

CALCILUTITE: v lt gy-lt gnsh gy, off wh, slty i/p grd to CLSLT, tr v f glauc grs, tr forams, tr oo, sft-frm, amor-sbbkly

CALCISILTITE: med lt gy-lt olv gy, lt gnsh gy, argl i/p grd to CLCLT, tr v f sd grs, tr v f glauc, tr micmic, sft-frm, sbfiss-sbbkly

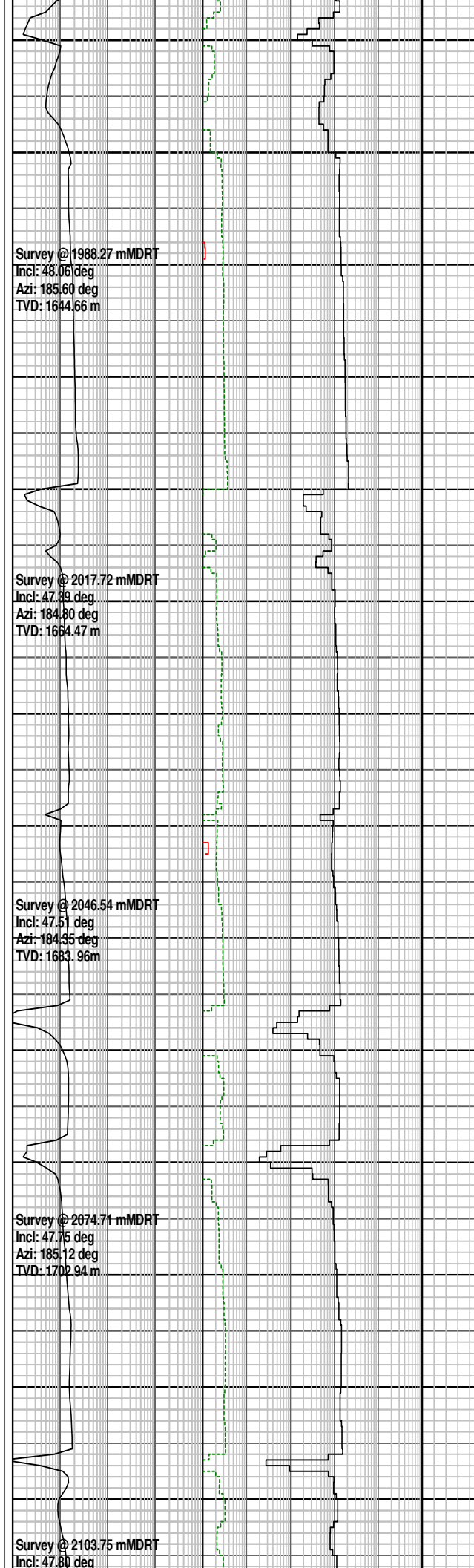
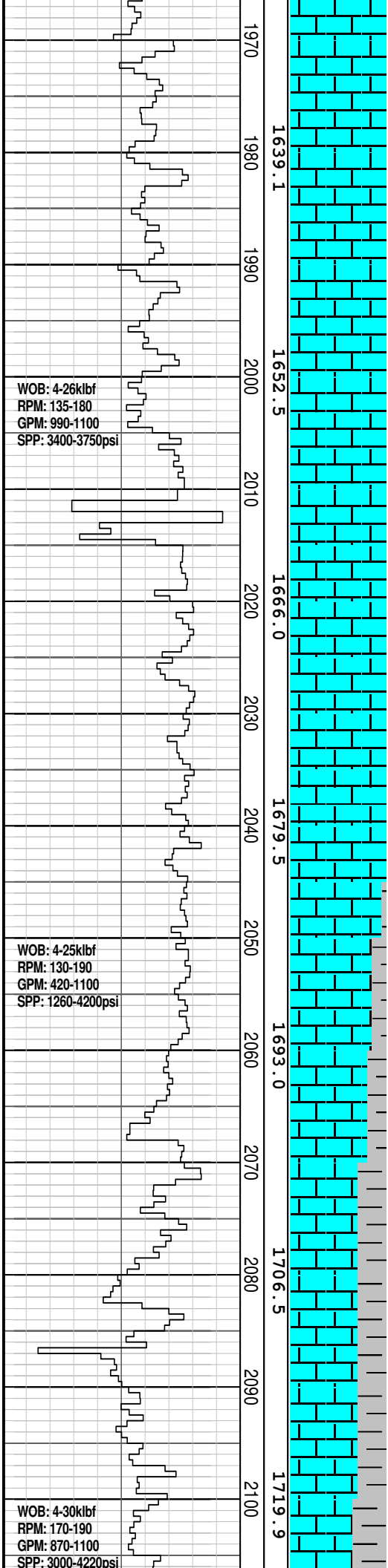
CALCILUTITE: v lt gy-lt gnsh gy, off wh, slty i/p grd to CLSLT, tr v f glauc grs, tr forams, tr oo, sft-frm, amor-sbbkly

CALCARENITE: v lt gy-lt gnsh gy, off wh-pl yel org, tr f-crs sbang qtz grs, slty i/p grd to CLSLT, tr v f glauc grs, frm-mod hd, p vis por, no hydrc fluor

CALCISILTITE: med lt gy-lt olv gy, lt gnsh gy, argl i/p grd to CLCLT, tr v f sd grs, tr v f glauc, tr micmic, sft-frm, sbfiss-sbbkly

CALCARENITE: v lt gy-lt gnsh gy, off wh-pl yel org, tr f-crs sbang qtz grs, slty i/p grd to CLSLT, tr v f glauc grs, frm-mod hd, p vis por, no hydrc fluor

CALCISILTITE: med lt gy-lt olv gy, lt gnsh gy, argl i/p grd to CLCLT, tr v f sd grs, tr v f glauc, tr micmic, sft-frm, sbfiss-sbbkly



**CALCARENITE:** v lt gy-lt gnsh gy, off wh-pl yel org, tr f-crs sbang qtz grs, slty i/p grd to CLSLT, tr v f glauc grs, frm-mod hd, p vis por, no hydc fluor

**CALCILUTITE:** v lt gy-lt gnsh gy, off wh, slty i/p grd to CLSLT, tr v f glauc grs, tr forams, tr oo, sft-frm, amor-sbblky

**CALCARENITE:** v lt gy-lt gnsh gy, off wh-pl yel org, tr f-crs sbang qtz grs, slty i/p grd to CLSLT, tr v f glauc grs, frm-mod hd, p vis por, no hydc fluor

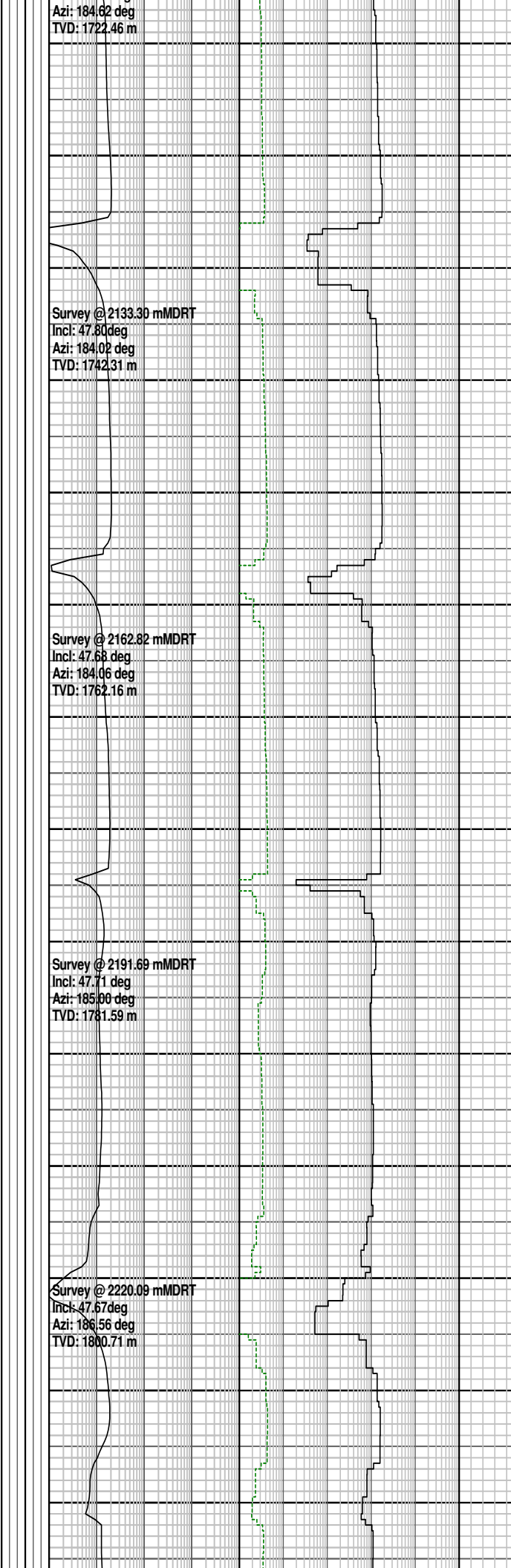
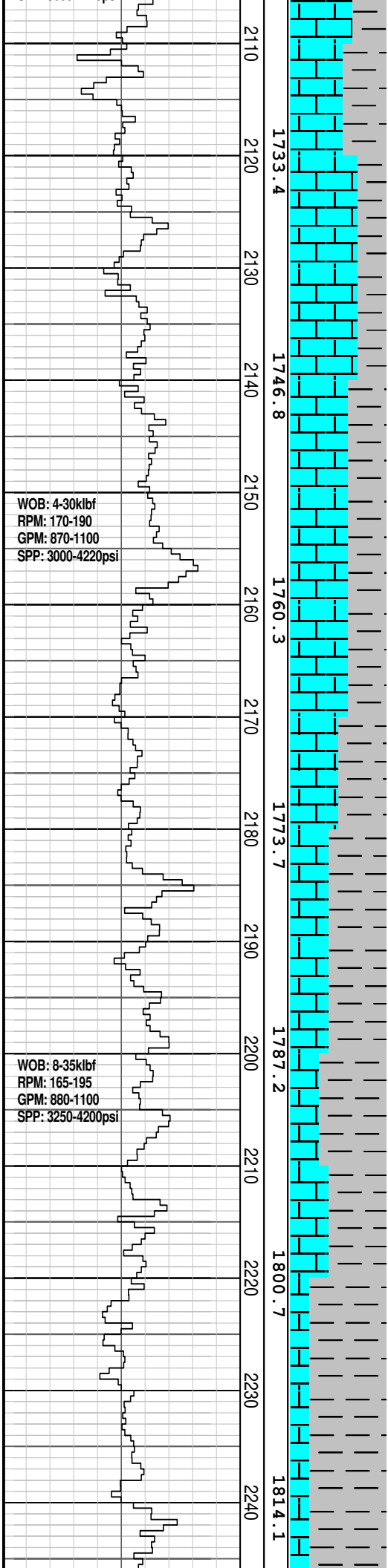
**CALCILUTITE:** v lt gy-lt gnsh gy, off wh, slty i/p grd to CLSLT, tr v f glauc grs, tr forams, tr oo, sft-frm, amor-sbblky

