

LOG created using Lplot VH Version 3.0, September 21, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: NOBLE ENERGY INC
WELL: ROHN STATE LD04-62-1HN
LOCATION: SEC 4 T9N R58W
COUNTY: WELD
STATE: COLORADO
SPOT: 699' FSL; 480' FEL
ELEVATION: 4712' GL; 4736' KB
FIELD: WILDCAT
SPUD DATE: 09/15/2013
TD DATE: 09/16/2013
DATES LOGGED: 09/15/2013 - 09/16/2013
DEPTHS LOGGED: 1200' - 4940' MD
LOGGERS: LAURA KELLOGG; CONOR PESICKA
DRILLING FLUID: LSND
DRILLING RIG: H&P 273
API: 05-123-37460
LOG TYPE: VERTICAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: WELLSITE GEOLOGICAL SERVICES
 PROVIDED BY COLUMBINE LOGGING INC.

LITHOLOGIES



Sandstone



Shaly Sandstone



Silty Shale

ENGINEERING SYMBOLS



Connection



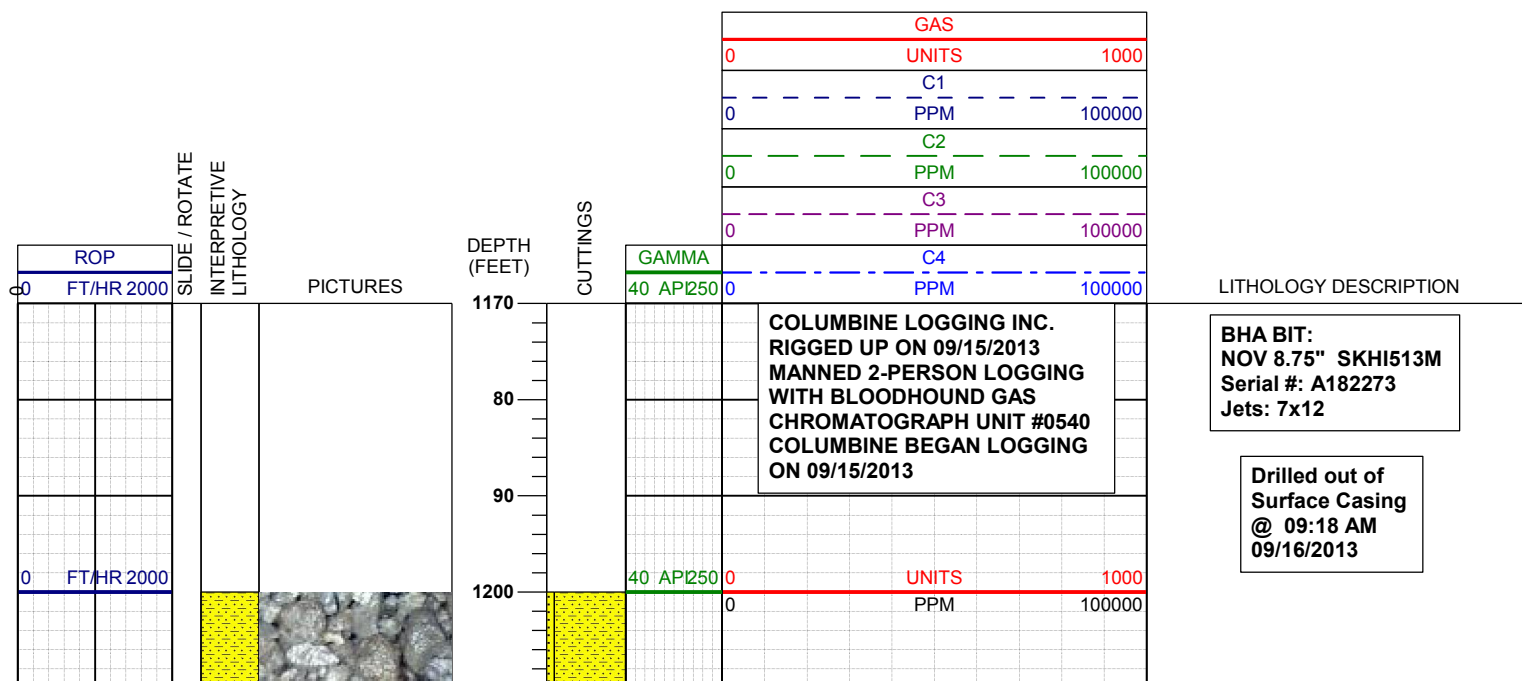
Connection Gas

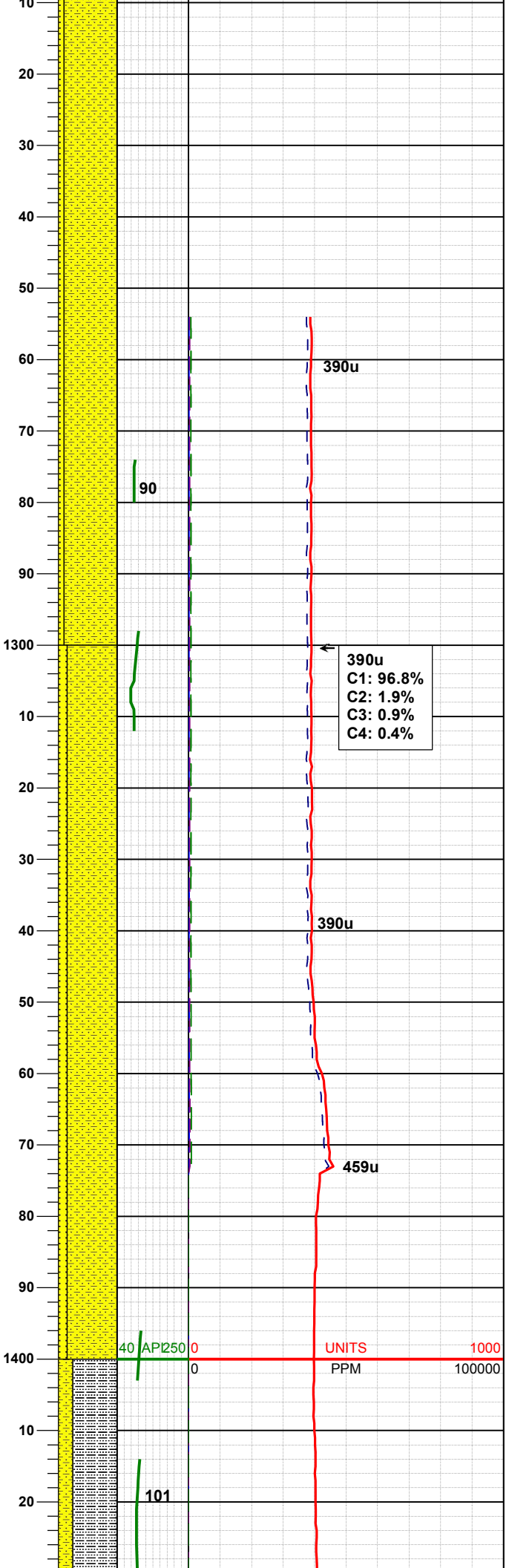
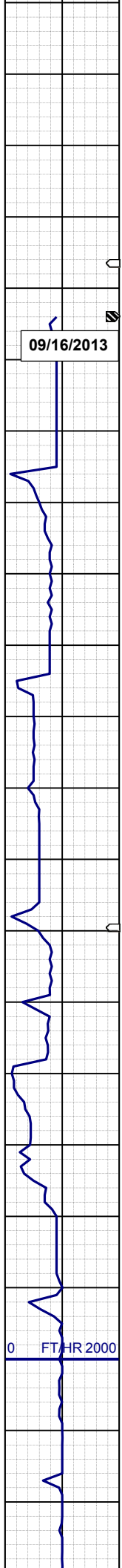


