

COLUMBINE LOGGING

Scale: 5" / 100'
Measured Depth Log

Well Name Five Rivers K07-63-1HN Vertical

Location SECTION 8, T4N, R66W

State COLORADO

County WELD

Country USA

Rig Number PRECISION 829

API Number 05-123-38257

Region DJ BASIN

Field WATTENBERG

Spud Date 1/23/2014

Surface Coordinates 1616' FSL x 131' FEL

Bottom Hole Coordinates SECTION 7, T4N, R65W
990' FSL x 535' FWL

Ground Elevation 4701'

K.B. Elevation 4717'

Logged Interval 628' **To** 6400'

Total Depth 6400'

Formation NIOBRARA C CHALK

Type of Drilling Fluid FW LSND

Operator

Company NOBLE ENERGY INC.

Address 1625 BROADWAY
DENVER, CO 80202

Geologist

Name HOLLY DUNCAN

Company NOBLE ENERGY, INC.

Address 1625 BROADWAY
DENVER, CO 80202

Other

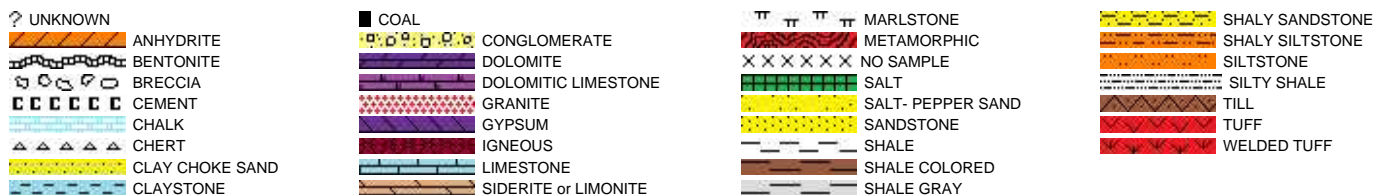
COLUMBINE LOGGING, INC.

2385 S. LIPAN STREET
DENVER, CO 80223

WELL SITE GEOLOGISTS

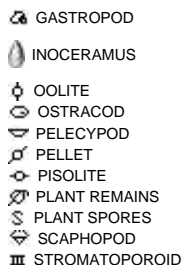
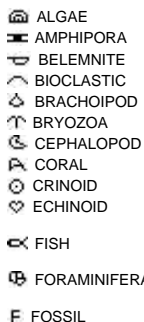
RYAN SHILLING
JOEY LUCE

Rock Types

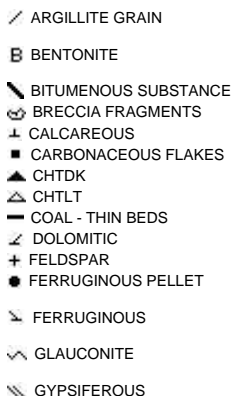
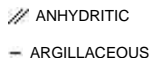


Accessories

Fossils



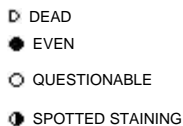
Minerals



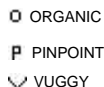
Stringer

Other Symbols

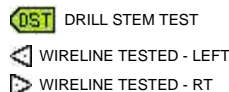
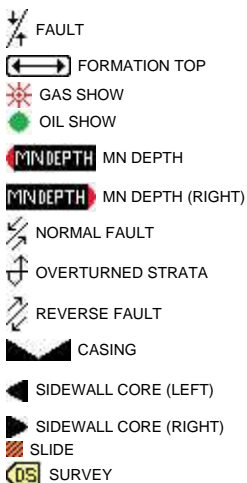
Oil Show



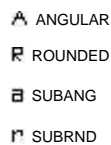
Porosity



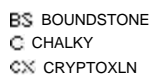
Engineering



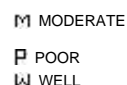
Rounding

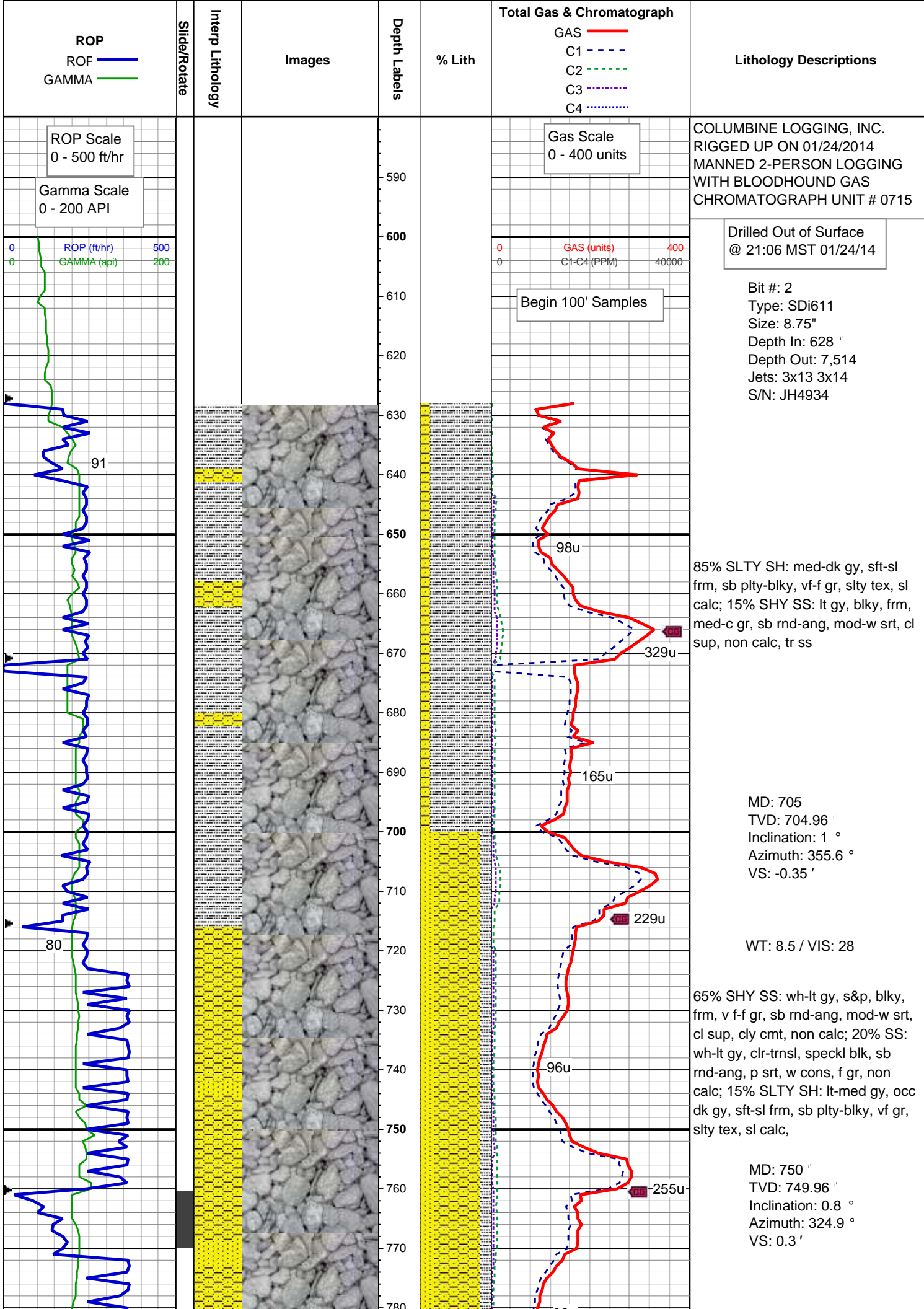


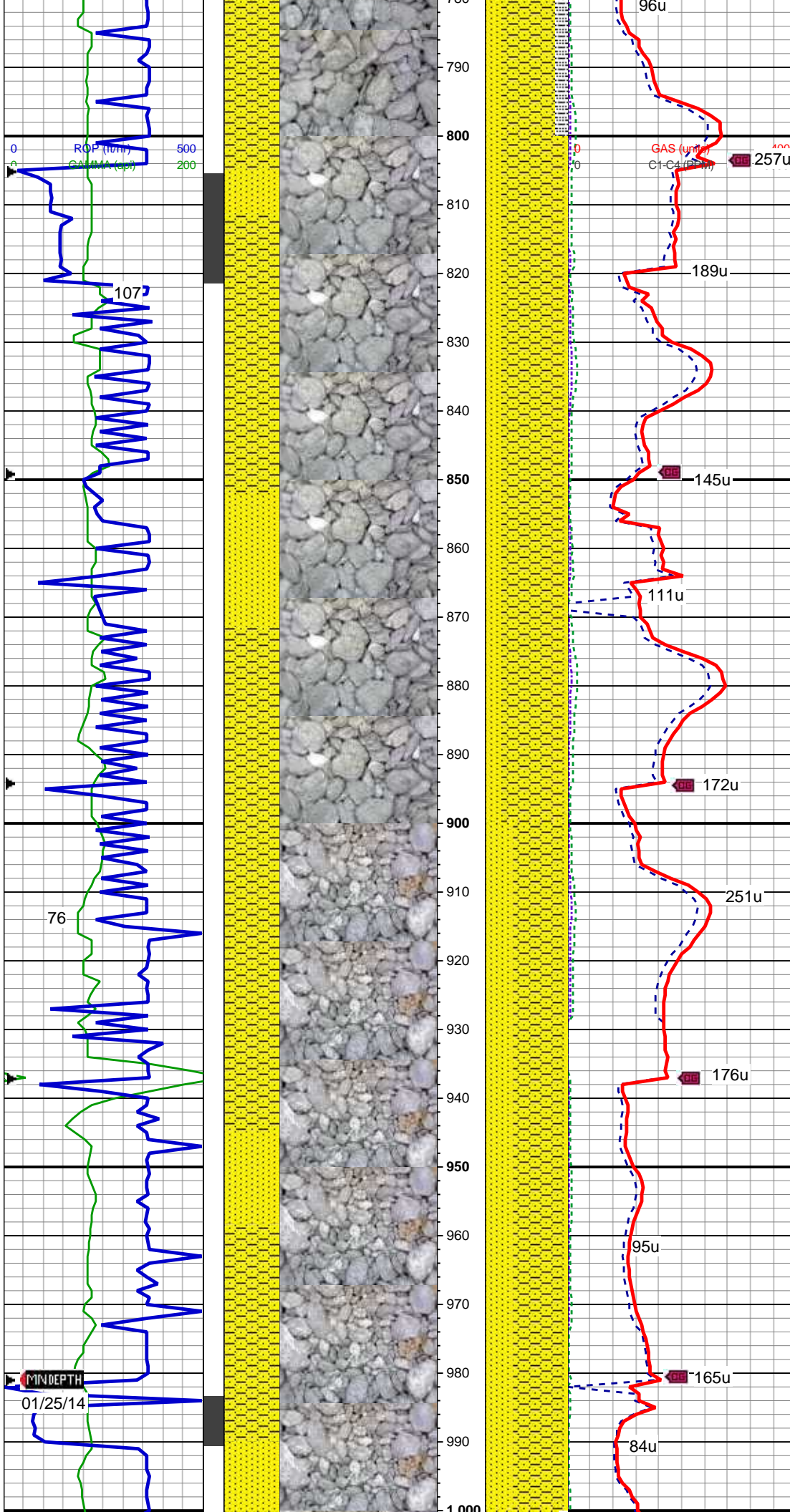
Textures



Sorting







MD: 840 '
TVD: 839.89 '
Inclination: 4 °
Azimuth: 187.5 °
VS: -2.3 '

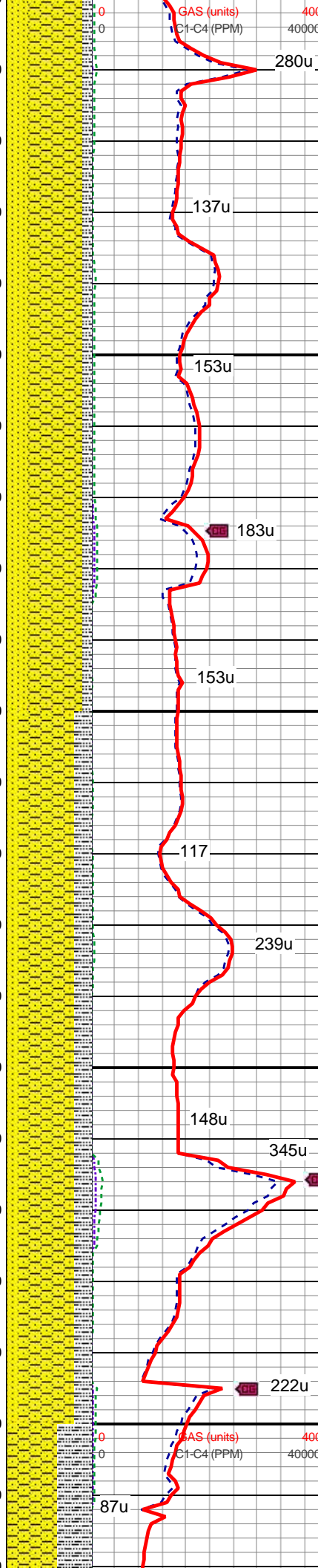
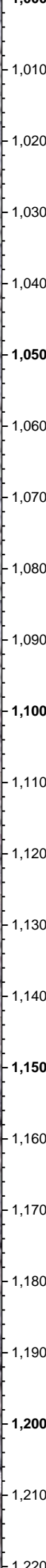
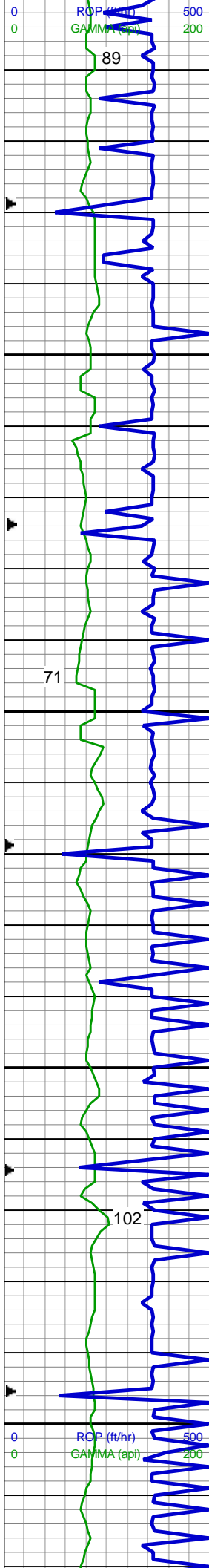
80% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 20% SS: wh-lt gy, clr-trnsl, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc

WT: 8.5 / VIS: 29

MD: 929 '
TVD: 928.67 '
Inclination: 4.1 °
Azimuth: 182.3 °
VS: -8.56 '

65% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 35% SS: wh-lt gy, clr-trnsl, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc

MINDEPTH
01/25/14



MD: 1,019 '
TVD: 1,018.38 '
Inclination: 5.1 °
Azimuth: 181.5 °
VS: -15.77 '
WT: 8.5 / VIS: 29

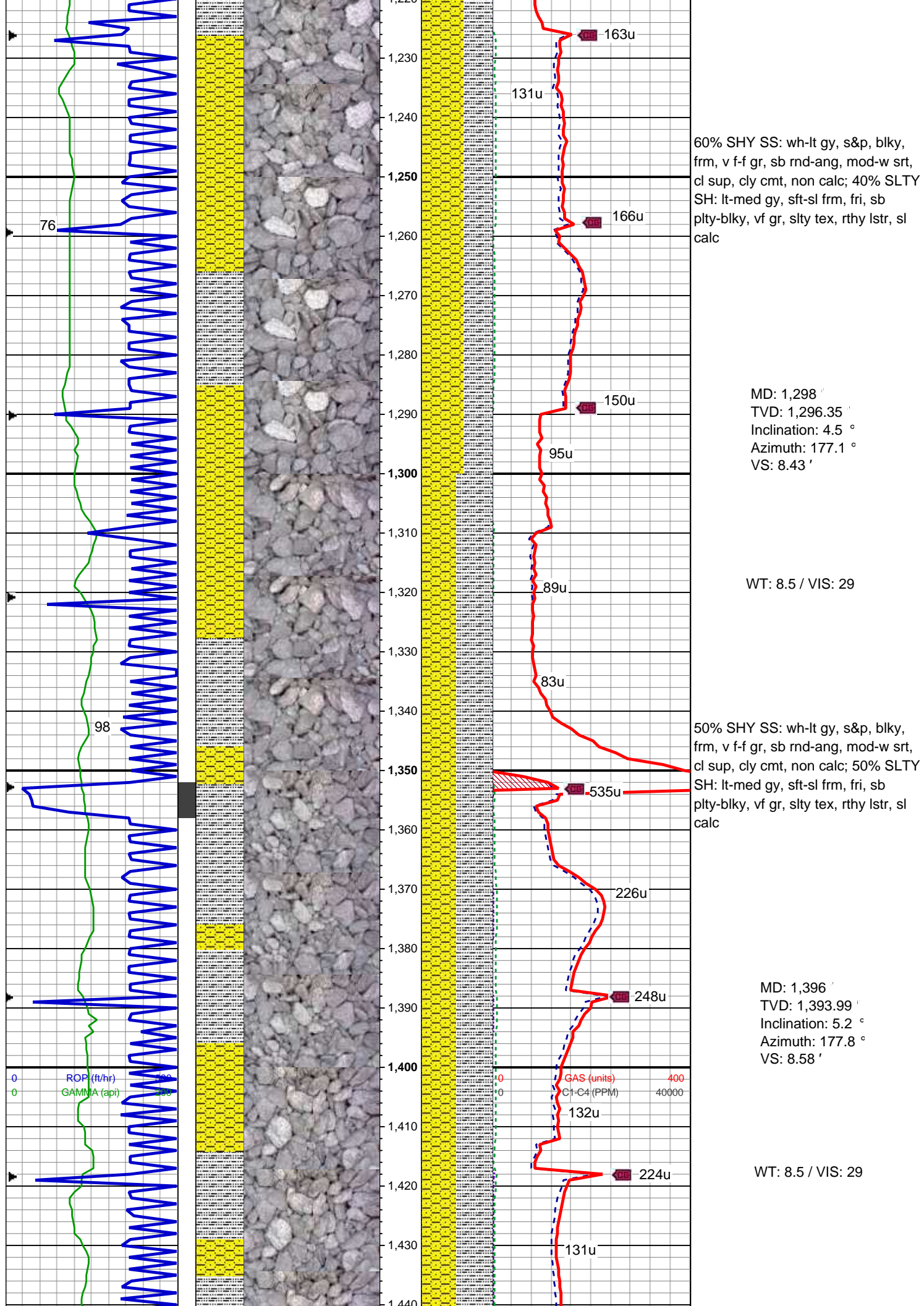
65% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 25% SS: wh-lt gy, clr-trns, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc; 10% SLTY SH: lt-med gy, occ dk gy, sft-sl frm, sb plty-blky, vf gr, slty tex, sl calc, rr pyr

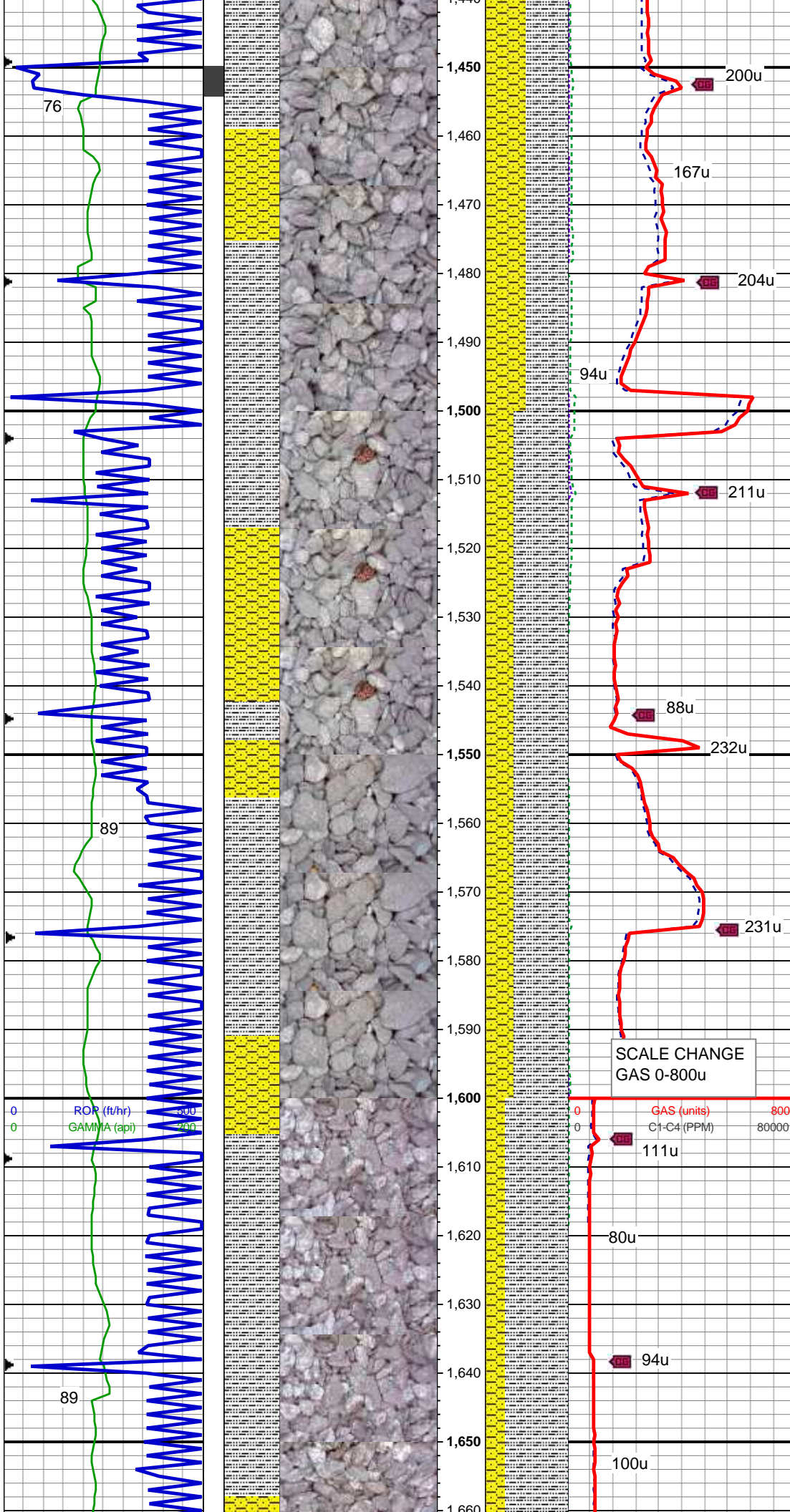
MD: 1,108 '
TVD: 1,107.03 '
Inclination: 5.1 °
Azimuth: 180.3 °
VS: -23.68 '

65% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 20% SLTY SH: lt-med gy, occ dk gy, sft-sl frm, sb plty-blky, vf gr, slty tex, sl calc; 15% SS: wh-lt gy, clr-trns, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc, rr pyr

WT: 8.5 / VIS: 29

MD: 1,203 '
TVD: 1,201.66 '
Inclination: 4.9 °
Azimuth: 180.5 °
VS: 8.11 '





50% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 50% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc

MD: 1,490 '
TVD: 1,487.73 '
Inclination: 3.4 °
Azimuth: 163.3 °
VS: 8.04 '

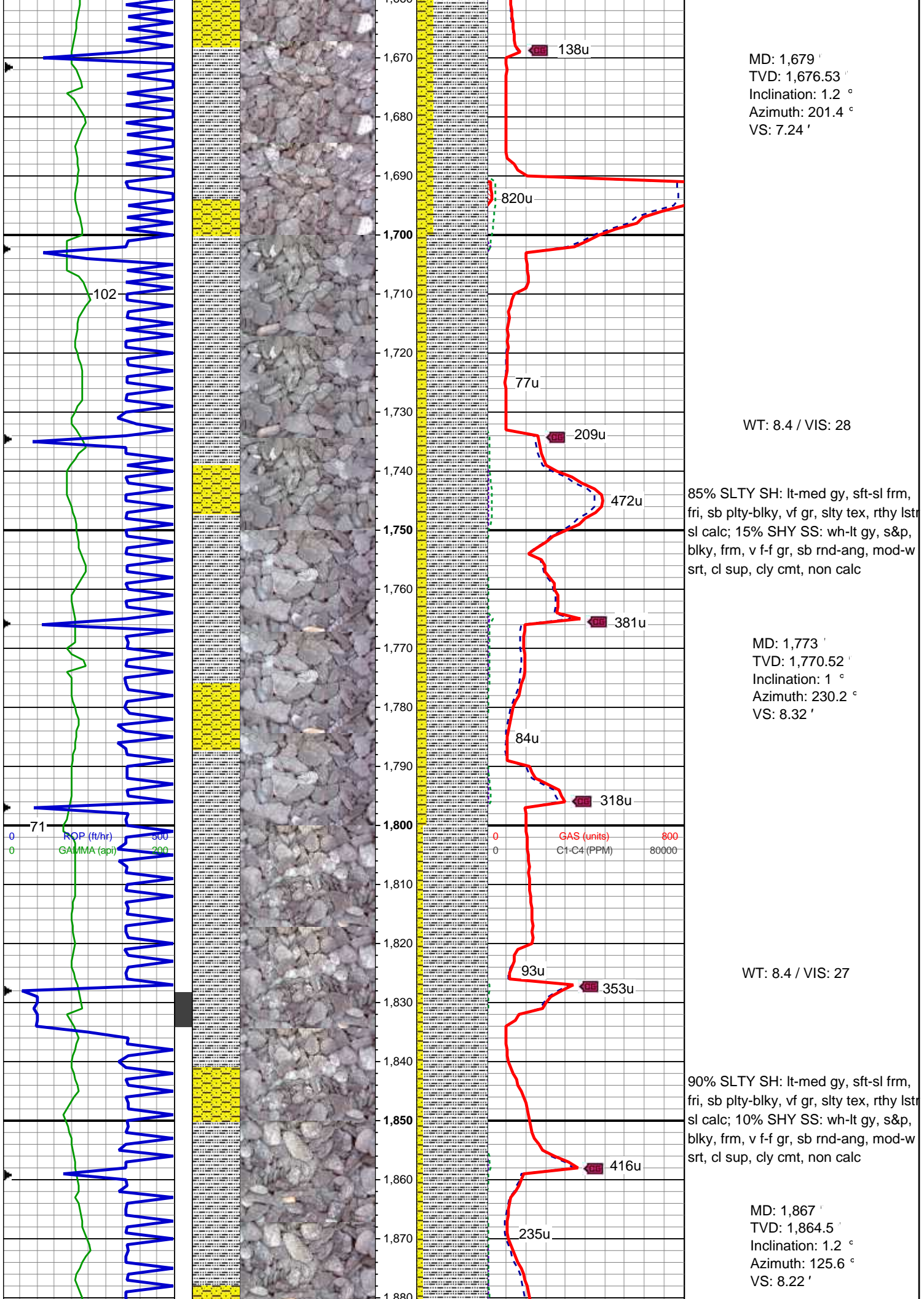
WT: 8.5 / VIS: 29

65% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc; 35% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc

MD: 1,584 '
TVD: 1,581.59 '
Inclination: 2.8 °
Azimuth: 169.2 °
VS: 7.12 '

WT: 8.4 / VIS: 28

75% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc; 25% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc



MD: 1,679 '
TVD: 1,676.53 '
Inclination: 1.2 °
Azimuth: 201.4 °
VS: 7.24 '

WT: 8.4 / VIS: 28

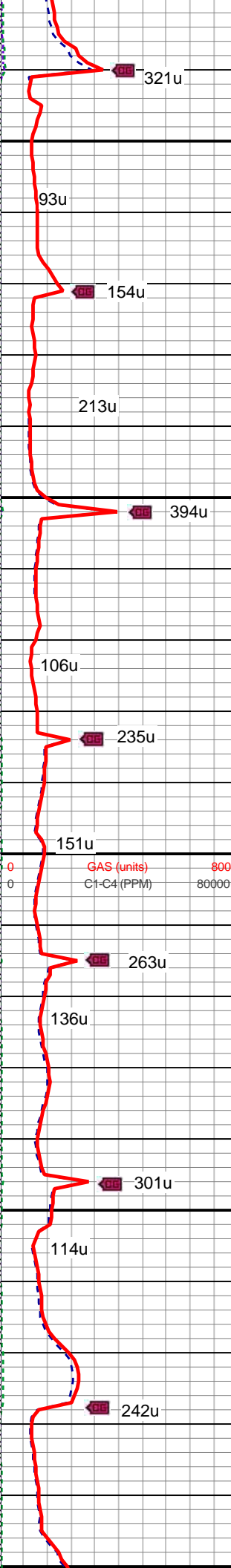
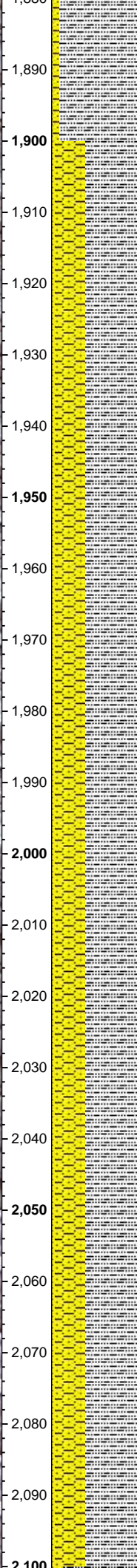
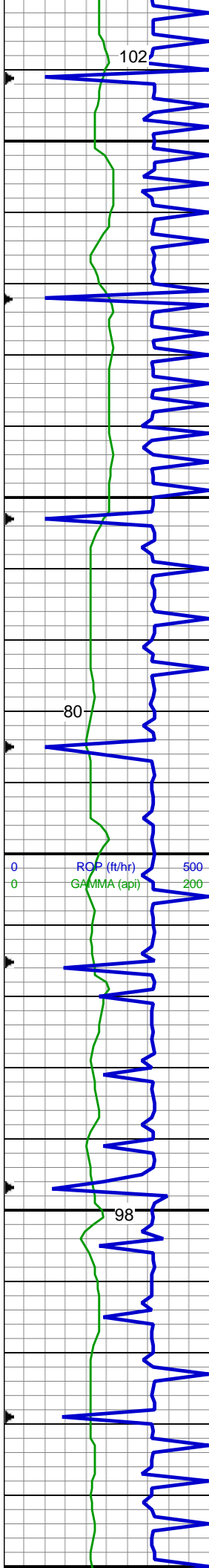
85% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr sl calc; 15% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc

MD: 1,773 '
TVD: 1,770.52 '
Inclination: 1 °
Azimuth: 230.2 °
VS: 8.32 '

WT: 8.4 / VIS: 27

90% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr sl calc; 10% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc

MD: 1,867 '
TVD: 1,864.5 '
Inclination: 1.2 °
Azimuth: 125.6 °
VS: 8.22 '



WT: 8.4 / VIS: 27

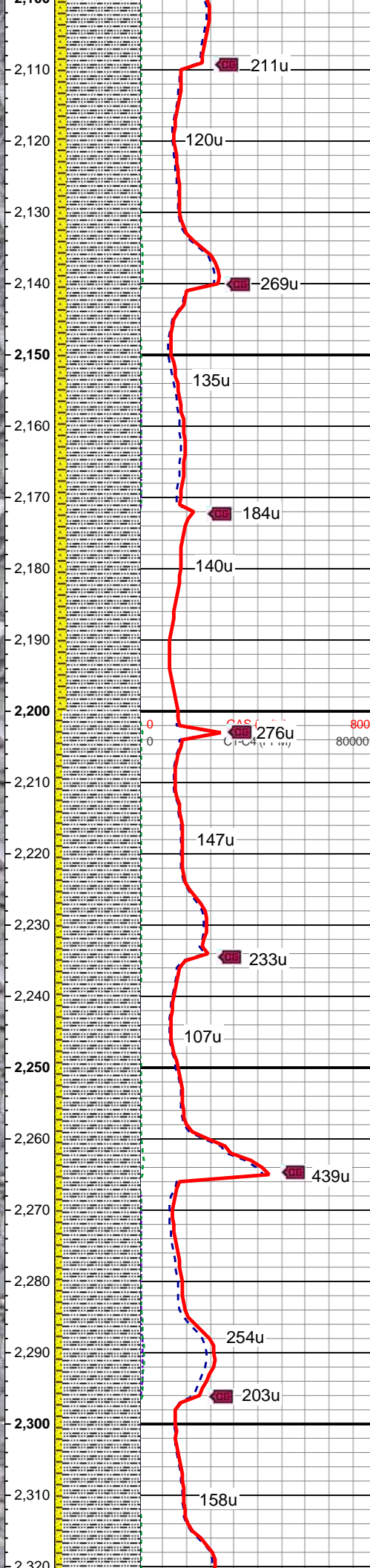
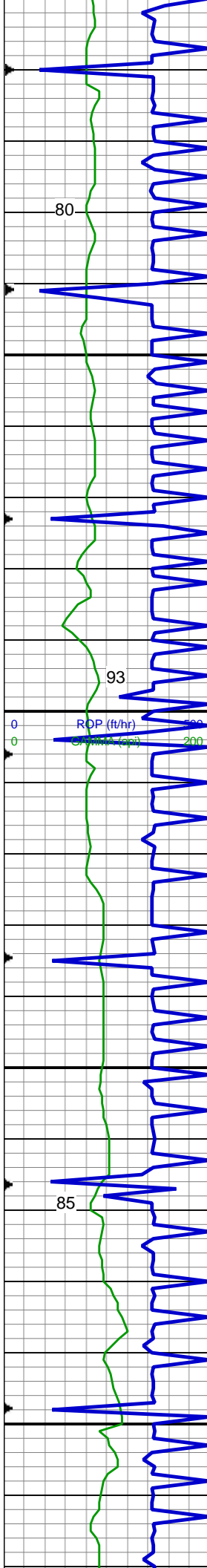
60% SLTY SH: lt-med gy, occ dk gy, sft-sl frm, sb plty-blky, vf gr, slty tex, sl calc; 35% SHY SS: wh-lt gy, s&p, blky, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 5% SS: wh-lt gy, clr-trnsl, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc

MD: 1,961 '
TVD: 1,958.49 '
Inclination: 1.1 °
Azimuth: 117.2 °
VS: 6.68 '

WT: 8.4 / VIS: 27

60% SLTY SH: lt-med gy, occ dk gy, sft-sl frm, sb plty-blky, vf gr, slty tex, sl calc; 35% SHY SS: wh-lt gy, s&p, blky, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 5% SS: wh-lt gy, clr-trnsl, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc

MD: 2,056 '
TVD: 2,053.47 '
Inclination: 1.1 °
Azimuth: 91.3 °
VS: 4.99 '



WT: 8.5 / VIS: 27

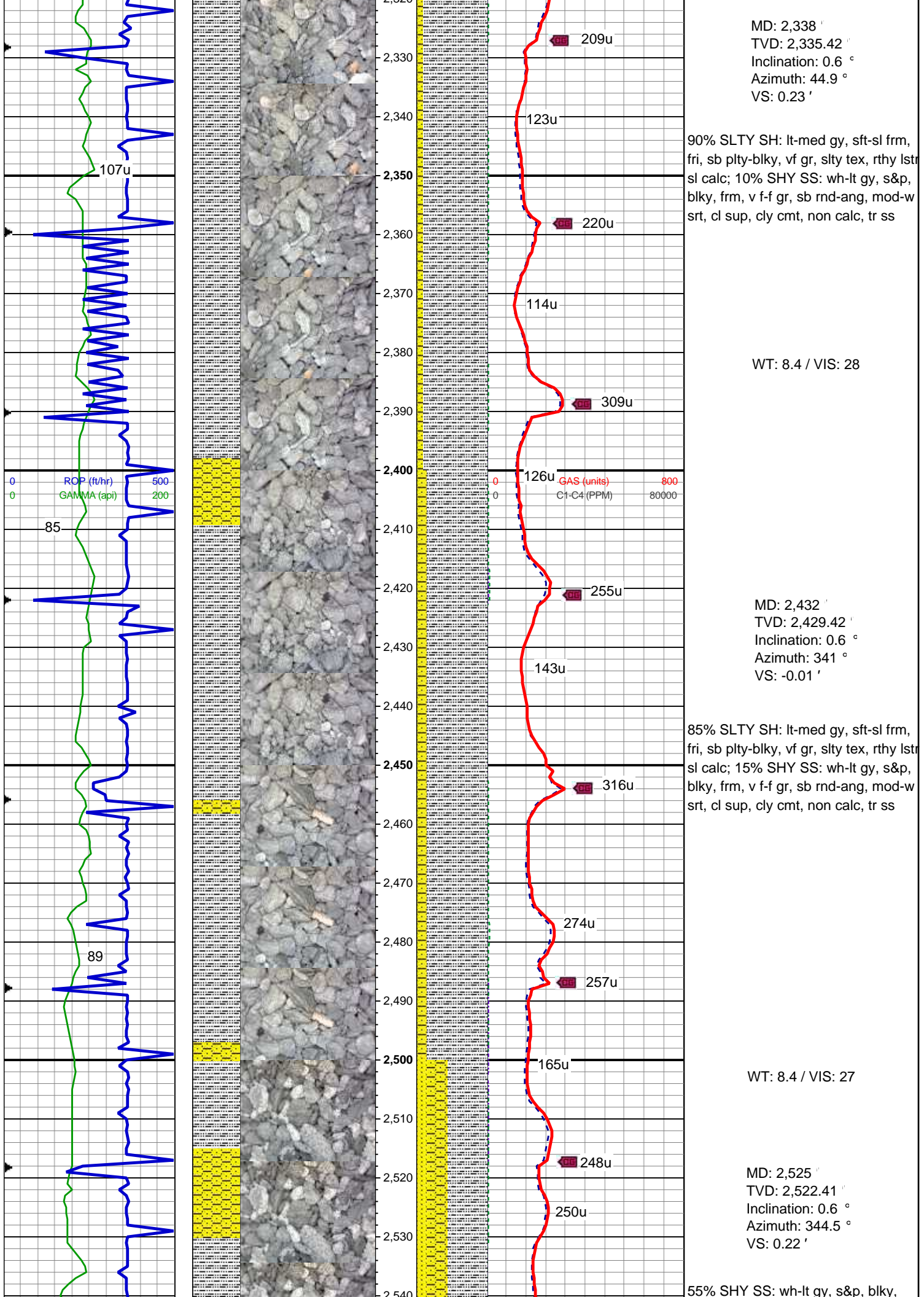
85% SLTY SH: lt-med gy, occ dk gy, sft-sl frm, sb plty-blky, vf gr, slty tex, sl calc; 10% SHY SS: wh-lt gy, s&p, blky, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 5% SS: wh-lt gy, clr-trnsl, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc

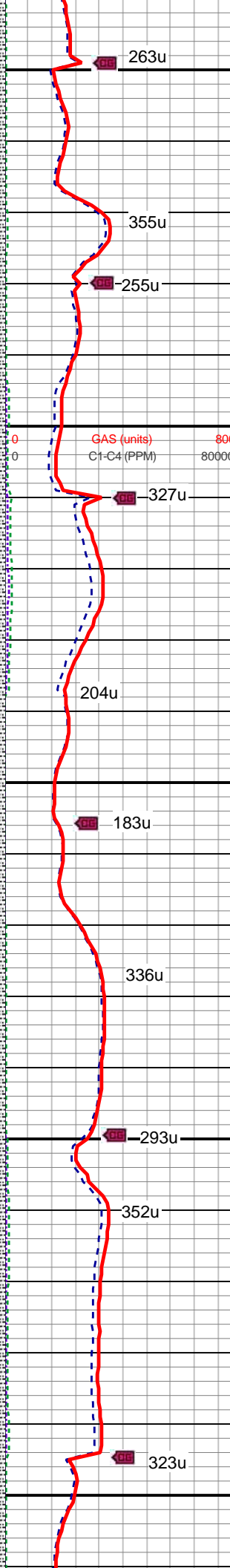
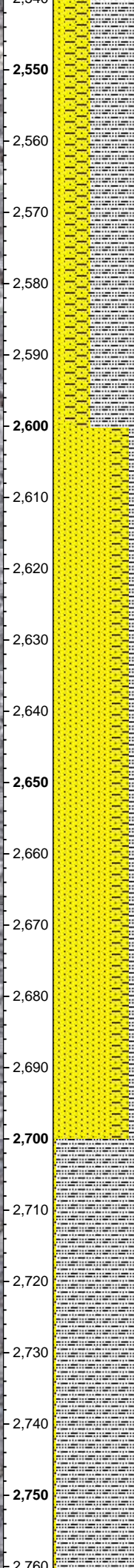
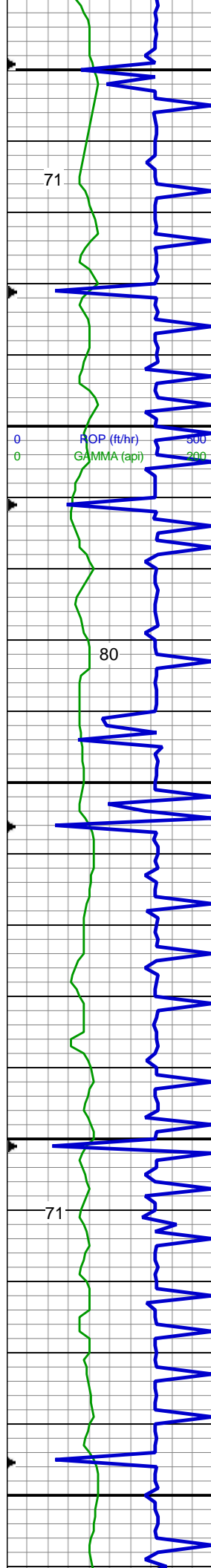
MD: 2,150 '
TVD: 2,147.45 '
Inclination: 1.2 °
Azimuth: 77.4 °
VS: 3.11 '

MD: 2,244 '
TVD: 2,241.43 '
Inclination: 1 °
Azimuth: 67.2 °
VS: 1.37 '

90% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr sl calc; 10% SHY SS: wh-lt gy, s&p, blky, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc, tr ss

WT: 8.4 / VIS: 28





frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 30% SLTY SH: lt-med gy, occ dk gy, sft-sl frm, sb plty-blky, vf gr, slty tex, sl calc; 15% SS: wh-lt gy, clr-trnsl, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc

MD: 2,601 '
TVD: 2,598.41 '
Inclination: 0.9 °
Azimuth: 338.5 °
VS: 0.49 '

