

MBC WELL LOGGING LLC

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

Well Name: GARDEN CITY V-4 OXY-USA
 Location: FINNEY COUNTY, KANSAS USA
 Licence Number: 5447
 Spud Date: 12-27-2012
 Surface Coordinates: 2,140'fml, 1,1810'fwl SEC 27 T-23S-R34W
 Bottom Hole: HLS-DIL/SP/GR CNL/CAL/PE/BHV SONIC SFC
 Coordinates: API-15-055-22176-00 AZTEC WELL SERVICING # 34660
 Ground Elevation (ft): 2963' K.B. Elevation (ft): 2977'
 Logged Interval (ft): 3700 To: 5128 Total Depth (ft): ELOG 5112
 Formation: ST LOUIS
 Type of Drilling Fluid: MI DRILLING FLUIDS ISAAC HOLDER ENGINEER
 Region: GARDEN CITY
 Drilling Completed: 01-01-2013
 Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

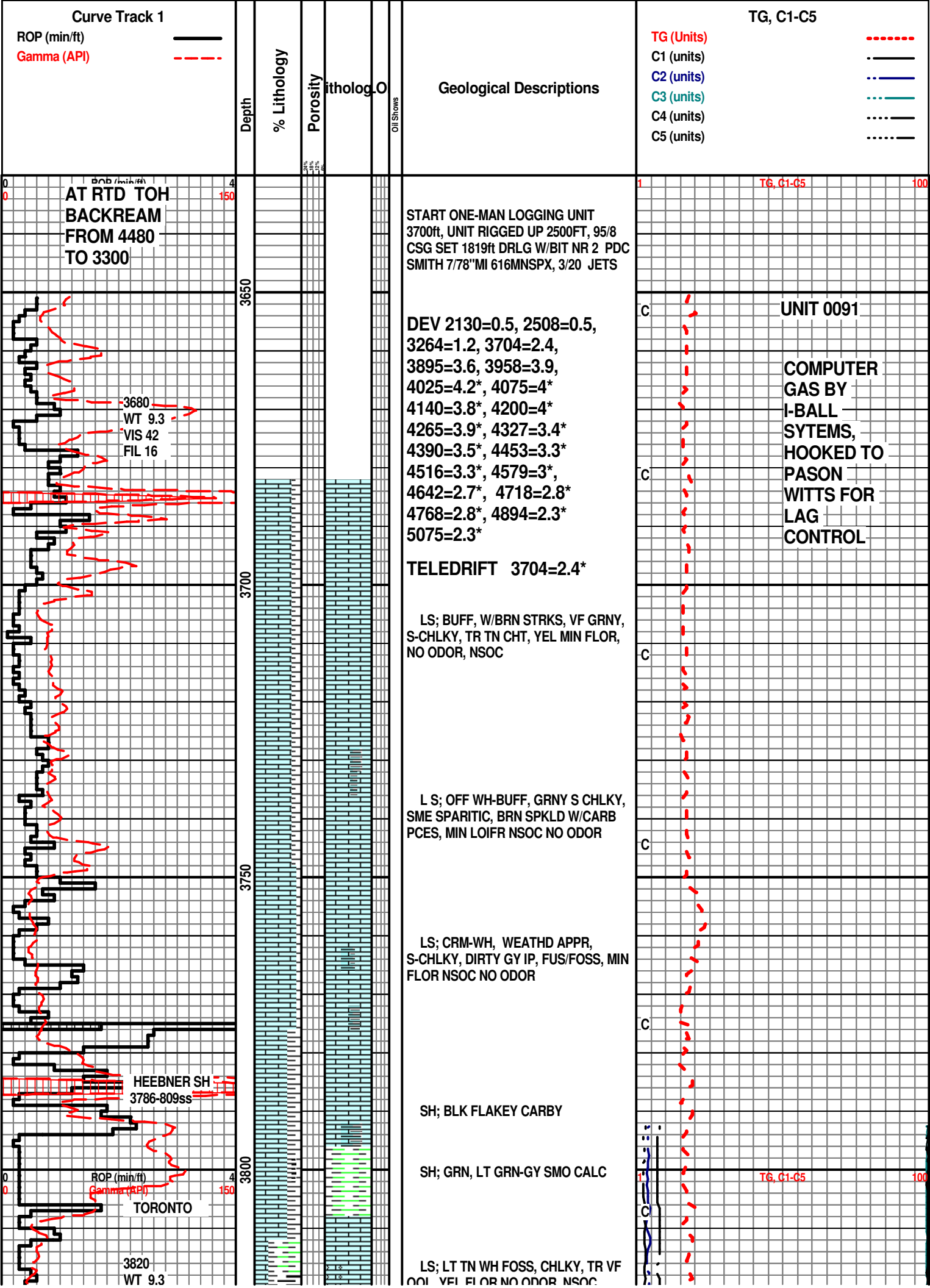
Company: OCCIDENTAL OIL & GAS CORP.
 Address: ANDREA HOWSON % -GEOLOGY
 5 E GREENWAY PLAZA ste 110
 HOUSTON, TEXAS 77046

