

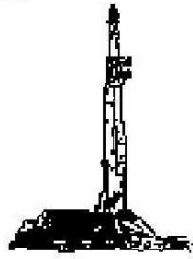
**GOOLSBY BROTHERS**  
and associates, inc.

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



Geological Wellsite  
Supervision

[www.goolsbybrothers.com](http://www.goolsbybrothers.com)



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

Well Name: Gobbler 13N-23HZ (Vertical Hole Section)  
Location: Section 22, T2N, R66W, Weld County, CO.  
License Number: API: 05-123-36478 Region: Wattenberg, DJ Basin  
Spud Date: July 15, 2013 Drilling Completed: July xx, 2013  
Surface Coordinates: NENE Sec 22 T2N R66W; 496' FNL 279' FEL  
Lat N 40.129545 Long W -104.754896  
Bottom Hole SWSW Sec 23 T2N R66W; xxx' FSL; xxx' FWL  
Coordinates:  
Ground Elevation (ft): 5085' K.B. Elevation (ft): 5101'  
Logged Interval (ft): 6950' To: xxxxx' Total Depth (ft): xxxxx' DMTD  
Formation: Pierre Sands/Shales, Niobrara B Target  
Type of Drilling Fluid: Water & Poly to 6884', LSND 6884'-xxxxxx'

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

**OPERATOR**

Company: Kerr-McGee Oil & Gas Onshore LP  
Address: Granite Tower - 1099 18th St, Ste 1800  
Denver, CO 80202  
CO Geologist, Tom Birmingham

**GEOLOGIST**

Name: Larry Goolsby, Ian Harris, & Andrew Krueger  
Company: Goolsby Brothers & Assoc. (GBA), Inc. ([www.goolsbybrothers.com](http://www.goolsbybrothers.com))  
Address: 575 Union Blvd.  
Suite 208,  
Lakewood CO. 80228

**E-Logs**

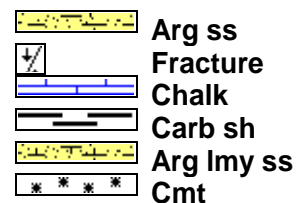
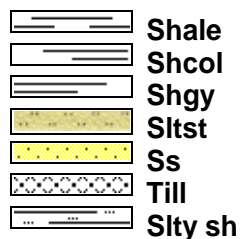
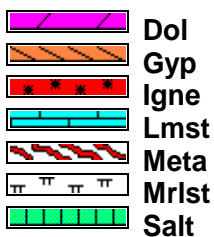
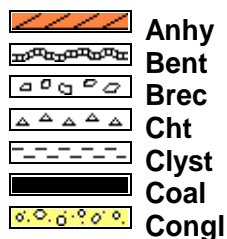
MWD GR 1046' - xxxxx'

## Comments

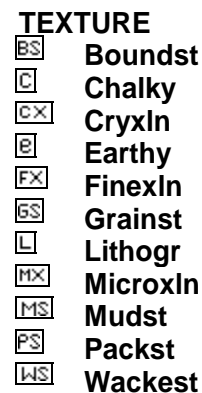
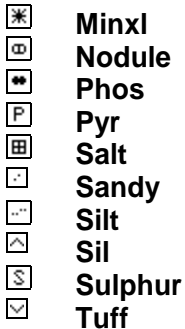
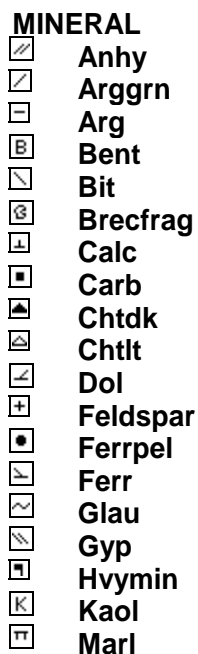
- 1) Drilling Contractor: Xtreme Drilling, Rig #20  
Toolpusher: Shaun Cox
- 2) Company Man: James Adkins, Charlie Daigle
- 3) Mud Company : AES  
Engineer: Ray Brewer
- 4) Directional Drilling: Baker Hughes  
Pulse Tool  
Drillers: Travis Wilcox & Scott Sanford  
MWD: Adam Schlenz & Octave Parfait
- 5) Gas Equipment: Mudlogging Systems Inc.  
by Terra Services  
Redbox # ML-333 & Ratcliff Agitator
- 6) Wellsite Geology: Goolsby Brothers & Associates

