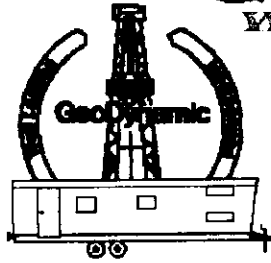
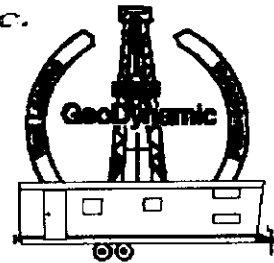


GeoDynamic Well Logging, Inc.



Rt. #1, Box 185
May, Ok. 73851

(580) 689-2272
(580) 921-5258



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

Well Name: M & M Exploration, Inc.
Location: Sec.19-T34S-R14W
License Number: 15-007-23701
Spud Date: 7/12/11
Surface Coordinates: 500'FSL & 950'FWL, SW/4

Z-Bar 19-13
Barber County, KS
Region: Aetna
Drilling Completed: 7/21/11

Bottom Hole Coordinates: As Above

Ground Elevation (ft): 1,656' K.B. Elevation (ft): 1,668'
Logged Interval (ft): 3,900' To: 5,100' Total Depth (ft): 5,100'
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: Mike Austin
4257 Main Street, Suite 230
Westminster, Colorado 80031

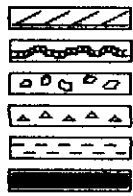
GEOLOGIST

Name: Mike Pollok
Company: MAP Exploration, Inc.
Address: P.O. Box 106
Purcell, Ok 73080

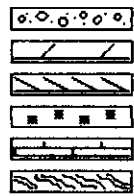
Comments

Southwind Drilling Rig #70 Samples
Mudlogging Unit #5
Mudlogger: Beth Brock

ROCK TYPES



Anhy
Bent
Brec
Cht
Clyst
Coal



Congl
Dol
Gyp
Igne
Lmst
Meta



Mrlst
Salt
Shale
Shcol
Shgy
Slst



Ss
Till
sdy sh
calc sh
shale
carb sh

ACCESSORIES

MINERAL

- Anhy
- Arggm
- Arg
- Bent
- Bit
- Breclrag
- Calc
- Carb
- Chtdk
- Chttt
- 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
- Sltstrg
- Ssstrg

