



Scale: 6.98" / 100'
Measured Depth Log

Well Name	Eagle E14-62-1HN_HORZ	
Location	Eagle E14-62-1HN Pad Sec.14-T6N-R65W	
State	COLORADO	County WELD
Country	USA	Rig Number PD 829
API Number	05-123-38867	AFE # 139579
Region	DJ BASIN	Field WATTENBERG
Spud Date	7/3/2014	Drilling Completed 7/11/2014
Surface Coordinates	383' FSL ; 530' FWL 40.47985 ; -104.63816	
Bottom Hole Coordinates	330' FNL ; 785' FWL 40.47966 ; -104.61809	
Ground Elevation	4736'	K.B. Elevation 4752'
Logged Interval	6172' To 12095'	Total Depth 12095'
Formation	NIOBRARA B CHALK	
Type of Drilling Fluid	FW LSND	

Company Noble Energy Inc

Name Holly Duncan

Company Noble Energy, Inc

Address 1625 BROADWAY
DENVER, CO 80202

Shannon Whitmore

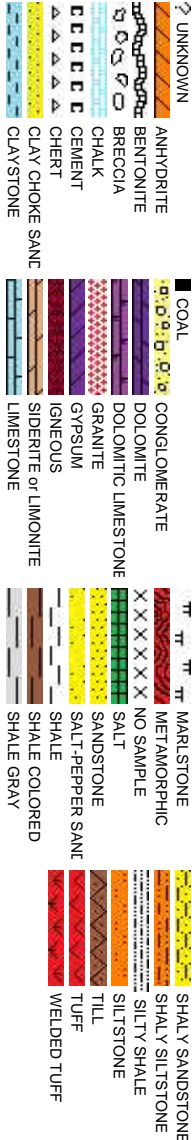
Michael Rooks

Liz van Diepen

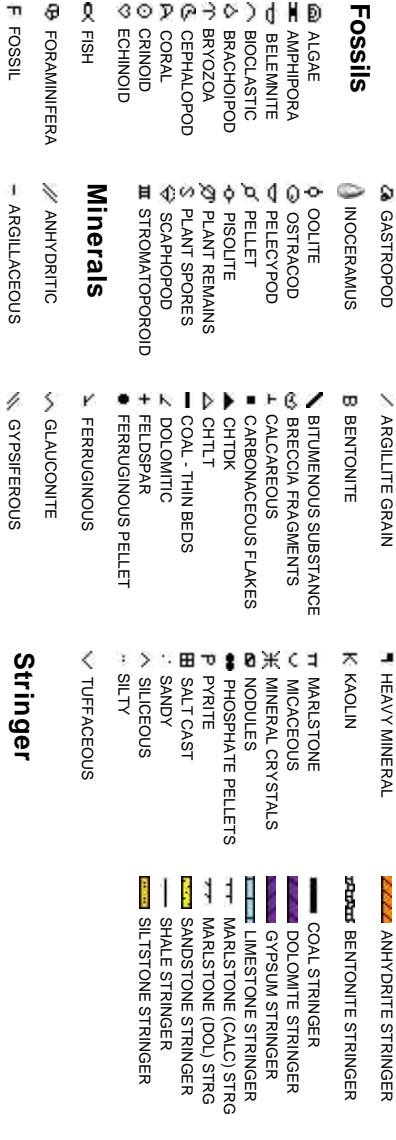
Operator

Geologist

Rock Types



Accessories



Other

Columbine Logging
2385 S. Lipan St.
Denver, CO 80223

Columbine Logging
2385 S. Lipan St.
Denver, CO 80223

Columbine Logging
2385 S. Lipan St.
Denver, CO 80223

Other Symbols

Oil Show

P PINPOINT

✓ VUGGY

D DEAD

Engineering

● EVEN

QUESTIONABLE

BIT

 SPOTTED STAINING CONNECTION (UP)

CONNECTION (UP)

MN DEPTH UP

MN DEPTH UP

Rounding

MINDDEPTH MN DEPTH

MINDDEPTH MN DEPTH

L LITHOGRAPHIC

MICROXLN

Mudstone

CONNECTION (DOWN)

Porosity

 CONNECTION GAS

E EARTHY

 CONNECTION GAS (LEFT)

FENESTRAL

TRIP GAS

REVERSE FAULT

SUBRND

F FRACTURE

 TRIP GAS (LEFT)

CASING

Textures

X INTERCRYSTALLINE

DOWN TIME GAS DTG

SIDEWALL CORE (LEFT)

Φ INTERROGATIVE

DOWN TIME GAS (LEFT)

SIDEWALL CORE (RIGHT) BS BOUNDSTONE

WELL

MOLDIC

↓ CORE - LOST

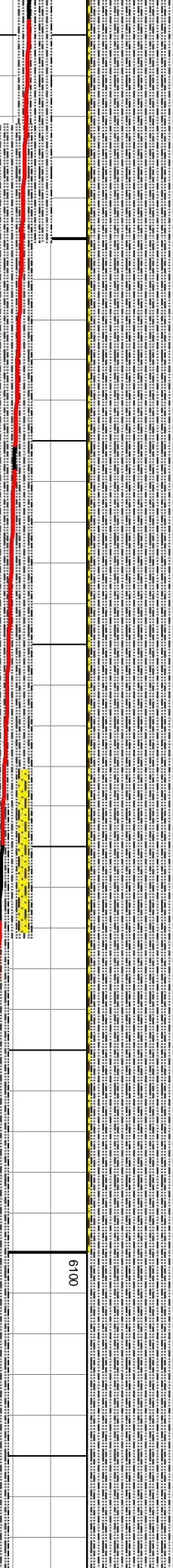
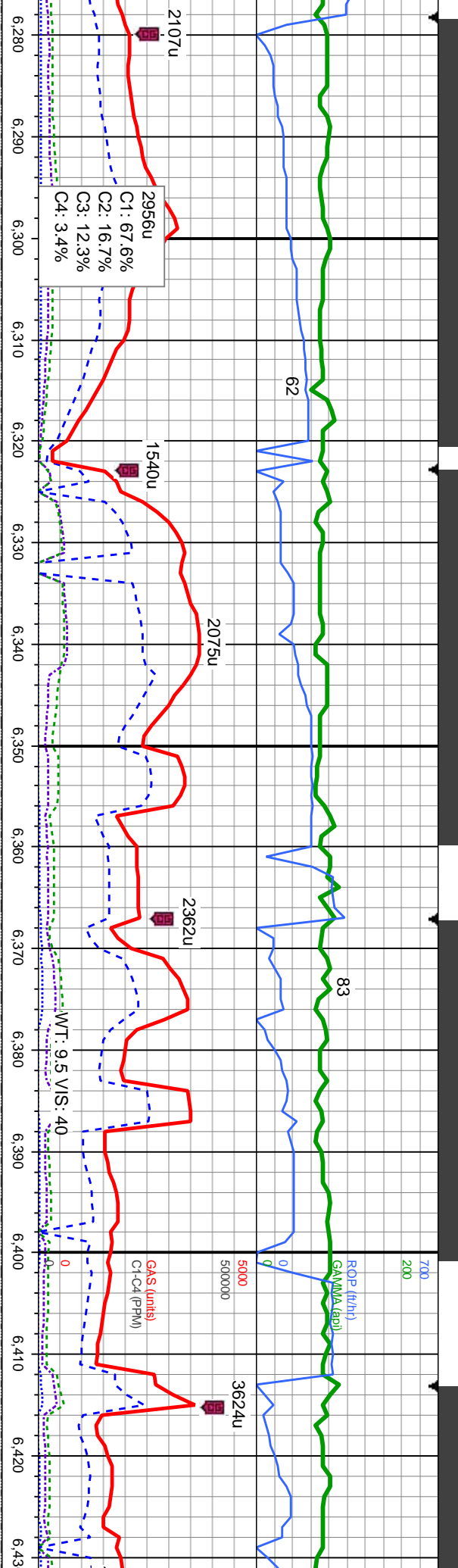
SLIDE

ORGANIC

■ CORE - RECOVERED

SURVEY

CX CRYPTOXLN



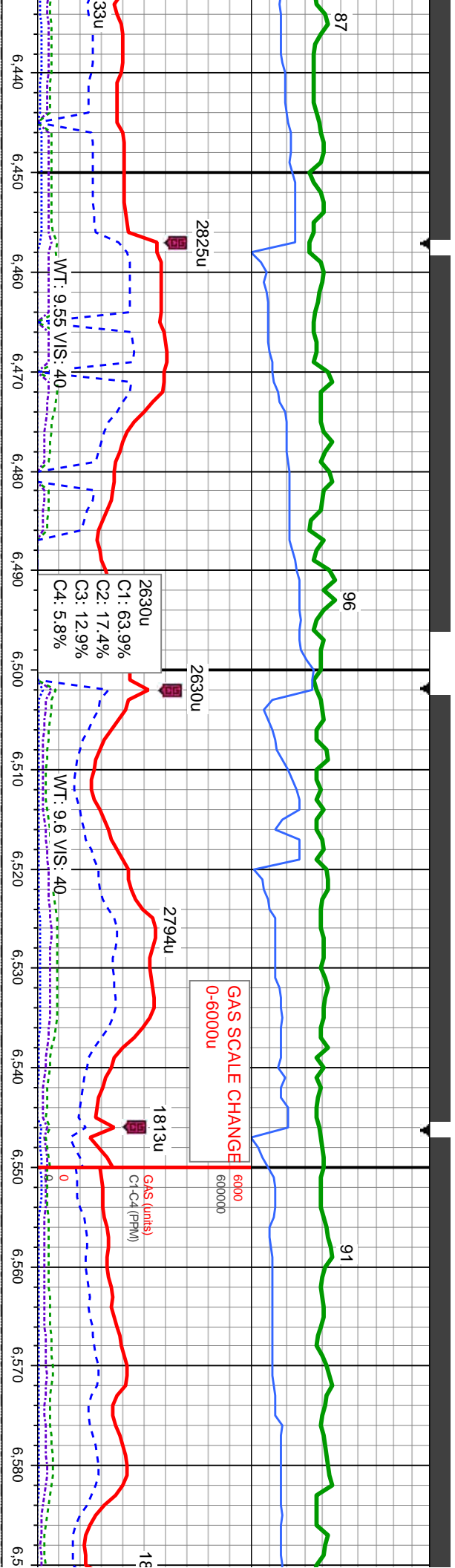
MD: 6,317
TVD: 6,311.39
Inclination: 11.5
Azimuth: 73.4
VS: 93.45

MD: 6,362
TVD: 6,355.16
Inclination: 15.2
Azimuth: 73.9
VS: 103.4

MD: 6,407
TVD: 6,398.31
Inclination: 17.8
Azimuth: 75
VS: 115.71

97	7.1	7.5	95% SLTY SH: lt-med gy, sft-firm, fri, sb ply, vr gr, sl silty tex, rthy lstr, non calc, 5% SHY SS: lt gy-wh, occ sgp, blk, sl firm - sft, v f-f gr, sb md, mod-w srt, cly cnt, non calc	7200	100% SLTY SH
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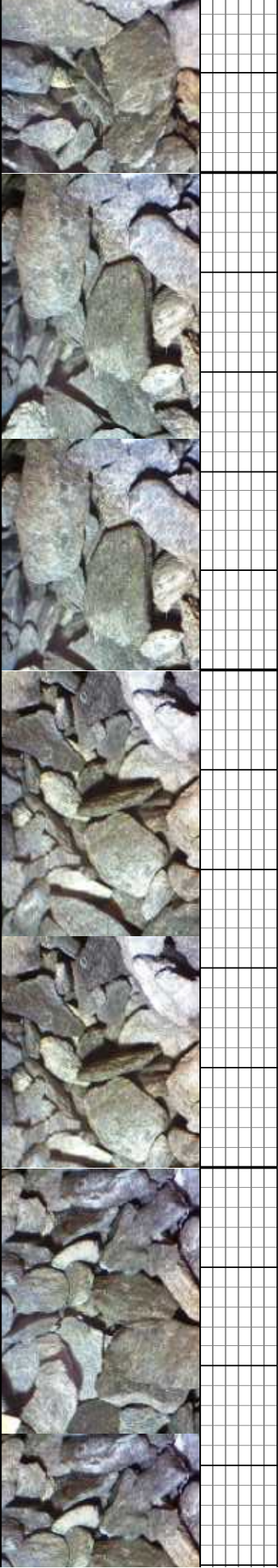
MD: 6.452
TVD: 6,440.73
Inclination: 21.1
Azimuth: 79.5
VS: 130.31

