



RESERVOIR PERFORMANCE MONITOR

Baker Atlas

| | | |
|---|--|--|
| File No: CH084706 | Company Well | WPX ENERGY SAVAGE RWf 521-25 |
| API No: 05045219630000 | Field County | RULISON GARFIELD |
| | State CO | |
| 25 6S 94W RWf 22-25 PAD CYCLONE 17 | Location SHL: 2444' FNL & 1444' FWL BHL: 815' FNL & 2102' FWL SEC 25 TWP 6S RGE 94W | Other Services BOND LOG |
| Permanent Datum Log Measured From Drill Measured From | GL KB KB Elevation 21 ft Above P. D. | Elevations KB 6058 ft DF GL 6057 ft |

| | | |
|------------------------------|-----------------------|------------|
| Date | 19/APR/14 | |
| Run | ONE | |
| Service Order | US625368 | |
| Depth Driller | BB94 ft | |
| Depth Logger | BB62 ft | |
| Bottom Logged Interval | BB52 ft | |
| Top Logged Interval | 4712 ft | |
| Time Started | 11:00 | |
| Time Finished | 16:30 | |
| Operator Rig Time | 5.5 HOURS | |
| Type of Fluid in Hole | WATER | |
| Fluid Density | NA | |
| Salinity | NA | |
| Fluid Level | 70 ft | |
| Logged Cement Top | NA | |
| Wellhead Pressure | 0 psi | |
| Maximum Hole Deviation | NA | |
| Nominal Logging Speed | 10 fpm | |
| Maximum Recorded Temperature | 234 degF | |
| Reference Log | BAKER HUGHES BOND LOG | |
| Reference Log Date | 19/APR/14 | |
| Equipment No. | 4271 | GRAND JCT. |
| Recorded By | NEWELL | |
| Witnessed By | COLE APPLIGATE | |

- FOLD HERE

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 | 1133 ft |
| 8.75 In | 1133 ft | 8945 ft |

| Casing Record | | | | |
|---------------|-------------|-------|------|---------|
| Size | Weight | Grade | From | To |
| 9.625 In | | | 0 ft | 1133 ft |
| 4.5 In | 11.6 lbm/ft | 1-80 | 0 ft | 8945 ft |

| |
|---|
| Remarks |
| All data on this log is shifted and depth matched using the Gamma Ray curve to the Baker Hughes bond log dated 4/19/2014 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 1 foot. |

Logged In PNC-3D mode.

BHT = 234 °F

SJ = 5499'-5523'

| Equipment Data | | | | | |
|----------------|------|---------|---------------|---------------|----------|
| Run | Trip | Tool | Series Number | Serial Number | Position |
| 1 | 1 | PCM | 8250EA | 10397894 | FREE |
| 1 | 1 | TEL/CCL | 8248ED | 10296408 | FREE |
| 1 | 1 | GR | 2812LA | 10274382 | FREE |
| 1 | 1 | RPM | 8281EA | 10423671 | FREE |
| 1 | 1 | RPM | 8283PA | 10585555 | FREE |
| 1 | 1 | RPM | 8281FA | 10401926 | FREE |

MAIN SECTION
PNC 3-D MODE

| SPL PROCESSING | | | | | |
|------------------|---------------|----------------|-------|----------|----------|
| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | TOP | BOTTOM |
| PNC Porosity | Borehole | Cased | | 4688.250 | 8848.000 |
| PNC Porosity | Borehole Size | 8.750 | inch | 4688.250 | 8848.000 |
| PNC Porosity | Casing Size | 4.500 | inch | 4688.250 | 8848.000 |
| PNC Porosity | Gas Filled | Non Gas Filled | | 4688.250 | 8848.000 |
| PNC Porosity | Matrix | Sandstone | | 4688.250 | 8848.000 |

| DEPTH OFFSETS | | | | | | | |
|-----------------------|--------------|-----------------|--------|--------|--------|-----|-----|
| (for Acquired Curves) | | | | | | | |
| SERIES | DEPTH OFFSET | ACQUIRED CURVES | | | | | |
| 8248ED | -14.478 | FLTM | | | | | |
| 8248ED | -12.478 | CCL | CHV | | | | |
| 2812LA | -9.928 | GR | | | | | |
| 8281XA | -0.662 | HVC3Q0 | SEQ3 | AMA3 | AML3 | BKX | CXS |
| | | ORT3Q0 | ORT3Q8 | ORT3Q7 | ORT3Q4 | FTZ | LXS |

8281XA

-0.250

8281XA

0.000

SYSTEM

0.000

| | | | | | |
|---------|---------|--------|--------|--------|---------|
| CPT3Q0 | CPT3Q2 | CPT3Q3 | CPT3Q4 | ET3 | TXS |
| MCS3 | MCS3Q0 | QCAL3 | RGN3 | RICX | SDA3 |
| SDL3 | SGA3 | SGL3 | STA3 | XS | ASPEC3 |
| AMB3 | AMF3 | CHF3 | IXSC | IXSN | RAT023 |
| RICXC | RIN13C | RIN23 | RIN23C | SD3D | SG3D |
| SGB3 | SGF3 | WDTH3 | CXSR | IXSR | XSR |
| RICXR | | | | | |
| HVC2Q0 | SEQ2 | AMA2 | AMB2 | AMF2 | AML2 |
| BKL | CHF2 | CLS | CPT2Q0 | CPT2Q2 | CPT2Q3 |
| CPT2Q4 | ET2 | ILS | LS | MCS2 | MCS2Q0 |
| QCAL2 | RGN2 | RICL | RONE23 | RTW023 | SDA2 |
| SDL2 | SGA2 | SGB2 | SGF2 | SGK2 | SGL2 |
| STA2 | ASPEC2 | ILSC | ILSN | WDTH2 | RICLC |
| CLSR | ILSR | LSR | RICLR | | |
| CPRS | HVC1Q0 | MV | SEQ | SEQ1 | AMA1 |
| AMB1 | AME1 | AMF1 | AML1 | BKS | CHF1 |
| CSS | CORB | CORF | CPT1Q0 | CPT1Q2 | CPT1Q2A |
| CPT1Q2B | CPT1Q2C | CPT1Q3 | CPT1Q4 | CPT1Q5 | ET1 |
| G1 | G2 | GE1S | GE2S | ISS | MCS1 |
| MCS1Q0 | QA1 | QCAL1 | QM1 | RAT0 | RAT013 |
| RBOR | RGN1 | RICS | RIN | RONE | RPOR |
| RTW0 | RIN13 | RONE13 | RTW013 | SALB | SC1 |
| SDA1 | SDL1 | SGA1 | SGB1 | SGBC | SGE1 |
| SGF1 | SGFC | SGK1 | SGL1 | SS | SS2 |
| STA1 | PD1S | PD2S | PD3S | MD1S | MD2S |
| MD3S | DG1S | DG2S | DG3S | PD1M | PD2M |
| PD3M | MD1M | MD2M | MD3M | DG1M | DG2M |
| DG3M | MVS | MA | MVM | FILV | IAM |
| TA | PVM | PVS | IAS | SSTAT | QPD1 |
| QPD2 | QPD3 | QMD1 | QMD2 | QMD3 | QDG1 |
| QDG2 | QDG3 | QMA | QTA | QFILV | QMV |
| QPV | QIA | DERR | DCNT | QPK1 | QSA1 |
| PKS1 | ASPEC1 | HOC | FE2XC | ISSC | RINC |
| ISSN | RDEN | WDTH1 | RICSC | CSSR | G1R |
| G2R | ISSR | SSR | SS2R | RATOR | RAT013R |
| RBORR | RICSR | RINR | RIN13R | RONER | RPORR |
| RTWOR | | | | | |
| TEN | TTEN | | | | |

