



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: M&M Exploration, Inc.
Location: Sec. 21-34S-15W
License Number: 15-007-24066
Spud Date: 10-15-2013
Surface Coordinates: 1975'FNL & 380' FEL, NE/4

Z-Bar 21-8
Barber Co. KS
Region: Aetna Gas Area
Drilling Completed: 10-23-2013

Bottom Hole As Above
Coordinates:
Ground Elevation (ft): 1,557' K.B. Elevation (ft): 1,667'
Logged Interval (ft): 3,800' To: 5,050' Total Depth (ft): 5,050'
Formation: Pennsylvanian & Mississippian
Type of Drilling Fluid: Chemical

Printed by WellSight Log Viewer from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: M&M Exploration, Inc.
Address: 4257 Main St., #230
Westminster, CO 80031

GEOLOGIST

Name: Mr. Mike Pollok
Company: MAP Exploration, Inc.
Address: PO Box 106
Purcell, OK 73080

DSTs

DST #1 (4,676'-4,695') 15-60-120-120

REC. 180' GIP

20' GOCM: 2% GAS, 10% OIL, 88% MUD

FP:18-24/17-32

SIP: 299-267

IF: Weak. 3" Blow

ISI: Nn Blow Back

FF: Fair Blow, BOB @ 25 min.

FSI: No Blow Back

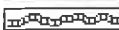
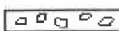
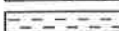
Comments

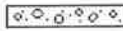
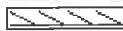
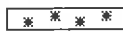
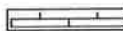
Hardt Drilling, Rig 1, Samples

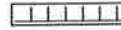
Mudlogging Unit 1

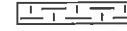
Mudlogger: Bill Busch

ROCK TYPES

 Anhy
 Bent
 Brec
 Cht
 Clyst
 Coal

 Congl
 Dol
 Gyp
 Igne
 Lmst
 Meta

 Mrlst
 Salt
 Shale
 Shcol
 Shgy
 Sltst

 Ss
 Till
 sdy sh
 calc sh
 shale
 carb sh

ACCESSORIES

MINERAL

 Anhy
 Arggrn
 Arg
 Bent
 Bit
 Brecfrag
 Calc
 Carb
 Chtdk
 Chtlt
 Dol
 Feldspar
 Ferrpel
 Ferr
 Glau
 Gyp
 Hvymin
 Kaol
 Marl

 Minxl
 Nodule
 Phos
 Pyr
 Salt
 Sandy
 Silt
 Sil
 Sulphur
 Tuff

FOSSIL

 Algae
 Amph
 Belm
 Bioclst
 Brach
 Bryozoa
 Cephal
 Coral

 Crin
 Echin
 Fish
 Foram
 Fossil
 Gastro
 Oolite
 Ostra
 Pelec
 Pellet
 Pisolite
 Plant
 Strom

