

Scale: 5" / 100'
Measured Depth Log

Well Name	State North Platte J24-F21-26HNC		
Location	NESW Sec. 26 T5N R63W		
State	Colorado	County	Weld
Country	United States	Rig Number	Xtreme 19
API Number	05-123-46469-00	AFE #	18029
Geographic Region	D.J. Basin	Field	Wattenberg
Spud Date	5/10/2018	Drilling Completed	6/5/2018
Surface Coordinates	NESW Sec.26 T5N R63W 1428 FSL 1614 FWL		
Bottom Hole Coordinates	NESW Sec. 26 T5N R63W 470 FNL 1657 FWL		
Ground Elevation	4,555	K.B. Elevation	4,572
Logged Interval	6,000 To 11,337	Total Depth	11,337
Formation	Niobrara C Chalk		
Type of Drilling Fluid	Oil Based Mud		

Operator

Company Bonanza Creek
Address Bonanza Creek Energy
410 17th Street
Suite 1400
Denver, CO 80202

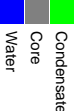
Geologist

Name Paul McKay
Company Bonanza Creek Energy
Address Bonanza Creek Energy
410 17th Street
Suite 1400
Denver, CO 80202

Other

Robert Davis Wellsite Geologist
Dan Kabala Wellsite Geologist

Zone Color Coding



Rock Types

UNKNOWN	MARLSTONE	SILTSTONE	BENTONITE
GYPSUM	CLAYSTONE	SANDSTONE	TUFF
LIMESTONE	SHALE	CONGLOMERATE	CEMENT
CHERT	SHALE GRAY	BRECCIA	CHALK
COAL	SHALE COLORED	TILL	SILTY SHALE

Accessories

FORAMINIFERA	GLAUCONITE	COAL STRINGER
FOSSIL	ANHYDRITIC	DOLOMITE STRINGER
ALGAE	BENTONITE	GYPSUM STRINGER
AMPHIPORA	BITUMENOUS SUBSTANCE	LIMESTONE STRINGER
BELEMNITE	CALCAREOUS	MARLSTONE (CALC) STRG
BIOCLASTIC	CARBONACEOUS FLAKES	MARLSTONE (DOL) STRG
BRACHIOPOD	CHTDK	SANDSTONE STRINGER
BRYOZOA	PISOLITE	SILTY STRINGER
CEPHALOPOD	PLANT REMAINS	SILTY STRINGER
CORAL	PLANT SPORES	CHALK STRINGER
CRINOID	SCAPHOPOD	SILTY SHALE STRINGER
ECHINOID	STROMATOPOROID	
FISH	FERRUGINOUS PELLET	
	FERRUGINOUS	

Minerals

Other S

MOLDIC	ORGANIC	OIL
DEAD	PINPOINT	SIDE
EVEN	VUGGY	SIDE
QUESTIONABLE		SLIDE
SPOTTED STAINING		SU

Engineering

BIT	WIRE
CASING	WIRE

Porosity

EARTHY	CONNECTION (RIGHT)	WIRE
FENESTRAL	CONNECTION GAS	
FRACTURE	CORE - LOST	
INTERCRYSTALLINE	CORE - RECOVERED	ANGLE
INTEROOLITIC	FAULT	ROUND

Round

Symbols

FORMATION TOP **B** SUBANG **P** PACKSTONE

SHOW **P** SUBRND **W** WACKESTONE

WALL CORE (LEFT)

Textures Sorting

WALL CORE (RIGHT)

