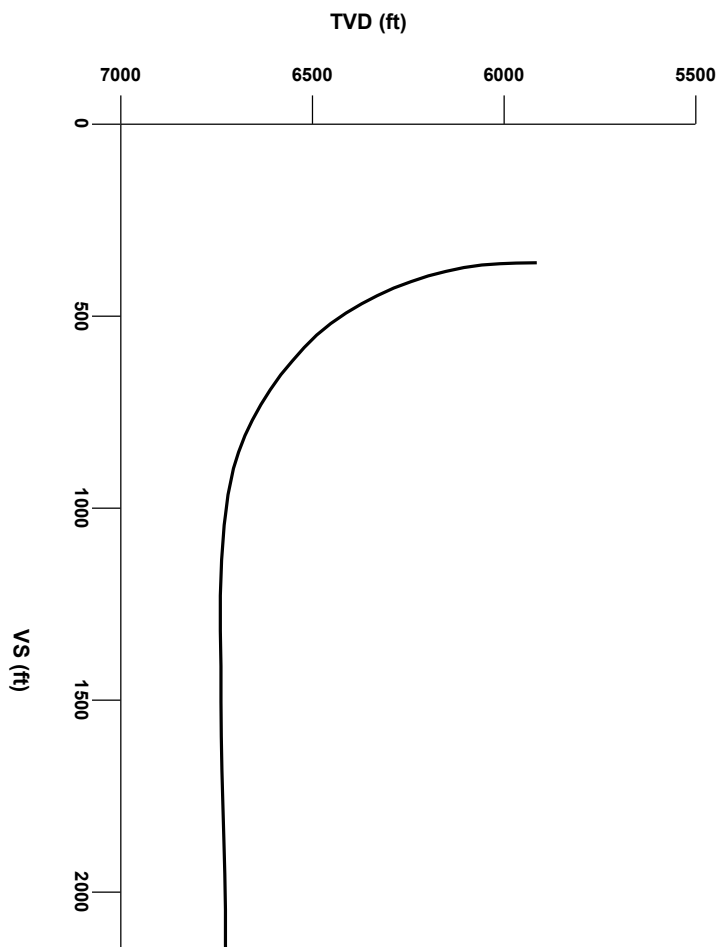


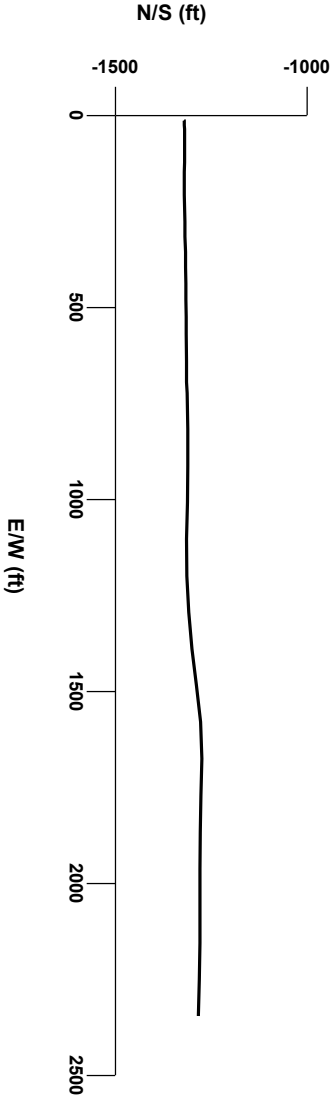
LOG created using L PLOT VH Version 3.0, February 12, 2012, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: NOBLE ENERGY INC.
WELL: WAHLERT AC33-66HN
LOCATION: NWNW, SEC 33, T7N, R63W
COUNTY: WELD
STATE: COLORADO
SPOT: 687' FNL, 275' FWL
ELEVATION: GL 4782', KB 4806'
FIELD: WATTENBERG
SPUD DATE: 02/11/2012
TD DATE: 02/ /2012
DATES LOGGED: 02/14/2012 - 2/ /2012 (HORIZONTAL)
DEPTHS LOGGED: 6100' - ' (HORIZONTAL)
LOGGERS: JANET MARKS; MARK COLE
DRILLING FLUID: LSND
DRILLING RIG: H&P 315
API: 05-123-34517
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: See corresponding vertical log: WAHLERT AC33-66HN VERT.



