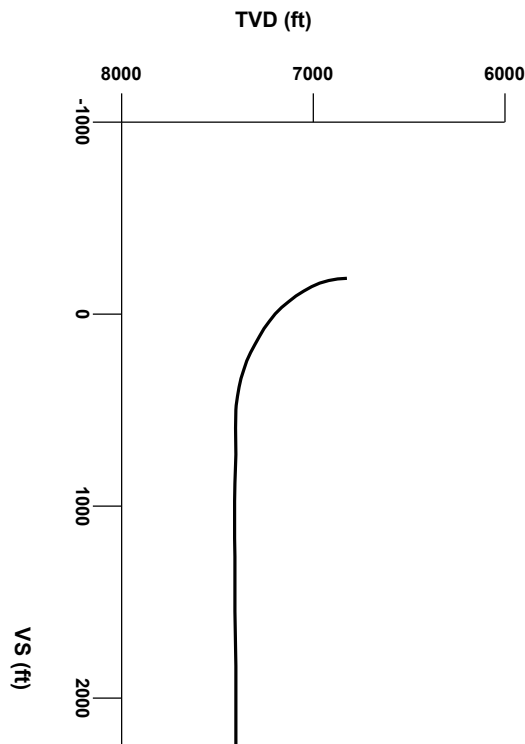




LOG created using Lplot VH Version 3.0, May 26, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

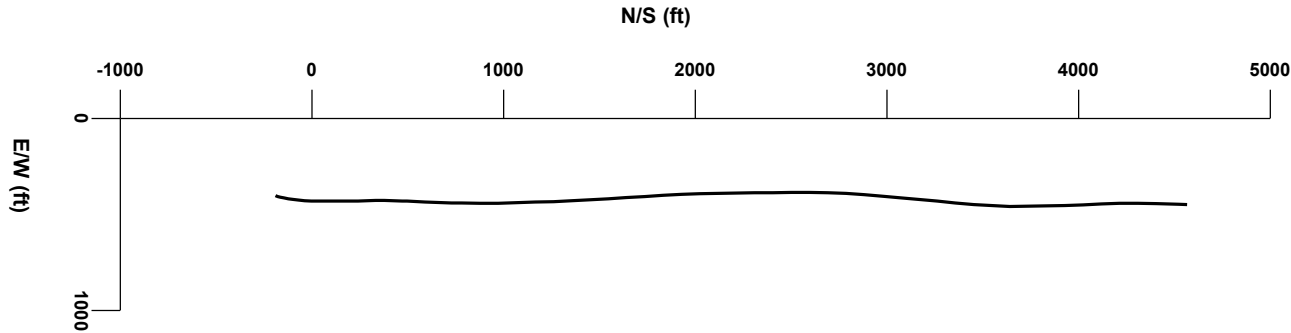
OPERATOR: ANADARKO PETROLEUM CORPORATION
WELL: GOBBLER 27N-23HZ
LOCATION: SEC 23, T2N, R66W
COUNTY: WELD
STATE: COLORADO
SPOT: 240' FSL x 1559' FEL, 460' FNL x 1160'
ELEVATION: GL 5,093' x KB 5,106'
FIELD: WATTENBERG
SPUD DATE: 5-15-2013
TD DATE: 5-25-2013
DATES LOGGED: 5-17-2013 - 5-25-2013
DEPTHS LOGGED: 6,870' MD - 11,915' MD
LOGGERS: WEDGE HOWLAND, MIKE ROOKS
DRILLING FLUID: FW- LSND
DRILLING RIG: ENSIGN 132
API: 05-123-36818
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: WELLSITE GEOLOGICAL SERVICES PROVIDED BY COLUMBINE LOGGING INC.

Lat: 40.11715, Long: -104.74055 SHL
Lat: 40.12975, Long: -104.7390 BHL



Survey Elevation

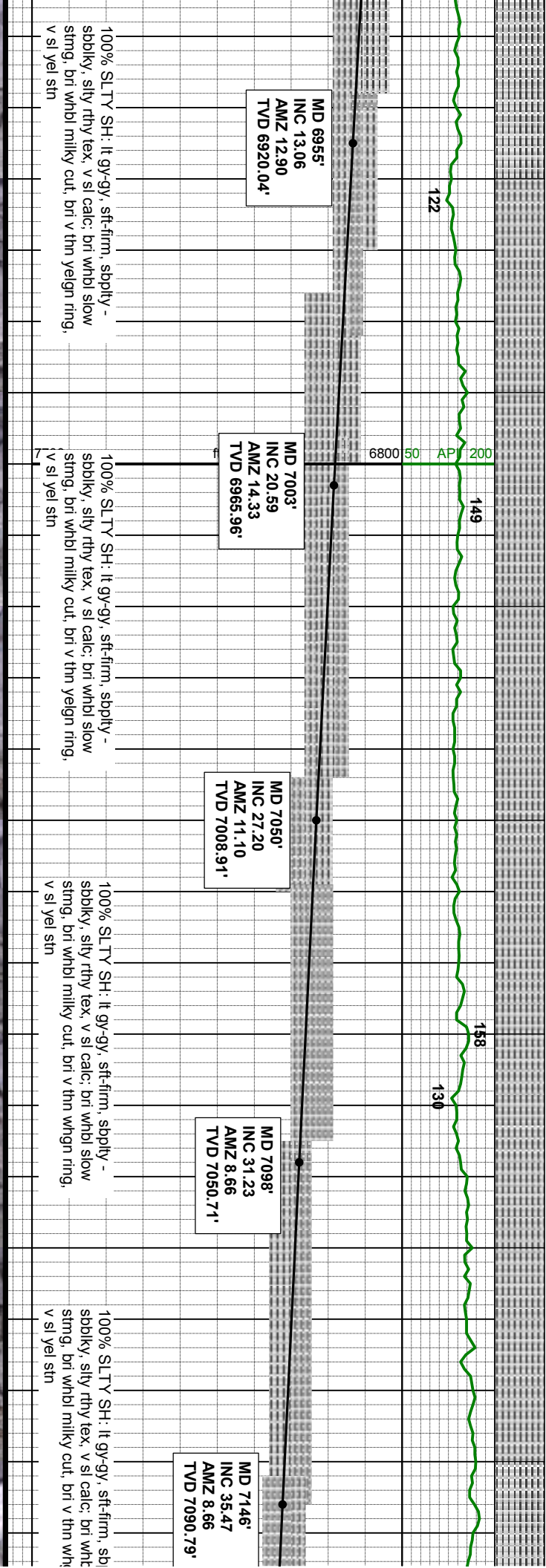
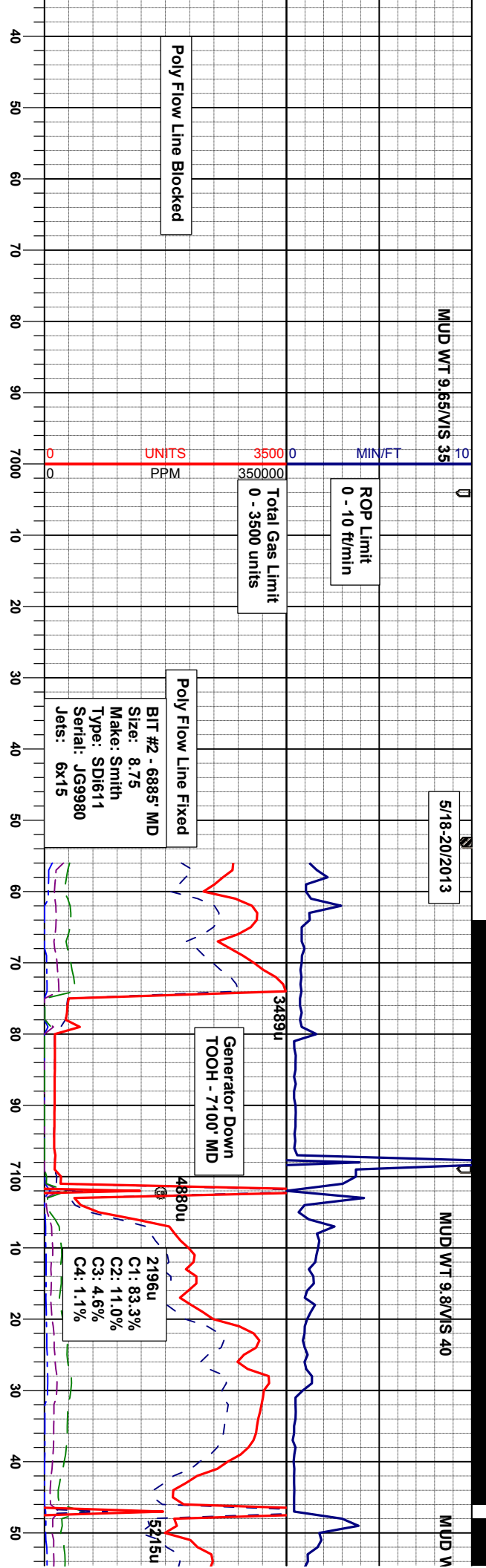
Survey Plan