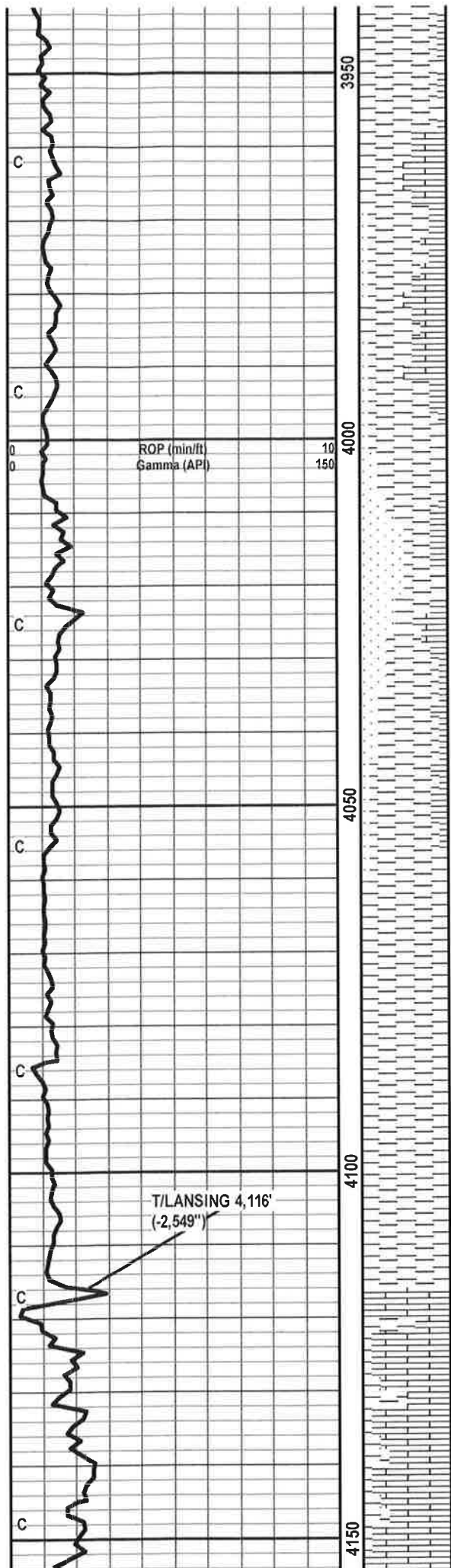
STRINGER

 Anhy
 Arg
 Bent
 Coal
 Dol

 Gyp
 Ls
 Mrst
 Sltstgr
 Ssstgr

TEXTURE

 Boundst
 Chalky
 Cryxln
 Earthy
 Finexln
 Grainst
 Lithogr
 Microxln
 Mudst
 Packst
 Wackest



SH: LT GRY-GRY-DRK GRY W/SM
BRN, SLTY-FN, CALC,
SFT-BRTL-FRM, MICA, PYR, FOSS,
CARB I.P., SPL-PLTY

SH: AAB W/NO FOSS

SS: OFF WHT-LT GRY, FN-MED, SUB
RND-SUB ANG, CLR-FRSS, CONSL,
CALC, GLAU'C SPKS, MICA, NO
FLU, SM DD OIL STN, NO CUT OR
ODOR

SH: GRY-DRK GRY-GRN GRY, SLTY,
SFT-FRM-MOD HRD, V/CALC, MICA,
PYR, PLTY-SPL W/SM FISS

SH: AAB W/PLTY-BLKY & NO SPL &
FISS

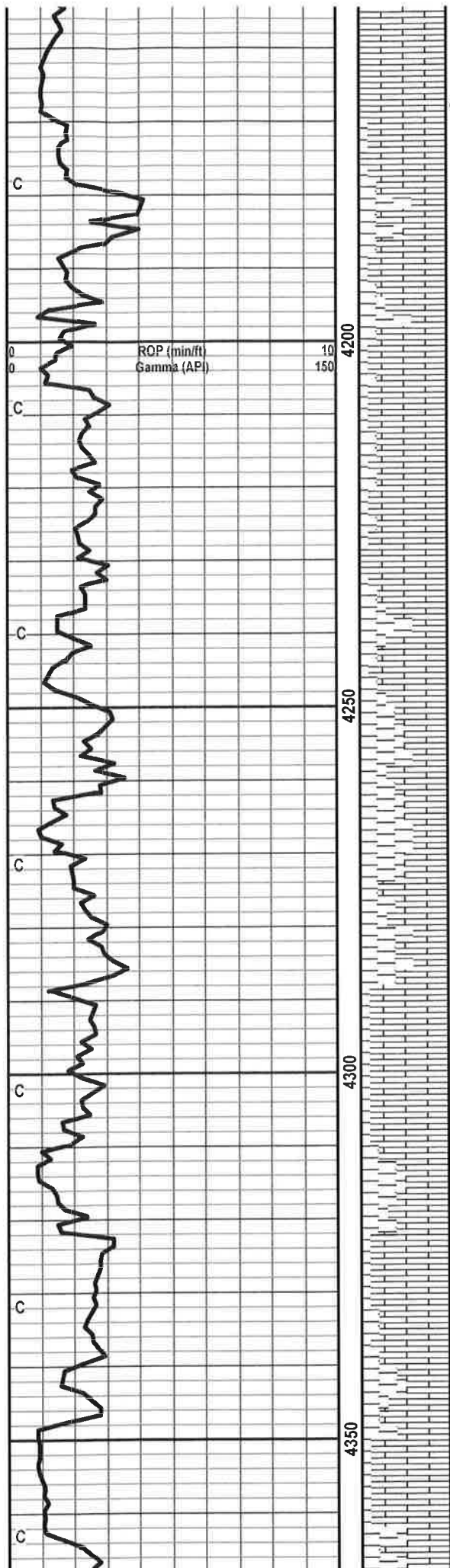
SH:LT GRY-GRY W/SM GRY GRN,
SLTY-FN, SL CALC I.P., SFT, MICA

LS: WHT-OFF WHT-CRM-BFF-BRN-LT
GRY, MCRO XLN-XLN-FN-MED-CHKY
W/SM SUCR, SFT-HRD-BRTL, ARG
I.P., DOLO'C I.P., CHRT, GD PP-FRAC
W/SM INTR XLN POR, DLL W/TR BRT
FLU, NO VIS STN, CUT, OR ODOR