Survey Elevation

Survey Plan



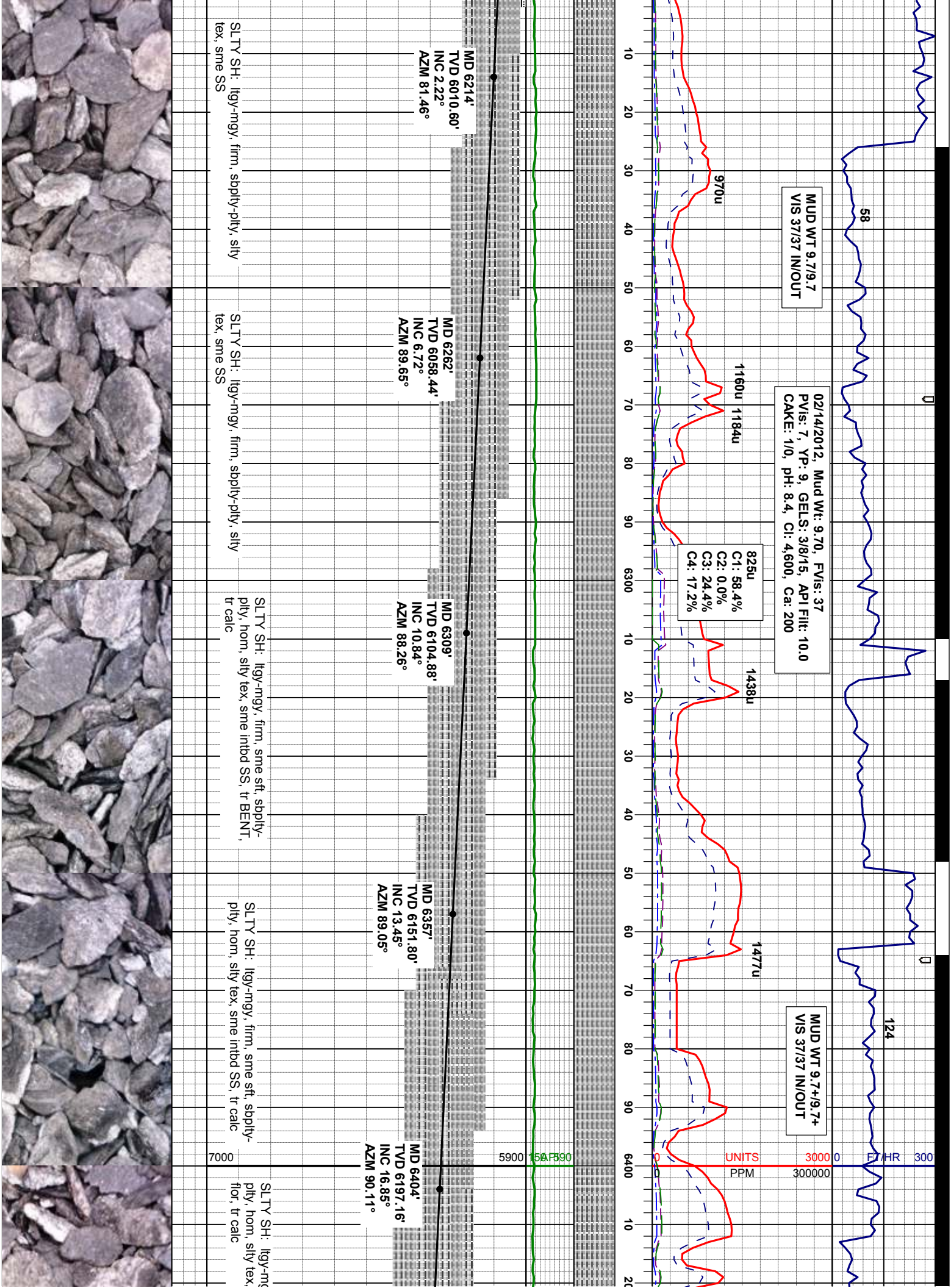
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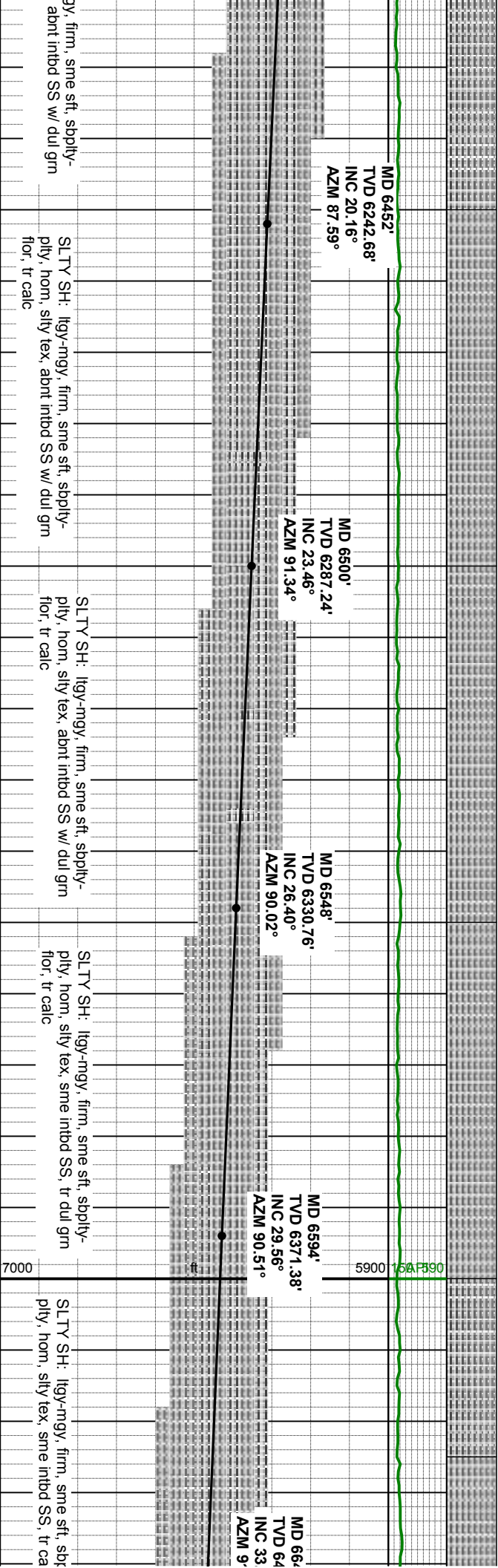
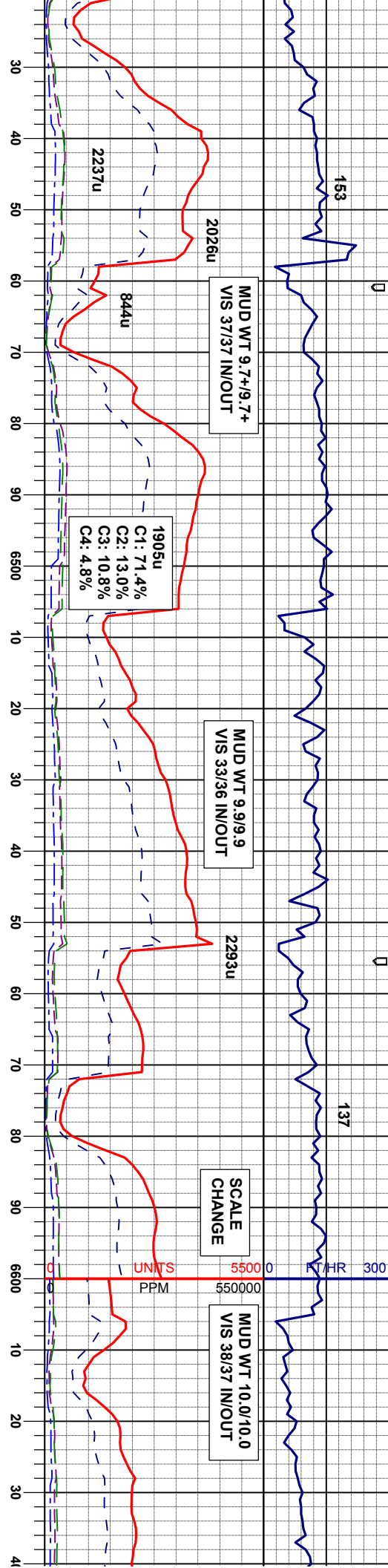
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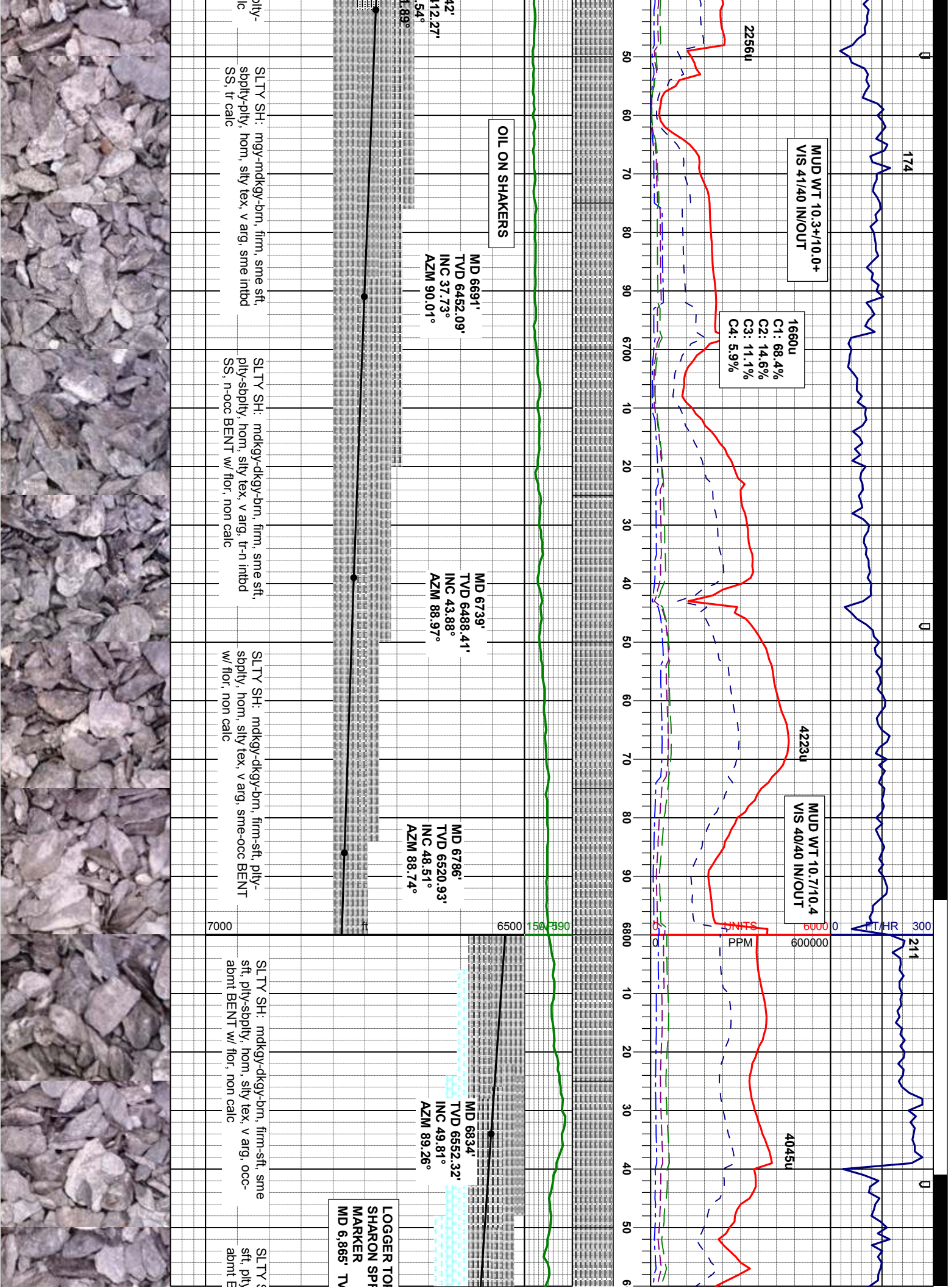
Silty Shale

