



MID CONTINENT WELL LOGGING SERVICE, INC.

CONTINUOUS WELL LOGGING / COMPLETE HYDROCARBON ANALYSIS

2222 WESTPARK DR. STE. A
NORMAN, OK 73069
OFFICE (405) 360-7333
OPERATIONS (405) 590-3655
SALES (405) 203-9989

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

Well Name: CATHER 3507 2-4H
Location: SECTION T35S R7W, Sec. 4
License Number: 15-077-21981-0100
Spud Date: 11/05/2013
Surface Coordinates: 250' FSL & 2,150' FEL OF SECTION T35S R7W, Sec. 4
Region: Harper
Drilling Completed: 11/22/2013
Bottom Hole Coordinates: 330' FNL & 1,980' FEL OF SECTION 26, T35S R7W, Sec. 4
Logged BY: John Mckinley/Colin G Cervantes
Ground Elevation (ft): 1,286' K.B. Elevation (ft): 1,304'
Logged Interval (ft): 3,350' To: 8,998 Total Depth (ft): 8,998
Formation: MISSISSIPPIAN
Type of Drilling Fluid: WATER/ NATIVE GEL

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

OPERATOR

Company: Sandridge Energy, INC.
Address: 123 Robert S. Kerr Avenue, Ste. 2430
Oklahoma City, Oklahoma 73102-6406

GEOLOGIST

Name: TAMMY ALCORN
Company: Sandridge Energy, Inc
Address: 123 Robert S. Kerr Avenue, Ste. 2430
Oklahoma City, Oklahoma 73102-6406

Comments

SANDRIDGE ENERGY INC, LARIAT 45, CHAPARRAL DRILLING FLUIDS, MCWL UNIT #1007

ROCK TYPES

- Sndylm
- Anhy
- Bent
- Brec
- Cht
- Clyst

- Coal
- Leach
- Congl
- Dol
- Gyp
- Igne

- Lmst
- Meta
- Mrlst
- Salt
- Shale
- Shcol

- Shgy
- Ss
- Till
- Hotsh
- Sltst

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- 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
- Ssstrg
- Sltstrg

TEXTURE

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

OTHER SYMBOLS

POROSITY

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

- New symbol
- Sndylm
- New symbol

SORTING

- Well
- Moderate
- Poor

ROUNDING

- Rounded
- Subrnd
- Subang
- Angular

OIL SHOW

- Even
- Spotted
- Ques

- Dead

INTERVAL

- Core
- Dst

EVENT

- Rft
- Sidewall

New Track	ROP ROP (min/ft) ——— G/R (API) ———	SLIDES	Depth	Porosity	% Lithology	Lithology	Fluorescence	Leach	Geological Descriptions	TG, C1-C5 TG (units) ——— C1 (units) ——— C2 (units) ——— C3 (units) ——— C4 (units) ——— C5 (units) ———	Fluorometer	Oil Curve
	0 ROP (min/ft) 5 0 G/R (API) 150		33						SANDRIDGE ENERGY INC. Cather 3507 2-4H . SECTION T35S R7W, Sec. 4 . HARPER CO. KANSAS	0 CATHER 3507 2-4H 1500 GAS SCALE 0 TO 250	Fluorbr. 580	Oil Indicator

DRILLING W/BIT #2,
8.75, PLT 516S5,
JETS 5X16

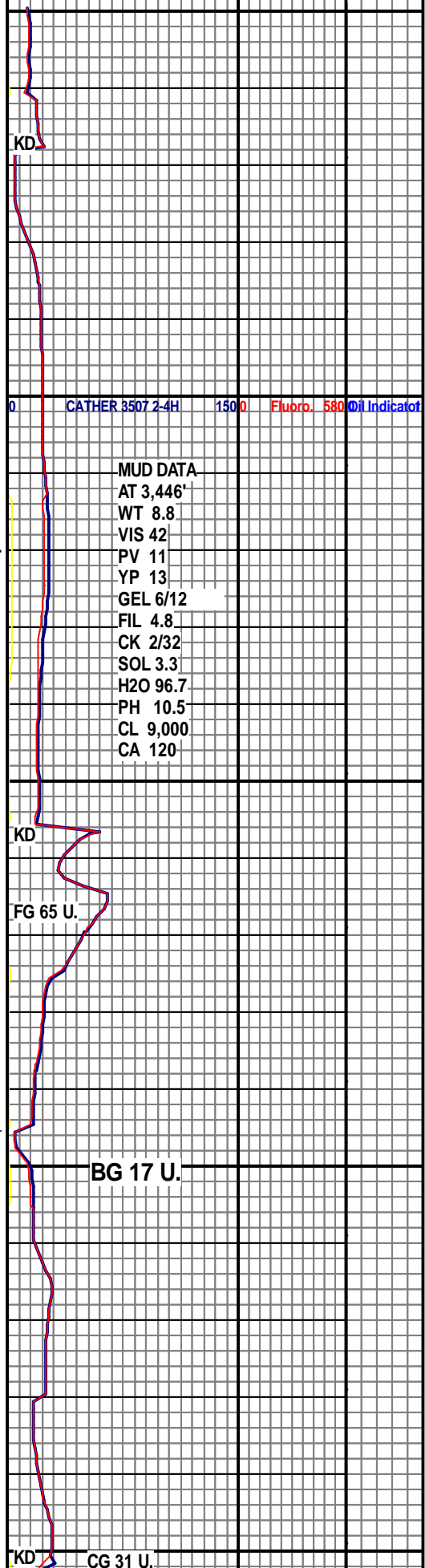
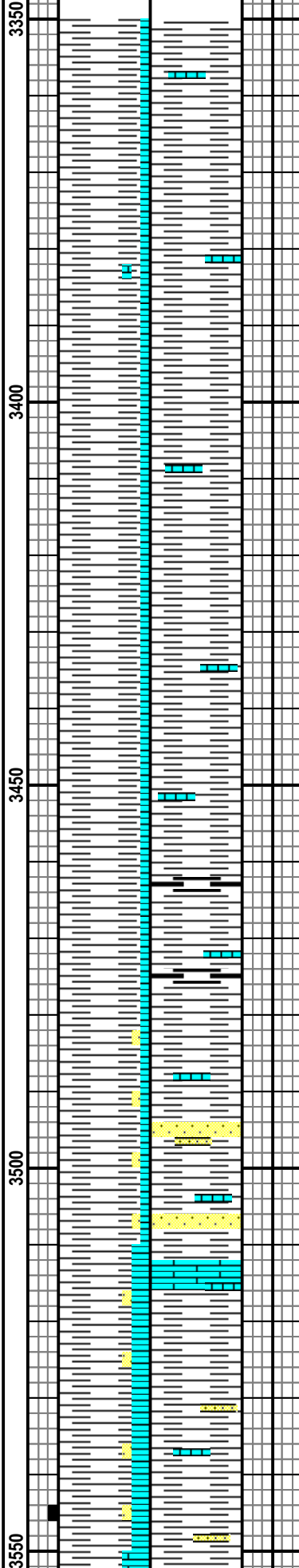
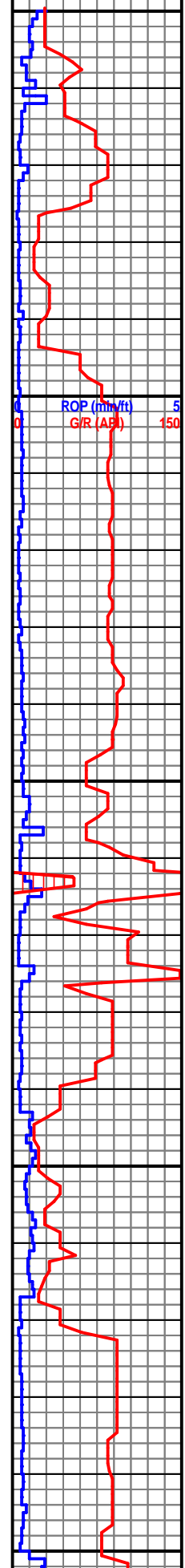
DRLG W/ WATER/ NATIVE
GEL

GAMMA IN
RED

MCWL UNIT #1007

9.625" SURFACE
CASING SET @
950' MD

BEGAN LOGGING
ON 11/15/2013



ROP (min/ft) 5
G/R (AB) 150

CATHER 3507 2-4H 1500 Flubrb. 580 Oil Indicator

SH: MSTLY MED GY- DRK GY,
OCC LT GY, BLKY, TR PLTY,
SFT- MOD SFT, V FN RGH
SLTY TXT- MOD SMTH, LS:
PRED LT TAN- LT GY, OCC
OFF WHT, PLTY- BLKY,
MSTLY FRM- MOD FRM, V FN-
MICRO FN XLN, NO CUT ,NO
STAIN ,NO FLOR

MUD DATA
AT 3,446'
WT 8.8
VIS 42
PV 11
YP 13
GEL 6/12
FIL 4.8
CK 2/32
SOL 3.3
H2O 96.7
PH 10.5
CL 9,000
CA 120

WOB: 14.8
RPM: 69
SPM: 112
PP: 2738
GPM: 483

SH: MSTLY DK GY- MED GY,
SCAT LT GY, MSTLY BLKY,
TR PLTY, SFT- MOD SFT, V
FN RGH SLTY TXT- MOD
SMTH, LS: PRED LT TAN-
MED TAN, SME OFF WHT,
BLKY- PLTY, FRM- MOD FRM,
V FN- MICRO FN XLN, SCAT
YEL MIN FLOR, NO VISB
CUT, NO RESD RING

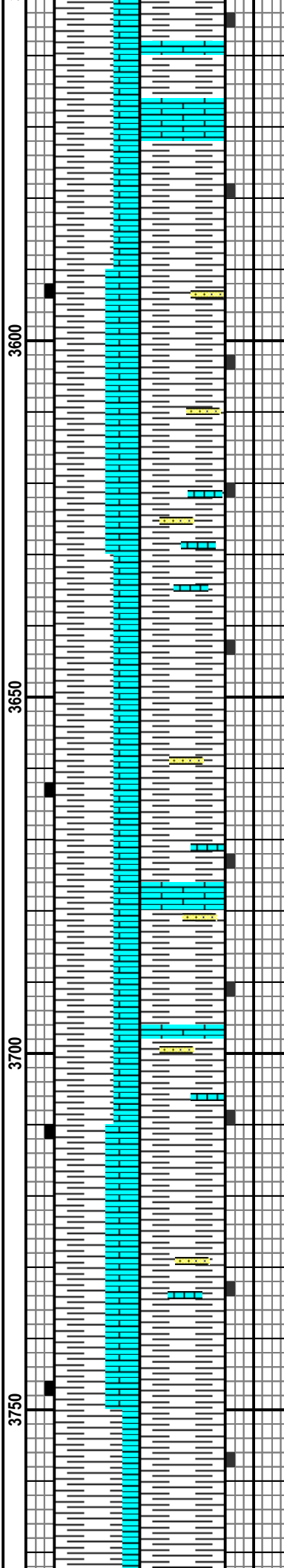
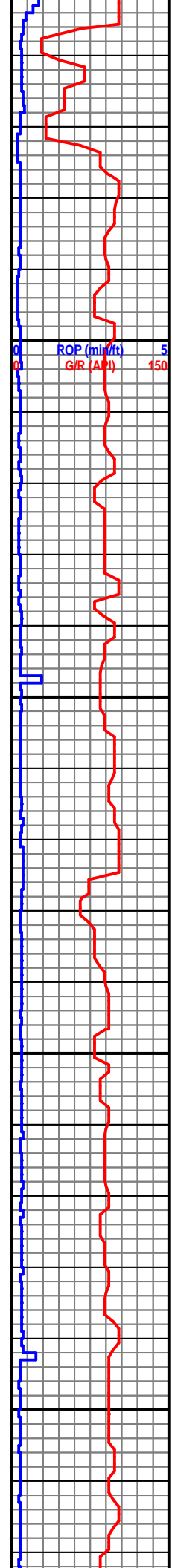
KD
FG 65 U.

HEEBNER BASE @
3,495' MD (-2,191')

BG 17 U.

KD CG 31 U.

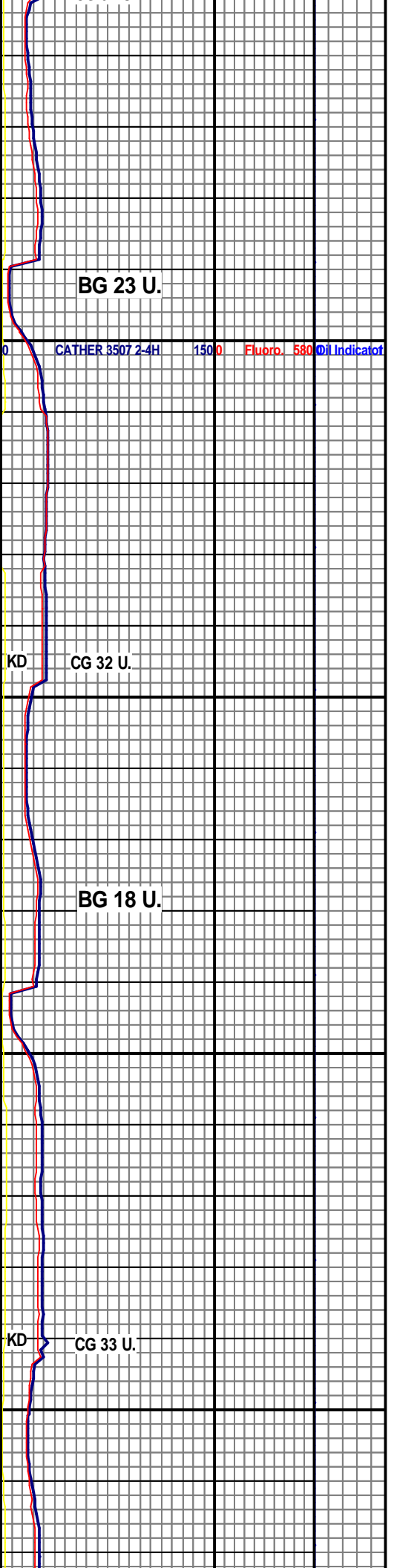
WOB: 14.8
RPM: 70
SPM: 111
PP: 2873
GPM: 480



SH: MSTLY MED GY- DK GY,
SCAT LT GY, MSTLY BLKY,
TR PLTY, SFT- MOD SFT, FN
RGH SLTY TXT- MOD SMTH,
LS: PRED LT TAN- MED TAN,
SME OFF WHT, BLKY- PLTY,
FRM- MOD FRM, V FN- MICRO
FN XLN, TR HL FRAC POR,
SCAT YEL- DUL YEL MIN
FLOR, NO VISB CUT, NO
RESD RING

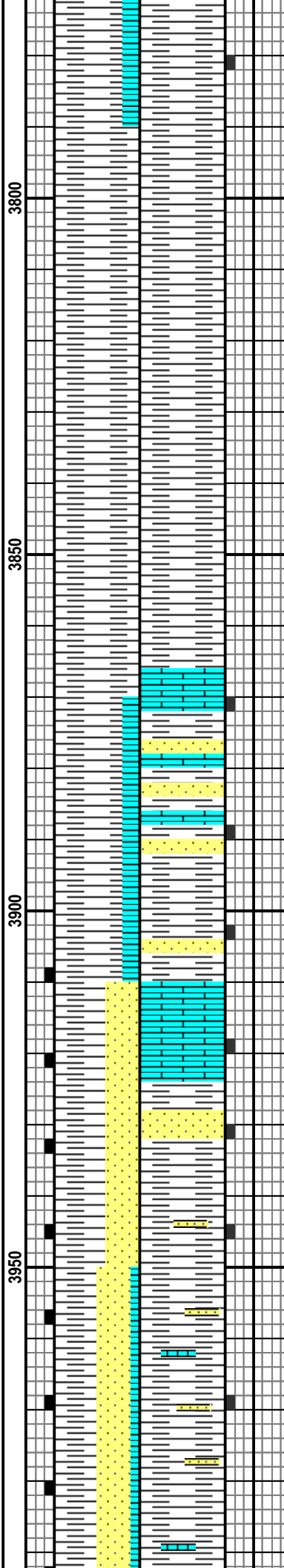
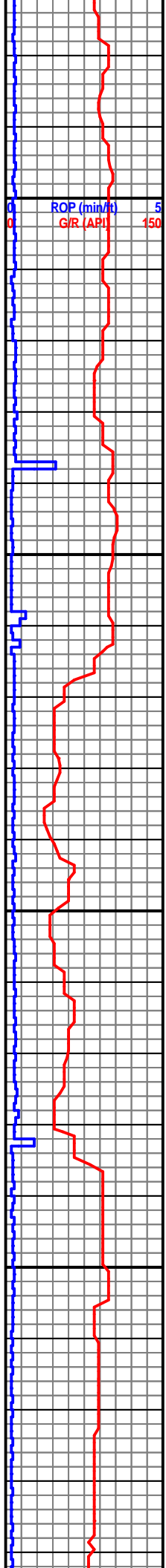
SH: MSTLY MED GY- DK GY,
SCAT LT GY, MSTLY BLKY,
TR PLTY, SFT- MOD SFT, FN
RGH SLTY TXT- MOD SMTH,
LS: PRED LT TAN- MED TAN,
SME OFF WHT, BLKY- PLTY,
FRM- MOD FRM, OCC
BRECH, V FN- MICRO FN
XLN, TR HL FRAC POR, SCAT
YEL- DUL YEL MIN FLOR, NO
VISB CUT, NO RESD RING

SH: MSTLY MED GY- DK GY,
SCAT LT GY, BLKY- PLTY,
SFT- MOD SFT, MOD RGH
SLTY TXT- MOD SMTH SLTY
TXT, LS: LT TAN- MED TAN,
BLKY- PLTY, FRM- MOD FRM,
V FN- MICRO FN XLN, SCAT
DULL YEL MIN FOR, NO VIS
CUT, NO RES RING



