



# 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: Teresia 3509 1-16H  
Location: SECTION 16, T35S, R9W, HARPER, KANSAS  
License Number: 15-077-21797-0100  
Spud Date: 07/26/2013  
Surface Coordinates: 200' FSL & 660' FEL SECTION 16, T35S, R9W  
Region: Harper  
Drilling Completed:  
Bottom Hole Coordinates: 1,450' FSL & 660' FEL SECTION 9, T35S, R9W  
LOGGED BY: Blake Johnson/ John Mckinley  
Ground Elevation (ft): 1,228' K.B. Elevation (ft): 1,246'  
Logged Interval (ft): 3,400' To: 9,033' Total Depth (ft): 9,033'  
Formation: Kinderhook  
Type of Drilling Fluid: WATER/ NATIVE GEL

Printed by MUD.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

## OPERATOR

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

## GEOLOGIST

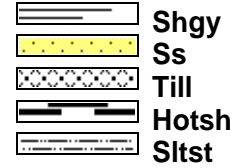
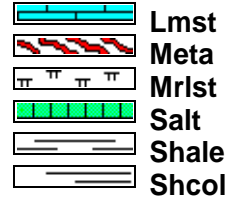
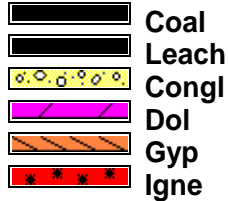
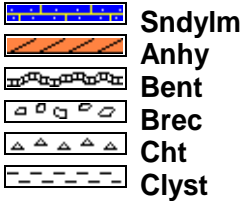
Name: TAMMY ALCORN  
Company: Sandridge Energy, Inc  
Address: 123 Robert S. Kerr Avenue, Ste. 2430  
Oklahoma City, Oklahoma 73102-6406

## Cores

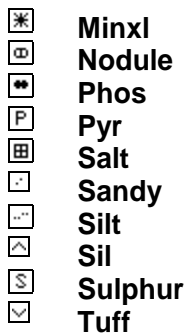
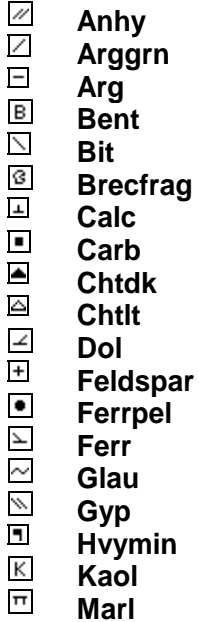
## DSTs

## Comments

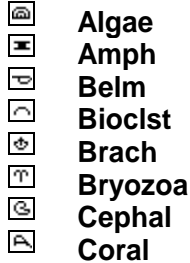
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## MINERAL



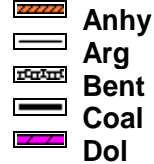
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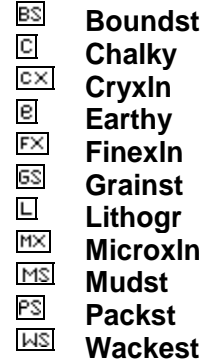
## ACCESSORIES



## STRINGER

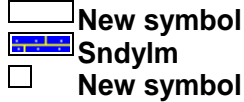
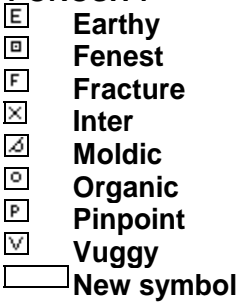


## TEXTURE



## OTHER SYMBOLS

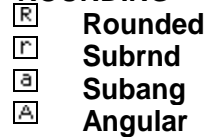
## POROSITY



## SORTING



## ROUNDING



## OIL SHOW

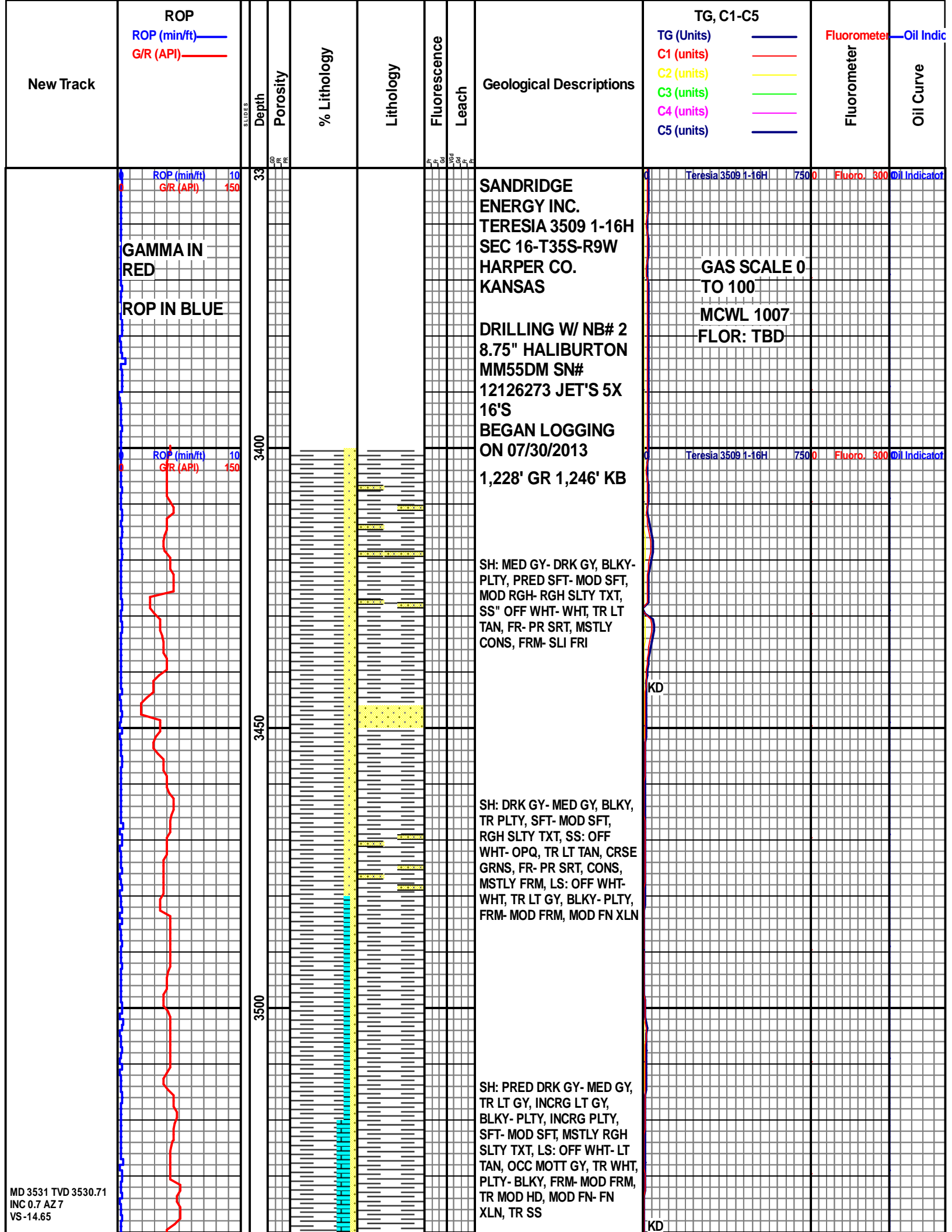


## INTERVAL



## EVENT





New Track

ROP (min/ft) —  
G/R (API) —

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

Fluorometer — Oil Indic  
Fluorometer —  
Oil Curve —

Depth  
3300  
3400  
3450  
3500

GAMMA IN RED  
ROP IN BLUE

ROP (min/ft) 10  
G/R (API) 150

ROP (min/ft) 10  
G/R (API) 150

SANDRIDGE ENERGY INC.  
TERESIA 3509 1-16H  
SEC 16-T35S-R9W  
HARPER CO.  
KANSAS

DRILLING W/ NB# 2  
8.75" HALIBURTON  
MM55DM SN#  
12126273 JET'S 5X  
16'S  
BEGAN LOGGING  
ON 07/30/2013  
1,228' GR 1,246' KB

SH: MED GY- DRK GY, BLKY-  
PLTY, PRED SFT- MOD SFT,  
MOD RGH- RGH SLTY TXT,  
SS" OFF WHT- WHT, TR LT  
TAN, FR- PR SRT, MSTLY  
CONS, FRM- SLI FRI

SH: DRK GY- MED GY, BLKY,  
TR PLTY, SFT- MOD SFT,  
RGH SLTY TXT, SS: OFF  
WHT- OPQ, TR LT TAN, CRSE  
GRNS, FR- PR SRT, CONS,  
MSTLY FRM, LS: OFF WHT-  
WHT, TR LT GY, BLKY- PLTY,  
FRM- MOD FRM, MOD FN XLN

SH: PRED DRK GY- MED GY,  
TR LT GY, INCRG LT GY,  
BLKY- PLTY, INCRG PLTY,  
SFT- MOD SFT, MSTLY RGH  
SLTY TXT, LS: OFF WHT- LT  
TAN, OCC MOTT GY, TR WHT,  
PLTY- BLKY, FRM- MOD FRM,  
TR MOD HD, MOD FN- FN  
XLN, TR SS

Teresia 3509 1-16H 7500 Fluor. 300 Oil Indicator

GAS SCALE 0  
TO 100

MCWL 1007  
FLOR: TBD

Teresia 3509 1-16H 7500 Fluor. 300 Oil Indicator

KD

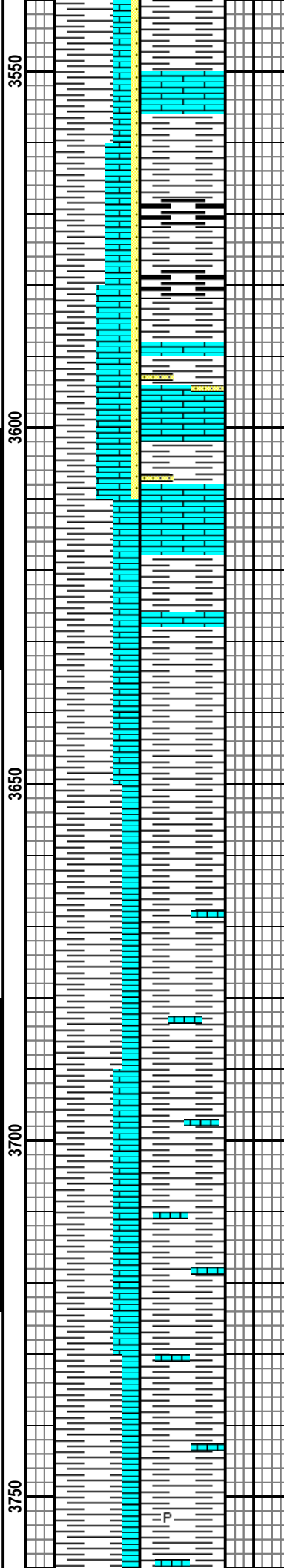
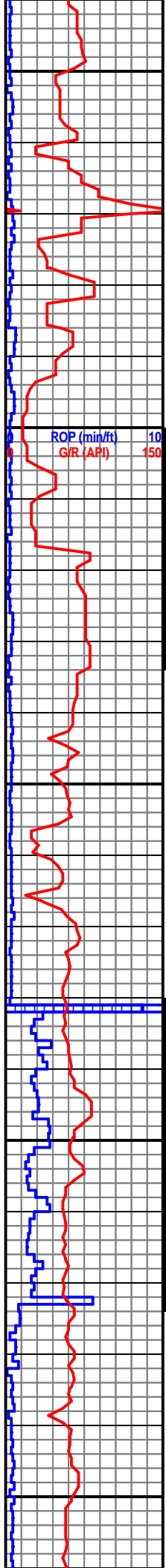
KD

MD 3584 TVD 3583.71  
INC 0.6 AZ 9.7  
VS-14.05

MD 3615 TVD 3614.7  
INC 0.8 AZ 7.2  
VS-13.68

08/04/13 @ 3,692'

MD 3710 TVD 3709.67  
INC 3.1 AZ 345.4  
VS-11.54



SH: MSTLY MED GY- LT GY,  
OCC DRK GY, BLKY- PLTY,  
MOD SFT- SFT, SME MOD  
FRM, RGH SLTY TXT, LS:  
CRM- LT TAN, TR WHT, PLTY-  
BLKY, FRM- MOD FRM, TR  
MOD HD, V FN- MICRO FN  
XLN, TR SS

**BASE OF HEEBNER  
@ 3,585' MD  
(-2,339')**

**TOOH FOR NEW BIT  
& MWD TOOL @  
3,634' MD**

SH: MSTLY MED GY- DK GY,  
SCAT LT GY, PRED BLKY,  
OCC PLTY, SFT- MOD SFT,  
RGH- MOD RGH SLTY TXT,  
LS: MSTLY LT TAN- MED TAN,  
PLTY- BLKY, FRM- MOD FRM,  
V FN- FN XLN NO STAIN NO  
CUT

SH: LT GY- MED GY, SLI  
INCRG MED GY, SCAT DRK  
GY, PLTY- BLKY, SFT, MOD  
RGH- FN SLTY TXT, TR LS:  
OFF WHT- LT TAN, OCC  
MOTT, TR OPIAC, PLTY-  
BLKY, FRM- MOD FRM, V FN-  
FN XLN

TIME DRILL FROM 3,581-  
3,583' 5 MIN. AN INCH

Teresia 3509 1-16H 7500 Fluoro. 300 Oil Indicator

TRIP GAS @ 270 U.

BG 15 U.

PERIODICALLY  
LOSING RETURNS

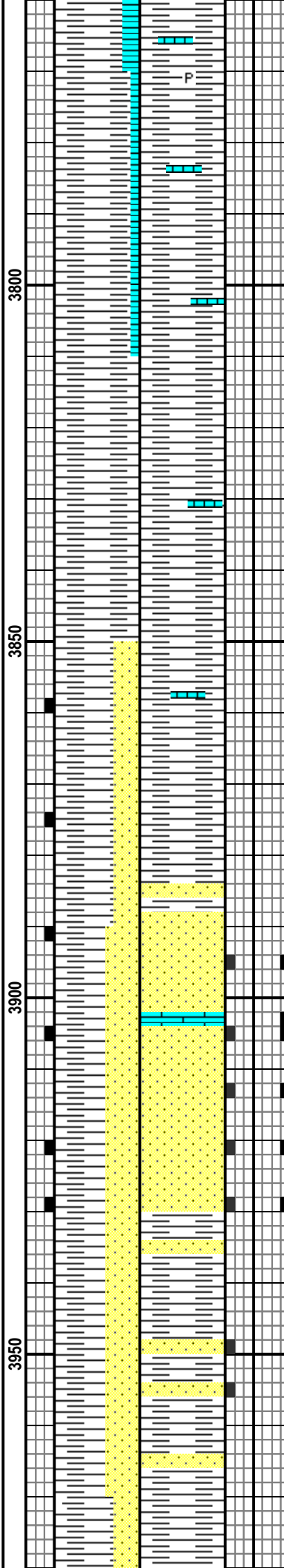
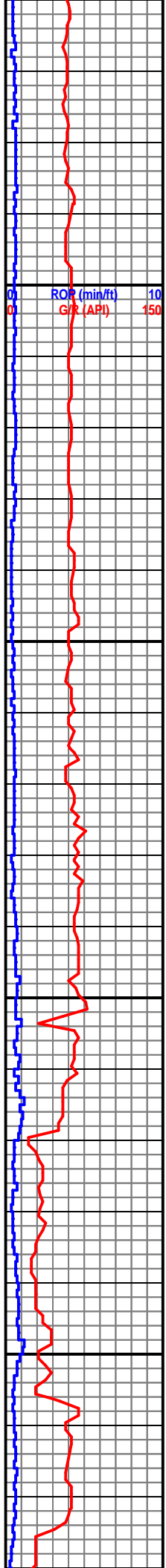
KD

MD 3773 TVD 3772.56  
INC 3.7 AZ 351.9  
VS-7.88

MD 3868 TVD 3867.41  
INC 2.8 AZ 353.5  
VS-2.53

WOB: 11  
RPM: 42  
SPM: 112  
PP: 2231  
GPM:576

MD 3963 TVD 3962.3  
INC 2.8 AZ 356.7  
VS 2.1



SH: -DK GRY-MED GY TR  
BLK, PLTY- BLKY, SFT- MOD  
SFT, FN SLTY TXT, LS: SLI  
TR LT TAN, OCC MOTT, PLTY-  
BLKY, FRM, MICRO FN XLN.

SH: MED GY-DK GRY TR  
BLK, PLTY- BLKY, SFT- MOD  
SFT, FN SLTY TXT, TR LS: LT  
TAN, OCC MOTT, PLTY-  
BLKY, FRM, MICRO FN XLN.  
SS: LT GY-MED GY, FN-M, W  
SRT, ANG-SUB ANG, SLI FRI,  
CALC, GD VIS POR, NO CUT,  
SLI FLOR

**LANSING @ 3,903'**

SH: MED GY-DK GRY , PLTY-  
BLKY, SFT, FN SLTY TXT.  
SS: WHT TO LT GY, FN-M, W  
SRT, SUB ANG-SUB RND, W  
ARG , FRI, CALC, GD VIS  
POR, NO CUT, SLI FLOR

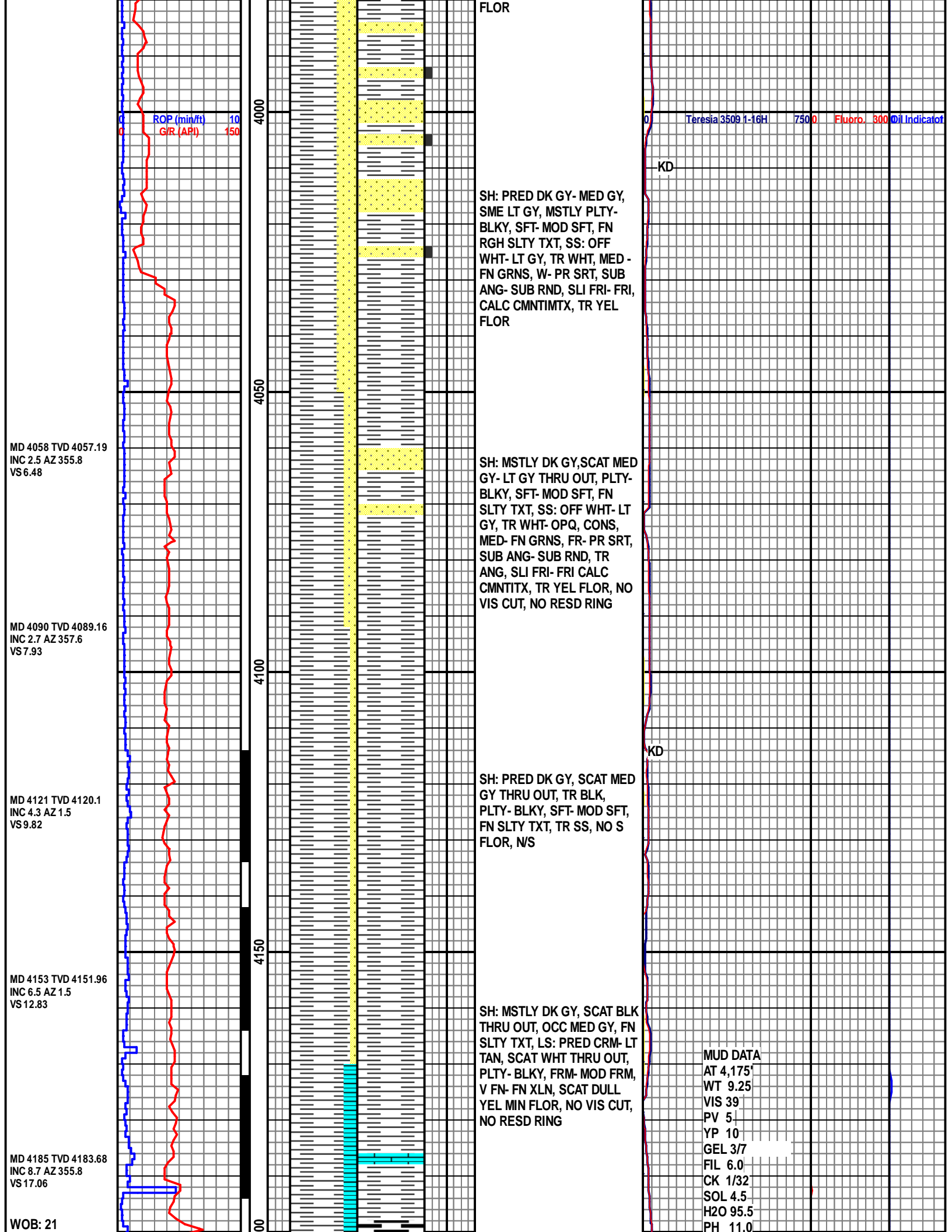
SH: MSTLY DK GY- MED GY,  
OCC LT GY, PLTY- BLKY,  
SFT- MOD SFT, FN RGH SLTY  
TXT, SS: OFF WHT- LT GY,  
FN- MED GRNS, W SRT, SUB  
ANG- SUB RND, FRI- SLI FRI,  
CALC CMNTIMTX, TR YEL