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

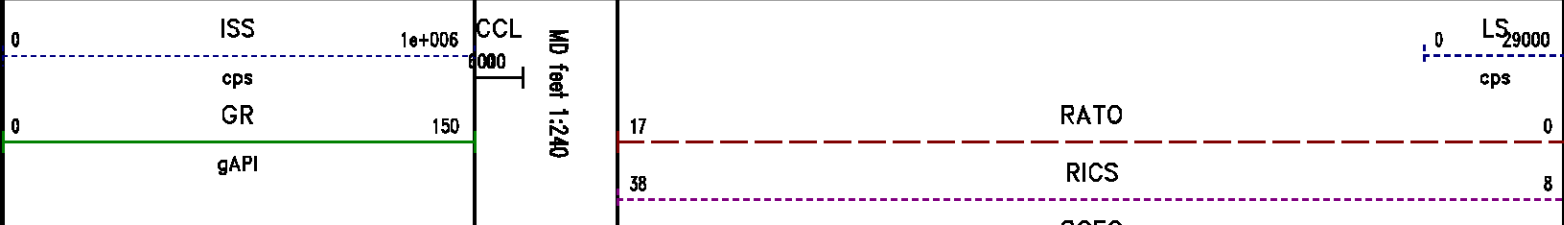
Well : SAVAGE RWF 521-25

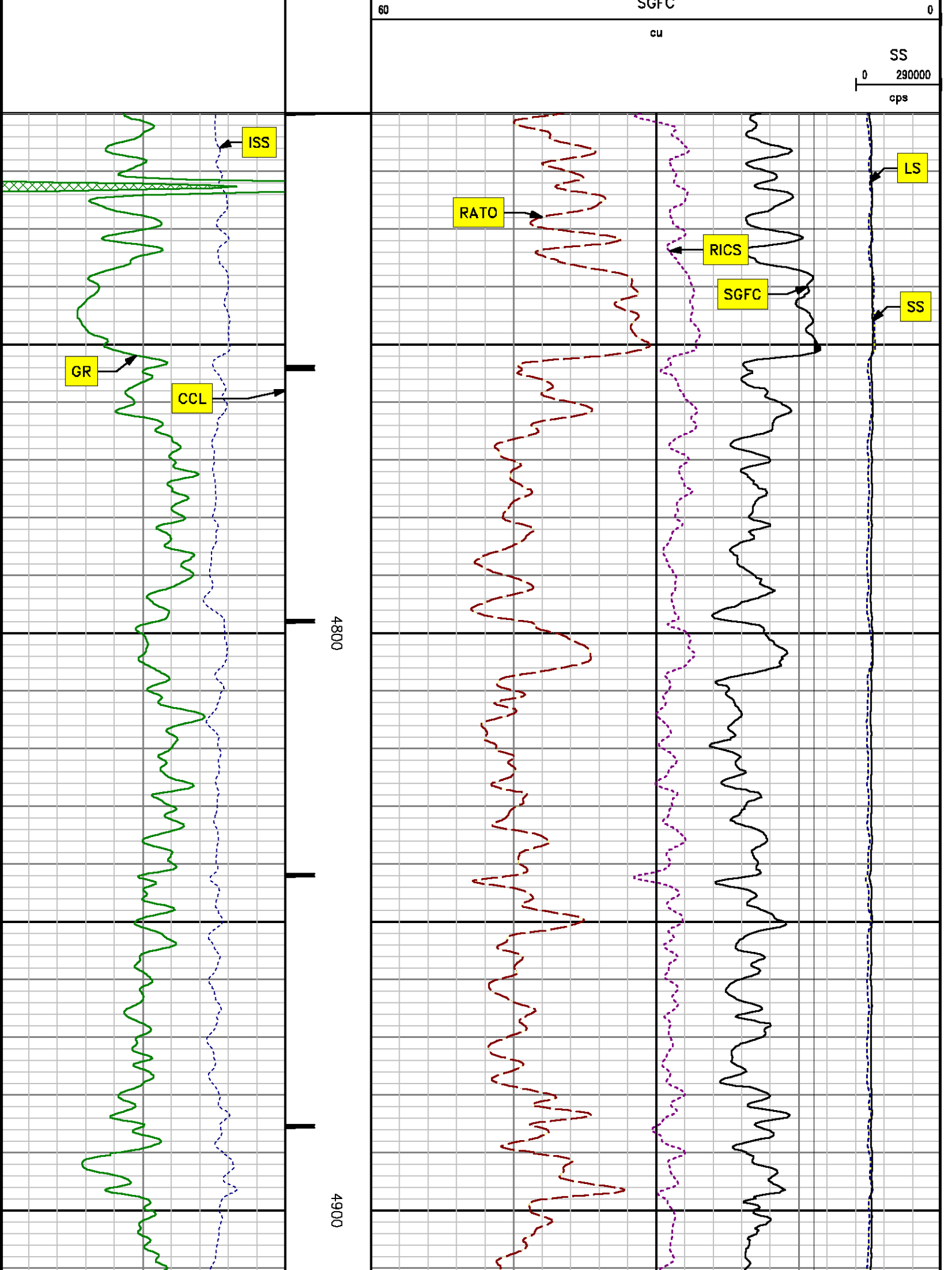
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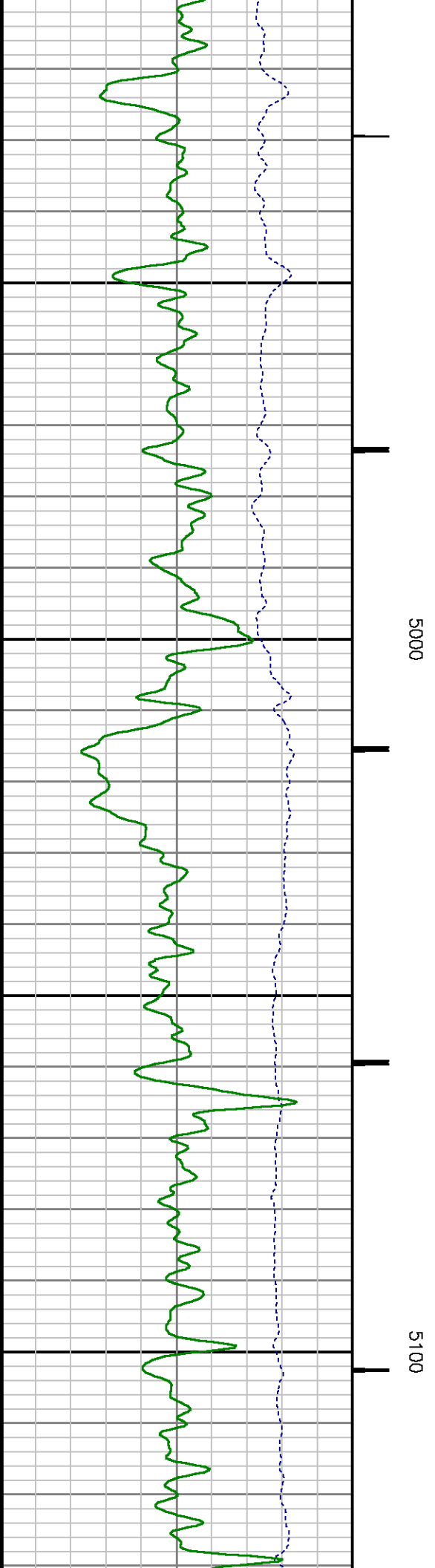
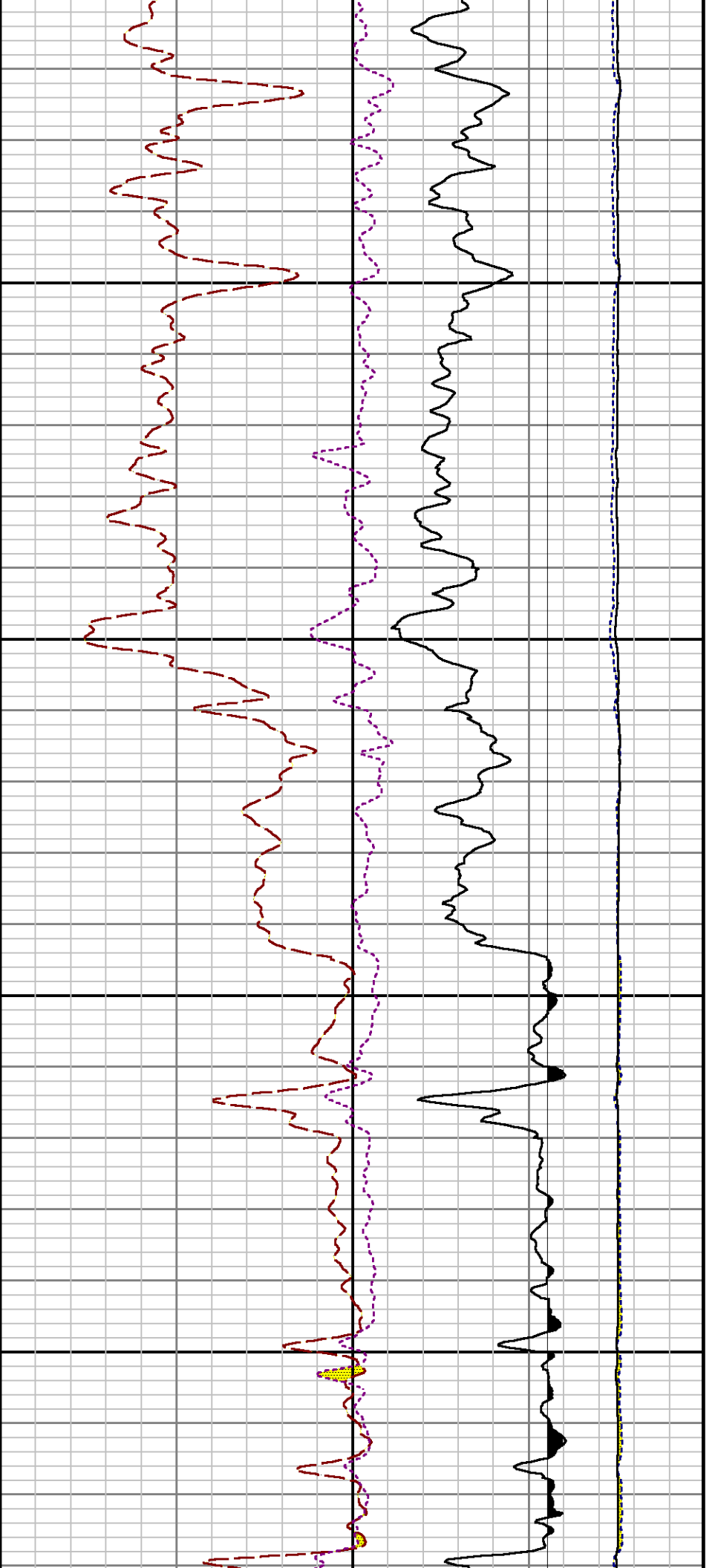
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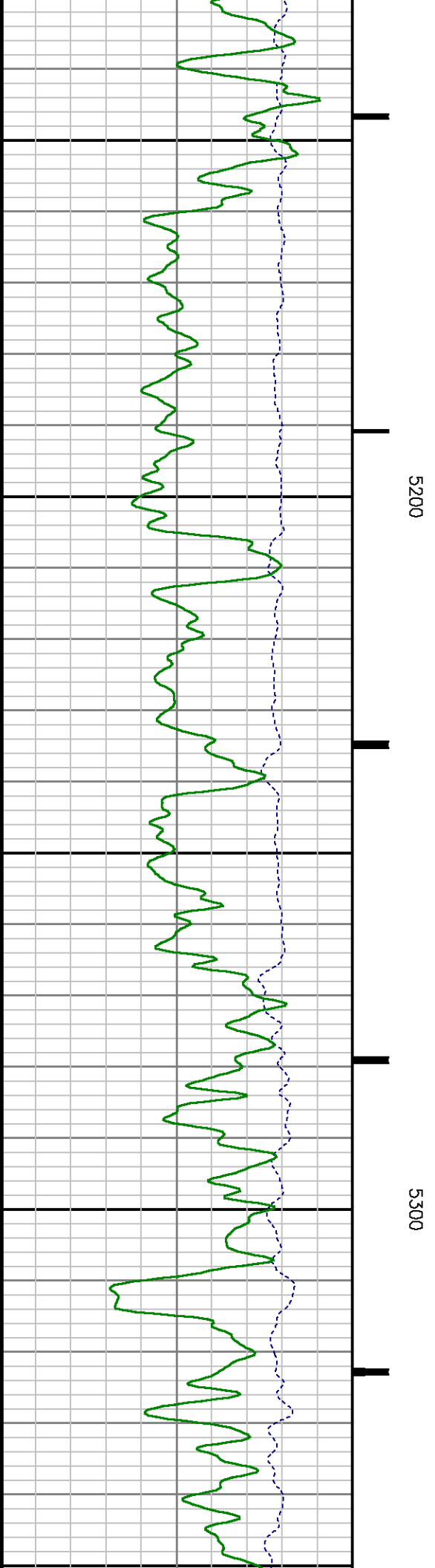
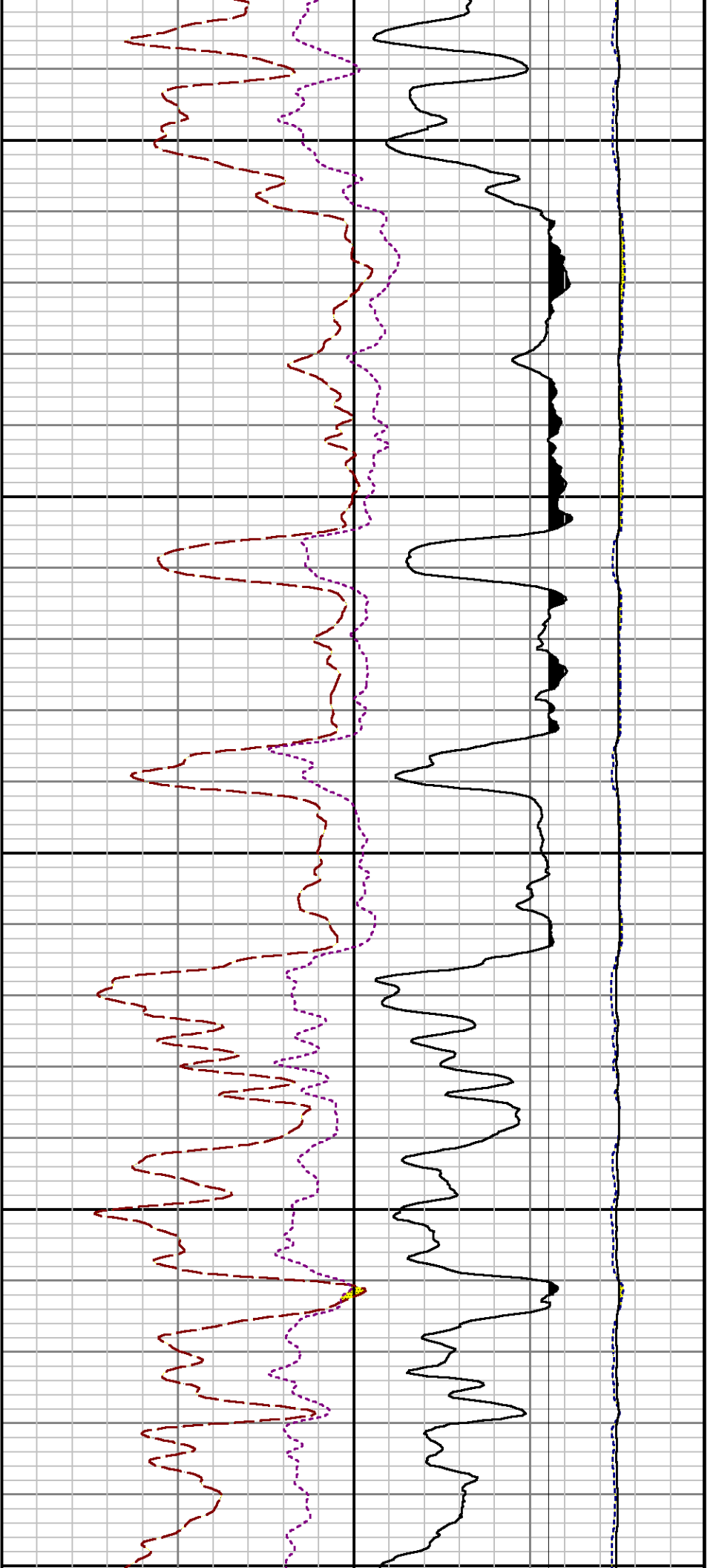
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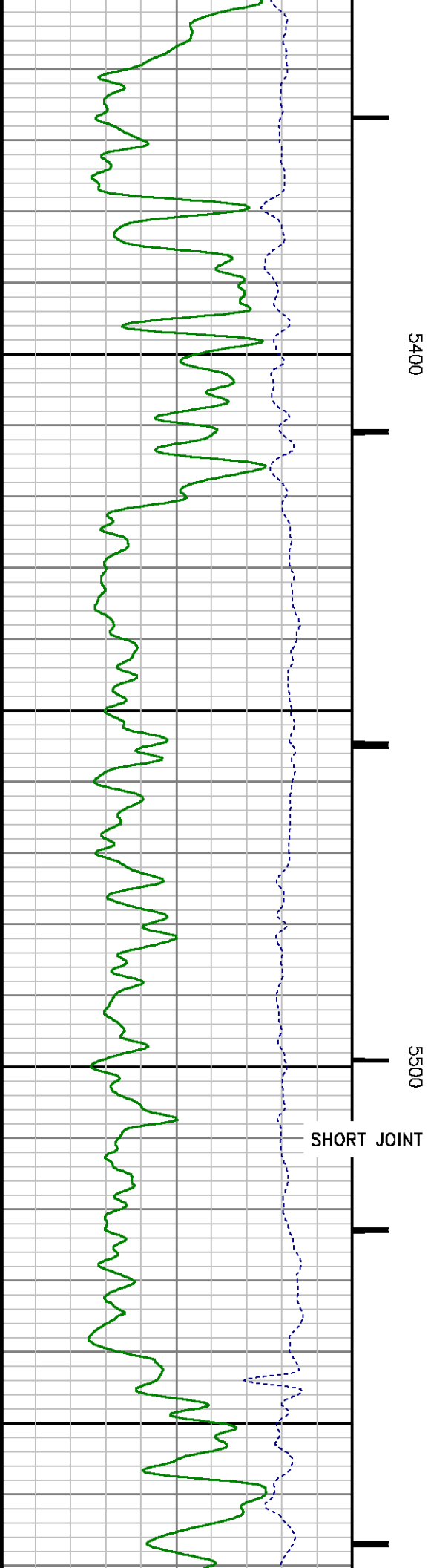
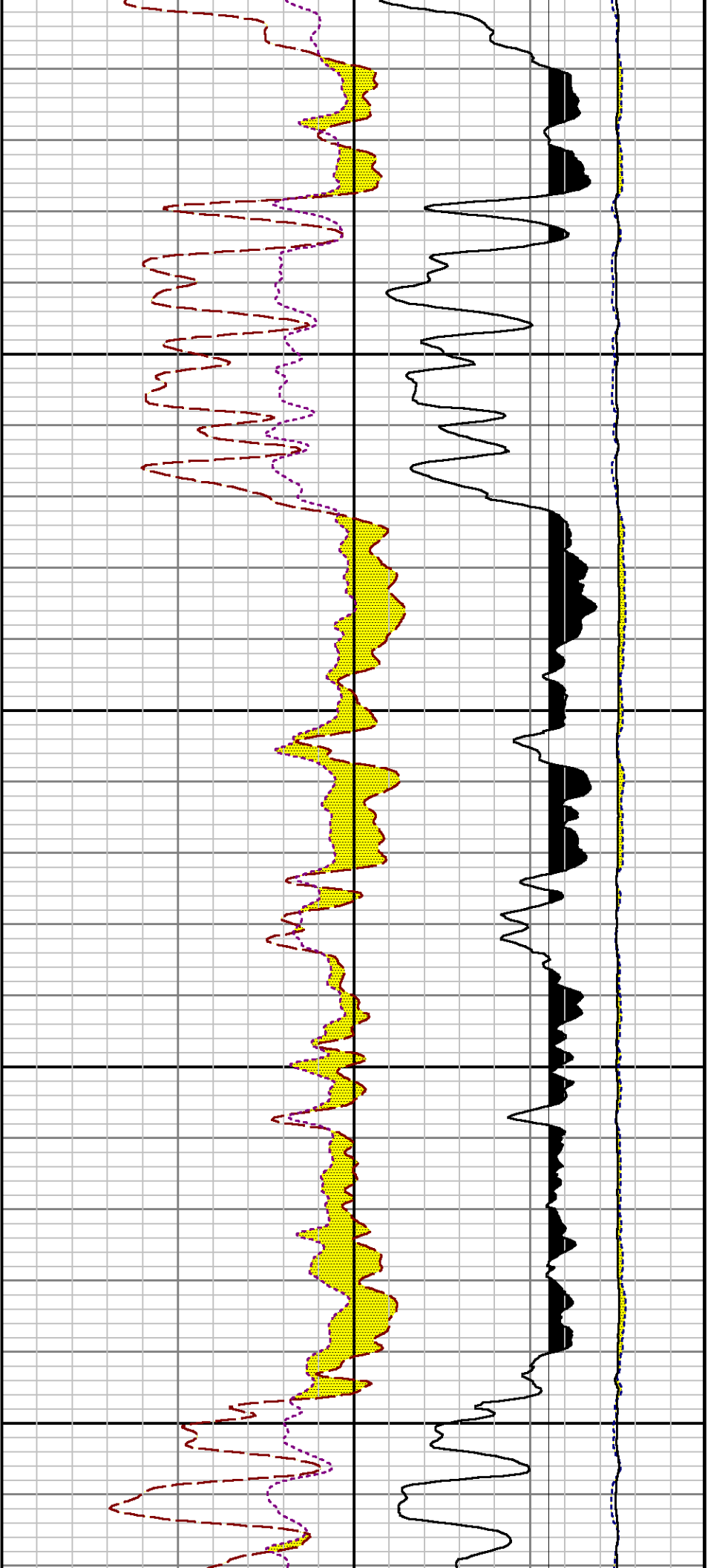
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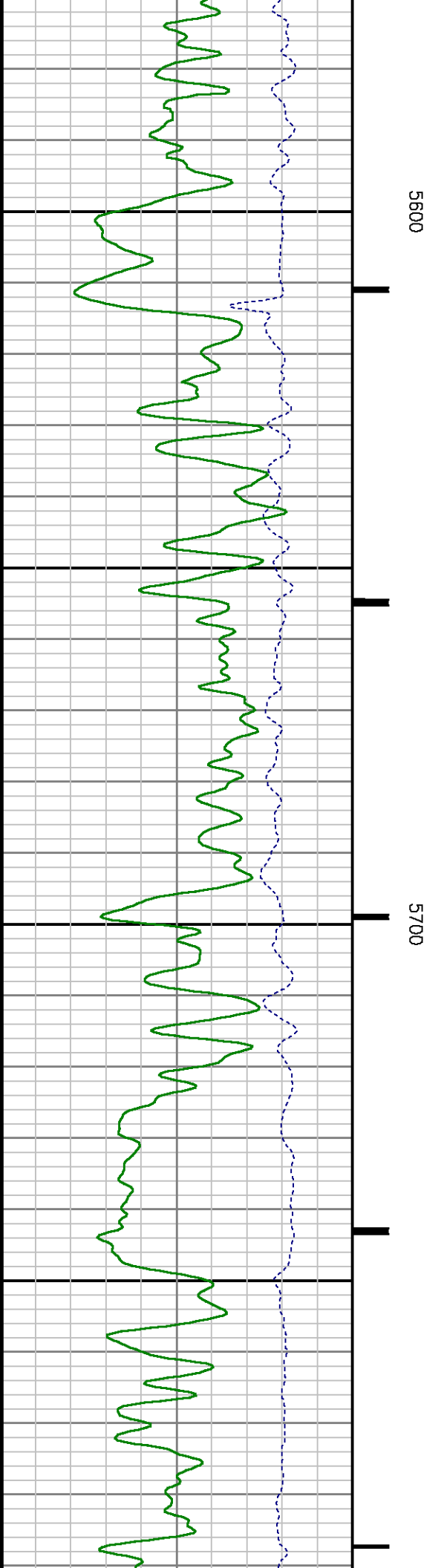
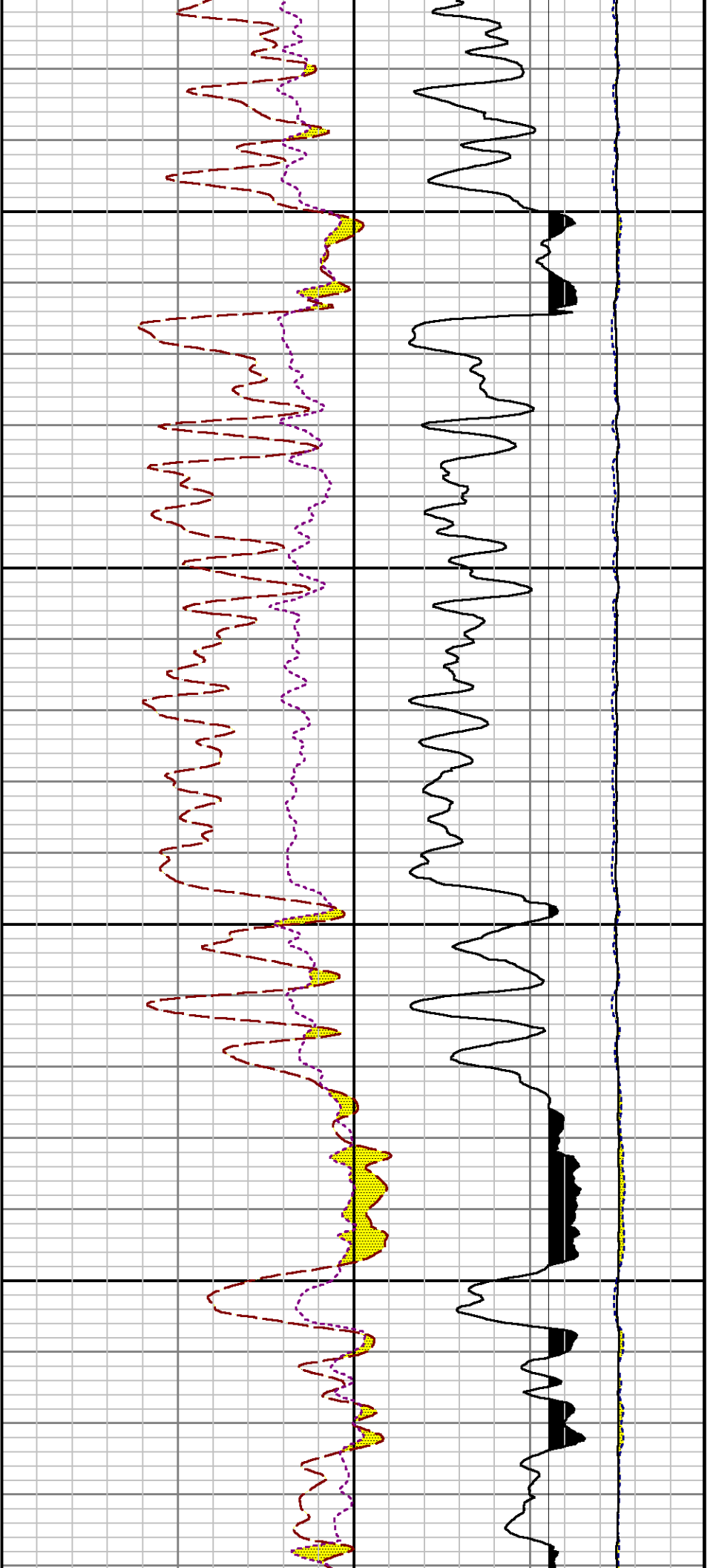


