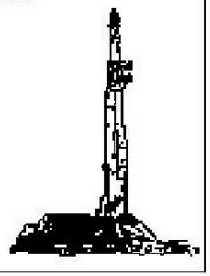
GOOLSBY BROTHERS
and associates, inc.

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

PETCOM

Geological Wellsite
Supervision

www.goolsbybrothers.com



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

Well Name:	**SRC Fagerberg 36N-7B-M**
API:	**05-123-41853**
Location:	**Section 12, T6N, R66W, Weld County, CO.**
License Number:	
Region:	**Wattenberg**
Spud Date:	**March 30, 2016**
Drilling Completed:	**April 5, 2016**
Surface Coordinates:	**SWSW Sec 12 T6N R66W; 1,111' FSL 235' FWL**
	Lat 40.498621 Long -104.734129
Bottom Hole Coordinates:	**SESW Sec 7 T6N R65W; 308' FSL, 2497' FWL**
Ground Elevation (ft):	**4,800'**
K.B. Elevation (ft):	**4,820'**
Logged Interval (ft):	**6,750' To: 15,379'**
Total Depth (ft):	**15,379' DMTD**
Formation:	**Pierre Shales/Sands, Niobrara "B" Target**
Type of Drilling Fluid:	**LSND**

OPERATOR

Company: **Synergy Resources Corporation**
Address: **1625 Broadway, Suite 300**
Denver, Colorado 80202
(720) 616-4300

GEOLOGIST

Name: **Ryan Scribner & Phillip Willcox**
Company: **Goolsby Brothers & Assoc. (GBA), Inc. (www.goolsbybrothers.com)**
Address: **575 Union Blvd. Suite 208,**
Lakewood CO. 80228
Tel 303-618-7736

E-logs

MWD GR from 6,400'-15,330'

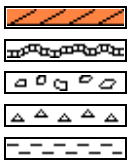
Casing

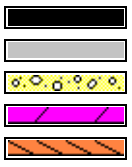
9 5/8" Surface Casing set @ 1,755' MD
5 1/2" Production Liner hung 4/07/2016, landed @ 15356'

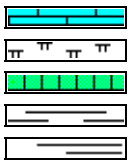
Comments

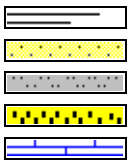
1) Drilling Contractor: Precision Drilling, Rig #462
   Toolpusher: John Myers
   Erion Yocom
2) Company Man: Sean Devereaux
   Kevin Brakovec
3) Mud Comapny : Halliburton Baroid 41
   Engineer: Cory Armstrong
4) Directional Drilling: Scientific Drilling
   Drillers: Steve Schlamp, Derek Daugherty
   MWD: Brian Greer, Cody Christman
5) Gas Equipment: Pason Gas Analyzer (Spectrometer)
6) Wellsite Geologist: Ryan Scribner, Phillip Willcox

ROCK TYPES


Anhy
Bent
Brec
Cht
Clyst


Coal
Oil sat.
Congl
Dol
Gyp


Lmst
Mrlst
Salt
Shale
Shcol


Shgy
Ss
Sltst
Ss
Chalk


Carb sh
Slty sh

ACCESSORIES

MINERAL

- Anhy
- Arggrn
- Arg
- Bent
- Bit
- Brecfrag
- Calc
- Carb
- Chtdk
- Chtlt
- Dol
- Feldspar
- Ferrpel
- Ferr
- Glau
- Gyp
- Hvymin
- Kaol
- Marl
- Minxl
- Nodule
- Phos
- Pyr
- Salt
- Sandy
- Silt
- Sil
- Sulphur
- Tuff

FOSSIL

- Algae
- Amph
- Belm
- Bioclst
- Brach
- Bryozoa
- Cephal
- Coral
- Crin
- Echin
- Fish
- Foram
- Fossil
- Gastro
- Oolite
- Ostra
- Pelec
- Pellet
- Pisolite
- Plant
- Strom

STRINGER

- Chlkstg
- Anhy
- Arg
- Bent
- Coal
- Dol
- Gyp
- Ls
- Mrst
- Sltstrg
- Ssstrg

TEXTURE

- Boundst
- Chalky
- Cryxln
- Earthy
- Finexln
- Grainst
- Lithogr
- Microxln
- Mudst
- Packst
- Wackest

OTHER SYMBOLS

OIL SHOWS

- Even
- Spotted
- Ques
- Dead
- Vspotty
- near even

POROSITY TYPE

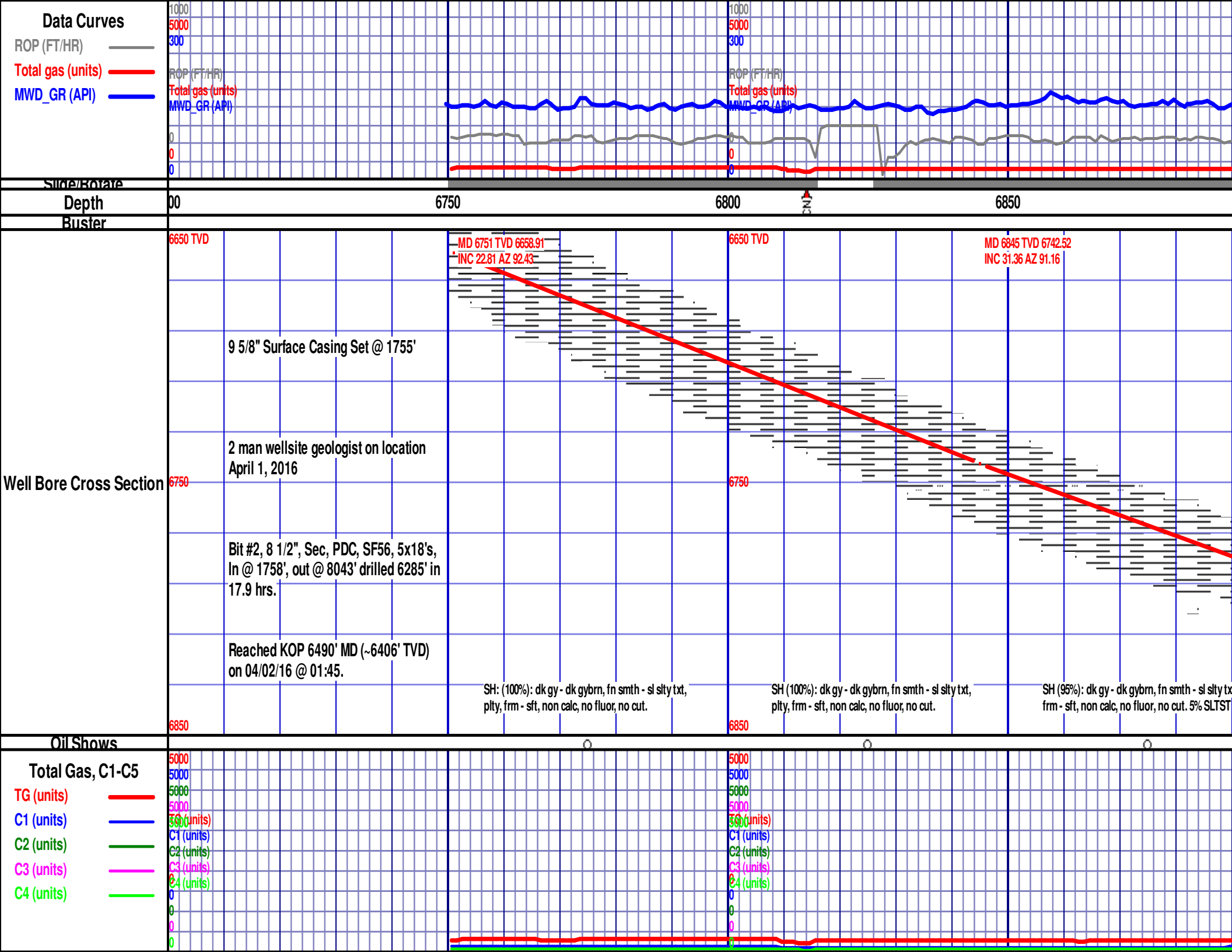
- Earthy
- Fenest
- Fracture
- Inter
- Moldic
- Organic
- Pinpoint
- Vuggy

