

LOG created using L PLOT VH Version 3.0, October 28, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: NOBLE ENERGY INC
WELL: ROHN STATE LD09-66-1HN
LOCATION: SENE SEC 9 T9N R58W
COUNTY: WELD
STATE: COLORADO
SPOT: 1763L' FNL; 480 FEL'
ELEVATION: 4727' GR; 4751' KB
FIELD: WILDCAT
SPUD DATE: 10/27/2013
TD DATE: 10/28/2013
DATES LOGGED: 10/27/2013 - 10/28/2013
DEPTHS LOGGED: 1243' - 4982' MD
LOGGERS: WEDGE HOWLAND; CONOR PESICKA
DRILLING FLUID: LSND
DRILLING RIG: H&P 273
API: 05-123-37540
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



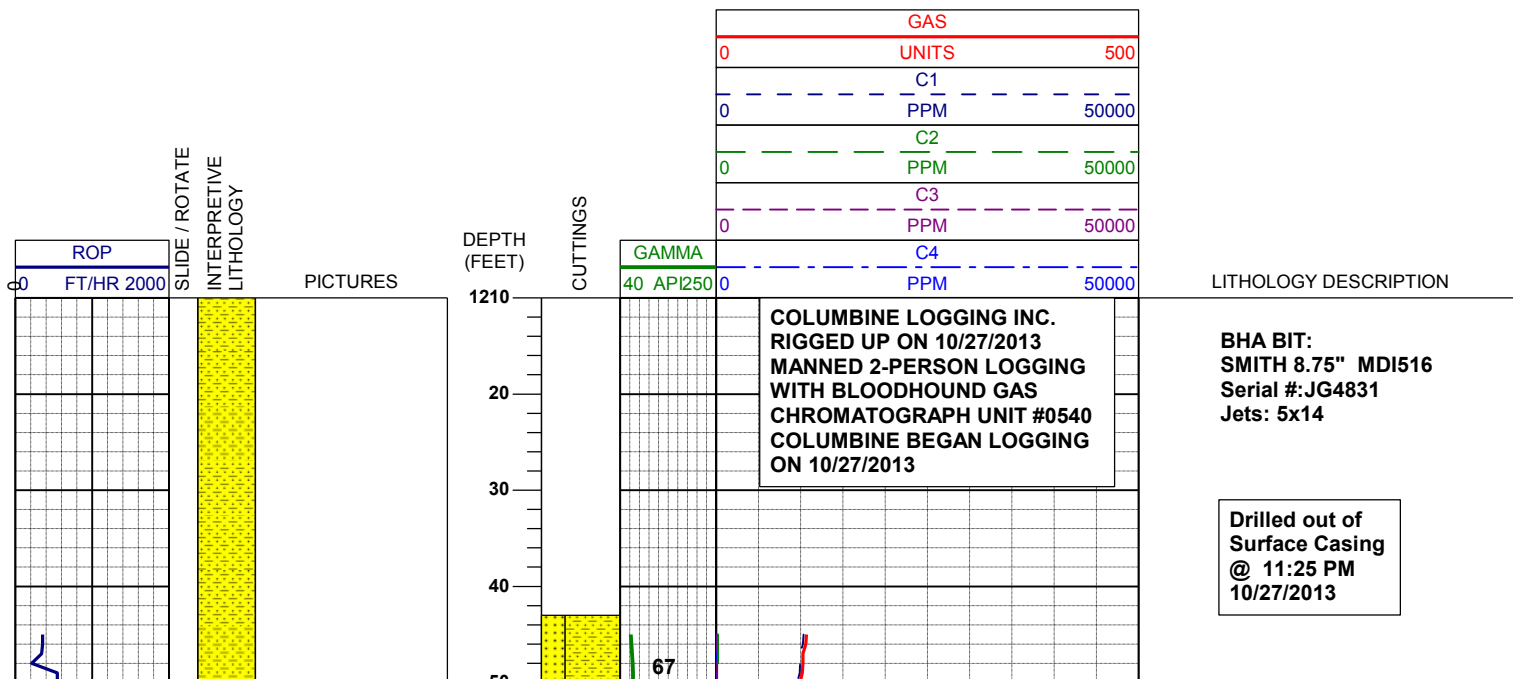
Connection

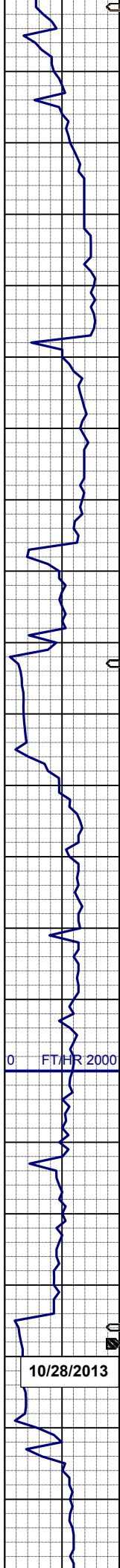


Connection Gas

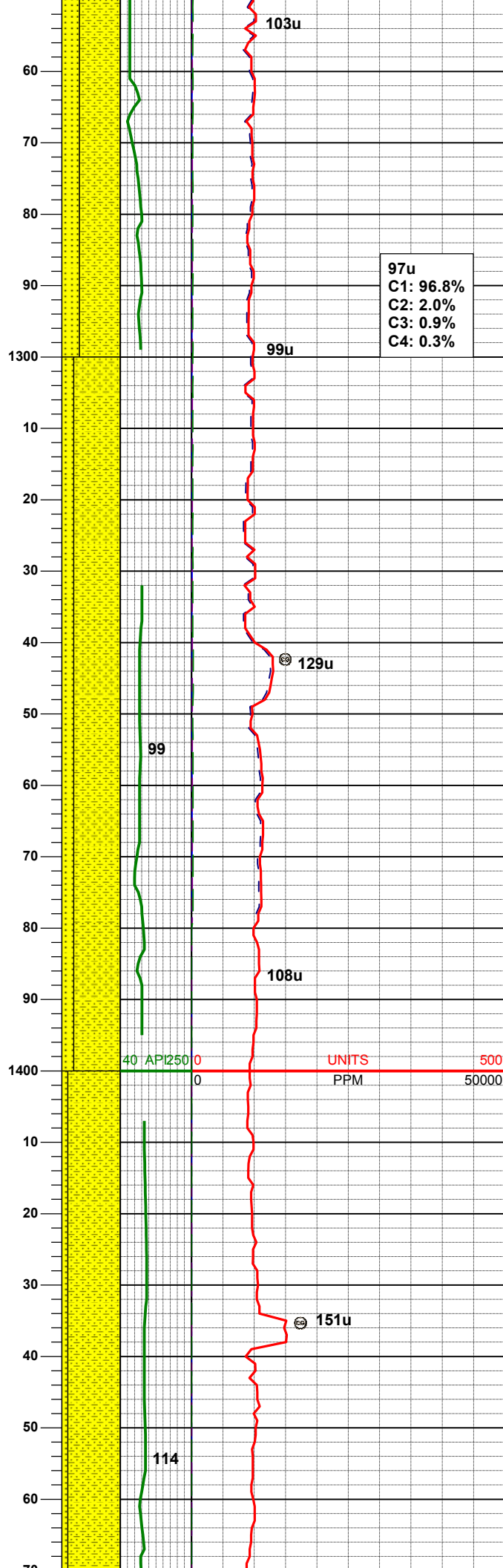


Midnight Depth





10/28/2013



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

MD	1282'
INC	0.6°
AZM	310.3°
TVD	1281.97'

