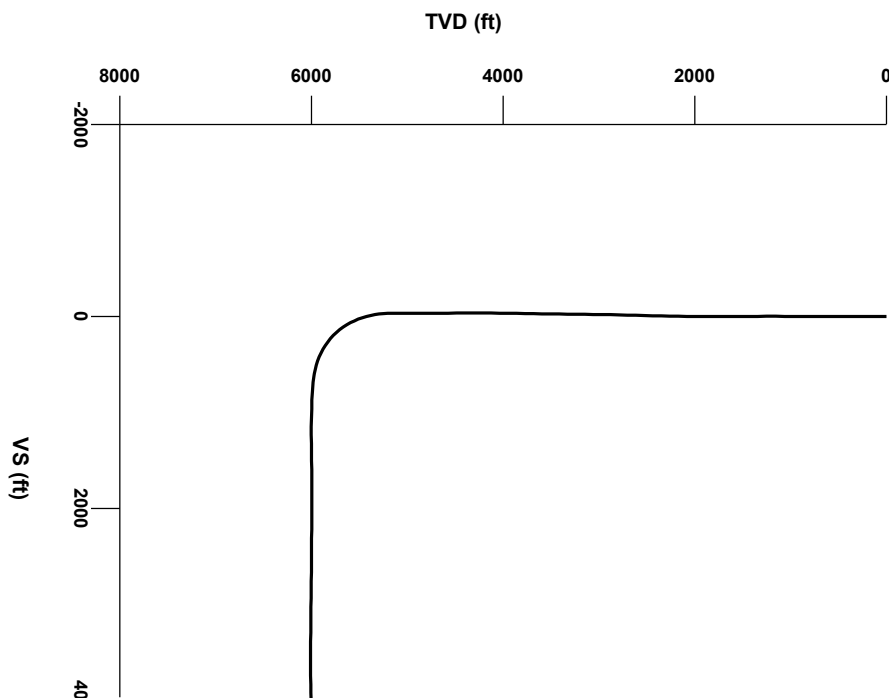


LOG created using LPLOT VH Version 3.0, August 30, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

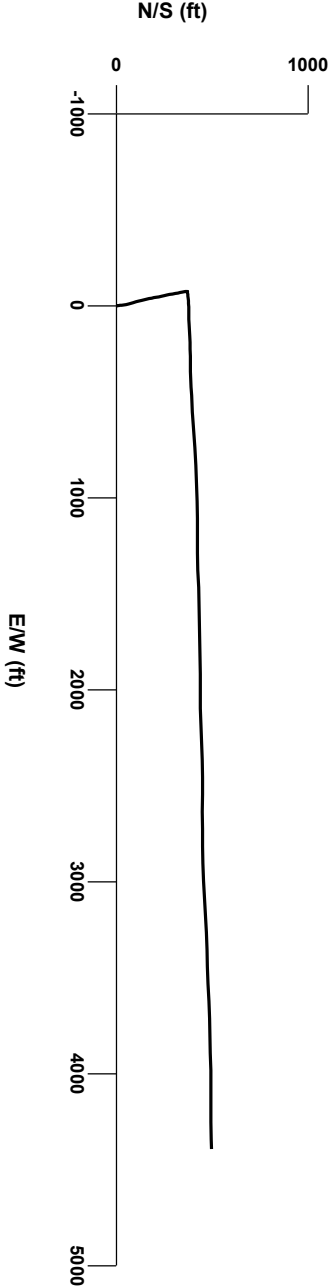
OPERATOR: NOBLE ENERGY, INC.
WELL: CASTOR LC35-62HN
LOCATION: SEC35, T9N, R59W
COUNTY: WELD
STATE: COLORADO
SPOT: 287' FSL, 150' FWL
ELEVATION: 4836' GL, 4852' KB
FIELD: WILDCAT
SPUD DATE: 8/23/13
TD DATE: 8/30/13
DATES LOGGED: 8/24/13 - 8/30/13
DEPTHS LOGGED: 600' - 10206'
GEOLOGISTS: GARY MYERS, ADAM NEUMANN
DRILLING FLUID: LSND
DRILLING RIG: PRECISION 828
API: 05-123-37507
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: WELLSITE GEOLOGICAL SERVICES PROVIDED BY COLUMBINE LOGGING INC.

LOG CONTINUES FROM FILE: Castor LC35-62HN Vert.lplot




Survey Elevation


Survey Plan

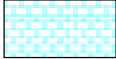



6000


LITHOLOGIES

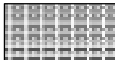
Bentonite

Sandstone

Chalk

Shaly Sandstone

Marl


Silty Shale


MODIFIERS


B


Bentonite


ENGINEERING SYMBOLS


Bit Change


Connection Gas


Arrow


Casing


Arrow


Trip Gas

Casing

Midnight Depth

Midnight Depth

Connection

Midnight Depth

DEPTH (FEET)

5140

50

60

70

80

90

5200

10

20

30

40

LOG CONTINUES FROM FILE:
Castor LC35-62HN Vert.lplot

COLUMBINE LOGGING, INC.
ON LOCATION 8/24/13
MANNED 2-PERSON LOGGING
USING PASON GAS SYSTEM
BEGAN LOGGING ON 8/24/13

GAS

0

UNITS

500

C1

0

PPM

50000

C2

0

PPM

50000

C3

0

PPM

50000

C4

0

PPM

50000

ROP

0

FT/HR

500

UNITS

0

50000

PPM

0

50000

FT/HR

0

500

SLIDE/ROTATE

BIT #2

SMITH


SD1611MPX, 8.75"


SER# JF2522


IN @ MD 573


WT

CUTTINGS LITHOLOGY

123

86





OIL SHOW

T F G

6200

ft

5200

0

API

200

MD

5231'

INC

0.5°

AZI

107.0°

TVD


5204.5'


SLTYSH: m-


firm- firm, rth


shyss

SAMPLE PHOTOS



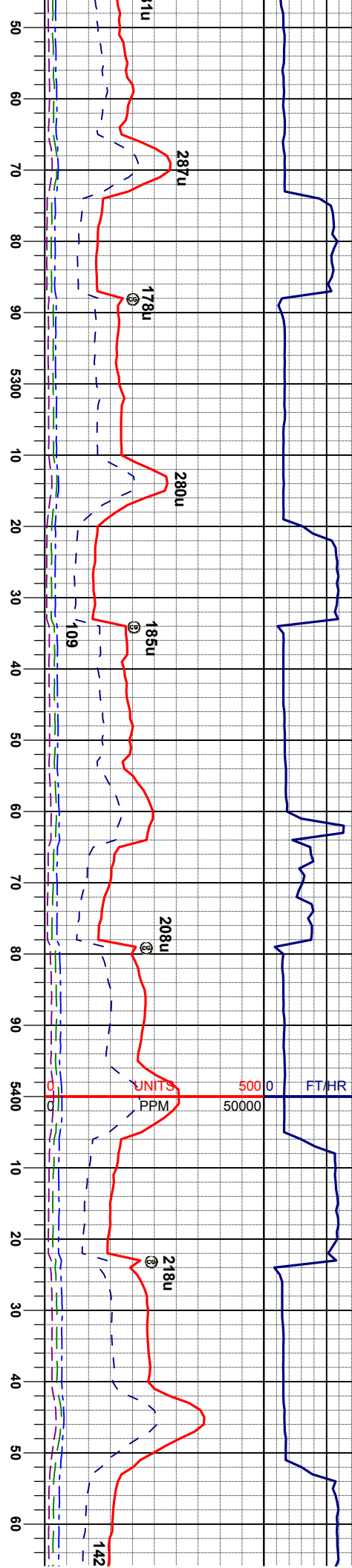






9.5 / VIS 36

WT 9.8 / VIS 36



BEGIN 30' SAMPLES
60' DESCRIPTIONS

MD 5276'
INC 3.9°
AZI 85.9°
TVD 5249.5'

MD 5321'
INC 7.1°
AZI 76.8°
TVD 5294.3'

MD 5366'
INC 9.8°
AZI 80.6°
TVD 5338.8'

MD 5411'
INC 12.8°
AZI 80.8°
TVD 5382.9'

MD 5456'
INC 15.7°
AZI 84.5°
TVD 5426.5'