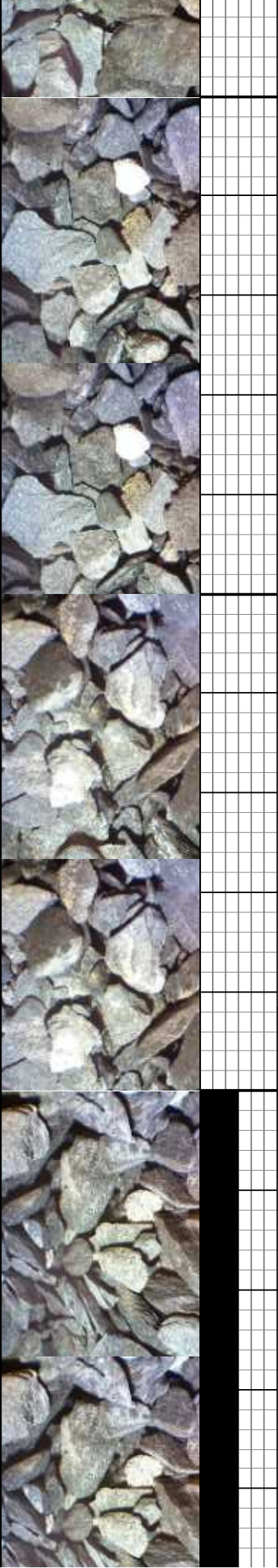
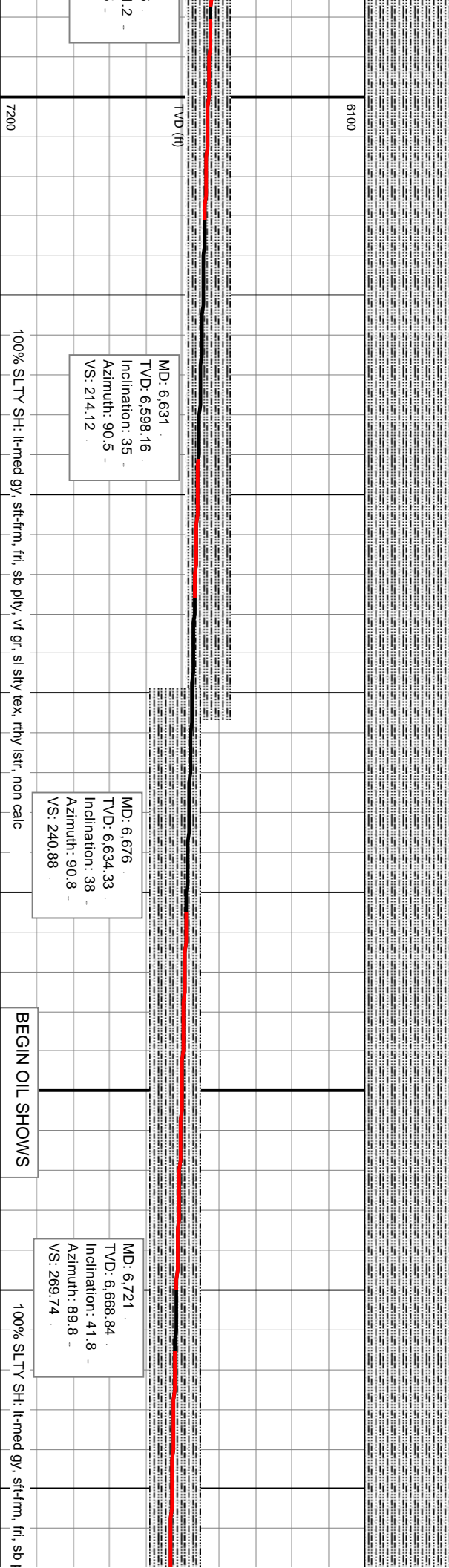
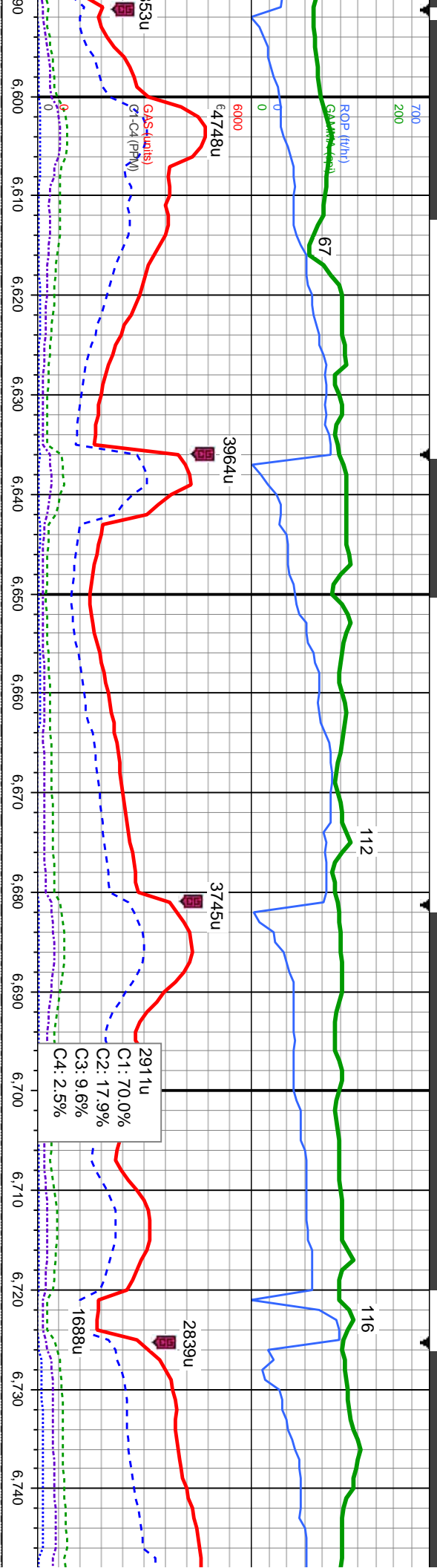
MD: 6.497
TVD: 6,482.09
Inclination: 25.3
Azimuth: 81.6
VS: 147.79

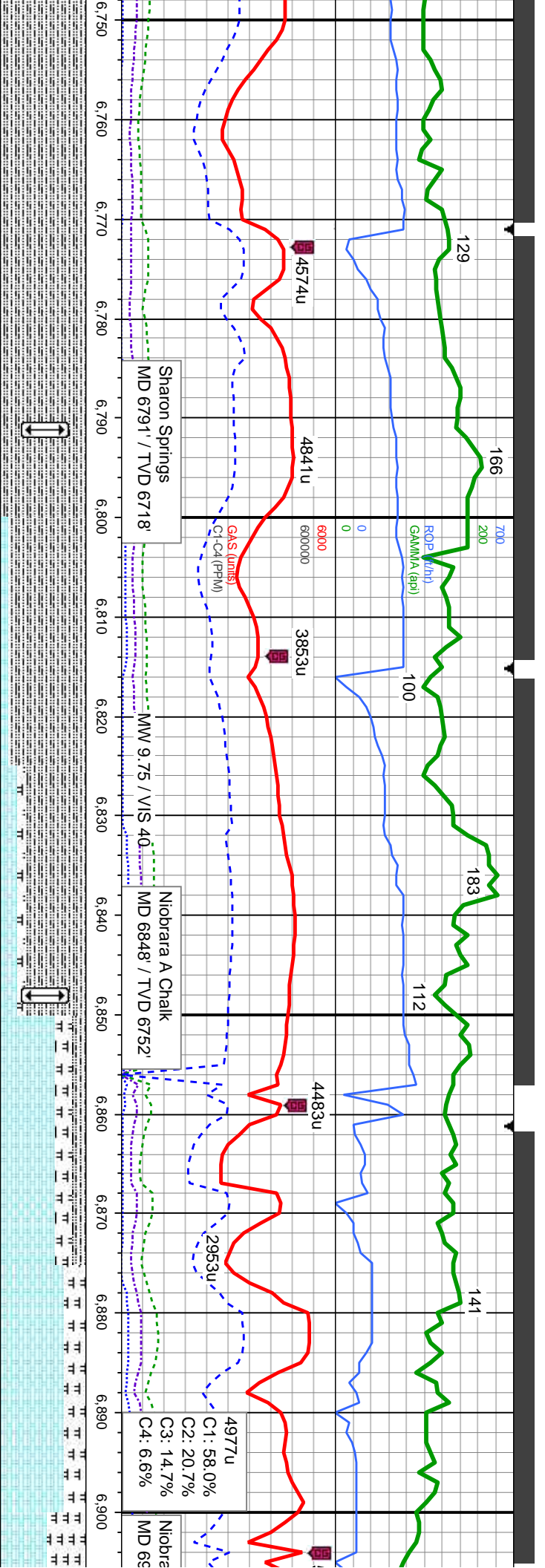
MD: 6.541
TVD: 6,521.37
Inclination: 28.2
Azimuth: 83
VS: 167.41

MD: 6.586
TVD: 6,560.46
Inclination: 3
Azimuth: 85.5
VS: 189.58

100% SLTY SH: lt-med gy, sft-fm, fri, sb ply, vt gr, sl silty tex, rthy istr, non calc

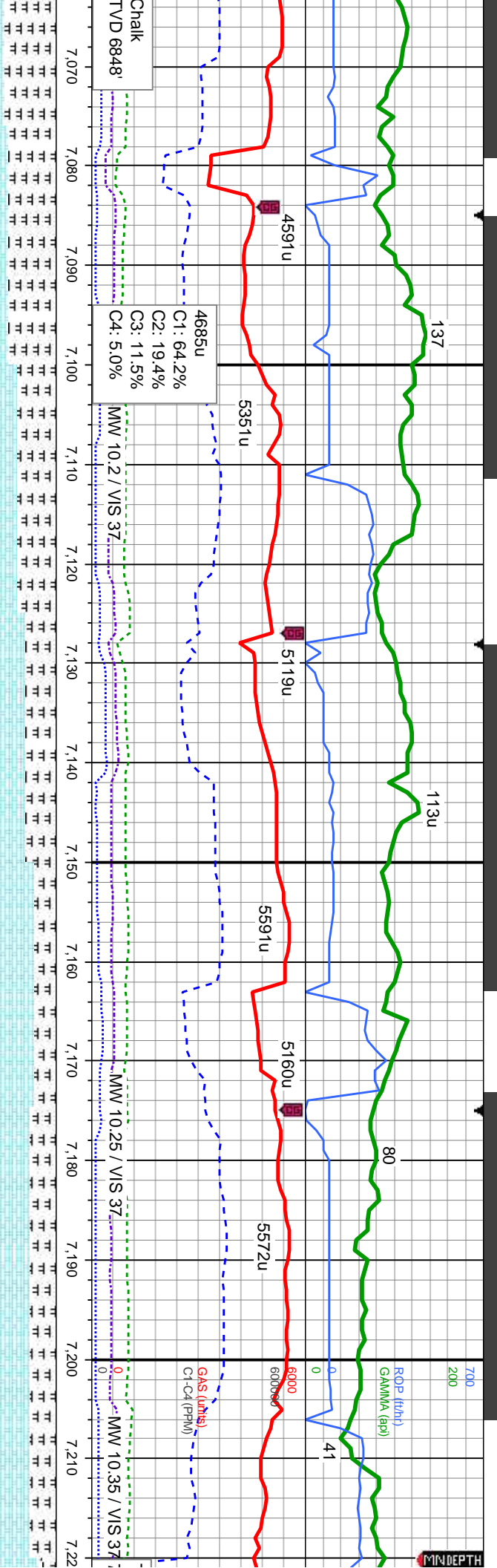






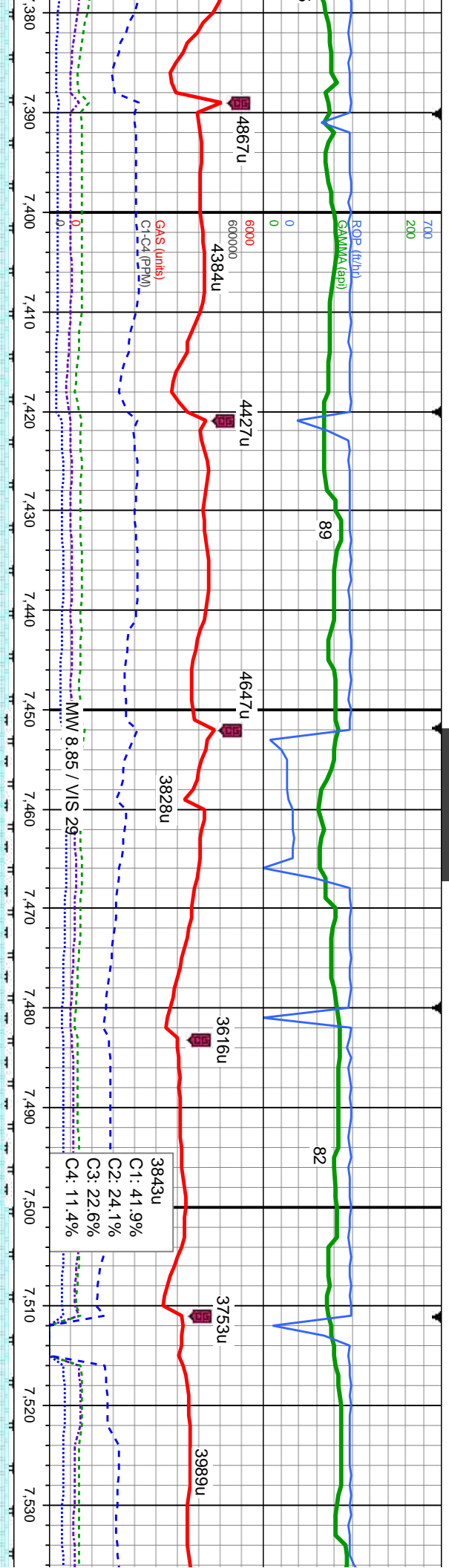
MD: 6.766 TVD: 6.701.24 Inclination: 46.1 Azimuth: 87 VS: 300.94		MD: 6.811 TVD: 6.730.78 Inclination: 51.8 Azimuth: 87.2 VS: 334.82		MD: 6.856 TVD: 6.757.06 Inclination: 56.7 Azimuth: 90.4 VS: 371.31		MD: 6.900 TVD: 6.781.09 Inclination: 57.1 Azimuth: 91.9 VS: 408.16	
90-70% SLTY SH: lt-med gy, sft-sil frm, fri, sb pily-biky, vf gr, silty tex, rthy		90-70% SLTY SH: lt-med gy, sft-sil frm, fri, sb pily-biky, vf gr, silty tex, rthy		65-75% CHK: crn-illy to brn, mot, sft-mod frm, sb pily-biky, v calc;		55-30% 45-70% calc; br	
sitr, sil calc: 0-10% MRLST: med-dk gy, sil frm-mod hd, sb pily-biky,		sitr, sil calc: 0-10% MRLST: med-dk gy, sil frm-mod hd, sb pily-biky,		20-25% MRLST: med-dk gy, sil frm-mod hd, sb pily-biky, silty-mot tex,			
silty-mot tex, calc: 10-20% CHK: crn-illy to brn, mot, sft-mod frm, sb		silty-mot tex, calc: 10-20% CHK: crn-illy to brn, mot, sft-mod frm, sb		calc: 10-0% SLTY SH: lt-med gy, sft-sil frm, fri, sb pily-biky, vf gr, silty tex,			
pily-biky, v calc, abnt bent		pily-biky, v calc, abnt bent		rthy sitr, sil calc; bent			
7200							





med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, crm-ilty to brn, mot, sft-mod frm, sb pily-biky, v calc;	45-35% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc; 55-65% CHK: crm-ilty to brn, mot, sft-mod frm, sb pily-biky, v calc; tr bent	25-30% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc; 75-70% CHK: crm-ilty to brn, mot, sft-mod frm, sb pily-biky, v calc; tr bent	30-15% MRLST: med-dk gy, sl fr
			calc; 70-80% CHK: crm-ilty to b
			0-5% CMT; tr bent
			7200





MD: 7.387
TVD: 6.889.47
Inclination: 91
Azimuth: 91.5
VS: 875.4

TVD (ft)

6100

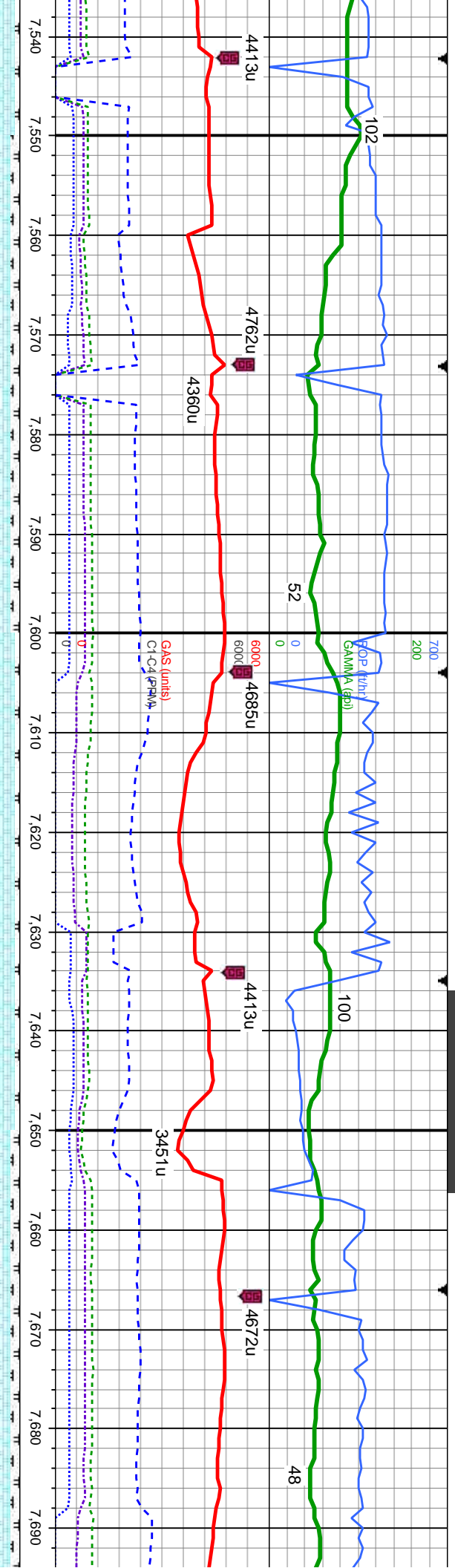
frm, sb pily-biky, v calc;
sb pily-biky, silty-mot tex,

95% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-biky, v calc; 5%
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc

90% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-biky, v calc; 10%
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc; tr fos frags

95% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-biky
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, fos frags





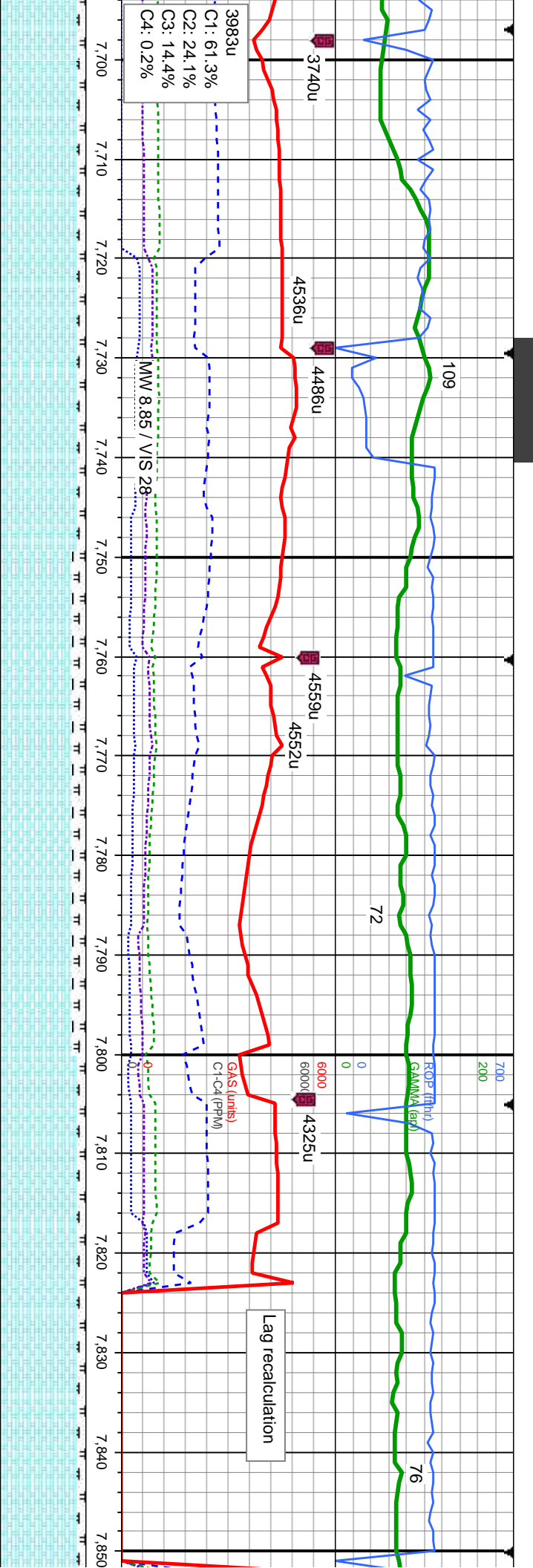
MD: 7,573
TVD: 6,889.37
Inclination: 89.5
Azimuth: 94
VS: 1,061.19

TVD (ft)

MD: 7,667
TVD: 6,889.95
Inclination: 89.8
Azimuth: 90.6
VS: 1,155.11

90% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-bkly, v calc: 10% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc: tr fos frags	95% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-bkly, v calc: 5% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc: tr fos frags
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MD: 7,743
TVD: 6,889.42
Inclination: 91
Azimuth: 89.1
VS: 1,231.1

TVD (ft)

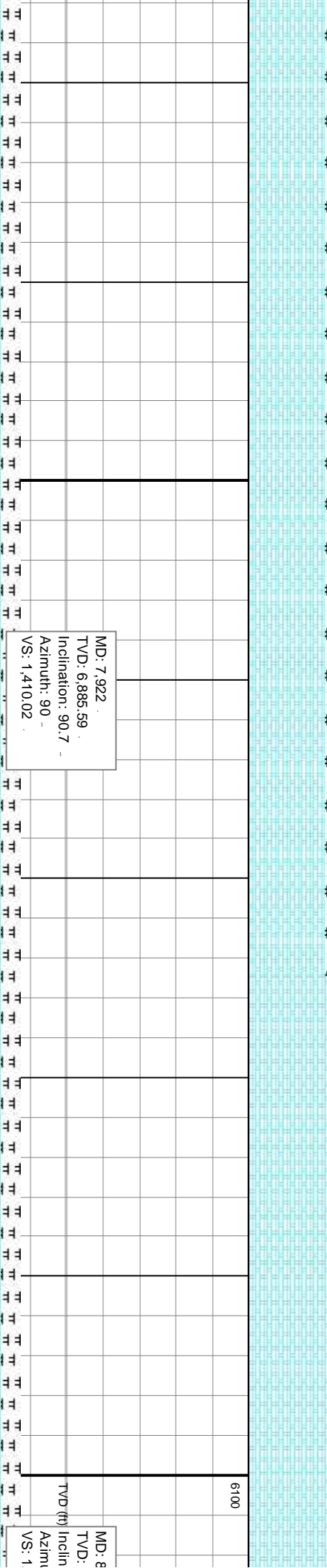
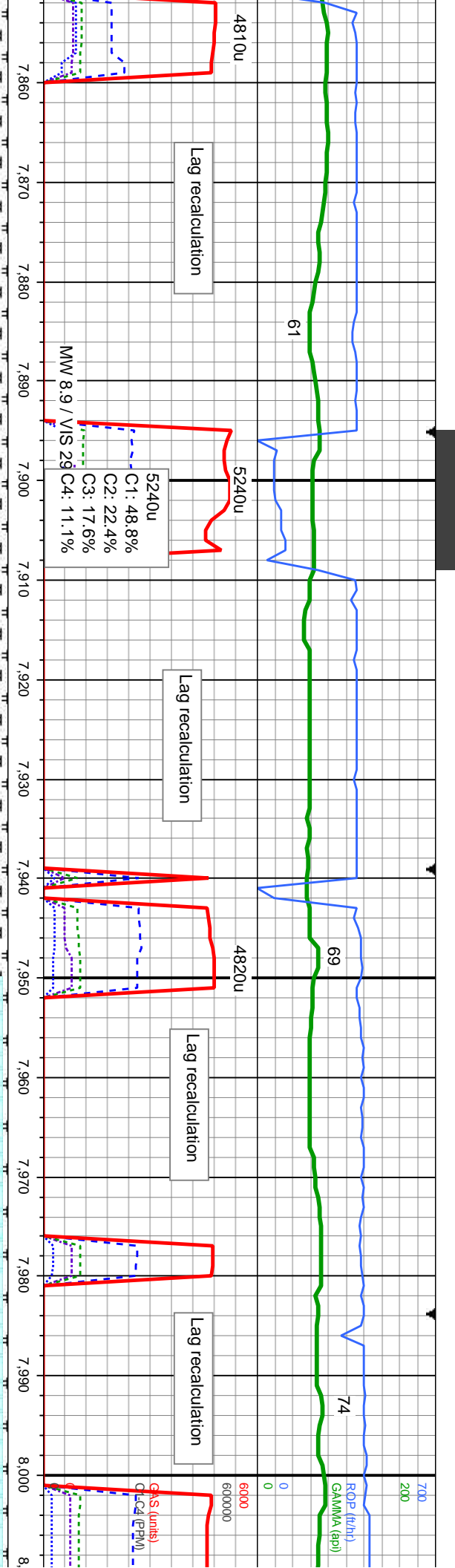
MD: 7,832
TVD: 6,887.4
Inclination: 91.6
Azimuth: 88.6
VS: 1,320.06

90% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, v calc: 10%
MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos frags

85% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, v calc: 15%
MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos frags

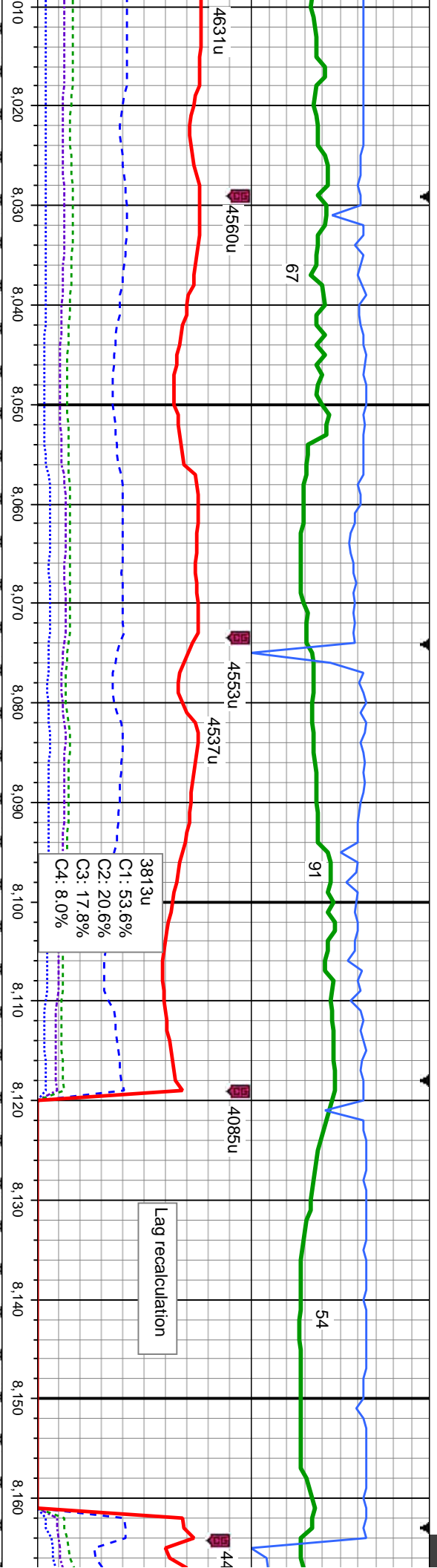
90% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, v calc: 10%
MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos frags





90% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-blky, v calc: 10% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc: tr fos frags	90% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-blky, v calc: 10% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc: tr fos frags	95% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-blky, v calc: 5% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc: tr fos frags	95% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-blky, v calc: 5% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc: tr fos frags
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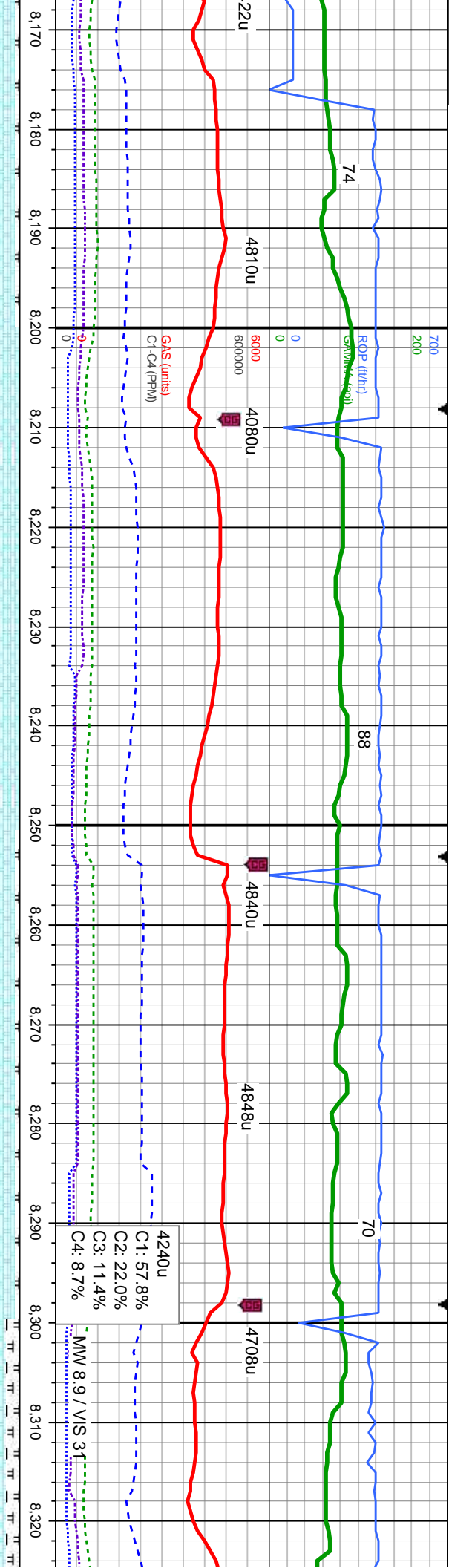


0.012
6,884.33
ation: 90.9
uth: 90.6
500.01

MD: 8,101
TVD: 6,882.47
Inclination: 91.5
Azimuth: 90.5
VS: 1,588.99

95% CHK: crm-ilty to brn, mot, sft-mod frm, sb pily-blky, v calc: 5% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc: tr fos frags	95% CHK: crm-ilty to brn, mot, sft-mod frm, sb pily-blky, v calc: 5% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc: tr fos frags	95% CHK: crm-ilty to brn, mot, sft-mod frm, sb pily-blky, v calc: 5% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc: tr fos frags
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MD: 8,191
TVD: 6,880.9
Inclination: 90.5
Azimuth: 90.3
VS: 1,678.98