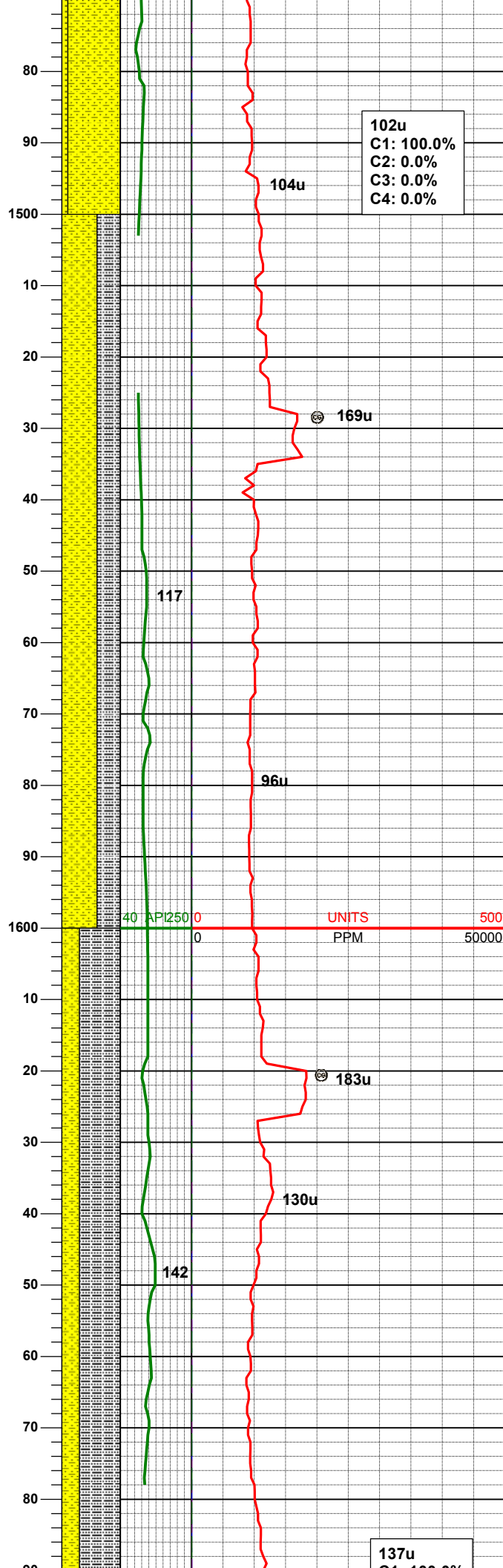
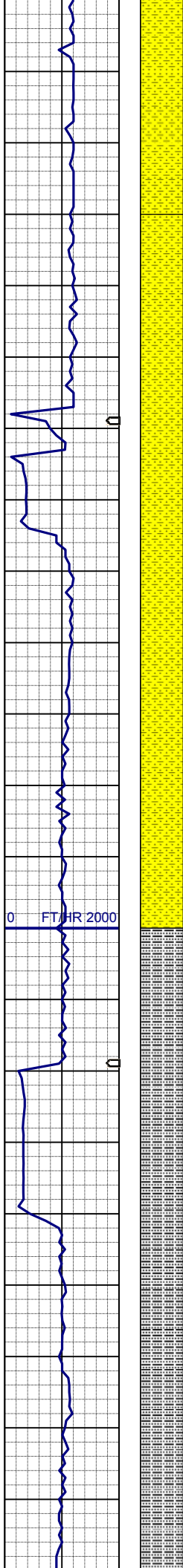
WT IN 8.40/ OUT 8.40
VIS IN 25/ OUT 25

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

MD	1375'
INC	1.4°
AZM	183.3°
TVD	1374.96'

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, modsrt, wrnnd, abnt cly, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr, psrt, prnnd, sme por, arg cmt, abnt glau, sme dk lit frag

MD	1467'
INC	3.0°
AZM	183.7°



TVD 1466.89'

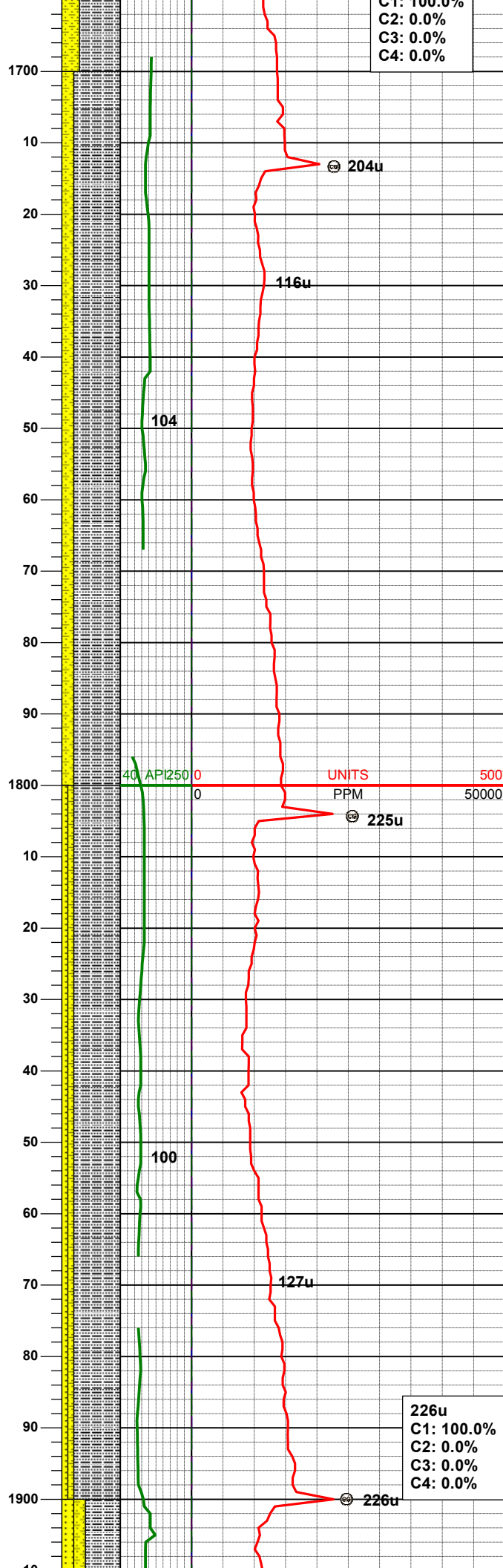
102u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, modsrt, wrnnd, abnt cly, arg cmt, rr ss
SLTYSH: ltgy-gy, sbblk-y-sbplty, sft, gt-sdy tex, arg cmt

MD 1558'
INC 3.8°
AZM 171.7°
TVD 1557.73'

SLTYSH: ltgy-gy, sbblk-y-sbplty, sft, slty-sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, wsrt, wrnnd, abnt cly, arg cmt, rr ss, tr lt lit frag

MD 1651'
INC 5.2°
AZM 168.0°
TVD 1650.44'



