

MBC WELL LOGGING LLC

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

Well Name: KREGAR 1-34 JOLEN OPERATING
 Location: FORD COUNTY, KANSAS USA
 Licence Number: 31822
 Spud Date: 2-05-2018
 Surface Coordinates: 330'fnl 330'fel SEC 34-T29s-R22w NE/NE/NE
 Bottom Hole Coordinates: API-15-057-20993-00 PIONEER WLS
 Ground Elevation (ft): 2422 K.B. Elevation (ft): 2429
 Logged Interval (ft): 4200 To: 5450 Total Depth (ft): E-LOG5445
 Formation: LOWER MISS
 Type of Drilling Fluid: WMB ANCHOR DRLG FLUIDS GLENN REDMAN (405) 249-6188

Region: WILDCAT

Drilling Completed: 2-12-2018

DUKE 7 #5929, TP GALEN ROACH- DENNIS POPE CO-MAN

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






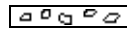


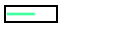

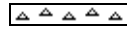
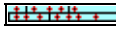


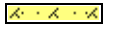






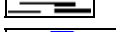

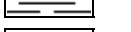












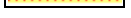

OPERATOR

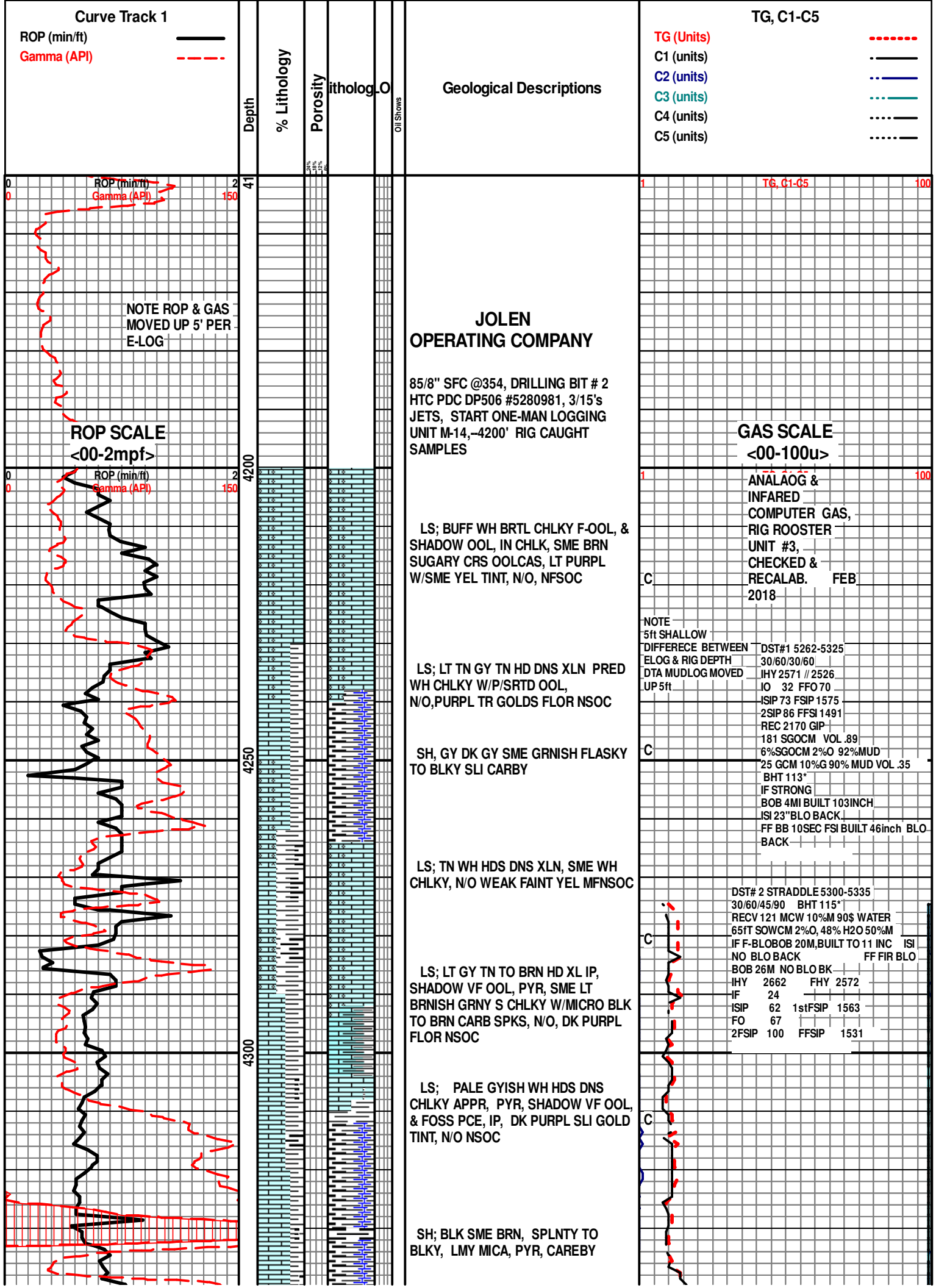
Company: JOLEN OPERATING COMPANY
 Address: ATTN CHRISTOPHER D. ALTHOFF GEOLOGIST
 100N BROADWAY AVE STE 2460
 OKLAHOMA CITY OKLAHOMA 73102-8868

MUDLOGGER

Name: AUSTIN GARNER --- CELL (620)-655-2016
 Company: MBC WELL LOGGING LLC (620)873-2953
 Address: 21156 RD 22
 MEADE, KANSAS 67864

