



Scale: 5" / 100'
Measured Depth Log

Well Name SHOOK 3-10-2NCH_VERT_CURVE

Location SECTION 3 T1S R67W

State COLORADO

County ADAMS

Country USA

Rig Number ENSIGN 145

API Number 05-001-09980

AFE # 1700011

Geographic Region DJ BASIN

Field WATTENBERG

Spud Date 4/15/2017

Drilling Completed 8/9/2017

Surface Coordinates Section 3, 2058' FSL x 2169' FEL
39.99222, -104.87317

Bottom Hole Coordinates Section 3, 820' FSL x 1896' FEL
39.988753, -104.872297

Ground Elevation 5098'

K.B. Elevation 5111'

Logged Interval 1815' **To** 8103'

Total Depth 6288'

Formation SURFACE CASING thru NIOBRARA C CHALK

Type of Drilling Fluid OMB - OIL BASED MUD

Operator

Company Petro Share

Address 9635 Maroon Circle, Suite 400
Englewood, CO 80112



Geologist

Color Coding

Name JOEY LUCE, SAGE BETTS

Company TERRA GUIDANCE

Address 1298 O Road
Loma CO 81524
(970) 260-5408

Oil



Condensate



Gas



Note



Core



Pressure



Error



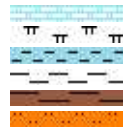
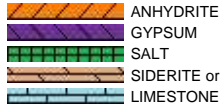
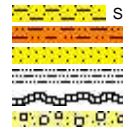
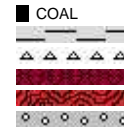
Water



Seal

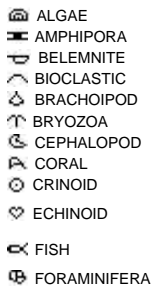
Rock Types

UNKNOWN

CHALK
MARLSTONE
CLAYSTONE
SHALE
SHALE COLORED
SILTSTONESHALY SANDSTONE
SHALY SILTSTONE
SANDSTONE
SILTY SHALE
BENTONITE
CONGLOMERATECOAL
SHALE GRAY
CHERT
IGNEOUS
METAMORPHIC
CEMENT

Accessories

Fossils



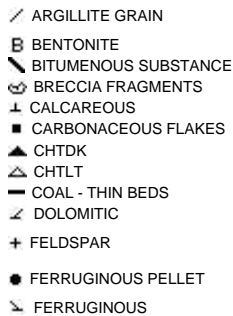
F FOSSIL



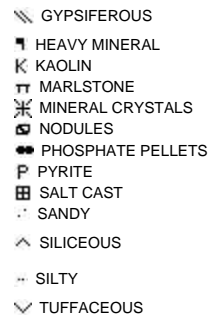
Minerals



— ARGILLACEOUS



— GLAUCONITE

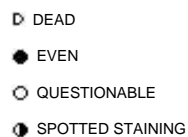


Stringer



Other Symbols

Oil Show



Porosity

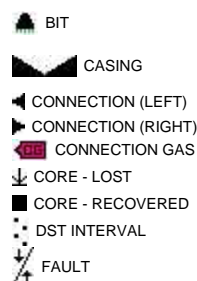


O ORGANIC

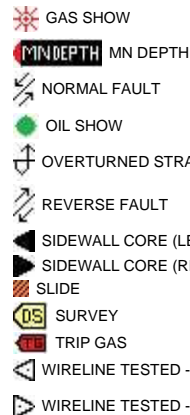
P PINPOINT

V VUGGY

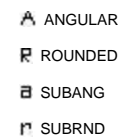
Engineering



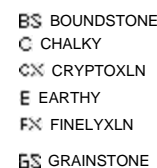
FORMATION TOP



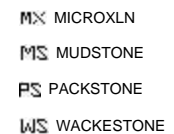
Rounding



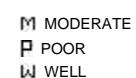
Textures

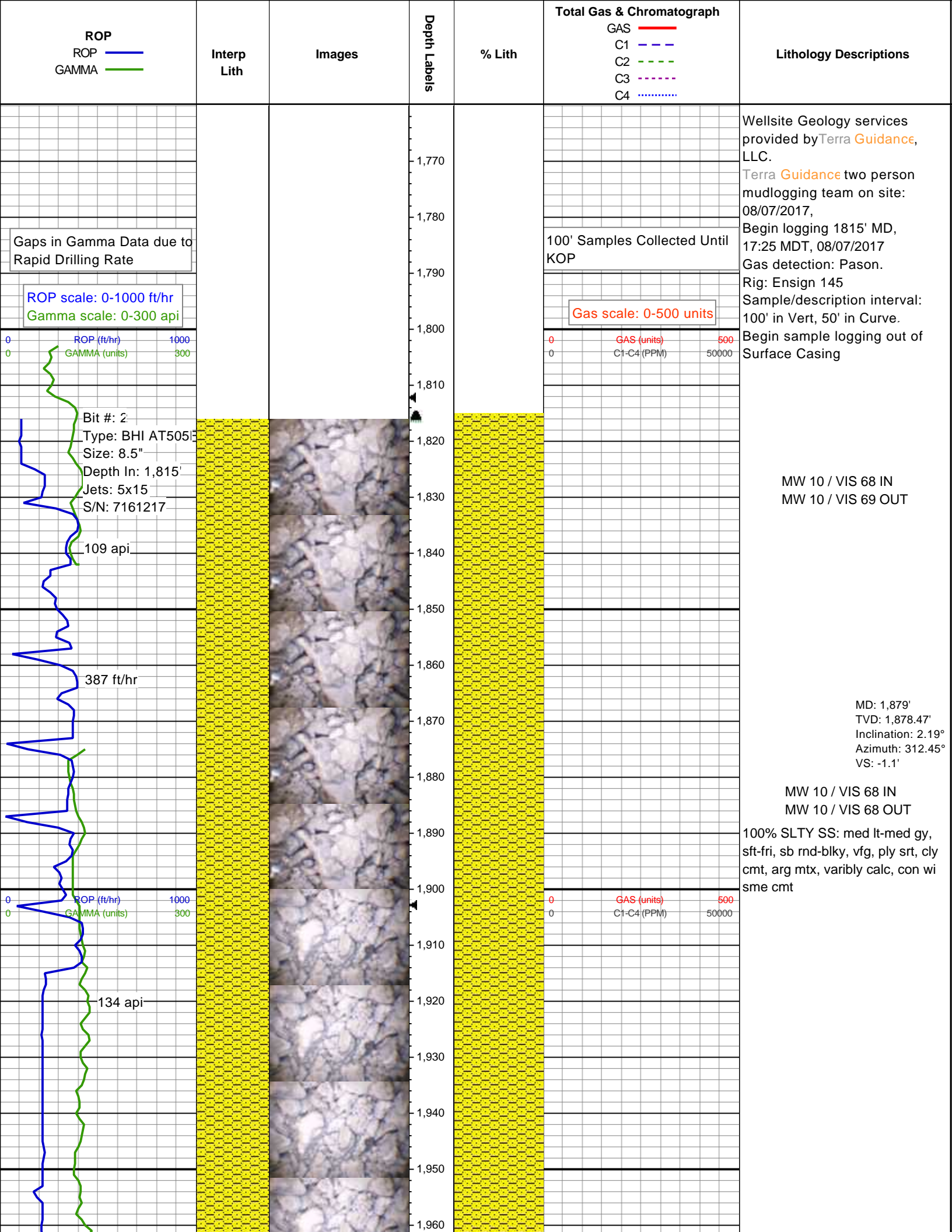


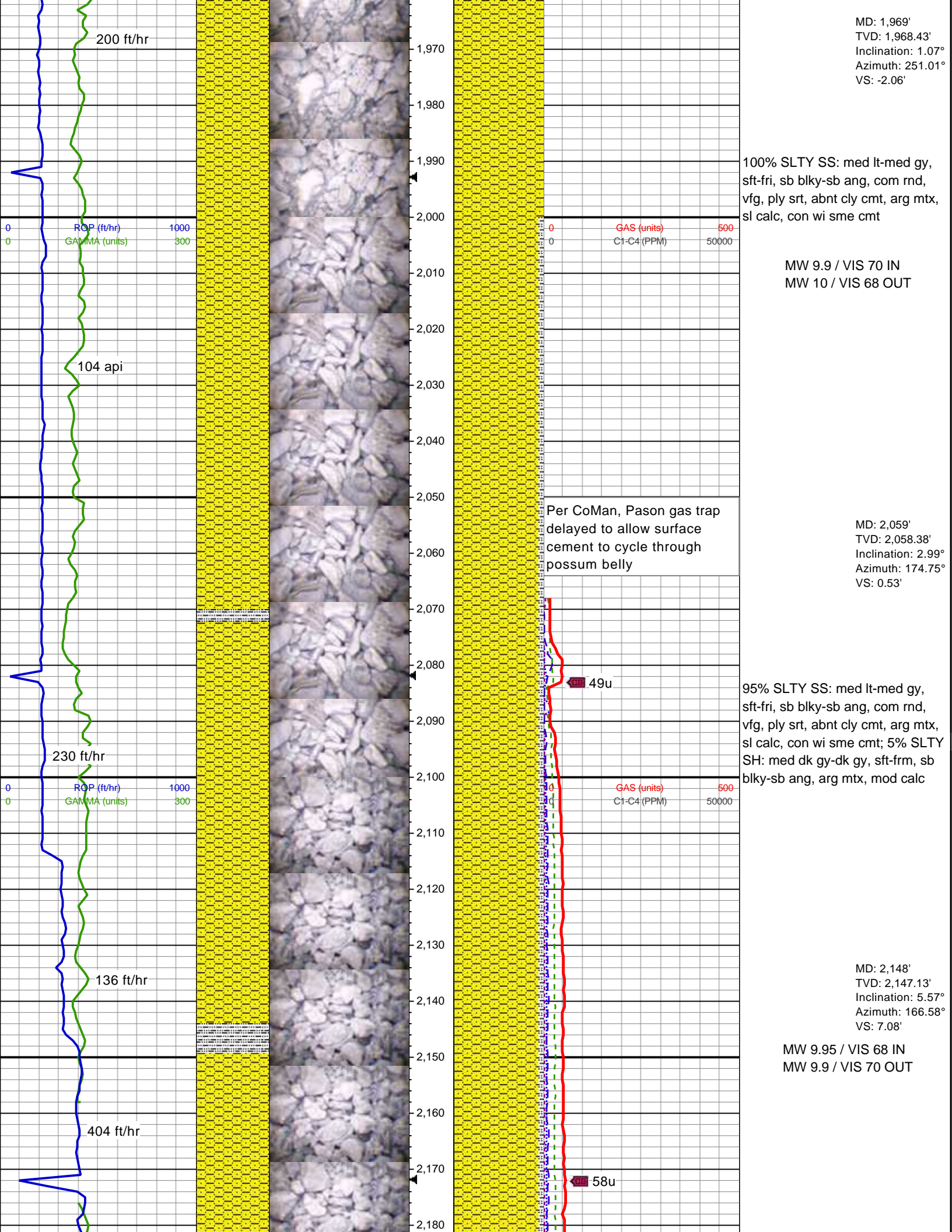
L LITHOGRAPHIC

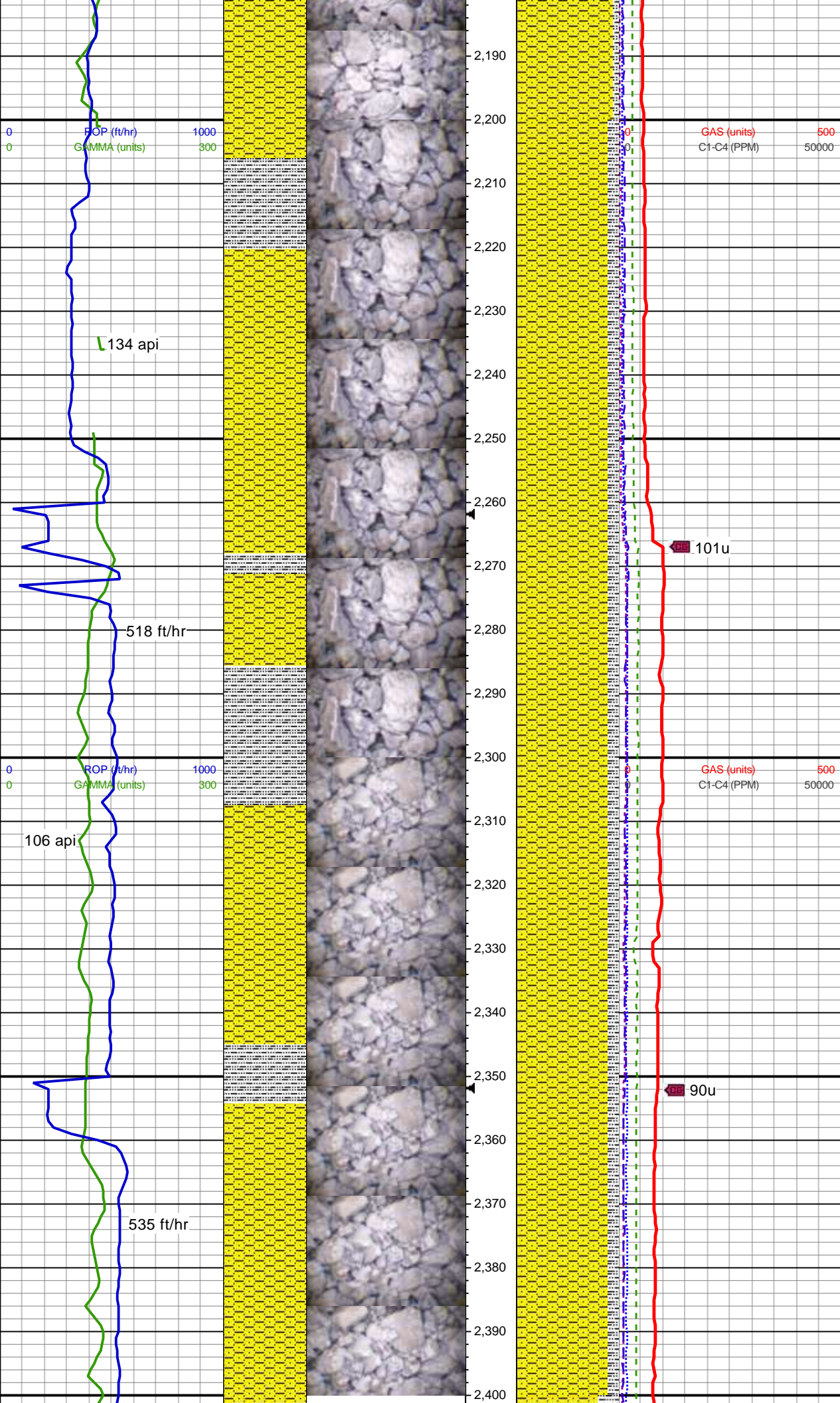


Sorting









95% SLTY SS: med lt-med gy, sft-fri, sb blk-y-sb rnd, vfg, ply srt, abnt cly cmt, arg mtx, sl calc, con wi sme cmt; 5% SLTY SH: med dk gy-dk gy, sft-frm, sb blk-y-sb plty, arg mtx, calc