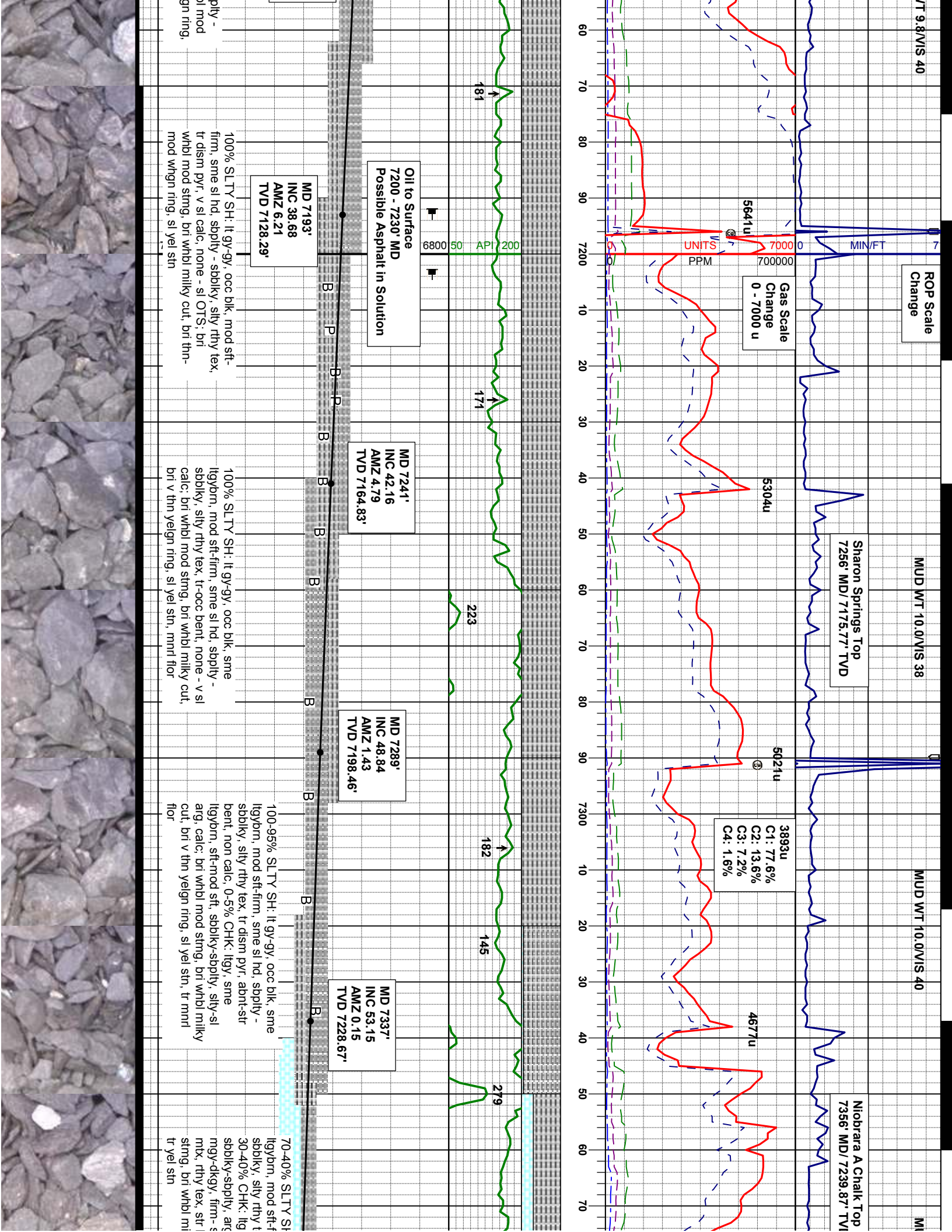


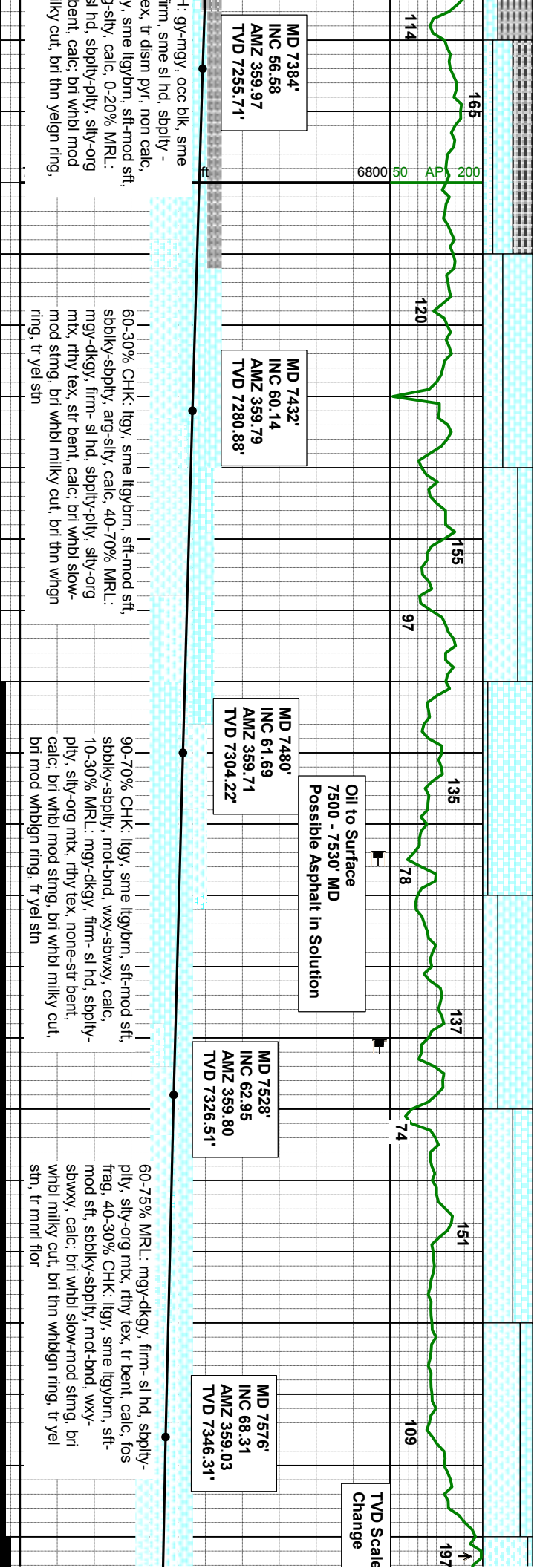
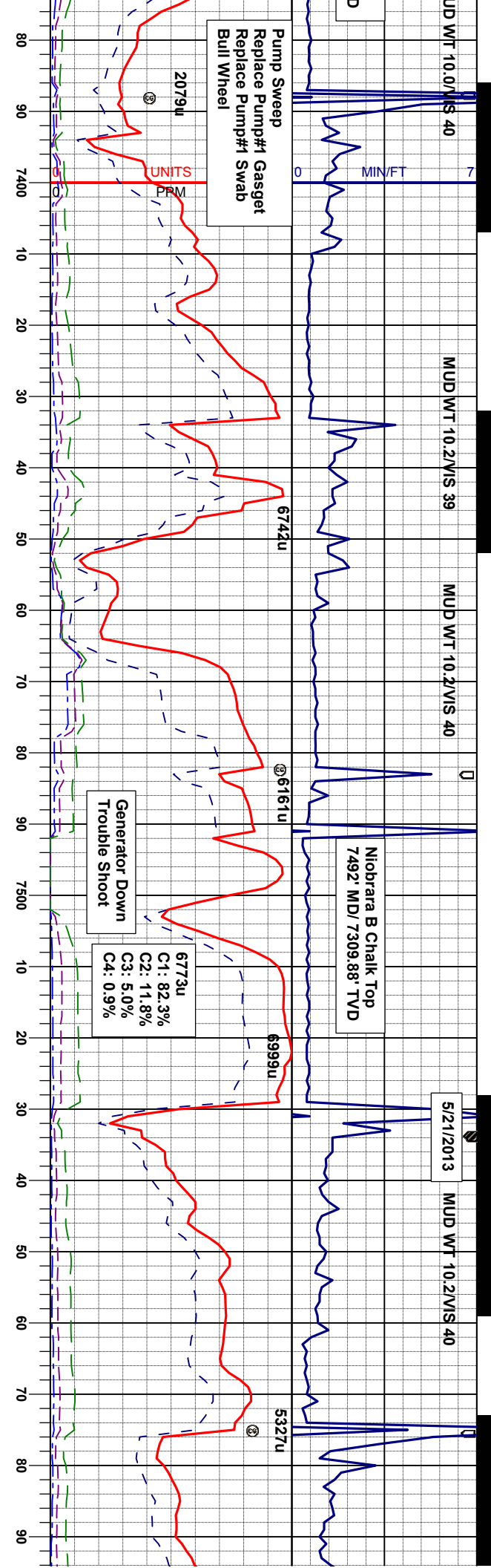
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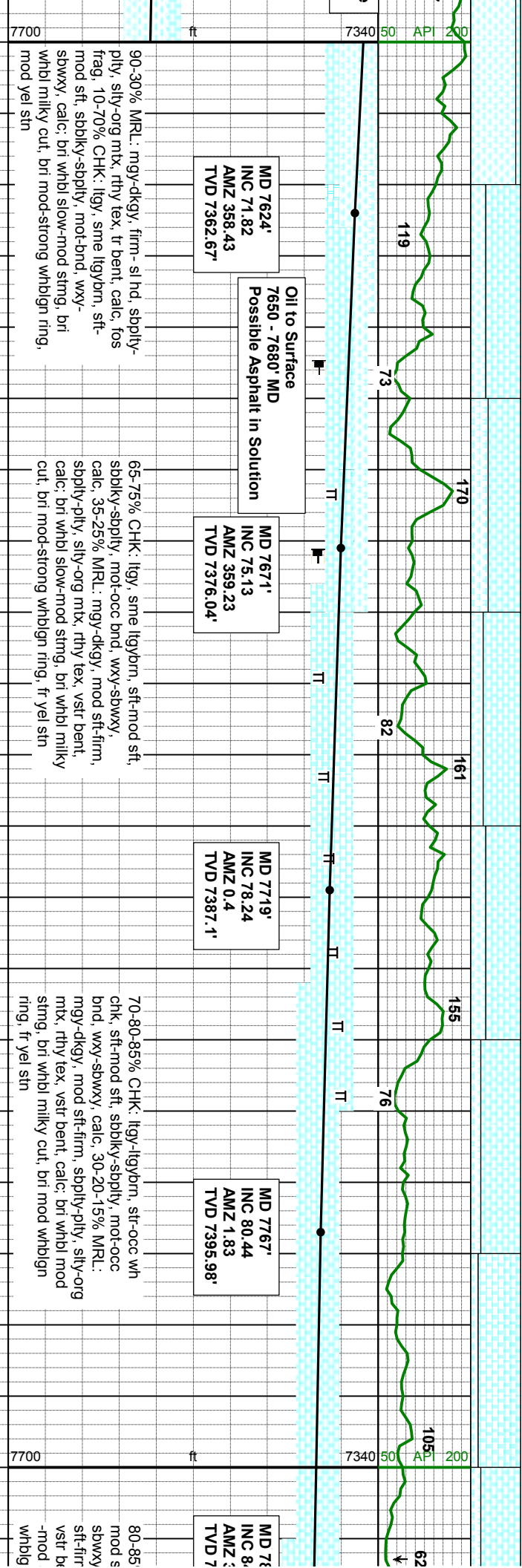
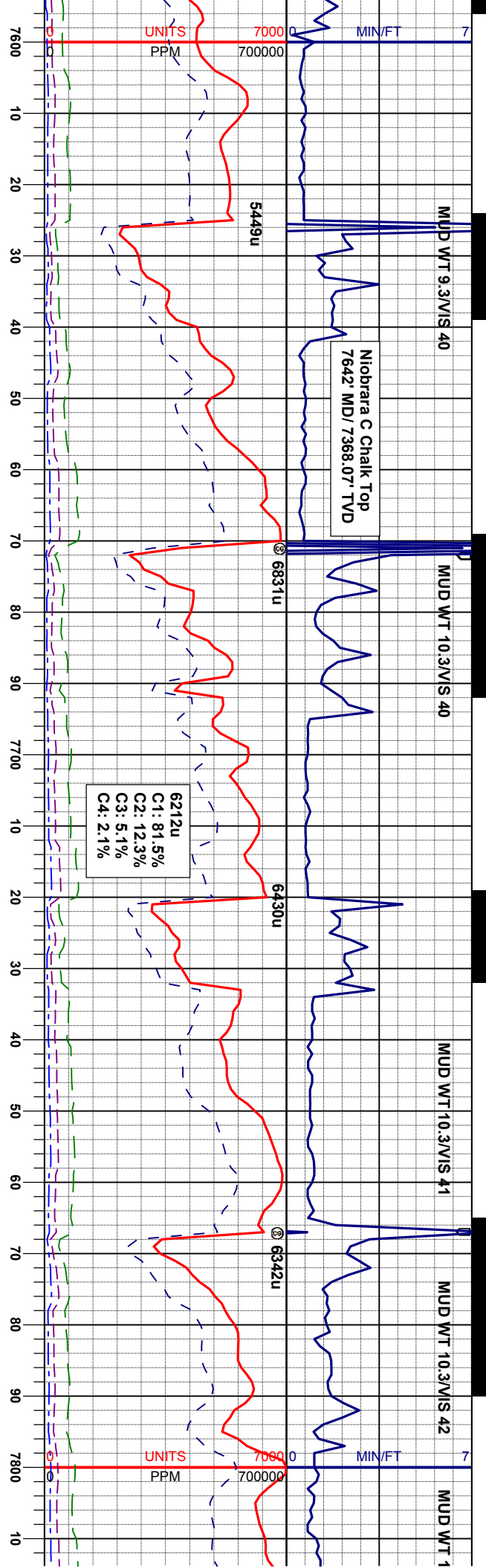
4000

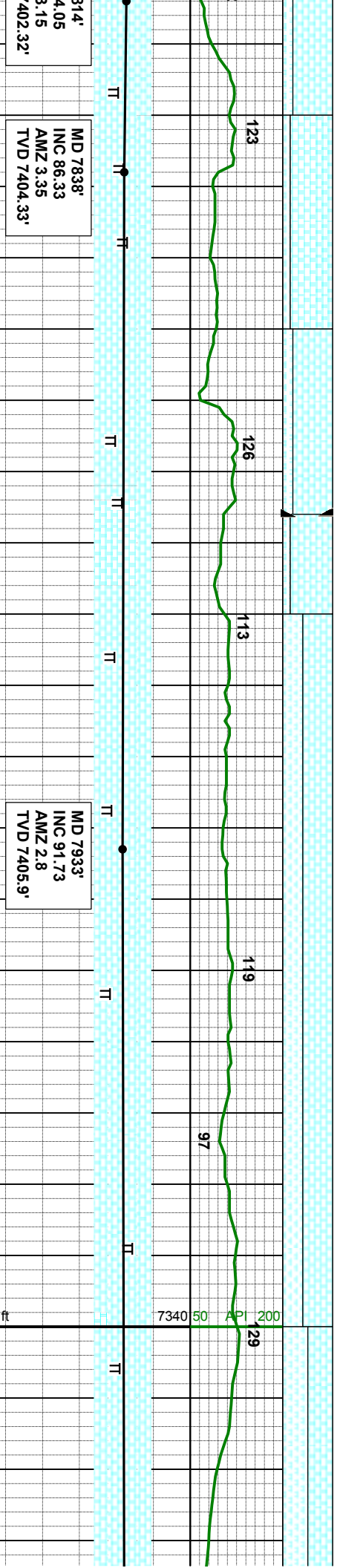
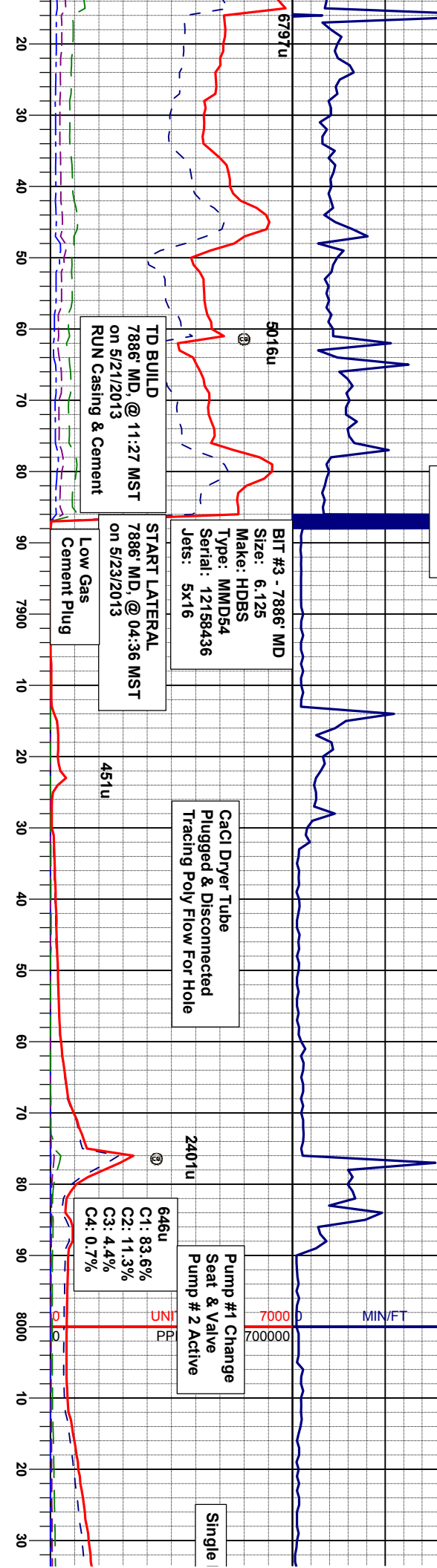
5000











