



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

Well Name: M&M Exploration, Inc. Z-Bar 26-11  
Location: Section 26-33S-15W  
License Number: 15-007-23912 Region: Aetna  
Spud Date: 7/26/12 Drilling Completed: 8/04/12  
Surface Coordinates: 2200' FSL & 2200' FWL, SW/4  
Bottom Hole As Above  
Coordinates: As Above  
Ground Elevation (ft): 1786' K.B. Elevation (ft): 1798'  
Logged Interval (ft): 3,950' To: 5,150' Total Depth (ft): 5,150'  
Formation: Pennsylvanian & Mississippian  
Type of Drilling Fluid: Chemical Mud

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

OPERATOR

Company: M & M Exploration, Inc.  
Address: Attn: Mr. Mike Austin  
4257 Main St., Suite 230  
Westminster, CO 80031

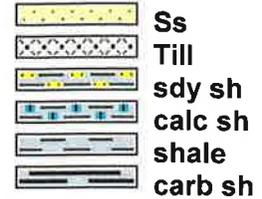
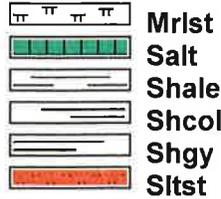
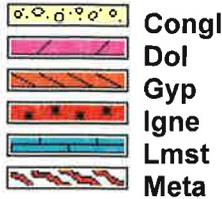
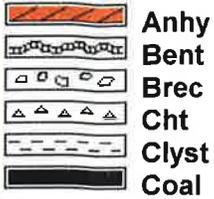
GEOLOGIST

Name: Mr. Mike Pollok  
Company: MAP Exploration, Inc.  
Address: Michael A. Pollok  
P.O. Box 106  
Purcell, OK 73080

Comments

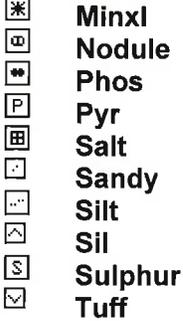
Southwind Drilling Rig #70 Samples  
Mudlogging Unit #5  
Mudloggers: Tyler Selfridge, Beth Brock

