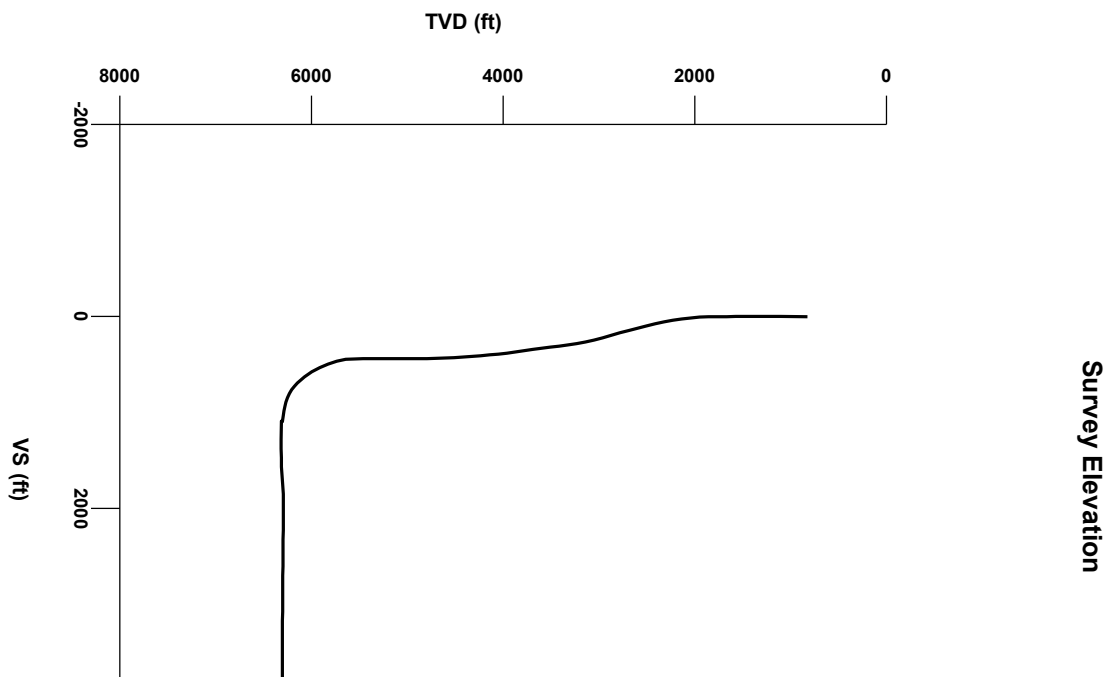
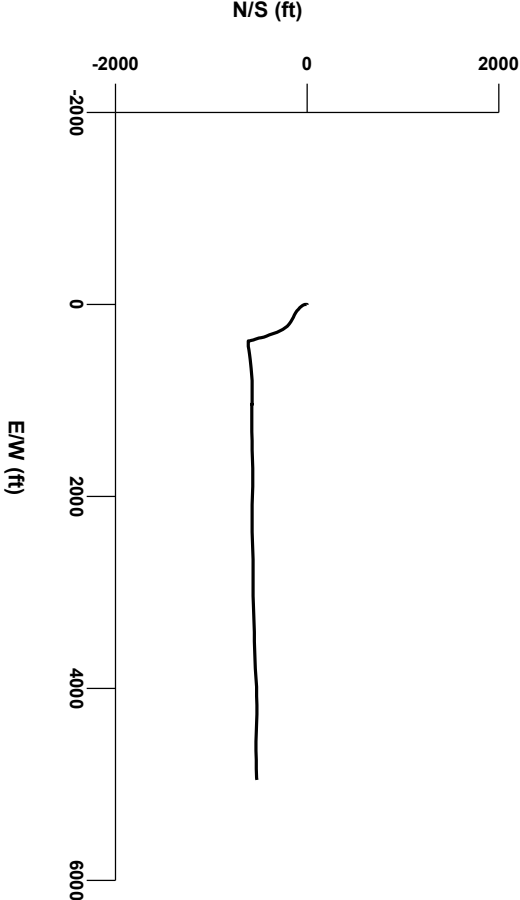



LOG created using L PLOT VH Version 3.0, February 22, 2013, Copyright (C) 1999-2009 Pason Systems Corp.


OPERATOR: NOBLE ENERGY INC.
WELL: KEOTA PC LB26-62HN
LOCATION: SEC 27, T9N, R60W
COUNTY: WELD
STATE: COLORADO
SPOT: 1282' FSL, 350' FEL
ELEVATION: GE: 4,949', KB: 4,973'
FIELD: WILDCAT
SPUD DATE: 02/15/2013
TD DATE: 02/22/2013
DATES LOGGED: 02/16/2013 - 02/22/2013
DEPTHS LOGGED: 1,000' - 10740'
LOGGERS: BRAD WILSON, JOHN T. READY, JAKOB PAMMER
DRILLING FLUID: WATER, MUD, POLY
DRILLING RIG: H&P 322
API: 05-123-36549
LOG TYPE: HORIZONTAL
SCALE: 1:240 (5 inches per 100 feet)
REMARKS: WELLSITE GEOLOGICAL SERVICES PROVIDED BY COLUMBINE LOGGING INC.





Survey Plan




Chalk


Marl


Shaly Siltstone


Silty Shale


ENGINEERING SYMBOLS


Connection

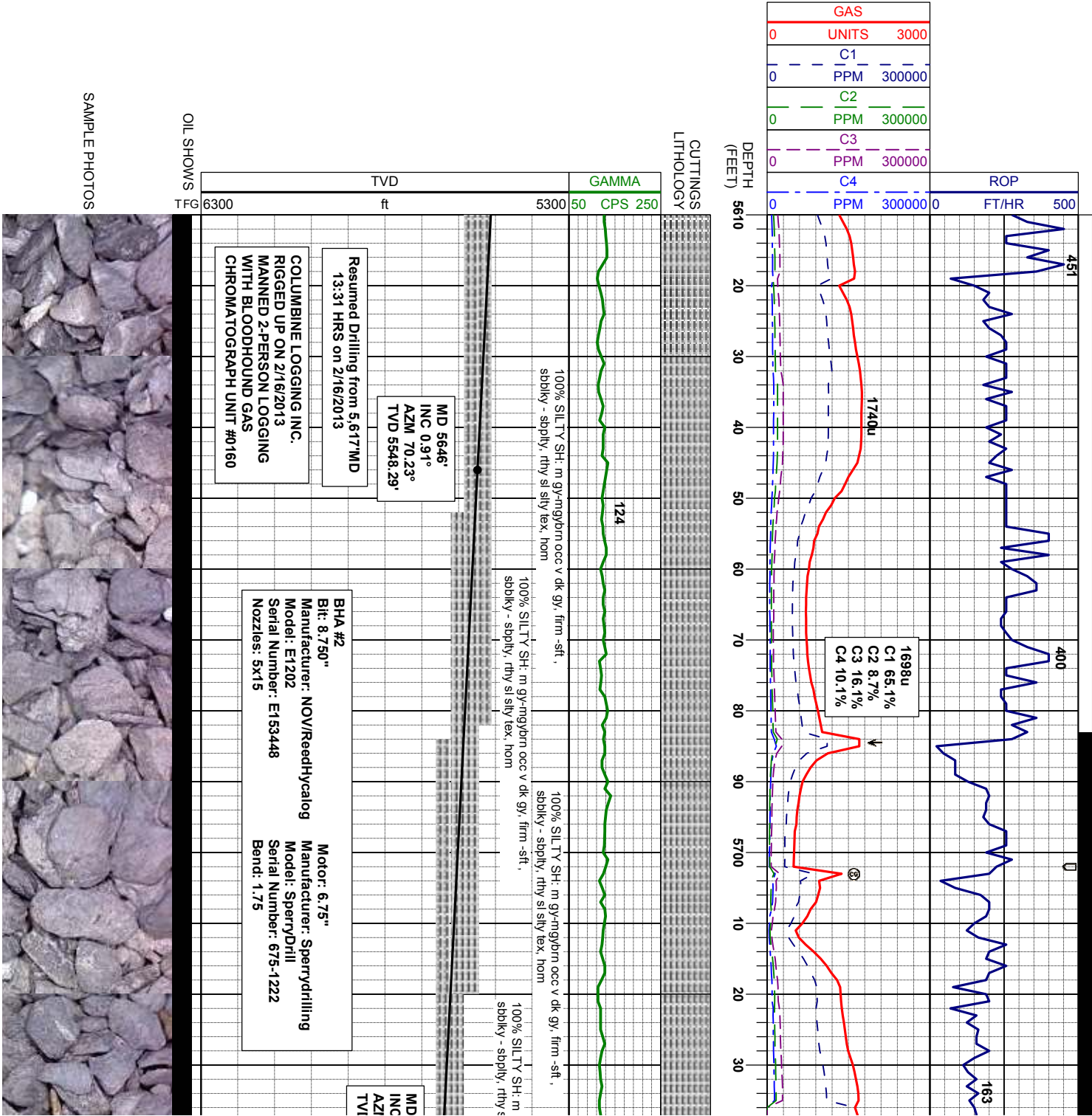
Connection Gas

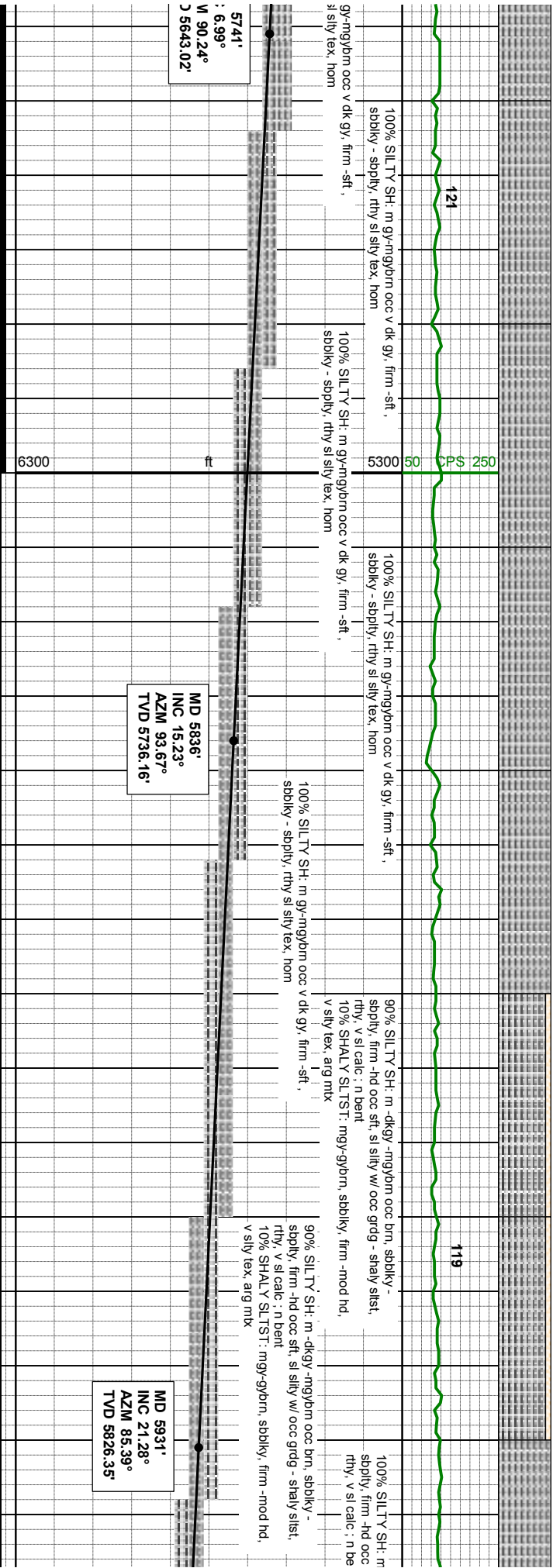
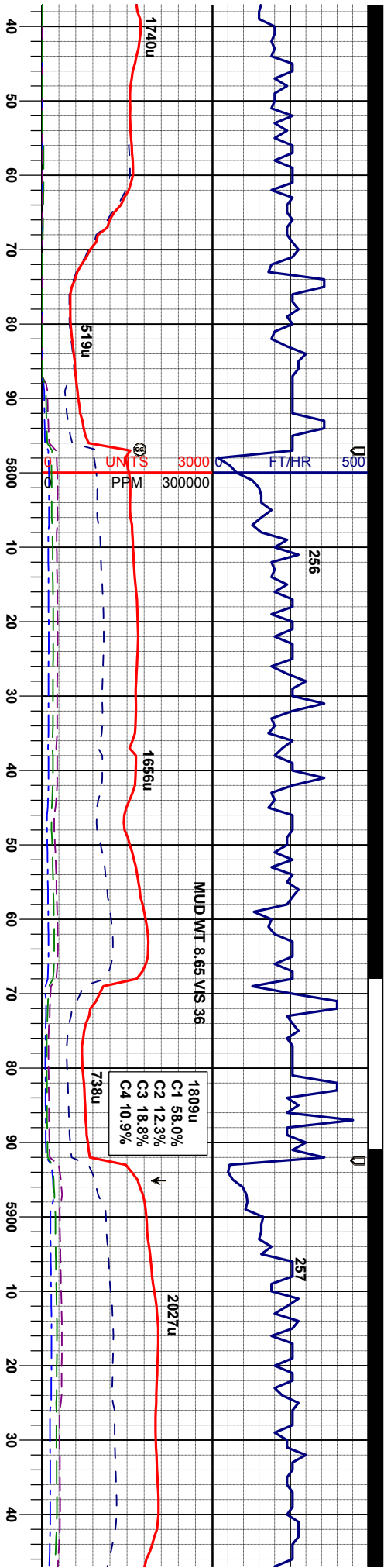
Arrow