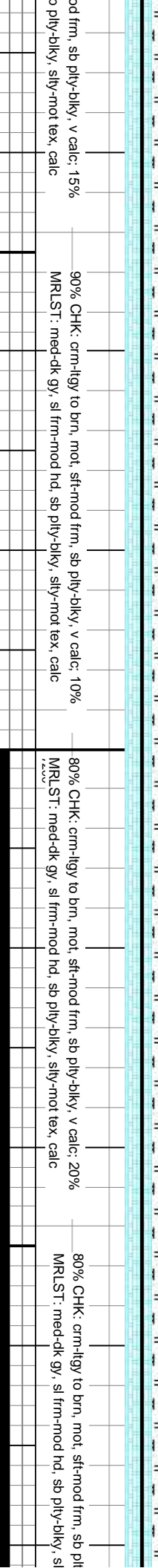
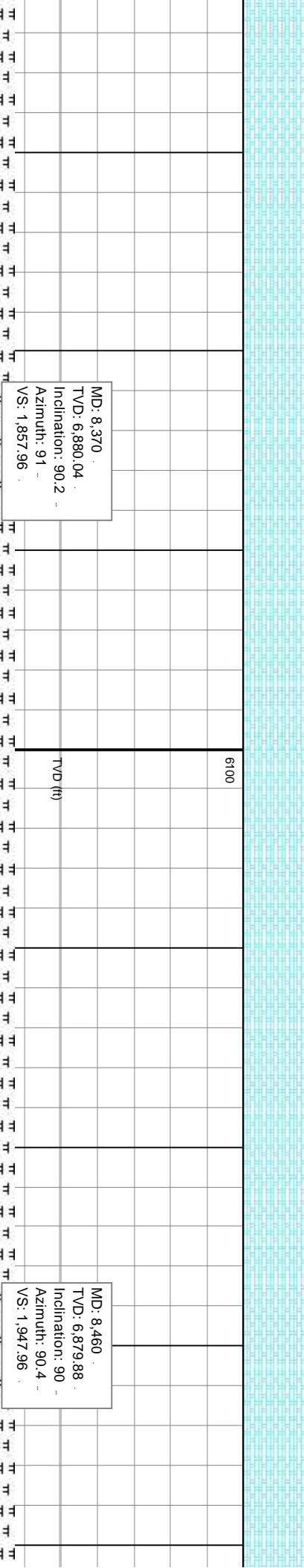
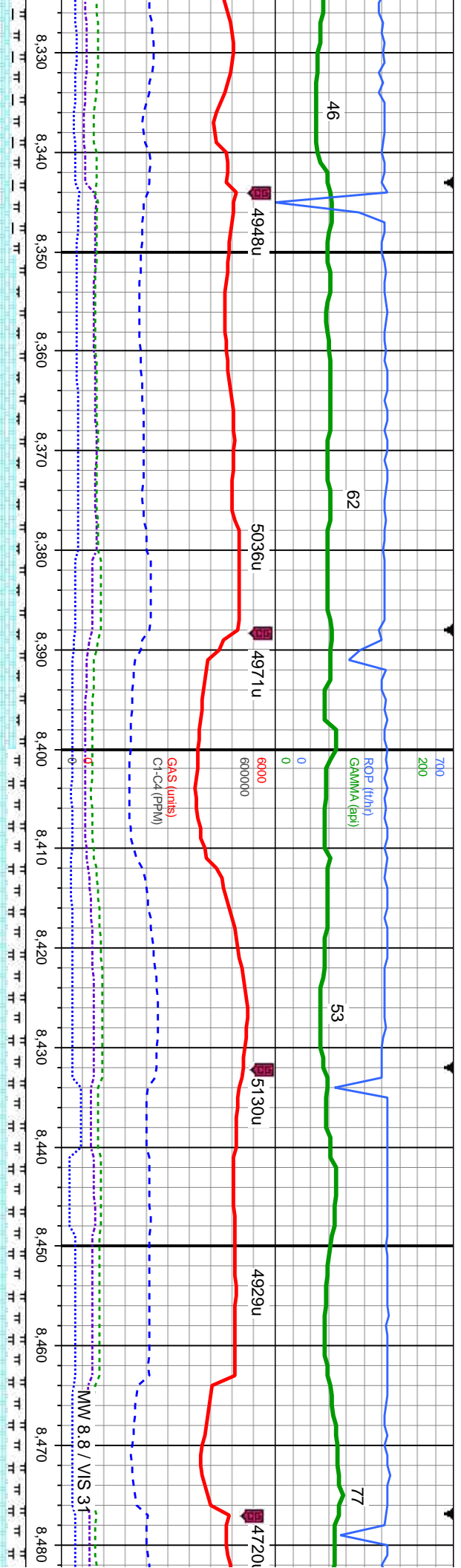
MD: 8,281
TVD: 6,880.35
Inclination: 90.2
Azimuth: 90.9
VS: 1,768.97

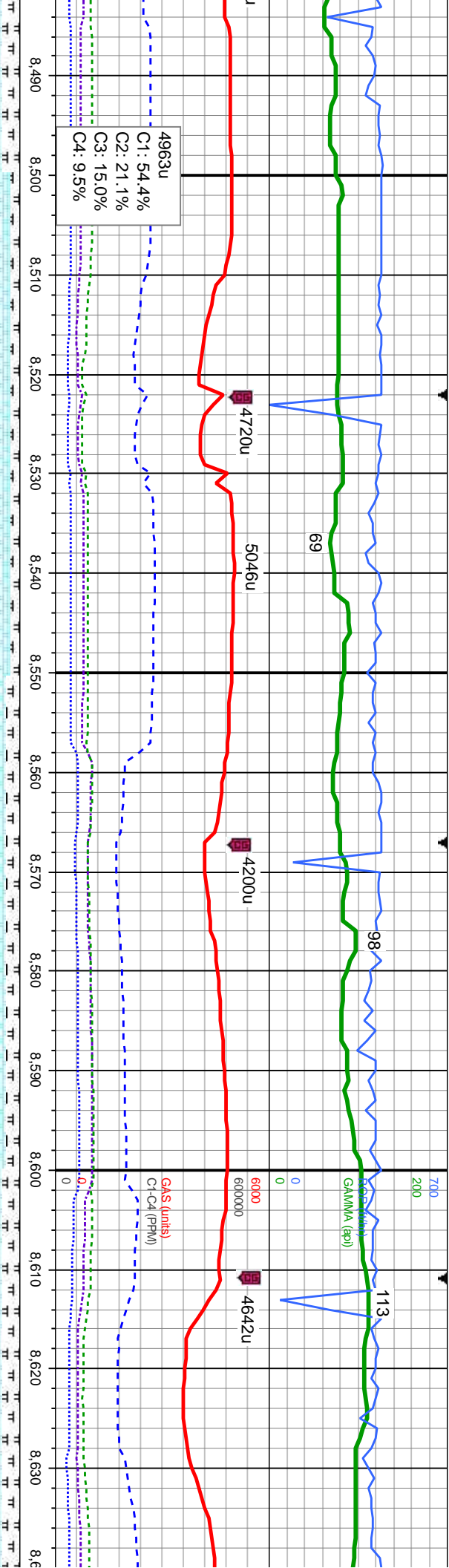
4240u
C1: 57.8%
C2: 22.0%
C3: 11.4%
C4: 8.7%

MW 8.9 / VS 31

mod, sft-mod frm, sb pily-blky, v calc: 5%	100% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-blky, v calc:	95% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-blky, v calc: 5%	85% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-blky, v calc: 5%
mod hd, sb pily-blky, silty-mot tex, calc: tr fos		MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc	MRLST: med-dk gy, sl frm-mod hd, si
7200			





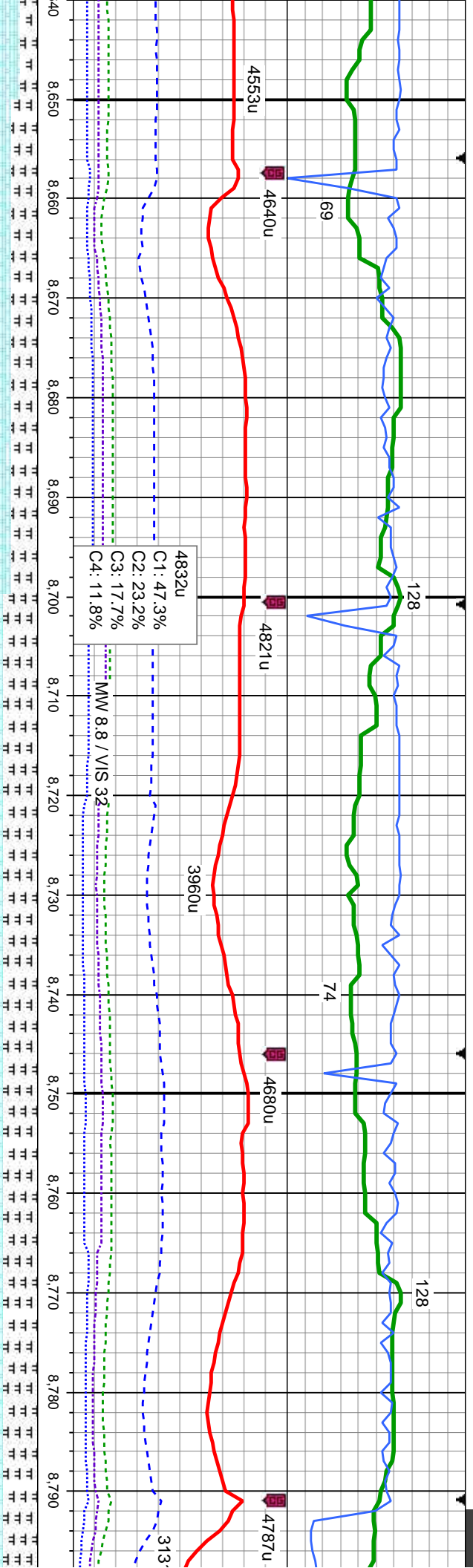


MD: 8,549
TVD: 6,879.49
Inclination: 90.5
Azimuth: 89.7
VS: 2,036.96

MD: 8,639
TVD: 6,878
Inclination: 81
Azimuth: 81
VS: 2,126.5

90% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-blky, v calc, 10%
MRLST: med-dk gy, sl frm-mod hd, sb ply-blky, silty-mot tex, calc, tr fos frags
85% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-blky, v calc, 15%
MRLST: med-dk gy, sl frm-mod hd, sb ply-blky, silty-mot tex, calc, tr fos frags
80% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-blky, v ca
MRLST: med-dk gy, sl frm-mod hd, sb ply-blky, silty-mot tex, frags





ic: 20%
calc, tr fos
3.9 -
90.9 -
3.9 -
4 -

70% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-biky, v calc: 30%
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos
frags

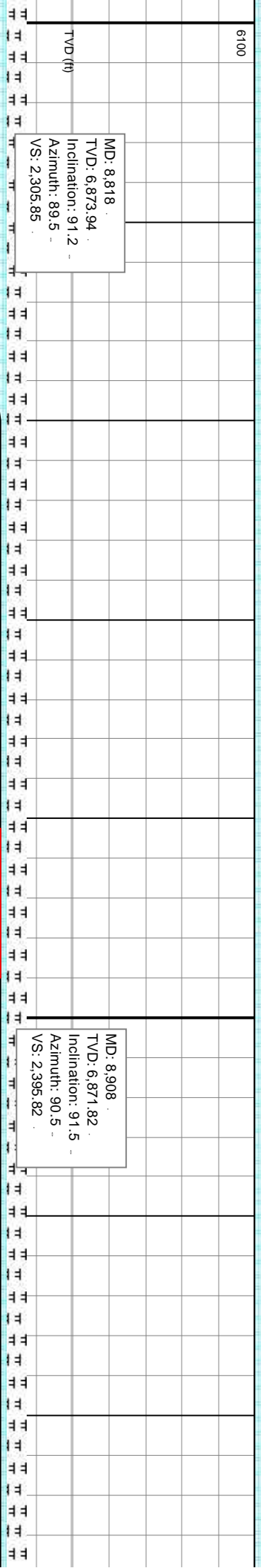
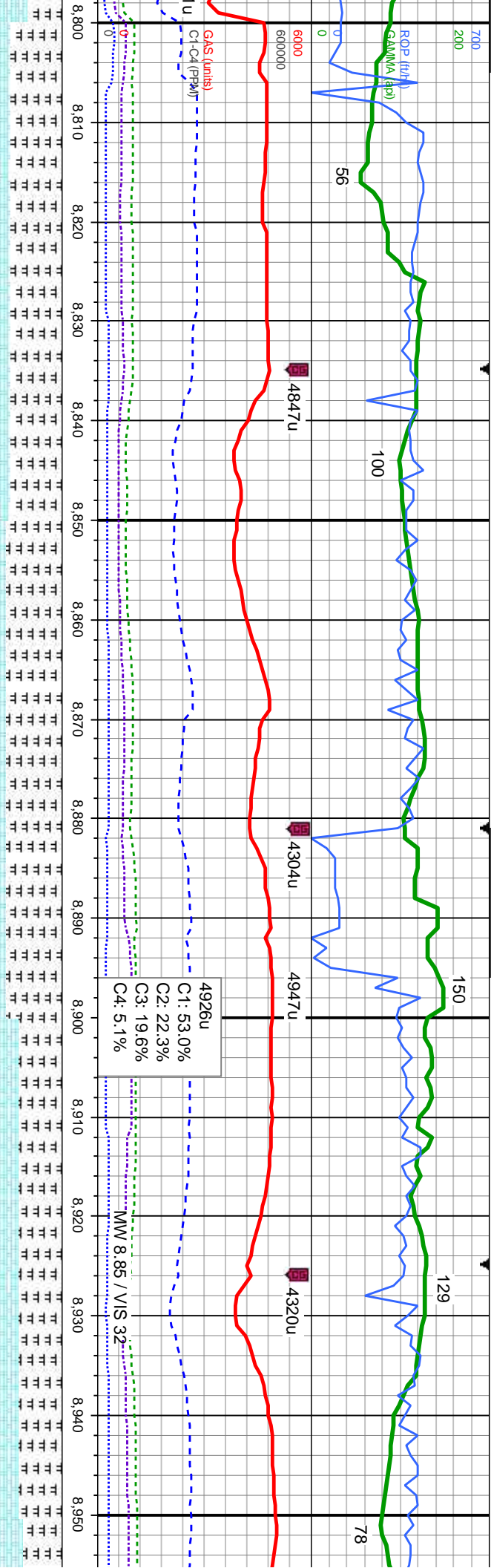
60% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-biky, v calc: 40%
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos
frags

60% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-biky, v calc: 40%
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos
frags

MD: 8.729
TVD: 6,876.27
Inclination: 91.8
Azimuth: 89
VS: 2,216.89

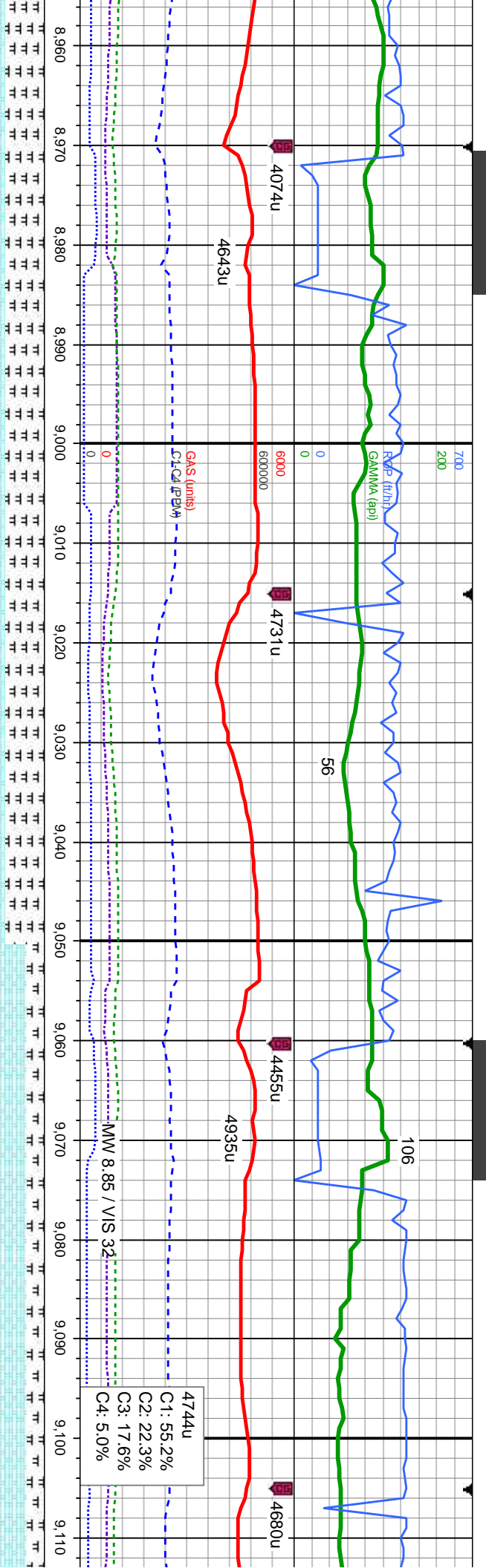
4832u
C1: 47.3%
C2: 23.2%
C3: 17.7%
C4: 11.8%
MW 8.8 / VIS 32





