

# MBC WELL LOGGING LLC

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

Well Name: HODGKIN 36-1SEC 36-T27-R12 PRATT,C & M EXPLORATION LLC  
 Well Id: 15-151-22482-00  
 Location: PRATT COUNTY, KANSAS USA  
 License Number: 35335  
 Spud Date: 11-15-2018  
 Surface Coordinates: 330'fel- 341'fsl-SEC 18-T30S-R32W  
 Bottom Hole Coordinates: ELI - WLS - DIL/SP/GR CNL/CAL/PE/BHV SONIC SFC- GR TO SFC'  
 Ground Elevation (ft): 1739  
 Logged Interval (ft): 3100 To: 4456  
 Formation: TOP ARBUCKLE, RUN PRODUCTION CSG  
 Type of Drilling Fluid: WBM MUD CO BRAD BORTZ, (620)793-2421

Region: WILDCAT  
 Drilling Completed: 11-22-18  
 K.B. Elevation (ft): 1752  
 Total Depth (ft): Elog 4458

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com




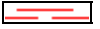
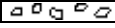










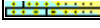



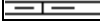



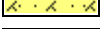




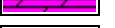



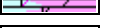



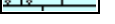


## OPERATOR

Company: C & M EXPLORATION LLC  
 Address: ATTN CHARLES CRAWFORD GEOLOGY  
 PO BOX 14331  
 TULSA, OKLAHOMA 74159

## MUDLOGGER

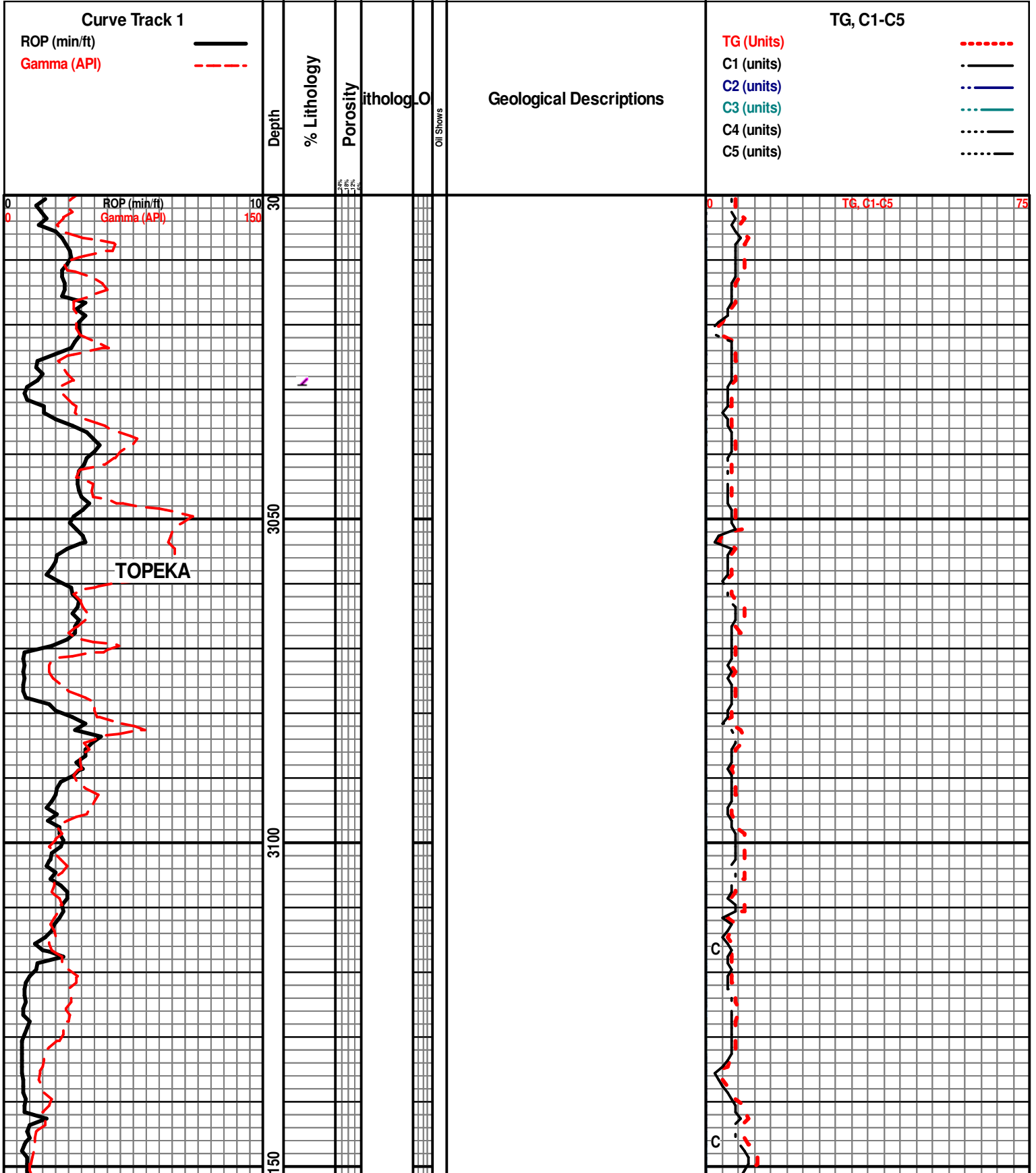
Name: AUSTIN GARNER (620)655-2016  
 Company: MBC WELL LOGGING LLC  
 Address: 21156 RD 22  
 MEADE, KANSAS 67864

