



# ENTRADA GeoSciences



A Service Division of Core Laboratories



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

Well Name: NPM #CP08D-32 M33 496

Location: SW SW Sec 33 T4S R96W, Garfield County, Colorado

Licence Number: 05-045-14700

Region: Parachute Creek

Spud Date: 2/19/2008

Drilling Completed: 3/14/2008

Surface Coordinates: 827' FSL, 1260' FWL  
39.653567, -108.178367

Bottom Hole Coordinates: NE SW Sec 22  
1650' FSL, 2310' FWL

Ground Elevation (ft): 8410

K.B. Elevation (ft): 8428

Logged Interval (ft): 2010 To: 11,772 Total Depth (ft): 11,772

Formation: Wasatch, Williams, Cameo, Rollins

Type of Drilling Fluid: Mud

Printed by STRIP.LOG from WellSight Systems 1-800-447-1534 [www.WellSight.com](http://www.WellSight.com)

## OPERATOR

Company: ConocoPhillips Company

Address: U.S. Lower 48 - Piceance Basin

P.O. Box 51810

Midland, Texas 79710

## GEOLOGIST

Name: Isaac Curtis, Keith Caplan, Robert Wells

Company: Entrada GeoSciences

Address: 11 Inverness Way South

Englewood, CO 80112

303-825-7140

## Drilling Company

Precision Drilling #406

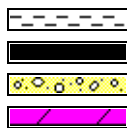
## Comments

Lithologies and tops at drilled depths, not corrected to elogs.

## ROCK TYPES



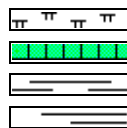
Anhy  
Bent  
Brec  
Cht



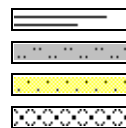
Clyst  
Coal  
Congl  
Dol



Gyp  
Igne  
Lmst  
Meta



Mrlst  
Salt  
Shale  
Shcol



Shgy  
Sltst  
Ss  
Till

## ACCESSORIES

### MINERAL

Anhy  
 Arggrn  
 Arg  
 Bent  
 Bit  
 Breccfrag  
 Calc  
 Carb  
 Chtdk  
 Chtlit  
 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

Anhy  
 Arg  
 Bent  
 Coal  
 Dol  
 Gyp  
 Ls  
 Mrst

Sltstrg  
 Ssstrg

### TEXTURE

Boundst  
 Chalky  
 Cryxln  
 Earthy  
 Finexln  
 Grainst  
 Lithogr  
 Microxln  
 Mudst  
 Packst  
 Wackest

## OTHER SYMBOLS

### POROSITY TYPE

Earthy  
 Fenest  
 Fracture  
 Inter  
 Moldic  
 Organic  
 Pinpoint  
 Vuggy

### SORTING

Well  
 Moderate  
 Poor

### ROUNDING

Rounded  
 Subrnd  
 Subang



Angular

### OIL SHOWS

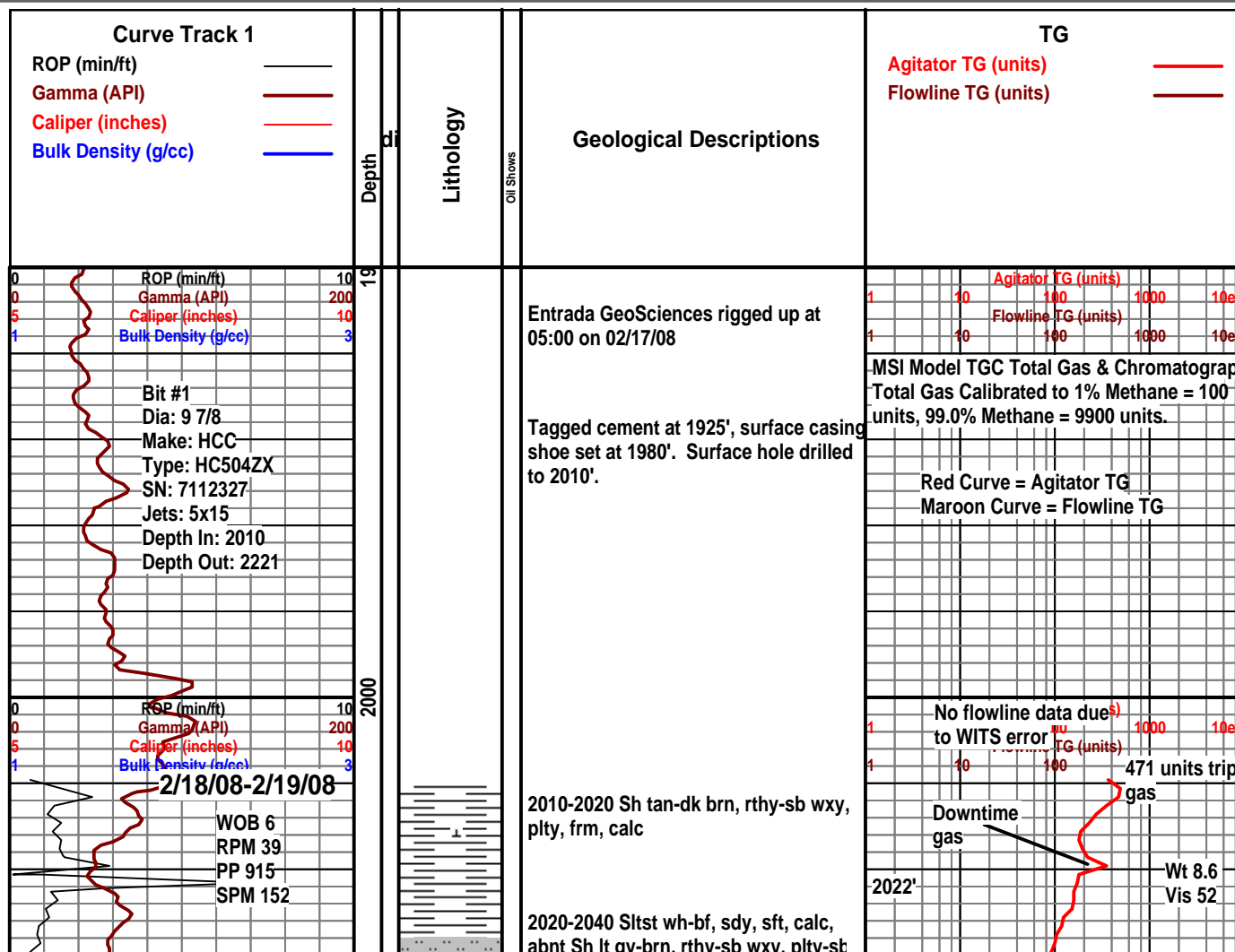
Even  
 Spotted  
 Ques  
 Dead

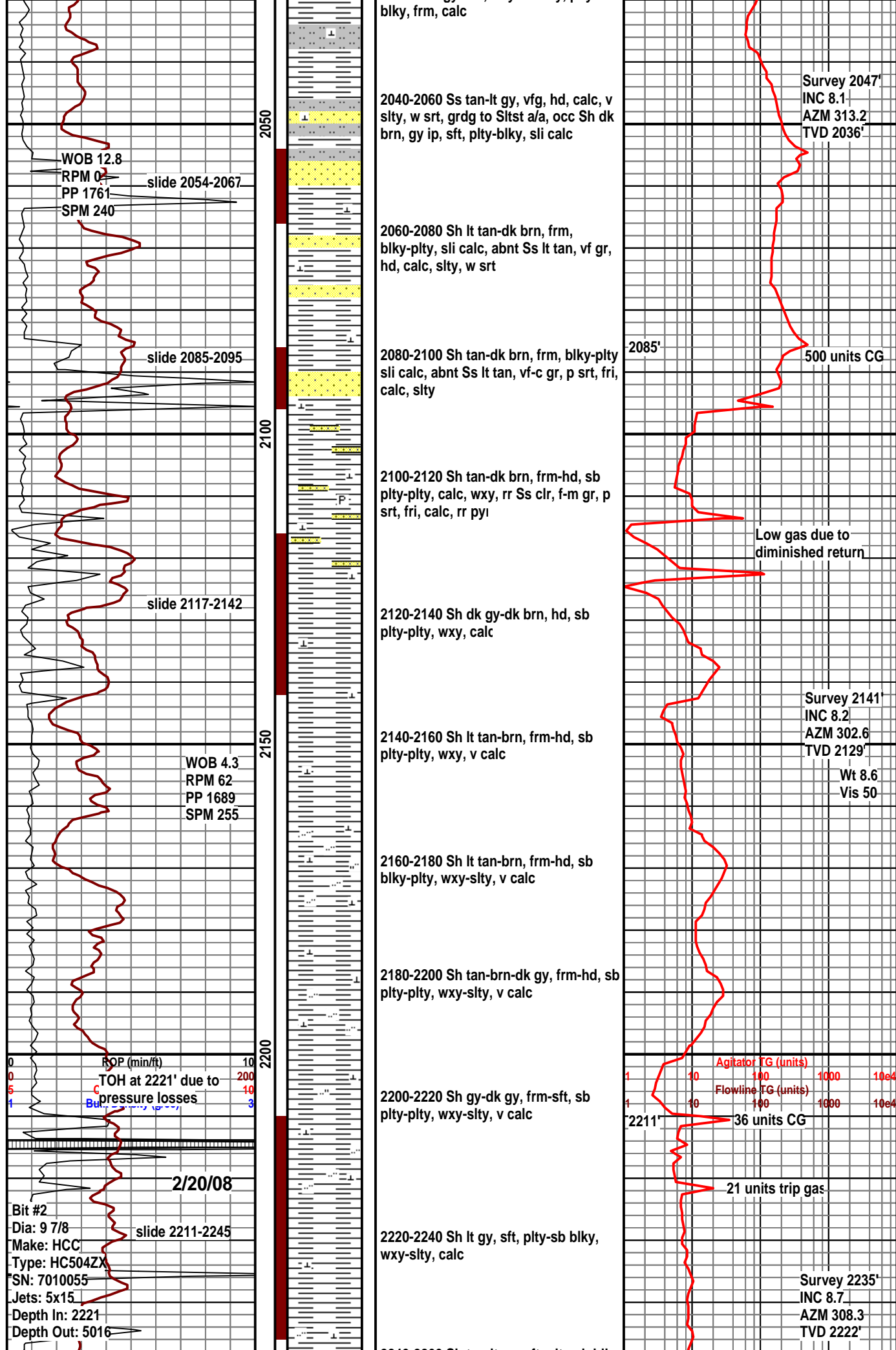
### INTERVALS

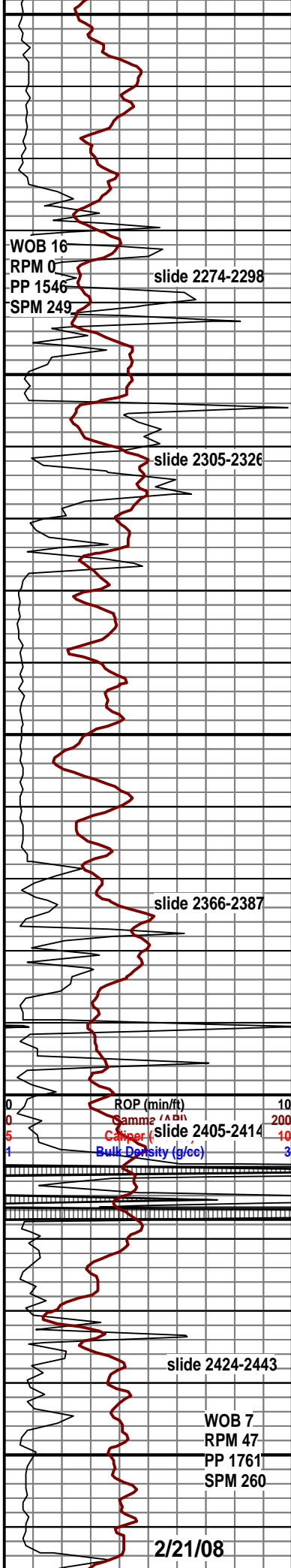
Core  
 Dst  
 Srfcsg  
 Cv-v  
 Cv-c  
 Conductor  
 sltst

### EVENTS

Rft  
 Sidewall  
 Srfcsg







2240-2260 Sh tan-lt gy, sft, plty-sb blk, wxy-slty, calc

2260-2280 Sh tan-lt gy, sft, plty-sb blk, wxy-slty, calc

2280-2300 Sh brn-tan, sft, plty-sb plty, wxy-slty, calc

2300-2320 Sh brn-tan, sft, plty, slty-sb wxy, calc

2320-2340 Sh gy-brn, sft, plty, slty-sb wxy, calc

2340-2360 Sh brn-gy ip, sft, plty, slty-sb wxy, calc

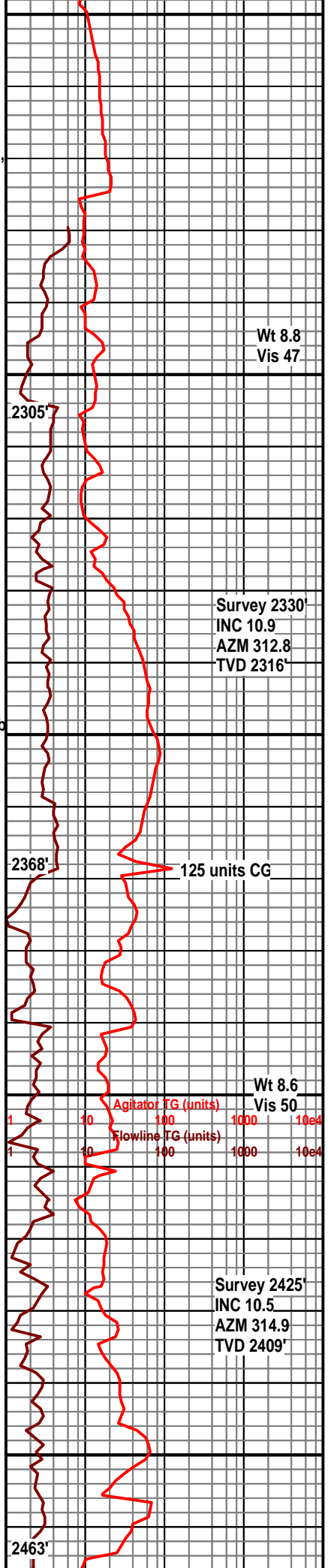
2360-2380 Sh tan-dk brn, sft-frm, plty, wxy, sl calc

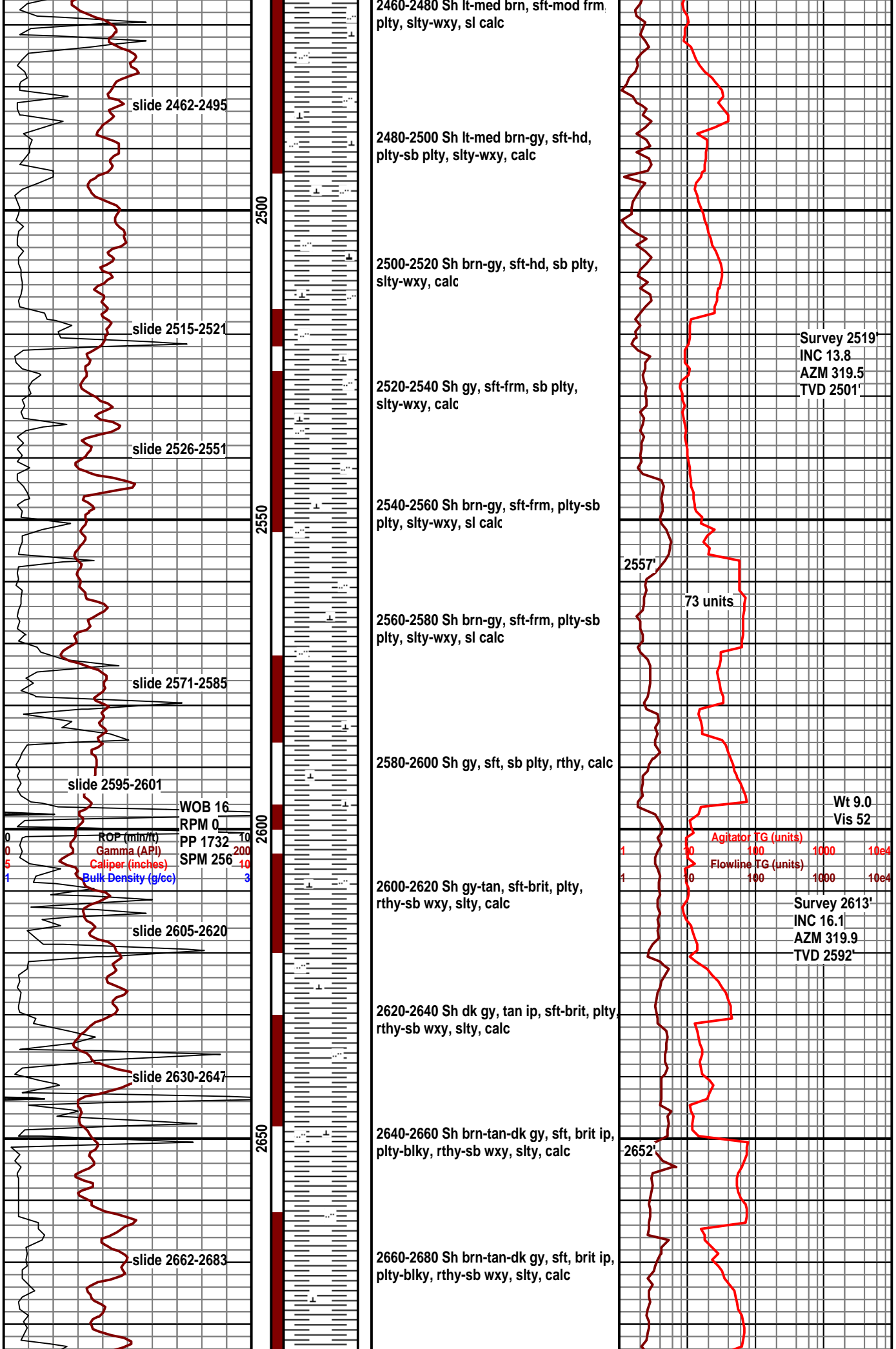
2380-2400 Sh tan-dk brn, sft-frm, plty, wxy-slty, calc

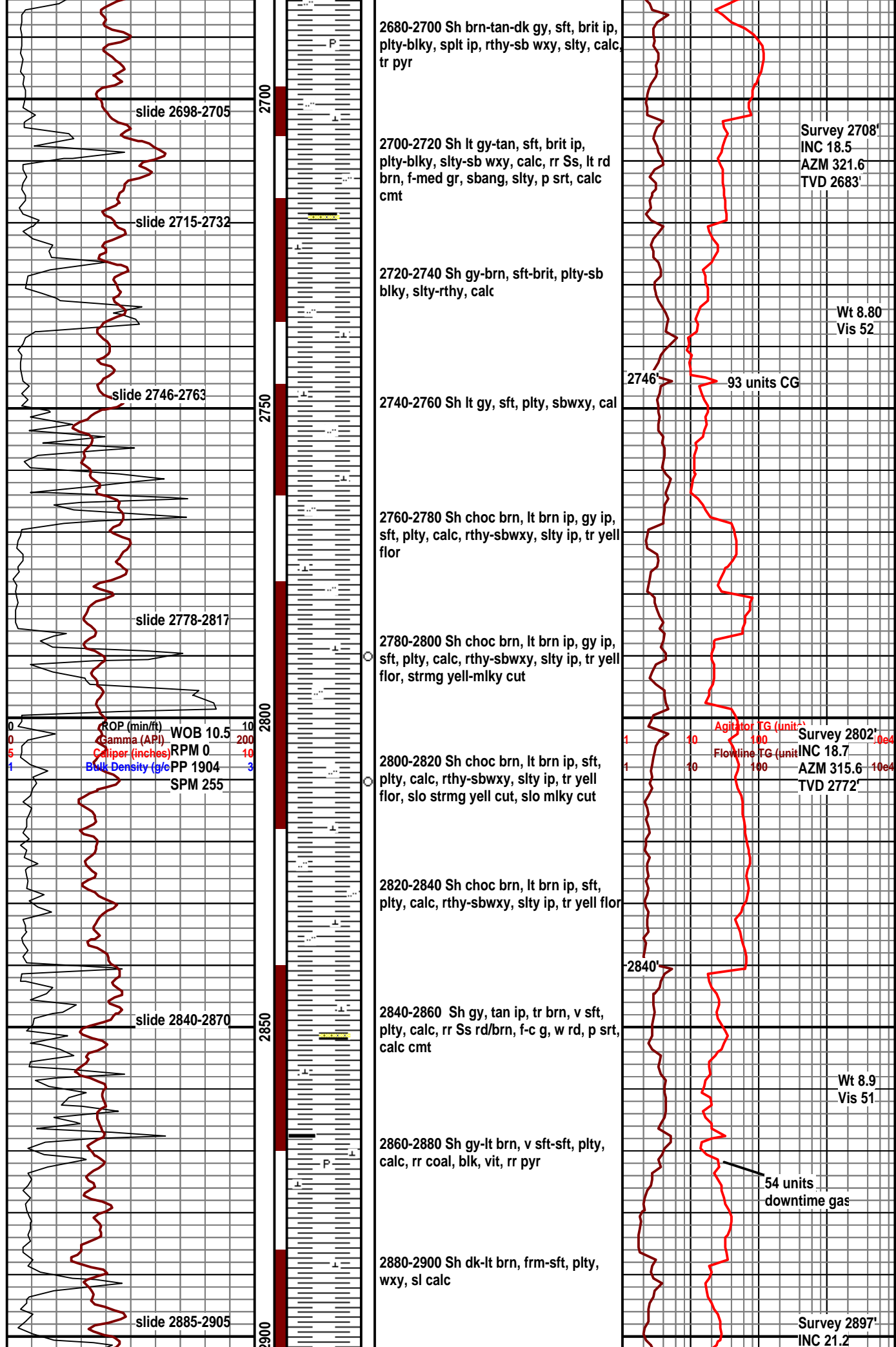
2400-2420 Sh brn-dk brn, frm-mod frm, plty, wxy, sl calc

2420-2440 Sh lt-dk brn, frm-mod frm, plty-sb plty, wxy, sl calc

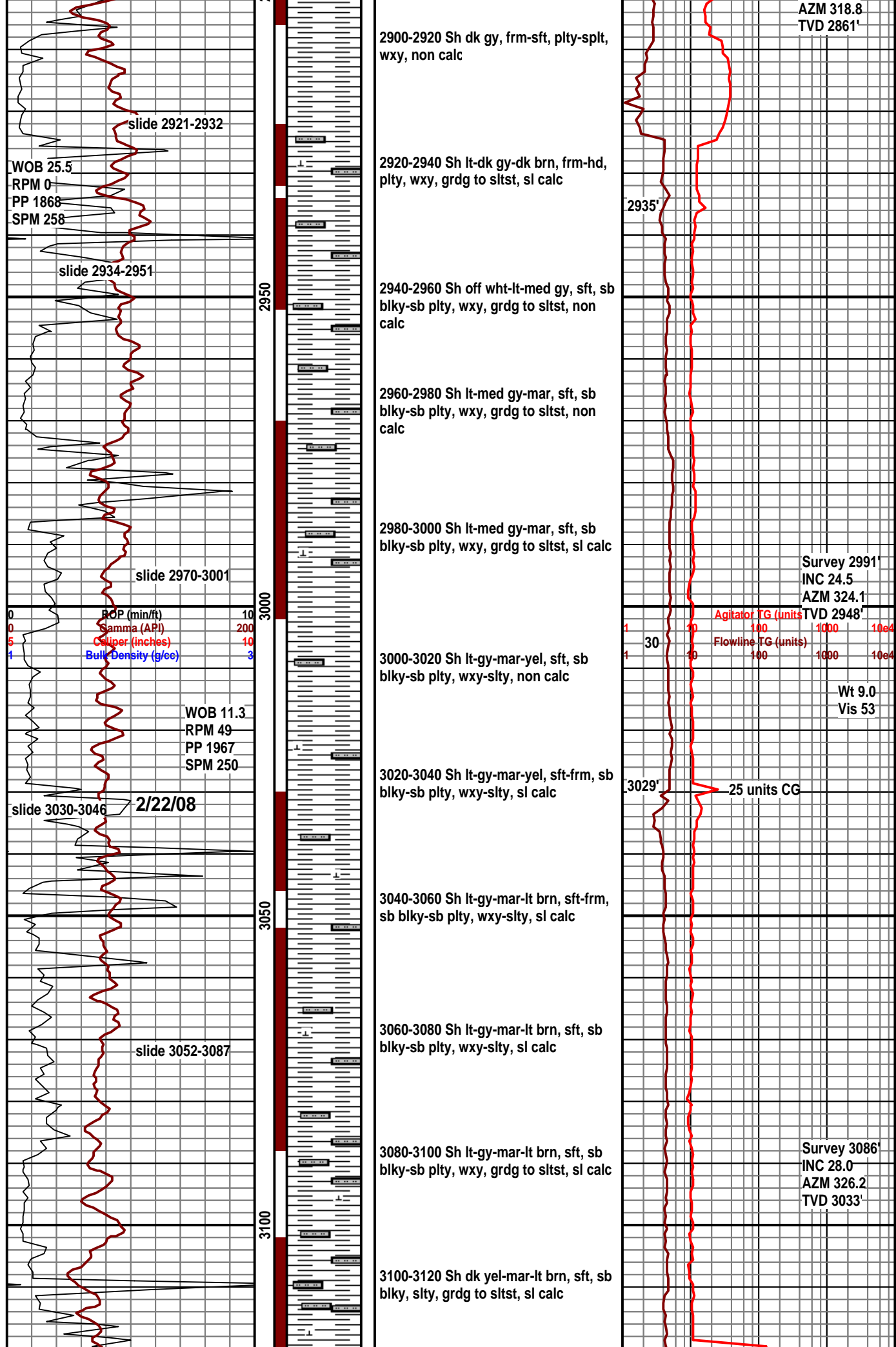
2440-2460 Sh lt-dk brn, frm-mod frm, plty-sb plty, wxy, slty ip, sl calc