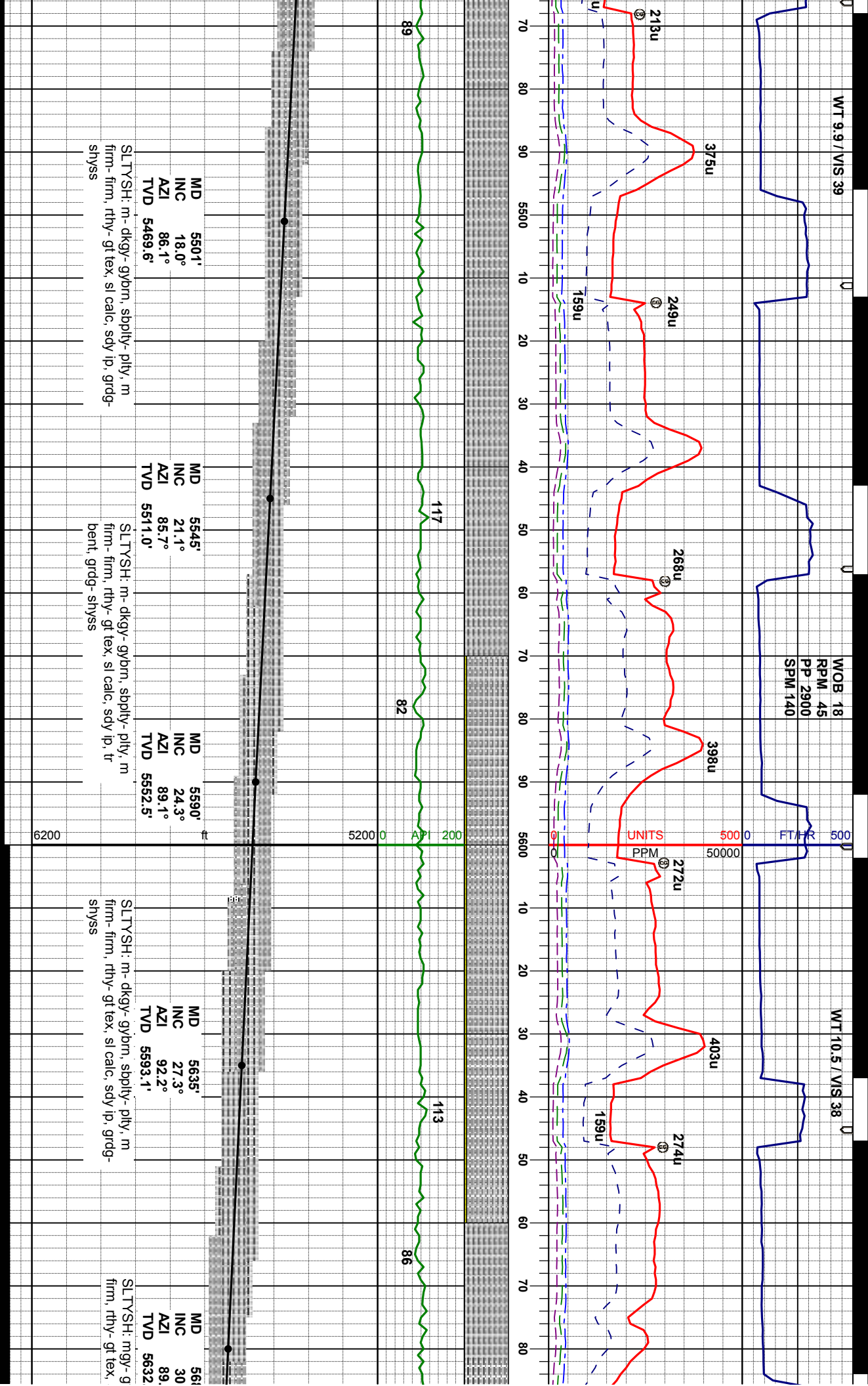
dkgy- gybrn, sbply- pily, m
-y- gt tex, sl calc, sdy ip, grdg-

SLTYSH: m- dkgy- gybrn, sbply- pily, m
firm- firm, rthy- gt tex, sl calc, sdy ip, grdg-
shyss

SLTYSH: m- dkgy- gybrn, sbply- pily, m
firm- firm, rthy- gt tex, sl calc, sdy ip, grdg-
shyss

SLTYSH: m- dkgy- gybrn, sbply- pily, m
firm- firm, rthy- gt tex, sl calc, sdy ip, grdg-
shyss

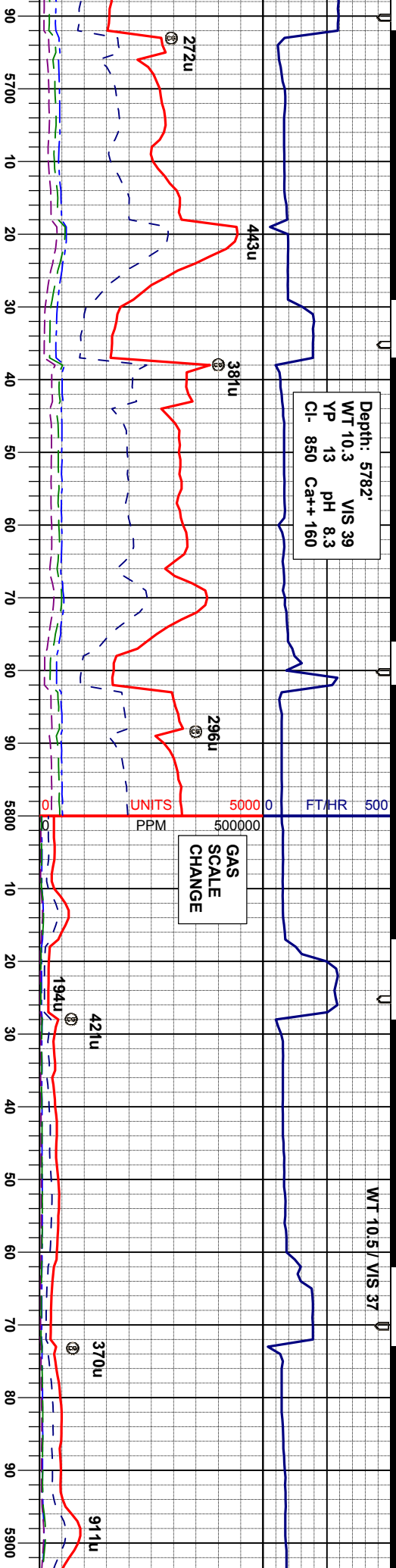




Depth: 5782'
WT 10.3 VIS 39
YP 13 pH 8.3
Cl- 850 Ca++ 160

WT 10.5/ VIS 37

GAS
SCALE
CHANGE



MD 5725'
INC 34.2°
AZI 87.5°
TVD 5670.5'

MD 5770'
INC 38.4°
AZI 86.3°
TVD 5706.7'

MD 5815'
INC 42.3°
AZI 85.9°
TVD 5741.0'

MD 5860'
INC 46.2°
AZI 86.8°
TVD 5773.2'

MD 5815'
INC 42.3°
AZI 85.9°
TVD 5741.0'

ym, sbply- ply, m firm-
sl calc, sdy ip, grdg- shys

SLTYSH: mgy- gybm, sbply- ply, m firm-
firm, rthy- gt tex, sl calc, sdy ip, grdg- shys

SLTYSH: mgy- gybm, occ dk gy, sbply-
ply, m firm- firm, rthy- gt tex, sl-non calc,
sdy ip, r grdg- shys

SLTYSH: mgy- gybm, occ dk gy, sbply-
ply, firm- sl sft, rthy- gt tex, sl-non calc, sdy
ip, r grdg- shys

6200

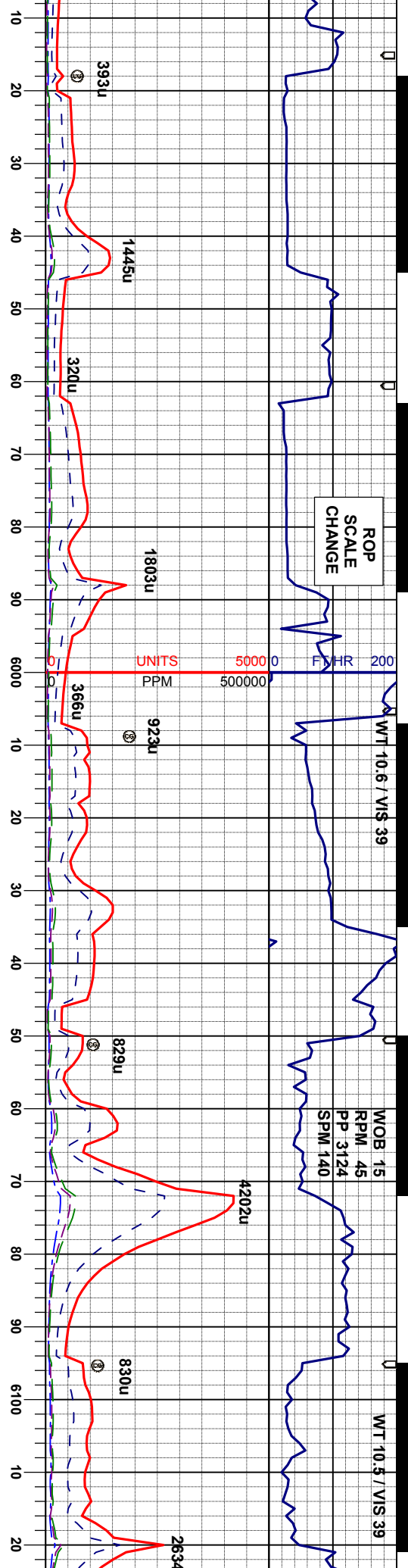


ROP
SCALE
CHANGE

WT 10.6 / VIS 39

WOB 15
RPM 45
PP 3124
SPM 140

WT 10.5 / VIS 39



MD 5904'
INC 50.1°
AZI 88.4°
TVD 5830.4'

MD 5994'
INC 57.2°
AZI 89.2°
TVD 5856.0'

TVD
SCALE
CHANGE

SHARON SPRINGS
MARKER
6011' MD, 5865' TVD

MD 6039'
INC 61.1°
AZI 89.6°
TVD 5879.1'

NIOBARA A CHALK
LOGGER TOP
6060' MD, 5889' TVD

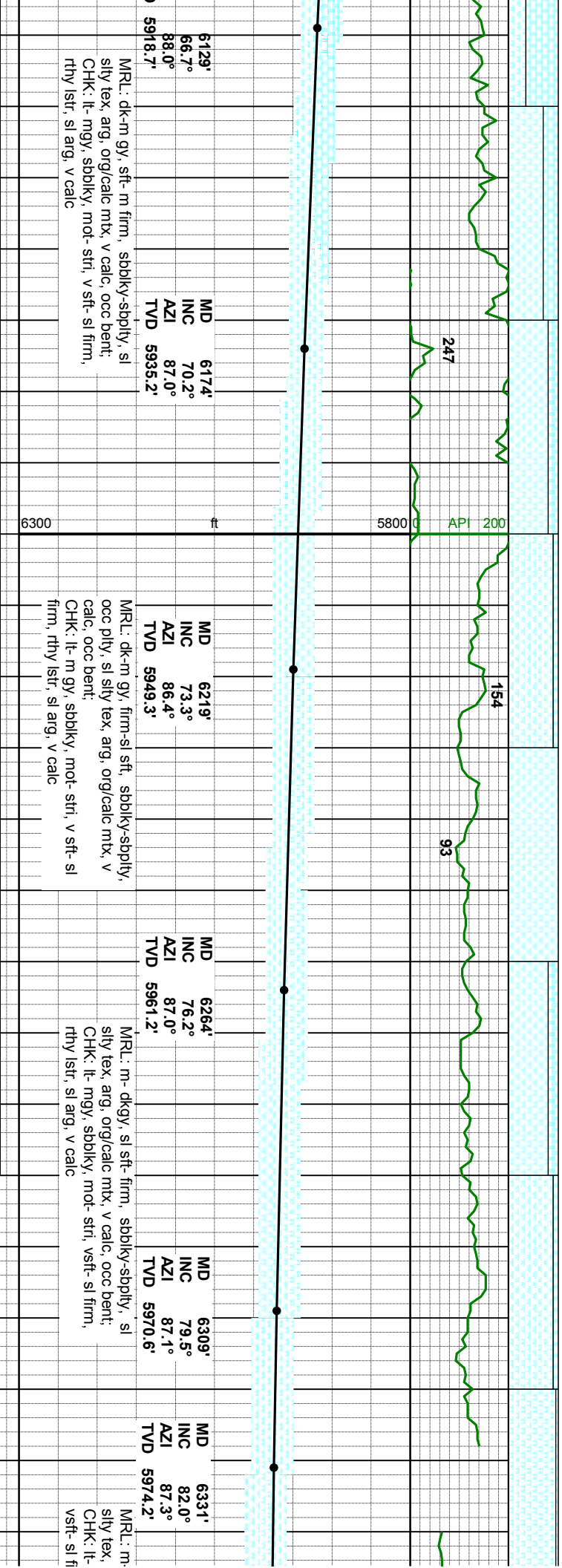
MD 6084'
INC 63.8°
AZI 89.1°
TVD 5899.9'

