

MASTERLOG

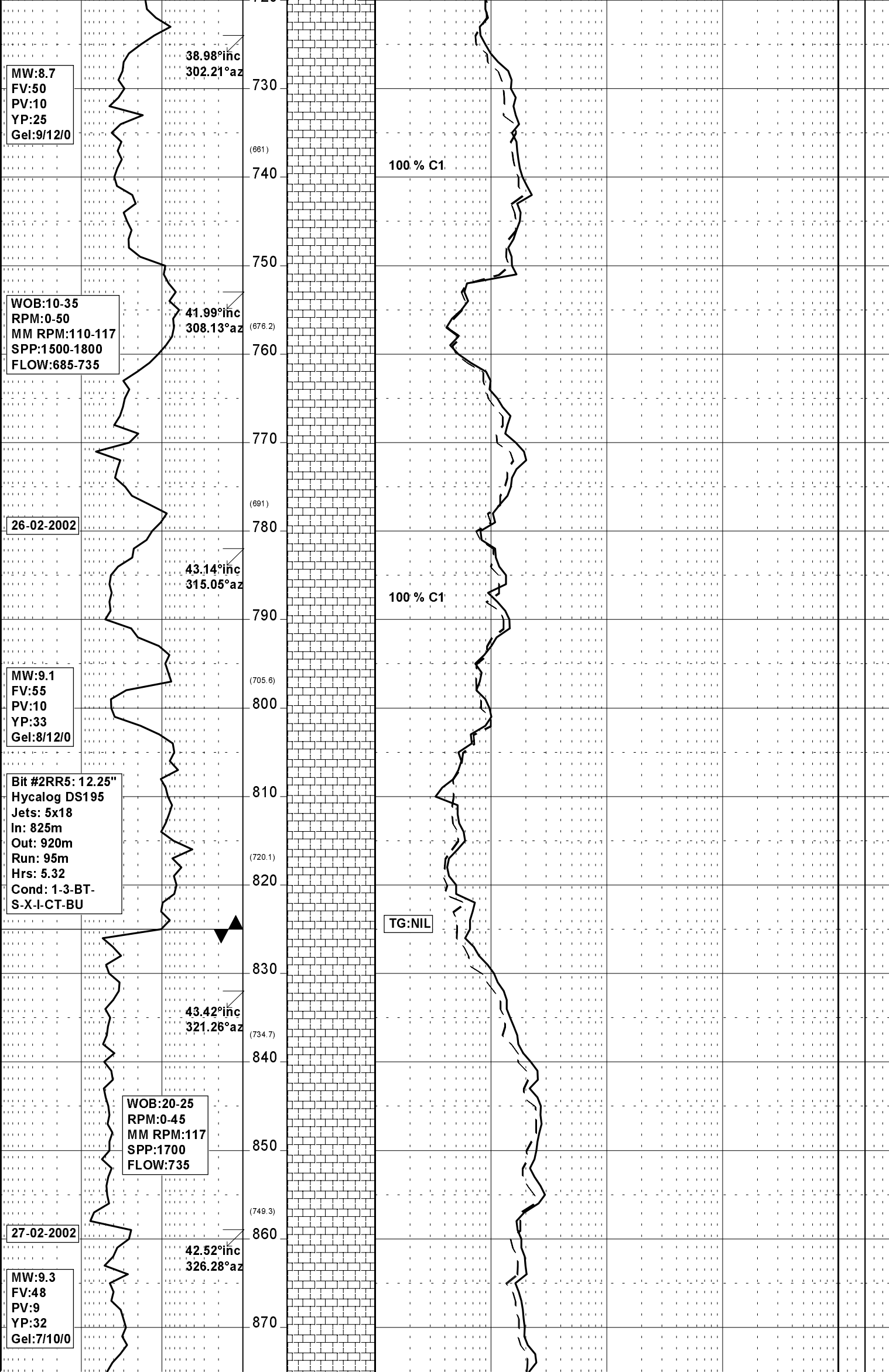
WEST TUNA W-8a



GENERAL	POSITION	HOLE / CASING INFO	DATE / DEPTH	ENGINEERS
Country : Australia Permit : VIC L4 Field : West Tuna Basin : Gippsland Well Type : Development Rig Name : NABORS 453	Local Co-ord X : 2.03 mE Local Co-ord Y : -1.58 mN AMG Co-ord X : 621,484.71 mE AMG Co-ord Y : 5,771,795.17 mN RT to MSL : 34.69 m RT to Sea Bed : 95.69 m	12-1/4" Hole to 1312 m 8-1/2" Hole to 3590 m 20" Conductor Shoe @ 167 m 13-3/8" Surface Casing @ 690 m 9-5/8" Intermediate Casing @ 1306.7 m 7" Production Casing @ 3583.4 m	Spud Date : 25-02-2002 Total Depth Date : 24-03-2002 Total Depth : 3590 m True Vertical Depth : 2094.97 m Log Scale : 1/ 500 Depth From (m): 670 To: 3610	Matt Boyd Greg Fawns Phil Rady Mark Smith

ABBREVIATIONS	LITHOLOGY LEGEND	ENGINEERING LEGEND
MW Mud Weight FV Funnel Viscosity PV Plastic Viscosity YP Yield Point Gel Gel Strength WL Water Loss KCl Potassium Chloride Cl Chlorides Incl Inclination Az Azimuth WOB Weight on Bit (klbs) RPM Rotations Per Min FLW Flow Rate (gpm) SPP Pump Pressure (psi) RR Re-Run Bit TG Trip Gas CG Connection Gas BG Background Gas DGP Drilled Gas Peak MM Mud Motor	CLAYSTONE SILTSTONE SST: F - V FINE SST: MEDIUM SST: COARSE SHALE MARL LIMESTONE DOLOMITE CHERT CONGLOMERATE COAL BRYOZOA RADIOLARITES ECHINOIDS CORALS FORAMINIFERA LITHIC FRAGMENT CARB FRAGMENT QUARTZITE INTRUSIVES GLAUCONITE PYRITE CEMENT	CASING SHOE LINER HANGER BIT CHANGE DEVIA. SURVEY SWC UNRECOV SIDEWALL CORE WIRELINE LOGS MDT POINTS: PRESSURE ONLY SAMPLE SEAL FAILURE TIGHT CORE

RATE OF PENETRATION				DEPTH (m) (TVD)	CUTTINGS LITHOLOGY	TOTAL GAS & CHROMATOGRAPH DATA					CUT FLUOR	DIRECT FLUOR	CALCIMETRY % CALCITE DOLOMITE	LITHOLOGICAL DESCRIPTIONS and REMARKS	
metres/hour						%	C1 — — iC4 — — nC5 — —	C2 - - - - nC4 - - - -	C3 — . - - iC5 — . - - TG — — — —						
500	50	5	.5			0	.5 100	5 .1	50 1	500 10					5K 100
				670											
<div>Bit #1RR: 12.25" Smith XL20D Jets: 3x18 In: 650m Out: 695m Run: 45m Hrs: 3.81 Cond: 3-4-WT-A -EEE-I-PN-BHA</div>				680		<div>WEST TUNA W-8a SPUDDED @ 06:00 HRS ON 25-02-2002</div>									
				690		<div>13-3/8" Surface Casing Set @ 690 metres</div>									
<div>Bit #2RR4: 12.25" Hycalog DS195 Jets: 5x18 In: 695m Out: 825m Run: 130m Hrs: 19.91 Cond: 1-3-BT-S -X-I-CT-BU</div>				(630.8)											
				700											
				710											
				(645.9)											
				720											
														<div>NO H2S or CO2 DTECTED</div>	
														CALCARENITE:wh-v lt gy,vf-f,rr med-crs,mod srt,abdt foss,lse,	



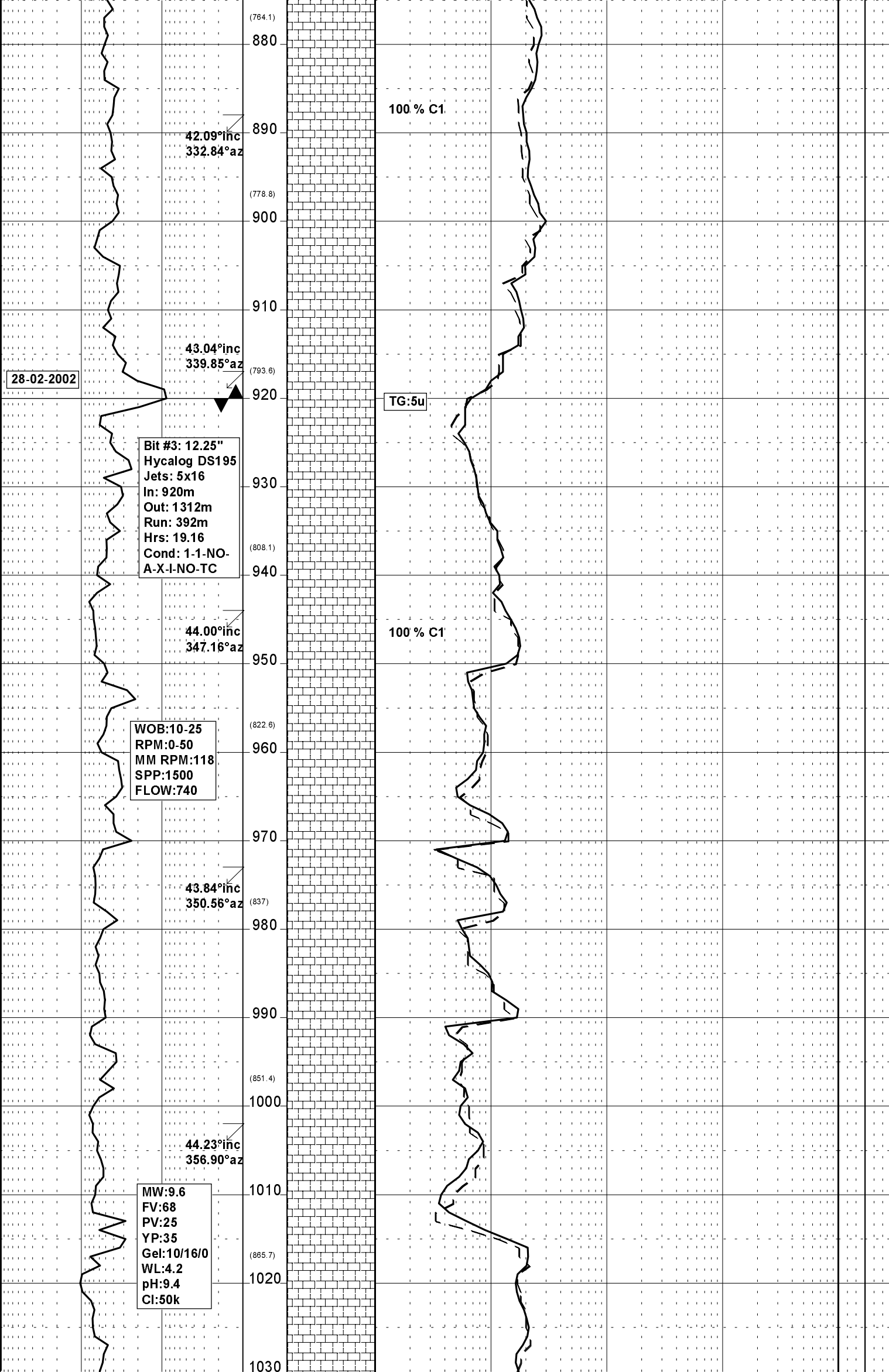
pr inf por,no fluor.

