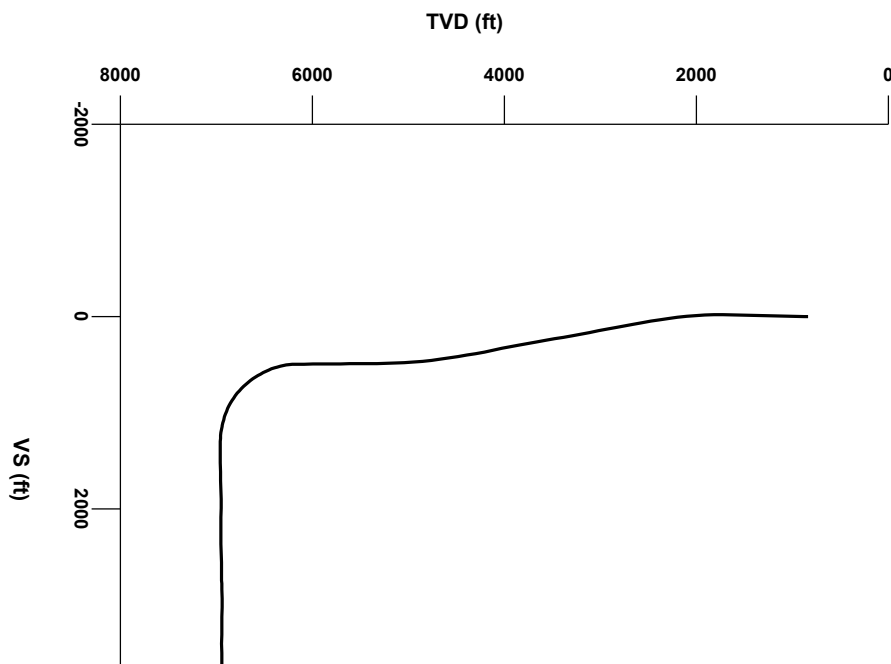


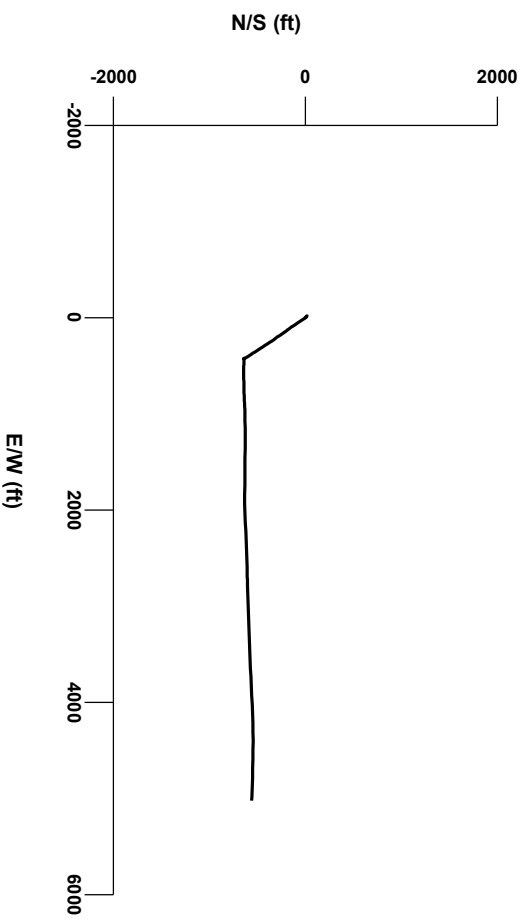


LOG created using LPLOT VH Version 3.0, March 18, 2012, Copyright (C) 1999-2009 Pason Systems Corp.

OPERATOR: NOBLE ENERGY INC
WELL: DYER USX AB35-68-1HN
LOCATION: SEC34 7N 64W
COUNTY: WELD
STATE: COLORADO
SPOT: 352 FNL 296 FEL
ELEVATION: GL 4871'; KB 4895'
FIELD: WATTENBERG
SPUD DATE: 3-9-12
TD DATE: 3-17-10
DATES LOGGED: 3-10-12 3-17-12
DEPTHS LOGGED: 1,000' - 11,361
LOGGERS: BRAD WILSON, JAKOB PAMMER
DRILLING FLUID: WATER, WATER BASED MUD, POLY
DRILLING RIG: HP 323
API: 05-123-34773-00
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS:



Survey Plan



4000
6000

Bentonite

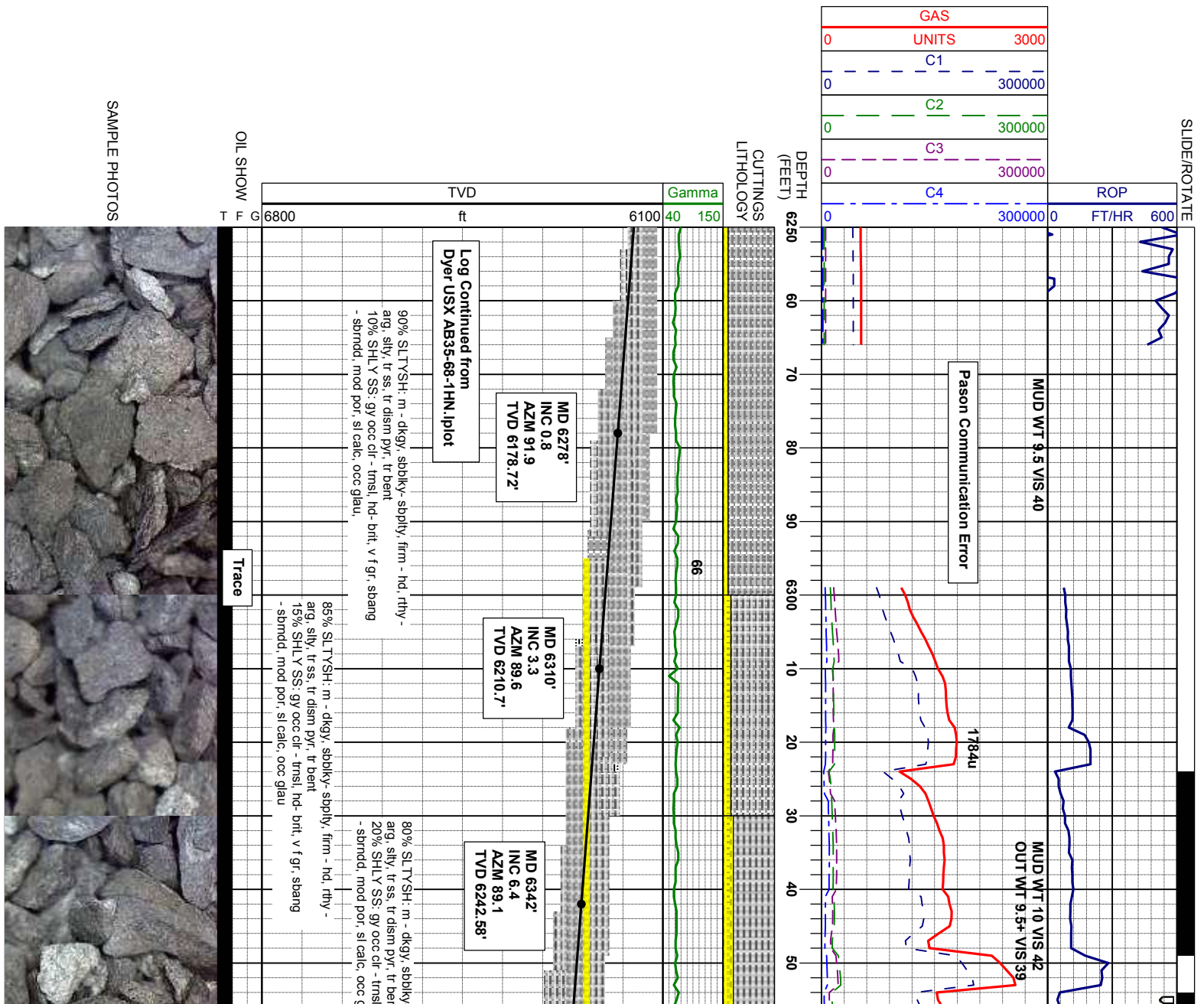
Chalk

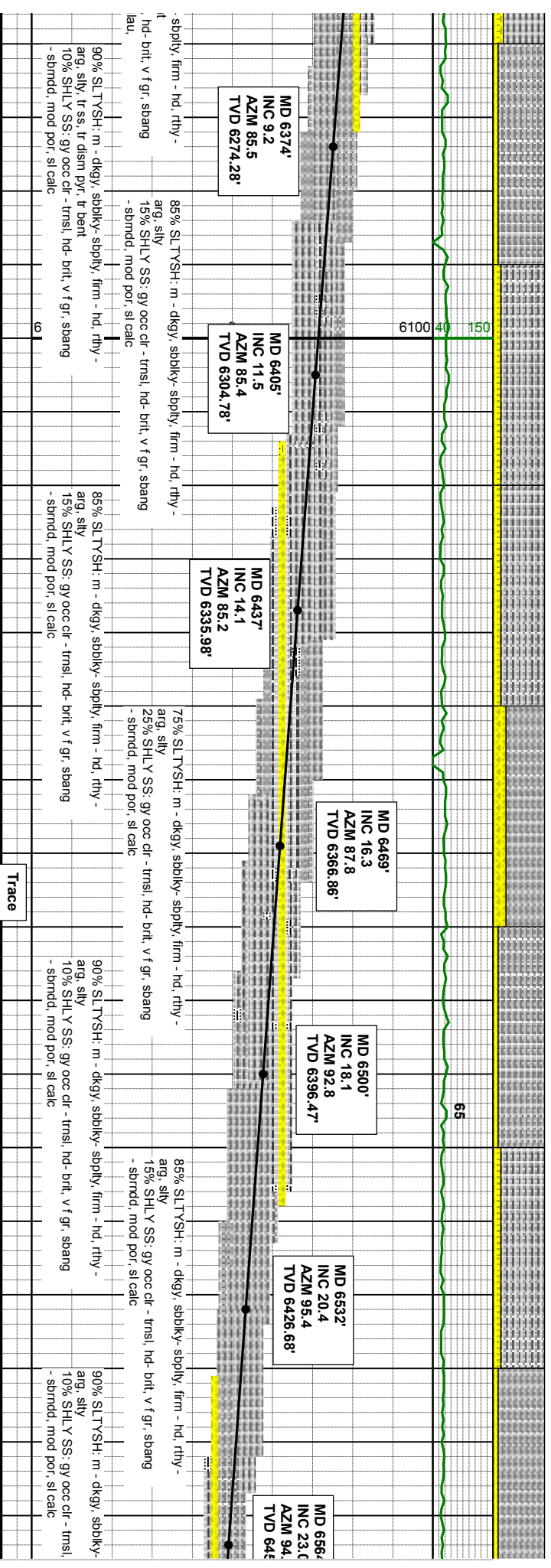
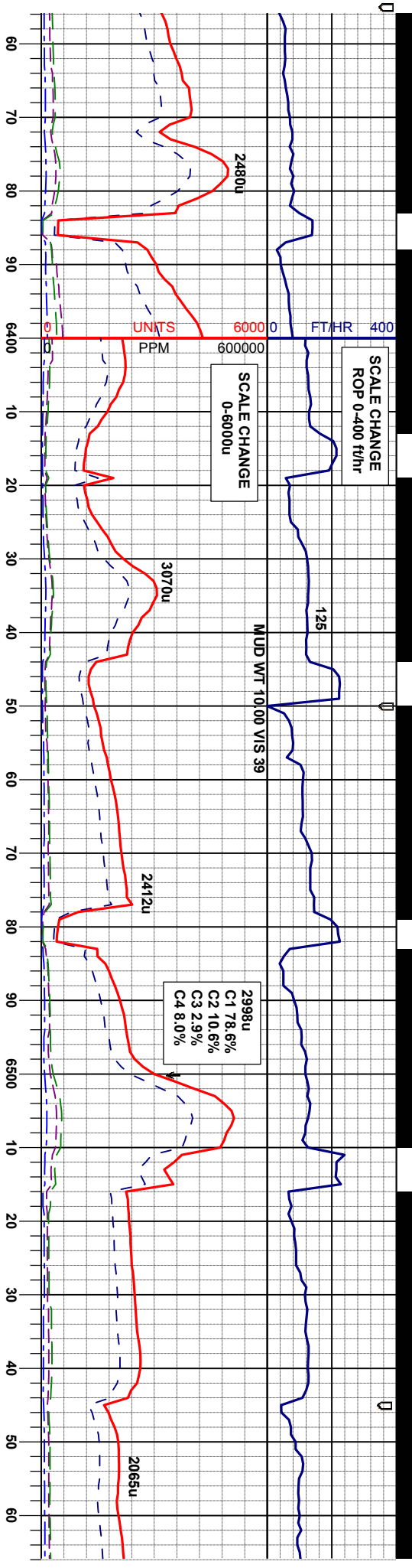
Marl