MD 3781 TVD 3780.97
INC 0.5 AZ 5.1
VS 7.17

WOB: 19.3
RPM: 71
SPM: 111
PP: 3102
GPM: 480

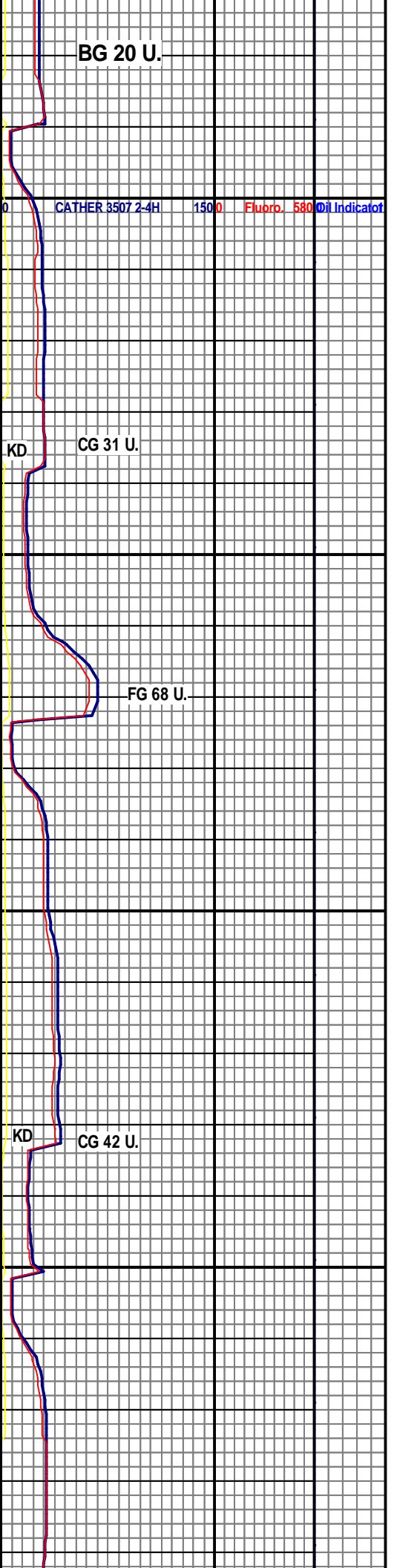


SH: MSTLY MED GY- DK GY,
PLTY- BLKY, MOD SFT- SFT,
V FN RGH SLTY- MOD SMTH
SLTY TXT, LS: PRED LT TAN-
MED TAN, BLKY- PLTY, FRM-
MOD FRM, V FN- MICRO FN
XLN, SS: MSTLY CONS, GD-
FR SRT, FRM- SLI FRI, SUB
RND- SUB ANG

LANSING @ 3,867'
MD 3,866' TVD
(-2,563')

SH: PRED MED GY- DK GY,
PLTY, MOD SFT- SFT, MOD
RGH SLTY- MOD SMTH SLTY
TXT, SS: MSTLY CONS, GD-
FR SRT, MOD FRI, SUB RND-
SUB ANG LS: PRED LT TAN-
MED TAN, BLKY- PLTY, FRM-
MOD FRM, V FN- MICRO FN
XLN, SLI FLOR NO CUT NO
RES RING

SH: MSTLY DK GY, MED GY



MD 4021 TVD 4020.96
INC 0.3 AZ 57.4
VS 8.57

MD 4034 TVD 4033.96
INC 0.4 AZ 69.9
VS 8.61

WOB: 17.7
RPM: 70
SPM: 111
PP: 3172
GPM: 480

MD 4066 TVD 4065.96
INC 0.5 AZ 55.3
VS 8.73

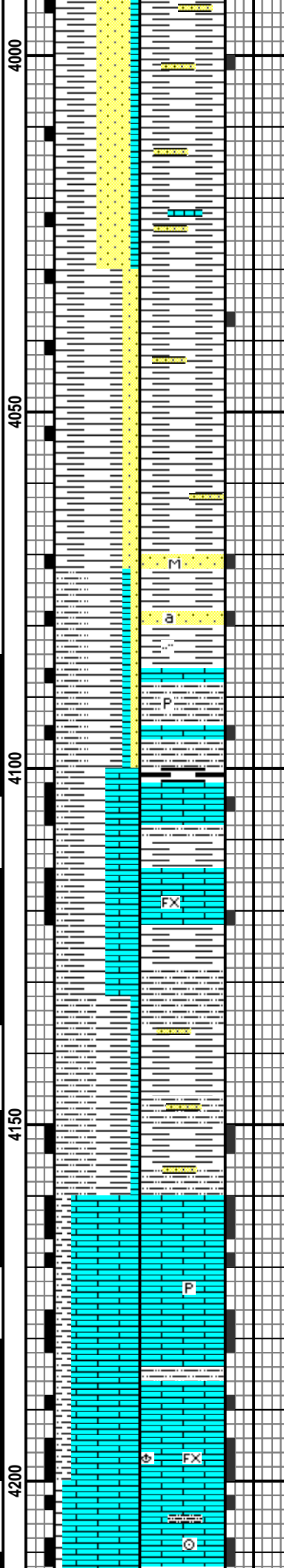
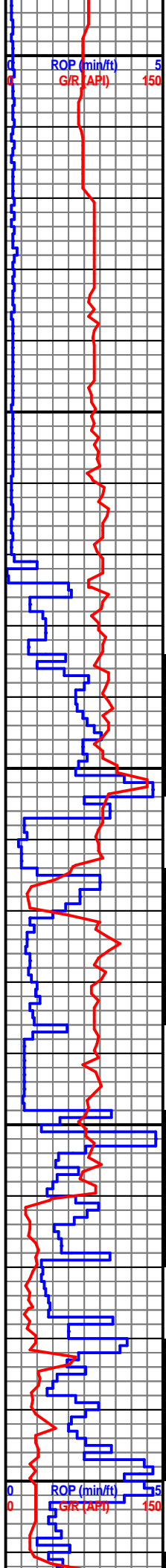
MD 4097 TVD 4096.95
INC 2.1 AZ 11
VS 9.37

MD 4129 TVD 4128.9
INC 4.4 AZ 4.7
VS 11.18

11/16/2013 @
4,148' MD

MD 4161 TVD 4160.75
INC 6.6 AZ 1.2
VS 14.24

MD 4192 TVD 4191.46
INC 9 AZ 0.9
VS 18.45



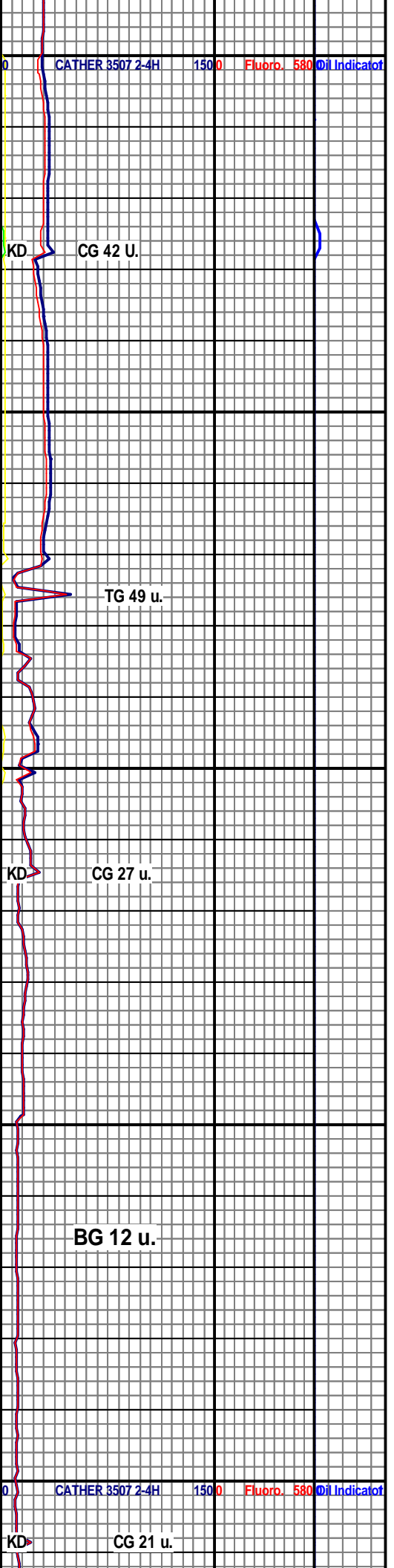
SH: MSLY DR GY- MED GY,
PLTY- BLKY, MOD SFT- SFT,
MOD RGH SLTY- MOD SMTH
SLTY TXT, LS: PRED LT TAN-
MED TAN, BLKY- PLTY, FRM-
MOD FRM, V FN- MICRO FN
XLN SS: CONS, GD- FR SRT,
MOD FRM- SLI FRI, SUB RND-
SUB ANG SLI FLOR NO CUT
NO RES RING

T.O.O.H. FOR
TOOLS, K.O.P @
4,071' - 8.75" PDC 5X
16'S BHA

SH: BLK, DRK GY, FN TXT,
OCC SLTY, MOD SFT, SUB
ANG, PLTY, CHNKY, W/
SLTST, W/ LS: TAN, DRK
YEL, FN XLN TXT, SUB ANG,
CHNKY, FRM, W/ PR VUG
POR, PR INTRXLN POR, PR
PP POR, W/ V FNT DRK YEL
FLOR, NO CUT, N/S

COTTAGE GROVE @
4,102' MD 4,102' TVD
(-2,798')

LS: TAN, DRK YEL, SME
CRM, FN XLN, SUB ANG,
FRM, FOSUS, W/ PR
INTRXLN POR, PR-FR VUG
POR, SME PP POR, HL FRAC
PRES, W/ SH: DRK GY, BLK,
FN TXT, ANG, CHNKY, SLI
FRM, W/ PR DUL YEL FLOR,
NO CUT, N/S



MD 4224 TVD 4222.95
INC 11.4 AZ 359.5
VS 24.11

WOB: 24.6
RPM: 0
SPM: 110
PP: 2532
GPM: 479

MD 4256 TVD 4254.17
INC 14 AZ 0.2
VS 31.14

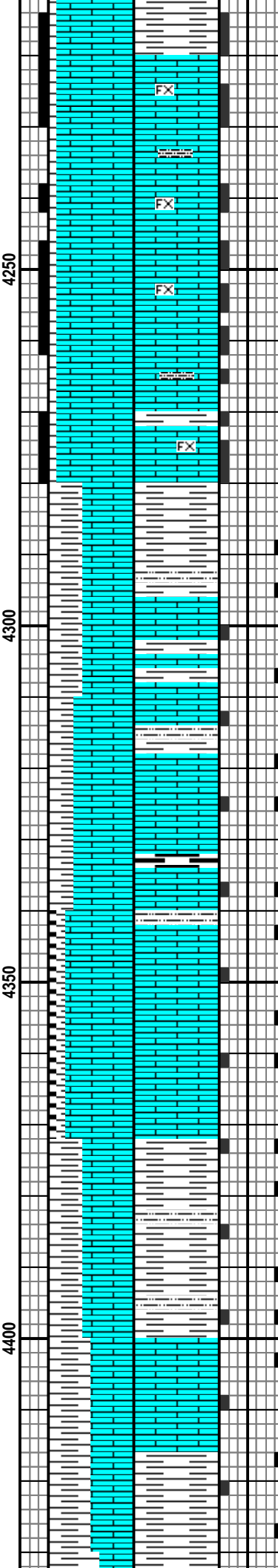
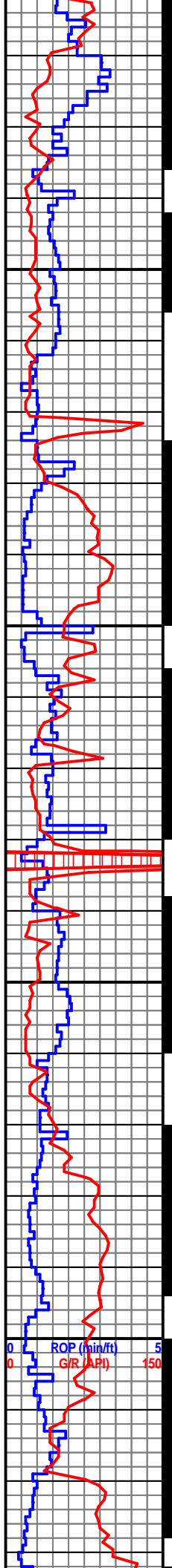
MD 4287 TVD 4284.08
INC 16.4 AZ 359.1
VS 39.26

MD 4319 TVD 4314.59
INC 18.7 AZ 359.5
VS 48.91

MD 4351 TVD 4344.69
INC 21 AZ 0.7
VS 59.77

MD 4382 TVD 4373.39
INC 23.4 AZ 2.1
VS 71.48

MD 4414 TVD 4402.53
INC 25.4 AZ 3.2
VS 84.69



LS: PRED MED TAN- LT TAN,
SCAT OFF WHT THRU OUT,
PLTY- BLKY, MOD FRM- FRM,
INCRG FRM, V FN- FN XLN,
TR MIRO FN XLN, TR HL
FRAC POR, SH: MSTLY DRK
GY, OCC BLK, PLTY- BLKY,
MOD SFT- SFT, FN SLTY TXT,
DULL YEL FLOR, SLI LT BLU
CUT, THICK LT BLUE RES
RING STAIN

LS: MSTLY MED TAN- LT TAN,
SCAT OFF WHT THRU OUT,
PRED PLTY- BLKY, FRM-
MOD FRM, V FN- FN XLN, TR
MIRO FN XLN, TR HL FRAC
POR, SH: MSTLY DRK GY,
OCC BLK, PLTY- BLKY, MOD
SFT- SFT, FN SLTY TXT,
DULL YEL FLOR, SLI LT BLU
CUT, THICK LT BLUE RES
RING STAIN

LS: LT TAN- OFF WHT, BLKY-
PLTY, FRM, SCAT CHLKY
-ASHY, MICRO FN- V FN XLN,
OCC HL FRAC POR, SH:
MSTLY DRK GY, OCC BLK,
PLTY- BLKY, MOD SFT- SFT,
FN SLTY TXT. OCC DULL YEL
FLOR, SLI LT BLU CUT,
THICK LT BLUE RES RING
STAIN

SH: MSTLY GY, SME BLK ,
BLKY- PLTY, FRM- SFT, FN

BG 12 u.

DTG 25 u.

KD

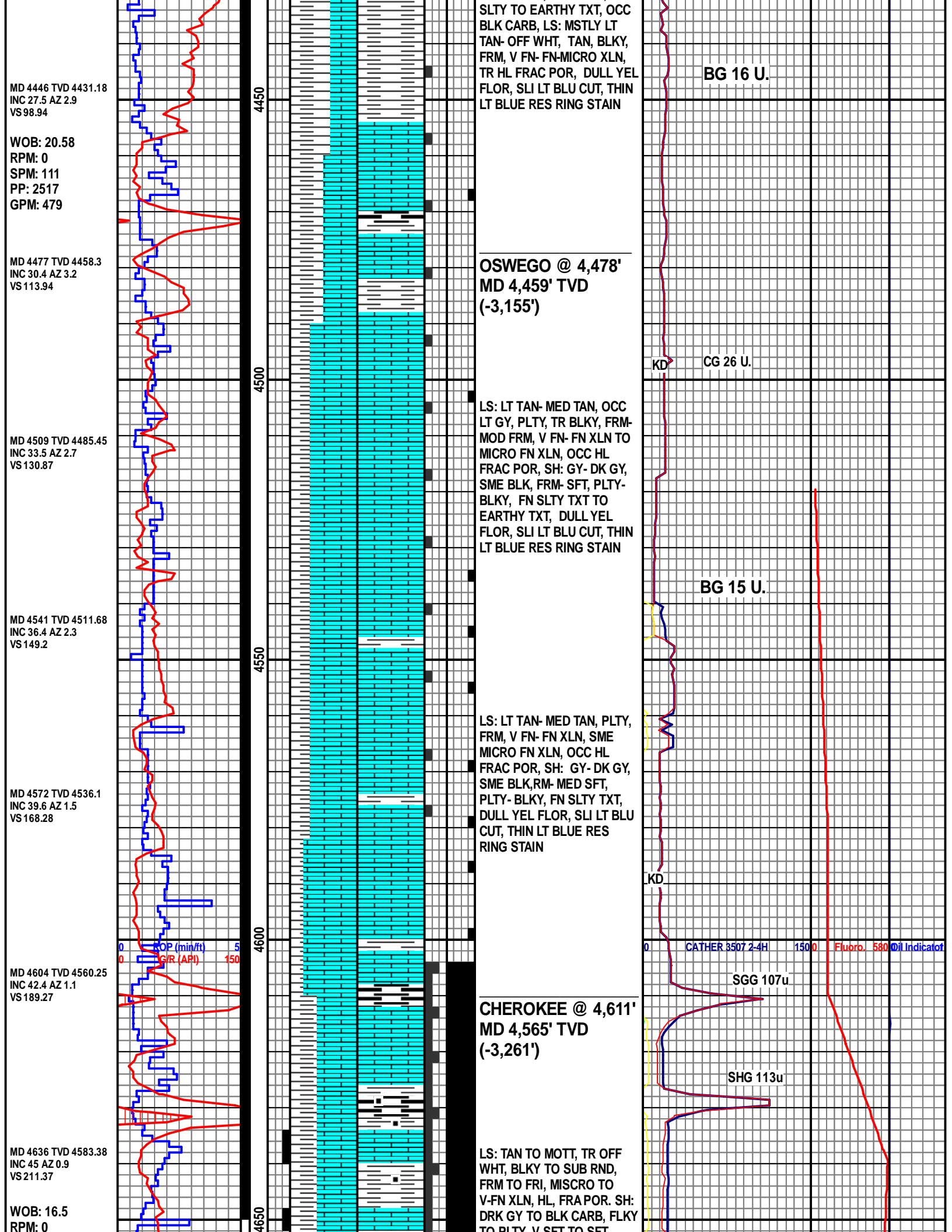
FG 64 U.

BG 14 U.

CG 25 U.

MUD DATA
AT 4,347'
WT 9
VIS 50
PV 17
YP 20
GEL 6/12
FIL 4.4
CK 2/32
SOL 4.8
H2O 95.2
PH 9.5
CL 11,000
CA 160

CAT 0.0000 2-4H 1500 Fluorb. 580 Oil Indicator



MD 4446 TVD 4431.18
 INC 27.5 AZ 2.9
 VS 98.94

WOB: 20.58
 RPM: 0
 SPM: 111
 PP: 2517
 GPM: 479

MD 4477 TVD 4458.3
 INC 30.4 AZ 3.2
 VS 113.94

MD 4509 TVD 4485.45
 INC 33.5 AZ 2.7
 VS 130.87

MD 4541 TVD 4511.68
 INC 36.4 AZ 2.3
 VS 149.2

MD 4572 TVD 4536.1
 INC 39.6 AZ 1.5
 VS 168.28

MD 4604 TVD 4560.25
 INC 42.4 AZ 1.1
 VS 189.27

MD 4636 TVD 4583.38
 INC 45 AZ 0.9
 VS 211.37

WOB: 16.5
 RPM: 0

ROP (min/ft) 5
 GPR (API) 150

CATHER 3507 2-4H 1500 Fluorb. 580 Oil Indicator

SLTY TO EARTHY TXT, OCC BLK CARB, LS: MSTLY LT TAN- OFF WHT, TAN, BLKY, FRM, V FN- FN-MICRO XLN, TR HL FRAC POR, DULL YEL FLOR, SLI LT BLU CUT, THIN LT BLUE RES RING STAIN

OSWEGO @ 4,478'
MD 4,459' TVD
(-3,155')

LS: LT TAN- MED TAN, OCC LT GY, PLTY, TR BLKY, FRM- MOD FRM, V FN- FN XLN TO MICRO FN XLN, OCC HL FRAC POR, SH: GY- DK GY, SME BLK, FRM- SFT, PLTY- BLKY, FN SLTY TXT TO EARTHY TXT, DULL YEL FLOR, SLI LT BLU CUT, THIN LT BLUE RES RING STAIN

LS: LT TAN- MED TAN, PLTY, FRM, V FN- FN XLN, SME MICRO FN XLN, OCC HL FRAC POR, SH: GY- DK GY, SME BLK, RM- MED SFT, PLTY- BLKY, FN SLTY TXT, DULL YEL FLOR, SLI LT BLU CUT, THIN LT BLUE RES RING STAIN

CHEROKEE @ 4,611'
MD 4,565' TVD
(-3,261')

LS: TAN TO MOTT, TR OFF WHT, BLKY TO SUB RND, FRM TO FRI, MISCRO TO V-FN XLN, HL, FRA POR. SH: DRK GY TO BLK CARB, FLKY TO PLTY, V SET TO SET

BG 16 U.

