



# 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: Flinn A 3306 1-11 SANDRIDGE ENERGY INC.  
Location: Section 11, T33S, R6W  
License Number: 15-077-21951-00-00 Region: HARPER CO., KS  
Spud Date: 7/12/13 Drilling Completed: 7/17/13  
Surface Coordinates: SHL: 660' FSL & 900' FEL of Section 11, T33S, R6W

Bottom Hole REPORT FOR: TAMMY ALCORN  
Coordinates: LOGGERS: MR. AARON KING, MS. MINDY CAUDILL  
Ground Elevation (ft): 1,311' K.B. Elevation (ft): 1,321'  
Logged Interval (ft): 3,000' To: 4,805' Total Depth (ft): 4,805'  
Formation: MISSISSIPPIAN  
Type of Drilling Fluid: WATER/NATIVE MUD

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




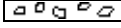
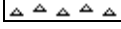
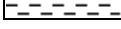










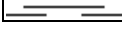
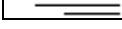
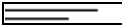


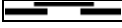
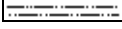
## Cores

## DSTs

## Comments




















LOGGERS: MR. AARON KING, MRS. MINDY CAUDILL  
MCWL TRAILER: #25











## 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
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






## 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

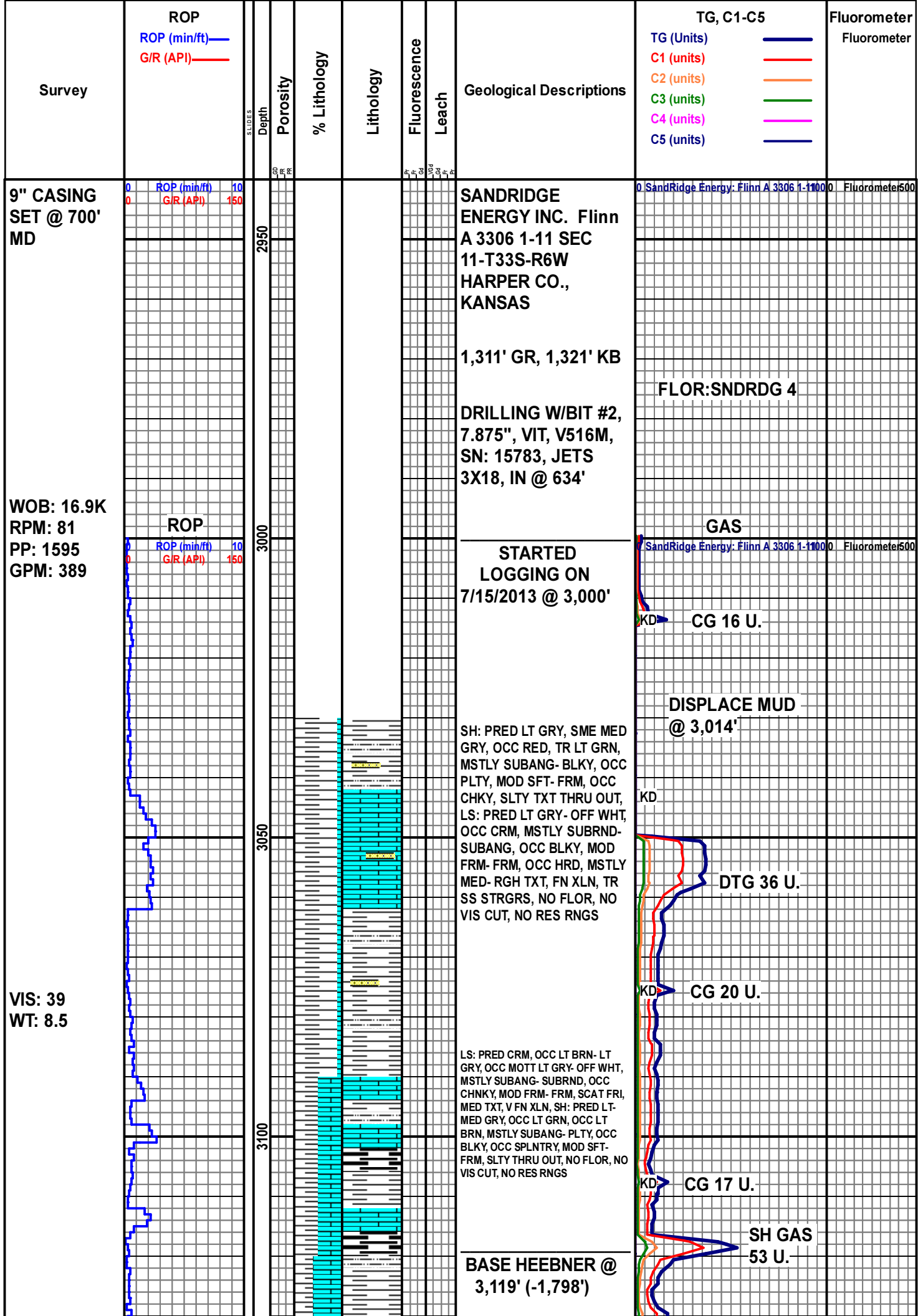
	Dead
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### INTERVAL

