

COLUMBINE LOGGING

Scale: 5" / 100'
Measured Depth Log

Well Name SHERLEY H-4-9HN

Location NWNW 4 5N 65W 6 PM

State COLORADO

County WELD

Country UNITED STATES

Rig Number Frontier 10

API Number 05-123-40900

Field GREELEY - #32760

Region DJ Basin

Drilling Completed 5/29/2015

Spud Date 3/24/2015

Surface Coordinates NWNW 4 5N 65W 6 PM

561 FNL 711 FWL

Lat/Long: 40.434244/-104.675172

Bottom Hole Coordinates Planned Bottom Hole Location

Sec: 9 Twp: 5N 65W

Footages: 470 FSL 1725 FFULL

Ground Elevation 4641'

K.B. Elevation 4665'

Logged Interval 6000' To 16890'

Total Depth 16890'

Formation Niobrara: C Chalk/ B Marl

Type of Drilling Fluid LSND, WATER BASED MUD

Operator

Company Bayswater Exploration and Production LLC.

Address 730 17th Street, Suite 610
Denver, CO 80202

Geologist

Name Brad Wilson, John Sabroske, Charles Trodick, Tracy Lav

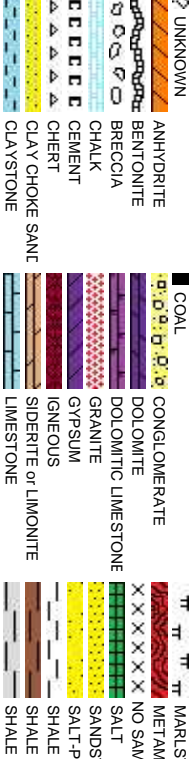
Company COLUMBINE LOGGING, INC.

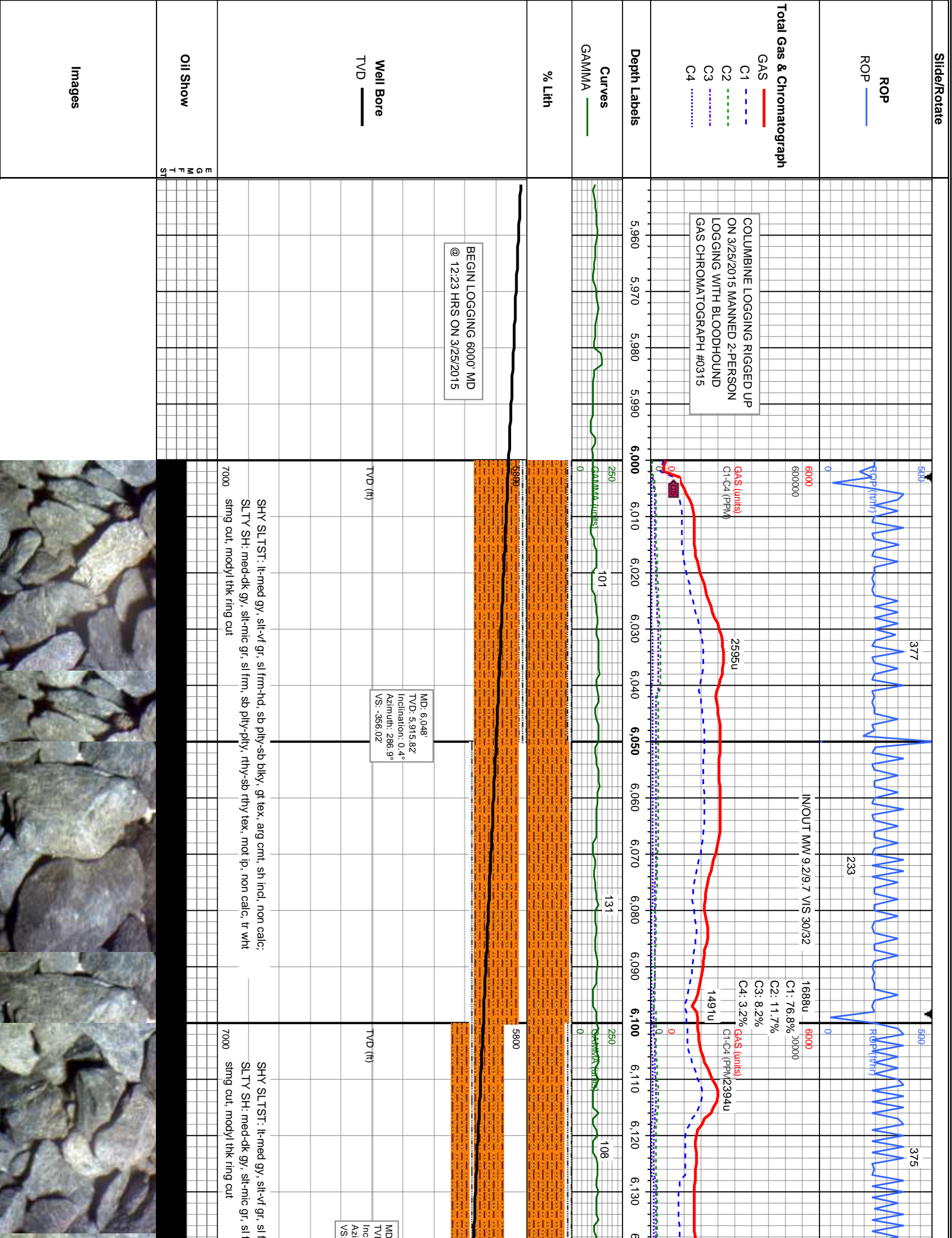
Address 602 S. LIPAN ST.
DENVER, CO 80223

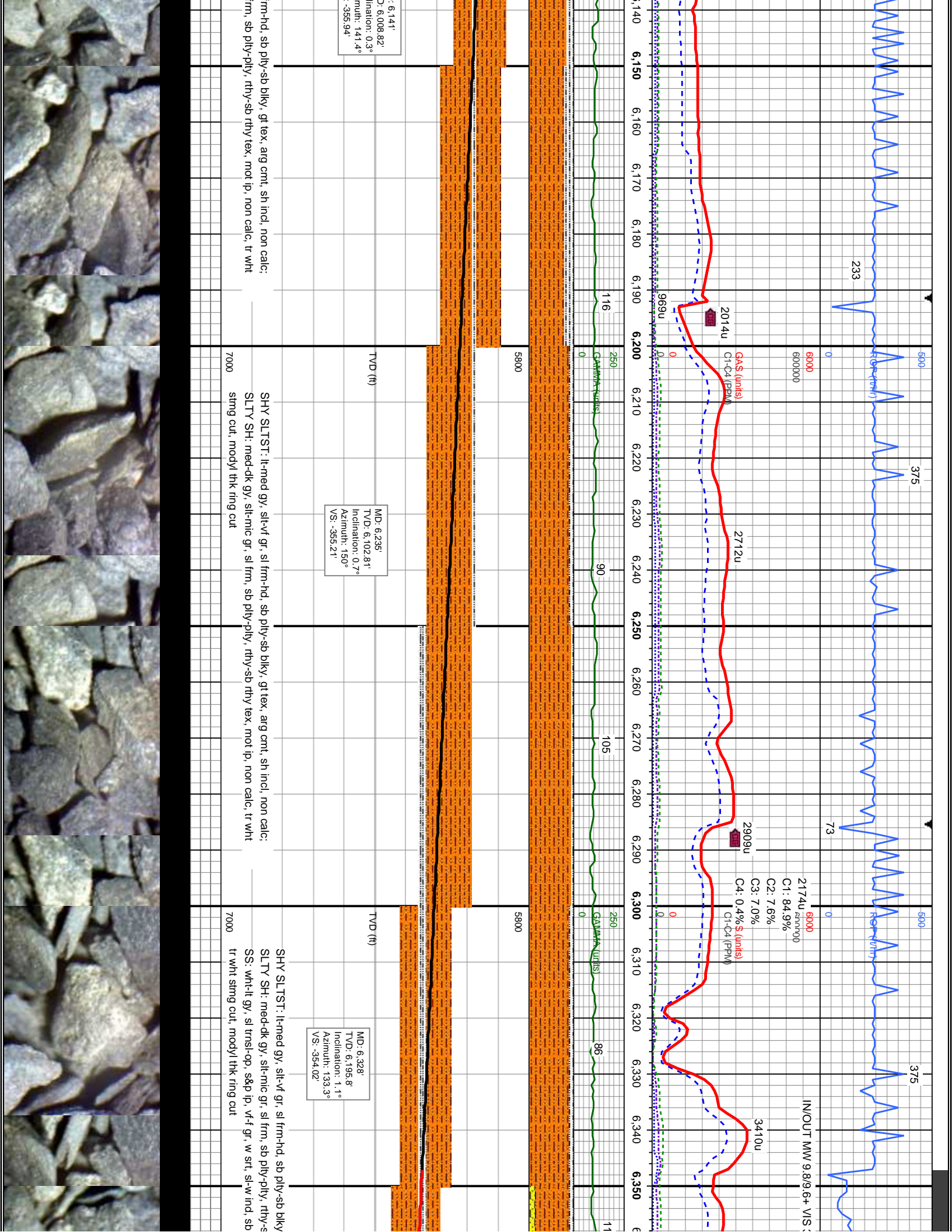
Zone Color Coding

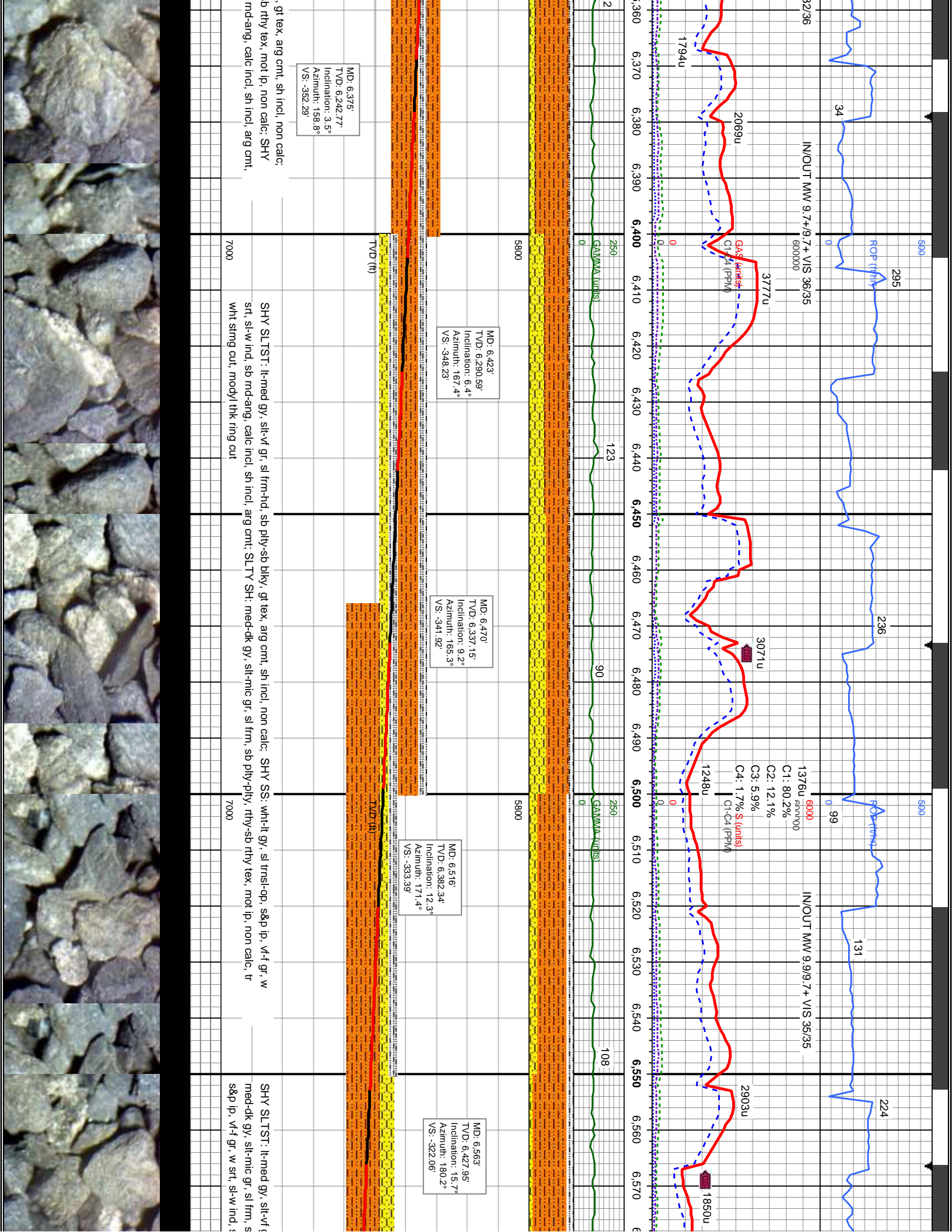


Rock Types









IN/OUT MW 9.9/10 VIS 35/34

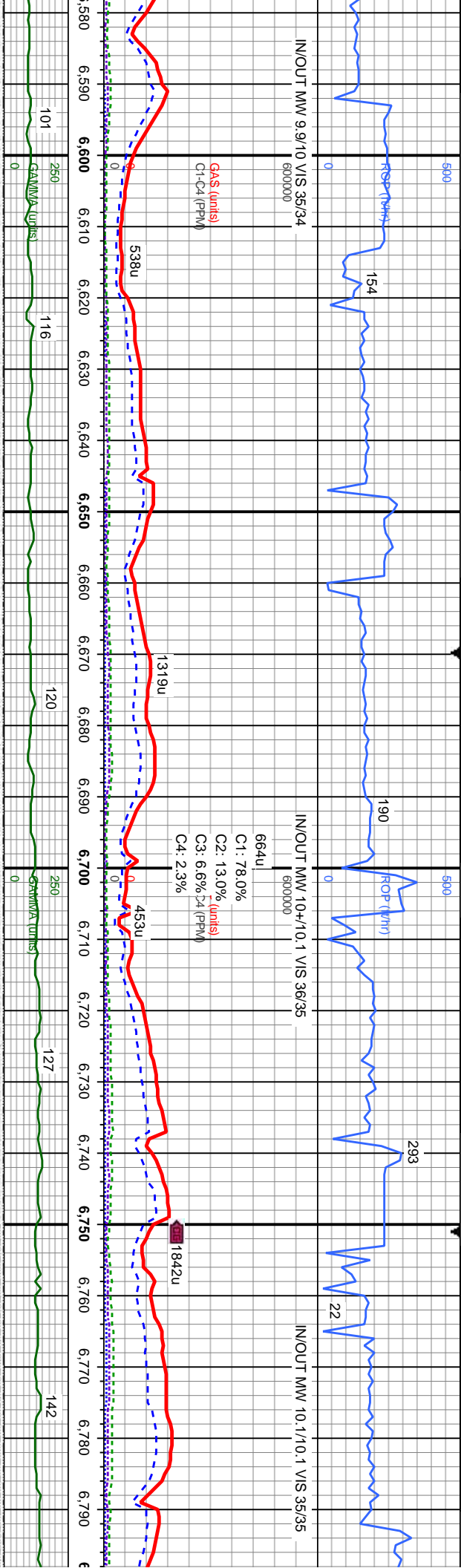
IN/OUT MW 10.4/10.1 VIS 36/35

IN/OUT MW 10.1/10.1 VIS 35/35

GAS (units)
C1-C4 (PPM)