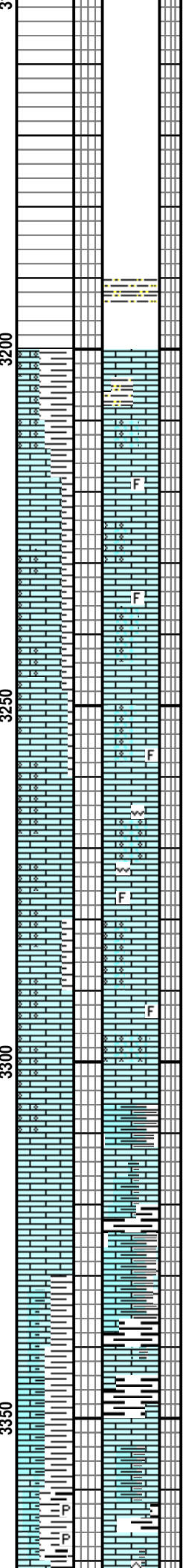
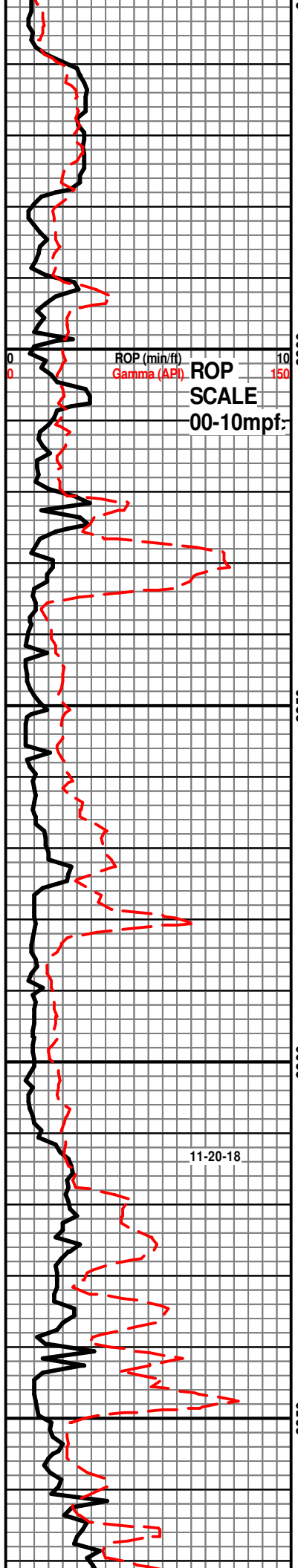
## ROCK TYPES

	Anhy		Oolitic ls -1		Sndy sh		Red sh-1
	Brec		Stgensndy-arkos		Sltst-1		Stgensndy-arkos
	Cht		New ls-1		Sltly-shale		Sndy ool ls
	Coal		Carby shale		Lmy ss-1		Sndy-ls-1
	Congl		Lmy carby sh-3		Arkosic snd		Calc shale
	Shly dolomite		Carb sh		Ss		Granitewash
	Dolo new		Gyp		Grn sh strk		Ls shly-b
	New dolomite		Sltst		Grn mott gy sh		Poor sortd ss
	Newdolo ls 2		Salt		Lmy sh-2		Snd-ls-sh
	Ls & ooids		Sndy sh--red		Shale-1		

### Comments

85/8" SFC @ 309' BIT #2 JZ HA-20 3/15's,  
 SV 305=1/4" 580' 1/4" 1079' 1\*, 1393' 3/4\* 1705' 3/4\* 2018 3/4\* 2300 3/4\* 2300 3/4\* 2615 3/4\* 3022 1\* 3303 3/4\*  
 3612 3/4  
 ALL SURV TO RTD 3/4\*  
 DISP@3178  
 AVG WOB 34 RPM 75-85, PP 700 SPM 56





UNIT RIGGED UP , 2500ft, GAS & ROP  
 START @ 2800' UNIT STARTED 3200',  
 AUSTIN GARNER LOGGER

LS; LTTN BRN VF GRNY SUGARY IP,  
 PROB RE-XLN, BRTL, LA, MICRO OOL  
 ON HD DNS XLN, N/O, DK GOLD PRED  
 PURPL MFNSOC, INTR XTL & SME VUG  
 POR

LS; TNHD DNS RGH TXT, DULL  
 LUSTRE, SHDW F-ELIP CRIN, SME  
 OOL, TR W/GY SH INTURS, SME VUG  
 & INTR XTL POR, WEAK GOLD PRED  
 PURPL FLOR NSOC N/O

LS; TN HD DNS RGH TXT, SHDW  
 FOSS, DSN PRD BTL DULL LUSTRE,  
 WEATHD APPR, THRU-OUT, TR  
 STYOLITIC, INCRS CRM WH CHLK,  
 SCATT OOL, PRED PURL FLOR NSOC  
 N/O

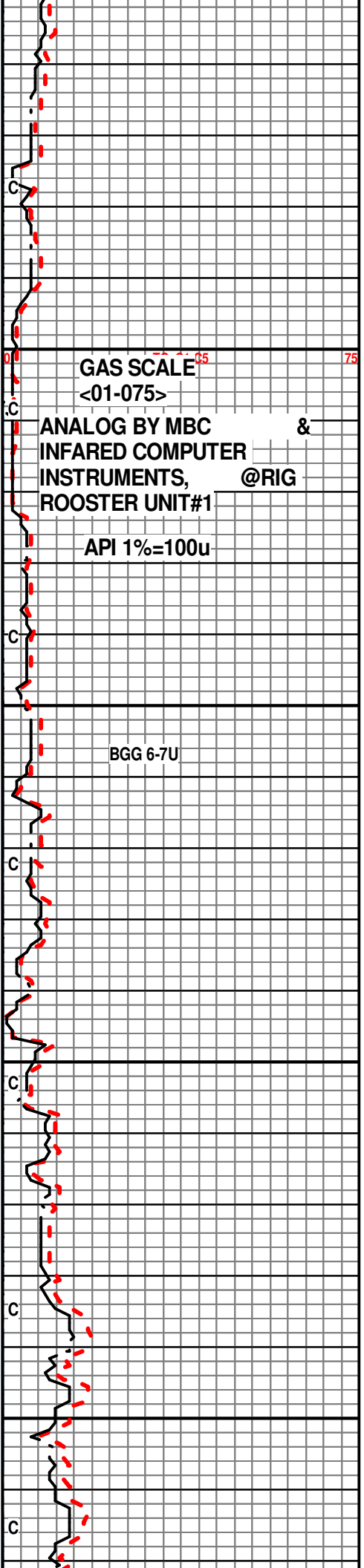
TN BRN VF GRNY SUGARY/XLN, SME  
 SHDW VFOOL IP, FOSS FRGS, CHLKY  
 & CHLK, WEATHD APPR, VUG TO INTR  
 XTL POR, N/O BLK TO V/DK  
 GOLDSMFNSOC