CALCARENITE:v lt gy-lt gy bn,
vf-f,slty i/p & g/t Clsit,mod
srt,abdt foss,lse frm,pr inf por
no fluor.

CALCARENITE:lt-med gy bn,vf-slt,
g/t Clst,foss,glaucl,lith,frm-
brit,pr vis por,no fluor.

CALCILUTITE:v lt gy,v arg & g/t
Calc Clst i/p,sft-occ frm,blky.

CALCILUTITE:v lt gy-lt olv gy.v

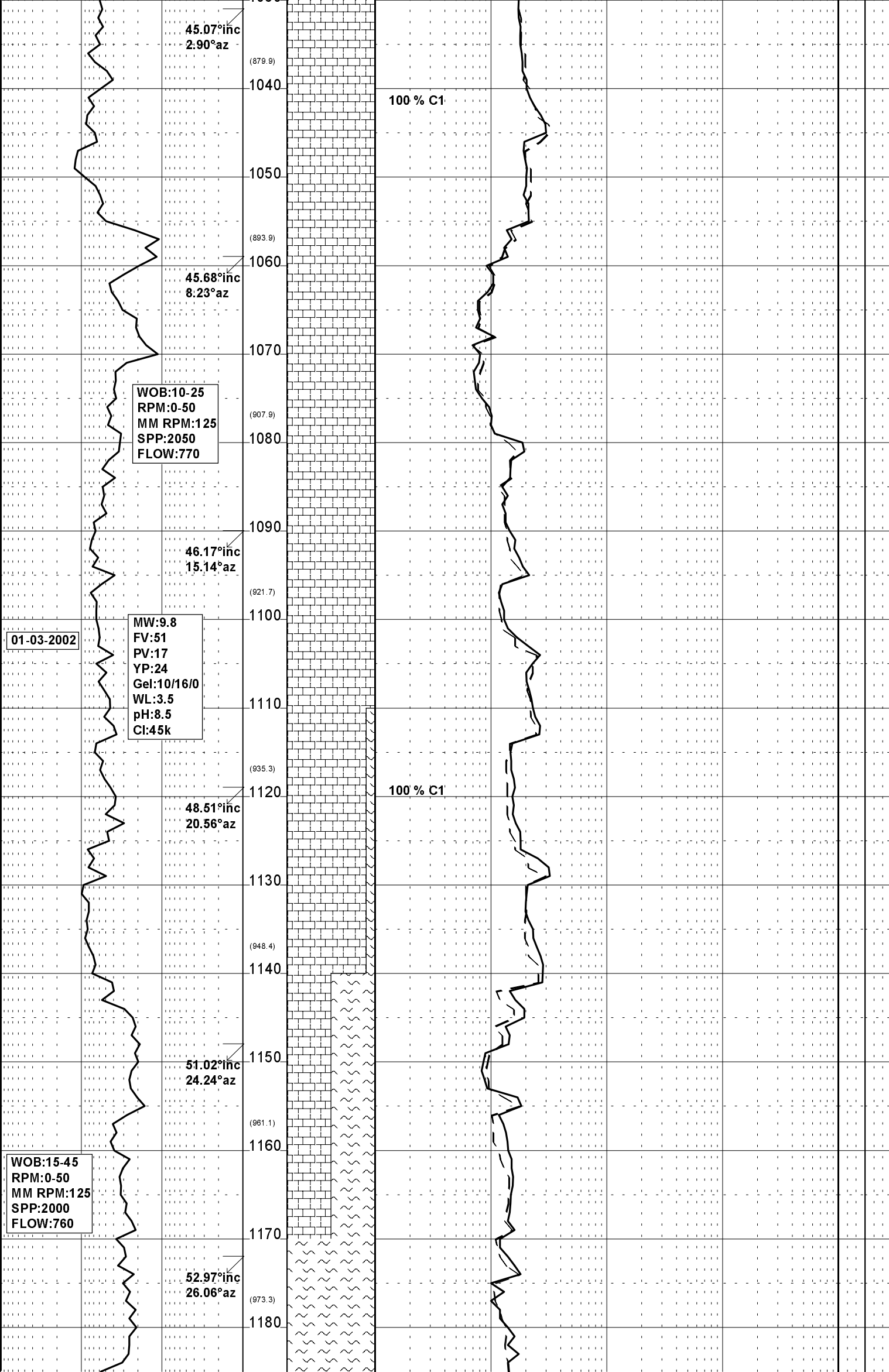


arg,foram,oid,tr carb spk,
sft-frm,blky-sbblky.

Drill ahead with
KCI/PHPA/Glycol mud system

CALCILUTITE:v lt gy-lt gy,v arg,
tr foram & ooid,tr spar calcite,
tr dissem & nod pyr,tr carb spk,
sft-occ frm,amor-sbblky.

CALCILUTITE:v lt g-lt gy,occ lt
olv gy,v arg & g/t Calc Clst,rr
silty,tr ooid & foram,tr nod pyr,



tr carb spk,v sft-occ frm,amor-sbbiky.

CALCILUTITE:pl-med gy,dk yel bn
i/p,mnr arg,com microfoss,tr
mica & glauc spk,sft,sbbiky.

CALCILUTITE:pl-med gy,dk gy i/p,
arg i/p,mnr dissem pyr,occ carb,
mica & glauc spk,com microfoss,
sft-frm,sbbiky-sbfiss.

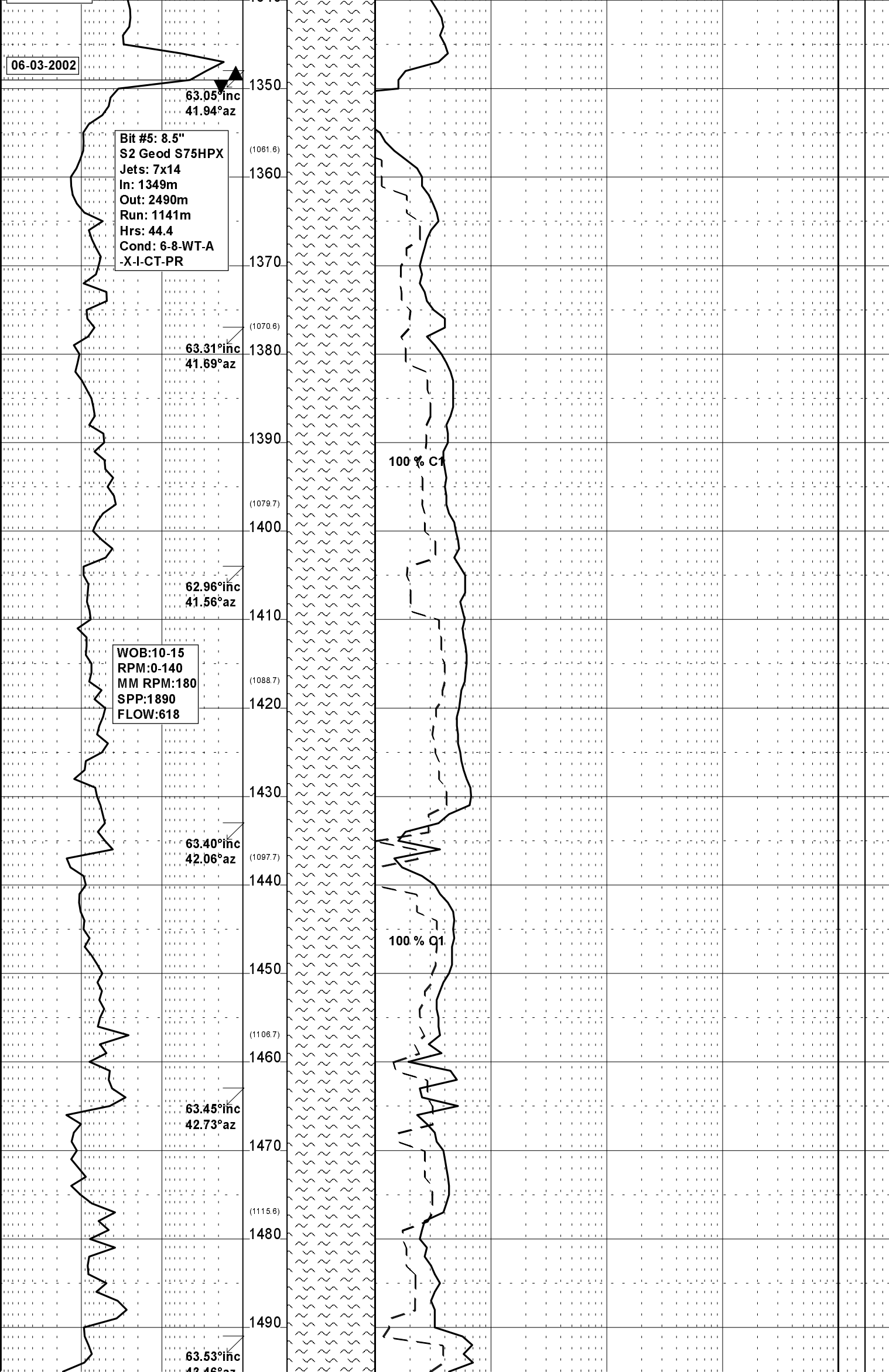
MARL:med-dk gy,tr carb spk,mnr
dissem pyr,sft-frm,sbfiss-sbbiky

MARL:lt-occ med gy,arg,tr sity,
tr carb & lith spk,tr foss &

MARL:med-occ lt gy,lt olv gy,arg
tr slty i/p,tr carb & lith spk,
rr dissem pyr,tr foss,sft-occ
frm,sbblky.