MUDLOGGER

Name: AUSTIN GARNER//BILL KEMP
 Company: MBC WELL LOGGING LLC
 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-1		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		Sltty-shale		Red sh-1		Snd-ls-sh
	Dolo new		Carb sh		Lmy ss-1		Stgensndy-arkos		
	Newdolo ls		Gyp		Arkosic snd		Sndy ool ls		



VIS 45
FIL 12

LANSING

3880
WT 9.3
VIS 40
FIL 18

3990
WT 9.3
VIS 41
FIL 12

01-01-2013

ROP (min)
Comments

3850

3900

3950

4000

SH; LT GY/WH VF CALCITIC

LS; BRN LT TN, SPARITIC, F XLN,
ABDT CRM/WH CHLKY, W/SHADOW
FOSS, TR OOL, MIN FLOR NSOC NO
ODOR

LS; TN SPAR CMTE THIN RIM
COAT, F OOL, SME CHLKY, SCATT YEL
MIN FLOR NO ODOR, NSOC

TELEDIFT 3895=3.6*

L S; LT BUFF, WH CHLKY, GRNY,
SME SHELL FOSS, TR SPARRY VF
OOL, NO ODOR, MFNSOC

L S; TR LT BUFF SPARITIC VF OOL,
DULL LUSTRE, VF GRNY S-CHLKY IP,
SME CLR VIT CHT, ABDT YEL/WH
FLOR, NO ODOR, NSOC

TELEDIFT 3958=3.9*

LS; GYISH TN, F XLN SME OOL, TR
FREE CRIN, PRED DIRTY GYISH S
CHLKY, SME BLK F PELL, VIT CHT,
INTBD GY-BRN SFT SH, NO ODOR,
MFNSOC

**TRIP 3995, CHANGE BHA,
ADD 2ND REAMER CHANGE
BIT = #3 HALIBURTON FX66
3X16, 3X18 JETS, OB SMITH
DRLD 2162ft 24hrs 90fph**

