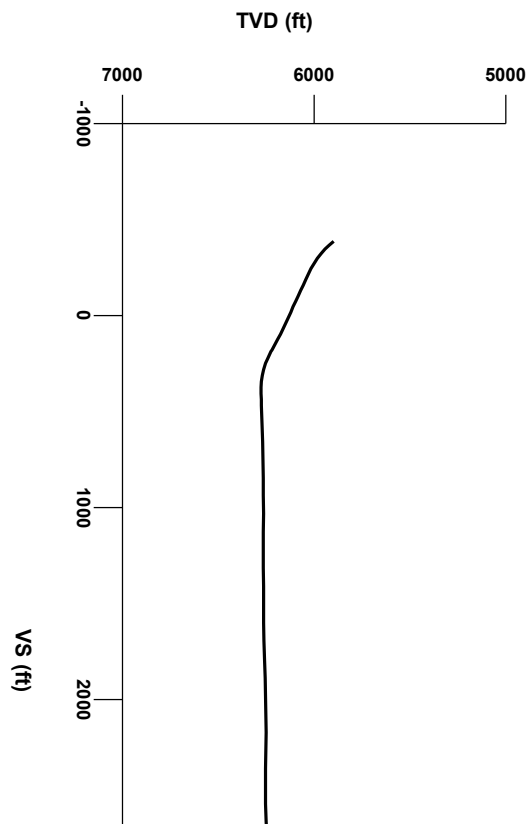


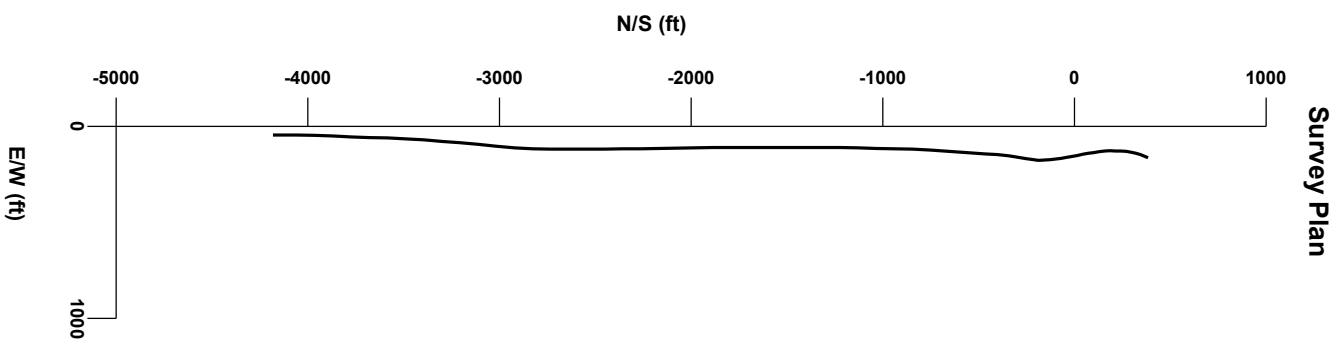
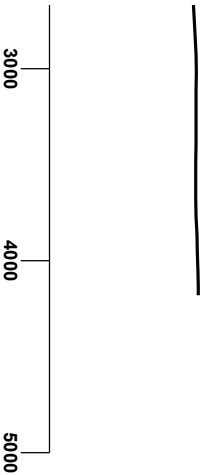


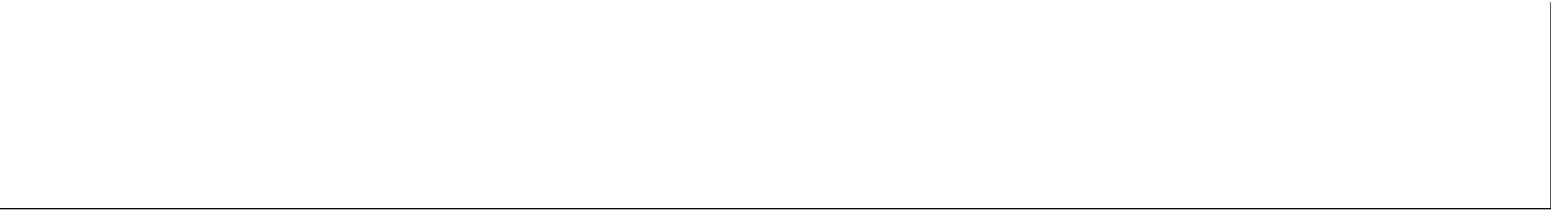
LOG created using LPLOT VH Version 3.0, April 16, 2013, Copyright (C) 1999-2009 Pason Systems Corp.

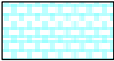
OPERATOR: BILL BARRETT CORPORATION
WELL: DUTCH LAKE 17-25H
LOCATION: NWNW SEC 25-T6N-R62W
COUNTY: WELD
STATE: COLORADO
SPOT: 501' FNL x 501' FWL
ELEVATION: GL 4,671' / KB 4,686'
FIELD: WILDCAT
SPUD DATE: APRIL 6, 2013
TD DATE: APRIL 16, 2013
DATES LOGGED: APRIL 7, 2013 - APRIL 16, 2013
DEPTHS LOGGED: 4,000' - 10,651'
LOGGERS: J. ROUSE, A. SIMMONS AND C. TRODICK
DRILLING FLUID: WATER BASED MUD
DRILLING RIG: CADE 24
API: 05-123-33406
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: WELLSITE GEOLOGICAL SERVICES PROVIDED BY COLUMBINE LOGGING, INC.




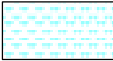
Survey Elevation




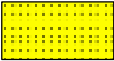


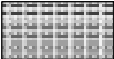
Chalk


Shaly Siltstone

Marl


Siltstone


Sandstone


Silty Shale

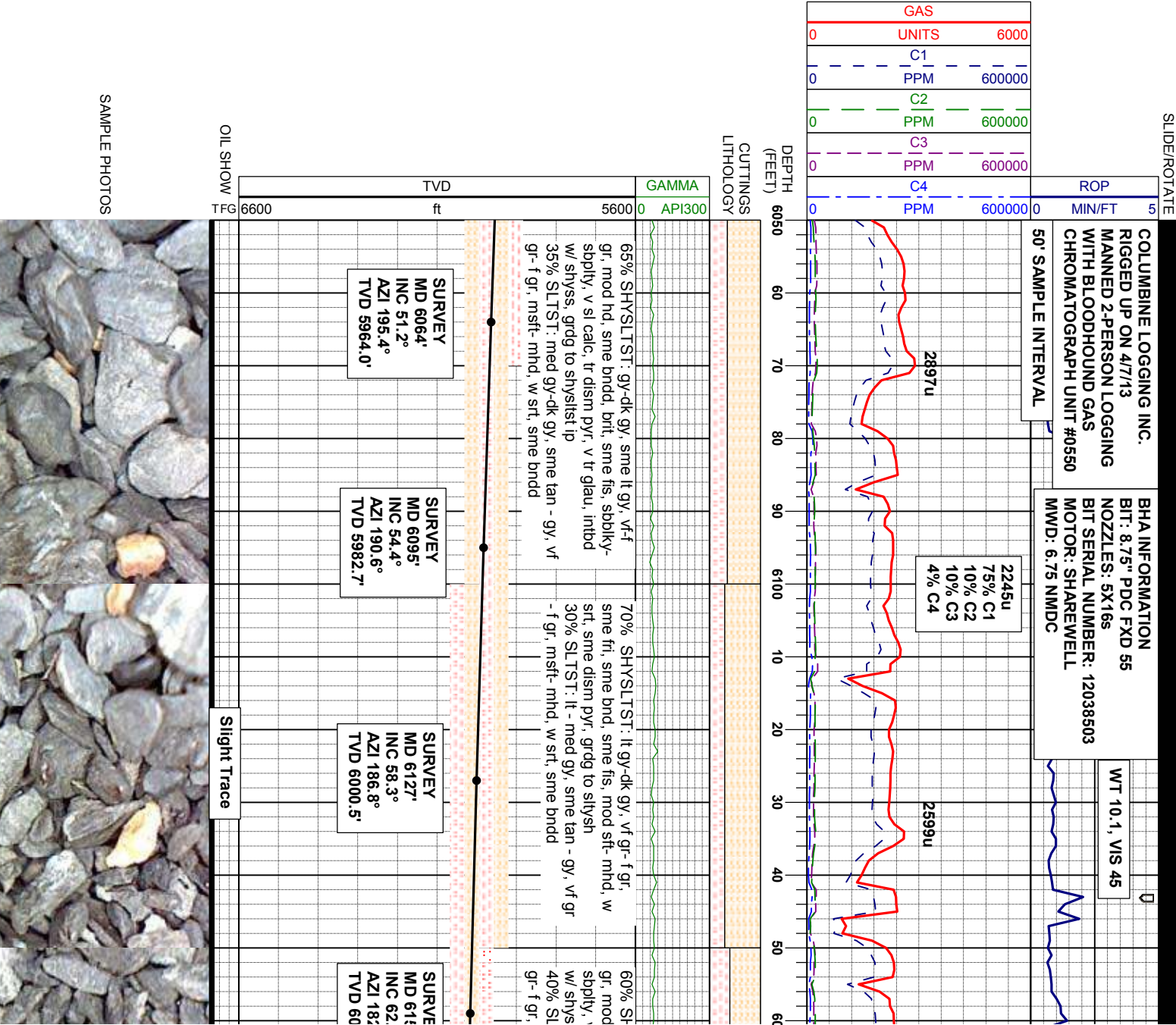
Shaly Sandstone

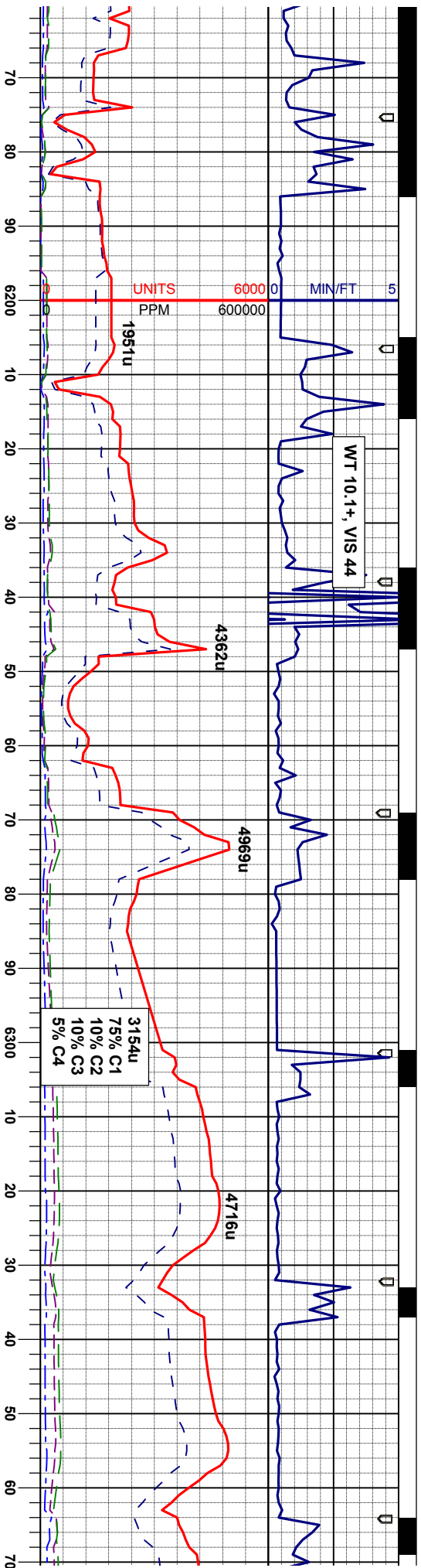
ENGINEERING SYMBOLS

Connection

Connection Gas

Midnight Depth





65% SHYSLTST: lt gy-dk gy, vf gr-f gr, sme fit, sme bnd, sme fis, mod sft-mhd, w sft, tr disp pyr, grdg to sltysh