CG 26 U.

BG 15 U.

SGG 107u

SHG 113u

KD

KD

SPM: 111
PP: 2508
GPM: 480

MD 4667 TVD 4604.92
INC 47 AZ 1.2
VS 233.7

MD 4699 TVD 4626.2
INC 49.6 AZ 1.2
VS 257.59

MD 4731 TVD 4646.27
INC 52.7 AZ 1.3
VS 282.48

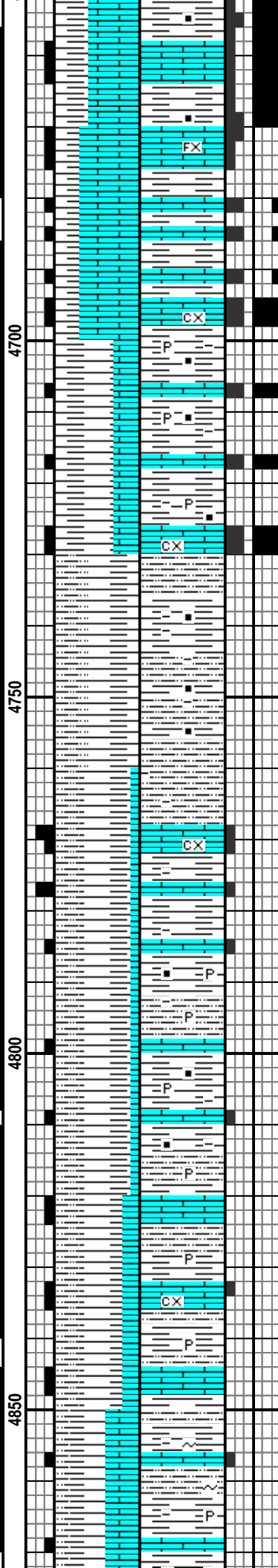
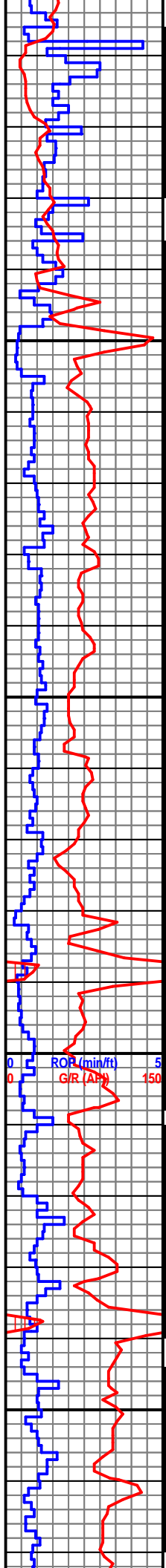
MD 4762 TVD 4664.23
INC 56.5 AZ 1.7
VS 307.74

MD 4794 TVD 4681.06
INC 60 AZ 1.1
VS 334.95

MD 4826 TVD 4696.38
INC 62.8 AZ 0.8
VS 363.04

WOB: 21.2
RPM: 0
SPM: 112
PP: 2614
GPM: 483

MD 4857 TVD 4709.7
INC 66.3 AZ 1.1
VS 391.03



TO FLR, V SFT TO SFT,
WXY TO EARTHY TXT, SCAT
BRIT YEL FLOR, GOOD LT
BLU CUT, THICK RES RING
STAIN.

VERDIGRIS @ 4,695'
MD, 4,624' TVD
(-3,320)

SH: GY, DRK GY, OCC RUBY
RED-RUST ORNG, SME GY
W/ BLK SPECKL DOTS, FN
TXT, SME MED TXT, SME
SLTY, SEM MUDST, ARG,
PYRC, CARB, CHNKY, FRM,
W/LS: TAN, DRK TAN, SME
OFF GY-DRK GY, V FRM, FN
XLN-CXLN, PR VUG POR, PR
PP POR, SME HL FRAC POR,
W/SCAT DUL YEL-YEL FLOR,
NO CUT, PR THN YEL/GN
RES RING

SH: DRK GY, BLK, SME GY
W/ BLK SPCKL DOTS,
FN/SLTY TXT, ARG, PYRC,
CARB, CHNKY, BLKY, FRM,
W/ LS: DRK TAN-BRN, SME
RUST RED, SUB ANG, V
FRM, CHNKY, W/ PR
INTRXLN POR, FR VUG POR,
SME PP POR, OCC HL FRAC
PRES, W/ PR YEL FLOR, NO
CUT, V THN V TR BRT BL
RES RING

SH: DRK GY, BLK, RUST
RED, DRK GN, BL/GN, SME
OFF YEL, FN TXT, V FRM,
SME SFT, CHNKY, SME
BLKY, ARG, PYRC, GLAUC,
W/ LS: PRPL, PINK, GY, FN
XLN TXT, CHNKY, SUB ANG,
FRM, SME SFT, W/ PR-FR



MD 4889 TVD 4721.71
INC 69.6 AZ 1.8
VS 420.68

MD 4921 TVD 4732.05
INC 72.7 AZ 2.1
VS 450.96

MD 4952 TVD 4740.49
INC 75.7 AZ 2.1
VS 480.78

11/17/2013 @
4,970' MD

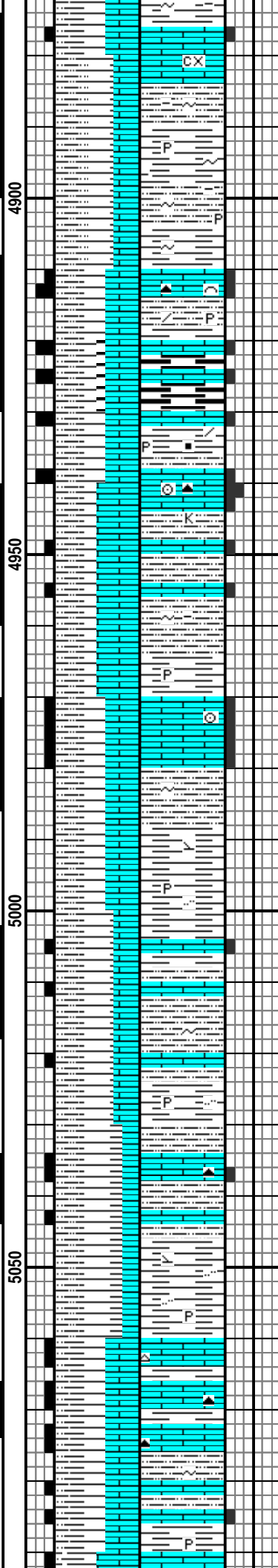
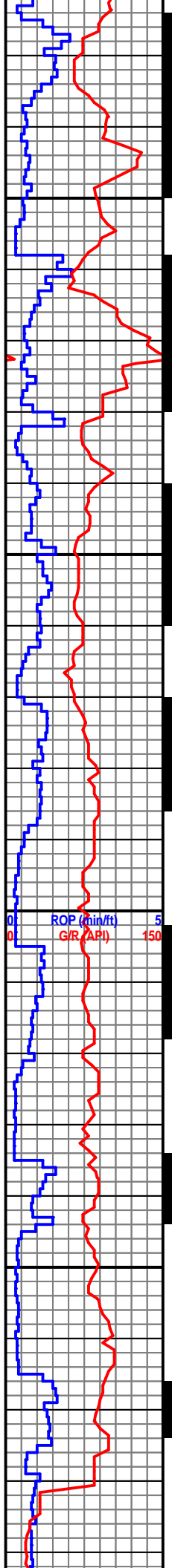
MD 4984 TVD 4747.66
INC 78.4 AZ 2
VS 511.97

MD 5016 TVD 4753.41
INC 80.9 AZ 1.7
VS 543.44

MD 5047 TVD 4757.77
INC 82.9 AZ 1.6
VS 574.13

WOB: 18.1
RPM: 39
SPM: 107
PP: 2794
GPM: 463

MD 5079 TVD 4761.23
INC 84.7 AZ 0.8
VS 605.94

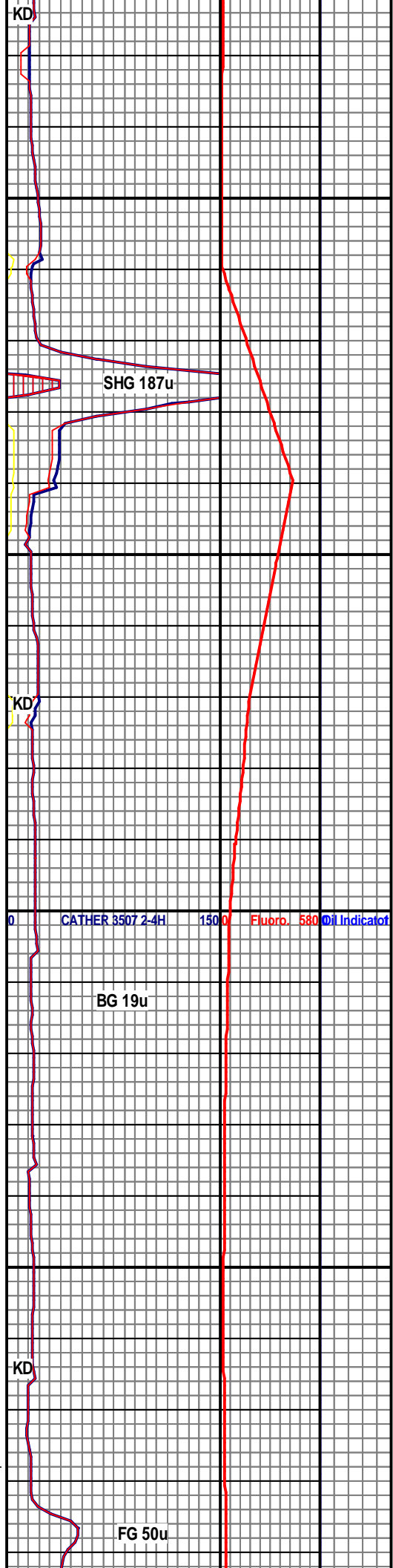


VUG POR, HL FRAC PRES,
PR INTRXLN POR, SME PP
POR, W/ V SCAT DUL YEL
FLOR, NO CUT, N/S

LS: DRK TAN, LT BRN, SME
GY/PALE BL, OCC
PINK/PRPL, FN XLN-CXLN,
SUB ANG, V FRM, OCC SFT,
OCC DRK CHRT, FOSUS, W/
PR INTRXLN POR, FR VUG
POR, HL FRAC PRES, W/ SH:
RUST RED, BLK, DRK GY,
BL/GN, RUBY, DULL YEL, FN
TXT, SME SLTY TXT, V PYRC,
ARG, GLAUC, SME KAOL
PRES, SFT-V SFT, SME SLI
FRM, SUB ANG-SUB RND,
CHNKY, SME BLKY, W/ V
SCAT V FNT DUL YEL FLOR,
NO CUT, N/S

LS: DRK TAN/CRM, LT BRN,
SME GY/PALE BL, OCC
PINK/PRPL, CXLN, SUB ANG,
FRM-MOD SFT, OCC DRK
CHRT, W/ PR INTRXLN POR,
PR VUG POR, HL FRAC
PRES, W/ SH: RUST RED,
PRPL, BLK, DRK GY, BL/GN,
MGNTA, DULL YEL, FN TXT,
SLTY TXT, V PYRC, ARG,
GLAUC, FERR, SFT-V SFT,
OCC FRM, SUB ANG-SUB
RND, CHNKY, SME BLKY, W/
V SCAT V FNT DUL YEL
FLOR, NO CUT, N/S

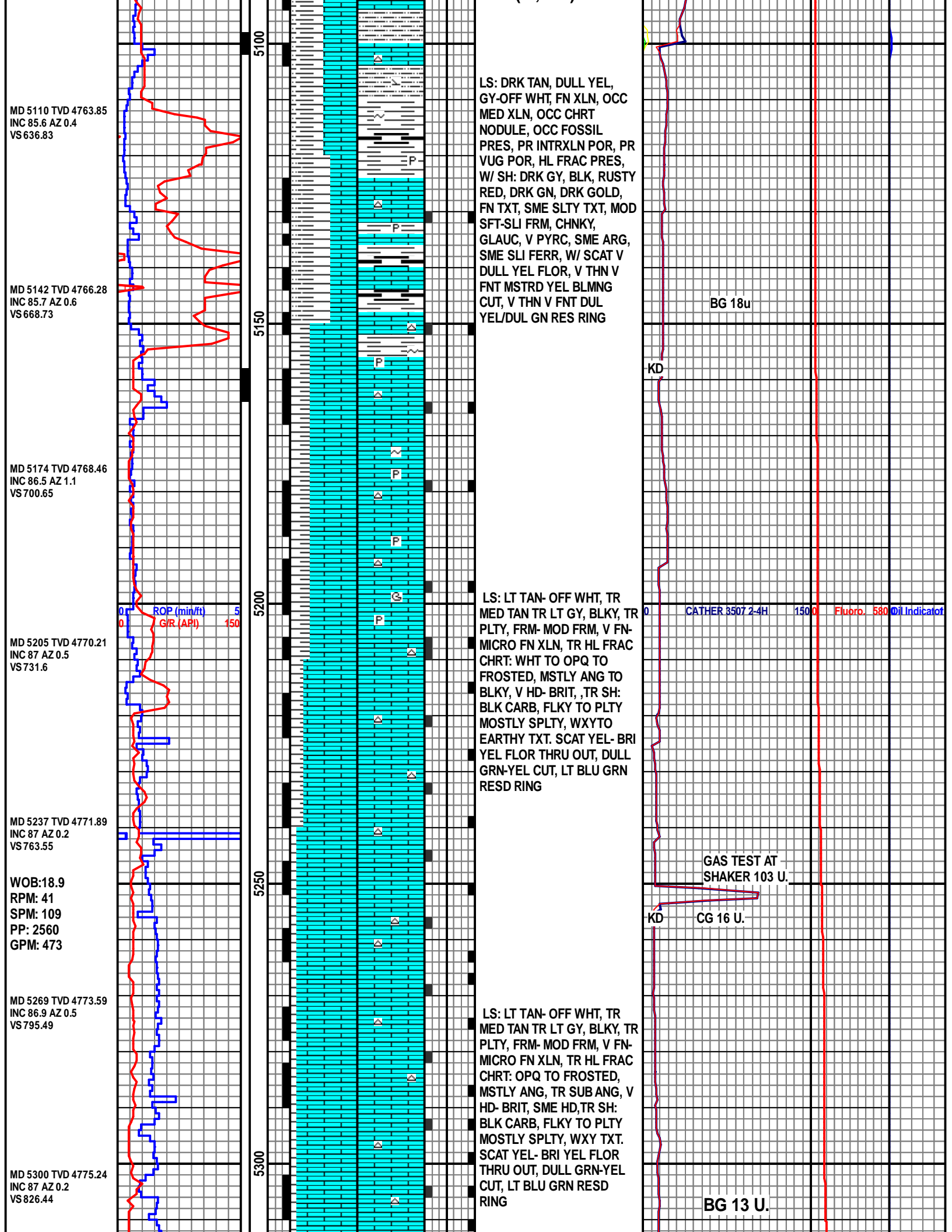
MISS
UNCONFORMITY @
5,078' MD, 4,760'
TVD (-3.456')



SHG 187u

BG 19u

FG 50u



MD 5110 TVD 4763.85
 INC 85.6 AZ 0.4
 VS 636.83

MD 5142 TVD 4766.28
 INC 85.7 AZ 0.6
 VS 668.73

MD 5174 TVD 4768.46
 INC 86.5 AZ 1.1
 VS 700.65

MD 5205 TVD 4770.21
 INC 87 AZ 0.5
 VS 731.6

MD 5237 TVD 4771.89
 INC 87 AZ 0.2
 VS 763.55

WOB: 18.9
 RPM: 41
 SPM: 109
 PP: 2560
 GPM: 473

MD 5269 TVD 4773.59
 INC 86.9 AZ 0.5
 VS 795.49

MD 5300 TVD 4775.24
 INC 87 AZ 0.2
 VS 826.44

ROP (min/ft) 5
 G/R (API) 150

LS: DRK TAN, DULL YEL,
 GY-OFF WHT, FN XLN, OCC
 MED XLN, OCC CHRT
 NODULE, OCC FOSSIL
 PRES, PR INTRXLN POR, PR
 VUG POR, HL FRAC PRES,
 W/ SH: DRK GY, BLK, RUSTY
 RED, DRK GN, DRK GOLD,
 FN TXT, SME SLTY TXT, MOD
 SFT-SLI FRM, CHNKY,
 GLAUC, V PYRC, SME ARG,
 SME SLI FERR, W/ SCAT V
 DULL YEL FLOR, V THN V
 FNT MSTRD YEL BLMNG
 CUT, V THN V FNT DUL
 YEL/DUL GN RES RING

LS: LT TAN- OFF WHT, TR
 MED TAN TR LT GY, BLKY, TR
 PLTY, FRM- MOD FRM, V FN-
 MICRO FN XLN, TR HL FRAC
 CHRT: WHT TO OPQ TO
 FROSTED, MSTLY ANG TO
 BLKY, V HD- BRIT, ,TR SH:
 BLK CARB, FLKY TO PLTY
 MOSTLY SPLTY, WXYTO
 EARTHY TXT. SCAT YEL- BRI
 YEL FLOR THRU OUT, DULL
 GRN-YEL CUT, LT BLU GRN
 RESD RING

LS: LT TAN- OFF WHT, TR
 MED TAN TR LT GY, BLKY, TR
 PLTY, FRM- MOD FRM, V FN-
 MICRO FN XLN, TR HL FRAC
 CHRT: OPQ TO FROSTED,
 MSTLY ANG, TR SUB ANG, V
 HD- BRIT, SME HD, TR SH:
 BLK CARB, FLKY TO PLTY
 MOSTLY SPLTY, WXY TXT.
 SCAT YEL- BRI YEL FLOR
 THRU OUT, DULL GRN-YEL
 CUT, LT BLU GRN RESD
 RING

BG 18u

CATHER 3507 2-4H 1500 Fluorb. 580 Oil Indicator

GAS TEST AT
 SHAKER 103 U.

CG 16 U.

BG 13 U.

