



Scale: 5" / 100'
Measured Depth Log

30-025-40420
ELG/7-2013

Well Name MALJAMAR AGI #1A

Location 130' FSL & 1813' FEL, SEC 21, T17S, R32E

State NM

County LEA

Country USA

Rig UNITED DRILLING #41

API Number 30-025-40420

Field WILDCAT

Drilling Completed 06/09/2012

Ground Elevation 4016'

K.B. Elevation 4031'

Logged Interval 5461'

To 10183'

Total Depth 10183'

Operator

Company PB ENERGY

Geologist

Name TOM SHARP

Company GEOLEX

Other

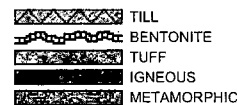
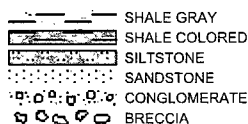
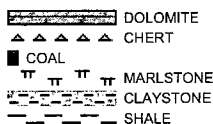
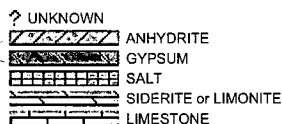
LOGGER - DJ JONES

JOB #805

djones@mfsinc-us.com
(361)728-4874

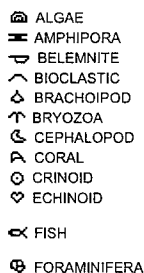
Dates Logged:
04/28/12 - 06/09/12

Rock Types

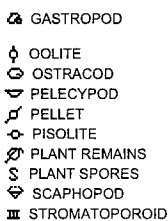


Accessories

Fossils



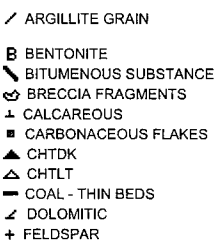
F FOSSIL



Minerals



- ARGILLACEOUS



✓ GLAUCONITE

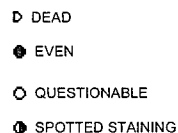


Stringer

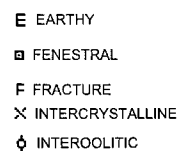


Other Symbols

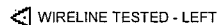
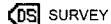
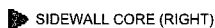
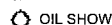
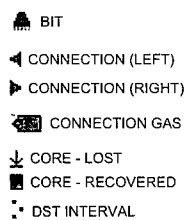
Oil Show



Porosity



Engineering



Rounding

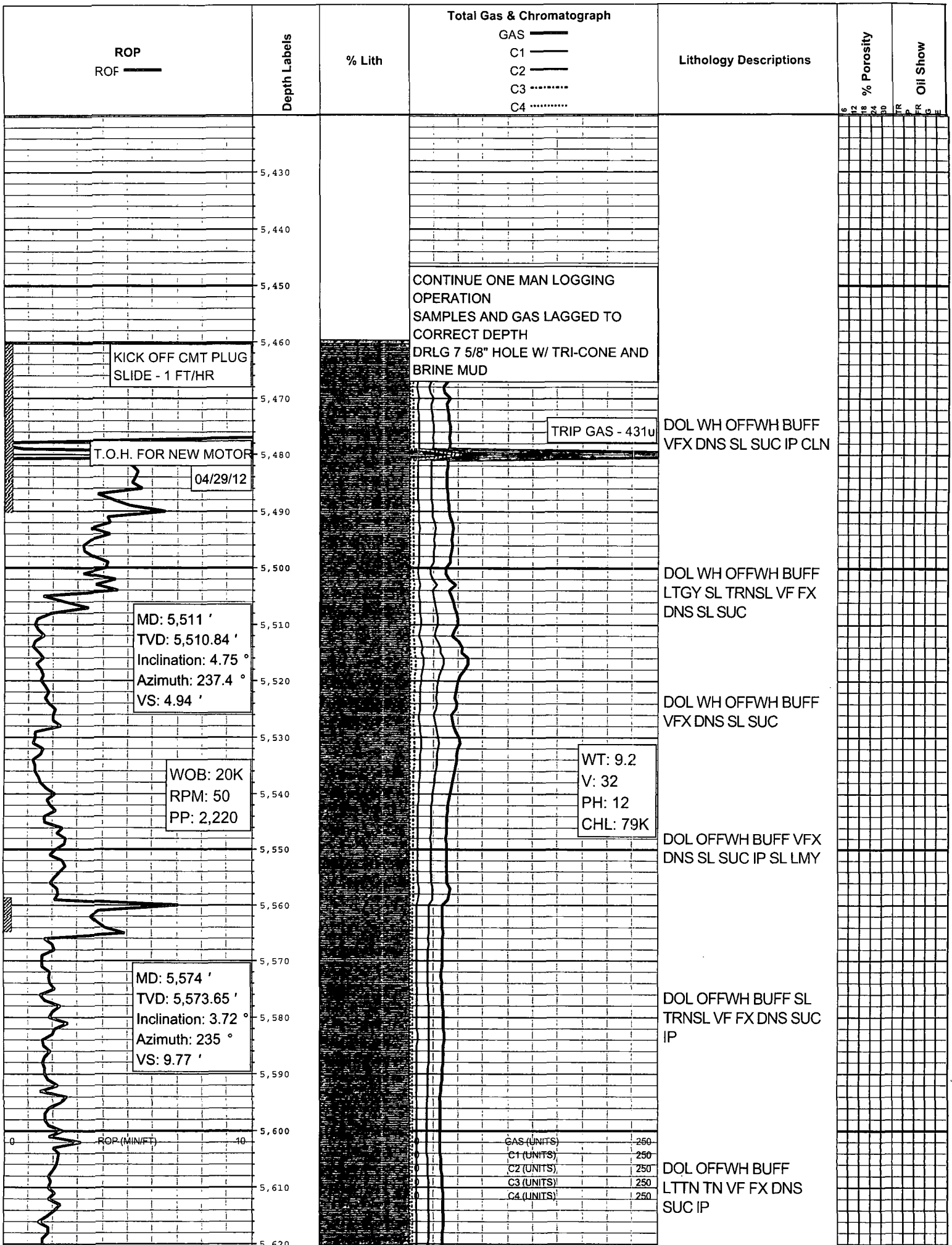


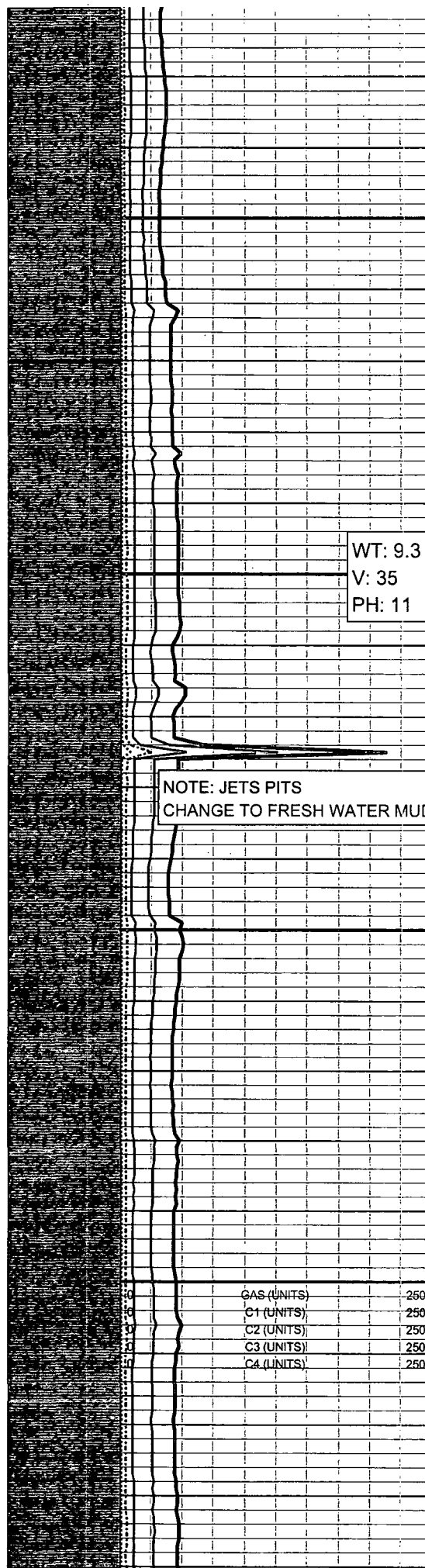
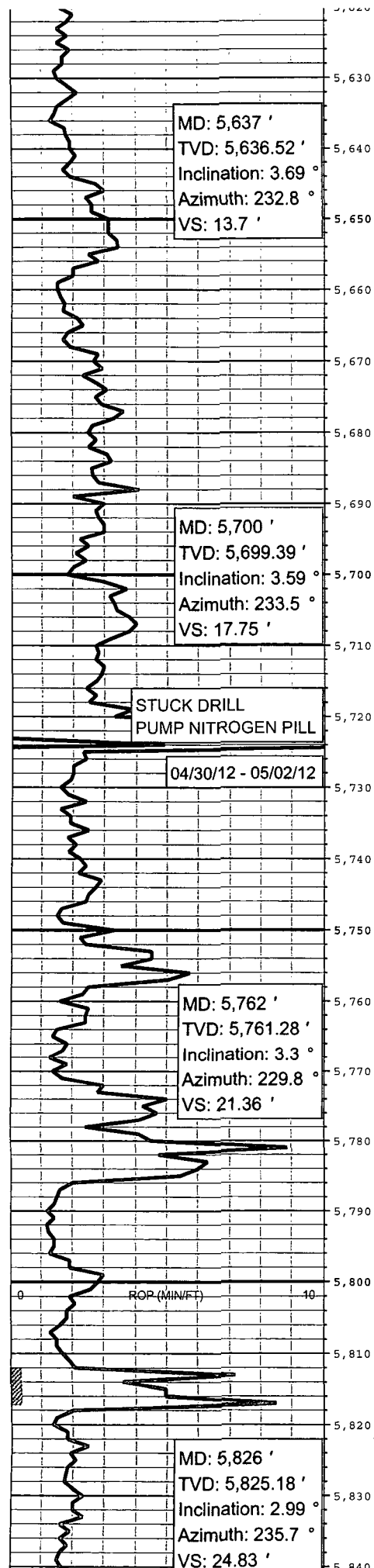
Textures