30% SLTST: lt - med gy, sme tan - gy, vf gr - f gr, msft-mhd, w sft, sme bnd

5% SLTYSS: lt gy - dk gy, mot, sme bnd, m - frm, brt, tr biot, tr glau

50% SHYSLTST: lt gy-dk gy, vf gr-f gr, mod sft-mhd, w sft, tr disp pyr

35% SLTST: lt - med gy, sme tan - gy, vf gr - f gr, msft-mhd, w sft, sme bnd

10% SDYSLTST: lt gy - dk gy, mot, sme bnd, m - frm, brt, tr biot, tr glau

5% SS: wht- lt gy, sme buff, mod - w sft, mnd-sprnd, hd, brt, f - m gr

75% SLTY SH: dk gy- blk, sme brn-gy, sft- mod sft, p-mod ind, fr-brt, fis, sme sl bnd, spty-pty,

25% SHYSLTST: gy-dk gy, sme lt gy, vf-f gr, mod hd, sme bnd, brt, sme fis, sbdky-spty, v sl calc, sme grdg to sltysh, fr wht-bl sting cut, sl odor, tr ss

80% SLTY SH: d mod sft, p-mod fr spty-pty,

20% SHYSLTST gr, mod hd, sme spty, v sl calc, bl sting cut, sl od

SURVEY MD 6190' INC 65.2° AZI 180.3° TVD 6030.0'

SURVEY MD 6222' INC 64.7° AZI 180.3° TVD 6043.54'

SURVEY MD 6254' INC 64.8° AZI 174.4° TVD 6057.20'

SURVEY MD 6285' INC 64.7° AZI 172.4° TVD 6070.42'

SURVEY MD 6317' INC 65.4° AZI 171.4° TVD 6083.92'

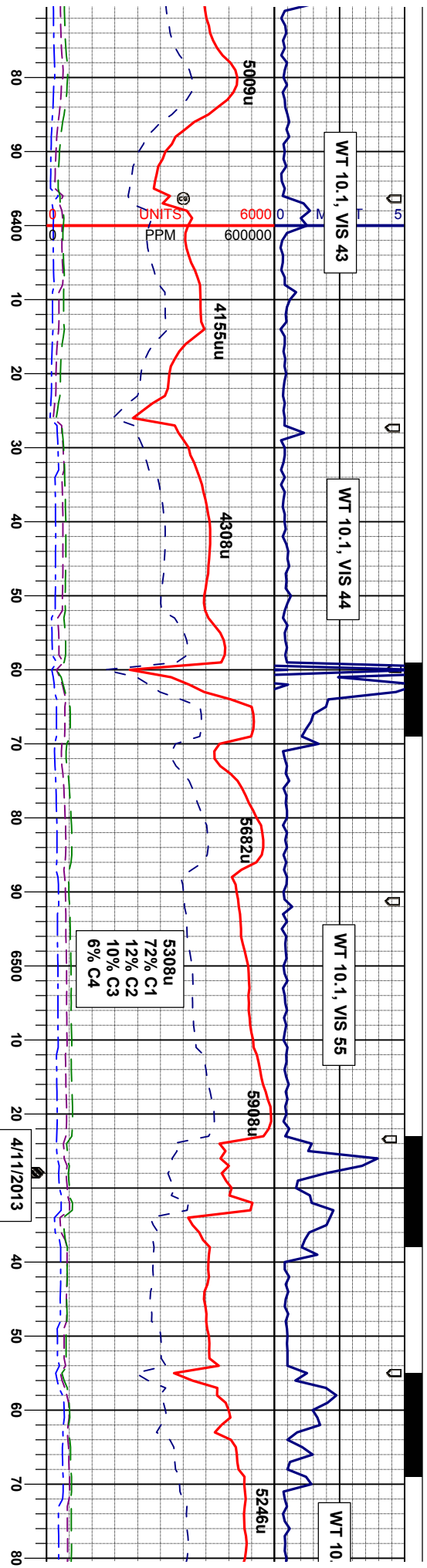
SURVEY MD 6349' INC 66.2° AZI 170.0° TVD 6097.04'

Trace

Fair

Moderate





k gy- blk, sme brn-gy, sft-
id, frt-brt, fls, sme sl bnd,
: gy-dk gy, sme lt gy, v-f-
bnd, brt, sme fls, sbply-
sme grd to siltysh, fr wht-
or, tr ss

30% CHK: lt-med gy, sme brn-red, lam,
mot, vsft-sft, sbply-blky, v calc, crpxl, intbd
w/mrl, v tr bent,
55% SLTY SH: dk gy- blk, sme brn-gy, sft-
mod sft, p-mod ind, frt-brt, fls, sme sl bnd,
sbply-pty
15% MRL: lt-dk gy, str, sft-v sft, sbply-pty,
frt- brt, sil, v f gm, rr v f dism pyr, sme lt gn
flor, mod wht-bl sting cut, sl odor

60% CHK: lt-med gy, sme brn-red, lam,
mot, vsft-sft, sbply-blky, v calc, crpxl, intbd
w/mrl, v tr bent,
20% SLTY SH: dk gy- blk, sme brn-gy, sft-
mod sft, p-mod ind, frt-brt, fls, sme sl bnd,
sbply-pty
20% MRL: lt-dk gy, str, sft-v sft, sbply-pty,
frt- brt, sil, v f gm, rr v f dism pyr, sme lt gn
flor, g wht-bl sting cut, sl odor

70% CHK: lt-med gy, sme brn-red, lam,
mot, vsft-sft, sbply-blky, v calc, crpxl, intbd
w/mrl, v tr bent,
30% MRL: lt-dk gy, str, sft-v sft, sbply-pty,
frt- brt, sil, v f gm, rr v f dism pyr, sme lt gn
flor, g wht-bl sting cut, sl odor

70% MRL: lt-dk gy, str, sft-v
frt- brt, sil, v f gm, rr v f dism
30% CHK: lt-med gy, sme b
mot, vsft-sft, sbply-blky, v c
w/mrl, tr bent, sme lt gn flor,
sting cut, sl-mod odor

SURVEY
MD 6380'
INC 66.7°
AZI 169.4°
TVD 6109.42'

SURVEY
MD 6412'
INC 66.3°
AZI 168.7°
TVD 6122.18'

SURVEY
MD 6444'
INC 66.6°
AZI 169.4°
TVD 6134.97'

LOGGERS TOP
NIOBRARA
6459' MD; 6141.11' TVD

SURVEY
MD 6476'
INC 65.1°
AZI 171.0°
TVD 6148.06'

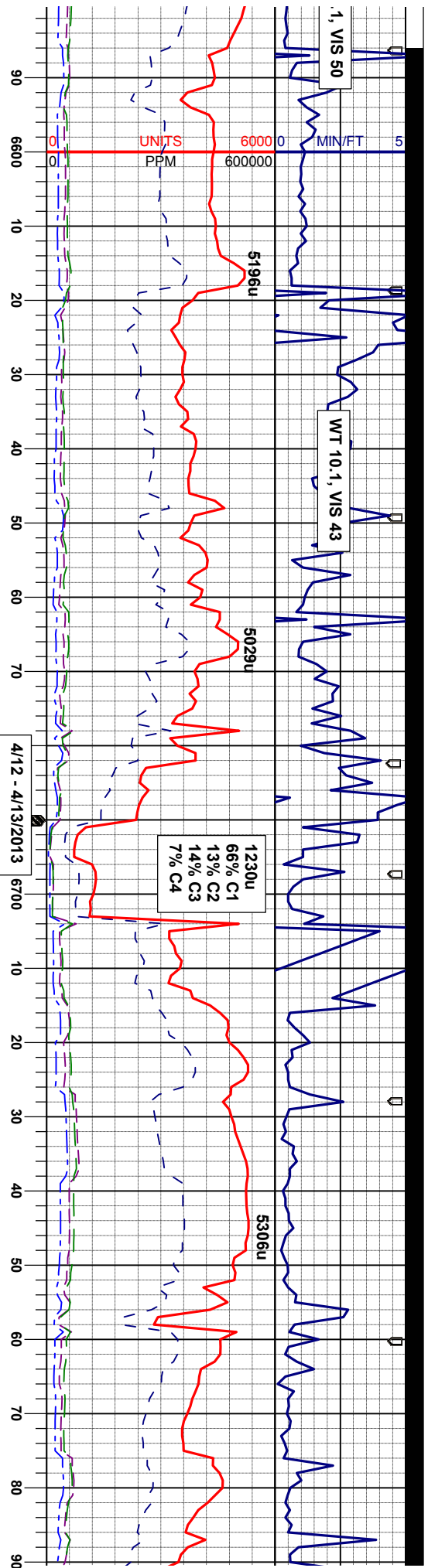
SURVEY
MD 6507'
INC 64.7°
AZI 171.0°
TVD 6161.21'

SURVEY
MD 6539'
INC 63.1°
AZI 172.9°
TVD 6175.29'

SURVEY
MD 6570'
INC 61.7°
AZI 175.4°
TVD 6189.65'

Good





55% MR.L: lt-dk gy, stri, sft-v sft, supply-pty, fr- brt, sil, vtr grn, tr-mod vfr dism pyr, 45% CHK: lt-med gy, sme br-med, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, v tr bent, 40% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fr- brt, sil, vtr grn, mod vfr dism pyr, tr euhed pyr, sme lt gn flor, g wht-bl sting cut, mod odor

55% MR.L: lt-dk gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, v tr bent, 50% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fr- brt, sil, vtr grn, mod vfr dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor

55% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, v tr bent, 50% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fr- brt, sil, vtr grn, mod vfr dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor

LOGGERS TOP NIOBRARA 'B1' CHALK 6596 MD; 6201.88' TVD

LOGGERS TOP NIOBRARA 'B1' MARL 6615' MD; 6211' TVD

LOGGERS TOP NIOBRARA 'B2' CHALK 6677' MD; 6240' TVD

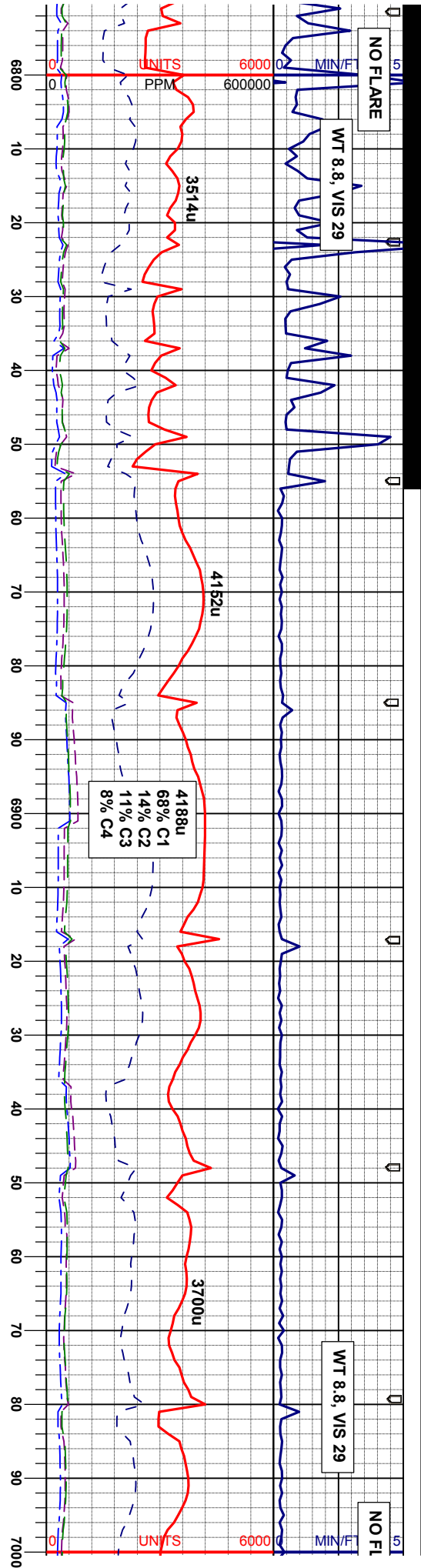
Build Section Landed 6690' MD

BHA INFORMATION
BIT: 6.125" SEC FXD54
NOZZLES: 5X16s
BIT SERIAL NUMBER: 12076352
MOTOR: SHAREWELL
MWD: 6.75 NMDC

SURVEY MD 6602' INC 62.2° AZI 174.6° TVD 6204.7'	SURVEY MD 6634' INC 60° AZI 182.6° TVD 6220.19'	SURVEY MD 6643' INC 61.2° AZI 184.0° TVD 6224.6'	SURVEY MD 6683' INC 64.4° AZI 187.2° TVD 6242.89'	SURVEY MD 6711' INC 69.2° AZI 189.9° TVD 6253.92'	SURVEY MD 6743' INC 74.2° AZI 190.4° TVD 6263.8'	SURVEY MD 6774' INC 78.1° AZI 189.2° TVD 6271.19'
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Good



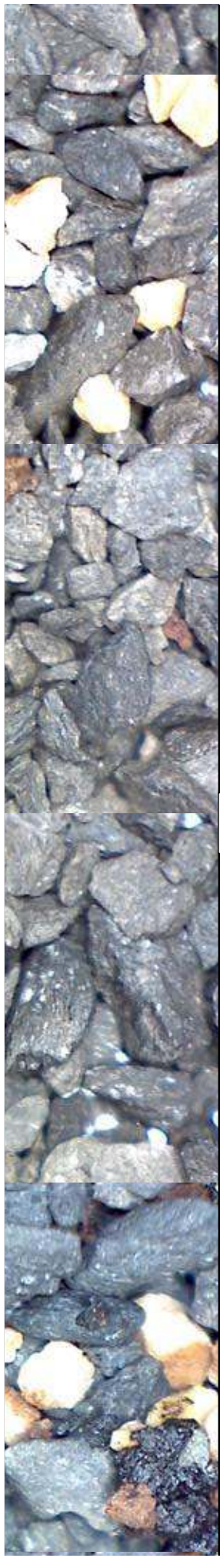


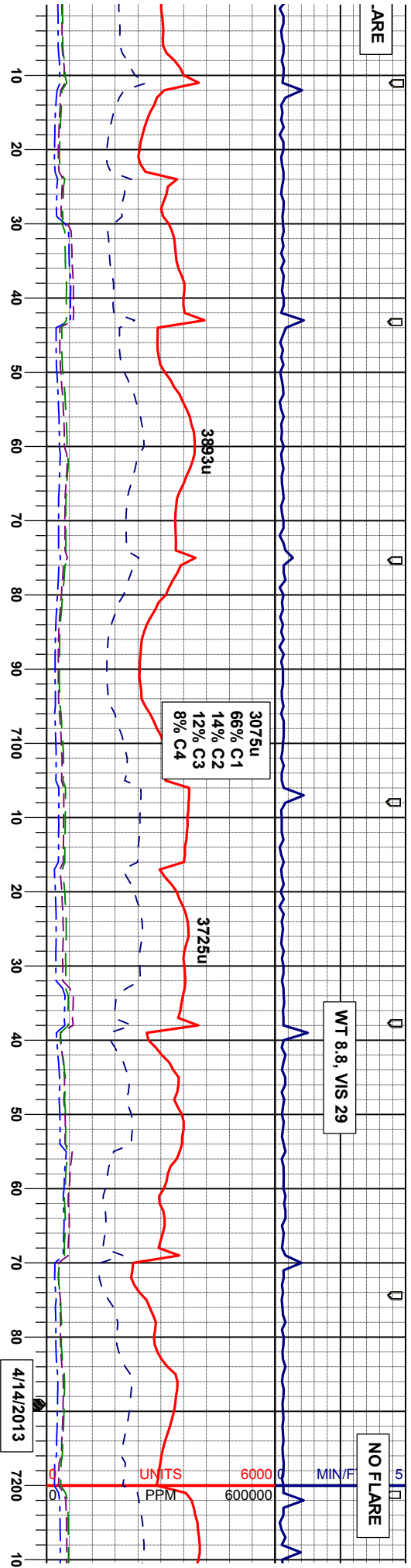
am, intbd	50% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent	85% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brt, sil, vf grn, mod vf dism pyr, tr fos	65% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, tr fos	65% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, tr fos
-pty, e lt	50% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brt, sil, vf grn, mod vf dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor	15% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent sme lt gn flor, g wht-bl sting cut, mod odor	35% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brt, sil, vf grn, mod vf dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor	35% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brt, sil, vf grn, mod vf dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor

TVD SCALE CHANGE
5800' - 6700'

SURVEY MD 6806' INC 83.9° AZI 187.9° TVD 6276.39'	SURVEY MD 6837' INC 89.9° AZI 185.2° TVD 6278.20'	SURVEY MD 6869' INC 92.4° AZI 184.2° TVD 6277.23'	SURVEY MD 6900' INC 92.3° AZI 184.1° TVD 6275.96'	SURVEY MD 6932' INC 92.2° AZI 184.0° TVD 6274.70'
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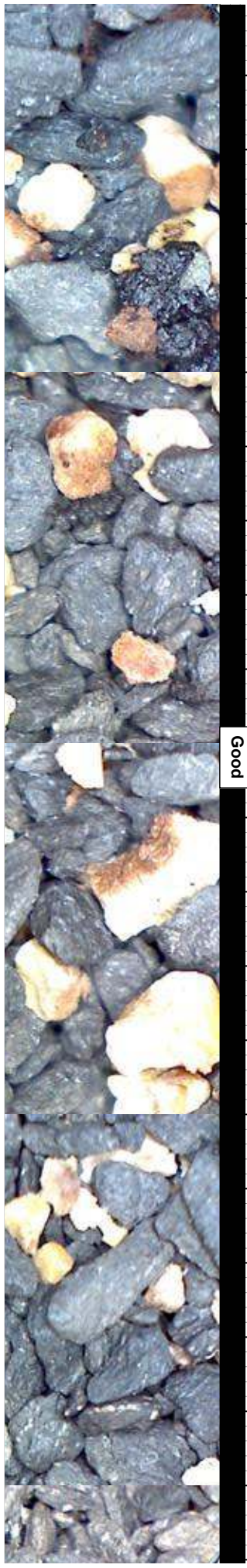
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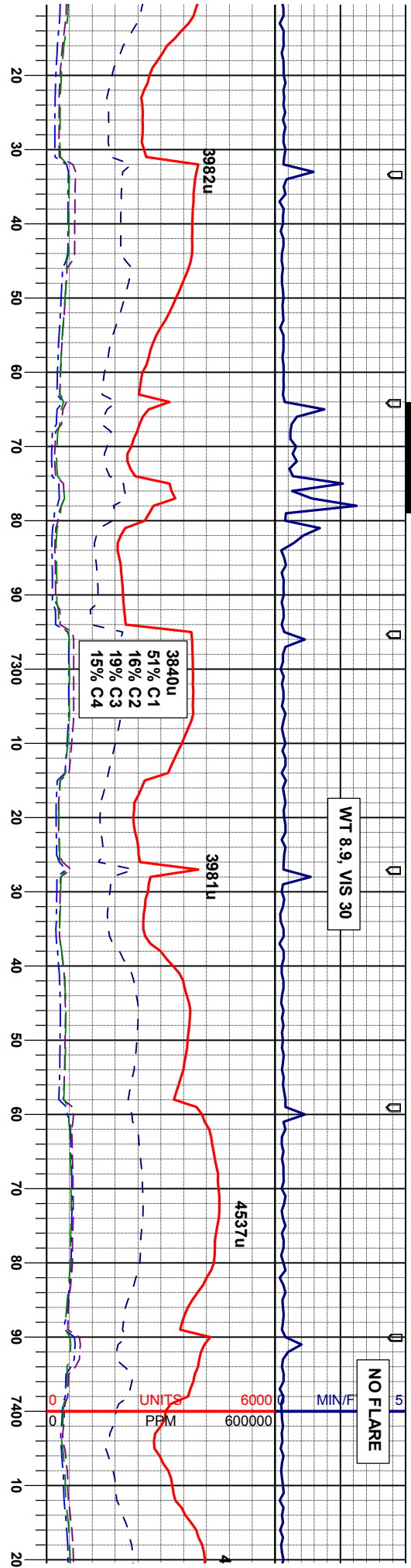