314' 4.05 3.15 402.32'

MD 7838' INC 86.33 AMZ 3.35 TVD 7404.33'

MD 7933' INC 91.73 AMZ 2.8 TVD 7405.9'

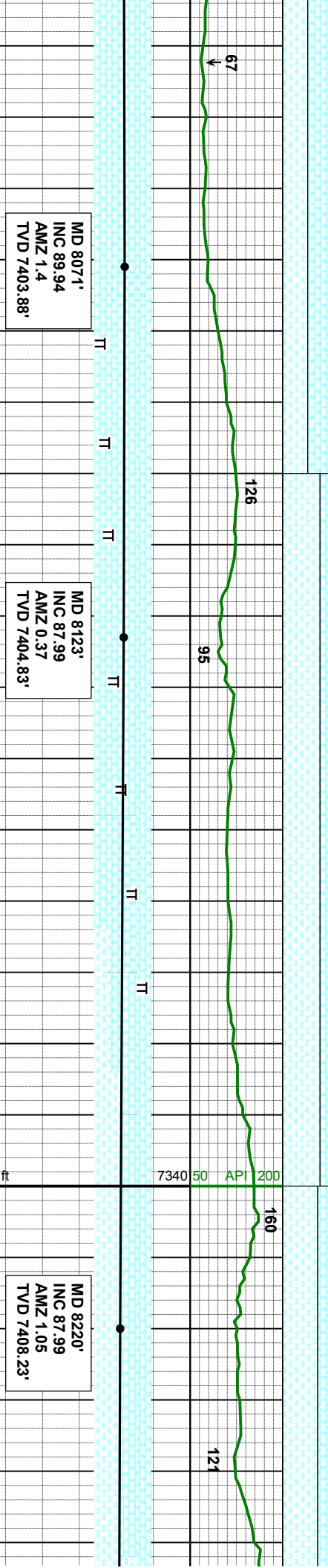
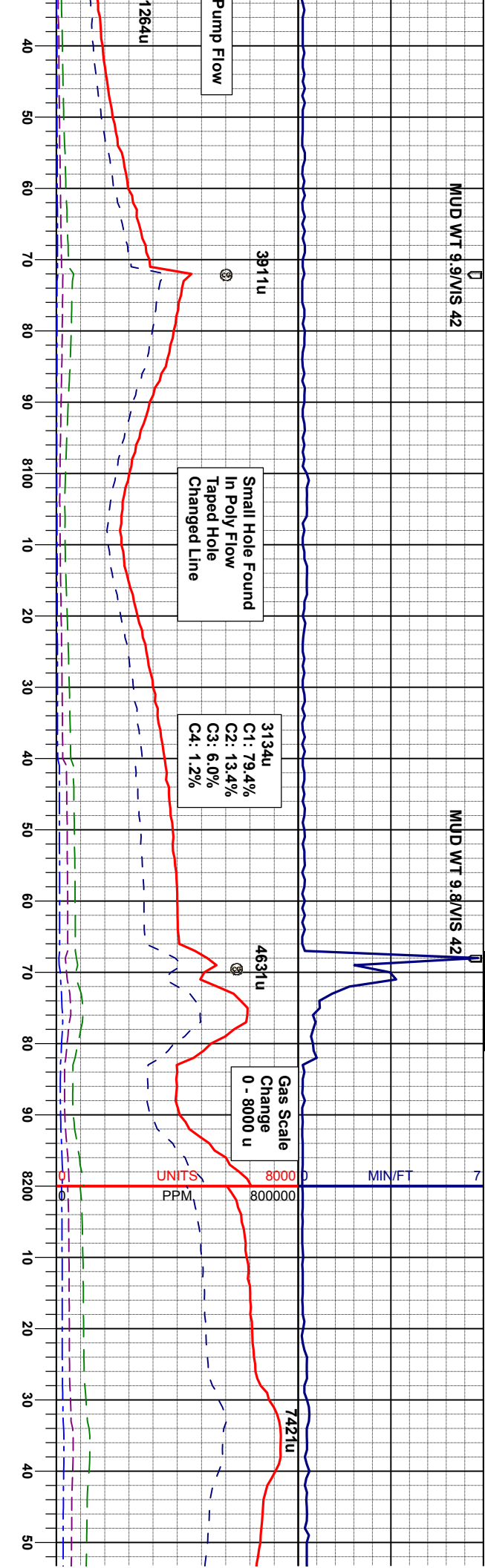
7700 ft

7340 50 API 200 129



MUD WT 9.9/VIS 42

MUD WT 9.8/VIS 42

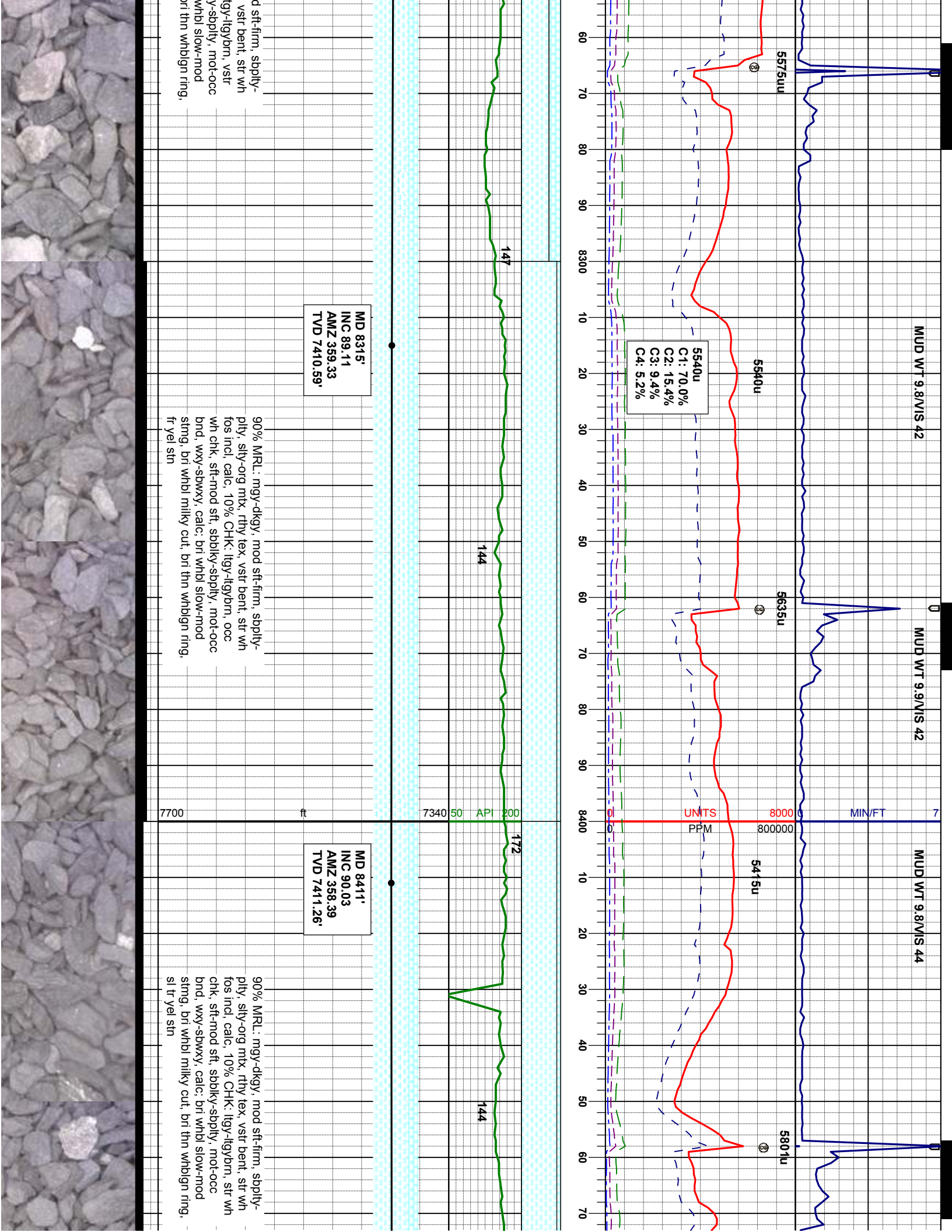


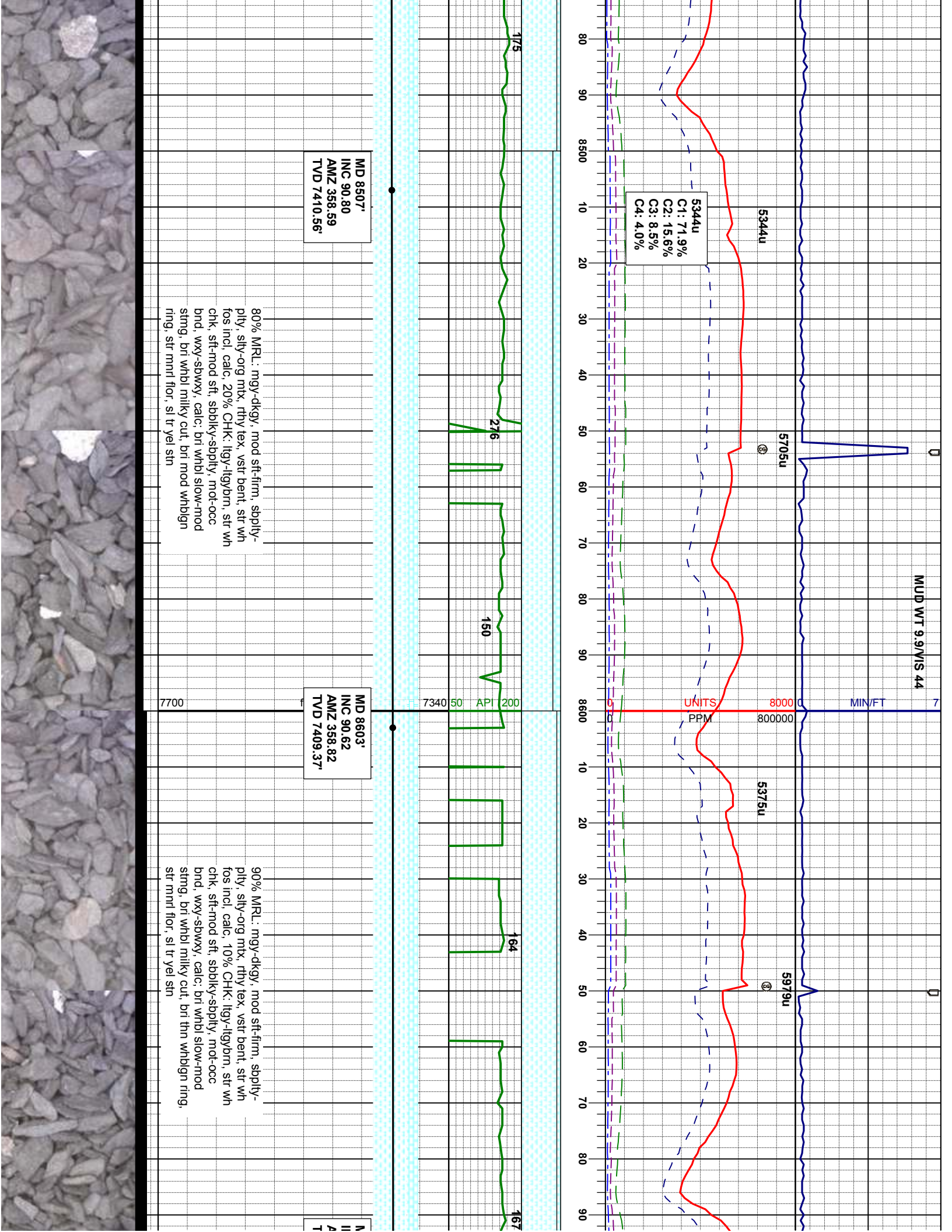
CHK: lgy-lgybrn, tr wh chk, sft-mod
bky-sply, mot-occ bnd, wxy-sbwwy,
50% MRL: mgy-dkgy, mod sft-firm,
ply, sly-org mxx, rthy tex, vstr bent,
fos incl, calc, bri whbl slow-mod
bri whbl milky cut, bri thn whblgn ring,
str mnd flr, fr yel str