664u
C1: 78.0%
C2: 13.0% (units)
C3: 6.6% C4 (PPM)
C4: 2.3%

1842u



MD: 6,609'
TVD: 6,472'
Inclination: 17.8°
Azimuth: 182.9°
VS: -308.91'

L/D (ft)

MD: 6,656'
TVD: 6,516.29'
Inclination: 21.3°
Azimuth: 183.2°
VS: -293.37'

TVD (ft)

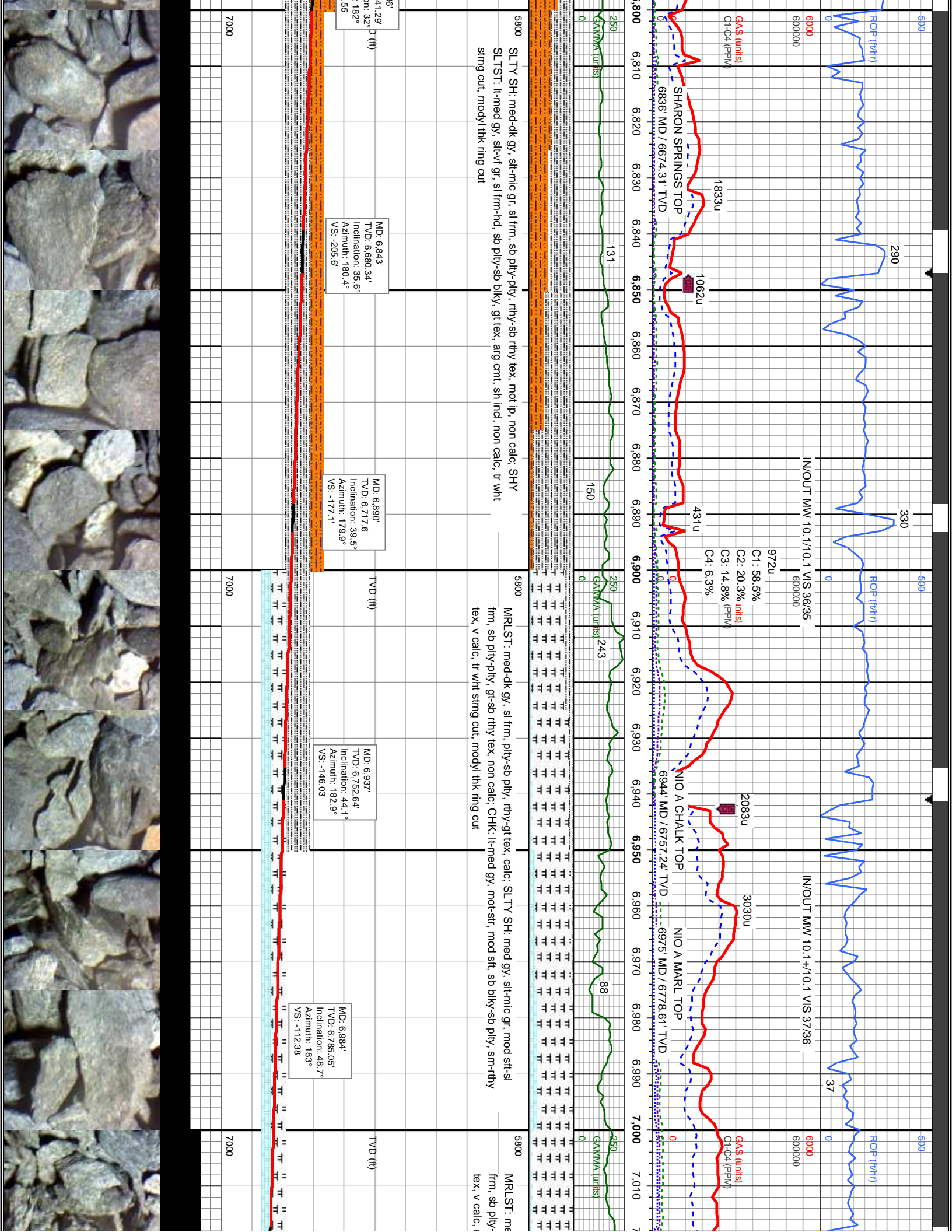
MD: 6,750'
TVD: 6,601.55'
Inclination: 28.5°
Azimuth: 185.3°
VS: -254.42'

MD: 6,750'
TVD: 6,601.55'
Inclination: 28.5°
Azimuth: 185.3°
VS: -254.42'

SHY SLTST: lt-med gy, slt-vf gr, sl frm-hd, sb pily-sb blkly, gt tex, arg cntl, sh incl, non calc; SLTY SH: med-dk gy, slt-mic gr, sl frm, sb pily-pily, rthy-sb rthy tex, mot ip, non calc, tr wht stmg cut, modl thk ring cut

gf, sl frm-hd, sb pily-sb blkly, gt tex, arg cntl, sh incl, non calc; SLTY SH: b pily-pily, rthy-sb rthy tex, mot ip, non calc; SHY SS: wht-lt gy, sl trnsi-op, sb md-ang, calc incl, sh incl, arg cntl, tr wht stmg cut, modl thk ring cut





03/26/2015

218

90

213

235

IN/OUT MW 10.1/10.1 VIS 37/36

IN/OUT MW 10.1+/10.2 VIS 37/36

IN/OUT MW 10.0/10.0+ VIS 37/37

1672u

C1: 75.5%

C2: 14.3%

C3: 7.1%

C4: 3.1%

C5: 0.0%

C6: 0.0%

C7: 0.0%

C8: 0.0%

C9: 0.0%

C10: 0.0%

C11: 0.0%

C12: 0.0%

C13: 0.0%

C14: 0.0%

C15: 0.0%

C16: 0.0%

C17: 0.0%

C18: 0.0%

C19: 0.0%

C20: 0.0%

C21: 0.0%

C22: 0.0%

C23: 0.0%

C24: 0.0%

C25: 0.0%

C26: 0.0%

C27: 0.0%

C28: 0.0%

C29: 0.0%

C30: 0.0%

C31: 0.0%

C32: 0.0%

C33: 0.0%

C34: 0.0%

C35: 0.0%

C36: 0.0%

C37: 0.0%

C38: 0.0%

C39: 0.0%

C40: 0.0%

C41: 0.0%

C42: 0.0%

C43: 0.0%

C44: 0.0%

C45: 0.0%

C46: 0.0%

C47: 0.0%

C48: 0.0%

C49: 0.0%

C50: 0.0%

C51: 0.0%

C52: 0.0%

C53: 0.0%

C54: 0.0%

C55: 0.0%

C56: 0.0%

C57: 0.0%

C58: 0.0%

C59: 0.0%

C60: 0.0%

C61: 0.0%

C62: 0.0%

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

213

90

218

235

5/23/2015

ROP DATA IMPORTED
FROM PASON EDR

244

56

197

203

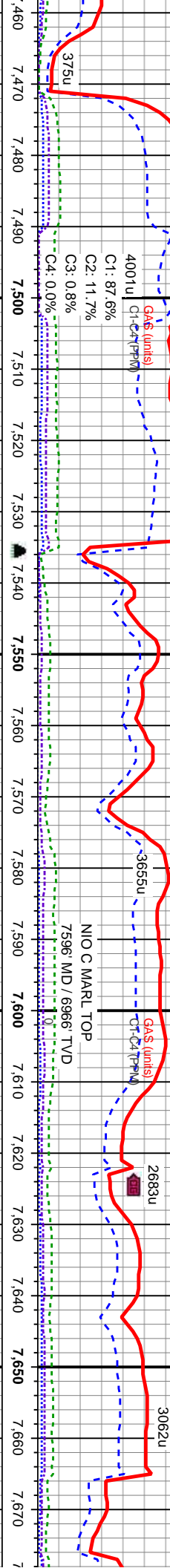
149

IN/OUT MW 10.1/10.1 + VIS 38/37

5192u Peak Trip Gas
at 7:53am 5/23/2015

GAS DATA FROM BLOODHOUND CHROMATOGRAPH
UNIT #315 JOB NUMBER 211 via IBALL GAS CHART
DATA BASE "Sherley H 4 9HN Lateral.mdb"

NIO C MARL TOP
7596' MD / 6966' TVD



SLTY SH: med gy, slt-mic gr,
lt-med gy, mod-slt, mod sft, sb

Bit #: 3
Type: REED/KH1516-E
Size: 6 1/8
Depth In: 7,534'
Depth Out: 14,514'
Jets: 5x16
S/N: A213638

65% CHK: brn-lt brn occ tan-med gy, sb blk-y-bkly, sl sft-fm,sl
mot, sl wxy, v calc; 35% MRLST: med-dk gy, sb blk-y-bkly,frm,
rthy -sl sily, arg, v calc; abnt cmt, tr fos, rr bent; bishwh slow
string cut with mod gn -yel thk and even resd ring

80% MRLST: med-dk gy, sb blk-y-bkly,frm, rthy
-sl sily, arg, v calc; 20% CHK: brn-lt brn occ
tan-med gy, sb blk-y-bkly, sl sft-fm,sl mot, sl wxy,
v calc; rr cmt; bishwh slow string cut with mod
gn -yel thk and even resd ring

95% MRLST: med-dk gy, sb b
sily, arg, v calc; 5% CHK: brn
gy, sb blk-y-bkly, sl sft-fm,sl r
cmt; bishwh slow string cut wit
and even resd ring

MD: 7,484'
TVD: 6,959.81'
Inclination: 86°
Azimuth: 180°
VS: 344.95'

SCALE CHANGE
TVD 6900-7000'

Continued Drilling Lateral @ 08:14 AM
from 7535' on 5/23/2015 After Batch
Drilling Curve Sections

MD: 7,562'
TVD: 6,965.41'
Inclination: 89.3°
Azimuth: 179°
VS: 421.61'

MD: 7,608'
TVD: 6,966.09'
Inclination: 89°
Azimuth: 179°
VS: 467.46'

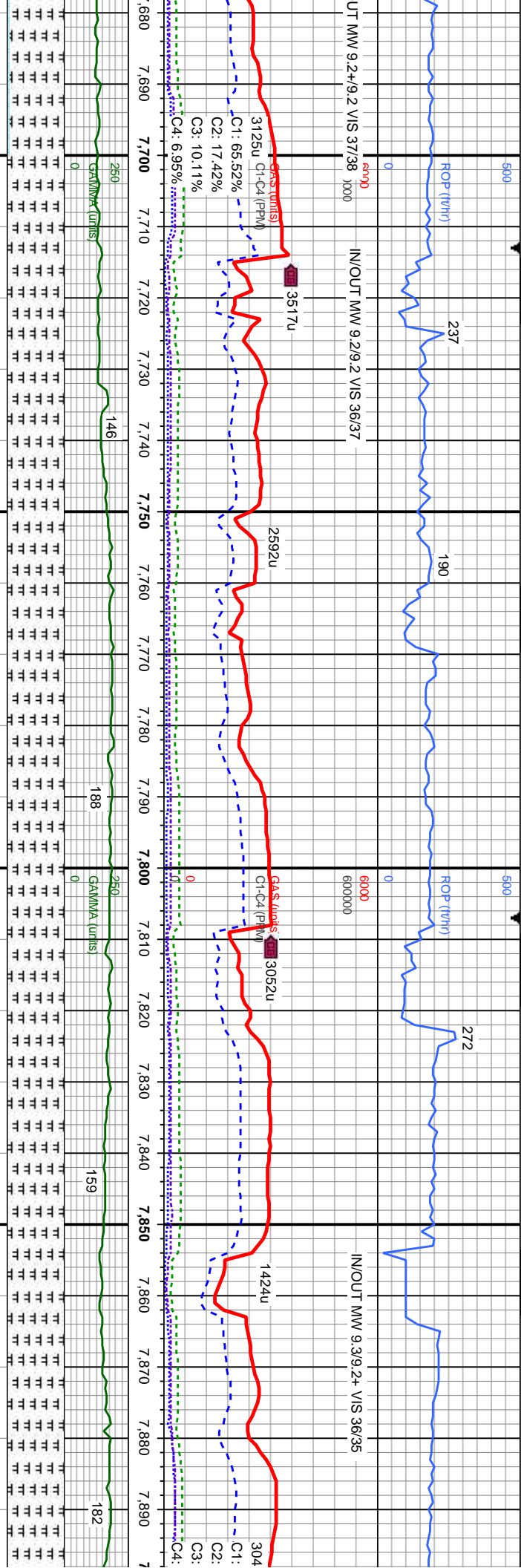
MD: 7,656'
TVD: 6,967.14'
Inclination: 88.5°
Azimuth: 178.1°
VS: 515.32'

