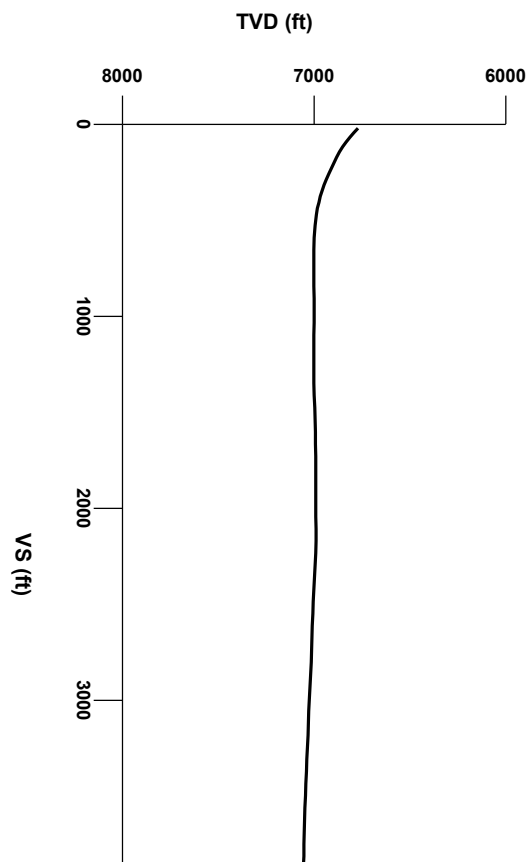
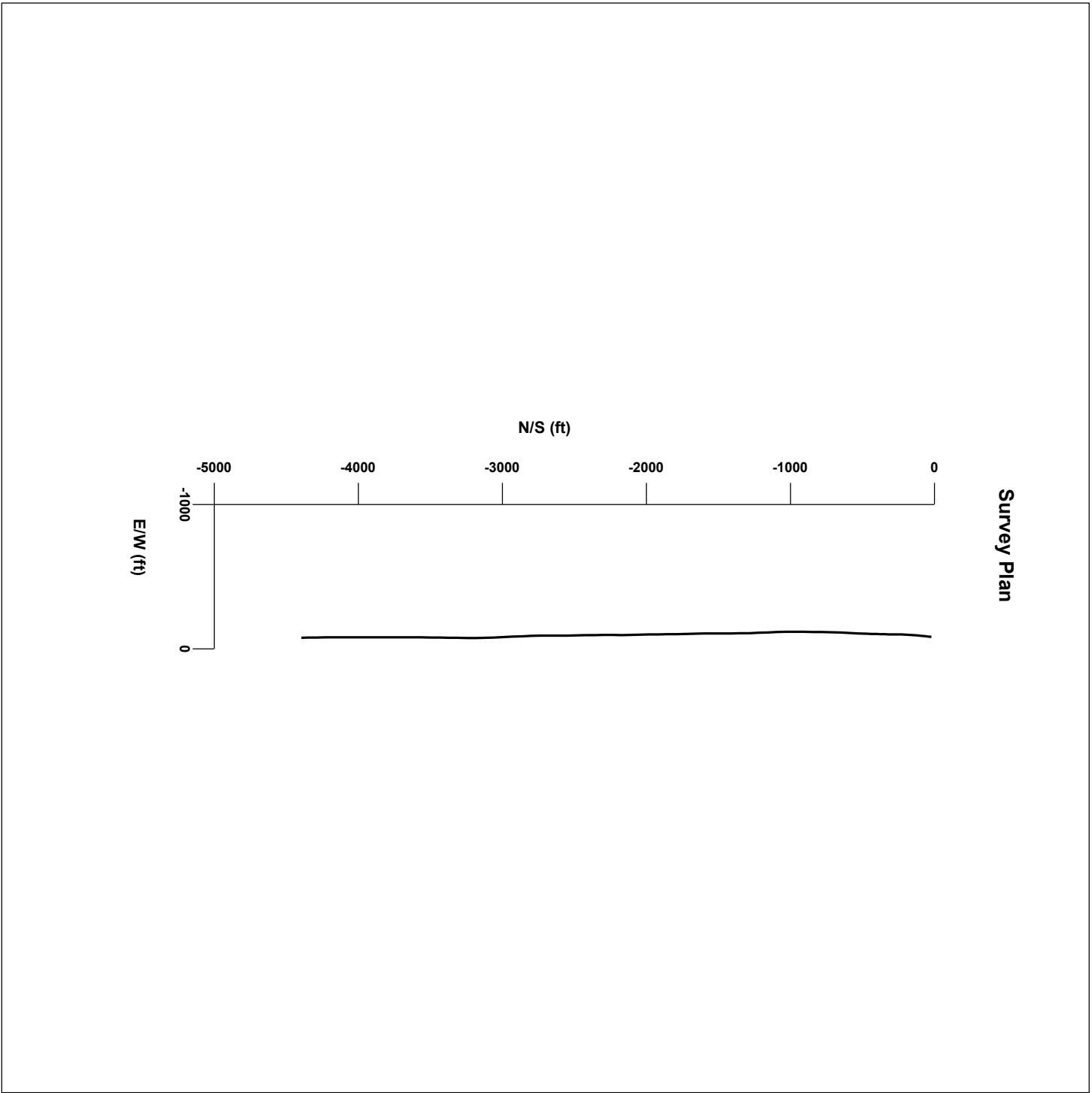
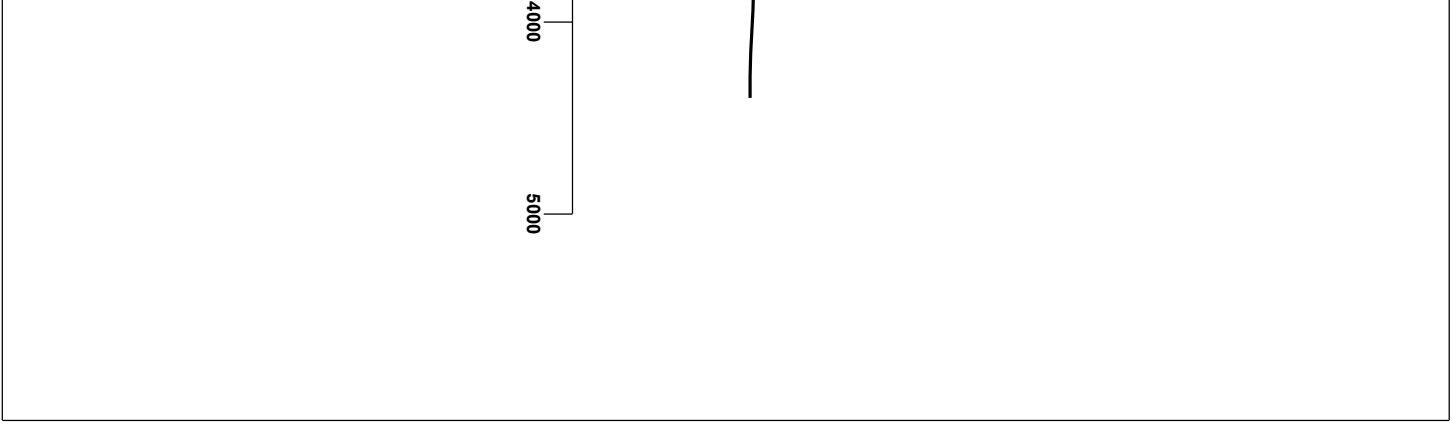


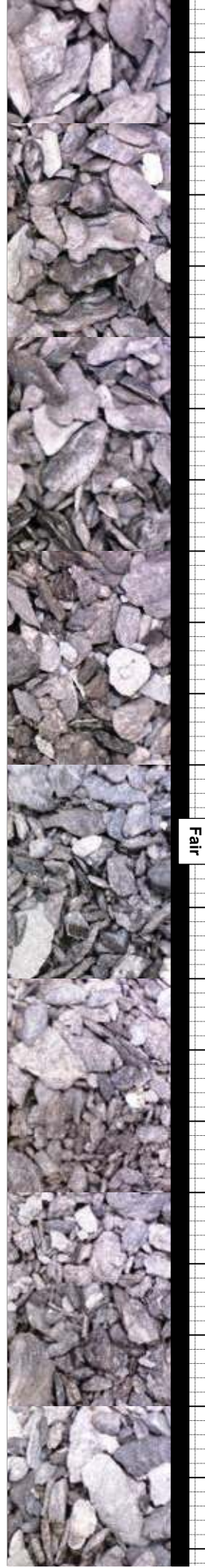
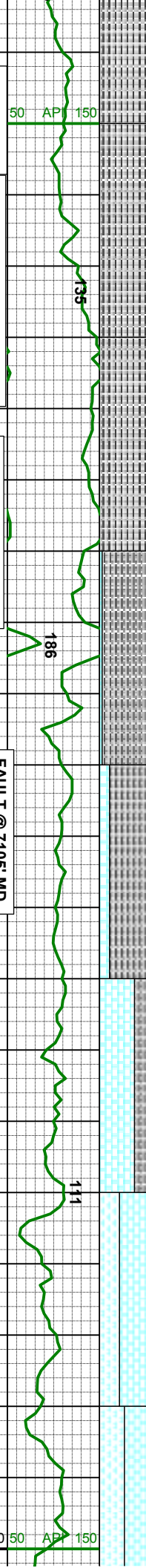
LOG created using LPLOT VH Version 3.0, July 22, 2012, Copyright (C) 1999-2009 Pason Systems Corp.