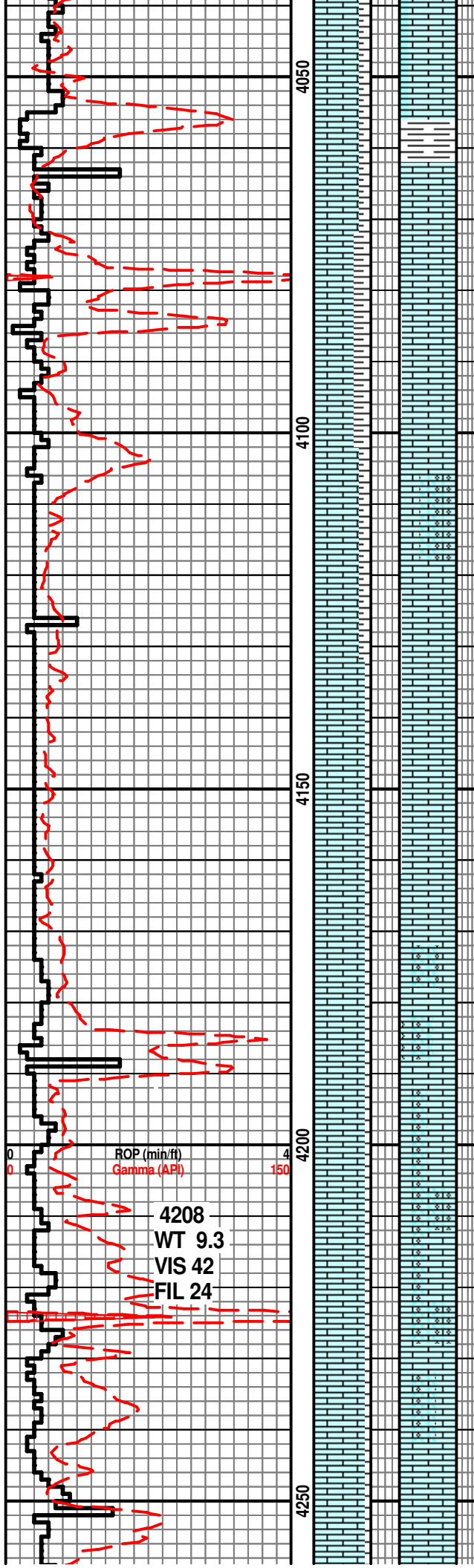
REAM 60'TO BTM, 10'FILL

SH: MOST LT TO DK GY PLTY F TEXT
SME BLK BLKY SLI CARB APPEAR

SRVY 4025= 4.2*

TG, C1-C5

100



LS; BUFF TAN LT BRN MICRO XLN HD
DENSE SLI FRACTURED

SRVY 4075=4*

LS:OFF WHT BUFF SME TAN TO LT
BRN MICRO XLN HD DENSE SLI MICRO
FRAC MICRO OOLITIC IP

SH:LT GY F TEXT FIRM PLTY TRS
MICRO MICA

LS:OFF WHT BUFF SME TAN TO LT
BRN MICRO XLN HD DENSE SLI MICRO
