

Décollement Consulting Inc.



Scale: 5" / 100'
Measured Depth Log

Well Name North Platte 21-24-34HNB

Location SE/SW Section 27, T5N - R63W

State CO

Country USA

API Number 05-123-41883

Region D.J. Basin

Spud Date 9/11/2015

County Weld

Rig Number Xtreme 22

Field Wattenberg

Drilling Completed 9/13/2015

Surface Coordinates 1136 FSL x 2463 FWL (Lat: 40.36634, -104.42244)

Bottom Hole Coordinates 470 FSL x 2067 FWL (Lat: 40.35002, -104.42399)

Ground Elevation 4,541

K.B. Elevation 4,558

Logged Interval 6,200 To 6,938

Total Depth 6,938

Formation Niobrara "B" Chalk

Type of Drilling Fluid Water Based Mud

Operator

Address Bonanza Creek Energy, Inc.
410 17th Street, Suite 1500
Denver, Colorado 80202

Geologist

Name Dan Kabala & Brian Spitzmiller

Company Décollement Consulting Inc.

Address 13300 Braun Rd.
Golden, CO. 80401

Zone Color Coding



Rock Types

Blank



CHALK

CEMENT



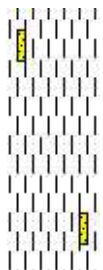
LIMESTONE



SANDSTONE



MPF



SHALE S



SHALE SF

CPF TT TT TT MARLSTONE --- -- -- SHALE



Accessories

Fossils

- ALGAE
- AMPHIPORA
- BELEMNITE
- BIOCLASTIC
- BRACHIOPOD
- BRYOZOA
- CEPHALOPOD
- CORAL
- CRINOID
- ECHINOID
- FISH
- FORAMINIFERA

F FOSSIL

GASTROPOD

OOLITE

OSTRACOD

PELECYPOD

PELLET

PISOLITE

PLANT REMAINS

PLANT SPORES

SCAPHOPOD

STROMATOPOROID

Minerals

ANHYDRITIC

ARGILLACEOUS

ARGILLITE GRAIN

BENTONITE

BITUMENOUS SUBSTANCE

BRECCIA FRAGMENTS

CALCAREOUS

CARBONACEOUS FLAKES

CHTDK

CHTLT

COAL - THIN BEDS

DOLOMITIC

FELDSPAR

FERRUGINOUS PELLET

FERRUGINOUS

GLAUCONITE

GYPSIFEROUS

HEAVY MINERAL

KAOLIN

MARLSTONE

MINERAL CRYSTALS

NODULES

PHOSPHATE PELLETS

PHYRITE

SALT CAST

SANDY

SILICEOUS












































SILTY

TUFFACEOUS

Stringer

- ANHYDRITE STRINGER
- BENTONITE STRINGER
- COAL STRINGER
- DOLomite STRINGER
- GYPSUM STRINGER
- LIMESTONE STRINGER
- MARLSTONE (CALC) STRG
- MARLSTONE (DOU) STRG
- SANDSTONE STRINGER
- SHALE STRINGER
- SILTSTONE STRINGER

Other Symbols

Show		Rounding		Sorting	
 ORGANIC	 FORMATION TOP	 L LITHOGRAPHIC			
 PINPOINT	 GAS SHOW	 M MICROCLIN			
 VUGGY	 MINDEPTH MN DEPTH	 A ANGULAR	 MS MUDSTONE		
 NORMAL FAULT	 R SUBANG	 R ROUNDED	 PS PACKSTONE		
 OIL SHOW	 S SUBANG	 WS WACKESTONE			
Engineering					
 BIT	 OVERTURNED STRATA	 S SUBSAND			
 CASING	 REVERSE FAULT				
 CONNECTION (LEFT)	 SIDEWALL CORE (LEFT)				
 CONNECTION (RIGHT)	 SIDEWALL CORE (RIGHT)	 BS BOUNDSTONE	 P POOR		
 CONNECTION GAS	 SLIDE	 C CHALKY	 W WELL		
 CORE - LOST	 S SURVEY	 CX CRYPTOCLIN			
 CORE - RECOVERED	 TRIP GAS	 E EARTHY			
 DST INTERVAL	 WIRELINE TESTED - LEFT	 FX FINELYCRYSTALLINE			
 WIRELINE TESTED - RIGHT					
 GS GRAINSTONE					