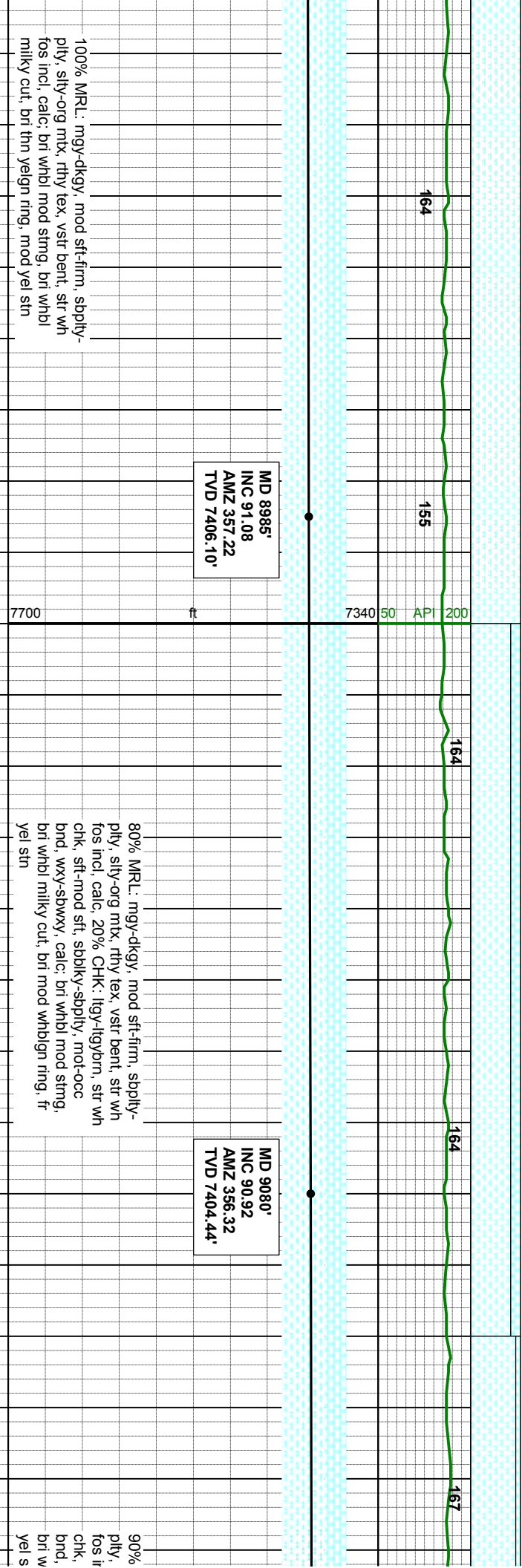
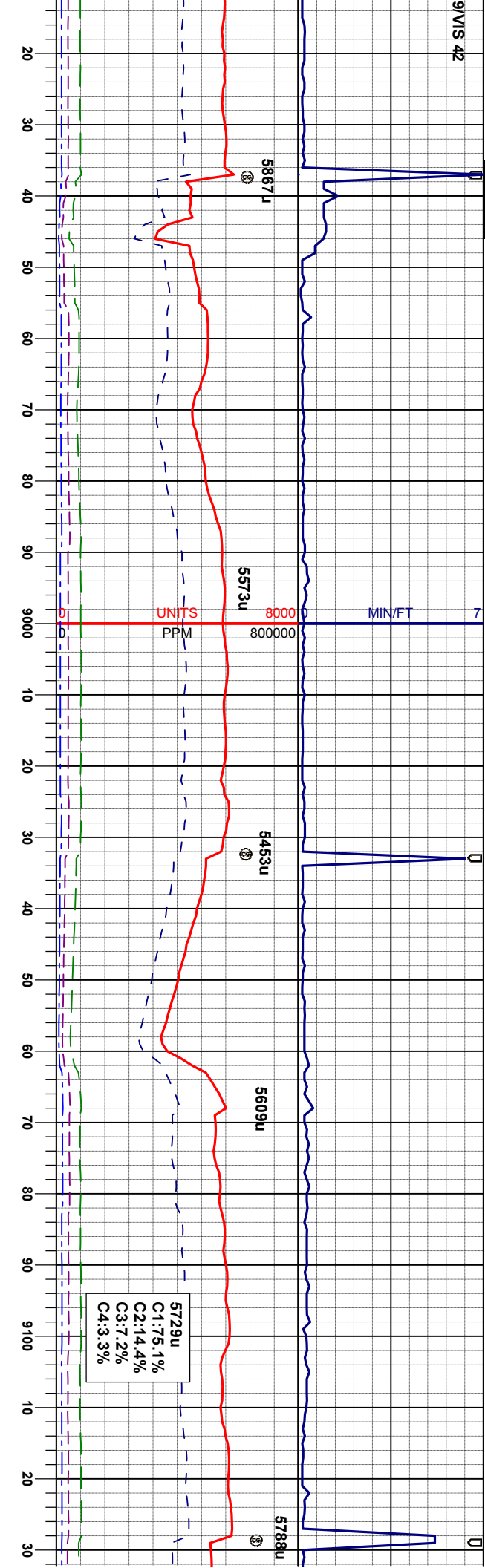
75% MRL: mgy-dkgy, mod sft-firm, sbply-
ply, sly-org mxx, rthy tex, vstr bent, str wh
fos incl, calc, 25% CHK: lgy-lgybrn, vstr
wh chk, sft-mod sft, sbbky-sply, mot-occ
bnd, wxy-sbwwy, calc, bri whbl slow-mod
strng, bri whbl milky cut, bri thn yelgn ring,
str mnd flr, fr yel str

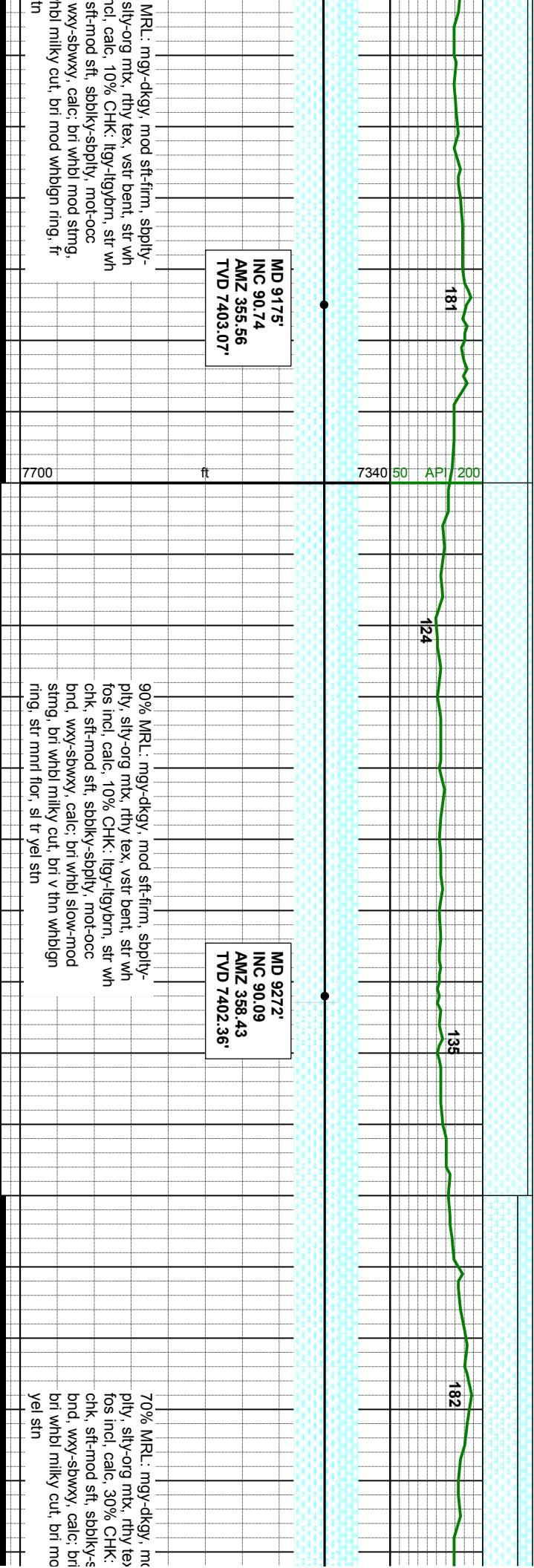
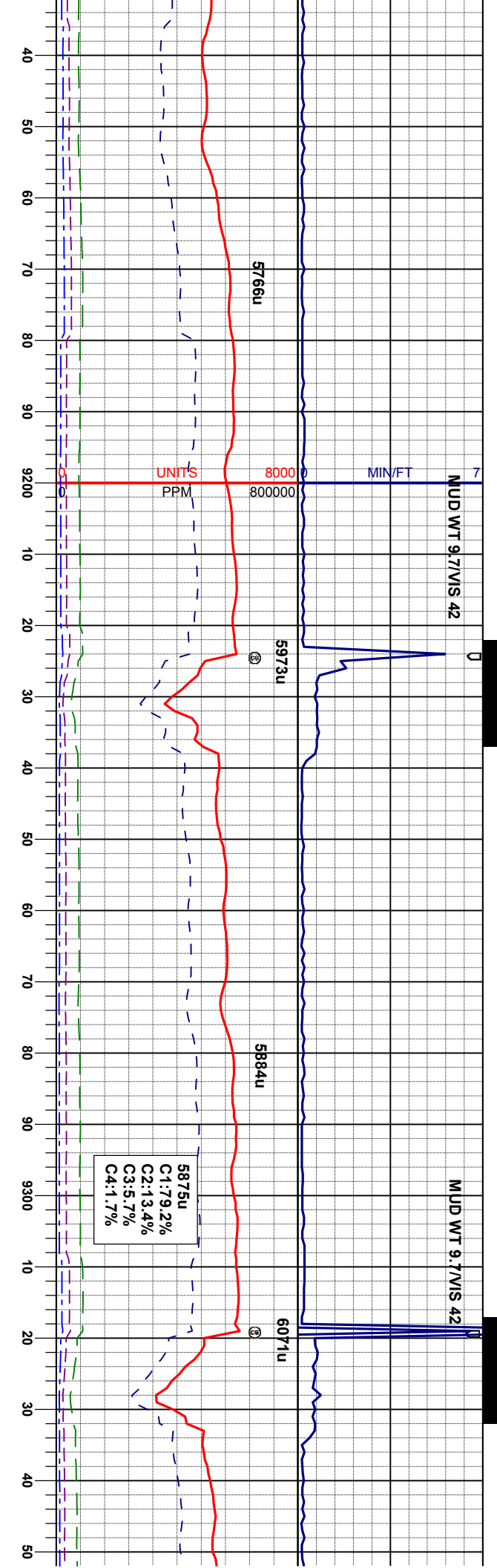
70% MRL: mgy-dkgy, mo
ply, sly-org mxx, rthy tex,
fos incl, calc, 30% CHK: l
wh chk, sft-mod sft, sbblk
bnd, wxy-sbwwy, calc, bri
strng, bri whbl milky cut, l
str mnd flr, sl tr yel str