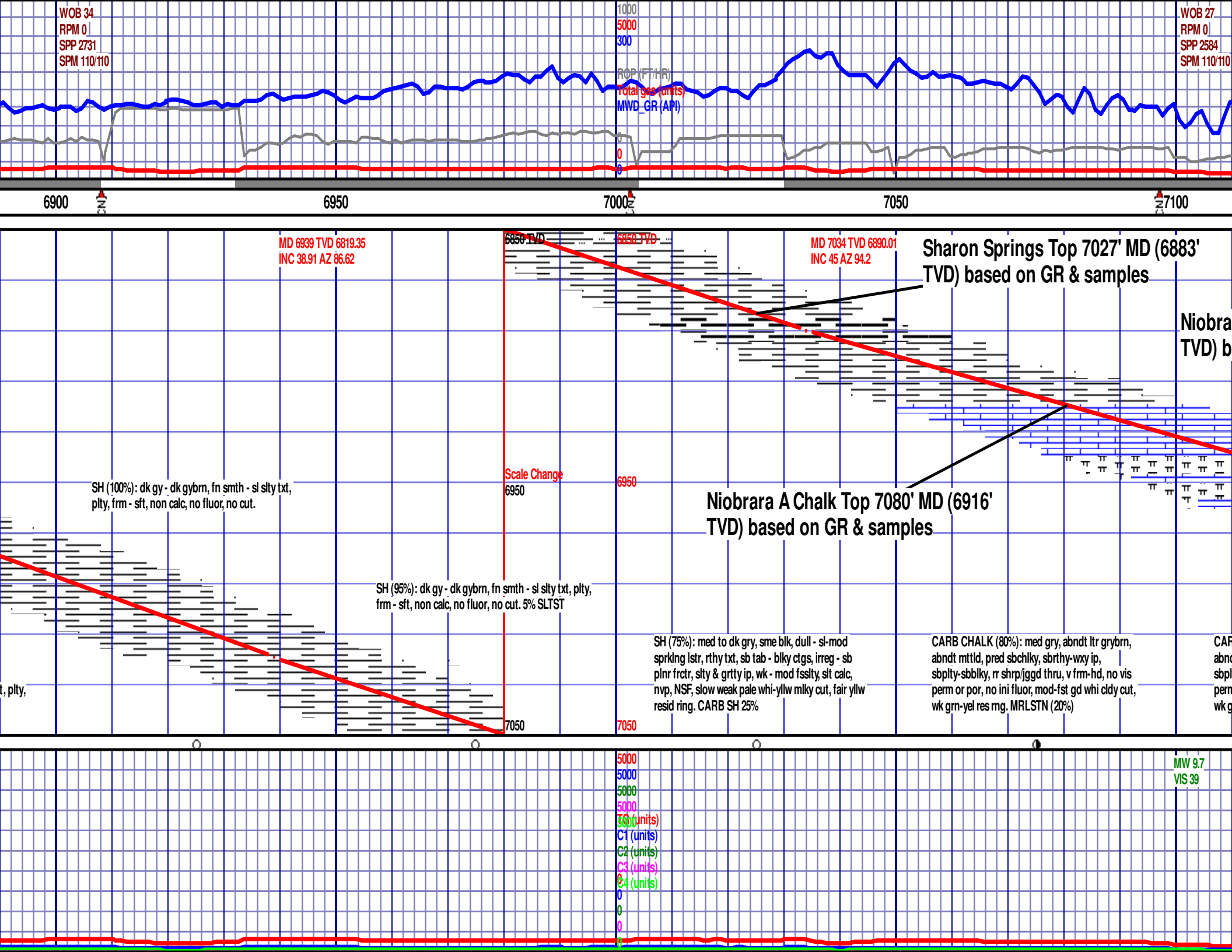
ROUNDING

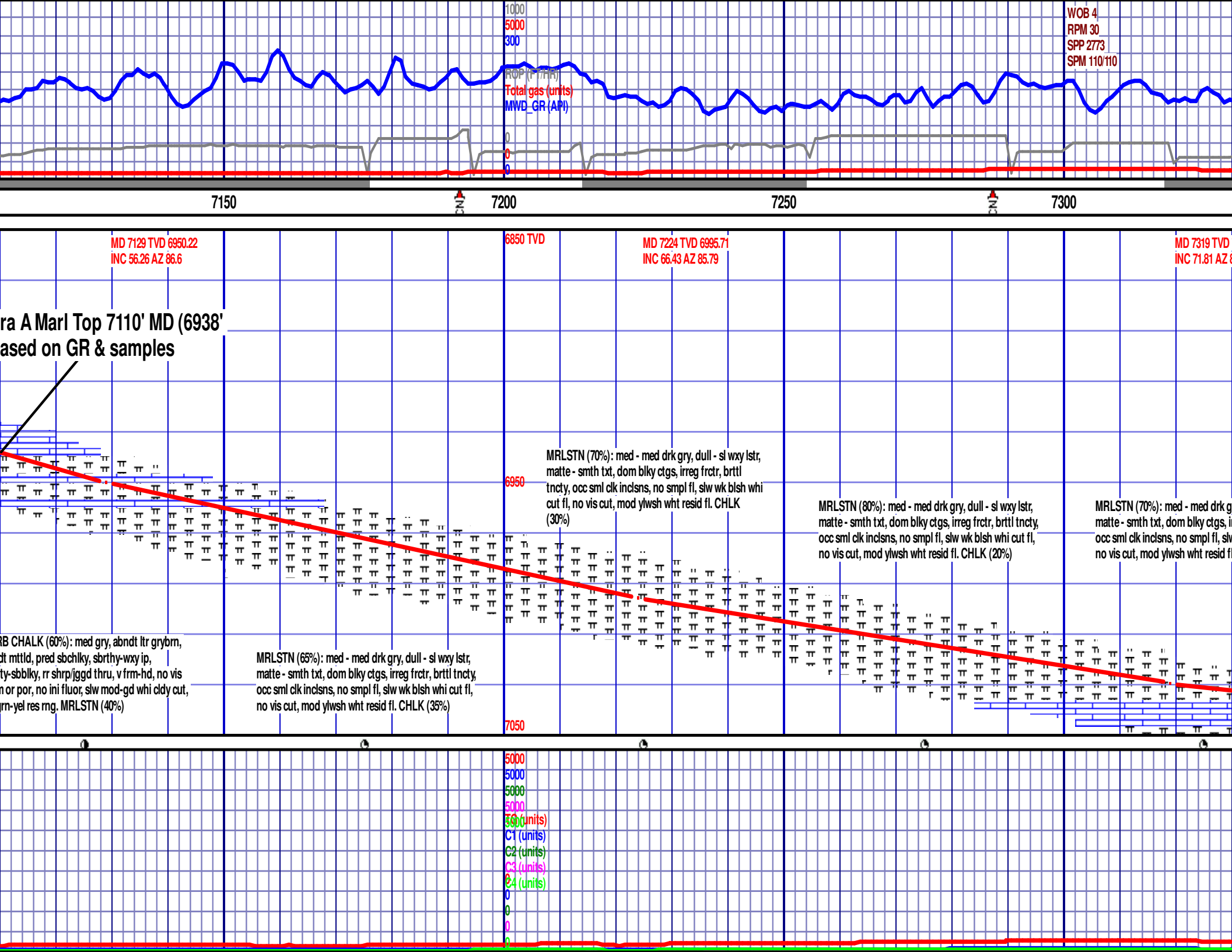
- Rounded
- Subrnd
- Subang
- Angular

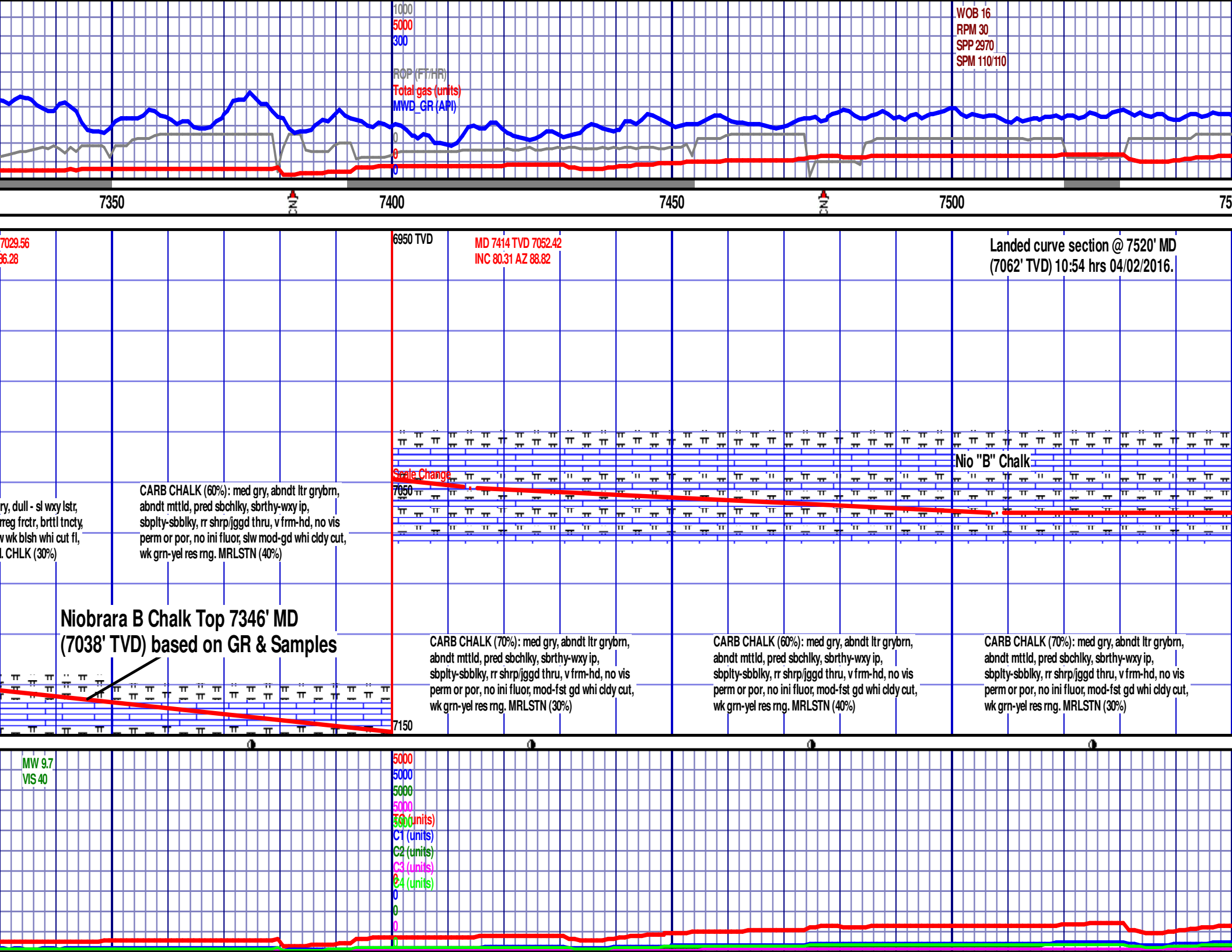
SORTING

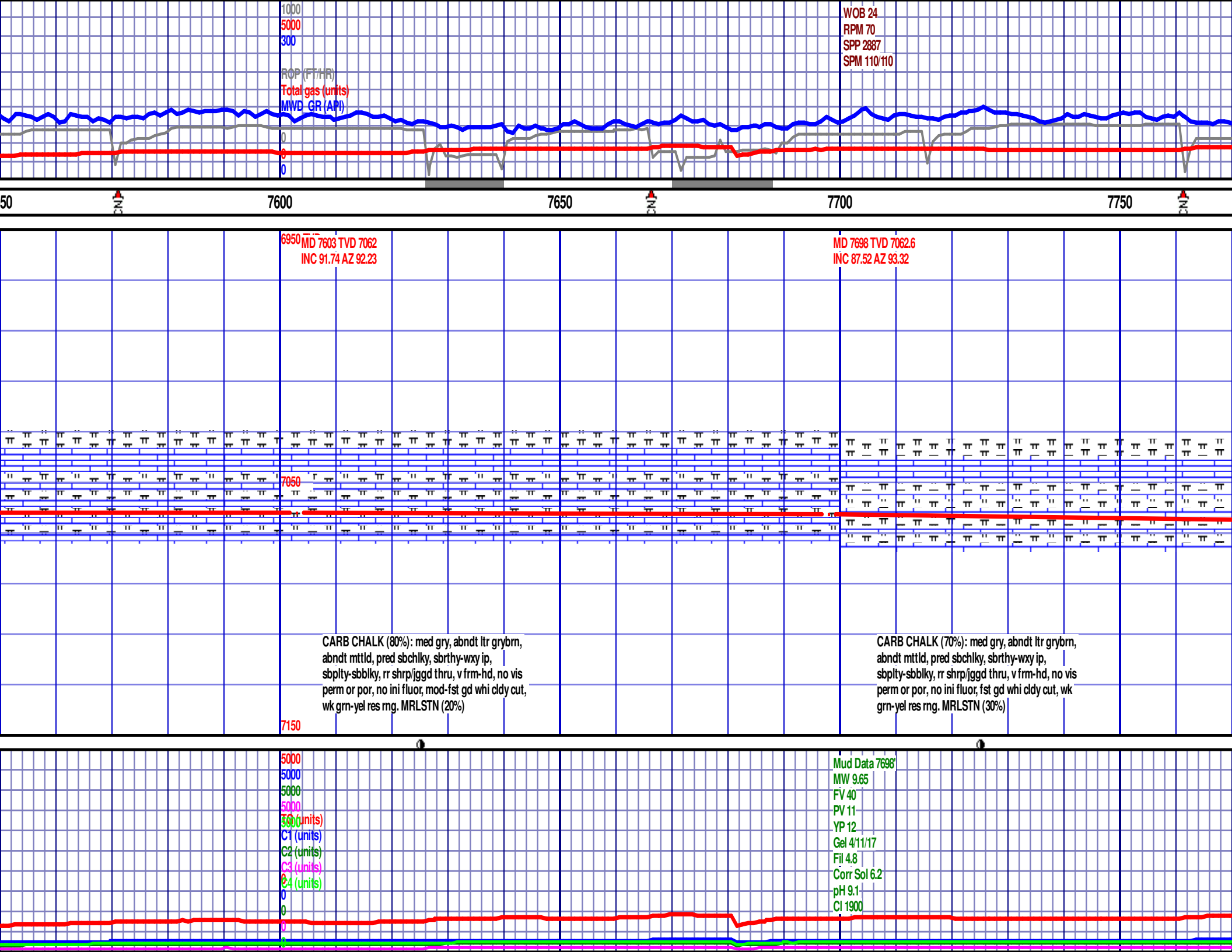
- Well
- Moderate
- Poor

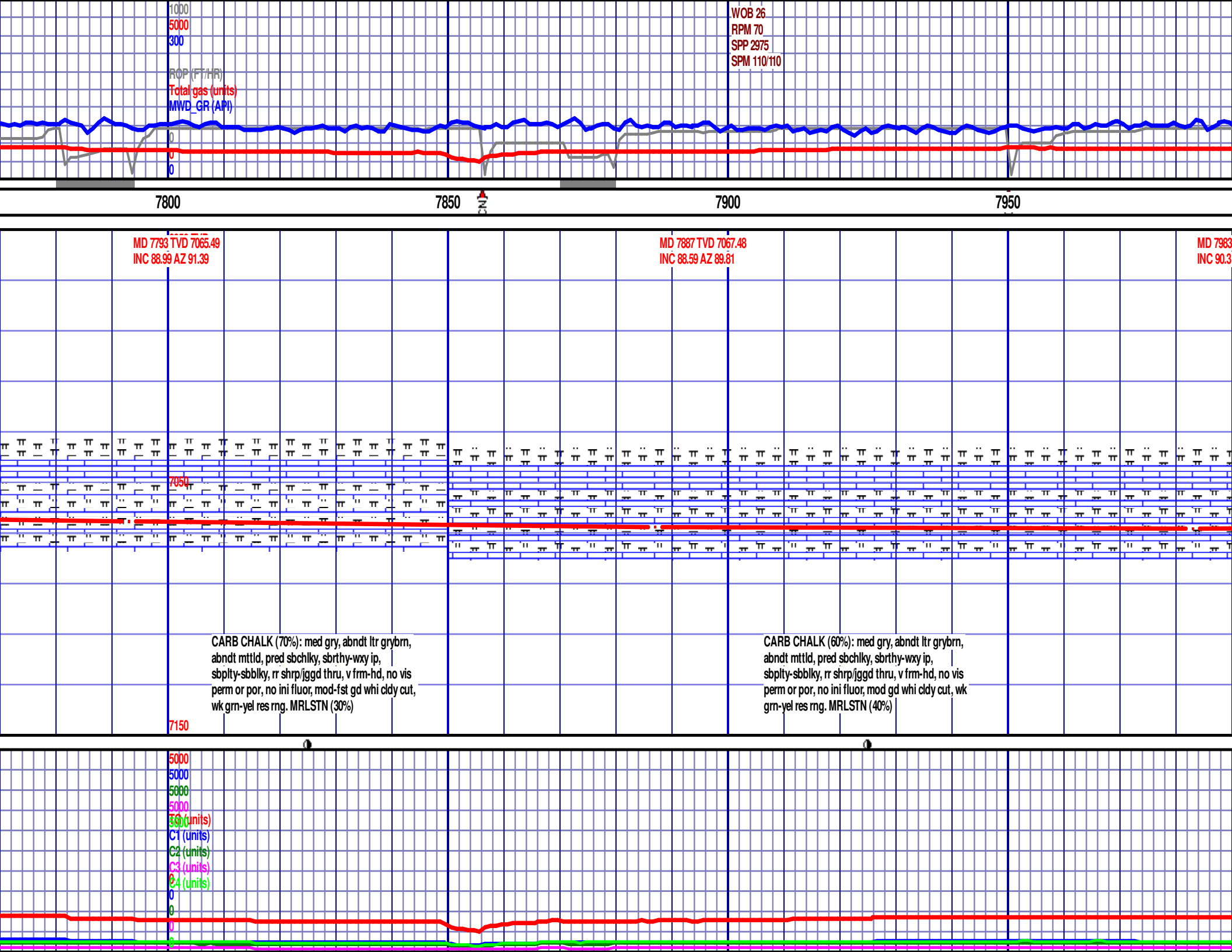

Data Curves
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
1000
5000
300
0
0
0
Slide/Rotate
Depth
00
6750
6800
6850
Buster
Well Bore Cross Section
6650 TVD
6750
6850
MD 6751 TVD 6658.91
INC 22.81 AZ 92.43
MD 6845 TVD 6742.52
INC 31.36 AZ 91.16
9 5/8" Surface Casing Set @ 1755'
2 man wellsite geologist on location
April 1, 2016
Bit #2, 8 1/2", Sec, PDC, SF56, 5x18's,
In @ 1758', out @ 8043' drilled 6285' in
17.9 hrs.
Reached KOP 6490' MD (~6406' TVD)
on 04/02/16 @ 01:45.
SH: (100%): dk gy - dk gybrn, fn smth - sl slty txt,
plty, frm - sft, non calc, no fluor, no cut.
SH (100%): dk gy - dk gybrn, fn smth - sl slty txt,
plty, frm - sft, non calc, no fluor, no cut.
SH (95%): dk gy - dk gybrn, fn smth - sl slty tx
frm - sft, non calc, no fluor, no cut. 5% SLTST
Oil Shows
Total Gas, C1-C5
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
5000
5000
5000
5000
0
0
0
0

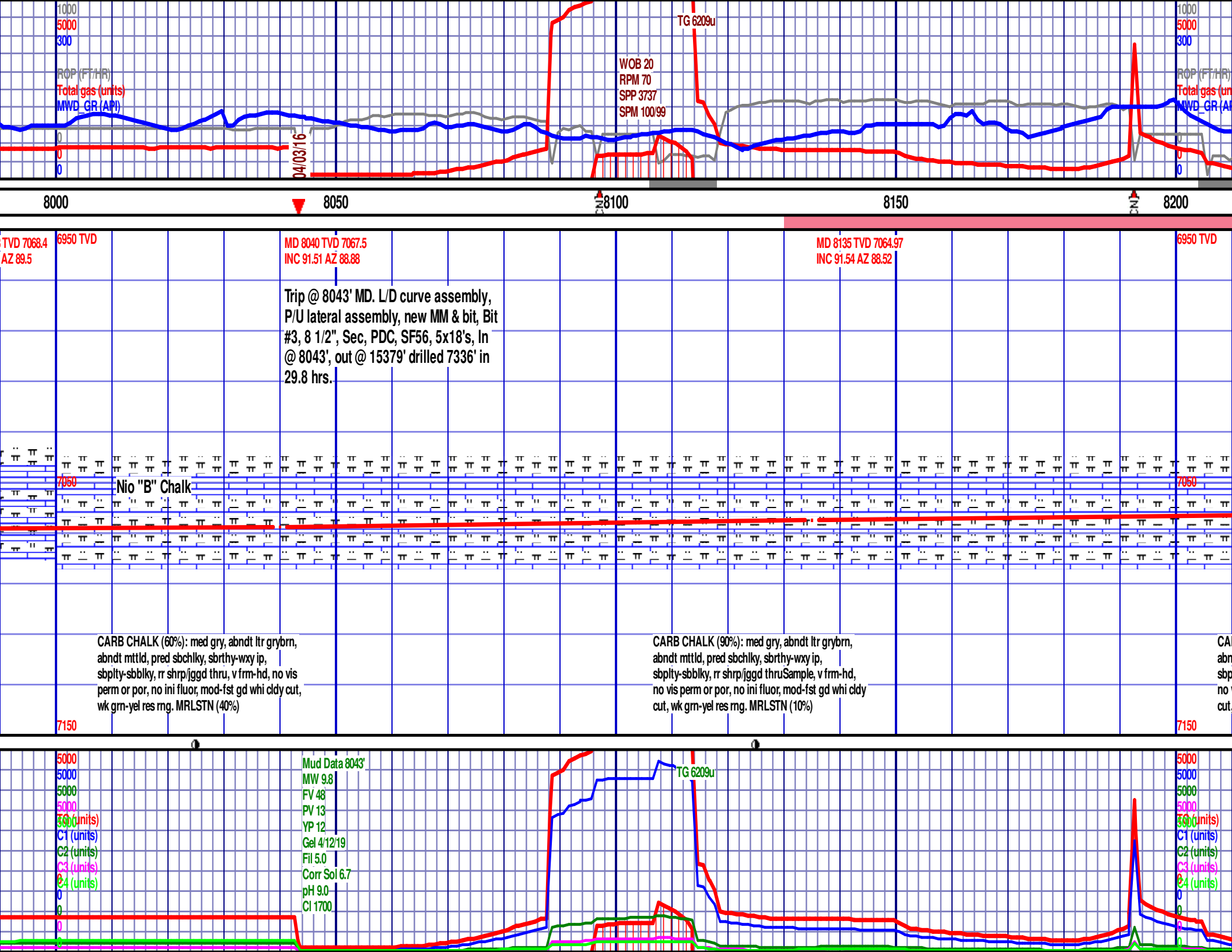

WOB 34
RPM 0
SPP 2731
SPM 110/110
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
WOB 27
RPM 0
SPP 2584
SPM 110/110
6900
6950
7000
7050
7100
MD 6939 TVD 6819.35
INC 38.91 AZ 86.62
6850 TVD
6850 TVD
MD 7034 TVD 6890.01
INC 45 AZ 94.2
Sharon Springs Top 7027' MD (6883' TVD) based on GR & samples
Niobra
TVD) b
Scale Change
6950
6950
SH (100%): dk gy - dk gybrn, fn smth - sl slty txt, plty, frm - sft, non calc, no fluor, no cut.
Niobrara A Chalk Top 7080' MD (6916' TVD) based on GR & samples
SH (95%): dk gy - dk gybrn, fn smth - sl slty txt, plty, frm - sft, non calc, no fluor, no cut. 5% SLTST
7050
7050
SH (75%): med to dk gry, sme blk, dull - sl-mod sprkng lstr, rthy txt, sb tab - blky ctgs, irreg - sb plnr frctr, slty & grtty ip, wk - mod fssltv, slt calc, nvp, NSF, slow weak pale whi-yllw mlky cut, fair yllw resid ring. CARB SH 25%
CARB CHALK (80%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (20%)
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
MW 9.7
VIS 39

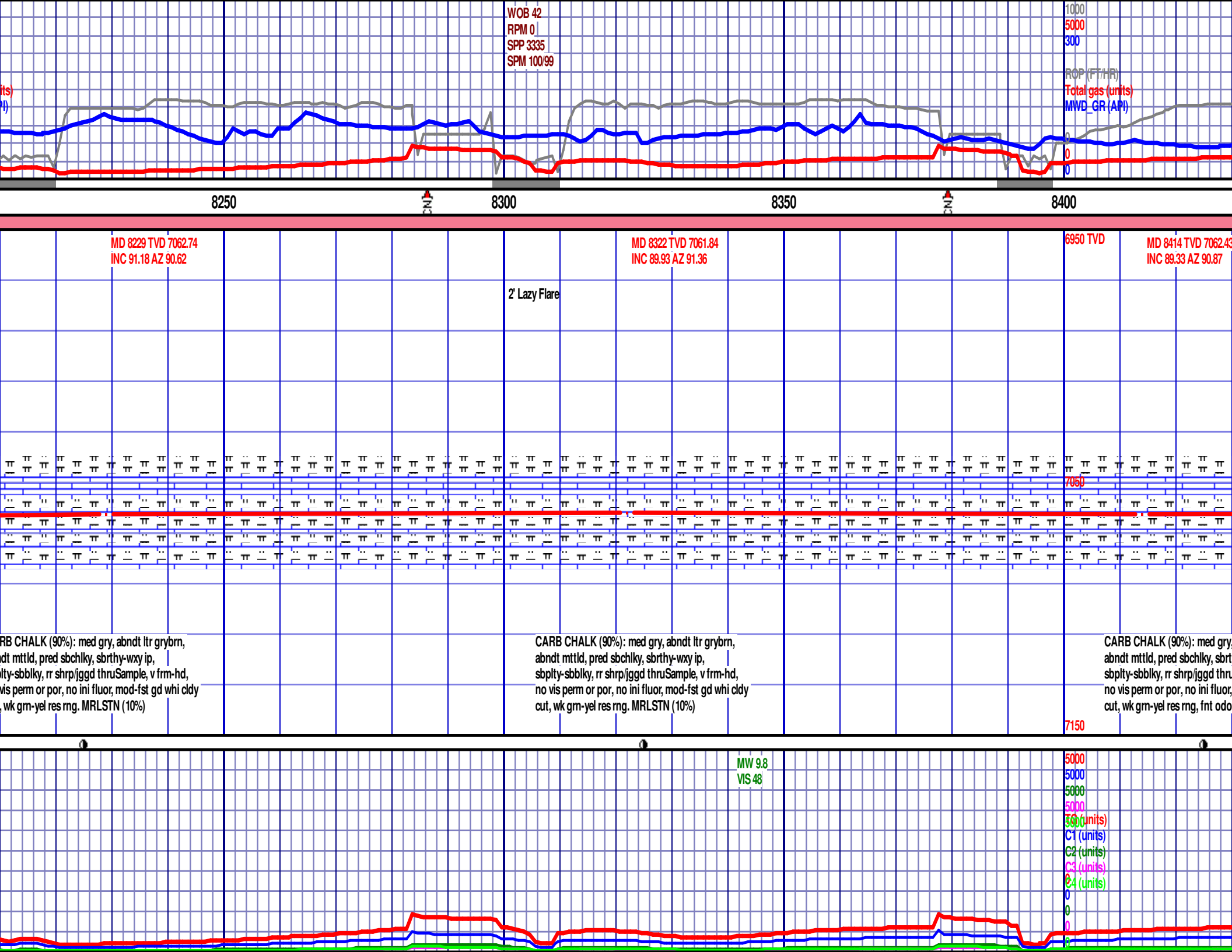

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 4
RPM 30
SPP 2773
SPM 110/110
7150
CN
7200
7250
CN
7300
MD 7129 TVD 6950.22
INC 56.26 AZ 86.6
6850 TVD
MD 7224 TVD 6995.71
INC 66.43 AZ 85.79
MD 7319 TVD
INC 71.81 AZ
ra A Marl Top 7110' MD (6938'
ased on GR & samples
6950
7050
MRLSTN (70%): med - med drk gry, dull - sl wxy lstr, matte - smth txt, dom blky ctgs, irreg frctr, brttl tncty, occ sml clk inclsns, no smpl fl, slw wk blsh whi cut fl, no vis cut, mod ylwsh wht resid fl. CHLK (30%)
MRLSTN (80%): med - med drk gry, dull - sl wxy lstr, matte - smth txt, dom blky ctgs, irreg frctr, brttl tncty, occ sml clk inclsns, no smpl fl, slw wk blsh whi cut fl, no vis cut, mod ylwsh wht resid fl. CHLK (20%)
MRLSTN (70%): med - med drk g
matte - smth txt, dom blky ctgs, i
occ sml clk inclsns, no smpl fl, slv
no vis cut, mod ylwsh wht resid f
RB CHALK (60%): med gry, abndt ltr grybrn, dt mttld, pred sbchlky, sbrthy-wxy ip, ty-sbblky, rr shrp/jggd thru, v frm-hd, no vis n or por, no ini fluor, slw mod-gd whi cldy cut, grn-yel res rng. MRLSTN (40%)
MRLSTN (65%): med - med drk gry, dull - sl wxy lstr, matte - smth txt, dom blky ctgs, irreg frctr, brttl tncty, occ sml clk inclsns, no smpl fl, slw wk blsh whi cut fl, no vis cut, mod ylwsh wht resid fl. CHLK (35%)
5000
5000
5000
5000
300
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

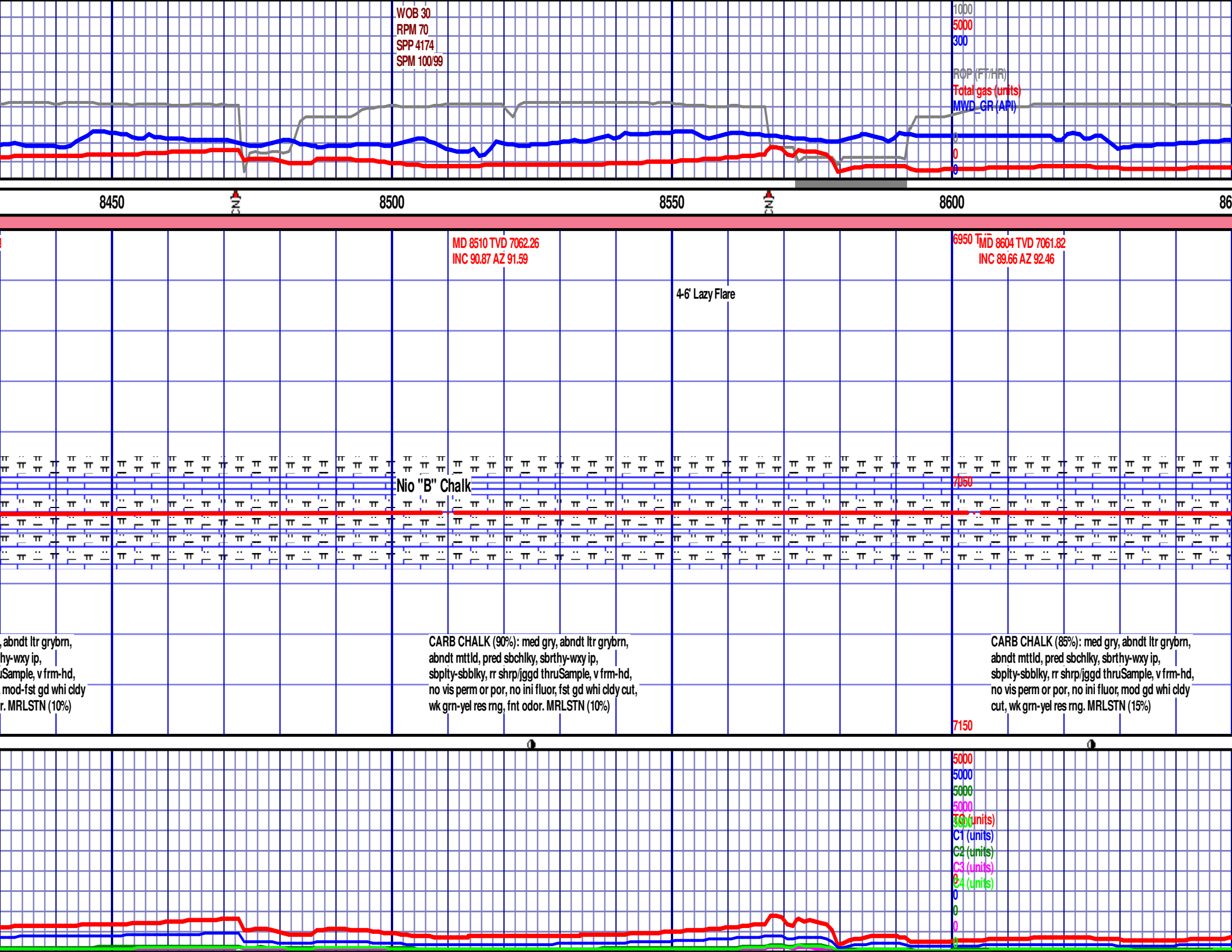

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 16
RPM 30
SPP 2970
SPM 110/110
7350
CN
7400
7450
CN
7500
75
7029.56
36.28
6950 TVD
MD 7414 TVD 7052.42
INC 80.31 AZ 88.82
Landed curve section @ 7520' MD
(7062' TVD) 10:54 hrs 04/02/2016.
ry, dull - sl wxy lstr,
rreg frctr, brttl tncty,
w wk blsh whi cut fl,
L CHLK (30%)
CARB CHALK (60%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis
perm or por, no ini fluor, slw mod-gd whi cldy cut,
wk grn-yel res rng. MRLSTN (40%)
Nio "B" Chalk
Scale Change
7050
Niobrara B Chalk Top 7346' MD
(7038' TVD) based on GR & Samples
CARB CHALK (70%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis
perm or por, no ini fluor, mod-fst gd whi cldy cut,
wk grn-yel res rng. MRLSTN (30%)
CARB CHALK (60%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis
perm or por, no ini fluor, mod-fst gd whi cldy cut,
wk grn-yel res rng. MRLSTN (40%)
CARB CHALK (70%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis
perm or por, no ini fluor, mod-fst gd whi cldy cut,
wk grn-yel res rng. MRLSTN (30%)
7150
MW 9.7
VIS 40
5000
5000
5000
5000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

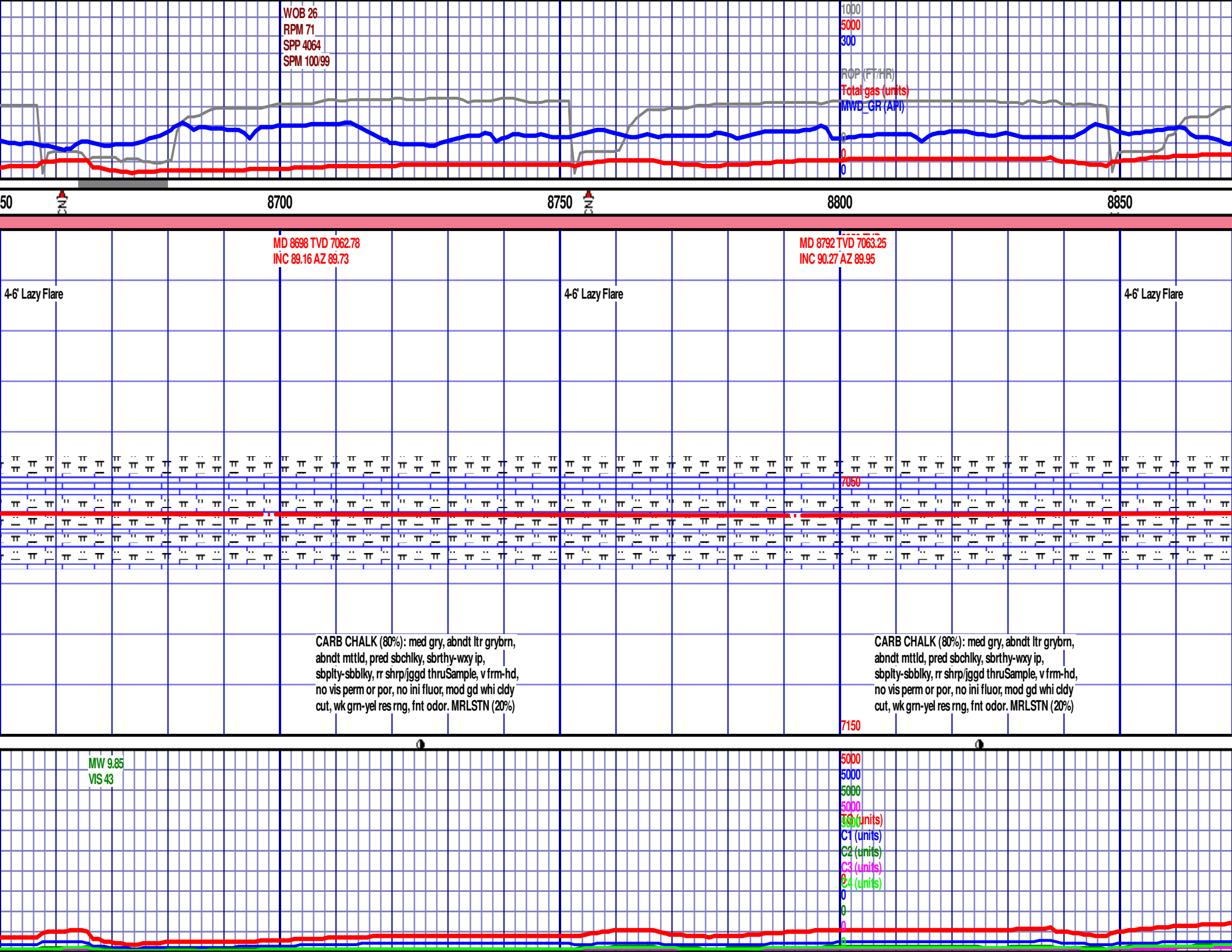

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 24
RPM 70
SPP 2887
SPM 110/110
50
7600
7650
7700
7750
6950
MD 7603 TVD 7062
INC 91.74 AZ 92.23
MD 7698 TVD 7062.6
INC 87.52 AZ 93.32
7050
CARB CHALK (80%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (20%)
CARB CHALK (70%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis perm or por, no ini fluor, fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (30%)
7150
5000
5000
5000
5000
300
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0
Mud Data 7698'
MW 9.65
FV 40
PV 11
YP 12
Gel 4/11/17
Fil 4.8
Corr Sol 6.2
pH 9.1
Cl 1900

