

MBC WELL LOGGING LLC

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

Well Name: SMU 319 OXY-USA
 Location: FINNEY COUNTY, KANSAS USA
 Licence Number: 5447
 Spud Date: 4-24-2012
 Surface Coordinates: 2,085'fsl, 1,395'fel SEC 27 T-23S-R34W
 Bottom Hole: HLS-DIL/SP/GR CNL/CAL/PE/BHV SONIC SFC
 Coordinates: API-15-055-22139-00 AZTEC WELL SERVICING # 34660
 Ground Elevation (ft): 2942' K.B. Elevation (ft): 2953'
 Logged Interval (ft): 3700 To: 4995 Total Depth (ft):
 Formation: ST LOUIS
 Type of Drilling Fluid: MI DRILLING FLUIDS MARK KENNEDY ENGINEER
 Region: SEQUOYAH EAST
 Drilling Completed: 3-28-2012
 Printed by MUD.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: OCCIDENTAL OIL & GAS CORP.
 Address: DANIEL PRATT % -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		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		

ACCESSORIES

LITHOLOGY

	Anhy
	Brec
	Cht
	Coal
	Congl
	New dolomite
	Dolo new
	Newdolo ls 2
	Ls & ooids
	Oolitic ls -1
	Stgensndy-arkos
	New ls-1
	Carby shale
	Lmy carby sh-3
	Carb sh
	Gyp
	Sltst
	Salt
	Sndy sh--red
	Sndy sh
	Sltst-1
	Sltly-shale
	Lmy ss-1
	Arkosic snd
	Ss
	Grn sh strk

	Lmy sh-2
	Grn mott gy sh
	Shale-1
	Red sh-1
	Stgensndy-arkos
	Sndy ool ls
	Sndy-ls-1
	Calc shale
	Granitewash
	Ls shly-b
	Poor sortd ss
	Snd-ls-sh

FOSSIL

	Algae
	Amph
	Belm
	Bioclst
	Brach
	Bryozoa
	Cephal
	Coral
	Crin
	Echin
	Fish
	Foram
	Fossil

	Gastro
	Oolite
	Ostra
	Pelec
	Pellet
	Pisolite
	Plant
	Strom

MINERAL

	Anhy
	Arggrn
	Arg
	Bent
	Bit
	Brecfrag
	Calc
	Carb
	Chtdk
	Chtlt
	New dolostringer
	Dol
	Fldspr-1
	Ferrpel
	Ferr
	Glau
	Gyp

	Hvymin
	Kaol
	Marl
	Minxl
	Nodule
	Phos
	Pyr
	Qtz
	New symbol
	Salt
	Sandy
	Silt
	Sil
	Sulphur
	Tuff
	Styolitic
	Slickenside