MD 5332 TVD 4776.94
INC 86.9 AZ 0.4
VS 858.39

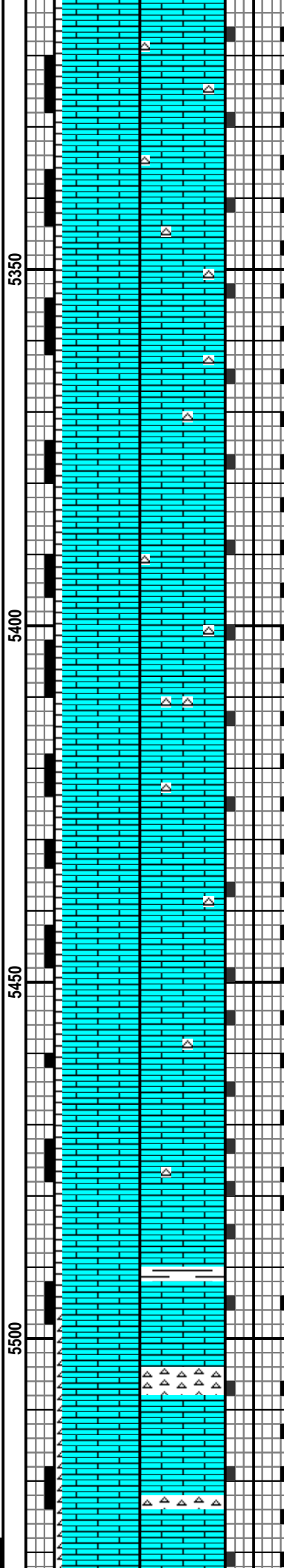
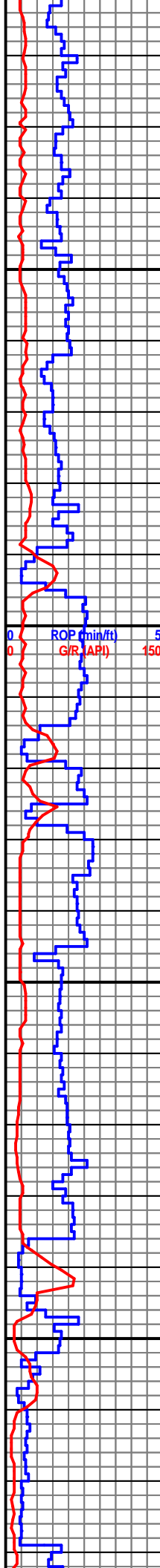
MD 5363 TVD 4778.65
INC 86.8 AZ 0.3
VS 889.33

MD 5395 TVD 4780.43
INC 86.8 AZ 0.3
VS 921.27

MD 5427 TVD 4782.22
INC 86.8 AZ 0.6
VS 953.22

WOB: 21.6
RPM: 41
SPM: 109
PP: 2898
GPM: 473
MD 5455 TVD 4783.76
INC 86.9 AZ 0.1
VS 981.17

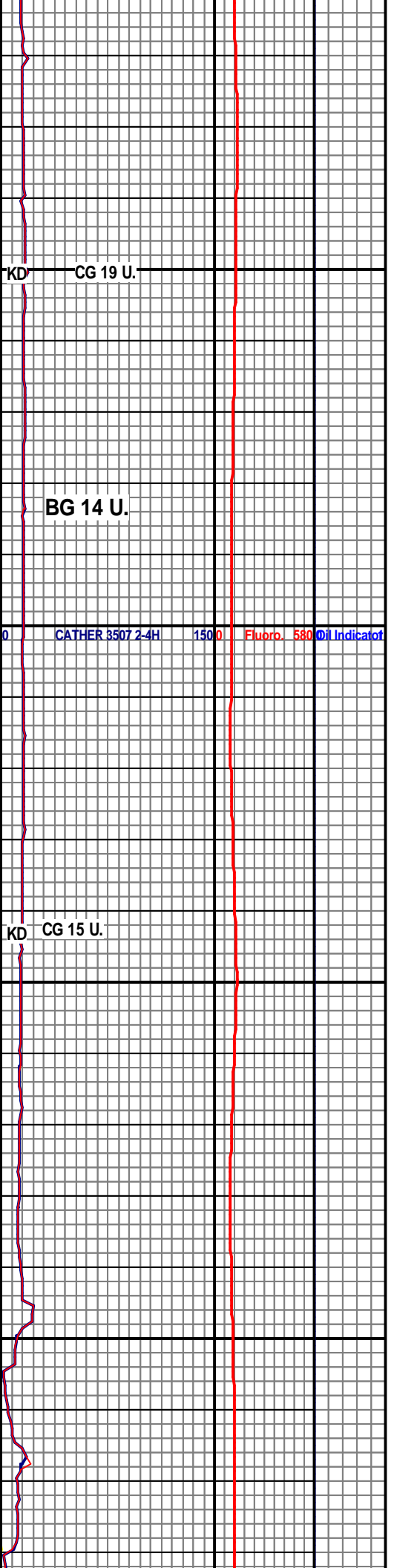
11/18/2013 -
11/19/2013 @
5,495' MD



LS: LT TAN- OFF WHT, TR
MED TAN TR LT GY, BLKY, TR
PLTY, FRM, V FN- MICRO FN
XLN, TR HL FRAC CHRT:
OPQ TO FROSTED, MSTLY
ANG, TR SUB ANG, V HD-
BRIT, SME HD, TR SH: BLK
CARB, FLKY TO PLTY
MOSTLY SPLTY, WXY TXT.
SCAT SLI BRI YEL FLOR,
SLOW DULL GRN-YEL CUT,
THIN LT BLU-GRN RESD
RING

LS: LT TAN- OFF WHT, TR
MED TAN TR LT GY, BLKY, TR
PLTY, FRM- MOD FRM, V FN-
MICRO FN XLN, TR HL FRAC
CHRT: OPQ TO FROSTED,
MSTLY ANG, TR SUB ANG, V
HD- BRIT, SME HD, TR SH:
BLK CARB, FLKY TO PLTY
MOSTLY SPLTY, WXY TXT.
SCAT YEL- BRI YEL FLOR
THRU OUT, DULL GRN-YEL
CUT, YEL-GRN RESD RING

TD FOR
INTERMEDIATE
CASING @ 5,495'

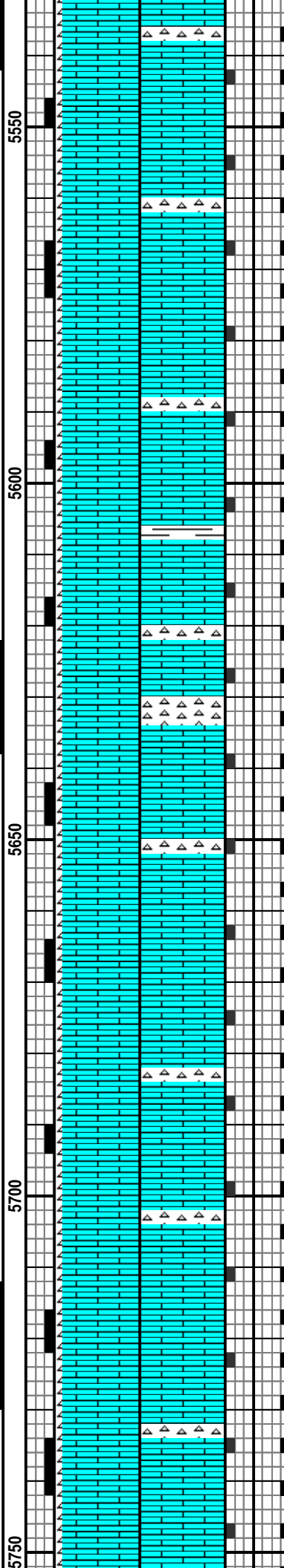
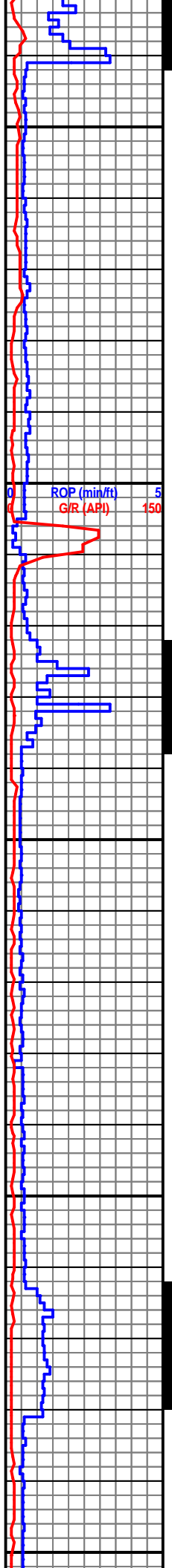


MD 5541 TVD 4787.21
INC 88.5 AZ 359.7
VS 1067.06

MD 5632 TVD 4789.67
INC 88.4 AZ 359.8
VS 1157.98

WOB: 12.8
RPM: 60
SPM: 72
PP: 2010
GPM: 312

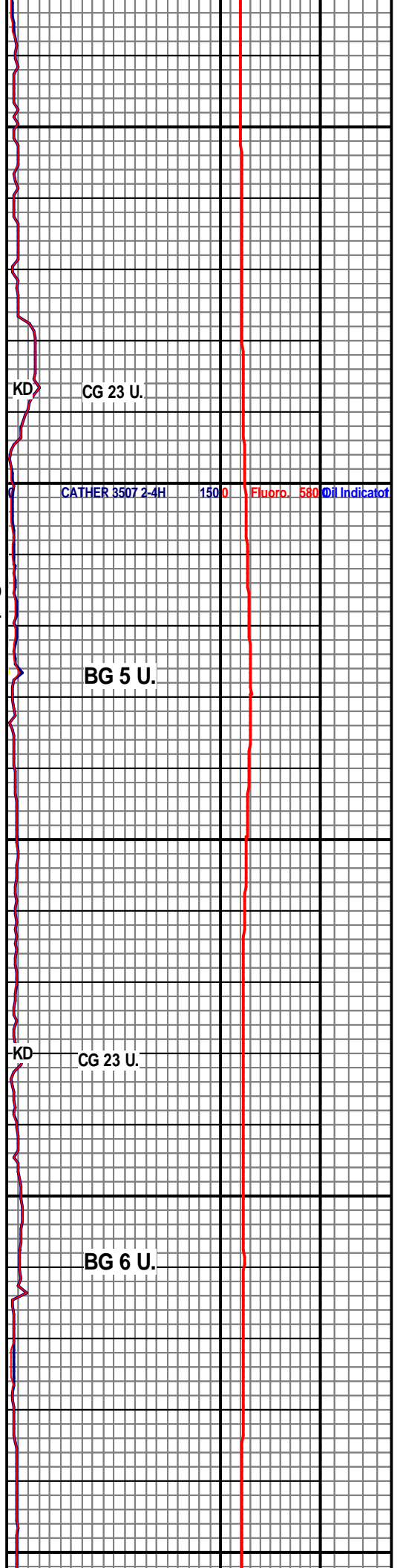
MD 5724 TVD 4791.27
INC 89.6 AZ 0.8
VS 1249.93



LS: TAN - MOTT, BLKY, MOD
FRM-FRM, MICRO XLN, OCC
HL FRAC POR, LAM. CHT:
WHT -OFF WHT-OPAC, HD
ANG FRAC POR, YEL FLOR
PR- FR WHT- LT BLU CUT, V
THIN LT BLU- WHT RESD
RING STAIN

LS: TAN - MOTT, BLKY, MOD
FRM-FRM, MICRO XLN, TR HL
FRAC POR. CHT:
OPAC-FROSTED, HD ANG
FRAC POR. TR YEL FLOR
SLI LT BLU CUT, V-THIN LT
BLU- WHT RESD RING
STAIN.

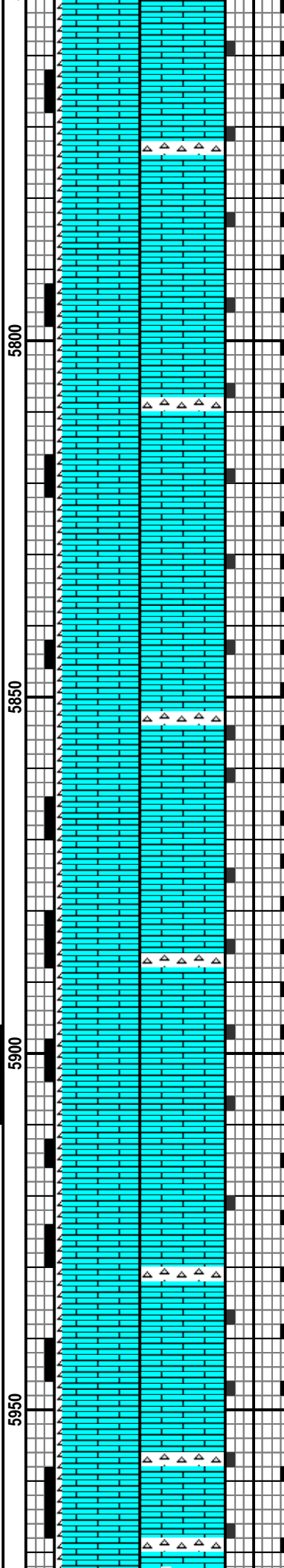
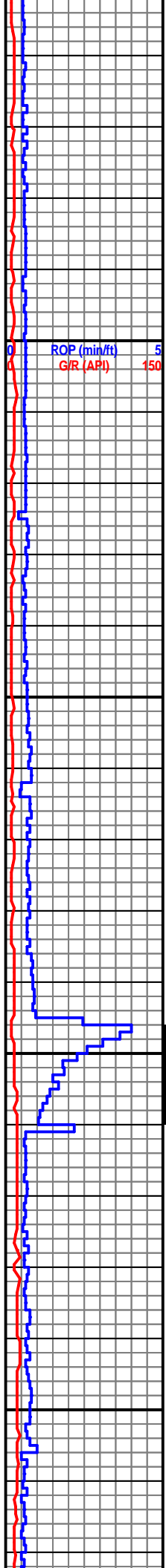
LS: TAN - MOTT, BLKY, MOD
FRM-FRM, MICRO XLN, TR
HL FRAC POR. CHT: WHT
-OFF WHT-OPAC-FROSTED,
TR LT GY, HD ANG FRAC
POR, TR YEL FLOR LT BLU
CUT, V-THIN LT-BLU-WHT
RESD RING STAIN



MD 5815 TVD 4791.27
INC 90.4 AZ 0.9
VS 1340.93

WOB: 11.1
RPM: 69
SPM: 71
PP: 1918
GPM: 306

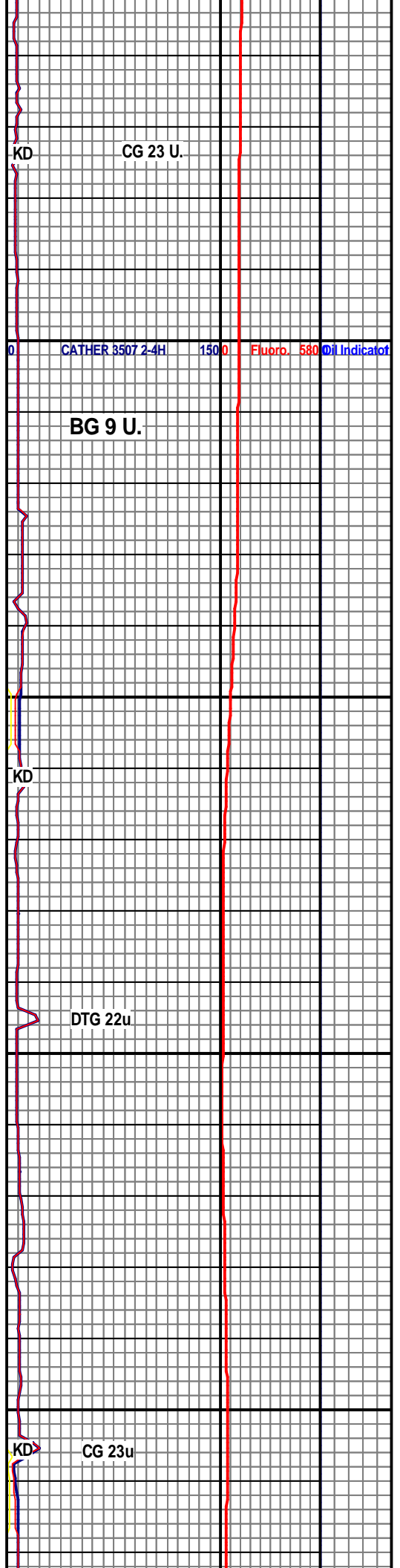
MD 5908 TVD 4790.22
INC 90.9 AZ 1.4
VS 1433.92



LS: TAN - MOTT, BLKY, MOD
FRM-FRM, MICRO XLN, TR
HL FRAC POR . CHT: WHT
-OFF WHT-OPAC-FROSTED,
TR LT GY TR RED-BRN, HD
ANG FRAC POR, TR YEL
FLOR LT BLU CUT, V-THIN
LT-BLU-WHT RESD RING
STAIN

LS: TAN - MOTT, BLKY, MOD
FRM-FRM, MICRO XLN, OCC
HL FRAC POR , LAM. CHT:
WHT -OFF WHT-OPAC, HD
ANG FRAC POR, YEL FLOR
PR- FR WHT- LT BLU CUT, V
THIN LT BLU- WHT RESD
RING STAIN

LS: TAN - MOTT-LT BRN TR
OPAC, BLKY, MOD
FRM-FRM, MICRO XLN, OCC
HL FRAC POR , LAM. CHT:
WHT -OFF WHT-OPAC-BRN,
SME LT GY, HD .LT BLU
FLOR LT BLU WHT CUT, LT
BLU- WHT RESD RING
STAIN.