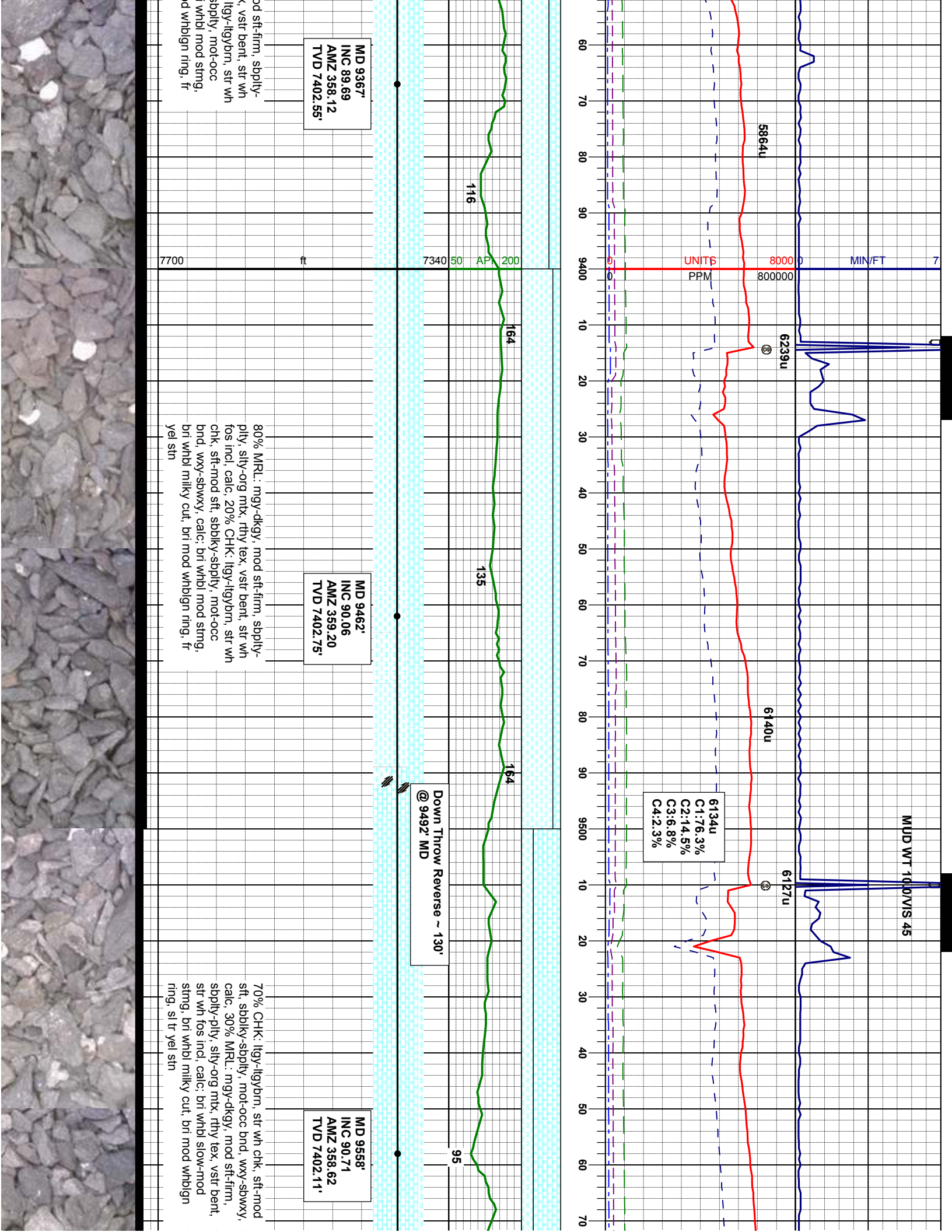


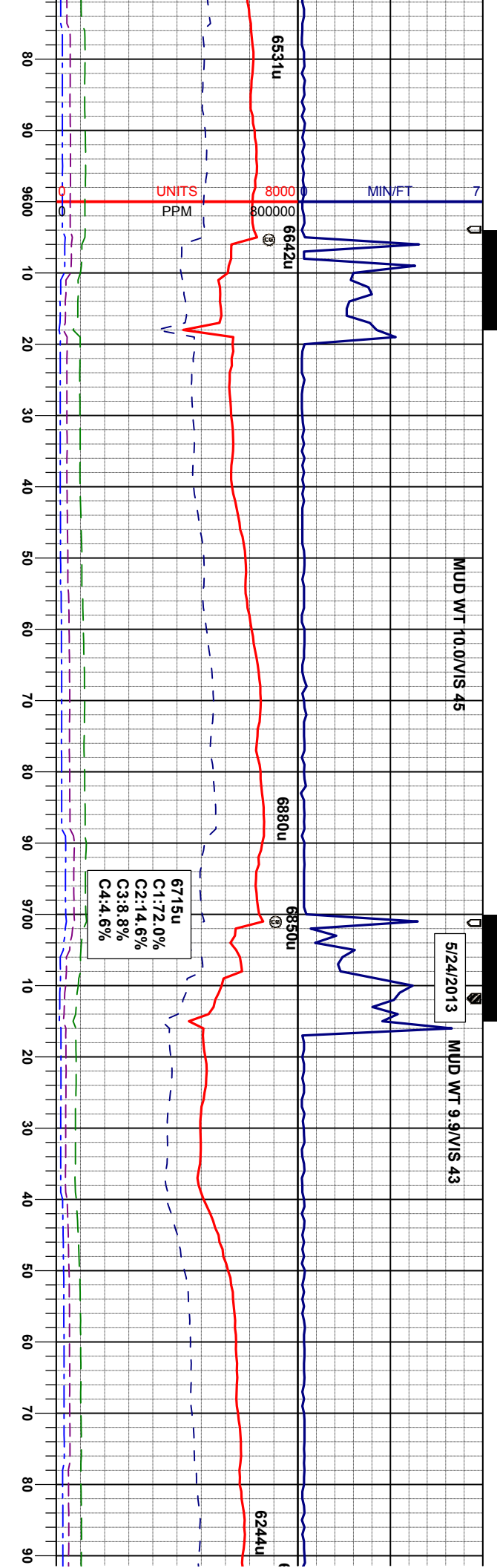










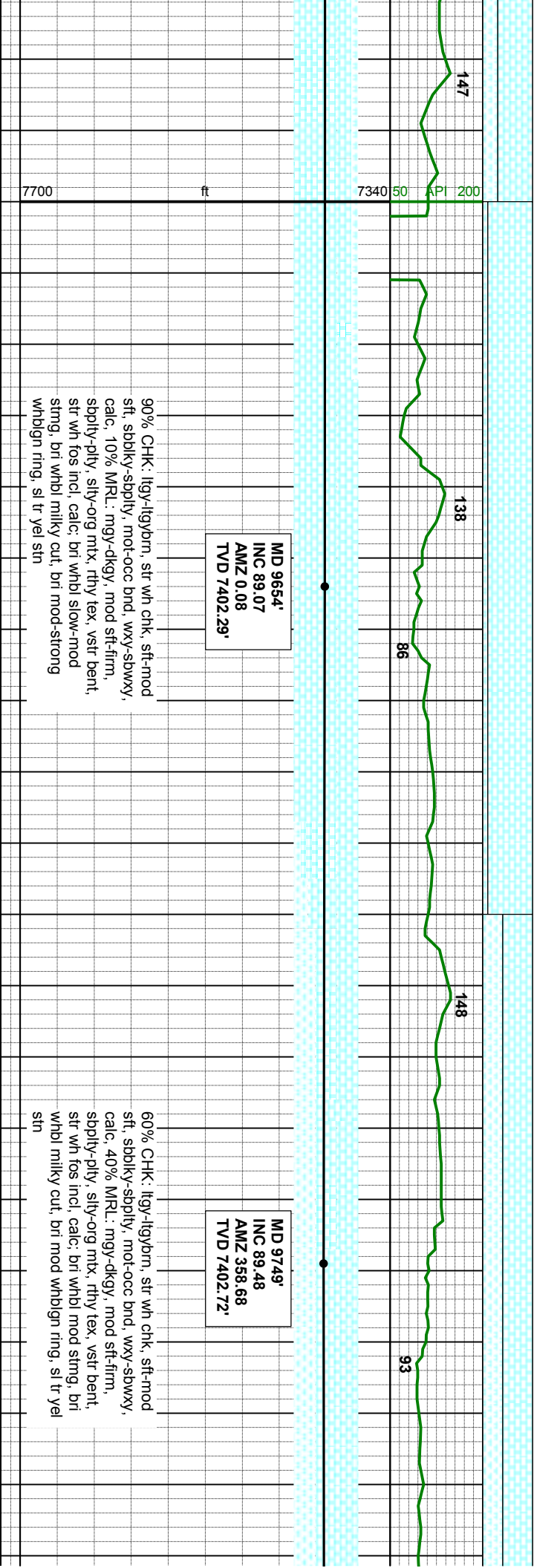


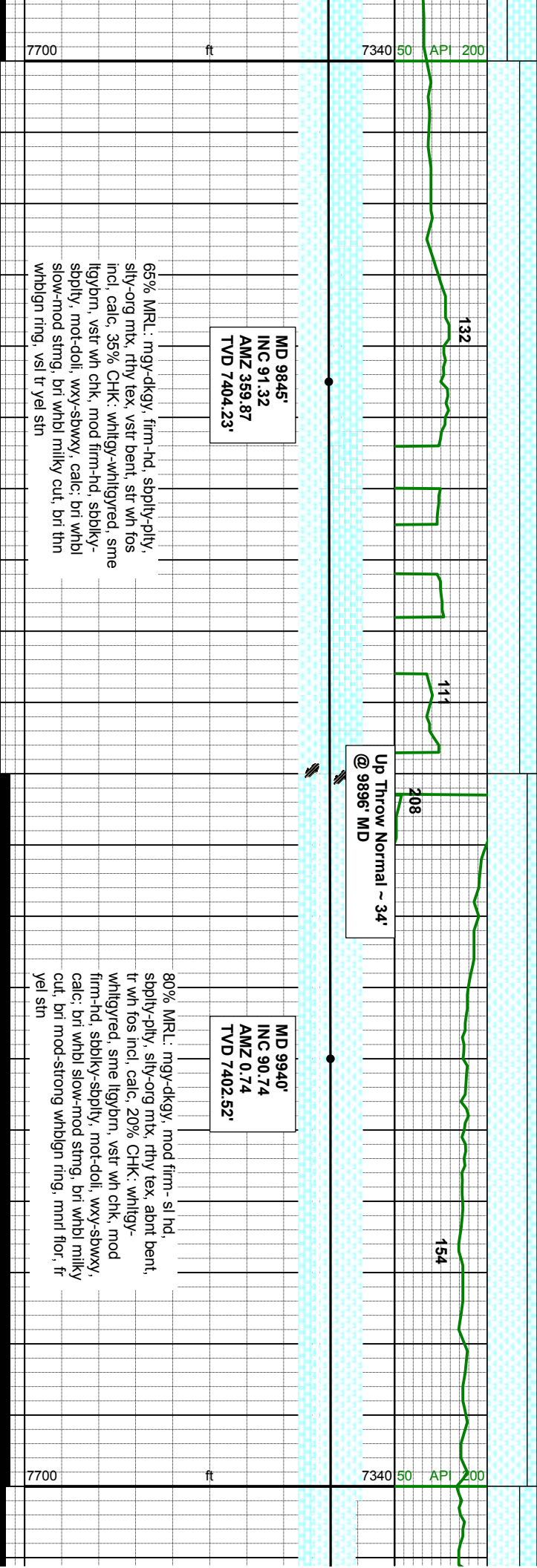
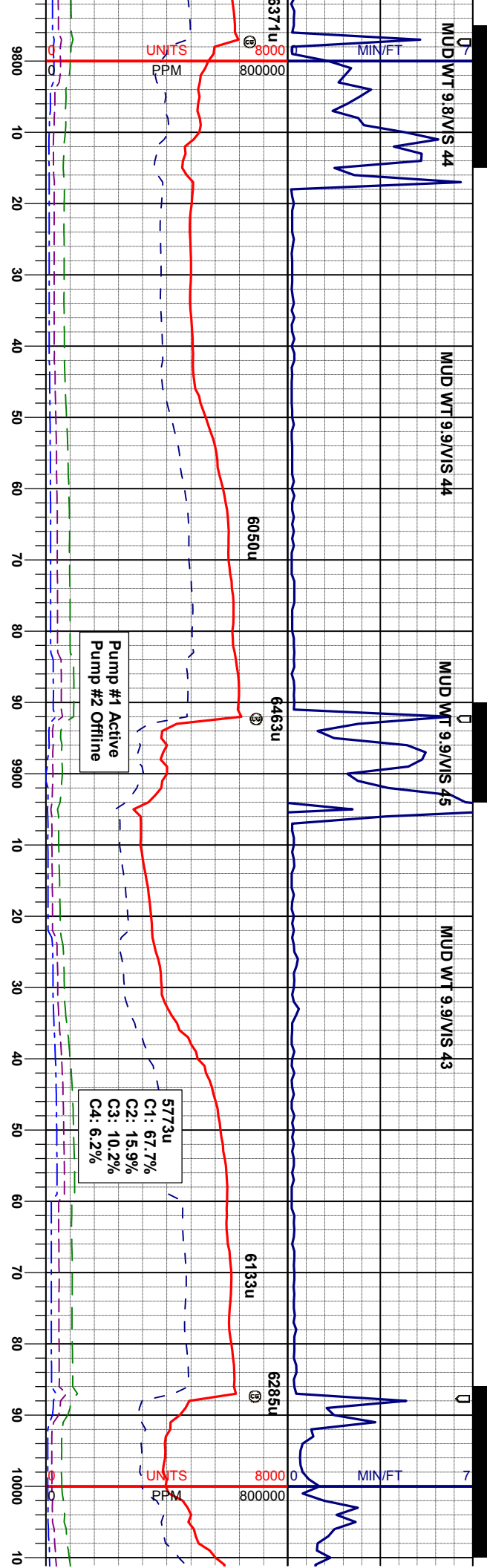
MUD WT 10.0/VIS 45