C Chalk

C Marl

Survey and Gamma Data Provided
by Ensign Directional Services





100% MRLST: med-dk gy occ blk, sb blk-y-bkly, frm, rthy -sl sily, arg, v calc; tr bent; bishwh slow string cut with mod gn - yel thk and even resd ring

Mud Report 3AM

WT 9.3 SOLIDS 5.5%
VIS 36 OIL 2.5%
TEMP 115 WATER 92%
YP 10 SAND .5%
GEL 4/5 PH 9.1
API 6.8/1 Ca 40

MD: 7.703'
TVD: 6.967.75'
Inclination: 90°
Azimuth: 179.7°
VS: 562.17'

100% MRLST: med-dk gy occ blk, sb blk-y-bkly, frm, rthy -sl sily, arg, v calc; tr bent; bishwh slow string cut with mod gn - yel thk and even resd ring

MD: 7.750'
TVD: 6.968.08'
Inclination: 89.2°
Azimuth: 180.2°
VS: 608.95'

100% MRLST: med-dk gy occ blk, sb blk-y-bkly, frm, rthy -sl sily, arg, v calc; tr bent, tr it blk chk; bishwh slow string cut with mod gn - yel thk and even resd ring

MD: 7.797'
TVD: 6.968.33'
Inclination: 90.2°
Azimuth: 180.9°
VS: 655.68'

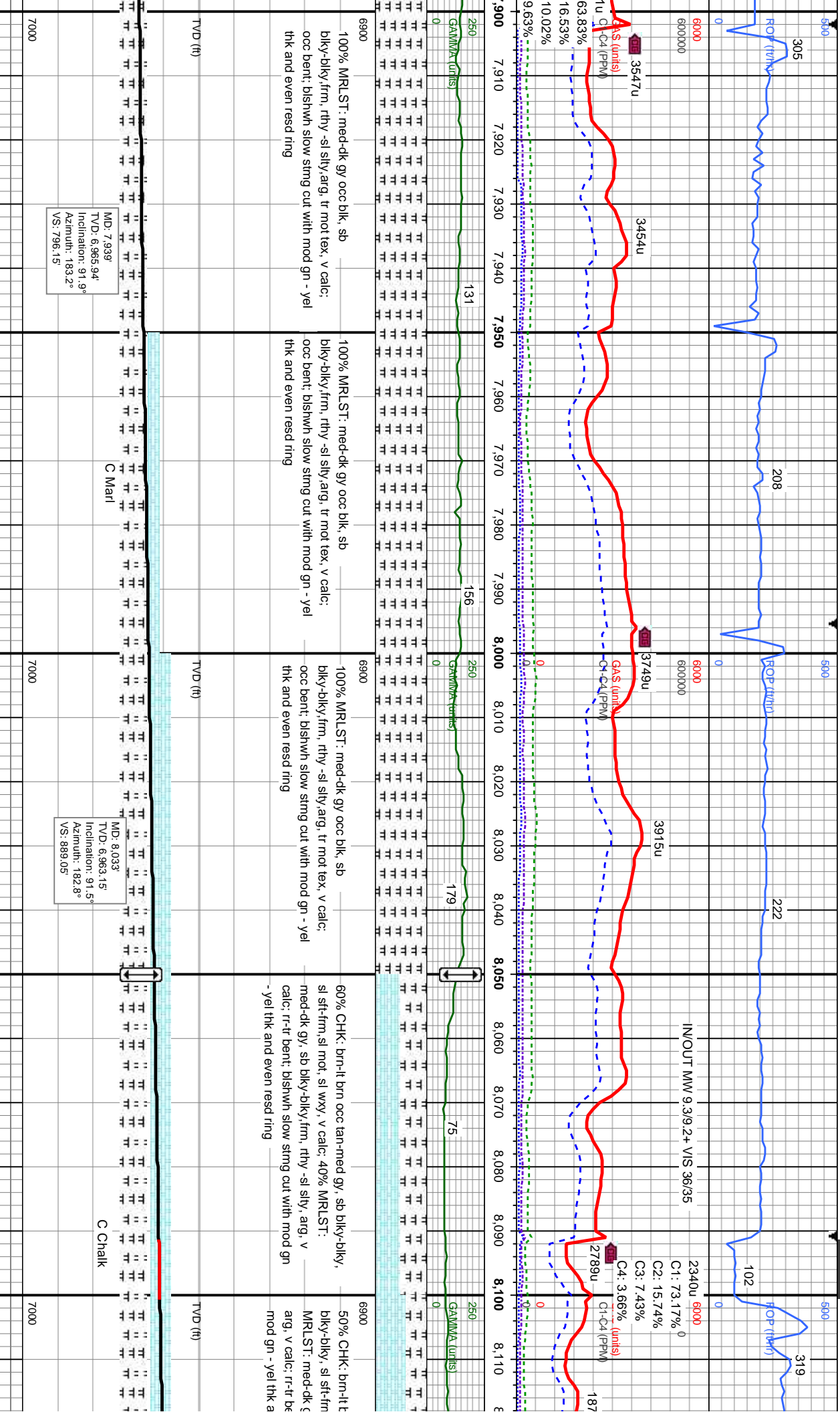
100% MRLST: med-dk gy occ blk, sb blk-y-bkly, frm, rthy -sl sily, arg, v calc; tr bent, tr it blk chk; bishwh slow string cut with mod gn - yel thk and even resd ring

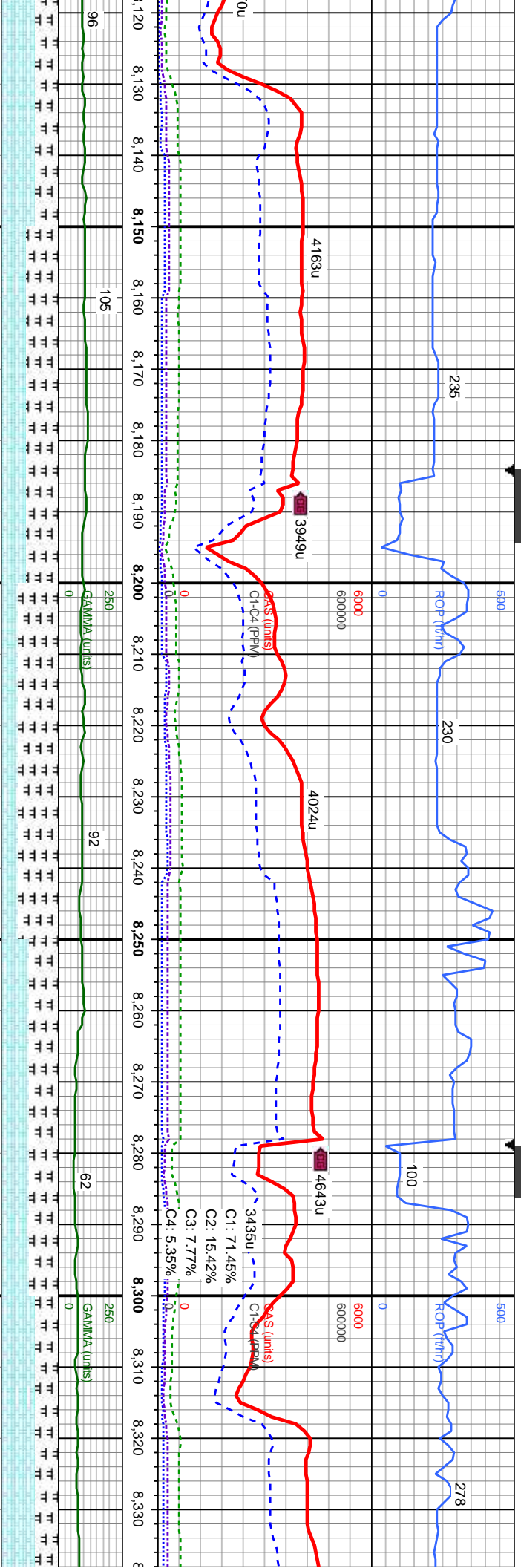
MD: 7.845'
TVD: 6.967.99'
Inclination: 90.6°
Azimuth: 183°
VS: 703.26'

7000

7000



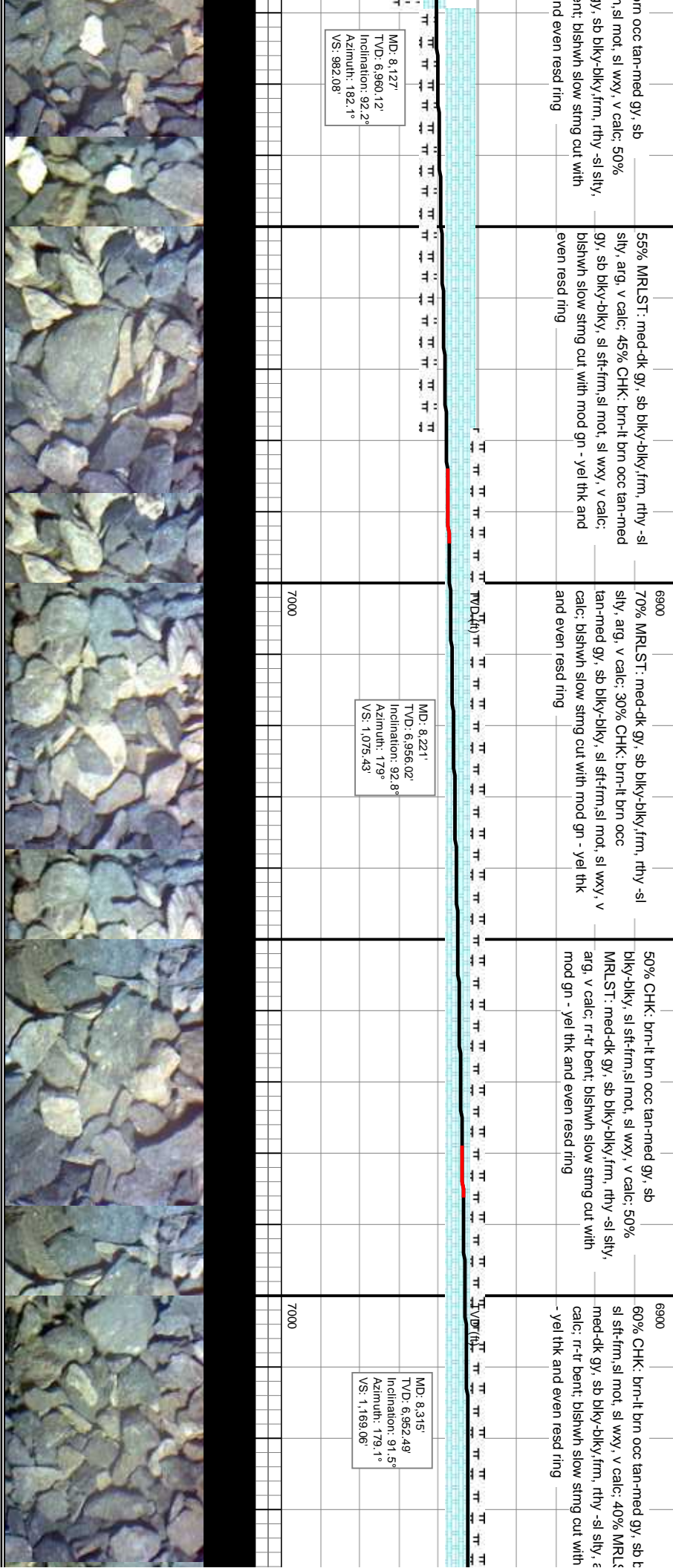


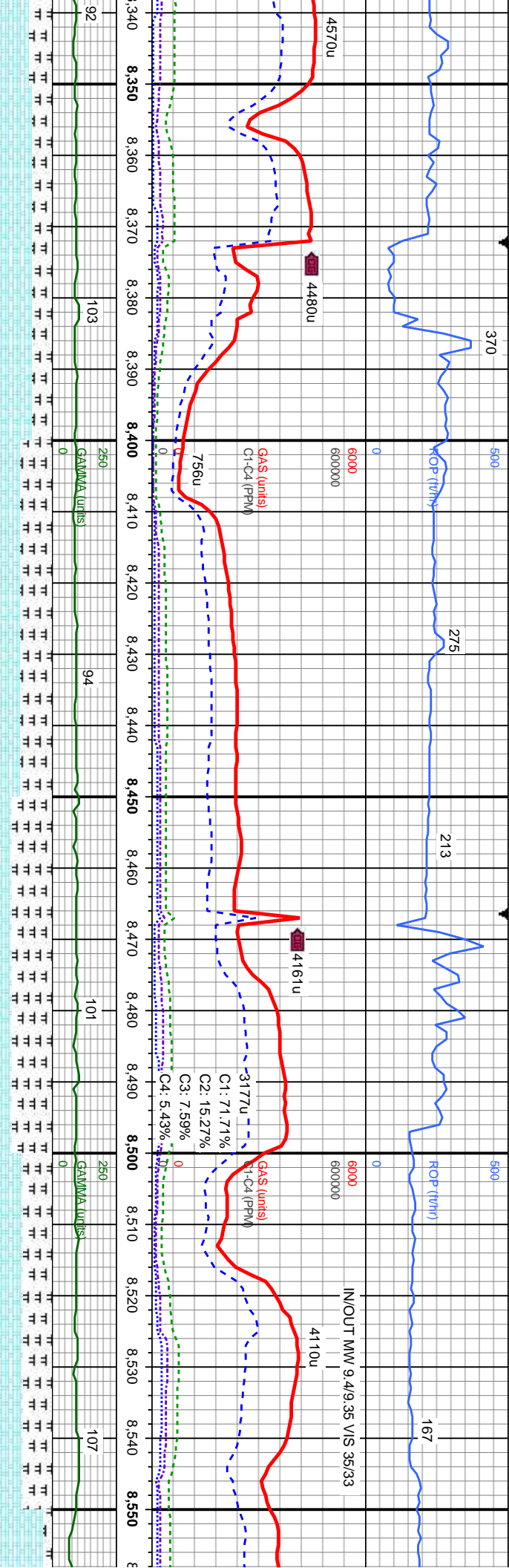


MD: 8.127'
TVD: 6,960.12'
Inclination: 92.2°
Azimuth: 182.1°
VS: 982.08

MD: 8.221'
TVD: 6,956.02'
Inclination: 92.8°
Azimuth: 179°
VS: 1,075.43

MD: 8.315'
TVD: 6,952.49'
Inclination: 91.5°
Azimuth: 179.1°
VS: 1,169.06





65% CHK: brn-lt brn occ tan-med gy, sb blk-y-bkly, sl sft-firm, sl mot, sl wxy, v calc; 35% MRLST: med-dk gy, sb blk-y-bkly, firm, rthy -sl slty, arg, v calc; r-r bent; blshw slow string cut with mod gn -yel thk and even read ring

