

| | | | | |
|---------------|-----------------------------|----------------|--------------|-------------|
| COMPANY | ORIGIN ENERGY ORIGIN ENERGY | | SPUD DATE | 19-09-2005 |
| RIG | CENTURY 7 | | TD DATE | TD DATE |
| AREA | PEP 154 | | TD DRILLER | TD DRILLER |
| STATE/COUNTRY | VICTORIA, AUSTRALIA | | TD WIRELINE | TD WIRELINE |
| LOCATION | 38°29'31.96"S | 142°44'46.66"E | LOGGED FROM | LOGGED FROM |
| GROUND LVL | 46.17m | | LOGGED TO | TD WIRELINE |
| RT HEIGHT | 5.3m | | FINAL STATUS | STATUS |
| DEPTH REF | ROTARY TABLE | | | |

| | | | | | | |
|--------------------|----------------|-------------|------------------|--------------------|-----------|--------------|
| WELL CONFIGURATION | | | | LOGGING ENGINEERS | | SCALE 1/ 200 |
| BIT SIZE | HOLE DEPTH (m) | CASING SIZE | CASING DEPTH (m) | Rory McLellan | Aroop Dev | |
| 311mm | 551m | 245mm | 544.5m | W.S.G. John Hobday | | |

SYMBOLS

- NEW BIT RUN
- NEW CORE BIT RUN
- CASING SHOE
- LINER HANGER
- MUD LOSS / MUD GAIN
- Recovered SIDEWALL CORES
- Not Recovered

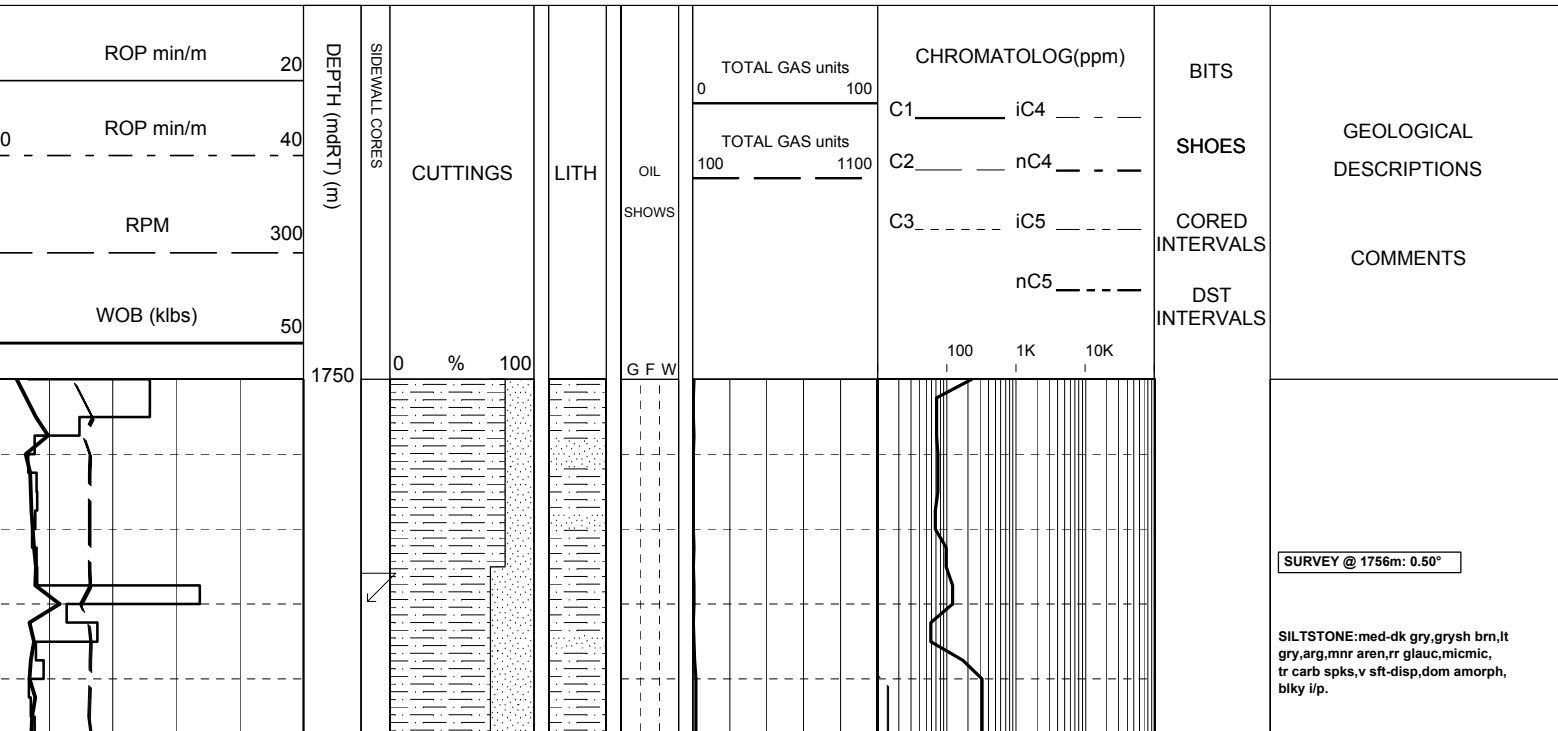
ABBREVIATIONS

| | |
|-------------------------|-------------------------------|
| NB NEW BIT | DS DIRECTIONAL SURVEY |
| NCB NEW CORE BIT | WT WIPER TRIP |
| RRB RE-RUN BIT | POOH PULL OUT OF HOLE |
| CS CASING SHOE | RIH RUN IN HOLE |
| SWC SIDE WALL CORE | AZI AZIMUTH |
| EL ELECTRIC LOG | INCL INCLINATION |
| WOB WEIGHT ON BIT | LCM LOST CIRCULATION MATERIAL |
| RPM REVOLUTIONS/MINUTE | DC DEPTH CORRECTION |
| SPP STAND PIPE PRESSURE | DST DRILL STEM TEST |
| SPM STROKES/MINUTE | RMG REAMING |
| CR CIRCULATED RETURNS | ML MUD LOSSES |
| PR POOR RETURNS | FR FLOW RATE |
| NR NO RETURNS | FC FLOW CHECK |
| TG TRIP GAS | BR BIT RUN |
| CG CONNECTION GAS | MMCFD Million Cubic Feet/Day |
| WTG WIPER TRIP GAS | U UNITS OF GAS |
| SG SWAB GAS | FLUOR FLUORESCENCE |

