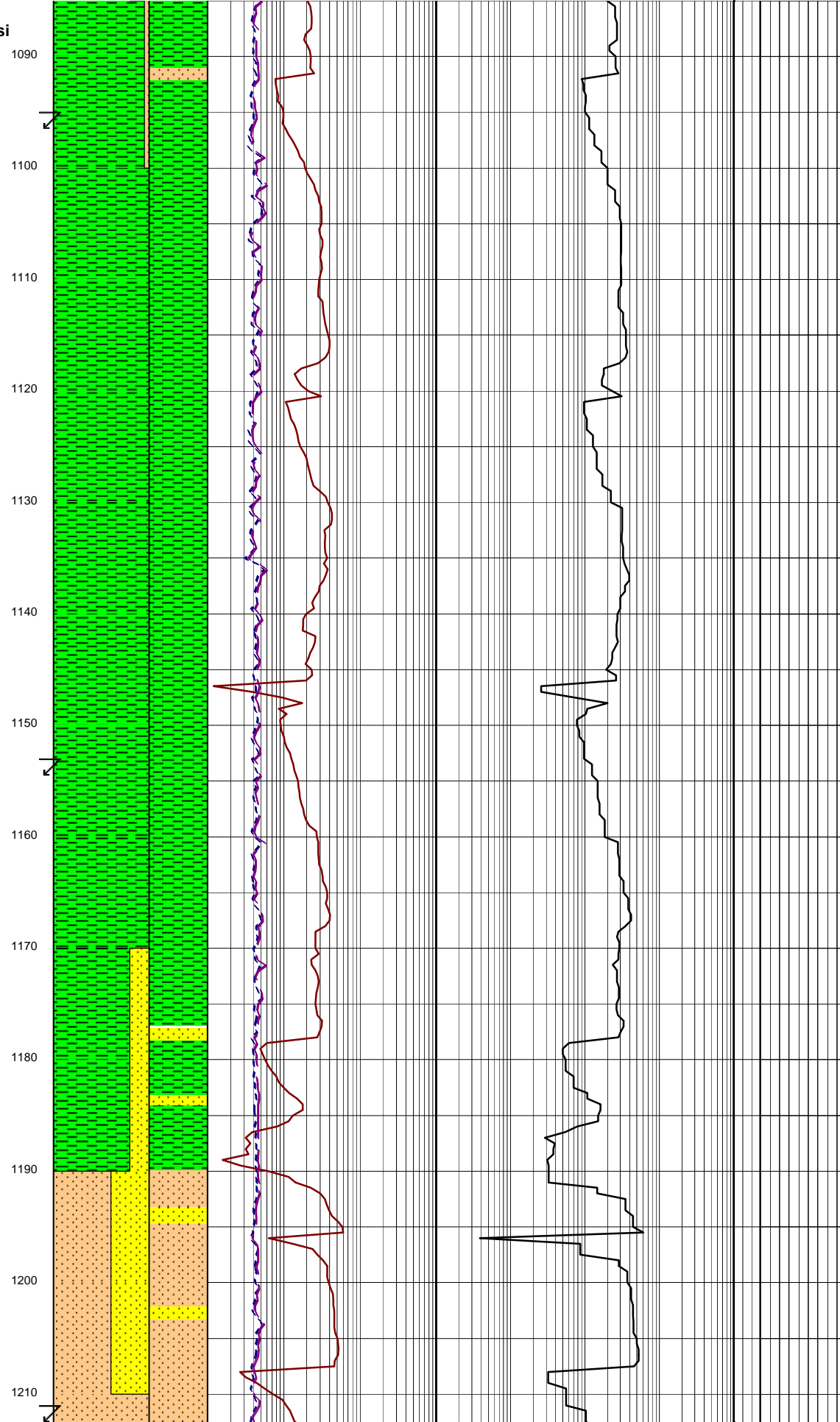


GPM: 916-985
SPP: 1801-2309 psi

MW: 9.0 FV: 52
PV/YP: 12/20
FC: 1/2
SOL: 1.5% SAND: 0.25%
CL: 42,000 mg/l

WOB: 6-10 klbs
RPM: 109-238
GPM: 977-992
SPP: 2304-2322 psi



frags,forams,10% calc cly.

SURVEY @ 1095.87m
Incl: 0.84° AZI: 194.49°
TVD: 1095.82m

CLAYSTONE:med- dk gry,sft-frm,
sbblky-blky,tr micmic,shell frags,
corals,tr vf pyr aggs,10% calc cly.

SURVEY @ 1153.51m
Incl: 1.11° AZI: 191.81°
TVD: 1153.45m

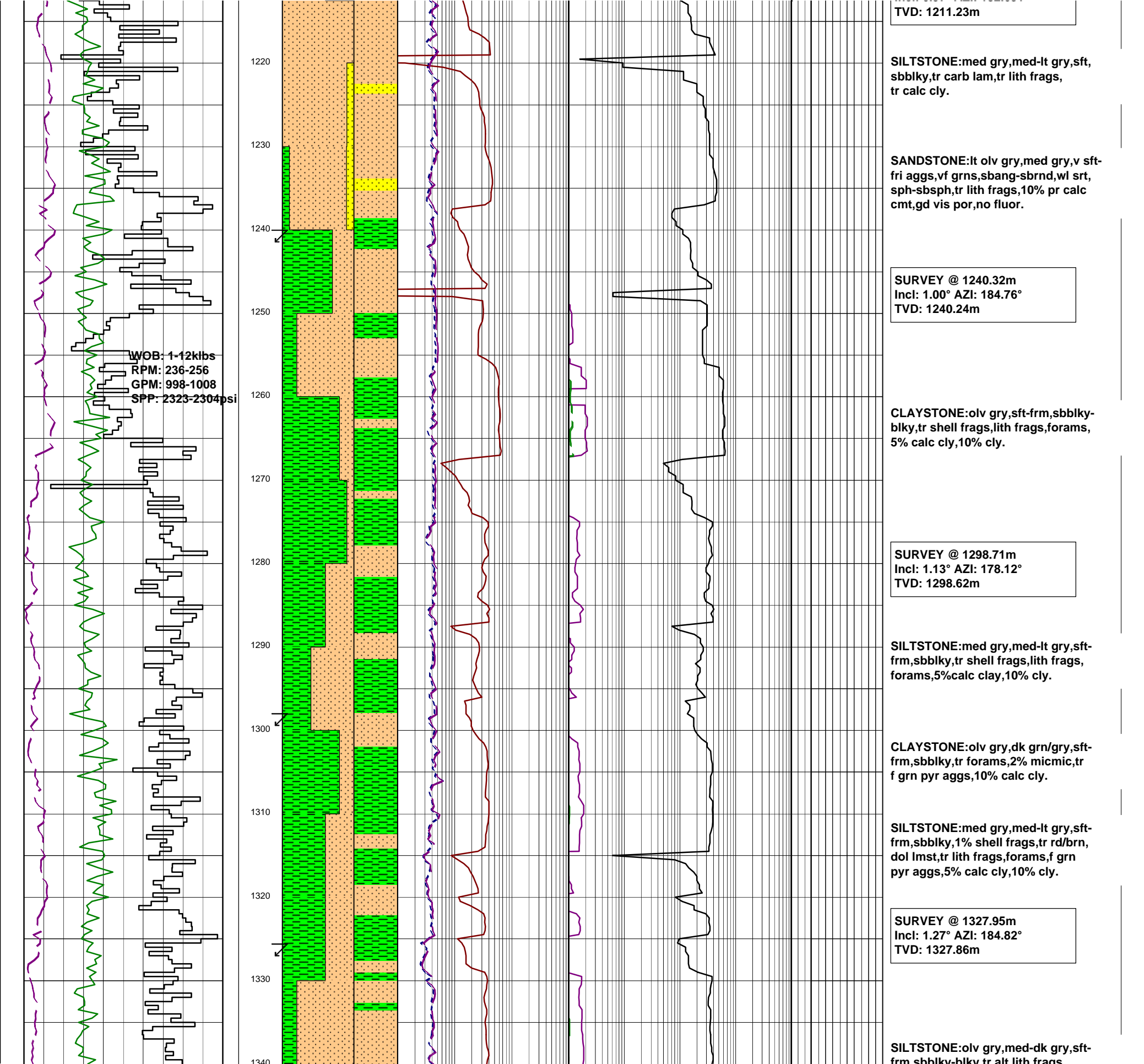
CLAYSTONE:med-dk gry,olv gry,
sft-frm,sbblky-blky,tr micmic,shell
frags,5% calc cly.