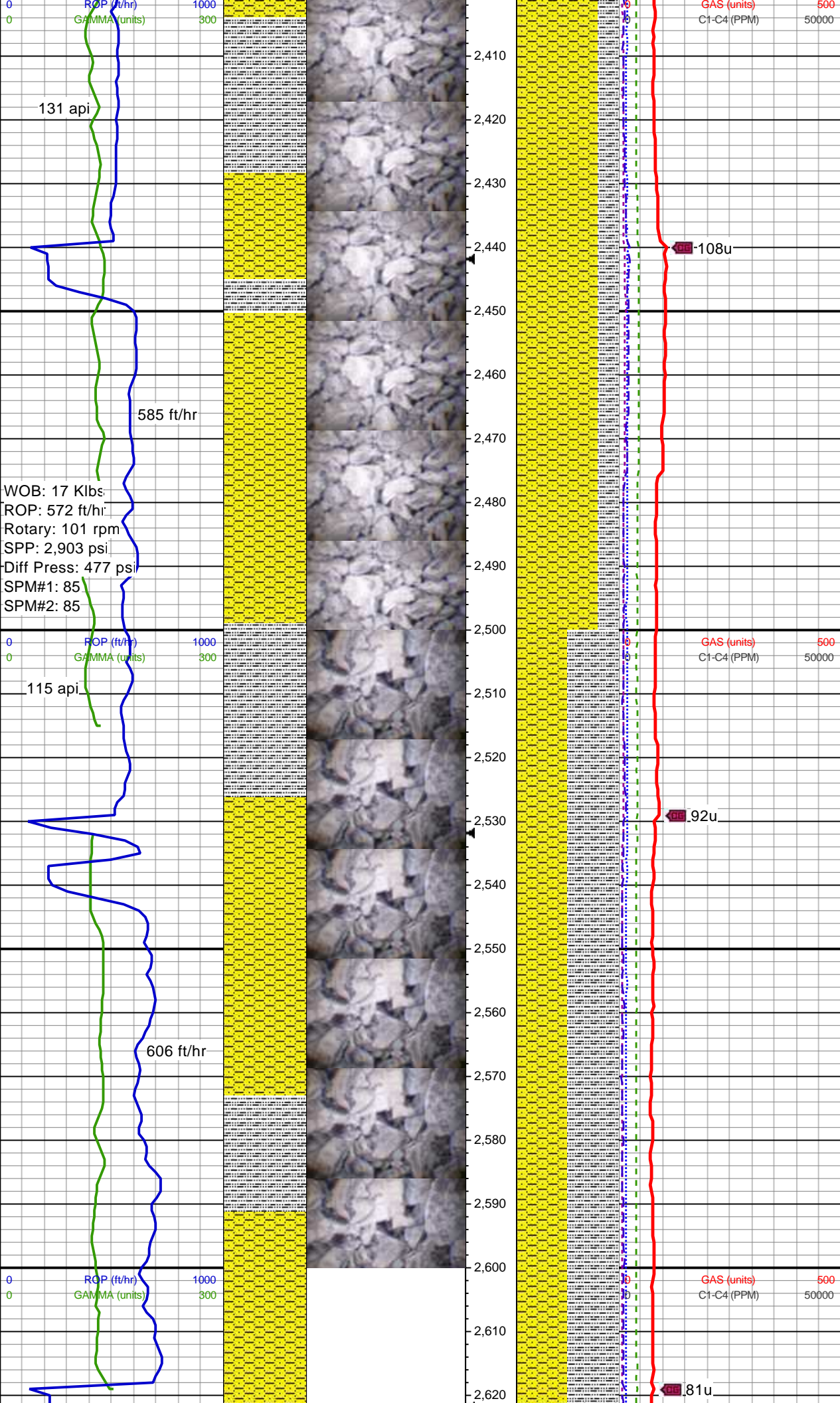
MD: 2,239'
TVD: 2,237.52'
Inclination: 7.6°
Azimuth: 167.51°
VS: 17.33'

90% SLTY SS: med lt-med gy, sft-fri, sb blk-y-rnd, vfg, ply srt, abnt cly, arg mtx, sl calc, con wi sme cmt; 10% SLTY SH: med dk gy-dk gy, sft-frm, sb blk-y-sb plty, arg mtx, calc, grd g clyst

MD: 2,329'
TVD: 2,326.73'
Inclination: 7.65°
Azimuth: 156.7°
VS: 28.77'

MW 10 / VIS 69 IN
MW 9.95 / VIS 68 OUT

90% SLTY SS: med lt-med gy, sft-fri, sb blk-y-sb ang, vfg, ply srt, abnt cly, arg mtx, sl calc, con wi mn r cmt; 10% SLTY SH: med dk gy-dk gy, sft-frm, sb blk-y-sb plty, arg mtx, calc, grd g clyst

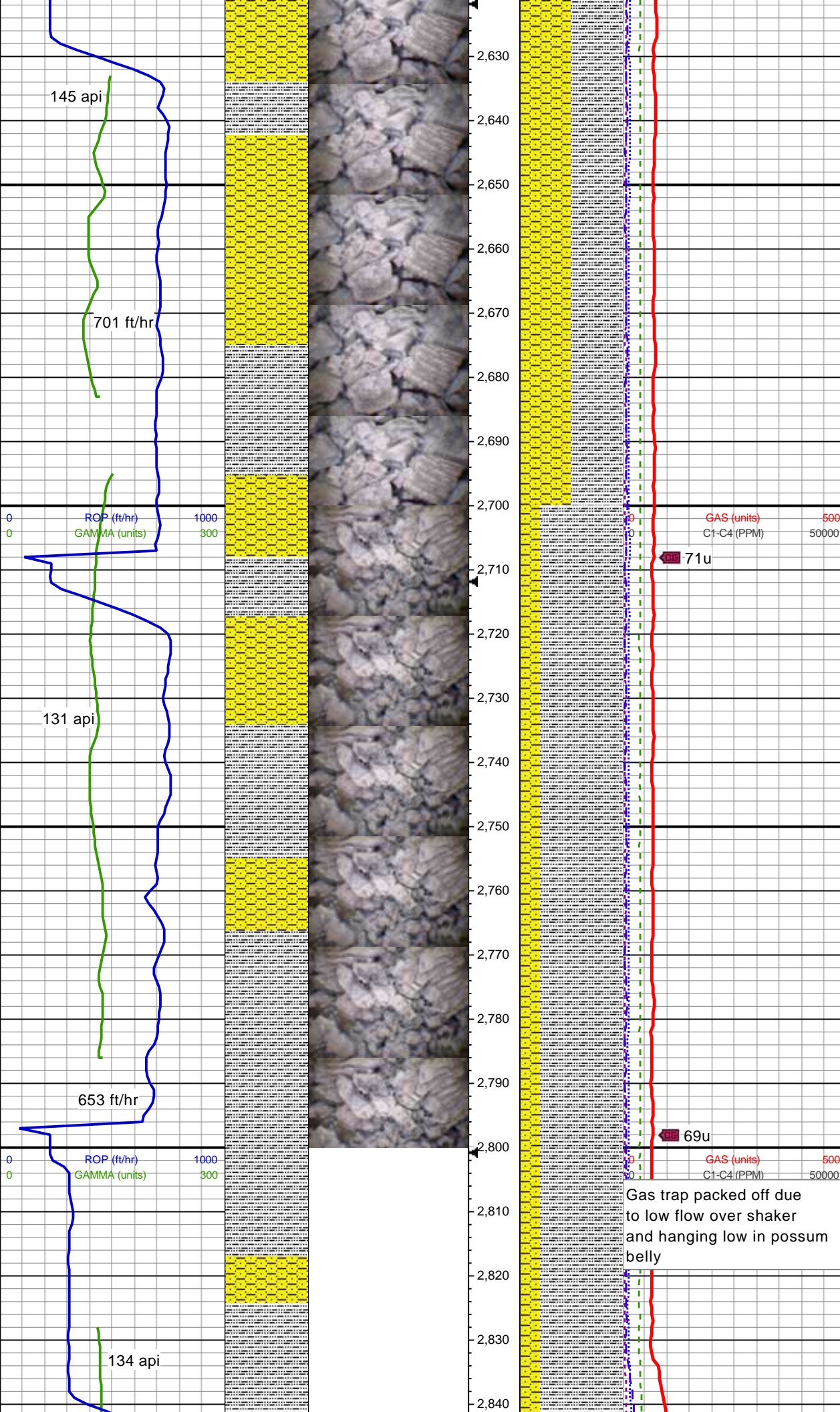


80% SLTY SS: med lt-med gy, sft-fri, sb blkly-sb rnd, vfg, ply srt, abnt cly, arg mtx, sl-mod calc, con wi mnrr cmt; 20% SLTY SH: med dk gy-dk gy, sft-frm, sb ang-sb plty, arg mtx, calc, grdg clyst

MD: 2,509'
TVD: 2,505.19'
Inclination: 7.48°
Azimuth: 138.75°
VS: 49.04'

50% SLTY SS: med lt-med gy, sft-fri, sb blkly-rnd, vfg grdg slty, ply srt, abnt cly, arg mtx, mod calc, con wi rr cmt; 50% SLTY SH: med dk gy-dk gy, sft-frm, sb blkly-sb ang, arg mtx, calc, grdg clyst

MD: 2,598'
TVD: 2,593.44'
Inclination: 7.46°
Azimuth: 139.92°
VS: 58.09'

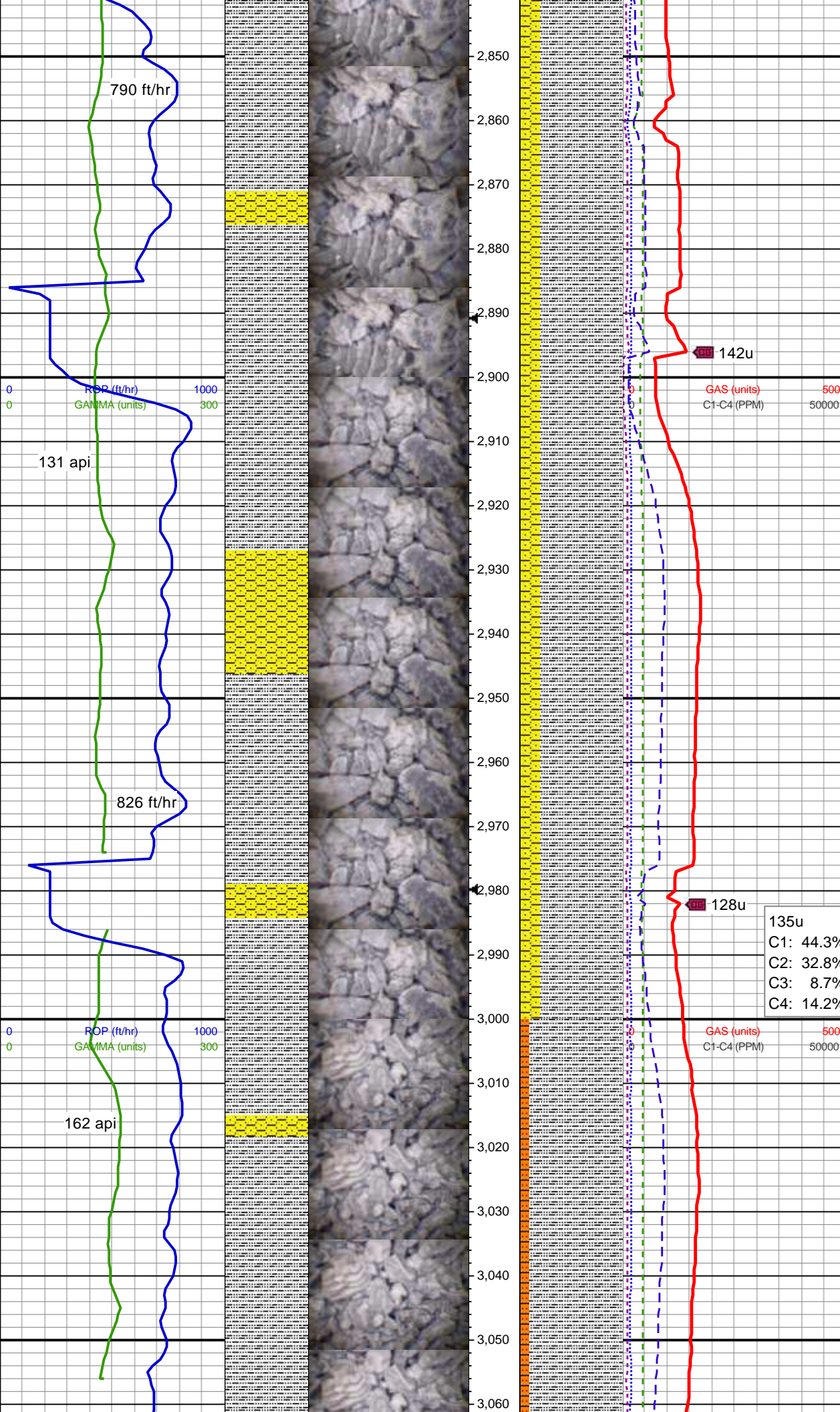


50% SLTY SS: med lt-med gy, sft-fri, sb blk-y-rnd, vfg grdg slty, ply srt, abnt cly, arg mtx, mod calc, con wi rr cmt; 50% SLTY SH: med dk gy-dk gy, sft-frn, sb blk-y-ang, arg mtx, calc, grdg clyst

MD: 2,687'
TVD: 2,681.68'
Inclination: 7.45°
Azimuth: 135.24°
VS: 66.89'

80% SLTY SH: med dk gy-dk gy, sft-frn, blk-y-ang, arg mtx, sl calc, grdg clyst; 20% SLTY SS: med lt-med gy, sft-fri, sb blk-y-rnd, vfg grdg slty, ply srt, abnt cly, arg mtx, mod calc, con wi tr cmt

MD: 2,777'
TVD: 2,770.93'
Inclination: 7.35°
Azimuth: 129.88°
VS: 74.95'



MD: 2,867'
TVD: 2,860.15'
Inclination: 7.76°
Azimuth: 134.66°
VS: 83.23'

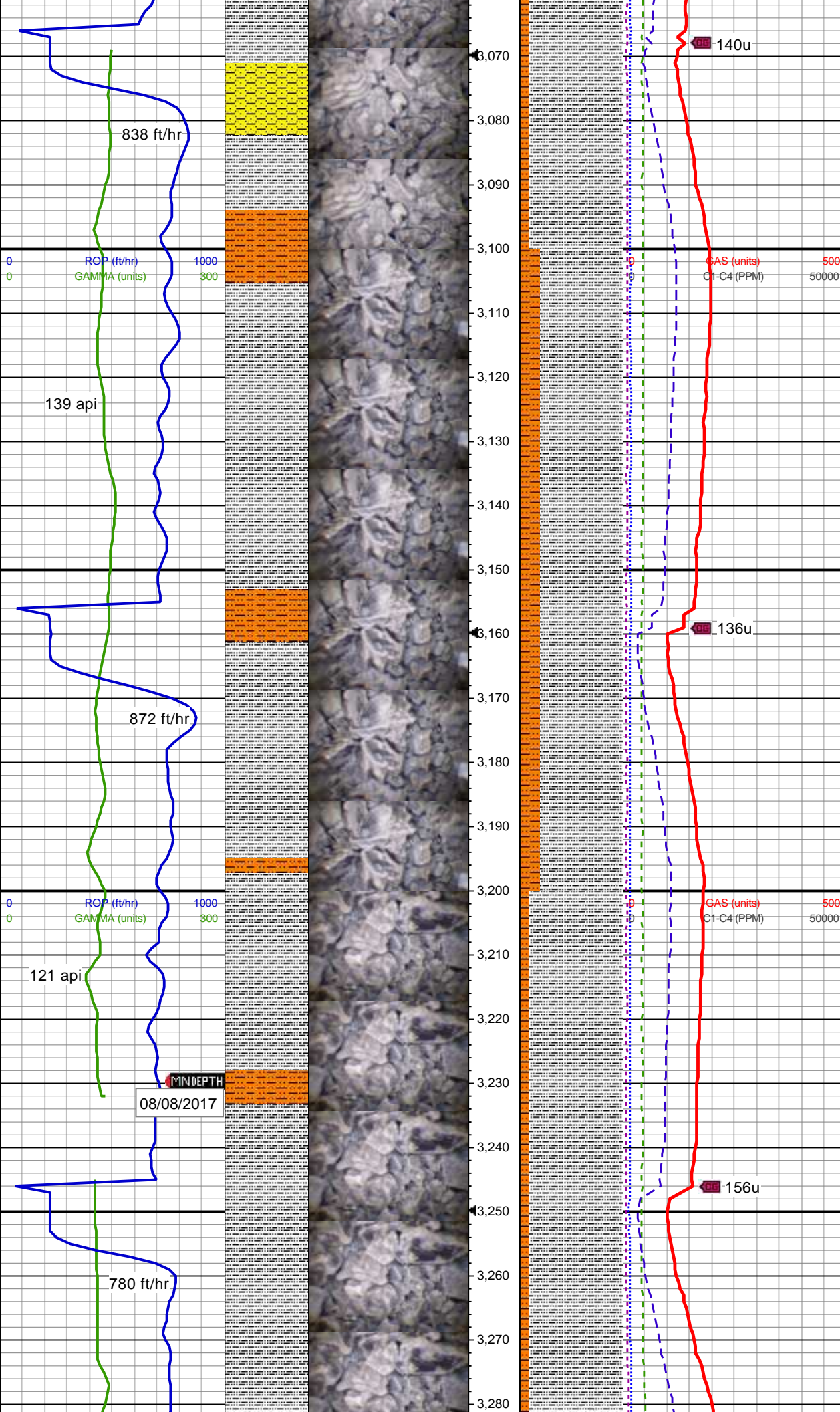
80% SLTY SH: med dk gy-dk gy, sft-frm, blk-ang, arg mtx, sl calc, grd clyst; 20% SLTY SS: med lt-med gy, sft-fri, sb blk-rnd, vfg grd slty, ply srt, abnt cly, arg mtx, mod calc