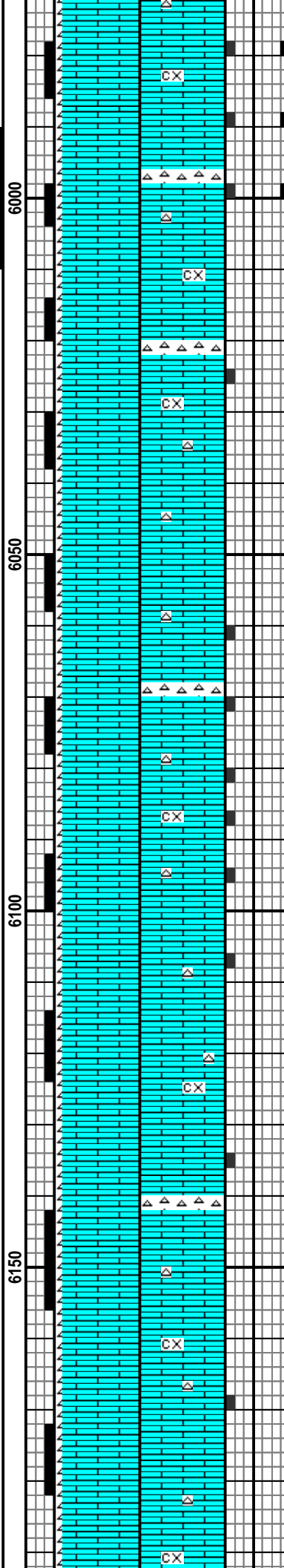
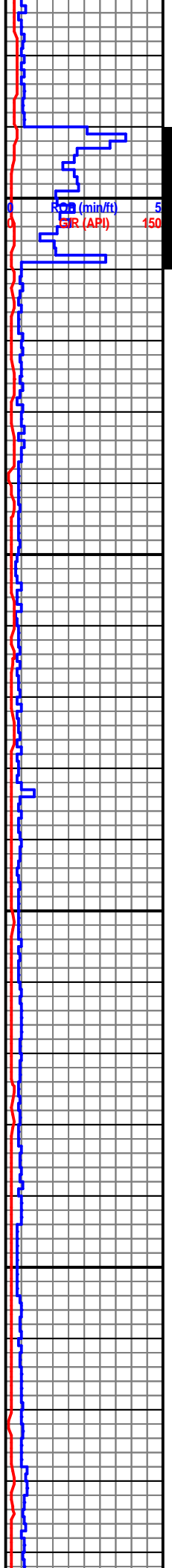


MD 6001 TVD 4789.57
INC 89.9 AZ 2.6
VS 1526.91

WOB: 19.3
RPM: 68
SPM: 72
PP: 2135
GPM: 309

MD 6096 TVD 4789.4
INC 90.3 AZ 2.4
VS 1621.9

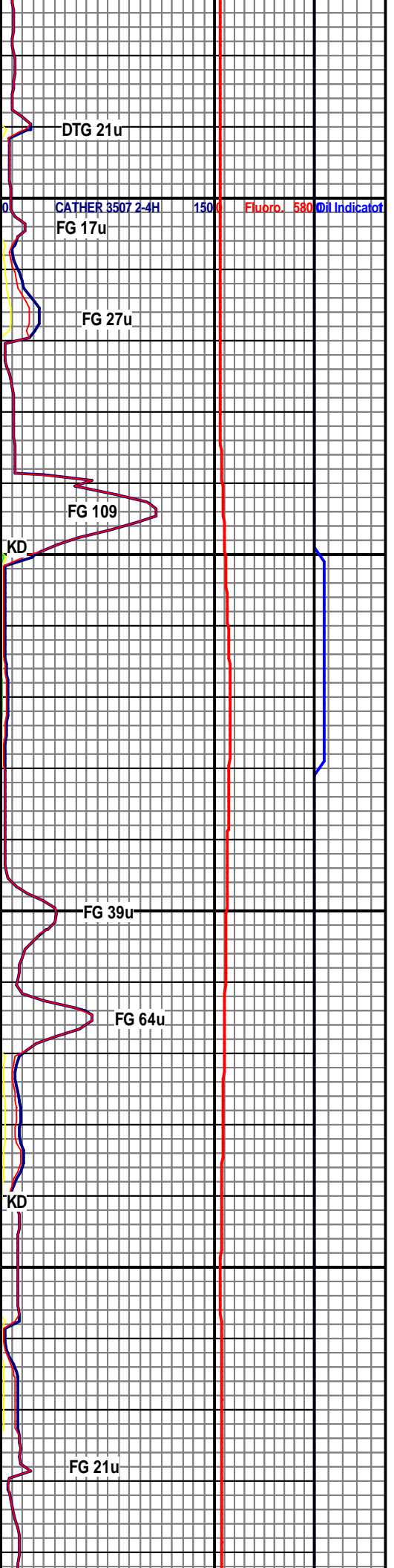
MD 6188 TVD 4788.6
INC 90.7 AZ 1.9



LS: LT TAN, CRM, CXLN, SUB
RND, FRM, CHNKY, PR VUG
POR, SME HL FRAC PRES,
PR INTRXLN POR, W/ CHRT:
OFF WHT-CLR, PRED CLR,
OCC SLI OP, QTZ XLS PRES,
ANG, HRD, CHNKY/BLKY, W/
V SCAT V DUL YEL FLOR,
NO CUT, N/S

LS: LT TANTAN, CRM,
CXLN/FN XLN, SUB ANG,
FRM, CHNKY, PR VUG POR,
PR INTRXLN POR, W/ CHRT:
OFF WHT-CLR, PRED CLR,
OCC OP, CLR QTZ XLS
PRES, ANG, HRD,
CHNKY/BLKY, W/ V SCAT V
DUL YEL FLOR, NO CUT, N/S

LS: LT TANTAN, CRM, OFF
WHT/LT GY, SME CLR CALC
XLS, CXLN/FN XLN, FOSS
PRES, SUB ANG, FRM,

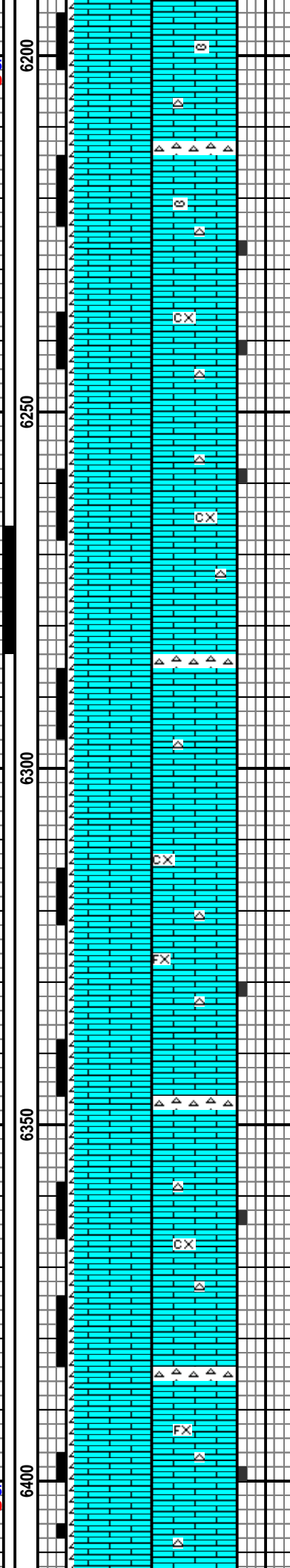
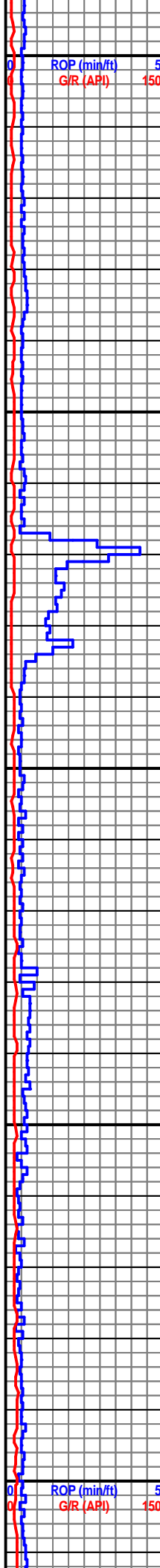


WOB: 18.5
RPM: 68
SPM: 70
PP: 2010
GPM: 305

MD 6279 TVD 4788.05
INC 90.5 AZ 1.6
VS 1804.89

11/20/2013 @
6,337' MD

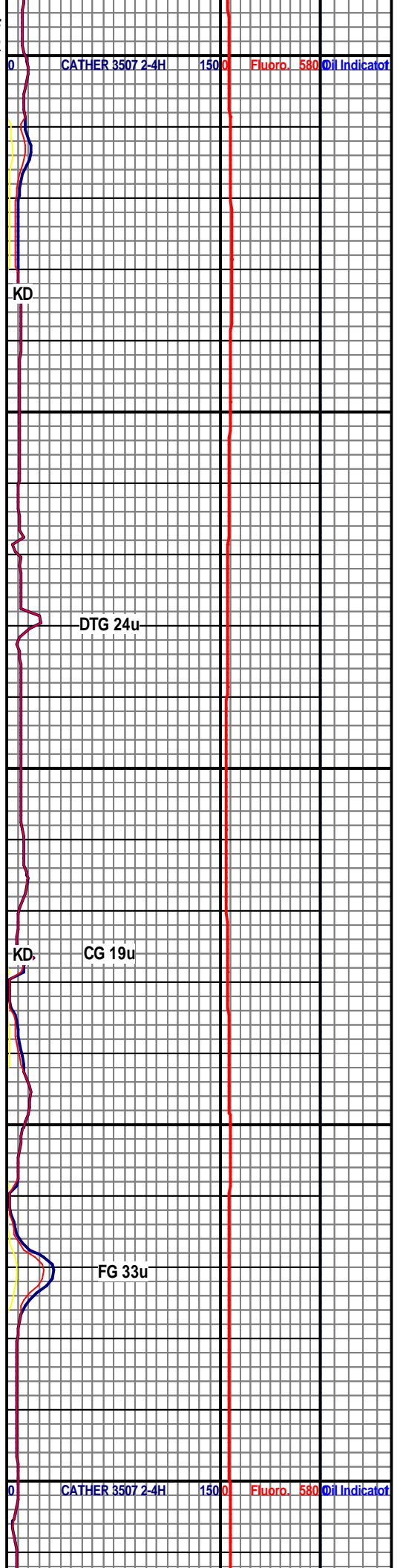
MD 6371 TVD 4787.64
INC 90.5 AZ 1.3
VS 1896.89



CHNKY, PR VUG POR, PR
INTRXLN POR, W/ CHRT: OFF
WHT-CLR, CLR, OCC OP, CLR
QTZ XLS PRES, ANG, HRD,
CHNKY/BLKY, W/ V SCAT V
DUL YEL FLOR, NO CUT, N/S

LS: LT TAN, CRM, SME OFF
WHT, FN XLN-CXLN, SUB
ANG-SUB RND, FRM, CHNKY,
PR VUG POR, SME HL FRAC
PRES, PR INTRXLN POR, W/
CHRT: OFF WHT-CLR, PRED
CLR, OCC SLI OP, QTZ XLS
PRES, ANG, HRD,
CHNKY/BLKY, W/ V SCAT V
DUL YEL FLOR, NO CUT, N/S

LS: LT TAN, CRM, CXLN, SUB
RND, FRM, CHNKY, PR VUG
POR, SME HL FRAC PRES,
PR INTRXLN POR, W/ CHRT:
OFF WHT-CLR, PRED CLR,
OCC SLI OP, QTZ XLS PRES,
ANG, HRD, CHNKY/BLKY, W/
V SCAT V DUL YEL FLOR,
NO CUT, N/S



KD

DTG 24u

KD

CG 19u

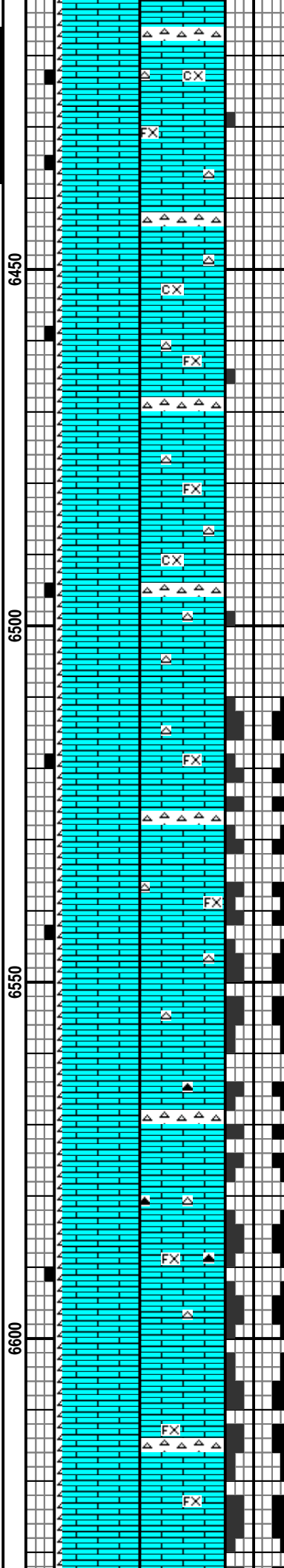
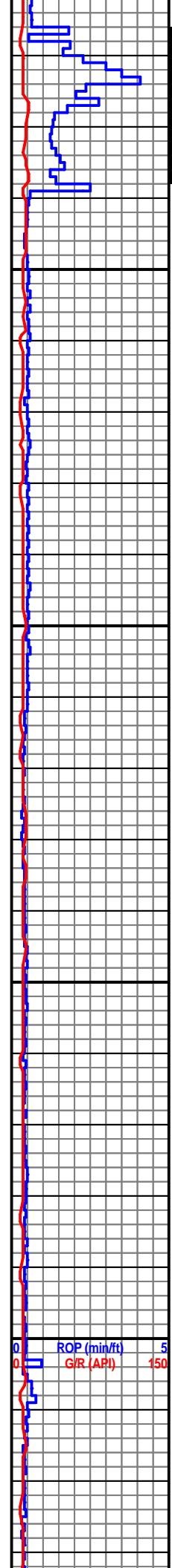
FG 33u

KD

WOB: 18.4
RPM: 69
SPM: 72
PP: 2159
GPM: 124.7

MD 6463 TVD 4787.56
INC 89.6 AZ 2.3
VS 1988.88

MD 6554 TVD 4787.96
INC 89.9 AZ 1.9
VS 2079.88

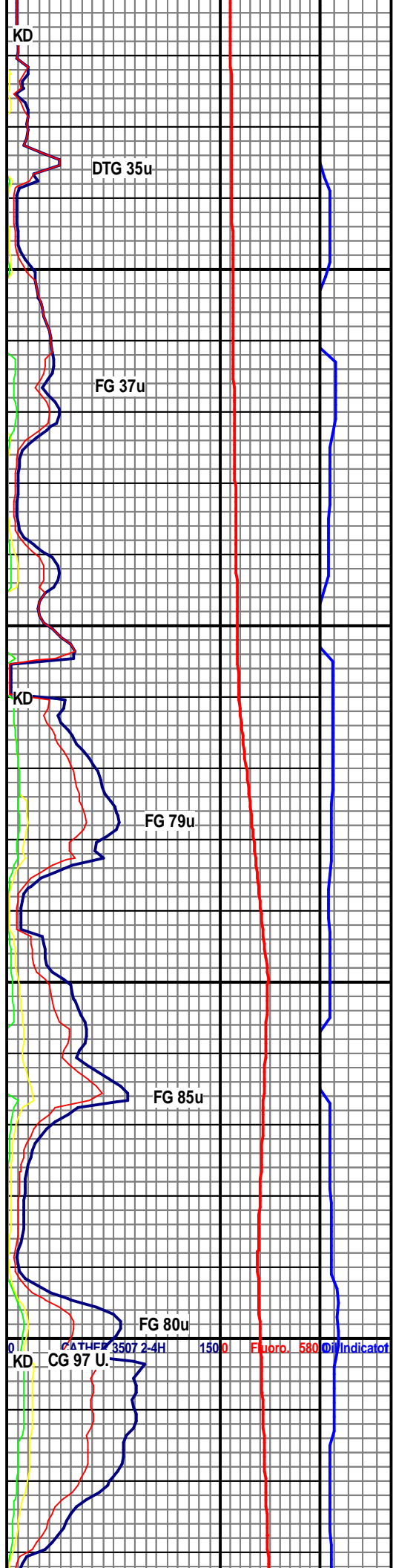


LS: LT TAN/TAN, CRM,
CXLN/FN XLN, SUB ANG,
FRM, CHNKY, PR VUG POR,
PR INTRXLN POR, W/ CHRT:
OFF WHT-CLR, PRED CLR,
OCC OP, CLR QTZ XLS
PRES, ANG, HRD,
CHNKY/BLKY, W/ V SCAT V
DUL YEL FLOR, NO CUT, N/S

LOOSING PARTIAL
RETURNS

LS: LT TAN, CRM, SM FN
XLN, SME CXLN, SUB
RND-SUB ANG, FRM, CHNKY,
PR VUG POR, SME HL FRAC
PRES, PR INTRXLN POR, W/
CHRT: OFF WHT-CLR, SME
LT BRN, PRED TRNSL, SME
OP, QTZ XLS PRES, ANG,
HRD, CHNKY/BLKY, W/ V
SCAT V DUL YEL FLOR, MLK
FLSH CUT, THN LT YEL RES
RING

LOOSING PARTIAL
RETURNS



3507 2-4H 1500 Fluorb. 5800 Indicator

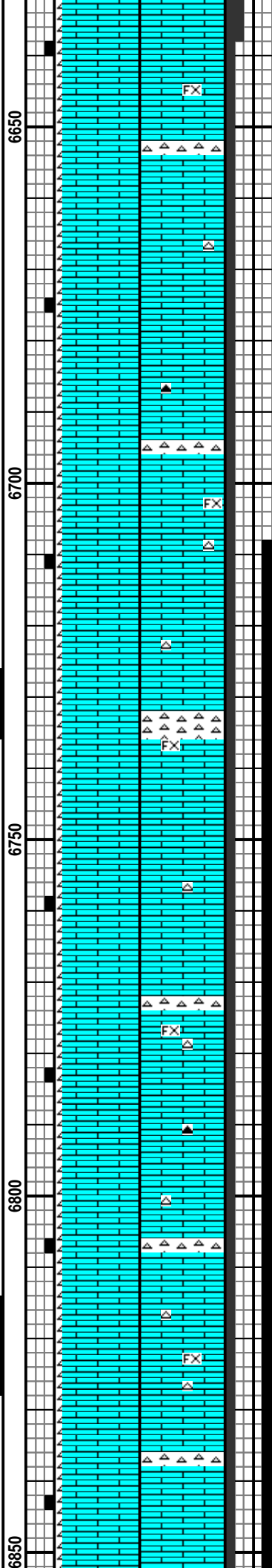
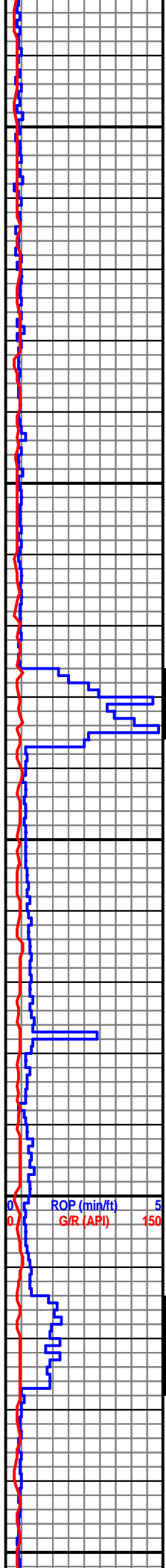
MD 6646 TVD 4787.08
INC 91.2 AZ 2.5
VS 2171.87

WOB: 17.7
RPM: 68
SPM: 68
PP: 2173
GPM: 150

MD 6738 TVD 4785.63
INC 90.6 AZ 2.4
VS 2263.84

MD 6830 TVD 4783.87
INC 91.6 AZ 1.7
VS 2355.82

WOB: 23.3



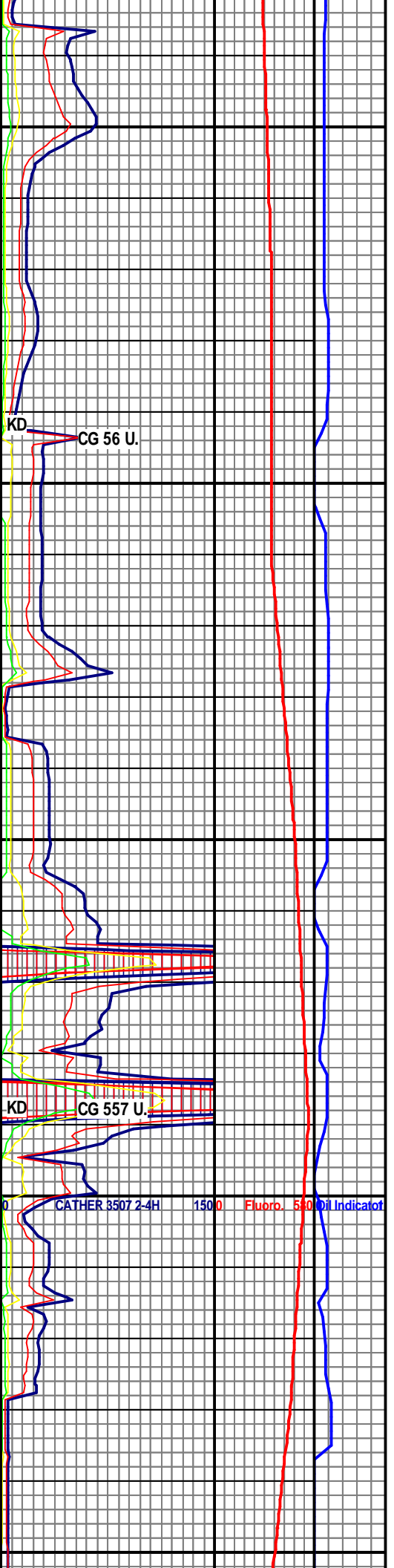
LS: TAN - MOTT-LT BRN TR
OPAC, BLKY, MOD
FRM-FRM, MICRO XLN, OCC
HL FRAC POR, LAM. CHT:
WHT -OFF WHT-OPAC-BRN,
SME LT GY, HD .LT BLU
FLOR LT BLU WHT CUT, LT
BLU- WHT RESD RING
STAIN.