### ROCK TYPES

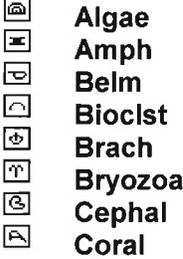


### ACCESSORIES

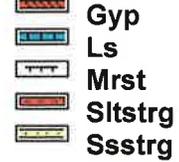
#### MINERAL



#### FOSSIL



#### STRINGER



#### TEXTURE



### OTHER SYMBOLS

#### POROSITY TYPE



#### SORTING



#### ROUNDING



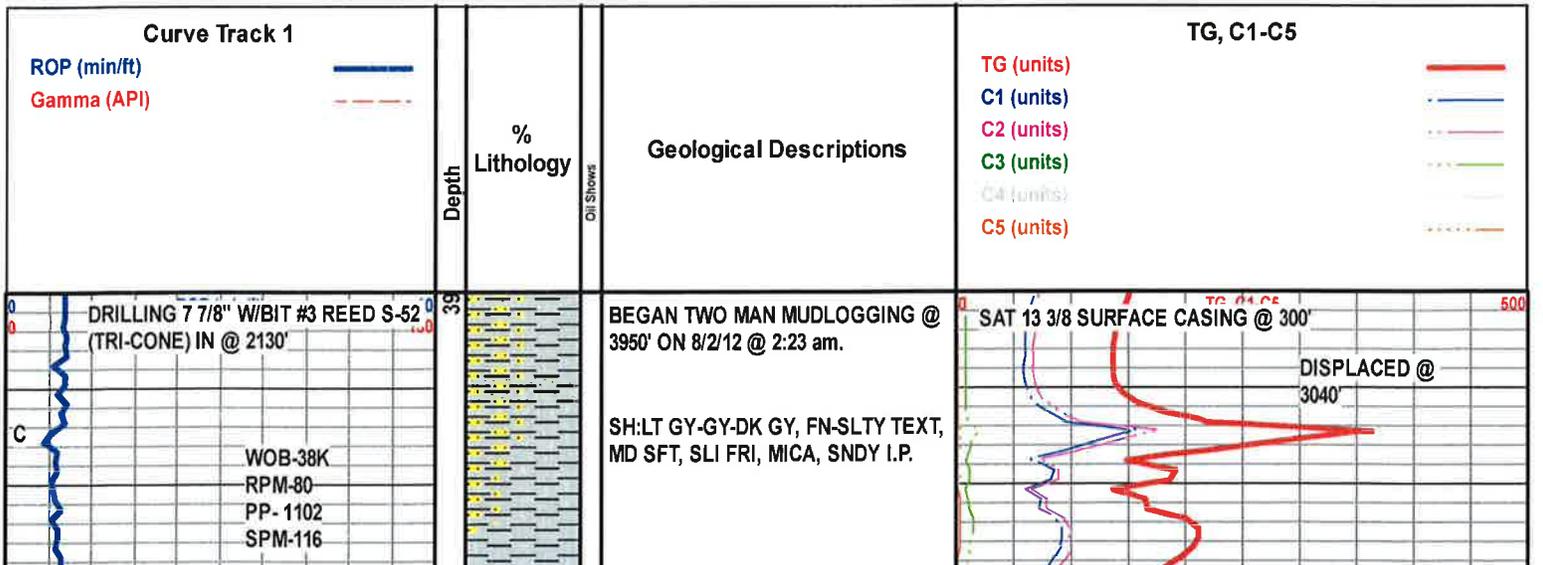
#### OIL SHOWS

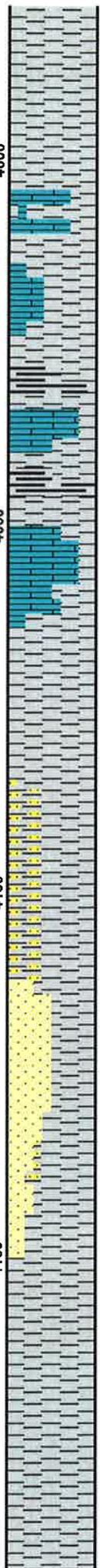
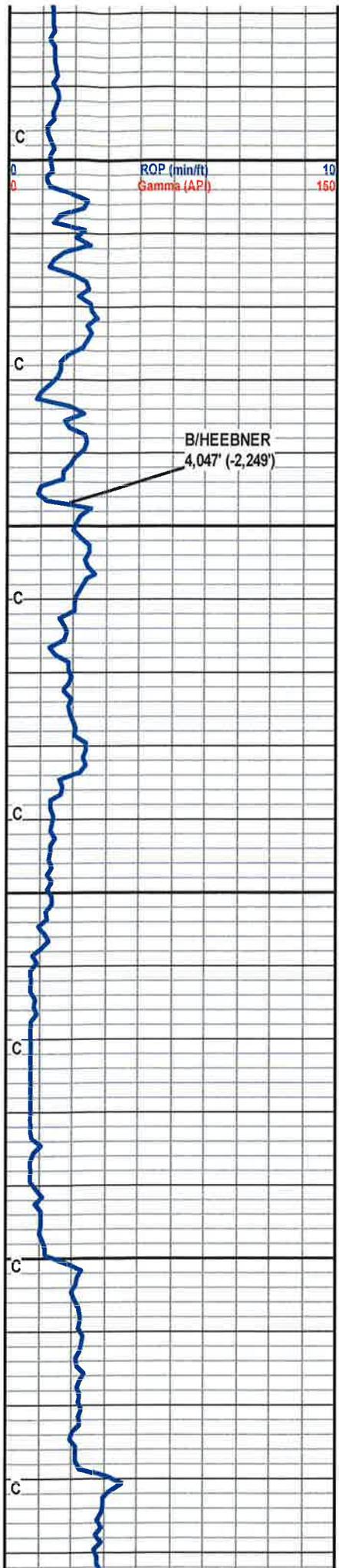


