



Scale: 5" / 100'
Measured Depth Log

Well Name Davis 1J-9H-G266

Location Sec. 9 T2N R66W

State Colorado

County Weld

Country USA

Rig Number Ensign 153

API Number 05123465080000

AFE # 16191028

Geographic Region Rockies

Field Wattenberg

Spud Date 8/2/2018

Drilling Completed 8/6/2018

Surface Coordinates Lat/Long: 40.15444/-104.777893

SHL: Sec: 4 Twp: 2N 66W
Footage: 1961 FSL 1423 FEL

Bottom Hole Coordinates Proposed BHL: Sec: 4 Twp: 2N 66W
Footages: 460 FNL 2120 FWL

Ground Elevation 4,917'

K.B. Elevation 4,940'

Logged Interval 6,500' MD **To** 14,797' MD

Total Depth 14,797' MD

Formation Codell

Type of Drilling Fluid Synthetic Oil Based Mud

Operator

Company Crestone Peak Resources

Address 1801 California Street, Suite 2500
Denver, CO 80202



CRESTONE PEAK
RESOURCES

Geologist

Name John Ready

Company Crestone Peak Resources

Address 1801 California Street, Suite 2500
Denver, CO 80202



Zone Color Coding

Oil	Condensate	Gas
Note	Core	Pressure
Error	Water	Seal

Other

Loggers: Heather Davis / Mark Gross

Services Provided: 2-Man Mudlogging / Geosteering

Equipment: ML-526

Contractor: Reservoir Group
6360 West Sam Houston Pkwy N
Houston, Texas, 77041

Job #: 1457RK1807

Start Date 8/2/2018

Release Date: 8/7/2018

Rock Types

UNKNOWN	
ANHYDRITE	
GYPSUM	
SALT	
SIDERITE or LIMONITE	
LIMESTONE	

DOLOMITE	
CHERT	
COAL	
MARLSTONE	
CHALK	
SHALE	

SHALE GRAY	
SHALE COLORED	
SILTSTONE	
SANDSTONE	
CONGLOMERATE	
BRECCIA	

TILL	
BENTONITE	
TUFF	
IGNEOUS	
METAMORPHIC	
CEMENT	

Accessories

Fossils

ALGAE
AMPHIPORA
BELEMNITE
BIOCLASTIC
BRACHIOPOD
BRYOZOA
CEPHALOPOD
CORAL
CRINOID
ECHINOID
FISH
FORAMINIFERA

F FOSSIL

GASTROPOD
OOLITE
OSTRACOD
PELECYPOD
PELLET
PISOLITE
PLANT REMAINS
PLANT SPORES
SCAPHOPOD
STROMATOPOROID

Minerals

ANHYDRITIC

ARGILLACEOUS

ARGILLITE GRAIN
BENTONITE
BITUMENOUS SUBSTANCE
BRECCIA FRAGMENTS
CALCAREOUS
CARBONACEOUS FLAKES
CHTDK
CHTLT
COAL - THIN BEDS
DOLOMITIC
FELDSPAR
FERRUGINOUS PELLET
FERRUGINOUS

GLAUCONITE

GYPSIFEROUS
HEAVY MINERAL
KAOLIN
MARLSTONE
MINERAL CRYSTALS
NODULES
PHOSPHATE PELLETS
PYRITE
SALT CAST
SANDY
SILICEOUS
SILTY
TUFFACEOUS

Stringer

ANHYDRITE STRINGER
BENTONITE STRINGER
COAL STRINGER
DOLOMITE STRINGER
GYPSUM STRINGER
LIMESTONE STRINGER
MARLSTONE (CALC) STRG
MARLSTONE (DOL) STRG
SANDSTONE STRINGER
SHALE STRINGER
SILTSTONE STRINGER

Other Symbols

Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

Porosity

- E EARTHY
- F FENESTRAL
- F FRACTURE
- X INTERCRYSTALLINE
- Φ INTEROOLITIC
- MOLDIC

- ORGANIC
- PINPOINT
- VUGGY

Engineering

- BIT
- CASING
- CONNECTION (LEFT)
- CONNECTION (RIGHT)
- CONNECTION GAS
- CORE - LOST
- CORE - RECOVERED
- DST INTERVAL
- FAULT

- FORMATION TOP
- GAS SHOW
- MN DEPTH
- NORMAL FAULT
- OIL SHOW
- OVERTURNED STRATA
- REVERSE FAULT
- SIDEWALL CORE (LEFT)
- SIDEWALL CORE (RIGHT)
- SLIDE
- SURVEY
- TRIP GAS
- WIRELINE TESTED - LEFT
- WIRELINE TESTED - RT