Midnight Depth

Normal Fault

Arrow



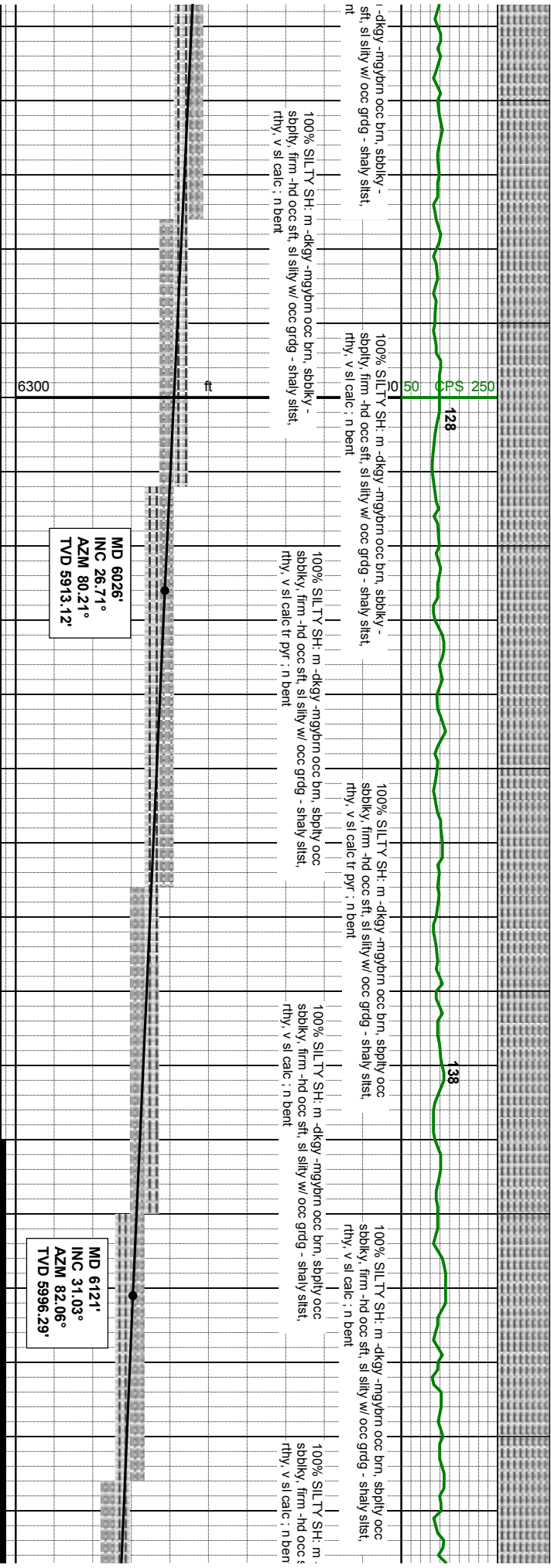
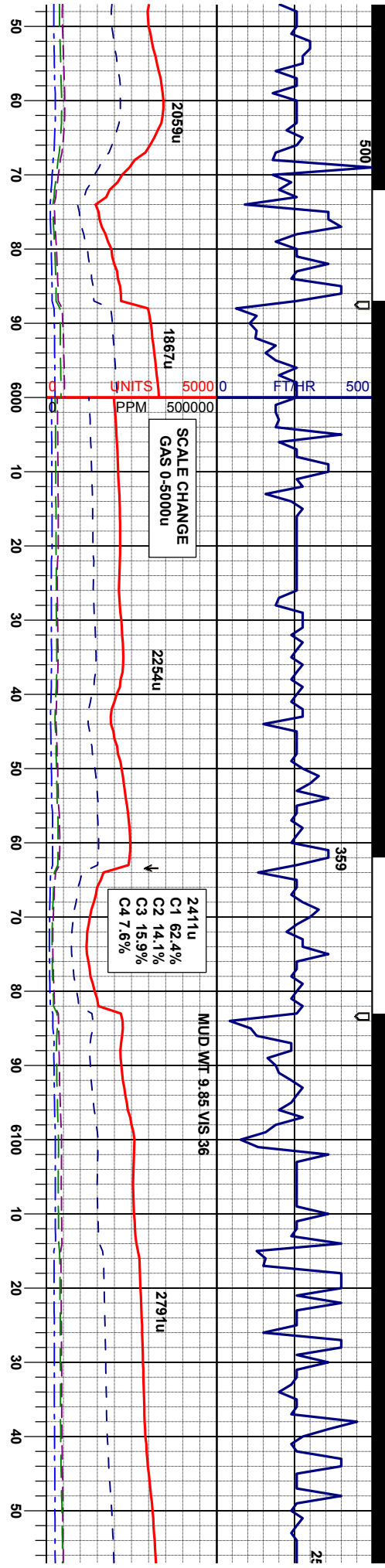


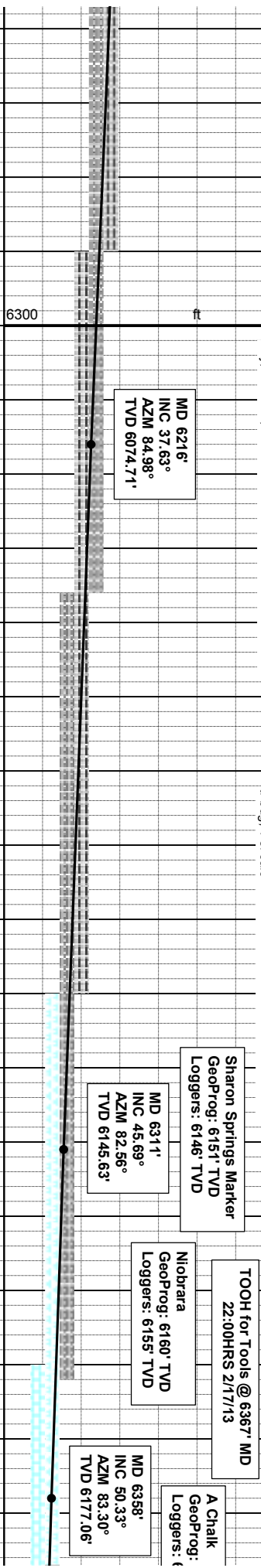
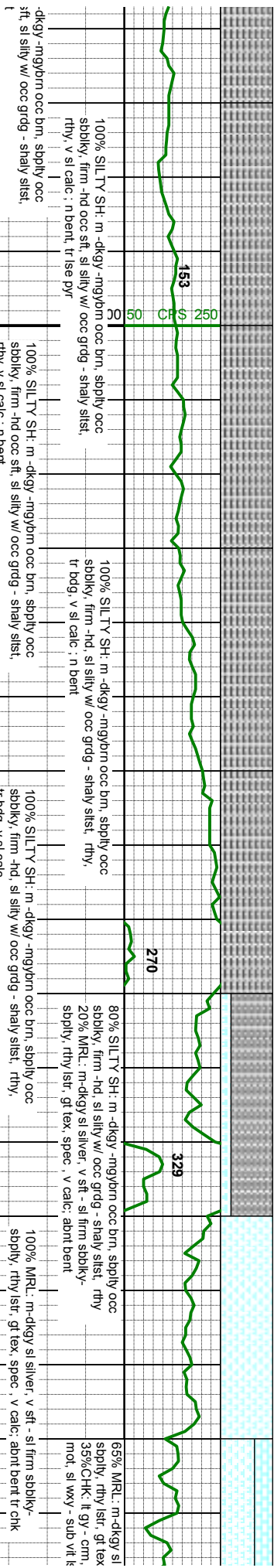
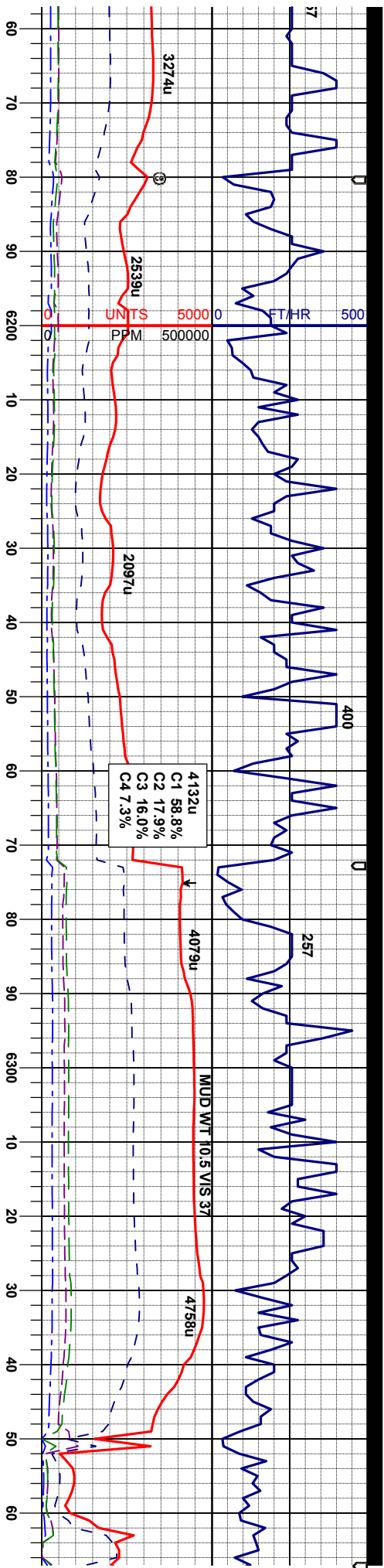
5741'
: 6.99°
W 90.24°
N 5643.02°

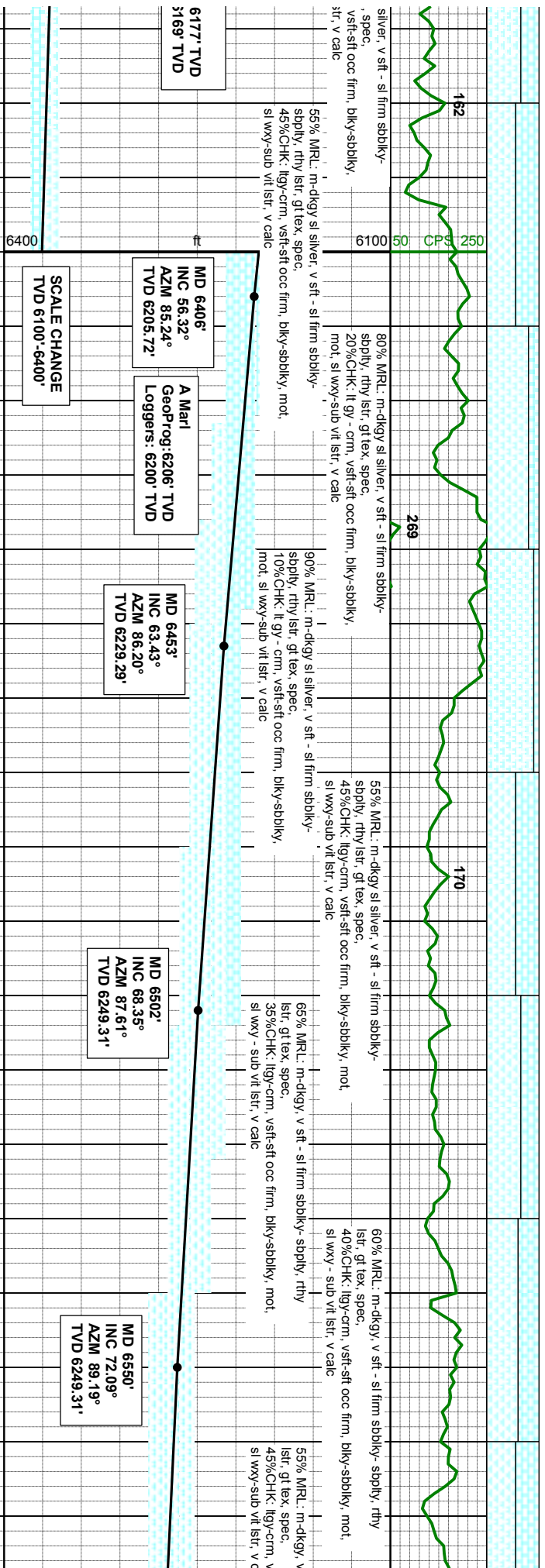
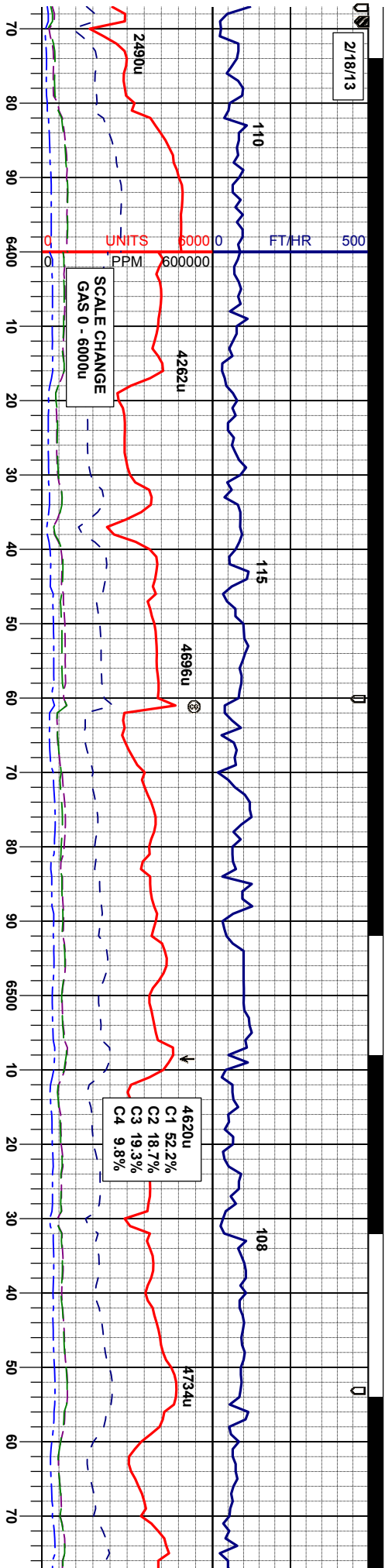
MD 5836'
INC 15.23°
AZM 93.67°
TVD 5736.16'