STRINGER

	Anhy
	Red sh stringer
	Arg
	Bent
	Coal
	Dol
	Gyp
	Oolls-1

	Ls
	Mrst
	Sltstrg
	Ssstrg
	Grn sh strk

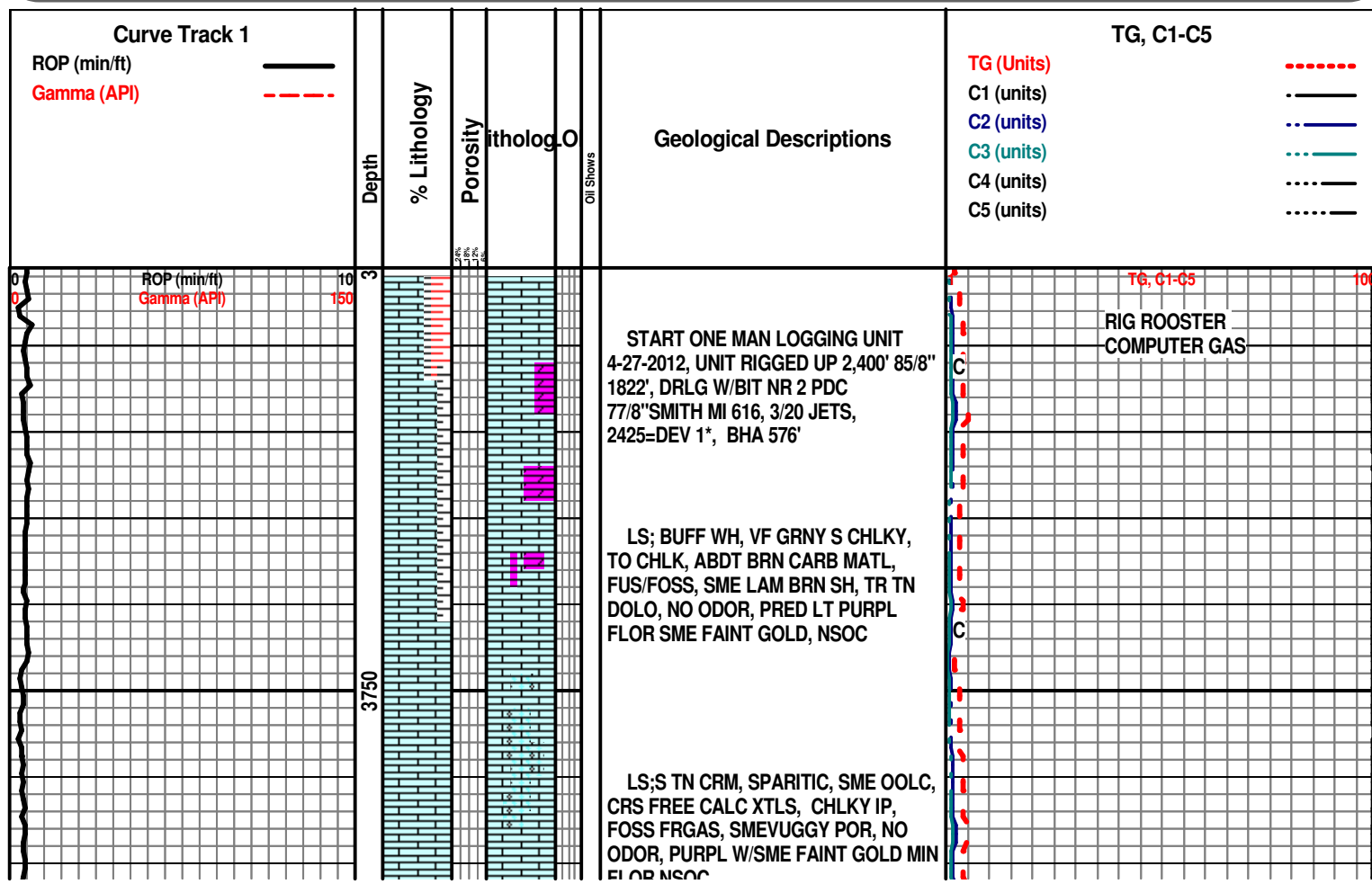
TEXTURE

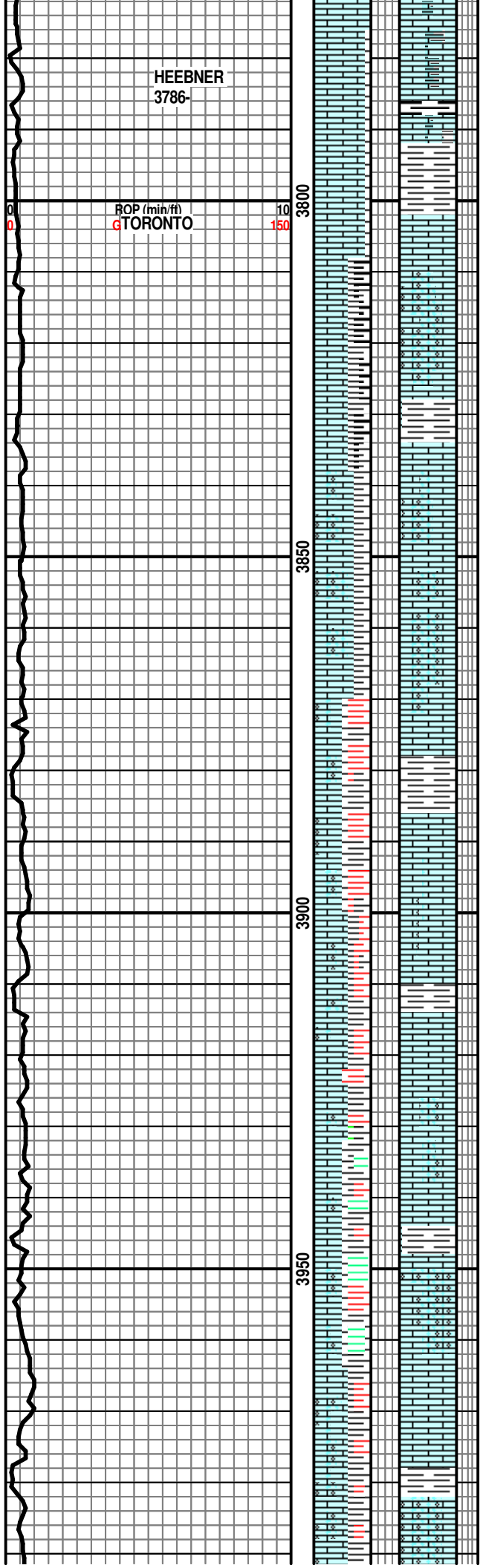
	Boundst
	Chalky
	Cryxln
	Earthy
	Finexln
	Grainst
	Lithogr
	Microxln
	Mudst
	Packst
	Wackest