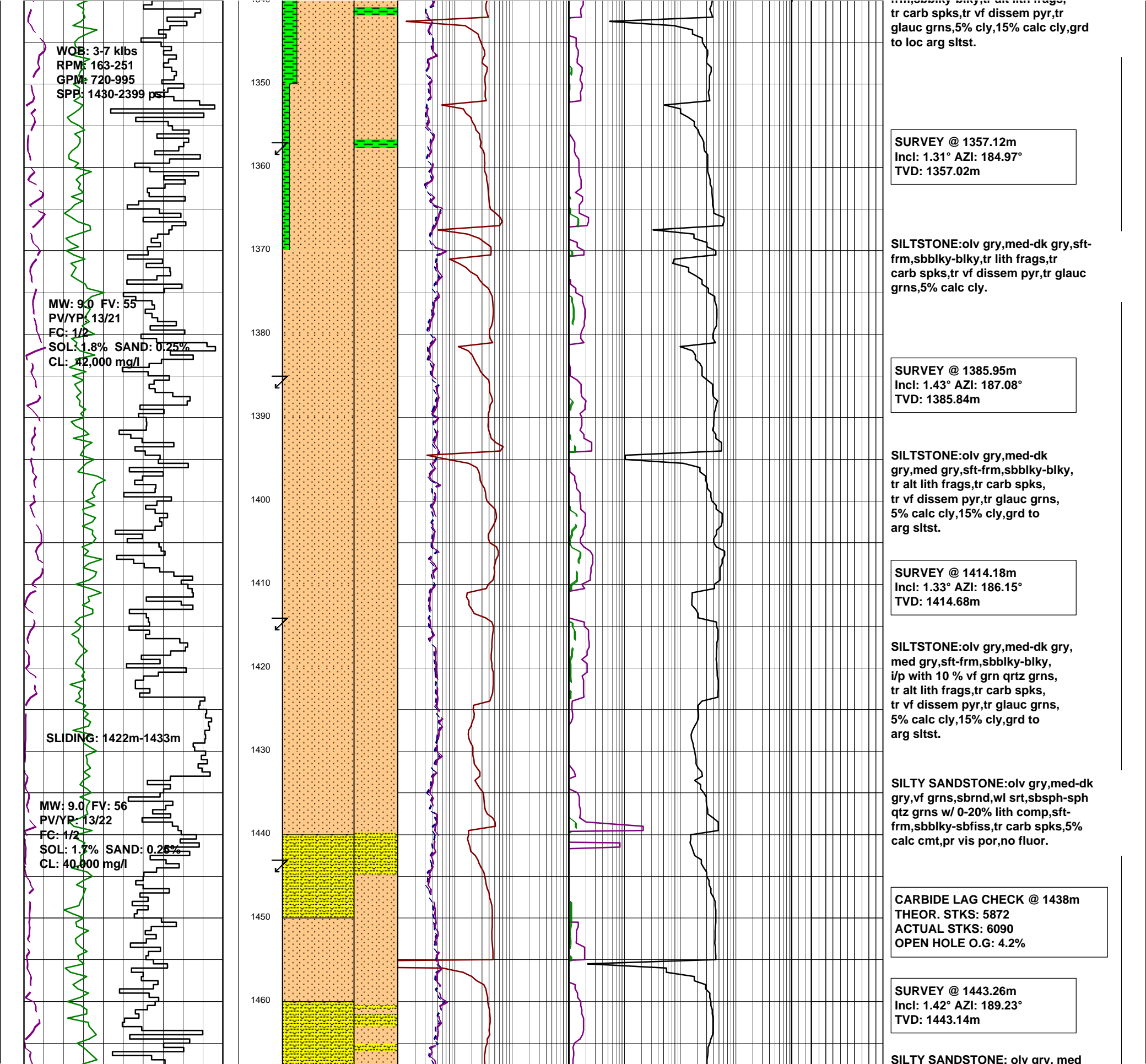
CLAYSTONE:olv gry,drk grn/gry,
sft-frm,sbblky-blky,tr grd to sbfiss,
tr vfg pyg as repl,tr shell frags,
tr micmic,5% calc cly.

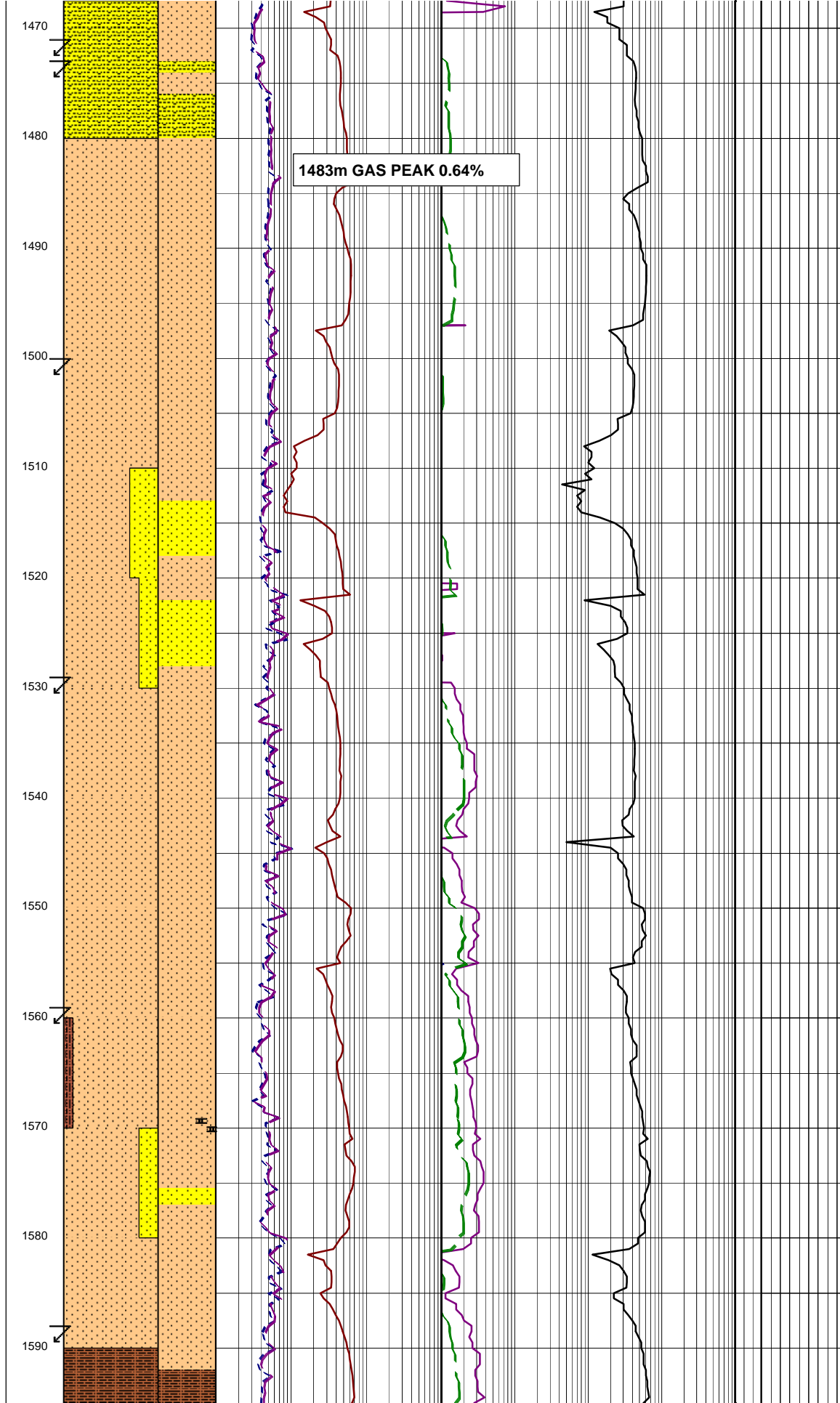
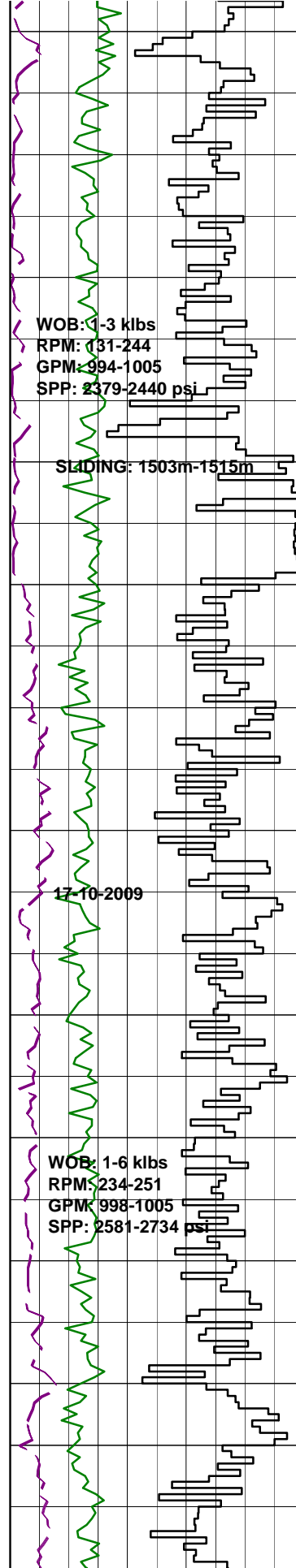
SURVEY @ 1152.36m
Incl: 1.27° AZI: 187.06°
TVD: 1152.29m