LS; GY DK GY HD DNS SHLY XLN LS,  
 SME IMBD TN PCES LS, , TR BLK NON  
 CALC CARB SH

LS; GY MD GY HD DNS XLN, SHLY  
 TRACE FOSS, INTBD DK GY BLK  
 CARBY SH, TR SHELL FOSS FRGS

BLK BLKY PYRITIC SH CARBY

LS; LT GY TNHD XLN SHLY, FOSS  
 FRGS, SME W/DK GY F-PELL, INTBD  
 LMY DK GYBLK SH



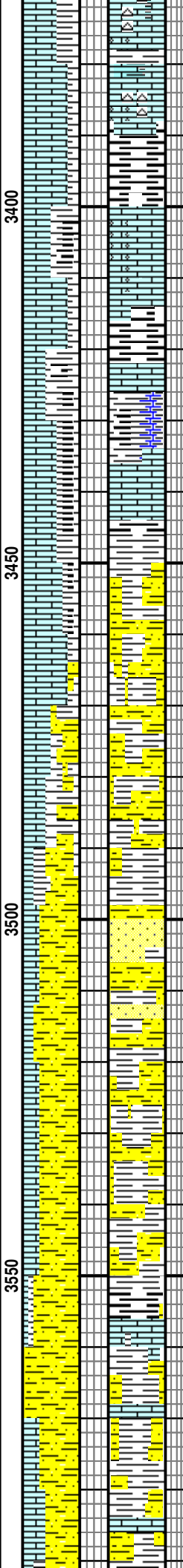
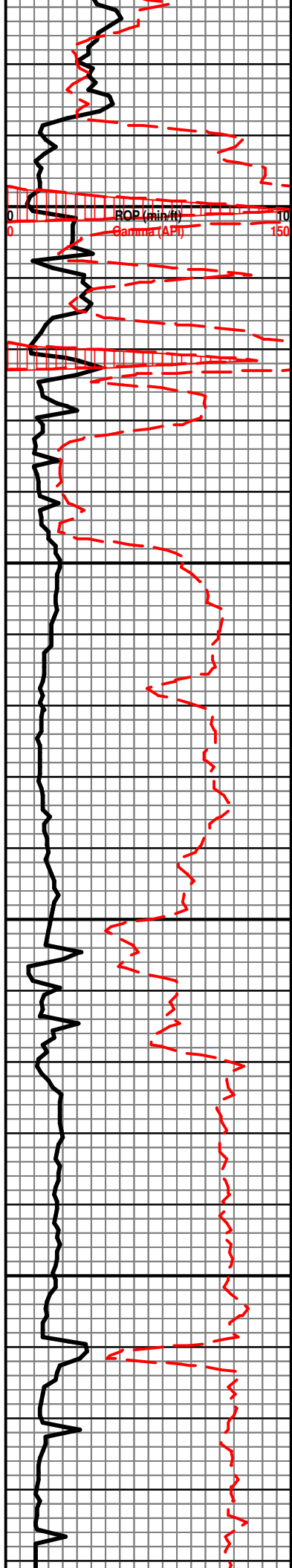
GAS SCALE  
 <01-075>

ANALOG BY MBC &  
 INFRARED COMPUTER  
 INSTRUMENTS, @RIG  
 ROOSTER UNIT#1

API 1%=100u

BGG 6-7U

11-20-18



LS; LT BUFF TN FOSS FRGML, W/WH  
 CHT INTRUS NO SHOW

DK GY TN HD XLN ABDT TRACE FOSS,  
 SHLY CHRTY IP, SCATT MED YEL  
 MFNSOC N/O

BLK BLKY TO PLATY CARB SH

LS; LT TN BUFF WEATHD APPR,  
 GRNY FRC W/VF SUCROSIC FILL, TR  
 VF OOL, R CHT, DK PURPL TO FAINT  
 GOLD MFNSOC N/O

**HEEBNER SH 3418-1666ss**

SH; BLK BLKY CARB, SME VERY DK  
 GRN SMO PLATY

LS; LT BUFF TN HD DNS WEATHD  
 APPR XLN FLAKEU MFNSOC, N/O

SH; MED TO DK GY SFT GUMMY ABDT  
 MICA, INCRS SLTSTY SNDY

SLTST;/SS GY MED GY SME BANDED  
 STNG, HD DNS TO MED TT, CARBLENS,  
 MICA, INTBD GY DK GY SFT SLTY SH,  
 NO SHOW

SH; GY DK GY SEMI SMO PLATY MICA

SS;/SLTST; OFF WH TO LT GY, GY, VF  
 GR, HD TT, V/SLI CALC, MICA, SCATT  
 DK GY VFPELL, TR FREE PYR, N/O,  
 BLK FLOR NSOC