Rounding

- ANGULAR
- ROUNDED
- SUBANG
- SUBRND

Textures

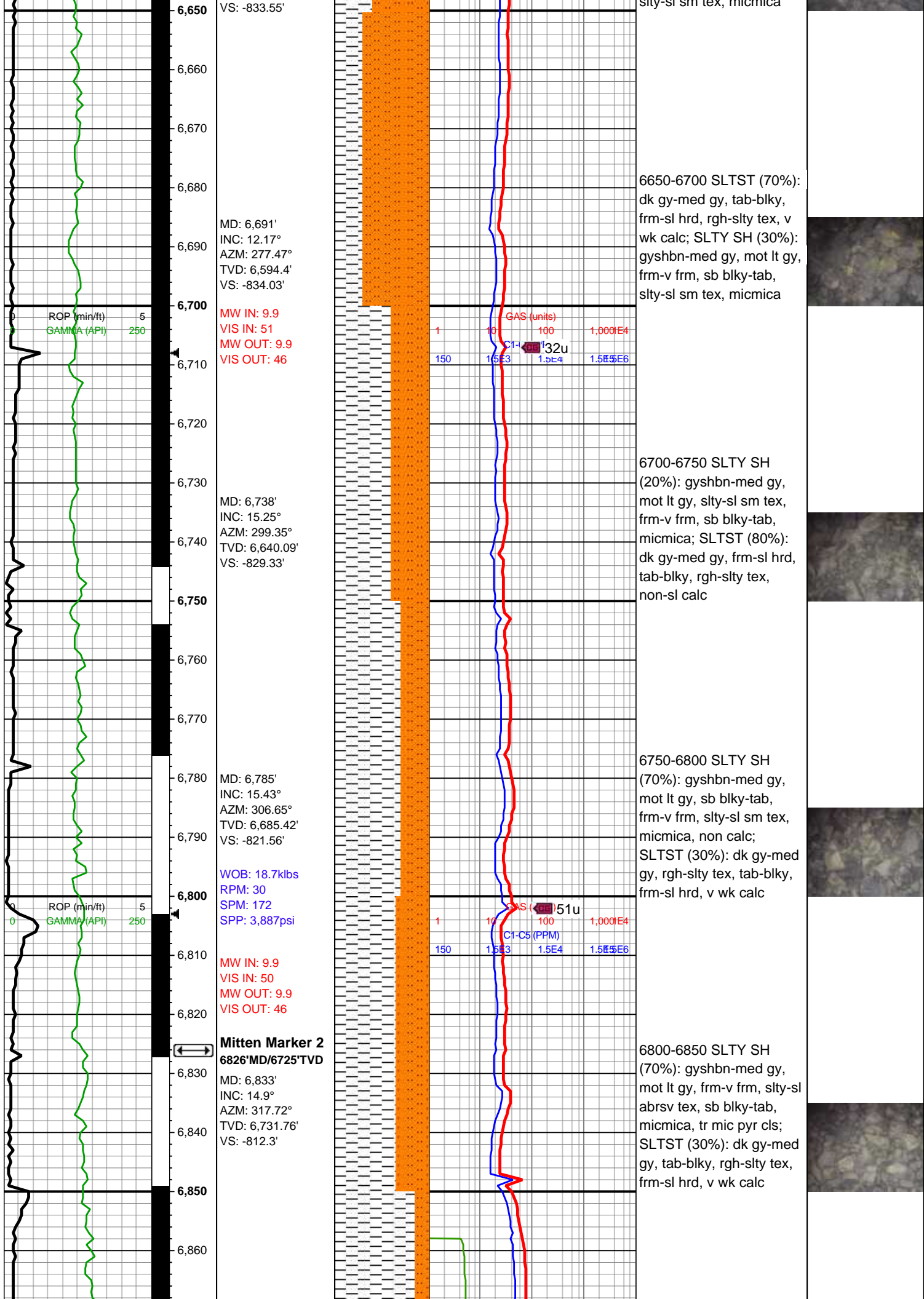
- BOUNDSTONE
- CHALKY
- CRYPTOXLN
- E EARTHY
- F FINELYXLN
- GRAINSTONE

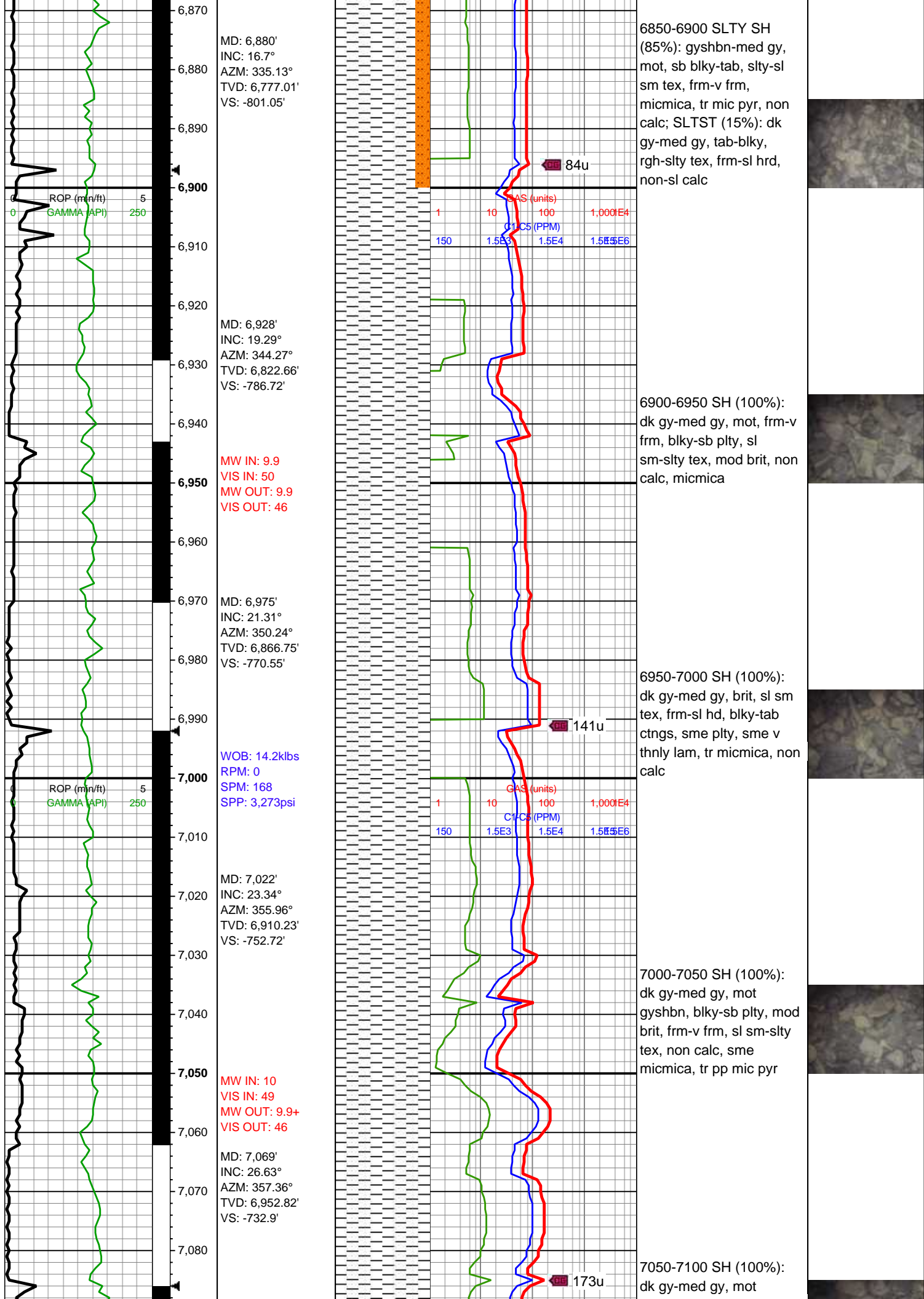
- L LITHOGRAPHIC
- MX MICROXLN
- MS MUDSTONE
- PS PACKSTONE
- WS WACKESTONE

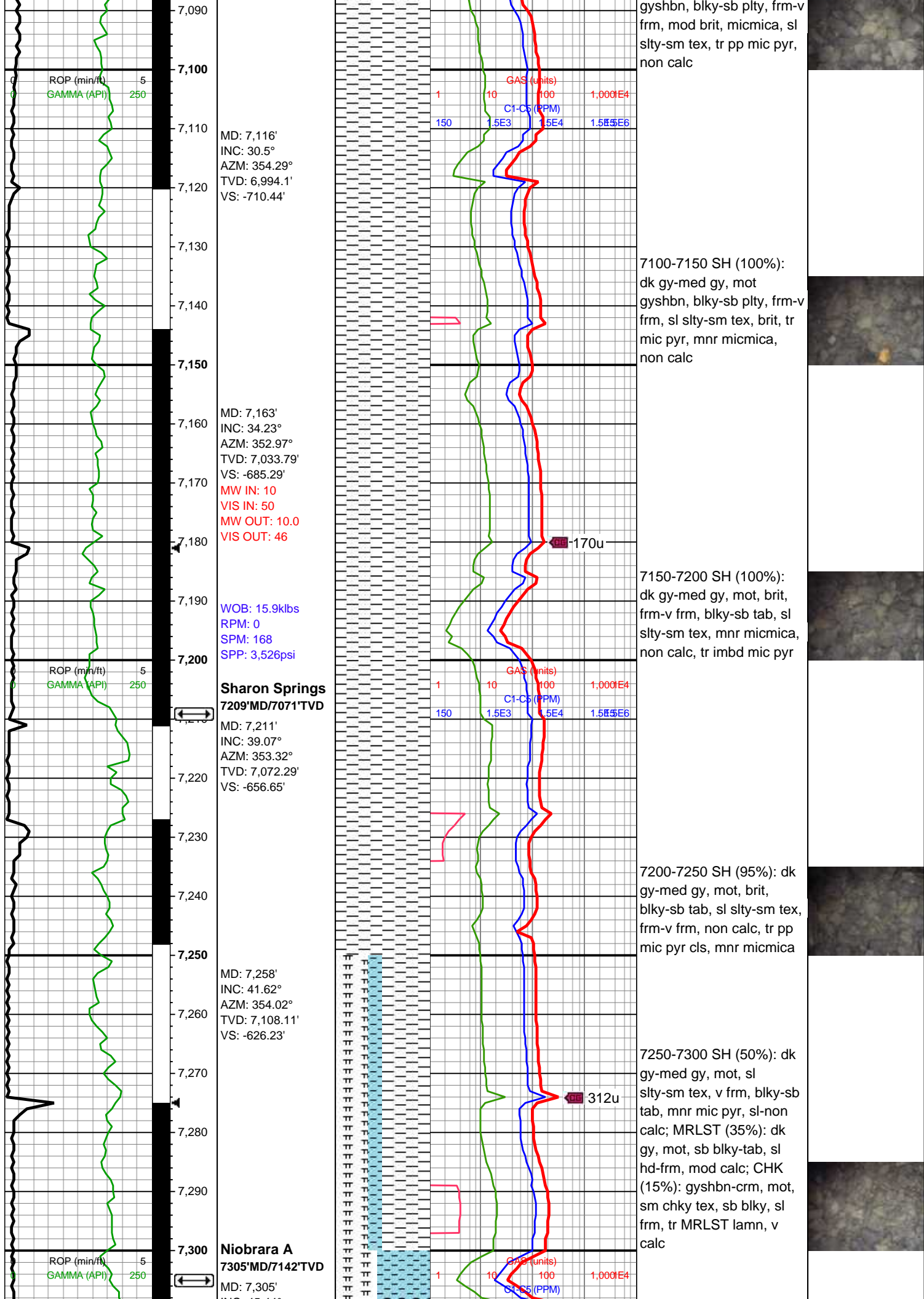
Sorting

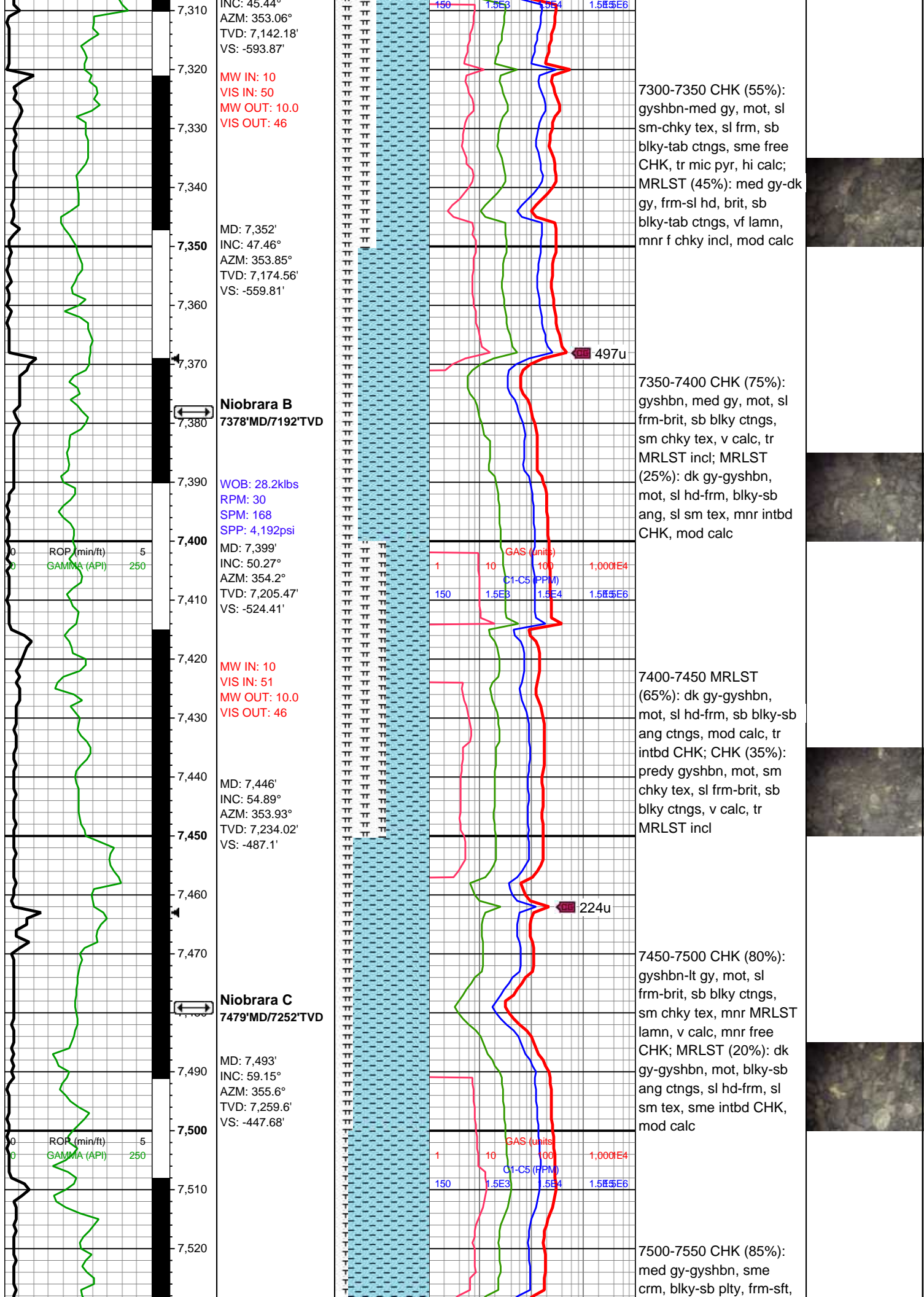
- M MODERATE
- P POOR
- W WELL

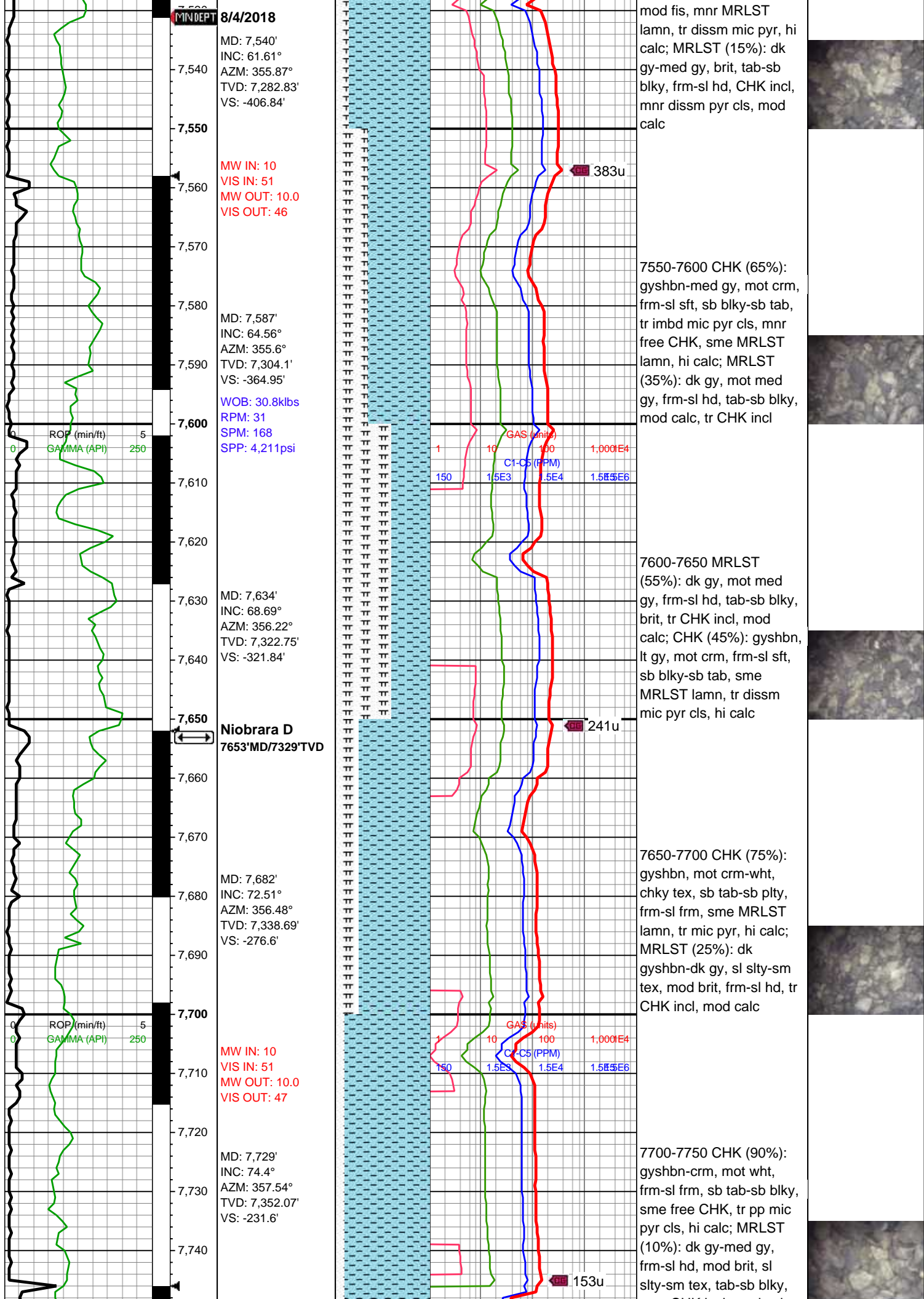
ROP		Slide/Rotate	Depth Labels	Notes	% Lith	Total Gas						Lithology Descriptions	Images
ROP	GAMMA					GAS	C1	C2	C3	C4	C5		
Crestone Peak Resources													
Davis 1J-9H-G266													
9 5/8" Surface Casing @ 2,190'													
Spud Date: 08/02/2018													
2 man Logging Began: 08/02/2018													
All Depths Correspond to Driller's Pipe Tally													
ROP (min/ft) 5													
GAMMA (API) 250													

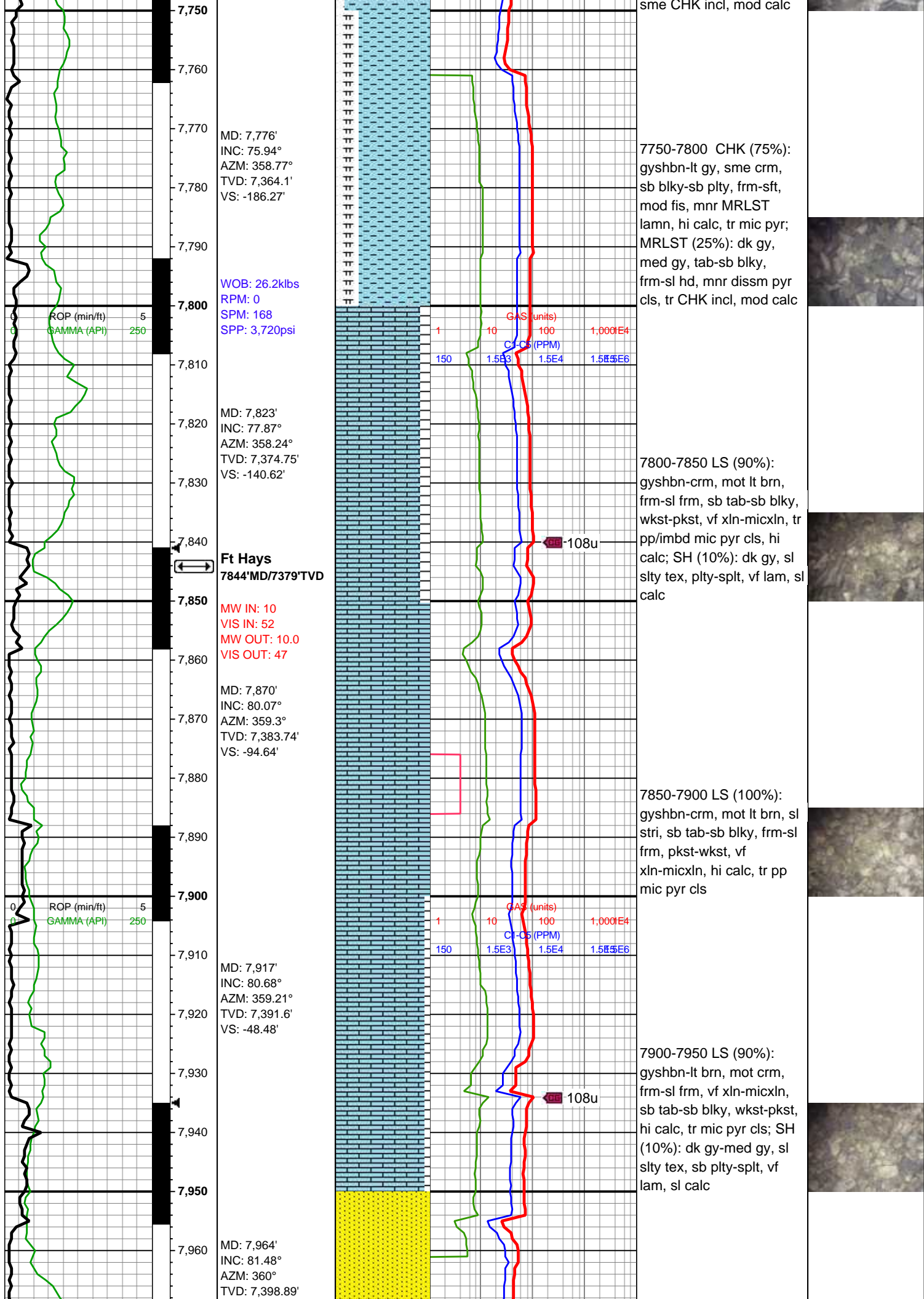


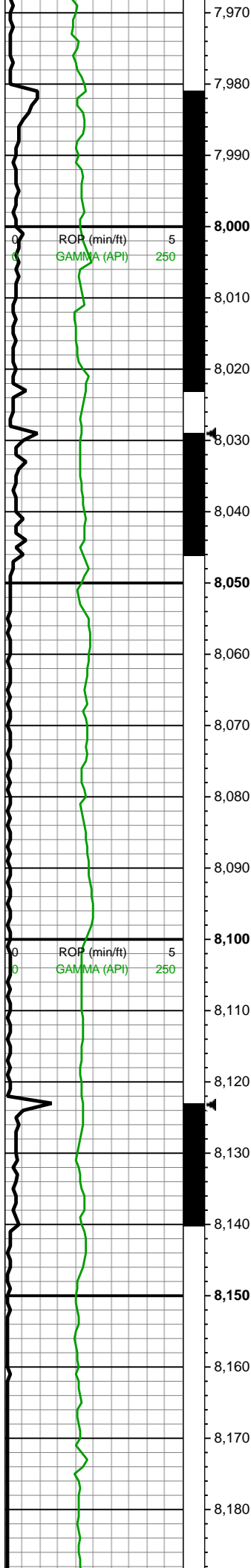












VS: -2.25'

WOB: 32.5klbs
RPM: 0
SPM: 170
SPP: 3,677psi

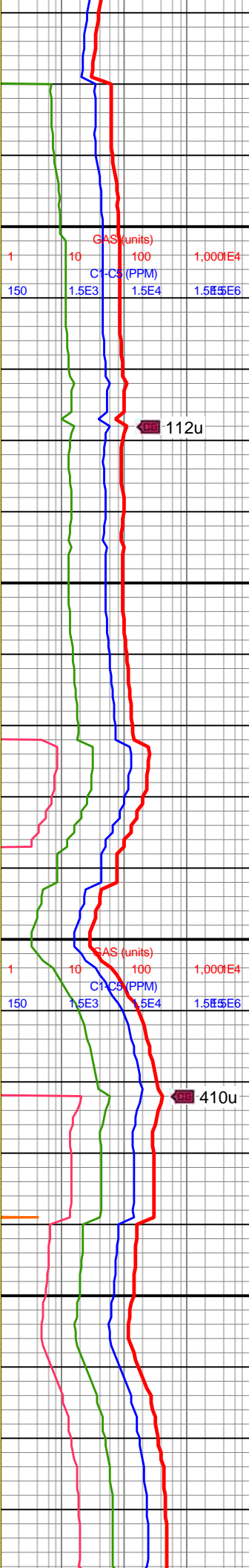
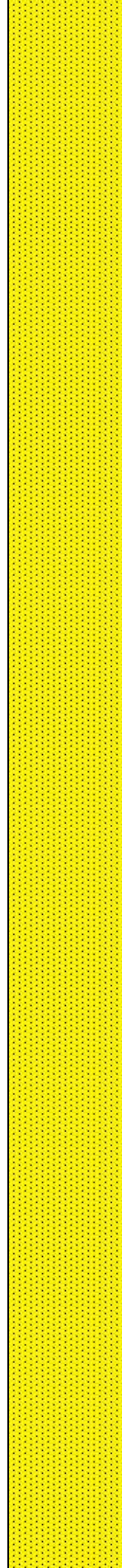
MW IN: 10
VIS IN: 52
MW OUT: 10.0+
VIS OUT: 47

Landed curve
@ 8028' MD

MD: 8,059'
INC: 88.24°
AZM: 3.07°
TVD: 7,407.4'
VS: 91.54'

MD: 8,153'
INC: 89.69°
AZM: 1.14°
TVD: 7,409.09'
VS: 184.63'

MW IN: 10
VIS IN: 52
MW OUT: 10.0
VIS OUT: 47

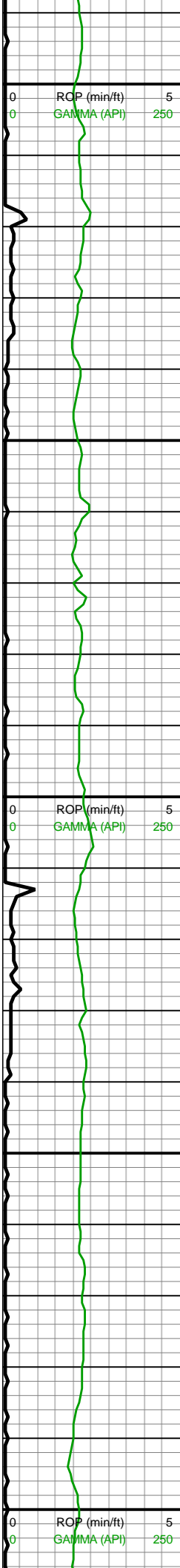


7950-8000 SS (100%):
med brn-bnshgy, lt brn,
vf-slty gr, sb rnd-sb ang,
mtx-gr sup clus, cons wi
silc/arg cmt, tr pp mic pyr,
mod calc

8000-8100 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, occ grdg
to slt, com micmica, tr
imbd pyr, tr SH frags, non
calc

8100-8200 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup



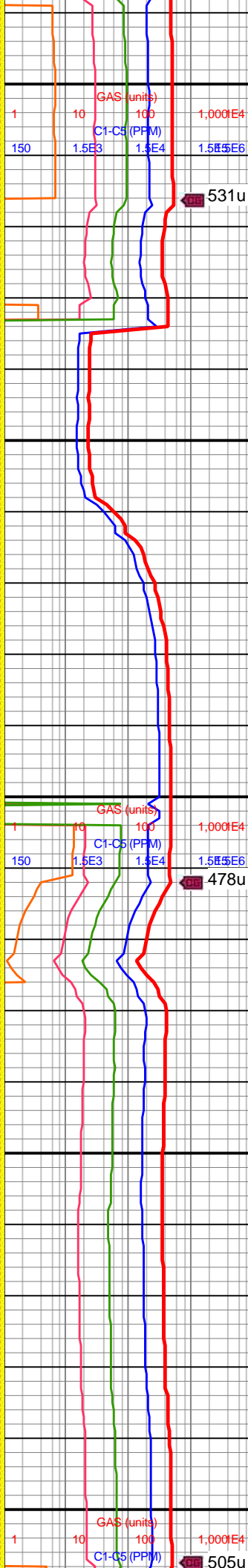


WOB: 34klbs
RPM: 70
SPM: 215
SPP: 5,643psi

MD: 8,248'
INC: 91.19°
AZM: 360°
TVD: 7,408.37'
VS: 279.05'

MD: 8,342'
INC: 89.34°
AZM: 358.42°
TVD: 7,407.93'
VS: 372.69'

WOB: 33.3klbs
RPM: 70
SPM: 213
SPP: 5,619psi

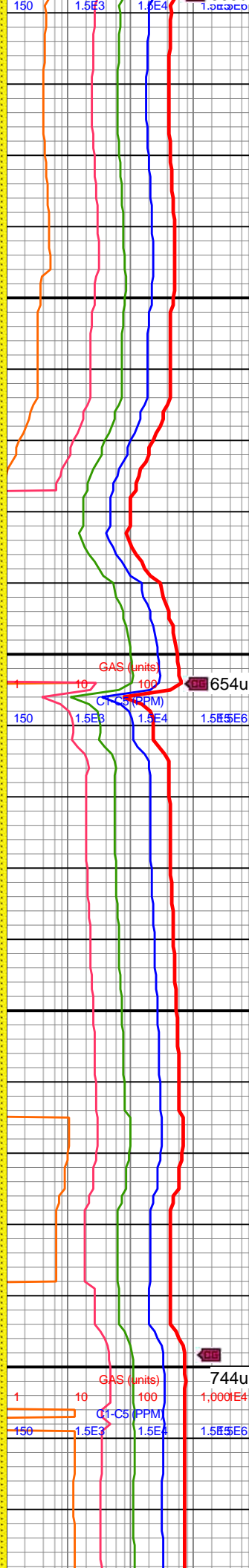
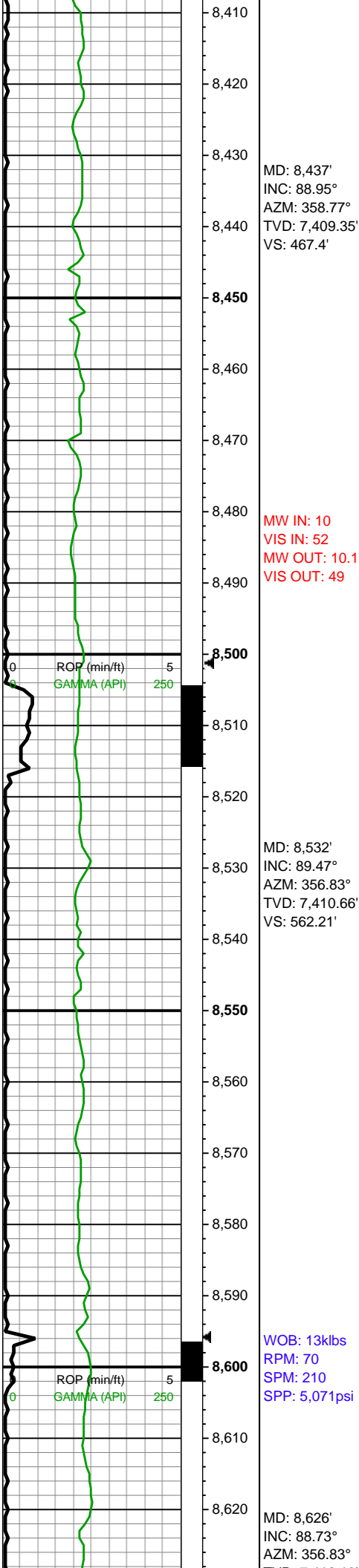


cls wi silc cmt, occ grdg
to slt, com micmica, tr
imbd pyr, tr SH frags, non
calc