GEL 6/10
WL 9.5
CK 2/32
SLD 6.4
pH 10.3
CHL 2600
CA 60
LCM 0

TG, C1-C5

200



LS: CRM-BFF-BRN W/SM WHT, XLN-FN-MED W/SM CHKY, BRTL-HRD W/SM SFT, SM ARG, CHRT, PP-FRAC W/SM VUG POR, DLL W/TR BRT FLU, SLW STRMG CUT, NO VIS STN, OR ODOR

LS: WHT-CRM-BFF-BRN-GRY, MCRO XLN-XLN-MED-SUCR W/SM CHKY, SFT-HRD-BRTL W/SM FRI, ARG I.P., FOSS, DOLO'C I.P., CHRT, DLL W/SM BRT FLU, NO VIS STN, CUT, OR ODOR

LS: CRM-BFF-BRN-DRK BRN W/SM GRY, FN-MED-SUCR, HRD-BRTL-FRI, ARG I.P., CHRT, EXCNT PP W/ SM INTR XLN & FRAC POR, DLL FLU, NO VIS STN, CUT, OR ODOR

LS: BFF-BRN-LT GRY W/SM CRM, MCRO XLN-XLN-SUCR-MED, BRTL-HRD-FRI, ARG, I.P., FOSS, GD PP-FRAC-INTR XLN POR, DLL & BRT FLU, NO VIS STN, CUT, OR ODOR

LS: WHT-BRN-BFF, FN-MED-SUCR, FRI-FRM, ERTY, ARG I.P., DLL FLU, NO VIS STN, CUT, OR ODOR

LS: WHT-BRN-BFF-GRY, MCRO XLN-XLN-MED W/SM SUCR, BRTL-HRD-FRI, ERTY, ARG I.P., DLL FLU, NO VIS STN, CUT, OR ODOR

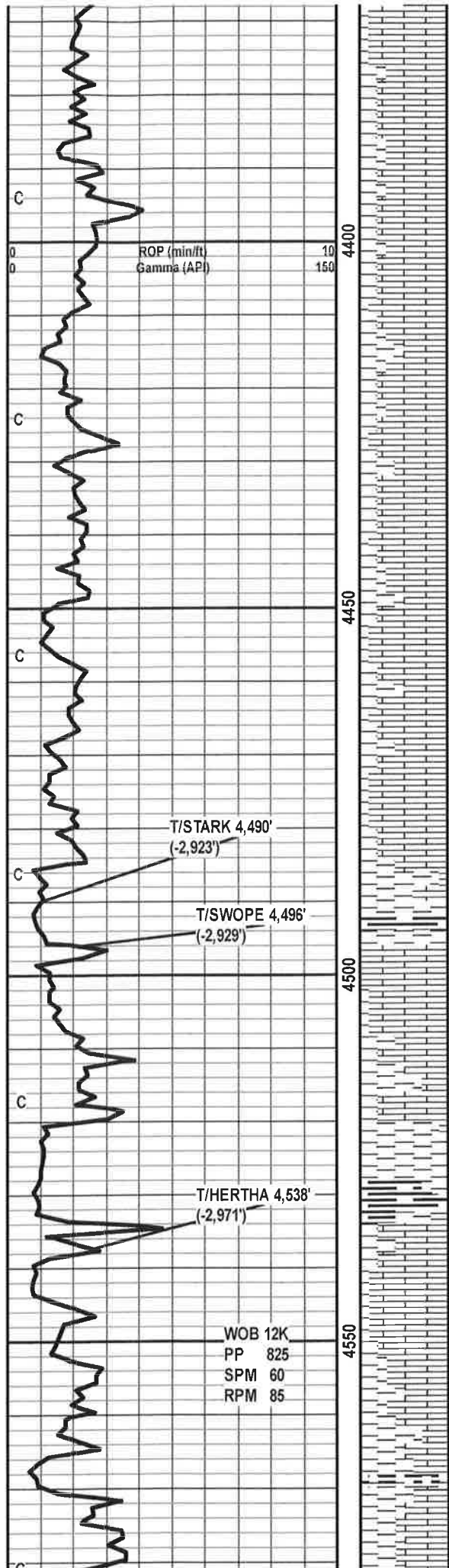
LS: WHT-BFF-CRM-DRK BRN-GRY, XLN-FN-MED-SUCR, BRTL-HRD-FRI, ERTY, CHRT, ARG I.P., GD PP-FRAC

TG, C1-C5

200

SUMP PUMP CHANGE OUT @ 4,232'