B BOUNDSTONE **M** MODERATE

C CHALKY **P** POOR

CX CRYPTOXLN **W** WELL


ELINE TESTED - LEFT **E** EARTHY

ELINE TESTED - RT **FX** FINELYXLN

Cut

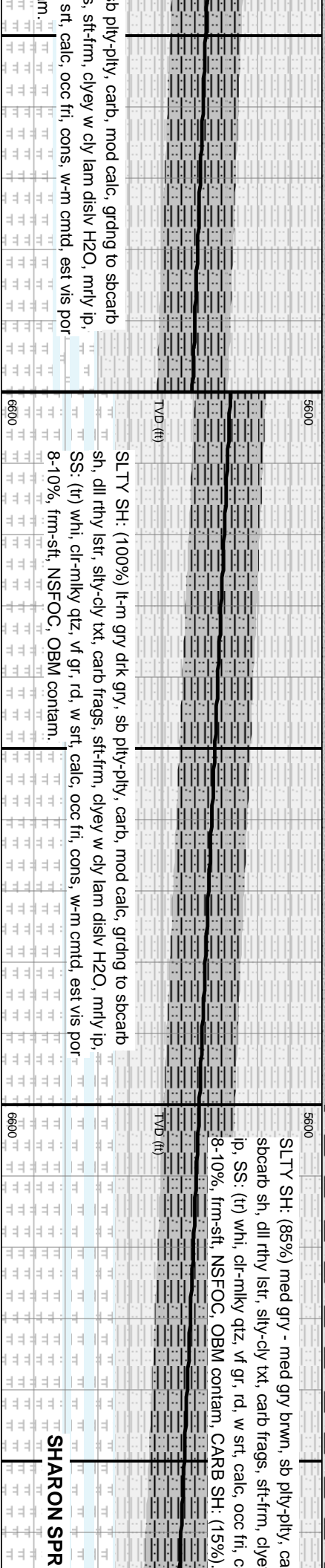
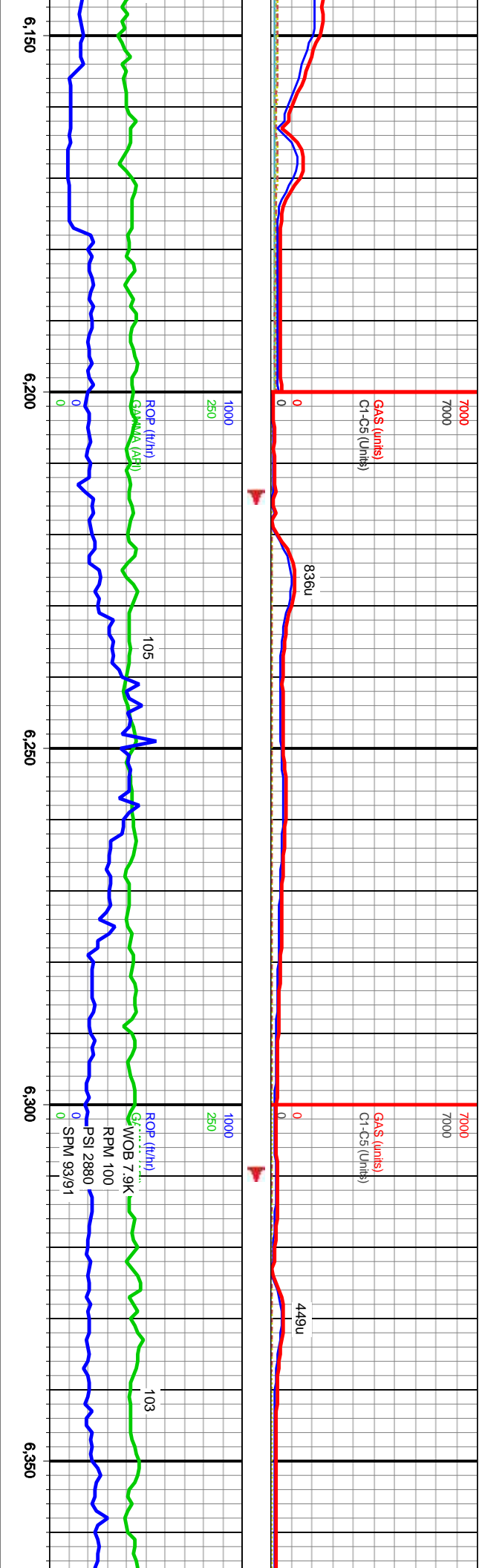
ES GRAINSTONE  No Cut