OIL SHOW

	Even
	Spotted
	Ques
	Dead

Comments





HEEBNER
3786-

ROP (min/ft)
TORONTO

3800
150

3850

3900

3950

LS DK TN GY HD DNS XLN ABDT GY
BRN S CHLKY FOSS, PYR

SH; BLK CARB, INCRS MED GY SFT
FISS

TR (1) PCES CLR SPAR W/TR SPAR VF
OOL, TR FAINT ODOR, TR BRN STN,
YEL FLOR, SLO STRMG MILKY CUT

LS; BRN SPAR CMTED VF F OOL
W/CRS FOSS FRGS, HEAVY RIM
COAQT, SME ELIP OOLIDS, NO ODOR,
MFNSOC

LS; BRN BUFF, F XLN, SHDW OOL,
SME VF OOL, CHT REPLCD FOSS, BLK
TO CLR VIT CHT, NO ODOR, MFNSOC

SH; DK GY GRN SFT

LS; V/LT BUFF/WH WEATHD APPR,
CHLKY, SME VF F OOL, PYR SPAR
CMTED, NO ODOR, MFNSOC

LS; OFF W LT TN CHLKY, SPARRY,
VF OOL IP, SME GY WH LAM HD XLN,
NO ODOR, MFNSOC

GRNS W/PHOS NOD SME DK GY SFT
W/CARB MATL

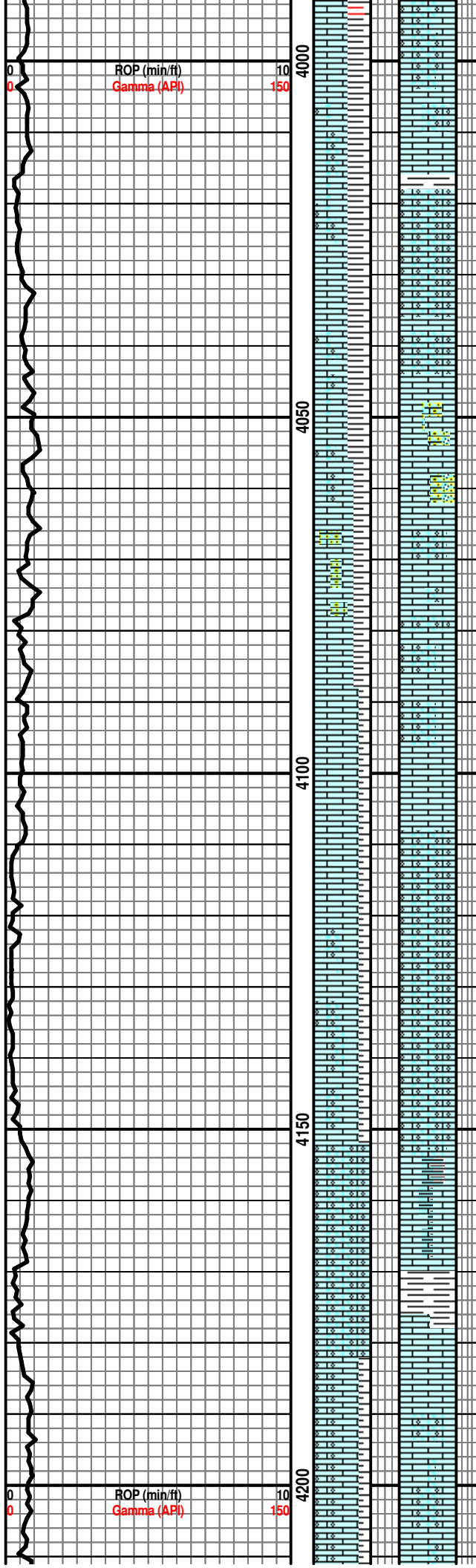
LS; TN BRN VF OOL, SME FOSS, TR
LT TN SUGARY, DOLO, ABDT WH TO
CLR FOSS CHT, NO ODOR, MFNSOC