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

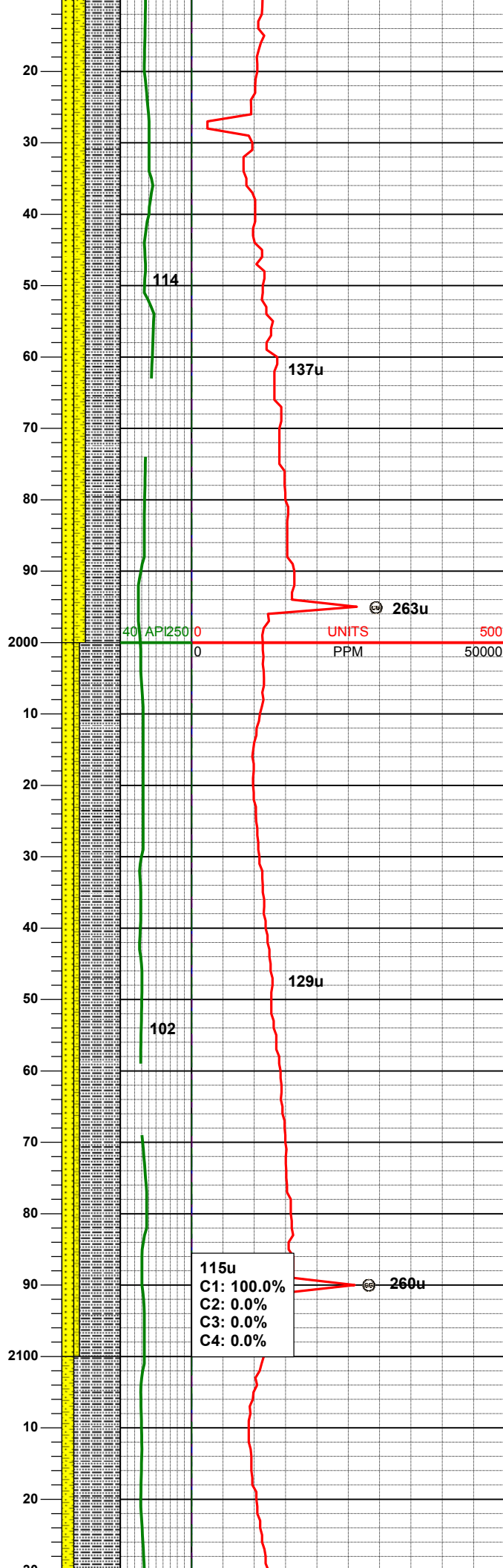
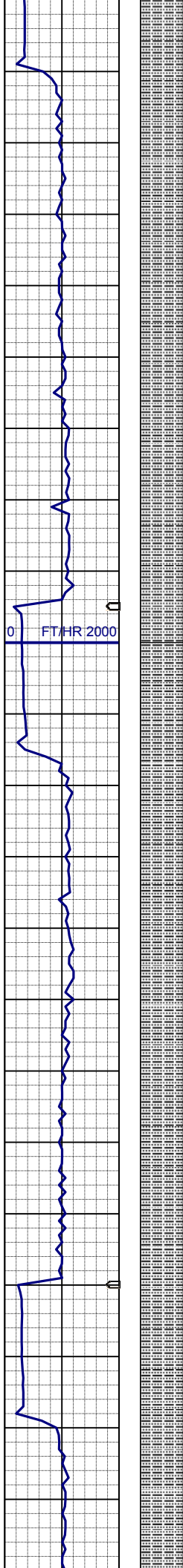
MD 1744'
INC 6.5°
AZM 171.4°
TVD 1742.96'

SLTYSH: ltgy-gy, sbblky-sbply, sft,
slty- v sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, wsrt, wrnnd, abnt cly, arg cmt, r
ss, tr lt lit frag

MD 1839'
INC 8.0°
AZM 172.8°
TVD 1837.20'

SLTYSH: ltgy-gy, sbblky-sbply, sft,
slty- sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, wsrt, wrnnd, abnt cly, arg cmt, tr
lt lit frag
SS: ltgy-trnsl, sbang-ang, v fri, vfgr,
sme fgr, modsrt, modrnnd, arg cmt, tr
glau

226u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%



MD 1933'
INC 9.1°
AZM 171.9°
TVD 1930.15'

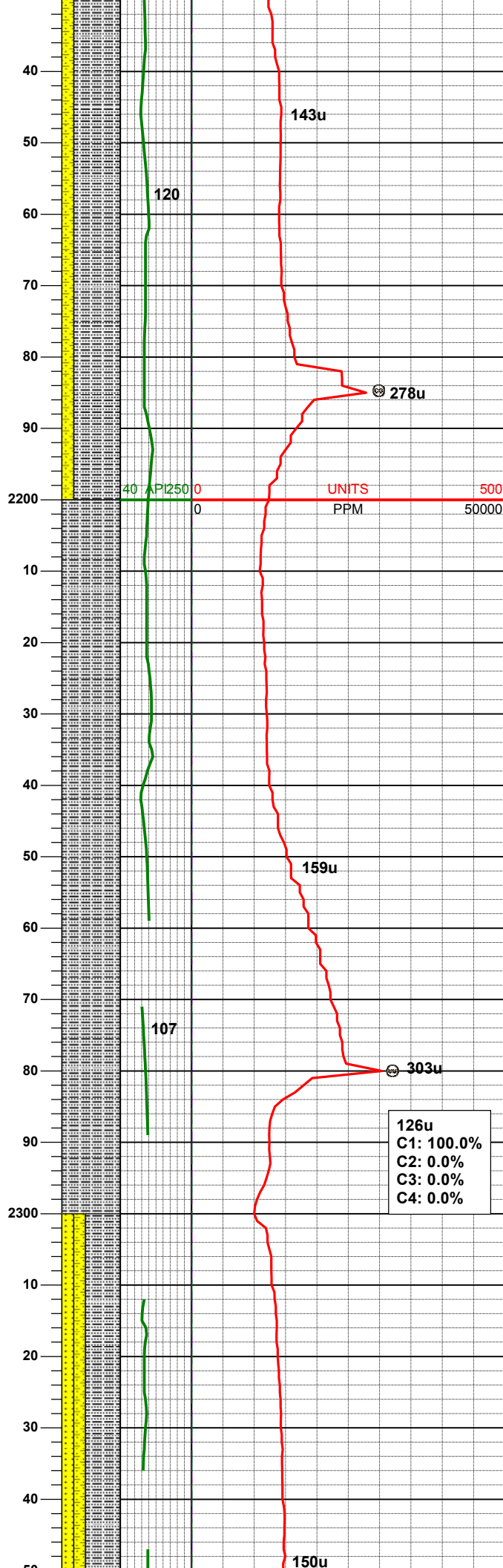
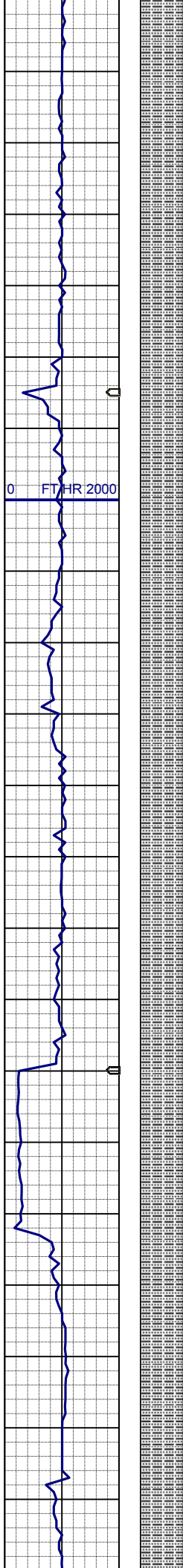
SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slty- sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, abnt cly, arg cmt,
tr glau
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrnnd, p por, arg cmt, sme
glau

MD 2028'
INC 10.5°
AZM 163.7°
TVD 2023.77'

SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrnnd, p por, arg cmt, sme
glau
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, abnt cly, arg cmt