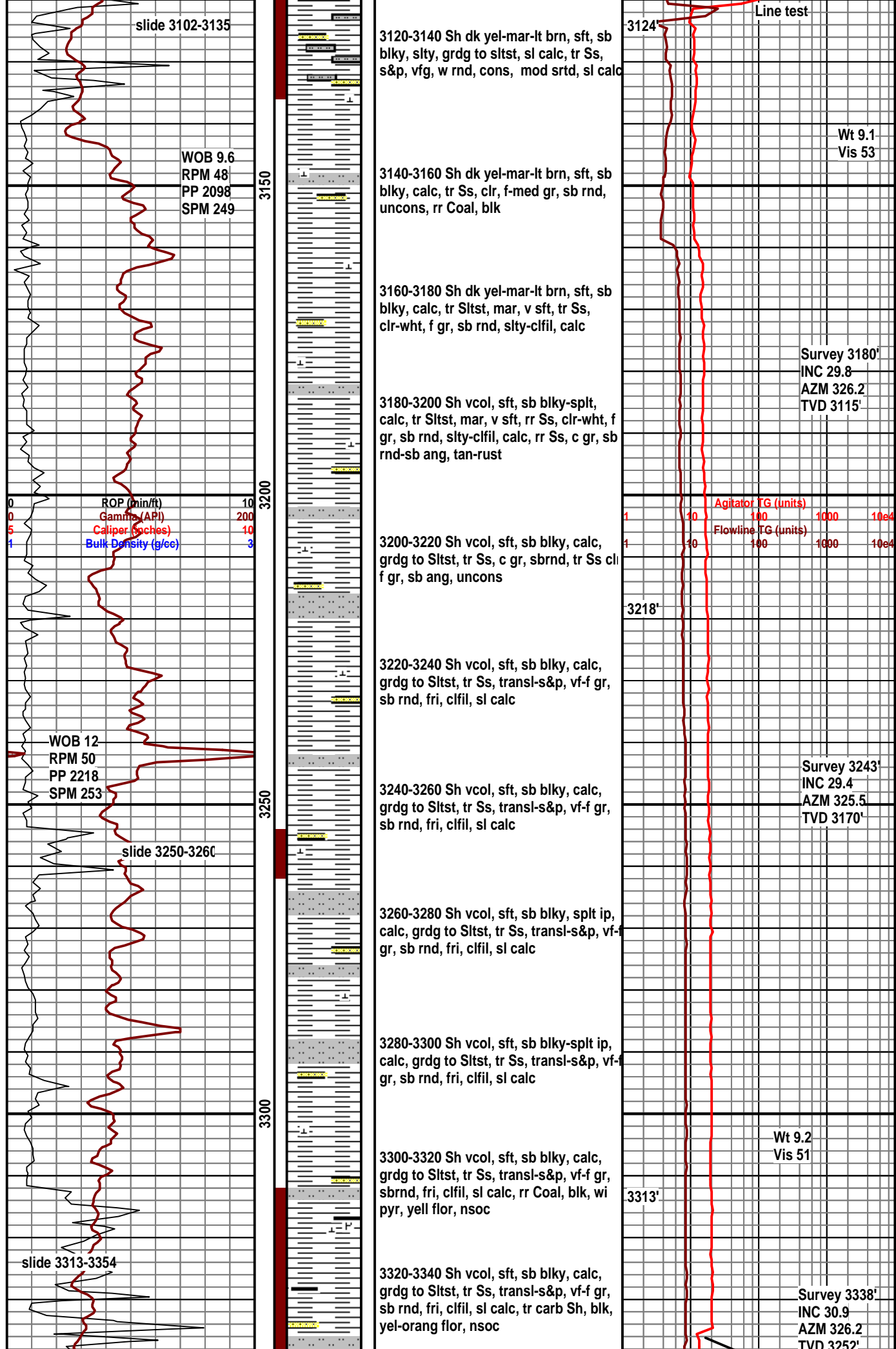




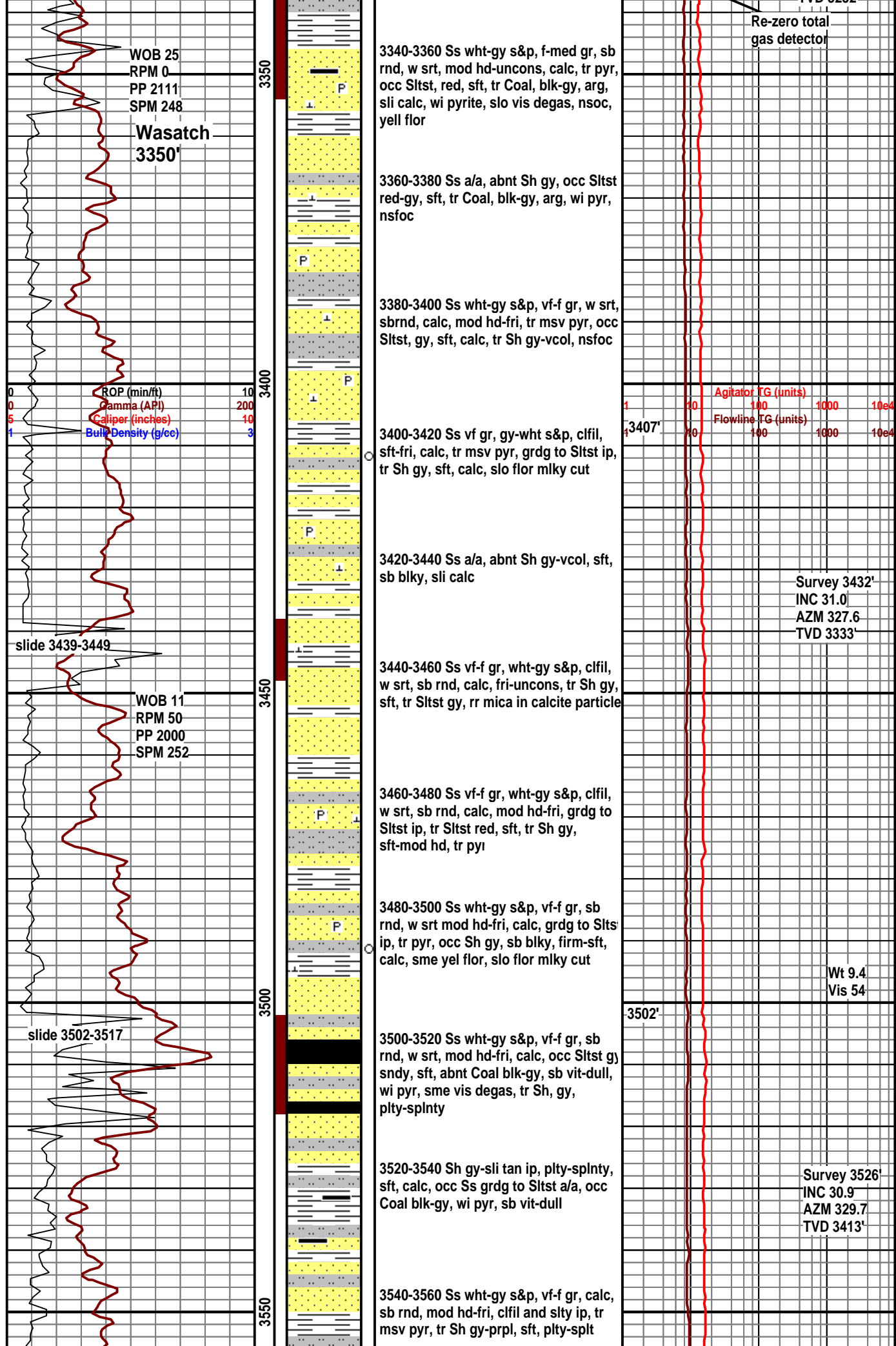


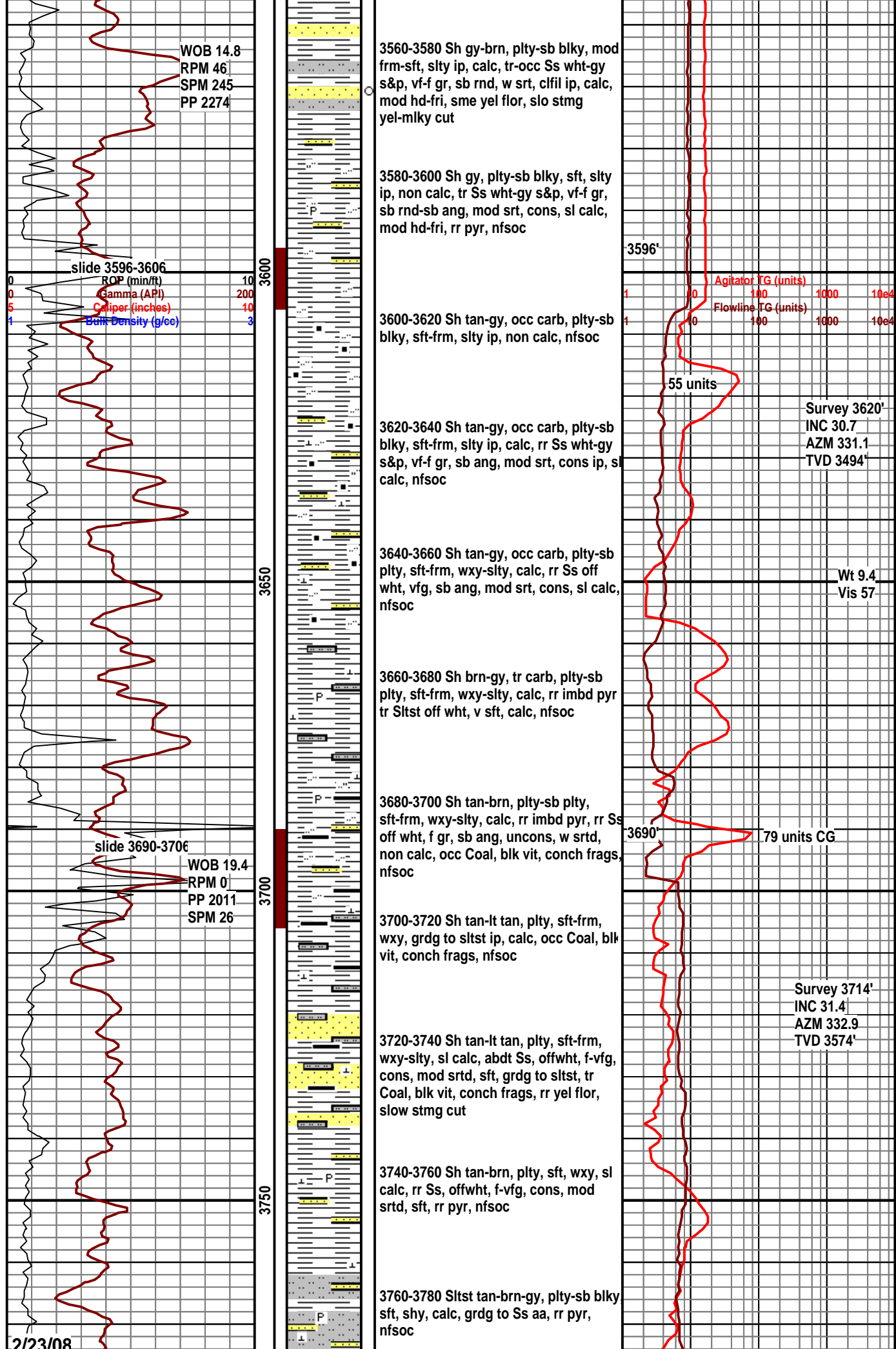


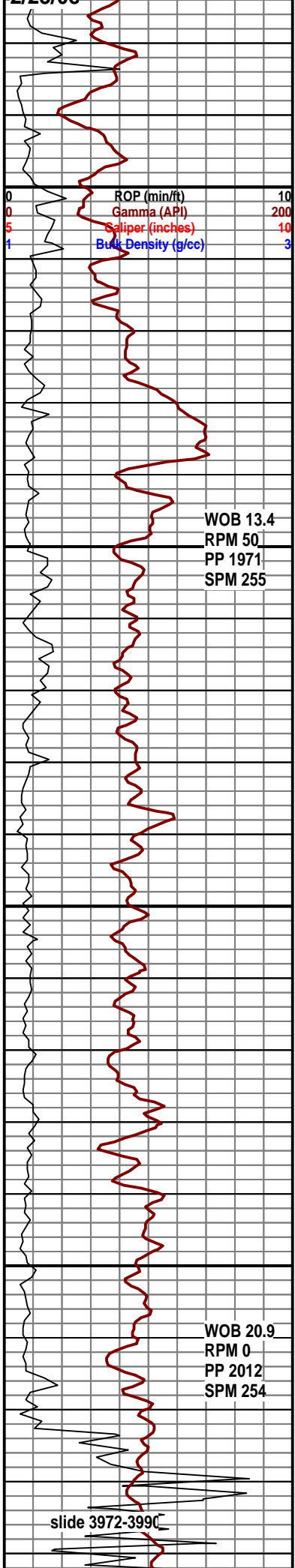












3780-3800 Sh gy, plty-sb blk, sft, calc, grdg to sltst, tr org flr, slow mlky cut

3800-3830 Sh gy-brn, plty-sb plty, sft-frm, calc, grdg to sltst, rr Ss, s&p, rd, cons, calc, rr org flr, stmg cut

3830-3860 vps due to LCM sweep Sh aa

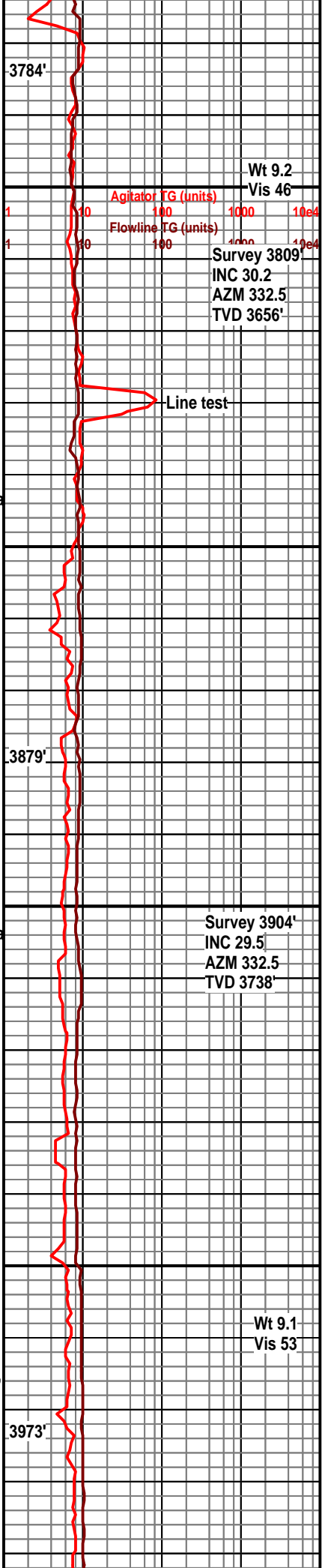
3860-3890 Sh, vcol, sb blk, sft-frm, wxy, grdg to sltst, rr Ss, s&p, sb ang, cons, mod srtd, calc, occ org flr, stmg cut

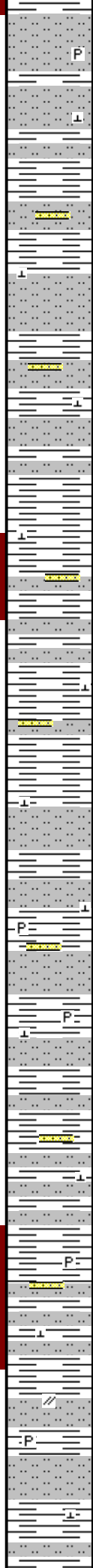
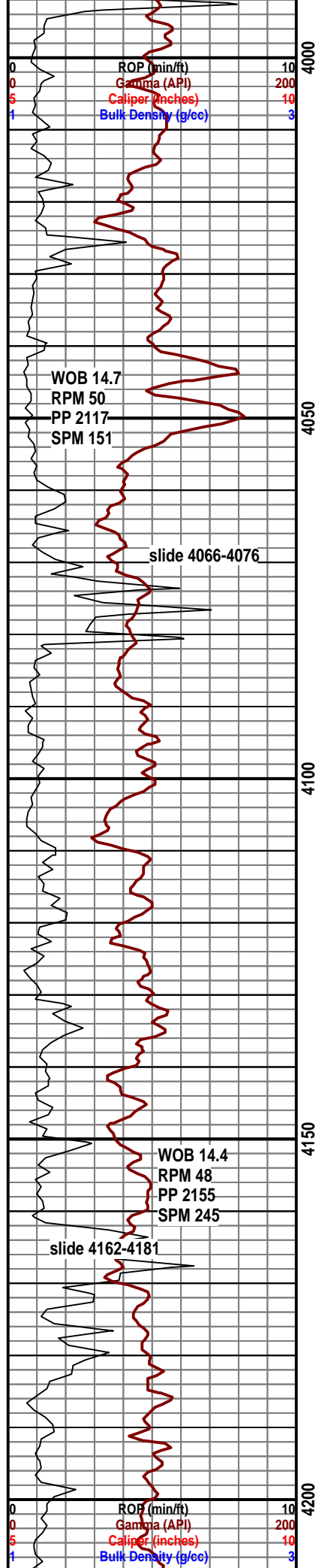
3890-3920 vps due to LCM sweep Sh aa

3920-3950 Sh, vcol, sb blk, sft-frm, wxy, grdg to sltst, tr Ss, s&p, vfg, sb ang, cons, calc cmd, mod srtd, calc, occ org flr, stmg cut

3950-3980 Sltst, mar-gy-brn, sft, blk, rthy, tr Sh, gy, frm, blk, wxy, rr Ss, wht, fvg, sb rd, cons, w srtd, calc cmd, rr Coal, blk vit, rr imbd pyr, tr org flr, stmg cut

3980-4010 Sltst/Mudst mar-red. sft sli





sndy, abnt Sh gy-mar-brn, sft, blk, rthy, tr Ss vf-f gr, wht-gy s&p, sb rnd, calc, fri

4010-4040 Sh gy-vcol, plty, sft, sl calc, rthy-sb wxy, occ Sltst/mudst, mar-gy, sft, rr Ss a/a

4040-4070 Sh gy-vcol, sft, sl calc, sb blk, abnt Sltst/Mudst, mar-gy, sft, sndy ip, rr Ss clr-wh-gy, f gr, sb rnd, uncon

4070-4100 Sh gy-vcol, sft, sl calc, sb blk, abnt Sltst/Mudst, mar-gy, sft, sndy ip, rr Ss clr-wh-gy, f gr, sbrnd, fri

4100-4120 Sh vcol, sft, plty, sb wxy, calc, abnt Sltst/mudst gy sndy-mar sft

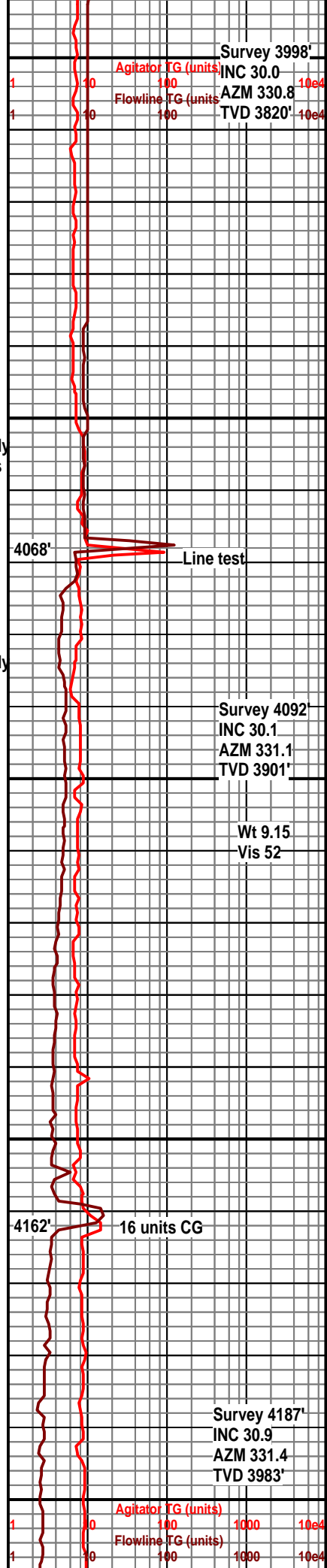
4120-4140 Sh vcol, sft, plty, sb wxy, calc, wi tr pyr, abnt Sltst/mudst gy sndy-mar sft, rr Ss, gy-wht s&p, vf gr, sbang-sbrnd, fri

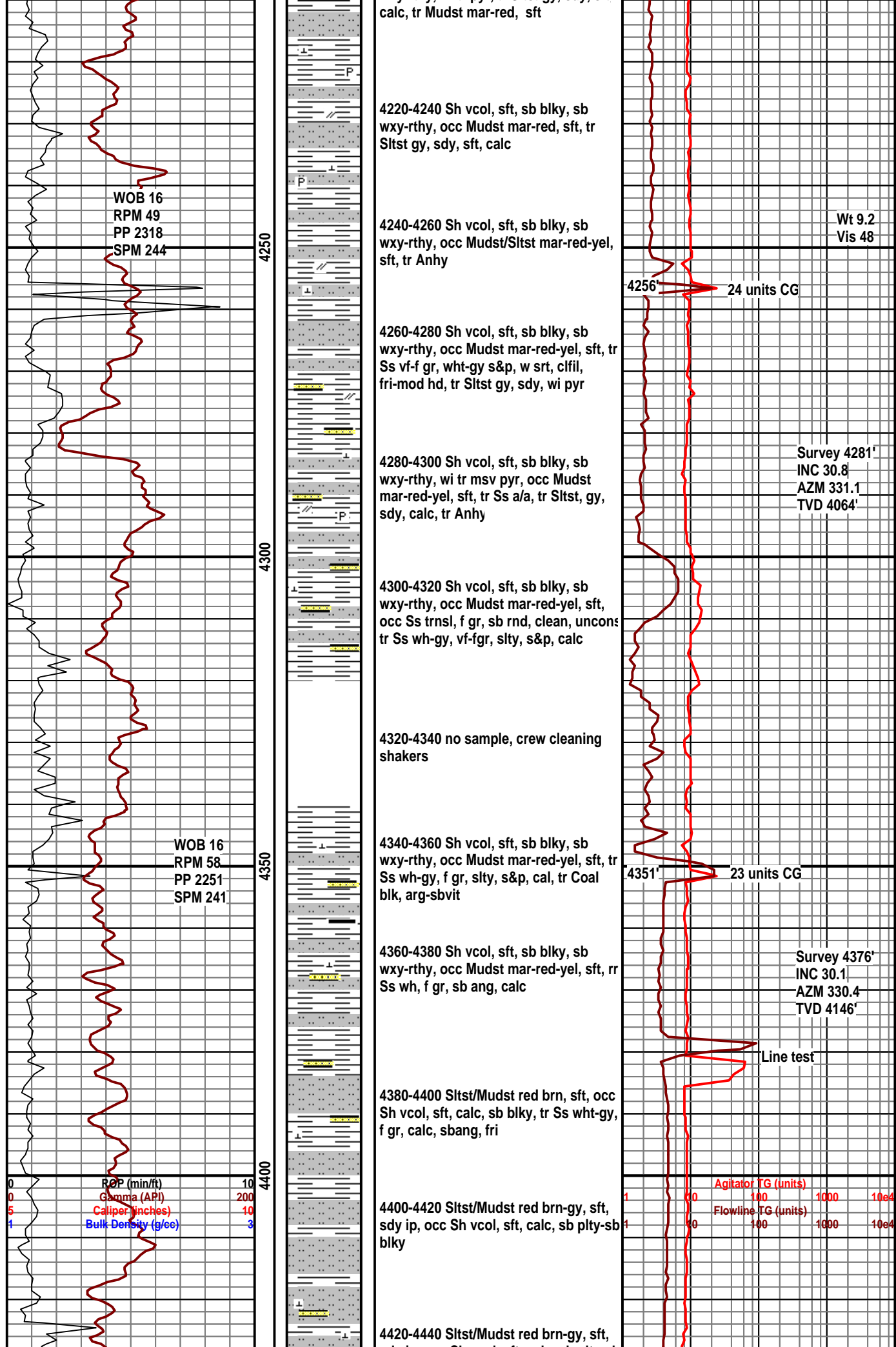
4140-4160 Sh vcol, sft, plty, sb wxy, calc, wi tr pyr, abnt Sltst/mudst gy sdy-mar sft, rr Ss, gy-wht s&p, vf gr, sbang-sbrnd, fri

4160-4180 Sh vcol. sft, sb blk, sb wxy-rthy, wi tr pyr, occ Sltst/mudst gy sdy and mar sft, rr Ss wht-trnsl, f gr, sbrnd

4180-4200 Sh vcol. sft, plty-splty, sb wxy-rthy, wi tr pyr, tr Sltst/mudst gy sdy and mar sft, rr anhydrite

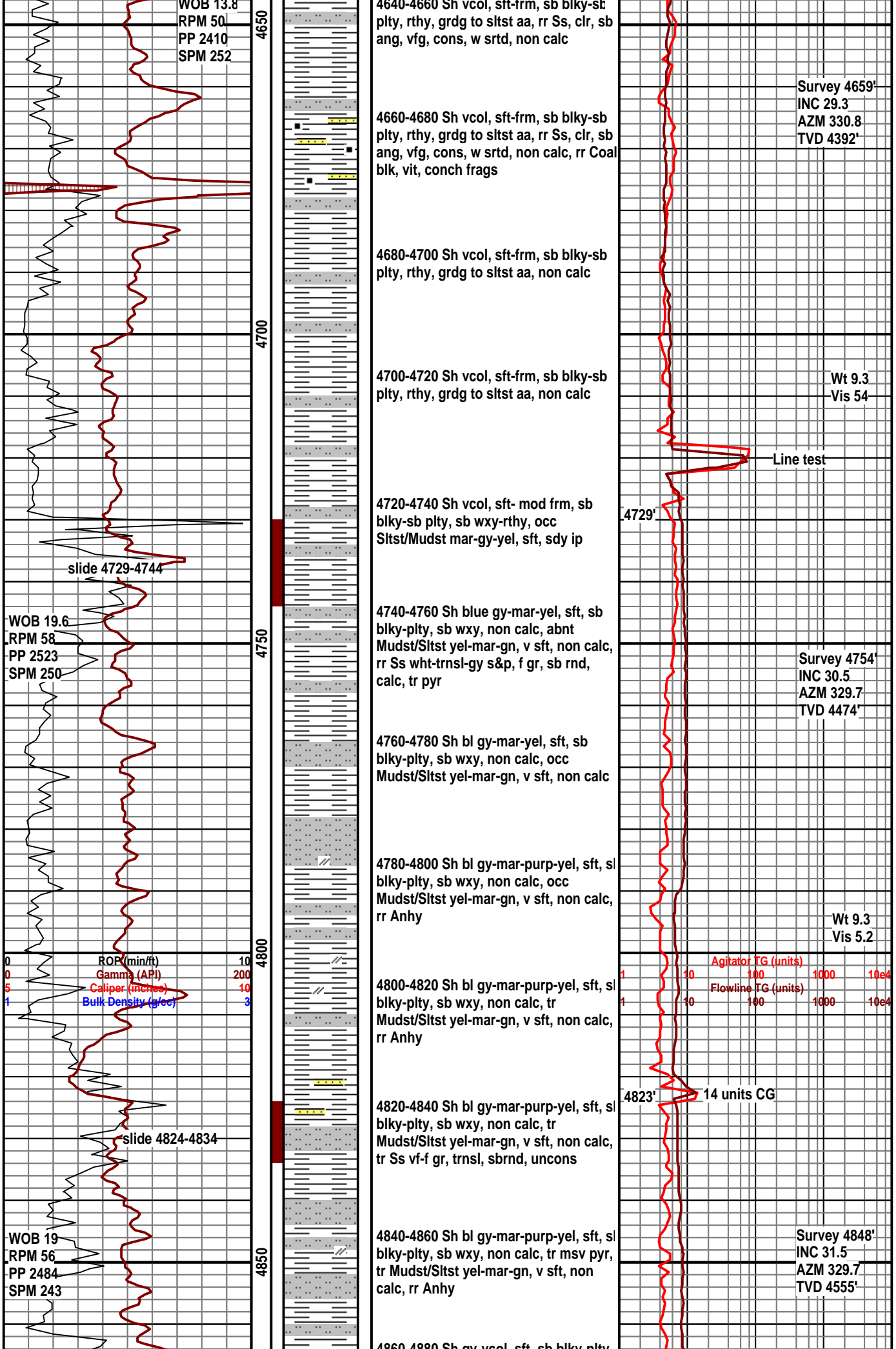
4200-4220 Sh vcol. sft, plty-splty, sb wxv-rthv. wi tr pvr. tr Sltst av. sdv. sft

