

COLUMBINE LOGGING

Scale: 5" / 100'
Measured Depth Log

Well Name Resolute E25-63HC

Location SESE SEC26 T6N R65W

State COLORADO

County WELD

Country USA

Rig Number PRECISION 828

API Number 05-123-38165

AFE # 139763

Region DENVER JULESBURG BASIN

Field WATTENBERG

Spud Date 5/18/2014

Drilling Completed 5/25/2014

Surface Coordinates 373' FSL, 280' FEL

LAT/LONG 40.45071/-104.62175

Ground Elevation 4676'

K.B. Elevation 4692'

Logged Interval 667' To 6620'

Total Depth 11166'

Formation FOX HILLS, PIERRE, PARKMAN, SUSSEX, SHANNON, TEEPEE BUTTES

Type of Drilling Fl... FRESH WATER, LSND

Operator

Company NOBLE ENERGY INC.

Address 1625 Broadway
Denver, CO 80202

Geologist

Name EVAN HOWELL


Company NOBLE ENERGY, INC.

Address 1625 Broadway
Denver, CO 80202

Other




Wellsite Geologists: ELIZABETH STOREY, GARY MYERS, GABRIEL RUBIO

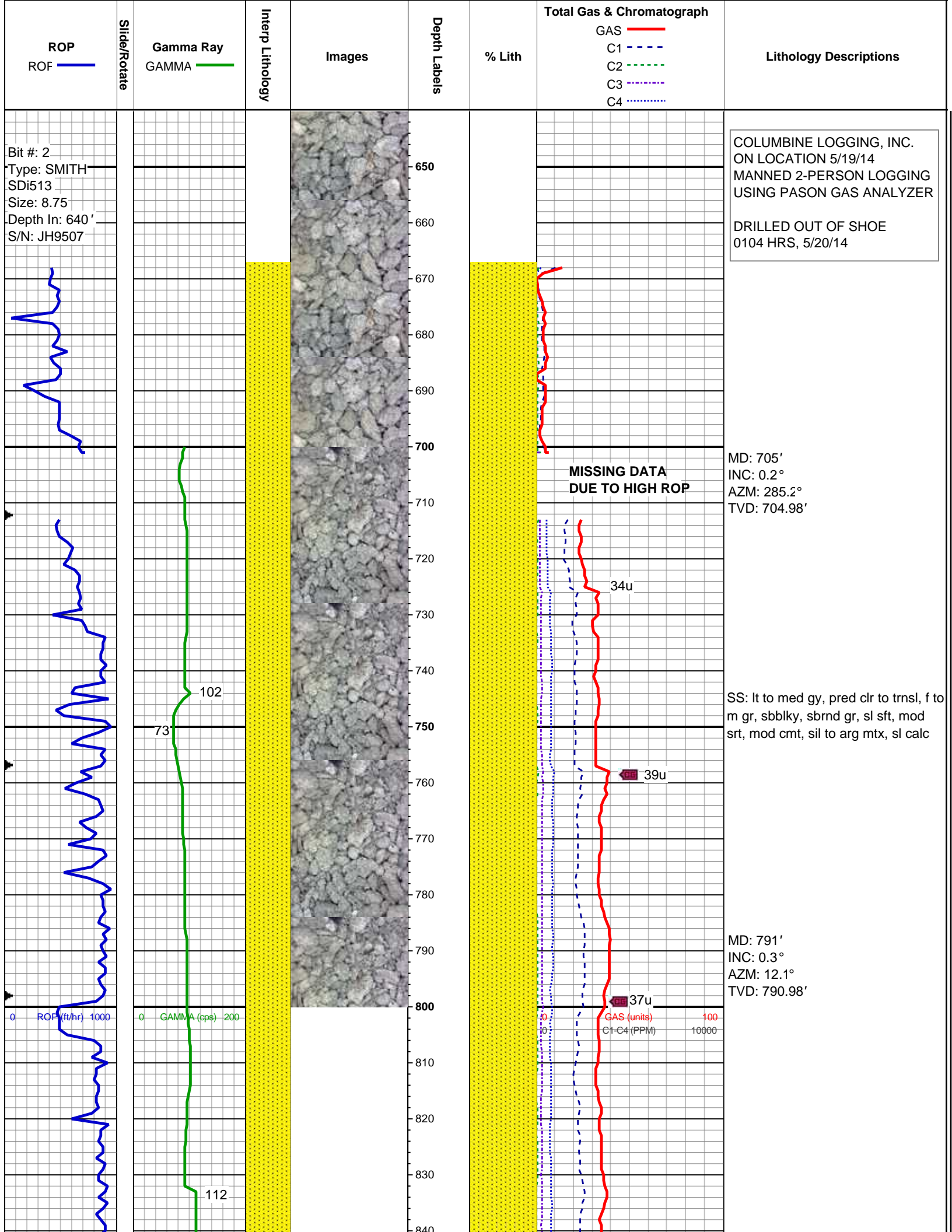
Rock Types

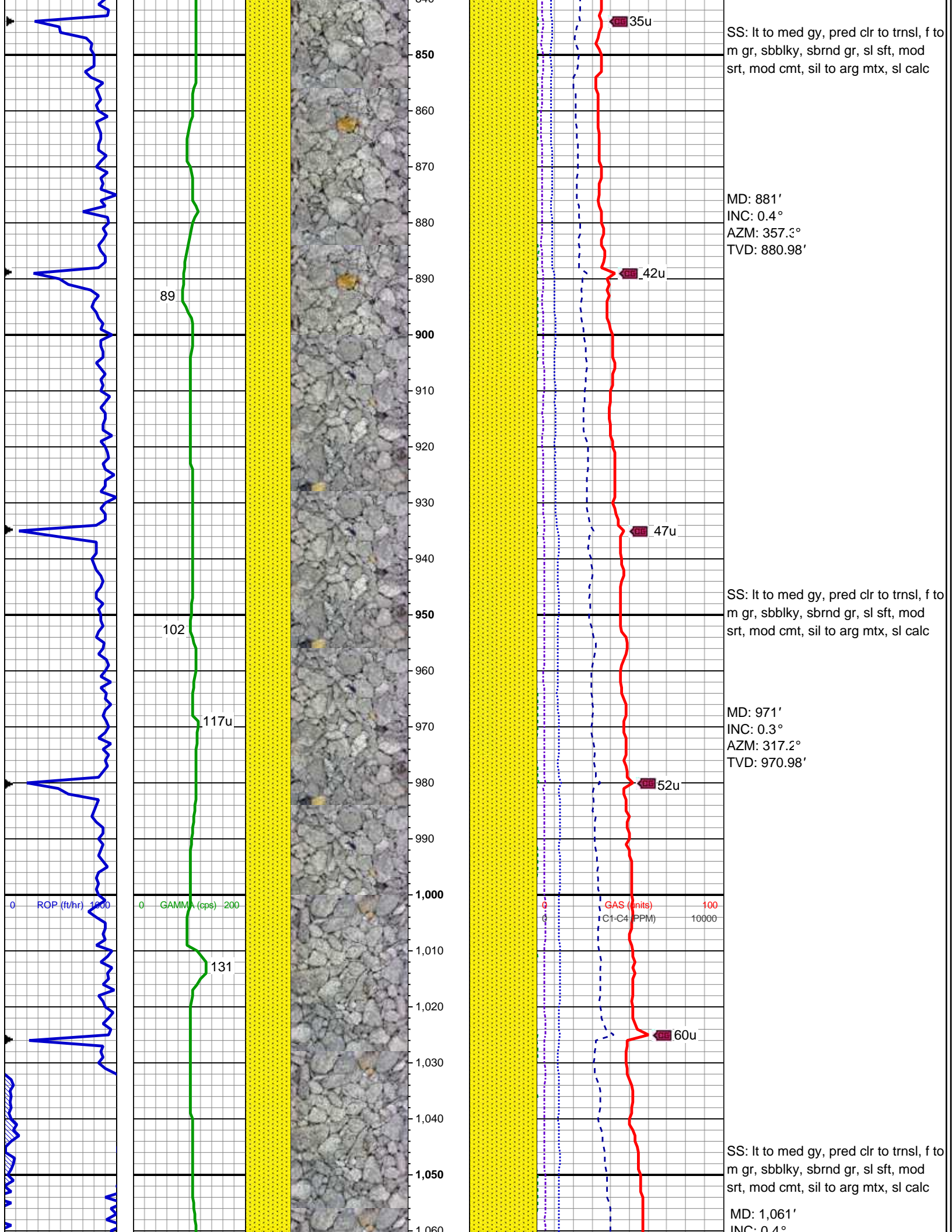
 SANDSTONE  SHALY SANDSTONE  SHALY SILTSTONE  SILTY SHALE

