

LOG created using LPLOT VH Version 3.0, October 17, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

**OPERATOR:** NOBLE ENERGY INC  
**WELL:** ROHN STATE LD09-67-1HN  
**LOCATION:** SENE SEC 9 T9N R58W  
**COUNTY:** WELD  
**STATE:** COLORADO  
**SPOT:** 1688' FNL; 480' FEL  
**ELEVATION:** 4729' GL; 4753' KB  
**FIELD:** WILDCAT  
**SPUD DATE:** 10/12/2013  
**TD DATE:** 10/14/2013  
**DATES LOGGED:** 10/13/2013 - 10/14/2013  
**DEPTHS LOGGED:** 1260' - 4933' MD  
**LOGGERS:** LAURA KELLOGG; CAMERON NAKOS  
**DRILLING FLUID:** LSND  
**DRILLING RIG:** H&P 273  
**API:** 05-123-37537  
**LOG TYPE:** VERTICAL  
**SCALE:** 1:240 (5 inches per 100 feet)  
**REMARKS:** WELLSITE GEOLOGIC SERVICES  
 PROVIDED BY COLUMBINE LOGGING INC.

### LITHOLOGIES



Sandstone



Shaly Sandstone



Silty Shale

### ENGINEERING SYMBOLS



Connection



Connection Gas



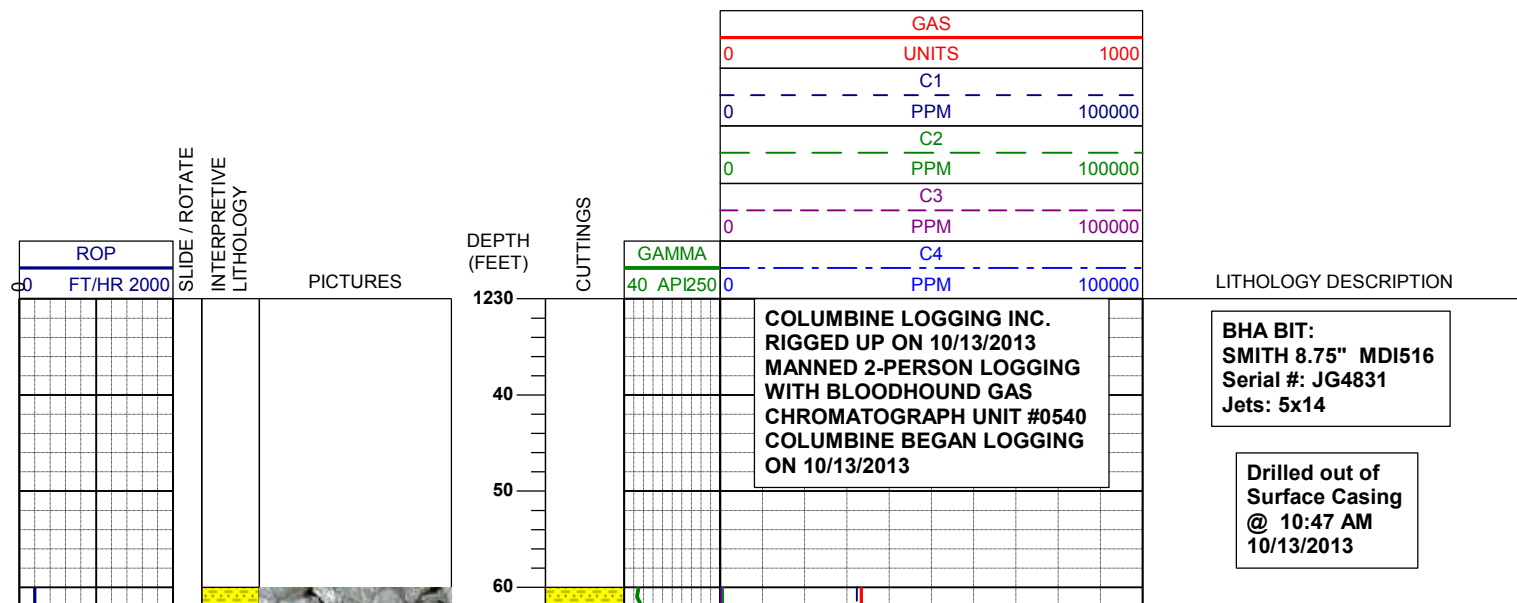
Arrow



Midnight Depth



Arrow



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

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

MD	1283'
INC	0.5°
AZM	26.5°
TVD	1282.98'

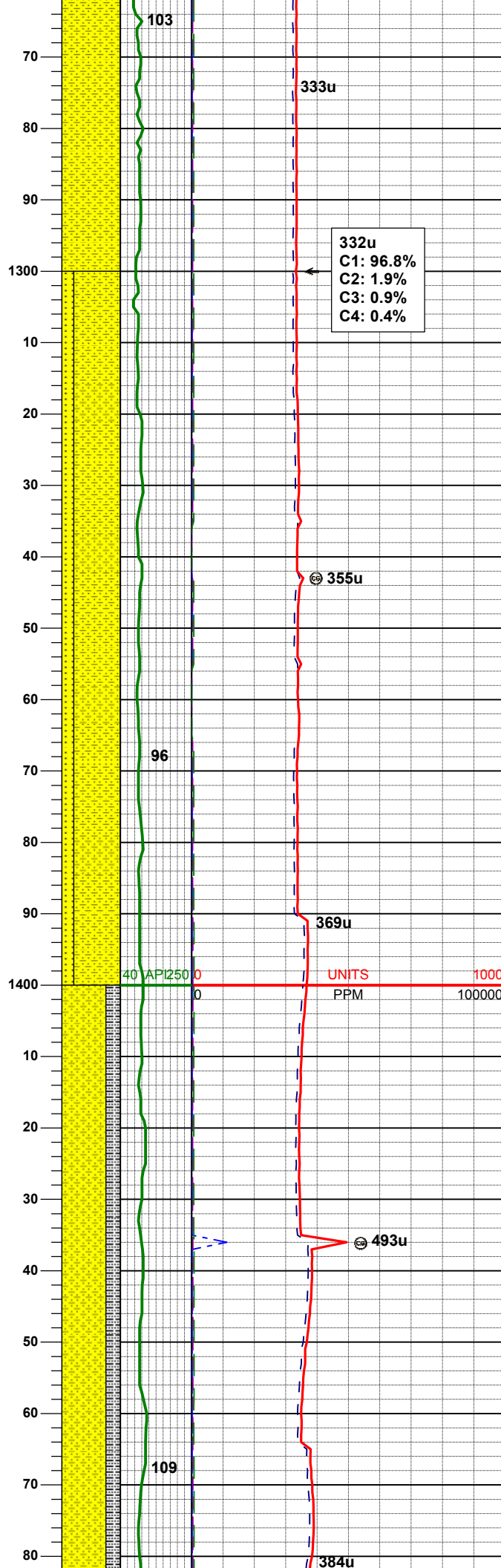
332u  
C1: 96.8%  
C2: 1.9%  
C3: 0.9%  
C4: 0.4%