MW 9.9 / VIS 70 IN
MW 10 / VIS 68 OUT

MD: 2,957'
TVD: 2,949.33'
Inclination: 7.72°
Azimuth: 134.48°
VS: 92.05'

80% SLTY SH: med dk gy-dk gy, sft-frm, rr v sl hrd, blk-ang, arg mtx, sl calc, grd clyst; 20% SLTY SS: med lt-med gy, sft-fri, sl uncons, blk-sb rnd, vfg grd slty, ply srt, abnt cly, arg mtx, mod calc

MD: 3,047'
TVD: 3,038.51'
Inclination: 7.75°
Azimuth: 139.54°
VS: 101.2'

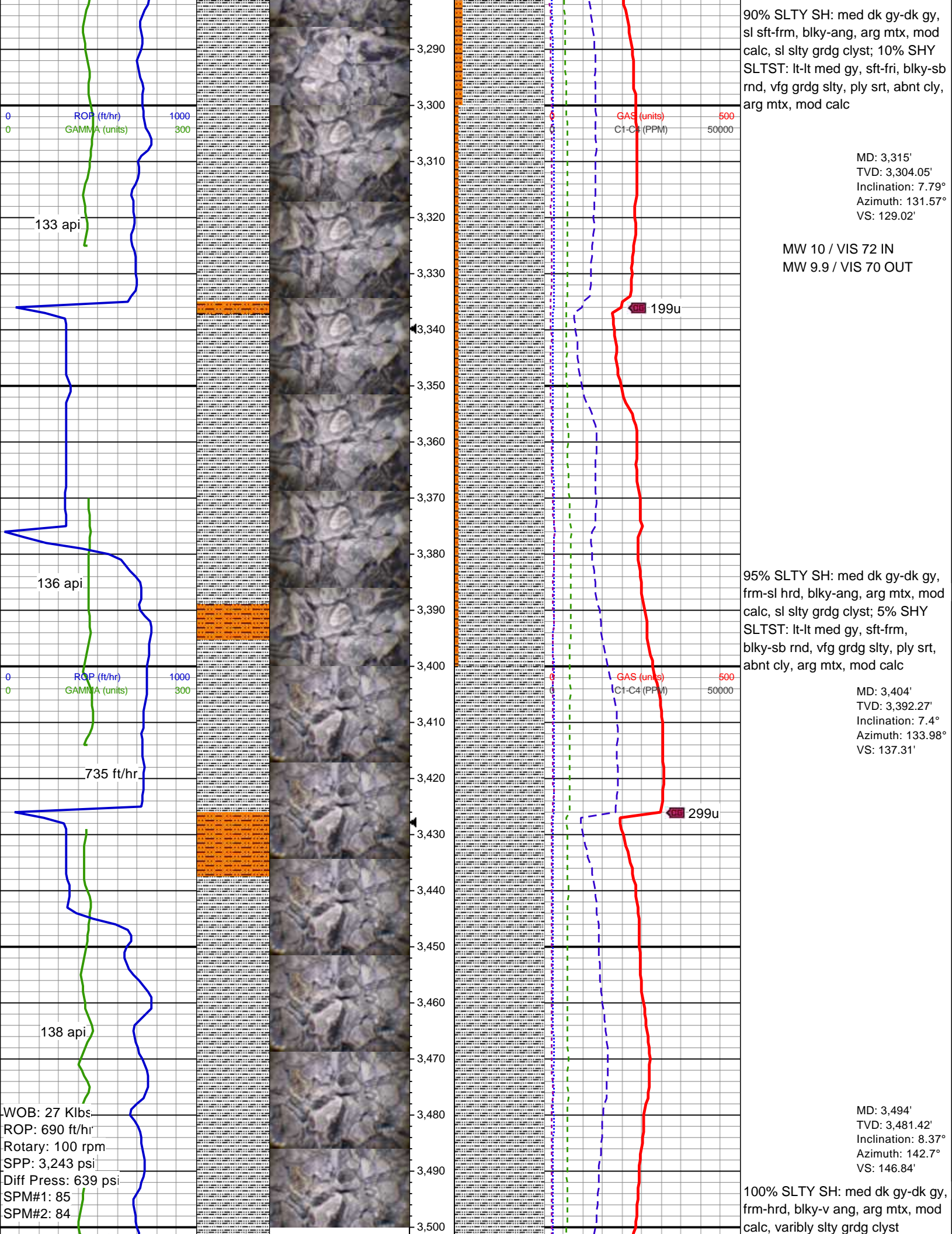


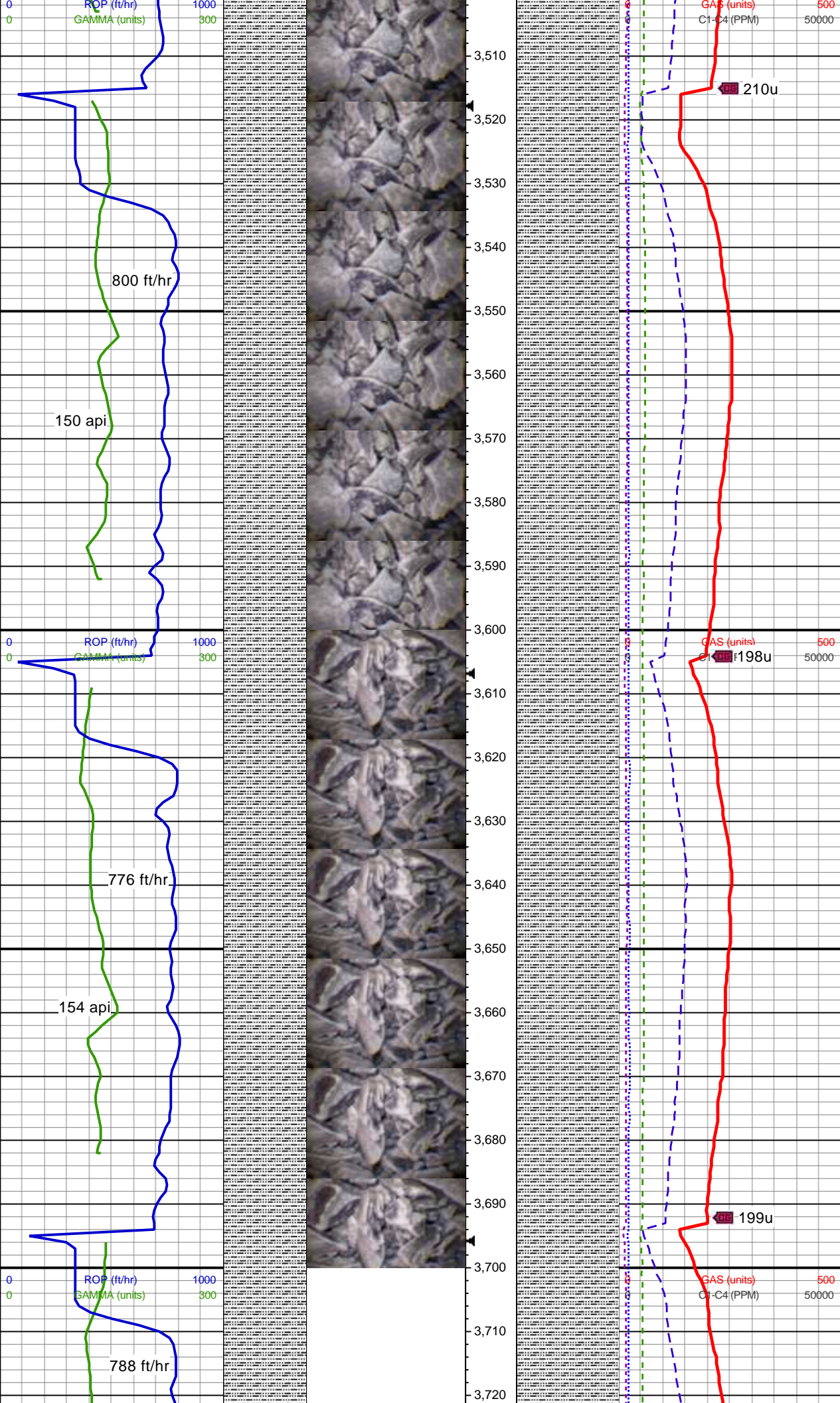
90% SLTY SH: med dk gy-dk gy, tr
v lt gy-offwht, sft frm, blk-ang, arg
mtx, mod calc, grdg clyst; 10%
SHY SLTST: lt-lt med gy, sft-fri, sl
uncons, blk-sb rnd, vfg grdg slty,
ply srt, abnt cly, arg mtx, mod calc

MD: 3,136'
TVD: 3,126.7'
Inclination: 7.74°
Azimuth: 142.07°
VS: 110.77'

80% SLTY SH: med dk gy-dk gy,
sft frm, blk-ang, arg mtx, mod
calc, grdg clyst; 20% SHY SLTST:
lt-lt med gy, sft-fri, sl uncons,
blk-sb rnd, vfg grdg slty, ply srt,
abnt cly, arg mtx, mod calc

MD: 3,226'
TVD: 3,215.87'
Inclination: 7.79°
Azimuth: 136.96°
VS: 120.29'





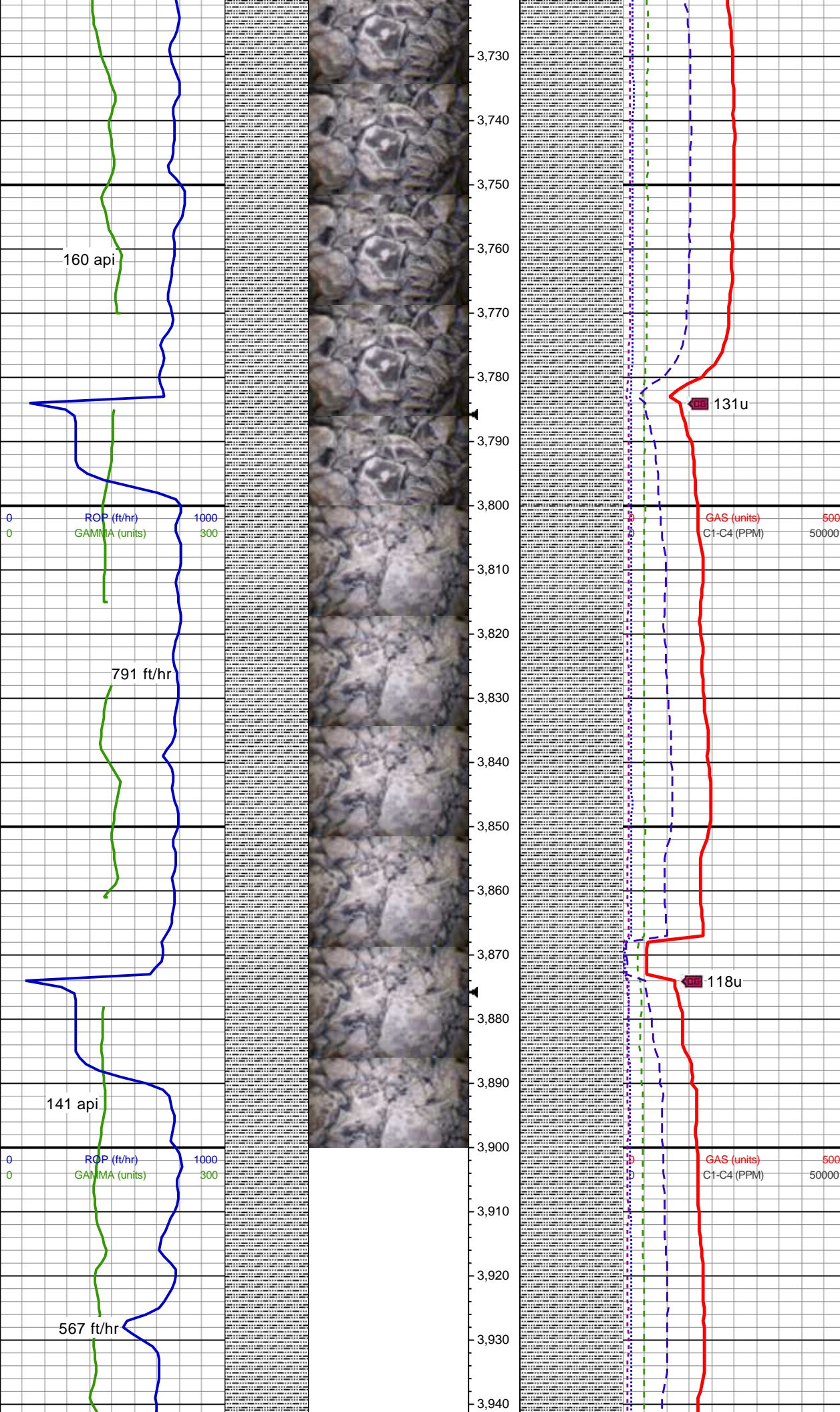
MW 10 / VIS 69 IN
MW 10 / VIS 72 OUT

MD: 3,584'
TVD: 3,570.46'
Inclination: 8.39°
Azimuth: 145.74°
VS: 157.76'

100% SLTY SH: med dk gy-dk gy,
frm-hrd, blk-y-v ang, arg mtx, mod
calc, slty grdg clyst

MD: 3,673'
TVD: 3,658.52'
Inclination: 8.28°
Azimuth: 149.19°
VS: 168.88'

100% SLTY SH: med dk gy-v dk
gy, frm-v hrd, blk-y-v ang, arg mtx,
mod calc, slty grdg clyst



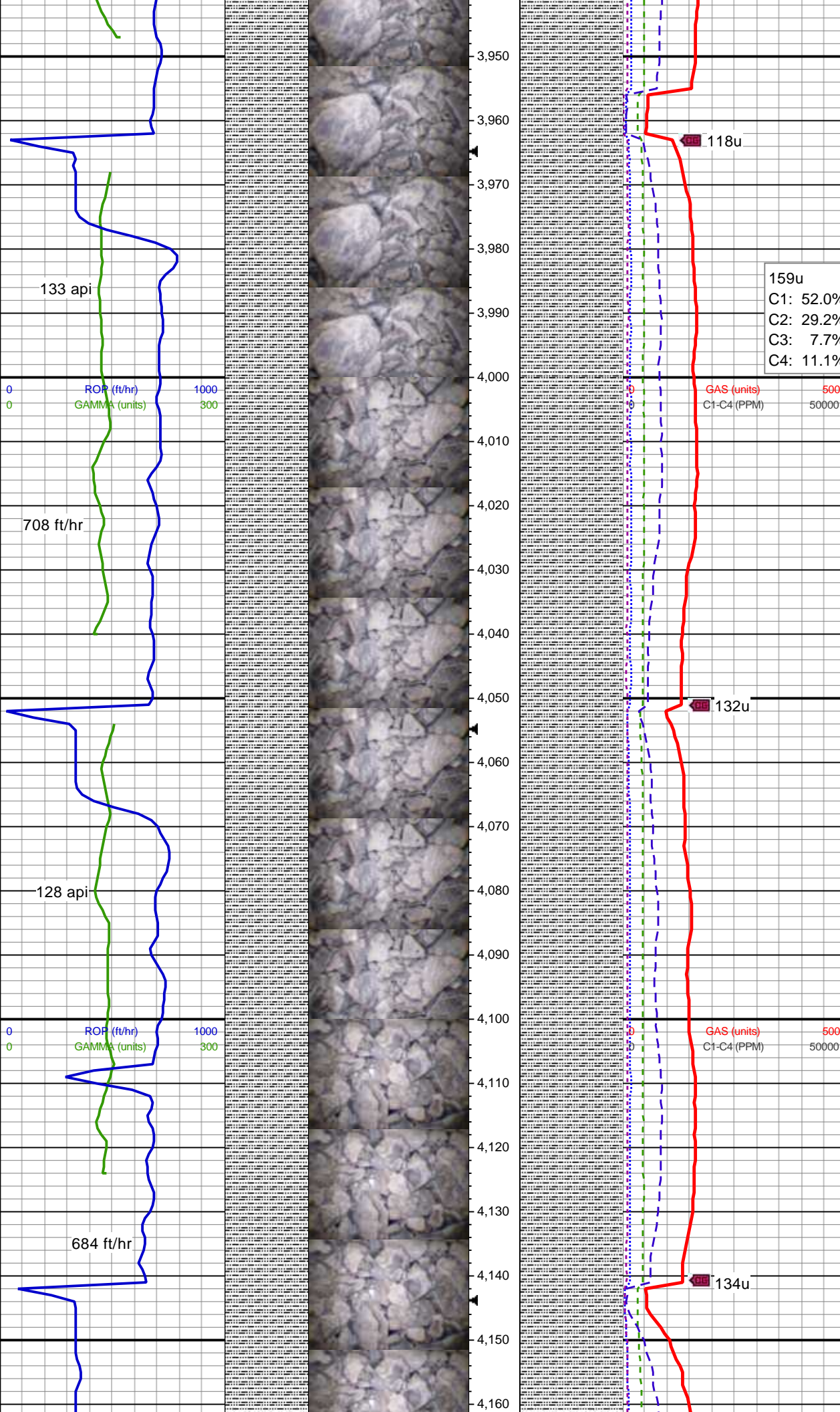
MD: 3,763'
TVD: 3,747.58'
Inclination: 8.37°
Azimuth: 155.61°
VS: 180.62'