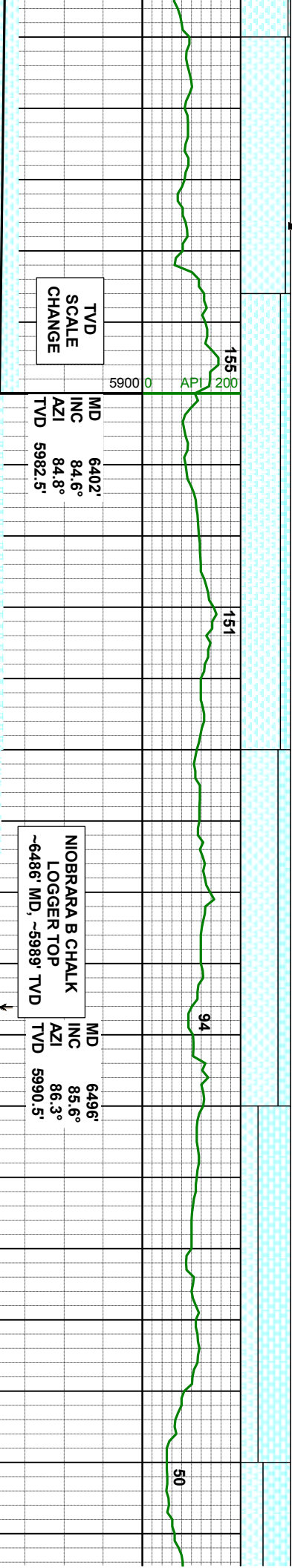
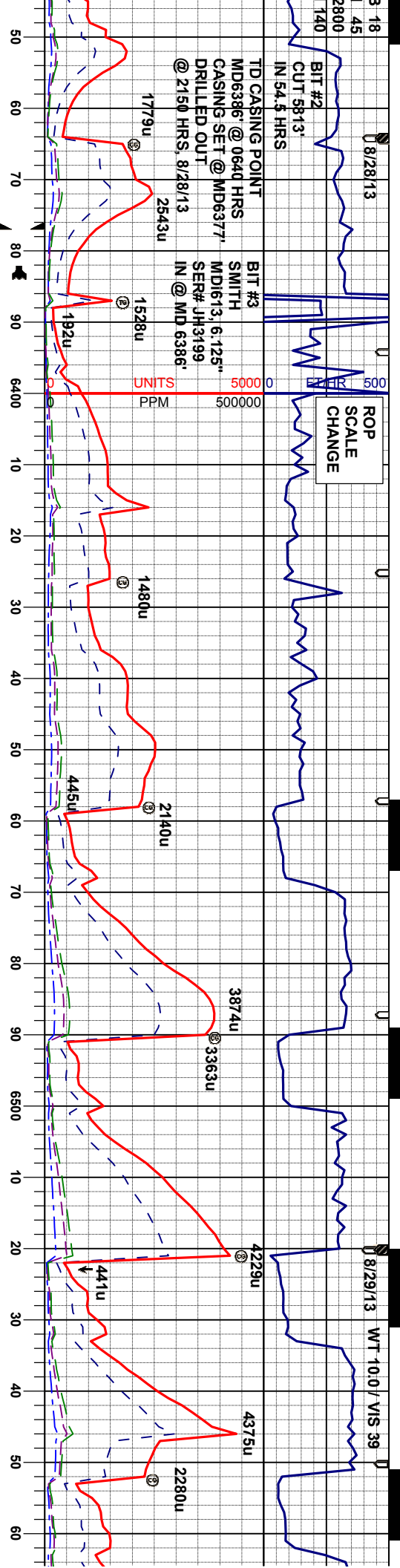
MD
INC
AZI
TVD

SLT/SH: m-dk gy, pily-sb pily, firm-si sft,
rthy-gt tex, v si calc, sdy ip, v rr grdg-
slyss

SLT/SH: dk-m gy, sbpily-pily, occ sbiky,
firm-si sft, rthy-gt tex, si calc, sdy ip, abnt
bent, v rr grdg-slyss:
CHK: m-lt gy, sbiky, mot-stri, sft-si firm,
rthy lstr, si arg, v calc

CHK: m gy, occ lt gy, sbiky, mot-stri, v sft-
si firm, rthy lstr, si arg, v calc;
MRL: m-dkgy, mod firm-si sft, sbiky-
sbpily, rthy-sily, arg, org/calc mtk, v calc





dkgy, sl sft- firm, sbblky-sbply, sl arg, org/calc mt, v calc, occ bent; mgy, sme sldkgy, sbblky, mot- stri, rthy lstr, sl arg, v calc

MRL: m- dkgy, firm-sl sft, sbblky-sbply, sl silty tex, arg, org/calc mt, v calc, tr bent; CHK: lt- mgy, sme sldkgy, sbblky, mot- stri, vstf- sl firm, rthy lstr, sl arg, v calc

MRL: m- dkgy, firm-sl sft, occ hd, sbblky-sbply, sl silty tex ip, arg, org/calc mt, v calc, tr bent; CHK: lt- mgy, occ sl dkgy, sbblky, mot- stri, vstf- sl firm, rthy lstr, sl arg, v calc

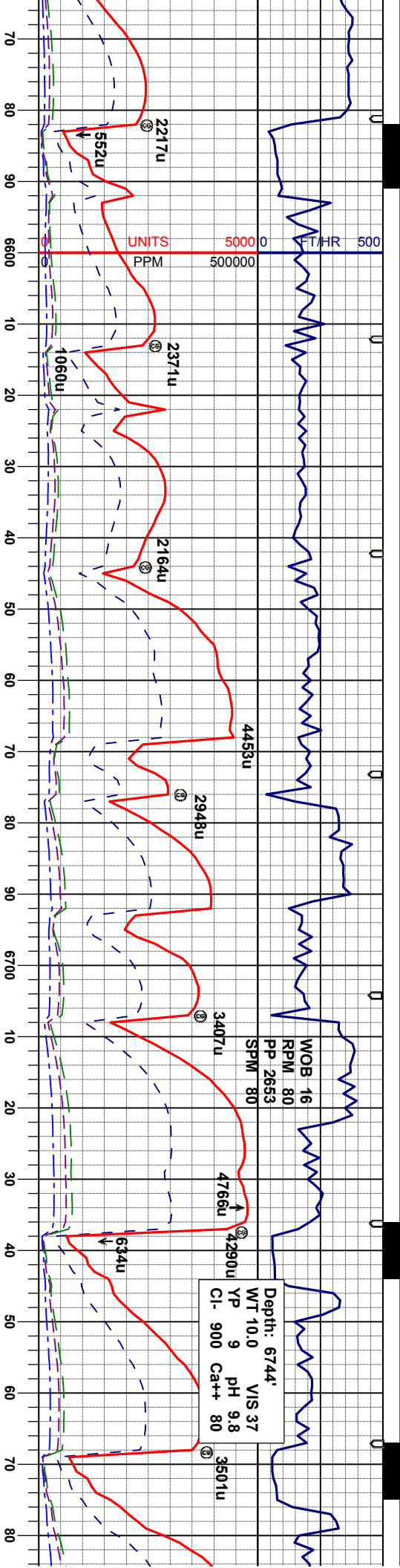
CHK: lt- m gy, rr dkgy, sbblky, mot- stri, v sft - sl firm, rthy lstr, arg, v calc

MRL: dk-m gy, firm-sl sft, occ hd, sbblky-sbply, pily ip, sl silty tex, arg, org/calc mt, v calc

CHK: m- lt- g sft-firm, rthy lstr, arg, v calc

MRL: dk-m gy, firm-sl sft, occ hd, sbblky-sbply, pily ip, sl silty tex, arg, org/calc mt, v calc





MD 6587'
INC 88.5°
AZI 88.4°
TVD 5995.2'

MD 6681'
INC 88.7°
AZI 88.0°
TVD 5997.5'

MD 6775'
INC 88.6°
AZI 87.7°
TVD 5999.7'

gy, rr dkgy, sbblky, mot- str, sl
v lsir, arg, v calc
gy, firm-si- str, occ nd, sbblky-
ip, si silty tex, arg, org/calc mtx.