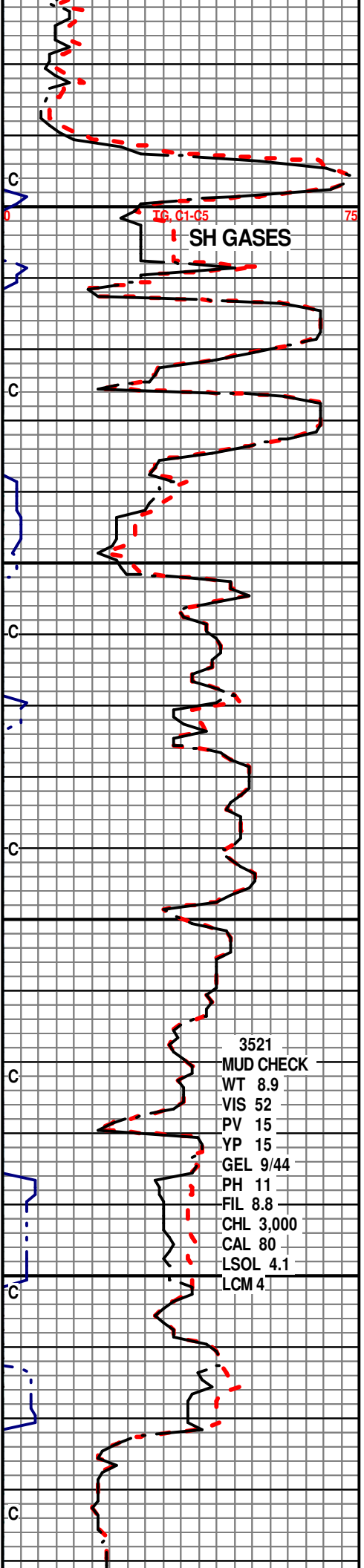
SH; GY DK GY V/SFT GUMMY, V/SLI  
 CALC, INCRS TO FRM, SME SLTY SNDY

SH; DULL DK GY TR BLKCARB

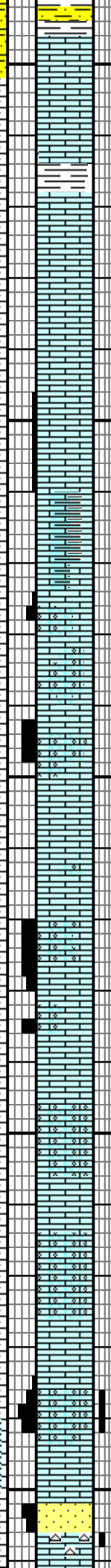
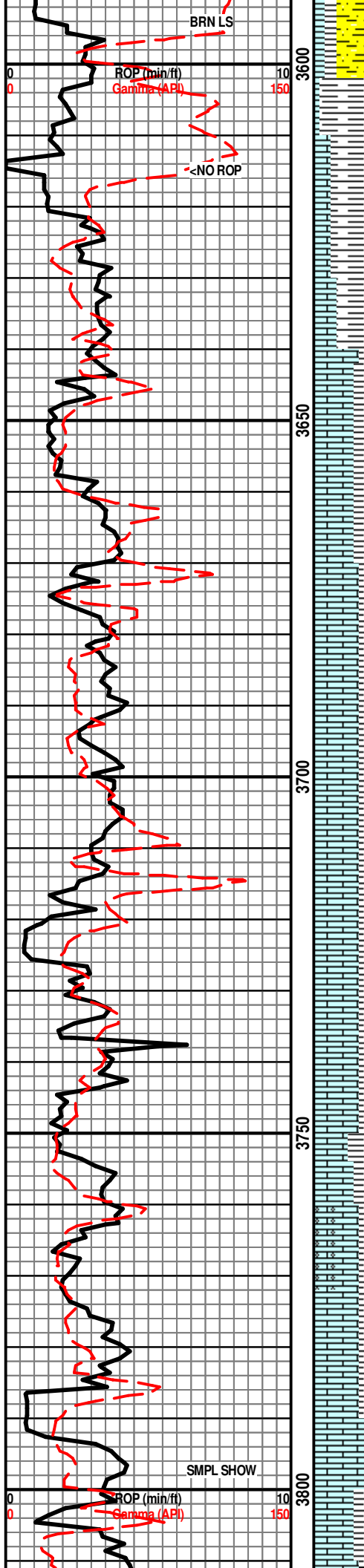
DK BRN MUDST

SH; BLK DK GY HD PLATY SLI CALC,  
 SME SFT GUMMY, TR CRM/TN FOSS  
 HASH LS STRINGERS

SH; BLK DK GY SFT GUMMY TO HD  
 DNS



3521  
 MUD CHECK  
 WT 8.9  
 VIS 52  
 PV 15  
 YP 15  
 GEL 9/44  
 PH 11  
 FIL 8.8  
 CHL 3,000  
 CAL 80  
 LSOL 4.1  
 LCM 4



**BROWN LS 3596-1844ss**

TN HD DNS XLN FOSS LS

SH; GY GYBRN SME REDISH, SME SLI GRN, SFT, FREE PYR CLSTRS

**LANSING 3616-186ss**

LS; LT TN BRN WEATHD APPR, SME SHLY, FOSS HASH, SME SFT W/F-BRN PELL,, PROB FRAC, N/O, FAINTGOLD MFNSOC

LS; TN-BUFF, BRTL WEATHD APPR, S-CHLKY, W/SHDW F-OOL IP, TR TN BIOSPARTIC//VF OOL, 40% WEAK FAINT GOLD FLOR, N/O, NSOC

LS; DK TN BRN HD XLNSHLKY

LS; LT GYISH BUFF HD DNS XLN SHLY

LS; MOTT WEATHD APPR, P/SRTD FOSS HASH, CHLKY FREE CRS CALC/XTLS, N/O MFNSOC

TR GY BRN P/SRTD ELIP HEAVY RIM COATED OOL, NO SHOW

LS; BUFF TNSLI GY, BRTL VF GRMY, TR VF OOL, TR FREE F-SPAR REPLCD OOIDSS, , DIRTY CRM CHLK, SME SHDW FOSS, V/FAINT GOLD MFNSOC, N/O