8200-8300 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, occ grdg
to slt, com micmica, tr
imbd pyr, tr pyr nod, tr SH
frags, occ intbd cal

8300-8400 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, occ grdg
to slt, com micmica, tr
imbd pyr, tr pyr nod, tr SH
frags, occ intbd cal



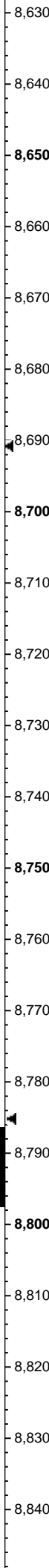
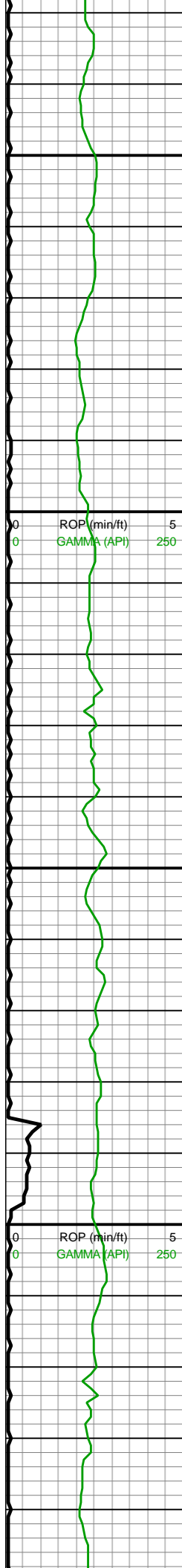


8400-8500 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, com grdg
to slt, com micmica, tr
imbd pyr, tr pyr nod, occ
SH frags, occ intbd cal



8500-8600 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, occ grdg
to slt, com micmica, tr
imbd pyr, occ pyr nod,
com SH frags, tr intbd cal





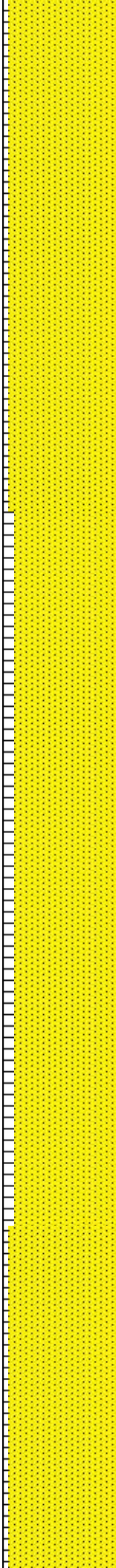
TVD: 7,412.13'
VS: 656.1'

MD: 8,720'
INC: 88.9°
AZM: 357.19°
TVD: 7,414.08'
VS: 749.97'

MW IN: 10
VIS IN: 52
MW OUT: 10.2
VIS OUT: 48

WOB: 31.6klbs
RPM: 0
SPM: 208
SPP: 5,021psi

MD: 8,814'
INC: 90.92°
AZM: 358.5°
TVD: 7,414.23'
VS: 843.78'



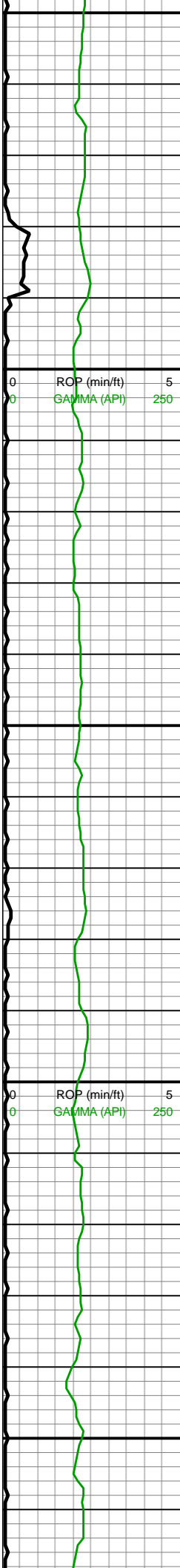
8600-8700 SS (95%):
med brn-dk brn, mot,
frm-hd, sb rnd-sb ang, gr
sup clus, cons silc cmt,
vf-f w srt grns, v wk calc,
mnr SLTST grdg, tr
micmica; SLTY SH (5%):
dk gy-v dk gy, slty tex, sb
blky-splt, frm-sl hd,
micmica

868u

8700-8800 SS (90%):
med brn-dk brn, mot, vf-f
gr, frm-hd, sb rnd-sb ang,
gr sup clus, cons silc
cmt, mnr SLTST grdg, tr
micmica, v wk calc; SLTY
SH (10%): dk gy-v dk gy,
slty tex, frm-sl hd, sb
blky-splt, micmica, non-sl
calc

959u





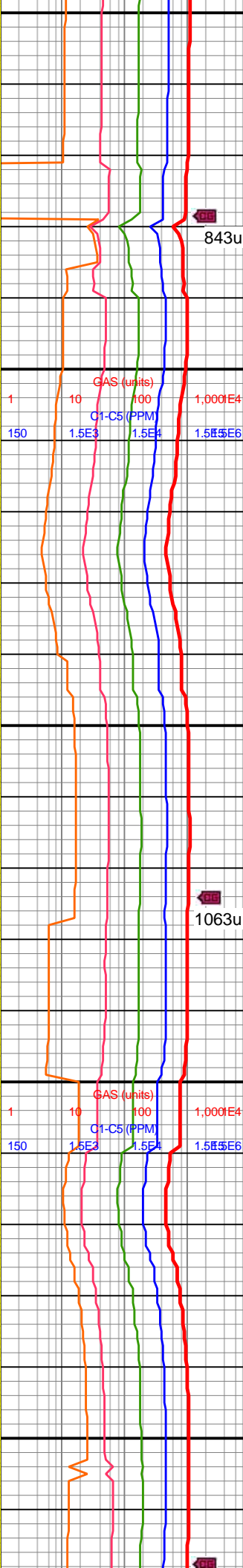
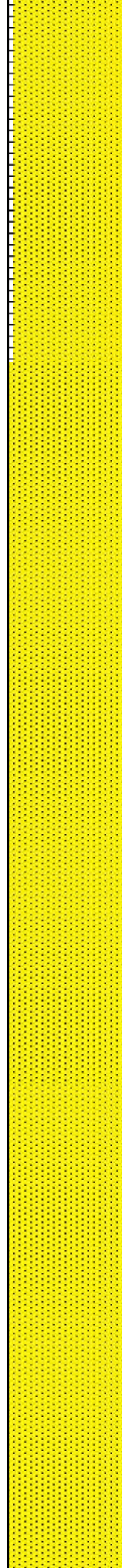
8,850
8,860
8,870
8,880
8,890
8,900
8,910
8,920
8,930
8,940
8,950
8,960
8,970
8,980
8,990
9,000
9,010
9,020
9,030
9,040
9,050
9,060

MD: 8,909'
INC: 91.8°
AZM: 357.54°
TVD: 7,411.97'
VS: 938.54'

MW IN: 10
VIS IN: 52
MW OUT: 10.1
VIS OUT: 47

WOB: 33klbs
RPM: 69
SPM: 207
SPP: 5,614psi

MD: 9,003'
INC: 91.06°
AZM: 357.45°
TVD: 7,409.63'
VS: 1,032.36'



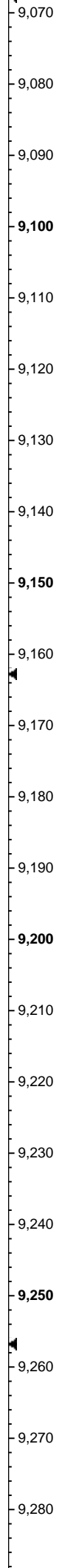
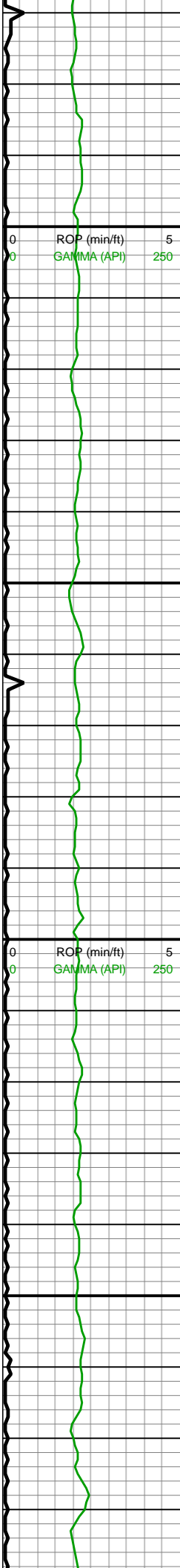
8800-8900 SS (95%):
med brn-dk brn, mot,
frm-hd, sb rnd-sb ang, gr
sup clus, cons silc cmt,
vf-f w srt grns, v wk calc,
mnr SLTST grdg, tr
micmica; SLTY SH (5%):
dk gy-v dk gy, slty tex, sb
blky-splt, frm-sl hd,
micmica

843u

8900-9000 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, occ grdg
to slt, com micmica, tr
imbd pyr, occ pyr nod,
com SH frags, tr intbd cal

1063u

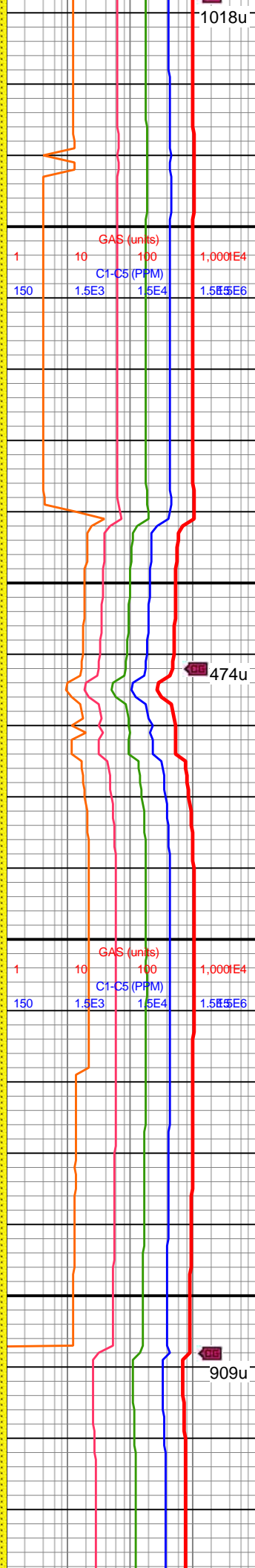
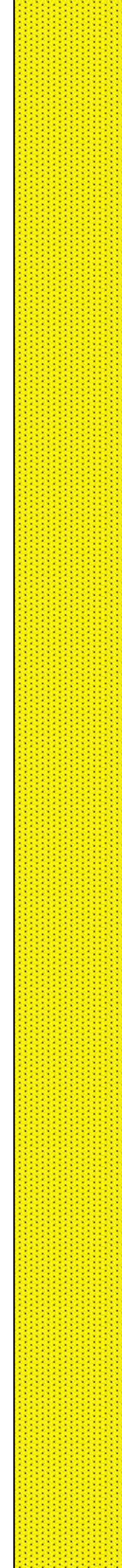




MD: 9,098'
INC: 90.75°
AZM: 357.01°
TVD: 7,408.12'
VS: 1,127.22'

MD: 9,193'
INC: 90.13°
AZM: 356.83°
TVD: 7,407.4'
VS: 1,222.12'
WOB: 32.1klbs
RPM: 69
SPM: 207
SPP: 5,687psi

MD: 9,287'
INC: 89.52°
AZM: 356.83°

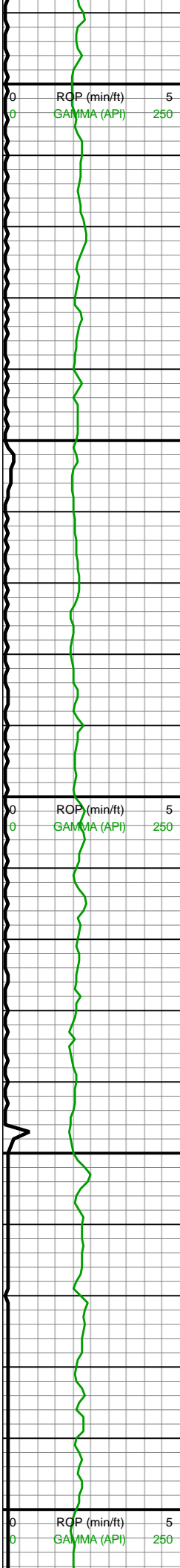


9000-9100 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, occ grdg
to slt, com micmica, tr
imbd pyr, tr SH frags,
wkly calc

9100-9200 SST (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, occ grdg
to slt, com micmica, tr
imbd pyr, tr SH frags,
wkly calc

9200-9300 SS (100%):
med brn-gyshbn, mot lt
brn, vf-f gr, mod w srt,
frm-bd, sh rnd-sh ang, gr





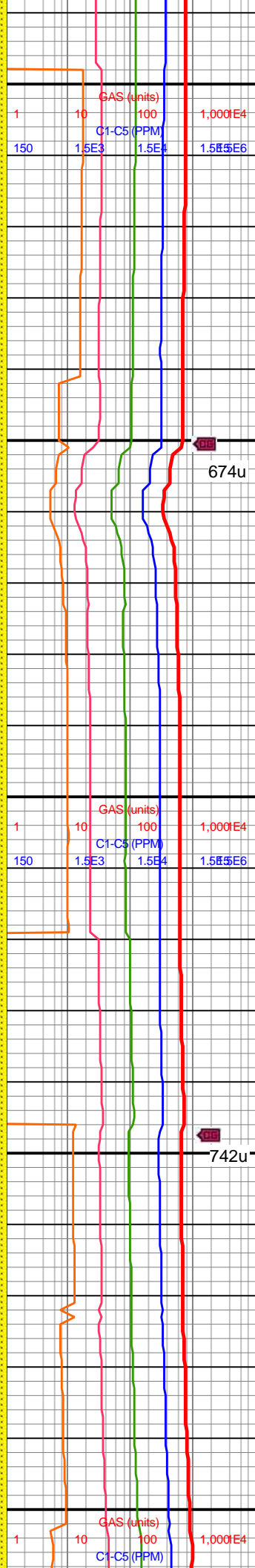
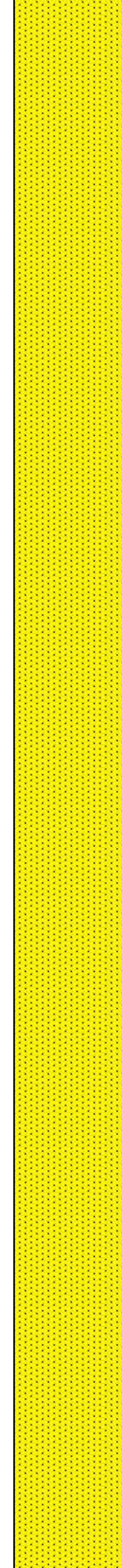
9,290
9,300
9,310
9,320
9,330
9,340
9,350
9,360
9,370
9,380
9,390
9,400
9,410
9,420
9,430
9,440
9,450
9,460
9,470
9,480
9,490
9,500

TVD: 7,407.68'
VS: 1,316.02'

MD: 9,382'
INC: 89.12°
AZM: 356.75°
TVD: 7,408.81'
VS: 1,410.92'

WOB: 37.8klbs
RPM: 69
SPM: 196
SPP: 5,510psi

MD: 9,476'
INC: 88.37°
AZM: 356.92°
TVD: 7,410.87'
VS: 1,504.8'



sup clus, cons silc cmt,
sl calc, mnrt SLTST grdg,
tr micmica

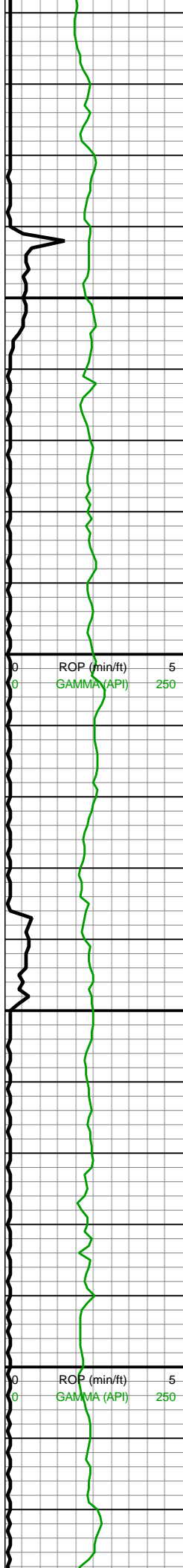
674u

9300-9400 SS (100%):
med brn-gyshbn, mot lt
brn, vf-f gr, mod w srt,
frm-hd, sb rnd-sb ang, gr
sup clus, cons silc cmt,
sl calc, mnrt SLTST grdg,
tr micmica

742u

9400-9500 SS (100%):
med brn-gyshbn, mot lt
brn, vf-f gr, mod w srt,
frm-hd, sb rnd-sb ang, gr
sup clus, cons silc cmt,
sl calc, mnrt SLTST grdg,
tr micmica