SANDSTONE:lt olv gry,med gry,v sft-
fri,vf grns,sbang-sbrnd,wl srt,sph-
sbsph,tr lith frags,10% pr calc cmt,
gd vis por,no fluor.

SURVEY @ 1211.30m
Incl: 0.97° AZI: 182.631°







dk gry,vf grns, sbrnd, wl srt, sbsphr to sphr qrtz grns with 0 to 20% lithic cmpnt, sft-frm, sbly-sbfiss, tr carb spks, 5% calc cmt, pr vis por, no fluor.

SURVEY @ 1471.76m
Incl: 1.41° AZI: 188.77°
TVD: 1471.63m

SILTSTONE:olv gry,med gry, tr dk gry,sft-frm,sbly, tr carb spks,lithic frags,glauc, 5% calcareous clay,10% very fine qrtz sand.

SURVEY @ 1500.56m
Incl: 1.44° AZI: 186.77°
TVD: 1500.42m

SILTSTONE:olv gry,med dk gry, sft-frm,tr fri,ang to sbly, tr carb spks,calcite crys,glauc, lithic frags,5% calc clay,10% clay,15% vf qrtz sand.

SANDSTONE:med dk gry,dk gry, vf grn,sbrnd,wl srt,sbspher-spher qrtz grns with 10-15% lithic frag,5% calc clay cmt, 10% clay comp,por vis por,no fluor.

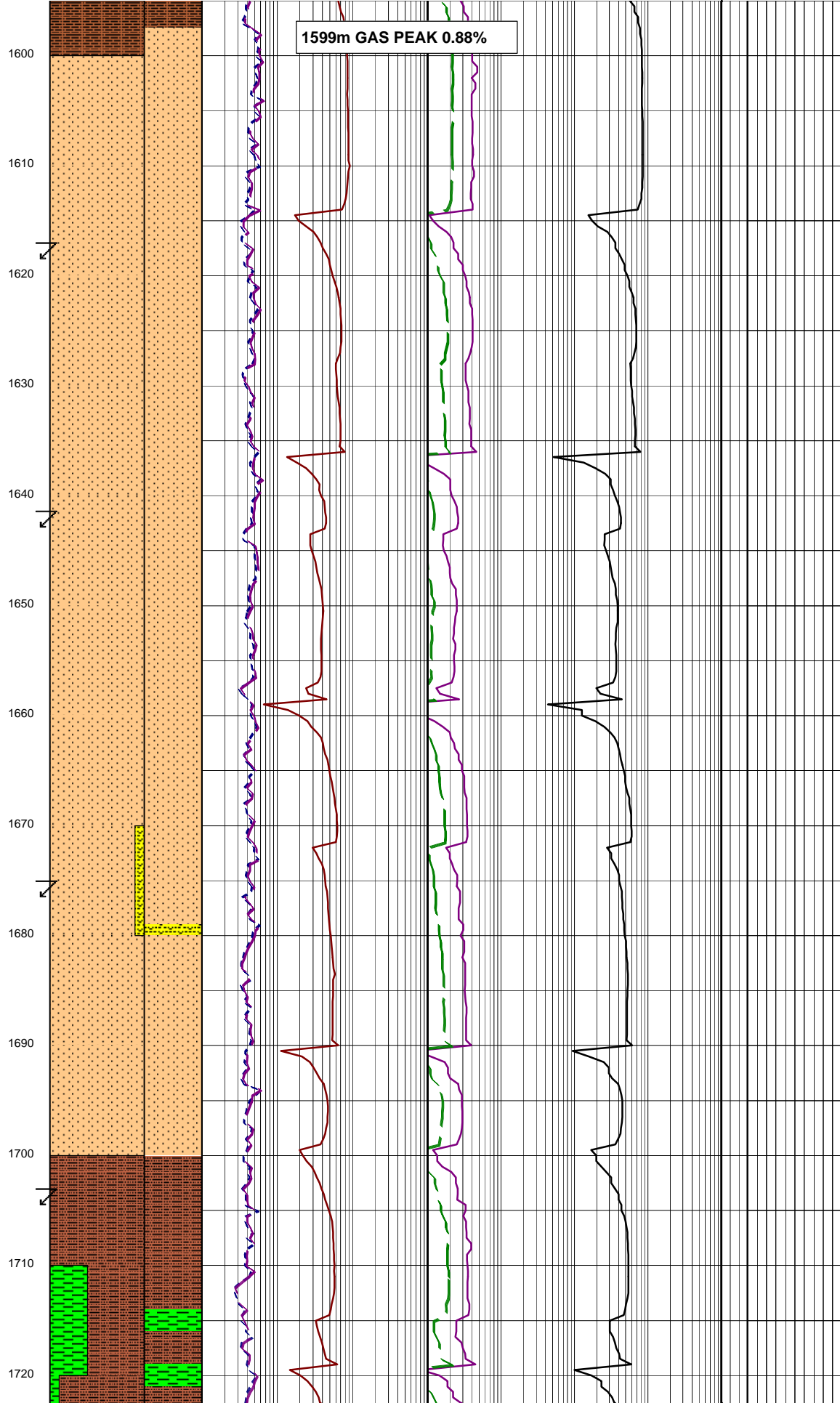
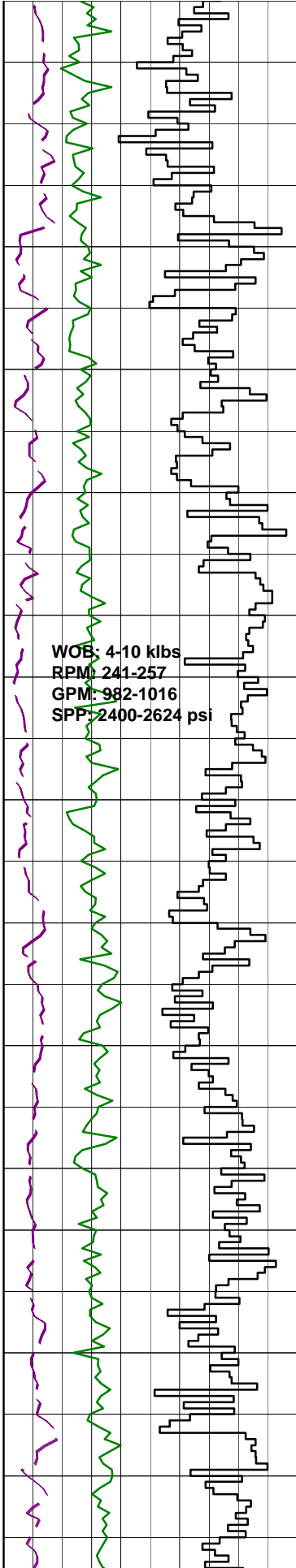
SURVEY @ 1529.74m
Incl: 1.02° AZI: 177.87°
TVD: 1529.59m

SILTSTONE:olv gry,sft-frm, sbly,tr glauc,lithic frags, 5% calc clay,15% clay,10% vf qrtz grns,tr v lt gry highly degraded volcanics.