MUD DATA

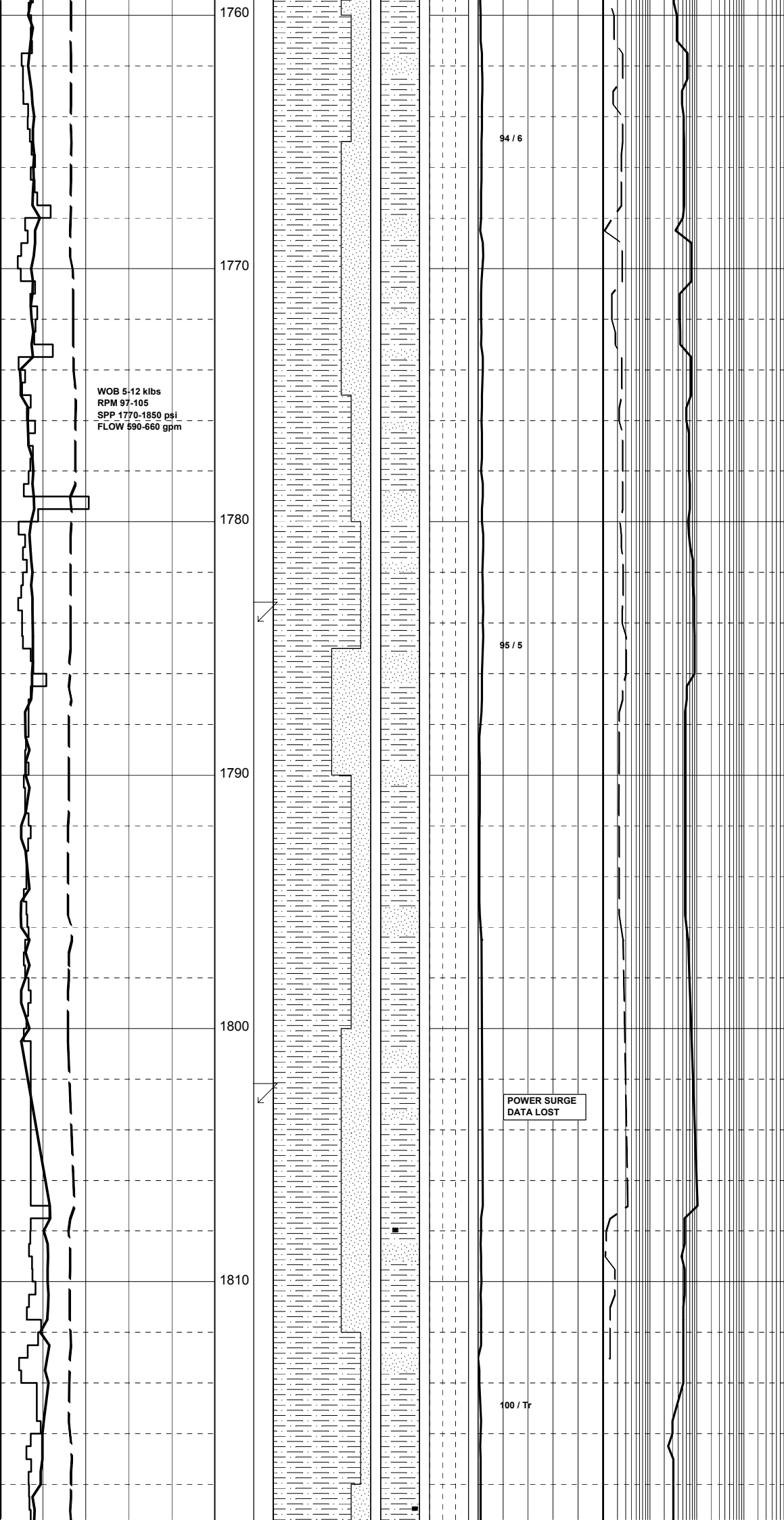
| | |
|------------------------|----------|
| MW MUD WEIGHT | sg(kg/l) |
| MG MUD GRADIENT | KPA/mt |
| FV FLUID VISCOSITY | sec |
| PV PLASTIC VISCOSITY | Cp |
| YP YIELD POINT | lb/cf2 |
| Gel GEL STRENGTH | lb/cf2 |
| pH ACIDITY | |
| F FILTRATE | cm3/30 |
| Ck CAKE THICKNESS | cm/32 |
| S SALINITY | kg/m3 |
| SD SAND CONTENT | % |
| O OIL CONTENT | % |
| WL WATER LOSS | cm3/30 |
| Sol SOLIDS CONTENT | % |
| Cl CHLORIDES | |
| KCl POTASSIUM CHLORIDE | mg/l |
| Ca CALCIUM CONTENT | |

| | | | | | | | | |
|--------------|----------------|-----------------|-------------|---------------|--------------|--------------|----------------|--------------|
| CLAYSTONE | MEDIUM SST | LIMESTONE | GYPSUM | TUFF | FERRUGINOUS | CALCAREOUS | GLAUCONITE | MICROFOSSILS |
| SILTSTONE | FINE SANDSTONE | DOLOMITIC LIMES | HALITE | VOLCANIC ROCK | FORAMINIFERA | DOLOMITIC | MICACEOUS | FOSSILS |
| CONGLOMERATE | VF SANDSTONE | DOLOMITE | CEMENT | IGNEOUS ROCK | BRYOZOA | CARBONACEOUS | PYRITE | LITHICS |
| COARSE SST | BRECCIA | COAL | CALCARENITE | METAMORPHICS | FELDSPAR | CHERTY | BROKEN FOSSILS | SIDERITE |



SURVEY @ 1756m: 0.50°

SILTSTONE: med-dk gry, grysh brn, lt gry, arg, mnr aren, rr glauc, micmic, tr carb spks, v sft-disp, dom amorph, blkly i/p.