MW: 1.15	FV: 69
PV: 15	YP: 34
pH: 11.2	CK: 6.0
GELS: 8/9/11	CL: 48000

**CALCAREOUS CLAYSTONE:** med gy- lt olv gy, v calc grd to CLCLT, tr micmic, tr v f glauc, slty, sft-dom frm, sbblky-blky

**CALCILUTITE:** v lt gy-lt gnsh gy, off wh, slty i/p grd to CLSLT, tr v f glauc grs, tr forams, tr oo, sft-frm, amor-sbblky

**CALCISILTITE:** med lt gy-lt olv gy, lt gnsh gy, argl i/p grd to CLCLT, tr v f sd grs, tr v f glauc, tr micmic, sft-frm, sbfiss-sbblky



2110 1733.4  
CALCAREOUS CLAYSTONE: med gy- lt olv gy, v calc grd to CLCLT, tr micmic, tr v f glauc, slty, sft-dom frm, sbblky-blky

2120  
2130  
2140 1746.8  
CALCISILTITE: med lt gy-lt olv gy, lt gnsh gy, argl i/p grd to CLCLT, tr v f sd grs, tr v f glauc, tr micmic, sft-frm, sbfiss-sbblky

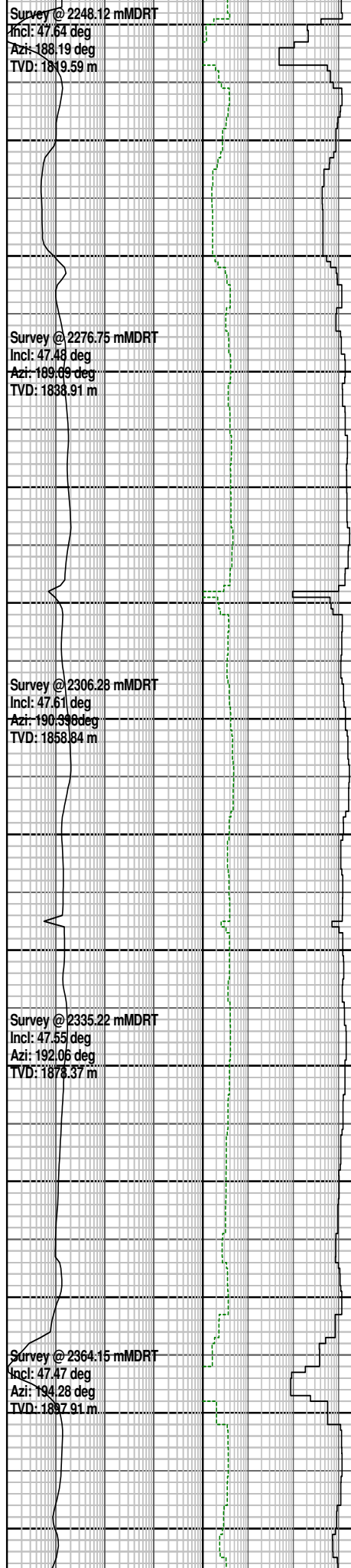
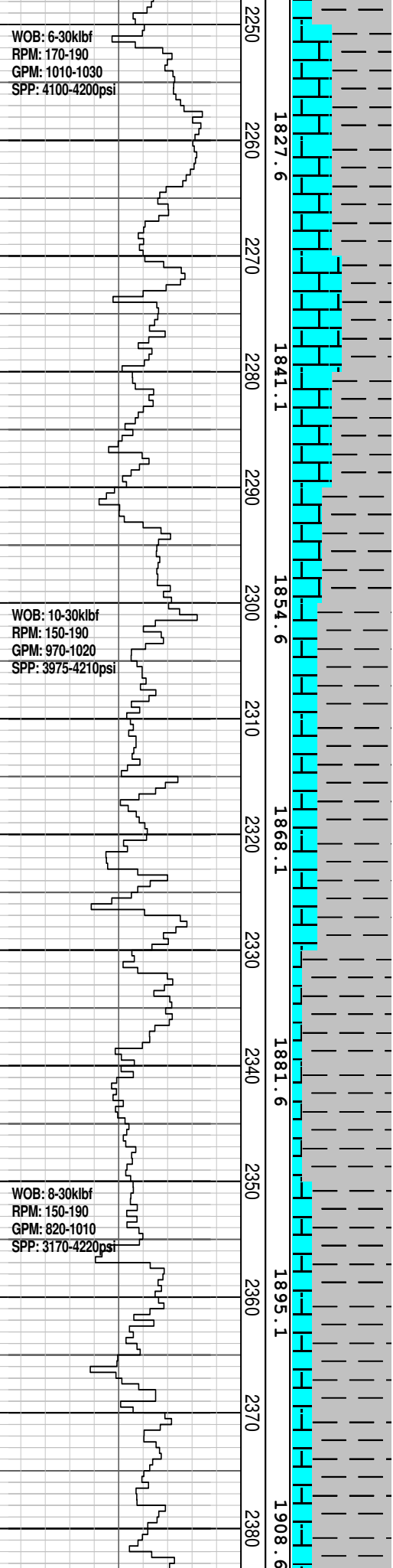
2150  
2160 1760.3  
CALCAREOUS CLAYSTONE: med gy- lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, sft-frm, sbblky-blky

2170  
2180 1773.7  
CALCISILTITE: med lt gy-lt olv gy, lt gnsh gy, com slty, argl i/p grd to CLCLT, tr v f sd grs, tr v f glauc, tr micmic, sft-frm, sbfiss-sbblky

2190  
2200 1787.2  
CALCILUTITE: v lt gy-lt gnsh gy, off wh, slty i/p grd to CLSLT, argl i/p grd to CALC CLYST, tr v f glauc grs, tr v f carb spks, sft-frm, amor-sbblky

2210  
2220 1800.7  
CALCAREOUS CLAYSTONE: lt gy- lt olv gy, abdt grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, dom sft-fr, amor-sbblky

2230  
2240 1814.1  
CALCISILTITE: med lt gy-lt olv gy, lt gnsh gy, com slty, argl i/p grd to CLCLT, tr v f sd grs, tr v f glauc, tr micmic, sft-frm, sbfiss-sbblky



**CALCAREOUS CLAYSTONE:**  
med gy- lt olv gy, v calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, dom sft-frm, amor-sbblky

**CALCISILTITE:** v lt gy-lt olv gy, grd to CLCLT, tr v f aren, tr v f glauc, tr micmic, tr v f carb spks, dom sft-frm, amor-sbblky

**CALCAREOUS CLAYSTONE:**  
lt gy-lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, dom sft-frm, amor-sbblky

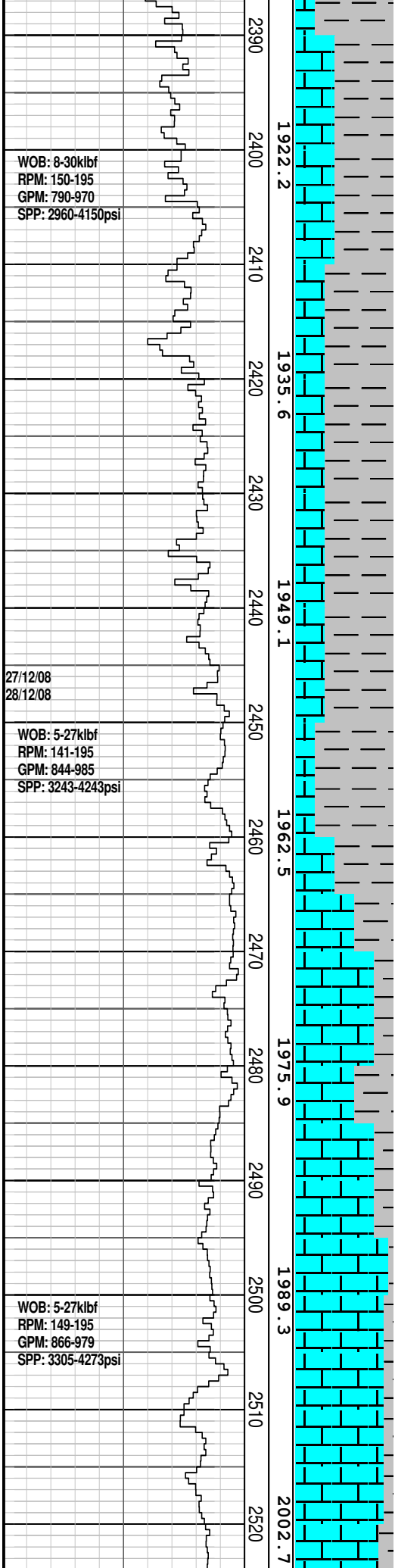
**CALCAREOUS CLAYSTONE:**  
lt gy-med lt gy, lt olv gy, abdt calc grd to CALCILUTITE, tr micmic, tr v f glauc, tr v f carb spks, dom sft-frm, amor-sbblky

MW: 1.16	FV: 64
PV: 19	YP: 35
pH: 11.0	CK: 4.8
GELS: 10/12/13	CL: 49000

**CALCAREOUS CLAYSTONE:**  
lt gy-med lt gy, lt olv gy, abdt calc grd to CALCILUTITE, tr micmic, tr v f glauc, tr v f carb spks, dom sft-frm, amor-sbblky

**CALCAREOUS CLAYSTONE:**  
lt gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, dom sft-frm, amor-sbblky





Survey @ 2393.50 mMDRT  
Incl: 47.44 deg  
Azi: 194.22 deg  
TVD: 1917.76 m

Survey @ 2421.02 mMDRT  
Incl: 47.67 deg  
Azi: 193.00deg  
TVD: 1936.33 m

Survey @ 2478.84 mMDRT  
Incl: 48.10 deg  
Azi: 188.61 deg  
TVD: 1975.11 m

Survey @ 2508.14 mMDRT  
Incl: 47.94 deg  
Azi: 186.95 deg  
TVD: 1994.71 m

**SILTY CALCISILTITE:** v lt gy-lt olv gy, grd to Argillaceous SILTSTONE, tr v f aren, tr v f glauc, tr micmic, tr v f carb spks, dom sft-frm, amor-sbbiky