LS: LT TAN- MED TAN, SCAT
OFF WHT, MSTLY BLKY,
PRED MOD FRM- FRM,
MICRO FN- V FN XLN, OCC
HL FRAC POR, CHT: PRED
OFF WHT- WHT, OCC LT TAN,
DNSE, ANG, TR HL FRAC
POR, SCAT BRI YEL- YEL
FLOR, PR- FR WHT- LT BLU
CUT, LT BLU- WHT RESD
RING STAIN

LOOSING PARTIAL
RETURNS

LS: TAN - LT GRY TO OFF
WHT-TR OPAC, BLKY, MOD
FRM-FRM, MICRO XLN, OCC
HL FRAC POR. CHT: WHT
-OFF WHT-OPAC-BRN, SME
LT GY, HD .LT BLU FLOR LT
BLU WHT CUT, LT BLU- WHT
RESD RING STAIN.

LOOSING PARTIAL
RETURNS

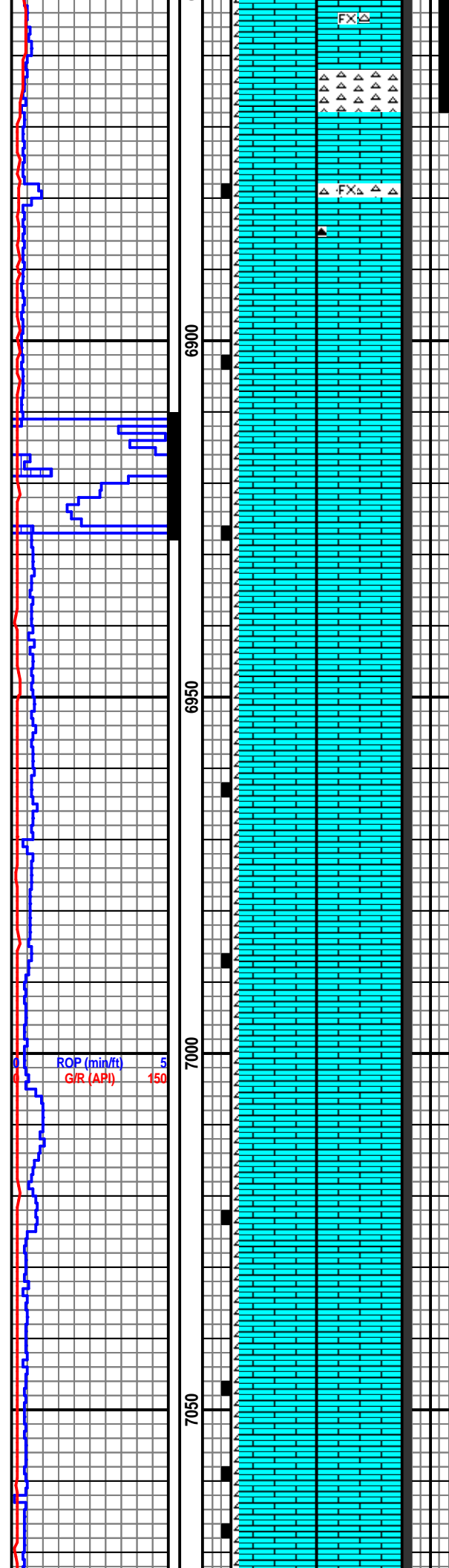


RPM: 69
SPM: 70
PP: 2176
GPM: 308

MD 6921 TVD 4781.56
INC 91.3 AZ 1.7
VS 2446.79

MD 7013 TVD 4779.48
INC 91.3 AZ 1.7
VS 2538.77

WOB: 11.4
RPM: 69
SPM: 70
PP: 2034
GPM: 302

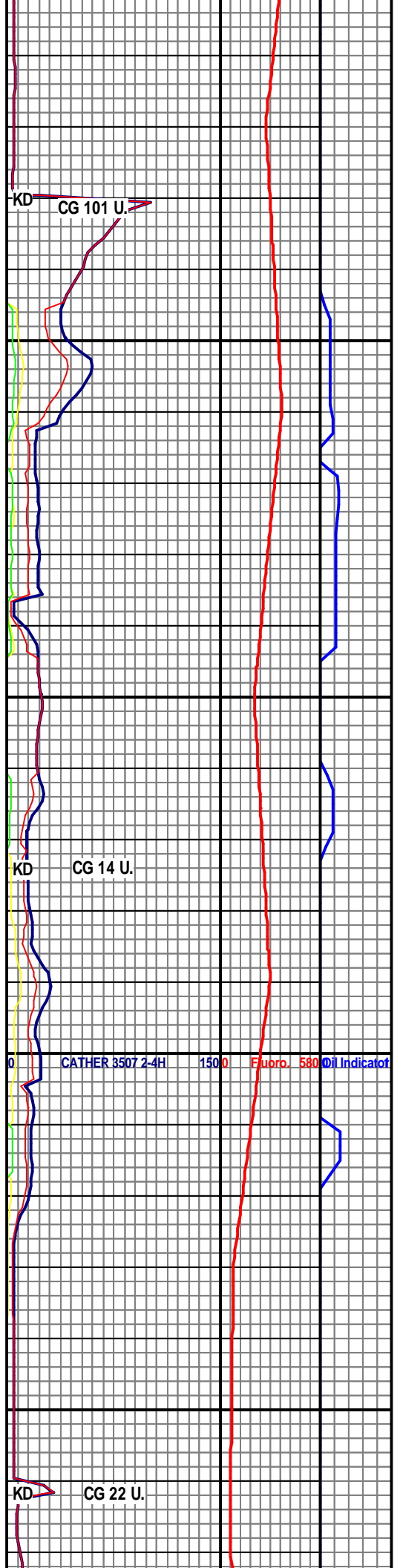


LS: TAN - GRY TO OFF WHT ,
BLKY, FRM, MICRO XLN TO
VF XLN, OCC HL FRAC POR
. CHT: WHT -OFF
WHT-OPAC-BRN, SME LT GY,
HD .LT BLU FLOR LT BLU
WHT CUT, LT BLU- WHT
RESD RING STAIN.

LOOSING 90% RETURNS

LS: TAN - MOTT-LT BRN TR
OPAC, BLKY, MOD
FRM-FRM, MICRO XLN, OCC
HL FRAC POR , LAM. CHT:
WHT -OFF WHT-OPAC-BRN,
SME LT GY, HD .LT BLU
FLOR LT BLU WHT CUT, LT
BLU- WHT RESD RING
STAIN.

LOOSING 90% RETURNS



KD CG 101 U.

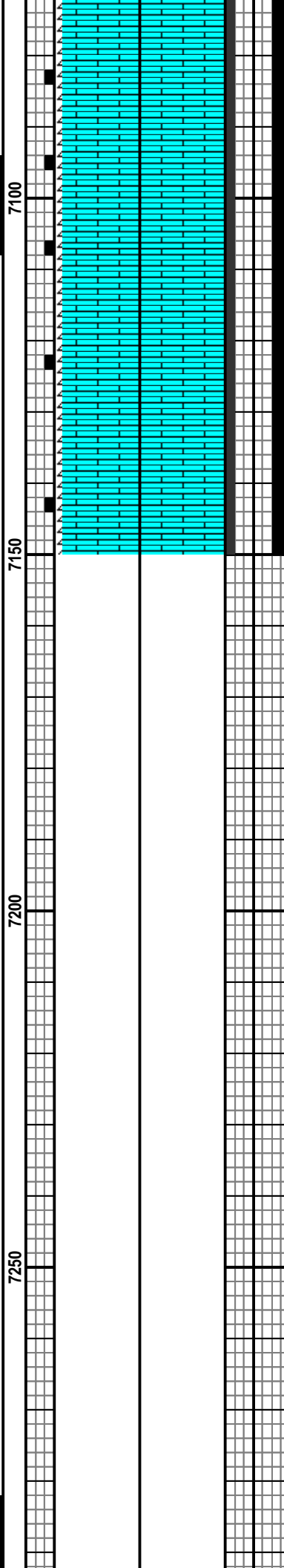
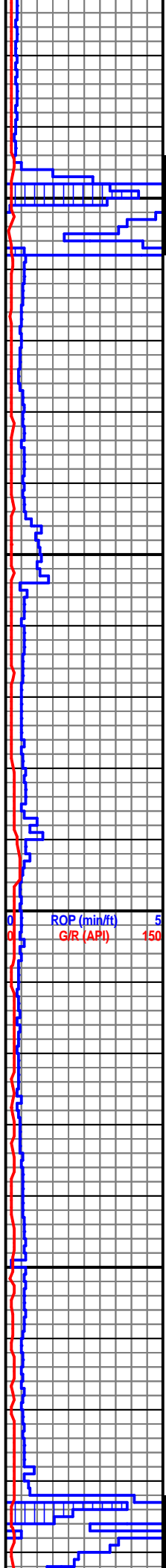
KD CG 14 U.

KD CG 22 U.

MD 7104 TVD 4777.49
INC 91.2 AZ 1.6
VS 2629.75

MD 7199 TVD 4775
INC 91.8 AZ 1.5
VS 2724.72

WOB: 11.8
RPM: 69
SPM: 72
PP: 1835
GPM: 311



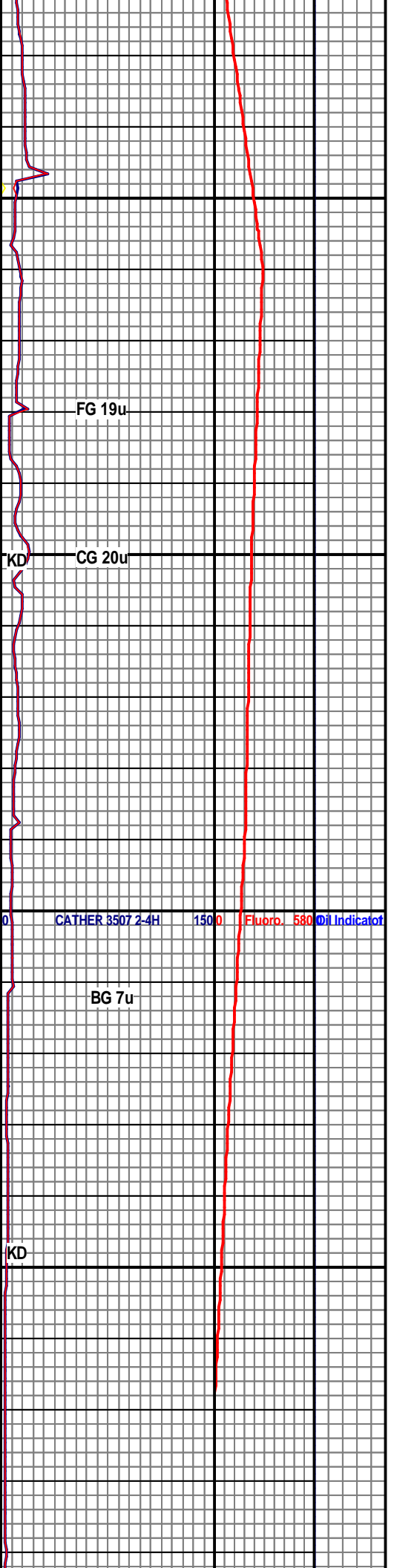
LS: TAN - LT GRY-LT BRN ,
BLKY, MED FRM-FRM, MICRO
XLN- FN XLN, OCC HL FRAC
POR , LAM. CHT: WHT -OFF
WHT-OPAC-BRN, SME LT GY,
HD .LT BLU FLOR LT BLU
WHT CUT, LT BLU- WHT
RESD RING STAIN.

LOOSING 100% RETURNS

FLOW OUT: 0%. NO SAMPLE
PRESENT

FLOW OUT: 0%. NO SAMPLE
PRESENT

FLOW OUT: 0%. NO SAMPLE
PRESENT

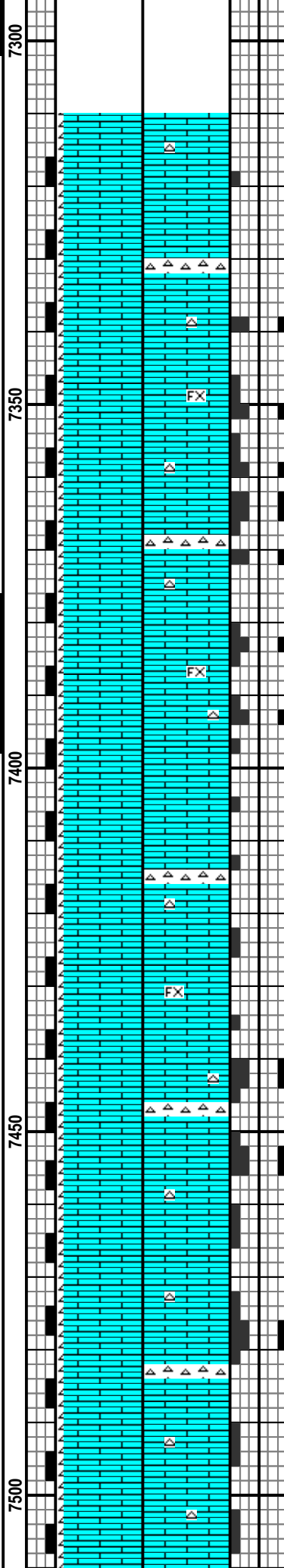
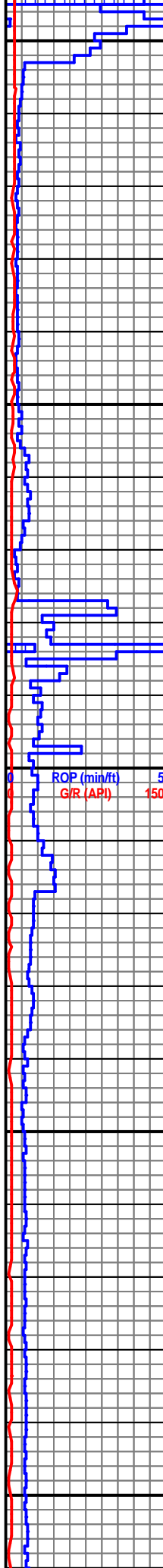


MD 7294 TVD 4772.1
INC 91.7 AZ 2.5
VS 2819.67

MD 7389 TVD 4770.78
INC 89.9 AZ 3.1
VS 2914.64

WOB: 15.0
RPM: 69
SPM: 65
PP: 1661
GPM: 282

MD 7484 TVD 4770.45
INC 90.5 AZ 3.3
VS 3009.6



FLOW OUT: 0%. NO SAMPLE PRESENT

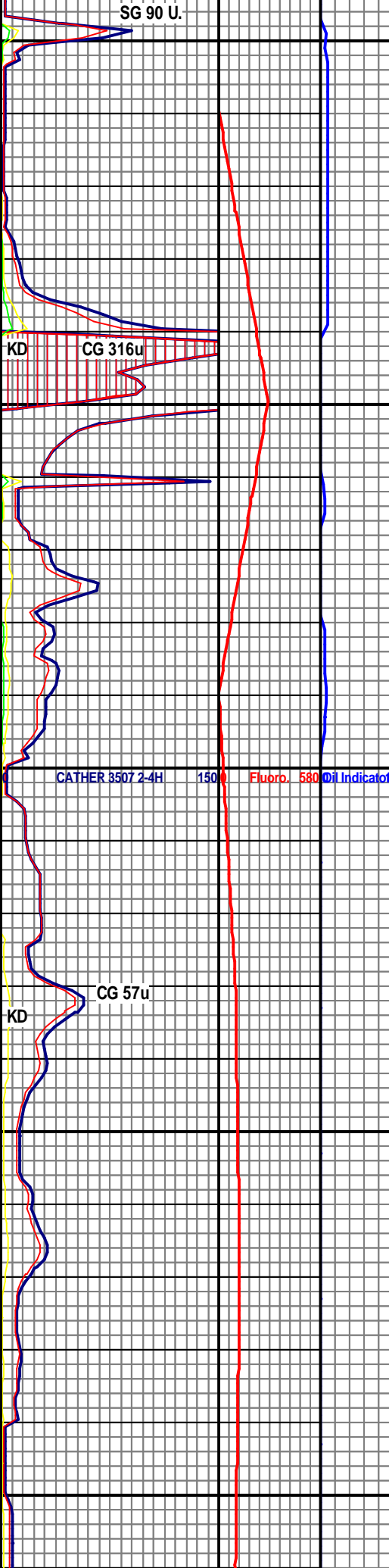
FLOW OUT: 17%. SCARCE SAMPLE PRESENT

LS: LT TAN, CRM, FN
XLN-CXLN, SUB RND-SUB
ANG, FRM, CHNKY, PR VUG
POR, SME HL FRAC PRES,
PR INTRXLN POR, W/ CHRT:
OFF WHT-CLR, SME LT BRN,
PRED TRNSL, SME OP, QTZ
XLS PRES, ANG, HRD,
CHNKY/BLKY, W/ V SCAT V
DUL YEL FLOR, THN FNT
BRT YEL/GN RES RING