BG 12-18

Teresia 3509 1-16H 7500 Fluoro. 300 Oil Indicator

KD

KD



ROP (min/ft) 10  
G/R (API) 150

Teresia 3509 1-16H 7500 Fluorob. 300 Oil Indicator

KD

SH: PRED DK GY- MED GY, SME LT GY, MSTLY PLTY-BLKY, SFT- MOD SFT, FN RGH SLTY TXT, SS: OFF WHT- LT GY, TR WHT, MED - FN GRNS, W- PR SRT, SUB ANG- SUB RND, SLI FRI- FRI, CALC CMNTIMTX, TR YEL FLOR

SH: MSTLY DK GY, SCAT MED GY- LT GY THRU OUT, PLTY-BLKY, SFT- MOD SFT, FN SLTY TXT, SS: OFF WHT- LT GY, TR WHT- OPQ, CONS, MED- FN GRNS, FR- PR SRT, SUB ANG- SUB RND, TR ANG, SLI FRI- FRI CALC CMNTITX, TR YEL FLOR, NO VIS CUT, NO RESD RING

KD

SH: PRED DK GY, SCAT MED GY THRU OUT, TR BLK, PLTY- BLKY, SFT- MOD SFT, FN SLTY TXT, TR SS, NO S FLOR, N/S

SH: MSTLY DK GY, SCAT BLK THRU OUT, OCC MED GY, FN SLTY TXT, LS: PRED CRM- LT TAN, SCAT WHT THRU OUT, PLTY- BLKY, FRM- MOD FRM, V FN- FN XLN, SCAT DULL YEL MIN FLOR, NO VIS CUT, NO RESD RING

MUD DATA  
AT 4,175'  
WT 9.25  
VIS 39  
PV 5  
YP 10  
GEL 3/7  
FIL 6.0  
CK 1/32  
SOL 4.5  
H2O 95.5  
PH 11.0

MD 4058 TVD 4057.19  
INC 2.5 AZ 355.8  
VS 6.48

MD 4090 TVD 4089.16  
INC 2.7 AZ 357.6  
VS 7.93

MD 4121 TVD 4120.1  
INC 4.3 AZ 1.5  
VS 9.82

MD 4153 TVD 4151.96  
INC 6.5 AZ 1.5  
VS 12.83

MD 4185 TVD 4183.68  
INC 8.7 AZ 355.8  
VS 17.06

WOB: 21

RPM: 43  
SPM: 112  
PP: 2843  
GPM: 482

ROP (min/ft) 10  
G/R (API) 150

MD 4216 TVD 4214.24  
INC 10.6 AZ 353.4  
VS 22.23

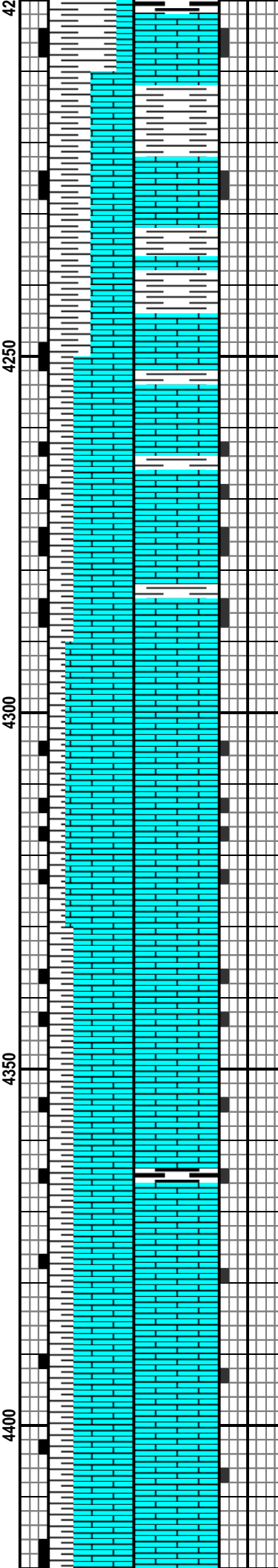
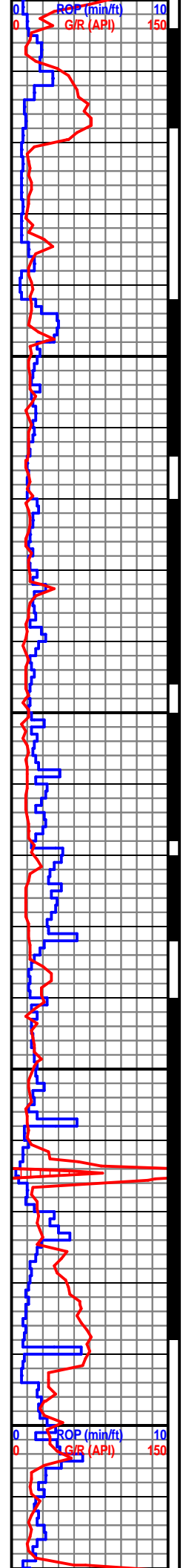
MD 4248 TVD 4245.6  
INC 12.2 AZ 352  
VS 28.51

MD 4279 TVD 4275.73  
INC 15 AZ 354  
VS 35.75

MD 4311 TVD 4306.47  
INC 17.2 AZ 356  
VS 44.6

MD 4343 TVD 4336.88  
INC 19.1 AZ 356.6  
VS 54.55

MD 4374 TVD 4365.99  
INC 21.1 AZ 355.4  
VS 65.18



### COTTAGE GROVE 4,200' MD 4,198' TVD

LS: PRED CRM- WHT, SCAT  
LT TAN, PLTY- BLKY, FRM-  
MOD FRM, V FN- FN XLN, TR  
HL FRAC POR, SCAT DUL  
YEL MIN FLOR, NO VIS CUT,  
NO RESD RING

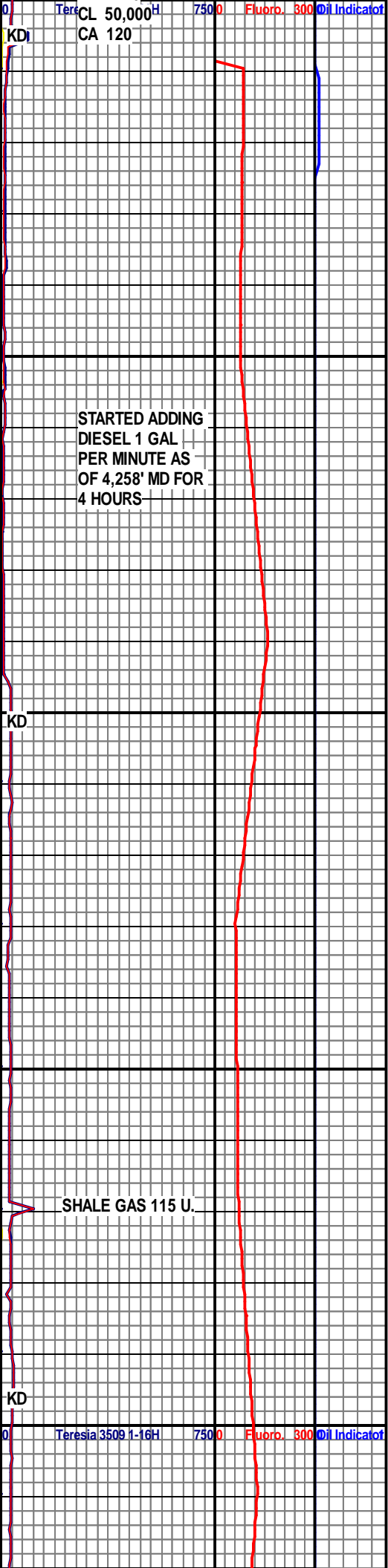
LS: MSTLY WHT- CRM, TR LT  
TAN, BLY- PLTY, FRM- MOD  
FRM, V FN- FN XLN, TR HL  
FRAC POR, SH: DK GY- BLK,  
MSTLY BLKY, SCAT PLTY,  
SFT- MOD SFT, FN SLTY TXT,  
SCAT DULL YEL FLOR THRU  
OUT, NO VIS CUT, NO RESD  
RING

LS: PRED WHT- CRM, TR LT  
TAN, MSTLY BLKY- PLTY,  
PRED FRM- MOD FRM, V FN-  
FN XLN, TR MICRO FN XLN,  
TR HL FRAC POR, SH: DK  
GY- BLK, MSTLY BLKY, SCAT  
PLTY, SFT- MOD SFT, FN  
SLTY TXT, SCAT DULL YEL  
FLOR THRU OUT, NO VIS  
CUT, NO RESD RING

LS: LT TAN- LT GY, PLTY-  
BLKY, MICRO FN- V FN XLN,  
TR HL FRAC POR, SH: MED  
GY- DK GY, SME BLK CARB,  
PLTY- BLKY, TR SPLTY, MOD  
SFT- MOD FRM, SLTY TXT,  
TR YEL MIN FLOR, SLI CUT  
SLI STAIN

CL 50,000H 7500 Fluoro. 300 Oil Indicator

CA 120



STARTED ADDING  
DIESEL 1 GAL  
PER MINUTE AS  
OF 4,258' MD FOR  
4 HOURS

SHALE GAS 115 U.

ROP (min/ft) 10  
G/R (API) 150

Teresia 3509 1-16H 7500 Fluoro. 300 Oil Indicator

MD 4438 TVD 4424.48  
INC 26.7 AZ 354.1  
VS 91

MD 4469 TVD 4451.89  
INC 29 AZ 354.6  
VS 105.43

WOB: 12.0  
RPM: 0  
SPM: 112  
PP: 2440  
GPM: 486

MD 4501 TVD 4479.58  
INC 31.1 AZ 354.2  
VS 121.39

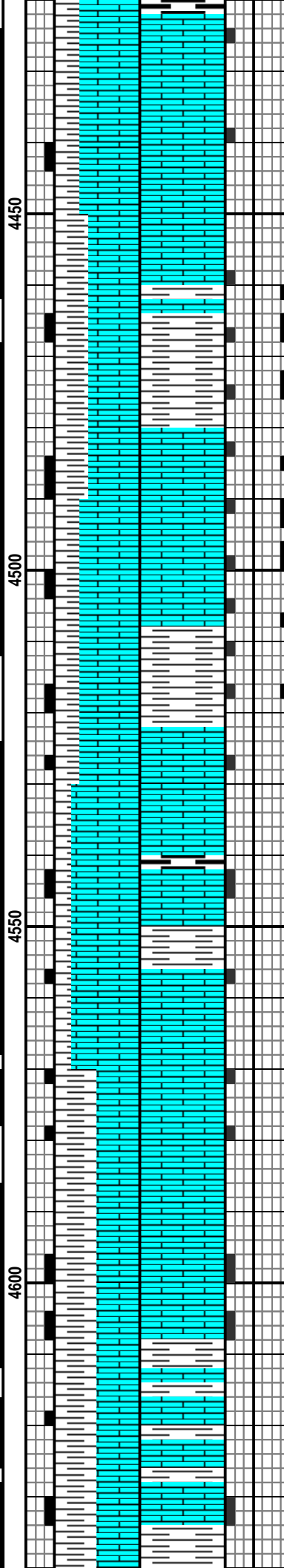
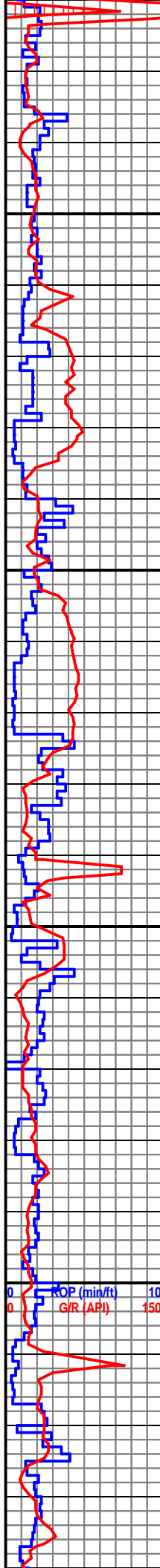
08/05/13 @ 4,519'

MD 4533 TVD 4506.71  
INC 33 AZ 354.1  
VS 138.29

MD 4564 TVD 4532.3  
INC 35.7 AZ 355  
VS 155.71

MD 4596 TVD 4557.89  
INC 38.1 AZ 356  
VS 174.88

MD 4627 TVD 4581.87  
INC 40.5 AZ 357.1  
VS 194.48



SH: LT GY TO DRK GY TO  
BLK CARB, PLTY- BLKY, TR  
SPLTY, MOD SFT- MOD FRM,  
SLTY TXT, PYR, INTERLAM  
LS: LT TAN- LT GY, PLTY-  
BLKY, MICRO FN- V FN XLN,  
TR HL FRAC POR, SME CUT  
THIN RING STAIN SCAT  
FLOR.

SH: LT GY TO DRK GY TO  
BLK CARB, PLTY- BLKY, TR  
SPLTY, MOD SFT- MOD FRM,  
SLTY TXT LS: LT TAN- LT  
GY, PLTY- BLKY, MICRO FN-  
V FN XLN, TR HL FRAC POR,  
SLI CUT SLI STAIN MIN  
FLOR.

**OSWEGO @ 4,541'  
MD 4,513' TVD**

LS: LT TAN- LT GY -BRN,  
PLTY- BLKY, MICRO FN- V FN  
XLN, TR HL FRAC POR, NO  
CUT NO STAIN SCAT MIN  
FLOR SH: LT GY TO DRK GY  
TO BLK CARB, PLTY- BLKY,  
TR SPLTY, MOD SFT- MOD  
FRM, SLTY TXT

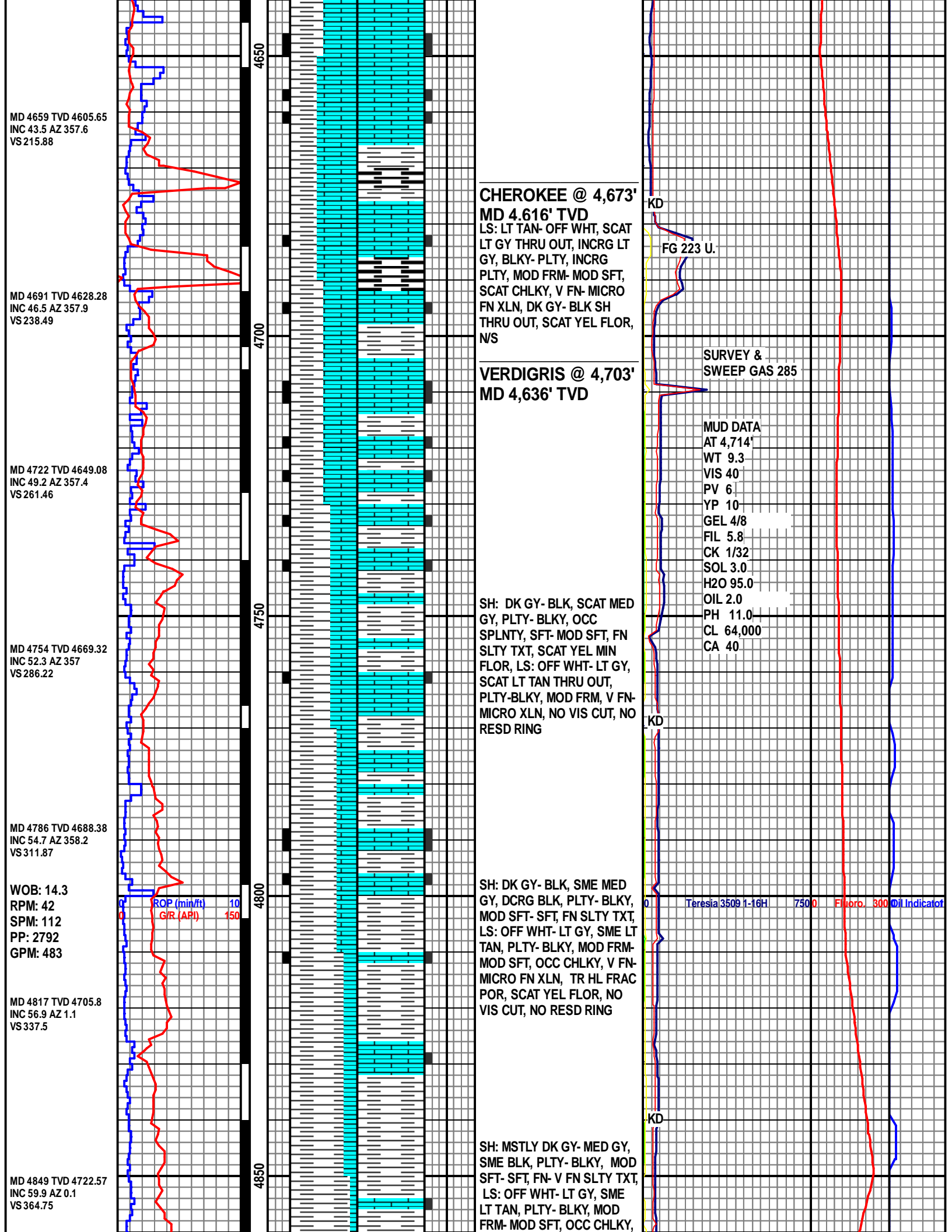
LS: PRED LT TAN- OFF WHT,  
SCAT LT GY THRU OUT,  
BLKY- PLTY, MOD FRM- MOD  
SFT, SME FRM, SCAT CHLKY  
THRU OUT, MICRO FN- V FN  
XLN, SH: MSTLY DK GY,  
SCAT MED GY, OCC BLK,  
PLTY- BLKY, OCC SPLNTY,  
SFT- MOD SFT, FN SLTY TXT,  
SCAT YEL MIN FLOR, NO VIS  
CUT, NO RESD RING

SHALE GAS 115 U.

KD CG 33 U.