Sorting







DOL OFFWH BUFF
LTTN TN VF FX DNS
SUC IP

DOL OFFWH BUFF
LTTN TN VF FX DNS SUC

DOL BUFF TN LTBN BN
DKBN VF FX V/ DNS
SUC SIL IP SL LMY

DOL OFFWH BUFF
LTTN TN VF FX AREN
SUC DNS IP

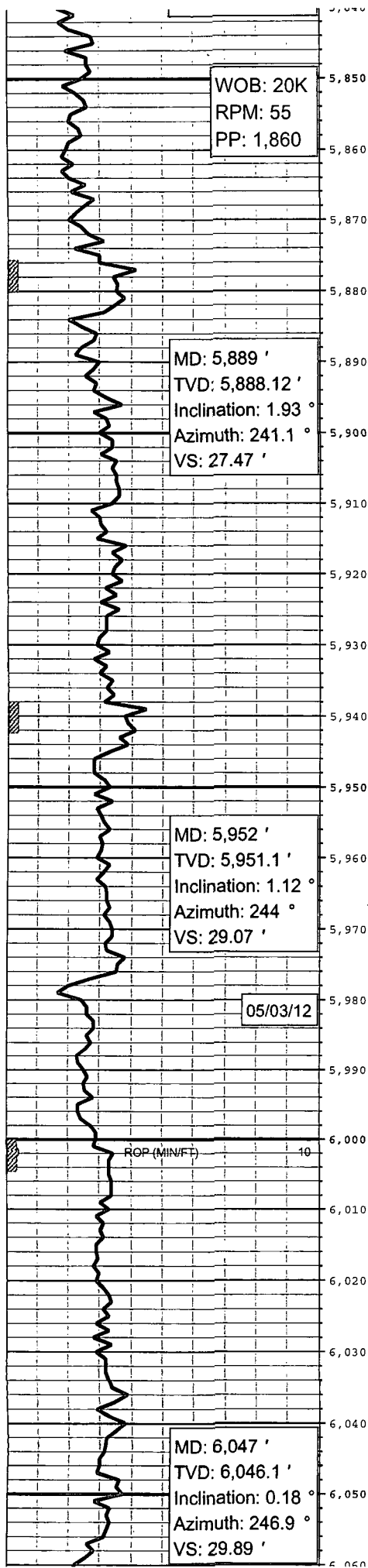
DOL OFFWH BUFF
LTTN VF FX V/ SUC TR
VUGS DNS IP TR
WH/YEL FLU NO CUTS

DOL OFFWH BUFF VF
FX AREN DNS IP SUC IP

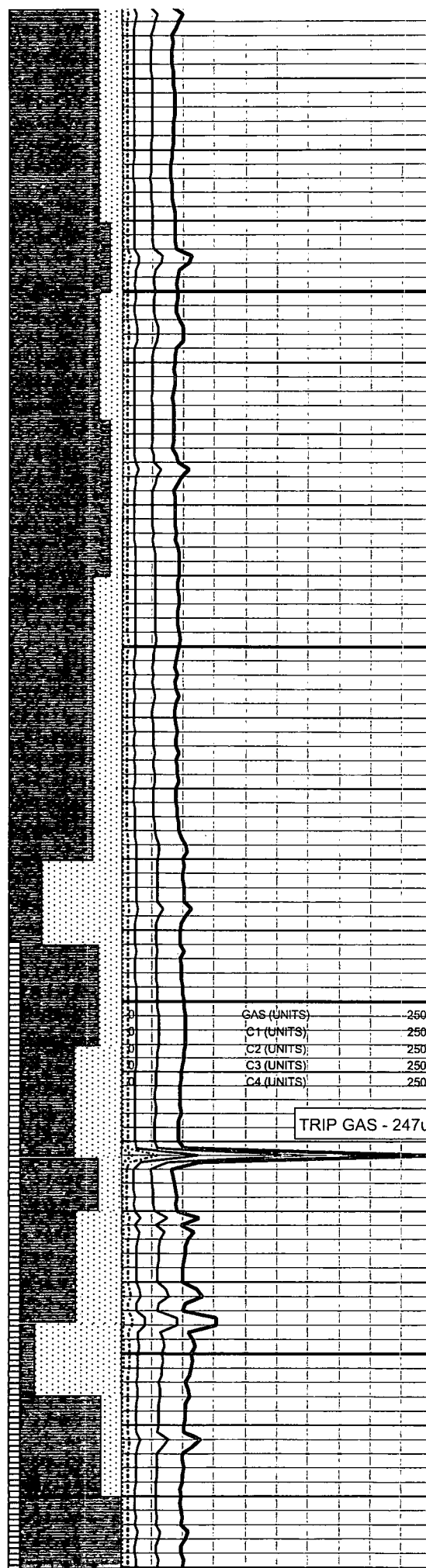
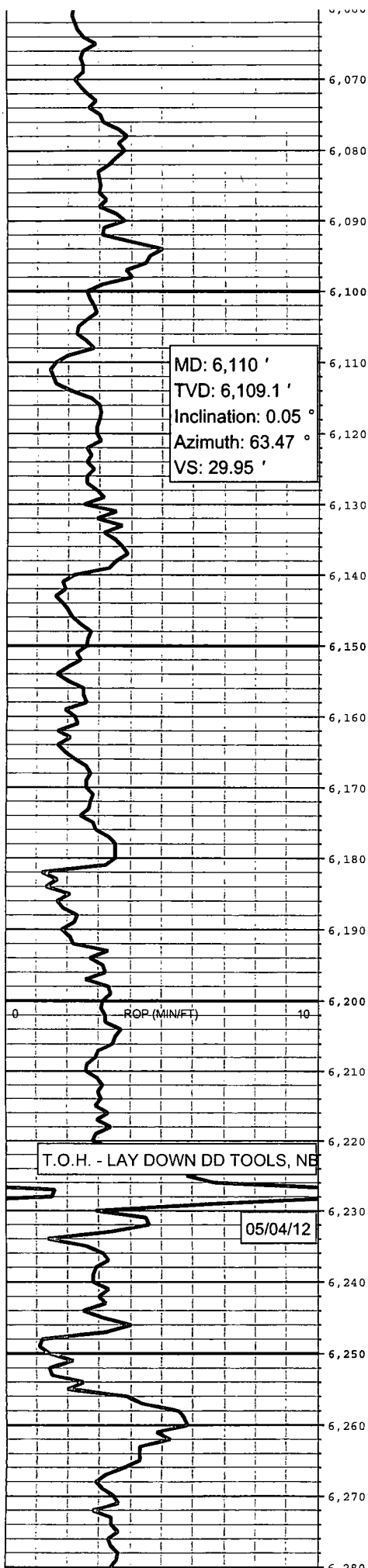
DOL BUFF LTTN VF FX
AREN DNS IP

DOL BUFF TRNSL VF FX
V/ AREN DNS IP

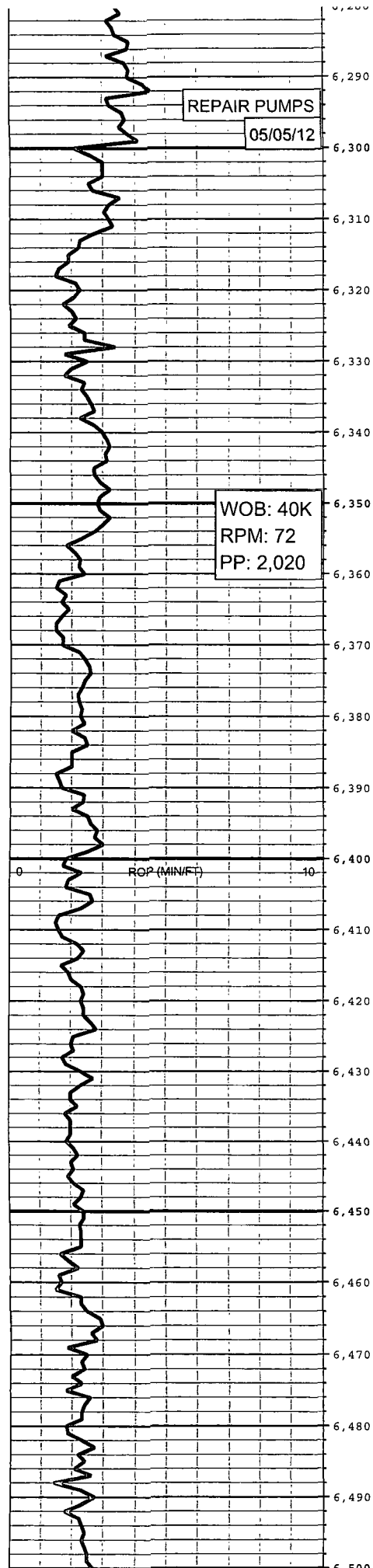
DOL BUFF LTTN VF FX



DOL OFFWH BUFF LTNN TN VF FX DNS AREN IP SL SUC IP	
DOL LTNN TN LTBN VF FX DNS SL SUC: INCR IN WH OFFWH CLR TRNSP DNS	
DOL LTNN TN LTBN BN VF FX DNS SL SUC IP	
SH TR DKGY BLK SFT FRM PLTY MICA	
DOL CRM BUFF LTNN TN LTBN BN VF FX DNS SL SUC IP SL LMY	
DOL CRM LTNN TN LTBN BN VF FX DNS SL SUC LMY IP	
DOL CRM LTNN TN LTBN BN DKBN VFX V/ DNS LMY IP	
DOL CRM TN LTBN BN DKBN VFX V/ DNS	



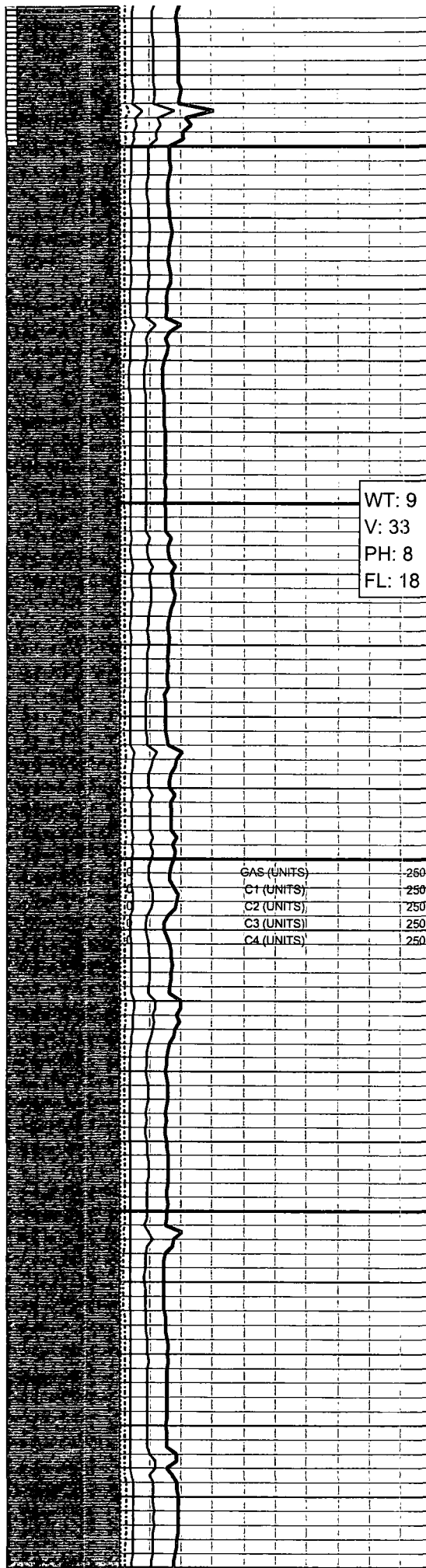
INCRLY LMY	
SS LTGY WH WVFG SLTY CONS TGT SB-ANG SB-RND W-SRTD CALC MTX GRDS TO SLTSTN	
CHT TR TN BN TRNSL	
DOL BUFF LTTN TN VF FX DNS SUC IP TR DD OIL STN TR YEL FLU NO WET CUT SL TR DRY CUT	
SS LTGY WH WVFG SLTY CONS TGT SB-RND W-SRTD CALC MTX NO FLU	
DOL OFFWH BUFF LTTN TN LTBN IP VF FX DNS SUC IP LMY IP	
SS LTGY WVFG SLTY CONS LSLY CONS IP TGT SB-RND W-SRTD	
LS WH OFFWH MOTT GY VFX DNS SDY GRDS TO LMY SS	
DOL OFFWH BUFF LTTN TN VF FX DNS SUC IP TR DD OIL STN LMY IP TR YEL/GN FLU NO WET CUT SL TR DRY CUT	
SS LTGY WH OFFWH VFG SLTY CONS FRM FRI IP SB-RND W-SRTD CALC MTX	
DOL OFFWH BUFF LTTN TN TRNSL VF FX DNS LMY IP	



REPAIR PUMPS
05/05/12

WOB: 40K
RPM: 72
PP: 2,020

ROP (MIN/FT)



LS WH OFFFWH CRM
VFX CHKY SDY GRDS
TO LMY SS

DOL TN LTBN BN VF FX
DNS LMY

DOL OFFFWH BUFF
LTTN TN BN IP VF FX
DNS IP SUC IP

DOL BN DKBN VF FX
DNS LMY IP

DOL OFFFWH BUFF
LTTN VF FX DNS IP SUC

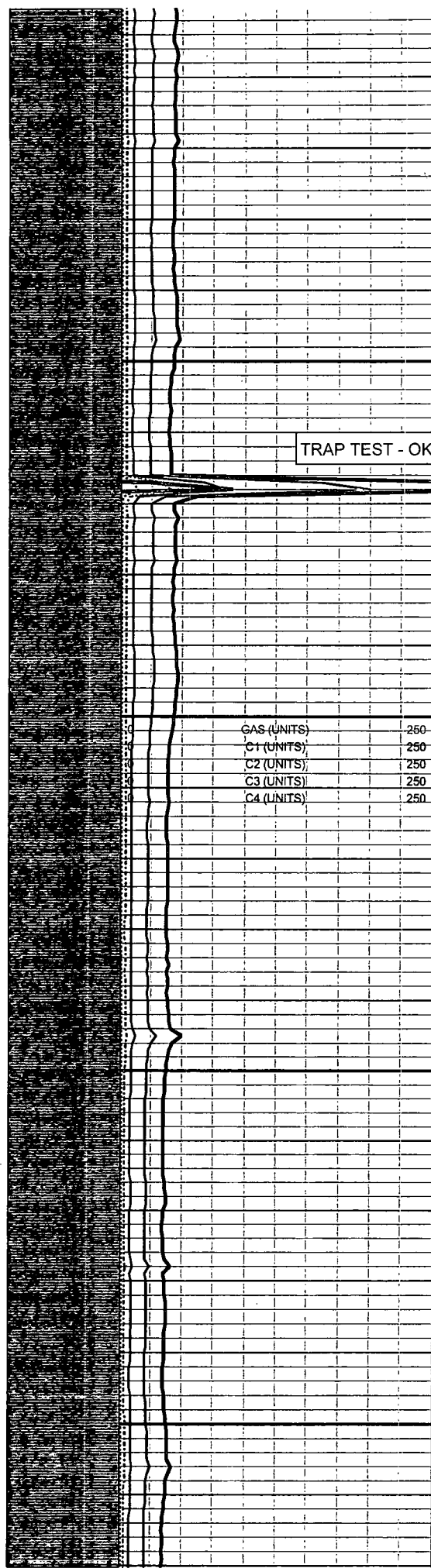
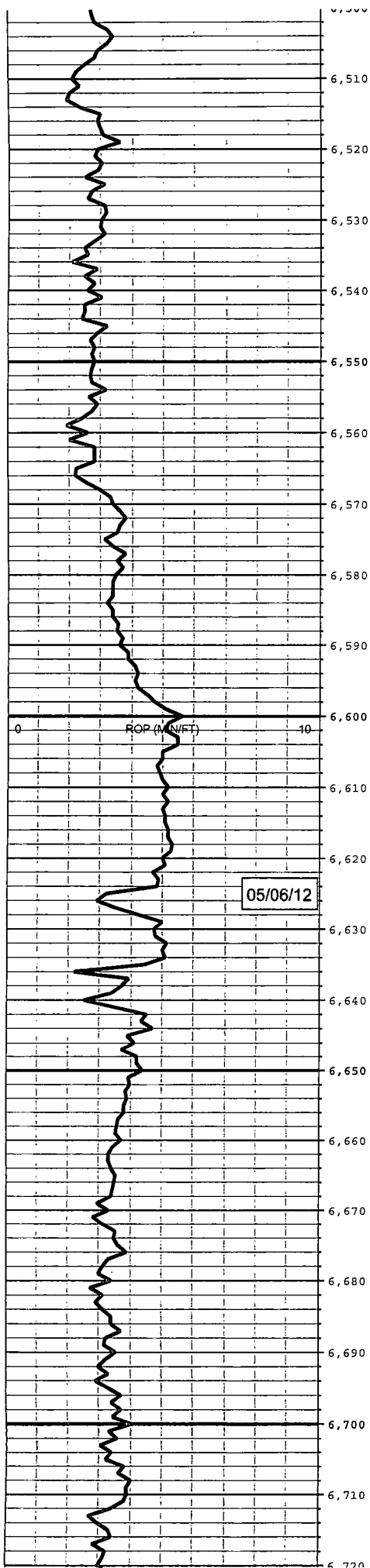
DOL OFFFWH BUFF
LTTN TN VF FX DNS
SUC IP SL LMY