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

POROSITY TYPE

- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Submd
- Subang

- Angular

OIL SHOWS

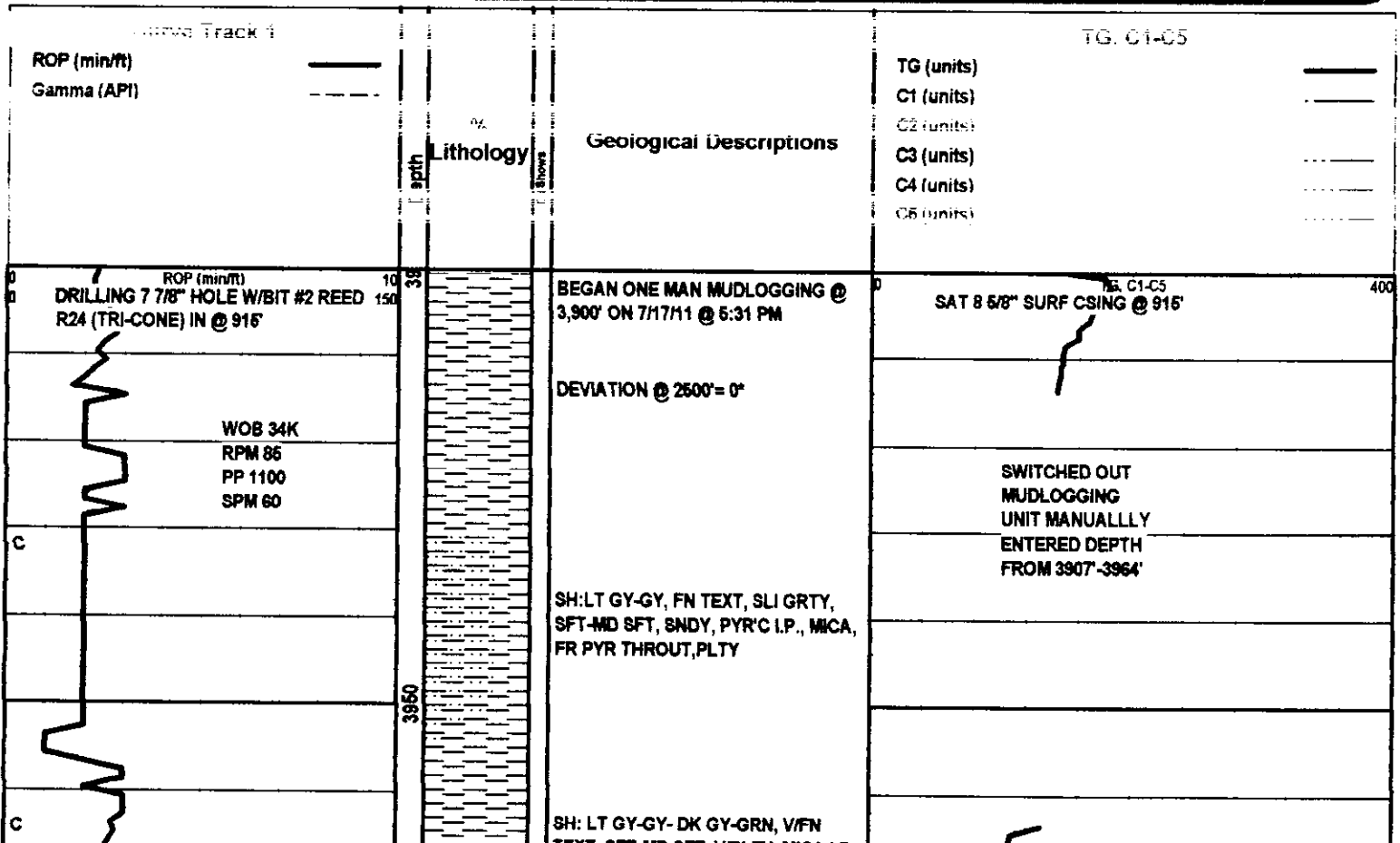
- Even
- Spotted
- Ques
- Dead

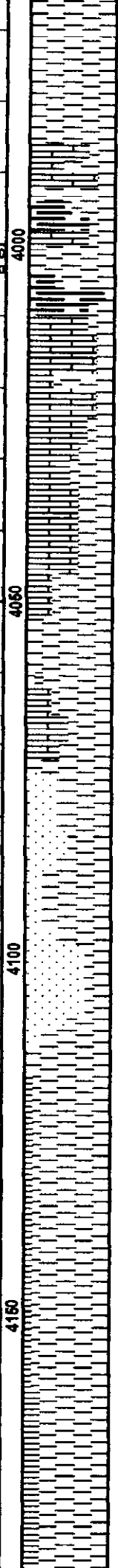
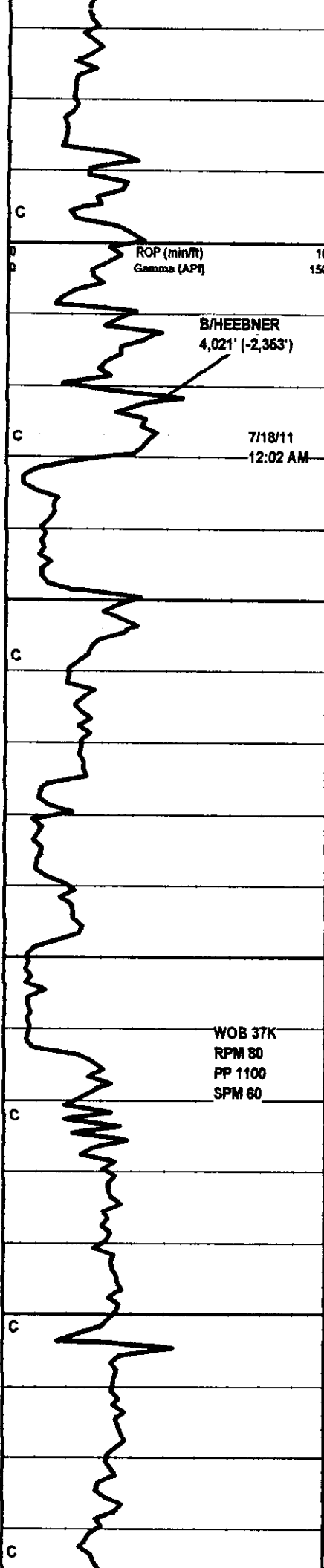
INTERVALS