55% MRLST: med-dk gy, sb blk-y-bkly, firm, rthy -sl slty, arg, v calc; 45% CHK: brn-lt brn occ tan-med gy, sb blk-y-bkly, sl sft-firm, sl mot, sl wxy, v calc; blshw slow string cut with mod gn -yel thk and even read ring

75% MRLST: med-dk gy, sb blk-y-bkly, firm, rthy -sl slty, arg, v calc; 25% CHK: brn-lt brn occ tan-med gy, sb blk-y-bkly, sl sft-firm, sl mot, sl wxy, v calc; blshw slow string cut with mod gn -yel thk and even read ring

50% CHK: brn-lt brn occ tan-med gy, sb blk-y-bkly, sl sft-firm, sl mot, sl wxy, v calc; 50% MRLST: med-dk gy, sb blk-y-bkly, firm, rthy -sl slty, arg, v calc; tr bent; blshw slow string cut with mod gn -yel thk and even read ring

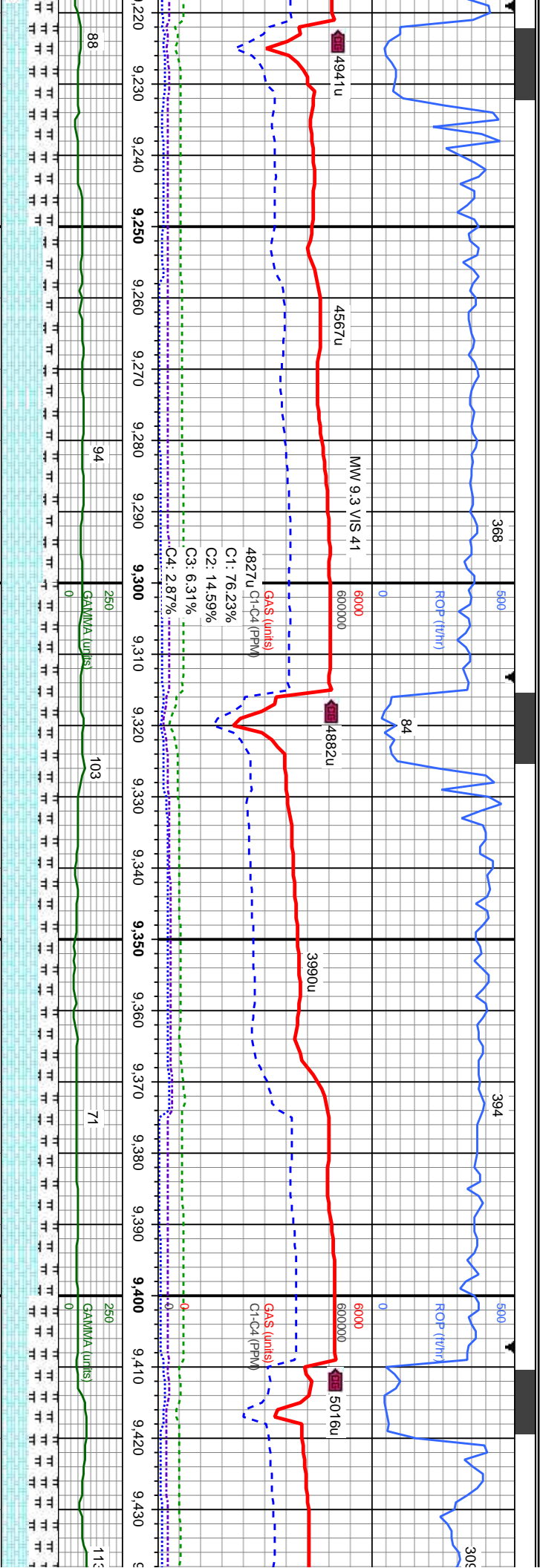
85% C: blk-y-bkly, firm, rthy -sl slty, arg, v calc; 15% MRLST: med-dk gy, sb blk-y-bkly, firm, rthy -sl slty, arg, v calc; blshw slow string cut with mod gn -yel thk and even read ring

C Chalk

MD: 8.409'
TVD: 6,951.83'
Inclination: 89.3°
Azimuth: 179°
VS: 1.262.74'

MD: 8.503'
TVD: 6,952.24'
Inclination: 90.2°
Azimuth: 177.7°
VS: 1.356.51'





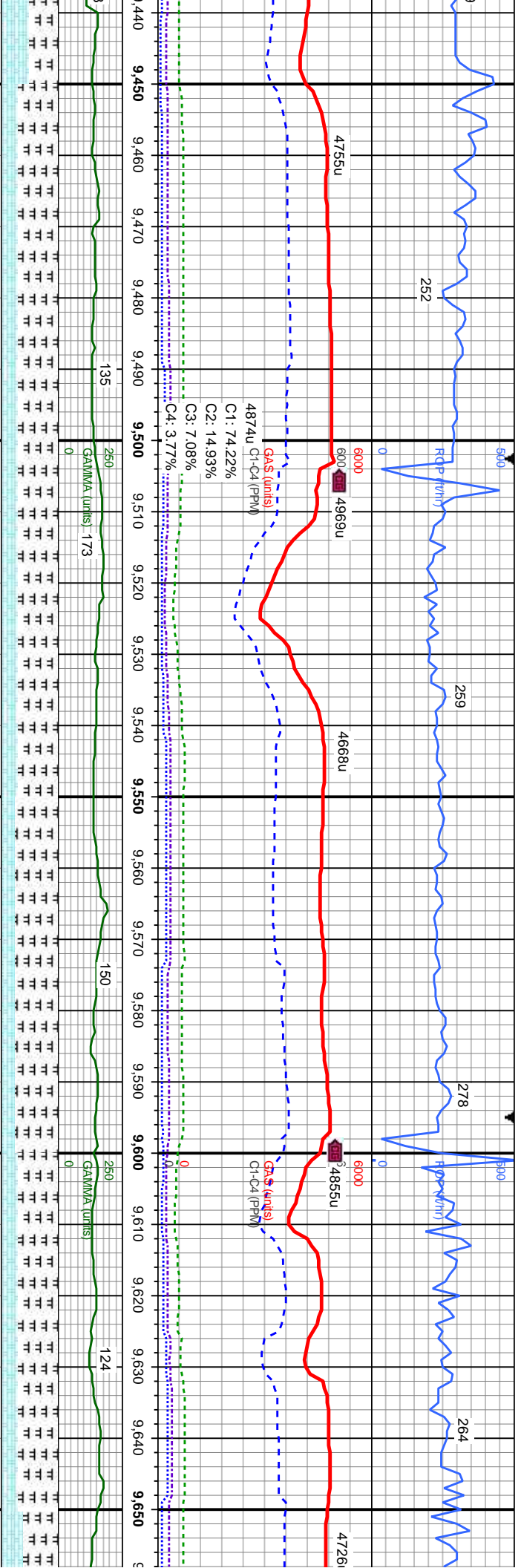
Depth (ft)	Description
9,220 - 9,250	n med gy-gyshbn, sb blkly-blky, sl y, v calc; 50% MRLST; med-dk rthy -sl stly, arg, v calc; bishwn mod gn - yel thk and even resd
9,250 - 9,300	75% CHK; brn-lt brn med gy-gyshbn, sb blkly-blky, sl stf-frm, sl mot, sl wxy, v calc; 25% MRLST; med-dk gy, sb blkly-blky, frm, rthy -sl stly, arg, v calc; bishwn slow sting cut with mod gn - yel thk and even resd
9,300 - 9,350	65% CHK; brn-lt brn occ med gy-gyshbn, sb blkly-blky, sl stf-frm, sl mot, sl wxy, v calc; 35% MRLST; med-dk gy, sb blkly-blky, frm, rthy -sl stly, arg, v calc; bishwn slow sting cut with mod gn - yel thk and even resd ring
9,350 - 9,400	65% CHK; brn-lt brn occ med gy-gyshbn, sb blkly-blky, sl stf-frm, sl mot, sl wxy, v calc; 35% MRLST; med-dk gy, sb blkly-blky, frm, rthy -sl stly, arg, v calc; bishwn slow sting cut with mod gn - yel thk and even resd ring
9,400 - 9,430	50% CHK; brn-lt brn occ med gy-gyshbn, sb blkly-blky, sl stf-frm, sl mot, sl wxy, v calc; 50% MRLST; med-dk gy, sb blkly-blky, frm, rthy -sl stly, arg, v calc; bishwn slow sting cut with mod gn - yel thk and even resd ring

MD: 9,256'
TVD: 6,948.47'
Inclination: 90.4°
Azimuth: 180.7°
VS: 2.106'

MD: 9,350'
TVD: 6,948.23'
Inclination: 89.9°
Azimuth: 181.6°
VS: 2.199.35'

C Chalk





70% MRLST: med-dk gy, sb blk-y-bkly/frm, rthy -sl
sily, arg, v calc:30% CHK: brn-lt brn occ med
gy-gyshbn, sb blk-y-bkly, sl sft-frn,sl mot, sl wxy, v
calc: bishwn slow string cut with mod gn - yel thk
and even resd ring

70% MRLST: med-dk gy, sb blk-y-bkly/frm, rthy -sl
sily, arg, v calc:30% CHK: brn-lt brn occ med
gy-gyshbn, sb blk-y-bkly, sl sft-frn,sl mot, sl wxy, v
calc: bishwn slow string cut with mod gn - yel thk
and even resd ring

75% MRLST: med-dk gy, sb blk-y-bkly/frm, rthy -sl
sily, arg, v calc:25% CHK: brn-lt brn occ med
gy-gyshbn, sb blk-y-bkly, sl sft-frn,sl mot, sl wxy, v
calc: bishwn slow string cut with mod gn - yel thk
and even resd ring

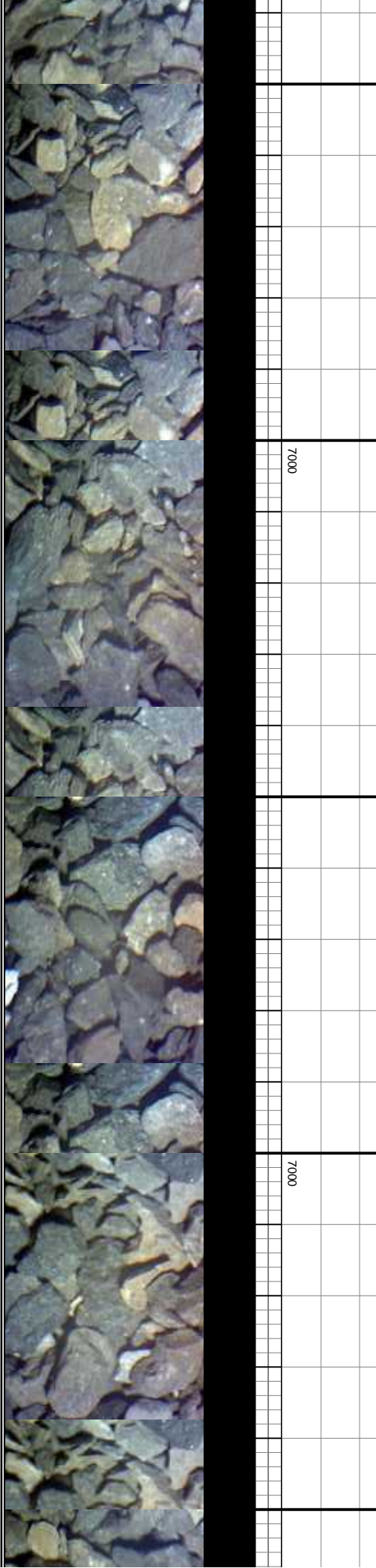
70% MRLST: med-dk gy, sb blk-y-bkly/frm, rthy -sl
sily, arg, v calc:30% CHK: brn-lt brn occ med
gy-gyshbn, sb blk-y-bkly, sl sft-frn,sl mot, sl wxy, v
calc: bishwn slow string cut with mod gn - yel thk
and even resd ring