**CALCAREOUS CLAYSTONE:** lt gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, dom sft-frm, amor-sbbiky

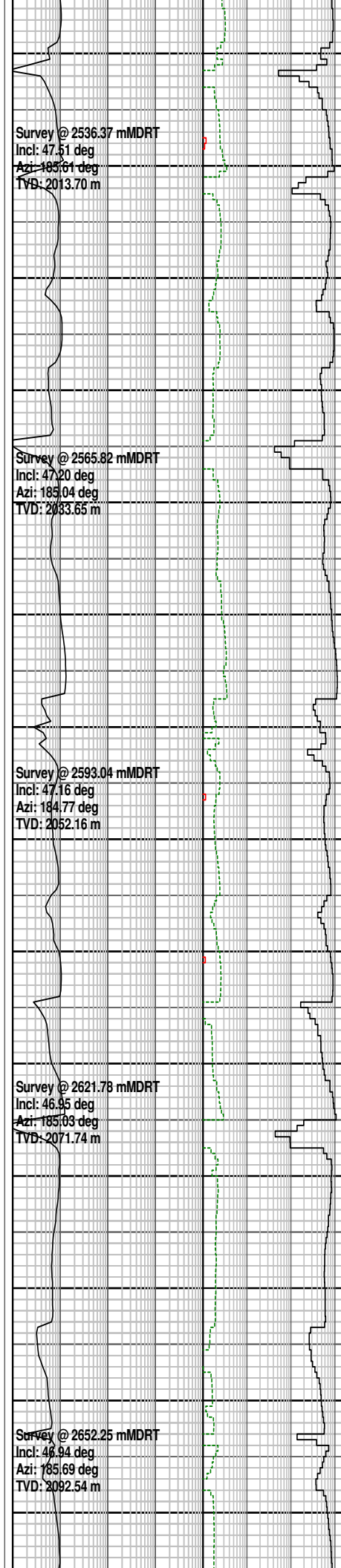
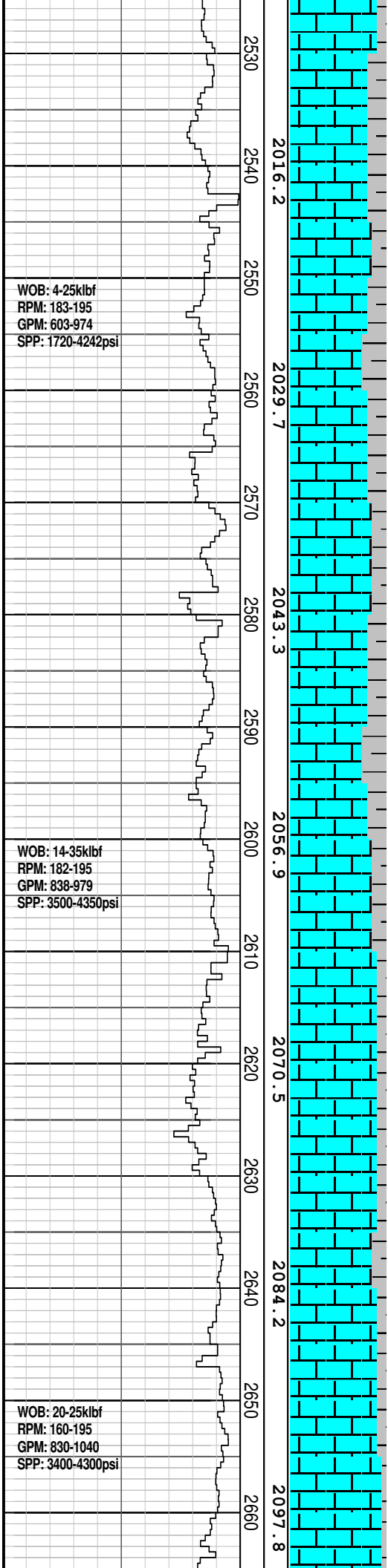
MW: 1.15	FV: 69
PV: 19	YP: 35
pH: 11.0	CK: 4.8
GELS: 10/12/13	CL: 49000

**CALCARENITE:** lt gy-med lt gy, v f-f, wl srt, slt i/p grd to CLSLT, tr v f glauc grs, mod hd, p vis por, no hydc fluor

**CALCISILTITE:** v lt gy-lt olv gy, grd to SLT CLCLT and CALC SLTST, tr v f aren, tr v f glauc, tr micmic, tr v f carb spks, dom sft-frm, amor-sbbiky, tr blkly

**CALCISILTITE:** v lt gy-lt olv gy, grd to SLT CLCLT and CALC SLTST, tr v f aren, tr v f glauc, tr micmic, tr v f carb spks, dom sft-frm, amor-sbbiky, tr blkly

**CALCARENITE:** lt gy-med lt gy, v f-f, wl srt, slt i/p grd to CLSLT, tr v f glauc grs, mod



hd, p vis por, no hydc fluor

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, sft frm,  
amor-sbbkly

**CALCISILTITE:** v lt gy-lt olv  
gy, abdt slt grd to SLT CLCLT  
and CALC SLTST, tr v f aren,  
tr v f glauc, tr micmic, tr v f  
carb spks, dom sft frm,  
amor-sbbkly, tr blkly

**CALCARENITE:** lt gy-med lt  
gy, v f-f, wl srt, slt i/p grd to  
CLSLT, tr v f glauc grs, mod  
hd, p vis por, no hydc fluor

**CALCAREOUS CLAYSTONE:**  
lt gy-med lt gy, lt olv gy, abdt  
calc grd to CLCLT, tr micmic,  
tr v f glauc, sft frm,  
amor-sbbkly

**CALCISILTITE:** v lt gy-lt olv  
gy, v slty grd to CALC  
SILTST, tr v f aren, tr v f  
glauc, tr micmic, sft frm,  
amor-sbbkly, tr blkly

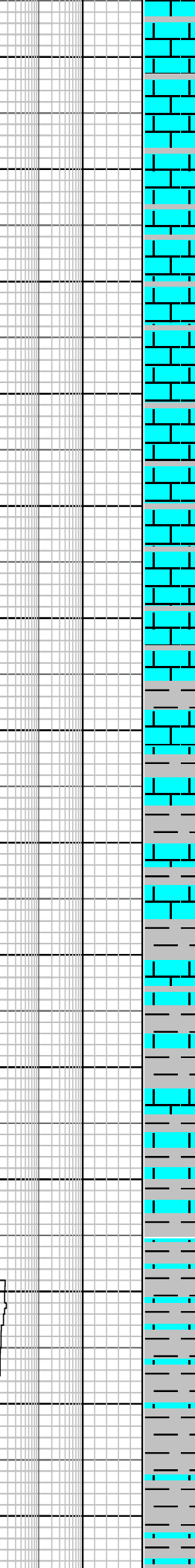
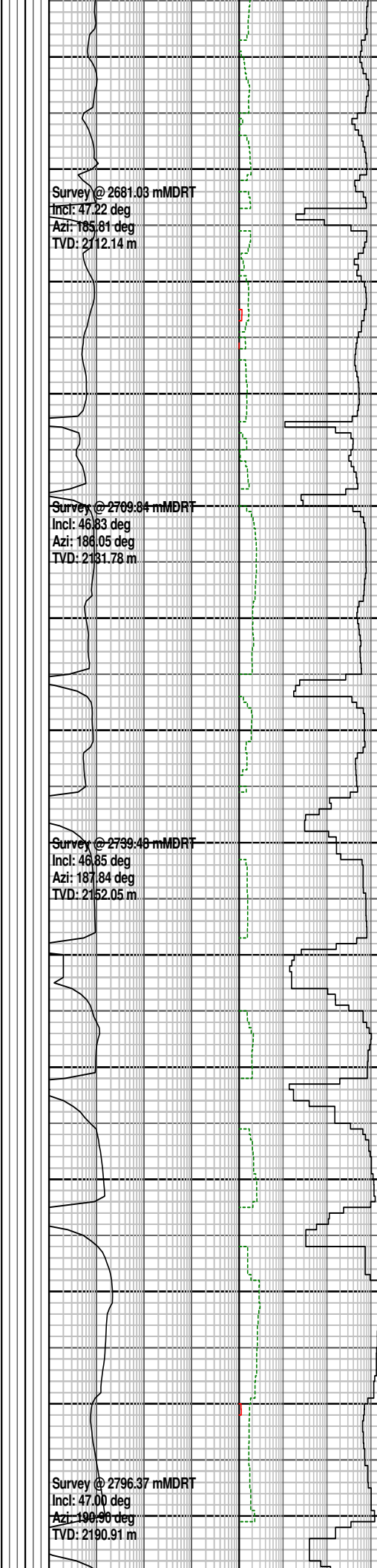
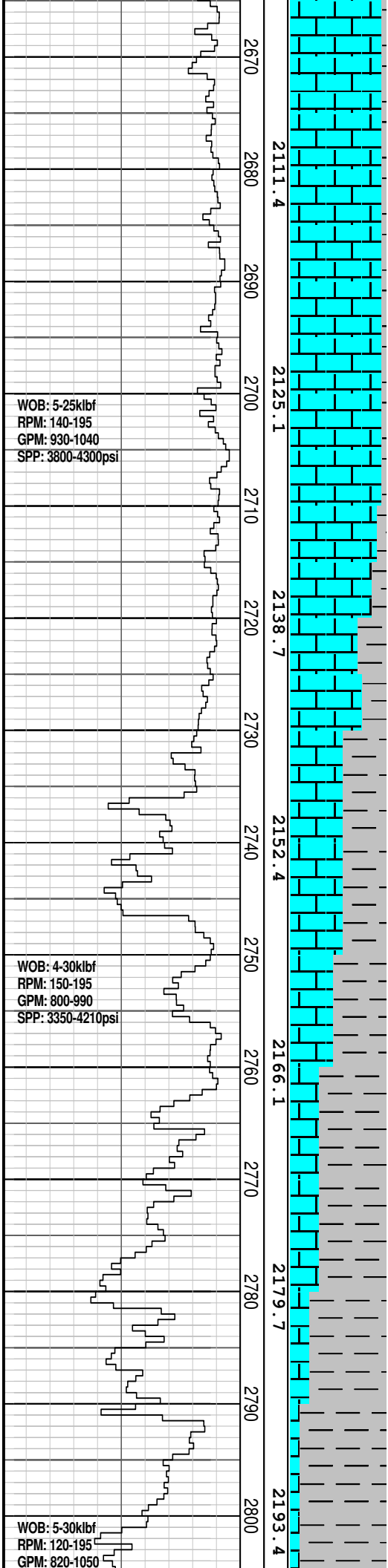
**CALCARENITE:** lt gy-med lt  
gy, v f-f, wl srt, slty i/p grd to  
CLSLT, tr v f glauc grs, mod  
hd, p vis por, no hydc fluor

**CALCAREOUS CLAYSTONE:**  
lt gy-med lt gy, lt olv gy, abdt  
calc grd to CLCLT, tr micmic,  
tr v f glauc, sft frm,  
amor-sbbkly

**CALCISILTITE:** v lt gy-lt olv  
gy, v slty grd to CALC  
SILTST, tr v f aren, tr v f  
glauc, tr micmic, sft frm,  
amor-sbbkly, tr blkly

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, sft frm,  
amor-sbbkly

**CALCARENITE:** lt gy-med lt  
gy, v f-f, wl srt, slty i/p grd to  
CLSLT, tr v f glauc grs, mod  
hd, p vis por, no hydc fluor



CLSLT, tr v f glauc grs, mod hd, p vis por, no hydc fluor

**CALCISILTITE:** v lt gy-lt olv gy, v slty grd to CALC SILTST, tr v f aren, tr v f glauc, tr micmic, sft frm, amor-sbbiky, tr blkly

**CALCARENITE:** lt gy-med lt gy, v f-f, wl srt, slty i/p grd to CLSLT, tr v f glauc grs, mod hd, p vis por, no hydc fluor

**CALCAREOUS CLAYSTONE:** med gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, sft frm, amor-sbbiky

**CALCISILTITE:** v lt gy-lt olv gy, v slty grd to CALC SILTST, tr v f aren, tr v f glauc, tr micmic, tr carb spks, sft frm, amor-sbbiky, tr blkly

**CALCARENITE:** lt gy-med lt gy, lt olv gy, v f-f, wl srt, slty i/p grd to CLSLT, tr v f glauc grs, fri-mod hd, p vis por, no hydc fluor