KD

0 Teresia 3509 1-16H 750 0 Fluoro. 300 Oil Indicator



MD 4659 TVD 4605.65  
 INC 43.5 AZ 357.6  
 VS 215.88

MD 4691 TVD 4628.28  
 INC 46.5 AZ 357.9  
 VS 238.49

MD 4722 TVD 4649.08  
 INC 49.2 AZ 357.4  
 VS 261.46

MD 4754 TVD 4669.32  
 INC 52.3 AZ 357  
 VS 286.22

MD 4786 TVD 4688.38  
 INC 54.7 AZ 358.2  
 VS 311.87

WOB: 14.3  
 RPM: 42  
 SPM: 112  
 PP: 2792  
 GPM: 483

MD 4817 TVD 4705.8  
 INC 56.9 AZ 1.1  
 VS 337.5

MD 4849 TVD 4722.57  
 INC 59.9 AZ 0.1  
 VS 364.75

ROP (min/ft) 10  
 G/R (API) 150

**CHEROKEE @ 4,673'**

MD 4,616' TVD  
 LS: LT TAN- OFF WHT, SCAT  
 LT GY THRU OUT, INCRG LT  
 GY, BLKY- PLTY, INCRG  
 PLTY, MOD FRM- MOD SFT,  
 SCAT CHLKY, V FN- MICRO  
 FN XLN, DK GY- BLK SH  
 THRU OUT, SCAT YEL FLOR,  
 NS

**VERDIGRIS @ 4,703'**

MD 4,636' TVD

SH: DK GY- BLK, SCAT MED  
 GY, PLTY- BLKY, OCC  
 SPLNTY, SFT- MOD SFT, FN  
 SLTY TXT, SCAT YEL MIN  
 FLOR, LS: OFF WHT- LT GY,  
 SCAT LT TAN THRU OUT,  
 PLTY- BLKY, MOD FRM, V FN-  
 MICRO XLN, NO VIS CUT, NO  
 RESD RING

SH: DK GY- BLK, SME MED  
 GY, DCRG BLK, PLTY- BLKY,  
 MOD SFT- SFT, FN SLTY TXT,  
 LS: OFF WHT- LT GY, SME LT  
 TAN, PLTY- BLKY, MOD FRM-  
 MOD SFT, OCC CHLKY, V FN-  
 MICRO FN XLN, TR HL FRAC  
 POR, SCAT YEL FLOR, NO  
 VIS CUT, NO RESD RING

SH: MSTLY DK GY- MED GY,  
 SME BLK, PLTY- BLKY, MOD  
 SFT- SFT, FN- V FN SLTY TXT,  
 LS: OFF WHT- LT GY, SME  
 LT TAN, PLTY- BLKY, MOD  
 FRM- MOD SFT, OCC CHLKY,

KD

FG 223 U.

SURVEY &  
 SWEEP GAS 285

**MUD DATA**

AT 4,714'  
 WT 9.3  
 VIS 40  
 PV 6  
 YP 10  
 GEL 4/8  
 FIL 5.8  
 CK 1/32  
 SOL 3.0  
 H2O 95.0  
 OIL 2.0  
 PH 11.0  
 CL 64,000  
 CA 40

KD

KD

KD

Teresia 3509 1-16H 7500 Fluoro. 300 Oil Indicator

MD 4881 TVD 4737.86  
INC 63 AZ 359.3  
VS 392.85

MD 4912 TVD 4751.08  
INC 66.5 AZ 358.5  
VS 420.88

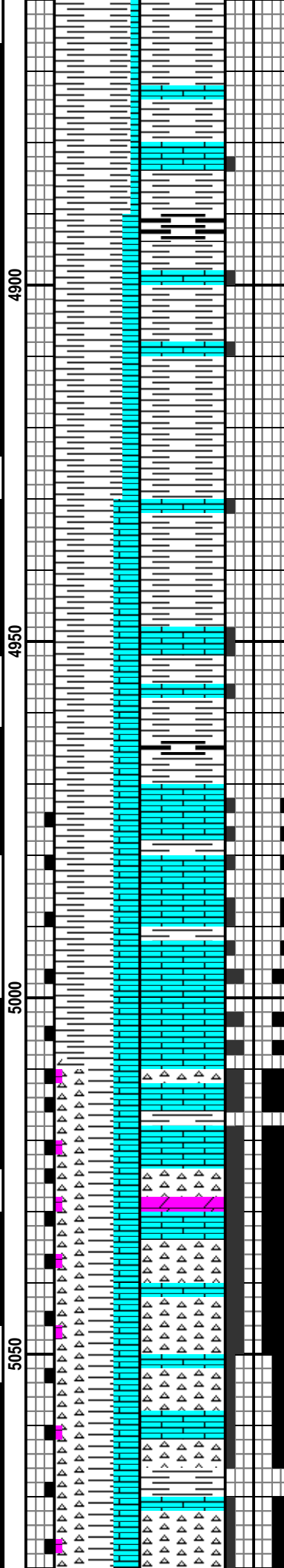
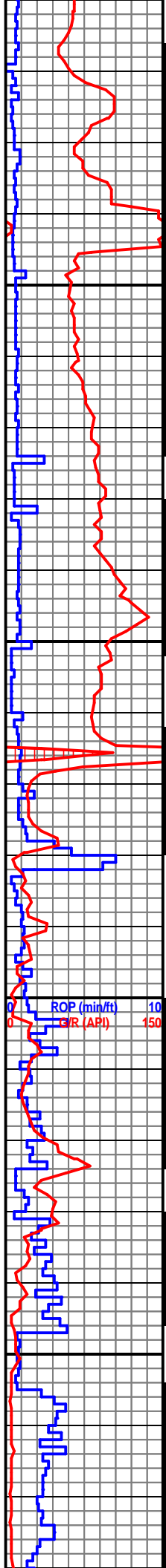
MD 4944 TVD 4763.2  
INC 69 AZ 358.2  
VS 450.49

MD 4976 TVD 4774.01  
INC 71.5 AZ 357.6  
VS 480.6

MD 5007 TVD 4783.51  
INC 72.8 AZ 358.1  
VS 510.09

MD 5039 TVD 4792.25  
INC 75.5 AZ 358.3  
VS 540.86

MD 5070 TVD 4799.2  
INC 78.6 AZ 358.7  
VS 571.06



V FN- MICRO FN XLN, TR HL  
FRAC POR, SCAT YEL FLOR,  
NO VIS CUT, NO RESD RING

SH: PRED GY, SCAT BLK,  
PLTY- BLKY, MOD FRM- MOD  
SFT- SFT, MOD FN SLTY TXT,  
TR FREE PYR, LS: OFF WHT-  
LT GY, SLI INCRG LT TAN,  
PLTY- BLKY, MOD FRM- FRM,  
TR MOD SFT, HL FRAC POR,  
SCAT YEL FLOR, NO VIS  
CUT, NO SHOW

SH: MSTLY MED GY- LT GY,  
TR RED/BRN, PLTY- BLKY,  
MOD SFT- SFT, OCC MOD  
FRM, V FN SLTY TXT, TR  
FREE PYR, LS: OFF WHT- LT  
GY, OCC LT TAN, PLTY-  
BLKY, INCRG BLKY, FRM-  
MOD FRM, V FN- MICRO FN  
XLN, TR HL FRAC POR, SCAT  
YEL FLOR, NO VIS CUT, NO  
RESD RING

LS: MED TAN- LT TAN, SCAT  
OFF WHT, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR. CHRT WHT TO  
CLR, HD BLKY. SCAT YEL  
FLOR, GD LT GREEN TO  
CREAM CUT, THK YEL RESD  
RING.

**MISSISSIPPI @  
5,038' MD 4,791' TVD**

LS: MED TAN- LT TAN, SCAT



SHALE GAS @  
217 U.

KD. CG 91 U.

FG 250 U.

Peresia 3509 1-16H 750 0 Fluoro. 300 Oil Indicator

KD. CG 209 U.

BG 80-100 U.

WOB: 20.4  
RPM: 0  
SPM: 112  
PP: 2554  
GPM: 483

MD 5102 TVD 4804.56  
INC 82.1 AZ 358.5  
VS 602.6

MD 5134 TVD 4808.16  
INC 85 AZ 358.4  
VS 634.39

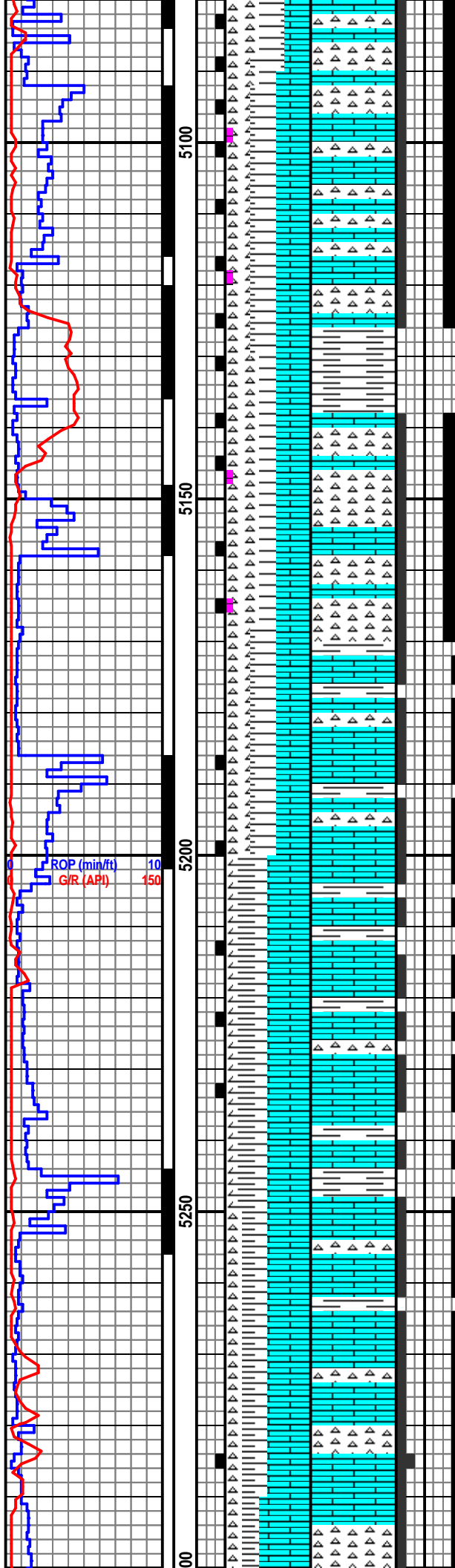
MD 5165 TVD 4810.4  
INC 86.7 AZ 358.4  
VS 665.13

MD 5197 TVD 4811.57  
INC 89.1 AZ 358.1  
VS 697.32

MD 5229 TVD 4811.91  
INC 89.7 AZ 358.2  
VS 729.3

MD 5260 TVD 4812.42  
INC 88.4 AZ 358.2  
VS 760.21

MD 5292 TVD 4813.4  
INC 88.1 AZ 358.8  
VS 792.2

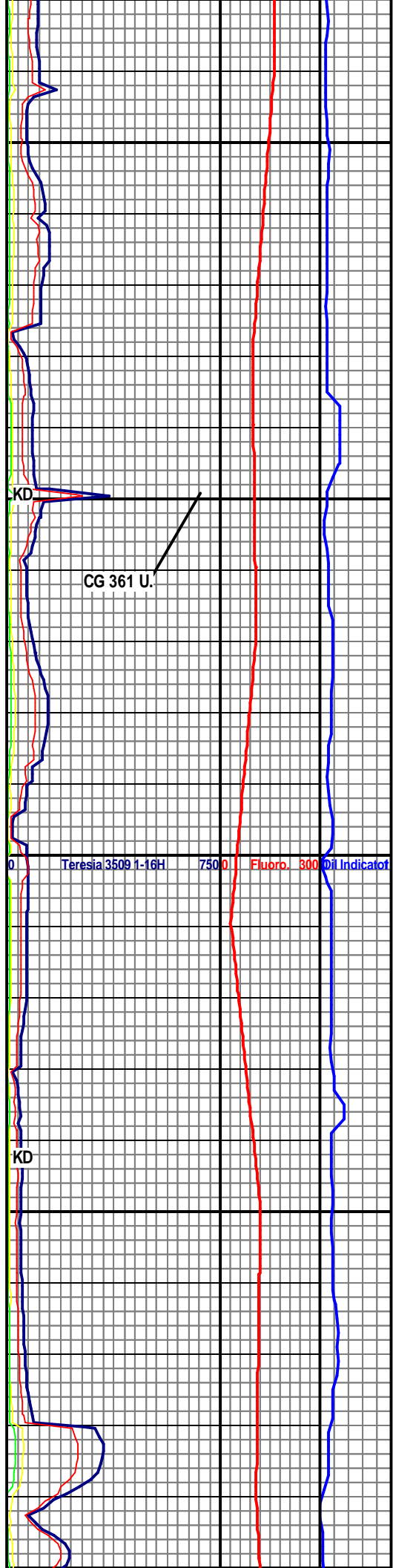


LS: MED TAN- LT TAN, SCAT  
OFF WHT, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR. CHRT WHT TO  
CLR, HD BLKY. SCAT YEL  
FLOR, GD CREAM CUT, THK  
YEL-GRN RESD RING.

LS: MED TAN- LT TAN, SCAT  
OFF WHT, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR. CHRT WHT TO  
CLR, HD BLKY. SCAT YEL  
FLOR, GD CREAM CUT, THK  
YEL-GRN RESD RING

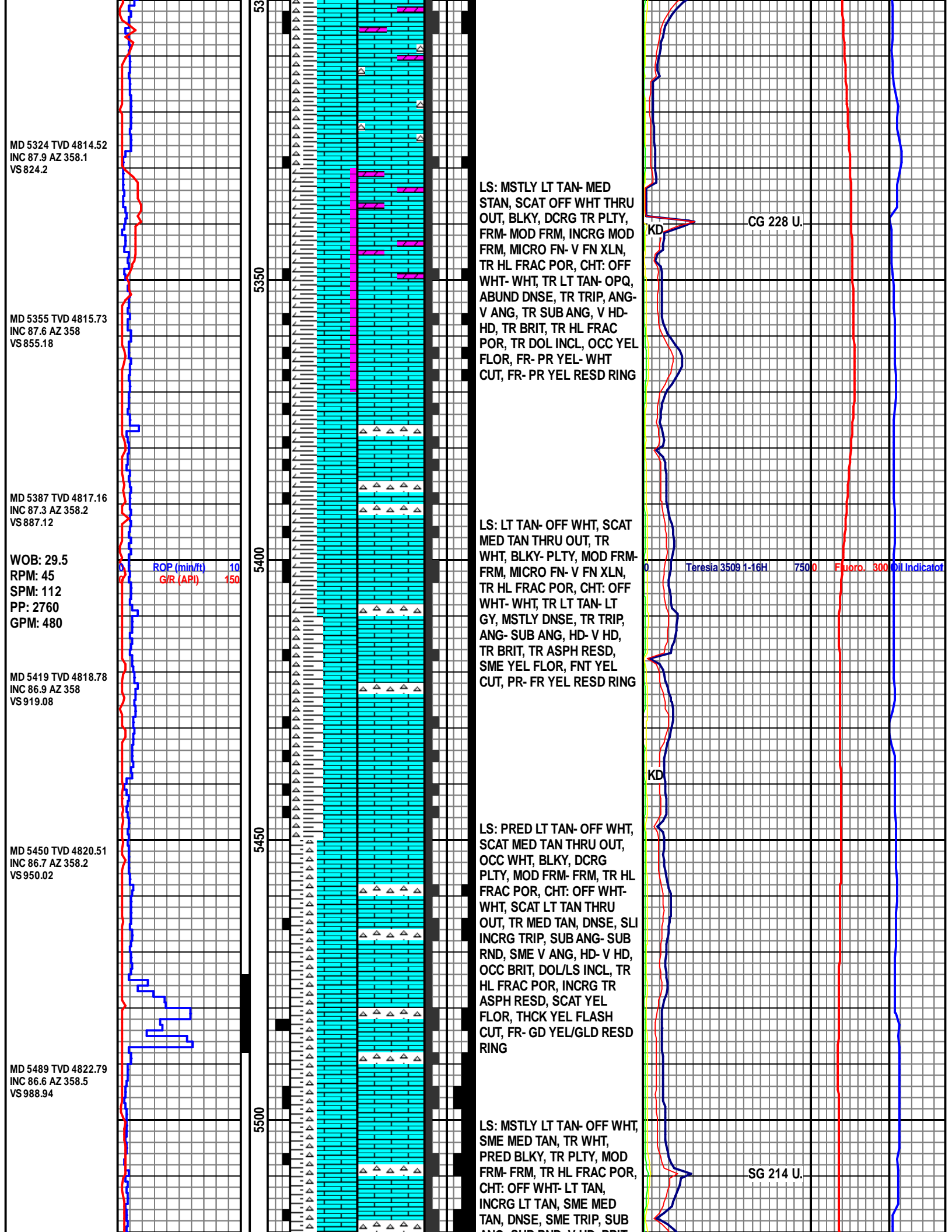
LS: MED TAN- LT TAN, SCAT  
OFF WHT, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR. CHRT WHT TO  
CLR TO OPAIC, HD BLKY.  
SCAT YEL FLOR, SLI LT BLU-  
CREAM CUT, THIN YEL-GRN  
RESD RING

LS: PRED MED TAN- LT TAN,  
SCAT OFF WHT THRU OUT,  
BLKY, TR PLTY, FRM- MOD  
FRM, MICRO FN- V FN XLN,  
OCC HL FRAC POR, CHT:  
OFF WHT- WHT, TR LT TAN,  
MSTLY DNSE, TR TRIP, ANG,  
TR SUB ANG, V HD- HD, TR  
BRIT, TR DOL INCL, SH: GY,  
PLTY- BLKY, MOD SFT- MOD  
FRM, FN SLTY TXT, TR DOL,  
SCAT YEL FLOR, THCK WHT  
CUT, YEL RESD RING



KD  
CG 361 U.