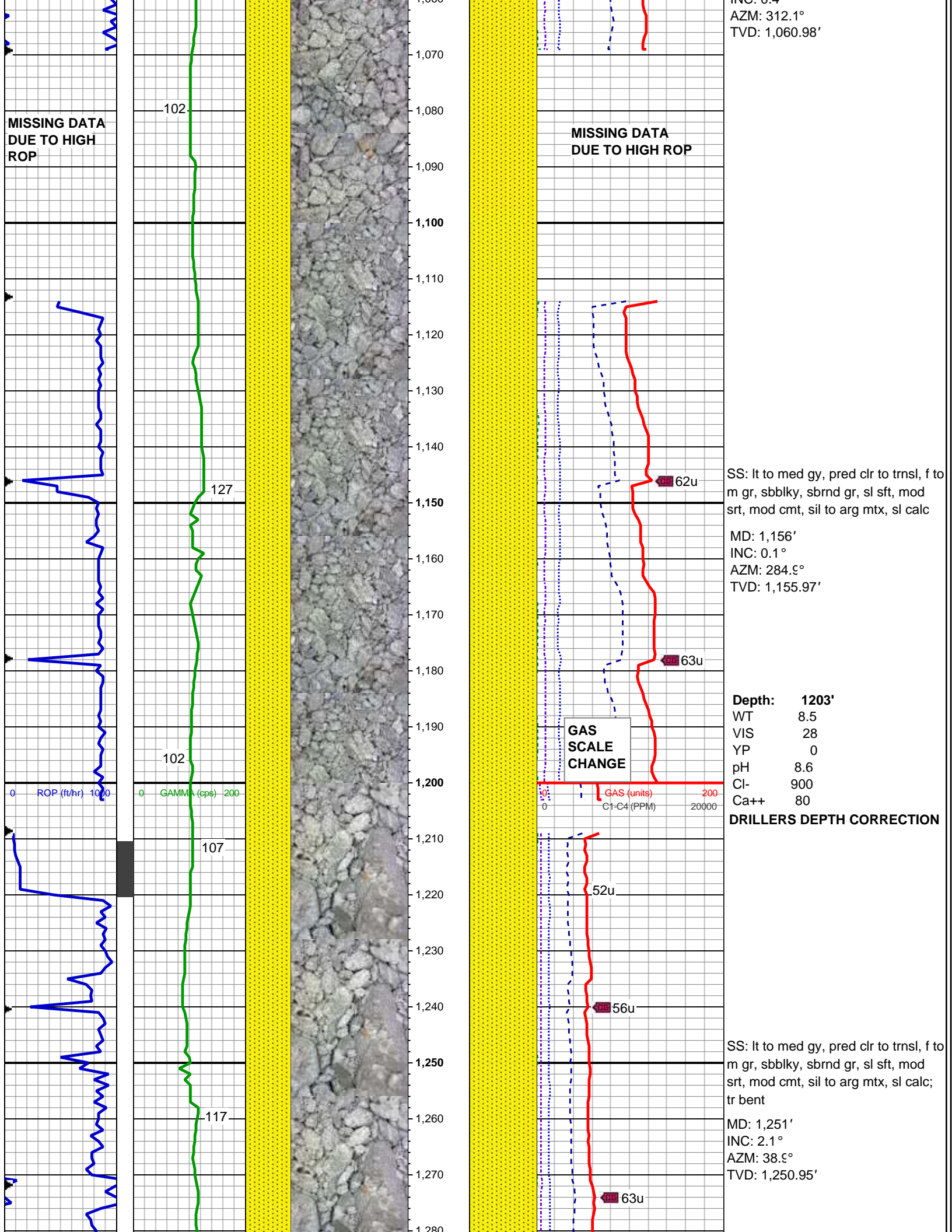
Other Symbols

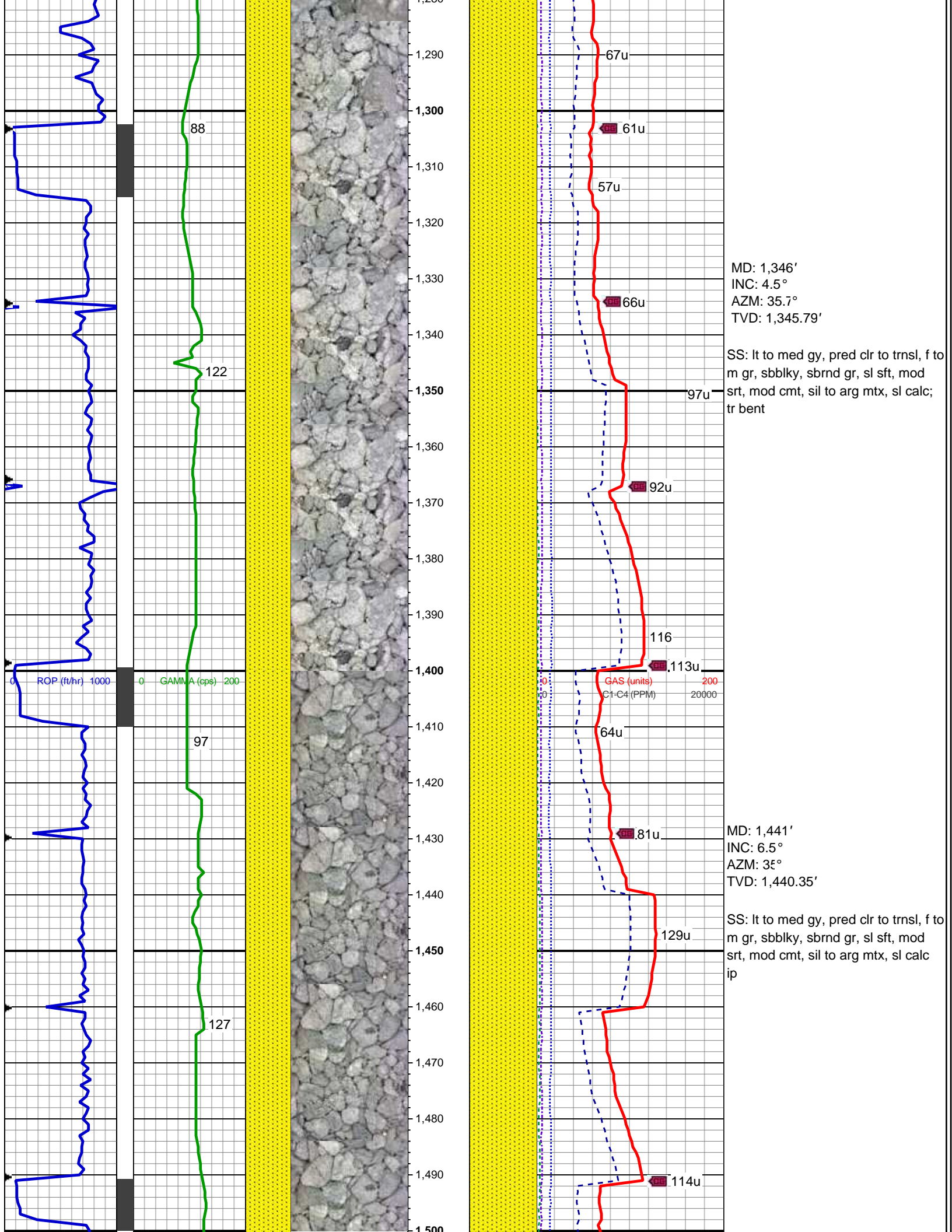
Engineering

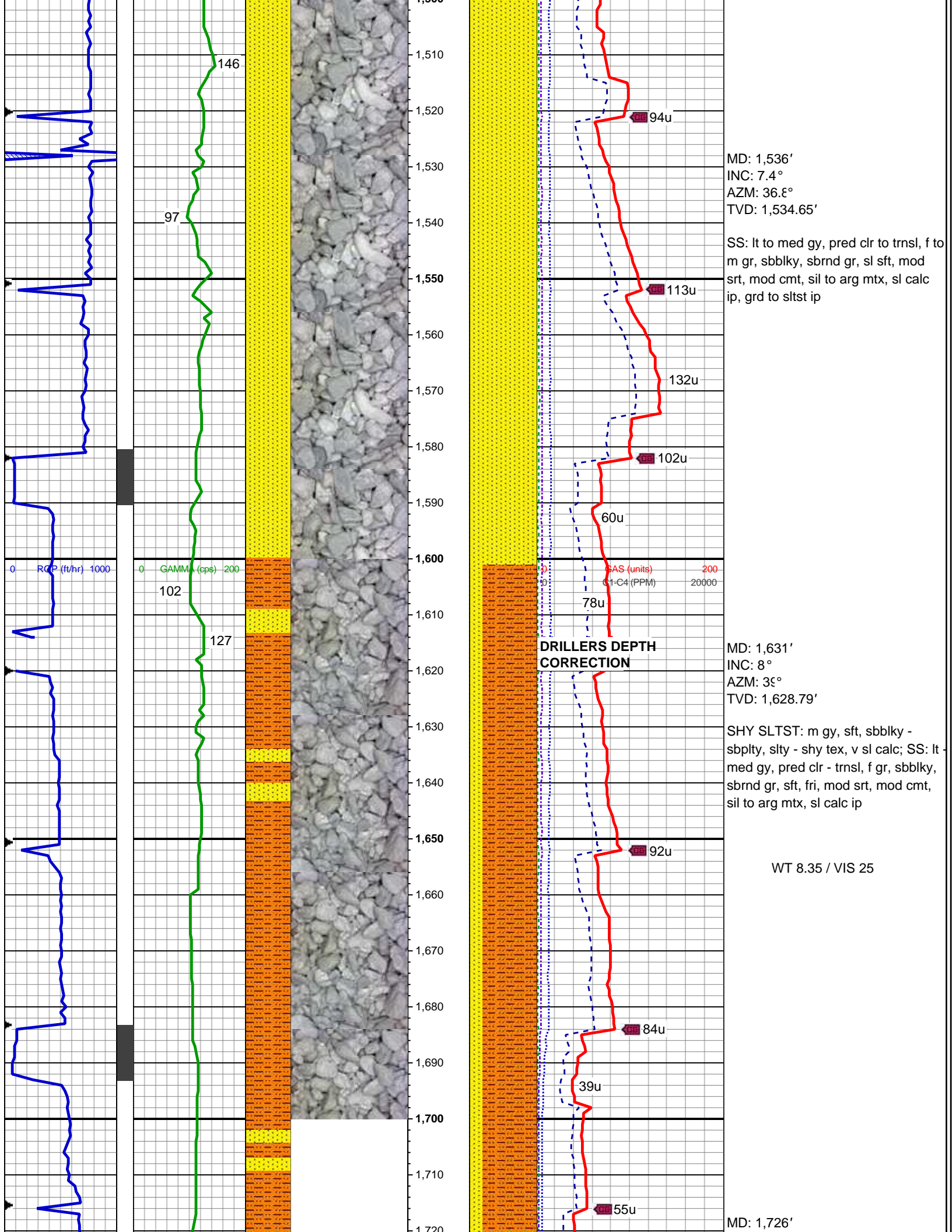
-  CONNECTION (RIGHT)
-  CONNECTION GAS
-  MN DEPTH (RIGHT)