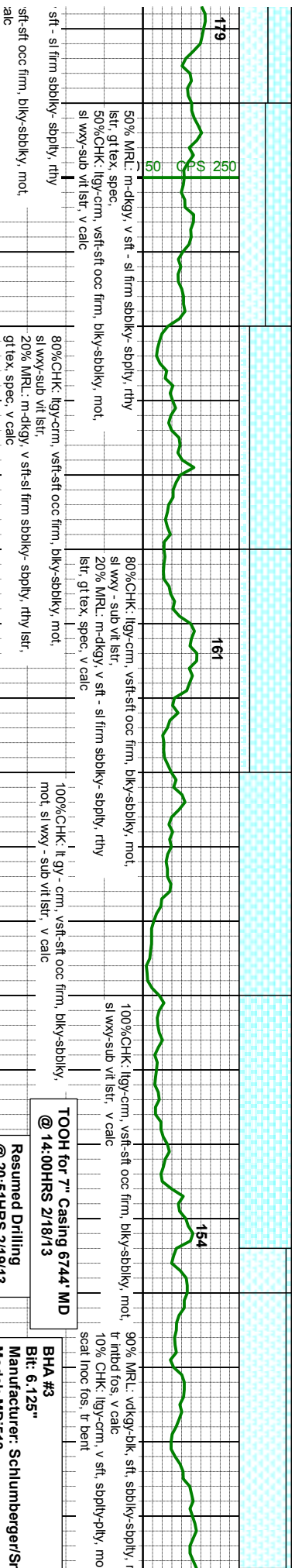
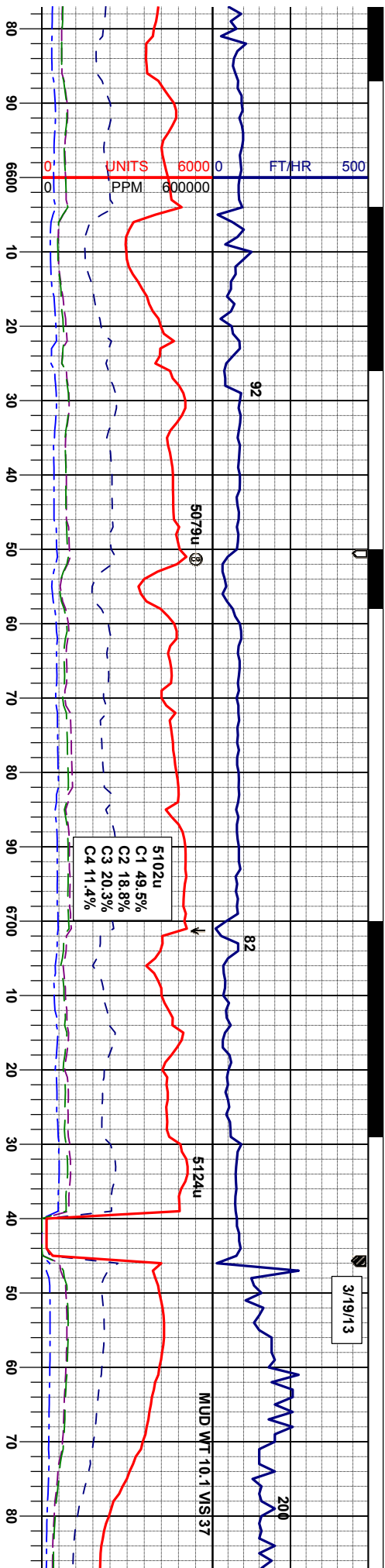
MD 5931'
INC 21.28°
AZM 85.39°
TVD 5826.35'











B Chalk
GeoProg:6288' TVD
Loggers: 6277' TVD

MD 6597'
INC 76.90°
AZM 89.10°
TVD 6278.11'

MD 6645'
INC 80.01°
AZM 89.80°
TVD 6287.72'

MD 6690'
INC 81.30°
AZM 90.23°
TVD 6295.03'

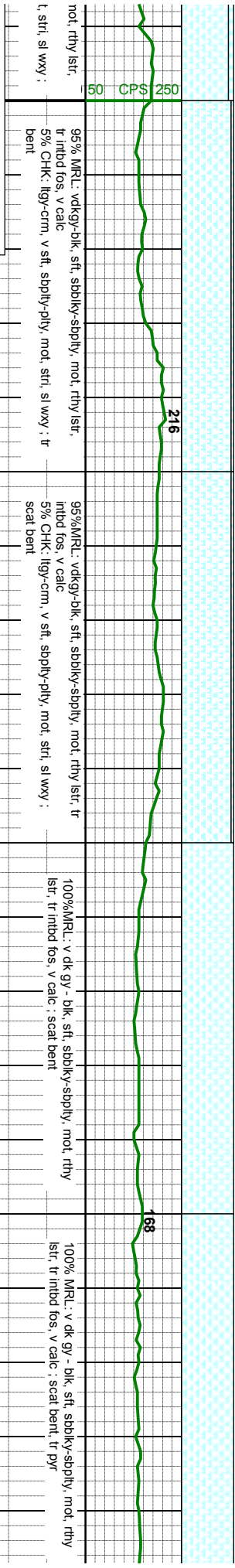
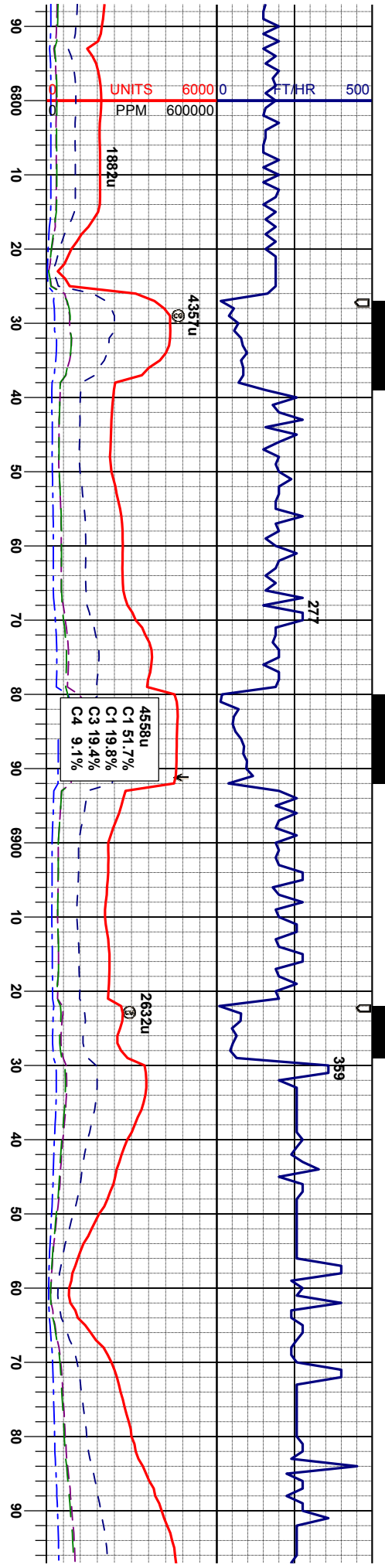
MD 6758'
INC 83.70°
AZM 91.22°
TVD 6303.90'

BHA #3
Bit: 6.125"
Manufacturer: Schlumberger/Sri
Model: MD1513
Serial Number: JF0843
Nozzles: 5x11

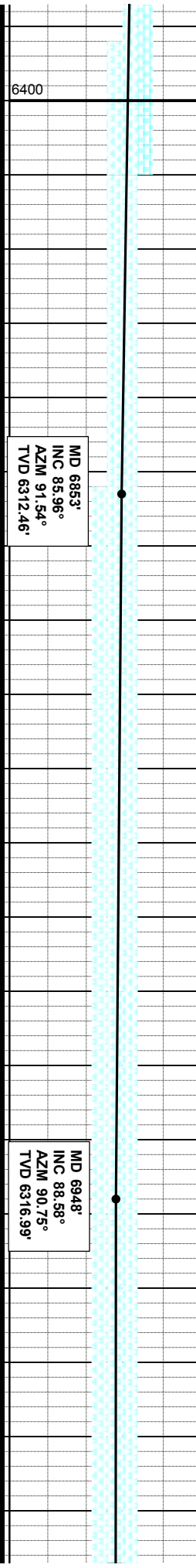
Resumed Drilling
@ 20:51HRS 2/19/13

TOOH for 7" Casing 6744' MD
@ 14:00HRS 2/18/13





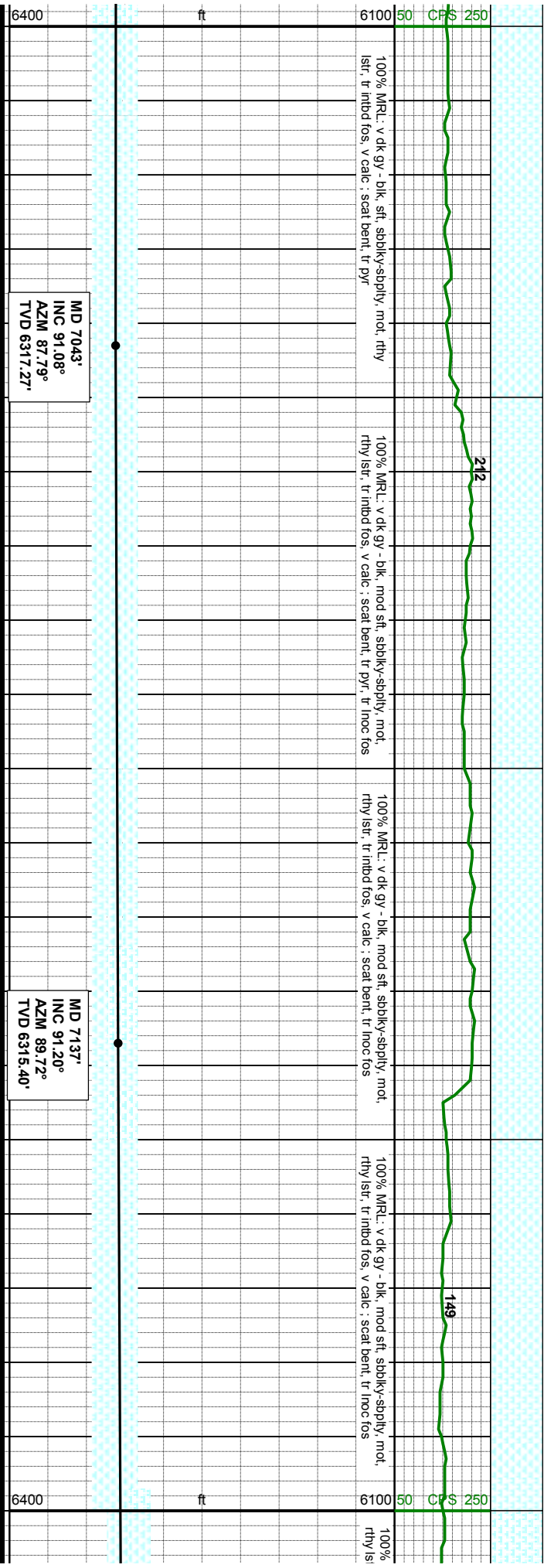
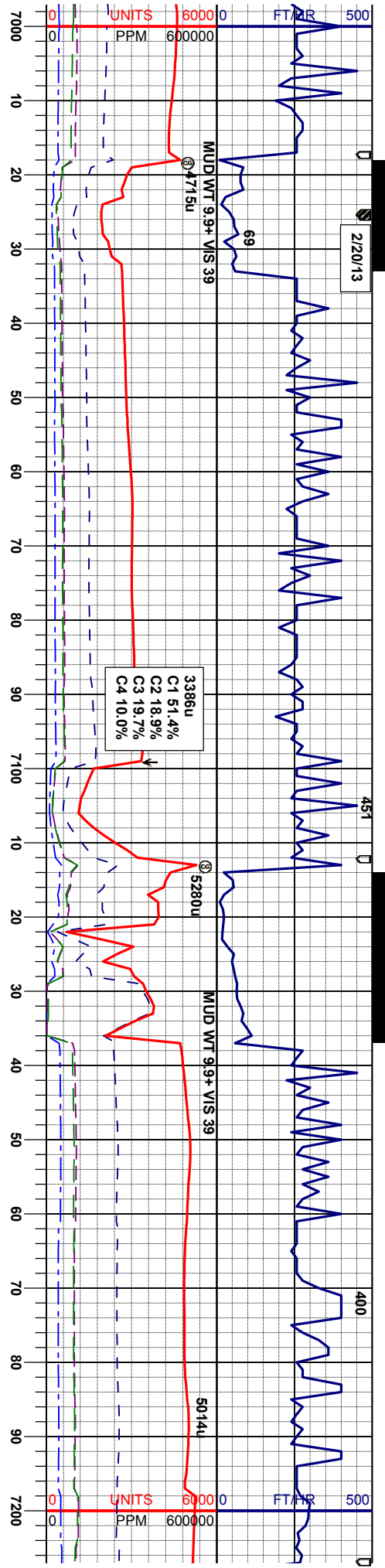
Motor: 4.750"
nith Manufacturer: SperryDrilling
Model: SperryDrill
Serial Number: 475-567
Bend: 1.50