DOL OFFFWH BUFF VF
FX SUC DNS IP SL LMY

DOL OFFFWH BUFF
LTTN TN VF FX DNS SL
SUC IP

DOL OFFFWH BUFF
LTTN TN VF FX DNS
LMY IP

DOL OFFFWH BUFF CRM



LT TN IN LTBN IP VF FX
DNS LMY

DOL OFFWH BUFF
LT TN TN VF FX DNS
CLN SL LMY

DOL BUFF LT TN TN
LTBN IP VF FX DNS V/
DNS IP LMY

TRAP TEST - OK

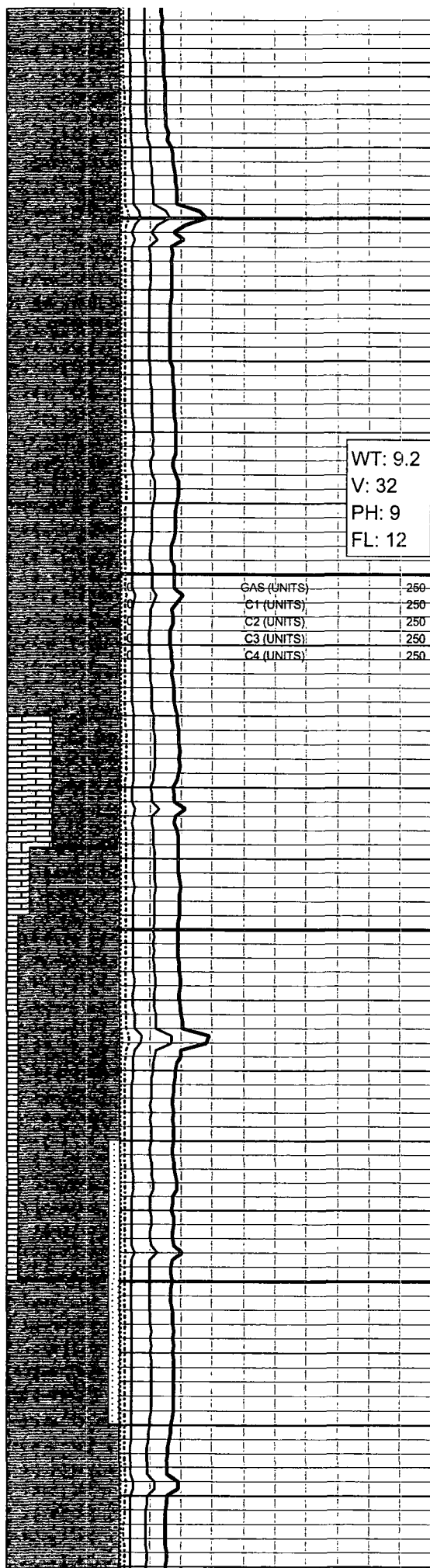
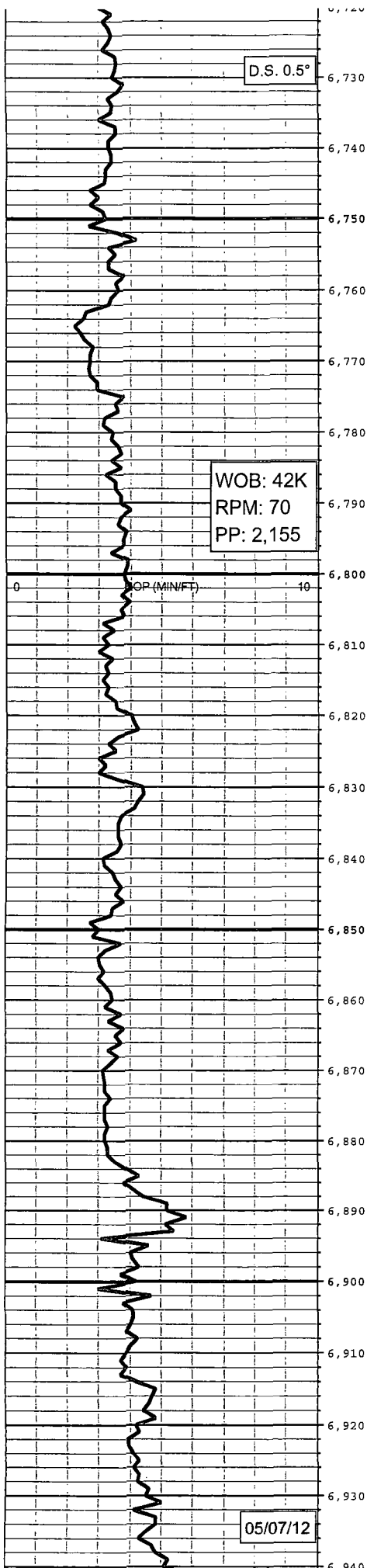
DOL OFFWH BUFF
LT TN TN LTGY VF FX
DNS LMY IP

DOL INCR IN: CRM
LTGY VFX V/ DNS HD
LMY

DOL OFFWH CRM BUFF
LT TN TN LTBN LTGY VF
FX DNS SL SUC IP SL
LMY

DOL WH OFFWH BUFF
LT TN VF FX DNS SUC IP
LMY

DOL WH OFFWH BUFF
VF FX DNS SUC IP LMY
IP



DOL WH OFFFWH BUFF
LTTN VF FX DNS SUC IP
LMY IP

DOL WH OFFFWH CRM
BUFF LTTN VFX DNS
LMY IP

DOL WH OFFFWH BUFF
VF FX DNS IP SUC IP

DOL WH OFFFWH CRM
LTGY BUFF LTTN VF FX
DNS LMY

LS WH OFFFWH CRM
BUFF VFX DNS CHKY IP
DOL'C GRDS TO LMY
DOL

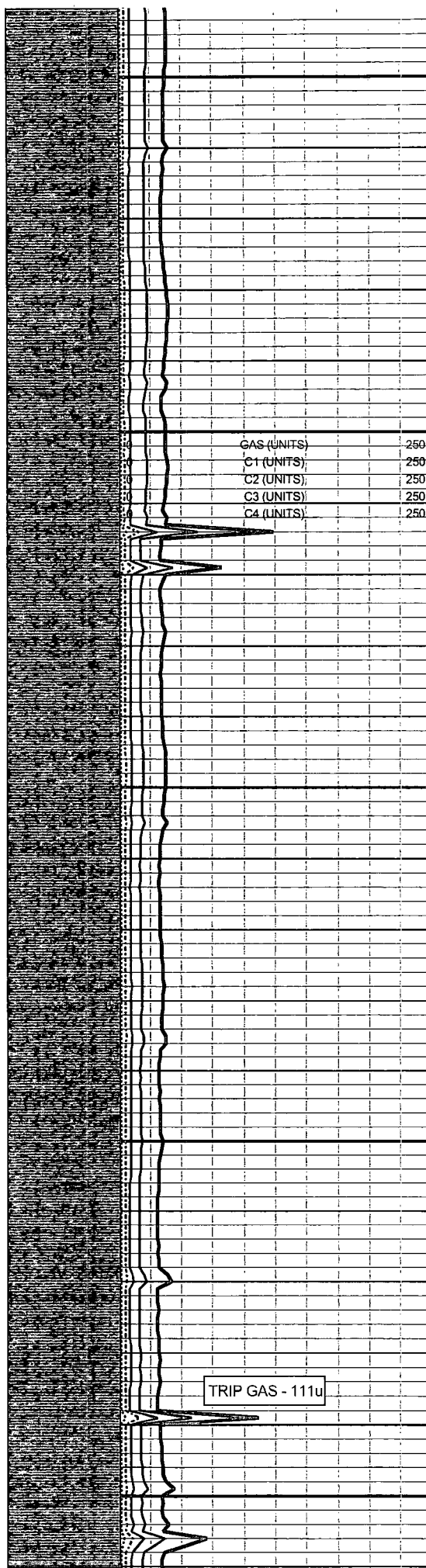
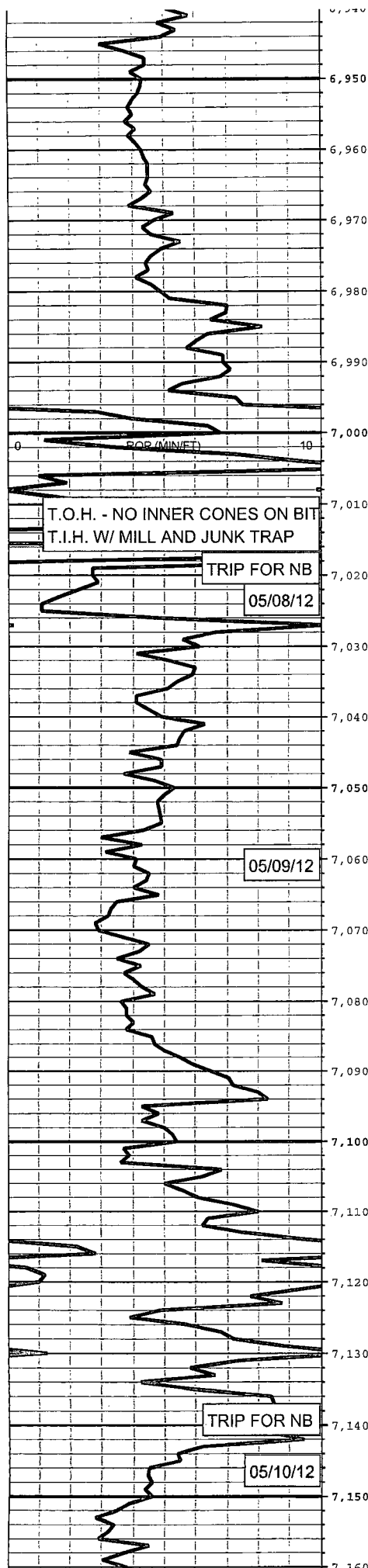
DOL WH OFFFWH BUFF
LTTN TN VF FX DNS LMY

DOL WH OFFFWH LTTN
TN VF FX V/ DNS SUC
IP TR AREN LMY IP

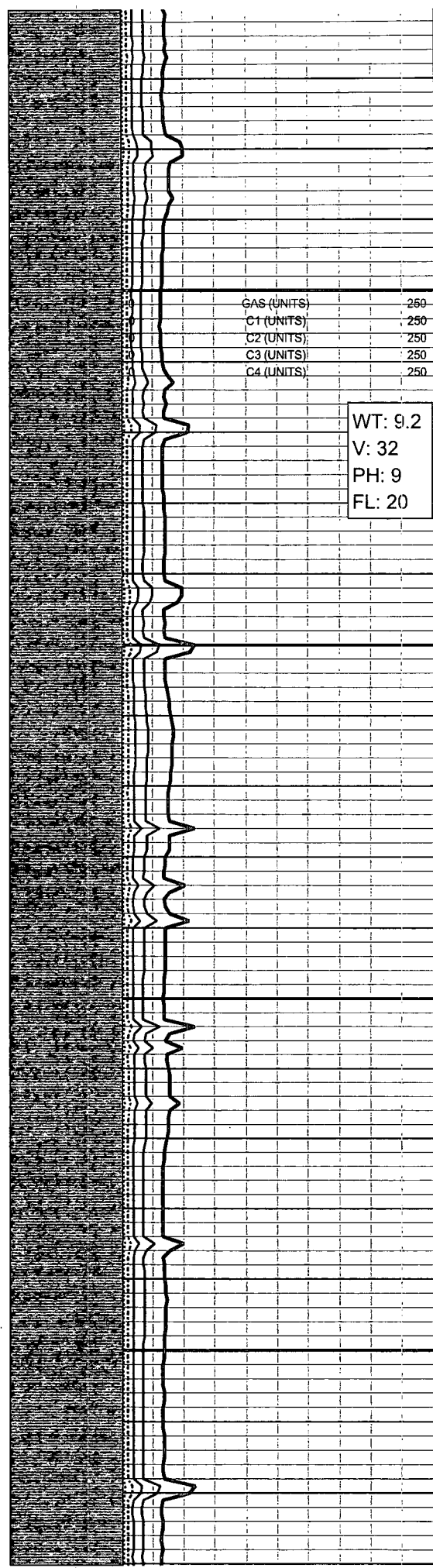
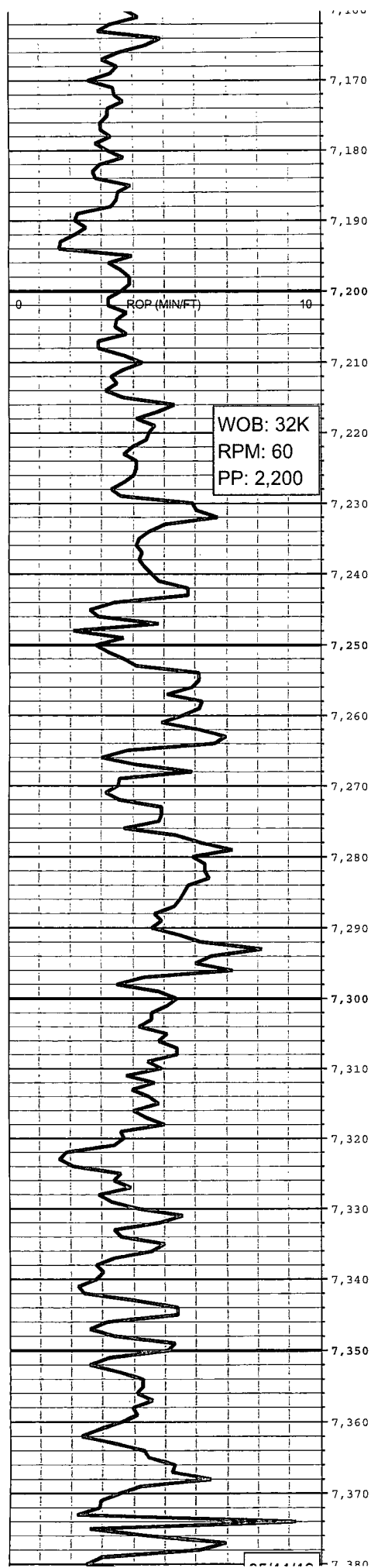
SS WH CLR QTZ LTGY
IP FG LSLY CONS
SB-ANG SB-RND CARB
CMT LMY