115u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%

MD 2123'
INC 11.3°
AZM 166.1°
TVD 2117.05'



SLTYSH: ltgy-gy, sbblky-sbply, sft,
sly tex, occ sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt,
rr ss

WT IN 8.40/ OUT 8.40
VIS IN 28/ OUT 28

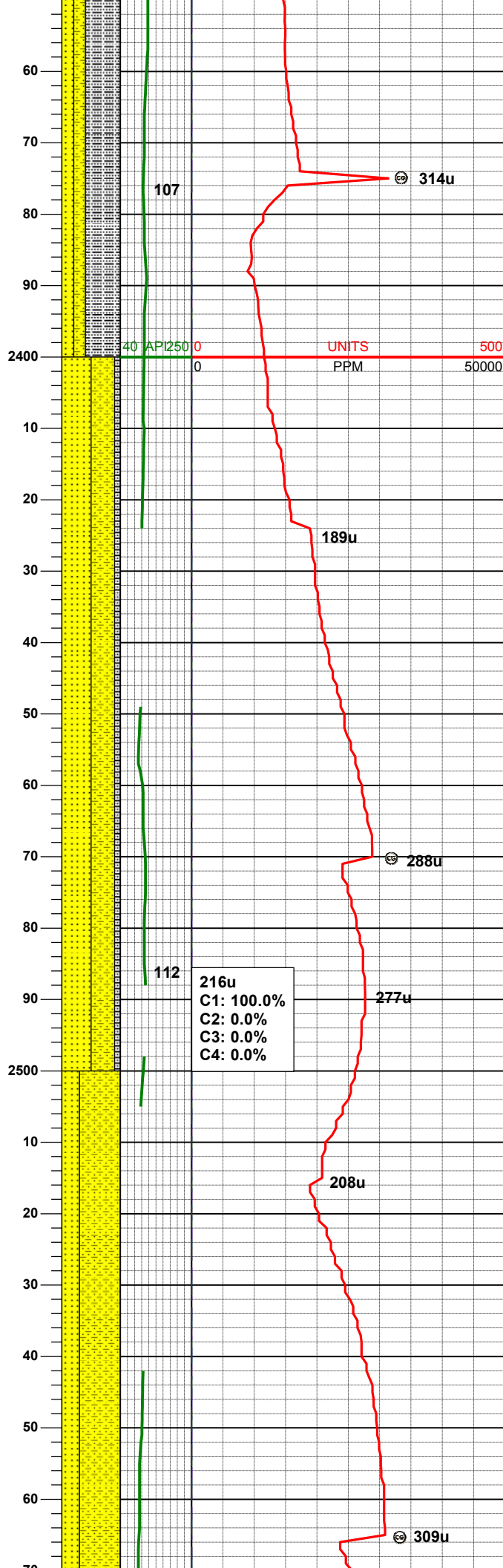
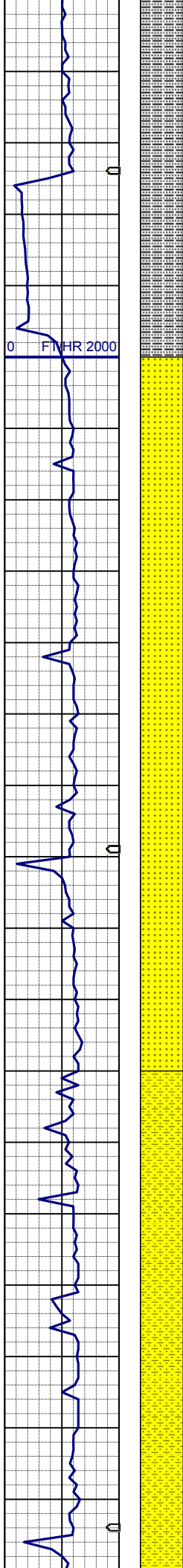
MD	2218'
INC	10.3°
AZM	162.1°
TVD	2210.37'

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

126u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%

MD	2313'
INC	10.9°
AZM	164.4°
TVD	2303.75'

SLTYSH: ltgy-gy, sbblky-sbply, sft,
sly tex, sme sdy tex, arg cmt
SS: ltgy-trnsf, sbang-ang, v fri, fgr,
part modrdd, p cor, arg cmt, cmt



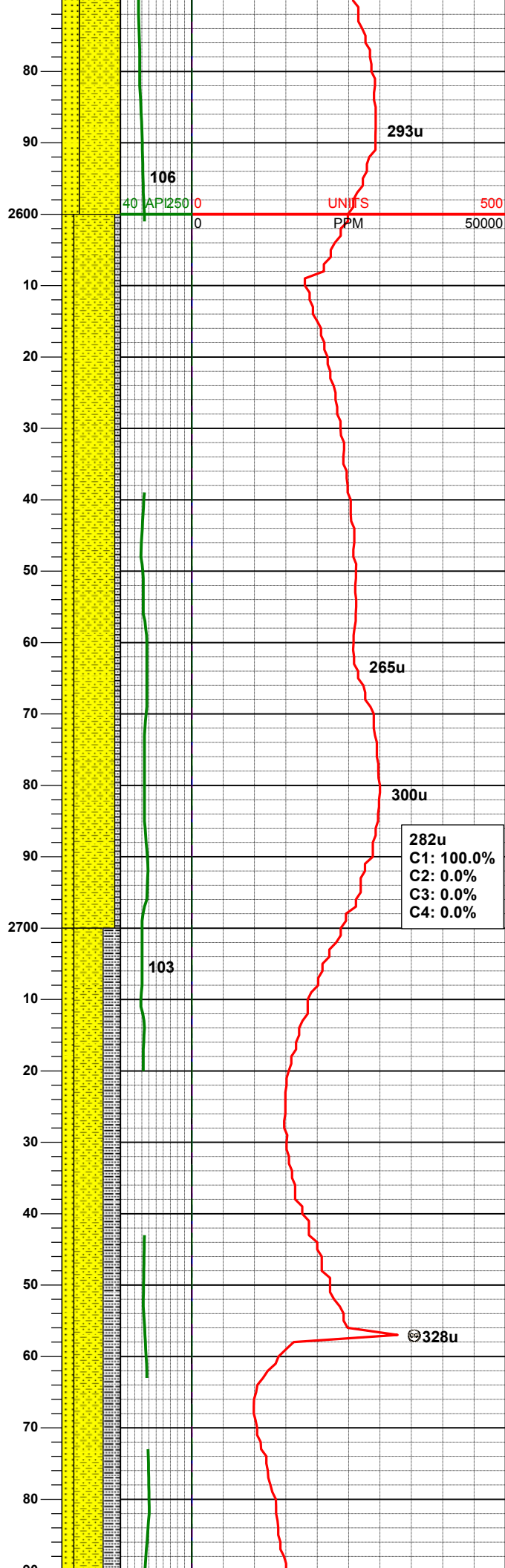
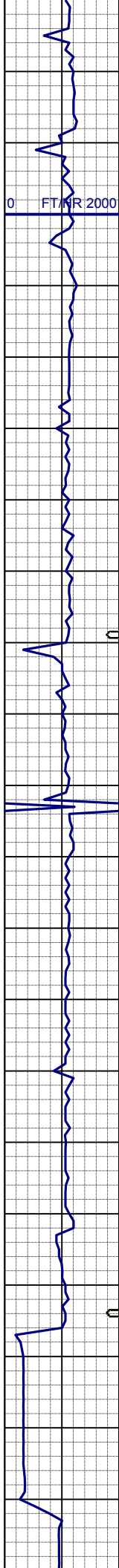
port, modrdd, p-sme por, arg cmt, sme glau
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, modsrt, wrnnd, abnt cly, arg cmt