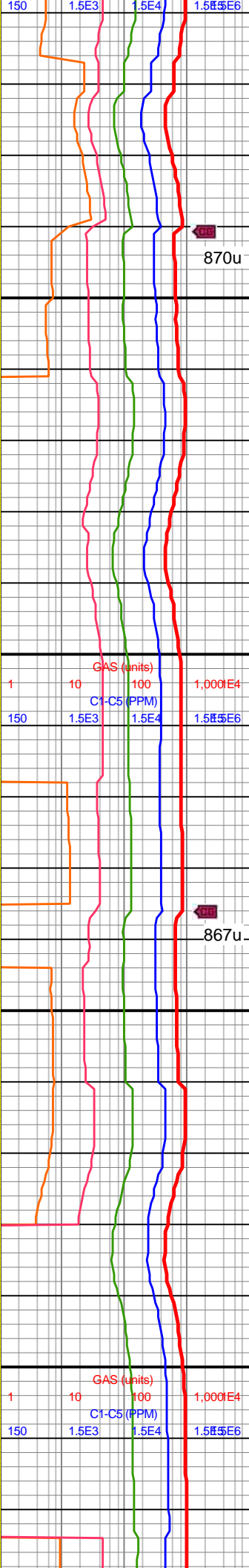
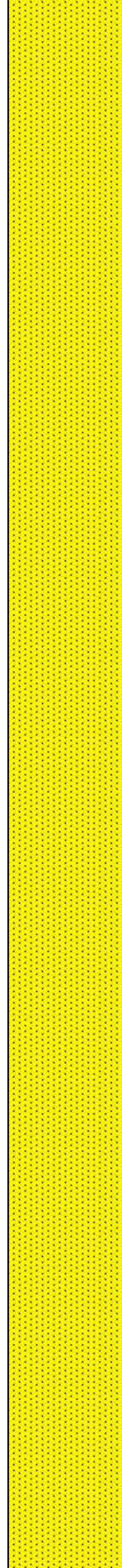
9,510
9,520
9,530
9,540
9,550
9,560
9,570
9,580
9,590
9,600
9,610
9,620
9,630
9,640
9,650
9,660
9,670
9,680
9,690
9,700
9,710
9,720

MD: 9,571'
INC: 89.78°
AZM: 359.74°
TVD: 7,412.4'
VS: 1,599.54'

WOB: 25.8klbs
RPM: 70
SPM: 204
SPP: 5,447psi

MD: 9,666'
INC: 88.99°
AZM: 1.79°
TVD: 7,413.42'
VS: 1,693.91'

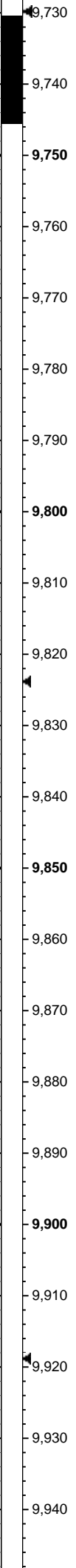
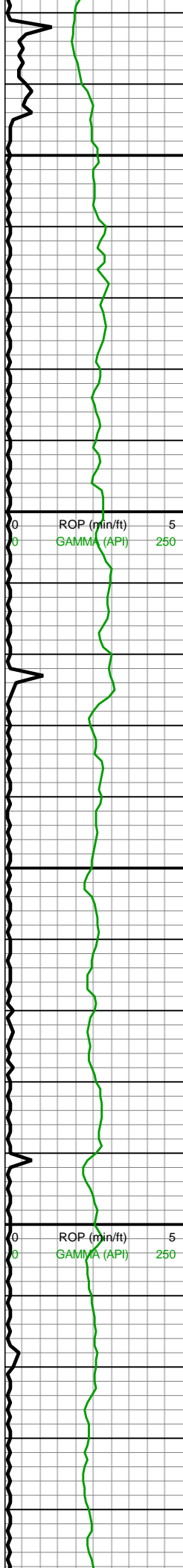
MW IN: 10.1
VIS IN: 54
MW OUT: 10.2
VIS OUT: 47



9500-9600 SS (100%):
med bnshgy-lt brn,
frm-hd, blk-y-sb blk-y, cons
gr sup cls cons, silc cmt,
vf-f grnd, com slt grdg, v
wk calc

9600-9700 SS (100%):
gyshbn-med brn, med gy,
mot lt brn, vf-f gr, sb
rnd-sb ang, mod w srt,
frm-hd, sme gr sup clus,
cons silc cmt, mnr
SLTST grdg, non-sl calc,
sme vf sb ang free qtz



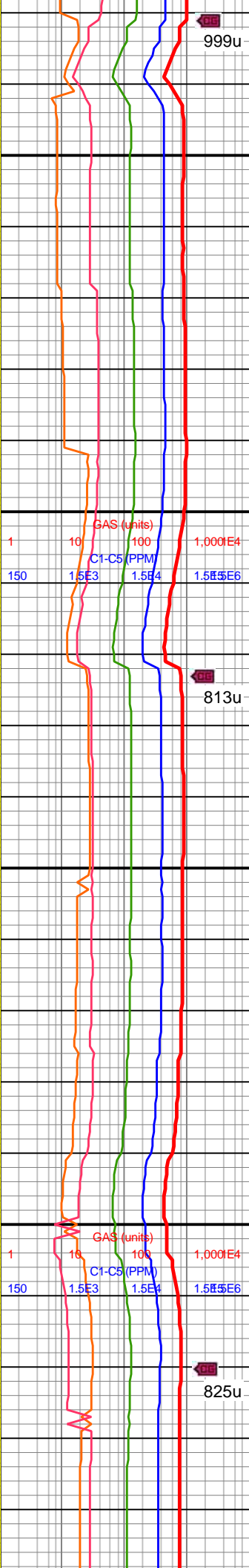
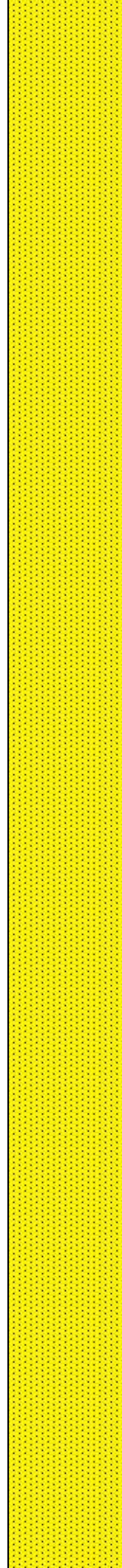


MD: 9,760'
INC: 91.01°
AZM: 3.69°
TVD: 7,413.42'
VS: 1,786.88'

WOB: 25.1klbs
RPM: 69
SPM: 203
SPP: 5,414psi

MD: 9,854'
INC: 91.23°
AZM: 3.78°
TVD: 7,411.58'
VS: 1,879.58'

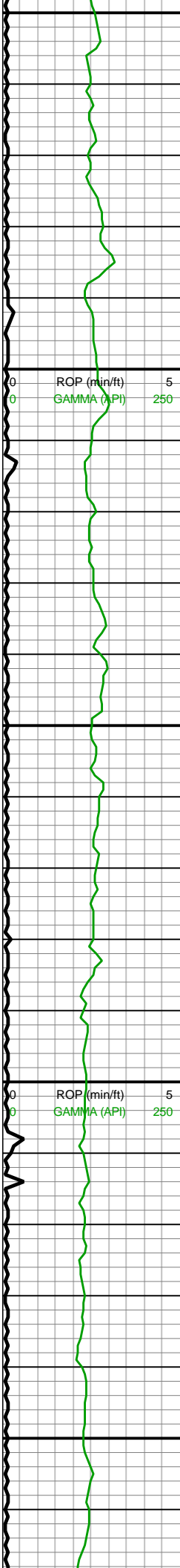
MD: 9,948'
INC: 91.01°
AZM: 3.16°
TVD: 7,410.00'
VS: 1,972.00'



9700-9800 SS (100%):
gyshbn-med brn, med gy,
mot lt brn, vf-f gr, sb
rnd-sb ang, mod w srt,
frm-hd, sme gr sup clus,
cons silc cmt, mnr
SLTST grdg, non-sl calc,
sme vf sb ang free qtz

9800-9900 SS (100%):
gyshbn-med brn, med gy,
mot lt brn, vf-f gr, sb
rnd-sb ang, mod w srt,
frm-hd, sme gr sup clus,
cons silc cmt, mnr
SLTST grdg, non-sl calc,
sme vf sb ang free qtz





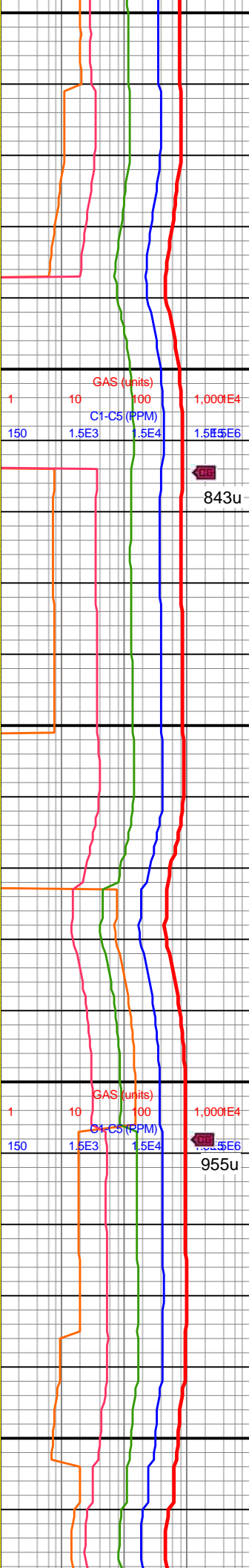
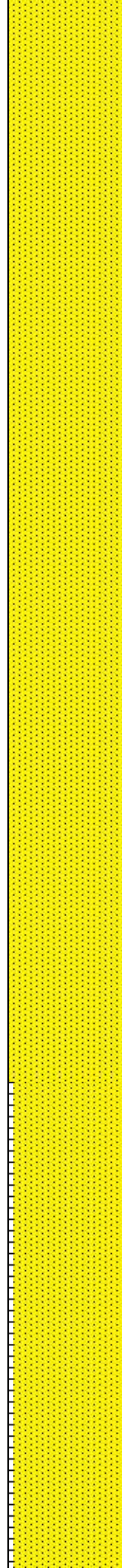
AZM: 3.16
TVD: 7,409.75'
VS: 1,972.34'

MW IN: 10.1
VIS IN: 51
MW OUT: 10.2
VIS OUT: 48

WOB: 26.2klbs
RPM: 69
SPM: 205
SPP: 5,521psi

MD: 10,042'
INC: 90.7°
AZM: 3.6°
TVD: 7,408.34'
VS: 2,065.14'

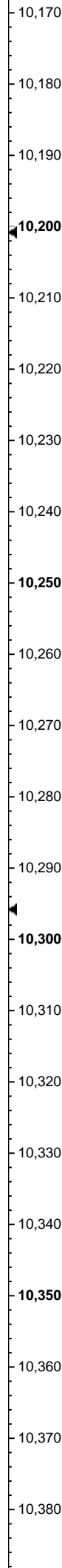
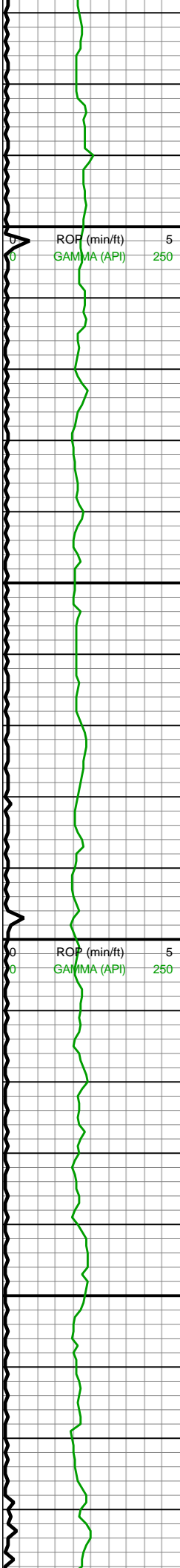
MD: 10,137'
INC: 90.53°
AZM: 3.6°
TVD: 7,407.33'
VS: 2,158.87'



9900-10000 SS (100%):
gyshbn-med brn, med gy,
mot lt brn, vf-f gr, sb
rnd-sb ang, mod w srt,
frm-hd, sme gr sup clus,
cons silc cmt, mnr
SLTST grdg, non-sl calc

10000-10100 SS (100%):
gyshbn-med brn, med gy,
mot lt brn, vf-f gr, sb
rnd-sb ang, mod w srt,
frm-hd, sme gr sup clus,
cons silc cmt, mnr
SLTST grdg, non-sl calc,
sme vf sb ang free qtz



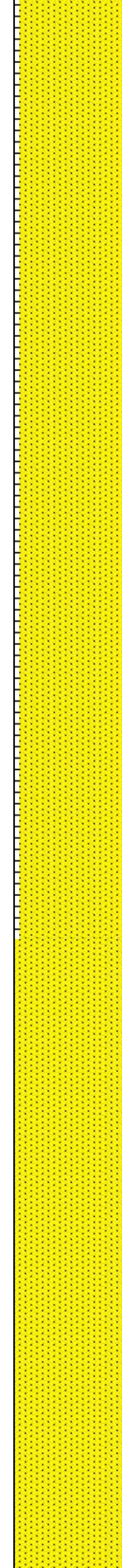


WOB: 26.1klbs
RPM: 69
SPM: 203
SPP: 5,473psi

MD: 10,232'
INC: 90.75°
AZM: 3.51°
TVD: 7,406.26'
VS: 2,252.62'

MD: 10,327'
INC: 90.84°
AZM: 3.43°
TVD: 7,404.95'
VS: 2,346.38'

MW IN: 10.2
VIS IN: 51
MW OUT: 10.3
VIS OUT: 49

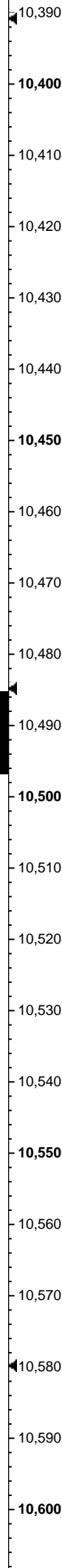
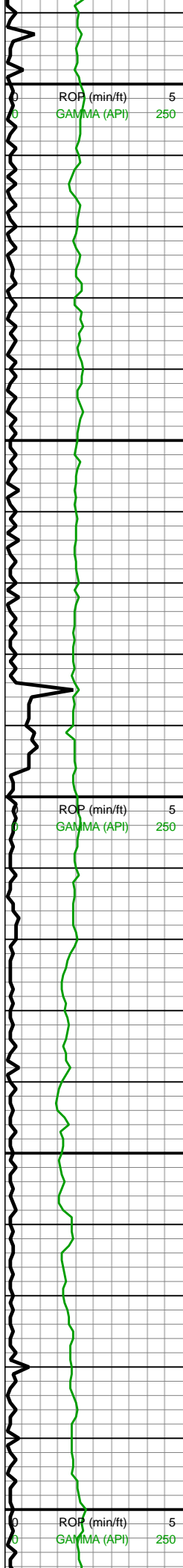


10100-10200 SS (95%):
med brn-dk brn, mot,
frm-hd, sb rnd-sb ang, gr
sup clus, cons silc cmt,
vf-f w srt grns, v wk calc,
mnr SLTST grdg, tr
micmica; SLTY SH (5%):
dk gy-v dk gy, slty tex, sb
blky-splt, frm-sl hd,
micmica

10200-10300 SS (95%):
med brn-dk brn, mot,
frm-hd, sb rnd-sb ang, gr
sup clus, cons silc cmt,
vf-f w srt grns, v wk calc,
mnr SLTST grdg, tr
micmica; SLTY SH (5%):
dk gy-v dk gy, slty tex, sb
blky-splt, frm-sl hd,
micmica

10300-10400 SS (100%):
med brn-dk brn, mot,
frm-hd, sb rnd-sb ang, gr





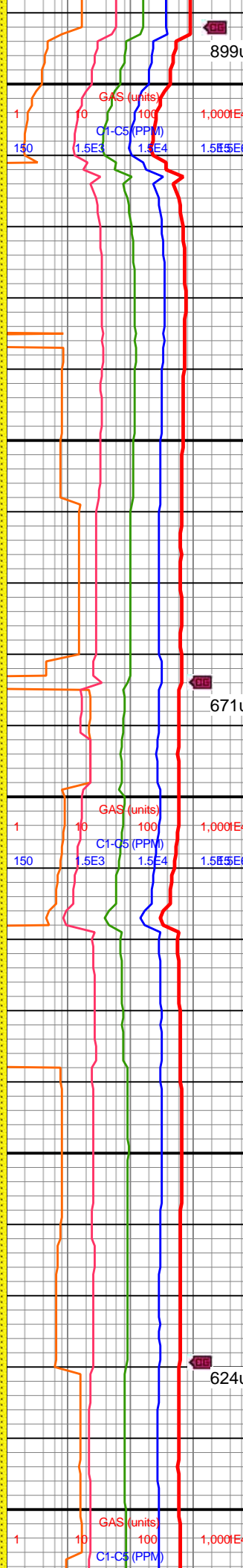
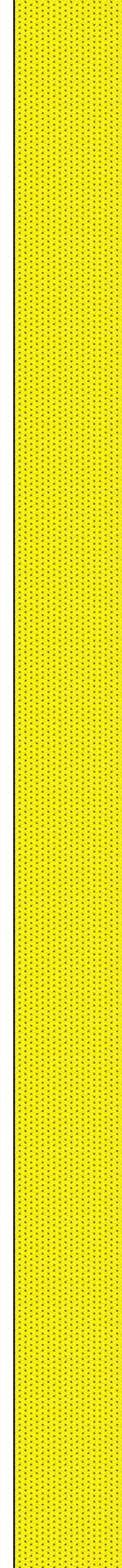
WOB: 27klbs
RPM: 69
SPM: 202
SPP: 5,608psi

MD: 10,421'
INC: 91.14°
AZM: 3.43°
TVD: 7,403.32'
VS: 2,439.16'

MD: 10,516'
INC: 89.3°
AZM: 1.58°
TVD: 7,402.96'
VS: 2,533.17'