SANDSTONE:trnsi-clr,wh-off wh,v lt gry,vf-f,tr med,mod wl srt,sbang-sbrnd, loc abdt pl gry-brn arg mtx,tr kaol mtx, grd to aren SLTST i/p,tr glauc,carb spks,dom fri,rr mod hd,pr vis por,no fluor.

SILTSTONE:med-dk gry,grysh brn,lt gry,arg,mnr aren,rr glauc,micmic, tr carb spks,v sft-disp,dom amorph, bky i/p.

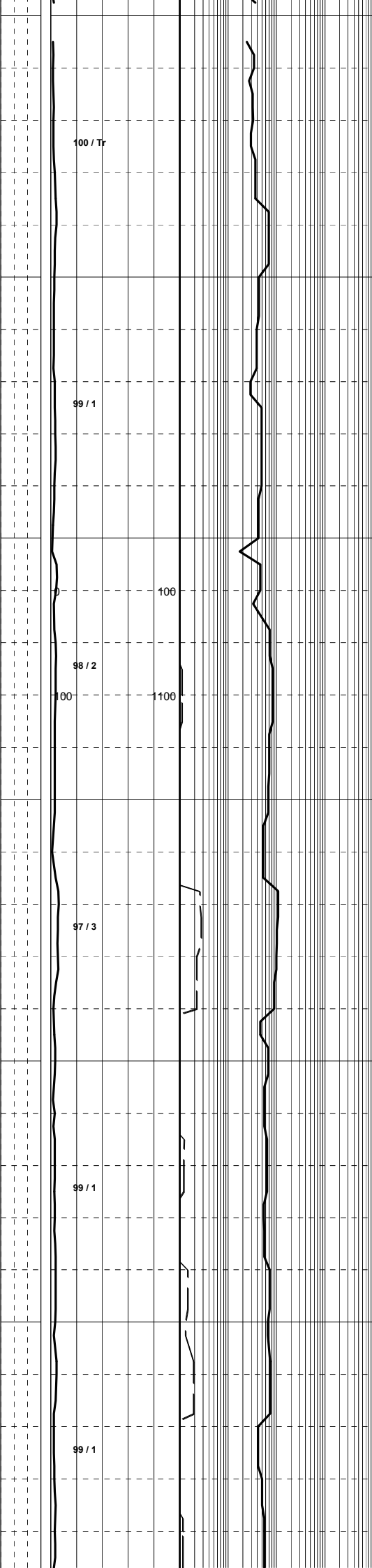
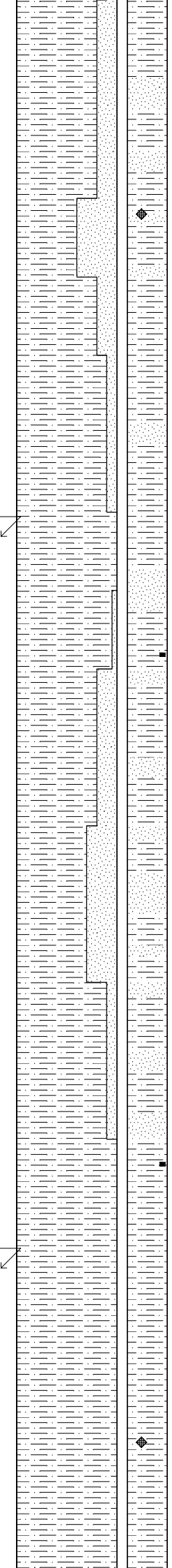
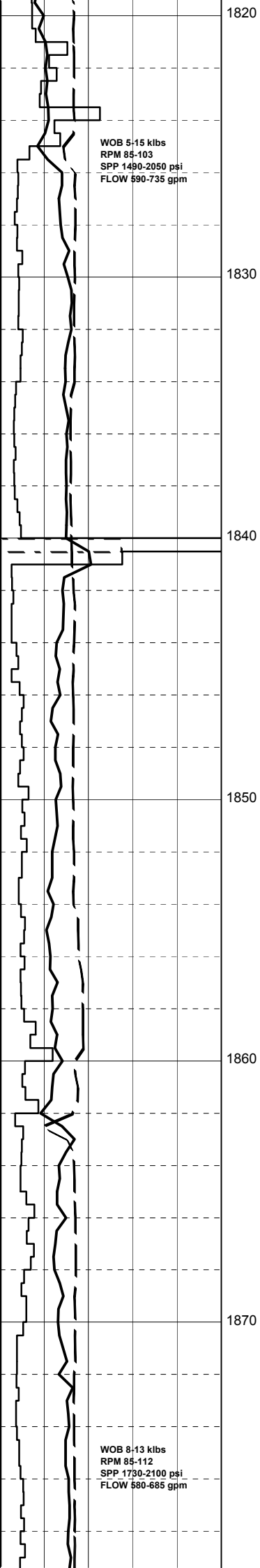
SURVEY @ 1784m: 0.50°

SANDSTONE:trnsi-clr,off wh-v pl gry, v f-f,wl srt,sbang-sbrnd,tr wk cal cmt, com-loc abdt pl gry off wh arg mtx, rr loc kaol mtx,occ carb spks,rr nod pyr,tr glauc,dom fri,uncons i/p, pr vis por,no fluor.