ABDT RED PERM SH

SH GAS

TG, C1-C5

100



LS; BUFF WH WEATHD APPR, XLN
SME VF OOL, ANG SPAR CMTE, NO
ODOR, MFNSOC

SH; BRN RED SFT SME PYR

SH; BRN RED SME BRNS & GRNS

LS; PALE BUFF TN SPARITIC F OOL
IP, ABDT CHLKY F XLN, OCC FOSS

SH; DULL GY SLI BRN FRM, CALC,
FREE CRIN

LS; PALE WH GY HD SHLY SME
AREN

LS; TN FUS/FOSS, XLN INCRS SHLY
ABDT CHT, NO ODOR, MFNSOC

LS; BUFF WH CHLKY, VF F OOL,
FOSS FRGS, SME TN SPAR CMTE,
UPR FINE HEAVY RIM, COATED OOL,
V/FAINT TR ODOR, PRED 98% PURPL
TR FAINT GOLD FLOR

LS; BUFF TN WEATHD APPR, VF F
OOL, CHLKY, NO ODOR, MFNSOC

YEL STND RED SH

LS; BRN BUFF VF SUGARY F TO
MED OOLCAS, SME THIN RIM COAT,
OCC FOSS FRGS, NO ODOR, MFNSOC

LS; DK BRN TN HD DNS CRYP XLN,
SME DUSTY CHLY TR BRN RED SH

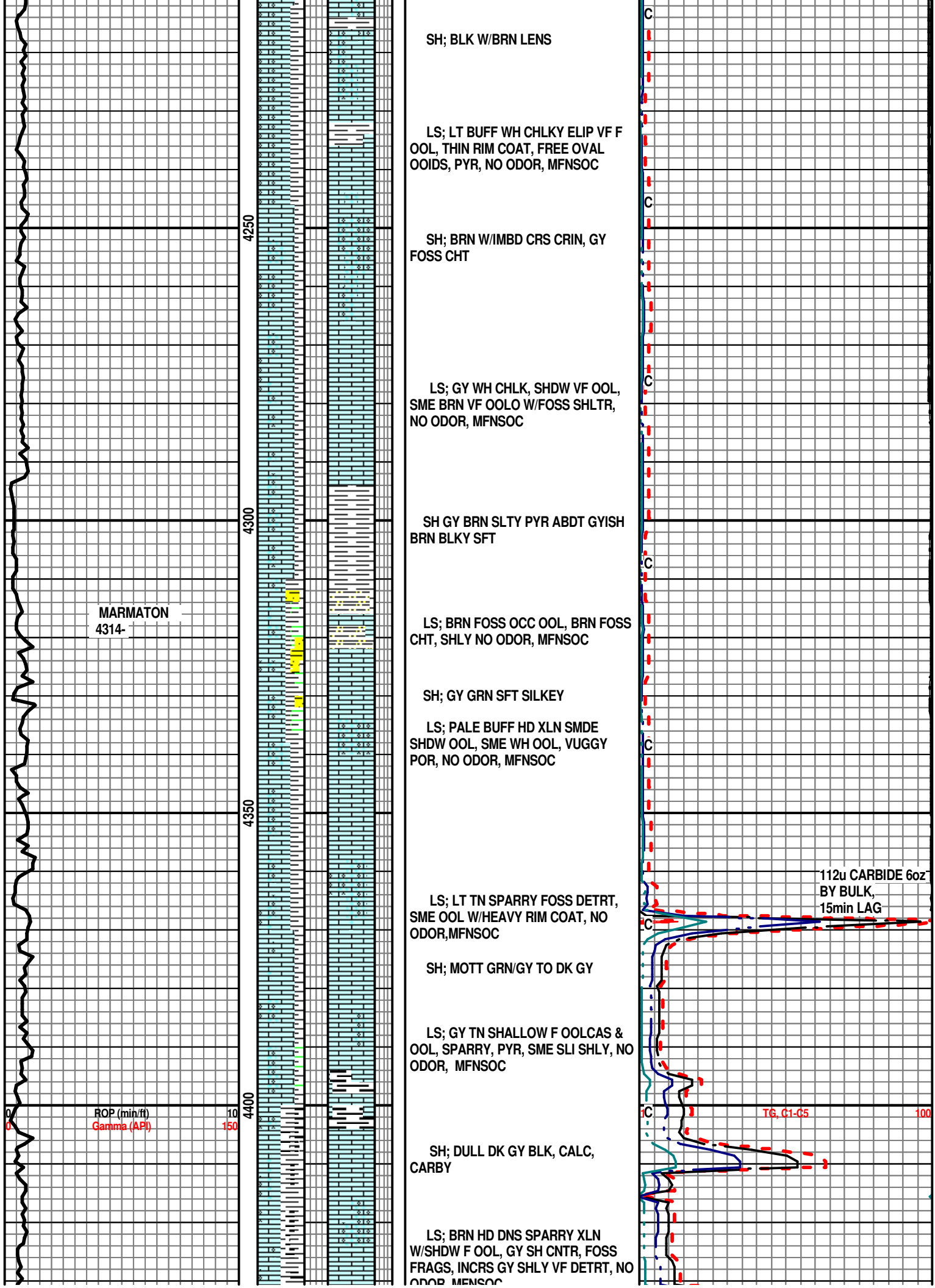
LS; DKSBRN HD DNS CRYPTO TO
HD F XLN, LAM BRN ERTY CHLK, PYR
INCRS LS GY PALE WH BUFF
SPARRY VF OOL SME CHT, NO ODOR,
MFNSOC

