

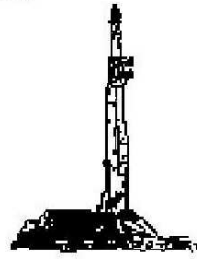
GOOLSBY BROTHERS and associates, inc.

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



**Geological Wellsite
Supervision**

www.goolsbybrothers.com



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

Well Name: Nichols 20C-5HZ HZ (Vertical Hole Section)
Location: Section 8, T2N, R65W, Weld County, CO.
License Number: API: 05-123-35919 **Region:** Wattenberg
Spud Date: Febuary 7, 2013 **Drilling Completed:** February 18, 2013
Surface Coordinates: SWNW Sec 8 T2N R65W; 2399' FNL 250' FWL
Lat N 40.153914 Long W -104.696278
Bottom Hole Coordinates: NWNW Sec 5 T2N R65W; N-S: 602' FNL; E-W: ' 273' FWL
Ground Elevation (ft): 4946' **K.B. Elevation (ft):** 4971'
Logged Interval (ft): 6748' **To:** 14348' **Total Depth (ft):** 14348' DMTD, 7076.95' VS
Formation: Pierre Shales/Sands, Codell Target
Type of Drilling Fluid: Water & Poly to 6748', LSND 6748'-14348'

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

OPERATOR

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

GEOLOGIST

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

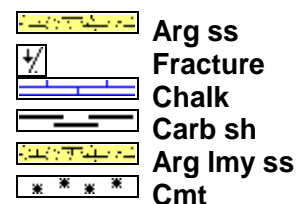
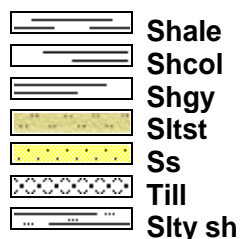
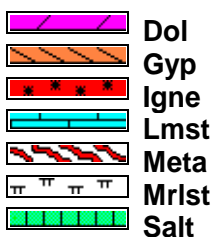
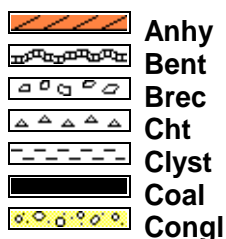
E-Logs

MWD GR 6748'-14348'
MWD Resistivity 7721'-14348'

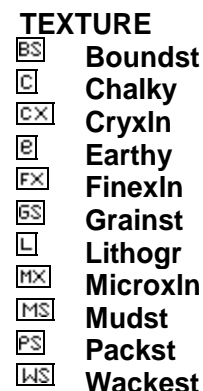
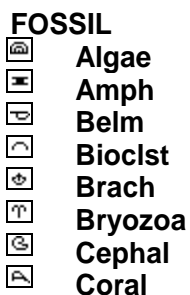
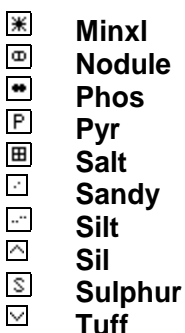
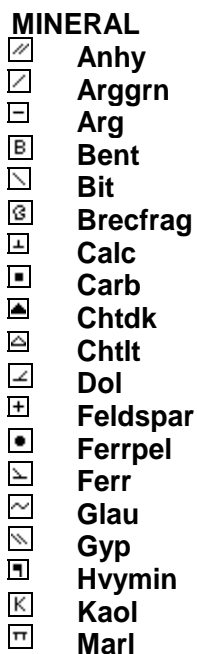
Comments

- 1) Drilling Contractor: Xtreme Drilling, Rig #20
Toolpusher: Tyler Humphrey & Brad Henderson
- 2) Company Man: Ricky Carroll & Marvin Hackworth
- 3) Mud Comapny : Newpark Drilling Fluids
Engineer: Scott Hight
- 4) Directional Drilling: Baker Hughes
Pulse Tool
Drillers: Barry Combs, Scott Stanford
MWD: Robert Dix, Matt Yule
- 5) Gas Equipment: Mudlogging Systems Inc.
by Terra Services
Redbox # ML-317 & Ratcliff Agitator
- 6) Wellsite Geologist: Larry Goolsby & Andrew Krueger