LS; TN TO DK BRN HD XLN, CLR CALCITE FILL FRACS, FREE CRS ANG CALCITE, BLK FLOR NSOC N/O

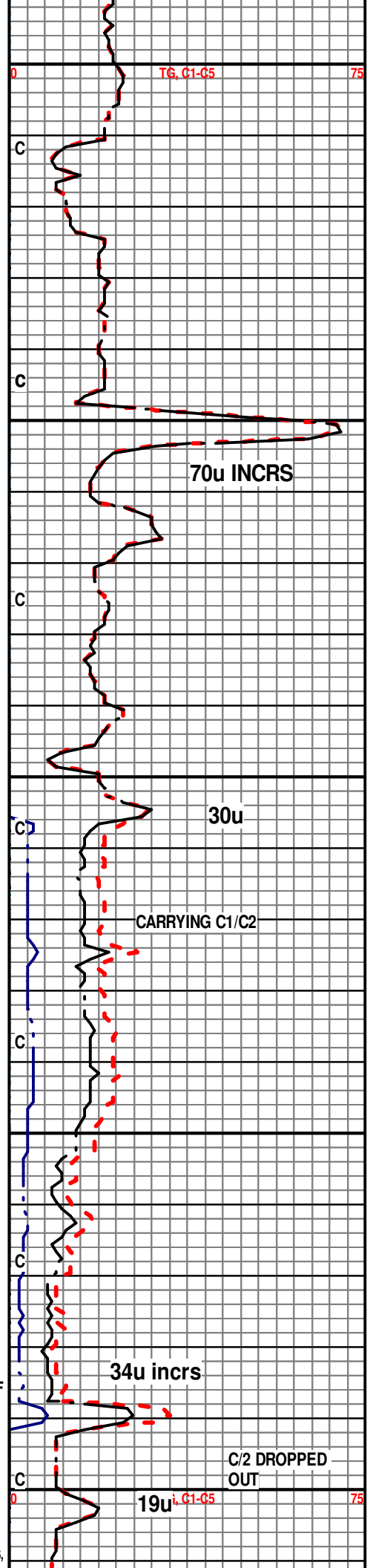
LS; BRN TN BRTL P/SRTD MICRO TO VFOOL, SHDW FOSS FRGS, INCRS CHLKY W/GY SH SPOTS, & SHDW OOL, N/O, 30%WEAK GOLD FLOR NSOC

LS; BUFF GY CHLK F-OOL, FOSS PCES, NO SHOW

LS; CRM WHLKY OOL, F-OOL. TO GYISH TN HD DNS XLN  
 LS; BRNTN BRTL CMTD, SUGARY VF F OOL, SME OOLCAS, N/O BLK FLOR, WEAK SLO MILKY CUT DISAPATING, PP VUG IP & INTR XTL POR, EST 12%,

TR (1) CLSTR SS; CLR, SFT, VF GR <<CLLR RD-S-RD, BLK MIN SPKS, N/O, BLKFLOR NSOC

<<TR (1) PCE WH SEMI TRIP CHT W/GAS BUB;LS, VF FL GOLD FLOR, W/CL MILKY OUT



TG, C1-C5

75

70u INCRS

30u

CARRYING C1/C2

34u incrs

C/2 DROPPED OUT

19u

C1-C5

75

YEL GOLD FLOR, VSLO MILKY CUT  
LS; TN DNS W/WF BRN PELL, INCRS CHLKY  
W/OOL, TR SPARTIC, N/O, FAINT GOLD FLOR  
NSOC

LS; MED TO DK TN INCRS GY HD  
DNS XLN SHLY

LS; GY TN HD DNS XLNCOMGLD  
CHLK IP,

LS; TN HD DNS FRAC, STYOLITIC &  
BLK SH INTRUS, INTBD LT GY LMY SH  
W/MICRO FOSS MISH-MASH

LS; DIRTY WH VF GRNY, GRITTY (LM  
DUST), PP BLK STNG, GAS BUBLS,  
FREE OIL AFTR 60mins<, PRED TITE,  
DK YEL FLOR, FLASH STRMG MILKY  
ON 1 PCES, SLOW MILKY ON OTHERS