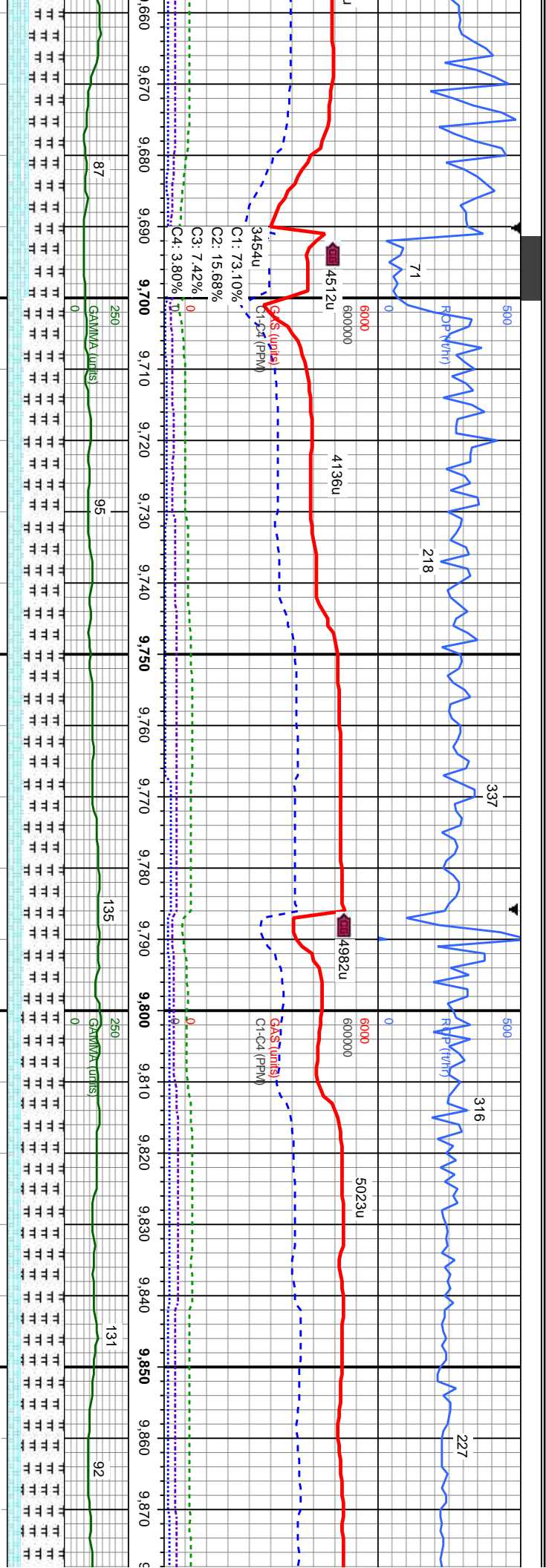
60% MRLST: med-dk gy, sb blk-y-bkly/frm, rthy -sl
sily, arg, v calc:30% CHK: brn-lt brn occ med
gy-gyshbn, sb blk-y-bkly, sl sft-frn,sl mot, sl wxy, v
calc: bishwn slow string cut with mod gn - yel thk
and even resd ring

MD: 9.444'
TVD: 6,947.24'
Inclination: 91.3°
Azimuth: 182.5°
VS: 2.292.5'

MD: 9.538'
TVD: 6,944.62'
Inclination: 91.9°
Azimuth: 181.6°
VS: 2.385.63'

MD: 9.633'
TVD: 6,941.22'
Inclination: 92.2°
Azimuth: 180.7°
VS: 2.479.91'





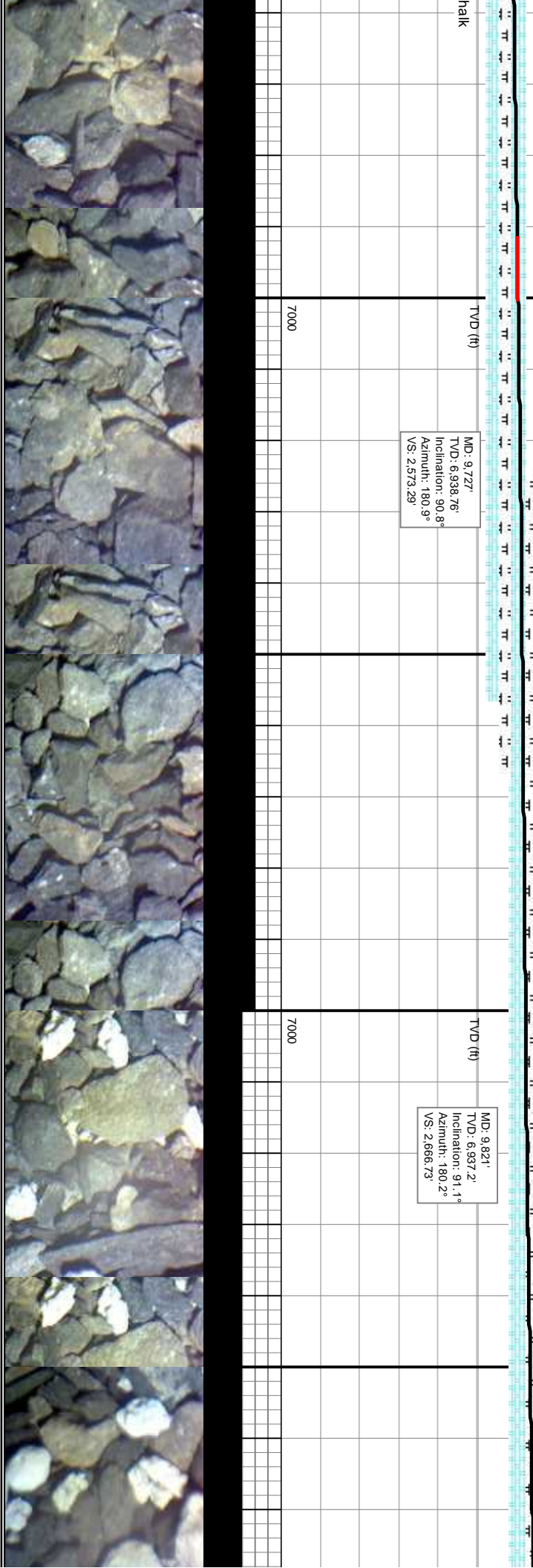
70% MRLST: med-dk gy, sb blk-y-bkly/fm, rthy -sl
sily, arg, v calc;30% CHK: med gy-gyshn occ lt
gy-lt brn, sb blk-y-bkly, sl sft-fm,sl mot, sl wxy, v
calc: bishwn slow string cut with mod gn - yel thk
and even resd ring

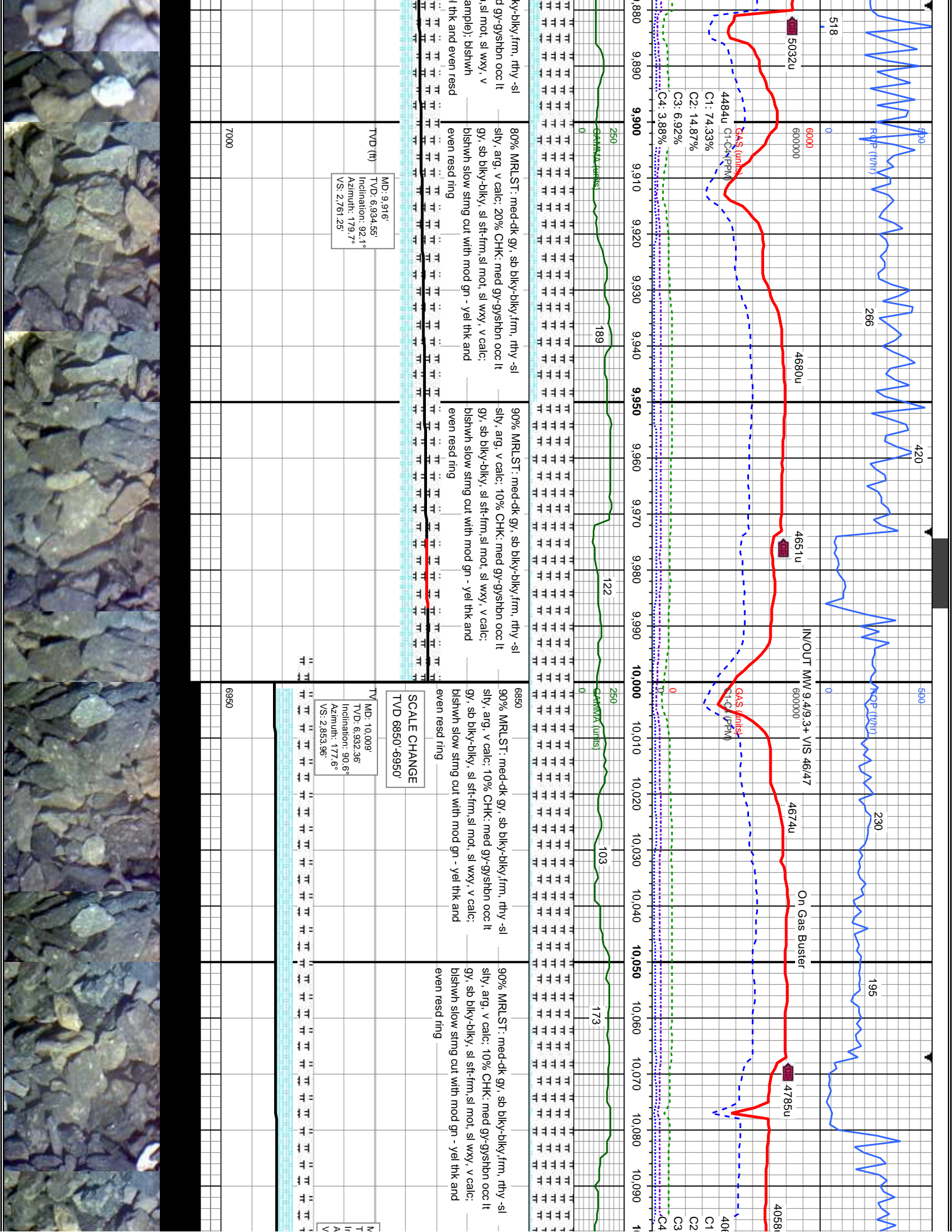
75% MRLST: med-dk gy, sb blk-y-bkly/fm, rthy -sl
sily, arg, v calc; 25% CHK: med gy-gyshn occ lt
gy-lt brn, sb blk-y-bkly, sl sft-fm,sl mot, sl wxy, v
calc: abnt cmt,abnt bent; bishwn slow string cut
with mod gn - yel thk and even resd ring

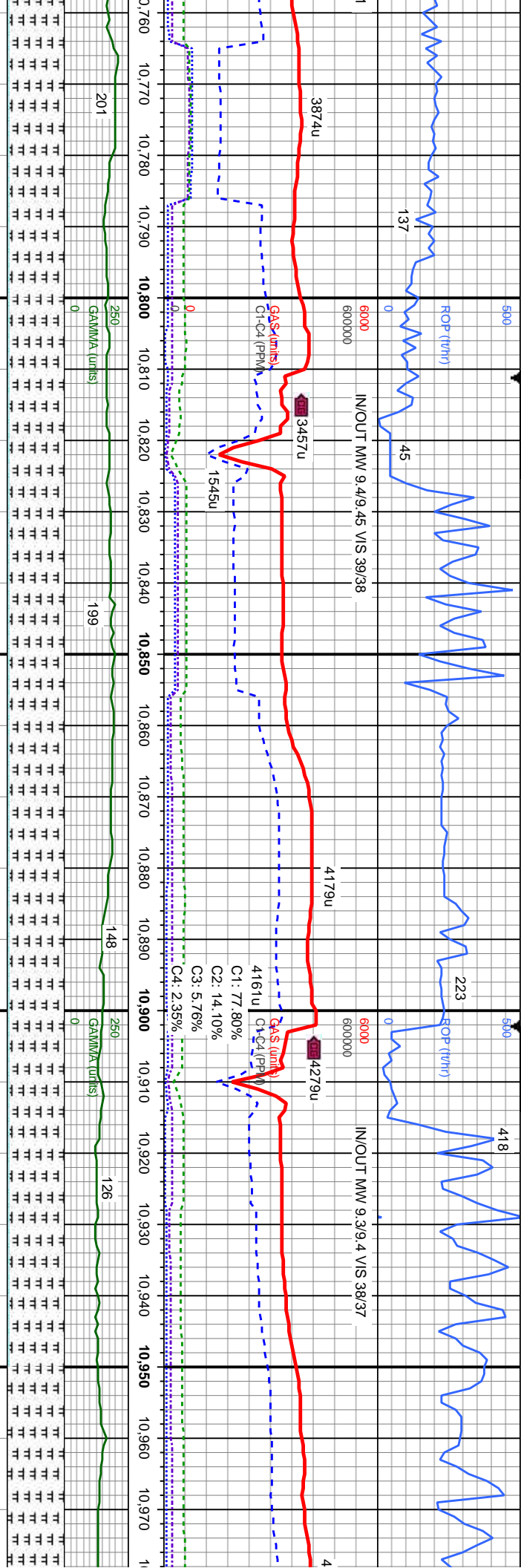
75% MRLST: med-dk gy, sb blk-y-bkly/fm, rthy -sl
sily, arg, v calc; 25% CHK: me
gy-lt brn, sb blk-y-bkly, sl sft-fm
calc: abnt cmt,abnt bent (con s
slow string cut with mod gn - ye

MD: 9.727'
TVD: 6.938.76'
Inclination: 90.8°
Azimuth: 180.9°
VS: 2.573.29'

MD: 9.821'
TVD: 6.937.2'
Inclination: 91.1°
Azimuth: 180.2°
VS: 2.666.73'







med-dk gy, sb biky-biky, frm, rthy -sl
calc: 5% CHK: med gy-gyshn occ lt gy,
biky, sl sft-frm, sl mot, sl wxy, v calc:
bshw cut with mod gn - yel thk and even resd

95% MRLST: med-dk gy, sb biky-biky, frm, rthy -sl
sily, arg, v calc: 5% CHK: med gy-gyshn occ lt
gy, sb biky-biky, sl sft-frm, sl mot, sl wxy, v calc:
bshw slow sting cut with mod gn - yel thk and
even resd ring

95% MRLST: med-dk gy, sb biky-biky, frm, rthy -sl
sily, arg, v calc: 5% CHK: med gy-gyshn occ lt
gy, sb biky-biky, sl sft-frm, sl mot, sl wxy, v calc:
bshw slow sting cut with mod gn - yel thk and
even resd ring