Geologists: Larry Goolsby, Andrew Krueger

## ROCK TYPES



## ACCESSORIES



## OTHER SYMBOLS

## POROSITY

[E] Earthy  
 [F] Fenest  
 [X] Fracture  
 [I] Inter  
 [M] Moldic  
 [P] Organic  
 [V] Pinpoint  
 [V] Vuggy

## SORTING

[W] Well  
 [M] Moderate  
 [P] Poor

## ROUNDING

[R] Rounded  
 [r] Subrnd  
 [a] Subang  
 [A] Angular

## OIL SHOW

[●] Even  
 [●] Spotted  
 [□] Ques  
 [□] Dead

## INTERVAL

[■] Core  
 [■] Dst

## EVENT

[▲] New bit  
 [▲] Rft  
 [▲] Off btm  
 [CN] Conn  
 [▲] Casing  
 [▲] Casing\_right

## ROP, GR, SP

ROP (min/ft) ———  
 MWD GR (API) ———  
 WOB (kLBS) ———

## Flare

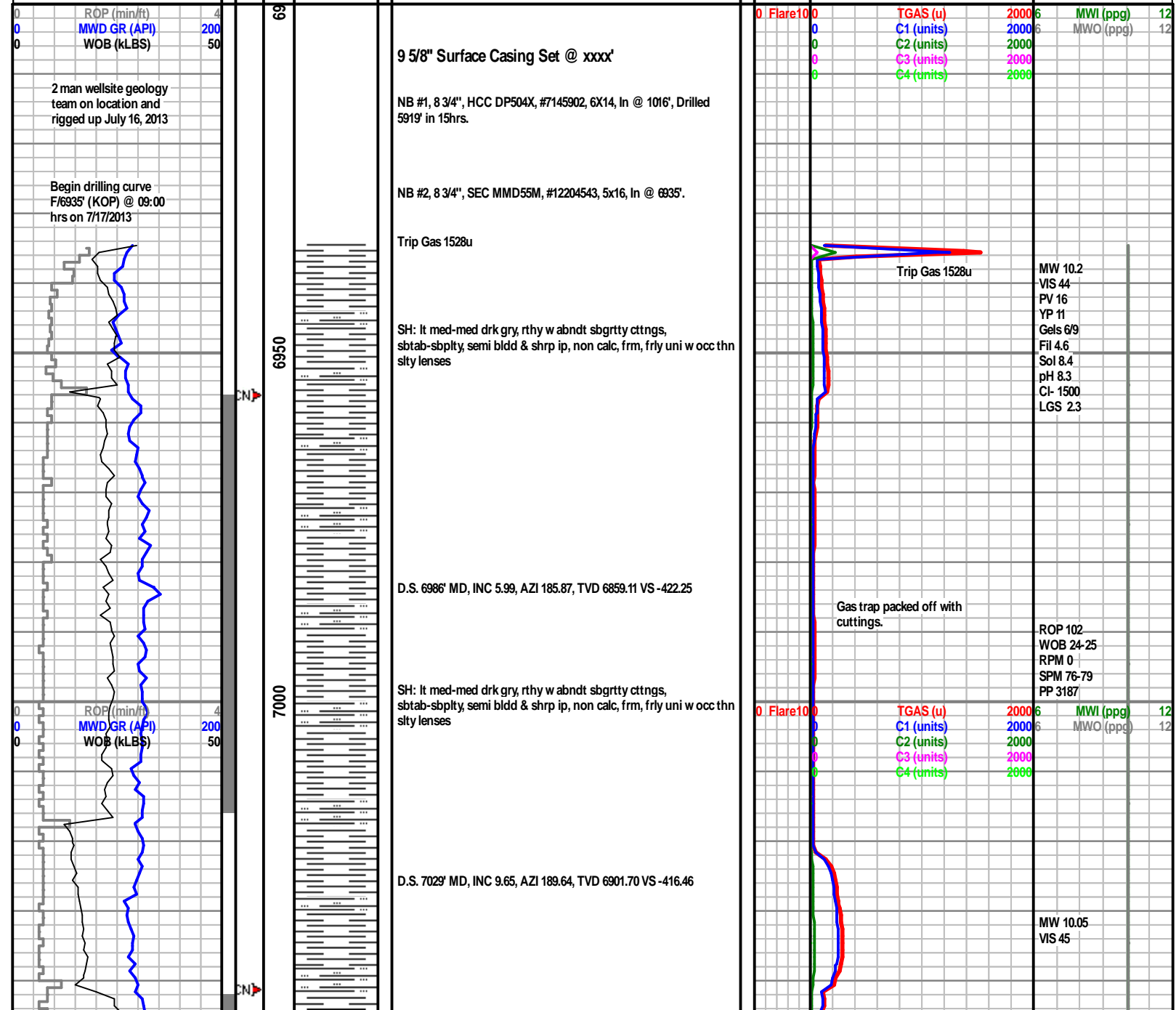
— Flare

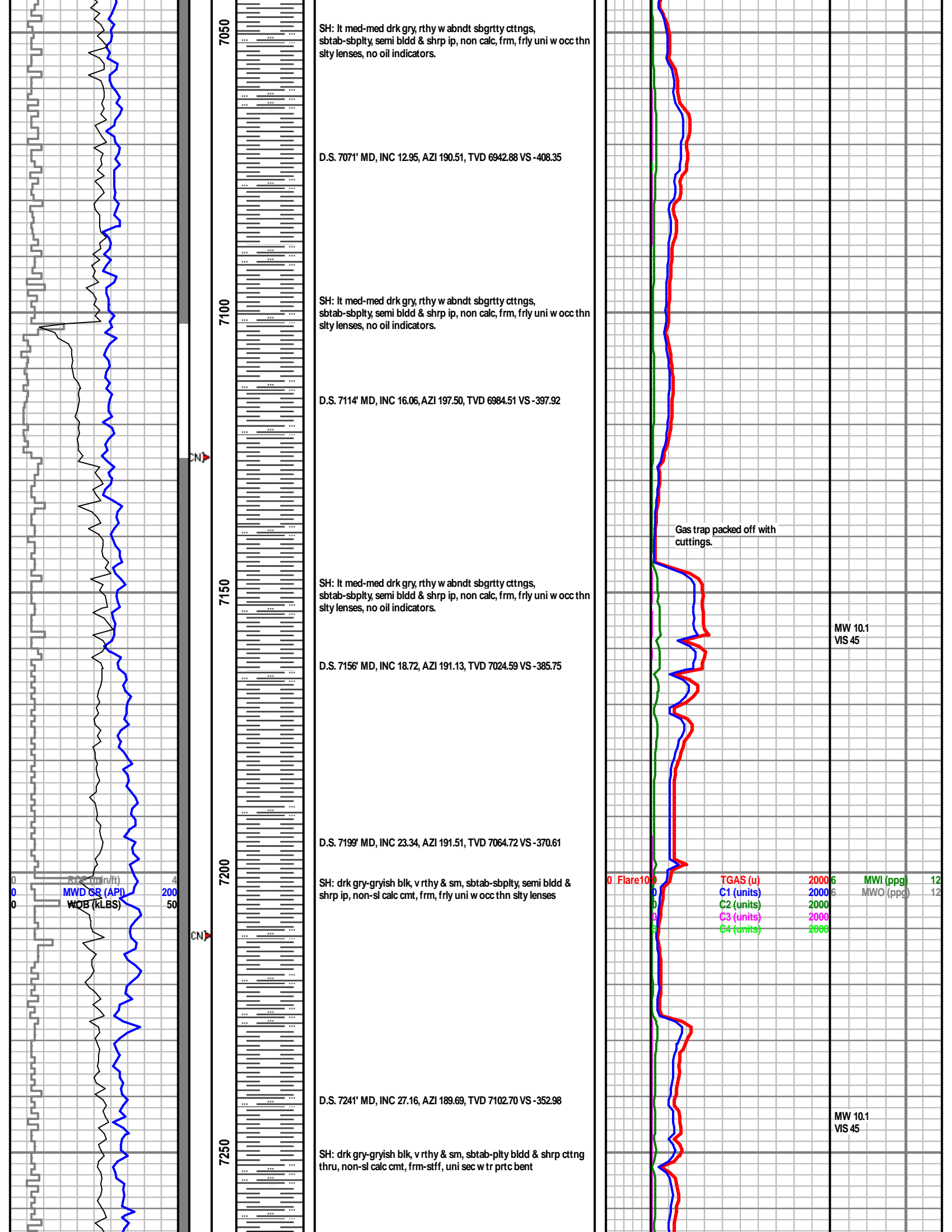
## TG, C1-C4

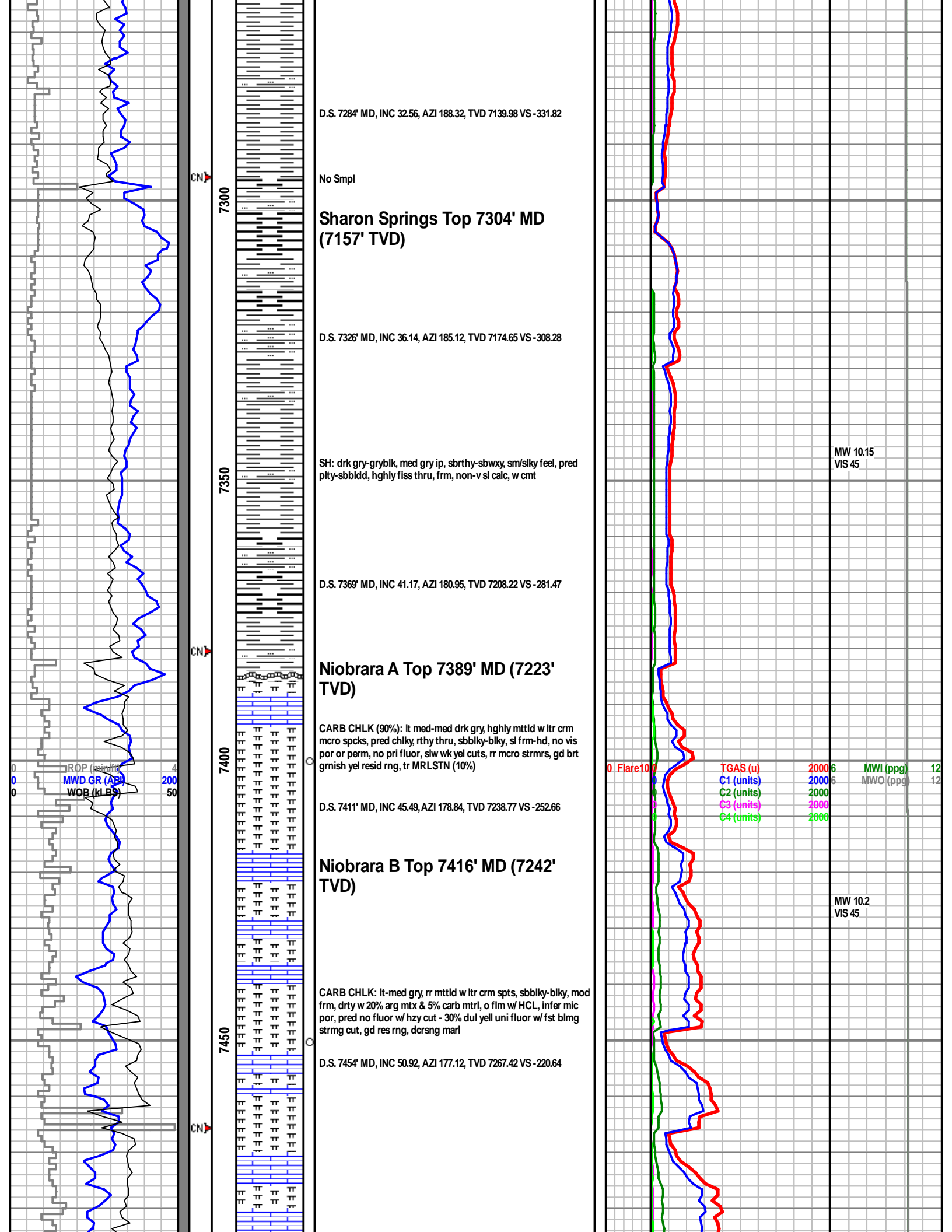
TGAS (u) ———  
 C1 (units) ———  
 C2 (units) ———  
 C3 (units) ———  
 C4 (units) ———