- Core
- Dst

EVENTS

- Rft
- Sidewall





TEXT, SFT-MD SFT, V/PLTY, MICA I.P.,
 PYR'C, GLAU'C

SH: GY-DK GY-BRN-BK, V/FN WXY
 TEXT, FM-MD HD, MICA, SLI LMY,
 CARB, CALC

LS: TN-BRN, V/FN MICR-XLN, HD,
 DNS, CALC, ARG, FOSS, SLI SHLY,
 SM BRNISH YEL FLU, NO VIS STN,
 CUT, OR ODOR

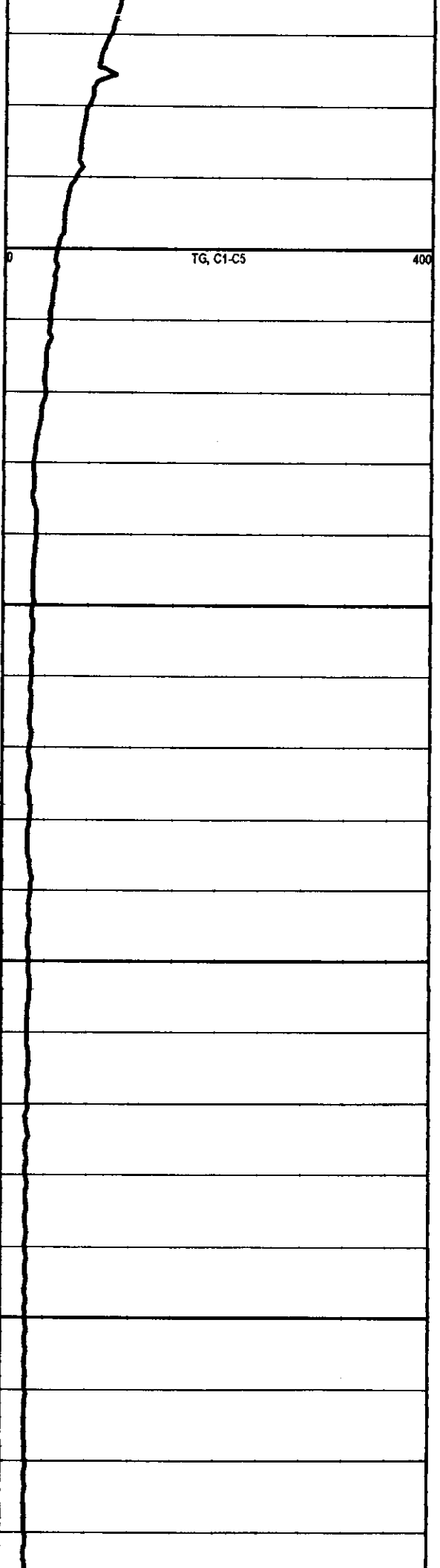
LS: WT-OFF WT-TN-BRN-GY, V/FN
 LSCRO-XLN, SM P.P.POR, V/ARG, SLI
 SHLY, V/FOSS, FR CALC, BRT
 WHTSH YEL FLU, NO VIS STN, CUT,
 OR ODOR