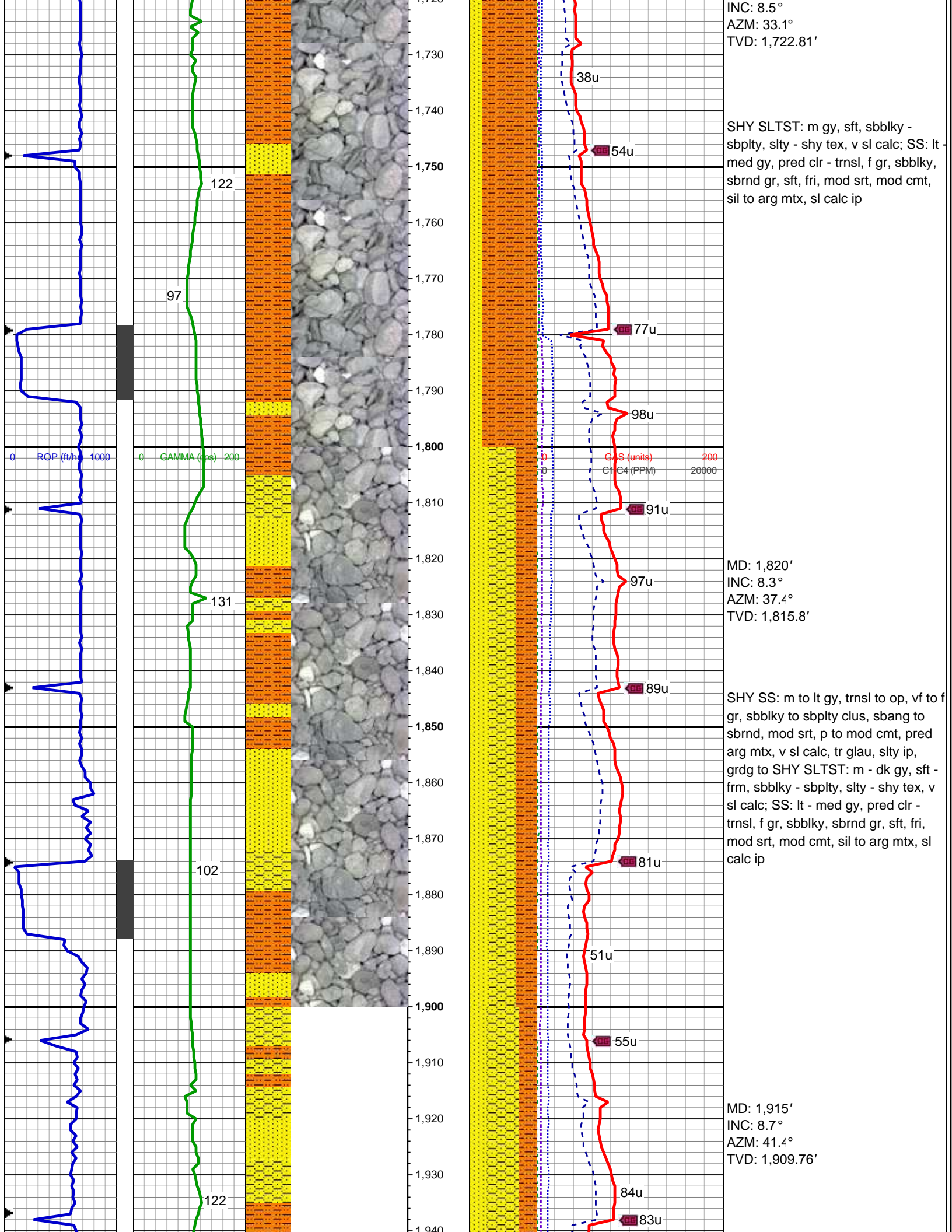


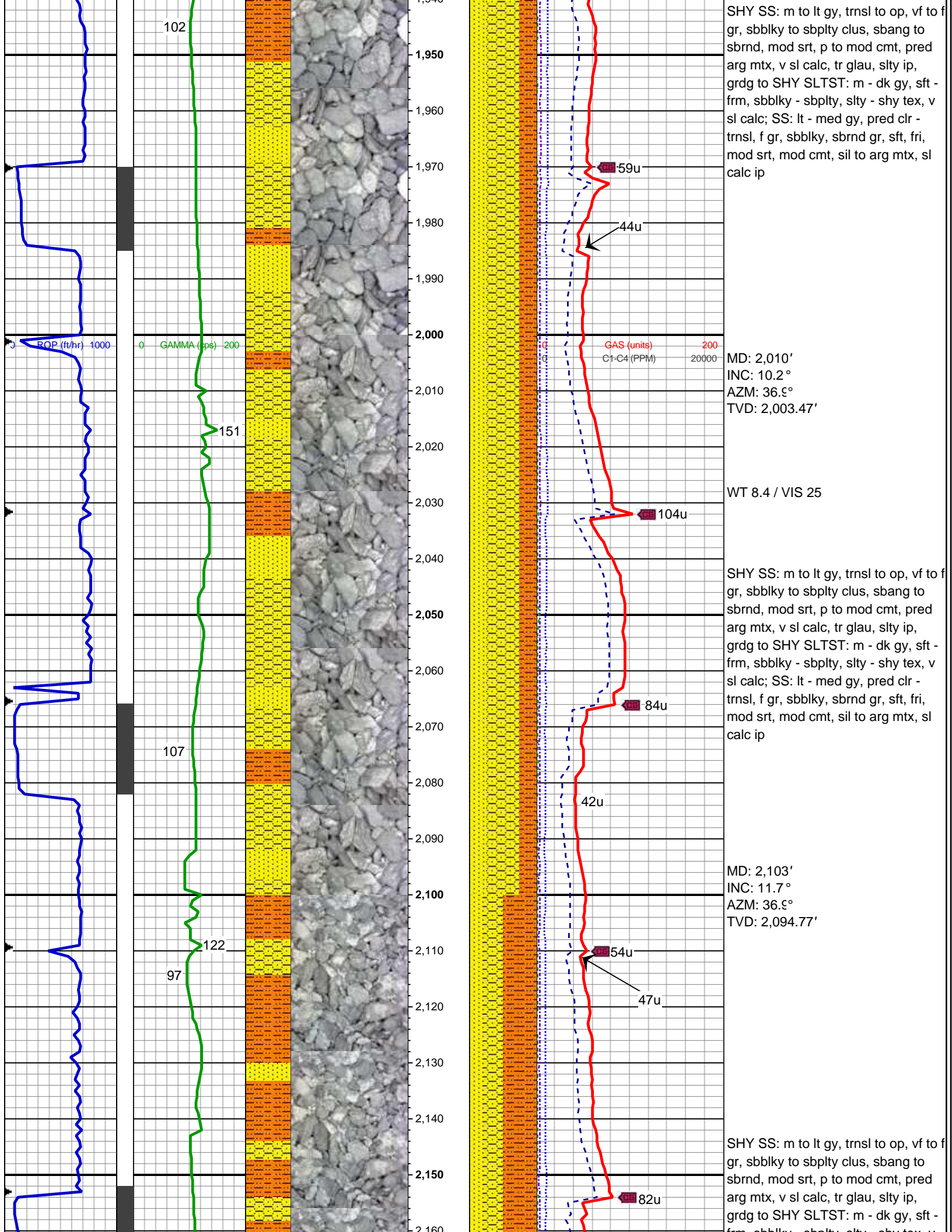


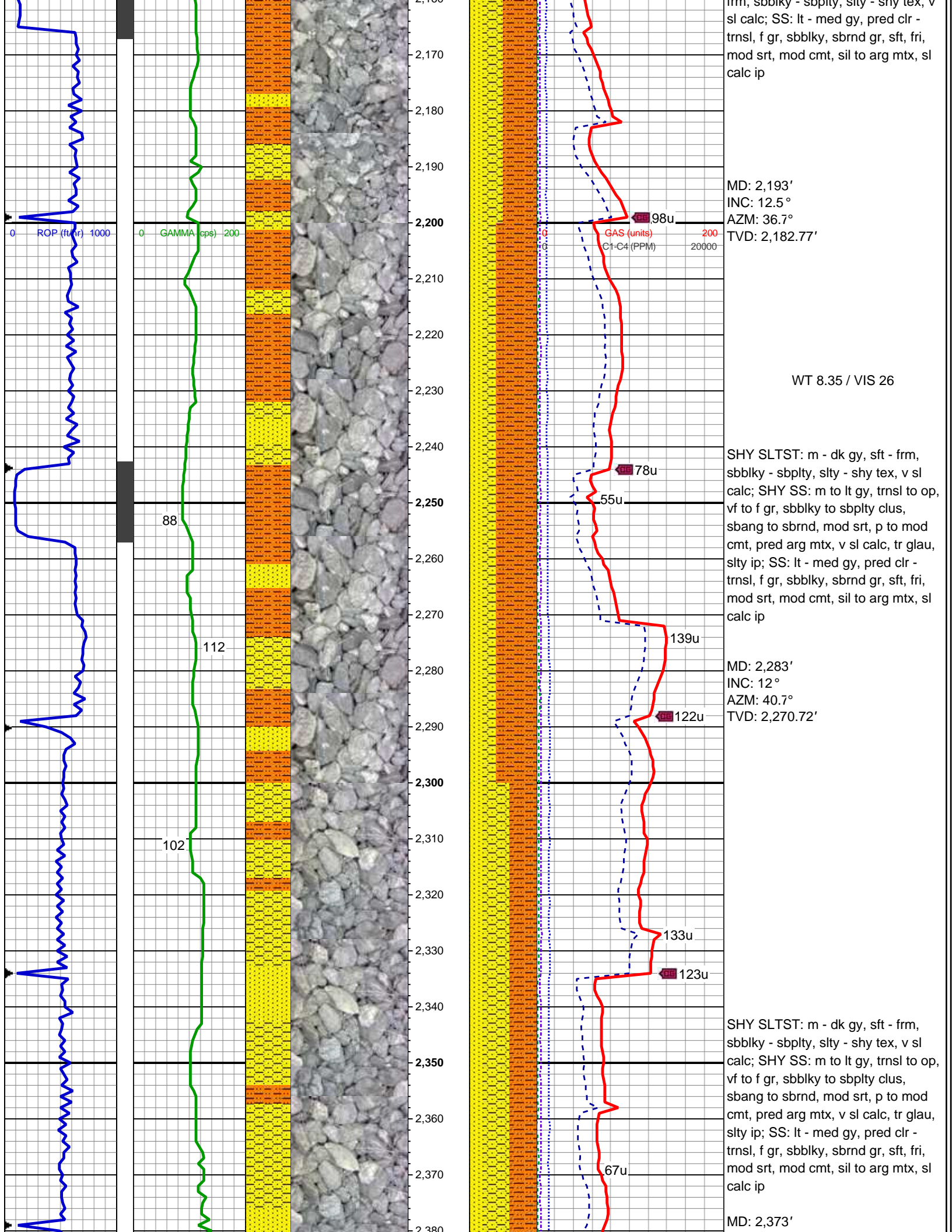


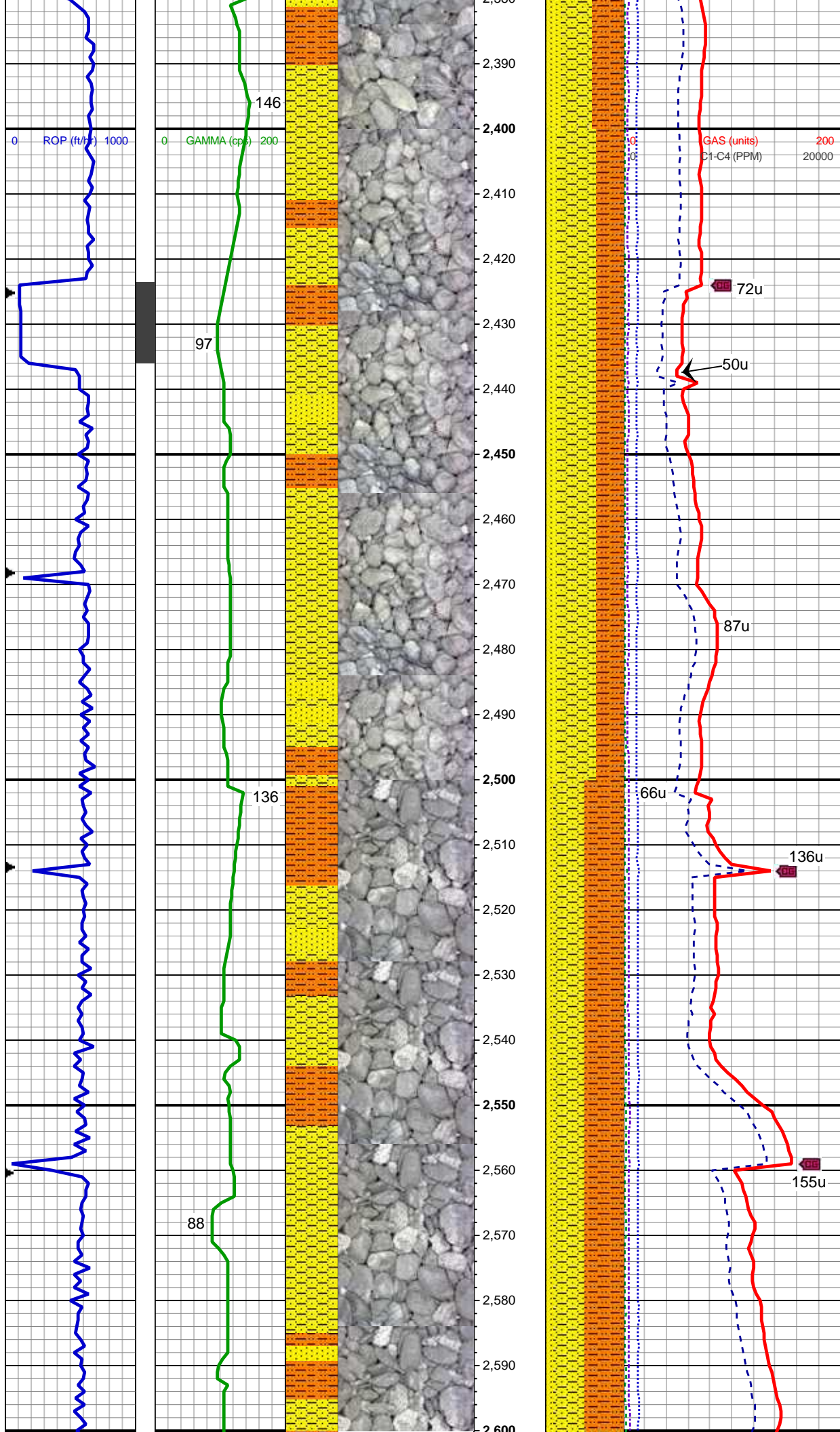












INC: 11.3°
AZM: 36.6°
TVD: 2,358.87'

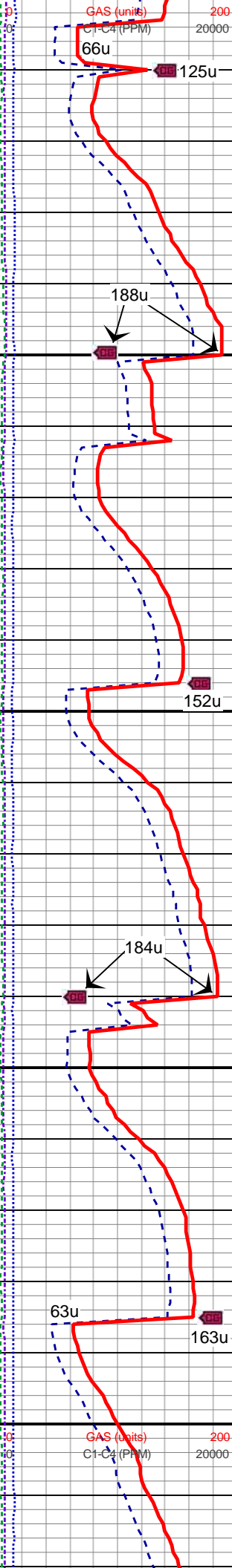
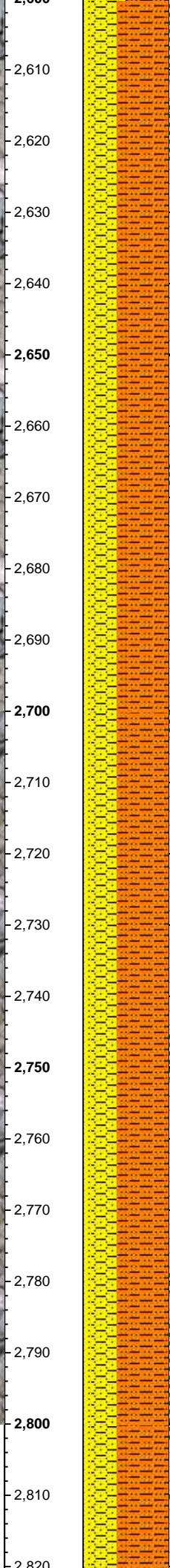
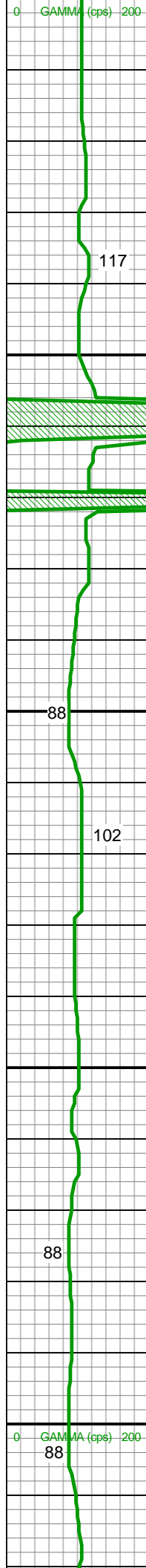
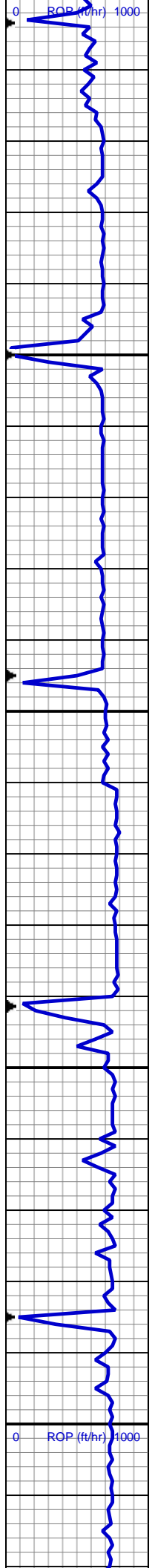
SHY SS: m to lt gy, trns l to op, vf to f gr, sbb lky to sbplty clus, sbang to sbrnd, mod srt, p to mod cmt, pred arg mtx, v sl calc, tr glau, slty ip; SHY SLTST: m - dk gy, sft - frm, sbb lky - sbplty, slty - shy tex, v sl calc; SS: lt - med gy, pred clr - trns l, f gr, sbb lky, sbrnd gr, sft, fri, mod srt, mod cmt, sil to arg mtx, sl calc ip

MD: 2,463'
INC: 11.9°
AZM: 43.3°
TVD: 2,447.04'

WT 8.4 / VIS 26

MD: 2,553'
INC: 11.6°
AZM: 44.1°
TVD: 2,535.15'

SHY SLTST: m gy, sft - frm, sbb lky - sbplty, slty - shy tex, v sl calc; SHY SS: m to lt gy, trns l to op, vf to f gr, sbb lky to sbplty clus, sbang to sbrnd, mod srt, p to mod cmt, pred arg mtx, v sl calc, tr glau, slty ip; SS: lt - med gy, pred clr - trns l, f gr, sbb lky, sbrnd gr, sft, fri, mod srt, mod cmt, sil to arg mtx, sl calc ip



MD: 2,642'
INC: 10.9°
AZM: 41.4°
TVD: 2,622.44'

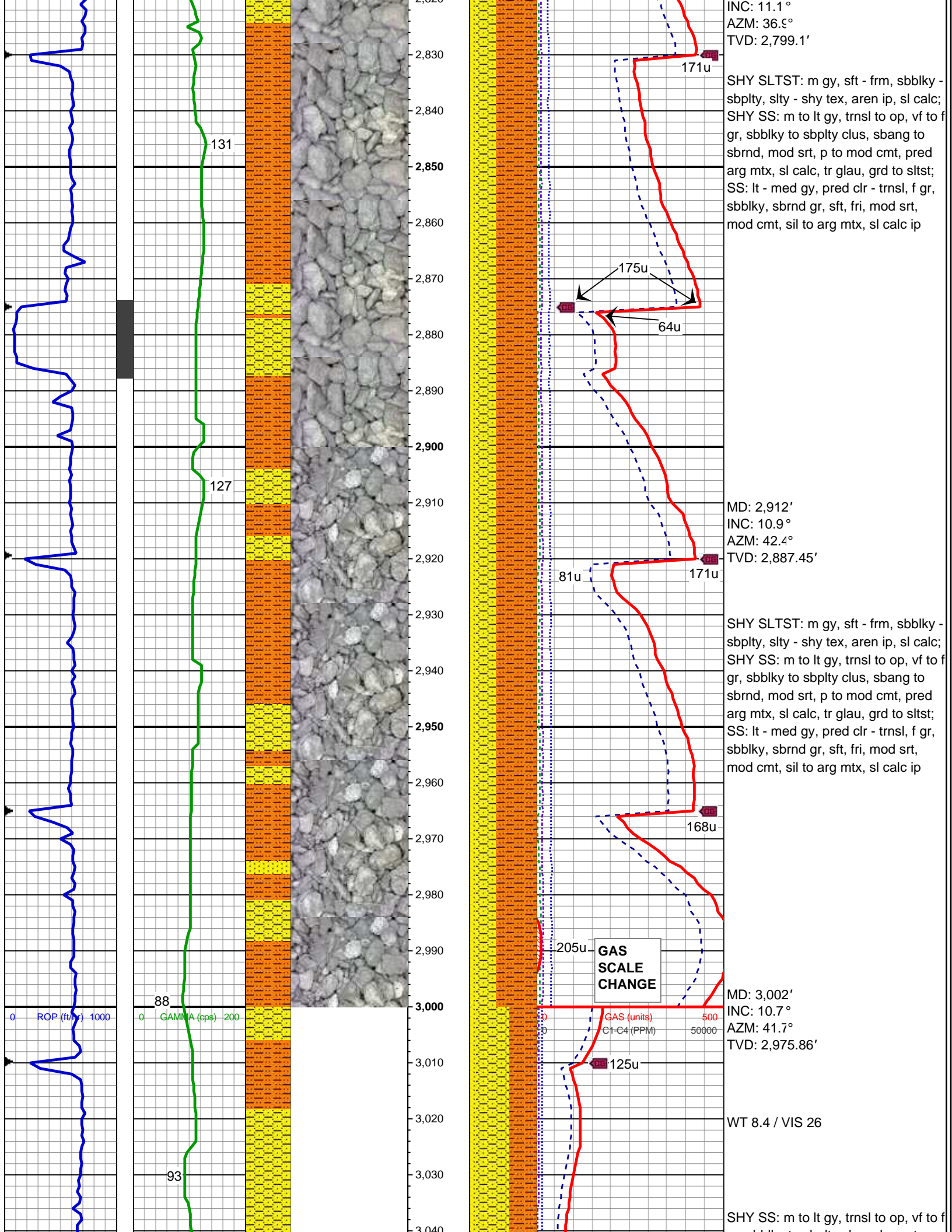
SHY SLTST: m gy, sft - frm, sbbiky - sbply, slty - shy tex, v sl calc; SHY SS: m to lt gy, trns to op, vf to f gr, sbbiky to sbply clus, sbang to sbrnd, mod srt, p to mod cmt, pred arg mtx, v sl calc, tr glau, slty ip; SS: lt - med gy, pred clr - trns, f gr, sbbiky, sbrnd gr, sft, fri, mod srt, mod cmt, sil to arg mtx, sl calc ip