FLOW OUT: 20%. V SCARCE SAMPLE PRESENT

LS: LT TAN, CRM, OFF WHT,
LT GY, SME OFF WHT, FN
XLN-CXLN, SUB ANG-SUB
RND, FRM, CHNKY, PR VUG
POR, SME HL FRAC PRES,
PR INTRXLN POR, W/ CHRT:
OFF WHT-CLR, PRED CLR,
OCC SLI OP, QTZ XLS PRES,
ANG, HRD, CHNKY/BLKY, W/
V SCAT V DUL YEL FLOR, V
DUL MLK BLMNG CUT, V THN
YEL RES RING

FLOW OUT: 20%. V SCARCE SAMPLE PRESENT

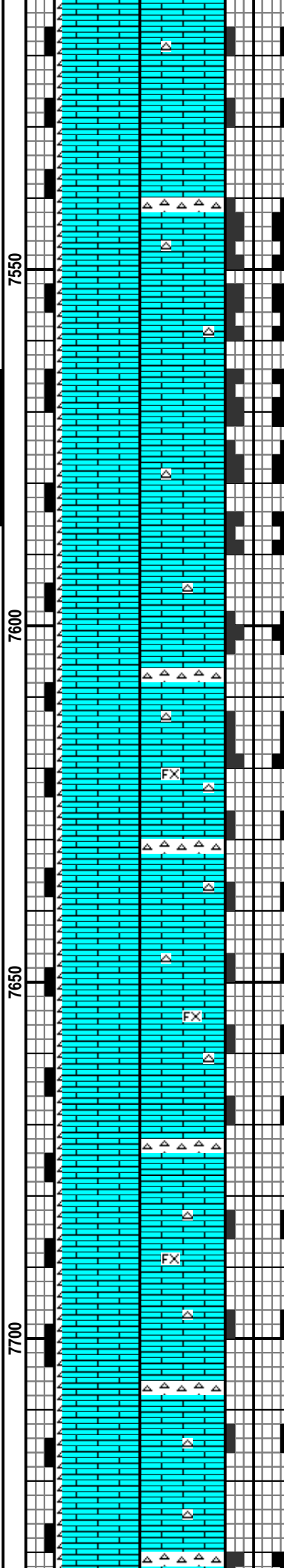
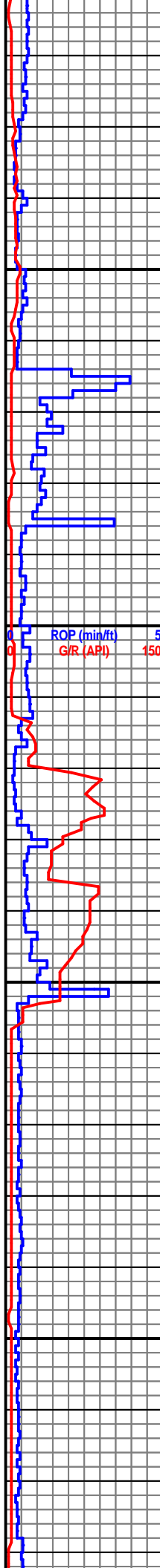


11/21/2013 @
7,568' MD

MD 7579 TVD 4771.11
INC 88.7 AZ 2
VS 3104.57

WOB: 8.1
RPM: 69
SPM: 70
PP: 1657
GPM: 48.2

MD 7674 TVD 4772.77
INC 89.3 AZ 1.2
VS 3199.56



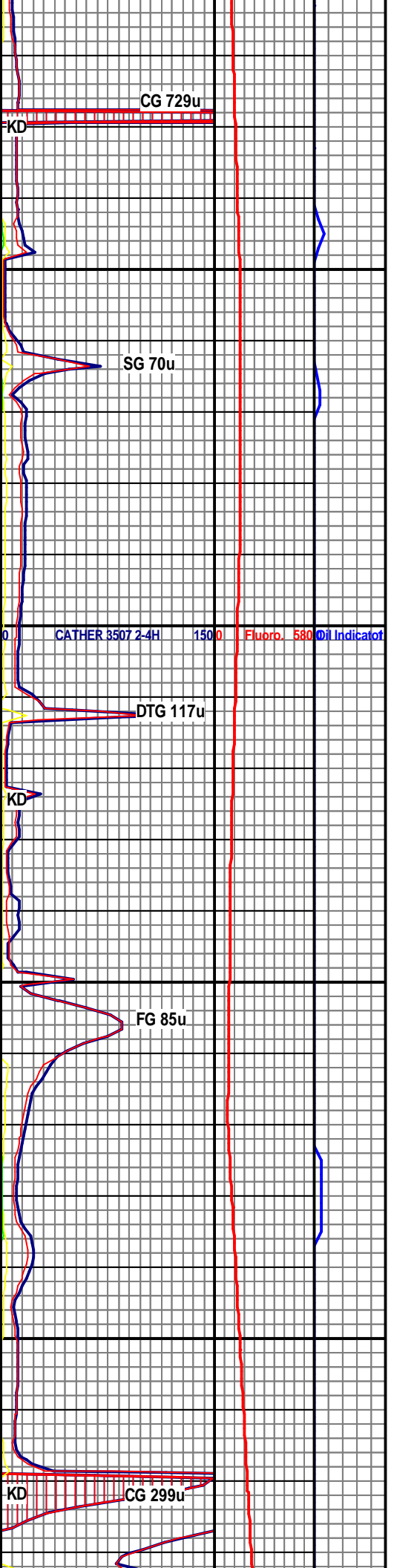
LS: LT TAN, CRM, SM FN
XLN, SME CXLN, SUB
RND-SUB ANG, FRM, CHNKY,
PR VUG POR, SME HL FRAC
PRES, PR INTRXLN POR, W/
CHRT: OFF WHT-CLR, SME
LT BRN, PRED TRNSL, SME
OP, QTZ XLS PRES, ANG,
HRD, CHNKY/BLKY, W/ DUL
YEL FLOR, MLK FLSH CUT,
THN LT YEL RES RING

FLOW OUT: 20%. SOME
SAMPLE PRESENT

LS: LT TANTAN, CRM, OFF
WHT/LT GY, FN XLN-CXLN,
SUB RND-SUB ANG, FRM,
CHNKY, PR VUG POR, V PR
INTRXLN POR, W/ CHRT: OFF
WHT-CLR, SME LT BRN,
PRED TRNSL, SME OP, QTZ
XLS PRES, ANG, HRD,
CHNKY/BLKY, W/ V SCAT V
DUL YEL FLOR, THN FNT
BRT YEL/GN RES RING

FLOW OUT: 22%. SOME
SAMPLE PRESENT

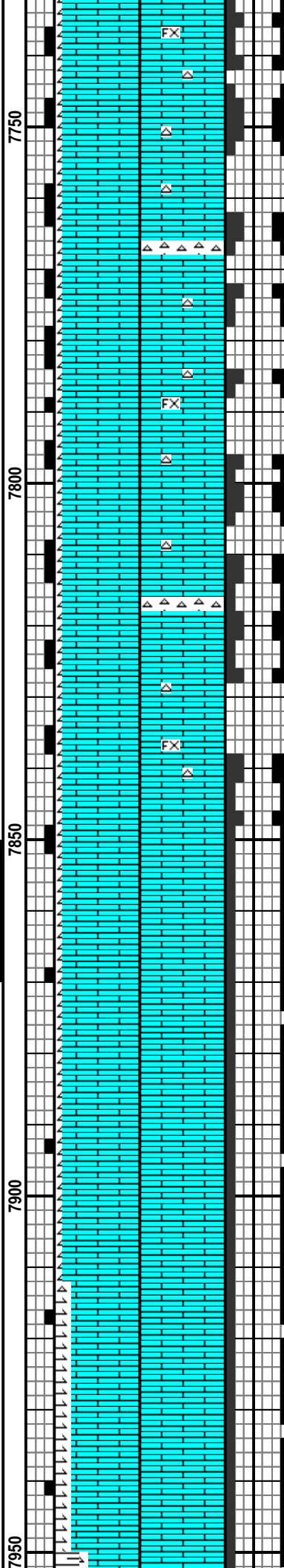
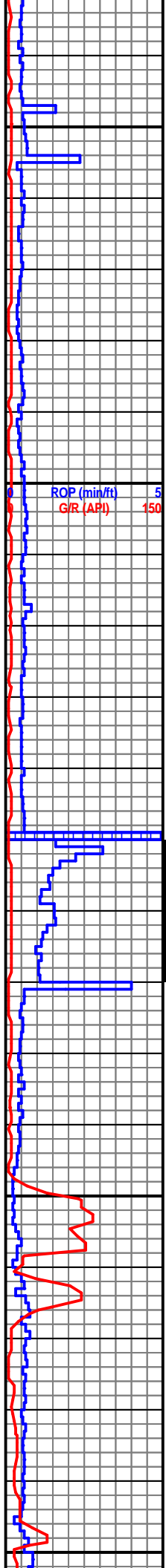
LS: LT TAN, CRM, SM FN
XLN, SME CXLN, SUB
RND-SUB ANG, FRM, CHNKY,
PR VUG POR, SME HL FRAC
PRES, PR INTRXLN POR, W/
CHRT: OFF WHT-CLR, SME
LT BRN, PRED TRNSL, SME
OP, QTZ XLS PRES, ANG,
HRD, CHNKY/BLKY, W/ DUL
YEL FLOR, MLK FLSH CUT,
THN LT YEL RES RING



MD 7769 TVD 4773.18
INC 90.2 AZ 0.5
VS 3294.55

WOB: 5.5
RPM: 0
SPM: 72
PP: 1768
GPM: 308

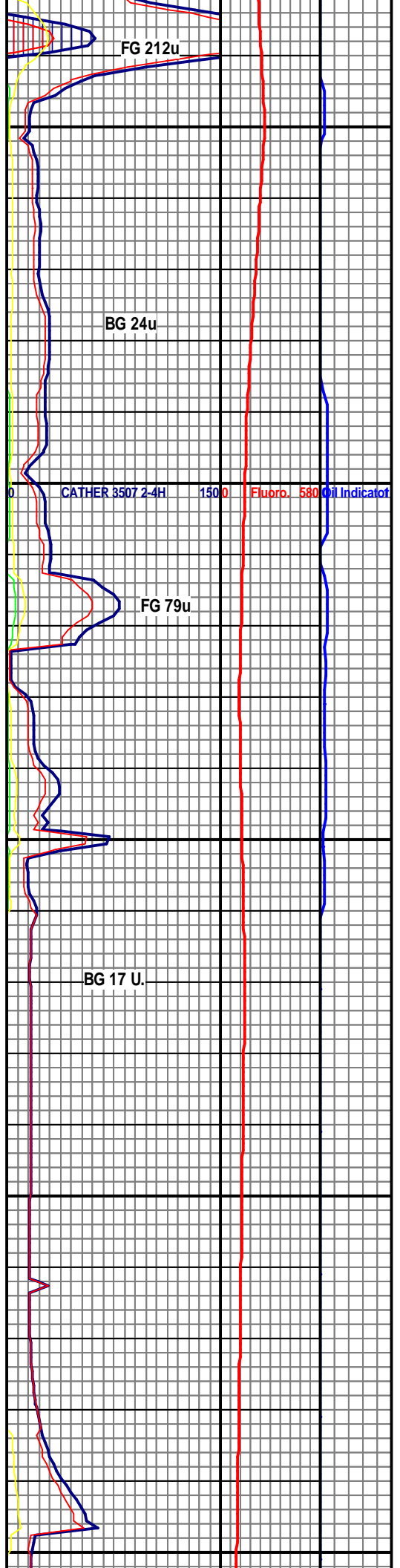
MD 7864 TVD 4772.52
INC 90.6 AZ 1
VS 3389.53



FLOW OUT: 25%. SOME SAMPLE PRESENT.

LS: LT TAN, CRM, SM FN
XLN, SME CXLN, SUB
RND-SUB ANG, FRM, CHNKY,
PR VUG POR, SME HL FRAC
PRES, PR INTRXLN POR, W/
CHRT: OFF WHT-CLR, SME
LT BRN, PRED TRNSL, SME
OP, QTZ XLS PRES, ANG,
HRD, CHNKY/BLKY, W/ DUL
YEL FLOR, MLK FLSH CUT,
THN LT YEL RES RING

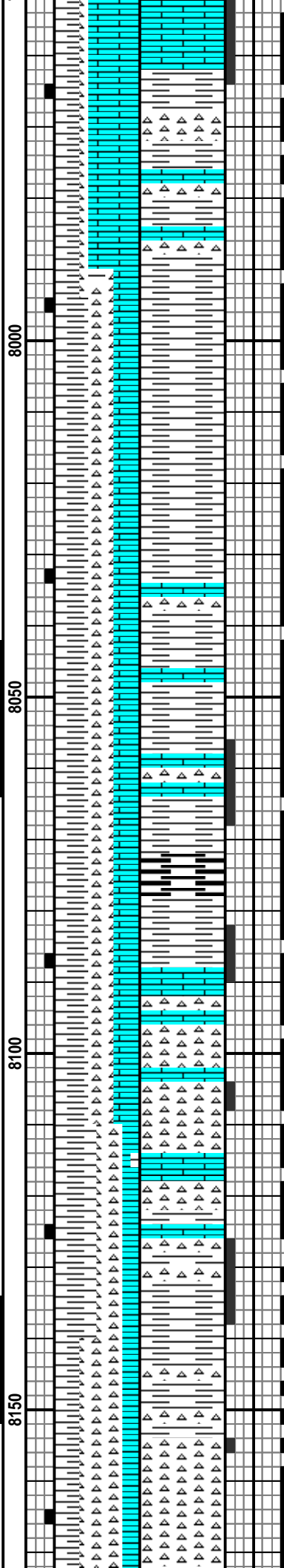
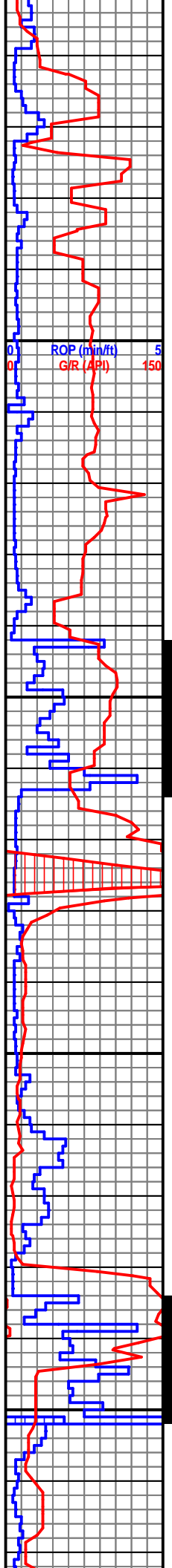
LS: LT TAN, CRM, SM FN
XLN, SME CXLN, SUB
RND-SUB ANG, FRM, CHNKY,
PR VUG POR, SME HL FRAC
PRES, PR INTRXLN POR, W/
CHRT: OFF WHT-CLR, SME
LT BRN, PRED TRNSL, SME
OP, QTZ XLS PRES, ANG,
HRD, CHNKY/BLKY, W/ DUL
YEL FLOR, MLK FLSH CUT,
THN LT YEL RES RING



MD 7959 TVD 4771.03
INC 91.2 AZ 0.7
VS 3484.51

WOB: 25.5
RPM: 0
SPM: 72
PP: 1796
GPM: 313
MD 8054 TVD 4770.45
INC 89.5 AZ 0.5
VS 3579.49

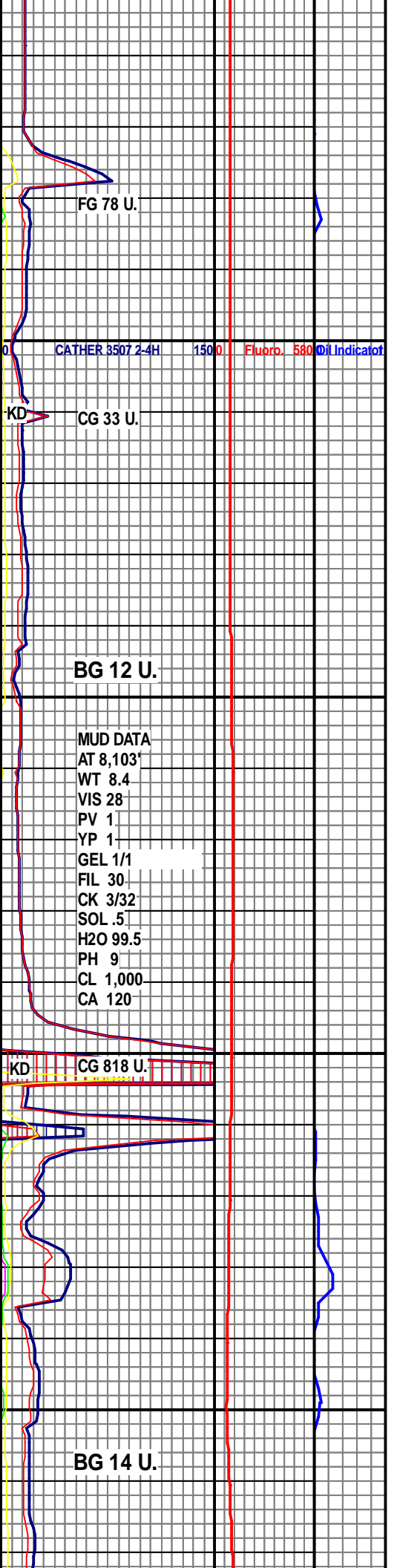
MD 8149 TVD 4771.36
INC 89.4 AZ 2.3
VS 3674.48



SH: LT GRY TO DRK
GRY,SME BLK, MED SFT,
PLTY- BLKY- SPLTY, FN SLTY
TXT LS: LT TAN, CRM, SM FN
XLN, SME CXLN, SUB
RND-SUB ANG, FRM, CHNKY,
PR VUG POR, SME HL FRAC
PRES, PR INTRXLN POR, W/
CHRT: OFF WHT-OPAIC, ANG,
HRD, CHNKY/BLKY, W/ DUL
YEL FLOR,LT BLU CUT, THN
LT BLU RES RING.

SH: LT GRY TO DRK
GRY,SME BLK, MED SFT,
PLTY- BLKY- SPLTY, FN SLTY
TXT. CHRT: OFF WHT-OPAIC,
ANG, HRD, CHNKY/BLKY,NO
FLOR,NO CUT, NO RES
RING.

SH: LT GRY TO DRK
GRY,SME BLK, MED SFT,
PLTY- BLKY- SPLTY, FN SLTY
TXT. CHRT: OFF WHT-OPAIC,
ANG, HRD, CHNKY/BLKY,NO
FLOR,NO CUT, NO RES
RING.