70% CHK: lt-med gy, sme crn-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, tr fos	65% CHK: lt-med gy, sme crn-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, tr fos	55% CHK: lt-med gy, sme crn-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, tr fos	50% CHK: lt-med gy, sme crn-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, tr fos	60% C mot, vs w/mrl, ' 40% M fir- brt, gn flor,
30% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brt, sil, vf grn, mod vf dism pyr, sme lt gn flor, g wht-bl string cut, mod odor	35% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brt, sil, vf grn, mod vf dism pyr, sme lt gn flor, g wht-bl string cut, mod odor	45% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brt, sil, vf grn, mod vf dism pyr, sme lt gn flor, g wht-bl string cut, mod odor	50% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brt, sil, vf grn, mod vf dism pyr, sme lt gn flor, g wht-bl string cut, mod odor	

<div>SURVEY MD 7026' INC 91.9° AZI 184.0° TVD 6271.34'</div>	<div>SURVEY MD 7121' INC 91.2° AZI 183.9° TVD 6268.77'</div>	6700
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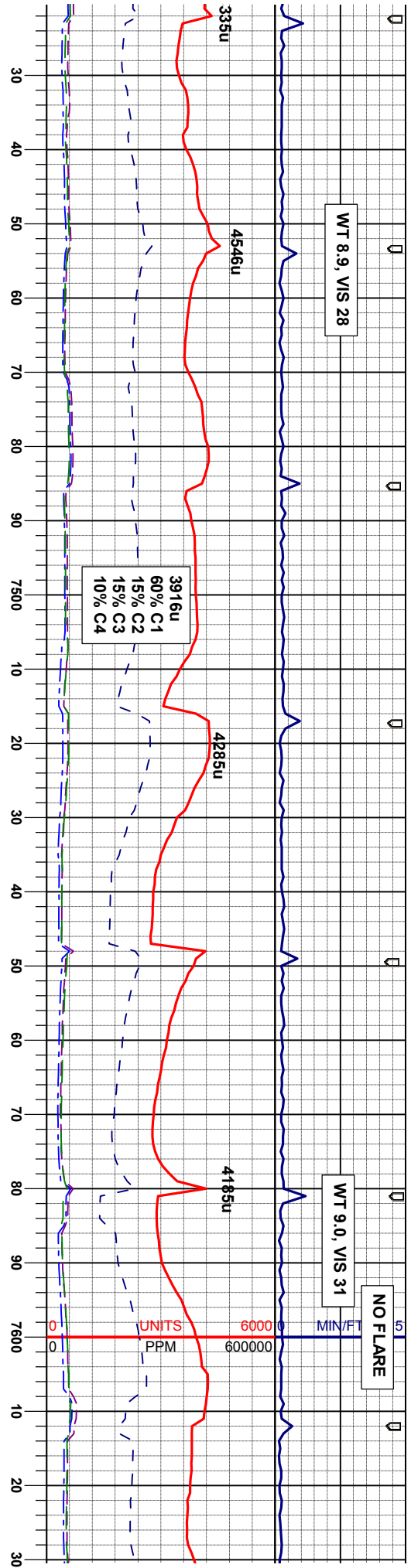




HK: lt-med gy, sme crm-lt brn, lam, ftr-sft, sbply-biky, v calc, crpxl, intbd v tr bent, tr fos	55% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, v tr bent, tr fos	70% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, v tr bent, tr fos, v tr pyr	60% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, v tr bent, tr-mod inoc fos	70% CHK: lt-med gy, sme crm-lt brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, v tr bent, tr-mod inoc fos
RL: lt-dk gy, stri, sft-v sft, sbply-pity, sil, vf gm, mod vf dism pyr, sme lt g wht-bl sting cut, mod odor	45% MRL: lt-dk gy, stri, sft-v sft, sbply-pity, fri- brlt, sil, vf gm, mod vf dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor	30% MRL: lt-dk gy, stri, sft-v sft, sbply-pity, fri- brlt, sil, vf gm, mod vf dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor	40% MRL: lt-dk gy, stri, sft-v sft, sbply-pity, fri- brlt, sil, vf gm, mod vf dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor	30% MRL: lt-dk g fri- brlt, sil, vf gm, gn flor, g wht-bl s

<div>SURVEY MD 7216' INC 90.7° AZI 183.7° TVD 6267.20'</div>	<div>SURVEY MD 7311' INC 90.9° AZI 181.2° TVD 6265.87'</div>	<div>SURVEY MD 7405' INC 90.5° AZI 181.2° TVD 6264.72'</div>
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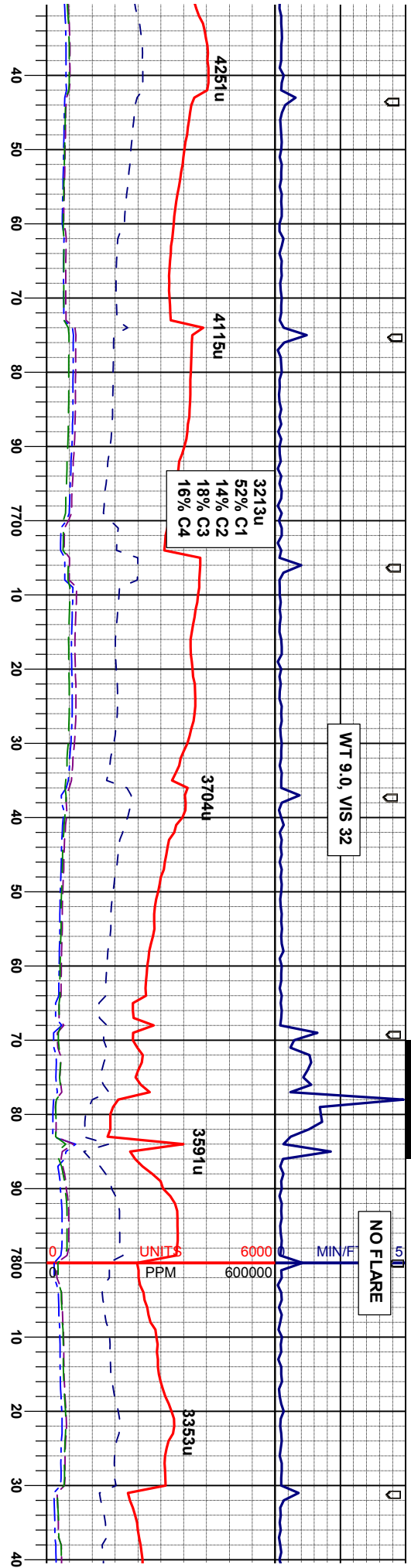


1 gy, sme crm-lt brn, lam, ly-blky, v calc, crpxl, intbd -mod inoc fos, v tr dism	55% MRU: lt-dk gy, blk, stri, sft-v sft, sbply-pty, fit- brit, sil, vt gr, tr vt dism pyr, tr v s mod fos, tr inoc	70% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, fit- brit, sil, vt grn, tr vt dism pyr, tr bent w/ dism pyr	80% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, fit- brit, sil, vt grn, tr vt dism pyr, tr bent, mod euhed calcite	75% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, fit- brit, sil, vt grn, tr vt dism mod euhed calcite
ly, stri, sft-v sft, sbply-pty, mod vt dism pyr, sme lt tng cut, mod odor	45% CHK: lt-med gy, sme lt brn, lam, mot, vstf-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr-mod bent, sme lt gn flor, mod-fast wlt-bl sting cut, mod odor, tr blk stlysh	30% CHK: lt- med gy, sme brn, lam, mot, vstf-sft, sbply-blky, v calc, intbd w/mrl, sme lt gn flor, v g- fast v bri wh- bl sting cut, mod odor	20% CHK: lt- med gy, sme brn, sme brngy, lam, mot, vstf-sft, sbply-blky, v calc, intbd w/mrl, sme lt gn flor, v g- fast v bri wh- bl sting cut, sl-mod odor	25% CHK: lt- med gy, sme l lam, mot, vstf-sft, sbply-blk w/mrl, sme lt gn flor, v g- fa sting cut, mod odor

SURVEY
MD 7500'
INC 89.8°
AZI 181.9°
TVD 6264.47'

SURVEY
MD 7594'
INC 89.9°
AZI 181.2°
TVD 6264.7'

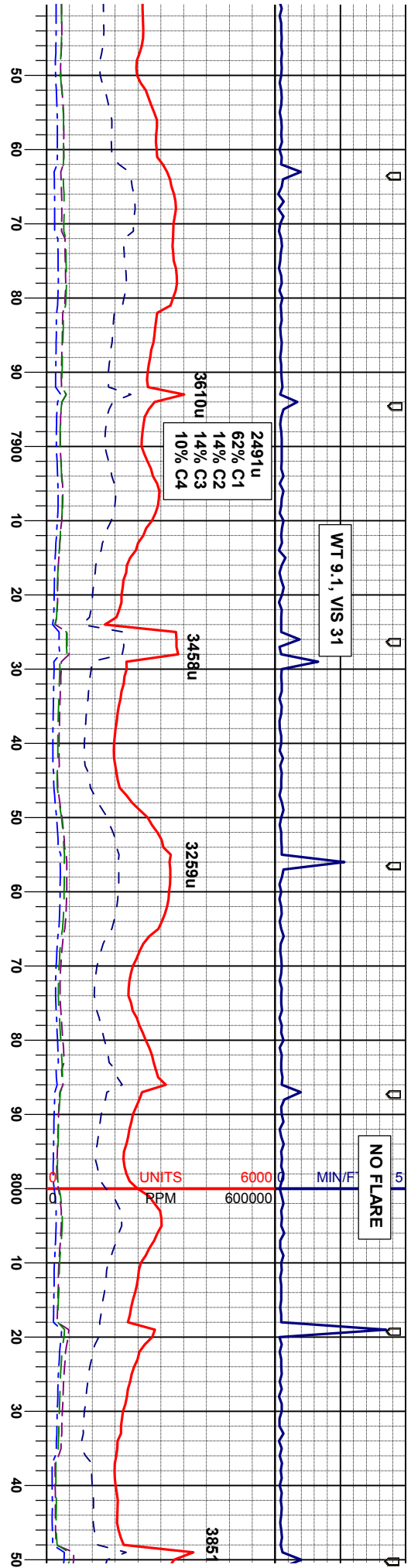




85% MRU: lt-dk gy, stri, sft-v sft, soplly-pty, fir- brt, sil, vif grn, rr vif dism pyr, tr bent, mod-abnt euhed calcite	70% MRU: lt-dk gy, stri, sft-v sft, soplly-pty, fir- brt, sil, vif grn, rr vif dism pyr, tr bent w/ dism pyr, mod euhed calcite	65% MRU: aa	35% CHK: aa	60% MRU: lt-dk gy, blk, stri, sft-v sft, soplly, fir- brt, sil, vif gr, rr vif dism pyr, tr mod fos, tr inoc
15% CHK: lt- med gy, sme brn, sme brngy, vstf-sft, soplly-blky, v calc, intbd w/mrl, sme lt gn flor, v g- fast brt wh- yel sting cut, mod odor	30% CHK: lt- med gy, sme brn, lam, mot, vstf-sft, soplly-blky, v calc, intbd w/mrl, sme lt gn flor, v g- fast v brt wh- bl sting cut, si- mod odor			40% CHK: lt-med gy, sme lt brn, lam, vstf-sft, soplly-blky, v calc, crpyl, intbd w/mrl, tr-mod bent, sme lt gn flor, moc wht-bl sting cut, mod odor, tr blk stlys