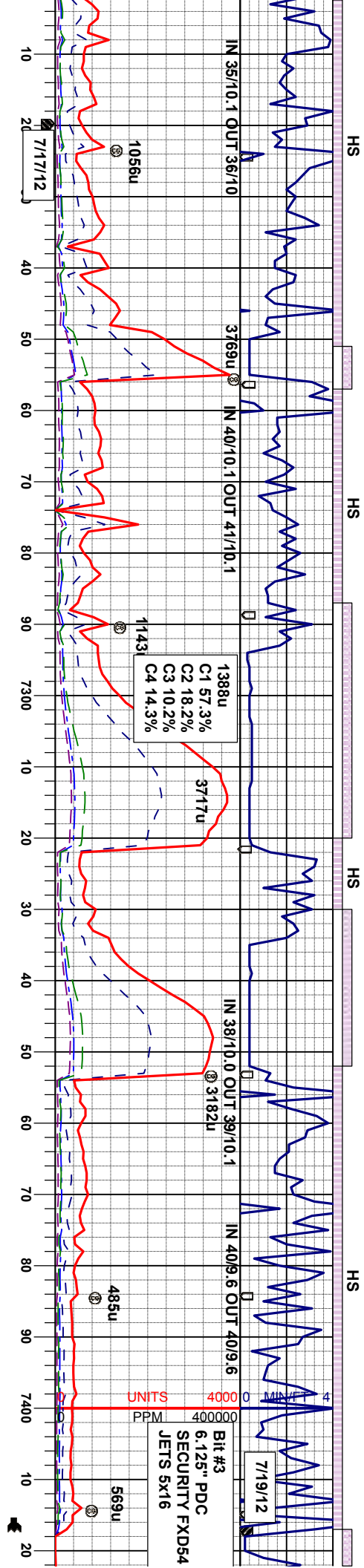
OPERATOR: Encana Oil & Gas, Inc
WELL: Flanigan 2A-6H
LOCATION: NWNW S6 T1N-R64W
COUNTY: Weld
STATE: Colorado
SPOT: 266 FNL 900 FWL
ELEVATION: 4936' GL
FIELD: Wattenberg
SPUD DATE: 7/11/12
TD DATE: 7/22/12
DATES LOGGED: 7/13/12- 7/22/12
DEPTHS LOGGED: 1053' - 11345' MD
LOGGERS: DENNIS VERTREES, PATTERSON SHAW
DRILLING FLUID: H2O, LSND
DRILLING RIG: ENSIGN 135
API: 051233569400
LOG TYPE: Horizontal
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: Continued from Flanigan 2A-6H Vertical log.



Survey Elevation







Nio B Chaik
@ 7199' MD/ 6946' TVD

SURVEY @
MD 7238'
TVD 6958.93'
INC 72.2°
AZM 181.0°

SURVEY @
MD 7269'
TVD 6967.76'
INC 74.7°
AZM 181.5°

SURVEY @
MD 7301'
TVD 6975.72'
INC 76.5°
AZM 181.9°

SURVEY @
MD 7333'
TVD 6982.73'
INC 78.2°
AZM 181.7°

SURVEY @
MD 7366'
TVD 6988.82'
INC 80.5°
AZM 181.8°

@ 7417' MD: Performed 2, short trips to clean up hole, TOO; Ran 7" Intermediate Casing to 7402' MD.

Drilled out of shoe @ 2341 on 7/19/2012

Scale Change
<150 - 160>
<50 - 80>

od.
el bl mky cut, fnt thn yelbm
r free calcite, v calc thru,
mod firm, brt ip, gt tex,
sily mky, MRLST: m gy-dk
cm, sft, sm-sbwxv tex,
bry.

CHK: mot gy-gybm, crm, sft, sm-sbwxv tex,
sbbiky, arg-smwt sily mky, MRLST: m gy-dk
gy, sbbiky-sbply, mod firm, brt ip, gt tex,
chky ip, carb.; r bent, abnt free calcite,
scat fos frag, v calc thru, mod fast stng yel
bl mky cut, fnt thn yelbm res ring, n stn, fnt
od.

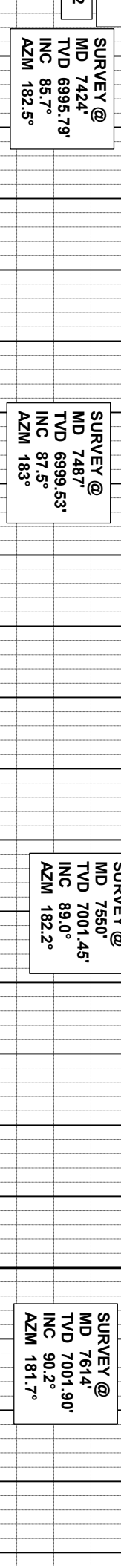
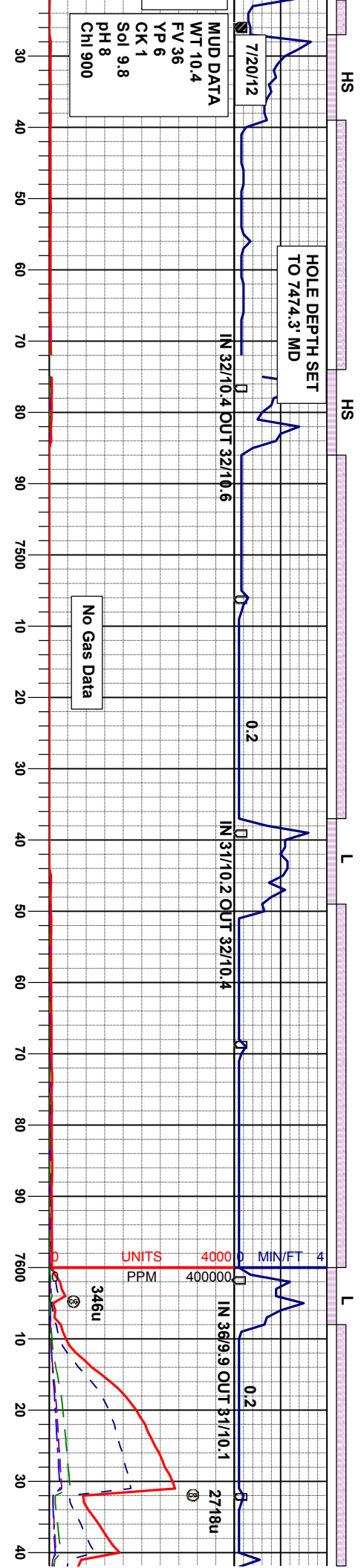
CHK: mot gy-gybm, crm, sft, sm-sbwxv tex,
sbbiky, arg-smwt sily mky, MRLST: m gy-dk
gy, sbbiky-sbply, mod firm, brt ip, gt
tex, chky ip, carb.; scat bent, abnt free
calcite, scat fos frag, v calc thru, mod fast
stng yel bl mky cut, fnt thn yelbm res ring,
n stn, fnt od.