#### INTERVALS



#### EVENTS





SH: LT GY-GY, V/FN TEXT, VISFT, MICA, PYR'C SPKS THROUT, PLTY

SH: AAB W/ ABT LS: TN-BRN-GY, V/FN MICRO-XLN, HD DNS, CALC, V/SHLY, NO VIS STN, CUT, OR ODOR

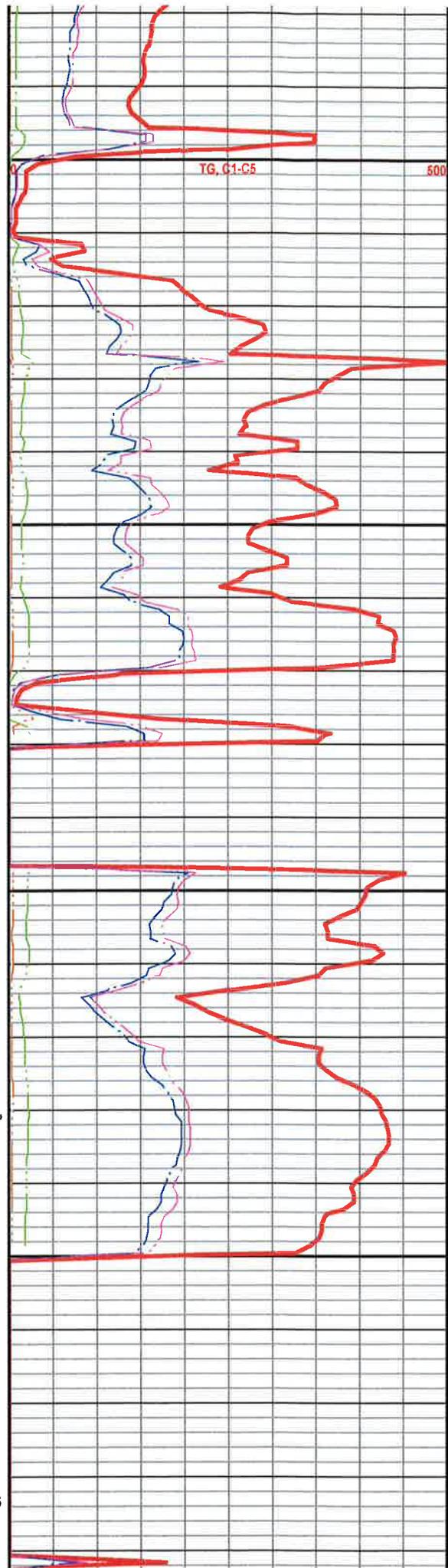
SH: GY-DK GY-BLK, V/FN WXY TEXT, MD FM-HD, V/PLTY, CALC, CARB

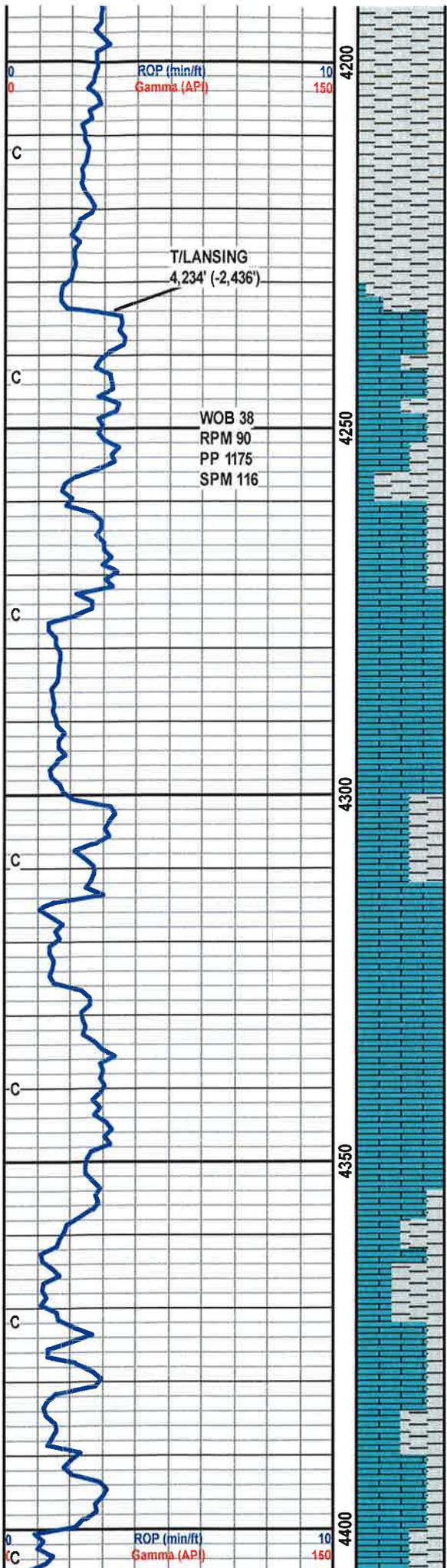
LS: TN-BRN-GY, V/FN MICRO-XLN, DNS, SM P.P.POR, FOSS, SHLY I.P., CALC, BRT YEL FLU, NO VIS STN, CUT, OR ODOR