Total Gas & Chromatography

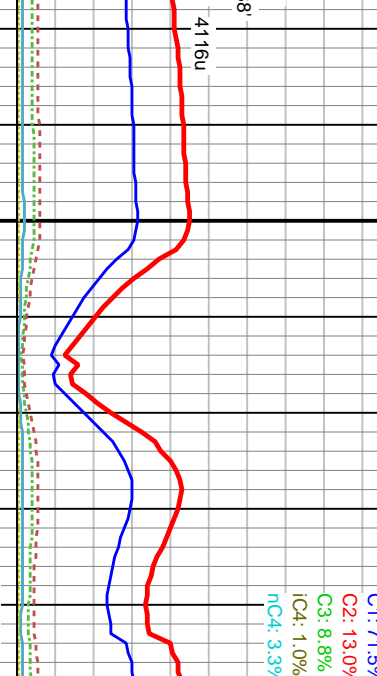
- GAS
- C1
- C2
- C3
- iC4
- nC4
- CO2

Black = Slide
White = Rotate

Total Gas Calibration
1% Methane = 100u

Gas Chromatograph Calibration
C1 = 1.0% Methane = 10,000ppm
C2 = 1.0% Ethane = 10,000ppm
C3 = 1.0% Propane = 10,000ppm
iC4 = 1.0% Iso-Butane = 10,000ppm
nC4 = 1.0% N-Butane = 10,000ppm

Bit #. 2
Size: 8.75
Mfr.: VAREL
Type: VS513
Depth In: 1,673'
Depth Out: 6,938'
Hours: 11.8 hrs
Jets: 7X18
S/N: 4008620

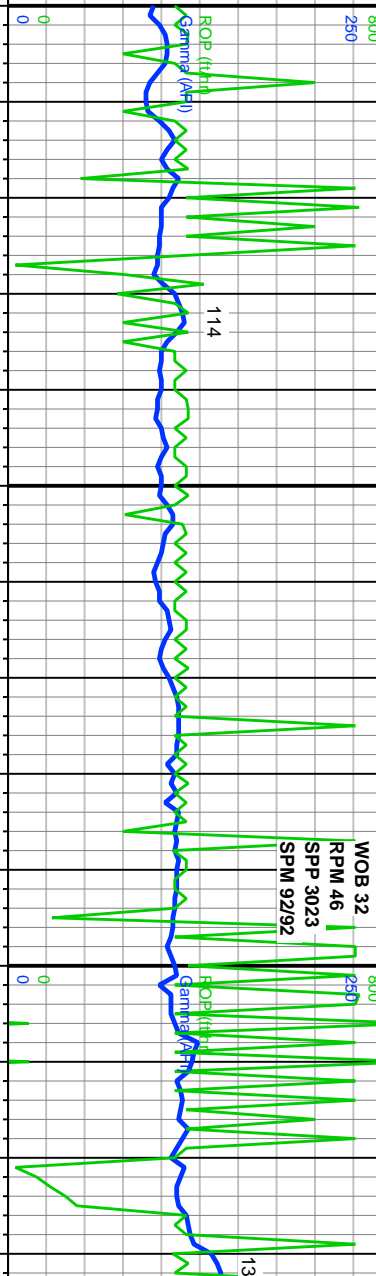


C1: 71.5%
C2: 13.0%
C3: 8.8%
iC4: 1.0%
nC4: 3.3%
CO2: 0.4%

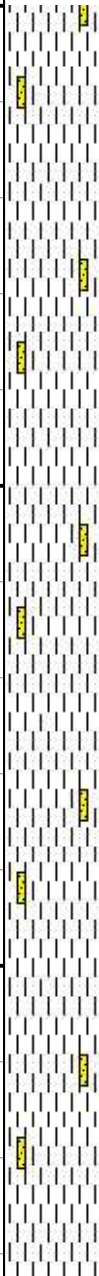
- Curves
- ROP
- Gamma

Decollement Consulting on location and rigged up with Bloodround #5643 on 9/12/2015.

Start logging at 6,200 on 9/13/2015 at 20:14 hours.



Interpretive Lithology



Well Bore

100% SH: lt-med gy, tr drk gy/bn, dll rthy lst sprinkling ip, sl wxy, v com silty grty xt, bdr ply occ blkly, crmbly ten, rr whi-gry intbdd carb mat.

tr SS.

fst good blu whi mlky cut, mod good drk yel resid ring

100% SH: lt-med gy, tr drk gy/bn, dll rthy lst sprinkling ip, sl wxy, v com silty grty xt, bdr ply occ blkly, crmbly ten, rr whi-gry intbdd carb mat.

tr SS.

fst good blu whi mlky cut, mod good drk yel resid ring

100% SH: lt-med gy, tr drk gy/bn, dll rthy lst sprinkling ip, sl wxy, v com silty grty xt, bdr ply occ blkly, crmbly ten, rr whi-gry intbdd carb mat.