FRAC MICRO OOLITIC IP

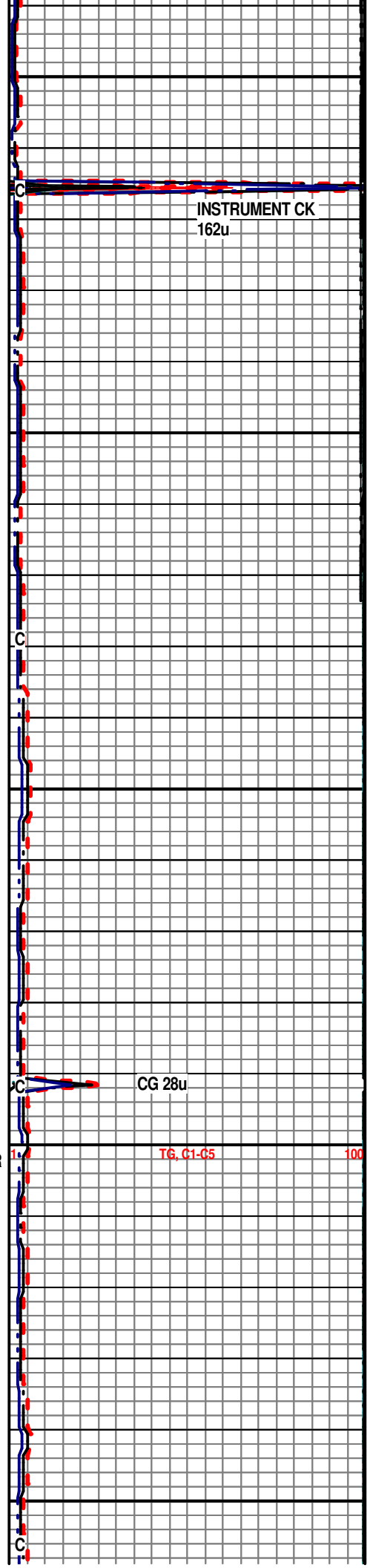
SRVY 4140= 3.8*

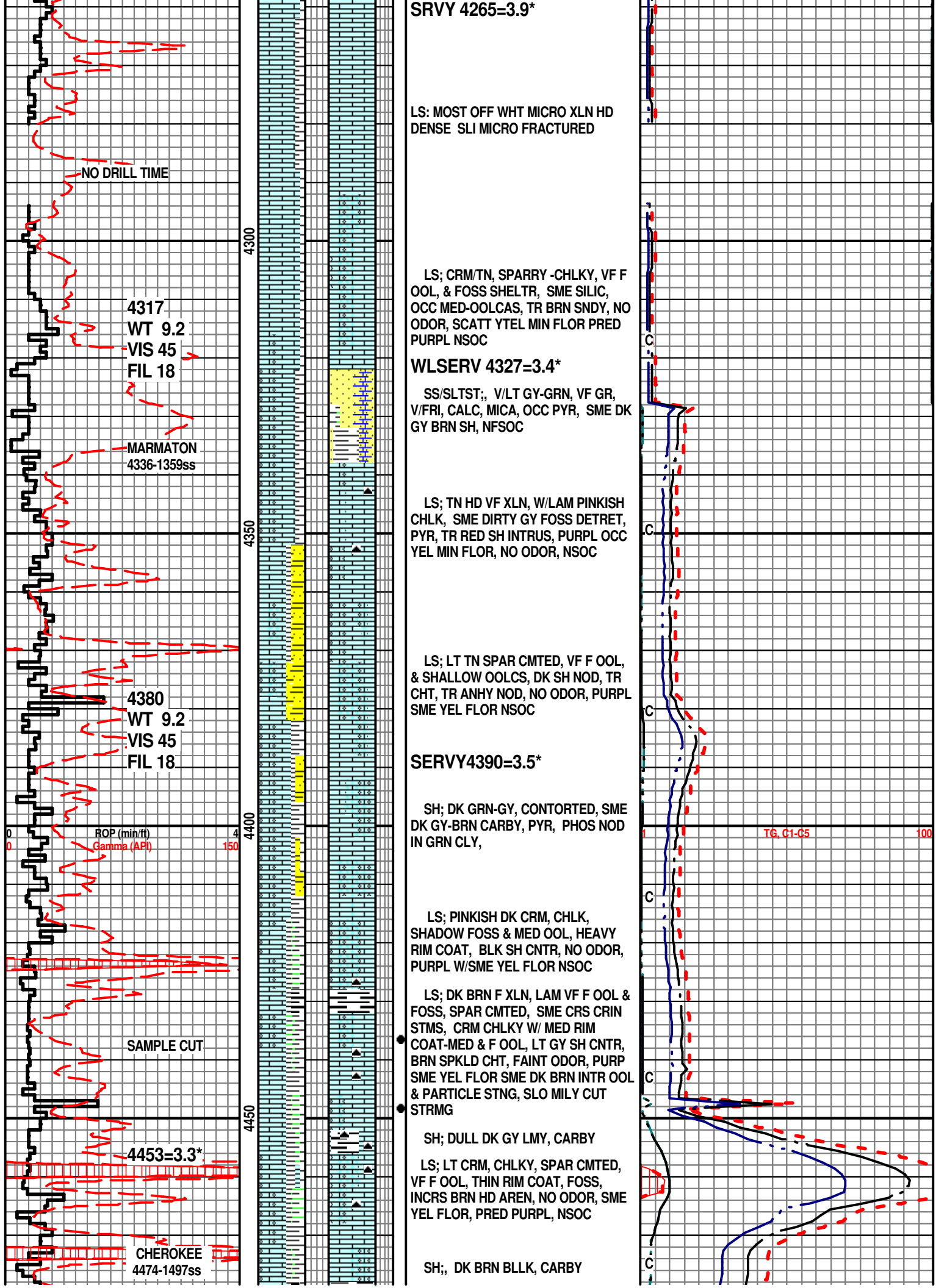
LS:OFF WHT BUFF SME TAN TO LT
BRN MICRO XLN HD DENSE SLI MICRO
FRAC MICRO OOLITIC IP

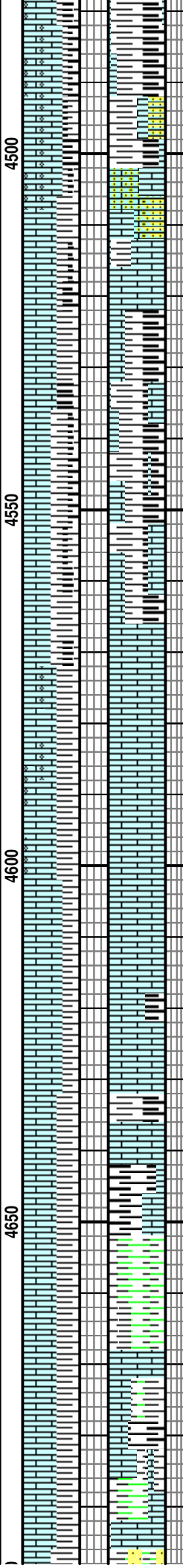
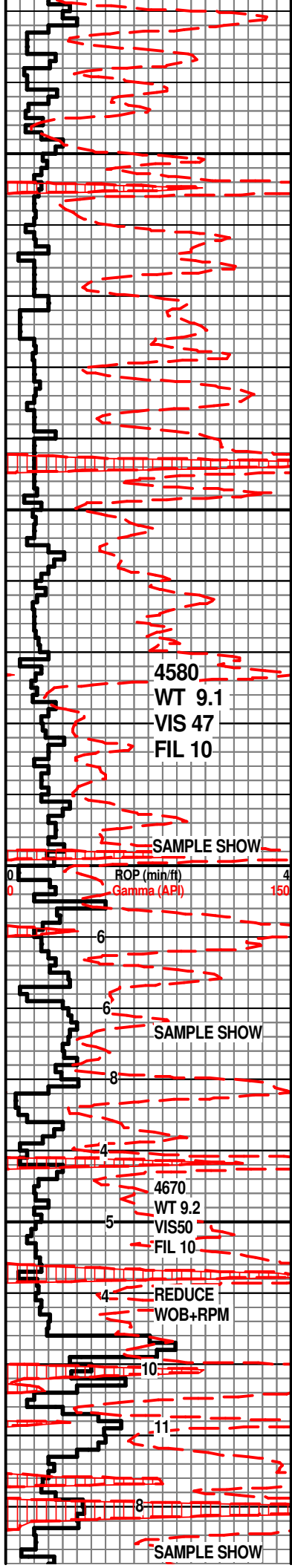
LS:OFF WHT BUFF SME TAN TO LT
BRN MICRO XLN WITH SME CHLKY
TAN LS INTERBEDDED SLI MICRO
FRAC ABUND OOLITIC FAIR TO POOR
VUGULAR POR