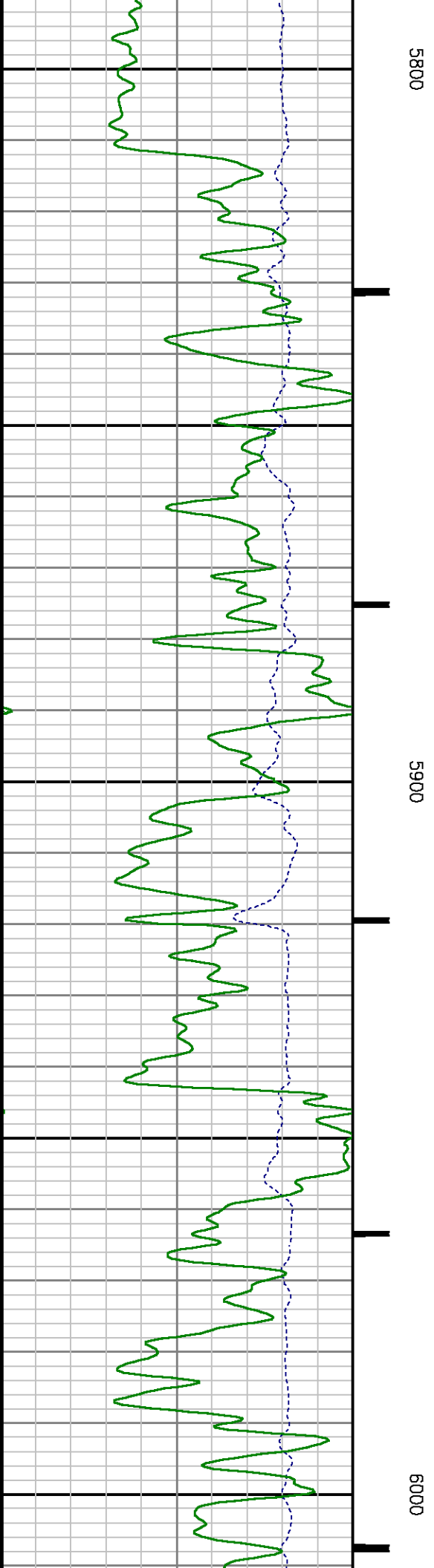
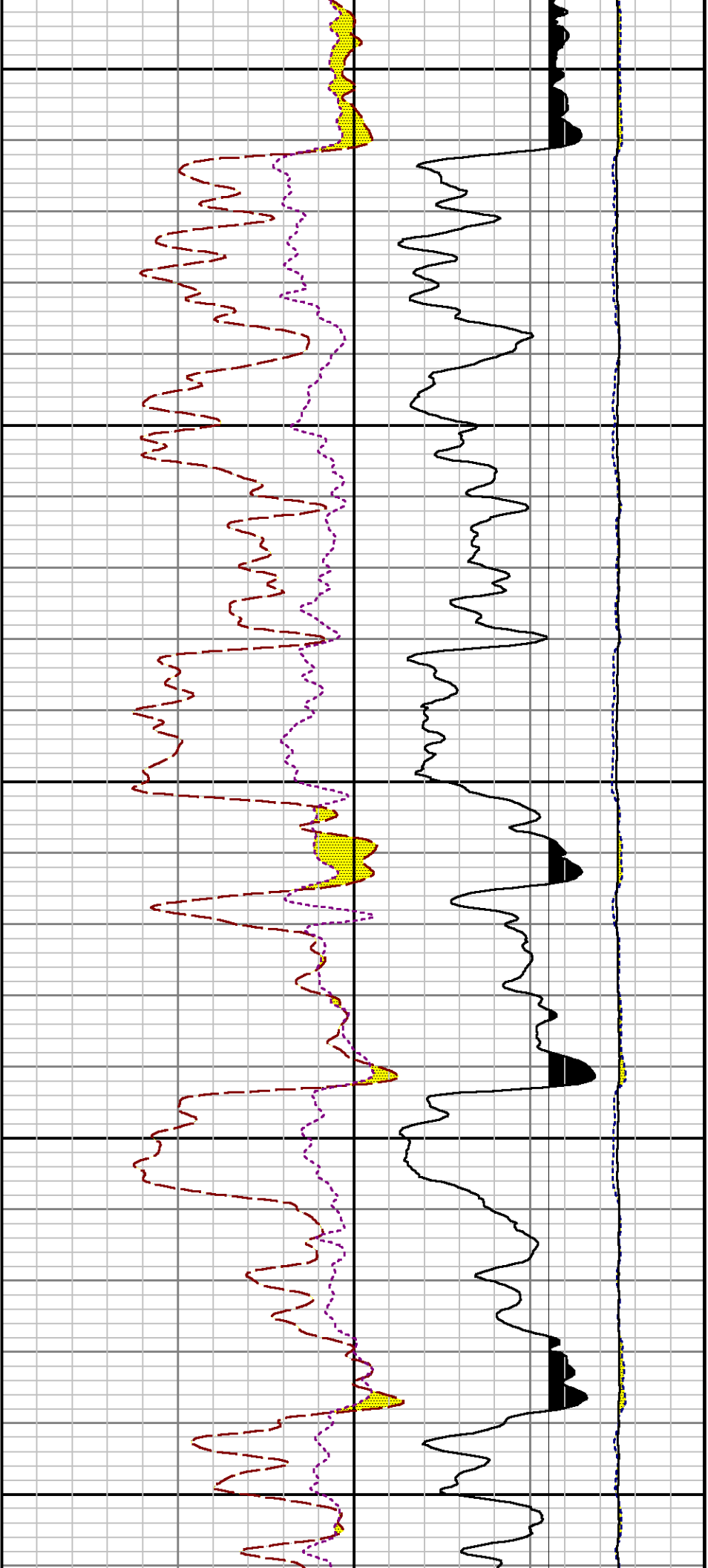


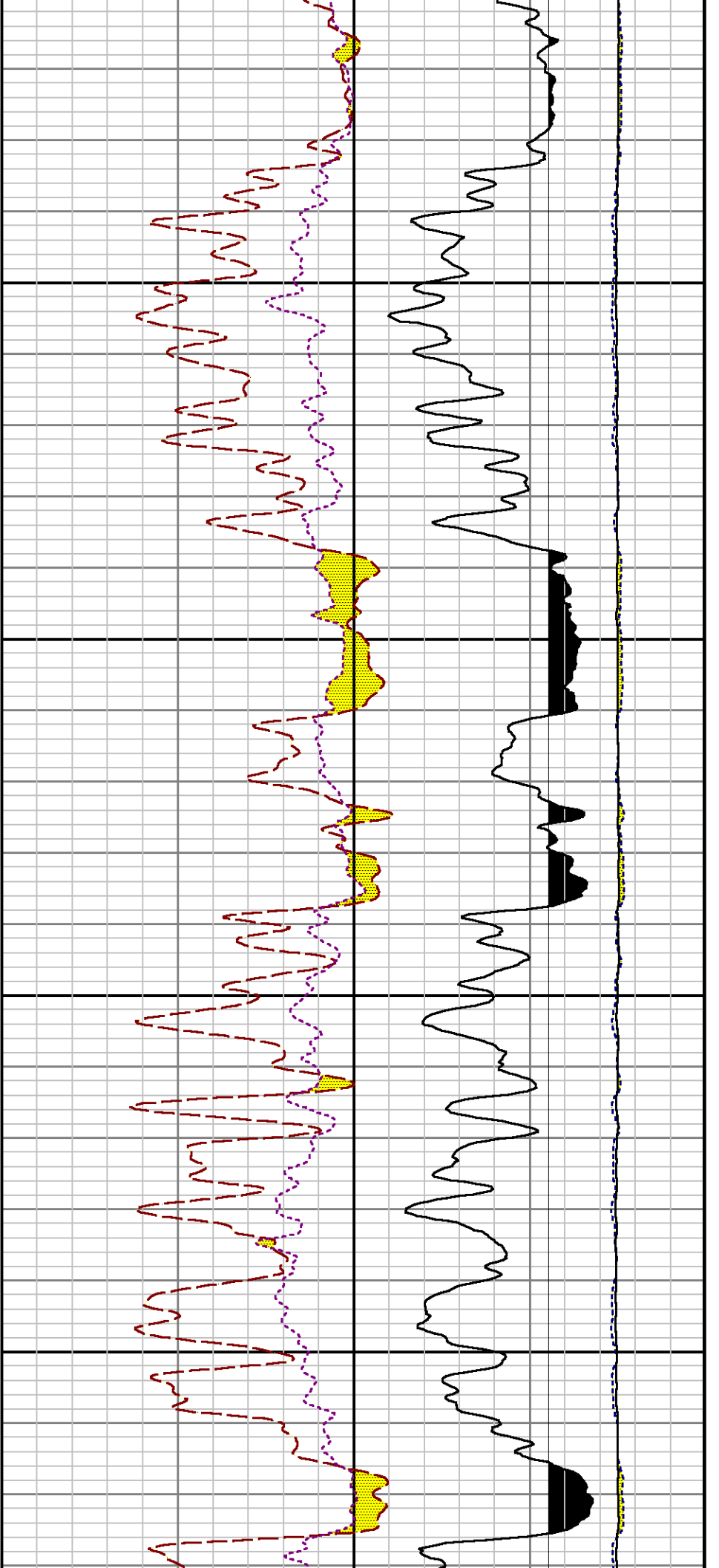






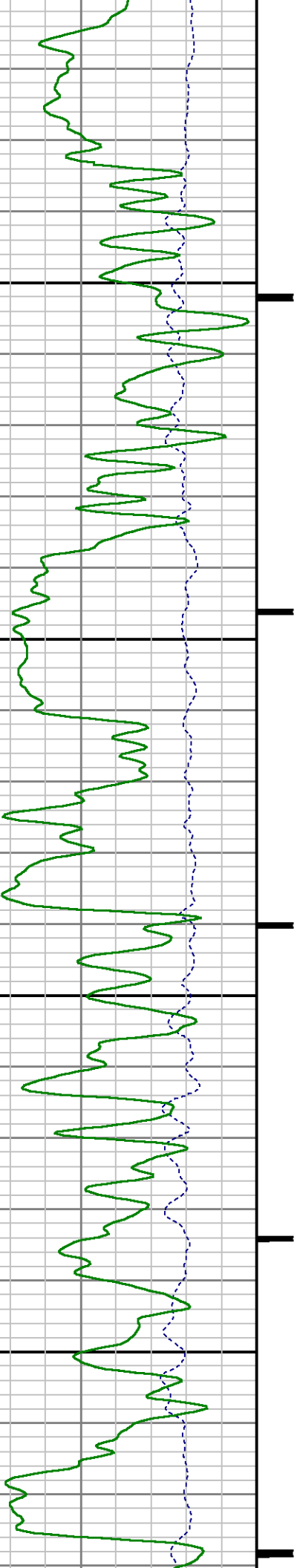


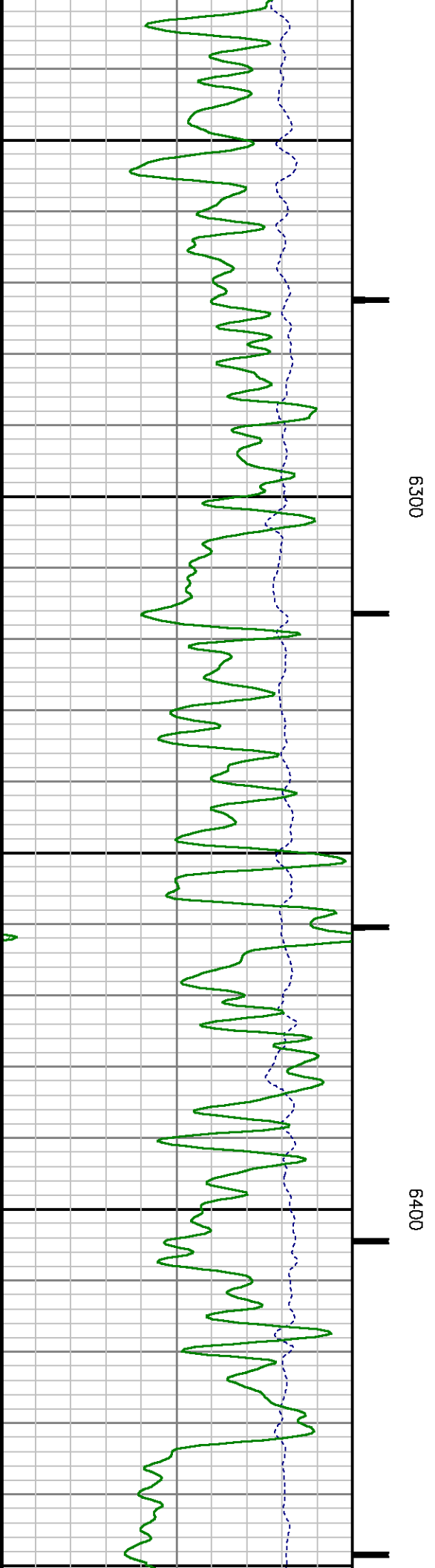
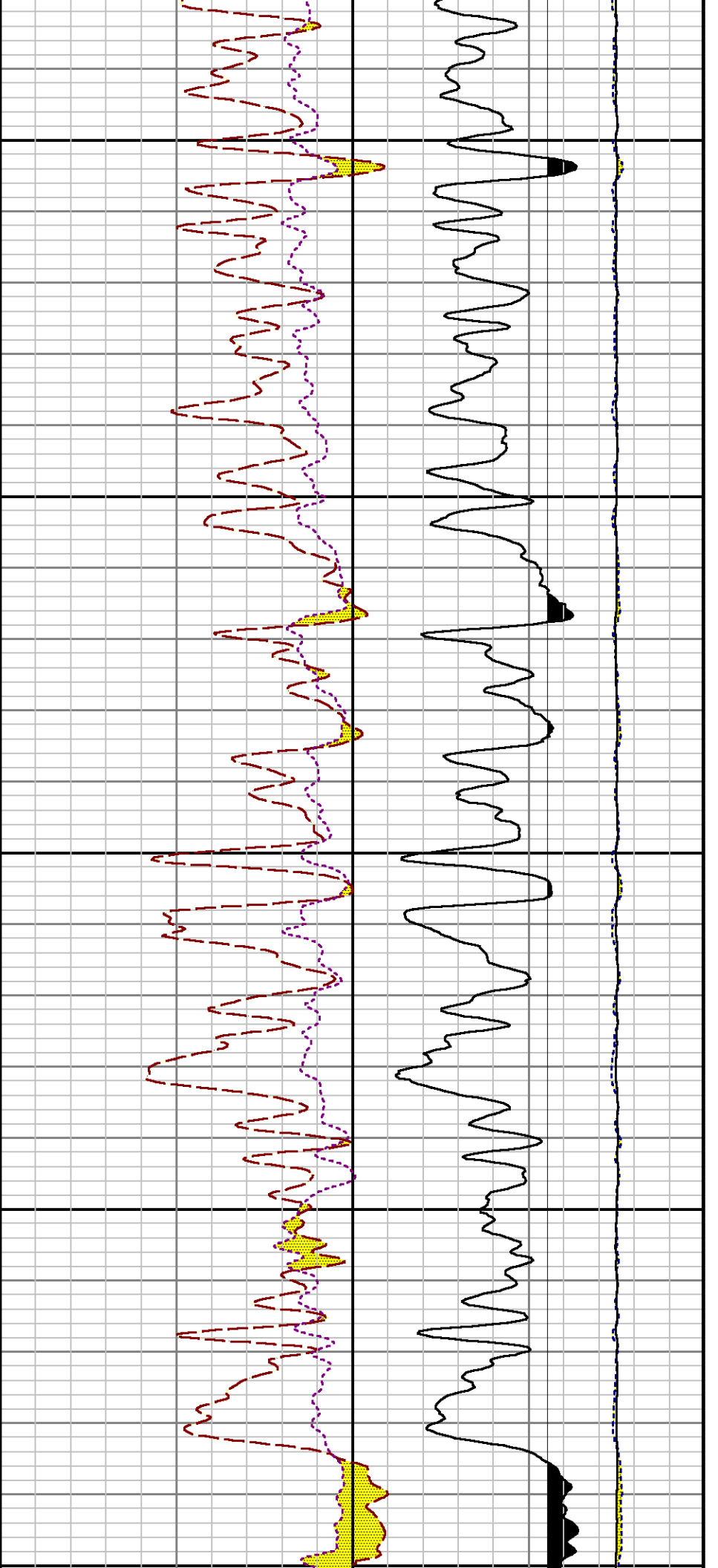