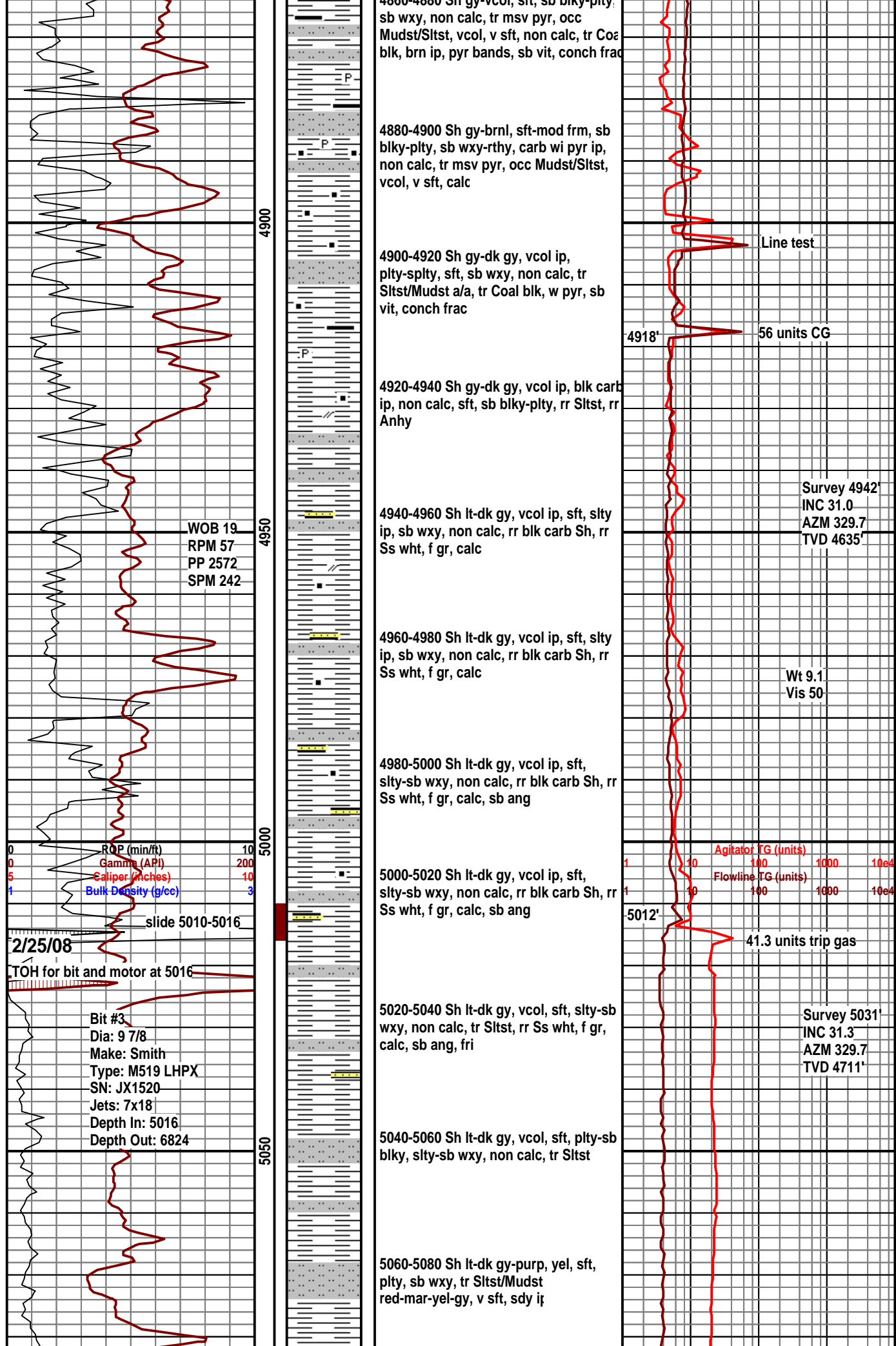


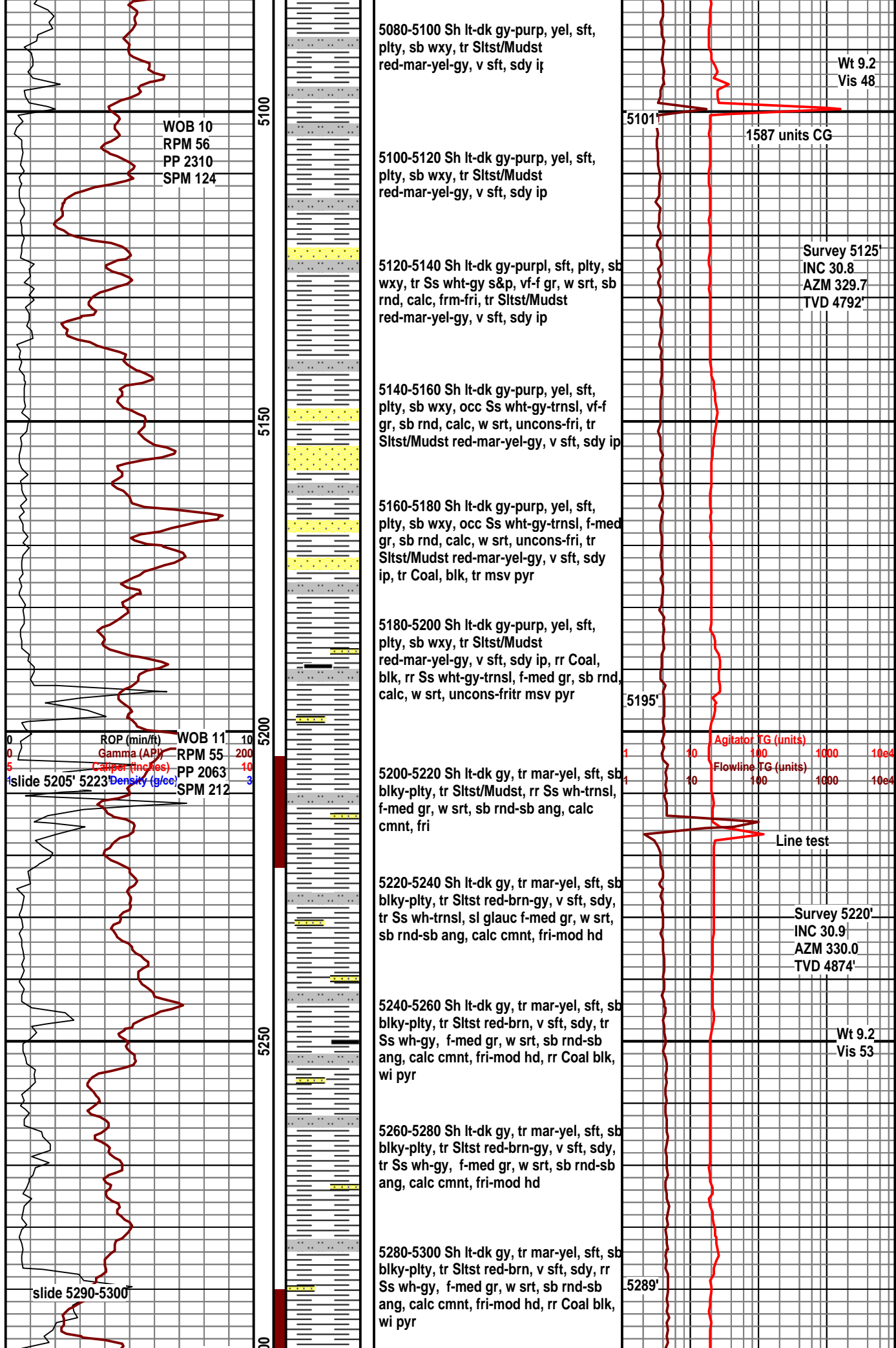


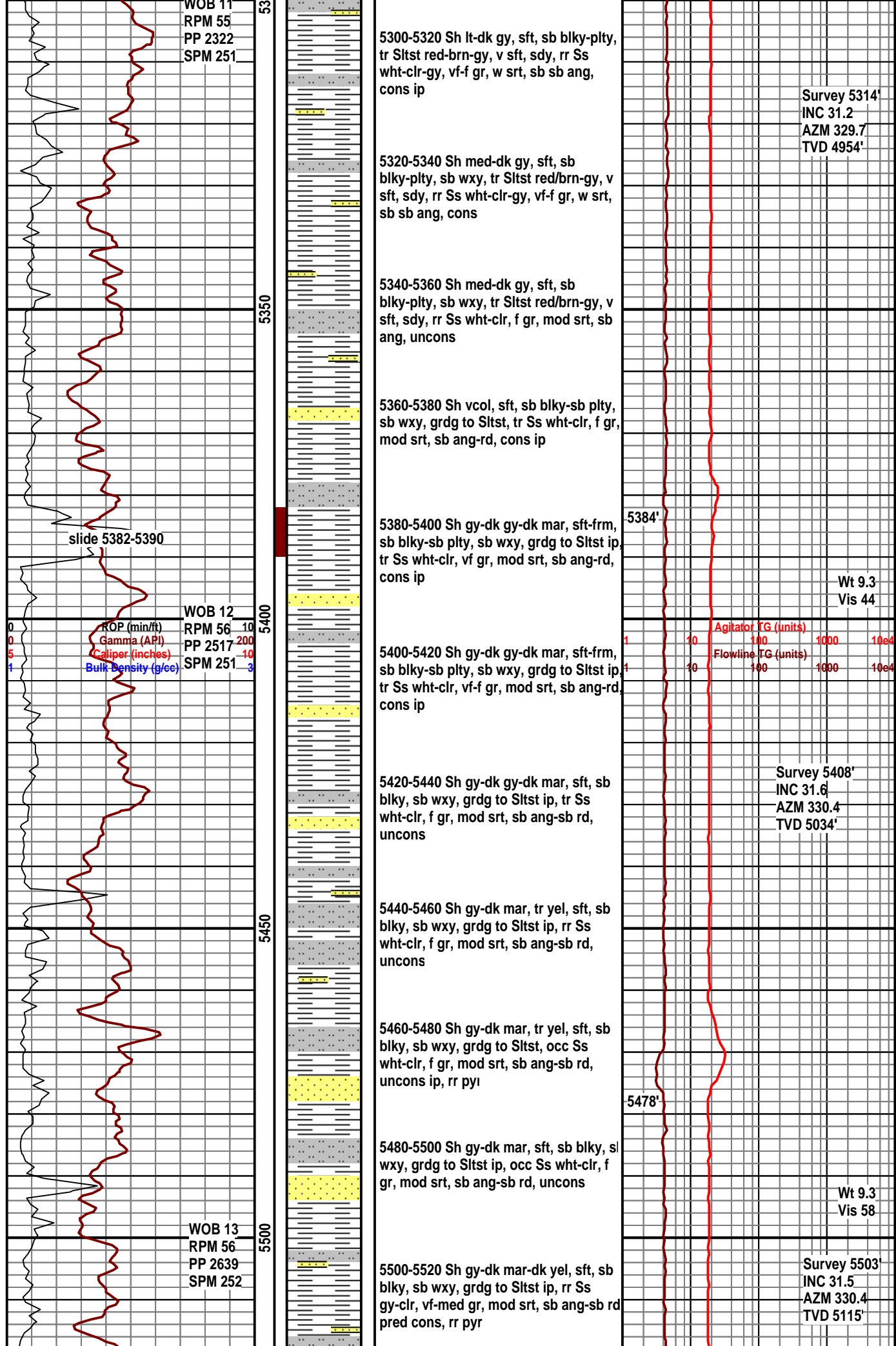


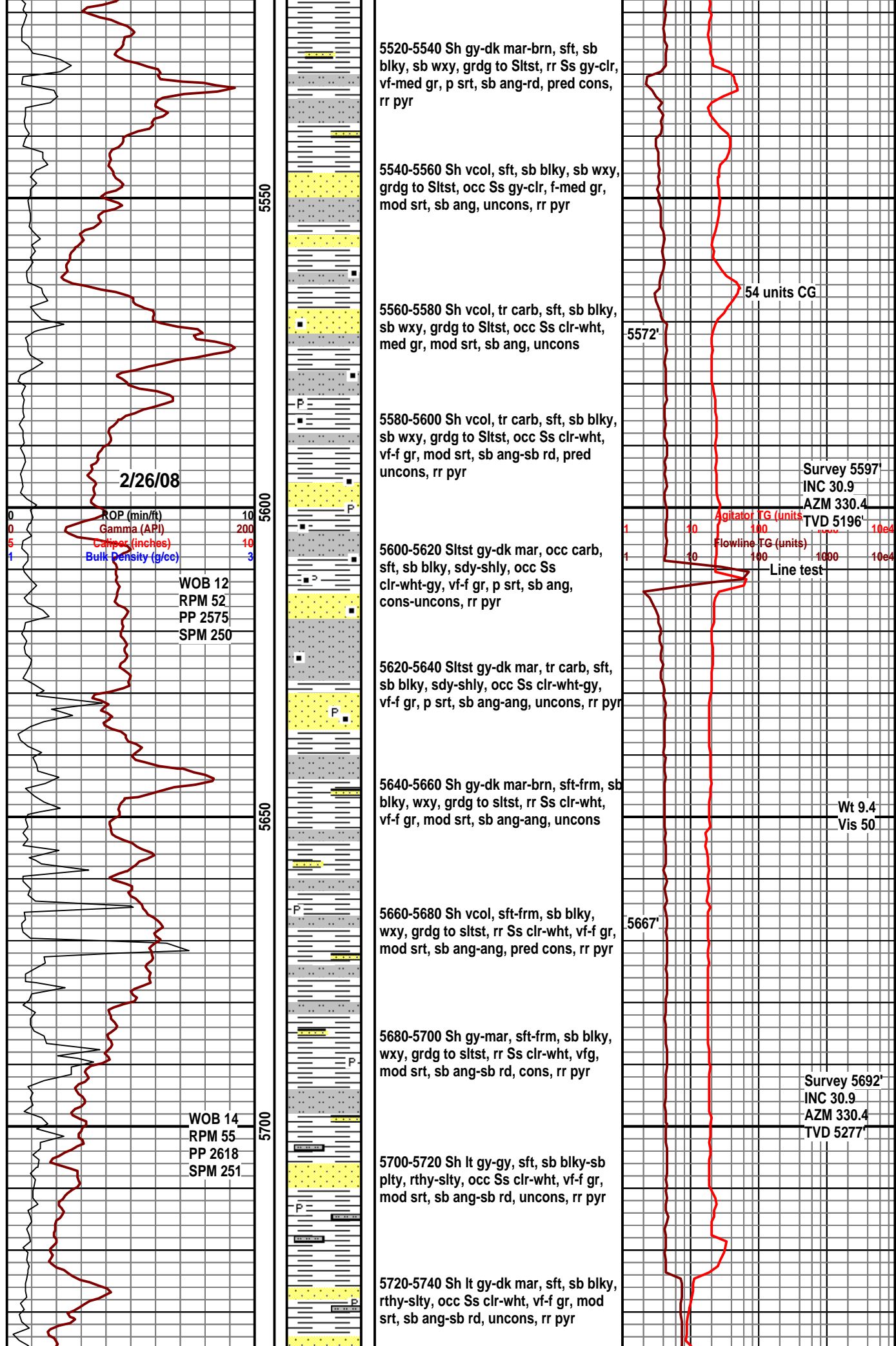




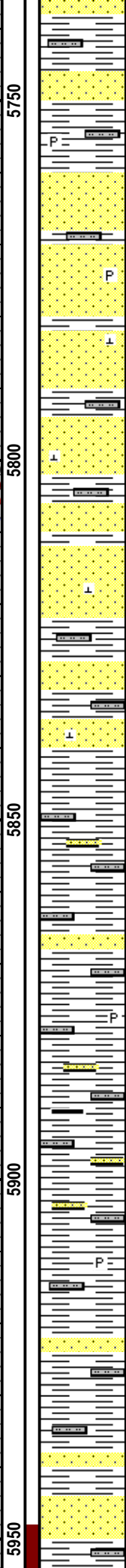
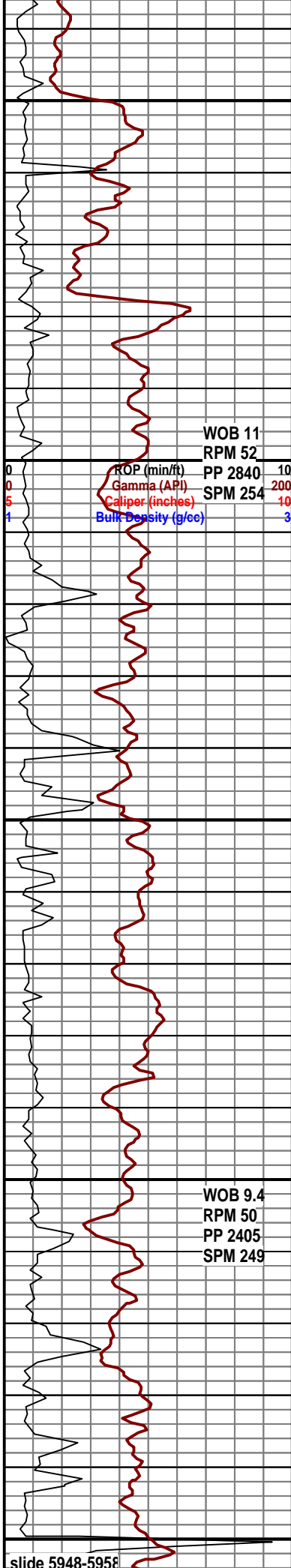












5740-5760 Sh lt gy-mar, sft, sb blkly, rthy-slty, occ Ss clr-wht, f gr, mod srt, sb ang-sb rd, uncon, rr pyr

5760-5780 Ss clr-wht, f-med gr, w srt, sb ang-sb rd, uncon, tr Sh lt gy-mar, sft, sb blkly, rthy-slty, rr pyr

5780-5800 Ss clr-wht, vf-med gr, p srt, sb ang-ang, uncon-cons, sl calc, tr Sh lt gy, sft, sb blkly, rthy-slty

5800-5820 Ss clr-wht, vf-med gr, p srt, sb ang-ang, uncon-cons, sl calc, tr Sh lt gy, sft, sb blkly, rthy-slty

5820-5840 Ss clr-wht, vfg, mod srt, sb ang-ang, cons, sl calc, abnt Sh lt gy, sft, sb blkly-sb plty, rthy-slty

5840-5860 Sh lt-blue gy, sft, sb blkly-plty, tr Slstst, gy, sft, sdy, rr Ss a/a

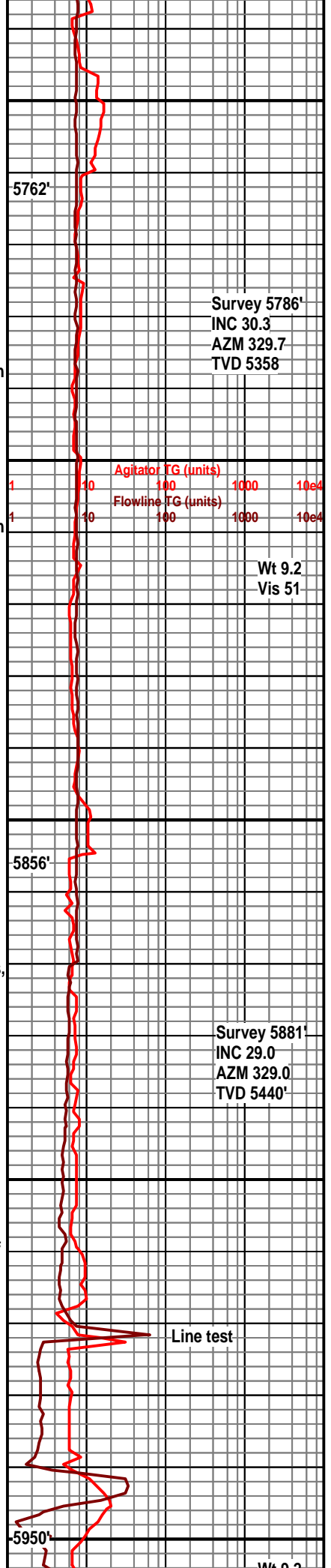
5860-5880 Sh lt-blue gy, sft, sb blkly-plty, tr Ss gy-wht-trnsl, fri-uncons, calc, w srt, tr Slstst gy

5880-5900 Sh lt-blue gy, mar ip, sft, sb blkly-plty, tr pyr, tr Slstst, gy, sli calc, tr Ss wht-trnsl, s&p ip, f gr, w srt, sb rnd, sli calc, fri-uncons, rr Coal blk, wi pyr

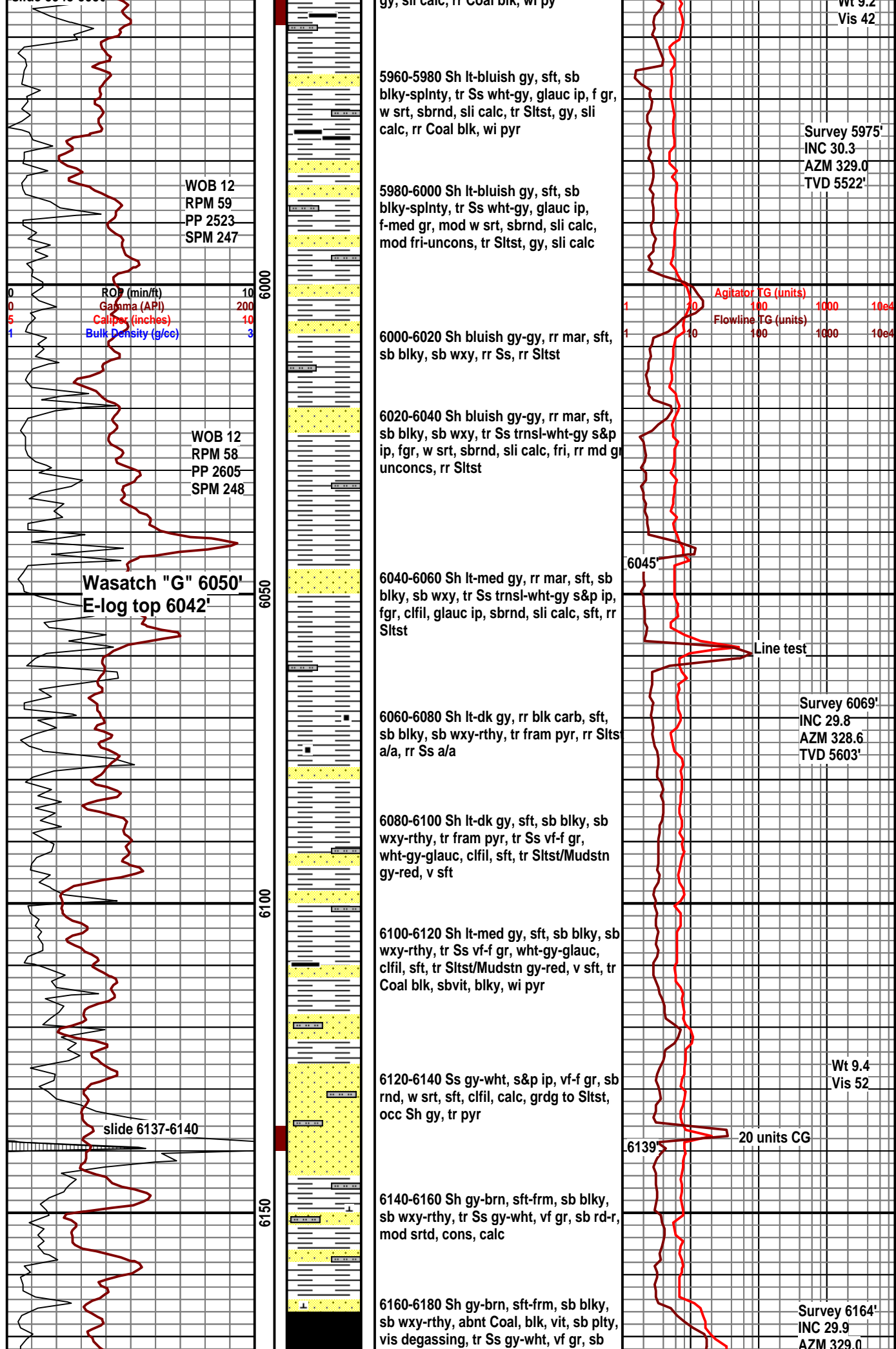
5900-5920 Sh lt-bluish gy, mar ip, sft, sb blkly-plty, tr pyr, tr Ss wht-trnsl-gy, f gr, w srt, sbrnd, sli calc, glauc ip, tr Slstst, gy, sli calc

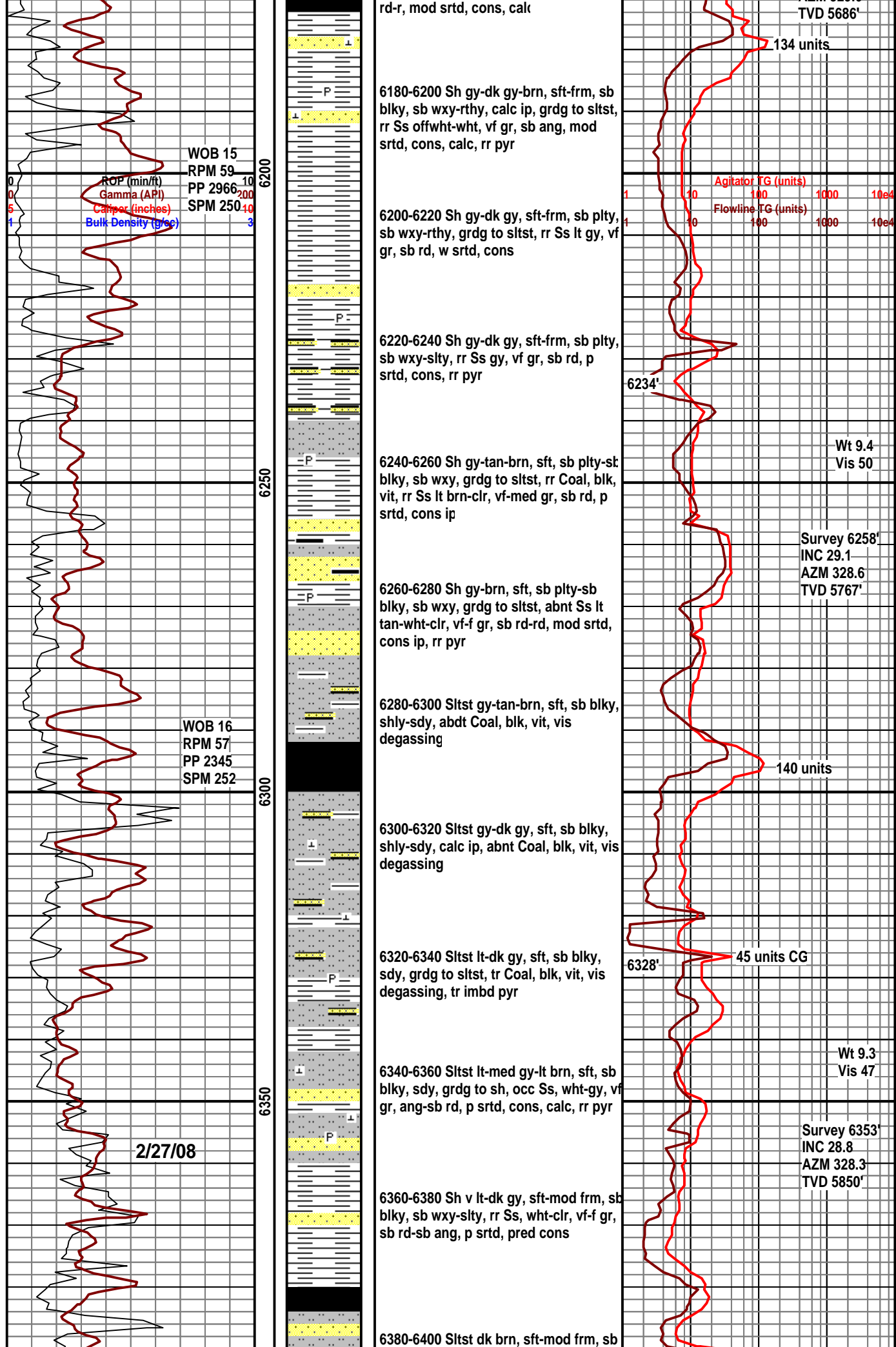
5920-5940 Sh lt-bluish gy, mar ip, sft, sb blkly-blky, tr-occ Ss wht-trnsl-gy, f gr, w srt, sbrnd, sli calc, glauc ip, tr Slstst, gy, sli calc

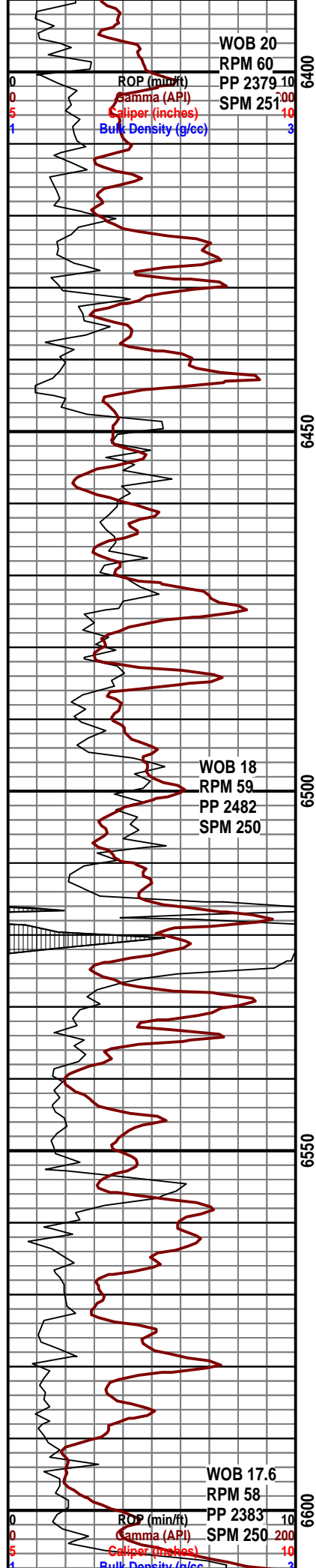
5940-5960 Sh lt-bluish gy, mar ip, sft, sb blkly-blky, occ Ss wht-trnsl-gy, f gr, w srt, sbrnd, sli calc, glauc ip, tr Slstst, gy, sli calc, rr Coal blk, wi pyr











blky, sdy, calc, abnt Coal, blk, vit, vis degassing, tr imbd pyr

6400-6420 p sample quality due to pump sweep, Sltst lt-dk gy, sft, sb plty, sdy, calc, grdg to sh, tr Coal, blk, vit, vis degassing, tr imbd pyr

6420-6440 p sample quality due to pump sweep, Sltst lt-med gy, sft, sb plty, sdy, calc, grdg to sh, rr Ss, mlky-clr, med-c gr, hd, mod srted, uncons, rr Coal, blk, vit, vis degassing, tr imbd pyr

6440-6460 Sh lt-med gy, sft-firm, sb plty rthy-slty, calc, tr Ss, mlky-s&p, vf-c gr, fri, w srted, cons ip, rr pyr

6460-6480 Sh lt-med gy, sft, sb blk, occ Ss wht-grn-gy, glauc ip, vf-med gr, mod w srt, sb rnd, clfil ip, tr Coal, blk, sb vit, imbd pyr, blk, rr Anhy

6480-6500 Sh lt-med gy, sft, sb blk, sb wxy, tr Ss wht-gy, f gr, w srt, sb rnd, clfil ip, rr Coal, blk, sb vit, imbd pyr, blk, rr Anhy

6500-6520 Sh gy, sft, sb blk, sb wxy, occ Ss wht-gy, f gr, w srt, sb rnd, grdg to Sltst, rr Coal, rr Anhy

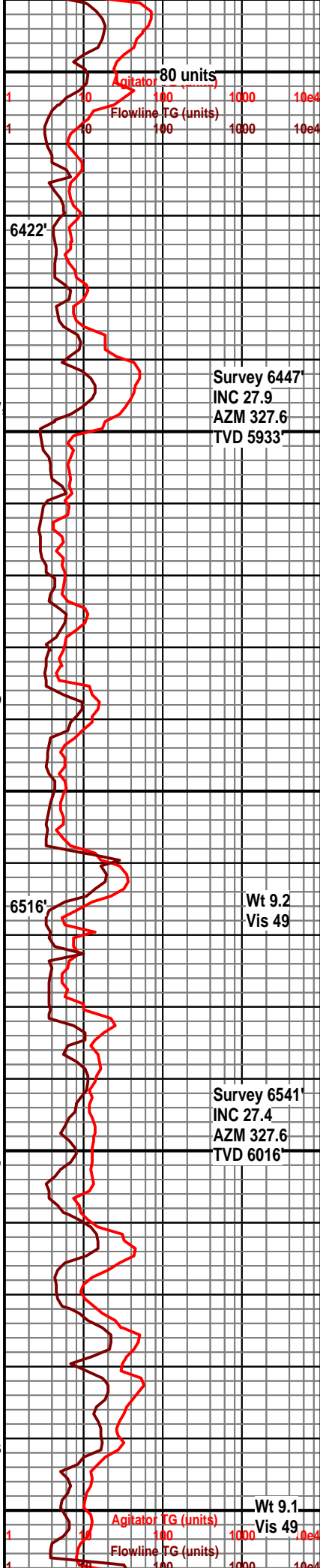
6520-6540 Sh gy, sft, sb blk, sb wxy, occ Ss wht-trns-gy, f gr, w srt, sb rnd, clfil ip, grdg to tr Sltst, tr Coal, tr pyr, poor sample quality-LCM