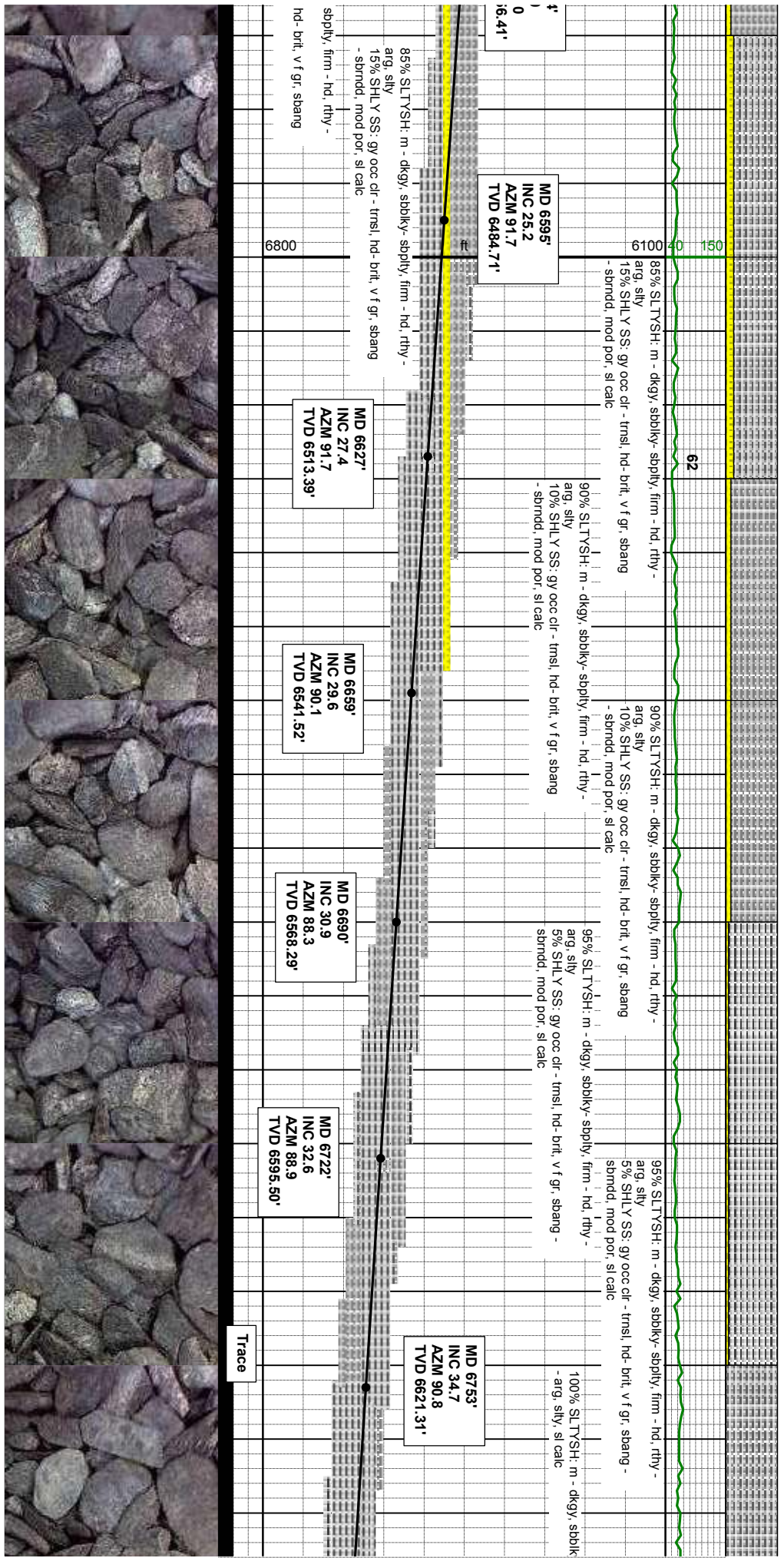
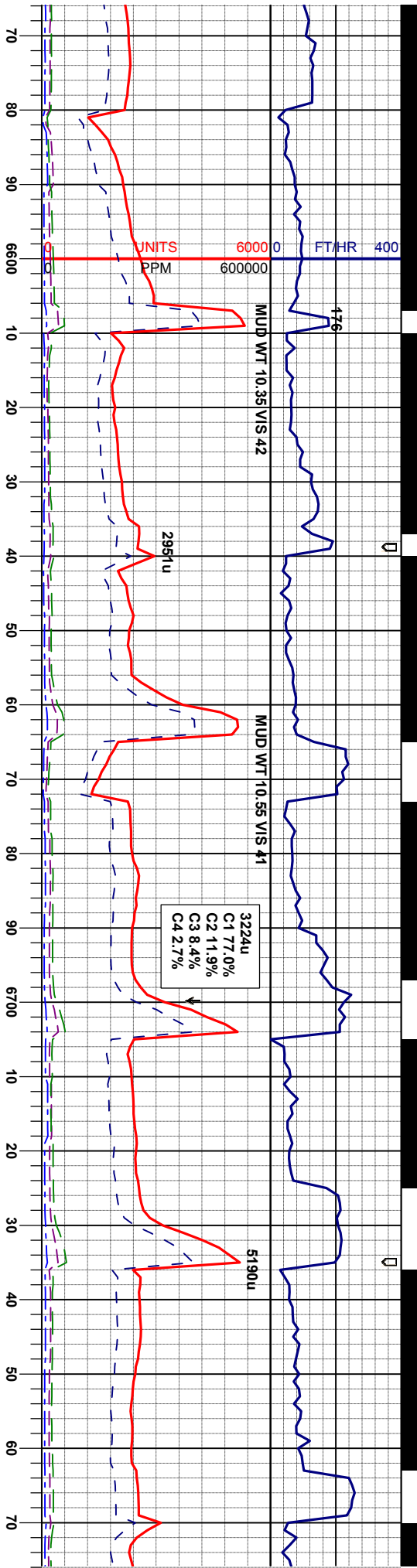
Shaly Sandstone

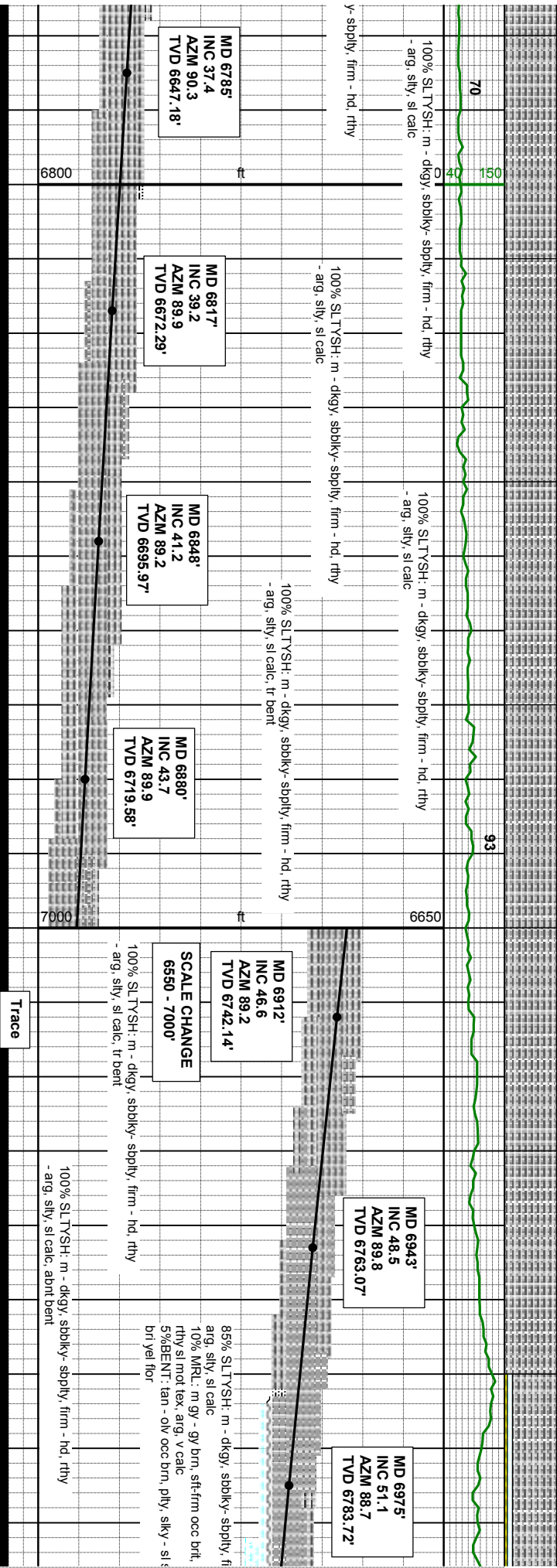
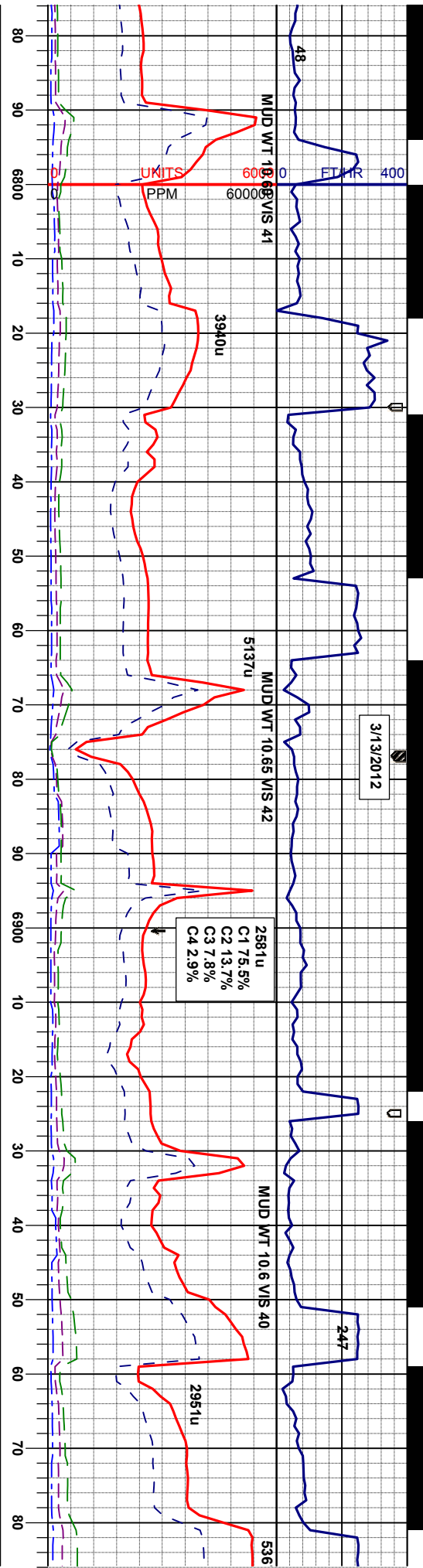
Silty Shale

