



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: ARIANA 3419 1-7H SANDRIDGE ENERGY
Location: Section 6, T34S, R19W, Comanche County, Kansas
License Number: API#15069204300100 Region: Comanche County
Spud Date: 04/03/13 Drilling Completed: 4/19/2013
Surface Coordinates: SHL: 210' FSL & 685' FWL
BHL: 330' FSL & 660' FWL
Bottom Hole Report For: Maggie Roden
Coordinates: Logger: Donavan Stevens
Ground Elevation (ft): 1,809' K.B. Elevation (ft): 1,829'
Logged Interval (ft): 2,250' To: 10,165' Total Depth (ft): 10,165'
Formation: Mississippi
Type of Drilling Fluid: CARBONOX/QUIK-THIN

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

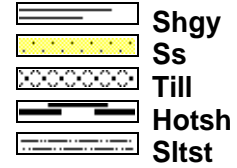
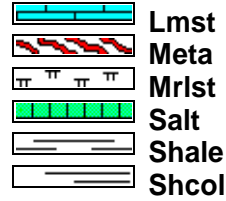
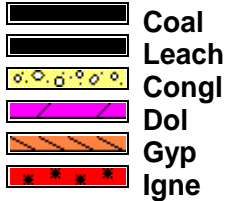
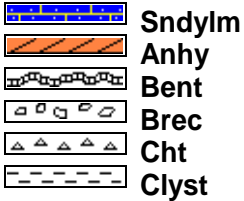
Cores

DSTs

Comments

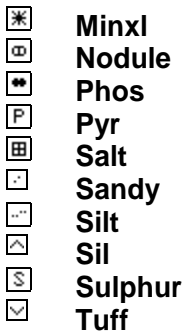
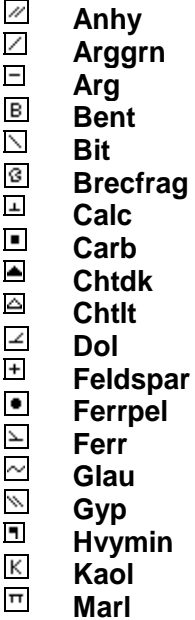
Trailer 28.

ROCK TYPES

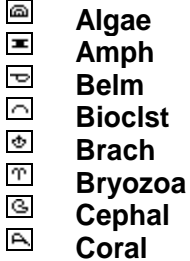


ACCESSORIES

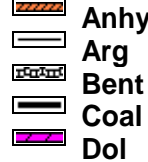
MINERAL



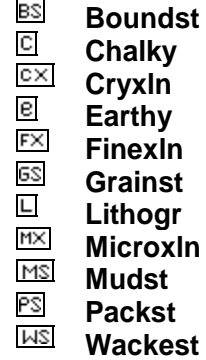
FOSSIL



STRINGER

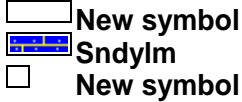
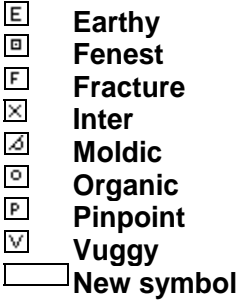


TEXTURE



OTHER SYMBOLS

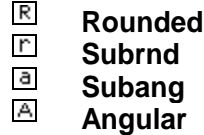
POROSITY



SORTING



ROUNDING



OIL SHOW

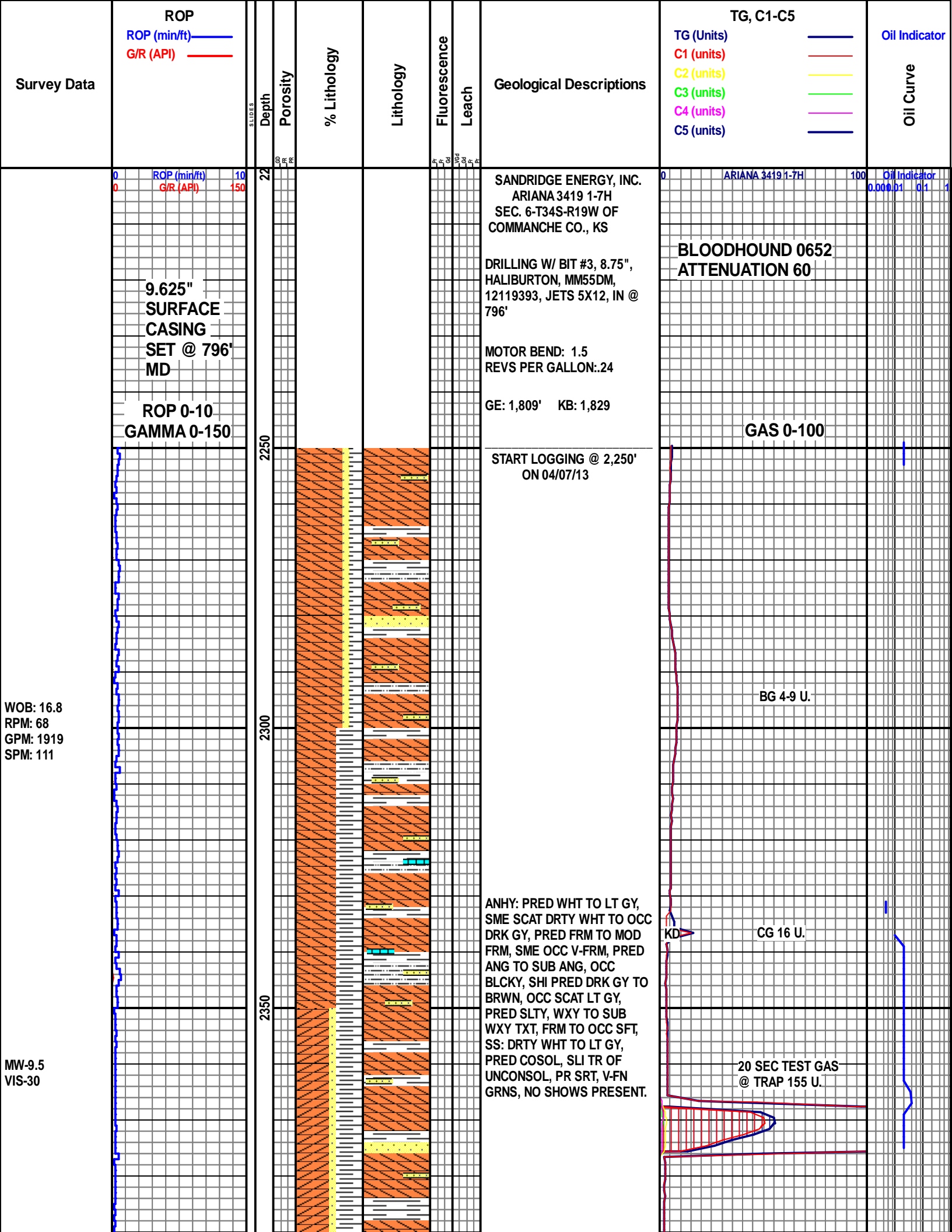


INTERVAL



EVENT





Survey Data

ROP (min/ft) ———
 G/R (API) ———

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

9.625"
 SURFACE
 CASING
 SET @ 796'
 MD

ROP 0-10
 GAMMA 0-150

WOB: 16.8
 RPM: 68
 GPM: 1919
 SPM: 111

MW-9.5
 VIS-30

STUDES
 Depth
 Porosity

22

2250

2300

2350

% Lithology

Lithology

Fluorescence
 Leach

Geological Descriptions

SANDRIDGE ENERGY, INC.
 ARIANA 3419 1-7H
 SEC. 6-T34S-R19W OF
 COMMANCHE CO., KS

DRILLING W/ BIT #3, 8.75",
 HALIBURTON, MM55DM,
 12119393, JETS 5X12, IN @
 796'

MOTOR BEND: 1.5
 REVS PER GALLON: 24

GE: 1,809' KB: 1,829

START LOGGING @ 2,250'
 ON 04/07/13

ANHY: PRED WHT TO LT GY,
 SME SCAT DRTY WHT TO OCC
 DRK GY, PRED FRM TO MOD
 FRM, SME OCC V-FRM, PRED
 ANG TO SUB ANG, OCC
 BLCKY, SHI PRED DRK GY TO
 BRWN, OCC SCAT LT GY,
 PRED SLTY, WXY TO SUB
 WXY TXT, FRM TO OCC SFT,
 SS: DRTY WHT TO LT GY,
 PRED COSOL, SLI TR OF
 UNCONSOL, PR SRT, V-FN
 GRNS, NO SHOWS PRESENT.

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

ARIANA 3419 1-7H

BLOODHOUND 0652
 ATTENUATION 60

GAS 0-100

BG 4-9 U.

KD > CG 16 U.

20 SEC TEST GAS
 @ TRAP 155 U.

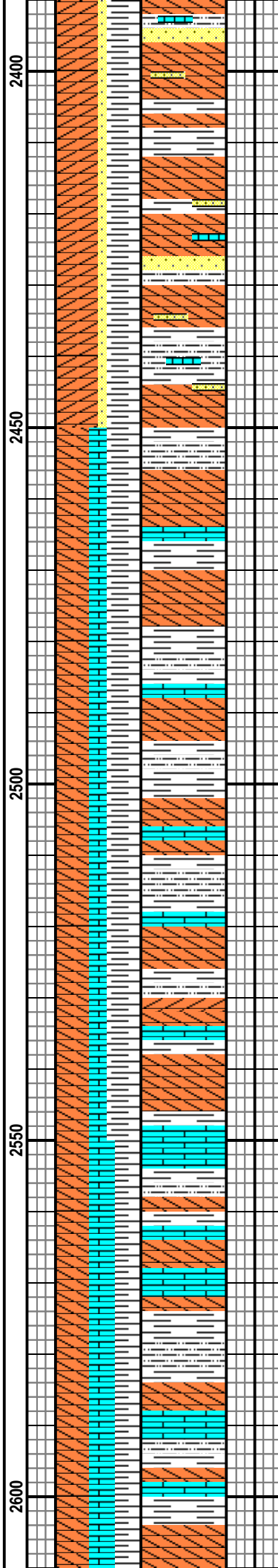
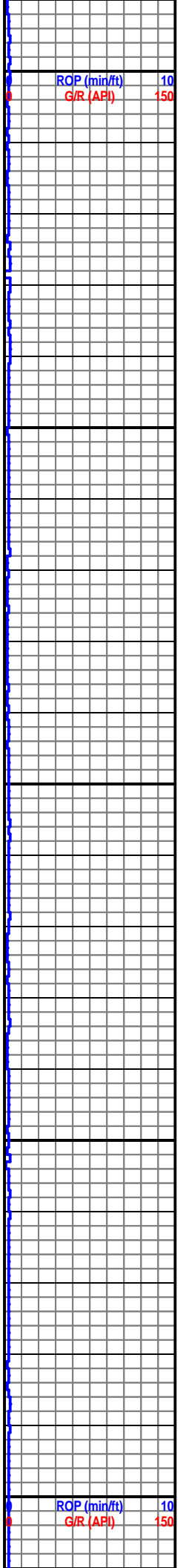
Oil Indicator
 Oil Curve