FG 78 U.

CATHER 3507 2-4H 1500 Fluorb. 580 Oil Indicator

CG 33 U.

BG 12 U.

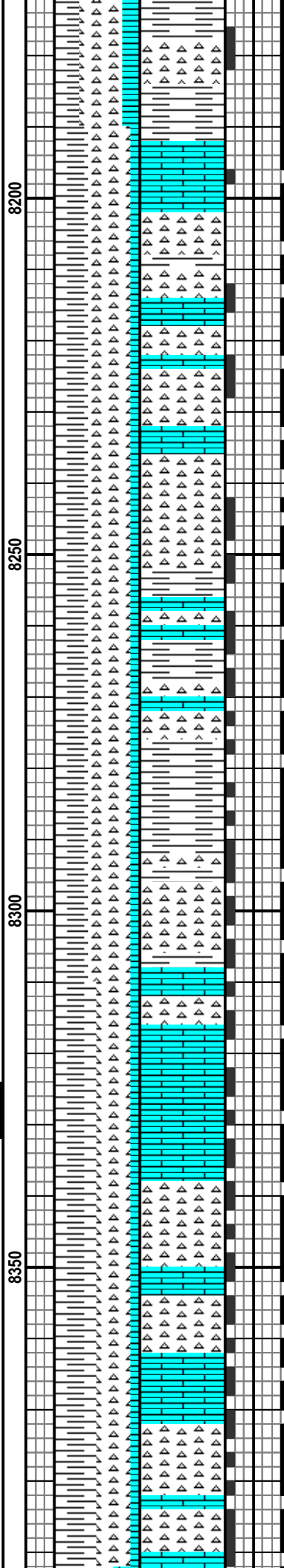
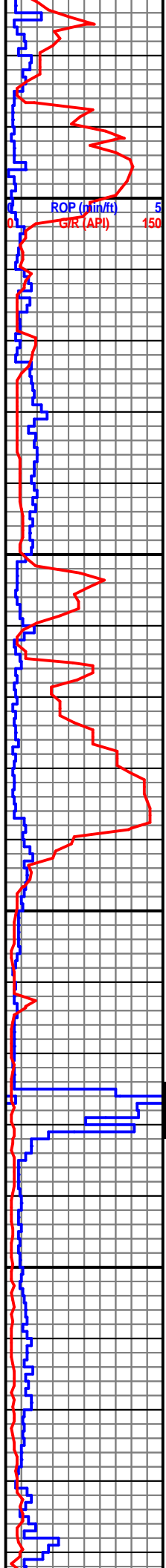
MUD DATA
AT 8,103'
WT 8.4
VIS 28
PV 1
YP 1
GEL 1/1
FIL 30
CK 3/32
SOL .5
H2O 99.5
PH 9
CL 1,000
CA 120

KD CG 818 U.

BG 14 U.

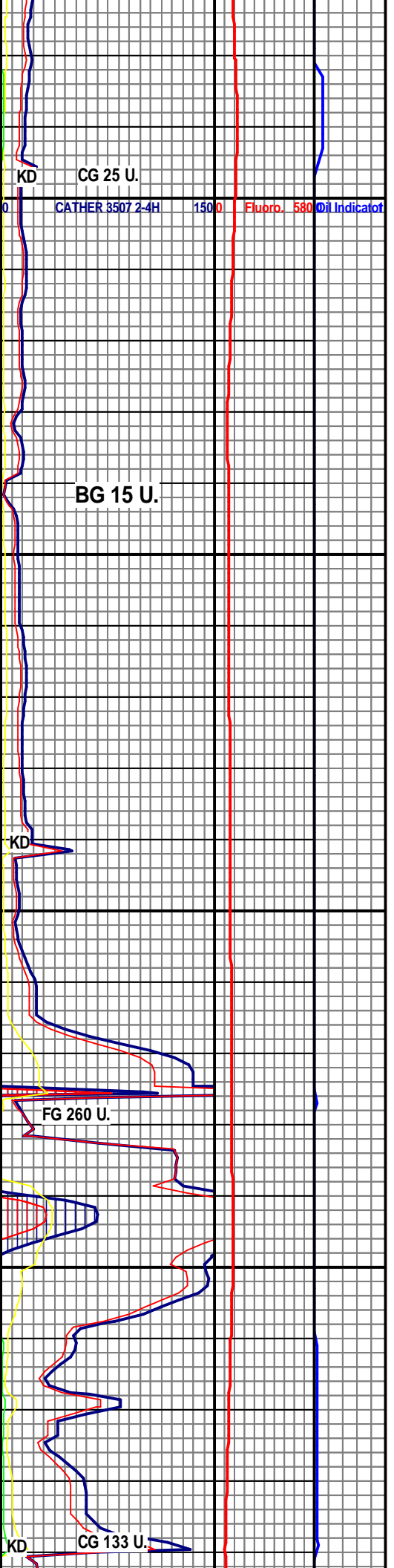
WOB: 21.2
 RPM: 68.2 4772.75
 SPM: 727
 PP: 2026
 GPM: 314

MD 8338 TVD 4774.33
 INC 89.2 AZ 1.3
 VS 3863.45



SH: LT GRY TO DRK
 GRY,SME BLK, MED SFT,
 PLTY- BLKY- SPLTY, FN SLTY
 TXT. CHRT: OFF WHT-OPAIC,
 ANG, HRD, CHNKY/BLKY, W/
 DUL YEL FLOR,LT BLU CUT,
 THN LT BLU RES RING.

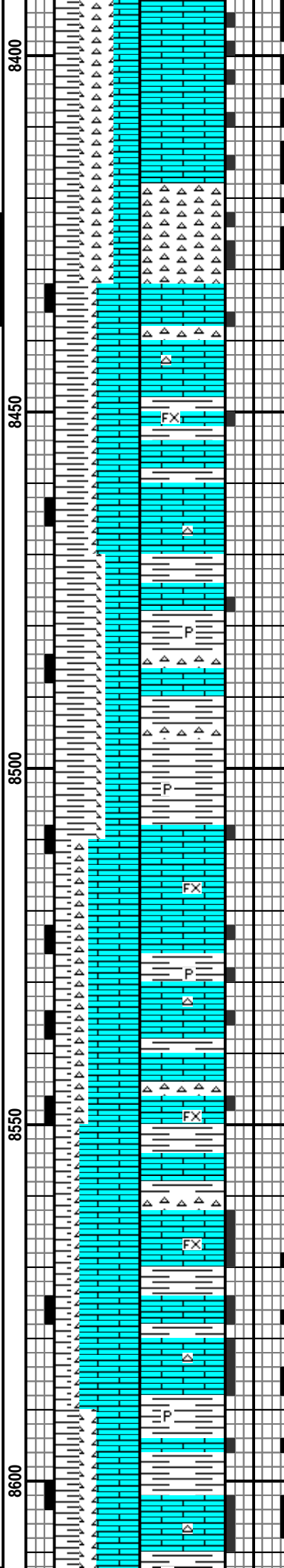
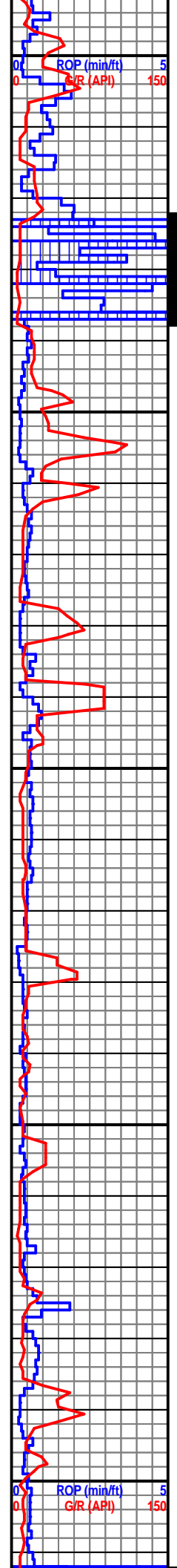
CHRT: OFF WHT-OPAIC-
 WHT, ANG, HRD,
 CHNKY/BLK. SH: LT GRY TO
 DRK GRY,SME BLK, MED
 SFT, PLTY- BLKY- SPLTY, FN
 SLTY TXT LS: LT TAN, CRM,
 SM FN XLN, SME CXLN, SUB
 RND-SUB ANG, FRM, CHNKY,
 PR VUG POR, SME HL FRAC
 PRES, PR INTRXLN POR W/
 DUL YEL FLOR,LT BLU CUT,
 THN LT BLU RES RING.



MD 8433 TVD 4774.33
INC 90.8 AZ 1.3
VS 3958.45

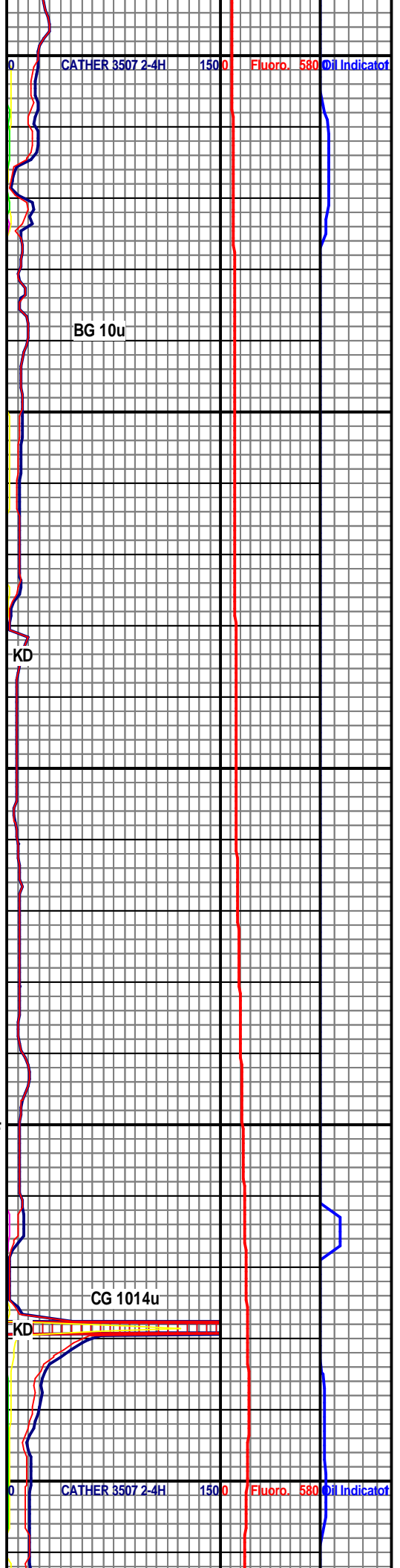
WOB: 16.7
RPM: 68
SPM: 111
PP: 2111
GPM: 479

MD 8528 TVD 4773.42
INC 90.3 AZ 359.9
VS 4053.43



SH: DRK GY, BLK, FN TXT,
MOD SFT, PYRC, CHNKY, W/
LS: WHT-OFF WHT, SME
TRNSL, FN XLN TXT, SUB
RND, SLI FRM, CHNKY, PLTY,
W/ V PR INTRXLN POR, OCC
HL FRAC PRES, W/ CHRT:
TRNSL, OFF GY, ANG, HRD,
CHNKY/BLKY, MCRXLN, W/
SCAT DUL YEL FLOR, NO
CUT, N/S

LS: WHT-OFF WHT, SME
TRNSL, FN XLN TXT, SUB
RND, SLI FRM, CHNKY, PLTY,
W/ V PR INTRXLN POR, OCC
HL FRAC PRES, W/SH: DRK
GY, BLK, FN TXT, MOD SFT,
PYRC, CHNKY, W/ CHRT: OFF
WHT, TRNSL, OFF GY, ANG,
HRD, CHNKY/BLKY, MCRXLN,
W/ SCAT DUL YEL FLOR, NO
CUT, N/S



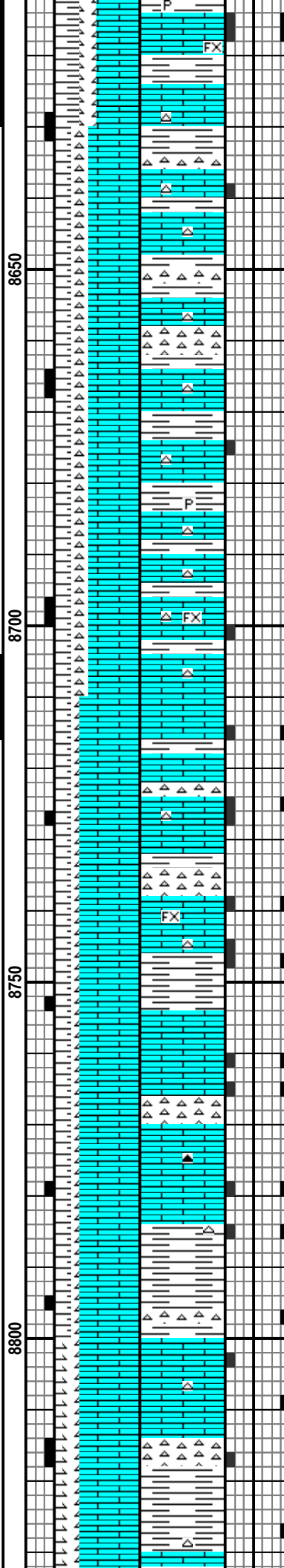
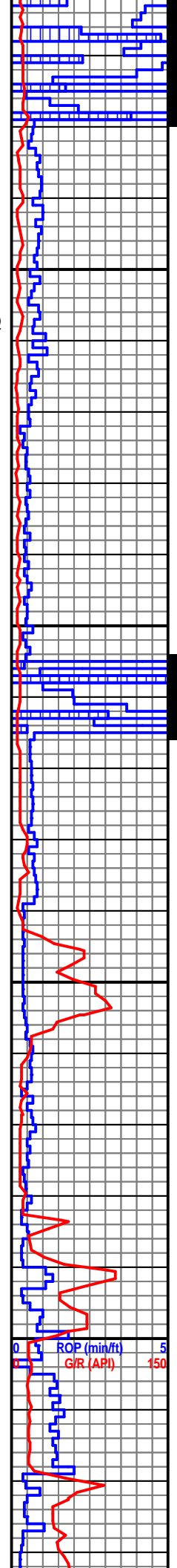
MD 8623 TVD 4773
INC 90.2 AZ 1
VS 4148.41

WOB: 21.0
RPM: 66
SPM: 111
PP: 2329
GPM: 474

11/22/2013 @
8,657' MD

MD 8718 TVD 4772.5
INC 90.4 AZ 1.8
VS 4243.4

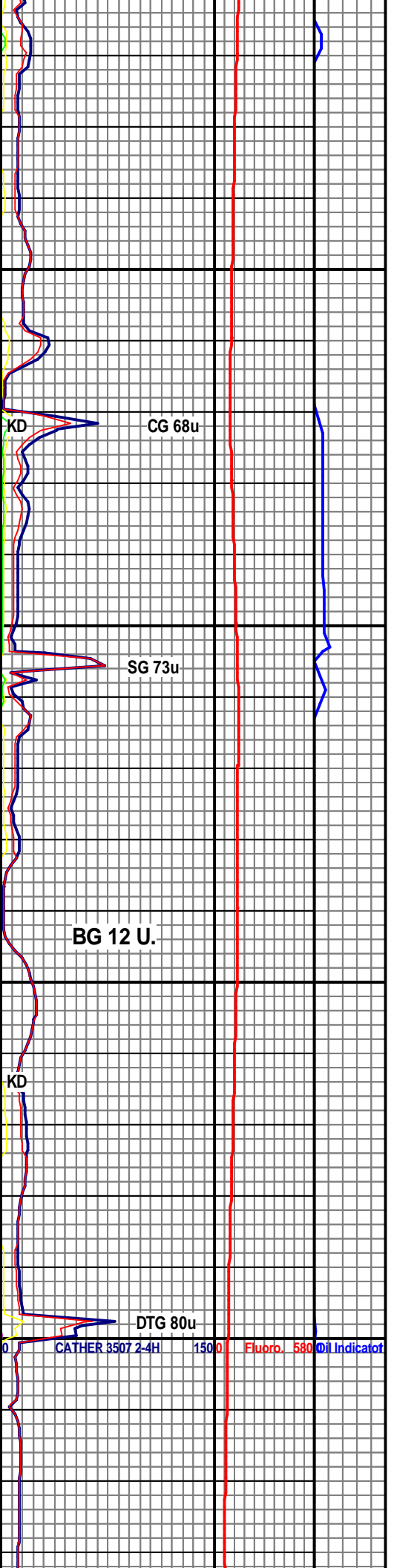
MD 8812 TVD 4770.78
INC 91.7 AZ 2.6
VS 4337.38



LS: LT GY, OFF WHT, PALE BRN, TAN, FN XLN TXT, MOD SFT-SLI FRM, PLTY, SME CHNKY, W/ V PR INTRXLN POR, W/ SH: DRK GY, BLK, GY, FN TXT, SME SLTY TXT, CHNKY, BLKY, W/ CHRT: DRK BRN, BRN, TRNSL, SME SLI OP, HRD, ANG, BLKY/CHNKY, W/ SCAT DUL YEL FLOR, V DUL SLW BLMNG MLK CUT, V FNT V THN V TR YEL RES RING

LS: WHT-OFF WHT, SME TRNSL, FN XLN TXT, SUB RND, SLI FRM, CHNKY, PLTY, W/ V PR INTRXLN POR, OCC HL FRAC PRES, W/SH: DRK GY, BLK, FN TXT, MOD SFT, PYRC, CHNKY, W/ CHRT: OFF WHT, TRNSL, OFF GY, ANG, HRD, CHNKY/BLKY, MCRXLN, W/ SCAT DUL YEL FLOR, NO CUT, N/S

LS: WHT-OFF WHT, SME TRNSL, FN XLN TXT, SUB RND, SLI FRM, CHNKY, PLTY, W/ V PR INTRXLN POR, OCC HL FRAC PRES, W/SH: DRK GY, BLK, FN TXT, MOD SFT, PYRC, CHNKY, W/ CHRT: OFF WHT, TRNSL, OFF GY, ANG, HRD, CHNKY/BLKY, MCRXLN, W/ SCAT DUL YEL FLOR, V SLOW DUL MLK BLMNG



SLOW DOLL MGR BEING
CUT, V THN BRT BL RES
RING

BG 10 U.

KD

GAS SCALE
0 TO 150

WOB: 23.5 4769.39
RPM: 70 AZ 2.6
SPM: 111
PP: 2117
GPM: 481

MD 8898 TVD 4767.29
INC 92.5 AZ 2.6
VS 4423.3

ROP IN BLUE

TD HOLE @ 8,998'
MD
SANDRIDGE
ENERGY INC.
CATHER 3507 2-4H
SECTION T35S R7W,
Sec. 4 HARPER CO.
KANSAS

GL 1,286' KB 1,304'

8850

8900

50