100% SLTY SH: med dk gy-v dk
gy, frm-v hrd, blk-v ang, arg mtx,
mod calc, slty grdg clyst

MD: 3,852'
TVD: 3,835.66'
Inclination: 8.12°
Azimuth: 161.41°
VS: 192.65'

100% SLTY SH: med dk gy-v dk
gy, frm-hrd, blk-v ang, arg mtx,
mod calc, mod slty grdg clyst

MD: 3,942'
TVD: 3,924.75'
Inclination: 8.28°
Azimuth: 161.41°
VS: 192.65'



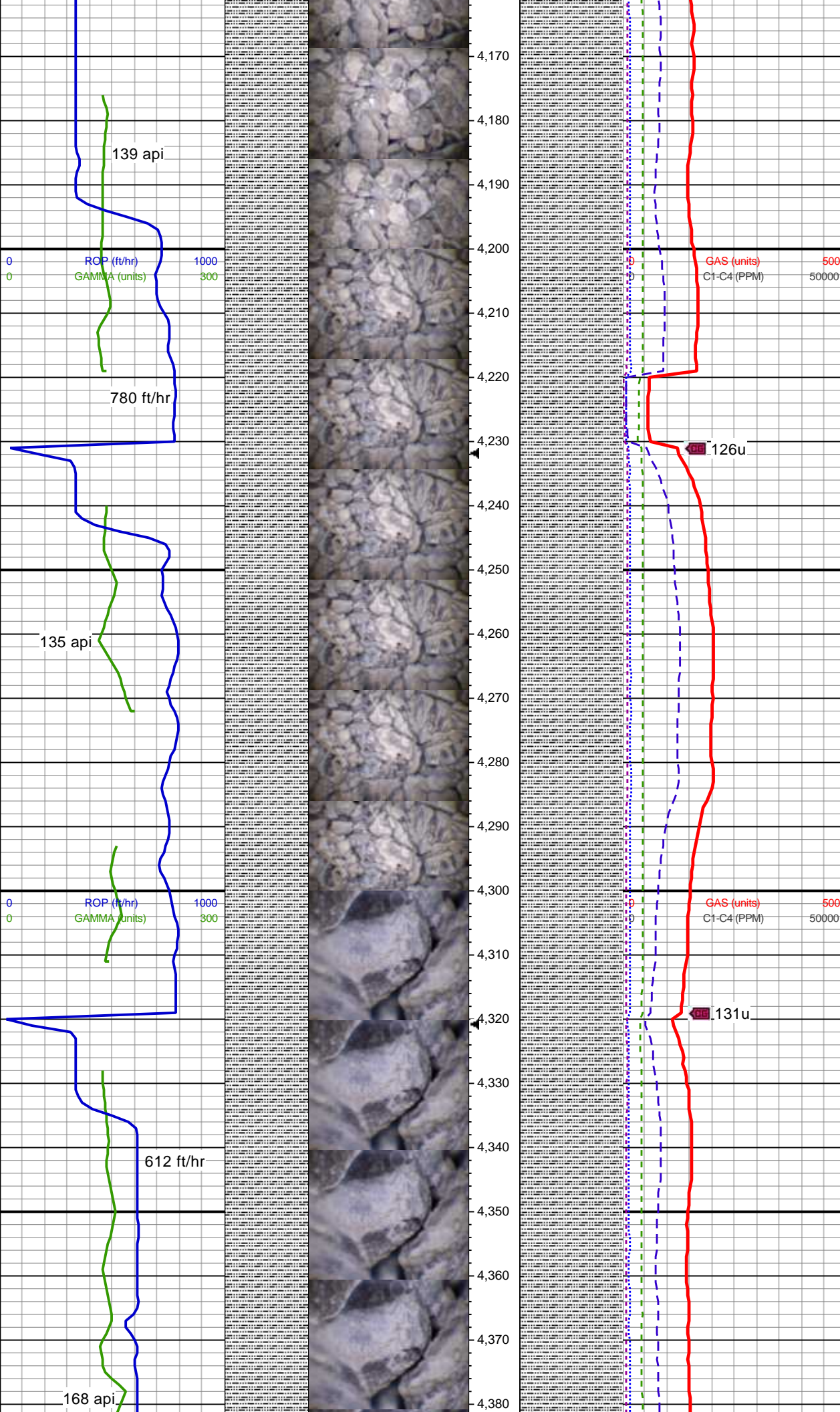
Inclination: 8.2°
Azimuth: 168.7°
VS: 205.08'

100% SLTY SH: med dk gy-v dk
gy, frm-v hrd, blk-ang, v arg mtx,
sl-mod calc, mod slty grd g clyst

MD: 4,031'
TVD: 4,012.84'
Inclination: 8.21°
Azimuth: 176.7°
VS: 217.7'

100% SLTY SH: med dk gy-v dk
gy, tr v lt gy-offwht, frm-v hrd,
blk-ang, v arg mtx, sl-mod calc,
mod slty grd g clyst

MD: 4,121'
TVD: 4,101.93'
Inclination: 8.17°
Azimuth: 186.83°
VS: 230.44'



100% SLTY SH: med dk gy-v dk
gy, frm-hrd, blk-ang, mnr rnd, v
arg mtx, sl-mod calc, mod slty
grdg clyst

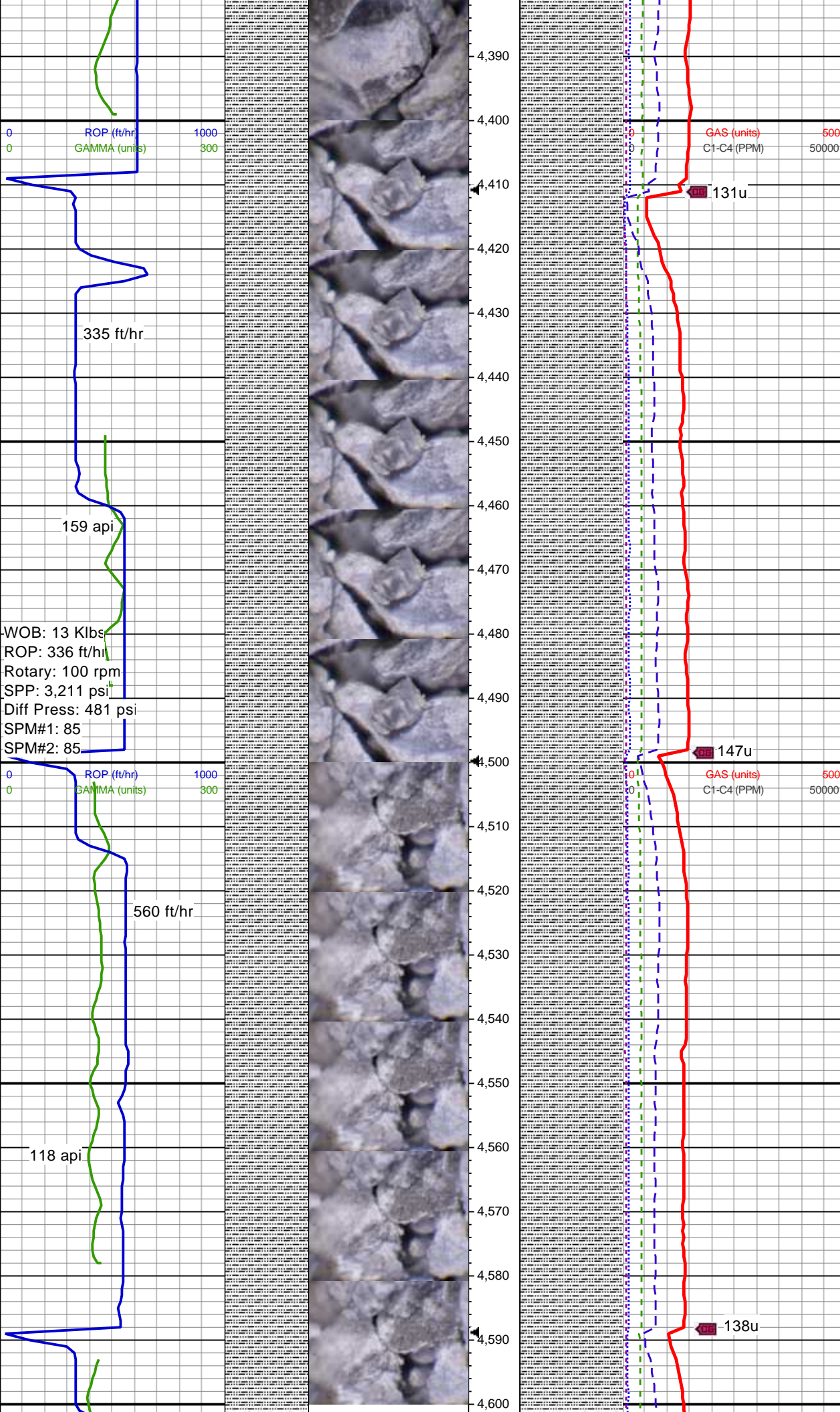
MW 10 / VIS 69 IN
MW 10 / VIS 69 OUT

MD: 4,211'
TVD: 4,191.08'
Inclination: 7.61°
Azimuth: 190.95°
VS: 242.56'

MD: 4,301'
TVD: 4,280.33'
Inclination: 7.2°
Azimuth: 199.68°
VS: 253.6'

100% SLTY SH: med dk gy-v dk
gy, frm-hrd, blk-ang, v arg mtx, sl
calc, mod slty grdg clyst

MD: 4,390'
TVD: 4,368.58'



TVD: 4,398.00'
Inclination: 7.65°
Azimuth: 206.09°
VS: 264'

100% SLTY SH: med dk gy-v dk gy, frm-hrd, blk-ang, mn-nd, v arg mt-xt, sl calc, sl slty grd-lyst

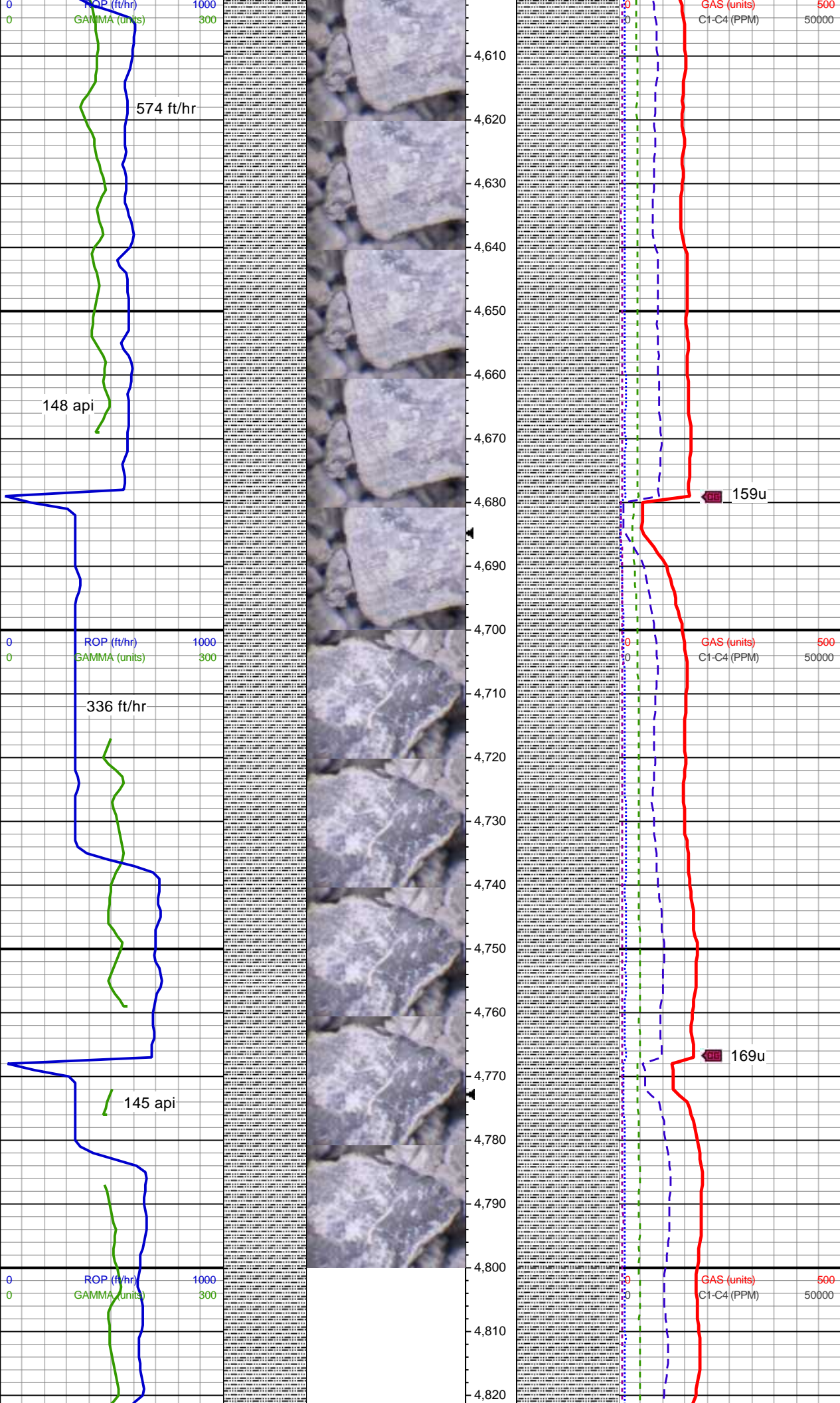
MD: 4,480'
TVD: 4,457.77'
Inclination: 7.8°
Azimuth: 202.57°
VS: 274.83'