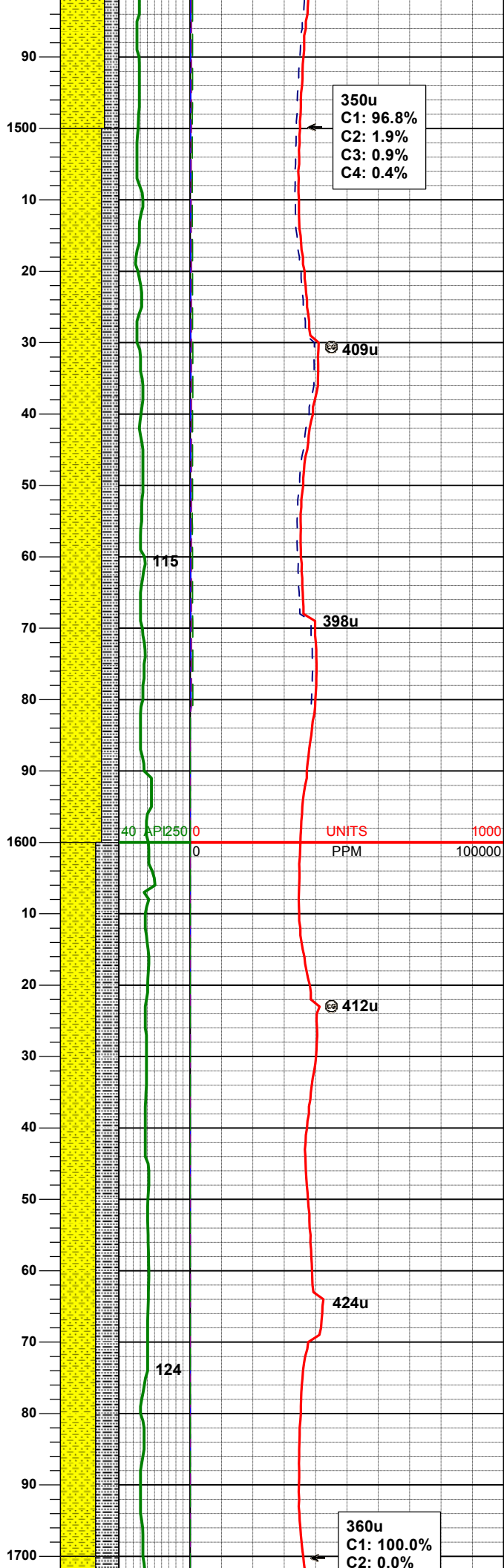
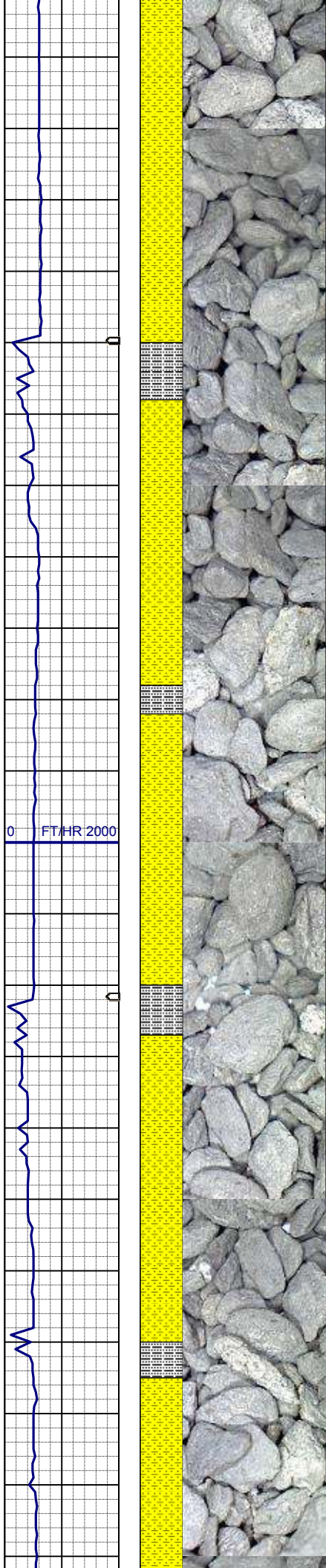
SHYSS: ltgy-gy, s&p ip, sbang, v fri,  
vfgr, psrt, wrnnd, abnt cly, arg cmt  
SS: ltgy-gy-trnsl, sbang-ang, fgr,  
vpsrt, wrnnd, arg cmt, tr lit frag, occ  
glau

MD	1375'
INC	0.7°
AZM	21.6°
TVD	1374.97'

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

MD	1468'
INC	0.9°
AZM	40.2°
TVD	1467.97'





WT IN 8.40/ OUT 8.50+  
VIS IN 27/ OUT 26

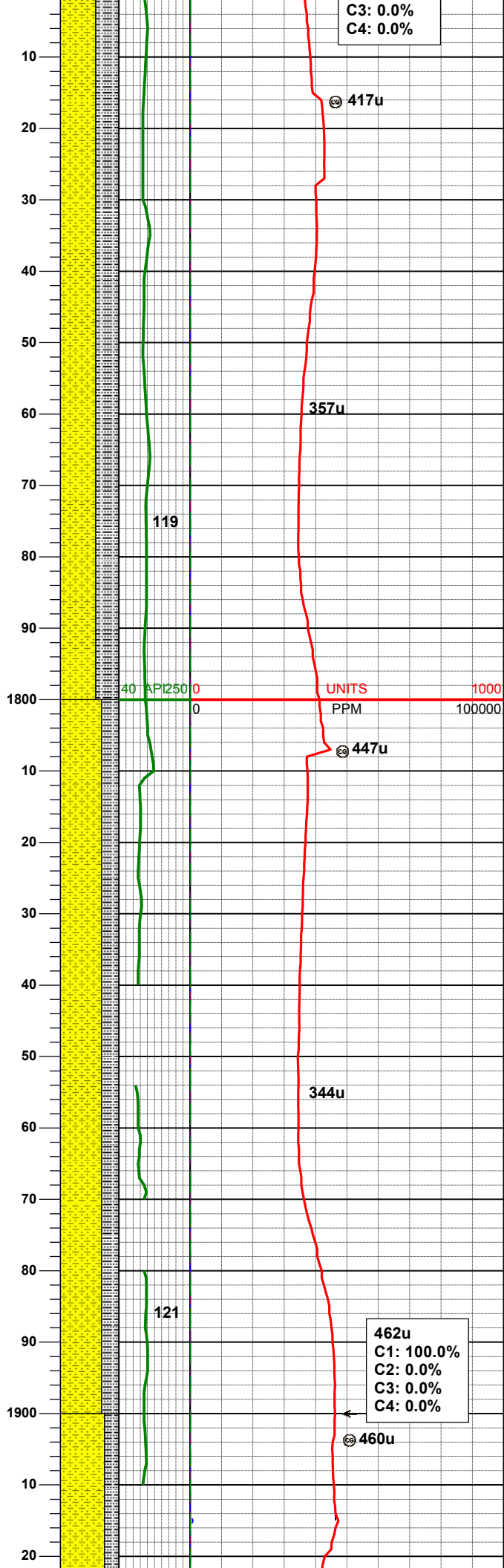
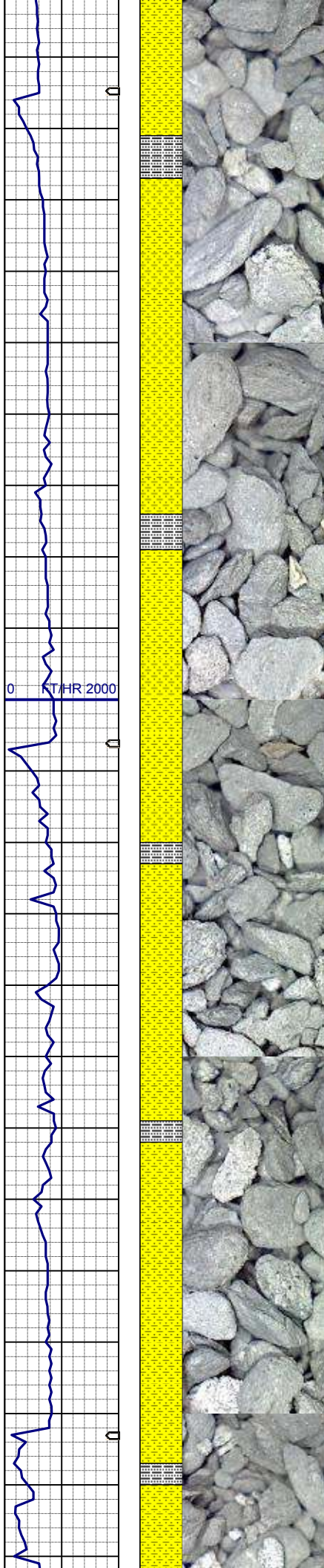
SHYSS: ltgy-gy, s&p ip, sbang, v fri,  
vfgr, psrt, wrndd, abnt cly, arg cmt  
SLTYSH: ltgy-gy, sbblky-sbply, sft -  
mod firm, gt-sdy tex, arg cmt

MD	1559'
INC	0.9°
AZM	41.6°
TVD	1558.95'

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

MD	1652'
INC	1.0°
AZM	54.0°
TVD	1651.94'