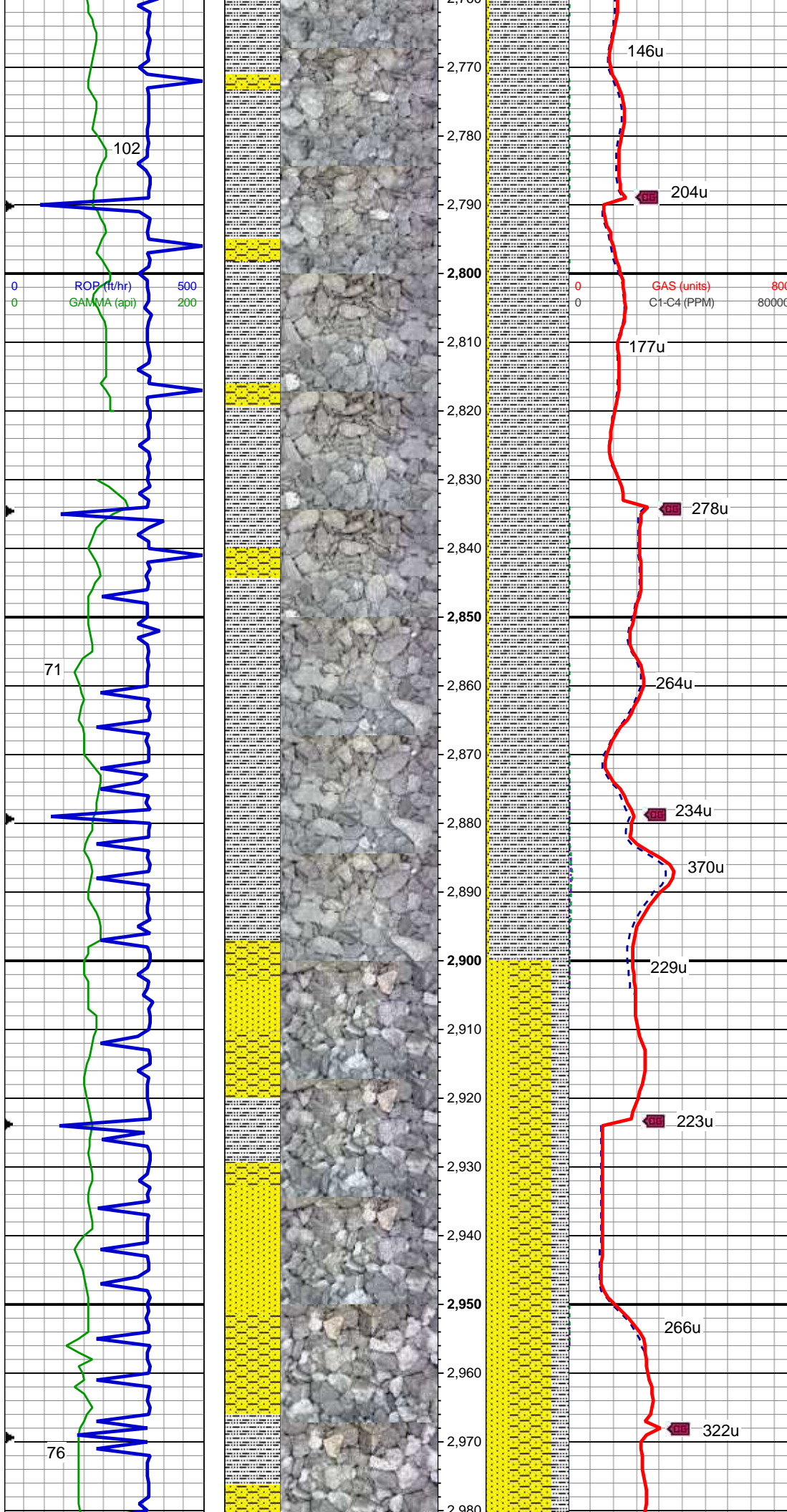
WT: 8.4 / VIS: 27

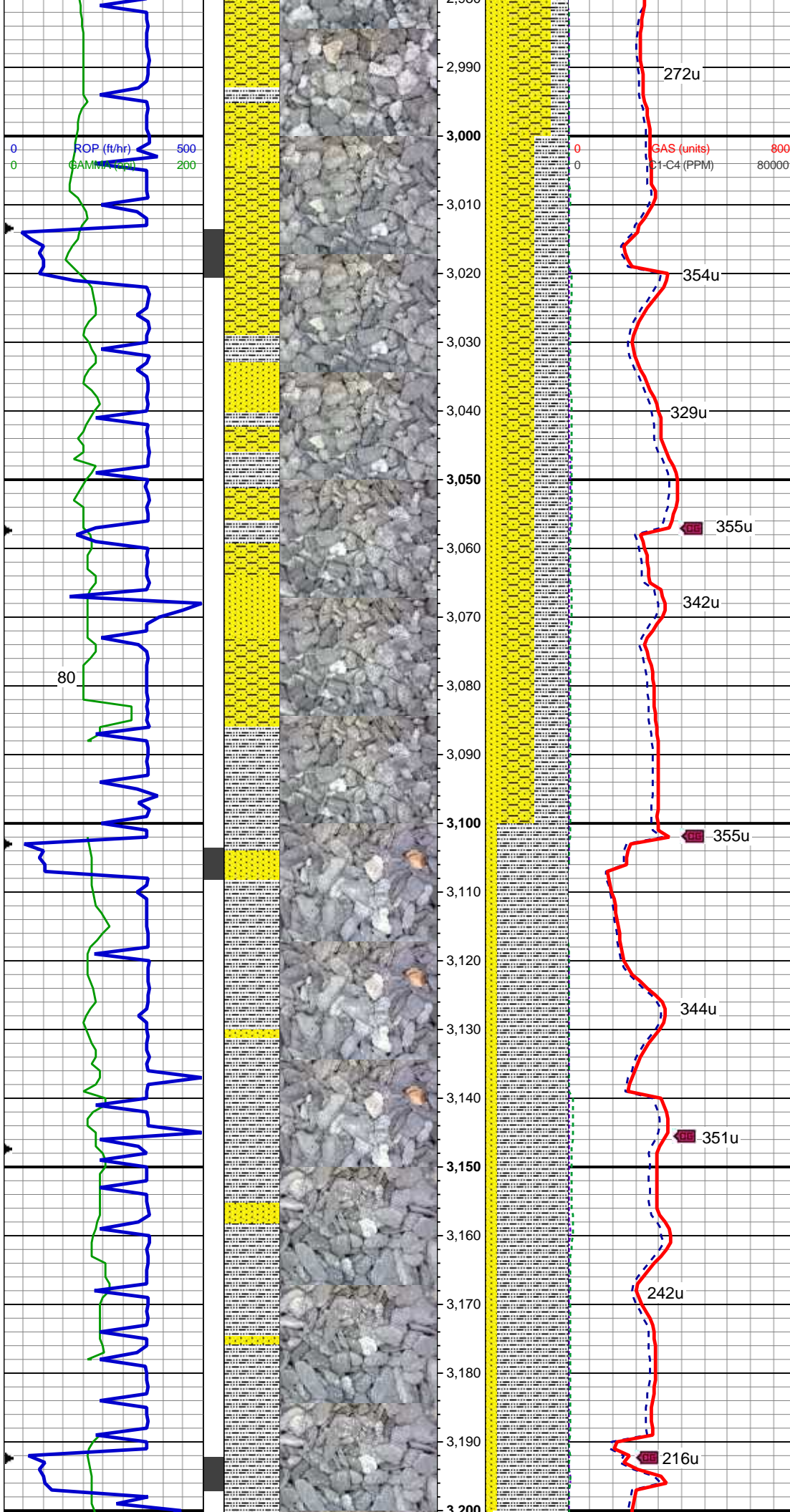
70% SS: wh-lt gy, clr-trnsl, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc; 20% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 10% SLTY SH: lt-med gy, occ dk gy, sft-sl frm, sb plty-blky, vf gr, slty tex, sl calc

MD: 2,690 '
TVD: 2,687.4 '
Inclination: 0.9 °
Azimuth: 338.6 °
VS: 0.92 '

WT: 8.4 / VIS: 27

95% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr sl calc; 5% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc, tr ss





WT: 8.4 / VIS: 27

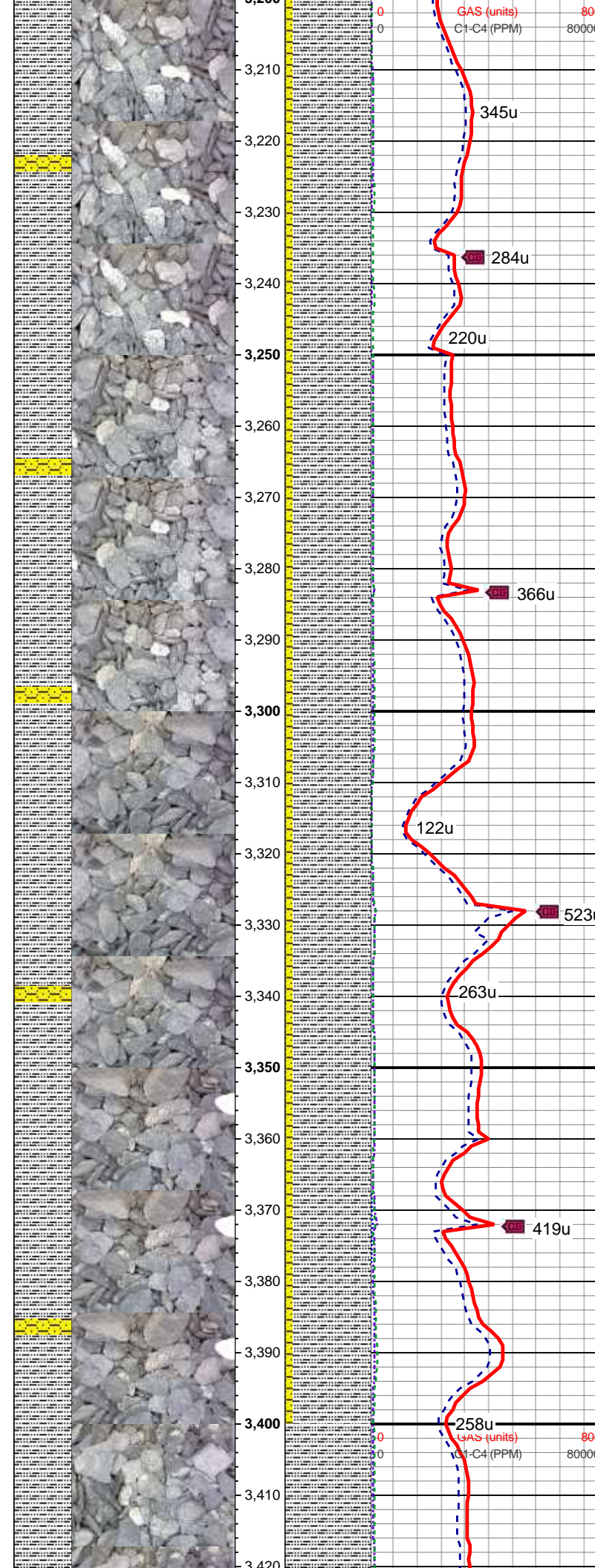
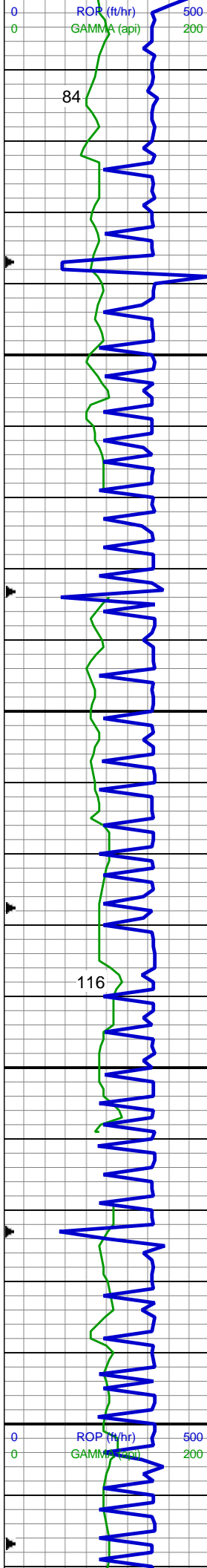
MD: 3,049 '
TVD: 3,046.35 '
Inclination: 0.6 °
Azimuth: 265.9 °
VS: 3.8 '

40% SHY SS: wh-lt gy, s&p, blk, frm, v f-f gr, sb rnd-ang, mod-w srt, cl sup, cly cmt, non calc; 40% SLTY SH: lt-med gy, occ dk gy, sft-sl frm, sb pty-blky, vf gr, slty tex, sl calc
20% SS: wh-lt gy, clr-trnsl, speckl blk, sb rnd-ang, p srt, w cons, f gr, non calc

MD: 3,138 '
TVD: 3,135.34 '
Inclination: 0.7 °
Azimuth: 217.9 °
VS: -57.37 '

85% SLTY SH: lt-med gy, rr dk gy, sft-sl frm, fri, sb pty-blky, vf gr, slty tex, sl calc 15% SS: wh-lt gy, clr-trnsl, sb rnd-ang, p srt, w cons, f gr, non calc

WT: 8.4 / VIS: 28



MD: 3,228 '
TVD: 3,225.33 '
Inclination: 0.9 °
Azimuth: 193.8 °
VS: -58.49 '

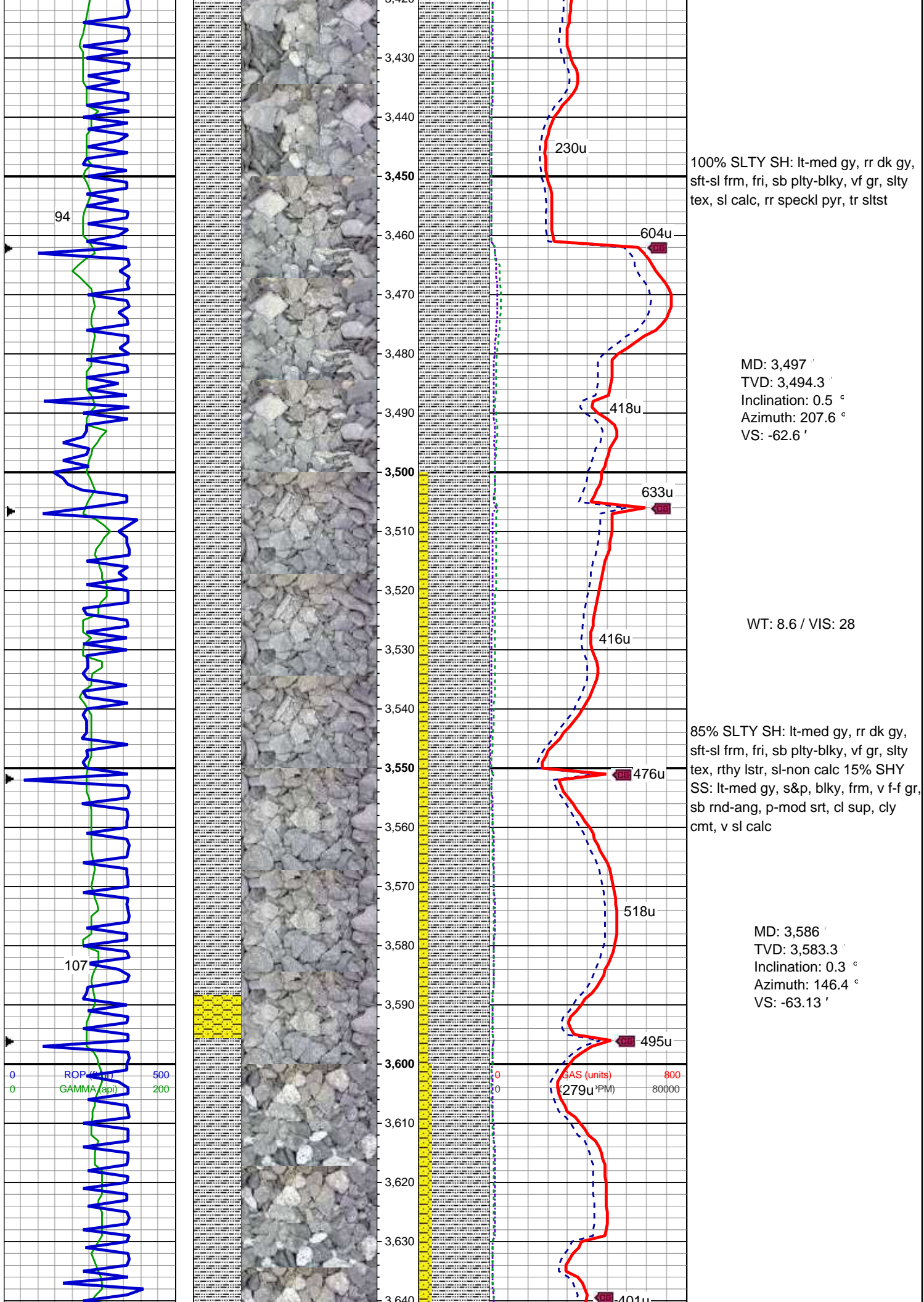
90% SLTY SH: lt-med gy, rr dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, sl calc 10% SHY SS: wh-lt gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, cly cmt, non calc