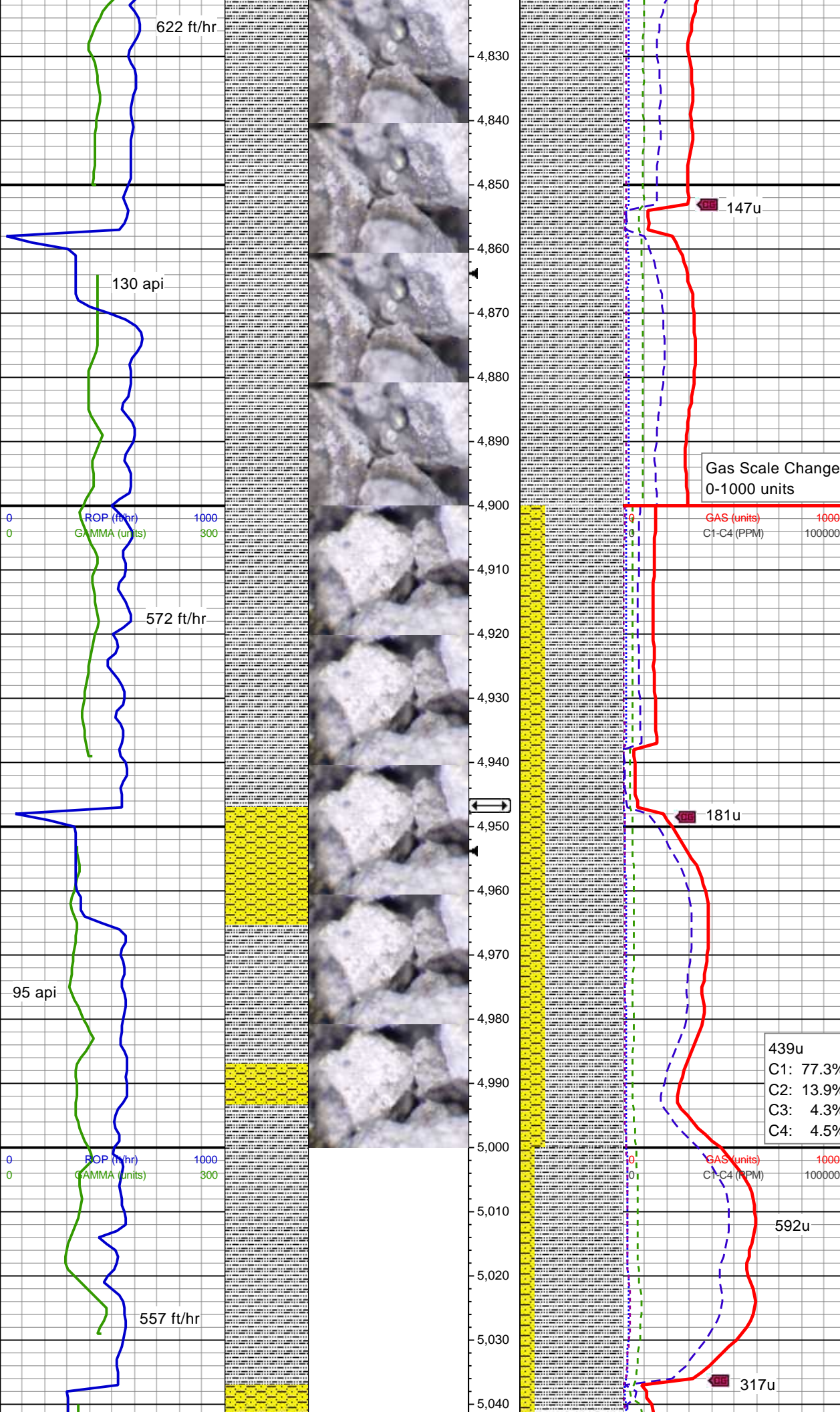
100% SLTY SH: med dk gy-v dk gy, tr v lt yel gy-offwht, frm-v hrd, blk-ang, mn-nd, v arg mt-xt, sl calc, sl slty grd-lyst

MW 10 / VIS 66 IN
MW 10 / VIS 69 OUT

MD: 4,570'
TVD: 4,546.94'
Inclination: 7.83°
Azimuth: 188.92°
VS: 286.4'

100% SLTY SH: med-drkgy, gy/brn, mod frm, sb blk-ang, brit-fis ip, rthy, arg mt-xt, sl calc cmt, sl slty





MD: 4,840'
TVD: 4,814.28'
Inclination: 8.23°
Azimuth: 169.6°
VS: 323.99'

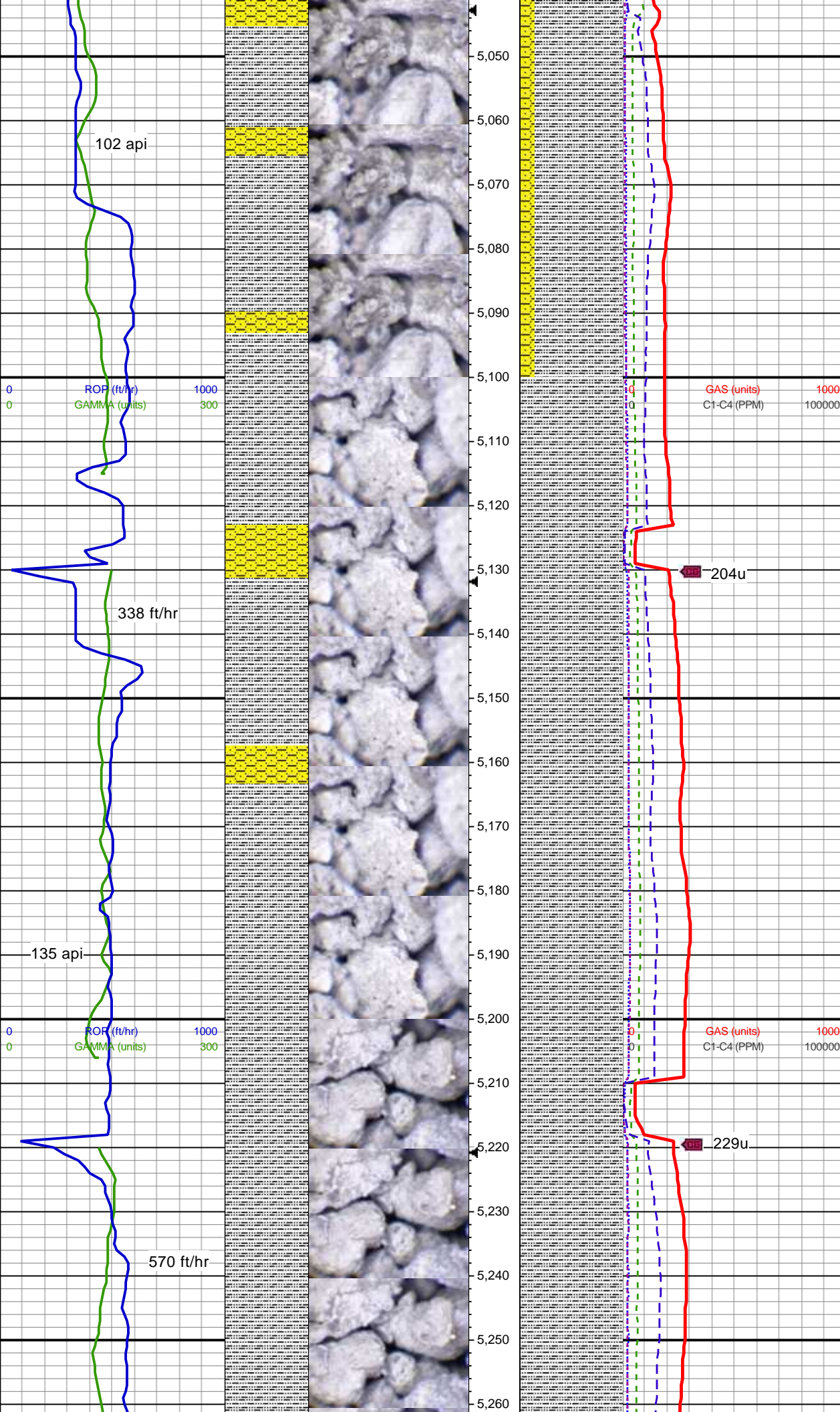
100% SLTY SH: lt-medgy, gy/brn,
mod frm, sb blkly-sr, brit-tr fis, rthy,
arg mtx, calc cmt, slty-aren

MD: 4,930'
TVD: 4,903.34'
Inclination: 8.37°
Azimuth: 165.17°
VS: 336.75'

Sussex/Shannon Top
4947' MD / 4920' TVD

75% SLTY SH: med-drkgy, gy brn,
mod sft-frm, brit-tr fis, sb blkly-sb
ang, arg-aren mtx, sl-mod calc;
25% SHY SS: medgy, sme ltr,
sft-sl frm, ply cons, sb blkly clus,
slty-arg, calc/lmy mtx

MD: 5,019'
TVD: 4,991.39'
Inclination: 8.35°
Azimuth: 160.16°
VS: 349.23'

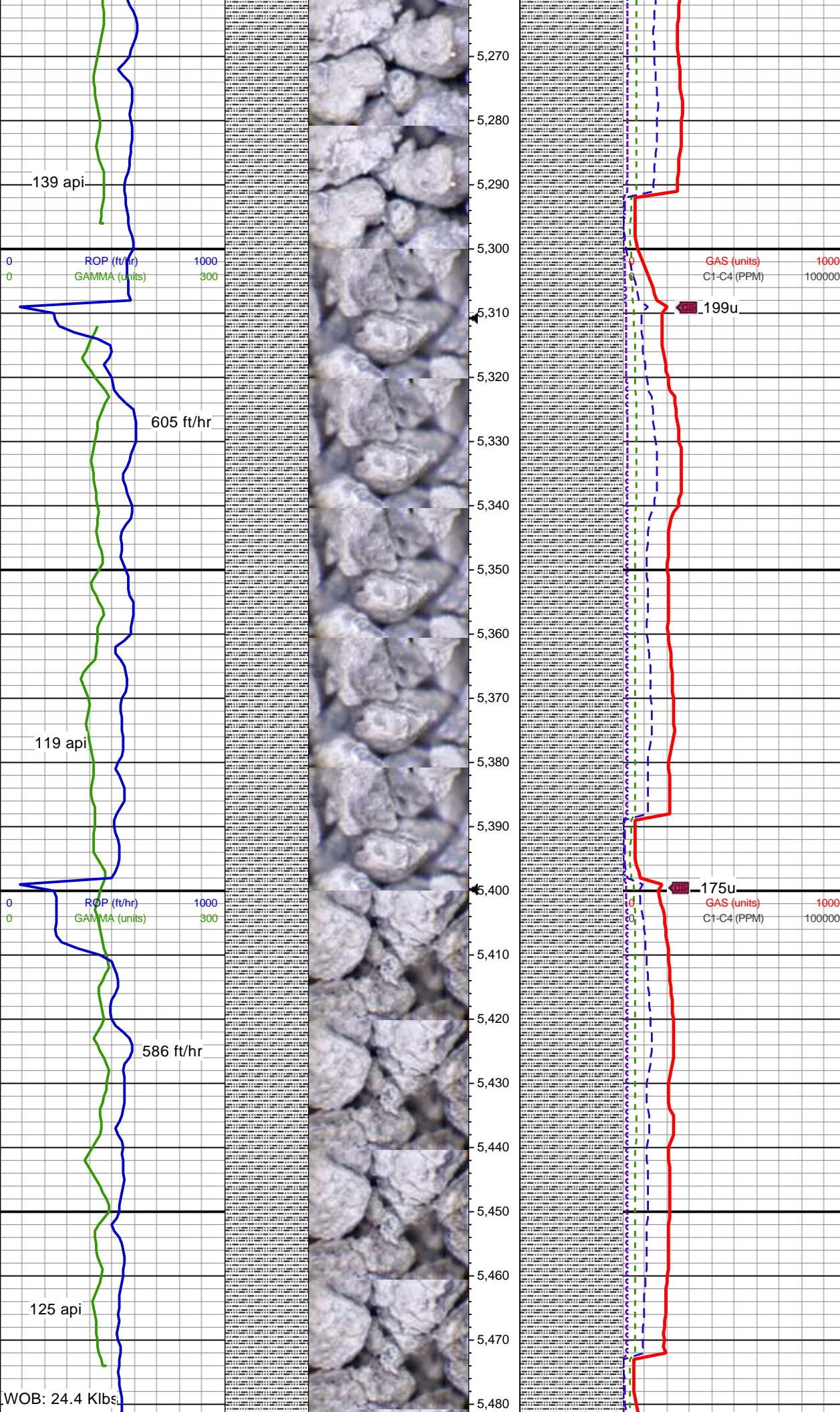


85% SLTY SH: med-drkgy, gy brn, mod sft frm, brit-tr fis, sb blkly-sb ang, arg-aren mtx, sl-mod calc; 15% SHY SS: medgy, sme ltr, sft-sl frm, ply cons, sb blkly clus, slty-arg, calc/lmy mtx

MD: 5,108'
TVD: 5,079.47'
Inclination: 8.14°
Azimuth: 155.55°
VS: 361.21'

100% SLTY SH: med-drkgy, frm-hd, blkly-sb ang, rthy, arg mtx, sl-mod calc cmt, mod-v slty, tr sdy

MD: 5,197'
TVD: 5,167.57'
Inclination: 8.26°
Azimuth: 149.36°
VS: 372.66'



MD: 5,287'
TVD: 5,256.63'
Inclination: 8.32°
Azimuth: 141.29°
VS: 383.57'

100% SLTY SH: med-drkgy,
frm-hd, blk-y-sb ang, rthy, arg mtx,
sl-mod calc cmt, mod-v slty, tr sdy