## Porosity

MWI (ppg) ———  
 MWO (ppg) ———







D.S. 7284' MD, INC 32.56, AZI 188.32, TVD 7139.98 VS -331.82

No Smpl

Sharon Springs Top 7304' MD  
(7157' TVD)

D.S. 7326' MD, INC 36.14, AZI 185.12, TVD 7174.65 VS -308.28

SH: drk gry-gryblk, med gry ip, sbthy-sbwxy, sm/slky feel, pred  
ply-sbbldd, hghly fiss thru, frm, non-v sl calc, w cnt

MW 10.15  
VIS 45

D.S. 7369' MD, INC 41.17, AZI 180.95, TVD 7208.22 VS -281.47

Niobrara A Top 7389' MD (7223'  
TVD)

CARB CHLK (90%): lt med-med drk gry, hghly mttld w ltr crm  
micro spcks, pred chlky, rthy thru, sbbly-bly, sl frm-hd, no vis  
por or perm, no pri fluor, slw wk yel cuts, rr micro strms, gd brt  
grnish yel resid rng, tr MRLSTN (10%)

D.S. 7411' MD, INC 45.49, AZI 178.84, TVD 7238.77 VS -252.66

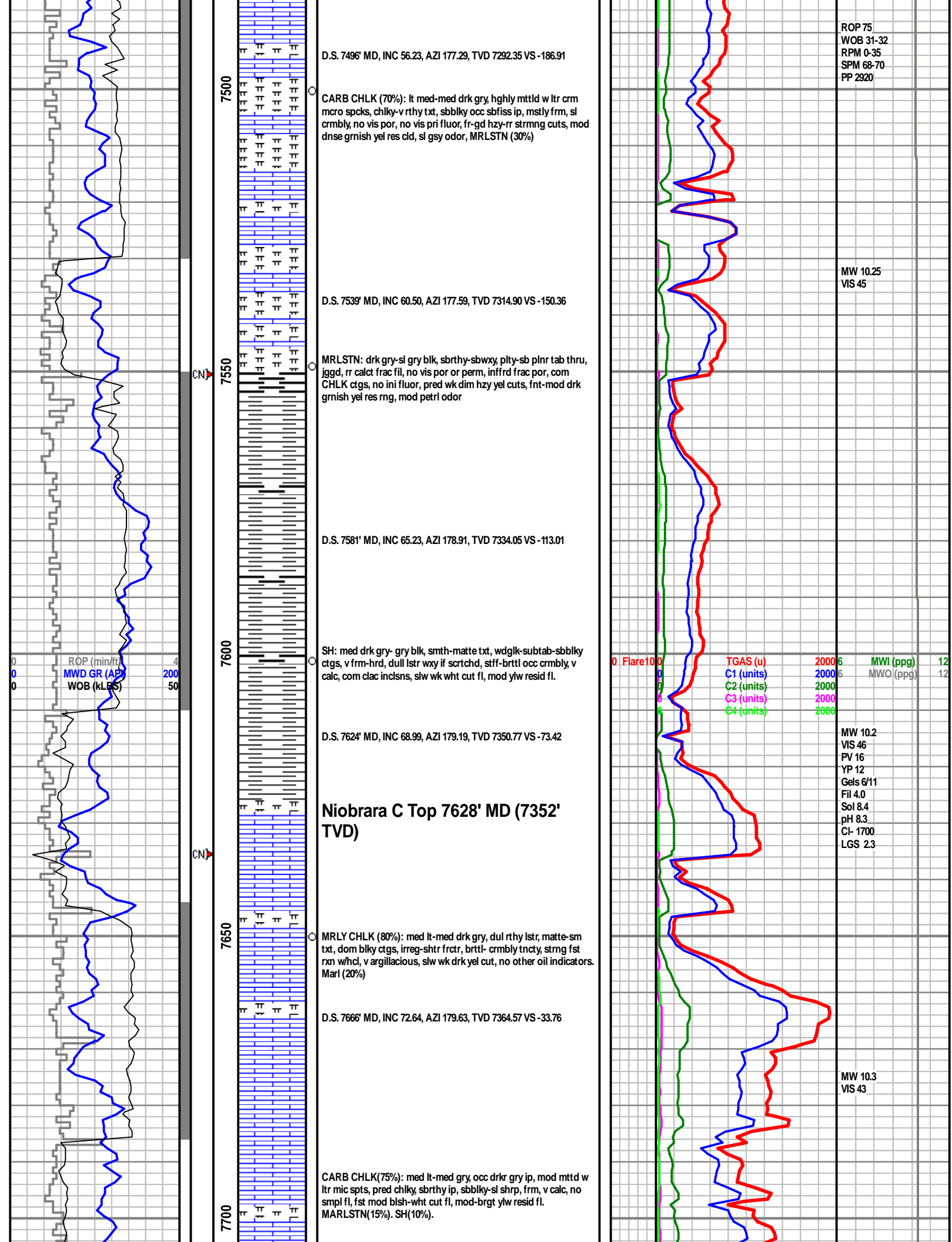
Niobrara B Top 7416' MD (7242'  
TVD)