L LITHOGRAPHIC  Fair Cut

MX MICROXLN  Good Cut

M MUDSTONE Blank

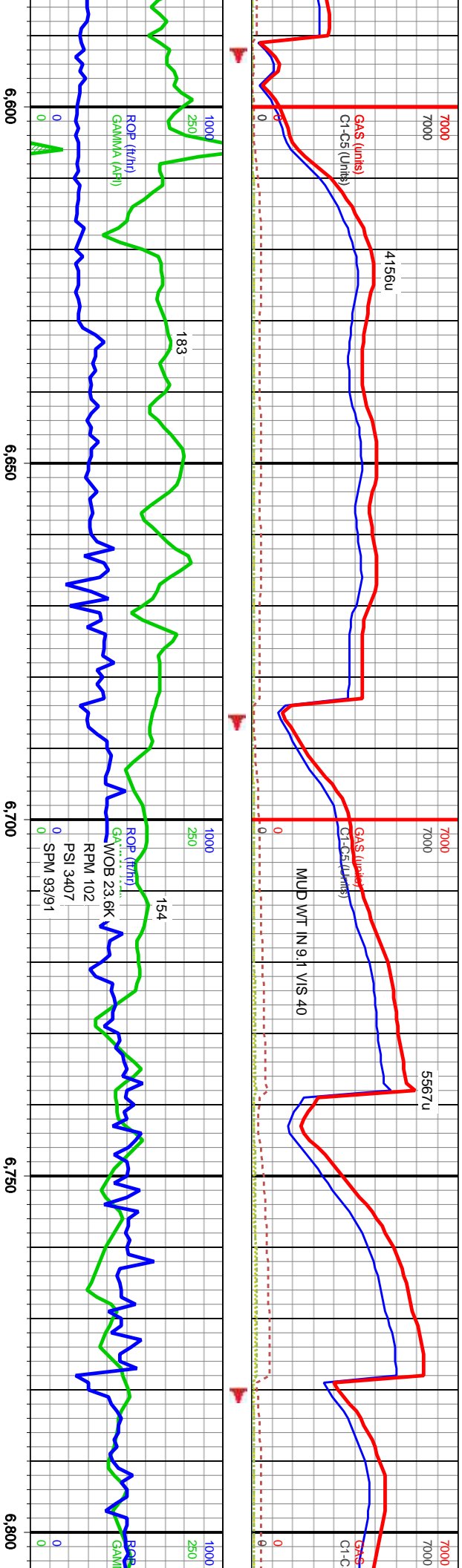
Grading



MD: 6,190'
Inclination: 7°
Azimuth: 16°
TVD: 5,874'
VS: -1,517'

MD: 6,284'
Inclination: 15°
Azimuth: 25°
TVD: 5,966'
VS: -1,500'

SHARON SPR



ed sbply,
OC, OBM
pyr nods

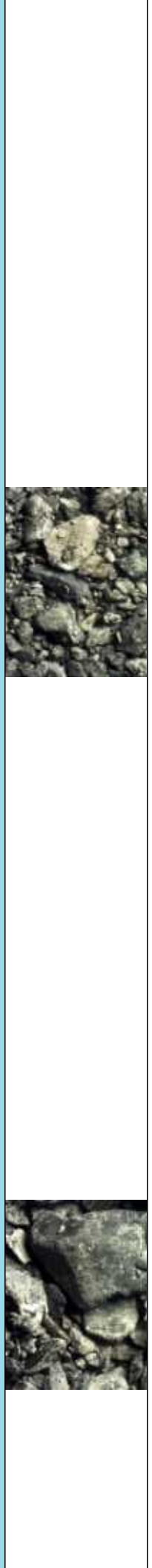
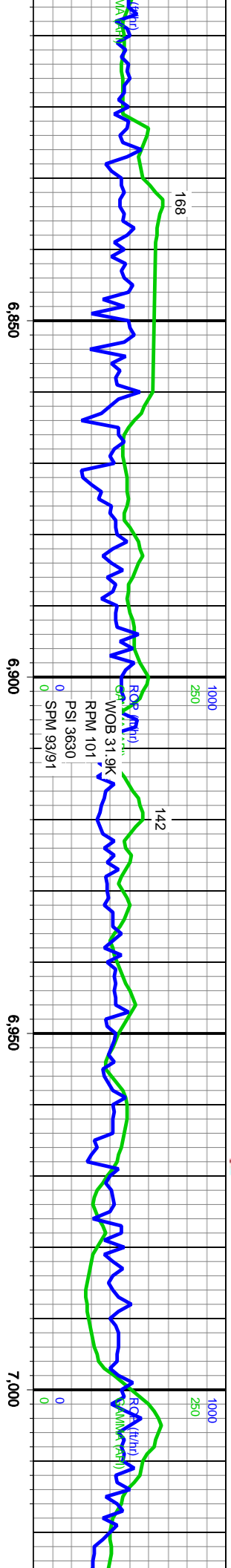
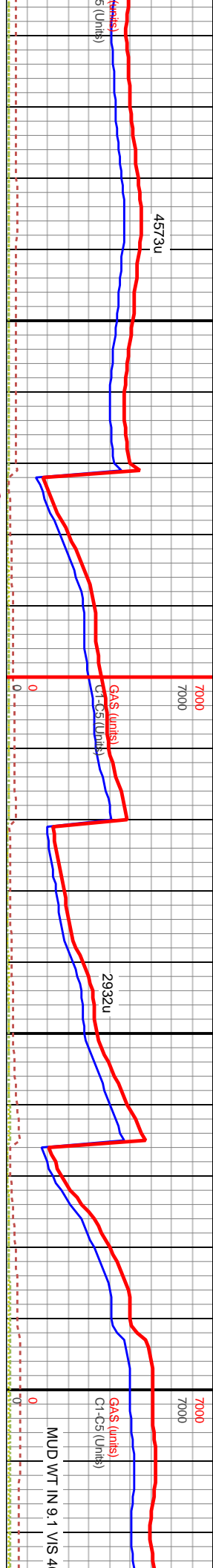
MARL: (60%) med brwn-drk brwn, mod frm-firm, sbdky, rthy spkng ip, occ calc
incls, intrbd w med gry-blk carb mat. MRLY CHLK: (40%) lt brwn-lt gry brwn, sb
ply-sb blk, dli rthy lstr, dns crmbly ten, v carb, mic xln sug txt, frm, mtlid w blk carb
mat to, est 30-40% micrite.