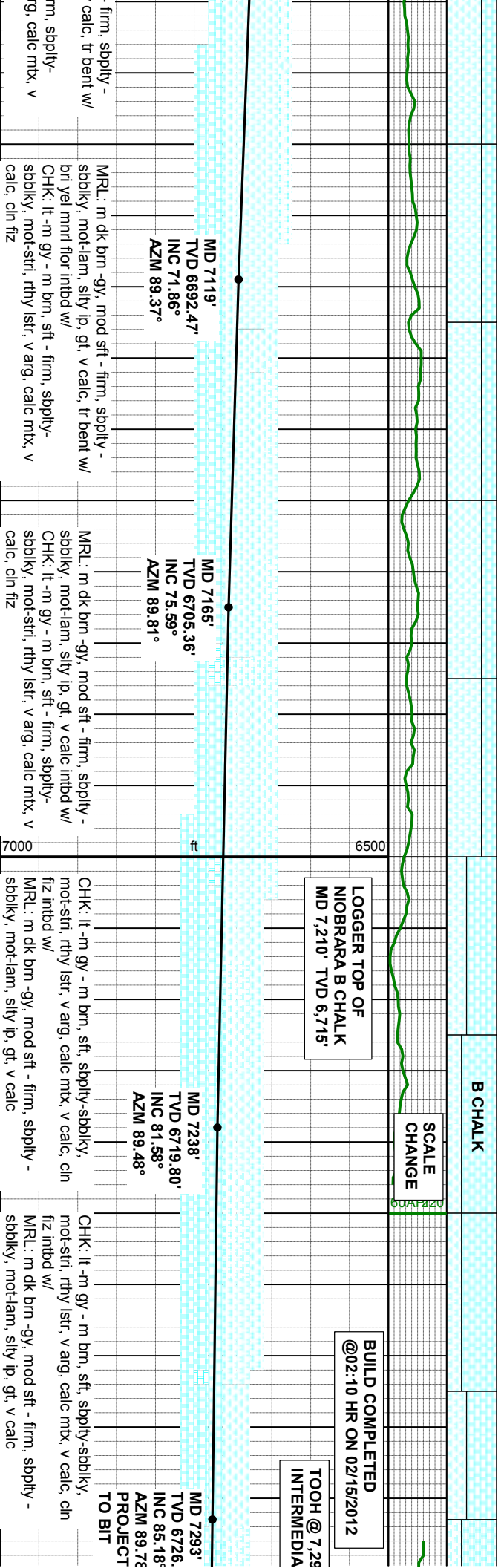
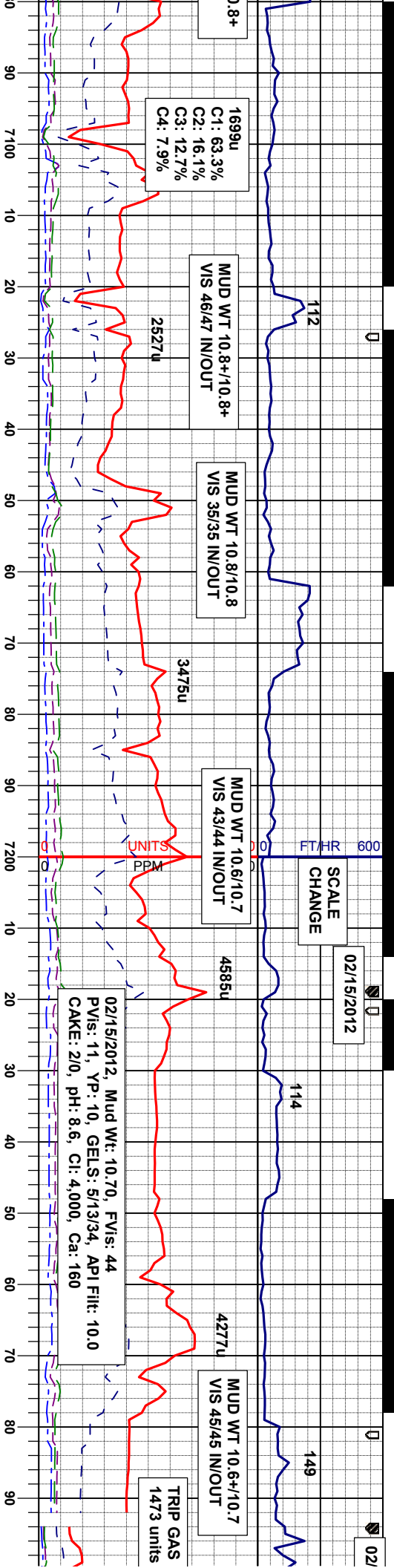
Midnight Depth