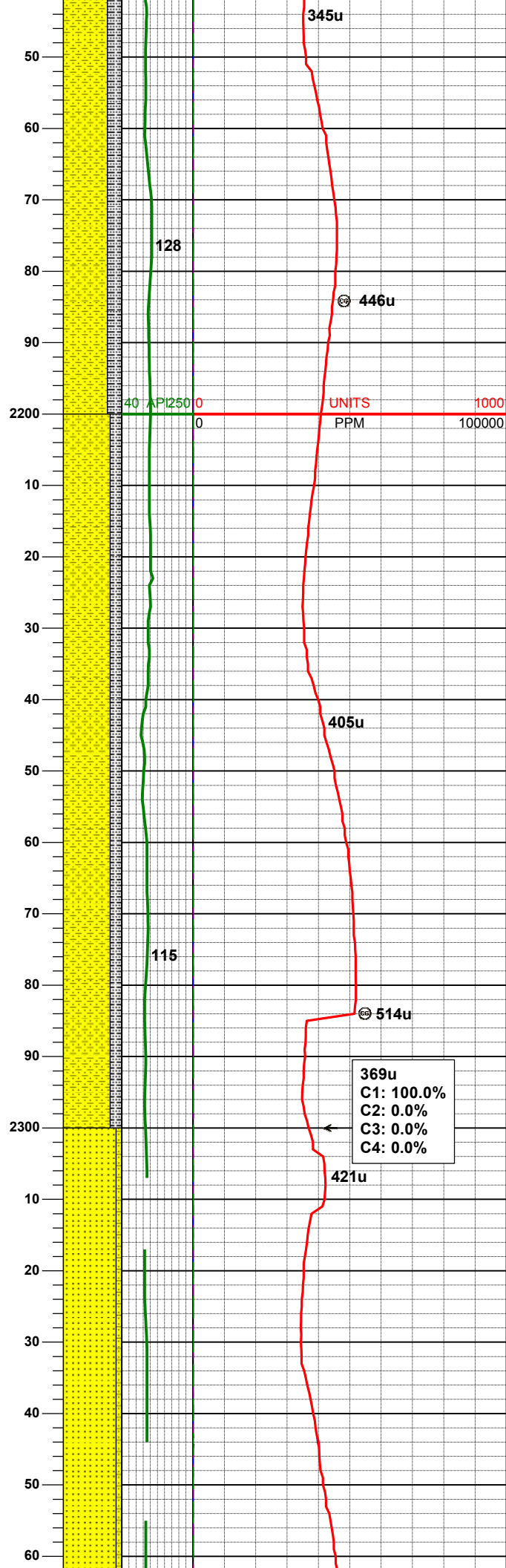
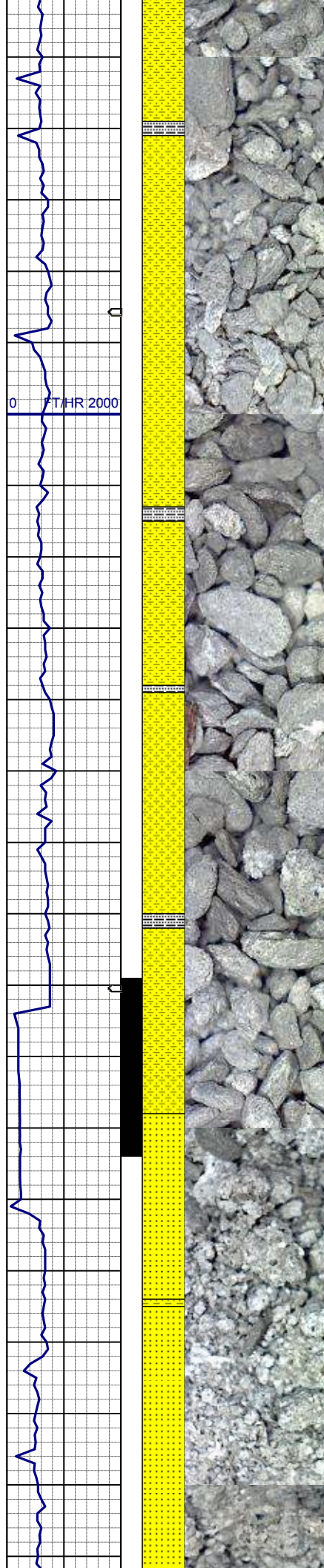
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt  
SLTYSH: ltgy-gy, sbblky-sbply, sft, gt-sdy tex, arg cmt

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

WT IN 8.50/ OUT 8.80  
VIS IN 28/ OUT 27







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

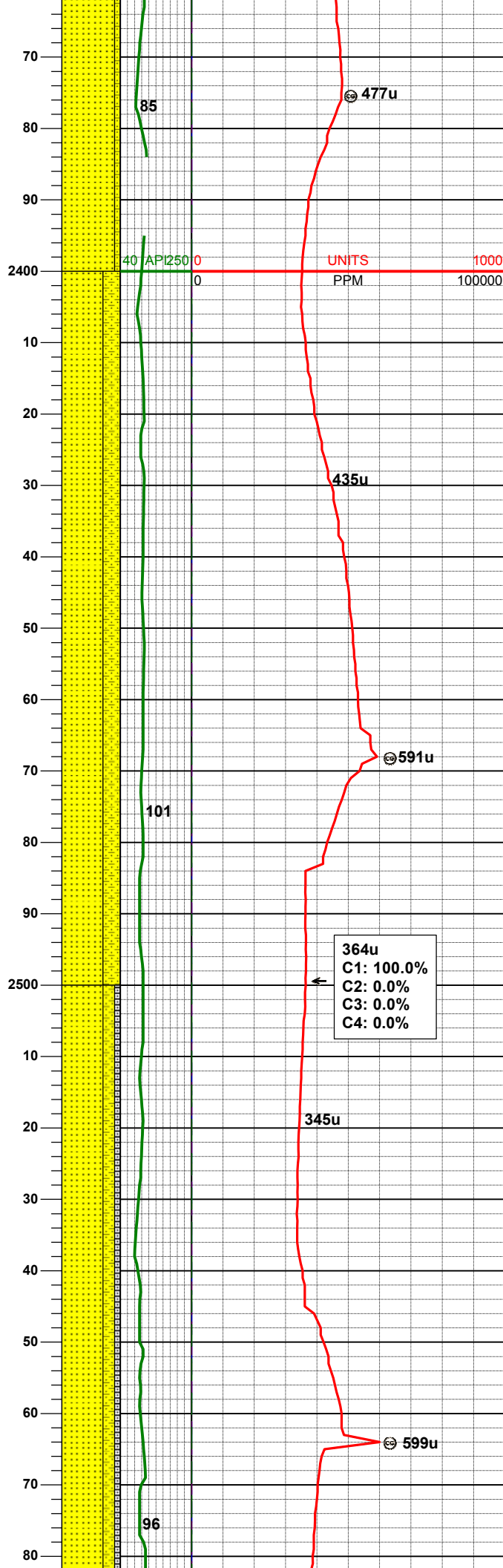
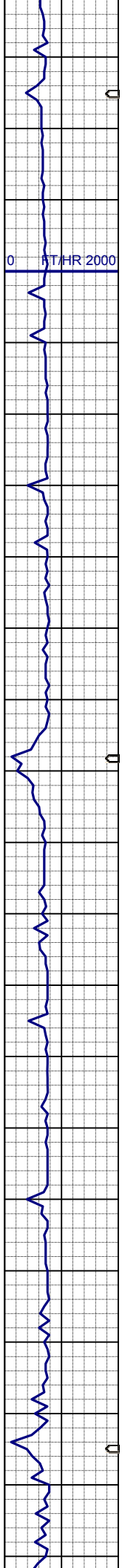
SHYSS: ltgy-gy, s&p ip, sbang, v fri,  
vfrg, psrt, wrnrd, abnt cly, arg cmt  
SLTYSH: ltgy-dkgy, sbblky-sbplty, sft  
- mod firm, gt-sdy tex, arg cmt

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

MD	2219'
INC	1.7°
AZM	95.8°
TVD	2218.79'

**WT IN 8.60+ / OUT 8.80+  
VIS IN 26 / OUT 27**

**VIS IN 26/ OUT 27**

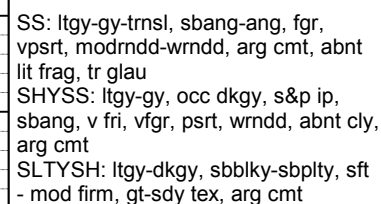


MD 2409'  
INC 0.5°  
AZM 291.1°  
TVD 2408.77'