SH: GY-DK GY, FN TEXT, MOD SFT, PLTY, PYR'C SPKS, SLI SND

SH: AAB GRDING, SS: WHT-GY, FN-MD GRN, RND-SB RND, FROS-OPA, CONS, UNI, CALC CEM, MICA, SHLY, SLI PYR'C, NO VIS FLU, STN, CUT, OR ODR

SH: LT GY-GY, V/FN TEXT, SFT-MD FM, PLTY, FR PYR, V/MICA, SLI FISS





SH: AAB

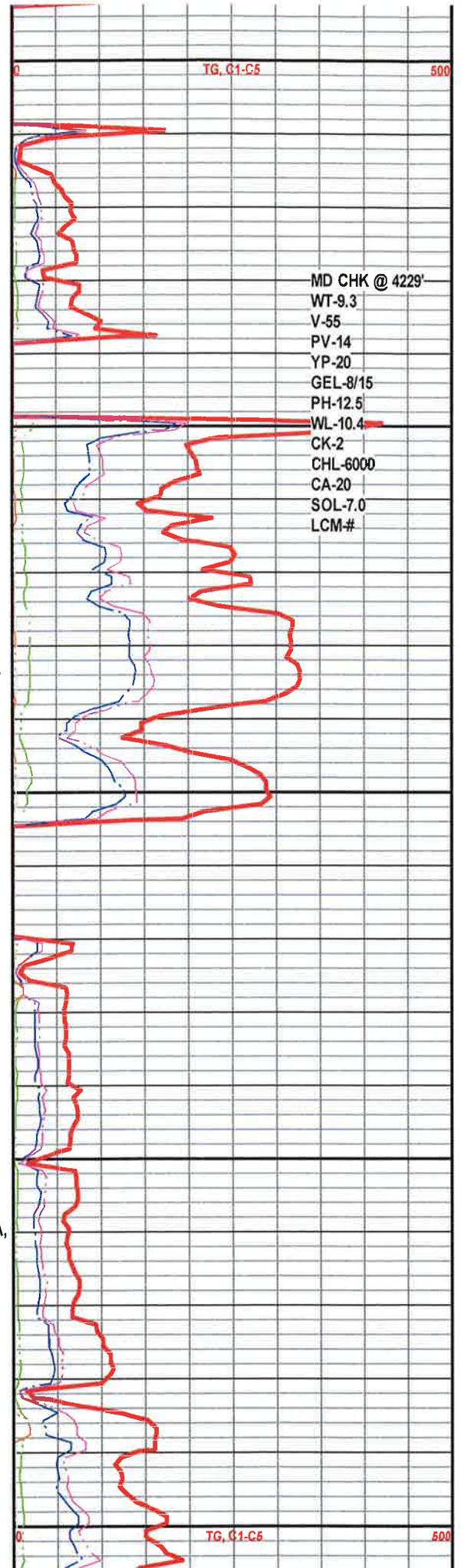
LS: TN-BRN-GY-DK BRN, V/FN  
MICRO-XLN, V/DNS, HD, V/SHLY,  
CALC, FOSS, V/ARG, ABT SLI BRT  
YEL FLU, NO VIS STN, CUT, OR  
ODOR