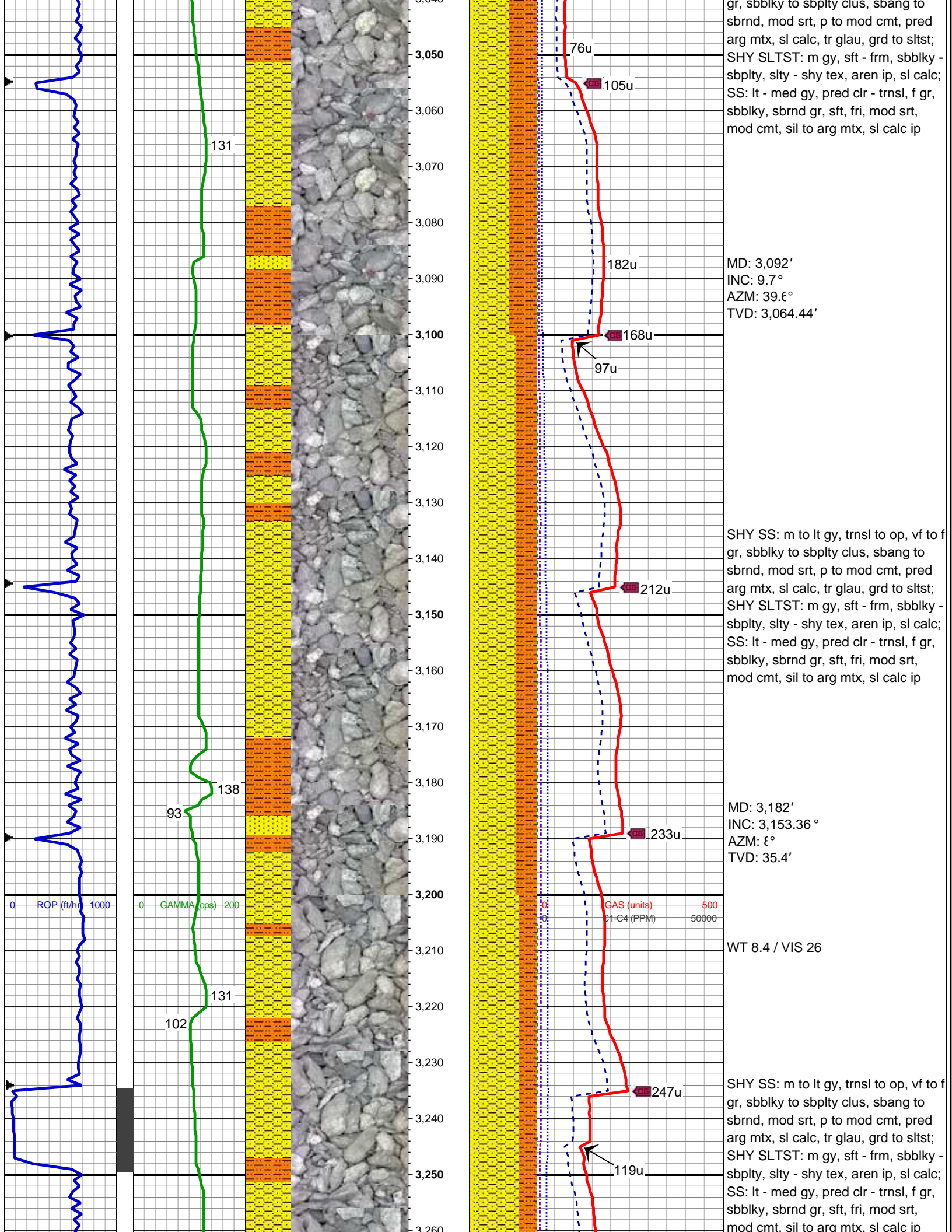
MD: 2,732'
INC: 11.1°
AZM: 39.3°
TVD: 2,710.79'

SHY SLTST: m gy, sft - frm, sbbiky - sbply, slty - shy tex, aren ip, sl calc; SHY SS: m to lt gy, trns to op, vf to f gr, sbbiky to sbply clus, sbang to sbrnd, mod srt, p to mod cmt, pred arg mtx, sl calc, tr glau, grd to sltst; SS: lt - med gy, pred clr - trns, f gr, sbbiky, sbrnd gr, sft, fri, mod srt, mod cmt, sil to arg mtx, sl calc ip

WT 8.4 / VIS 26

MD: 2,822'





gr, sbblky to sbply clus, sbang to
sbrnd, mod srt, p to mod cmt, pred
arg mtx, sl calc, tr glau, grd to sltst;
SHY SLTST: m gy, sft - frm, sbblky -
sbply, slty - shy tex, aren ip, sl calc;
SS: lt - med gy, pred clr - trnsl, f gr,
sbblky, sbrnd gr, sft, fri, mod srt,
mod cmt, sil to arg mtx, sl calc ip

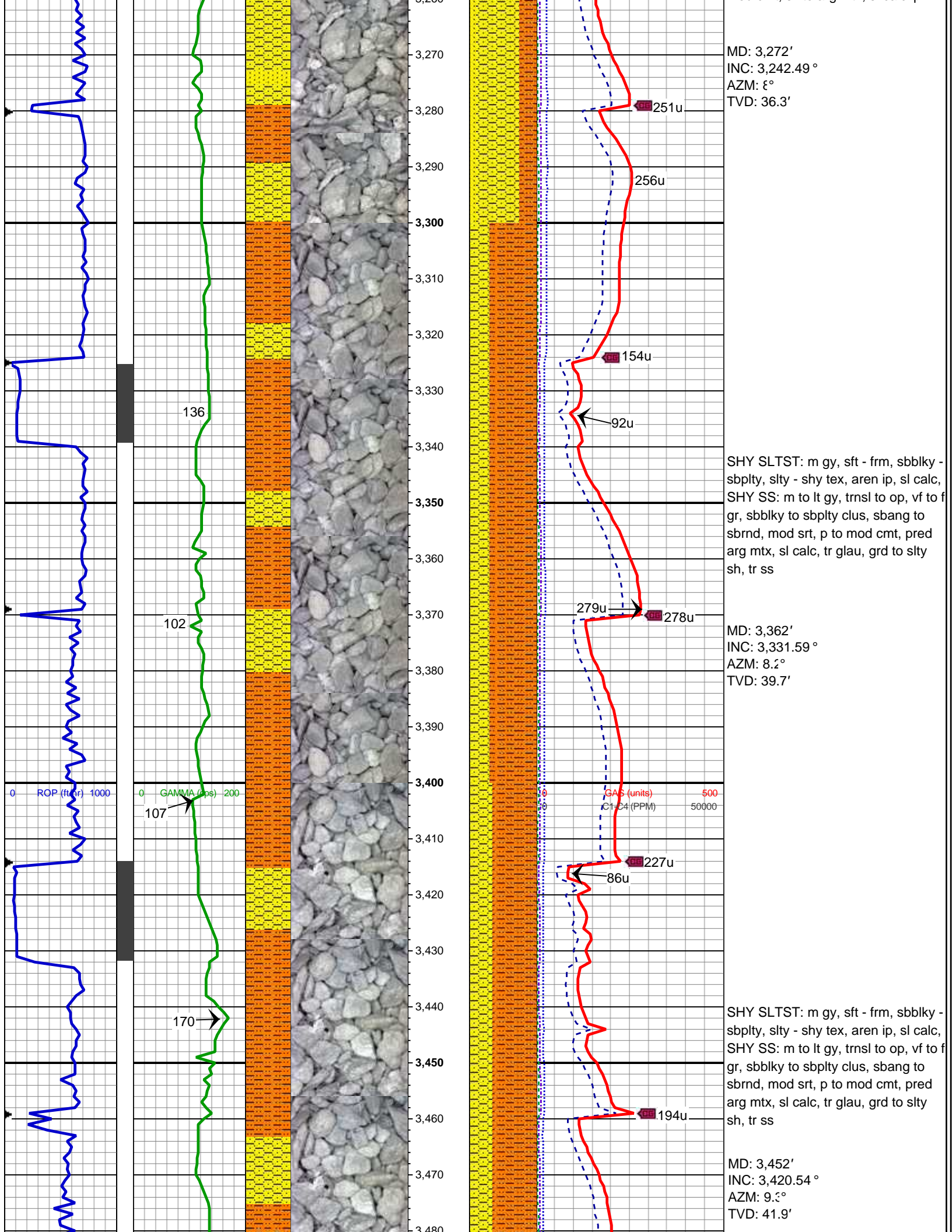
MD: 3,092'
INC: 9.7°
AZM: 39.6°
TVD: 3,064.44'

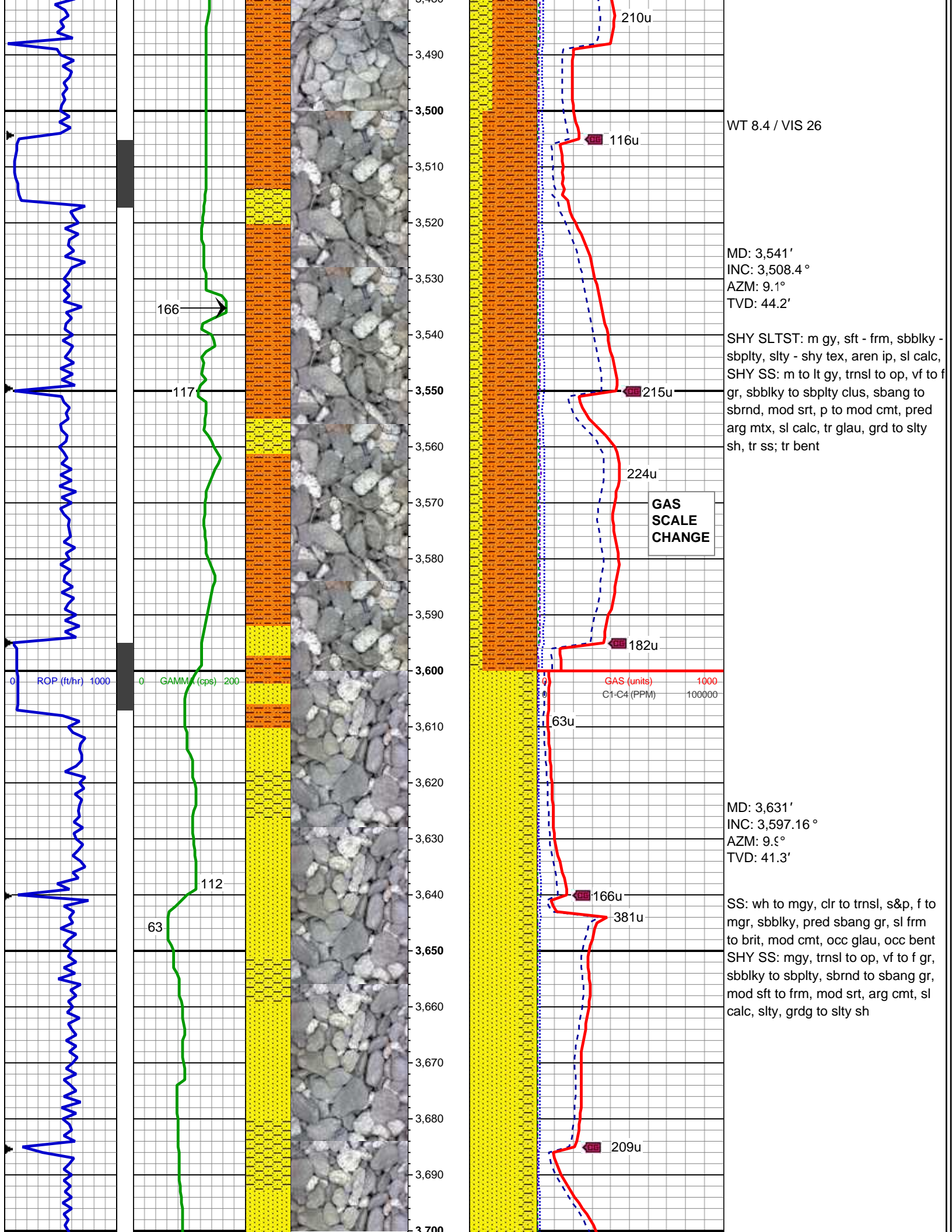
SHY SS: m to lt gy, trnsl to op, vf to f
gr, sbblky to sbply clus, sbang to
sbrnd, mod srt, p to mod cmt, pred
arg mtx, sl calc, tr glau, grd to sltst;
SHY SLTST: m gy, sft - frm, sbblky -
sbply, slty - shy tex, aren ip, sl calc;
SS: lt - med gy, pred clr - trnsl, f gr,
sbblky, sbrnd gr, sft, fri, mod srt,
mod cmt, sil to arg mtx, sl calc ip