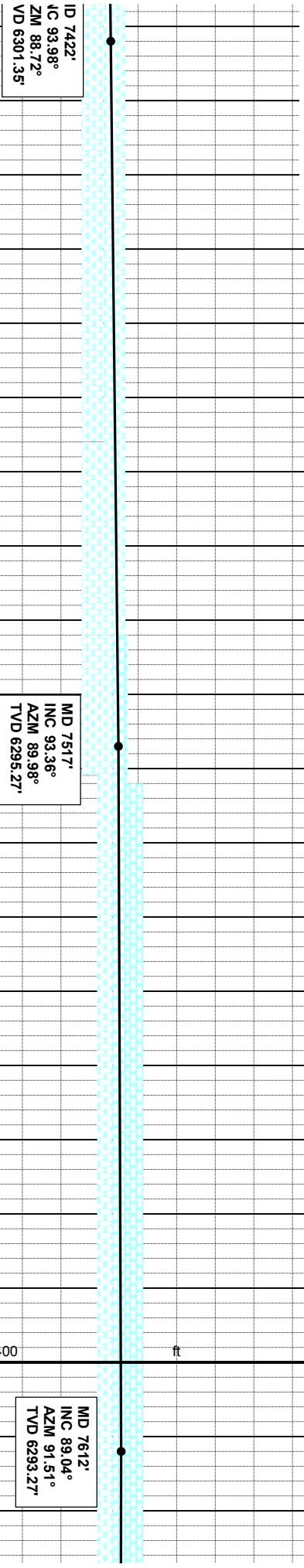
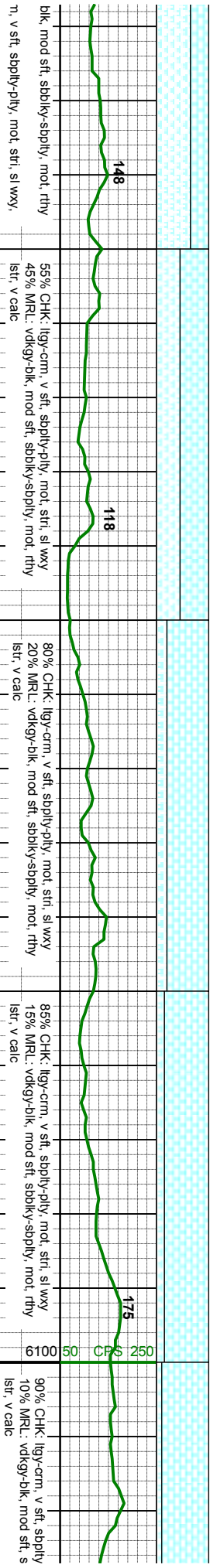
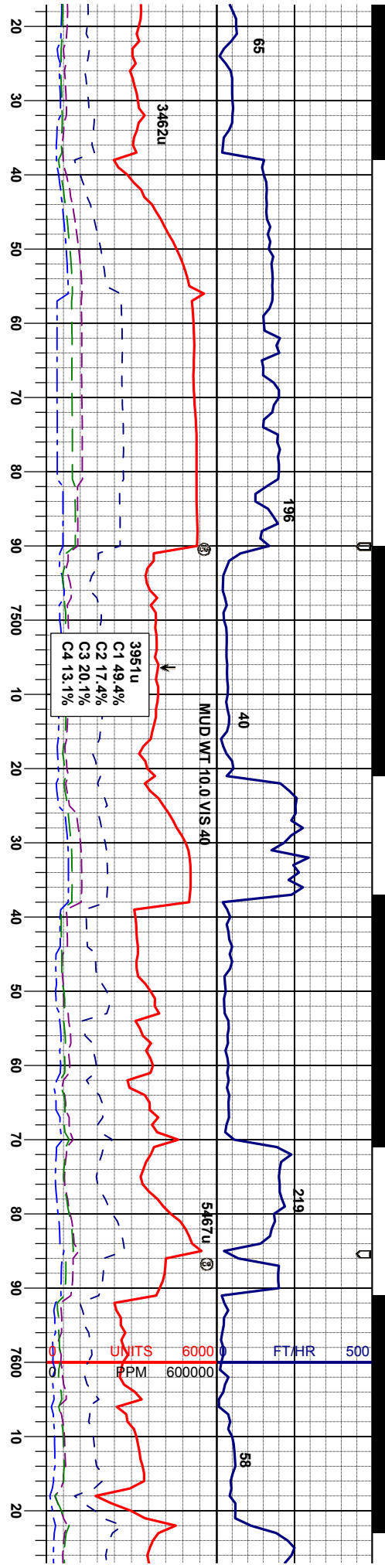


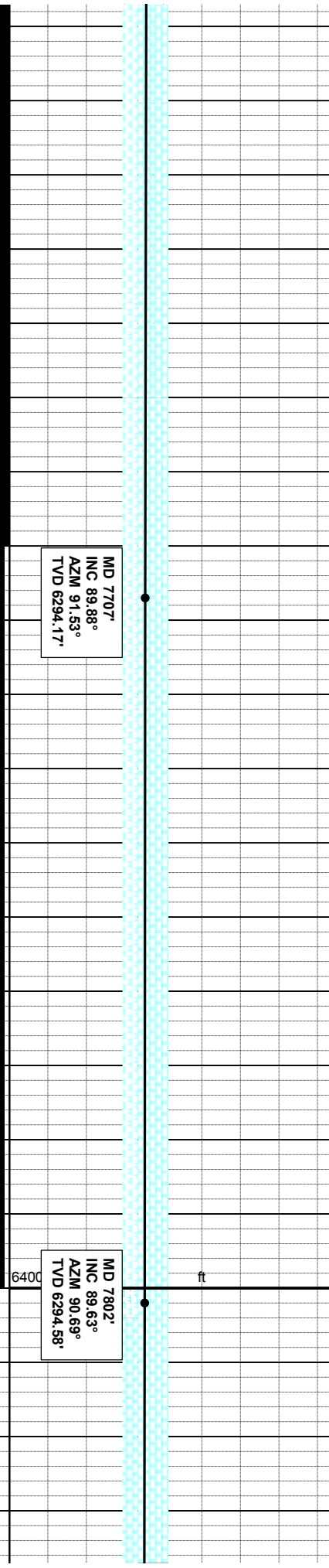
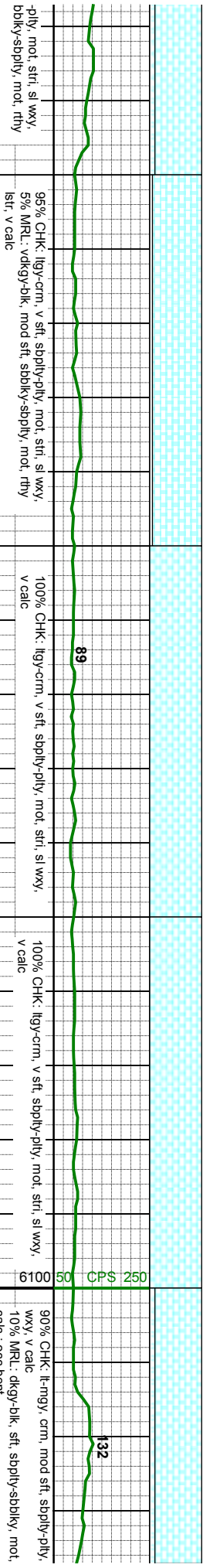
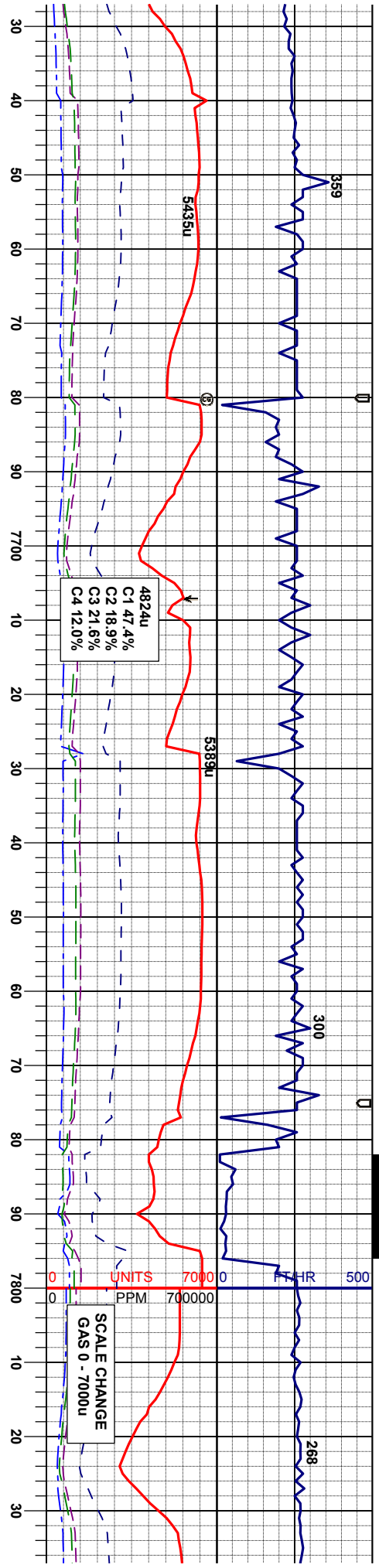
MD 6853'
INC 85.96°
AZM 91.54°
TVD 6312.46'

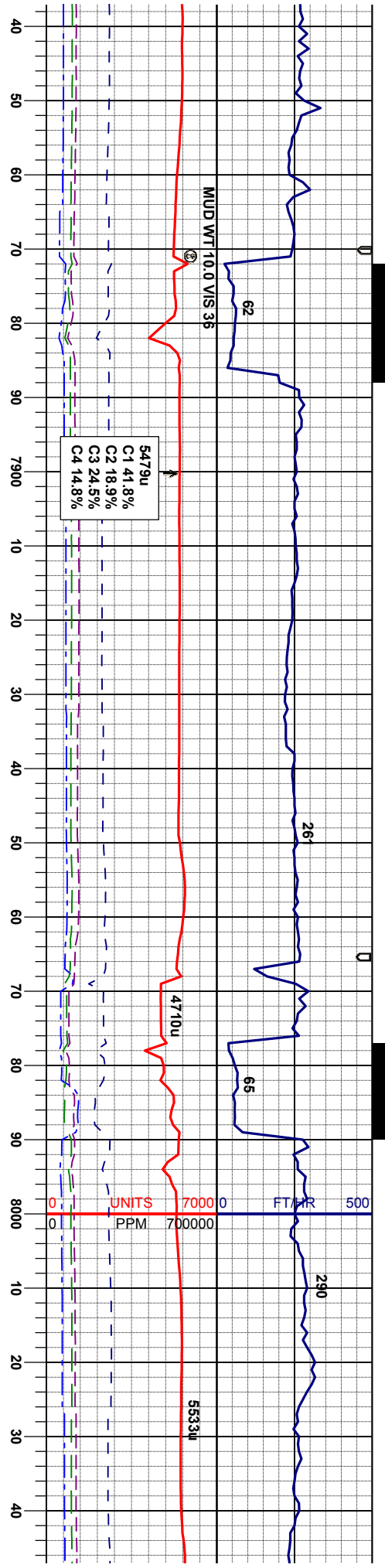
MD 6948'
INC 88.58°
AZM 90.75°
TVD 6316.99'











Oil Over Shakers

mod. str. sl
rthy lst. v
95% CHK: lt-mgy, crm, mod sft, sbsply-pily, mot. str, sl
wxy, v calc
5% MRL: dkgy-blk, sft, sbsply-sbdky, mot, rthy lst, v
calc : occ inoc fos

95% CHK: lt-mgy, crm, mod sft, sbsply-pily, mot. str, sl
wxy, v calc
5% MRL: dkgy-blk, sft, sbsply-sbdky, mot, rthy lst, v
calc : occ inoc fos

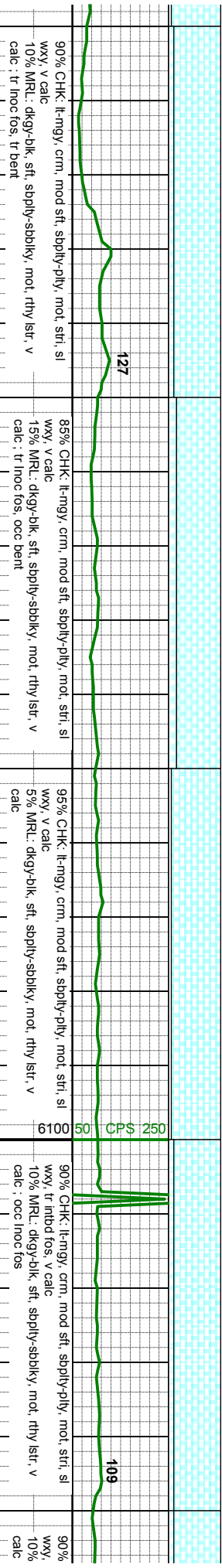
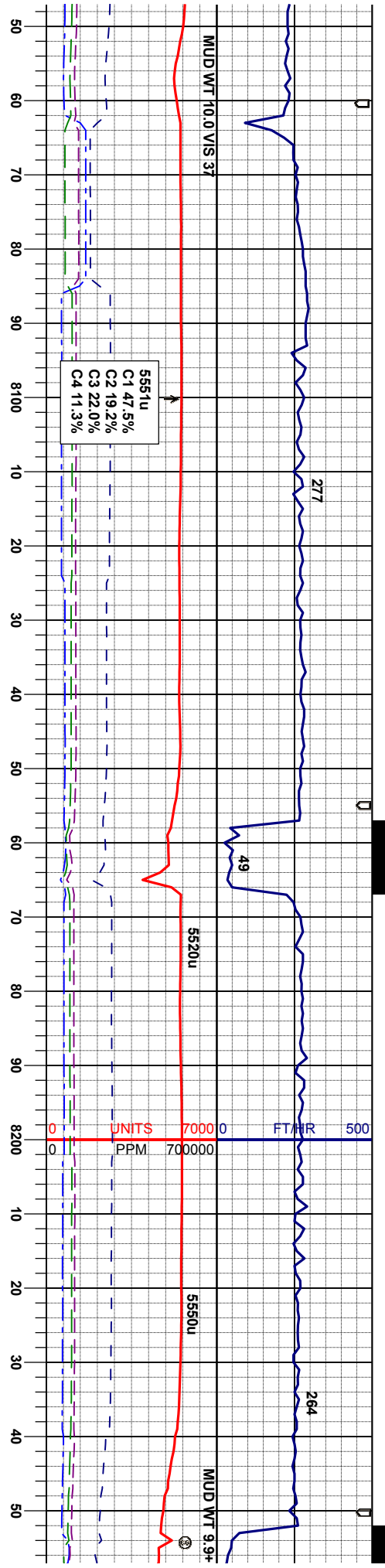
90% CHK: lt-mgy, crm, mod sft, sbsply-pily, mot. str, sl
wxy, v calc
10% MRL: dkgy-blk, sft, sbsply-sbdky, mot, rthy lst, v
calc : occ inoc fos

95% CHK: lt-mgy, crm, mod sft, sbsply-pily, mot. str, sl
wxy, v calc
5% MRL: dkgy-blk, sft, sbsply-sbdky, mot, rthy lst, v
calc : t inoc fos

MD 7897°
INC 89.42°
AZM 90.62°
TVD 6295.37'

MD 7992°
INC 88.43°
AZM 89.43°
TVD 6267.15'