Arrow



Midnight Depth





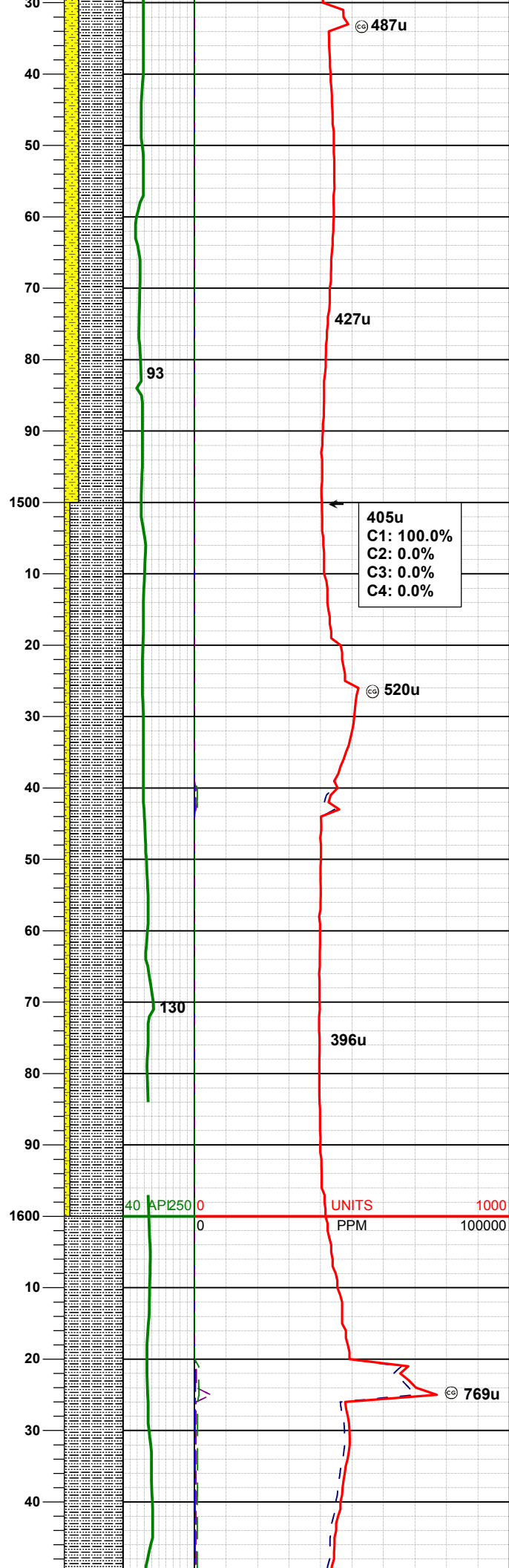
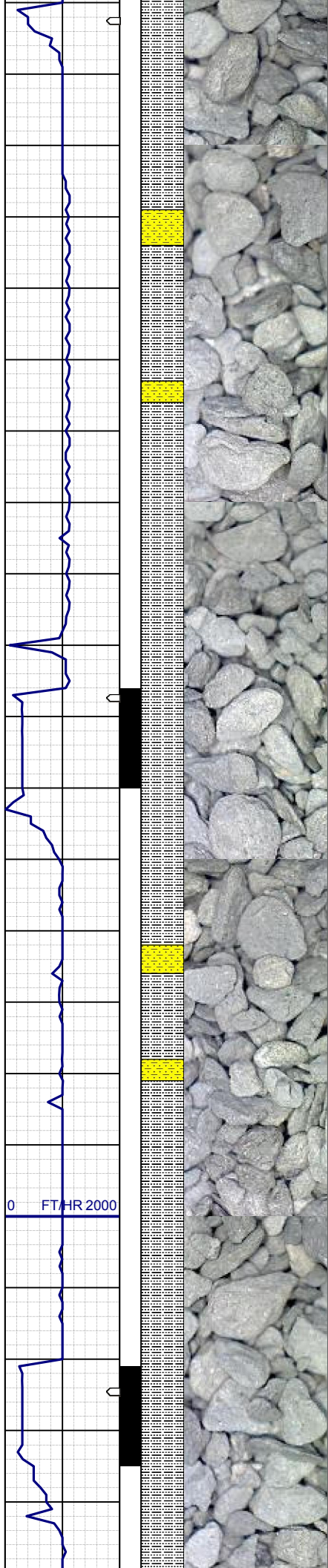
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrnnd, abnt cly, arg cmt
SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt,
wrnnd, arg cmt, tr lit frag, occ glau

MD	1283'
INC	1.3°
AZM	53.2°
TVD	1282.99'

390u
C1: 96.8%
C2: 1.9%
C3: 0.9%
C4: 0.4%

SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrnnd, abnt cly, arg cmt
SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt,
wrnnd, arg cmt, tr lit frag, occ glau

MD	1376'
INC	1.1°
AZM	49.5°
TVD	1375.97'



SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrnnd, abnt cly, arg cmt

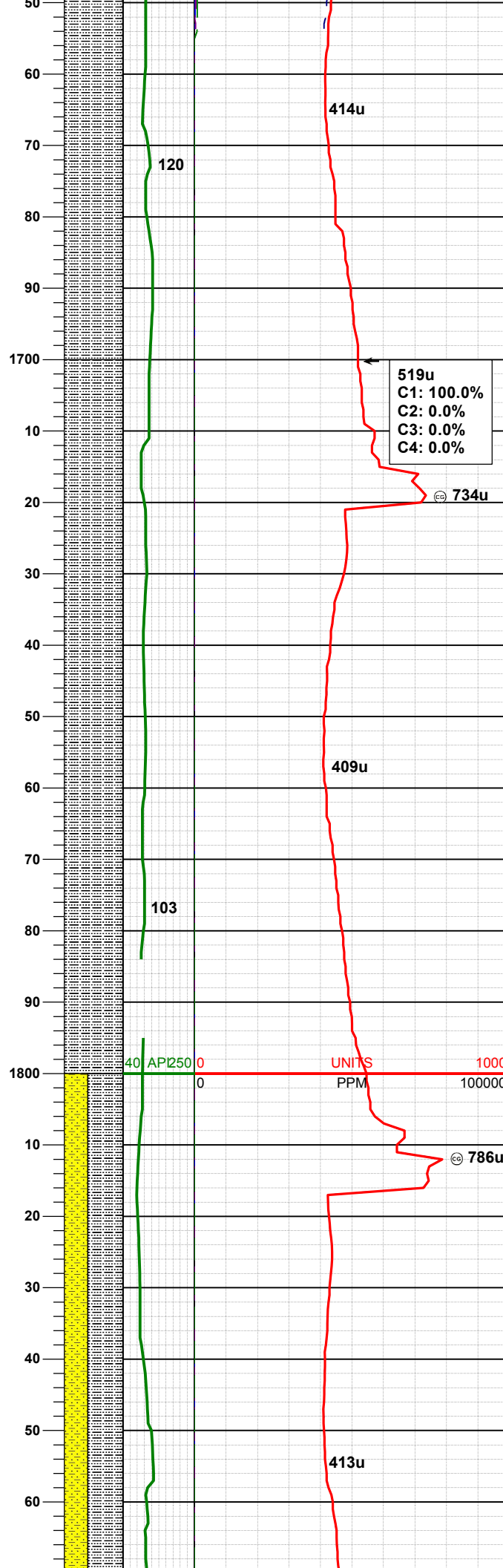
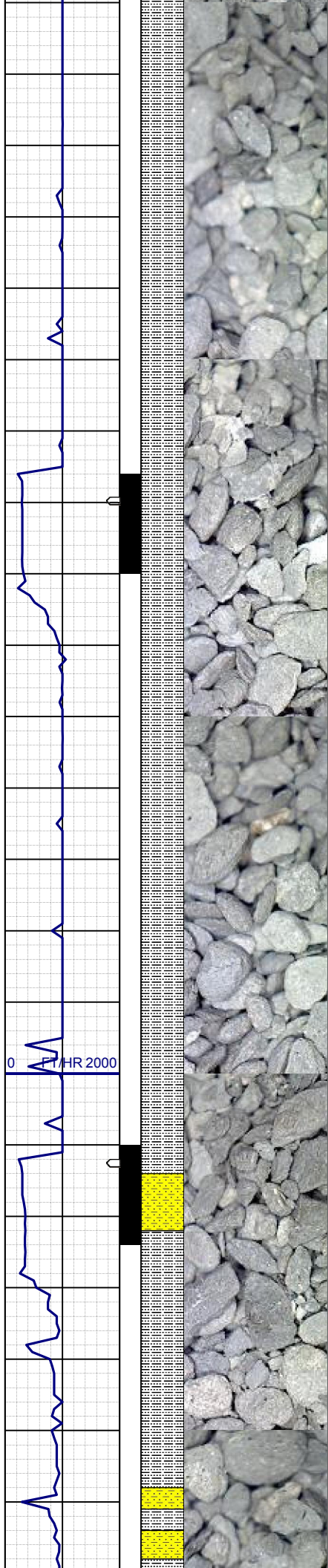
MD	1471'
INC	1.0°
AZM	29.0°
TVD	1470.95'

WT IN 8.40+ / OUT 8.40+
VIS IN 26 / OUT 26

SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrnnd, abnt cly, arg cmt

MD	1566'
INC	1.3°
AZM	149.2°
TVD	1565.94'

SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt



-sdy tex, arg cmt

MD	1661'
INC	2.3°
AZM	155.9°
TVD	1660.89'