PIT: 12.5 ppg EMW

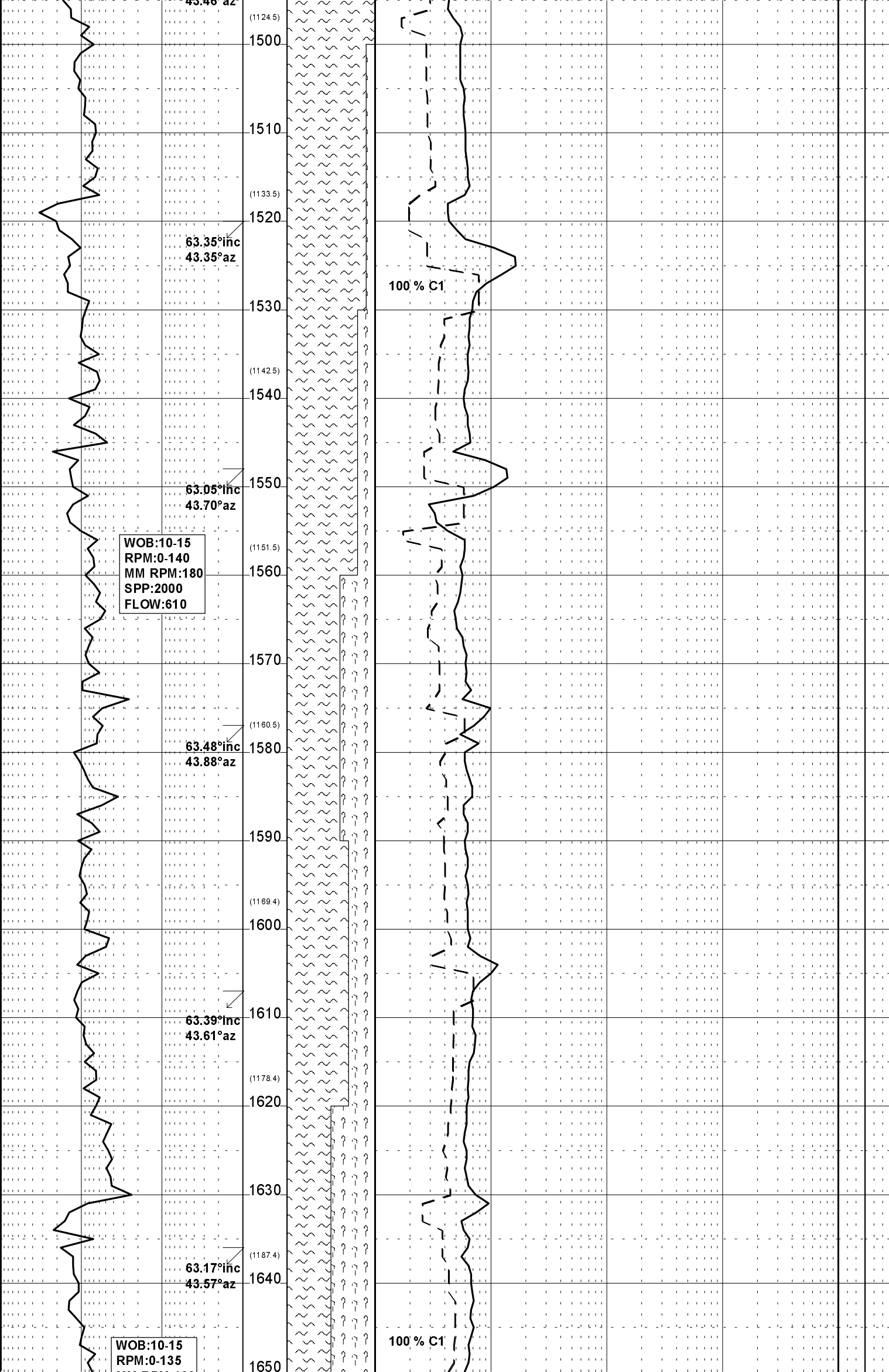
1190
(984.9)
1200
56.57°inc
29.91°az
1210
(995.7)
1220
1230
59.96°inc
34.10°az
1240
(1006)
MW:9.9
FV:59
PV:20
YP:35
Gel:10/15/0
WL:4.0
pH:8.8
CI:46.5k
1250
1260
(1015.7)
61.94°inc
38.40°az
1270
1280
(1025.1)
100 % C1
1290
62.79°inc
41.71°az
(1034.3)
1300
1310
02-03-2002
1320
(1043.4)
TG: NIL
1330
1340
(1052.5)
9-5/8" Casing Shoe set @ 1306.7 metres
Bit #4: 8.5" Hycalog DS203
Jets: 6x15
In: 1312m
Out: 1349m
Run: 37m
Hrs: 5.3
Cond: 0-3-CT-G-X-I-BU-PR
WOB:10-15
RPM:0-50
MM RPM:180
SPP:1550
FLOW:612



MARL:med gy-occ lt gy,lt olv gy,
occ slty,occ lith,frm,occ sft,
sbbiky-blky.

MARL:med gy-lt olv gy,slty i/p,
tr dissem pyr,tr carb spk,rr
lith frag,frm,occ sft,sbbiky.

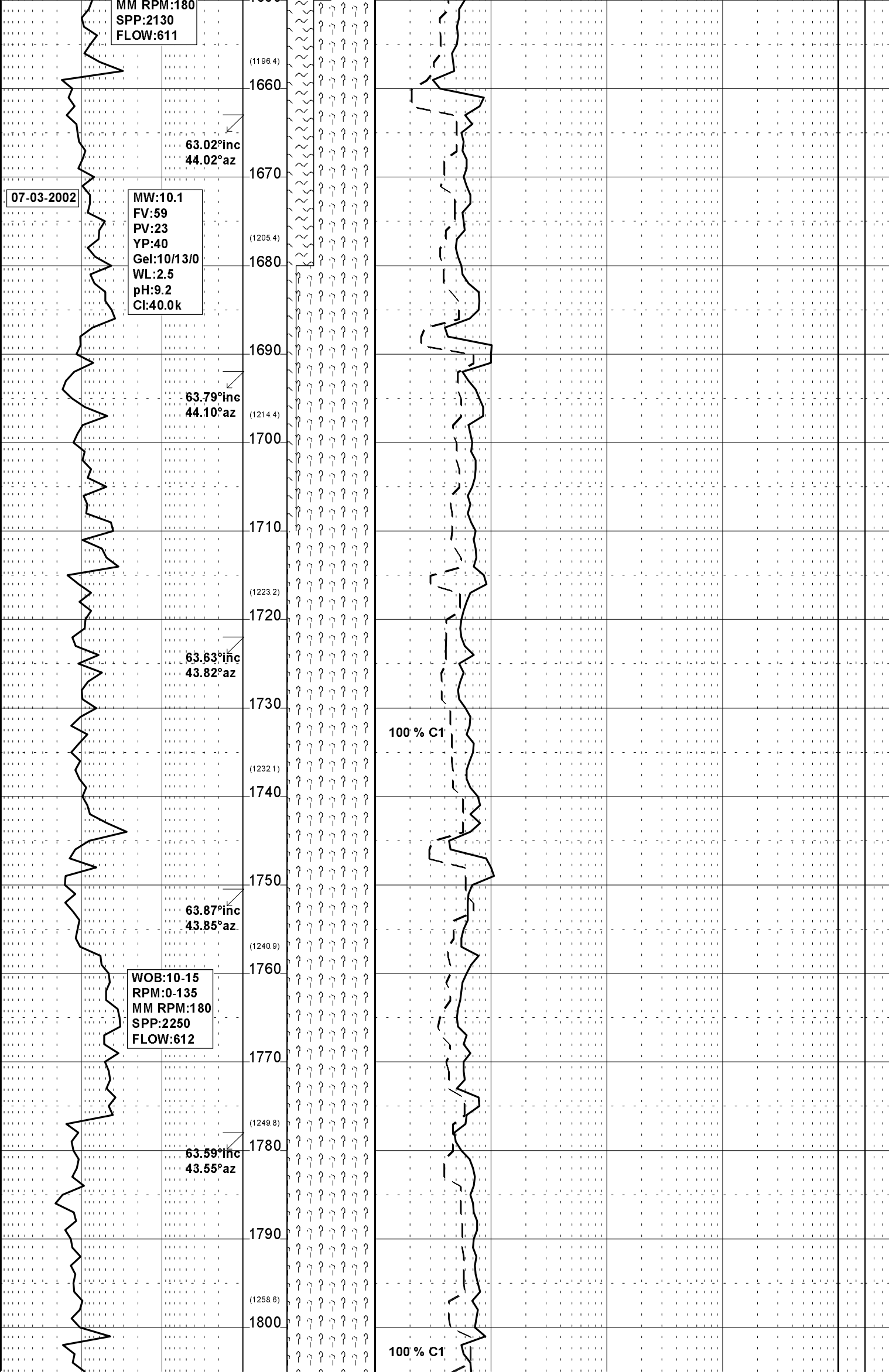
MARL:v lt olv gy-med gy,occ
lith,mnr dissem pyr,sft-frm,
sbbiky-blky.



CLAYSTONE: olv gy-dk olv gy, sli
aren, sli calc, mnr carb spk &
lith, com disse pyr, frm, sbblky-
blky.

MARL: pl olv gy-olv gy, gy i/p,
tr disse pyr, sft-frm, sbblky.