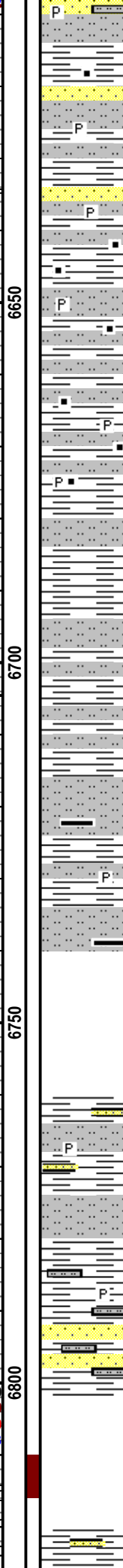
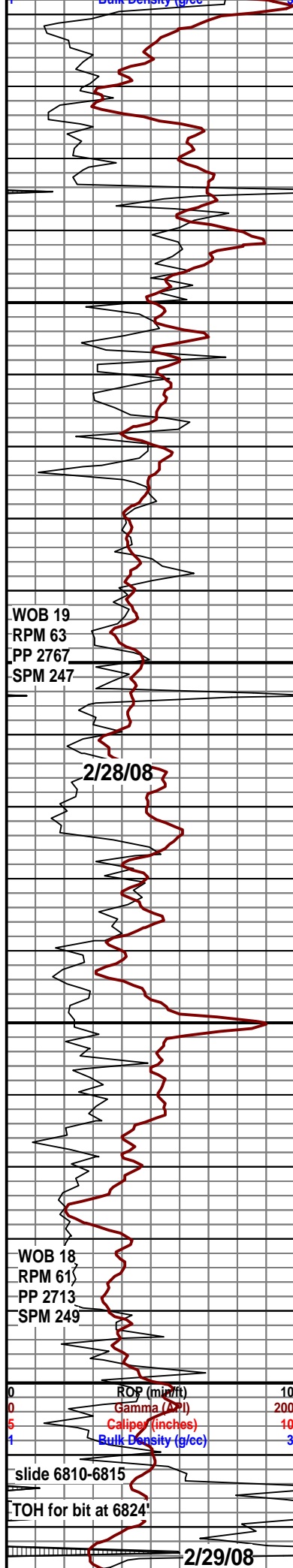
6540-6560 Sh gy, sft, sb blk, sb wxy-rthy, occ Ss wht-gy-tan, f gr, w srt, clfil ip, sft, w srt, calc, tr pyr

6560-6580 Sh gy a/a, abnt Sh blk-brn, carb, plty, sft, abnt Coal blk-brn, arg, sbvit ip, tr Ss grdg to Sltst

6580-6600 Sh gy, sb wxy, grdg to Sltst, occ Sh brn-blk, rthy, carb, tr Coal, tr Ss

6600-6620 Sh av. sb wxv. sft. sb blk





occ Sltst, gy, calc, tr Ss wht-gy, f gr, calc, tr Coal, blk, tr pyr

6620-6640 Sh gy-brn, sb wxy, sft-frm, sb blk, occ Sltst, vcol, sl calc, tr imbd pyr, tr Ss wht-off wht, vf gr, calc, rd, cons, mod srted

6640-6660 Sh gy-brn, rr carb, sb wxy-rthy, sft, sb plty, abdt Sltst, brn-tan, sl calc, rr imbd pyr

6660-6680 Sh lt gy-gy-lt brn, rr carb, rthy-slt, sft, sb plty, occ Sltst, lt gy-tan, non calc, tr pyr

6680-6700 Sh lt gy-gy, rr dk brn, rthy-wxy, sft-frm, sb plty-sb blk, occ Sltst, wht-red-gy, sft, sdy ip, non calc

6700-6720 Sh lt gy-gy, rr dk purp, rthy-wxy, sft-frm, sb plty-sb blk, abdt Sltst, wht-red-gy, sft, sdy ip, sl calc

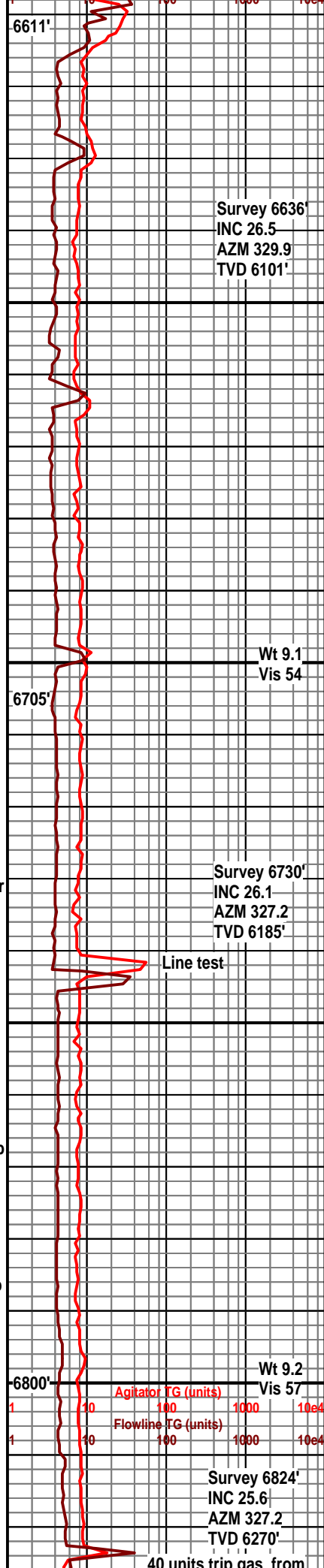
6720-6740 Sltst, vcol, sft-frm, sdy, sl calc, abdt Sh lt gy-gy, rr dk purp, rthy-wxy, frm, sb plty, rr Coal blk, vit, tr imbd pyr

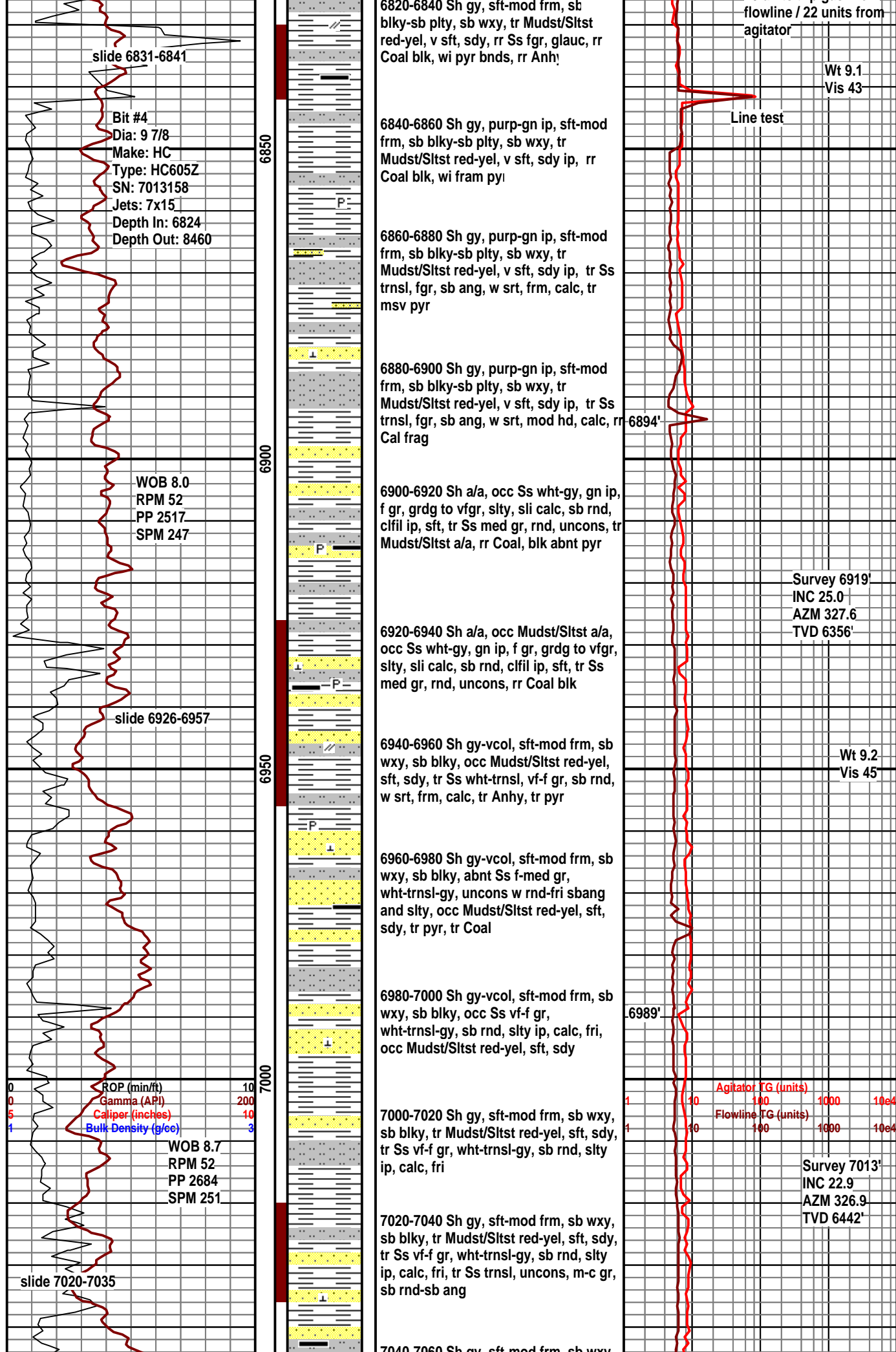
6740-6760 vps due to excessive LCM, Sltst aa, Sh aa

6760-6780 Sh lt gy, rthy-sb wxy, sft, sb plty, abdt Sltst, vcol, sft-frm, sdy, sl calc, rr Ss, wht, vfg, rd, cons, w srted, calc, rr pyr

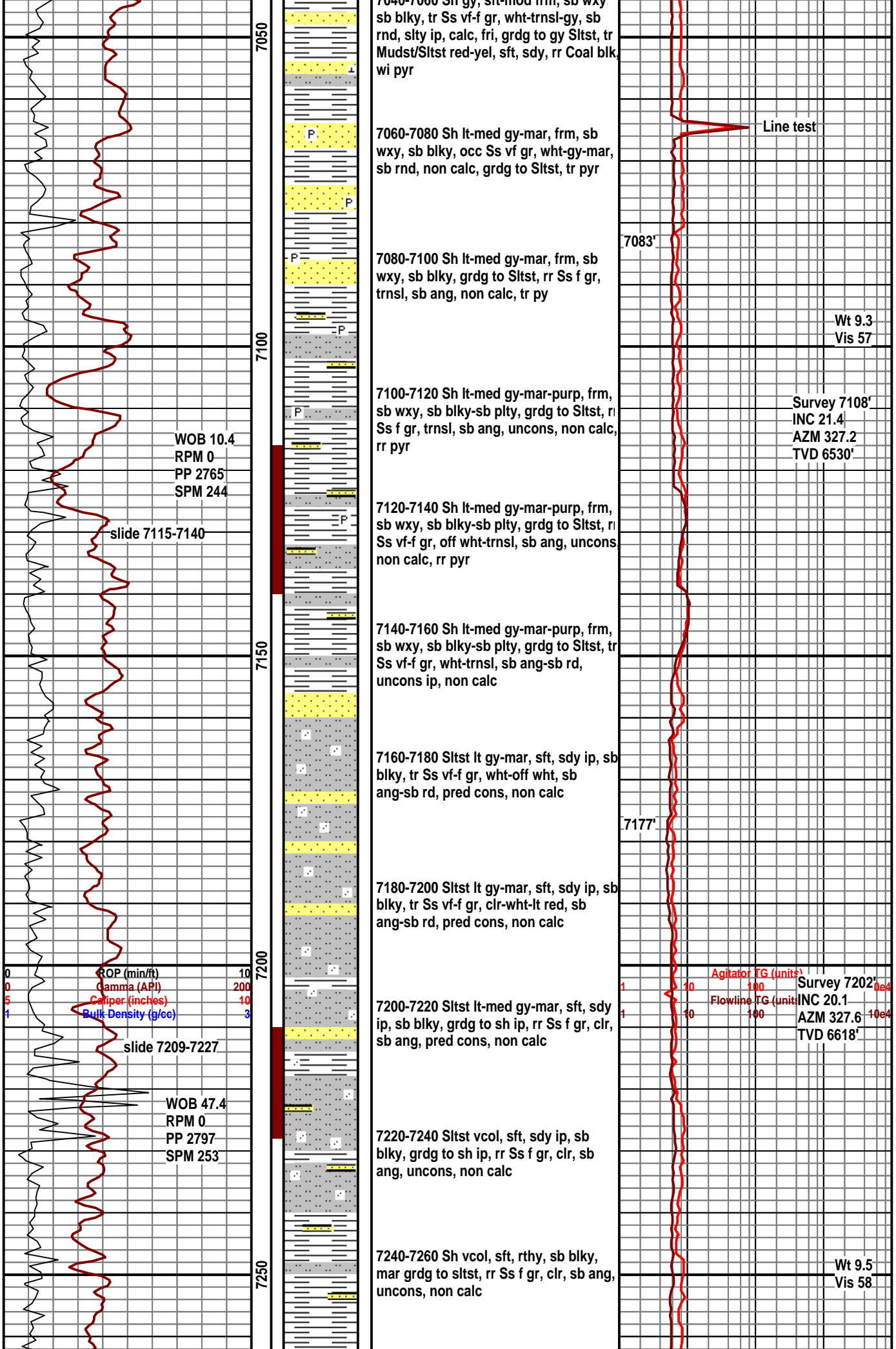
6780-6800 Sh vcol, rthy, sft, sb plty-sb blk, grd to sltst ip, tr Ss, wht-clr, vf-f gr, rd, cons, w srted, calc, rr pyr

6800-6820 vps due to excessive LCM, Sltst aa, Sh aa

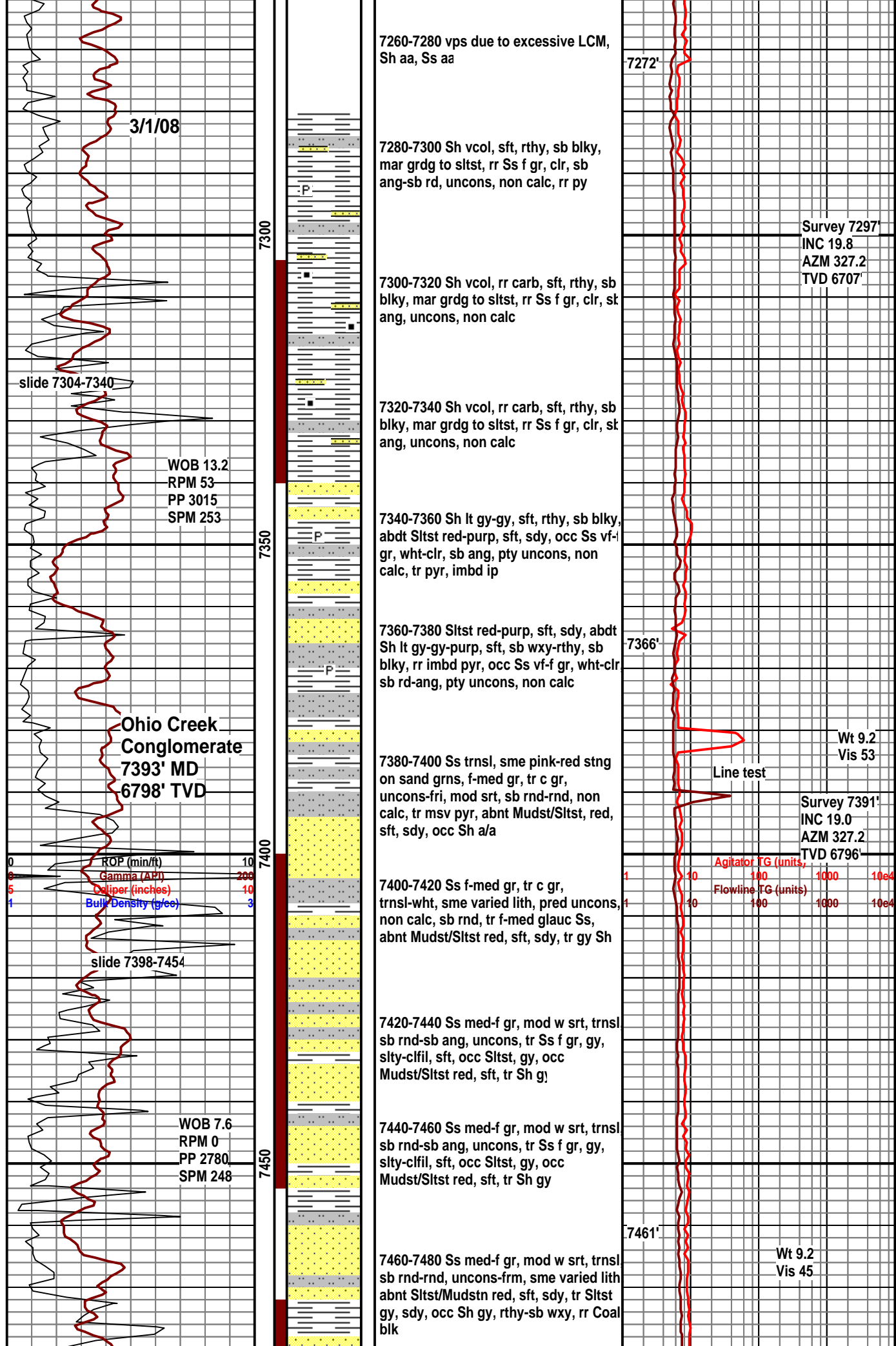


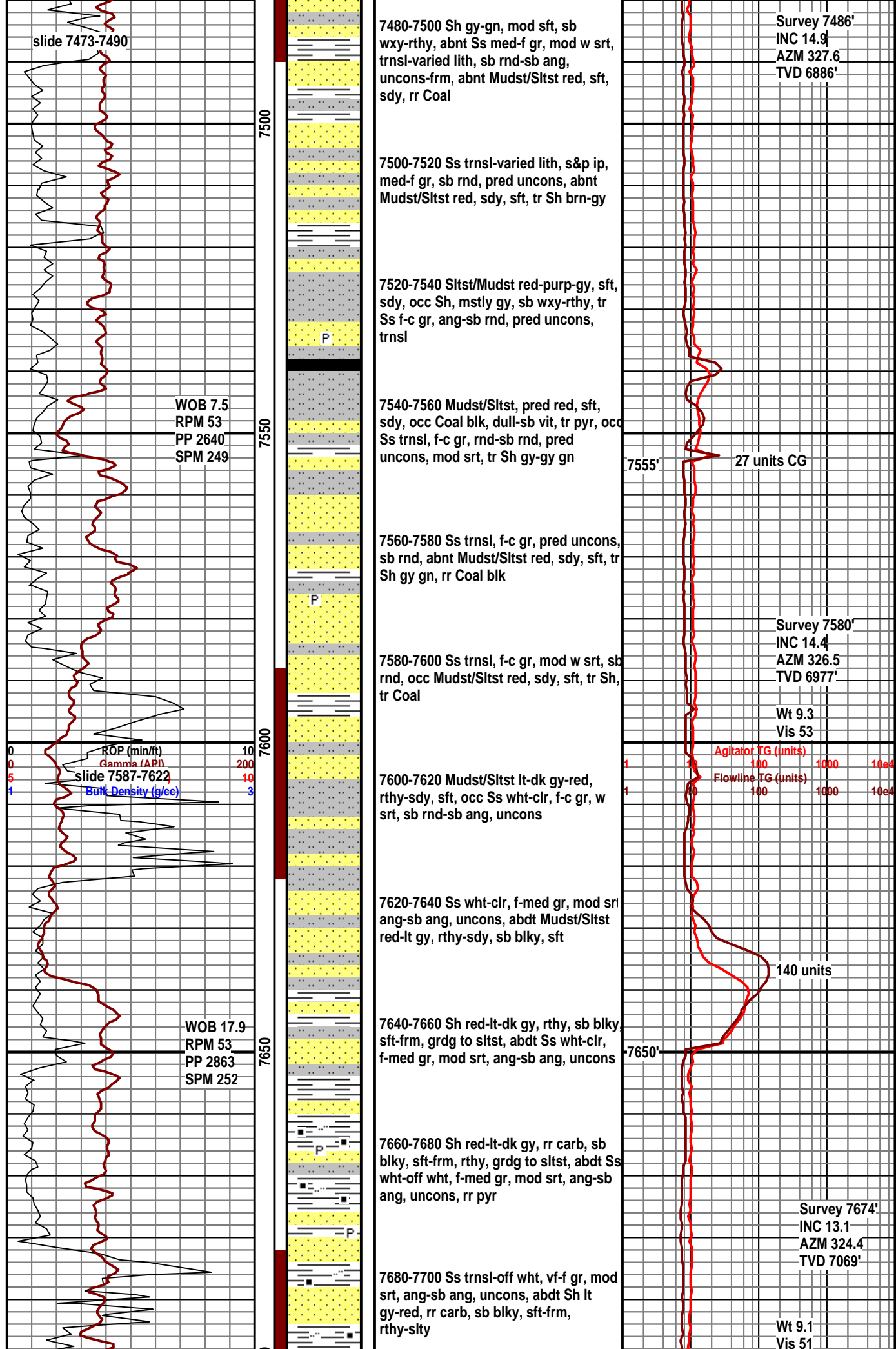


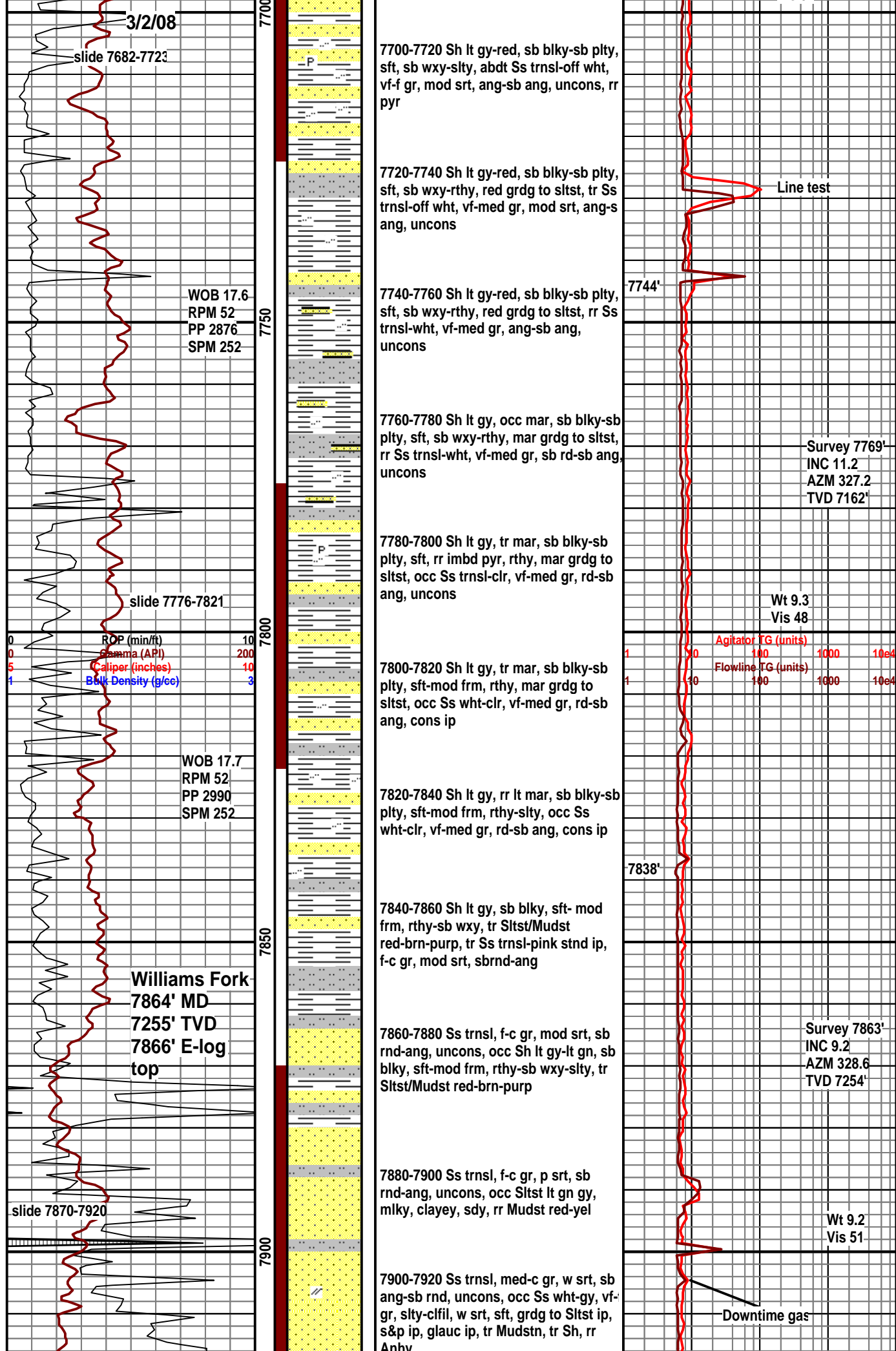


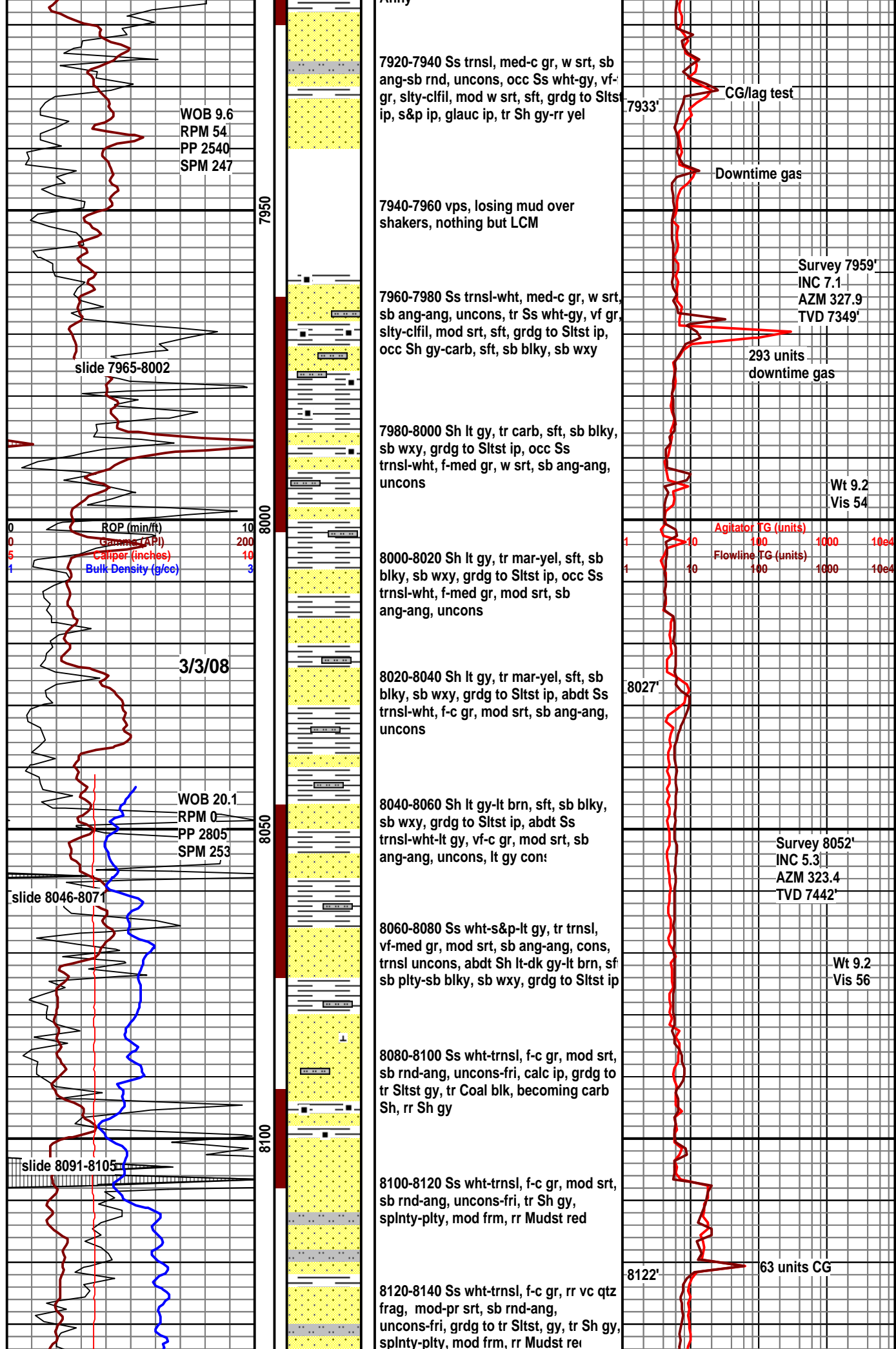


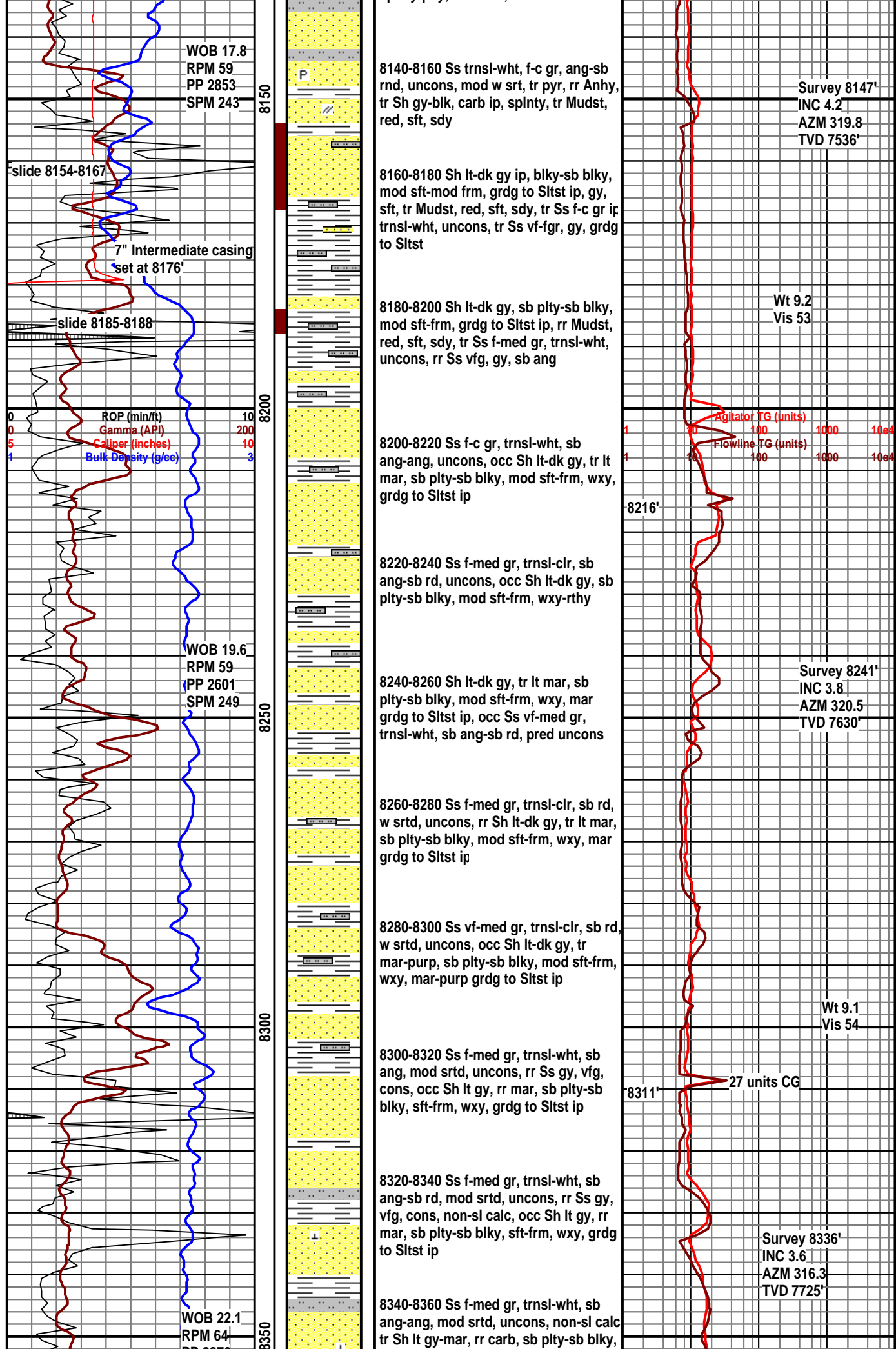




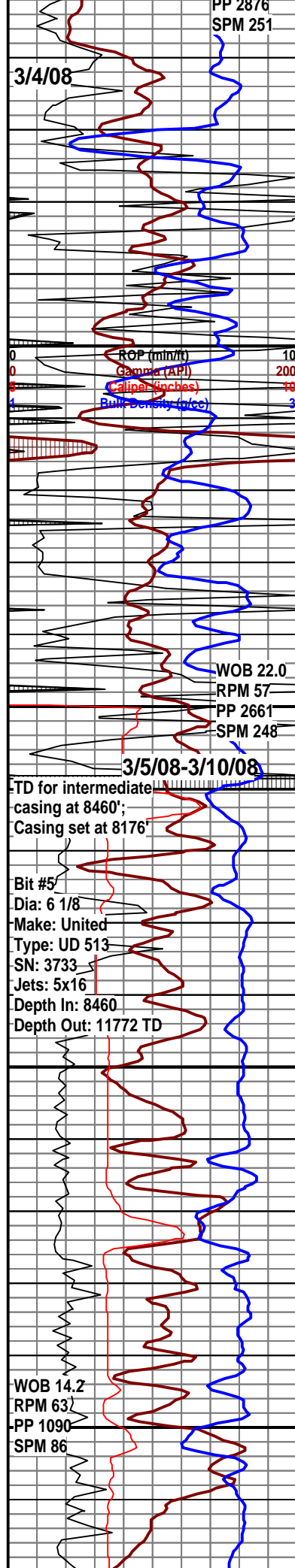












sft-frm, wxy-rthy, mar grd to Sfts

8360-8380 Ss vf-med gr, trns-l-wht, sb ang-ang, mod srt, pred uncon, non-sl calc, occ Sh lt gy, rr carb-mar, sb pty-sb blk, sft-frm, rthy, grd to Sltst, rr pyr

