



Scale: 5" / 100'
Measured Depth Log

Well Name DT Martinez 1-5-6

Location Sec. 05-T05N-R65W

State Colorado

County Weld

Country USA

Rig Number Savanna 802

API Number 05-123-1029-00

AFE # na

Region DJ Basin

Field Wattenberg

Spud Date 3/30/2015

Drilling Completed 4/5/2015

Surface Coordinates SHL: 414'FNL, 1684'FEL, Sec.05

Lat: 40.43536
Long: 104.68373

Bottom Hole Coordinates BHL: 2341'FNL, 460'FWL, Sec. 06

Ground Elevation 4,640'

K.B. Elevation 4,655'

Logged Interval 5,000' To 6,860'

Total Depth 14,727'

Formation Niobrara B Chalk

Type of Drilling Fluid Water Based

Other Symbols

Oil Show

- DEAD
- EVEN
- QUESTIONABLE
- SPOTTED STAINING

Porosity

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

- ORGANIC
- P PINPOINT
- V VUGGY

Engineering

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

- FORMATION TOP
- GAS SHOW
- MINDEPTH 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
- FINELYXLN
- GRAINSTONE

LITHOGRAPHIC

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

Sorting

- M MODERATE
- P POOR
- W WELL

Zone Color Coding

- Oil
- Condensate
- Gas
- Note
- Core
- Pressure
- Error
- Water
- Seal

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

Equipment ML-461

Comments Start: 4-1-15
 Standby: 3-31-15, 4-02-15
 TD: 4-05-15

Logger Names Dominic Pitre / Nicholas Watkins