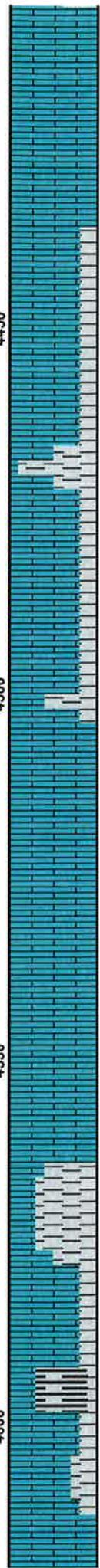
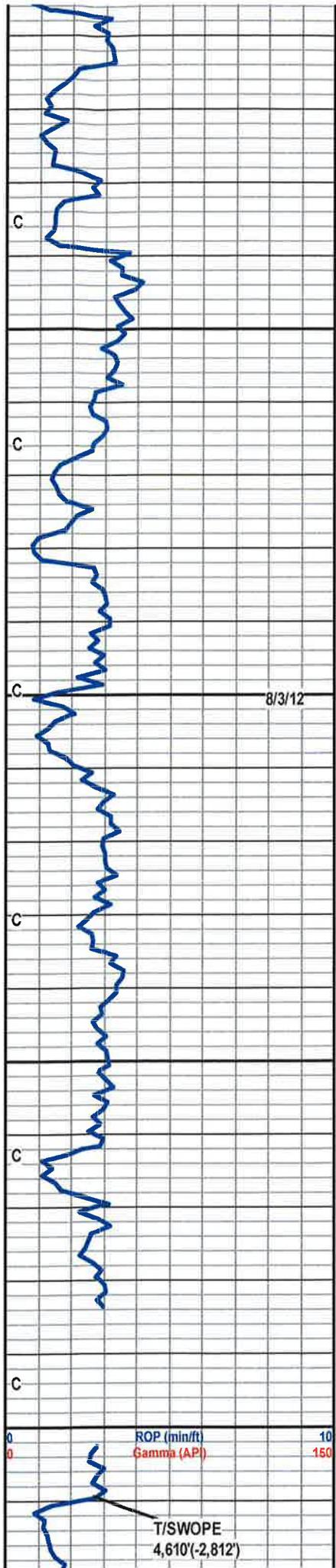
LS: OFF WT-TN-BRN, FN  
MICRO-XLN, SLI DNS, SM P.P.POR,  
ARG, SLI FOSS, FR CALC, DUL YEL  
FLU, NO VIS STN, CUT, OR ODOR

LS: TN-BUF-BRN-DK BRN, FN  
MICRO-XLN, GD P.P.POR, V/ARG,  
SLI CHLKY, SLI FOSS, BRT YEL  
FLU, NO VIS STN, CUT, OR ODOR

SH: LT GY-GY-DK GY, V/FN TEXT,  
SFT-MD FM, V/CALC, V/PYR'C, MICA,  
SLI FISS, PLTY

SH: AAB





LS: WT-OFF WT-TN-BRN, FN  
 MICRO-XLN, TR INTER-XLN, SLI  
 SUC, ABT P.P.POR, V/ARG, SLI  
 CALC, GRNSH YEL FLU, NO VIS  
 STN, CUT, OR ODOR

LS: OFF WT-TN-GY-BRN, V/FN  
 MICRO-XLN, HD, DNS, SHLY, V/ARG,  
 ABT BRT YEL FLU, NO VIS STN,  
 CUT, OR, ODOR

LS: AAB

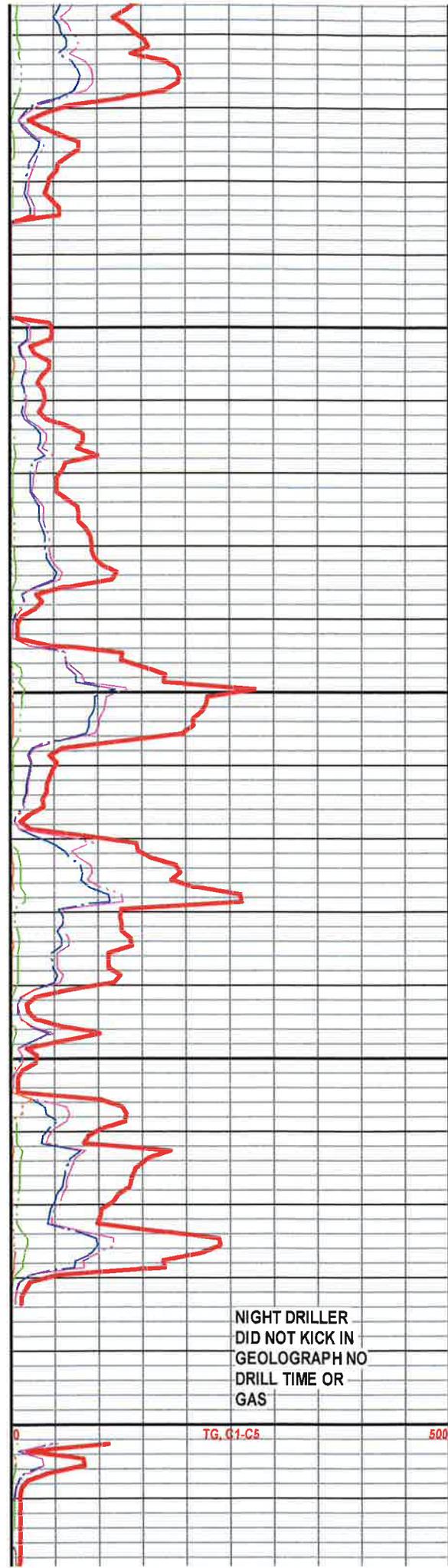
LS: OFF WT-TN-DK BRN, V/FN  
 MICRO-XLN, HD, DNS, V/FOSS,  
 ARG, SM YEL FLU, NO VIS STN,  
 CUT, OR ODOR