8380-8400 Ss f-med gr, trns-l-wht, sb ang-ang, mod srt, pred uncon, non-s calc, abdt Sh lt-dk gy, rr mar, rr bn, sb pty-sb blk, sft-frm, rthy, grd to Sltst ip, rr pyr

8400-8420 Ss f-c gr, trns-l-wht, gy-glauc ip, ang-sbrnd, mod srt, slty ip, abnt Sh, gy, slty ip, rr mar, sb pty-sb blk, rthy, tr Sltst yel-gn-red, v sft, tr Sltst, gy

8420-8440 Sh lt-dk gy-bn, mod frm-sft, pty, dk bn-blk carb ip, abnt Sh lt gn gy v sft, sb blk, clayey, occ Sltst, gy, sft, occ Ss trns-l-wht, f-c gr, mod srt, uncon-sfri

8440-8460 Sh lt-dk gy, blu-gn ip, sb blk, mod sft-mod frm, occ Ss trns-l-wht, f-c gr, pred uncon, tr Sltst, dk gy, sft

8460-8480 No sample. No returns over shale shaker.

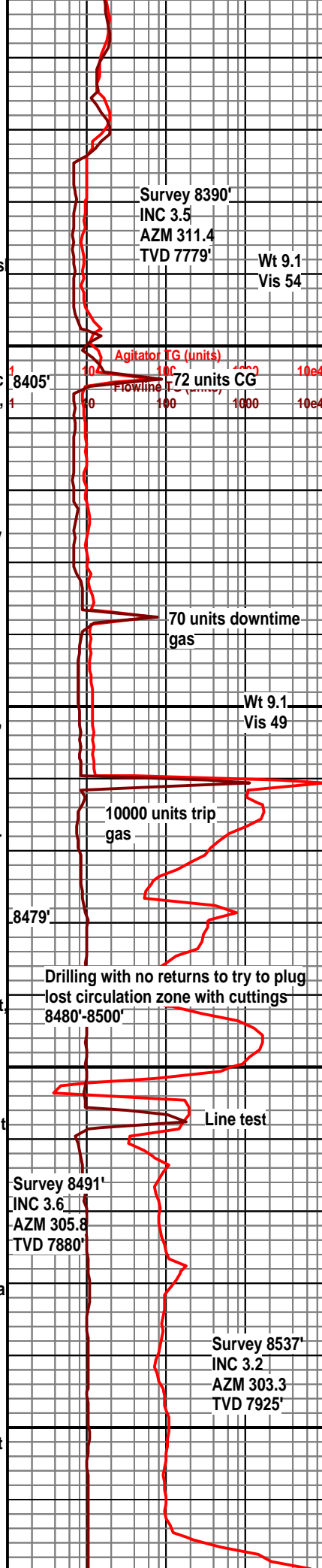
8480-8500 Sh lt-med gy, v slty, sdy ip, sb blk, mod sft, occ Coal, blk, mod sft, abnt LCM, occ cmt

8500-8520 Sh lt-med gy, slty, sdy ip, pyrc ip, sb blk-sb pty, mod sft, tr Ss lt gy, vf gr, slty, blk, mod sft, rr Coal, blk, sft-mod sft, tt, occ LCM & cmt

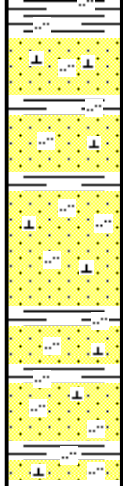
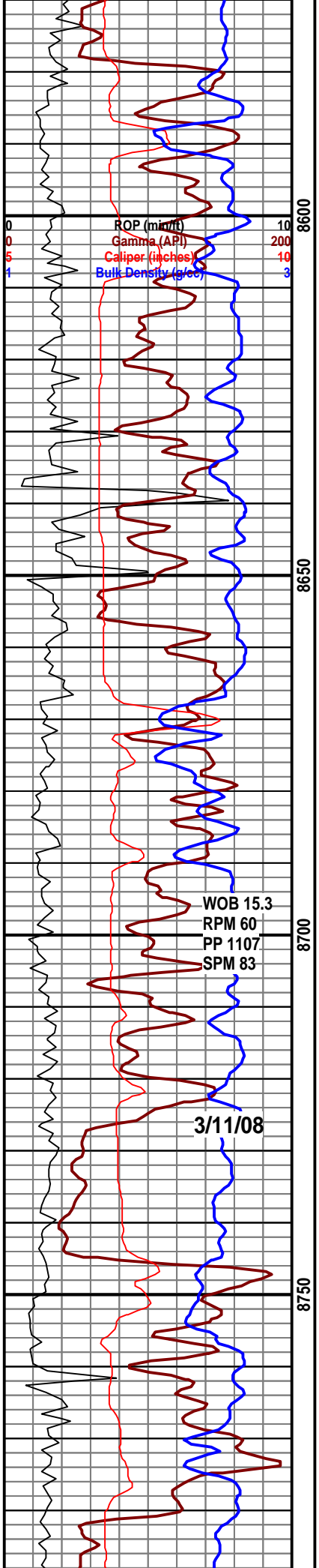
8520-8540 Sh lt-med gy, med bl gy ip, slty, pyrc ip, sl calc, sub pty, sft-mod sft, sme Ss trns-l-wht gy, vf gr, slty, occ flt f gr qtz gr, blk, mod sft, tr Coa blk, mod sft, abnt LCM

8540-8560 Sh, med gy-med bl gy, slty, sft, sb pty-pty, occ Ss trns-lt gy, vf-f gr, slty ip, sb rdd, ply srt, mod sft, abnt LCM

8560-8580 Sh aa, abnt Ss trns-lt gy, s&p ip, vf-f gr, slty ip, mod-v calc, sb







8580-8600 Ss trns-lt gy, s&p ip, vf gr, occ f gr, slty ip, sb rdd, ply-mod srt, mod-v calc, mod sft, occ Sh lt-med gy, slty ip, pyrc ip, LCM

8600-8620 Ss aa, Sh aa, abnt LCM

8620-8640 Ss aa, Sh aa, abnt LCM

8640-8660 By-passing shale shakers. Ss aa, Sh aa, abnt LCM

8660-8680 By-passing shale shakers. Ss aa, Sh aa, abnt LCM

8680-8700 By-passing shale shakers. Ss aa, Sh aa, abnt LCM

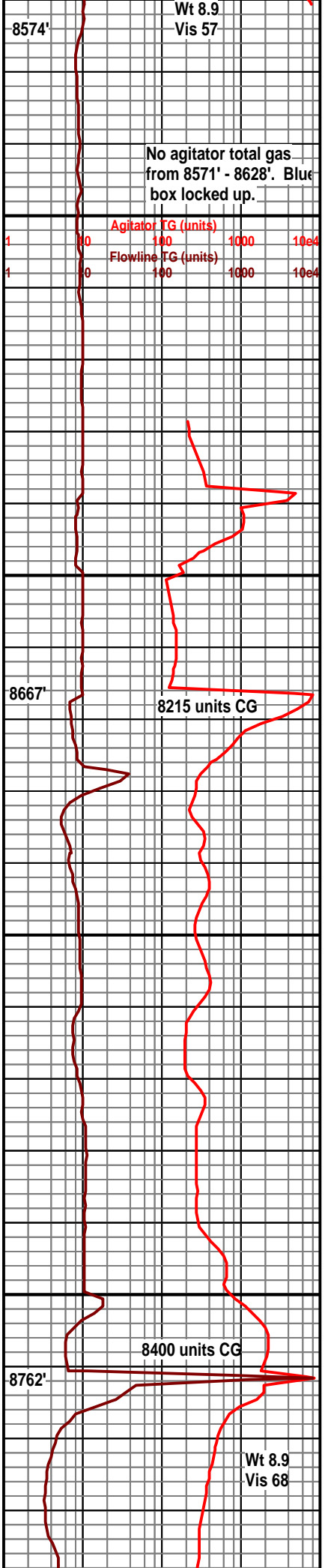
8700-8720 By-passing shale shakers. Ss aa, Sh aa, abnt LCM

8720-8740 By-passing shale shakers. Ss aa, Sh aa, abnt LCM

8740-8760 By-passing shale shakers. Ss aa, Sh aa, abnt LCM

8760-8780 By-passing shale shakers. Ss aa, Sh aa, abnt LCM

8780-8800 By-passing shale shakers.



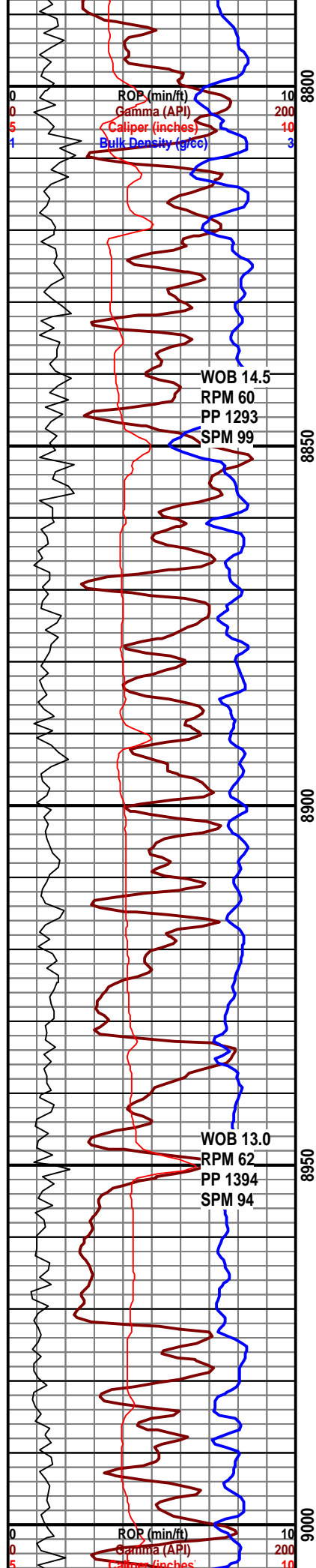
Wt 8.9  
Vis 57

No agitator total gas from 8571' - 8628'. Blue box locked up.

8215 units CG

8400 units CG

Wt 8.9  
Vis 68



8800-8820 By-passing shale shakers.  
Ss aa, Sh aa, abnt LCM

8820-8840 By-passing shale shakers.  
Ss aa, Sh aa, abnt LCM

8840-8860 By-passing shale shakers.  
Ss aa, Sh aa, abnt LCM

8860-8880 By-passing shale shakers.  
Ss aa, Sh aa, abnt LCM

8880-8900 By-passing shale shakers.  
Ss aa, Sh aa, abnt LCM

8900-8920 By-passing shale shakers.  
Ss aa, Sh aa, abnt LCM

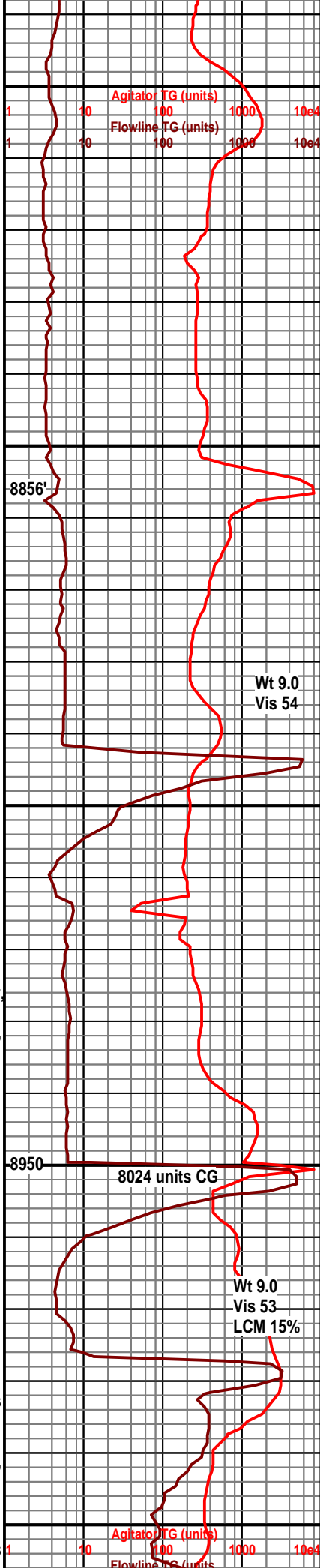
8920-8940 By-passing shakers, vps,  
recirculated, Ss wh-lt gy, s&p ip, vf-f gr,  
silty ip, sub rdd, mod-ply srt, v calc,  
mod frm, sub blkly, Sh med-lt gy, v silty,  
v calc, pyrc ip, sb plty, mod frm, abnt  
LCM

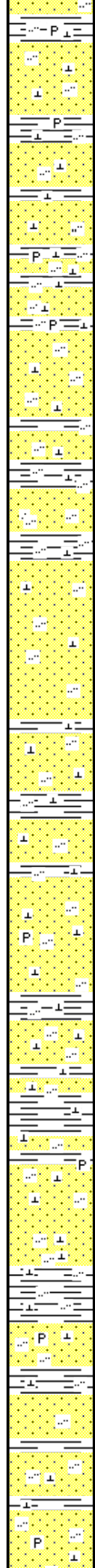
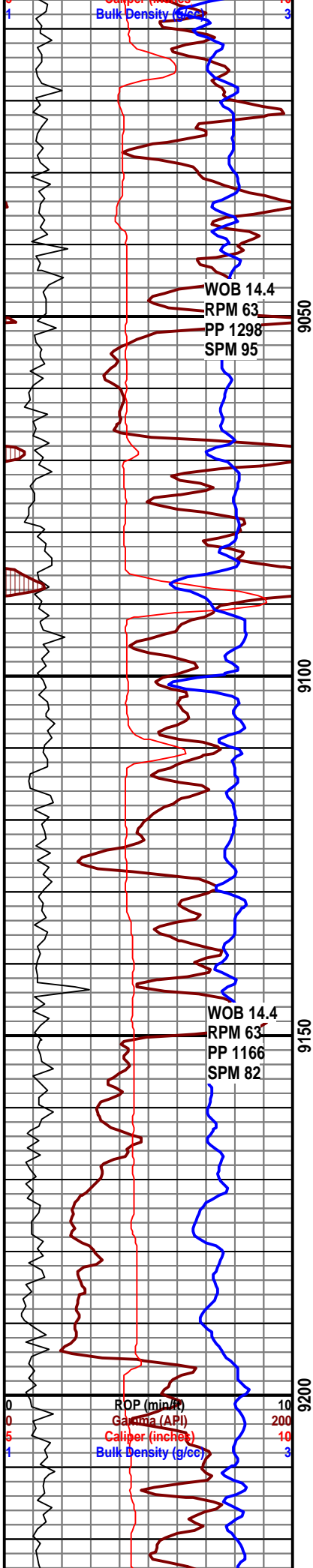
8940-8960 By-passing shakers, vps,  
recirculated, Ss aa, Sh aa, abnt LCM

8960-8980 By-passing shakers, vps,  
recirculated, Ss aa, Sh aa, abnt LCM

8980-9000 By-passing shakers, vps, Ss  
wh-lt gy, s&p ip, vf gr, silty ip, mod-ply  
srt, v calc, mod frm-frm, sub blkly, Sh  
med gy, v silty, v calc, sb plty, mod frm,  
abnt LCM

9000-9020 By-passing shakers, vps, Ss





wh-lt gy, s&p ip, vf-gr, slty ip, mod-pl  
srt, v calc, mod frm-frm, sub blk, Sh  
med gy, v slty, v calc, v pyrc ip, sb plty,  
mod frm, abnt LCM

9020-9040 By-passing shakers, vps, Ss  
aa, Sh aa, abnt LCM

9040-9060 By-passing shakers, sample  
improving, Ss wh-lt gy, s&p ip, vf gr,  
slty ip, mod-ply srt, v calc, mod  
frm-frm, sub blk, Sh med gy, v slty, v  
calc, pyrc ip, sb plty, mod frm, LCM

9060-9080 By-passing shakers, sample  
improving, Ss wh-lt gy, s&p ip, vf-f gr,  
slty ip, mod-ply srt, v calc, mod  
frm-frm, sub blk, Sh aa, LCM

9080-9100 By-passing shakers, Ss aa,  
Sh aa, occ LCM

9100-9120 By-passing shakers, Ss aa,  
Sh aa, occ LCM

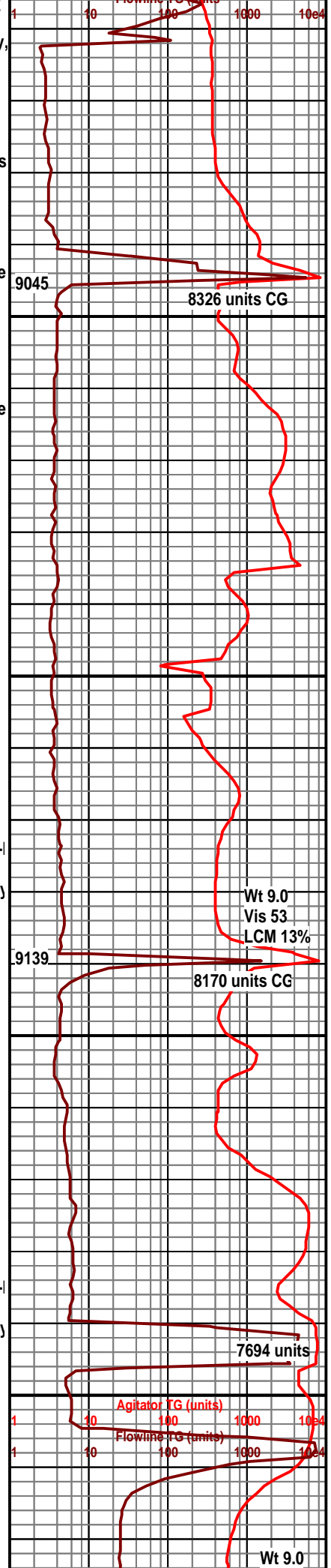
9120-9140 By-passing shakers, Ss wh-l  
gy, s&p ip, vf gr, slty ip, mod-ply srt, v  
calc, mod frm-frm, sub blk, Sh med gy  
v slty, v calc, tr pyrc, sb plty, mod frm,  
occ LCM

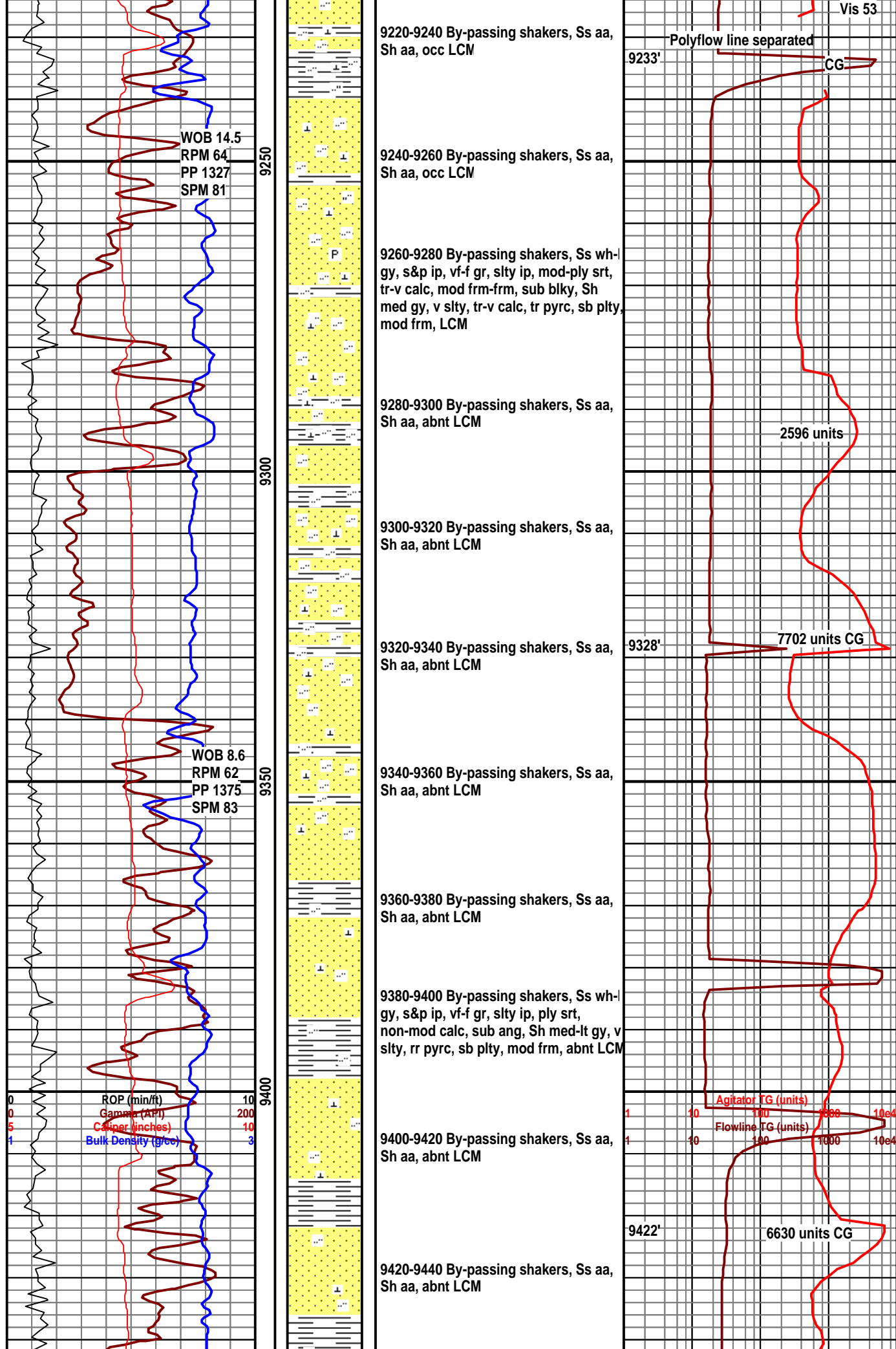
9140-9160 By-passing shakers, Ss aa,  
Sh aa, occ LCM

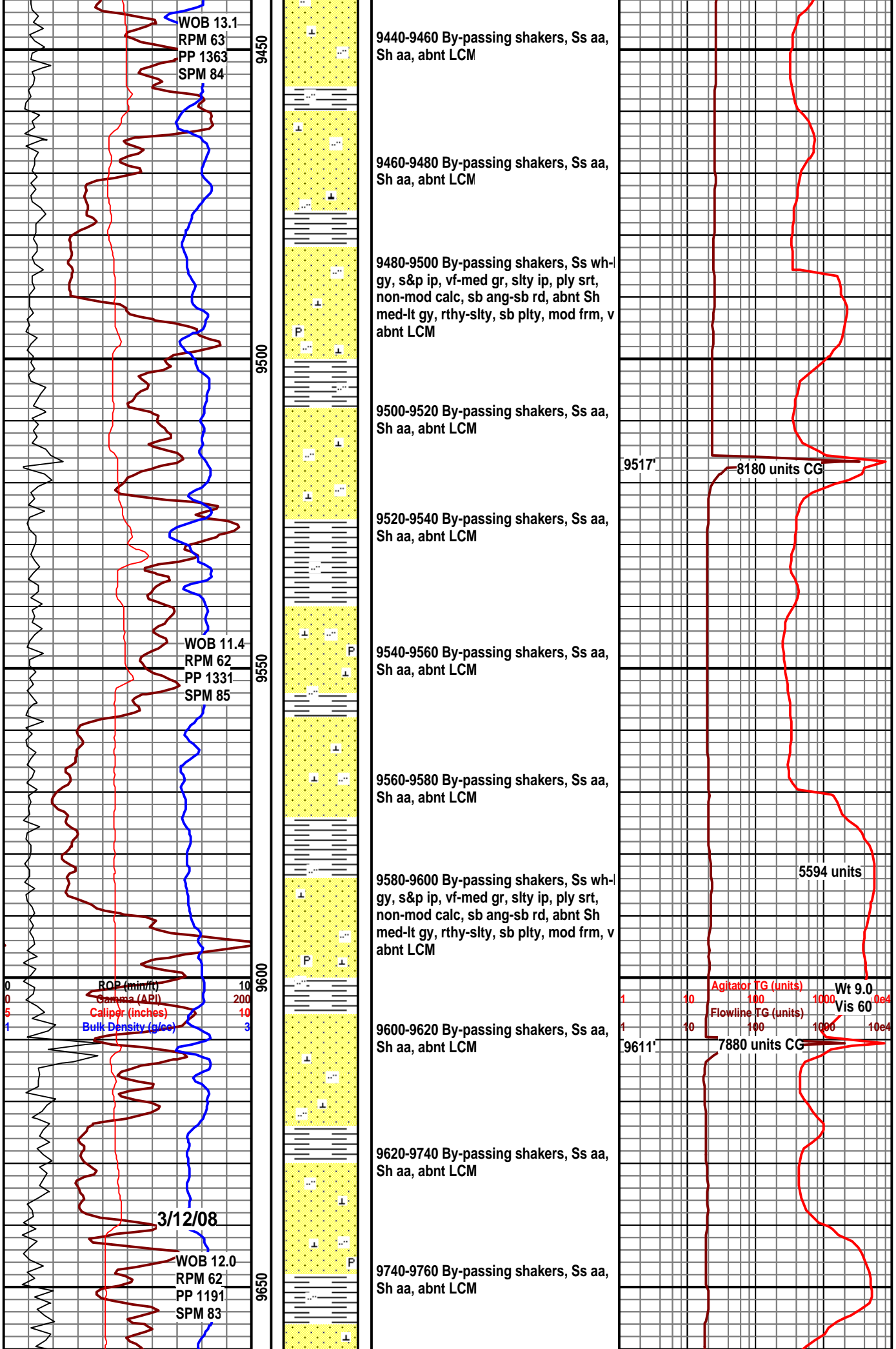
9160-9180 By-passing shakers, Ss aa,  
Sh aa, occ LCM

9180-9200 By-passing shakers, Ss wh-l  
gy, s&p ip, vf gr, slty ip, mod-ply srt, v  
calc, mod frm-frm, sub blk, Sh med gy  
v slty, v calc, tr pyrc, sb plty, mod frm,  
occ LCM