KD



MD 5324 TVD 4814.52  
 INC 87.9 AZ 358.1  
 VS 824.2

MD 5355 TVD 4815.73  
 INC 87.6 AZ 358  
 VS 855.18

MD 5387 TVD 4817.16  
 INC 87.3 AZ 358.2  
 VS 887.12

WOB: 29.5  
 RPM: 45  
 SPM: 112  
 PP: 2760  
 GPM: 480

MD 5419 TVD 4818.78  
 INC 86.9 AZ 358  
 VS 919.08

MD 5450 TVD 4820.51  
 INC 86.7 AZ 358.2  
 VS 950.02

MD 5489 TVD 4822.79  
 INC 86.6 AZ 358.5  
 VS 988.94

ROP (min/ft) 10  
 G/R (API) 150

LS: MSTLY LT TAN- MED STAN, SCAT OFF WHT THRU OUT, BLKY, DCRG TR PLTY, FRM- MOD FRM, INCRG MOD FRM, MICRO FN- V FN XLN, TR HL FRAC POR, CHT: OFF WHT- WHT, TR LT TAN- OPQ, ABUND DNSE, TR TRIP, ANG- V ANG, TR SUB ANG, V HD- HD, TR BRIT, TR HL FRAC POR, TR DOL INCL, OCC YEL FLOR, FR- PR YEL- WHT CUT, FR- PR YEL RESD RING

LS: LT TAN- OFF WHT, SCAT MED TAN THRU OUT, TR WHT, BLKY- PLTY, MOD FRM- FRM, MICRO FN- V FN XLN, TR HL FRAC POR, CHT: OFF WHT- WHT, TR LT TAN- LT GY, MSTLY DNSE, TR TRIP, ANG- SUB ANG, HD- V HD, TR BRIT, TR ASPH RESD, SME YEL FLOR, FNT YEL CUT, PR- FR YEL RESD RING

LS: PRED LT TAN- OFF WHT, SCAT MED TAN THRU OUT, OCC WHT, BLKY, DCRG PLTY, MOD FRM- FRM, TR HL FRAC POR, CHT: OFF WHT- WHT, SCAT LT TAN THRU OUT, TR MED TAN, DNSE, SLI INCRG TRIP, SUB ANG- SUB RND, SME V ANG, HD- V HD, OCC BRIT, DOL/LS INCL, TR HL FRAC POR, INCRG TR ASPH RESD, SCAT YEL FLOR, THCK YEL FLASH CUT, FR- GD YEL/GLD RESD RING

LS: MSTLY LT TAN- OFF WHT, SME MED TAN, TR WHT, PRED BLKY, TR PLTY, MOD FRM- FRM, TR HL FRAC POR, CHT: OFF WHT- LT TAN, INCRG LT TAN, SME MED TAN, DNSE, SME TRIP, SUB ANG- SUB ANG, TR BRIT

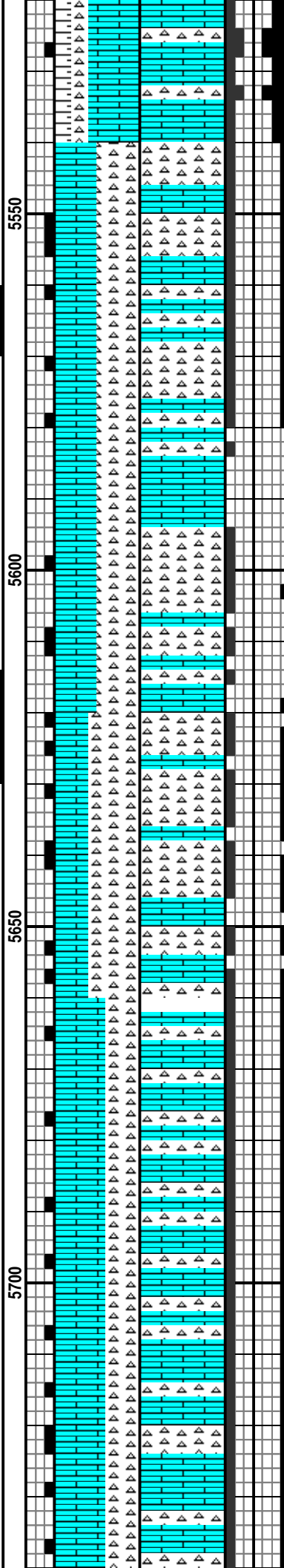
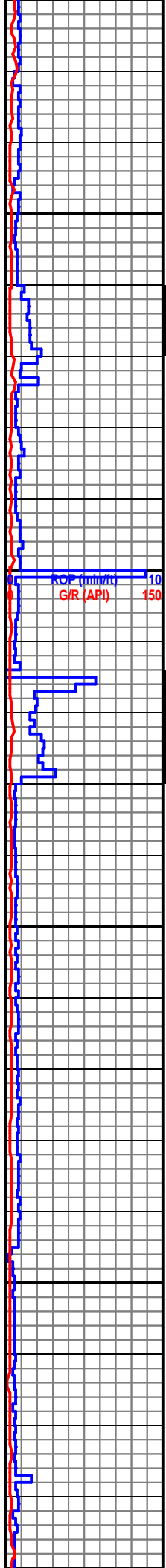
CG 228 U.

Teresia 3509 1-16H 7500 Fluoro 300 Oil Indicator

SG 214 U.

MD 5549 TVD 4825.93  
INC 87.4 AZ 358.3  
VS 1048.85

MD 5644 TVD 4827.17  
INC 91.1 AZ 359.1  
VS 1143.81



ANG- SUB RND, V HD- BRI,  
SCAT HD THRU OUT, OCC  
ASPH RESD, DOL/LS INCL,  
TR PP VUG POR, SCAT GLD-  
YEL FLOR, THCK YEL FLASH  
CUT, FR- GD YEL/GLD RESD  
RING

**TD WELL FOR  
INTERMEDIATE  
CASING @ 5,539' MD**  
4,825' TVD NB # 5  
6.125" SECURITY  
PDC 12257834  
3X16'S 3X 14'S BEND  
ANG 1.50  
REV/GAL0.630

LS: OFF WHT- WHT TR SLI  
LT TAN, BLKY, FRM- MOD  
FRM, MICRO FN- V FN XLN,  
TR HL FRAC POR, CHT: OFF  
WHT- WHT-CLR, SCAT LT  
TAN, OCC BRN, MSTLY  
DNSE, SCAT TRIP, ANG- SUB  
ANG, V HD- HD, SCAT BRIT  
THRU OUT, DOL/LS INCL, TR  
HC STN, SCAT YEL- BRI YEL  
FLOR THRU OUT, MLKY YEL  
CUT, YEL RESD RING

LS: PRED OFF WHT- WHT,  
BLKY, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR, CHT: OFF WHT-  
WHT, SCAT LT TAN, OCC  
BRN, MSTLY DNSE, SCAT  
TRIP, ANG- SUB ANG, V HD-  
HD, SCAT BRIT THRU OUT,  
DOL/LS INCL, TR HC STN,  
SCAT YEL- BRI YEL FLOR  
THRU OUT,



CG & FG 243 U.

DTG 134 U.

CG 66 U. 16H 7500 Fluoro. 300 Oil Indicator

BG 30-40 U.

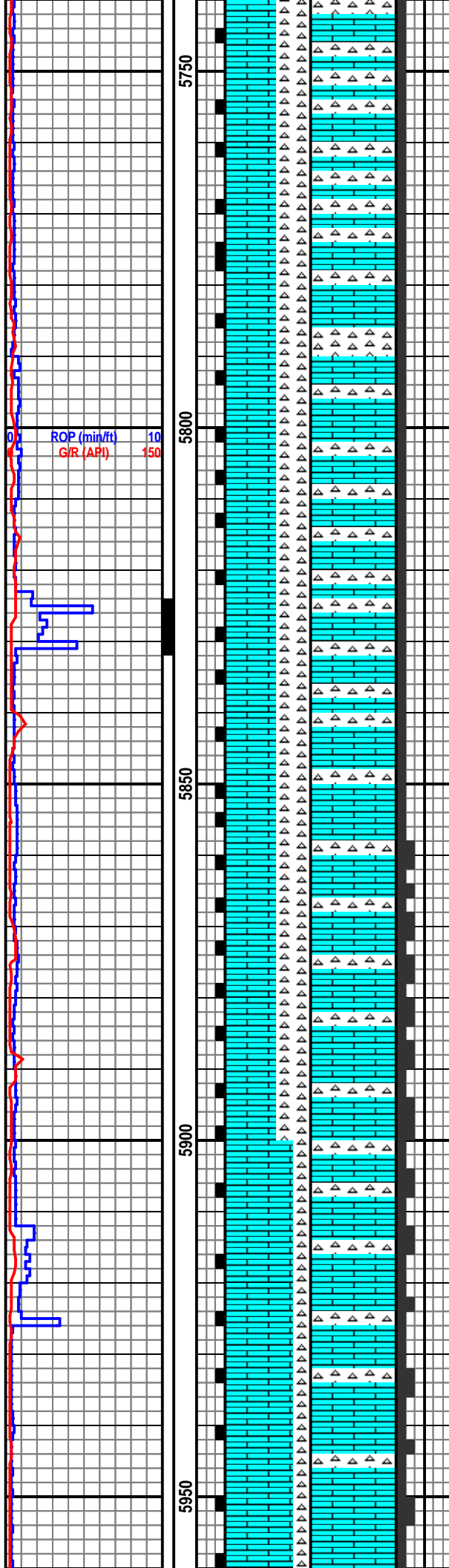
BG 20-30 U.

WOB 20K  
RPM 71  
SPM 71  
PP 1650  
GPM 464

MD 5788 TVD 4823.27  
INC 92 AZ 358.6  
VS 1287.74

MD 5831 TVD 4821.59  
INC 92.5 AZ 359  
VS 1330.72

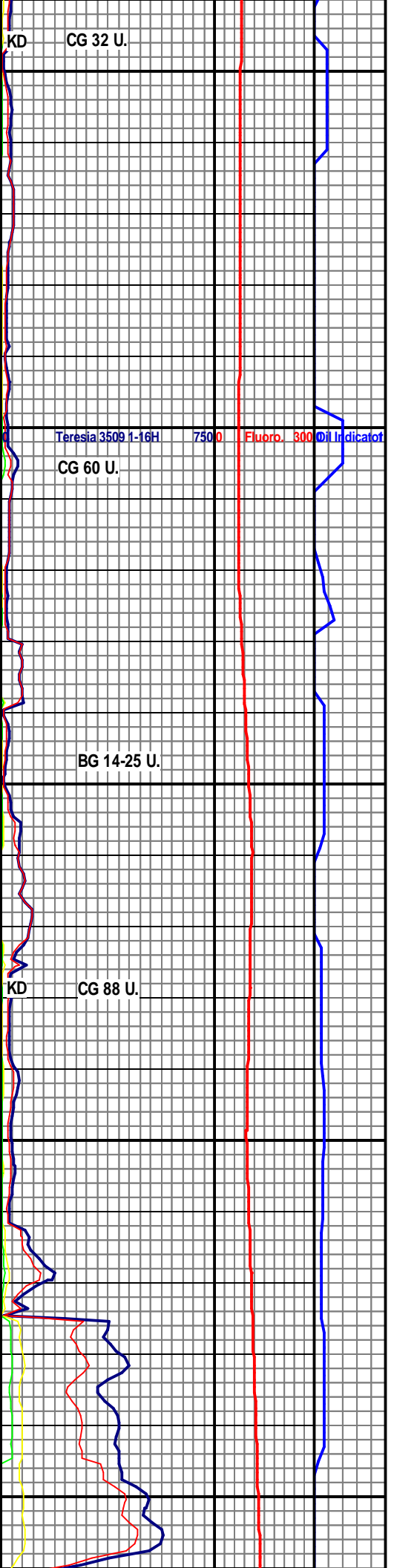
MD 5923 TVD 4818.62  
INC 91.2 AZ 359.4  
VS 1422.63

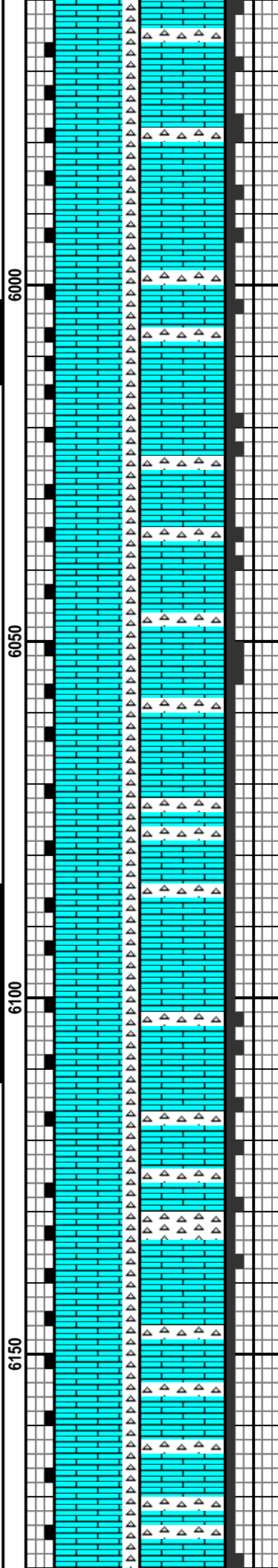
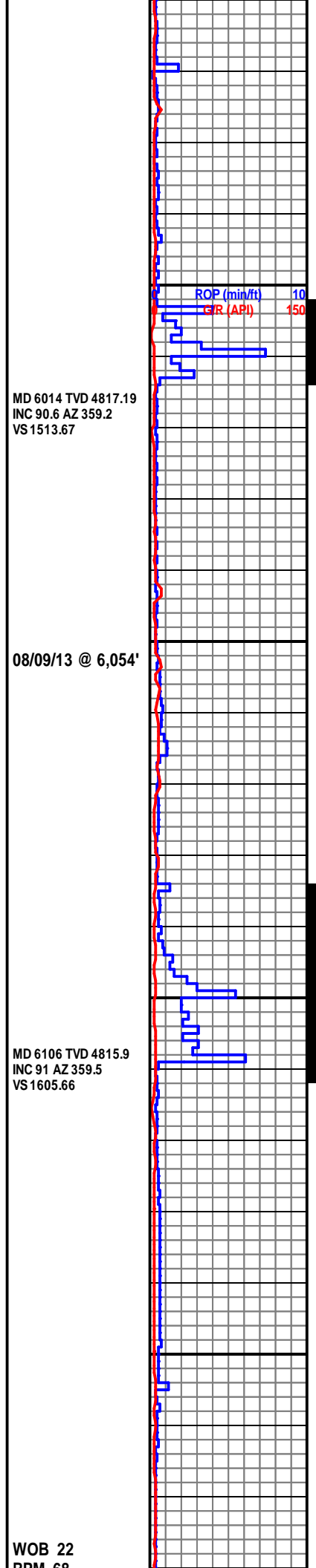


LSOFF WHT- WHT, BLKY,  
FRM- MOD FRM, MICRO FN- V  
FN XLN, TR HL FRAC POR,  
CHT: OFF WHT- WHT, SCAT  
LT TAN, OCC BRN, MSTLY  
DNSE, SCAT TRIP, ANG- SUB  
ANG, V HD- HD, SCAT BRIT  
THRU OUT, DOL/LS INCL, TR  
HC STN, SCAT YEL- BRI YEL  
FLOR THRU OUT,

LS: OFF WHT- WHT, BLKY,  
FRM- MOD FRM, MICRO FN- V  
FN XLN, TR HL FRAC POR,  
CHT: OFF WHT- WHT, SCAT  
TRIP, ANG- SUB ANG, V HD-  
HD, TR DOL/LS INCL, TR HC  
STN, SCAT YEL- BRI YEL  
FLOR LT BLU-GRN CUT, MED  
THIN RING STAIN

LS: OFF WHT- WHT, BLKY,  
FRM- MOD FRM, MICRO FN- V  
FN XLN, TR HL FRAC POR,  
CHT: OFF WHT- WHT, MSTLY  
DNSE, SCAT TRIP, ANG- SUB  
ANG, V HD- HD, TR DOL/LS  
INCL, TR HC STN, SCAT YEL-  
BRI YEL FLOR LT BLU-GRN  
CUT, MED THIN RING STAIN

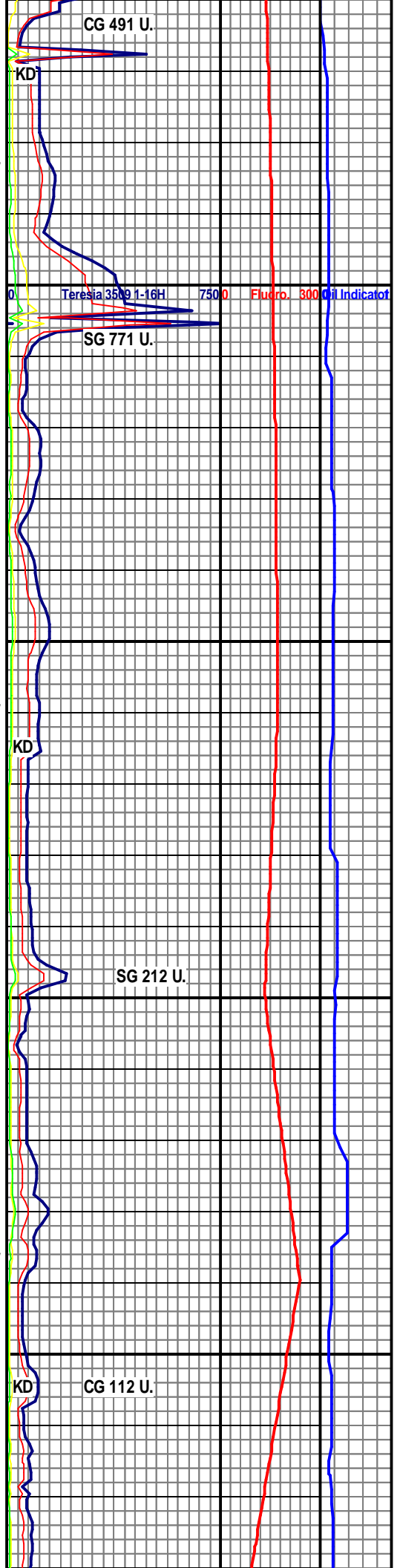




LS: OFF WHT- WHT, BLKY,  
 FRM- MOD FRM, MICRO FN- V  
 FN XLN, TR HL FRAC POR,  
 CHT: OFF WHT- WHT, ,  
 MSTLY DNSE, SCAT TRIP,  
 ANG- SUB ANG, V HD- HD,  
 TR DOL/LS INCL, TR HC STN,  
 SCAT YEL- BRI YEL FLOR LT  
 BLU-GRN CUT, MED THIN  
 RING STAIN

LS: OFF WHT- WHT, BLKY,  
 FRM- MOD FRM, MICRO FN- V  
 FN XLN, TR HL FRAC POR,  
 CHT: OFF WHT- WHT, SCAT  
 LT TAN, MSTLY DNSE, SCAT  
 TRIP, ANG- SUB ANG, HD TR  
 DOL/LS INCL, TR HC STN,  
 SCAT YEL- BRI YEL FLOR LT  
 BLU-GRN CUT THIN RING  
 STAIN

LS: OFF WHT- WHT, BLKY,  
 FRM- MOD FRM, MICRO FN- V  
 FN XLN, TR HL FRAC POR,  
 CHT: OFF WHT- WHT, SCAT  
 LT TAN, DNSE, SCAT TRIP,  
 ANG- SUB ANG, V HD- HD,  
 TR DOL/LS INCL, TR HC STN,  
 SCAT YEL- BRI YEL FLOR LT  
 BLU-GRN CUT, MED THIN  
 RING STAIN



MD 6014 TVD 4817.19  
 INC 90.6 AZ 359.2  
 VS 1513.67

08/09/13 @ 6,054'