SRVY 4200= 4*

LS: MOST OFF WHT MICRO XLN HD
DENSE SLI MICRO FRACTURED
DECREASED OOLITES NO VIS
PRIMARY POR







LS; LT TN HD DNS XLN SME FOSS

SH; DULL DK GY BLKY, RGH TXT, V/CALC, CARBY

LS; LT BRN TN, HD DNS F XLN SME FOSS, TR LT TN SPAR CMTD F OOL W/FOSS, NO ODOR, SME YEL FLOR PRED PURPL, NSOC

SRVY 4516=3.3*

SH; DK GY BLK, BRN, BLKY, LMY, PYR, PYRITIC SPICULES, CARBY

LS; GY B RN HD F XLN SHLY IP, SME FOSS, CLR CHT

SH; LT GY GY BLK, CALC CARBY

LS; MED TO DK TN FOSS XLN, BRCCA, COMNGLD CHLKY, SHELL FOSS, NO ODOR, PURPL FLOR SCATT YEL NSOC

SH; LT GY- GYBRN, LMY VF AREN IP, C ARBY SH IP

SRVY 4579=3*

LS; LT GY/CRM, HD XLN

LS; GYISH BRN SPARITIC, DETRET-FOSS, SME SNDY, SME CHOLKY, TR CHT, NO ODOR, PURP FLOR TR YEL, TR DK BRN STNGFAINT GOLD FLOR, SLO BRITE YEL MILKY SH; BLK CARB, PYR

LS; TN GY HD FRAC F -XLN, SHLY, BRN CHT, TR BRN SNT INTR PART, NO ODOR, NO VIS FLOR, SLO MILKY YEL STRM MILKEY CUT

SRVY 4642=2.7*

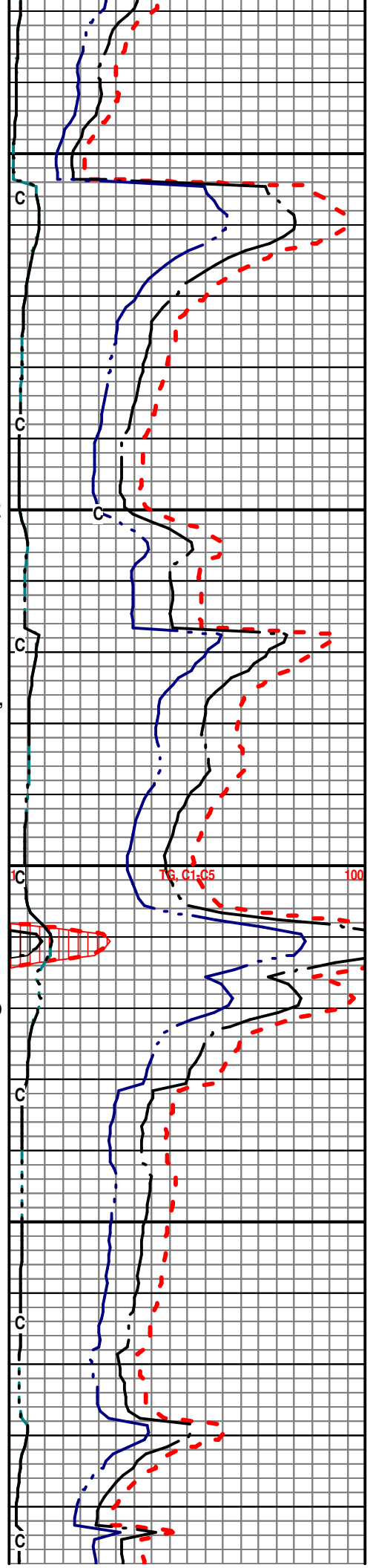
SH; BLK CRBY LMY, SME CRIN, TR GRN W/FOSS