SURVEY @ 1559m
Incl: 1.11° AZI: 183.32°
TVD: 1558.85m

SANDSTONE:med blu gry, vf grn,sbrnd,wl srt to v wl srt,spher qrtz grns with 10% lithic comp,mod hd-hd,ang-sbly,tr micmic, hgly cmt,10% calc cmt, 10% clay comp,no vis por, no fluor.

SURVEY @ 1588.15m
Incl: 1.05° AZI: 181.86°



TVD: 1587m

SANDY SILTSTONE:olv gry,med dk gry,sft-frm,ang-sbblky, tr carb spks,glauc,lithic frags,micmic,shell frags,5% calc clay,10% clay, 20% vf qrtz sand.

SILTSTONE:olv gry,med gry,sft-frm,sbblky,tr carb spks,glauc, lithic frags,shell frags,5% calc clay,15% clay.

SURVEY @ 1617.27m
Incl: 1.14° AZI: 175.03°
TVD: 1617.11m

SILTSTONE:olv gry,sft-frm, sbblky,tr carb spks,glauc, lithic frag,5% calc clay,10% clay,5% very fine qrtz sand.

SURVEY @ 1646.32m
Incl: 1.17° AZI: 184.16°
TVD: 1646m

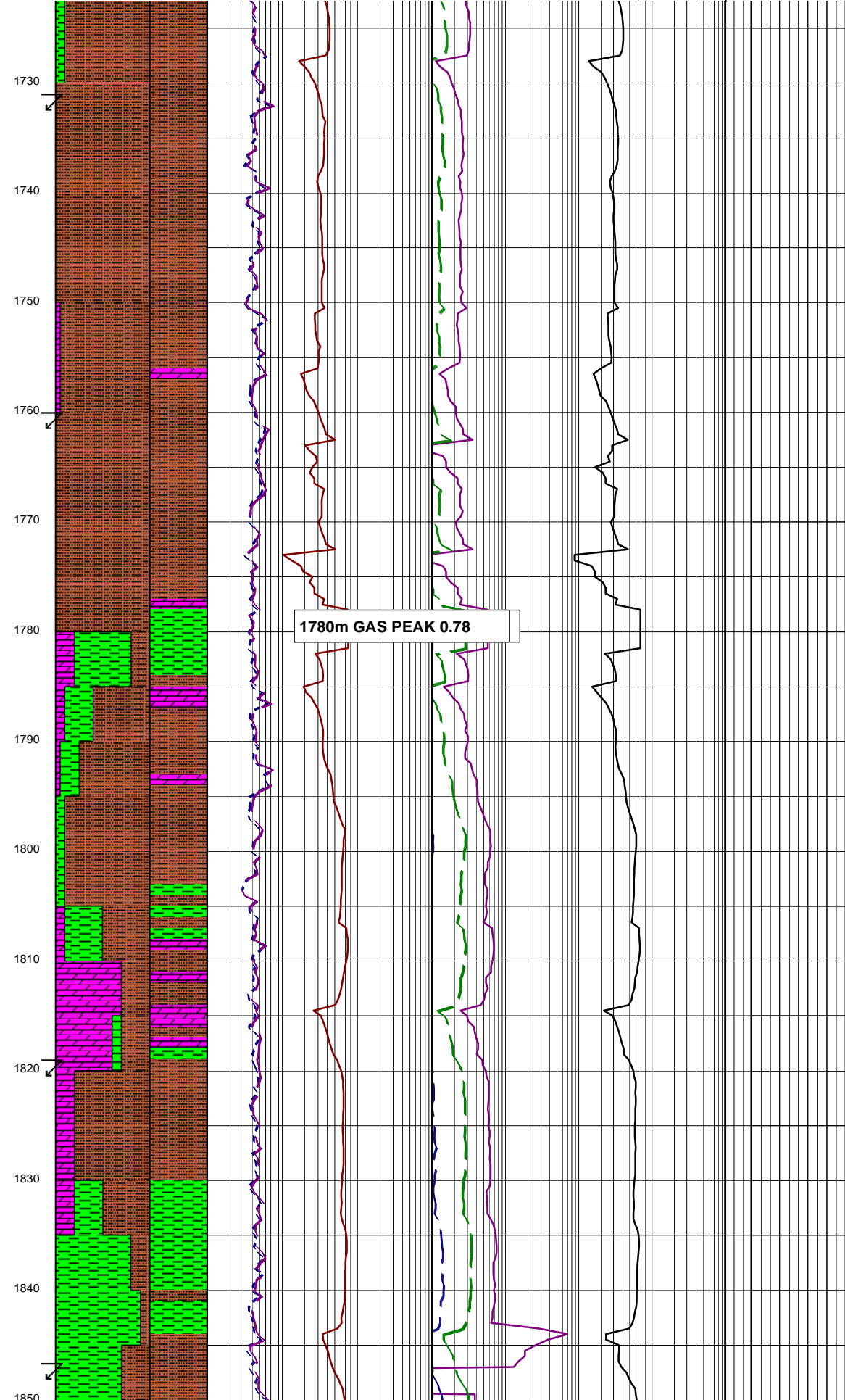
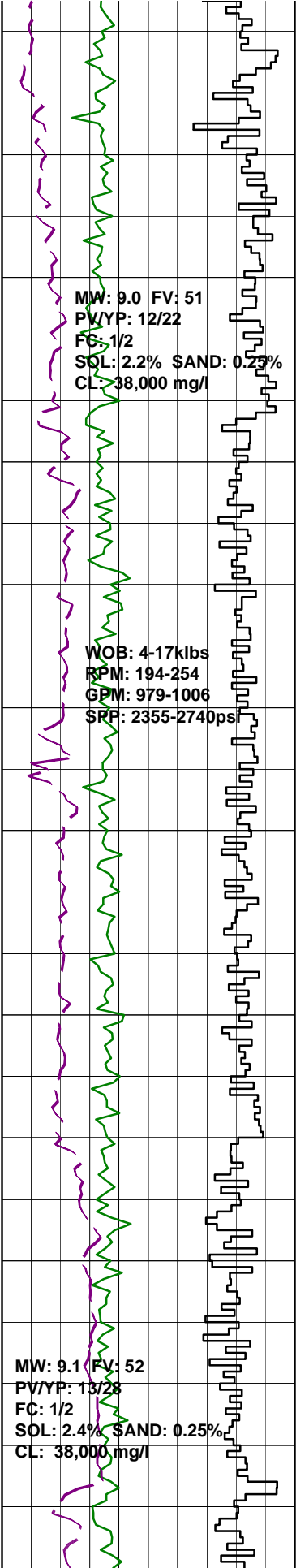
SILTSTONE:olv gry,sft-frm, sbblky,tr carb spks,glauc, tr lithic frag,tr shell frag, 5% calc clay,10% clay,5% vf qrtz sand.