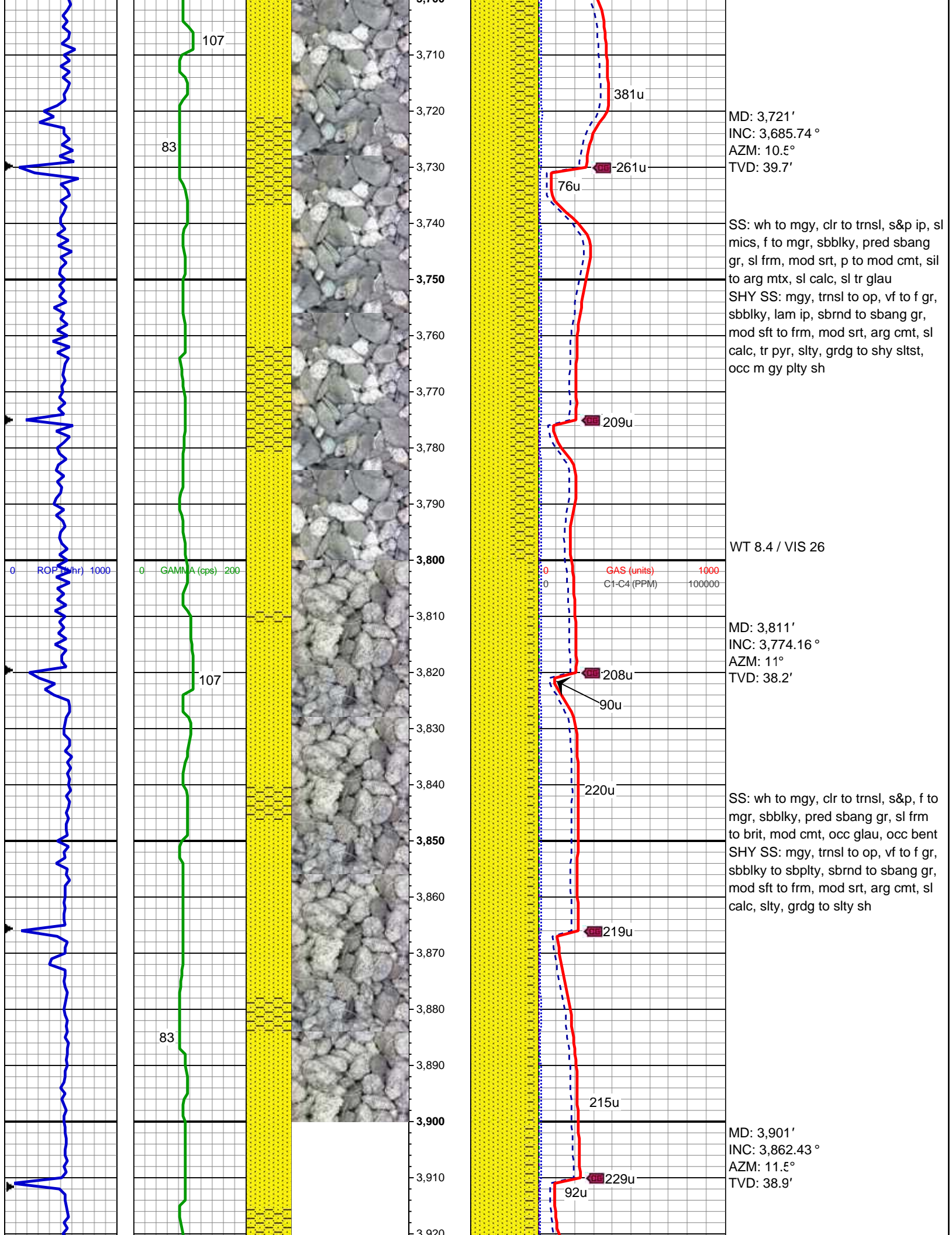
MD: 3,182'
INC: 3,153.36°
AZM: 5°
TVD: 35.4'

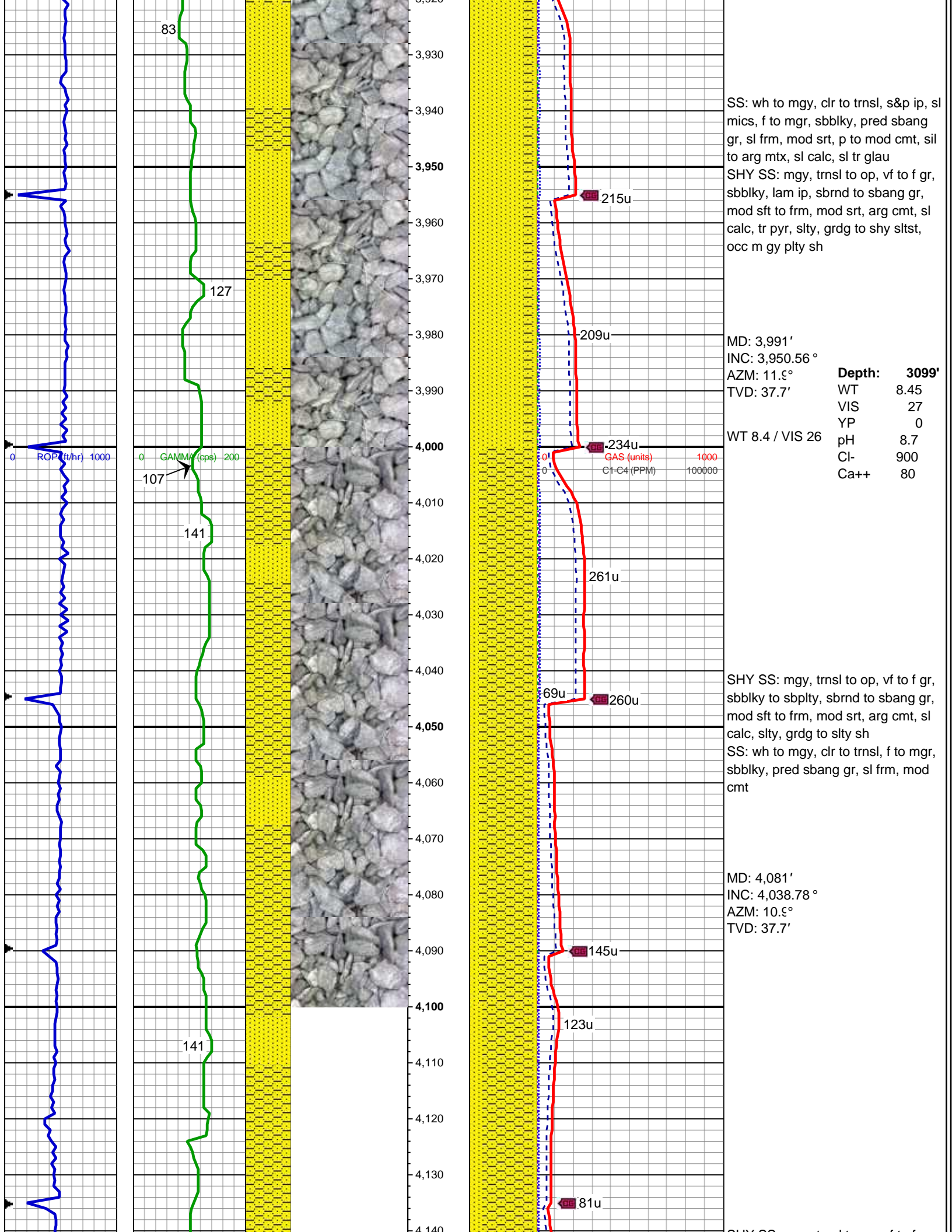
WT 8.4 / VIS 26

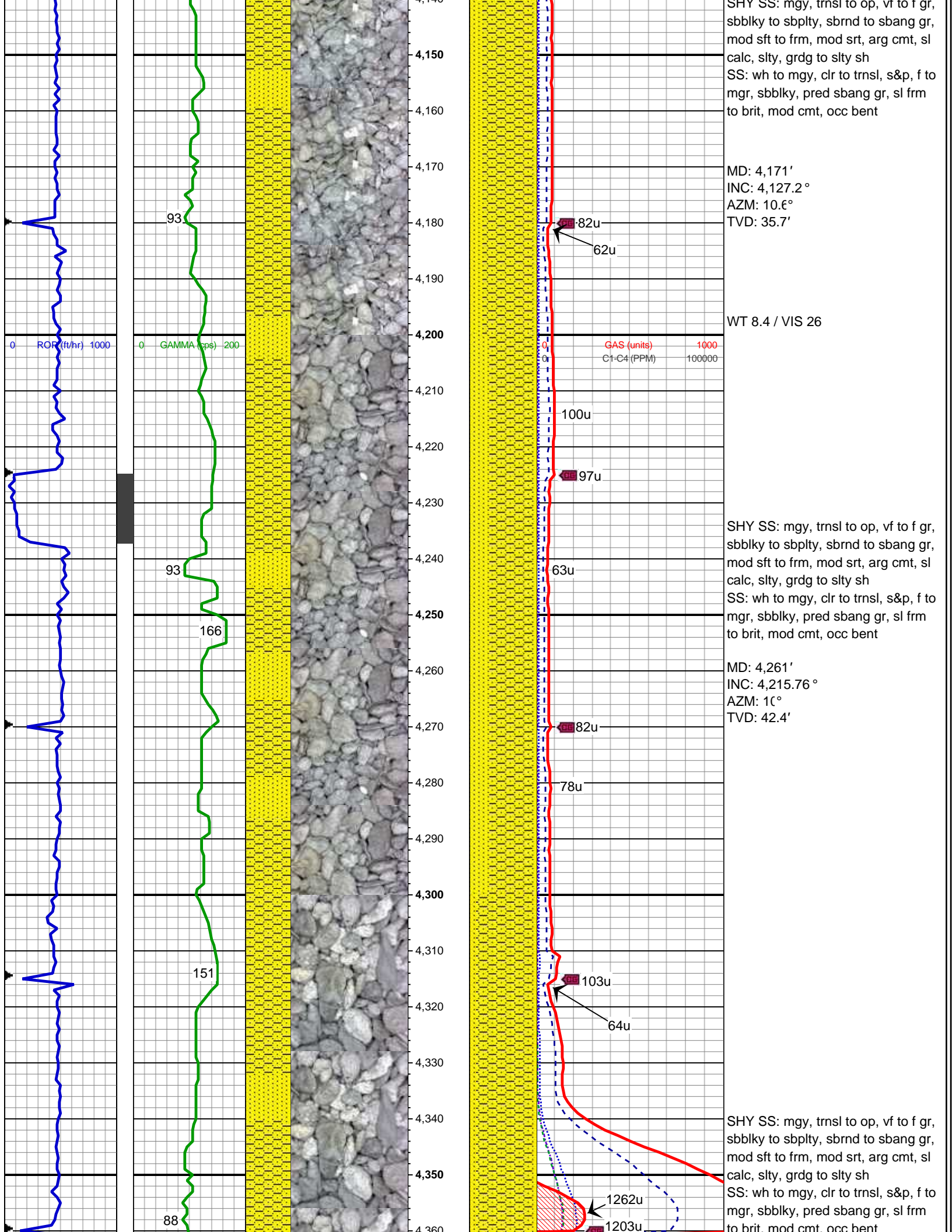
SHY SS: m to lt gy, trnsl to op, vf to f
gr, sbblky to sbply clus, sbang to
sbrnd, mod srt, p to mod cmt, pred
arg mtx, sl calc, tr glau, grd to sltst;
SHY SLTST: m gy, sft - frm, sbblky -
sbply, slty - shy tex, aren ip, sl calc;
SS: lt - med gy, pred clr - trnsl, f gr,
sbblky, sbrnd gr, sft, fri, mod srt,
mod cmt, sil to arg mtx, sl calc ip