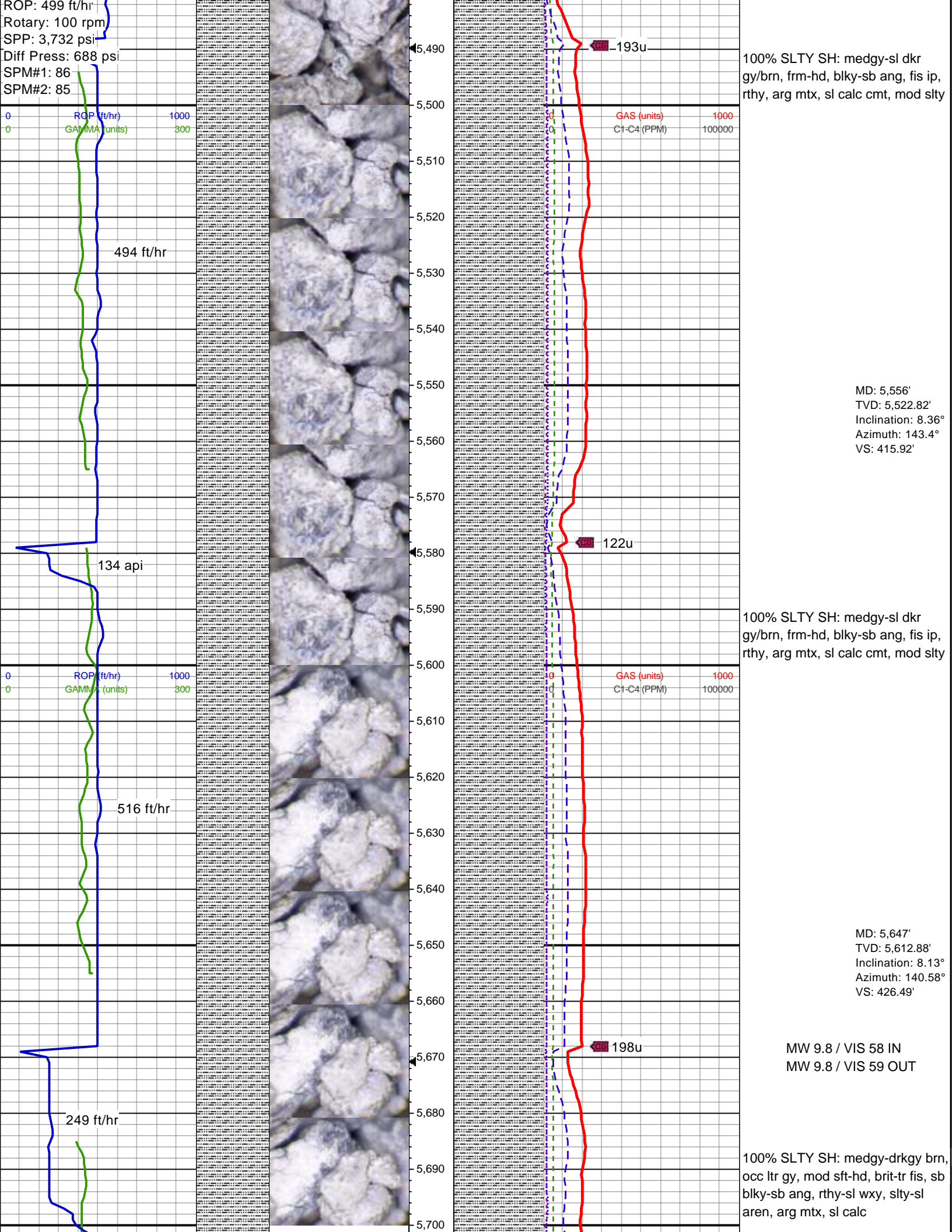
MW 9.8+ / VIS 61 IN
MW 9.8 / VIS 59 OUT

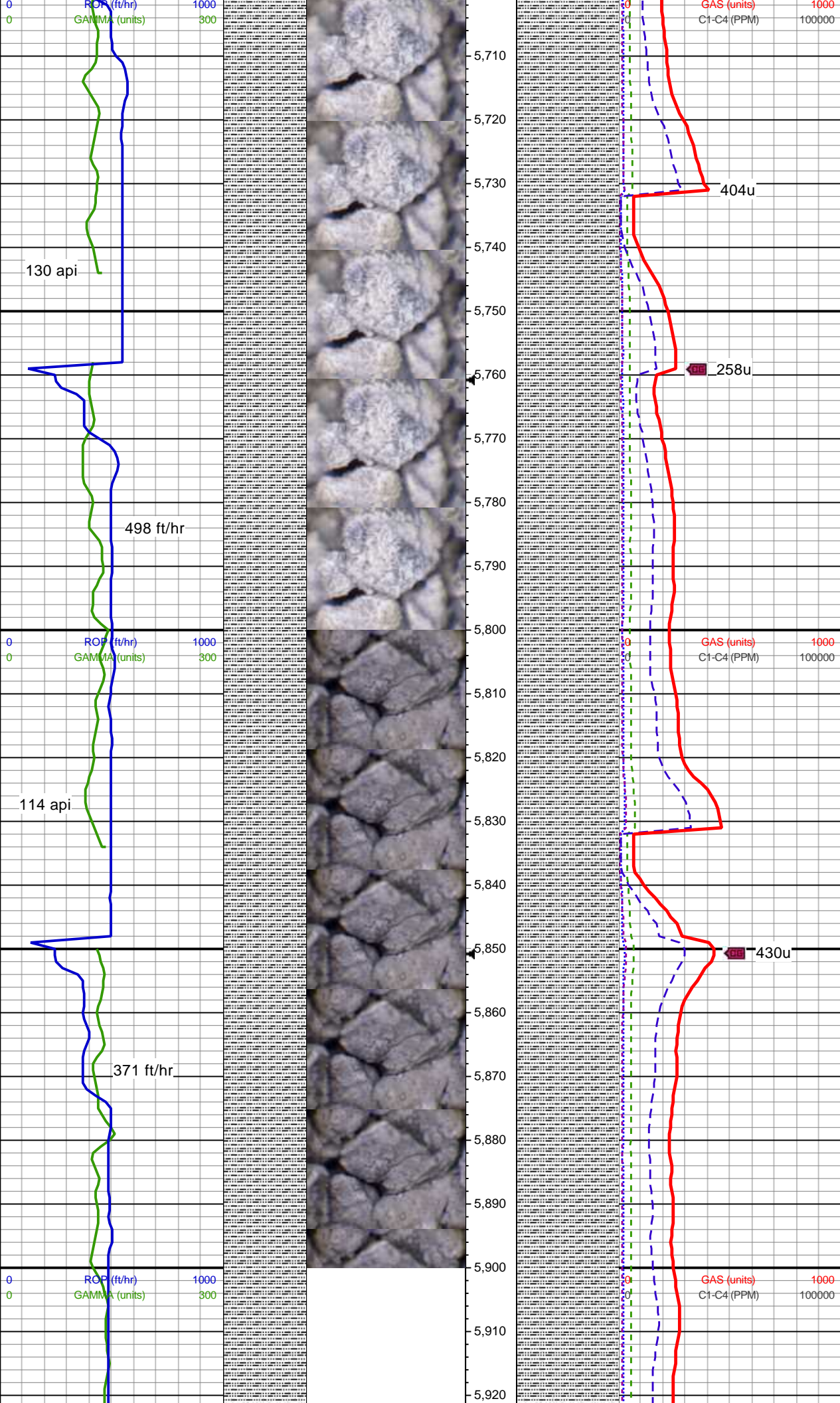
MD: 5,377'
TVD: 5,345.68'
Inclination: 8.3°
Azimuth: 145.13°
VS: 394.26'

100% SLTY SH: medgy-sl dkr
gy/brn, frm-hd, blk-y-sb ang, fis ip,
rthy, arg mtx, sl calc cmt, mod slty

MW 9.8 / VIS 61 IN
MW 9.7+ / VIS 62 OUT

MD: 5,466'
TVD: 5,433.76'
Inclination: 8.22°
Azimuth: 145.99°
VS: 405.06'





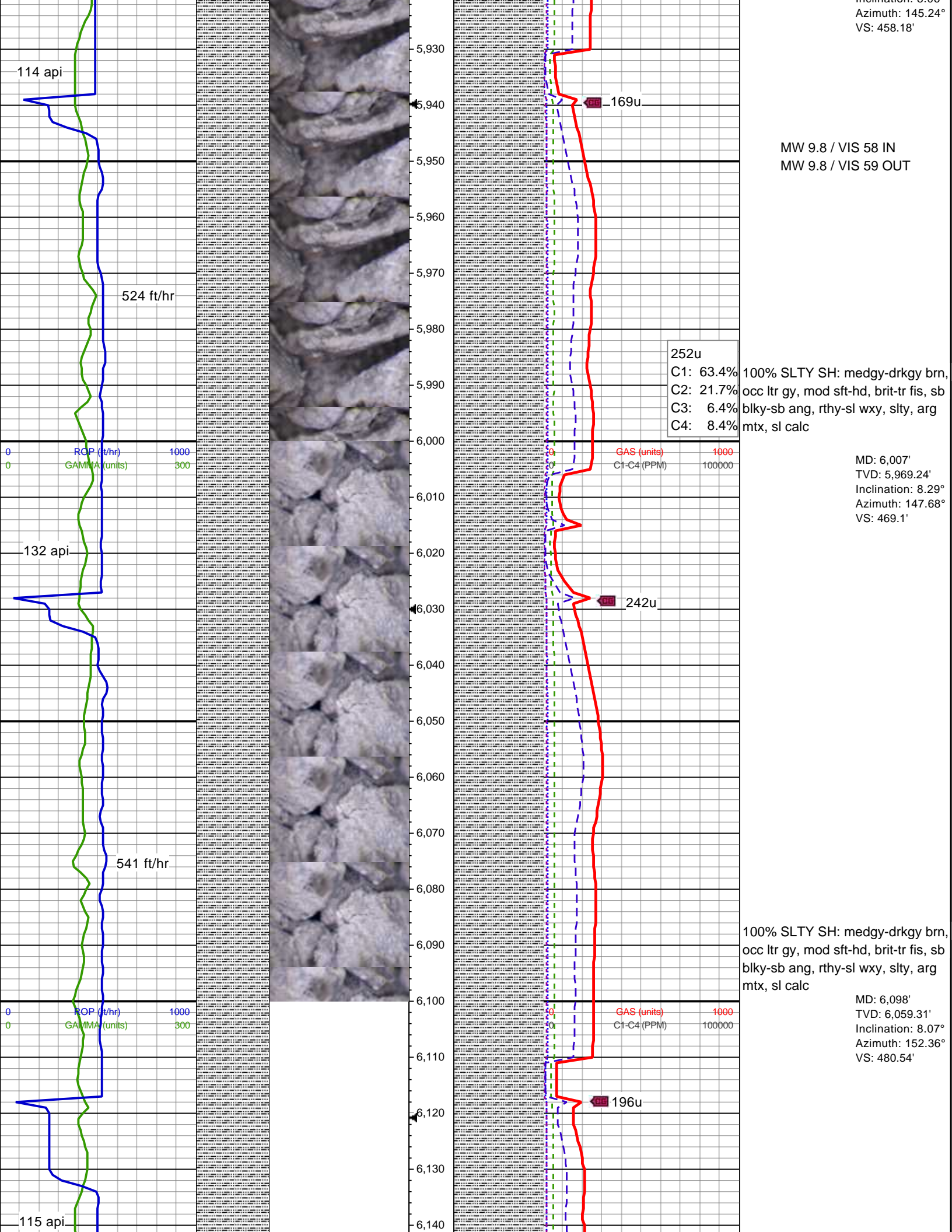
MD: 5,737'
TVD: 5,701.95'
Inclination: 8.33°
Azimuth: 142.08°
VS: 436.84'

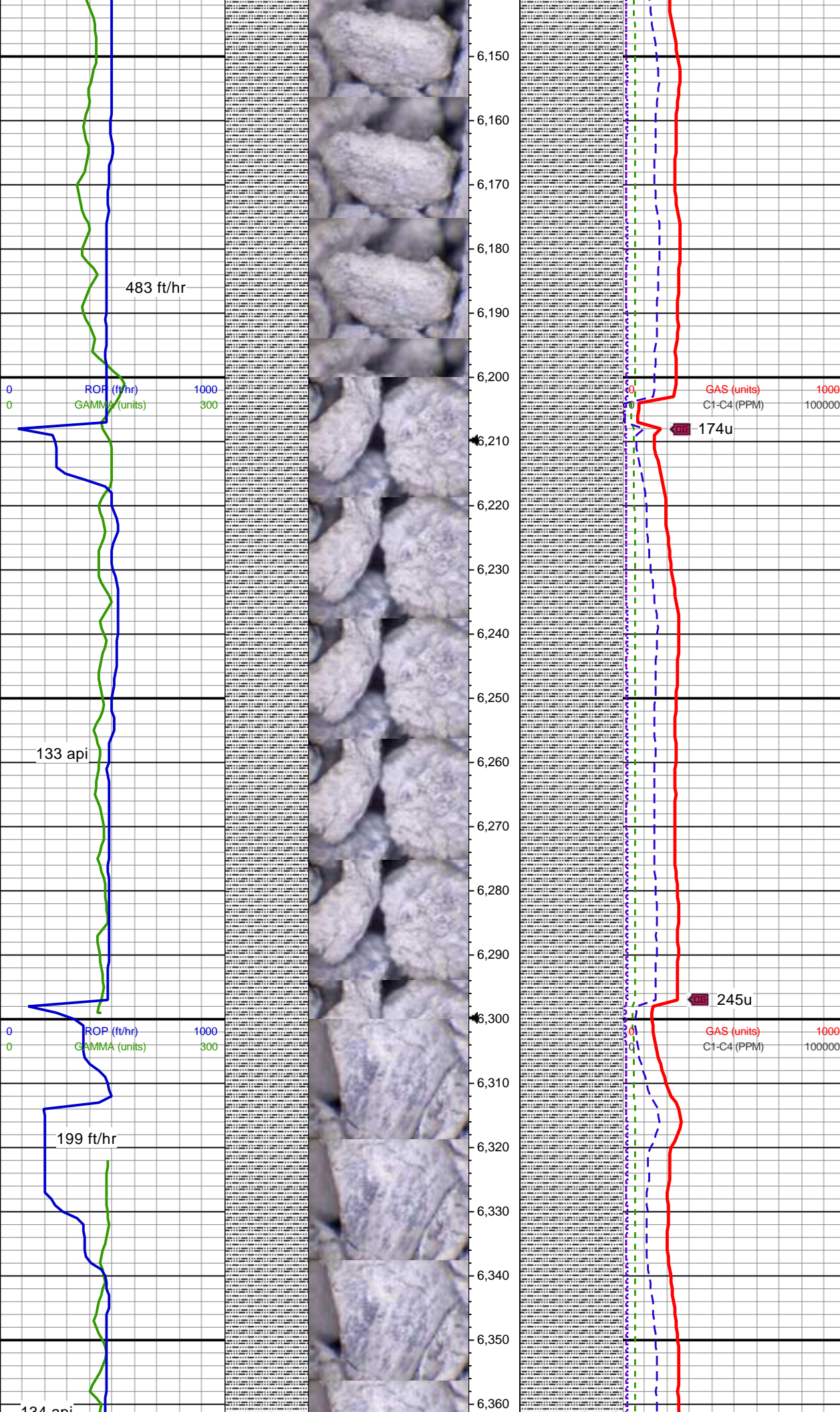
100% SLTY SH: medgy-drkgy brn,
occ ltr gy, mod sft-hd, brit-tr fis, sb
blky-sb ang, rthy-sl wxy, slty-sl
aren, arg mtx, sl calc

MD: 5,827'
TVD: 5,791.04'
Inclination: 8.04°
Azimuth: 146.44°
VS: 447.5'

100% SLTY SH: medgy-drkgy brn,
occ ltr gy, mod sft-hd, brit-tr fis, sb
blky-sb ang, rthy-sl wxy, slty, arg
mtx, sl calc

MD: 5,917'
TVD: 5,880.15'
Inclination: 8.06°
Azimuth: 142.08°
VS: 436.84'





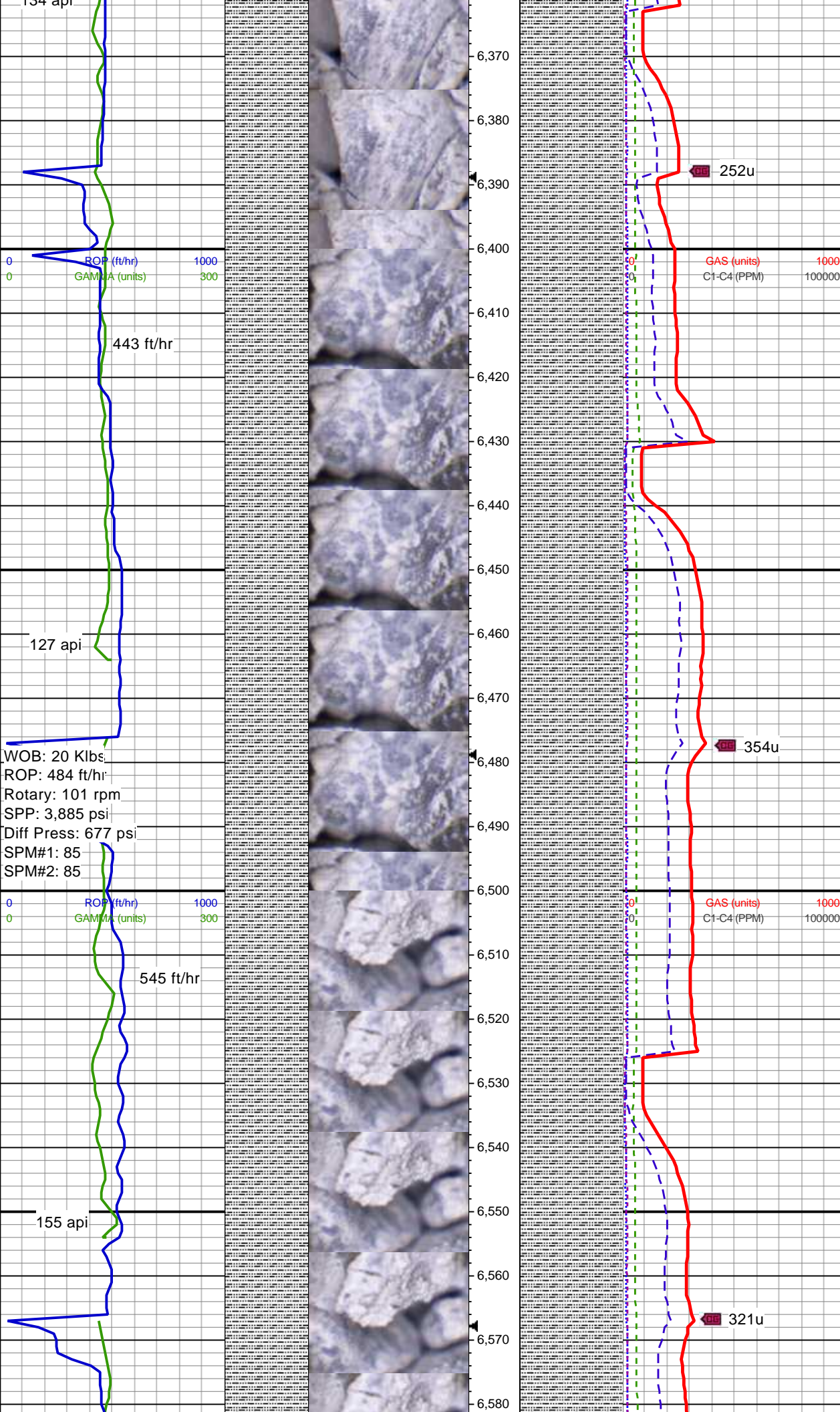
MD: 6,187'
TVD: 6,147.41'
Inclination: 8.28°
Azimuth: 156.58°
VS: 492.14'