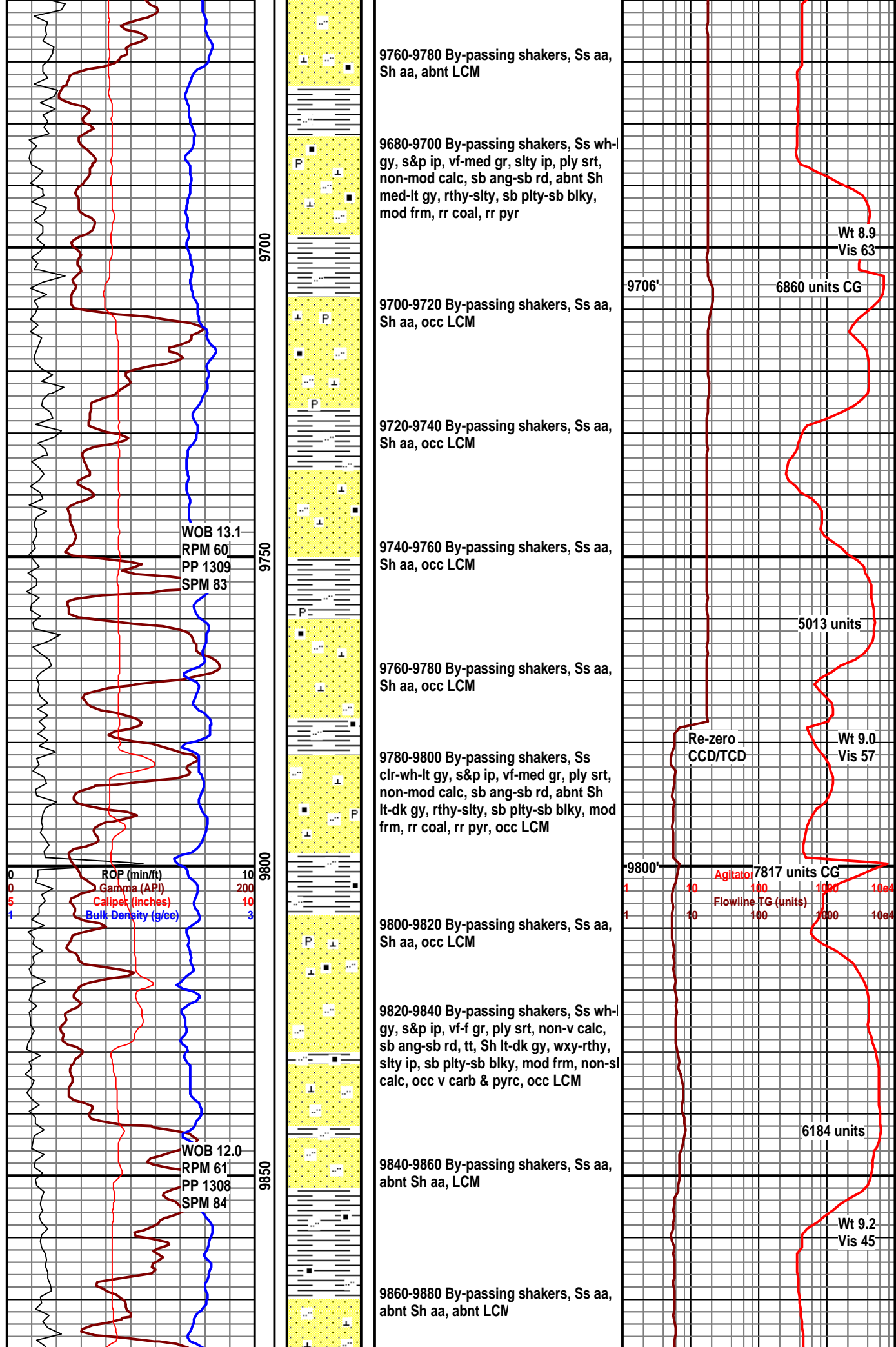
9200-9220 By-passing shakers, Ss aa,  
Sh aa, occ LCM



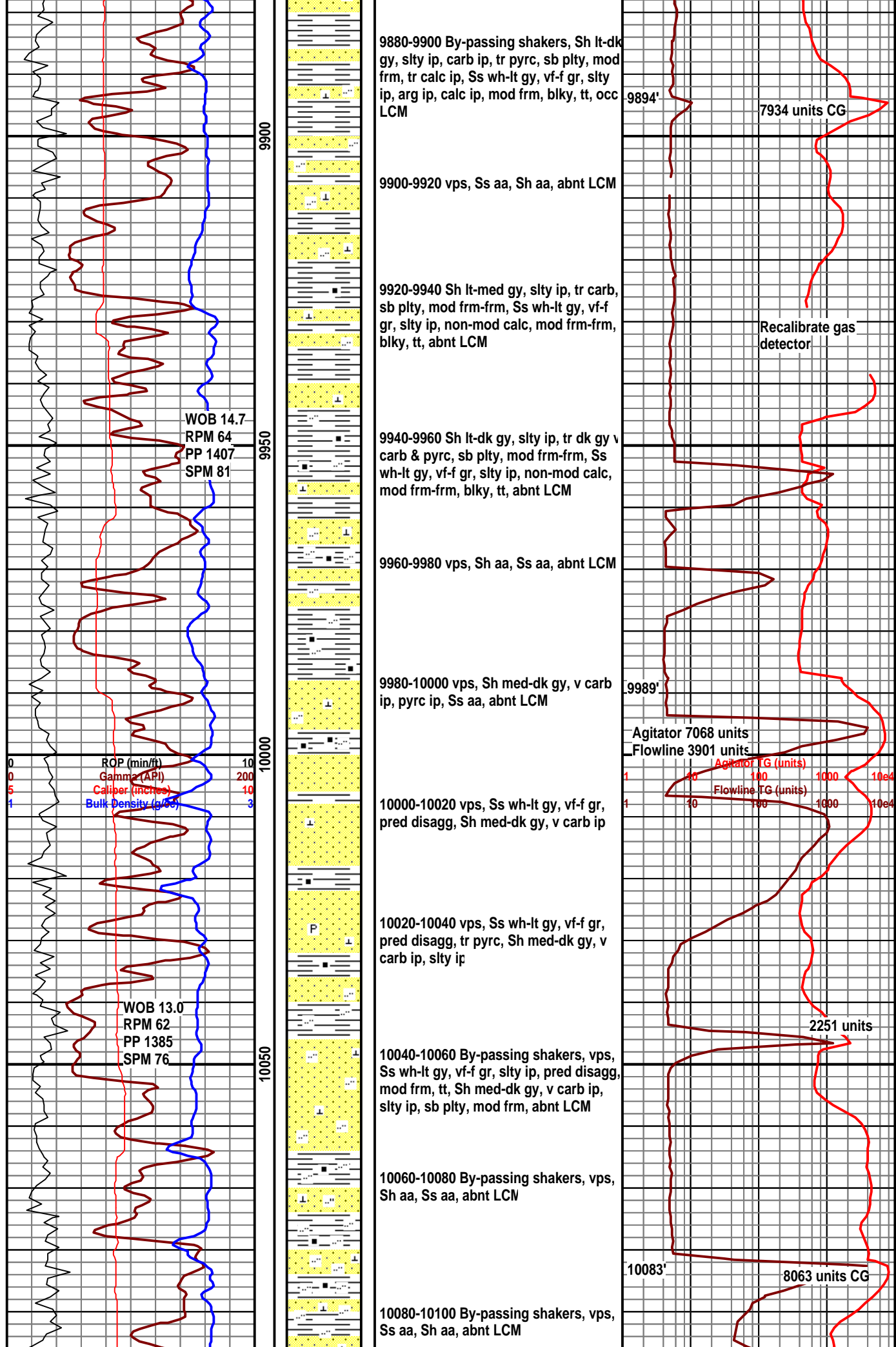


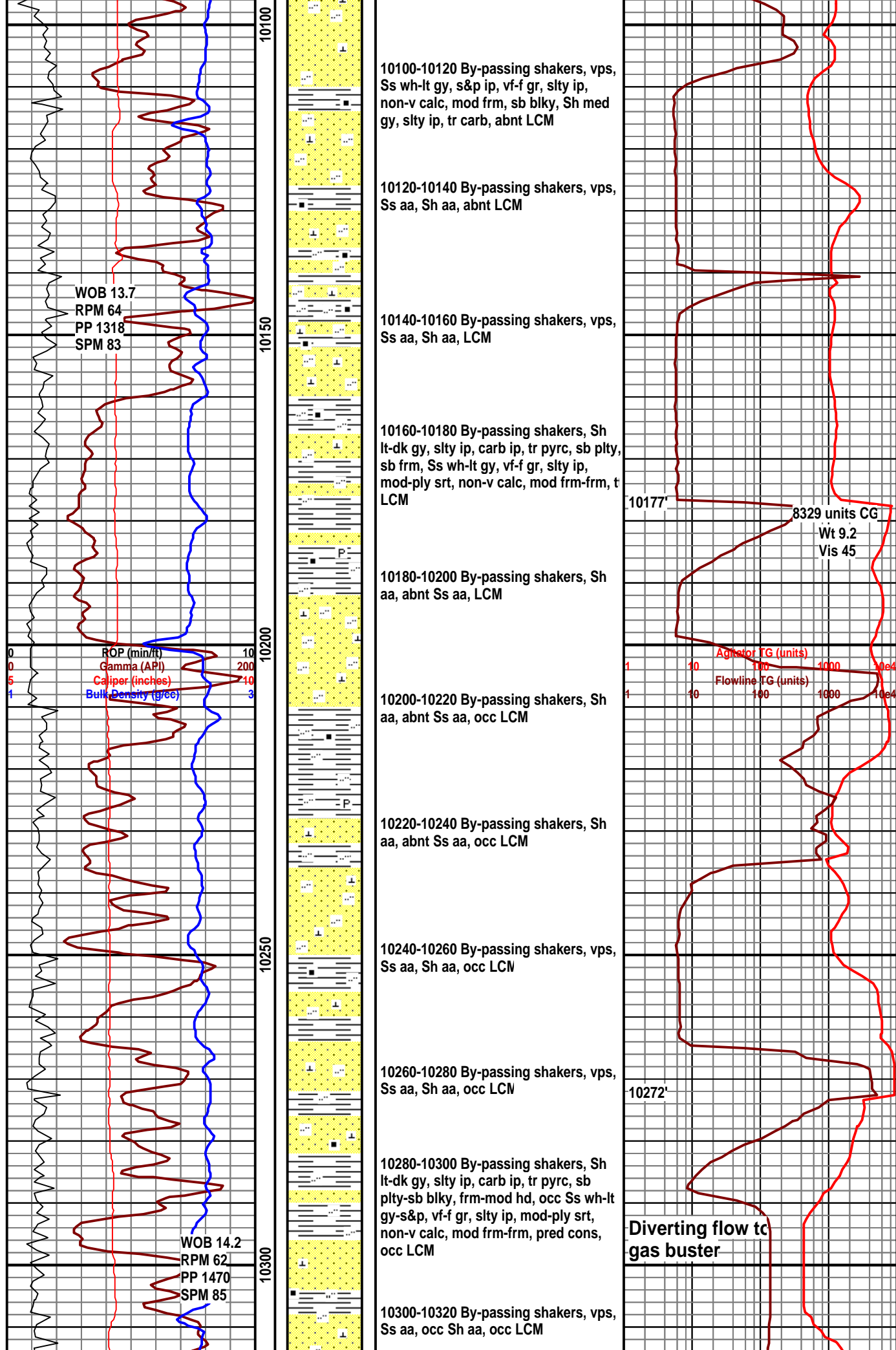


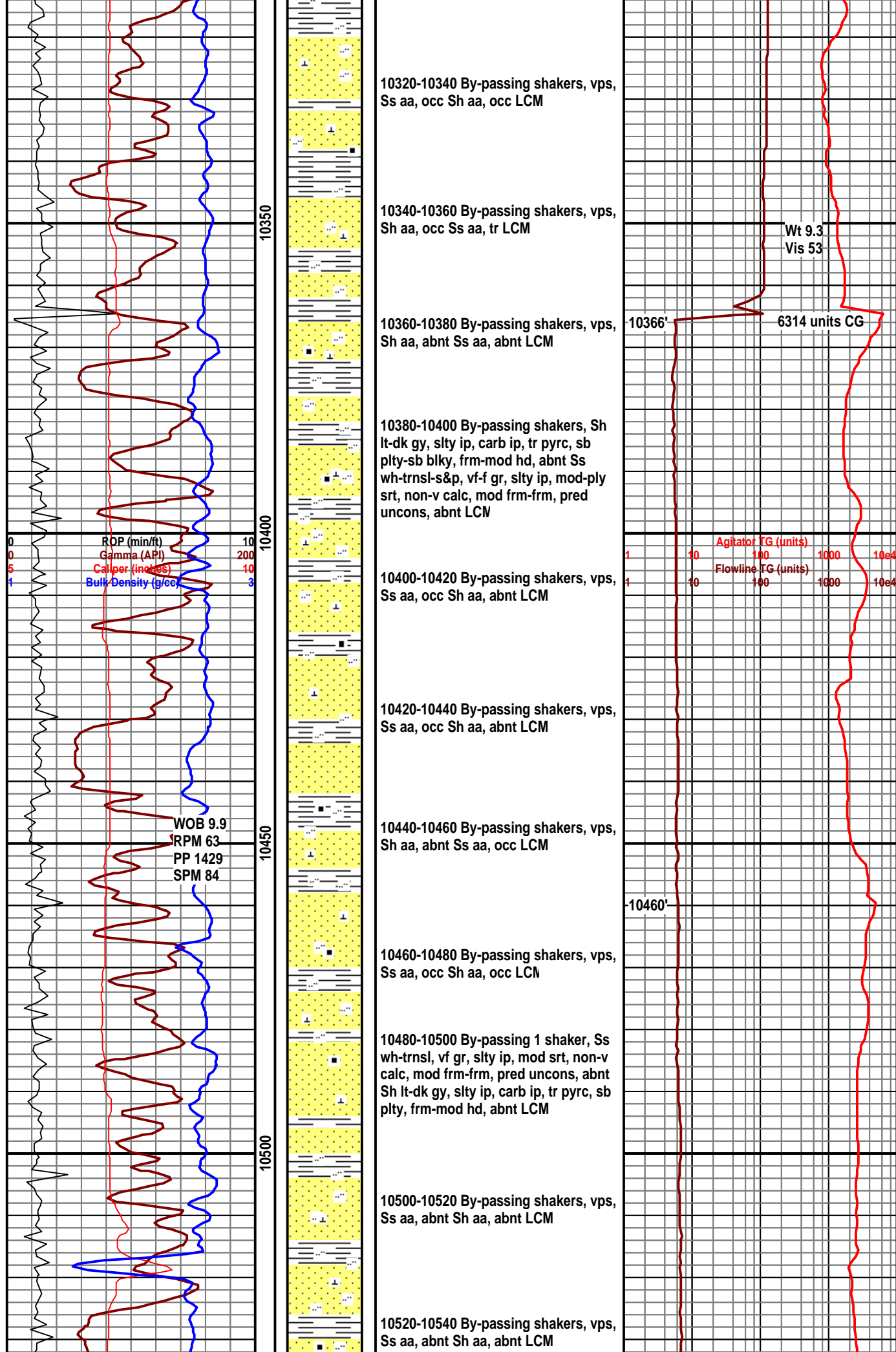


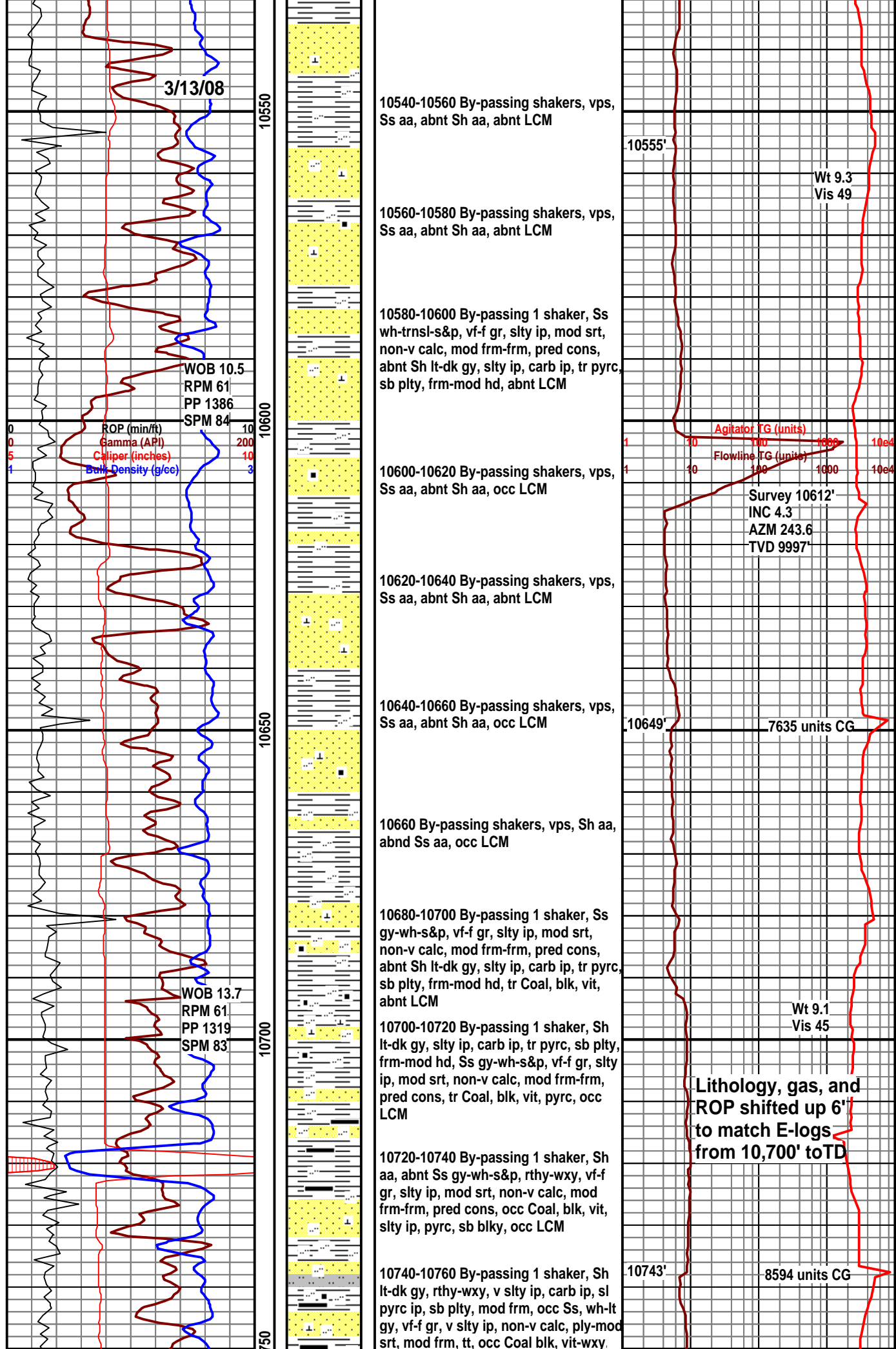


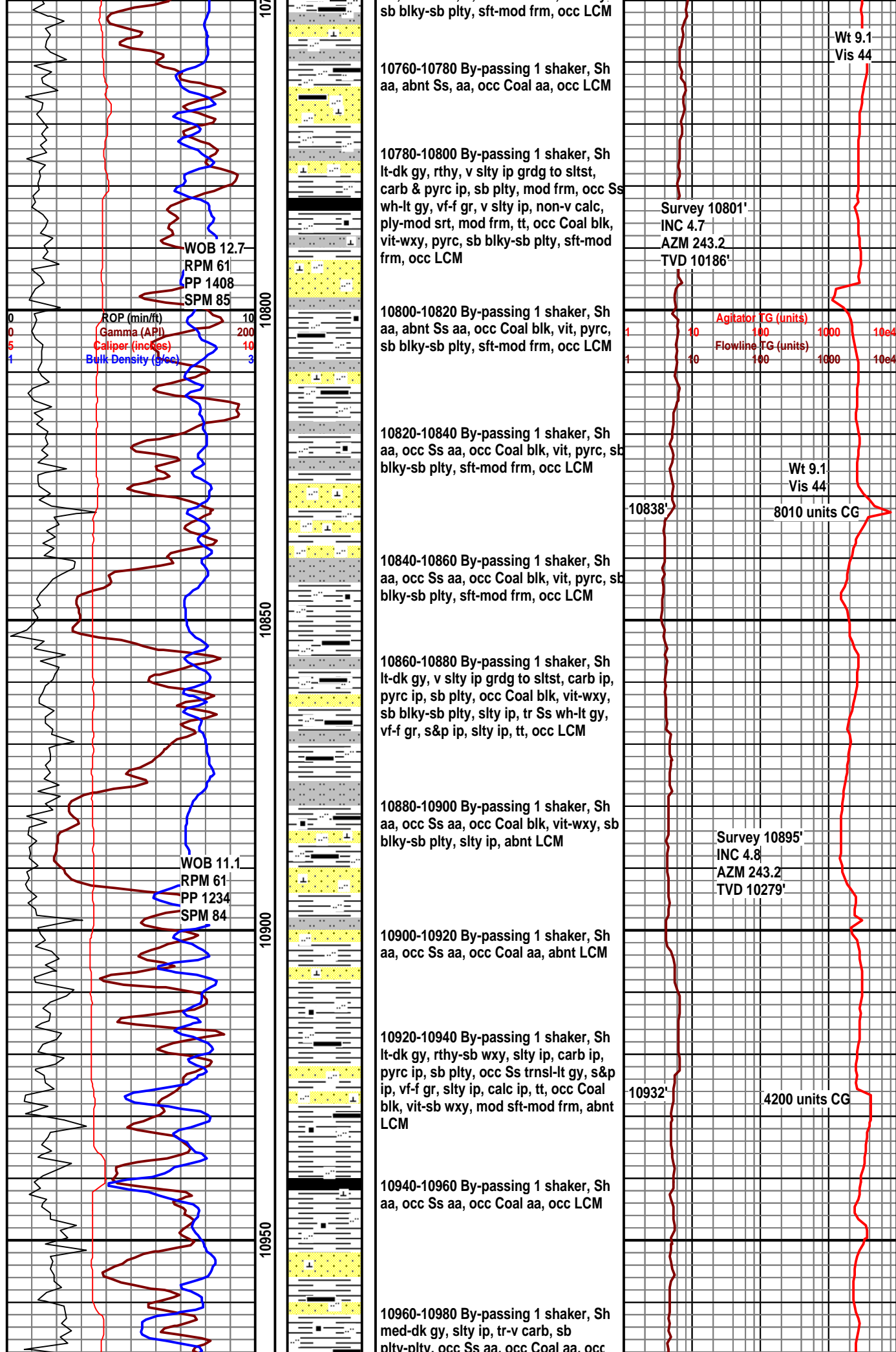




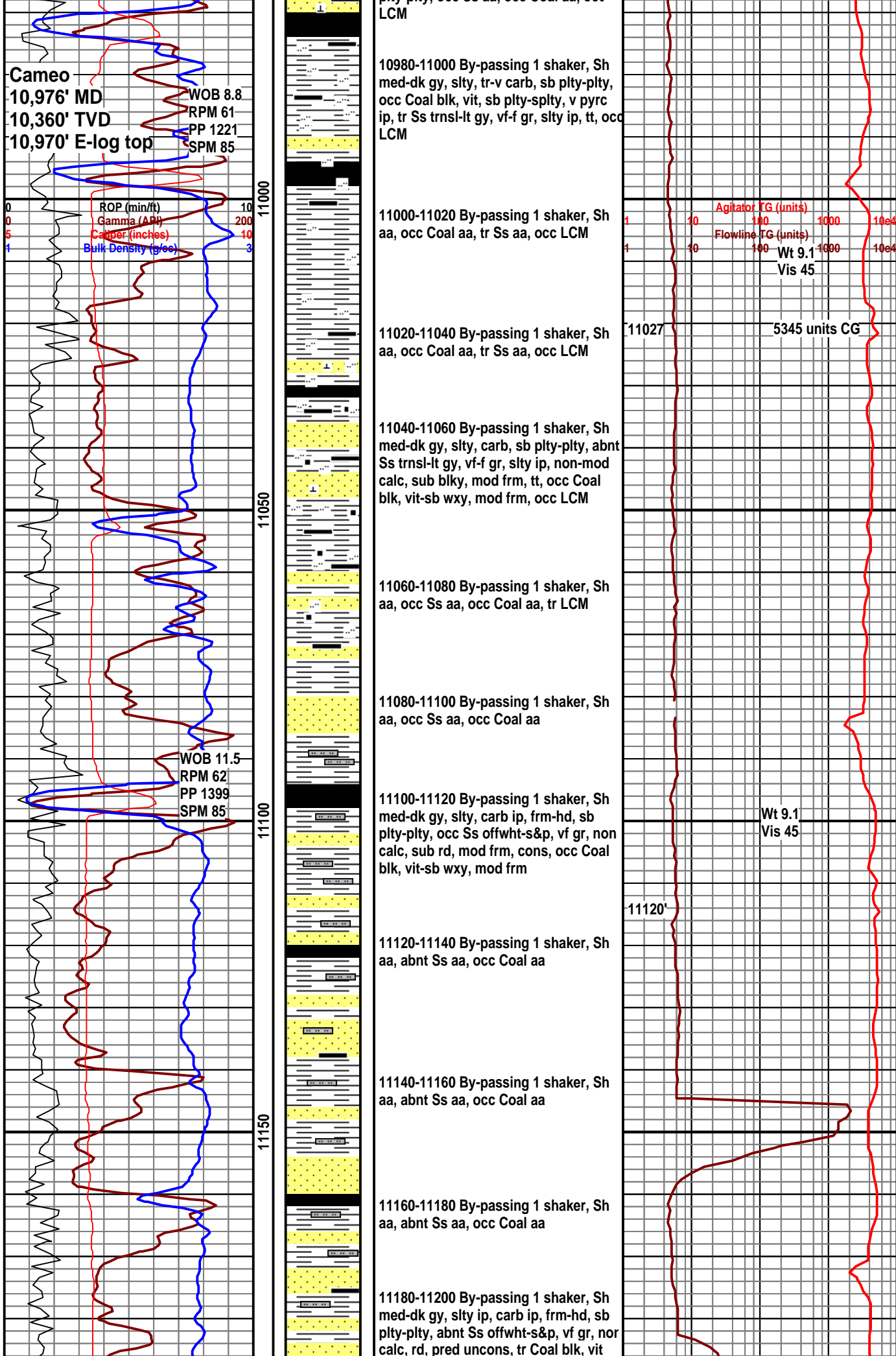




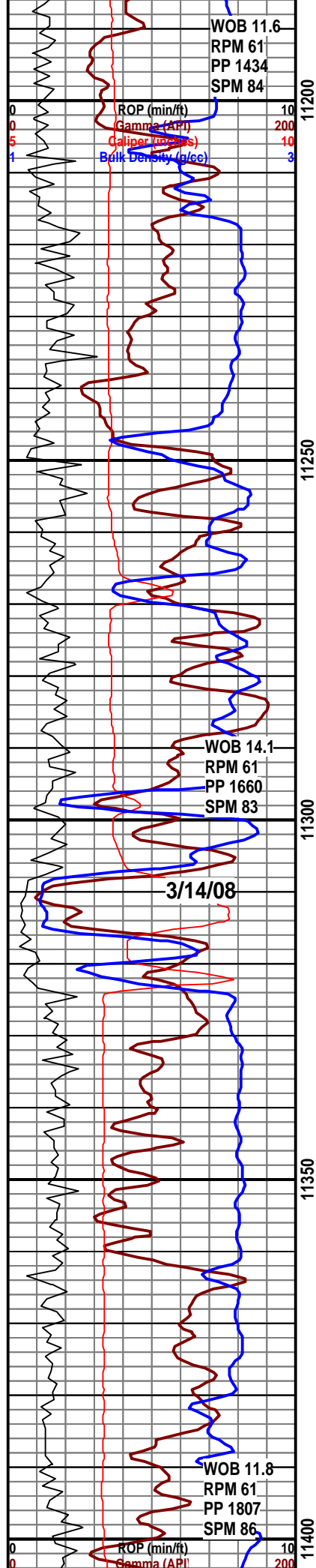












mod frm

11200-11220 By-passing 1 shaker,  
Sh aa, abnt Ss aa, tr Coal aa, rr pyr

11220-11240 By-passing 1 shaker,  
Sh aa, abnt Ss aa, tr Coal aa, rr pyr

11240-11260 By-passing 1 shaker, Sh  
med-dk gy, slty ip, frm-hd, sb  
plty-sb blk, occ Ss offwht-lt tan, vf gr,  
non calc, rd, pred cons, occ Coal blk,  
vit, mod frm, rr pyr

11260-11280 By-passing 1 shaker,  
Sh aa, occ Ss aa, occ Coal aa, rr pyr

11280-11300 By-passing 1 shaker,  
Sh aa, occ Ss aa, rr Coal aa

11300-11320 By-passing 1 shaker, Sh  
dk gy, carb ip, frm-hd, sb plty-sb blk,  
slty ip, occ Coal blk, vit, mod frm, tr Ss  
offwht-lt tan, vf gr, non calc, rd, pred  
cons, rr pyr