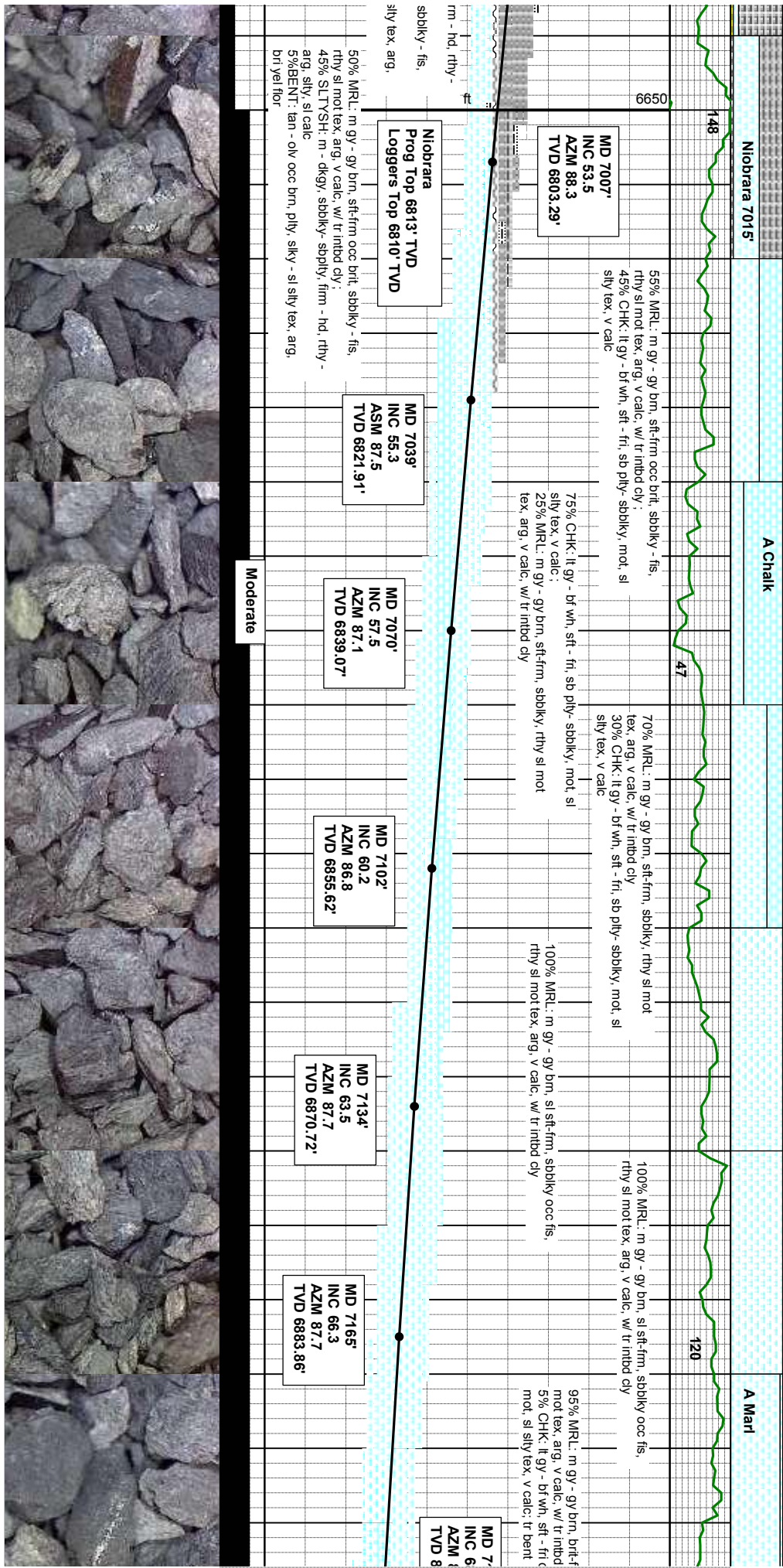
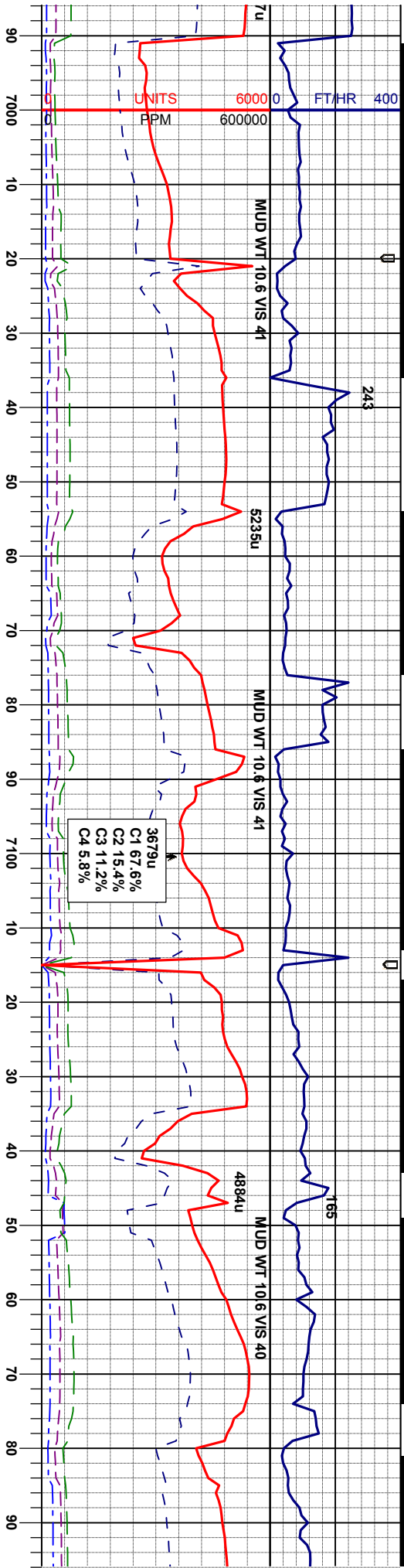
	Connection		Arrow		Midnight Depth
	Oil Show		Oil To Surface		Arrow

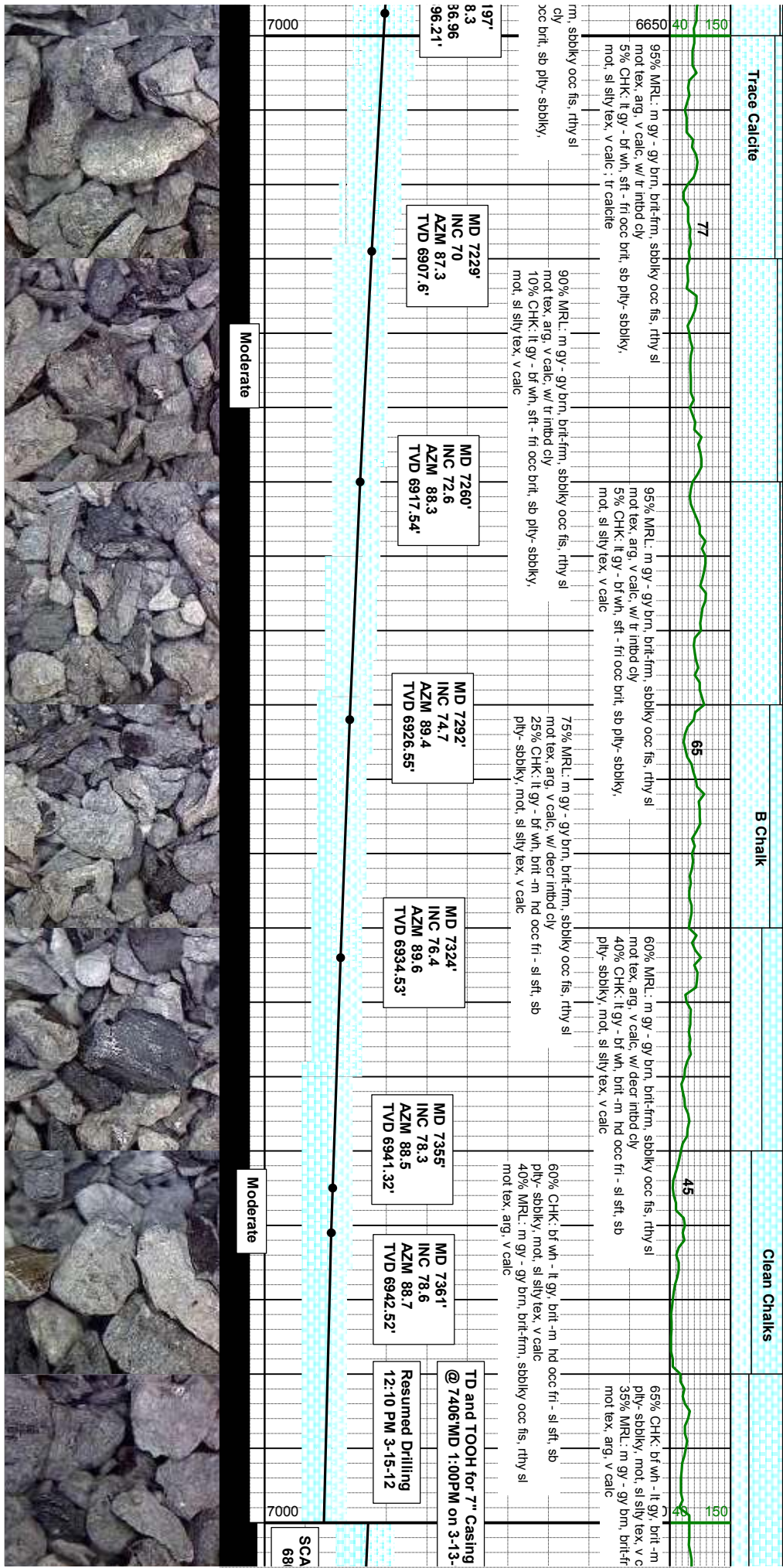
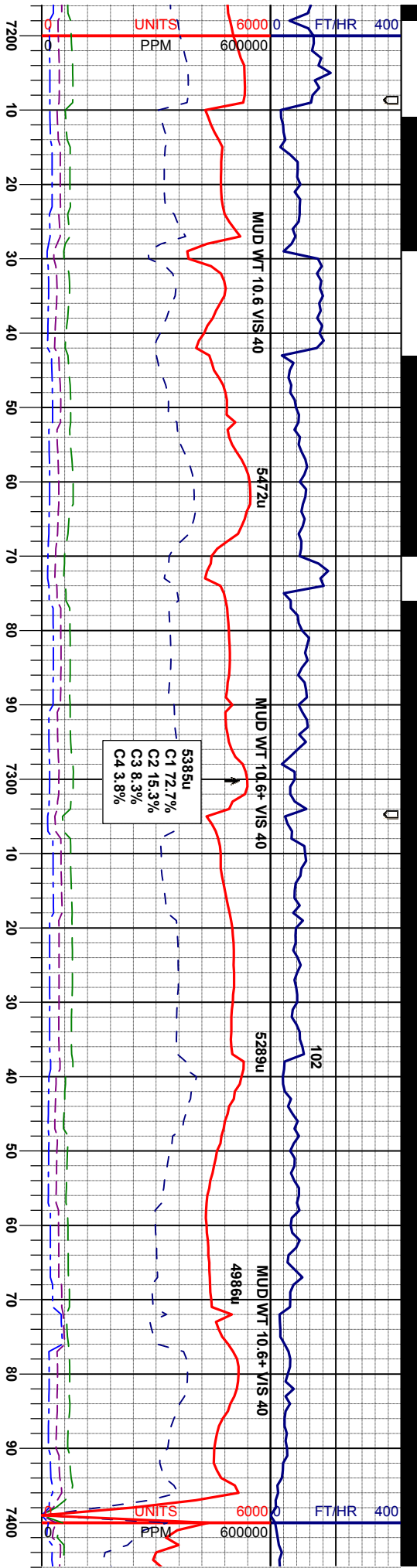


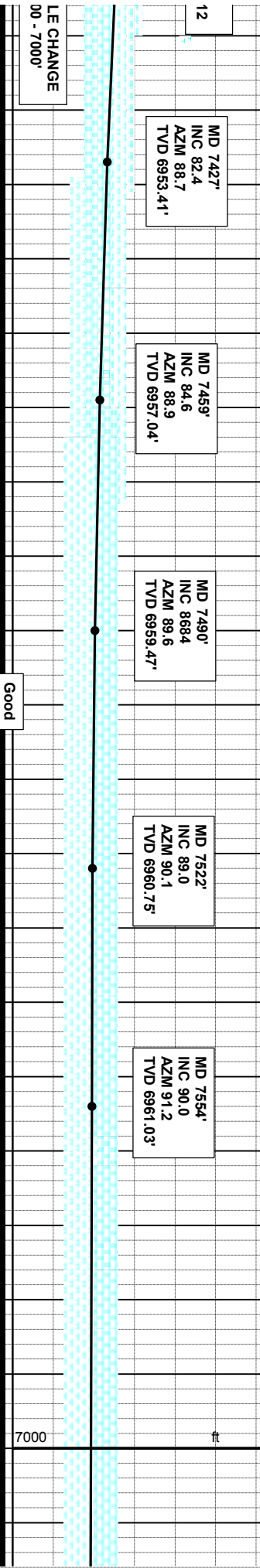
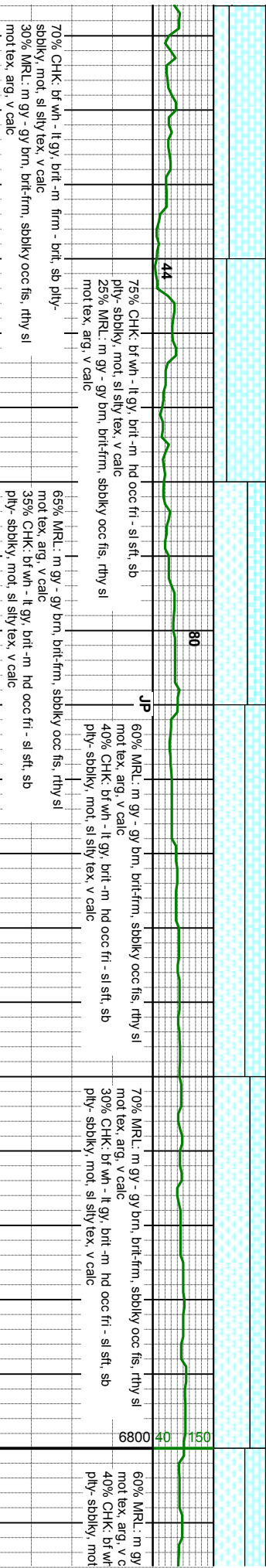
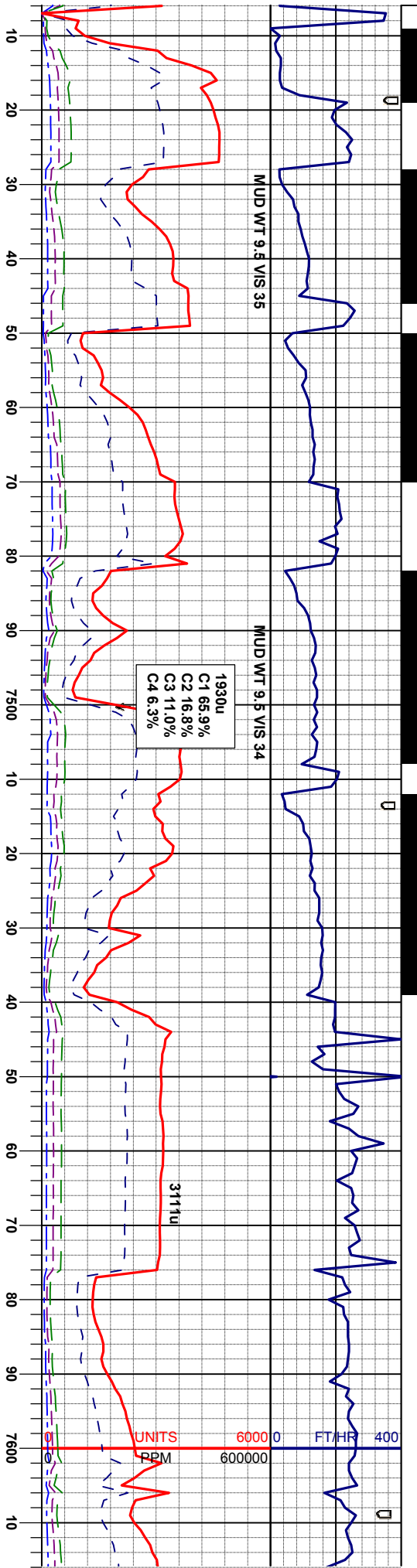