MD 8087°
INC 89.63°
AZIM 89.02°
TVD 6298.76°

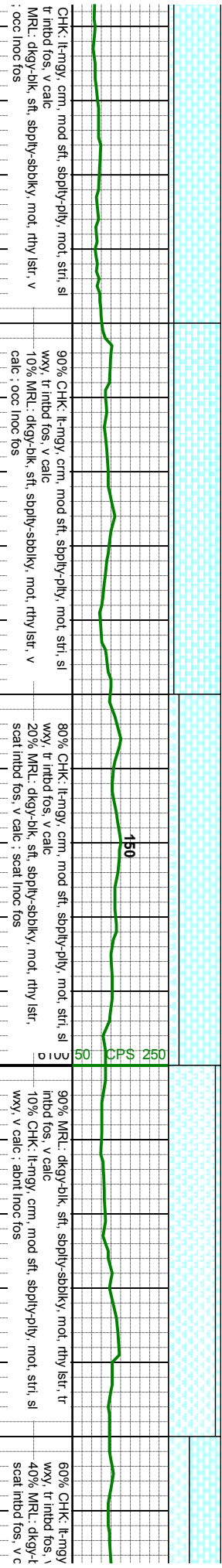
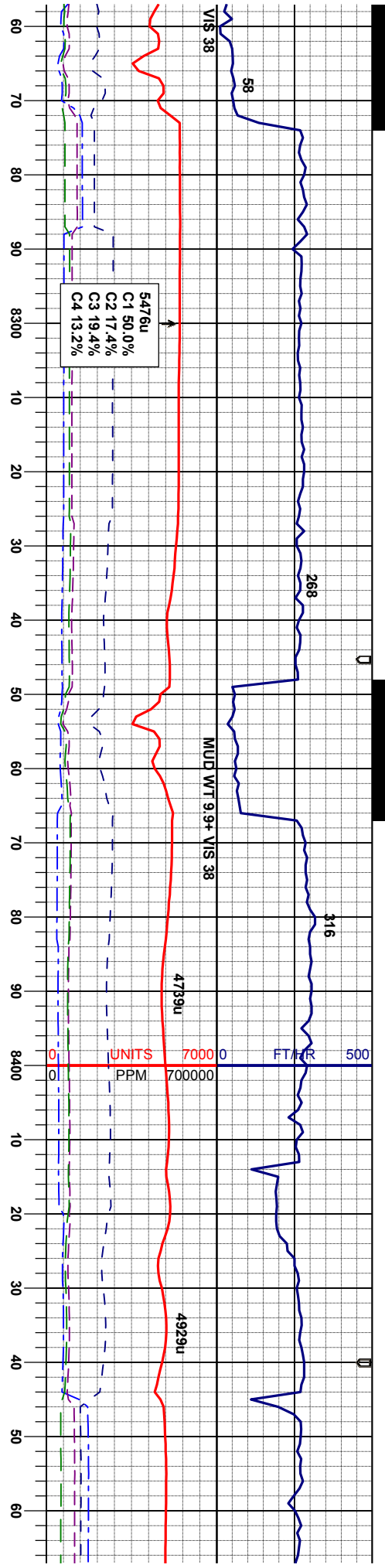
MD 8182°
INC 90.46°
AZIM 88.20°
TVD 6298.69°

6400

ft

6100 50 CPS 250



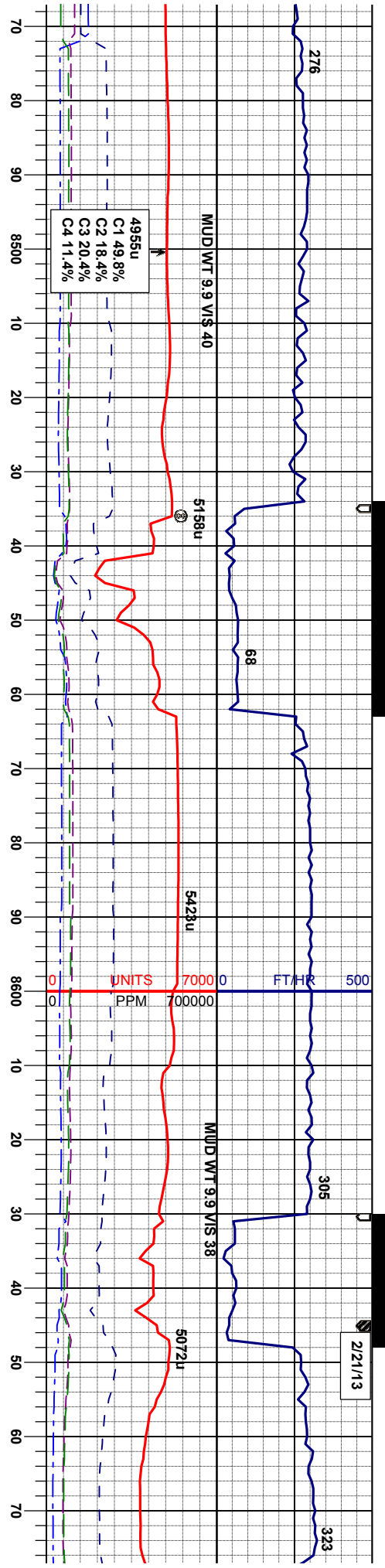


MD 8277'
INC 89.63°
AZM 88.13°
TVD 6298.61'

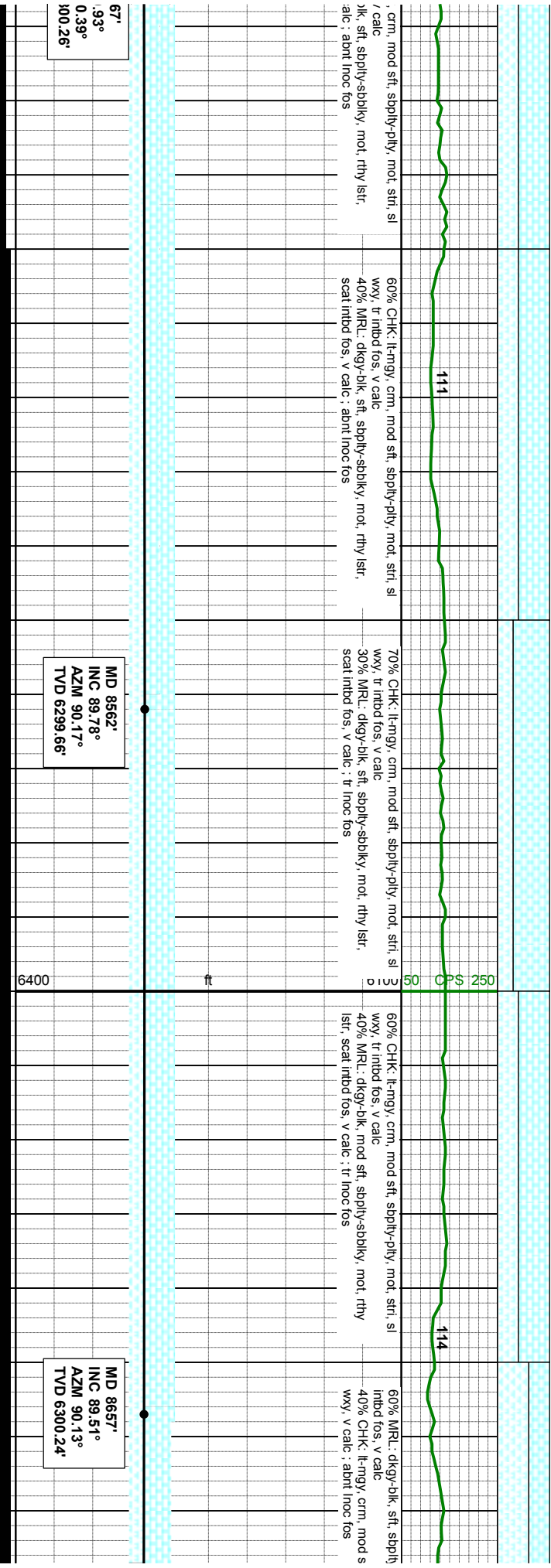
MD 8372'
INC 88.74°
AZM 88.84°
TVD 6299.96'

MD 84
INC 90
AZM 9
TVD 62





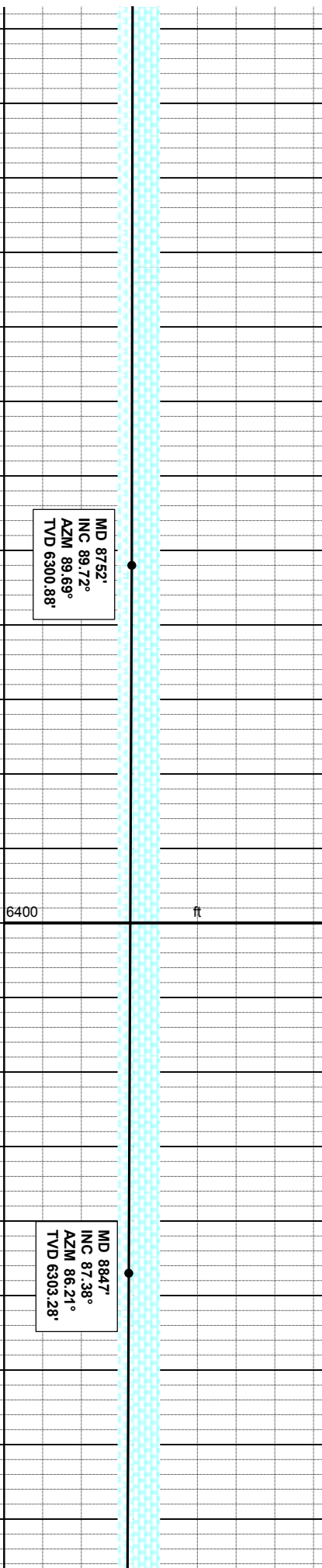
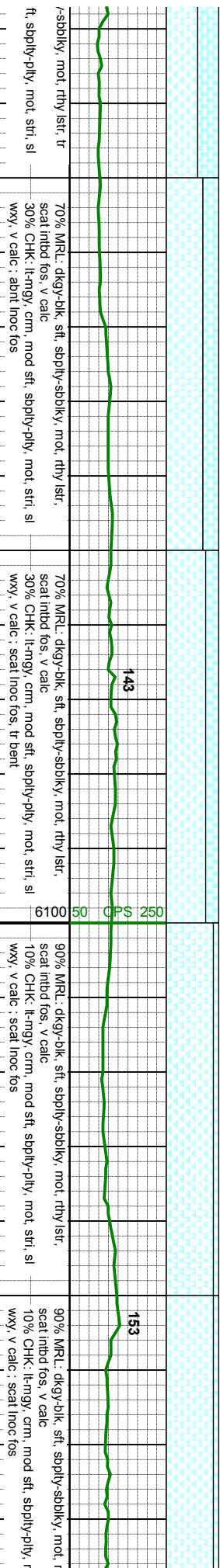
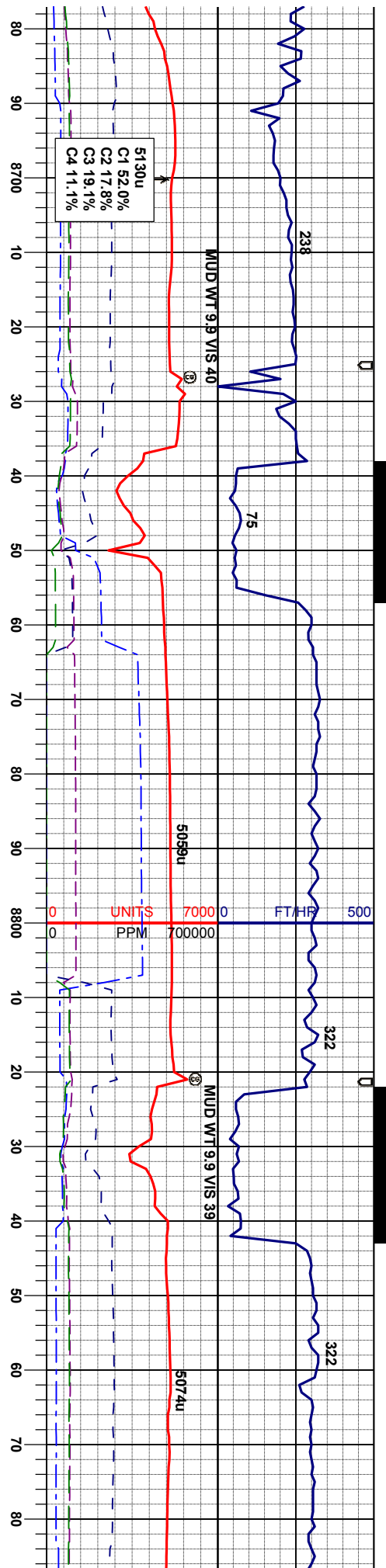
2/21/13