SURVEY @ 1675.15m
Incl: 1.31° AZI: 182.99°
TVD: 1672.97m

SILTY SANDSTONE:med blu/gry,med gry, vf grns,sbrnd,wl-v wl srt,sbspher qtz grns w/ 10% lith comp,mod hd-hd aggs, ang-sbblky,tr micmic,tr calc xtal,tr shell frags,high cmted,10% calc cmt, 25% slt,no vis por,no fluor.

SURVEY @ 1703.61m
Incl: 1.02° AZI: 183.90°
TVD: 1703.43m

CLAYSTONE:olv/blk,sft-frm,sbblky,tr micmic,tr carb spks,5% calc clay.



SURVEY @ 1731.98m
Incl: 1.12° AZI: 176.27°
TVD: 1731.79m

ARGILLACEOUS SILTSTONE: olv/gry, sft-frm, sbblky, tr micmic, tr pyr aggs, tr lith frags, tr foss frags, tr glauc, tr dol, 5% calc clay, 25% vf qrtz sand.

SURVEY @ 1760.71m
Incl: 1.20° AZI: 179.48°
TVD: 1760.52m

ARGILLACEOUS SILTSTONE: olv/gry, sft-frm, sbblky, tr micmic, tr glauc, 5% calc clay, 25% clay.

DOLOMITE: pl yel/brn, dk yel/brn, sft-v hd, spil-sbconch frac, xln-ea i/p, tr opq cal xtal.

ARGILLACEOUS SILTSTONE: olv/gry, sft-frm, sbblky, tr micmic, tr pyr aggs, tr lith frags, tr foss frags, 5% calc clay, 5% vf qrtz sand.

SURVEY @ 1790.08m
Incl: 1.13° AZI: 181.99°
TVD: 1789.88m

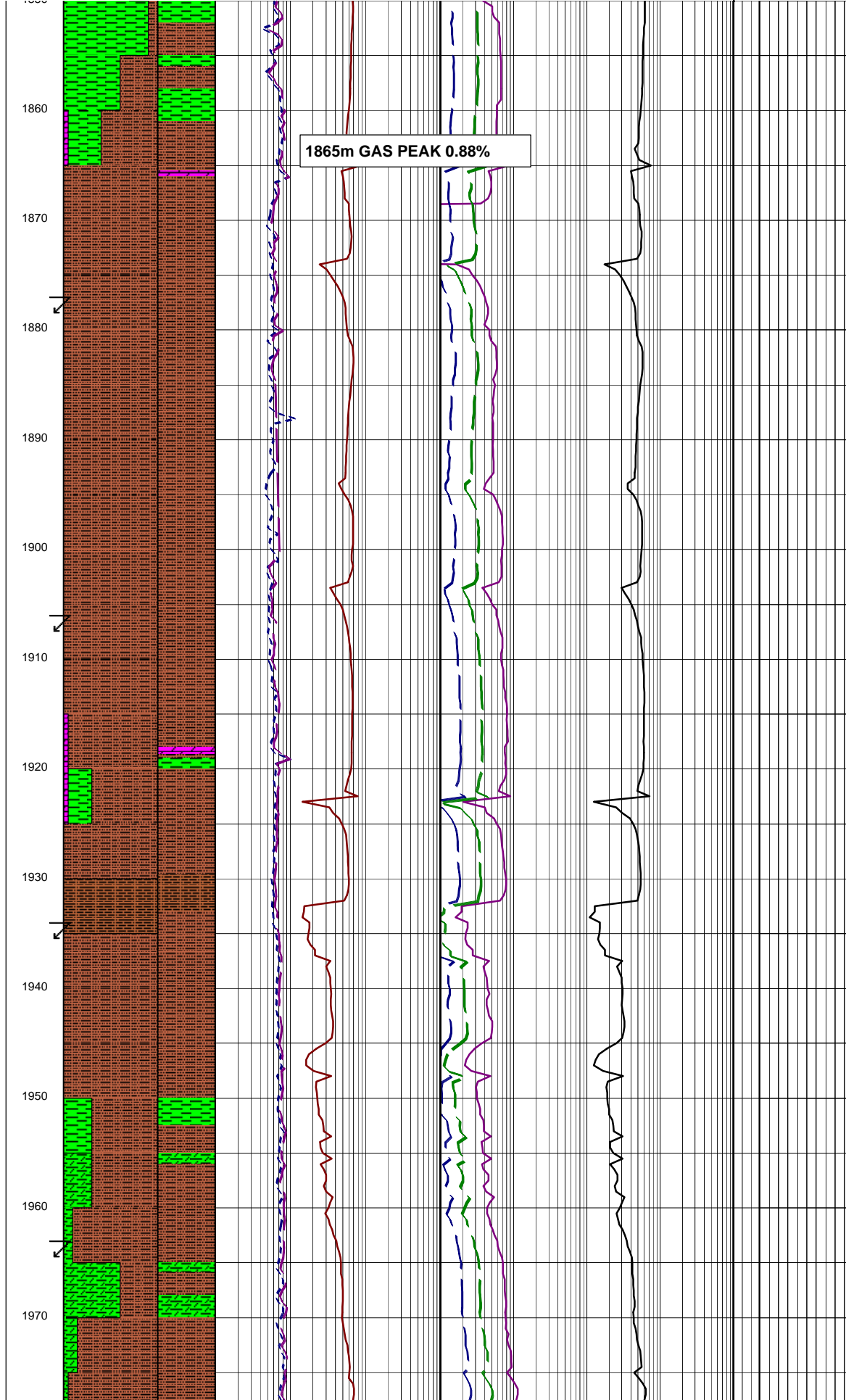
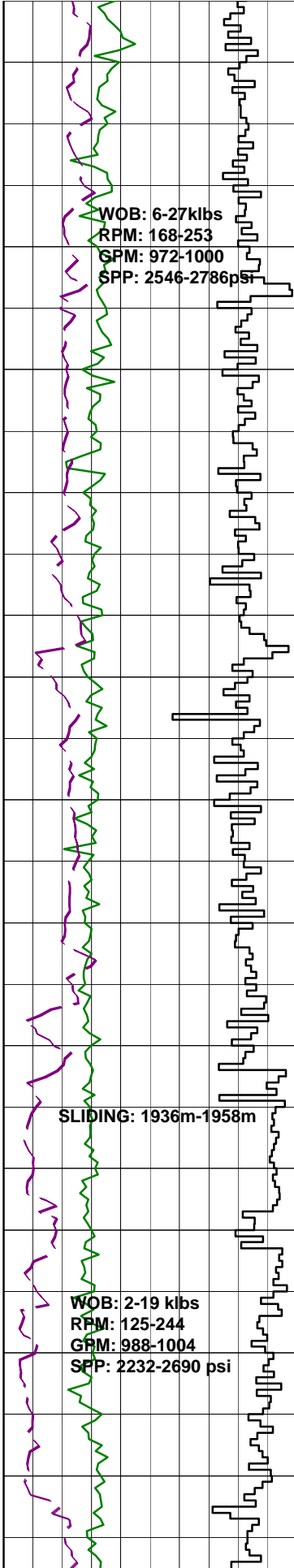
CLAYSTONE: dsky brn, brn/gry, sft, sbblky-stky, tr micmic & glauc.

SURVEY @ 1819.45m
Incl: 1.17° AZI: 182.73°
TVD: 1819.24m

ARGILLACEOUS SILTSTONE: olv/gry, yel/brn i/p, olb/blk, sft-frm, sbblky, tr micmic, 25% clay.

DOLOMITE: pl yel/brn, dk yel/brn, sft-v hd, splin-sbconch frac, xln-ea i/p.

CARBIDE LAG CHECK @ 1843m
THEOR. STKS: 7680
ACTUAL STKS: 8502
OPEN HOLE O.G: 4.2



SURVEY @ 1848.52m
Incl: 1.17° AZI: 190.32°
TVD: 1848.314m

CLAYSTONE:olv blk,olv gry,
tr dk yel brn,sft-frm,sbblky-
blky,micromicas.

DOLOMITE:pl yel brn,frm-hd,
splin-conch frac i/p,ea.