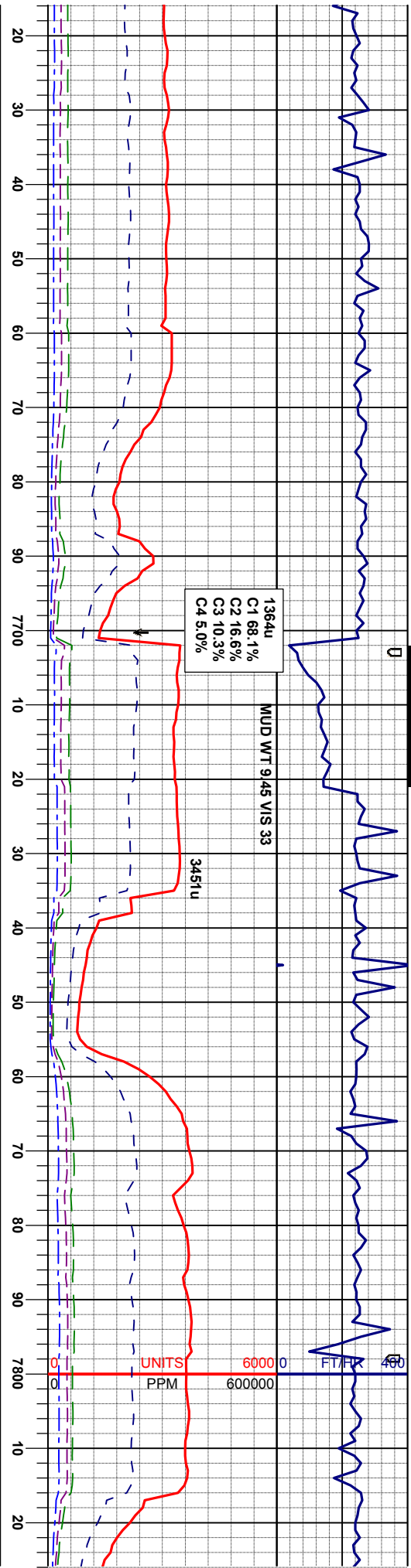












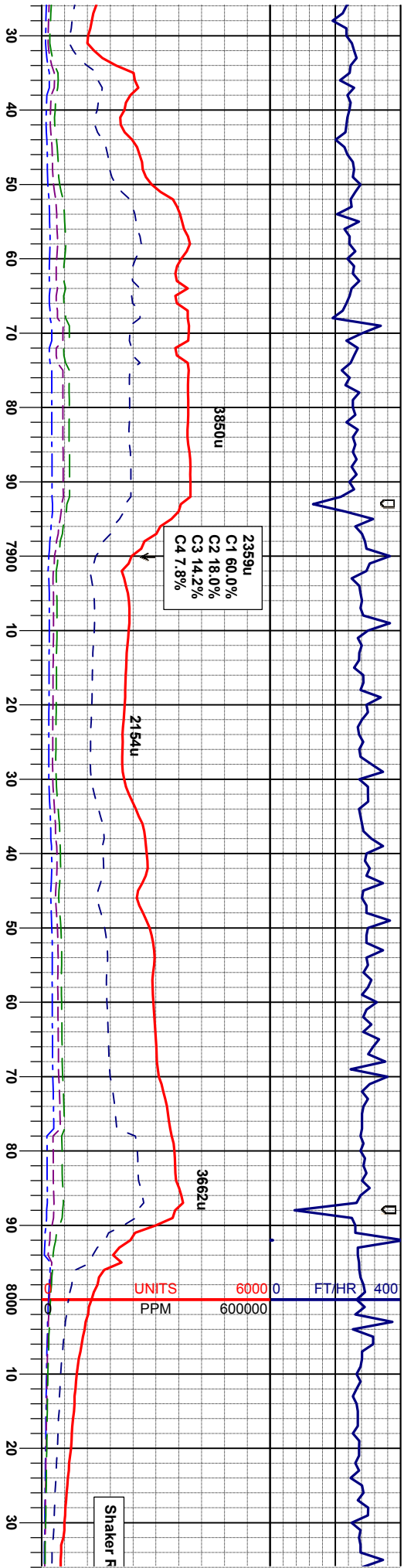
- gy brn, brltfrm, sbbkly occ fls, rthy sl		50% MRL: m gy - gy brn, brltfrm, sbbkly occ fls, rthy sl		70% CHK: br wh - lt gy, brlt -m firm - brlt, sb ply-		70% CHK: br wh - lt gy, brlt -m firm - brlt, sb ply-		85% CHK: br wh - lt gy, brlt -	
- lt gy, brlt -m hd occ flt - sl sft, sb		50% CHK: br wh - lt gy, brlt -m hd occ flt - sl sft, sb		sbbkly, mot, sl sily tex, v calc		sbbkly, mot, sl sily tex, v calc		sbbkly, mot, sl sily tex, v calc	
sl sily tex, v calc		ply- sbbkly, mot, sl sily tex, v calc		mot tex, arg, v calc		mot tex, arg, v calc		mot tex, arg, v calc	

MD 7649'
INC 88.9
AZIM 90.8
TVD 6961.94'

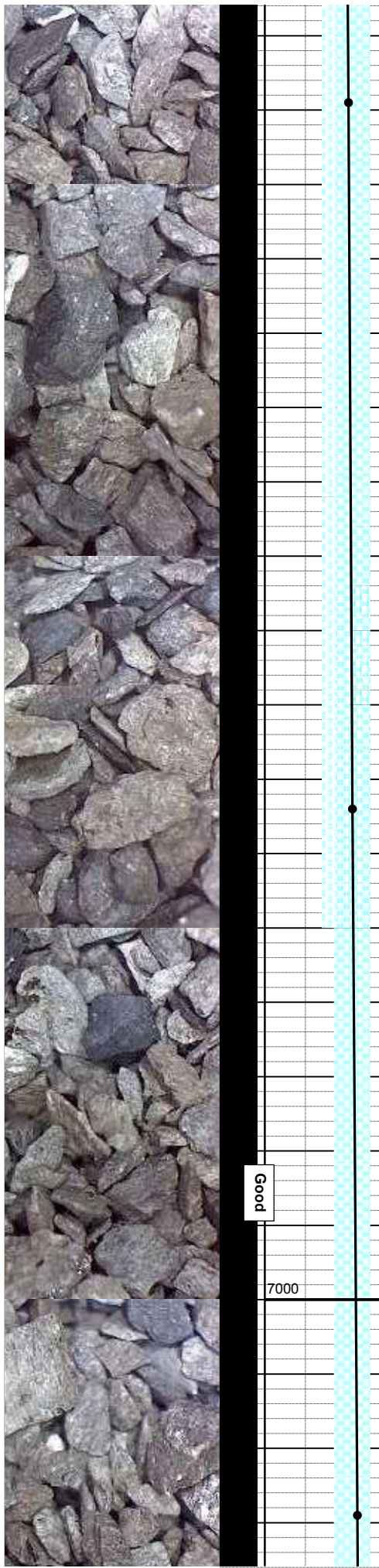
MD 7744'
INC 91.8
AZIM 90.5
TVD 6961.36'

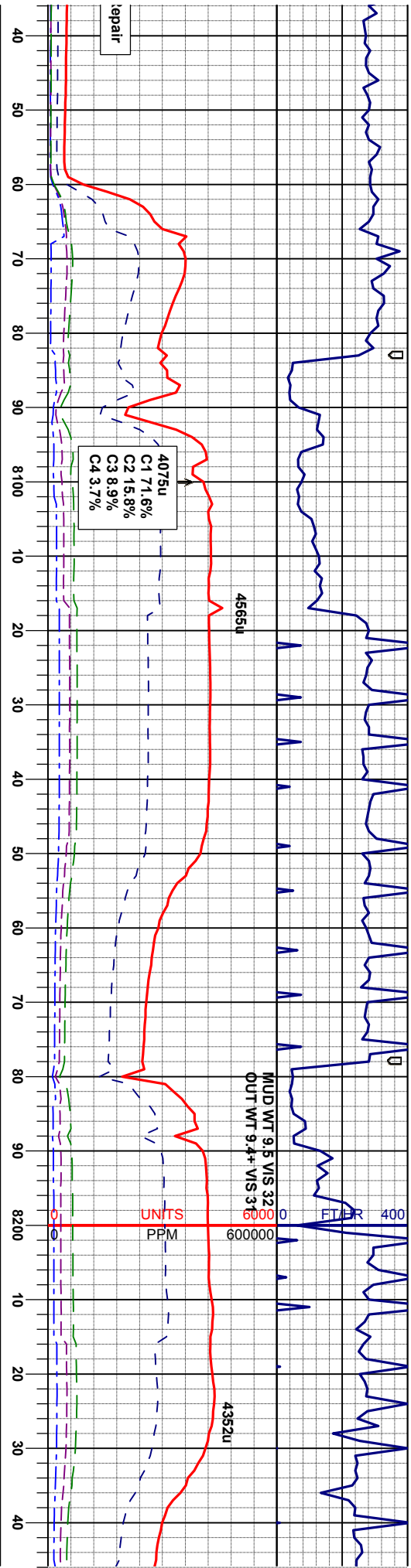
Good





m firm - brt, sb ply-		80% CHK: brt wh - lt gy, brt -m firm - brt, sb ply- sbbky, mot, sl silty tex, v calc 20% MRL: m gy - gy brn, brt-firm, sbbky occ fis, rthy sl mot tex, arg, v calc		85% CHK: brt wh - lt gy, brt -m firm - brt, sb ply- sbbky, mot, sl silty tex, v calc 15% MRL: m gy - gy brn, brt-firm, sbbky occ fis, rthy sl mot tex, arg, v calc		90% CHK: brt wh - lt gy, brt -m firm - brt, sb ply- sbbky, mot, sl silty tex, v calc 10% MRL: m gy - gy brn, brt-firm, sbbky occ fis, rthy sl mot tex, arg, v calc	
68						150	
6800						40	
ft							
MD 7839' INC 91.3 AZM 90.5 TVD 6958.79'							





sb ply- 95% CHK: br wh - lt gy, brt -m firm - brt, sb ply-
occ fs, rthy sl sbbly, mot, sl silty tex, v calc 5% MRL: m gy - gy brn, brt-fm, sbbly occ fs, rthy sl
mot tex, arg, v calc

85% CHK: br wh - lt gy, brt -m firm - brt, sb ply-
sbbly, mot, sl silty tex, v calc 15% MRL: m gy - gy brn, brt-fm, sbbly occ fs, rthy sl
mot tex, arg, v calc, scat fos

70% CHK: br wh - lt gy, brt -m firm - brt, sb ply-
sbbly, mot, sl silty tex, v calc 30% MRL: m gy - gy brn, brt-fm, sbbly occ fs, rthy sl
mot tex, arg, v calc, scat fos

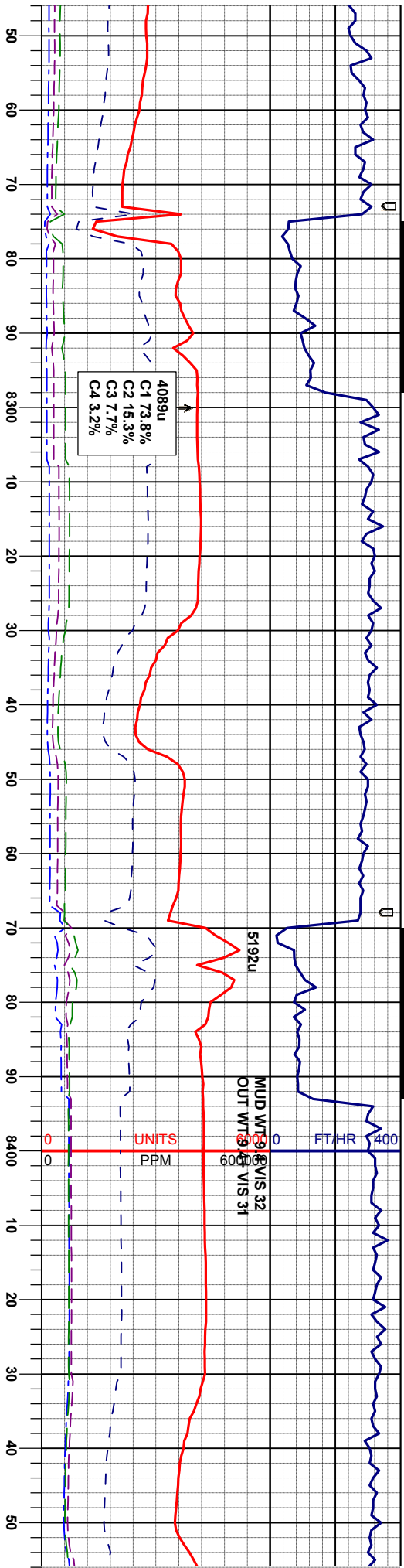
70% CHK: br wh - lt gy, brt -m firm - brt, sb ply-
sbbly, mot, sl silty tex, v calc 30% MRL: m gy - gy brn, brt-fm, sbbly occ fs, rthy sl
mot tex, arg, v calc