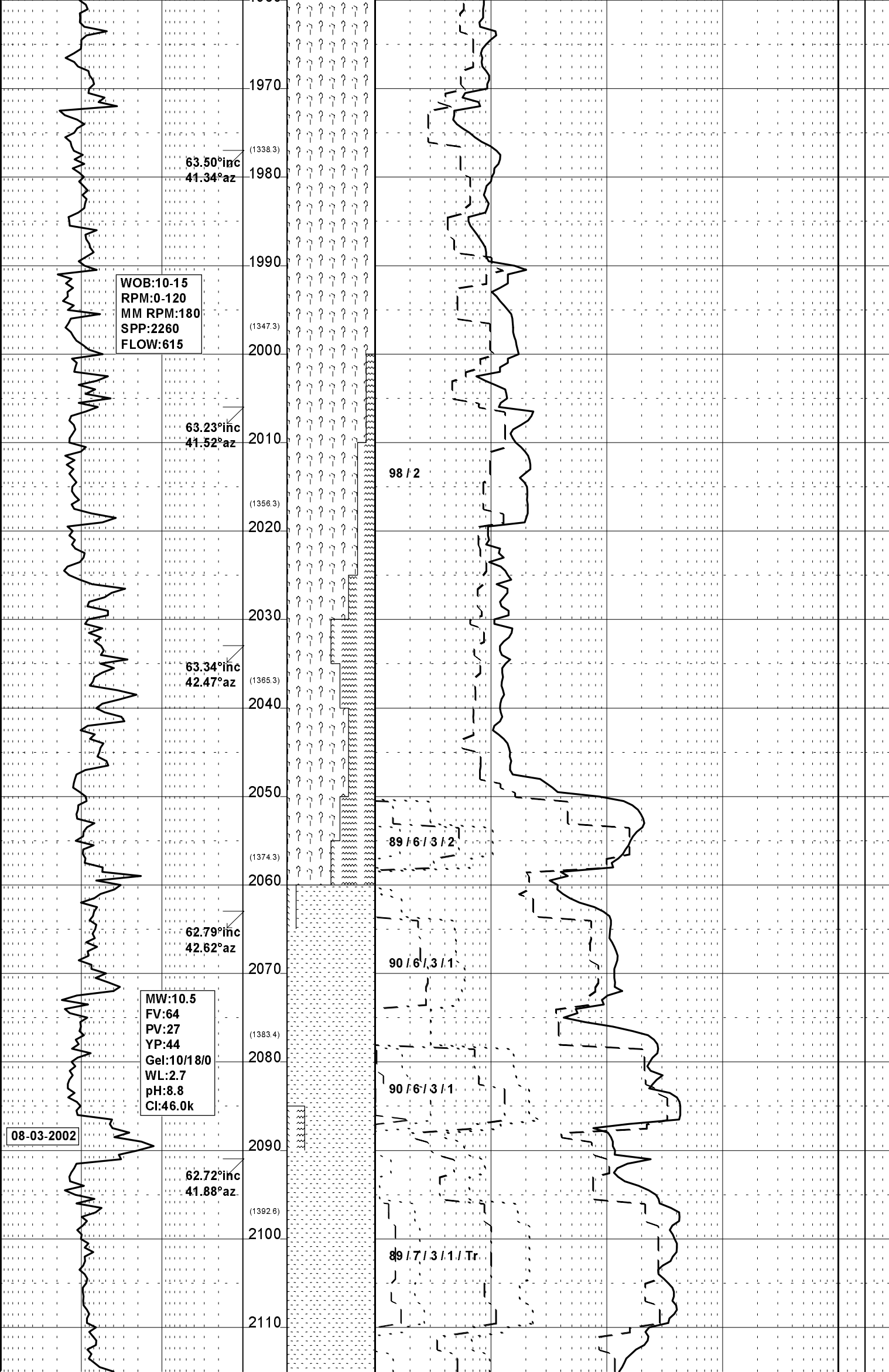
CLAYSTONE: olv gy-med gy, occ lt
gy, calc, loc com aren, occ ooid,
tr carb spk, frm, sbblky-blky.



CLAYSTONE:lt gy-med gy,calc,
occ aren,occ ooid,rr carb spk,
frm-sft,sbbiky-blky.

CLAYSTONE:lt olv gy-lt bn gy,
med gy i/p,calc,tr-com foram,tr
dissem pyr,rr glauc frag,frm,
occ sft,sbbiky.

CLAYSTONE:olv gy-dk olv gy,m gy
i/p,gn gy i/p,calc,com foram,
occ dissem glauc,frm,occ frm,occ
mod hd,sbbiky,sbfiss i/p.



CLAYSTONE:lt gy-med gy,gn gy i/p
com foram,tr carb spk,occ dissem
pyr,tr f aren,frm-mod hd,sbbiky

CLAYSTONE:lt gy-lt bn gy,occ med
gy,rr carb spk,tr f aren,occ
dissem pyr,frm-occ mod hd,sbbiky

SILTSTONE:lt bn gy-lt bn,occ med
gy,arg,tr f aren,occ dissem pyr,
occ f carb spk,rr dissem glauc,
frm,occ sft,sbbiky.

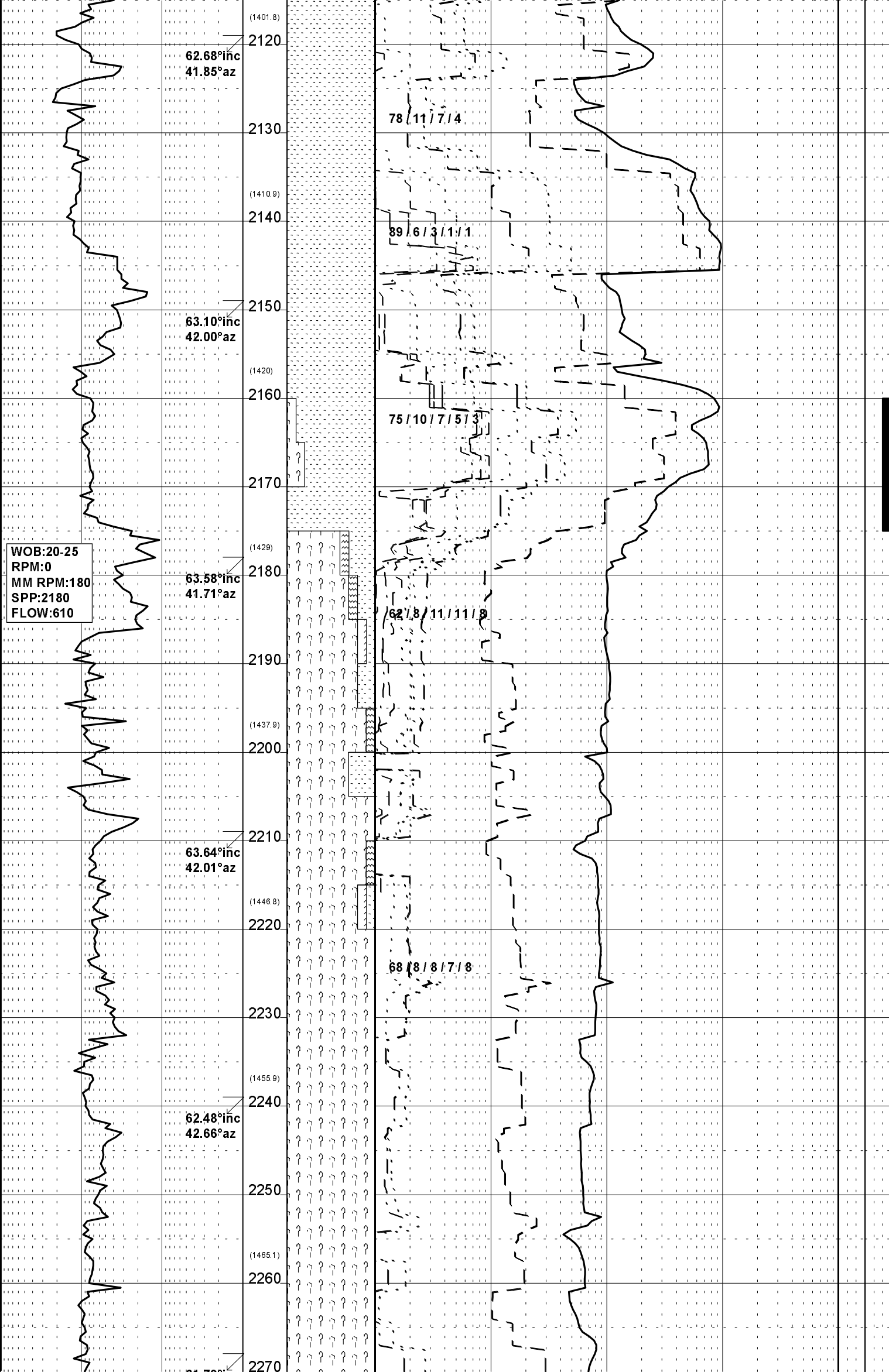
CLAYSTONE:pl yel org-dk yel org,
occ lt bn,gn gy i/p,tr aren,nod
glauc i/p,occ nod pyr,v sft-disp
sbbiky-amor.

SILTSTONE:dk bn-dk blk bn,vf
aren,sideritic,tr glauc grn,tr
nod pyr,mod hd-hd,blky.

SANDSTONE:trnsi wh-occ clr,opq,
med-com crs,pr srt,sa,tr sil cmt
rr nod pyr,occ Fe stn,pred cin &
lse,gd inf por,no fluor.

SILTSTONE:lt gy-lt gn gy,tr vf
aren i/p,frm-mod hd,sbfiss.

SANDSTONE:trnsi-occ clr,med-com
crs,pr srt,sa-sr,rr nod pyr,rr
dissem pyr,pred lse & cin,gd inf
por,no fluor.



SANDSTONE:trsl-opq,com clr,crs,
com med,pr srt,sr,rr nod pyr,
pred cln & lse,gd inf por,no
fluor.

SANDSTONE:clr-trnsl,med-crs,pred
med,pr srt,sa-sr,occ dissem &
nod pyr,rr glauc grn,pred cln &
lse,gd inf por.

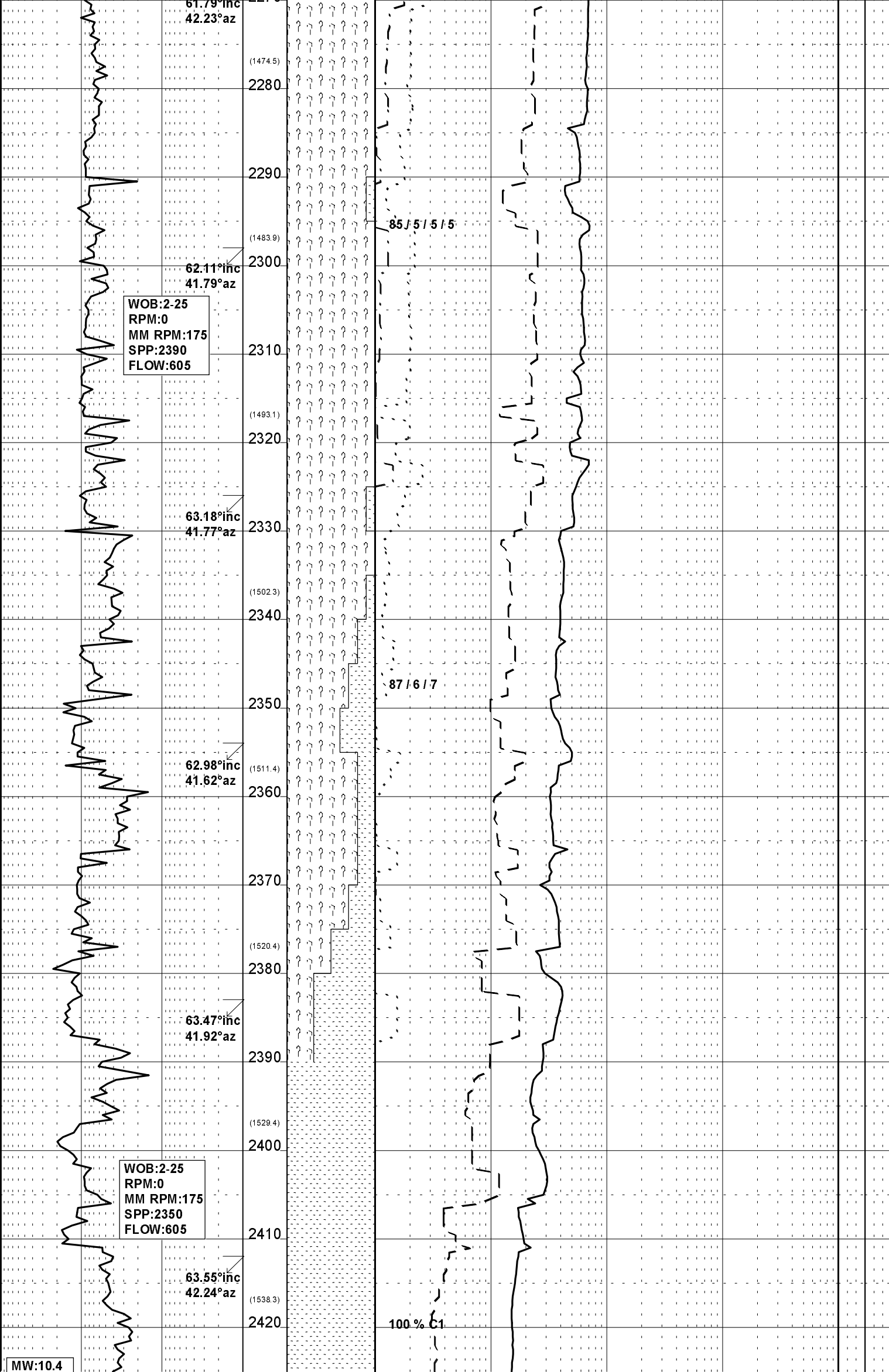
FLUOR:40%, fnt-mod bri, yel grn,
ptchy, slw wh c/c, thn r/r.