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

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



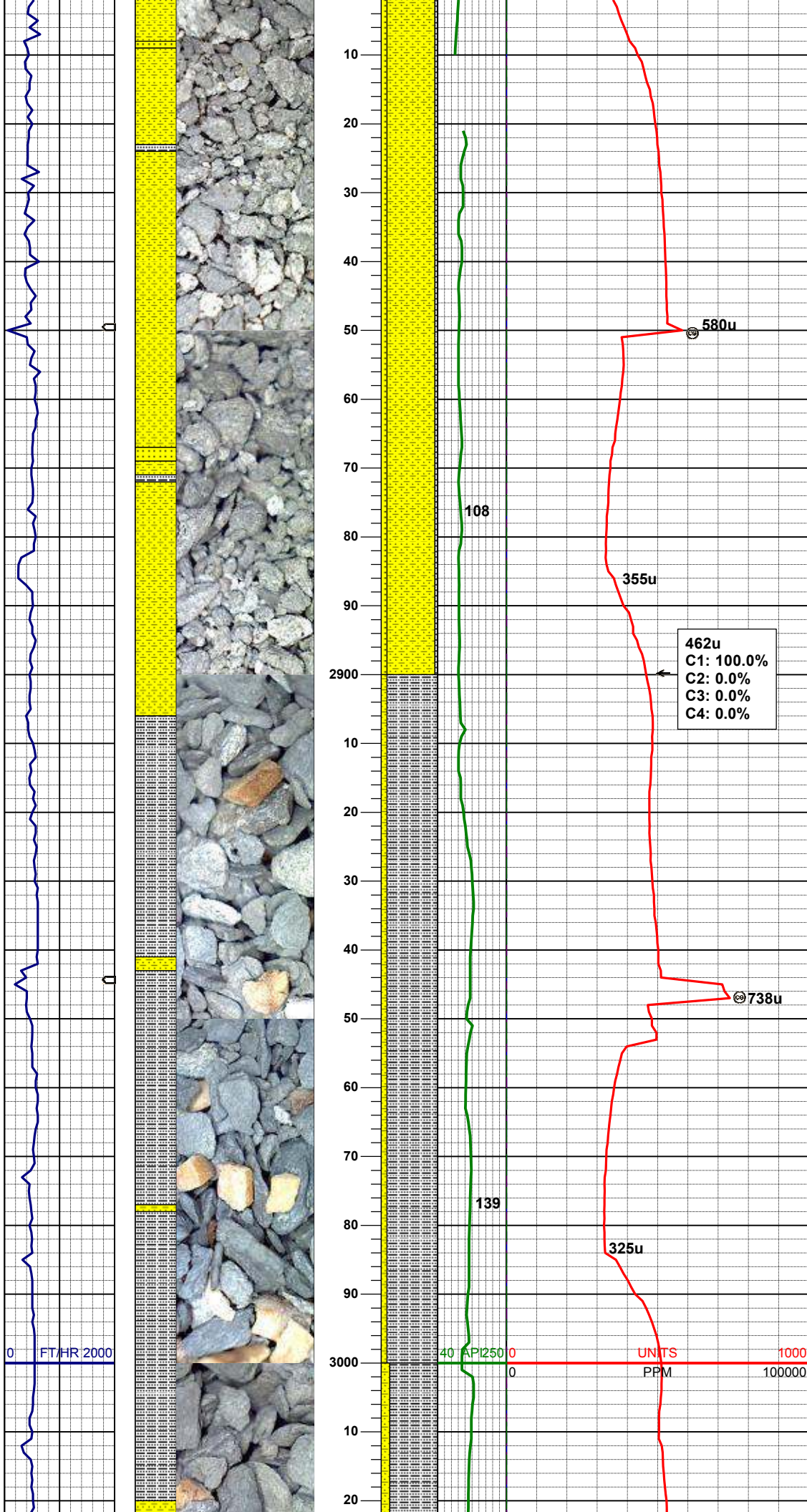


WT IN 8.60/ OUT 8.90  
VIS IN 26/ OUT 29

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

MD	2788'
INC	0.9°
AZM	297.4°
TVD	2787.73'





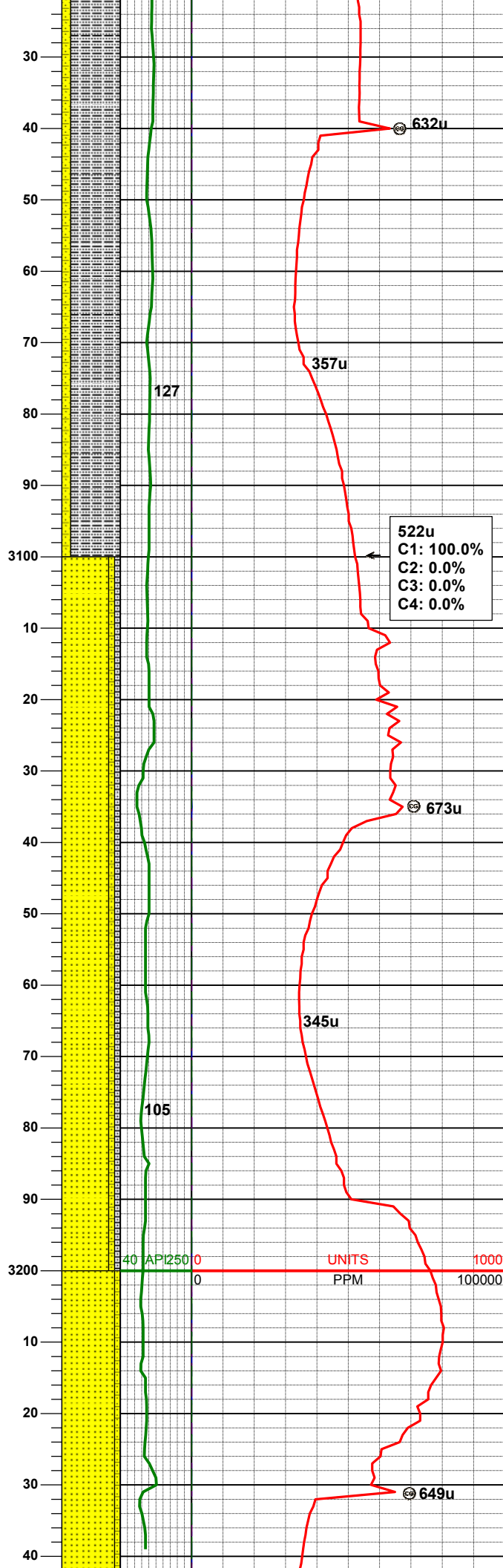
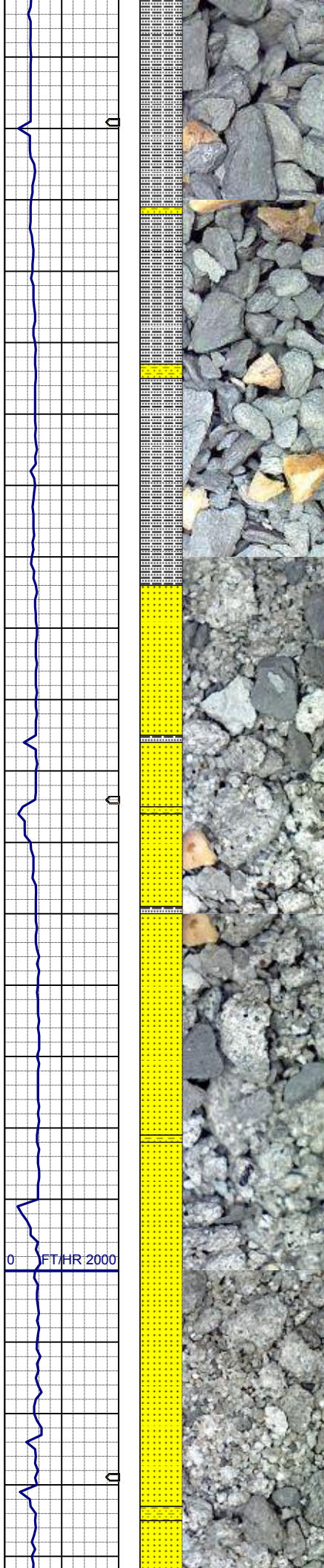
SHYSS: gy-dkgy, occ ltgy, s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt  
SS: ltgy-gy-trnsl, sbang-ang, fgr, vpsrt, modrdd-wrdd, arg cmt, abnt lit frag, occ glau  
SLTYSH: gy-dkgy, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt

462u  
C1: 100.0%  
C2: 0.0%  
C3: 0.0%  
C4: 0.0%

SLTYSH: dkgy-blk, occ gy, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt  
SHYSS: ltgy-gy, occ dkgy, s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt

MD 2978'  
INC 1.1°  
AZM 346.6°  
TVD 2977.71'