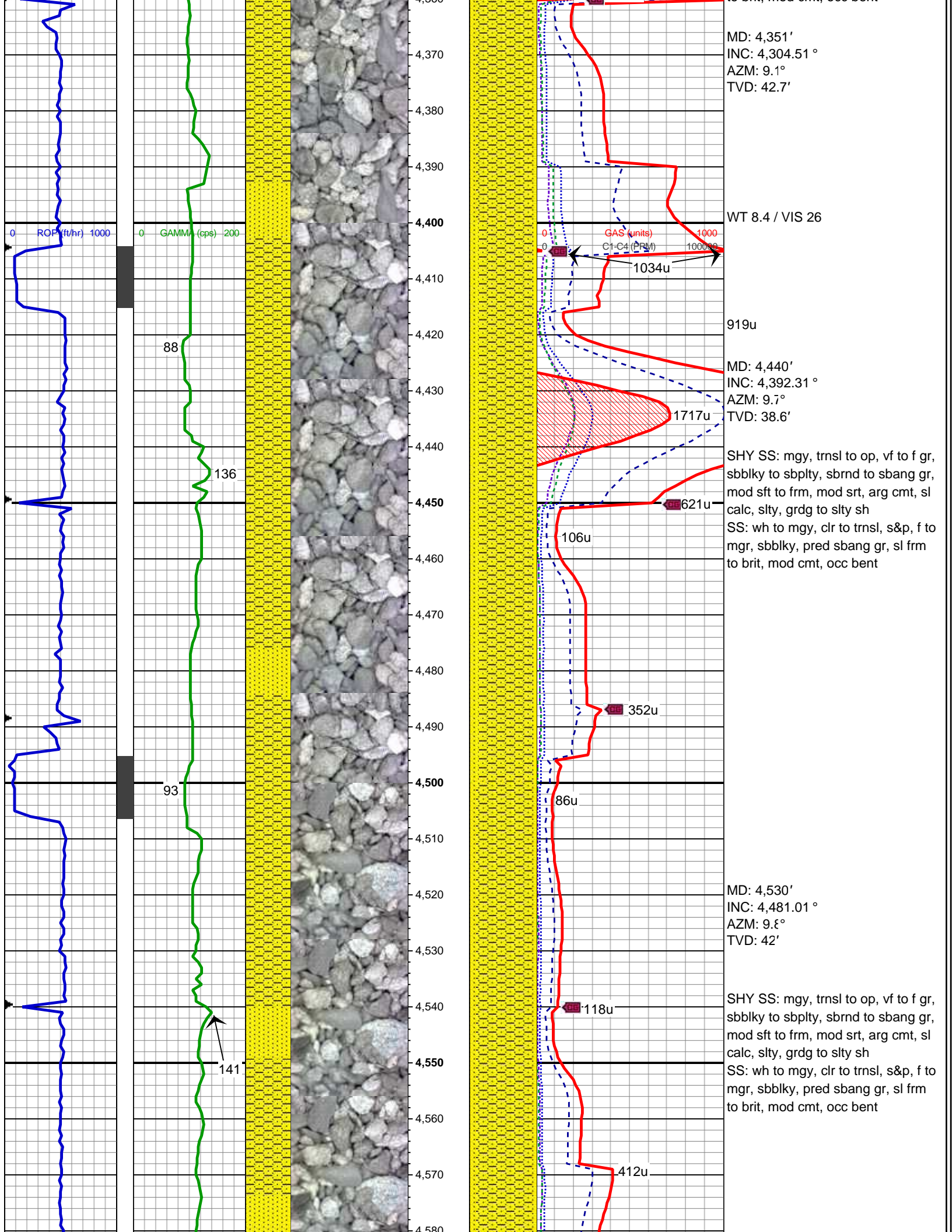


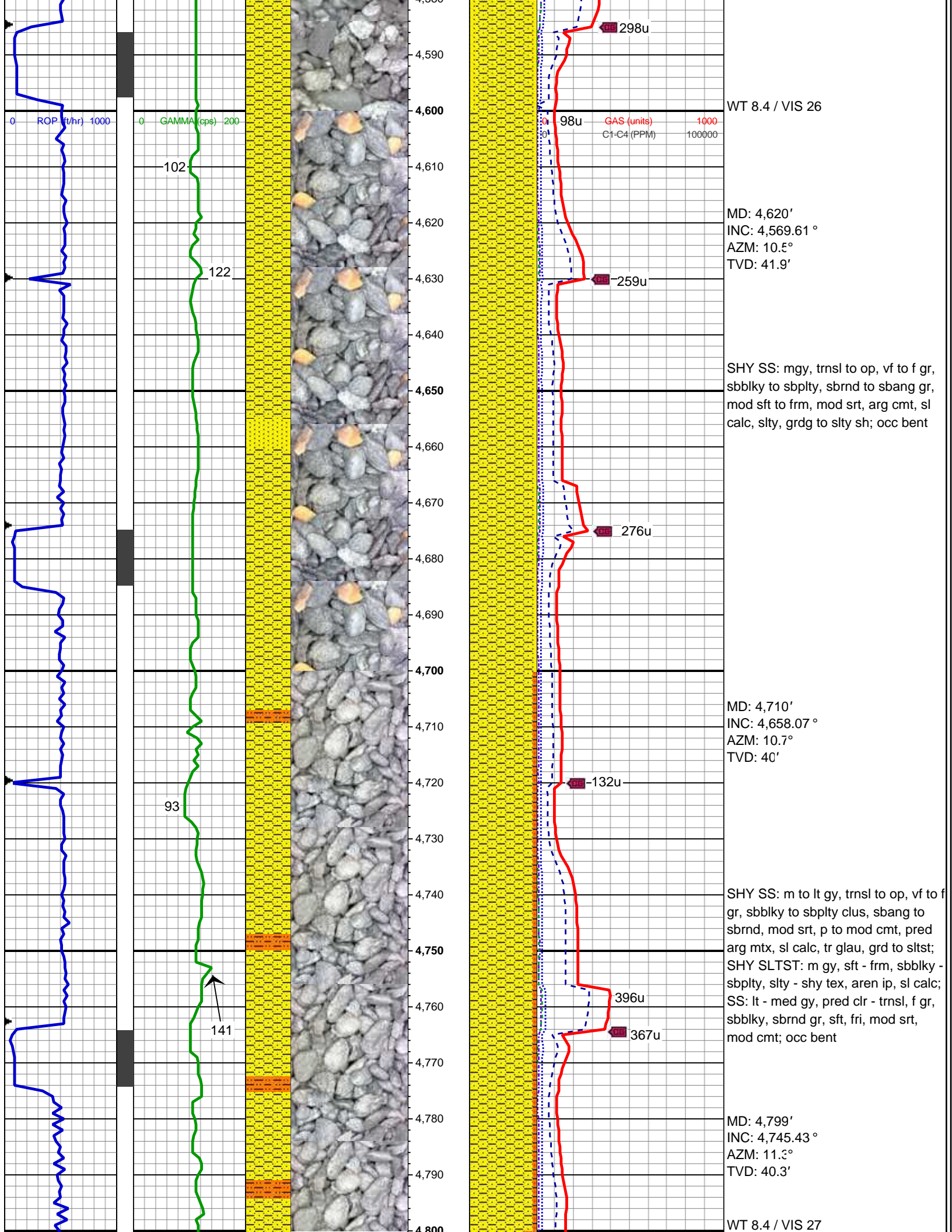












WT 8.4 / VIS 26

MD: 4,620'
INC: 4,569.61 °
AZM: 10.5°
TVD: 41.9'

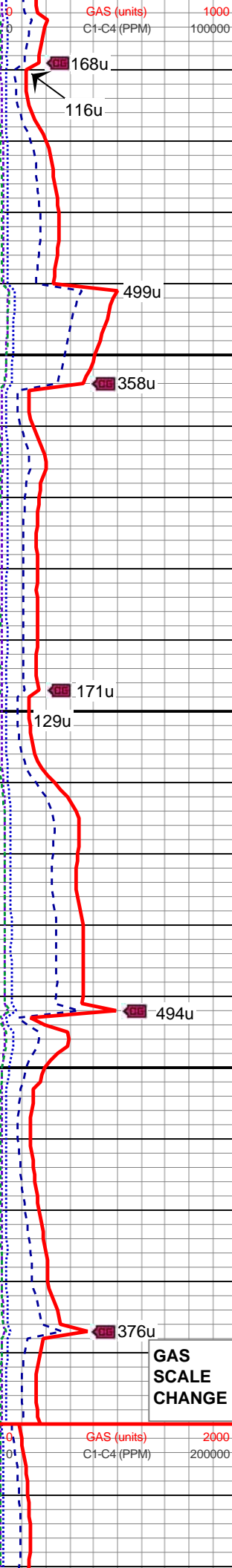
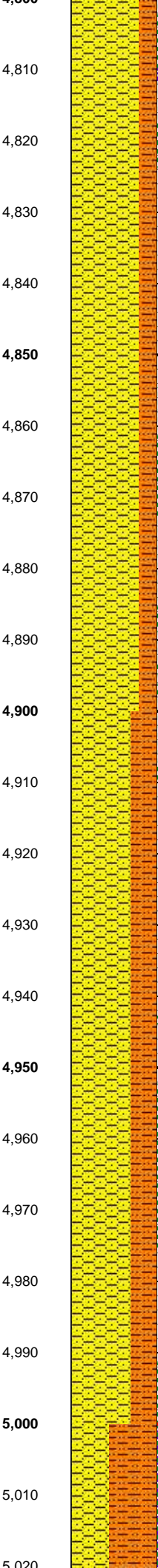
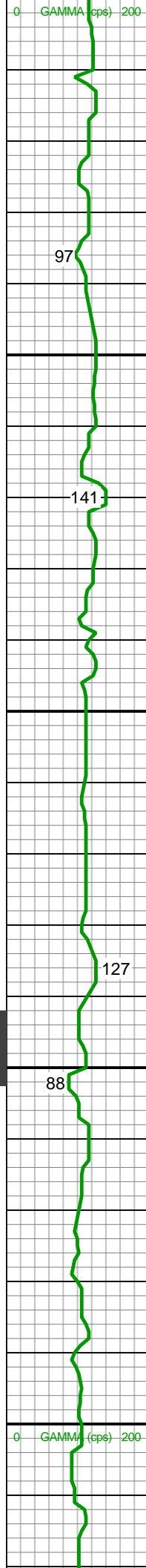
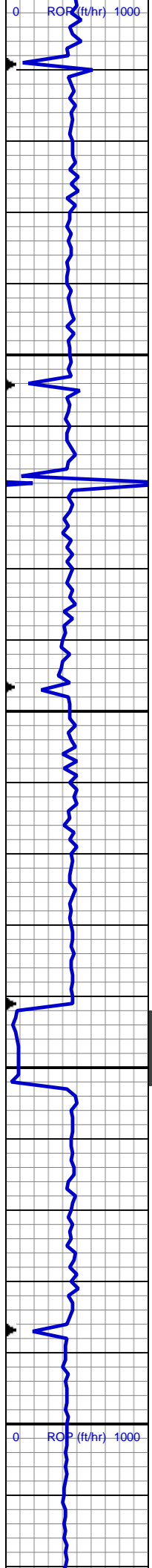
SHY SS: mgy, trnsl to op, vf to f gr,
sbblky to sbplty, sbrnd to sbang gr,
mod sft to frm, mod srt, arg cmt, sl
calc, slty, grd to slty sh; occ bent

MD: 4,710'
INC: 4,658.07 °
AZM: 10.7°
TVD: 40'

SHY SS: m to lt gy, trnsl to op, vf to f
gr, sbblky to sbplty clus, sbang to
sbrnd, mod srt, p to mod cmt, pred
arg mt, sl calc, tr glau, grd to sltst;
SHY SLTST: m gy, sft - frm, sbblky -
sbplty, slty - shy tex, aren ip, sl calc;
SS: lt - med gy, pred clr - trnsl, f gr,
sbblky, sbrnd gr, sft, fri, mod srt,
mod cmt; occ bent

MD: 4,799'
INC: 4,745.43 °
AZM: 11.3°
TVD: 40.3'

WT 8.4 / VIS 27



SHY SS: m to dk gy, trns l to op, vf to f gr, sbblky to sbply clus, sbang to sbrnd, p to mod srt, p to mod cmt, arg mtx, mod calc, tr pyr, tr bent, slty ip, grdg to slty ss

SHY SLTST: m gy to gy brn, sft, sbblky to sbply clus, shy tex, sl to mod calc, grdg to shy ss

MD: 4,889'
INC: 4,833.81 °
AZM: 10.5°
TVD: 42.2'

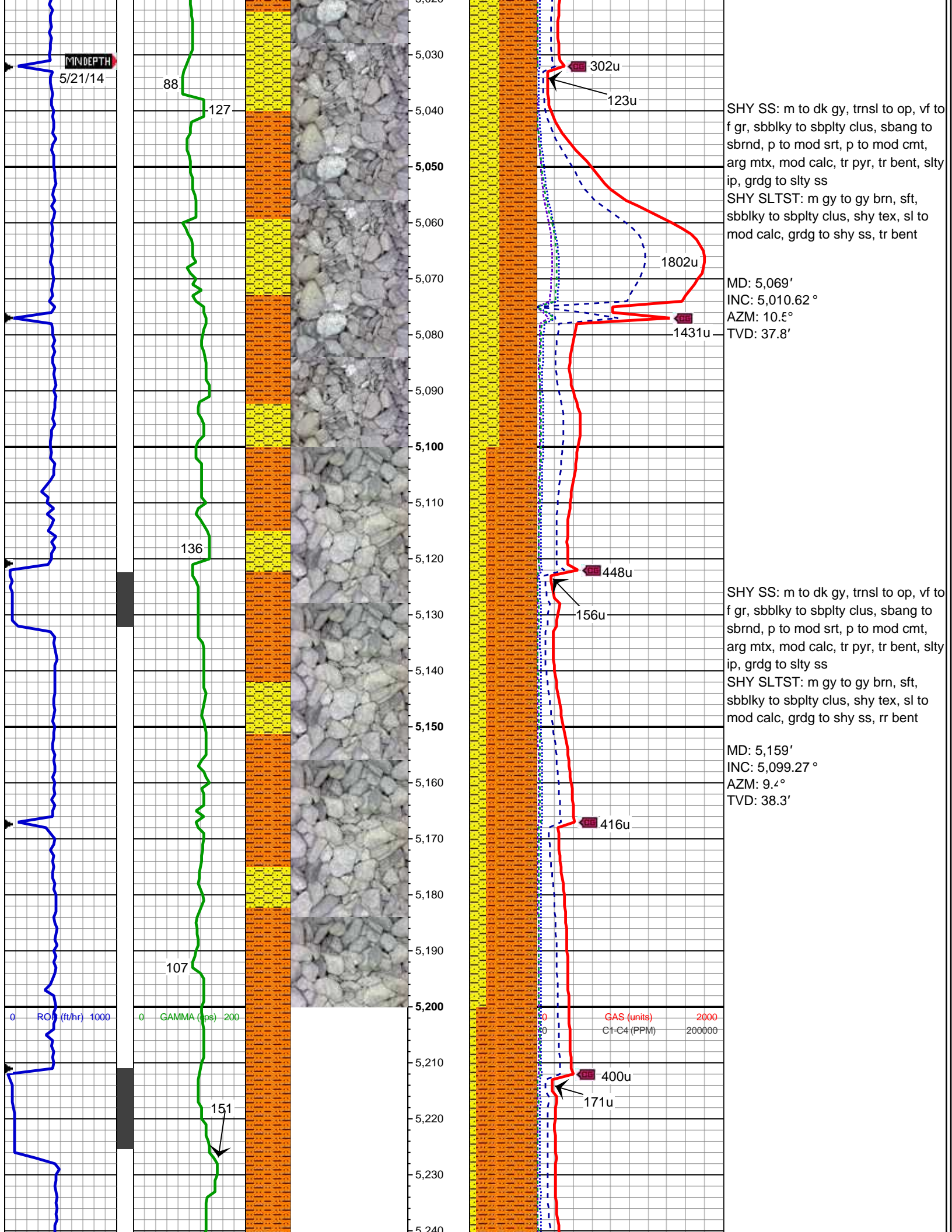
SHY SS: m to dk gy, trns l to op, vf to f gr, sbblky to sbply clus, sbang to sbrnd, p to mod srt, p to mod cmt, arg mtx, mod calc, tr pyr, tr bent, slty ip, grdg to slty ss