CLAYSTONE:pl gy-olv gy,yelsh bn-
bnsh gy,loc abdt vf qtz grn,com
nod pyr,mnr carb spk,micmic,sft-
disp,amor,occ sbfiss.

SANDSTONE:clr-trnsl,vf-f,mod srt
sr-sa,wk cmt,com arg mtx,lse,fr-
gd inf por,no fluor.

SILTSTONE:gysh bn-dk bn,arg,carb
micmic,sft-frn,sbbiky.

CLAYSTONE:yelsh bn-dk yelsh bn,
gy i/p,com slty incl,com carb
spk,micmic,sft-disp,amor.



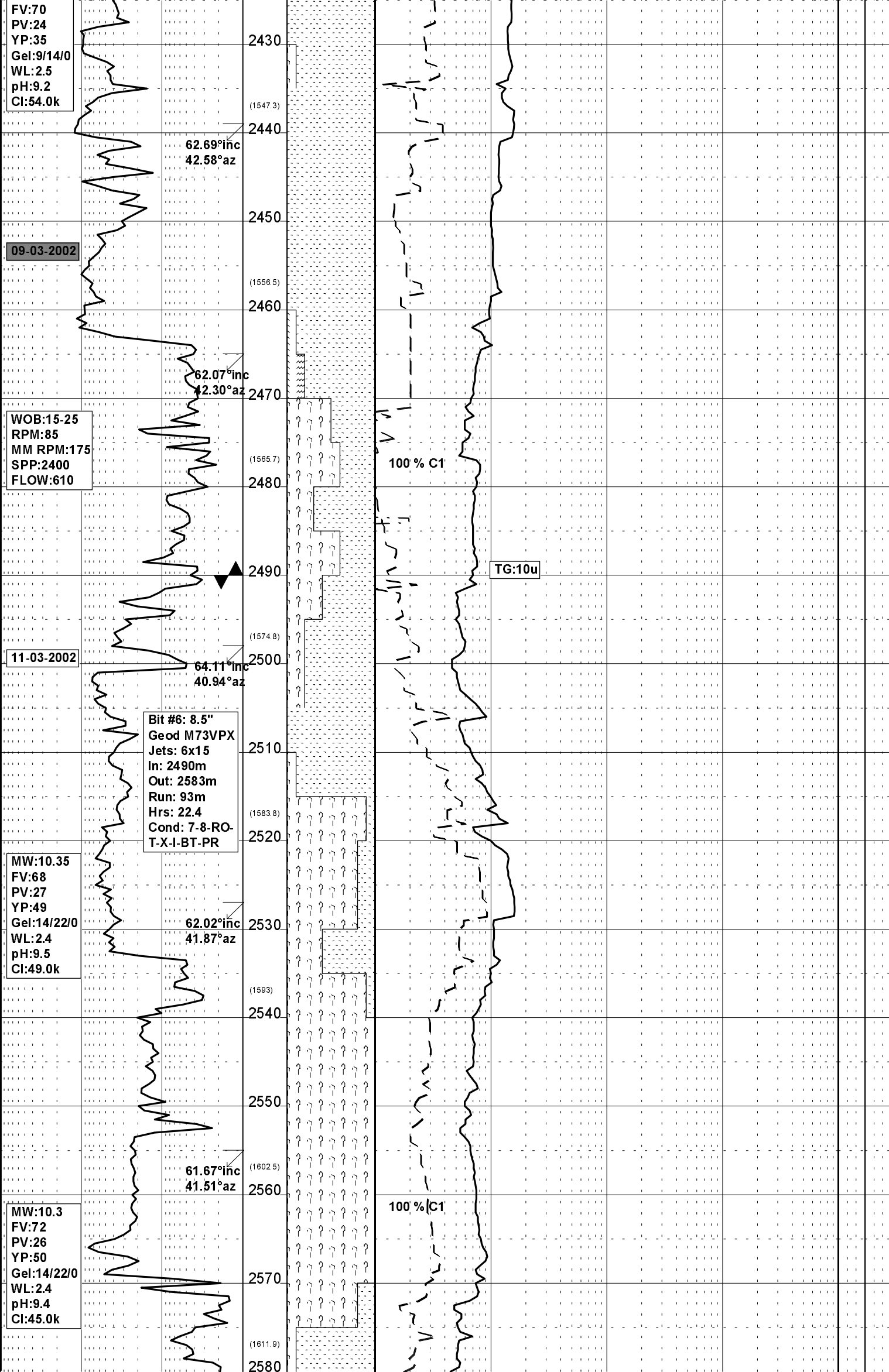
SANDSTONE:clr-trnsl,pred f-med,
occ med-crs,pr srt,sa-sr,wk cmt,
com arg mtx,lse,fr-pr inf por,no
fluor.

CLAYSTONE:pl gy,pl bn-dk yelsh
bn,dk bn i/p,com vf qtz grn,
micmic,loc abdt carb incl g/t
Coal,sft-disp,frm i/p,amor-
sbfiss.

SANDSTONE:clr-trnsl,f-m,occ crs-
v crs,pr srt,sa-sr,wk cmt,com
arg mtx,lse,pr inf por,no fluor

CLAYSTONE:yel bn,occ pl gn gy,tr
vf aren,com dk bn lith,mnr nod
pyr,mnr micmic,sft-disp,blky-
amor.

SANDSTONE:clr-trnsl,med-com crs,
sa-sr,tr sil cmt i/p,tr nod pyr,
pred cln & lse,gd inf por,no
fluor.



SANDSTONE:clr-trnsl,pred med,
com crs,sa-sr,tr dissem pyr,pred
cln & lse,gd inf por,no fluor.

SANDSTONE:clr-trnsl,med-pred crs
mod pr srt,tr pl gy arg mtx,tr
dissem pyr,pred cln & lse,gd inf
por,no fluor.

SANDSTONE:clr-trnsl,med-crs,sa-
sr,pr srt,com strg dol cmt,tr
pyr cmt,cln,pr vis por,com yel
gn min fluor.
SILTSTONE:med dk gy,arg,dol,frm-
mod hd,pred mod hd,sbbky.
CLAYSTONE:(1)dk gy,lt bn-yelsh
bn,com carb spk,com dissem pyr
mod hd-hd,sbfiss-fiss.
(2)wh,Kaol,sft-disp,amor.

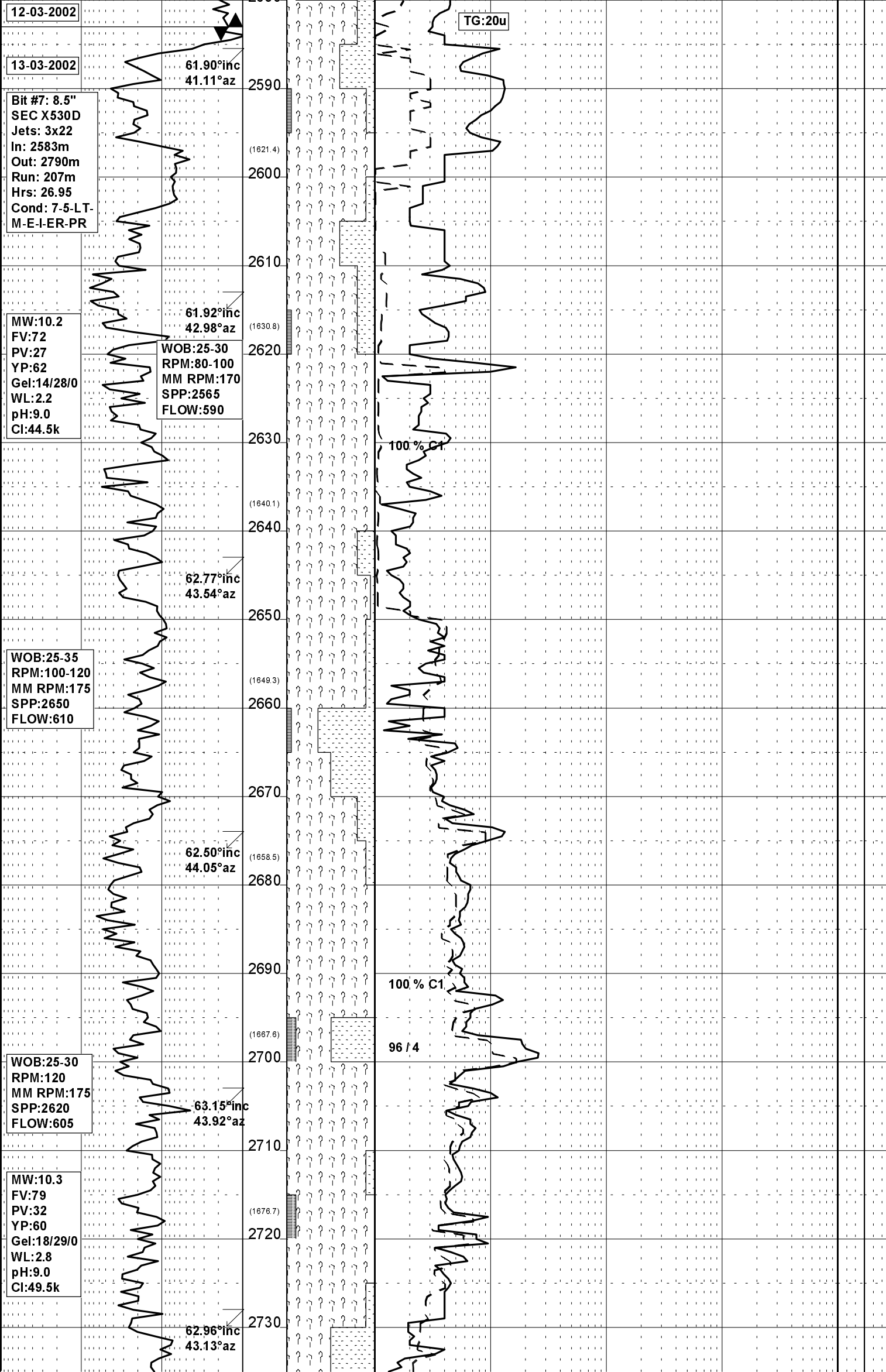
SANDSTONE:clr-trnsl,f-med,pred
med,mod wl srt,sr,tr dol cmt i/p
pred cln & lse,occ hd aggs,fr-
gd inf por,pr vis por,com yel
gn min fluor.