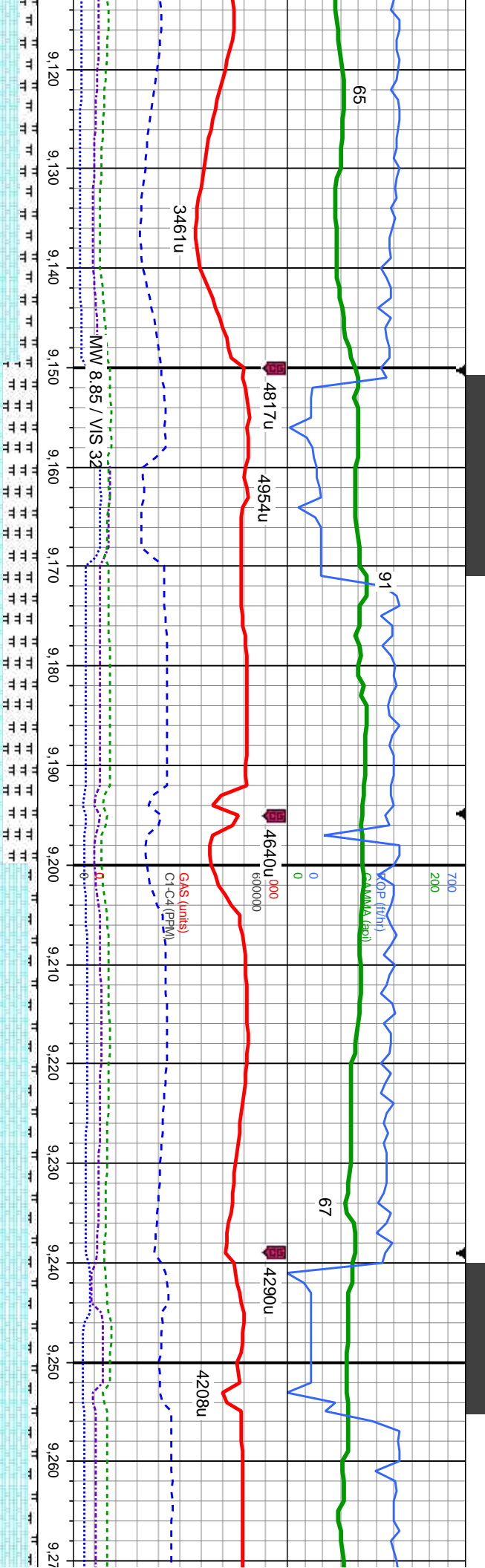
60% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc;	65% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc;	50% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc;	55% (
40% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-biky, v calc, tr fos	35% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-biky, v calc, tr fos	50% CHK: crm-lyg to brn, mot, sft-mod frm, sb pily-biky, v calc, tr fos	MRLS
frags	frags	frags	frags
7200			





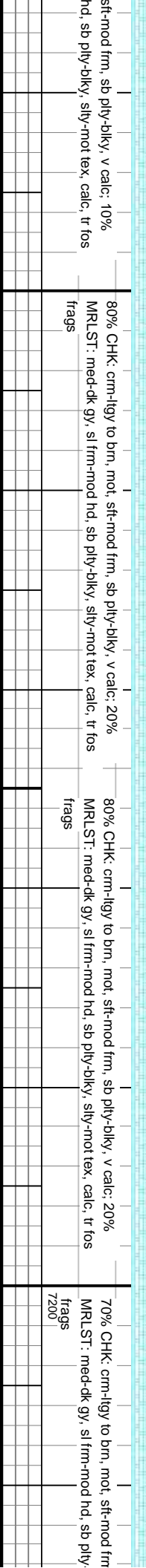
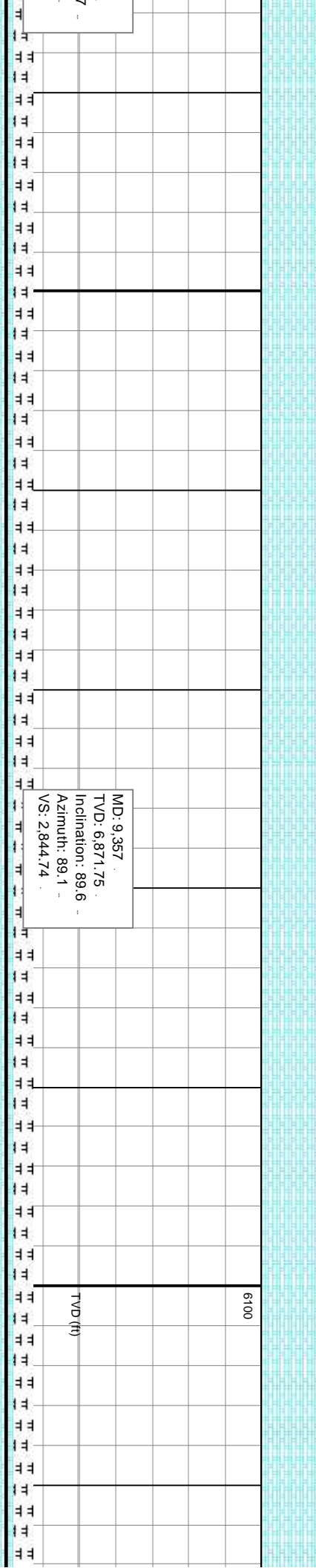
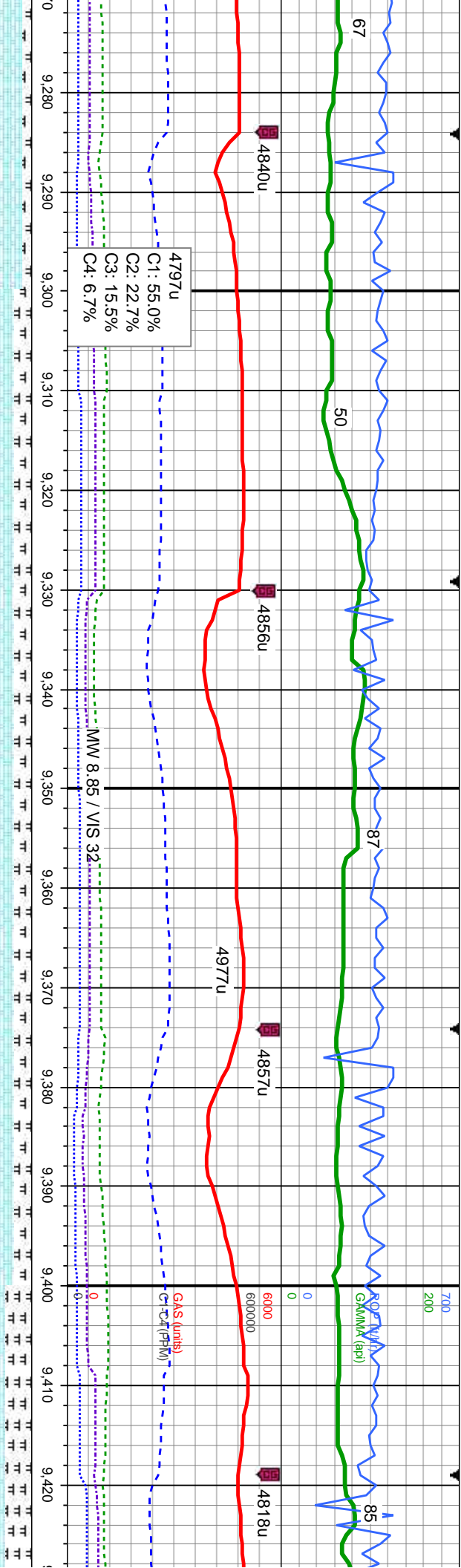
55% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-blky, v calc: 35% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc, tr fos frags		80% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-blky, v calc: 20% MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc, tr fos frags		80% CHK: crm-llg MRLST: med-dk g frags	
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6100		TVD (ft)	
y, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos		60% CHK: crm-lyg to brn, mot, sft-mod frm, sb ply-bkly, v calc: 40% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos frags	
y, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos		90% CHK: crm-lyg to brn, mot, sft-mod frm, sb ply-bkly, v calc: 10% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos frags	
y, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos		90% CHK: crm-lyg to brn, mot, sft-mod frm, sb ply-bkly, v calc: 10% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos frags	





7/10/2014

MINDEPTH

111

130

52

5012u

5040u

5348u

5182u

5237u

5175u

5333u

C1: 45.6%
C2: 21.9%
C3: 19.6%
C4: 12.8%

MW 8.9 / VIS 32

9,430 9,440 9,450 9,460 9,470 9,480 9,490 9,500 9,510 9,520 9,530 9,540 9,550 9,560 9,570 9,580

MD: 9,446
TVD: 6,871.75
Inclination: 90.4
Azimuth: 88.7
VS: 2,933.71

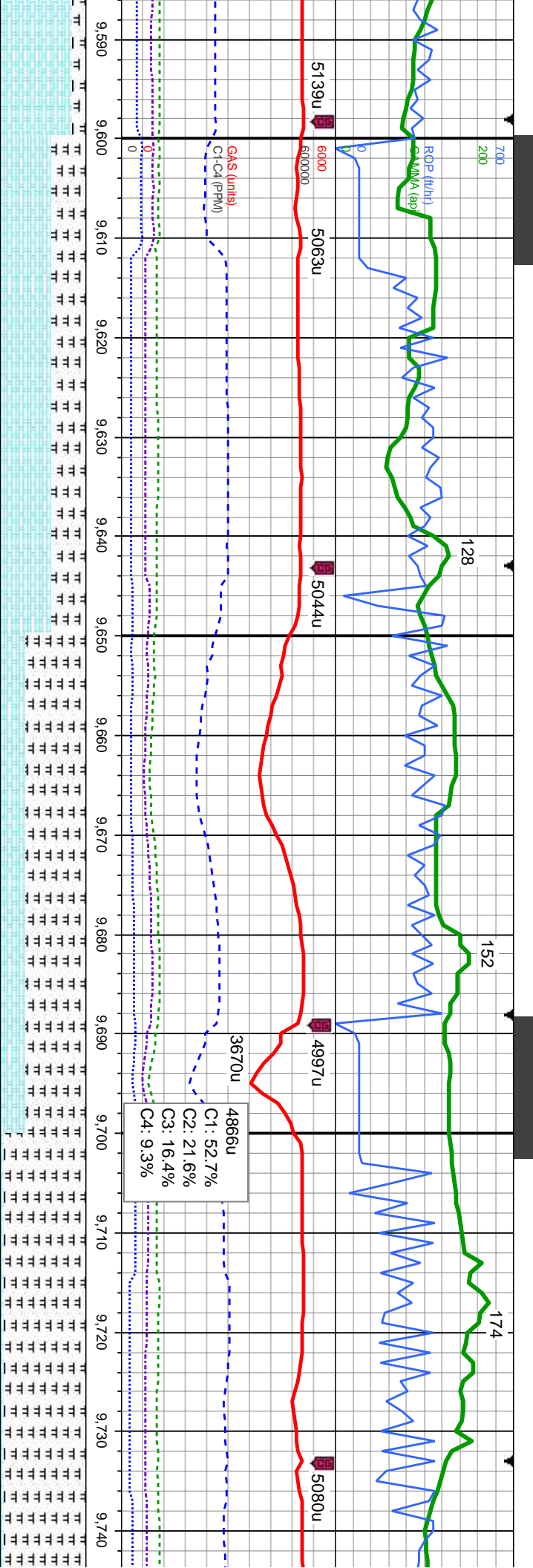
MD: 9,536
TVD: 6,870.26
Inclination: 91.5
Azimuth: 88.2
VS: 3,023.66

70% CHK: crm-ilty to brn, mod, sft-mod frm, sb pily-biky, v calc: 30%
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos frags

85% CHK: crm-ilty to brn, mod, sft-mod frm, sb pily-biky, v calc: 15%
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos frags

85% CHK: crm-ilty to brn, mod, sft-mod frm, sb pily-biky, v calc: 15%
MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos frags





MD: 9.626
TVD: 6,867.75
Inclination: 91.7
Azimuth: 88.9
VS: 3,113.59

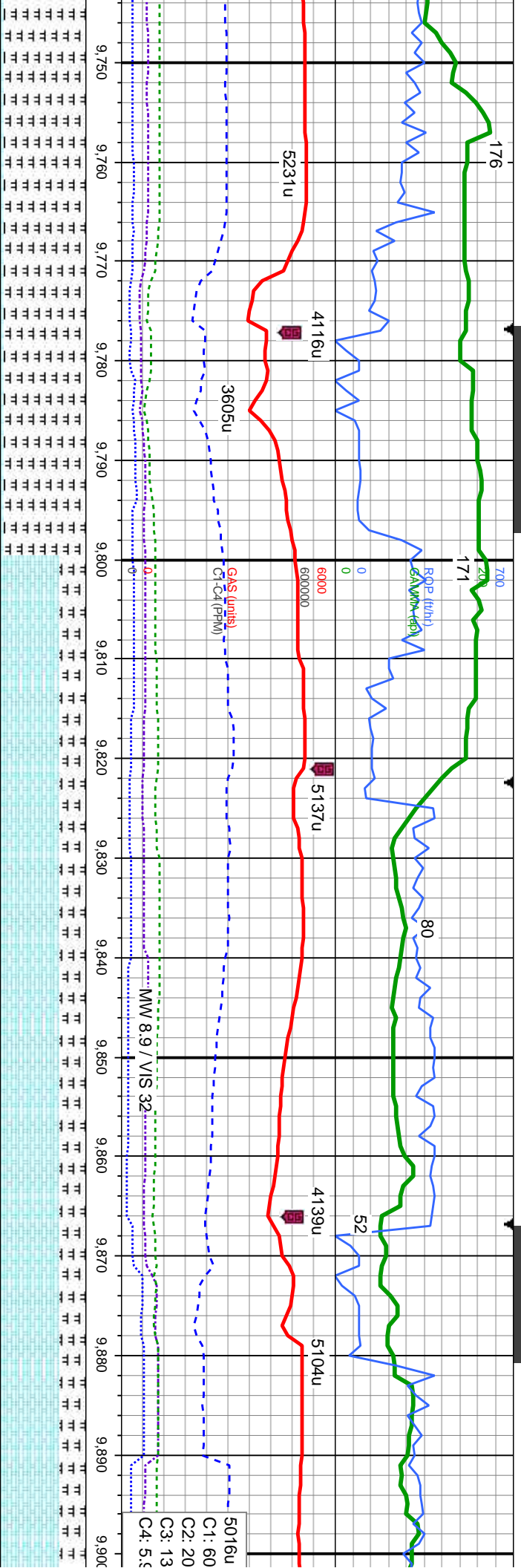
MD: 9.715
TVD: 6,865.42
Inclination: 91.3
Azimuth: 89.3
VS: 3,202.54

60% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-biky, v calc: 40%
MR.LST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc, tr fos
frags

70% MR.LST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc:
30% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-biky, v calc, tr fos
frags

95% MR.LST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, c
5% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-biky, v calc, tr fos
frags





MD: 9.805
TVD: 6,864.24
Inclination: 90.2
Azimuth: 90.2
VS: 3,292.53

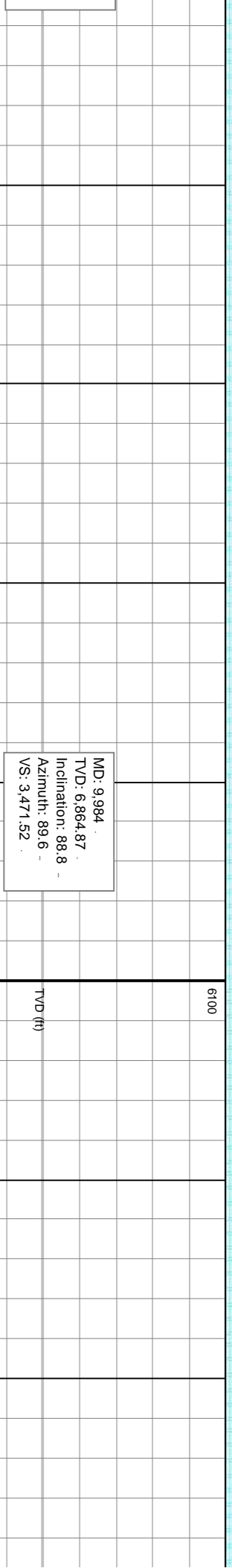
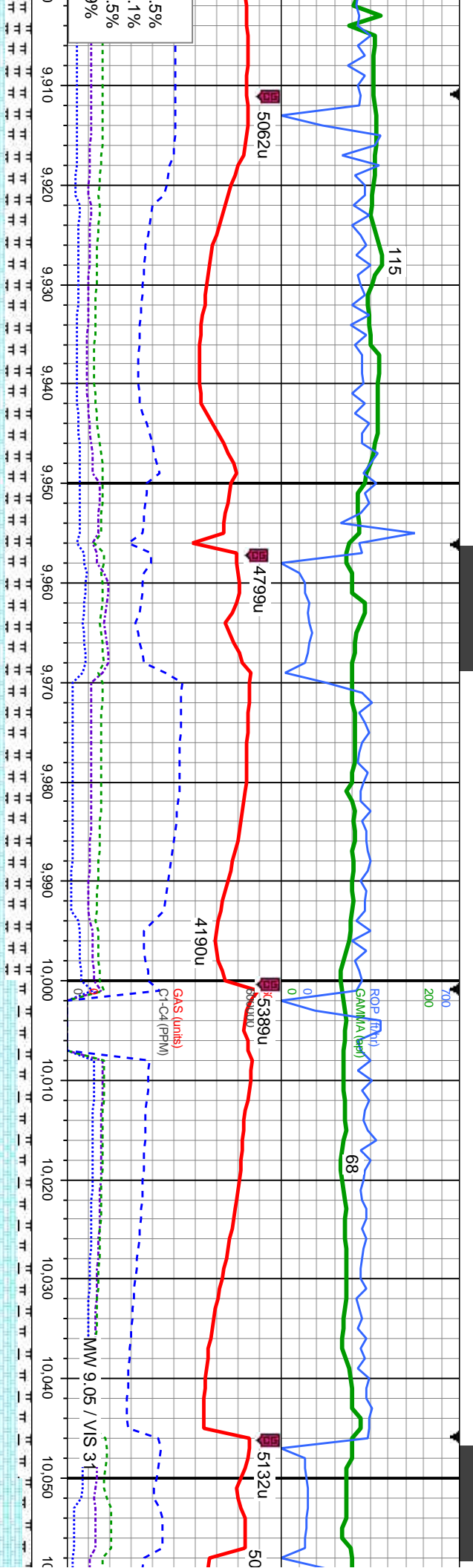
MD: 9.894
TVD: 6,864.01
Inclination: 90.1
Azimuth: 90.6
VS: 3,381.53

95% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc;
5% CHK: crn-illy to brn, mot, sft-mod frm, sb ply-biky, v calc, tr fos
frags

70% CHK: crn-illy to brn, mot, sft-mod frm, sb ply-biky, v calc: 30%
MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc, tr fos
frags

70% CHK: crn-illy to brn, mot, sft-mod frm, sb ply-biky, v calc: 30%
MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc, tr fos
frags

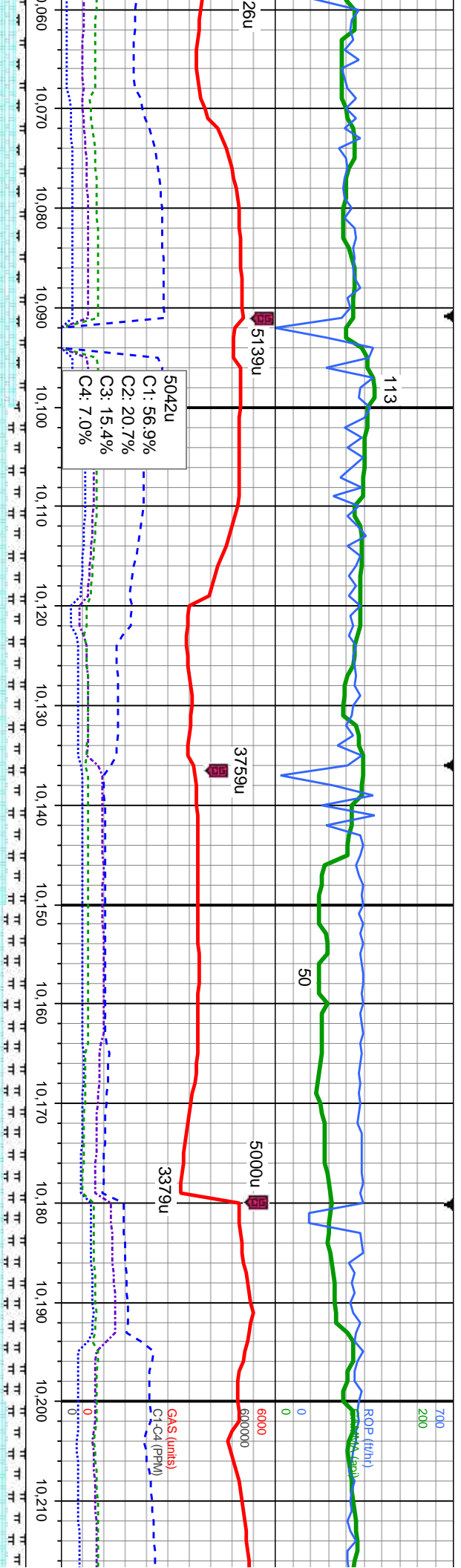




MD: 9.984
TVD: 6.864.87
Inclination: 88.8
Azimuth: 89.6
VS: 3.471.52

0% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-biky, v calc; 30% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos frags	70% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-biky, v calc; 30% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos frags	85% CHK: crm-llgy to brn, mot, sft-mod frm, sb pily-biky, v calc; 15% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos frags	90% CHK: c MRLST: me
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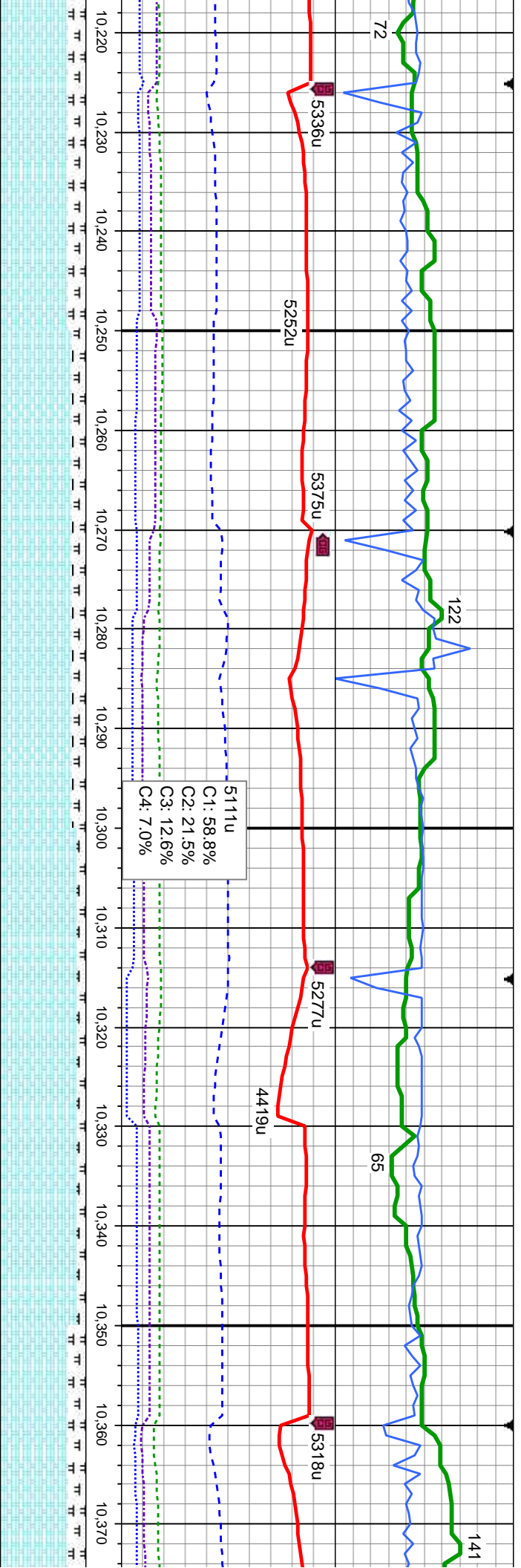


MD: 10.074
TVD: 6.867.39
Inclination: 88
Azimuth: 89.3
VS: 3.561.48

MD: 10.163
TVD: 6.870.34
Inclination: 88.2
Azimuth: 88.7
VS: 3.650.41

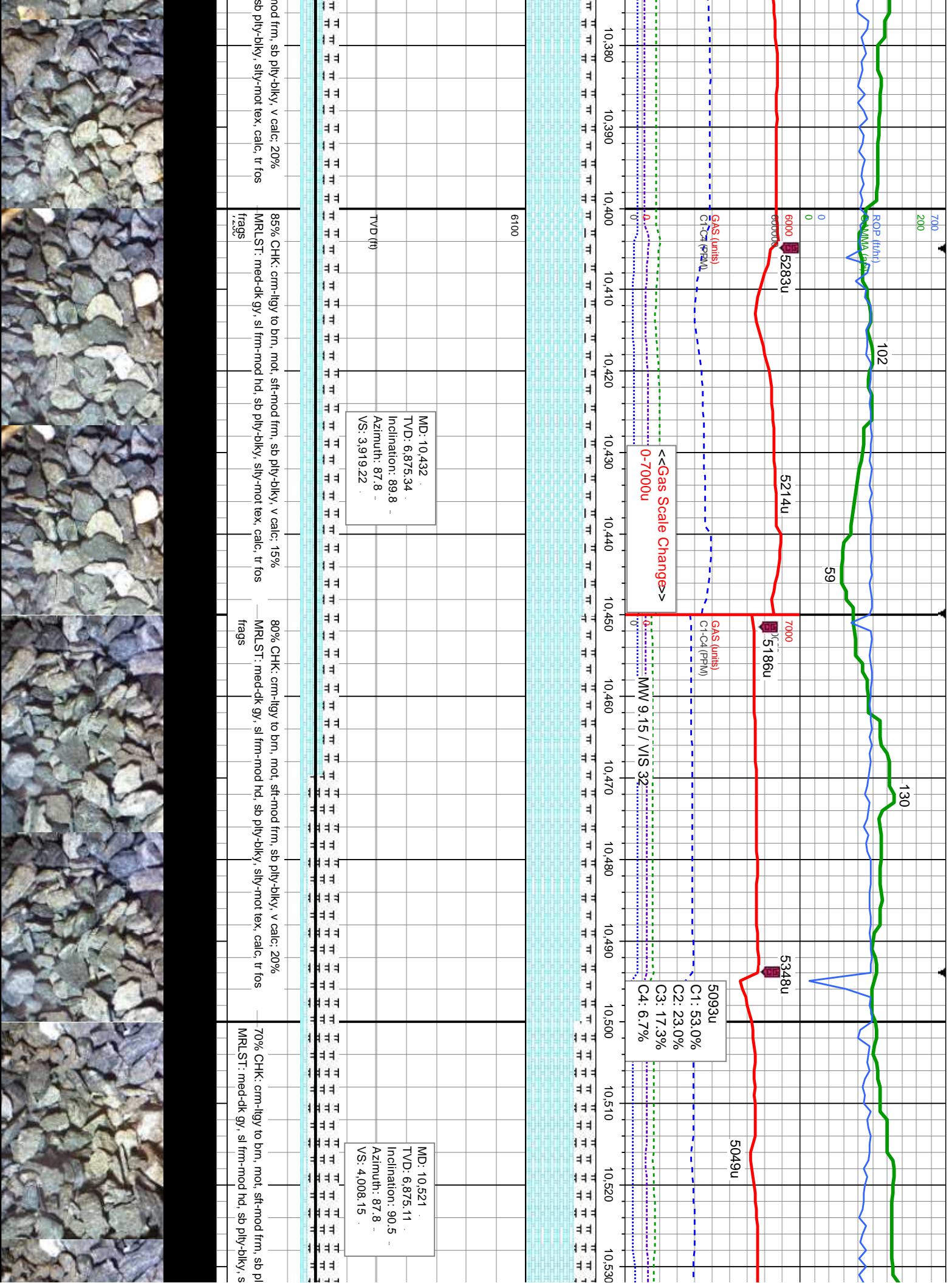
80% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-bkly, v calc, 10% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos frags	80% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-bkly, v calc, 20% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr frags	75% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-bkly, v calc, 25% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr frags	80% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-bkly, v calc, 10% MRLST: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex, calc, tr fos frags
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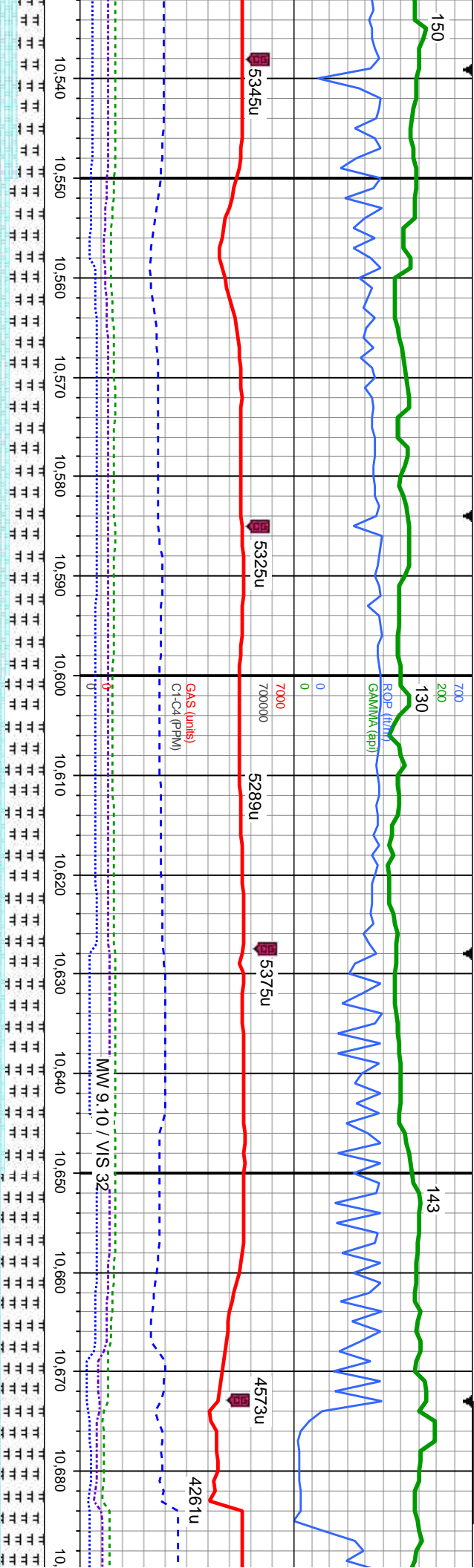