LS; CRM TN DULL CHTY TO DK GY TN  
HD DNS XLN SHLY CHERTY NO SHOW

LS; CRM TN SME CRIN, PRED HD DNS  
XLN SHLY

LS; DK GY TN HD DNS CRYP XLN  
SHLY SME OCC FOSS, TR CHT, TR DK  
BRN HD CALC SH

SH; GY DK GYBRN LAM TO LS AAB

SH; VLT GY FRM TO HD PLATY IP, VF MICA,  
SCATT MICRO BLK PELL, INCRS SLTY-SLI MICRO  
SNDY

LS; LT BRN/TN WEATHDAPPR HD  
DNS XLN SHLY

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**BKC 3932-2180ss**

SH; VARY REDS, GRN SFT SH  
LS; GY HD XLN , CHLK EDGES, SME FOSS

SH GRNS VARY REDS SFT

LS; SLI GRN, TO GY TN HD DNS XLN SME LAM  
CHLK

LS; GYISH TN, HD DNS XLN, FRAC, CHLK FRAC  
FILL, OCCAS FOSS FGS, NO SHOW

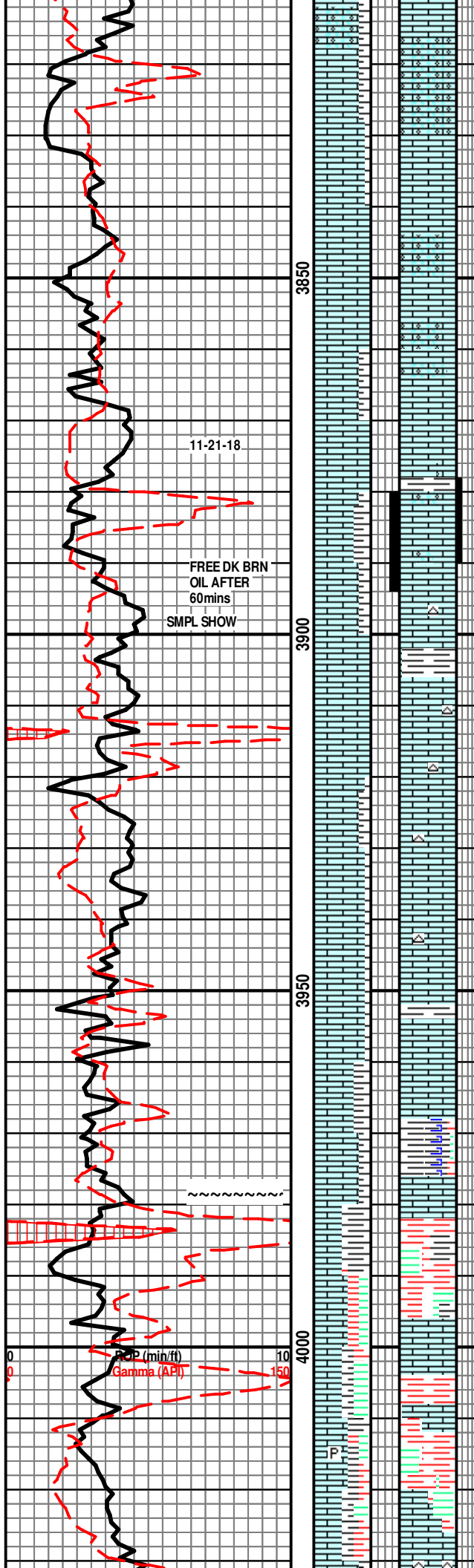
10-12u BGG

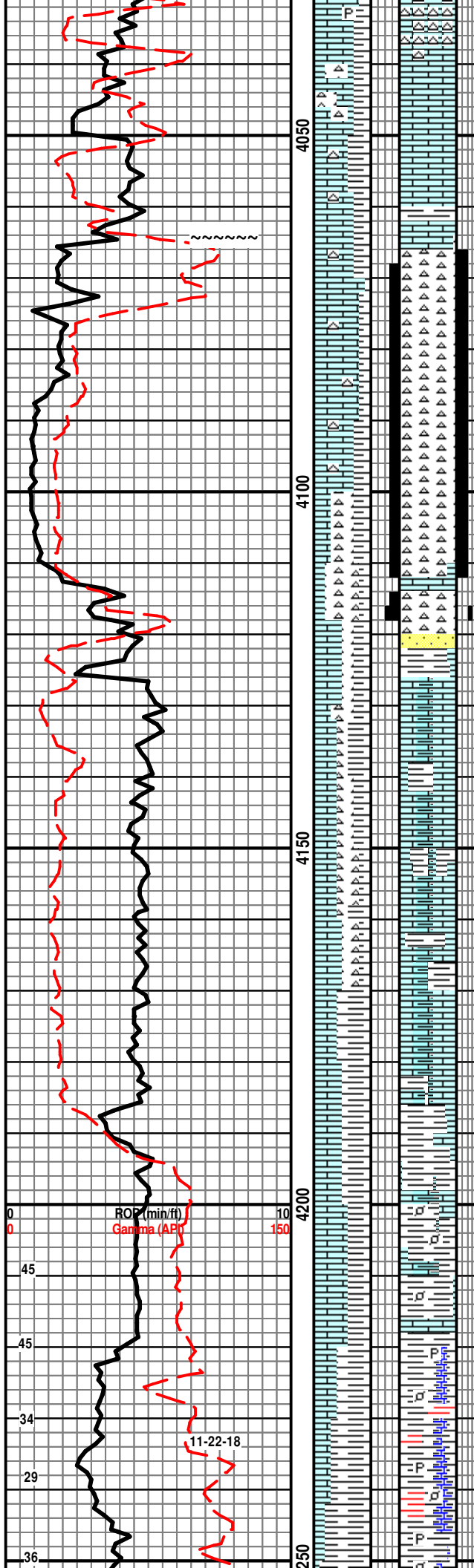
26u

3962  
MUD CHECK  
WT 9.1  
VIS 54  
PV 16  
YP 18  
GEL 9/38  
PH 11  
FIL 9  
CHL 4,000  
CAL 80  
SOL 5.5  
LCM 4

TG, C1-C5

75





CHERT MOTT BRN WH TO CLR & OIPAQ, VIT, ANG, W/DSK TN HD DNS XLN LS

**MISS CHAT 4066-2314ss**

CHT, WH, TO TRANS PRED VIT, ANG, SHARP, PP BLK TO BRN STNG, FEE V/DK GOLD FLOR, SLO MILKY CUT

CHAT, TRIPOLITIC, SME VIT CONCORD FRAC ANG, PRED RGH TXT, INTR FRAC DK BRN TO PROB ASPH BLK STNG, PP STNG, PALE YEL FLOR, SLI ODOR DRYING, FREE DK BRN OIL, FLASH MILKY BECMG THIN STRMG CUT, TRIP & FRAC POR