	Core
	Dst

### EVENT

	Rft
	Sidewall



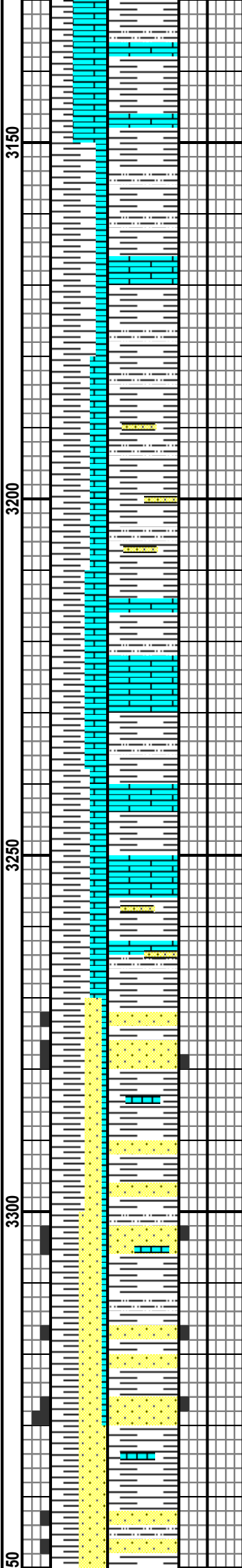
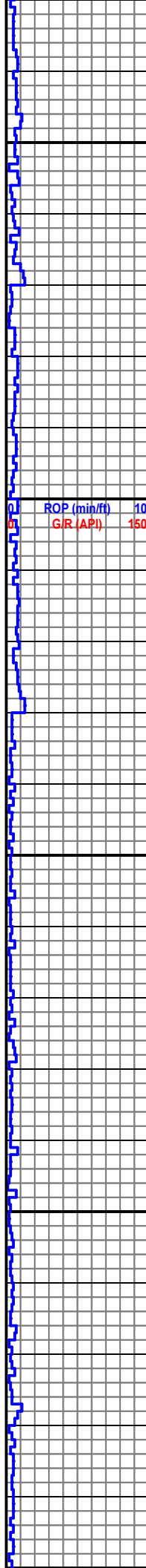
VIS: 44  
WT: 8.6

WOB: 11.5K  
RPM: 76  
PP: 1446  
GPM: 405

VIS: 41  
WT: 8.8

VIS: 42  
WT: 8.8

VIS: 41  
WT: 8.9

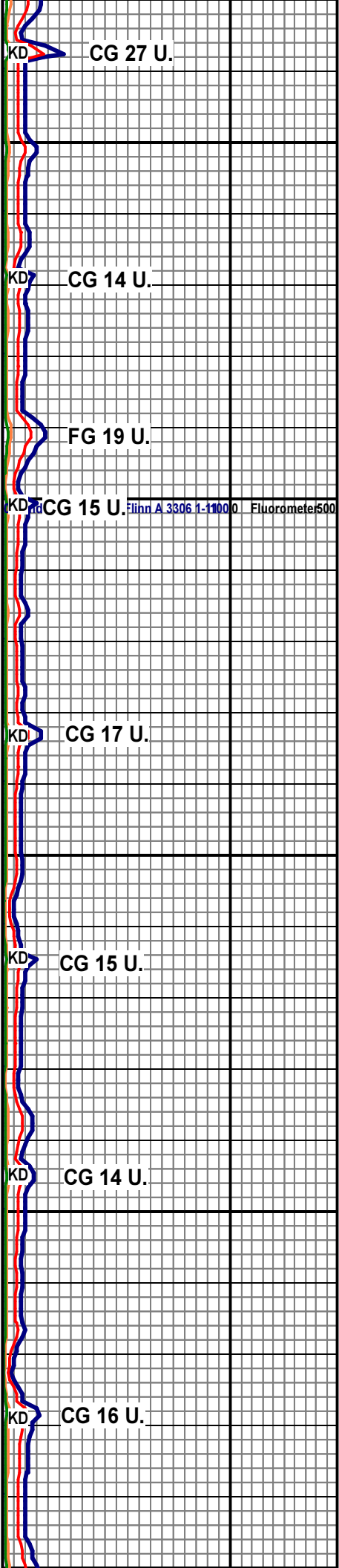


SH: PRED MED- DRK GRY,  
SME RED, OCC LT GRY, TR  
BLK CARB, MSTLY BLKY-  
PLTY, OCC CHNKY, MOD  
SFT- MED, OCC SLI FRM,  
CHKY, SLTY, LS: PRED CRM,  
SME OFF WHT, OCC LT TN,  
TR LT GRY, MSTLY SUBANG-  
BLKY, OCC SUBRND, MOD  
FRM- SLI HRD, MED TXT, V  
FN- FN XLN, TR SS STRGRS,  
NO FLOR, NO VIS CUT, NO  
RES RNGS

SH: PRED MED GRY, OCC  
RED, OCC BLK CARB,  
BLKY-PLTY, OCC CHNKY,  
MOD SFT-MOD FRM, OCC SLI  
FRM, CHNKY, SLTY, LS:  
CRM, OCC LT TN, OCC OFF  
WHT, BLKY, MOD FRM,  
SLI-HARD, MED TXT, V FN-FN  
XLN, TR SLTST, NO FLOR,  
NO VIS CUT, NO RES RNGS

SH: PRED LT GRY- MED GRY,  
SME DRK GRY, OCC LT BRN,  
TR LT GRN, MSTLY BLKY,  
OCC PLTY, MOD SFT- FRM,  
OCC SLTY TXT, SS: PRED  
OFF WHT- LT TN, SME LT  
GRY, MOD FRM- SLI HRD,  
MED XLN, V PR LT YEL  
FLOR, NO VIS CUT, NO RES  
RNGS

SH: MED GRY, SM LT GRY,  
CHNKY, OCC PLTY, MOD  
FRM, SM BR TTL, MED CRSE  
TXT, SLTY TXT, TR WXY, SS:  
CLR, LT GRY, CONSOL  
CLSTRS, POR SRTD, V/F L  
SM SLTY, CALC CMT,  
SCTTRD PL YEL FLOR,



CG 27 U.

CG 14 U.

FG 19 U.

CG 15 U.

CG 17 U.

CG 15 U.

CG 14 U.