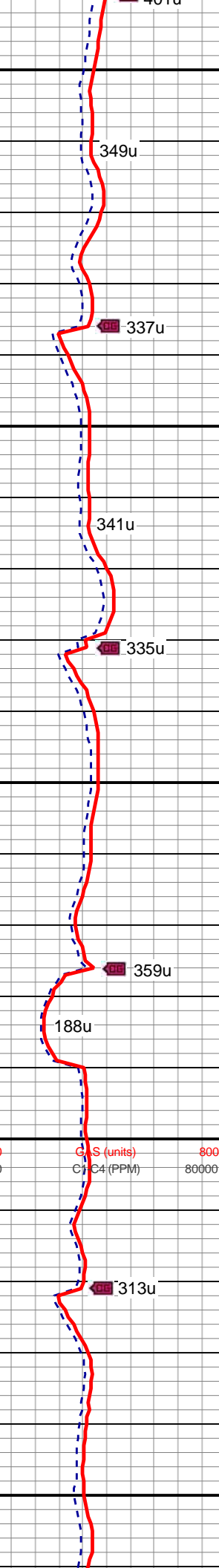
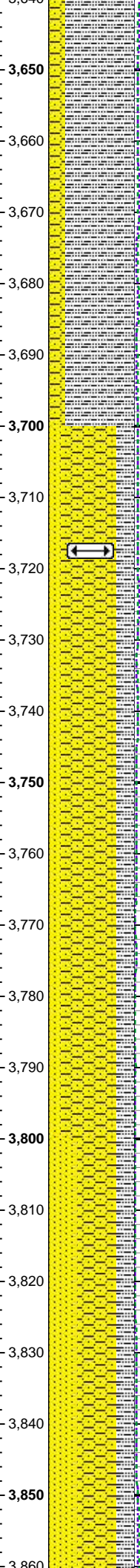
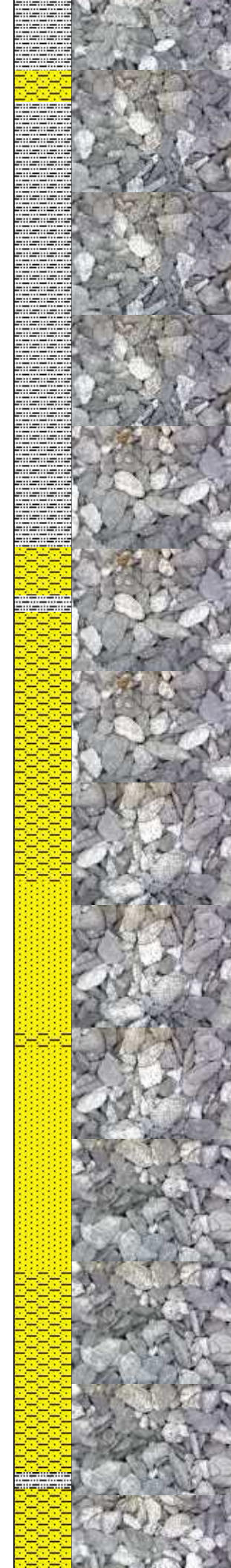
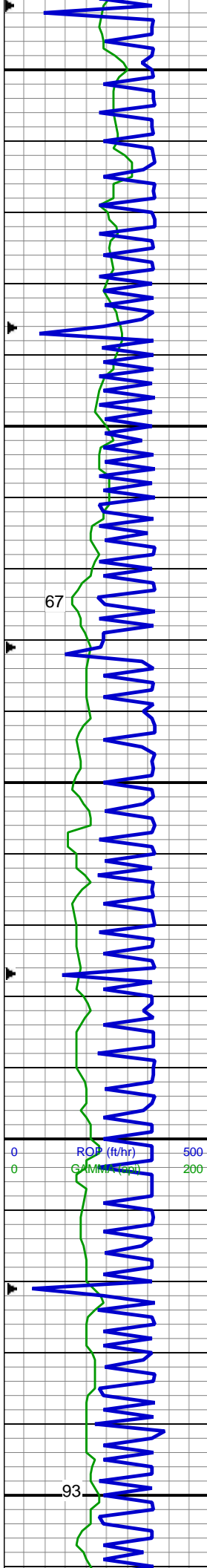
MD: 3,318 '
TVD: 3,315.32 '
Inclination: 1.1 °
Azimuth: 184 °
VS: -60.04 '

90% SLTY SH: lt-med gy, rr dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, sl calc 10% SHY SS: wh-lt gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, cly cmt, non calc

WT: 8.55 / VIS: 28

MD: 3,407 '
TVD: 3,404.31 '
Inclination: 0.9 °
Azimuth: 194.9 °
VS: -61.56 '





80% SLTY SH: lt-med gy, rr dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl-non calc 20% SHY SS: lt-med gy, s&p, blkly, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, cly cmt, v sl calc

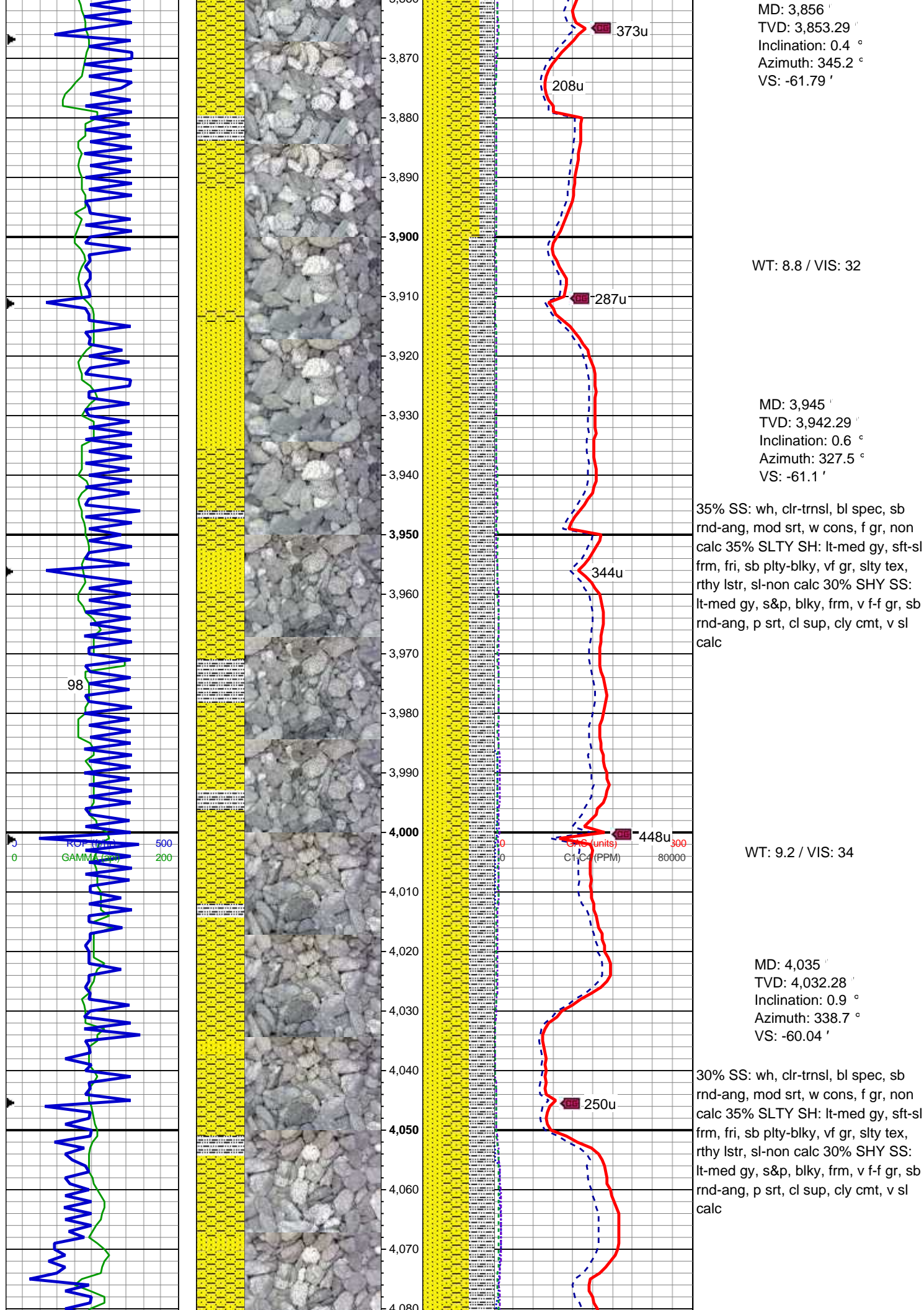
MD: 3,676 '
TVD: 3,673.3 '
Inclination: 0.4 °
Azimuth: 11.9 °
VS: -63.02 '

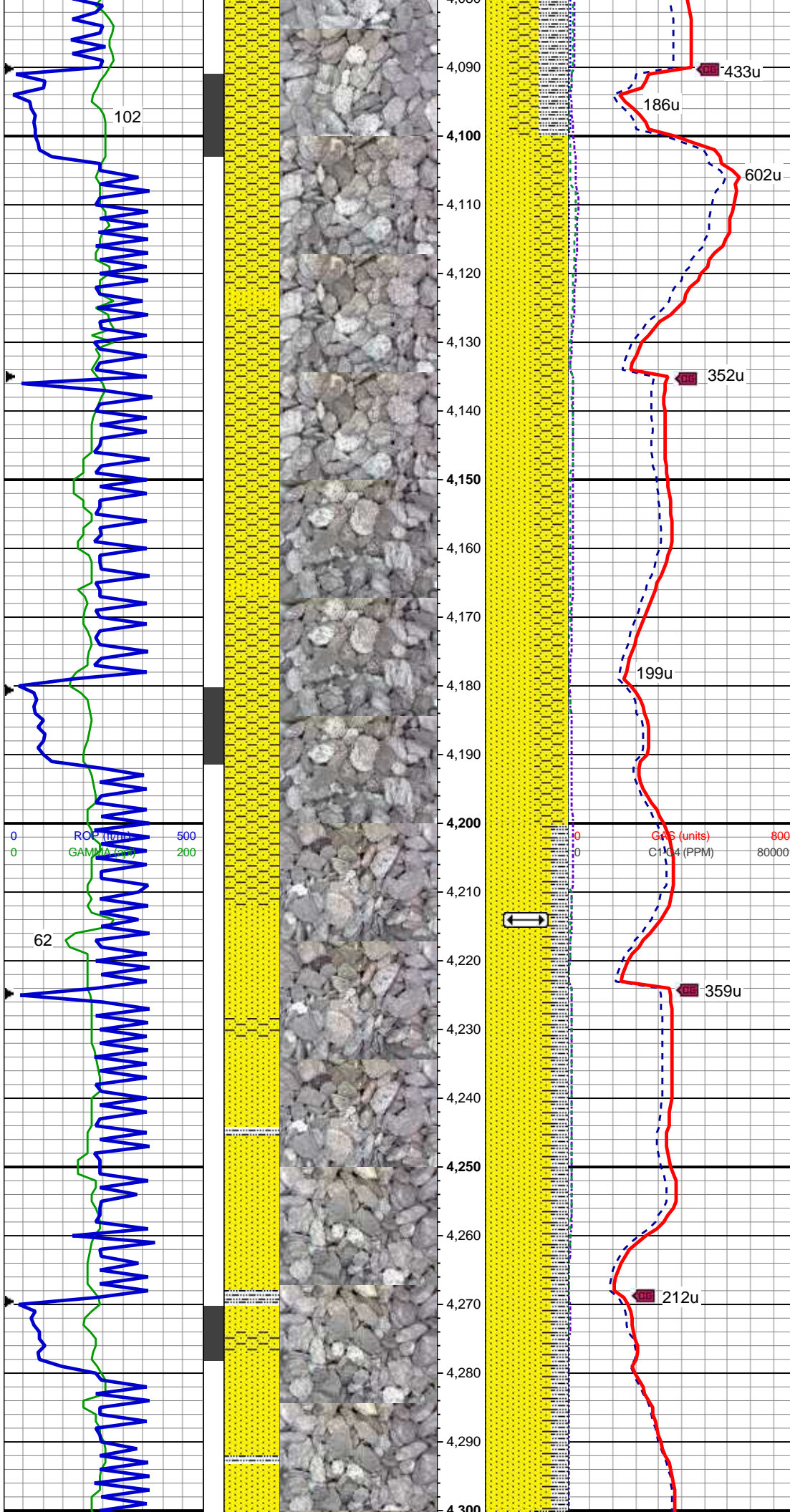
Logger Top Parkman
MD 3717'/TVD 3713'

65% SHY SS: wh-lt gy, s&p, blkly, frm, v f-f gr, sb rnd-ang, p srt, cl sup, cly cmt, v sl calc 20% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl-non calc 15% SS: wh, clr-trnsl, bl spec, sb rnd-ang, mod srt, w cons, f gr, non calc

MD: 3,766 '
TVD: 3,763.29 '
Inclination: 0.4 °
Azimuth: 350.1 °
VS: -62.41 '

45% SHY SS: wh-lt gy, s&p, blkly, frm, v f-f gr, sb rnd-ang, p srt, cl sup, cly cmt, v sl calc 35% SS: wh, clr-trnsl, bl spec, sb rnd-ang, mod srt, w cons, f gr, non calc 20% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl-non calc





MD: 4,125 '
TVD: 4,122.26 '
Inclination: 1.4 °
Azimuth: 343.2 °
VS: -58.33 '

60% SS: wh, clr-trnsl, speckl bl-gn, sb rnd-ang, mod srt, w cons, f-med gr, non calc 40% SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, rr sh