100% MRLST: med-dk gy, sb biky-biky, frm, rthy -sl
sily, arg, v calc: 5% CHK: med gy-gyshn occ lt
gy, sb biky-biky, sl sft-frm, sl mot, sl wxy, v calc:
bshw slow sting cut with mod gn - yel thk and
even resd ring

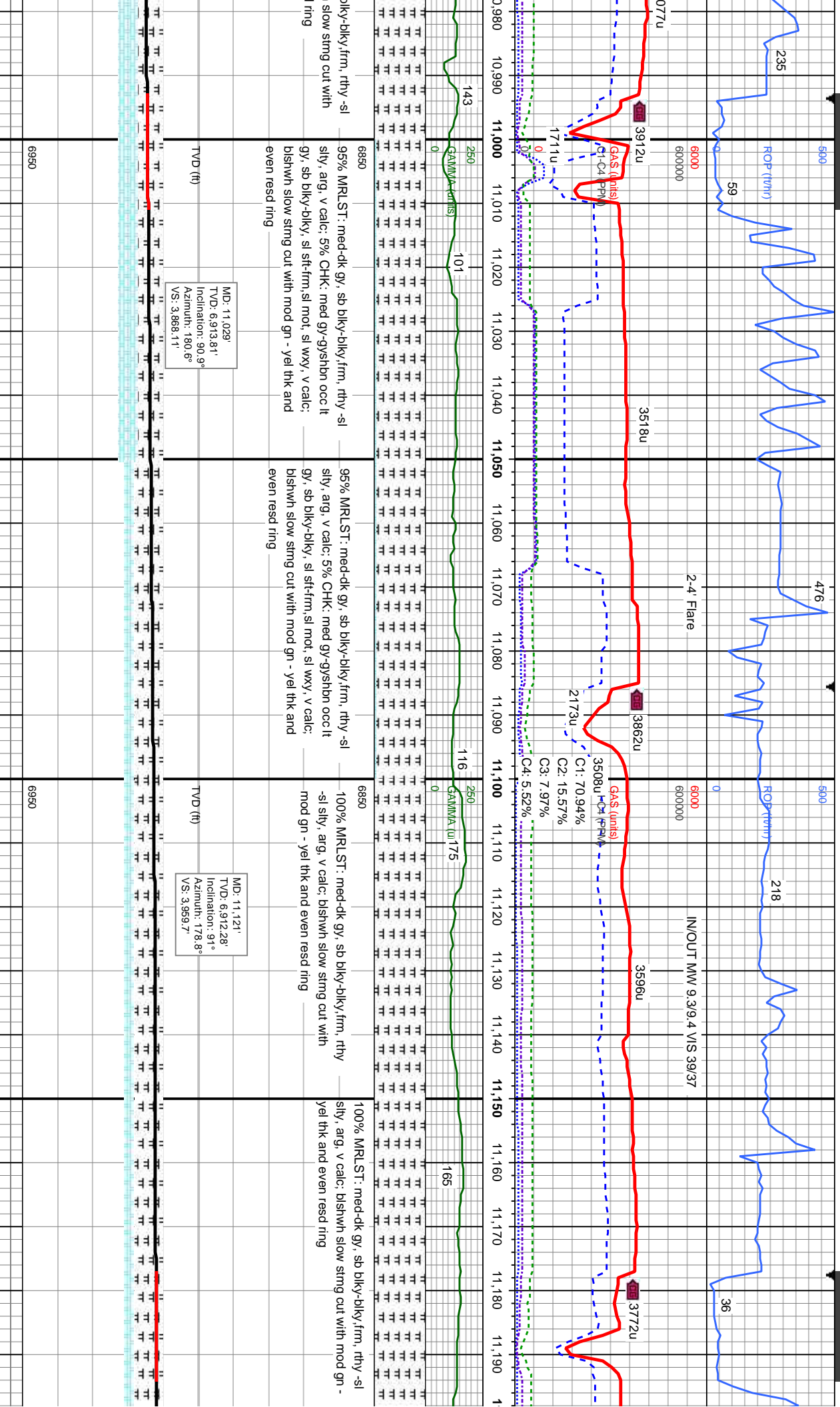
MD: 10.846
TVD: 6,918.67
Inclination: 92.6°
Azimuth: 180.9°
VS: 3.686

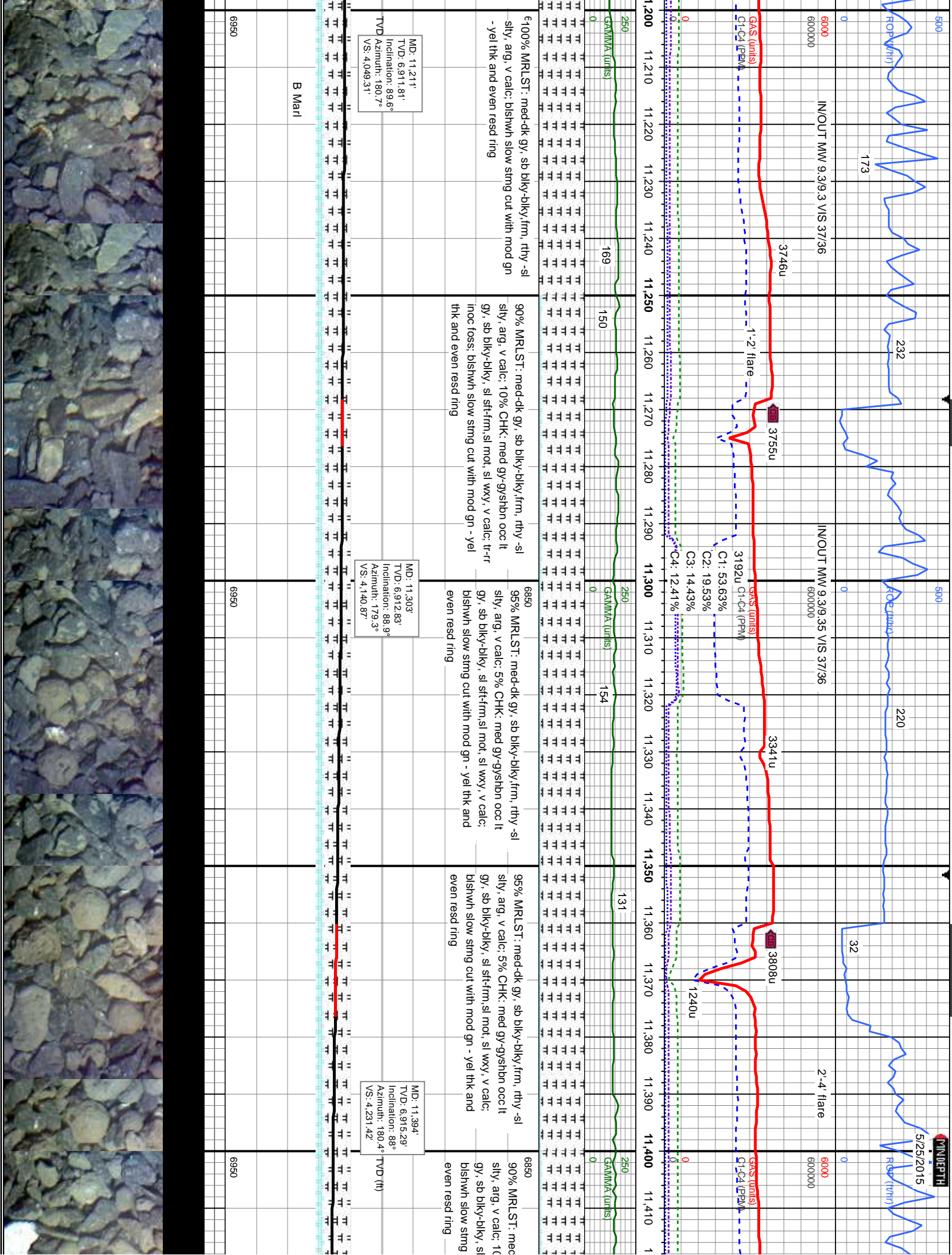
MD: 10.937
TVD: 6,915.57
Inclination: 91.3°
Azimuth: 178.8°
VS: 3.776.53

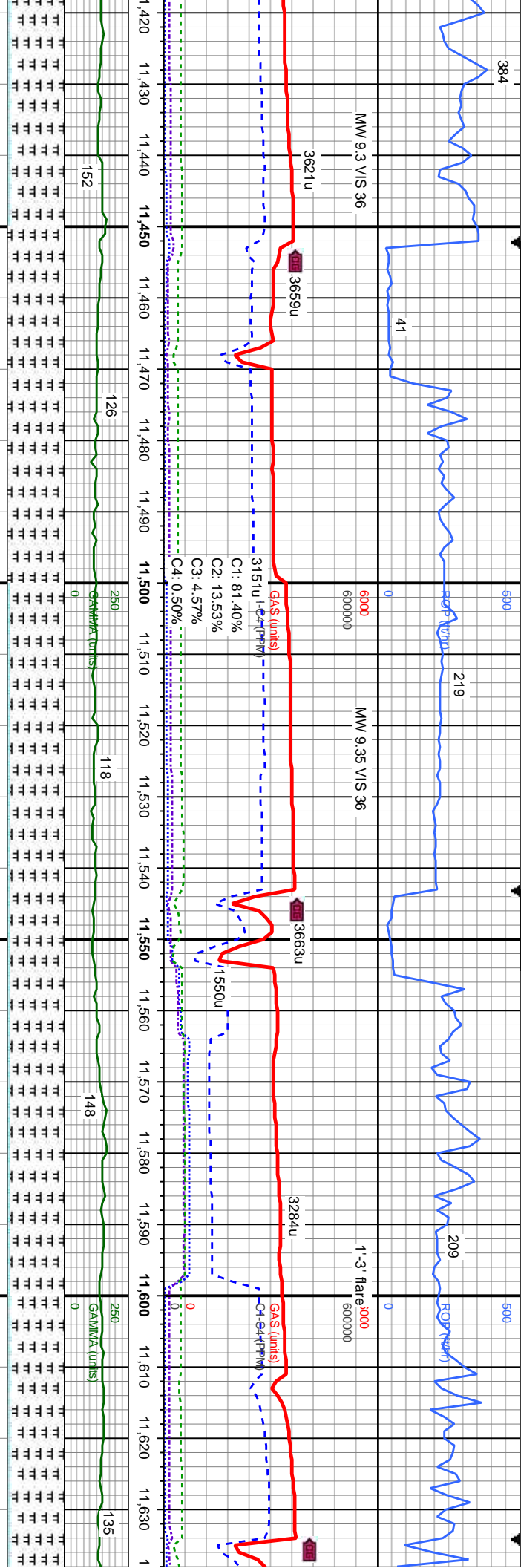
TVD (ft)

B Marl









ok gy, sb biky-biky/firm, rthy -sl
% CHK: med gy-gyshbn occ lt
stf-firm, sl mot, sl wxy, v calc:
cut with mod gn - yel thk and

100% MRLST: med-dk gy, sb biky-biky/firm, rthy -sl
sily, arg, v calc: blshw slow string cut with mod gn
- yel thk and even resd ring

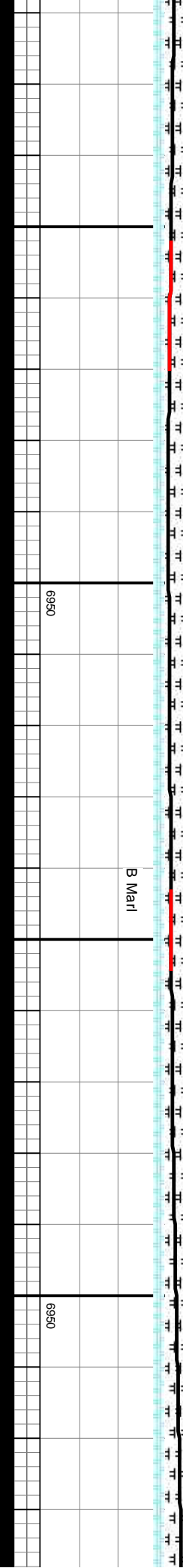
95% MRLST: med-dk gy, sb biky-biky/firm, rthy -sl
sily, arg, v calc: 5% CHK: med gy-gyshbn occ lt gy,
sb biky-biky, sl stf-firm, sl mot, sl wxy, v calc: blshw
slow string cut with mod gn - yel thk and even resd
ring