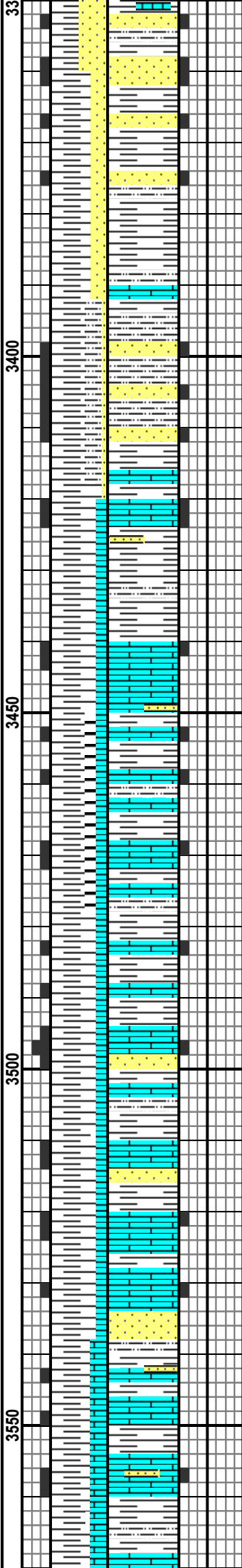
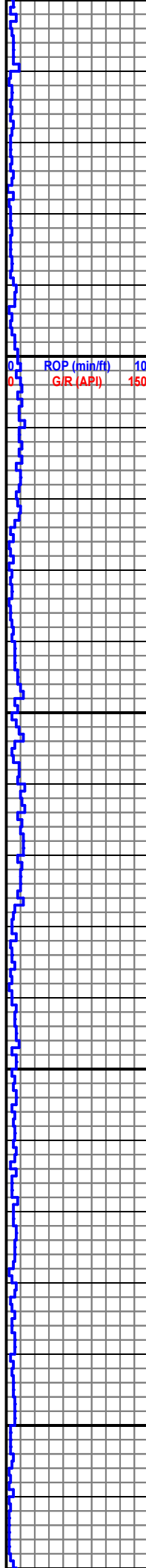
CG 16 U.

Fluorometer 500

WOB: 11.3K  
RPM: 71  
PP: 1554  
GPM: 407

WT: 8.8  
VIS: 41

DEVIATION  
SURVEY @  
3530' INC .2°



SH: MED GRY, SM LT GRY,  
CHNKY, OCC PLTY, MOD  
FRM, SM BR TTL, MED CRSE  
TXT, SLTY TXT, TR SMTH  
TXT, EARTHY, SS: CLR, LT  
GRY, CONSOL CLSTRS, POR  
SRTD, RND- SUBRND, V/F L  
SM SLTY, CALC CMT,  
SCTTRD PL YEL FLOR,

CG 19 U.

SH: MED GRY, DRK GRY,  
BLK, FN-SMOOTH TXT,  
ERTHY, MOD FRM, OCC  
SLTY, LS: CRM, OFF WHT,  
BLKY-CHNKY, V/FNT LT BRN  
STN, OCC FRAC POR, SM  
YEL FLOR,

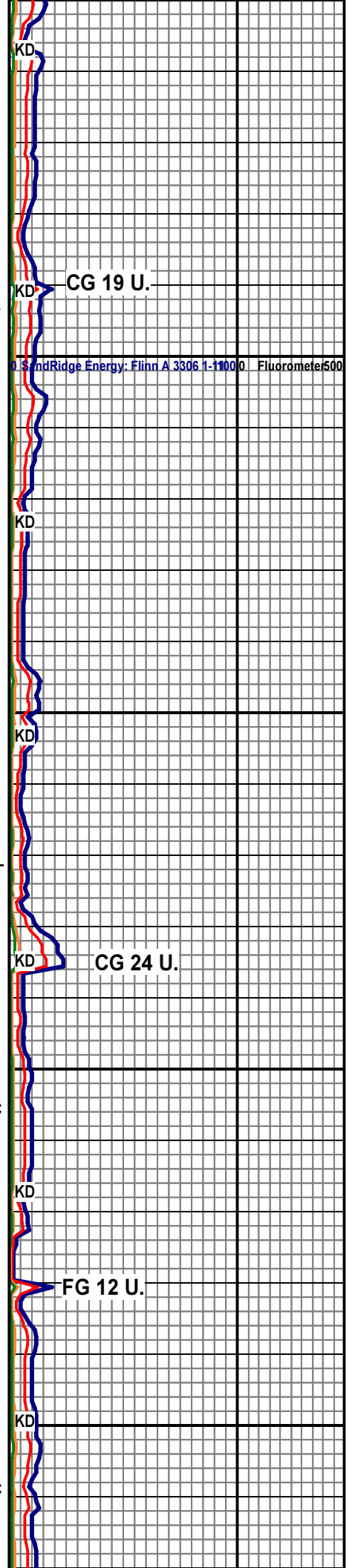
LANSING @  
3,471' (-2,150')

CG 24 U.

SH: MED GRY, GRY, SM BLK,  
FN-F/FN XLN, SMTH TXT,  
ERTHY, MOD FRM, TR SLTY,  
W/ INCRSNG LS: CRM, OFF  
WHT, BLKY-PLTY, OCC  
CHNKY, FRAC POR, HL FRAC  
POR, SM DULL YEL FLOR,  
NO CUT, NO RES RNG

FG 12 U.