MD	2408'
INC	12.2°
AZM	168.7°
TVD	2396.82'

SS: ltgy-trnsl, sbang, v fri, fgr, modsrt, modrdd, p-sme por, arg cmt, sme glau
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, occ fgr, modsrt, wrnnd, abnt cly, arg cmt
SLTYSH: ltgy-gy, sbblky-sbplty, sft, slty tex, sme sdy tex, arg cmt

MD	2503'
INC	12.0°
AZM	167.9°
TVD	2489.71'

SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, occ fgr, modsrt, wrnnd, sme cly, arg cmt, rr sltysh
SS: ltgy-trnsl, sbang, v fri, fgr, modsrt, modrdd, p-sme por, arg cmt, sme glau, abnt lit frag



MD 2597'
INC 11.8°
AZM 166.8°
TVD 2581.69'

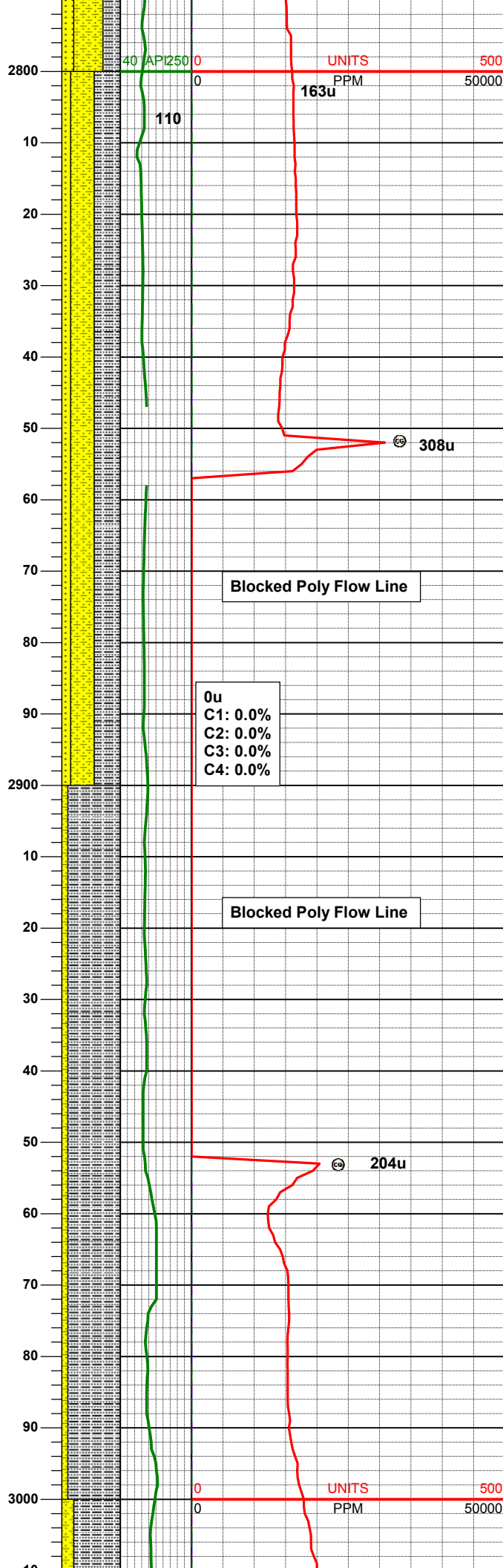
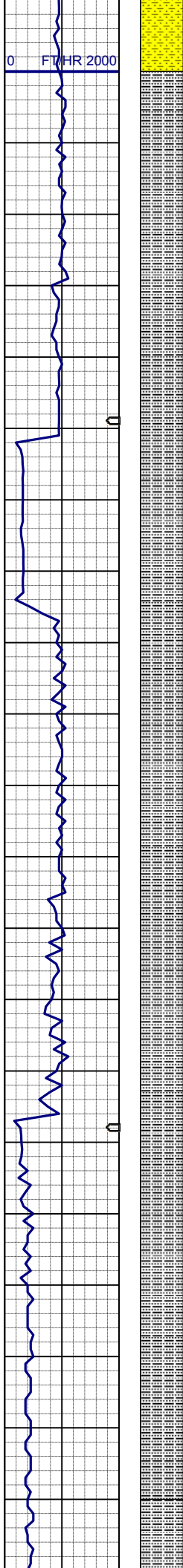
SHYSS: ltgy-gy, s&p ip, sbang, v fri, vfgr, occ fgr, modsrt, wrnnd, sme cly, arg cmt
SS: ltgy-trnsl, sbang, v fri, fgr, modsrt, modrnnd, p por, arg cmt, sme glau, abnt lit frag
SLTYSH: gy, sme ltgy, sbblky-sbplty, sft, gt-sdy tex, arg cmt

MD 2692'
INC 11.1°
AZM 166.1°
TVD 2675.80'

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

WT IN 8.60/ OUT 8.60
VIS IN 26/ OUT 26

MD 2787'
INC 11.5°
AZM 165.1°

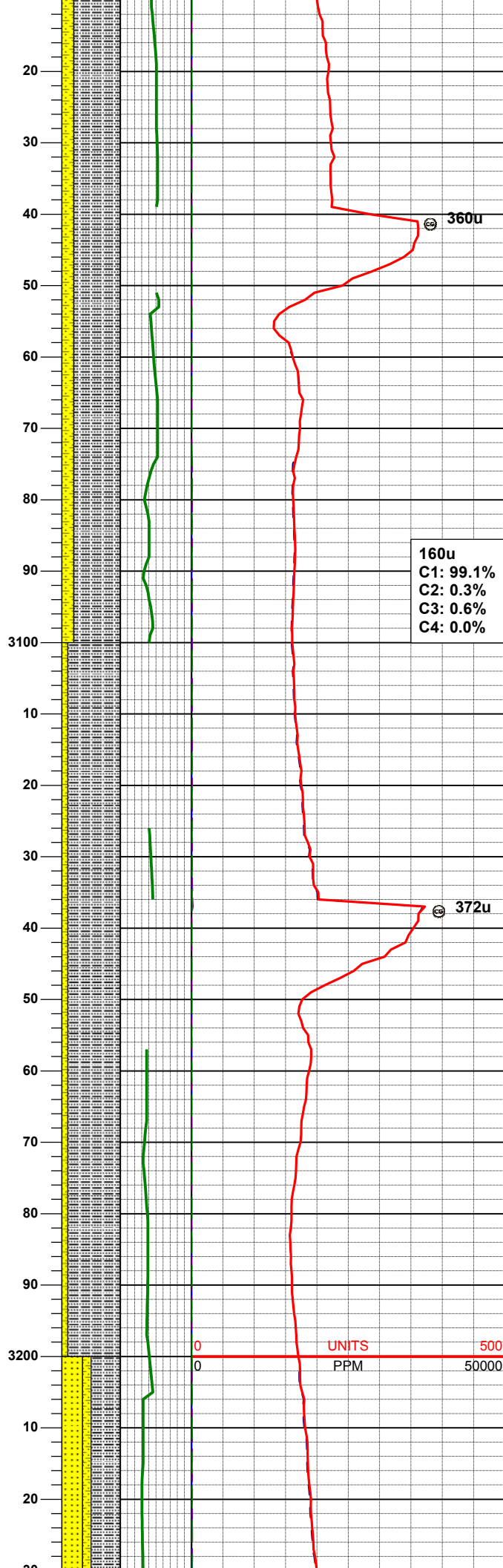


SLTYSH: gy, sme ltgy, sbblky-sbply,
sft, gt-v sdy tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, sme cly, arg cmt,
tr lit frag
SS: ltgy-trnsl, sbang, v fri, fgr, modsrt,
modrdd, p por, arg cmt, sme glau,
abnt lit frag