Services Provided 2-man Logging
 On Site Geosteering

Address Empirica, LLC.
 6360 W Sam Houston Pkwy N
 Suite 100
 Houston, TX 77041

Operator

Company Extraction Oil & Gas

Address 1888 Sherman St., Suite 200
 Denver, CO 80203

Rock Types

UNKNOWN
 ANHYDRITE
 GYPSUM
 SALT
 SIDERITE or LIMONITE
 LIMESTONE

DOLOMITE
 CHERT
 COAL
 MARLSTONE
 CLAYSTONE
 SHALE

SHALE GRAY
 SHALE COLORED
 SILTSTONE
 SANDSTONE
 CONGLOMERATE
 BRECCIA

TILL
 BENTONITE
 TUFF
 IGNEOUS
 METAMORPHIC
 CEMENT

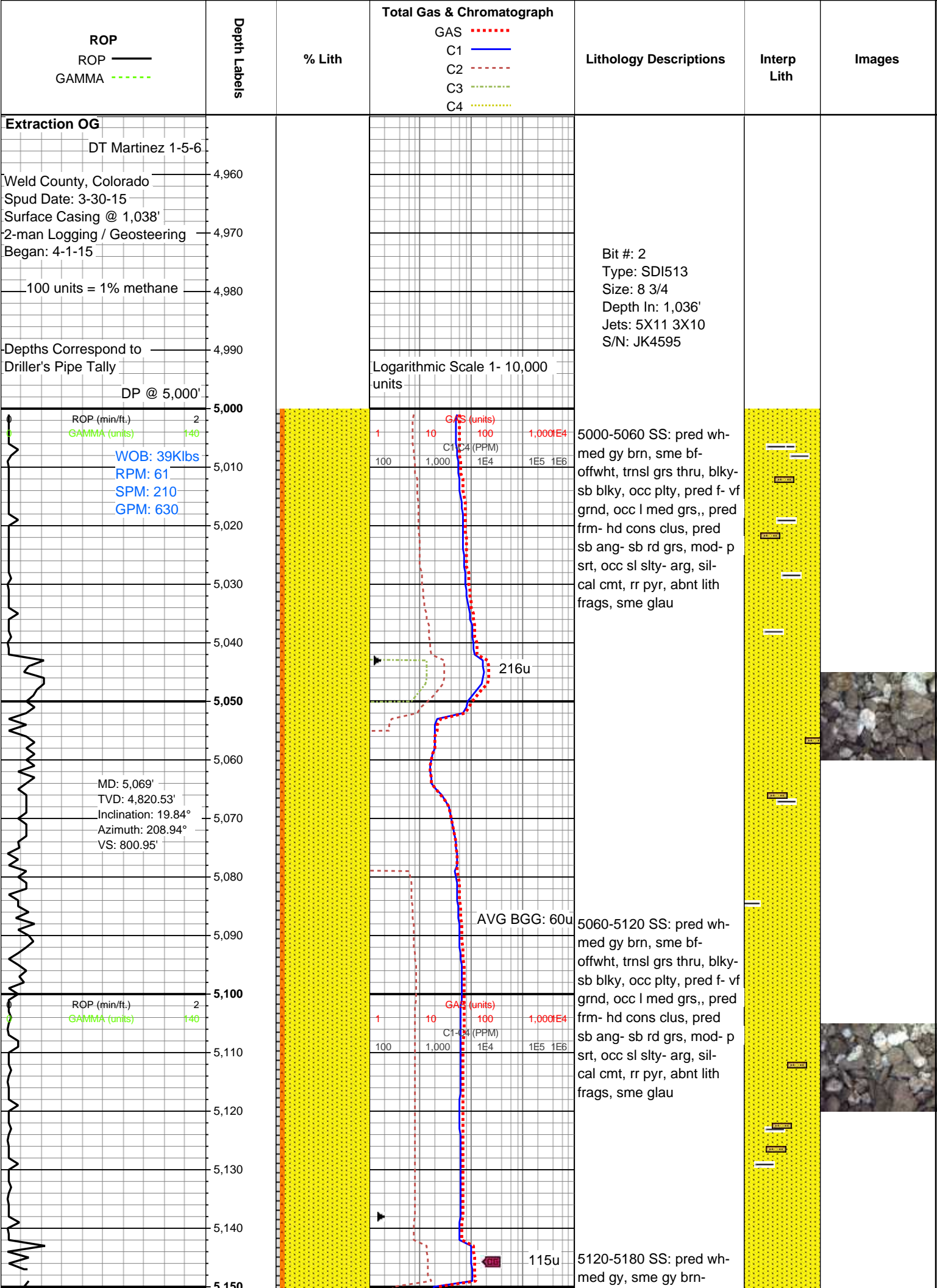
Geologist

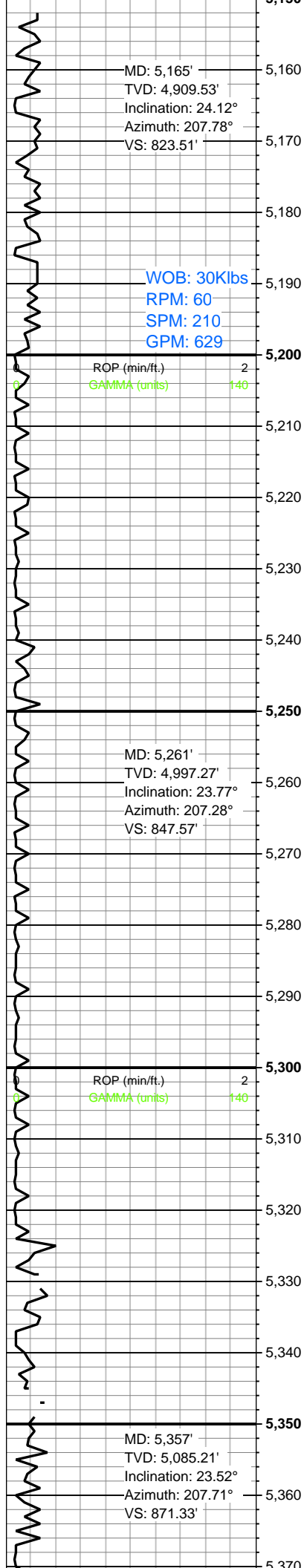
Name Jared Rouse

Company Extraction Oil & Gas

Address 1888 Sherman St., Suite 200
Denver, CO 80203





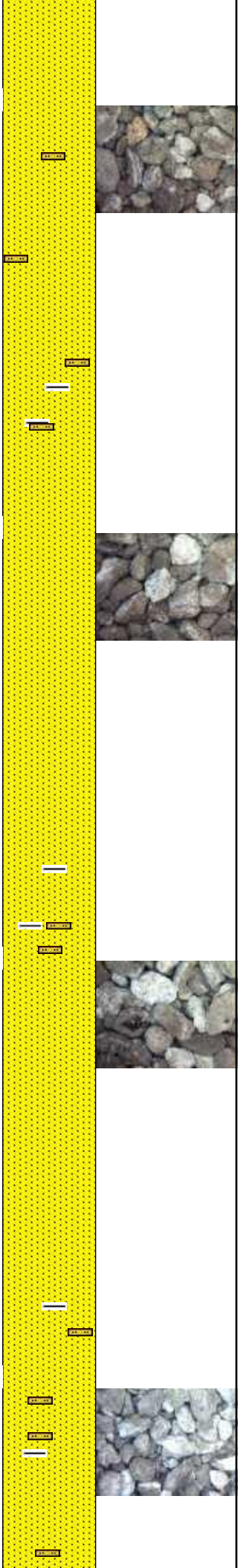


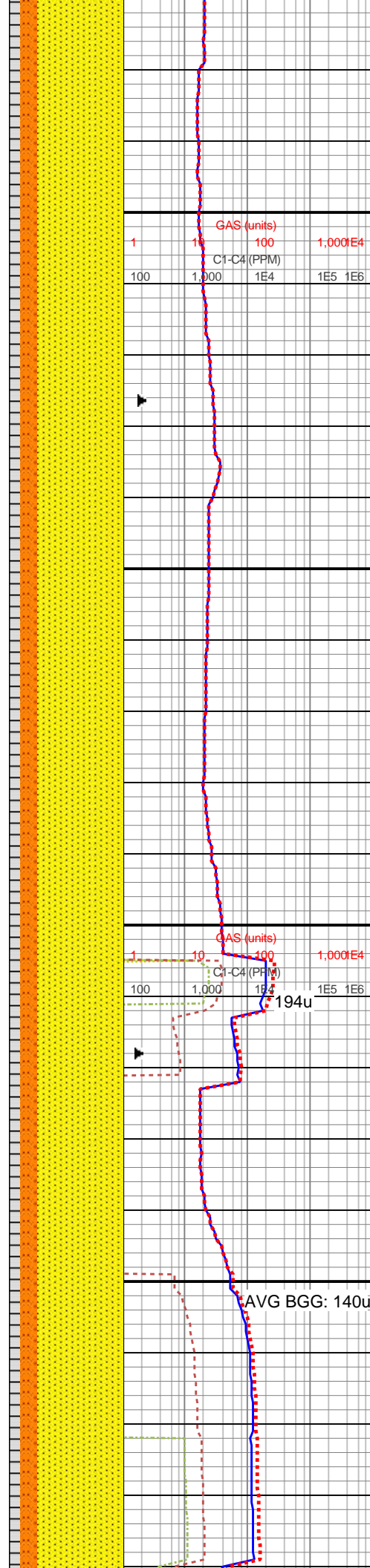
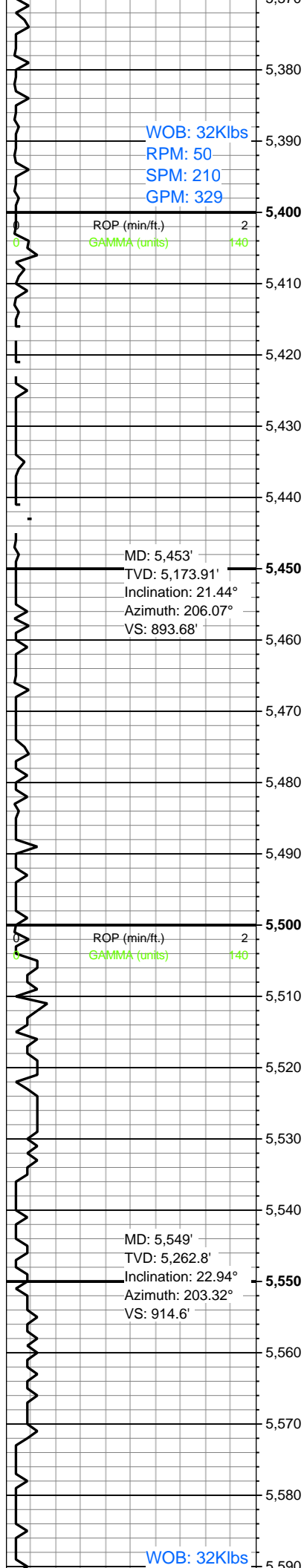
offwht, trnsl grs thru, blk-
sb blk, occ plty, pred f- vf
grnd, occ l med grs, pred
frm- hd cons clus, pred
sb ang- sb rd grs, mod- p
srt, occ sl slty- arg, tr slty
intbds, sil- cal cmt, rr pyr,
abt lith frags, sme glau,
tr bent

5180-5240 SS: pred wh-
med gy, sme gy brn-
offwht, trnsl grs thru, blk-
sb blk, occ plty, pred f- vf
grnd, occ l med grs, pred
frm- hd cons clus, pred
sb ang- sb rd grs, mod- p
srt, occ sl slty- arg, tr slty
intbds, sil- cal cmt, rr pyr,
abt lith frags, sme glau,
tr bent