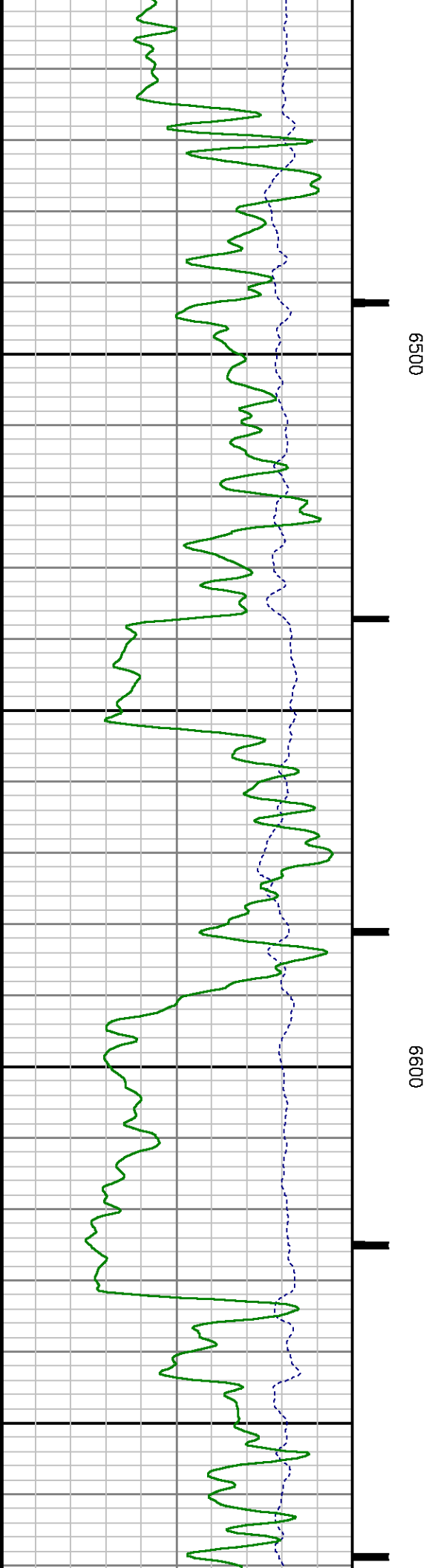
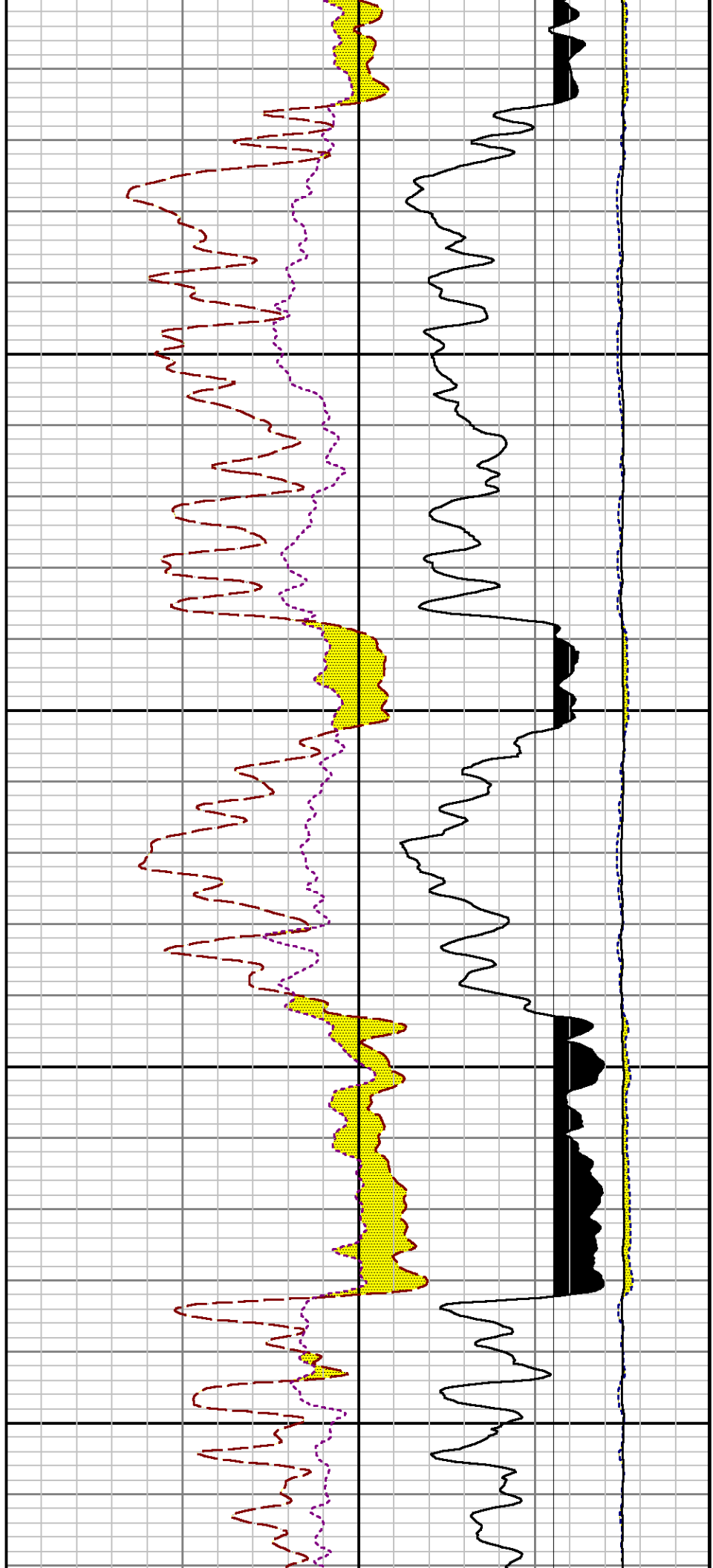


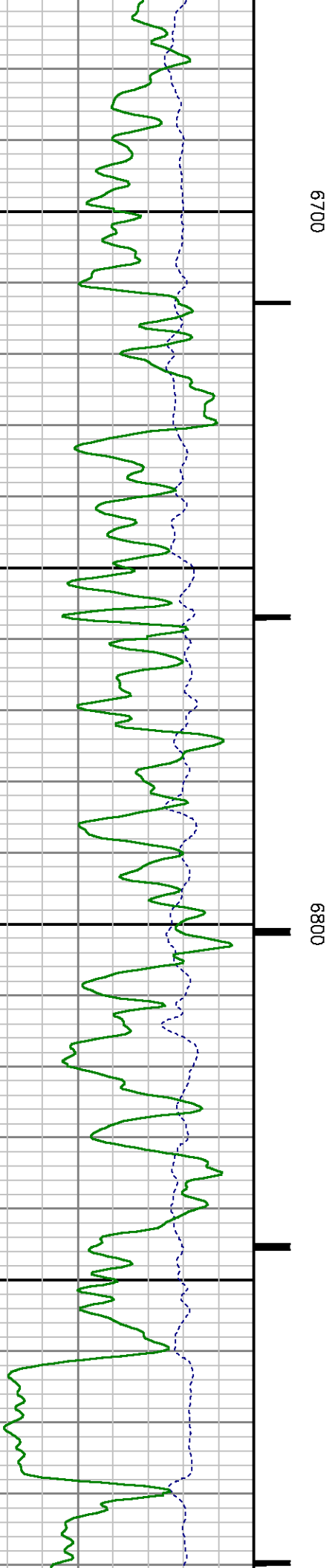
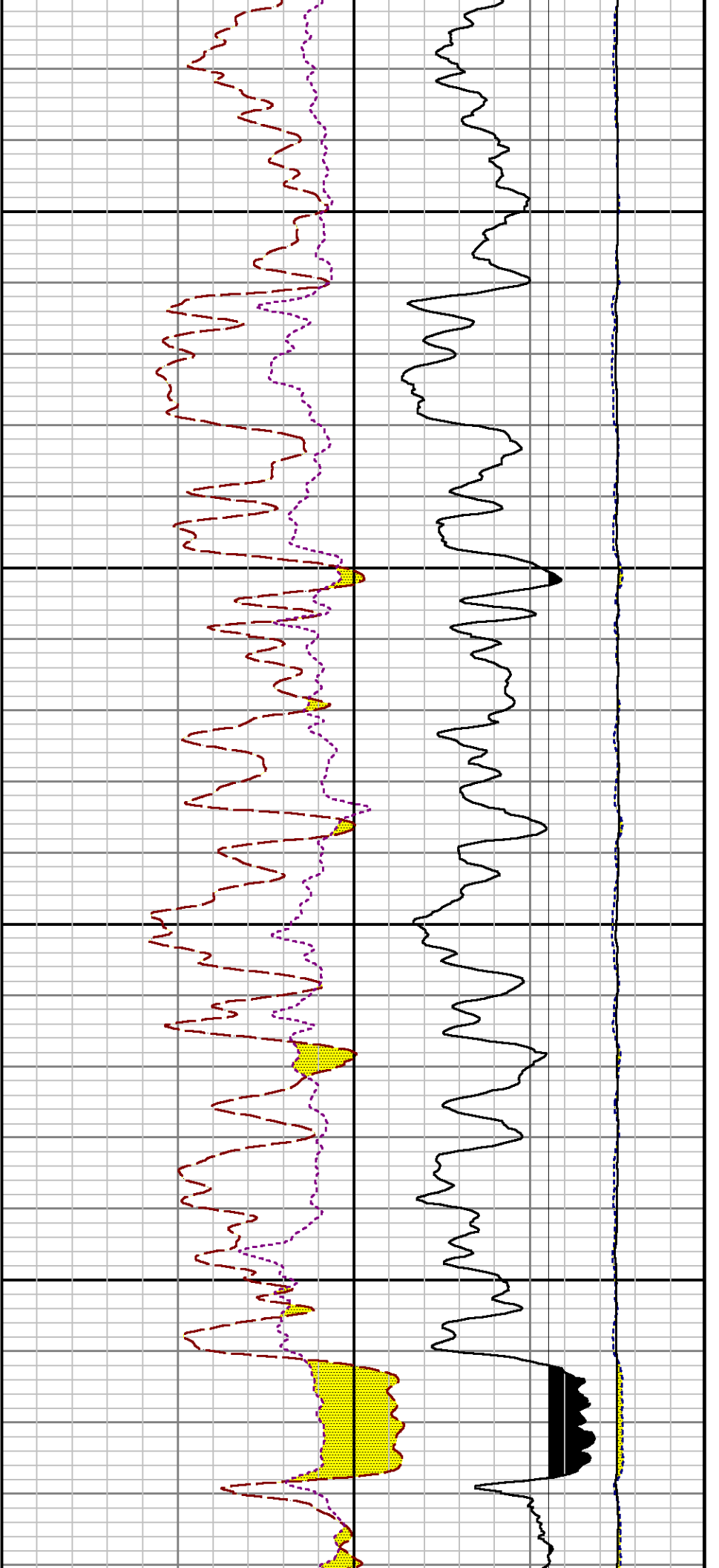
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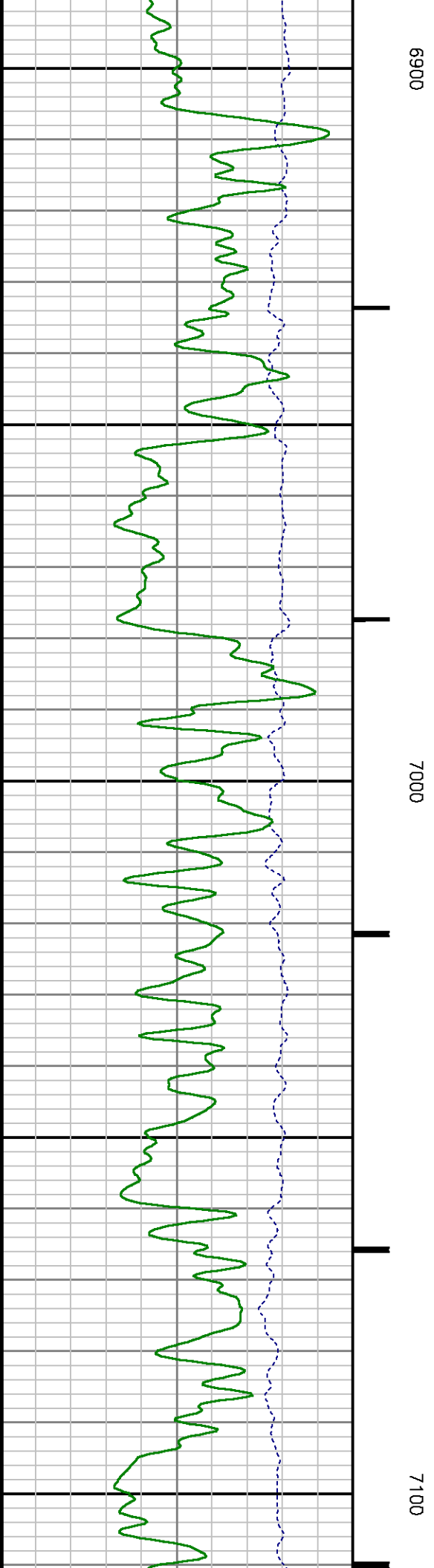
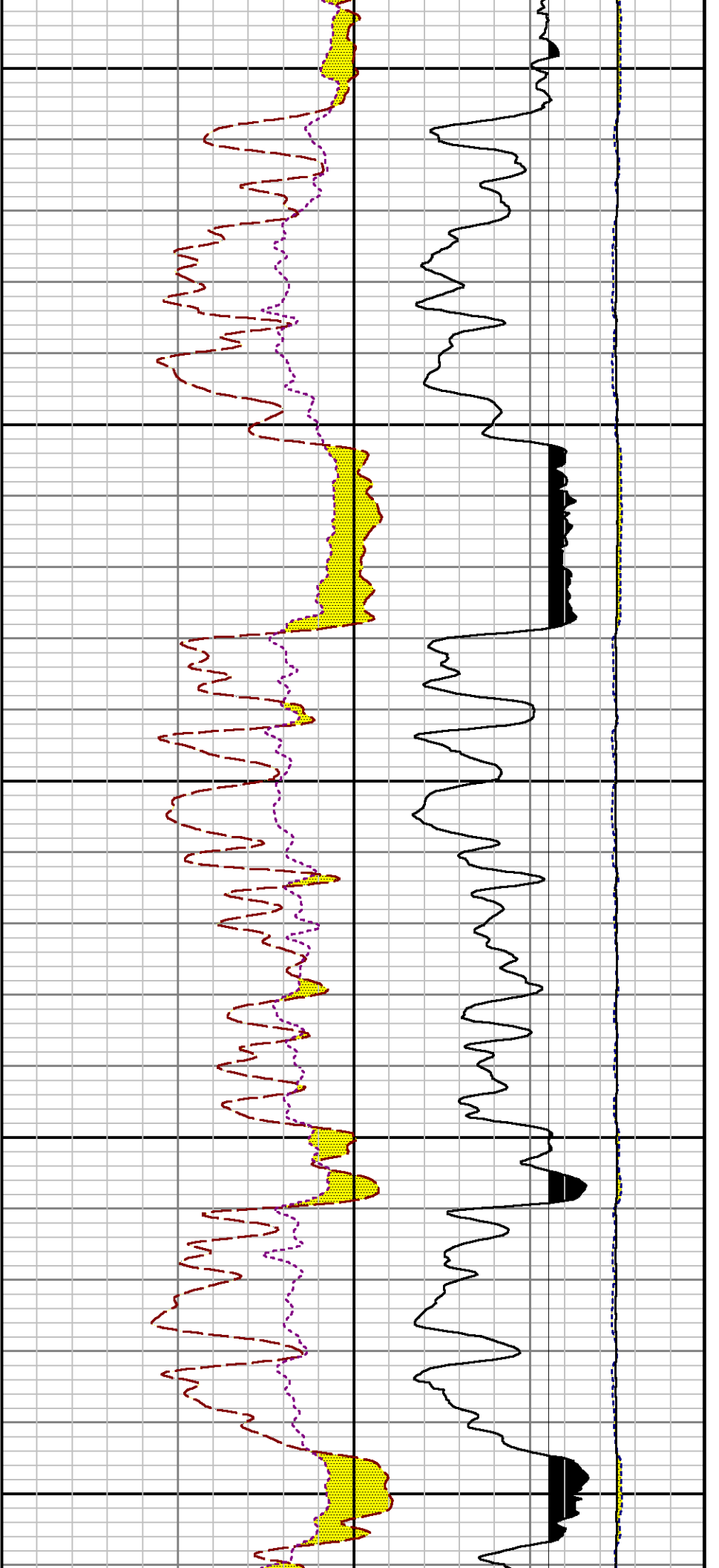
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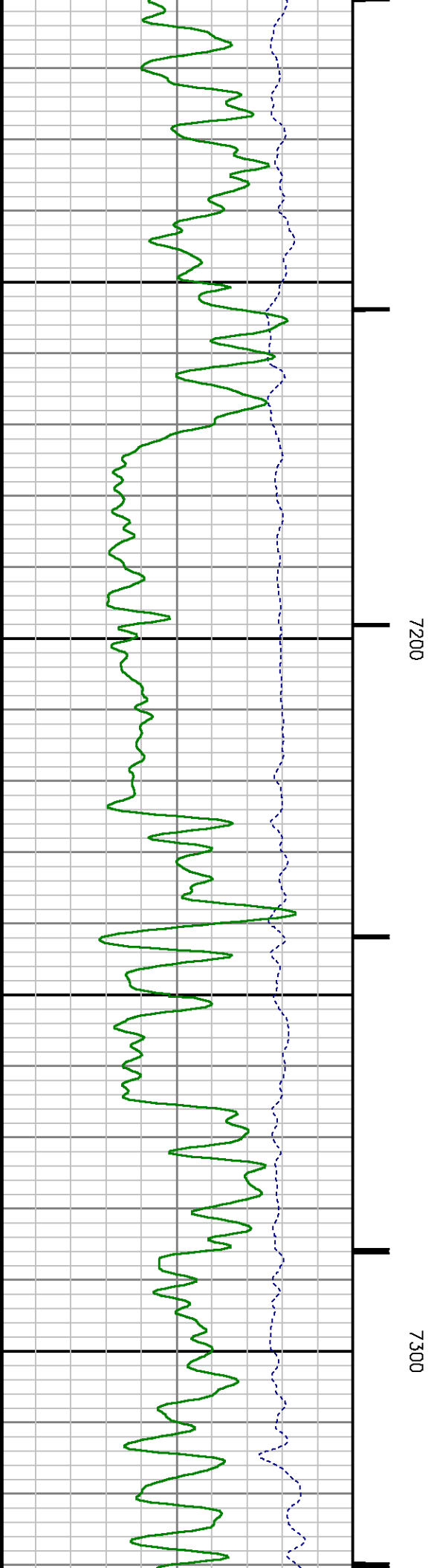
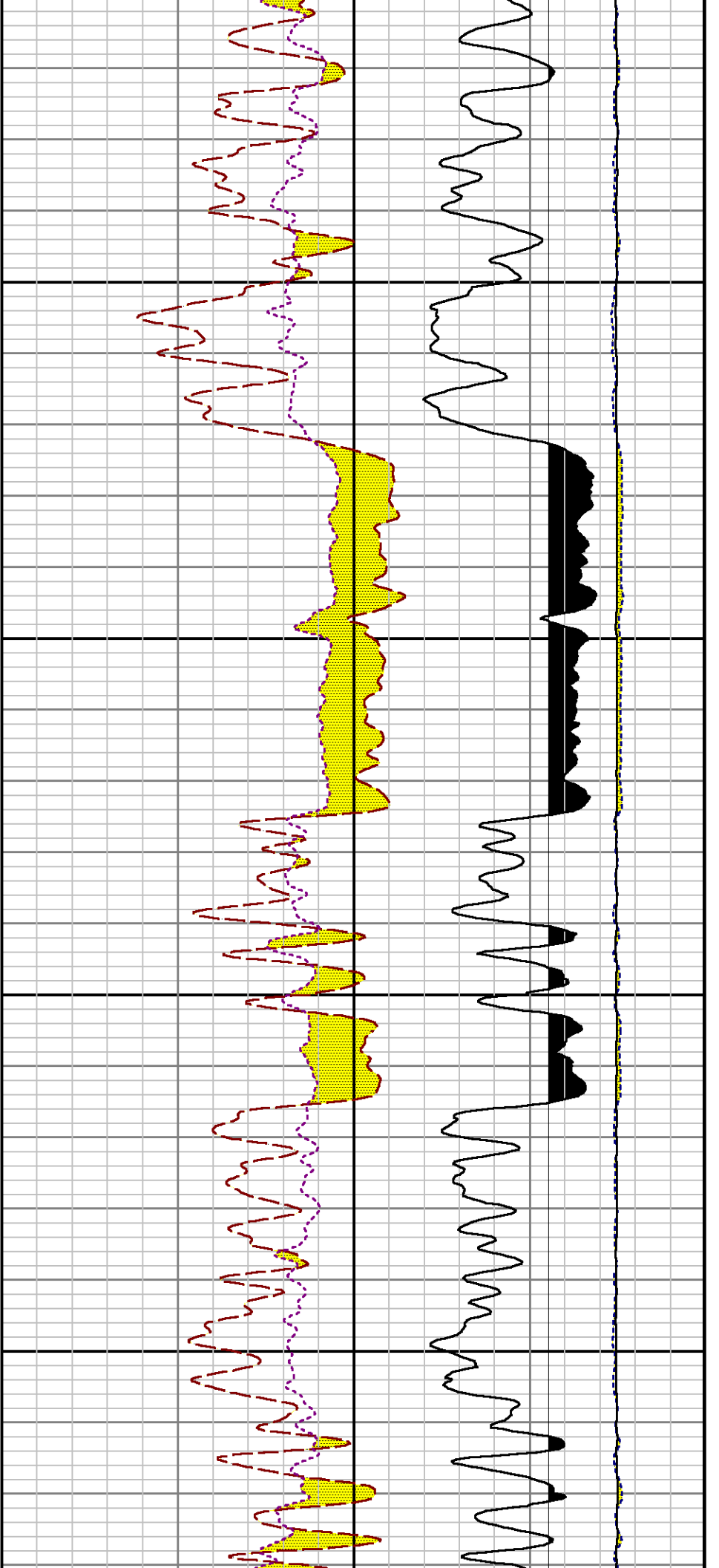