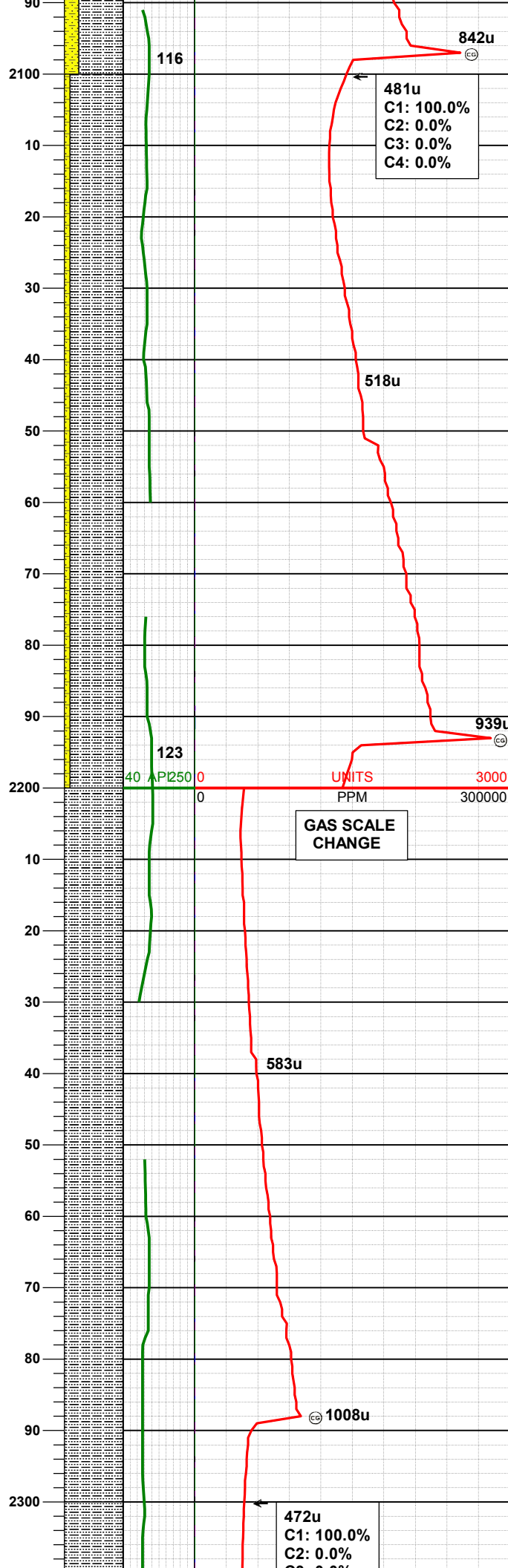
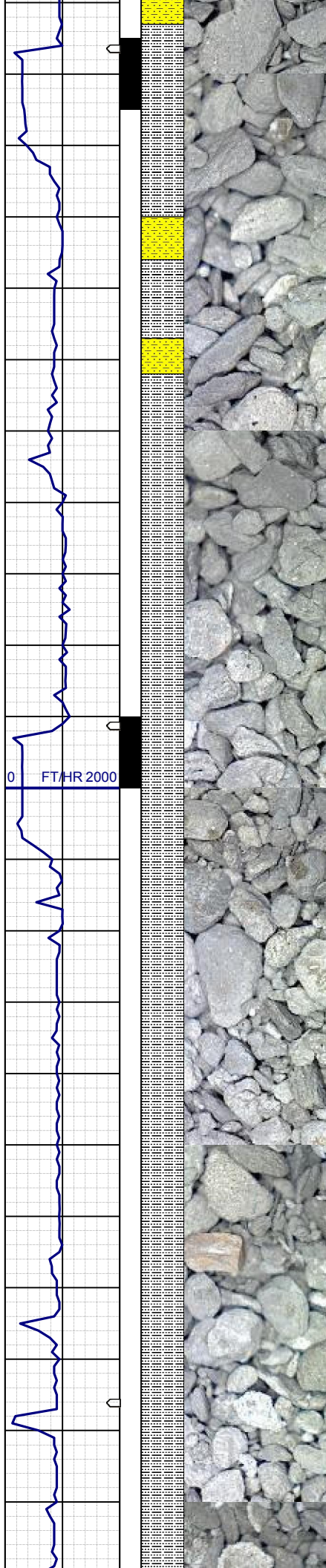
SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt

MD	1755'
INC	4.0°
AZM	153.6°
TVD	1754.75'

WT IN 8.40/ OUT 8.50+
VIS IN 27/ OUT 27

MD	1850'
INC	4.6°
AZM	164.8°
TVD	1849.48'

SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrnnd, abnt cly, arg cmt

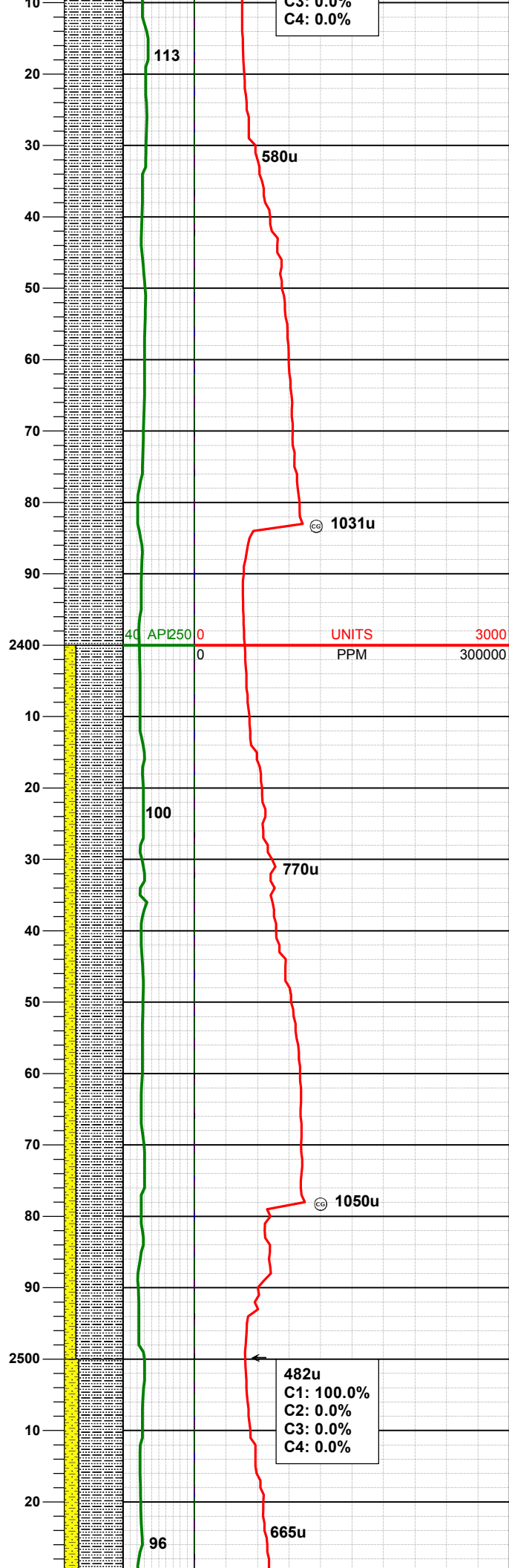
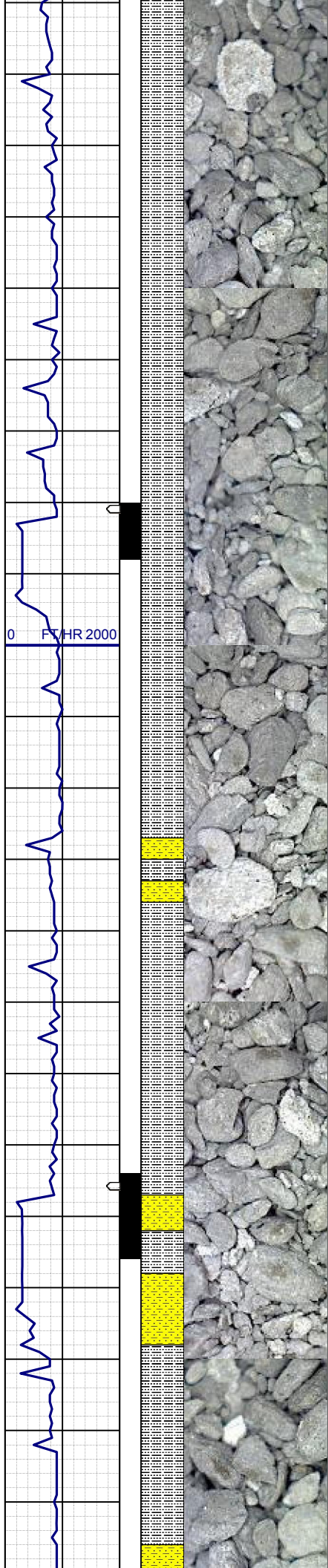


MD 2135'
INC 8.6°
AZM 162.0°
TVD 2132.40'

SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrndd, abnt cly, arg cmt

MD 2230'
INC 9.2°
AZM 156.6°
TVD 2226.26'

SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt



SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt

WT IN 8.50+/- OUT 8.90+
VIS IN 28/ OUT 28

SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrdd, abnt cly, arg cmt

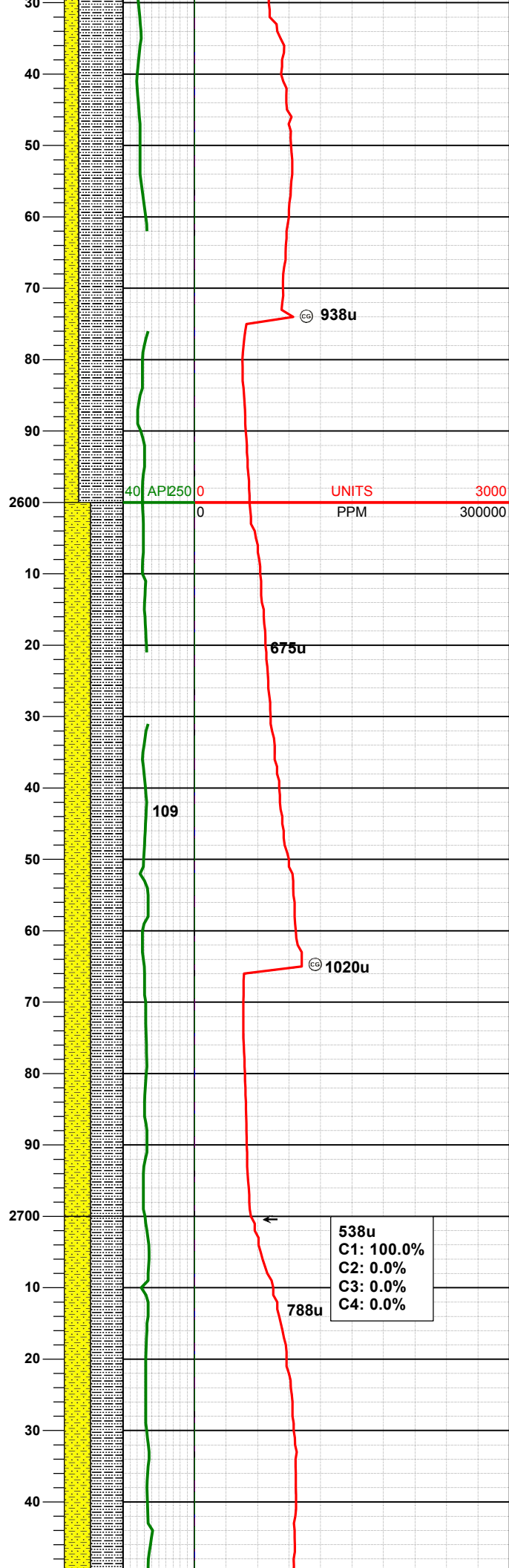
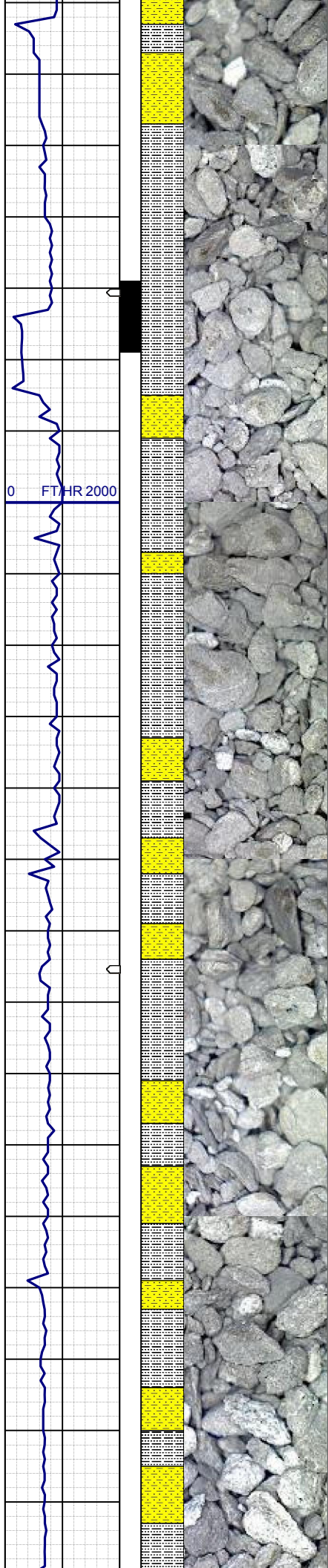
MD 2325'
INC 8.7°
AZM 153.8°
TVD 2320.10'

MD 2419'
INC 8.0°
AZM 162.9°
TVD 2413.11'

MD 2514'
INC 10.0°
AZM 160.8°
TVD 2506.94'

C3: 0.0%
C4: 0.0%

482u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%



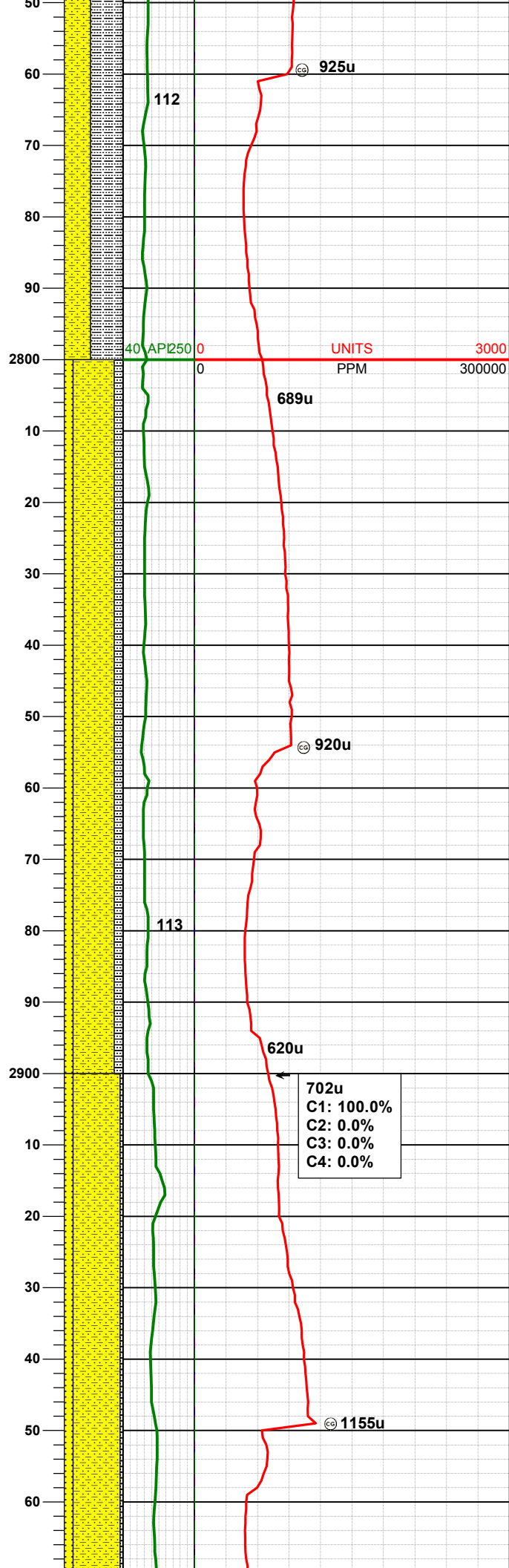
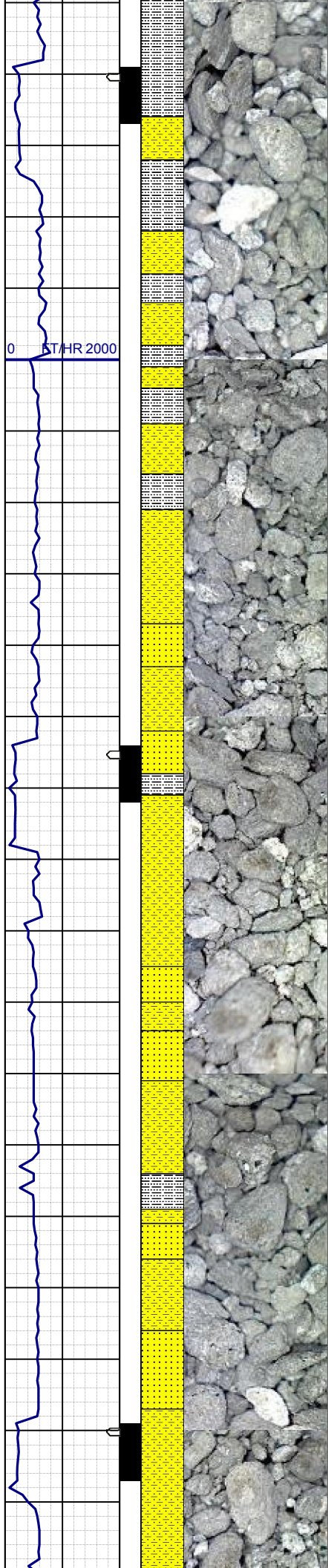
SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrdd, abnt cly, arg cmt

MD	2609'
INC	10.6°
AZM	158.5°
TVD	2600.40'

SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrdd, abnt cly, arg cmt

MD	2704'
INC	9.9°
AZM	158.7°
TVD	2693.89'

SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt
-sdy tex, arg cmt



SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt

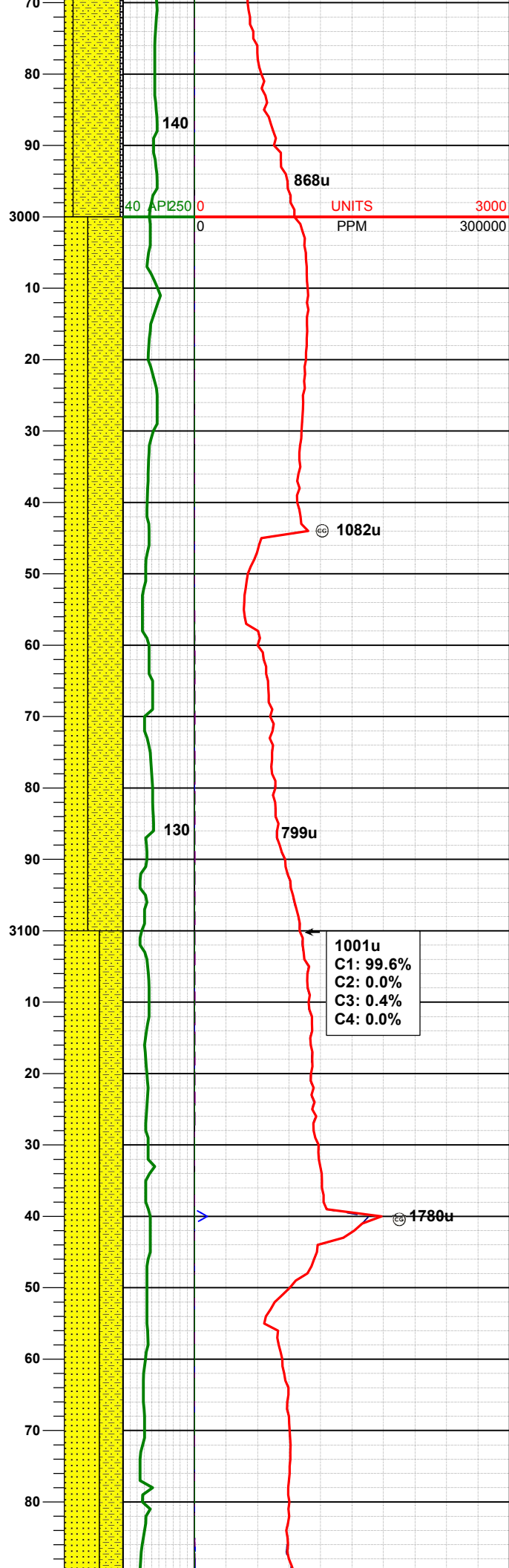
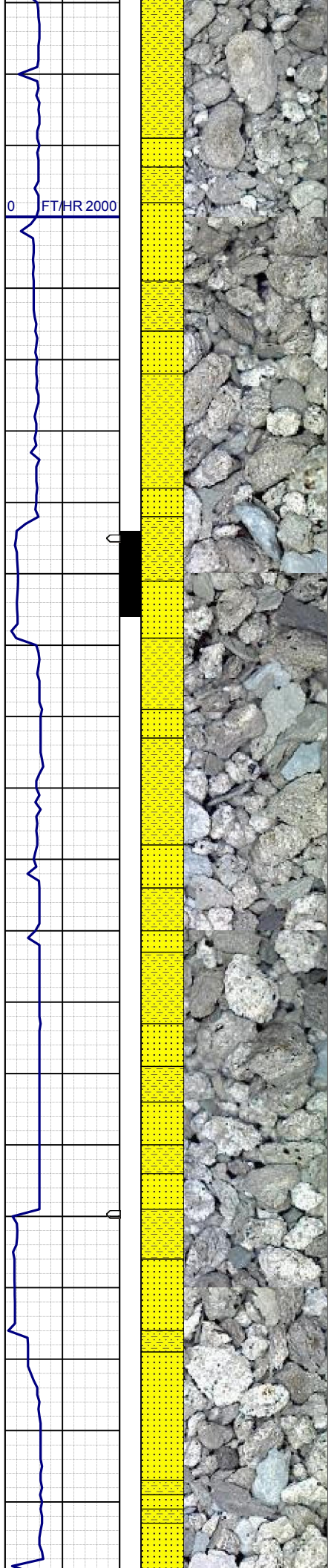
WT IN 8.70/ OUT 9.10
VIS IN 27/ OUT 27