5240-5300 SS: pred wh-
med gy, sme gy brn-
offwht, trnsl grs thru, blk-
sb blk, occ plty, pred f- vf
grnd, occ l med grs, pred
frm- hd cons clus, pred
sb ang- sb rd grs, mod- p
srt, occ sl slty- arg, tr slty
intbds, sil- cal cmt, rr pyr,
abt lith frags, sme glau,
tr bent

5300-5360 SS: pred wh-
med gy, sme gy brn-
offwht, trnsl grs thru, blk-
sb blk, occ plty, pred f- vf
grnd, occ l med grs, pred
frm- hd cons clus, pred
sb ang- sb rd grs, mod- p
srt, occ sl slty- arg, incrg
slty intbds, sil- cal cmt, rr
pyr, abt lith frags, sme
glau, tr bent



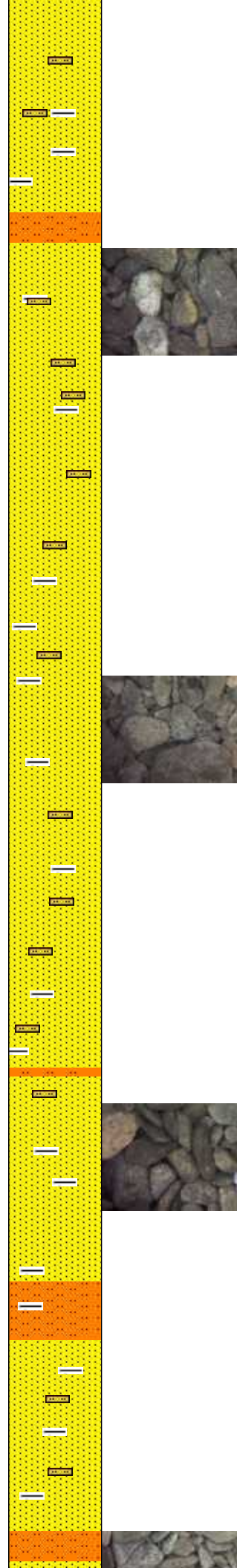


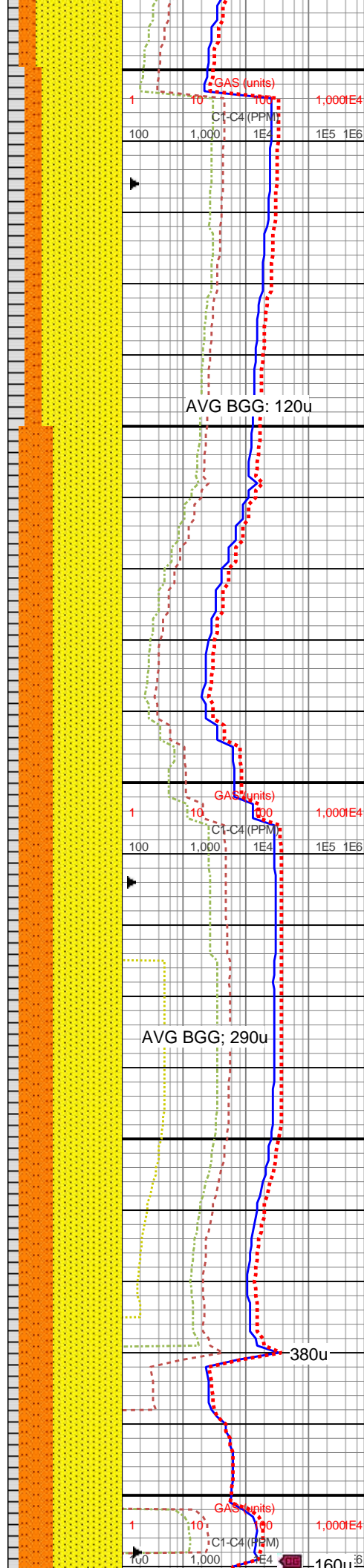
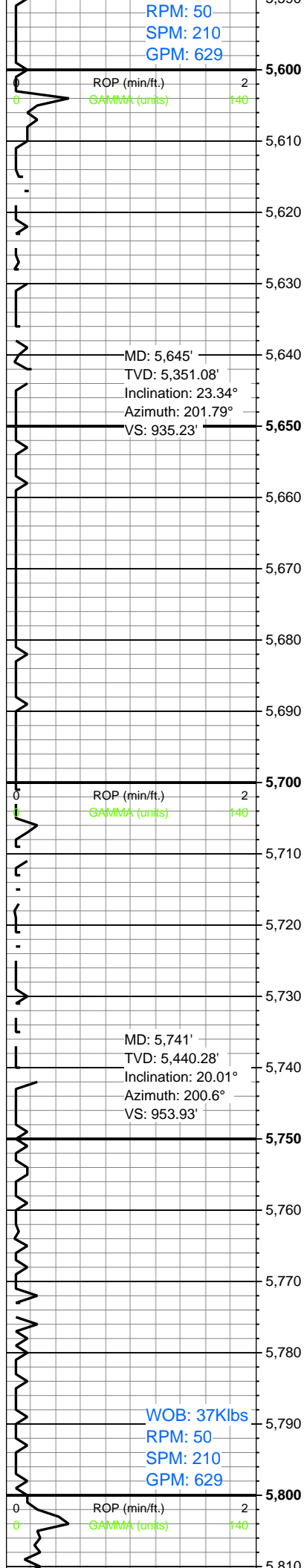
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gy- gy brn, sme offwht,
trns l grs thru, blk- sb
blk, occ plty, pred f- vf
grnd, sme l med grs,
pred frm- hd cons clus,
pred sb ang- sb rd grs,
mod- p srt, incrg sl slty-
arg, incrg slty intbds, sil-
cal cmt, rr pyr, abnt lith
frags, sme glau

5420-5480 SS: pred med
gy- gy brn, sme offwht,
trns l grs thru, blk- sb
blk, occ plty, pred f- vf
grnd, sme l med grs,
pred frm- hd cons clus,
pred sb ang- sb rd grs,
mod- p srt, incrg sl slty-
arg, incrg slty intbds, sil-
cal cmt, sme pyr, abnt lith
frags, sme glau

5480-5540 SS: pred med
gy- gy brn, sme offwht,
trns l grs thru, blk- sb
blk, occ plty, pred f- vf
grnd, sme l med grs,
pred frm- hd cons clus,
pred sb ang- sb rd grs,
mod- p srt, incrg sl slty-
arg, incrg slty intbds, sil-
cal cmt, sme pyr, abnt lith
frags, sme glau