SURVEY @ 1803m: 0.50°

SANDSTONE:trnsi-clr,pl gry-off wh,vf-f,wl srt,tr wk calc cmt,abdt off wh-pl gry,arg mtx,rr carb spks, tr nod pyr,fri,pr vis por,no fluor.

SILTSTONE:lt-med gry,brnsh gry, lt gry i/p,arg,com loc aren,occ carb spks,sft-disp,sbky-amorph.



SANDSTONE:trnsi-clr,pl gry-brn,
off wh,vf-f,wl srt,tr sil cmt,abdt
wh-off wh arg mtx,grd to aren SLTST
i/p,mnr-com carb spks & micrlams,tr
dk gm liths,fri,pr vis por,no
fluor.

SILTSTONE:lt-med brnsh gry,med
gry,arg,occ aren,grd to vf SST i/p,
com carb spks,occ micmic,tr dk gm
liths,v sft-disp,blky-amorph.

SURVEY @ 1840m: 1°

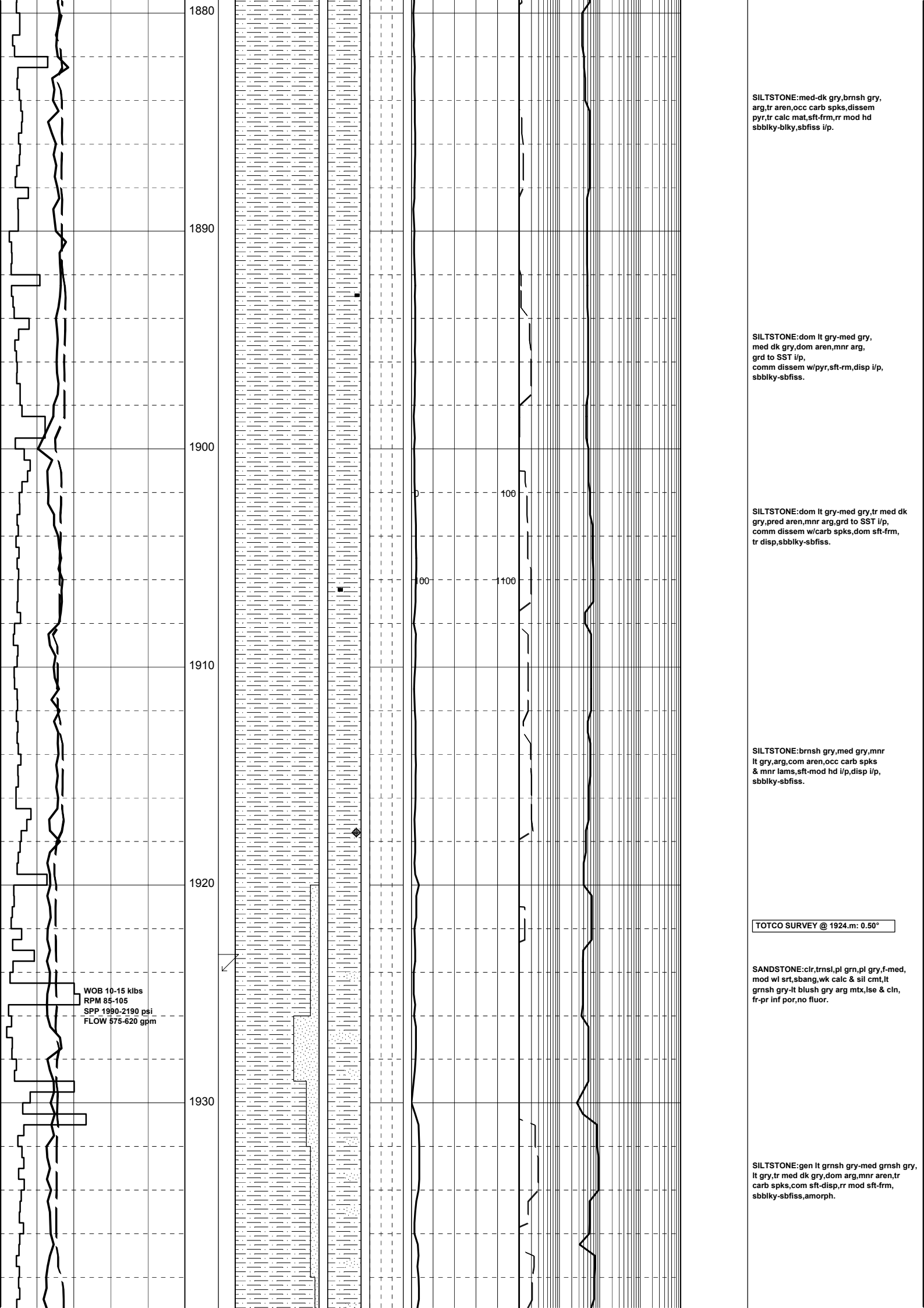
SANDSTONE:trnsi-clr,pl gry-brn,
off wh,vf-f,wl srt,tr calc cmt,abdt
wh-off wh arg mtx,grd to aren SLTST
i/p,mnr-com carb spks & micrlams,tr
micmic,tr dk gm liths,fri,pr vis
por,no fluor.

SILTSTONE:lt-med brnsh gry,med
gry,arg,occ aren,grd to vf SST i/p,
com carb spks,occ micmic,tr dk gm
liths,v sft-disp,blky-amorph.

SILTSTONE:med-dk gry,lt-med grysh
brn,arg,com aren,com carb spks,tr
micmic,dom v sft,occ frm-mod hd,
sbbky-blky,amorph i/p.