MD 2799'
INC 10.3°
AZM 158.3°
TVD 2787.42'

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt
SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt, wrnnd, arg cmt, tr lit frag, occ glau
SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt -sdy tex, arg cmt

MD 2894'
INC 9.6°
AZM 153.8°
TVD 2880.99'

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt
SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt, wrnnd, arg cmt, tr lit frag, occ glau
SLTYSH: ltgy-gy, sbblky-sbplty, sft, gt -sdy tex, arg cmt



MD 2989'
INC 8.4°
AZM 156.4°
TVD 2974.82'

WT IN 8.60/ OUT 8.80+
VIS IN 26/ OUT 26

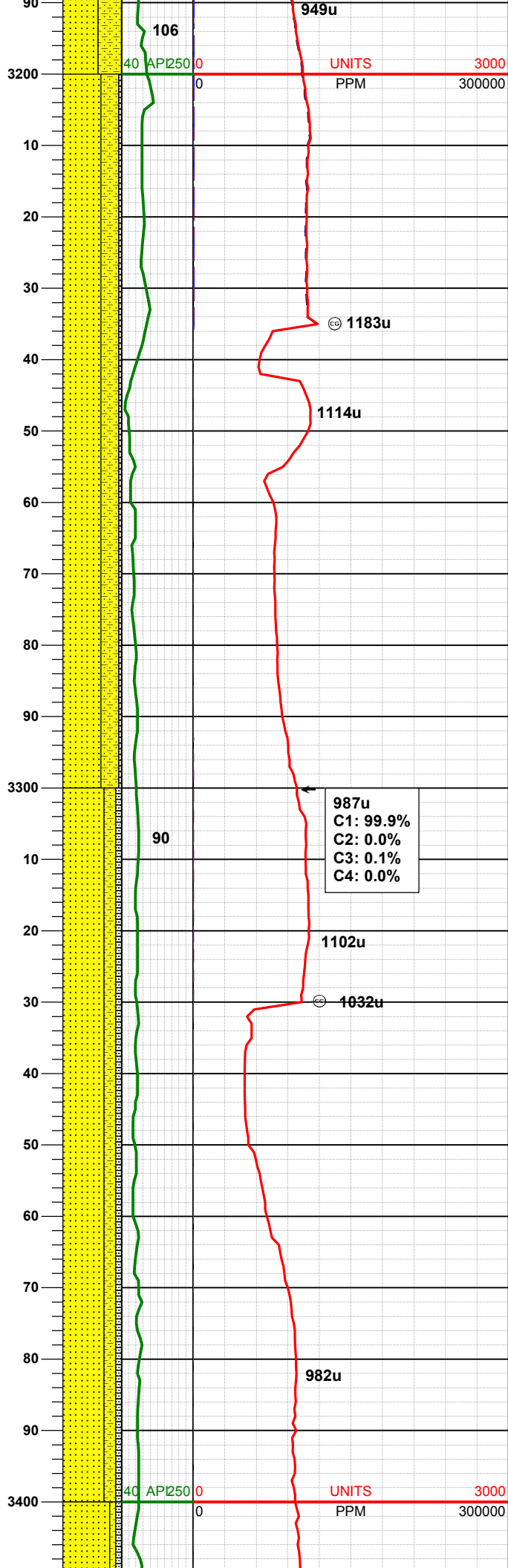
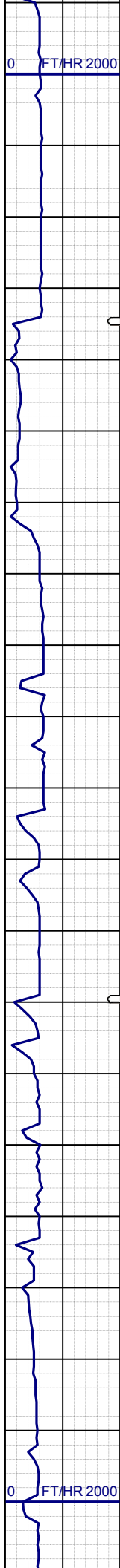
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfr, psrt, wrndd, abnt cly, arg cmt
SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt,
wrndd, arg cmt, tr lit frag, occ glau

MD 3083'
INC 8.7°
AZM 164.8°
TVD 3067.78'

1001u
C1: 99.6%
C2: 0.0%
C3: 0.4%
C4: 0.0%

SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt,
wrndd, arg cmt, tr lit frag, occ glau
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfr, psrt, wrndd, abnt cly, arg cmt

MD 3178'
INC 10.0°
AZM 162.2°
TVD 3161.51'



WT IN 8.70/ OUT 9.00+
VIS IN 27/ OUT 27

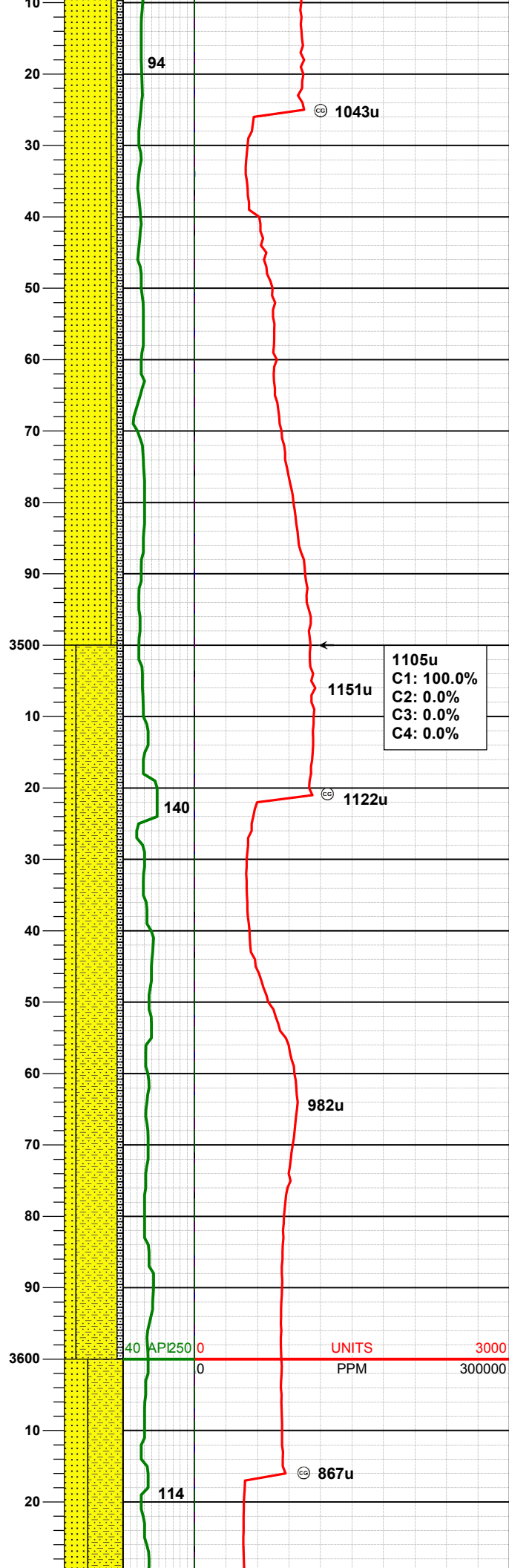
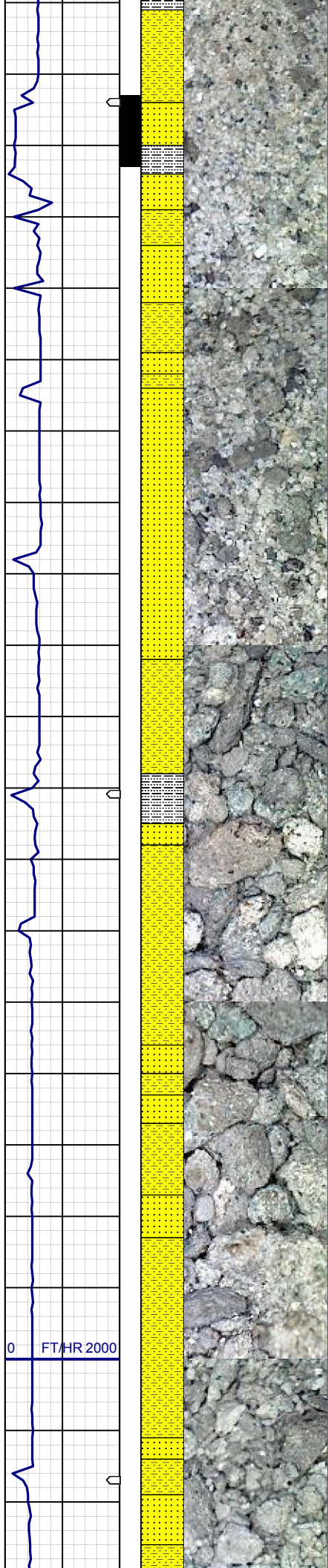
SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt, wrnnd, arg cmt, tr lit frag, occ glau
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt
SLTYSH: gy-dkgy, sbblky-sbply, sft, gt-sdy tex, arg cmt