CHT WH TRIP, BLK ASPH STNG, YEL FLOR, SLO MILKY CUT, NO FREE OIL NO GAS BUBLS

TR BLK W/CARBY MATL TR RED SH SME GRN SMO PLATY

**MISS LM 4120-2368ss**

LS; LT TN SLI GY HD DFNS XLN SHLY WEATHD APPR NO SHOW

LS; LT TN HD DNS XLN SHLY TO GY-TN SHLY XLN INTBD GRN SH

DK GY/TN HD DNS SHLY XLN, INTBD DK GY BLK TO GRN SH

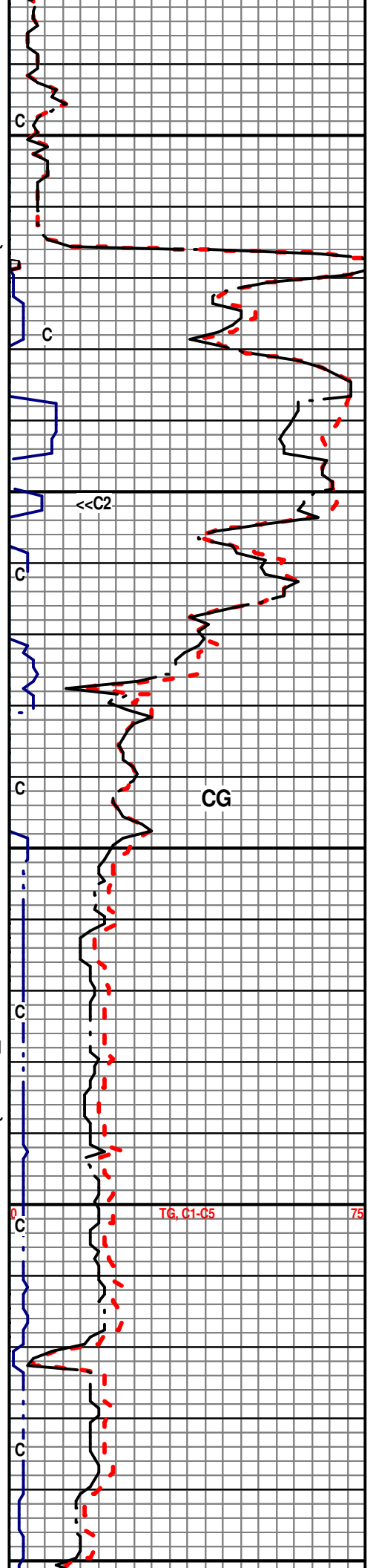
LS; DK GY TN TO DK GY HD DNS SHLY INTBD GY SH SME GRN, GY GRN BLKY PLATY SH

**KINDERHOOK 4194-2442ss**

DK BRN HD DNS DULL SHLY MUDST SH; GY DK GY BLKY, SFT GUMMY IP, FRM IP

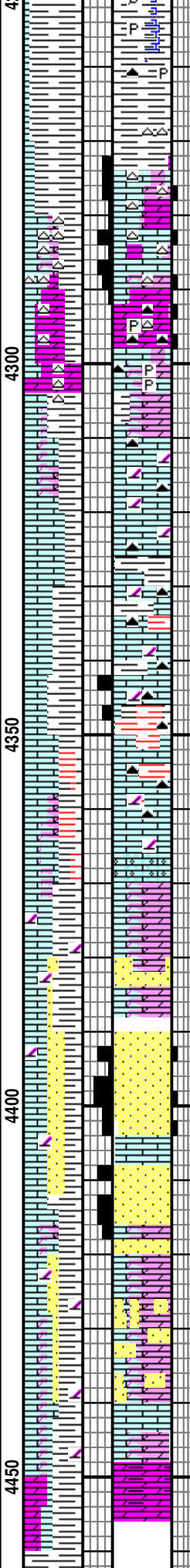
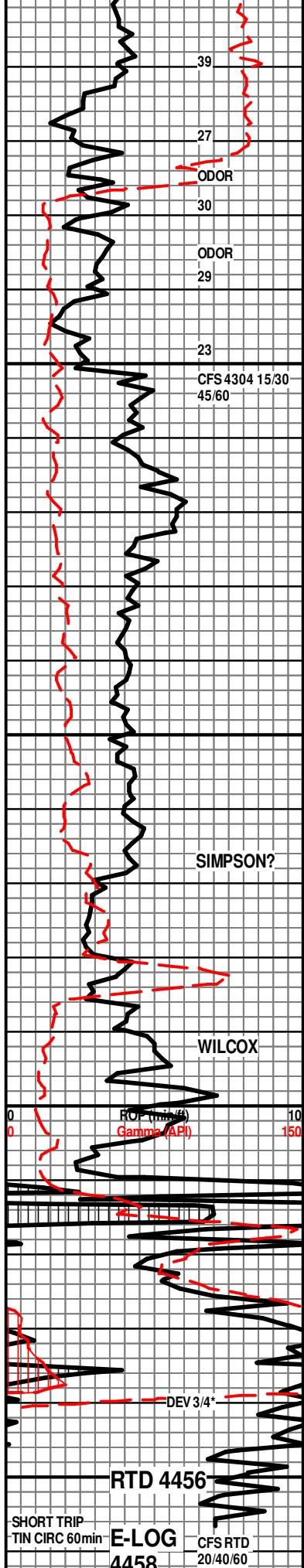
SH; DK GY SFT GUMMY, SME MICRO BLK PELL TO DULL DK GYBLK, PLATY IP,