Oil Indicator
 0.000 0.1 1

WOB: 16.2
RPM: 67
PP: 2068
SPM: 107

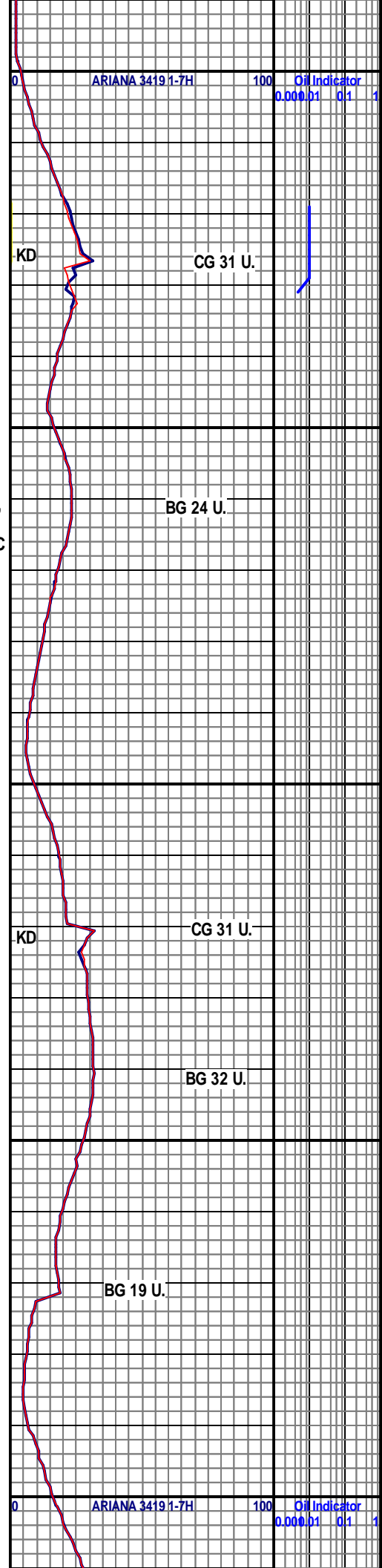
MW-9.6
VIS-30

WOB: 16.1
RPM: 69
PP: 2113
SPM: 108

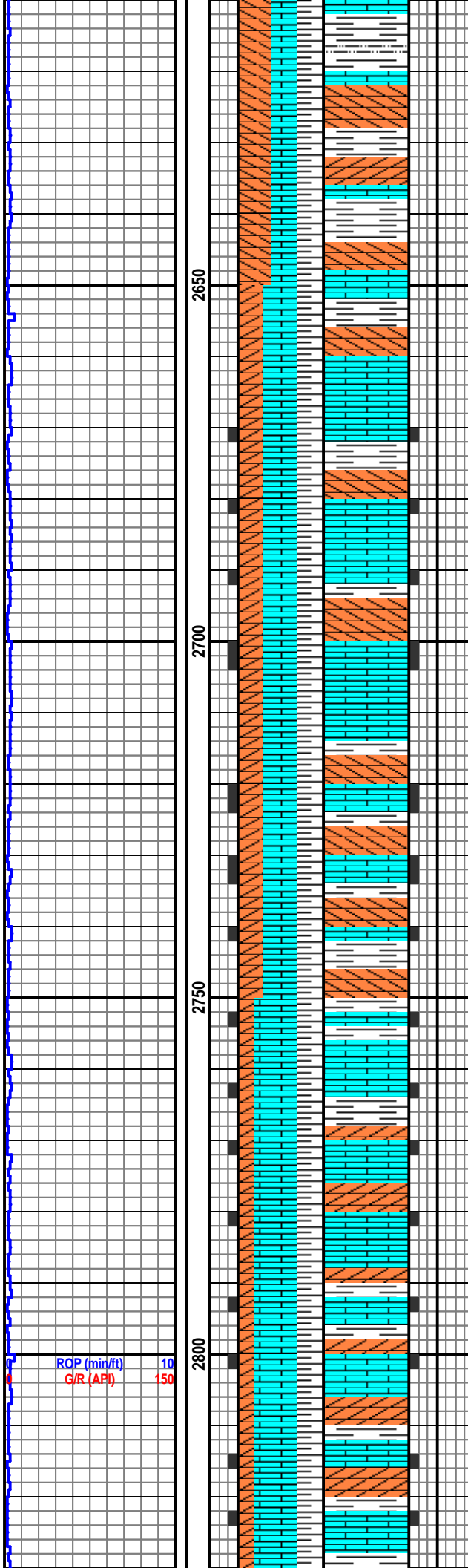


ANHY: PRED OFF WHT TO WHT, SME SCAT LT GY TO TR OF DRK GY, PRED FRM TO MOD FRM, SME FRI, PRED ANG TO SUB ANG, SLI TR OF PLTY, SH: PRED LT BRWN TO DRK G Y, SME SCAT LT GY, PRED SLTY, BCKY TO OCC CHNKY, WXY TO SUB WAXY TXT, PRED FRM, SCAT BRTLE THRU OUT, SS: WHT TO LT GY, SME TRNSLU, PRED CONSOL, TR OF UNCONSOL, PR TO OCC MED SRT, V-FN GRNS, TR OF LS STRNGRS, NO SHOWS PRESENT,

ANHY: PRED WHT TO LT GY, SCAT TRNSLU, TO OCC DRK GY, PRED FRM TO MOD FRM, SME FRI, SLI TR OF SCAT V-FRM, PRED ANG TO SUB ANG, SME SCAT PLTY, SH: PRED DRK GY TO OCC LT GY, SME SCAT BRWN, MED TXT, BCKY TO OCC CHLKY, SCAT WAXY, PRED FRM, SME MOD FRM, LS: PRED LT OCC DRK TN, SLI TR OF TRNSLU, PRED FRM TO MOD FRM, SME HRD, PRED MSTLY ANG, SLI TR OF PLTY, SLI TR OF SCAT PR HL FRAC POR, NO SHOWS.

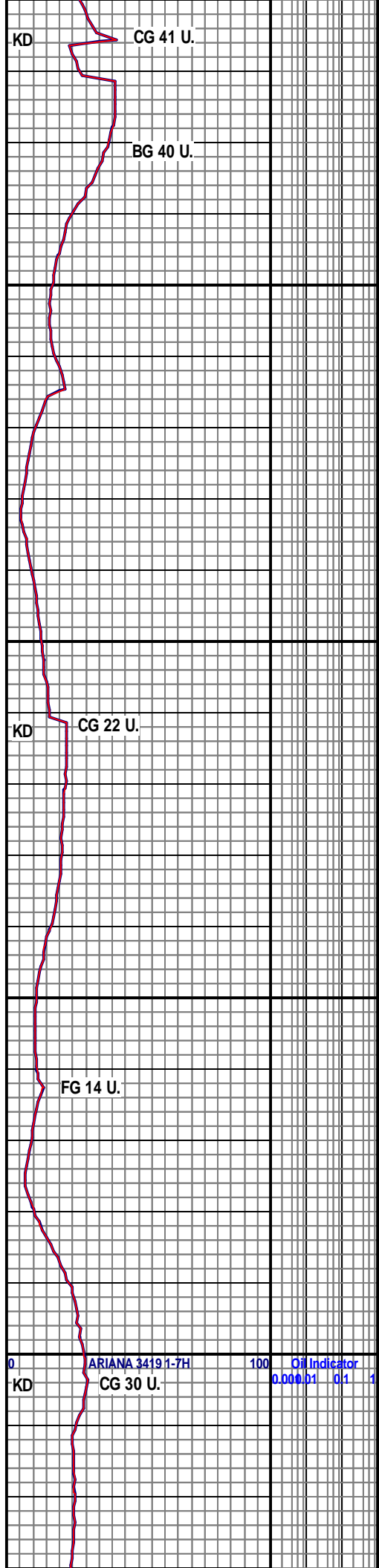


WOB: 19.4
RPM: 66
PP: 1985
SPM: 105



ANHY: PRED WHT TO OFF
WHT, SME SCAT LT TN, PRED
FRM TO MOD FRM, SME SCAT
FRI, MSTLY ANG TO SUB ANG,
SH: PRED LT GY TO OCC
BRWN, SME SCAT DRK GY,
PRED MED XLN, PRED BLCKY,
SUB WAXY TXT, PRED FRM,
LS: PRED LT TN TO OFF WHT,
SME SCAT TRNSLU, MOD FRM
TO FRM, SME HRD, V-SLI TR
OF SCAT HL FRAC POR, NO
SHOWS.

ANHY: PRED WHT, SME OFF
WHT, OCC TN, PRED MOD
FRM, SME FRM, PRED ANG,
SME SUBANG, LS: PRED OFF
WHT-TN, OCC DK TN, MOD
FRM TO FRM,
SUBANG-SUBRND, SH: PRED
DRK GY-GY, OCC RED-BRN,
BLKY, SUBWXY TXT, FRM, DUL
YEL FLOR

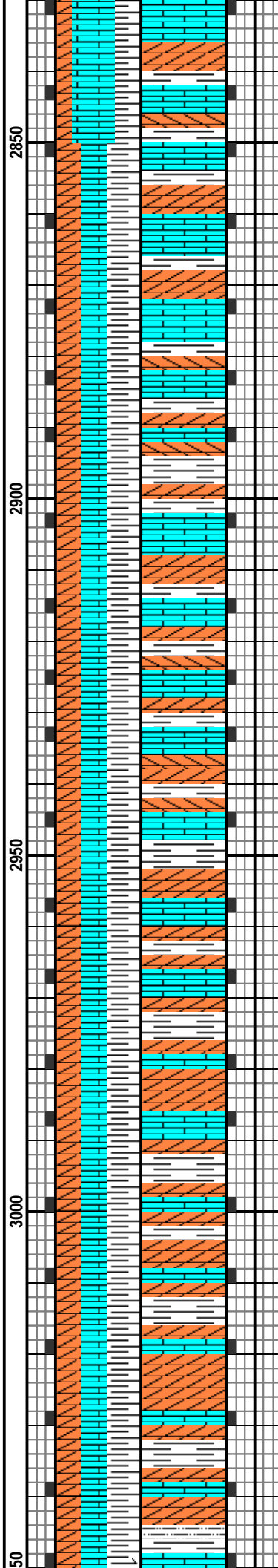
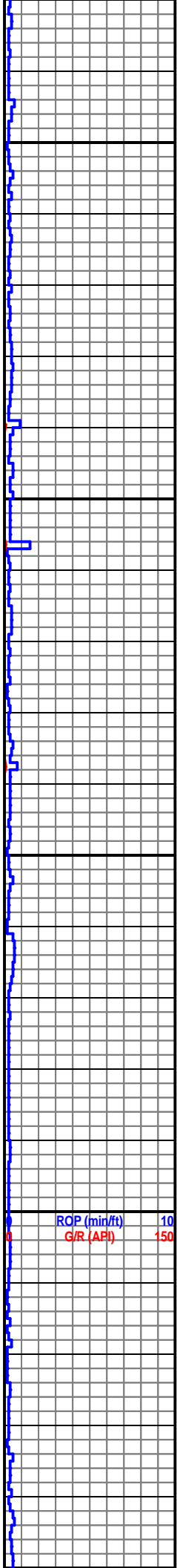


ROP (min/ft) 10
G/R (API) 150

ARIANA 3419 1-7H 100 Oil Indicator
0.000.01 0.1

MD 2864 TVD 2863.93
INC 0.8 AZ 242.1
VS 7.8

WOB: 14.4
RPM: 69
PP: 2012
SPM: 107



LS: PRED OFF WHT, SME TN,
SME CRM, OCC WHT, TR DK
TN, PRED MOD FRM, SME FRM,
PRED SUBANG, SME SUBRND,
SH: PRED GY-DK GY, SME
RED-BRN, BLKY, OCC CHNKY,
MOD FRM, SUBWXY TXT,
PRED ANG, SME SUBANG,
ANHY: PRED WHT, SME OFF
WHT, SME TN, PRED ANG,
OCC SUBANG, MOD FRM-FRM,
DUL YEL-GLD FLOR

ANHY: PRED WHT, OCC OFF
WHT, OCC TN, OCC CRM,
MSTLY ANG, SME SUBANG,
MOD FRM, SME FRM, SH:
PRED GY, SME DRK GY, SME
RED-BRN, PRED BLKY, SME
CHNKY, MOD FRM-FRM,
SUBWXY TXT, ANG, LS: PRED
WHT, SME OFF WTE, OCC
CRM, SME TN, OCC DRK TN,
MOD FRM-FRM, SUBANG, OCC
SUBRND, DUL YEL-GLD FLOR

ANHY: WHT, SME OFF WHT,
SME TN, SME CRM, PRED
ANG, SME SUBANG, MOD
FRM-FRM, SH: MSTLY GY, SME
DRK GY, OCC RED-BRN,
MSTLY BLKY, OCC CHNKY,

BG 15-25 U.

KD CG 30 U.

FG 18 U.