MD	3273'
INC	10.6°
AZM	152.4°
TVD	3254.99'

987u
C1: 99.9%
C2: 0.0%
C3: 0.1%
C4: 0.0%

SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt, wrnnd, arg cmt, tr lit frag, occ glau
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt
SLTYSH: gy-dkgy, sbblky-sbply, sft, gt-sdy tex, arg cmt

MD	3368'
INC	10.2°
AZM	149.5°
TVD	3348.43'



SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt, wrnnd, uncons, arg cmt, tr lit frag, occ glau
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt
SLTYSH: gy-dkgy, sbblky-sbply, sft, gt-sdy tex, arg cmt

MD 3463'
INC 10.3°
AZM 154.5°
TVD 3441.91'

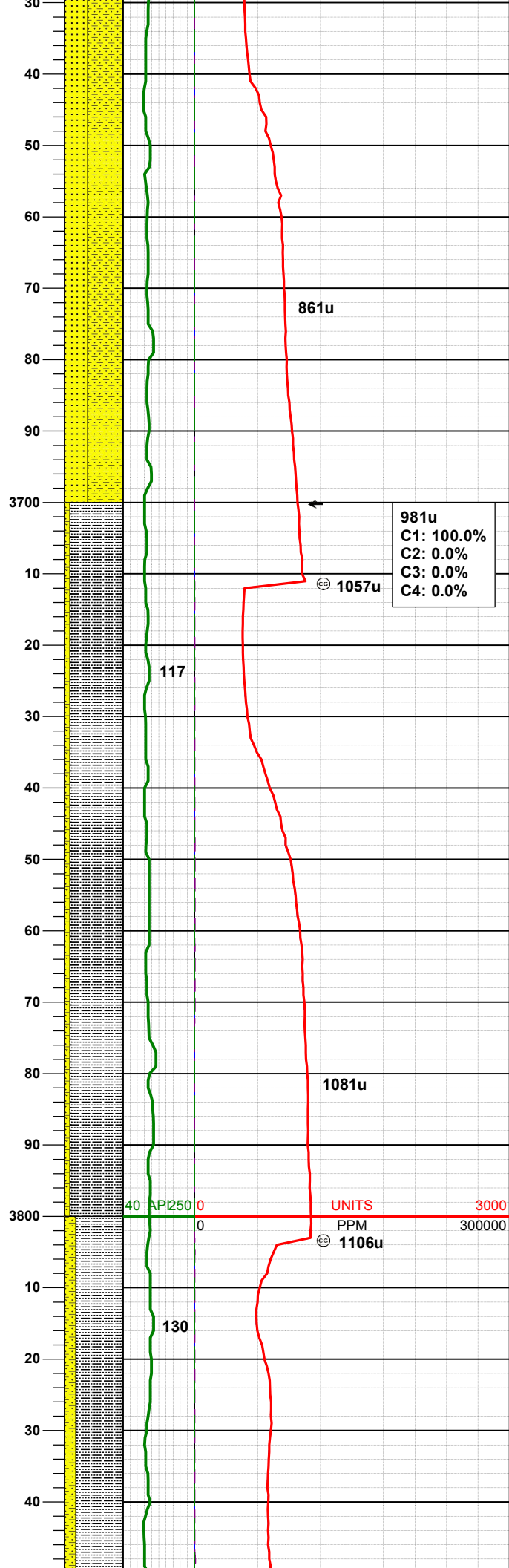
WT IN 8.90/ OUT 9.20
VIS IN 27/ OUT 27

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrnnd, sme uncons, abnt cly, arg cmt
SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt, wrnnd, uncons, arg cmt, tr lit frag, occ glau
SLTYSH: gy-dkgy, sbblky-sbply, sft, gt-sdy tex, arg cmt

MD 3558'
INC 10.5°
AZM 154.5°
TVD 3535.35'

0 FT/HR 2000

40 AP250 0 UNITS 3000
PPM 300000



SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfrg, psrt, wrnnd, abnt cly, arg cmt,
abnt glau
SS: ltgy-gy-trnsl, sbang-ang, fgr, psrt,
wrnnd, uncon, arg cmt, tr lit frag, occ
glau

MD 3652'
INC 10.0°
AZM 154.6°
TVD 3627.85'

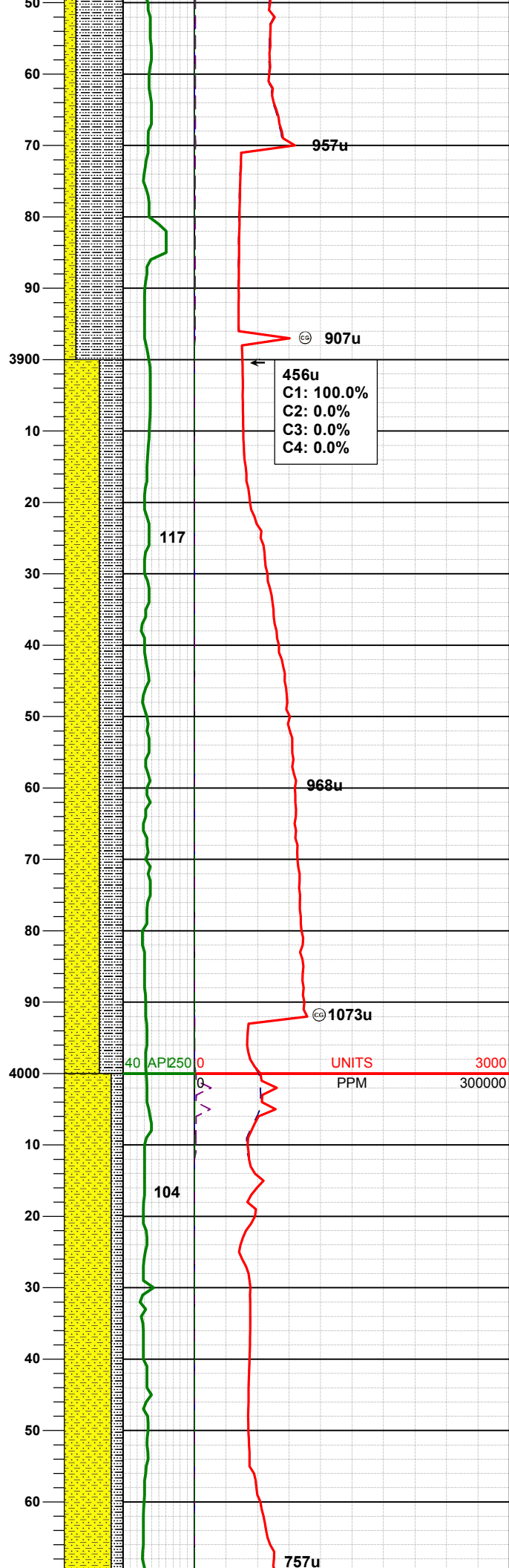
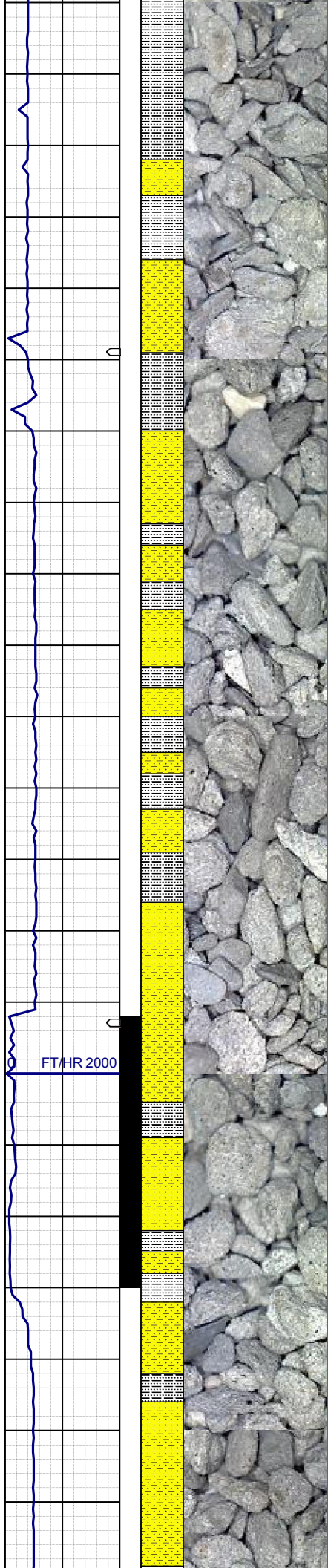
MD 3747'
INC 9.0°
AZM 155.5°
TVD 3721.55'