MD 8124'
INC 90.6
AZM 90.4
TVD 6952.41'

MD 8219'
INC 88.7
AZM 90.3
TVD 6952.99'



Gc



70% CHK: br wh - ll gy, brt -m firm - brt, sb ply-
sbbly, mot, sl silty tex, v calc
30% MRL: m gy - gy brn, brt-fm, sbbly occ fs, rthy sl
mot tex, arg, v calc

80% CHK: br wh - ll gy, brt -m firm - brt, sb ply-
sbbly, mot, sl silty tex, v calc
20% MRL: m gy - gy brn, brt-fm, sbbly occ fs, rthy sl
mot tex, arg, v calc

85% CHK: br wh - ll gy, brt -m firm - brt, sb ply-
sbbly, mot, sl silty tex, v calc
15% MRL: m gy - gy brn, brt-fm, sbbly occ fs, rthy sl
mot tex, arg, v calc

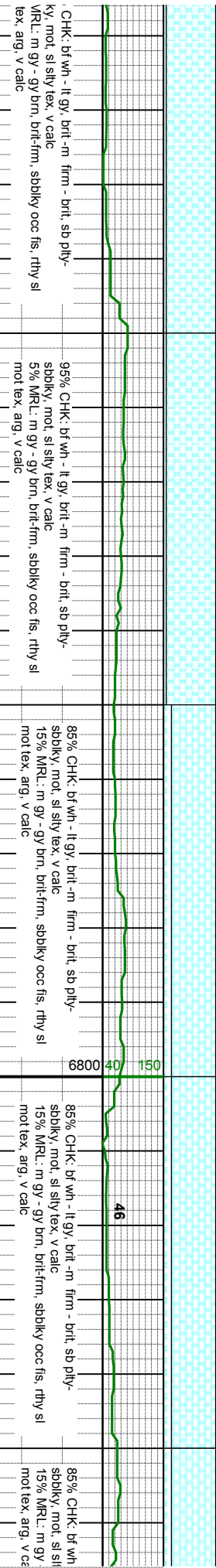
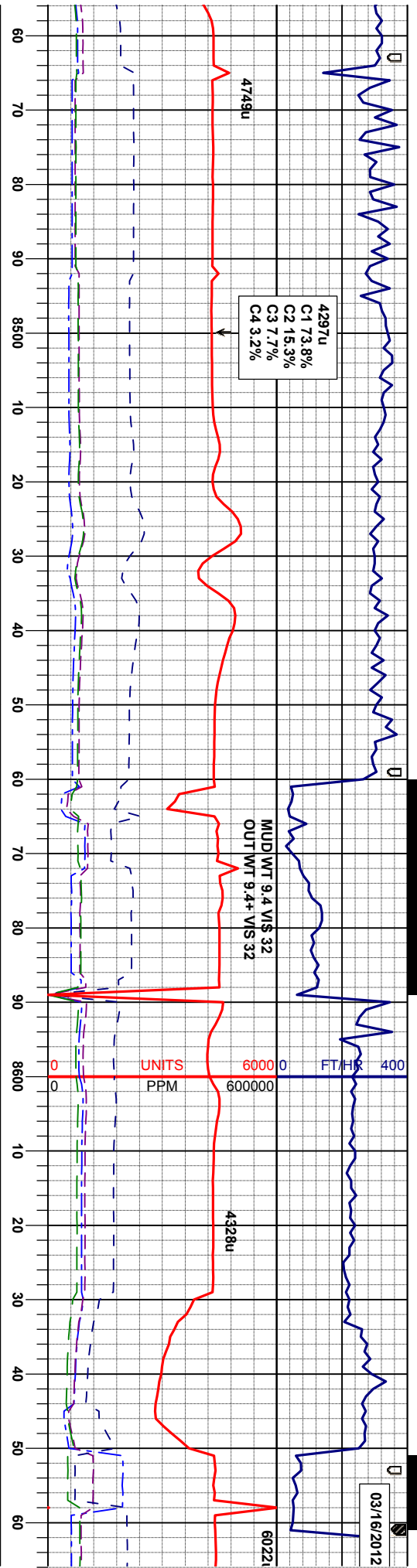
90% CHK: br wh - ll gy, brt -m firm - brt, sb ply-
sbbly, mot, sl silty tex, v calc
10% MRL: m gy - gy brn, brt-fm, sbbly occ fs, rthy sl
mot tex, arg, v calc

95% sbbly
5% l
mot

MD 8314'
INC 88.6
AZM 86.9
TVD 6955.23'

MD 8409'
INC 90.5
AZM 87.1
TVD 6955.98'



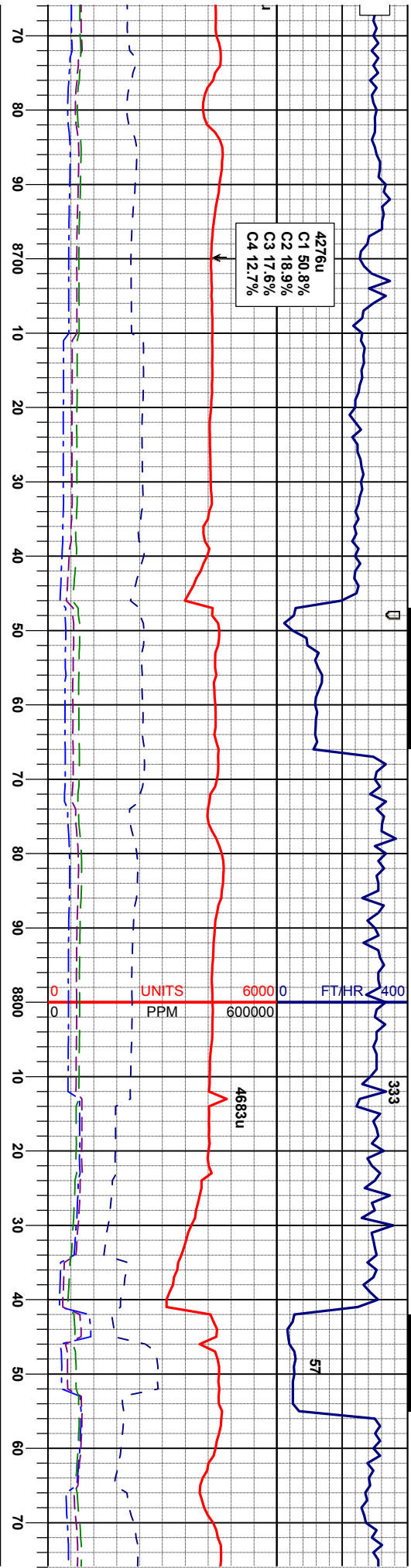


MD 8504'
INC 89.8
AZM 87.1
TVD 6955.73'

MD 8599'
INC 92.4
AZM 87.7
TVD 6953.90'

Good



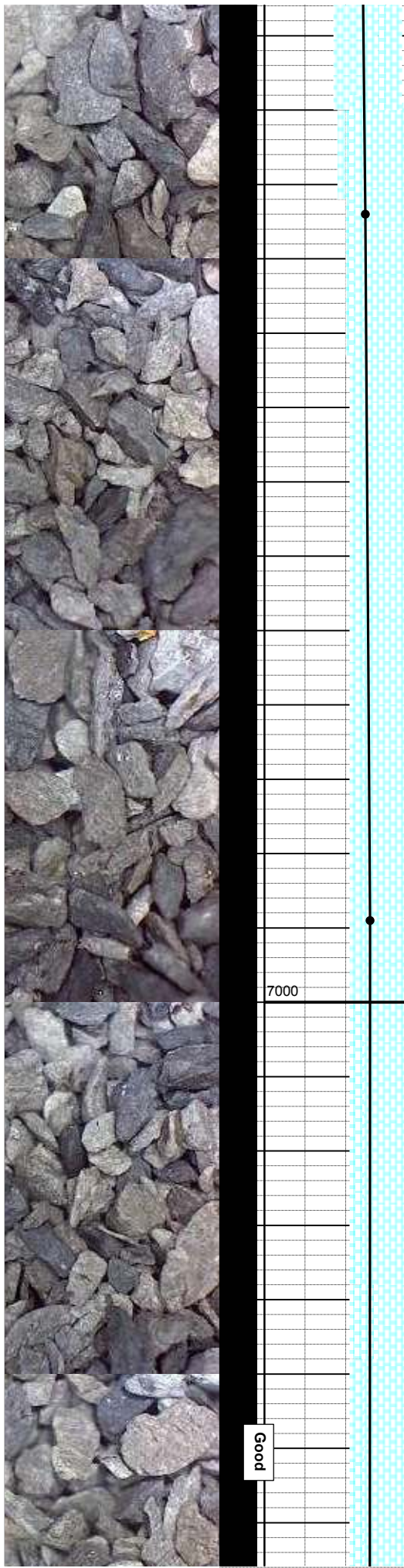


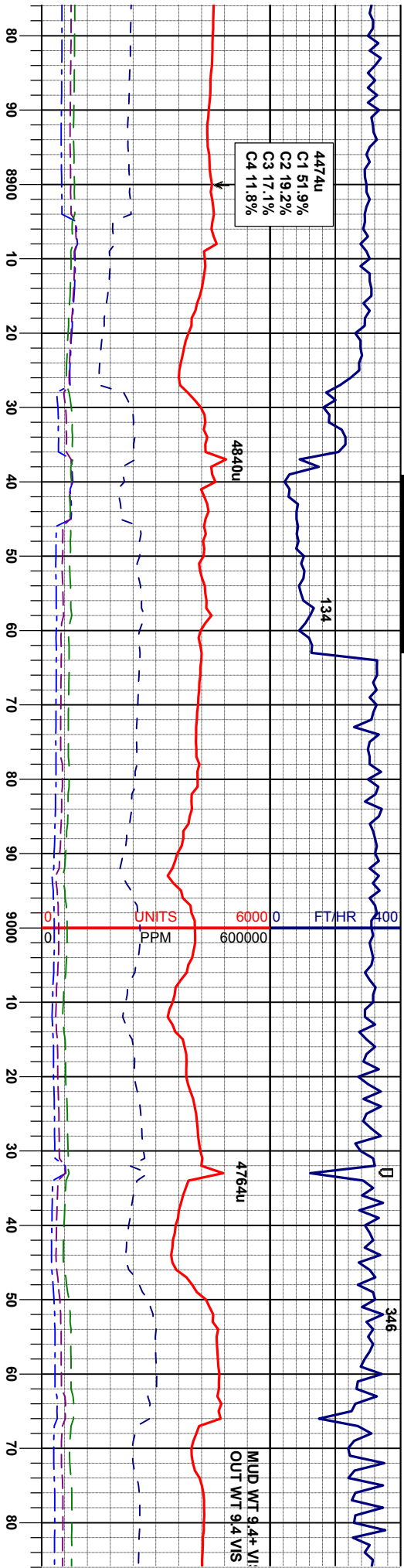
- lt gy, brlt -m firm - brlt, sb ply- y tex, v calc	80% CHK: brt wh - lt gy, brlt -m firm - brlt, sb ply- sbbky, mot, sl silty tex, v calc	70% CHK: brt wh - lt gy, brlt -m firm - brlt, sb ply- sbbky, mot, sl silty tex, v calc	85% CHK: brt wh - lt gy, brlt -m firm - brlt, sb ply- sbbky, mot, sl silty tex, v calc	90% CHK: brt wh - lt gy, brlt -m firm - brlt, sb ply- sbbky, mot, sl silty tex, v calc
gy brn, brlt-fm, sbbky occ fis, rthy sl mot tex, arg, v calc	10% MRL: m gy - gy brn, brlt-fm, sbbky occ fis, rthy sl mot tex, arg, v calc	30% MRL: m gy - gy brn, brlt-fm, sbbky occ fis, rthy sl mot tex, arg, v calc, scat fos	15% MRL: m gy - gy brn, brlt-fm, sbbky occ fis, rthy sl mot tex, arg, v calc	10% MRL: m gy - gy brn, brlt-fm, sbbky occ fis, rthy sl mot tex, arg, v calc

MD 8694'
INC 92.0
AZM 88.3
TVD 6950.26'

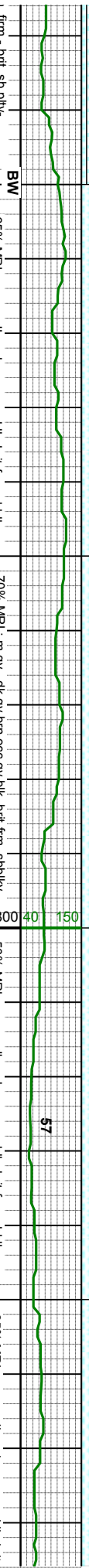
Metal Shavings Collected 2:00AM
1.6 lbs of Very Fines
90% Metal Shaving
10% Trapped Sample

MD 8789'
INC 90.8
AZM 88.7
TVD 6947.94'