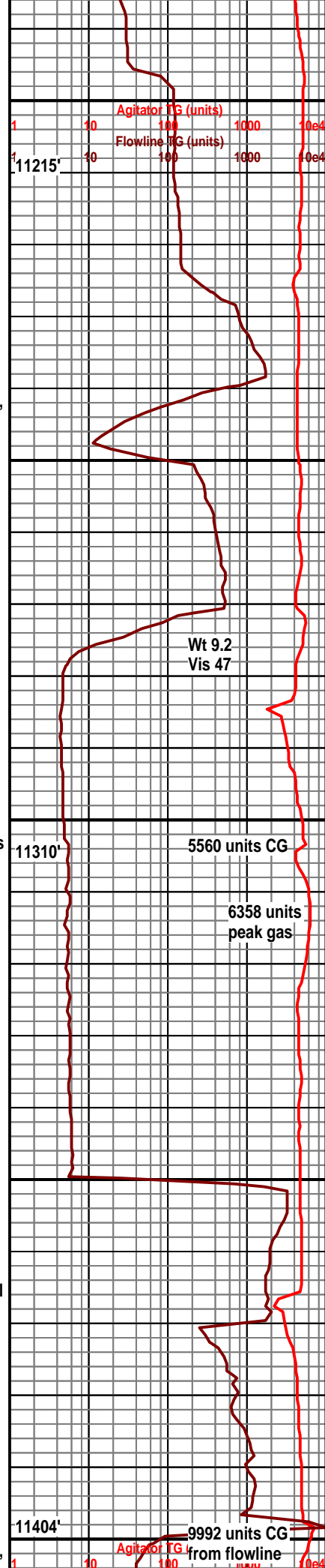
11320-11340 By-passing 1 shaker,  
Sh aa, occ Coal aa, tr Ss aa, rr py

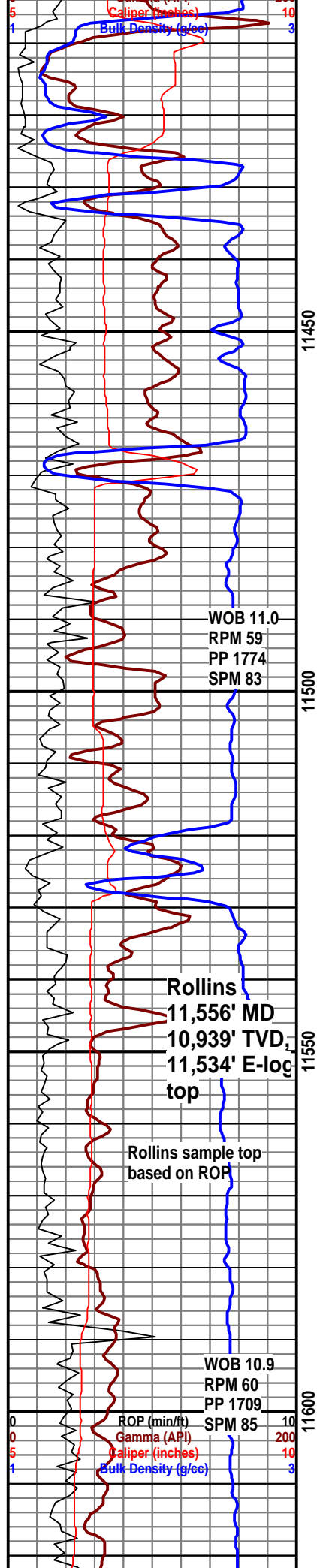
11340-11360 By-passing 1 shaker,  
Sh aa, occ Coal aa, occ Ss aa, rr py

11360-11380 By-passing 1 shaker, Sh  
med-dk gy, carb ip, frm-hd, sb plty-sb  
blk, slty ip, abnt Ss offwht-s&p, vf gr,  
non calc, sb rd, pred uncons, occ Coal  
blk, vit, mod frm, rr pyr

11280-11300 By-passing 1 shaker,  
Sh aa, occ Ss aa, abnt Coal aa, vis  
degassing, rr pyr

11400-11420 By-passing 1 shaker, Sh  
med-dk gy, carb ip, frm-hd, sb plty-sb  
blk, slty ip, non-sl calc, abnt Coal blk,





vit, mod frm, pyrc ip, vis degassing, occ Ss wht-trnsl, vf-f gr, non calc, sb rd, pred unconfs

11420-11440 By-passing 1 shaker, Sh aa, occ Ss aa, abnt Coal aa

11440-11460 By-passing 1 shaker, Sh aa, abnt Coal aa, tr Ss aa

11460-11480 By-passing 1 shaker, Sh aa, abnt Coal aa, tr Ss aa

11480-11500 By-passing 1 shaker, Sh aa, abnt Coal aa, tr Ss ai

11500-11520 By-passing 1 shaker, Sh med-dk gy, slty ip, carb ip, sb plty-plty, mod frm-frm, occ Coal blk, vit mod frm, tr Ss lt gy, vf-f gr, slty ip, ply-mod srt, tt, tr LCM

11520-11540 By-passing 1 shaker, Sh aa, Coal aa, tr Ss aa, tr LCM

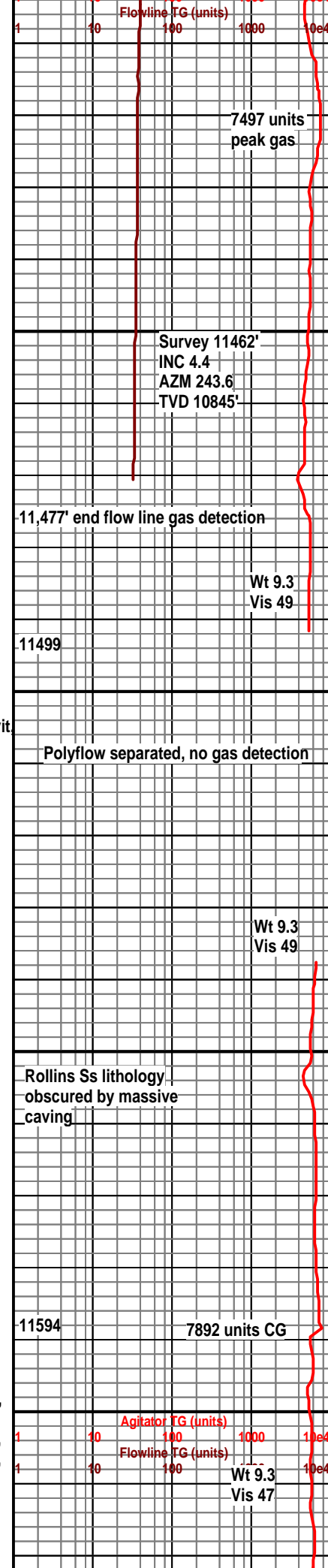
11540-11560 By-passing 1 shaker, Sh aa, occ Coal aa, tr Ss aa, tr LCM

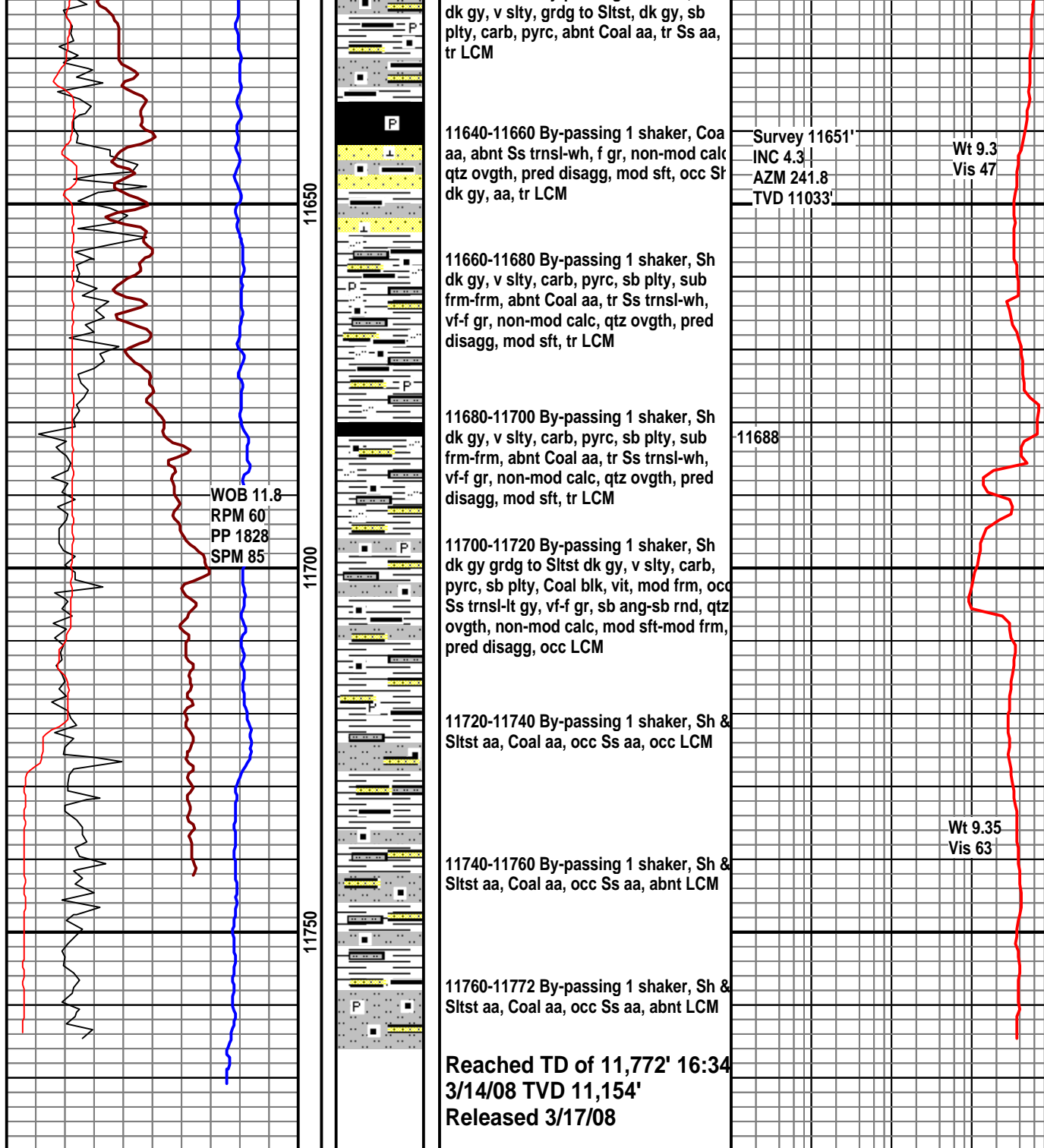
11560-11580 By-passing 1 shaker, Sh aa, grdg to Sltst dk gy, carb, occ Coal aa, tr Ss aa

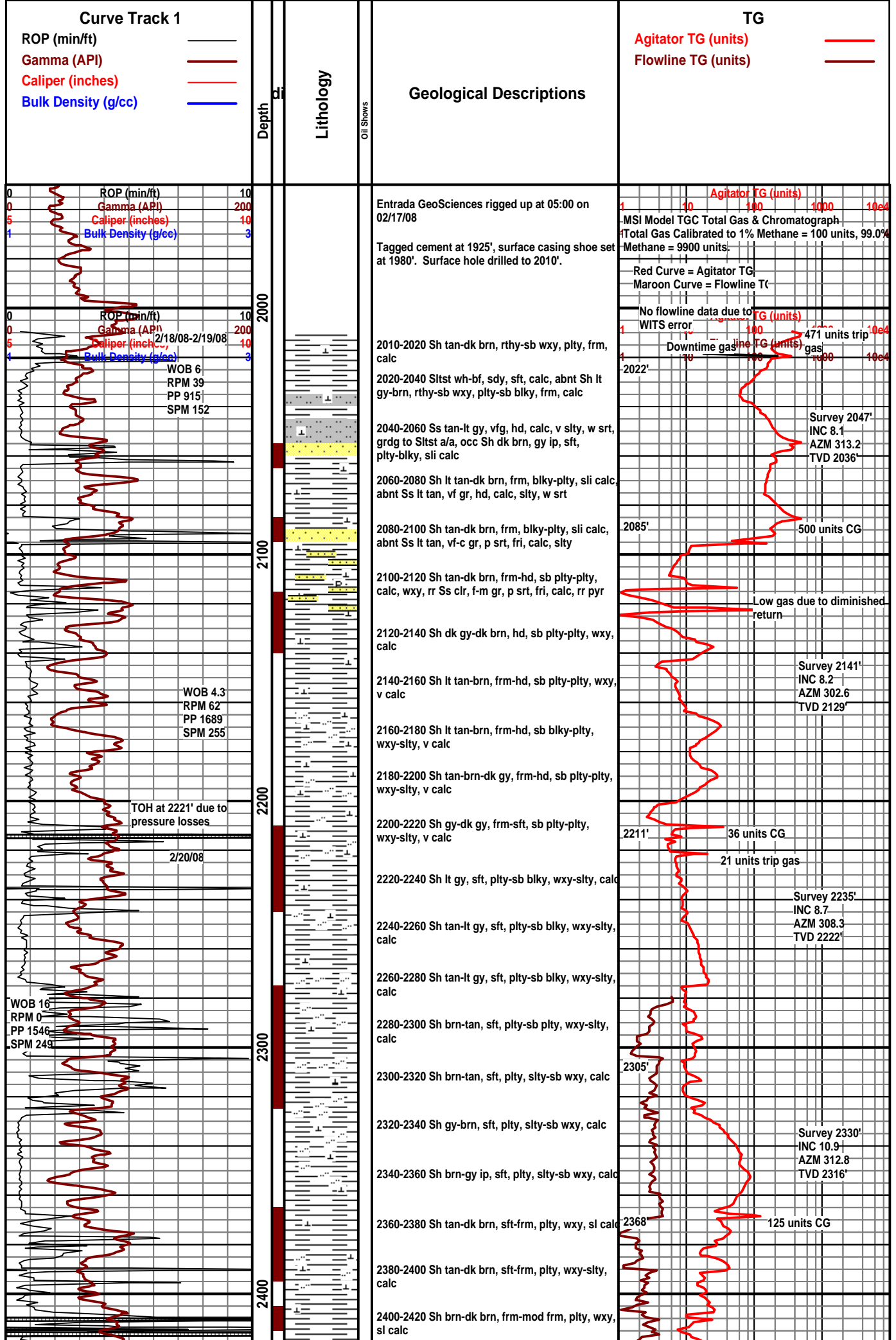
11580-11600 By-passing 1 shaker, Sh aa, grdg to Sltst dk gy, carb, occ Coal aa, tr Ss aa

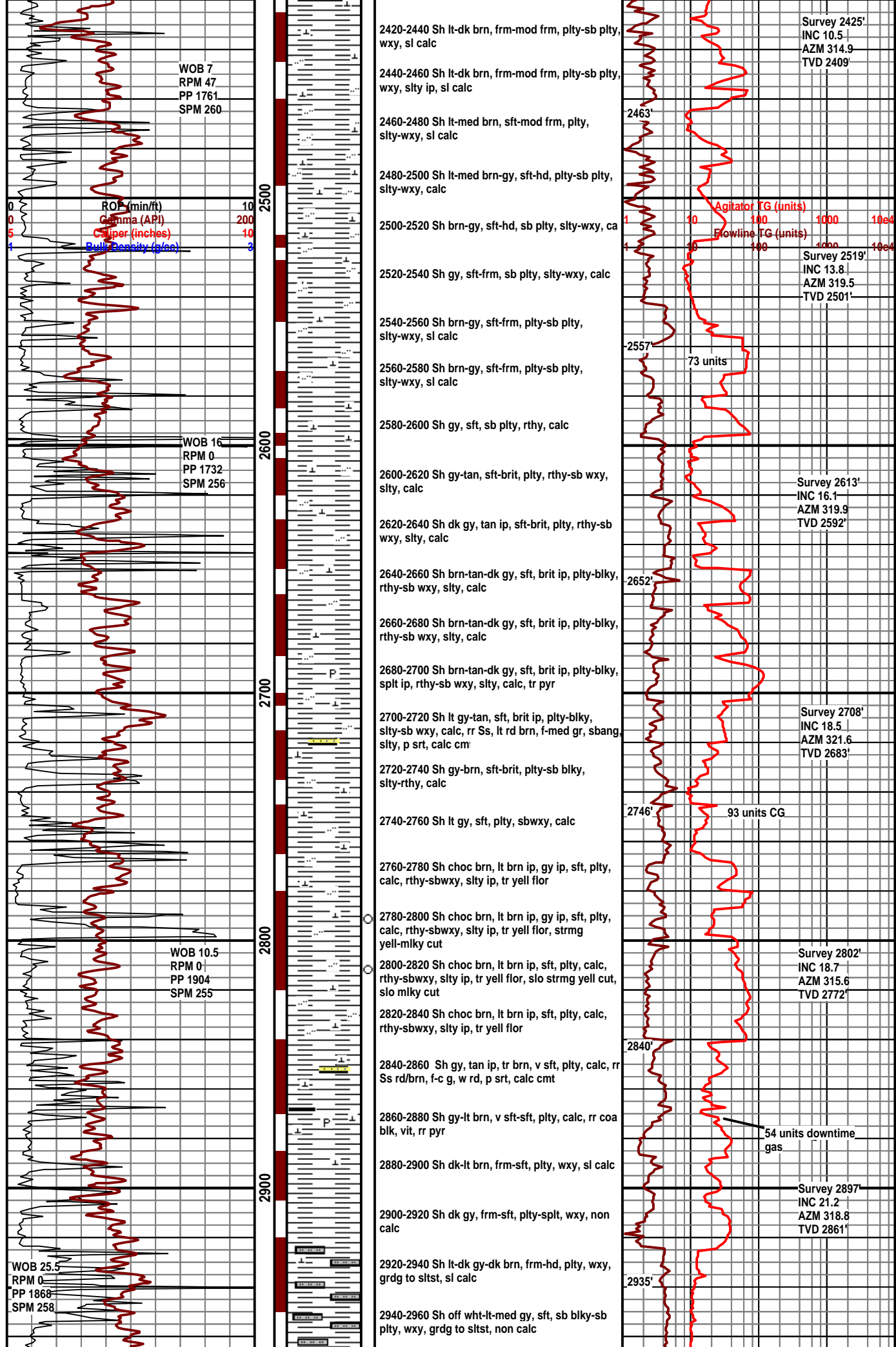
11600-11620 By-passing 1 shaker, Sh med-dk gy, v slty, grdg to Sltst, dk gy, sb plty, carb, pyrc, abnt Coal blk, vit, mod frm, pyrc, tr Ss trnsl-lt gy, vf-f gr, slty ip, sb ang, ply-mod srt, qtz ovgh, non-mod calc, tt, mod sft-mod frm, tr LCM

