

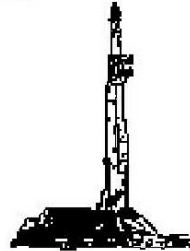
GOOLSBY BROTHERS
and associates, inc.

575 Union Blvd, Suite 208
Lakewood, CO 80228
303-945-2860 Office



Geological Wellsite
Supervision

www.goolsbybrothers.com



Scale 1:240 (5"=100') Imperial
Measured Depth Log

Well Name: Banded 37C-27HZ

Well Id:

Location: Sec. 22 T2N R67W Weld County, CO.

License Number: API: 051233930303 AFE: 2088709

Spud Date: August 03, 2014

Surface Coordinates: 300' FSL, 916' FWL

Lat. 40.117249, Long. -104.870762, Sec.22, T2N R67W

Bottom Hole Coordinates: 50' FSL, 1310' FEL

Lat. 440.102178, Long. -104.872375, Sec. 27, T2NR67W

Ground Elevation (ft): 4977'

Logged Interval (ft): 7300'

To: 13479

K.B. Elevation (ft): 5002'

Total Depth (ft): 13479'

Formation: Codell

Type of Drilling Fluid: LSND (Polymer-Water)

Region: Wattenberg

Drilling Completed: August 16, 2014

Printed by HORIZONTAL.LOG from WellSight Systems 1-800-447-1534 www.WellSight.com

OPERATOR

Company: Anadarko Petroleum Corporation

Address: Granite Tower - 1099 18th St, Ste 1800

Denver, CO 80202

CO Geologist, Tom Birmingham.

GEOLOGIST

Name: George Bejan & Marek Ciesnik

Company: Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)

Address: 575 Union Blvd.

Suite 208,

Lakewood CO. 80228

E-logs

MWD Gamma

Casing

Intermediate casing: 7", 26#, HTC 110 LTC, set at 7877'

Liner: 4 1/2", packer and assembly, 11.5#, HCP 110, LTC & D2X, set at 13,472'

Comments

Drilling Contractor: H&P 311

Pumps 1 & 2: Gardner Denver PZ 11 6" x 11" (.0914 bbl/stk)
































































Rig Manager: Jack Truett, James Baggett.

Drillers: Michael Munroe, Christopher Beckstead

ROCK TYPES

	Anhy		Clyst		Dol		Salt		Ss		Carb sh
	Bent		Coal		Gyp		Shale		Sltst		Silty sh
	Brec		Oil sat.		Lmst		Shcol		Ss		
	Cht		Congl		Mrlst		Shgy		Chalk		

ACCESSORIES

MINERAL		Ferr		Sulphur		Fish		Anhy		Cryxln
	Anhy		Glau		Tuff		Foram		Earthy	
	Arggrn		Gyp				Fossil		Finexln	
	Arg		Hvymin	FOSSIL			Gastro		Grainst	
	Bent		Kaol		Algae		Oolite		Lithogr	
	Bit		Marl		Amph		Ostra		Microxln	
	Brecfrag		Minxl		Belm		Pelec		Mudst	
	Calc		Nodule		Bioclst		Pellet		Packst	
	Carb		Phos		Brach		Pisolite		Wackest	
	Chtdk		Pyr		Bryozoa		Plant			
	Chtlt		Salt		Cephal		Strom			
	Dol		Sandy		Coral			TEXTURE		
	Feldspar		Silt		Crin	STRINGER			Boundst	
	Ferrpel		Sil		Echin		Chlkstg		Chalky	

OIL SHOWS
Even
Spotted
Ques
Dead

Vspotty
near even

POROSITY TYPE
Earthy

Fenest
Fracture
Inter
Moldic
Organic

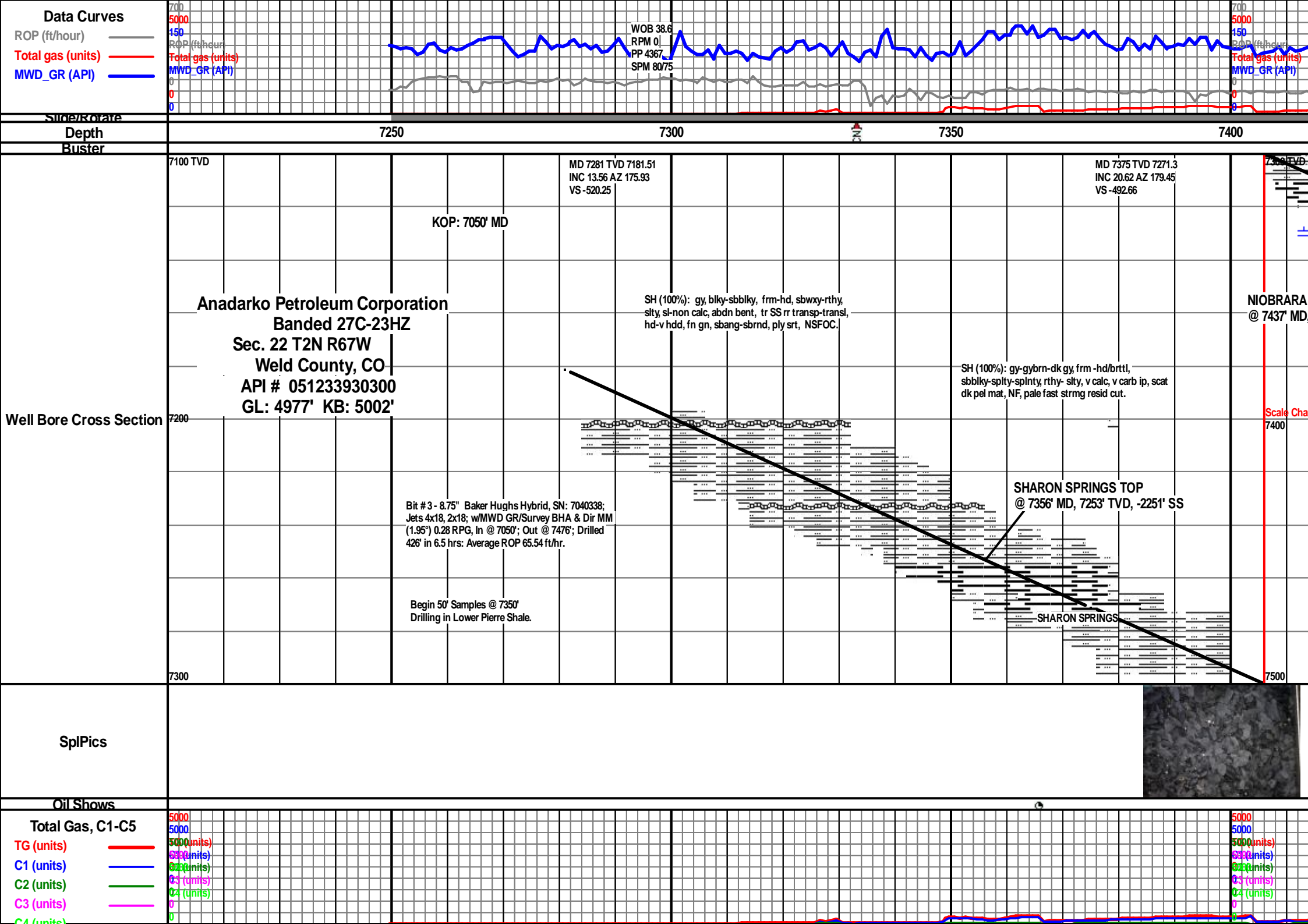
OTHER SYMBOLS

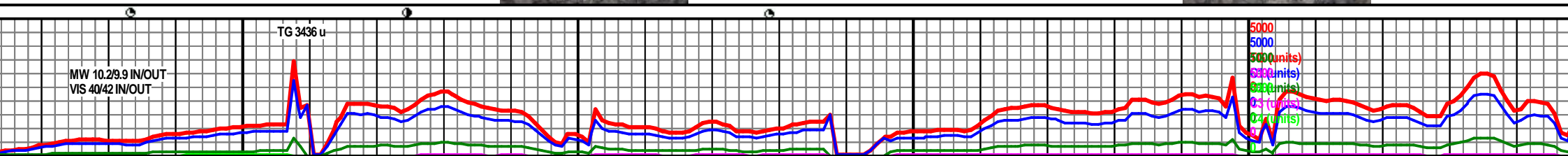
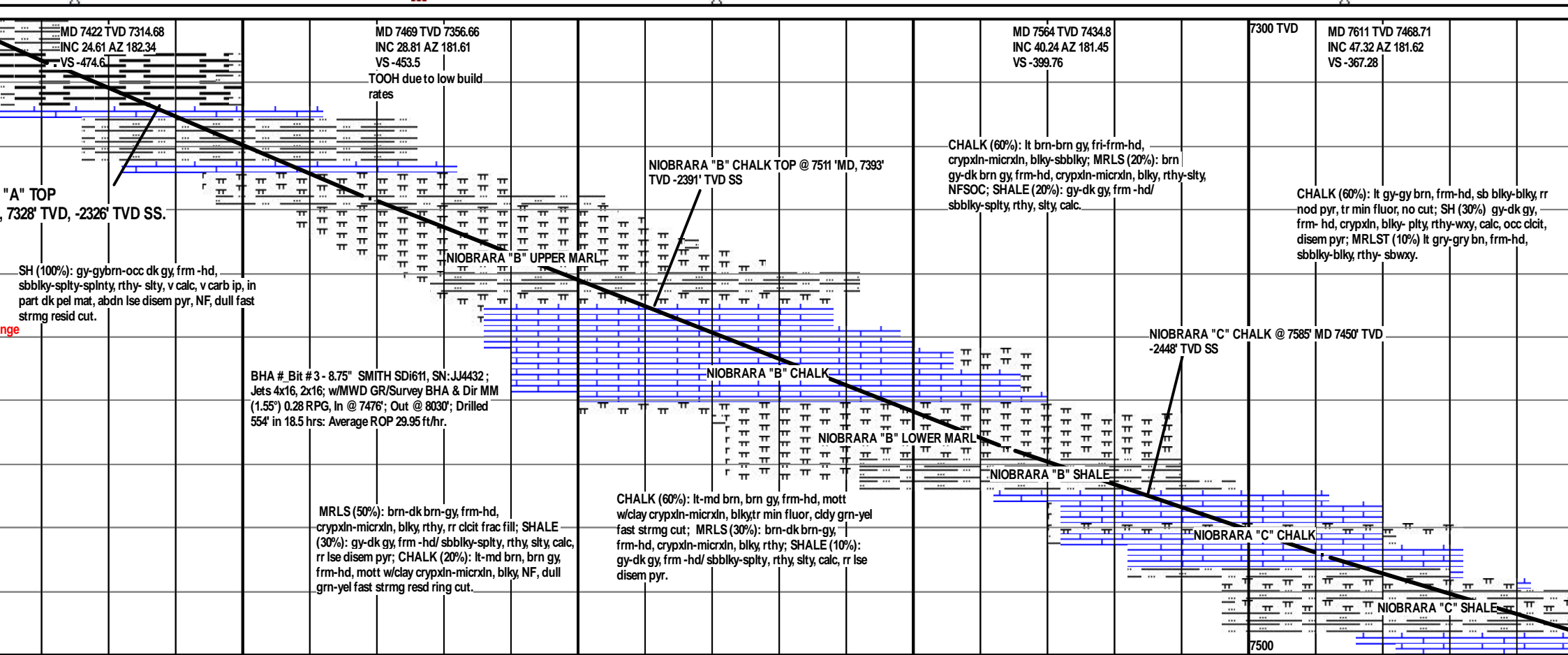
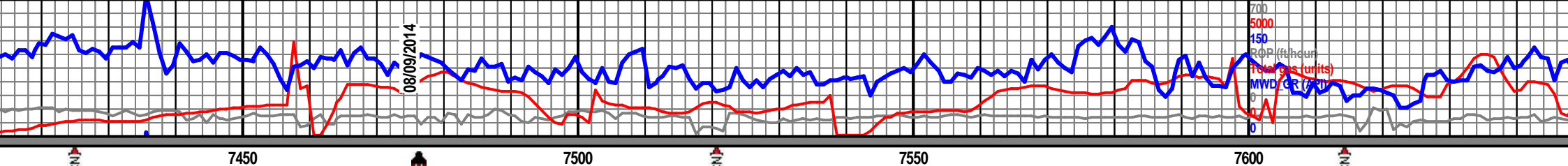
Pinpoint
Vuggy