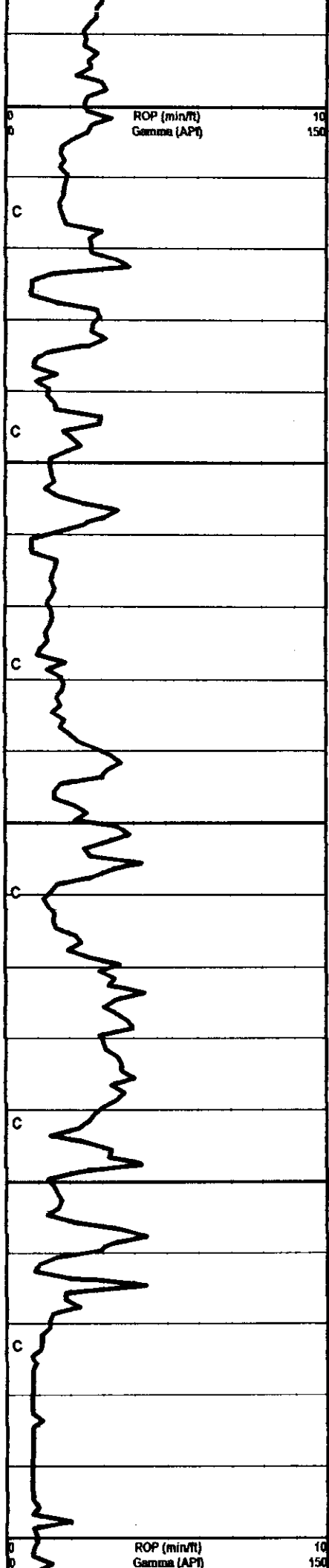
SH: GY-DK GY, V/FN TEXT, MD
 SFT-FM, LMY I.P., MICA, PYR'C, FISS

SS: WT-GY-TN, FN-MD GRN, SUB
 RND-RND, UNI, CLR-TRNS, CONS,
 SHLY, MICA, PYR'C, TR GLAUC, SM
 DUL YEL FLU, NO VIS STN, CUT, OR
 ODOR

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

SH: AAB





ROP (min/ft)
Gamma (API)

10
150

TG, C1-C5

400

SH: AAB GRDING INTO LS: TN-DK
BRN-GRY, HD DNS, SM MICRO-XLN,
TR P.P.POR, V/ARG, SHLY I.P., FOSS,
SM YEL FLU, NO VIS STN, CUT OR
ODOR

LS: WT-OFF WT-TN-DK BRN,
MICRO-XLN AND INTER-XLN, SUC,
GD P.P.POR, OOL'C I.P., SLI CALC,
V/ARG, ABT YEL FLU, NO VIS STN,
CUT, OR ODOR

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

LS: AAB

LS: WT-TN- BRN, V/FN MICRO-XLN,
HD DNS, TR P.P.POR, FR CALC
THRUOUT, BRT YEL FLU, NO VIS
STN, CUT, OR ODOR

LS: OFF WT-TN, V/FN MICRO-XLN, GD
P.P.POR, SLI ARG, SLI FOSS, V/DUL
YEL FLU, NO VIS STN, CUT, OR ODOR

MD CK @ 4,266'

WT 9.2

V 47

PV 18

YP 14

GEL 8/5

WL 11.2

CK 2

SOLS 5.4

PH 10

CHL 3700

CA 150

LCM 3#

ROP (min/ft)
Gamma (API)

10
150

TG, C1-C5

400

LS: TN-BRN-DK BRN, MICRO-XLN,
GD P.P.POR, V/OOLMD'C, FOSS,
VIARG, SLI SHLY, SM BRT YEL FLU,
NO VIS STN, CUT, OR ODOR

LS: AAB

LS: OFF WT-TN-GY-BRN, V/FN
MICRO-XLN, HD, DNS, TR P.P.POR,
VIARG, SHLY I.P., CALC, SM V/DUL
BRNSH YEL FLU, NO VIS STN, CUT,
OR ODOR

LS: AAB

LS: TN-BRN-DK BRN, V/FN
MICRO-XLN, HD DNS, SM P.P.POR,
VIARG, SLI CALC, SM CLR WHT FRSH
CHT SEEN THRUOUT, V/DUL GRNSH
YEL FLU, NO VIS STN, CUT, OR ODOR