40 API 250 0 UNITS 1000  
PPM 100000

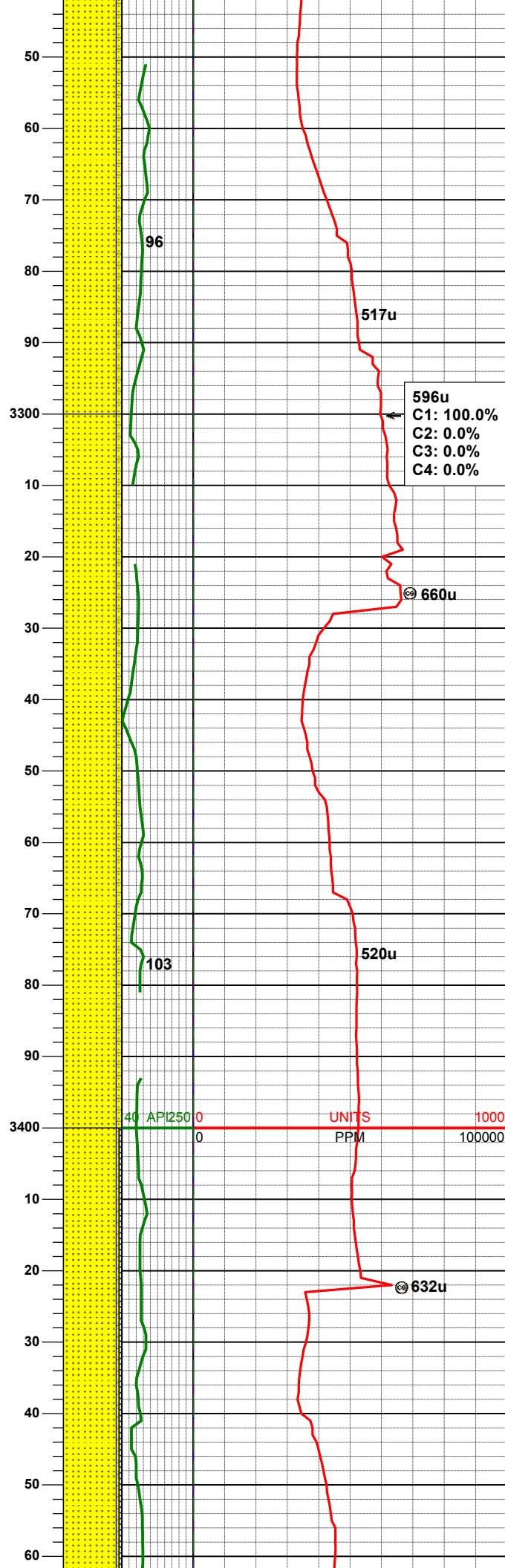
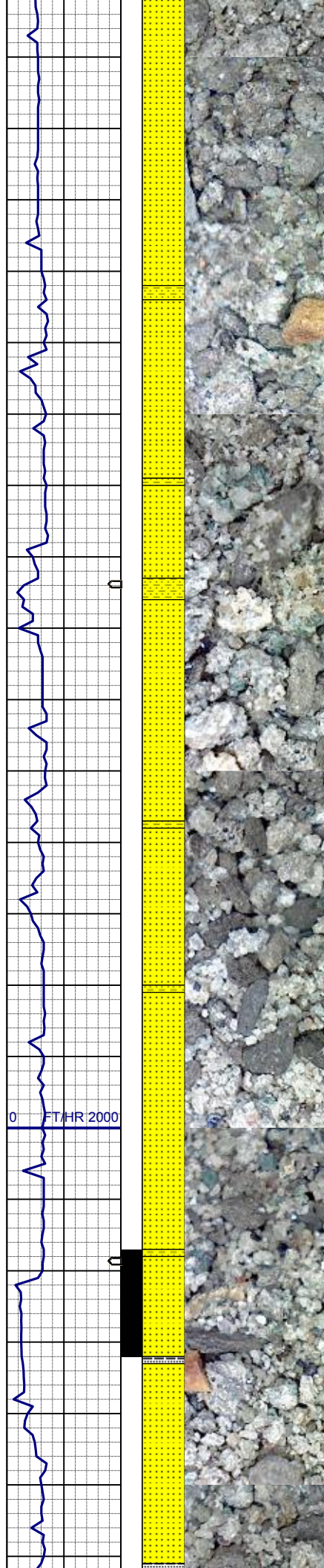


SLTYSH: gy-dkgy, occ ltgy&blk,  
sbbkly-sbplty, sft - mod firm, gt-sdy  
tex, arg cmt  
SHYSS: ltgy-gy, occ dkgy, s&p ip,  
sbang, v fri, vfgr, psrt, wrdd, abnt cly,  
arg cmt

SS: ltgy-gy-trnsl, abnt uncons, sbang-  
ang, fgr, vpsrt, modrdd-wrdd, arg  
cmt, abnt lit frag, abnt glau  
SLTYSH: ltgy-dkgy, sbbkly-sbplty, sft  
- mod firm, gt-sdy tex, arg cmt  
SHYSS: ltgy-gy, occ dkgy, s&p ip,  
sbang, v fri, vfgr, psrt, wrdd, abnt cly,  
arg cmt

MD	3168'
INC	1.4°
AZM	2.1°
TVD	3167.66'



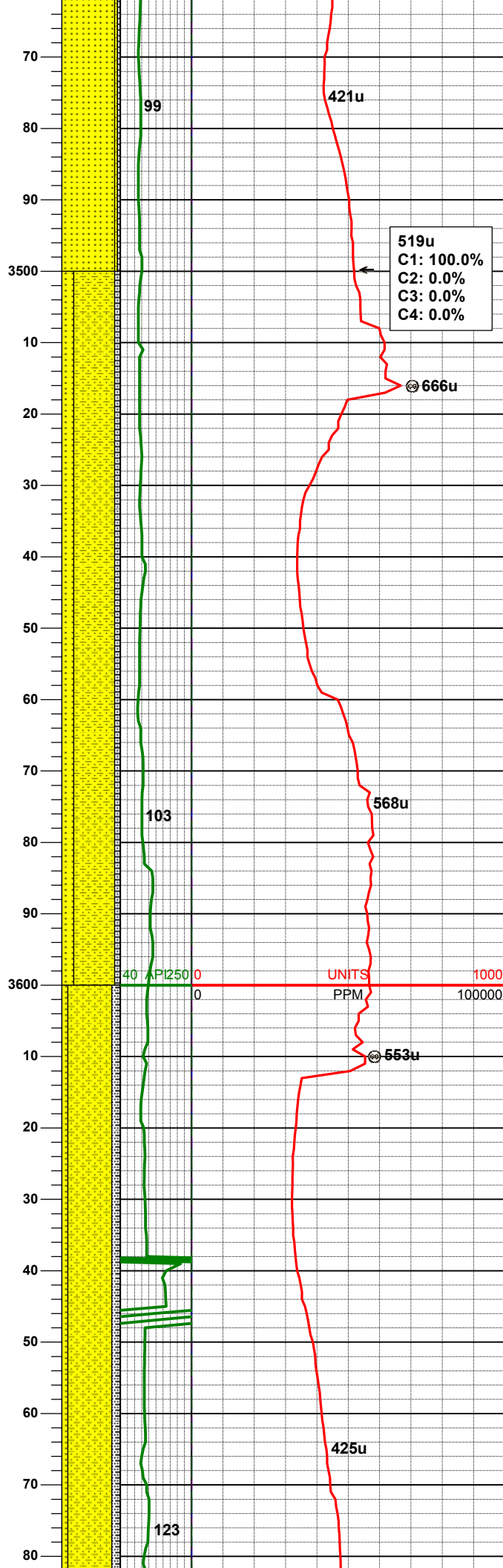
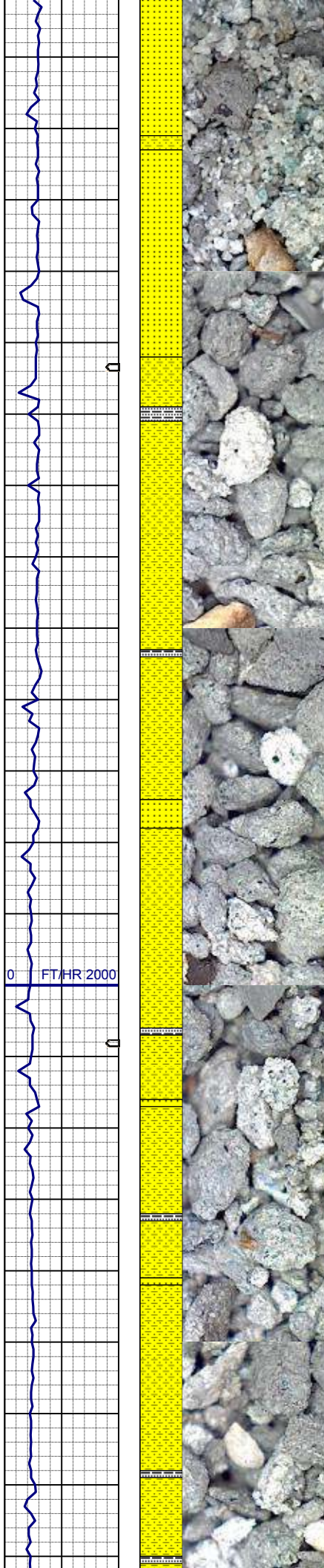


SS: ltgy-gy-trnsl, abnt uncon, sbang-ang, fgr, vpsrt, modrndd-wrdd, arg cmt, abnt lit frag, abnt glau  
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt, occ intbd glau

SS: ltgy-gy-trnsl, abnt uncon, sbang-ang, fgr, vpsrt, modrndd-wrdd, arg cmt, abnt lit frag, abnt glau  
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt, occ intbd glau

MD 3357'  
INC 1.6°  
AZM 2.8°  
TVD 3356.60'

SS: ltgy-gy-trnsl, abnt uncon, sbang-ang, fgr, vpsrt, modrndd-wrdd, arg cmt, abnt lit frag, abnt glau  
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt, occ intbd glau  
SLTYSH: gy-dkgy, occ ltgy&blk, sbbkly-sbply, sft - mod firm, gt-sdy tex, arg cmt