MD 6106 TVD 4815.9  
 INC 91 AZ 359.5  
 VS 1605.66

WOB 22  
 RPM 68

RPM 68  
SPM 71  
PP 1680  
GPM 451

MD 6197 TVD 4813.16  
INC 91.7 AZ 359.7  
VS 1696.6

ROP (min/ft) 10  
G/R (API) 150

MD 6288 TVD 4811.09  
INC 90.9 AZ 0.6  
VS 1787.57

MD 6380 TVD 4809.25  
INC 91.4 AZ 0.1  
VS 1879.51

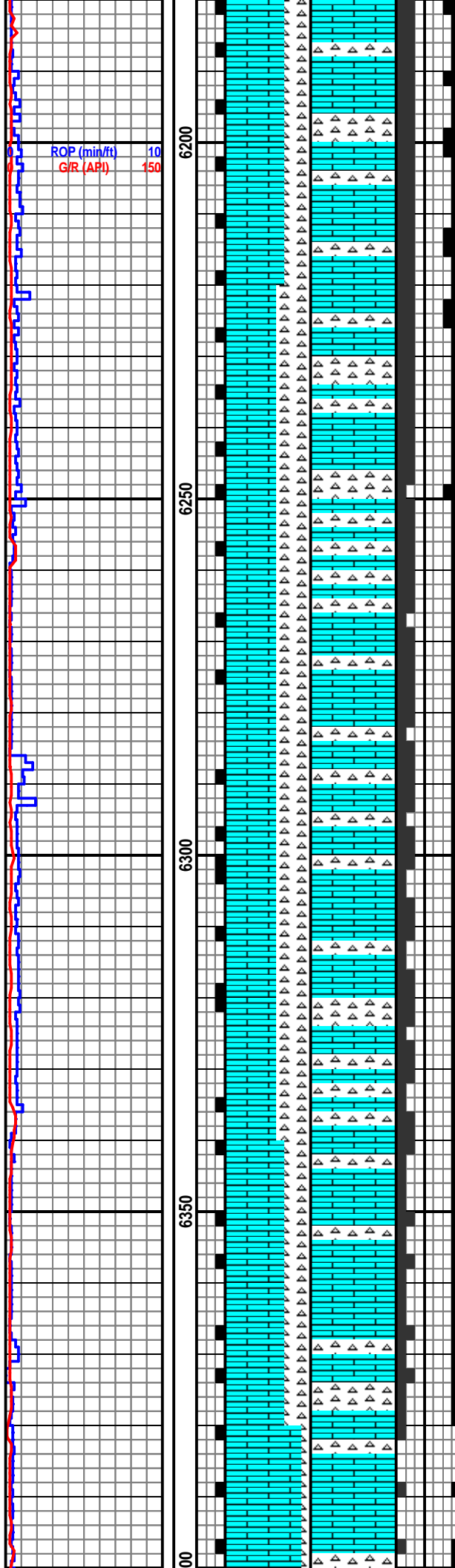
6200

6250

6300

6350

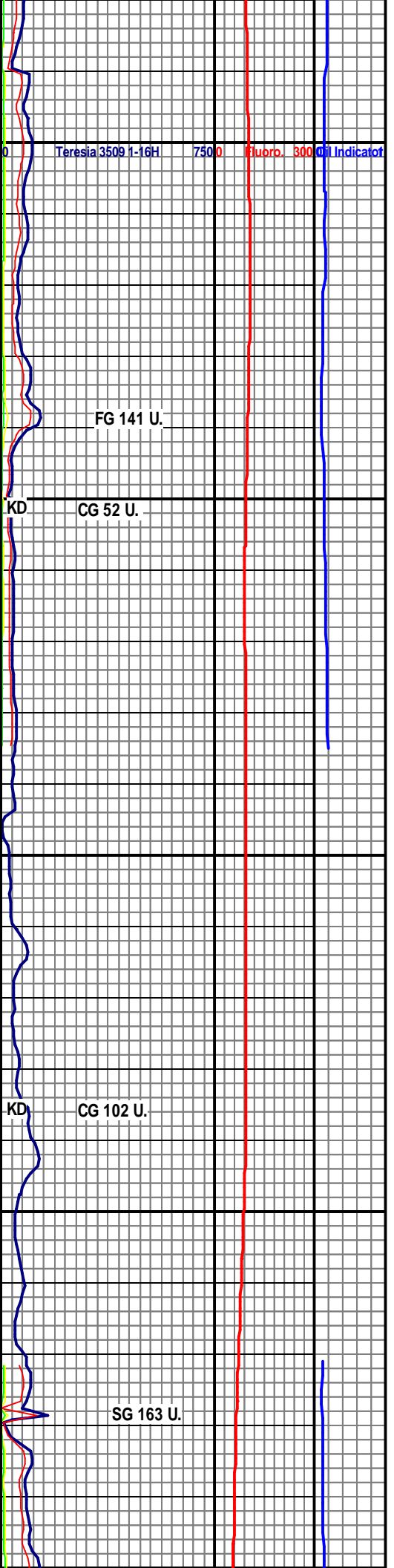
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LS: OFF WHT- WHT, BLKY,  
FRM- MOD FRM, MICRO FN- V  
FN XLN, TR HL FRAC POR,  
CHT: OFF WHT- WHT, DNSE,  
SCAT TRIP, ANG- SUB ANG,  
V HD- HD, TR DOL/LS INCL,  
TR HC STN, SCAT YEL- BRI  
YEL FLOR LT BLU-GRN CUT,  
MED THIN RING STAIN

LS: OFF WHT- WHT-LT GY,  
BLKY, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR, CHT: OFF WHT-  
WHT, DNSE, SCAT TRIP,  
ANG- SUB ANG, V HD- HD,  
TR DOL/LS INCL, TR HC STN,  
SCAT YEL- BRI YEL FLOR LT  
BLU-GRN CUT, MED THIN  
RING STAIN

LS: OFF WHT- WHT, TR LT  
TAN, BLKY, MSTLY DNSE, TR  
OOL, TR PLTY, FRM- MOD  
FRM, MICRO FN- V FN XLN,  
TR CRYPTXLN, TR HL FRAC  
POR, TR HC STN, CHT: WHT-  
OFF WHT, TR OPQ, DNSE,  
ANG- SUB ANG, V HD- HD,  
TR BRIT, TR HL FRAC POR,  
SCAT YEL FLOR THRU OUT,  
FNT LT BLUE CUT, THIN WHT



Teresia 3509 1-16H 7500 Fluoro 300 Oil Indicator

FG 141 U.

KD CG 52 U.

KD CG 102 U.

SG 163 U.

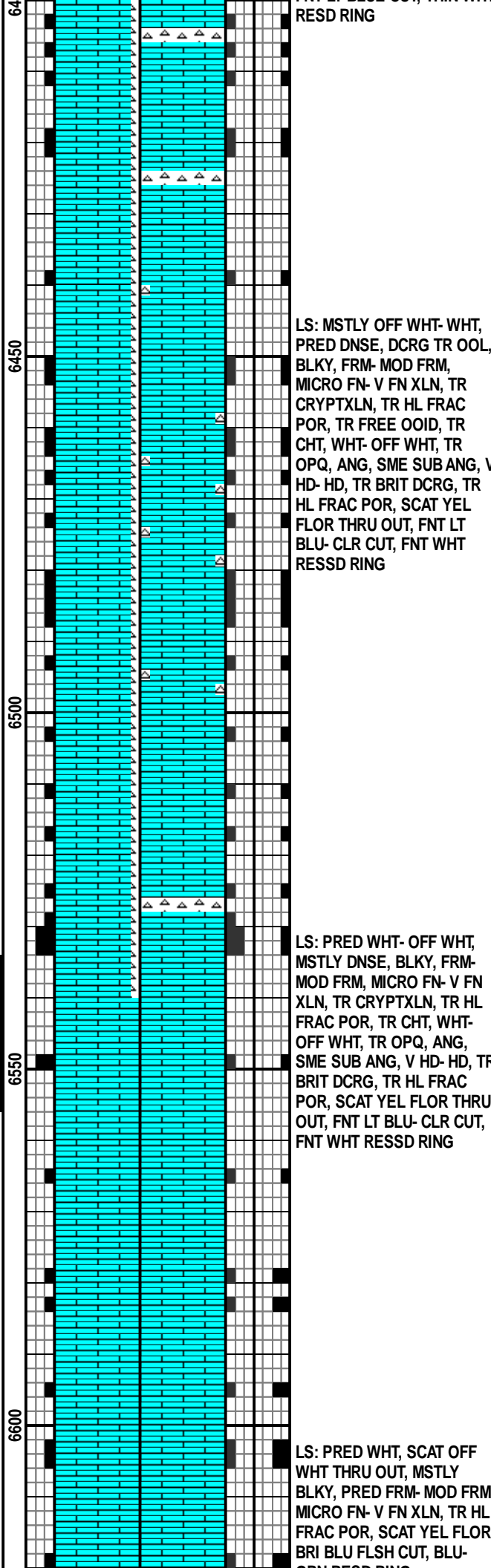
ROP (min/ft) 10  
G/R (API) 150

MD 6471 TVD 4806.31  
INC 92.3 AZ 0.3  
VS 1970.51

WOB: 21.5  
RPM: 69  
SPM: 71  
PP: 1669  
GPM: 308

MD 6563 TVD 4803.58  
INC 91.1 AZ 0.8  
VS 2062.44

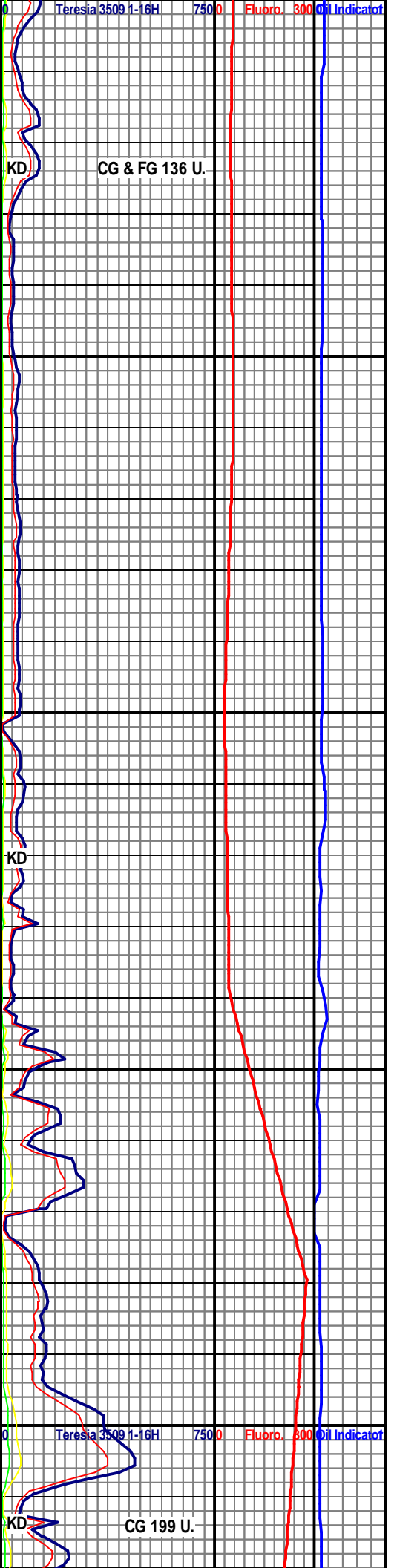
ROP (min/ft) 10  
G/R (API) 150



RESD RING  
LS: MSTLY OFF WHT- WHT,  
PRED DNSE, DCRG TR OOL,  
BLKY, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR  
CRYPTXLN, TR HL FRAC  
POR, TR FREE OOID, TR  
CHT, WHT- OFF WHT, TR  
OPQ, ANG, SME SUB ANG, V  
HD- HD, TR BRIT DCRG, TR  
HL FRAC POR, SCAT YEL  
FLOR THRU OUT, FNT LT  
BLU- CLR CUT, FNT WHT  
RESSD RING

LS: PRED WHT- OFF WHT,  
MSTLY DNSE, BLKY, FRM-  
MOD FRM, MICRO FN- V FN  
XLN, TR CRYPTXLN, TR HL  
FRAC POR, TR CHT, WHT-  
OFF WHT, TR OPQ, ANG,  
SME SUB ANG, V HD- HD, TR  
BRIT DCRG, TR HL FRAC  
POR, SCAT YEL FLOR THRU  
OUT, FNT LT BLU- CLR CUT,  
FNT WHT RESSD RING

LS: PRED WHT, SCAT OFF  
WHT THRU OUT, MSTLY  
BLKY, PRED FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR, SCAT YEL FLOR,  
BRI BLU FLSH CUT, BLU-  
CLR CUT, FNT WHT  
RESSD RING



Teresia 3509 1-16H 7500 Flubro 300 Oil Indicator

CG & FG 136 U.

Teresia 3509 1-16H 7500 Flubro 300 Oil Indicator

CG 199 U.

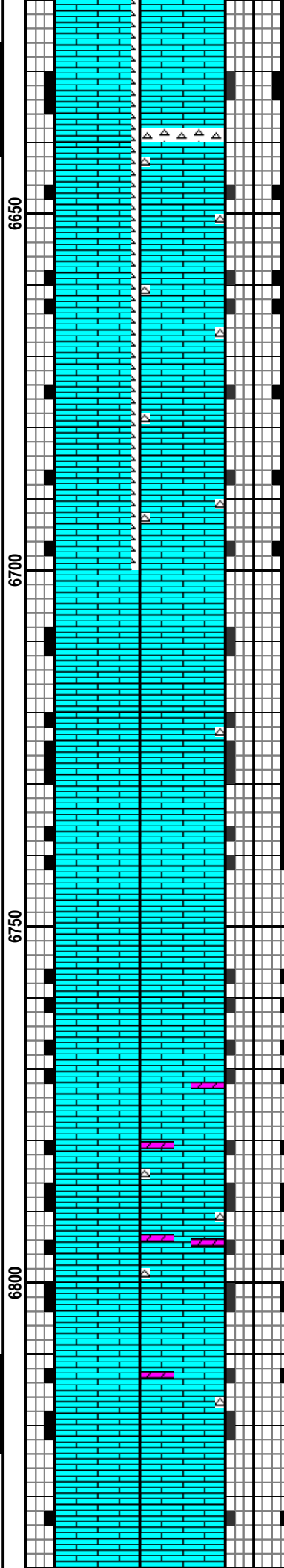
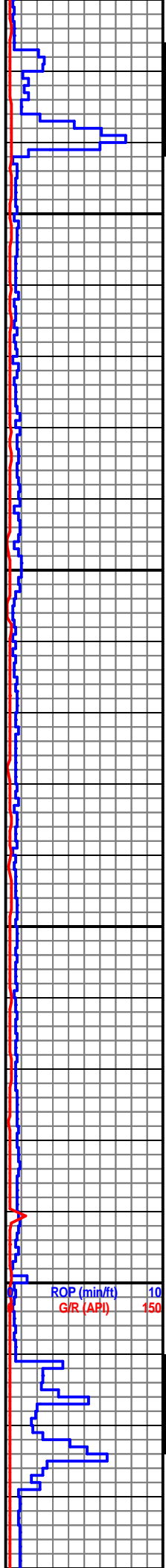
GRN RESD RING

MD 6655 TVD 4802.3  
INC 90.5 AZ 1.7  
VS 2154.41

MD 6747 TVD 4801.01  
INC 91.1 AZ 1.7  
VS 2246.36

WOB: 20.9  
RPM: 69  
SPM: 72  
PP: 1744  
GPM: 309

MD 6838 TVD 4800.38

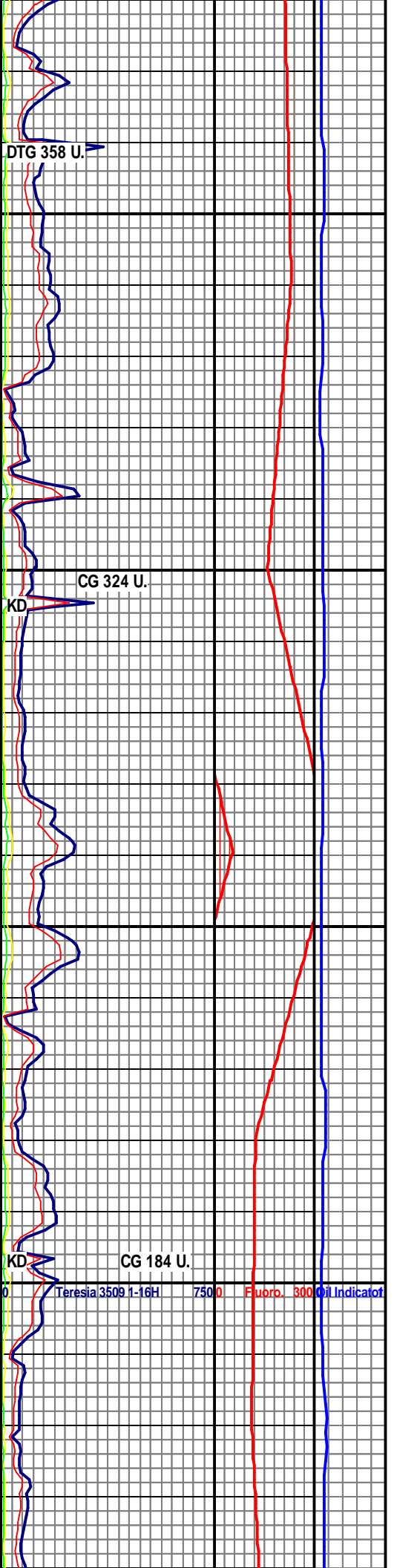


LS: WHT- OFF WHT, BLKY,  
FRM- MOD FRM, SLI INCRG  
MOD FRM, MICRO FN- V FN  
XLN, TR HL FRAC POR, TR  
HC STN, CHT: OFF WHT-  
WHT, TR OPQ, ANG, TR SUB  
ANG, V HD- BRIT, TR PP VUG  
POR, TR ASPH RESD, SCAT  
YEL FLOR, BRI BLU FLSH  
CUT, BLU/GRN RESD RING

LS: WHT- OFF WHT, BLKY,  
MOD FRM- FRM, MICRO FN- V  
FN XLN, TR HL FRAC POR,  
TR HC STN, CHT: OFF WHT-  
WHT, SME OPQ, ANG, TR  
SUB ANG, V HD- HD, OCC  
BRIT, TR PP VUG POR, SCAT  
YEL- BRI YEL FLOR, MLKY  
WHT FLSH CUT, GRN RESD  
RING

LS: WHT- OFF WHT, MSTLY  
DNSE, TR OOL, TR FREE  
OVID, BLKY, TR PLTY, MOD  
FRM- FRM, MICRO FN- V FN  
XLN, TR HL FRAC POR, CHT:  
OFF WHT- OPQ, ANG, V HD-  
HD, TR BRIT, TR ASPH RESD,  
TR FOL: OFF WHT, BLKY,  
MOD FRM- BRIT, MICRO FN  
XLN, TR PP VUG POR, SCAT  
YEL FLOR THRU OUT, MLKY  
WHT FLSH CUT, GRN- YEL  
RESD RING

ROP (min/ft) 10  
G/R (API) 150

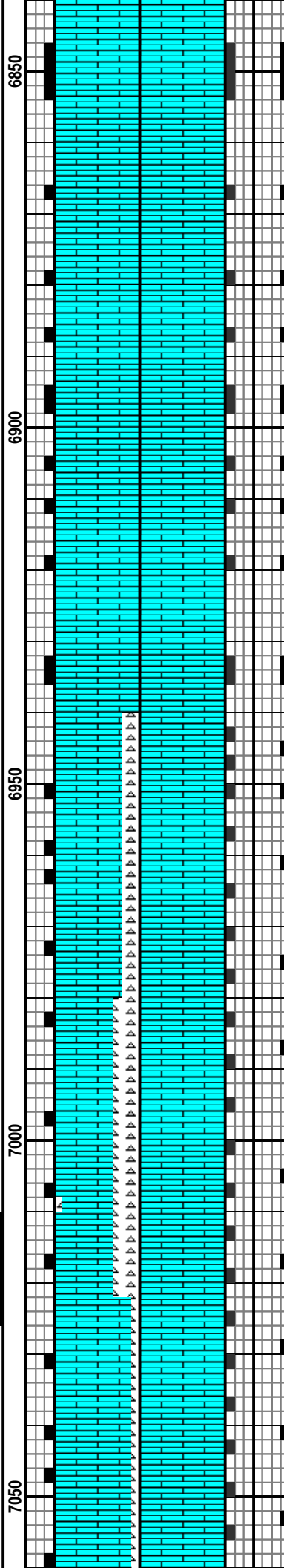
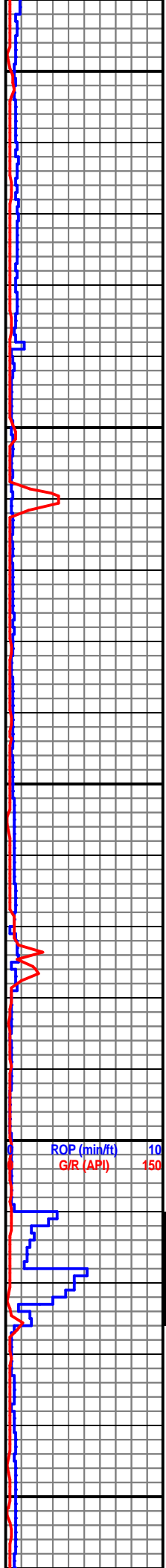