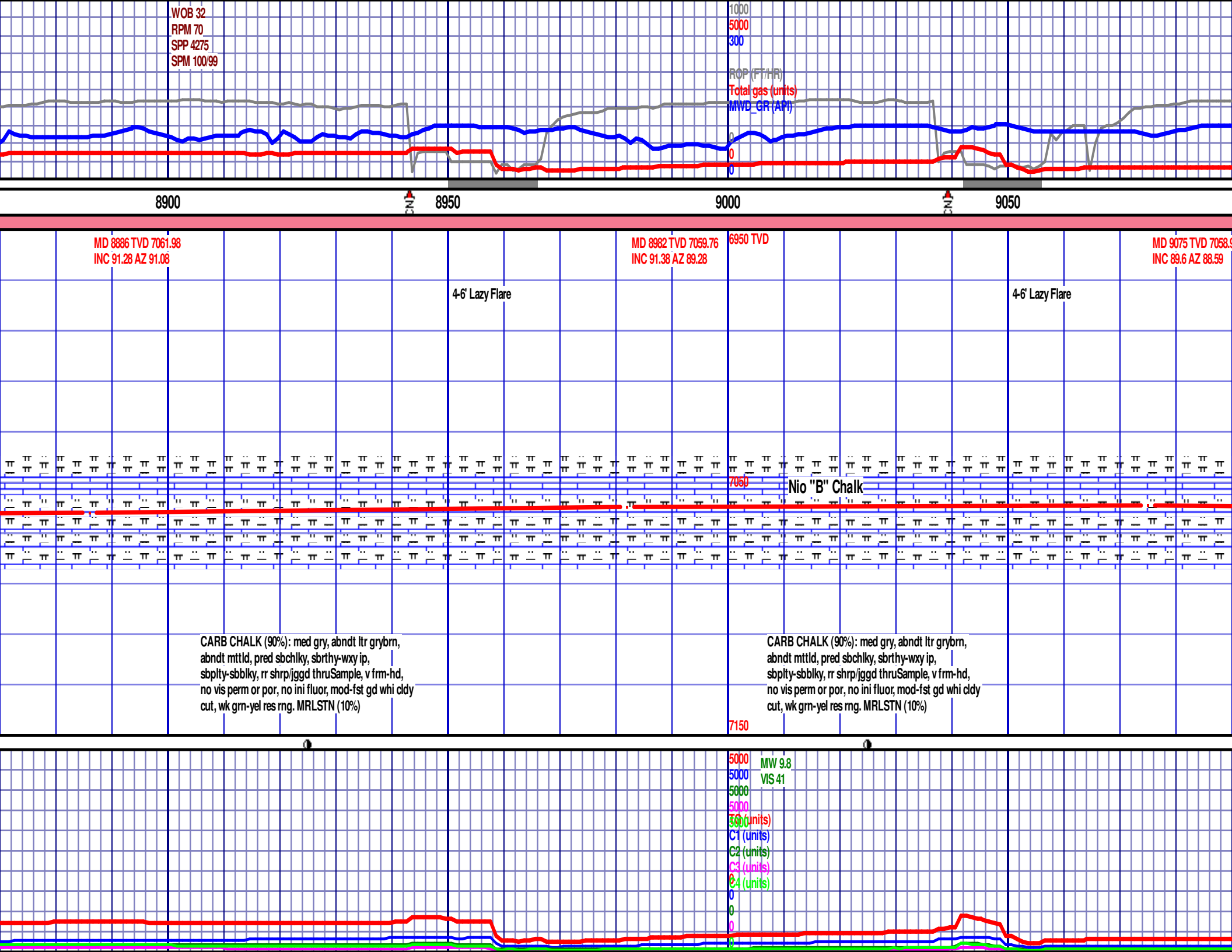

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 26
RPM 70
SPP 2975
SPM 110/110
7800
7850
7900
7950
MD 7793 TVD 7065.49
INC 88.99 AZ 91.39
MD 7887 TVD 7067.48
INC 88.59 AZ 89.81
MD 7983
INC 90.3
7050
CARB CHALK (70%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (30%)
CARB CHALK (60%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis perm or por, no ini fluor, mod gd whi cldy cut, wk grn-yel res rng. MRLSTN (40%)
7150
5000
5000
5000
5000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

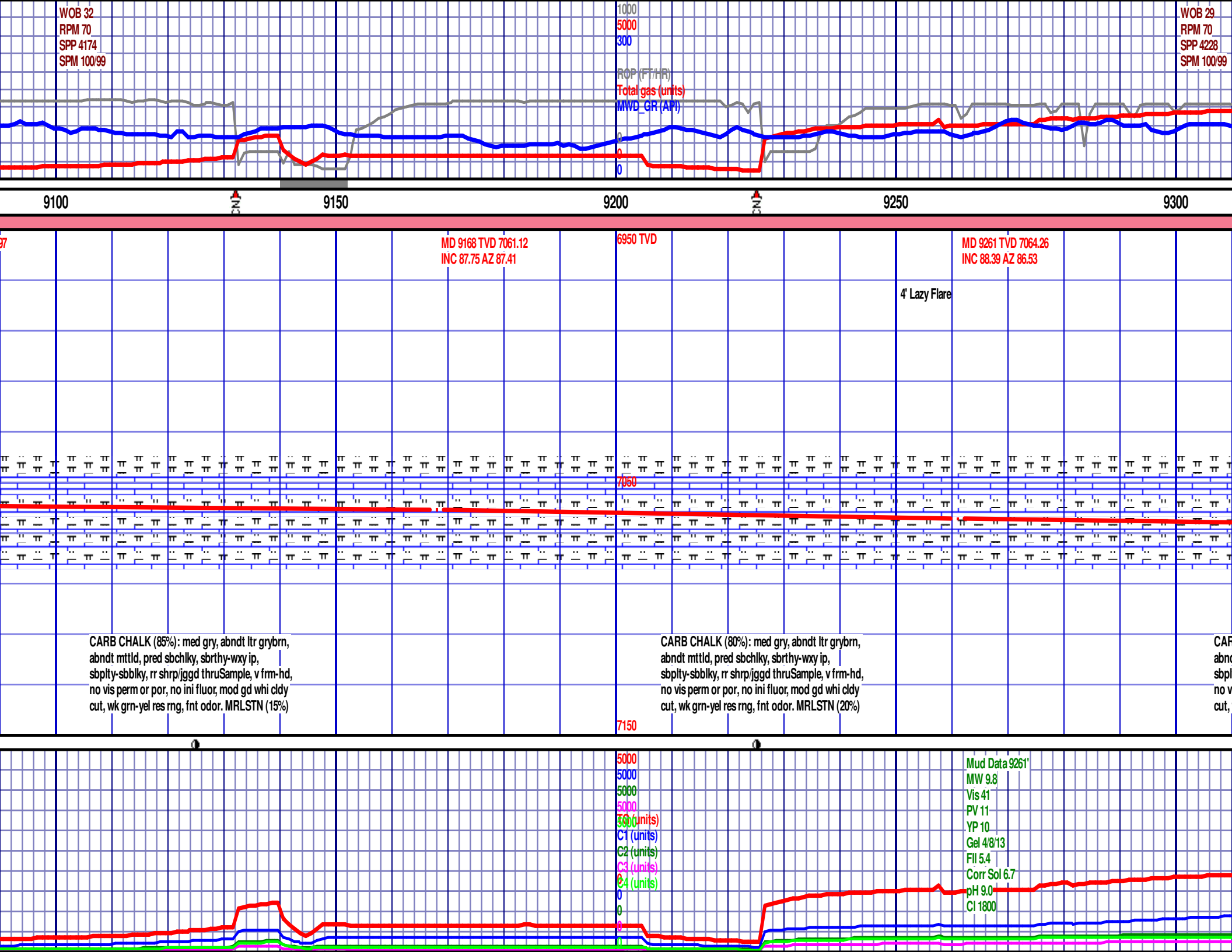

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
TG 6209u
WOB 20
RPM 70
SPP 3737
SPM 100/99
04/03/16
8000
8050
8100
8150
8200
TVD 7068.4
AZ 89.5
6950 TVD
MD 8040 TVD 7067.5
INC 91.51 AZ 88.88
MD 8135 TVD 7064.97
INC 91.54 AZ 88.52
Trip @ 8043' MD. L/D curve assembly, P/U lateral assembly, new MM & bit, Bit #3, 8 1/2", Sec, PDC, SF56, 5x18's, In @ 8043', out @ 15379' drilled 7336' in 29.8 hrs.
7050
Nio "B" Chalk
CARB CHALK (60%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (40%)
CARB CHALK (90%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (10%)
7150
5000
5000
5000
5000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
Mud Data 8043'
MW 9.8
FV 48
PV 13
YP 12
Gel 4/12/19
Fil 5.0
Corr Sol 6.7
pH 9.0
Cl 1700
TG 6209u

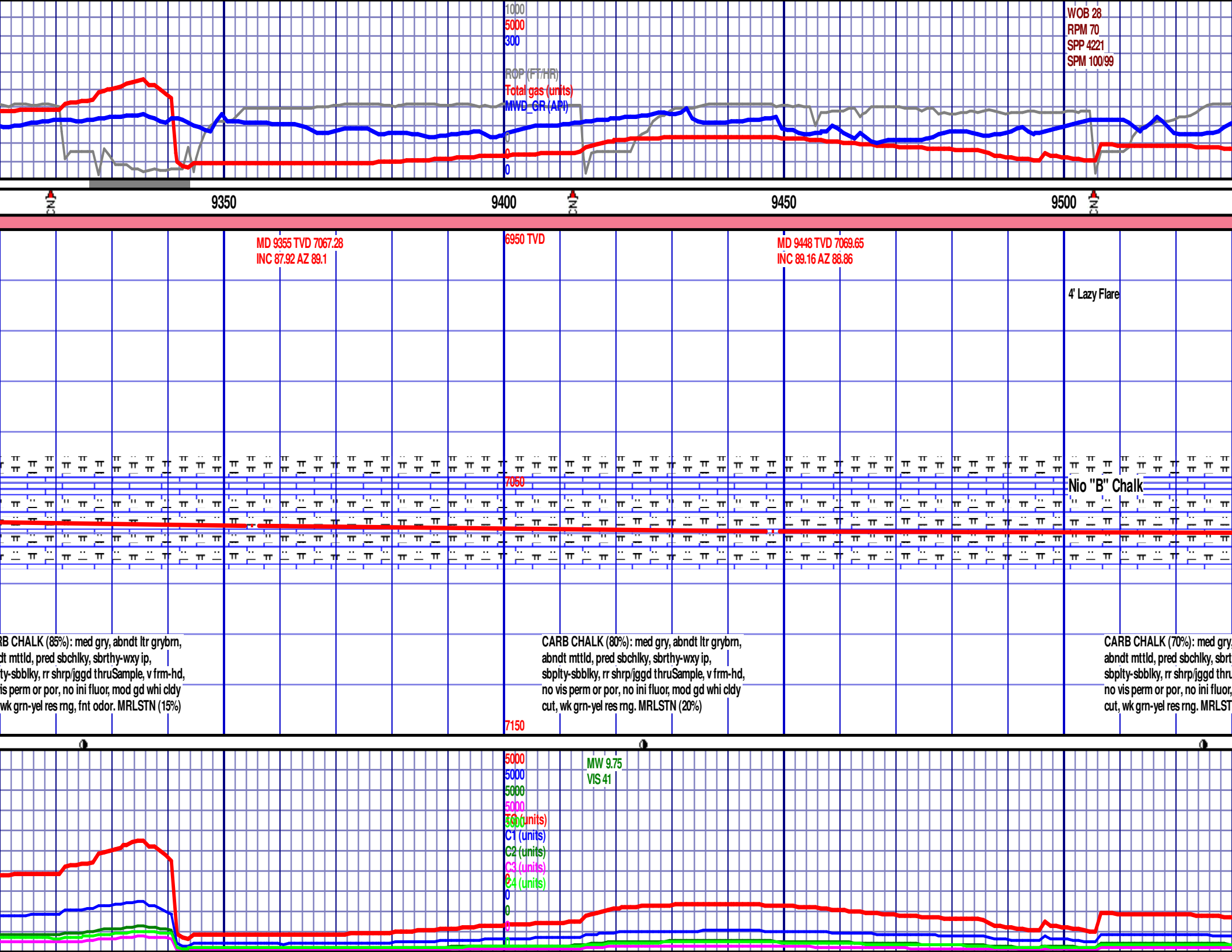

WOB 42
RPM 0
SPP 3335
SPM 100/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
8250
8300
8350
8400
MD 8229 TVD 7062.74
INC 91.18 AZ 90.62
MD 8322 TVD 7061.84
INC 89.93 AZ 91.36
6950 TVD
MD 8414 TVD 7062.43
INC 89.33 AZ 90.87
2' Lazy Flare
7050
CARB CHALK (90%): med gry, abndt ltr grybrn,
dt mttld, pred sbchlky, sbrthy-wxy ip,
lty-sbblky, rr shrp/jggd thruSample, v frm-hd,
vis perm or por, no ini fluor, mod-fst gd whi cldy
, wk grn-yel res rng. MRLSTN (10%)
CARB CHALK (90%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd,
no vis perm or por, no ini fluor, mod-fst gd whi cldy
cut, wk grn-yel res rng. MRLSTN (10%)
CARB CHALK (90%): med gry,
abndt mttld, pred sbchlky, sbrt
sbplty-sbblky, rr shrp/jggd thru
no vis perm or por, no ini fluor,
cut, wk grn-yel res rng, fnt odo
7150
MW 9.8
VIS 48
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0

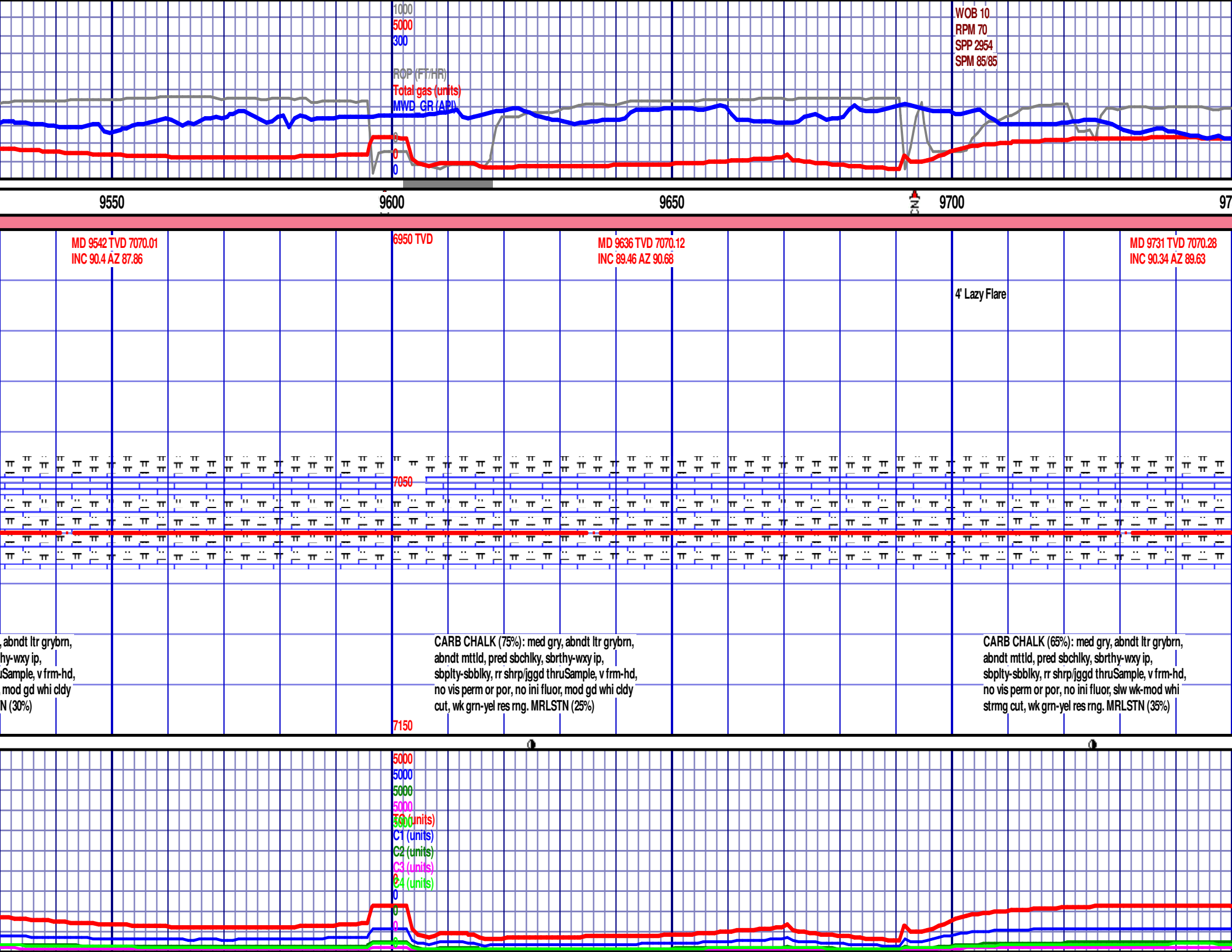

WOB 30
RPM 70
SPP 4174
SPM 100/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
8450
CN
8500
8550
CN
8600
86
MD 8510 TVD 7062.26
INC 90.87 AZ 91.59
MD 8604 TVD 7061.82
INC 89.66 AZ 92.46
4-6' Lazy Flare
Nio "B" Chalk
7050
, abndt ltr grybrn,
hy-wxy ip,
uSample, v frm-hd,
mod-fst gd whi cldy
r. MRLSTN (10%)
CARB CHALK (90%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd,
no vis perm or por, no ini fluor, fst gd whi cldy cut,
wk grn-yel res rng, fnt odor. MRLSTN (10%)
CARB CHALK (85%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd,
no vis perm or por, no ini fluor, mod gd whi cldy
cut, wk grn-yel res rng. MRLSTN (15%)
7150
5000
5000
5000
5000
C0 (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

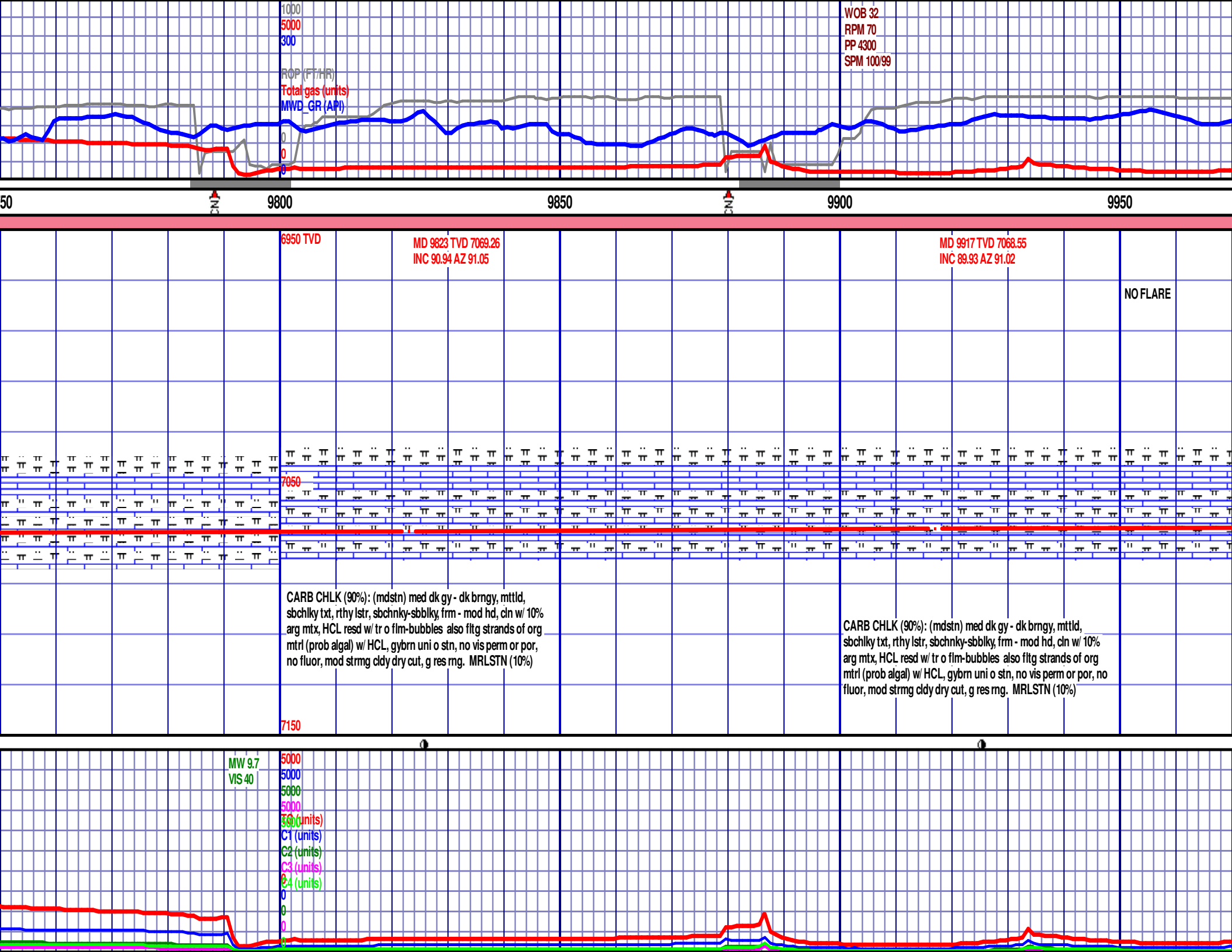

WOB 26
RPM 71
SPP 4064
SPM 100/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
50
8700
8750
8800
8850
MD 8698 TVD 7062.78
INC 89.16 AZ 89.73
MD 8792 TVD 7063.25
INC 90.27 AZ 89.95
4-6' Lazy Flare
4-6' Lazy Flare
4-6' Lazy Flare
7050
CARB CHALK (80%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd, no vis perm or por, no ini fluor, mod gd whi cldy cut, wk grn-yel res rng, fnt odor. MRLSTN (20%)
CARB CHALK (80%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd, no vis perm or por, no ini fluor, mod gd whi cldy cut, wk grn-yel res rng, fnt odor. MRLSTN (20%)
7150
MW 9.85
VIS 43
5000
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