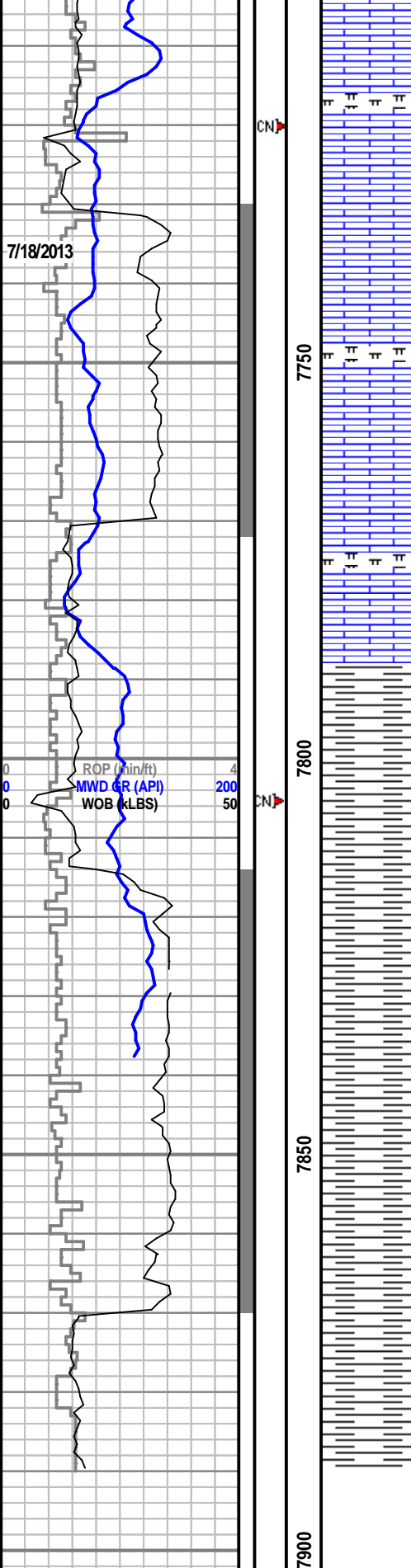
CARB CHLK: lt-med gry, rr mttld w ltr crm spts, sbbly-bly, mod  
frm, drty w 20% arg mtx & 5% carb mtrl, o flm w/ HCL, infer mic  
por, pred no fluor w/ hzy cut - 30% dul yell uni fluor w/ fst blng  
strmg cut, gd res rng, dcrrng marl

D.S. 7454' MD, INC 50.92, AZI 177.12, TVD 7267.42 VS -220.64

0. Flare 10	TGAS (u)	2000	6	MWI (ppg)	12
	C1 (units)	2000	6	MWO (ppg)	12
	C2 (units)	2000	6		
	C3 (units)	2000	6		
	C4 (units)	2000	6		

MW 10.2  
VIS 45





D.S. 7709' MD, INC 75.18, AZI 180.04, TVD 7376.49 VS 7.55

CARB CHLK(90%): med lt-med gry, occ drkr gry ip, mod mtt'd w ltr mic spts, pred chlk, sbrthy ip, sbblky-sl shrp, frm, v calc, no smpl fl, fst mod blsh-wht cut fl, mod-brgt ylw resid fl. MARLSTN(10%).