ROCK TYPES

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



Curve Track 1

ROP (min/ft) ———
 Gamma (API) - - - -

TG, C1-C5

TG (Units)
 C1 (units) ———
 C2 (units) - - - -
 C3 (units)
 C4 (units)
 C5 (units)
 TG, C1-C5

Depth

% Lithology

Porosity

Litholog-O

Oil Shows

Geological Descriptions

JOLEN OPERATING COMPANY

85/8" SFC @354, DRILLING BIT # 2
 HTC PDC DP506 #5280981, 3/15's
 JETS, START ONE-MAN LOGGING
 UNIT M-14,-4200' RIG CAUGHT
 SAMPLES

**GAS SCALE
 <00-100u>**

ANALOG &
 INFARED
 COMPUTER GAS,
 RIG ROOSTER
 UNIT #3,
 CHECKED &
 RECALAB. FEB
 2018

NOTE ROP & GAS
 MOVED UP 5' PER
 E-LOG

**ROP SCALE
 <00-2mpf>**

LS; BUFF WH BRTL CHLKY F-OOL, &
 SHADOW OOL, IN CHLK, SME BRN
 SUGARY CRS OOLCAS, LT PURPL
 W/SME YEL TINT, N/O, NFSOC

LS; LT TN GY TN HD DNS XLN PRED
 WH CHLKY W/P/SRTD OOL,
 N/O,PURPL TR GOLDS FLOR NSOC

SH, GY DK GY SME GRNISH FLASKY
 TO BLKY SLI CARBY

LS; TN WH HDS DNS XLN, SME WH
 CHLKY, N/O WEAK FAINT YEL MFNSOC

LS; LT GY TN TO BRN HD XL IP,
 SHADOW VF OOL, PYR, SME LT
 BRNISH GRNY S CHLKY W/MICRO BLK
 TO BRN CARB SPKS, N/O, DK PURPL
 FLOR NSOC

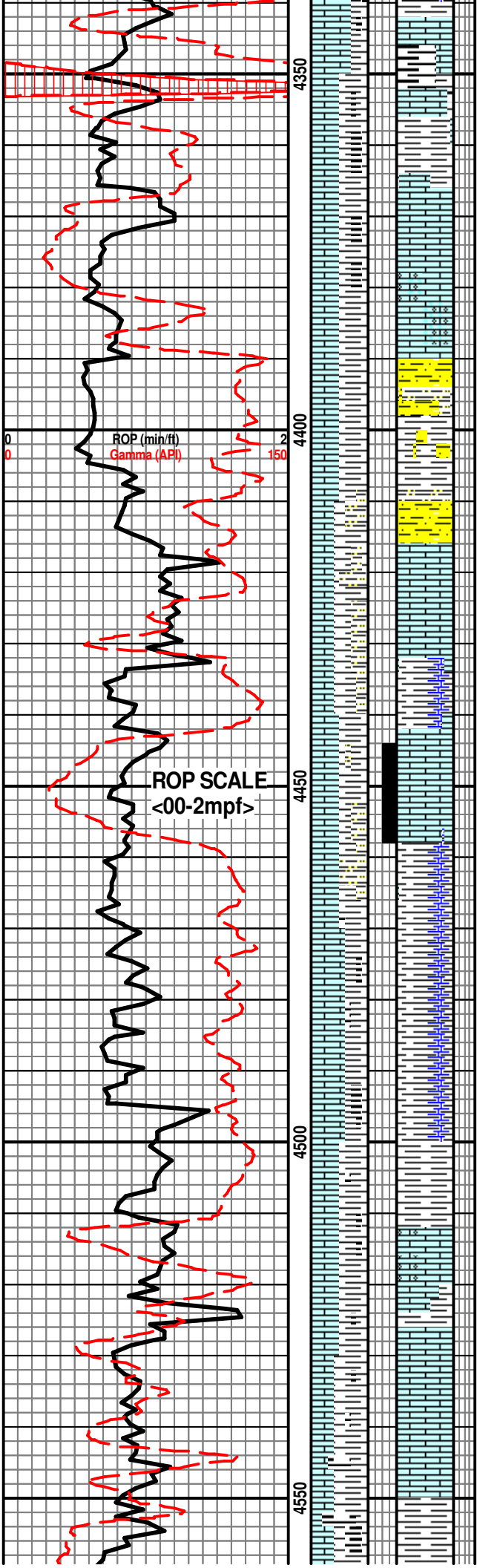
LS; PALE GYISH WH HDS DNS
 CHLKY APPR, PYR, SHADOW VF OOL,
 & FOSS PCE, IP, DK PURPL SLI GOLD
 TINT, N/O NSOC

SH; BLK SME BRN, SPLNTY TO
 BLKY, LMY MICA, PYR, CAREBY

NOTE
 5ft SHALLOW

DIFFERECE BETWEEN DST#1 5262-5325
 ELOG & RIG DEPTH 30/60/30/60
 DTA MUDLOG MOVED IHY 2571 // 2526
 UP 5ft IO 32 FFO 70
 ISIP 73 FSIP 1575
 2SIP 86 FFSI 1491
 REC 2170 GIP
 181 SGOCM VOL .89
 6%SGOCM 2%O 92%MUD
 25 GCM 10%G 90% MUD VOL .35
 BHT 113'
 IF STRONG
 BOB 4MI BUILT 103INCH
 ISI 23" BLO BACK
 FF BB 10SEC FSI BUILT 46inch BLO
 BACK