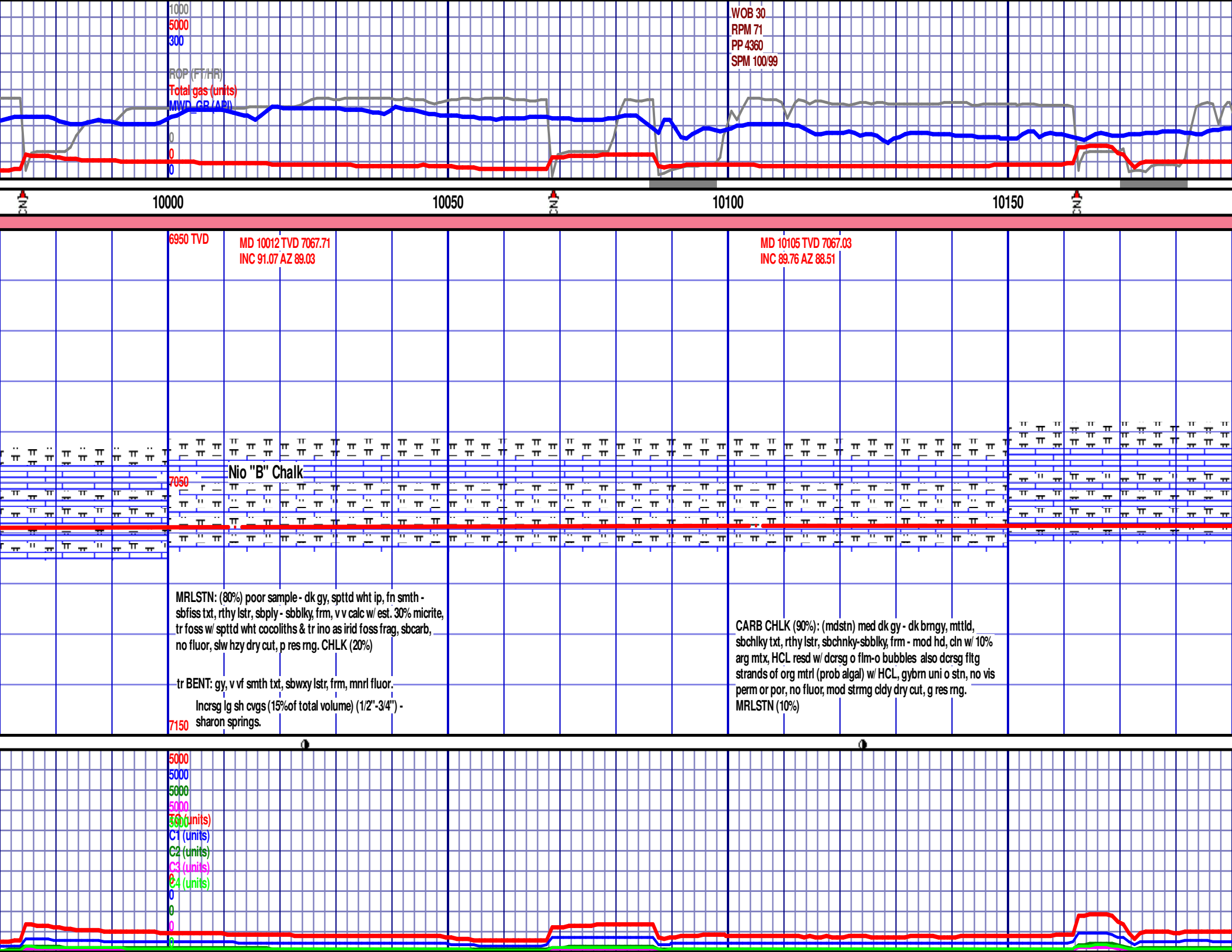

WOB 32
RPM 70
SPP 4275
SPM 100/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
8900
CN
8950
9000
CN
9050
MD 8886 TVD 7061.98
INC 91.28 AZ 91.08
MD 8982 TVD 7059.76
INC 91.38 AZ 89.28
6950 TVD
MD 9075 TVD 7058.9
INC 89.6 AZ 88.59
4-6' Lazy Flare
4-6' Lazy Flare
7050
Nio "B" Chalk
CARB CHALK (90%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (10%)
CARB CHALK (90%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (10%)
7150
5000
5000
5000
5000
MW 9.8
VIS 41
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

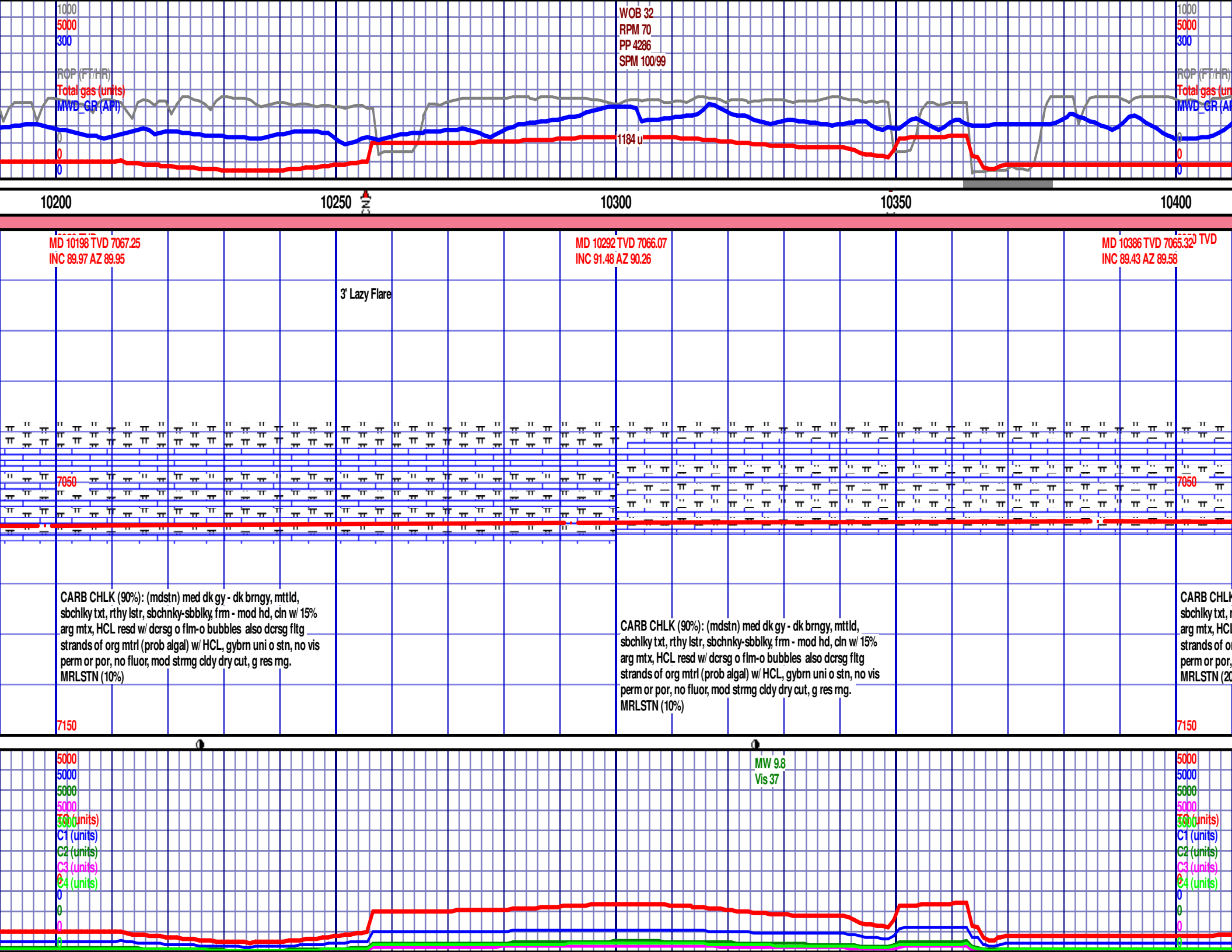

WOB 32
RPM 70
SPP 4174
SPM 100/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 29
RPM 70
SPP 4228
SPM 100/99
9100
CN
9150
9200
CN
9250
9300
MD 9168 TVD 7061.12
INC 87.75 AZ 87.41
6950 TVD
MD 9261 TVD 7064.26
INC 88.39 AZ 86.53
4' Lazy Flare
7050
CARB CHALK (85%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd, no vis perm or por, no ini fluor, mod gd whi cldy cut, wk grn-yel res rng, fnt odor. MRLSTN (15%)
CARB CHALK (80%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd, no vis perm or por, no ini fluor, mod gd whi cldy cut, wk grn-yel res rng, fnt odor. MRLSTN (20%)
7150
5000
5000
5000
5000
300
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
Mud Data 9261'
MW 9.8
Vis 41
PV 11
YP 10
Gel 4/8/13
Fll 5.4
Corr Sol 6.7
pH 9.0
Cl 1800

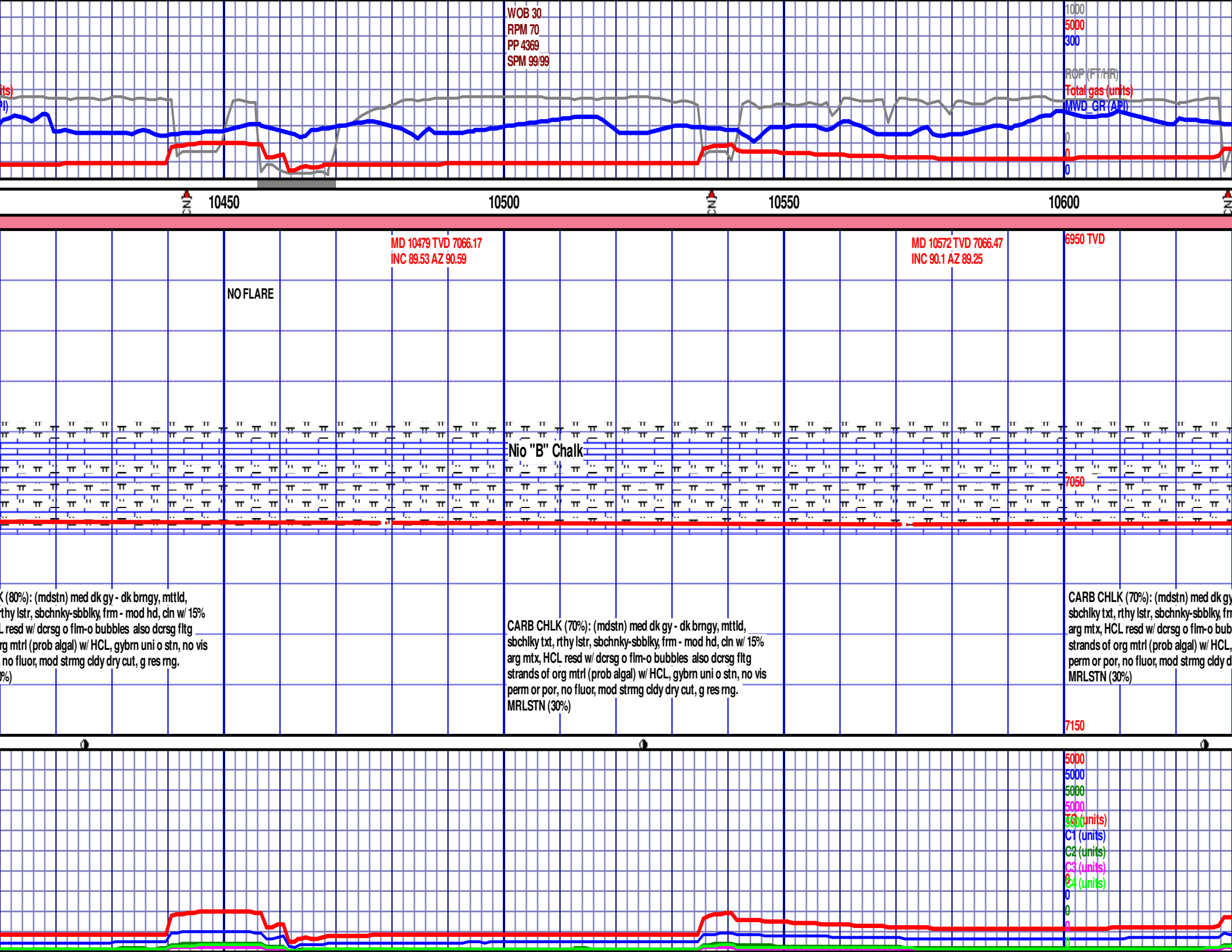

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 28
RPM 70
SPP 4221
SPM 100/99
CN
9350
9400
CN
9450
9500
CN
MD 9355 TVD 7067.28
INC 87.92 AZ 89.1
6950 TVD
MD 9448 TVD 7069.65
INC 89.16 AZ 88.86
4' Lazy Flare
7050
Nio "B" Chalk
RB CHALK (85%): med gry, abndt ltr grybrn,
dt mttld, pred sbchlky, sbrthy-wxy ip,
ty-sbblky, rr shrp/jggd thruSample, v frm-hd,
is perm or por, no ini fluor, mod gd whi cldy
wk grn-yel res rng, fnt odor. MRLSTN (15%)
CARB CHALK (80%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd,
no vis perm or por, no ini fluor, mod gd whi cldy
cut, wk grn-yel res rng. MRLSTN (20%)
CARB CHALK (70%): med gry,
abndt mttld, pred sbchlky, sbrt
sbplty-sbblky, rr shrp/jggd thru
no vis perm or por, no ini fluor,
cut, wk grn-yel res rng. MRLST
7150
5000
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0
MW 9.75
VIS 41

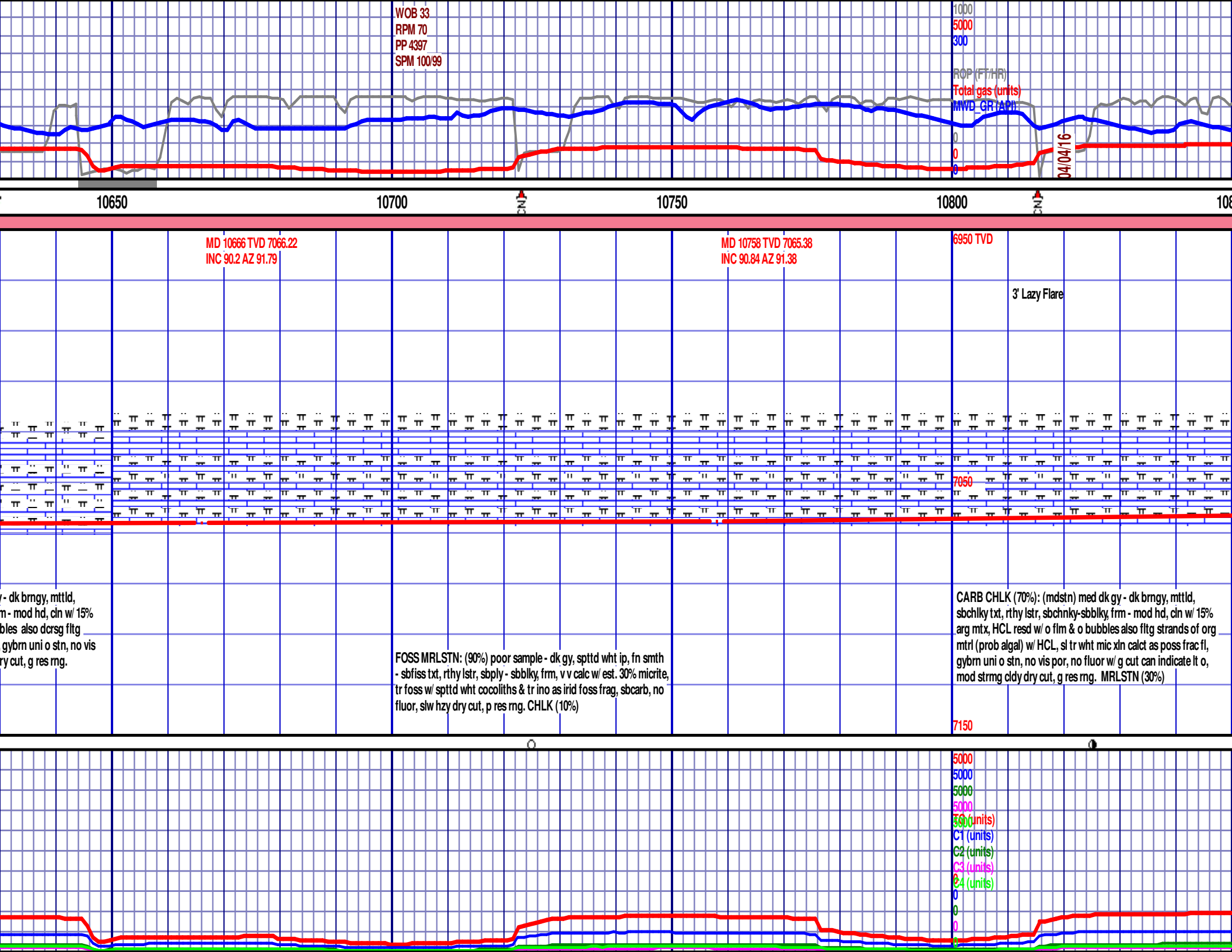

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 10
RPM 70
SPP 2954
SPM 85/85
9550
9600
9650
9700
97
MD 9542 TVD 7070.01
INC 90.4 AZ 87.86
6950 TVD
MD 9636 TVD 7070.12
INC 89.46 AZ 90.68
MD 9731 TVD 7070.28
INC 90.34 AZ 89.63
4' Lazy Flare
7050
, abndt ltr grybrn,
hy-wxy ip,
uSample, v frm-hd,
mod gd whi cldy
N (30%)
CARB CHALK (75%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd,
no vis perm or por, no ini fluor, mod gd whi cldy
cut, wk grn-yel res rng. MRLSTN (25%)
CARB CHALK (65%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thruSample, v frm-hd,
no vis perm or por, no ini fluor, slw wk-mod whi
strmg cut, wk grn-yel res rng. MRLSTN (35%)
7150
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

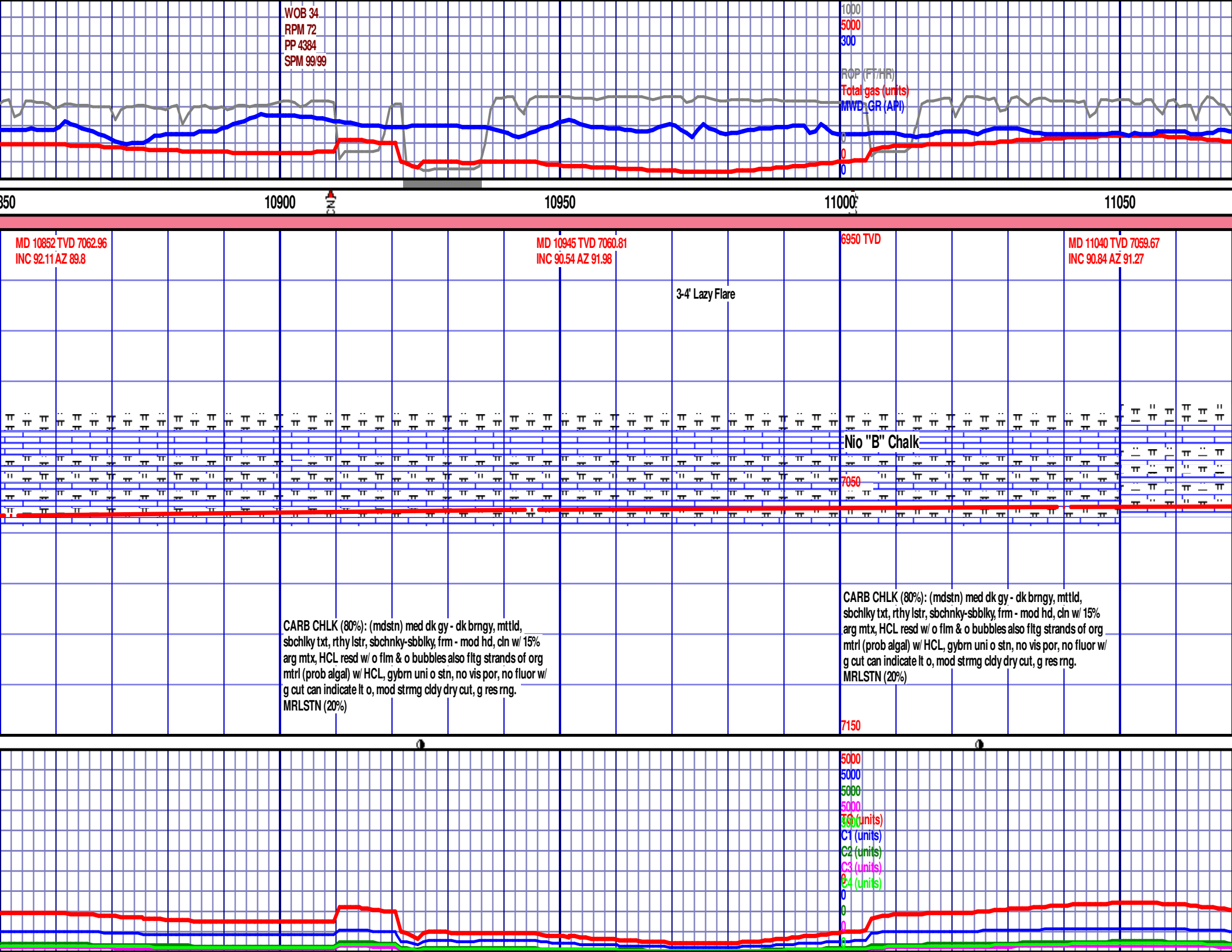

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 32
RPM 70
PP 4300
SPM 100/99
50
CNJ
9800
9850
CNJ
9900
9950
6950 TVD
MD 9823 TVD 7069.26
INC 90.94 AZ 91.05
MD 9917 TVD 7068.55
INC 89.93 AZ 91.02
NO FLARE
7050
CARB CHLK (90%): (mdstn) med dk gy - dk brngy, mttld, sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ tr o flm-bubbles also fltg strands of org mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis perm or por, no fluor, mod strmg cldy dry cut, g res rng. MRLSTN (10%)
CARB CHLK (90%): (mdstn) med dk gy - dk brngy, mttld, sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ tr o flm-bubbles also fltg strands of org mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis perm or por, no fluor, mod strmg cldy dry cut, g res rng. MRLSTN (10%)
7150
MW 9.7
VIS 40
5000
5000
5000
5000
300 (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

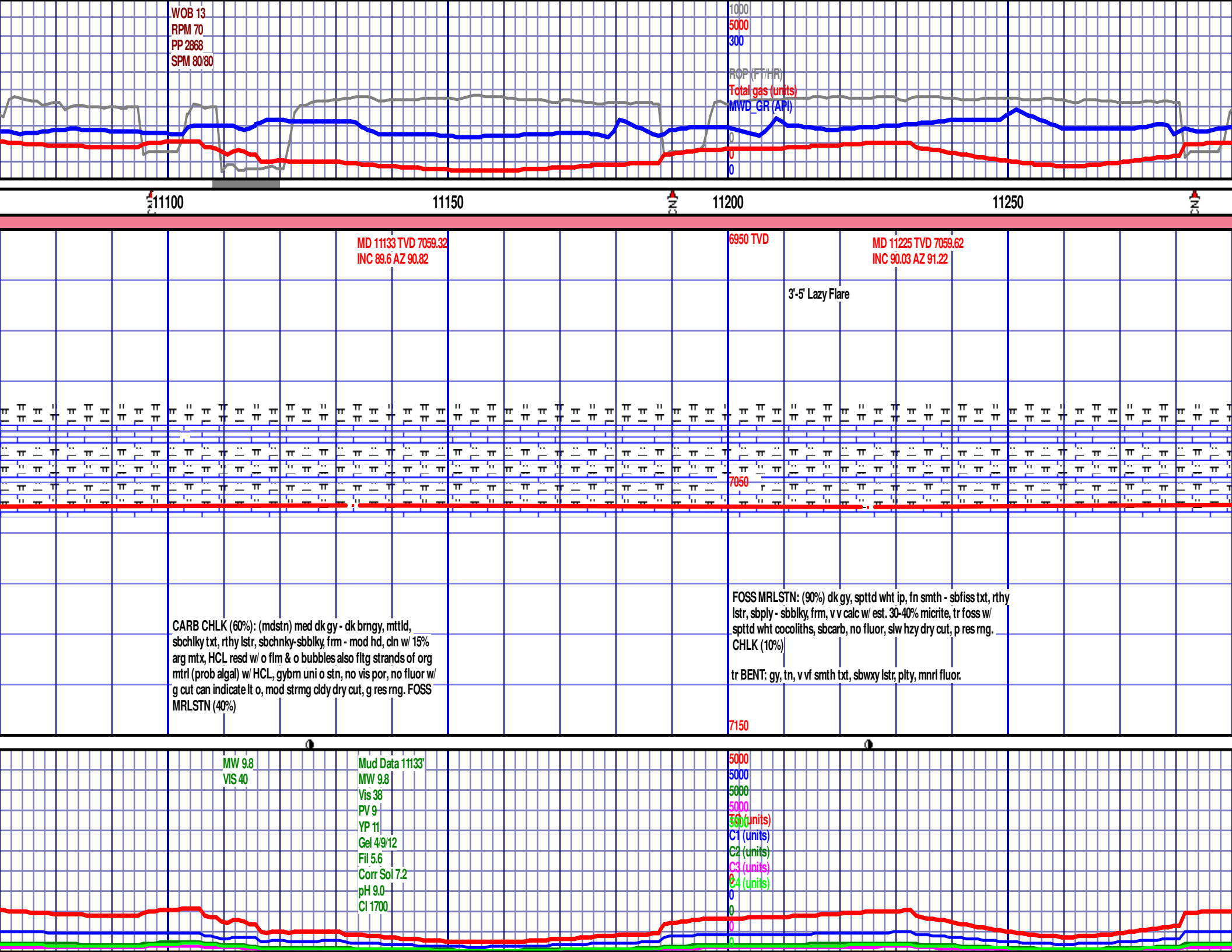

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 30
RPM 71
PP 4360
SPM 100/99
CN
10000
10050
CN
10100
10150
CN
6950 TVD
MD 10012 TVD 7067.71
INC 91.07 AZ 89.03
MD 10105 TVD 7067.03
INC 89.76 AZ 88.51
Nio "B" Chalk
7050
MRLSTN: (80%) poor sample - dk gy, sptd wht ip, fn smth - sbfiss txt, rthy lstr, sbply - sbblky, frm, v v calc w/ est. 30% micrite, tr foss w/ sptd wht cocoliths & tr ino as irid foss frag, sbcarb, no fluor, slw hzy dry cut, p res rng. CHLK (20%)
tr BENT: gy, v vf smth txt, sbwxy lstr, frm, mnrl fluor.
Incrsg lg sh cvgs (15%of total volume) (1/2"-3/4") - sharon springs.
7150
CARB CHLK (90%): (mdstn) med dk gy - dk brngy, mttld, sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ dcrsg o flm-o bubbles also dcrsg fltg strands of org mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis perm or por, no fluor, mod strmg cldy dry cut, g res rng.
MRLSTN (10%)
5000
5000
5000
5000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