SLTYSH: ltgy-gy, sbplty-sbblky, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfrg, psrt, wrnnd, abnt cly, arg cmt,
abnt glau, tr ss

WT IN 9.10/ OUT 9.30+
VIS IN 27/ OUT 27

MD 3842'
INC 8.4°
AZM 156.2°
TVD 3815.45'

SLTYSH: ltgy-gy, sbplty-sbblky, sft, gt
-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,



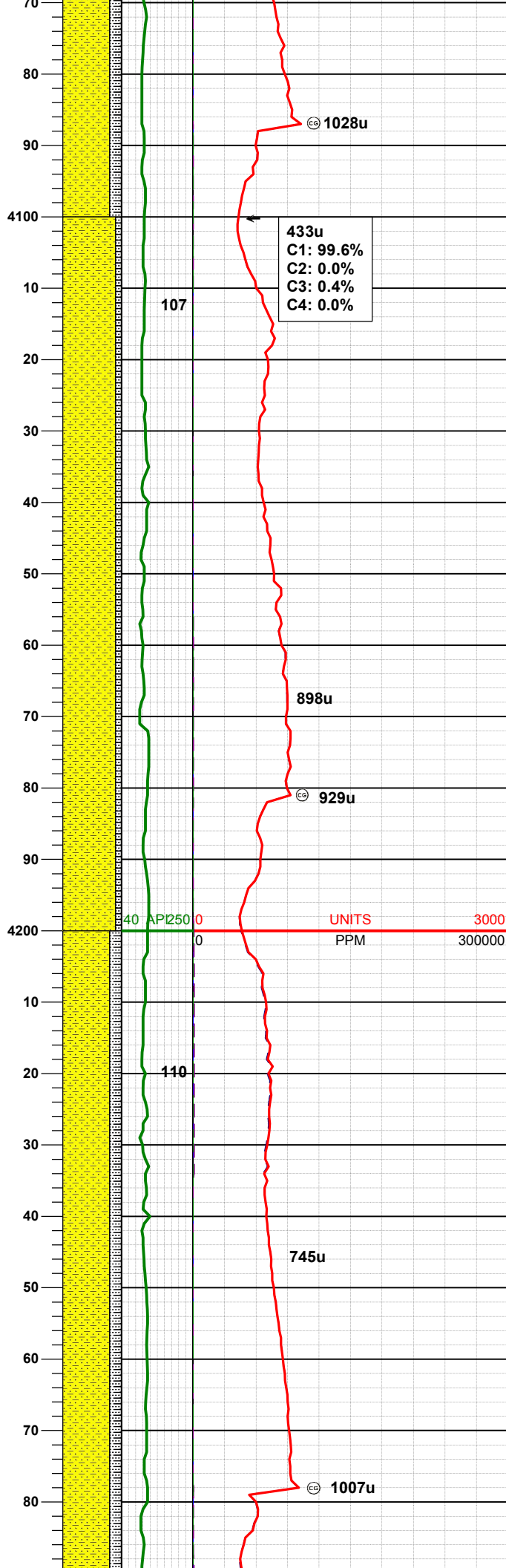
ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrdd, abnt cly, arg cmt,
abnt glau, tr ss

MD 3937'
INC 8.4°
AZM 154.3°
TVD 3909.44'

SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrdd, abnt cly, arg cmt, tr
glau, tr ss
SLTYSH: ltgy-gy, sbplty-sbblky, sft, gt
-sdy tex, arg cmt

MD 4032'
INC 9.1°
AZM 148.3°
TVD 4003.33'

SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, psrt, wrdd, abnt cly, arg cmt, tr
glau, tr ss
SLTYSH: ltgy-gy, sbplty-sbblky, sft, gt
-sdy tex, arg cmt



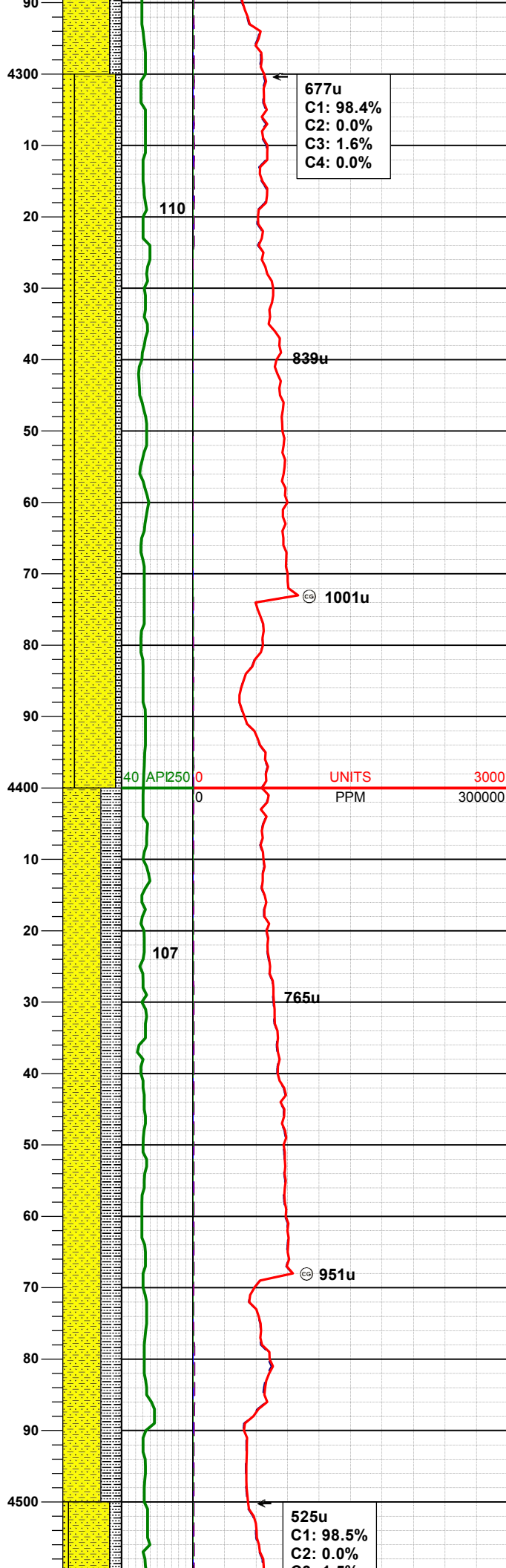
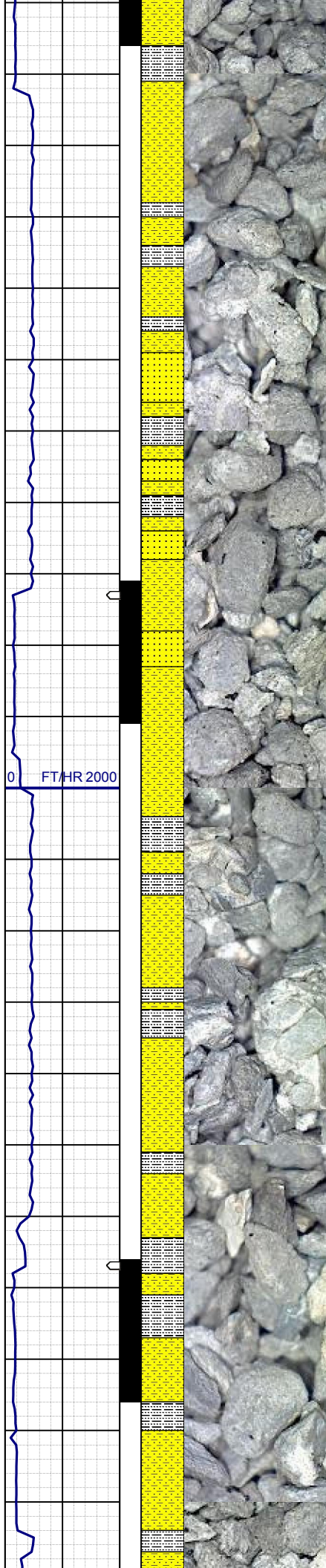
MD 4126'
INC 7.8°
AZM 134.6°
TVD 4096.32'

SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfr, psrt, wrndd, abnt cly, arg cmt, tr
glau, tr ss
SLTYSH: ltgy-gy, sbplty-sbblky, sft, gt
-sdy tex, arg cmt

MD 4221'
INC 5.7°
AZM 151.1°
TVD 4190.66'

SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfr, psrt, wrndd, abnt cly, arg cmt, tr
glau, tr ss
SLTYSH: ltgy-gy, sbplty-sbblky, sft, gt
-sdy tex, arg cmt