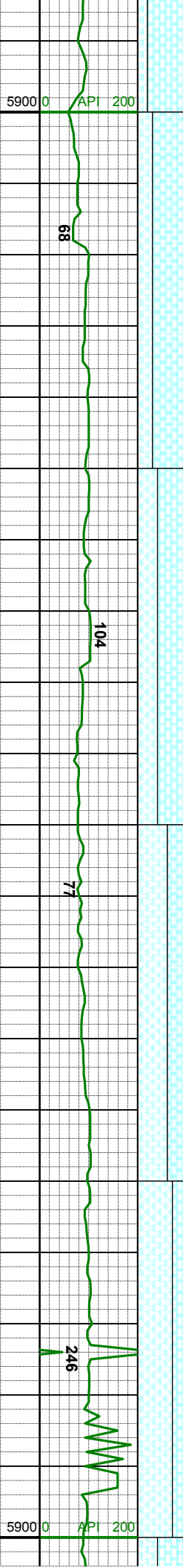
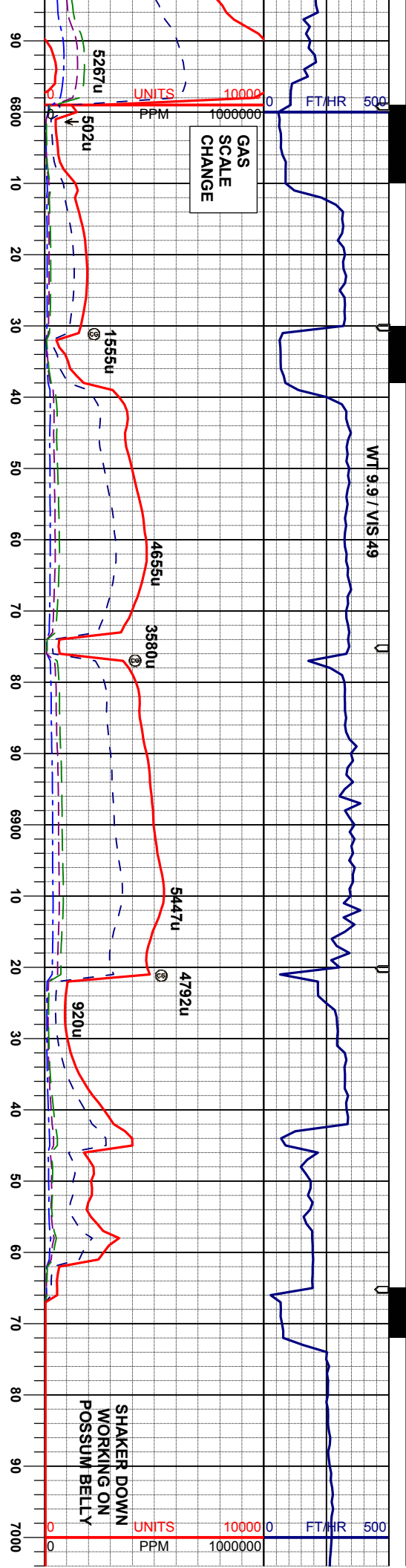
CHK: lt-m gy, rr dkgy, sbblky, mot- str, sl
sft-firm, occ v sft, rthy lsir, arg, v calc
MRL: dk-m gy, sl firm-firm, sbblky-sbply,
ply ip, si silty tex, arg, org/calc mtx, v calc

CHK: lt-m gy, rr dkgy, sbblky, mot- str, sft-
firm, occ v sft, rthy lsir, arg, v calc
MRL: dk-m gy, sl firm-firm, sbblky-sbply,
ply ip, si silty tex, arg, org/calc mtx, v calc

CHK: lt-m gy, rr dkgy, sbblky, occ sbply,
mot- str, v sft-si firm, tr firm, rthy lsir, s arg,
v calc
MRL: dk-m gy, sl firm-firm, sbblky-sbply,
ply ip, si silty tex, arg, org/calc mtx, v calc

CHK: lt- mgy, sbblky, occ sbply
sft-firm, rthy lsir, s arg, v calc
MRL: m-m dkgy, sl firm-firm, st
ply ip, si silty tex, arg, org/calc mtx,
tr bent





MD 6865'
INC 88.5°
AZI 90.1°
TVD 6002.0'

MD 6954'
INC 90.1°
AZI 90.1°
TVD 6003.0'

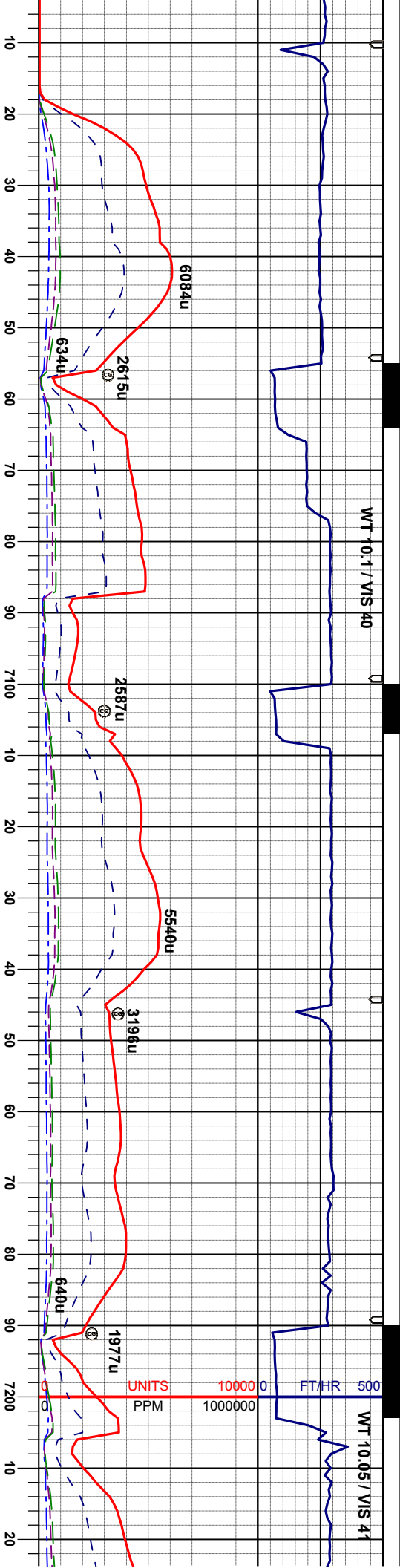
CHK: lt-mgy, sbblky, occ sbply, mot-stri,
sft-m firm, rthy istr, s arg, v calc
MRL: m-m dkgy, sl firm-firm, sbblky-sbply,
ply ip, sl sily tex, arg, org/calc mtx, v calc,
tr bent

CHK: lt-mgy, sbblky, occ sbply, mot-stri,
sft-m firm, rthy istr, s arg, v calc
MRL: m-m dkgy, sl firm-firm, sbblky-sbply,
ply ip, sl sily tex, arg, org/calc mtx, v calc,
tr bent

MRL: m-m dkgy, sl firm-firm, sbblky-sbply,
ply ip, sl sily tex, arg, org/calc mtx, v calc,
abnt fos frag
CHK: lt-mgy, sbblky, occ sbply, mot-stri,
sft-m firm, rthy istr, s arg, v calc

MRL: m-m dkgy, sl firm-firm, sbblky-sbply,
ply ip, sl sily tex, arg, org/calc mtx, v calc,
abnt fos frag
CHK: lt-mgy, sbblky, occ sbply, mot-stri,
sft-m firm, rthy istr, s arg, v calc





MD 7044'
INC 91.6°
AZI 89.2°
TVD 6001.7'

MD 7134'
INC 91.0°
AZI 87.7°
TVD 5999.7'

MD
INC
AZI
TVD

CHK: lt-mgy, sbblky, occ sbply, mot- str,
sft-m firm, rthy lstr, s arg, v calc
MRL: m-m dkg, sl firm-firm, sbblky- sbply,
ply ip, sl sily tex, arg, org/calc mt, v calc,
occ fos frag, abnt dul yeigr flr

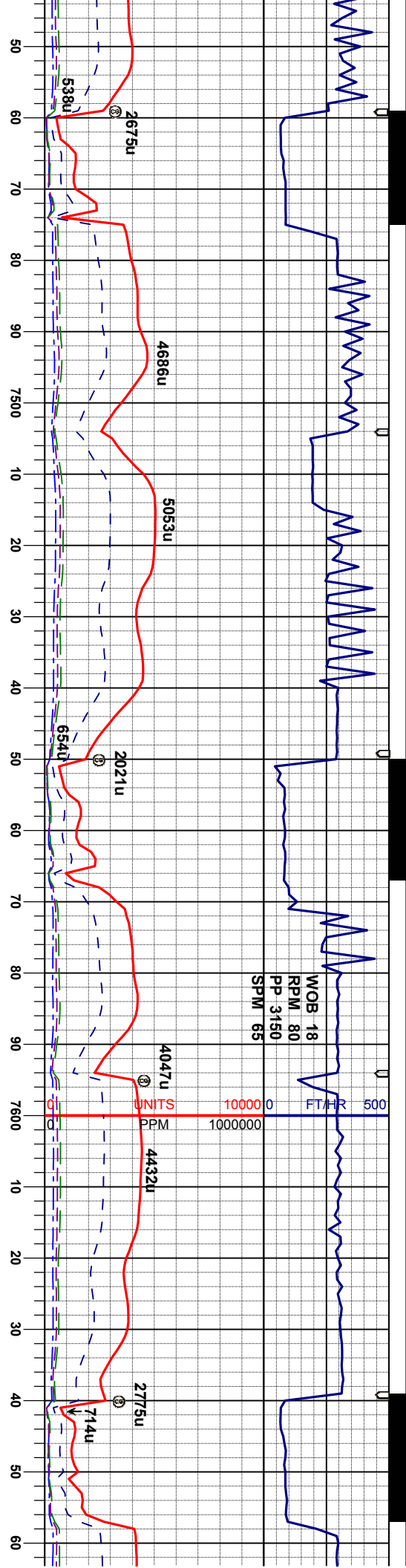
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sft-m firm, rthy lstr, s arg, v calc
MRL: m-m dkg, sl firm-firm, sbblky- sbply,
ply ip, sl sily tex, arg, org/calc mt, v calc,
occ fos frag, abnt dul yeigr flr

CHK: lt-mgy, sbblky, occ sbply, mot- str,
sft-m firm, rthy lstr, s arg, v calc
MRL: m-m dkg, sl firm-firm, sbblky- sbply,
ply ip, sl sily tex, arg, org/calc mt, v calc,
tr fos, frag, abnt dul yeigr flr

CHK: lt-mgy, sbblky, occ sbply, mot- str,
sft-m firm, rthy lstr, s arg, v calc
MRL: m-m dkg, sl firm-firm, sbblky- sbply,
ply ip, sl sily tex, arg, org/calc mt, v calc,
tr fos, frag, abnt dul yeigr flr