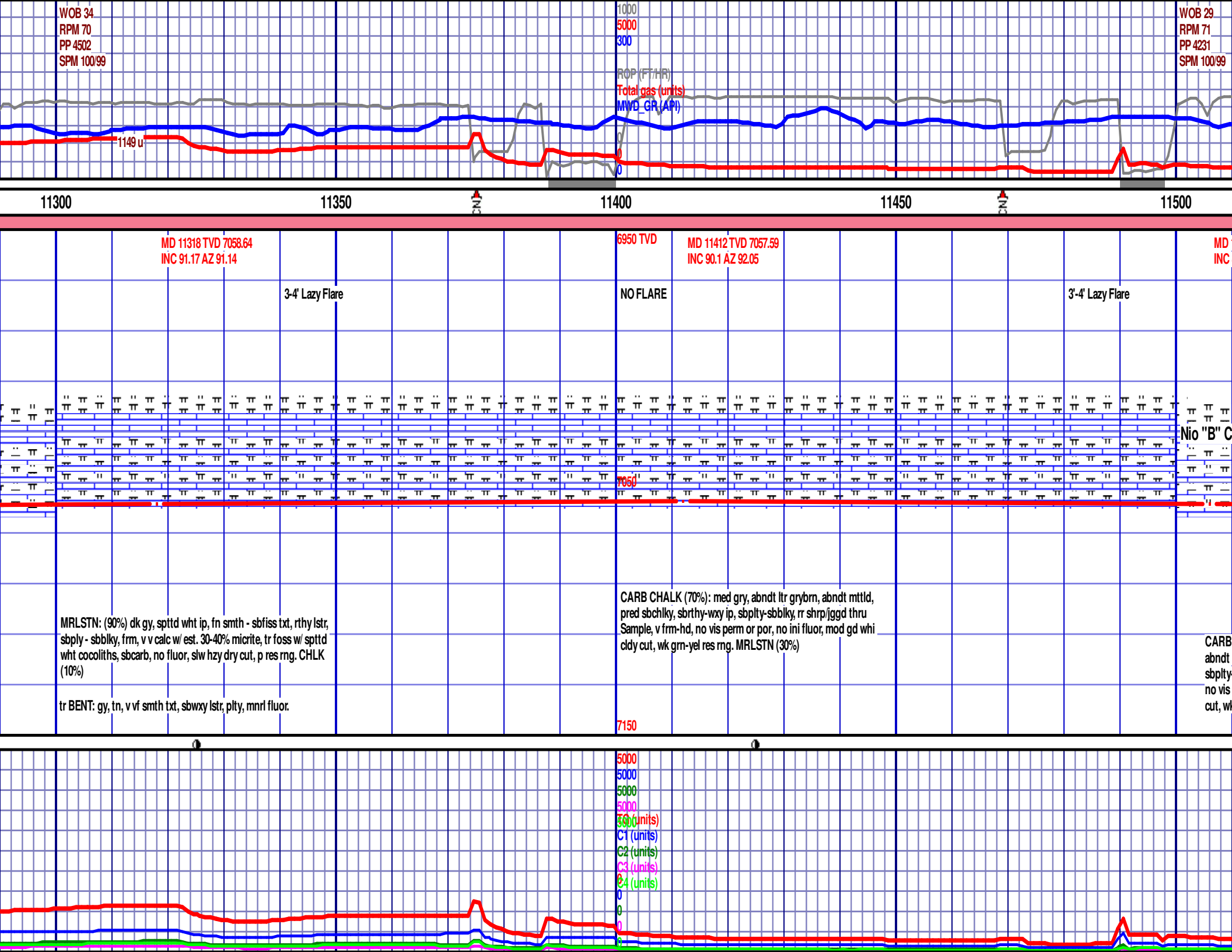

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 32
RPM 70
PP 4286
SPM 100/99
1184 u
10200
10250
10300
10350
10400
MD 10198 TVD 7067.25
INC 89.97 AZ 89.95
3' Lazy Flare
MD 10292 TVD 7066.07
INC 91.48 AZ 90.26
MD 10386 TVD 7065.32
INC 89.43 AZ 89.58
7050
CARB CHLK (90%): (mdstn) med dk gy - dk brngy, mttld, sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 15% arg mtx, HCL resd w/ dcrsg o flm-o bubbles also dcrsg fltg strands of org mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis perm or por, no fluor, mod strmg cldy dry cut, g res rng.
MRLSTN (10%)
7150
MW 9.8
Vis 37
5000
5000
5000
5000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

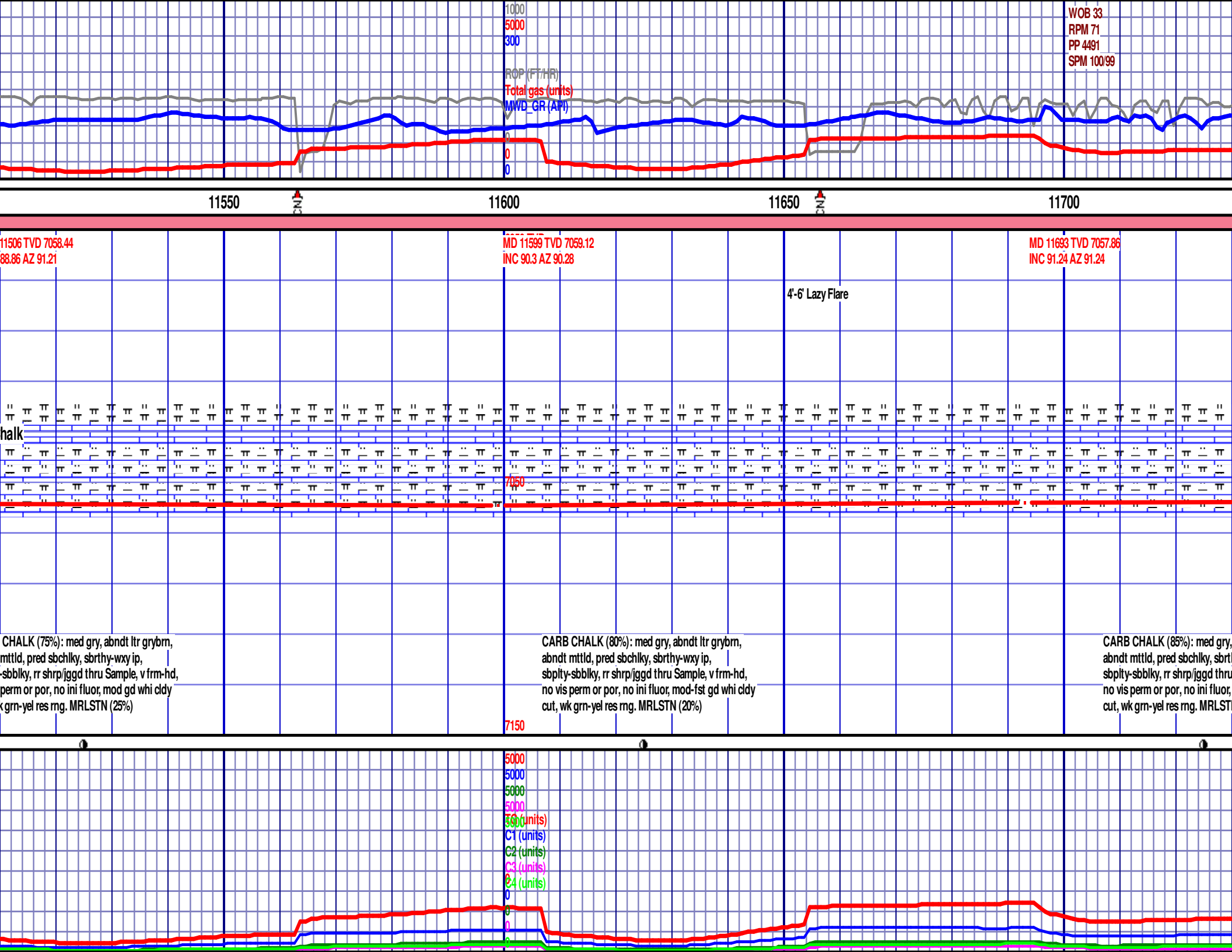

WOB 30
RPM 70
PP 4369
SPM 99/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
10450
10500
10550
10600
MD 10479 TVD 7066.17
INC 89.53 AZ 90.59
MD 10572 TVD 7066.47
INC 90.1 AZ 89.25
6950 TVD
NO FLARE
Nio "B" Chalk
7050
(80%): (mdstn) med dk gy - dk brngy, mttld,
thy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 15%
L resd w/ dcrsg o flm-o bubbles also dcrsg fltg
rg mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis
no fluor, mod strmg cldy dry cut, g res rng.
%)
CARB CHLK (70%): (mdstn) med dk gy - dk brngy, mttld,
sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 15%
arg mtx, HCL resd w/ dcrsg o flm-o bubbles also dcrsg fltg
strands of org mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis
perm or por, no fluor, mod strmg cldy dry cut, g res rng.
MRLSTN (30%)
CARB CHLK (70%): (mdstn) med dk gy
sbchlky txt, rthy lstr, sbchnky-sbblky, fr
arg mtx, HCL resd w/ dcrsg o flm-o bub
strands of org mtrl (prob algal) w/ HCL,
perm or por, no fluor, mod strmg cldy d
MRLSTN (30%)
7150
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

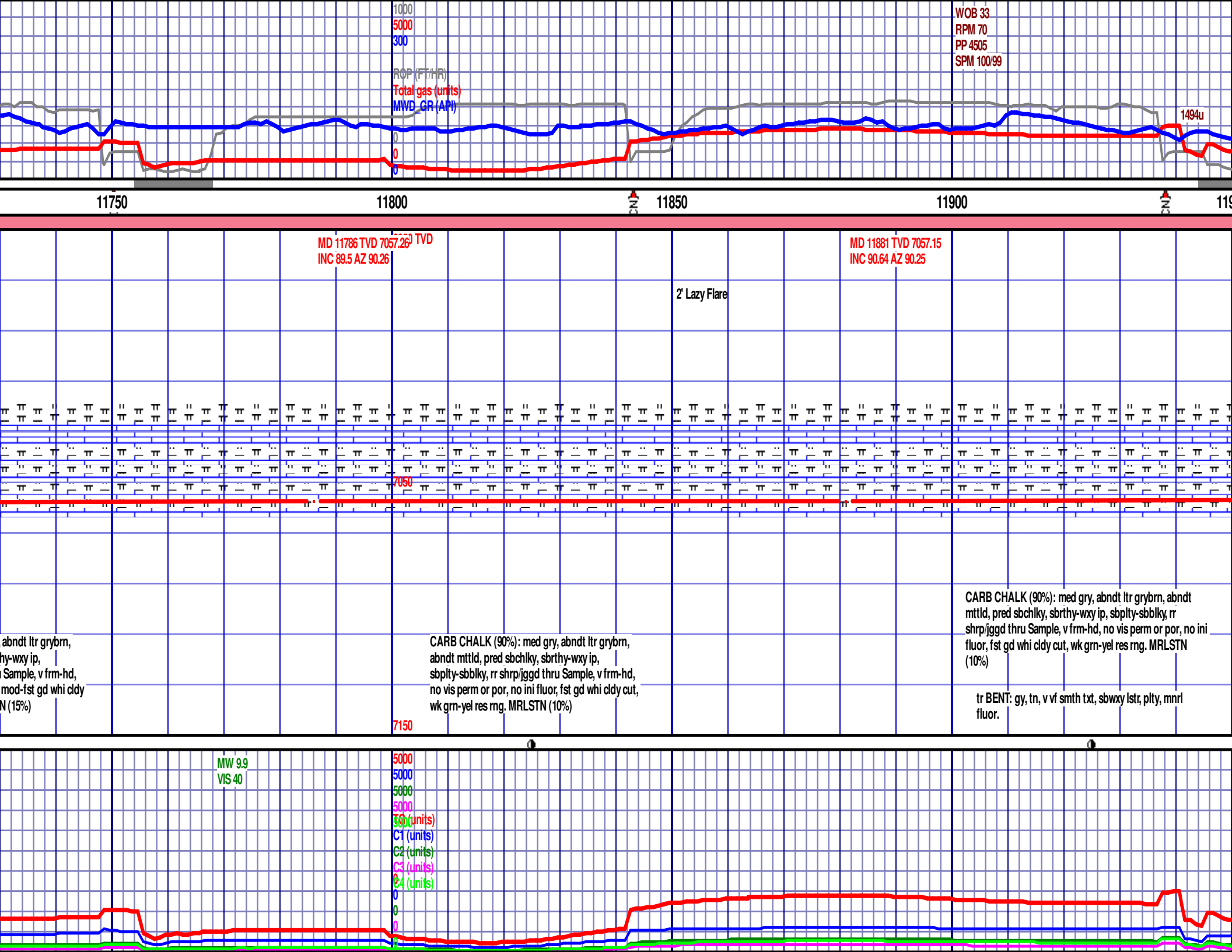

WOB 33
RPM 70
PP 4397
SPM 100/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
04/04/16
10650
10700
CN
10750
10800
CN
MD 10666 TVD 7066.22
INC 90.2 AZ 91.79
MD 10758 TVD 7065.38
INC 90.84 AZ 91.38
6950 TVD
3' Lazy Flare
7050
- dk brngy, mttld,
m - mod hd, cln w/ 15%
bles also dcrsg fltg
gybrn uni o stn, no vis
ry cut, g res rng.
FOSS MRLSTN: (90%) poor sample - dk gy, sptd wht ip, fn smth - sbfiss txt, rthy lstr, sbply - sbblky, frm, v v calc w/ est. 30% micrite, tr foss w/ sptd wht cocoliths & tr ino as irid foss frag, sbcarb, no fluor, slw hzy dry cut, p res rng. CHLK (10%)
CARB CHLK (70%): (mdstn) med dk gy - dk brngy, mttld, sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 15% arg mtx, HCL resd w/ o flm & o bubbles also fltg strands of org mtrl (prob algal) w/ HCL, sl tr wht mic xln calct as poss frac fl, gybrn uni o stn, no vis por, no fluor w/ g cut can indicate lt o, mod strmg cldy dry cut, g res rng. MRLSTN (30%)
7150
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0

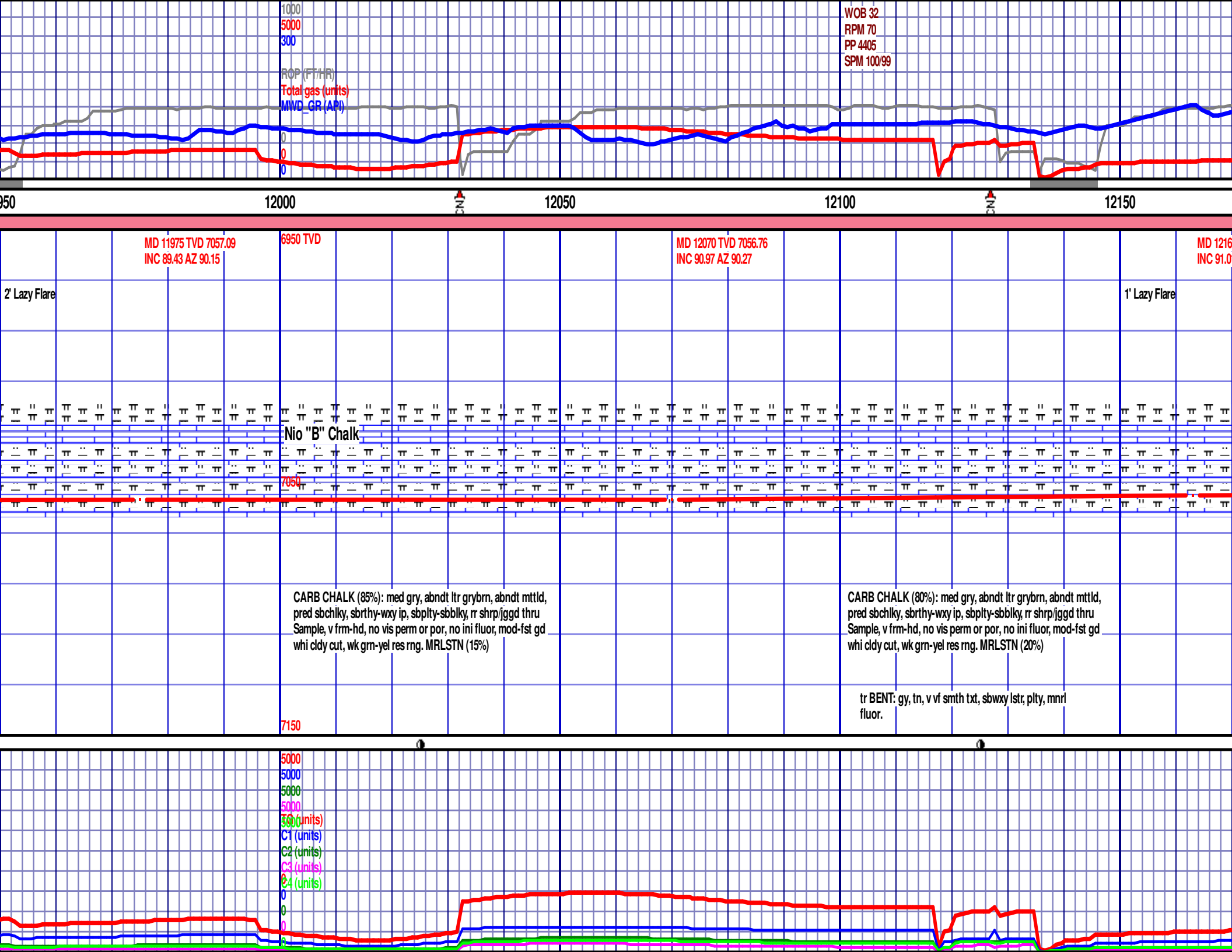

WOB 34
RPM 72
PP 4384
SPM 99/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD GR (API)
0
0
0
350
10900
CN
10950
11000
11050
MD 10852 TVD 7062.96
INC 92.11 AZ 89.8
MD 10945 TVD 7060.81
INC 90.54 AZ 91.98
6950 TVD
MD 11040 TVD 7059.67
INC 90.84 AZ 91.27
3-4' Lazy Flare
Nio "B" Chalk
7050
CARB CHLK (80%): (mdstn) med dk gy - dk brngy, mttld, sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 15% arg mtx, HCL resd w/ o flm & o bubbles also fltg strands of org mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis por, no fluor w/ g cut can indicate lt o, mod strmg cldy dry cut, g res rng. MRLSTN (20%)
CARB CHLK (80%): (mdstn) med dk gy - dk brngy, mttld, sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 15% arg mtx, HCL resd w/ o flm & o bubbles also fltg strands of org mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis por, no fluor w/ g cut can indicate lt o, mod strmg cldy dry cut, g res rng. MRLSTN (20%)
7150
5000
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

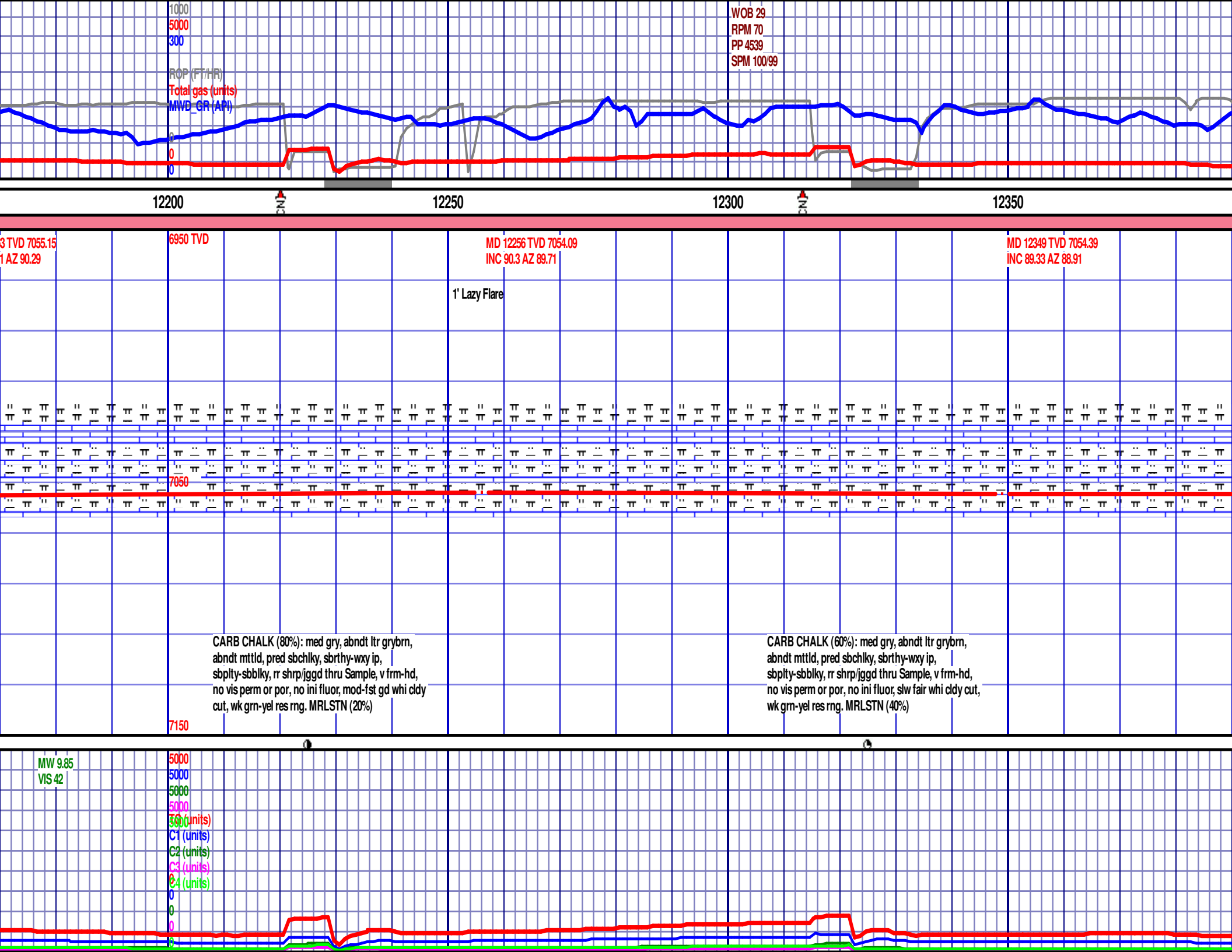

WOB 13
RPM 70
PP 2868
SPM 80/80
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
11100
11150
11200
11250
MD 11133 TVD 7059.32
INC 89.6 AZ 90.82
6950 TVD
MD 11225 TVD 7059.62
INC 90.03 AZ 91.22
3'-5' Lazy Flare
7050
CARB CHLK (60%): (mdstn) med dk gy - dk brngy, mttld, sbchlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 15% arg mtx, HCL resd w/ o flm & o bubbles also fltg strands of org mtrl (prob algal) w/ HCL, gybrn uni o stn, no vis por, no fluor w/ g cut can indicate lt o, mod strmg cldy dry cut, g res rng. FOSS MRLSTN (40%)
FOSS MRLSTN: (90%) dk gy, sptted wht ip, fn smth - sbfiss txt, rthy lstr, sbply - sbblky, frm, v v calc w/ est. 30-40% micrite, tr foss w/ sptted wht cocoliths, sbcarb, no fluor, slw hzy dry cut, p res rng. CHLK (10%)
tr BENT: gy, tn, v vf smth txt, sbwxy lstr, plty, mnrl fluor.
7150
MW 9.8
VIS 40
Mud Data 11133'
MW 9.8
Vis 38
PV 9
YP 11
Gel 4/9/12
Fil 5.6
Corr Sol 7.2
pH 9.0
Cl 1700
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