SH: MED GRY, GRY, SM BLK,  
FN-F/FN XLN, SMTH TXT,  
ERTHY, MOD FRM, TR SLTY,  
SM SS STRINGERW/  
INCRSNG LS: CRM, OFF  
WHT, BLKY-PLTY, OCC  
CHNKY, FRAC POR, HL FRAC  
POR, SM DULL YEL FLOR,  
NO CUT, NO RES RNG



WOB: 16.4K  
RPM: 90  
PP: 939  
GPM: 289

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

WT: 9.2  
VIS: 47

7/16/13

3600  
3650  
3700  
3750

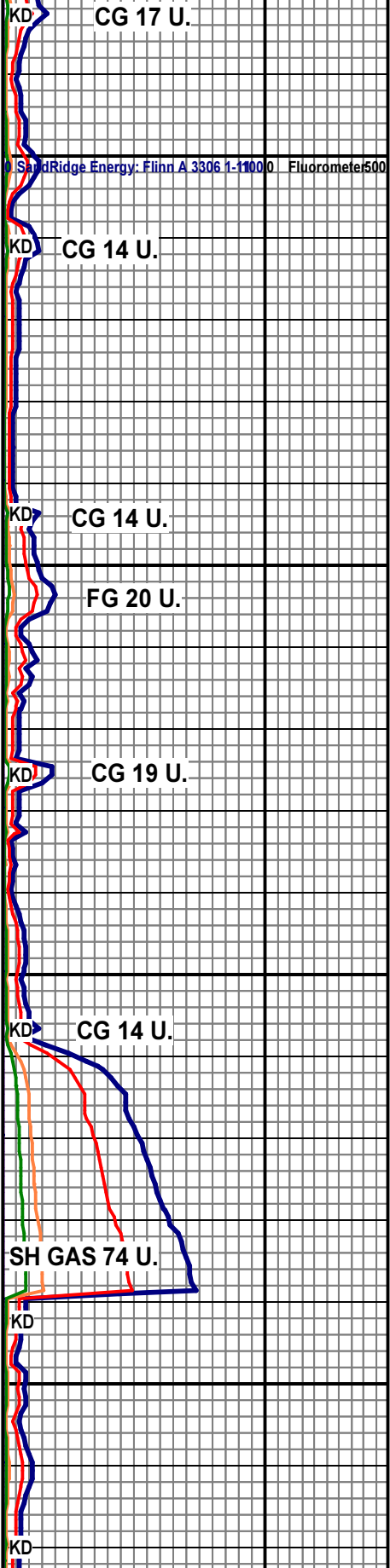
SH: MED GRY, GRY, SM LT GRN, FN-F/FN XLN, SMTH TXT, ERTHY, MOD FRM-FRM, TR BR TTL, SM SS STRINGERW/ INCRSNG LS: CRM, OFF WHT, BLKY-PLTY, OCC CHNKY, FRAC POR, HL FRAC POR, VUG POR, SM DULL YEL FLOR, NO CUT, NO RES RNG

SH: MED GRY, GRY, SM LT GRN, FN-F/FN XLN, SMTH TXT, ERTHY, MOD FRM-FRM, TR BR TTL, SM SS STRINGERW/ INCRSNG LS: CRM, OFF WHT, BLKY-PLTY, OCC CHNKY, FRAC POR, HL FRAC POR, VUG POR, NO VIS FLOR, NO CUT, NO RES RNG

SH: MED GRY, GRY, SM LT GRN, FN-F/FN XLN, SMTH TXT, ERTHY, MOD FRM-FRM, TR BR TTL, SM SS STRINGER, SM HTSH, W/ LS: CRM, OFF WHT, BLKY-PLTY, OCC CHNKY, FRAC POR, HL FRAC POR, VUG POR, NO VIS FLOR, NO CUT, NO RES RNG

COTTAGE GROVE @ 3,728' MD (-2,407)

LS: CRM, OFF WHT, OCC LT TN- LT GRY, CHNKY-BLKY, OCC PLTY, MOD FRM- V/HRD, SCAT BR TTL, CRSE TXT, V FN XLN, FRAC POR, HLFAC POR, VUG XLN POR, TR WHT, V/HRD CHRT SH: MED- DRK GRY, OCC LT GRN, OCC BLK HTSH, BLKY- TAB, CHNKY ERTHY/DULL TXT