MD	2882'
INC	11.7°
AZM	163.8°
TVD	2861.02'

SLTYSH: gy-dkgy, sme ltgy, sbblky-
sbply, sft, gt-slty tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, arg cmt

MD	2977'
INC	11.2°
AZM	165.1°
TVD	2954.13'



SLTYSH: gy-dkgy, sme ltgy, sbblky-
sbply, sft, gt-sltly tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, arg cmt

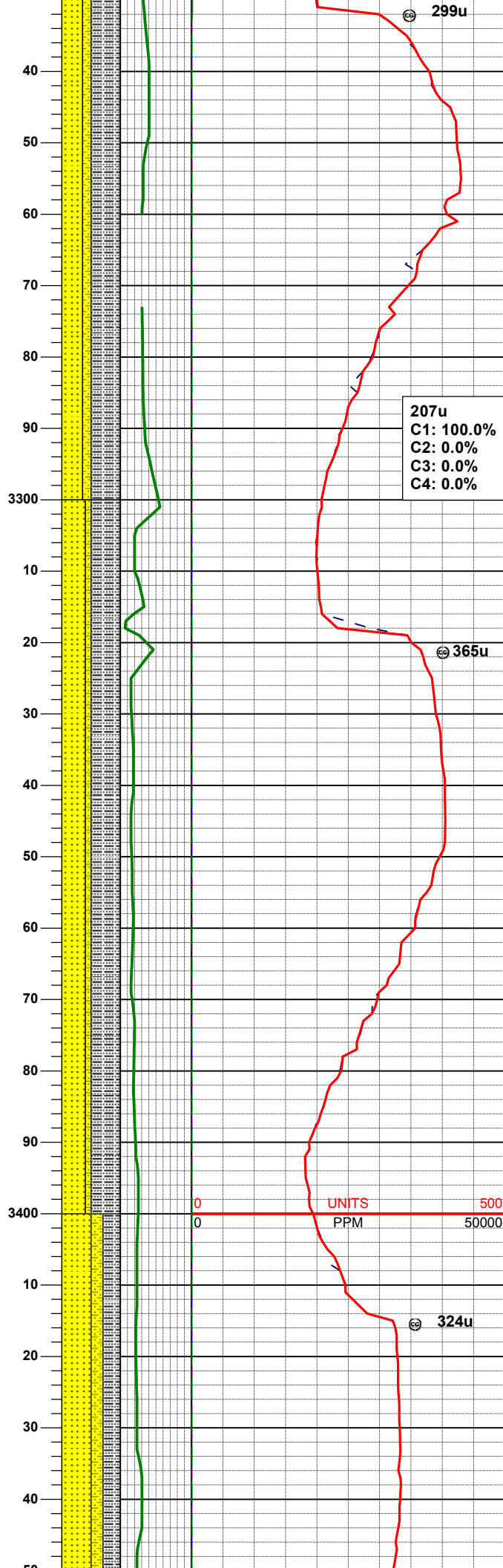
MD	3072'
INC	10.6°
AZM	167.9°
TVD	3047.42'

160u
C1: 99.1%
C2: 0.3%
C3: 0.6%
C4: 0.0%

SLTYSH: gy-dkgy, sme ltgy, sbblky-
sbply, sft, gt-sltly tex, arg cmt
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, arg cmt

MD	3167'
INC	12.1°
AZM	167.3°
TVD	3140.56'

WT IN 8.60/ OUT 8.60
VIS IN 27/ OUT 27



SLTYSH: ltgy-gy, sbblky-sbplty, sft,
silty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt

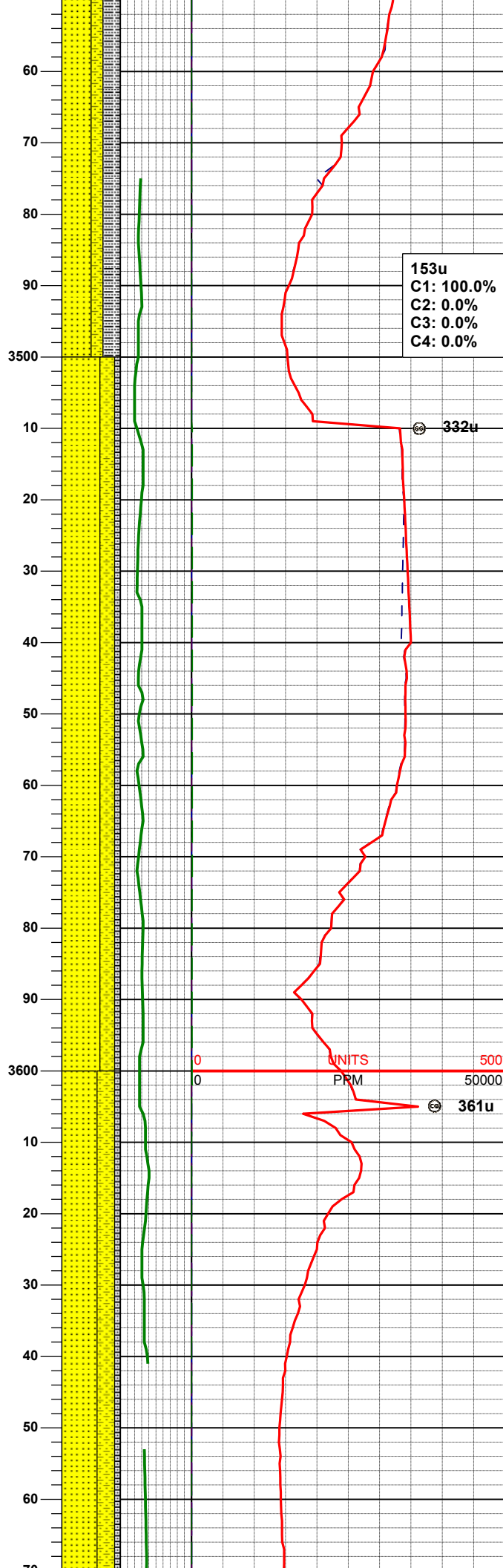
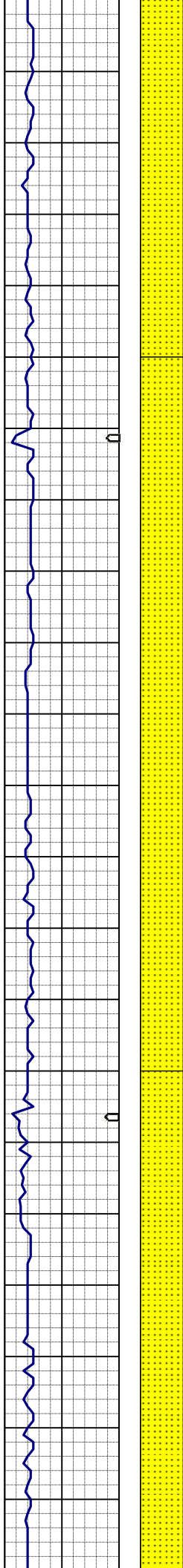
MD	3262'
INC	12.3°
AZM	166.6°
TVD	3233.41'