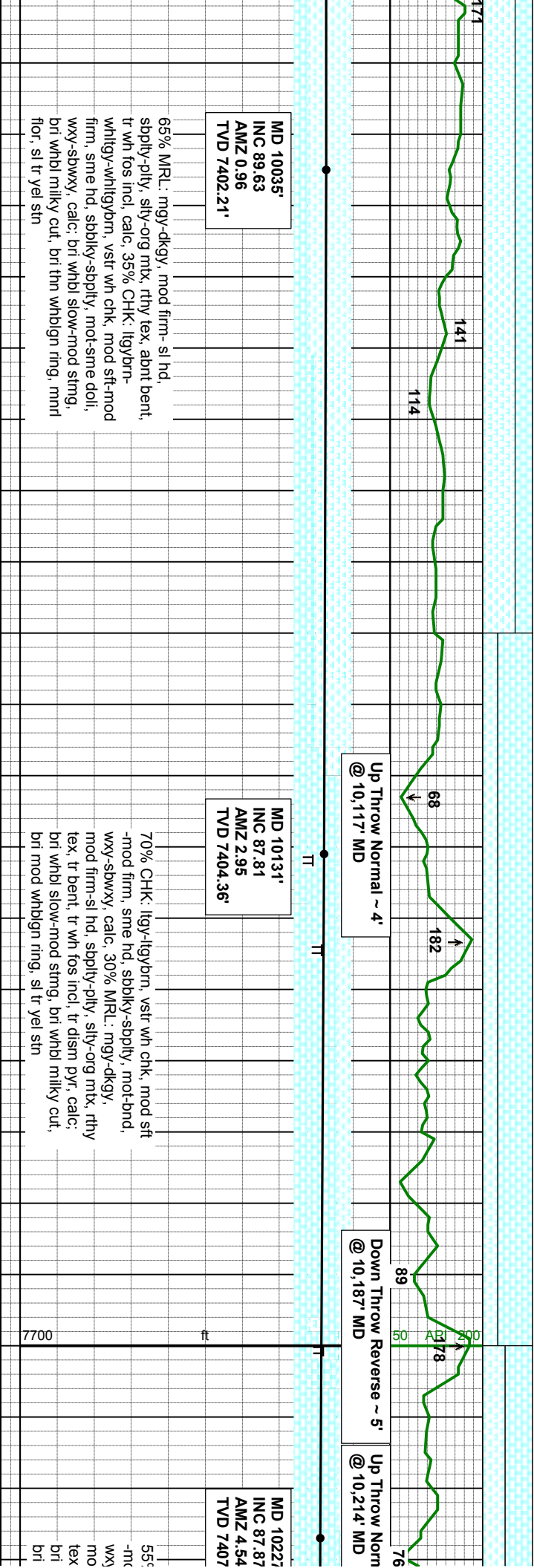
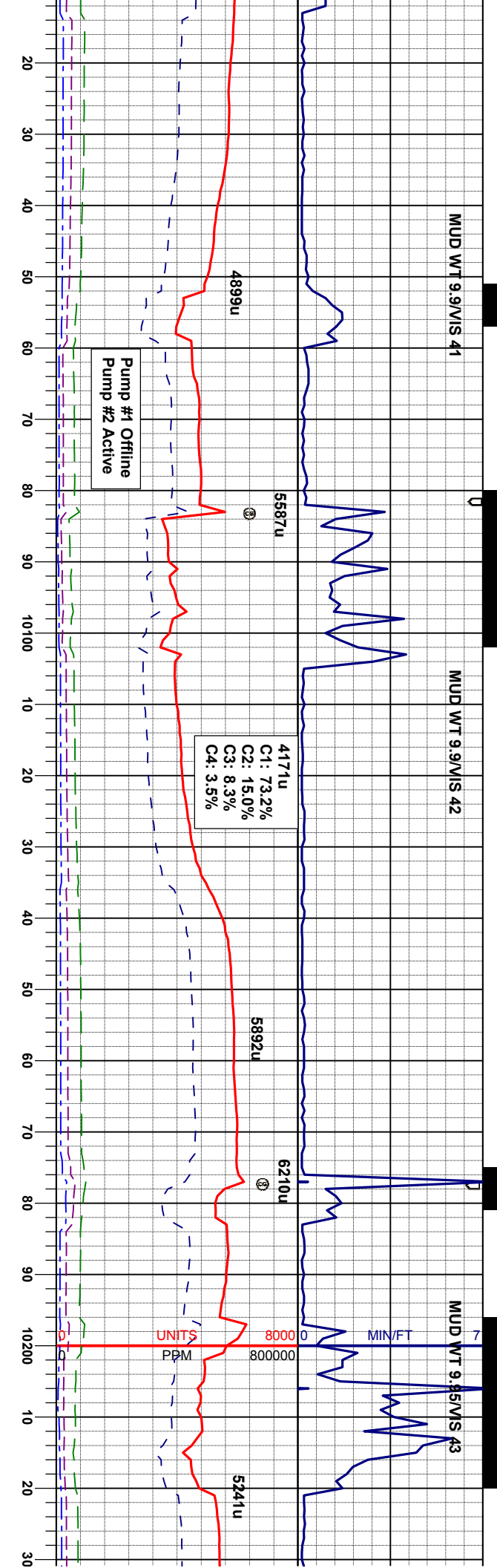
5/24/2013

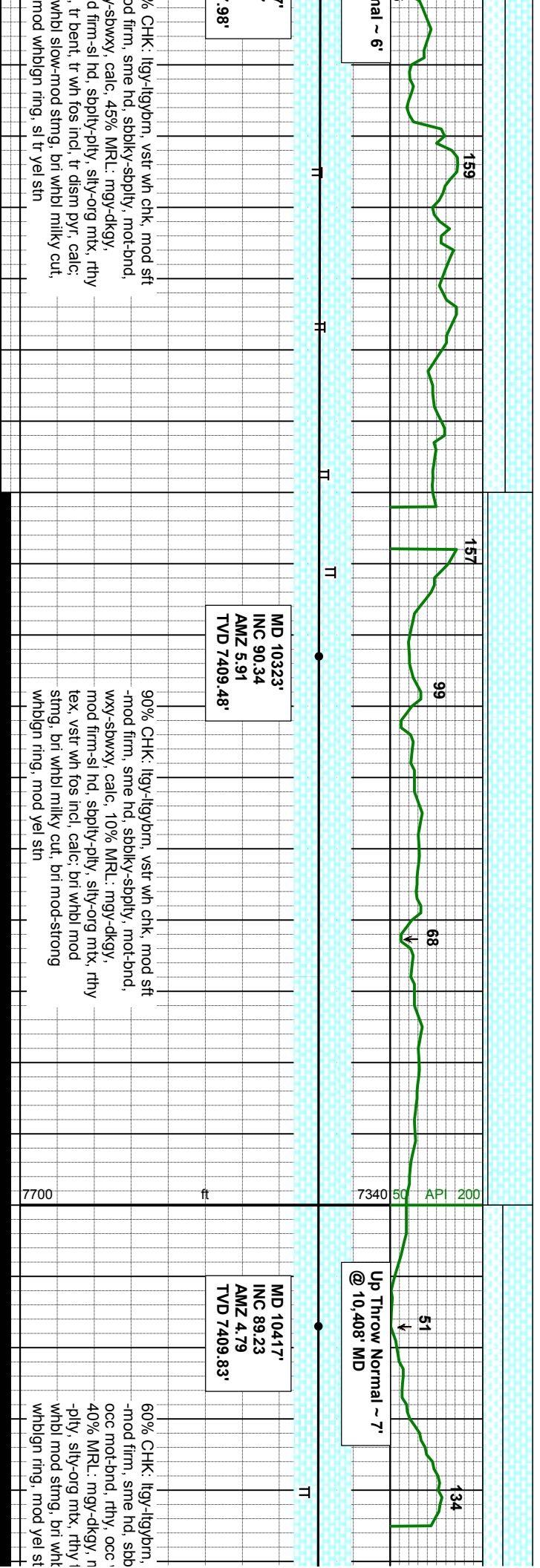
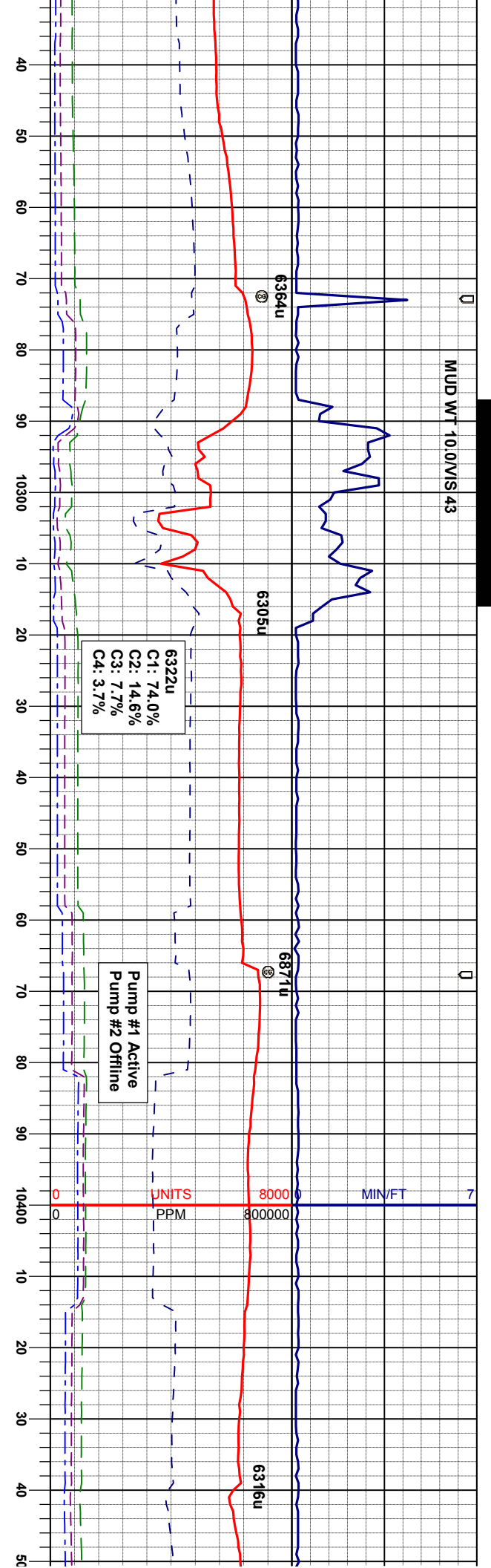
MUD WT 9.9/VIS 43

6715u
C1:72.0%
C2:14.6%
C3:8.8%
C4:4.6%



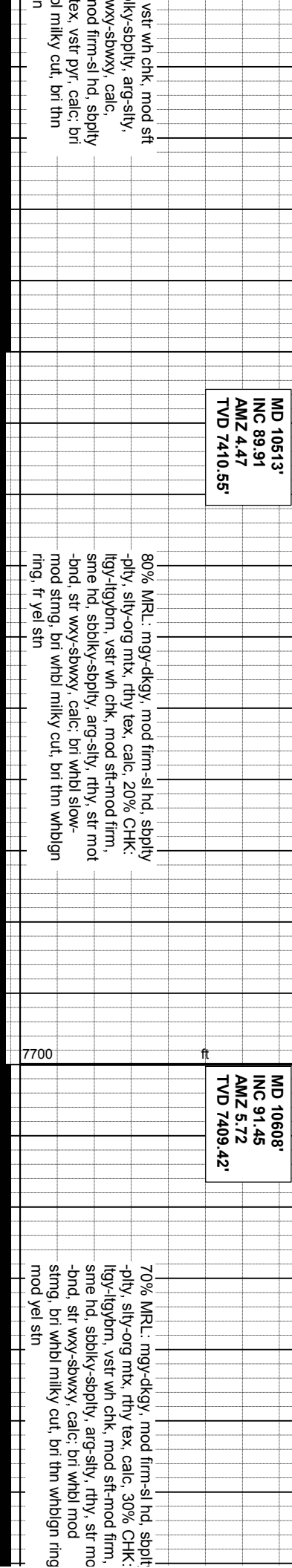
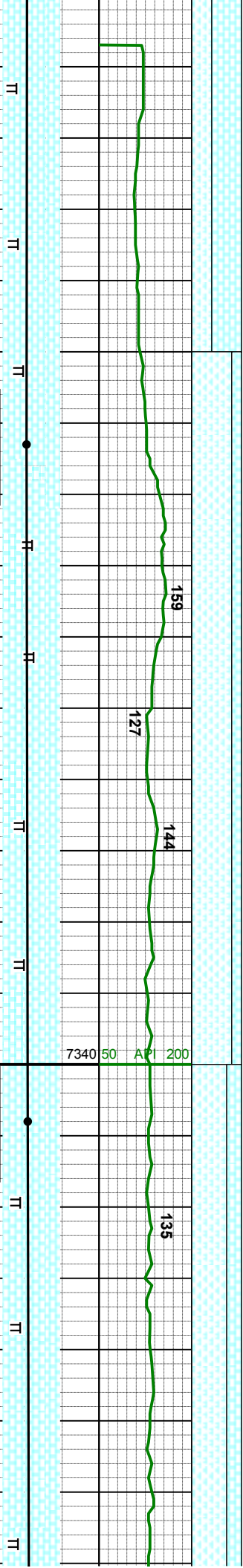
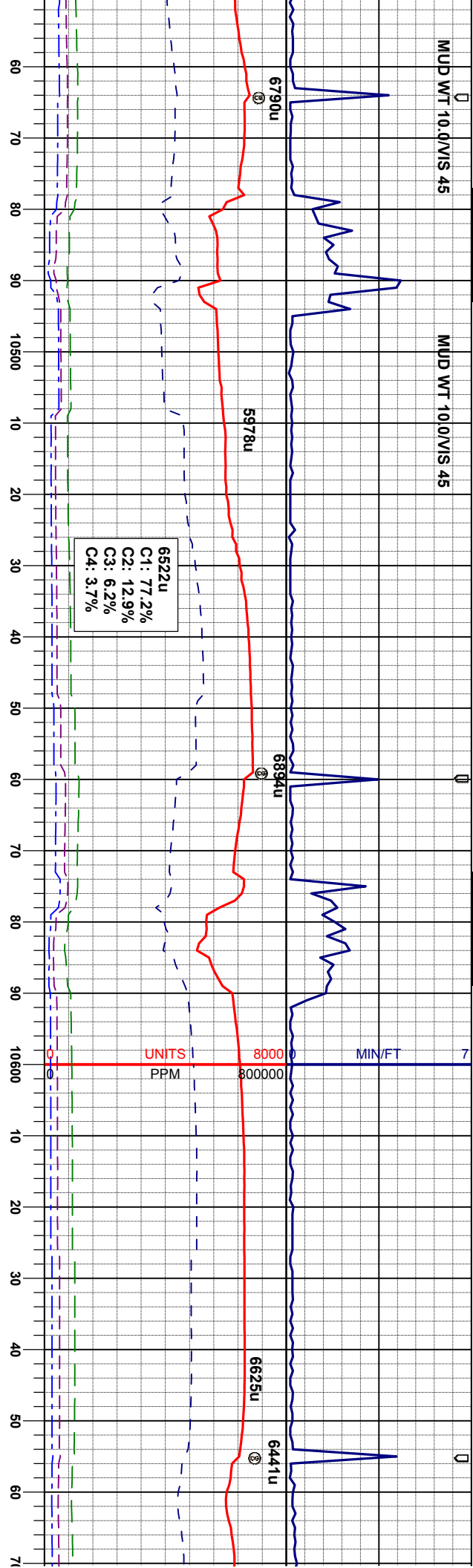