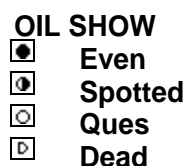
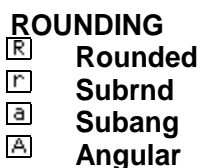
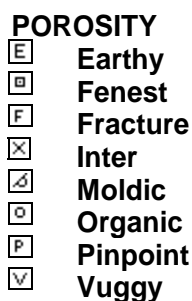
ROCK TYPES

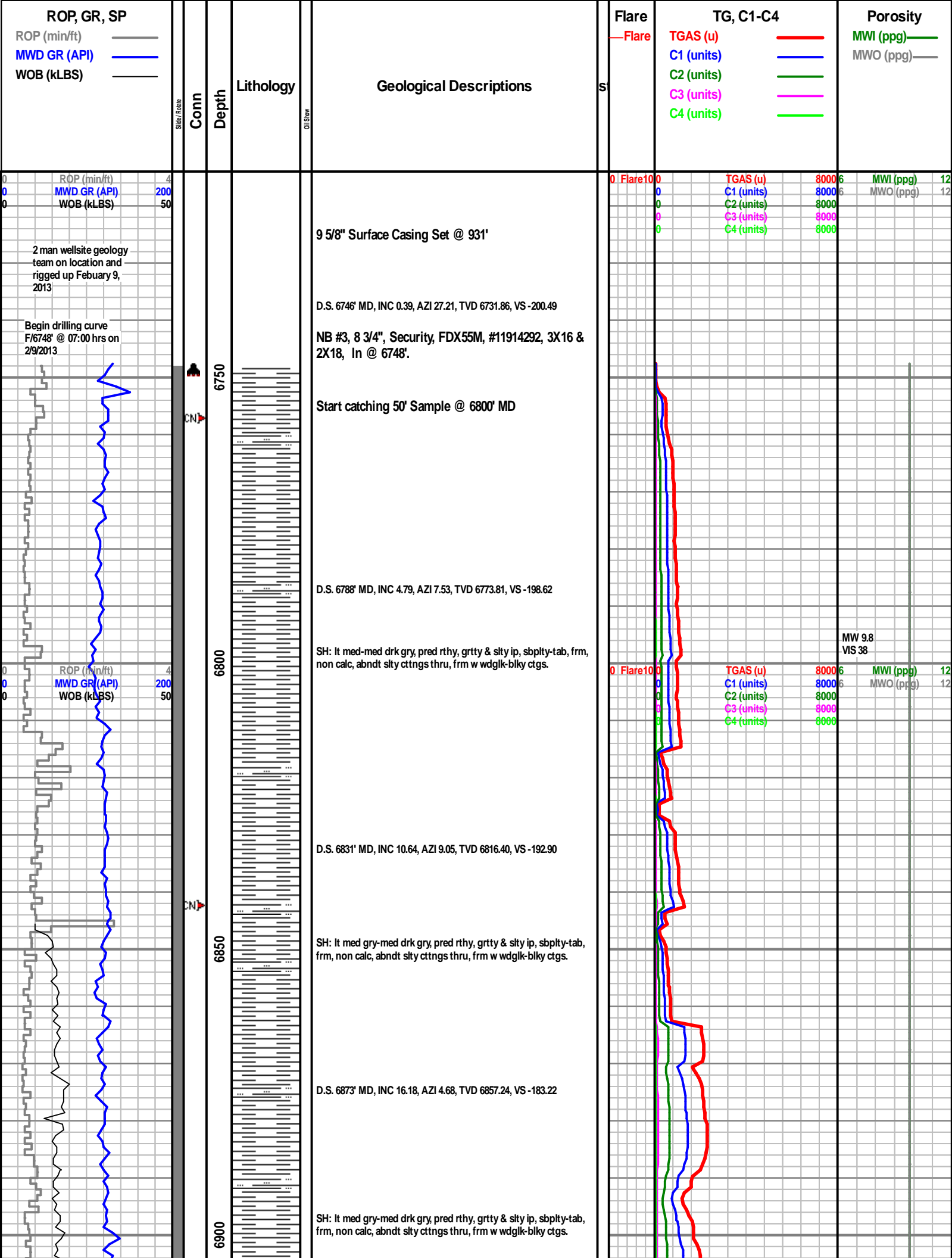


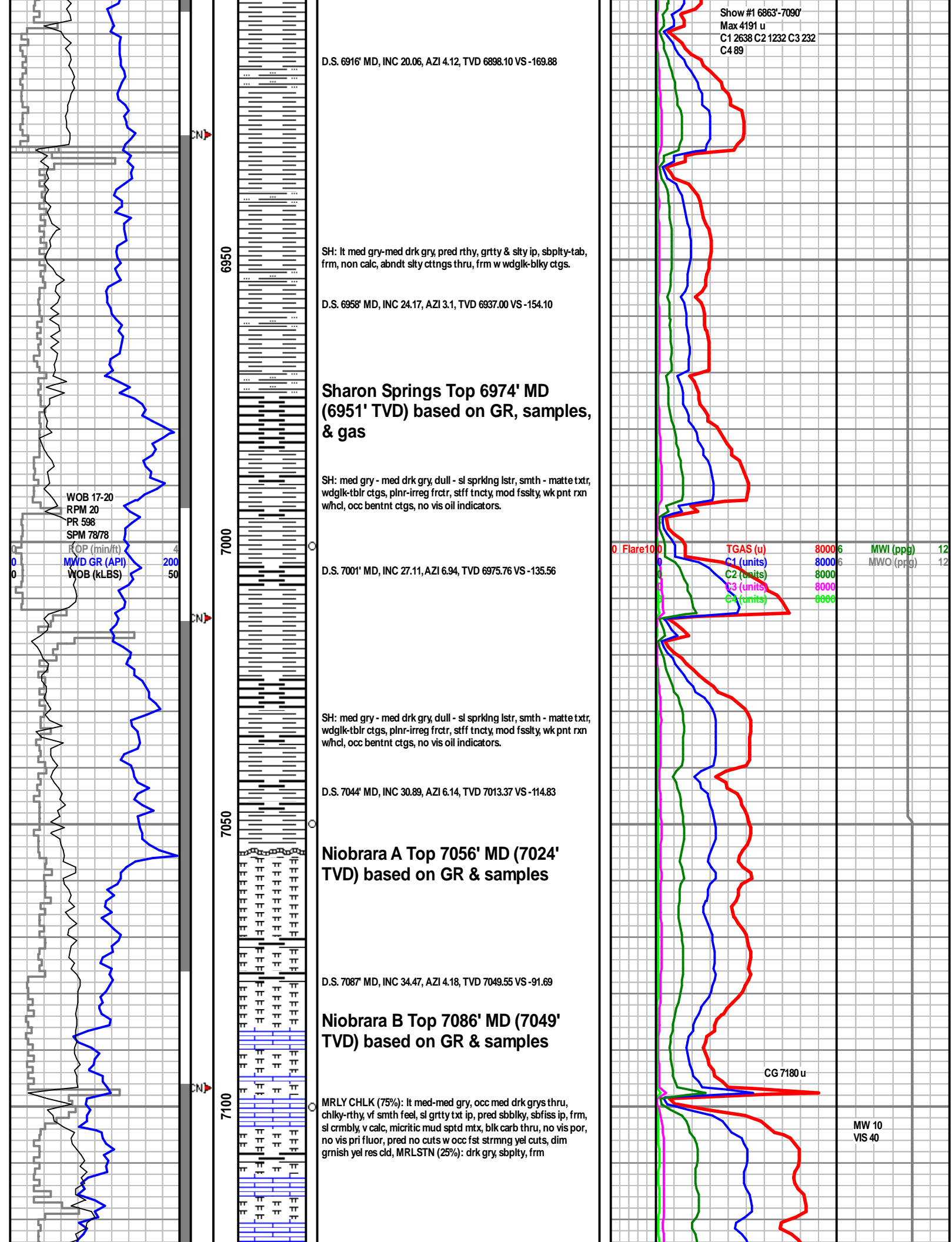
ACCESSORIES

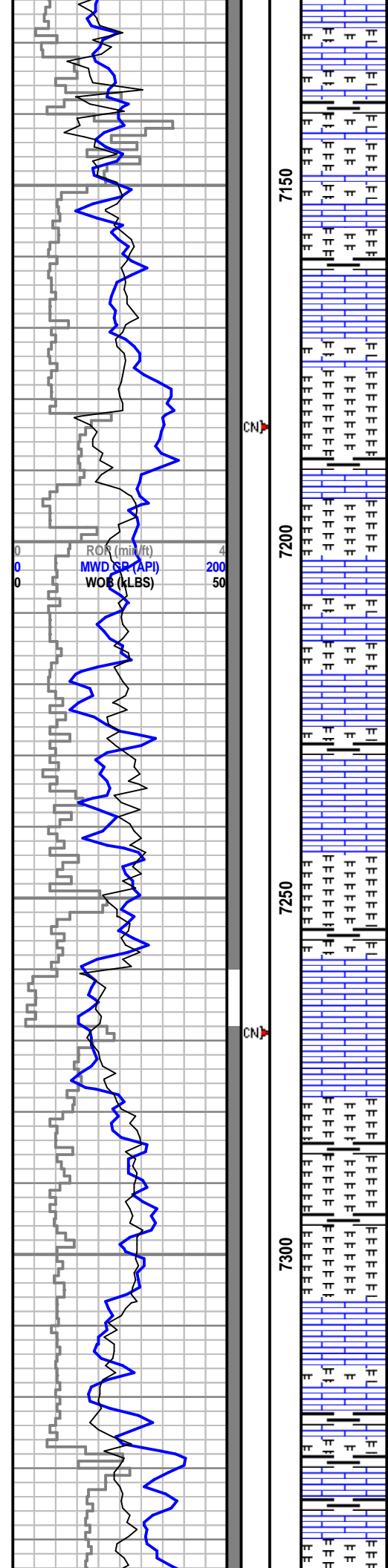


OTHER SYMBOLS









D.S. 7129' MD, INC 37.40, AZI 3.56, TVD 7083.56 VS -67.09

CARB CHLK (85%): lt med-med drk gry, hghly mttld w ltr crm mcrs spcks, chiky-v rthy txt, sbblky occ sbfiss ip, mstly frm, crmbly thru, v calc, micritic mud sptd mtx, no vis por, no vis pri fluor, no vis cuts, dim grnsh yel res cld, MRLSTN (15%), occ wht BENT thru smpl

D.S. 7172' MD, INC 41.14, AZI 0.46, TVD 7116.84 VS -39.89

MRLY CHLK (micrite): med-med drk gry, abndt ltr grybrn & gryblk, rr mttld, pred sbchiky, sbtrthy-wxy ip, sbply-shrp/jggd, v frm-hd, micrite w 20+% arg mtx, no vis perm or por, no ini fluor, wk hzy yel cuts, drk yel o, 15% sbwxy MRLSTN