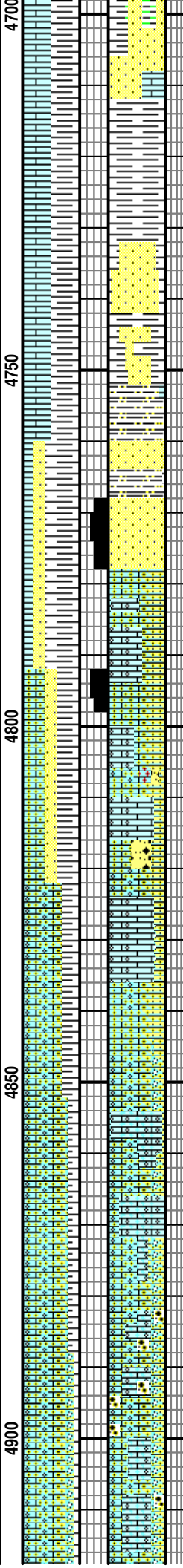
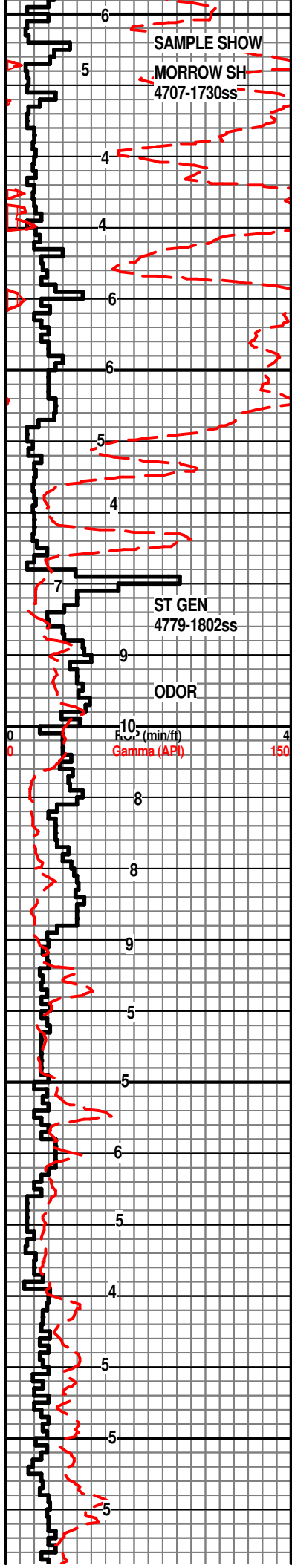
SH; LT GRN, W/ BLK PELL, PRED GY, DK GY BLK CRB, FREE PYR

LS; LT GYISH TN, HD XLN TO LT BUFF W/FOSS, SME LT TN W/ P-SRTD GY SH SPOTS, TR GLAU, NO ODOR, 20% YEL FLOR NSOC

SH; GRN GLAU TO BLKY COALY-PYRITIC

LS; CRM FOSS CHLKY SME SPARTIC W/FOSS, GLAU, NO ODOR, BLK OIL STNG. TR YEL FLOR. FLASH





MILKY STRM CUT

SS; LT CLR SLI GRN TINT, VF GR FRI, CALC, GLAU, TR BLK INTGR GR STNG, FAINT ODOR, SLI FAINT GOLD FLOR, FLASH STRM CUT YEL/WH BECMG MILKY