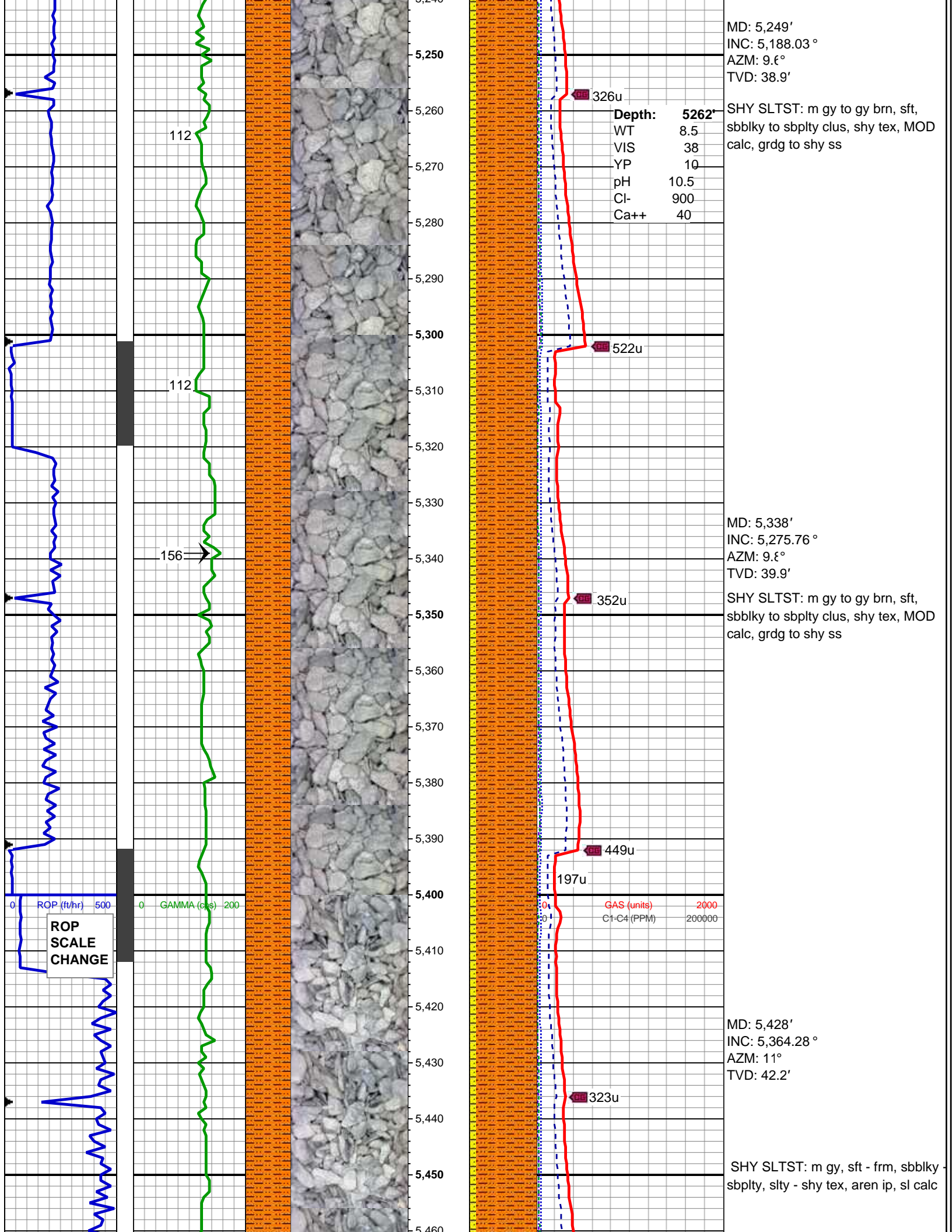
SHY SLTST: m gy to gy brn, sft, sbblky to sbply clus, shy tex, sl to mod calc, grdg to shy ss, tr bent

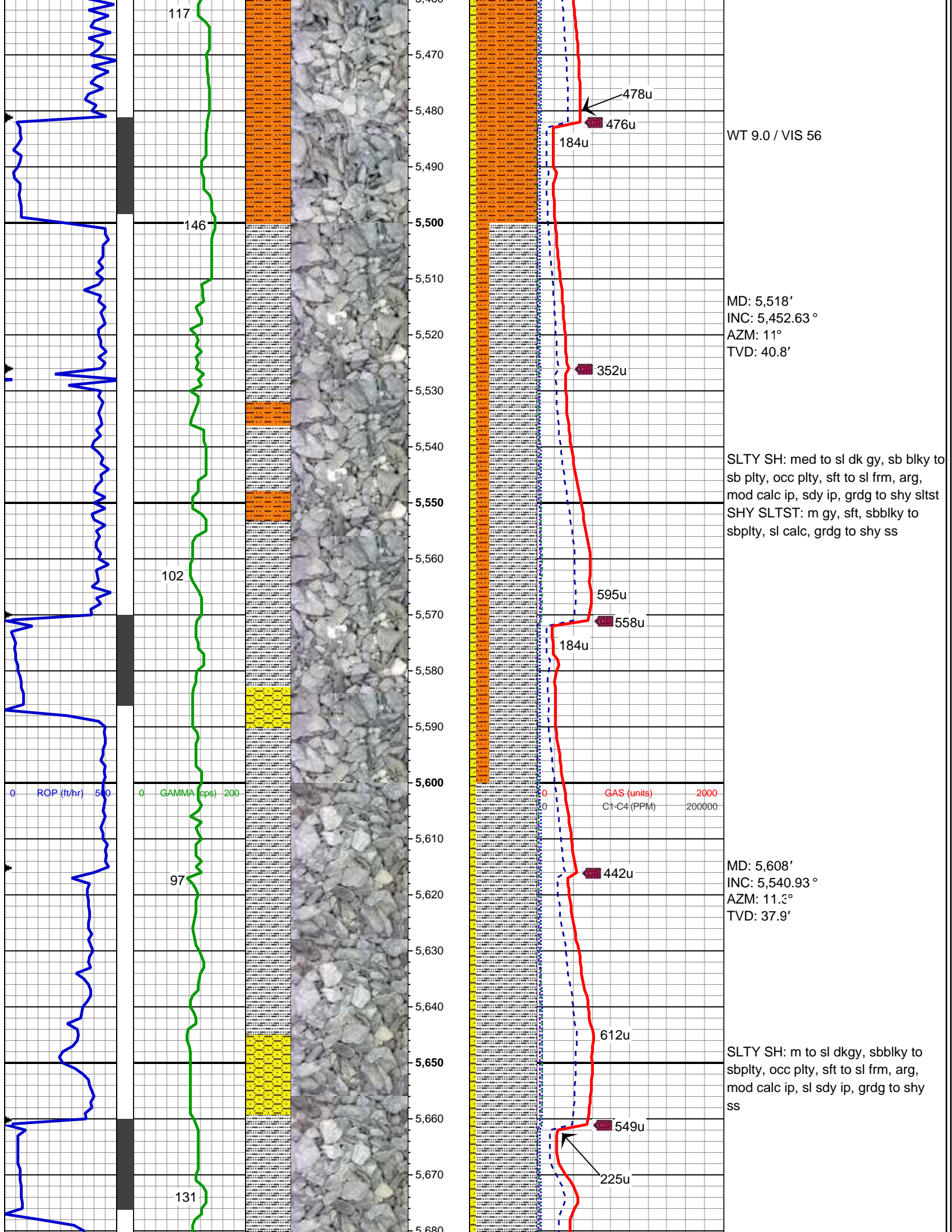
MD: 4,979'
INC: 4,922.22 °
AZM: 11.1°
TVD: 39.4'