CHK: lt-mgy, sbblky
sft-m firm, rthy lstr, s
abnt dul yeigr flr



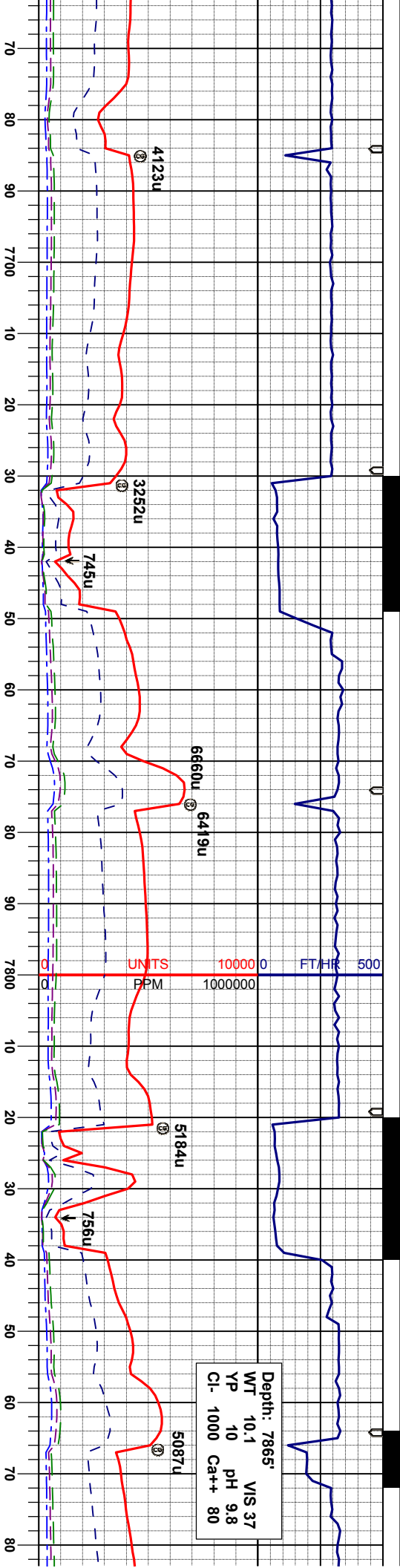


MD 7494'
INC 90.1°
AZI 88.5°
TVD 5997.1'

MD 7584'
INC 89.9°
AZI 89.1°
TVD 5997.1'

| | | | |
|--|--|--|--|
| ft-si | CHK: lt- mgy, sbblky- sbply, mot- stri, sft-si | CHK: lt- mgy, sbblky- sbply, mot- stri, sft-si | CHK: lt- mgy, sbblky- sbply, mot- stri, sft-si |
| firm, rthy lstr, s arg, v calc | firm, rthy lstr, s arg, v calc | firm, rthy lstr, s arg, v calc | firm, rthy lstr, s arg, v calc |
| MRL: m-m dkg, sl firm-firm, sbblky- sbply, | MRL: m-m dkg, sl firm-firm, sbblky- sbply, | MRL: m-m dkg, sl firm-firm, sbblky- sbply, | MRL: m-m dkg, sl firm-firm, sbblky- sbply, |
| ply ip, sl silty tex, arg, org/calc mt, v calc | ply ip, sl silty tex, arg, org/calc mt, v calc | ply ip, sl silty tex, arg, org/calc mt, v calc | ply ip, sl silty tex, arg, org/calc mt, v calc |





MD 7674'
INC 90.0°
AZI 89.9°
TVD 5997.1'

MD 7764'
INC 89.6°
AZI 89.5°
TVD 5997.5'

MD 7854'
INC 90.2°
AZI 89.6°
TVD 5997.6'

gy, sbbiky-sbply, mot- str, sft-sl
str, s arg, v calc
n dkg, sl firm-firm, sbbiky-sbply,
ply ip, sl silty tex, arg, org/calc mt, v calc

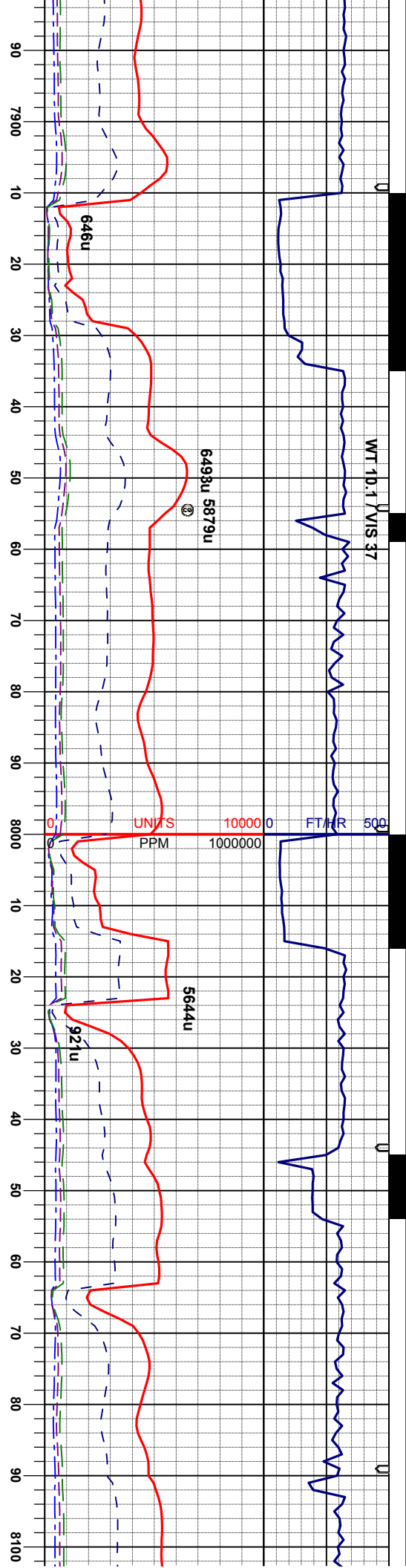
CHK: lt- mgy, sbbiky-sbply, mot- str, sft-sl
firm, rthy lstr, s arg, v calc
MRL: m-m dkg, sl firm-firm, sbbiky-sbply,
ply ip, sl silty tex, arg, org/calc mt, v calc

CHK: lt- mgy, sbbiky-sbply, mot- str, sft-sl
firm, rthy lstr, s arg, v calc
MRL: m-m dkg, sl firm-firm, sbbiky-sbply,
ply ip, sl silty tex, arg, org/calc mt, v calc

CHK: lt- mgy, sbbiky-sbply, mot- str, sft-sl
firm, rthy lstr, s arg, v calc
MRL: m-m dkg, sl firm-firm, sbbiky-sbply,
ply ip, sl silty tex, arg, org/calc mt, v calc

CHK: lt- mgy, sbbiky-sbply, r
firm, rthy lstr, s arg, v calc
MRL: m-m dkg, sl firm-firm, s
ply ip, sl silty tex, arg, org/calc



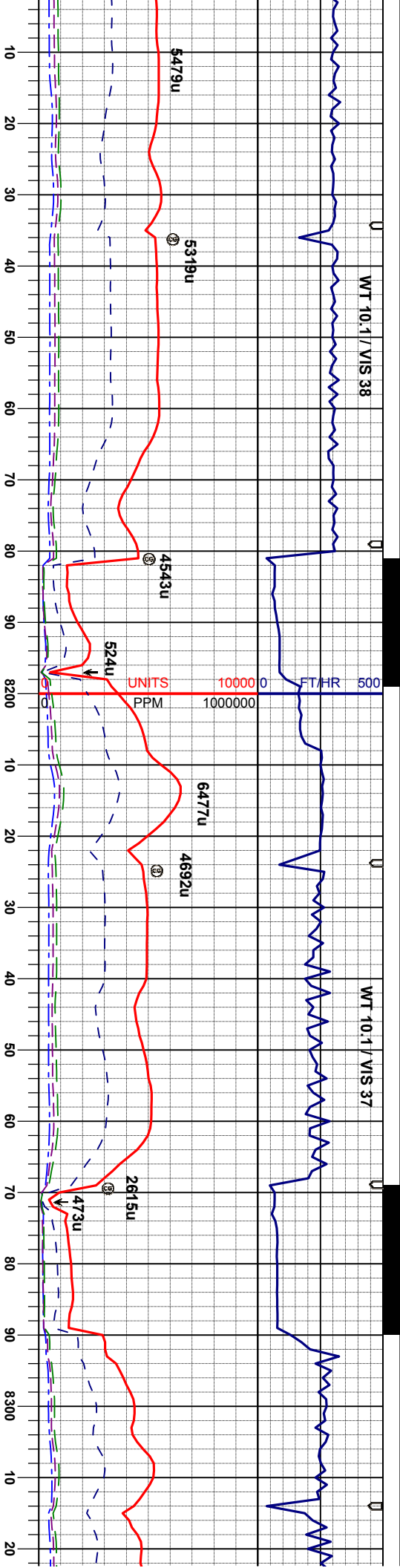


MD 7943'
INC 89.3°
AZI 87.5°
TVD 5998.0'

MD 8033'
INC 88.8°
AZI 88.0°
TVD 5999.5'

| | | | | |
|-----------------|---|--|--|---|
| not str, sft-sl | CHK: m-lt gy, sbblky-sbply, mot- str, sft-sl | CHK: m-lt gy, sbblky-sbply, mot- str, sft-sl | CHK: lt-m gy, sbblky-sbply, mot- str, sft-sl | CHK: lt-m gy, sbblky-sbply, mot- str, sft-sl |
| bbly-sbply, | firm, rthy lstr, sl arg, v calc | firm, rthy lstr, sl arg, v calc | firm, rthy lstr, sl arg, v calc | firm, rthy lstr, sl arg, v calc |
| mtx, v calc | MRL: m-m dkgy, sl firm-firm, sbblky-sbply, | MRL: m-dk gy, sl firm-firm, sbblky-sbply, | MRL: m-dk gy, sl firm-firm, sbblky-sbply, | MRL: m-dk gy, sl firm-firm, sbblky-sbply, |
| | ply ip, sl silty tex, arg, org/calc mt, v calc, | ply ip, sl silty tex, arg, org/calc mt, v calc | ply ip, sl silty tex, arg, org/calc mt, v calc | ply ip, sl silty tex, arg, org/calc mt, v calc, |
| | tr pyr | | | tr inoc fos |