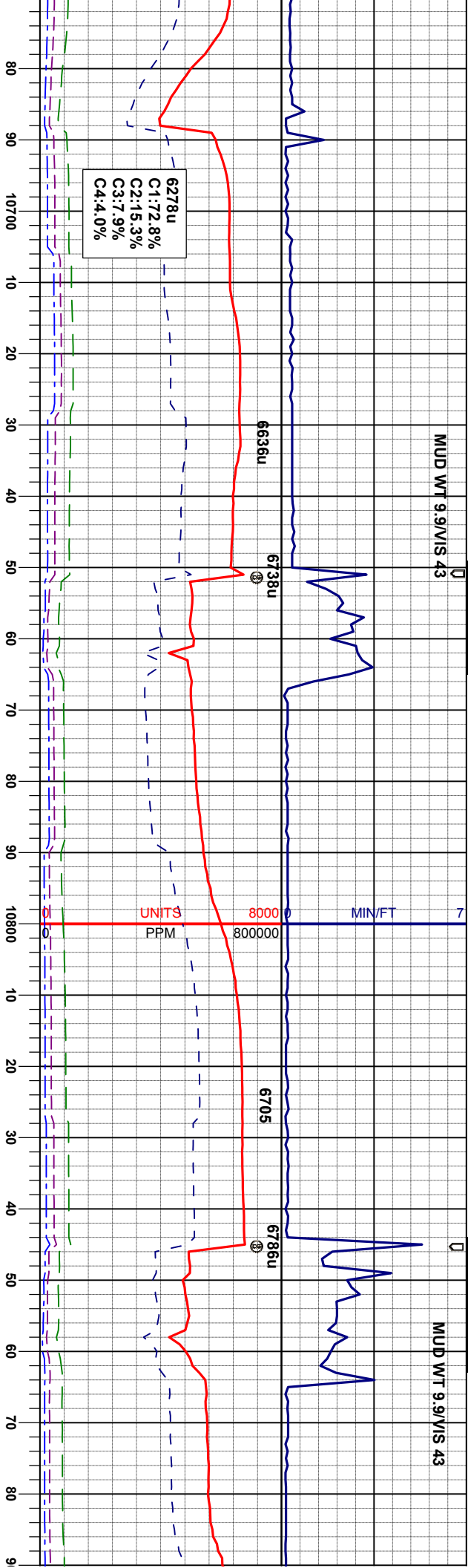
MUD WT 10.0/VIS 45

MUD WT 10.0/VIS 45



MUD WT 9.9/VIS 43

MUD WT 9.9/VIS 43



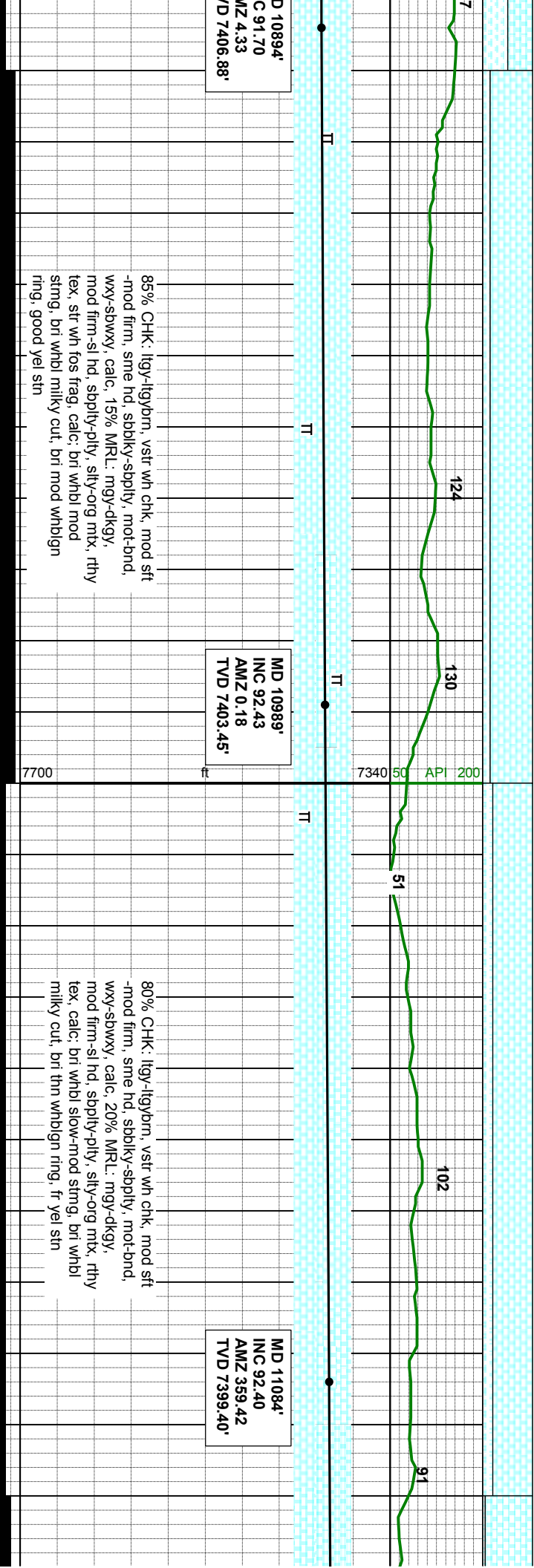
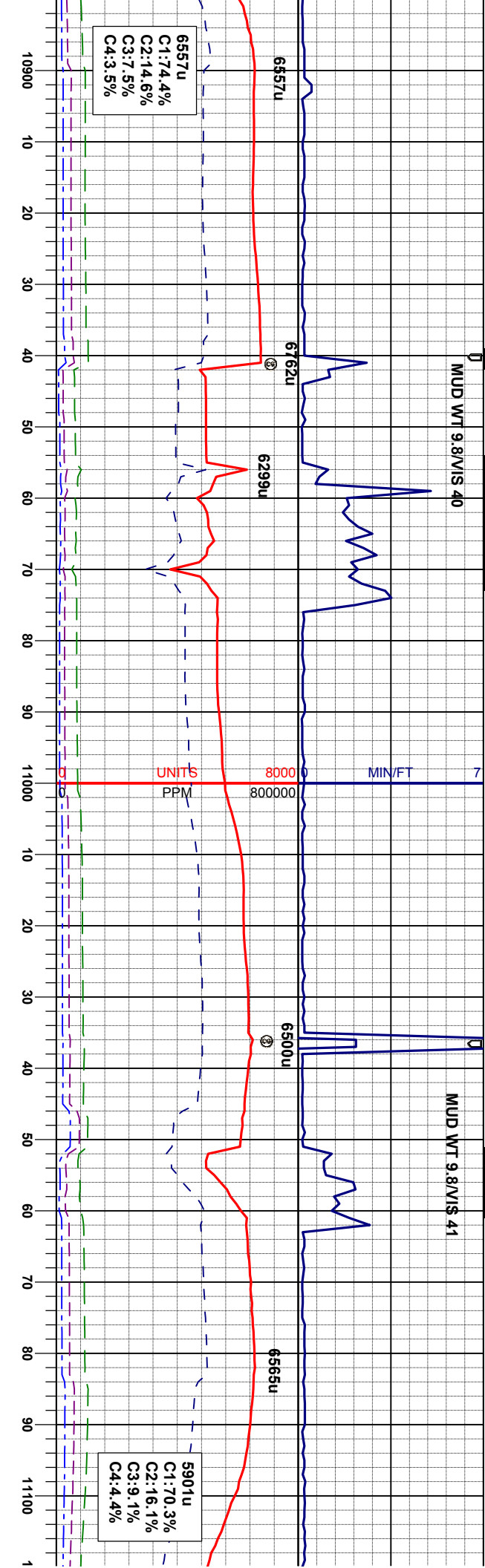
MD 10703'
INC 90.52
AMZ 6.35
TVD 7407.79'

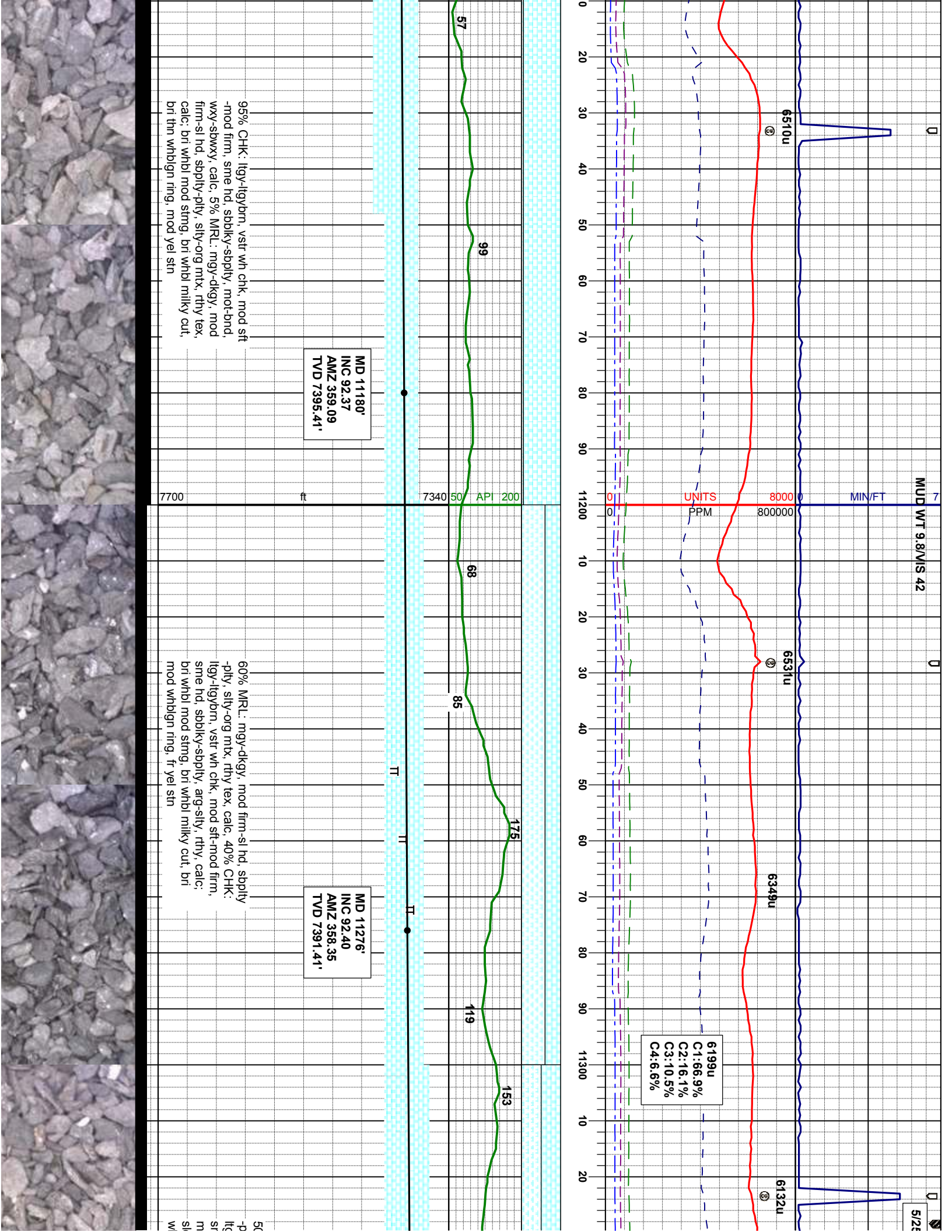
MD 10799'
INC 89.44
AMZ 3.18
TVD 7407.82'

60% MRL: mgy-dkgy, mod firm-sl hd, sbply
-ply, silty-org mtx, rthy tex, calc, 40% CHK:
ltgy-ltgybrn, vstr wh chk, mod sft-mod firm,
sme hd, sbblky-sbply, arg-slty, rthy, str mot
-bnd, str wxy-sbwwy, calc; bri whbl slow-
mod string, bri whbl milky cut, bri thn whblgn
ring, mod yel str