**CALCAREOUS CLAYSTONE:** med gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, sft frm, amor-sbbiky

**CALCISILTITE:** v lt gy-lt olv gy, v slty grd to CALC SILTST, tr v f aren, tr v f glauc, tr micmic, tr carb spks, sft frm, amor-sbbiky, tr blkly

**CALCAREOUS CLAYSTONE:** med gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, sft frm, amor-sbbiky

**CALCISILTITE:** v lt gy-lt olv gy, v slty grd to CALC SILTST, tr v f aren, tr v f glauc, tr micmic, tr carb spks, sft frm, amor-sbbiky, tr blkly



SPP: 3200-4200psi

WOB: 6-30klbf  
RPM: 100-195  
GPM: 890-1200  
SPP: 3820-4250psi

WOB: 7-30klbf  
RPM: 129-194  
GPM: 897-909  
SPP: 4046-4194psi

28/12/08  
29/12/08

2810  
2820  
2830  
2840  
2850  
2860  
2870  
2880  
2890  
2900  
2910  
2920  
2930  
2940

2207.0  
2220.6  
2234.2  
2247.8  
2261.4  
2275.0  
2288.6

Survey @ 2824.69 mMDRT  
Incl: 47.29 deg  
Azi: 191.91 deg  
TVD: 2210.17 m

Survey @ 2854.19 mMDRT  
Incl: 47.11 deg  
Azi: 191.50 deg  
TVD: 2230.15 m

Survey @ 2883.26 mMDRT  
Incl: 47.10 deg  
Azi: 190.89 deg  
TVD: 2250.00 m

Survey @ 2911.89 mMDRT  
Incl: 47.08 deg  
Azi: 192.03 deg  
TVD: 2269.50 m

Survey @ 2940.84 mMDRT  
Incl: 47.29 deg  
Azi: 192.22 deg

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, sft frm,  
amor-sbbiky

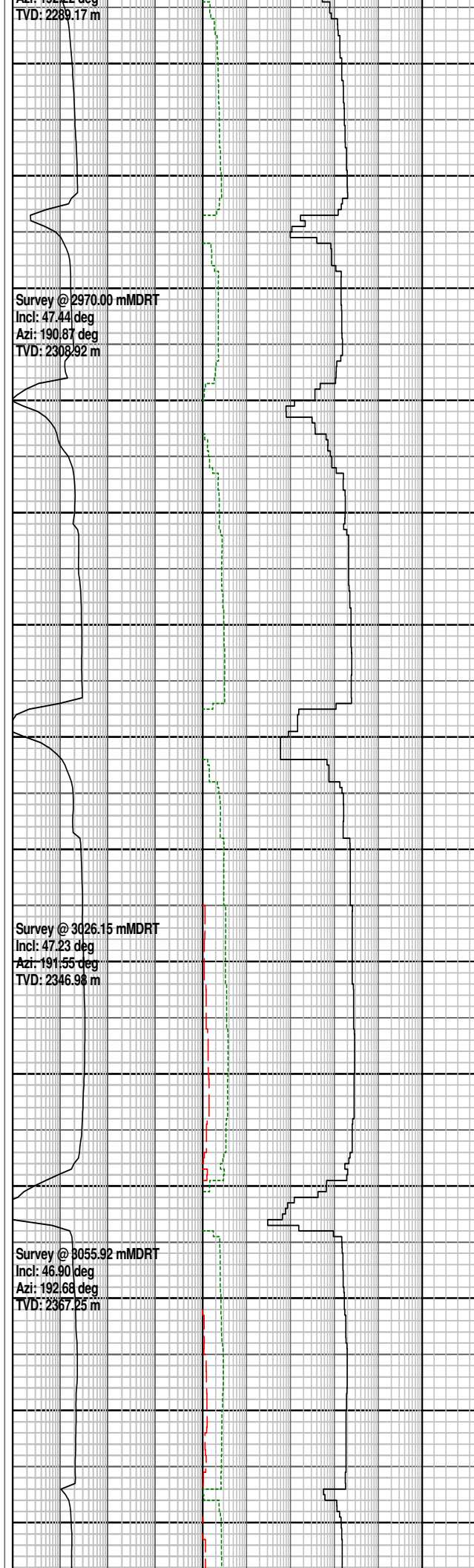
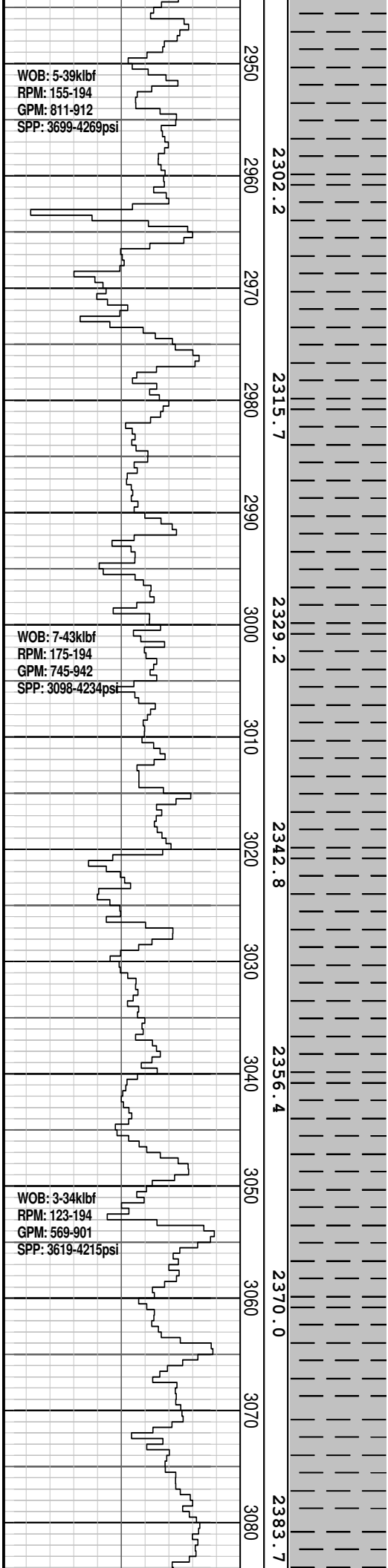
**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f carb  
spks, sft frm, amor-sbbiky

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f carb  
spks, sft frm, amor-sbbiky

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f carb  
spks, sft frm, amor-sbbiky

MW: 1.16	FV: 61
PV: 19	YP: 30
pH: 10.8	CK: 6.0
GELS: 9/12/15	CL: 51000

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,



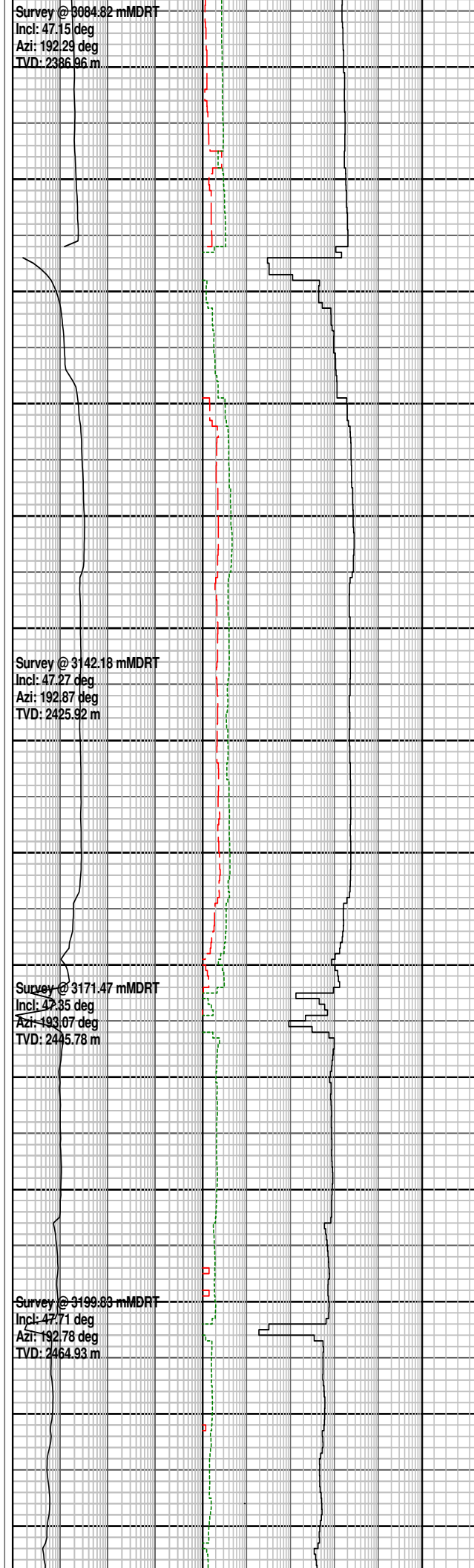
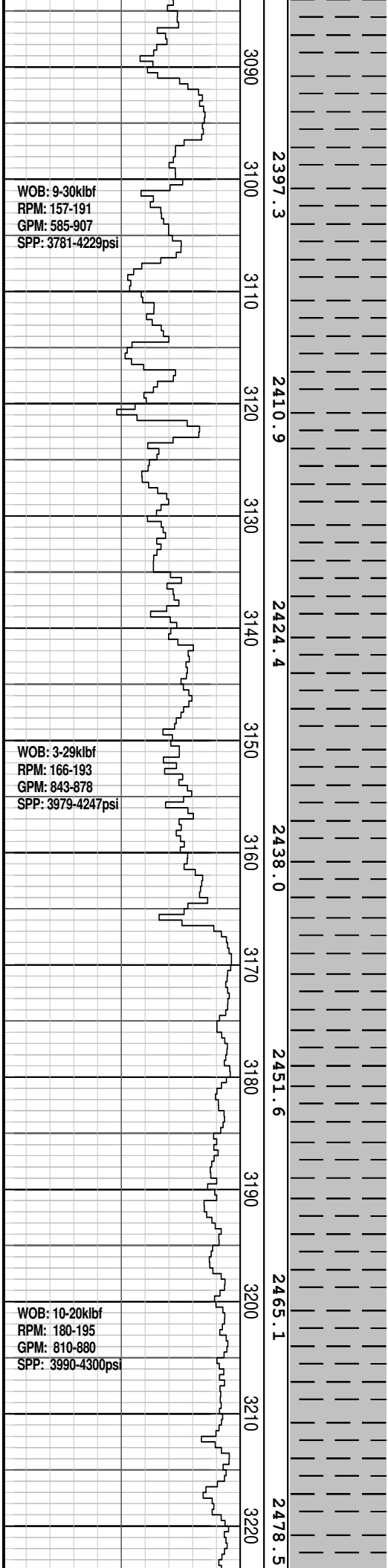
abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, sft frm, amor-sbbly

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, sft frm, amor-sbbly

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, sft frm, amor-sbbly

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f carb spks, sft frm, amor-sbbly

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy, abdt calc grd to CLCLT, tr micmic, tr v f glauc, tr v f-med carb spks, sft frm, amor-sbbly