WOB: 4.8K  
RPM: 50  
PP: 1149  
GPM: 447

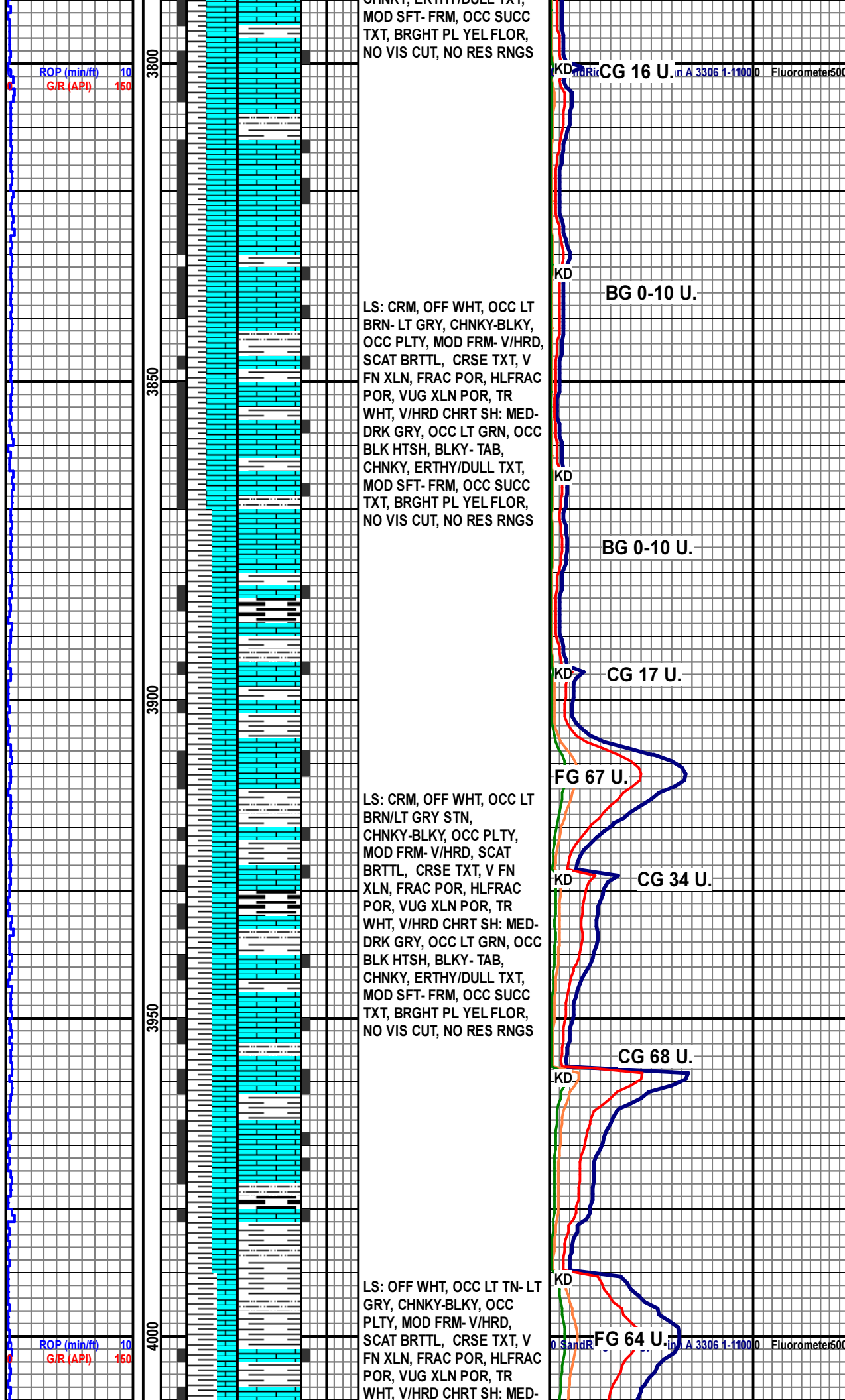
WT: 9.2  
VIS: 47

WOB: 18.3K  
RPM: 62  
PP: 1380  
GPM: 375

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

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

3800  
3850  
3900  
3950  
4000



LS: CRM, OFF WHT, OCC LT BRN- LT GRY, CHNKY-BLKY, OCC PLTY, MOD FRM- V/HRD, SCAT BR TTL, CRSE TXT, V FN XLN, FRAC POR, HLFAC POR, VUG XLN POR, TR WHT, V/HRD CHRT SH: MED- DRK GRY, OCC LT GRN, OCC BLK HTSH, BLKY- TAB, CHNKY, ERTHY/DULL TXT, MOD SFT- FRM, OCC SUCC TXT, BRGHT PL YEL FLOR, NO VIS CUT, NO RES RNGS

LS: CRM, OFF WHT, OCC LT BRN/LT GRY STN, CHNKY-BLKY, OCC PLTY, MOD FRM- V/HRD, SCAT BR TTL, CRSE TXT, V FN XLN, FRAC POR, HLFAC POR, VUG XLN POR, TR WHT, V/HRD CHRT SH: MED- DRK GRY, OCC LT GRN, OCC BLK HTSH, BLKY- TAB, CHNKY, ERTHY/DULL TXT, MOD SFT- FRM, OCC SUCC TXT, BRGHT PL YEL FLOR, NO VIS CUT, NO RES RNGS

LS: OFF WHT, OCC LT TN- LT GRY, CHNKY-BLKY, OCC PLTY, MOD FRM- V/HRD, SCAT BR TTL, CRSE TXT, V FN XLN, FRAC POR, HLFAC POR, VUG XLN POR, TR WHT, V/HRD CHRT SH: MED-

CG 16 U. id A 3306 1-1100.0 Fluorometer500  
BG 0-10 U.  
BG 0-10 U.  
CG 17 U.  
FG 67 U.  
CG 34 U.  
CG 68 U.  
FG 64 U. id A 3306 1-1100.0 Fluorometer500

DEVIATION SURVEY @ 4,036' INC .3°

POOR SAMPLE QUALITY

WT: 9.3  
VIS: 45

POOR SAMPLE QUALITY

WT: 9.3  
VIS: 44

WOB: 26.8K  
RPM: 98  
PP: 1619  
GPM: 350

ROP (min/ft) 110  
GIR (API) 150

4050  
4100  
4150  
4200

DRK GRY, OCC LT GRN, OCC BLK, BLKY- TAB, CHNKY, ERTHY/DULL TXT, MOD SFT-FRM, OCC SUCC TXT, BRGHT PL YEL FLOR, NO VIS CUT, NO RES RNGS,

**OSWEGO LIME @ 4,052' (-2,731')**

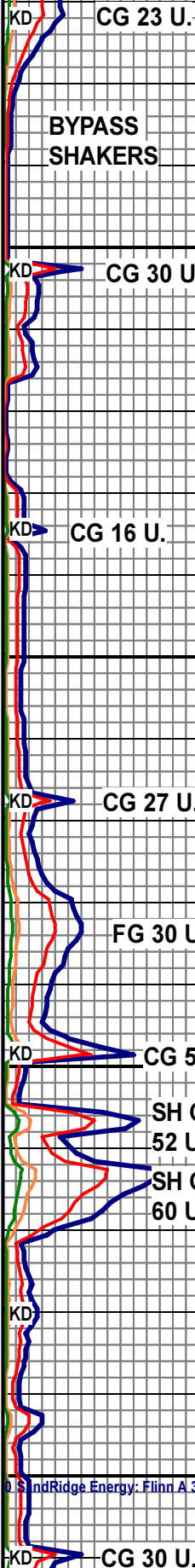
LS: PRED CRM, MSTLY SUBANG- SUBRND, OCC CHNKY, OCC FLKY, MOD FRM- HRD, OCC BRIT, MED TXT, OCC RGH TXT, V FN XLN, SCAT FRAC POR, SH: PRED LT- MED GRY, OCC RED, OCC LT GRN, MSTLY SUBANG- PLTY, OCC FLKY, MOD SFT- FRM, OCC SLI FRM, OCC SMTH TXT, V PR DULL GLD FOR, NO VIS CUT, NO RES RNGS, FLUOROMETER READ: NONE-FAINT