5540-5600 SS: pred med
gy- gy brn, sme offwht,
trns l grs thru, blk- sb
blk, occ plty, pred f- vf
grnd, sme l med grs,
pred frm- hd cons clus,
pred sb ang- sb rd grs,
mod- p srt, incrg sl slty-





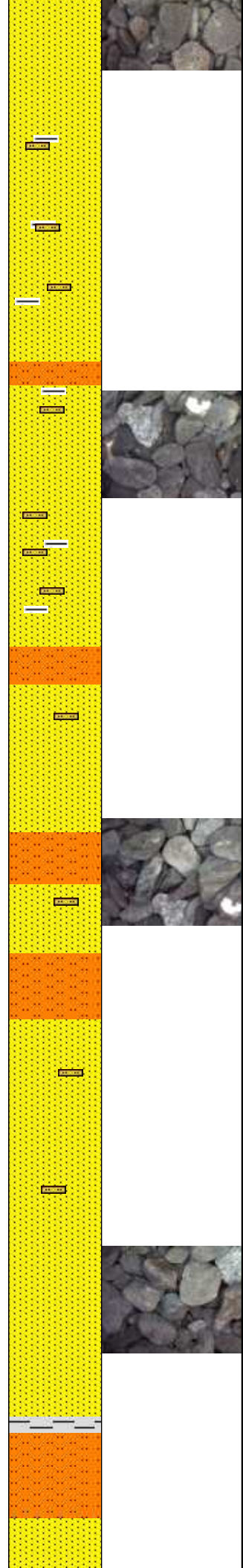
arg, incrg slty intbds, sil- cal cmt, sme pyr, abnt lith frags, sme glau, tr bent

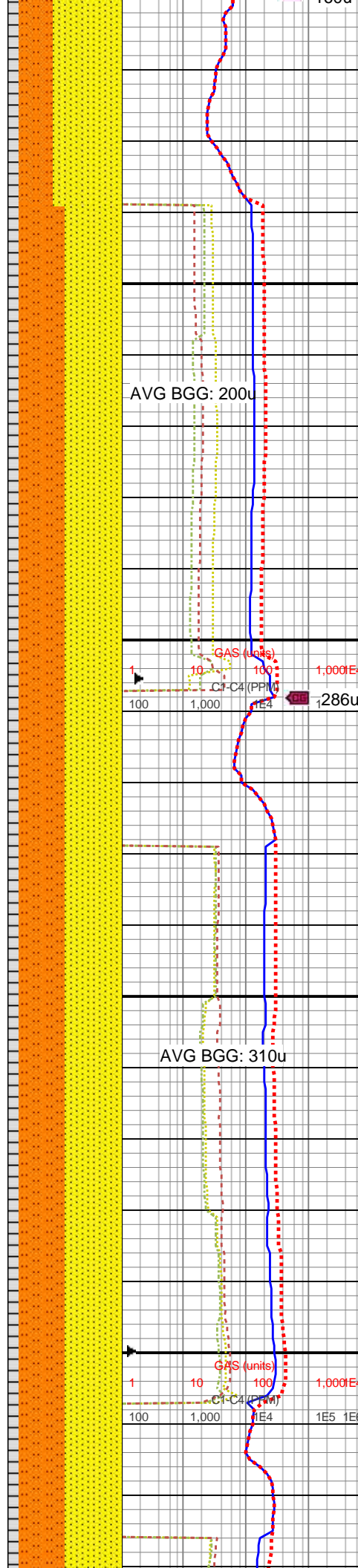
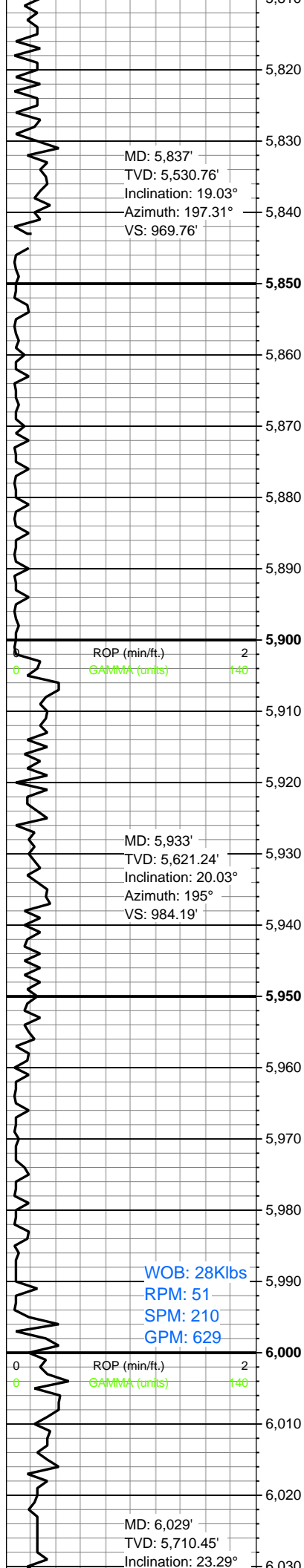
5600-5660 SS: pred med gy- gy brn, sme offwht, trnsl grs thru, blk- sb blk, occ plty, pred f- vf grnd, sme l med grs, pred frm- hd cons clus, pred sb ang- sb rd grs, mod- p srt, incrg sl slty- arg, incrg slty intbds, sil- cal cmt, sme pyr, abnt lith frags, sme glau, tr bent

5660-5720 SS: pred med gy- gy brn, sme offwht, trnsl grs thru, blk- sb blk, occ plty, pred vf grnd- sme f grd, occ l med grs, pred frm- hd cons clus, pred sb ang- sb rd grs, mod- p srt, incrg sl slty- arg, incrg slty intbds, sil- cal cmt, sme pyr, abnt lith frags, tr glau, rr bent

5720-5780 SS: pred med gy- gy brn, sme offwht, trnsl grs thru, blk- sb blk, occ plty, pred vf grnd- sme f grd, occ l med grs, pred frm- hd cons clus, pred sb ang- sb rd grs, mod- p srt, incrg sl slty- arg, incrg slty intbds, sil- cal cmt, sme pyr, abnt lith frags, tr glau, rr bent

5780-5840 SS: pred med gy- gy brn, sme offwht, trnsl grs thru, blk- sb blk, occ plty, pred vf