SURVEY @ 1868m: 0.50°

SILTSTONE:dom med-dk gry,occ lt-
med gry,arg,tr aren,occ carb spks,
dissem pyr,tr calc mat,sft-frm,rr
mod hd,sbbky-sbfiss.



SILTSTONE: med-dk gry, brnsh gry, arg, tr aren, occ carb spks, dissem pyr, tr calc mat, sft-frm, rr mod hd sbbiky-blky, sbfiss i/p.

SILTSTONE: dom lt gry-med gry, med dk gry, dom aren, mnr arg, grd to SST i/p, comm dissem w/pyr, sft-frm, disp i/p, sbbiky-sbfiss.

SILTSTONE: dom lt gry-med gry, tr med dk gry, pred aren, mnr arg, grd to SST i/p, comm dissem w/carb spks, dom sft-frm, tr disp, sbbiky-sbfiss.

SILTSTONE: brnsh gry, med gry, mnr lt gry, arg, com aren, occ carb spks & mnr lams, sft-mod hd i/p, disp i/p, sbbiky-sbfiss.

TOTCO SURVEY @ 1924.m: 0.50°

SANDSTONE: clr, trnsi, pl grn, pl gry, f-med, mod wl srt, sbang, wk calc & sil cmt, lt grnsh gry-lt blush gry arg mtx, lse & cin, fr-pr inf por, no fluor.

SILTSTONE: gen lt grnsh gry-med grnsh gry, lt gry, tr med dk gry, dom arg, mnr aren, tr carb spks, com sft-disp, rr mod sft-frm, sbbiky-sbfiss, amorph.

WOB 10-15 klbs
RPM 85-105
SPP 1990-2190 psi
FLOW 575-620 gpm

1880

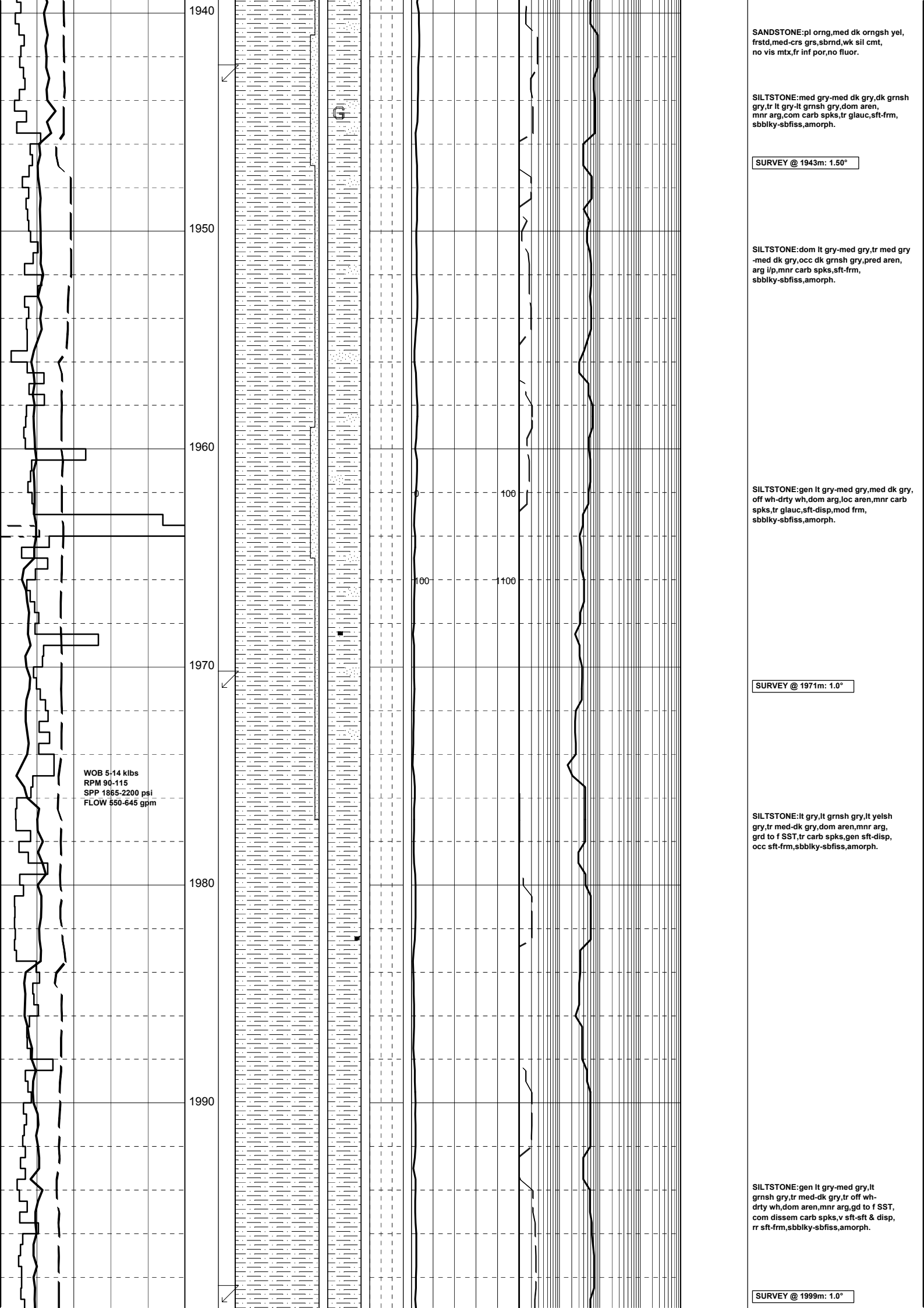
1890

1900

1910

1920

1930



SANDSTONE:pl orng,med dk orngsh yel, frstd,med-crs grs,sbrmd,wk sil cmt, no vis mtx,fr inf por,no fluor.