DST# 2 STRADDLE 5300-5335
 30/60/45/90 BHT 115'
 RECV 121 MCW 10%M 90\$ WATER
 65FT SOWCM 2%O, 48% H2O 50%M
 IF F-BLOBOB 20M,BUILT TO 11 INC ISI
 NO BLO BACK FF FIR BLO
 BOB 26M NO BLO BK
 IHY 2662 FHY 2572
 IF 24
 ISIP 62 1stFSIP 1563
 FO 67
 2FSIP 100 FFSIP 1531



TN HD DNS FOSS LS

HEEBNER SH 4346-1917ss
 BLK BRN CARB SH, LMY, HD TO SFT,
 SME MICA, SME PYR

GY GRNISH SFT TO BLLKY SH

TORONTO 4367-1938ss
 LS; WH/GY-TN HD DNS, COMNGHLD
 CHLK, SME FOSS, TR OOL, PYR, N/O
 PURPL W/YEL TUINT MFNSOC

DOUGLAS SH 4390-1961ss

SH; LT GY GY, HEAVY MICA, SLTY TO
 LT GY WH BRTL TO FLRI, SS/SLTST
 CLSUSTERS, CALC, MICA, PYR, BLK
 CARB LENS, BLK SME PURPL FLOR
 TR YEL TINT, N/O NSOC

LS; LT TN HD DFNS SPSAR CMTED
 FOSS PCES, PYR, NO SHOW

SH; GY DK GY TR CARB

LS; BRN TN SME GY, PRED HD DNS
 XLN, SME COMNGLD CHLK, MICRO
 FOSS PCES, TR GRNY S-CHLKY, N/O,
 SCATT DULL GOLD MFNSOC

LS;; GY TN HD DNS DETRT SME BLK
 PELL, NO SHOW

SH; GY DK GY SME BLK, SLI CALC,
 MICA, SME CARB

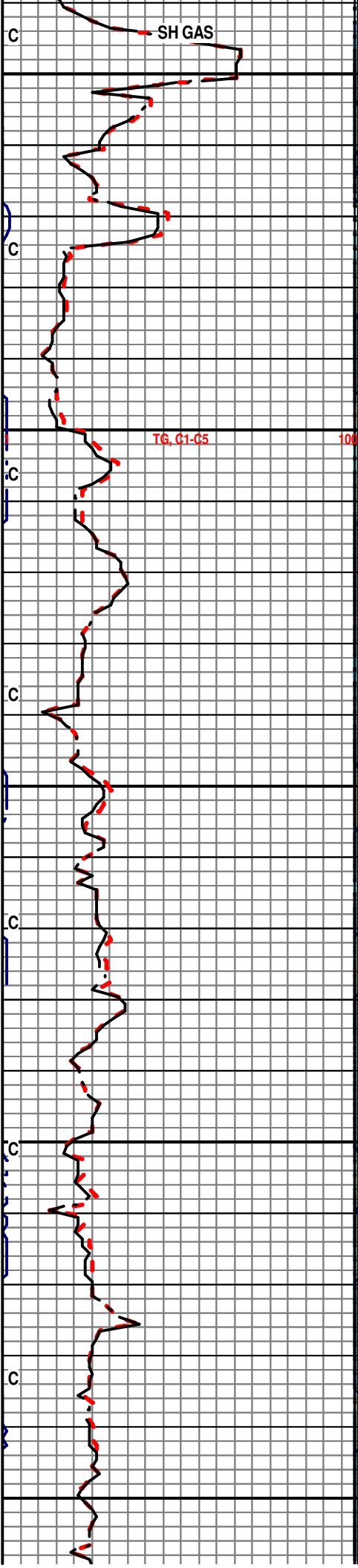
SH; LT GY SMO INCRS SLI GRN TINT

SH ; GY SLI GRN

LS, MOTT DK BRN/CRM, MICRO OOL
 IP, PYR, N/O MFNSOC

LANSING 4534-2105ss

LS; LT BUFF WH TYO TN HD XLN SME
 WEATHD APPR, SME SUGARY ELIP
 VUGGY SPARITYIC, FREE CRS SPAR
 XTLS, N/O, PURPL W/SME MED YEL
 FAINT FLOR NSOC



2-10-18

LANSING B 4570-2141ss

LS; PRED WH V/SLI TN TINT, BRTL SPARITIC, SME VF TO MED OOLCAS, IP, SMEFALAM CHLK, N/O PURPL TO FAINT YEL MFNSOC

LS; WH OPAQ SPARITIC SME OOLC, SME LAM CHLK, N/O PALE PURP TO WEAK YEL FLOR NSOC

SH; LT GRN SPLNTRY, INCRS DK GY

LS; GYISH TN HD XLN, TO LT BUFF WH, VF SHADOW OOL, CHLKY IP, TR PYR, TR TN VIT CHT, MED PURPL W/SCATGT PALE YEL MFNSOC N/O