ARGILLACEOUS SILTSTONE:brn
blk,sft-frm,sbblky,tr micmic,
lithic frag,glauc grns,pyr,
5% vf qrtz grns,25% clay.

SURVEY @ 1877.80m
Incl: 1.13° AZI: 190.92°
TVD: 1877.58m

ARGILLACEOUS SILTSTONE:brn blk
olv blk,sft-frm,sbblky-blky,tr
micmic,lithic frag,glauc grns,
tr pyr,25% clay.

ARGILLACEOUS SILTSTONE:brn blk,
olv blk,sft-frm,sbblky-blky,
tr micmic,lithic frag,glauc grns,
pyr,tr dolomite,30% clay.

DOLOMITE:pl yel brn,dk yel brn,
frm-hd,splin frac,xln-microxln
i/p.

CLAYSTONE:med gry,drk gry,vf-
sft,amorph-sbblky,tr micmic,
lithic frag,10% silt sized
frac.

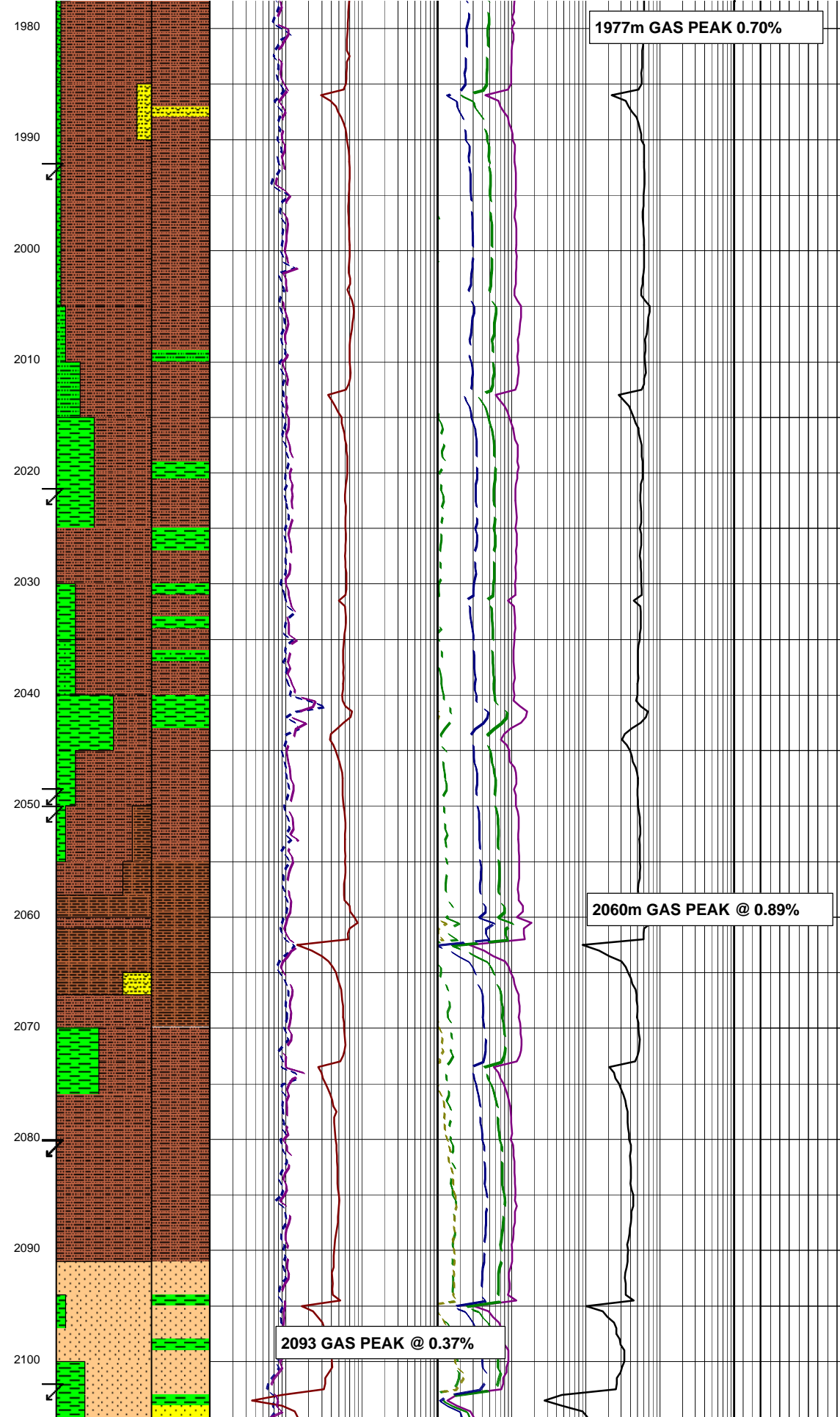
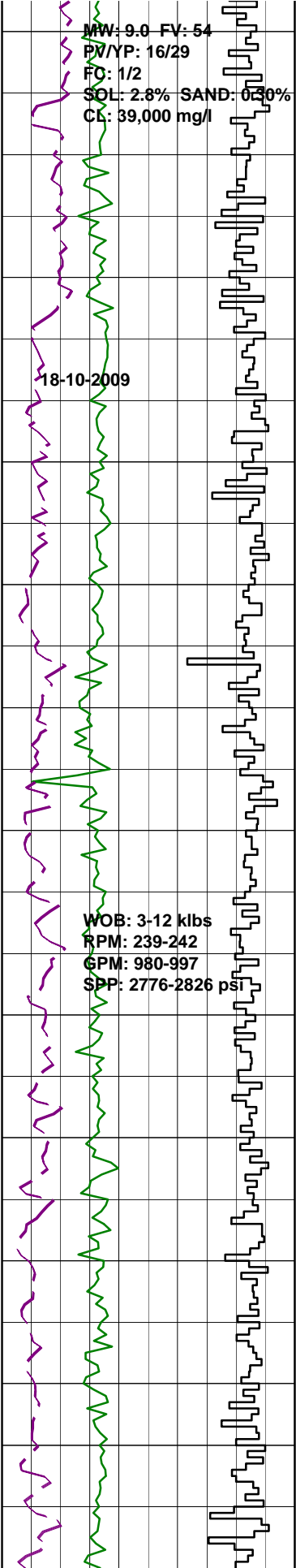
SURVEY @ 1934.67m
Incl: 1.08° AZI: 194.42°
TVD: 1934.44m

ARGILLACEOUS SILTSTONE:brn blk,
ovl blk,sft-frm,sbblky,,tr
micmic,dolomite,20% clay,10% vf
qrtz sand grns.

CLAYSTONE:brn blk,olv blk,v
sft-sft,amorph to sbblky,tr
micmic,tr glauc,10% silt sized
frac.

SURVEY @ 1963.22m
Incl 0.48° AZI:64.50°
TVD:1962.99m

ARGILLACEOUS SILTSTONE:brn blk,
olv blk,sft-frm,sbblky,tr
shell frag,lithic frag,glauc,
20% clay 5% v fine qrtz sand



20% clay, 5% v fine qtz sand.

SILTY SANDSTONE: brn blk, olv blk, vf grn, sbrnd, wl-v wl srt, sub sphr qtz grns, sft-fri, sbblky, tr lithic frag, 15% clay, 25% silt.

SURVEY @ 1992.33m
Incl 0.56° AZI: 59.70°
TVD: 2021.23m

CALCAREOUS CLAYSTONE: med gry, med lt gry, frm-mod hd, sbblky, tr tr calcite vein, lithic frag, shell frag, 10% silt.

SURVEY @ 2021.46m
Incl 0.59° AZI: 61.98°
TVD: 2021.23m

ARGILLACEOUS SILTSTONE: brn blk, olv blk, sft-fri, amorph-sbblky, tr carb spks, lithic frag, 35% clay, 5% calc clay.

CLAYSTONE: med gry, med dk gry, mod hd-hd, ang-sbblky, tr shell frag, micmic, calcite vein, 10% calc clay, 15% silt.