<div>SURVEY MD 7689' INC 89.2° AZI 181.3° TVD 6265.5'</div>	<div>SURVEY MD 7783' INC 91° AZI 179.5° TVD 6265.3'</div>
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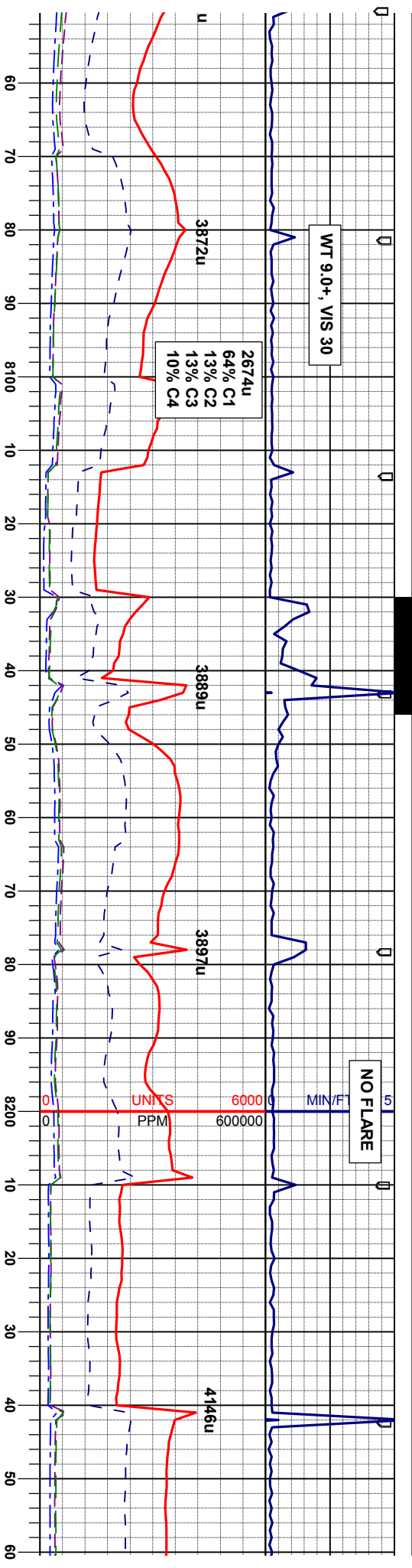
60% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ft- brit, sil, vt grn, tr bent w/ dism pyr, tr- mod euhed calcite, tr inoc	55% MRU: lt-dk gy, blk, stri, sft-v sft, sbply-pty, ft- brit, sil, vt gr, tr bent w/ vt dism pyr, tr v s mdd fos, tr inoc	50% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd fos, tr s mdd fos	50% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ft- brit, sil, vt grn, mod vt dism pyr, sme lt gn flor, g wht-bl string cut, mod odor	55% MRU: lt-dk gy, blk, stri, sft-v sft, sbply-pty, ft- brit, sil, vt gr, tr bent w/ vt dism pyr, tr v s mdd fos, tr inoc	45% CHK: lt-med gy, sme brn, sme brngy, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, sme lt gn flor, mod-fast wht-yel string cut, mod odor
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SURVEY
MD 7877°
INC 90.7°
AZI 180°
TVD 6263.9'

SURVEY
MD 7972°
INC 90.3°
AZI 179.8°
TVD 6263.1'

Good





50% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/ml, v tr bent w/ vf dism pyr, tr-mod inoc fos, tr s mod fos

50% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fr- brt, sil, vf grn, sme lt gn flor, g wht-bl sting cut, mod odor

55% CHK: lt-med gy, sme brn, sme brngy, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/ml, v tr bent w/ vf dism pyr, tr-mod inoc fos, tr s mod fos

45% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fr- brt, sil, vf grn, tr vf dism pyr, sme lt gn flor, g wht-bl sting cut, mod odor

65% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/ml, v tr bent, tr s mod fos, tr inoc

35% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fr- brt, sil, vf grn, mod vf dism pyr, sme lt yeign flor, g wht-bl sting cut, mod odor

60% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/ml, v tr bent, tr s mod fos, tr inoc

40% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fr- brt, sil, vf grn, tr vf dism pyr, tr euined calcite, sme lt yeign flor, g wht-bl sting cut, mod odor

65% Ch lam, mc intbd w/ inoc fos

35% MF fr- brt, flor, g w

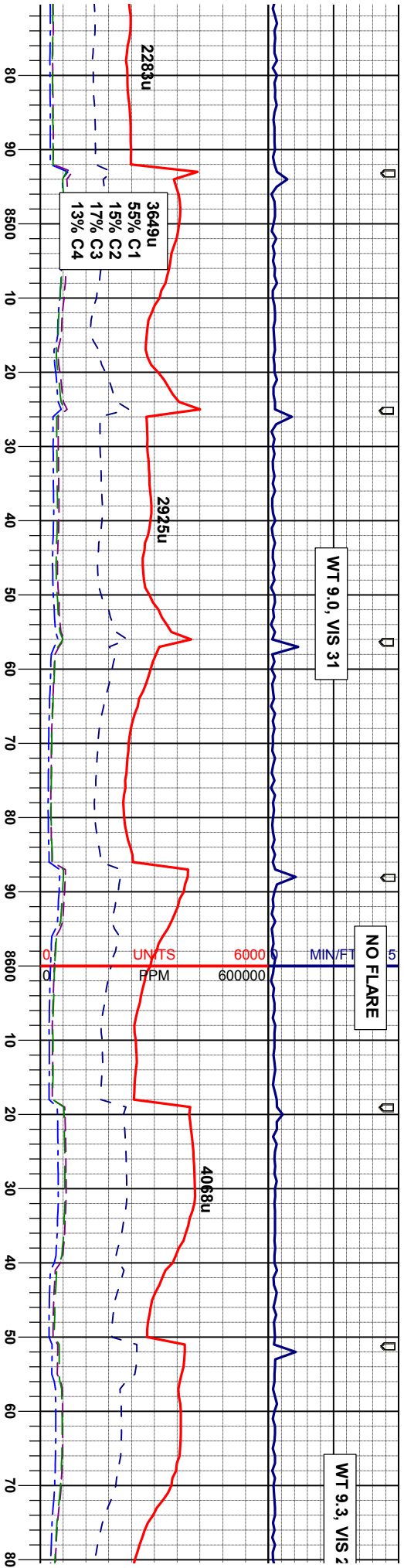
SURVEY
MD 8067
INC 89.7°
AZI 179.8°
TVD 6263.1'

SURVEY
MD 8161
INC 92.1°
AZI 180.3°
TVD 6261.6'

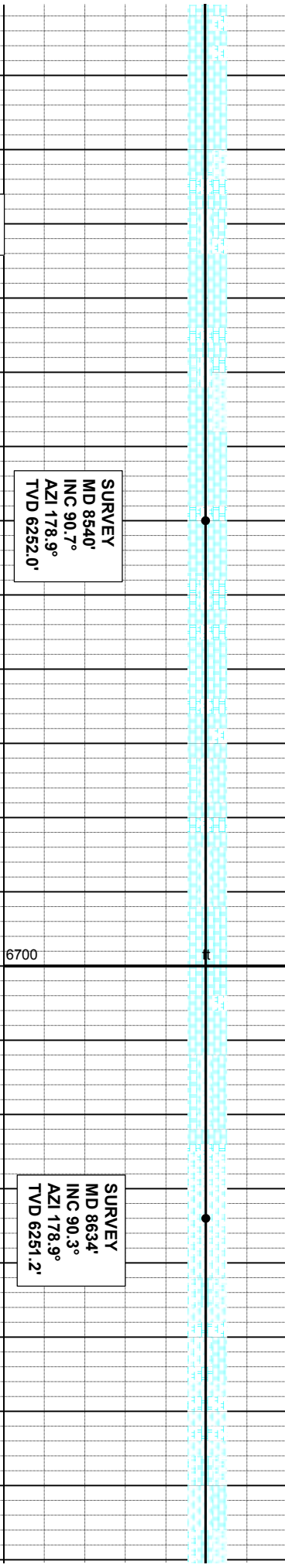
SURVEY
MD 8256
INC 91.8°
AZI 179.8°
TVD 6258