LS: AAB

LS: AAB W/ ABT SH: LT GY-GY-DK  
 GY-GRN, V/FN TEXT, SFT, PLTY,  
 PYR'C SPKS, SLI FISS

SH: DK GY-BLK, V/FN WXY TEXT,  
 V/PLTY, MICA, PYR'C SPLKS, CARB

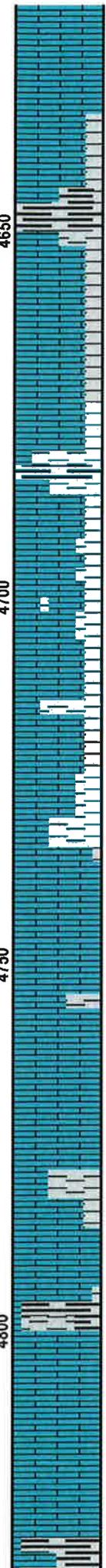
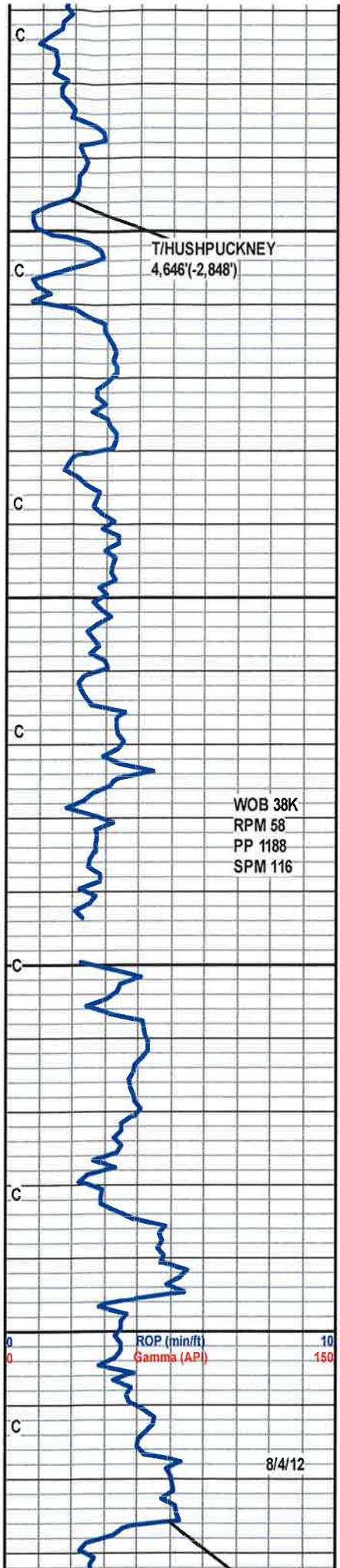
LS: OFF TN-DK BRN, INTER-XLN,  
 SUC BRTL, EXC P.P.POR AND



