

Décollement Consulting Inc.



Scale: 5" / 100'
Measured Depth Log

Well Name North Platte P31-T34-34HNB

Location SE/SW Section 27, T5N - R63W

State CO

County Weld

Country USA

Rig Number Xtreme 22

API Number 05-123-41763

Field Wattenberg

Region D.J. Basin

Drilling Completed 9/17/2015

Spud Date 9/15/2015

Surface Coordinates 1256 FSL x 2531 FWL (Lat: 40.36657, -104.42225)

Bottom Hole Coordinates 470 FSL x 1639 FEL (Lat: 40.35004, -104.41855)

Ground Elevation 4,541

K.B. Elevation 4,558

Logged Interval 6,250 To 7,050

Total Depth 7,068

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

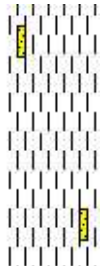
CEMENT

LIMESTONE

SANDSTONE



MPF



SHALE SF

CPF 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

PYRITE

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

Depth



Total Gas & Chromatography

GAS
C1
C2
C3
iC4
nC4
CO2

Black = Slide
White = Rotate

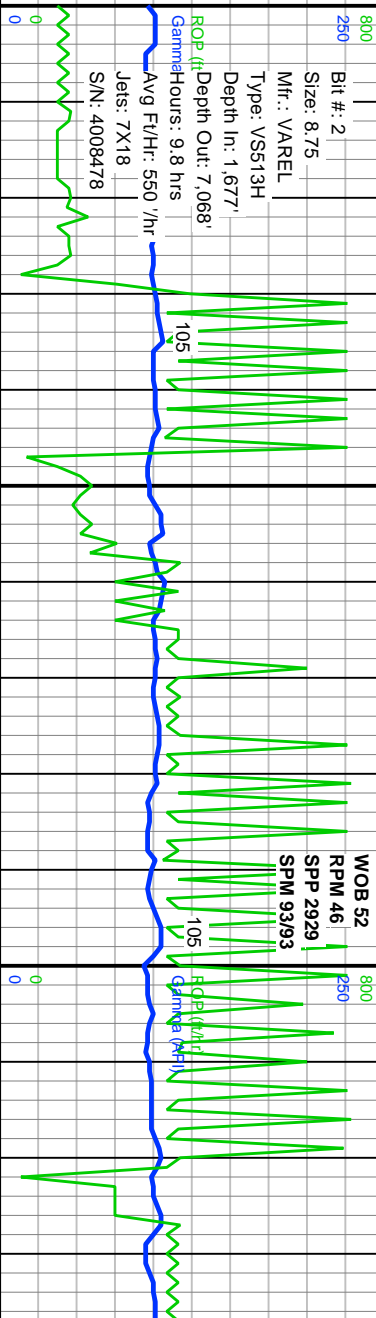
Total Gas Calibration
1% Methane = 100u

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



Curves
ROP
Gamma

Decollement Consulting on location and
rigged up with Bloodhound #5643 on
9/17/2015.
Start logging at 6,250 on 9/17/2015 at 11:24
hours.