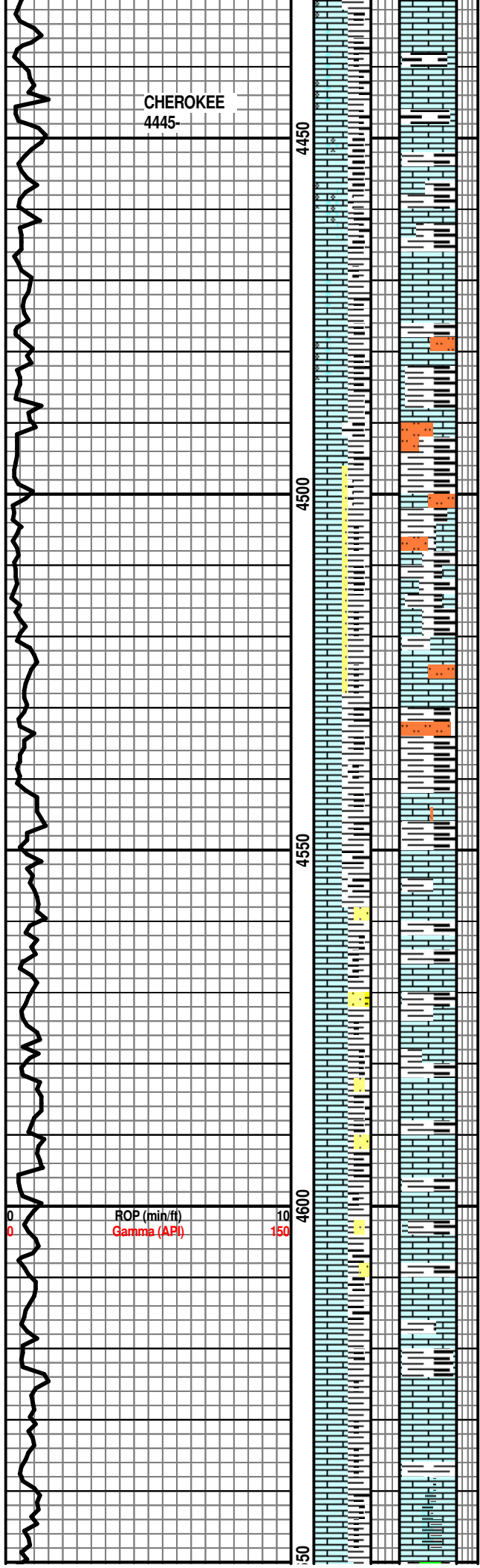
TG, C1-C5

10 sec BIC Lighter
@ pits

MUD CK
4077
WT 9.3
VIS 47
PV 13
YP 12
GEL 10/31
pH 8.7
FIL 10.8
CK 1/32
CHL 3K
CAL 40
SOL7.1
WTR 92.9
LCM 2

TG, C1-C5





SH; GY DULL GY LMY IP CARBY IP

LS; BRN HD DNS FOSS XLN SHLY

SH; GY BRN, GY PYR, SME BLK CARB

LS; LT GY GY WH HD SLI SHLY XLN, PYR

SH BLK DK GY RGH LUMPY TEXT, VF SLTY AREN IP

SH; DULL LT TO DK GY BLKY CALC, SME BLK CARB, SME LT GY CALCITIC

LS; PALT TN FUS/FOSS XLN, INCRS GYISH BRN VF FOSS DETRIT W/PELL

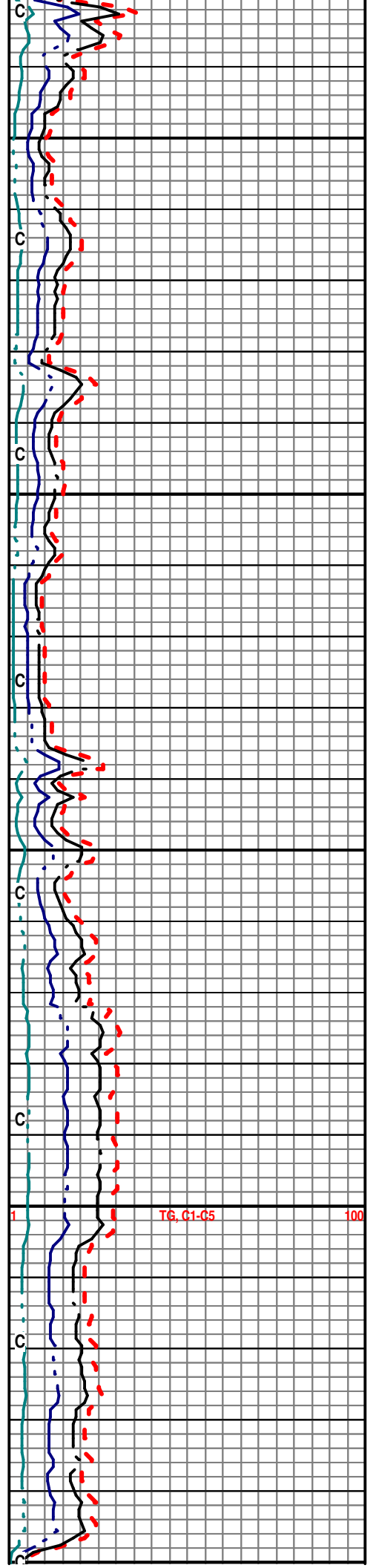
LS; PALE BUFF WEAQTHD APPR P/SRTD FOSS, VF GRY IP, TO HD DNS XLN SHLY

BLK CARBY SH W/PYR

SH; MED GY GY SMO TO BLK CARB

LS; TN FOSS XLN, SHLY

LS; MOTT GY WH BRN WEATHD APPR, SHLY CHLKY TO F XLN, CHOR, FREE CRIN, SME BRECCA



MORROW
4651-

1:01AM
4/18/2012

MISSISSIPPI
4728-

ROP (min/ft)