SURVEY @ 2050.74m
Incl 0.68° AZI: 78.76°
TVD: 2050.5m

SANDY SILTSTONE: brn blk, olv blk, sft-fri, sbblky, tr lith frag, 10% clay, 30% vf qtz sand.

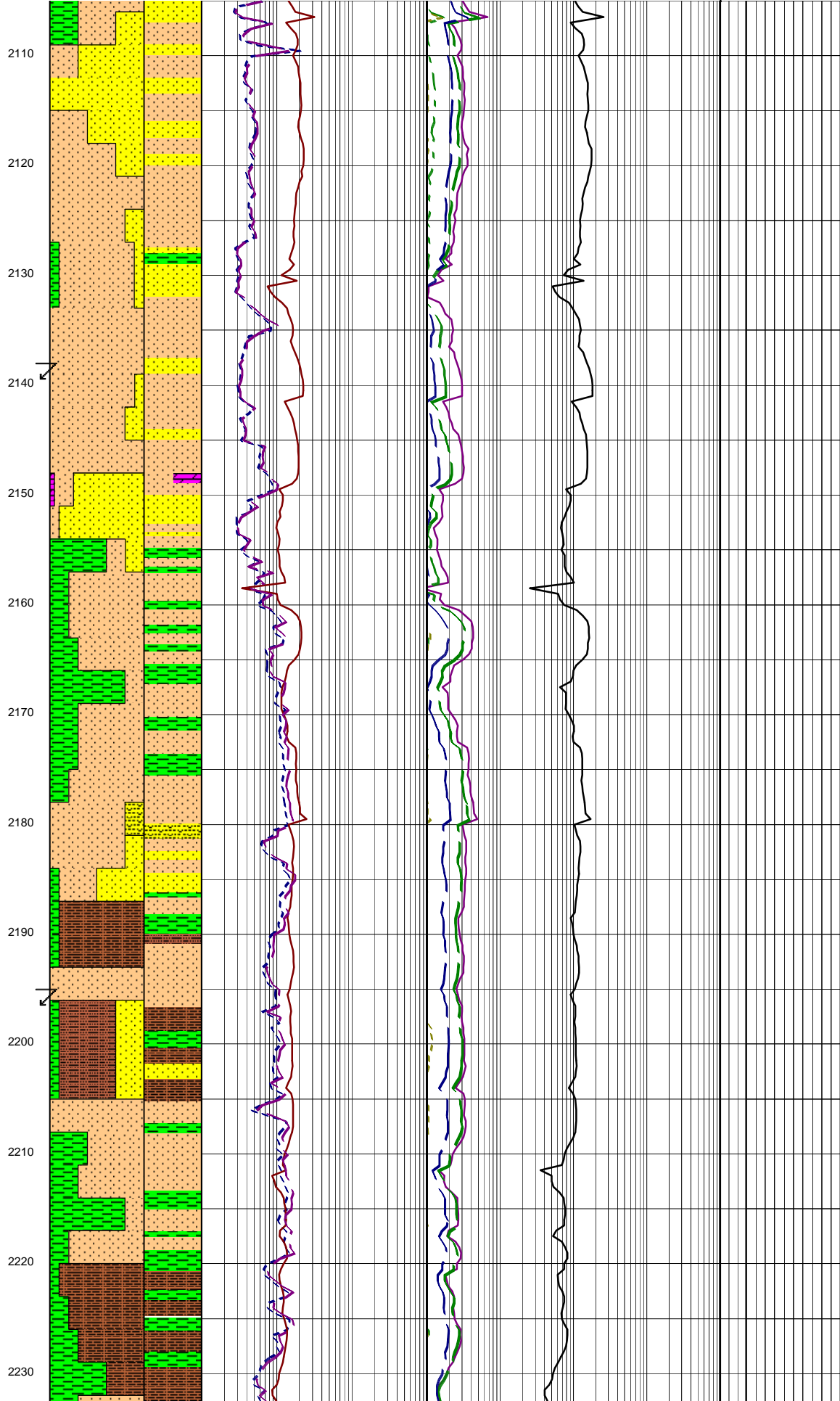
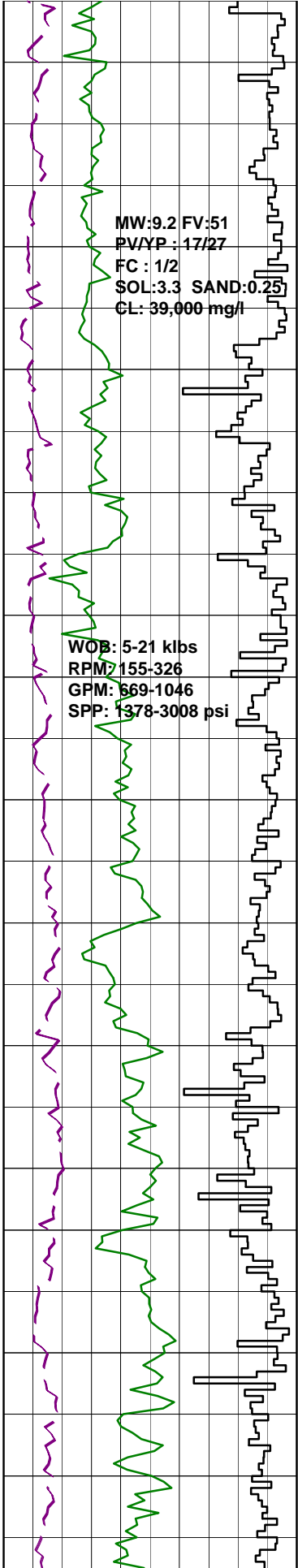
SILTY SANDSTONE: olv gry, lt olv/gry, sbrnd, wl srt, sbsph wtz grns w/ 10% lith comp, frm-mod hd, tr shell frags, micmic, lith frags, 10% calc cmt, pr-nil vis por, no fluor.

CLAYSTONE: brn/blk, olv/blk, v sft-sft, sbblky, tr lith frags, 15% silt.

SURVEY @ 2080.19m
Incl 0.61° AZI: 81.26°
TVD: 2079.95m

SILTSTONE: olv/blk, sft-frm, sbblky, tr lith frags, alt i/p, tr micmic, tr carb spks, 10% dissem vf clr sbrnd qtz grns, 10% cly.

SURVEY @ 2102.2m
Incl 0.68° AZI: 80.27°
TVD: 2101.96m



SANDSTONE:dk grn/gry,mott,dsky yel/ grn,lt gry,vf grns,30% f grns,v sft-frm,sbrnd-sbang,mod wl srt,10% glauc grns & cly,15% cly,pr vis por,no fluor.

CLAYSTONE:dk yel/brn,gry/grn,frm, sbblky,tr carb mat,tr vd pyr,tr cal.

SANDSTONE:mult col,olv/gry,dark grn/ gry,mott,dsky yel/grn,lt gry,qtzos, vf grns,30% f grns,v sft-frm,sbrnd-sbang,mod-wl srt,0-10% glauc grns,15% cly,pr vis por,no fluor.

SILTSTONE:brn/gry,olv/gry,sbblyk, 10% cly,10% vf clr qtz grns,

SURVEY @ 2138.04m
Incl 0.69° AZI:75.36°
TVD:2137.80m

DOLOMITE:brn/gry,mod hd,conch-splin frac,tr glauc grns.

SANDSTONE:clr,opq,pol,frstd,lse qtz grns,20% med,40% crs,30% v crs,10% gran,ang-rnd,v pr-pr srt,sblng-sph, tr wh cly mtx adh to srf,fr vis por inf,no fluor.

SILTSTONE:brn blk,olv blk, sft-fri,tr carb lam,lithic frags,10% clay,10% vf qrtz sand grns.

CLAYSTONE:med blu gry,olv gry,med gry,sft-frm,sbblky, tr micmic,5% clac clay.

SILTY SANDSTONE:brn blk,olv gry,sbrnd,wl srt sbspher,vf, clr,pol qrtz grns,sft-fri,tr liths frags,10% calc cmt,5% rock fluor,pr vis por,no fluor.