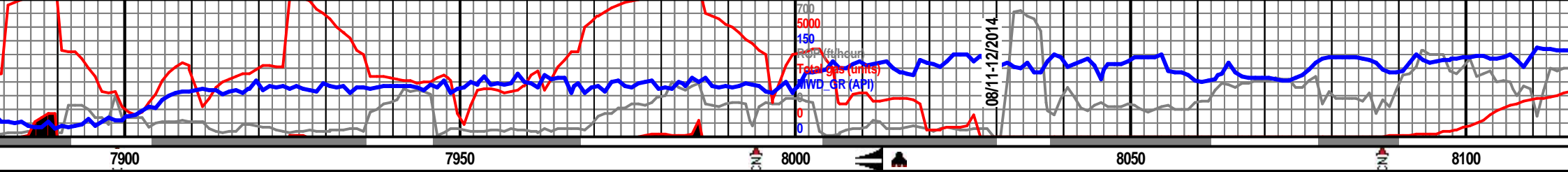
ROUNDING
Rounded

Subrnd
Subang
Angular

SORTING
Well
Moderate
Poor







MD 7894 TVD 7592.46
INC 78.83 AZ 180.63
VS -116.9

MD 7941 TVD 7599.95
INC 82.83 AZ 180.81
VS -70.51

MD 7978 TVD 7603.75
INC 85.36 AZ 180.34
VS -33.72

7500 TVD

MD 8018 TVD 7606.15
INC 87.75 AZ 180.76
VS 6.21

ICP AT 8030' REACHED ON 08/10/14 @ 8:30 HRS.
CONDITION HOLE, TOH, 7" CASING, SET @ 8022', WT: 26
ppf; Grade: HCP110, SET @ MD 8022'.

BHA #4 Bit # 4 - 6.125" ULTERRA U516S, SN: 25376
; Jets 4x18, 2x20; w/MWWD GR/Survey BHA & Dir MM
(1.25") 1.05 RPG, In @ 8030; Out @ 12787'; Drilled
4766' in 18.5 hrs: Average ROP 259.26 ft/hr.

Codell SS @ 7903' MD;
7594' TVD; -2592' SS.

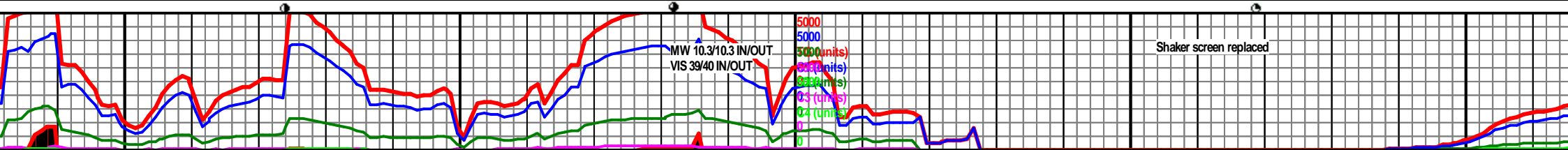
CODELL SS

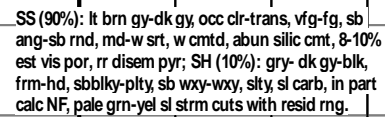
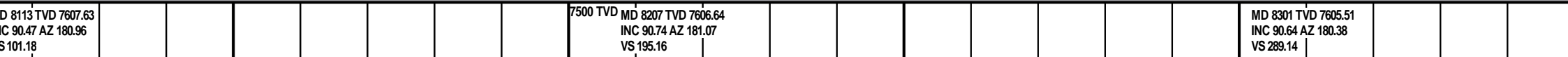
sh bn - dk bn, vif-lfg, rr
sbrnd, occ sbang, est vis
gy-brn, frm-hd,
vis por, tr min fluor,

SS (100%): lt brn gy-dk gy,rr clr-trans, vfg-fg, sb
ang-sb rnd, md-w srt, w cmt, abun silic cmt,
10-12% est vis por, rr disem pyr, tr LS, tr SH, NF, dull
yel with fast strmg cuts.

SS (100%): lt brn gy-dk gy, occ clr-trans, vfg-fg, sb
ang-sb rnd, md-w srt, w cmt, abun silic cmt,
10-12% est vis por, rr disem pyr, tr LS, tr SH, NF, cldy
grn-yel fast strmg resid rng.

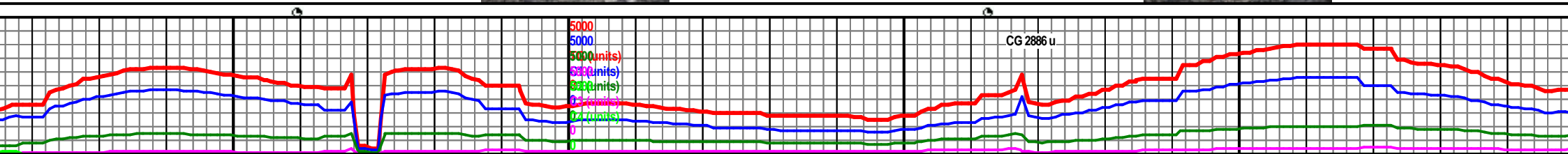
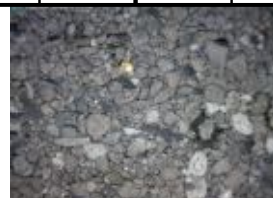
SS (90%): lt brn gy-dk gy, occ clr-trans, vfg-fg, sb
ang-sb rnd, md-w srt, w cmt, abun silic cmt, 8-10%
est vis por, rr disem pyr; SH: (10%) v dk gy-blk,
frm-hd, plty-rr splty, sb wxy-wxy, slty, sl carb, NF,
pale grn sl strmg cuts with resid mg cut.

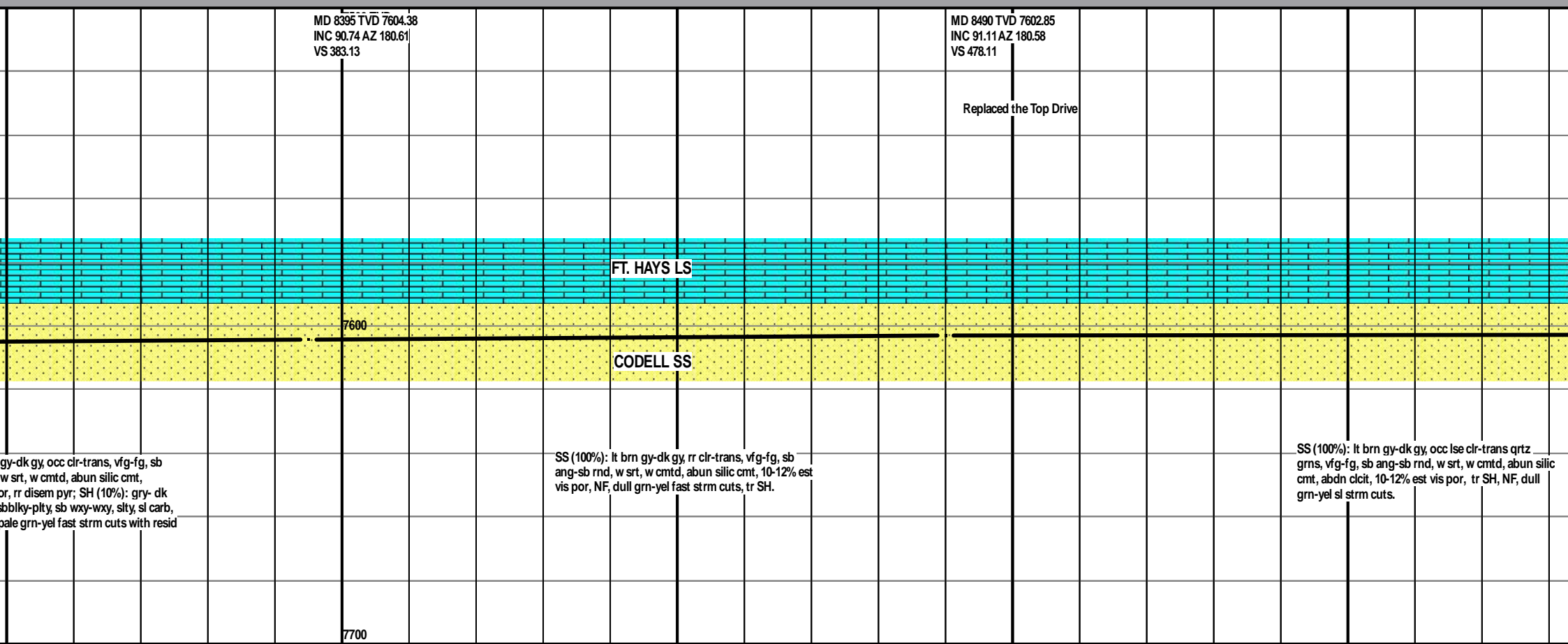
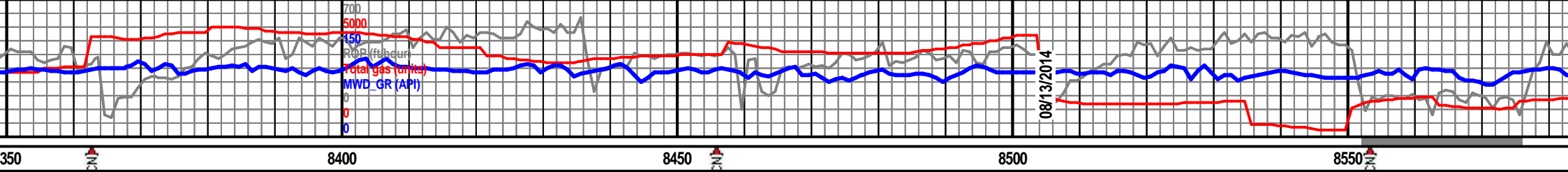




SS (90%): lt brn gy-dk gy, occ clr-trans, vfg-fg, sb ang-sb rnd, md-w srt, w cmted, abun silic cmt, 10-12% est vis por, rr disem pyr; SH (10%): gry- dk gy-blk, frm-hd, sbbkly-plty, sb wxy-wxy, slty, sl carb, in part calc, NF, pale grn-yel fast strm cuts with resid mg.

SS (90%): lt brn
ang-sb rnd, md-
10-12% est vis po
gy-blk, frm-hd, s
in part calc, NF, p
rng.