Niobrara C Top 7217' MD (7149' TVD) based on GR & samples

D.S. 7214' MD, INC 45.75, AZI 355.88, TVD 7147.34 VS -11.06

D.S. 7257' MD, INC 49.78, AZI 350.82, TVD 7176.24 VS 20.49

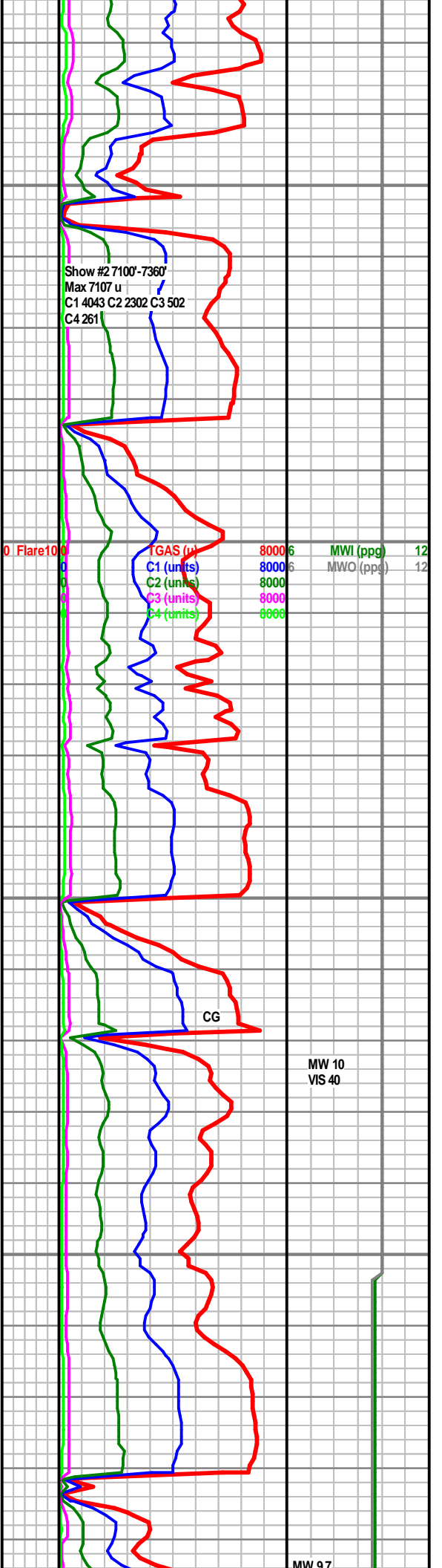
CARB CHLK: (mdstn) lt-med gry, rr mttld w ltr crm spts, sbblky, jggd & shrp, mod frm, drty w 20% arg mtx & 5% carb mtrl, o flm w/ HCL, infer mic