CLAYSTONE:1)lt bn,tr f aren,tr
dissem pyr,disp,amor.
(2)pl yel bn-lt gy,wk calc,tr
nod pyr,frm-occ mod hd,sbbky-
sbfiss.

CLAYSTONE:lt bn-dk gy bn,dk gy
i/p,mnr carb spk,com dissem pyr
i/p,com micmic,pred disp & amor,
occ mod hd,sbfiss-fiss i/p.

CLAYSTONE:(1)a/a.
(2)pl gy,com vf aren incl,disp,
amor.

SANDSTONE:clr-trnsl,f-med,pred
med,tr crs,mod wl srt,sa-sr,mnr
dol cmt,pred cln & lse,gd inf
por,mnr min fluor.



COAL:(Tr-5%)bn blk,dull,fri,
sbfiss,unevn,mnr slty.

CLAYSTONE:lt bn-pl yel bn,calc
i/p,tr carb spk,rr nod pyr,sft-
frm,sbblky-sbfiss.
SANDSTONE:clr-trnsl,f-med,pred
med,wl srt,sa-sr,mnr dol cmt i/p
pred cln & lse,pr-fr inf por,no
fluor.

CLAYSTONE:v pl-med gy,olv gy-lt
bn,occ carb spk,micmic,com vf
aren SST incl,disp-sft,amor-
sbblky.

SANDSTONE:clr-trnsl,f-med,rr crs
pr srt,tr sil cmt,mnr arg mtx,fr
-pr inf por,no fluor.

CLAYSTONE:bn gy-mod bn,pl-med
gy,carb spk i/p,micmic,vf aren
i/p,sft-disp,amor.

COAL:(Tr-5%)bn blk-dk bn,dull,
fri-occ uncon,sbfiss,unevn,slty

SANDSTONE:clr-trnsl,f-med,mod
srt,sa-pred sr wk sil cmt,mnr
arg mtx,lse,fr inf por,no fluor

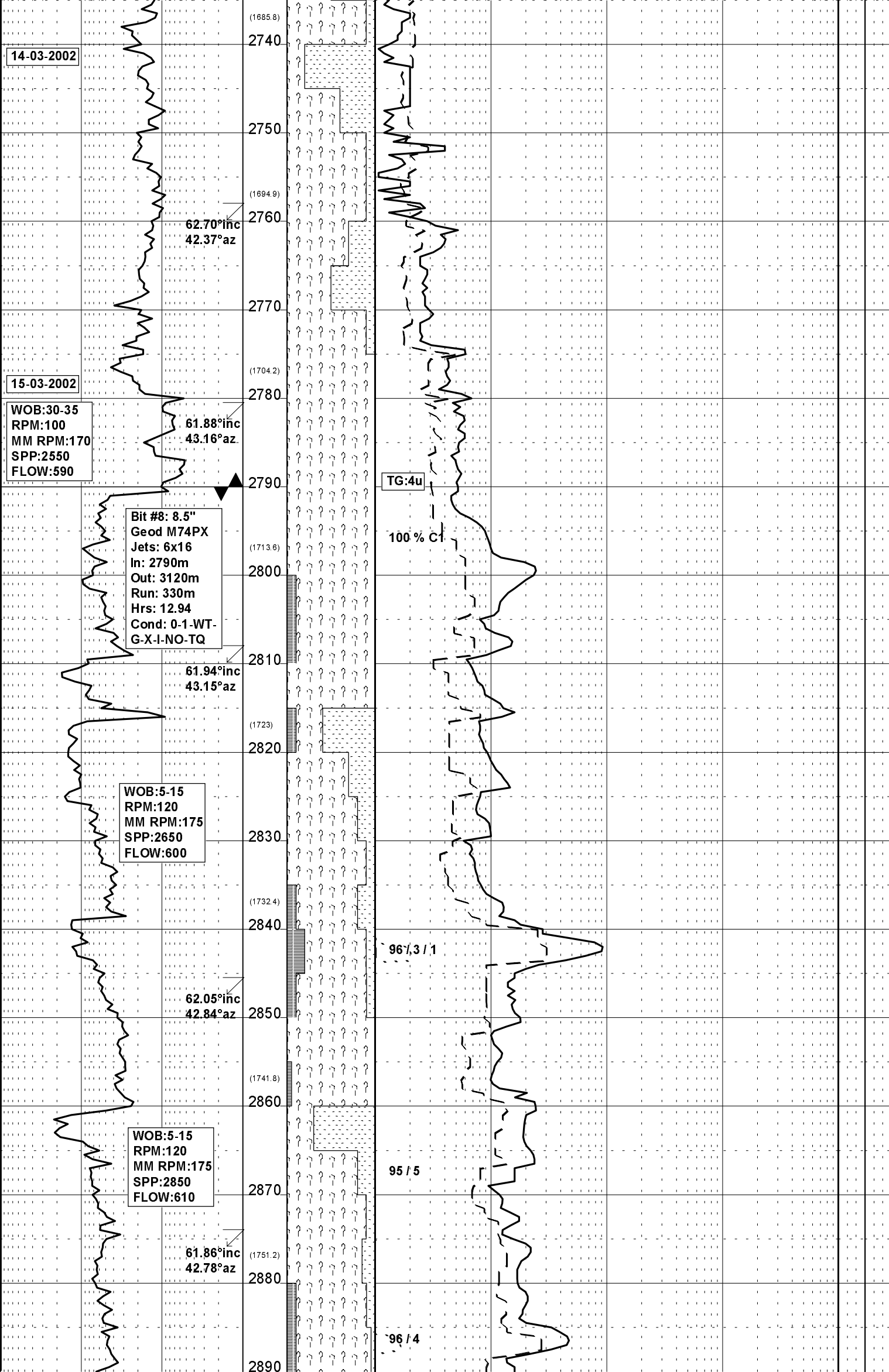
CLAYSTONE:mod yel bn-bn gy,tr
f aren i/p,tr carb spk,rr
dissem pyr,sft-disp,amor.

COAL:blk bn,dull,fri-uncons,
sbfiss,unevn,sity.

SANDSTONE:trnsl-clr,off wh,f-med
pred f,tr sil cmt,off wh arg mtx
i/p,mnr carb spk,pred cln & lse,
occ fri agg,pr vis por,fr inf
por,no fluor.

CLAYSTONE:lt bn gy-lt bn,tr
carb spk,rr dissem pyr,tr micmic
sft-disp,amor,blky.

SANDSTONE:clr-trnsl,wh,f-med,
pred f,wl srt,sa-sr,wk sil cmt,
occ com wh arg mtx,pr inf por,
no fluor.



SANDSTONE:clr-trnsl,wh,f-med,
pred f,rr crs,mod srt,sa-sr,
wk sil cmt,com-abdt arg mtx,tr
nod pyr,lse,pr inf por,no fluor

CLAYSTONE:lt bn gy-lt bn,lt gy,
occ carb mat,tr pyr incl,abdt
micmic,disp-sft,amor,rr sbbiky.

SANDSTONE:clr-trnsl,wh,pred f-
med,rr crs,mod srt,sa-sr,wk sil
cmt,com arg mtx,tr nod pyr,lse,
pr inf por,no fluor.

CIRCULATE, RIG REPAIRS.

CLAYSTONE:bn gy-bn blk i/p,carb
i/p,occ carb microlam,tr micmic,
sft,occ frm,sbbiky-amor i/p.

COAL:bn blk-dsky bn,dull-ea,brit
sbfiss,unevn-ang,sity.

CLAYSTONE:med gy-lt gy,mnr carb
spk,rr carb microlam,frm,sbbiky-
sbfiss.

SANDSTONE:trnsl-opq,occ clr,med-
crs,occ f,sa pr srt,com lt bn
arg mtx,com carb spk,lse,loc hd
agg,ti vis por,no fluor.

CLAYSTONE:lt gy-lt bn gy,tr f
aren,mnr carb psk,tr micmic,rr
nod pyr,sft-disp,sbbiky,amor.