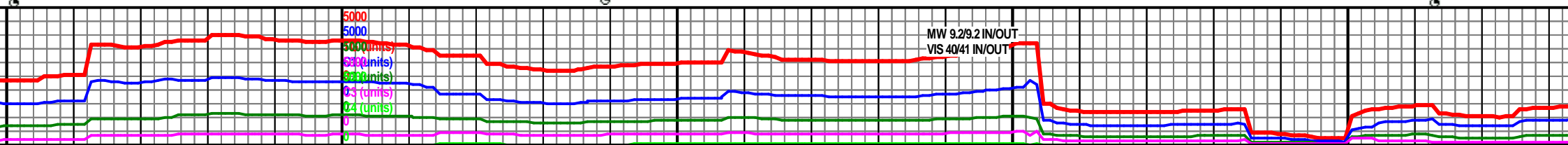


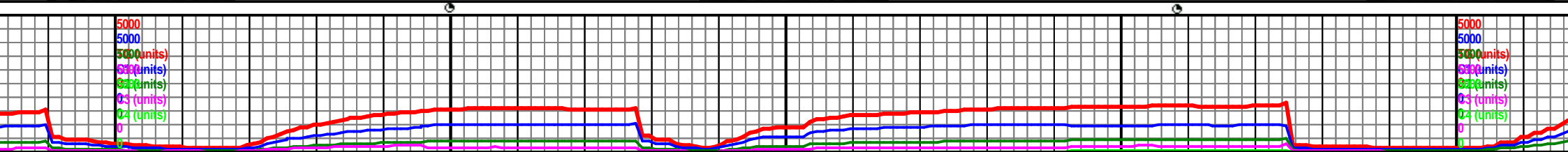
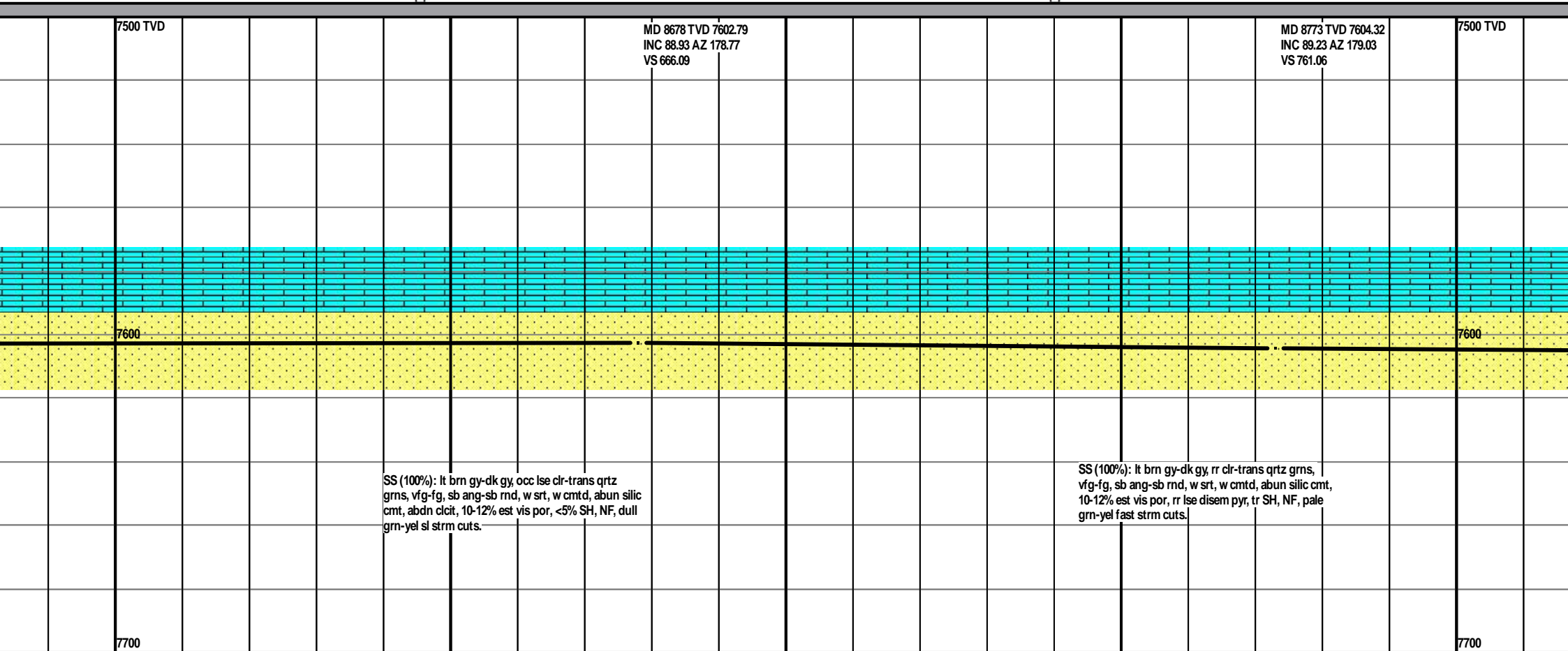


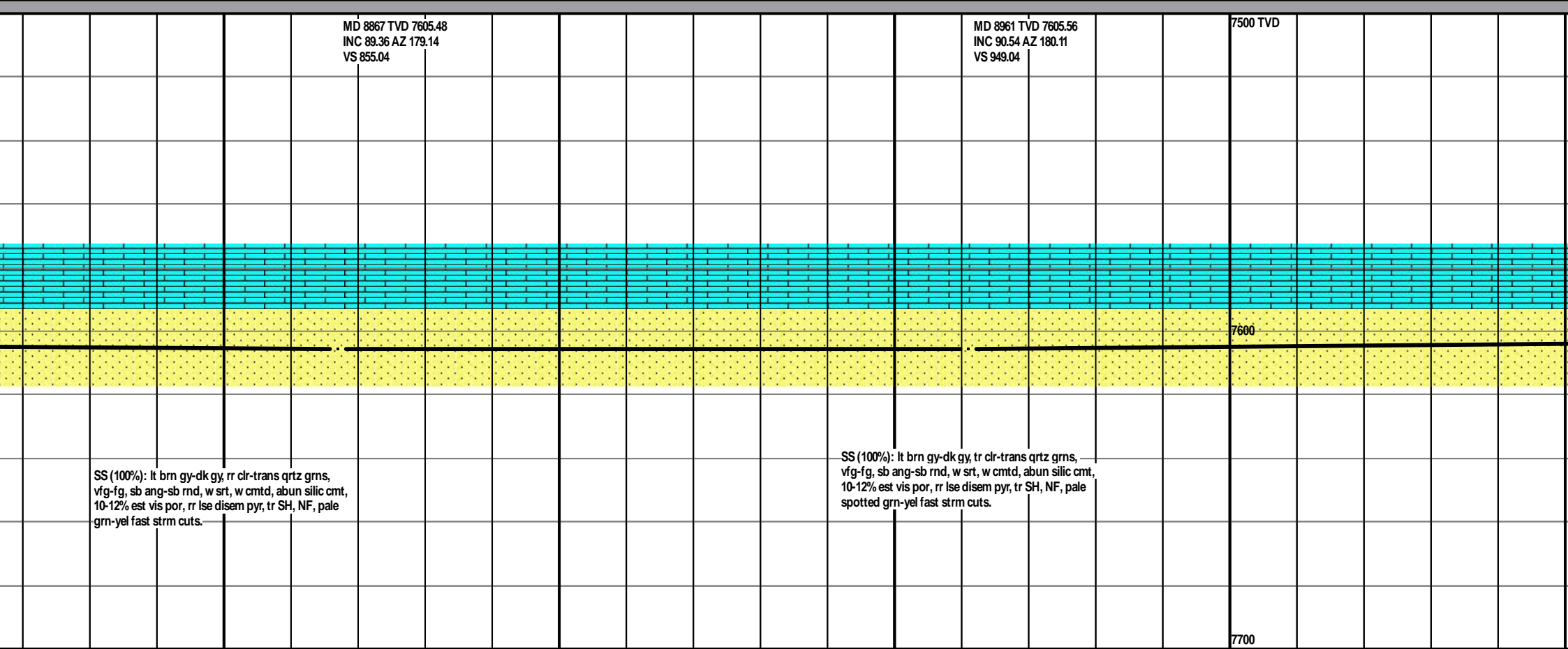
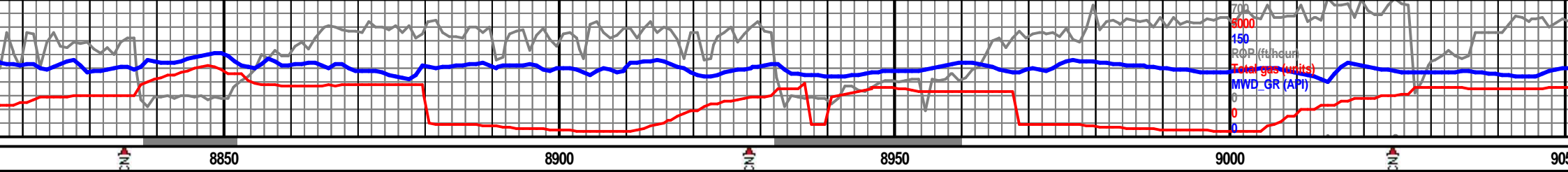
gy-dk gy, occ clr-trans, vfg-fg, sb
w srt, w cmt, abun silic cmt,
or, rr disem pyr; SH (10%): gry- dk
bbblky-pty, sb wxy-wxy, slty, sl carb,
pale grn-yel fast strm cuts with resid

SS (100%): lt brn gy-dk gy, rr clr-trans, vfg-fg, sb
ang-sb rnd, w srt, w cmt, abun silic cmt, 10-12% est
vis por, NF, dull grn-yel fast strm cuts, tr SH.

SS (100%): lt brn gy-dk gy, occ lse clr-trans qrtz
grns, vfg-fg, sb ang-sb rnd, w srt, w cmt, abun silic
cmt, abdn clcit, 10-12% est vis por, tr SH, NF, dull
grn-yel sl strm cuts.







MD 8867 TVD 7605.48
INC 89.36 AZ 179.14
VS 855.04

MD 8961 TVD 7605.56
INC 90.54 AZ 180.11
VS 949.04

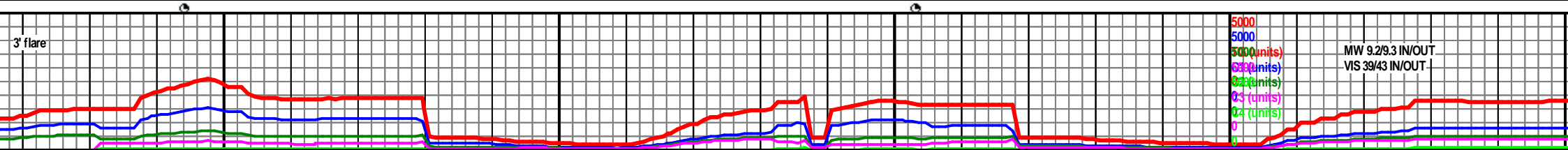
7500 TVD

7600

7700

SS (100%): lt brn gy-dk gy, rr clr-trans qrtz grns, vfg-fg, sb ang-sb rnd, w srt, w cmt, abun silic cmt, 10-12% est vis por, rr lse disem pyr, tr SH, NF, pale grn-yel fast strm cuts.

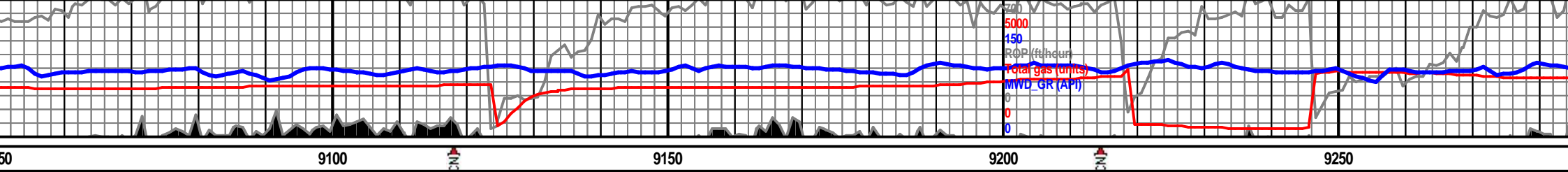
SS (100%): lt brn gy-dk gy, rr clr-trans qrtz grns, vfg-fg, sb ang-sb rnd, w srt, w cmt, abun silic cmt, 10-12% est vis por, rr lse disem pyr, tr SH, NF, pale spotted grn-yel fast strm cuts.