WT IN 9.20/ OUT 9.20
VIS IN 31/ OUT 31



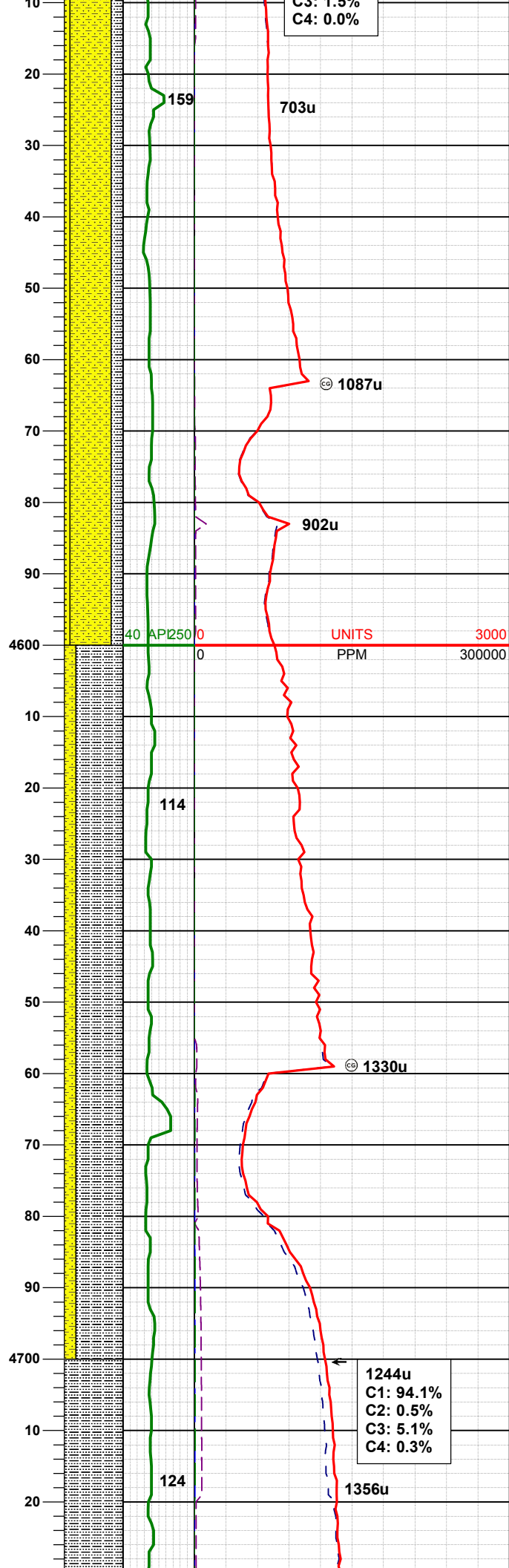
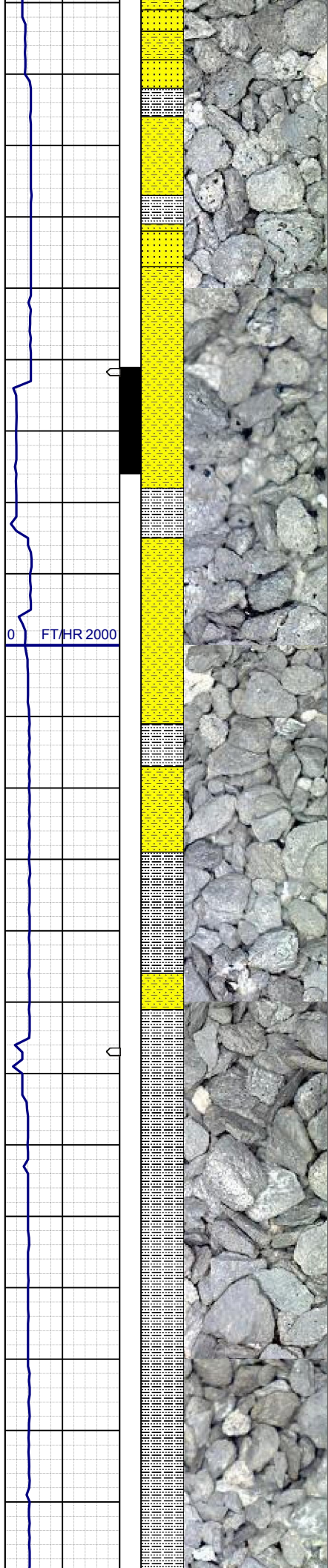
MD 4316'
INC 4.7°
AZM 159.7°
TVD 4285.27'

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrndd, abnt cly, arg cmt, tr glau
SS: wh-ltgy, ang-sbang, v fri, fgr, psrt, wrndd, arg cmt
SLTYSH: ltgy-gy, sbply-sbblky, sft, gt -sdy tex, arg cmt

MD 4411'
INC 3.3°
AZM 194.7°
TVD 4380.05'

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrndd, abnt cly, arg cmt, tr glau
SLTYSH: ltgy-gy, sbply-sbblky, sft, gt -sdy tex, arg cmt

MD 4506'
INC 2.2°
AZM 243.6°
TVD 4471.05'



C3: 1.5%
C4: 0.0%

TVD 4474.95'

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfr, psrt, wrdd, abnt cly, arg cmt, tr glau
SS: wh-ltgy, ang-sbang, v fri, fgr, psrt, wrdd, arg cmt
SLTYSH: ltgy-gy, sbply-sbply, sft, gt -sdy tex, arg cmt

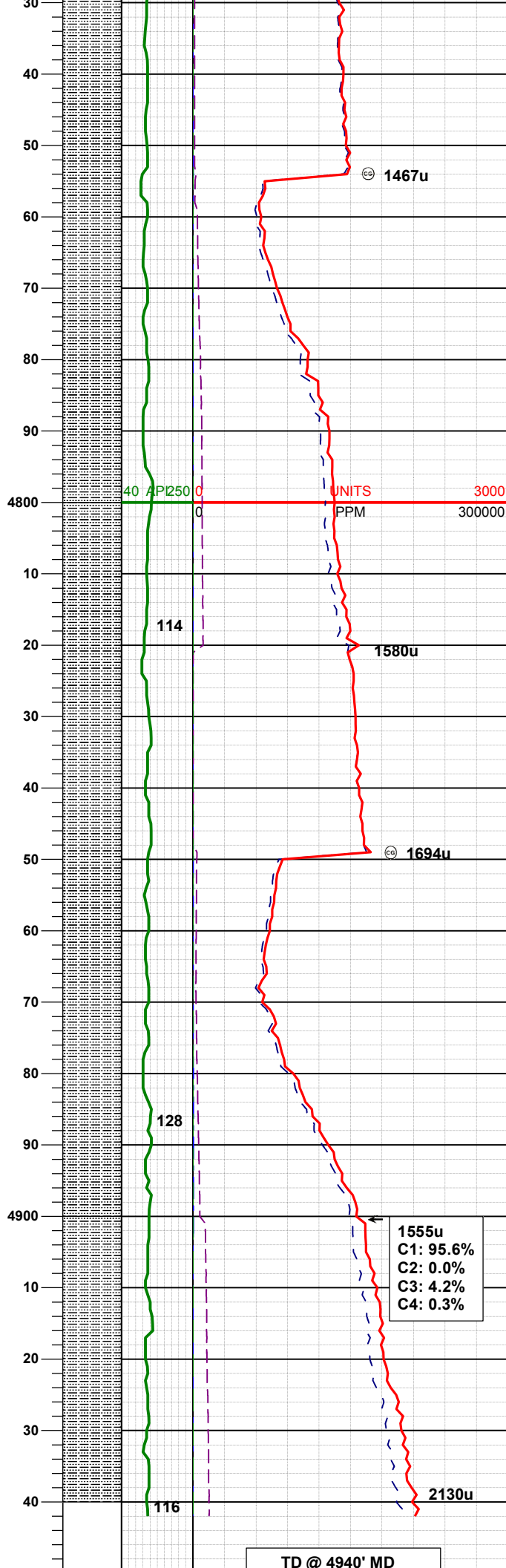
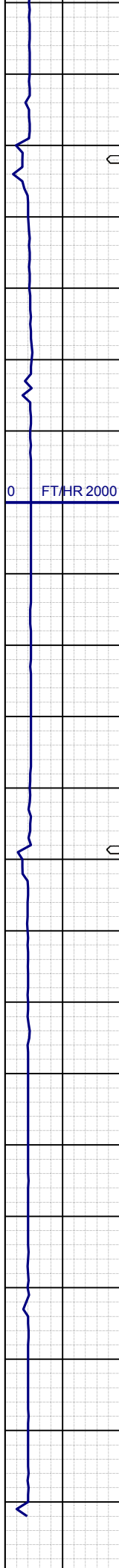
WT IN 9.40/ OUT 9.40
VIS IN 33/ OUT 33

MD 4602'
INC 1.6°
AZM 277.7°
TVD 4570.90'

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfr, psrt, wrdd, abnt cly, arg cmt, tr glau
SLTYSH: ltgy-gy, sbply-sbply, sft, gt -sdy tex, arg cmt

MD 4695'
INC 1.1°
AZM 265.6°
TVD 4663.88'

1244u
C1: 94.1%
C2: 0.5%
C3: 5.1%
C4: 0.3%



SLTYSH: ltgy-gy, sbply-sbblky, sft, gt
-sdy tex, arg cmt

MD 4790'
INC 0.4°
AZM 247.6°
TVD 4758.87'

SLTYSH: ltgy-gy, sbply-sbblky, sft, gt
-sdy tex, arg cmt

MD 4885'
INC 0.3°
AZM 239.2°
TVD 4853.87'

SLTYSH: ltgy-gy, sbply-sbblky, sft, gt
-sdy tex, arg cmt

1555u
C1: 95.6%
C2: 0.0%
C3: 4.2%
C4: 0.3%

TD @ 4940' MD