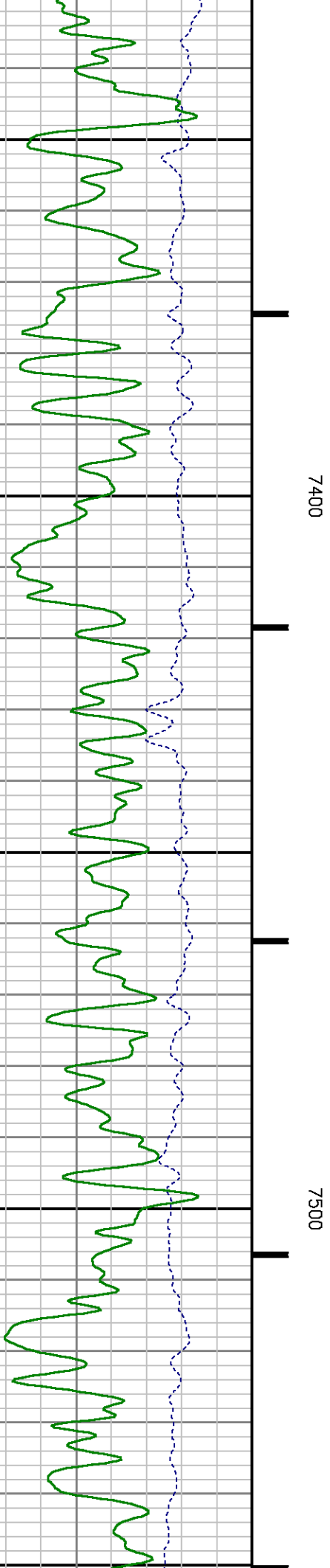
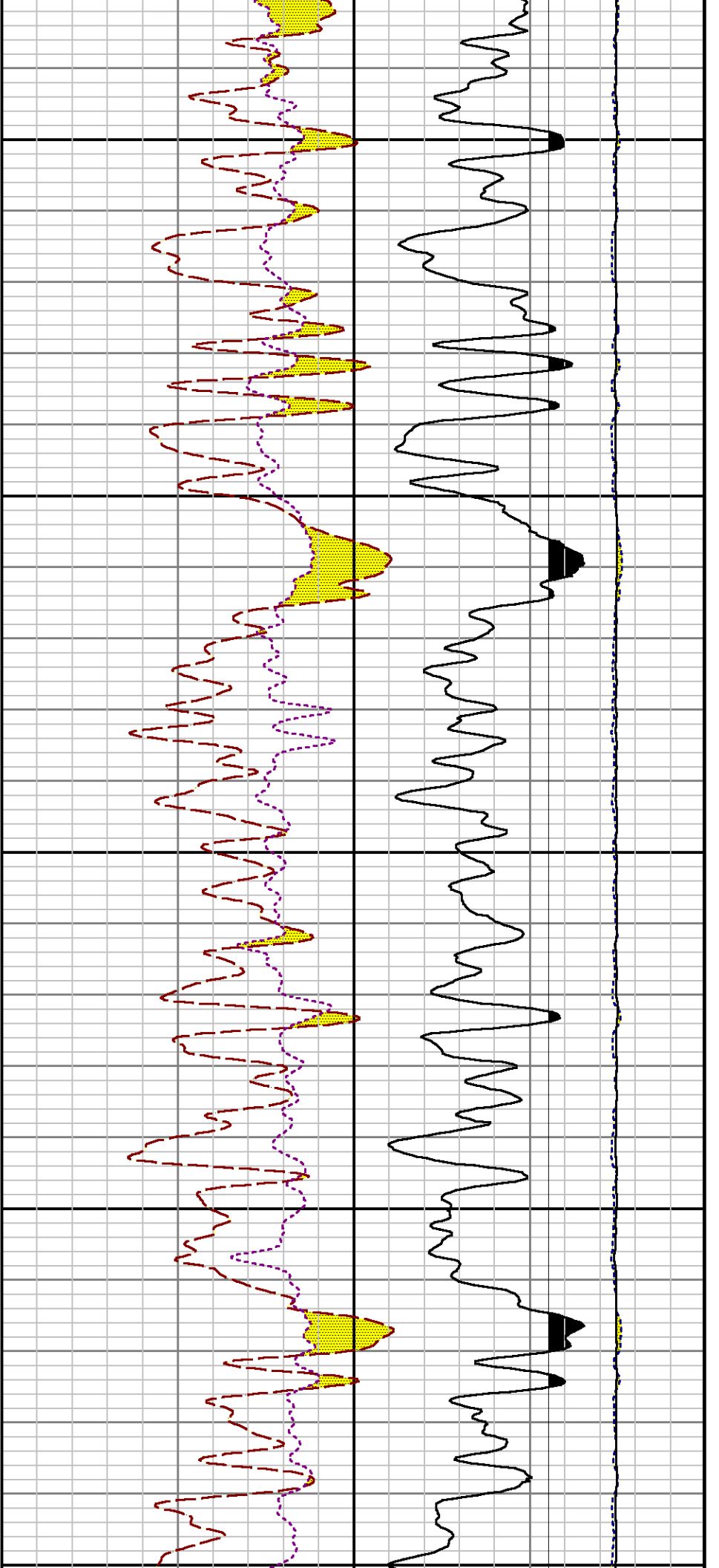


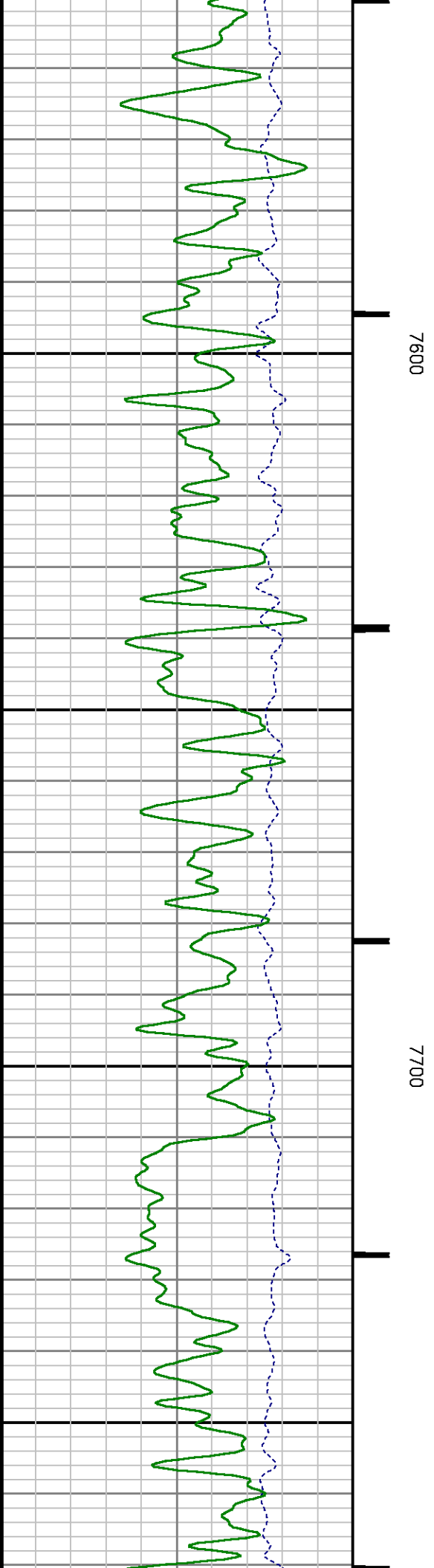
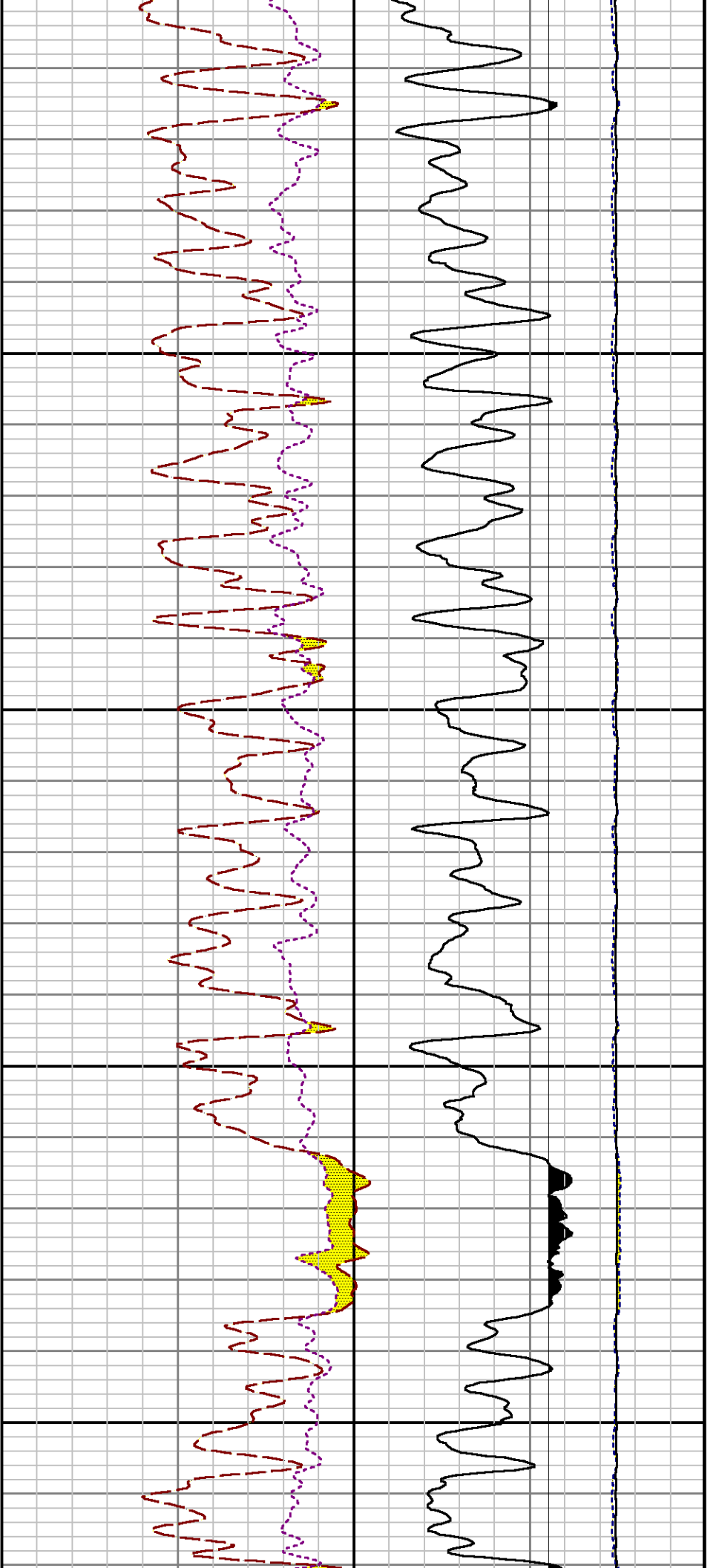


