFF | MULT | BACKGROUND CALBRTR ON | CALBRTR |
|----|-----------------------|---------|-------|-----------------------|---------|
| | (cts/s) | (cts/s) | | (gAPI) | (gAPI) |
| GR | 63.11 | 428.60 | 0.506 | 31.95 | 185 |

GR PRIMARY VERIFICATION SUMMARY

TOOL #: 8262XA 10317216

DATE/TIME PERFORMED: Fri May 22 13:04:19 2015

UNIT #: 3885TC 6685

VERI JIG #: 4702NK VBA-905

| | BACKGROUND CALBRTR ON | | MULT | BACKGROUND CALBRTR ON | | DIFF. |
|----|-----------------------|---------|-------|-----------------------|--------|---------------|
| | (cts/s) | (cts/s) | | (gAPI) | (gAPI) | (gAPI) |
| GR | 62.44 | 421.13 | 0.506 | 31.61 | 213.17 | 181.56 |
| | | | | | | 175.00 195.00 |

RPM_PNC_3D PRIMARY CALIBRATION SUMMARY

TOOL: 8283PA 10169251

DATE/TIME PERFORMED: Tue May 19 11:16:07 2015

UNIT: 3885TC 6685

CALIBRATOR: 2437XB 112674

SOURCE: 8281AA 10220684

HOURS: 8281AA 394

| | ISS | Mtr Vlt (V) | SS Gain | LS Gain | XLS Gain | EA Temp (degF) | Sync Delay (usec) | RCAL |
|--------------|---------|----------------|---------|---------|----------|-------------------|----------------------|--------|
| Raw Data | 804964 | 125 | 2325 | 2308 | 2334 | 100 | 7.0 | 0.9825 |
| Interpolated | 1300000 | 147 | 2306 | 2301 | 2334 | | | |

| | ISS | BKS | BKL | BKX | SGA1 | SDA1 | SGA2 | SDA2 |
|----------|--------|------|------|-----|-------------|-----------|-------------|-----------|
| Raw Data | 804964 | 9205 | 1490 | 183 | 26.03 | 0.15 | 24.17 | 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 | 804964 | 167561 | 26142 | 88307 | 31443 | 8234 | 53492 | 13175 |
| Fit Quality % | | 0.845 | 0.952 | 0.875 | 0.875 | 0.873 | 0.833 | 0.855 |

| | ISS | RBOR | RIN ISS/LS | RIN13 ISS/IXS | RICS ISS/CSS | RATO SS/LS | RTWO SS2/LS | RONE CSS/CLS |
|---------------|---------|-----------|---------------|------------------|-----------------|---------------|----------------|-----------------|
| Raw Data | 804964 | 1.44 | 4.80 | 30.80 | 15.05 | 10.73 | 3.82 | 4.06 |
| | | 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 % | | 0.036 | 0.198 | 0.106 | 0.120 | 0.213 | 0.203 | 0.183 |
| Reduced | 1400303 | 1.44 | 4.82 | 30.85 | 15.05 | 10.76 | 3.83 | 4.07 |
| | | 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 176973

DATE/TIME PERFORMED: Thu Jun 19 09:53:23 2014

UNIT #: 3880TA HL6670

T(0)

T(1)

T(2)

T(3)

INSTRUMENT CONFIGURATION

Source File: /dat1a/CH096699/n353a~tdg

| | | |
|-------------------------------|---------------------|---------------------|
| A3 CABLEHEAD | | 34.08' |
| 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 | CCL MP 26.03' |
| GAMMA RAY | | |
| Diameter | : 1.70" | |
| Length | : 3.02' | |
| Weight | : 15 lbs | |
| Series | : 8262XA | |
| Mnemonic | : GR | |
| Measure Point: | 0.89': GR MP | GR MP 22.90' |
| 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 | |
| Mnemonic | : RPM | |
| Measure Point: | 5.45': XLS DETECTOR | XLS DETECTOR 13.58' |
| Measure Point: | 5.04': LS DETECTOR | LS DETECTOR 13.16' |
| Measure Point: | 4.79': SS DETECTOR | SS DETECTOR 12.91' |
| 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 1.65' |
| | | PRES MP 0.00' |
| BULL PLUG 1 11/16 | | |
| TOTAL LENGTH: 34.08' | | |
| TOTAL WEIGHT: 144 lbs | | |
| MAX DIAMETER: 0'1.70" | | |





| | | |
|--|-------------|--|
| FIELD <u>FEDERAL ROAD 010 10 100</u> | | API NO: <u>01000792</u> |
| COUNTY _____ | STATE _____ | <u>05103119670000</u> |
| LOCATION: SHL: 2448' FNL 910' FEL BHL: 2577' FSL 1229' FEL SEC <u>26</u> TWP <u>1S</u> RGE <u>98W</u> | | ELEVATIONS: KB 6646 FT DF GL 6622 FT SEC 26 T1S R98W RGU 42-26-198 H&P 318 |
| | | DATE <u>23-May-2015</u> |