LS; BRN HD XLN TO BUFF WH W/SME HEAVY COATED VF OOL,, SME LT TN HD XLN, N/O SCATT FAINT GOLD MFNSOC

LS; BUFF WH WEATHD APPR, CHLKY HEAVY COATED VF OOL, N/O LLSCATT FAINT GOLD MFNSOC

OLIVE GRN SH

LS; SPARITIC F-OOL, & S-RD F SPAR XTLS, SMRE CRM-WH CHLKY OOL, GY CHT, N/O PURPL FLOR NSOC

MUNCIE

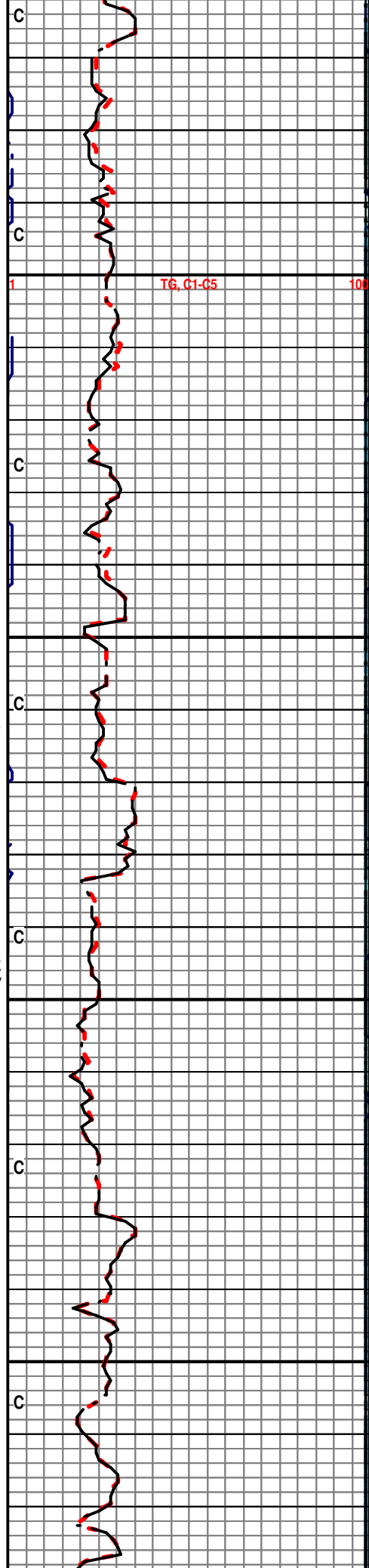
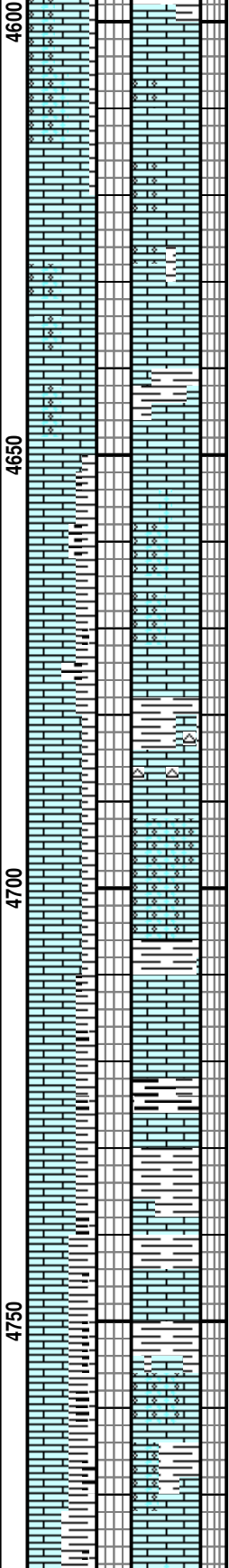
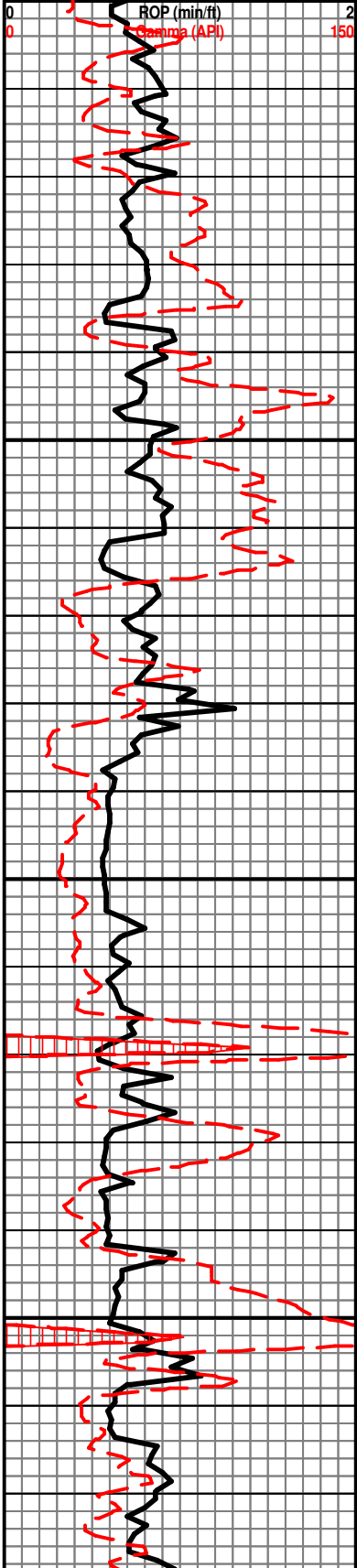
SH; BLK LBLKY CARB