SH; GY DK GY FISS, SMO, CARB LENS & MATL, SME PYRITIC

SRVY 4718=2.8*

SS; LT GY-GRN, VF GR, SHLY, GLAU, PYR, NO ODOR, NFSOC

SH; GY DK GY SFT FISS, CARB STRKS IP, SME BLK CARBY, PYR

SS; LT GYISH WH VF GR SHLY CALC IP, PYR MICA NFSOC NO ODOR

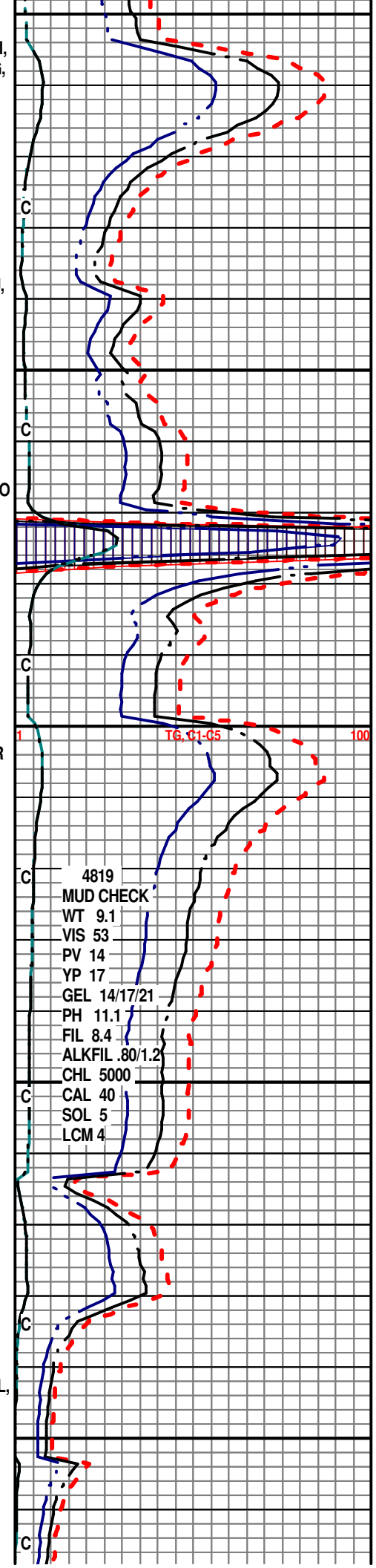
SS; CLR, LT BRN OVER-ALL TINT, TO SLI GY, FRI, SLI CALC, W/SRTD VF-F GR, INCRS W/ UPR FINE TR MED QTZ, SME SLI SHLY, TR GLAU, INTR GR POR 14% EST, INTGR BRN TO BLK STNG, FAINT-GOLD FLOR, FLASH STRMG/MILKEY CUT FAIR ODOR

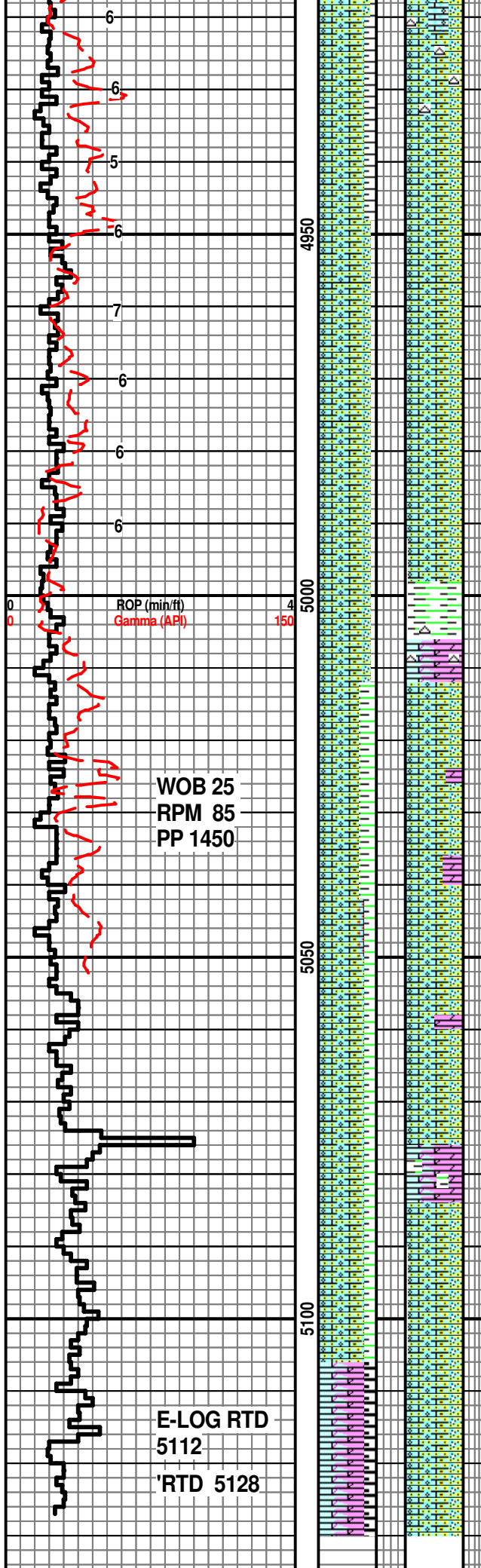
LS; CRM TO CRM-WH, SME SFT CHLKY OOL, PRED VF AREN OCC UPR F-IMD QTZ, NO ODOR, MFNSOC