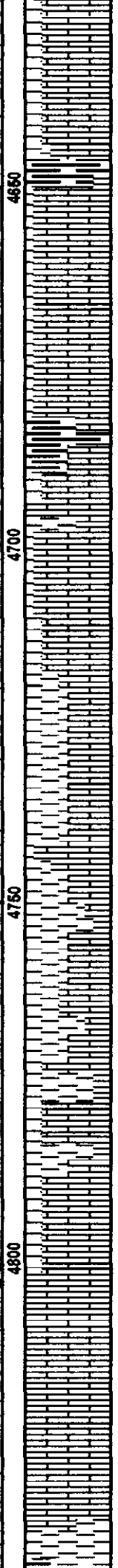
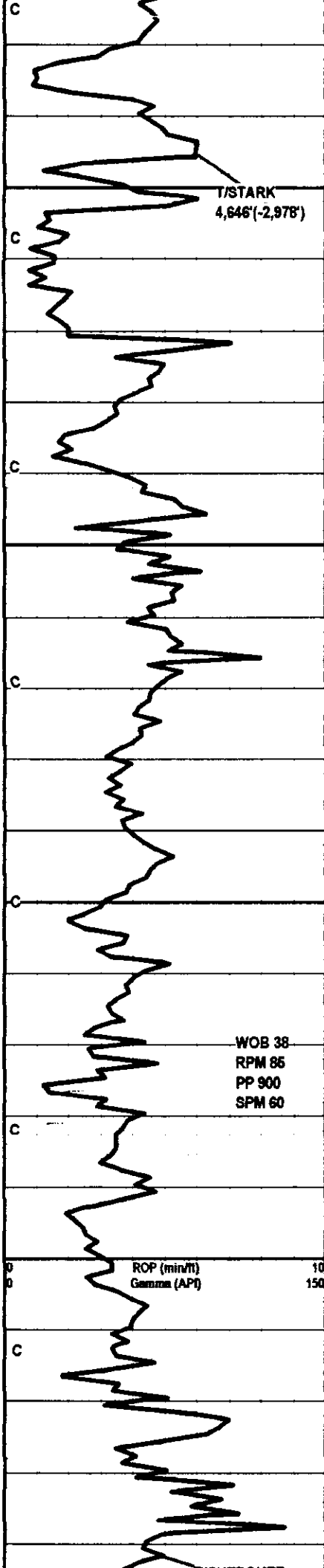
LS: OFF WT-TN-GY-BRN, V/FN

7/19/11
12:00AM

MD CK @ 4,522'
WT 9.3
V 64
PV 20
YP 15
GEL 8/17
WL 10.3
CK 2
SOLS 5.6
PH 9.5
CHL 3500
CA 110
LCM 4#

TG, C1-C5

400



MICRO-XLN, GD P.P.POR, SHLY I.P.,
V/ARG, CALC, YEL FLU, NO VIS STN
CUT OR ODOR

SH: GY-DK GY-BRN, V/FN WXY TEXT,
MICA, CALC, CARB, PYR TROUT

LS: OFF WT-TN-BRN-DK BRN,
MICRO-XLN, SUC, GD P.P.POR, SLI
BRTL, ARG, TR FOSS, ABT DUL YEL
FLU, NO VIS STN, CUT, OR ODOR

SH: DK GY-BRN-BK, V/FN WXY TEXT,
CARB

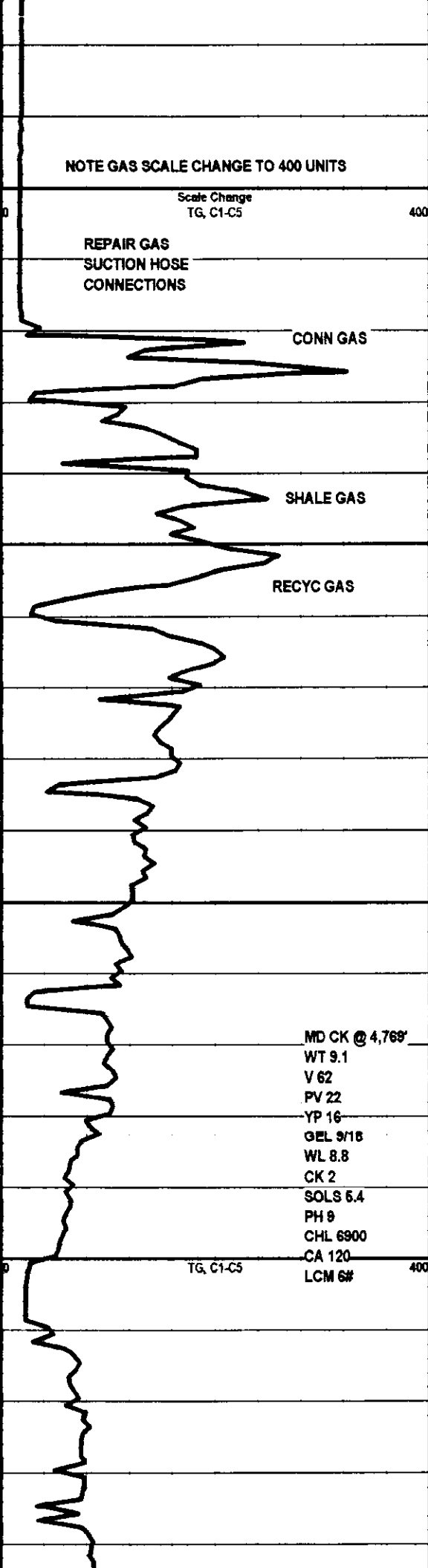
LS: TN-BRN-DK BRN-GY, MICRO-XLN,
HD DNS, TR P.P.POR, SLI SHLY,
CALC, FOSS, ARG, SM YEL FLU, NO
VIS STN CUT OR ODOR