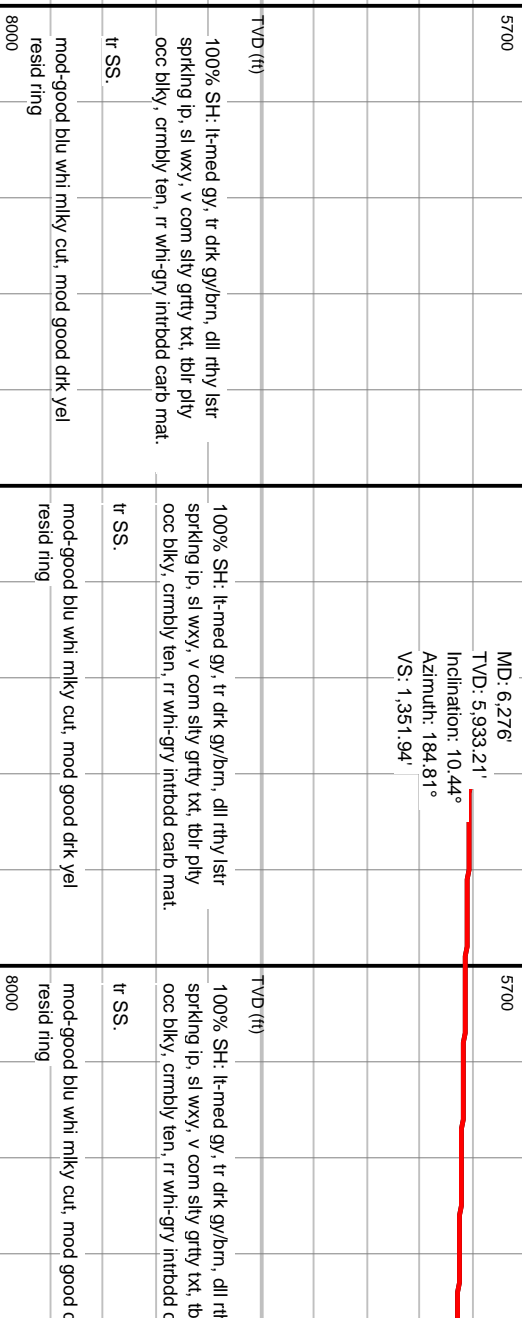
Depth Labels

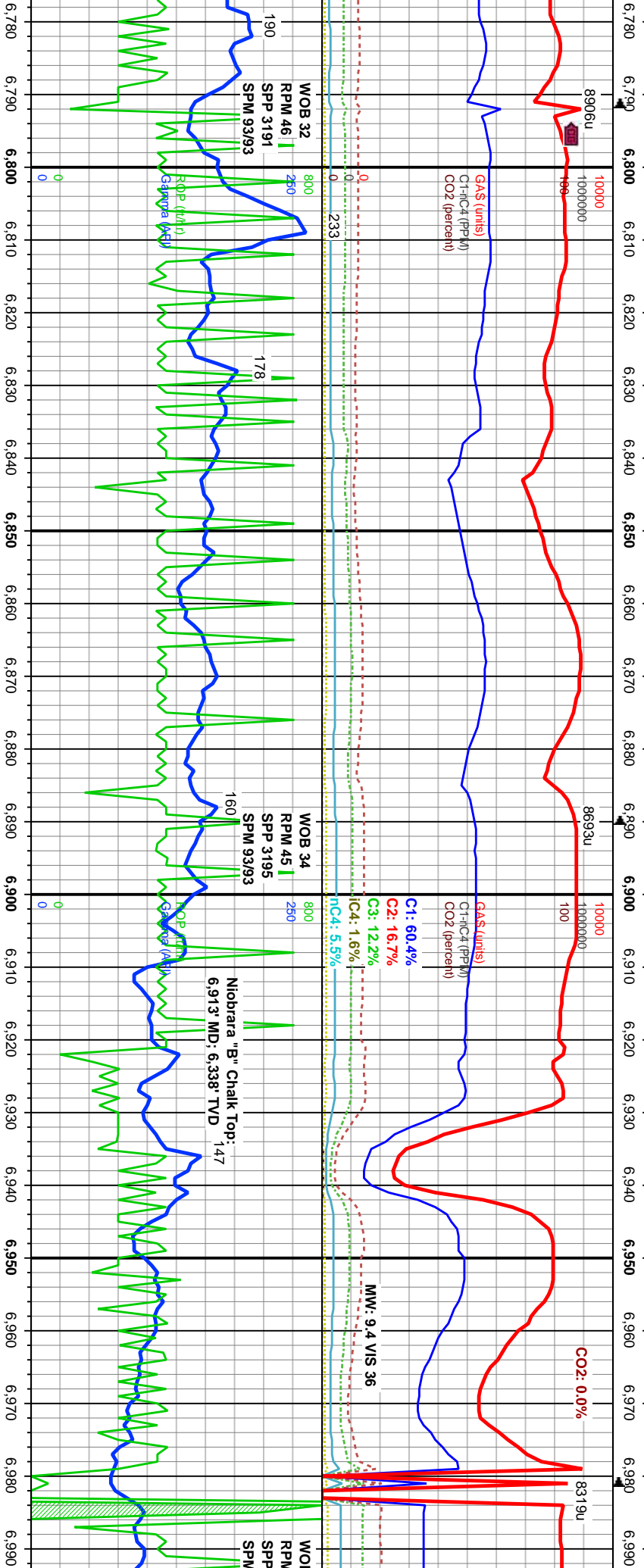


Interpretive Lithology

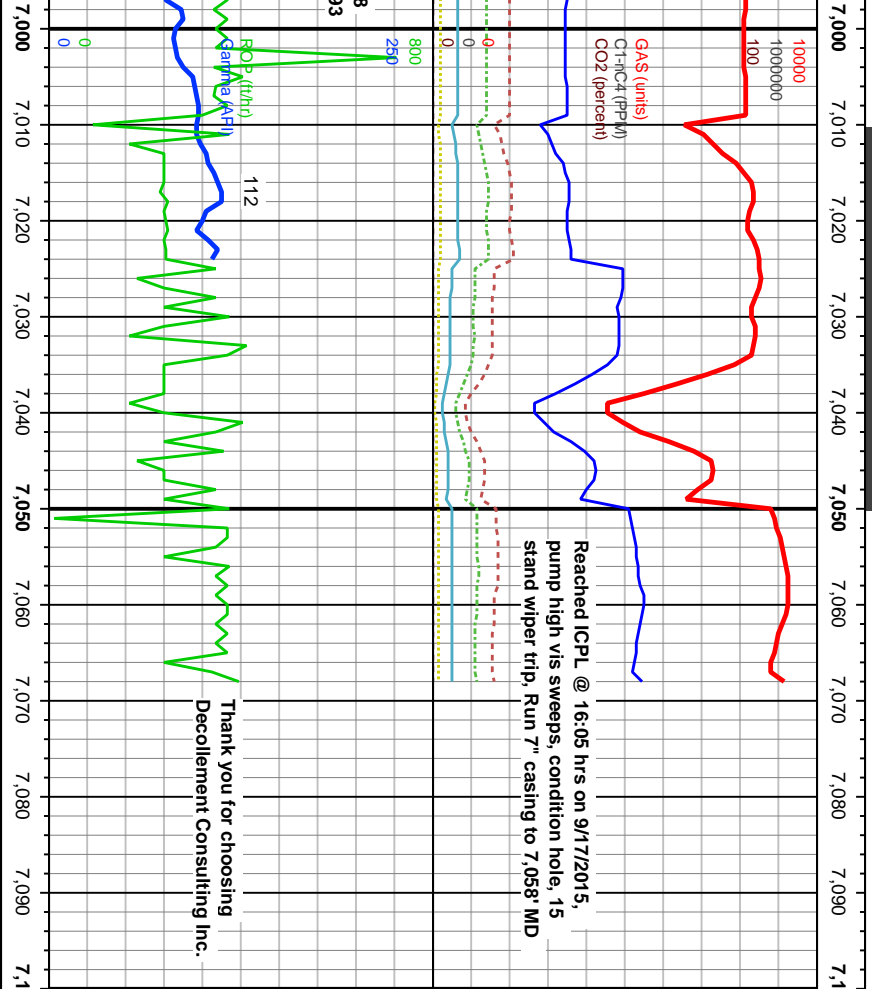


Well Bore
TVD





MD: 6.795'	5700	MD: 6.841'	5700	MD: 6.936'	5700
TVD: 6.300.69'		TVD: 6.315.85'		TVD: 6.344.57'	
Inclination: 70.47°		Inclination: 71.07°		Inclination: 73.73°	
Azimuth: 178.57°		Azimuth: 178.15°		Azimuth: 176.19°	
VS: 1,680.19'		VS: 1,723.22'		VS: 1,813.15'	
an, frm-sft, sb ply-sb carb mat. , mottld wh, sft- bly, rthy istr, v calc, sl brn/blk stn.	100% MARL: dk gy/dtk brwn, frm-sft, sb ply-sb bly, rthy istr, grty, mottld carb mat. (tr) CHK: lt-med gy, occ brn, mottld wh, sft - mod frm, occ brt, sb ply-sb bly, rthy istr, v calc, sl brn/blk stn.	95% MARL: dk gy/dtk brwn, frm-sft, sb ply-sb bly, rthy istr, grty, mottld carb mat. 5% CHK: lt-med gy, occ brn, mottld wh, sft - mod frm, occ brt, sb ply-sb bly, rthy istr, v calc, sl brn/blk stn.	90% MARL: dk gy/dtk brwn, frm-sft, sb ply-sb bly, rthy istr, grty, mottld carb mat. 10% CHK: lt-med gy, occ brn, mottld wh, sft - mod frm, occ brt, sb ply-sb bly, rthy istr, v calc, sl brn/blk stn.	90% CHK: lt-med