NIORARA "A" MARL @ 6249' TVD 6623' MD

TVD (ft)		TVD (ft)		TVD (ft)	
A" CHALK @ 6240' TVD 6609' MD	6600	NIORARA "B" CHALK @ 6309' TVD 6729' MD	6600	NIORARA "B" Marl @ 6341' TVD 6881' MD	6600
	6600		6600		6600
	6600		6600		6600
	6600		6600		6600
	6600		6600		6600
	6600		6600		6600
	6600		6600		6600
	6600		6600		6600
	6600		6600		6600
	6600		6600		6600

MD: 6,661'
Inclination: 53°
Azimuth: 9°
TVD: 6,274'
VS: -1,301'

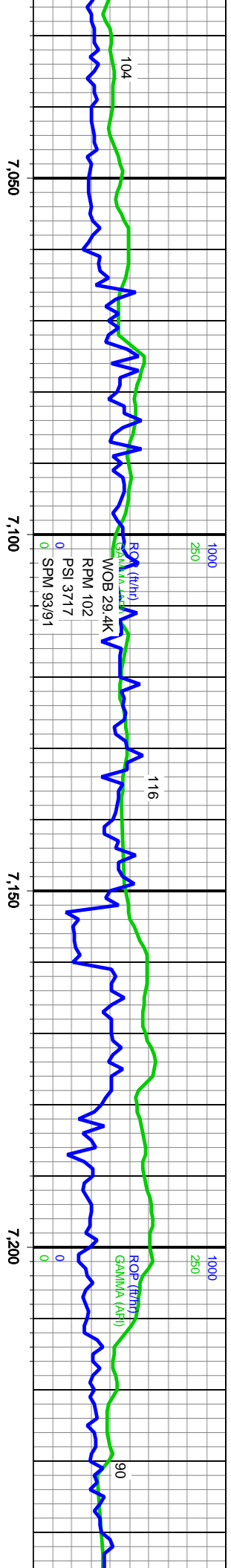
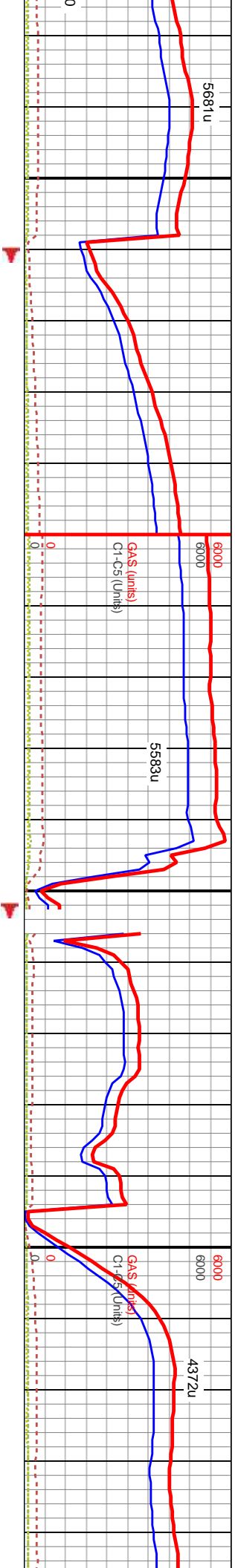
MD: 6,755'
Inclination: 63°
Azimuth: 6°
TVD: 6,324'
VS: -1,221'