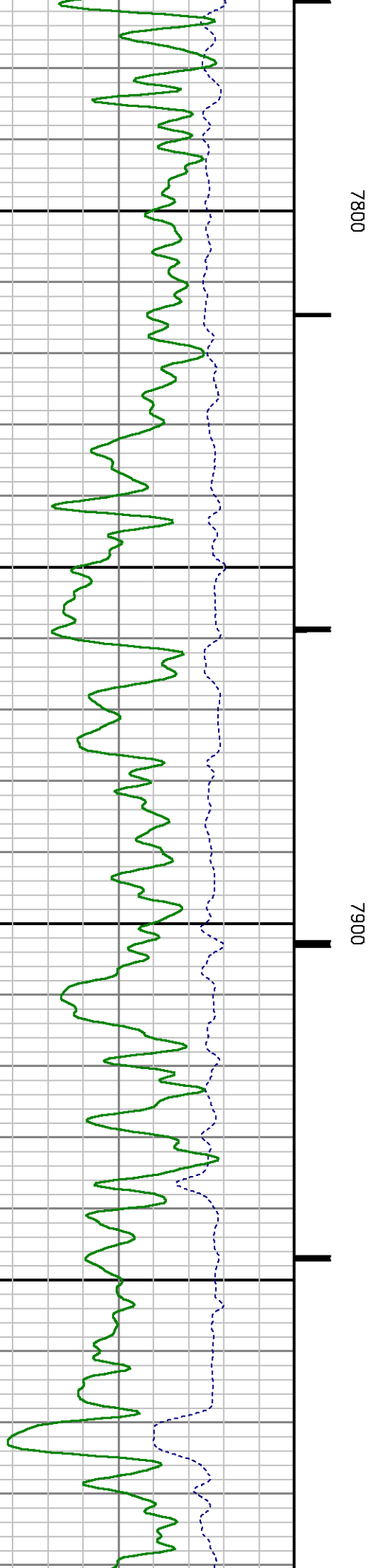
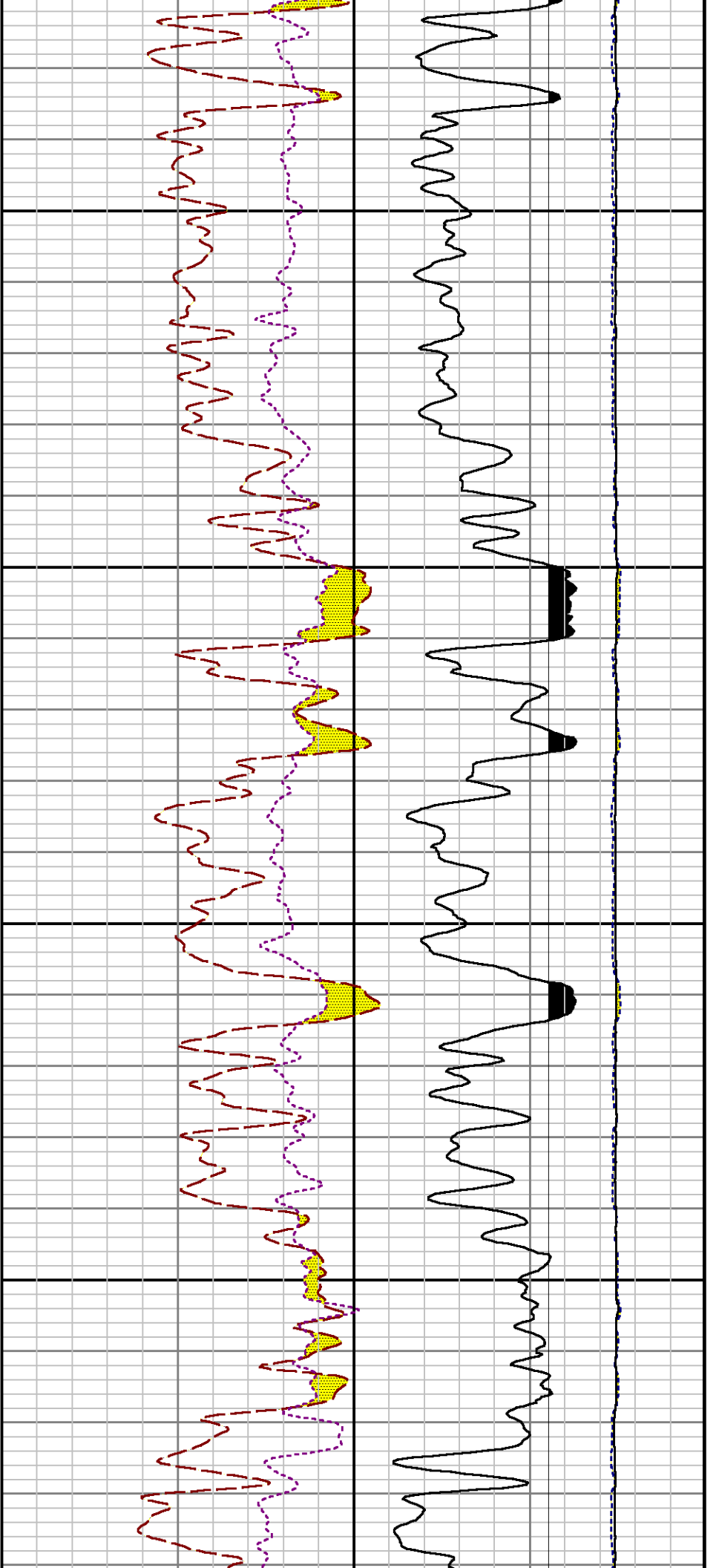


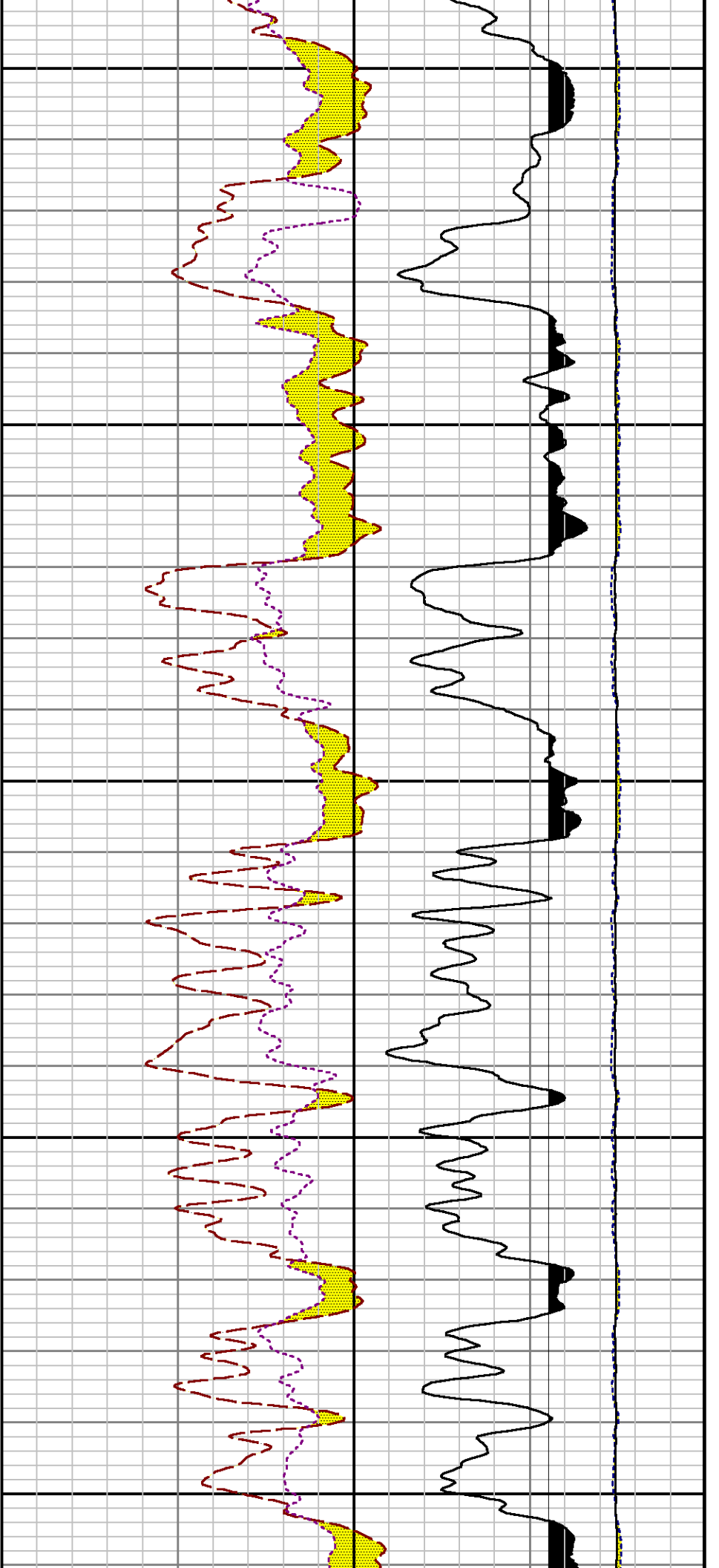








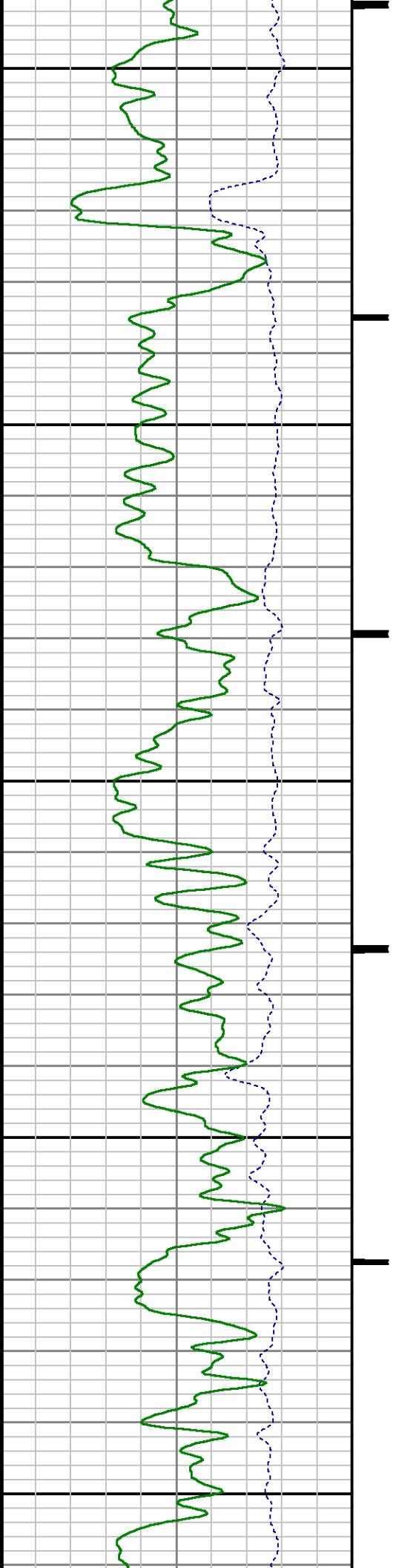


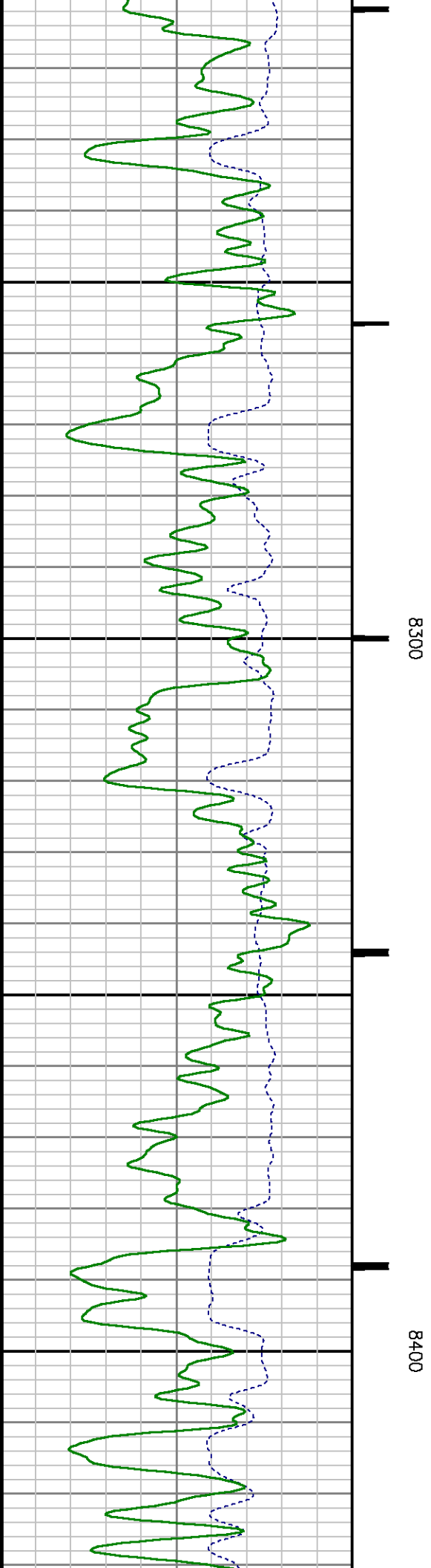
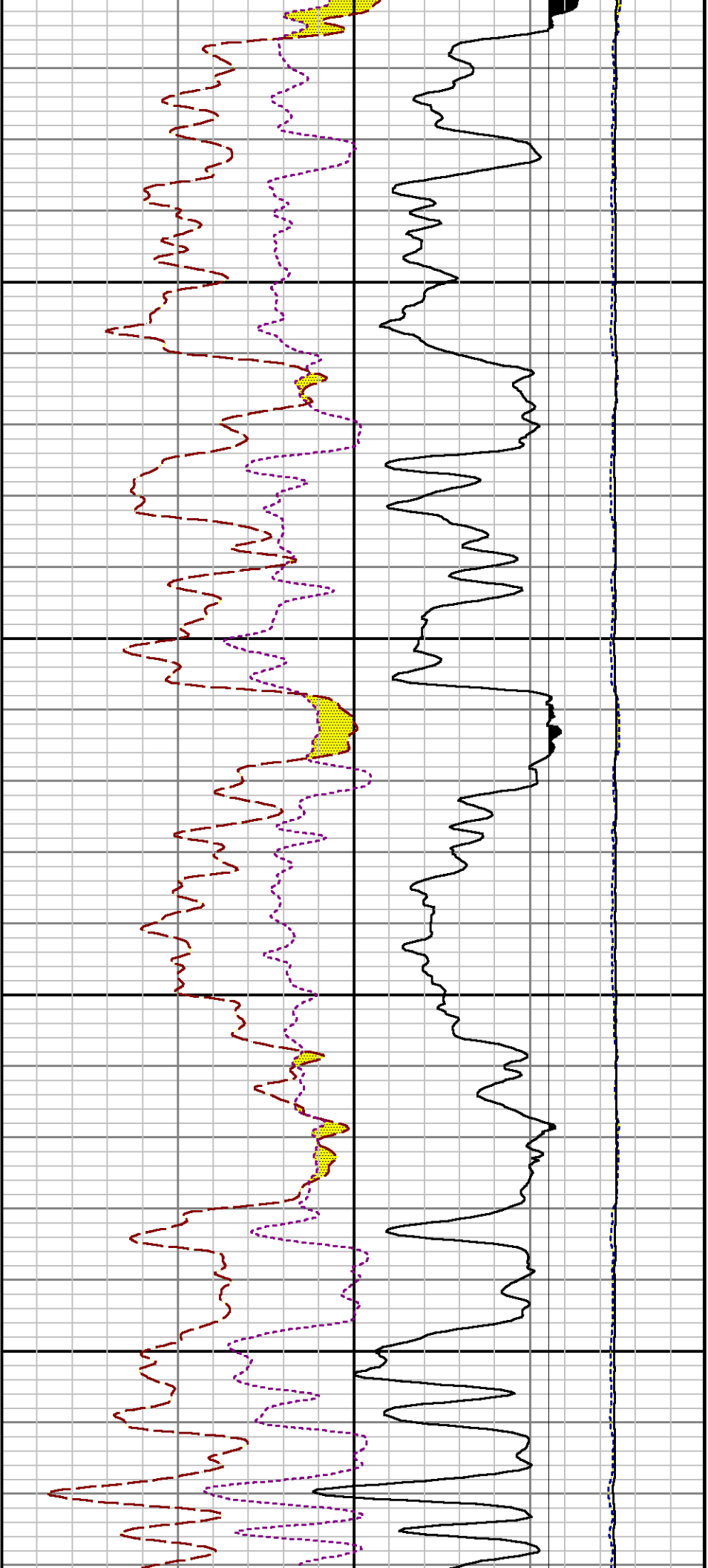