por, pred no fluor w/ hzy cut - 30% dul yell uni fluor w/ fst blmg strmg cut, gd res rng, abndt mrl thru

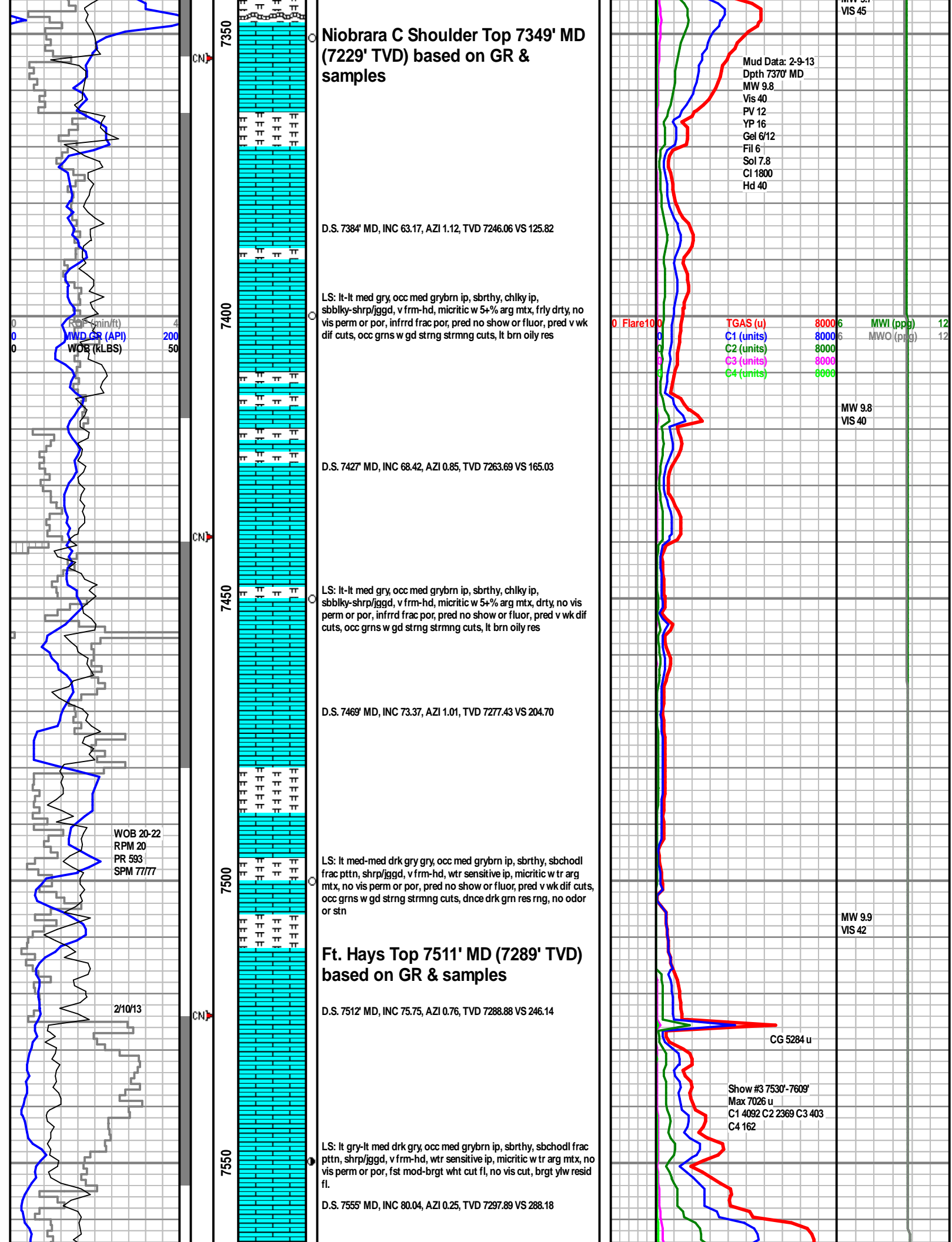
MRLY CHLK: lt med-med gry, grybrn & gryblk ip, abndt mttld w ltr tan micro spcks, sbwxy, chiky-sbtrthy ip, sbblky-shrp/jggd, v frm-hd, no vis perm or por, no ini fluor, wk hzy yel cuts, drk yel o res rng, sl o odor