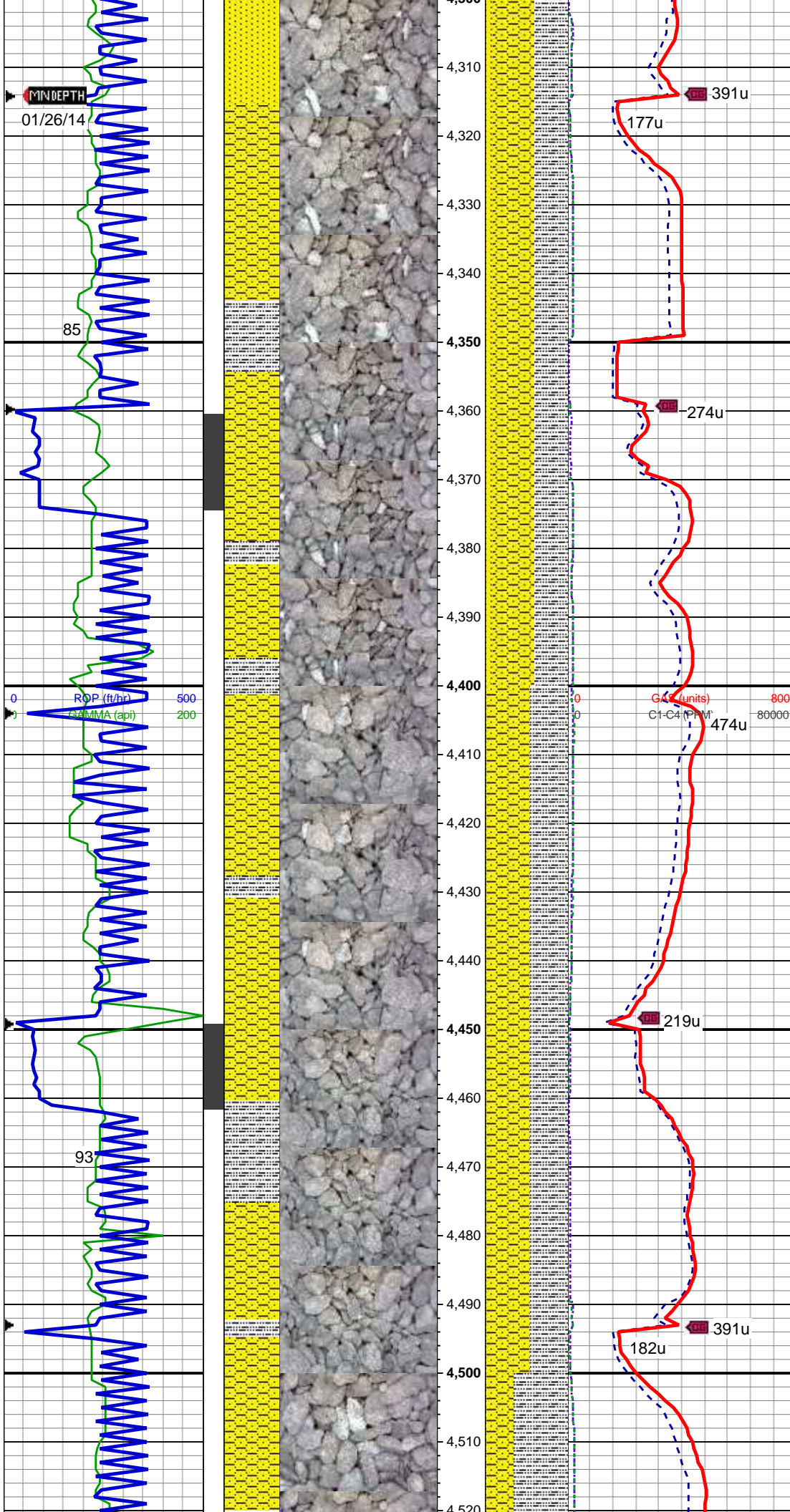
WT: 9.2 / VIS: 35

Logger Top Sussex
MD 4214'/TVD 4211'

MD: 4,214 '
TVD: 4,211.26 '
Inclination: 0.6 °
Azimuth: 162.8 °
VS: -57.74 '

70% SS: wh, clr-trnsl, speckl bl-gn, sb rnd-ang, mod srt, w cons, f-med gr, non calc 20% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl-non calc 10% SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt

MD: 4,304 '
TVD: 4,291.22 '



TVD: 4,301.23
Inclination: 2.2 °
Azimuth: 168.9 °
VS: -59.88 '

50% SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt 40% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl-non calc 10% SS: wh, clr-trns, speckl bl-gn, sb rnd-ang, mod srt, w cons, f-med gr, non calc

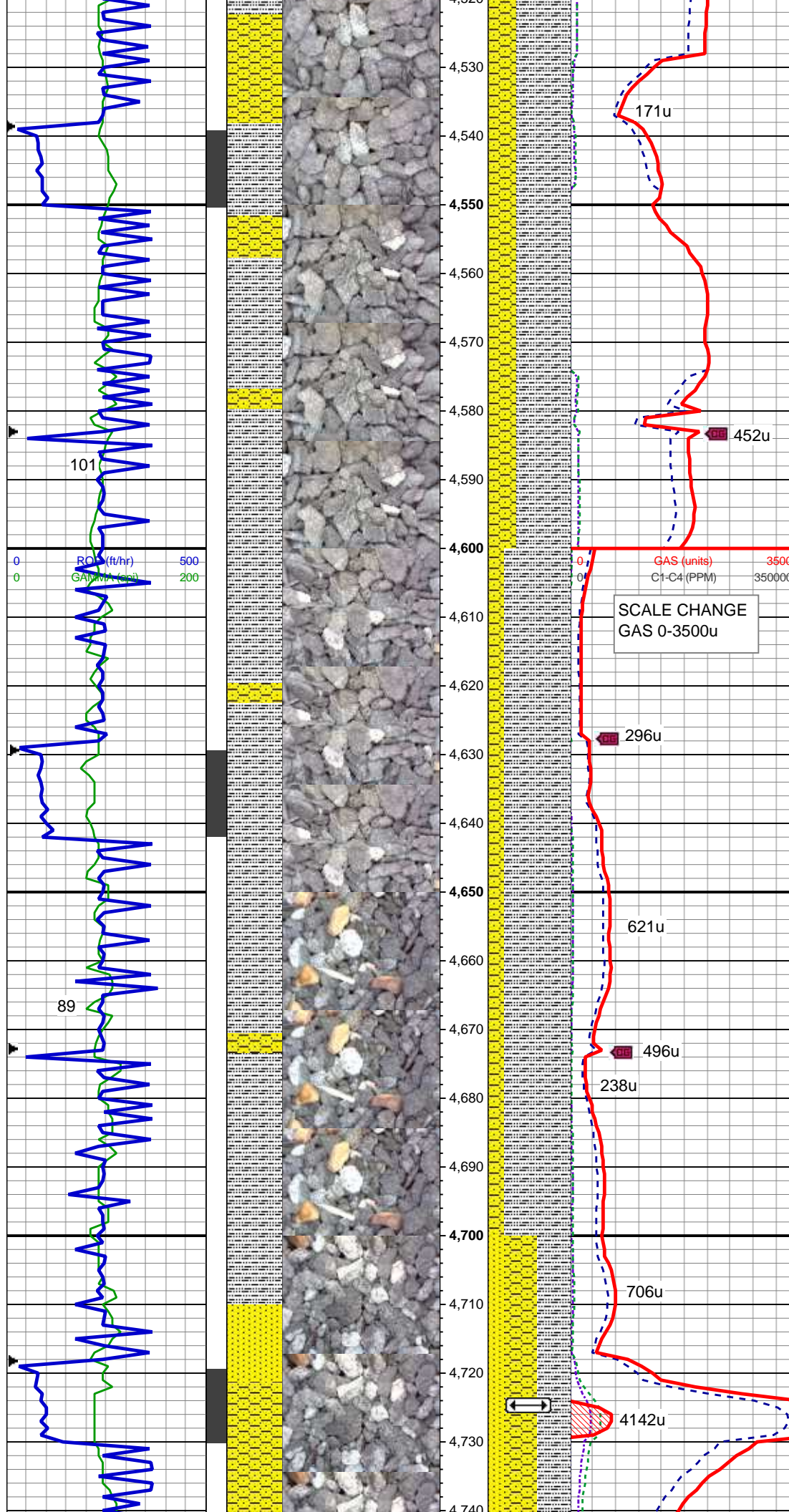
WT: 9.2 / VIS: 34

MD: 4,393 '
TVD: 4,390.12 '
Inclination: 3.4 °
Azimuth: 179 °
VS: -64.2 '

55% SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, tr sd 45% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc

MD: 4,483 '
TVD: 4,479.87 '
Inclination: 5.1 °
Azimuth: 187.7 °
VS: -70.83 '

WT: 9.25 / VIS: 35



65% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr
sl calc 35% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt

MD: 4,573 '
TVD: 4,569.45 '
Inclination: 6 °
Azimuth: 184.9 °
VS: -79.48 '

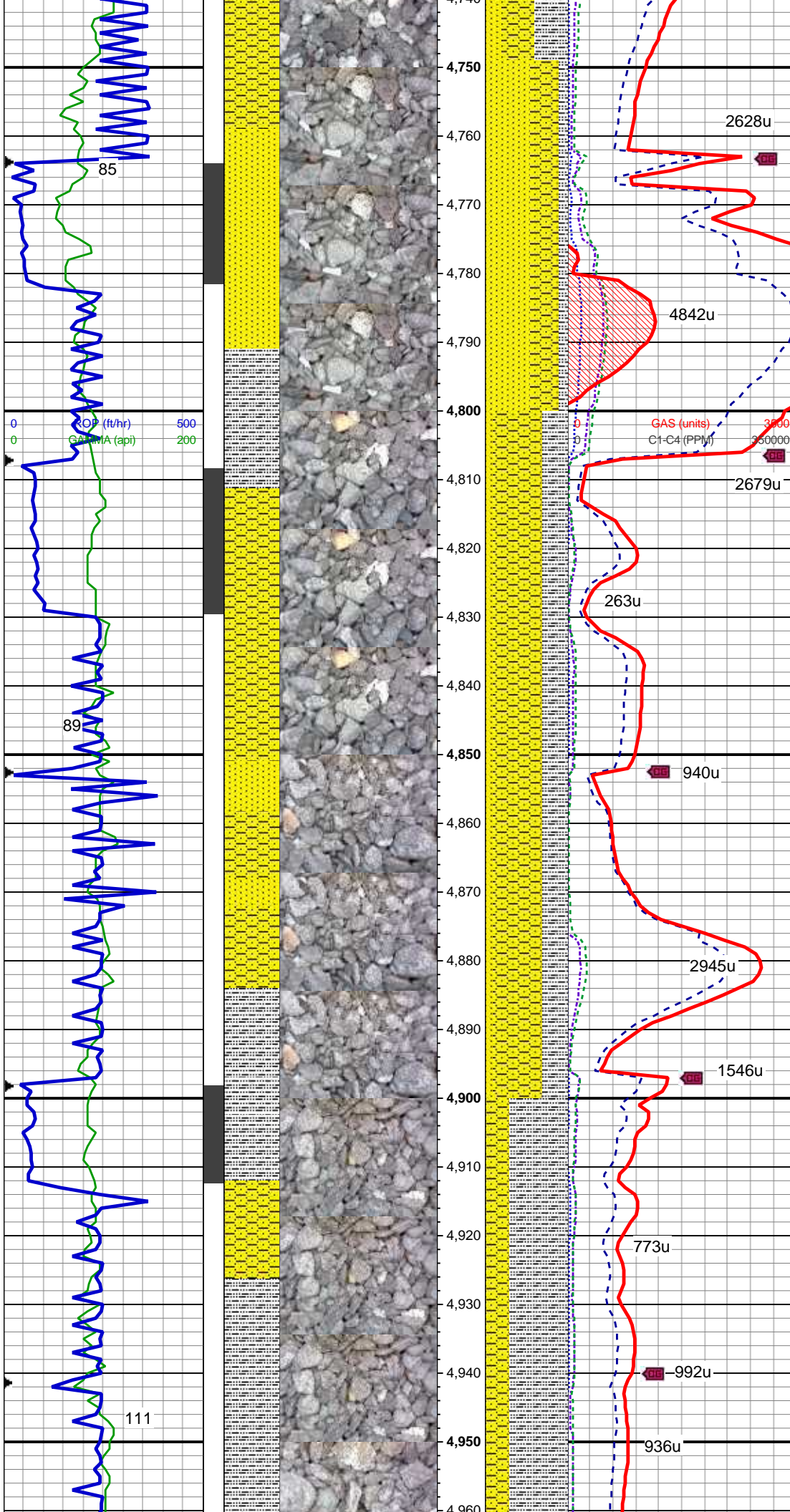
WT: 9.5 / VIS: 36

80% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr
sl calc 20% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt

MD: 4,662 '
TVD: 4,657.9 '
Inclination: 6.7 °
Azimuth: 183.4 °
VS: -89.3 '

Logger Top Shannon
MD 4725'/TVD 4720'

MD: 4,752 '
TVD: 4,747.23 '
Inclination: 7.3 °
Azimuth: 187.8 °
VS: 12.53 '



SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt; SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl-non calc; SS: wh, clr-trnsl, speckl bl-gn, sb rnd-ang, mod srt, w cons, f-med gr, non calc