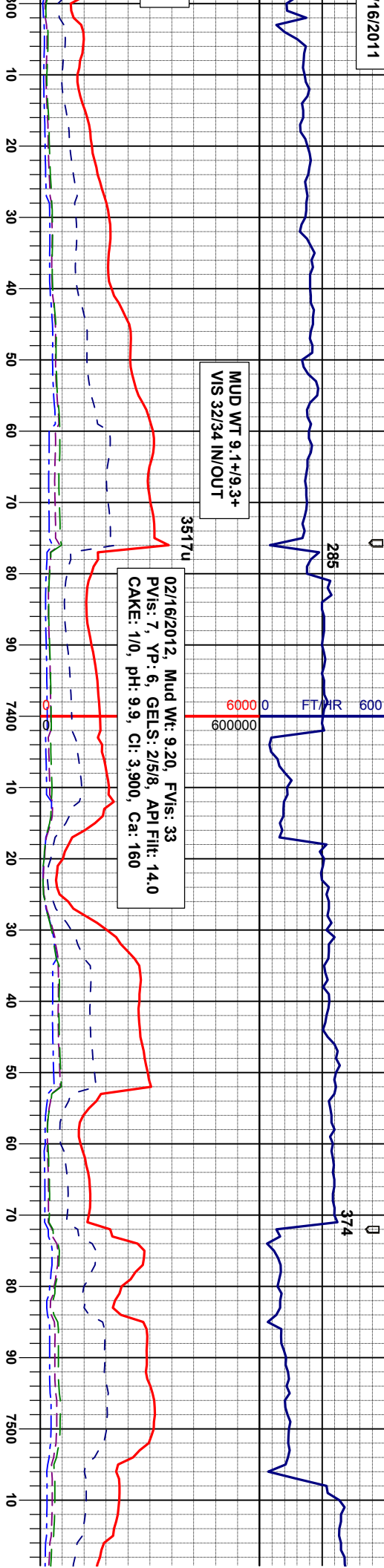








16/2011



MUD WT 9.1+9.3+
VIS 32/34 IN/OUT

02/16/2012, Mud Wt: 9.20, FVIs: 33
PVIs: 7, YP: 6, GELS: 215/8, API Filt: 14.0
CAKE: 1/0, pH: 9.9, CI: 3,900, Ca: 160