CHK: mot gy-gybm, crm, sft, sm-sbwxv tex,
sbbiky, arg-smwt sily mky, MRLST: m gy-dk
gy, sbbiky-sbply, mod firm -firm, brt ip, gt
tex, chky ip, carb.; t bent, abnt free calcite,
scat fos frag, v calc thru, mod fast stng yel
bl mky cut, fnt thn yelbm res ring, n stn, fnt
od.
Note: Sample @ 7417' MDs 60% SLTST:
& SLTYSH: from up hole.

MRLST: m i
sbbiky, mod
abnt free ca
fast stng yel
ring, n stn, f

Fair





gy-dk gy, occ gybm, sbblky-firm- firm, brt ip, gt tex, chky ip, calc thru, mod al bl mky cut, mod thn yelbm res th od

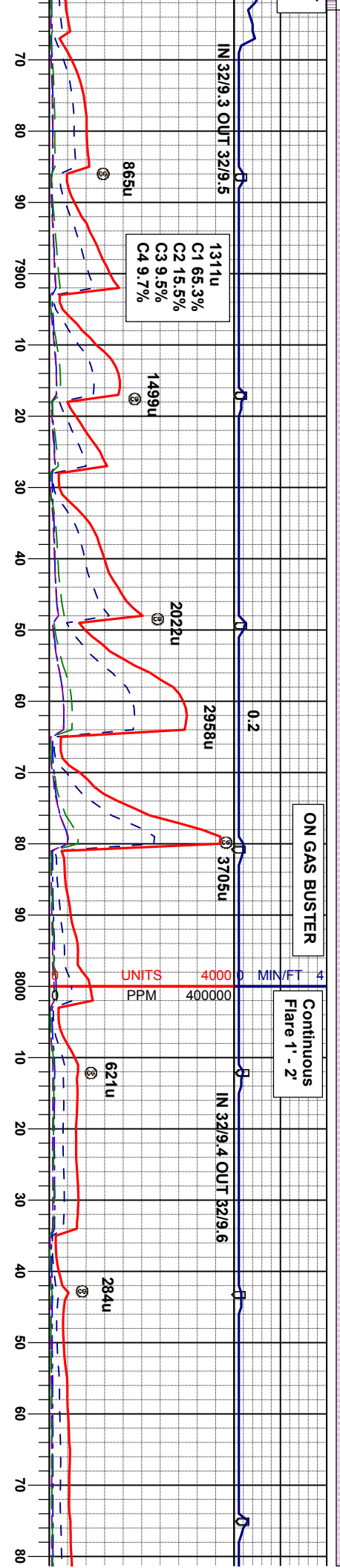
MRLST: m gy-dk gy, occ gybm, sbblky-sbply, mod firm- firm, brt ip, gt tex, chky ip, abnt free calcite, scat bent, v calc thru, fast sting yel bl mky cut, mod thn yelbm res ring, n stn, fnt od

MRLST: m gy-dk gy, occ gybm, sbblky-sbply, mod firm- firm, brt ip, gt tex, chky ip, abnt free calcite, abnt bent, v calc thru, fast sting yel bl mky cut, mod thn yelbm res ring, n stn, fnt od

MRLST: m gy-dk gy, occ gybm, sbblky-sbply, mod firm- firm, brt ip, gt tex, chky ip, abnt free calcite, r bent, v calc thru, mod frag, mod fast sting yel bl mky cut, mod yelbm res ring, n stn, fnt od

Fair





SURVEY @
7867'
7000.29'
89.7°
179.2°

SURVEY @
MD 7930'
TVD 7000.68'
INC 89.6°
AZM 178.9°

SURVEY @
MD 7993'
TVD 7000.95'
INC 89.9°
AZM 178.0°

SURVEY @
MD 8056'
TVD 7001.28'
INC 89.5°
AZM 177.3°

CHK: m gy-dk gy, occ gybrn, sbblky-
mod firm-firm, brt ip, gt tex, chky ip,
calcite, scat bent, tr pyr, v calc
s frag, mod fast stng yel bl mky
thin yelbrn res ring, n stn, fnt od

MR.LST: m gy-dk gy, occ gybrn, sbblky-
sbply, mod firm-firm, brt ip, gt tex, chky ip,
scat free calcite, scat bent, tr pyr, v calc
thru, tr fos frag, fast stng yel bl mky cut,
mod thin yelbrn res ring, n stn, fnt od

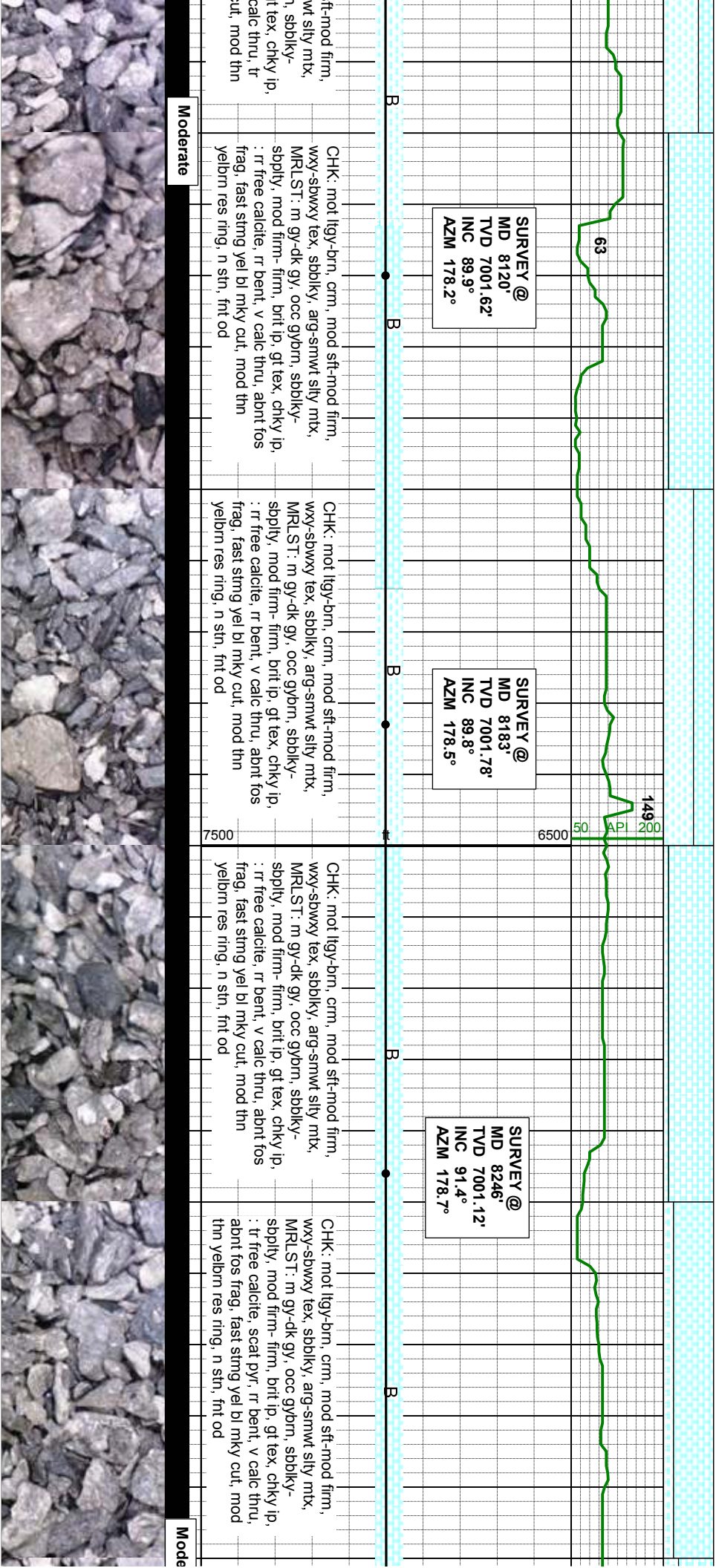
CHK: mot ligy-brn, crm, mod sft-mod firm,
wxy-sbwwy tex, sbblky, arg-smwt silty mix,
MR.LST: m gy-dk gy, occ gybrn, sbblky-
sbply, mod firm-firm, brt ip, gt tex, chky ip,
scat free calcite, tr bent, tr pyr, v calc thru,
tr fos frag, fast stng yel bl mky cut, mod thin
yelbrn res ring, n stn, fnt od