NIGHT DRILLER  
 DID NOT KICK IN  
 GEOLOGRAPH NO  
 DRILL TIME OR  
 GAS

TG, G1-C5

500



SH: DK-GY-BRN-BLK, V/FN TEXT, INTER-XLN POR, ARG, ABT DUL YEL FLU, DOS, NO VIS CUT, OR ODOR

SH: DK-GY-BRN-BLK, V/FN TEXT, V/WXY, MD FM-HD, V/PLTY, PYR'C SPKS, V/CARB

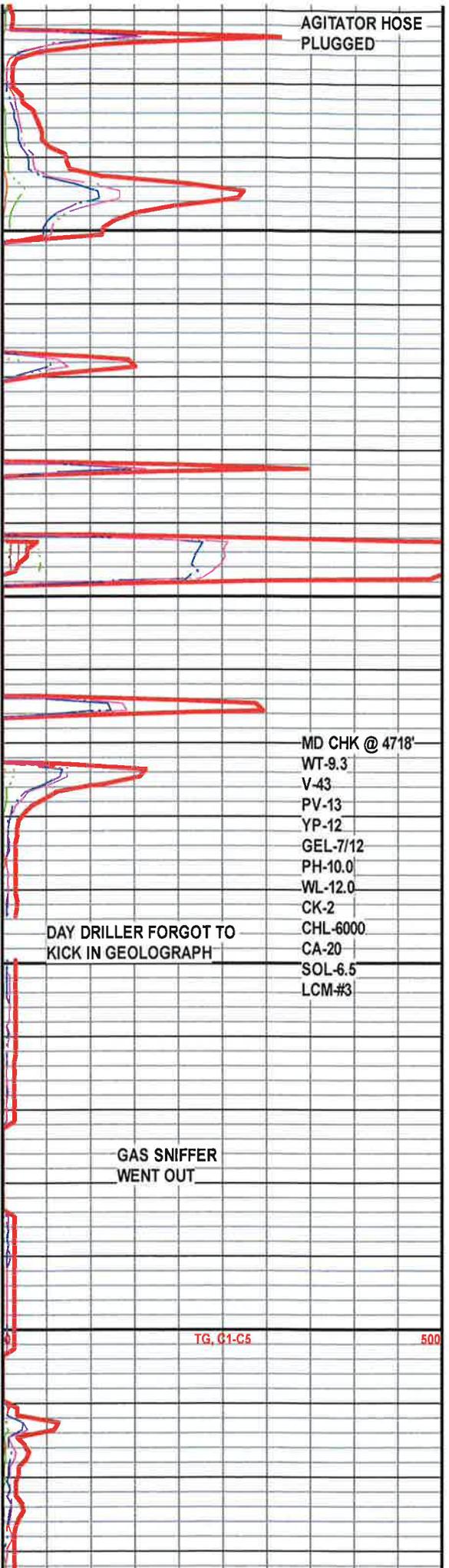
LS: WHT-OFF WT-TN-BRN, FN-MICRO-XLN TO SM INTER-XLN, SUC, CHLKY, EXCEL P.P.POR, OOL'C, V/ARG, FOSS, ABT DUL YEL FLU, TR DOS, NO VIS CUT, OR ODOR

LS: W/ ABT SH: GY-DK GY-GRN, V/FN TEXT, MD FM-HD, V/LMY, GLAU'C, SLI PYR'C

LS: OFF WT-TN-DK BRN, V/FN MICRO-XLN, TR P.P.POR, V/ARG, FOSS, CALC, BRT YEL FLU, NO VIS STN, CUT, OR ODOR

LS: AAB

SH: GY, DK GY, BLK, V/FN WXY



WOB 38K  
RPM 58  
PP 1188  
SPM 116

MD CHK @ 4718'  
WT-9.3  
V-43  
PV-13  
YP-12  
GEL-7/12  
PH-10.0  
WL-12.0  
CK-2  
CHL-6000  
CA-20  
SOL-6.5  
LCM-#3

DAY DRILLER FORGOT TO  
KICK IN GEOLOGRAPH

GAS SNIFFER  
WENT OUT

ROP (min/ft)  
Gamma (API)

8/4/12

TG, G1-C5

500

T/CHEROKEE  
4,826'(-3,028')

4850

4900

4950

5000

C

C

C

C

C

C

C

T/MISSISSIPPIAN  
4,911'(-3,113')

ROP (min/ft)  
Gamma (API)