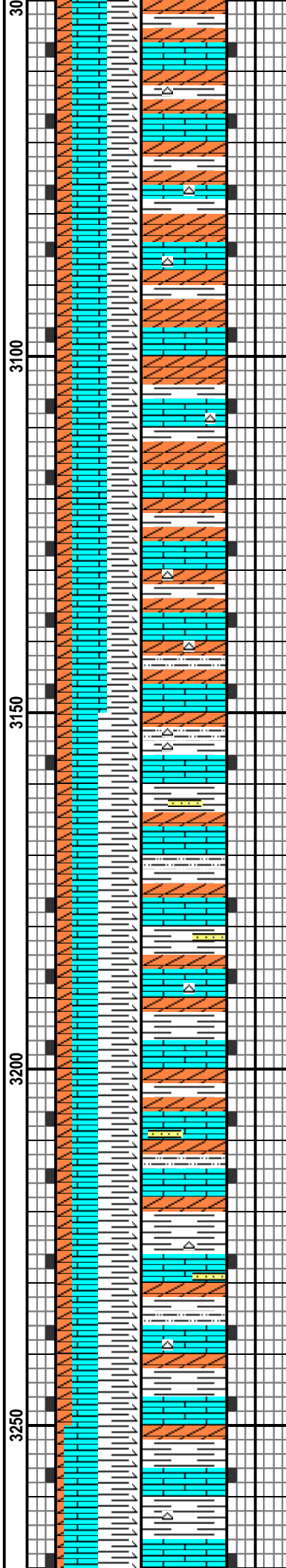
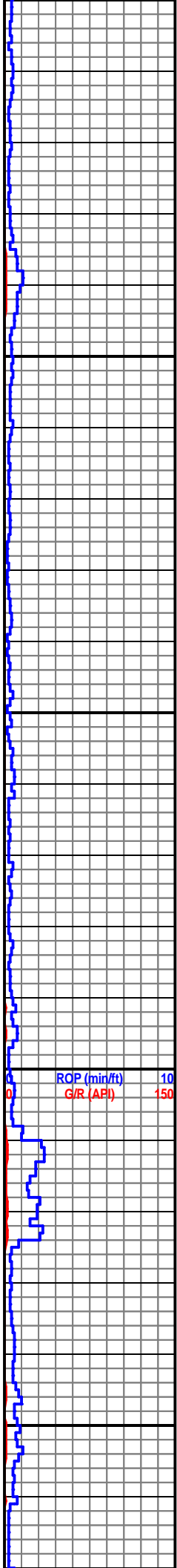
KD CG 25 U.

BG 11-26 U.

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

ARIANA 3419 1-7H 100 Oil Indicator
0.000 0.01 0.1 1

WOB: 23.3
RPM: 75



PRED FRM, SME MOD FRM,
SUBWXY TXT, PRED ANG, TR
SUBANG, LS: MSTLY WHT,
OCC OFF WHT, SME CRM, OCC
TN, MOD FRM-FRM, SUBANG,
CHT: WHT, SME TRANS-OPQ,
HRD, ANG, DUL YEL-GLD FLOR

SH: PRED GY, SME DRK GY,
OCC RED-BRN, PRED BLKY,
SME CHNKY, MOD FRM-FRM,
PRED ANG, OCC SUBANG, LS:
PRED WHT, SME OFF WHT,
OCC LT GY, SME TN, OCC
CRM, SUBANG, OCC SUBRND,
MOD FRM, ANHY: WHT, SME
OFF WHT, SME SUBANG, MOD
FRM-FRM, CHT: PRED WHT,
SME TRANSLU, HRD, ANG,
DUL YEL-GLD FLOR

SH: PRED GY, SME DK GY,
SME RED-BRN, MSTLY BLKY,
SME CHNKY, PRED ANG, OCC
SUBANG, MOD FRM, LS: PRED
WHT, SME OFF WHT, SME LT
GY, SME CRM, PRED SUBANG,
SME SUBRND, MOD FRM, TR
FRM, ANHY: WHT, SME OFF
WHT, SUBANG, MOD FRM, CHT:
MSTLY WHT, SME TRANSLU,
SME OPQ, HRD, ANG, TR SS,
DUL YEL-GLD FLOR.

SURVEY
GAS 32 U.

KD CG 23 U.

BG 12-15 U.

KD CG 6 U.

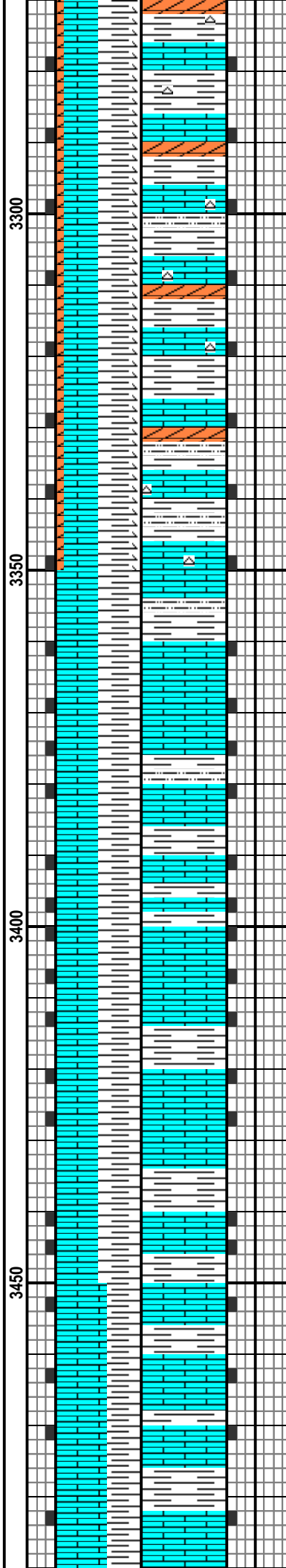
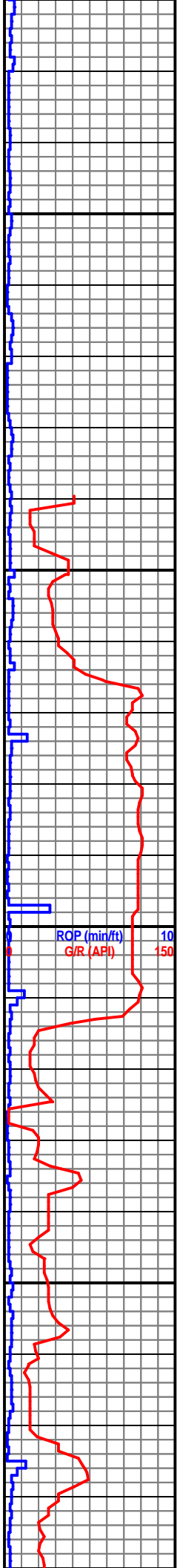
ARIANA 3419 1-7H

BG 2-6 U.

Oil Indicator
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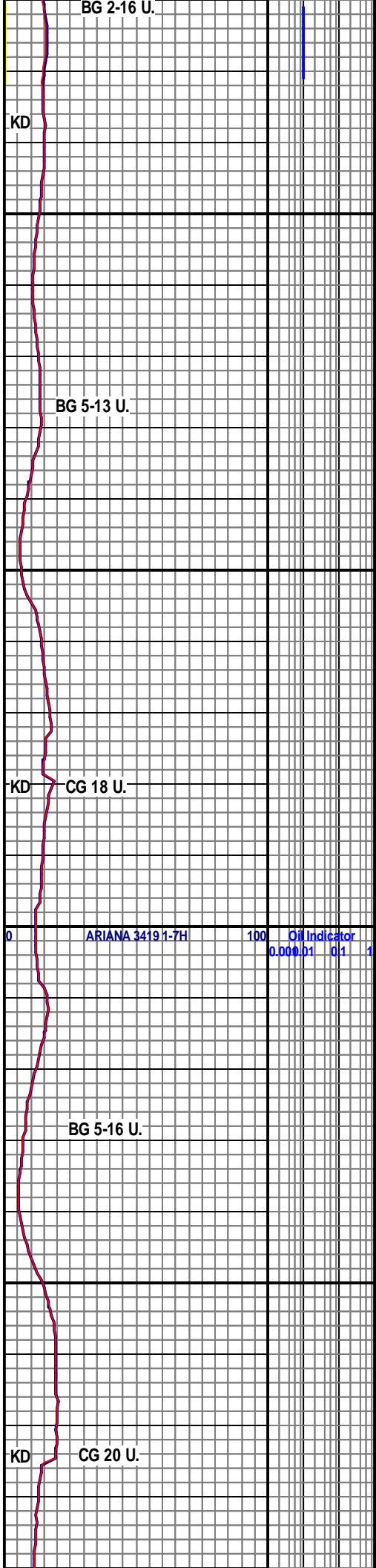
MD 3339 TVD 3338.91
INC 0.4 AZ 268.6
VS 9.42

WOB: 15.2
RPM: 71
PP: 2097
SPM: 106



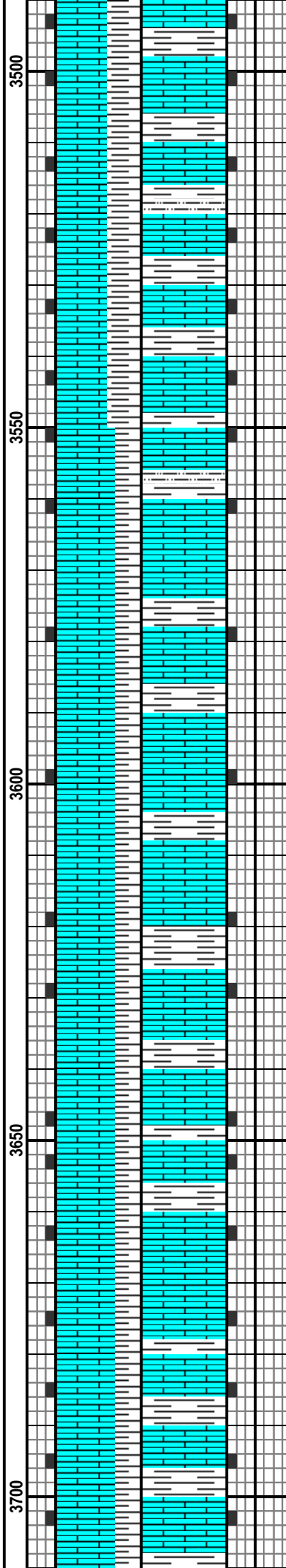
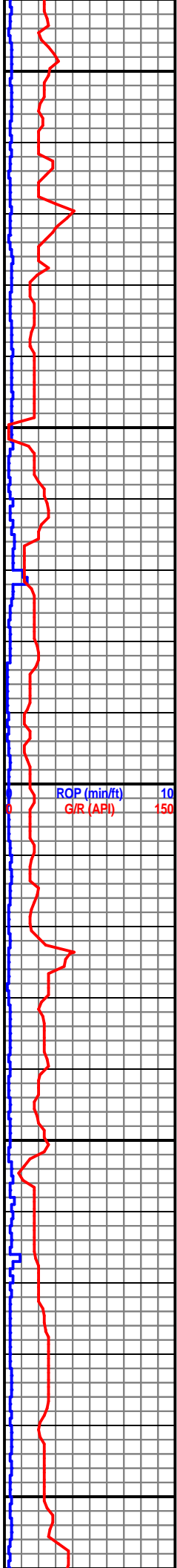
SH: PRED GY, SME DK GY,
SME BLK, SME RED-BRN,
PRED ANG, OCC SUBANG,
MOD FRM, SME FRM, LS: PRED
OFF WHT, SME LT GY, SME TN,
SME CRM, SME DRTY GY,
MOD FRM, SUBANG, OCC
SUBRND, ANHY: WHT-OFF
WHT, SUBANG, MOD FRM, CHT:
PRED WHT, OCC OPQ, OCC
TRANSLU, HRD, ANG, DUL
YEL-GLD FLOR

LS: PRED WHT-OFF WHT, SME
LT GY, SME TN, SME CRM,
PRED SUBANG, SME SUBRND,
MOD FRM-FRM, SH: PRED
GY-DRK GY,S ME BLK, OCC
RED-BRN, MOD FRM, SUBANG,
OCC ANG OCC FRM, OCC BRIT,
SUBWXY TXT, DUL YEL-GLD
FLOR