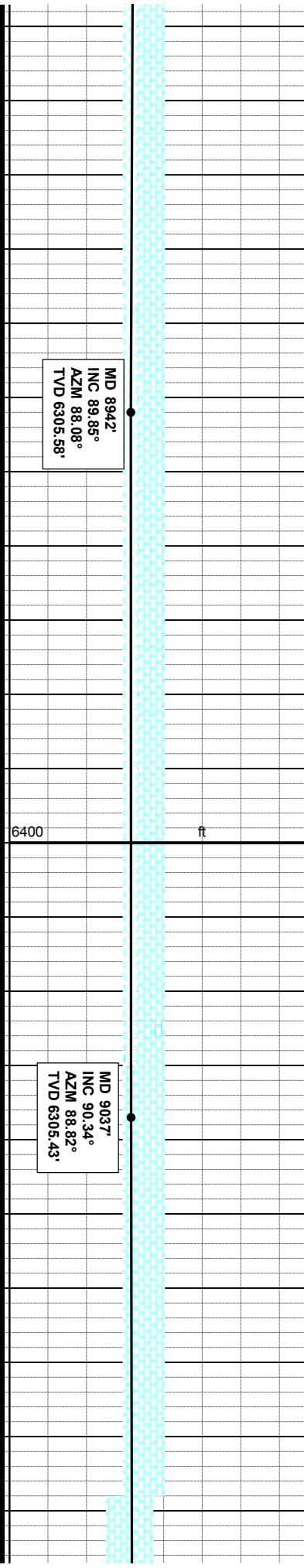
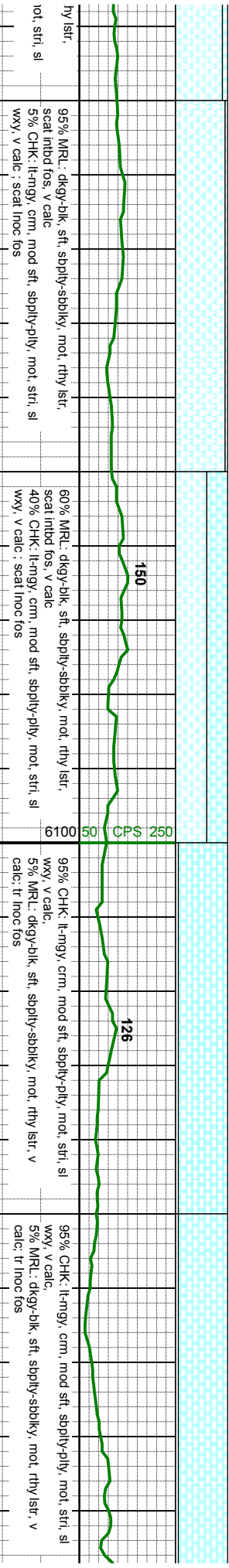
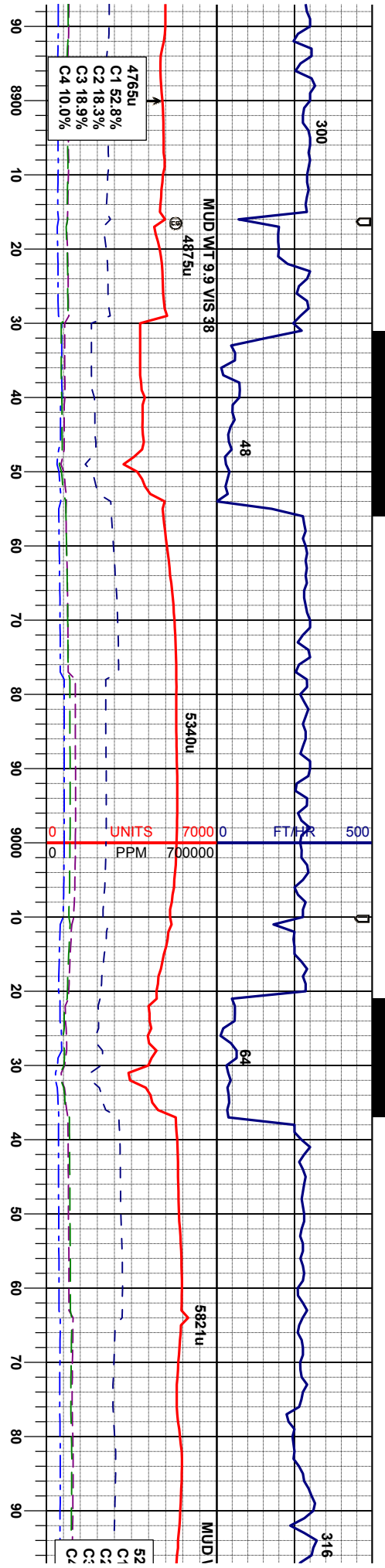


MD 8562' INC 89.78° AZM 90.17° TVD 6299.66'

MD 8657' INC 89.51° AZM 90.13° TVD 6300.24'



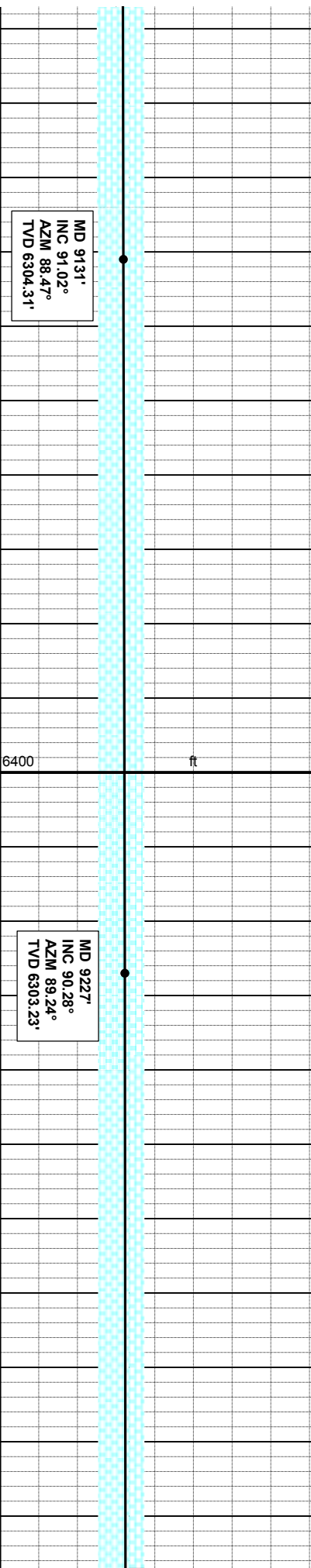
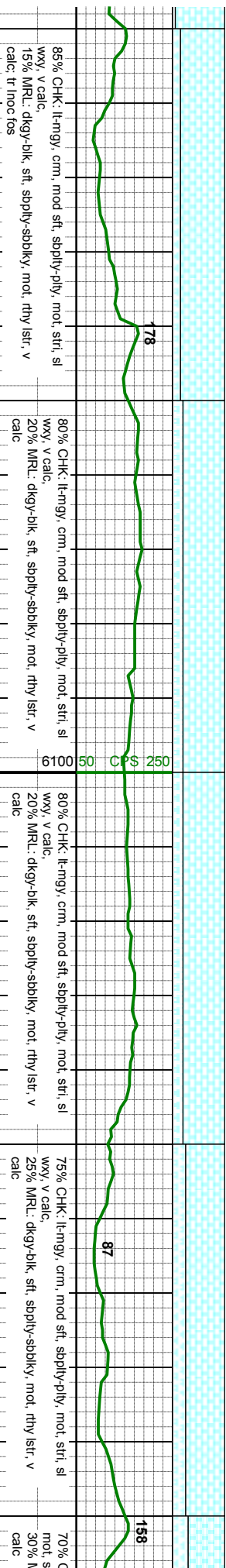
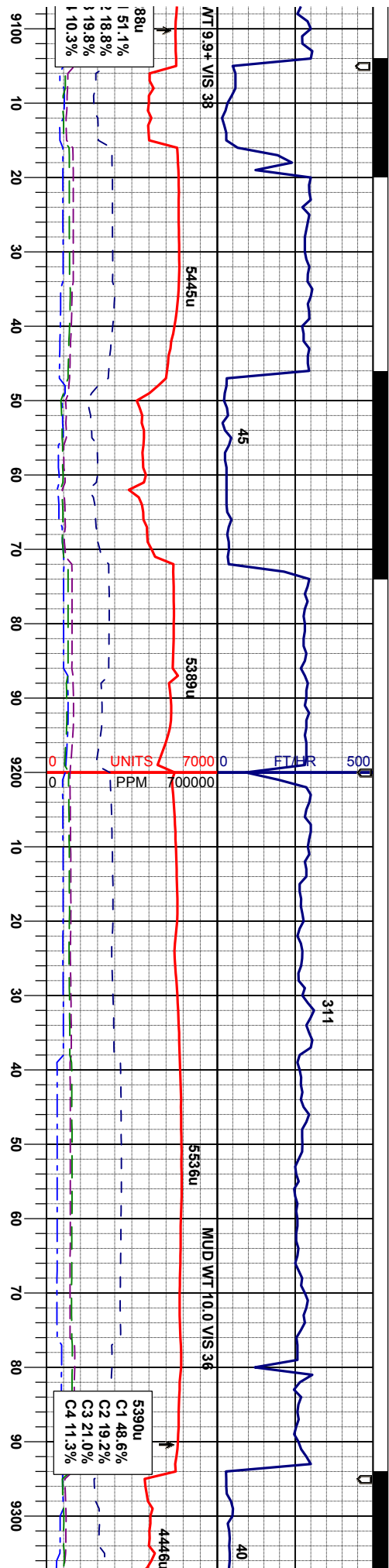


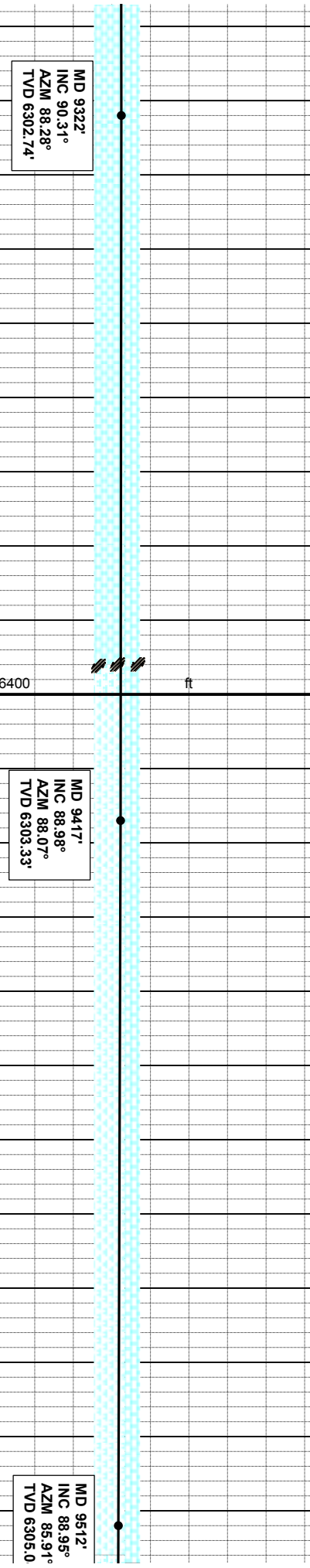
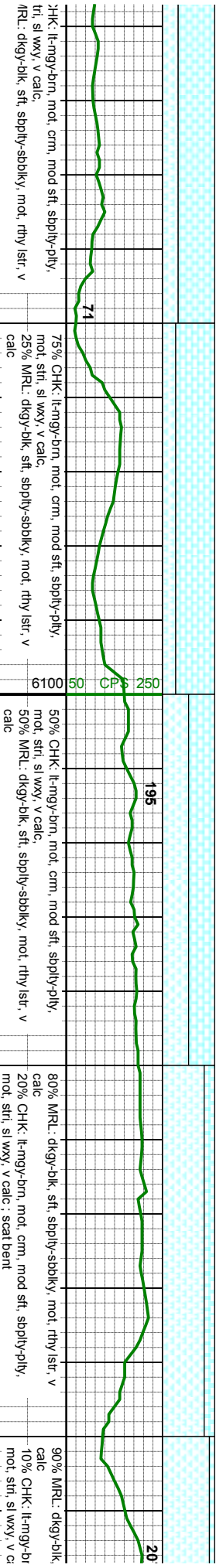
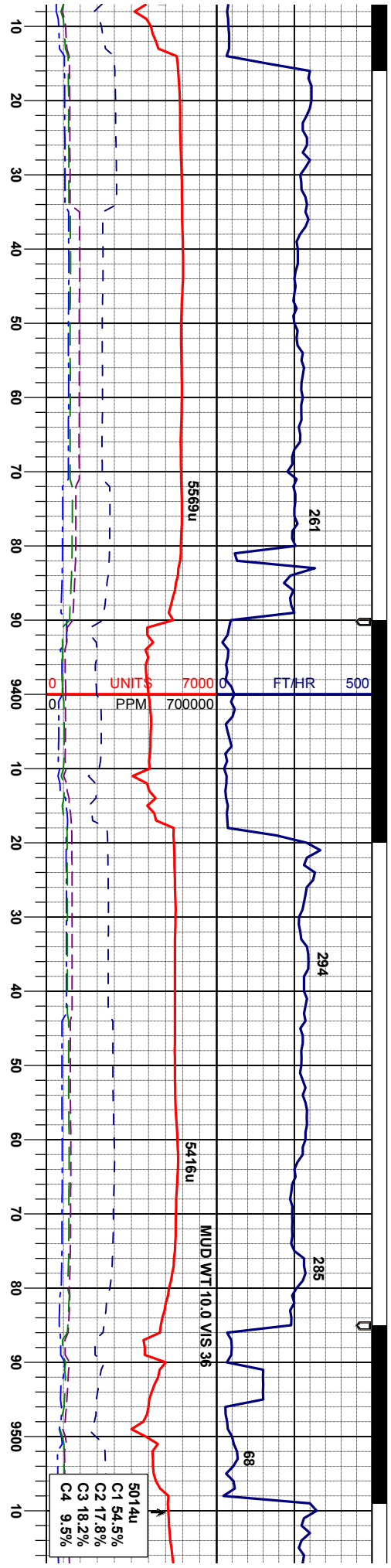


MD 8942'
INC 89.85°
AZM 88.08°
TVD 6305.58'

MD 9037'
INC 90.34°
AZM 88.82°
TVD 6305.43'