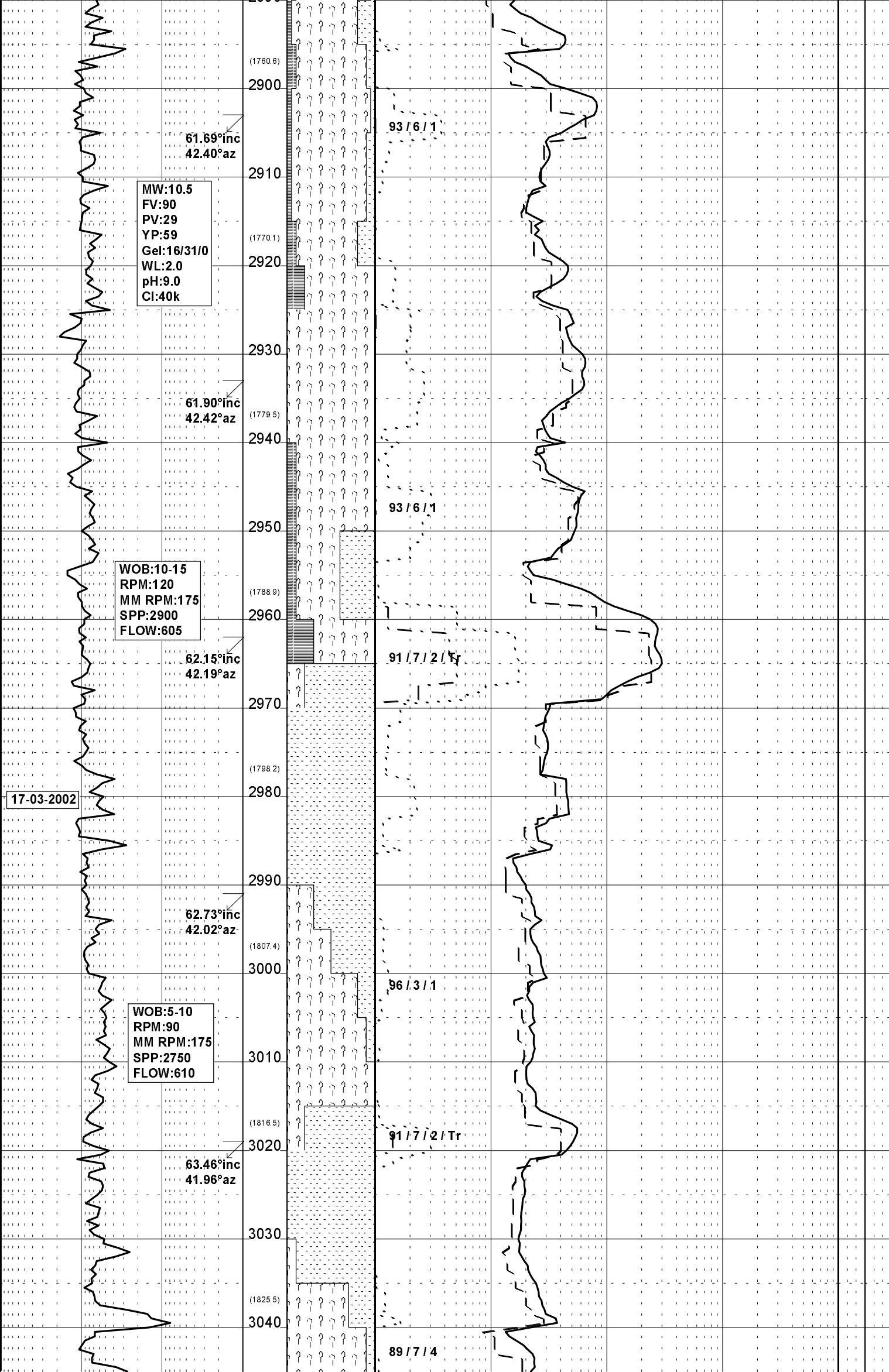
COAL:bn blk-bn gy,ea,brit,sbfiss
ang,sity.

CLAYSTONE:v lt gy-lt bn gy,tr vf
aren,tr carb spk,rr nod pyr,sft-
disp,amor.

SANDSTONE:clr-trnsl,opq,f-med,
occ crs,mod srt,sa-sr,wk sil cmt
mnr arg mtx,tr pyr,lse,fr inf
por,no fluor.

CLAYSTONE:v lt gy-lt bn,micmic,
carb mat,sft-disp,amor-sbfiss.

COAL:blk-bn blk,ea,dll-sbvit,ang
-sbfiss,sity,tr nod pyr.



CLAYSTONE:v lt gy-lt bn gy,mod
bn i/p,carb mat i/p,micmic,occ
vf aren,disp-sft,amor-sbfiss.

SANDSTONE:clr-trnsl,opq,f-med,
occ crs,mod srt,wk sil cmt,mnr
arg mtx,lse,pr inf por,no fluor

CLAYSTONE:v lt gy-lt bn gy,mod
bn i/p,com carb striat/lam,com
micmic,sft-disp,amor-sbfiss.

COAL:blk,bn blk,ea,dll-sbvit i/p
frm-brit,ang-unevn,sity,pyr.

SANDSTONE:clr-trnsl,opq,f-med,wi
srt,sa-sr,wk sil cmr,tr arg mtx,
pred cln,lse,fr inf por,no fluor

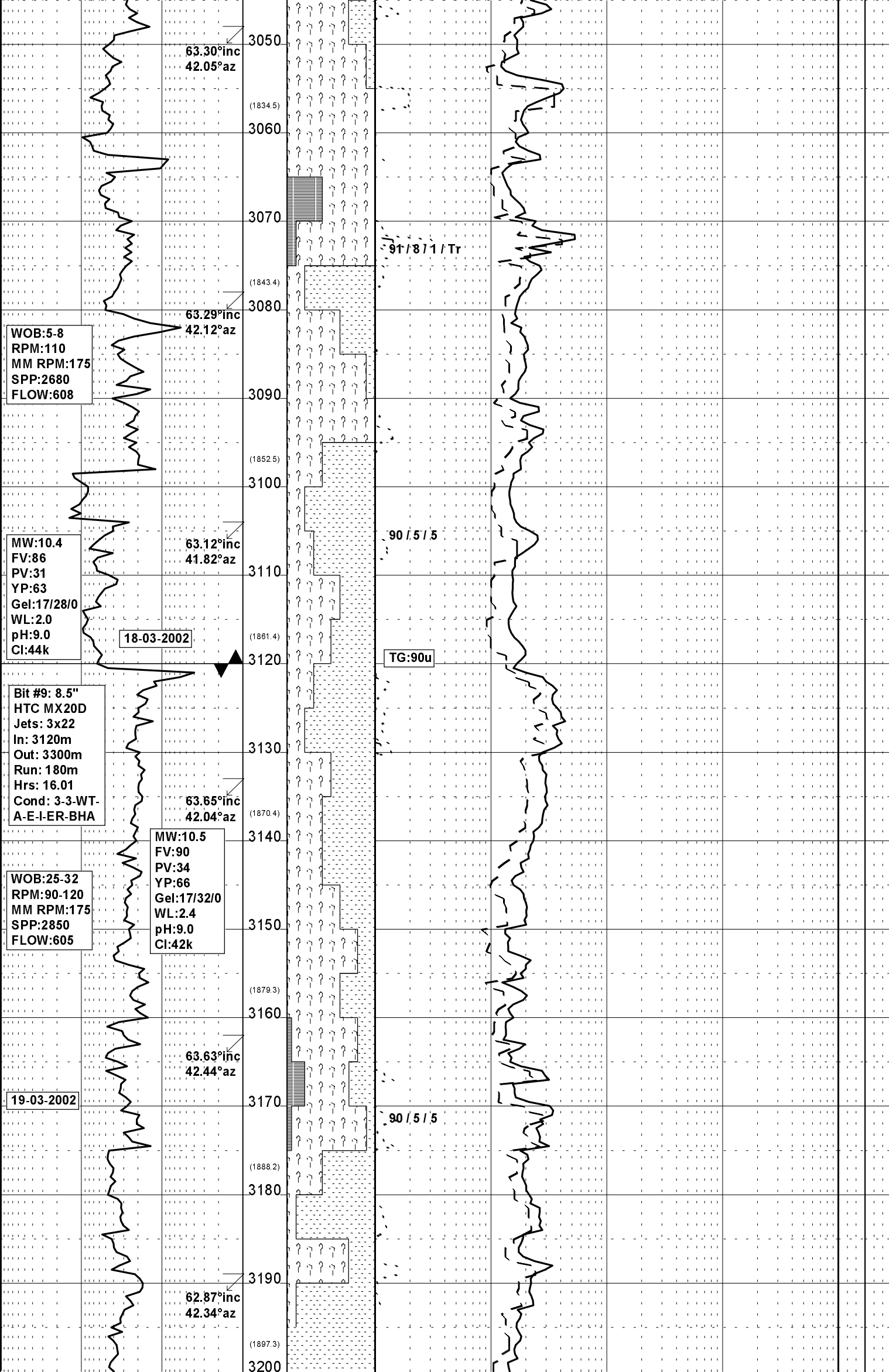
SANDSTONE:clr-trnsl,opq,f-crs,
dom med-crs,pr srt,sa-sr,wk-mod
sil cmt occ ang qtz grn,tr
dissem pyr,cln,lse,fr inf por,
no fluor.

REDUCE MW 10.5-10.3 ppq

CLAYSTONE:mott pl gy-med lt gy,
vf aren i/p,micmic,occ carb incl
sft-disp,amor-sbfiss.

SANDSTONE:clr-trnsl,opq,f-v crs,
dom med-crs,pr srt,sa-sr,wk-mod
sil cmt,ang qtz grn i/p,tr
dissem pyr,cln,lse,gd inf por,
no fluor.

CLAYSTONE:lt bn gy-bn gy,com
carb mat/lam,micmic,sity,sft-
occ frm,sbfiss.



CLAYSTONE:lt bn gy-lt gy,com
carb mat,micmic,slty i/p,sft-
frm,sbfiss,occ amor.

COAL:gy blk-bn blk,blk,dull,brit
sbfiss-fiss,unevn-ang,slty,arg
i/p.

SANDSTONE:trnsi-clr,occ opq,med-
crs,pred med,sa,tr dol cmt,tr
ang qtz grn,rr dissem pyr,cln &
lse,occ hd agg,fr inf por,no
fluor.

CLAYSTONE:lt gy-lt gy bn,off wh,
com carb mat,sft,sbbky.

SANDSTONE:clr-trnsi,opq,med,com
crs,mod srt,sa-ang,mnr wk sil
cmt,occ arg mtx,tr carb spk,pred
cln & lse,occ hd agg,fr inf por,
no fluor.

SANDSTONE:clr-trnsi,opq,med-crs,
mod srt,sa-sr,ang i/p,mnr sil
cmt,occ arg mtx,tr pyr,dom cln,
lse,fr inf por,no fluor.