DOL OFFFWH BUFF
LTTN TN VF FX V/ DNS
SL SUC

DOL WH OFFFWH BUFF
CRM LTGY VF FX V/
DNS SL LMY



DNS SL LMT	
SS TR WH OFFWH LTGY CLR QTZ FG LSLY CONS SB-ANG SB-RND W-SRTD CARB CMT CALC MTX	
DOL WH OFFWH CRM BUFF LTTN LTGY VF FX V/ DNS LMY	
DOL WH OFFWH BUFF LTTN TRNSP IP VFX V/ DNS HD LMY	
DOL WH OFFWH BUFF LTTN TN VF FX DNS SL SUC LMY NO FLU	
SH TR DKBN BLK FRM MICA CARB	
DOL OFFWH BUFF LTTN TN VF FX DNS SL LMY	
SH TR DKBN FRM PLTY MICA CARB	
DOL WH OFFWH LTTN TN LTBN IP VF FX V/ DNS LMY	
DOL OFFWH BUFF VFX V/ DNS TR AREN DNS MNRL FLU FR YEL FLU SL TR DRY CUT	



DOL OFFWH CRM BUFF
VFX DNS SL SUC IP SL
LMY TR YEL FLU NO
WET CUT NO DRY CUT

SS TR CLR QTZ WH
VFG CONS FRI SB-ANG
W-SRTD CARB CMT

DOL WH OFFWH CRM
BUFF VF FX DNS SL
SUC IP SL LMY

DOL WH OFFWH CRM
BUFF LTGY IP VFX DNS

CHT TR LTBN BN TRNSL

DOL OFFWH BUFF CRM
LTTN LTGY IP VFX V/
DNS SL LMY IP

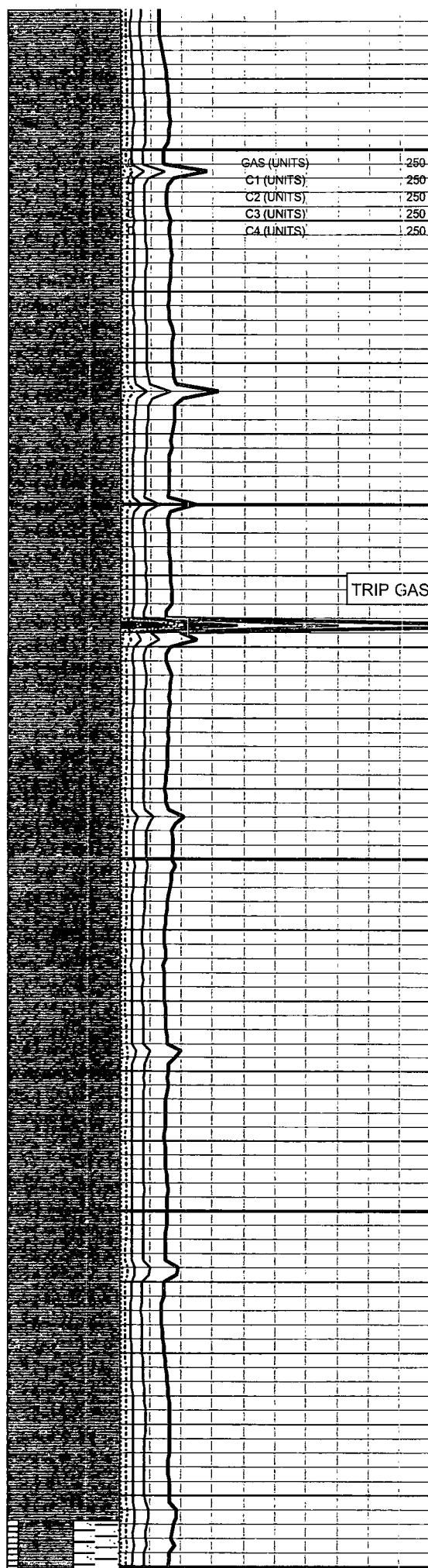
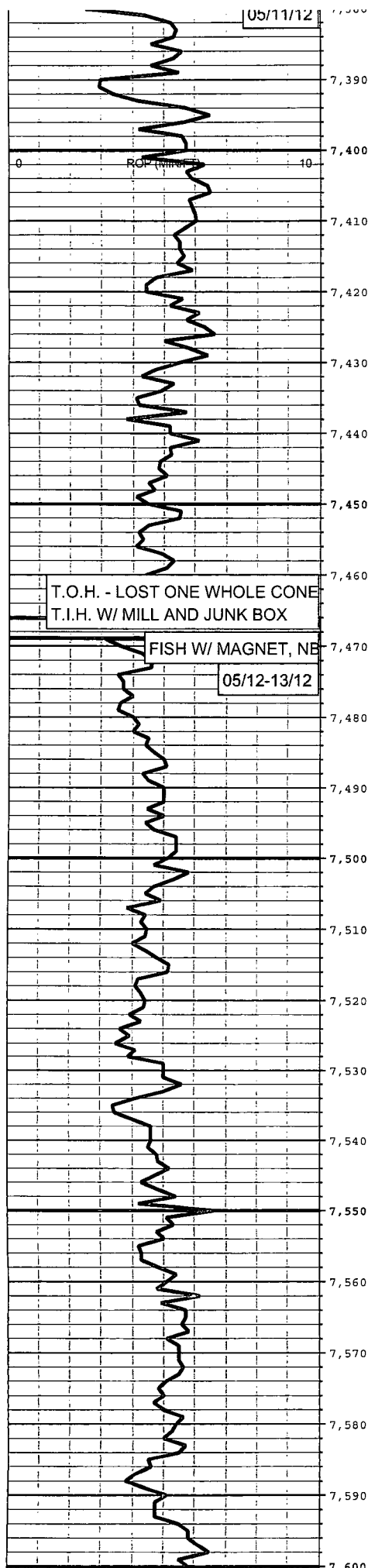
DOL OFFWH BUFF
LTTN VF FX DNS SL
SUC IP

DOL OFFWH BUFF VF
FX AREN DNS IP SUC IP
FR YEL FLU NO WET
CUT NO DRY CUT

DOL OFFWH BUFF
LTTN VF FX AREN IP
DNS IP

SS TR CLR WH FRSTD
LTHC FRAGS VF FG
CONS SB-ANG SB-RND
MOD TO W-SRTD CALC
MTX

DOL OFFWH CRM BUFF
LTTN LTGY IP VFX V/



LTTN TN LTBN VFX V/
DNS SL SUC LMY IP

DOL OFFWH CRM BUFF
TN LTBN VF FX DNS SL
SUC LMY TR FOSS NO
FLU

DOL OFFWH BUFF
LTTN TN VF FX DNS SL
SUC LMY IP

DOL OFFWH TN VFX
DNS V/ LMY GRDS TO
DOL'C LS

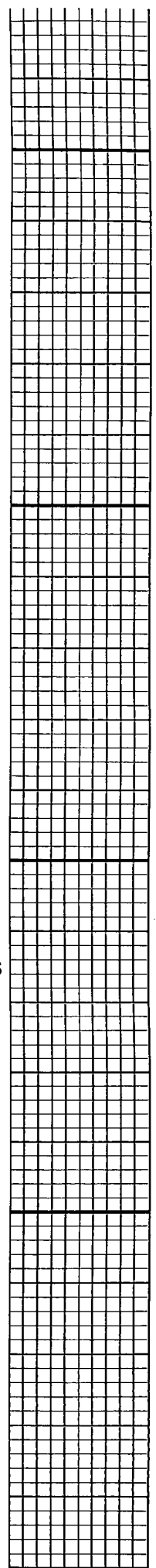
DOL OFFWH BUFF CRM
LTTN TN VF FX DNS IP
AREN IP

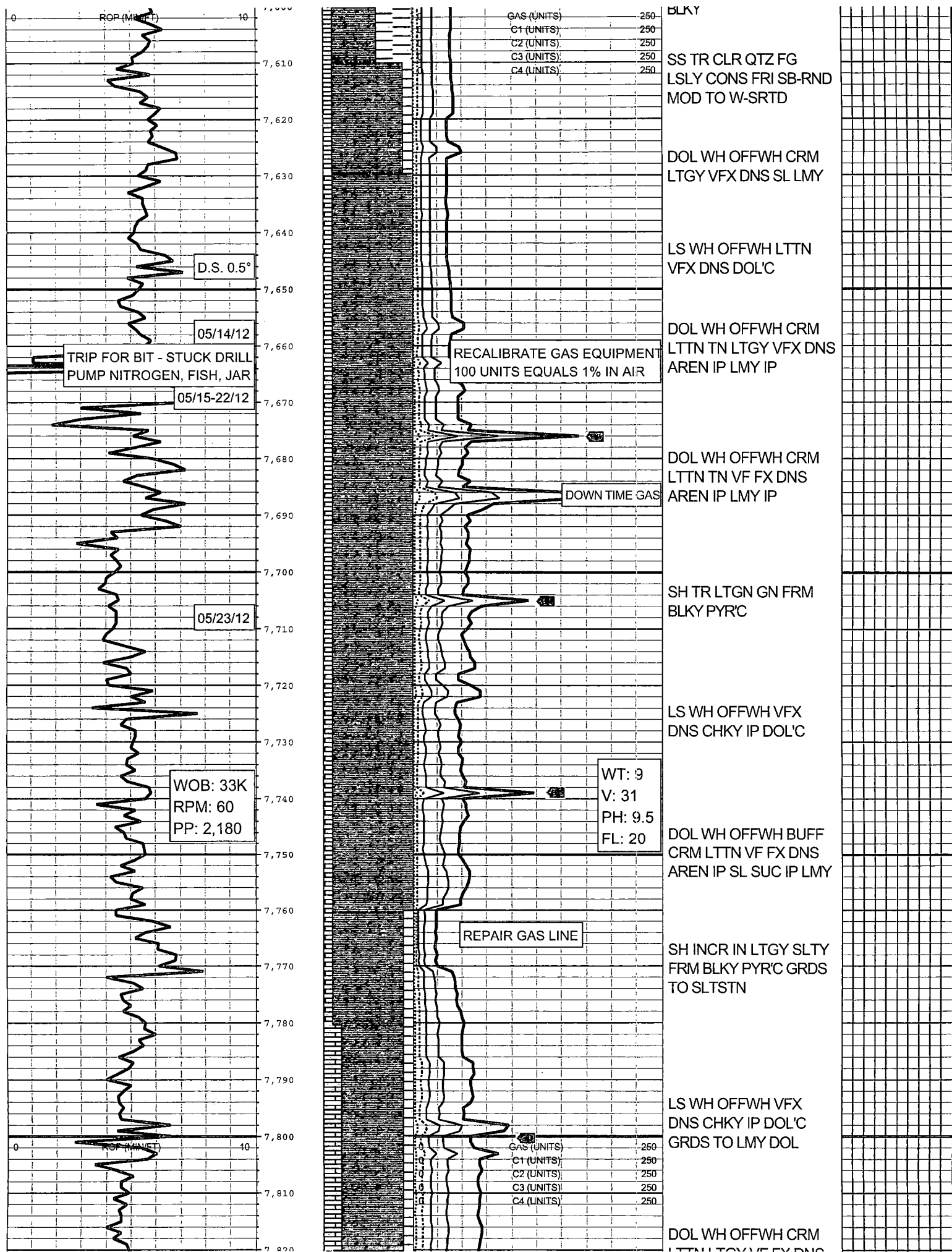
DOL OFFWH BUFF
LTTN TN LTGY VFX DNS
LMY

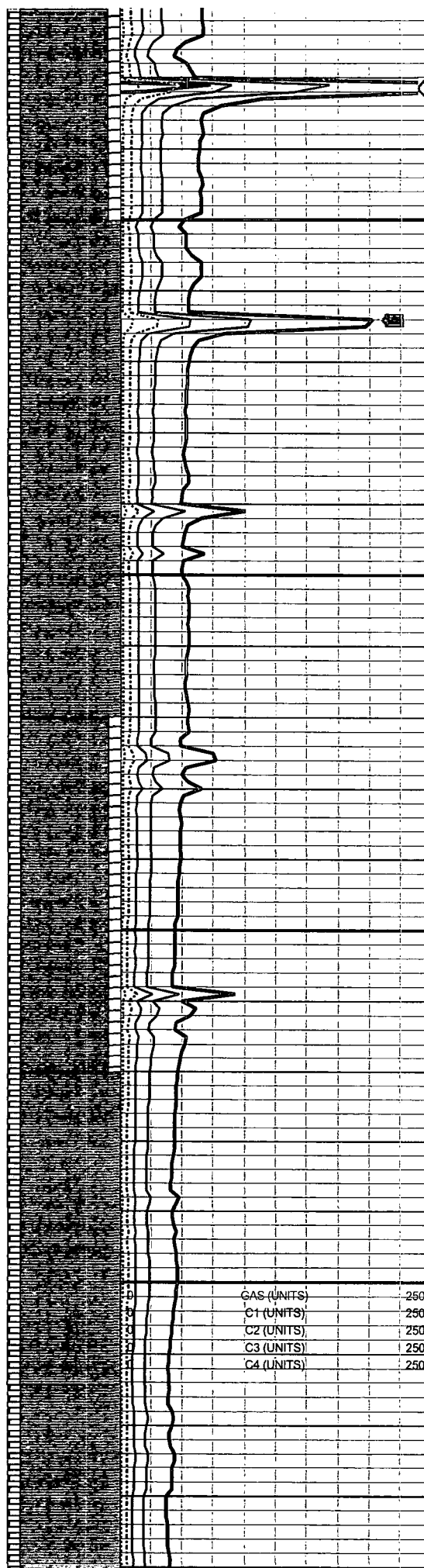
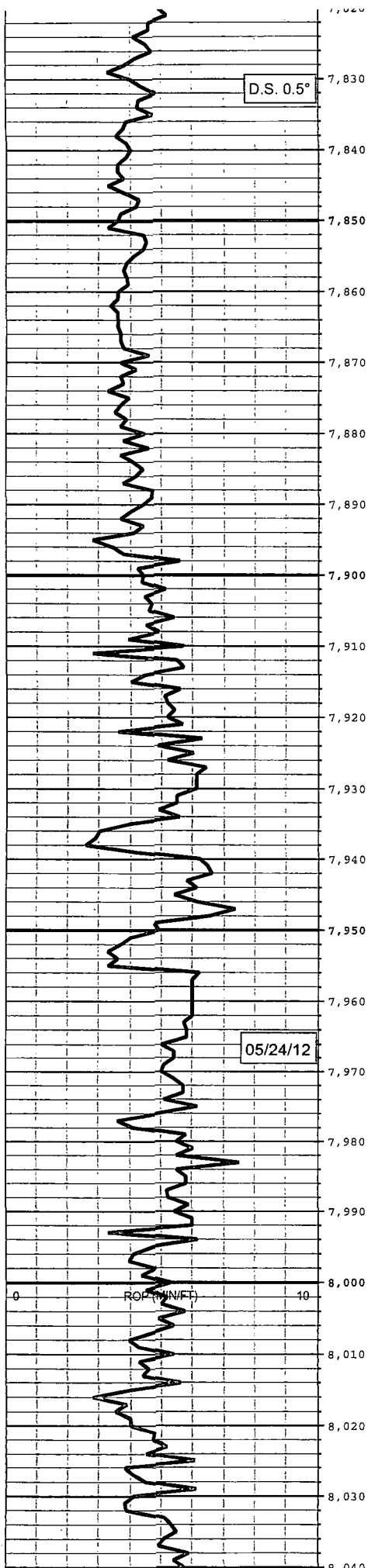
DOL OFFWH BUFF
LTTN TN LTGY VF FX
DNS AREN IP SL LMY IP