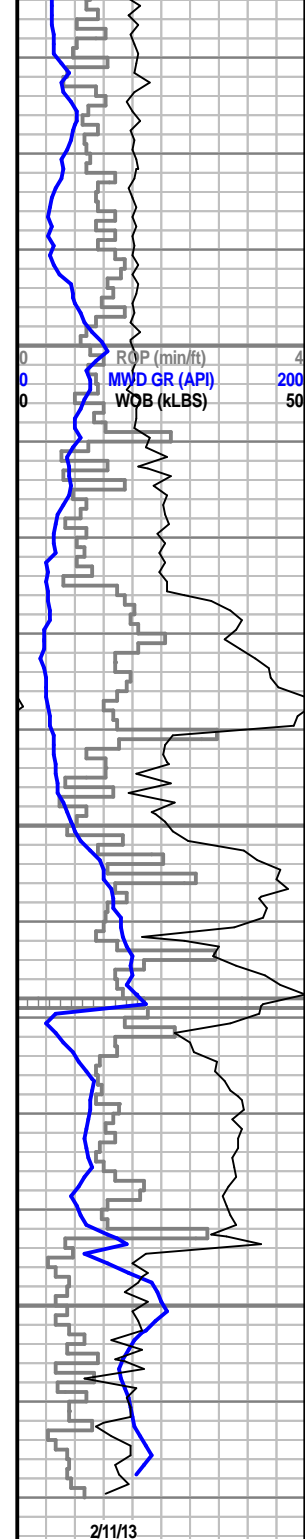
D.S. 7299' MD, INC 54.42, AZI 354.03, TVD 7202.04 VS 53.29

MRLSTN: drk gry-gryblk, sbwxy-rthy, rgh/grtty feel, sbblky-sbply, abndt shrp frags thru, 35% blk carb & cly fil mtx, frm-sl hd, no vis por or perm, no pri fluor, slw dif cldy yel cuts, yelish grn halos arnd ctngs, fnt gsy odor

D.S. 7342' MD, INC 58.83, AZI 359.88, TVD 7225.70 VS 89.10







D.S. 7598' MD, INC 81.0, AZI 0.5, TVD 7304.96 VS 330.59

LS: lt gry-lt med drk gry, occ med grybrn ip, sbrthy, sbchodl frac pttm, shrp/jggd, v frm-hd, wtr sensitive ip, micritic w tr arg mtx, no vis perm or por, fst mod-brgt wht cut fl, no vis cut, brgt ylw resid fl.

Trip @ 7609' due to MWD failure.