Teresia 3509 1-16H 7500 Fluoro. 300 Oil Indicator

MD 6930 TVD 4800.3  
INC 89.7 AZ 1.3  
VS 2337.17

MD 6930 TVD 4800.3  
INC 90.4 AZ 0.1  
VS 2429.17

MD 7021 TVD 4799.74  
INC 90.3 AZ 359.4  
VS 2520.22

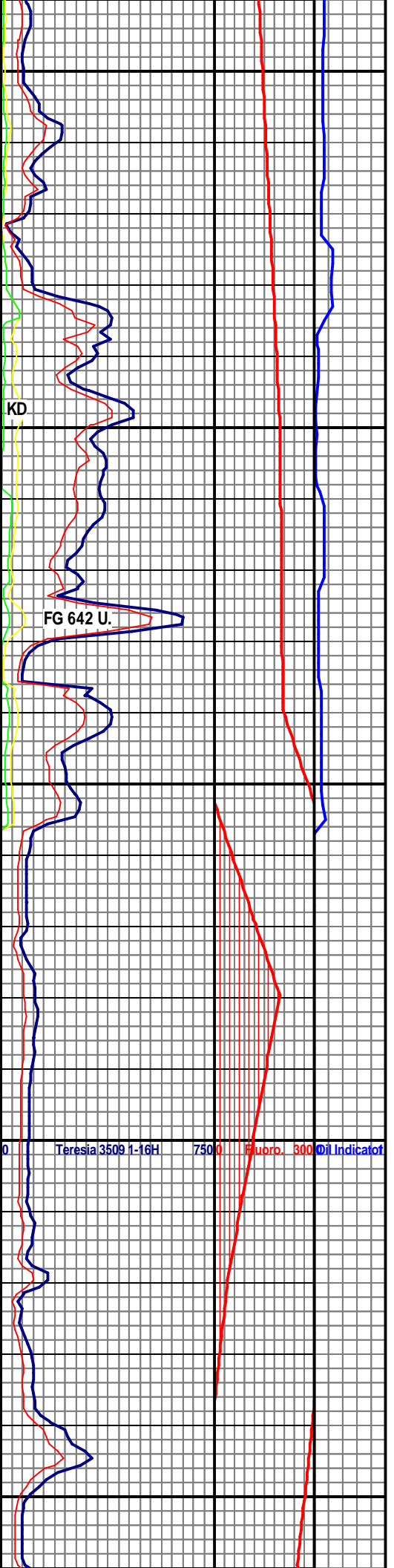


LS: MSTLY WHT, SCAT OFF WHT THRU OUT, MSTLY BLKY, PRED FRM- MOD FRM, MICRO FN- V FN XLN, TR HL FRAC POR, TR CHT, SCAT YEL FLOR, BRI BLU FLSH CUT, BLU- GRN RESD RING

LS: PRED WHT, OCC OFF WHT, BLKY, TR PLTY, MOD FRM, SCAT FRM THRU OUT, MICRO FN- V FN XLN, TR CHT: OFF WHT- OPQ, ANG, BRIT- V HD, ASPH RESD, SCAT YEL FLOR, WHT- CLR FLSH CUT,

LS: PRED WHT, OCC OFF WHT, BLKY, TR PLTY, MOD FRM, SCAT FRM THRU OUT, MICRO FN- V FN XLN, TR CHT: OFF WHT- OPQ, ANG, BRIT- V HD, ASPH RESD, SCAT YEL FLOR, WHT- CLR FLSH CUT,

LS: PRED WHT, OCC OFF WHT, BLKY, TR PLTY, MOD FRM, SCAT FRM THRU OUT, MICRO FN- V FN XLN, TR CHT: OFF WHT- OPQ, ANG, BRIT- V HD, ASPH RESD, SCAT YEL FLOR, WHT- CLR FLSH CUT,



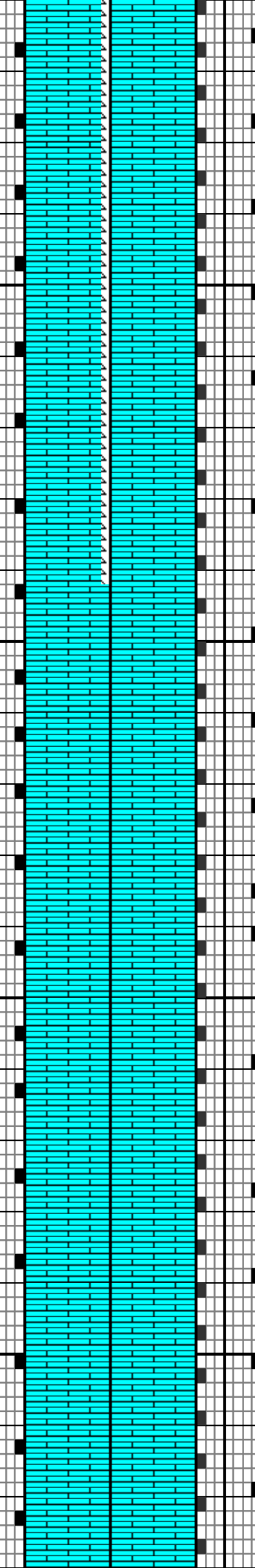
WOB: 24.8  
RPM: 69  
SPM: 72  
PP: 1939  
GPM: 312

MD 7113 TVD 4799.02  
INC 90.6 AZ 358.3  
VS 2612.1

MD 7204 TVD 4797.59  
INC 91.2 AZ 358.4  
VS 2703.27

ROP (min/ft) 10  
GIR (API) 150

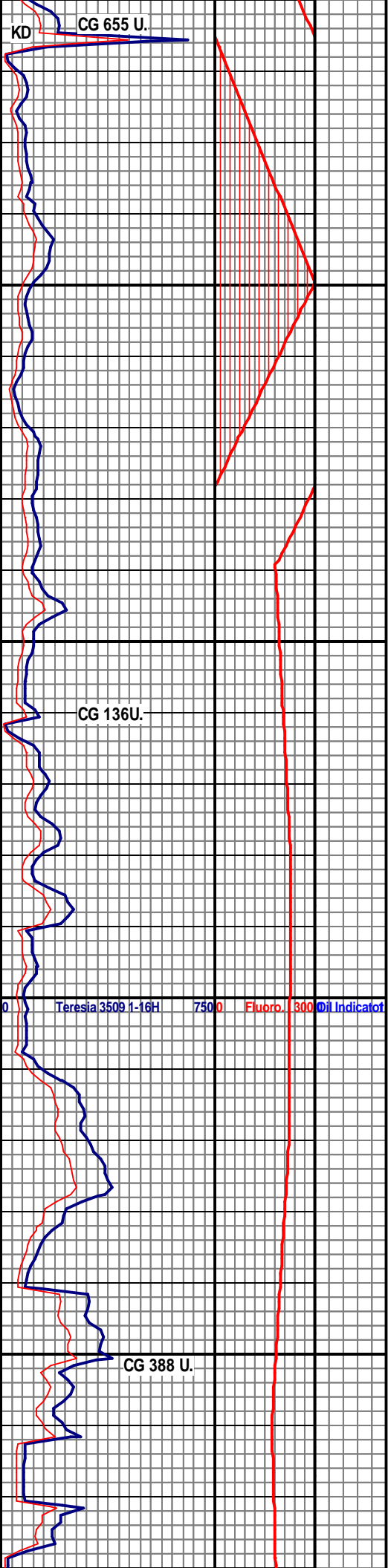
7100  
7150  
7200  
7250



LS: PRED WHT, OCC OFF  
WHT, BLKY, TR PLTY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN, TR  
CHT: OFF WHT- OPQ, ANG,  
BRIT- V HD, ASPH RESD,  
SCAT YEL FLOR, WHT- CLR  
FLSH CUT,

LS: PRED WHT, OCC OFF  
WHT, BLKY, TR PLTY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN. SCAT  
YEL FLOR, WHT- CLR FLSH  
CUT, LT BLU RES RING

LS: PRED WHT, OCC OFF  
WHT, BLKY, TR PLTY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN, TR  
CHT: OFF WHT- OPQ, ANG,  
BRIT- V HD, ASPH RESD,  
SCAT YEL FLOR, WHT- CLR  
FLSH CUT, THIN LT GRN BLU  
LT RES RING



MD 7296 TVD 4795.18  
INC 91.8 AZ 358  
VS 2795.18

08/10/13@7,341'

JET PITS  
MD 7387 TVD 4792.48  
INC 91.6 AZ 359.3  
VS 2886.05

WOB: 15.9  
RPM: 70  
SPM: 72  
PP: 2096  
GPM: 312

ROP (min/ft) 10  
G/R (API) 150

MD 7479 TVD 4790.23  
INC 91.2 AZ 359.5  
VS 2978.04

7300

7350

7400

7450

7500

LS: PRED WHT, OCC OFF  
WHT, BLKY, TR PLTY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN, TR  
CHT: OFF WHT- OPQ, ANG,  
BRIT- V HD, ASPH RESD,  
SCAT YEL FLOR, WHT- CLR  
FLSH CUT, LT BLU-LT GRN  
RES RING

LS: PRED WHT, OCC OFF  
WHT, BLKY, TR PLTY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN, TR  
CHT: OFF WHT- OPQ, ANG,  
BRIT- V HD, ASPH RESD,  
SCAT YEL FLOR, WHT-  
MILKY WHT-LT BLU FLSH  
CUT, LT BLU-LT GRN RES  
RING

LS: PRED WHT, OCC OFF  
WHT, BLKY, TR PLTY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN, TR  
CHT: OFF WHT- OPQ, SME  
BLK ANG, BRIT- V HD, ASPH  
RESD, SCAT YEL FLOR,  
WHT-LT BLU- MILKY CUT,  
THIN RES RING

LS: PRED WHT OCC OFF

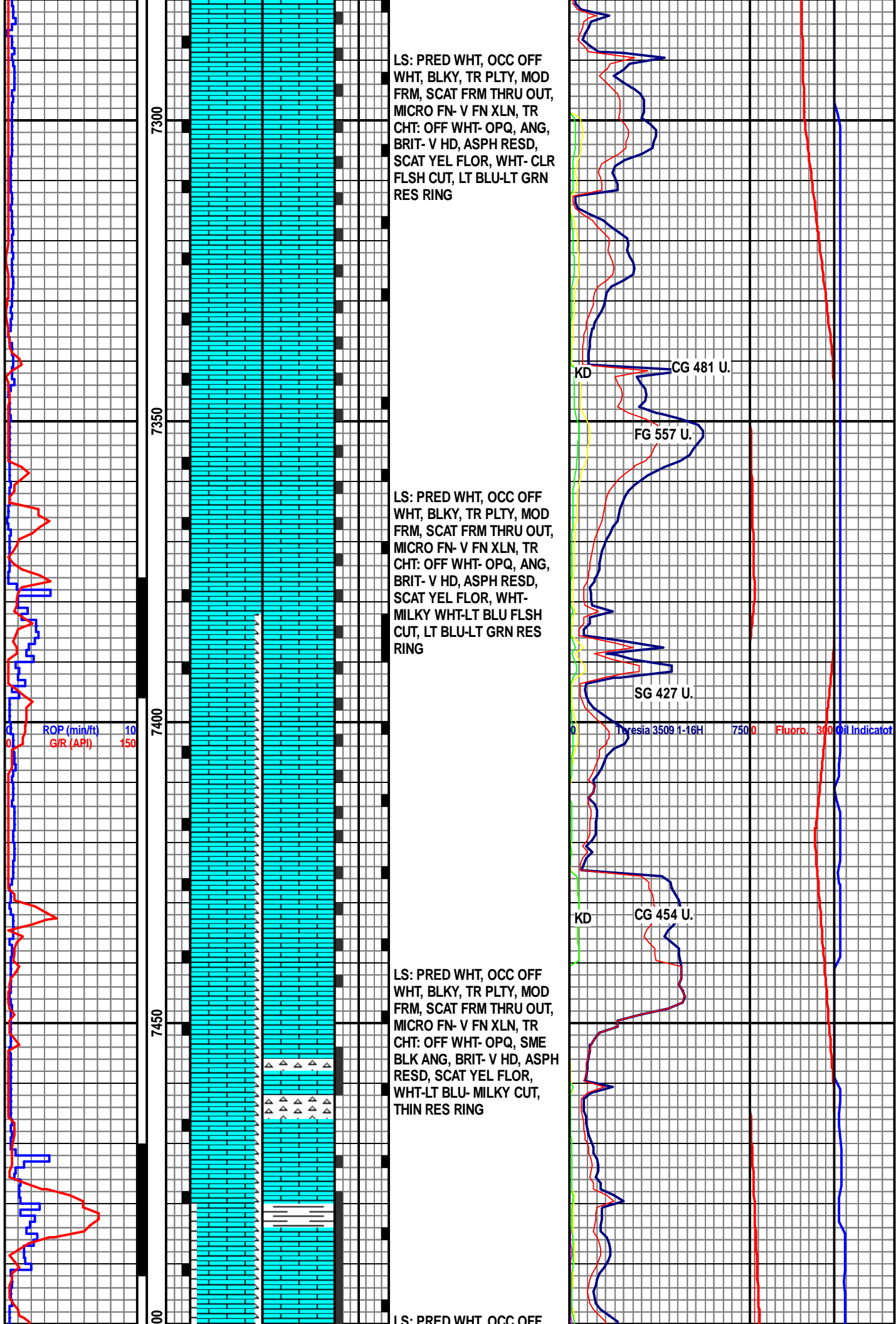
KD CG 481 U.

FG 557 U.

SG 427 U.

Teresia 3509 1-16H 7500 Fluoro. 300 Oil Indicator

KD CG 454 U.

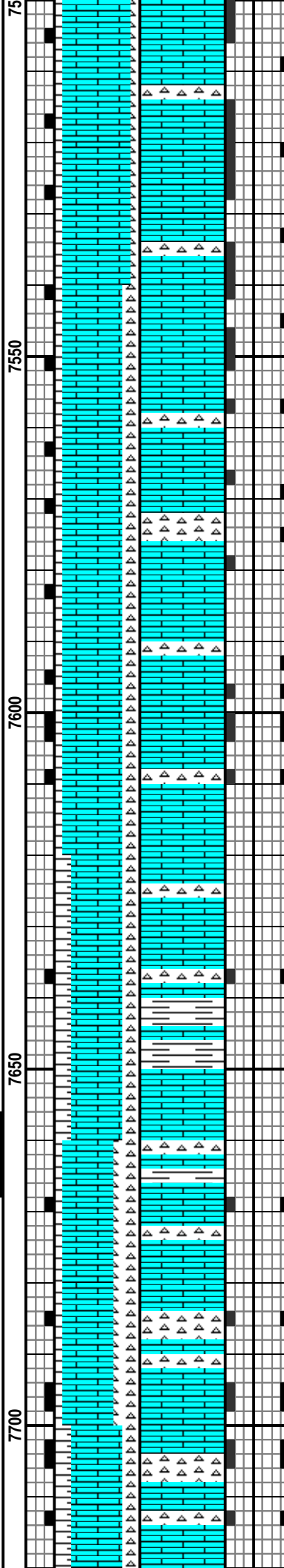


MD 7571 TVD 4787.91  
INC 91.7 AZ 359.5  
VS 3070.01

ROP (min/ft) 10  
GIR (API) 150

MD 7665 TVD 4785.69  
INC 91 AZ 359.6  
VS 3163.97

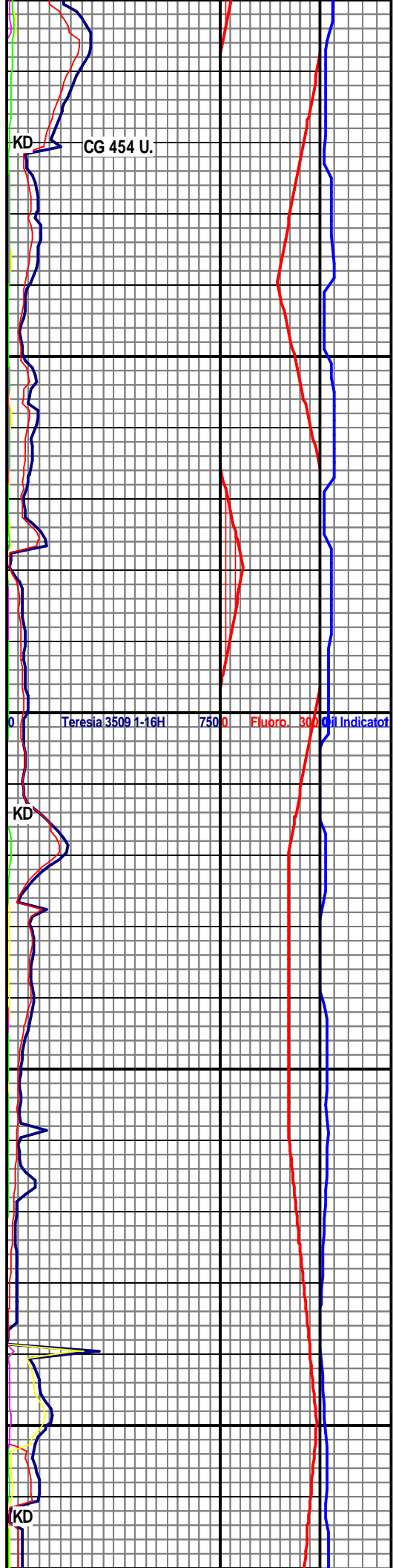
WOB: 20.3  
RPM: 70  
SPM: 70  
PP: 1853  
GPM: 301



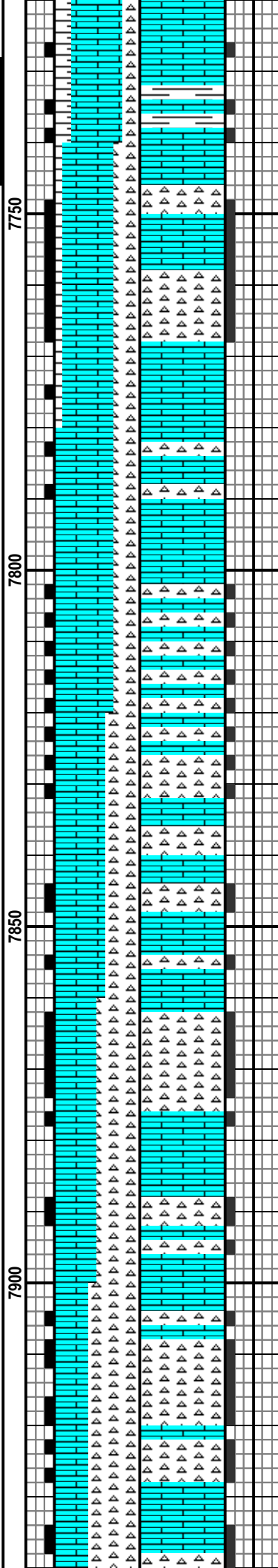
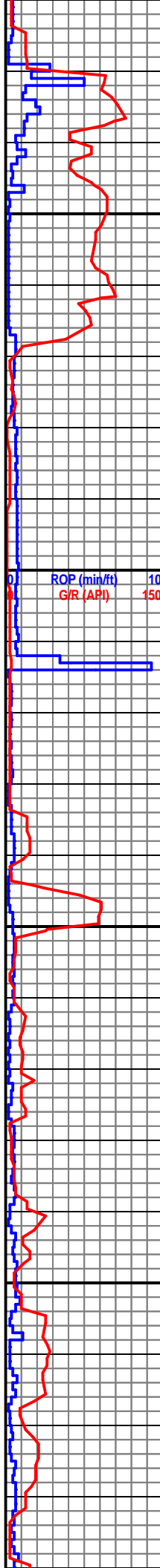
LS: PRED WHT, OCC OFF  
WHT, BLKY, TR PLY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN, TR  
CHT: OFF WHT- OPQ,  
BRN-BLK-GRY-GRN ANG,  
BRIT- V HD, ASPH RESD,  
SCAT YEL FLOR, WHT- CLR  
FLSH CUT, LT BLU-LT GRN  
RES RING