MD 8123'
INC 90.0°
AZI 87.8°
TVD 6000.4'

MD 8213'
INC 90.3°
AZI 89.9°
TVD 6000.2'

MD 8303'
INC 90.0°
AZI 90.5°
TVD 6000.0'

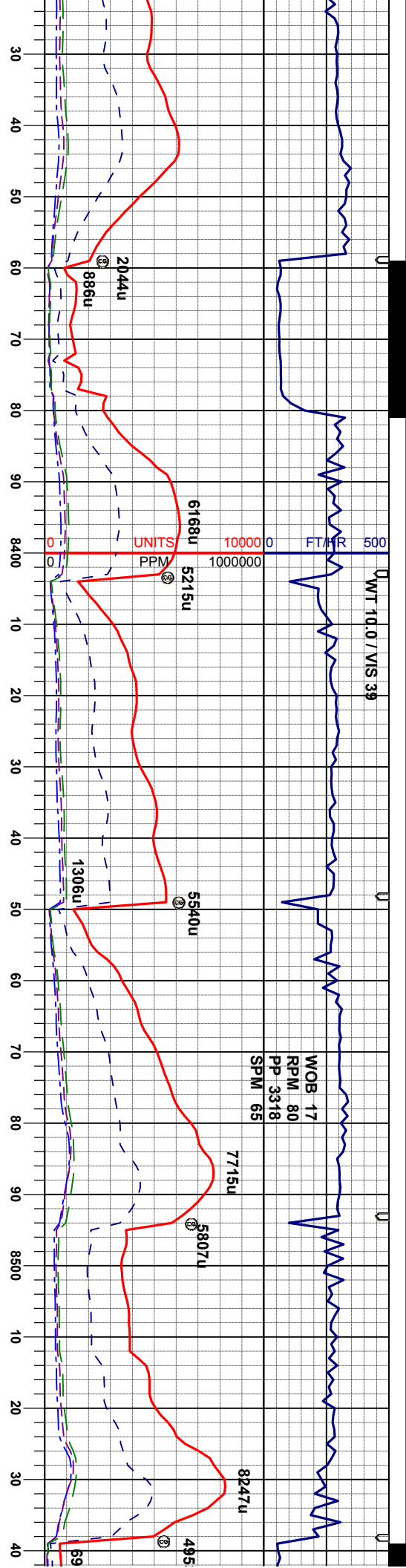
CHK: lt-m gy, sbblky- sbply, mot- str, sft-sl
firm-sft, rthy istr, sl arg, v calc
MRL: m-dk gy, sl firm-firm, sbblky- sbply,
ply ip, sl sily tex, arg, org/calc mt, v calc

CHK: lt-m gy, sbblky- sbply, mot- str, sl
firm-sft, rthy istr, sl arg, v calc
MRL: m-dk gy, sl firm-firm, sbblky- sbply,
ply ip, sl sily tex, arg, org/calc mt, v calc

CHK: lt-m gy, sbblky- sbply, mot- str, sl
firm-sft, rthy istr, sl arg, v calc
MRL: m-dk gy, sl firm-firm, sbblky- sbply,
ply ip, sl sily tex, arg, org/calc mt, v calc

6100





MD 8393'
INC 88.5°
AZI 89.8°
TVD 6001.1'

MD 8483'
INC 89.6°
AZI 89.9°
TVD 6002.6'

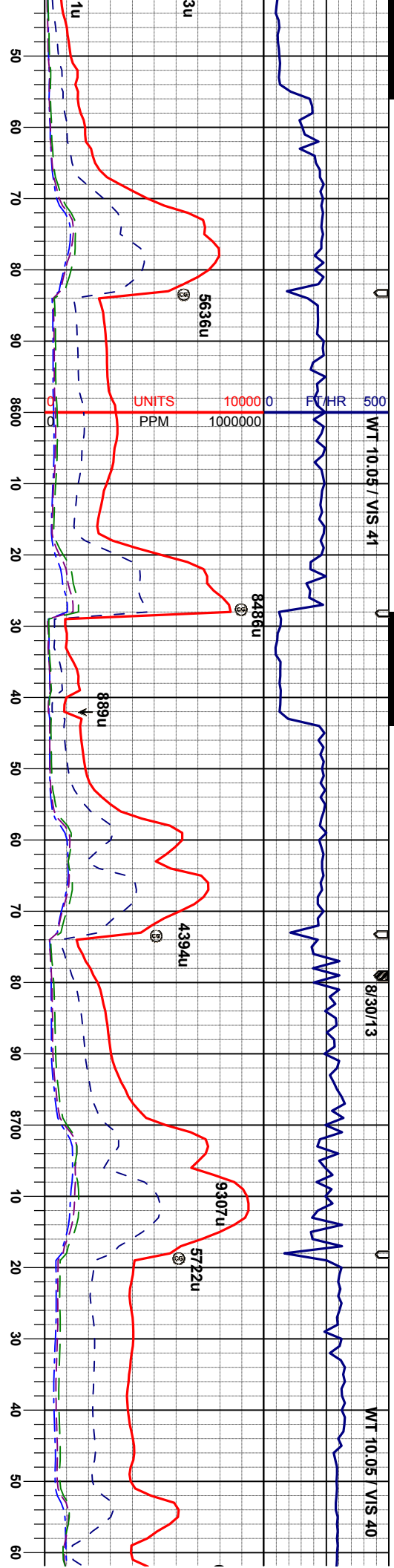
ky- sbply, mot- str, sl
thly lstr, sl arg, v calc
firm- firm, sbply- sbply,
arg, org/calc mtx, v calc

CHK: lt-m gy, sbply- sbply, mot- str, sl
firm- sft, rthy lstr, sl arg, v calc;
tr MRL: m-dk gy, sl firm- firm, sbply- sbply,
ply ip, sl silty tex, arg, org/calc mtx, v calc,
occ bent

CHK: lt-m gy, sbply- sbply, mot- str, sl
firm- sft, rthy lstr, sl arg, v calc;
tr MRL: m-dk gy, sl firm- firm, sbply- sbply,
ply ip, sl silty tex, arg, org/calc mtx, v calc,
occ bent

CHK: lt-m gy, sbply- sbply, mot- str, sl
firm- sft, rthy lstr, sl arg, v calc;
tr MRL: m-dk gy, sl firm- firm, sbply- sbp
ply ip, sl silty tex, arg, org/calc mtx, v c





MD 8573'
INC 89.4°
AZI 89.9°
TVD 6003.4'

MD 8662'
INC 88.5°
AZI 87.7°
TVD 6005.1'

MD 8752'
INC 89.0°
AZI 87.1°
TVD 6007.0'

CHK: lt-m gy, sbblky- sbply, mot- str, sl
firm-sft, rthy lstr, sl arg, v calc;
MRL: m-dk gy, sl firm-firm, sbblky- sbply,
ply ip, sl silty tex, arg, org/calc mtz, v calc

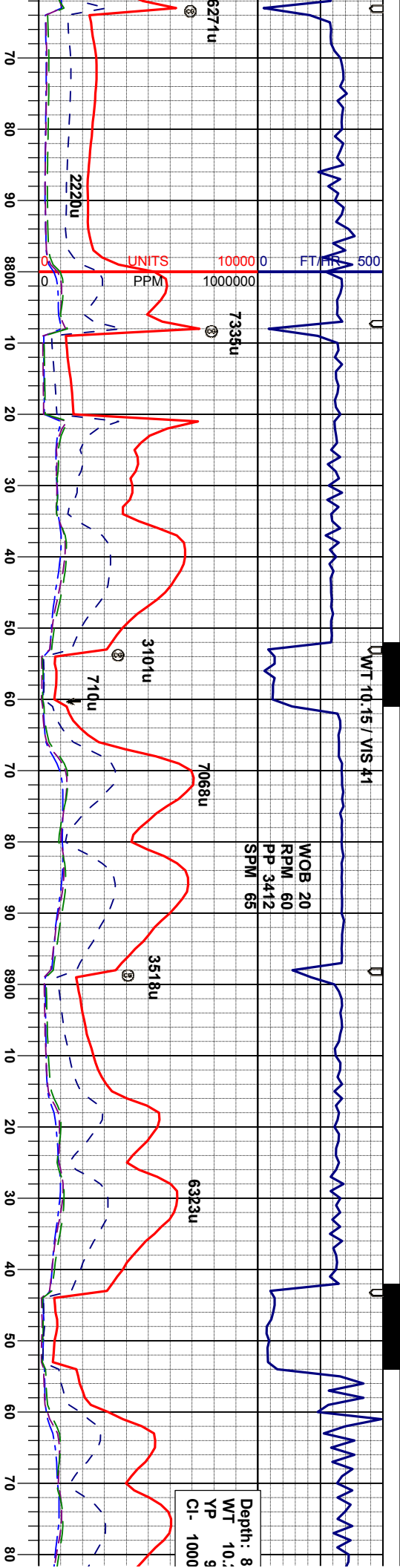
CHK: lt-m gy, sbblky- sbply, mot- str, sl
firm-sft, firm ip, rthy lstr, sl arg, v calc;
MRL: m-dk gy, sl firm-firm, sbblky- sbply,
ply ip, sl silty tex, arg, org/calc mtz, v calc

CHK: lt-m gy, sbblky- sbply, mot- str, sl
firm-sft, occ firm, rthy lstr, sl arg, v calc;
MRL: m-dk gy, sl firm-firm, sbblky- sbply,
ply ip, sl silty tex, arg, org/calc mtz, v calc,
tr bent

CHK: lt-m gy, sbblky- sbply, mot- str, sl
firm-sft, occ firm, rthy lstr, sl arg, v calc;
MRL: m-dk gy, sl firm-firm, sbblky- sbply,
ply ip, sl silty tex, arg, org/calc mtz, v calc,
tr bent