DOL OFFWH LTTN TN
LTGY VFX DNS IP AREN
IP SL SUC IP LMY

SH GN LTGN LTGY FRM







LT TN LTGY VF FX DNS
IP LMY

DOL WH OFFWH LTGY
VF FX DNS SL SUC
AREN IP LMY IP

DOL WH OFFWH CRM
LTTN VF FX AREN DNS
IP SL LMY

LS WH OFFWH VFX
DOL'C

DOL WH OFFWH LTTN
TN LTBN VF FX DNS SL
SUC IP AREN IP LMY

SH LTGN GN SLTY FRM
BLKY PYR'C GRDS TO
SLTSTN

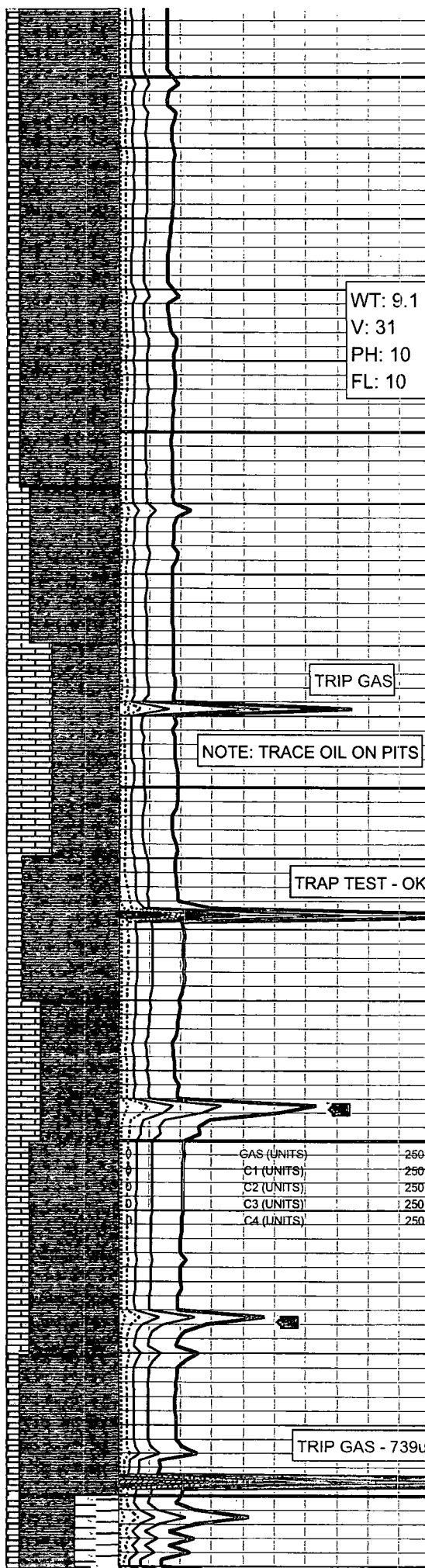
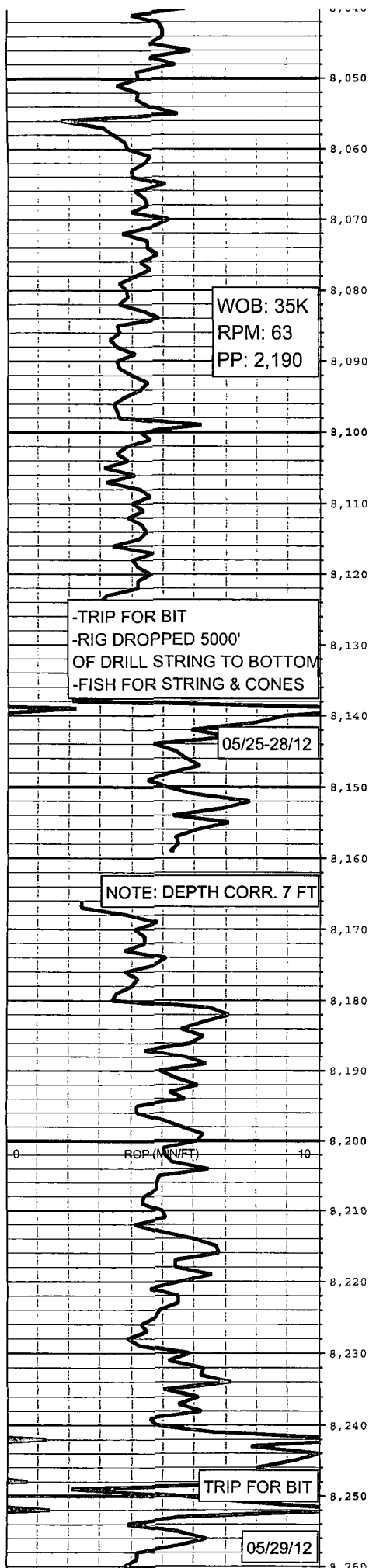
SS TR WH CLR VF FG
CONS TR LTHC FRAGS
SB-ANG MOD TO
W-SRTD CARB CMT

DOL WH OFFWH BUFF
CRM LTTN TN VF FX
DNS SL SUC IP LMY
GRDS TO DOL'C LS

DOL OFFWH CRM BUFF
LTTN TN LTBN IP VF FX
DNS SUC IP LMY GRDS
TO DOL'C LS

DOL WH OFFWH BUFF
LTTN TN VF FX AREN IP
DNS IP LMY

GAS (UNITS)	250
C1 (UNITS)	250
C2 (UNITS)	250
C3 (UNITS)	250
C4 (UNITS)	250



DOL OFFWH BUFF CRM
LTTN TN LTBN VFX DNS
SL SUC IP AREN IP LMY

LS WH OFFWH VFX
DNS SFT DOL'C GRDS
TO LMY DOL

DOL WH OFFWH CRM
LTTN TN LTBN VF FX
DNS SL SUC V/ LMY
GRDS TO DOL'C LS

SIDERITE TR REDISH
BN DKBN VFX DNS

DOL OFFWH CRM LTGY
LTTN TN LTBN VF FX
DNS SL SUC V/ LMY
GRDS TO DOL'C LS

LS WH OFFWH LTTN
TN BN VFX DNS DOL'C
GRDS TO LMY DOL

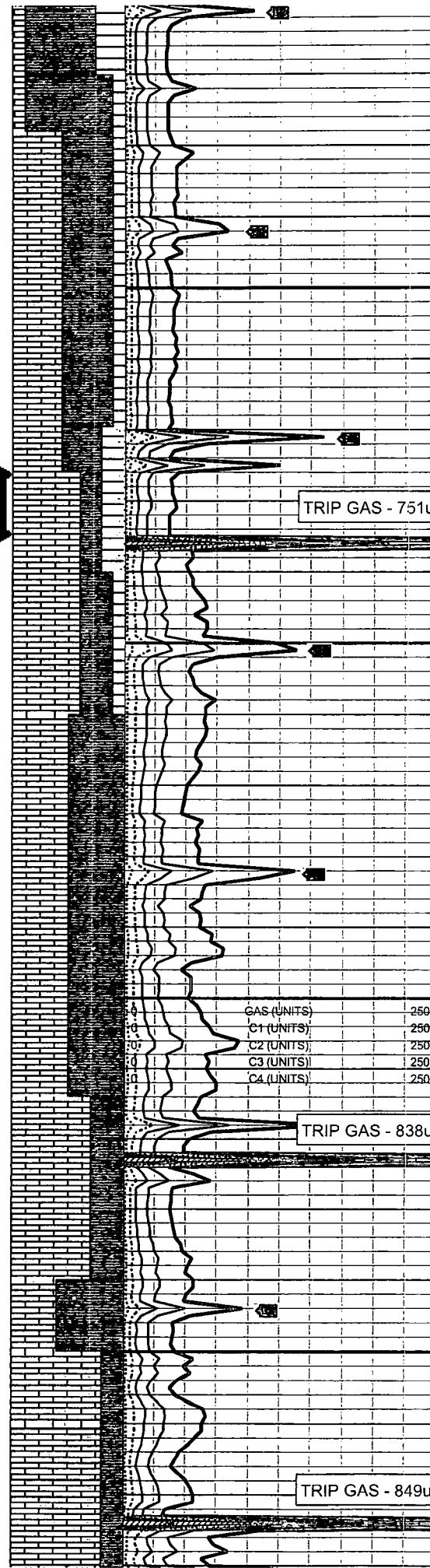
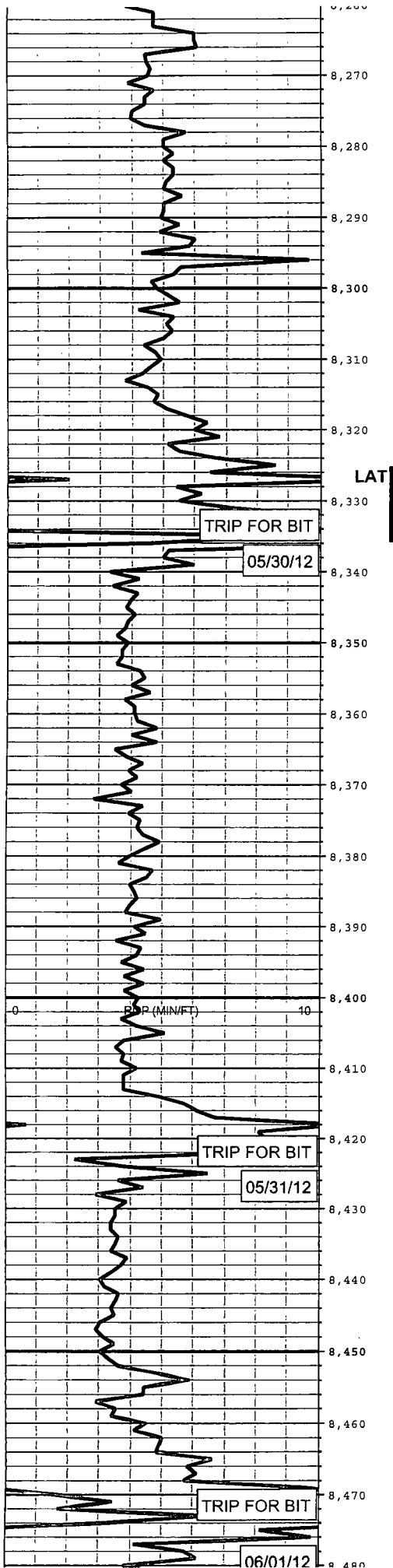
DOL OFFWH CRM LTGY
TN LTBN VF FX DNS IP
SL SUC IP AREN IP LMY