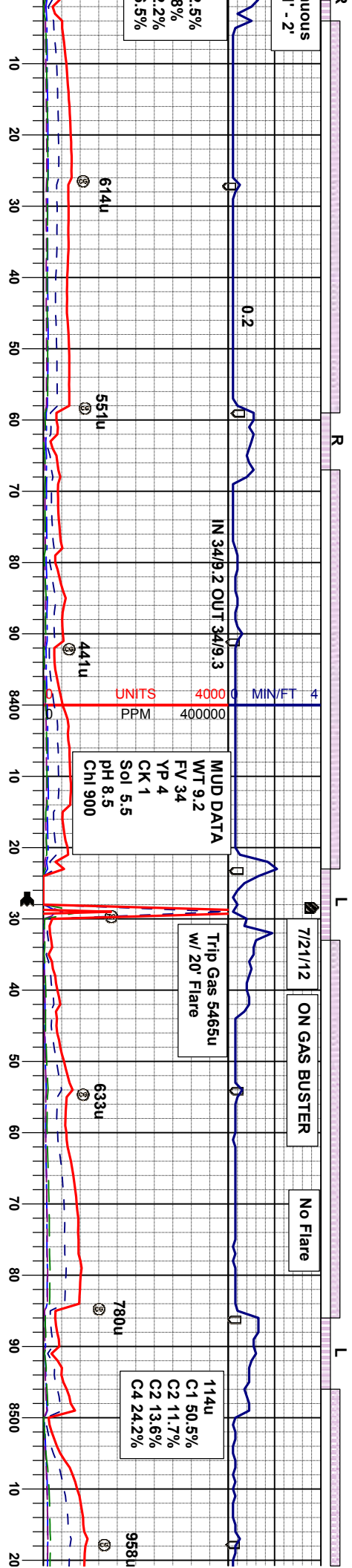
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MR.LST: m gy-dk gy, occ gybrn, sbblky-
sbply, mod firm-firm, brt ip, gt tex, chky ip,
tr free calcite, tr bent, tr pyr, v calc thru, tr
fos frag, fast stng yel bl mky cut, mod thin
yelbrn res ring, n stn, fnt od

CHK: mot ligy-brn, crm, mod s
wxy-sbwwy tex, sbblky, arg-sm
MR.LST: m gy-dk gy, occ gybrn
sbply, mod firm-firm, brt ip, g
tr free calcite, tr bent, tr pyr, v
tr fos frag, fast stng yel bl mky c
yelbrn res ring, n stn, fnt od

Moderate







SURVEY @
MD 8309'
TVD 6999.53'
INC 91.5°
AZM 179.5°

SURVEY @
MD 8373'
TVD 6997.46'
INC 92.2°
AZM 180.8°

TOOH to Replace MWD
Tool & Bit @ 8428' MD
Resumed Drilling @ 0612

Bit #4
6.125" PDC
SMITH SDI 513
JETS 5x16

SURVEY @
MD 8436'
TVD 6994.88'
INC 92.5°
AZM 180.0°

SURVEY @
MD 8499'
TVD 6993.29'
INC 90.4°
AZM 179.1°

CHK: mot ltgy-brn, crm, mod sft-mod firm,
wxy-sbwwy tex, sbblky, arg-smwt silty mtx,
MRLST: m gy-dk gy, occ gybrn, sbblky-
sbply, mod firm- firm, brt ip, gt tex, chky ip,
: tr free calcite, scat pyr, v calc thru, abnt
fos frag, fast stmg yel bl mky cut, mod thn
yelbrn res ring, n stn, fnt od

CHK: mot ltgy-brn, crm, mod sft-mod firm,
wxy-sbwwy tex, sbblky, arg-smwt silty mtx,
MRLST: m gy-dk gy, occ gybrn, sbblky-
sbply, mod firm- firm, brt ip, gt tex, chky ip,
: tr free calcite, scat pyr, r bent, v calc thru,
abnt fos frag, mod fast stmg yel bl mky cut,
mod thn yelbrn res ring, n stn, fnt od

CHK: mot ltgy-brn, crm, mod sft-mod firm,
wxy-sbwwy tex, sbblky, arg-smwt silty mtx,
MRLST: m gy-dk gy, occ gybrn, sbblky-
sbply, mod firm- firm, brt ip, gt tex, chky ip,
: scat bent, tr free calcite, scat pyr, v calc
thru, abnt fos frag, mod fast stmg yel bl
mky cut, mod thn yelbrn res ring, n stn, fnt
od

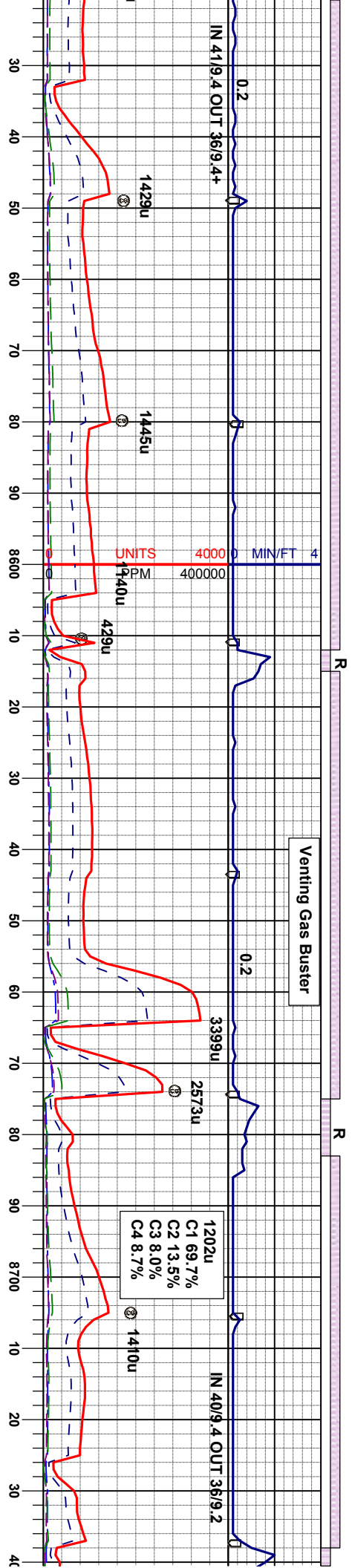
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-sbwwy tex, sbblky, arg-smwt silty mtx,
MRLST: m gy-dk gy, occ gybrn, sbblky-
sbply, mod firm- firm, brt ip, gt tex, chky ip,
: rr bent, rr free calcite, tr pyr, v calc thru,
abnt fos frag, mod fast stmg yel bl mky cut,
mod thn yelbrn res ring, n stn, fnt od

CHK: mot ltgy-brn,
-sbwwy tex, sbblky,
MRLST: m gy-dk gy
sbply, mod firm- fir
: tr bent, rr free calc
scat fos frag, mod t
mod thn yelbrn res

Moderate

Moderate





SURVEY @
MD 8562'
TVD 6992.96'
INC 90.2°
AZM 178.5°

SURVEY @
MD 8625'
TVD 6992.3'
INC 91.0°
AZM 178.7°

SURVEY @
MD 8688'
TVD 6991.36'
INC 90.7°
AZM 178.8°

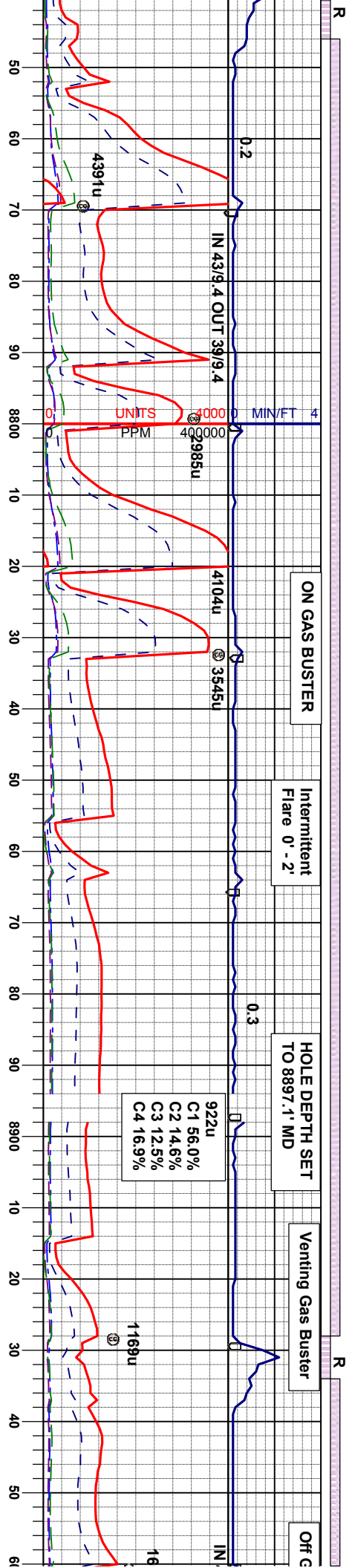
cm, mod firm -firm, wxy
arg-smwt silty mtx,
v, occ gybm, sbbiky-
m, brit ip, gt tex, chky ip,
: r bent, tr free calcite, tr pyr, v calc thru,
scat fos frag, mod fast stmg yel bl mky cut,
ring, n stn, fnt od