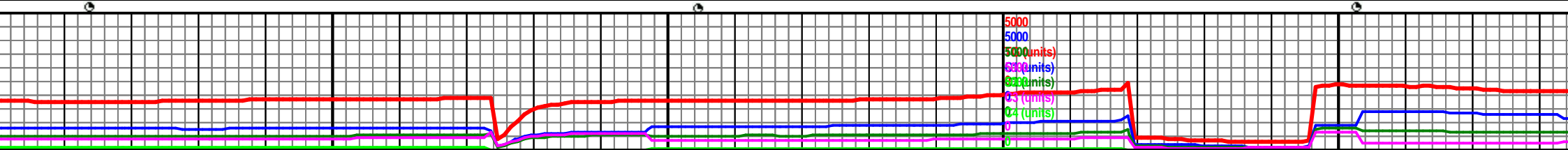
3' flare

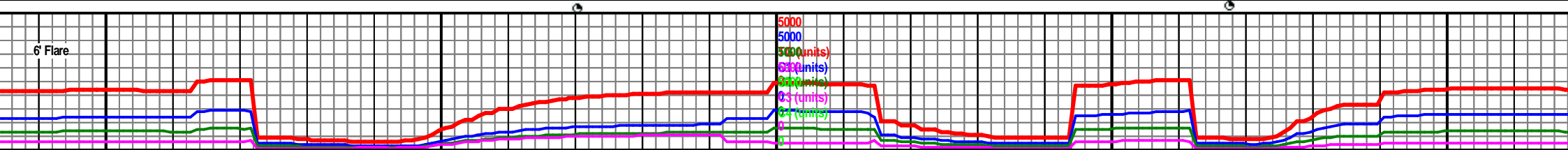
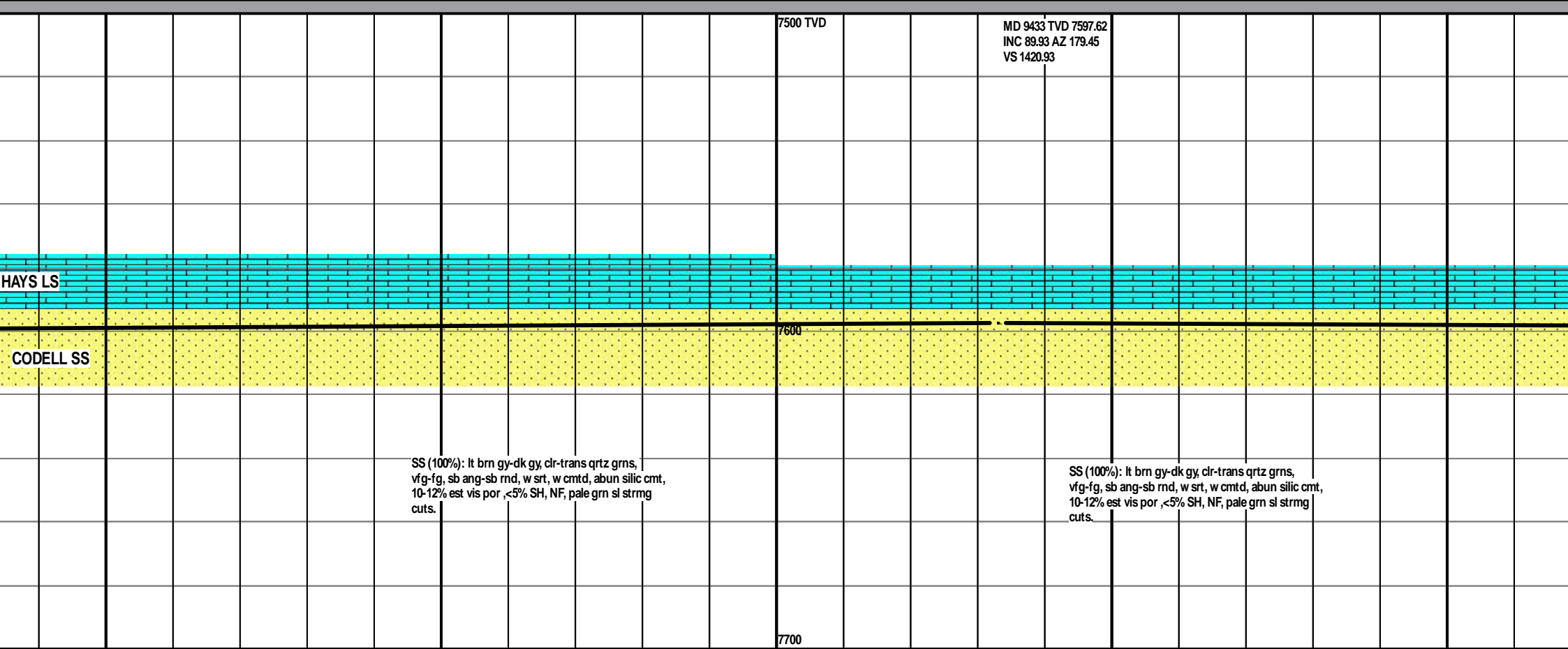
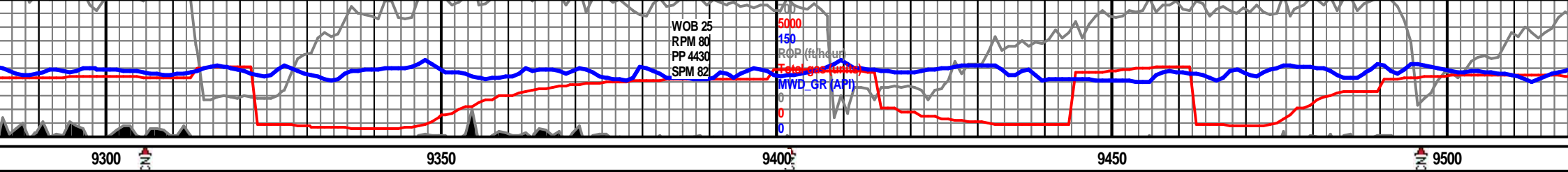
5000
5000
5000 (units)
63 (units)
63 (units)
0.3 (units)
0.4 (units)
0
0

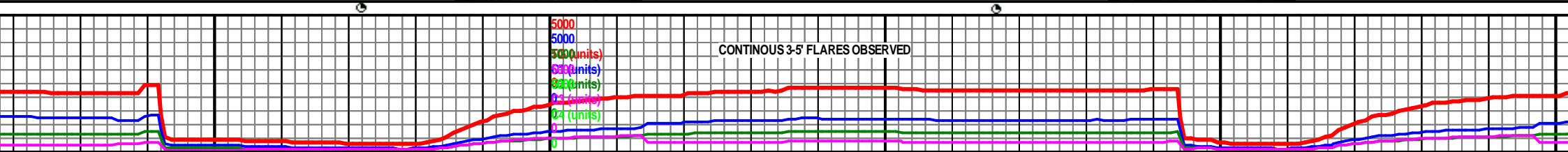
MW 9.2/9.3 IN/OUT
VIS 39/43 IN/OUT

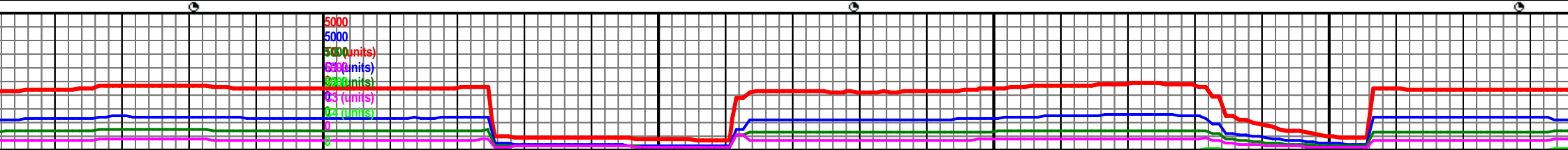
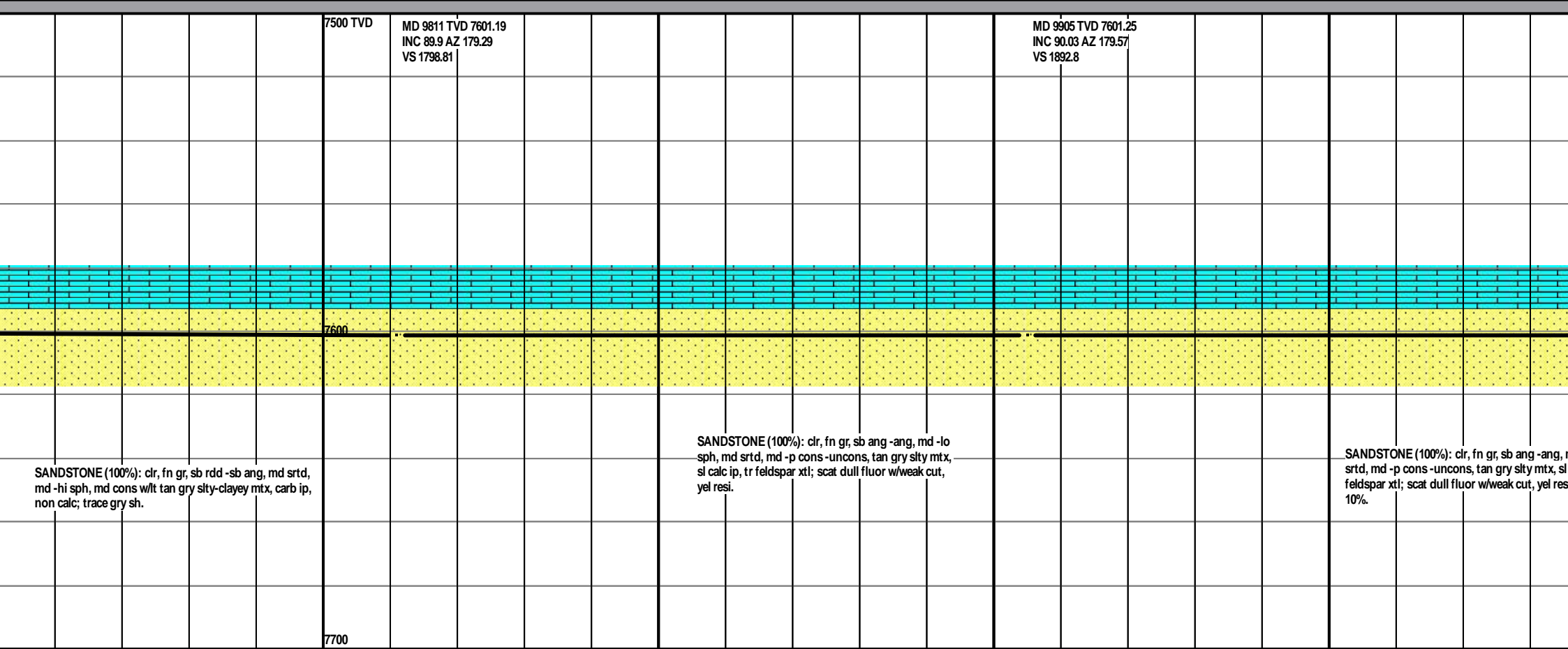
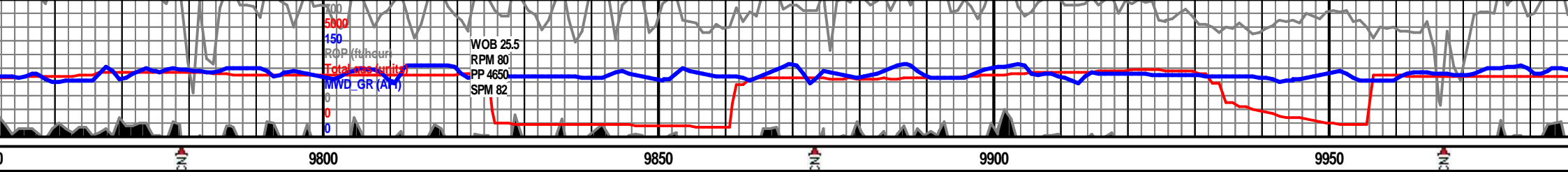


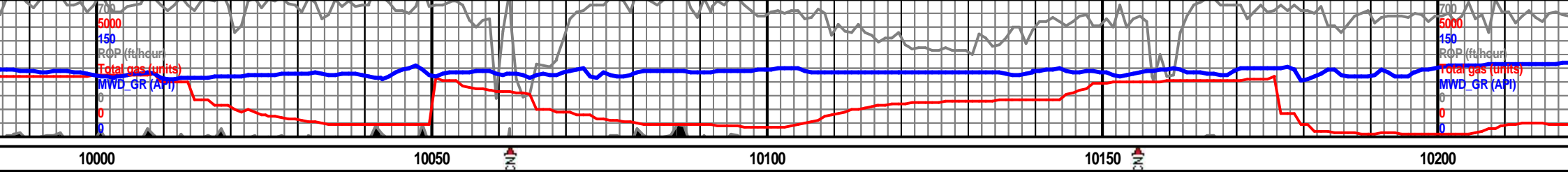
MD 9056 TVD 7604.09 INC 91.24 AZ 181.24 VS 1044.02																				MD 9150 TVD 7601.91 INC 91.41 AZ 180.63 VS 1137.98										7500 TVD																				MD 9245 TVD 7599.66 INC 91.31 AZ 180.6 VS 1232.95																			



