



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

Well Name: Reynolds Cattle 3C-19HZ
API: 05-123-39132-0000
Location: Section 23, T3N, R68W
License Number:
Spud Date: May 28, 2014
Surface Coordinates: NENE Sec 23 T3N R68W; 650' FNL & 155' FEL
Lat N 40.217134 Long W -104.961381
Bottom Hole Coordinates: NENW Sec 19 T3N R67W; 745' FNL; 2400' FWL

Ground Elevation (ft): 4,932'
Logged Interval (ft): 6,950'
Formation: Pierre Shales/Sands, Niobrara C Target
Type of Drilling Fluid: Water & Poly to 6,636', LSND 6,636'-14,544'

To: 14,544'

K.B. Elevation (ft): 4,948'
Total Depth (ft): 14,544' DMTD

Region: Wattenberg, DJ Basin
Drilling Completed: May 5, 2014

OPERATOR

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

GEOLOGIST

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

E-logs

MWD GR 6,636' - 14,481'


Casing

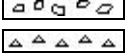
9 5/8" Surface Casing set @ 1296' MD
7" Intermediate Casing set @ 7719' MD
4 1/2" Production Liner hung 06/07/2014, landed @ 14,534'


Comments

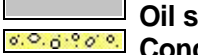
1) Drilling Contractor: Xtreme Drilling, Rig #20
Toolpusher: Shaun Cox
2) Company Man: Marvin Hackworth & Tim Walker
3) Mud Company : AES
Engineer: Gober Howell
4) Directional Drilling: Baker Hughes
Pulse Tool
Drillers: Travis Wilcox & Barry Combs
MWD: Adam Schlenz & Justin Foster
5) Gas Equipment: Pason Systems
6) Wellsite Geology: Goolsby Brothers & Associates
Geologists: Ian Harris &Andrew Krueger