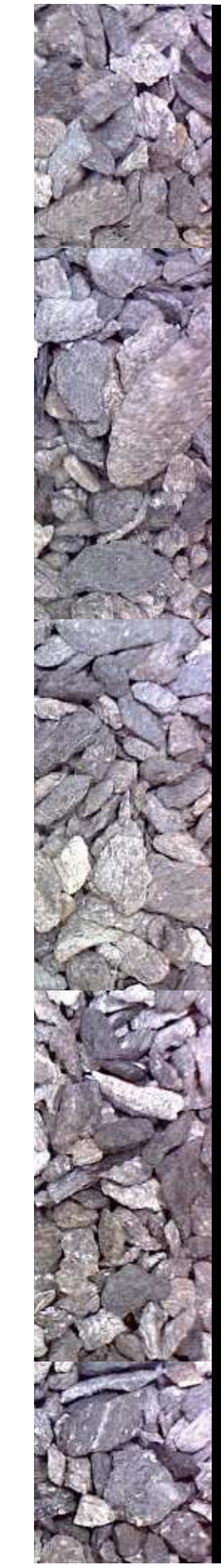
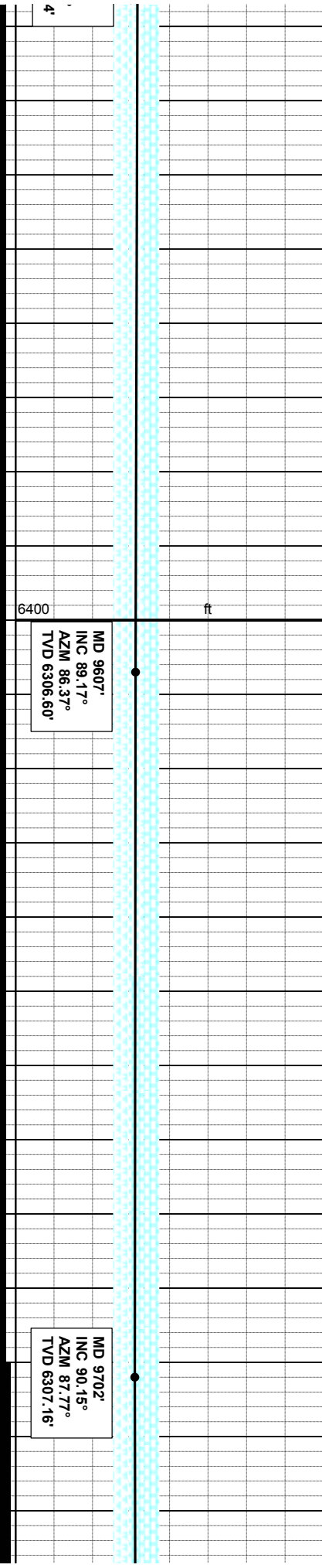
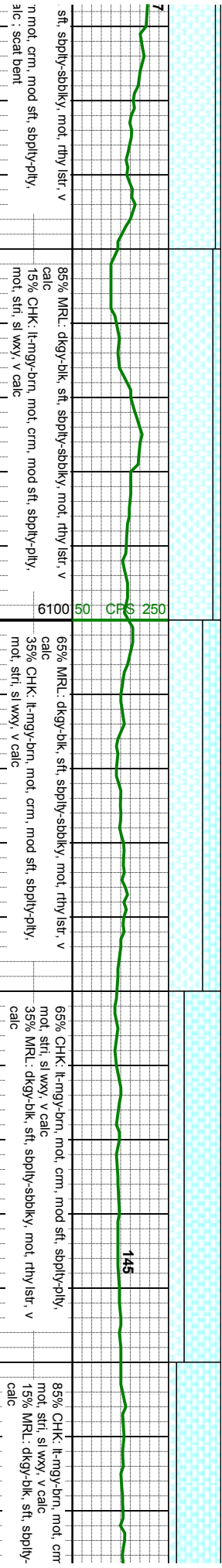
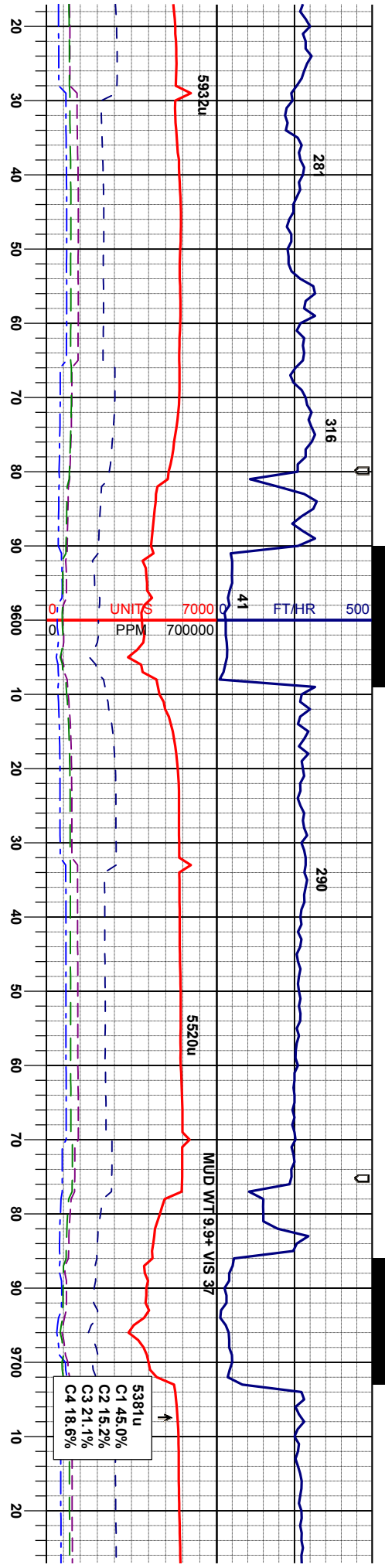


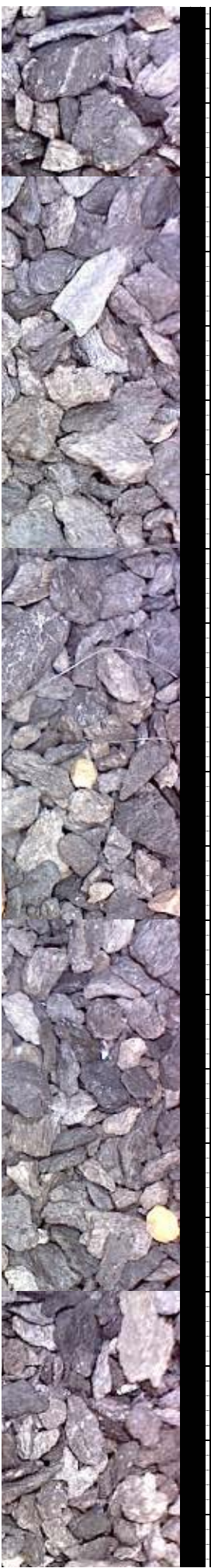
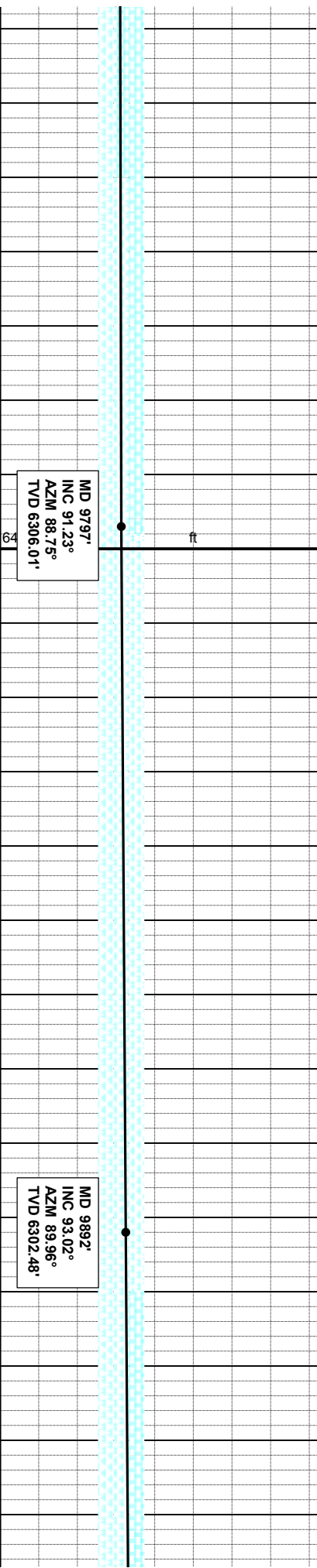
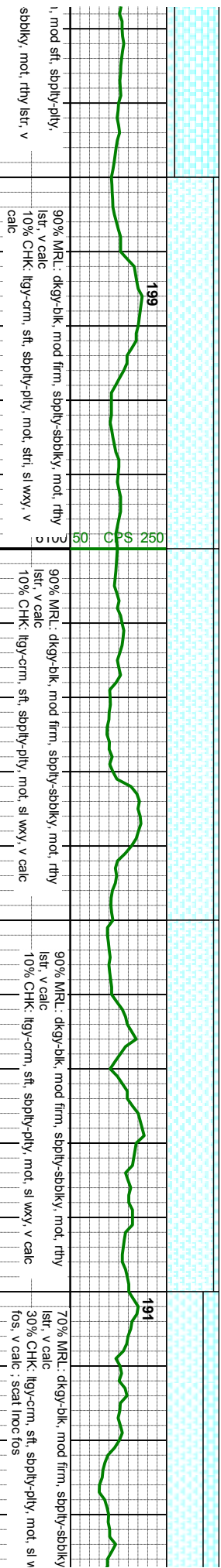
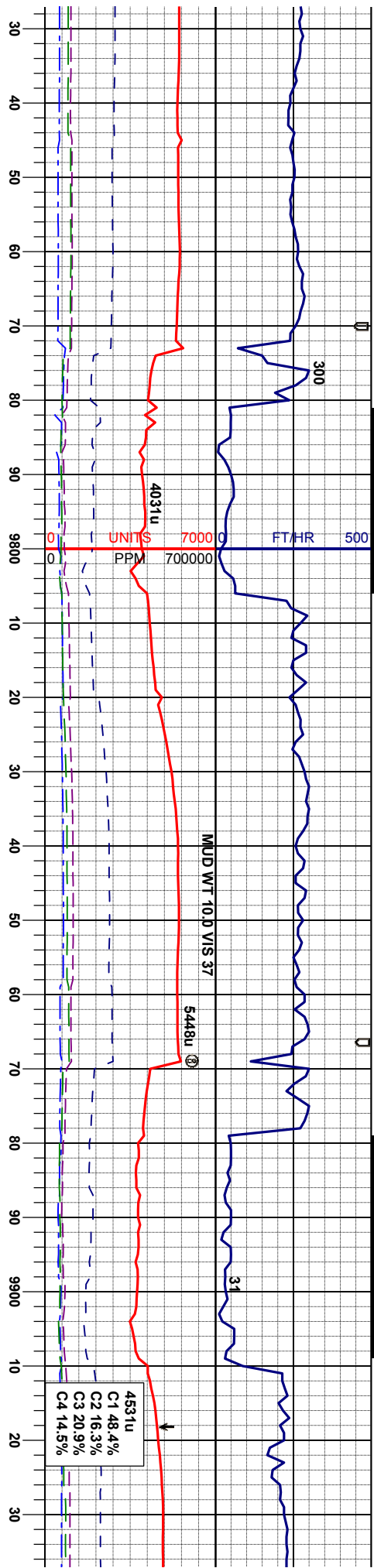
MD 9322'
INC 90.31°
AZM 88.28°
TVD 6302.74'

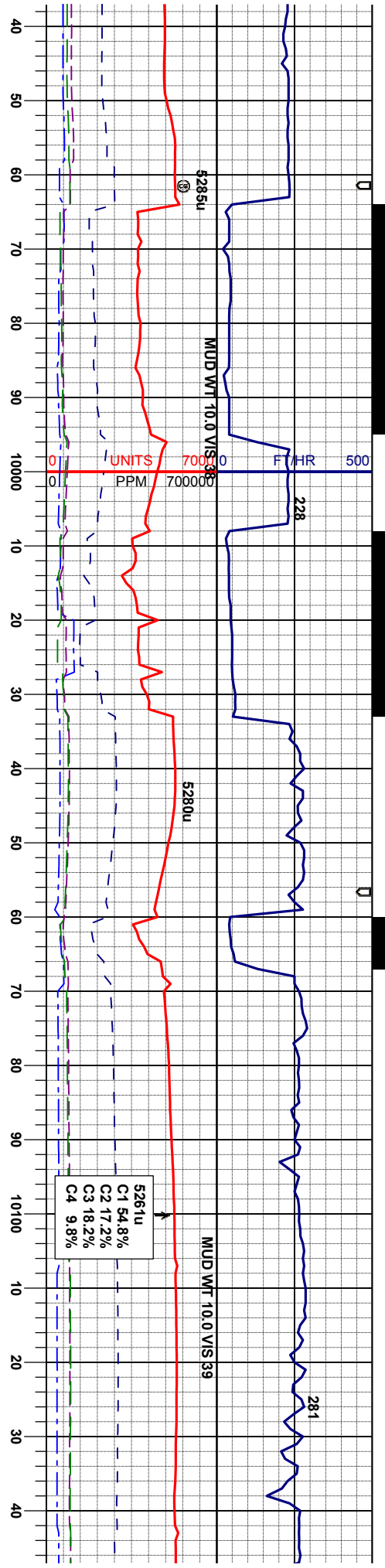
MD 9417'
INC 88.98°
AZM 88.07°
TVD 6303.33'