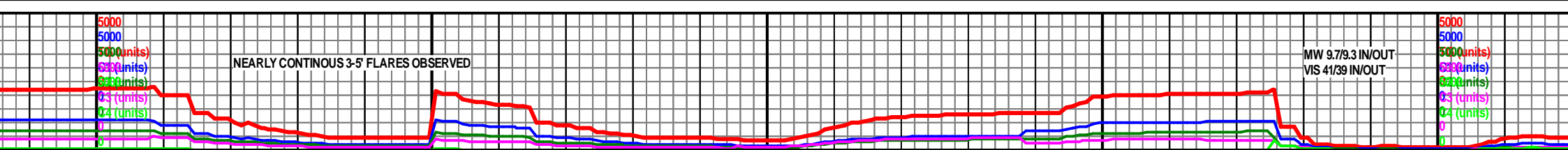


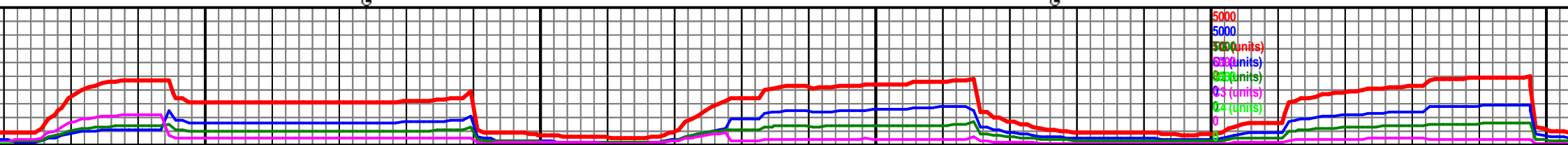
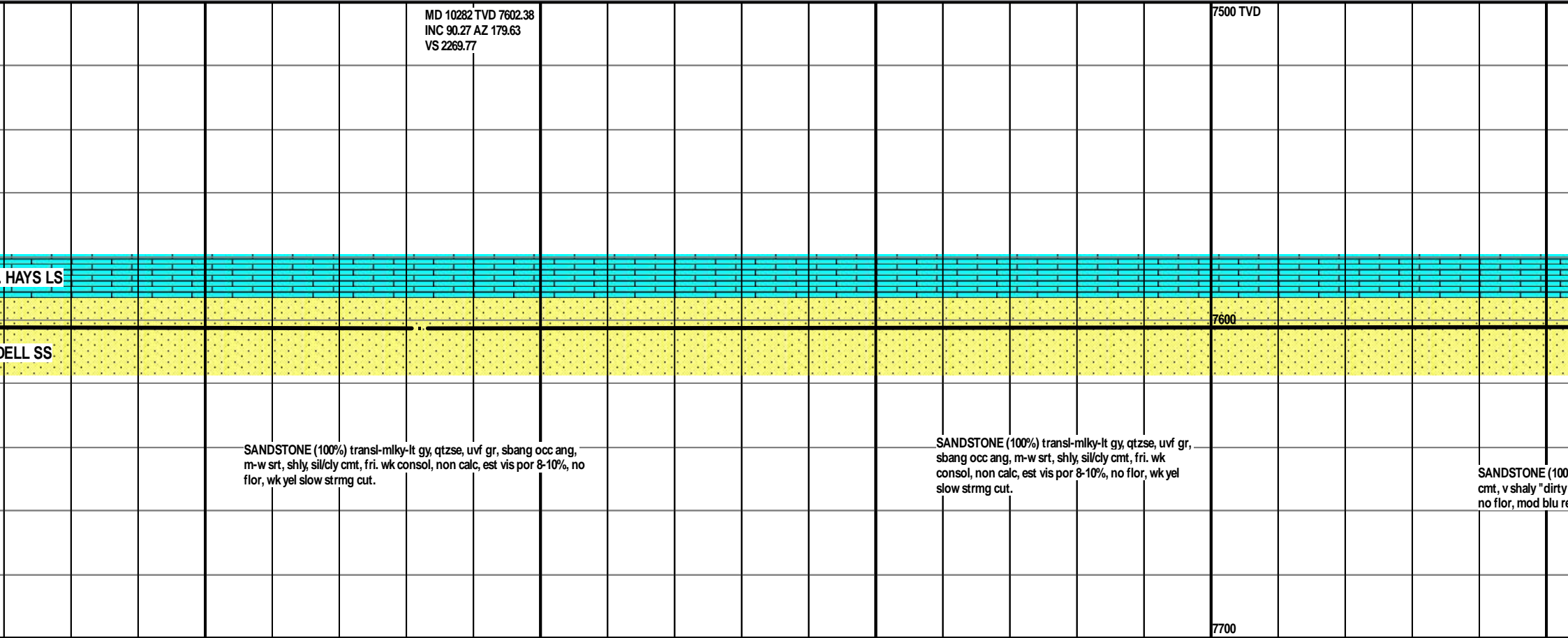
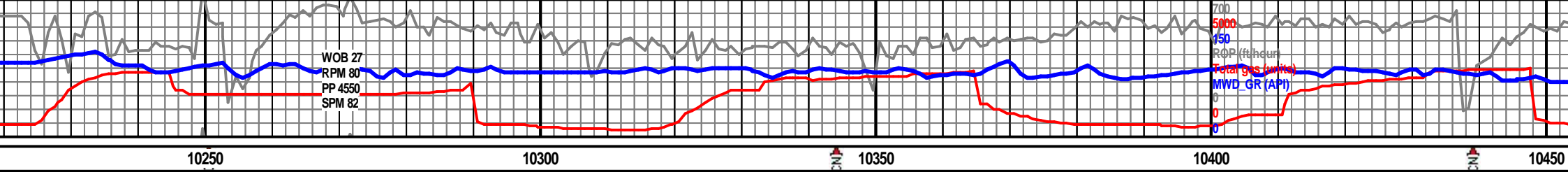
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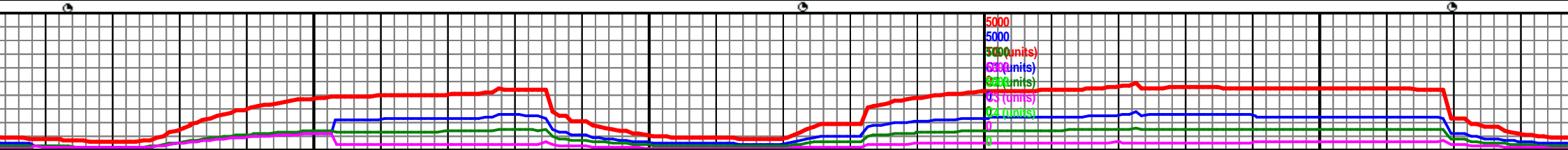
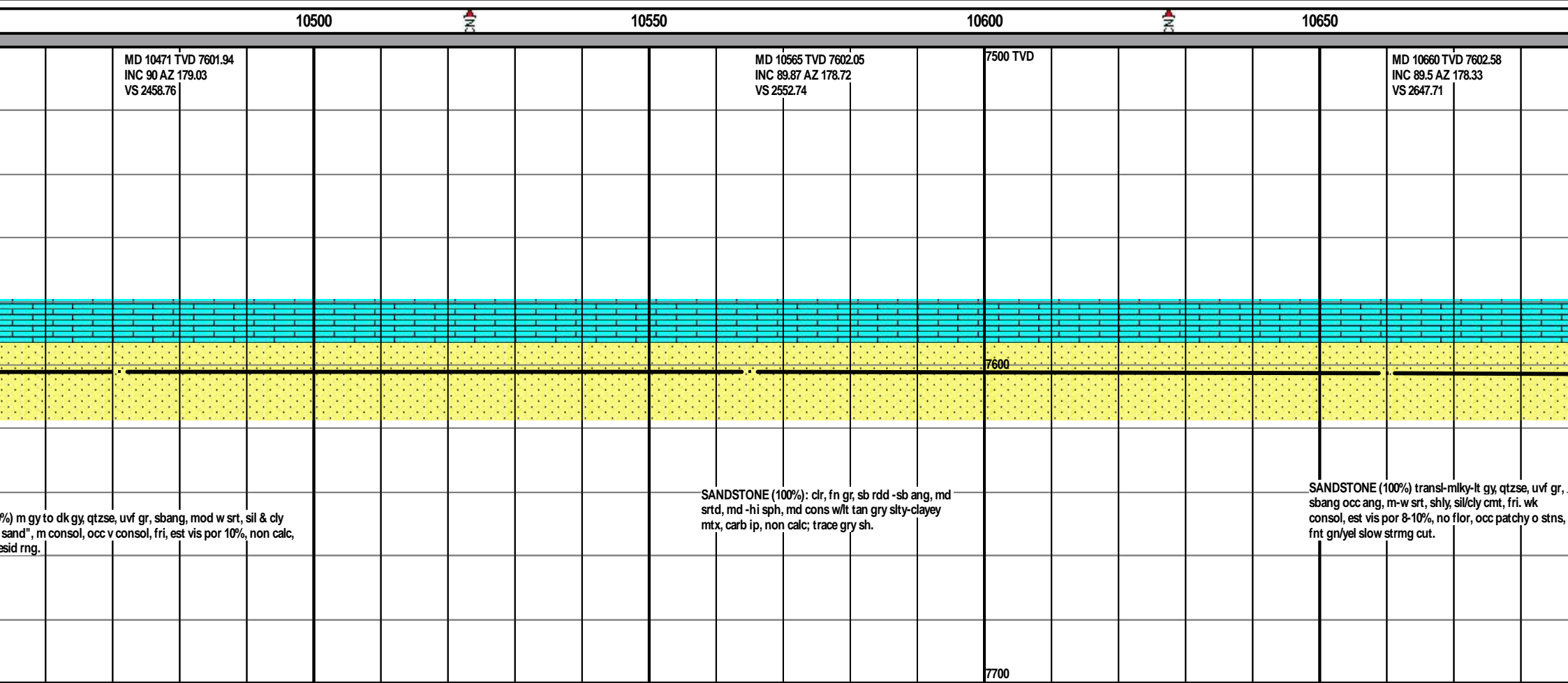
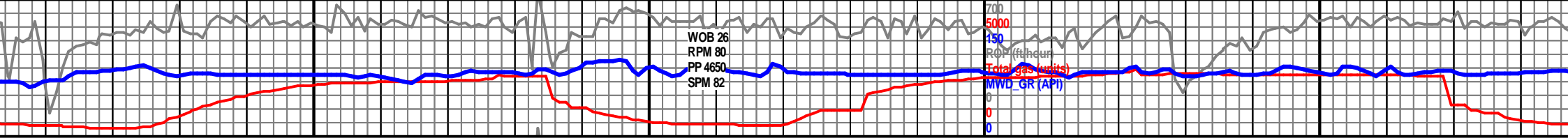