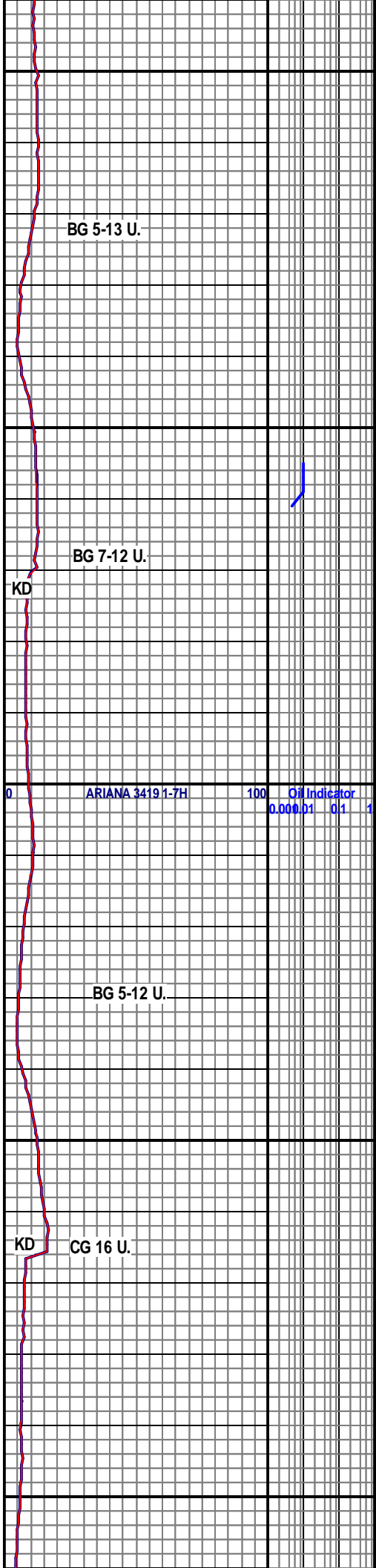
WOB: 22.9
RPM: 70
PP: 2056
SPM: 104

WOB: 22.1
RPM: 71
PP: 2321
SPM: 106



LS: PRED OFF WHT- WHT, SME
TN, SME CRM, PRED SUBANG,
OCC SUBRND, MOD FRM, SME
FRM, SH: PRED GY-DK GY, TR
RED-BRN, MOD FRM-FRM,
SUBANG, SME ANG, SUBWXY,
DUL YEL-GLD FLOR

LS: PRED OFF WHT, SME WHT,
OCC TN, OCC CRM, SME MOTT
WHT-GY, SUBANG, SME
SUBRND, MOD FRM-FRM SH:
PRED GY, OCC DK GY, MOD
FRM, OCC FRM, SUBANG, OCC
ANG, SUBWXY, DUL YEL-GLD
FLOR



BG 5-13 U.

BG 7-12 U.

ARIANA 3419 1-7H

BG 5-12 U.

CG 16 U.

KD

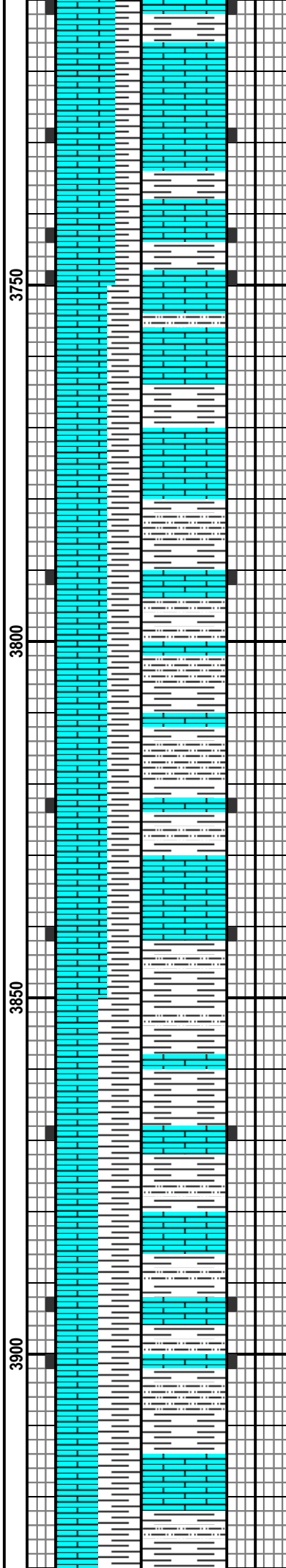
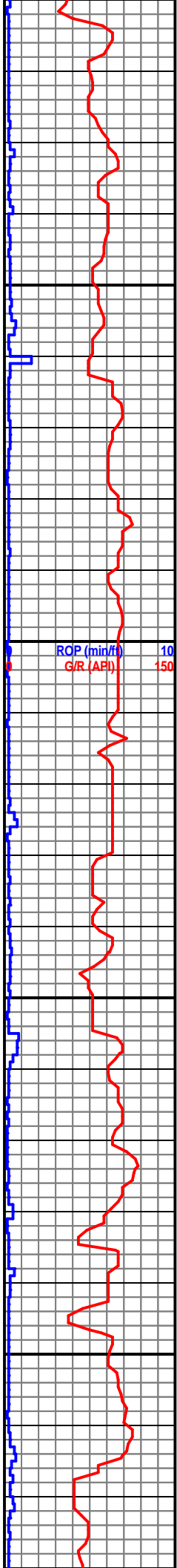
KD

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

Oil Indicator
0.000 0.01 0.1 1

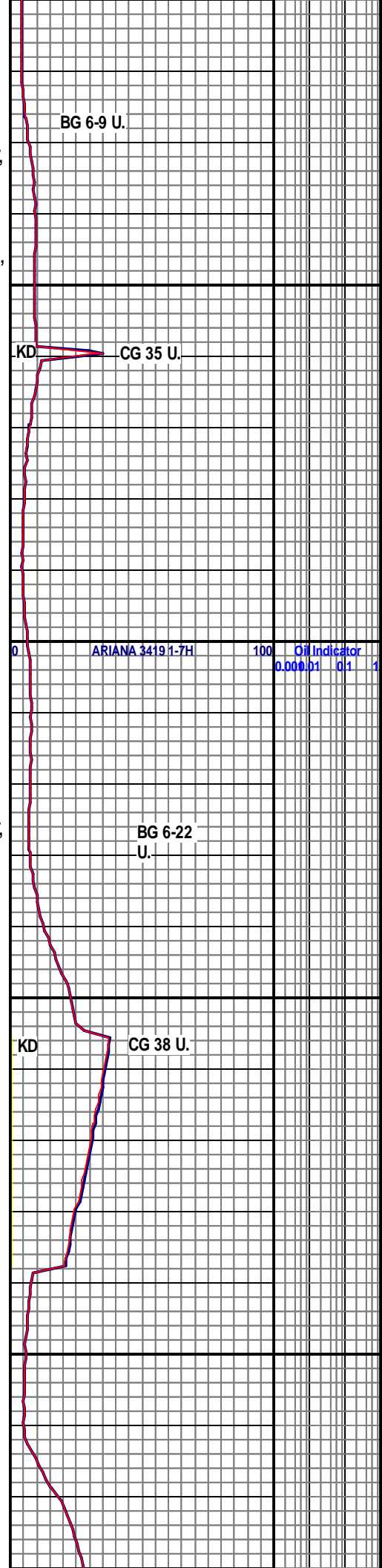
WOB: 12.1
RPM: 71
PP: 2157
SPM: 104

MD 3814 TVD 3813.9
INC 0.4 AZ 75
VS 9.03



LS: PRED OFF WHT, SME WHT,
OCC CRM, SME LT TN, OCC
MOTT GY-WHT, PRED
SUBANG, OCC SUBRND, MOD
FRM-FRM, SH: GY, SME DRK
GY, OCC RED-BRN, PRED ANG,
SCAT SUBANG, MOD FRM,
SUBWXY, DUL YEL-GLD FLOR

LS: PRED WHT, SME OFF WHT,
SME LT TN, SME CRM, SME
MOTT GY-WHT, PRED
SUBANG, SME SUBRND, MOD
FRM, OCC FRM, SH: PRED GY,
TR DRK GY, TR RED-BRN,
PRED ANG, OCC SUBANG,
MOD FRM, SUBWXY TXT, TR
DUL YEL-GLD FLOR



BG 6-9 U.

KD CG 35 U.

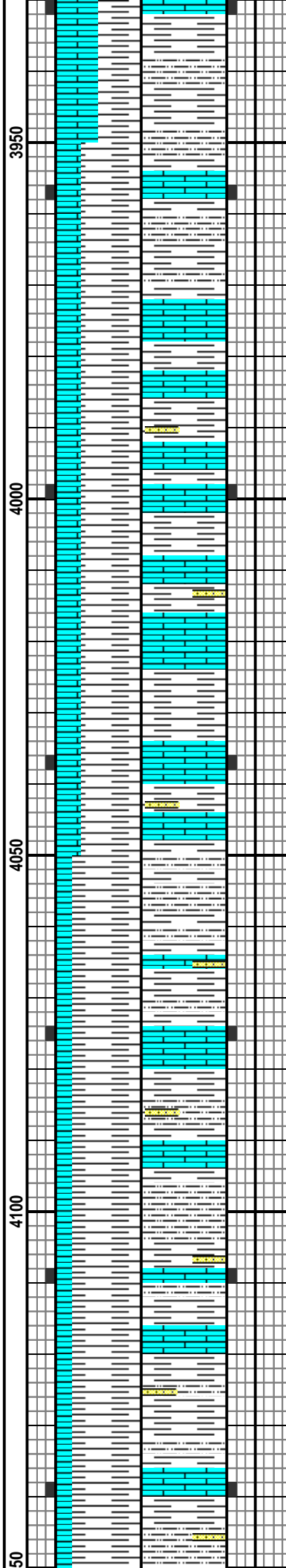
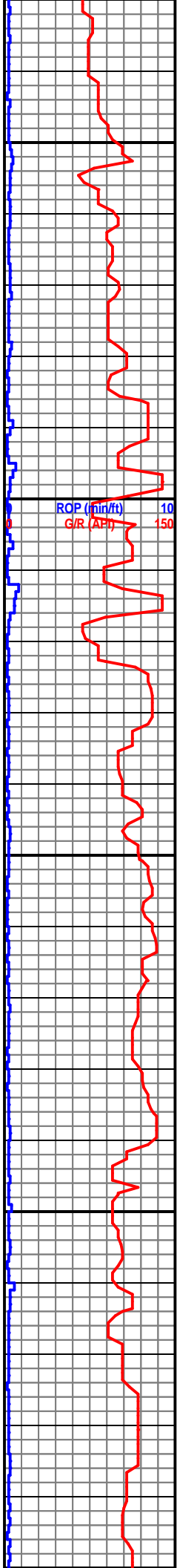
ARIANA 3419 1-7H

BG 6-22 U.

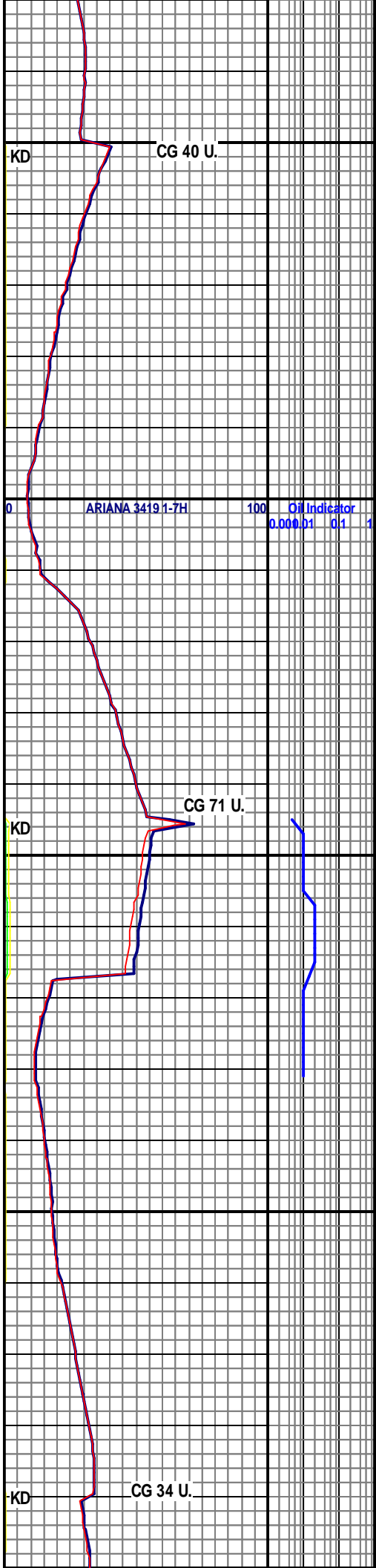
KD CG 38 U.