LS: PRED OFF WHT- LT TN, SME LT GRY, OCC BUFF, MSTLY SUBRND- RND, OCC CHNKY, MOD FRM- FRM, OCC SLI HRD, TR FRI, V FN- FN XLN, MOD RGH TXT THRU OUT, PR INTERXLN POR, SCAT HL FRAC POR, OCC VUG POR, SH: PRED MED GRY, SCAT LT GRN, OCC RED, SCS LT BRN, MSTLY CHNKY, OCC BLKY, OCC SPLNTRY, MOD SFT- SLI FRM, OCC BRIT, SLTY TXT, V PR LT GLD FLOR, NO VIS CUT, NO RES RNGS, NONE-FAINT

**CHEROKEE @ 4,170' (-2,849')**

LS: PRED OFF WHT- CRM, OCC LT TN, MSTLY SUBANG- SUBRND, MOD FRM- SLI HRD, OCC FRI, MED- CRS TXT, FN XLN, OCC HL FRAC POR, TR VUG POR, SH: PRED LT GRY, SME RED, OCC LT BRN, TR BLK CARB, MSTLY BLKY- CHNKY, OCC PLTY, MOD SFT- FRM, OCC CHKY, SLTY TXT, OCC SUBWXY, V PR LT YEL- DULL GLD FLOR, NO VIS CUT, NO RES RNGS, FLUORO READ: VFNT-FNT

**VERDIGRIS @ 4,212' (-2,891')**



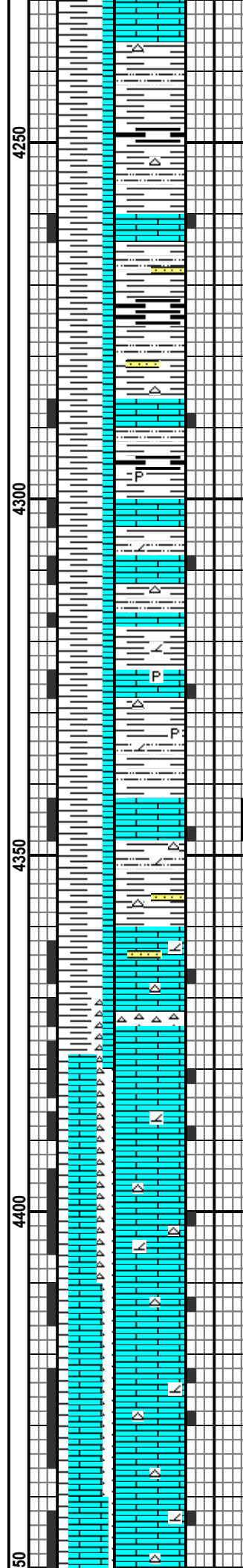
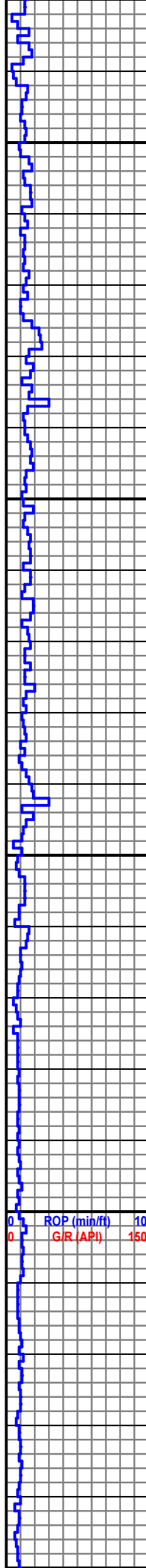
Fluorometer500



POOR  
SAMPLE  
QUALITY

POOR  
SAMPLE  
QUALITY

WOB: 21.0K  
RPM: 56  
PP: 1470  
GPM: 357



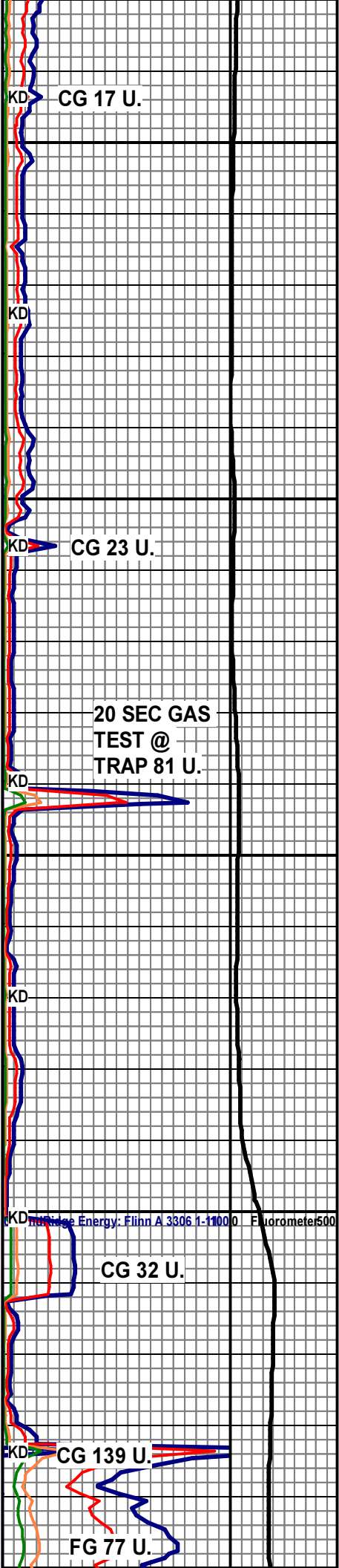
SH: PRED LT GRY, SME RED, OCC LT GRN, TR YEL, MSTLY SUBANG- BLKY, MOD SFT-FRM, OCC CHKY, SME SMTH TXT, LS: PRED LT GRY- OFF WHT, OCC CRM, MSTLY SUBANG- SUBRND, MOD FRM- SLI HRD, V FN XLN, RGH TXT, PR INTERXLN POR, OCC HL FRAC POR, TR SS, TR CHRT, V PR LT YEL FLOR, NO VIS CUT, NO RES RNGS, FLUOROMETER READ: NONE-FAINT