CHK: mot ltgy-brn, crm, mod firm -firm, wxy
sbwxy tex, sbbiky, arg-smwt silty mtx,
MRLST: m gy-dk gy, occ gybm, sbbiky-
sbbily, mod firm -firm, brit ip, gt tex, chky ip,
: r bent, tr free calcite, tr pyr, v calc thru,
scat fos frag, mod fast stmg yel bl mky cut,
mod thn yelbm res ring, n stn, fnt od

CHK: mot ltgy-brn, crm, mod firm -firm,
sbwxy tex, sbbiky, arg-smwt silty mtx,
MRLST: m gy-dk gy, occ gybm, sbbiky-
sbbily, mod firm -firm, brit ip, gt tex, chky ip,
: r bent, tr free calcite, tr pyr, v calc thru,
scat fos frag, mod fast stmg yel bl mky cut,
mod thn yelbm res ring, n stn, fnt od

CHK: mot ltgy-brn, crm, mod firm -firm,
sbwxy tex, sbbiky, arg-smwt silty mtx,
MRLST: m gy-dk gy, occ gybm, sbbiky-
sbbily, mod firm -firm, brit ip, gt tex, ch
: r bent, tr free calcite, tr pyr, v calc th
scat fos frag, mod fast stmg yel bl mky
mod thn yelbm res ring, n stn, fnt od

Moderate



SURVEY @
MD 8752'
TVD 6991.14'
INC 89.7°
AZM 179.4°

SURVEY @
MD 8815'
TVD 6991.63'
INC 89.4°
AZM 179.2°

SURVEY @
MD 8878'
TVD 6991.74'
INC 90.4°
AZM 178.6°

SURVEY @
MD 8941'
TVD 6991.14'
INC 90.7°
AZM 178.6°

CHK: mot lty-brn, crm, mod firm -firm, sbwxy tex, sbblky, arg-smwt silty mtb, MRLST: m gy-dk gy, occ gybrn, sbblky-sbply, mod firm-firm, brit ip, gt tex, chky ip, : tr bent, tr free calcite, tr pyr, v calc thru, scat fos frag, mod fast sting yel bl mky cut, mod thn yelbrn res ring, n stn, fnt od

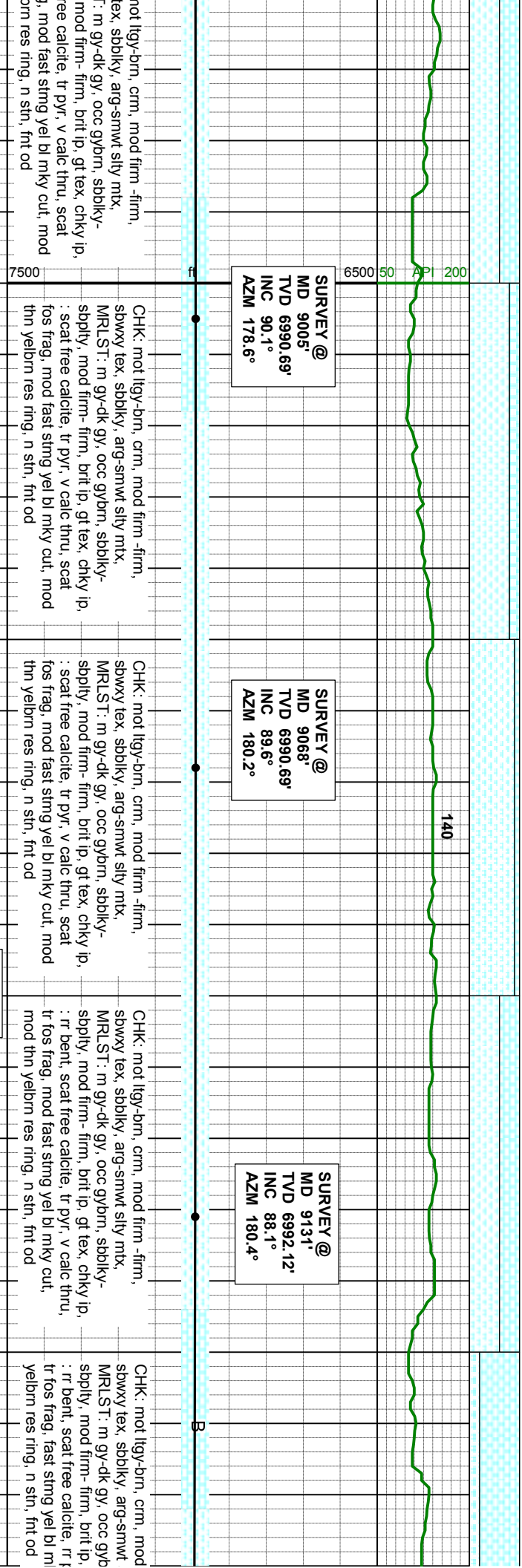
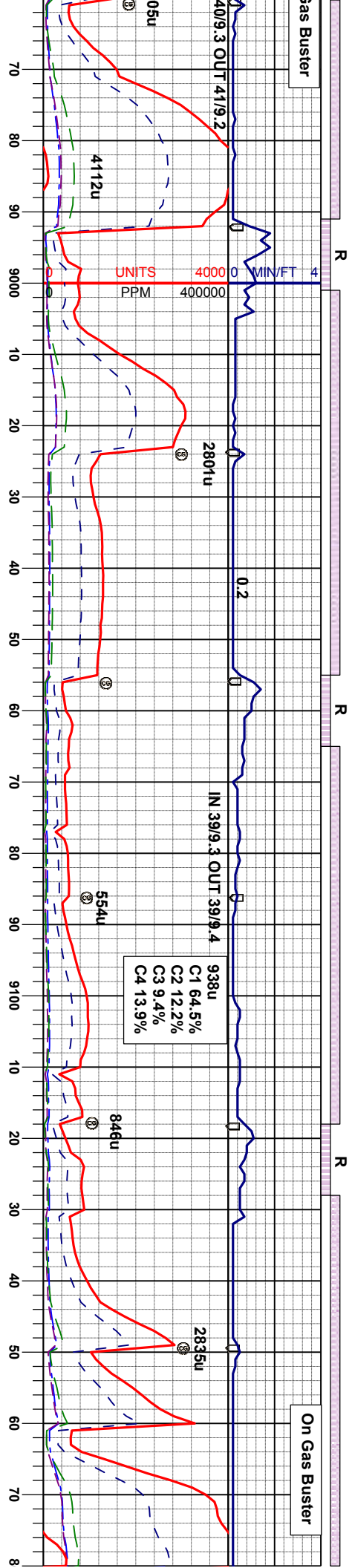
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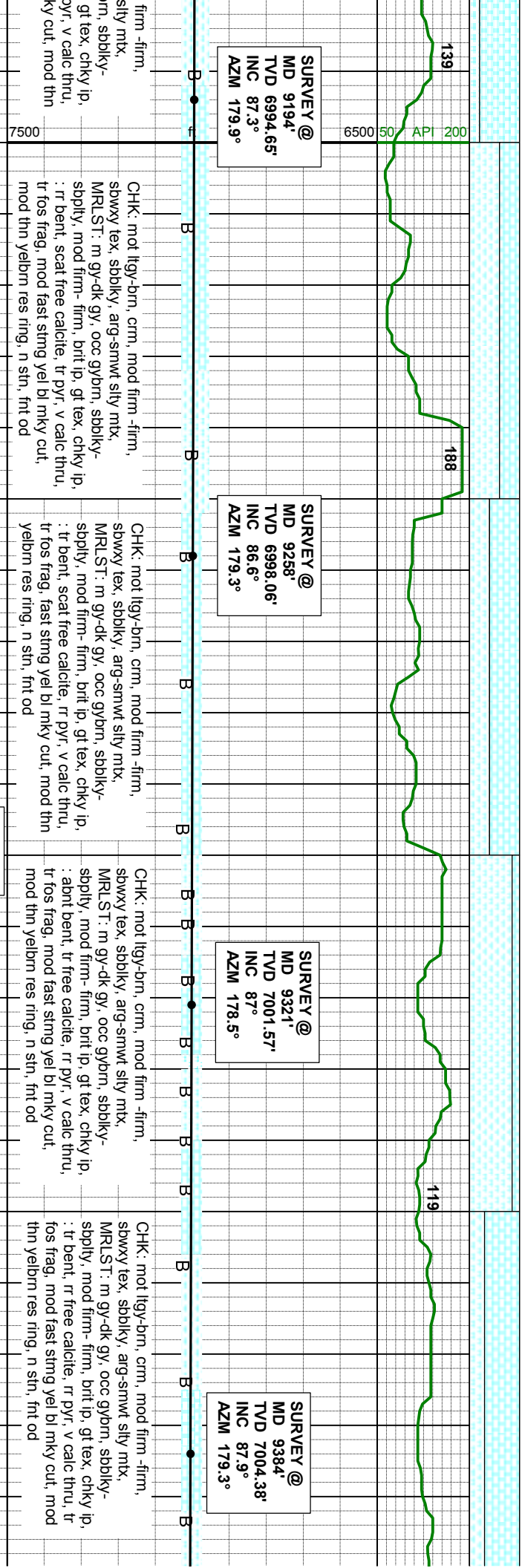
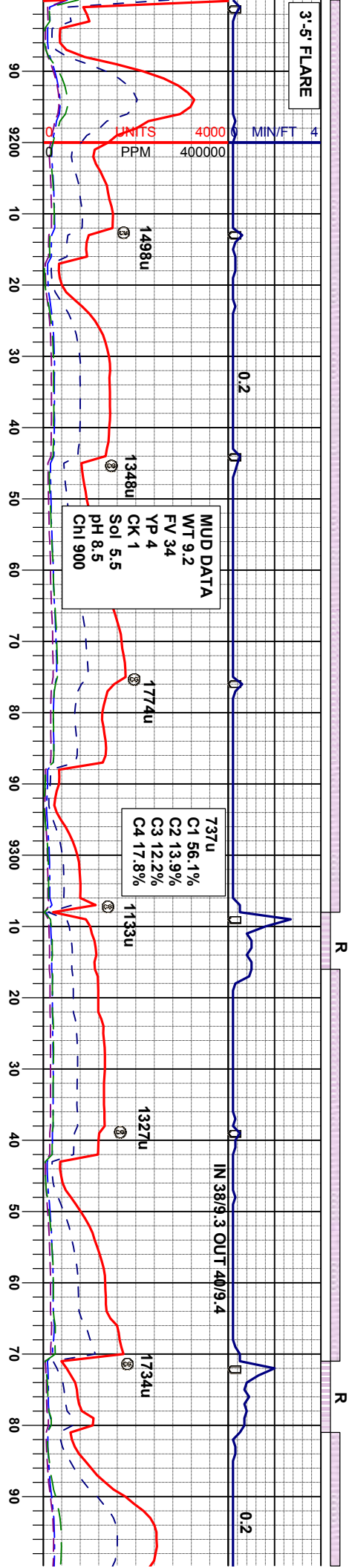
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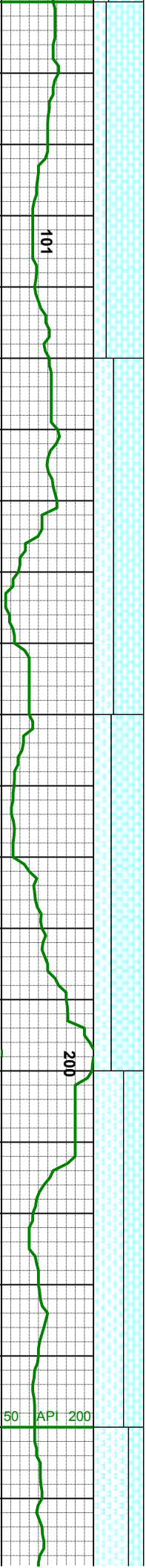
CHK: n sbwxy / MRLST sbply, mod firm-firm, brit ip, gt tex, chky ip, : scat fos frag, mod fast sting yel bl mky cut, mod thn yelbrn res ring, n stn, fnt od