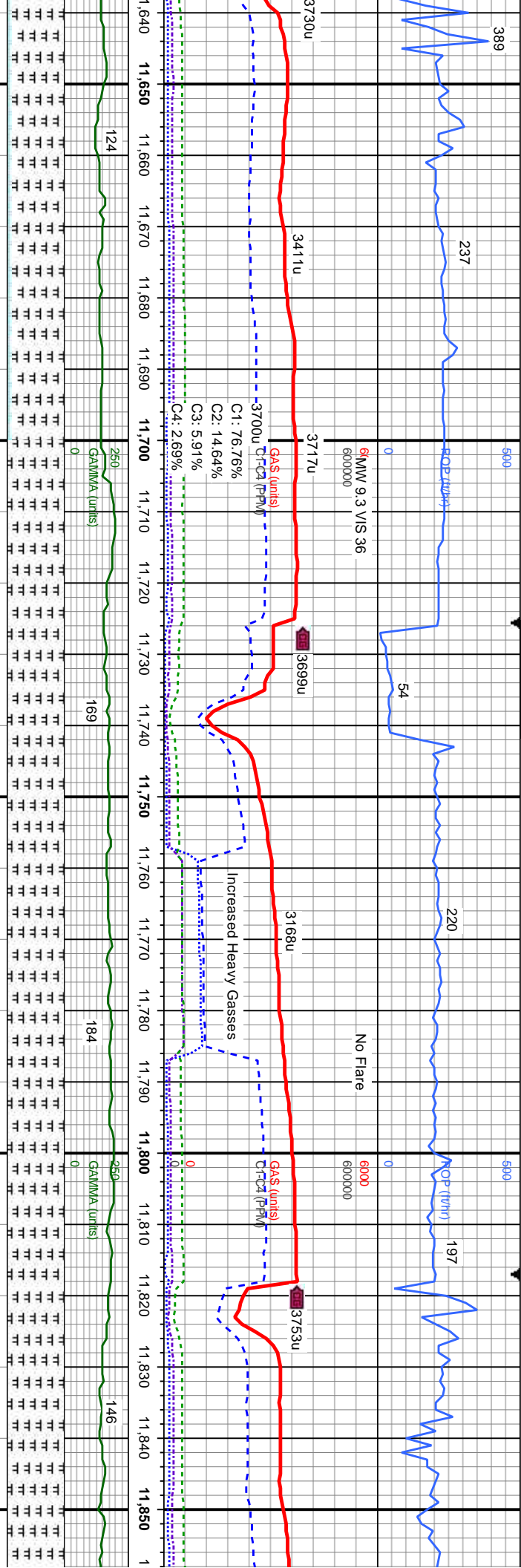
95% MRLST: med-dk gy, sb biky-biky/firm, rthy -sl
sily, arg, v calc: 5% CHK: med gy-gyshbn occ lt gy,
sb biky-biky, sl stf-firm, sl mot, sl wxy, v calc: blshw
slow string cut with mod gn - yel thk and even resd
ring

90% MRLST: med-dk gy, sb biky-biky/firm
sily, arg, v calc: 10% CHK: med gy-gyshb
gy, sb biky-biky, sl stf-firm, sl mot, sl wxy, v
blshw slow string cut with mod gn - yel th
even resd ring

MD: 11,486'
TVD: 6,917.3'
Inclination: 89.5°
Azimuth: 180.7°
VS: 4.322.87

MD: 11,577'
TVD: 6,916.1'
Inclination: 92°
Azimuth: 181.3°
VS: 4.413.25





90% MRLST: med-dk gy, sb blk-y-biky/firm, rthy -sl
sily, arg, v calc; 10% CHK: med gy-gyshn occ lt
gy, sb blk-y-biky, sl sft-firm, sl mot, sl wxy, v calc;
blshwh slow string cut with mod gn - yel thk and
even resd ring

100% MRLST: med-dk gy, sb blk-y-biky/firm, rthy -sl
sily, arg, v calc; occ -abt bent; blshwh slow
string cut with mod gn - yel thk and even resd
ring

100% MRLST: med-dk gy, sb blk-y-biky/firm, rthy -sl
sily, arg, v calc; occ -abt bent; blshwh slow
string cut with mod gn - yel thk and even resd
ring

M.D: 11.669°
TVD: 6,912.73'
Inclination: 92.2°
Azimuth: 179.7°
VS: 4.504.67

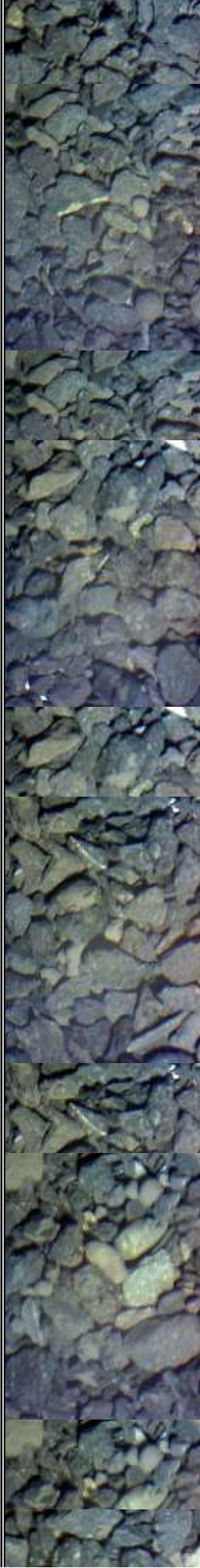
TVD (ft)

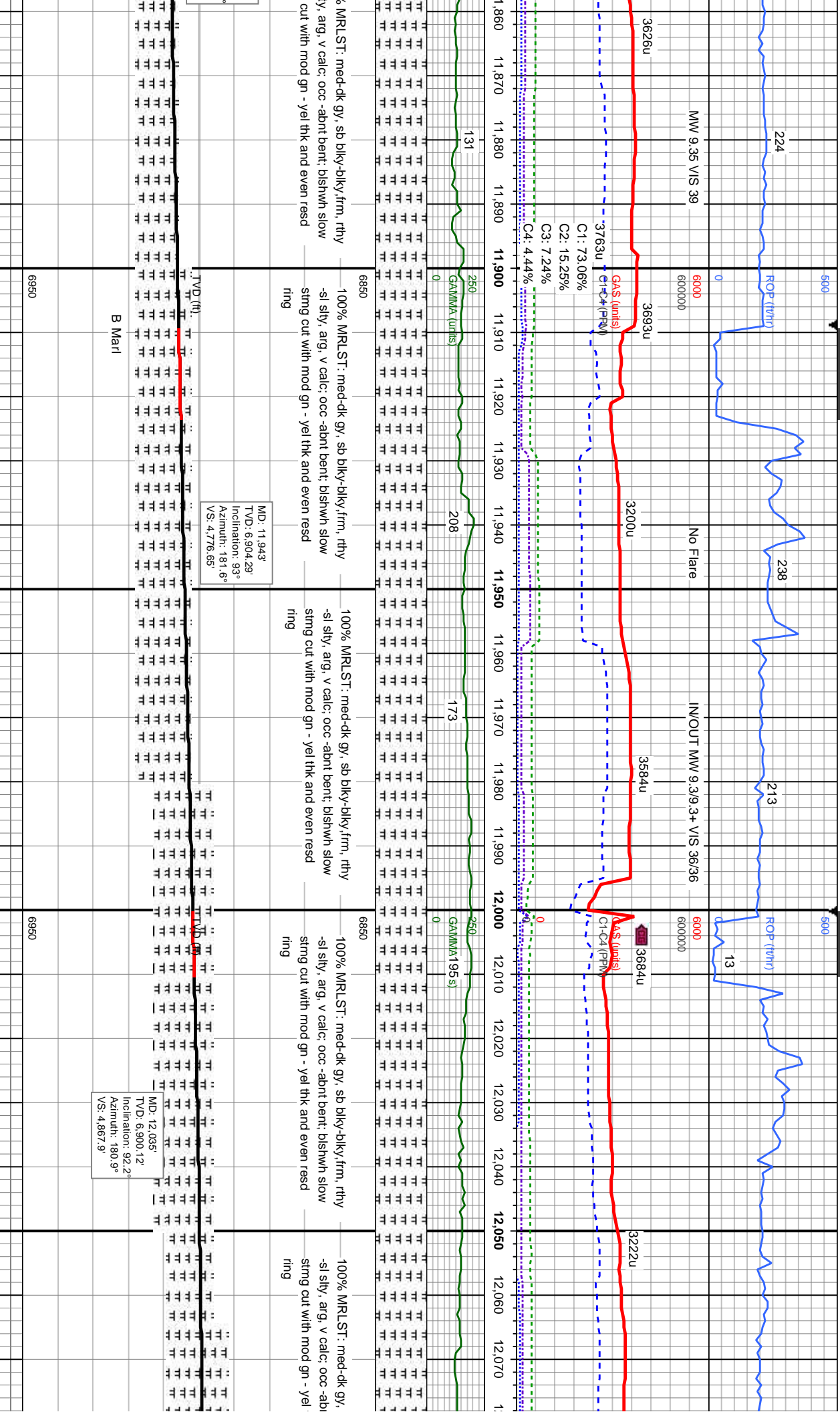
M.D: 11.760°
TVD: 6,910.03'
Inclination: 91.2°
Azimuth: 182.3°
VS: 4.585.09°

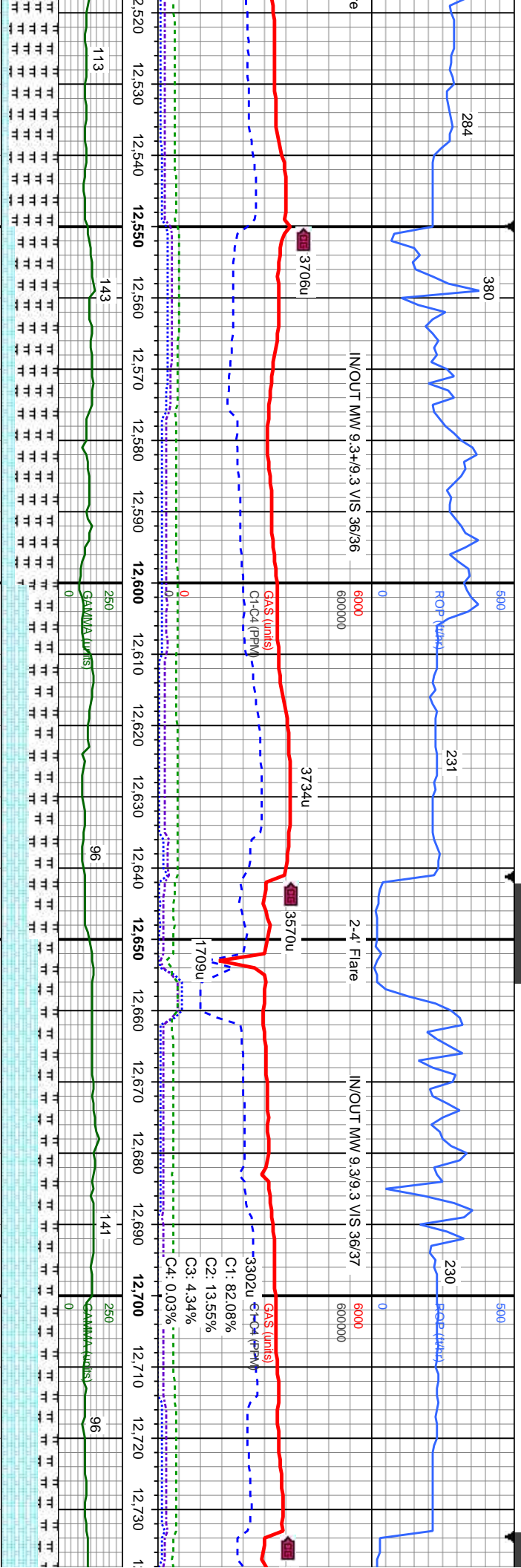
TVD (ft)

M.D: 11.852°
TVD: 6,907.87'
Inclination: 91.5°
Azimuth: 180.7°
VS: 4.686.35°

Mud Report 3AM			
WT 9.3	SOLIDS 5.5%		
VIS 36	OIL 2.5%		
TEMP 115	WATER 92%		
YP 10	SAND .5%		
GEL 4/5	pH 9.1		
API 6.8/1	Ca 40		







dk gy - blk, sb blk-y-bkly,frm,
calc: 15% CHK: med gy-gyshbn
rthy -sl slty, arg, v calc: 25% CHK: med gy-gyshbn
occ lt gy, sb blk-y-bkly, sl sft-frm,sl mot, sl wxy, v
calc: occ bent, tr fos frags, blshwn slow sting cut
blk and even resd ring

75% MRLST: med-dk gy - blk, sb blk-y-bkly,frm,
rthy -sl slty, arg, v calc: 25% CHK: med gy-gyshbn
occ lt gy, sb blk-y-bkly, sl sft-frm,sl mot, sl wxy, v
calc: occ bent, tr fos frags, blshwn slow sting cut
with mod gn - yel thk and even resd ring

50% CHK: med gy-gyshbn occ lt gy, sb blk-y-bkly,
sl sft-frm,sl mot, sl wxy, v calc:50% MRLST:
med-dk gy - blk, sb blk-y-bkly,frm, rthy -sl slty, arg, v
calc: occ bent, blshwn slow sting cut with mod
gn - yel thk and even resd ring

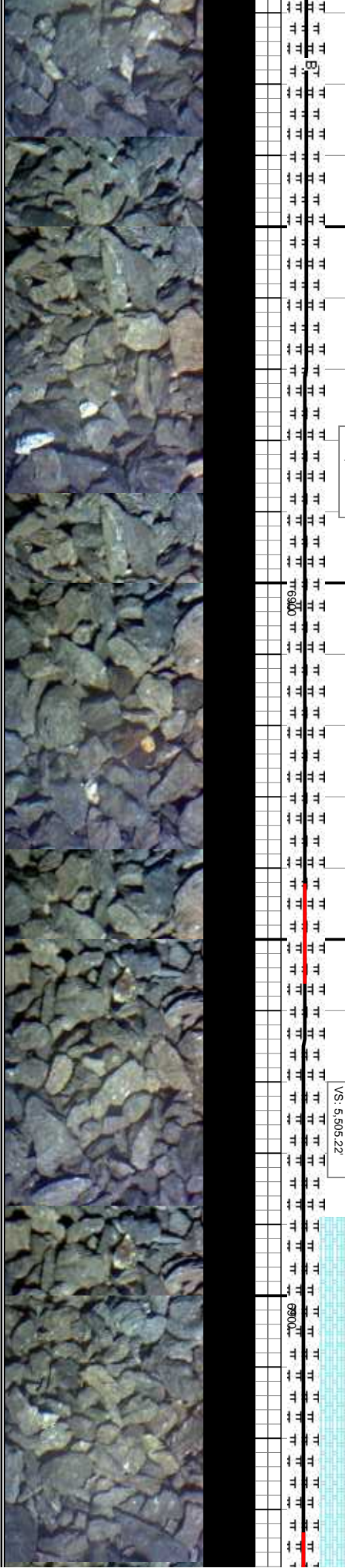
65% CHK: med gy-gyshbn occ lt gy-lt brn, sb
blk-y-bkly, sl sft-frm,sl mot, sl wxy, v calc: 35%
MRLST: med-dk gy - blk, sb blk-y-bkly,frm, rthy -sl
slty, arg, v calc: occ bent, blshwn slow sting cut
with mod gn - yel thk and even resd ring