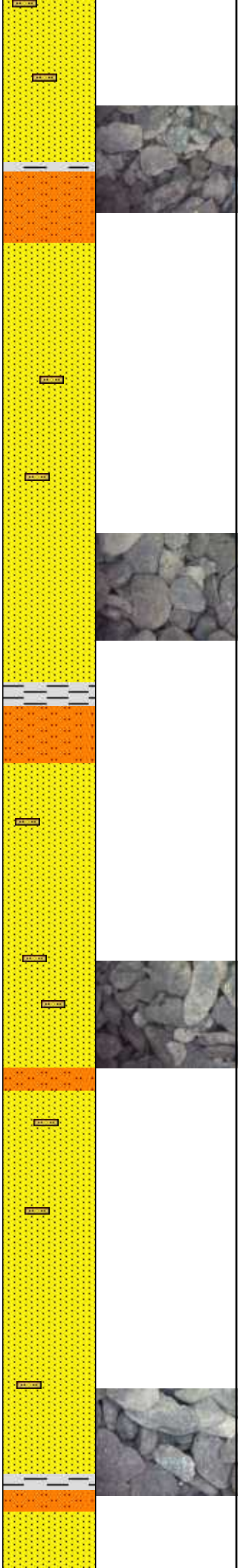


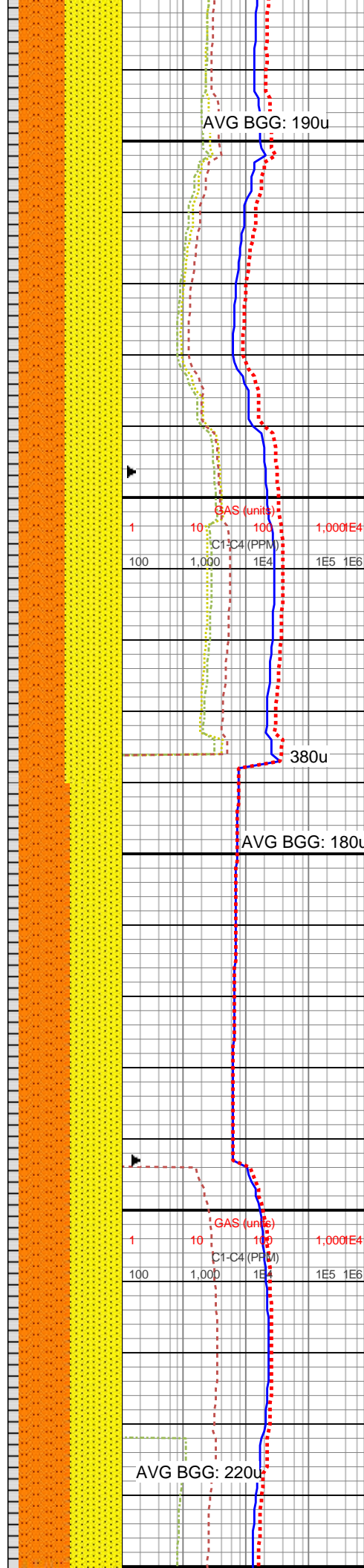
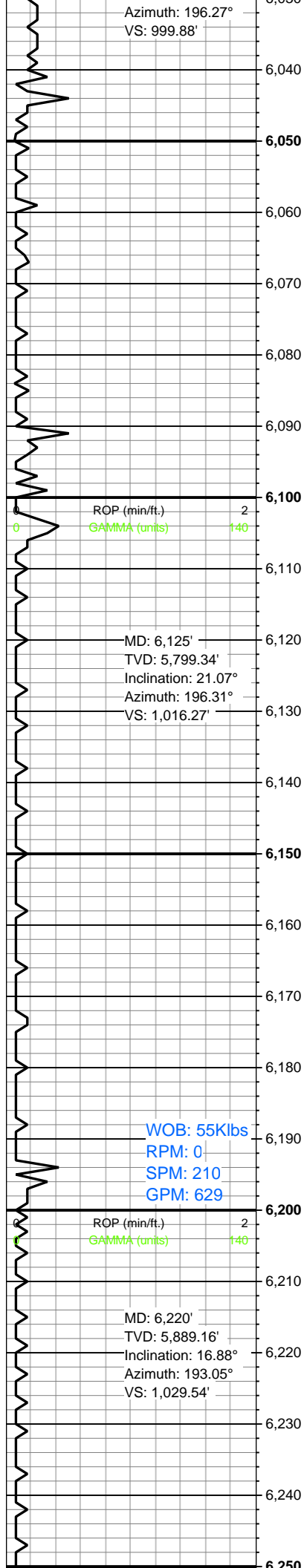
grnd- sme f grd, occ l
med grs, pred frm- hd
cons clus, pred sb ang-
sb rd grs, mod- p srt,
incrg sl slty- arg, incrg
slty intbds, sil- cal cmt,
sme pyr, abnt lith frags, tr
glau, rr bent, p- fr lt bl cut,
sl mky

5840-5900 SS: pred med
gy- gy brn, sme offwht,
trns l grs thru, blk- sb
blk- occ plty, pred vf
grnd- sme f grd, occ l
med grs, pred frm- hd
cons clus, pred sb ang-
sb rd grs, mod- p srt,
incrg sl slty- arg, incrg
slty intbds, sil- cal cmt,
sme pyr, abnt lith frags, tr
glau, rr bent, p- fr lt bl cut,
sl mky

5900-5960 60% SS 40%
SLTST: pred med gy, tr
offwht, ip trns l grs, sb
blk- plty- sb plty, vf grnd,
occ f grs, pred frm- hd
cons clus, pred sb ang-
sb rd grs, pred p srt,
incrg sl slty- arg, incrg
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, rr glau, occ f
lam, p- fr lt bl cut, sl mky

5960-6020 60% SS 40%
SLTST: pred med gy, tr
offwht, ip trns l grs, sb
blk- plty- sb plty, vf grnd,
occ f grs, pred frm- hd
cons clus, pred sb ang-
sb rd grs, pred p srt,
incrg sl slty- arg, incrg
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, rr glau, occ f
lam, p- fr lt bl cut, sl mky





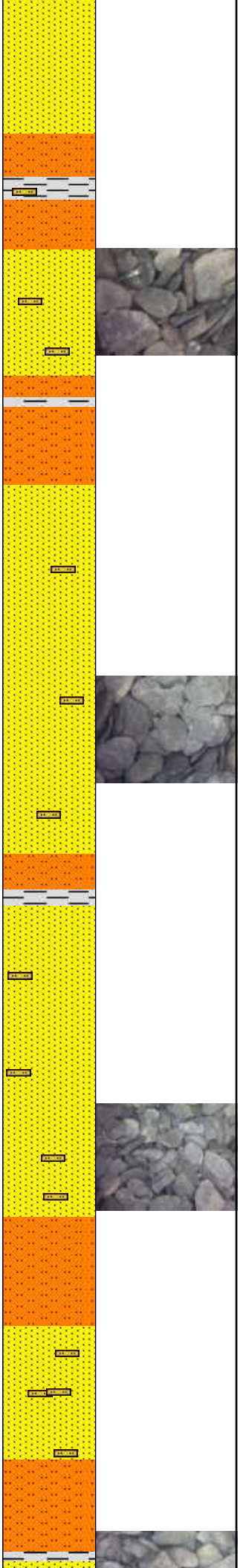
6020-6080 60% SS 40%
SLTST: pred med gy, tr
offwht, ip trnsl grs, sb
blky- plty- sb plty, vf grnd,
occ f grs, pred frm- hd
cons clus, pred sb ang-
sb rd grs, pred p srt,
incrg sl slty- arg, incrg
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, rr glau, occ f
lam, p- fr lt bl cut, sl mky