REG CARB CHLK: (60%) mtltd drk-med gry gry-brwn, lt brwn gry ip, chiky txt, dull rthy		CHALK: (80%) med-lt gry brwn, mtltd w whi mcrtc spks ip, chiky txt, dli rthy lstr, blkly-rthy frac, elong-wdglk, dn-bit, pred cin-arg, tr ammn blk carb mat (SH) to, infer chlk por, MARL: (20%).	
r, blkly-sbchiky, mod hrd-frn, arg w 30% cly mtrix, infr chlk por, mrly ip, blk carb mat ip, MARL: (30%), MRLY CHLK: (10%).			
NIOBRARA "C" Chalk @ 6374' TVD 6909' MD		New Target 6386' TVD +6'	
100' MD		Niobrara	
		Potential Fault	

MD: 6,849'
Inclination: 72°
Azimuth: 3°
TVD: 6,360'
VS: -1,135'

MD: 6,943'
Inclination: 81°
Azimuth: 1°
TVD: 6,382'
VS: -1,044'



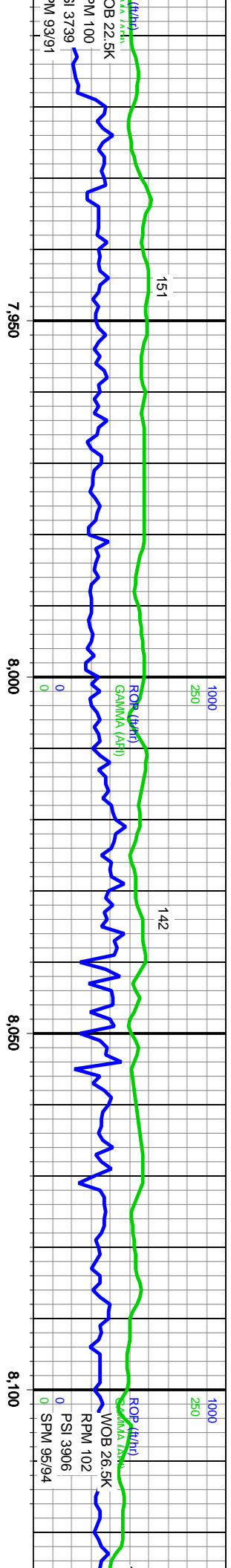
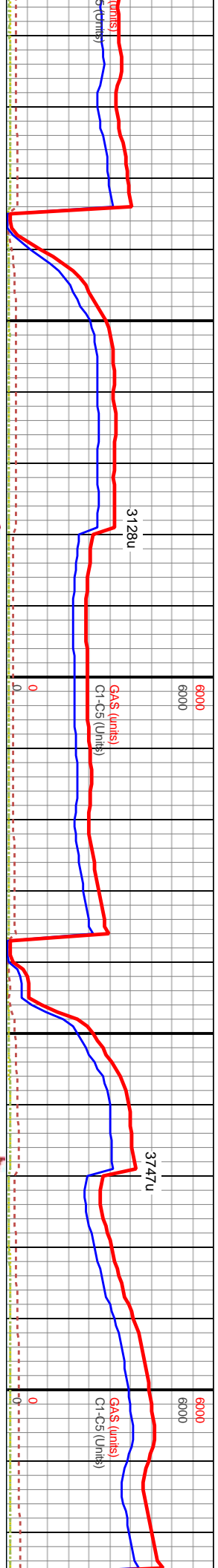
200' Sample Interval		5600	5600	5600
TVD (ft)		5600	5600	5600
CHALK: (60%) med-ft gry brwn, mttld w whi mcrtc spks ip, chiky txt, dli rthy lstr, blkly-rthy frac, elong-wdglik, dn-brit, pred clin-arg, tr ammn blk carb mat (SH) to, infer chlk por. MARL: (40%).		5600	5600	5600
TVD (ft)		5600	5600	5600