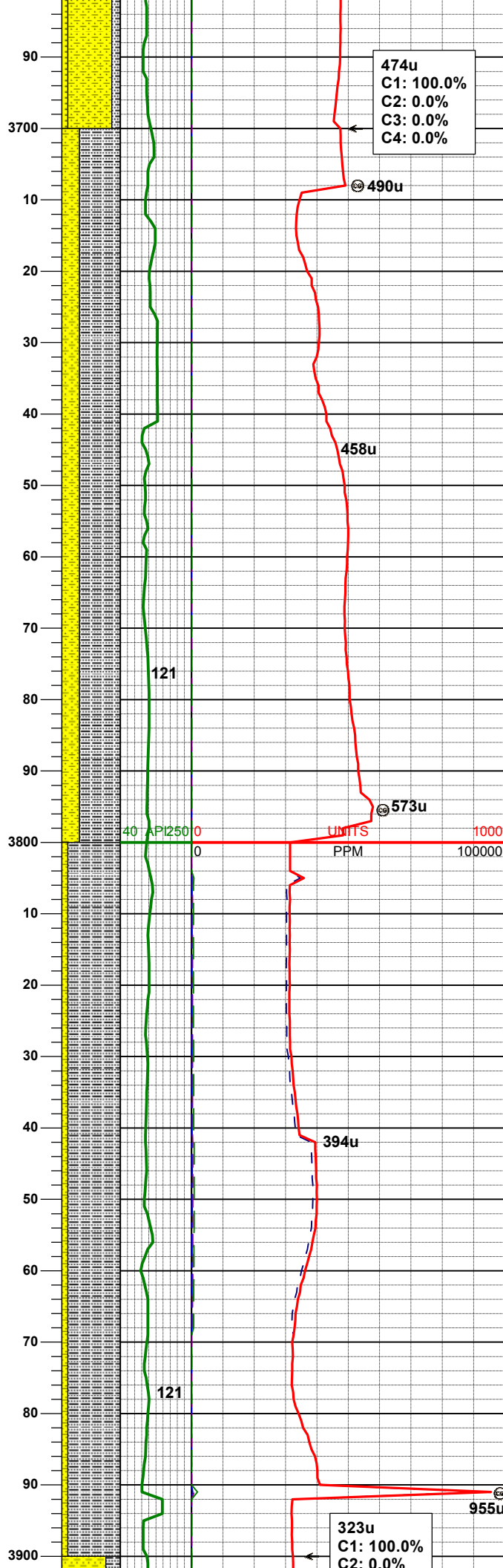
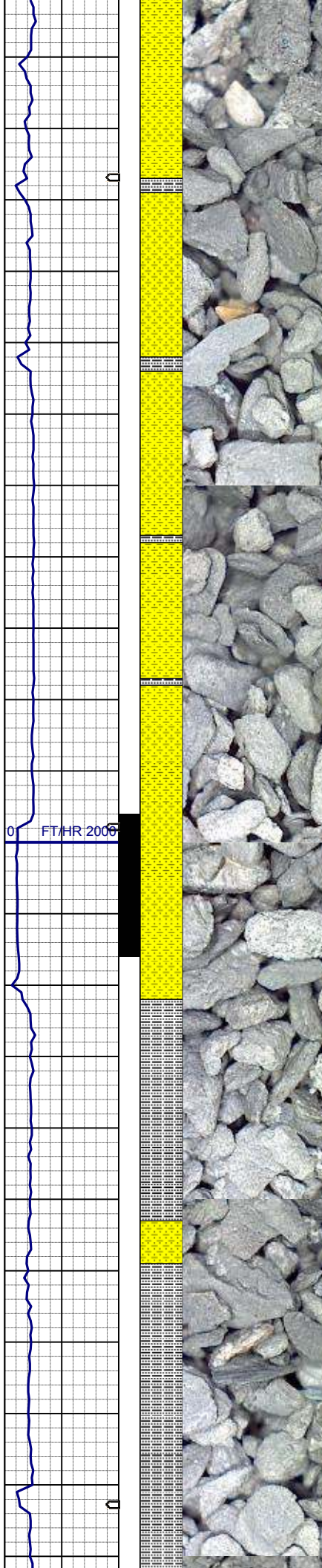


MD 3547'  
INC 0.9°  
AZM 56.4°  
TVD 3546.56'

SHYSS: gy-dkgy, occ lt gy s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt, occ intbd&scat glau  
SS: ltgy-gy-trnsl, abnt uncon, sbang-ang, fgr, vpsrt, modrnnd-wrnnd, arg cmt, occ lit frag, occ glau  
SLTYSH: gy-dkgy, occ blk, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt

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

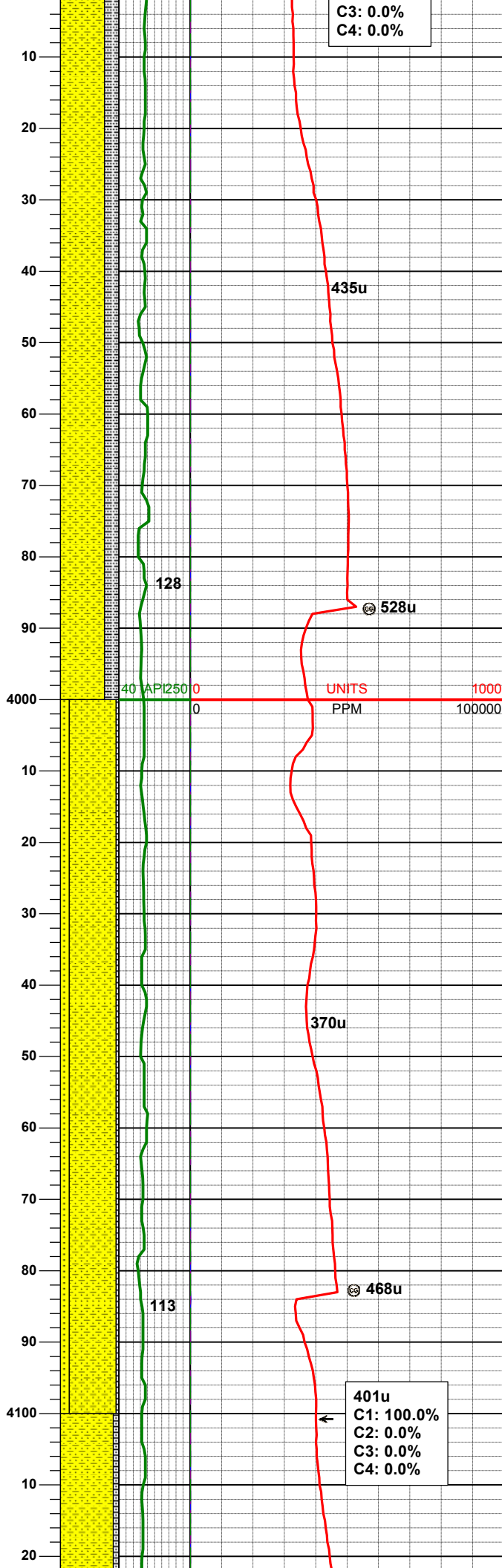
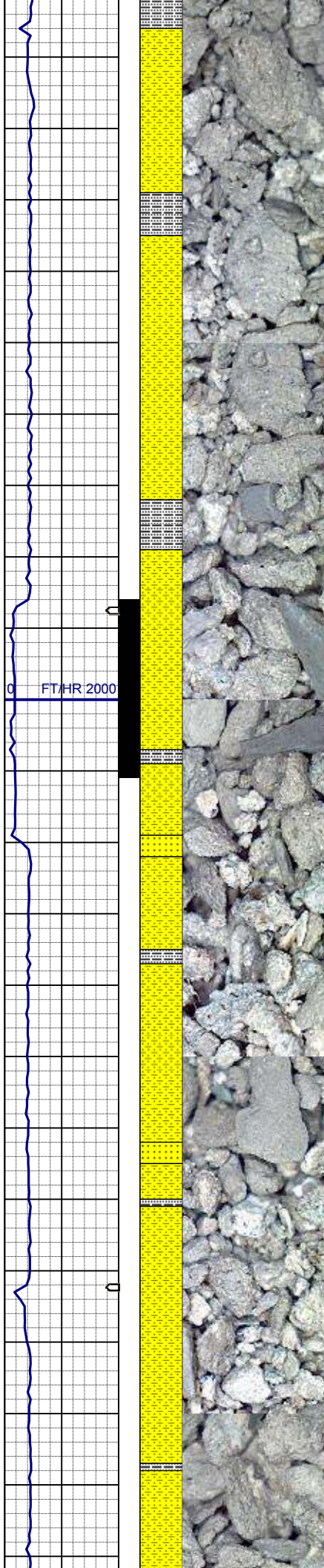




MD 3736'  
INC 0.9°  
AZM 63.3°  
TVD 3735.54'

SLTYSH: gy-dkgy, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt  
SHYSS: gy-dkgy, occ lt gy s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt, occ intbd&scat glau, occ fos frag

SLTYSH: gy-dkgy, occ blk, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt  
SHYSS: ltgy-gy, occ dkgy, s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt, occ fos frag