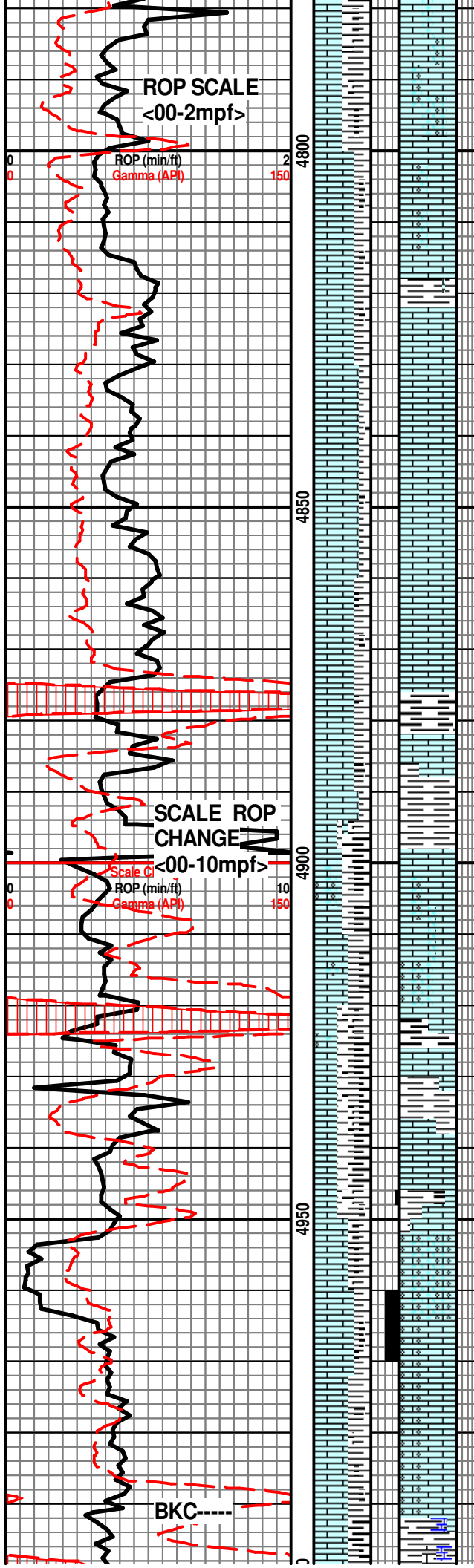
LS; TN GY HD FRGRTL TO BRN-BUFF CHLKY, SHADOW OOL, N/O, SME YELGOLD MFNSOC

SH; BLK CARBY ABTD LT GY TO GRNISH SH

LS; TN HD XLN TR OOLCAS, N/O MFNSOC

SH; GRN FRM IMBDS VF FOSS FRGS





LS; CRM WH CHLKY & CHLKY-COMNGDLS W/ F XLN, SHDOW VF OOL, TR CRM CHLKY F-OOL, INCRS CHT, TR CRS OOLCAS, SLI SUGARY MATRIX, N/O 60% FAINT YEL MFNSOC

LS; LT TN HD DNS VF XLN, COMNGD CHLK IP, CHLK EDGES, N/O, PURPL TO FAINT YEL MFNSOC

LS TN GY TN HD DSN VF XLN, CHLK EDGE IP SHADOW VF OOL IP, N/O PURPL TO GOLD MFNSOC

LS; DK TNHD DNS XLN CHLK IN FRAC

STARK 4574-2145ss

BLK CARB SH CALC

TRIP PDC BIT # 2, DRLD 4542' IN 62.5 HRS NB #3 HTC GX-20C #506B439 TRICONE, 3/15's JETS

LS; PALE BUFF WH RGH WEATHD APPR SPARRY//CHLKY VF F OOL, TR TN F-OOLCAS, INCRS WHHD DNS XLN, N/O, PALE PURPL SME V/LT YEL, NSOC