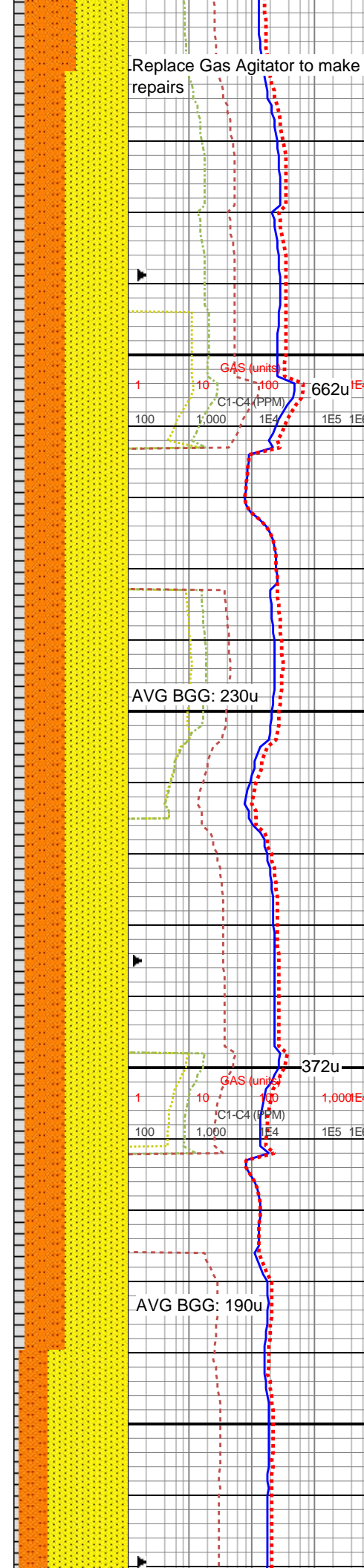
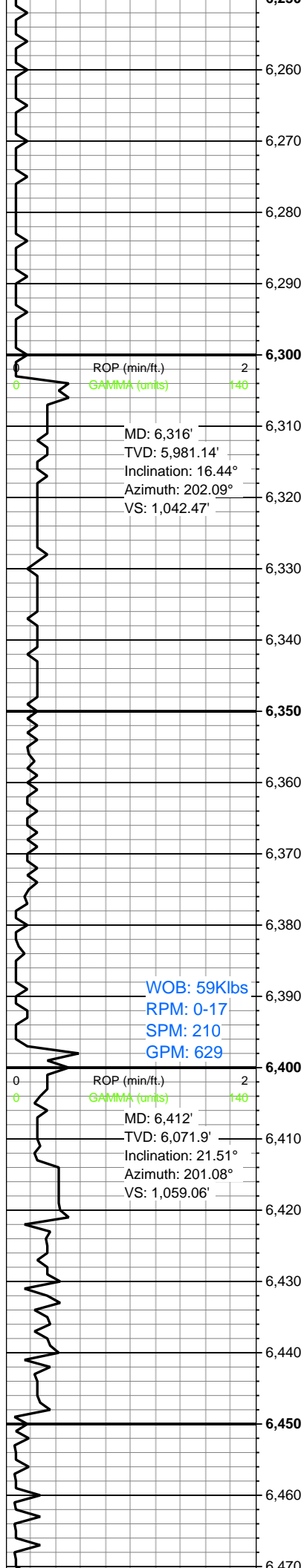
6080-6140 60% SS 40%
SLTST: pred med gy, tr
offwht, ip trnsl grs, sb
blky- plty- sb plty, vf grnd,
occ f grs, pred frm- hd
cons clus, pred sb ang-
sb rd grs, pred p srt,
incrg sl slty- arg, incrg
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, rr glau, occ f
lam, p- fr lt bl cut, sl mky

MW: 9.6
VIS: 37

6140-6200 50% SS 50%
SLTST: pred med gy, tr
offwht, ip trnsl grs, sb
blky- plty- sb plty, vf grnd,
occ f grs, pred frm- hd
cons clus, pred sb ang-
sb rd grs, pred p srt,
incrg sl slty- arg, incrg
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, rr glau, occ f
lam, p- fr lt bl cut, sl mky

6200-6260 50% SS 50%
SLTST: pred med gy, tr
offwht, ip trnsl grs, sb
blky- plty- sb plty, vf grnd,
occ f grs, pred frm- hd
cons clus, pred sb ang-
sb rd grs, pred p srt,
incrg sl slty- arg, incrg
slty- shy intbds, sil- cal





cmt thru, sme pyr, abnt lith frags, rr glau, occ f lam, p- fr lt bl cut, sl mky

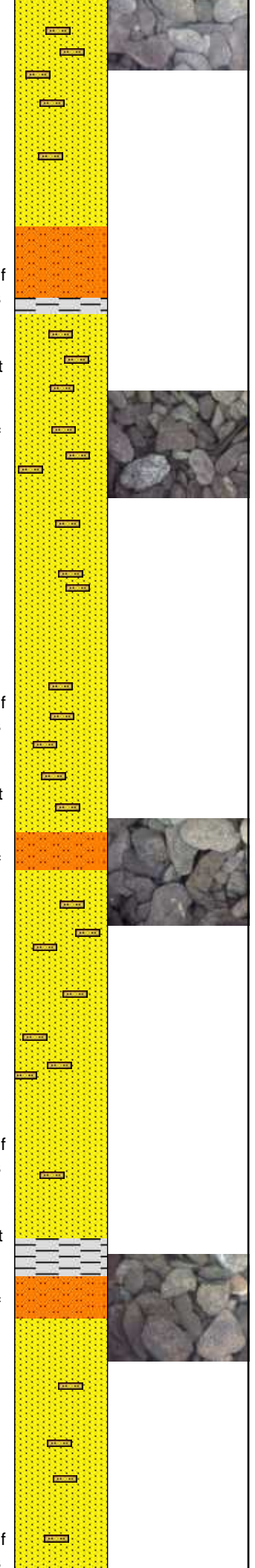
6260-6320 60% SS 40%
SLTST: pred med gy, tr wh- offwht, ip trnsf grs, sme lt brn, pred sb blkyp- sb plty, vf grnd, occ f grs, pred frm- hd cons ss clus, ip sl frm sltst, pred sb ang- sb rd grs, pred p srt, incrg sl slty- arg, abnt slty- shy intbds, sil- cal cmt thru, sme pyr, abnt lith frags, sme glau, occ f lam, fr lt bl cut, sl mky- stmg