LS OFFWH LTTN TN
LTGY VF FX DNS DOL'C

SH TR LTGN GN LTGY
SL SLTY BLKY FRM
PYRC

DOL OFFWH LTTN TN
LTGY GY VF FX DNS IP
SL SUC IP LMY

SH LTGY GY LTGN SI



SLTY FRM BLKY
SB-PLTY MICA IP PYR'C
IP

LS WH OFFWH LTTN
TN VF FX DNS CHKY IP
SL DOL'C

DOL OFFWH BUFF
LTTN TN LTGY IP VF FX
SL SUC SL AREN DNS
IP LMY

SH INCR IN GY DKGY
BLK SL SLTY SFT FRM
MICA CARB PYR'C IP

LS OFFWH CRM LTTN
TN LTBN BN VF FX DNS
FOSS IP

SS TR OFFWH LTGY GY
VFG CONS SR-RND
W-SRTD CARB CMT
CALC MTX

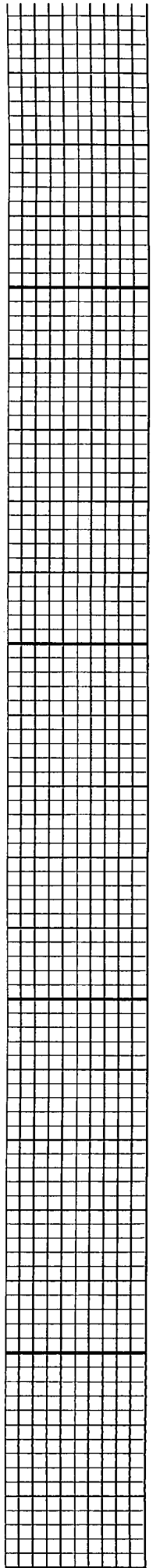
DOL WH OFFWH BUFF
LTTN VF FX SUC SL LMY

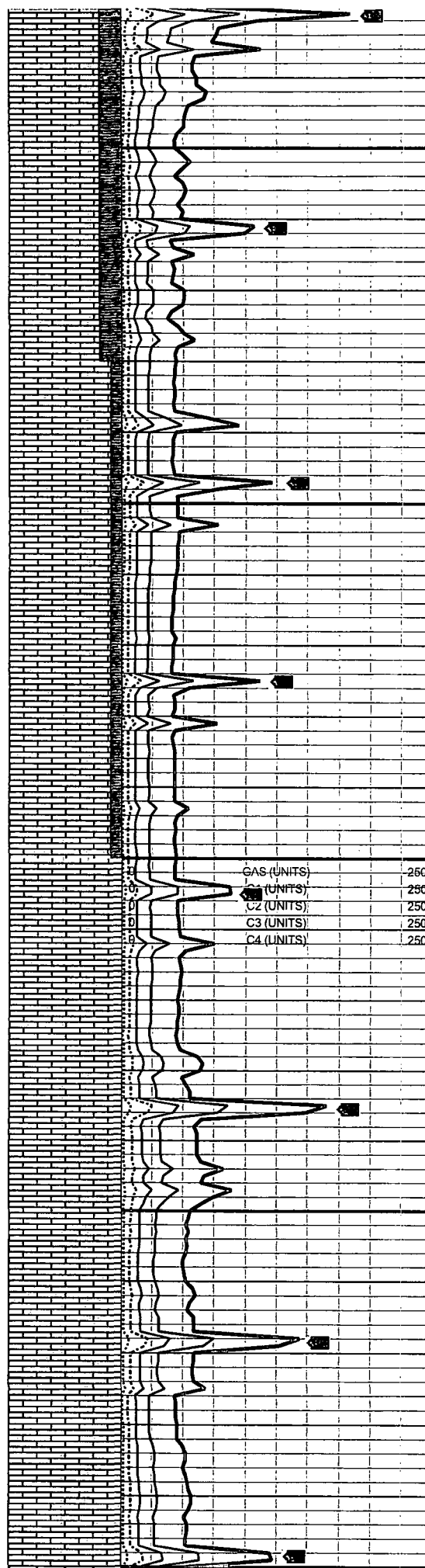
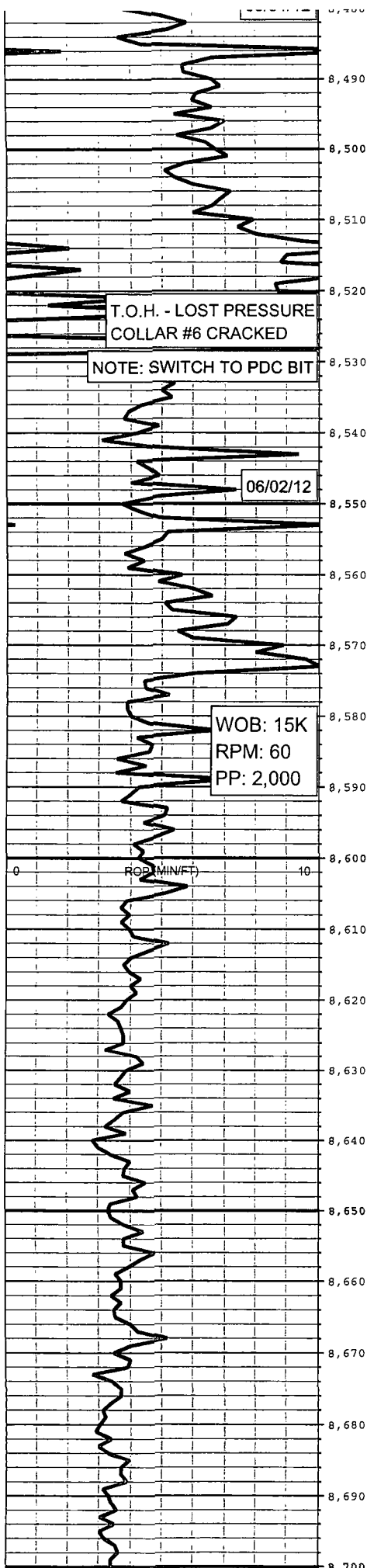
LS OFFWH CRM LTGY
LTTN TN LTBN BN VFX
DNS FOSS SL DOL'C

LS OFFWH LTTN TN
LTBN VFX DNS FOSS

DOL WH OFFWH BUFF
LTTN LTBN VF FX SL
SUC DNS IP LMY

LS WH OFFWH CRM
BUFF TN LTBN BN VFX
DNS FOSS IP DOL'C
GRDS TO LMY DOL





LS OFFFWH CRM LTGY
LTTN TN LTBN VFX DNS
TR FOSS DOL'C IP

DOL WH OFFFWH BUFF
LTTN VF FX DNS IP SL
SUC LMY GRDS TO
DOL'C LS

LS OFFFWH CRM LTTN
TN VFX DNS CHKY IP SL
DOL'C

LS CRM LTGY LTTN TN
LTBN VFX V/ DNS
DOL'C GRDS TO LMY
DOL

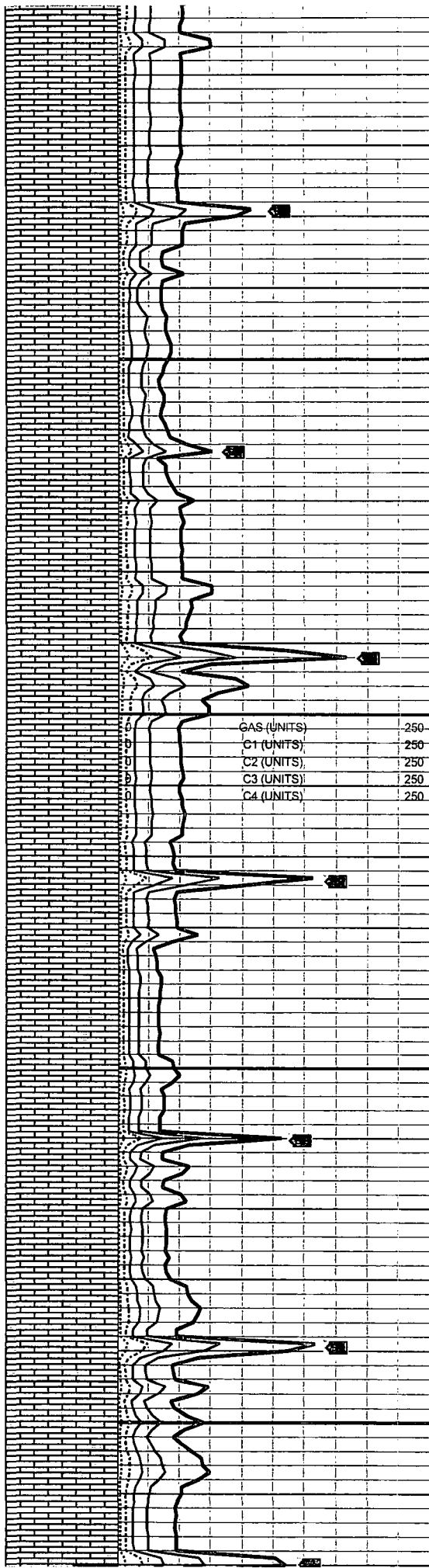
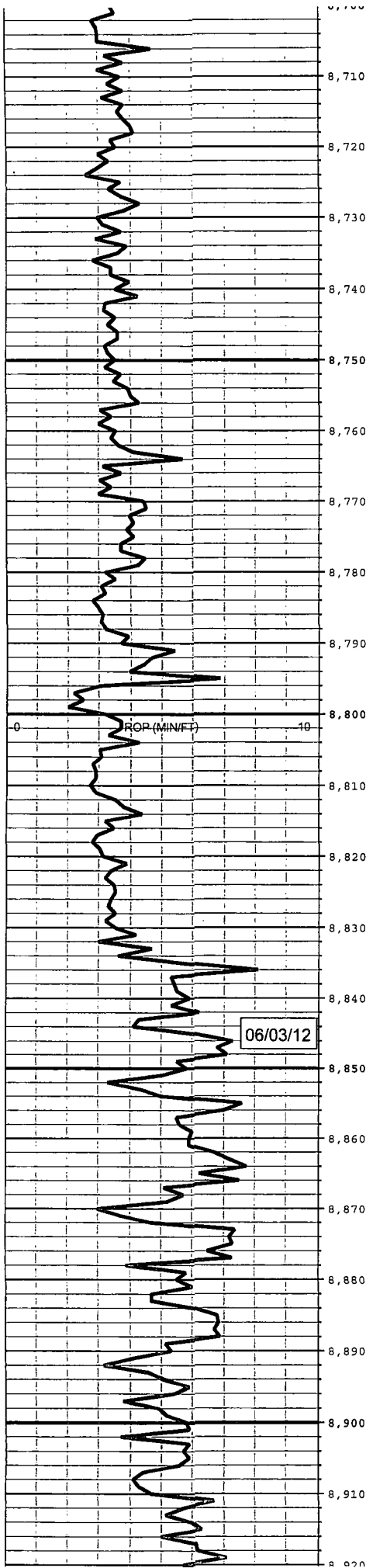
LS OFFFWH CRM LTGY
LTTN TN VFX DNS V/
DNS DOL'C GRDS TO
LMY DOL

LS OFFFWH CRM LTGY
LTTN TN VFX DNS
DOL'C IP

LS OFFFWH CRM LTGY
GY TN LTBN BN VFX V/
DNS TR FOSS

LS OFFFWH CRM LTGY
LTTN TN LTBN VFX TR
CALC XTLS DNS TR
FOSS DOL'C IP

LS OFFFWH CRM LTGY
GY LTTN TN LTBN IP
VFX DNS



GAS (UNITS)	250
C1 (UNITS)	250
C2 (UNITS)	250
C3 (UNITS)	250
C4 (UNITS)	250

LS CRM LTGY GY LTTN
TN VFX DNS TR FOSS

LS OFFWH CRM LTGY
LTTN TN VFX DNS SL
DOL'C IP

LS OFFWH LTGY LTTN
TN LTBN BN VFX DNS
DOL'C IP

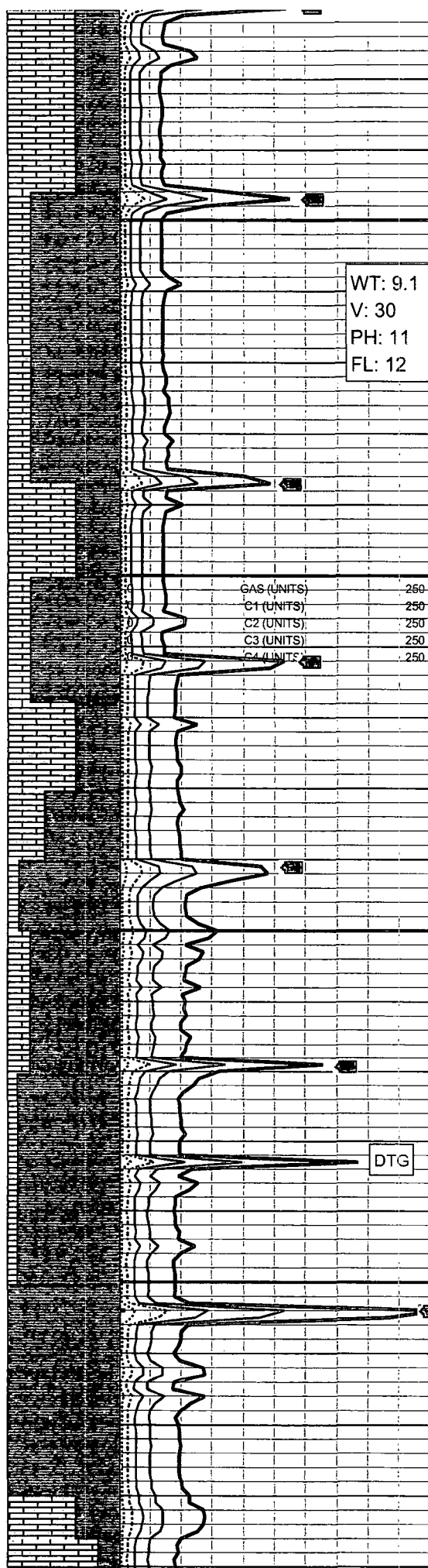
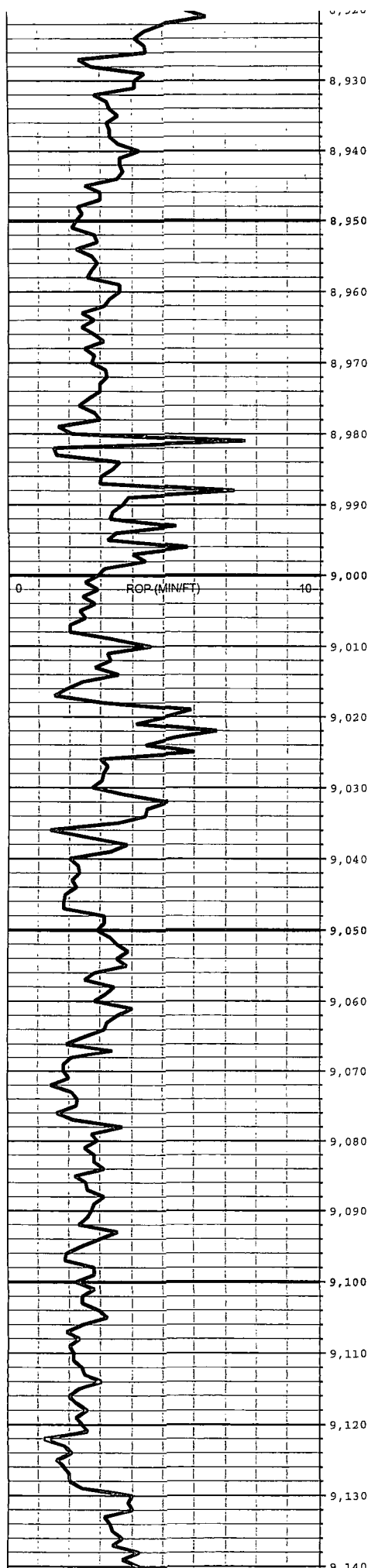
LS WH OFFWH CRM
LTTN LTBN BN VFX DNS
DOL'C IP