LS: PRED WHT, OCC OFF  
WHT, BLKY, TR PLY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN, TR  
CHT: OFF WHT- OPQ,  
BRN-BLK-GRY-GRN ANG,  
BRIT- V HD, ASPH RESD,  
SCAT YEL FLOR, WHT- CLR  
FLSH CUT, LT BLU-LT GRN  
RES RING

LS: MSTLY WHT, OCC OFF  
WHT, BLKY, TR PLY, MOD  
FRM, SCAT FRM THRU OUT,  
MICRO FN- V FN XLN, TR  
CHT: OFF WHT- OPQ,  
BRN-BLK-GRY-GRN ANG,  
BRIT- V HD, ASPH RESD,  
SCAT YEL FLOR, WHT- CLR  
FLSH CUT, LT BLU-LT GRN  
RES RING



MD 7760 TVD 4785.36  
INC 89.4 AZ 359.5  
VS 3259.03

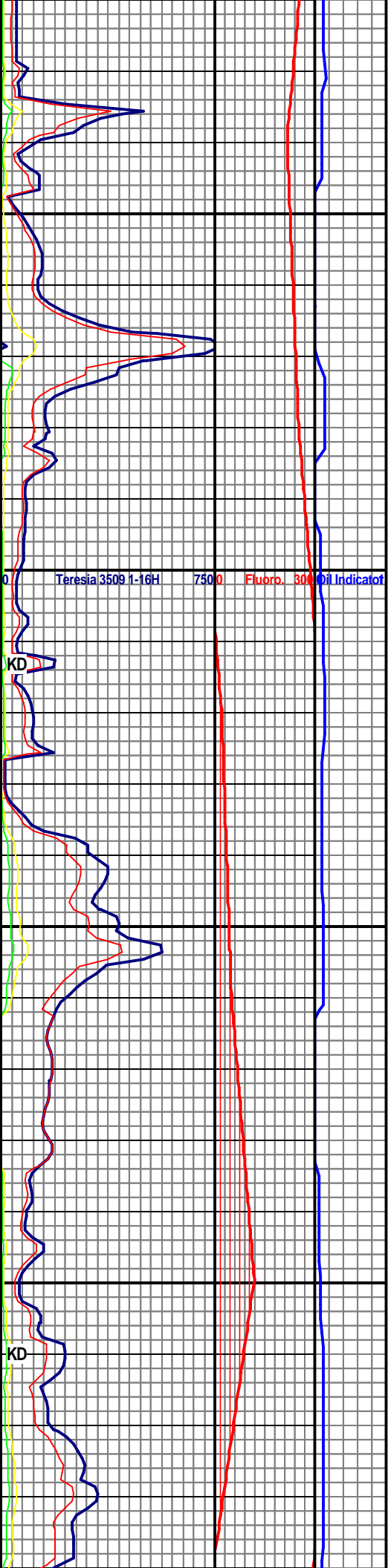


LS: WHT- OPAIC, OCC OFF  
WHT, BLKY, FRM, S MICRO  
FN- V FN XLN, TR INTERLAM  
CHT: OFF WHT- OPQ,  
BRN-BLK-GRY-GRN ANG,  
BRIT- V HD, PYR ASPH RESD,  
SCAT YEL FLOR, WHT- CLR  
FLSH CUT, MILKY BLU-LT  
GRN RES RING

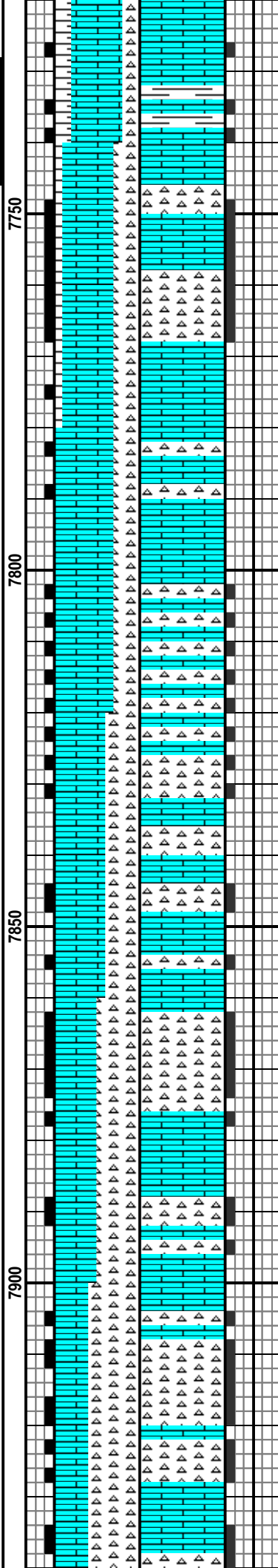
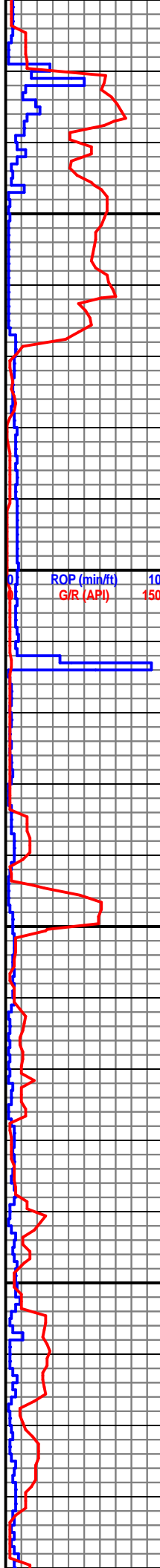
LS: WHT- OPAIC , OCC OFF  
WHT TO CLR, BLKY, FRM, S  
MICRO FN- V FN XLN, TR  
INTERLAM CHT: OFF WHT-  
OPQ, BRN-BLK-GRY-GRN  
ANG, BRIT- V HD, PYR ASPH  
RESD, SCAT YEL FLOR,  
WHT- CLR FLSH CUT, MILKY  
BLU-LT GRN RES RING

LS: MSTLY WHT, OCC OFF  
WHT, BLKY, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR, CHT: PRED WHT-  
OFF WHT, OCC OPQ, SME  
DRK GY, ANG, SCAT SUB  
ANG, V HD- BRIT, OCC HL  
FRAC POR, TR PP VUG POR,  
SME ASPH RESD, OCC  
WTHRD, SCAT YEL FLOR  
THRU OUT, MLKY BLU CUT,  
MLKY WHT RESD RING

LS: PRED WHT, SME OFF  
WHT DCRG. BLKY. TR PLTY.

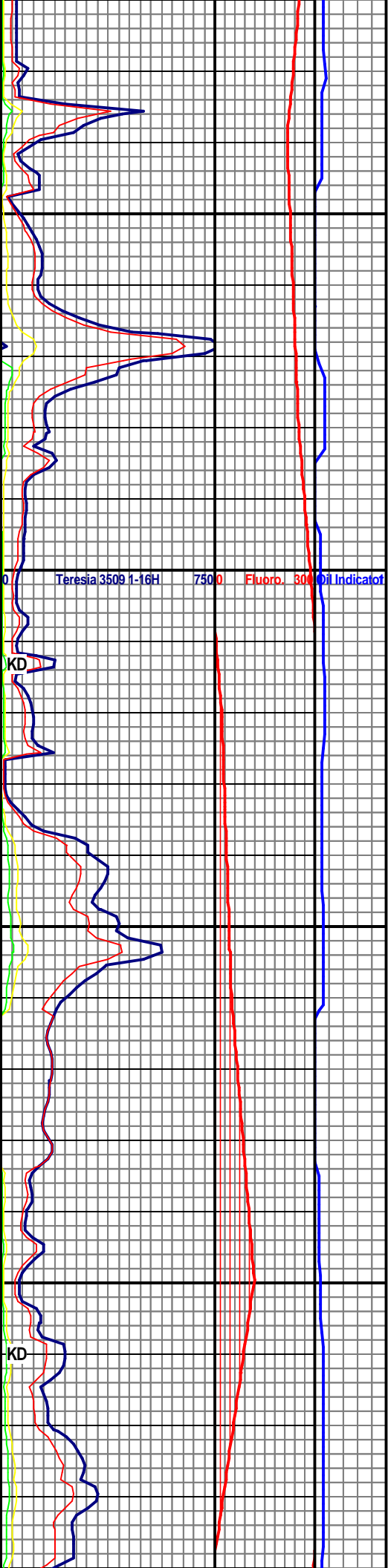


MD 7855 TVD 4785.86  
INC 90 AZ 359.8  
VS 3354.03



LS: MSTLY WHT, OCC OFF  
WHT, BLKY, FRM- MOD FRM,  
MICRO FN- V FN XLN, TR HL  
FRAC POR, CHT: PRED WHT-  
OFF WHT, OCC OPQ, SME  
DRK GY, ANG, SCAT SUB  
ANG, V HD- BRIT, OCC HL  
FRAC POR, TR PP VUG POR,  
SME ASPH RESD, OCC  
WTHRD, SCAT YEL FLOR  
THRU OUT, MLKY BLU CUT,  
MLKY WHT RESD RING

LS: PRED WHT, SME OFF  
WHT DCRG. BLKY. TR PLTY.

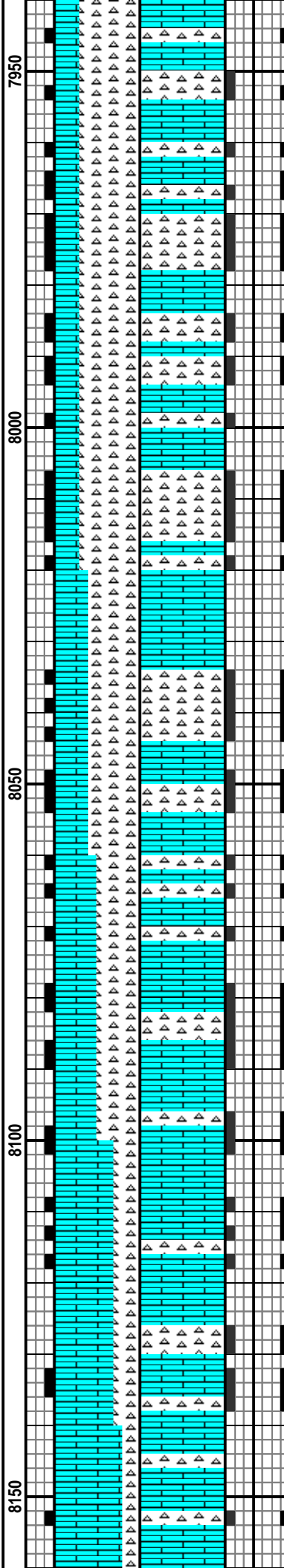
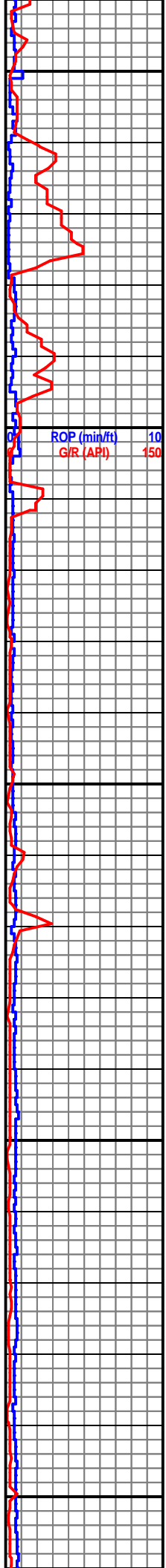


MD 7950 TVD 4785.61  
INC 90.3 AZ 359.7  
VS 3448.86

WOB: 21.3  
RPM: 70  
SPM: 72  
PP: 2063  
GPM: 311

MD 8045 TVD 4785.03  
INC 90.4 AZ 359.1  
VS 3544.01

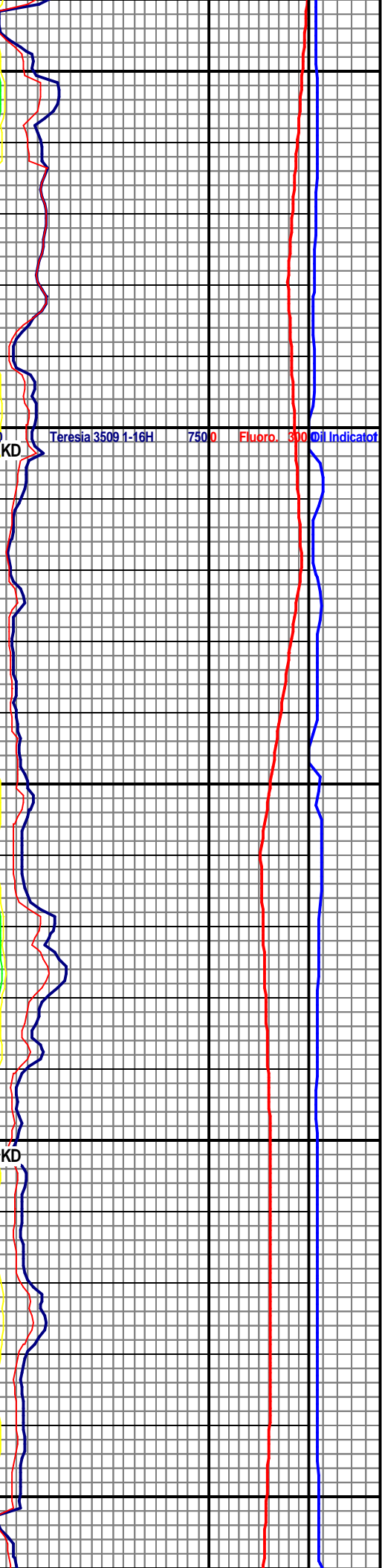
MD 8140 TVD 4784.2  
INC 90.6 AZ 358.6  
VS 3638.89

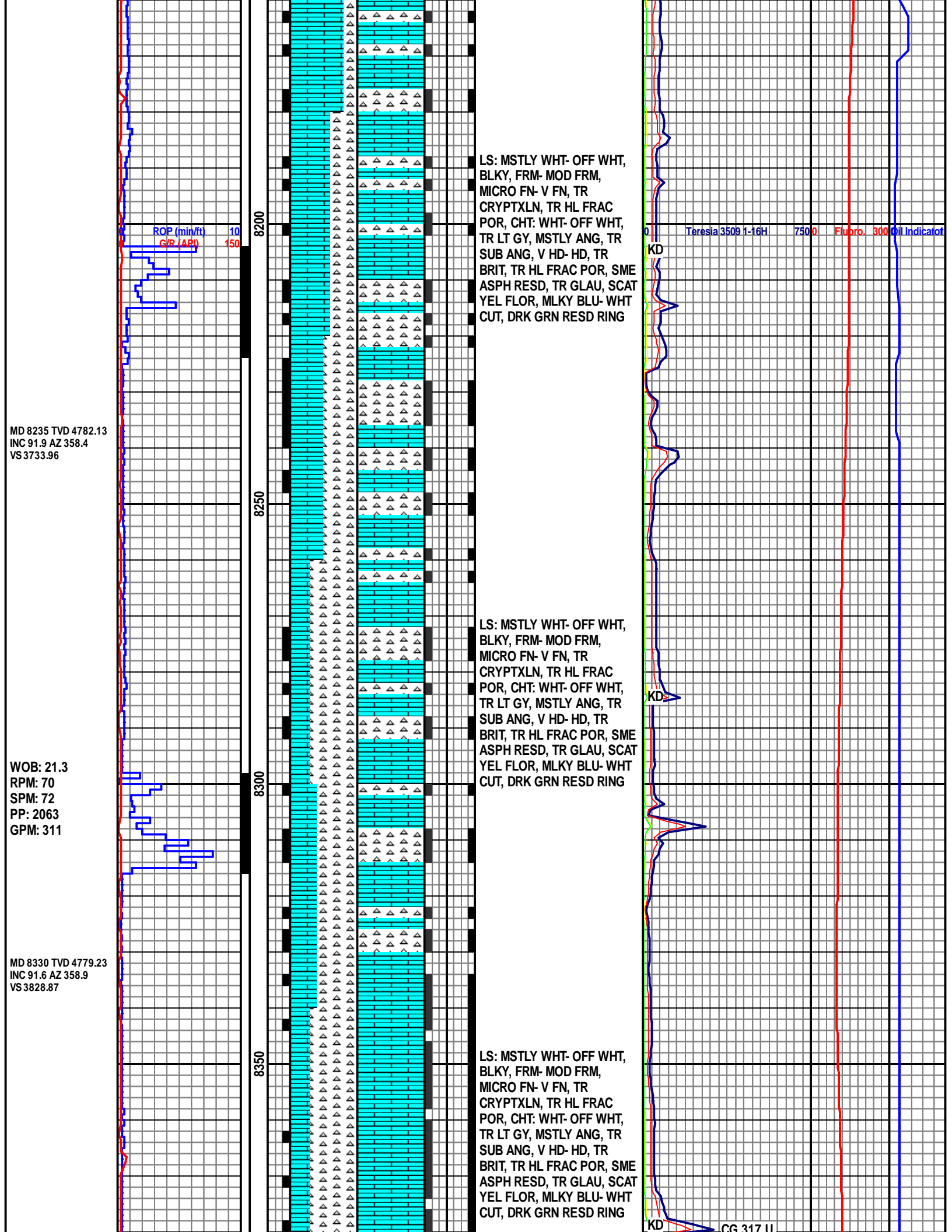


FRM- MOD FRM, MICRO FN- V  
FN XLN, TR HL FRAC POR,  
CHT: OFF WHT- WHT, SCAT  
GY THRU OUT, SME OPQ,  
ANG, SCAT SUB ANG THRU  
OUT V HD- BRIT, DCRG BRIT,  
SME HL FRAC POR, DCRG  
PP VUG POR, DCRG WTHRD,  
SME ASPH RESD, SCAT YEL  
FLOR, MLKY BLU CUT, MLKY  
YEL RESD RING

LS: WHT, SME OFF WHT  
DCRG, BLKY, TR PLTY, FRM-  
MOD FRM, MSTLY MICRO FN-  
V FN XLN, TR HL FRAC POR,  
CHT: OFF WHT- WHT, OCC  
GY, DCRG GY, SME OPQ,  
ANG, SME SUB ANG THRU  
OUT V HD- BRIT, DCRG BRIT,  
SME HL FRAC POR, DCRG  
PP VUG POR, DCRG WTHRD,  
TR ASPH RESD, SCAT YEL  
FLOR, MLKY BLU CUT, MLKY  
YEL- GRN RESD RING