MW IN: 10.1
VIS IN: 50
MW OUT: 10.4
VIS OUT: 49

WOB: 29.7klbs
RPM: 70
SPM: 197
SPP: 5,593psi

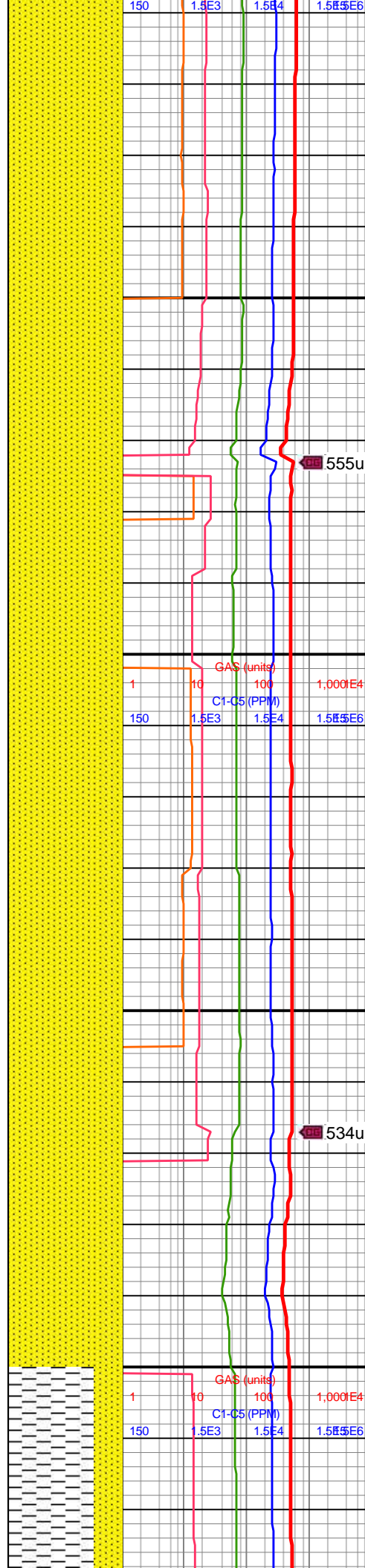
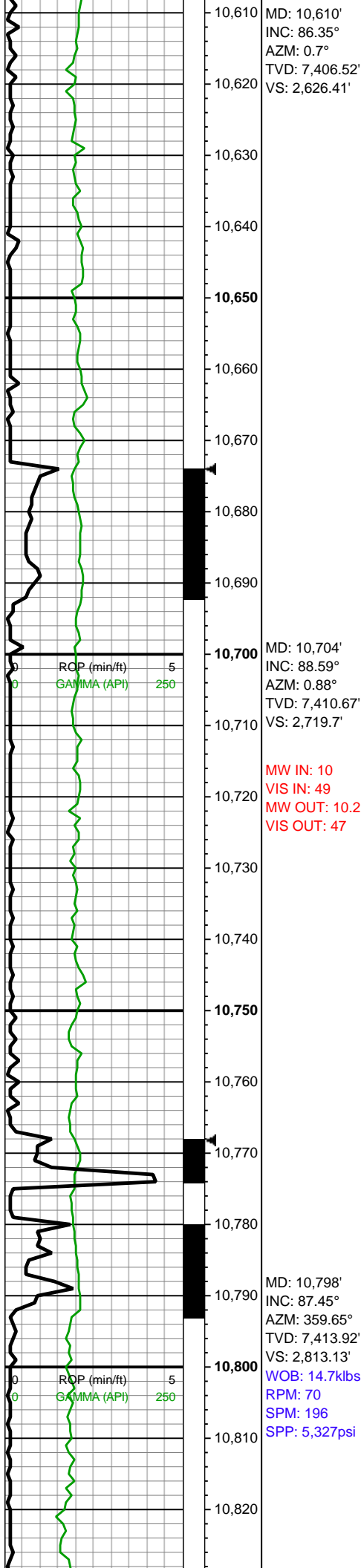


sup clus, cons silc cmt,
vf-f w srt grns, v wk calc,
mnr SLTST grdg, tr
micmica

10400-10500 SS (100%):
med brn-dk brn, mot,
frm-hd, sb rnd-sb ang, gr
sup clus, cons silc cmt,
vf-f w srt grns, v wk calc,
mnr SLTST grdg, tr
micmica

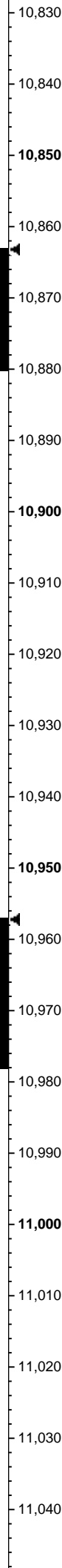
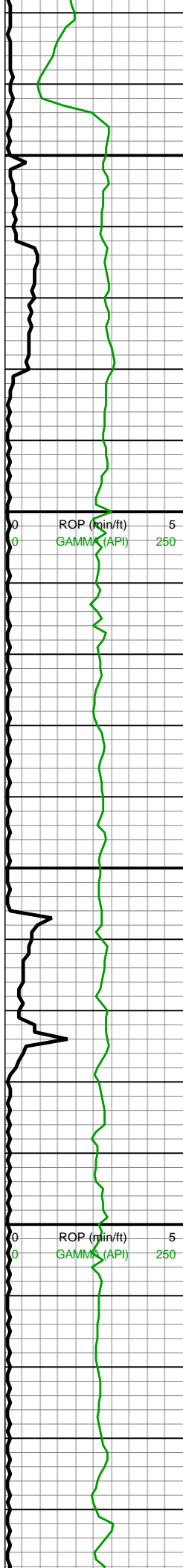
10500-10600 SS (100%):
pred med gyshbn, occ lt
gy-lt brn, frm-v frm, blkly,
pred mod-w cons gr sup
cls cons wi silc cmt, non
calc, vf-f, occ grdg to slt,
com micmica, tr imbd
pyr, occ sh frags





555u 10600-10700 SS (100%):
pred med gyshbn, occ lt
gy-lt brn, frm-v frm, blk, y,
pred mod-w cons gr sup
cls cons wi silc cmt, non
calc, vf-f, occ grd to slt,
com micmica, tr imbd
pyr, occ sh frags, com
free qtz

534u 10700-10800 SS (100%):
pred med gyshbn, occ lt
gy-lt brn, vf-f grnd, frm-v
frm, mod-w cons, gr sup
cls wi silc cmt, occ grd
to slt, com micmica, tr
imbd pyr, tr SH frags,
calc, com free qtz



Fault

MD: 10,893'
INC: 87.85°
AZM: 0.61°
TVD: 7,417.82'
VS: 2,907.55'

MW IN: 10
VIS IN: 49
MW OUT: 10.1
VIS OUT: 46

MD: 10,987'
INC: 89.25°
AZM: 3.07°
TVD: 7,420.2'
VS: 3,000.68'

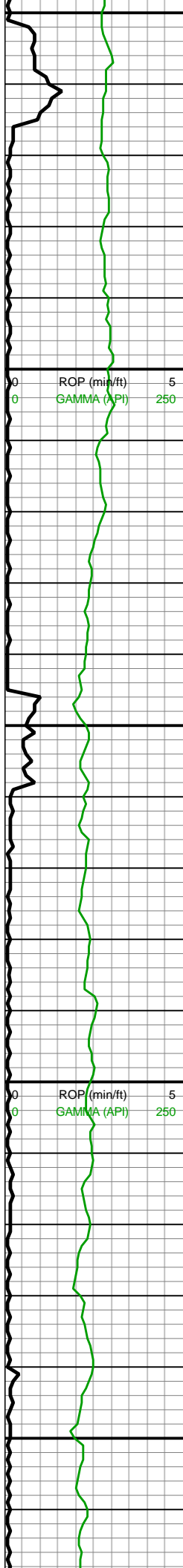
WOB: 24klbs
RPM: 70
SPM: 195
SPP: 5,362psi



10800-10900 SLTY SH
(75%): dk gy-v dk gy,
slty-sl abrsv tex, frm-sl
hd, sb blk-splt, micmica;
SS (25%): med brn-dk
brn, mot, vf-f gr, frm-hd,
sb rnd-sb ang, gr sup
clus, cons silc cmt, v wk
calc, mnr SLTST grdg,
mnr diss/imb pyrc cls

10900-11000 SLTY SH
(90%): v dk gy-blk gy,
mot, sb plty-splt, frm-sl
frm, slty-sl sm tex, tr SS
grdg, mnr micmica, mnr
imbd mic pyr, sl-non calc;
SS (10%): dk gy-dk
gyshbn, slty-vf gr, mod
srt, frm-sl fri, sb rnd-ang,
silc cmt, non-sl calc, sme
SLTST grdg





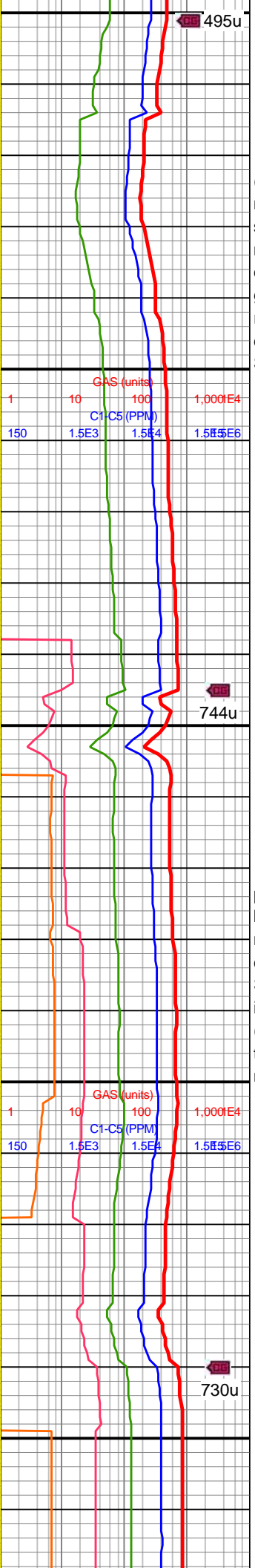
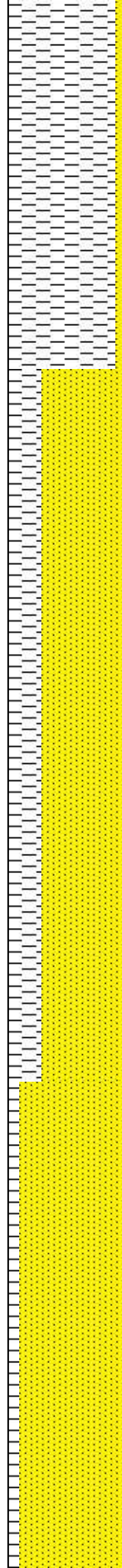
MW IN: 10
VIS IN: 48
MW OUT: 10.0+
VIS OUT: 46

MD: 11,082'
INC: 89.91°
AZM: 3.51°
TVD: 7,420.89'
VS: 3,094.5'

MD: 11,176'
INC: 91.67°
AZM: 2.64°
TVD: 7,419.6'
VS: 3,187.37'

WOB: 36.5klbs
RPM: 70
SPM: 194
SPP: 5,558psi

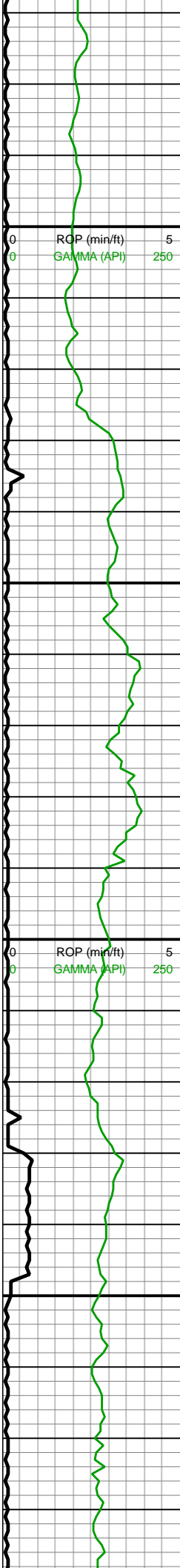
MD: 11,271'



11000-11100 SLTY SH (95%): v dk gy-blk gy, mot, frm-sl frm, slty tex, sb blk-splt, mnr mic pyr, mnr micmica, sl-non calc; SS (5%): dk gy-dk gyshbn, mod srt, sb rnd-ang, frm-sl fri, silc cmt, slty-vf gr, sme SLTST grdg, non-sl calc

11100-11200 SS (70%): predy dk brn, mot med brn, vf-f gr, sb rnd-sb ang, mod-w srt, frm-hd, gr sup clus wi silc cmt, mnr SLTST grdg, sl calc, tr imbd mic pyr; SLTY SH (30%): dk gy-v dk gy, slty tex, splt-sb plty, frm-sl hd, micmica, non calc





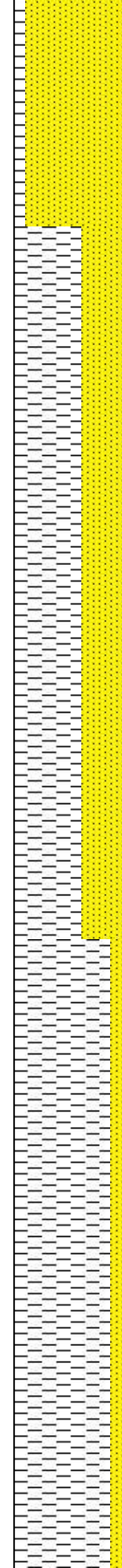
INC: 91.54°
AZM: 2.28°
TVD: 7,416.94'
VS: 3,281.36'

MW IN: 10
VIS IN: 48
MW OUT: 10.0+
VIS OUT: 46

MD: 11,365'
INC: 89.69°
AZM: 0.97°
TVD: 7,415.93'
VS: 3,374.57'

WOB: 36.5klbs
RPM: 70
SPM: 194
SPP: 5,464psi

MD: 11,460'
INC: 91.01°
AZM: 1.76°
TVD: 7,415.35'
VS: 3,468.84'

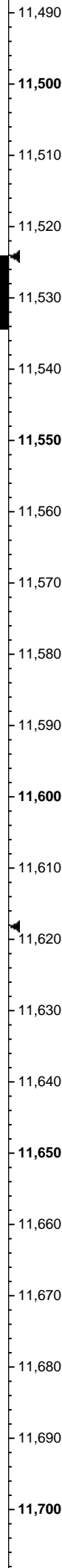
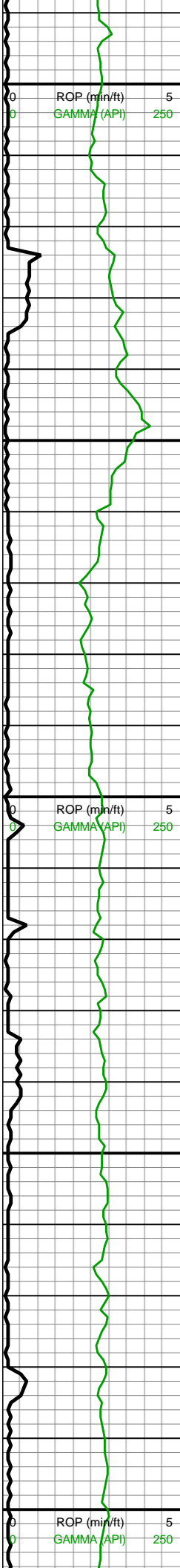


11200-11300 SS (90%):
dk gy-dk gyshbn, sb
rnd-ang, frm-sl fri, slty-vf
gr, mod srt, silc cmt,
non-sl calc; SLTY SH
(10%): dk gy-v dk gy, mot,
sb blk-y-tab, frm-sl frm,
slty tex, mnr SS grd-g,
sl-mod calc, micmica, tr
mic pyr cls

11300-11400 SLTY SH
(60%): v dk gy-blk gy,
mot, sb blk-y-splt, slty tex,
frm-sl frm, micmica,
tr-mnr SS grd-g, sl-mod
calc; SS (40%): dk gy-dk
gyshbn, slty-vf gr, mod
srt, frm-sl fri, sb rnd-ang,
silc cmt, non-sl calc, tr pp
mic pyr

11400-11500 SLTY SH
(85%): dk gy-v dk gy,
splt-sb plty, slty tex, frm-sl
hd, micmica, non calc;
SS (15%): med brn-dk
brn, mot, slty-vf gr, sb



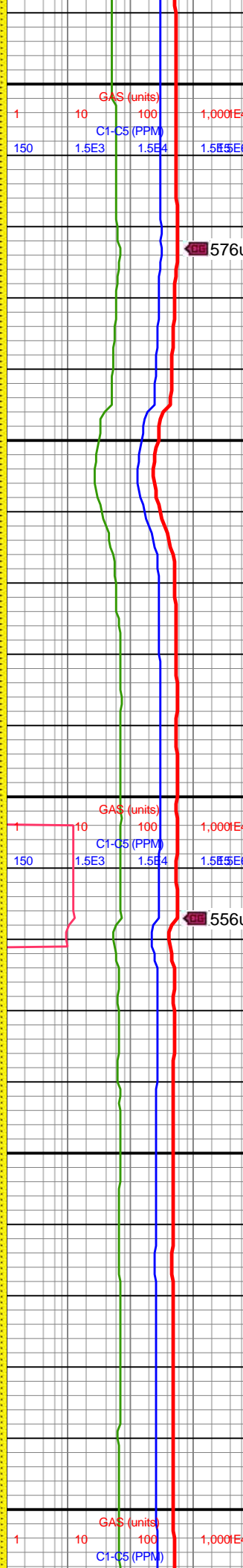
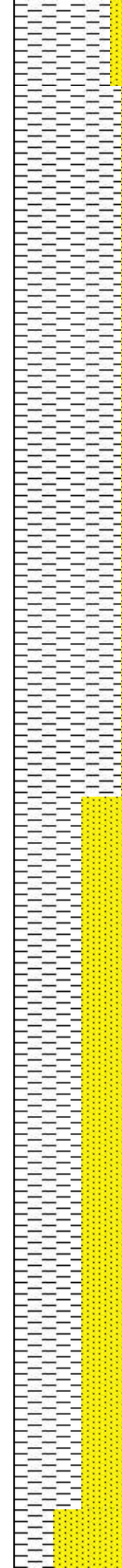


MD: 11,554'
INC: 92.42°
AZM: 1.93°
TVD: 7,412.53'
VS: 3,561.97'

MW IN: 10
VIS IN: 49
MW OUT: 10.0+
VIS OUT: 46

WOB: 36.4klbs
RPM: 70
SPM: 194
SPP: 5,759psi

MD: 11,648'
INC: 92.46°
AZM: 1.76°
TVD: 7,408.53'
VS: 3,655.06'

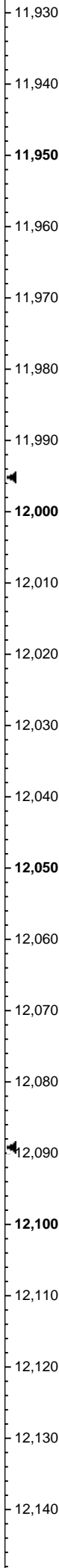
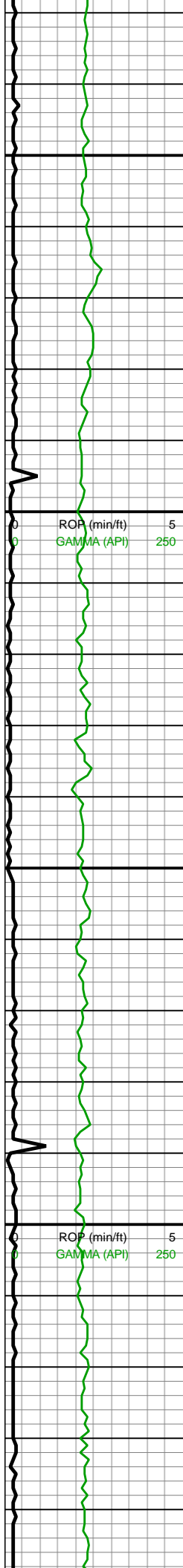


rnd-sb ang, frm-hd, gr
sup clus, cons silc cmt,
mnr SLTST grdg, tr
micmica, v wk calc