Oil Indicator
0.000 0.01 0.1 1

WOB: 12.1
RPM:71
PP: 2157
SPM: 104



LS: PRED WHT, SME OFF WHT,
OCC TN, SME CRM, MOD
FRM-FRM, PRED SUB ANG,
OCC SUBRND, SH: PRED DK
GY, SME BLK, SME GY, TR
RED-BRN, MSTLY ANG, SME
SUBANG, MOD FRM,
SUBWXY-RTHY TXT, TR DUL
YEL-GLD FLOR



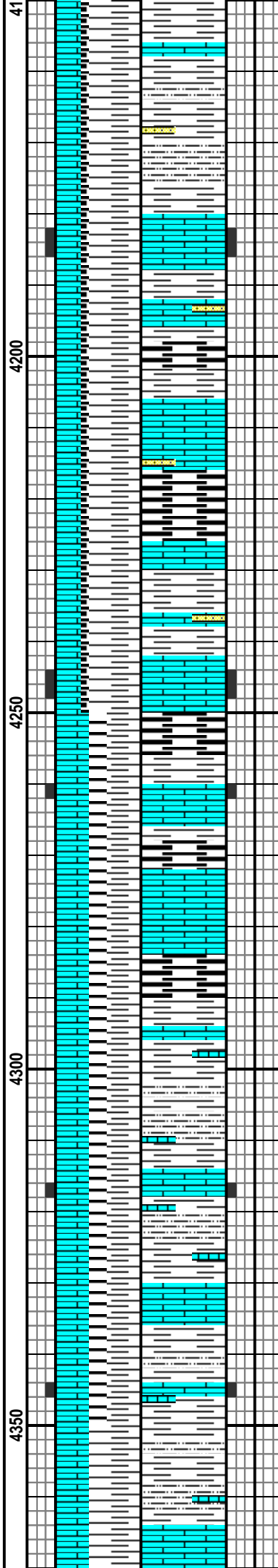
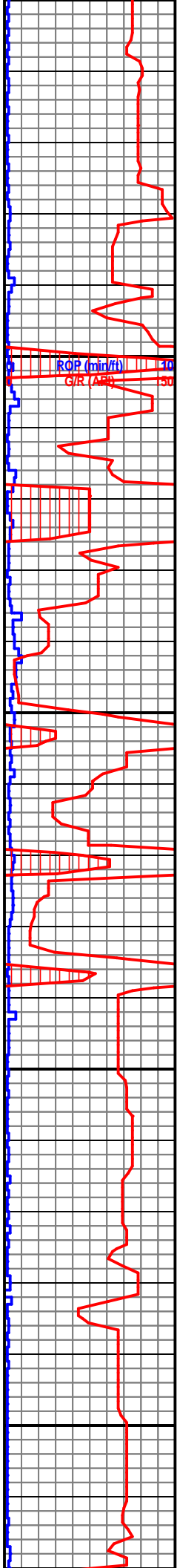
SH: MSTLY DRK GY TO OCC LT
GY, SME SCAT BRWN, PRED
FRM TO MOD FRM, SCAT
BRTLE, SLTY TXT, PRED
BLCKY TO OCC CHNNKY, SLI
TR OF SCAT SPLNTRY, WXY,
LS: PRED WHT TO OFF WHT,
TR OF TRNSLU, PRED FRM TO
MOD FRM, ANG TO SUB ANG,
SLI TR OF SCAT HL FRAC POR,
SCAT DULL YELL TO GLD
FLOR, NO CUT, NO RES
RNG, NO ODOR, SS STRNGRS
PRESENT.

WOB: 11.1
RPM:70
PP: 2717
SPM: 106

SH: PRED DRK GY TO SME LT
GY, SME SCAT RDSH BRWN,
PRED FRM TO MOD FRM, SCAT
BRTLE, SLTY TXT, PRED
BLCKY TO OCC CHNNKY, WXY
TO SUBWXY, LS: PRED WHT

WOB: 13.6
RPM: 70
PP: 2424
SPM: 106

MD 4289 TVD 4288.9
INC 0.2 AZ 266.8
VS 8.64

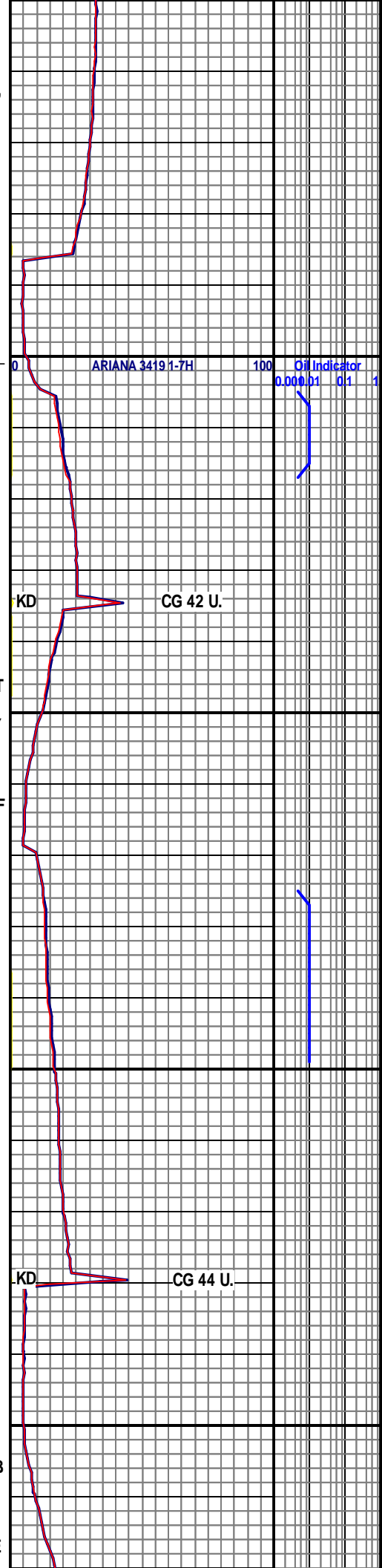


TO OFF WHT, TR OF TRNSLU,
PRED FRM TO MOD FRM, ANG
TO SUB ANG, SLI TR OF SCAT
HL FRAC POR, SCAT DULL
YELL TO GLD FLOR, NO CUT,
NO RES RNG, NO ODOR, SS
STRNGRS PRESENT.

**HEEBNER @
4,201' MD, 4,201' TVD
(-2,372')**

SH: PRED DRK GY TO OCC LT
GY, SME SCAT DRK BRWN,
PRED FRM TO MOD FRM, SCAT
BRTLE, SLTY TXT, PRED
BLCKY TO OCC CHNNKY, WXY
TO SUBWAXY, LS: PRED WHT
TO OFF WHT, TR OF TRNSLU,
PRED FRM TO MOD FRM, ANG
TO SUB ANG, OCC V-SLI TR OF
HL FRAC POR, TR OF PP VUG
POR, SCAT YELL TO GLD
FLOR, NO CUT NO RES RNG.

SH: PRED LT TO DRK GY, SME
SCAT LT BRWN, RED, PRED
MOD FRM, SME SCAT BRTLE
TO CHLKY, SLTY TXT, MED
TXT, WAXY, LS: MSTLY OFF
WHT TO LT TN, MOD FRM TO
FRM, SME V-FRM, ANG TO SUB
ANG, SCAT PLTY, TR OF PP
VUG POR, TR OF SCAT BRI
YELL TO GLD FLOR, NO CUT,
NO RES RNG, SME HOTSHALE
STILL PRESENT



WOB: 13.6
RPM: 71
PP: 2372
SPM: 102

MD 4426 TVD 4425.9
INC 0.3 AZ 245.6
VS 8.81

4/9/2013

MD 4458 TVD 4457.9
INC 0.7 AZ 247.1
VS 8.92

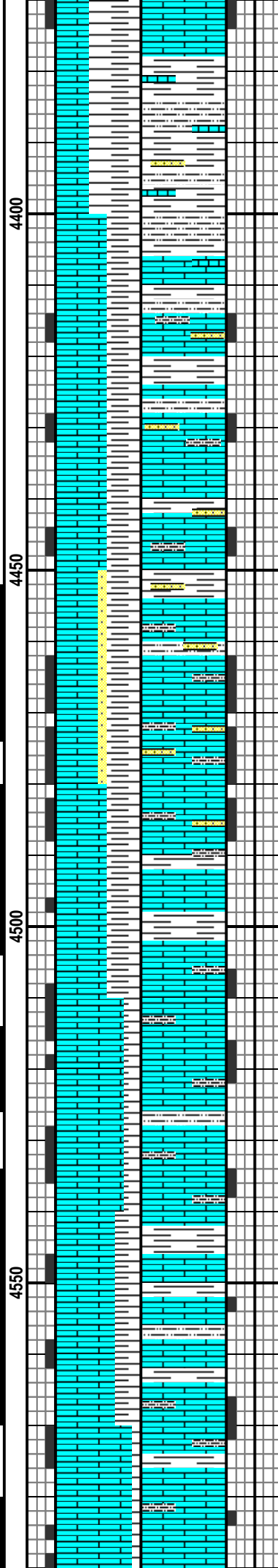
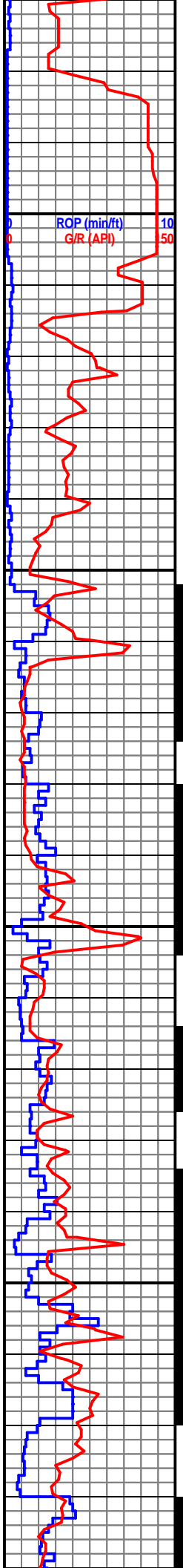
MD 4490 TVD 4489.89
INC 1.9 AZ 225.5
VS 9.37

WOB: 13.2
RPM: 21
PP: 1892
SPM: 80

MD 4521 TVD 4520.84
INC 4.6 AZ 205.2
VS 10.87

MD 4553 TVD 4552.67
INC 6.9 AZ 201.9
VS 13.82

MD 4585 TVD 4584.36
INC 9.1 AZ 197.7



**LANSING @
4,406' MD, 4,406' TVD
(-2,577')**

LS: PRED DRTY WHT TO LT
TN, SME TRNSLU, PRED FRM
TO MOD FRM, SME SCAT HRD,
MSTLY ANG TO SUB ANG, SME
PLTY, SCAT HL FRA POR, SLI
TR OF BRI YELL TO GLD
FLOR, NO CUT, NO RES RNG,
NO ODOR, SS STRNGRS
PRESENT.