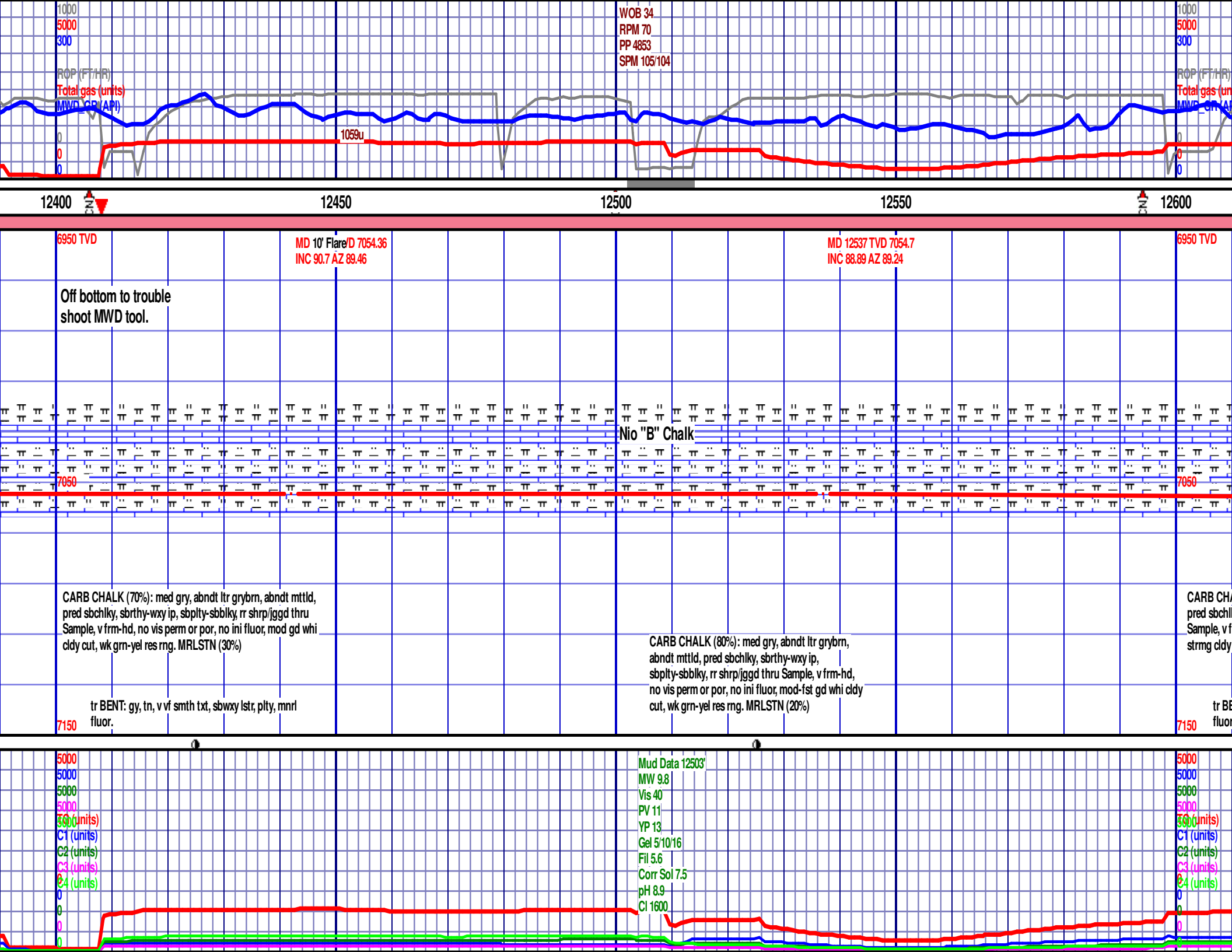

WOB 34
RPM 70
PP 4502
SPM 100/99
1149 u
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 29
RPM 71
PP 4231
SPM 100/99
11300
11350
CN
11400
11450
CN
11500
MD 11318 TVD 7058.64
INC 91.17 AZ 91.14
6950 TVD
MD 11412 TVD 7057.59
INC 90.1 AZ 92.05
MD
INC
3-4' Lazy Flare
NO FLARE
3'-4' Lazy Flare
Nio "B" C
7050
MRLSTN: (90%) dk gy, sptd wht ip, fn smth - sbfiss txt, rthy lstr, sbply - sbblky, frm, v v calc w/ est. 30-40% micrite, tr foss w/ sptd wht cocoliths, sbcarb, no fluor, slw hzy dry cut, p res rng. CHLK (10%)
tr BENT: gy, tn, v vf smth txt, sbwxy lstr, plty, mnrl fluor.
CARB CHALK (70%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, mod gd whi cldy cut, wk grn-yel res rng. MRLSTN (30%)
7150
CARB
abndt
sbplty
no vis
cut, wk
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0

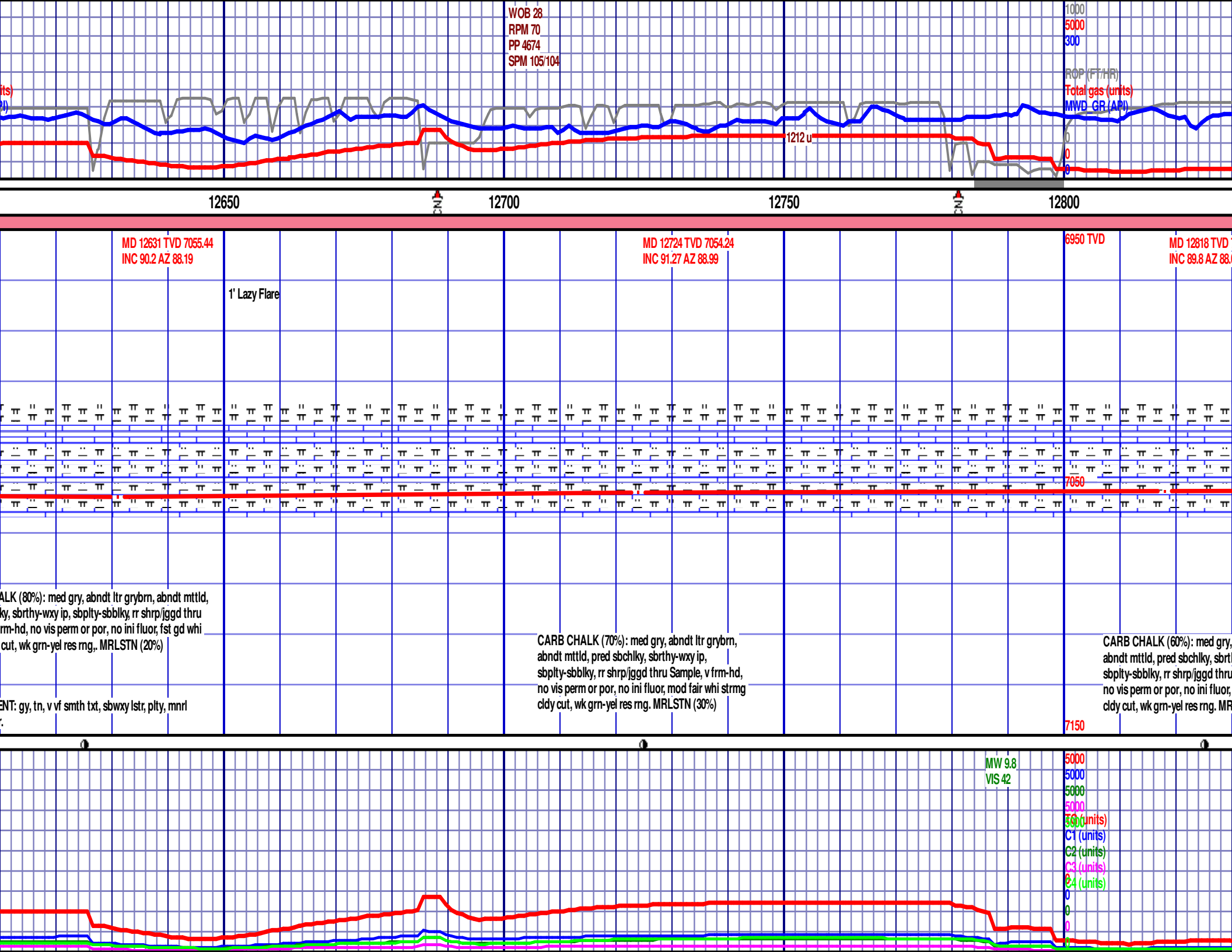

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 33
RPM 71
PP 4491
SPM 100/99
11550
CN
11600
11650
CN
11700
11506 TVD 7058.44
88.86 AZ 91.21
MD 11599 TVD 7059.12
INC 90.3 AZ 90.28
MD 11693 TVD 7057.86
INC 91.24 AZ 91.24
4'-6' Lazy Flare
halk
7050
CHALK (75%): med gry, abndt ltr grybrn,
mttld, pred sbchlky, sbrthy-wxy ip,
-sbblky, rr shrp/jggd thru Sample, v frm-hd,
perm or por, no ini fluor, mod gd whi cldy
k grn-yel res rng. MRLSTN (25%)
CARB CHALK (80%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd,
no vis perm or por, no ini fluor, mod-fst gd whi cldy
cut, wk grn-yel res rng. MRLSTN (20%)
CARB CHALK (85%): med gry,
abndt mttld, pred sbchlky, sbrt
sbplty-sbblky, rr shrp/jggd thru
no vis perm or por, no ini fluor,
cut, wk grn-yel res rng. MRLST
7150
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

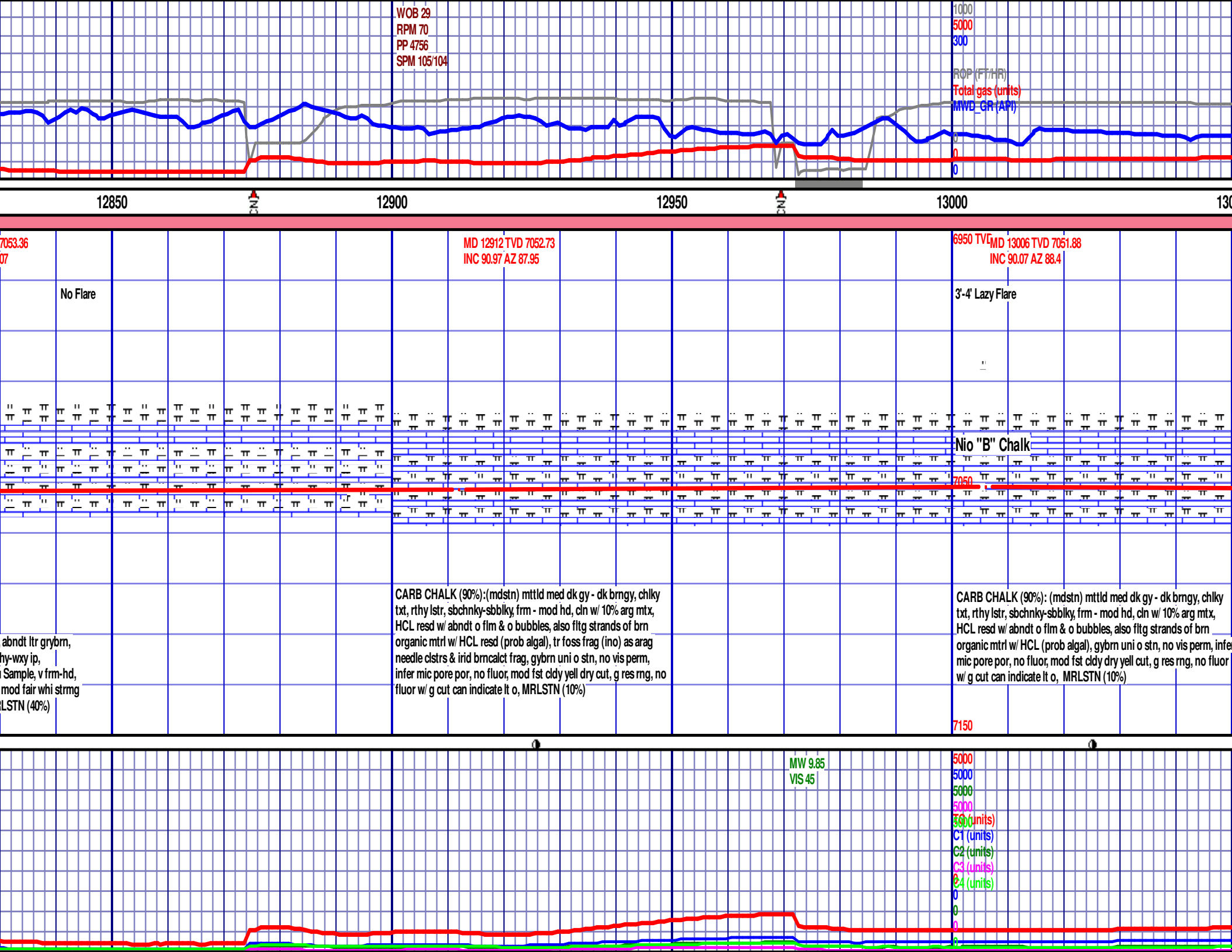

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 33
RPM 70
PP 4505
SPM 100/99
1494u
11750
11800
CN
11850
11900
CN
MD 11786 TVD 7057.26
INC 89.5 AZ 90.26
MD 11881 TVD 7057.15
INC 90.64 AZ 90.25
2' Lazy Flare
7050
abndt ltr grybrn,
hy-wxy ip,
Sample, v frm-hd,
mod-fst gd whi cldy
N (15%)
CARB CHALK (90%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (10%)
7150
CARB CHALK (90%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (10%)
tr BENT: gy, tn, v vf smth txt, sbwxy lstr, plty, mnrl fluor.
MW 9.9
VIS 40
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

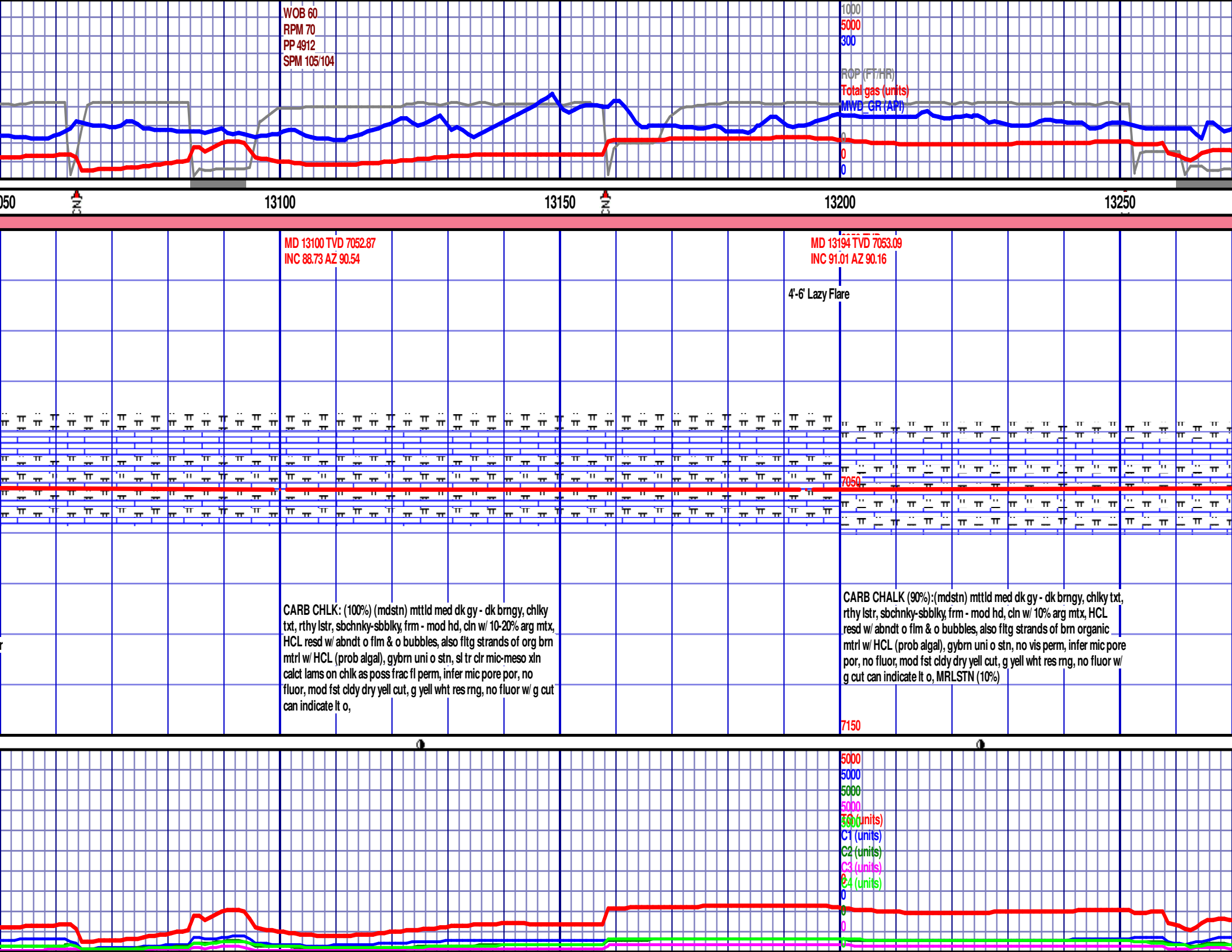

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 32
RPM 70
PP 4405
SPM 100/99
950
12000
CN
12050
12100
CN
12150
MD 11975 TVD 7057.09
INC 89.43 AZ 90.15
6950 TVD
MD 12070 TVD 7056.76
INC 90.97 AZ 90.27
MD 1216
INC 91.0
2' Lazy Flare
1' Lazy Flare
Nio "B" Chalk
7050
CARB CHALK (85%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (15%)
CARB CHALK (80%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (20%)
tr BENT: gy, tn, v vf smth txt, sbwxy lstr, plty, mnrl fluor.
7150
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0

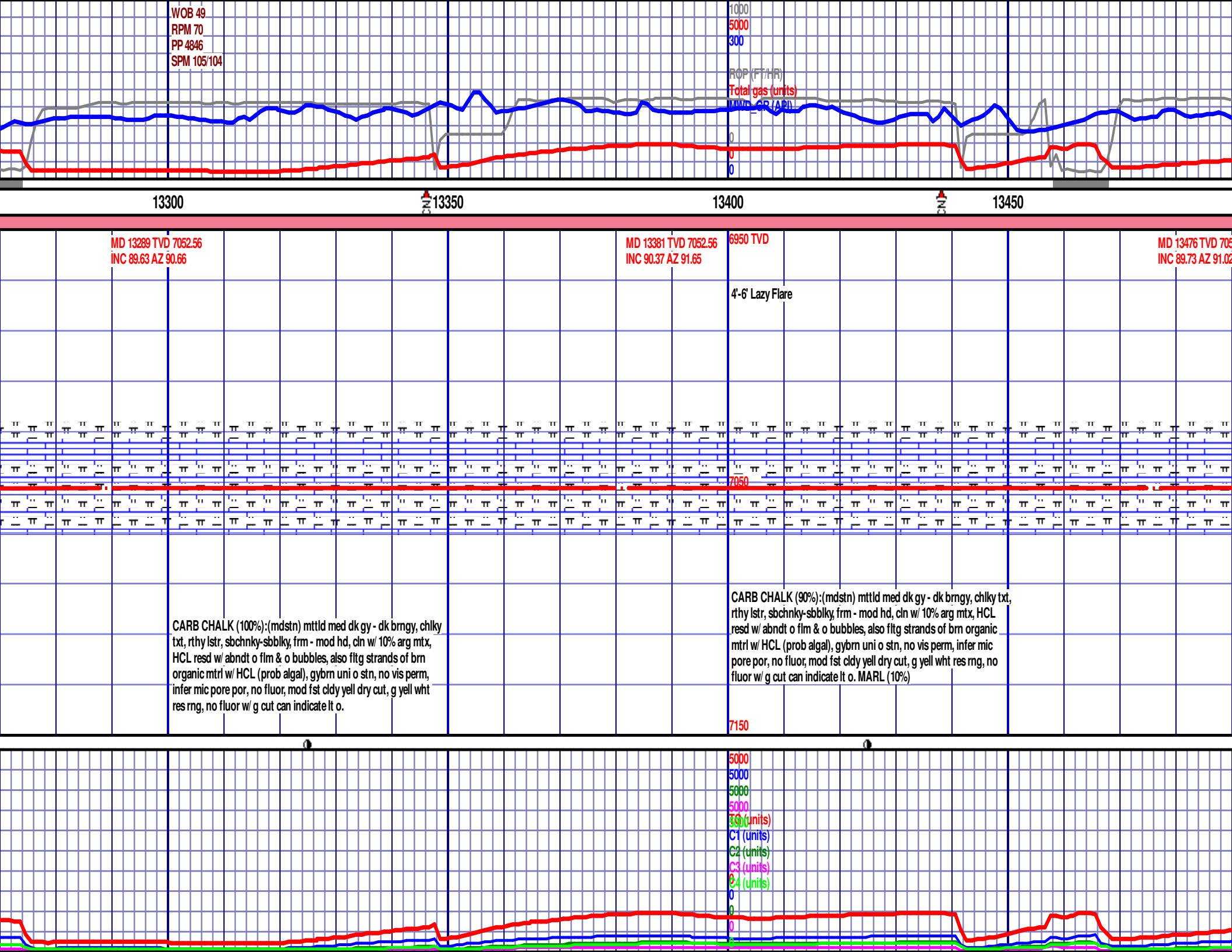

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 29
RPM 70
PP 4539
SPM 100/99
12200
CNJ
12250
12300
CNJ
12350
3 TVD 7055.15
1 AZ 90.29
6950 TVD
MD 12256 TVD 7054.09
INC 90.3 AZ 89.71
1' Lazy Flare
MD 12349 TVD 7054.39
INC 89.33 AZ 88.91
7050
CARB CHALK (80%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (20%)
CARB CHALK (60%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, slw fair whi cldy cut, wk grn-yel res rng. MRLSTN (40%)
7150
MW 9.85
VIS 42
5000
5000
5000
5000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