**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, sft-firm,  
amor-sbblky

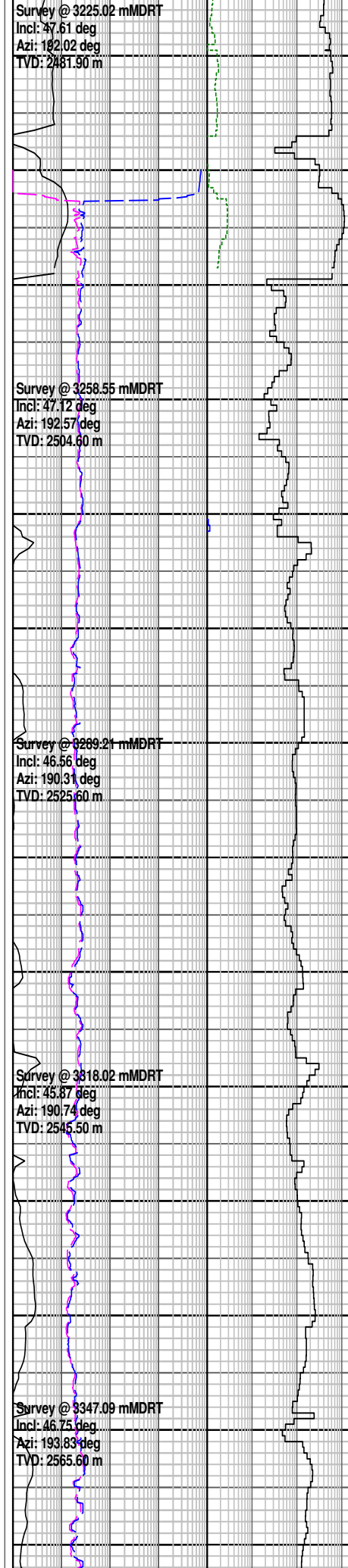
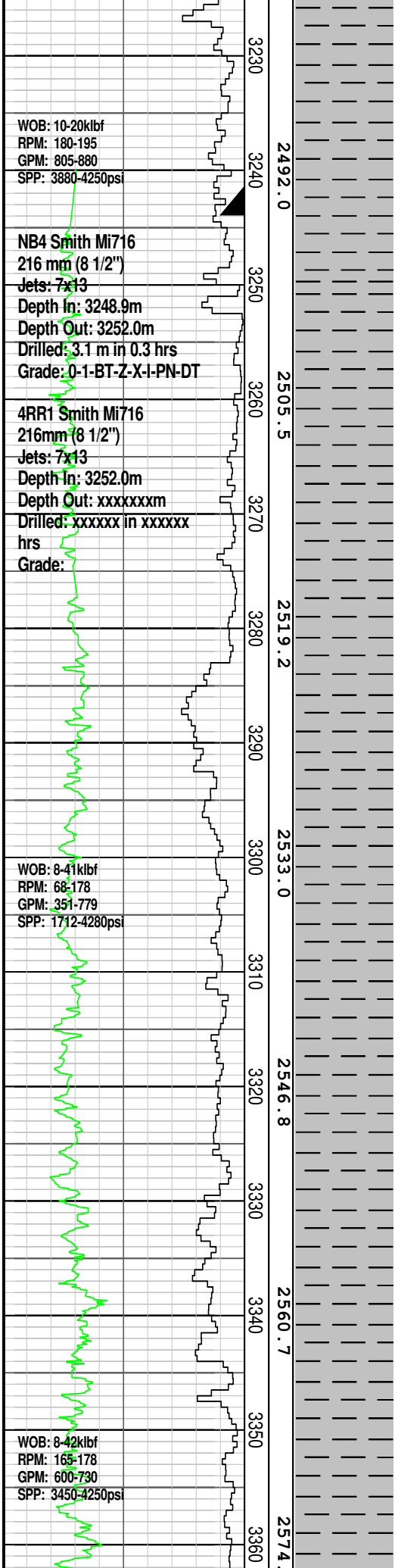
**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr microfos,  
sft-firm, amor-sbblky,

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr microfos,  
sft-firm, amor-sbblky,

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr microfos,  
sft-firm, amor-sbblky,

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr microfos,  
sft-firm, amor-sbblky,

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr dissem pyr, tr  
microfos, sft-firm,  
amor-sbblky,



**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr com pyr nod, tr  
microfos, sft-frm,  
amor-sbbلكy,

244mm (9 5/8") casing shoe @ 3243.9 mMDRT

Reached 311mm (12 1/4") section TD @ 3248.9 mMDRT @ 1300 hrs on 29th December 2008

POOH @ 3252.0 m to change the failed MWD tool

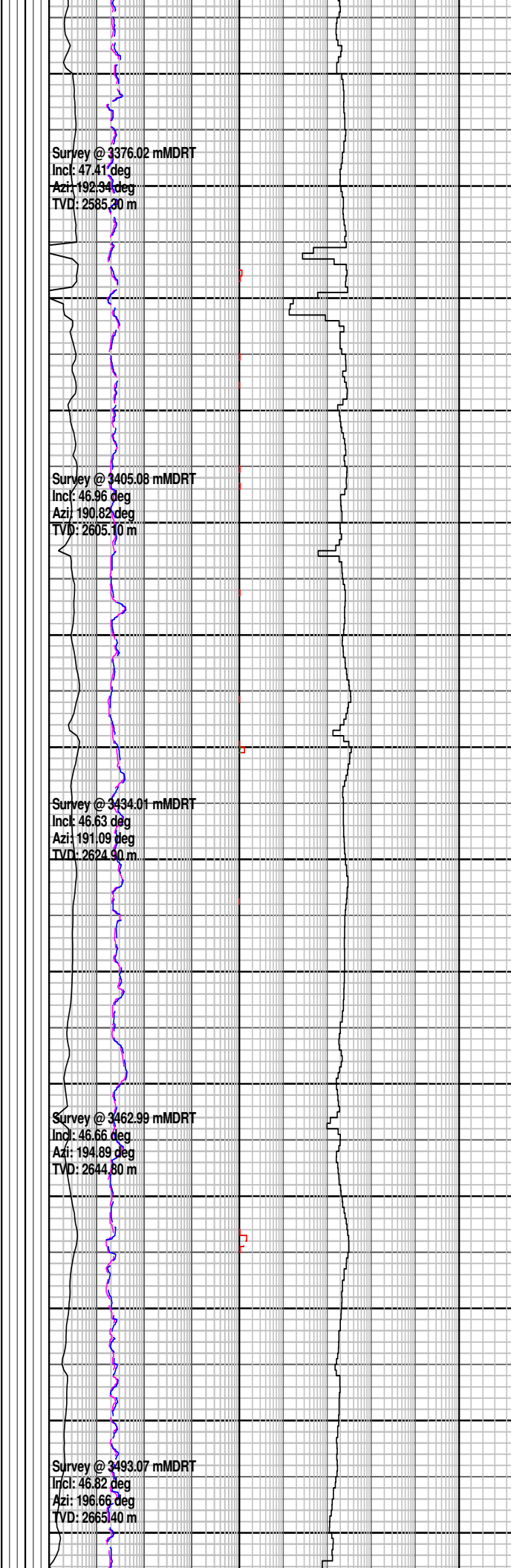
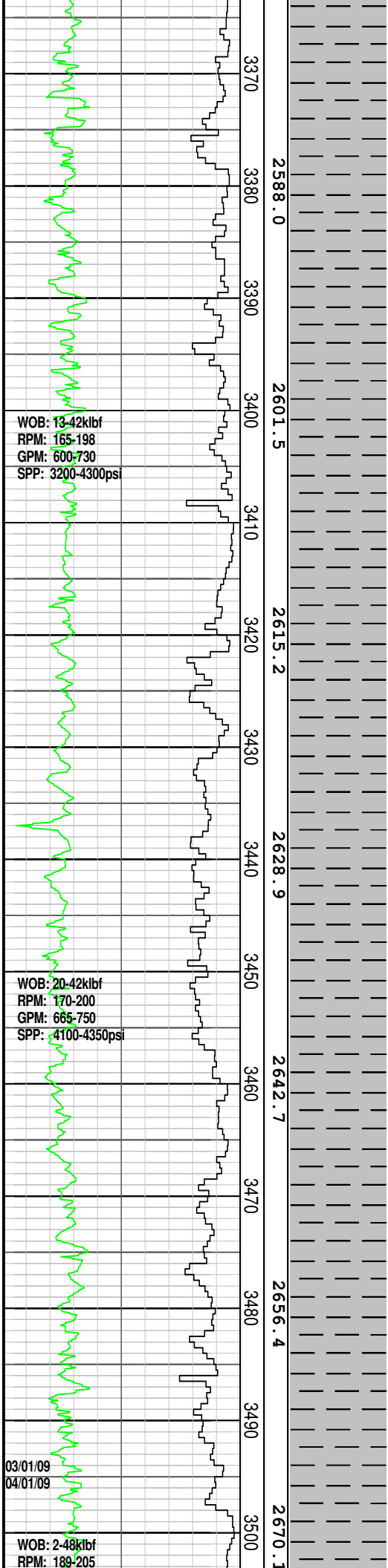
**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to CLCLT, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr dissem  
pyr, tr ang qtz, tr microfos,  
sft-frm, amor-sbbلكy

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to MARL, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr dissem  
pyr, tr ang qtz, tr microfos,  
sft-frm, amor-sbbلكy

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to MARL, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr dissem  
pyr, tr ang qtz, tr microfos,  
sft-frm, amor-sbbلكy

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy,  
abdt calc grd to MARL, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr dissem  
pyr, tr ang qtz, tr microfos,  
sft-frm, amor-sbbلكy

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy, tr  
micmic, tr v f glauc, tr v f-med  
carb spks, tr pyr nod, tr ang  
qtz, tr microfos, sft-frm,  
amor-sbbلكy, sbfiss i/p



**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy, tr micmic, tr v f glauc, tr v f-med carb spks, tr pyr nod, tr ang qtz, tr microfos, sft-firm, amor-sbblky, sbfiss i/p

**CALCAREOUS CLAYSTONE:**  
med gy-med lt gy, lt olv gy, tr micmic, tr f aren, tr v f glauc, tr v f-med carb spks, tr pyr nod, tr ang qtz, tr microfos, sft-firm, amor-sbblky, sbfiss i/p

**CALCAREOUS CLAYSTONE:**  
med lt gy-med dk gy, lt olv gy-lt gnsh gy, mod calc, slt i/p, tr imcmic, tr v f glauc, tr v f aren, tr v f carb spks, dom frm-mod hd, amor-sbblky, tr sbfiss i/p

**CALCAREOUS CLAYSTONE:**  
med lt gy-med dk gy, lt olv gy-lt gnsh gy, mod calc, slt i/p, tr imcmic, tr v f glauc, tr v f aren, tr v f carb spks, tr nod-dissem pyr, dom frm-mod hd, amor-sbblky

**CALCAREOUS CLAYSTONE:**  
med lt gy-med dk gy, lt olv gy-lt gnsh gy, mod calc, slt i/p, tr imcmic, tr v f glauc, tr v f aren, tr v f carb spks, tr dissem pyr, dom frm-mod hd, amor-sbblky

**CALCAREOUS CLAYSTONE:**  
med lt gy-med dk gy, lt olv gy-lt gnsh gy, mod calc, slt i/p, tr imcmic, tr v f glauc, tr v f aren, tr v f carb spks, tr dissem pyr, dom frm-mod hd, amor-sbblky