10  
150

TEXT, MD FM-HD, V/CARB,

LS: OFF WT- TN-GY-DK BRN, V/FN  
MICRO-XLN, HD DNS, TR P.P.POR,  
CALC, V/SHLY, ARG, SM FOSS, TR  
BRT YEL FLU, NO VIS STN CUT OR  
ODOR W/ ABT SH: LT GY-GRN-GY,  
V/FN TEXT, GLAU'C, PYR'C SPKS

● CHT: WT-OPA-TN-GRN-BRN, V/FN  
MICRO-XLN, P.P.POR W/ FRAC,  
WTHRD, SLI LMY,MOTT, ASPH STN,  
ABT YEL FLU, V/STRNG ODOR, EXC  
STRMING CUT

● DOLO: WT-TN-DK BRN, INTER-XLN,  
V/SUC, EXC P.P.POR W/ABT  
● INTER-XLN, SLI OO'C, FRI, CHTY,  
● V/MOTT, ABT YEL FLU, LOS,  
● V/STRNG ODOR, AND EXC  
STRMING CUT

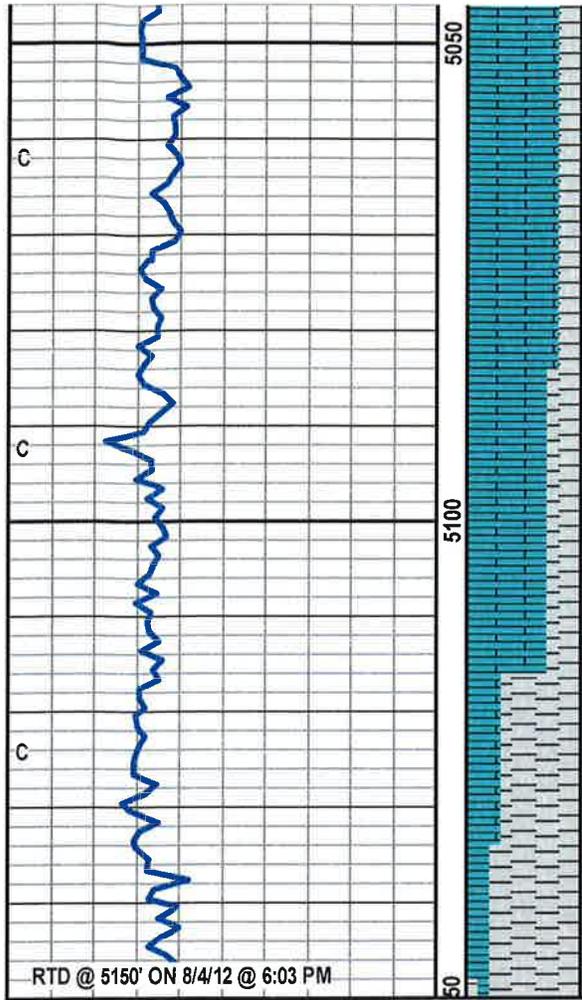
● DOLO: WT-OFF WT-TN, INTER-XLN,  
● SUC, V/FRI, V/GD P.P.POR, MOTT,  
● DUL YEL FLU, SM LOS, GD  
● STRMING CUT, AND GOOD ODOR

DOLO: LT GY-GY-GRN, V/FN  
MICRO-XLN, MOD HD, V/SHLY, NO  
VIS FLU, LMY, STN, OR ODOR

LS: OFF WT-TN-BRN, V/FN  
MICRO-XLN, MOD HD, V/SHLY, NO  
VIS FLU, LMY, STN, OR ODOR

TG, C1-C5

500



MICRO-ALN, SLI SOC, GD P.P.POR,  
 SLI SHLY, BRNSH YEL FLU, SM  
 DOS, NO VIS CUT, OR ODOR

LS: AAB

SH: GY-DK GY-GRN, V/FN TEXT,  
 V/SFT-SFT, SLI LMY, PYR'C, V/PLTY

SHORT TRIP TO 2130', CIRC 1 1/2 HR,  
 DROP SURVEY, TOH FOR ELOGS

- MD CHK @ 5107'
- WT-9.24
- V-48
- PV-17
- YP-13
- GEL-8/12
- PH-10.0
- WL-8.4
- CK-2
- CHL-5000
- CA-20
- SOL-6.2
- LCM-8

RTD @ 5150' ON 8/4/12 @ 6:03 PM