SH: PRED LT- MED GRY, SME LT GRN, OCC RED, OCC LT BRN, TR YEL, MSTLY PLTY- BLKY, OCC CHNKY, MOD SFT- FRM, OCC FRI, OCC CHKY, SLTY TXT, TR BLK CARB, LS: PRED LT GRY, OCC LT TN, MSTLY SUBANG- SUBRND, OCC BLKY, TR RND, MOD FRM- FRM, OCC SLI HRD, MED TXT, V FN- FN XLN, PR INTERXLN POR, OCC HL FRAC POR, TR VUG POR, TR DOL, TR PYR, TR CHRT, V PR LT GLD FLOR, V PR MILKY FNT WHT SLO CUT, THN LT YEL RES RNG, FLUOROMETER READ: NONE-FAINT

MISS UNC. @  
4,347' (-3,026')

LS: PRED OFF WHT, SME LT GRY, OCC LT TN, MSTLY SUBANG- BLKY, OCC CHNKY, OCC FLKY, MOD FRM- SLI HRD, OCC BRIT, MED TXT, V FN XLN, SCAT HL FRAC POR, PR INTERXLN POR, CHRT: PRED WHT- OPQ, OCC LT GRY, MSTLY SUBANG- ANG, OCC BLKY, MOD FRM- HRD, HL FRAC POR, PR INTERXLN POR, FN XLN, TR SS STRGRS, TR DOL, V PR LT YEL- DULL GLD FLOR, NO VIS CUT, NO RES RNGS, FLUOROMETER READ: VERY FAINT-VERY GOOD

LS: PRED LT GRY, SME LT TN, OCC CRM, MSTLY BLKY- CHNKY, OCC SUBRND, MOD FRM- HRD, OCC FRI, CRS TXT, PR INTERXLN POR, FRAC POR, TR CHRT, TR DOL, V PR DULL YEL FLOR,