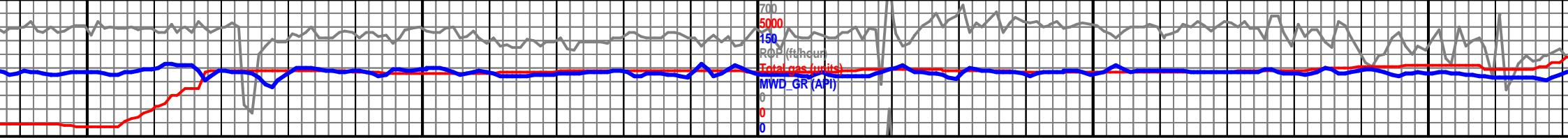


MD 9999 TVD 7601.39 INC 89.8 AZ 179.73 VS 1986.8												MD 10093 TVD 7601.83 INC 89.66 AZ 179.08 VS 2080.79																		MD 10188 TVD 7602.36 INC 89.7 AZ 179.18 VS 2175.78			VD		
FT.																																			
COD																																			
SANDSTONE (100%) transl-milky-lt gy, qtzse, uvf gr, sbang occ ang, m-w srt, shly, sil/clt cmt, fri. wk consol, est vis por 8-10%, no flor, fnt gn/yel slow strmg cut.																																			
SANDSTONE (100%) transl-milky-lt gy, qtzse, uvf gr, sbang occ ang, m-w srt, shly, sil/clt cmt, fri. wk consol, est vis por 8-10%, no flor, fnt gn/yel slow strmg cut.																																			





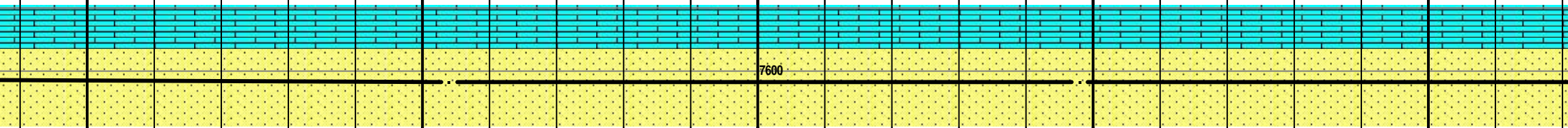




MD 10754 TVD 7603.33
INC 89.6 AZ 177.94
VS 2741.65

7500 TVD

MD 10848 TVD 7603.55
INC 90.13 AZ 178.53
VS 2835.61



7600

SANDSTONE (100%) m gy to dk gy, qtzse, uvf gr,
sbang, mod w srt, sil & cly cmt, shaly "dirty sand",
m consol, occ v consol, fri, est vis por 8-10%, non
calc, no flor, mod blu resid rng.

SANDSTONE (100%) m gy to dk gy, qtzse, uvf gr,
sbang, mod w srt, sil & cly cmt, shaly, m consol, occ
v consol, fri, est vis por 8-10%, non calc, no flor,
mod blu resid rng.

7700

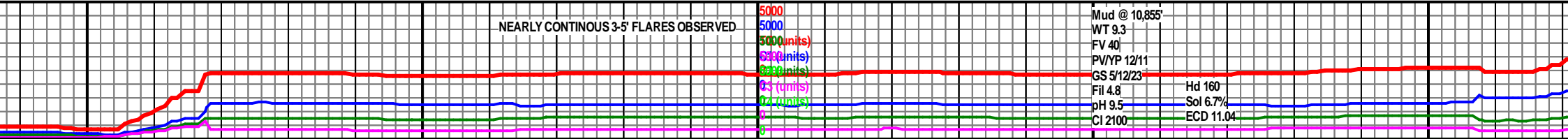


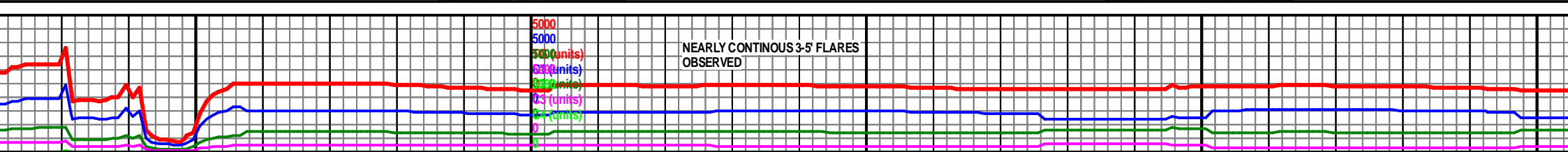
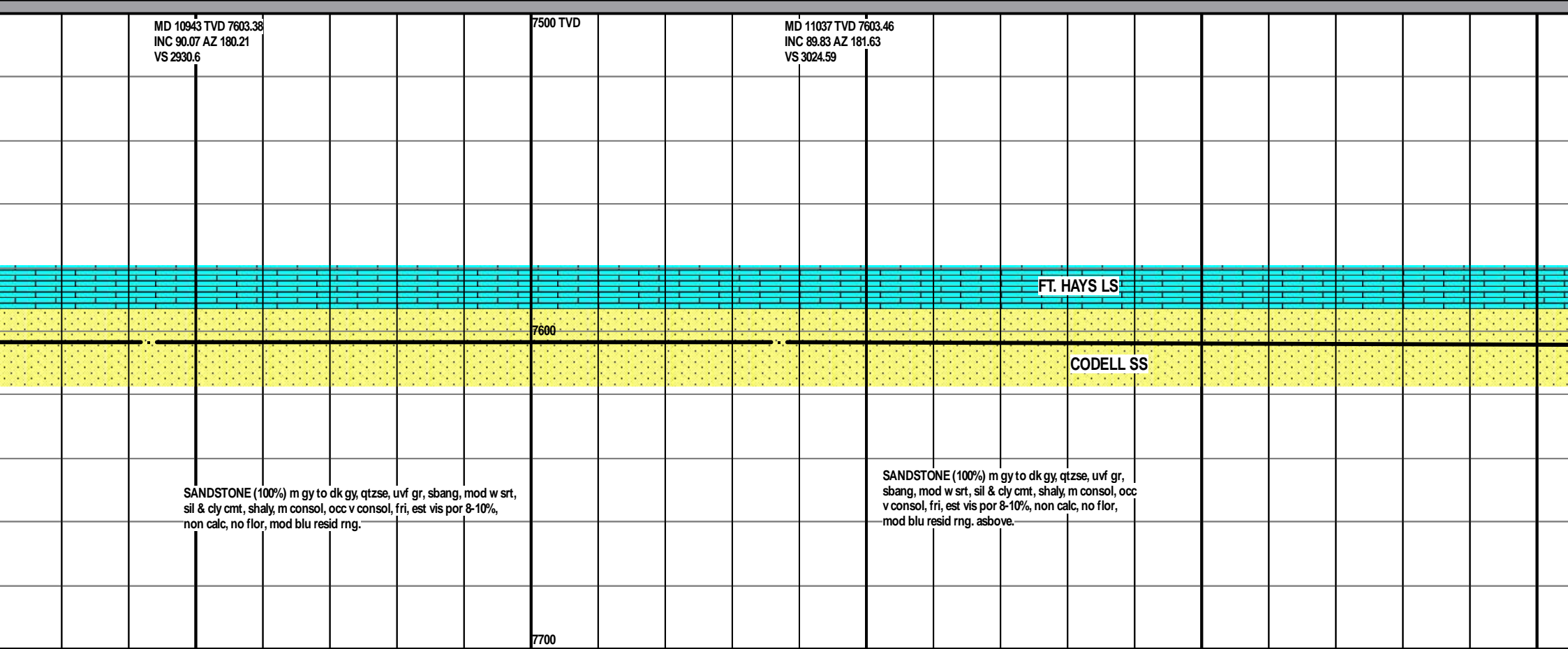
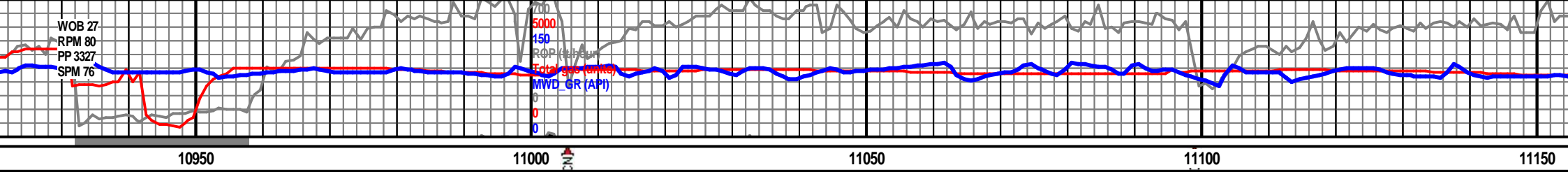
NEARLY CONTINUOUS 3-5' FLARES OBSERVED

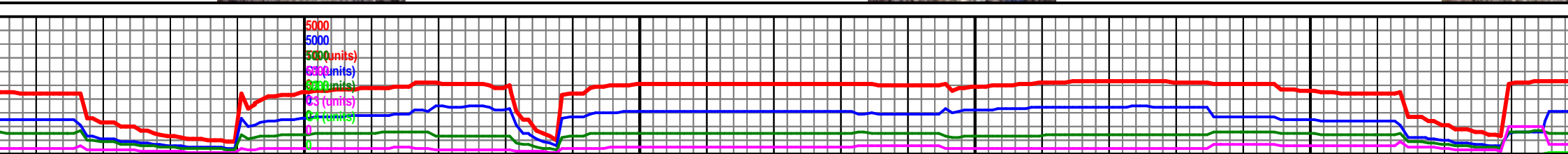
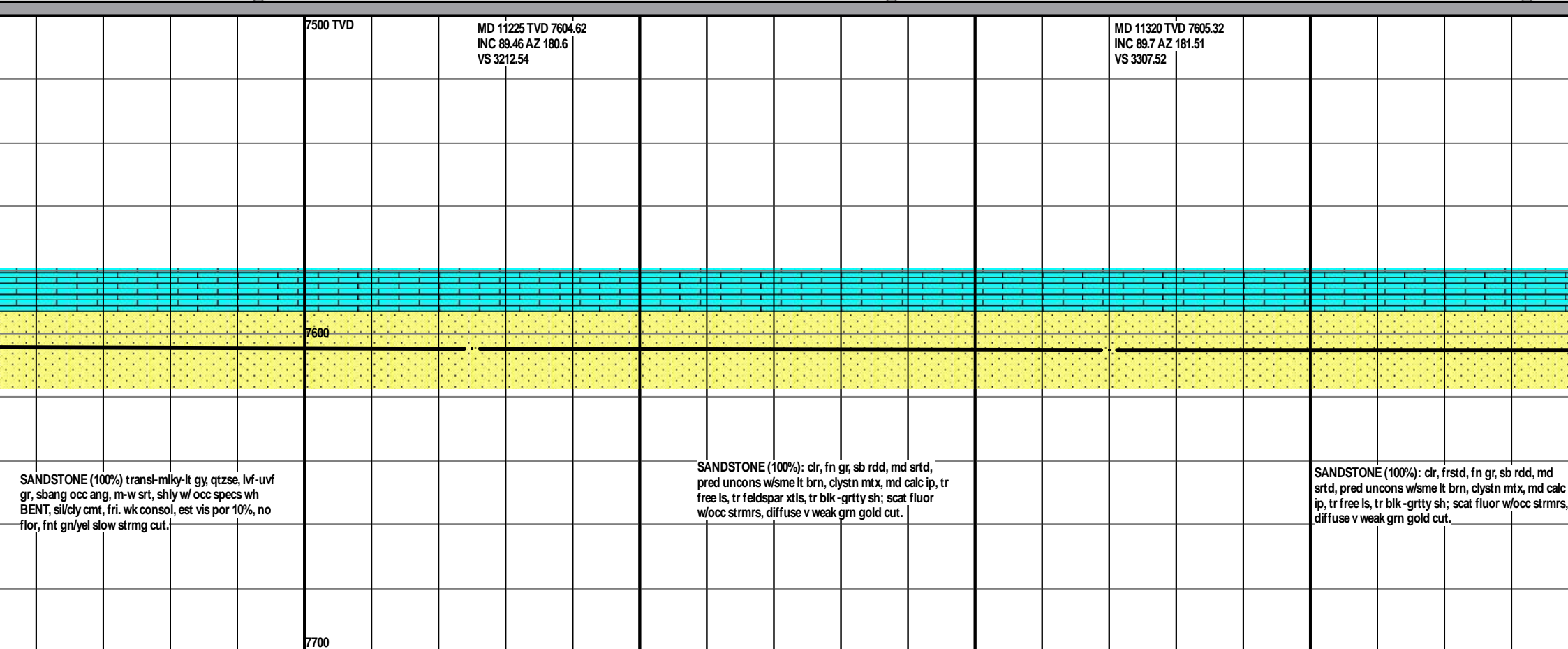
5000
5000
5000 (units)
63 (units)
63 (units)
0.1 (units)
0.2 (units)
0
0