SH: LT GY- GY-DK GY-GRN, V/FN
TEXT, SFT-MD FM, LMY I.P., PLTY,
FISS, MICA, GLAU'C, W/ LS: AAB

SH: AAB

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

SH: GY-DK GY-GRN-BRN-BLK, V/FN
WXY TEXT, SFT FM, PLTY, V/CALC



NOTE GAS SCALE CHANGE TO 400 UNITS

Scale Change
TG, C1-C5

REPAIR GAS
SUCTION HOSE
CONNECTIONS

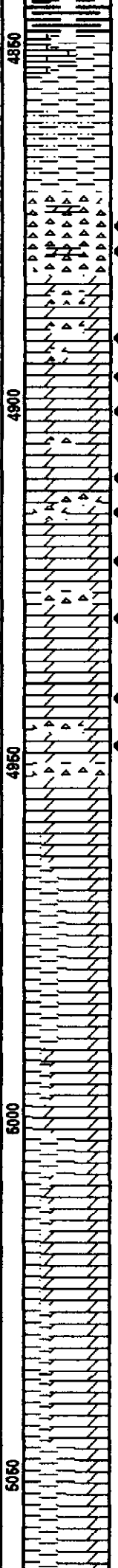
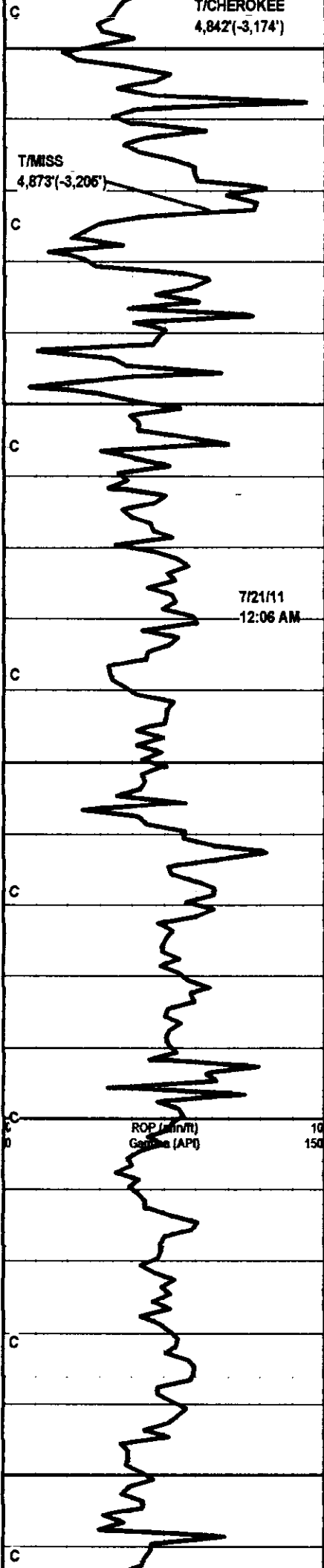
CONN GAS