BEGAN DRILLING LATERAL
@ 13:45 HR ON 02/16/2012

MD 7321'
TVD 6729.67'
INC 85.21°
AZM 88.31°

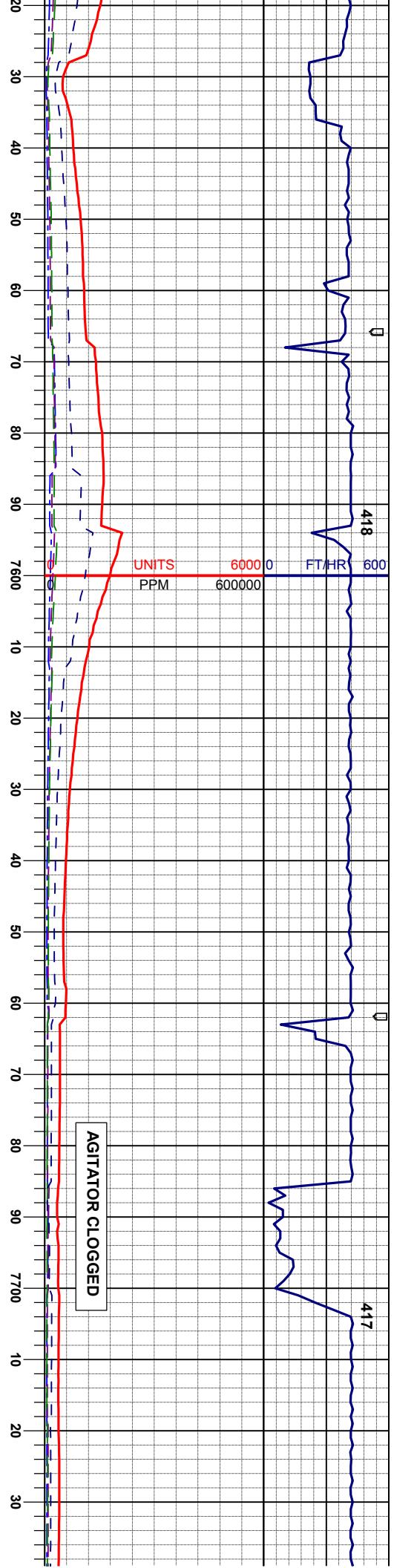
MD 7416'
TVD 6736.63'
INC 86.38°
AZM 89.66°

BHA #3
BIT: SECURITY- 6.13', FXD54
JETS: 5x11 TFA: 0.4640 in²
MOTOR: SPERRY - 1.25°
NOV AGITATOR SET
DEPTH IN: 7.293' MD

MD 7512'
TVD 6740.10'
INC 89.48°
AZM 90.14°

CHK: m - m lt gy- m brn, sft - firm, sbply - sbply, mot-str, rthy lstr, arg, calc mtx, v calc, cin fiz	CHK: m - m lt gy- m brn, sft - firm, sbply - sbply, mot-str, rthy lstr, arg, calc mtx, v calc, cin fiz	CHK: m - m lt gy- m brn, sft - firm, sbply - sbply, mot-str, rthy lstr, arg, calc mtx, v calc, cin fiz	CHK: m - m lt gy- m brn, sft - firm, sbply - sbply, mot-str, rthy lstr, arg, calc mtx, v calc, cin fiz
MRL: m dk brn -gy, mod sft - firm, sbply - sbply, mot-lam, gty, silty ip, vabnt inoc, sme calcite in frac, v calc, n-occ BENT	MRL: m dk brn -gy, mod sft - firm, sbply - sbply, mot-lam, gty, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT	MRL: m dk brn -gy, mod sft - firm, sbply - sbply, mot-lam, gty, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MRL: m dk brn -dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr





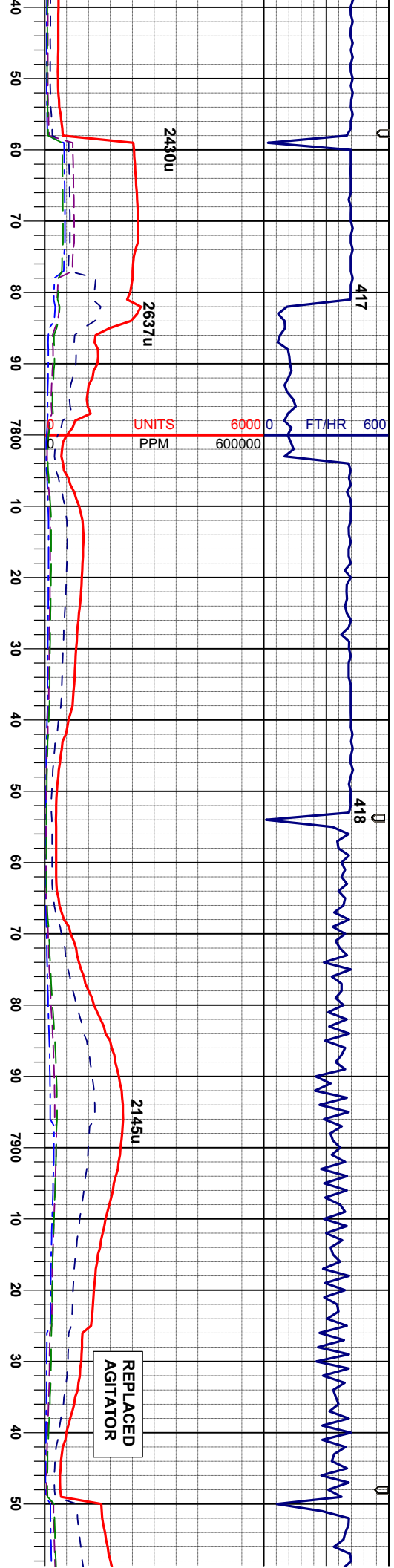
brn, sft - firm, sbply - rthy istr, arg, calc mtx, v	CHK: lt-m gy- m brn, sft - firm, sbply - sbply, mot-str, rthy istr, arg, calc mtx, v calc, cin fiz	CHK: lt-m gy- m brn, sft - firm, sbply - sbply, mot-str, rthy istr, arg, calc mtx, v calc, cin fiz	CHK: lt-m gy- m brn, sft - firm, sbply - sbply, mot-str, rthy istr, arg, calc mtx, v calc, cin fiz	CHK: lt-m gy- m brn, sft - firm, sbply - sbply, mot-str, rthy istr, arg, calc mtx, v calc, cin fiz
dkgy, mod sft - firm, sbply - sily ip, tr inoc, sme calc, occ BENT w/ pyr	MR.L: m dk brn - dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, sily ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MR.L: m dk brn - dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, sily ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MR.L: m dk brn - dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, sily ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MR.L: m dk brn - dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, sily ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr

ft

UNITS

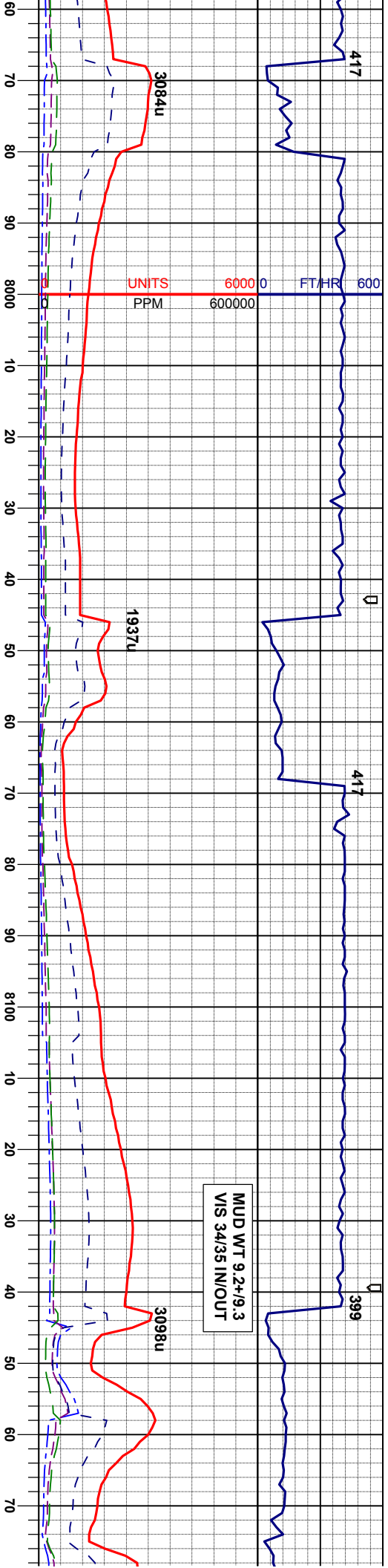
PPM

AGITATOR CLOGGED



CHK: It-m gy- m brn, sft - firm, sbply - sbply, mot-stri, rthy istr, arg, calc mtx, v calc, cin fiz	CHK: It-m gy- m brn, sft - firm, sbply - sbply, mot-stri, rthy istr, arg, calc mtx, v calc, cin fiz	CHK: It-m gy- m brn, sft - firm, sbply - sbply, mot-stri, rthy istr, arg, calc mtx, v calc, cin fiz	CHK: It-m gy- m brn, sft - firm, sbply - sbply, mot-stri, rthy istr, arg, calc mtx, v calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MRL: m dk brn - dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MRL: m dk brn - dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MRL: m dk brn - dkgy, mod sft - firm, sbply - sbply, mot-lam, gt, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr

7000	6500	6000	5500	5000	4500	4000	3500	3000	2500	2000	1500	1000	500	0
7000	6500	6000	5500	5000	4500	4000	3500	3000	2500	2000	1500	1000	500	0



MD 7989'
TVD 6735.66'
INC 91.23°
AZM 83.90°

MD 8085'
TVD 6733.11'
INC 91.82°
AZM 82.08°

MD
TVD
INC
AZM

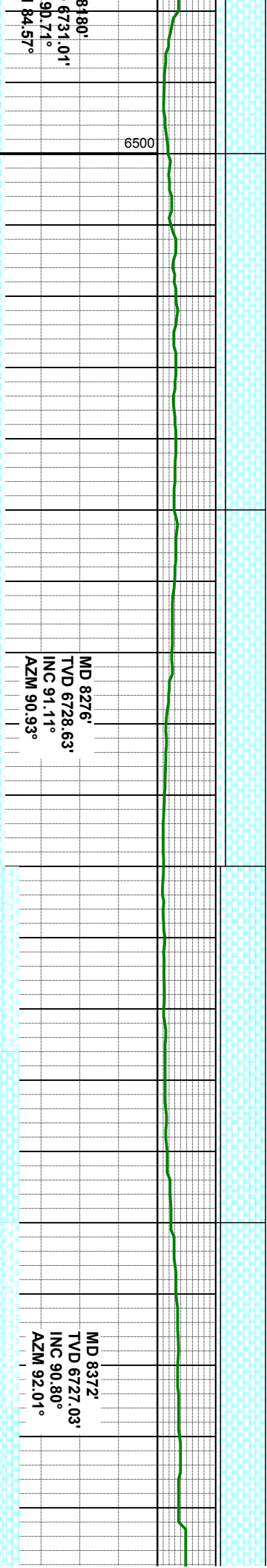
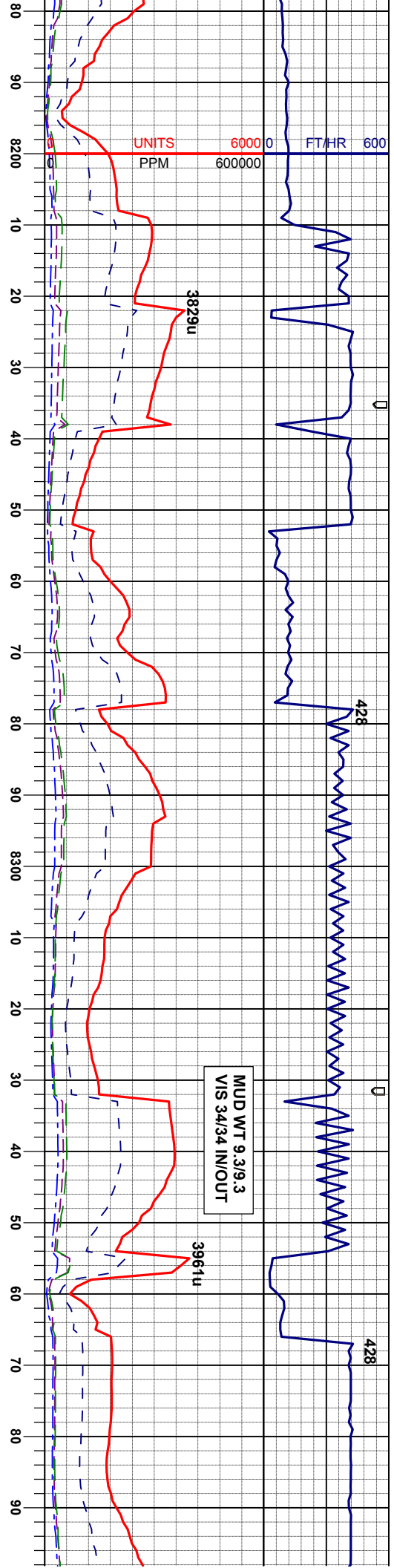
lt-m gy- m brn, sft - firm, sbply -
/, mot-str, rthy istr, arg, calc mt, v
cin fiz
m dk brn - dkgy, mod sft - firm, sbply
xy, mot-lam, gt, sily ip, tr inoc, sme
e in frac, v calc, occ BENT w/ pyr