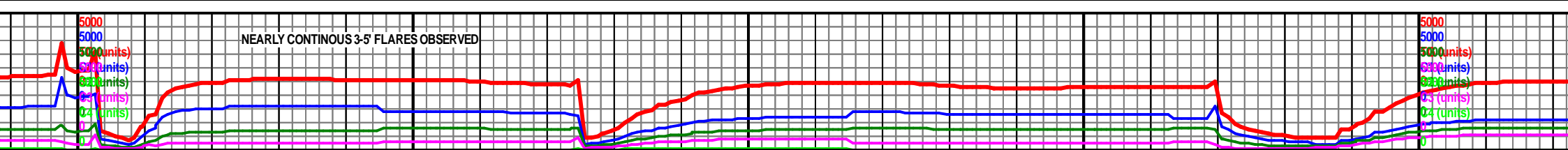
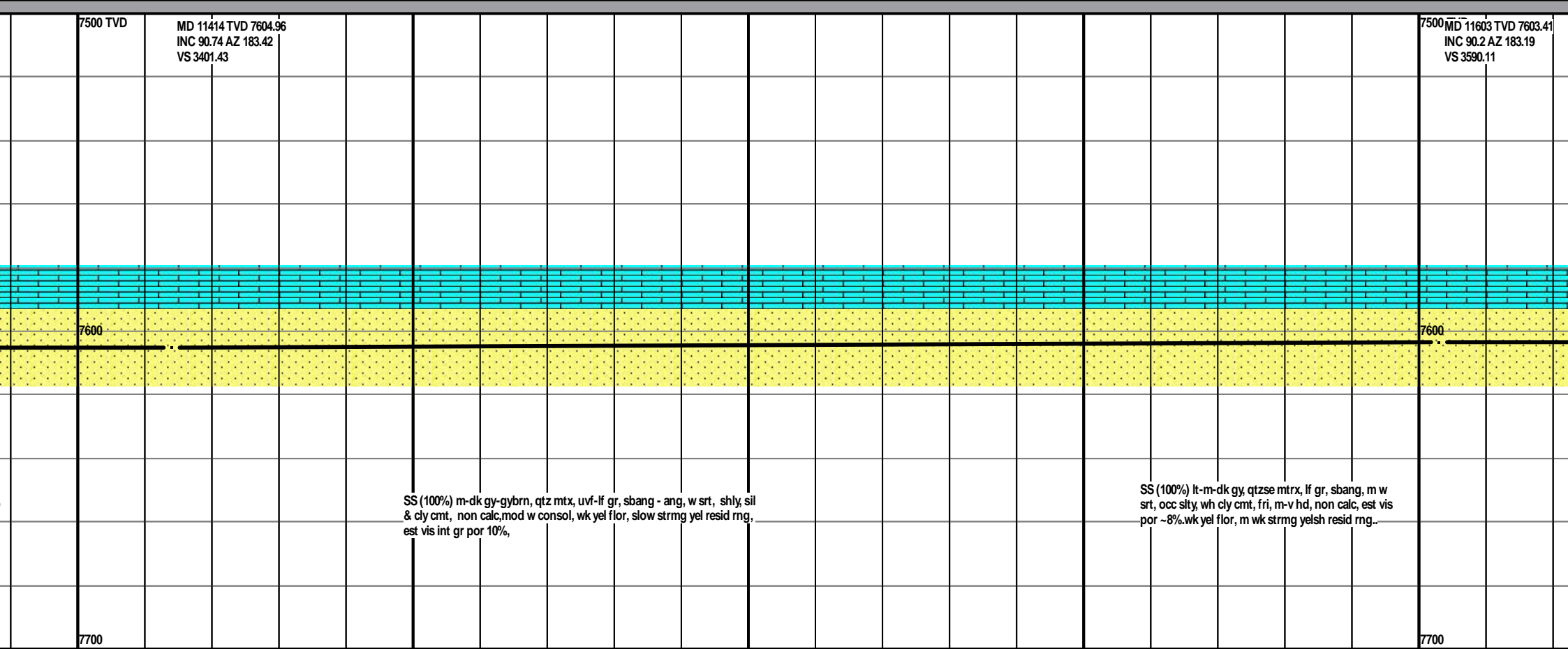
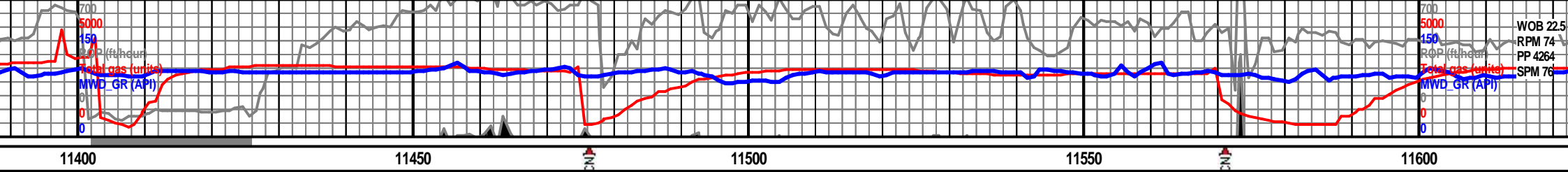
Mud @ 10,855'
WT 9.3
FV 40
PV/VP 12/11
GS 5/12/23
Fil 4.8
pH 9.5
Cl 2100

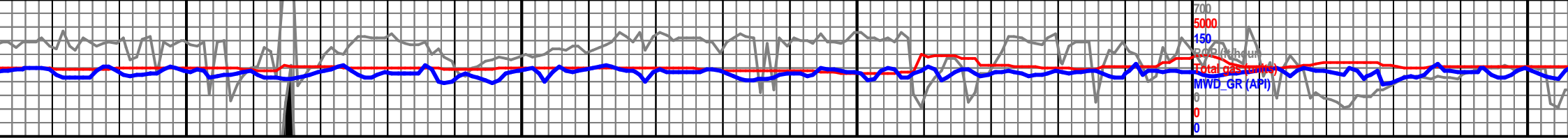
Hd 160
Sol 6.7%
ECD 11.04











11650

11700

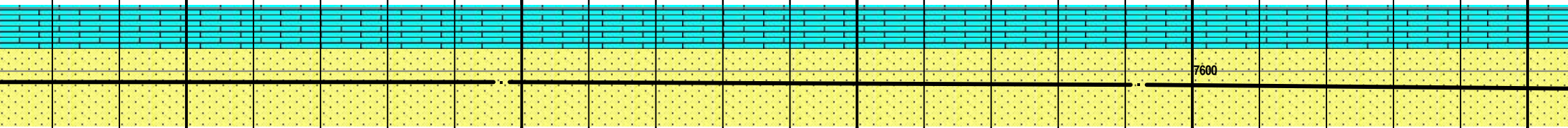
11750

11800

11850

MD 11697 TVD 7603.57
INC 89.6 AZ 182.73
VS 3683.98

MD 11792 TVD 7604.52
INC 89.26 AZ 182.41
VS 3778.88



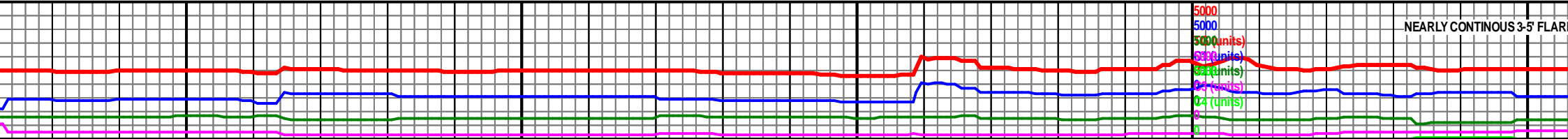
7600

SS (100%) lt-m-dk gy, qtzse mtrx, lf gr, sbang, m w
srt, occ slty, wh cly cmt, fri, m-v hd, non calc, est vis
por ~8% wk yel flor, m wk strmg yelsh resid rng. as
above.

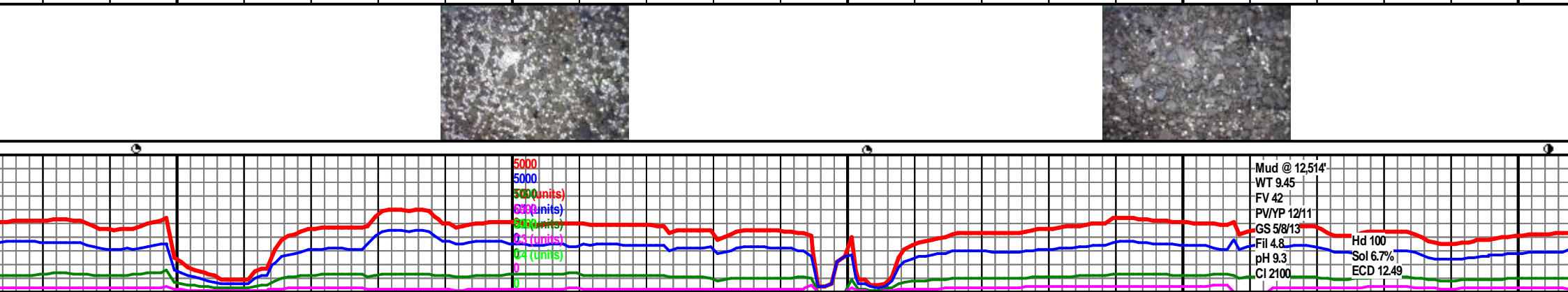
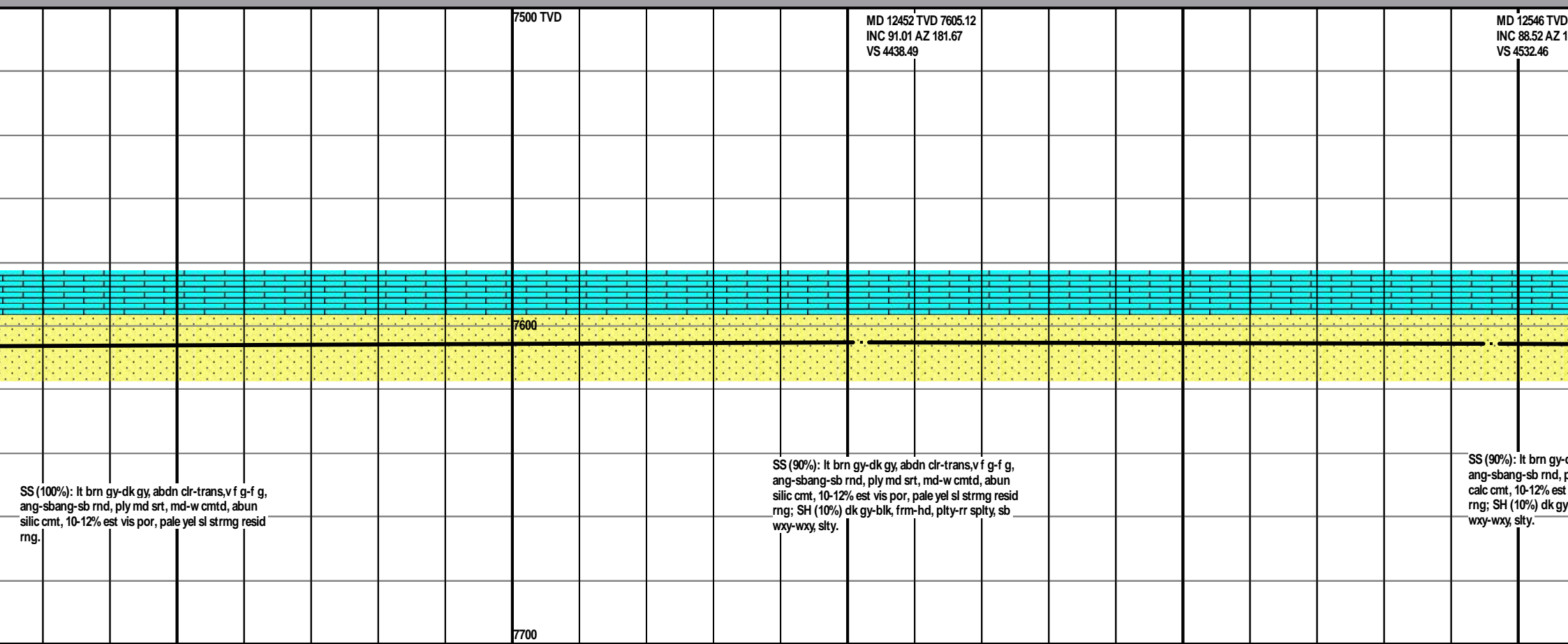
SS (100%) lt-m-dk gy, qtzse mtrx, lf gr, sbang, m w
srt, occ slty, wh cly cmt, fri, m-v hd, non calc, est vis
por ~8% wk yel flor, m wk strmg yelsh resid rng.