SHALE GAS

RECYC GAS

MD CK @ 4,769'
WT 9.1
V 62
PV 22
YP 16
GEL 9/18
WL 8.8
CK 2
SOLS 5.4
PH 9
CHL 6900
CA 120
LCM 6#

TG, C1-C5



WAY TEXT, SPT-FM, PLTY, VICALC.
CARB, GLAU'C, PYR'C, FR PYR
THROUT

CH: OPA-TN-BRN-BLK, MICRO-XLN
W/ INTER-XLN, FRSH AND TRIP'C,
BRT, V/SUC, GD P.P.POR AND
INTER-XLN POR, SM FRAC, DOLO'C,
ASPH AND OIL STNG, V/GD YEL
FLU, GD ODOR, GD STRMING CUT

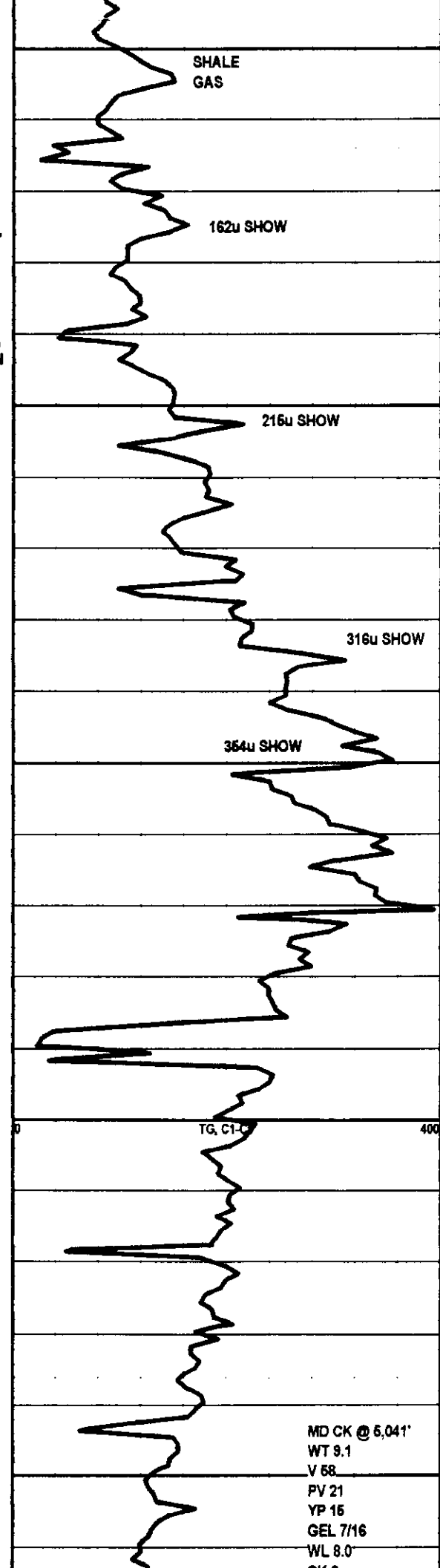
DOLO: TN-BRN-DK BRN, INTER-XLN,
V/SUC, EXC P.P.POR AND INTER-XLN
POR, SLI CHTY, ARG, ABT DUL
GRNSH YEL FLU, BRN STNG, EXC
ODOR AND GD STRMING CUT

DOLO: OFF WT-TN-BRN-GRN,
INTER-XLN, FRI, SUC, V/GD
INTER-XLN POR W/SM P.P.POR,
GLAU'C, MOTT, SLI CHTY, ABT YEL
FLU, LT BRN STN, SLW STRMING
CUT AND GD ODOR

DOLO: LT GRN-LT GY-GY-DK GY,
V/FN MICRO-XLN, HD, SM P.P.POR,
SHLY I.P., GLAU'C I.P., PYR'C SPKS
THROUT, NO VIS FLU, STN, CUT, OR
ODOR

DOLO: AAB

DOLO: GY-DK GY, V/FN MICRO-XLN,
HD, V/SHLY, SLI MICA, PYR'C SPKS,
NO VIS FLU, STN, CUT, OR ODOR



MD CK @ 5,041'
WT 9.1
V 68
PV 21
YP 16
GEL 7/16
WL 8.0

CA 2
SOLS 5.3
PH 9.2
CHL 6000
CA 90
LCM 10#

DEVIATION @ 5100'=1*

SHORT TRIP 10 STNDS, CIRC 1 HR,
DROP SURVEY, STRAP OUT OF HOLE
FOR ELOGS

C

TD @ 5100' ON 7/21/11 @ 3:16 PM

00