11500-11600 SLTY SH
(95%): dk gy-v dk gy, mot,
slty tex, sb blkyl-splt,
frm-sl frm, micmica,
sl-non calc, mnr mic pyr;
SS (5%): dk gy-dk brn,
slty-vf gr, frm-sl fri, mod
srt, sb rnd-ang, sme
SLTST grdg, silc cmt,
non-sl calc

11600-11700 SLTY SH
(60%): dk gy-v dk gy, mot,
frm-sl frm, sb blkyl-tab,
slty-sl sm tex, micmica,
sl-mod calc, mnr SS
grdg; SS (40%): dk
brn-dk gyshbn, frm-sl fri,
mod srt, slty-vf gr, sb
rnd-ang, silc cmt, non-sl
calc



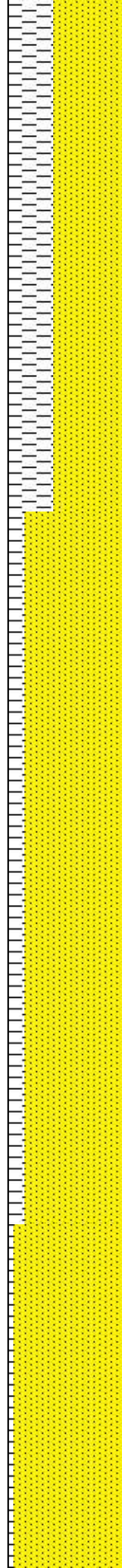


AZM: 0.44°
TVD: 7,399.87'
VS: 3,934.68'

WOB: 15.9klbs
RPM: 70
SPM: 194
SPP: 5,163psi
MW IN: 10
VIS IN: 48
MW OUT: 10.0+
VIS OUT: 46

MD: 12,025'
INC: 89.47°
AZM: 359.65°
TVD: 7,399.94'
VS: 4,029.19'

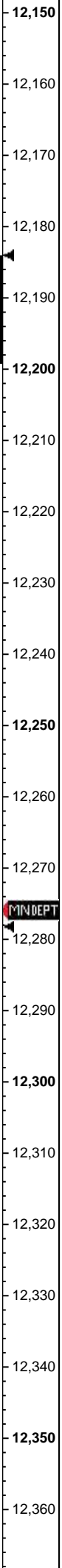
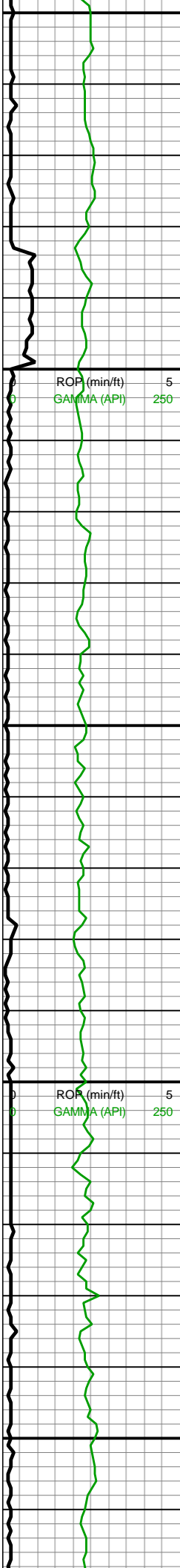
MD: 12,119'
INC: 89.17°
AZM: 359.03°
TVD: 7,401.06'
VS: 4,122.81'



11900-12000 SS (60%):
dk gy-dk gyshbn, slty-vf
gr, sb rnd-ang, mod srt,
frm-sl fri, silc cmt, non-sl
calc, tr pp mic pyr; SLTY
SH (40%): v dk gy-blk gy,
mot, sb blk-splt, slty-sl
abrsv tex, frm-sl frm,
sl-mod calc, micmica

12000-12100 SS (85%):
dk gy-dk gyshbn, mod srt,
sb rnd-ang, frm-sl fri,
slty-vf gr, non-sl calc, silc
cmt; SLTY SH (15%): dk
gy-v dk gy, mot, slty tex,
sb blk-tab, frm-sl frm,
mnr SS grdg, sl-mod
calc, tr pp mic pyr cls,
micmica





MW IN: 10
VIS IN: 58
MW OUT: 10.0+
VIS OUT: 46

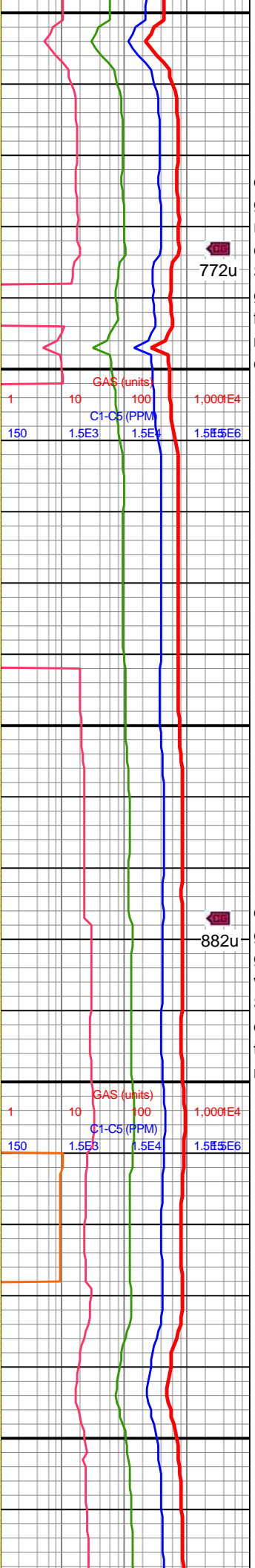
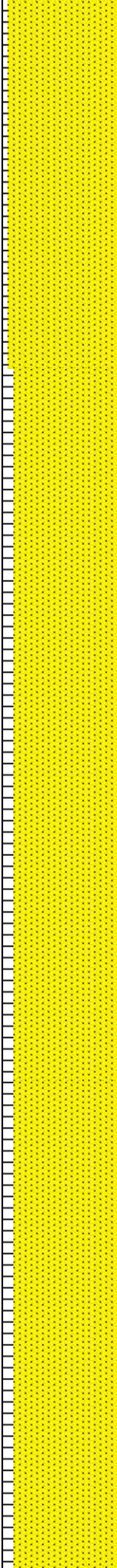
WOB: 9.6klbs
RPM: 70
SPM: 190
SPP: 5,054psi

MD: 12,213'
INC: 91.41°
AZM: 358.59°
TVD: 7,400.58'
VS: 4,216.51'

MIN DEPT 8/5/2018

MD: 12,307'
INC: 91.36°
AZM: 357.98°
TVD: 7,398.31'
VS: 4,310.25'

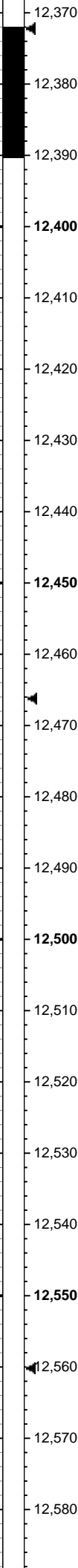
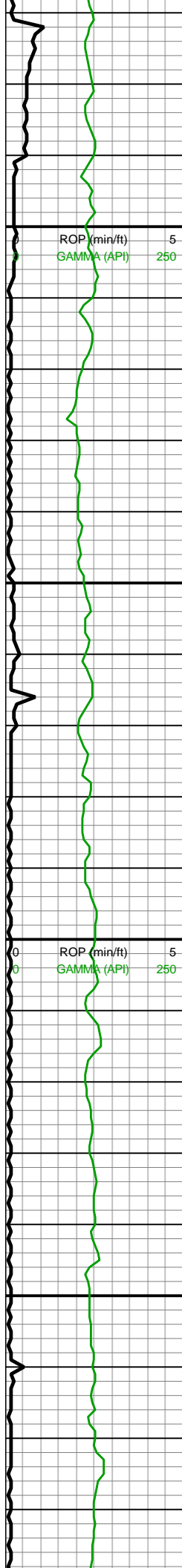
MW IN: 10
VIS IN: 48
MW OUT: 10.0+
VIS OUT: 46



12100-12200 SS (95%):
dk gy-dk gyshbn, slty-vf
gr, frm-sl fri, mod srt, sb
rnd-ang, non-sl calc, silc
cmt, mnr mic pyr cls;
SLTY SH (5%): dk gy-v dk
gy, mot, slty-sl sm tex,
frm-sl frm, sb blkly-tab,
mnr SS grd, sl-mod
calc, micmica

12200-12300 SS (90%):
dk brn, med brn, mot, vf-f
gr, sb rnd-sb ang, frm-hd,
gr sup clus wi silc cmt, v
wk calc, mnr SLTST grdg;
SLTY SH (10%): dk gy-v
dk gy, sb blkly-splt, slty
tex, frm-sl hd, micmica,
non-sl calc





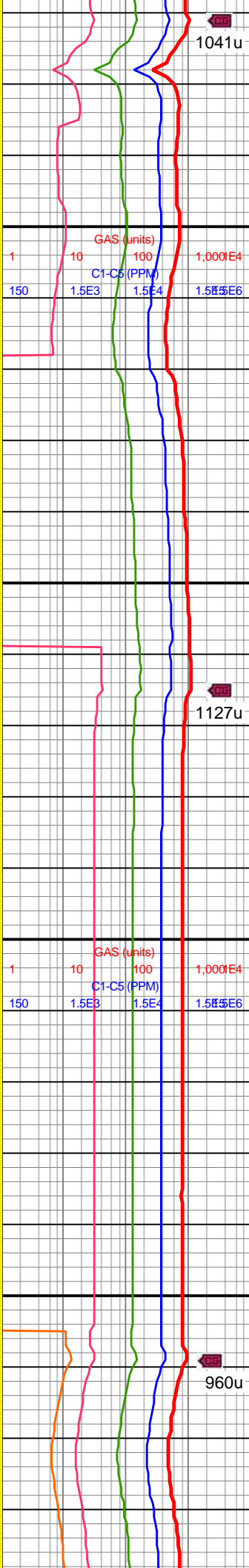
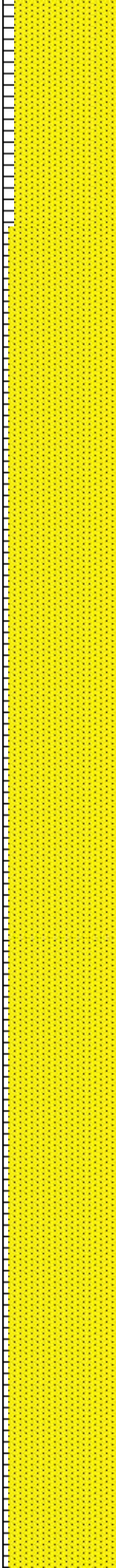
WOB: 10.5klbs
RPM: 70
SPM: 192
SPP: 5,218psi

MD: 12,402'
INC: 90.7°
AZM: 0.09°
TVD: 7,396.6'
VS: 4,404.9'

MD: 12,496'
INC: 90.75°
AZM: 0.26°
TVD: 7,395.41'
VS: 4,498.39'

MW IN: 10
VIS IN: 48
MW OUT: 10.0+
VIS OUT: 46

MD: 12,590'
INC: 89.78°
AZM: 250.74°

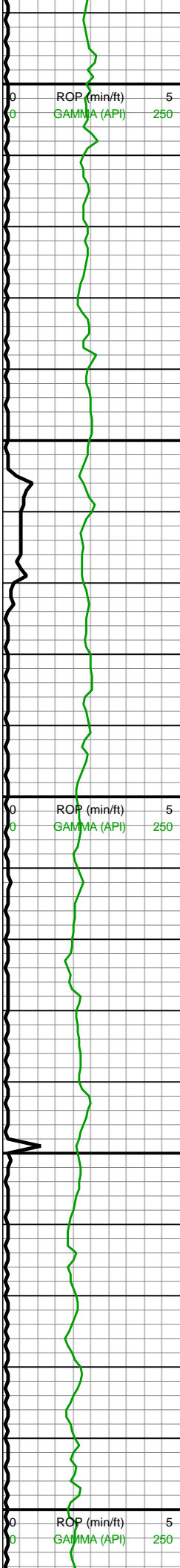


12300-12400 SS (90%):
dk brn, med brn-med gy,
mot, vf-f gr, frm-hd, gr sup
clus, sb rnd-sb ang, cons
silc cmt, v wk calc, tr
micmica; SLTY SH
(10%): dk gy-v dk gy, slty
tex, frm-sl hd, micmica,
sb blkly-splt, non-sl calc

12400-12500 SS (95%):
dk brn, mot med brn-med
gy, vf-f gr, w srt, sb rnd-sb
ang, frm-hd, gr sup clus,
cons silc cmt, v wk calc,
mnr SLTST grdg, tr
micmica; SLTY SH (5%):
v dk gy-blk gy, sb
blkly-splt, slty tex, frm-sl
hd, micmica

12500-12600 SS (95%):
dk brn, mot med brn-med
gy, slty-vf gr, frm-hd, w srt,
sb rnd-sb ang, gr sup
clus, cons silc cmt, v wk



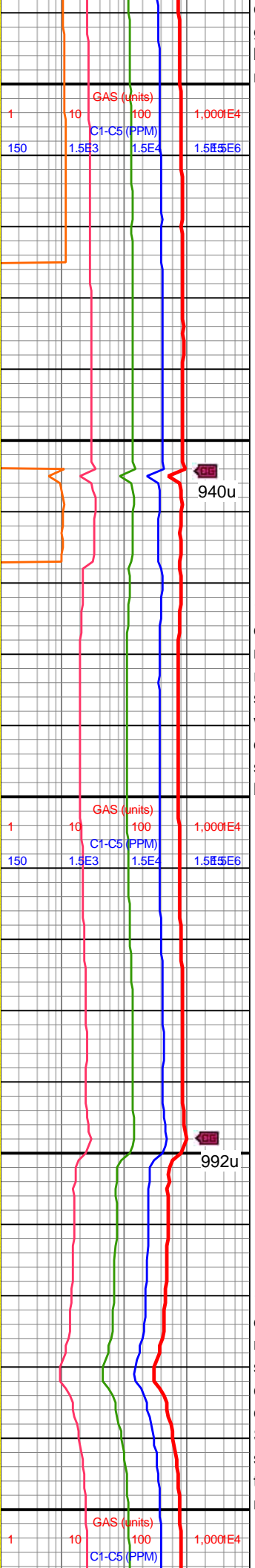
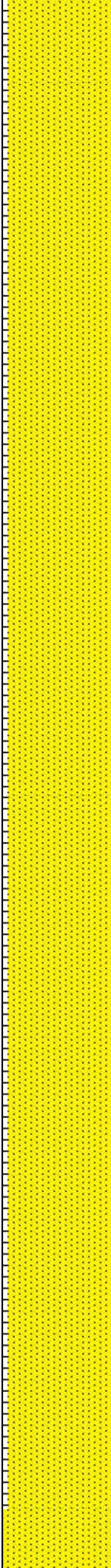


AZM: 359.74
TVD: 7,394.98'
VS: 4,591.91'
WOB: 24.4klbs
RPM: 69
SPM: 190
SPP: 5,530psi

MD: 12,685'
INC: 91.06°
AZM: 0.88°
TVD: 7,394.28'
VS: 4,686.37'

MD: 12,780'
INC: 91.71°
AZM: 1.41°
TVD: 7,391.98'
VS: 4,780.66'

WOB: 23.7klbs
RPM: 70
SPM: 190
SPP: 5,568psi

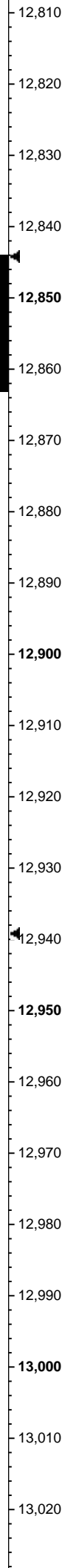
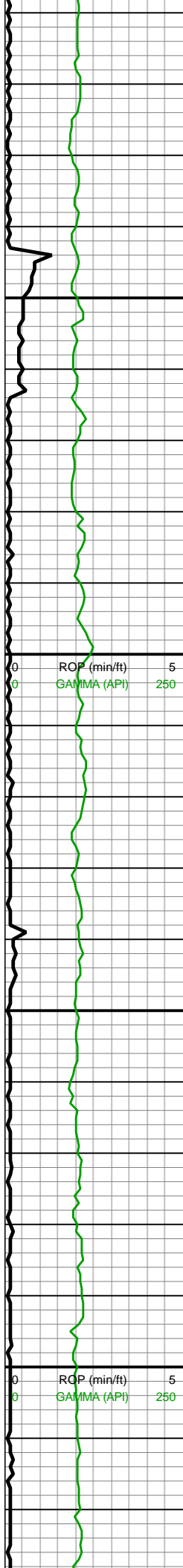


calc; SLTY SH (5%): v dk
gy-blk gy, slty tex, sb
blky-splt, frm-sl hd,
micmica, non-sl calc

12600-12700 SS (95%):
dk brn, med brn-med gy,
mot, slty-vf gr, w srt, sb
rnd-sb ang, frm-hd, gr
sup clus, cons silc cmt, v
wk calc; SLTY SH (5%): v
dk gy-blk gy, sb blky-splt,
slty-sl abrsv tex, frm-sl
hd, micmica, non-sl calc

12700-12800 SS (95%):
dk brn, med brn-med gy,
mot, frm-hd, slty-vf gr, w
srt, sb rnd-sb ang, gr sup
clus wi silc cmt, v wk
calc, tr pp mic pyr; SLTY
SH (5%): v dk gy-blk gy,
sb blky-splt, slty-sl abrsv
tex, frm-sl hd, micmica,
non-sl calc