CHK: lt-m gy- m brn, sft - firm, sbply -
sbply, mot-str, rthy istr, arg, calc mt, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbply, mot-lam, gt, sily ip, tr inoc, sme
calcite in frac, v calc, occ BENT w/ pyr

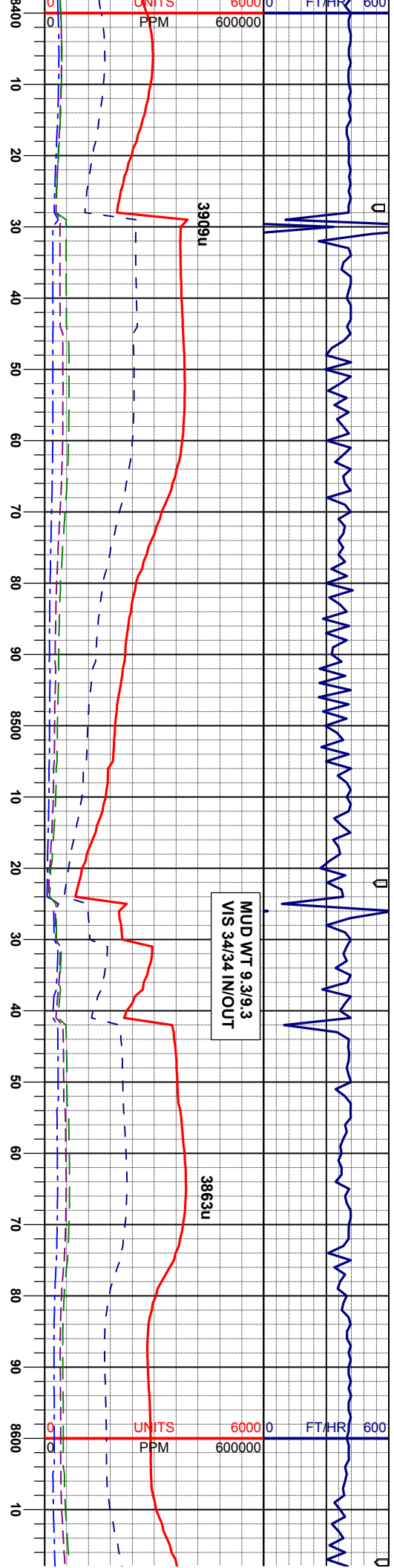
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calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbply, mot-lam, gt, sily ip, tr inoc, sme
calcite in frac, v calc, occ BENT w/ pyr

CHK: lt-m gy- m brn, sft - firm, sbply -
sbply, mot-str, rthy istr, arg, calc mt, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbply, mot-lam, gt, sily ip, tr inoc, sme
calcite in frac, v calc, occ BENT w/ pyr

CHK: lt-m gy- m brn, sft -
sbply, mot-str, rthy istr,
calc, cin fiz
MRL: m dk brn - dkgy, m
- sbply, mot-lam, gt, sily
calcite in frac, v calc, occ



firm, sbply - arg, calc mtx, v	CHK: lt-m gy- m brn, sft - firm, sbply - sbblky, mot-stri, rthy istr, arg, calc mtx, v calc, cin fiz MRL: m dk brn - dkgy, mod sft - firm, sbply - sbblky, mot-lam, gt, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	firm, sbply - arg, calc mtx, v	CHK: lt-m gy- m brn, sft - firm, sbply - sbblky, mot-stri, rthy istr, arg, calc mtx, v calc, cin fiz MRL: m dk brn - dkgy, mod sft - firm, sbply - sbblky, mot-lam, gt, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	firm, sbply - arg, calc mtx, v	CHK: lt-m gy- m brn, sft - firm, sbply - sbblky, mot-stri, rthy istr, arg, calc mtx, v calc, cin fiz MRL: m dk brn - dkgy, mod sft - firm, sbply - sbblky, mot-lam, gt, silty ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr
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MD 8467'
TVD 6726.34'
INC 90.03°
AZM 89.86°

MD 8563'
TVD 6725.23'
INC 91.29°
AZM 90.60°

CHK: lt-m gy- m brn, sft - firm, sbply -
sbbiky, mot-strf, rthy lstr, arg, calc mtx, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbbiky, mot-lam, gt, sily ip, tr inoc, sme
calcie in frac, v calc, occ BENT w/ pyr

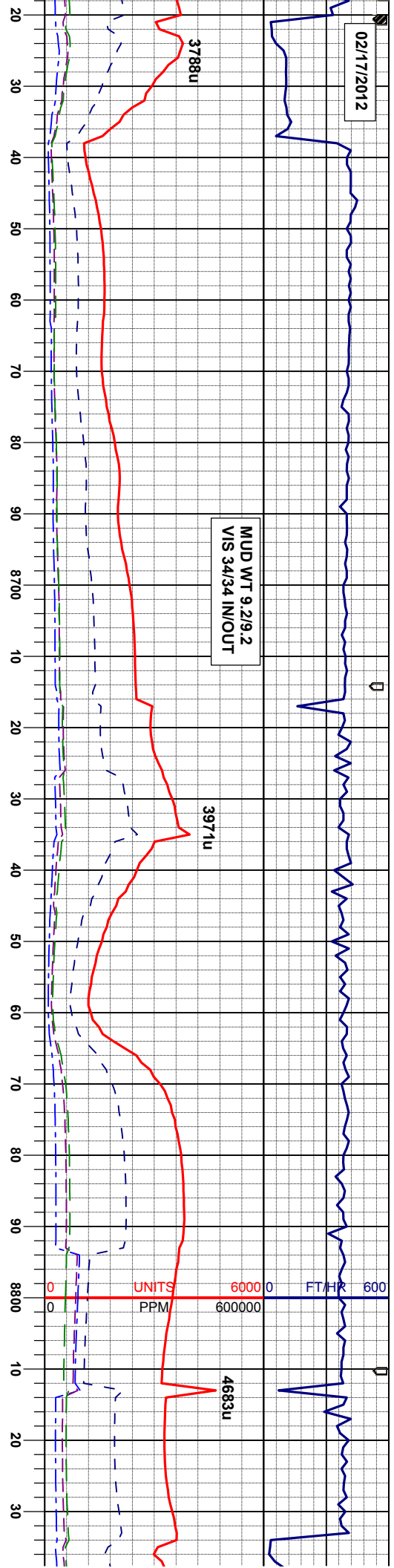
CHK: lt-m gy- m brn, sft - firm, sbply -
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calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbbiky, mot-lam, gt, sily ip, tr inoc, v calc,
occ BENT w/ pyr