LS OFFWH CRM LTGY
GY TN LTBN VFX V/ DNS

LS WH OFFWH CRM
LTGY LTTN TN VFX DNS

LS OFFWH CRM LTGY
LTTN TN LTBN VFX DNS

LS OFFWH CRM LTTN



TN LTBN VFX DNS
DOL'C IP

DOL OFFWH LTTN TN
LTBN BN FX TR INT-X
POR AREN SUC DNS IP
LMY IP FR YEL/GN FLU
NO WET CUT SL TR
DRY CUT

DOL OFFWH BUFF
LTTN TN LTBN VF FX
AREN SL SUC DNS IP
TR FRACS LMY IP

LS OFFWH TN LTBN
VFX DNS DOL'C

DOL WH OFFWH BUFF
LTTN TN VF FX AREN
DNS IP SL SUC LMY IP
FR WH/YEL FLU NO
WET CUT

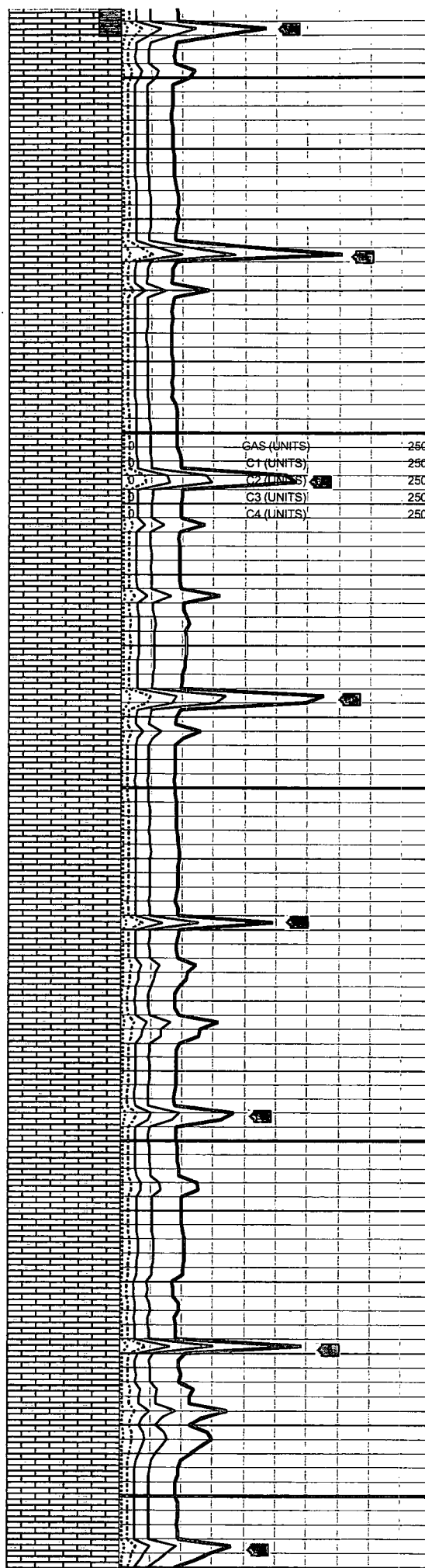
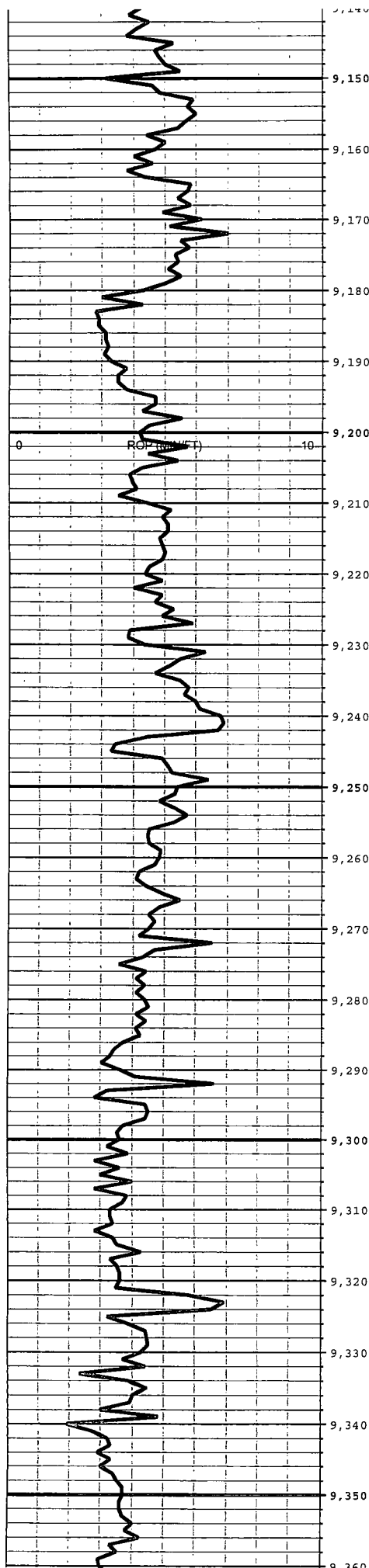
LS OFFWH LTGY TN
LTBN VF FX DNS DOL'C
GRDS TO LMY DOL

DOL WH OFFWH BUFF
FX TR INT-X POR AREN
IP DNS IP SL SUC FR
WH/YEL FLU NO WET
CUT

DOL OFFWH BUFF
LTTN LTBN IP F-MX
RHOMBS FR INT-X POR
AREN FR GN FLU NO
WET CUT SL TR DRY
CUT

DOL OFFWH BUFF
LTTN LTBN IP F-MX TR
INT-X POR AREN DNS
IP LMY IP TR TO FR YEL
FLU NO WET CUT TR
MURKY DRY CUT

LS WH OFFWH LTTN
TN LTBN FX DNS SDY
IP DOL'C



LS WH OFFWH TN BN
DKBN MOTT VF FX DNS
ARG IP TR FOSS

LS WH OFFWH MOTT
LTGY VFX CHKY

LS OFFWH CRM LTTN
LTGY FX DNS IP CHKY
IP FOSS

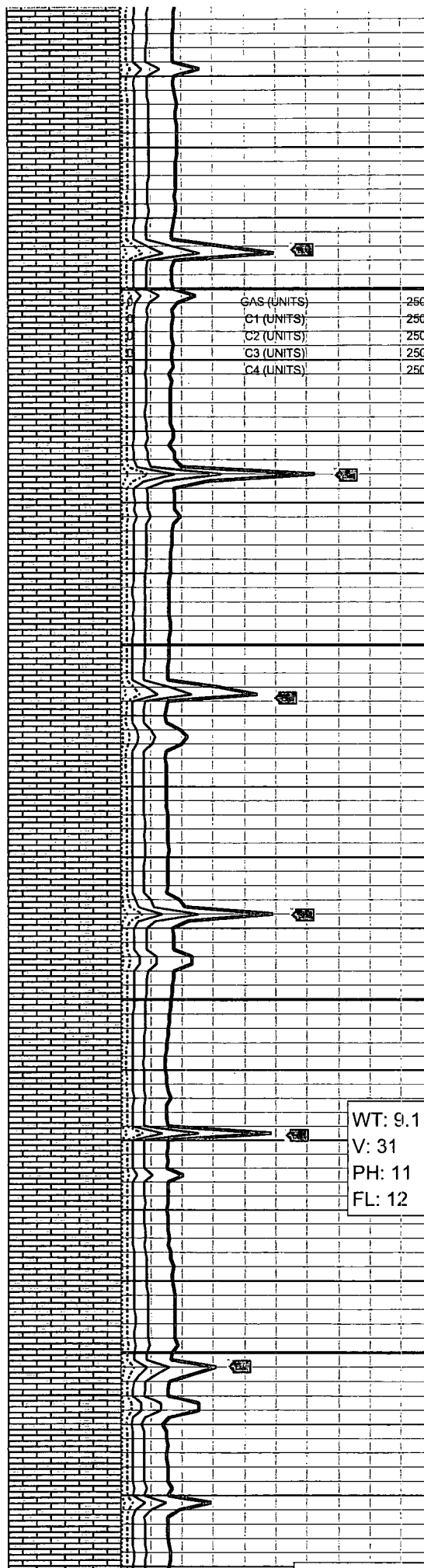
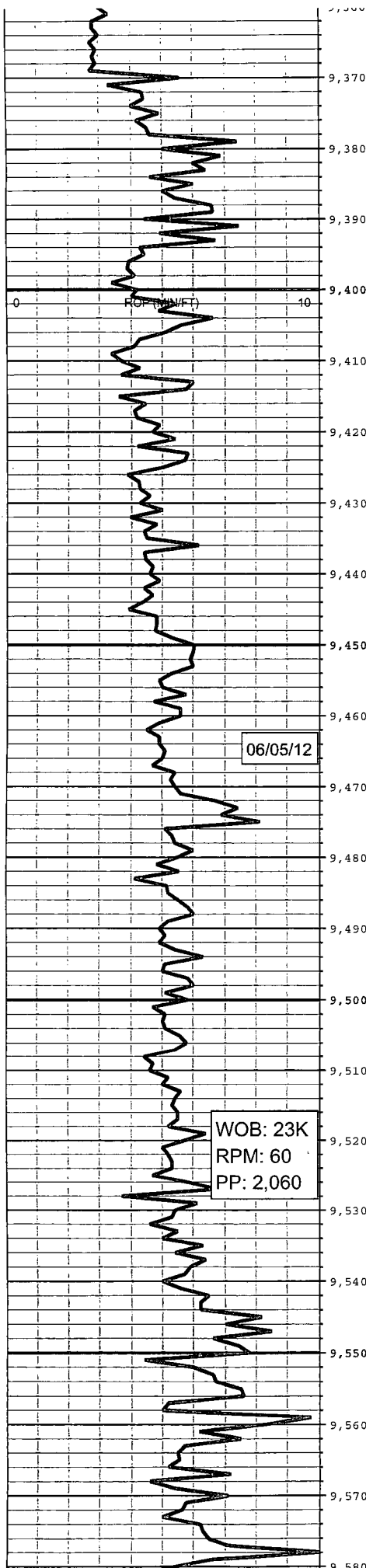
LS BN DKBN VF FX DNS
SL SUC

LS WH OFFWH MOTT
LTGY BN DKBN FX DNS
SL SUC CHKY IP

LS OFFWH LTTN TN BN
DKBN VF-MX DNS SL
SUC CHKY IP ARG IP

LS WH OFFWH LTTN
GYBN BN DKBN VF FX
DNS IP CHKY IP

LS WH OFFWH LTTN
VFX CHKY DNS IP FOSS



LS OFFFWH TN LTBN BN
DKBN VF FX DNS SL
SUC

LS OFFFWH TN LTBN BN
DKBN VF FX DNS SL
SUC IP DOL'C IP

LS INCR IN GY DKG
GYBN VF FX DNS

LS OFFFWH LTTN LTBN
GY DKG VF FX DNS SIL
IP

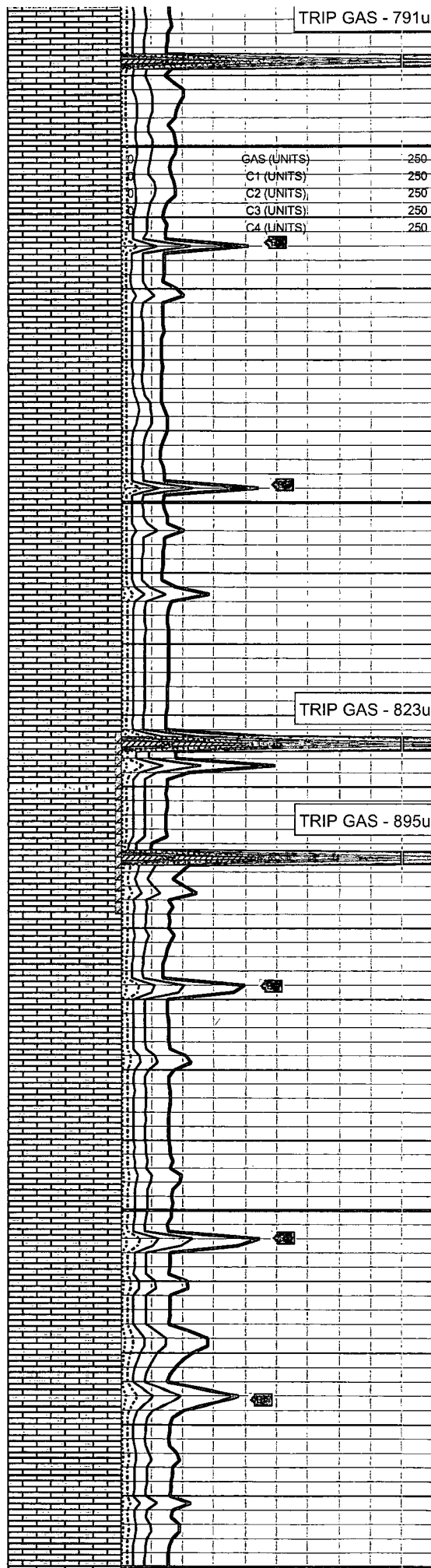
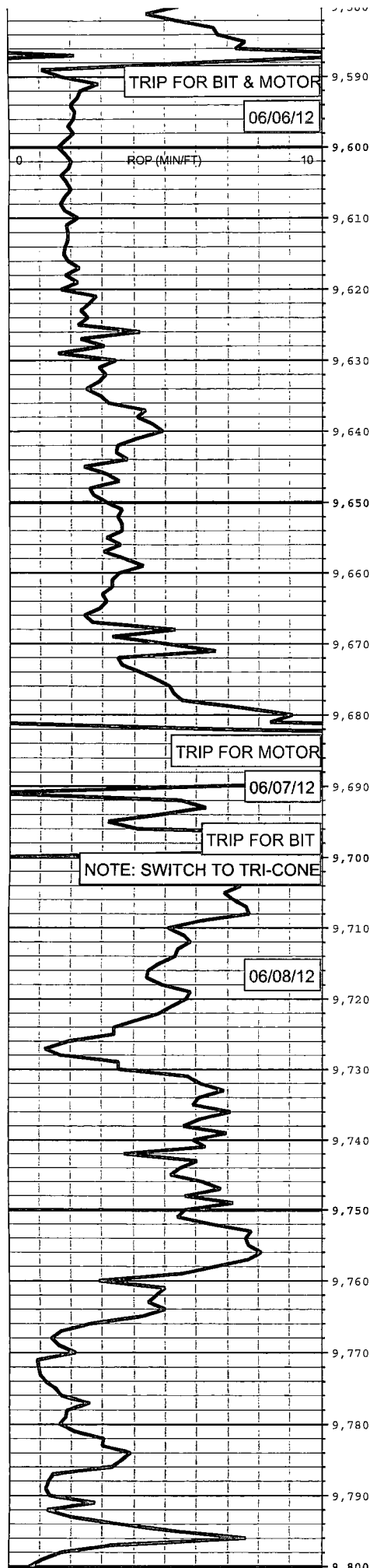
LS OFFFWH LTTN LTBN
GY GYBN VF FX DNS SIL
IP