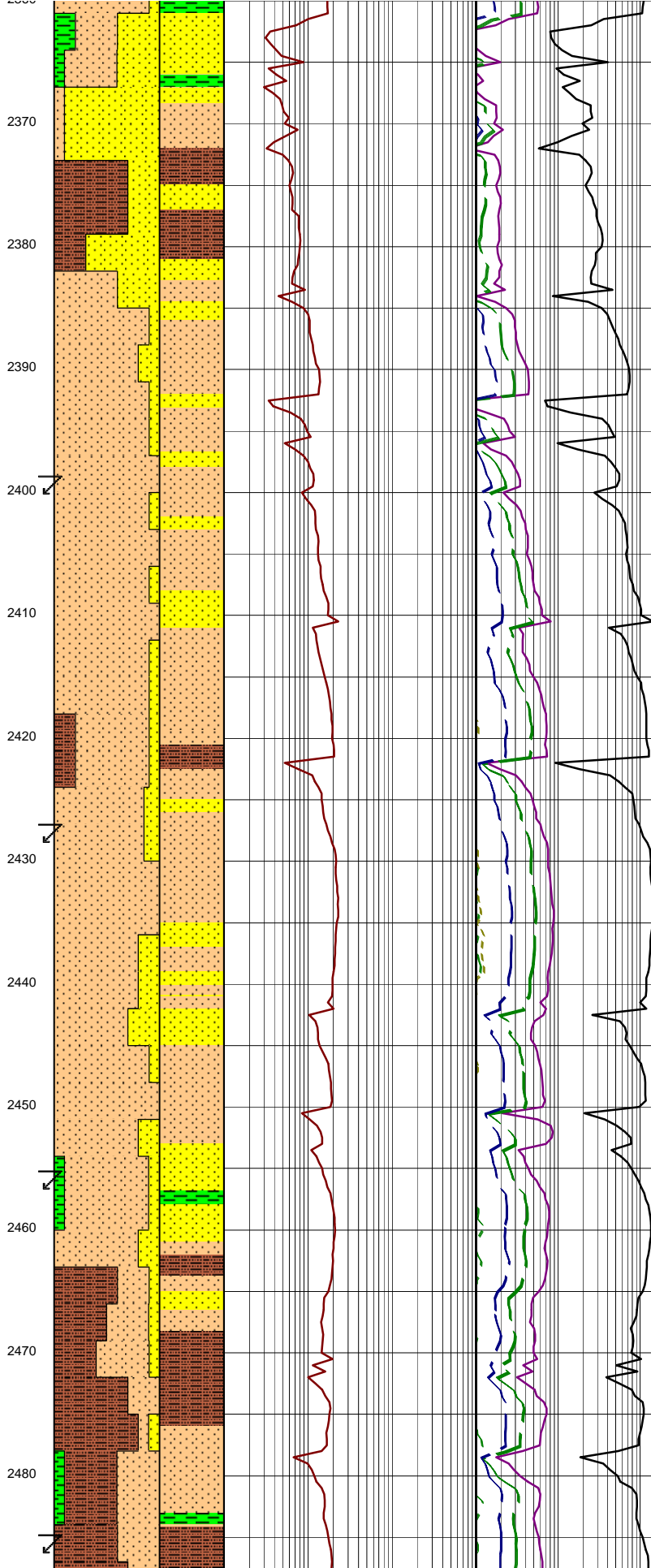
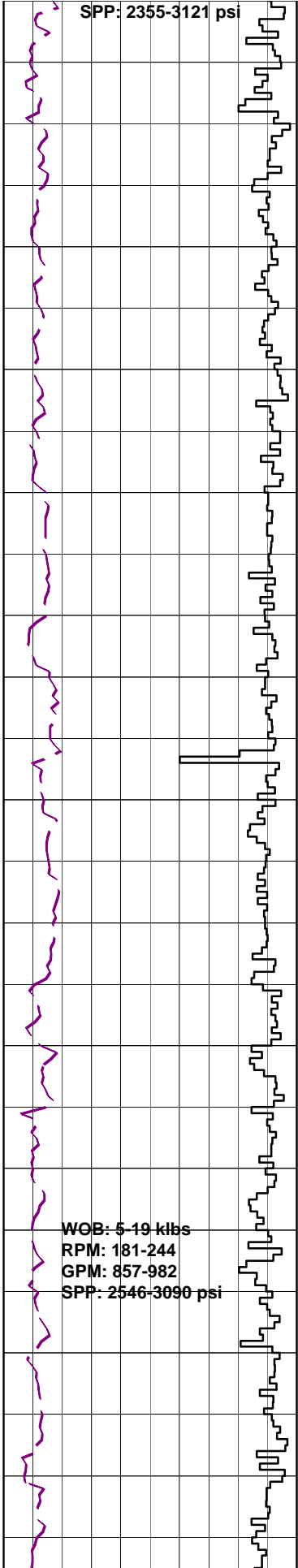
SURVEY @ 2195.19m
Incl 0.63° AZI:82.85°
TVD:2194.94m

CLAYSTONE:med blu gry,olv gry,med gry,frm,sbblky,tr micmic,calcite veining.

SILTSTONE:olv gry,dk yel brn, sft-fri,sbblky,tr carb lam, lithic frags,shell frags,15% clay,vf qrtz sand,10% rock flr.

SANDY SILTSTONE:brn blk,brn gry,olv gry,sft-fri,sbblky, tr f carb lams,lith frags,crs clr qrtz grns,20% vf clr qrtz, 5% rck flr.

SILTY CLAYSTONE:olv gry,med arv,brn blk,sft-frm,sbblky.



2431m GAS PEAK 0.23%

SANDSTONE:olv gry,v lt grym
qrtzose,10% vf,10% med,sbrnd-
sbang,mod srt,sbshpr,fri,tr
lith frgs,i/p wh clay mtx,pr
sil cmt,fr vis por,no fluor.

ARGILLACEOUS SILTSTONE:olv gry,
sft,amorp-stky,tr coal & carb
mat,10% calc clay,30% clay.

SANDSTONE:clr,opq,lt olv gry,
v lt gry,lse & fri,pred f grn,
10% vf,10% vf,10% v crs grn,pr-
v pr srt,sbang-sbrnd,sbshpr-
sbelng,15% wh clay mtx,pr sil cmt,
tr lithic frgs,tr carb mat,pr-
fr vis por,no fluor.

SILTSTONE:brn gry,brn blk,
olv gry,sft-frm,sbblky,tr
lithic frgs.thn carb thrds & spks.

SURVEY @ 2398.22m
Incl 0.81° AZI:98.78°
TVD:2397.96m

SANDSTONE:lt olv gry,v lt gry,
f grn,fri,sbang-sbrnd,mod srt,
sbshpr,fr vis por,no fluor.

ARGILLACEOUS SILTSTONE:olv gry,
lt gry,brn gry,sft,amorph,tr
coal & carb mat,30% clay.

SURVEY @ 2426.57m
Incl 1.08° AZI:93.16°
TVD:2426.30m

SANDSTONE:lt olv gry,v lt gry,
f grn,fri,sbang-sbrnd,mod
srt,subshpr,fr vis por,no fluor.

CARBIDE LAG CHECK @ 2449m
THEOR. STKS: 9730
ACT. STKS: 10505
OPEN HOLE O.G : 7.5 % (13.15" equiv)

SURVEY @ 2454.95m
Incl 0.96° AZI:91.77°
TVD:2454.68m

SANDSTONE:lt olv gry,v lt gry,
fri-lse,f grn,10% vf,10% med,
10% lse crs qrtz grns,sbang
(shthd i/p)-sbrnd,mod-pr srt,
sbsphr-sbelng,5% pr sil cmt,fr
vis por,no fluor.

ARGILLACEOUS SILTSTONE:olv
gry,lt gry,brn gry,sft,amorph-
stkcy,tr coal & carb mat,30%
clay.

SURVEY @ 2484.55m
Incl 1.06° AZI:89.94°
TVD:2484.27m