CHK: lt-m gy- m brn, sft - firm, sbply -
sbbiky, mot-strf, rthy lstr, arg, calc mtx, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbbiky, mot-lam, gt, sily ip, tr inoc, v calc,
occ BENT w/ pyr

CHK: lt-m gy- m brn, sft - firm, sbply -
sbbiky, mot-strf, rthy lstr, arg, calc mtx, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbbiky, mot-lam, gt, sily ip, tr inoc, v calc,
occ BENT w/ pyr

CHK: lt-m gy- m brn, sft - firm, sbply -
sbbiky, mot-strf, rthy lstr, arg, calc mtx, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbbiky, mot-lam, gt, sily ip, tr inoc, v calc,
occ BENT w/ pyr

02/17/2012



MD 8659'
TVD 6725.03'
INC 88.95°
AZM 89.85°

MD 8756'
TVD 6727.66'
INC 87.93°
AZM 90.22°

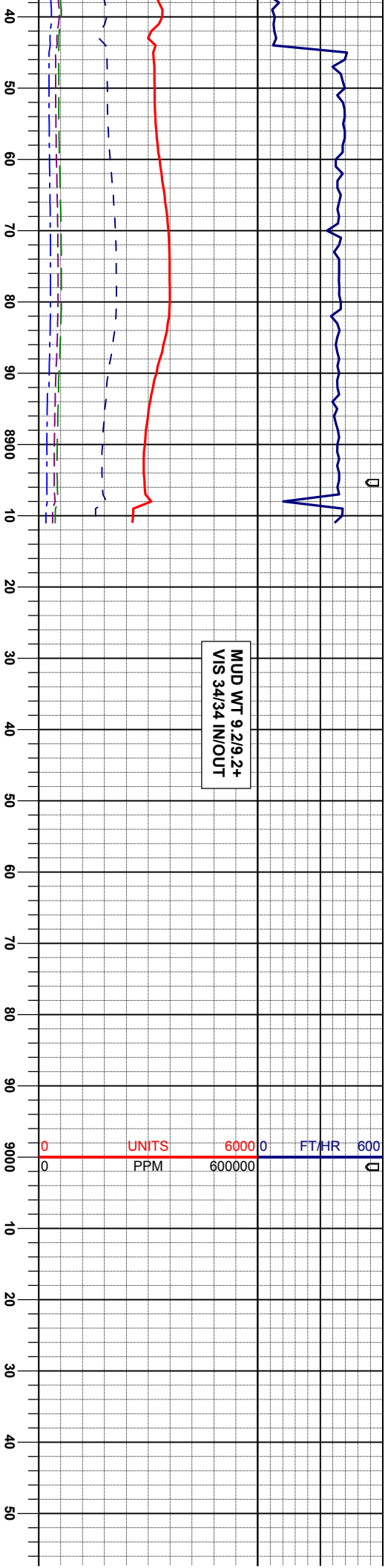
MD 8659'	MD 8756'	MD 8859'
CHK: lt-m gy- m brn, sft - firm, sbply - sbblky, mot-str, rthy lstr, arg, calc mtx, v calc, cin fiz	CHK: lt-m gy- m brn, sft - firm, sbply - sbblky, mot-str, rthy lstr, arg, calc mtx, v calc, cin fiz	CHK: lt-m gy- m brn, sft - firm, sbply - sbblky, mot-str, rthy lstr, arg, calc mtx, v calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply - sbblky, mot-lam, gt, sily ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MRL: m dk brn - dkgy, mod sft - firm, sbply - sbblky, mot-lam, gt, sily ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr	MRL: m dk brn - dkgy, mod sft - firm, sbply - sbblky, mot-lam, gt, sily ip, tr inoc, sme calcite in frac, v calc, occ BENT w/ pyr

ft

6500 6000 6000

ft

6500 6000 6000



MD 8851'
TVD 6730.40'
INC 88.77°
AZM 91.27°

MD 8946'
TVD 6731.96'
INC 89.35°
AZM 91.81°

MD 9042'
TVD 6732.89'
INC 89.54°
AZM 92.44°

CHK: lt-m gy- m brn, sft - firm, sbply -
sbply, mot-str, rthy lstr, arg, calc mtx, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbply, mot-lam, gt, sily ip, tr inoc, sme
calcite in frac, v calc, occ BENT w/ pyr

CHK: lt-m gy- m brn, sft - firm, sbply -
sbply, mot-str, rthy lstr, arg, calc mtx, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbply, mot-lam, gt, sily ip, tr inoc, sme
calcite in frac, v calc, occ BENT w/ pyr

CHK: lt-m gy- m brn, sft - firm, sbply -
sbply, mot-str, rthy lstr, arg, calc mtx, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbply, mot-lam, gt, sily ip, tr inoc, sme
calcite in frac, v calc, occ BENT w/ pyr

CHK: lt-m gy- m brn, sft - firm, sbply -
sbply, mot-str, rthy lstr, arg, calc mtx, v
calc, cin fiz
MRL: m dk brn - dkgy, mod sft - firm, sbply
- sbply, mot-lam, gt, sily ip, tr inoc, sme
calcite in frac, v calc, occ BENT w/ pyr