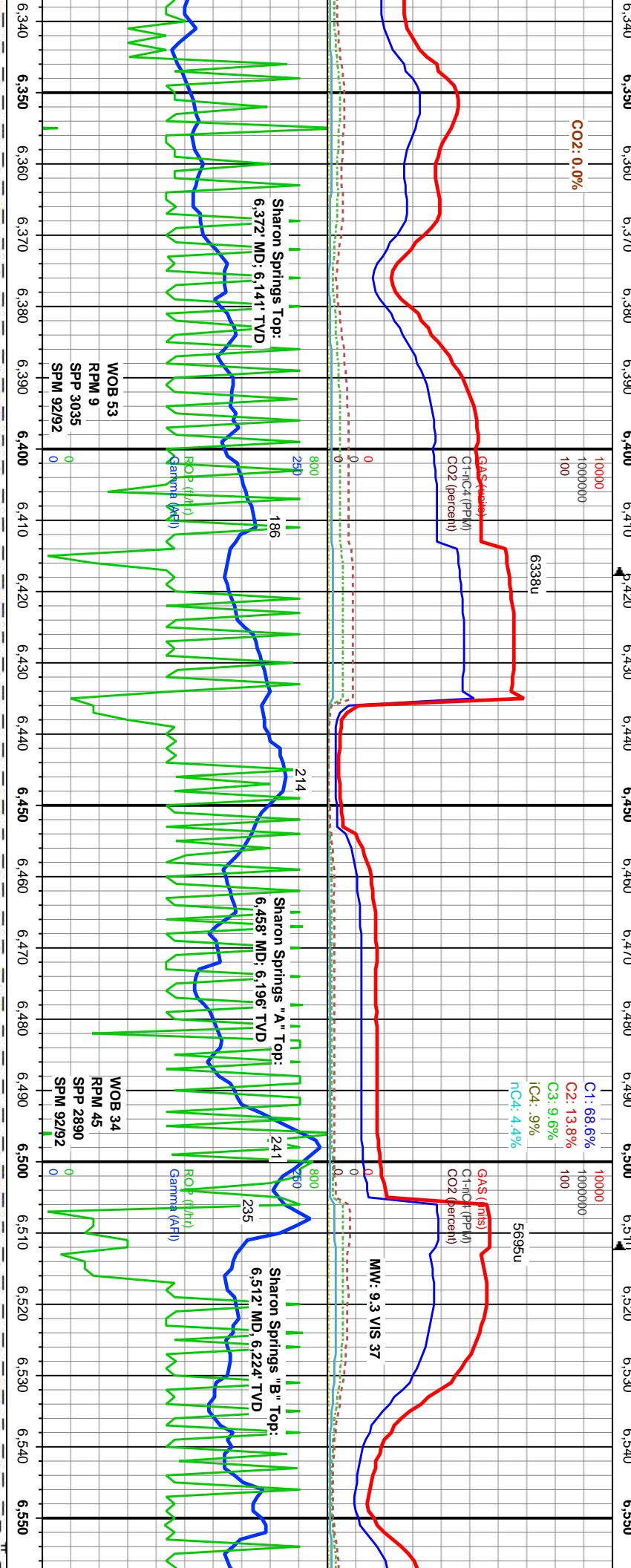
tr SS.

vry fnt dull blu whi mlky cut, fnt drk yel resid ring

100% CARB SH: med gy, com drk gy, dll rthy-smth lst, sl wxy, rr silty grty b ply occ blkly, crmbly ten, com drk intr carb mat.

tr SS.

v silv v dul mlky blu whi cut, v thn brwn ring



MD: 6,369' TVD: 6,138.78' Inclination: 42.96° Azimuth: 194.54° VS: 1,323.16'		5700	100% CARB SH: med gy, com dtk gy/brn, dil rthy-smth lstr, sl wxy, rr silty grty txt, tbr ply occ blk, crmbly ten, com dtk intrdbd carb mat.	rr SS.	very good - inst blu whi milky cut, good yllw-brwn resid ring
MD: 6,464' TVD: 6,200.02' Inclination: 56.54° Azimuth: 191.38° VS: 1,394.66'		5700	100% CARB SH: med gy, com dtk gy/brn, dil rthy-smth lstr, sl wxy, rr silty grty txt, tbr ply occ blk, crmbly ten, tr dtk intrdbd carb mat.	tr SS, tr BENT.	very good - inst blu whi milky cut, good yllw-brwn resid ring
MD: 6,556' TVD: 6,2 Inclination: Azimuth: VS: 1,47'		5700	100% CARB SH: med gy, com dtk gy/brn, dil rthy-smth lstr, sl wxy, rr silty grty txt, tbr ply occ blk, crmbly ten, tr dtk intrdbd carb mat.	tr BENT.	inst blu whi milky cut, good yllw-brwn resid ring