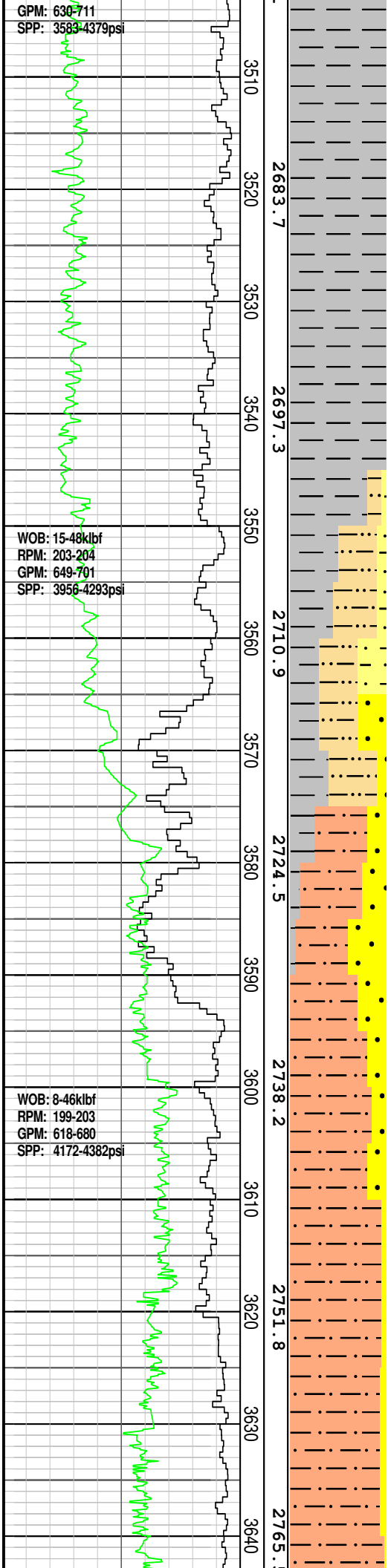
**CALCAREOUS CLAYSTONE:**  
med lt gy-med dk gy, lt olv gy-lt gnsh gy, mod calc, slt i/p, tr imcmic, tr v f glauc, tr v f aren, tr v f carb spks, tr dissem pyr, dom frm-mod hd, amor-sbblky



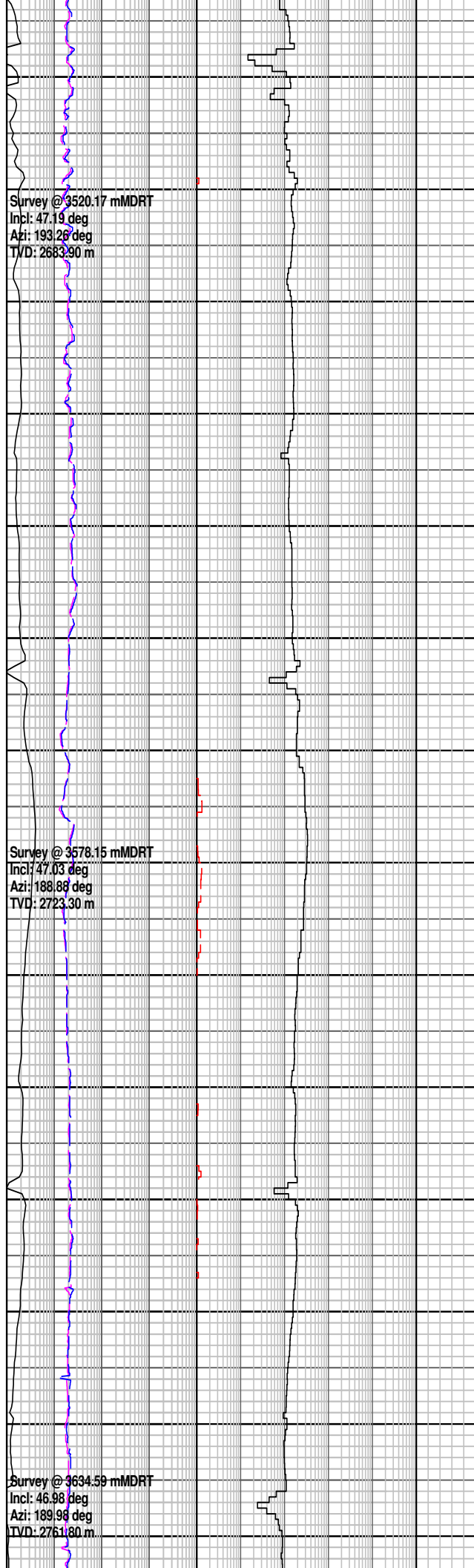
GPM: 630-711  
SPP: 3583-4379psi

WOB: 15-48klbf  
RPM: 203-204  
GPM: 649-701  
SPP: 3956-4293psi

WOB: 8-46klbf  
RPM: 199-203  
GPM: 618-680  
SPP: 4172-4382psi



3510 2683.7  
3520  
3530 2697.3  
3540  
3550  
3560 2710.9  
3570  
3580 2724.5  
3590  
3600 2738.2  
3610  
3620 2751.8  
3630  
3640 2765.4



MW: 1.15 FV: 70  
PV: 19 YP: 31  
pH: 10.0 CK: 6.0  
GELS: 6/8/11 CL: 53000

**CALCAREOUS CLAYSTONE:**  
med lt gy-med dk gy, lt olv  
gy-lt gnsh gy, mod calc, slt  
i/p, tr imcmic, tr v f glauc, tr v  
f aren, tr v f carb spks, tr  
dissem pyr, dom frm-mod hd,  
amor-sbblyky

**CALCAREOUS CLAYSTONE:**  
med lt gy-med dk gy, lt olv  
gy, lt gnsh gy, mod calc, v sit,  
tr imcmic, tr v f glauc, com v f  
aren grd to SDY  
SLTST, tr v f carb spks, dom  
frm-mod hd, amor-sbblyky

**SANDY SILTSTONE:** clr-trnsl,  
dom v f-f, wl srt, dom  
sbrnrd-rnrd, abdt slt mtx  
sft-frm agg, tr v f glauc, tr  
calc, p vis por, no hydc fluor

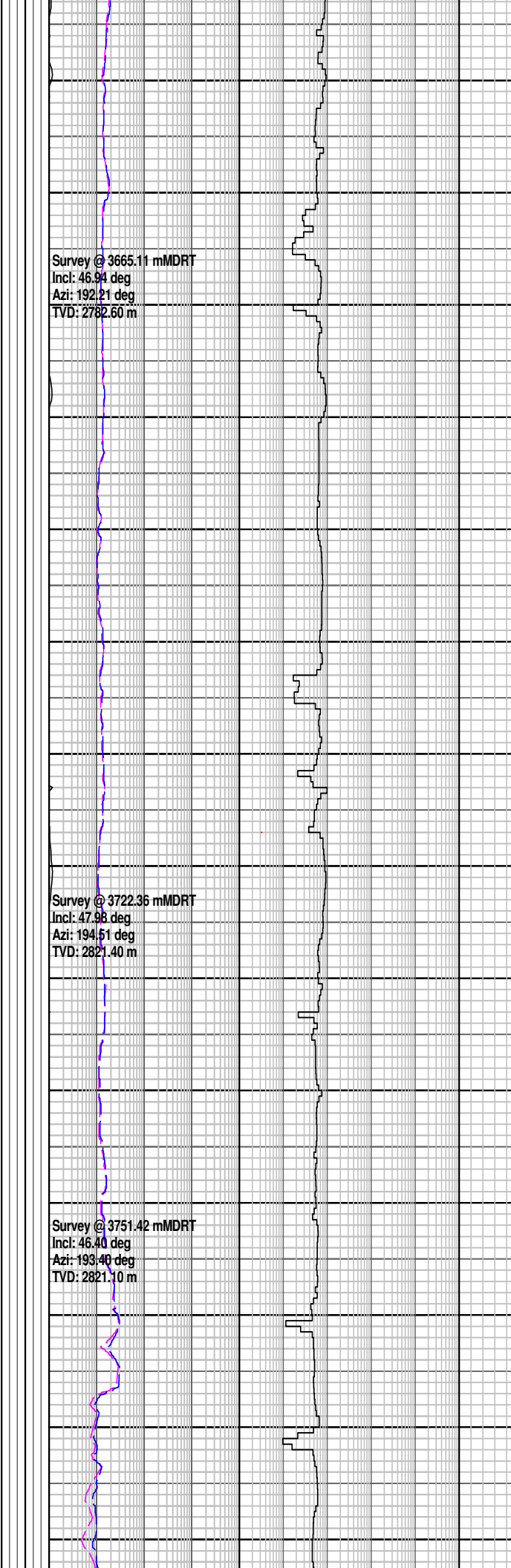
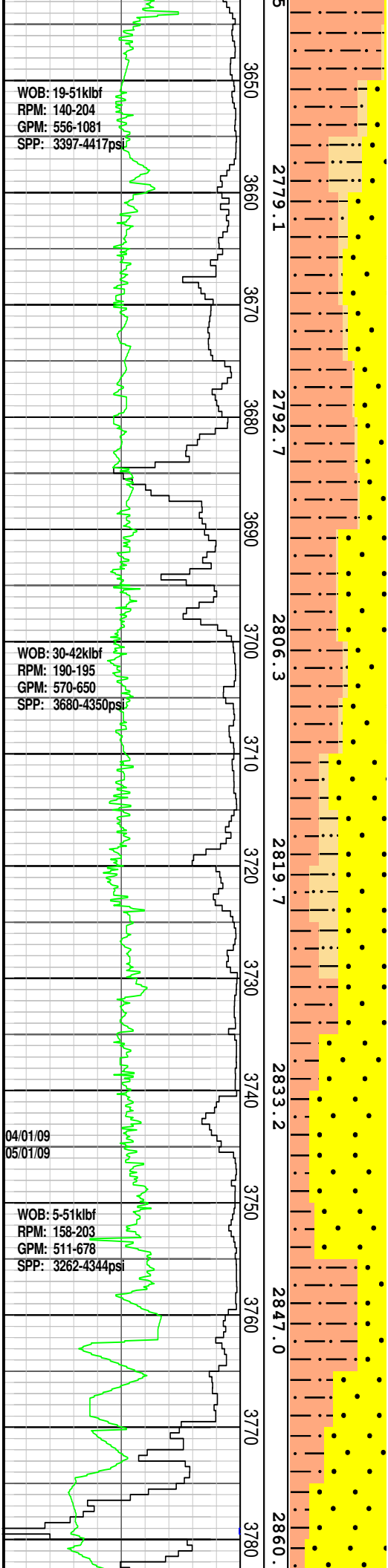
**SILTSTONE:** gy brn-dus brn,  
n calc, v aren grd to SANDY  
SILTSTONE, tr-com micmic,  
tr glauc, frm, dom  
sbfiss-sbblyky

**SANDSTONE:** clr-trnsl, lt olv  
gy-pl yel brn, v f-dom f, tr  
med-crs, mod srt, dom  
sbrnrd-rnrd, occ sft-frm agg  
wt slt mtx, tr v f glauc, tr pyr  
nod, dom lse,p-fr vis por, no  
hydc fluor