LS; OFF WH C RM AREN. OOL, S,E SPAR CMTE F-OOL, IMBD RD CLR UPR F QTZ, NO ODOR, PURPL FLOR NSOC

LS; CRM OOL CHLKY, TO CRM-WH OOL & CLR RD UPR F-QTZ, NO ODOR, PURPL FLOR NSOC

L S; CRM CHLKY, VF AREN, & F-OOL, IMBD CLR RD MED QTZ, PYR, SME VF BLK SPKS, FAINT ODOR, NO VIS STNG, PURPL FLOR NSOC





LS; LT TN, CRM, SLI PINK TINT,
F-ELIP OOL, LAM PINK CRM CHLK,
REN IP, WH SEMI VIT CHT, NO ODOR,
PURPL FLOR NSOC

LS; LT TN, CRM, SLI PINK TINT,
F-ELIP OOL, LAM PINK CRM CHLK,
REN IP, WH SEMI VIT CHT, NO ODOR,
PURPL FLOR NSOC

SH:BLK LT GY LT GY/GN F TEXT FIRM
PLTY SLI CARB APPEAR IP
DOLO: DK BRN MICRO XLN HD DENSE
WITH SME OPAQUE WHT SMOKY ANG
CHERT

LS: BUFF TAN VF XLN SLI CHLKY IP
FEW IMBEDDED OOLITES WITH SME
DK BEN HD DENSE DOLO AND OCCAS
SCATTERED WHT HD ANG CHERT

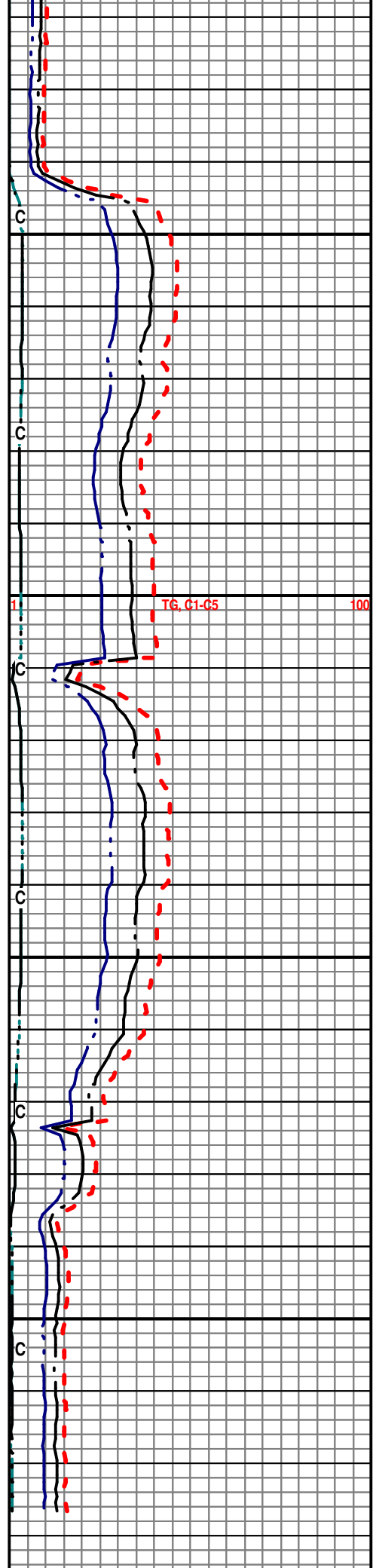
LS: BUFF TAN VF XLN SLI CHLKY IP
FEW IMBEDDED OOLITES WITH SME
DK BEN HD DENSE DOLO AND OCCAS
SCATTERED WHT HD ANG CHERT

DOLO OFF WHT VF XLN WITH SME LT
GY PLTY SHALE FRAGS IMBEDDED

SRVY 5075=2.3*

LS: BUFF TAN VF XLN SLI CHLKY IP
FEW IMBEDDED OOLITES WITH SME
DK BEN HD DENSE DOLO AND OCCAS
SCATTERED WHT HD ANG CHERT

THANKS FOR USING
MBC WELL LOGGING
AUSTIN & MARLA GARNER
& BILL KEMP



WOB 25
RPM 85
PP 1450

E-LOG RTD
5112
'RTD 5128