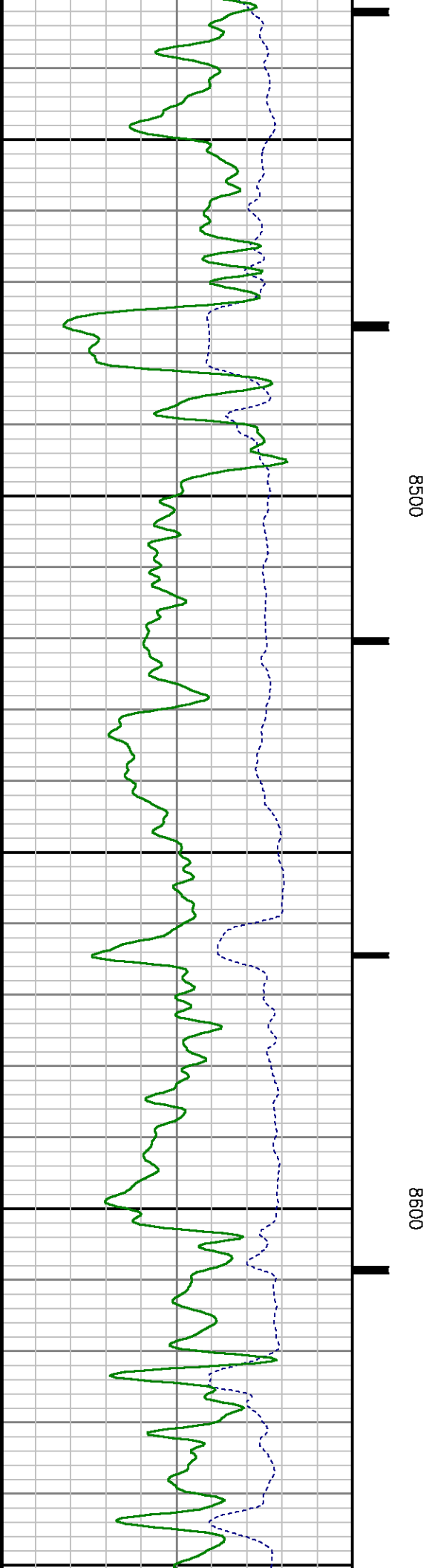
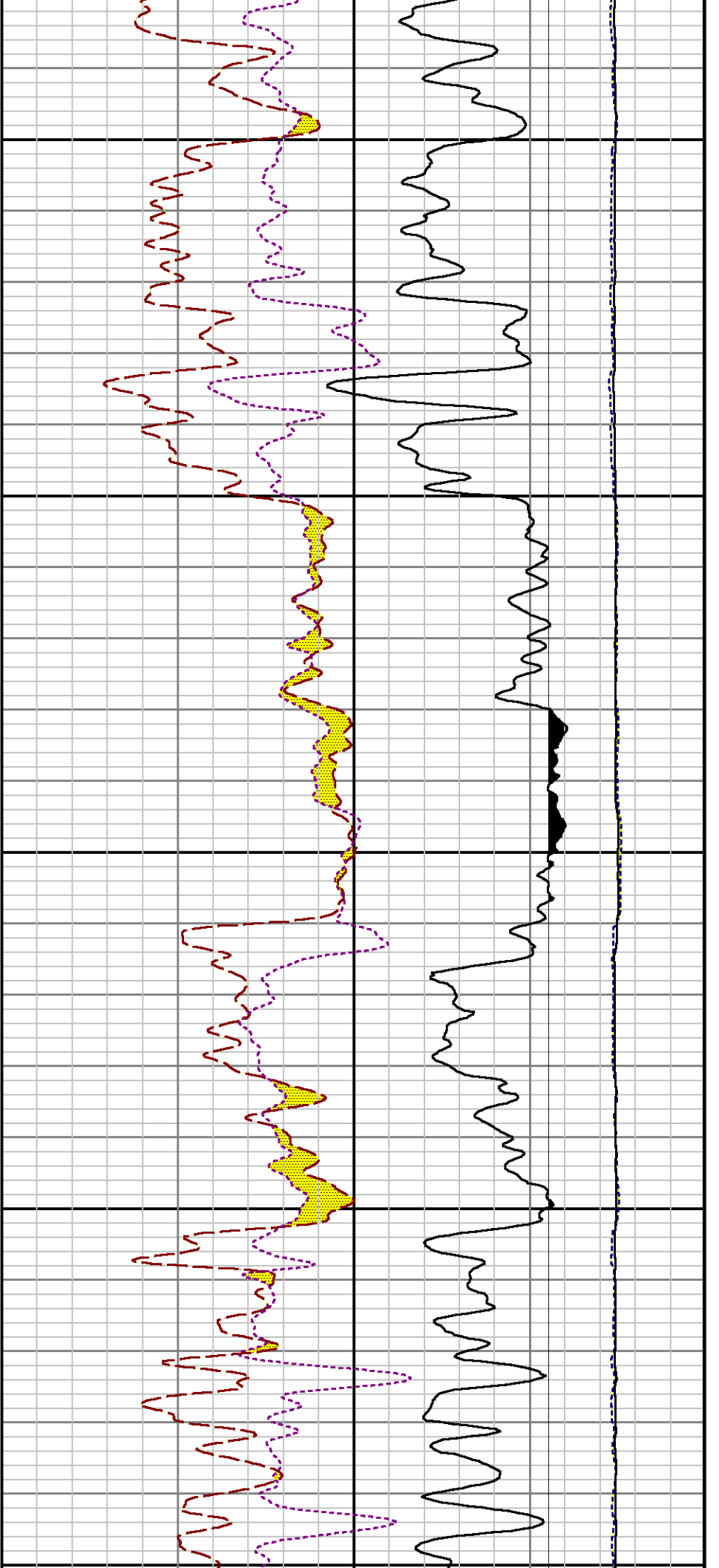
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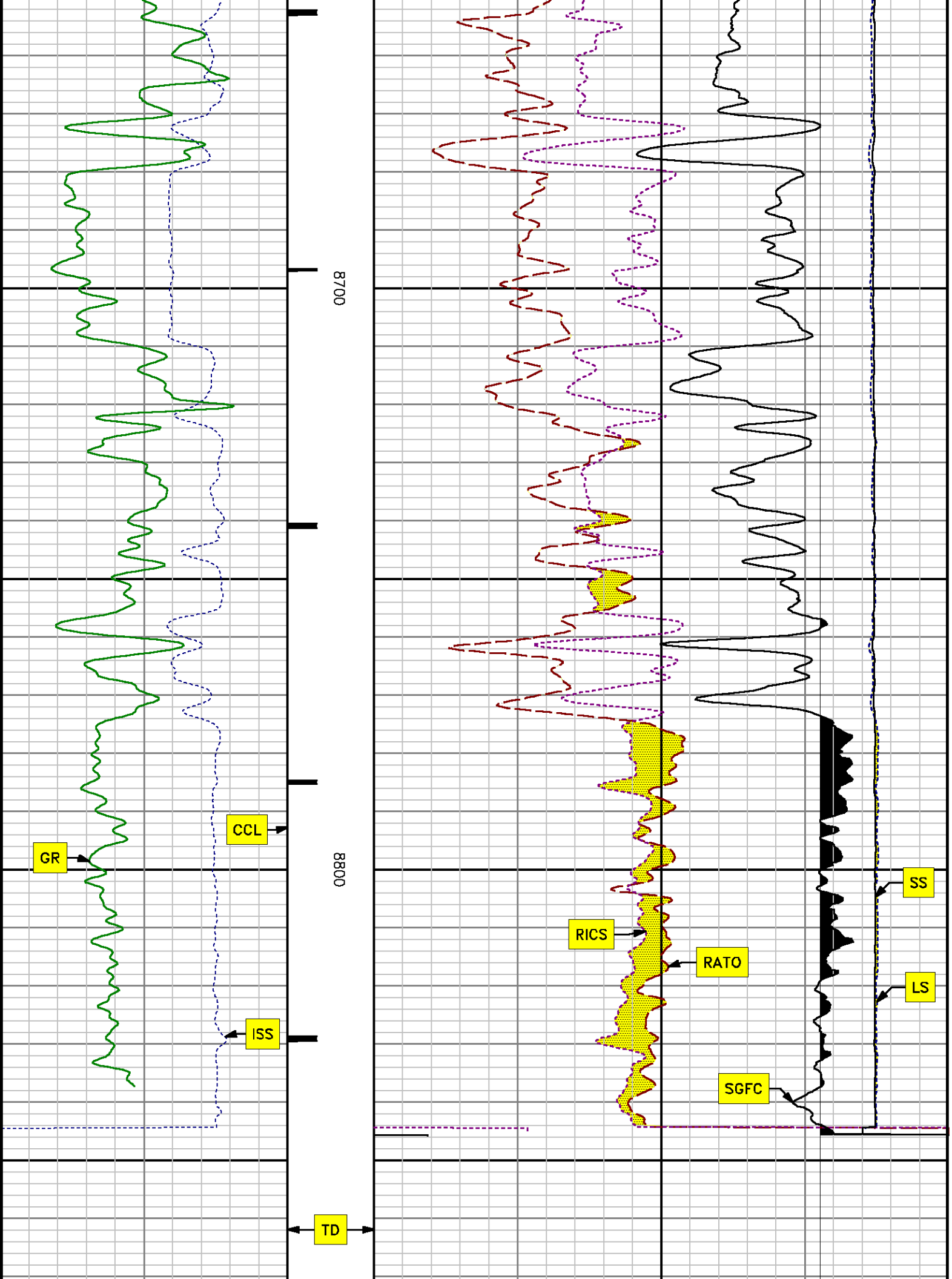
8100

8200









REPEAT SECTION
PNC 3-D MODE

| MEASUREMENT TYPE | PARAMETER | VALUE | UNITS | TOP | BOTTOM |
|------------------|---------------|----------------|-------|----------|----------|
| PNC Porosity | Borehole | Cased | | 8030.000 | 8358.628 |
| PNC Porosity | Borehole Size | 8.750 | inch | 8030.000 | 8358.628 |
| PNC Porosity | Casing Size | 4.500 | inch | 8030.000 | 8358.628 |
| PNC Porosity | Gas Filled | Non Gas Filled | | 8030.000 | 8358.628 |
| PNC Porosity | Matrix | Sandstone | | 8030.000 | 8358.628 |

| SERIES | DEPTH OFFSET | ACQUIRED CURVES | | | | | |
|--------|--------------|-----------------|--------|--------|--------|------|--------|
| 8248ED | -14.478 | FLTM | | | | | |
| 8248ED | -12.478 | CCL | CHV | | | | |
| 2812LA | -9.928 | GR | | | | | |
| 8281XA | -0.662 | HVC3Q0 | SEQ3 | AMA3 | AML3 | BKX | CXS |
| | | CPT3Q0 | CPT3Q2 | CPT3Q3 | CPT3Q4 | ET3 | IXS |
| | | MCS3 | MCS3Q0 | QCAL3 | RGN3 | RICX | SDA3 |
| | | SDL3 | SGA3 | SGL3 | STA3 | XS | ASPEC3 |
| | | AMB3 | AMF3 | CHF3 | IXSC | IXSN | RAT023 |
| | | RICXC | RIN13C | RIN23 | RIN23C | SD3D | SG3D |
| | | SCR3 | SCF3 | WDTH3 | CYSP | LYSP | YSP |