n, mot, sft-mod frm, sb pily-biky, v calc: 20%		85% CHK: crm-illy to brn, mot, sft-mod frm, sb pily-biky, v calc: 15%		90% CHK: crm-illy to brn, mot, sft-mod frm, sb pily-biky, v calc: 10%		80% CHK: crm-illy to brn, mot, sft-	
n-mod hd, sb pily-biky, silty-mot tex, calc, tr fos		MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos		MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc, tr fos		MRLST: med-dk gy, sl frm-mod hd,	
		frags		frags		frags	



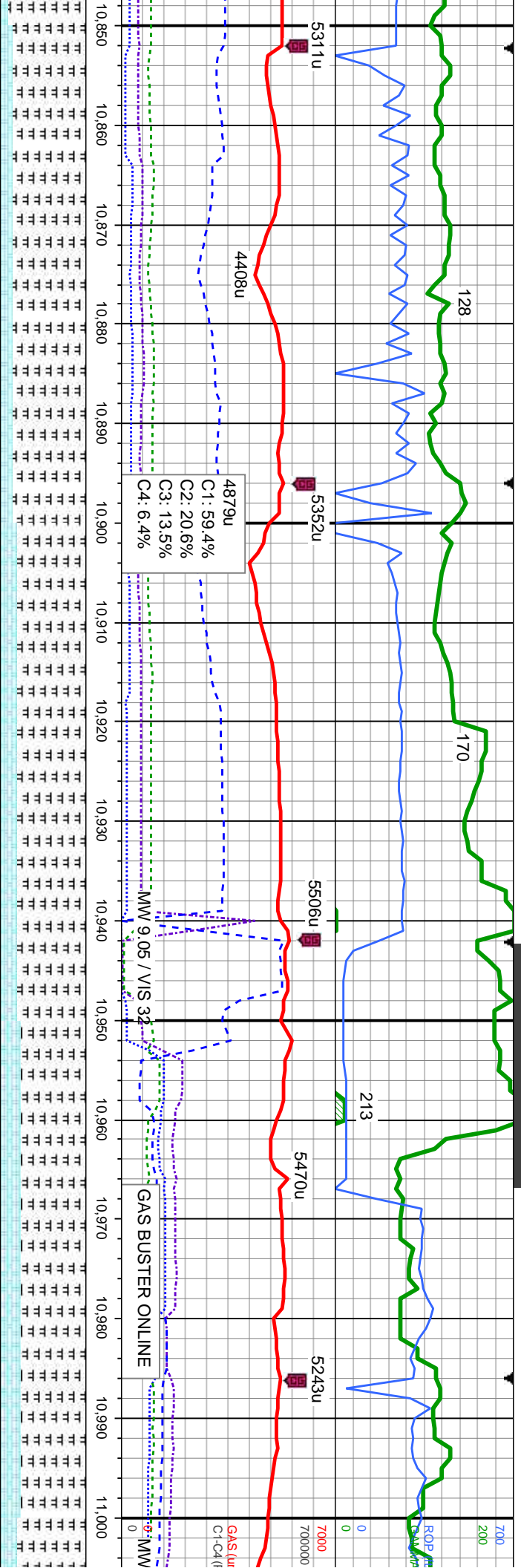




MD: 10.611
TVD: 6.874.17
Inclination: 90.7
Azimuth: 88.2
VS: 4.098.08

ly-biky, v calc, 30%	60% CHK: crm-ilty to brn, mot, sft-mod frm, sb pily-biky, v calc, 40%	55% CHK: crm-ilty to brn, mot, sft-mod frm, sb pily-biky, v calc, 45%	50% CHK: crm-ilty to brn, mot, sft-mod frm, sb pily-biky, v
ily-mot tex, calc	MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc	MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc	MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot tex, calc





MD: 10,880
TVD: 6,867.9
Inclination: 93.1
Azimuth: 90.3
VS: 4,366.94

MD: 10,969
TVD: 6,865.18
Inclination: 90.4
Azimuth: 90.7
VS: 4,455.88

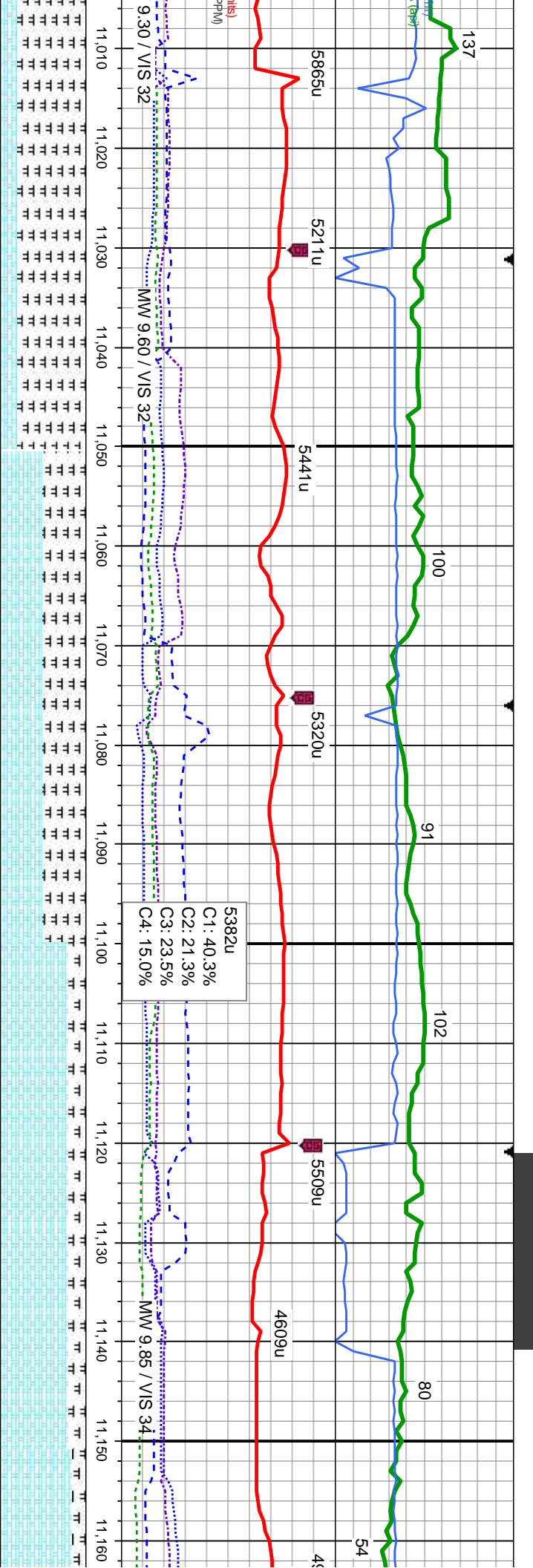
85% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc;
15% CHK: crn-lgy to brn, mot, sft-mod frm, sb ply-biky, v calc; tr fos frags

80% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc; 20% CHK: crn-lgy to brn, mot, sft-mod frm, sb ply-biky, v calc; tr fos frags

75% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc; 25% CHK: crn-lgy to brn, mot, sft-mod frm, sb ply-biky, v calc; tr fos frags

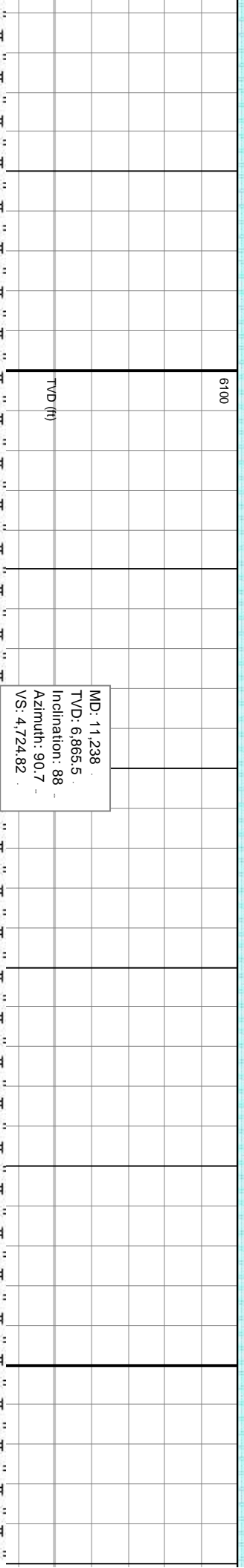
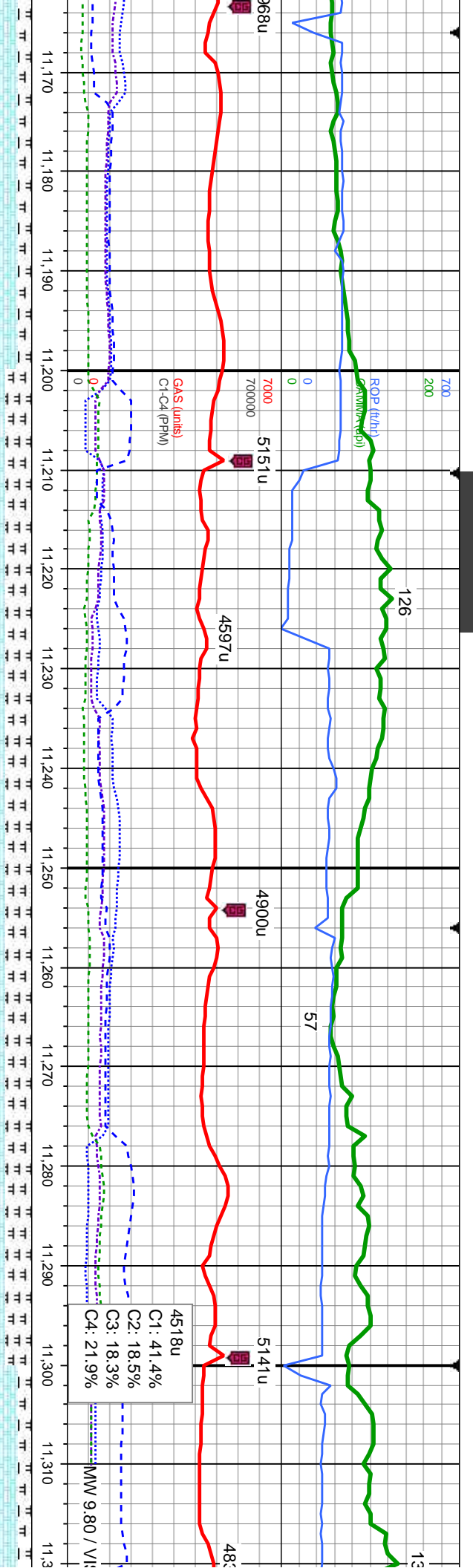
80% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc; 20% CHK: crn-lgy to brn, mot, sft-mod frm, sb ply-biky, v calc; tr fos frags





MRSLT: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex,	50% MRSLT: med-dk gy, sl frm-mod hd, sb ply-bkly, silty-mot tex,	80% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, v calc,	85% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, silty-mot tex,
50% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, v calc,	50% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, v calc,	80% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, v calc,	85% CHK: crm-lgy to brn, mot, sft-mod frm, sb ply-bkly, silty-mot tex,
tr fos frags	tr fos frags		





ly to brn, mot, sft-mod frm, sb pily-blky, v calc; 15%
gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc

70% CHK: crm-lgy to brn, mot, sft-mod frm, sb pily-blky, v calc; 30%
MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc

70% CHK: crm-lgy to brn, mot, sft-mod frm, sb pily-blky, v calc; 30%
MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc

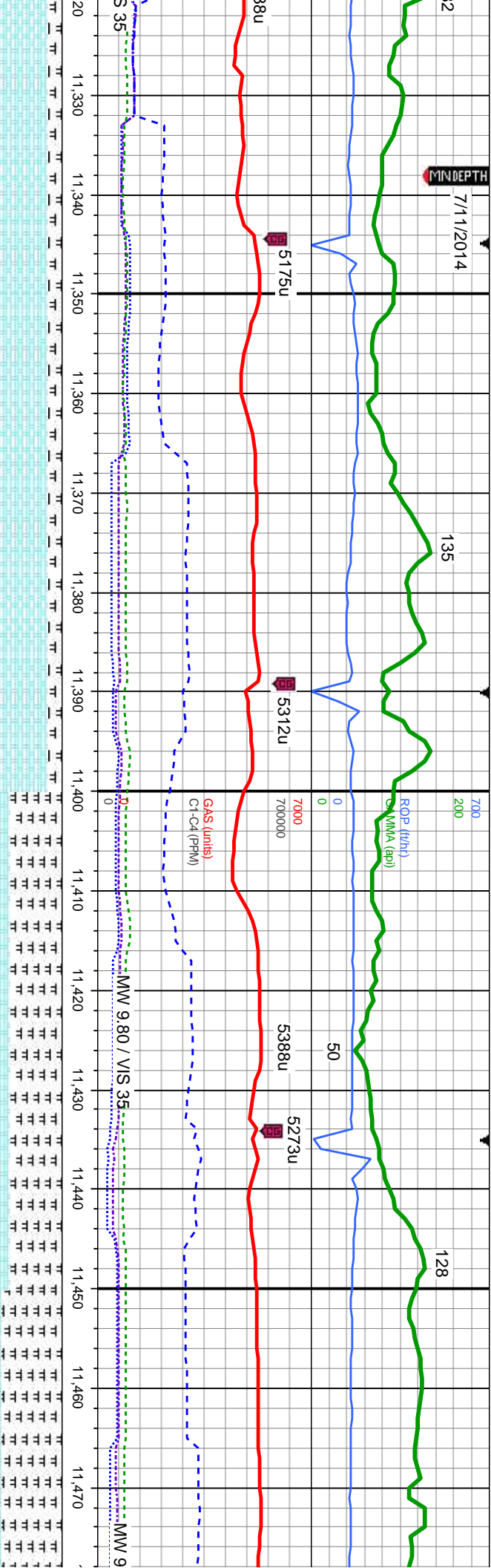
85% CHK: crm-lgy to brn, mot, sft-mod frm, sb pily-blky, v calc; 15%
MRLST: med-dk gy, sl frm-mod hd, sb pily-blky, silty-mot tex, calc