4,364' @ 12AM ON 10-22-13



W/SM INTR XLN POR, DLL W/TR BRT FLU, NO VIS STN, CUT, OR ODOR

LS: WHT-CRM-BFF-BRN-GRY, XLN-FN-MED-DNS-SUCR, HRD-BRTL, ARG I.P., CHRT, PYR, GD PP W/SM VUG & FRAC POR, DLL W/TR BRT FLU, NO VIS STN, CUT, OR ODOR

LS: OFF WHT-BFF-BRN-GRY, XLN-FN-MED, BRTL-HRD, ARG, CHRT, GD PP W/SM FRAC POR, DLL FLU, NO VIS STN, CUT, OR ODOR

LS: WHT-CRM-BRN-DRK BRN, MED-SUCR W/SM FN, BRTL-HRD-FRI, ERTY, CHRT, PYR, EXCL PP W/SM FRAC POR, DLL W/TR BRT FLU, NO VIS STN, CUT, OR ODOR

SH: BLK-DRK GRY, WXY W/SM FN, CALC, HRD, SM MICA, BLKY

LS: CRM-BFF W/TR OFF WHT, MED-SUCR, FRI-BRTL-HRD, SM ARG, SM FOSS, EXCL PP-INTR XLN-VUG POR, DLL & BRT FLU, BRN OIL STN, GD STMG CUT, GD OIL ODOR

SH: BLK-DRK GRY, WXY-FN, HRD-FRM, CARB, MICA, BLKY

LS: WHT-CRM-BRN-GRY, SUCR, BRTL-HRD, ARG, EXCL PP & VUG POR, DLL & BRT FLU, NO VIS STN, CUT, OR ODOR

SH: BLK-GRY-GRN, FN-WXY, SFT-FRM-HRD, CALC, MICA, MTT'L'D I.P., BLKY-PLTY

LS: CRM-BFF W/SM DRK BRN, YI N.SUCR-MED W/SM FN

TG, C1-C5

200

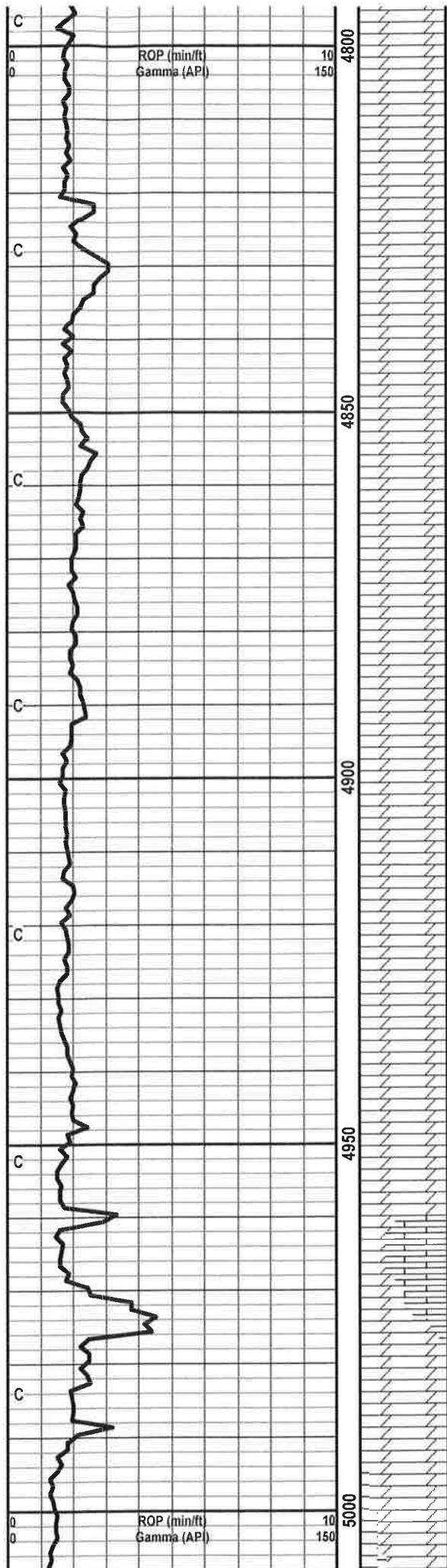
SHALE GAS 116u

83u

SHALE GAS 271u

CIRC 45 MINS @ 4,549'