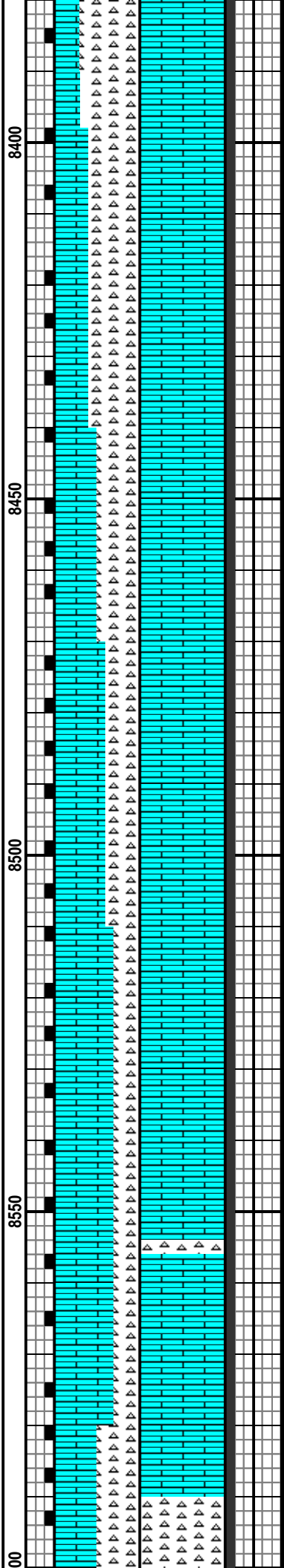
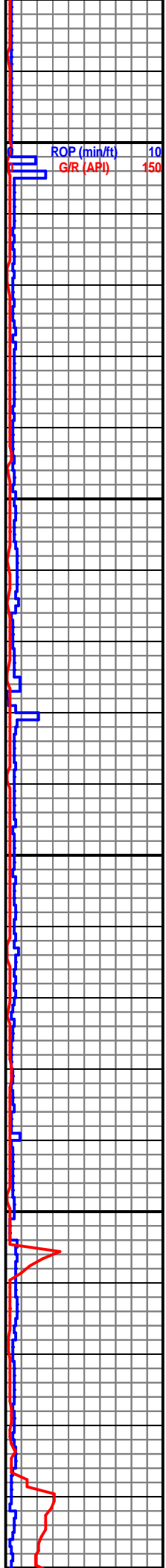
LS: PRED WHT, TR OFF WHT,  
BLKY, TR PLTY, FRM- MOD  
FRM, MICRO FN- V FN XLN,  
TR HL FRAC POR, CHT: OFF  
WHT- WHT, INCRG WHT, OCC  
OPQ, TR DK GY, MSTLY ANG,  
OCC SUB ANG, V HD- HD,  
OCC BRIT, TR HL FRAC POR,  
TR PP VUG POR, TR WTHRD,  
SCAT YEL FLOR, LT BLU-  
FNT YEL CUT, GRN- YEL  
RESD RING





MD 8425 TVD 4776.66  
INC 91.5 AZ 359.2  
VS 3923.72

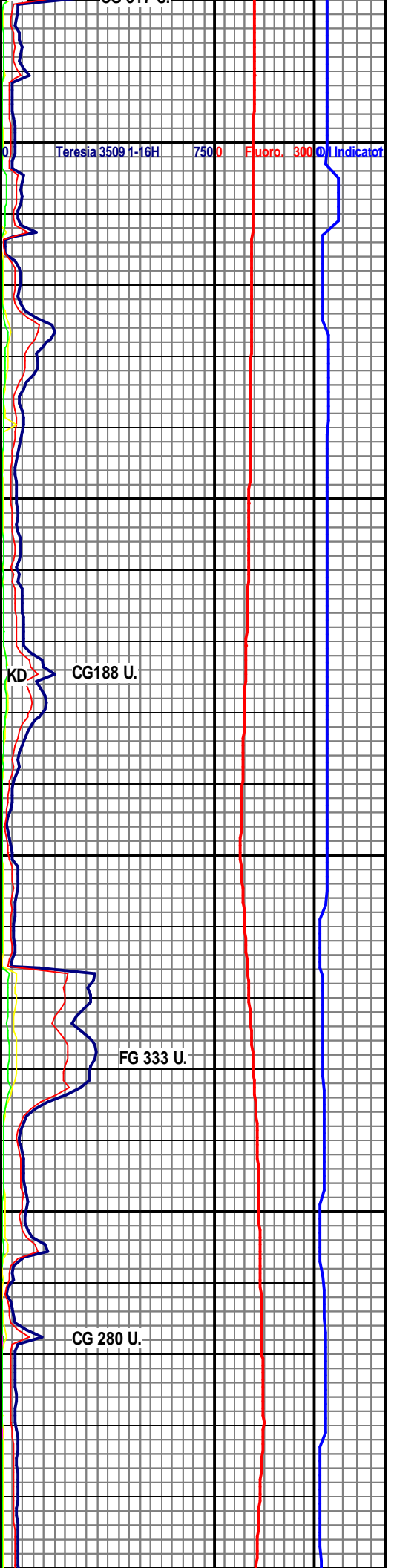
MD 8520 TVD 4773.92  
INC 91.8 AZ 358.6  
VS 4018.76



LS: MSTLY WHT- OFF WHT,  
BLKY, FRM- MOD FRM,  
MICRO FN- V FN, TR  
CRYPTXLN, TR HL FRAC  
POR, CHT: WHT- OFF WHT,  
TR LT GY, MSTLY ANG, TR  
SUB ANG, V HD- HD, TR  
BRIT, TR HL FRAC POR, SME  
ASPH RESD, TR GLAU, SCAT  
YEL FLOR, MLKY BLU- WHT  
CUT, DRK GRN RESD RING

LS: MSTLY WHT- OFF WHT,  
BLKY, FRM- MOD FRM,  
MICRO FN- V FN, TR  
CRYPTXLN, TR HL FRAC  
POR, CHT: WHT- OFF WHT,  
TR LT GY, MSTLY ANG, TR  
SUB ANG, V HD- HD, TR  
BRIT, TR HL FRAC POR, SME  
ASPH RESD, TR GLAU, SCAT  
YEL FLOR, MLKY BLU- WHT  
CUT, DRK GRN RESD RING

LS: MSTLY WHT- OFF WHT,  
BLKY, FRM- MOD FRM,  
MICRO FN- V FN, TR  
CRYPTXLN, TR HL FRAC  
POR, CHT: WHT- OFF WHT,  
TR LT GY, MSTLY ANG, TR  
SUB ANG, V HD- HD, TR  
BRIT TR HL FRAC POR, SME



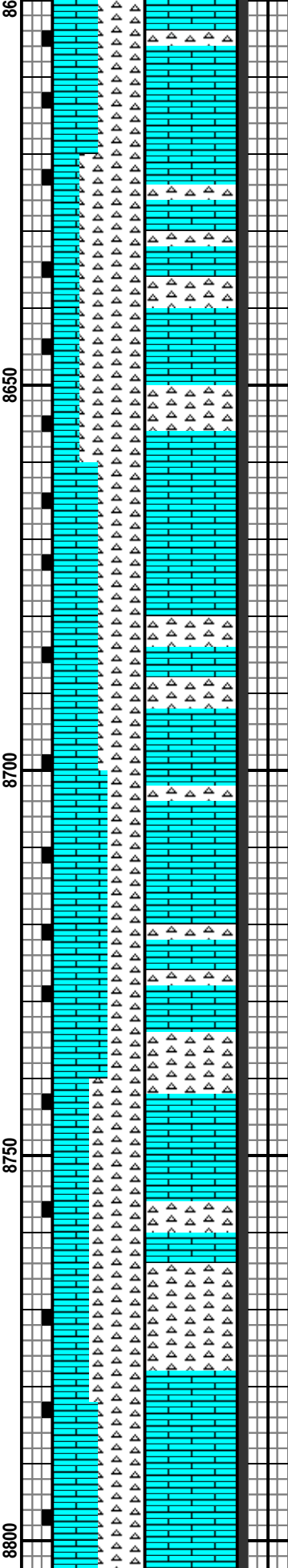
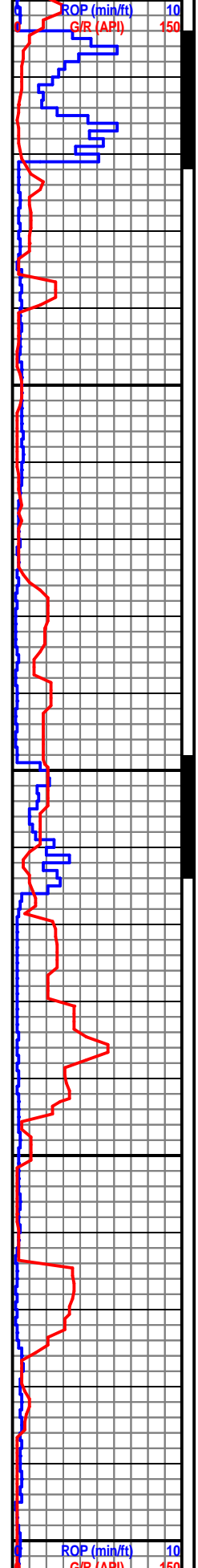
Teresia 3509 1-16H 7500 Fluoro 300 Indicator

KD CG188 U.

FG 333 U.

CG 280 U.

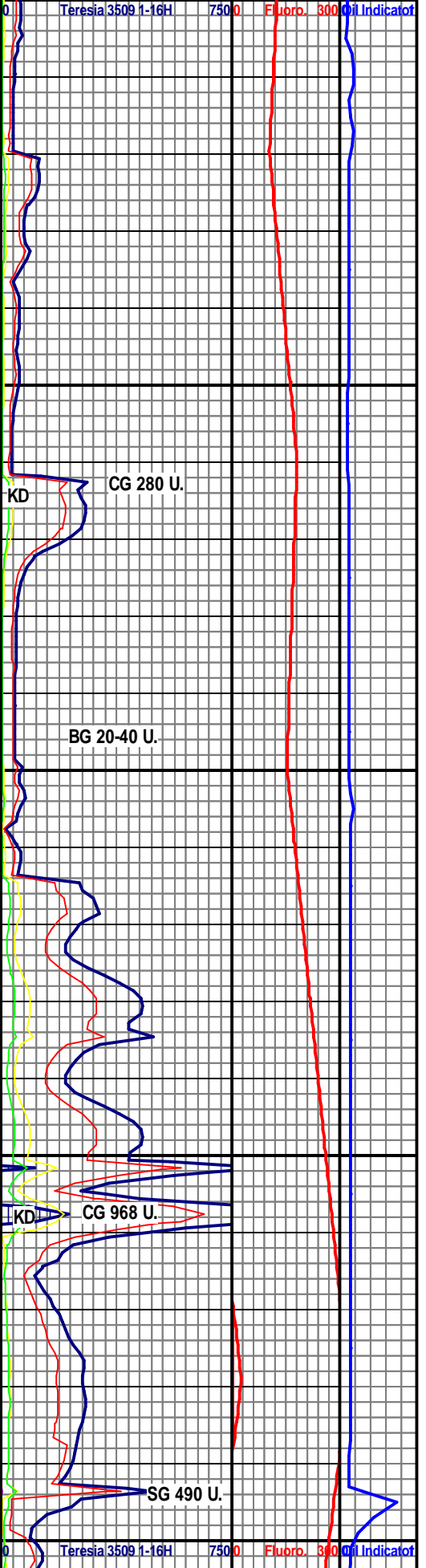
WOB: 19  
 RPM: 69  
 SPM: 72  
 PP: 2070  
 GPM: 311  
 MD 8615 TVD 4771.18  
 INC 91.5 AZ 359.1  
 VS 4113.76



BRIT, TR HL FRAC POR, SME  
 ASPH RESD, TR GLAU, SCAT  
 YEL FLOR, MLKY BLU- WHT  
 CUT, DRK GRN RESD RING

LS: MSTLY WHT- OFF WHT,  
 BLKY, FRM- MOD FRM,  
 MICRO FN- V FN, TR  
 CRYPTXLN, TR HL FRAC  
 POR, CHT: WHT- OFF WHT,  
 TR LT GY, MSTLY ANG, TR  
 SUB ANG, V HD- HD, TR  
 BRIT, TR HL FRAC POR, SME  
 ASPH RESD, TR GLAU, SCAT  
 YEL FLOR, MLKY BLU- WHT  
 CUT, DRK GRN RESD RING

LS: PRED WHT- OFF WHT,  
 BLKY, FRM- MOD FRM,  
 MICRO FN- V FN, TR  
 CRYPTXLN, TR HL FRAC  
 POR, CHT: WHT- OFF WHT,  
 TR LT GY, MSTLY ANG, TR  
 SUB ANG, V HD- HD, TR  
 BRIT, TR HL FRAC POR, SME  
 ASPH RESD, TR GLAU, SCAT  
 YEL FLOR, MLKY BLU- WHT  
 CUT, DRK GRN RESD RING



MD 8710 TVD 4768.86  
 INC 91.3 AZ 0.2  
 08/11/13@8,715'

ROP (min/ft) 10  
 G/R (API) 150

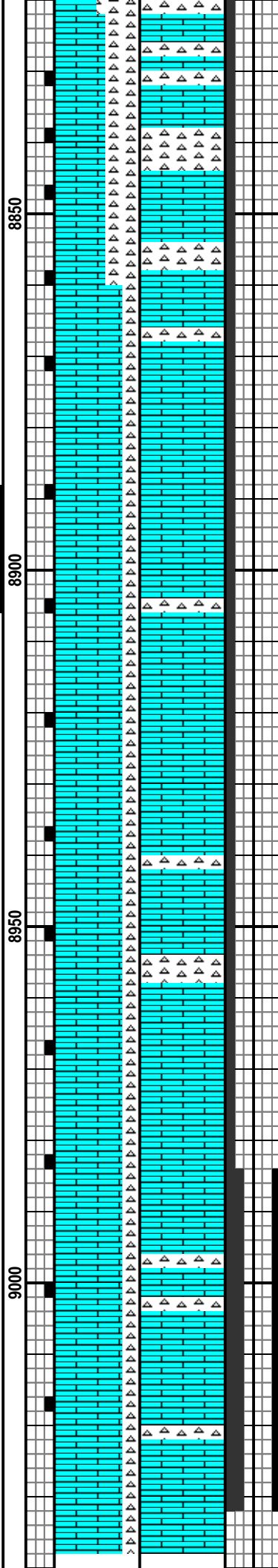
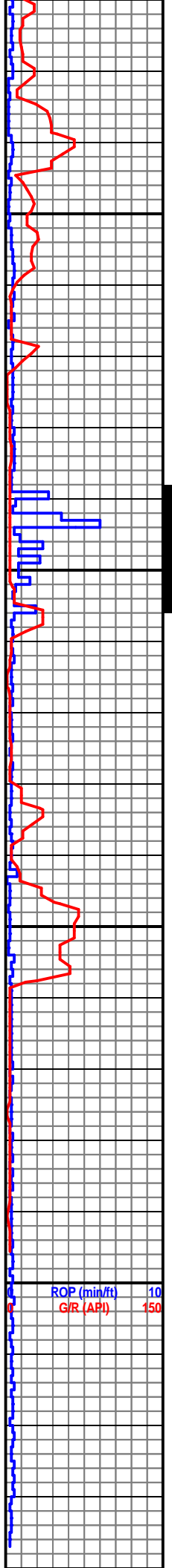
MD 8805 TVD 4766.79  
 INC 91.2 AZ 1  
 VS 4303.75

Teresia 3509 1-16H 7500 Fluoro 300 Oil Indicator

WOB: 21.3  
 RPM: 70  
 SPM: 72 VD 4765.05  
 PP: 2063' 1.1  
 GPM: 315

MD 8984 TVD 4763.88  
 INC 90.7 AZ 0.7  
 VS 4482.48

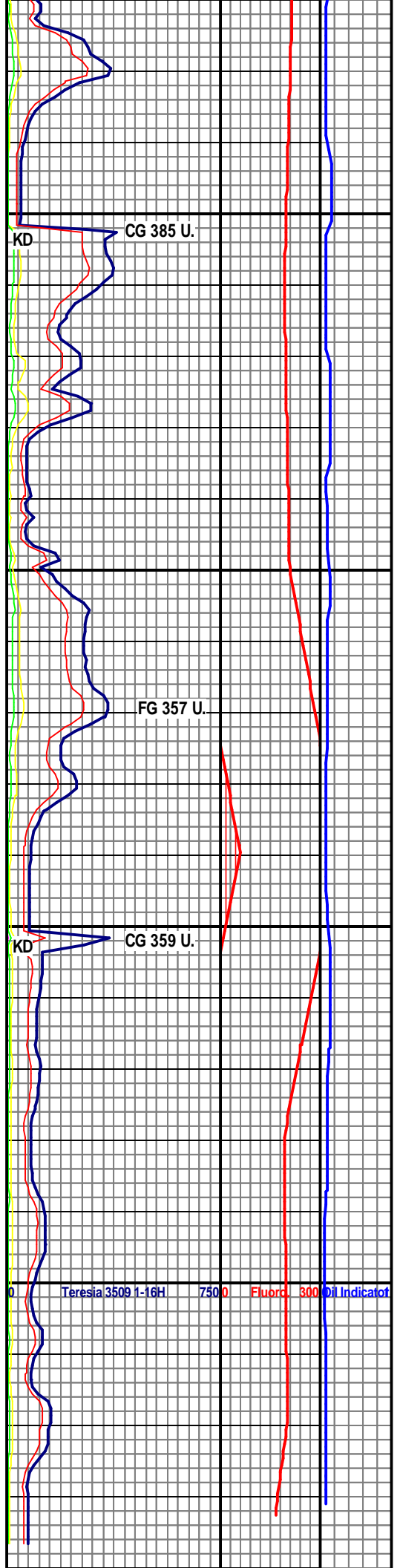
MD 9033 TVD 4763.28  
 INC 90.7 AZ 0.7  
 VS 4531.44



LS: MSTLY WHT- OFF WHT,  
 BLKY, FRM- MOD FRM,  
 MICRO FN- V FN, TR  
 CRYPTXLN, TR HL FRAC  
 POR, CHT: WHT- OFF WHT,  
 TR LT GY, MSTLY ANG, TR  
 SUB ANG, V HD- HD, TR  
 BRIT, TR HL FRAC POR, SME  
 ASPH RESD, TR GLAU, SCAT  
 YEL FLOR, MLKY BLU- WHT  
 CUT, DRK GRN RESD RING

LS: MSTLY WHT- OFF WHT,  
 BLKY, FRM- MOD FRM,  
 MICRO FN- V FN, TR  
 CRYPTXLN, TR HL FRAC  
 POR, CHT: WHT- OFF WHT,  
 TR LT GY, MSTLY ANG, TR  
 SUB ANG, V HD- HD, TR  
 BRIT, TR HL FRAC POR, SME  
 ASPH RESD, TR GLAU, SCAT  
 YEL FLOR, MLKY BLU- WHT  
 CUT, DRK GRN RESD RING

LS: WHT- OFF WHT- LT TAN  
 -OPAIC, BLKY, FRM- MOD  
 FRM, MICRO FN- V FN, VF  
 XLN, TR HL FRAC POR, CHT:  
 WHT- OFF WHT, TR LT GY,  
 MSTLY ANG, TR SUB ANG, V  
 HD- HD, TR BRIT, TR HL  
 FRAC POR, SME , TR GLAU,  
 SME YEL FLOR, MLKY LT  
 BLU-GRN CUT, DRK GRN  
 RESD RING



KD CG 385 U.

FG 357 U.

KD CG 359 U.

TD WELL @ 9,033'  
MD  
SANDRIDGE  
ENERGY INC.  
TERESIA 3509 1-16H  
SEC 16-T35S-R9W  
HARPER CO.  
KANSAS

1,228' GR 1,246' KB

9050

00