207u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%

SLTYSH: ltgy-gy, sbblky-sbplty, sft,
silty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt

MD	3356'
INC	12.7°
AZM	165.9°
TVD	3325.18'

SLTYSH: ltgy-gy, sbblky-sbplty, sft,
silty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt



MD 3451'
INC 12.7°
AZM 166.6°
TVD 3417.86'

153u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%

332u

MD 3546'
INC 13.1°
AZM 166.1°
TVD 3510.46'

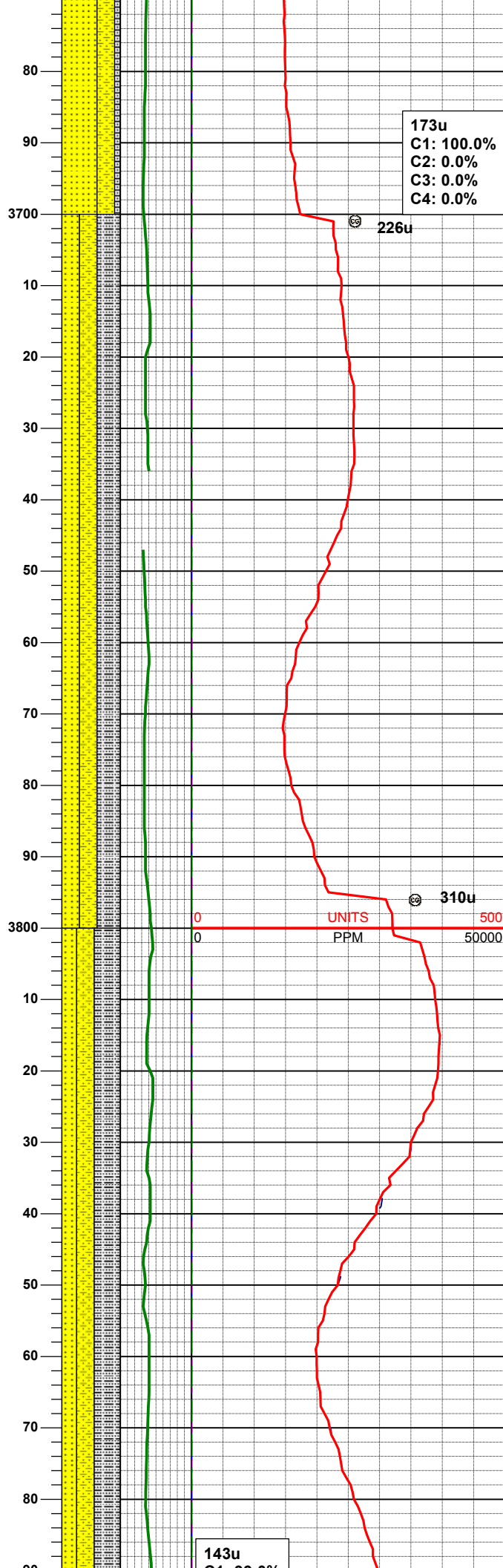
SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt

0 500
0 50000
UNITS
PRM

361u

MD 3641'
INC 12.6°
AZM 161.5°
TVD 3603.08'

SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt



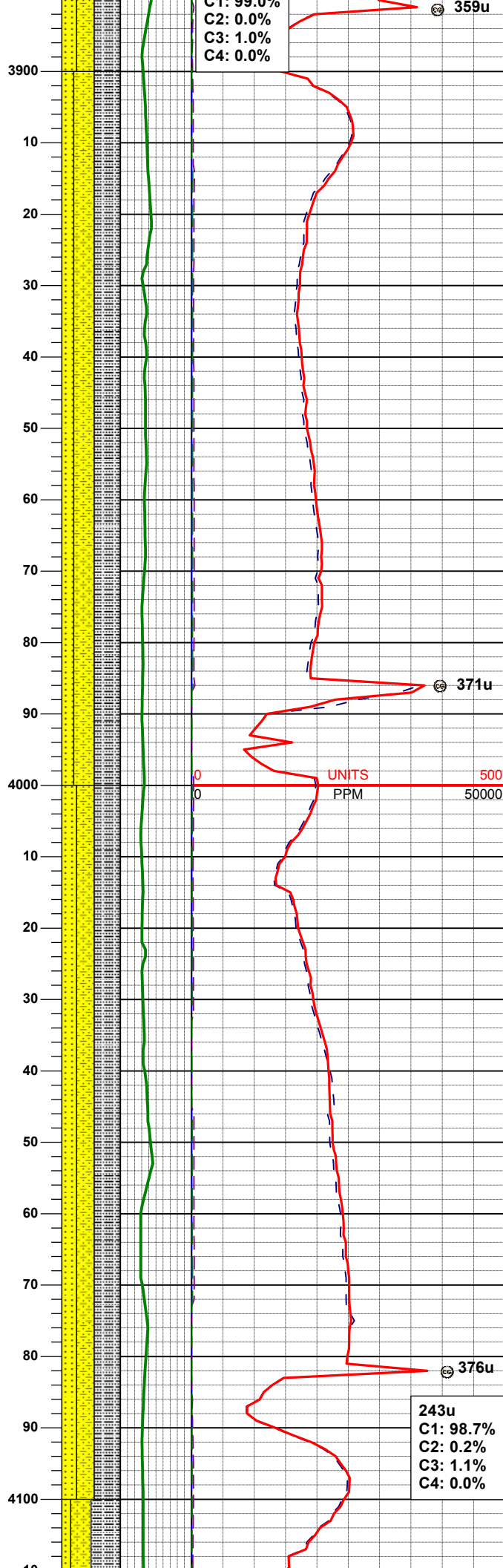
MD 3735'
INC 12.1°
AZM 162.8°
TVD 3694.91'

SLTYSH: ltgy-gy, sbbiky-sbply, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, abnt cly, arg cmt

WT IN 8.60/ OUT 8.60
VIS IN 26/ OUT 26

MD 3830'
INC 10.3°
AZM 167.0°
TVD 3788.10'

SLTYSH: ltgy-gy, sbbiky-sbply, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, abnt cly, arg cmt



SLTYSH: ltgy-gy, sbbky-sbply, sft,
silty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, abnt cly, arg cmt

SLTYSH: ltgy-gy, sbbky-sbply, sft,
silty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, abnt cly, arg cmt

AZM 158.0°
TVD 4068.64'