MUD CHECK @ 4,549'
MW 9.2
FV 55
PV 20
YP 16
GEL 5/11
WL 8.7
CK 2/32
SLD 6.2
pH 10.4
CHL 2200



DOLO: LT GRY W/TR BRN & GRN,
FN, HRD-BRTL, PP POR, NO FLU,
STN, CUT, OR ODOR

DOLO: LT GRY-GRY, FN, HRD-BRTL,
PP POR, NO FLU, STN, CUT, OR
ODOR

DOLO: AAB

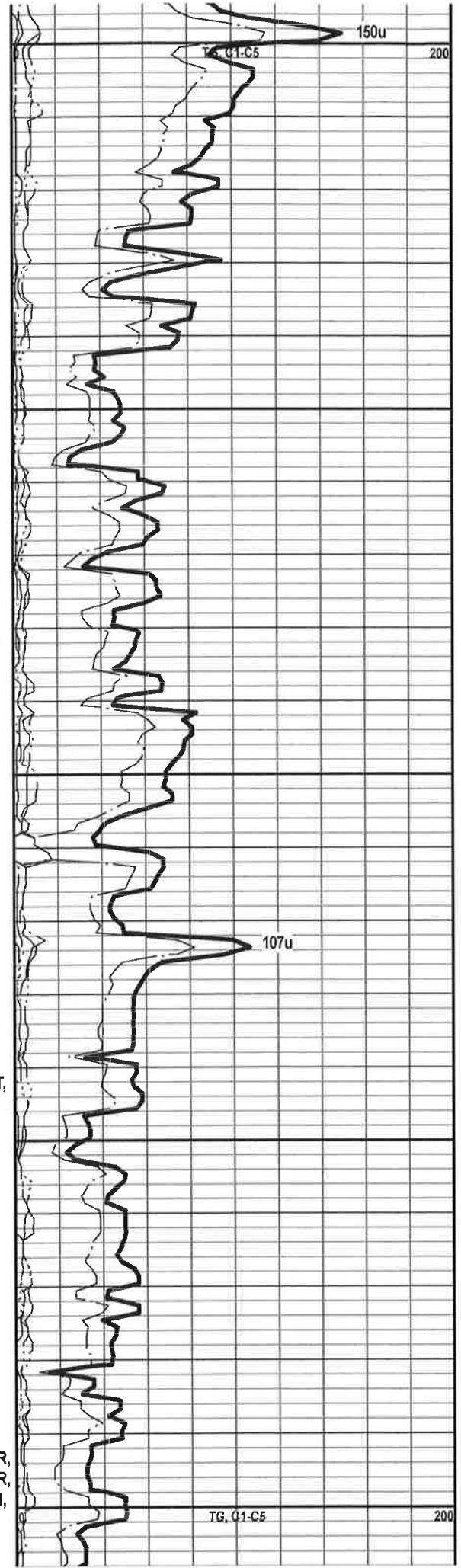
DOLO: LT GRY-GRY, FN, HRD-BRTL,
PP POR, SM DLL FLU, NO VIS STN,
CUT, OR ODOR

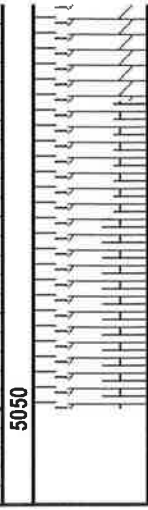
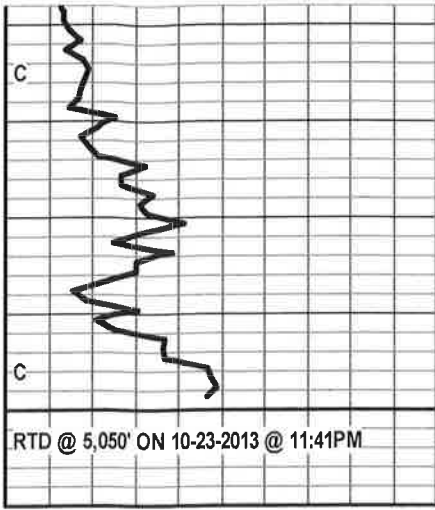
DOLO: AAB

DOLO: LT GRY-GRY, FN, HRD, CHRT,
PP POR, NO FLU, STN, CUT, OR
ODOR

DOLO: AAB W/SM LS: CRM-BFF-LT
BRN, MCRO XLN-FN, HRD W/SM
BRTL, PR POR, DLL FLU, NO VIS
STN, CUT, OR ODOR

DOLO: LT GRY-GRY, FN W/SM SUCR,
HRD-BRTL, PP W/SM INTR XLN POR,
TR GLAU'C SPKS I.P., NO FLU, STN,
CUT, OR ODOR





LS: CRM-BFF-GRY, MCRO
XLN-XLN-FN, HRD-BRTL, NO FLU,
STN, CUT, OR ODOR

7 STAND SHORT TRIP, CIRC 45
MIN., SURVEY, TOH FOR E-LOGS