**TOH FOR CURVE
ASSEMBLY @ 4,450'**

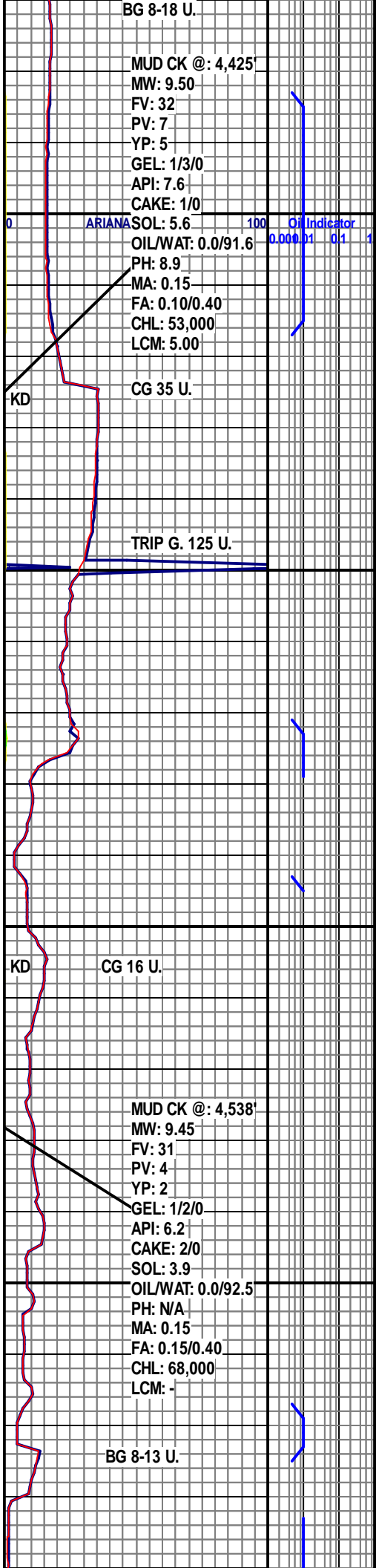
DRILLING W/ BIT #4, 8.75",
HALIBURTON, FXD55M,
11900307, JETS 5X12, IN @
4450'

MOTOR BEND: 2.12
REVS PER GALLON: .28

LS: PRED LT TN TO CRM, SME
OCC WHT, TO DRTY WHT,
PRED FRM TO MOD FRM, SME
HRD, PRED PRED ANG,
BECMNG MRE PLTY, PR SCAT
HL FRAC POR, SLI TR OF PP
VUG POR, SCAT BRI YELL TO
GLD FLOUR, NO CUT, NO RES
RNG, SH PRESENT THRU OUT
SAMPLE.

LS: PRED CRM TO LT TN, SME
TRNSLU TO OFF WHT, PRED
FRM TO HRD, SME MOD FRM,
PRED ANG TO OCC PLTY,
SCAT HL FRAC POR, OCC
BRWN SH, SCAT BRI YELL TO
GLD FLOUR, NO CUT, NO RES
RNG.

LS: LT TN TO OCC DRK TN,
SME SCAT CRM, PRED HRD TO
MOD FRM, SME SCAT BRTLE,
SME DNSE TXT, MED TO OCC
FN XLN, SLI TR OF SCAT PR
HL FRAC POR, SLI TR OF PP
VUG POR. SCAT BRI YELL TO



BG 8-18 U.
MUD CK @: 4,425'
MW: 9.50
FV: 32
PV: 7
YP: 5
GEL: 1/3/0
API: 7.6
CAKE: 1/0
SOL: 5.6
OIL/WAT: 0.0/91.6
PH: 8.9
MA: 0.15
FA: 0.10/0.40
CHL: 53,000
LCM: 5.00

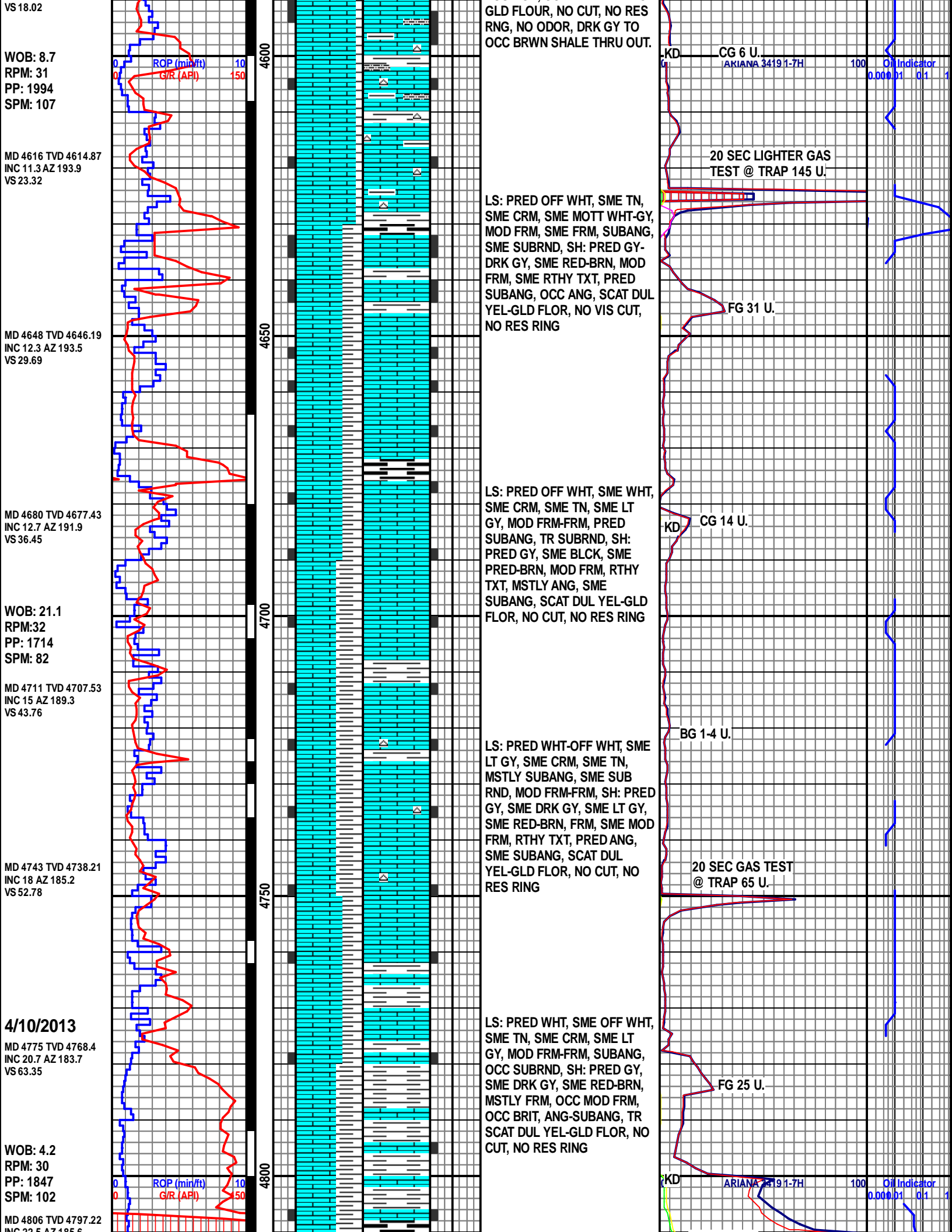
CG 35 U.

TRIP G. 125 U.

CG 16 U.

MUD CK @: 4,538'
MW: 9.45
FV: 31
PV: 4
YP: 2
GEL: 1/2/0
API: 6.2
CAKE: 2/0
SOL: 3.9
OIL/WAT: 0.0/92.5
PH: N/A
MA: 0.15
FA: 0.15/0.40
CHL: 68,000
LCM: -

BG 8-13 U.



INC 22.3 AZ 183.8
VS 74.73

MD 4838 TVD 4826.59
INC 24.3 AZ 185.9
VS 87.38

MD 4870 TVD 4855.58
INC 25.8 AZ 186.9
VS 100.86

WOB: 23.2
RPM: 0
PP: 1805
SPM: 103

MD 4901 TVD 4883.36
INC 26.9 AZ 188.6
VS 114.5

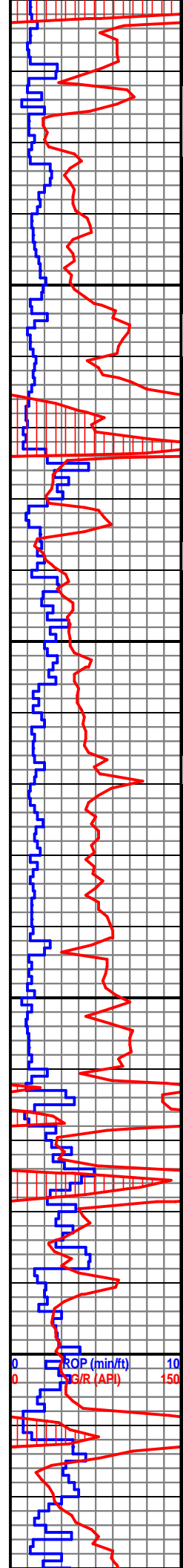
MD 4933 TVD 4911.73
INC 28.2 AZ 187.2
VS 129.18

MD 4965 TVD 4939.6
INC 30.6 AZ 186.2
VS 144.79

MD 4996 TVD 4965.94
INC 33.1 AZ 187.8
VS 161.04

WOB: 22.3
RPM: 0
PP: 1801
SPM: 103

MD 5028 TVD 4992.32

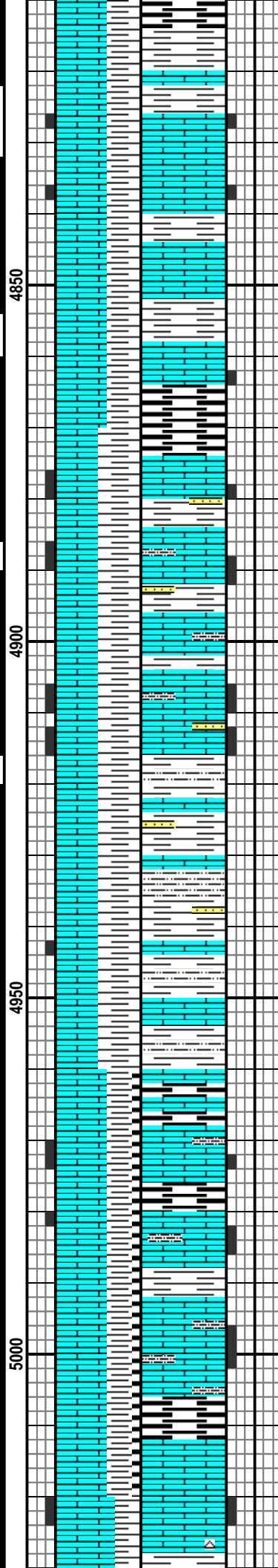


4850

4900

4950

5000

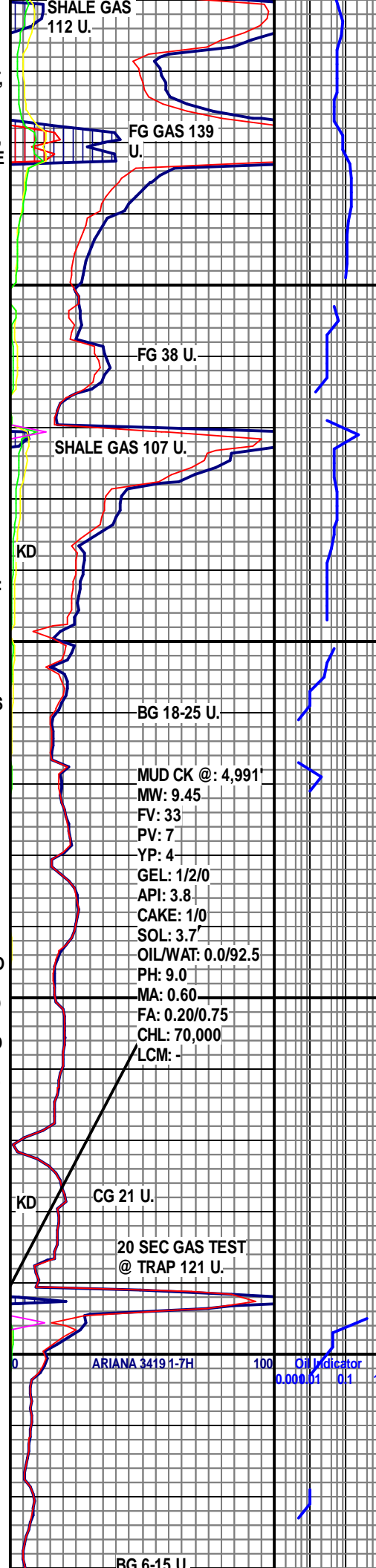


LS: PRED WHT, SME OFF WHT, SCAT TN, OCC CRM, SME LT GY, MOD FRM, OCC FRM, PRED SUBANG, SME SUBRND, SH: PRED GY, SME LT GY, SME DRK GY, OCC RED-BRN, PRED FRM, OCC MOD FRM, SCAT BRIT, PRED ANG, SME SUBANG, TR SCAT PR DUL YEL-GLD FLOR

LS: WH TO OFF WHT, SME SCAT LT TN, TR OF TRNSLU, PRED FRM TO MOD FRM, SME HRD, PRED MED XLN, PRED ANG TI SUB ANG, OCC SCAT PLTY, SCAT HL FRAC POR, SH: PRED LT GY TO OCC DRK GY, SME BRWN, FRM, PRED BLCKY TO CHNKY, MED TXT, SLTY, SS STRNGRS SCAT THRU OUT, OCC BRI TO DULL YELL FLOUR, NO CUT, NO RES RNG.