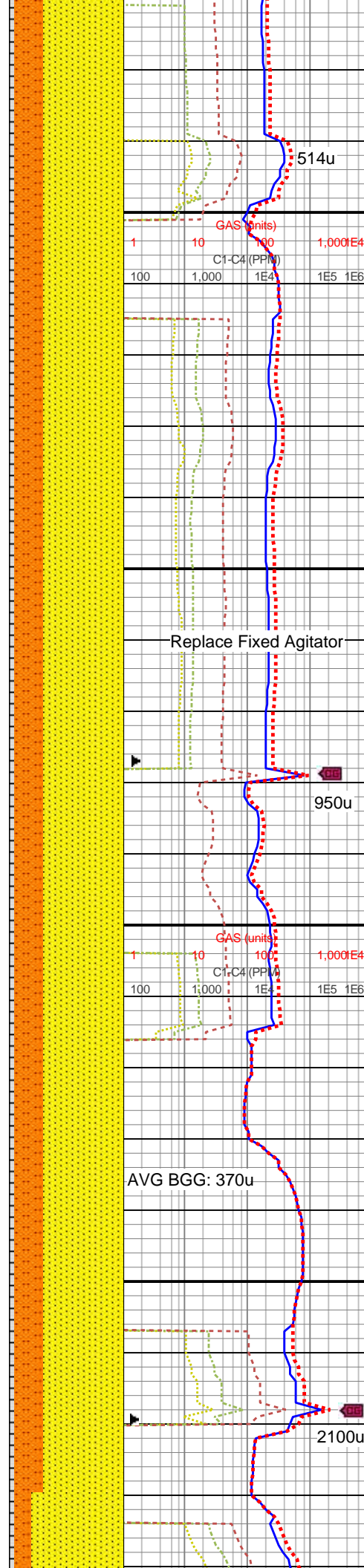
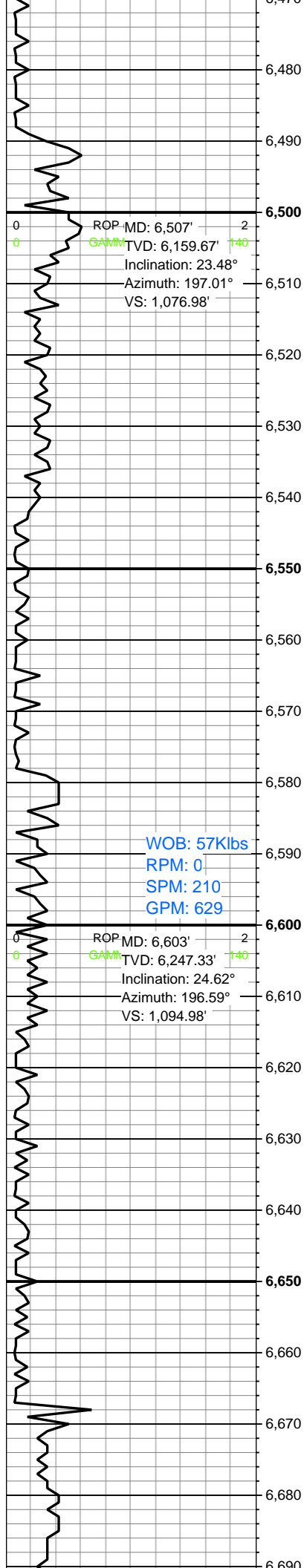
MW: 9.6
VIS: 37

6320-6380 60% SS 40%
SLTST: pred med gy, tr wh- offwht, ip trnsf grs, sme lt brn, pred sb blkyp- sb plty, vf grnd, occ f grs, pred frm- hd cons ss clus, ip sl frm sltst, pred sb ang- sb rd grs, pred p srt, incrg sl slty- arg, abnt slty- shy intbds, sil- cal cmt thru, sme pyr, abnt lith frags, sme glau, occ f lam, fr lt bl cut, sl mky- stmg

6380-6440 60% SS 40%
SLTST: pred med gy, tr wh- offwht, ip trnsf grs, sme lt brn, pred sb blkyp- sb plty, vf grnd, occ f grs, pred frm- hd cons ss clus, ip sl frm sltst, pred sb ang- sb rd grs, pred p srt, incrg sl slty- arg, abnt slty- shy intbds, sil- cal cmt thru, sme pyr, abnt lith frags, sme glau, occ f lam, fr lt bl cut, sl mky- stmg

6440-6500 70% SS 30%
SLTST: pred med gy, tr wh- offwht, ip trnsf grs, sme lt brn, pred sb blkyp- sb plty, vf grnd, occ f grs, pred frm- hd cons ss





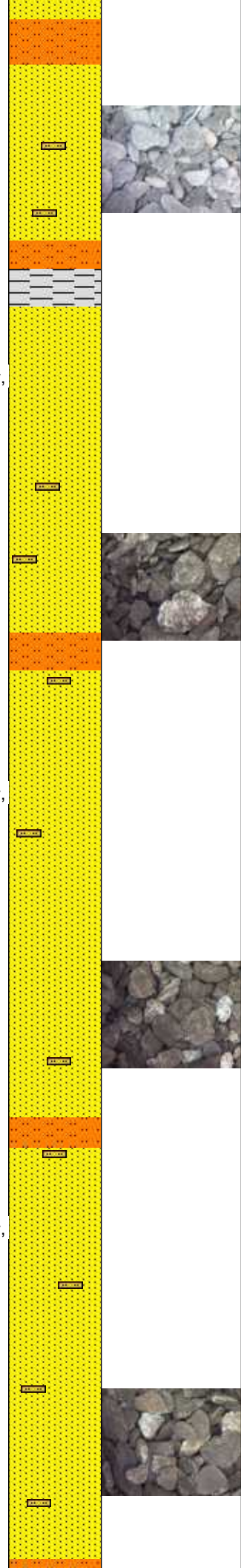
clus, ip sl frm sltst, pred
sb ang- sb rd grs, pred p
srt, incrg sl slty- arg, abnt
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, rr bent, sme
glau, occ f lam, fr lt bl cut,
sl mky- stmng