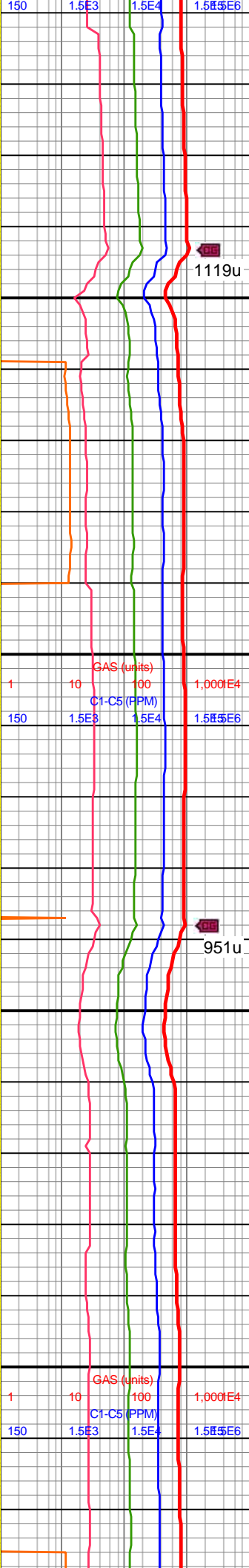
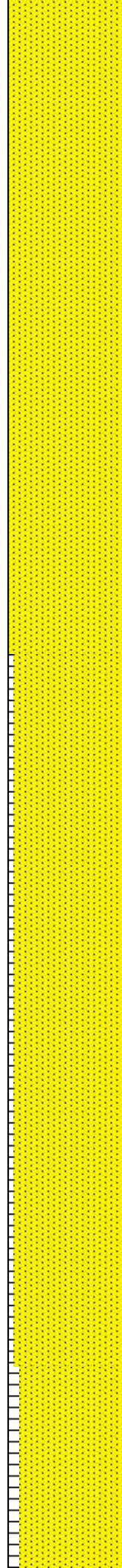


MW IN: 10.1
VIS IN: 48
MW OUT: 10.1
VIS OUT: 46

MD: 12,874'
INC: 89.82°
AZM: 359.56°
TVD: 7,390.73'
VS: 4,874.09'

MD: 12,969'
INC: 90.57°
AZM: 359.74°
TVD: 7,390.4'
VS: 4,968.66'

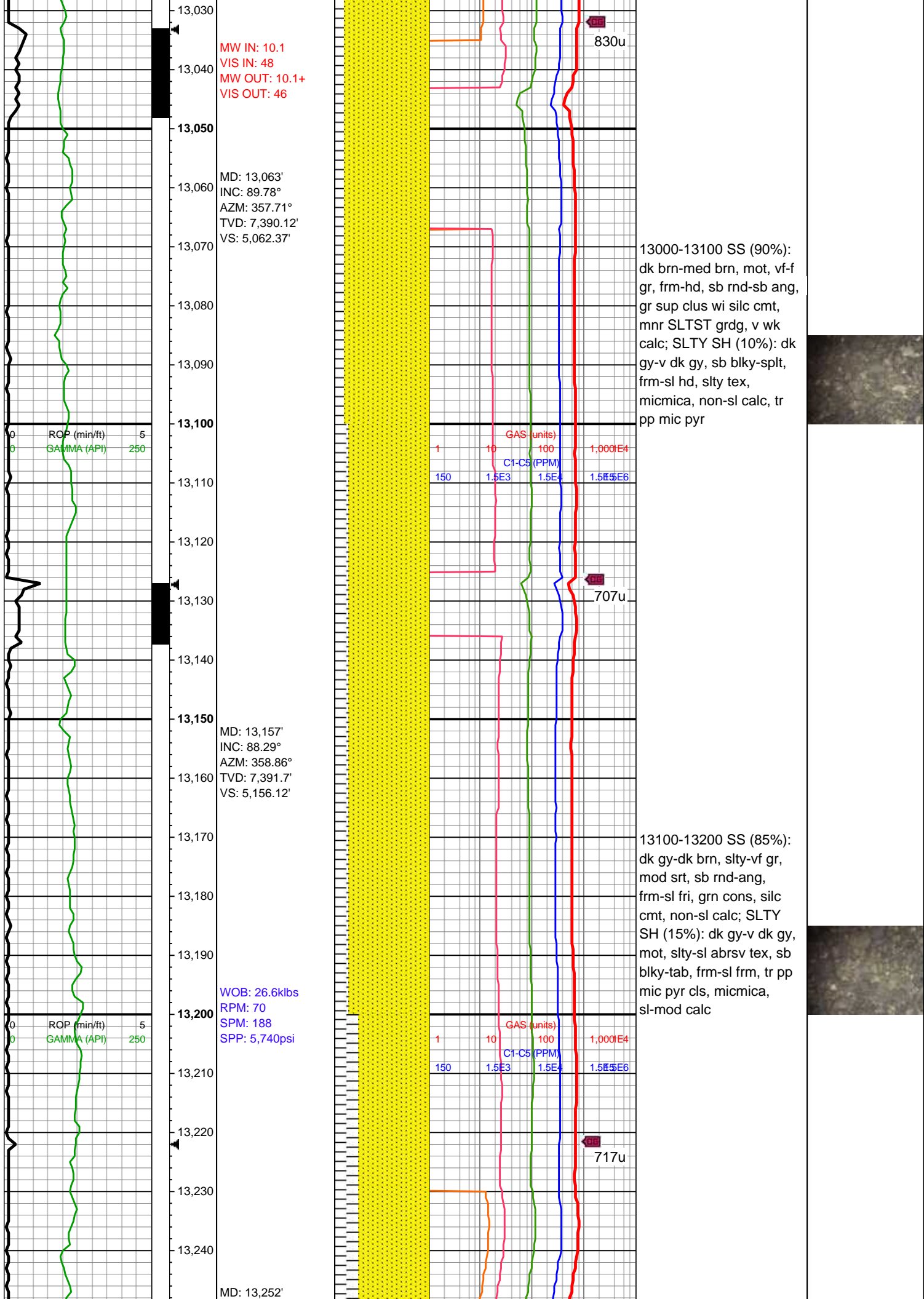
WOB: 24.8klbs
RPM: 69
SPM: 188
SPP: 5,653psi

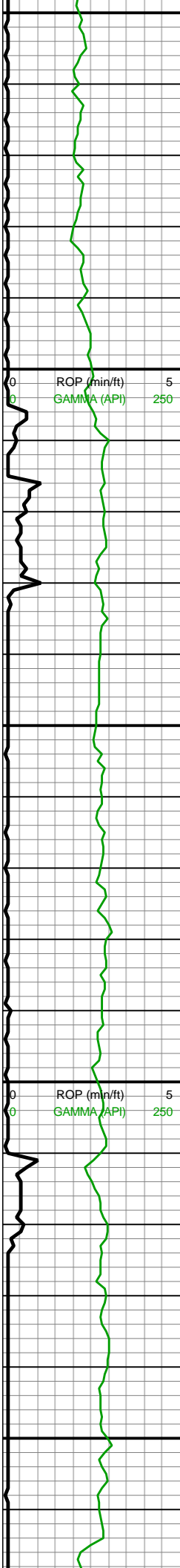


12800-12900 SS (100%):
dk brn, med brn-med gy,
mot, frm-hd, sb rnd-sb
ang, slty-vf gr, w srt, gr
sup clus wi silc cmt, tr pp
mic pyr, v wk calc

12900-13000 SS (95%):
dk brn, med brn-med gy,
mot, w srt, sb rnd-sb ang,
frm-hd, slty-vf gr, gr sup
clus wi silc cmt, tr pp mic
pyr, v wk calc; SLTY SH
(5%): v dk gy-blk gy,
frm-sl hd, sb blk-splt,
slty-sl abrsv tex, micmica,
non-sl calc







13,250
INC: 88.24°
AZM: 358.68°
TVD: 7,394.58'
VS: 5,250.78'

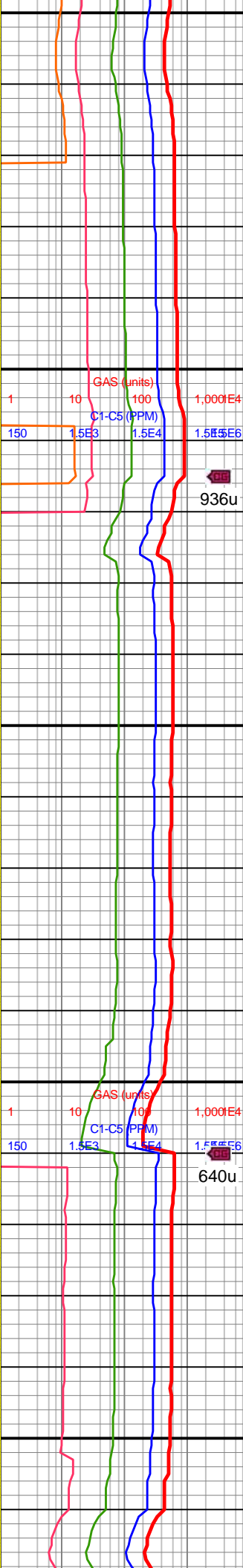
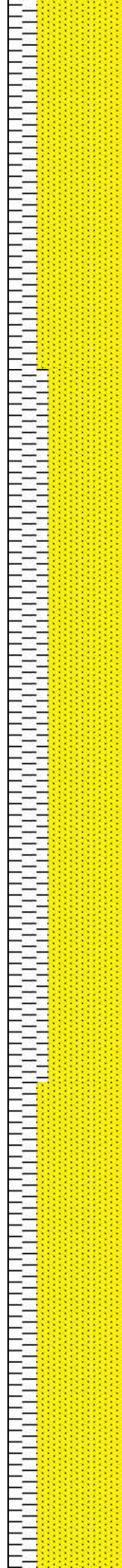
13,300
MW IN: 10.1
VIS IN: 48
MW OUT: 10.1+
VIS OUT: 46

13,350
MD: 13,346'
INC: 89.52°
AZM: 358.86°
TVD: 7,396.41'
VS: 5,344.47'

13,400
WOB: 24.9klbs
RPM: 70
SPM: 184
SPP: 5,576psi

13,420
MW IN: 10.1
VIS IN: 48
MW OUT: 10.1+
VIS OUT: 46

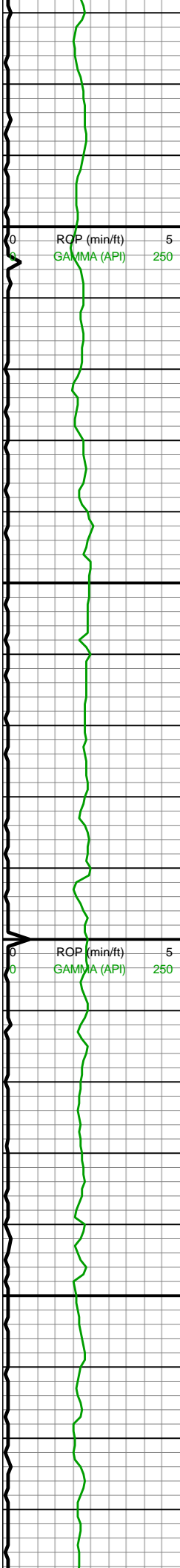
13,450
MD: 13,440'
INC: 90.44°
AZM: 358.5°
TVD: 7,396.45'
VS: 5,438.19'



13200-13300 SS (75%):
dk brn-med brn, mot dk
gy, slty-vf gr, frm-sl fri,
mod srt, sb rnd-ang, silc
cmt, non-sl calc; SLTY
SH (25%): dk gy-v dk gy,
mot, sb plty-splt, frm-sl
frm, slty-sl abrsv tex,
micmica, mnr SS grdg,
sl-mod calc

13300-13400 SS (65%):
dk brn-med brn, mot dk
gy, slty-vf gr, frm-sl fri,
mod srt, sb rnd-ang, silc
cmt, non-sl calc; SLTY
SH (35%): dk gy-v dk gy,
mot, sb plty-splt, frm-sl
frm, slty-sl abrsv tex,
micmica, mnr SS grdg,
sl-mod calc





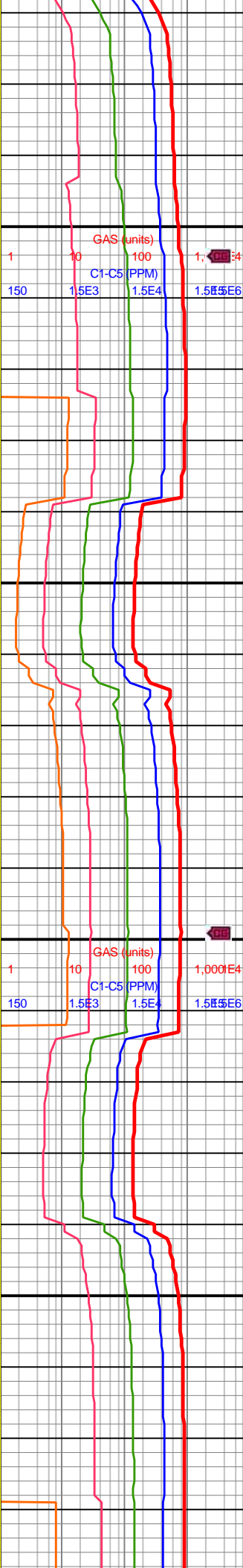
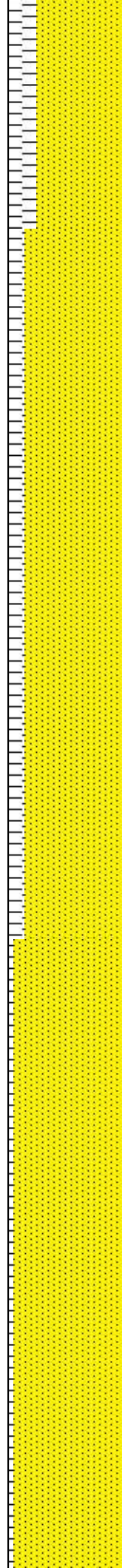
13,470
13,480
13,490
13,500
13,510
13,520
13,530
13,540
13,550
13,560
13,570
13,580
13,590
13,600
13,610
13,620
13,630
13,640
13,650
13,660
13,670
13,680

MD: 13,535'
INC: 90.84°
AZM: 358.33°
TVD: 7,395.39'
VS: 5,532.93'

WOB: 26.1klbs
RPM: 70
SPM: 186
SPP: 5,657psi

MD: 13,629'
INC: 91.06°
AZM: 358.77°
TVD: 7,393.83'
VS: 5,626.65'

MW IN: 10.1
VIS IN: 49
MW OUT: 10.2
VIS OUT: 48

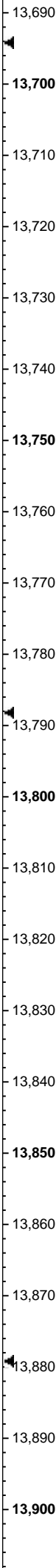
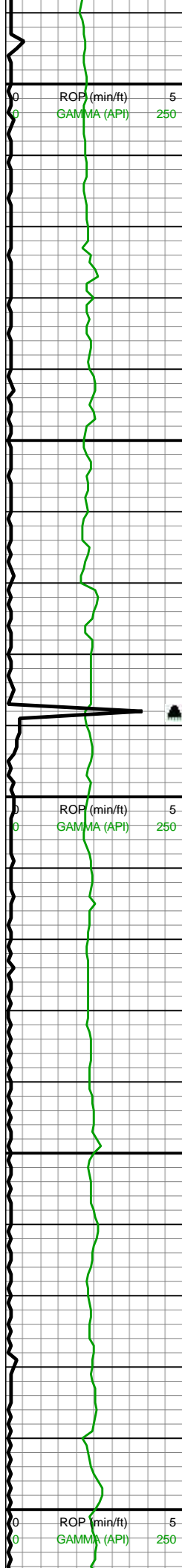


13400-13500 SS (75%):
dk brn-med brn, mot dk
gy, slty-vf gr, frm-sl fri,
mod srt, sb rnd-ang, silc
cmt, non-sl calc; SLTY
SH (25%): dk gy-v dk gy,
mot, sb plty-splt, frm-sl
frm, slty-sl abrsv tex,
micmica, mnr SS grdg,
sl-mod calc

13500-13600 SS (85%):
dk brn-med brn, mot dk
gy, slty-vf gr, frm-sl fri,
mod srt, sb rnd-ang, silc
cmt, non-sl calc; SLTY
SH (15%): dk gy-v dk gy,
mot, sb plty-splt, frm-sl
frm, slty-sl abrsv tex,
micmica, mnr SS grdg,
sl-mod calc

13600-13700 SS (95%):
dk brn-med brn, mot dk
gy, slty-vf gr, frm-sl fri,
mod srt, sb rnd-ang, silc
cmt, non-sl calc; SLTY
SH (5%): dk gy-v dk gy,





MW IN: 10.1
VIS IN: 50
MW OUT: 10.3
VIS OUT: 49

MD: 13,784'
INC: 91.32°
AZM: 358.94°
TVD: 7,390.61'
VS: 5,781.12'

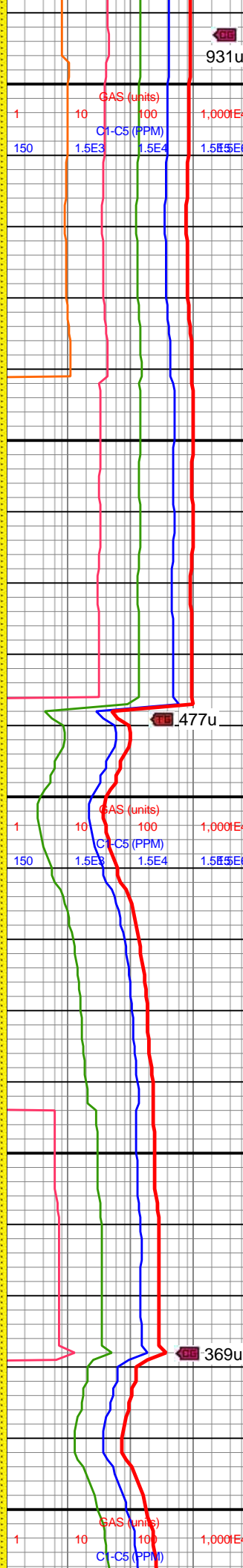
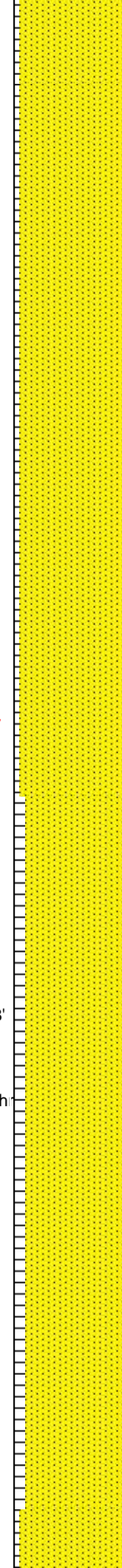
Note: TOO H for MWD