ROCK TYPES


Anhy Bent


Brec Cht

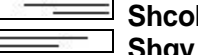
Clyst Coal


Oil sat. Congl

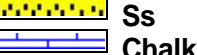
Dol Gyp


Lmst Mrlst

Salt Shale


Shcol Shgy


Ss Sltst


Ss Chalk


Carb sh Sltly sh


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


OIL SHOWS


Even


Spotted Ques


Dead Vspotty


near even

POROSITY TYPE Earthy


Fenest Fracture


Inter Moldic


Organic Pinpoint


Vuggy


OTHER SYMBOLS

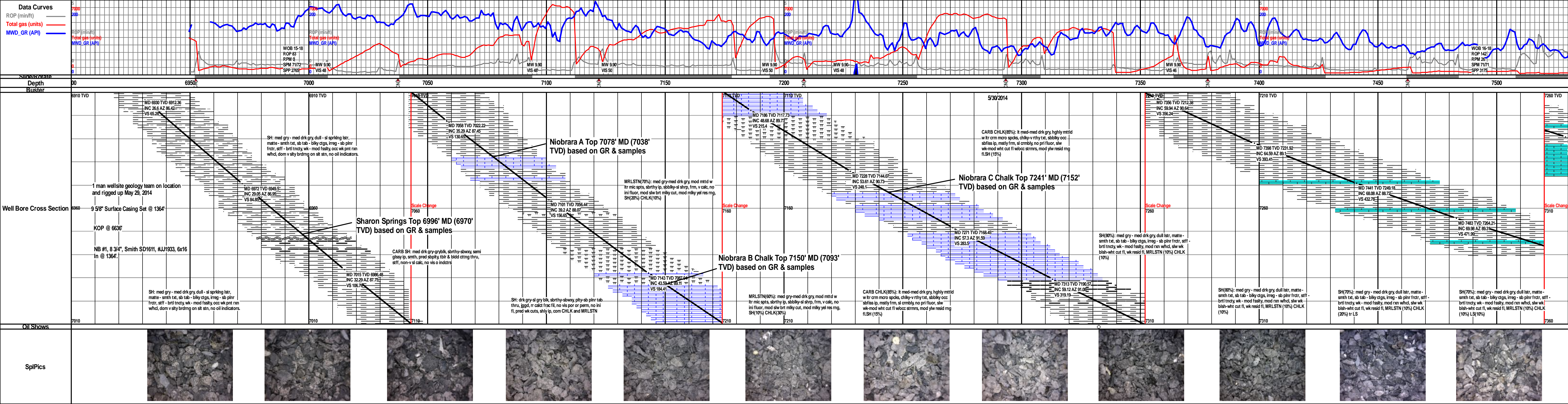
ROUNDING Rounded

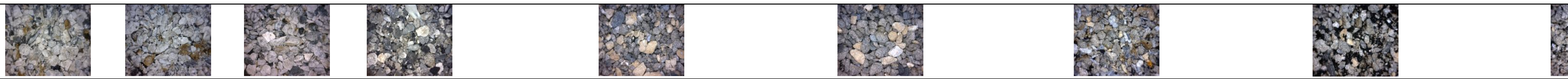
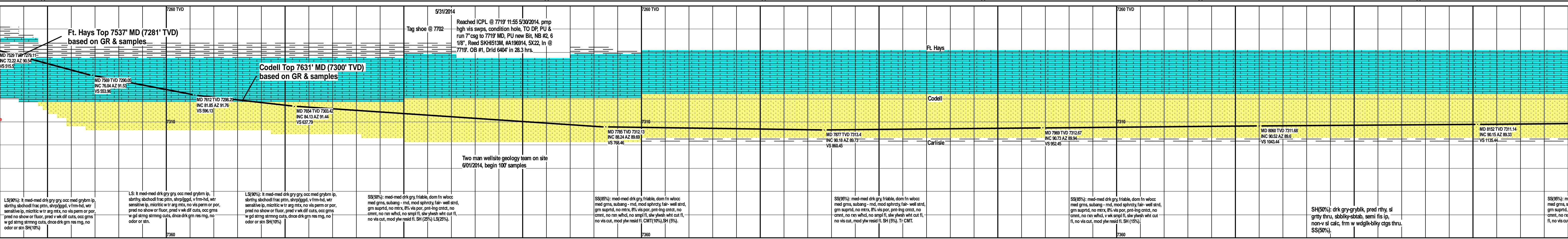
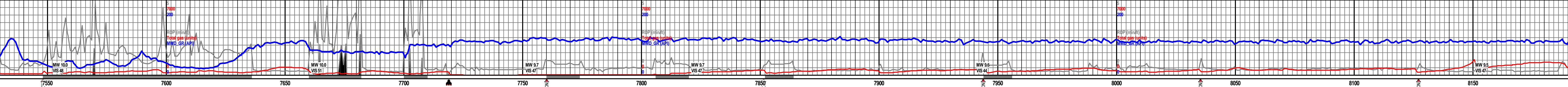
Subrnd Subang