Good





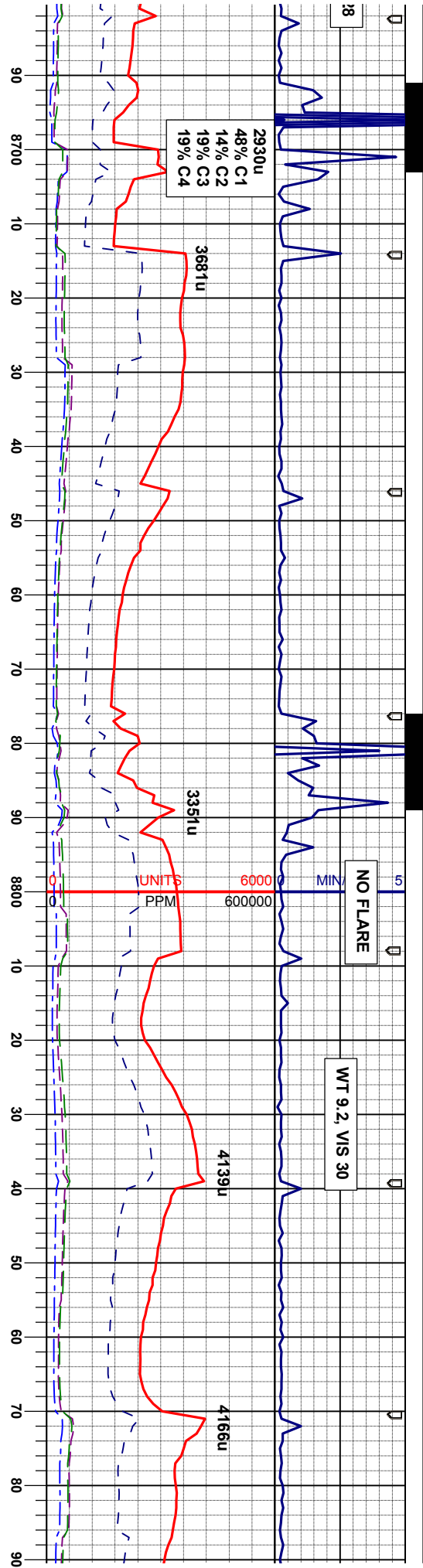
gy, sme brn, lam, mot, v, v calc, crpxl, intbd mdd fos, tr inoc	75% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, s mdd fos, tr inoc 25% MRL: lt-dk gy, str, sft-v sft, sbply-pty, fri- brt, sil, vf grn, sme lt yelgn flr, g wht-bl stmg cut, mod odor	70% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, s mdd fos, tr inoc 30% MRL: lt-dk gy, str, sft-v sft, sbply-pty, fri- brt, sil, vf grn, sme lt yelgn flr, g wht-bl stmg cut, mod odor	65% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, s mdd fos, tr inoc 35% MRL: lt-dk gy, str, sft-v sft, sbply-pty, fri- brt, sil, vf grn, sme lt yelgn flr, g wht-bl stmg cut, mod odor	70% MRL: lt-dk gy, str, sft-v fri- brt, sil, vf grn, tr xl calcite 30% CHK: lt-med gy, sme b vsft-sft, sbply-blky, v calc, c w/mrl, v tr bent, s mdd fos, t yelgn flr, g wht-bl stmg cut,
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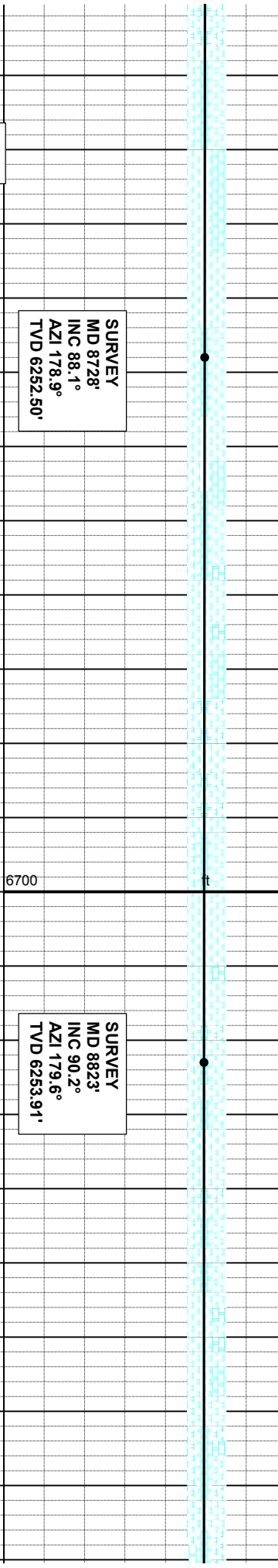
SURVEY
MD 8540'
INC 90.7°
AZI 178.9°
TVD 6252.0'

SURVEY
MD 8634'
INC 90.3°
AZI 178.9°
TVD 6251.2'





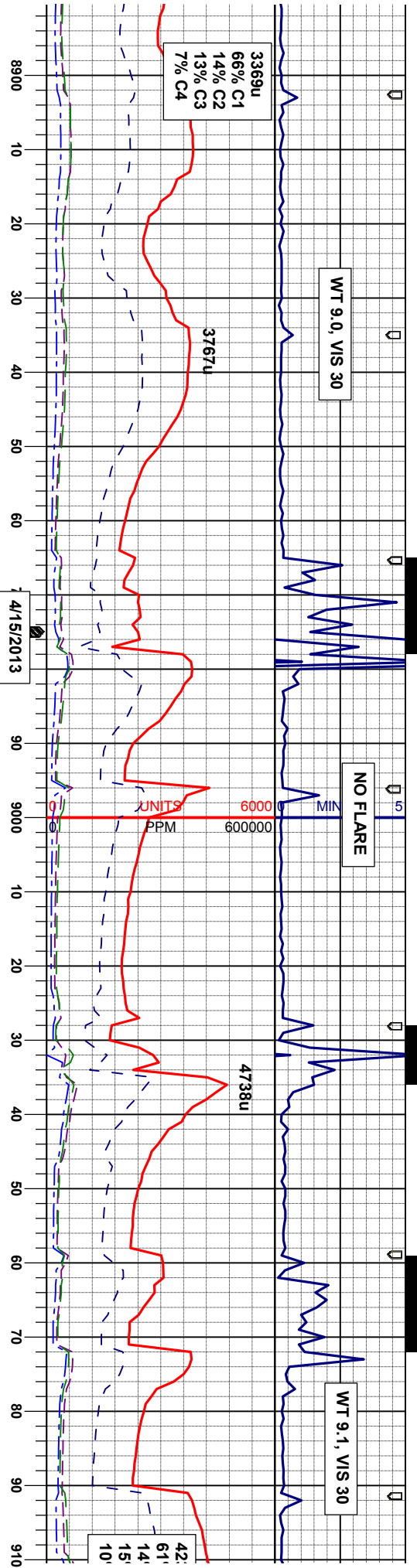
85% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ffr- brt, sil, vt grn, tr xl calcite	
15% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, s mdd fos, tr inoc sme lt yeign flor, g wht-bl sting cut, mod odor	
85% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ffr- brt, sil, vt grn, tr xli calcite	
15% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, s mdd fos, tr inoc sme lt yeign flor, g wht-bl sting cut, mod odor	
85% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ffr- brt, sil, vt grn, tr xli calcite	
15% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, s mdd fos, tr inoc sme lt yeign flor, g wht-bl sting cut, mod odor	
85% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ffr- brt, sil, vt grn, tr xli calcite	
15% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, s mdd fos, tr inoc sme lt yeign flor, g wht-bl sting cut, mod odor	



SURVEY
MD 8728°
INC 88.1°
AZI 178.9°
TVD 6252.50'

SURVEY
MD 8823°
INC 90.2°
AZI 179.6°
TVD 6253.91'

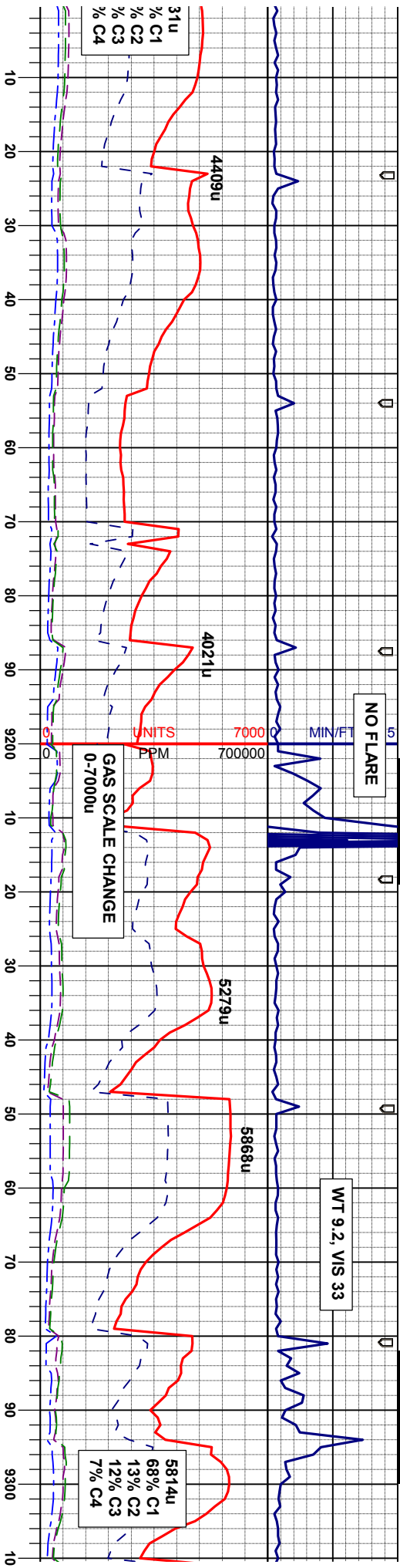




90% MRU: lt-dk gy, stri, sft-v sft, supply-ply, fr- brt, sil, vf grn, 10% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, s mdd fos, tr inoc sme lt yelgn flor, g wht-bl sting cut, mod odor	90% MRU: lt-dk gy, stri, sft-v sft, supply-ply, fr- brt, sil, vf grn, tr fos 10% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, s mdd fos, tr inoc sme lt yelgn flor, g wht-bl sting cut, mod odor	60% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent, s mdd fos, tr inoc 40% MRU: lt-dk gy, stri, sft-v sft, supply-ply, fr- brt, sil, vf grn, sme lt yelgn flor, g wht-bl sting cut, mod odor	65% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent w/ vf dism pyr, tr s mdd fos, tr euhed calcite 35% MRU: lt-dk gy, stri, sft-v sft, supply-ply, fr- brt, sil, vf grn, sme lt yelgn flor, g wht-bl sting cut, mod odor
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<div>SURVEY MD 8917' INC 89.7° AZI 179.2° TVD 6253.99'</div>	<div>SURVEY MD 9011' INC 90.9° AZI 180.4° TVD 6253.5'</div>
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70% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, tr s mdd fos, tr inoc, tr euhed calcite 30% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf grn, sme lt yeign flor, g wht-bl sting cut, mod odor

65% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, tr s mdd fos, tr inoc, tr euhed calcite 35% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf grn, tr vf dism pyr, sme lt yeign flor, g wht-bl sting cut, mod odor

75% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, v tr bent w/ vf dism pyr, tr s mdd fos, tr euhed calcite 25% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf grn, bri lt gn flor, innmed v bri wht-bl sting cut, strong odor

80% CHK: lt-med gy, sme cm-t brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, tr s mdd fos, tr inoc 20% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf grn, tr vf dism pyr, bri lt gn flor, innmed v bri wht-bl sting cut, strong odor

85% C1 vsft-sft, w/mrl, t fri- brit, bri wht-

SURVEY
MD 9106'
INC 92.9°
AZI 179.6°
TVD 6250.35'

SURVEY
MD 9201'
INC 92.9°
AZI 180.1°
TVD 6245.5'