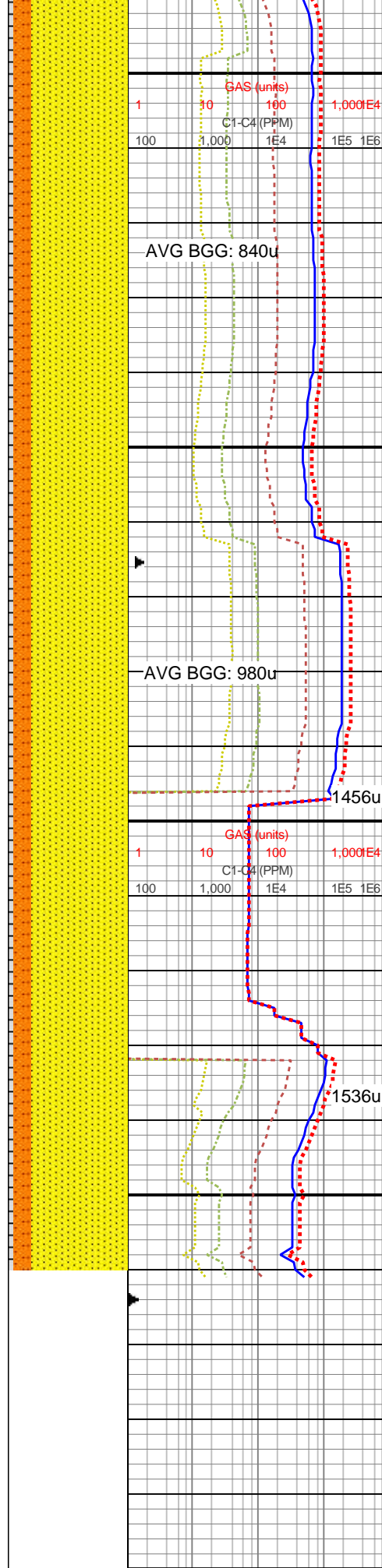
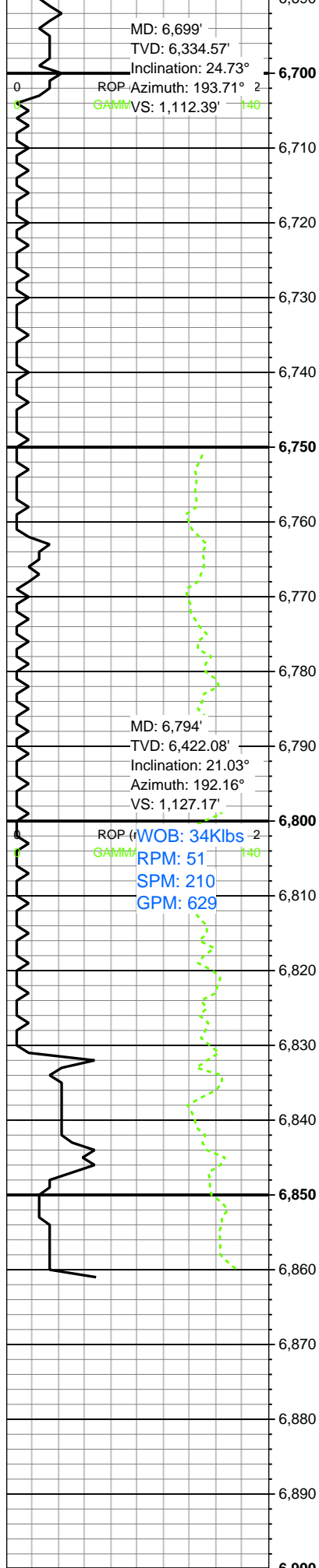
6500-6560 80% SS 20%
SLTST: pred med gy-
offwht, sme trnsI grs, occ
gy brn, pred sb blk- blk,
ip plty- sb plty, pred f- vf
grnd, occ I med grs, pred
frm- hd cons ss clus,
sme sl frm sltst, pred sb
ang- sb rd grs, pred p-
mod srt, sl slty- arg, sme
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, sme glau, occ f
lam, fr- g lt bl cut, sl mky-
sl stmng

6560-6620 80% SS 20%
SLTST: pred med gy-
offwht, sme trnsI grs, occ
gy brn, pred sb blk- blk,
ip plty- sb plty, pred f- vf
grnd, occ I med grs, pred
frm- hd cons ss clus,
sme sl frm sltst, pred sb
ang- sb rd grs, pred p-
mod srt, sl slty- arg, sme
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, sme glau, occ f
lam, fr- g lt bl cut, sl mky-
sl stmng

6620-6680 80% SS 20%
SLTST: pred med gy-
offwht, sme trnsI grs, occ
gy brn, pred sb blk- blk,
ip plty- sb plty, pred f- vf
grnd, occ I med grs, pred
frm- hd cons ss clus,
sme sl frm sltst, pred sb
ang- sb rd grs, pred p-
mod srt, sl slty- arg, sme
slty- shy intbds, sil- cal
cmt thru, sme pyr, abnt
lith frags, sme glau, occ f
lam, fr- g lt bl cut, sl mky-
sl stmng

MW: 9.7
VIS: 37





6680-6740 SS: pred med gy, sme offwht, trnsl grs thru, occ gy brn, pred sb blk- blk, ip plty- sb plty- spl, pred vf grnd, occ f grs, pred frm- hd cons ss clus, sme sl frm arg sltst, pred sb ang- sb rd grs, pred p- mod srt, sl slty- arg, ip slty- shy intbds, sil- cal cmt thru, sme pyr, abnt lith frags, sme glau, occ f lam, fr- g lt bl cut, sl mky

6740-6800 SS: pred med gy, sme offwht, trnsl grs thru, occ gy brn, pred sb blk- blk, ip plty- sb plty- spl, pred vf grnd, occ f grs, pred frm- hd cons ss clus, sme sl frm arg sltst, pred sb ang- sb rd grs, pred p- mod srt, sl slty- arg, ip slty- shy intbds, sil- cal cmt thru, sme pyr, abnt lith frags, sme glau, occ f lam, fr- g lt bl cut, g lt bl resdl ring

MW: 9.8
VIS: 40

6800-6860 SS: pred med gy, sme offwht, trnsl grs thru, occ gy brn, pred sb blk- blk, ip plty- sb plty- spl, pred vf grnd, occ f grs, pred frm- hd cons ss clus, sme sl frm arg sltst, pred sb ang- sb rd grs, pred p- mod srt, sl slty- arg, ip slty- shy intbds, sil- cal cmt thru, sme pyr, abnt lith frags, sme glau, occ f lam, fr- g lt bl cut, g lt bl resdl ring

Log Continued in Horizontal Format