SILTSTONE:med gry-med dk gry,dk grnsh gry,tr lt gry-lt grnsh gry,dom aren, mnr arg,com carb spks,tr glauc,sft-frm, sbblky-sbfiss,amorph.

SURVEY @ 1943m: 1.50°

SILTSTONE:dom lt gry-med gry,tr med gry -med dk gry,occ dk grnsh gry,dom aren, arg i/p,mnr carb spks,sft-frm, sbblky-sbfiss,amorph.

SILTSTONE:gen lt gry-med gry,med dk gry, off wh-drtly wh,dom arg,loc aren,mnr carb spks,tr glauc,sft-disp,mod frm, sbblky-sbfiss,amorph.

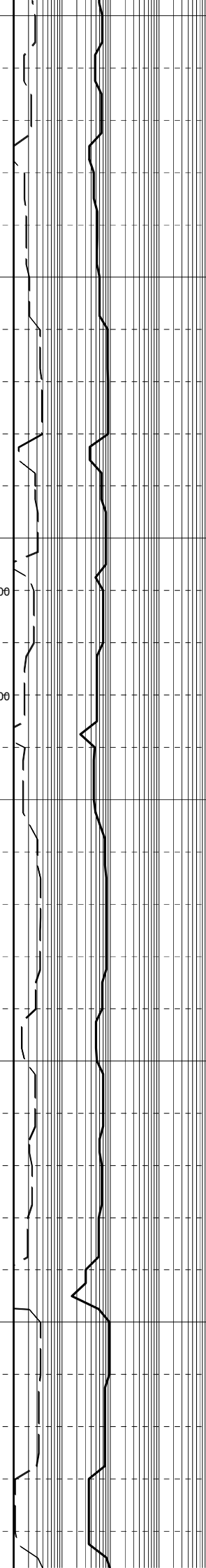
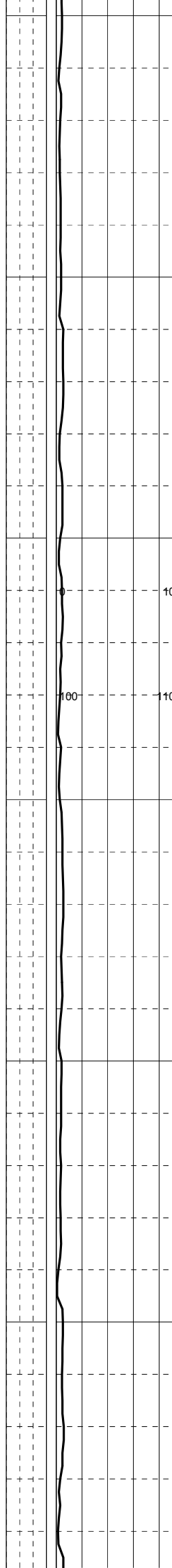
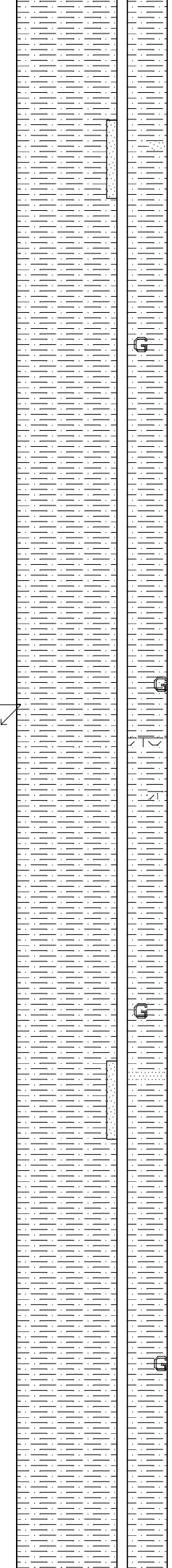
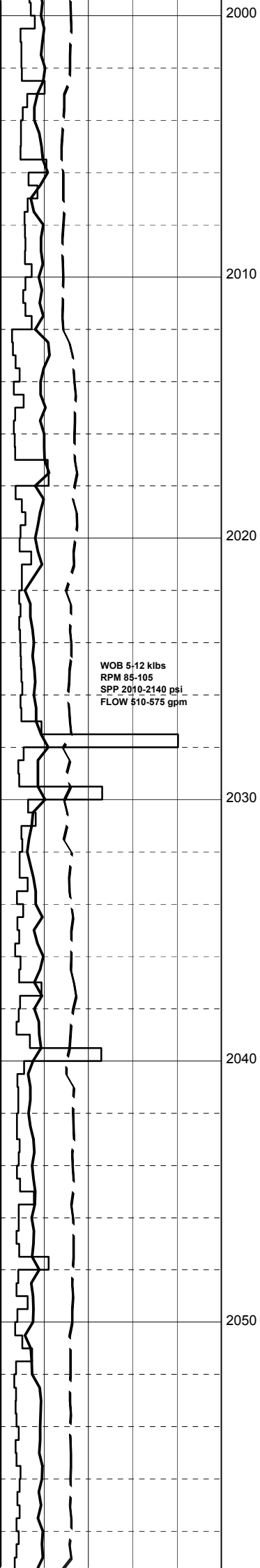
SURVEY @ 1971m: 1.0°

SILTSTONE:lt gry,lt grnsh gry,lt yelsh gry,tr med-dk gry,dom aren,mnr arg, grd to f SST,tr carb spks,gen sft-disp, occ sft-frm,sbblky-sbfiss,amorph.

SILTSTONE:gen lt gry-med gry,lt grnsh gry,tr med-dk gry,tr off wh-drtly wh,dom aren,mnr arg,gd to f SST, com dissem carb spks,v sft-sft & disp, rr sft-frm,sbblky-sbfiss,amorph.