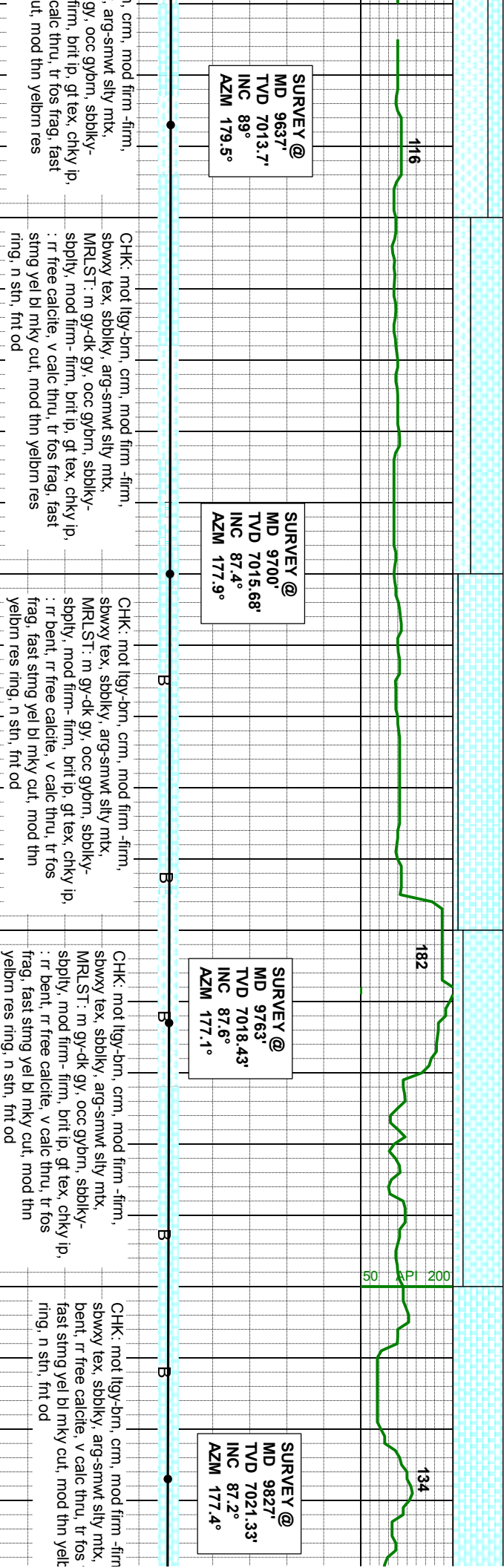
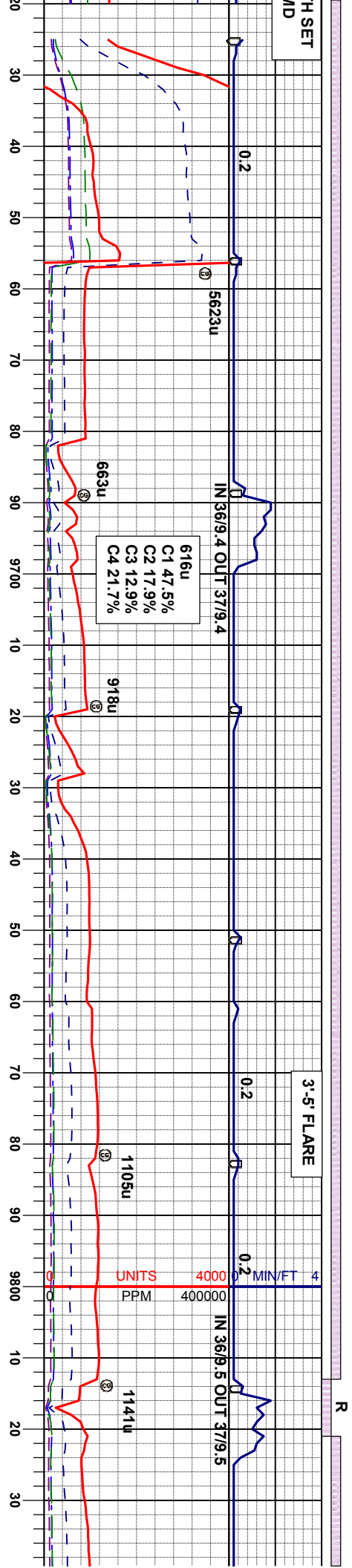
Moderate