100% SLTY SH: medgy-drkgy brn,
sme ltbn-gy/yel, mod sft-mod frm,
brit-ip fis, sb blkgy-sb plty, rthy-sl
wxy, slty, arg mtx, sl calc

MW 9.8 / VIS 58 IN
MW 9.8 / VIS 59 OUT

MD: 6,277'
TVD: 6,236.49'
Inclination: 8.14°
Azimuth: 161.21°
VS: 504.29'

100% SLTY SH: medgy-drkgy brn,
sme ltbn-gy/yel, mod sft-mod frm,
brit-ip fis, sb blkgy-sb plty, rthy-sl
wxy, slty, arg mtx, sl calc



MD: 6,366'
TVD: 6,324.6'
Inclination: 8.08°
Azimuth: 164.04°
VS: 516.4'

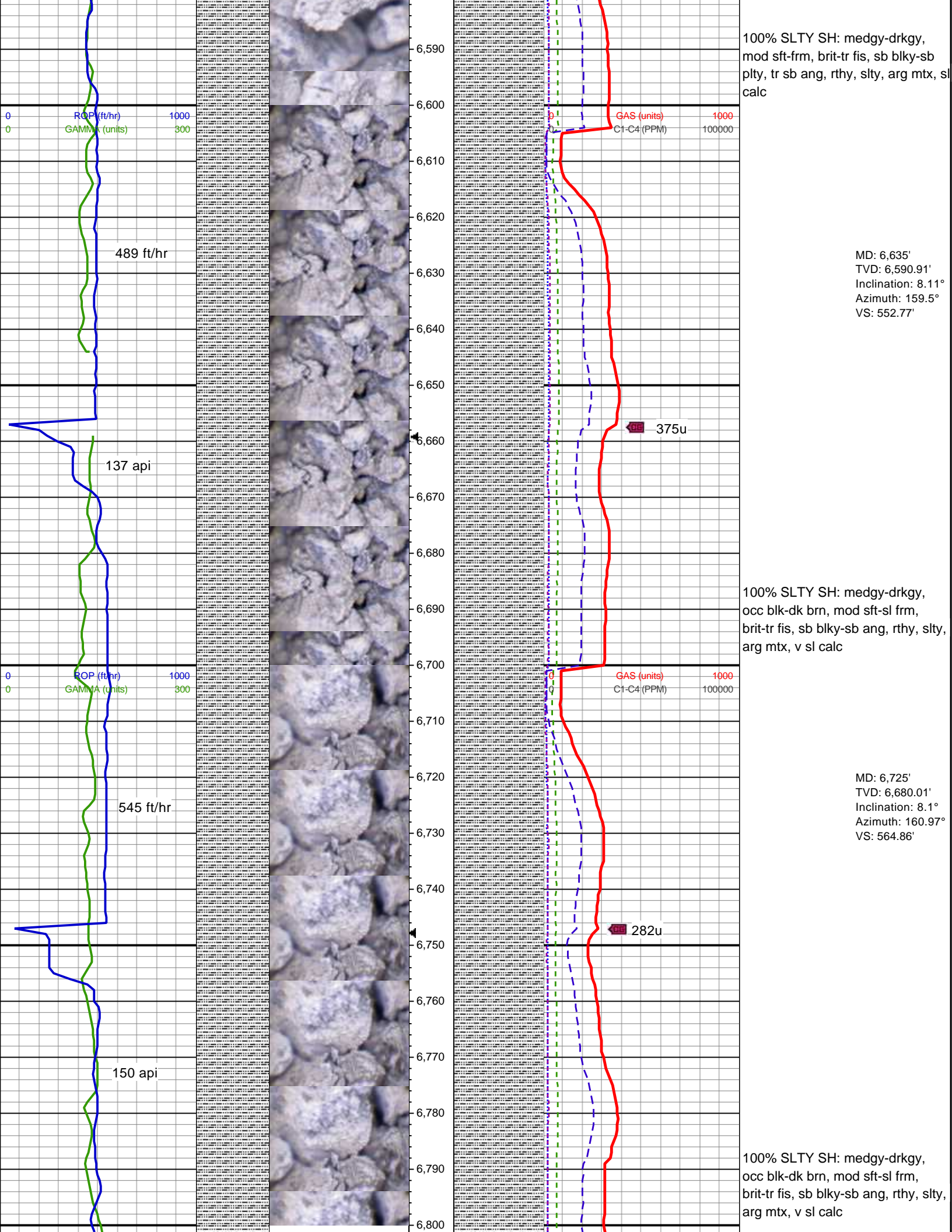
100% SLTY SH: medgy-drkgy,
mod sft frm, brit-occ fis, sb
blky-sb plty-ip ang, rthy-sl wxy,
slty, arg mtz, v sl calc

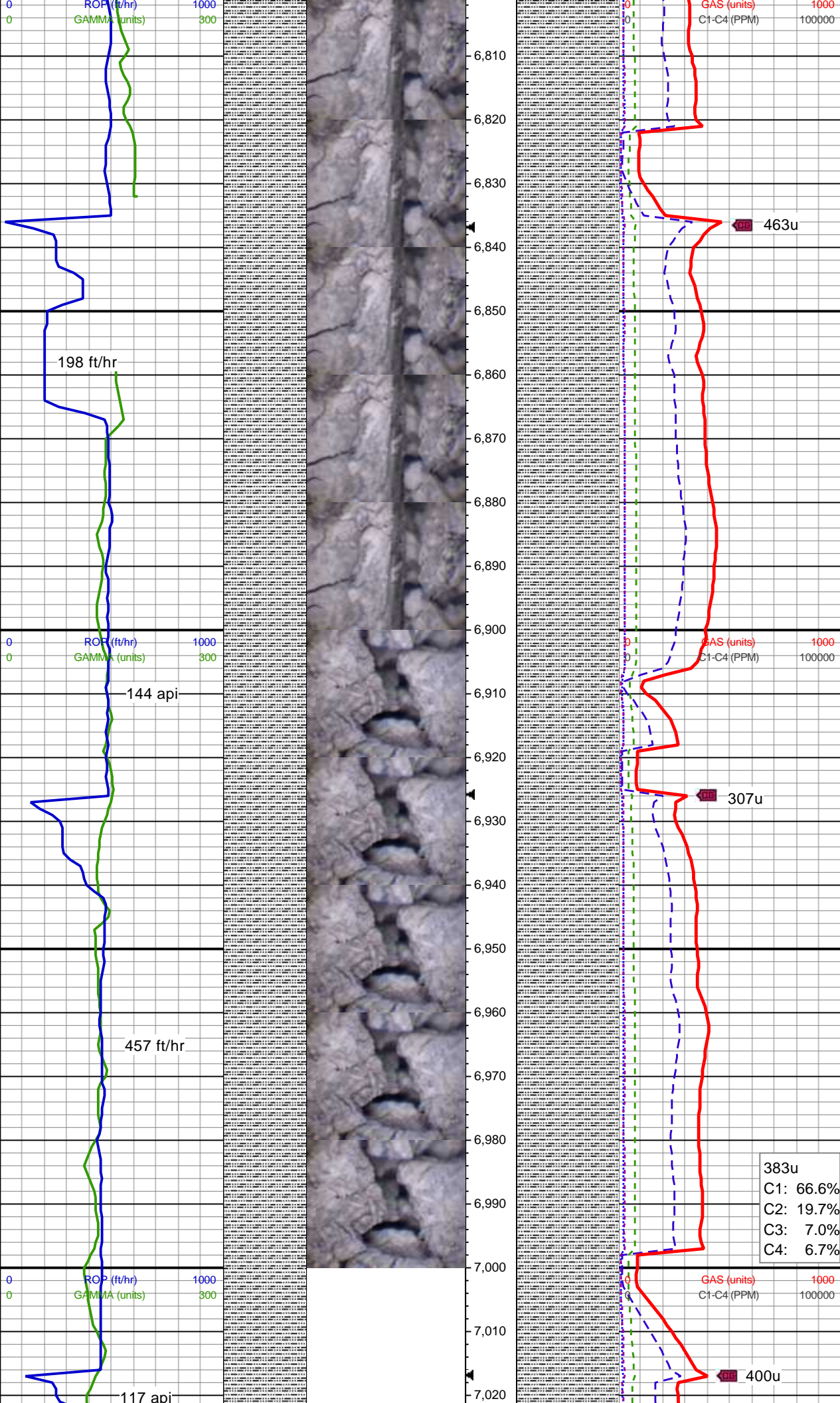
MW 9.8 / VIS 59 IN
MW 9.8 / VIS 58 OUT

MD: 6,455'
TVD: 6,412.71'
Inclination: 8.1°
Azimuth: 161.69°
VS: 528.49'

100% SLTY SH: medgy-drkgy,
mod sft frm, brit-tr fis, sb blky-sb
plty, tr sb ang, rthy, slty, arg mtz, sl
calc

MD: 6,545'
TVD: 6,501.81'
Inclination: 8.14°
Azimuth: 160.61°
VS: 540.66'





MW 9.9+ / VIS 58 IN
MW 9.8 / VIS 57 OUT

MD: 6,814'
TVD: 6,768.12'
Inclination: 8.14°
Azimuth: 157.79°
VS: 576.78'

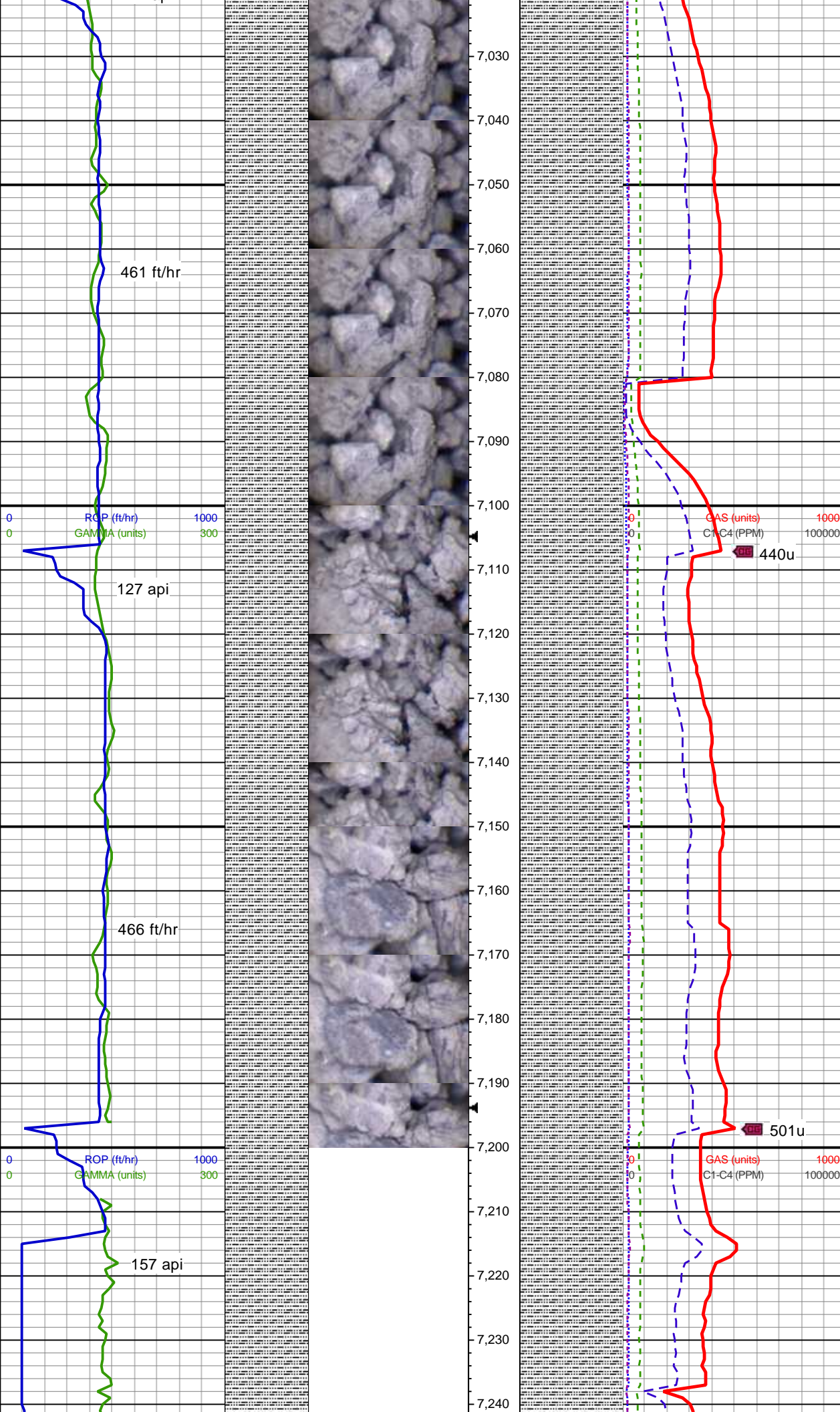
100% SLTY SH: medgy-drkgy,
occ blk-dk brn, mod sft-sl frm,
brit-tr fis, sb blkly-sb ang, rthy, slty,
arg mtx, v sl calc

MD: 6,903'
TVD: 6,856.22'
Inclination: 8.16°
Azimuth: 157.02°
VS: 588.6'

MD: 6,992'
TVD: 6,944.31'
Inclination: 8.19°
Azimuth: 159.63°
VS: 600.52'

100% SLTY SH: medgy-drkgy,
occ blk-dk brn, mod sft-sl frm, sb
blkly-sb ang, tr fis, rthy, slty, arg
mtx, v sl-non calc

MW 10 / VIS 59 IN
MW 10 / VIS 60 OUT



MD: 7,082'
TVD: 7,033.4'
Inclination: 8.12°
Azimuth: 159.83°
VS: 612.65'

100% SLTY SH: medgy-drkgy,
occ blk-dk brn, mod sft-sl frm, sb
blkly-sb ang, tr fis, rthy, slty, arg
mtx, v sl-non calc

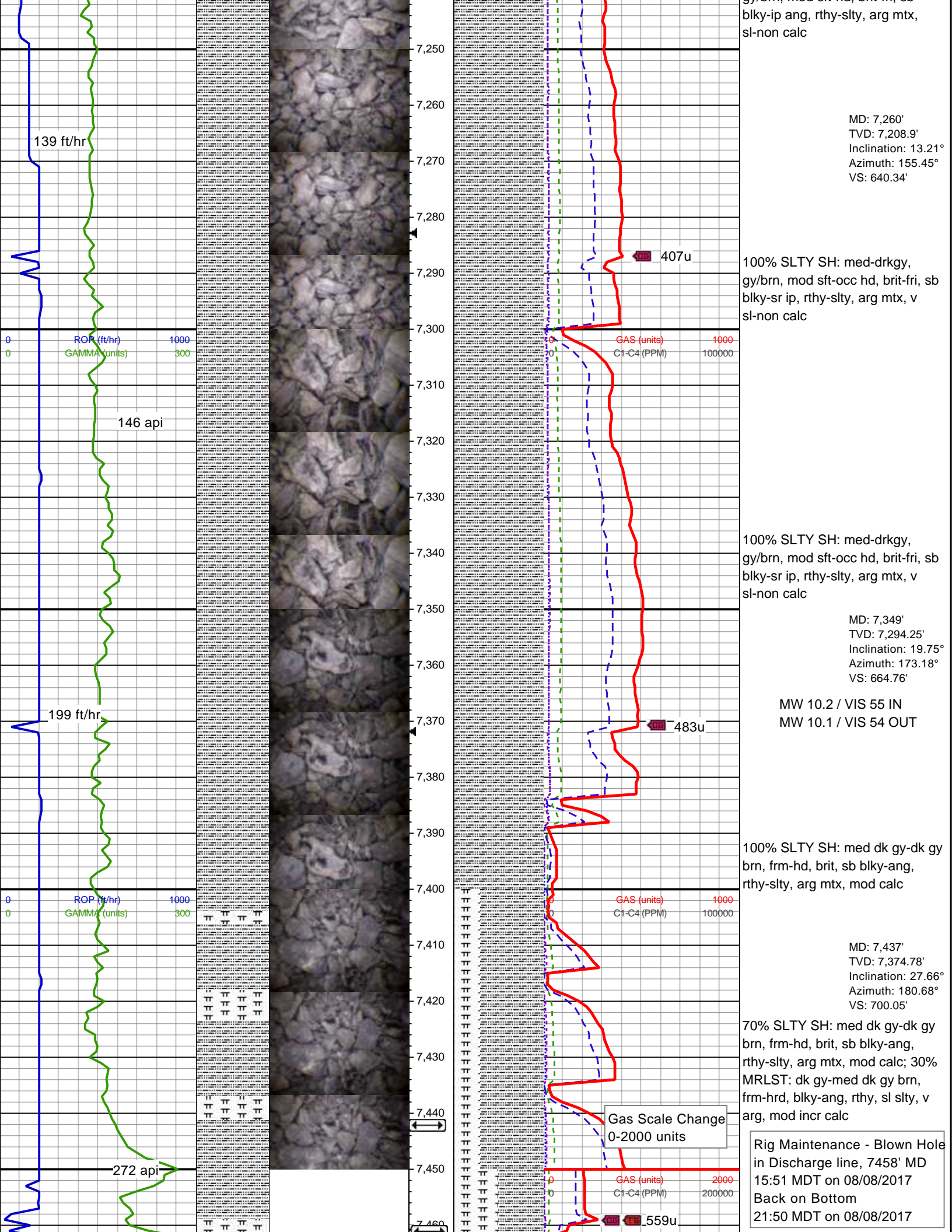
MD: 7,171'
TVD: 7,121.49'
Inclination: 8.32°
Azimuth: 160.6°
VS: 624.78'