8281XA

-0.250

RICXR

HVC2Q0

SEQ2

AMA2

AMB2

AMF2

AML2

BKL

CHF2

CLS

CPT2Q0

CPT2Q2

CPT2Q3

CPT2Q4

ET2

ILS

LS

MCS2

MCS2Q0

QCAL2

RGN2

RICL

RONE23

RTW023

SDA2

SDL2

SGA2

SGB2

SGF2

SGK2

SGL2

STA2

ASPEC2

ILSC

ILSN

WDTH2

RICLC

CLSR

ILSR

LSR

RICLR

8281XA

0.000

CPRS

HVC1Q0

MV

SEQ

SEQ1

AMA1

AMB1

AME1

AMF1

AML1

BKS

CHF1

CSS

CORB

CORF

CPT1Q0

CPT1Q2

CPT1Q2A

CPT1Q2B

CPT1Q2C

CPT1Q3

CPT1Q4

CPT1Q5

ET1

G1

G2

GE1S

GE2S

ISS

MCS1

MCS1Q0

QA1

QCAL1

QM1

RAT0

RAT013

RBOR

RGN1

RICS

RIN

RONE

RPOR

RTW0

RIN13

RONE13

RTW013

SALB

SC1

SDA1

SDL1

SGA1

SGB1

SGB0

SGE1

SGF1

SGFC

SGK1

SGL1

SS

SS2

STA1

PD1S

PD2S

PD3S

MD1S

MD2S

MD3S

DG1S

DG2S

DG3S

PD1M

PD2M

PD3M

MD1M

MD2M

MD3M

DG1M

DG2M

DG3M

MVS

MA

MVM

FILV

IAM

TA

PVM

PVS

IAS

SSTAT

QPD1

QPD2

QPD3

QMD1

QMD2

QMD3

QDG1

QDG2

QDG3

QMA

QTA

QFILV

QMV

QPV

QIA

DERR

DCNT

QPK1

QSA1

PKS1

ASPEC1

HOC

FE2XC

ISSC

RINC

ISSN

RDEN

WDTH1

RICSC

CSSR

G1R

G2R

ISSR

SSR

SS2R

RATOR

RAT013R

RBORR

RICSR

RINR

RIN13R

RONER

RPORR

RTWOR

SYSTEM

0.000

TEN

TTEN

Created by : RPM9, v5.3.1.0

Plotted by : PlotMgr, v5.4.504

Company : WPX ENERGY

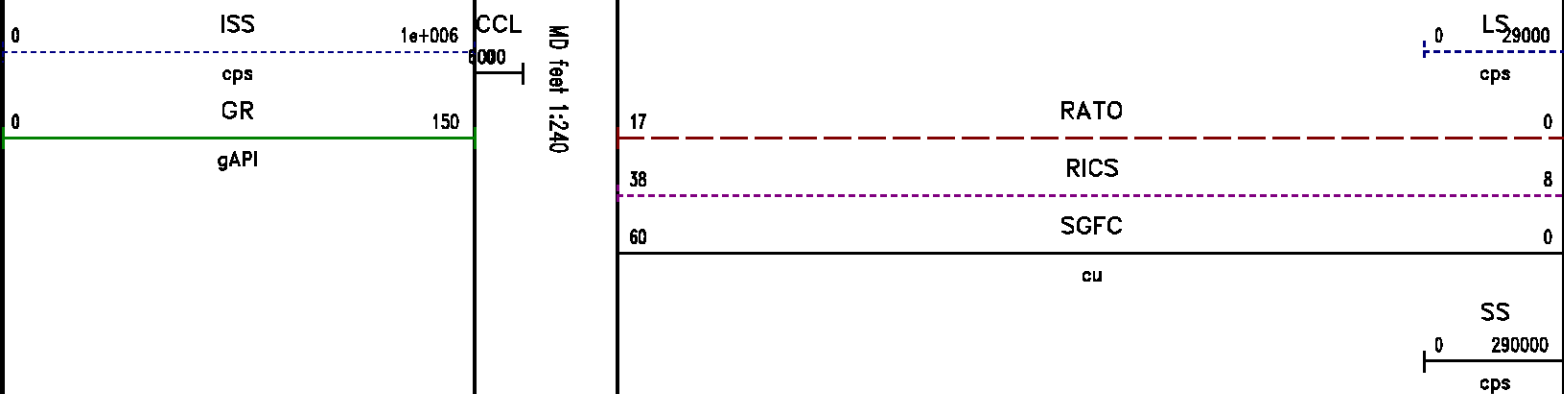
Well : SAVAGE RWF 521-25

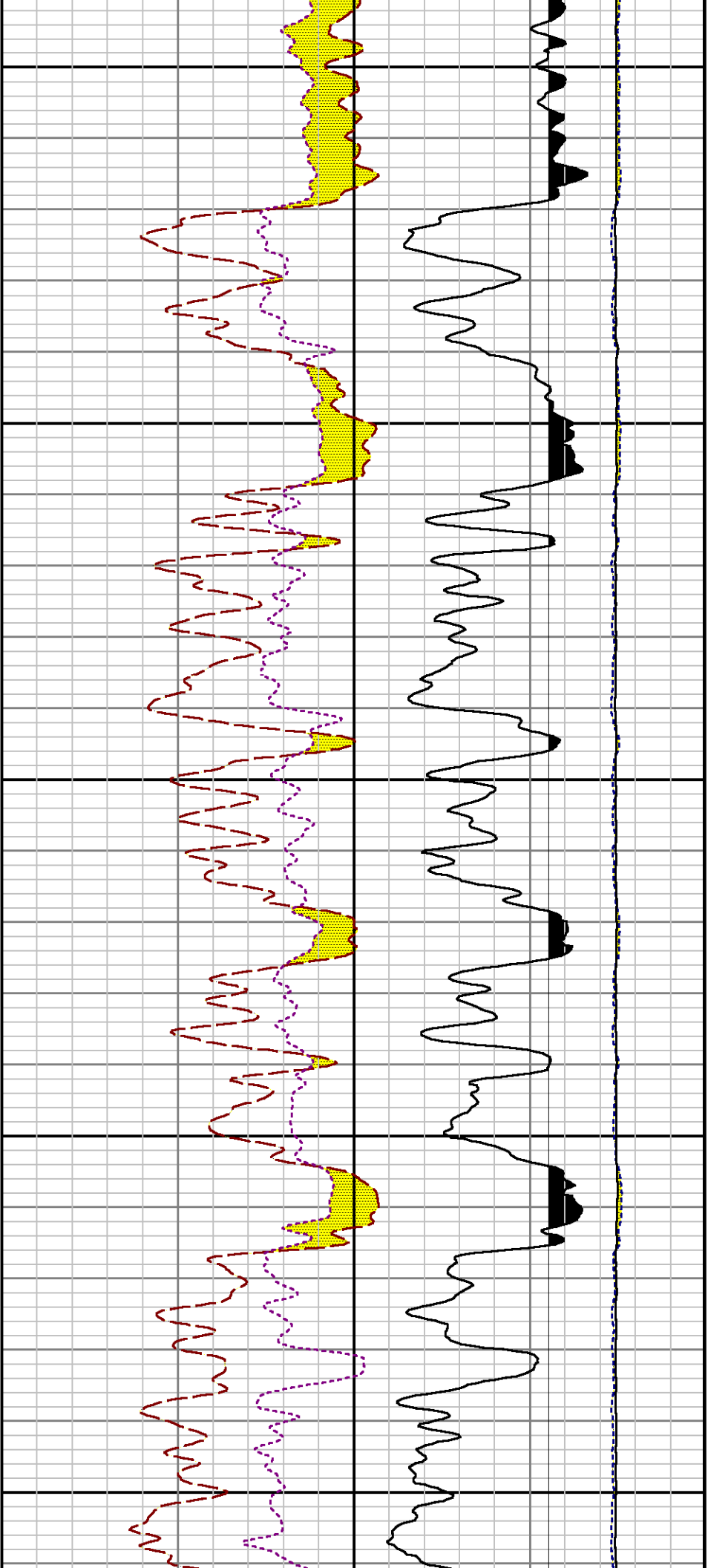
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Mode : PlotMgr 5.4.504

Interval : 8040.00 - 8340.00 feet UP

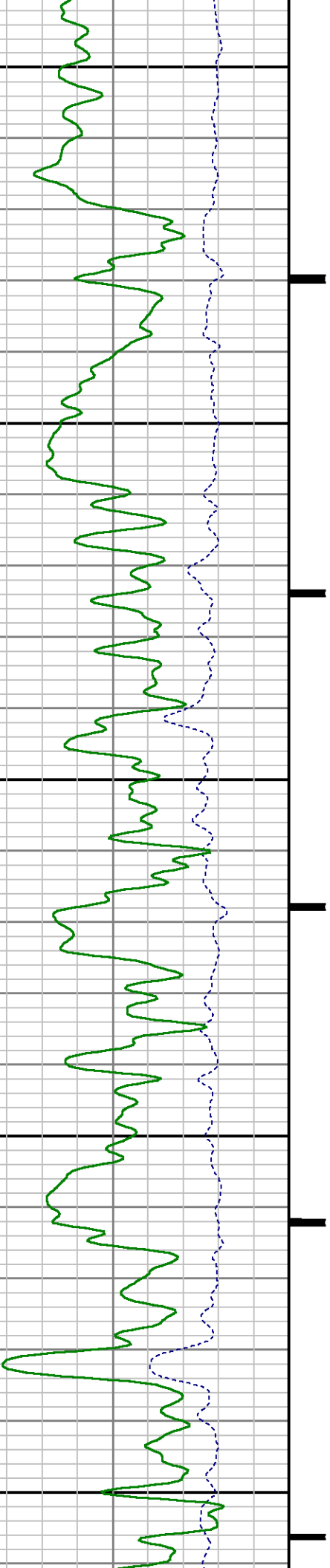
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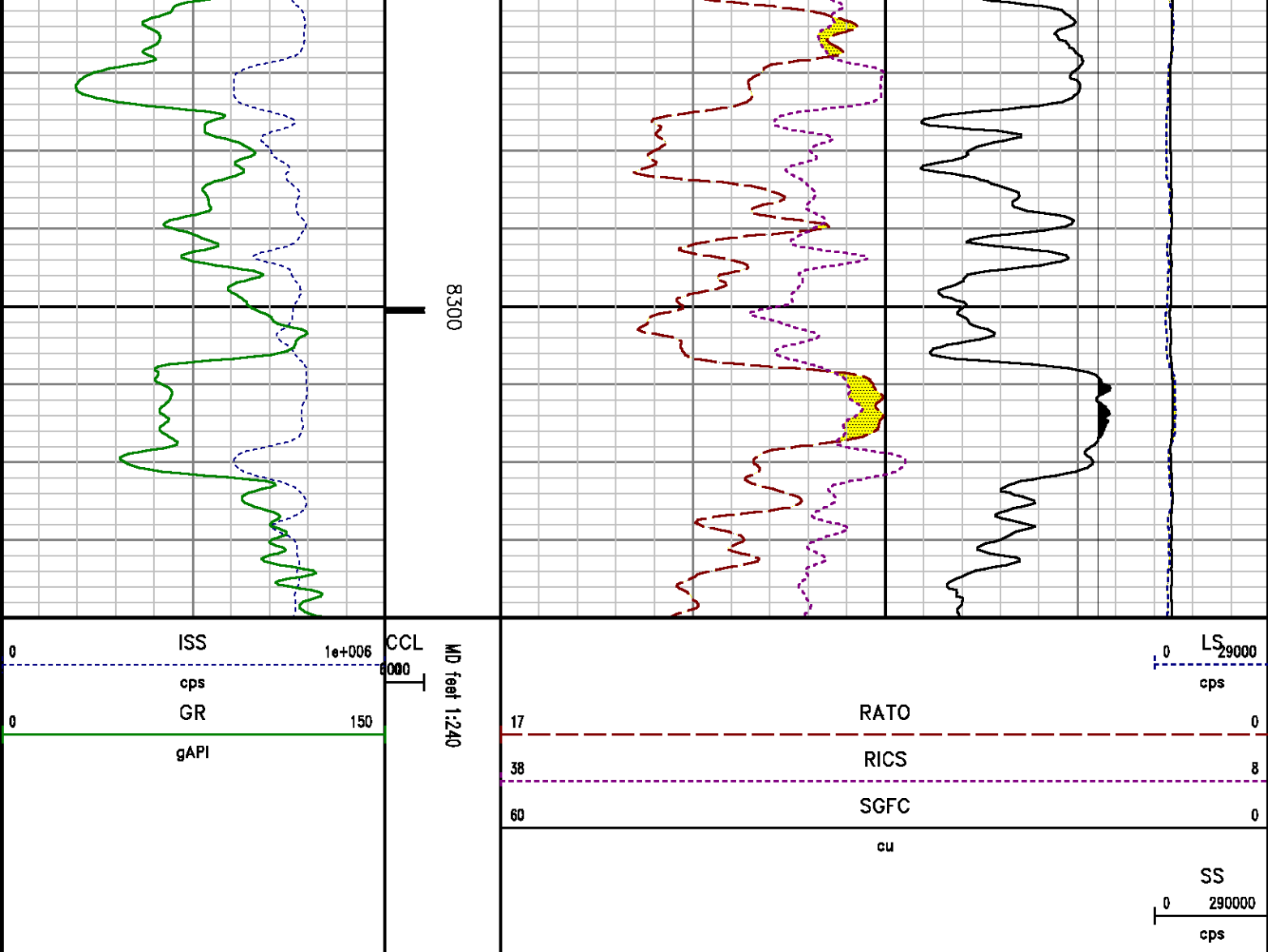




8100

8200





CALIBRATION SUMMARY

PNC

Calibration File: C:\case\calver\PNC\555M9.cal

PNC 3D CALIBRATION SUMMARY

DATE/TIME PERFORMED: Wed Mar 19 13:00:45 2014 TOOL SERIES: 8281XA ASSET: 555 SEQ: M9

Calibrator #

GJ SHOP

Source #

8281AA 11765054

ISS Mtr Vits SS Gain LS Gain XLS Gain EA Temp Sync Delay RCAL

(V)

(deg)

(usec)

| | | | | | | | | |
|--------------|---------|--------|---------|---------|---------|--------|------|--------|
| Raw Data | 828510 | 123.00 | 2335.00 | 2277.00 | 2252.00 | 249.68 | 7.00 | 0.9906 |
| Interpolated | 1300000 | 145.10 | 2311.86 | 2271.07 | 2254.75 | | | |

| | | | | | | | | |
|----------|--------|---------|---------|--------|-------------|-----------|-------------|-----------|
| | ISS | BKS | BKL | BKX | SGA1 | SDA1 | SGA2 | SDA2 |
| Raw Data | 828510 | 6884.46 | 1096.29 | 161.14 | 25.84 | 0.14 | 24.30 | 0.27 |
| | | | | | 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 | 828510 | 181350.16 | 28522.48 | 94363.43 | 33608.06 | 8829.67 | 57083.04 | 14131.70 |
| Fit Quality % | | 0.32 | 0.57 | 0.82 | 0.83 | 0.49 | 0.73 | 0.48 |

| | | | | | | | | |
|---------------|---------|-----------|----------------|------------------|-----------------|---------------|----------------|-----------------|
| | ISS | RBOR | RIN ISS/ILS | RIN13 ISS/IXS | RICS ISS/CSS | RATO SS/LS | RTWO SS2/LS | RONE CSS/CLS |
| Raw Data | 828510 | 1.43 | 4.57 | 29.05 | 14.51 | 10.69 | 3.81 | 4.04 |
| | | 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 % | | 0.04 | 0.40 | 0.32 | 0.17 | 0.15 | 0.18 | 0.18 |
| Reduced | 1381461 | 1.43 | 4.60 | 29.25 | 14.63 | 10.68 | 3.80 | 4.03 |
| | | 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 |

GAMMA RAY

Calibration File: C:\case\calver\GR\38219.cal

CALIBRATION SUMMARY

DATE/TIME PERFORMED: Sat Apr 19 16:31:28 2014 TOOL SERIES: 2812LA ASSET: 382 SEQ: 19

| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] |
|--------------|---------------------|------------------------|----------------|---------------------|------------------------|-----------------------|
| S2K | 51.88 | 260.02 | 1.009 | 52.34 | 262.34 | 210.00 |

Verification File: C:\case\calver\GR\38219.VP

PRIMARY VERIFICATION

DATE/TIME PERFORMED: Sat Apr 19 16:38:08 2014 TOOL SERIES: 2812LA ASSET: 382 SEQ: 19

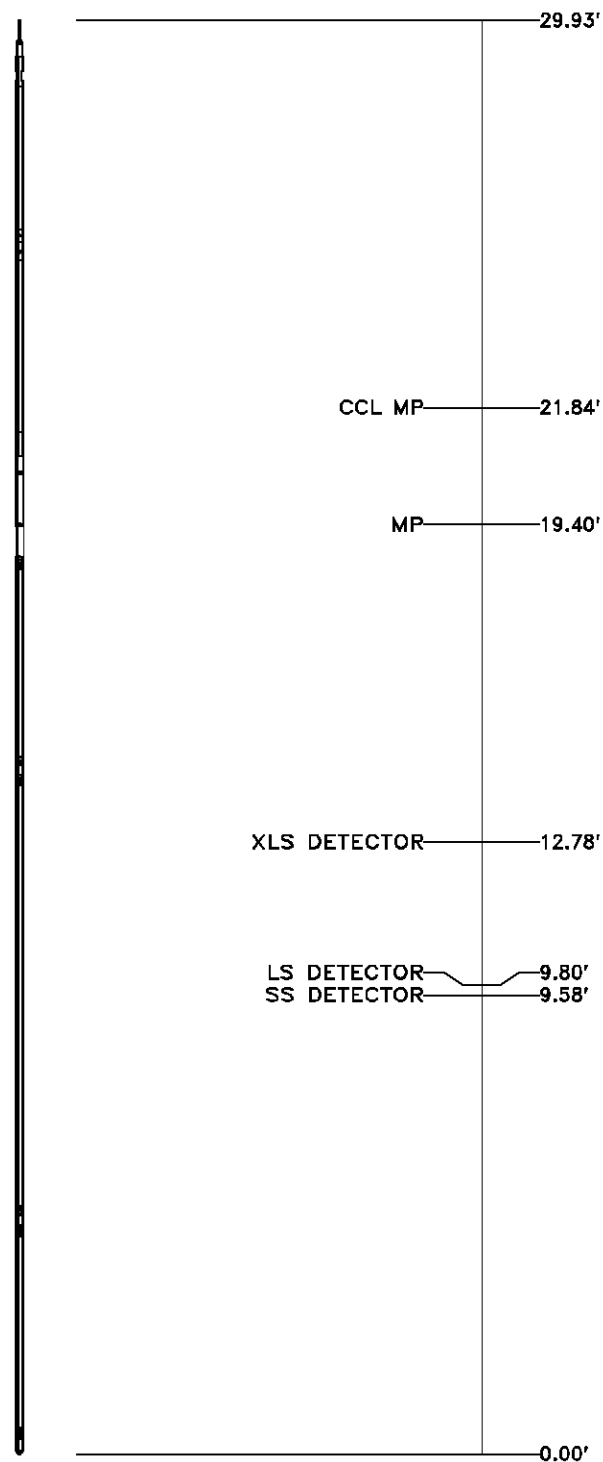
| Calibrator # | Background [cps] | Calibrator On [cps] | Multiplicative | Background [api] | Calibrator On [api] | Differential [api] |
|--------------|---------------------|------------------------|----------------|---------------------|------------------------|-----------------------|
| S2K WA612 | 51.54 | 263.60 | 1.009 | 52.00 | 265.95 | 213.95 |

TOOL DIAGRAM

| OTA SHORT CABLE HEAD | |
|----------------------|--------------|
| PCM POWER SUPPLY | |
| Series | 8250EA |
| Mnemonic | PCM |
| Diameter | 1.70" |
| Weight | 18.00 lb |
| Length | 3.86' |
| Temp Rating | 350.00 °F |
| TELEMETRY / CCL | |
| Series | 8248EA |
| Mnemonic | PCM |
| Diameter | 1.70" |
| Weight | 20.00 lb |
| Length | 4.46' |
| Measure Point | 1.00' CCL MP |
| Temp Rating | 350.00 °F |
| Press Rating | 15000.00 PSI |
| SONDEX GAMMA RAY | |
| Series | 2812LA |
| Mnemonic | SNDX |
| Diameter | 1.69" |

RESERVOIR PERFORMANCE MONITOR

| | |
|---------------|---------------------|
| Series | 8281XA |
| Mnemonic | RPM |
| Diameter | 1.70" |
| Weight | 75.00 lb |
| Length | 18.58' |
| Measure Point | 9.49' SS DETECTOR |
| Measure Point | 9.72' LS DETECTOR |
| Measure Point | 12.69' XLS DETECTOR |
| Temp Rating | 350.00 °F |
| Press Rating | 20000.00 PSI |



Total Length: 29.93'
Total Weight: Not Available
Max Diameter: 0' 1.70"

Baker Atlas

CASE

| | | | | |
|----------------------------|----------|------------|----|----------------|
| County | GARFIELD | State | CO | 05045219630000 |
| Location | | Elevations | | |
| SHL: 2444' FNL & 1444' FWL | | KB 6058 ft | | 25 6S 94W |
| BHL: 815' FNL & 2102' FWL | | DF | | RWF 22-25 PAD |
| | | GL 6037 ft | | CYCLONE 17 |
| SEC | 25 | TWP | 6S | RGE 94W |