D.S. 7751' MD, INC 78.68, AZI 180.77, TVD 7385.98 VS 48.45

D.S. 7794' MD, INC 81.23, AZI 181.01, TVD 7393.48 VS 90.79

CARB SH(60%): med drk gry-gryblk ip, sbrthy-sl grtty & rgh, sbplty-pty, abndt jggd/shrp ctngs thru, frm-sl hd, mod-v calc, no smpl fl, fast wk-mod blu-wht cut fl, no vis cut, mod-brgt ylwsh-wht resid fl. CHARB CHALK(40%)

D.S. 7836' MD, INC 84.79, AZI 180.50, TVD 7398.59 VS 132.47

CARB SH(80%): med drk gry-gryblk ip, sbrthy-sl grtty & rgh, sbplty-pty, abndt jggd/shrp ctngs thru, frm-sl hd, mod-v calc, no smpl fl, fast wk-mod blu-wht cut fl, no vis cut, mod-brgt ylwsh-wht resid fl. CHARB CHALK(20%)

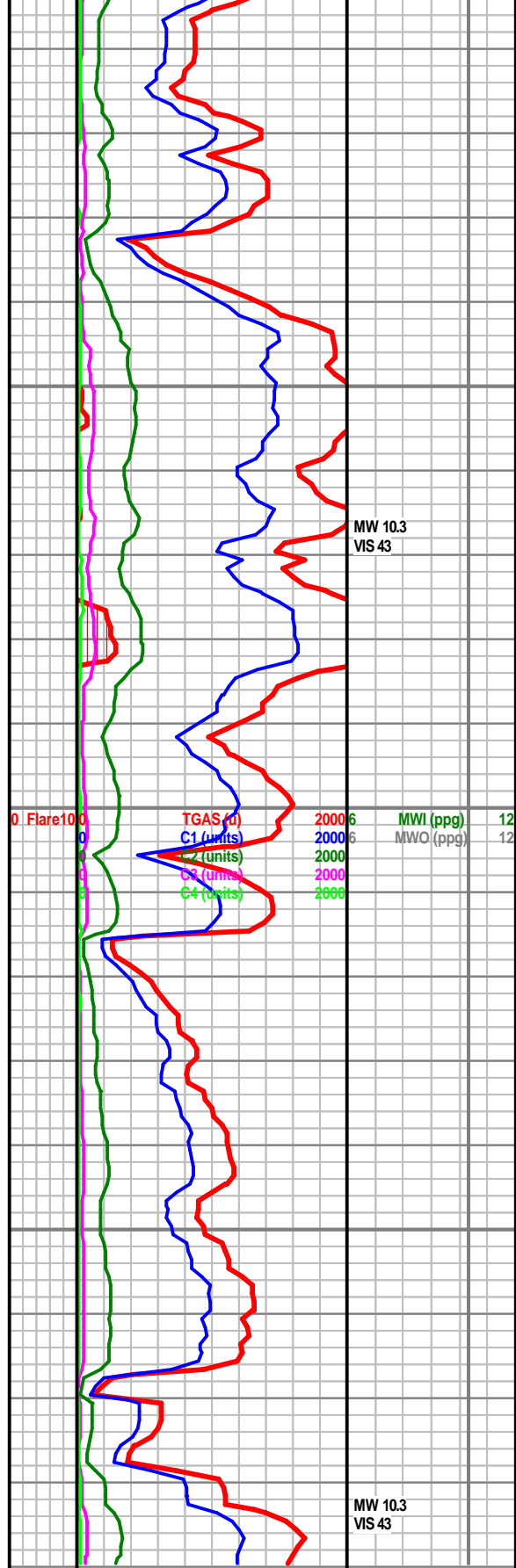
D.S. 7890' MD, INC 90.00, AZI 180.50, TVD 7401.05 VS 186.40. PROJECTED SURVEY

Reached ICLP of 7890' @ 03:00hrs on 7/18/2013

### END Vertical Hole Log Section, Begin Horizontal Log Section

Geologic Tops Picked by John Morgan

Sharon Springs 7,157' (-2,056')  
Niobrara A 7,223' (-2,122')



MW 10.3  
VIS 43

MW 10.3  
VIS 43

		Niobrara B	7,256' (-2,155')		
		Niobrara C	7,352' (-2,251')		
		DMTD	xxxxxx'		
		Production csg	xxxxx'		