7/11/2014

135

128

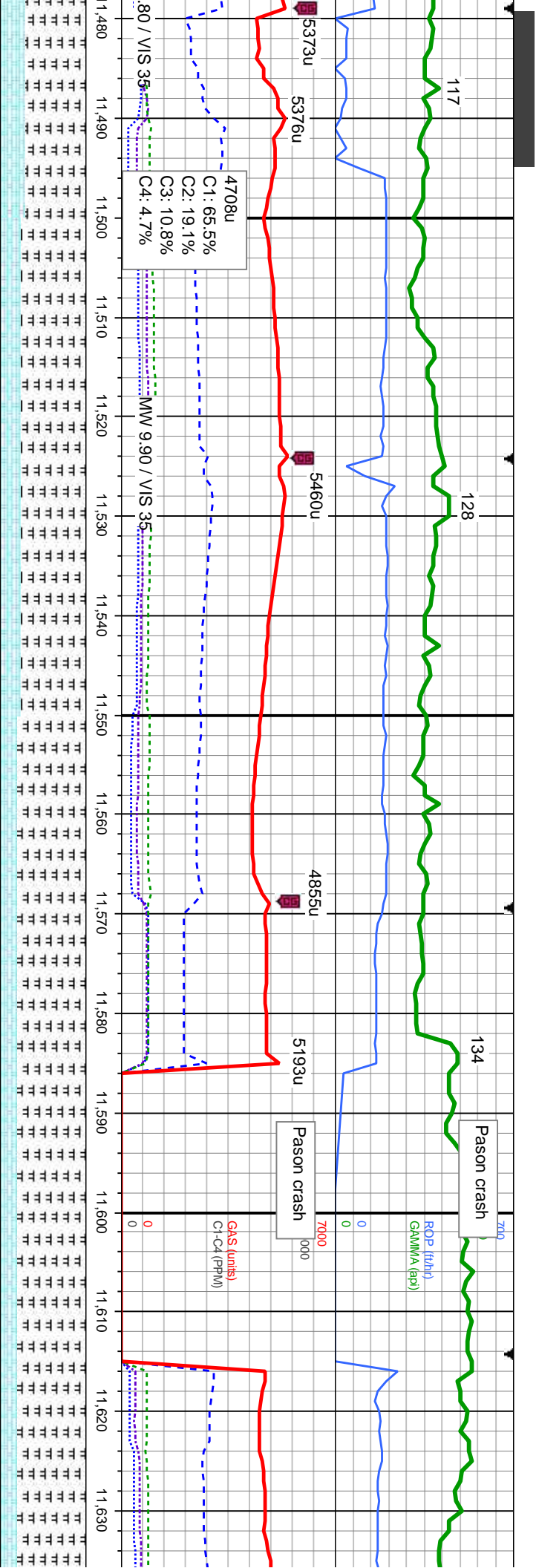


MD: 11,328
TVD: 6,868.72
Inclination: 87.9
Azimuth: 90.3
VS: 4,814.77

MD: 11,417
TVD: 6,871.82
Inclination: 88.1
Azimuth: 90.1
VS: 4,903.71

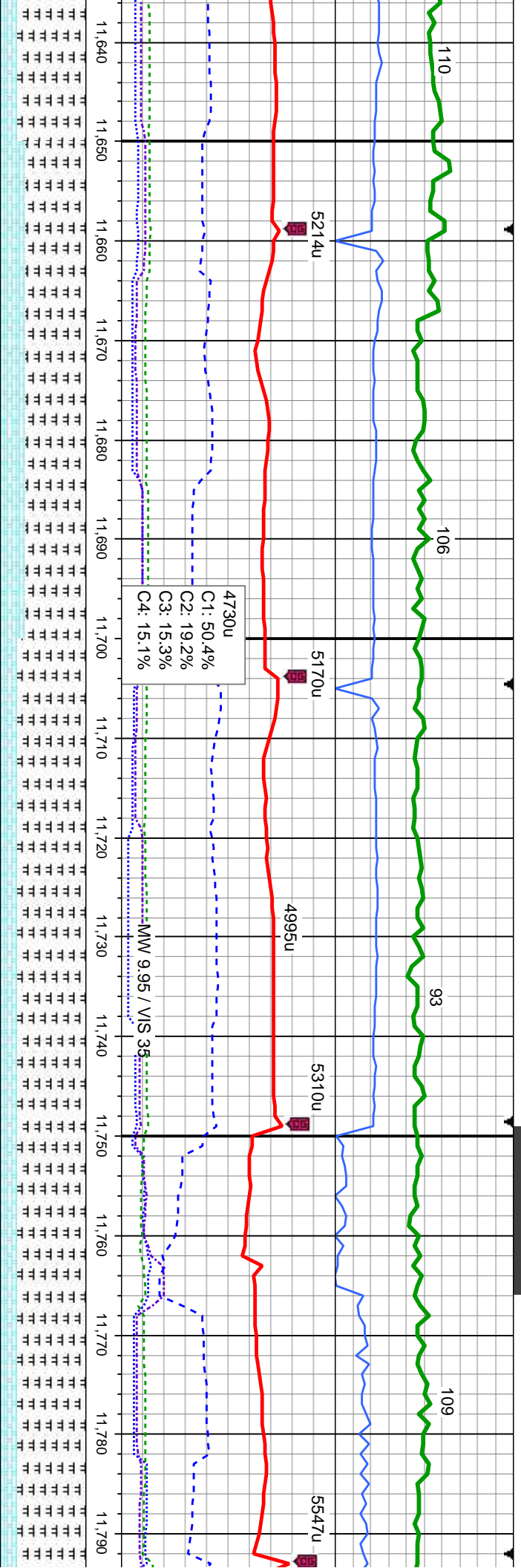
st, sft-mod frm, sb ply-biky, v calc: 15%
85% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-biky, v calc: 15%
MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc
60% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc:
40% CHK: crm-llgy to brn, mot, sft-mod frm, sb ply-biky, v calc, tr fos
frags / cu
70% MRLST: med-dk gy, sl frm-mod hd, st
30% CHK: crm-llgy to brn, mot, sft-mod frm





ply-blky, silty-mot tex, calc;	75% MRLST: med-dk gy, sl frm-mod hd, sb ply-blky, silty-mot tex, calc;	80% MRLST: med-dk gy, sl frm-mod hd, sb ply-blky, silty-mot tex, calc;	80% MRLST: med-dk gy, sl frm-mod hd, sb ply-blky, silty-mot tex, calc;
sb ply-blky, v calc, tr fos	25% CHK: crm-lyg to brn, mot, sft-mod frm, sb ply-blky, v calc, tr fos frags	20% CHK: crm-lyg to brn, mot, sft-mod frm, sb ply-blky, v calc, tr fos frags	tex, calc, 20% CHK: crm-lyg to brn, mot, sft-mod frags
			ply-blky, v calc, tr fos frags





4730u
C1: 50.4%
C2: 19.2%
C3: 15.3%
C4: 15.1%

MD: 11,686
TVD: 6,871.06
Inclination: 92.1
Azimuth: 89.2
VS: 5,172.64

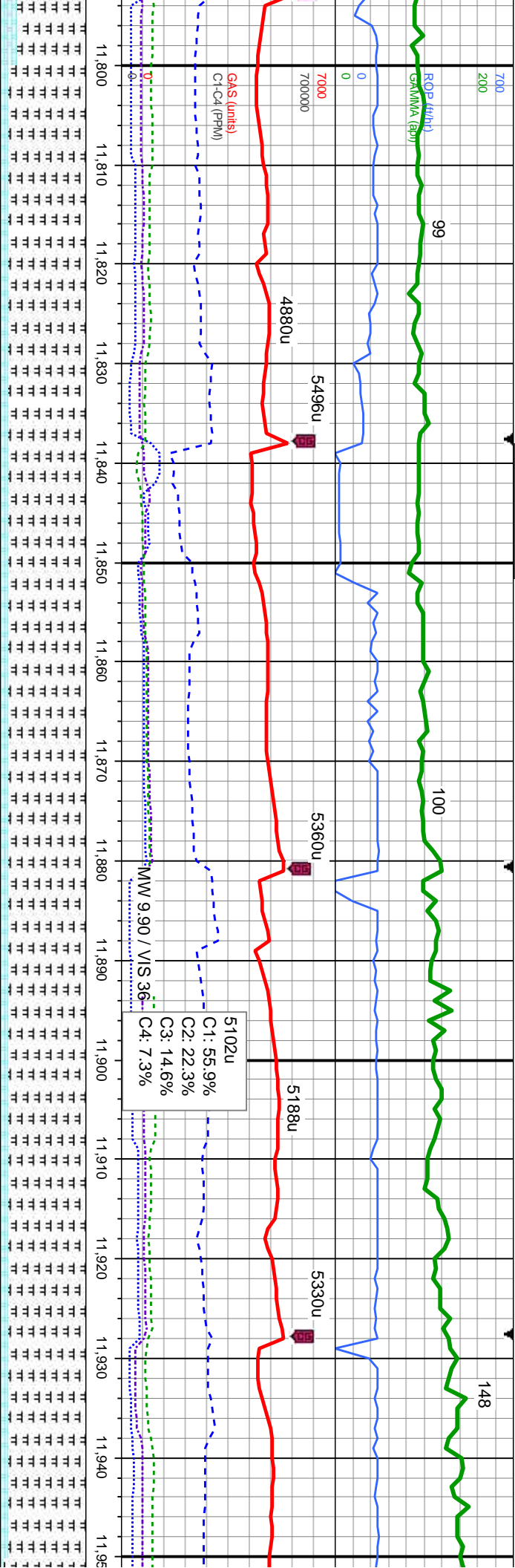
MD: 11,776
TVD: 6,868.39
Inclination: 91.3
Azimuth: 88.9
VS: 5,262.58

ky, silty-mot
frm, sb
70% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot
tex, calc, 30% CHK: crn-lyg to brn, mot, sft-mod frm, sb
pily-biky, v calc, tr fos frags, occ cal

80% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot
tex, calc, 20% CHK: llyg to brn, mot, sft-mod frm, sb pily-biky, v
calc, tr fos frags, occ cal, scat bent

80% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mo
tex, calc, 20% CHK: llyg to brn, mot, sft-mod frm, sb pily-biky
v calc, tr fos frags, occ cal, scat bent

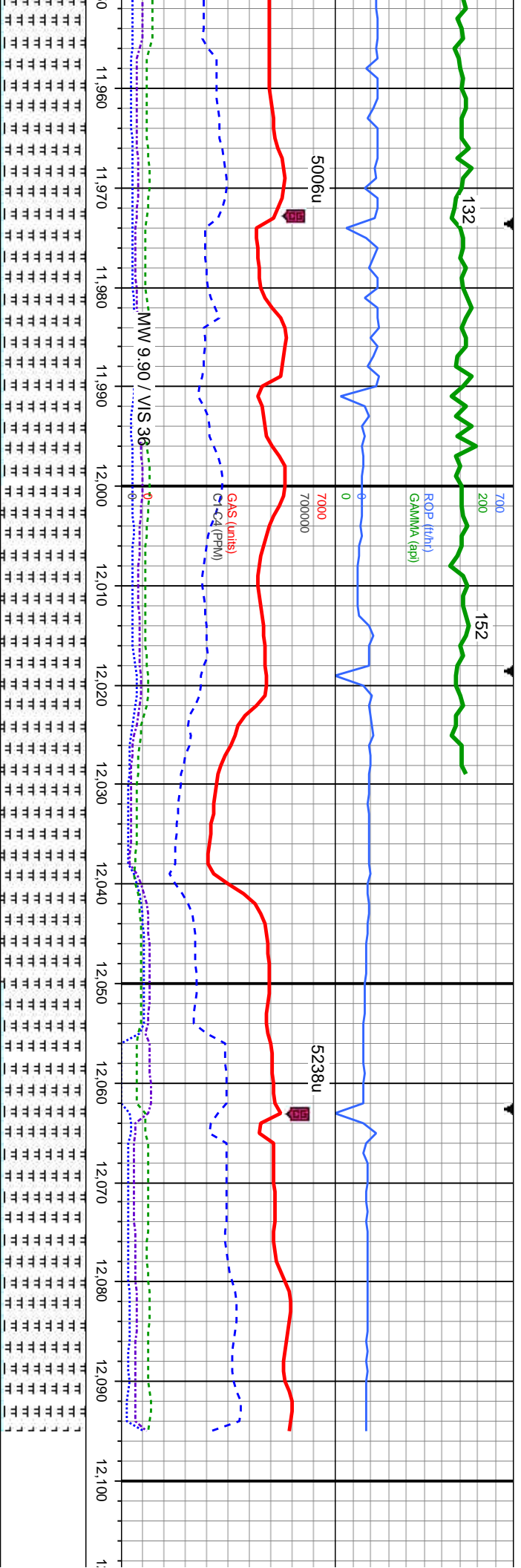




MD: 11,866
TVD: 6,868.63
Inclination: 88.4
Azimuth: 87.9
VS: 5,352.52

90% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc, 10% CHK: lly to brn, mot, sft-mod frm, sb ply-biky, v calc, tr fos frags, scat cal, occ bent	90% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc, 10% CHK: lly to brn, mot, sft-mod frm, sb ply-biky, v calc, tr fos frags, scat cal, occ bent	90% MRLST: med-dk gy, sl frm-mod hd, sb ply-biky, silty-mot tex, calc, 10% CHK: lly to brn, mot, sft-mod frm, sb ply-biky, v calc, tr fos frags, scat cal, occ bent
7200		





11,956
6,871.34
Inclination: 88.1
Azimuth: 88
5,441.4

MD: 12,033
TVD: 6,873.73
Inclination: 88.4
Azimuth: 87
VS: 5,519.27

95% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky, silty-mot
tex, calc, 5% CHK: ligy to brn, mot, sft-mod frm, sb pily-biky,
v calc, occ fos frags, scat cal, occ bent

100% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky,
silty-mot tex, calc, occ fos frags, scat cal, occ bent

95% MRLST: med-dk gy, sl frm-mod hd, sb pily-biky,
silty-mot tex, calc, 5% CHK: ligy to brn, mot, sft-mod frm, sb
pily-biky, v calc, occ fos frags, scat cal, occ bent



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