MW 10.1 / VIS 57 IN
MW 10 / VIS 56 OUT

100% SLTY SH: med-drkgy,
gy/brn, mod sft-hd, brit-fri, sb
blkly-ip ang, rthy-slty, arg mtx,
sl-non calc

KOP @ 7230' MD, 14:06 MDT,
08/08/2017
Begin 50' Sample Collection

100% SLTY SH: med-drkgy,
qv/brn, mod sft-hd, brit-fri, sb



139 ft/hr

146 api

199 ft/hr

272 api

407u

483u

Gas Scale Change
0-2000 units

559u

MD: 7,260'
TVD: 7,208.9'
Inclination: 13.21°
Azimuth: 155.45°
VS: 640.34'

100% SLTY SH: med-drkgy,
gy/brn, mod sft-occ hd, brit-fri, sb
blk-y-sr ip, rthy-slty, arg mtx, v
sl-non calc

100% SLTY SH: med-drkgy,
gy/brn, mod sft-occ hd, brit-fri, sb
blk-y-sr ip, rthy-slty, arg mtx, v
sl-non calc

MD: 7,349'
TVD: 7,294.25'
Inclination: 19.75°
Azimuth: 173.18°
VS: 664.76'

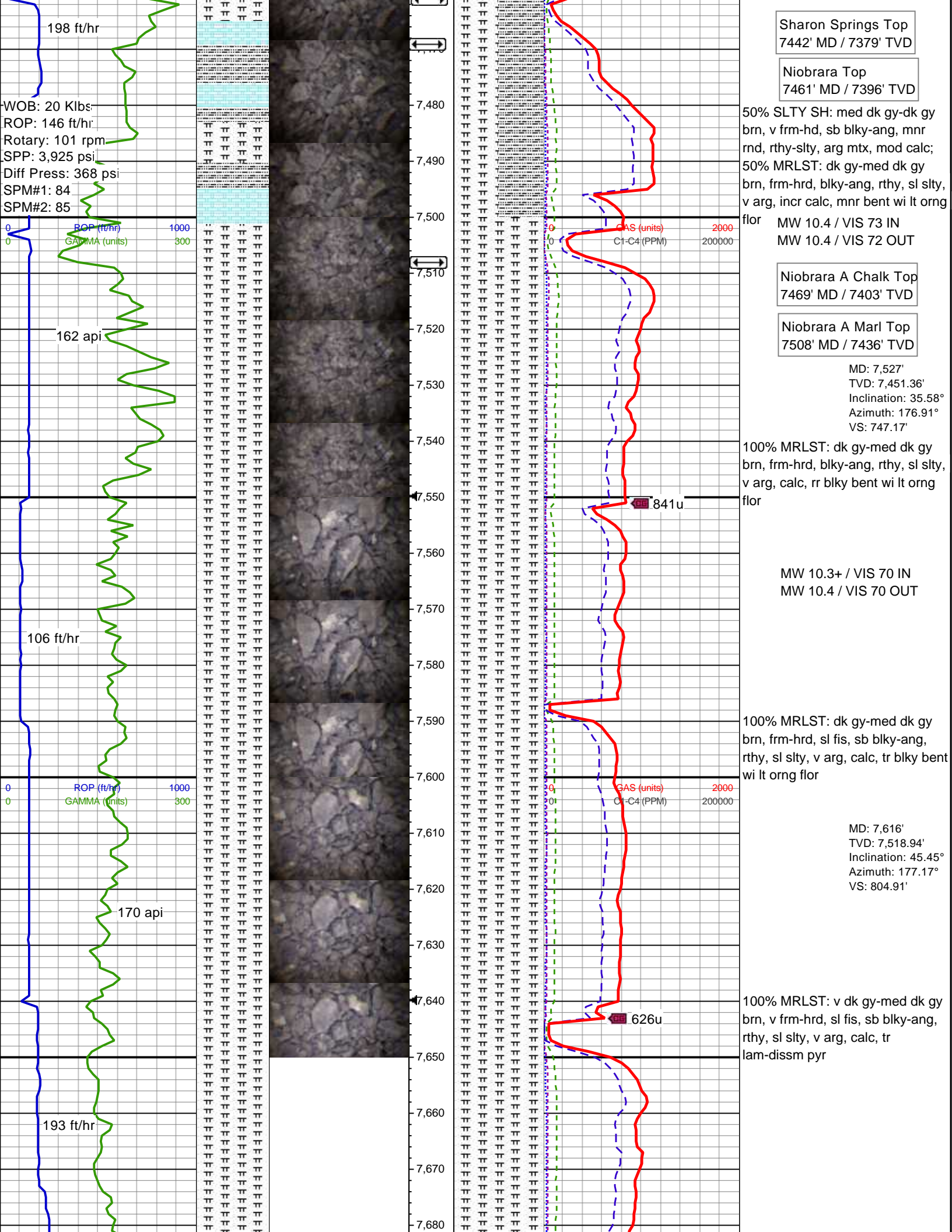
MW 10.2 / VIS 55 IN
MW 10.1 / VIS 54 OUT

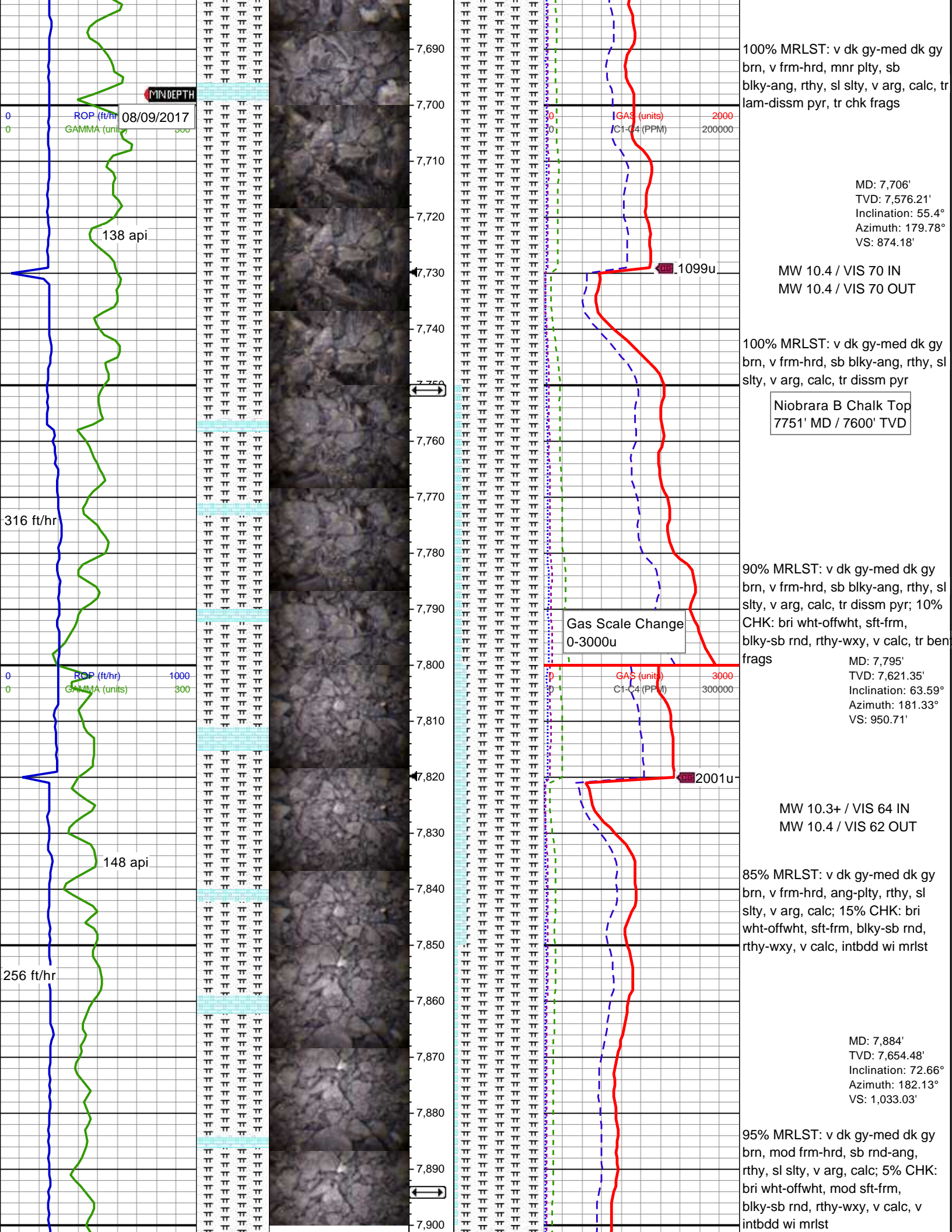
100% SLTY SH: med dk gy-dk gy
brn, frm-hd, brit, sb blk-y-ang,
rthy-slty, arg mtx, mod calc

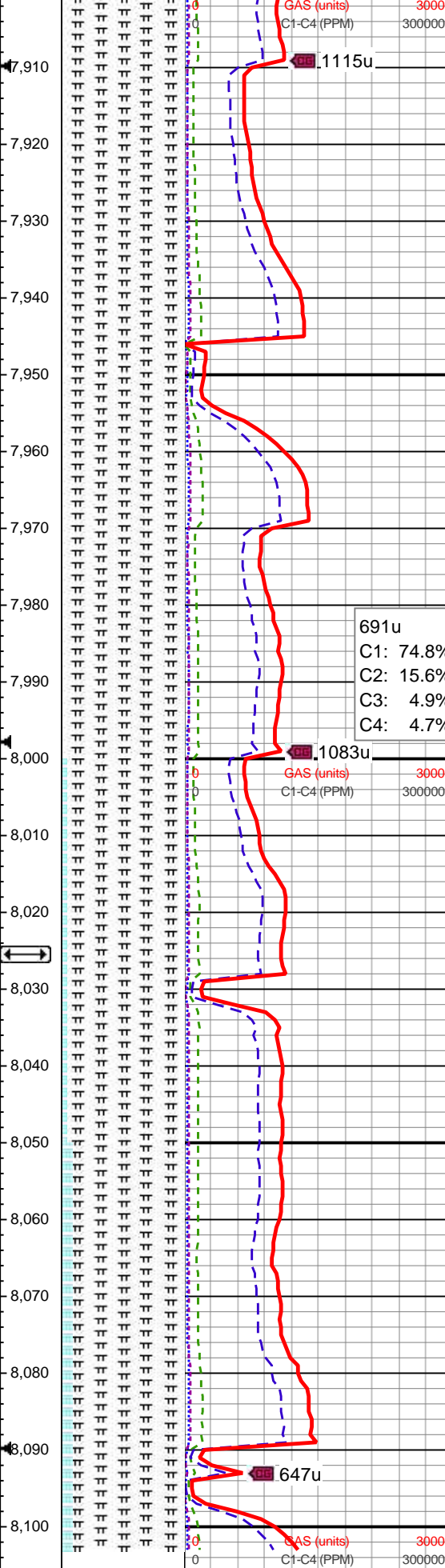
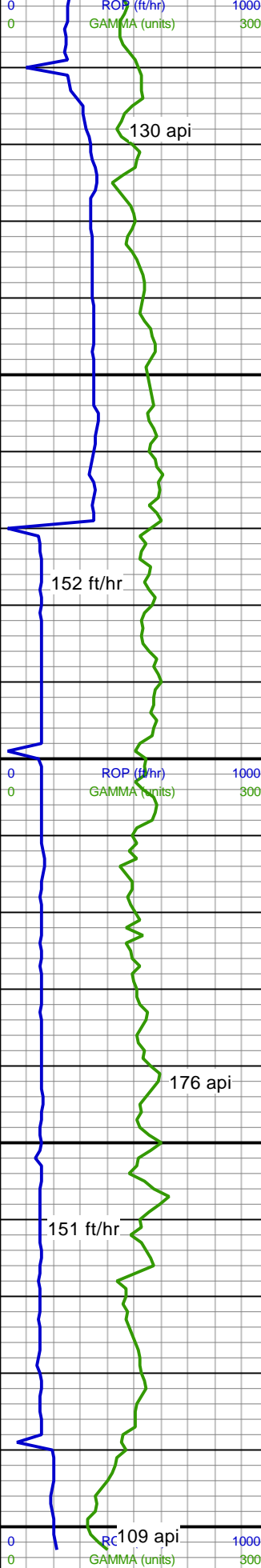
MD: 7,437'
TVD: 7,374.78'
Inclination: 27.66°
Azimuth: 180.68°
VS: 700.05'

70% SLTY SH: med dk gy-dk gy
brn, frm-hd, brit, sb blk-y-ang,
rthy-slty, arg mtx, mod calc; 30%
MRLST: dk gy-med dk gy brn,
frm-hrd, blk-y-ang, rthy, sl slty, v
arg, mod incr calc

Rig Maintenance - Blown Hole
in Discharge line, 7458' MD
15:51 MDT on 08/08/2017
Back on Bottom
21:50 MDT on 08/08/2017







Niobrara B Marl Top
7894' MD / 7641' TVD

100% MRLST: v dk gy-med dk gy brn, frm-hrd, sb rnd-ang, rthy, sl slty, v arg, calc, tr xl nodr pyr, tr lt gy bent frags

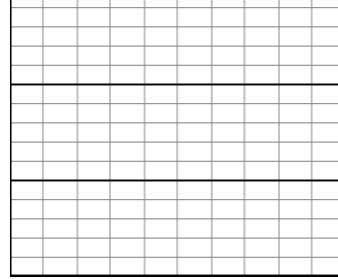
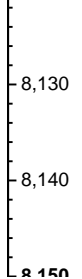
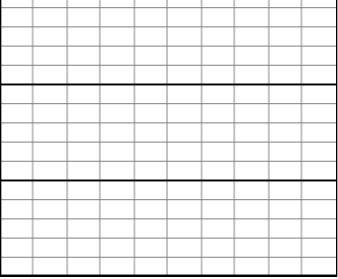
MD: 7,975'
TVD: 7,679.28'
Inclination: 75.7°
Azimuth: 180.76°
VS: 1,120.4'

Niobrara C Chalk Top
8058' MD / 7694' TVD

95% MRLST: v dk gy-med dk gy brn, frm-hrd, blk-ang, rthy, sl slty, v arg, calc, tr xl nodr pyr; 5% CHK: bri wht-offwht, v sft-frm, blk-ang, wxy, v calc, intbdd wi mrlst

90% MRLST: v dk gy-med dk gy brn, v frm-hrd, blk-ang, rthy, sl slty, v arg, calc, tr nodr pyr; 10% CHK: bri wht-offwht, sft-frm, blk-sb rnd, wxy-rthy, v calc, intbdd wi mrlst, mnrlt yel gy bent

Landing point reached, 8103' MD
@ 03:05 MDT, 08/09/2017
Presentation continues on



Presentation continues on
horizontal log
Thank you for using Terra
Guidance, LLC!