**SILTSTONE:** gy brn-dus brn,  
dk olv gy, n calc, v aren grd  
to SANDY SILTSTONE,  
tr-com micmic, tr glauc, frm,  
dom sbfiss-sbblyky

**SILTSTONE:** gy brn-dus brn,  
dk olv gy, n calc, v aren grd  
to SANDY SILTSTONE,  
tr-com micmic, tr glauc, frm,  
dom sbfiss-sbblyky

**SANDSTONE:** clr-trnsl, lt olv



gy-pl yeish brn, v f-dom t, tr med & crs, mod srt, dom sbrnnd-rnnd, occ sft-frm agg w/ v disp argl mtrx, tr-com v f glauc grd i/p to GLUAC SST, tr pyr nod, dom lse, p-fr por vis, no hydc fluor

**GLAUCONITIC SANDSTONE:** clr-trnsl, lt gnsh gy, dom v f-f, wl srt, dom sbrnnd-rnnd, sft to frm agg w/v disp argl & glauc mtrx, com to abdt v f glauc & glauc pel, occ lse, p vis por, no hydc fluor

**SILTSTONE:** gysh brn-dsky olv gy, non calc, v aren, grd to SDY SLTST, tr dissep pyr, tr pyr nod, tr-com micmic, tr-com glauc grd to GLAUC SLTST, frm, dom sbfiss-sbblky

**SANDY SILTSTONE:** off wh-v lt gy, lt gnsh gy, com v f aren grs grd i/p to SLTY SST, tr calc, tr v f glauc, tr micmic, sft-dom frm, sbfiss-sbblky

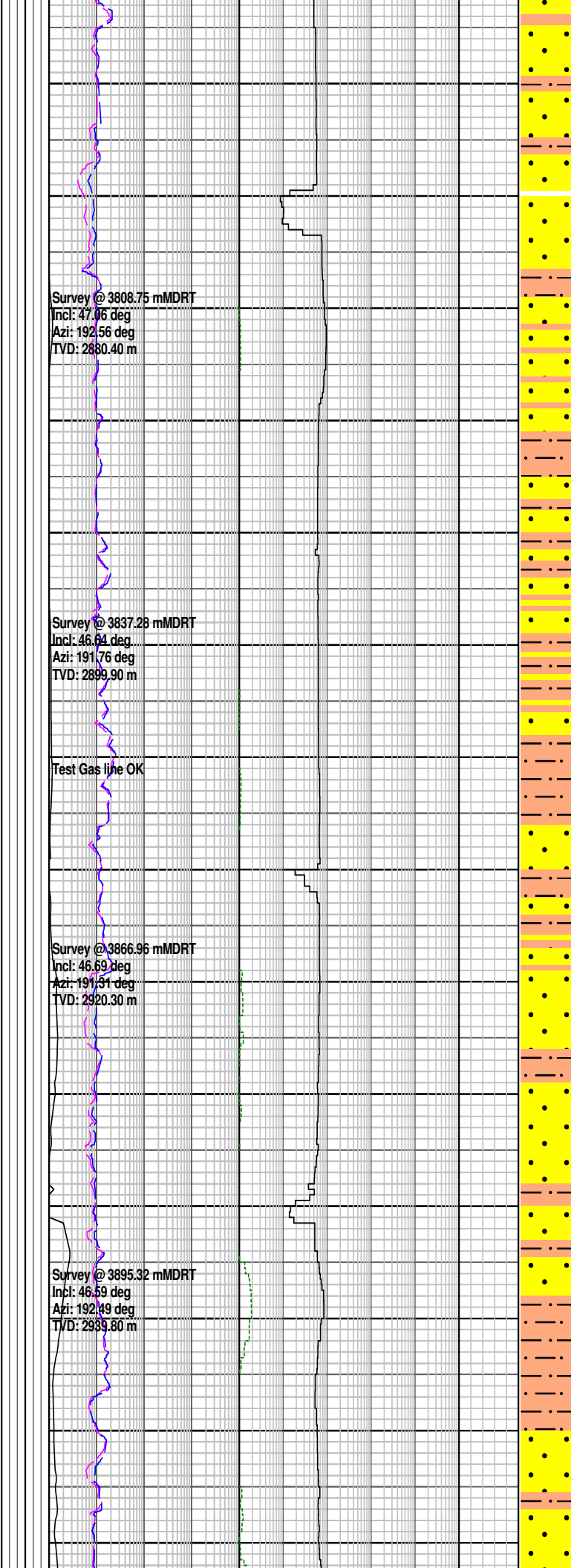
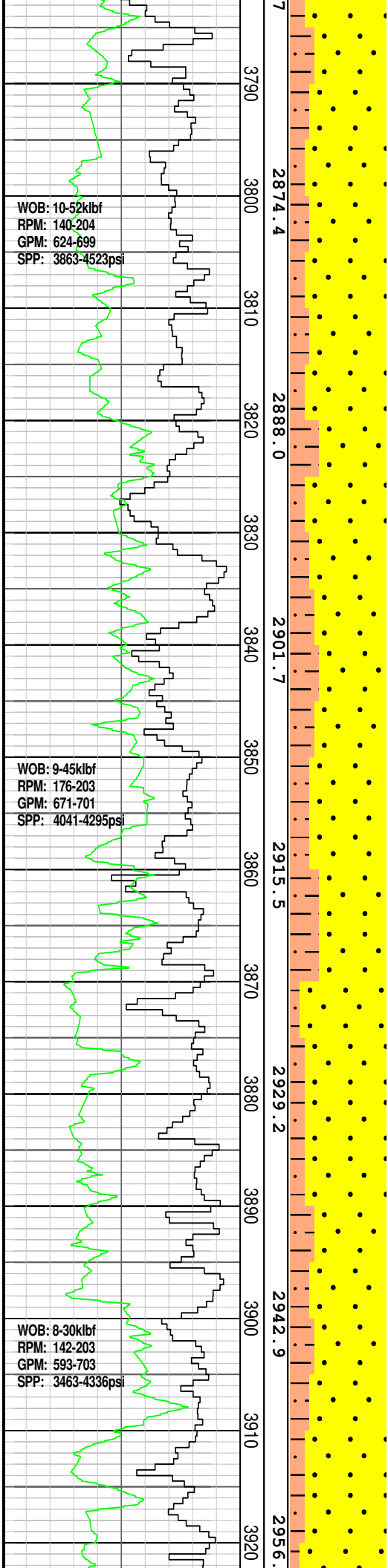
**GLAUCONITIC SANDSTONE:** clr-trnsl, lt gnsh gy, dom v f-f, wl srt, dom sbrnnd-rnnd, sft to frm agg w/ v disp lt gy-dk gnsh gy glauc argl mtrx, com-abdt v f-med glauc grs, occ lse, p vis por, no hydc fluor

**SILTSTONE:** olv gy-lt gy, gysh brn-dsky brn, non calc, v aren, grd to SDY SLTST, tr dissep pyr, tr pyr nod, tr-com micmic, tr-com glauc grd to GLAUC SLTST, frm, dom sbfiss-sbblky

**GLAUCONITIC SANDSTONE:** clr-trnsl, lt gnsh gy, dom v f-f, tr crs grs, wl srt, dom sbrnnd-rnnd, sft to frm agg w/ v disp lt gy-dk gnsh gy glauc argl mtrx, com-abdt v f-med glauc grs, occ lse, p vis por, no hydc fluor

**SILTSTONE:** olv gy-dk olv gy, gysh brn-dsky brn, non calc, v aren grd to SDY SLTST, tr pyr nod, tr-com micmic, tcom f com glauc grd to GLAUC SLTST, frm, dom sbfiss-sbblky

**SANDSTONE:** clr-trnsl, tr frs, med-v crs, dom crs, mod srt, ana-sband. r sbrnnd. clr. lse.



p-fr por, no hydc fluor

SANDSTONE: clr-trnsl, tr lt gy, tr frs, dom crs-v crs, mod srt, ang-sbang, r sbrnrd, clr, lse, tr pyt nod, p-fr por, no hydc fluor

SILTSTONE: olv gy-dk olv gy, gysh brn-dsky brn, non calc, v aren grd to SDY SLTST, tr pyr nod, tr-com micmic, tcom f com glauc grd to GLAUC SLTST, frm, dom sbfiss-sbblky

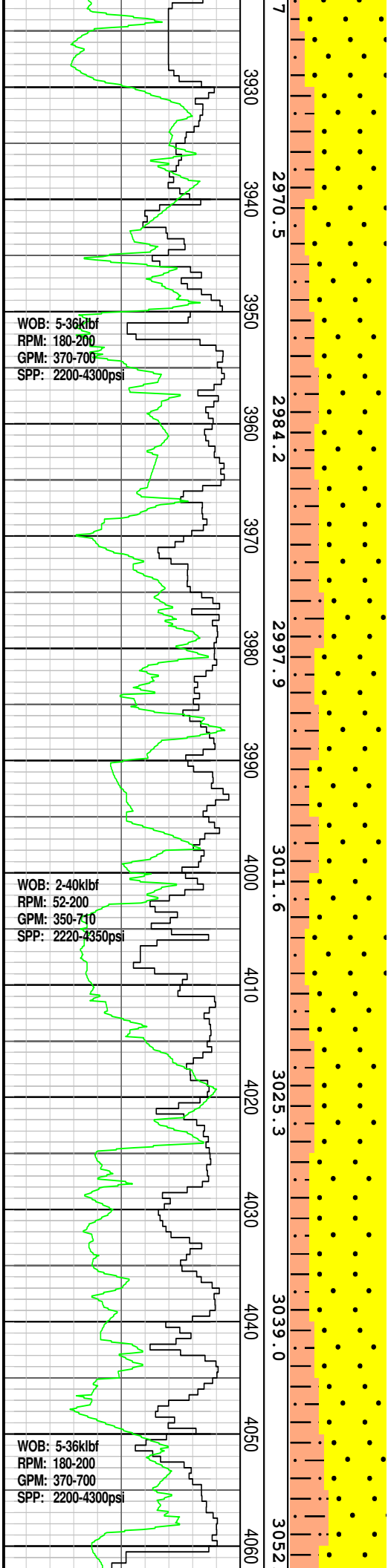
SANDSTONE: clr-trnsl, tr v lt gy, tr fros, med-v crs, dom crs-v crs, wl srt, ang-dom sbang, r sbrnrd, wk sil cmt, wk pyr cmt, tr pyr nod, cln, lse, pr-fr inf por, no hydc fluor

SILTSTONE: olv gy-dk olv gy, med gy, gysh brn, non calc, tr v f aren, tr-com micmic, tr disse pyr, tr nod pyr, frm, dom sbfiss-sbblky

SANDSTONE: clr-trnsl, tr v lt gy, tr fros, v f-v crs, com v f-f, com v crs, p srt, ang-dom sbang, r sbrnrd, dom sbrnrd, wk sil cmt, wk pyr cmt on crs grs, tr pyr nod, cln, lse, pr-fr inf por, no hydc fluor

SILTSTONE: olv gy-dk olv gy, med gy, gysh brn, non calc, tr v f aren, tr-com micmic, tr disse pyr, tr nod pyr, frm, dom sbfiss-sbblky

SANDSTONE: clr-trnsl, tr v lt gy, tr fros, v f-v crs, com v f-f, com v crs, p srt, ang-dom sbang, r sbrnrd, dom sbrnrd