gy, occ brn, mottld wh, sft - mod frm, occ brt, sb ply-sb bly, rthy istr, v calc, sl brn/blk stn. 10% MARL: dk gy/bly, frm-sft, sb ply-sb bly rthy istr, grty, mottld carb mat. abn SH.	90% CHK: lt-med gy, occ brn, mottld wh, sft - mod frm, occ brt, sb ply-sb bly, rthy istr, v calc, sl brn/blk stn. 10% MARL: dk gy/bly, frm-sft, sb ply-sb bly rthy istr, grty, mottld carb mat. abn SH.
od yllw whi resid gting.	mod-good blu-whi milky cut, good yllw whi resid gting.	inst bri blu-whi milky cut, good yllw whi resid ring.	inst bri blu-whi milky cut, good yllw whi resid ring.	good bri blu-whi milky cut, good bri yllw resid ring.	good bri blu-whi milky cut, good bri yllw resid ring.



F	
5700	MD: 7,020' TVD: 6,359.99' Inclination: 85.08° Azimuth: 177.99° VS: 1,895.03'
Projection To Bit	
MD: 7,068' TVD: 6,364.11' Inclination: 85.08° Azimuth: 177.99° VS: 1,942.45'	
TV 70% CHK: lt-med gy, occ brn, mottd wh, sft-mod frm, occ brit, sb ply-sb blk, rthy lstr, v calc, sl brn/bk sh.	
30% MARL: dk gy/bk, frm-sft, sb ply-sb blk, rthy lstr, grty, mottd carb mat.	
abn SH.	
tr fib calc frags.	
Inshn bri blu-whi milky cut, good bri ylw resid 80ftng.	