HUSHPK 4933-2504ss

BLK CARB SH HD TO SFT, V/SLI CALC

LS; GY TN MICRO XLN, PRED GY WH HD XLN SLI SHLY

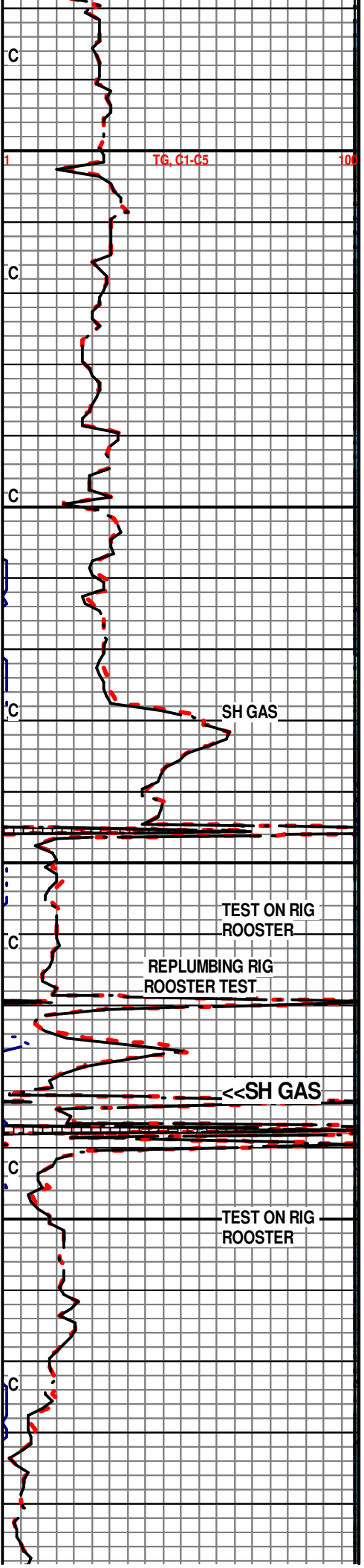
PLEASENT LM 4955

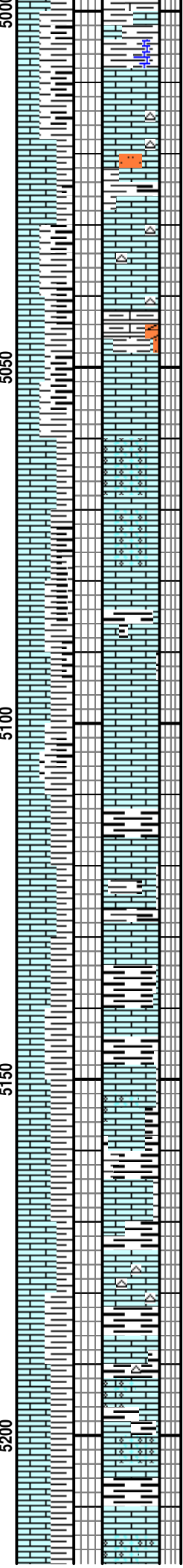
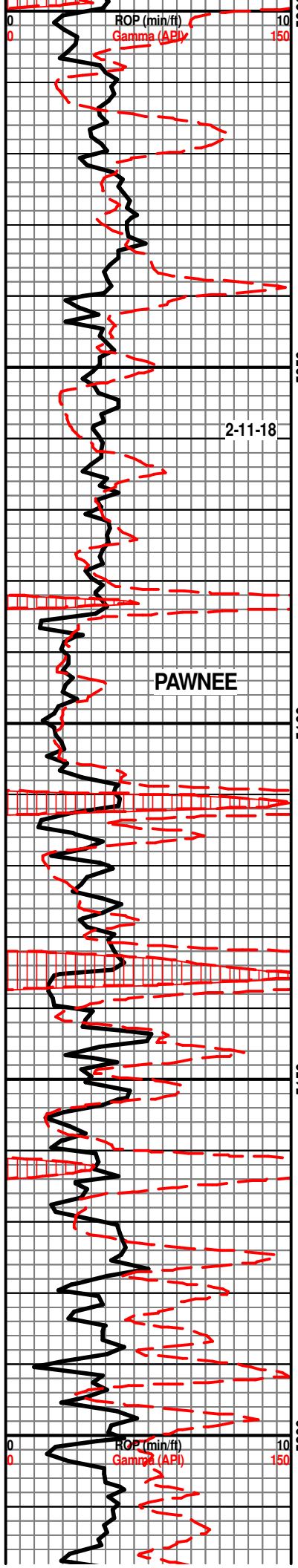
LS; LT TN BUFF BRTL VF-BIOSPARTYIC//POOR SRTD VF F OOL,, HEAVY RIM COAT, N/O, DK GOLD FLOR NSOC

NOTE

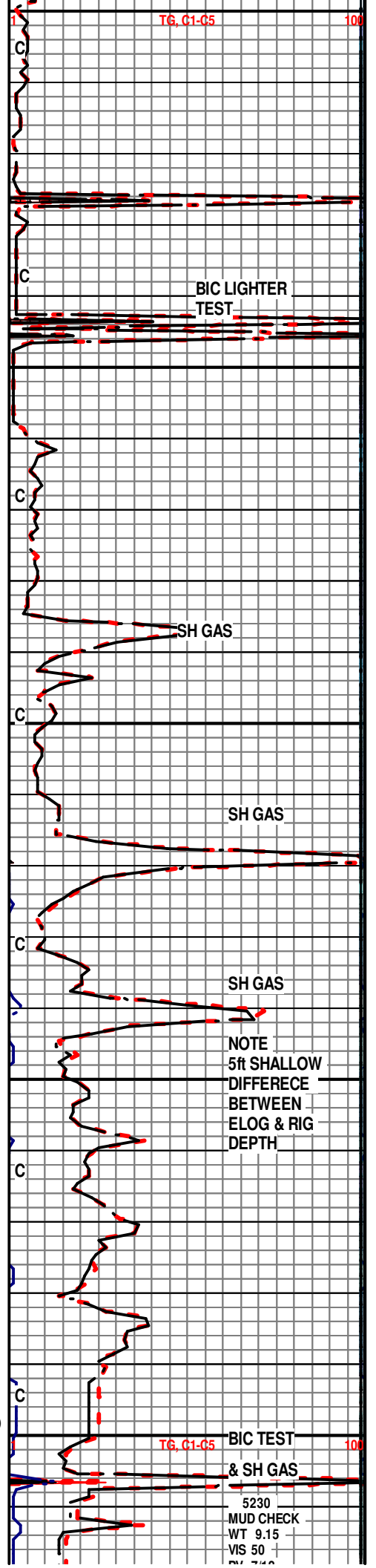
NOTE FREE CLR MED SIZE OIL SPOTS IN SAMPLE TRAY, AFTER SITTING NO EVIDENSE IN ROCK OF HYDROCARBON