SURVEY @ 1999m: 1.0°

WOB 5-14 klbs
RPM 90-115
SPP 1865-2200 psi
FLOW 550-645 gpm



SILTSTONE: it brnsh gry, sli olv gry, med lt gry, aren, mnr arg, calc i/p, mnr micro-carb spks, tr org liths, sft-frm, occ mod hd, disp, sbbkly, sbfiss i/p, amorph.

SANDSTONE: clr, trnsl, col, opq, org, vf-f, mod wl srt, tr sil cmt, no vis mtx, lse, gd por, no fluor.

SILTSTONE: it olv gry, grnsh gry, lt brnsh gry, arg, glauc, mnr carb spks & mat, rr pyr nods, disp, sft-frm, rr mod hd, sbbkly-blky, amorph.

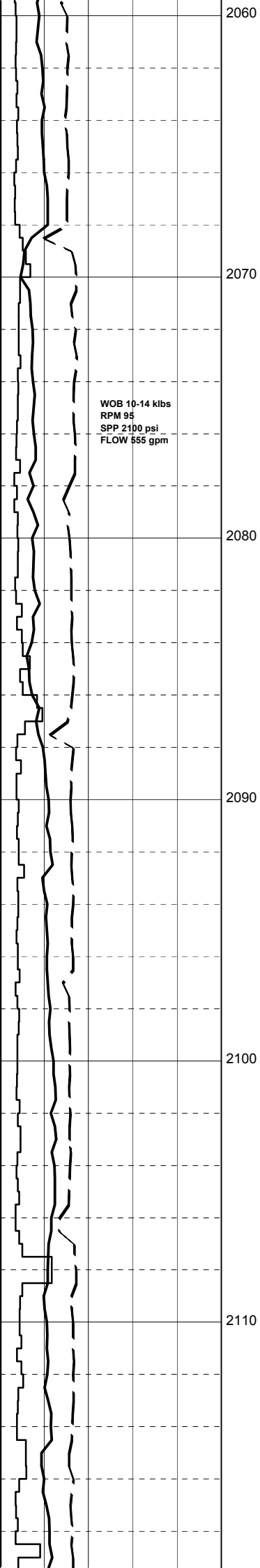
SILTSTONE: it olv gry, lt brnsh gry, arg, glauc, mnr carb mat & spks, rr pyr nods, disp, sft-rr frm, bkly-sbbkly, amorph.

SURVEY @ 2027m: 1.0°

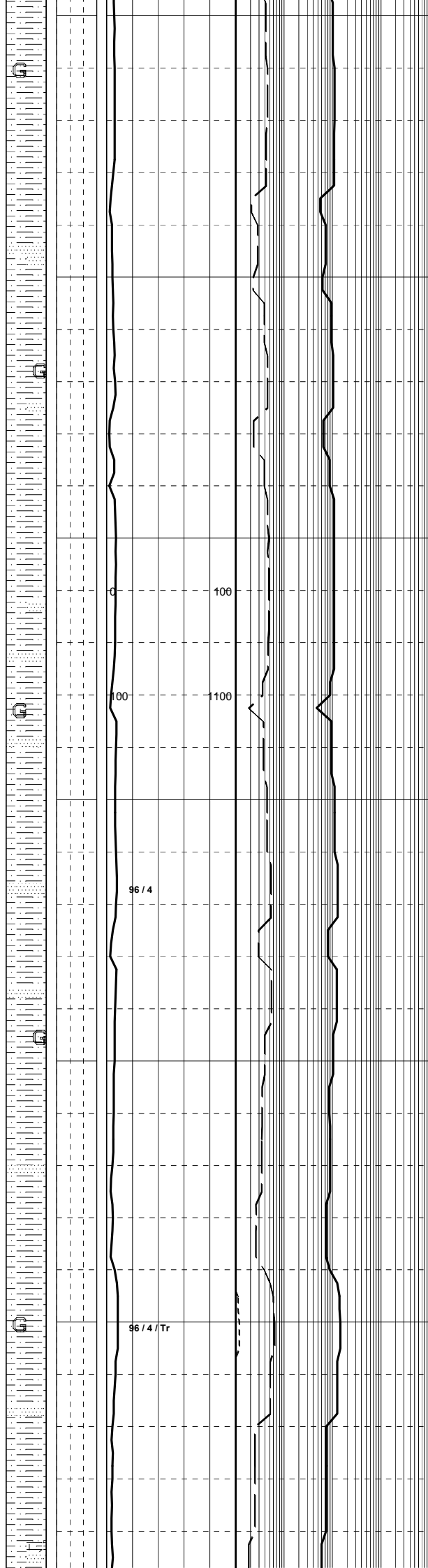
SILTSTONE: 1)90% brnsh gy-olv gry, tr dk grysh blk, arg, sft-frm, glauc, v sft-sft, tr frm-mod hd, bkly-sbbkly, tr-rr sbfiss, dom amorph
 2)10% wh-v pl gry, grnsh gry-mod grn, com glauc, disp, amorph.

LIMESTONE(RR): crm-v lt bn/crm, arg/foss, sft-brit.

SANDSTONE: clr, trnsl, vf-occ f, gen v wl srt, sa-sr, gen sil, v wk calc i/p, abdt arg mtx dom, gen uncons, v pr-ti vis & inf por, no fluor.