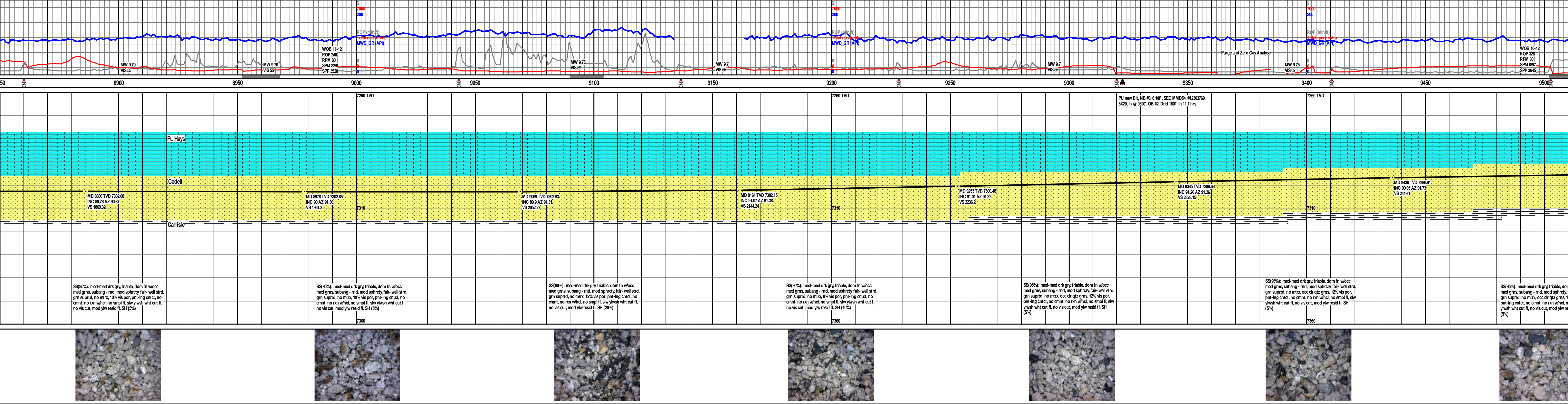
Angular

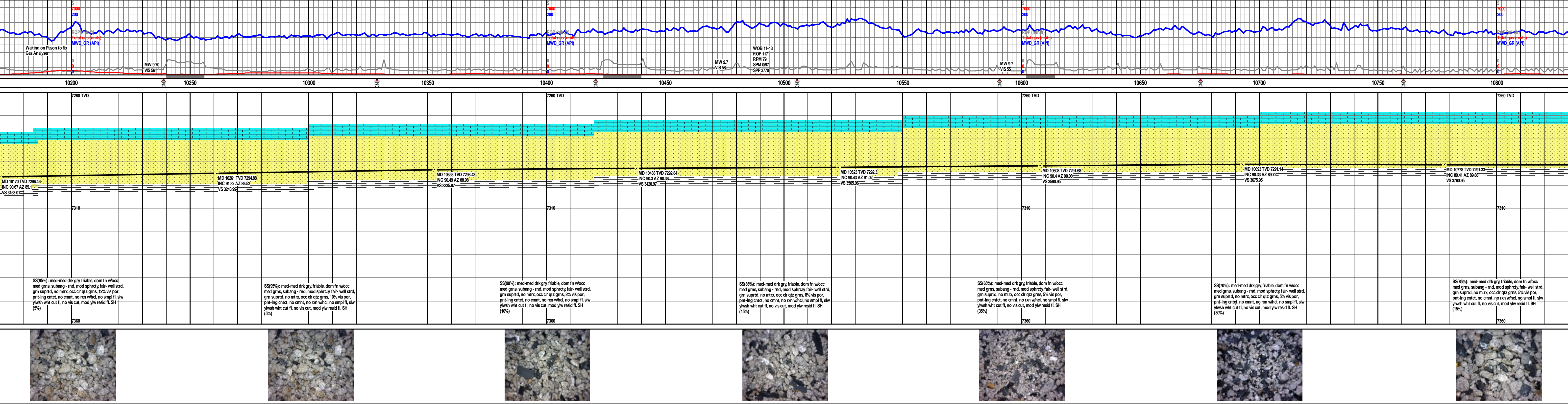
SORTING Well

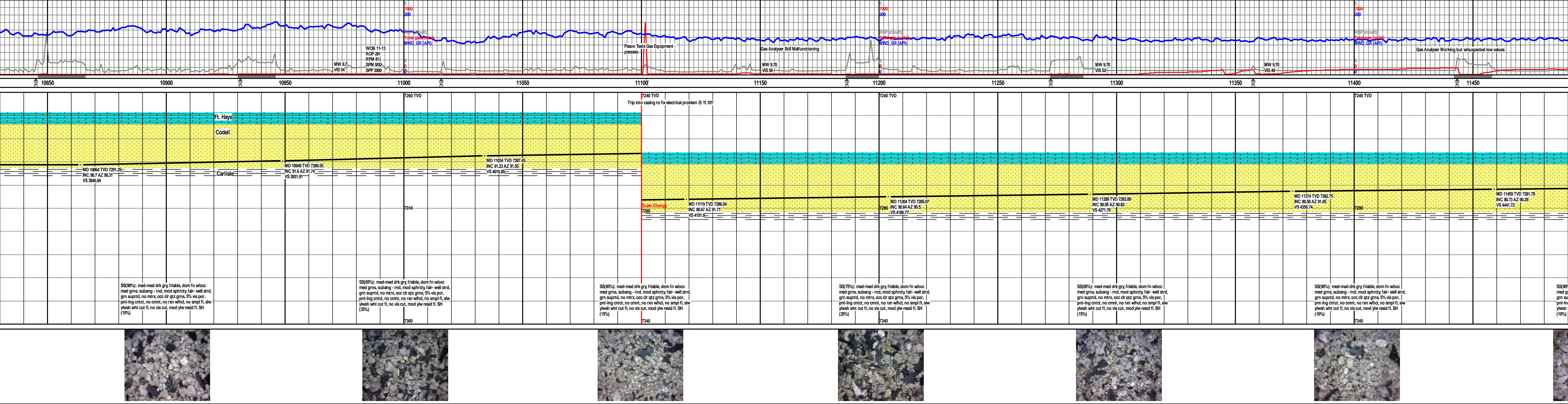
Moderate Poor

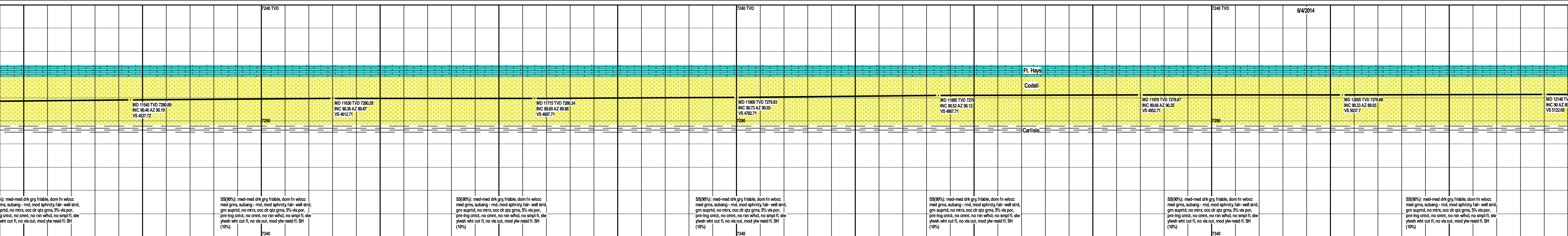
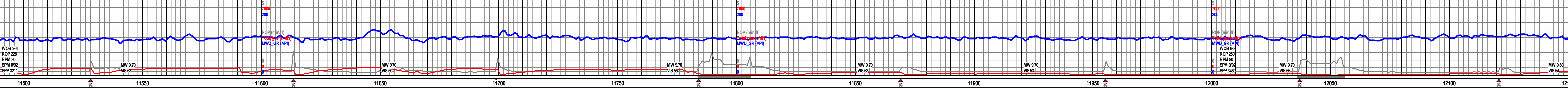


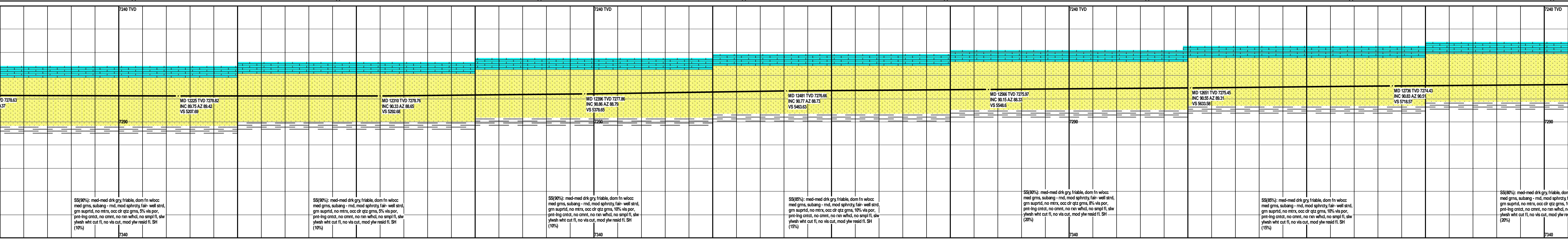
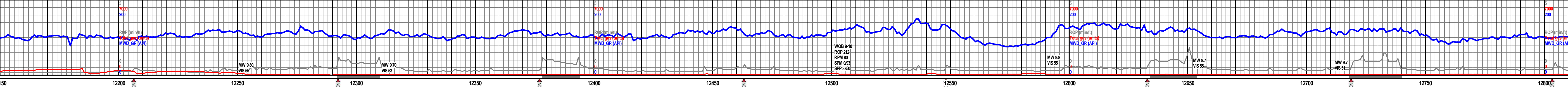












SS(90%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 5% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (10%)

SS(90%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 5% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (10%)

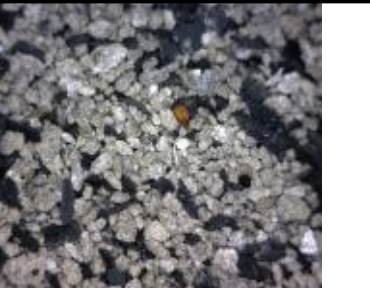
SS(90%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 10% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (10%)