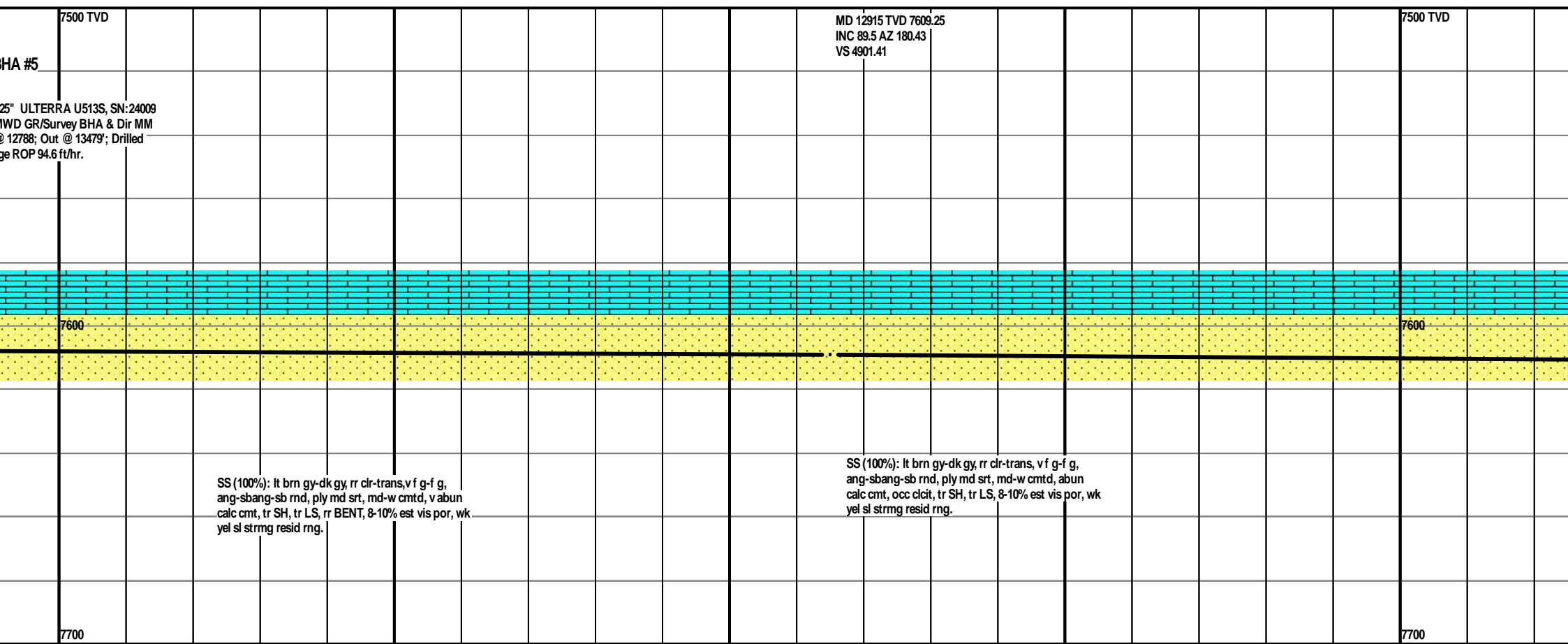
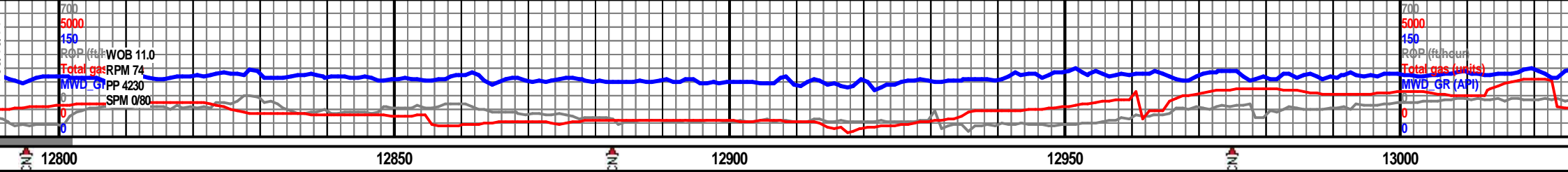
SS (100%) lt-
slty, wh cly cmt,
flor, m wk str

7700



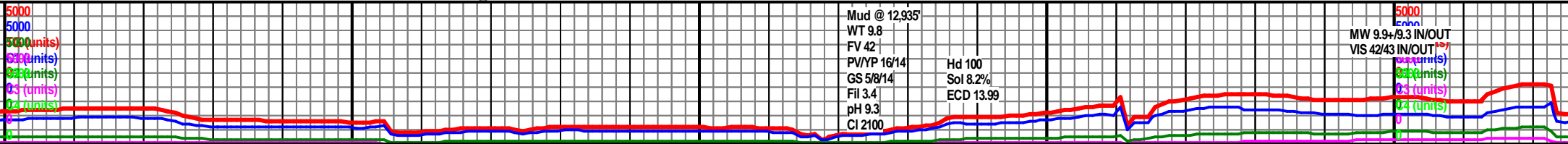
NEARLY CONTINUOUS 3-5' FLAR

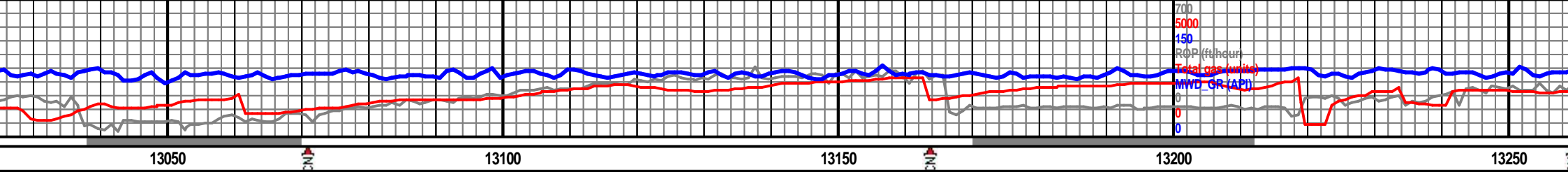




SS (100%): lt brn gy-dk gy, rr clr-trans, v f g-f g,
ang-sbang-sb rnd, ply md srt, md-w cmt, v abun
calc cmt, tr SH, tr LS, rr BENT, 8-10% est vis por, wk
yel sl strmg resid rng.

SS (100%): lt brn gy-dk gy, rr clr-trans, v f g-f g,
ang-sbang-sb rnd, ply md srt, md-w cmt, abun
calc cmt, occ clcit, tr SH, tr LS, 8-10% est vis por, wk
yel sl strmg resid rng.





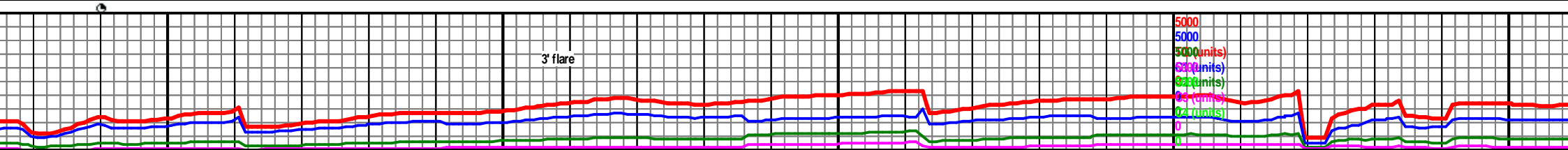
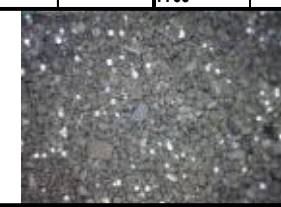
MD 13103 TVD 7611.61
INC 89.06 AZ 181.22
VS 5089.37

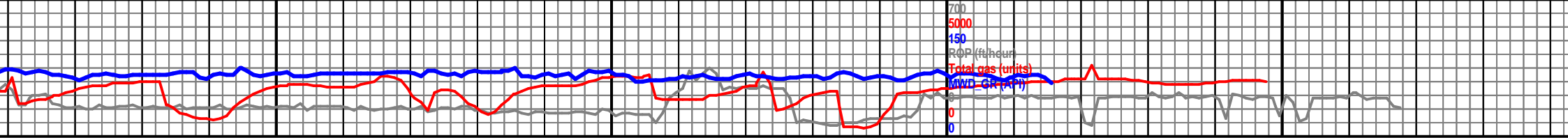
MD 13198 TVD 7612.69
INC 89.63 AZ 180.66
VS 5184.35

SS (100%): lt brn gy-dk gy, rr clr-trans, v f g-f g,
ang-sbang-sb rnd, ply md srt, w cmt, abun silic
cmt, abdn clcit, <5% SH, 10-12% est vis por, wk yel sl
strmg cuts.

SS (100%): lt brn gy-dk gy, rr clr-trans, v f g-f g,
ang-sbang-sb rnd, ply md srt, w cmt, abun silic
cmt, abdn clcite, tr SH, 10-12% est vis por, wk yel sl
strmg cuts.

SS (100%)
ang-sbang-sb rnd
ply md srt
w cmt
abun silic
cmt
abdn clcite
tr SH
10-12% est vis por
wk yel sl
strmg cuts





13300 13350 13400 13450

MD 13292 TVD 7612.66
INC 90.4 AZ 180.6
VS 5278.35

MD 13386 TVD 7613.32
INC 88.8 AZ 180.02
VS 5372.34

Survey projected to TD

MD 13479 TVD 7613.32
INC 88.9 AZ 180.02
VS 5465.31



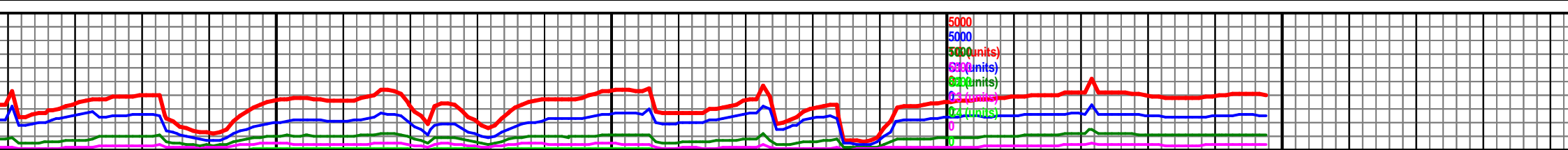
CODELL SS

FT. HAYS LS

BHL: CLOSURE

SS (100%): lt brn gy-dk gy, partly-trans, vfg, sb ang-sb rnd, md-w srt, shly, disem pyr, dull grn v sl strmg resid rng.

SS (100%): lt brn gy-dk gy, partly-trans, vfg, sb ang-sb rnd, md-w srt, shly, disem pyr, dull grn v sl strmg resid rng, as above.



[illegible]