6100





MD 8842'
INC 90.0°
AZI 87.3°
TVD 6007.8'

MD 8932'
INC 90.7°
AZI 86.3°
TVD 6007.3'

gy, sbbkly- sbply, mot- str, sl
occ firm, rthy lstr, sl arg, v calc;
dk gy, sl firm-firm, sbbkly- sbply,
silty tex, arg, org/calc mt, v calc,
occ inoc fos

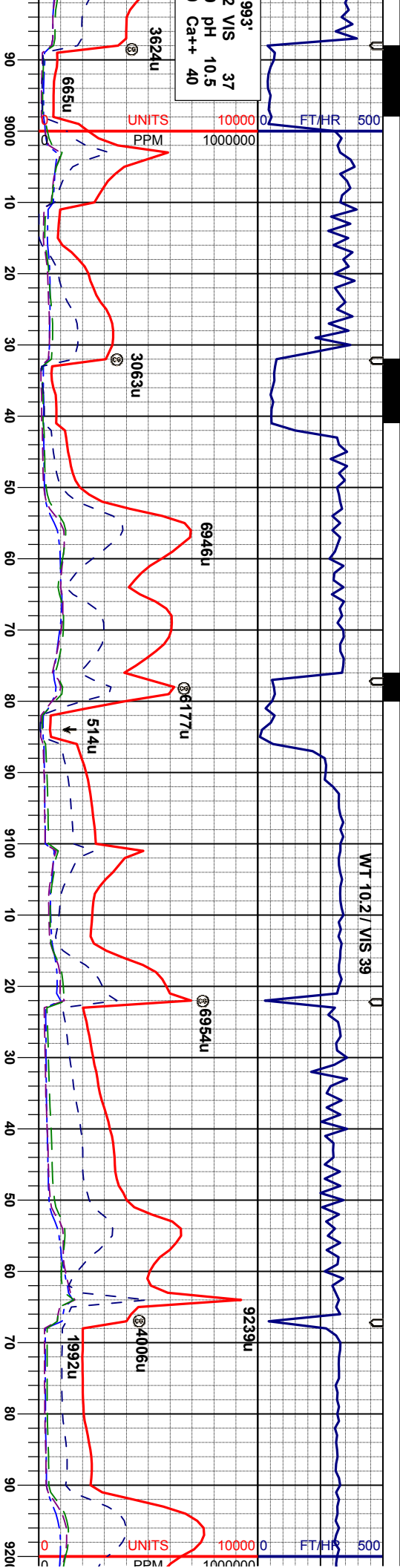
CHK: lt-m gy, sbbkly- sbply, mot- str, sl
firm-sft, occ firm, rthy lstr, sl arg, v calc;
MRL: m-dk gy, sl firm-firm, sbbkly- sbply,
ply ip, sl silty tex, arg, org/calc mt, v calc,
tr bent, occ inoc fos

MRL: m-dk gy, sl firm-firm, sbbkly- sbply,
ply ip, silty tex, arg, org/calc mt, v calc, tr
bent, occ inoc fos;
CHK: lt-m gy, sbbkly- sbply, mot- str, sl
firm-sft, occ firm, rthy lstr, sl arg, v calc

MRL: m-dk gy, sl firm-firm, sbbkly- sbply,
ply ip, silty tex, arg, org/calc mt, v calc, tr
bent;
CHK: lt-m gy, sbbkly- sbply, mot- str, sl
firm-sft, rthy lstr, sl arg, v calc

MRL: m-dk gy, sl firm-firm, o
-sbply, ply ip, silty tex, org/
calc, tr bent;
CHK: lt-m gy, sbbkly- sbply,
firm-sft, rthy lstr, sl arg, v cal





MD 9022'
INC 88.7°
AZI 87.1°
TVD 6007.7'

MD 9112'
INC 89.4°
AZI 88.5°
TVD 6009.2'

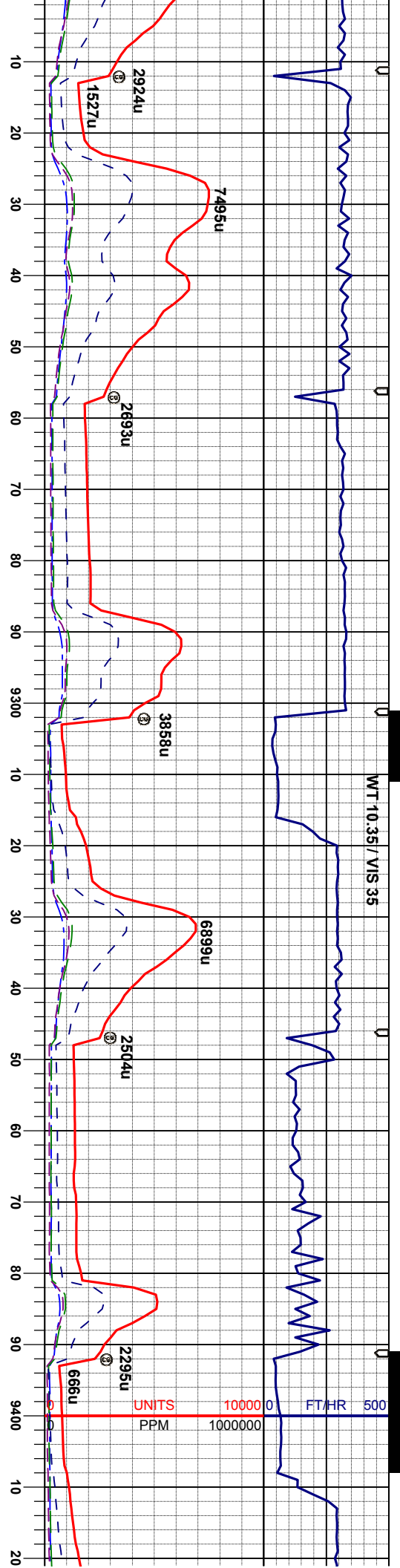
cc sl sft, sbblky
calc mt, v

MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
- sppty, pty ip, silty tex, org/calc mt, v
calc, abnt bent;
CHK: lt-m gy, sbblky- sppty, mot- stri, sl
firm-sft, rthy lstr, sl arg, v calc

MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
- sppty, pty ip, silty tex, org/calc mt, v
calc, abnt bent;
CHK: lt-m gy, sbblky- sppty, mot- stri, sl
firm-sft, rthy lstr, sl arg, v calc

MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
- sppty, pty ip, silty tex, org/calc mt, v
calc, abnt fos frag, abnt bent
CHK: lt-m gy, sbblky- sppty, mot- stri, sl
firm-sft, rthy lstr, sl arg, v calc

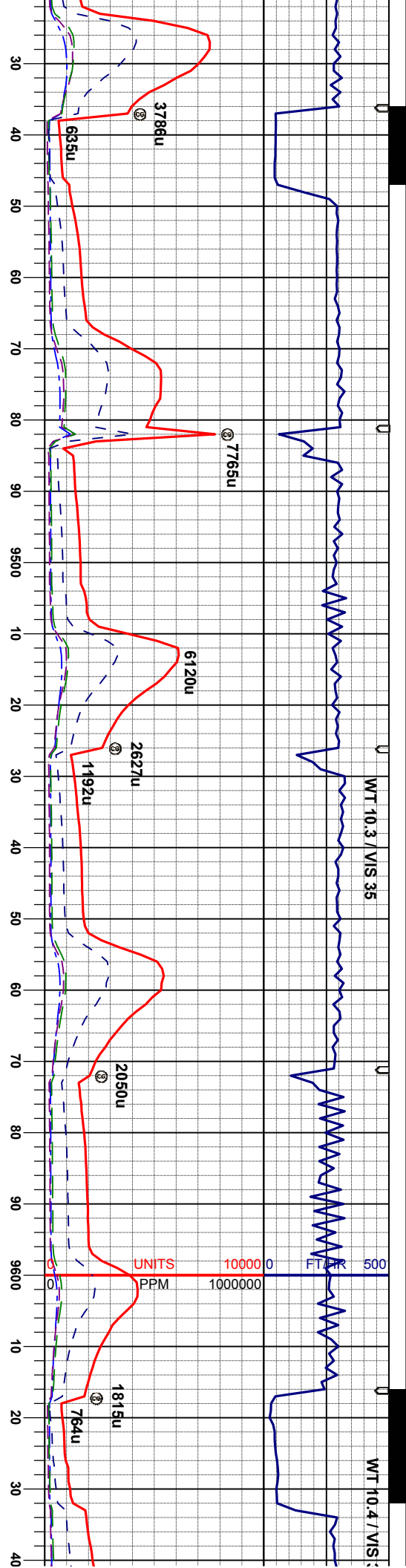




| MD | INC | AZI | TVD |
|-------|-------|-------|---------|
| 9201' | 90.2° | 88.7° | 6009.5' |
| 9291' | 90.6° | 87.1° | 6008.9' |
| 9381' | 88.9° | 86.6° | 6009.3' |

| MRL | M-dk gy, sl firm-firm, occ sl sft, sbblky | MRL | M-dk gy, sl firm-firm, occ sl sft, sbblky | MRL | M-dk gy, sl firm-firm, occ sl sft, sbblky | MRL | M-dk gy, sl firm-firm, occ sl sft, sbblky |
|---|---|---|---|---|---|---|---|
| -spply, pily ip, silty tex, org/calc mtz, v | | -spply, pily ip, silty tex, org/calc mtz, v | | -spply, pily ip, silty tex, org/calc mtz, v | | -spply, pily ip, silty tex, org/calc mtz, v | |
| calc, occ fos frag, abnt bent, occ chk | | calc, occ fos frag, abnt bent, tr chk | | calc, occ fos frag, abnt bent, occ chk | | calc, occ fos frag, abnt bent, occ chk | |





MD 947.1'
INC 90.6°
AZI 89.2°
TVD 6009.7'

MD 956.1'
INC 91.9°
AZI 89.2°
TVD 6007.7'