Gamma (API)

46
4700
4750
4800
4850

SH; BRITE GRN, TR OLIVE W/YEL
STRKS, TO GY, DK GY TR BRN SFT,
GLAU

SS; GY, MED TO DK GY BRN TINT,
VF GR, MED TT, BLK SH LENS, GLAU,
SCATT BLK CARB PCES, FAINT ODOR,
NO VIS FLOR, SLI GOLD RING CUT

SS; BRN DK BRN, OVER-ALL STNG,
VF GR, S ANG, SME S RD, GLAU,
MICA, SME MICRO SH CLST, SH LENS,
TR PYR, TR PP GILSONITE, PP DK BRN
INTGR STNG, STRONG ODOR, MUCH
FREE DK BRN OIL, FAINT GOLD FLOR,
FLASH STRM/MILKY YEL-WH CUT

SH; GY MED GY SFT FISS LMY,
ABDT CARB MATL

LS; WH AREN SME WH CRM W/ VF
OOL PELL, MFNSOC

SS; CLR ANG S ANG, TR S RD, F
QTZ, FAIR SORTED, INTR GR BRN
TINT, FAINT ODOR, DK GOLD MED
RING CUT

LS; OFF WH CRM, TN SPARRY F
OOL IP, LAM CHLK, NO ODOR,
MFNSOC

LS; BUFF/TAN MOTT MICRO XLN HD
DENSE MICRO FRACTURED IP OCCAS
SCATTERED FOSSIL FRAGS
IMBEDDED

WOB 16
RPM 65
SPM 95+95
PP 1750

TG, C1-C5

100