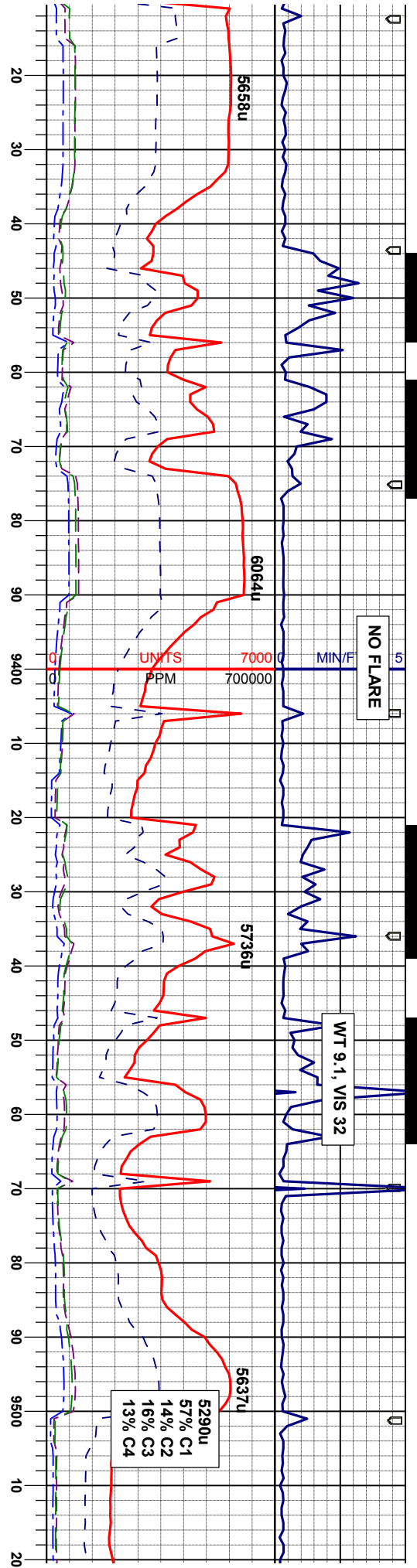
SURVEY
MD 9295'
INC 92.7°
AZI 183.0°
TVD 6241.0'

cd

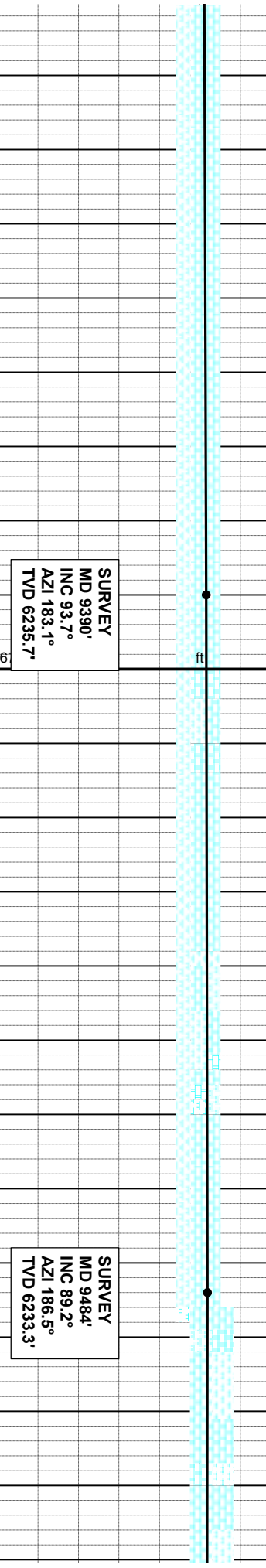
6

Excellent

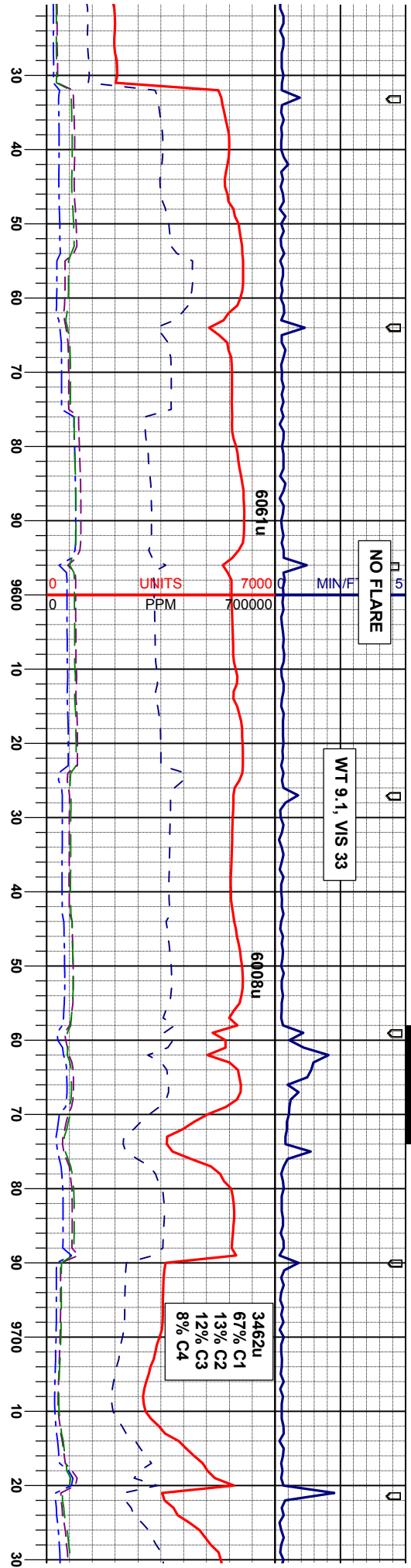




JK: lt-med gy, lt-med brn, lam, mot, sbply-blky, v calc, crpxl, intbd s mdd fos, tr euhed calcite	80% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr s mdd fos, tr-mod euhed calcite 20% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brt, sil, vf grn, bri lt gn floor, immed v bri wht-bl sting cut, strong odor	75% CHK: lt-m gy, sme lt-m brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr s mdd fos, tr inoc 25% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brt, sil, vf grn, bri lt yelgn floor, immed v bri wht-bl sting cut, strong odor	80% CHK: lt-med gy, sme crn-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr inoc 20% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brt, sil, vf grn, tr vf dism pyr, bri lt gn floor, immed v bri wht-bl sting cut, strong odor	85% CHK: lt-med gy, sme crn-lt brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr inoc 15% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brt, sil, vf grn, bri wht-bl sting cut, strong odor
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Good/Excellent



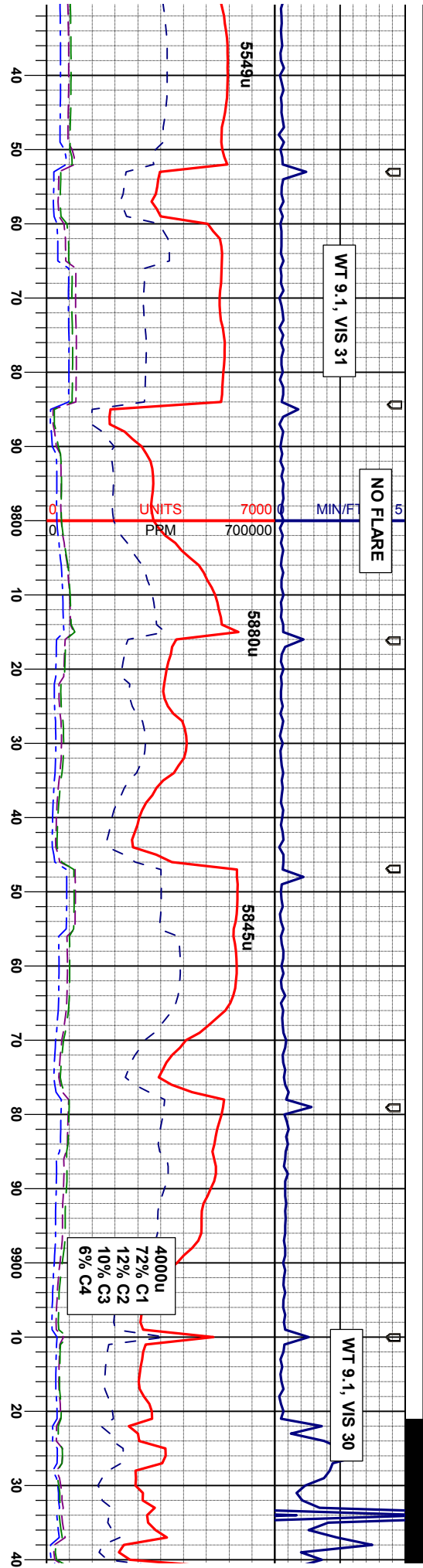
gy, lt-med brn, lam, mot, vst-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent w/ vf dism pyr, tr euhed calcite	75% CHK: lt-med gy, lt-med brn, lam, mot, vst-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent w/ vf dism pyr, tr euhed calcite	80% CHK: lt-med gy, lt-med brn, lam, mot, vst-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr inoc, tr s fos	85% CHK: lt-med gy, lt-med brn, lam, mot, vst-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr s fos	85% CHK: lt-med gy, lt-med brn, lam, mot, vst-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr s fos
y, sti, sft-v sft, sbply-plty, bri lt yelgn flor, immed v rt, strong odor	25% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brit, sil, vf grn, v bri lt yelgn flor, immed v bri wht-bl sting cut, strong odor	20% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brit, sil, vf grn, bri lt yelgn flor, immed v bri wht-bl sting cut, strong odor	15% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brit, sil, vf grn, bri lt yelgn flor, immed v bri wht-bl sting cut, strong odor	15% MRL: lt-dk gy, stri, sft-v sft, sbply-plty, fri- brit, sil, vf grn, bri lt yelgn flor, immed v bri wht-bl sting cut, strong odor

SURVEY
MD 9579°
INC 89.0°
AZI 185.4°
TVD 6234.8'

SURVEY
MD 9673°
INC 90.2°
AZI 184.8°
TVD 6235.4'