D.S. 7640' MD, INC 83.7, AZI 359.4, TVD 7310.52 VS 372.22

LS: lt gry-lt med drk gry, occ med grybrn ip, sbrthy, sbchodl frac pttm, shrp/jggd, v frm-hd, wtr sensitive ip, micritic w tr arg mtx, no vis perm or por, fst mod-brgt wht cut fl, no vis cut, brt yel res cld

**Codell Top 7653' MD (7311' TVD)
based on GR & samples**

D.S. 7665' MD, INC 86.9, AZI 359.5, TVD 7312.57 VS 397.12

SS: brnsh gry-gryish red, v f grn, abndt f grns thru, sbang-sbrnd, mod-w srted, pr-med cmt, fri ip, 50% calc cmt, 50% cly cmt, v drty snd, est 9% vis por, no pri fluor, med-fst strmg cldy grnsh yel cuts, strng res oly rng

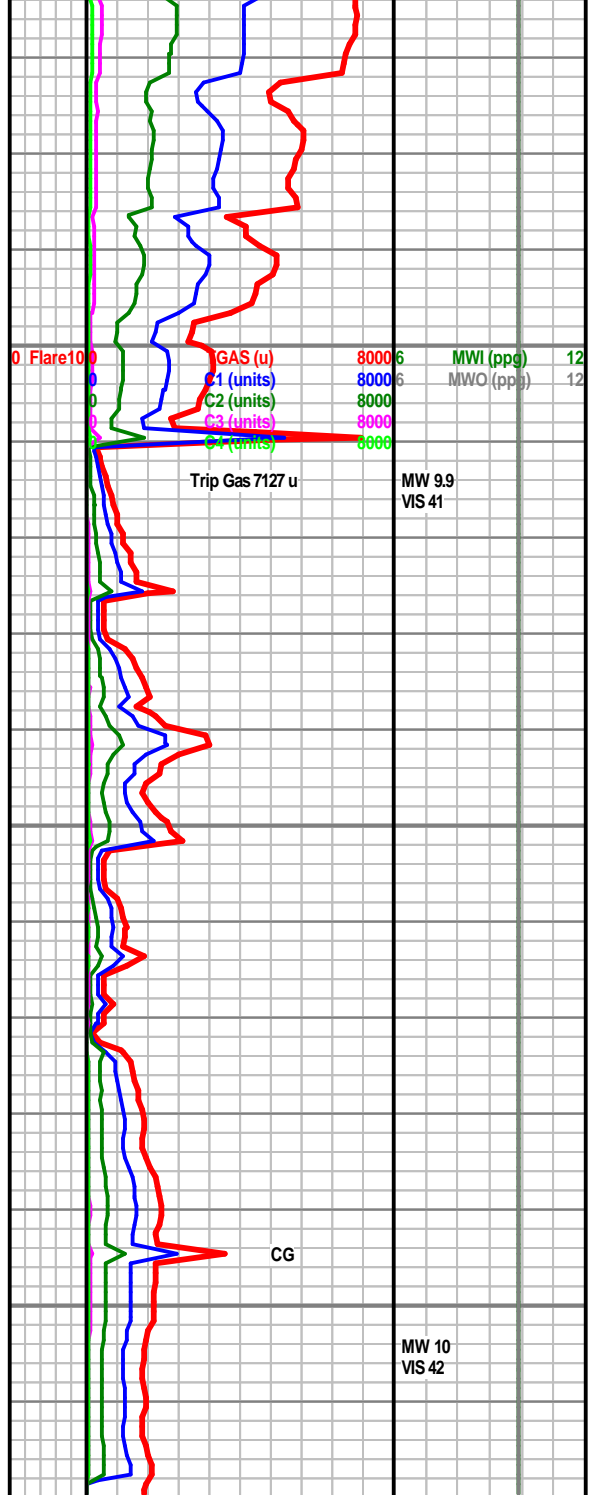
Proj to Bit: D.S. 7720' MD, INC 91.0, AZI 359.5, TVD 7313.57 VS 452.09

Reached End of curve section @ 7720' 18:15 hrs 2/10/2013.

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

Formation Tops Picked by Wellsite Geologists Larry Goolsby (GBA)

Sharon Springs	6,951' (-1,980')	
Niobrara	7,024' (-2,053')	B
Chalk	7,049' (-2,078')	C
Chalk	7,149' (-2,178')	Ft.
Hays	7,289' (-2,318')	Codell
	7,340' (-2,369')	DMTD



[illegible]