SH: GY GYGRN SFT TO THIN PLATY





CALC
MARMATON 5007-2578ss
 LS; WH SME LT BUFF, PRED HD DNS WEATHD APPR XLN, DULL LUSTRE, GY VIT CHT, N/O, PURPL TO FAINT YEL MFNSOC
 LS; DK GY TN HD DNS XLN FRAC TO LT GYISH BUFF S CHLY SME GRITTY DK GY N/O, MFNSOC
 SH GY LT GY VF GRNY CALCITIC, TR ANHY NOD
 LS TN MED TN HD XLN BIOSPARTIC/VF F OOL, CRM WH CHLK,
 LS; LT TN MED TN HD DNS XLN SME CRINOIDAL XLN
BANDERA SH 5035-2606ss
 BLK CARB SH
LABETTE SH
 BLK CARB SH
CHEROKEE 5132-2703ss
 BLK CARB SH, SMELT GRN W/PYR
 LS; CRM TN HD DNS XLN, SHADOW VF OOL, PRED HD DNS SME FOSS XLN, N/O, DULL GOLD FLOR, NSOC SH; BLK DULL SFT
 LS; TN BUFF CHLKY FOSS, TO HD DNS XLN, CLR VIT CHT, N/O, BLK PURPL TR YEL MFNSOC
 BLK TO DK GY SME GRN SH
 LS; GY BUFF WH WEATHD APPR, CHLKY SHADOW VF OOL, TR F-GY PELL, N/O, MFNSOC
 SH BLK CARBY, SME DK GRN STRKD BLK
 LS; LT BUFF WEATHD APPR VF F OOL, & VF FOSS PCES, INCRS TO HD DNS XLN W/FOSS, LT TN FOSS HASH NO SHOW



TG, C1-C5

100

2-11-18

PAWNEE

BANDERA SH 5035-2606ss

LABETTE SH

CHEROKEE 5132-2703ss

BIC LIGHTER TEST

SH GAS

SH GAS

SH GAS

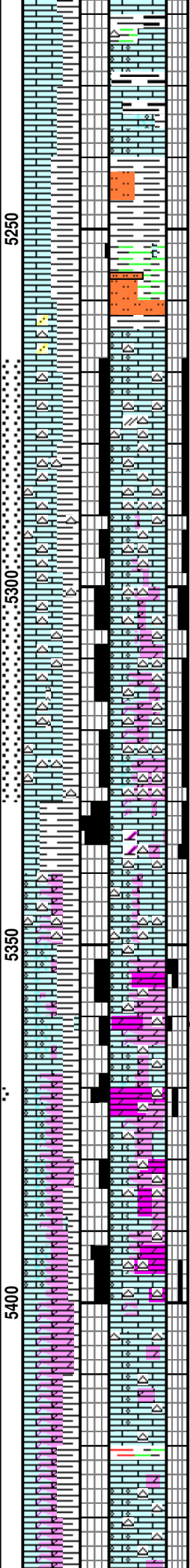
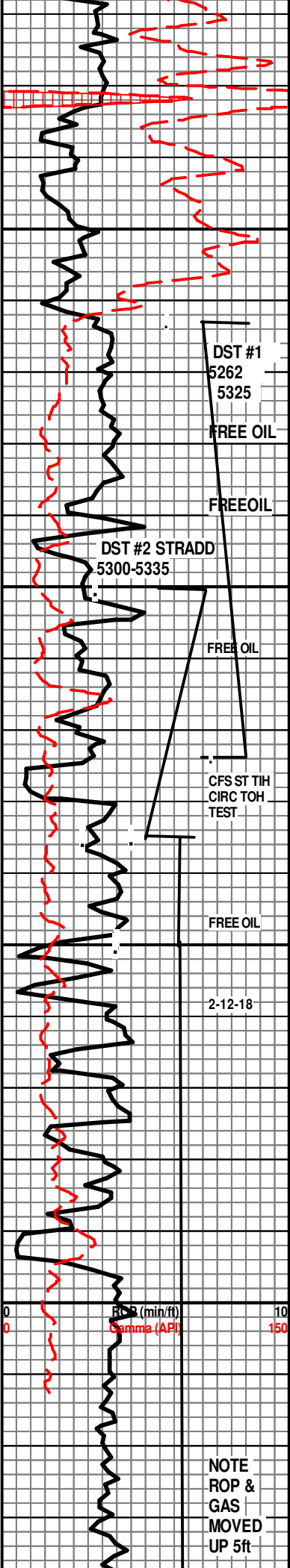
NOTE
5ft SHALLOW
DIFFERRECE
BETWEEN
ELOG & RIG
DEPTH

TG, C1-C5

100

BIC TEST
& SH GAS

5230
MUD CHECK
WT 9.15
VIS 50



LS; LT TN TN FOSS HASH, W/OCC OOL,
 DK TN FOSS HASH, XLN INCRS GY W/PYR

BASE PENN 5234-2805ss

SH; GY BLK TR CARB, YEL, MAROON GRN TR PYR

SLTST; GY, SLI GRN TINT, VF GR, BRTL, CALC, ABTD GLAU, NO SHOW

BLK CARB PYR SH SME YEL TO GRN TR CHOR W/ORNG CHT

----MISS 5262-2833ss---

CRMWEATHD APPR MICRO OOL, P/SRTD FOSS FRGS, LS, N/O SME PALE YEL FLOR (1) PCE SLO THIN CUT

CHT; TRIPOLITIC WH, SEMI TRIPTIO SME TN VIT, TR LANHY NOD, SCATT PP DK BRN STN, SME SLOPCHY, SME COMNLGD CRM TR OOL LS, N/O 20%+- CHT, FLASH YEL STRMG MILKY CUT HEAVY YEL RESID

---LS LT GY TN HD XLN, ORNG VIT CHT W/VF OOL, SME TRIP--WH CHT, FREE PP OIL, DK YELTD GOLD FLOR ON SME CHT & LS PCES, FLASH STRMG CUT ON CHT DRY,