SH: PRED LT TO DRK GY, SME SCAT BRWN TO DRK BRWN, PRED FRM TO MOD FRM, SME CHLKY, MSTLY BLCKY, MED TO OCC FN TXT, SLTY, LS: WHT TO LT TN, SME TRNSLU, PRED FRM TO MOD FRM, MED TO OCC FN XLN, DNSE TXT, PRED ANG TO SUB ANG, SME PLTY, INTRBD SS, SCAT PR YELL TO GLD FLOUR, NO CUT, NO RES RNG, NO ODOR PRESENT.

LS: PRED WHT TO OFF WHT, SME SCAT LT TN TO TRNSLU, PRED FRM TO MOD FRM, SME HRD, PRED ANG TO SUB ANG, SME SCAT PLTY, PRED MED XLN, SME SMTH DENSE TXT, PR HL FRAC POR, SH: PRED DRK GY TO BRWN SME SCAT LT GY, PRED FN TO MED TXT, MSTLY BLCK, SME SCAT CHNKY, SLTY, SCAT YELL TO



KD

KD

Oil Indicator
0.000 0.1 0.1

MD 5028 TVD 4992.32
INC 35.8 AZ 188.3
VS 178.97

MD 5060 TVD 5017.83
INC 38.5 AZ 187.3
VS 198.14

MD 5091 TVD 5041.76
INC 40.4 AZ 189.9
VS 217.63

WOB: 21.9
RPM:33
PP: 1958
SPM: 102

MD 5123 TVD 5065.62
INC 43.2 AZ 190.1
VS 238.66

MD 5154 TVD 5087.93
INC 44.7 AZ 190.3
VS 259.86

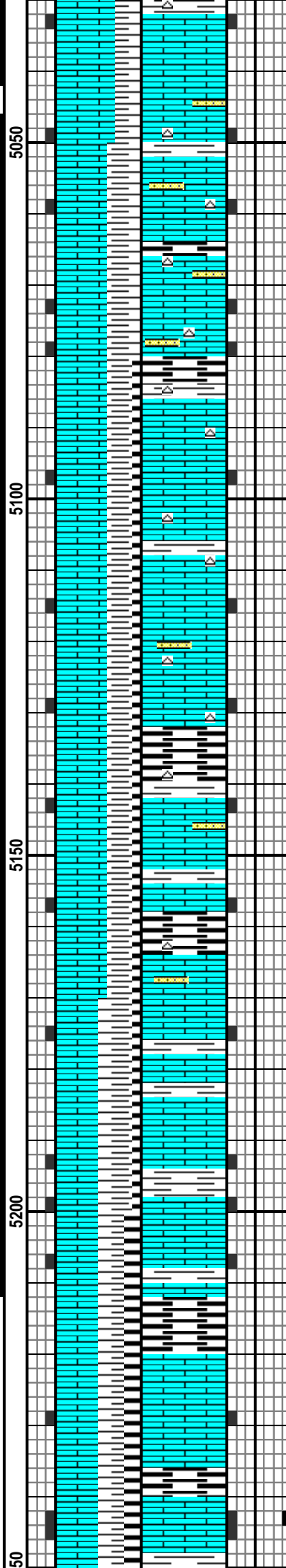
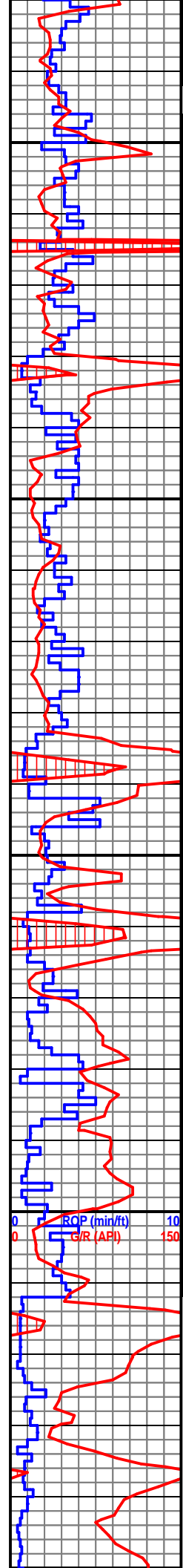
4/11/2013

MD 5186 TVD 5110.24
INC 46.9 AZ 189.5
VS 282.48

WOB: 16.3
RPM:31
PP: 2351
SPM: 120

START OF TANGENT

MD 5218 TVD 5131.8
INC 48.4 AZ 188.2
VS 305.87



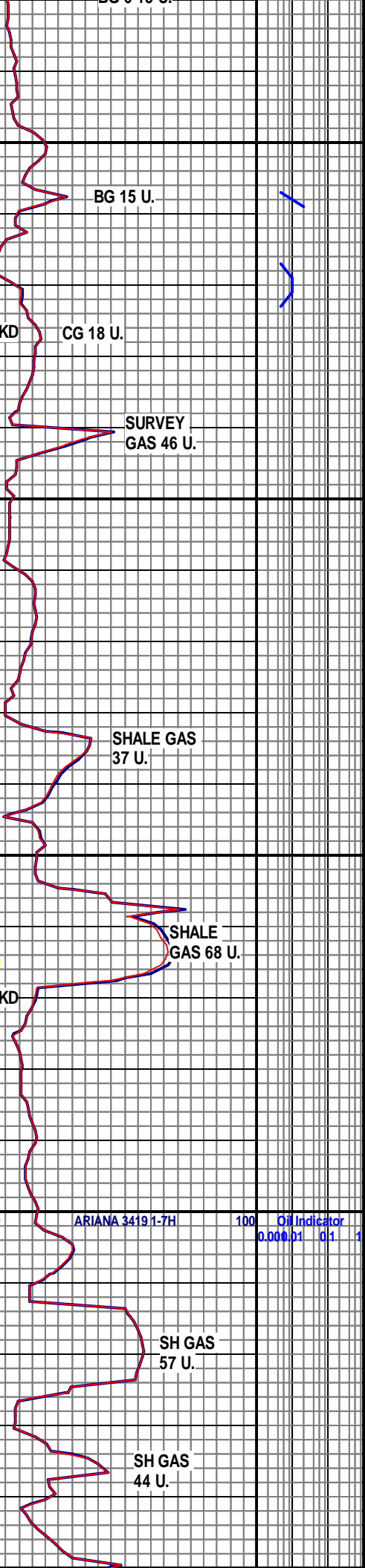
GLD FLOUR, NO CUT, NO RES
RNG, NO ODOR PRESENT.

LS: WH TO OFF WHT, SME
SCAT LT TN, TR OF TRNSLU,
PRED FRM TO MOD FRM, SME
HRD, PRED MED XLN, PRED
ANG TI SUB ANG, OCC SCAT
PLTY, SCAT HL FRAC POR, SH:
PRED LT GY TO OCC DRK GY,
SME BRWN, FRM, PRED
BLCKY TO CHNKY, MED TXT,
SLTY, SS STRNGRS SCAT
THRU OUT, OCC BRI TO DULL
YELL FLOUR, NO CUT, NO RES
RNG.

**CHEROKEE @
5,138' MD, 5,077' TVD
(-3,248')**

LS: PRED WHT, SME OFF WHT,
SME LT TN-TN, SME CRM,
MSTLY MOD FRM, OCC FRM,
PRED SUBANG, OCC SUBRND,
SH: PRED GY, SME DRK GY,
SME BLK CARB, SME
RED-BRN, MSTLY FRM, SME
MOD FRM, OCC BRIT, SME
RHTY TXT, TR PR DUL
YEL-GLD FLOUR, NO CUT, NO
RES RING

LS: MSTLY WHT, SME OFF
WHT, SME TN, OCC CRM,
PRED MOD FRM, OCC FRM,
SUBANG, TR ANG, OCC
SUBRND, SH: PRED GY, SME
BLK CARB, SME DRK GY, SME
RED-BRN, PRED FRM, SME
MOD FRM, TR BRIT, SME RHTY
TXT, TR PR DUL YEL-GLD
FLOUR, NO CUT, NO RES RING



ARIANA 3419 1-7H Oil Indicator
0.000.01 0.1 1

MD 5250 TVD 5173.48
INC 48.6 AZ 188.6
VS 329.61

MD 5281 TVD 5173.48
INC 48.7 AZ 188.8
VS 352.63

WOB: 21.6
RPM: 30
PP: 2178
SPM: 120

MD 5313 TVD 5194.5
INC 49.2 AZ 188.5
VS 376.62

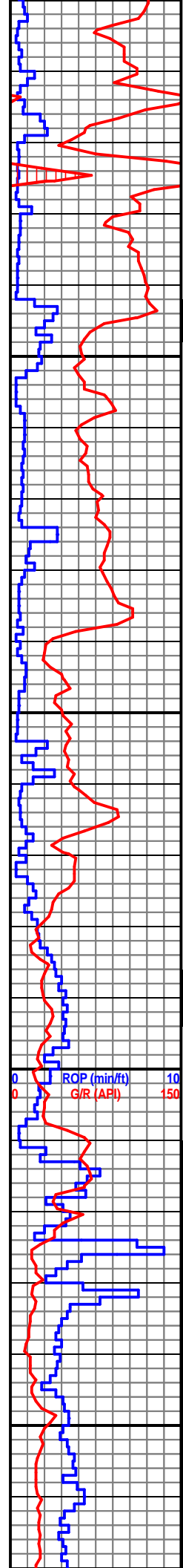
MD 5344 TVD 5214.67
INC 49.6 AZ 187.7
VS 399.84

MD 5376 TVD 5235.24
INC 50.4 AZ 186.8
VS 424.18

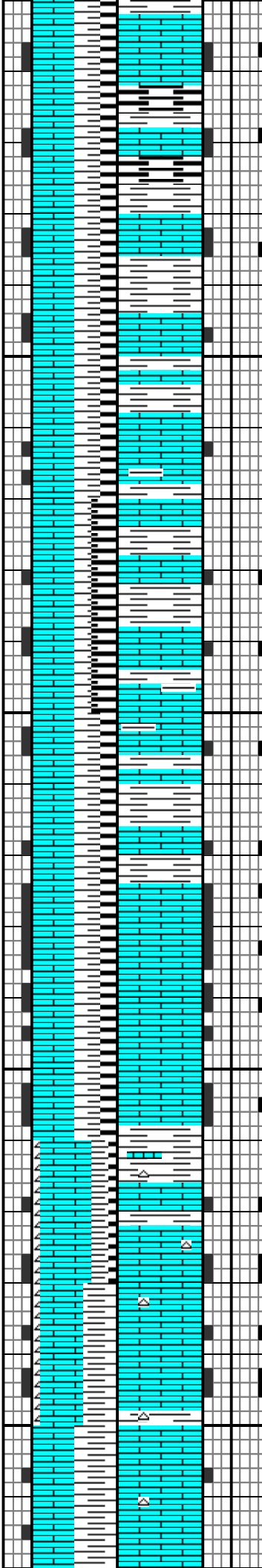
WOB: 30.7
RPM: 32
PP: 2348
SPM: 121

MD 5408 TVD 5255.55
INC 50.8 AZ 186.5
VS 448.76

MD 5439 TVD 5274.72
INC 52.8 AZ 186.1
VS 472.99



52
5300
5350
5400
5450



LS: PRED WHT, SME OFF WHT,
SME MOTT GY-WHT, OCC TN,
SME CRM, MSTLY MOD FRM,
OCC FRM, SUBANG, SME
SUBRND, SH: PRED GY, SME
BLK CARB, SME DRK GY, SME
RD-BRN, FRM, SME MOD FRM,
SME BRIT, RTHY TXT, SME
RGH TXT, TR PR DUL YEL-GLD
FLOR, TR PR SLO MLKY BLU
CUT, NO RES RING