Trace Brown Chalks



firm - brt, sb ply-
rthy sl mot tex, arg, v calc; occ chk like mrl
35% CHK; lt -m gy occ brn, m firm - brt, sb ply-
sbbly, mot, sl sily tex, v calc

65% MRL: m gy - dk gy brn occ gy blk, brt-frn, sbbly,
rthy sl mot tex, arg, v calc; occ chk like mrl
35% CHK; lt -m gy occ brn, m firm - brt, sb ply-
sbbly, mot, sl sily tex, v calc

70% MRL: m gy - dk gy brn occ gy blk, brt-frn, sbbly,
rthy sl mot tex, arg, v calc; occ chk like mrl
30% CHK; lt -m gy occ brn, m firm - brt, sb ply-
sbbly, mot, sl sily tex, v calc

50% MRL: m gy - dk gy brn occ gy blk, brt-frn, sbbly,
rthy sl mot tex, arg, v calc; occ chk like mrl
50% CHK; lt -m gy occ brn, m firm - brt, sb ply-
sbbly, mot - occ mot w/ brn chk, sl sily tex, v calc

65% MRL: m gy - dk gy brn occ gy blk, brt-frn, sbbly,
rthy sl mot tex, arg, v calc; occ chk like mrl
35% CHK; lt -m gy occ brn, m firm - brt, sb ply-
sbbly, mot - occ mot w/ brn chk, sl sily tex

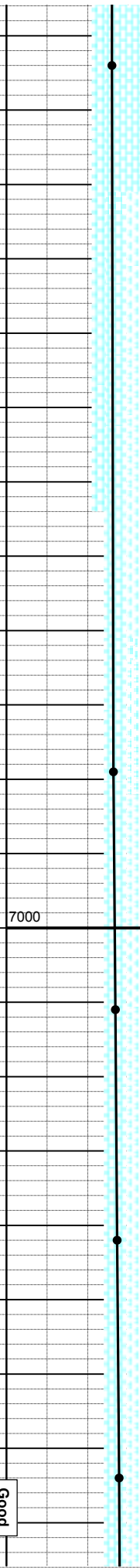
MD 8884'
INC 89.0
AZM 88.3
TVD 6948.10'

MD 8979'
INC 91.9
AZM 88.3
TVD 6947.36'

MD 9011'
INC 91.6
AZM 88.3
TVD 6946.38'

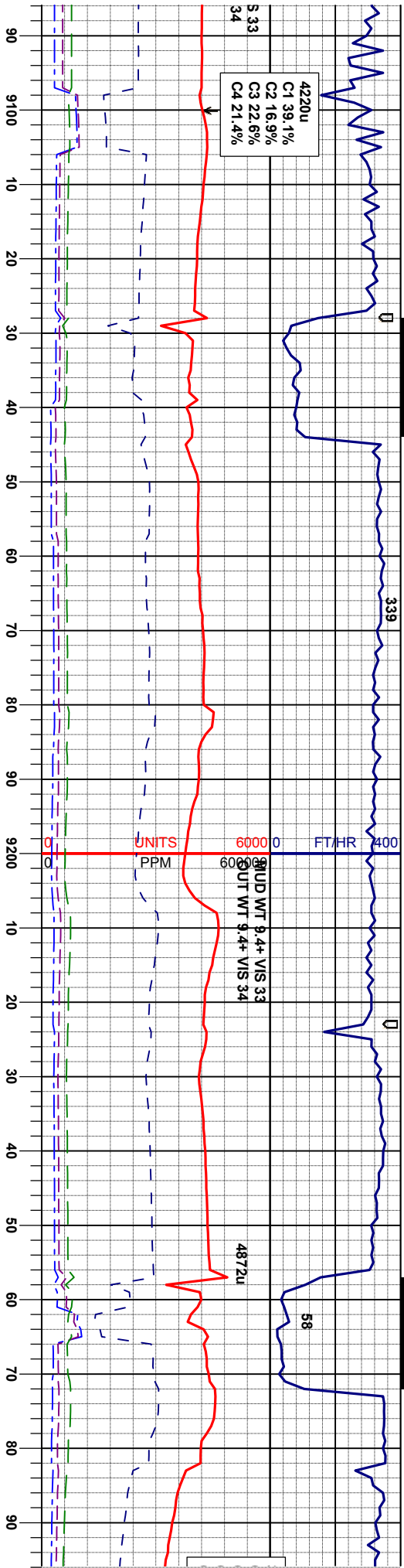
MD 9042'
INC 91.8
AZM 88.7
TVD 6945.46'

MD 9074'
INC 91.8
AZM 88.7
TVD 6944.45'



Good

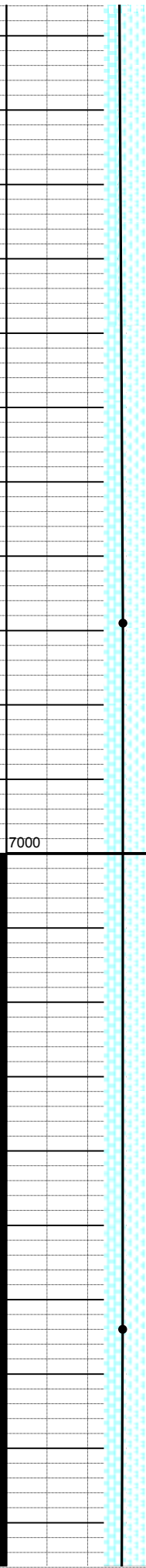


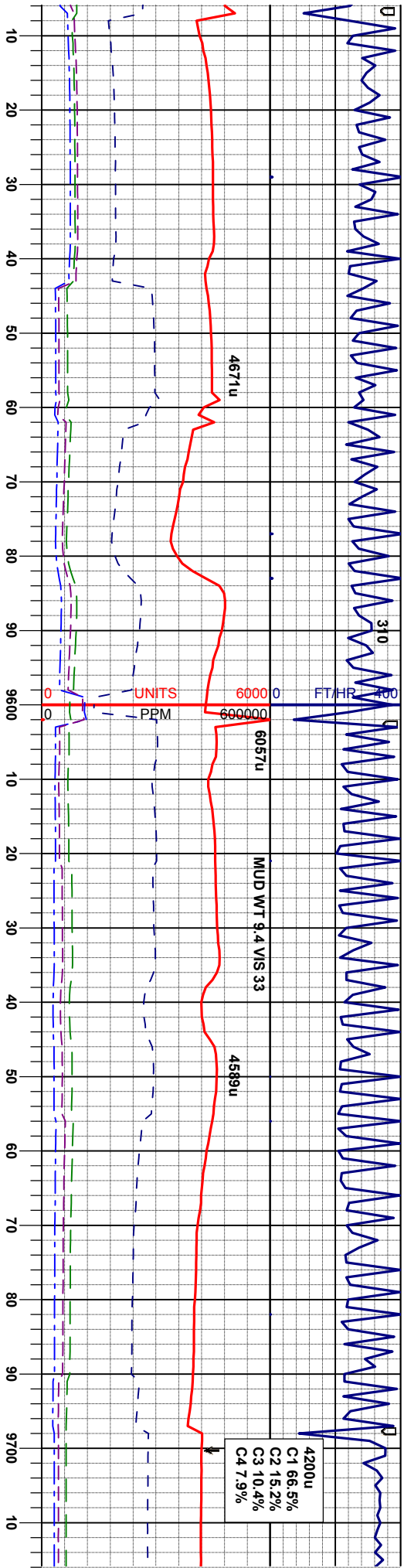


frm, sbdky,	70% MRL: m gy - dk gy brn occ gy blk, brt-frm, sbdky, rthy sl mot tex, arg, v calc: . occ chk like mrl	65% MRL: m gy - dk gy brn occ gy blk, brt-frm, sbdky, rthy sl mot tex, arg, v calc: . occ chk like mrl	60% MRL: m gy - dk gy brn occ gy blk, brt-frm, sbdky, rthy sl mot tex, arg, v calc: . occ chk like mrl	50% MRL: m gy - dk gy brn occ gy blk, brt-frm, sbdky, rthy sl mot tex, arg, v calc: . occ chk like mrl
ply- v calc	30% CHK: lt-m gy occ brn, m firm - brt, sb ply-sbdky, mot, occ silty tex, v calc	35% CHK: lt-m gy occ brn, m firm - brt, sb ply-sbdky, mot, occ silty tex, v calc	40% CHK: lt-m gy occ brn, m firm - brt, sb ply-sbdky, mot, occ silty tex, v calc	50% CHK: lt-m gy wh-br occ brn, m firm - brt, sb ply-sbdky, mot, occ silty tex, v calc: OTS

MD 9169'
INC 90.5
AZM 88
TVD 6942.55'

MD 9264'
INC 89.3
AZM 88.2
TVD 6942.71'





Very Dirty Chalks

70% MRL: m gy - dk gy brn gy blk, brt-frn, sbblky, rthy sl mot tex, arg, v calc; 30% CHK: lt-m gy occ brn, m firm - brt, sb ply-sbblky, mot, occ silty tex, v calc;

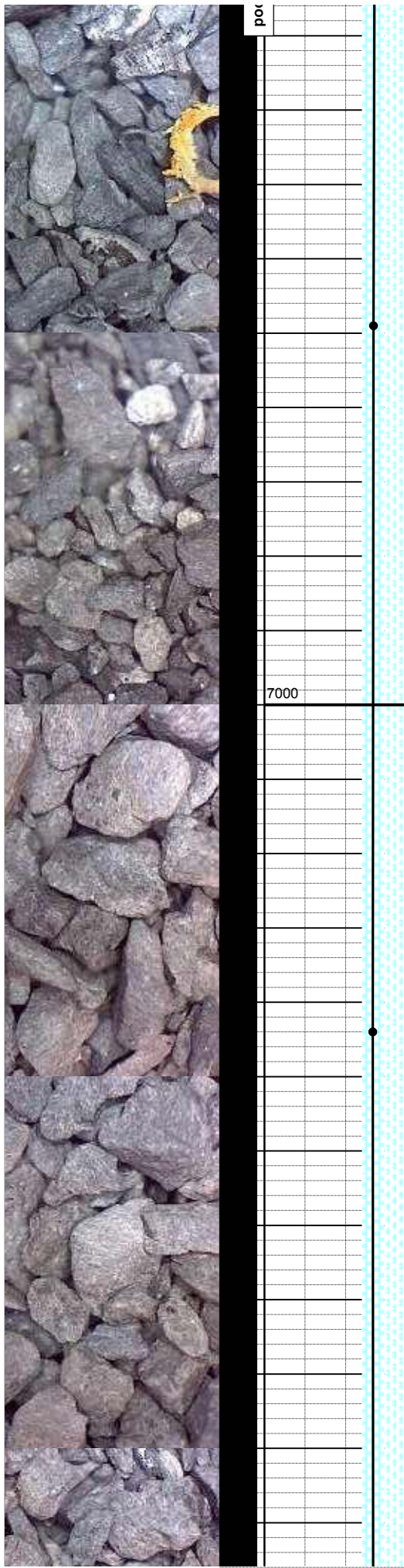
65% MRL: m gy - dk gy brn gy blk, brt-frn, sbblky, rthy sl mot tex, arg, v calc; 35% CHK: lt-m gy occ brn, m firm - brt, sb ply-sbblky, mot, occ silty tex, v calc;

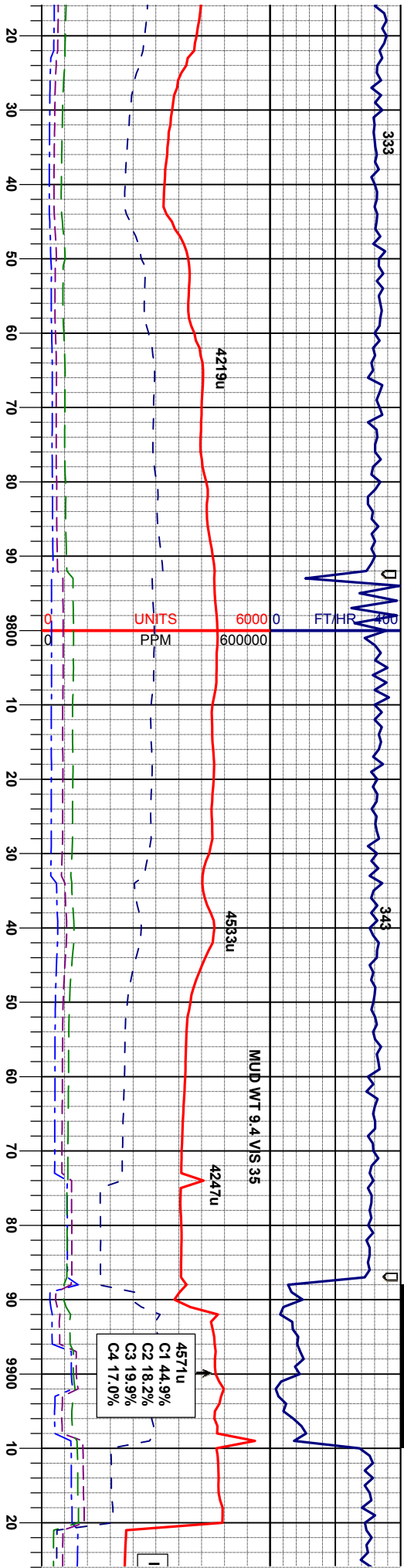
60% MRL: m gy - dk gy brn gy blk, brt-frn, sbblky, rthy sl mot tex, arg, v calc; 40% CHK: m gy occ brn lt gy, m firm - brt, sb ply-sbblky, mot, occ silty tex, v calc;