DOLO/LS & LS. LT CRM-TN RGH TXT. SILIC IP, BRTL TO HD, TR opa to milky wh F-OOL CHT, CRM-WH CHLK IP, ABTD VRI CHT VITTO TRIP, SME "GLAZED TRLNSPRT CHT W/MICRO WQTZ, APPR HEAVY COATD, & FOSS FGS, N/O, FREE OIL EST 27-30° API, pale yel flor, flash slo strmg becmg milky med resid cut

RRBIT #4 H-20 3/15s OB DRLD 430'-22hrs

DOLO/LS BUFF VF GRNY VF F OOL, SME CHT, TR MICRO PYR,, PP DK BRN OIL STNG, FLASH THICK STRMG MILKY CUT YEL RESID CUT

LS; CRM BUFF CHLK, SME SLI GY HD SPAR CMTD OOL, ABTD CLR, WH, OPAQ, VIT TO SEMI/TRIP CHT, N/O, PURPL FLOR 2% BRITE YEL FOR, NSOC

DOLO; LT TN GRITTY "DUSTY" SLTY, SME MICRO HEAVY COAT OOL, GRDSS TO DOLO/LS SCATT MICR PYR, MILK WH CNCORD FRAC ANG CHT TR BRN SLOPCHY STN ONDOLO, BLK TO SME FAINT GOLD FLOR SLI RING CUT

LT BUFF GRITTY DOLO BRTL, OPAQ THIN FOSS TTUBE OR FRAC FILL, CRM WH HLK, TRIP CHT W/SME STNG FAINT GOLD FLOR, V/SLI RING CUT

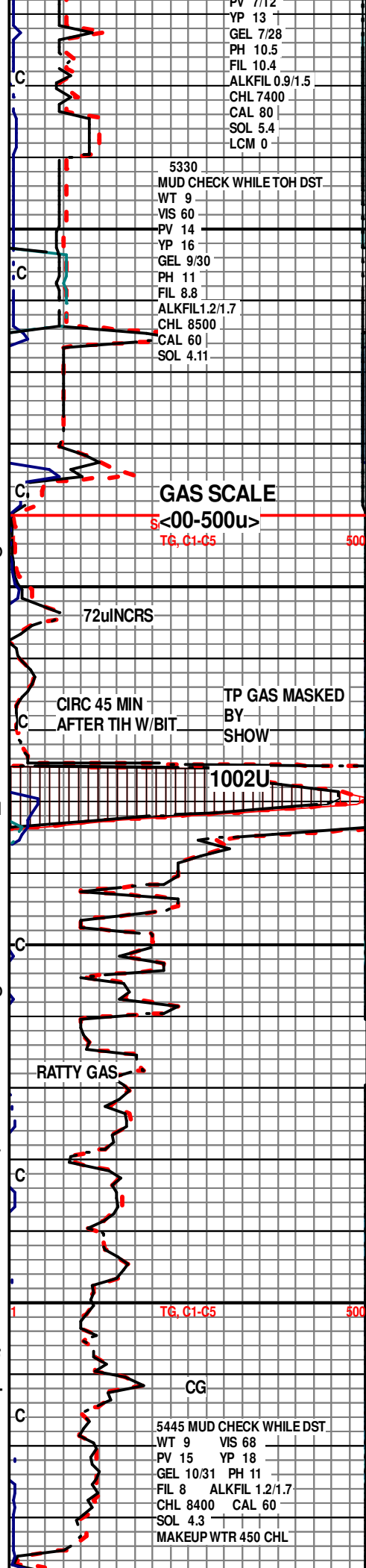
DOLO & DOLO/LS; LT BUFF SLI WH, SME W/VF ELIP OOLDS, SME CHOR, SME FOSS, WH CONTORTD W/DK GY MOTT CHT, BRN CONCORTD CHT W/VFOOLL, WH CHLK, SCATT INTR PART BRN STNG, FAINT GOLD FLOR,

LS; BUFF DULL, LUSTRE OOL-COMNLGD W/CRM-WH CHLK, OFF WH CLR VIT ANG CHT W/OOL, CMRWH OOL CHLK, N/O, SCATT FAINT YEL FLOR NSOC

TR V/LT RED/GRN SH SME GRN MUSTURD MOTT SH

LS; BUFF DNS SPAR CMTD F OOL, TR V/LT GRN HD DNS XLN LS, , CHOR IN OPAQ OOL CHT,

LS; PAI F BUFF CRM VF OOL ABTD



5330
 MUD CHECK WHILE TOH DST
 WT 9 VIS 60
 PV 14 YP 16
 GEL 9/30 PH 11
 FIL 8.8
 ALKFIL 1.2/1.7
 CHL 8500 CAL 60
 SOL 4.11

1002U

5445 MUD CHECK WHILE DST
 WT 9 VIS 68
 PV 15 YP 18
 GEL 10/31 PH 11
 FIL 8 ALKFIL 1.2/1.7
 CHL 8400 CAL 60
 SOL 4.3
 MAKEUP WTR 450 CHL

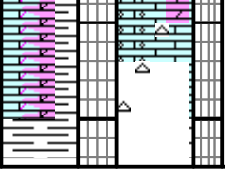
RTD
5450



2-13-18

ELOG
5445

5450



ES, FILL LOG, CRM, FILL, ADD,
CRM/WH CHLKJ,, NO SHOW
THANKS FOR USING
MBC WELL LOGGING
AUSTIN & MARLA GARNER



C