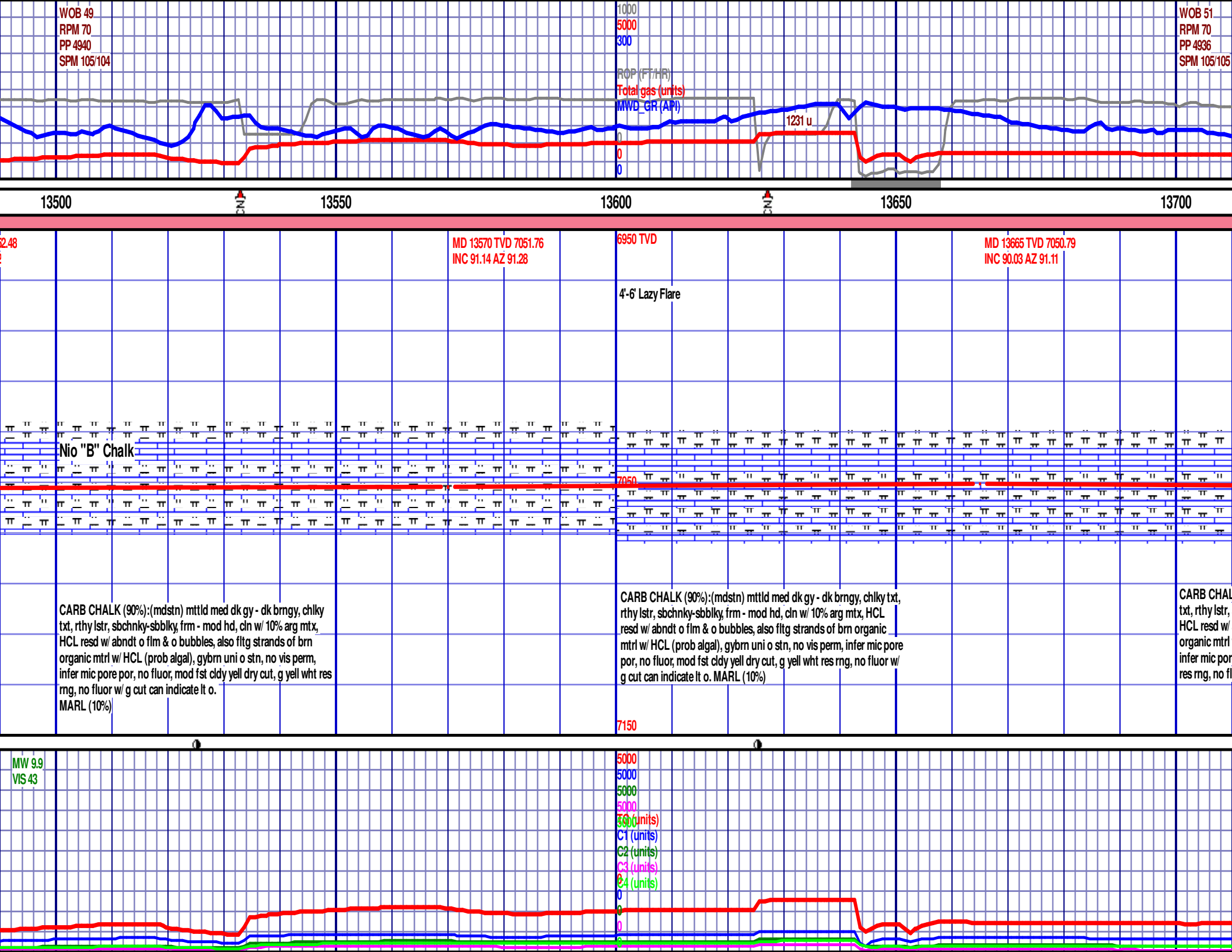

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
1059u
WOB 34
RPM 70
PP 4853
SPM 105/104
12400
12450
12500
12550
12600
6950 TVD
MD 10' Flare/D 7054.36
INC 90.7 AZ 89.46
MD 12537 TVD 7054.7
INC 88.89 AZ 89.24
Off bottom to trouble shoot MWD tool.
Nio "B" Chalk
7050
CARB CHALK (70%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, mod gd whi cldy cut, wk grn-yel res rng. MRLSTN (30%)
tr BENT: gy, tn, v vf smth txt, sbwxy lstr, plty, mnrl fluor.
7150
CARB CHALK (80%): med gry, abndt ltr grybrn, abndt mttld, pred sbchlky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd, no vis perm or por, no ini fluor, mod-fst gd whi cldy cut, wk grn-yel res rng. MRLSTN (20%)
5000
5000
5000
5000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0
Mud Data 12503'
MW 9.8
Vis 40
PV 11
YP 13
Gel 5/10/16
Fil 5.6
Corr Sol 7.5
pH 8.9
Cl 1600

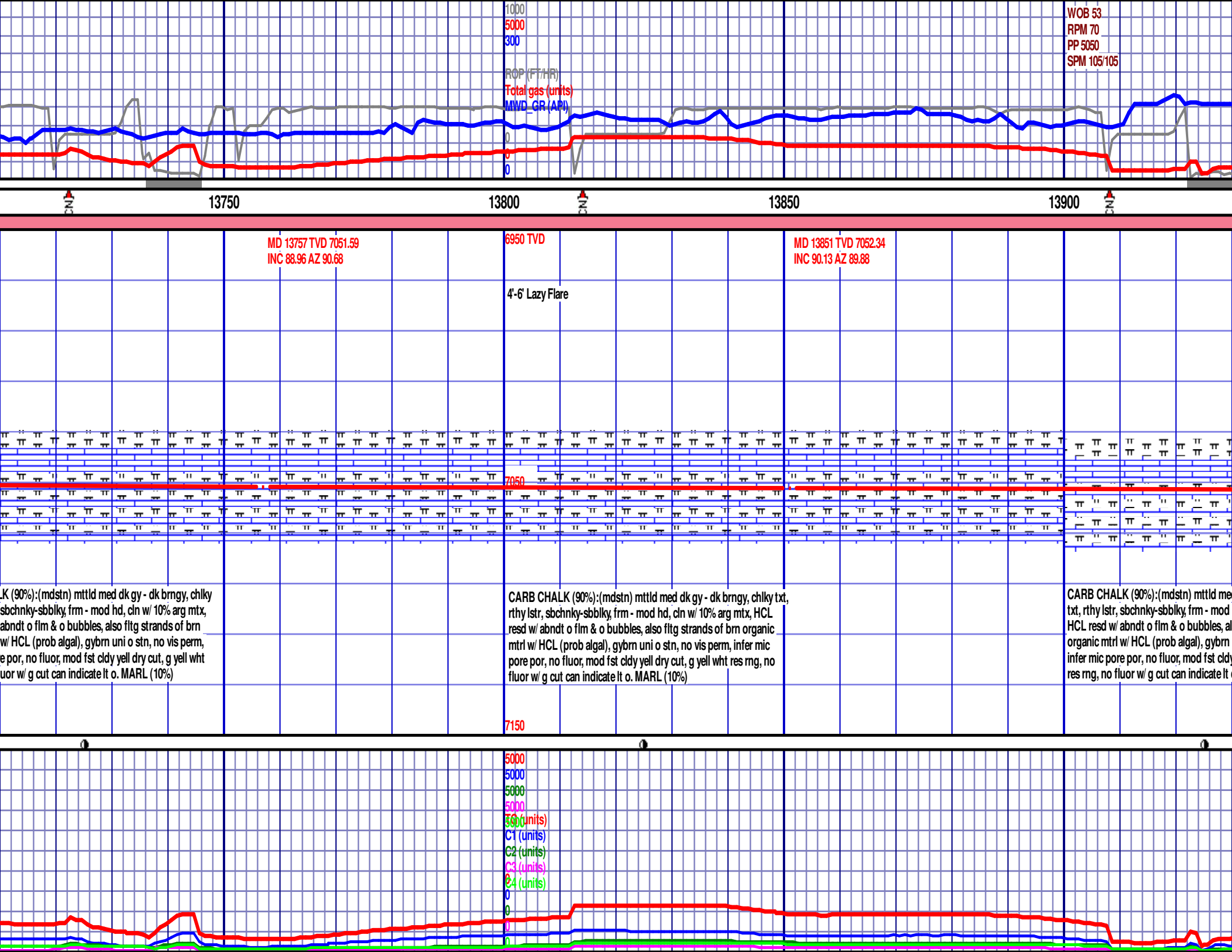

WOB 28
RPM 70
PP 4674
SPM 105/104
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
1212 u
0
0
0
12650
12700
12750
12800
MD 12631 TVD 7055.44
INC 90.2 AZ 88.19
1' Lazy Flare
MD 12724 TVD 7054.24
INC 91.27 AZ 88.99
6950 TVD
MD 12818 TVD
INC 89.8 AZ 88.
7050
ALK (80%): med gry, abndt ltr grybrn, abndt mttld,
ky, sbrthy-wxy ip, sbplty-sbblky, rr shrp/jggd thru
rm-hd, no vis perm or por, no ini fluor, fst gd whi
cut, wk grn-yel res rng,. MRLSTN (20%)
ENT: gy, tn, v vf smth txt, sbwxy lstr, plty, mnrl
CARB CHALK (70%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd,
no vis perm or por, no ini fluor, mod fair whi strmg
cldy cut, wk grn-yel res rng. MRLSTN (30%)
CARB CHALK (60%): med gry,
abndt mttld, pred sbchlky, sbrt
sbplty-sbblky, rr shrp/jggd thru
no vis perm or por, no ini fluor,
cldy cut, wk grn-yel res rng. MR
7150
MW 9.8
VIS 42
5000
5000
5000
5000
300
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

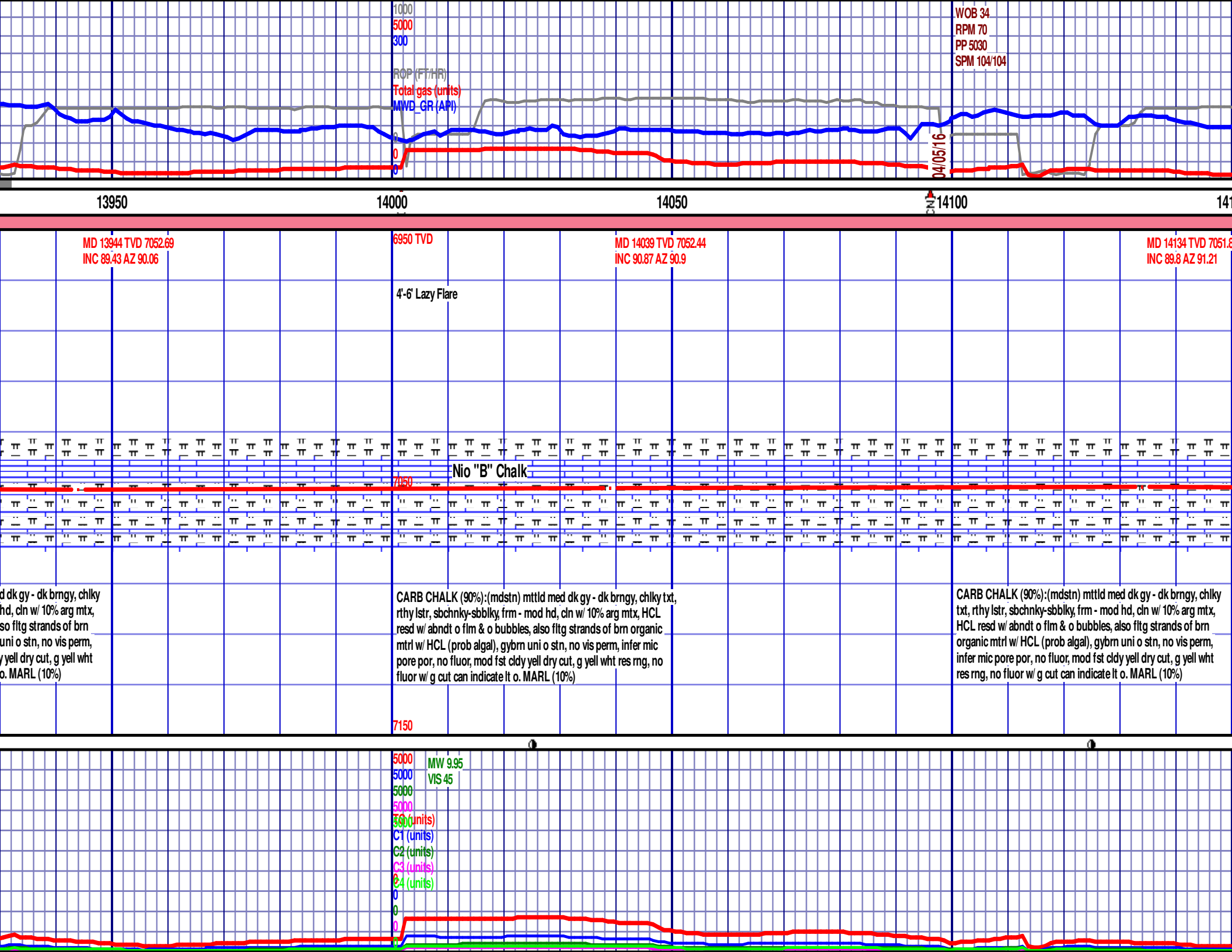

WOB 29
RPM 70
PP 4756
SPM 105/104
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
12850
CN
12900
12950
CN
13000
7053.36
07
MD 12912 TVD 7052.73
INC 90.97 AZ 87.95
6950 TVD
MD 13006 TVD 7051.88
INC 90.07 AZ 88.4
No Flare
3'-4' Lazy Flare
Nio "B" Chalk
7050
abndt ltr grybrn,
hy-wxy ip,
Sample, v frm-hd,
mod fair whi strmg
LSTN (40%)
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL resd (prob algal), tr foss frag (ino) as arag needle clstrs & irid brncalct frag, gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g res rng, no fluor w/ g cut can indicate lt o, MRLSTN (10%)
CARB CHALK (90%): (mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy dry yell cut, g res rng, no fluor w/ g cut can indicate lt o, MRLSTN (10%)
7150
MW 9.85
VIS 45
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

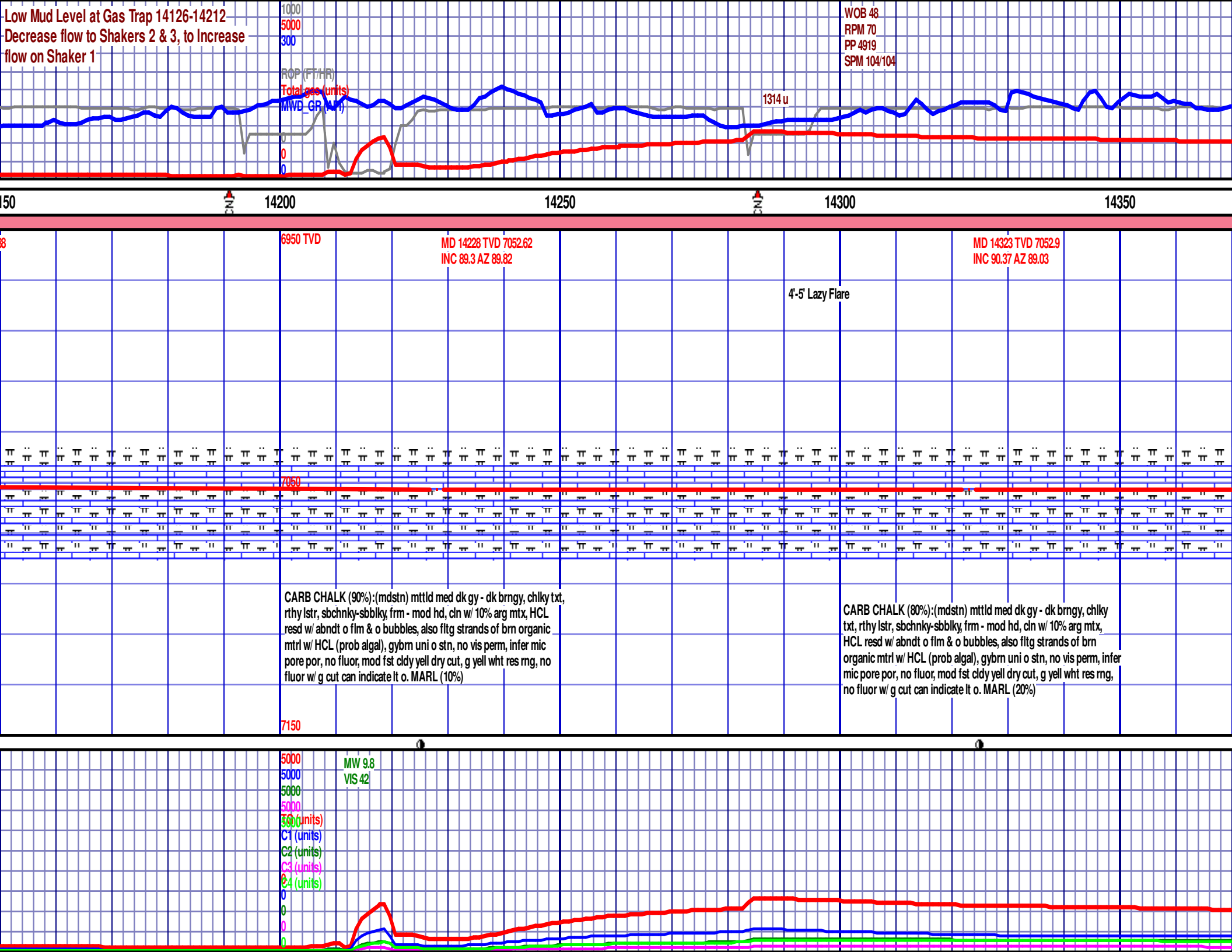

WOB 60
RPM 70
PP 4912
SPM 105/104
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
050
13100
13150
13200
13250
MD 13100 TVD 7052.87
INC 88.73 AZ 90.54
MD 13194 TVD 7053.09
INC 91.01 AZ 90.16
4'-6' Lazy Flare
7050
CARB CHLK: (100%) (mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10-20% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of org brn mtrl w/ HCL (prob algal), gybrn uni o stn, sl tr clr mic-meso xln calct lams on chlk as poss frac fl perm, infer mic pore por, no fluor, mod fst cldy dry yell cut, g yell wht res rng, no fluor w/ g cut can indicate lt o,
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy dry yell cut, g yell wht res rng, no fluor w/ g cut can indicate lt o, MRLSTN (10%)
7150
5000
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

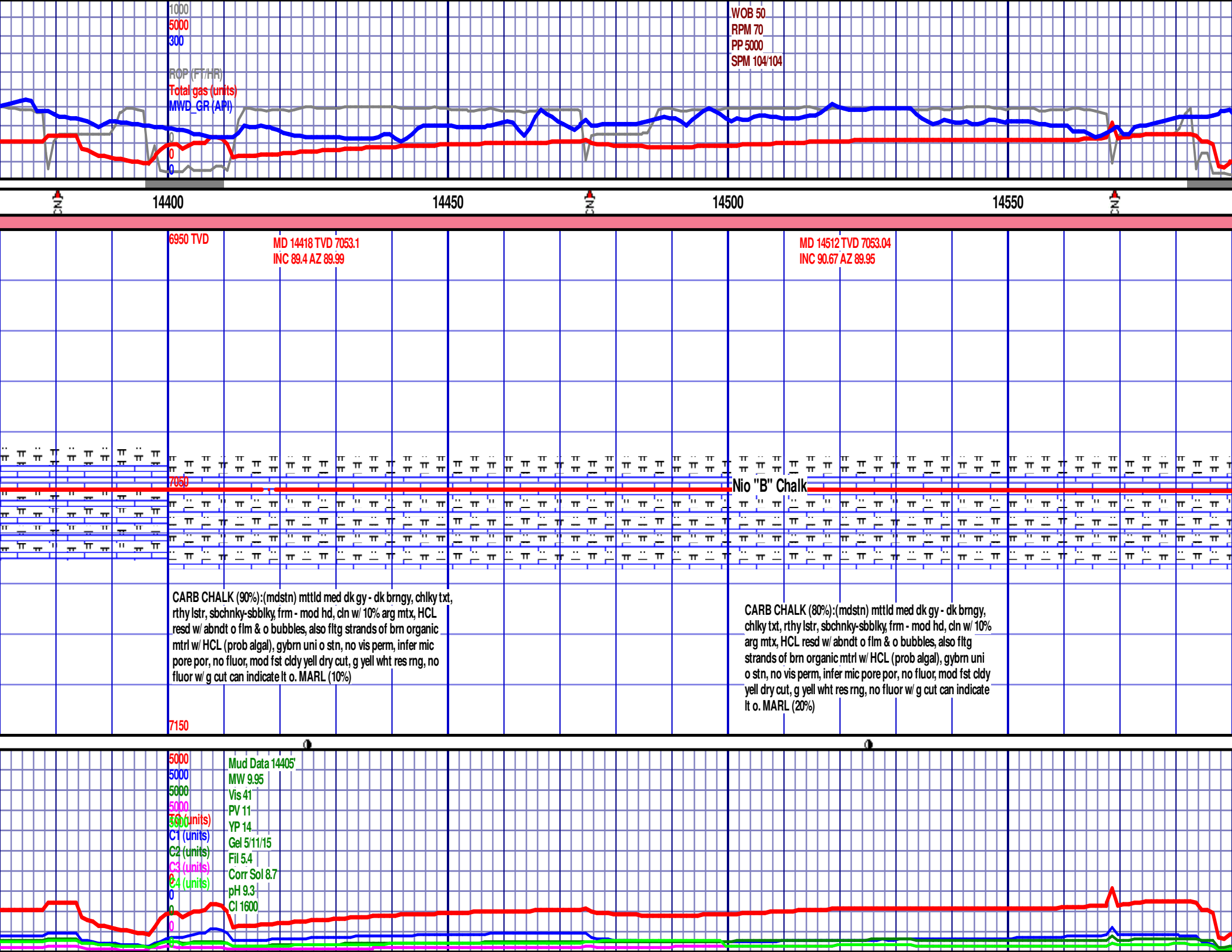

WOB 49
RPM 70
PP 4846
SPM 105/104
1000
5000
300
ROP (FT/HR)
Total gas (units)
0
0
0
13300
CN
13350
13400
CN
13450
MD 13289 TVD 7052.56
INC 89.63 AZ 90.66
MD 13381 TVD 7052.56
INC 90.37 AZ 91.65
6950 TVD
MD 13476 TVD 705
INC 89.73 AZ 91.02
4'-6' Lazy Flare
7050
CARB CHALK (100%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o.
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (10%)
7150
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0