60% MRL: m g rthy sl mot tex, 40% CHK: m g sbblky, mot, oc

MD 9549'
INC 89.5
AZM 87.5
TVD 6946.19'

MD 9644'
INC 90
AZM 88
TVD 6946.61'



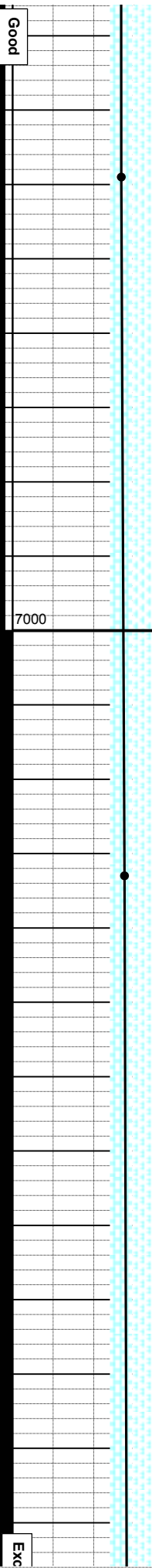


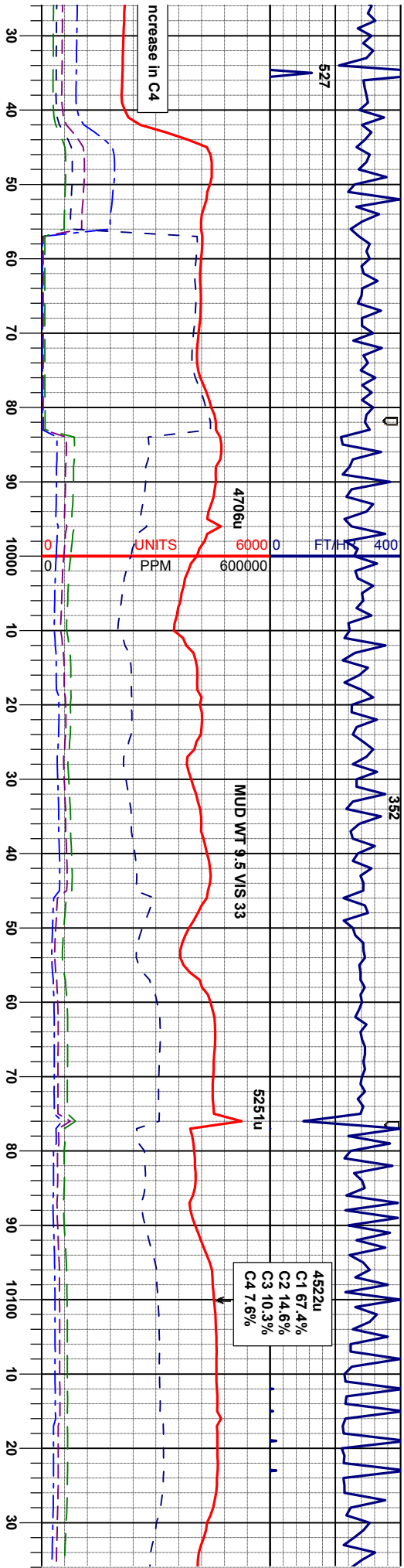
IV - dk gy brn gy blk, brt-firm, sbbkly, arg, v calc ; v occ brn lt gy, m firm - brt, sb pily- c sily tex, v calc ;	65% MRL: m gy - dk gy brn gy blk, brt-firm, sbbkly, rthy sl mot tex, arg, v calc ; 35% CHK:m gy occ brn lt gy, m firm - brt, sb pily- sbbkly, mot, occ sily tex, v calc ;	60% MRL: m gy - dk gy brn gy blk, brt-firm, sbbkly, rthy sl mot tex, arg, v calc ; 40% CHK:m gy occ brn lt gy, m firm - brt, sb pily- sbbkly, mot, occ sily tex, v calc ;	65% MRL: m gy - dk gy brn gy blk, brt-firm, sbbkly, rthy sl mot tex, arg, v calc ; 35% CHK:m gy occ brn lt gy, m firm - brt, sb pily- sbbkly, mot, occ sily tex, v calc ;
---	---	---	---

MD 9739'
INC 90.4
TVD 87.8
AZM 6946.28'

MD 9833'
INC 91.4
AZM 88.2
TVD 6944.8'

MC
INC
AZ
TV





65

65% MRL: m gy - dk gy brn gy blk, brt-frn, sbblky, rthy sl mot tex, arg, v calc; 35% CHK:m gy ooc brn lt gy, m firm - brt, sb ply-sbblky, mot, occ silty tex, v calc;

60% MRL: m gy - dk gy brn gy blk, brt-frn, sbblky, rthy sl mot tex, arg, v calc; 40% CHK:m gy ooc brn lt gy sl incr in lt gy, m firm - brt, sb ply-sbblky, mot, occ silty tex, v calc;

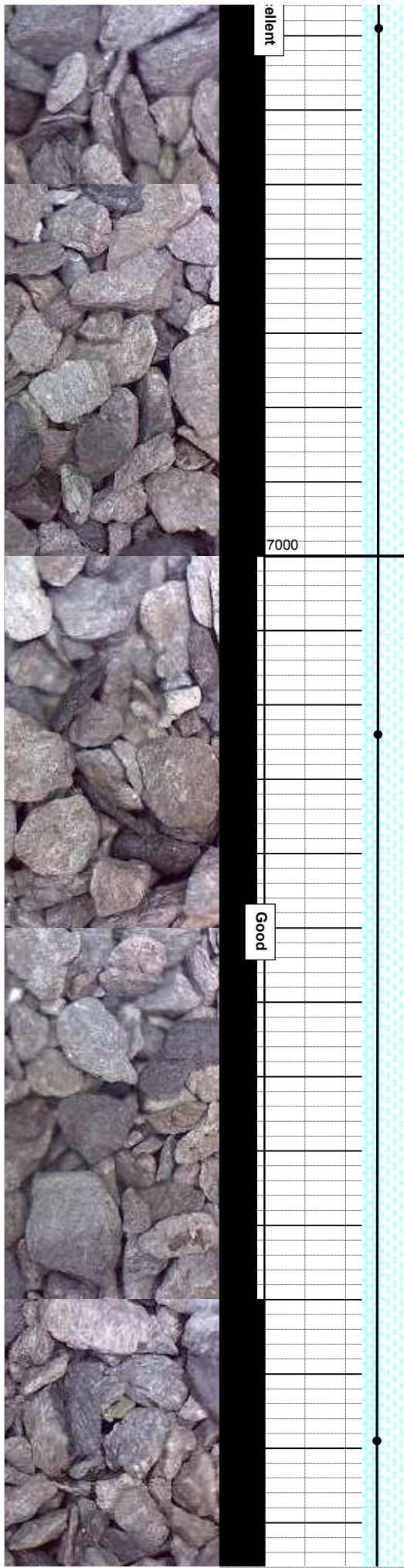
55% MRL: m gy - dk gy brn gy blk, brt-frn, sbblky, rthy sl mot tex, arg, v calc; 45% CHK:m gy ooc brn lt gy sl incr in lt gy, m firm - brt, sb ply-sbblky, mot, occ silty tex, v calc;

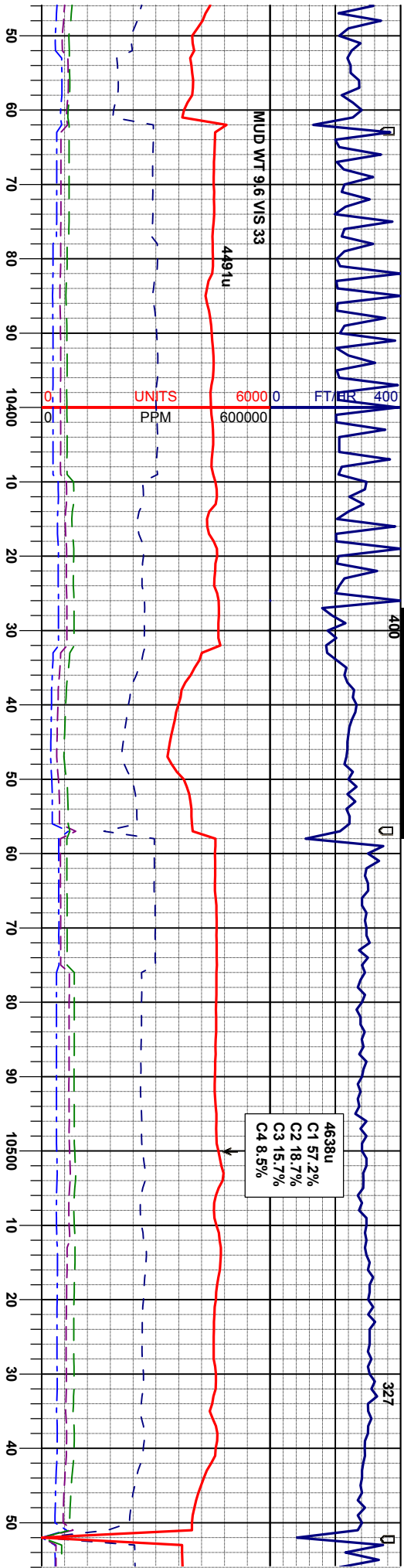
55% CHK:m gy ooc brn lt gy sl incr in lt g brt, sb ply-sbblky, mot, occ silty tex, v c 45% MRL: m gy - dk gy brn gy blk, brt-frn rthy sl mot tex, arg, v calc;

9929' 90 M 87.3 D 6943.63

MD 10024' INC 89.5 AZM 86.9 TVD 6944.04'

MD 10119' INC 90 AZM 87.3 TVD 6944.46'





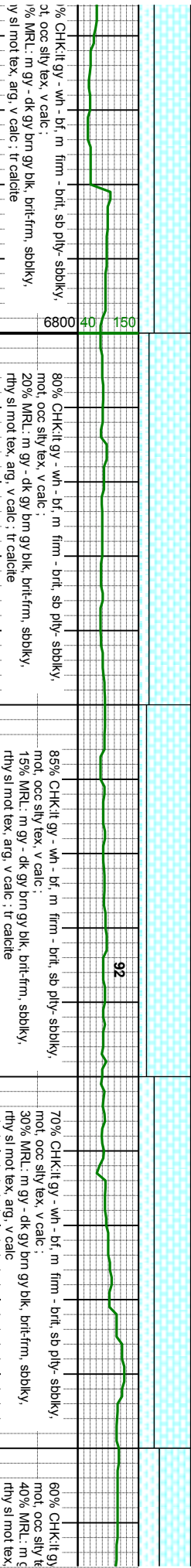
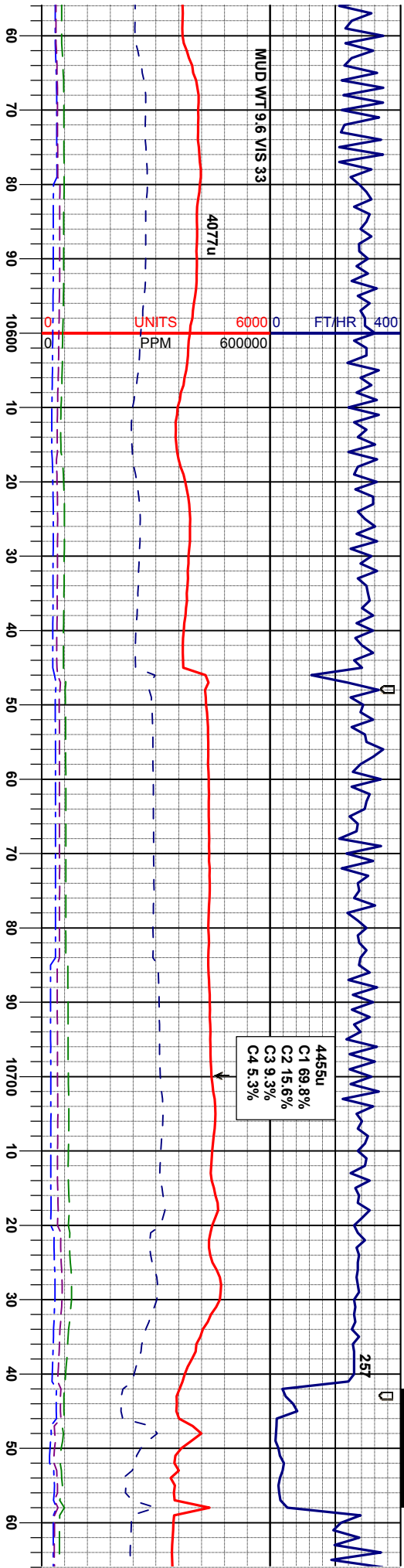
Clean B Chalk		Trace Calcite	
91	150	54	115
80% CHK:lt gy - wh - bf, m firm - brt, sb ply- sbbky, mot, occ silty tex, v calc ;		75% CHK:lt gy - wh - bf, m firm - brt, sb ply- sbbky, mot, occ silty tex, v calc ;	
20% MRL: m gy - dk gy brn gy blk, brt-frn, sbbky, rthy sl mot tex, arg, v calc ; tr calcite		25% MRL: m gy - dk gy brn gy blk, brt-frn, sbbky, rthy sl mot tex, arg, v calc ; tr calcite	
		JP	
		70% CHK:lt gy - wh - bf, m firm - brt, sb ply- sbbky, mot, occ silty tex, v calc ;	
		30% MRL: m gy - dk gy brn gy blk, brt-frn, sbbky, rthy sl mot tex, arg, v calc ; tr calcite	