SH; GY DK GY SME SLI GRN TINT, SME PURPL LENS & SPKS, SFT TO HD, V/CALC, PYR VEINS, TR COMNGLD TN HD XLN LS



TG. C1-C5

75



SH; MOUSE GY TO GRN TR PURPL TO RED SH, FREE CRS PYR XTLS

**VIOLA 4276-2524ss**

LS; TN -MED TN, XLN, SME SHDW FOSS, ABDT LT GY TO WH VIT CHT SME W/BLK FOSS, INTBD & COMNGLD, DOLO, MED TO DK BRN HD DNS VF RHOM, TR PP VUG, TR LEACHED, NO VIS STNG, ODOR ON PITS FM 4280 TO 4300 SMPs, NO FREE OIL, MNO GAS BUBLS, TR PALE YEL FLOR, (2), FLSH STRMG BECMG MILKY CUT (1), SLO MILKY CUT OTHERWISE, STRONG RESID CUT YEL-SLI GRN

====CFS--DOLO LT TO DK BRN OCC GY STNG, VF ROMB, WH MOTT BLK W/FOSS DEBR, SME BLK PRL IN CHT, ANG, SME V/FNT GOLD, NO STN, OR CUT, FAINT ODOR ON PITS

CFS 45MI, TR LT BUFF, OOL COMNGLD W/SPICULES, SME GY HD DNS XLN LS & DOLO, GY CHT NO SHOW

PRED LS, LT TO DK BRN, WEATHD APPR GRITTY, MICRO BRN PELL, BRN SHLY, OCC PROB VF BRAC OUTLINE, SCATT MICRO QTZ, TR SFT CHILKY W/RED SH SPOT, SME TN HD DNS XLN INTBD BLK TO SME GRN SH, SME PYRNO, BLK FLOR NSOC

LS; DIRTY BRN AA, ABDT SH--DK GY BLKY SME SPLNTY-W/PYR, TR MAROON, SME GRN SFT SH, PYR

LS; BN, TN GRITTY SHLY AAB, SME DOLOMITIC, CHLK LAM, SME DK GY BRN TO GRN SH, ABDT VIT ANG SMALL CHT

LS; TRACE LT TN UFF, VF RE-XLN, P/SRTD OOL, TR OOLCAS, HEAVY RIM COAT, FRE MED CALC XTLS, SME CRIN, V/FAINT BLK GOLDFLOR NSOC N/O

DOLO; DIRTY GY STND CLR, F-RHOMB, SH OR CARB MATL INTR RHOMB NO SHOW

TRACE SS; CLR F GR, RD, V/FRI, SME FREE QTZ, TR BLK PELL, TR FLOAT DRY IN H2O, V/SLI CUT

**WILCOX 4394-2642ss**

SS; CLR, V/FRI, RD TO SLI SUB-ANG, FAIR SORTED, F OCC UPR FINE & TR LOFWER ME OR GRN SH CLST, D, SLI ABRAIDED IP, TR PROB CHOR, TR MICRO PYR, OCC GY SH INTRUS, SME FLOAT DRY, TR WHEAT YEL FLOR, TR PROB BRN STNG, TR PP GILSONITE, FLASH STRMG MILKY CUT, RESID CUT

TR SS; CLR W/SRTD RD- S-RD, CLSTR, V/SLO MILKY CUT SLI RESID

DOLO/LS; GY HD DNS XLN SME BRN PRED GYISH BRN F RHOMB DOLO, OCC CHT

SS; MILY WH CLR, HD TT F-GR, SILIC CMT, PYR, GLAU, NFSOC N/O

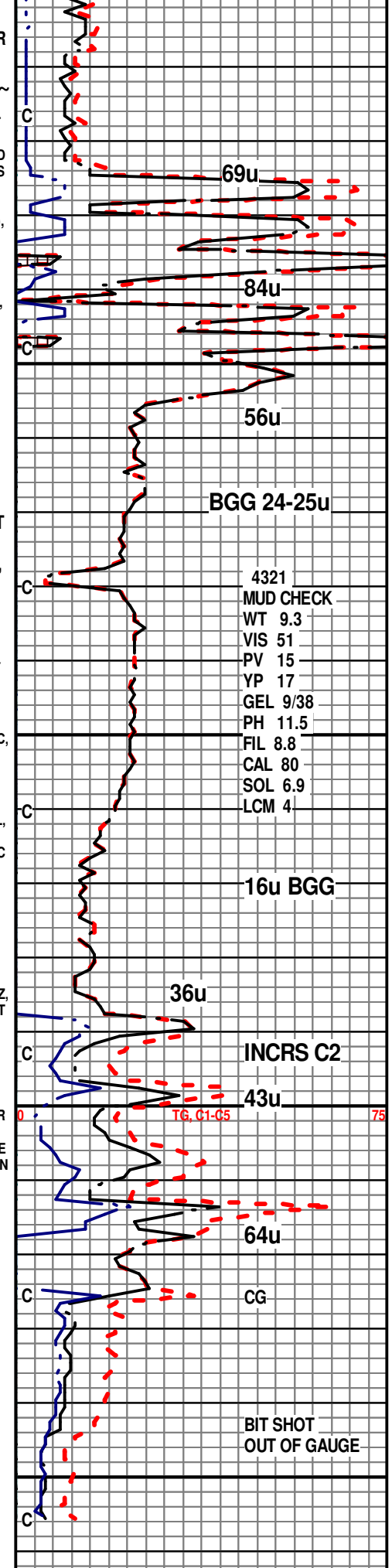
DOLO; LT GY VF ERTY PTYR, SME BRN HD DNS

LS; CRMMOTT GY F-MED XLN, TRASHY NO SHOW

**ARBUCKLE**

DOLO; CRM WH, TO GY, BRN TRASHY GY BLK SH CLST NO SHOW

THANKS FOR USING  
WELL LOGGING  
MARLA GARNER



SHORT TRIP - TIN CIRC 60min  
E-LOG 4458  
CFS RTD 20/40/60

MBC AUSTIN &