WOB: 18klbs
RPM: 59
SPM: 185
SPP: 5,388psi

MD: 13,807'
INC: 91.63°
AZM: 359.03°
TVD: 7,390.02'
VS: 5,804.03'

Bit #: 2
Type: U516M
Size: 8 1/2
Depth In: 13,788'
Depth Out: 14,797'
Hours: 3.1 hrs
Avg Ft/Hr: 325 ' /h
Jets: 6x14
S/N: 41713

MD: 13,901'
INC: 92.11°
AZM: 358.5°
TVD: 7,386.95'
VS: 5,897.69'

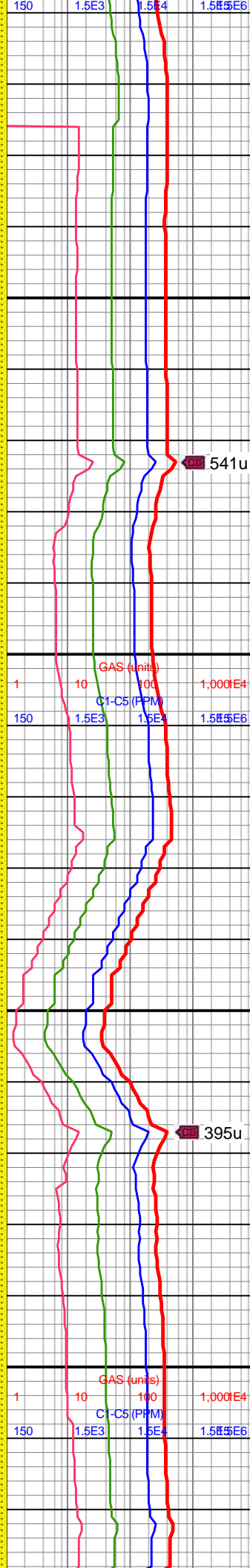
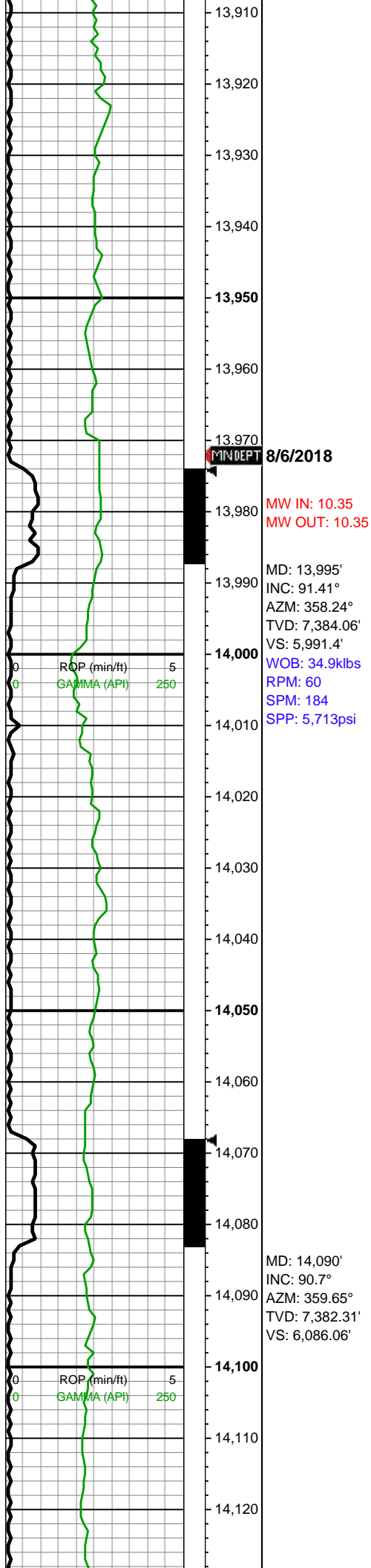


mot, sb plty-splt, frm-sl
frm, slty-sl abrsv tex,
micmica, mnrr SS grdg,
sl-mod calc

13700-13800 SS (95%):
dk brn-med brn, mot dk
gy, mod srt, sb rnd-ang,
slty-vf gr, frm-sl fri, silc
cmt, non-sl calc, tr pp mic
pyr; SLTY SH (5%): dk
gy-v dk gy, mot, sb
plty-splt, frm-sl frm, slty
tex, micmica, sl-mod calc

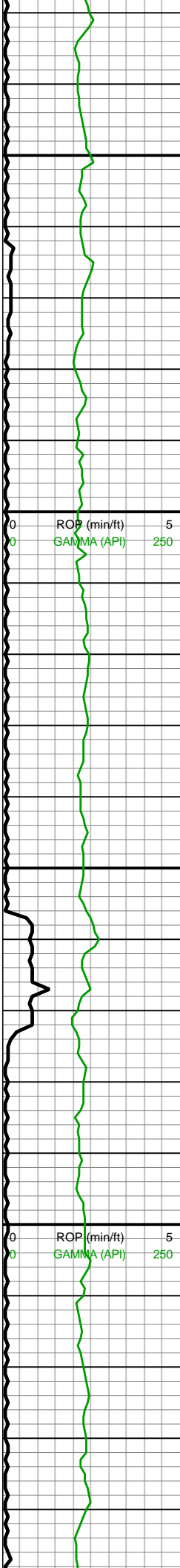
13800-13900 SS (90%):
dk brn-med brn, mot,
frm-hd, vf-f gr, sb rnd-sb
ang, gr sup clus wi silc
cmt, v wk calc, mnrr
SLTST grdg; SLTY SH
(10%): dk gy-v dk gy,
frm-sl hd, slty tex, sb
blky-splt, micmica, non-sl
calc, tr pp mic pyr





13900-14000 SS (95%):
dk brn, med brn-med gy,
mot, slty-vf gr, w srt, sb
rnd-sb ang, frm-hd, gr
sup clus wi silc cmt, v wk
calc, tr pp mic pyr; SLTY
SH (5%): v dk gy-blk gy,
frm-sl hd, sb blk-splt,
slty-sl abrsv tex, non-sl
calc, micmica

14000-14100 SS (95%):
predy dk brn, mot med
brn, frm-hd, sb rnd-sb
ang, slty-vf gr, gr sup
clus, cons wi silc cmt, v
wk calc, mnr SLTST grdg,
tr mic pyr; SLTY SH (5%):
dk gy-v dk gy, sb blk-splt,
frm-sl hd, slty tex, non-sl
calc, mnr micmica



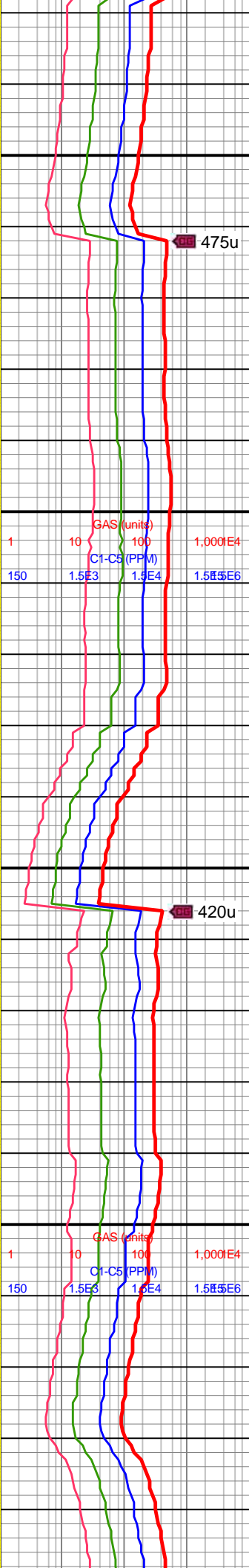
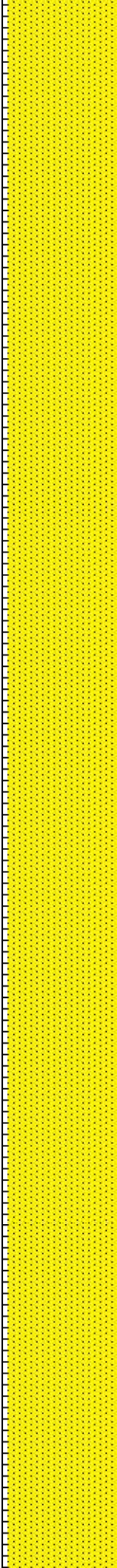
14,130
14,140
14,150
14,160
14,170
14,180
14,190
14,200
14,210
14,220
14,230
14,240
14,250
14,260
14,270
14,280
14,290
14,300
14,310
14,320
14,330
14,340

MD: 14,185'
INC: 91.23°
AZM: 359.3°
TVD: 7,380.71'
VS: 6,180.65'

WOB: 32.5klbs
RPM: 60
SPM: 186
SPP: 5,636psi

MW IN: 10.4
MW OUT: 10.4

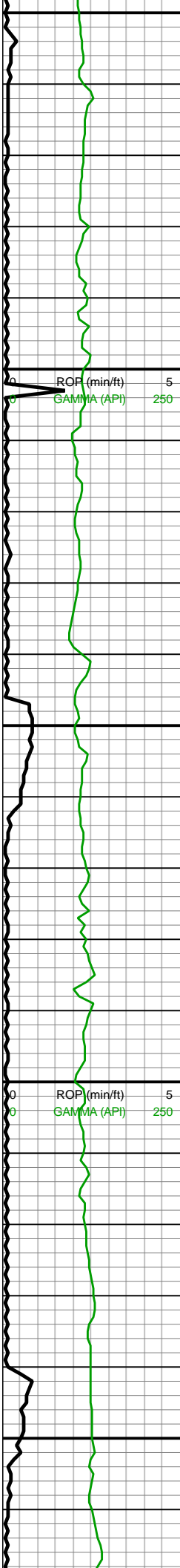
MD: 14,280'
INC: 88.33°
AZM: 357.45°
TVD: 7,381.08'
VS: 6,275.39'



14100-14200 SS (95%):
predy dk brn, mot med
brn, frm-hd, sb rnd-sb
ang, slty-vf gr, gr sup
clus, cons wi silc cmt, tr
mic pyr, v wk calc; SLTY
SH (5%): dk gy-v dk gy,
sb blk-splt, slty tex,
frm-sl hd, mn micmica,
non-sl calc

14200-14300 SS (95%):
predy dk brn, med brn,
mot dk gy, slty-vf gr, gr
sup clus, frm-hd, sb
rnd-sb ang, cons wi silc
cmt, tr mic pyr, non-sl
calc; SLTY SH (5%): dk
gy-v dk gy, slty tex, sb
blk-splt, frm-sl hd,
non-sl calc, tr micmica





14,350
14,360
14,370
14,380
14,390
14,400
14,410
14,420
14,430
14,440
14,450
14,460
14,470
14,480
14,490
14,500
14,510
14,520
14,530
14,540
14,550
14,560

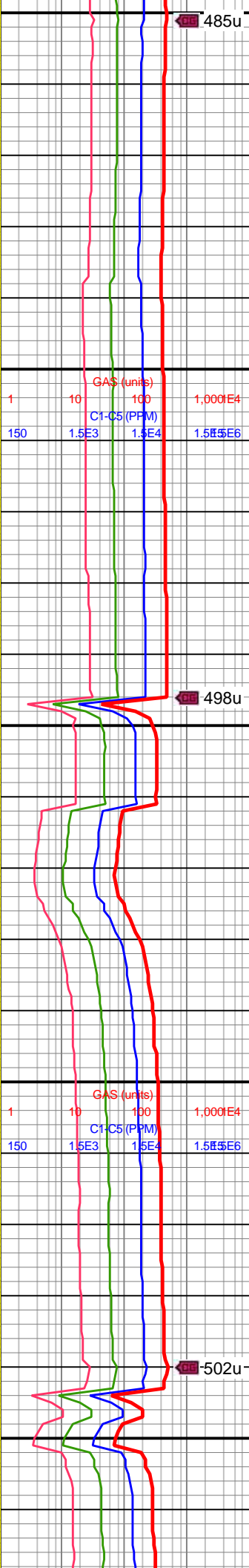
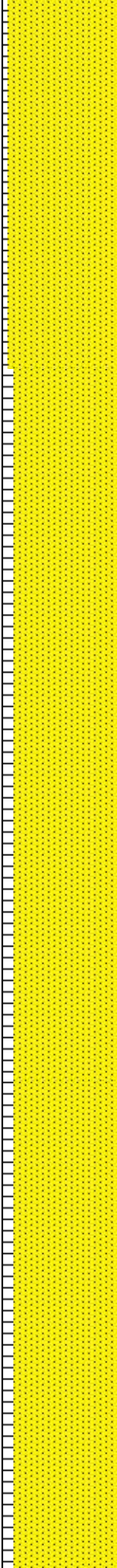
MD: 14,374'
INC: 88.33°
AZM: 356.75°
TVD: 7,383.46'
VS: 6,369.22'

WOB: 30.4klbs
RPM: 59
SPM: 184
SPP: 5,657psi

MW IN: 10.4
MW OUT: 10.4

MD: 14,468'
INC: 88.37°
AZM: 357.89°
TVD: 7,386.17'
VS: 6,463.04'

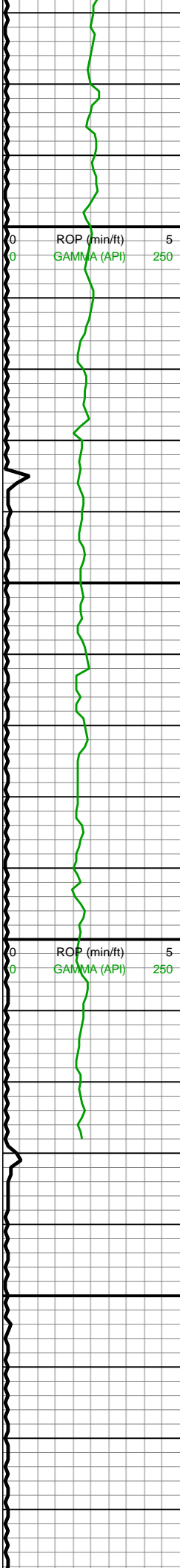
MD: 14,563'
INC: 89.52°
AZM: 360°
TVD: 7,387.92'
VS: 6,557.71'



14300-14400 SS (95%):
predy dk brn, med brn-dk
gy, slty-vf gr, sb rnd-sb
ang, gr sup clus, cons wi
silc cmt, frm-hd, non-sl
calc, tr mic pyr; SLTY SH
(5%): dk gy-v dk gy, sb
blky-splt, slty tex, frm-sl
hd, tr micmica, non-sl
calc

14400-14500 SS (90%):
dk brn-med brn, mot,
frm-hd, vf-f gr, sb rnd-sb
ang, gr sup clus wi silc
cmt, v wk calc, mnr
SLTST grdg; SLTY SH
(10%): dk gy-v dk gy,
frm-sl hd, slty tex, sb
blky-splt, micmica, non-sl
calc, tr pp mic pyr





14,570
14,580
14,590
14,600
14,610
14,620
14,630
14,640
14,650
14,660
14,670
14,680
14,690
14,700
14,710
14,720
14,730
14,740
14,750
14,760
14,770
14,780

VS: 6,557.7'

WOB: 33.6klbs
RPM: 60
SPM: 183
SPP: 5,779psi

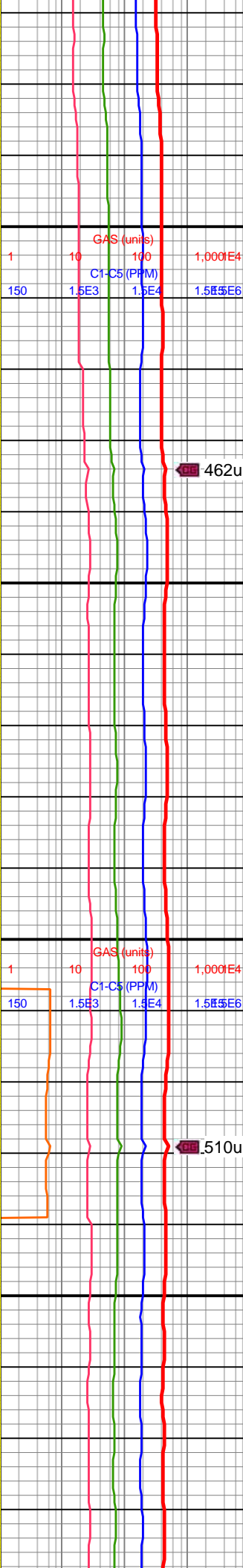
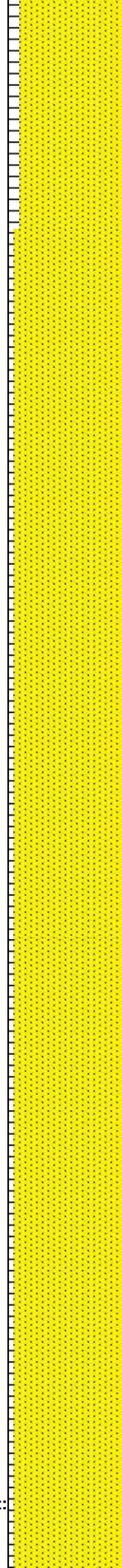
MD: 14,657'
INC: 90.13°
AZM: 0.44°
TVD: 7,388.2'
VS: 6,651.19'

MD: 14,725'
INC: 90.44°
AZM: 0.35°
TVD: 7,387.86'
VS: 6,718.8'

MW IN: 10.4
MW OUT: 10.4

Projection to Bit:

MD: 14,797'
INC: 90.44°



14500-14600 SS (90%):
dk brn-med brn, mot,
frm-hd, sb rnd-sb ang,
vf-f gr, gr sup clus, v wk
calc, silc cmt, mnr SLTST
grdg; SLTY SH (10%): dk
gy-v dk gy, sb blk-splt,
frm-sl hd, slty tex,
micmica, non-sl calc, tr
pp mic pyr

14600-14700 SS (95%):
predy dk brn, med brn-dk
gy, sb rnd-sb ang, slty-vf
gr, gr sup clus, frm-hd,
cons wi silc cmt, tr mic
pyr, non-sl calc; SLTY SH
(5%): dk gy-v dk gy, slty
tex, frm-sl hd, sb plty-splt,
mnr micmica, non-sl calc

14700-14797 SS (95%):
dk brn-med brn-dk gy,
slty-vf gr, mod srt, frm-sl
fri, sb rnd-ang, grn sup,
silc cmt, tr mic pyr, non-sl
calc; SLTY SH (5%): dk