WT: 9.5 / VIS: 36

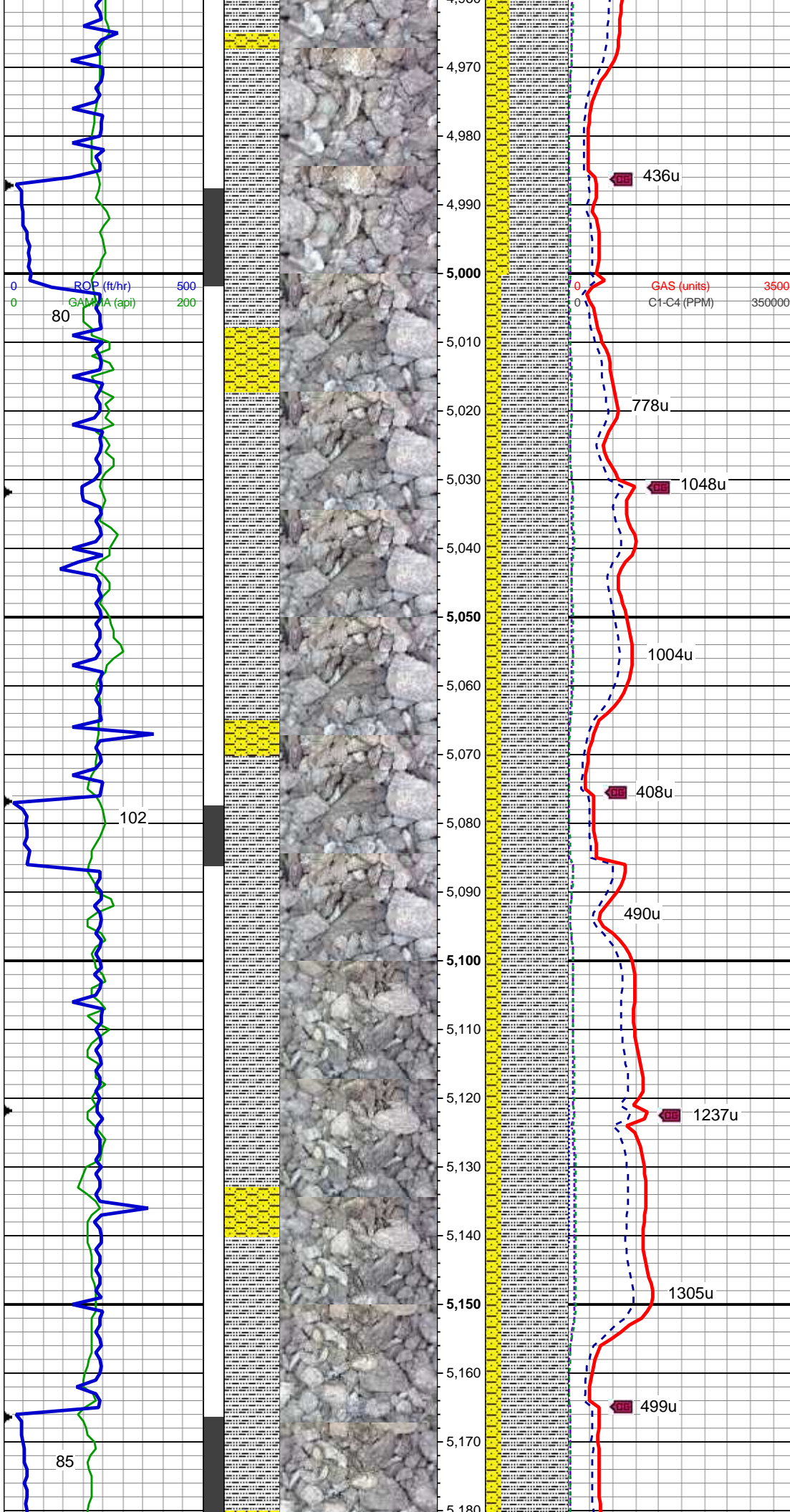
MD: 4,842 '
TVD: 4,835.97 '
Inclination: 11.7 °
Azimuth: 193.2 °
VS: 16.28 '

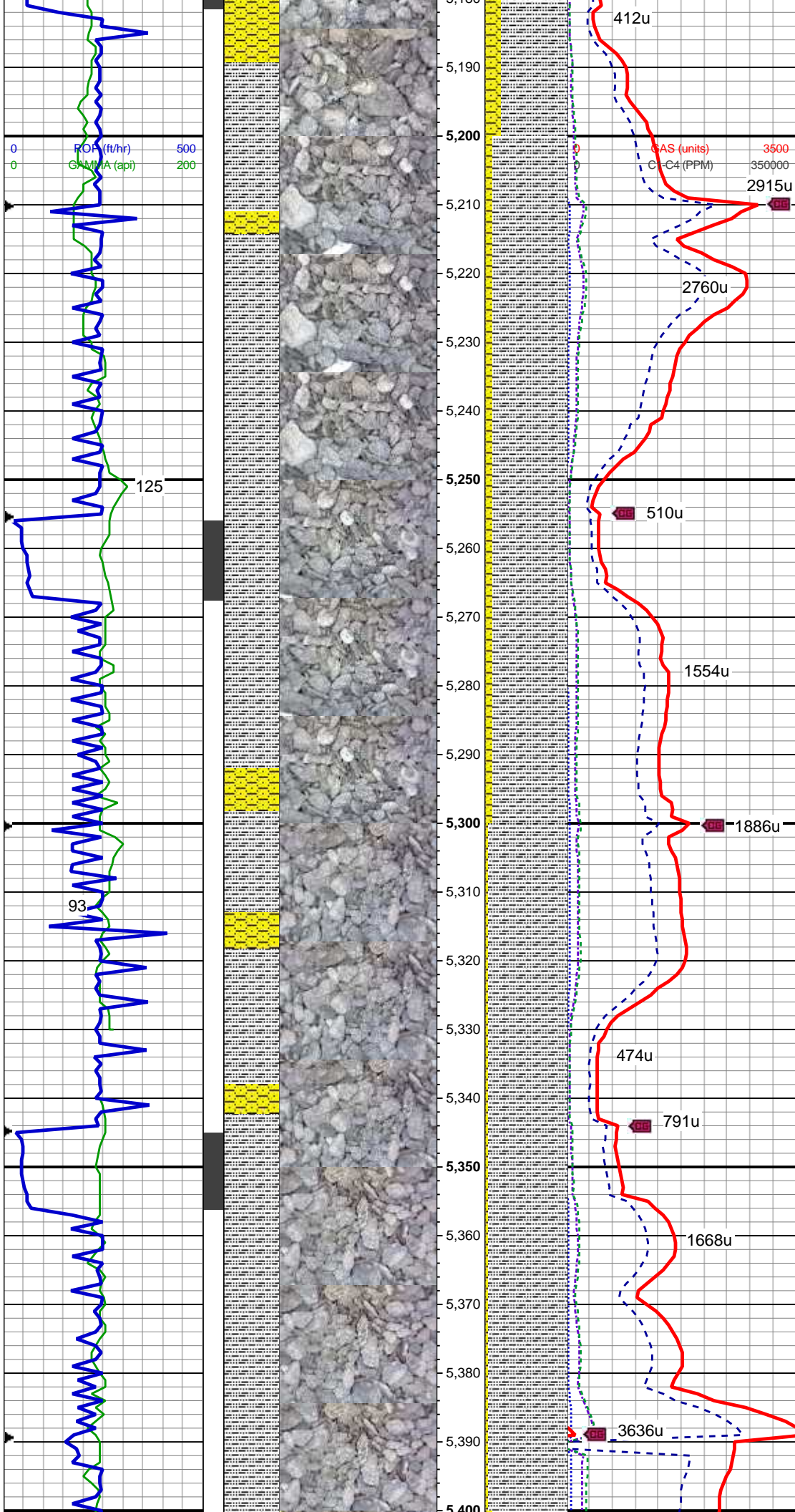
60% SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt; 30% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl-non calc; 10% SS: wh, clr-trnsl, speckl bl-gn, sb rnd-ang, mod srt, w cons, f-med gr, non calc

WT: 9.6 / VIS: 39

MD: 4,931 '
TVD: 4,923.02 '
Inclination: 12.4 °
Azimuth: 186.8 °
VS: 20.6 '

70% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl-non calc; 30% SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, some ss





MD: 5,200 '
TVD: 5,184.71 '
Inclination: 14.3 °
Azimuth: 183.6 °
VS: 26.84 '

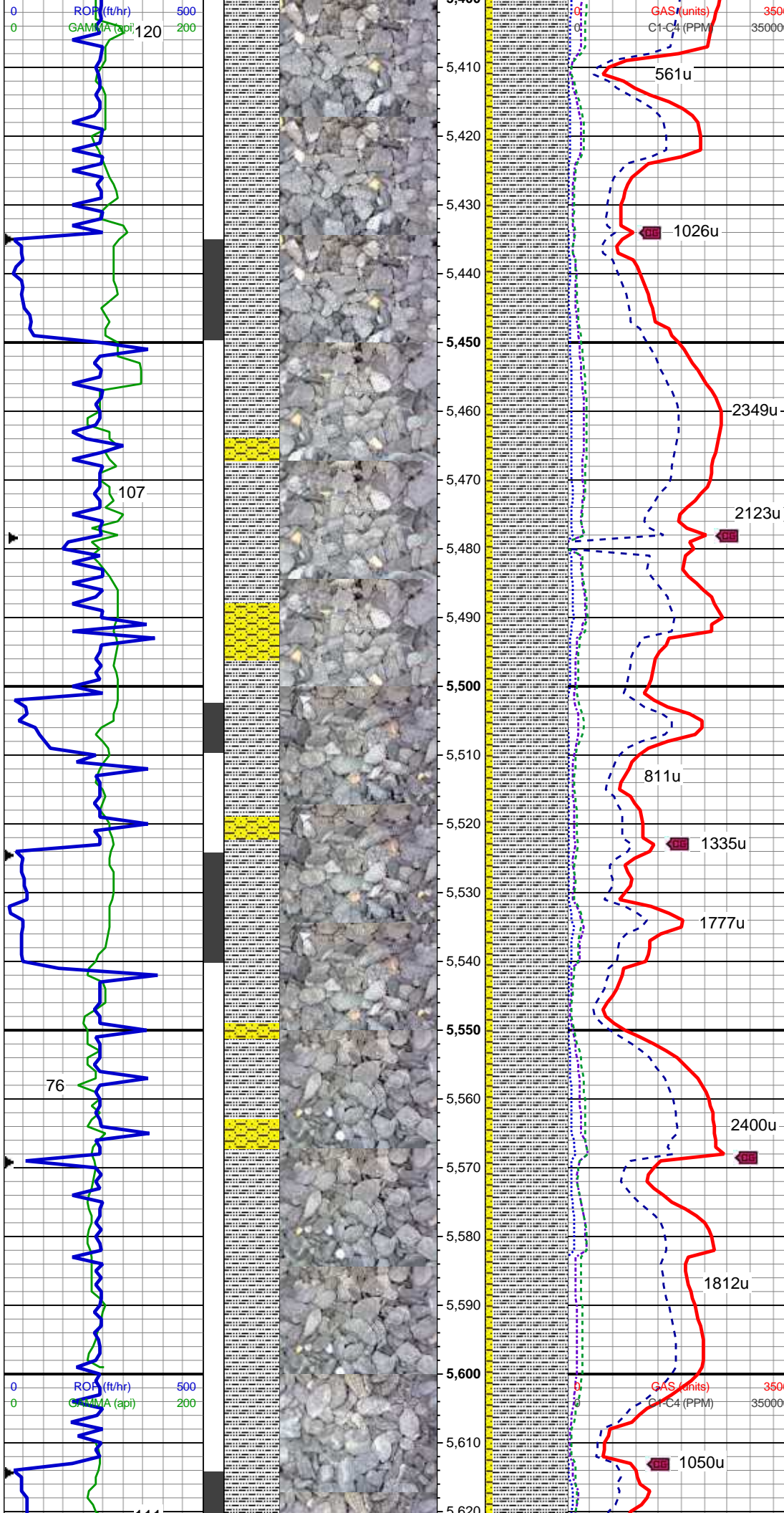
90% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr sl calc; 10% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, tr ss, tr lse foss

WT: 9.7 / VIS: 38

MD: 5,290 '
TVD: 5,271.86 '
Inclination: 14.6 °
Azimuth: 184.8 °
VS: 29.86 '

95% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr sl calc; 5% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, tr ss, tr lse foss

MD: 5,379 '
TVD: 5,357.97 '
Inclination: 14.7 °
Azimuth: 185 °
VS: 33.16 '



WT: 9.9 / VIS: 38

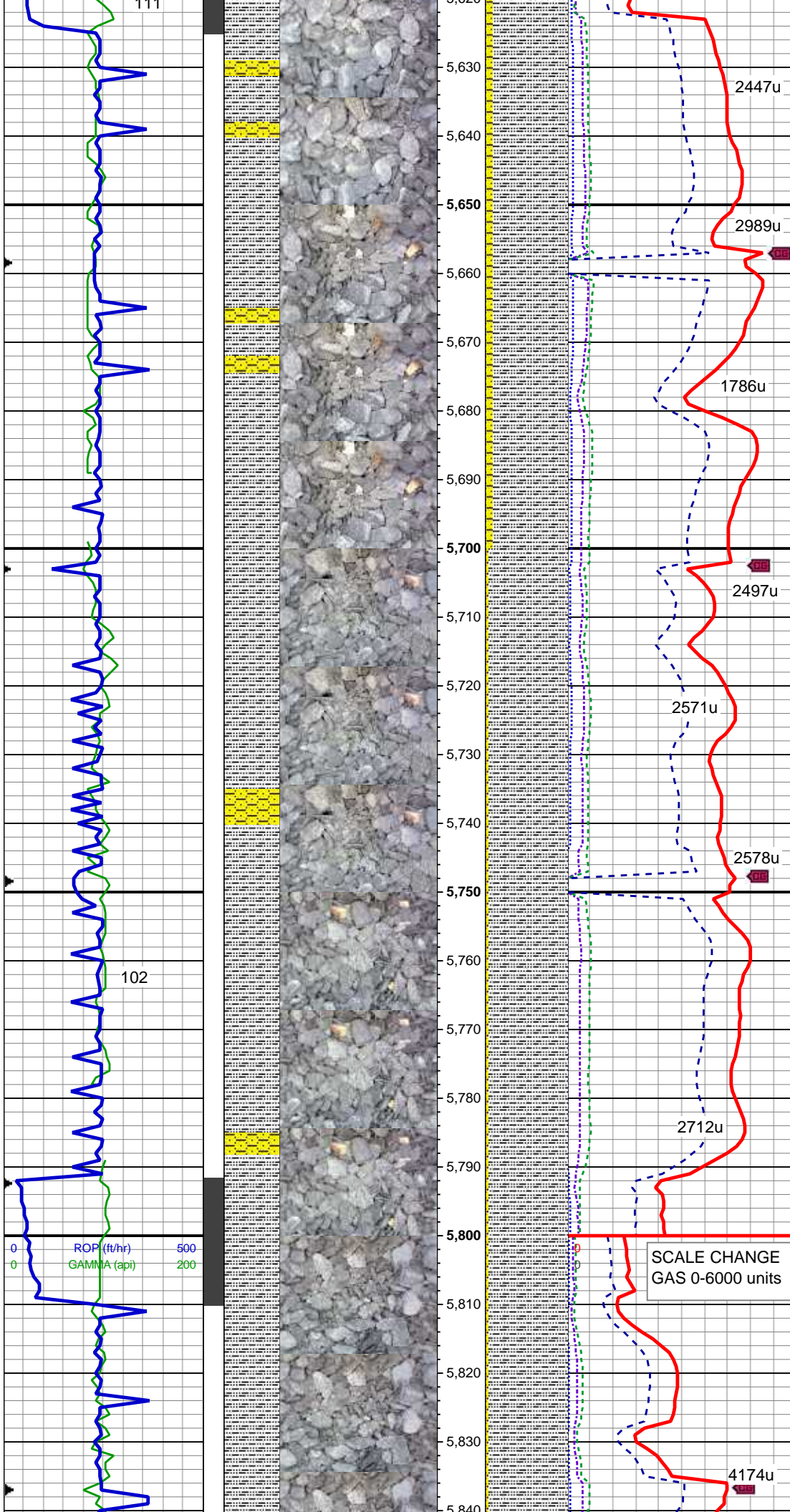
90% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr sl calc; 10% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, tr ss