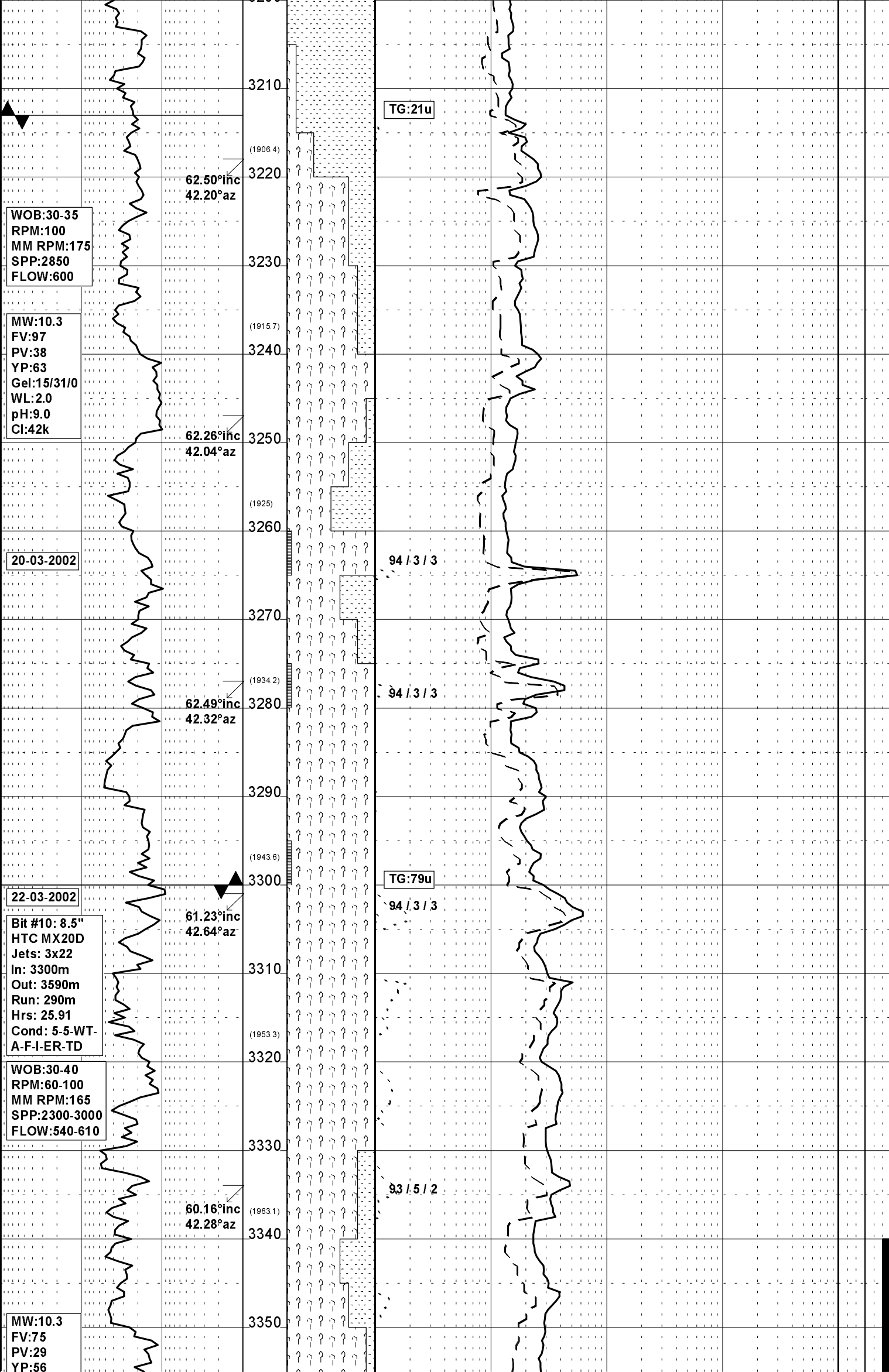
CLAYSTONE:v pl gy-lt bn gy,aren
i/p,micmic i/p,dom disp,occ sft-
frm,amor,sbfiss i/p.

CLAYSTONE:lt bn gy-bn gy,carb
mat,aren i/p,micmic i/p,sft-disp
amor-sbfiss.

COAL:blk,bn blk,dll-sbvit,brit-
frm,unevn-ang,slty.

SANDSTONE:clr-trnsi,opq,v lt gy,
f-crs,com med,pr srt,sa-ang,tr
sil cmt,tr arg mtx,pred cln,lse,
pr inf por,no fluor.

CLAYSTONE:lt bn gy-lt gy,micmic,
carb spk/incl,sft-disp,amor,
sbfiss.



WIPER TRIP TO SHOE

SANDSTONE:clr-trnsl,opq,f-crs,pr
srt,sa-sr,ang i/p,wk sil cmt,occ
arg mtx,lse,pr inf por,no fluor

CLAYSTONE:lt bn-bn gy,occ-com
carb incl/mat,micmic,sft-disp,
amor,sbfiss.

CLAYSTONE:pl bn-lt bn gy,com
carb incl,micmic,sft-disp,amor.

SANDSTONE:clr-trnsl,opq,f-crs,pr
srt,sa-ang,wk sil cmt,com arg
mtx,lse,fri i/p,pr inf & vis por
no fluor.

CLAYSTONE:lt bn gy-lt gy,com
carb incl,micmic,sft-disp,amor.

COAL:blk,bn blk,dll-ea,rr sbvit,
fri frm,unevn,rr sbconch,v slty

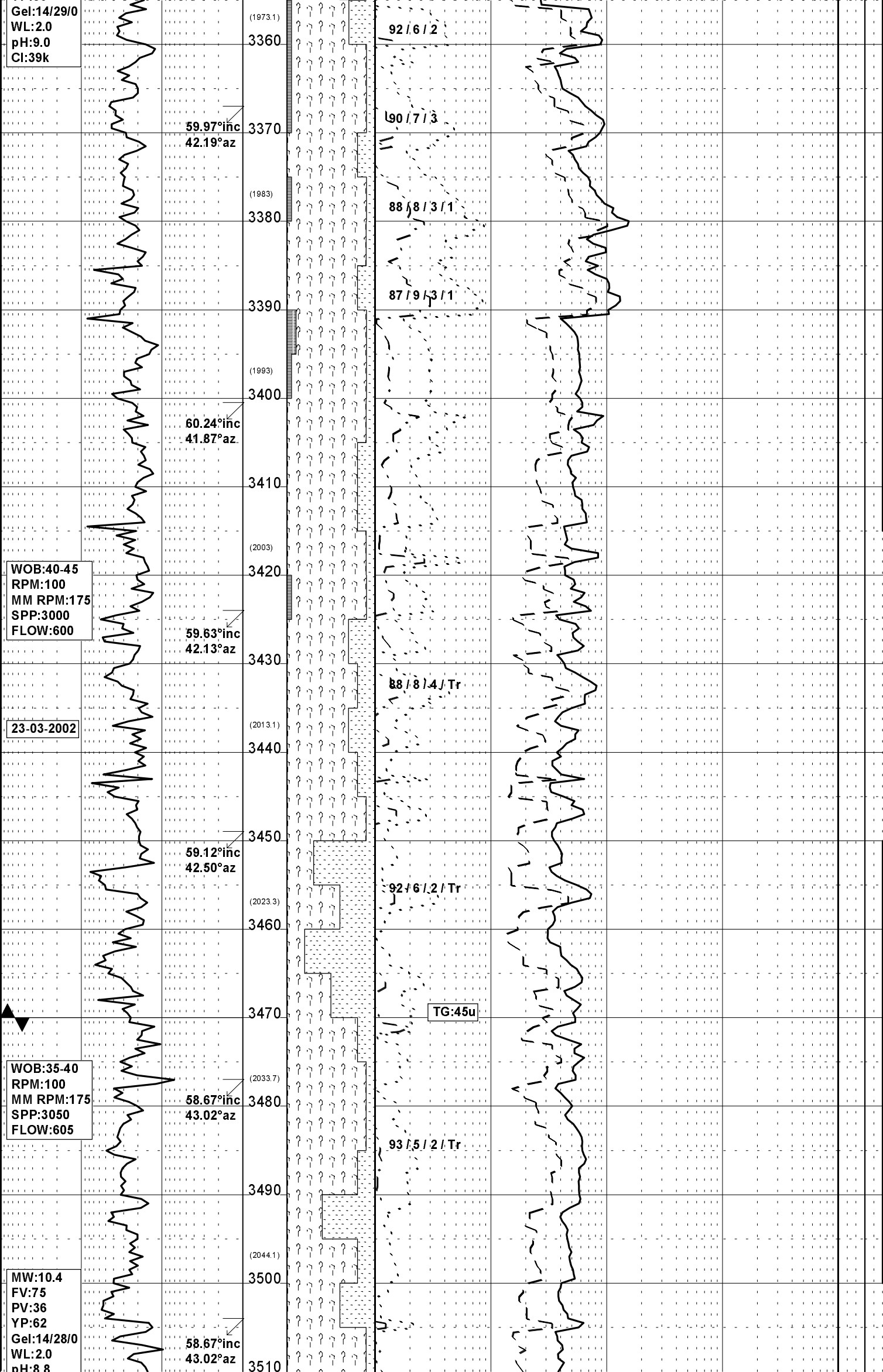
CLAYSTONE:lt bn gy-lt gy,occ-
com carb incl,micmic,sft-disp,
amor.

CLAYSTONE:lt bn gy-lt gy,aren
i/p,mnr-com carb incl,sft-disp,
rr frm,amor,blky.

CLAYSTONE:pl bn-wh,tr carb,sft-
disp,amor.

SANDSTONE:clr-trnsl,opq,f-med,
rr crs,mod srt,pyr cmt i/p,mnr-
com nod pyr,lse,fr-gd inf por.

FLUOR:30%, dull yelsh,
ptchy, v slw wh c/c, no r/r.



CLAYSTONE:pl bn-lt bn gy,mod bn, mnr-com carb incl,micmic,sft-disp,amor.

FLUOR:Tr-30%, pl-mod bri yelsh, ptchy, v slw wh c/c, no r/r.

SANDSTONE:clr-trns|,opq,f-med,rr crs,mod-pr srt,sa-sr,pyr cmt i/p mnr-com nod pyr,lse,fr inf por.

COAL:blk,bn blk,dll-ea,rr sbvit, fri-frm,unevn,rr sbconch,v silty

CLAYSTONE:pl bn-lt bn gy,off wh kaol i/p,carb i/p,micmic,sft-disp,amor.

SANDSTONE:clr-trns|,opq,pred f-med,occ crs,mod srt,sr-sa,lse,fr inf por.

COAL:Trace as above.

CLAYSTONE:lt-med bn-bn gy,lt gy i/p,dk bn i/p & carb,micmic,pyr nods,carb flks,disp,amor.

SANDSTONE:clr-trns|,opq i/p,f-med,i/p vf & crs,mod srt,sr-sa, abdt disp off wh kaol mtz,lse,fr inf por.

FLUOR:Tr-30%, pl-mod bri yelsh, ptchy, v slw wh c/c, no r/r.

WIPER TRIP TO SHOE

CLAYSTONE:lt-med bn,bn gy,lt gy i/p,dk bn i/p & carb,micmic,pyr nods,carb flks,disp,amor.

SANDSTONE:clr-trns|,f,abdt vf & med,pr-mod srt,sa-sr,com ang, abdt disp off wh kaol mtz,lse,pr -fr inf por.