WOB 10-14 klbs
 RPM 95
 SPP 2100 psi
 FLOW 555 gpm



0 100
 160 100

96 / 4

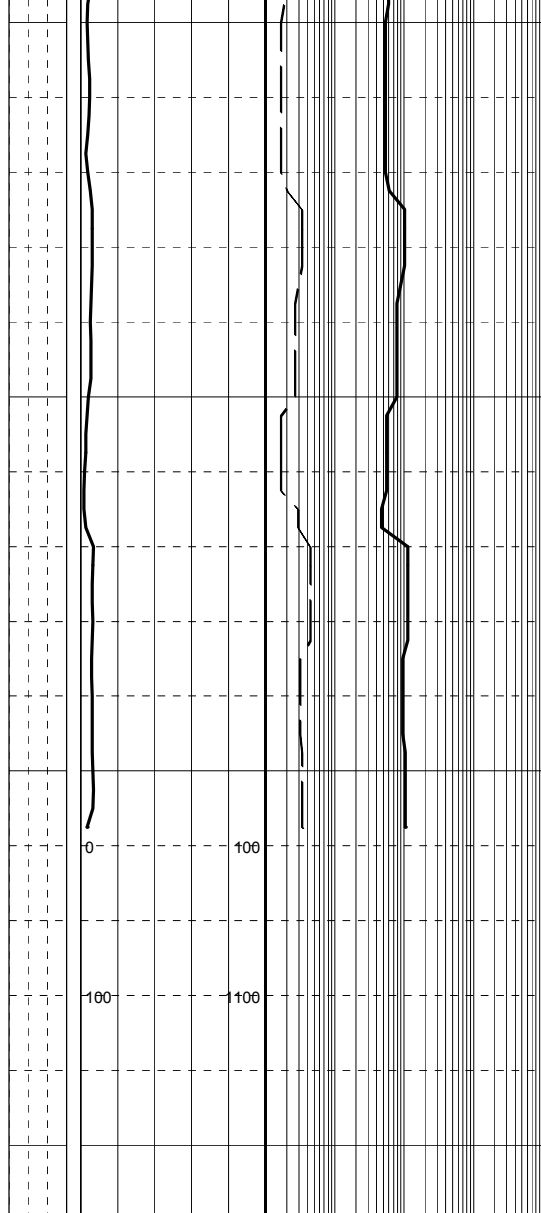
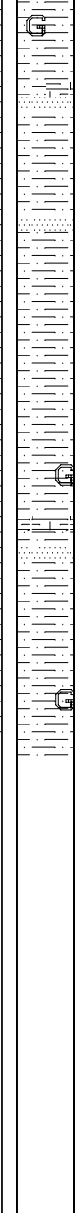
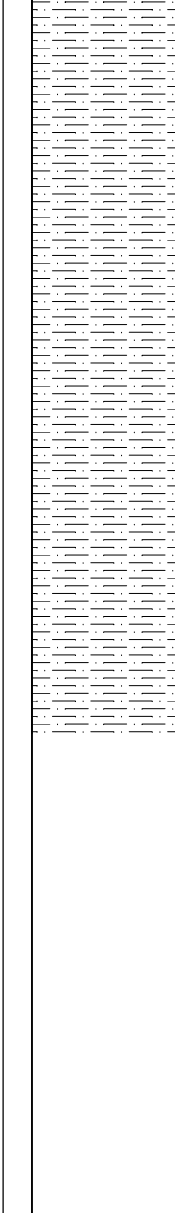
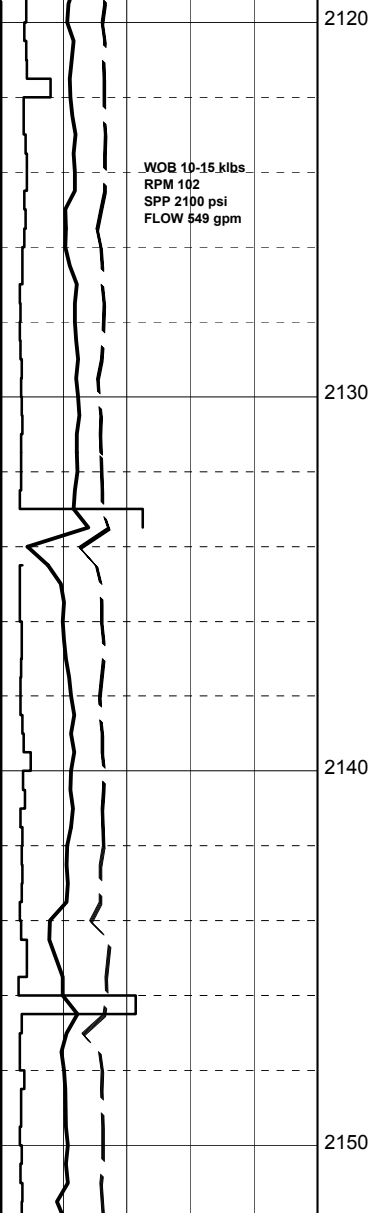
96 / 4 / Tr

SILTSTONE:pred gy-bn/gy,gen v arg
 g/t CLYST,occ vf aren,loc com
 glauc i/p,tr carb mat i/p,gen sft-frn
 i/p,mod calc i/p,sbfiss-sbbkly.

SILTSTONE:pred gy-bn/gy,gen v arg
 g/t CLYST,occ vf aren,loc com
 glauc i/p,tr carb mat i/p,gen sft-frn
 i/p,mod calc > w/- depth,sbfiss-
 sbbkly.

SANDSTONE(TR):clr/trnsl grms.lt gy,
 vf,v wl srtd,sa-sr,gen sil w/- v wk
 calc cmt i/p,abdt arg mtx dom,gen
 lse/uncons,rr mod hd & calc,v pr-ti
 vis por,no fluor.

SILTSTONE:pred bn/gy-it bn,gen v
 arg g/t CLYST,occ vf aren,loc com
 glauc i/p,tr-com carb mat i/p,gen
 sft-frn,mod hd/calc i/p,gen sil,
 sbfiss-pred sbbkly.



LIMESTONE(TR):gen tn/crm-lt tn,
arg.foss.gen sft,occ hd w/- micro
glauc veins,amorph-occ blk.