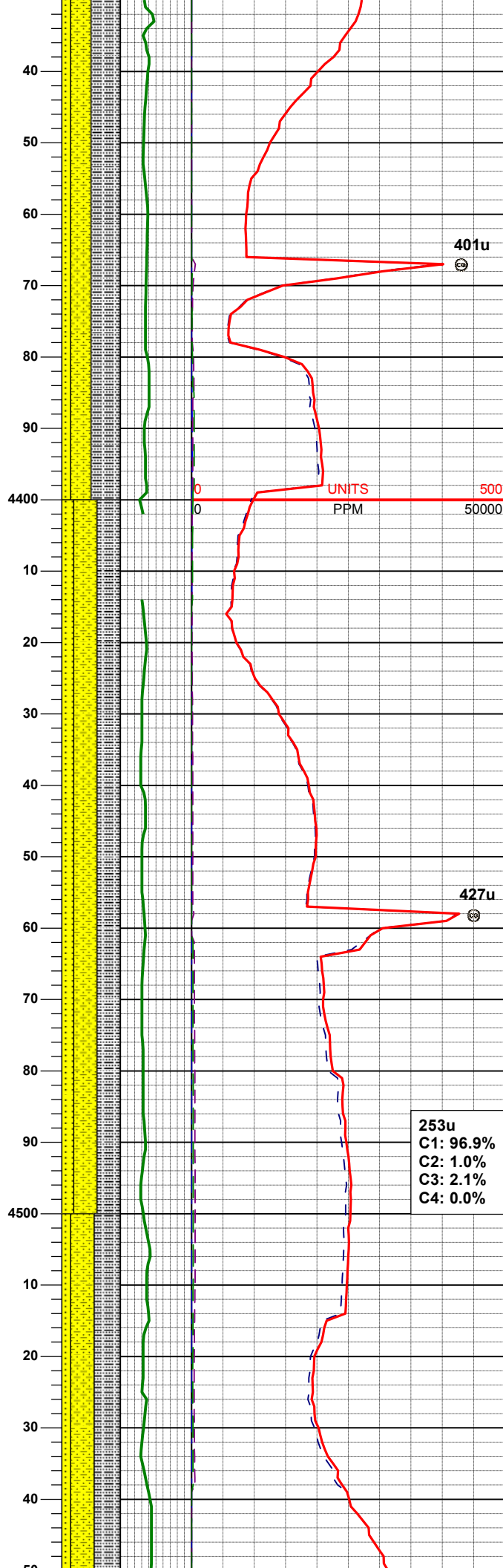
SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt

MD 4210'
INC 9.0°
AZM 157.1°
TVD 4162.22'

SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt

MD 4304'
INC 7.9°
AZM 158.4°
TVD 4255.20'





SLTYSH: ltgy-gy, sbblky-sbply, sft,
silty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, abnt cly, arg cmt

WT IN 8.90/ OUT 8.90
VIS IN 35/ OUT 35

MD	4399'
INC	8.4°
AZM	160.0°
TVD	4349.24'

SLTYSH: ltgy-gy, sbblky-sbply, sft,
silty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrnnd, abnt cly, arg cmt

MD	4494'
INC	6.4°
AZM	158.2°
TVD	4443.44'

253u
C1: 96.9%
C2: 1.0%
C3: 2.1%
C4: 0.0%

SLTYSH: ltgy-gy, sbblky-sbply, sft,
silty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme

MD	4589'
INC	7.3°
AZM	153.1°
TVD	4537.76'

MD	4684'
INC	5.5°
AZM	146.2°
TVD	4632.17'

459u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%

SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slyt tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl, tr anhy
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsr, wrnrd, abnt cly, arg cmt

MD 4778'

INC 4.0°
AZM 144.7°
TVD 4725.84'

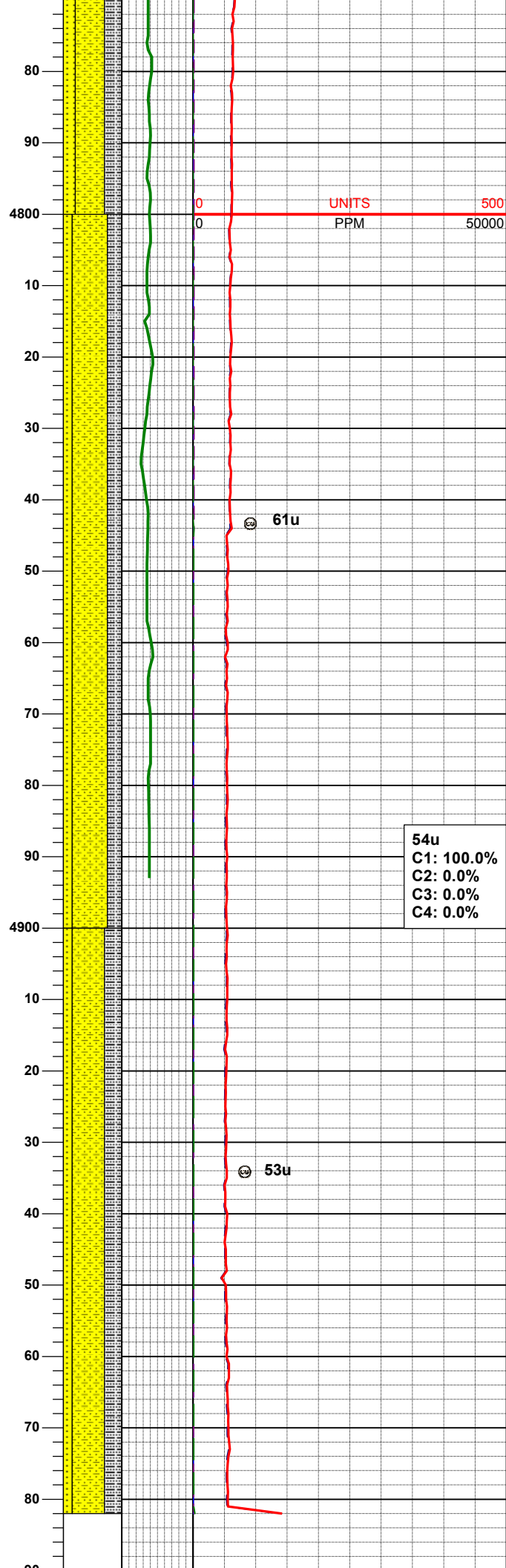
WT IN 9.15/ OUT 9.15
VIS IN 35/ OUT 35

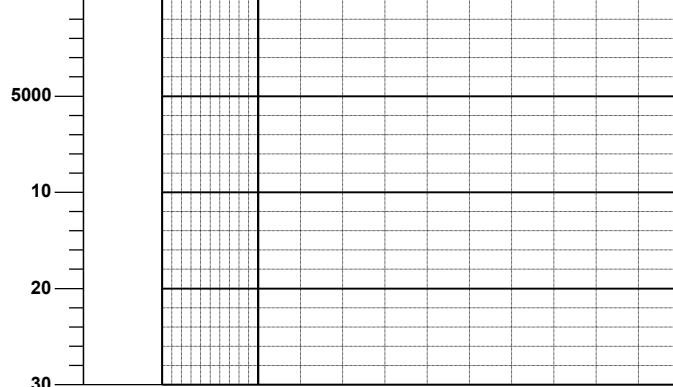
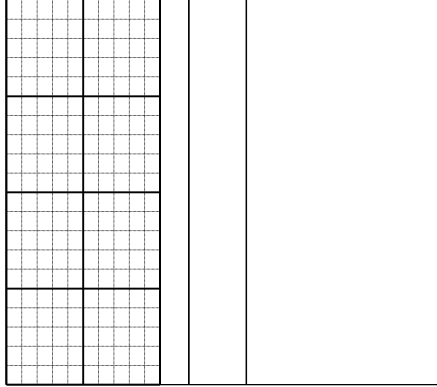
SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl, tr anhy
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt

MD 4873'
INC 0.9°
AZM 140.6°
TVD 4820.74'

54u
C1: 100.0%
C2: 0.0%
C3: 0.0%
C4: 0.0%

SLTYSH: ltgy-gy, sbblky-sbplty, sft,
slty tex, sme sdy tex, arg cmt
SS: ltgy-trnsl, sbang-ang, v fri, fgr,
psrt, modrndd, p por, arg cmt, sme
glau ip, mica incl, tr anhy
SHYSS: ltgy-gy, s&p ip, sbang, v fri,
vfgr, modsrt, wrndd, abnt cly, arg cmt





TD Vertical- 4982' MD
10/28/2013 @ 09:41 MST

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