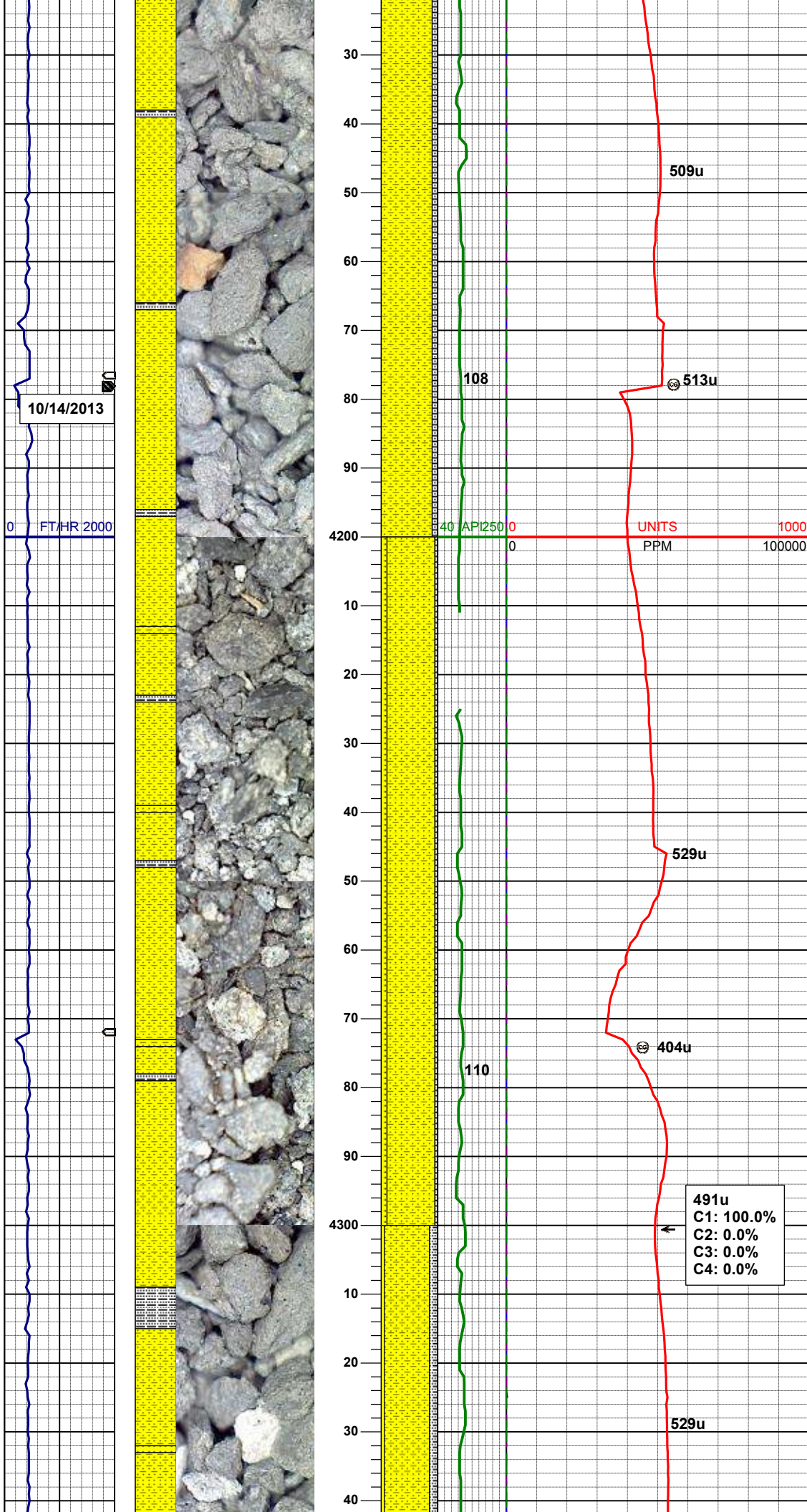
WT IN 0.00/ OUT 0.00  
VIS IN 35/ OUT 35

MD 3926'  
INC 0.5°  
AZM 319.6°  
TVD 3925.53'

SHYSS: gy-dkgy, occ lt gy s&p ip, sbang, v fri, vfgr, psrt, wrnnd, abnt cly, arg cmt, occ intbd&scat glau  
SLTYSH: gy-dkgy, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt  
Mod abnt scat Inoc fos, tr scat pyr

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



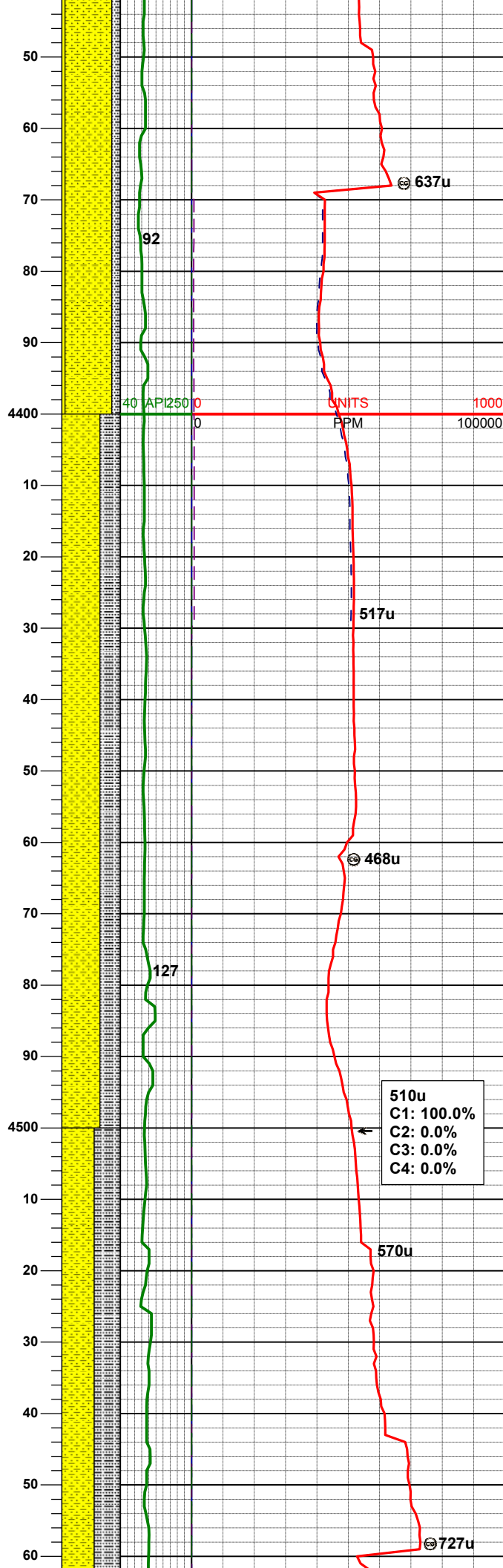
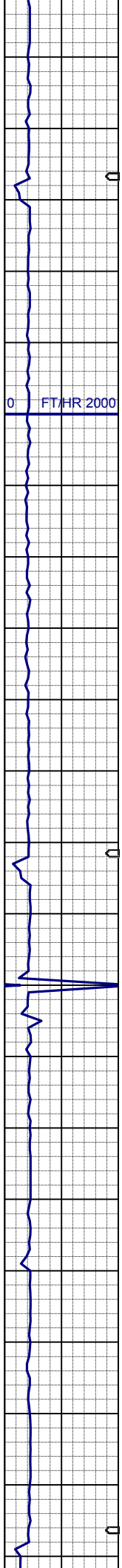


SHYSS: ltgy-gy, occ dkgy, s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt, occ intbd&scat glau  
SLTYSH: dkgy-blk, occ gy, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt, scat lnoc fos

WT IN 8.70/ OUT 8.70  
VIS IN 32/ OUT 32

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

SHYSS: ltgy-gy, occ dkgy, s&p ip,



sbang, v fri, vfgr, psrt, wrdd, abnt cly,  
arg cmt, occ intbd&scat glau  
SLTYSH: dkgy-blk, occ gy, sbblky-  
sbply, sft - mod firm, gt-sdy tex, arg  
cmt, tr intbd pyr  
SS: ltgy-gy-trnsl, sbang-ang, fgr,  
vpst, wrdd, arg cmt, tr lit frag, tr glau