Chalk Target

MD: 7,036'
Inclination: 86°
Azimuth: 3°
TVD: 6,392'
VS: -951'

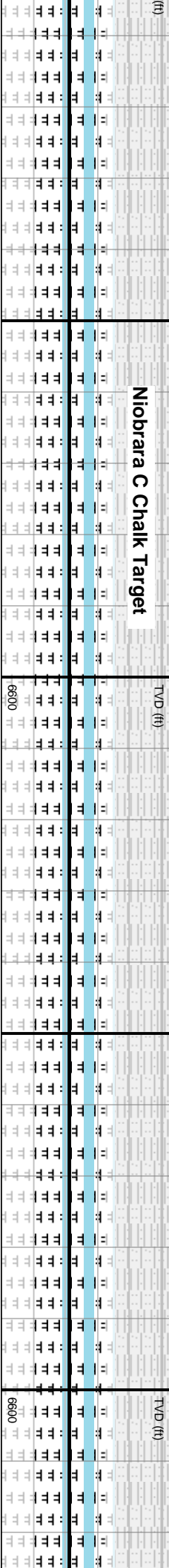
MD: 7,130'
Inclination: 91°
Azimuth: 2°
TVD: 6,394'
VS: -857'

MD: 7,222'
Inclination: 91°
Azimuth: 359°
TVD: 6,392'
VS: -765'



IRLSTN (70%): mttld med- gry, occ drkr gry, v sm wxy-sbwwy txt, sbply-sl shrp/jggd
ru, frm-hrd, mud spd mtr, v calc, no vis perm or por, mttld w whi mtrc spcks to
ossiliferous), CHLKY MARL (30%) abn ARAG & ls calc frag, abnt bentonite

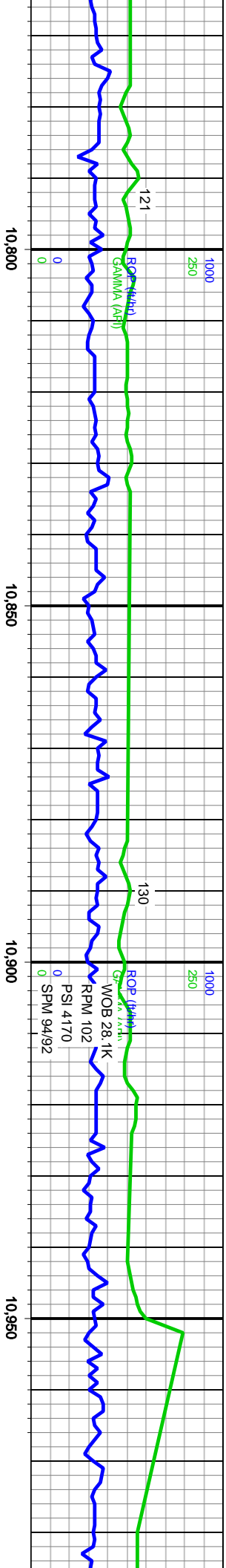
Niobrara C Chalk Target



MD: 7,956'
Inclination: 90°
Azimuth: 2°
TVD: 6,386'
VS: -32'

MD: 8,046'
Inclination: 90°
Azimuth: 1°
TVD: 6,386'
VS: 58'

CHALK: (60%) me
bly-rthy frac, elon
por, MARL: (40%)

[illegible]

own gry ip, chiky txt, dull rthy
lk por, mrlly ip, blk carb mat ip,

ARG CARB CHLK: (80%) mttld drk-med gry gry-brwn, lt brwn gry ip, chiky tx
 ist, blyk-sbchky, mod hrd-frn, arg w 30% cly mtr, inftr chlk por, mrlly ip, blk
 MARL: (10%), MRLY CHLK: (10%).

Niobrara C Cha

MD: 10,825'
Inclination: 90°
Azimuth: 1°
TVD: 6,400'
VS: 2,829'

MD: 10,914'
Inclination: 90°
Azimuth: 359°
TVD: 6,400'
VS: 2,918'