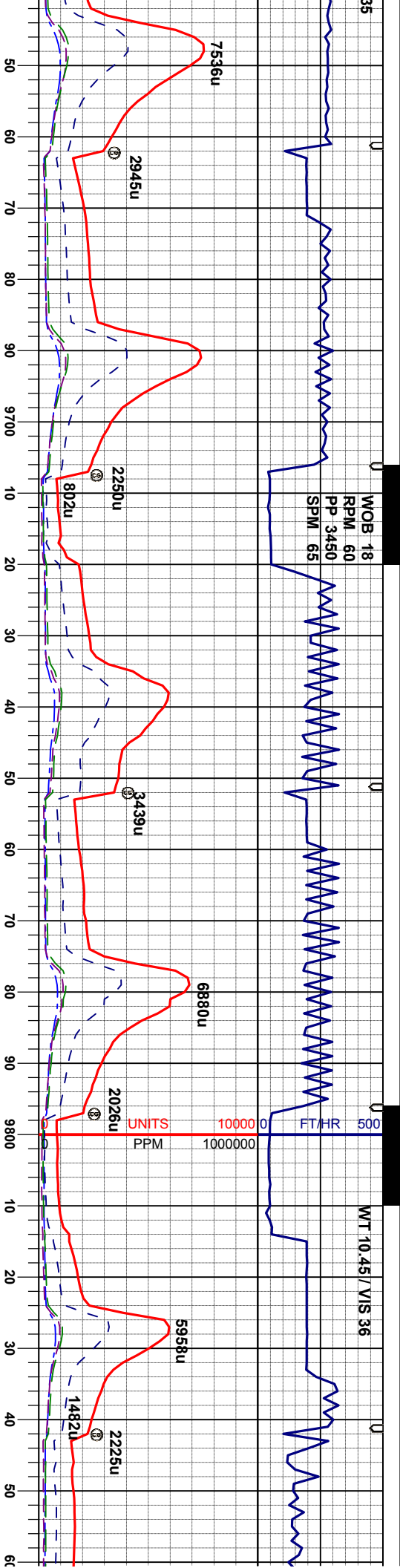
firm-firm, occ sl sft, sbblky
silty tex, org/calc mtz, v
occ bent, occ chk

MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
- sbply, pily ip, silty tex, org/calc mtz, v
calc, occ fos frag, occ bent, occ chk

MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
- sbply, pily ip, silty tex, org/calc mtz, v
calc, occ fos frag, occ bent, occ chk

MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
- sbply, pily ip, silty tex, org/calc mtz, v
calc, abnt fos frag, abnt bent, tr chk





MD 9651'
INC 91.1°
AZI 89.2°
TVD 6005.4'

MD 9741'
INC 89.4°
AZI 87.0°
TVD 6005.0'

MD 9831'
INC 90.5°
AZI 91.3°
TVD 6005.1'

MRL: m-dk gy, sl firm-firm, occ sl sft, sbbkly
- sbbkly, pty ip, silty tex, org/calc mtx, v
calc, abnt fos frag, abnt bent, tr chk

MRL: m-dk gy, sl firm-firm, occ sl sft, sbbkly
- sbbkly, pty ip, silty tex, org/calc mtx, v
calc, abnt fos frag, abnt bent
CHK: lt-m gy, sbbkly- sbbkly, mot- str, sl
firm-sft, rthy istr, sl arg, v calc

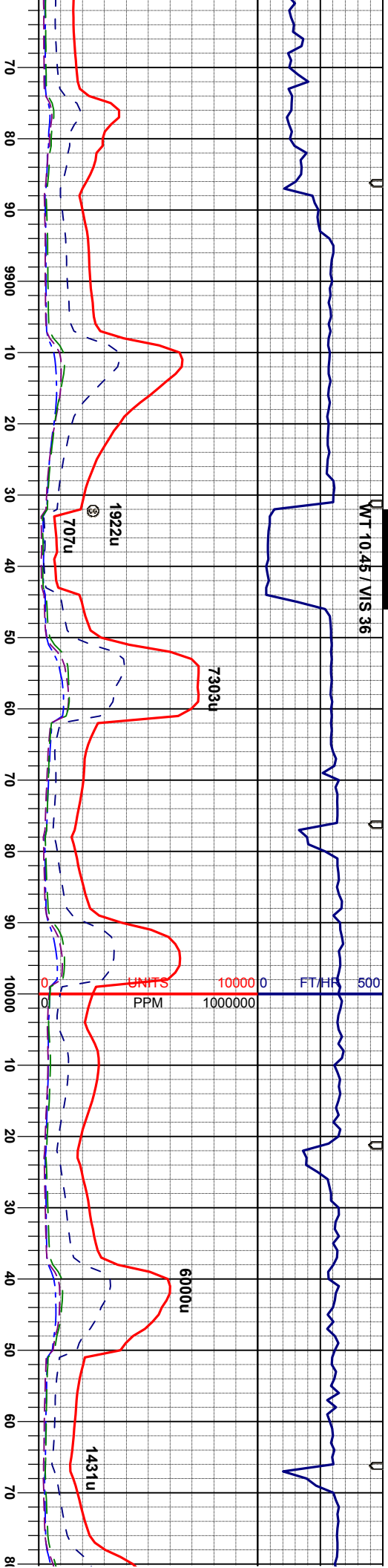
MRL: m-dk gy, sl firm-firm, occ sl sft, sbbkly
- sbbkly, pty ip, silty tex, org/calc mtx, v
calc, abnt fos frag, abnt bent
CHK: lt-m gy, sbbkly- sbbkly, mot- str, sl
firm-sft, rthy istr, sl arg, v calc

MRL: m-dk gy, sl firm-firm, occ sl sft, sbbkly
- sbbkly, pty ip, silty tex, org/calc mtx, v
calc, abnt fos frag, abnt bent
CHK: lt-m gy, sbbkly- sbbkly, mot- str, sl
firm-sft, rthy istr, sl arg, v calc

MRL: m-
- sbbkly,
calc, abn
CHK: lt-m
firm-sft,



WT 10.45 / VIS 36



MD 992.1'
INC 90.7°
AZI 89.9°
TVD 6004.1'

MD 1001.1'
INC 89.5°
AZI 89.1°
TVD 6004.0'

dk gy, sl firm-firm, occ sl sft, sbblky
ply ip, silty tex, org/calc mtz, v
nt fos frag, abnt bent
m gy, sbblky-sbply, mod- stri, sl
rthy lstr, sl arg, v calc

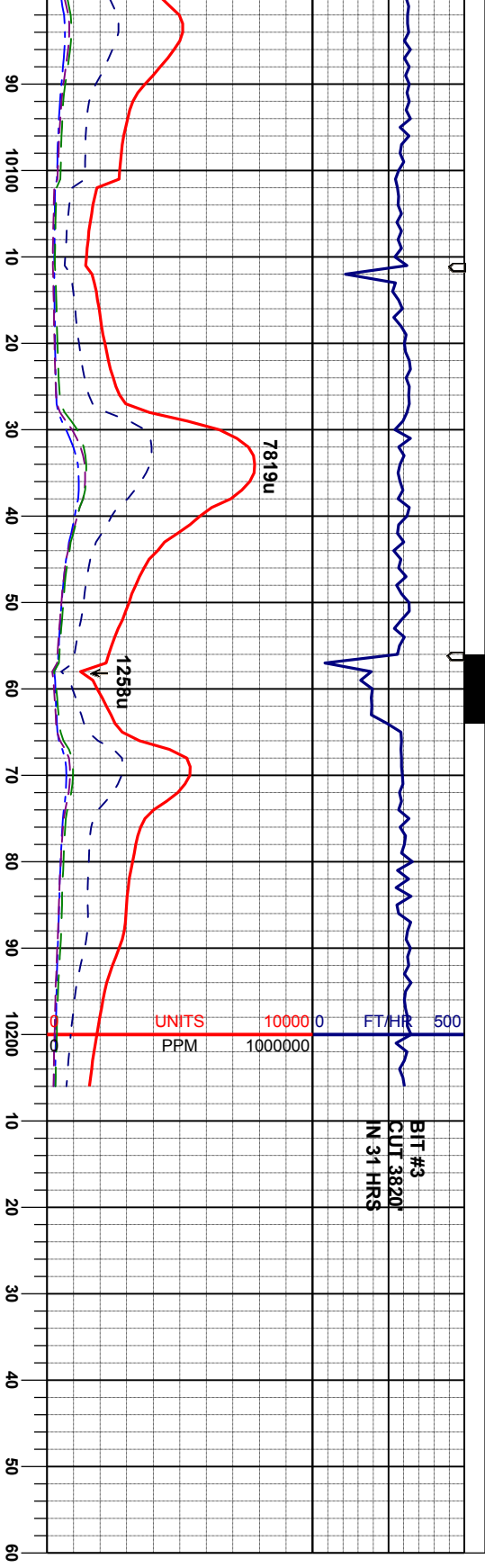
MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
-sbply, ply ip, silty tex, org/calc mtz, v
calc, occ fos frag, scat bent, occ chk

MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
-sbply, ply ip, silty tex, org/calc mtz, v
calc, occ fos frag, scat bent, tr chk

MRL: m-dk gy, sl firm-firm, occ sl sft, sbblky
-sbply, ply ip, silty tex, org/calc mtz, v
calc, tr fos frag, occ bent

MRL: m-dk gy, sl firm-firm, occ
-sbply, tr ply, silty tex, org/c
calc, sdy ip, occ bent





BIT #3
CUT 3820'
IN 31 HRS

THANK YOU FOR CHOOSING
COLUMBINE LOGGING, INC.

MD 10101'
INC 90.5°
AZI 88.7°
TVD 6004.0'

MD 10151'
INC 90.9°
AZI 88.2°
TVD 6003.3'

MD 10206'
INC 90.9°
AZI 88.2°
TVD 6002.5'

PROJECTION TO BIT

TD: 10206' MD
@ 1620 HRS, 8/30/13

cc sl sft, sbblky
calc mtz, v

MRL: m-dk gy, sl firm-firm, sbblky-sbply,
tr pily, silty tex, org/calc mtz, v calc, sdy ip,
tr fos frag

MRL: m-dk gy, sl firm-firm, sbblky-sbply,
tr pily, silty tex, org/calc mtz, v calc, sdy ip,
tr fos frag, tr bent

6100