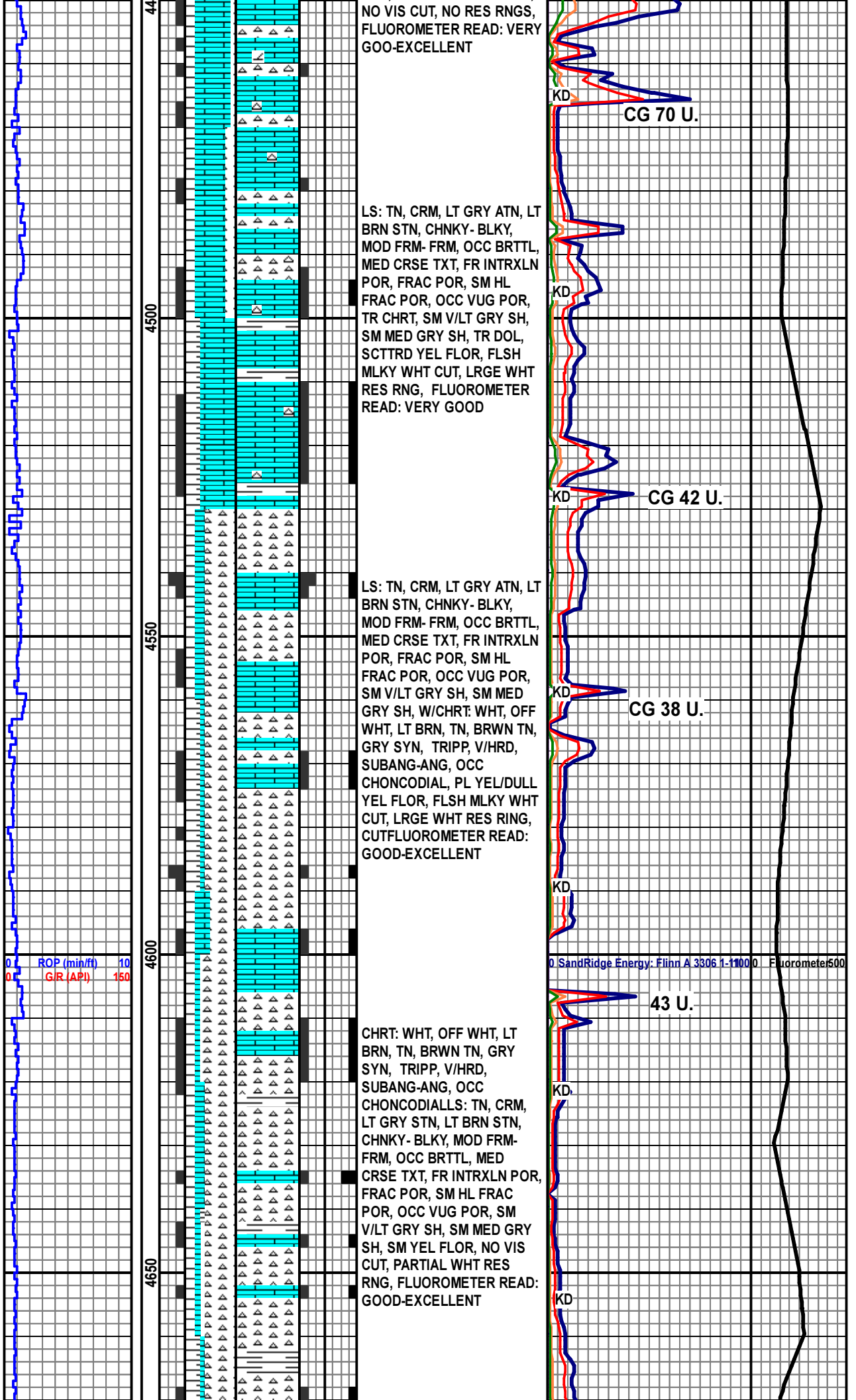


Fluorometer 500

DEVIATION  
SURVEY @  
4481' .6°

WT: 9.4  
VIS: 40

WOB: 18K  
RPM: 82  
PP: 1732  
GPM: 349

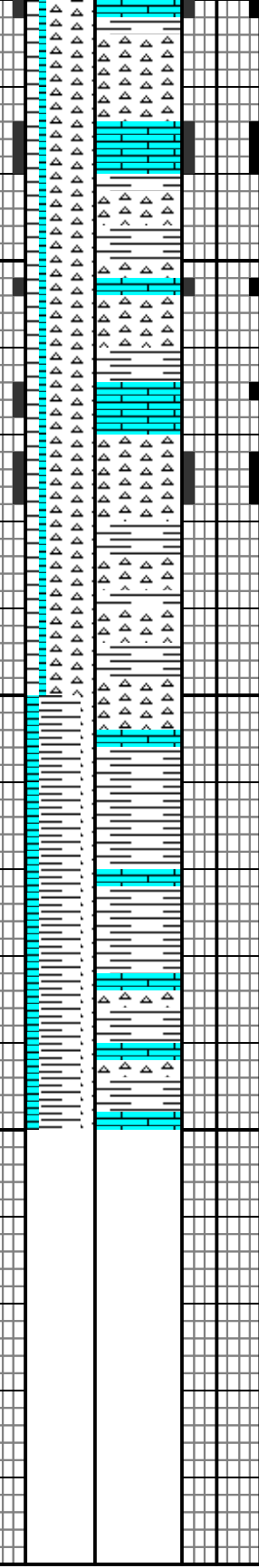


WOB: 11K  
RPM: 54  
PP: 1631  
GPM: 345

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

ROP

4700  
4750  
4800  
4850



**KINDERHOOK @  
4,672' (-3,351')**

CHRT: WHT, OFF WHT, LT  
BRN, TN, BRWN TN, GRY  
SYN, TRIPP, V/HRD,  
SUBANG, OCC CHONCODIAL  
W/LS: TN, CRM, LT BRN, LT  
BRN STN, CHNKY- BLKY,  
MOD FRM- FRM, OCC BR TTL,  
MED CRSE TXT, FR INTRXLN  
POR, FRAC POR, SM HL  
FRAC POR, OCC VUG POR,  
SM V/LT GRY SH, SM MED  
GRY SH, OCC YEL FLOR, NO  
VIS CUT, THN WHT RES  
RNG, FLUOROMETER READ:  
VERY GOOD-EXCELLENT

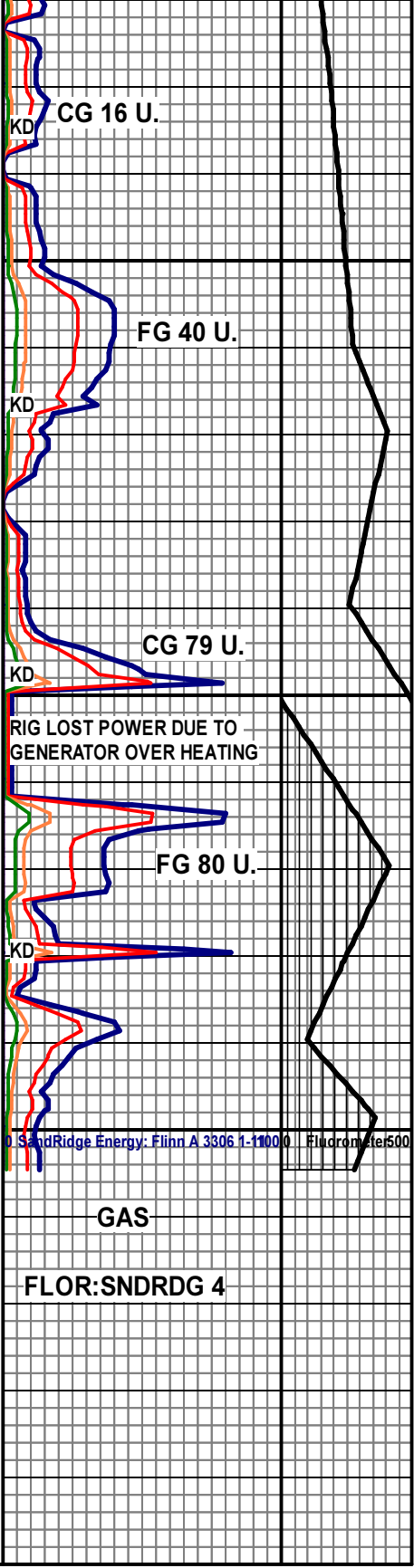
**WOODFORD @  
4,744' (-3,423')**

SH: V DRK GRY, OCC LT  
BRN, OCC BLK CARB, MSTLY  
PLTY- BLKY, OCC CHNKY,  
MOD SFT- FRM, OCC FRI,  
OCC CHKY, SLTY TXT, LS: LT  
TN, SM LT BRN, OCC CRM,  
MSTLY BLKY- CHNKY, OCC  
SUBRND, MOD FRM- HRD,  
OCC FRI, CRS TXT, PR  
INTERXLN POR, FRAC POR,  
TR CHRT, NO VIS FLOR, NO  
CUT, NO RES RNGS,  
FLUOROMETER READ:  
EXCELLENT

**DRILLER'S TD @  
4,805' MD, ON  
7/17/13**

**SANDRIDGE  
ENERGY INC. FLINN  
A 3306 1-11 SEC  
11-T33S-R6W  
HARPER CO.,  
KANSAS**

1,311' GR, 1,321' KB



RIG LOST POWER DUE TO  
GENERATOR OVER HEATING

SandRidge Energy: Flinn A 3306 1-11000 | Flinn A 3306 1-11000 | Flinn A 3306 1-11000

**GAS**  
**FLOR:SNDRDG 4**