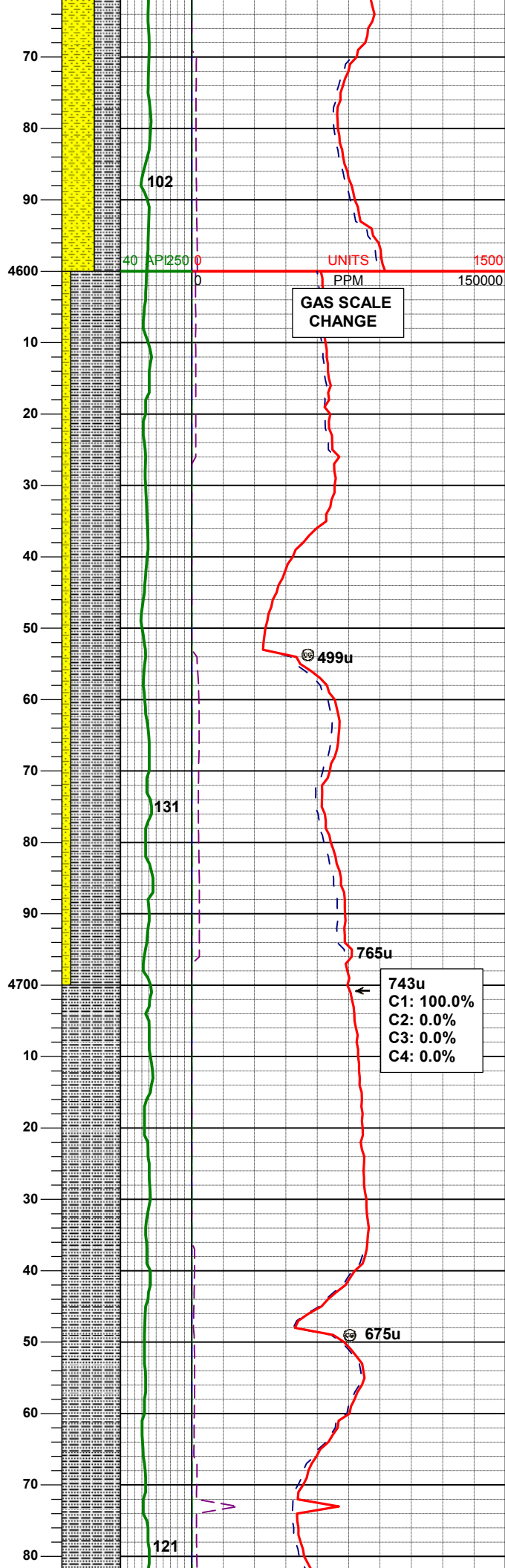
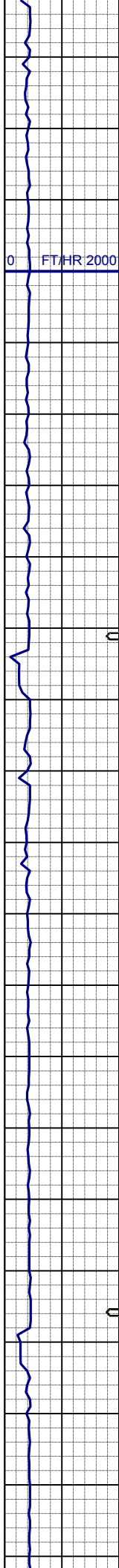
SHYSS: ltgy-gy, occ dkgy, s&p ip,  
sbang, v fri, vfgr, psrt, wrdd, abnt cly,  
arg cmt, occ intbd&scat glau, scat  
Inoc fos  
SLTYSH: dkgy-blk, occ gy, sbblky-  
sbply, sft - mod firm, gt-sdy tex, arg  
cmt

MD	4495'
INC	0.6°
AZM	220.6°
TVD	4494.49'

510u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%

SHYSS: ltgy-gy, occ dkgy, s&p ip,  
sbang, v fri, vfgr, psrt, wrdd, abnt cly,  
arg cmt, occ intbd&scat glau  
SLTYSH: dkgy-blk, occ gy, sbblky-  
sbply, sft - mod firm, gt-sdy tex, arg  
cmt



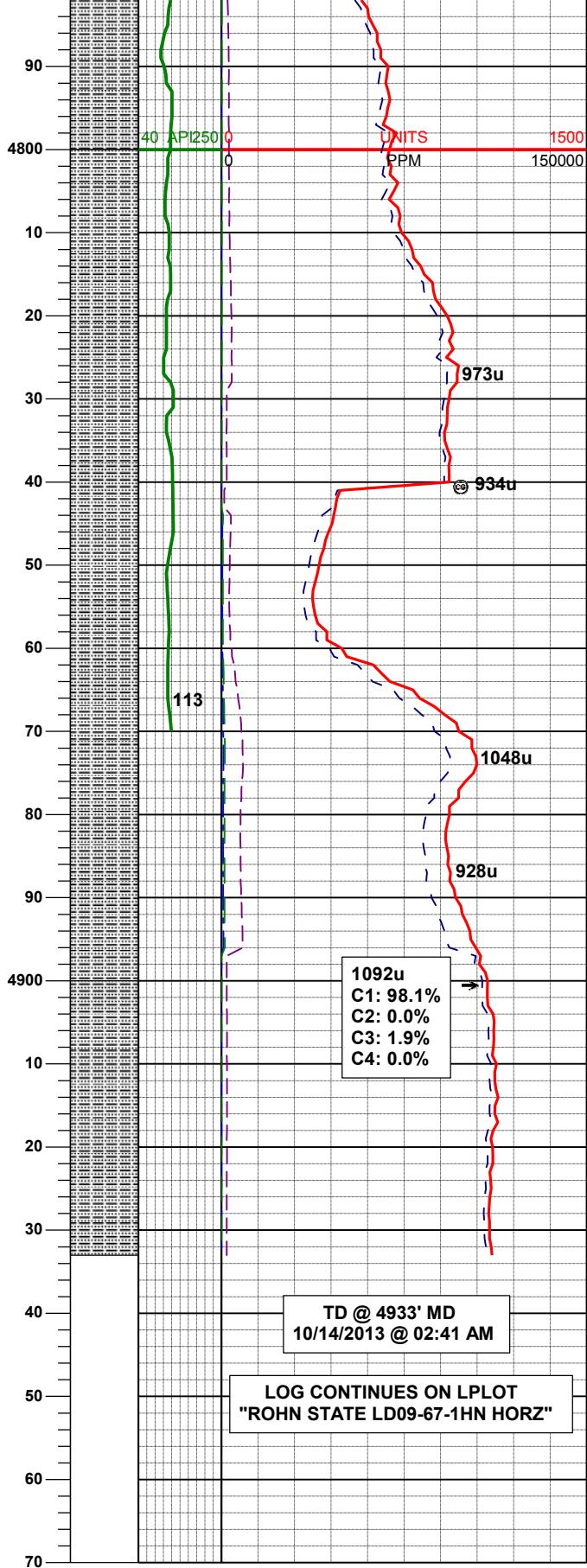
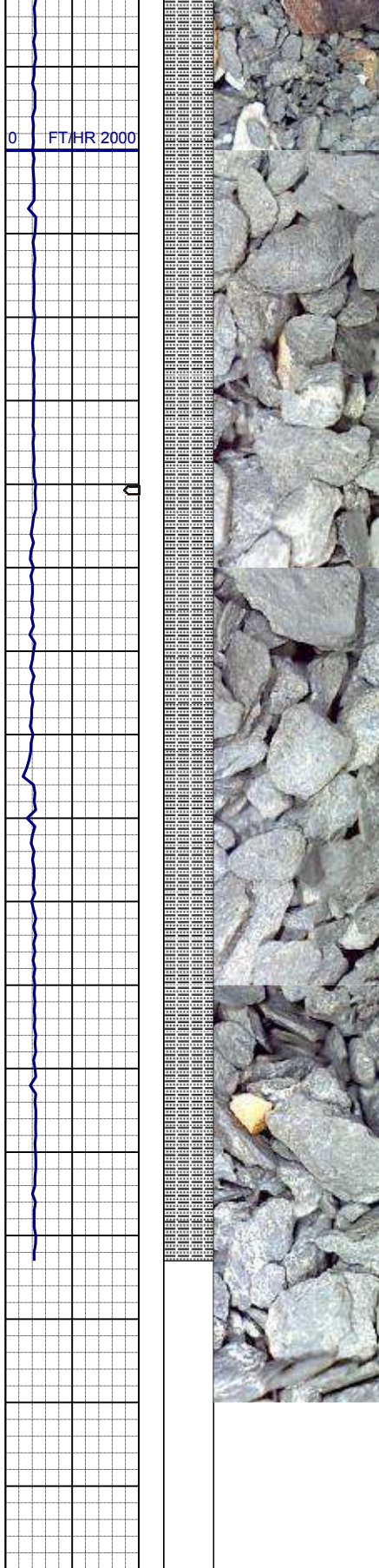


SLTYSH: gy-dkgy, occ blk, sbblky-sbplty, sft - mod firm, gt-sdy tex, arg cmt  
SHYSS: ltgy-gy, occ dkgy, s&p ip, sbang, v fri, vfgr, psrt, wrdd, abnt cly, arg cmt, tr intbd pyr

MD	4684'
INC	1.1°
AZM	287.0°
TVD	4683.47'

743u  
C1: 100.0%  
C2: 0.0%  
C3: 0.0%  
C4: 0.0%

SLTYSH: gy-dkgy, occ blk, sbblky-sbplty, sft - mod firm, gt-sdy tex, arg cmt, tr dism pyr



SLTYSH: gy-dkgy, occ blk, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt, tr dism pyr

MD 4874'  
INC 2.0°  
AZM 276.1°  
TVD 4873.40'

SLTYSH: gy-dkgy, occ blk, sbblky-sbply, sft - mod firm, gt-sdy tex, arg cmt