MD: 5,469 '
TVD: 5,445.16 '
Inclination: 14 °
Azimuth: 181.1 °
VS: 35.73 '

WT: 9.9+ / VIS: 38

90% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr sl calc; 10% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, tr ss

MD: 5,559 '
TVD: 5,532.32 '
Inclination: 14.9 °
Azimuth: 179.3 °
VS: 37.19 '



MD: 5,648 '
TVD: 5,618.52 '
Inclination: 13.9 °
Azimuth: 183.1 °
VS: 38.98 '

90% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr
sl calc; 10% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, tr ss

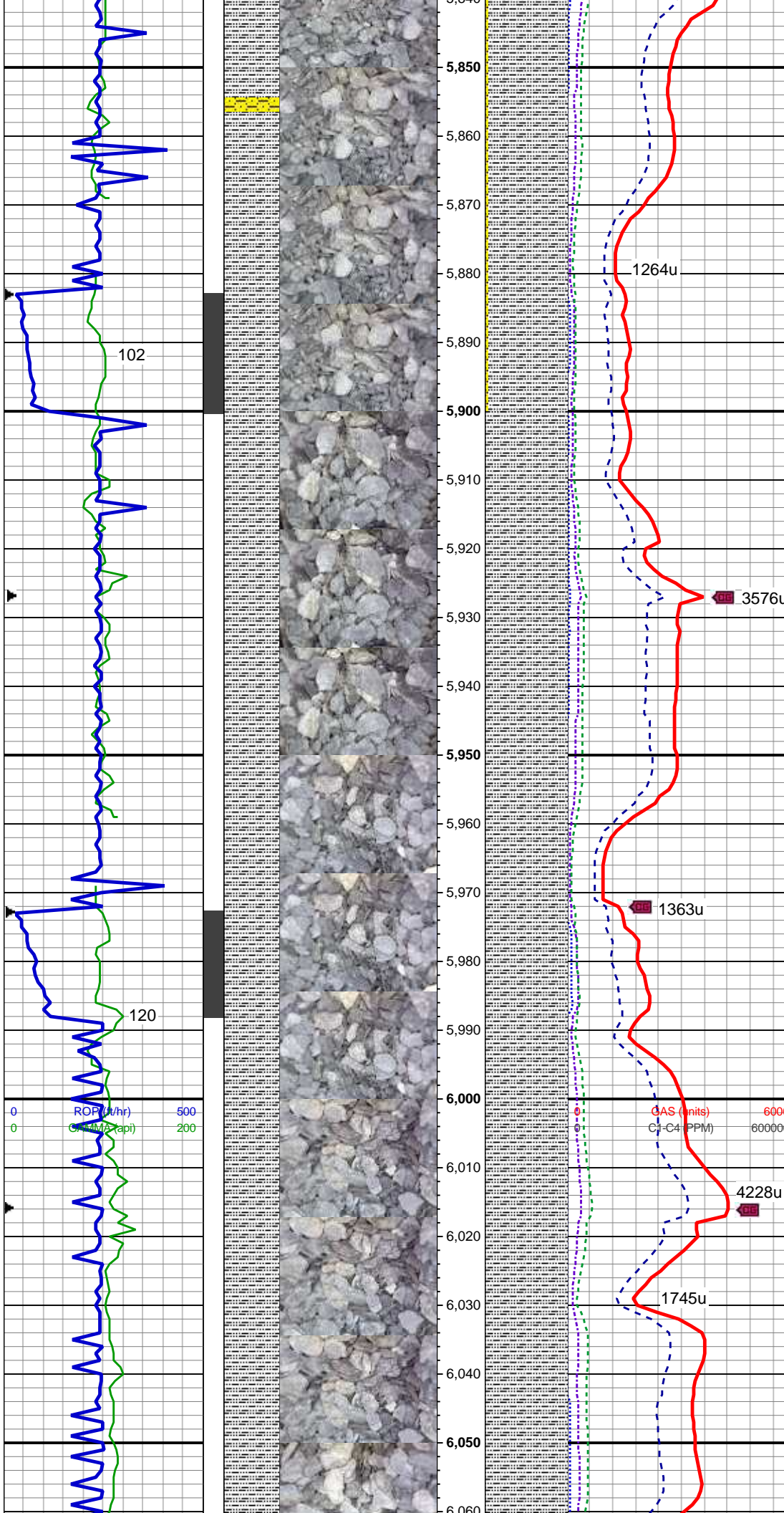
WT: 10.0 / VIS: 35

MD: 5,738 '
TVD: 5,706.26 '
Inclination: 11.8 °
Azimuth: 178.3 °
VS: -326.86 '

95% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr
sl calc; 5% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p-mod srt, cl sup, arg cmt, tr ss

SCALE CHANGE
GAS 0-6000 units

MD: 5,827 '
TVD: 5,793.25 '
Inclination: 12.6 °
Azimuth: 180.4 °
VS: -345.66 '



95% SLTY SH: lt-med gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc 5% SHY SS: lt-med gy, s&p, occ wh, blky, frm, v f-f gr, sb rnd-ang, p srt, cl sup, arg cmt

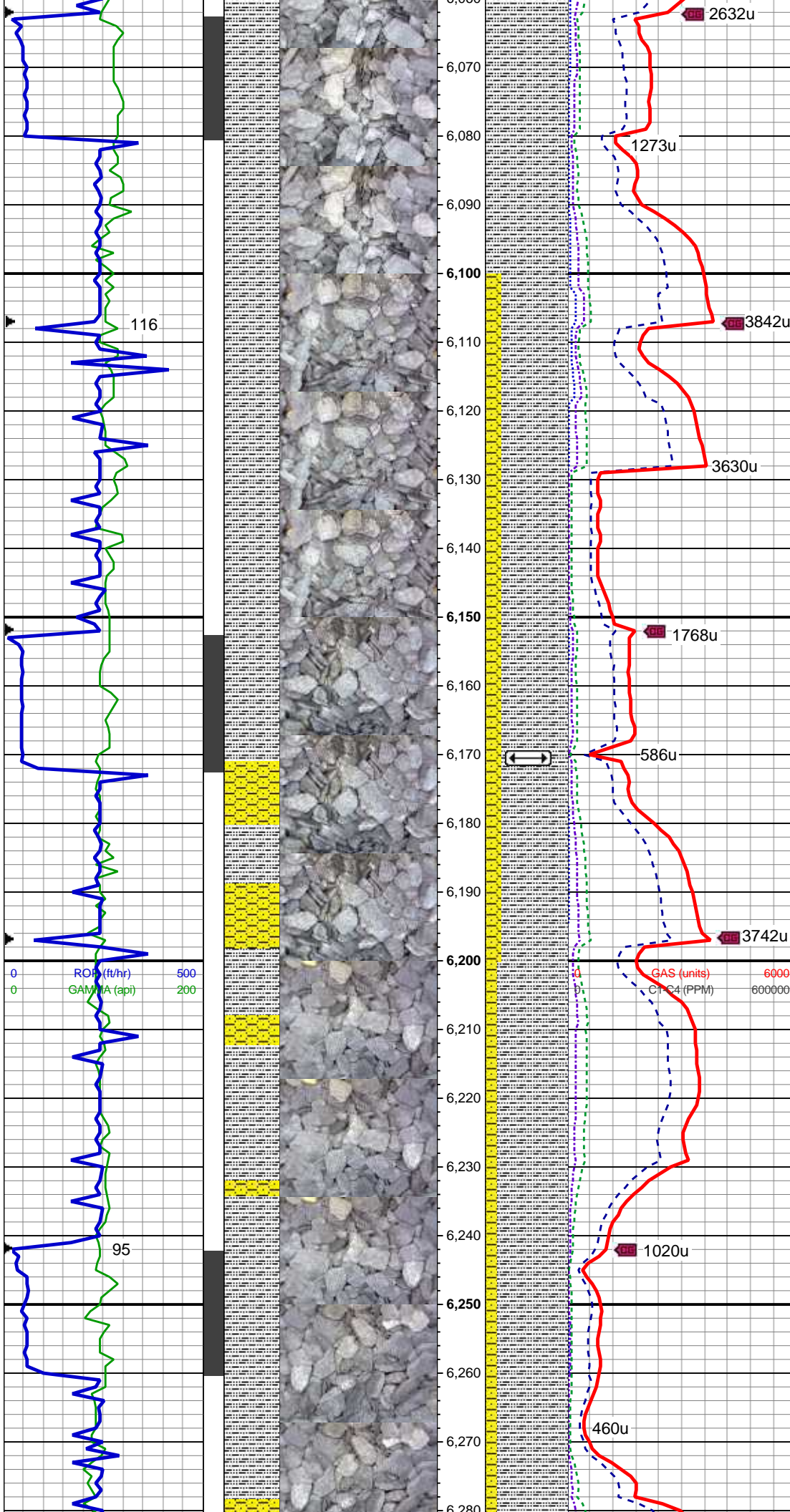
WT: 10.05 / VIS: 35

MD: 5,917 '
TVD: 5,881.02 '
Inclination: 13 °
Azimuth: 179.6 °
VS: -365.6 '

100% SLTY SH: lt-med gy, dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc, tr sd

MD: 6,007 '
TVD: 5,968.64 '
Inclination: 13.4 °
Azimuth: 176.9 °
VS: -386.13 '

100% SLTY SH: lt-med gy, dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc, tr, pyr, tr sd



WT: 10.05 / VIS: 35

MD: 6,097 '
TVD: 6,056.3 '
Inclination: 12.8 °
Azimuth: 182.5 °
VS: -406.51 '

80% SLTY SH: lt-med gy, dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc 20% SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p srt, cl sup, arg cmt

Logger Top Teepee Buttes
MD 6170'/TVD 6127'

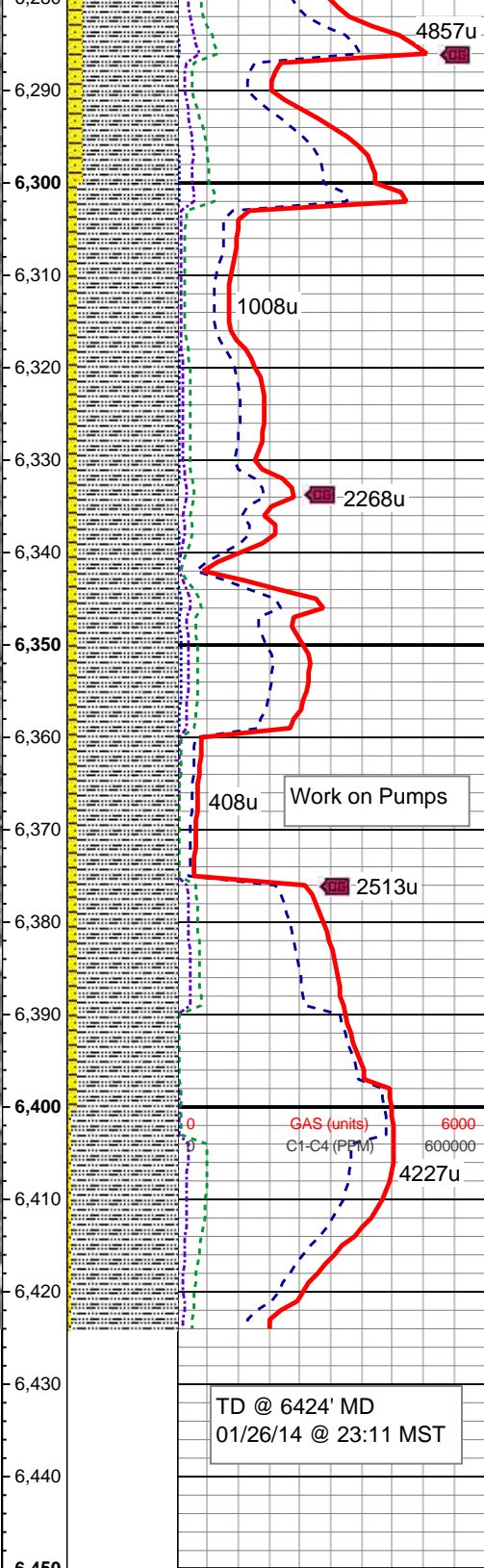
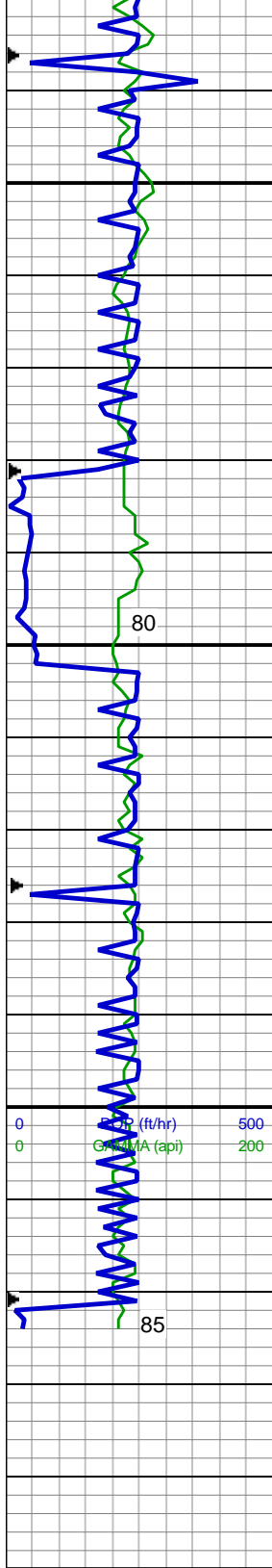
WT: 10.0 / VIS: 35

MD: 6,186 '
TVD: 6,143.15 '
Inclination: 12.5 °
Azimuth: 190.3 °
VS: -425.84 '

WT: 9.9 / VIS: 35

85% SLTY SH: lt-med gy, dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc 15% SHY SS: lt-med gy, s&p, blk, frm, v f-f gr, sb rnd-ang, p srt, cl sup, arg cmt

MD: 6,276 '
TVD: 6,230.93 '
Inclination: 13 °
Azimuth: 188.9 °



Azimuth: 188.9
VS: -445.42 '

WT: 10.0 / VIS: 35

90% SLTY SH: lt-med gy, dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc, occ sd grn 10% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p srt, cl sup, arg cmt

MD: 6,366 '
TVD: 6,318.64 '
Inclination: 12.9 °
Azimuth: 187.4 °
VS: -465.38 '

95% SLTY SH: lt-med gy, dk gy, sft-sl frm, fri, sb plty-blky, vf gr, slty tex, rthy lstr, sl calc, tr pyr 5% SHY SS: lt-med gy, s&p, blky, frm, v f-f gr, sb rnd-ang, p srt, cl sup, arg cmt

TD @ 6424' MD
01/26/14 @ 23:11 MST

Log Continues on
Five Rivers K07-63-1HN-HORZ

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