LS: MSTLY LT TAN- TAN, OCC
LT TAN- CRM, OCC OFF WHT,
TR LT GRY, FRM, SME MOD
FRM, TR BRIT/CRMBLY, SLI TR
CHLKY, MSTLY BLKY,
SUBANG, OCC SUBRND- ANG,
OCC PR FRAC POR, SH: PRED
DRK- V DRK GRY, SME CARB,
SME MED GRY, OCC RED-
BRN- ORNG, FRM- SLI FRM, TR
FLKY, BLKY, OCC CHNKY,
WXY- SUBWXY, SMTH TXT,
OCC- TR RGH TXT, TR V DLL
PR LT YEL MNRL FLOR, PR
SLO LT BLU- MLKY- NO CUT,
PR THN LT BLU- NO RESD
RING

**MISSISSIPPIAN @
5,382' MD, 5,239' TVD
(-3,410')**

LS: PRED TAN, SME LT TAN,
SME CRM, OCC OFF WHT, OCC
YEL STN, MOD FRM- FRM, OCC
SLI FRM, TR BRIT, SUBANG,
SME ANG, OCC SUBRND,
BLKY, OCC PLTY, V FN- OCC
MIC FN XLN, OCC PR FRAC
POR, TR VUG POR, SH:
BRN/RED/ORNG THRU OUT,
SME V DRK GRY- GRY, OCC LT
GRY W/ BLU/GRN TNT, TR BLK
CARB, SLI FRM- SFT, TR MOD
FRM, ANG- SUBANG, WXY-
SUBWXY, OCC SLI DLL, SME
PR GLD- YEL FLOR, SME PR
LT GRN- BLU FLOR, PR SLO
MLKY- LT BLU CUT, PR THN-
SLI MED LT BLU- BLU RESD
RING

LS: CRM- LT TAN, SME TAN- LT
TAN, OCC WHT, OFF WHT



ARIANA 34191-7H
Oil Indicator
0.000.01 0.1 1

MUD CK @: 5,432'
MW: 9.70
FV: 30
PV: 5
YP: 3
GEL: 1/2/0
API: 4.8
CAKE: 1/0
SOL: 3.8
OIL/WAT: 0.0/90.8
PH: 9.0
MA: 0.75
FA: 0.20/0.80
CHL: 98,000

MD 5471 TVD 5293.37
INC 55.9 AZ 183.9
VS 498.9

MD 5503 TVD 5310.52
INC 59.3 AZ 182.2
VS 525.89

MD 5534 TVD 5325.38
INC 63.4 AZ 180.9
VS 553.08

MD 5566 TVD 5338.8
INC 67 AZ 179.4
VS 582.12

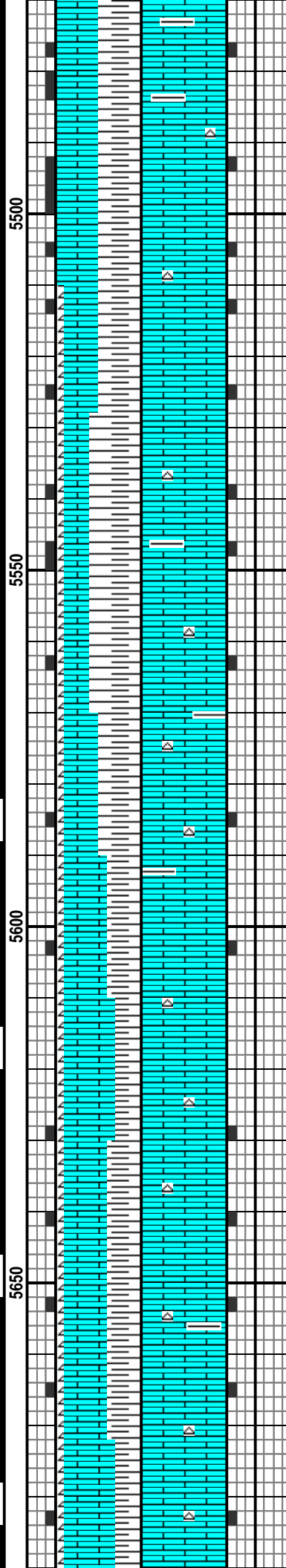
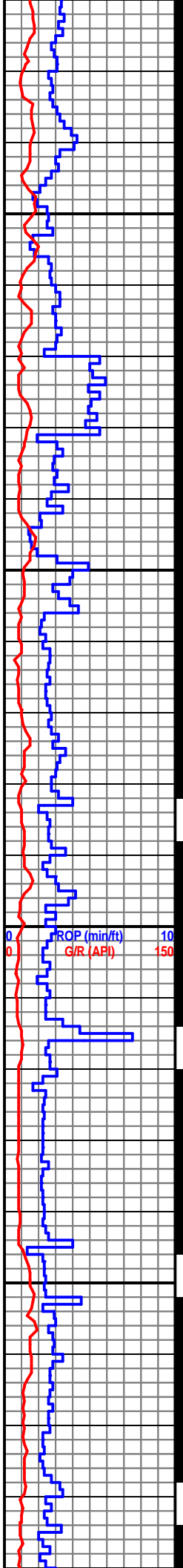
WOB: 52.3
RPM: 1
PP: 2424
SPM: 101

MD 5598 TVD 5350.61
INC 69.7 AZ 178.3
VS 611.85

MD 5629 TVD 5360.57
INC 72.8 AZ 177.5
VS 641.17

4/12/2013

MD 5661 TVD 5369.04
INC 76.5 AZ 176.9
VS 671.98



IAN, OCC WHT- OFF WHT,
MOD FRM, OCC FRM, TR SLI
FRM, TR BRIT, SUBANG- ANG,
OCC SUBRND, BLKY, OCC
PLTY, V FN- MIC FN XLN, TR PR
FRAC POR, SH: MSTLY
RED/BRN/ORNG, SME LT GRY-
GRY, OCC LT GRY W/ LT
GRN/BLU TNT, OCC V LT PRPL,
OCC DRK GRY, SLI FRM- SFT,
SUBANG- ANG, WXY-
SUBWXY, TR RTHY, TR PR DLL
LT YEL FLOR, NO VIS CUT, NO
RESD RING

LS: PRED OFF WHT, SME WHT,
SME CRM, SME TN, PRED MOD
FRM, SME FRM, TR BRIT, PRED
SUBANG, SME SUBRND, BLKY,
SH: MSTLY RED/BRN, SME GY,
SME DK GY, SME BLK, MOD
FRM, SME SLI FRM, SUBANG,
OCC ANG, SUBWXY TXT, SME
RTHY TXT, CHT: PRED
TRANSLU-OPQ, SME WHT,
PRED ANG, OCC SUBANG,
HRD, TR PR DUL YEL-GLD
FLOR, NO CUT, NO RES RING

LS: PRED LT TN-CRM, SME
CRM, SME WHT, SME OFF
WHT, MSTLY MOD FRM, SME
FRM, SUBANG, SME SUBRND,
SH: PRED RED/BRN, SME GY,
SME DRK GY, SME LT GY, MOD
FRM-FRM, SME SLI FRM, ANG,
SME SUBANG, SUBWXY TXT,
SME RTHY TXT, CHT: TRANLU,
SME OPQ, SME WHT, HRD,
MSTLY ANG, TR SUBANG, TR
PR DUL YEL-DLD FLOR, NO
CUT, NO RES RING

LS: MOSTLY OFF WHT-TN, SME
WHT, SME CRM, PRED MOD
FRM, TR FRM, PRED SUBANG,
OCC SUBRND, SH: MSTLY
RED/BRN, SME GY, SME DRK
GY, MOD FRM, SME FRM, SME
BRIT, PRED ANG, SME
SUBANG, SME SUBWXY TXT,
TR RTHY TXT, CHT: MSTLY
WHT-OPQ, SME TRANLU,

LCM: -

FG 51 U.

KD CG 41 U.

BG GAS 14-17 U.

BG GAS 13-10 U.

KD

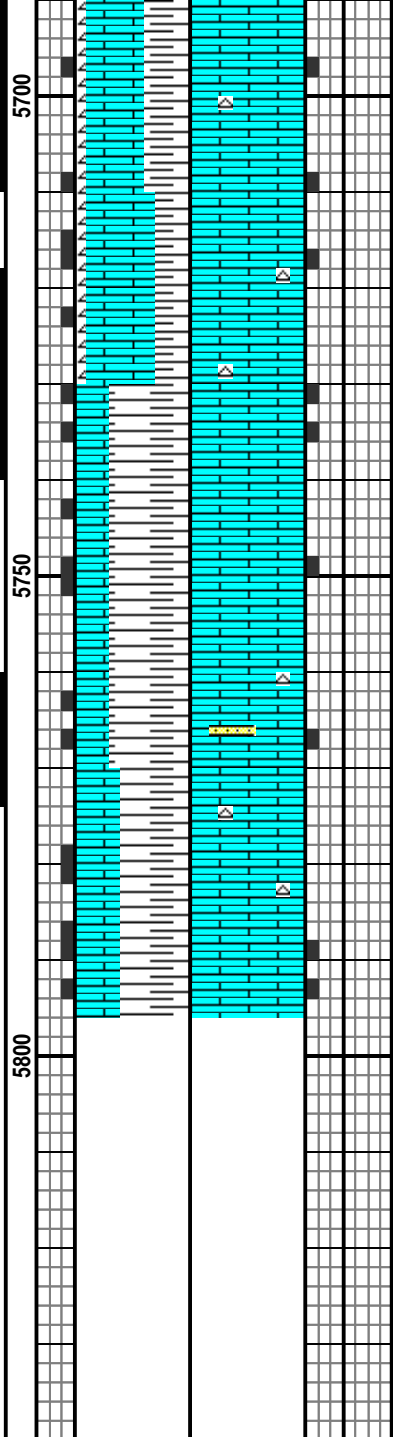
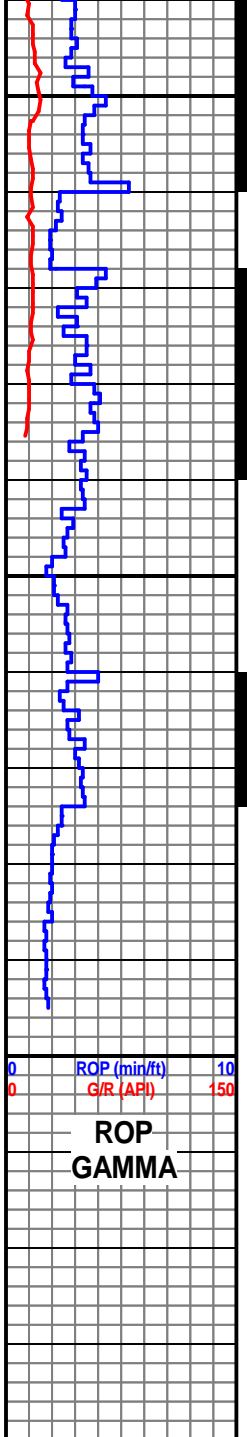
BG GAS 9-16 U.

ARIANA 3419 1-7H

Oil Indicator
0.000 0.01 0.1 1

MD 5693 TVD 5375.53
INC 80.1 AZ 176.6
VS 703.25

MD 5724 TVD 5380.11
INC 82.9 AZ 176.3
VS 733.83



PRED HRD, OCC V FRM, PRED
ANG, TR SUBANG, TR PR DUL
YEL-GLD FLOR, NO VIS CUT,
NO RES RING

SH: PRED RED- BRN W/ V SLI
ORNG TNT, SME DRK BRN-
RED, SME GRY- LT GRY, OCC
DRK GRY, TR V DRK GRY- SLI
BLK, MOD FRM- SLI FRM, SME
SLI SFT, SUBANG, OCC ANG-
SUBRND, BLKY- CHNKY, WXY,
SME SUBWXY, SMTH TXT, LS:
LT TAN- CRM, SME CRM- LT
GRY, OCC WHT, OCC W/ SLI
YEL/BRN STN, FRM- MOD FRM,
SUBANG- SUBRND, TR ANG, V
FN- MIC FN XLN, BLKY, TR PR
FRAC POR, TR YEL- SLI GLD
FLOR, NO CUT, NO RESD RING

TD INTERMEDIATE
CASING @ 5,795' MD

END VERTICAL LOG

SANDRIDGE ENERGY, INC.
ARIANA 3419 1-7H
SEC. 6-T34S-R19W OF
COMMANCHE CO., KS

GE: 1,809' KB: 1,829