MD 9512'
INC 88.95°
AZM 85.91°
TVD 6305.0

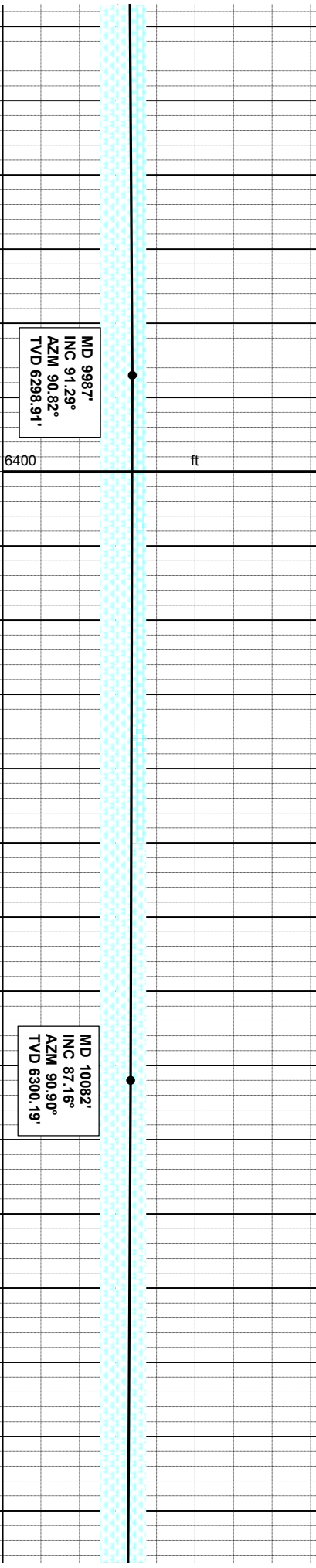








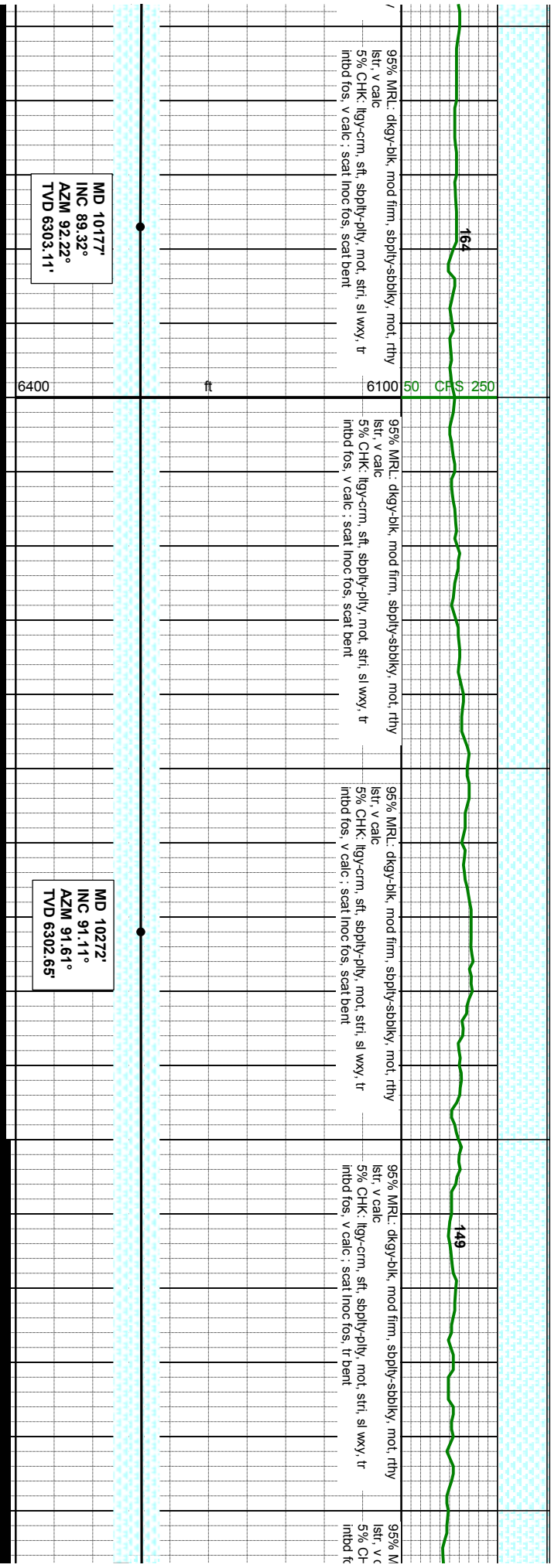
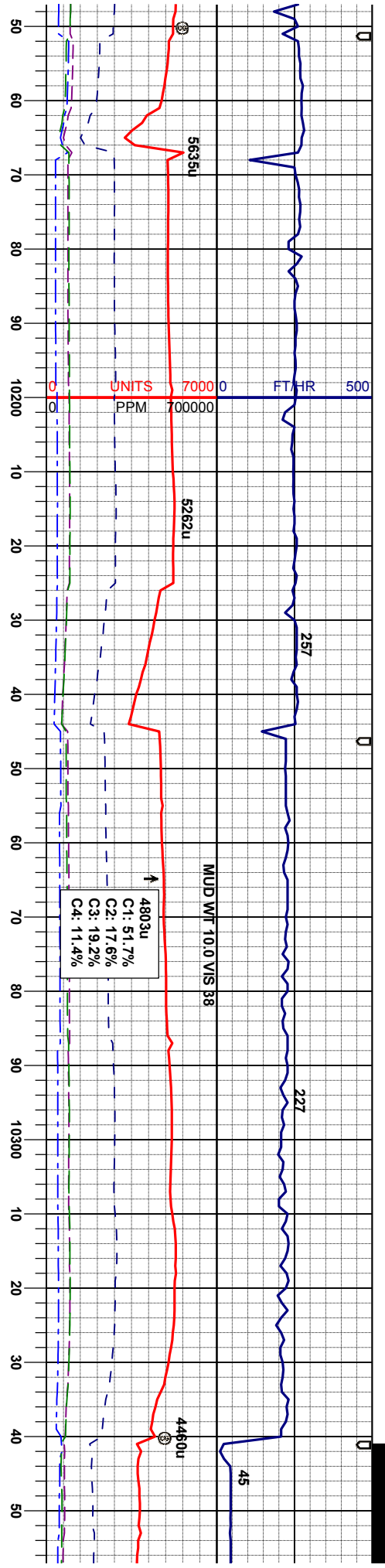
mot. rthy	60% MR.L: dkgy-blk, mod firm, spbly-sbbkly, mot. rthy	70% MR.L: dkgy-blk, mod firm, spbly-sbbkly, mot. rthy	95% MR.L: dkgy-blk, mod firm, spbly-sbbkly, mot. rthy	95% MR.L: dkgy-blk, mod firm, spbly-sbbkly, mot. rthy
lstr, v calc	40% CHK: lgy-crm, sft, spbly-pty, mot. str, sl wxy, tr	30% CHK: lgy-crm, sft, spbly-pty, mot. str, sl wxy, tr	5% CHK: lgy-crm, sft, spbly-pty, mot. str, sl wxy, tr	5% CHK: lgy-crm, sft, spbly-pty, mot. str, sl wxy, tr
intbd fos, v calc : scat inoc fos		intbd fos, v calc : scat inoc fos, tr bent	intbd fos, v calc : scat inoc fos, tr bent	intbd fos, v calc : scat inoc fos, tr bent



MD 9987'
INC 91.29°
AZM 90.82°
TVD 6298.91'

MD 10082'
INC 87.16°
AZM 90.90°
TVD 6300.19'



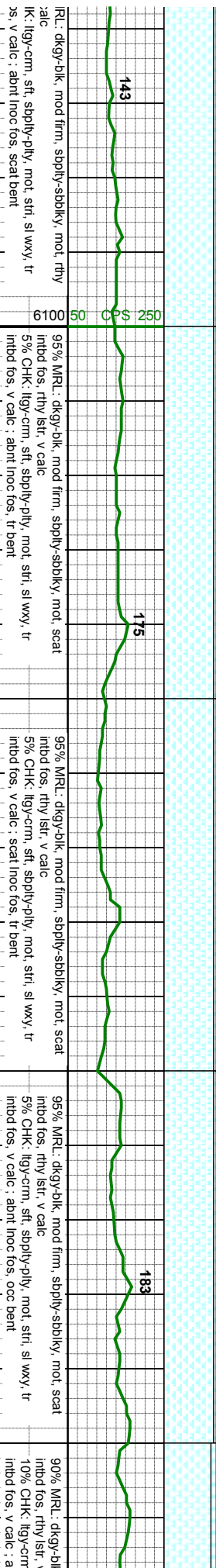
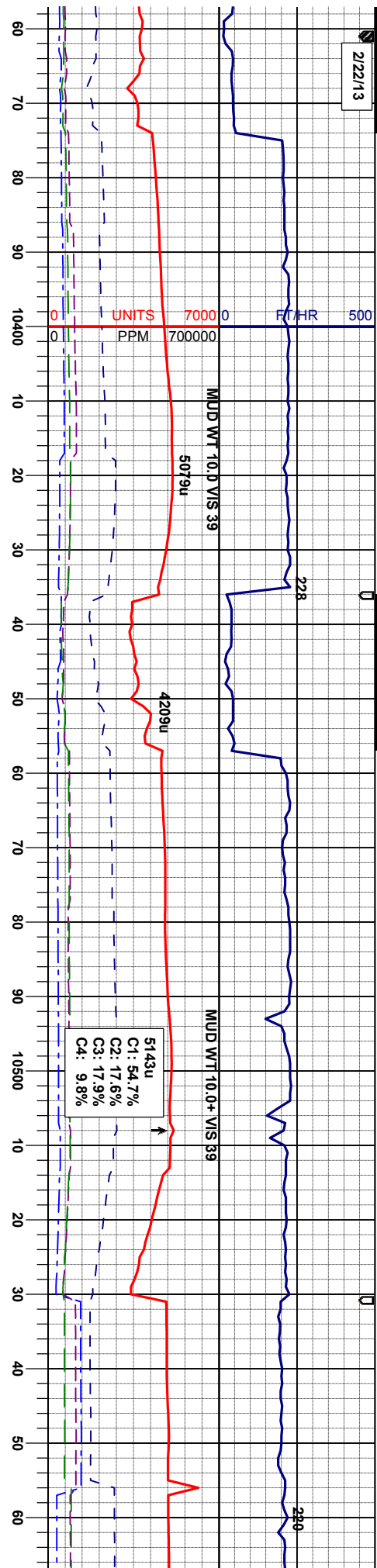


MD 10177'
INC 89.32°
AZM 92.22°
TVD 6303.11'

MD 10272'
INC 91.11°
AZM 91.61°
TVD 6302.65'



2/22/13

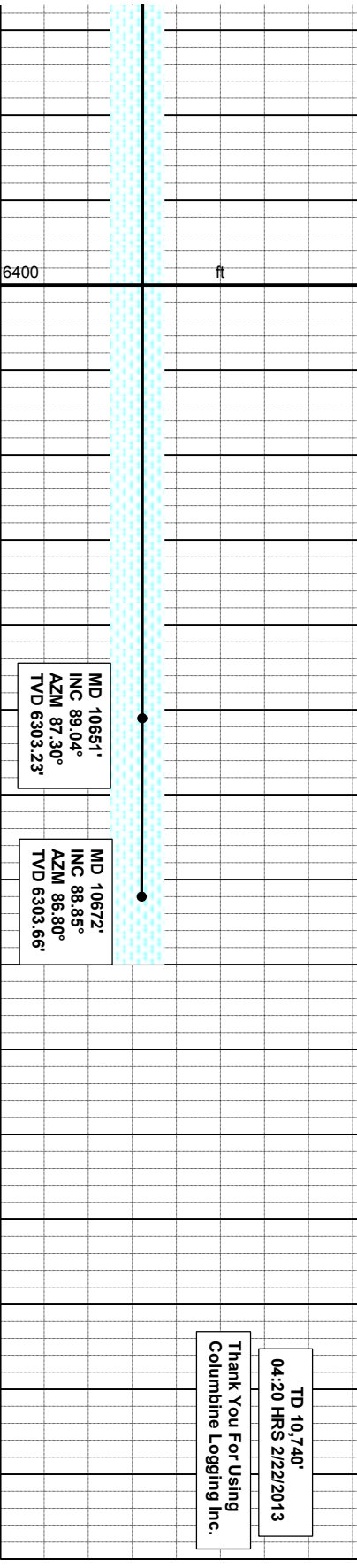
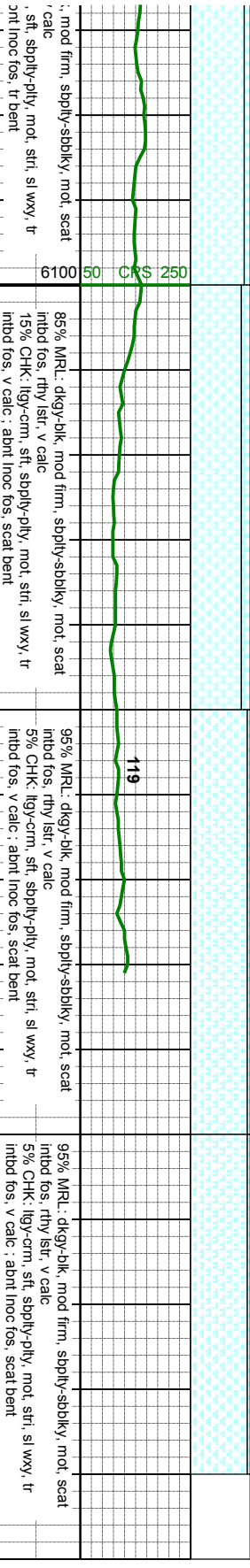
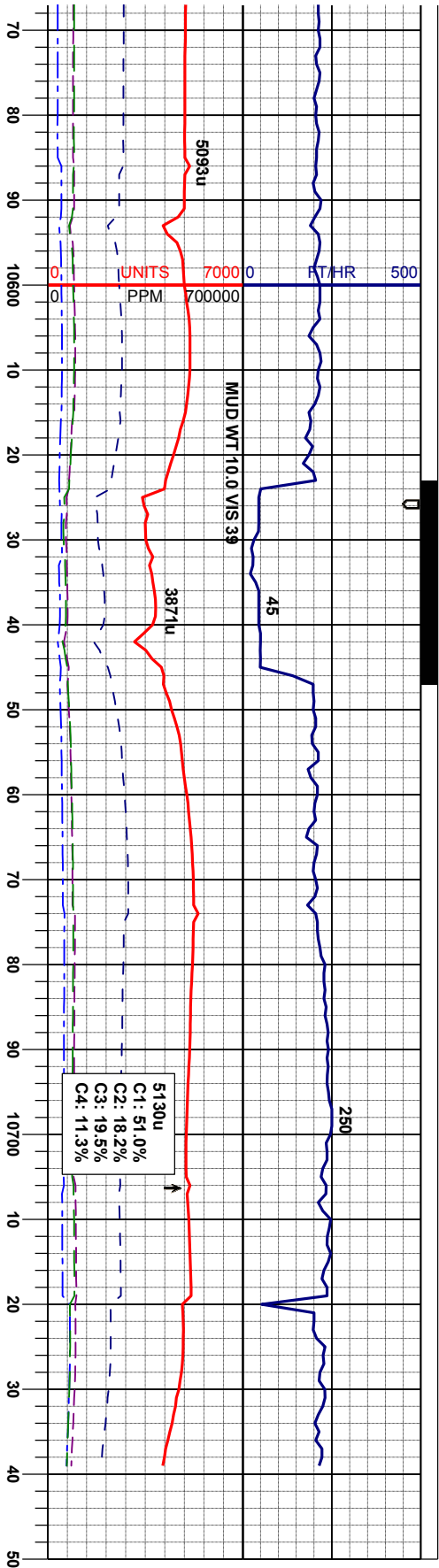


MD 10367'
INC 90.03°
AZM 89.02°
TVD 6301.80'

MD 10461'
INC 89.17°
AZM 89.31°
TVD 6302.46'

MD 10556'
INC 90.43°
AZM 88.09°
TVD 6302.79'





TD 10,740'
04:20 HRS 2/22/2013
Thank You For Using
Columbine Logging Inc.