LS OFFFWH MOTT GY
DKGY DKBN VFX V/ DNS

LS OFFFWH LTGY GY
DKGY BN DKBN VFX V/
DNS

LS WH OFFFWH BUFF
LTTN VFX DNS CLN

WT: 9.1
V: 31
PH: 11
FL: 12



LS WH OFFWH BUFF
VFX DNS CLN

SH TR GY DKGY BLK
SLTY SFT FRM GRTTY
TXT SB-PLTY MICA
CARB

LS WH OFFWH CRM
BUFF LTTN VF FX DNS
IP CLN ARG IP

LS WH OFFWH BUFF
LTTN BN IP VF FX DNS
IP TR FOSS

CHT CLR LTTN TN
TRNSL TRNSP

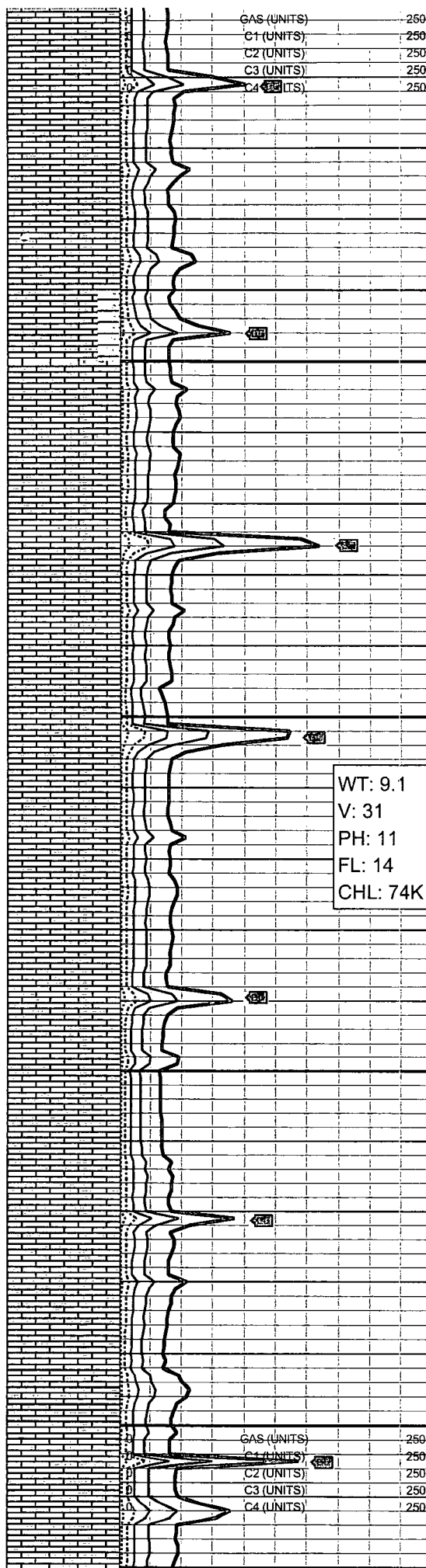
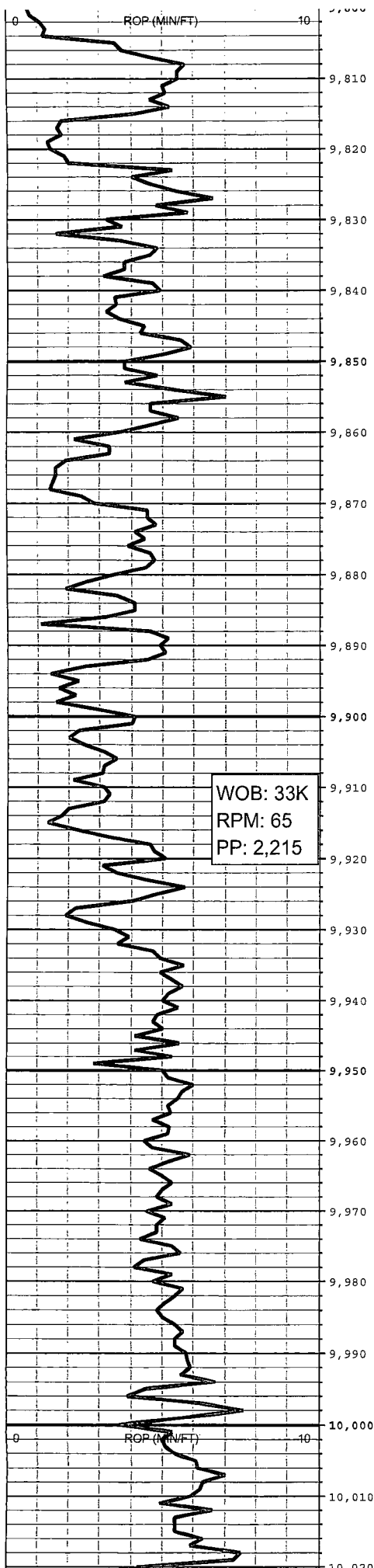
LS WH OFFWH LTTN
TN LTTN BN VF FX DNS

LS OFFWH LTTN TN
LTTN BN VF FX TR VUG
DNS IP

LS OFFWH LTTN TN BN
DKBN VF FX DNS ARG IP

LS WH OFFWH BUFF
LTTN VF FX FR VUG
POR TR INT-X POR DNS
IP SL AREN IP TR
YEL/GN FLU NO WET
CUT NO DRY CUT

LS OFFWH CRM LTTN
TN LTTN IP VF FX TR



VUGS DNS IP FOSS

LS OFFWH CRM LTTN
TN LTBN VF FX TR
VUGS DNS IP TR FOSS
TR GN FLU NO CUTS

LS WH OFFWH TN
LTBN BN VF FX DNS IP
FOSS

SH BLK DKG Y SL SLTY
FRM BLKY SB-PLTY
MICA CARB

LS WH OFFWH LTTN
VFX DNS IP TR VUG
CLN TR FOSS TR GN
FLU NO CUTS

LS WH OFFWH LTTN VF
FX TR VUG CLN DNS IP

LS WH OFFWH LTTN
TN VF FX TR VUG CLN
DNS IP TR FOSS TR
DULL YEL/GN FLU NO
CUTS

LS WH OFFWH BUFF
LTTN LTBN IP VF FX
DNS IP CHKY IP CLN

LS WH OFFWH BUFF
LTTN VF FX DNS IP CLN
NO FLU

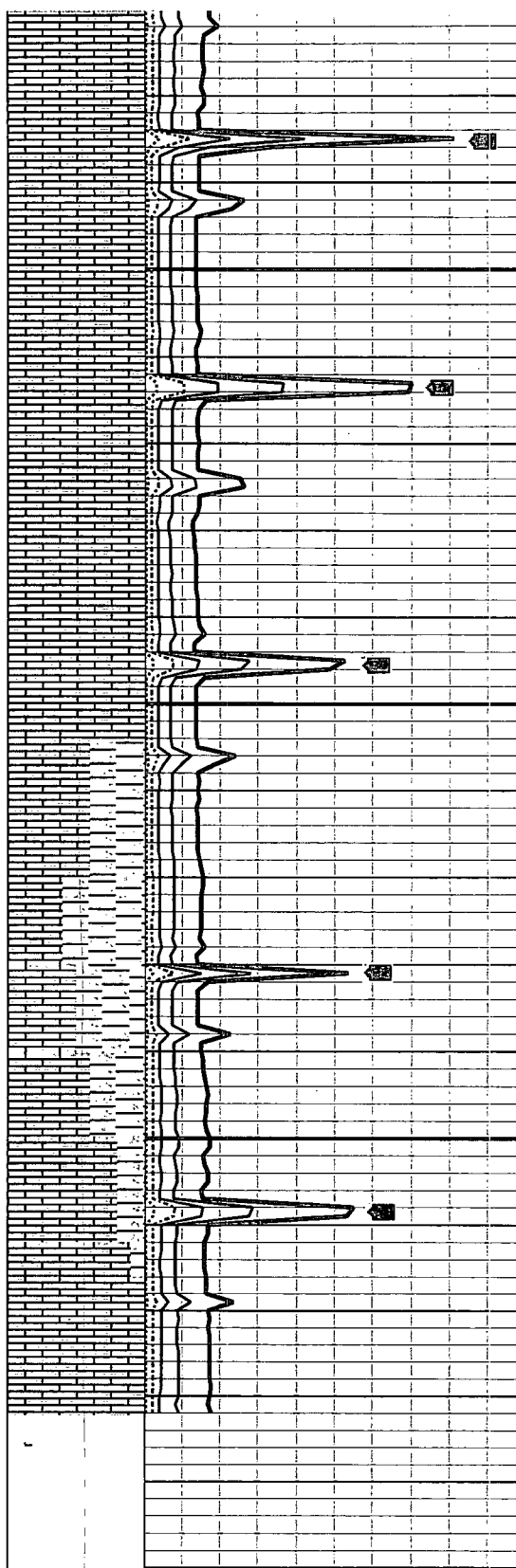
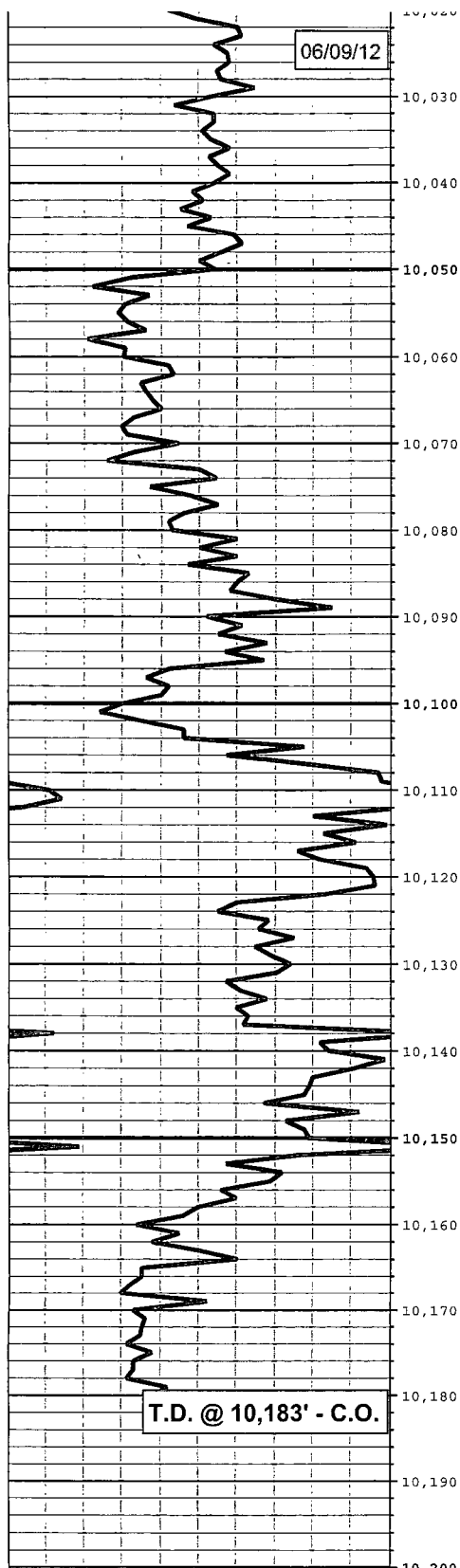
LS WH OFFWH BUFF
LTTN TN VF FX DNS IP
CLN TR FOSS NO FLU

LS WH OFFWH BUFF
LTTN VF FX TR VUG
DNS IP CLN TR FOSS
TR GN FLU NO CUTS

LS WH OFFWH BUFF
LTGY VF FX TR PP POR
DNS IP CLN TR FOSS

LS WH OFFWH VF FX
DNS IP CLN

LS WH OFFWH CRM
BUFF LTGY VF FX TR
VUG DNS IP CLN



LS WH OFFWH LTGY
LTTN VF FX DNS IP CLN
TR FOSS

LS WH OFFWH BUFF
LTTN VF FX TR PP POR
DNS IP CLN

LS WH OFFWH BUFF VF
FX DNS IP VUGS FILLED
W/ SOLN CLN

LS WH OFFWH BUFF
LTTN TN VF FX DNS IP
TR FOSS

LS WH OFFWH CRM
LTTN TN VF FX DNS TR
PP POR CLN

LS WH OFFWH CRM
LTTN VF FX VUGGY PP
POR SME FILLED W/
SOLN DNS IP CLN
SH BLK DKBN SL SLTY
FRM BLKY MICA CARB
LMY GRDS TO ARG LS

LS WH OFFWH TN BN
DKBN VF FX DNS IP
ARG FOSS

SH GY DKGY SLTY SFT
FRM BLKY MICA SL
CARB

SH LTGY GY SLTY SFT
FRM BLKY MICA SL TO
NON CARB

LS OFFWH BUFF LTTN
TN LTBN VF FX DNS IP
TR PP POR FOSS