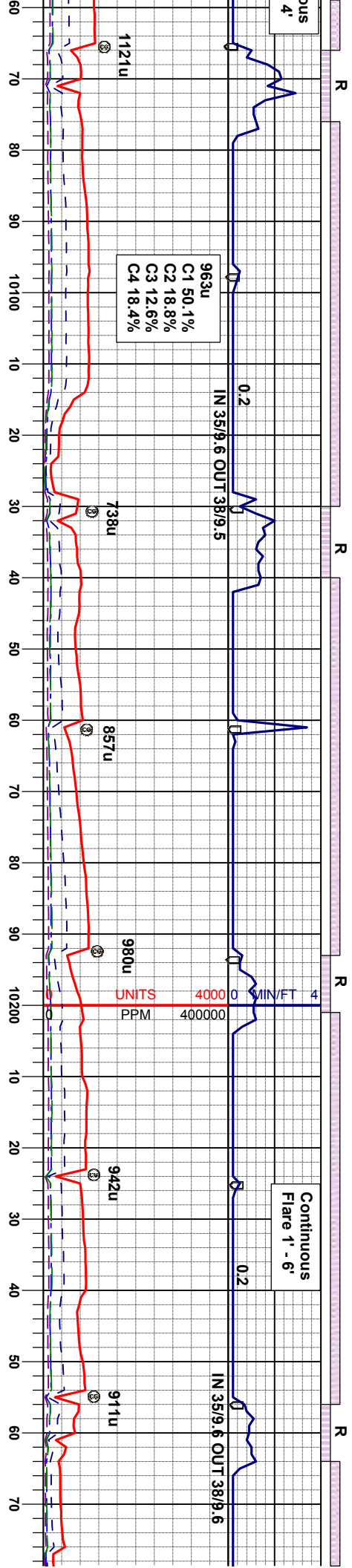












SURVEY @
MD 10080'
TVD 7032.59'
INC 87.9°
AZM 179.1°

SURVEY @
MD 10143'
TVD 7035'
INC 87.6°
AZM 180.2°

SURVEY @
MD 10206'
TVD 7037.91'
INC 87.1°
AZM 181.4°

SURVEY @
MD 10269'
TVD 7040.77'
INC 87.7°
AZM 180.7°

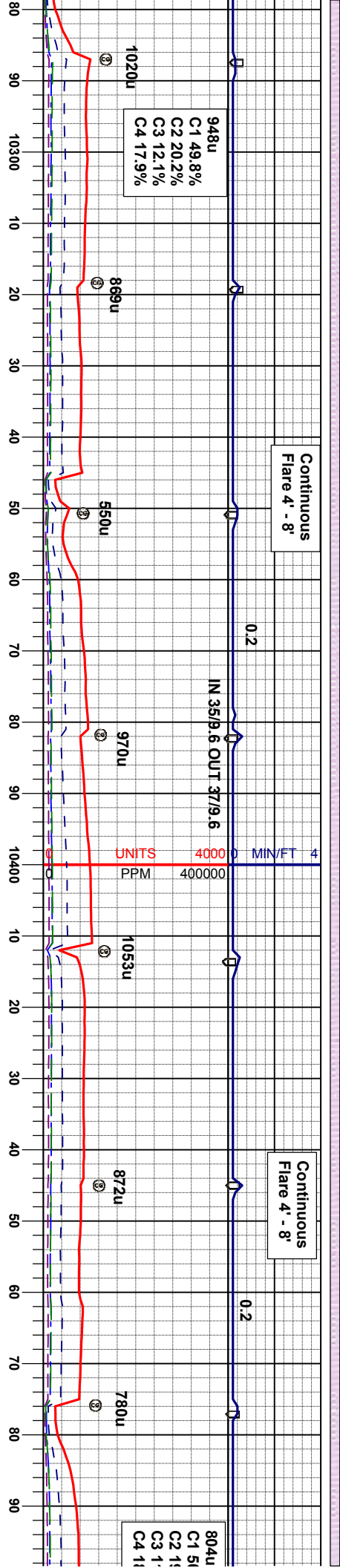
CHK: mot ltyg-brn, crm, mod firm -firm, sbwxy tex, sbblky, arg-smwt silty mtz, MRLST: m gy-dk gy, occ gybrn, sbblky-sbply, mod firm-firm, brit ip, gt tex, chky ip, : tr bent, tr free calcite, v calc thru, tr fast sting yel bl mky cut, mod thin yelbrn res ring, n stn, fnt od

CHK: mot ltyg-brn, crm, mod firm -firm, sbwxy tex, sbblky, arg-smwt silty mtz, MRLST: m gy-dk gy, occ gybrn, sbblky-sbply, mod firm-firm, brit ip, gt tex, chky ip, : tr bent, tr free calcite, rr pyr, v calc thru, tr fast sting yel bl mky cut, mod thin yelbrn res ring, n stn, fnt od

CHK: mot ltyg-brn, crm, mod firm -firm, sbwxy tex, sbblky, arg-smwt silty mtz, MRLST: m gy-dk gy, occ gybrn, sbblky-sbply, mod firm-firm, brit ip, gt tex, chky ip, : tr bent, tr free calcite, rr pyr, v calc thru, tr fast sting yel bl mky cut, mod thin yelbrn res ring, n stn, fnt od