MD 10403'
INC 89.9
AZM 88.3
TVD 6944.04'

10498'
MD 89.9
INC 88.2
AZM 6944.21'

Excellent



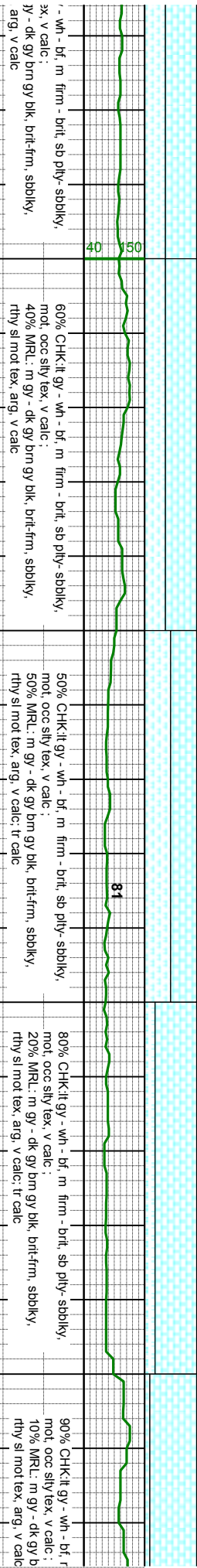
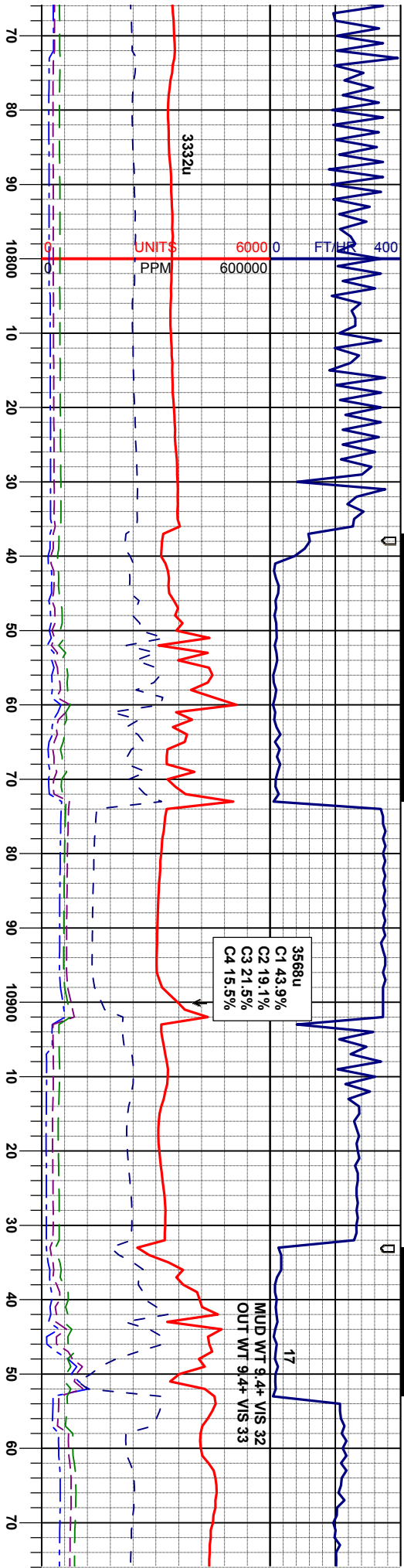


MD 10594'
INC 91.2
AZM 88.9
TVD 6943.29'

MD 10689'
INC 92.7
AZM 89.8
TVD 6940.06'

Good





MD 10784'
INC 92.6
AZM 90.5
TVD 6835.66'

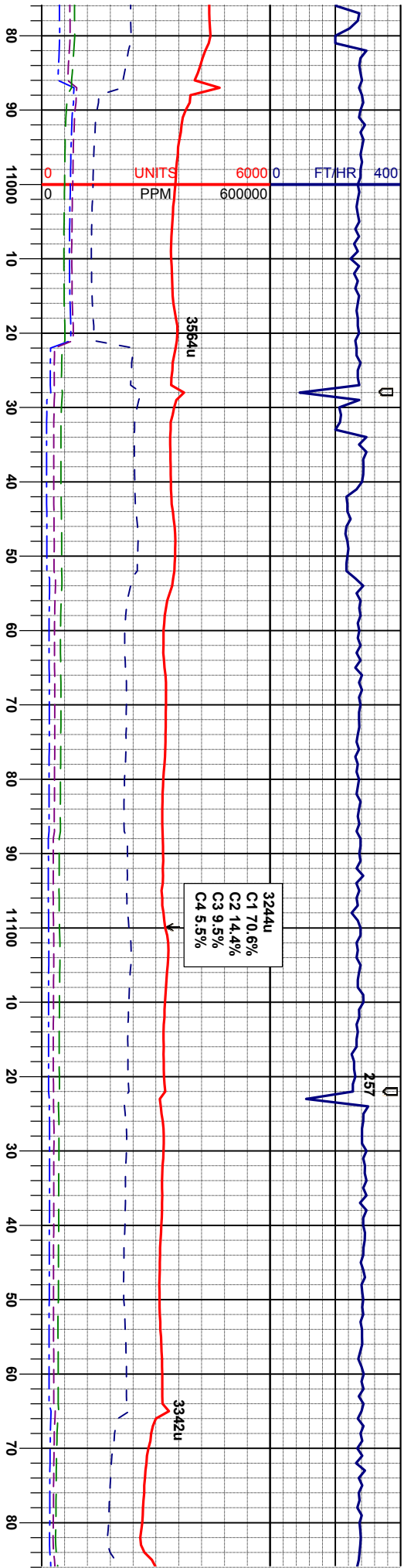
MD 10847'
INC 92.0
AZM 90.3
TVD 6933.13'

MD 10879'
INC 90.6
AZM 91.3
TVD 6932.41'

MD 109'
INC 88.9
AZM 91.
TVD 693

Good





0 40 150

90% CHK:lt gy - wh - bf, m firm - brlt, sb ply- sbbiky,
mot, occ silty tex, v calc:
10% MRL: m gy - dk gy brn gy blk, brltfrm, sbbiky,
rtly sl mot tex, arg, v calc, tr calc

90% CHK:lt gy - wh - bf, m firm - brlt, sb ply- sbbiky,
mot, occ silty tex, v calc:
15% MRL: m gy - dk gy brn gy blk, brltfrm, sbbiky,
rtly sl mot tex, arg, v calc, tr calc

90% CHK:lt gy - wh - bf, m firm - brlt, sb ply- sbbiky,
mot, occ silty tex, v calc:
10% MRL: m gy - dk gy brn gy blk, brltfrm, sbbiky,
rtly sl mot tex, arg, v calc

MD 11069'
INC 90.3
AZM 91.7
TVD 6933.49'

MD 11164'
INC 91.4
AZM 91.9
TVD 6932.08'

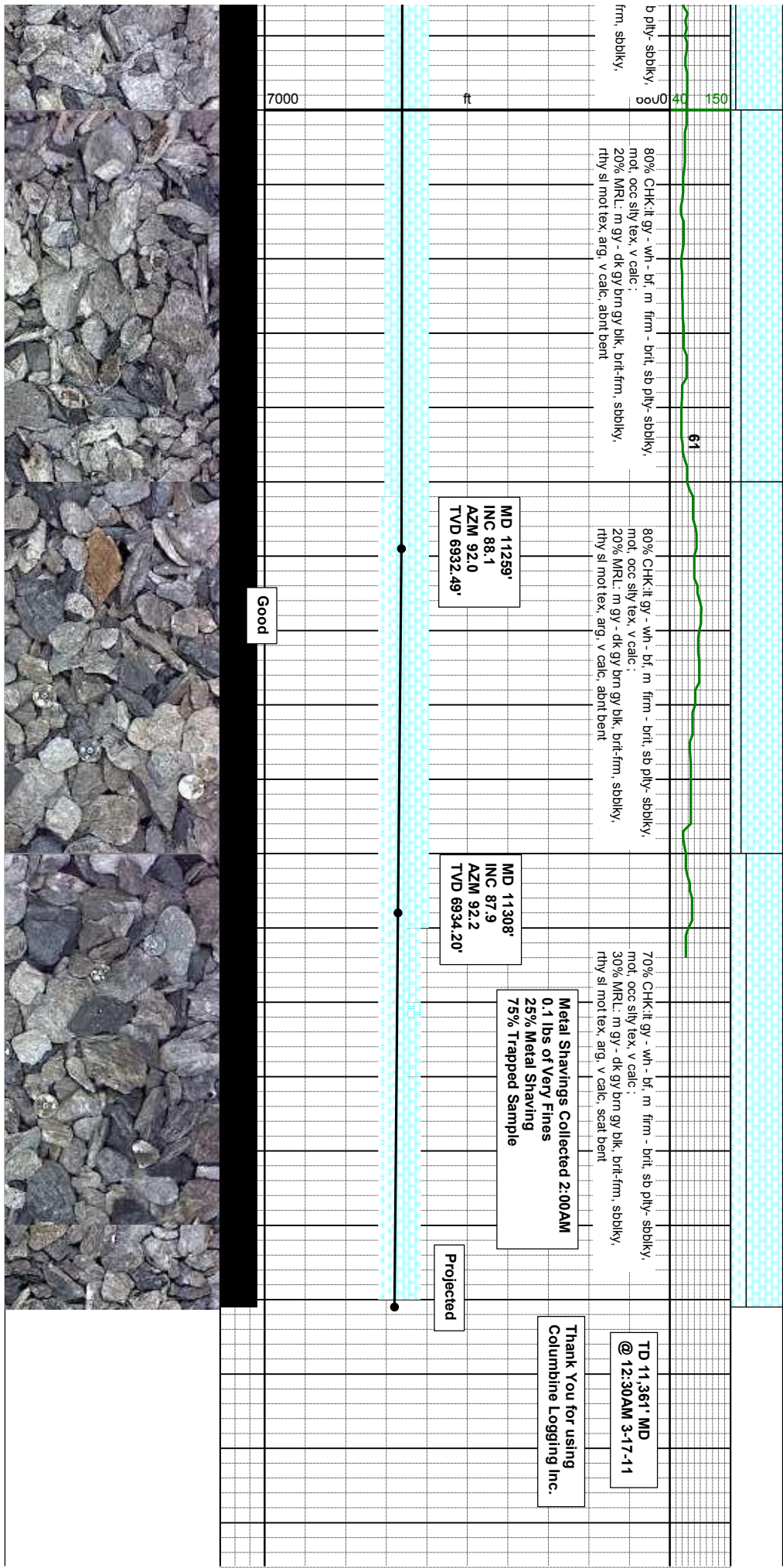
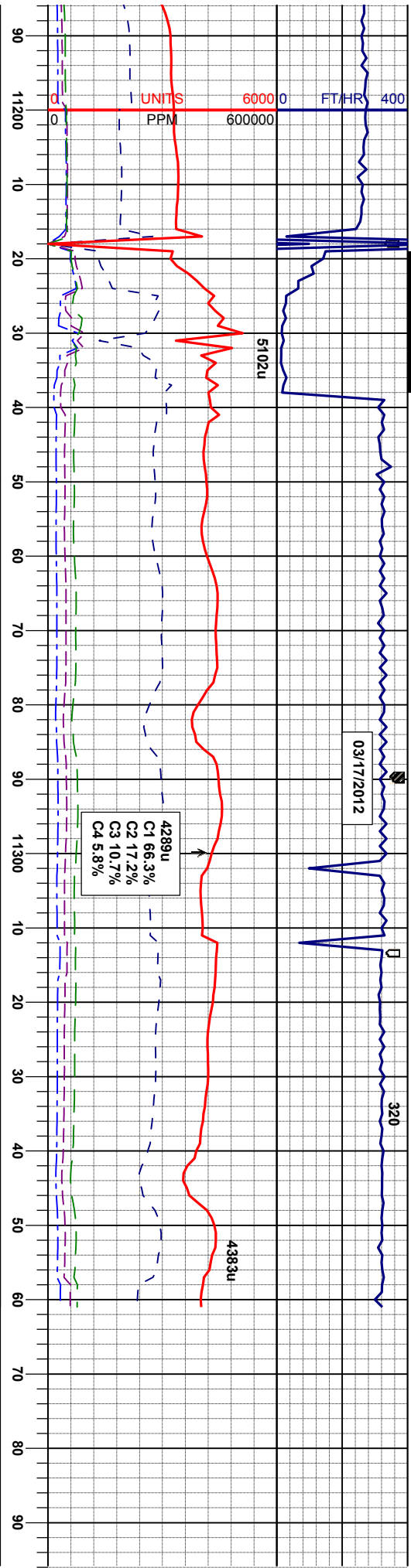
74'
9
2.82'

ft

7000

Good

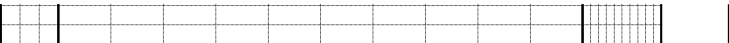




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Columbine Logging Inc.

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Good



11400