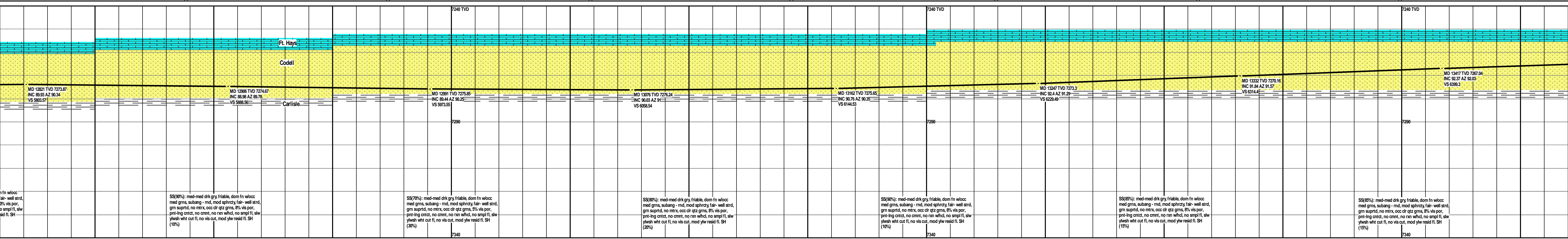
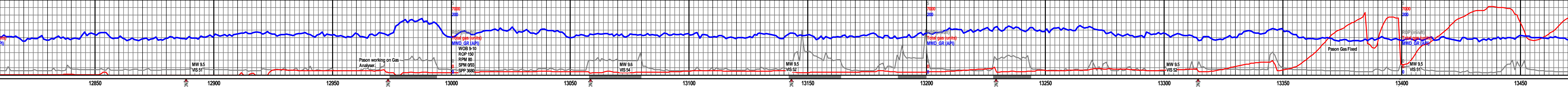
SS(85%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 10% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (15%)

SS(80%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 8% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (20%)

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SS(70%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 5% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (30%)

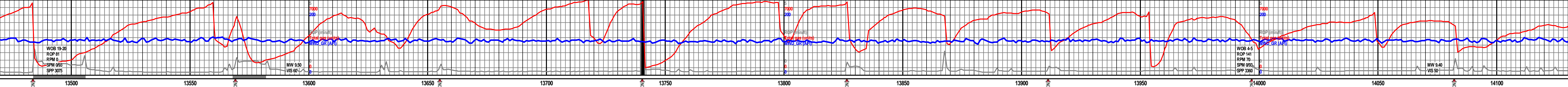
SS(80%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 8% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (20%)

SS(90%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 8% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (10%)

SS(85%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suptrd, no mtrx, occ clr qtz grns, 8% vis por, pnt-ling cntct, no cmnt, no rxn whcl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (15%)

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7240 TVD										7240 TVD										7240 TVD										7240 TVD									
Ft. Hays										Ft. Hays										Ft. Hays										Ft. Hays									
Codell										Codell										Codell										Codell									
MD 13502 TVD 7264.17 INC 91.5 AZ 90.45 VS 6484.22										MD 13587 TVD 7262.9 INC 90.21 AZ 89.49 VS 6569.21										MD 13672 TVD 7262.61 INC 90.18 AZ 89.26 VS 6654.21										MD 13757 TVD 7262.53 INC 89.93 AZ 89.59 VS 6739.2									
MD 13842 TVD 7262.79 INC 89.72 AZ 89.25 VS 6824.2										MD 13927 TVD 7263.27 INC 89.63 AZ 88.78 VS 6909.19										MD 14012 TVD 7263.87 INC 89.56 AZ 88.52 VS 6994.16										MD 14097 TVD 7264.72 INC 89.29 AZ 88.43 VS 7079.13									
Carlisle										Carlisle										Carlisle										Carlisle									
7290										7290										7290										7290									
SS(90%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suprted, no mtrx, occ clr qtz grns, 8% vis por, pnt-ling cntct, no cmnt, no rxn whchl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (10%)										SS(85%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suprted, no mtrx, occ clr qtz grns, 8% vis por, pnt-ling cntct, no cmnt, no rxn whchl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (15%)										SS(90%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suprted, no mtrx, occ clr qtz grns, 8% vis por, pnt-ling cntct, no cmnt, no rxn whchl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (10%)										SS(90%): med-med drk gry, friable, dom fn w/occ med grns, subang - rnd, mod sphrcty, fair- well strd, grn suprted, no mtrx, occ clr qtz grns, 8% vis por, pnt-ling cntct, no cmnt, no rxn whchl, no smpl fl, slw ylwsh wht cut fl, no vis cut, mod ylw resid fl. SH (10%)									
7340										7340										7340										7340									