Survey @ 3924.44 mMDRT  
Incl: 46.51 deg  
Azi: 196.93 deg  
TVD: 2959.80 m

Survey @ 3952.66 mMDRT  
Incl: 46.66 deg  
Azi: 197.80 deg  
TVD: 2979.30 m

Survey @ 3981.42 mMDRT  
Incl: 46.80 deg  
Azi: 196.33 deg  
TVD: 2998.90 m

Survey @ 4010.32 mMDRT  
Incl: 46.91 deg  
Azi: 191.87 deg  
TVD: 3018.70 m

wk sil cmt, wk pyr cmt  
tr pyr nod, cln, lse, p-fr inf  
por, no hydc fluor

SILTSTONE: olv gy-dk olv gy,  
med gy, gysh brn, non calc, tr  
v f aren, tr-com micmic, tr  
dissem pyr, sft-dom frm, dom  
sbfiss-sbblky

SANDSTONE: clr-trnsl, tr v lt  
gy, tr fros, med-v crs, com v  
f-f, com v crs, mod srt,  
ang-dom sbang, r sbrnrd,  
dom sbrnrd, wk sil cmt, wk  
pyr cmt, tr pyr nod, cln, lse,  
p-fr inf por, no hydc fluor

SILTSTONE: olv gy-dk olv gy,  
med gy, gysh brn, non calc, tr  
v f aren, tr-com micmic, tr  
dissem pyr, sft-dom frm, dom  
sbfiss-sbblky

SANDSTONE: clr-trnsl, tr v lt  
gy, tr fros, med-v crs, r med,  
com v crs, mod srt, ang-dom  
sbang, r sbrnrd, dom sbrnrd,  
wk sil cmt, wk pyr cmt,  
tr pyr nod, cln, lse, p-fr inf  
por, no hydc fluor

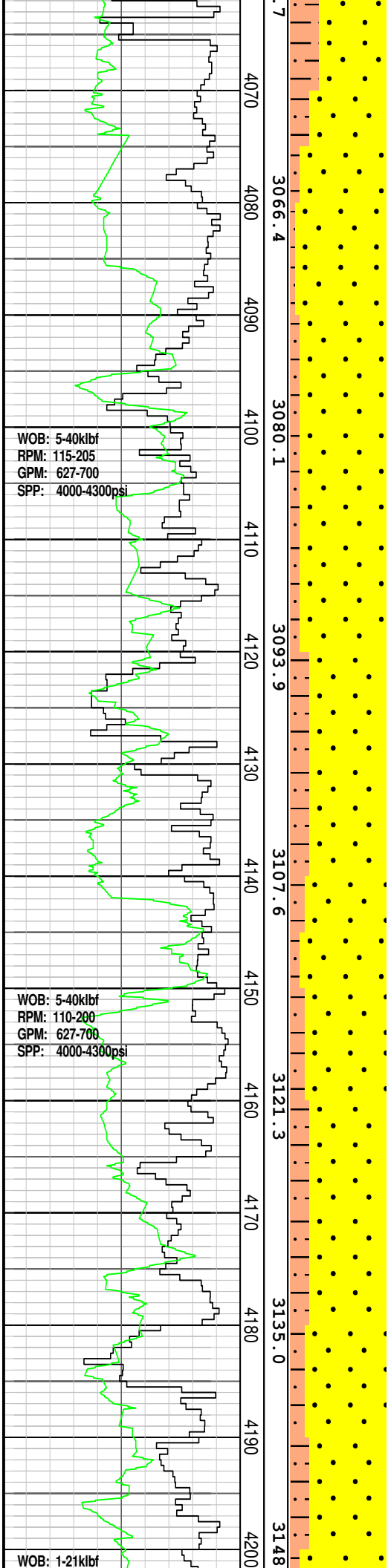
SILTSTONE: olv gy-dk olv gy,  
med gy, gysh brn, non calc, tr  
v f aren, tr-com micmic, tr  
dissem pyr, sft-dom frm, dom  
sbfiss-sbblky

SANDSTONE: clr-trnsl, com  
pl yelsh gy, tr fros, f-v crs,  
com f, com v crs, p srt,  
ang-dom sbang, r sbrnrd,  
dom sbrnrd, wk sil cmt, wk  
pyr cmt, tr pyr nod, cln, lse,  
p-fr inf por, no hydc fluor

SILTSTONE: olv gy-dk gnsh  
gy, med dk gy, non calc, tr v f  
aren, tr-com micmic, tr  
dissem pyr, tr v f glauc grs,  
sft-dom frm, dom  
sbfiss-sbblky

7  
3930 2970.5  
3940  
3950 2984.2  
3960  
3970  
3980 2997.9  
3990  
4000 3011.6  
4010  
4020 3025.3  
4030  
4040 3039.0  
4050  
4060 3052





Survey @ 4068.66 mMDRT  
 Incl: 46.62 deg  
 Azi: 189.74 deg  
 TVD: 3058.70 m

Survey @ 4096.94 mMDRT  
 Incl: 46.63 deg  
 Azi: 191.74 deg  
 TVD: 3078.10 m

Survey @ 4126.70 mMDRT  
 Incl: 46.61 deg  
 Azi: 192.93 deg  
 TVD: 3098.50 m

Survey @ 4183.93 mMDRT  
 Incl: 46.78 deg  
 Azi: 191.20 deg  
 TVD: 3137.80 m

SANDSTONE: clr-trnsl, com pl yelsh gy-pl yelsh or, tr fros, med-v crs, dom crs-v crs, mod srt, ang-dom sbang, r sbrndd, dom sbrndd, wk sil cmt, wk pyr cmt, cln, lse, p-fr inf por, no hydc fluor

SILTSTONE: olv gy-dk gnsh gy, med dk gy, non calc, tr v f aren, tr-com micmic, tr dissep pyr, tr v f glauc grs, sft-dom frm, dom sbfiss-sbblky

SANDSTONE: clr-trnsl, com pl yelsh gy-pl yelsh or, tr fros, med-v crs, dom crs-v crs, p srt, ang-dom sbang, r sbrndd, wk sil cmt, wk pyr cmt, cln, lse, p-fr inf por, no hydc fluor

SILTSTONE: olv gy-dk gnsh gy, med dk gy, non calc, tr v f aren, tr-com micmic, tr dissep pyr, tr v f glauc grs, sft-dom frm, dom sbfiss-sbblky

SANDSTONE: clr-trnsl, r pl yelsh gy-pl yelsh or, tr fros, med-v crs, dom crs-v crs, mod srt, ang-dom sbang, r sbrndd, wk sil cmt, wk pyr cmt, cln, lse, p-fr inf por, no hydc fluor

SANDSTONE: clr-trnsl, r pl yelsh gy-pl yelsh or, tr fros, med-v crs, dom crs-v crs, mod srt, ang-dom sbang, r sbrndd, wk sil cmt, wk pyr cmt, tr nod pyt, cln, lse, p-fr inf por, no hydc fluor

SILTSTONE: olv gy-dk gnsh gy, med dk gy, non calc, tr v f aren, tr-com micmic, tr dissep pyr, tr v f glauc grs, sft-dom frm, dom sbfiss-sbblky

SANDSTONE: clr-trnsl, r pl yelsh gy-pl yelsh or, tr fros, f-v crs, dom crs-v crs, tr f, p srt, ang-dom sbang, r sbrndd, wk sil cmt, wk pyr cmt, tr nod pyt, cln, lse, p-fr inf por, no hydc fluor

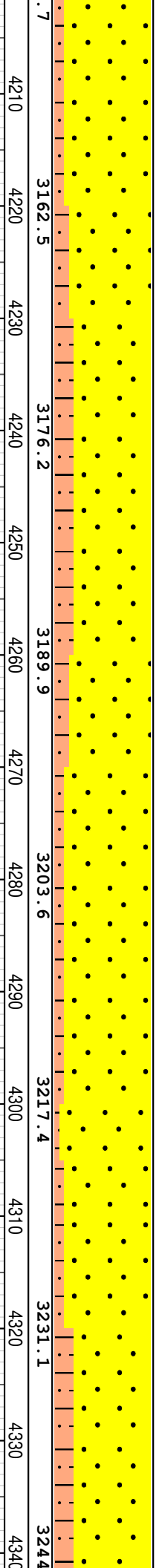


RPM: 119-211  
GPM: 608-695  
SPP: 3600-4300psi

05/01/09  
06/01/09

WOB: 1-23klbf  
RPM: 186-203  
GPM: 668-689  
SPP: 4103-4262psi

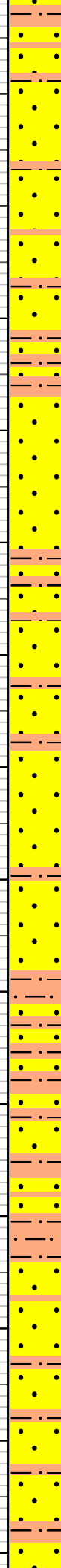
WOB: 4-39klbf  
RPM: 186-203  
GPM: 543-688  
SPP: 3214-4352psi



Survey @ 4241.84 mMDRT  
Incl: 46.79 deg  
Azi: 183.00 deg  
TVD: 3177.50 m

Survey @ 4270.08 mMDRT  
Incl: 46.59 deg  
Azi: 179.28 deg  
TVD: 3196.90 m

Survey @ 4327.69 mMDRT  
Incl: 46.52 deg  
Azi: 188.64 deg  
TVD: 3236.50 m



SILTSTONE: olv gy-dk gnsh gy, med dk gy, non calc, tr v f aren, tr-com micmic, tr disse pyr, tr v f glauc grs, sft-dom frm, dom sbfiss-sbblky

SANDSTONE: clr-trnsl, r pl yelsh gy-pl yelsh or, tr fros, f-v crs, dom crs-v crs, tr f, p srt, ang-dom sbang, r sbrndd, wk sil cmt, wk pyr cmt, tr nod pyt, cln, lse, p-fr inf por, no hydc fluor

SANDSTONE: clr-trnsl, r pl yelsh gy-pl yelsh or, tr fros, f-v crs, dom crs-v crs, tr f, p srt, ang-dom sbang, r sbrndd, wk sil cmt, wk pyr cmt, tr nod pyt, cln, lse, p-fr inf por, no hydc fluor

SANDSTONE: clr-trnsl, tr fros, f-v crs, com f, com v crs, tr f, p srt, ang-dom sbang, r sbrndd, wk sil cmt, wk pyr cmt, cln, lse, p-fr inf por, no hydc fluor

SANDSTONE: clr-trnsl, tr fros, f-v crs, min f, com v crs, p srt, ang-dom sbang, r sbrndd, wk sil cmt, wk pyr cmt, tr nod pyt, cln, lse, p-fr inf por, no hydc fluor

SILTSTONE: olv gy-dk gnsh gy, med dk gy, non calc, tr v f aren, tr-mnr micmic, tr disse pyr, tr v f glauc grs, sft-dom frm, dom sbfiss-sbblky

SANDSTONE: clr-trnsl, tr fros, med-v crs, dom crs-v crs, tr f, mod srt, ang-dom sbang, mnr sbrndd, wk sil cmt, wk pyr cmt, cln, tr pyt nod, lse, p-fr inf por, no hydc