Moderate





SURVEY @
MD 10322'
TVD 7043.30'
INC 87.7°
AZM 180.9°

SURVEY @
MD 10395'
TVD 7045.69'
INC 88.3°
AZM 180.5°

SURVEY @
MD 10459'
TVD 7047.78'
INC 87.6°
AZM 180.1°

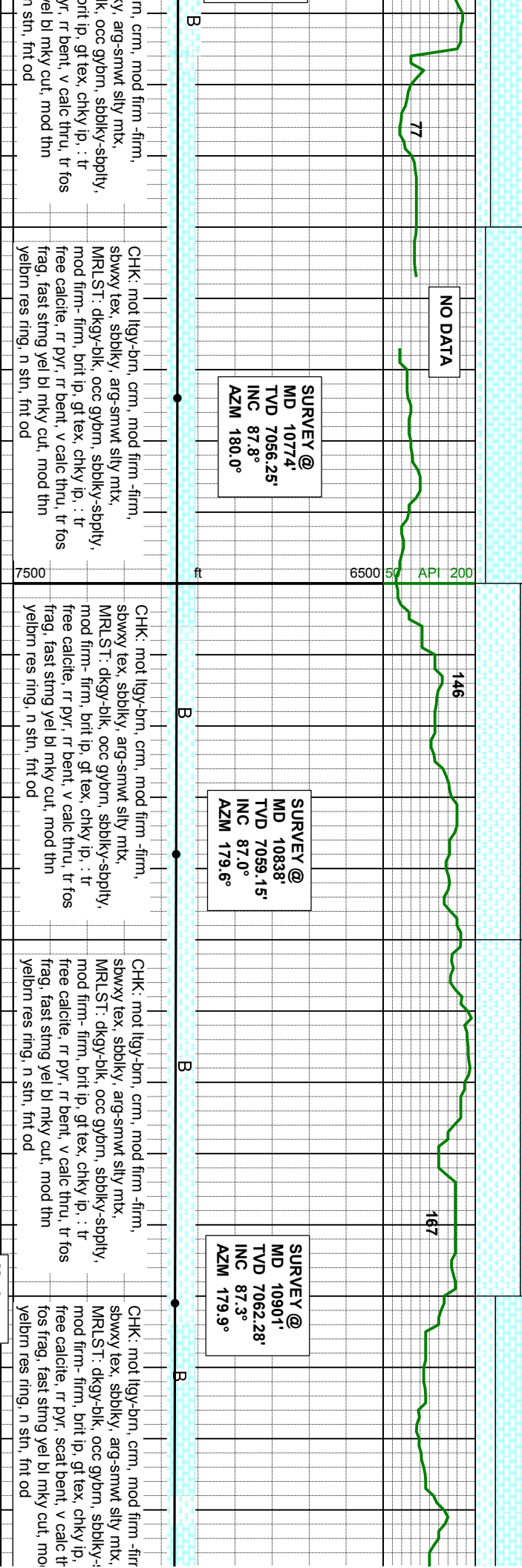
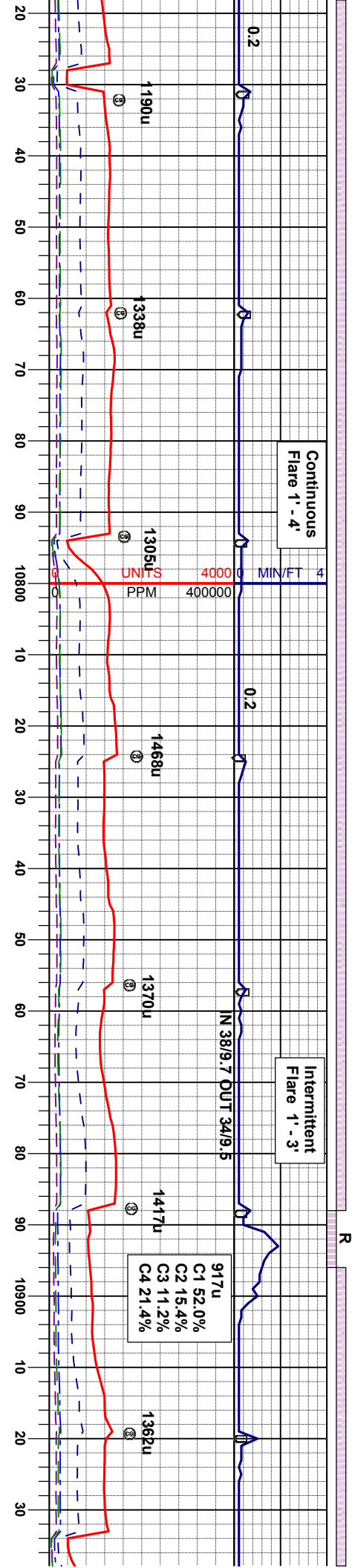
mod firm -firm, arg-smwt silty mtz, MRLST: m gy-dk gy, occ gybrn, sbblky-sbply, mod firm-firm, brit ip, gt tex, chky ip, : tr free calcite, tr pyr, v calc thru, tr fast sting yel bl mky cut, mod thn yelbrn res ring, n stn, fnt od

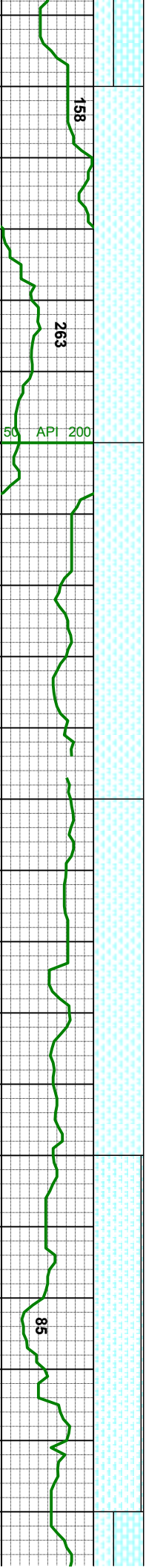
CHK: mot lgy-brn, crm, mod firm -firm, sbwxy tex, sbblky, arg-smwt silty mtz, MRLST: dky - blk, occ gybrn, sbblky-sbply, mod firm-firm, brit ip, gt tex, chky ip, : tr free calcite, tr pyr, tr bent, v calc thru, tr fos frag, fast sting yel bl mky cut, mod thn yelbrn res ring, n stn, fnt od

CHK: mot lgy-brn, crm, mod firm -firm, sbwxy tex, sbblky, arg-smwt silty mtz, MRLST: dky - blk, occ gybrn, sbblky-sbply, mod firm-firm, brit ip, gt tex, chky ip, : tr free calcite, tr pyr, tr bent, v calc thru, tr fos frag, fast sting yel bl mky cut, mod thn yelbrn res ring, n stn, fnt od

Moderate



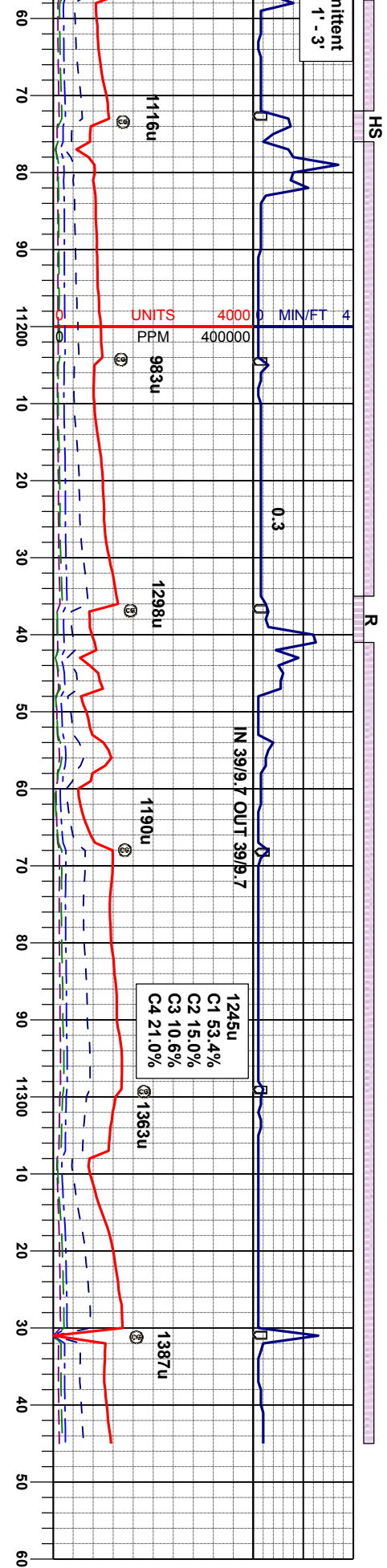




CHK:
tex, s|
dkgy-
firm-1
calcit
frag, r
yelbr

Moderate





Thank You for Using
Columbine Logging, Inc.

Flanigan 2A-6H Wellbore TD @
11,345' MD @ 1555 hrs on 07/22/12

SURVEY @
MD 11185'
TVD 7072.72'
INC 89.5°
AZM 178.8°

SURVEY @
MD 11249'
TVD 7073.06'
INC 89.9°
AZM 179.2°

SURVEY @
MD 11295'
TVD 7073.34'
INC 89.4°
AZM 179°

CHK: ltgy-brn, crm, mod firm -firm, sbwxy
tex, sbblky, arg-smwt silty mtx, MRLST:
dkgy-blk, occ gybrn, sbblky-sbply, mod
firm-firm, brit ip, gt tex, chky ip, : scat free
calcite, tr pyr, tr bent, v calc thru, abnt fos
frag, mod fast sting yel bl mky cut, mod thn
yelbrn res ring, n stn, fnt od

CHK: ltgy-brn, crm, mod firm -firm, sbwxy
tex, sbblky, arg-smwt silty mtx, MRLST:
dkgy-blk, occ gybrn, sbblky-sbply, mod
firm-firm, brit ip, gt tex, chky ip, : scat free
calcite, tr pyr, tr bent, v calc thru, abnt fos
frag, mod fast sting yel bl mky cut, mod thn
yelbrn res ring, n stn, fnt od

CHK: ltgy-brn, crm, mod firm -firm, sbwxy
tex, sbblky, arg-smwt silty mtx, MRLST:
dkgy-blk, occ gybrn, sbblky-sbply, mod
firm-firm, brit ip, gt tex, chky ip, : scat free
calcite, tr pyr, tr bent, v calc thru, abnt fos
frag, mod fast sting yel bl mky cut, mod thn
yelbrn res ring, n stn, fnt od

Moderate