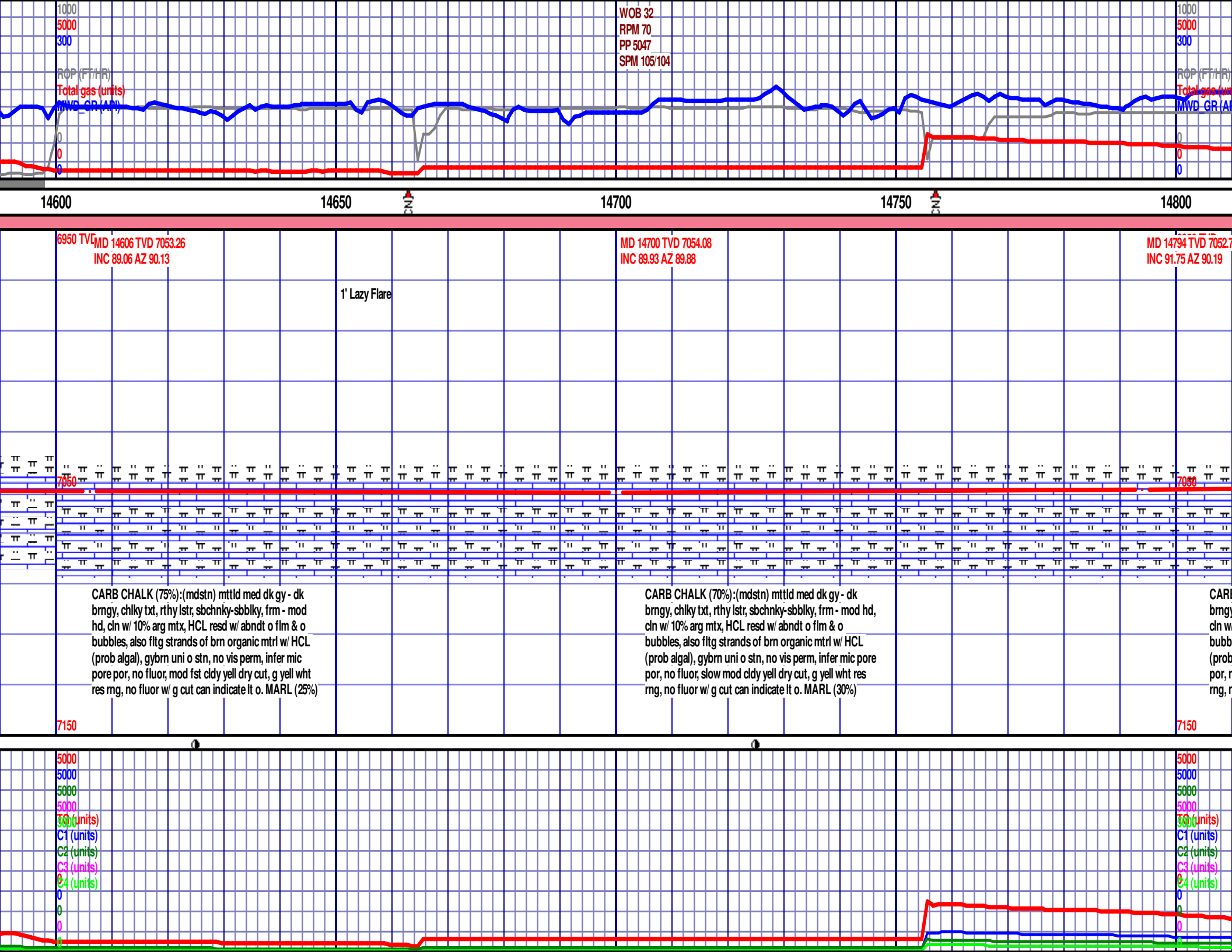

WOB 49
RPM 70
PP 4940
SPM 105/104
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
1231 u
0
0
0
WOB 51
RPM 70
PP 4936
SPM 105/105
13500
CN
13550
13600
CN
13650
13700
MD 13570 TVD 7051.76
INC 91.14 AZ 91.28
6950 TVD
MD 13665 TVD 7050.79
INC 90.03 AZ 91.11
4'-6' Lazy Flare
Nio "B" Chalk
7050
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (10%)
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (10%)
7150
MW 9.9
VIS 43
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0

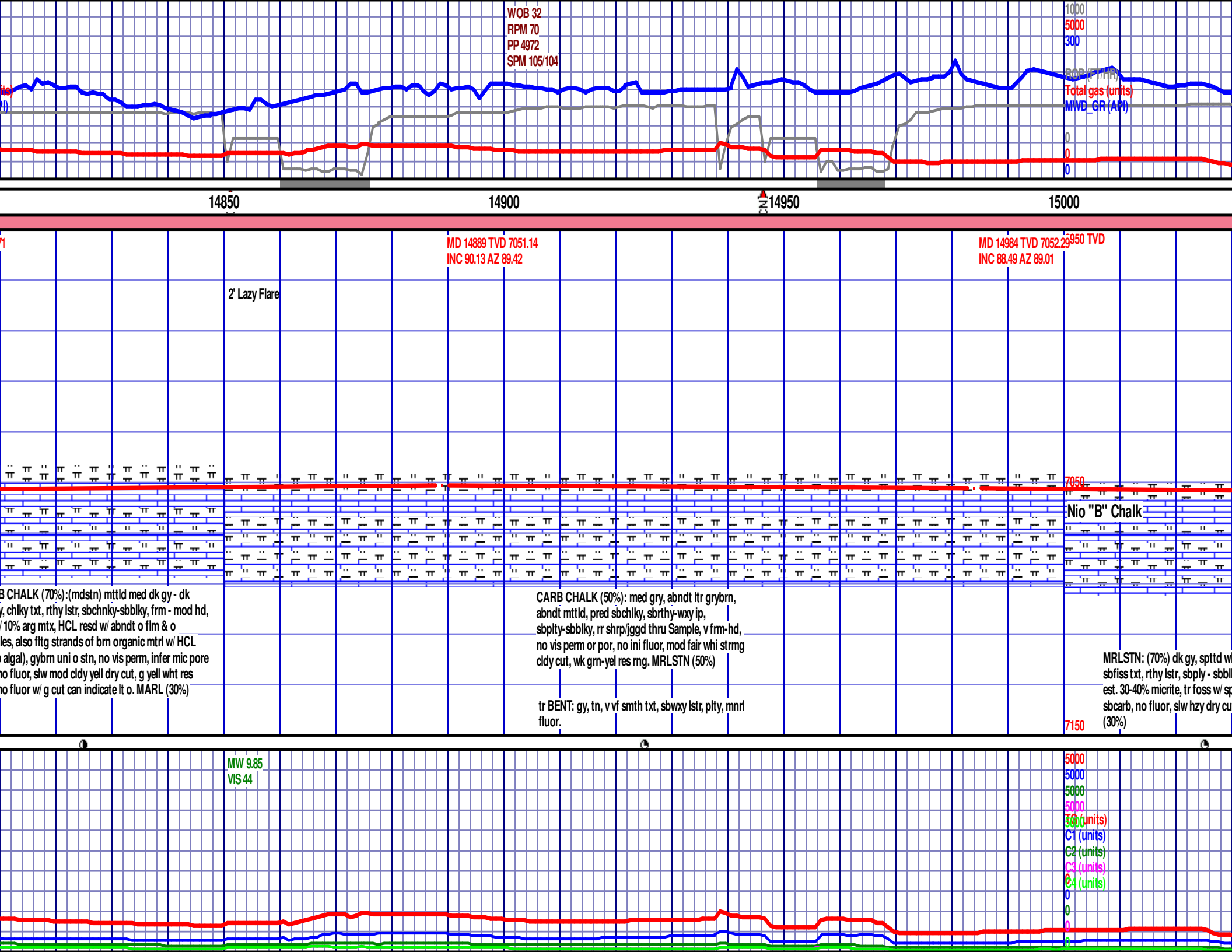

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 53
RPM 70
PP 5050
SPM 105/105
CN
13750
13800
CN
13850
13900
CN
MD 13757 TVD 7051.59
INC 88.96 AZ 90.68
6950 TVD
4'-6' Lazy Flare
MD 13851 TVD 7052.34
INC 90.13 AZ 89.88
7050
LK (90%):(mdstn) mttld med dk gy - dk brngy, chlky
sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx,
abndt o flm & o bubbles, also fltg strands of brn
w/ HCL (prob algal), gybrn uni o stn, no vis perm,
e por, no fluor, mod fst cldy yell dry cut, g yell wht
uor w/ g cut can indicate lt o. MARL (10%)
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt,
rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL
resd w/ abndt o flm & o bubbles, also fltg strands of brn organic
mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic
pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no
fluor w/ g cut can indicate lt o. MARL (10%)
7150
CARB CHALK (90%):(mdstn) mttld me
txt, rthy lstr, sbchnky-sbblky, frm - mod
HCL resd w/ abndt o flm & o bubbles, al
organic mtrl w/ HCL (prob algal), gybrn
infer mic pore por, no fluor, mod fst cldy
res rng, no fluor w/ g cut can indicate lt
5000
5000
5000
5000
5000
Total (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

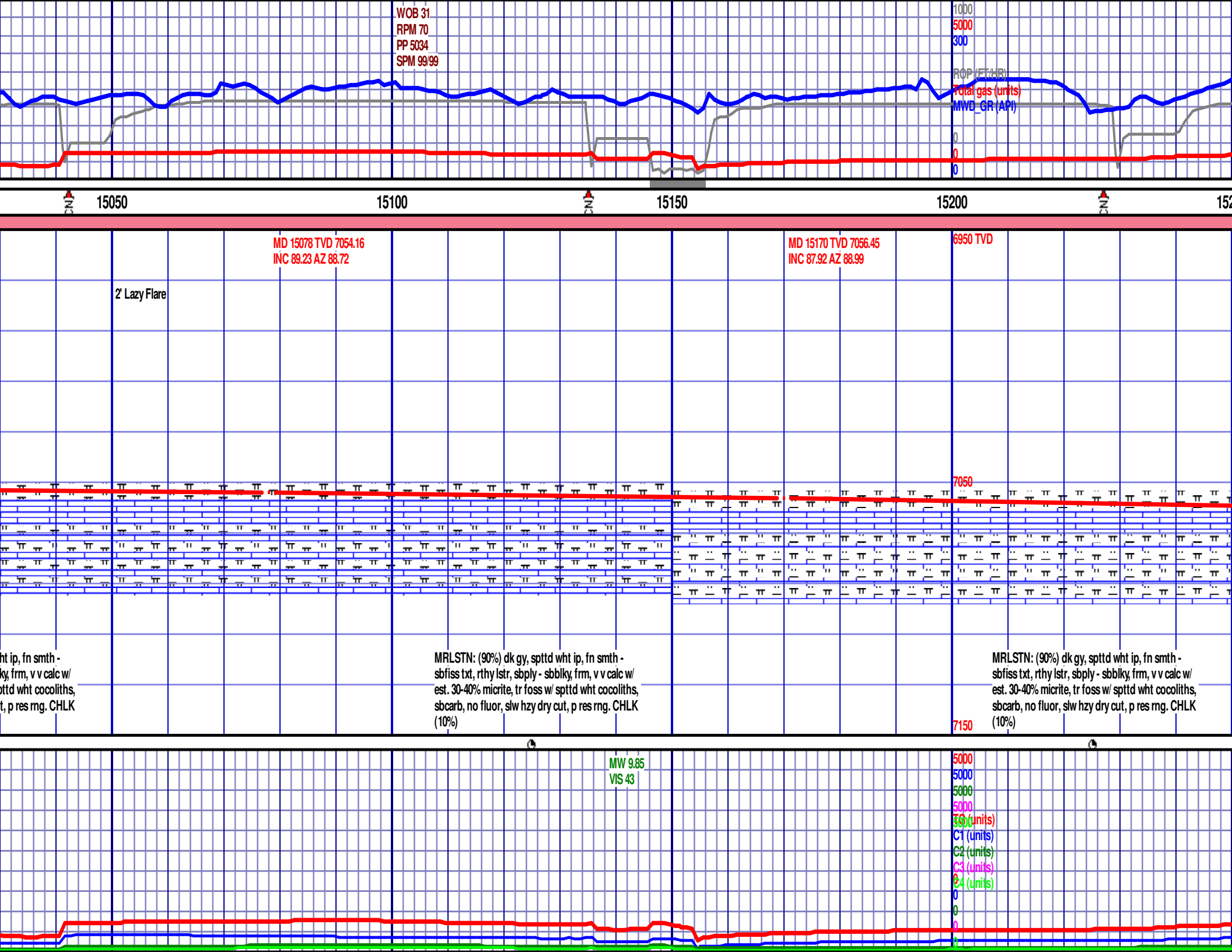

1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
WOB 34
RPM 70
PP 5030
SPM 104/104
04/05/16
13950
14000
14050
14100
MD 13944 TVD 7052.69
INC 89.43 AZ 90.06
6950 TVD
MD 14039 TVD 7052.44
INC 90.87 AZ 90.9
MD 14134 TVD 7051.8
INC 89.8 AZ 91.21
4'-6' Lazy Flare
Nio "B" Chalk
7050
d dk gy - dk brngy, chlky
hd, cln w/ 10% arg mtx,
so fltg strands of brn
uni o stn, no vis perm,
y yell dry cut, g yell wht
o. MARL (10%)
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt,
rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL
resd w/ abndt o flm & o bubbles, also fltg strands of brn organic
mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic
pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no
fluor w/ g cut can indicate lt o. MARL (10%)
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky
txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx,
HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn
organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm,
infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht
res rng, no fluor w/ g cut can indicate lt o. MARL (10%)
7150
5000
5000
5000
5000
MW 9.95
VIS 45
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0

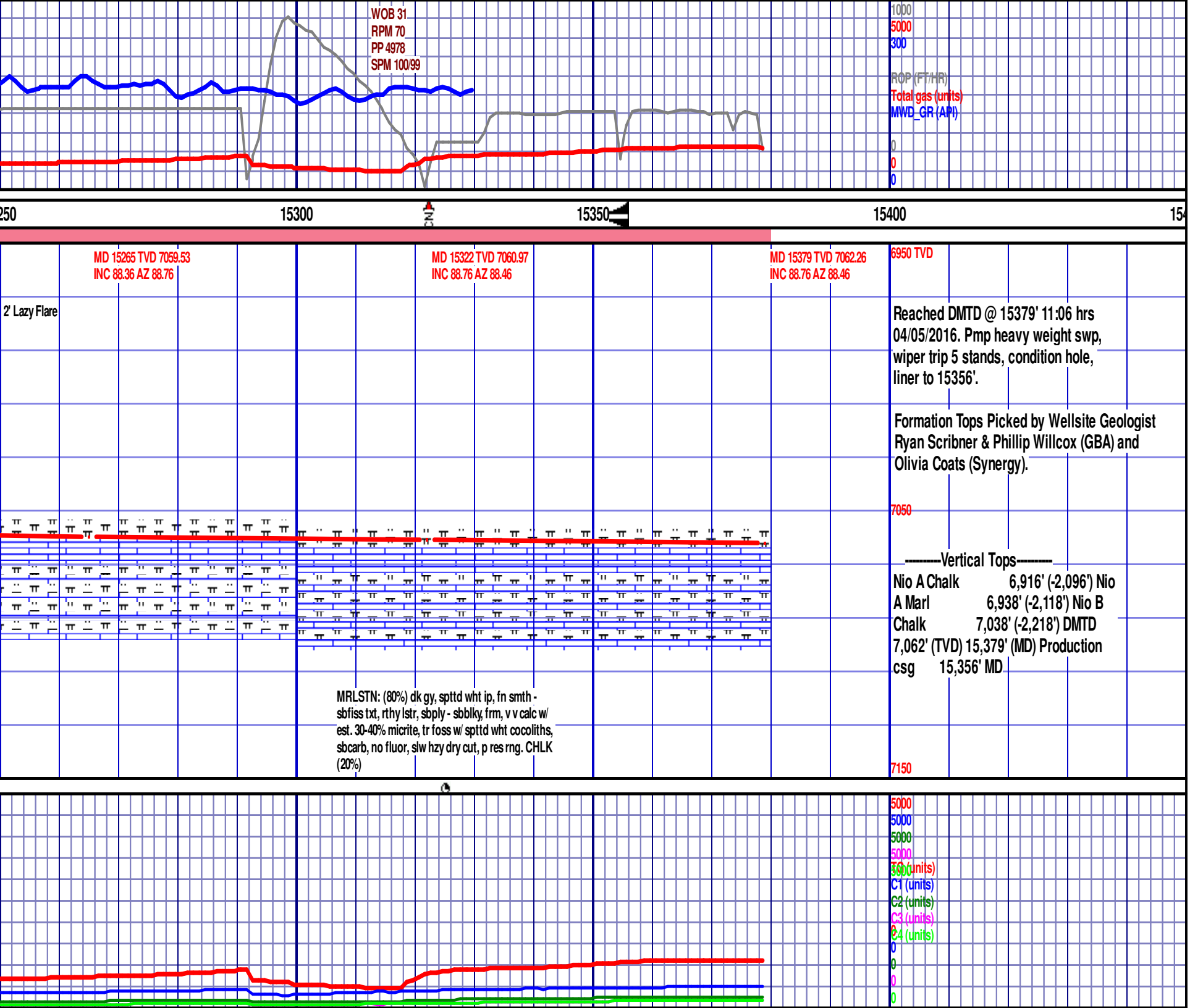

Low Mud Level at Gas Trap 14126-14212
Decrease flow to Shakers 2 & 3, to Increase flow on Shaker 1
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
1314 u
WOB 48
RPM 70
PP 4919
SPM 104/104
150
CN
14200
14250
CN
14300
14350
6950 TVD
MD 14228 TVD 7052.62
INC 89.3 AZ 89.82
MD 14323 TVD 7052.9
INC 90.37 AZ 89.03
4'-5' Lazy Flare
7050
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (10%)
CARB CHALK (80%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (20%)
7150
5000
5000
5000
5000
300
MW 9.8
VIS 42
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0


1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 50
RPM 70
PP 5000
SPM 104/104
CNJ
14400
14450
CNJ
14500
14550
CNJ
6950 TVD
MD 14418 TVD 7053.1
INC 89.4 AZ 89.99
MD 14512 TVD 7053.04
INC 90.67 AZ 89.95
7050
Nio "B" Chalk
CARB CHALK (90%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (10%)
CARB CHALK (80%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (20%)
7150
5000
5000
5000
5000
TG (units)
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
Mud Data 14405'
MW 9.95
Vis 41
PV 11
YP 14
Gel 5/11/15
Fil 5.4
Corr Sol 8.7
pH 9.3
Cl 1600


1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
WOB 32
RPM 70
PP 5047
SPM 105/104
1000
5000
300
ROP (FT/HR)
0
0
0
14600
14650
CN
14700
14750
CN
14800
6950 TVD
MD 14606 TVD 7053.26
INC 89.06 AZ 90.13
1' Lazy Flare
MD 14700 TVD 7054.08
INC 89.93 AZ 89.88
MD 14794 TVD 7052.7
INC 91.75 AZ 90.19
7050
7050
CARB CHALK (75%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, mod fst cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (25%)
CARB CHALK (70%):(mdstn) mttld med dk gy - dk brngy, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd, cln w/ 10% arg mtx, HCL resd w/ abndt o flm & o bubbles, also fltg strands of brn organic mtrl w/ HCL (prob algal), gybrn uni o stn, no vis perm, infer mic pore por, no fluor, slow mod cldy yell dry cut, g yell wht res rng, no fluor w/ g cut can indicate lt o. MARL (30%)
7150
7150
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0


WOB 32
RPM 70
PP 4972
SPM 105/104
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
14850
14900
14950
15000
MD 14889 TVD 7051.14
INC 90.13 AZ 89.42
MD 14984 TVD 7052.29
INC 88.49 AZ 89.01
2' Lazy Flare
7050
Nio "B" Chalk
B CHALK (70%):(mdstn) mttld med dk gy - dk
, chlky txt, rthy lstr, sbchnky-sbblky, frm - mod hd,
/ 10% arg mtx, HCL resd w/ abndt o flm & o
les, also fltg strands of brn organic mtrl w/ HCL
algal), gybrn uni o stn, no vis perm, infer mic pore
no fluor, slw mod cldy yell dry cut, g yell wht res
no fluor w/ g cut can indicate lt o. MARL (30%)
CARB CHALK (50%): med gry, abndt ltr grybrn,
abndt mttld, pred sbchlky, sbrthy-wxy ip,
sbplty-sbblky, rr shrp/jggd thru Sample, v frm-hd,
no vis perm or por, no ini fluor, mod fair whi strmg
cldy cut, wk grn-yel res rng. MRLSTN (50%)
tr BENT: gy, tn, v vf smth txt, sbwxy lstr, plty, mnrl
fluor.
MRLSTN: (70%) dk gy, sptd w
sbfiss txt, rthy lstr, sbply - sbbl
est. 30-40% micrite, tr foss w/ sp
sbcarb, no fluor, slw hzy dry cu
(30%)
7150
MW 9.85
VIS 44
5000
5000
5000
5000
300
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0


WOB 31
RPM 70
PP 5034
SPM 99/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
CN
15050
15100
CN
15150
15200
CN
MD 15078 TVD 7054.16
INC 89.23 AZ 88.72
MD 15170 TVD 7056.45
INC 87.92 AZ 88.99
6950 TVD
2' Lazy Flare
7050
ht ip, fn smth -
ky, frm, v v calc w/
ttd wht cocoliths,
t, p res rng. CHLK
MRLSTN: (90%) dk gy, sptd wht ip, fn smth -
sbfiss txt, rthy lstr, sbply - sbblky, frm, v v calc w/
est. 30-40% micrite, tr foss w/ sptd wht cocoliths,
sbcarb, no fluor, slw hzy dry cut, p res rng. CHLK
(10%)
MRLSTN: (90%) dk gy, sptd wht ip, fn smth -
sbfiss txt, rthy lstr, sbply - sbblky, frm, v v calc w/
est. 30-40% micrite, tr foss w/ sptd wht cocoliths,
sbcarb, no fluor, slw hzy dry cut, p res rng. CHLK
(10%)
7150
MW 9.85
VIS 43
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0


WOB 31
RPM 70
PP 4978
SPM 100/99
1000
5000
300
ROP (FT/HR)
Total gas (units)
MWD_GR (API)
0
0
0
250
15300
15350
15400
154
MD 15265 TVD 7059.53
INC 88.36 AZ 88.76
MD 15322 TVD 7060.97
INC 88.76 AZ 88.46
MD 15379 TVD 7062.26
INC 88.76 AZ 88.46
6950 TVD
2' Lazy Flare
Reached DMTD @ 15379' 11:06 hrs 04/05/2016. Pmp heavy weight swp, wiper trip 5 stands, condition hole, liner to 15356'.
Formation Tops Picked by Wellsite Geologist Ryan Scribner & Phillip Willcox (GBA) and Olivia Coats (Synergy).
7050
--------Vertical Tops--------
Nio A Chalk 6,916' (-2,096') Nio A Marl 6,938' (-2,118') Nio B Chalk 7,038' (-2,218') DMTD 7,062' (TVD) 15,379' (MD) Production csg 15,356' MD
MRLSTN: (80%) dk gy, sptd wht ip, fn smth - sbfiss txt, rthy lstr, sbply - sbblky, frm, v v calc w/ est. 30-40% micrite, tr foss w/ sptd wht cocoliths, sbcarb, no fluor, slw hzy dry cut, p res rng. CHLK (20%)
7150
5000
5000
5000
5000
C1 (units)
C2 (units)
C3 (units)
C4 (units)
0
0
0
0