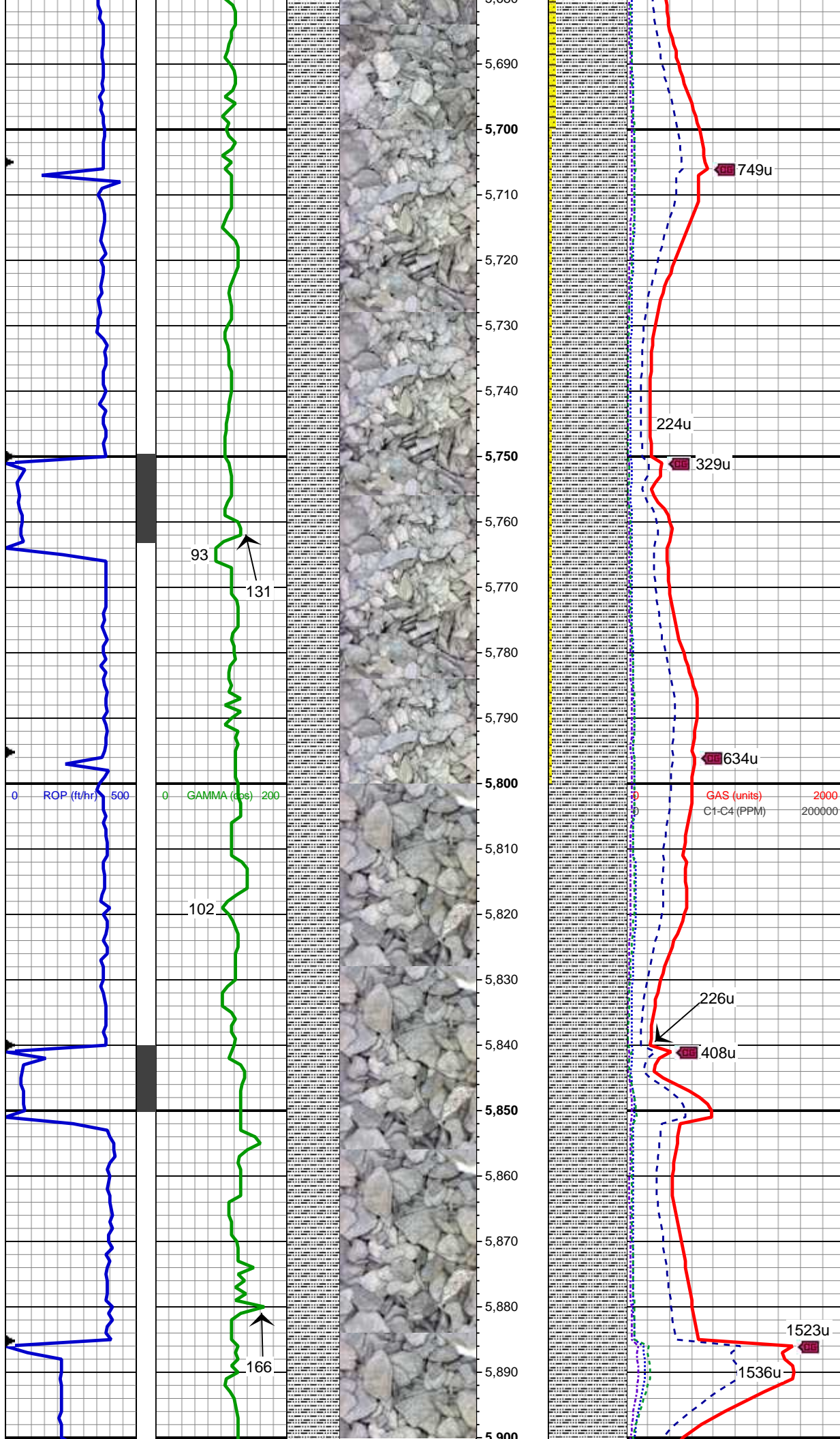
GAS SCALE CHANGE

WT 8.4 / VIS 26









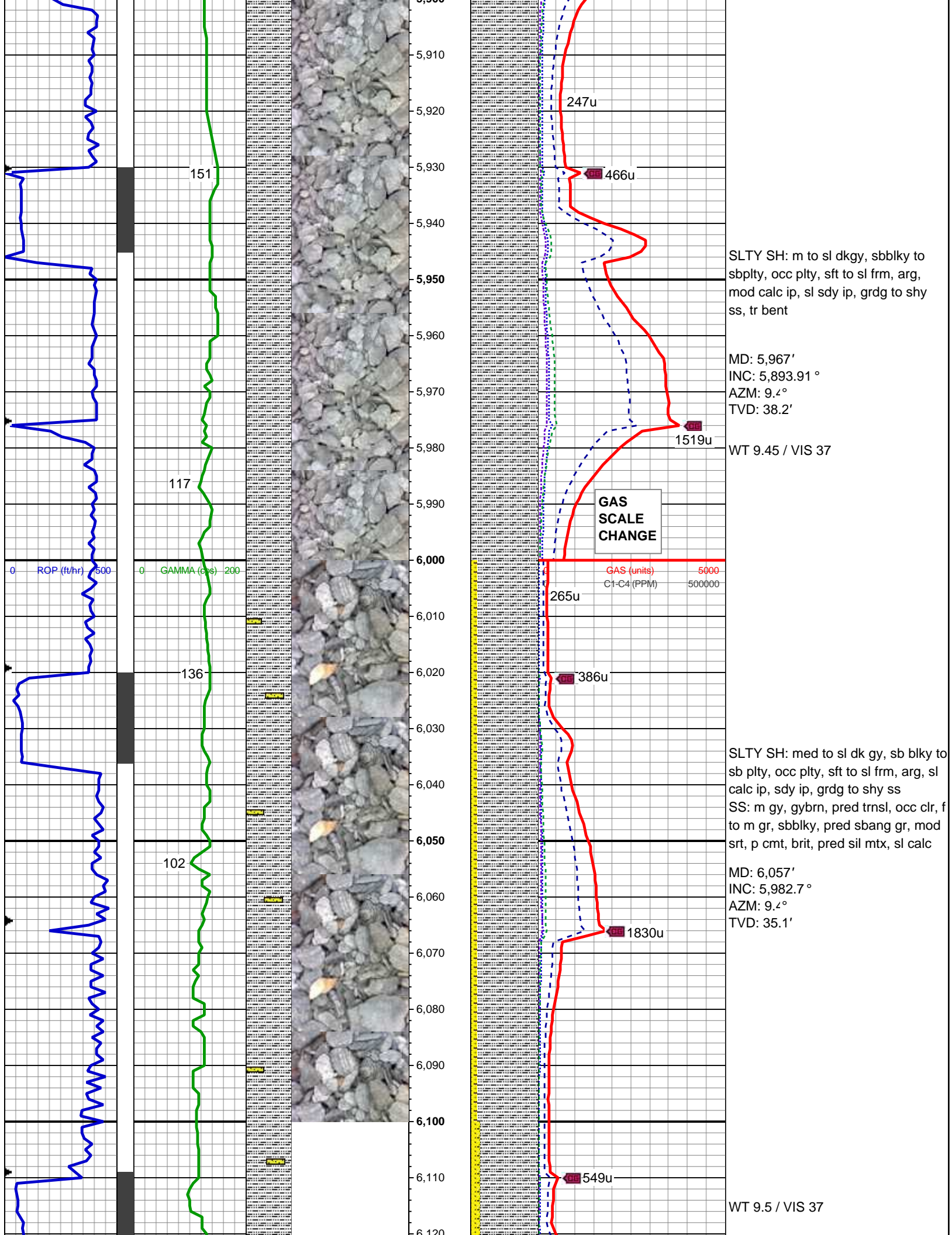
MD: 5,698'
INC: 5,629.11 °
AZM: 11.8°
TVD: 34.8'

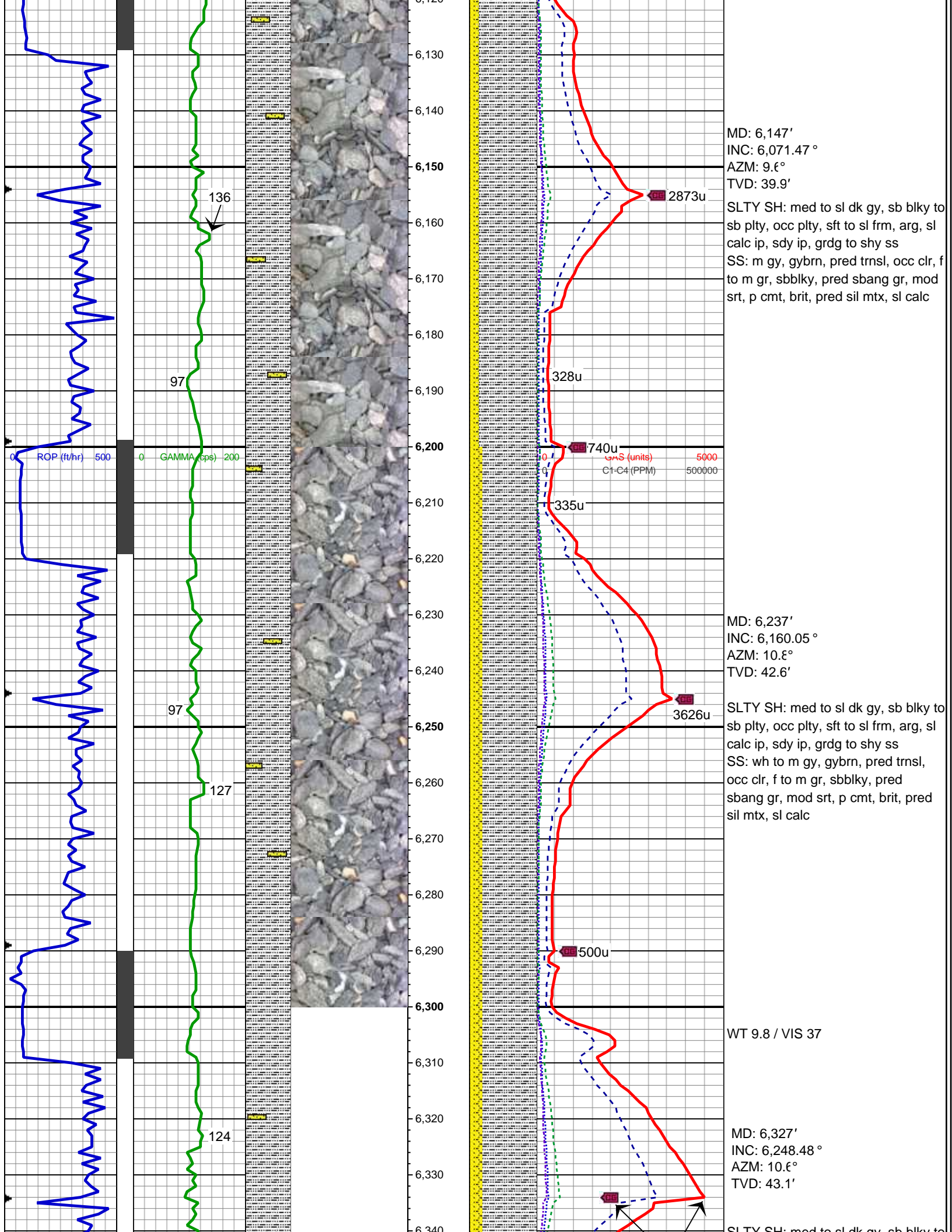
SLTY SH: m to sl dkgy, sbbly to
sbbly, occ ply, sft to sl frm, arg,
mod calc ip, sl sdy ip, grd to shy
ss

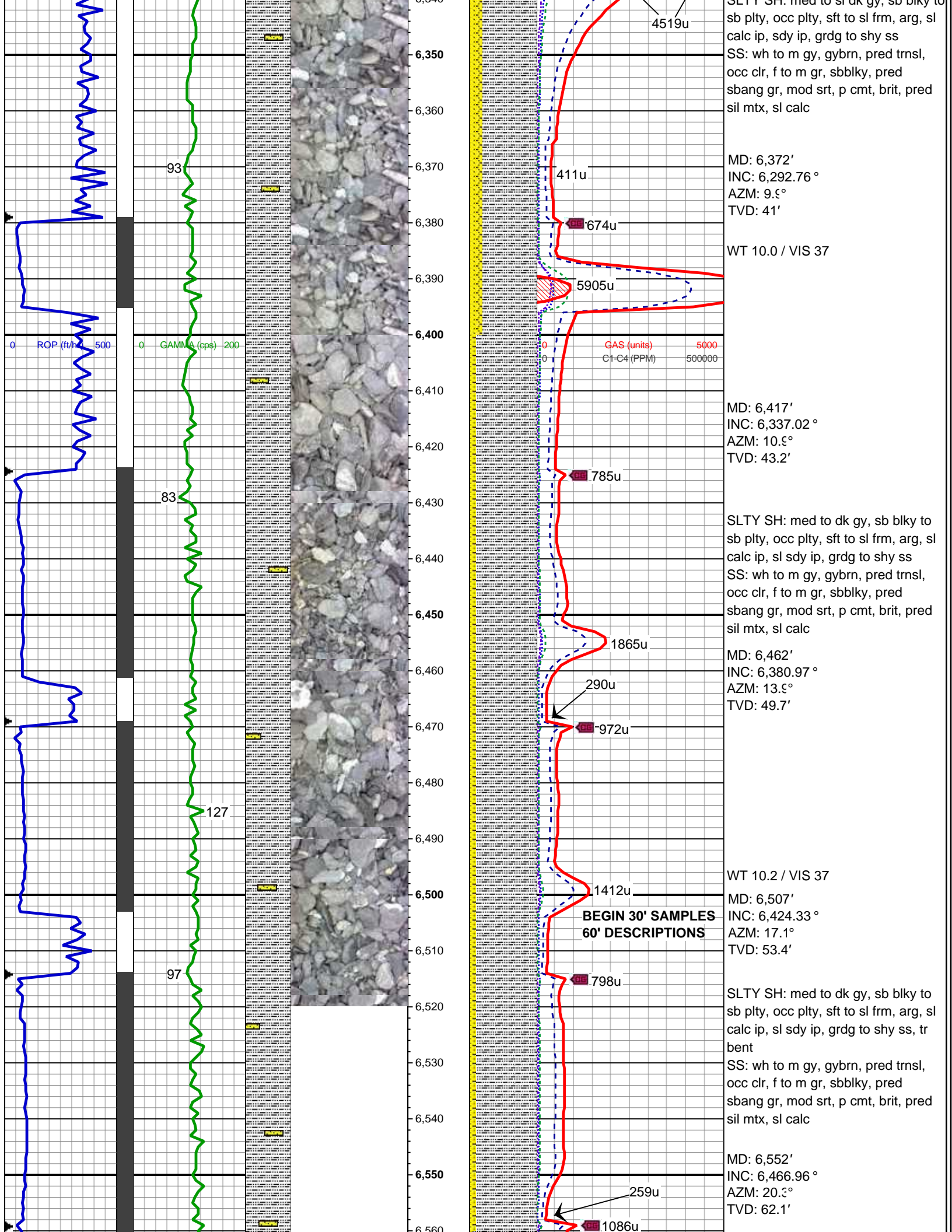
MD: 5,788'
INC: 5,717.41 °
AZM: 10.5°
TVD: 40'

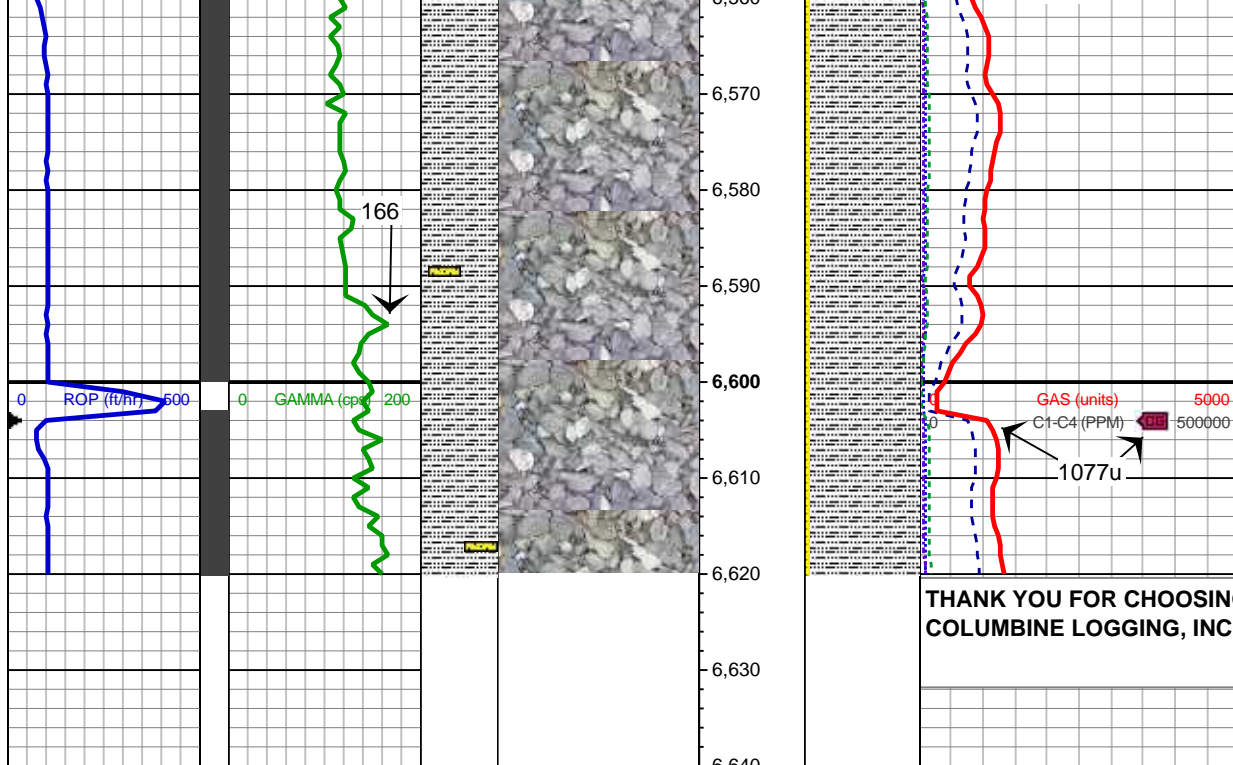
SLTY SH: m to sl dkgy, sbbly to
sbbly, occ ply, sft to sl frm, arg,
mod calc ip, sl sdy ip, grd to shy
ss, tr bent

MD: 5,878'
INC: 5,806.08 °
AZM: 9.2°
TVD: 40.9'









SLTY SH: med to dk gy, sb blkly to sb plty, occ plty, sft to sl frm, arg, sl calc ip, sl sdy ip, grdg to shy ss, occ bent
SS: wh to m gy, gybrn, pred trnsf, occ clr, f to m gr, sbblkly, pred sbang gr, mod srt, p cmt, brit, pred sil mtx, sl calc
WT 10.3 / VIS 37
MD: 6,597'
INC: 6,508.67°
AZM: 23.8°
TVD: 71'

LOG CONTINUES ON FILE:
Resolute E25-63HC Horiz.mplot

THANK YOU FOR CHOOSING
COLUMBINE LOGGING, INC.