Good/Excellent





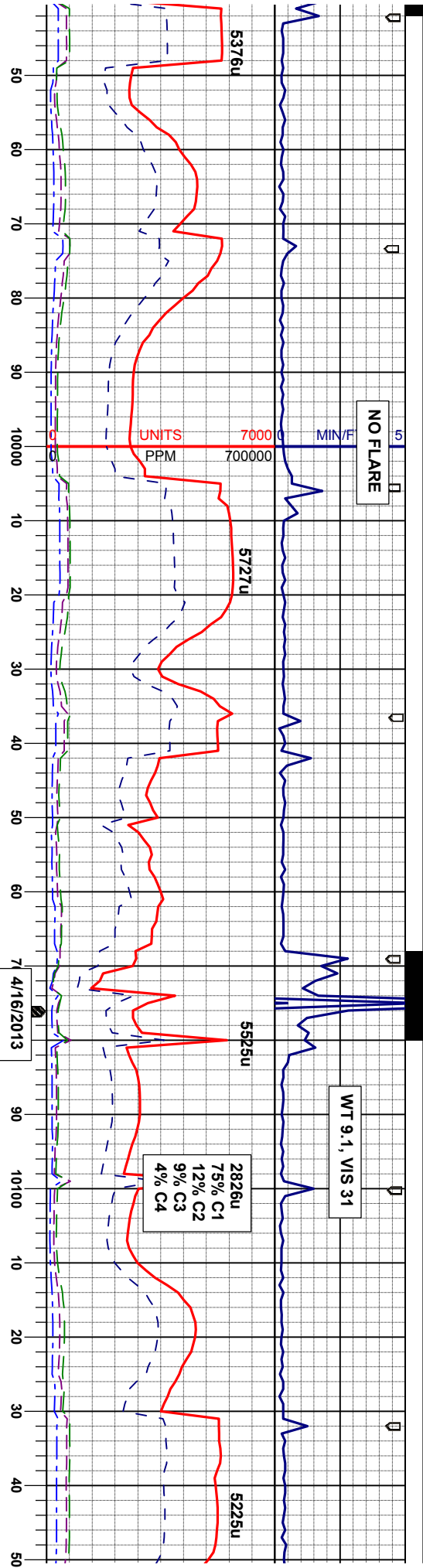
brn, lam, mot, crpxl, intbd	55% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ftr- brt, sil, v' grn, tr fos 45% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, s mdd fos, tr inoc sme lt yelgn flor, g wnt-bl sting cut, mod odor	40% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ftr- brt, sil, v' grn, tr fos 60% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, s mdd fos, tr inoc sme lt yelgn flor, g wnt-bl sting cut, mod odor	65% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ftr- brt, sil, v' grn, tr fos 35% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, s mdd fos, tr inoc sme lt yelgn flor, g wnt-bl sting cut, mod odor	65% MRU: lt-dk gy, stri, sft-v sft, sbply-pty, ftr- brt, sil, v' grn, tr fos 35% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, s mdd fos, tr inoc sme lt yelgn flor, g wnt-bl sting cut, mod odor
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SURVEY
MD 9768°
INC 89.9°
AZI 184.3°
TVD 6235.33'

SURVEY
MD 9862°
INC 89.2°
AZI 184.4°
TVD 6236.07'

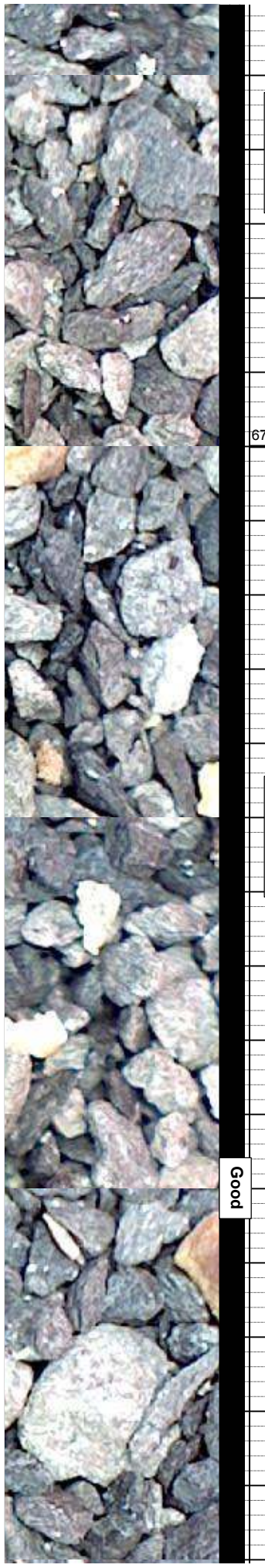
Good

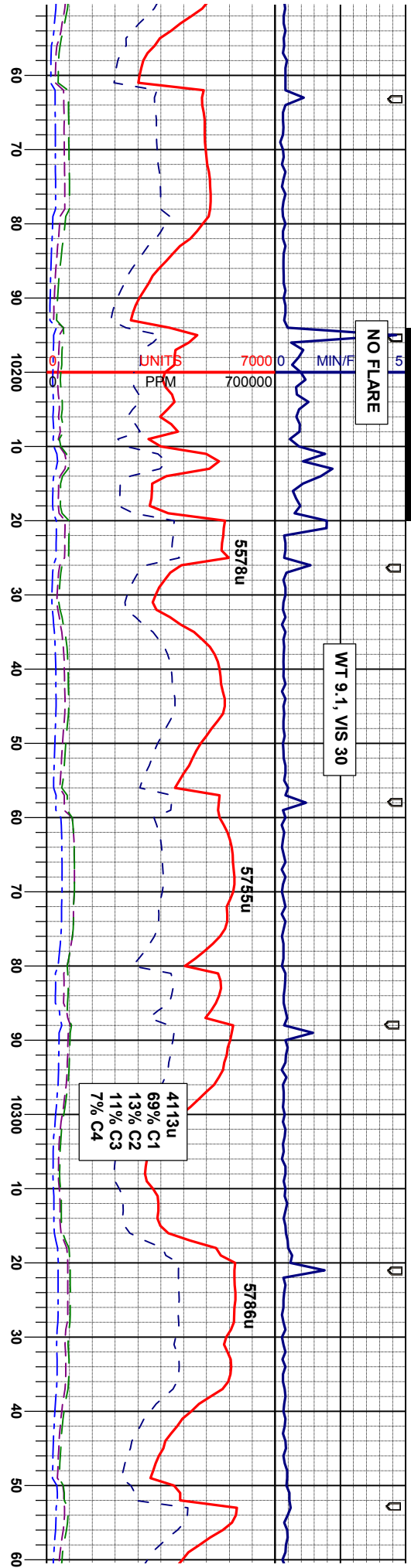




50% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf gm, tr fos	65% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, tr s fos	60% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, tr s fos	50% CHK: lt-med gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf gm, bri lt yeign flor, innmed v bri wht-bl sting cut, strong odor
50% CHK: lt-med gy, sme brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, s mdd fos, tr inoc sme lt yeign flor, g wht-bl sting cut, mod odor	35% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf gm, bri lt yeign flor, innmed v bri wht-bl sting cut, strong odor	40% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf gm, bri lt yeign flor, innmed v bri wht-bl sting cut, strong odor	50% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf gm, bri lt yeign flor, innmed v bri wht-bl sting cut, strong odor

<div>SURVEY MD 9957' INC 90.1° AZI 182.8° TVD 6236.65'</div>	<div>SURVEY MD 10051' INC 89.5° AZI 182.5° TVD 6236.98'</div>	<div>SURVEY MD 10146' INC 89.7° AZI 180.4° TVD 6237.1</div>
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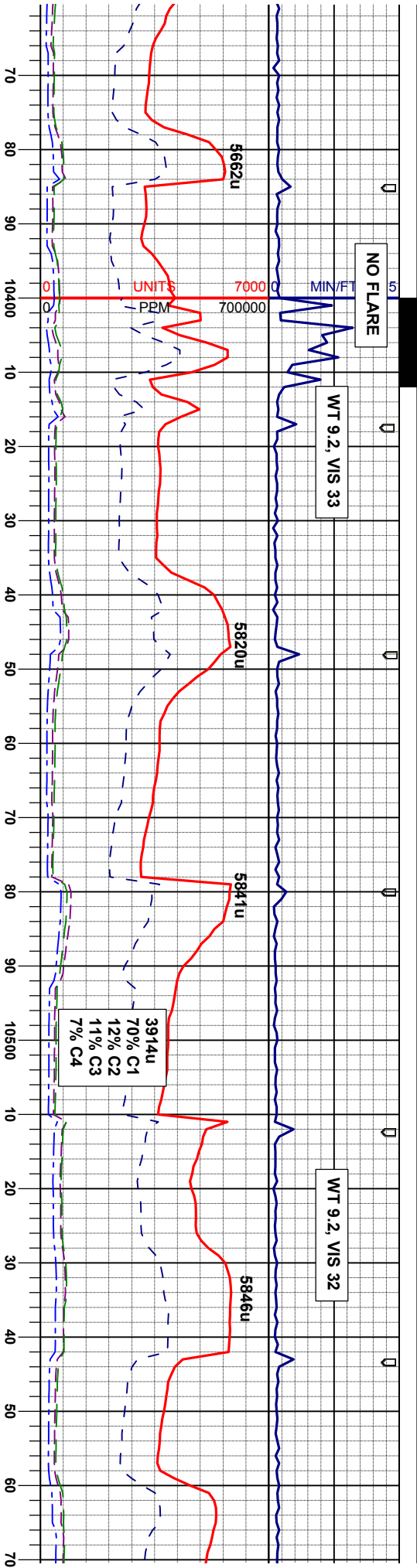




50% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, tr s fos, tr inoc	60% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, tr s mdd fos, tr inoc, tr euhed calcite	65% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd mdd fos, tr euhed calcite	70% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-biky, v calc, crpxl, intbd w/mrl, mod s mdd fos, tr inoc, tr euhed calcite
50% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brit, sil, vf grn, bri lt yelgn flor, immed v bri wht-bl sting cut, strong odor	40% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brit, sil, vf grn, tr vf dism pyr, sme lt yelgn flor, g wht-bl sting cut, mod odor	35% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brit, sil, vf grn, bri lt yelgn flor, immed bri wht-bl sting cut, strong odor	30% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fir- brit, sil, vf grn, bri lt yelgn flor, fast v bri wht-bl sting cut, strong odor

54'	6700	ft	5800	API300
SURVEY MD 10241' INC 92.7° AZI 183.1° TVD 6235.65'				
Good/Excellent				
SURVEY MD 10336' INC 92.7° AZI 182.5° TVD 6231.18'				





70% CHK: aa 30% MRL: aa	5800	API300	75% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr s mdd fos, tr-mod euhed calcite	80% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent w/ vf dism pyr, tr-mod s mdd fos, tr euhed calcite	75% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, v tr bent w/ vf dism pyr, tr inoc, tr euhed calcite	80% CHK: lt-med gy, lt-med brn, lam, mot, vsft-sft, sbply-blky, v calc, crpxl, intbd w/mrl, tr inoc, tr s
			25% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf grn, bri lt gn flor, immed v bri wlt-bl sting cut, strong odor	20% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf grn, bri lt yeign flor, immed bri wlt-bl sting cut, strong odor	25% MRL: lt-dk gy, stri, sft-v sft, sbply-pty, fri- brit, sil, vf grn, bri lt yeign flor, immed v bri wlt-bl sting cut, strong odor	20% MRL: lt-dk g fri- brit, sil, vf grn, bri wlt-bl sting cu
	6700					

SURVEY
MD 10431'
INC 91.2°
AZI 181.2°
TVD 6228.0'

SURVEY
MD 10526'
INC 91.3°
AZI 180.8°
TVD 6225.9'

Good/Excellent