11620-11640 By-passing 1 shaker, Sh

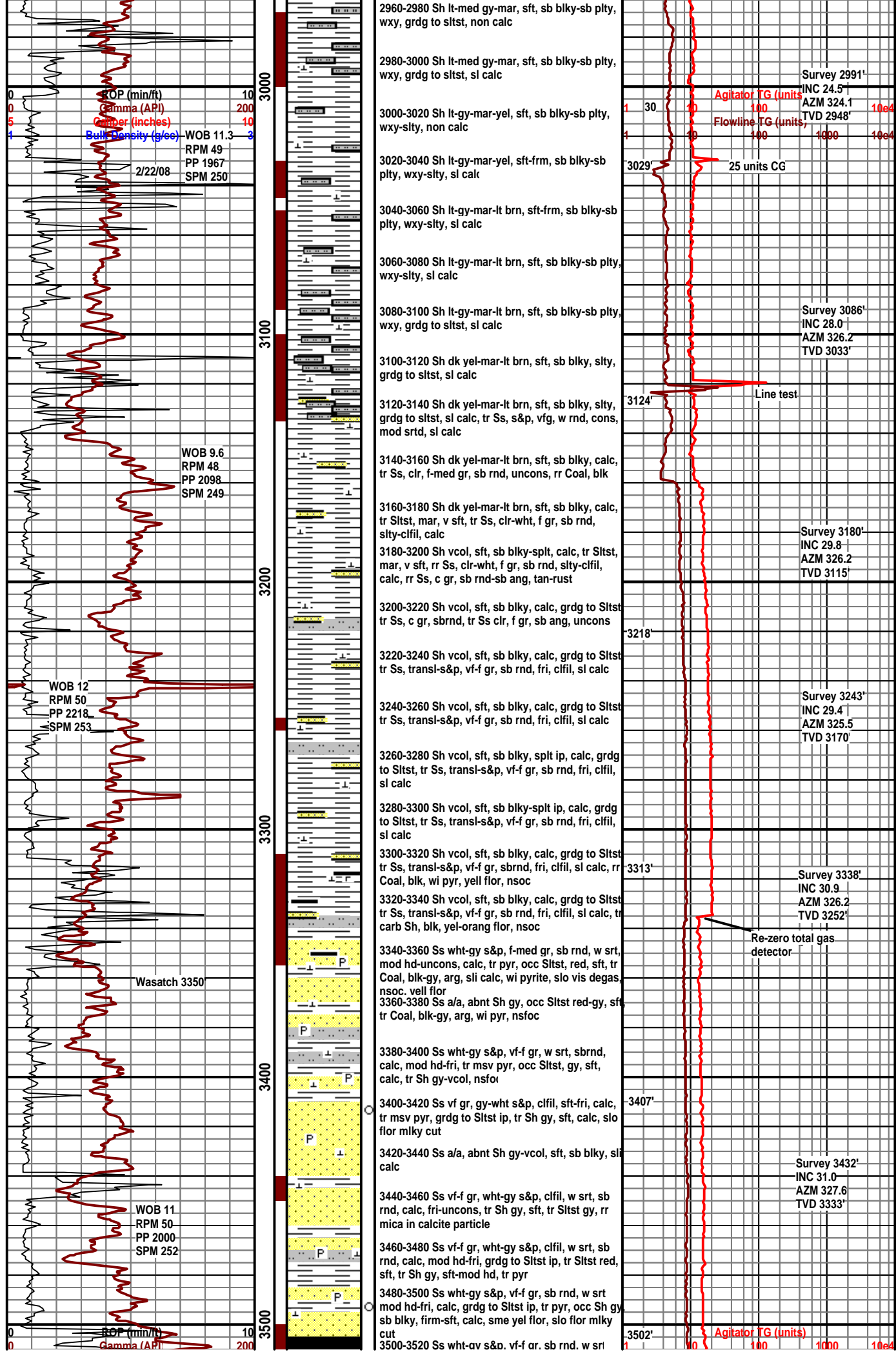






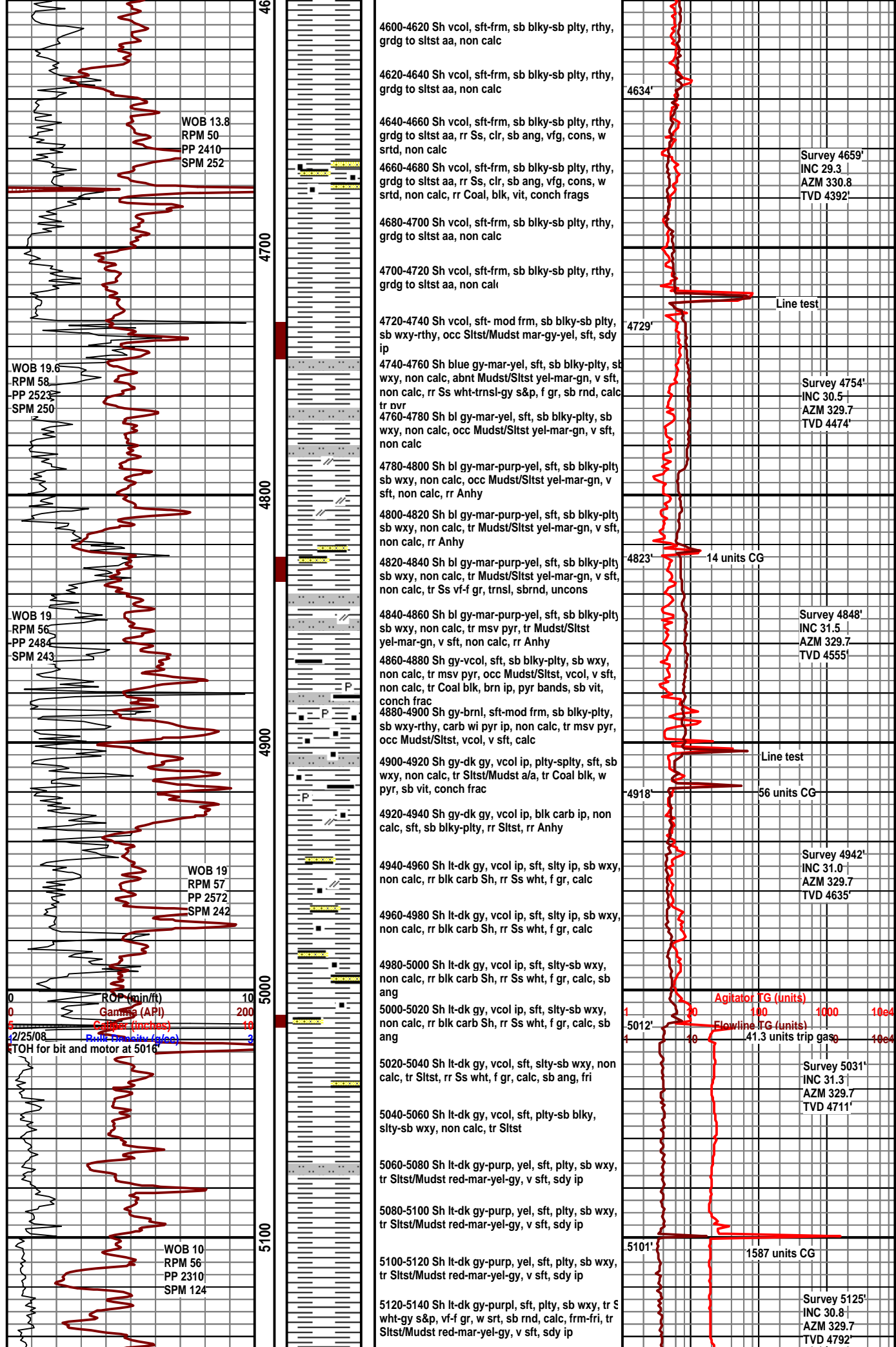




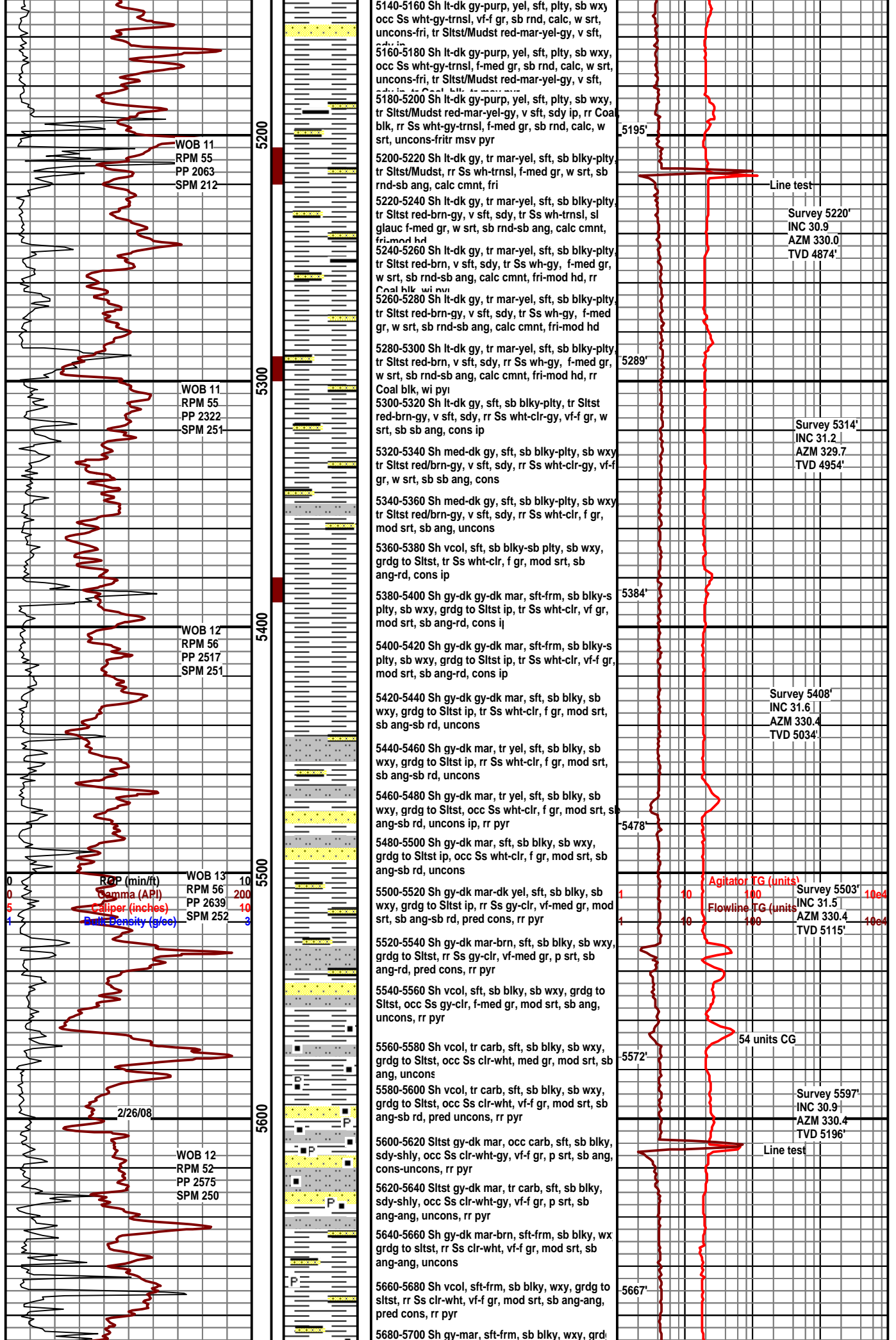




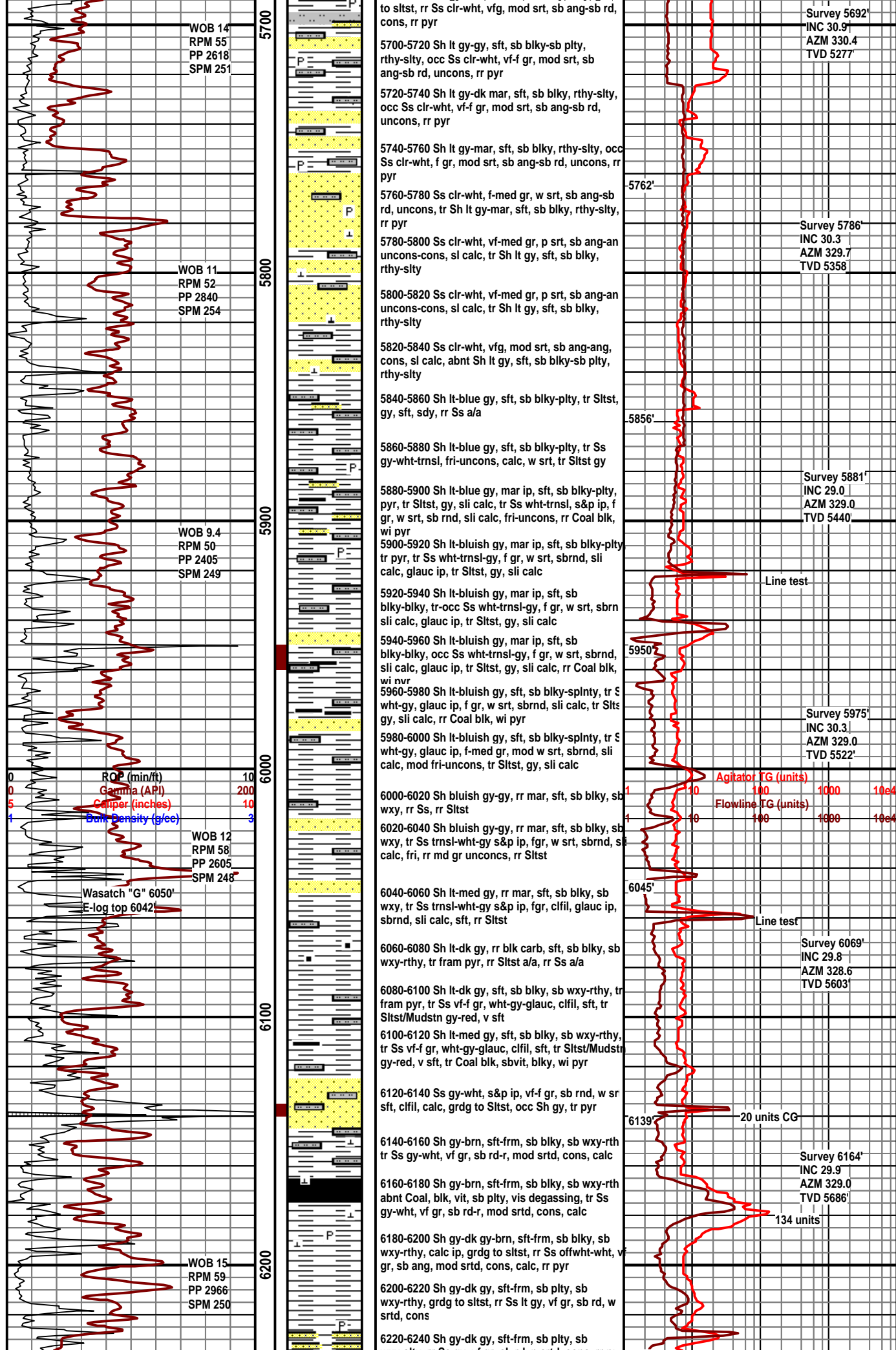


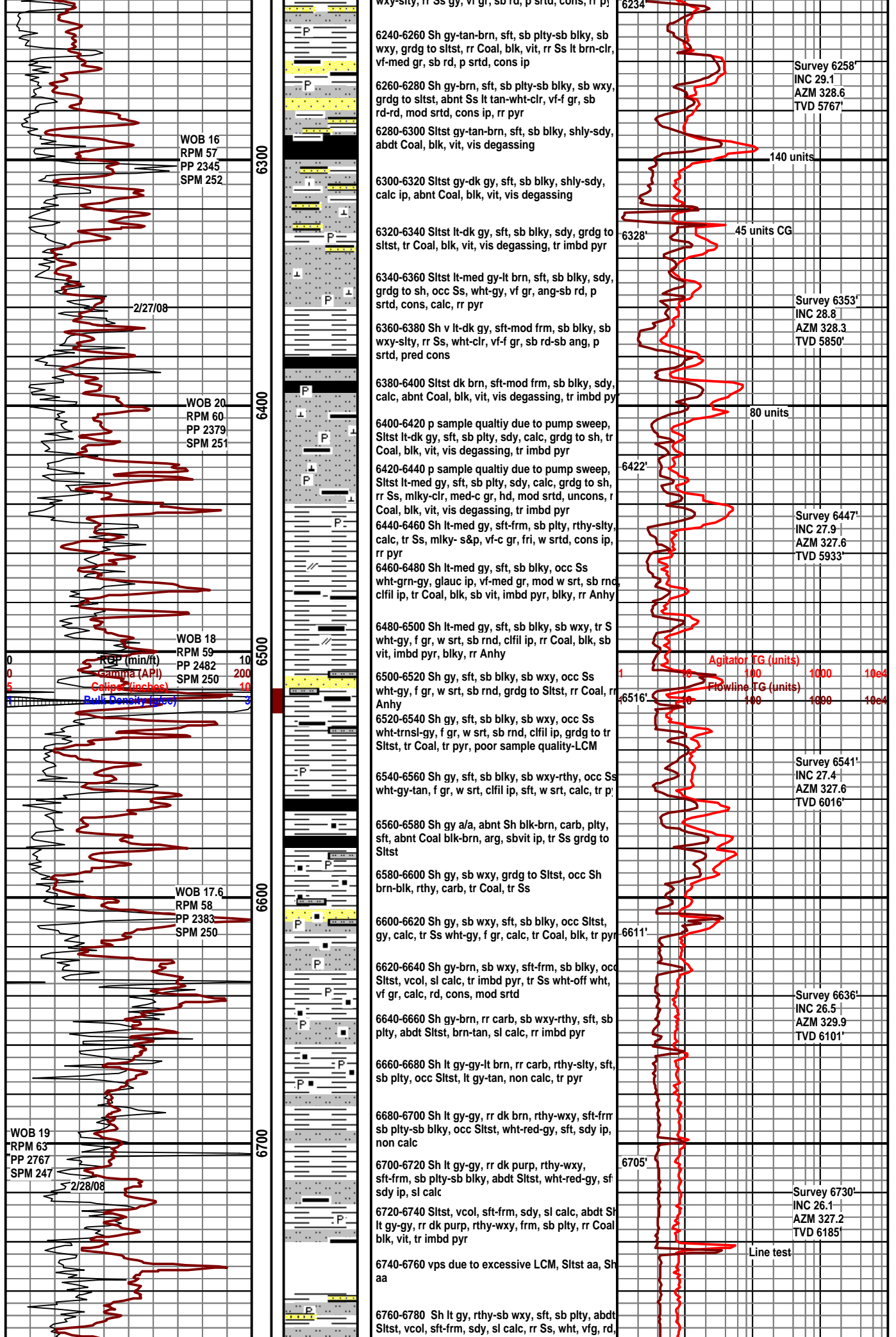


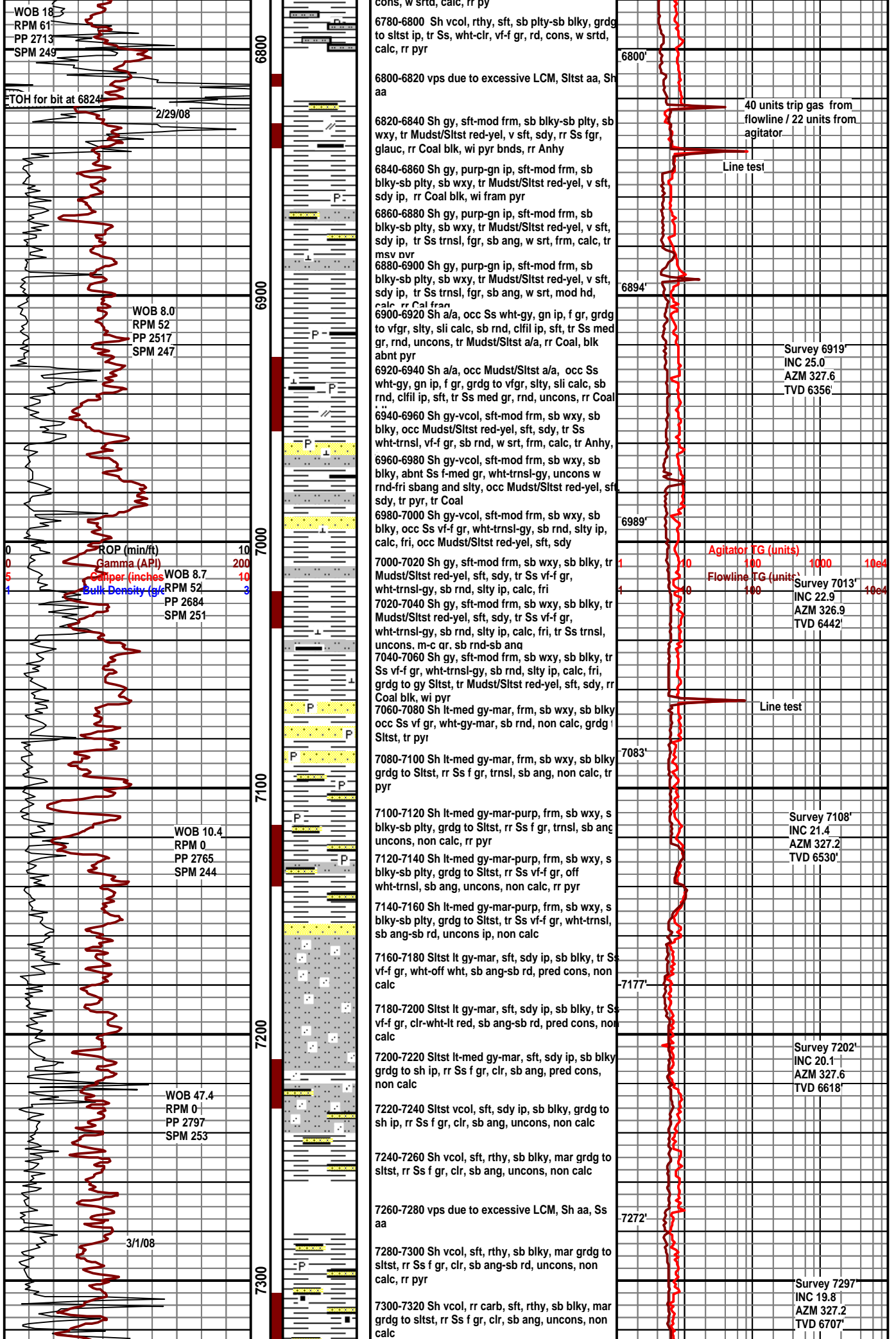




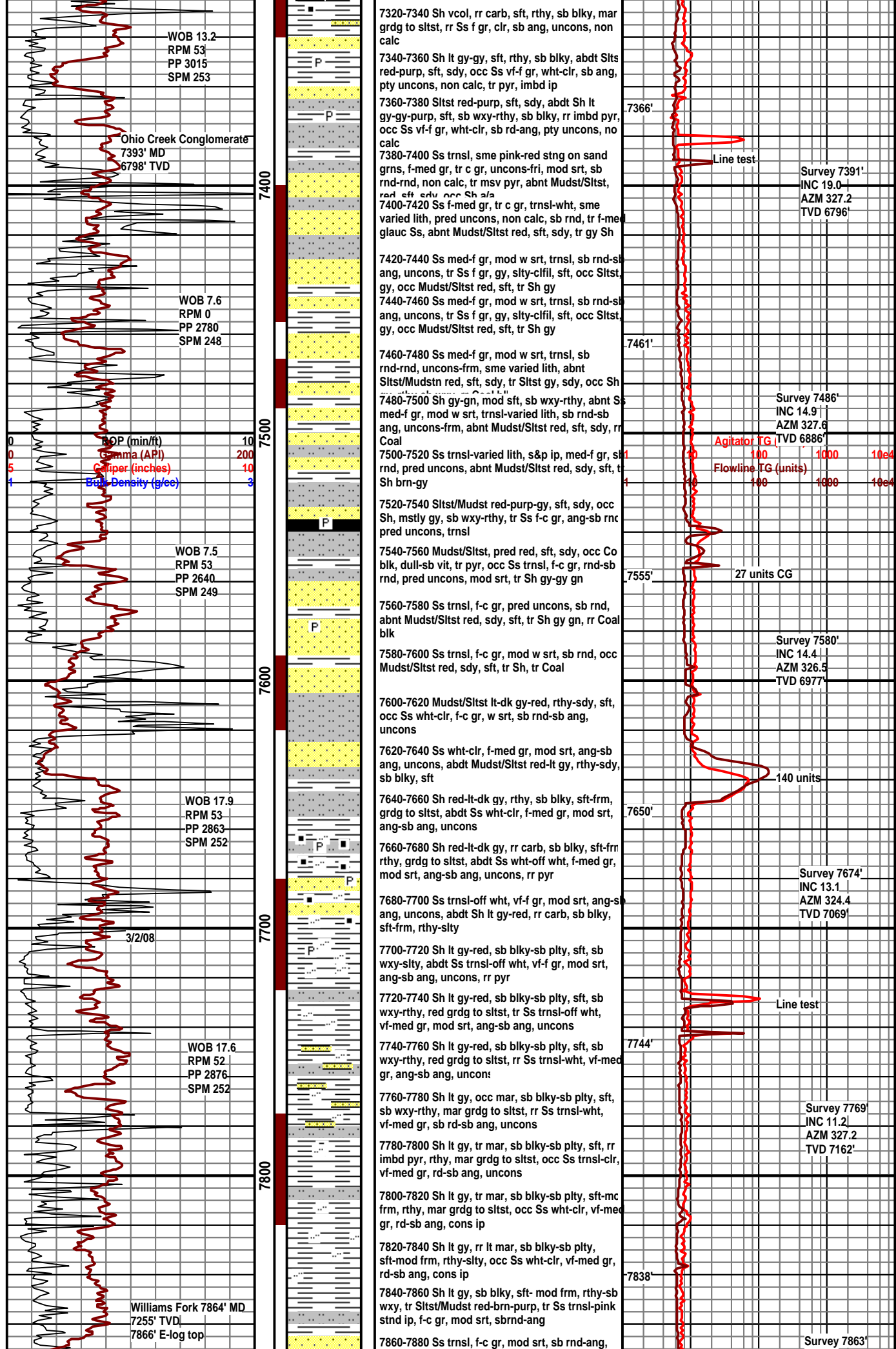


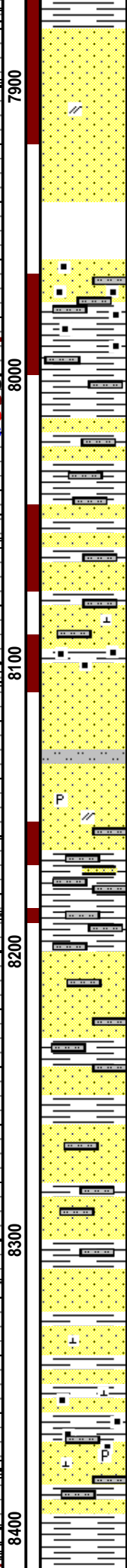
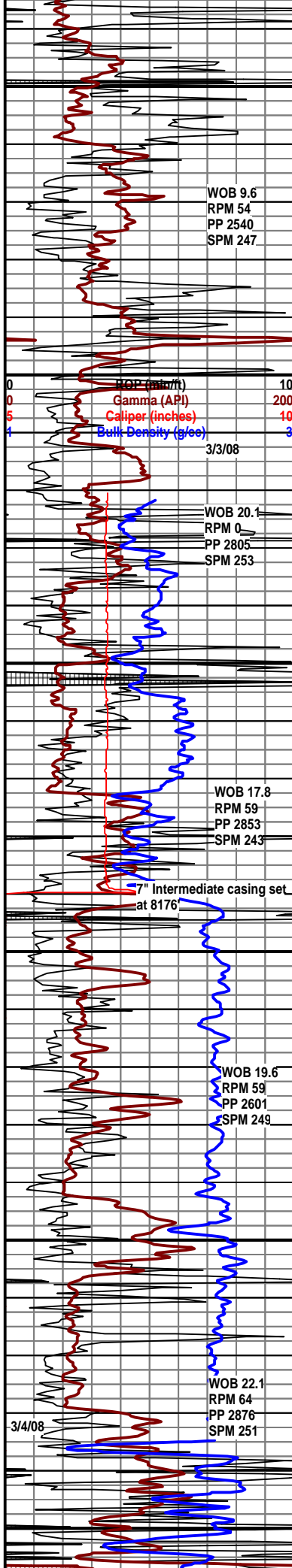












occ Sh lt gy-lt gn, sb blkly, sft-mod frm, rthy-sb wxy-slty, tr Sltst/Mudst red-brn-purp

7880-7900 Ss trnsf, f-c gr, p srt, sb rnd-ang, uncons, occ Sltst lt gn gy, milky, clayey, sdy, rr Mudst red-yl

7900-7920 Ss trnsf, med-c gr, w srt, sb ang-sb rnd, uncons, occ Ss wht-gy, vf-f gr, slty-clfil, w srt, sft, grdg to Sltst ip, s&p ip, glauc ip, tr Mudstn, tr Sh, rr Anhy

7920-7940 Ss trnsf, med-c gr, w srt, sb ang-sb rnd, uncons, occ Ss wht-gy, vf-f gr, slty-clfil, mod w srt, sft, grdg to Sltst ip, s&p ip, glauc ip, tr Sh gy-rr yel

7940-7960 vps, losing mud over shakers, nothing but LCM

7960-7980 Ss trnsf-wht, med-c gr, w srt, sb ang-ang, uncons, tr Ss wht-gy, vf gr, slty-clfil, mod srt, sft, grdg to Sltst ip, occ Sh gy-carb, sft, sb blkly, sb wxy

7980-8000 Sh lt gy, tr carb, sft, sb blkly, sb wxy, grdg to Sltst ip, occ Ss trnsf-wht, f-med gr, w srt, sb ang-ang, uncons

8000-8020 Sh lt gy, tr mar-yel, sft, sb blkly, sb wxy, grdg to Sltst ip, occ Ss trnsf-wht, f-med gr, mod srt, sb ang-ang, uncons

8020-8040 Sh lt gy, tr mar-yel, sft, sb blkly, sb wxy, grdg to Sltst ip, abdt Ss trnsf-wht, f-c gr, mod srt, sb ang-ang, uncons

8040-8060 Sh lt gy-lt brn, sft, sb blkly, sb wxy, grdg to Sltst ip, abdt Ss trnsf-wht-lt gy, vf-c gr, mod srt, sb ang-ang, uncons, lt gy cons

8060-8080 Ss wht-s&p-lt gy, tr trnsf, vf-med gr, mod srt, sb ang-ang, cons, trnsf uncons, abdt Sh lt-dk gy-lt brn, sft, sb ply-sb blkly, sb wxy, grdg to Sltst in

8080-8100 Ss wht-trnsf, f-c gr, mod srt, sb rnd-ang, uncons-fri, calc ip, grdg to tr Sltst gy, tr Coal blk, becoming carb Sh, rr Sh gy

8100-8120 Ss wht-trnsf, f-c gr, mod srt, sb rnd-ang, uncons-fri, tr Sh gy, splnty-pty, mod frm, rr Mudst rec

8120-8140 Ss wht-trnsf, f-c gr, rr vc qtz frag, mod-pr srt, sb rnd-ang, uncons-fri, grdg to tr Sltst, gy, tr Sh gy, splnty-pty, mod frm, rr Mudst red

8140-8160 Ss trnsf-wht, f-c gr, ang-sb rnd, uncons, mod w srt, tr pyr, rr Anhy, tr Sh gy-blk, carb ip, splnty, tr Mudst, red, sft, sdy

8160-8180 Sh lt-dk gy ip, blkly-sb blkly, mod sft-mod frm, grdg to Sltst ip, gy, sft, tr Mudst, rec sft, sdy, tr Ss f-c gr ip, trnsf-wht, uncons, tr Ss vf-fgr, gy, grdg to Sltst

8180-8200 Sh lt-dk gy, sb ply-sb blkly, mod sft-frm, grdg to Sltst ip, rr Mudst, red, sft, sdy, tr Ss f-med gr, trnsf-wht, uncons, rr Ss vfg, gy, sb ang

8200-8220 Ss f-c gr, trnsf-wht, sb ang-ang, uncons, occ Sh lt-dk gy, tr lt mar, sb ply-sb blkly, mod sft-frm, wxy, grdg to Sltst ip

8220-8240 Ss f-med gr, trnsf-clr, sb ang-sb rd, uncons, occ Sh lt-dk gy, sb ply-sb blkly, mod sft-frm, wxy-rthy

8240-8260 Sh lt-dk gy, tr lt mar, sb ply-sb blkly, mod sft-frm, wxy, mar grdg to Sltst ip, occ Ss vf-med gr, trnsf-wht, sb ang-sb rd, pred uncons

8260-8280 Ss f-med gr, trnsf-clr, sb rd, w srt, uncons, rr Sh lt-dk gy, tr lt mar, sb ply-sb blkly, mod sft-frm, wxy, mar grdg to Sltst ip

8280-8300 Ss vf-med gr, trnsf-clr, sb rd, w srt, uncons, occ Sh lt-dk gy, tr mar-purp, sb ply-sb blkly, mod sft-frm, wxy, mar-purp grdg to Sltst ip

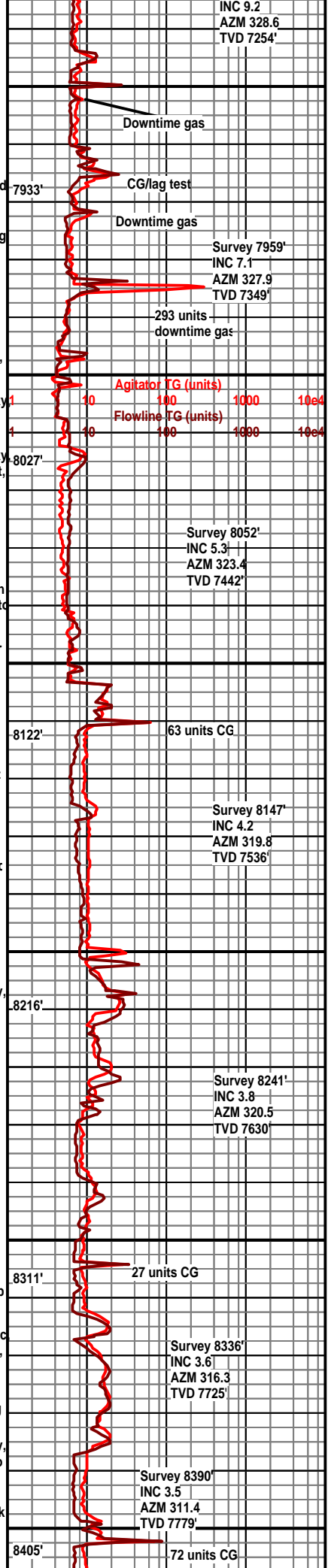
8300-8320 Ss f-med gr, trnsf-wht, sb ang, mod srt, uncons, rr Ss gy, vfg, cons, occ Sh lt gy, rr mar, sb ply-sb blkly, sft-frm, wxy, grdg to Sltst ip

8320-8340 Ss f-med gr, trnsf-wht, sb ang-sb rd, mod srt, uncons, rr Ss gy, vfg, cons, non-sl calc, occ Sh lt gy, rr mar, sb ply-sb blkly, sft-frm, wxy, grdg to Sltst in

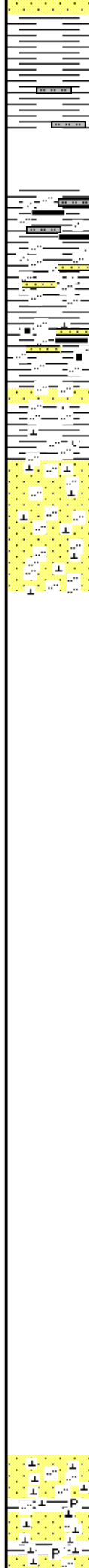
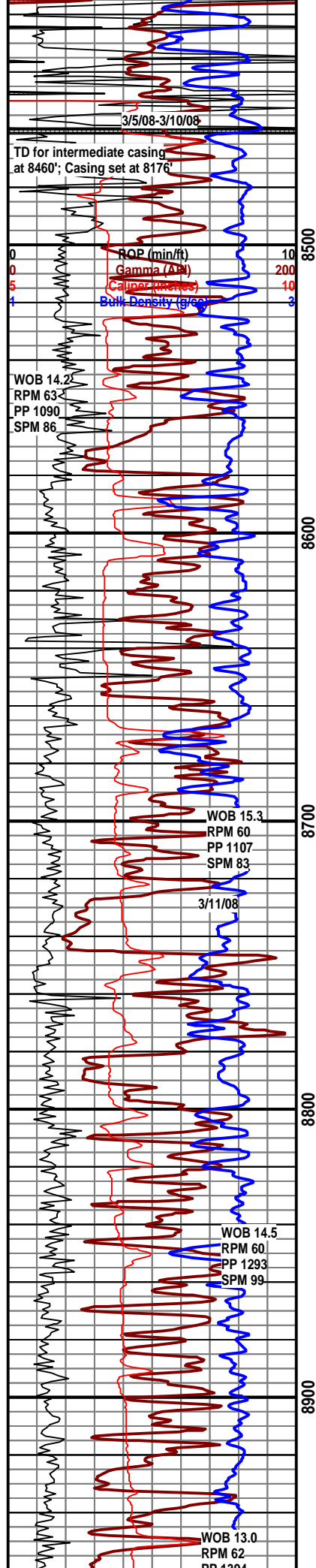
8340-8360 Ss f-med gr, trnsf-wht, sb ang-ang, mod srt, uncons, non-sl calc, tr Sh lt gy-mar, rr carb, sb ply-sb blkly, sft-frm, wxy-rthy, mar grdg to Sltst in

8360-8380 Ss vf-med gr, trnsf-wht, sb ang-ang, mod srt, pred uncons, non-sl calc, occ Sh lt gy, rr carb-mar, sb ply-sb blkly, sft-frm, rthy, grdg to Sltst, rr pyr

8380-8400 Ss f-med gr, trnsf-wht, sb ang-ang, mod srt, pred uncons, non-sl calc, abdt Sh lt-dk gy, rr mar, rr bn, sb ply-sb blkly, sft-frm, rthy, anq-sbrnd, mod srt, slty ip, abnt Sh, gy, slty ip, r







mar, sb pty-sb blkly, rthy, tr Stst yel-gn-red, v sf  
8420-8440 Sh lt-dk gy-bn, mod frm-sft, pty, dk  
bn-blk carb ip, abnt Sh lt gn gy, v sft, sb blkly,  
clayey, occ Stst, gy, sft, occ Ss trns-l-wht, f-c gr,  
mod srt, uncons-fri  
8440-8460 Sh lt-dk gy, blu-gn ip, sb blkly, mod  
sft-mod frm, occ Ss trns-l-wht, f-c gr, pred  
uncons, tr Stst, dk gy, sft  
8460-8480 No sample. No returns over shale  
shaker.  
8480-8500 Sh lt-med gy, v slty, sdy ip, sb blkly,  
mod sft, occ Coal, blk, mod sft, abnt LCM, occ  
cmt  
8500-8520 Sh lt-med gy, slty, sdy ip, pyrc ip, sb  
blkly-sb pty, mod sft, tr Ss lt gy, vf gr, slty, blkly,  
mod sft, rr Coal, blk, sft-mod sft, tt, occ LCM &  
8520-8540 Sh lt-med gy, med bl gy ip, slty, pyrc  
ip, sl calc, sub pty, sft-mod sft, sme Ss trns-l-wh-  
gy, vf gr, slty, occ fltg f gr qtz gr, blkly, mod sft, tr  
Coal blk, mod sft, abnt LCM  
8540-8560 Sh, med gy-med bl gy, slty, sft, sb  
pty-pty, occ Ss trns-lt gy, vf-f gr, slty ip, sb rdd,  
ply srt, mod sft, abnt LCM  
8560-8580 Sh aa, abnt Ss trns-lt gy, s&p ip, vf-f  
gr, slty ip, mod-v calc, sb rdd, ply srt, mod sft,  
LCM  
8580-8600 Ss trns-lt gy, s&p ip, vf gr, occ f gr,  
slty ip, sb rdd, ply-mod srt, mod-v calc, mod sft,  
occ Sh lt-med gy, slty ip, pyrc ip, LCM  
8600-8620 Ss aa, Sh aa, abnt LCM  
8620-8640 Ss aa, Sh aa, abnt LCM  
8640-8660 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8660-8680 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8680-8700 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8700-8720 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8720-8740 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8740-8760 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8760-8780 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8780-8800 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8800-8820 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8820-8840 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8840-8860 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8860-8880 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8880-8900 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8900-8920 By-passing shale shakers. Ss aa, Sh  
aa, abnt LCM  
8920-8940 By-passing shakers, vps, recirculated,  
Ss wh-lt gy, s&p ip, vf-f gr, slty ip, sub rdd,  
mod-pty srt, v calc, mod frm, sub blkly, Sh med-lt  
gy, v slty, v calc, pyrc ip, sb pty, mod frm, abnt  
8940-8960 By-passing shakers, vps, recirculated,  
Ss aa, Sh aa, abnt LCM