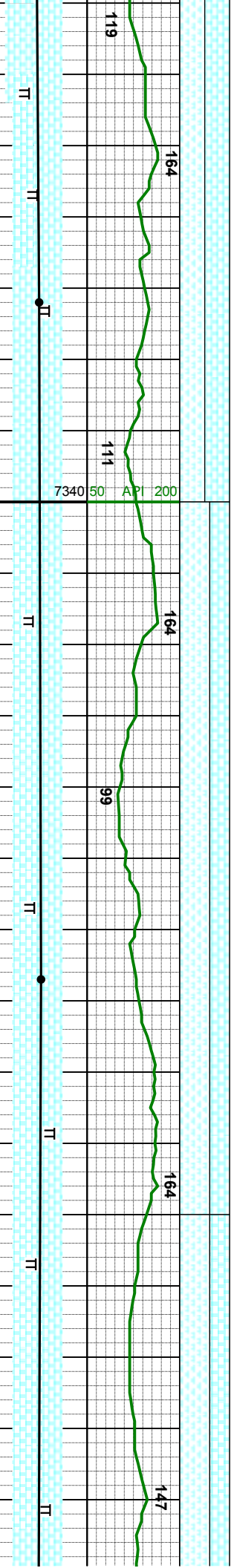
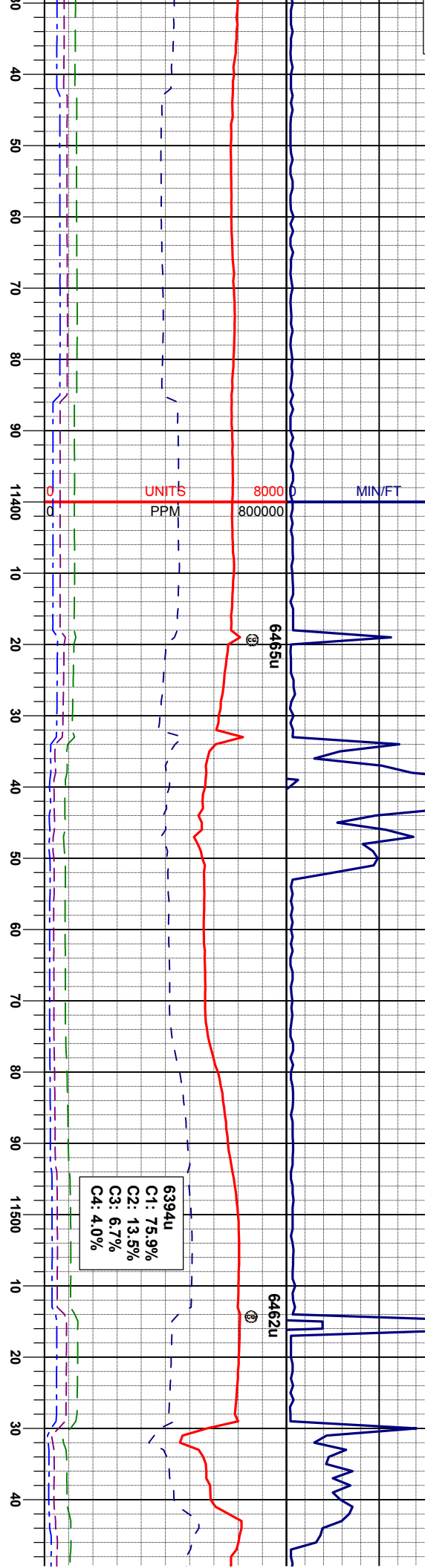
50% MRL: mgy-dkgy, mod firm-sl hd, sbply
-ply, silty-org mtx, rthy tex, calc, 50% CHK:
ltgy-ltgybrn, vstr wh chk, mod sft-mod firm,
sme hd, sbblky-sbply, arg-slty, rthy, calc;
bri whbl slow-mod string, bri whbl milky cut,
bri mod whblgn ring, fr yel str

MI IN
IN AM
TV





MUD WT 9.8V/S 42 MUD WT 9.9V/S 42 MUD WT 9.9V/S 42

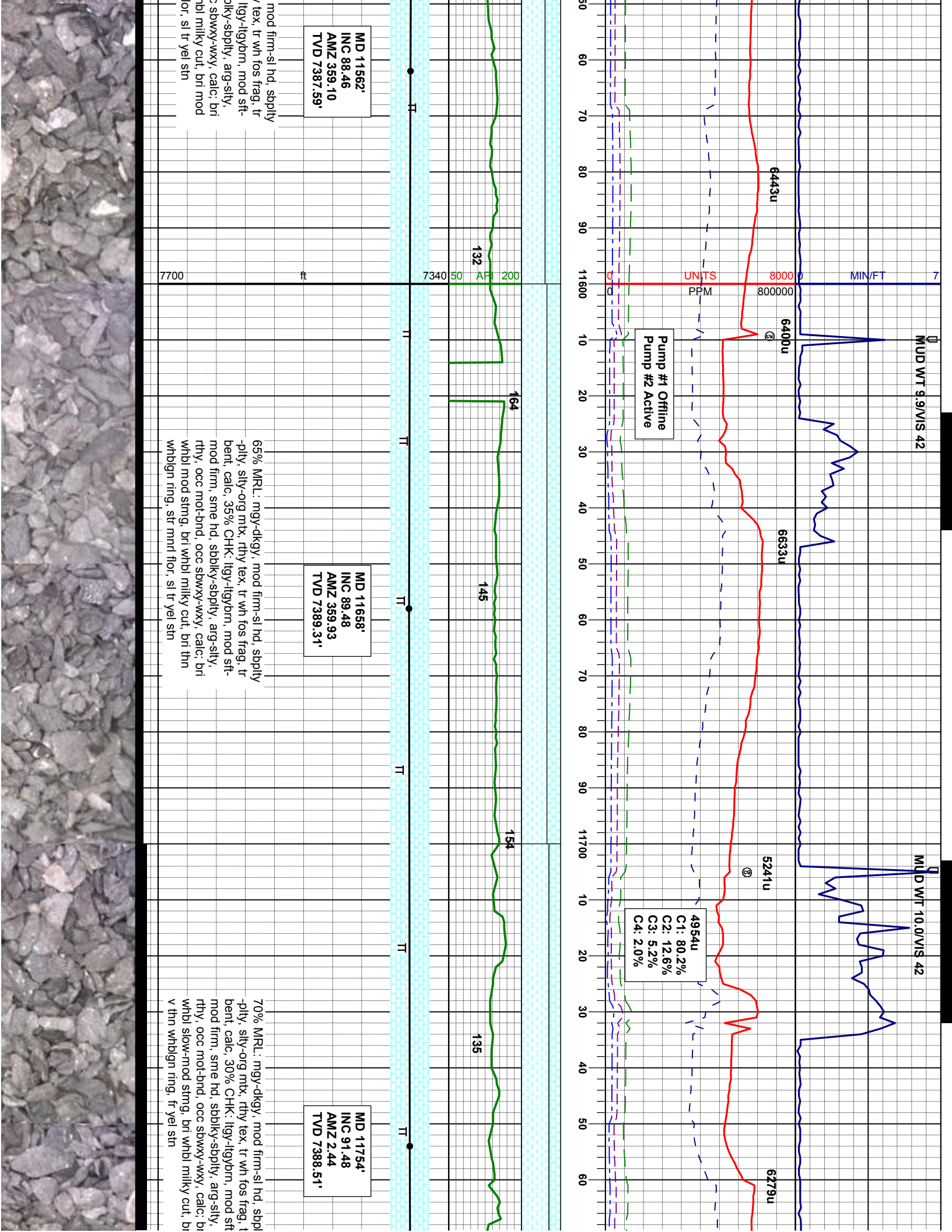


MD 11372'
INC 92.99
AMZ 357.89
TVD 7386.90'

MD 11467'
INC 88.39
AMZ 356.26
TVD 7384.97'

% MRL: mgy-dkgy, mod firm-sl hd, sbply
ity, silty-org mtx, rthy tex, calc, 50% CHK:
-ply, silty-org mtx, rthy tex, tr wh fos frag,
calc, 50% CHK: itgy-ilgybrn, mod sft-mod
firm, sme hd, sbply-sbply, arg-sily, rthy,
occ mot-bnd, occ slowxy-wxy, calc: bri whbl
slow-mod sting, bri whbl milky cut, bri v thn
whblgn ring, mnr flr, sl tr yel sin

60% MRL: mgy-dkgy,
-ply, silty-org mtx, rthy
bent, calc, 40% CHK:
mod firm, sme hd, sbk
rthy, occ mot-bnd, occ
whbl mod sting, bri wh
whblgn ring, str mnr f



MUD WT 9.9/VIS 42

MUD WT 10.0/VIS 42

MIN/FT

6443u

6400u

6633u

5241u

6279u

UNITS

PPM

Pump #1 Offline
Pump #2 Active

C1: 80.2%
C2: 12.6%
C3: 5.2%
C4: 2.0%

MD 11562'
INC 88.46
AMZ 359.10
TVD 7387.59'

MD 11658'
INC 89.48
AMZ 359.93
TVD 7389.31'

MD 11754'
INC 91.48
AMZ 2.44
TVD 7388.51'

mod firm-si hd, sbply
tex, tr wh fos frag, tr
lgy-lgybrn, mod sft-
ply-sbply, arg-sily,
s slowy-wxy, calc; bri
bl milky cut, bri mod
lor, sl tr yel stn

7700

65% MRL: mgy-dkgy, mod firm-si hd, sbply
-ply, sily-org mtk, rthy tex, tr wh fos frag, tr
bent, calc, 35% CHK: lgy-lgybrn, mod sft-
mod firm, sme hd, sbply-sbply, arg-sily,
rthy, occ mot-bnd, occ slowy-wxy, calc; bri
whbl mod string, bri whbl milky cut, bri thn
whblgn ring, str mnd flr, sl tr yel stn

70% MRL: mgy-dkgy, mod firm-si hd, sbply
-ply, sily-org mtk, rthy tex, tr wh fos frag, t
bent, calc, 30% CHK: lgy-lgybrn, mod sft
mod firm, sme hd, sbply-sbply, arg-sily,
rthy, occ mot-bnd, occ slowy-wxy, calc; bri
whbl slow-mod string, bri whbl milky cut, bri
v thn whblgn ring, fr yel stn

132

164

145

154

135

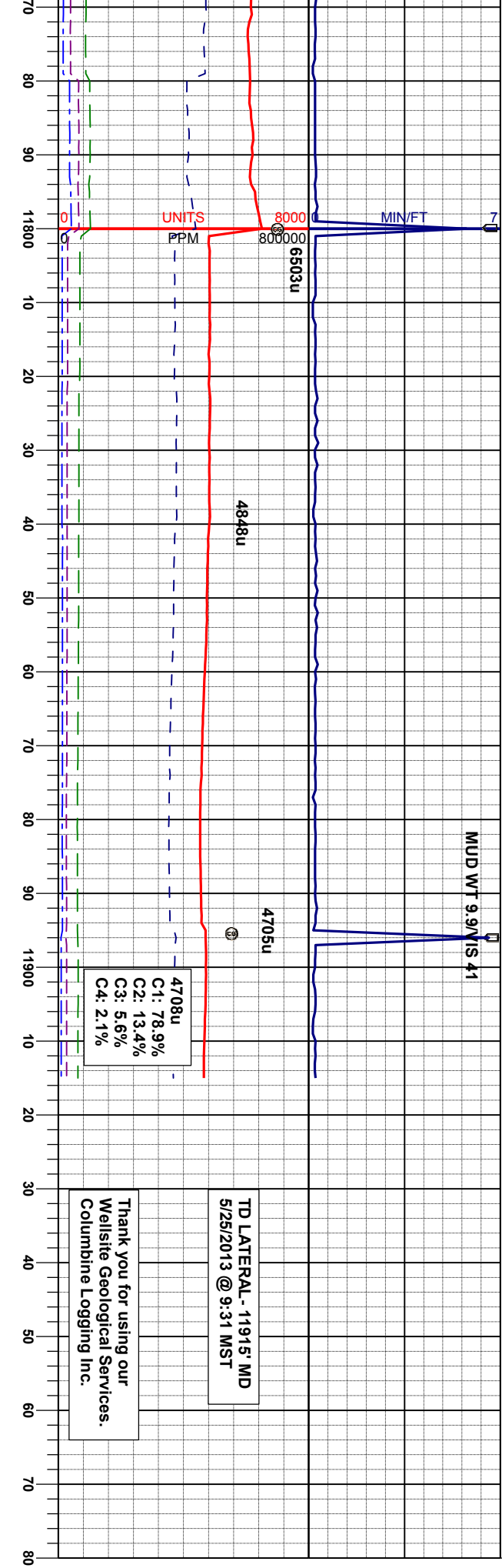
7340

50

200

AF

ft



MUD WT 9.9V/S 41

TD LATERAL - 11915' MD
5/25/2013 @ 9:31 MST

Thank you for using our
Wellsite Geological Services.
Columbine Logging Inc.

4708u
C1: 78.9%
C2: 13.4%
C3: 5.6%
C4: 2.1%

MD 11870'
INC 91.02
AMZ 0.81
TVD 7385.98'

MD 11915'
INC 91.02
AMZ 0.99
TVD 7384.41'

60% MRL: mgy-dkgy, mod firm-si hd, sbply
-ply, silty-org mtx, rthy tex, tr wh fos frag, tr
bent, calc, 40% CHK: itgy-itgybrn, mod sft-
mod firm, sme hd, sbply-sbply, arg-sily,
rthy, occ mot-bnd, occ sbwxy-wxy, calc; bri
whbl slow stmng, bri whbl milky cut, bri
thn-mod whbign ring, mnrl flr, mod yel stn

65% MRL: mgy-dkgy, mod firm-si hd, sbply
-ply, silty-org mtx, rthy tex, tr wh fos frag, tr
bent, calc, 35% CHK: itgy-itgybrn, mod sft-
mod firm, sme hd, sbply-sbply, arg-sily,
rthy, occ mot-bnd, occ sbwxy-wxy, calc; bri
whbl slow stmng, bri whbl milky cut, bri v thn
whbign ring, fr yel stn