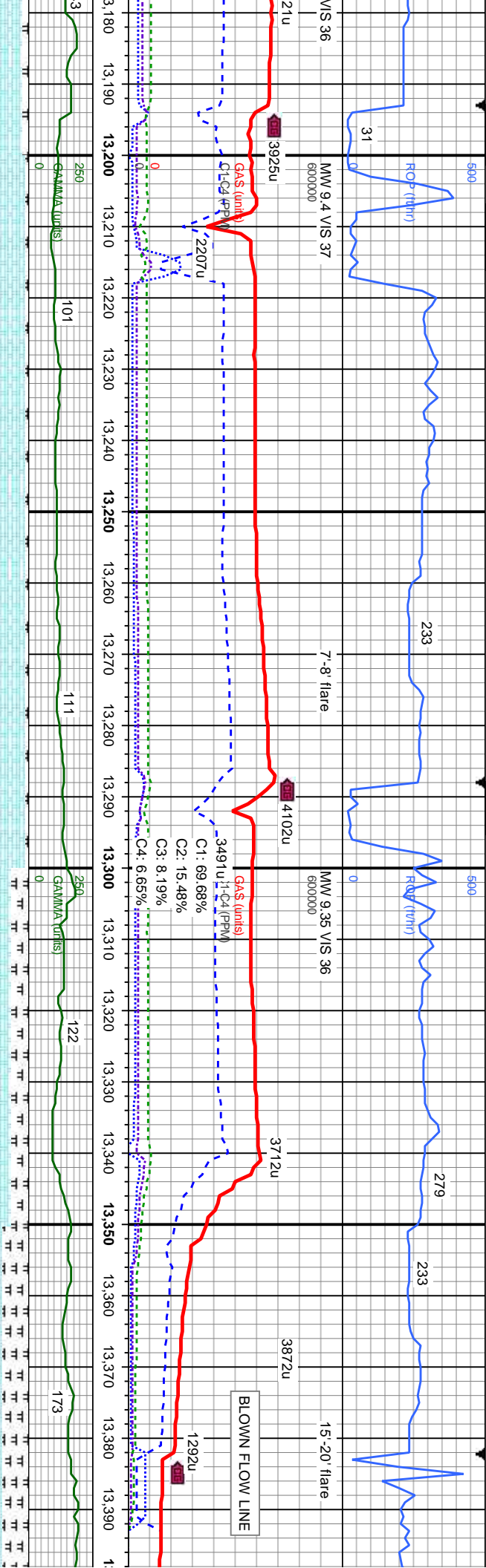
65% CHK: med gy-gyshbn occ lt gy-lt br
blk-y-bkly, sl sft-frm,sl mot, sl wxy, v calc:
MRLST: med-dk gy - blk, sb blk-y-bkly,frm
slty, arg, v calc: occ bent, blshwn slow s
with mod gn - yel thk and even resd ring

MD: 12.584'
TVD: 6.893.72
Inclination: 90°
Azimuth: 179.5°
VS: 5.413.77

MD: 12.676'
TVD: 6.894.04'
Inclination: 89.6°
Azimuth: 181.8°
VS: 5.505.22

Mud Report 3PM			
WT 9.3	SOLIDS 5.5%		
VIS 36	OIL 2%		
TEMP 119	WATER 92.5		
YP 9	SAND .5%		
GEL 5/6	PH 9.3		
API 6.6/1	Ca 40		

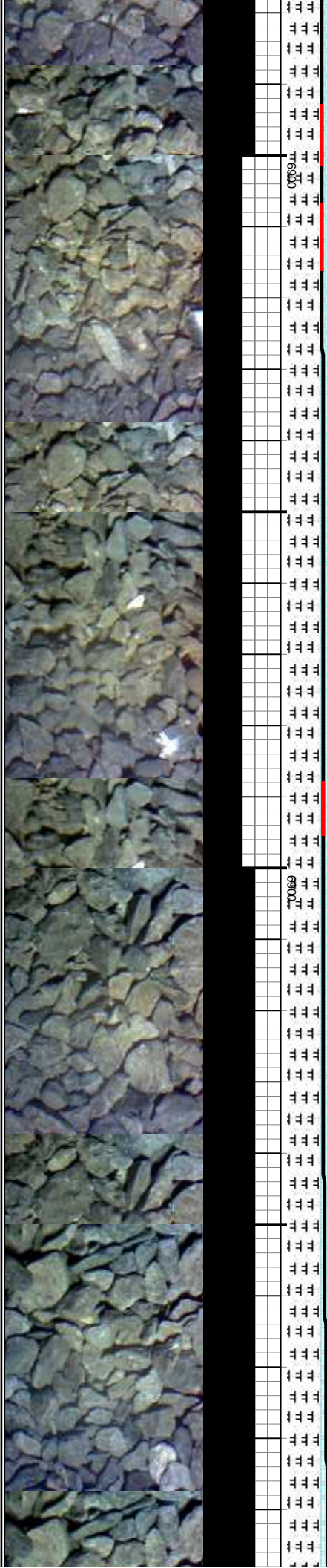


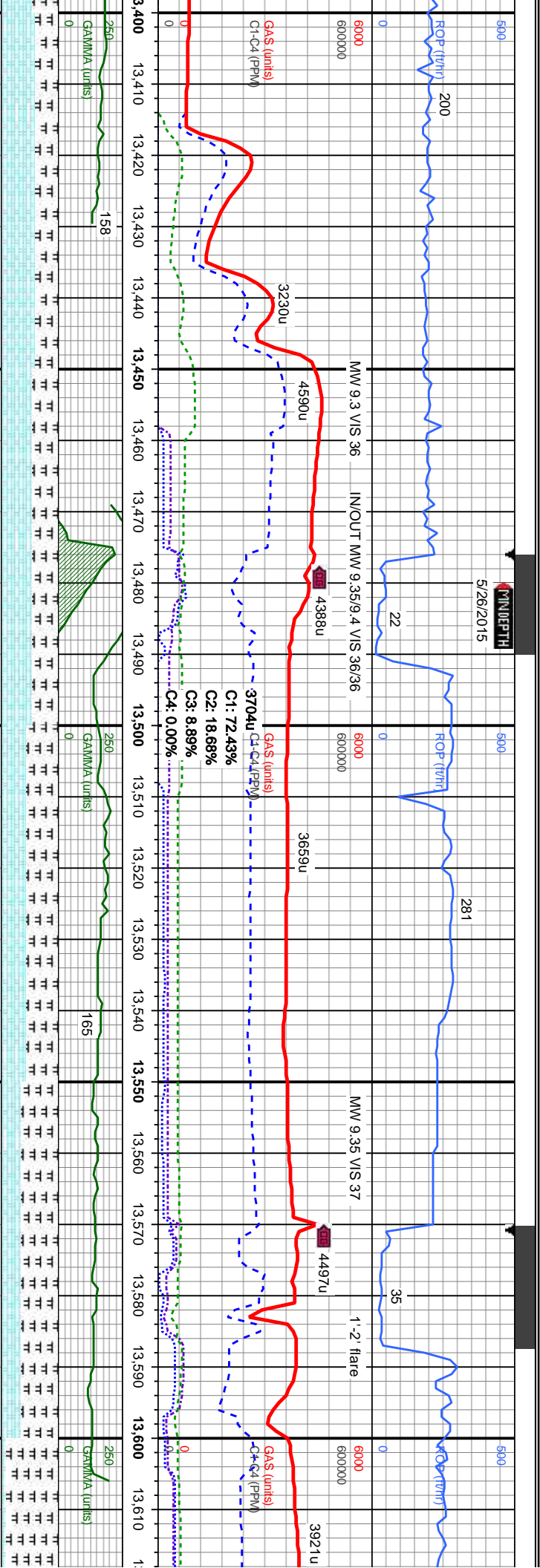


cc: lt gy-lt brn, sb wxy, v calc: 10% biky-biky, frm, rthy -sl mwh slow string cut n read ring	6800	96% CHK: med gy-gyshbn occ lt gy-lt brn, sb biky-biky, sl sft-frm, sl mot, sl wxy, v calc: 5% MRLST: med-dk gy - blk, sb biky-biky, frm, rthy -sl sily, arg, v calc: r bent; bishwn slow string cut with fair-mod gn - yel thk and even read ring	6800	70% CHK: med gy-gyshbn occ lt gy-lt brn, sb biky-biky, sl sft-frm, sl mot, sl wxy, v calc: 30% MRLST: med-dk gy - blk, sb biky-biky, frm, rthy -sl sily, arg, v calc: r bent; bishwn slow string cut with mod gn - yel thk and even read ring	6800	55% CHK: med gy-gyshbn occ lt gy-lt brn, sb biky-biky, sl sft-frm, sl mot, sl wxy, v calc: 45% MRLST: med-dk gy - blk, sb biky-biky, frm, rthy -sl sily, arg, v calc: r bent; bishwn slow string cut mod gn - yel thk and even read ring
--	------	---	------	---	------	--

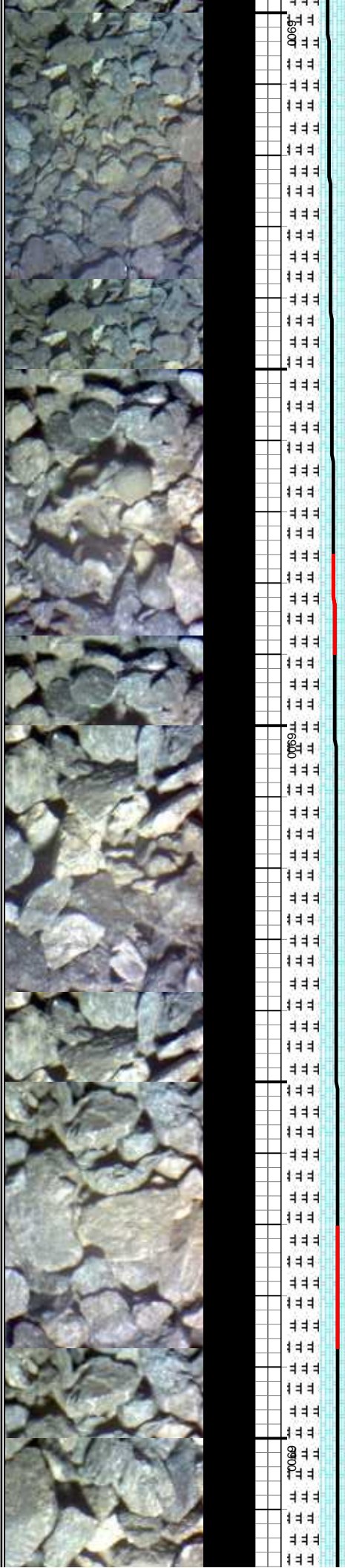
MD: 13.231'
TVD: 6.889.25'
Inclination: 89.3°
Azimuth: 179.1°
VS: 6.055.47'

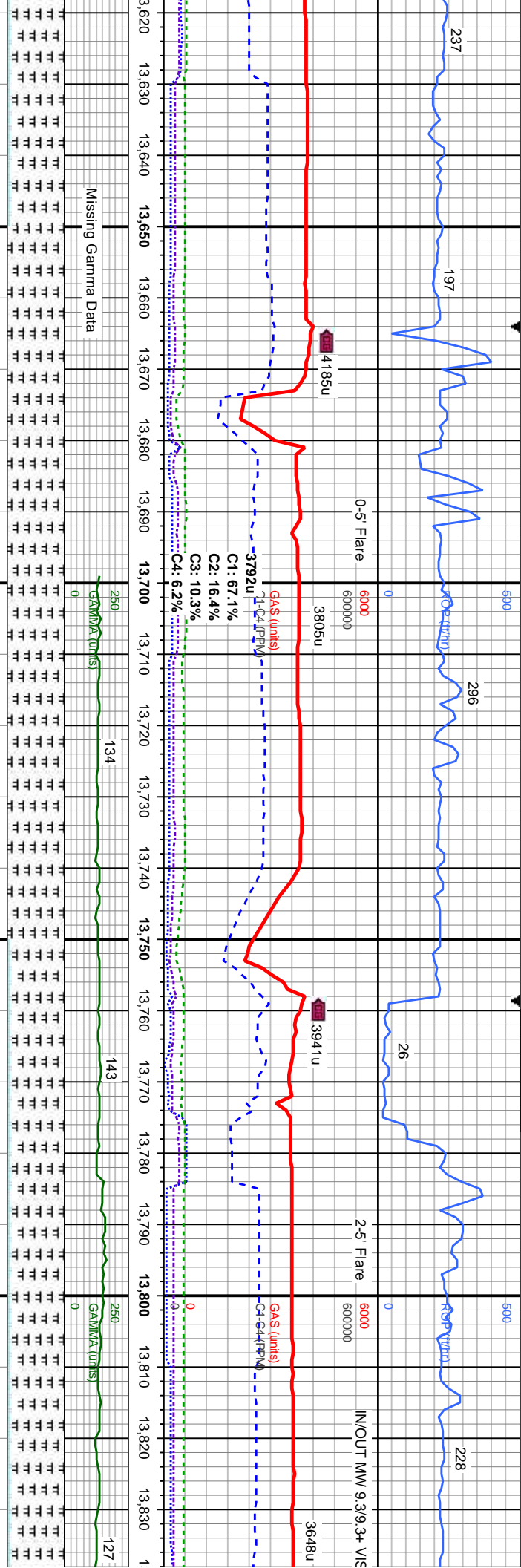
MD: 13.325'
TVD: 6.889.25'
Inclination: 90.7°
Azimuth: 179.3°
VS: 6.149.13'



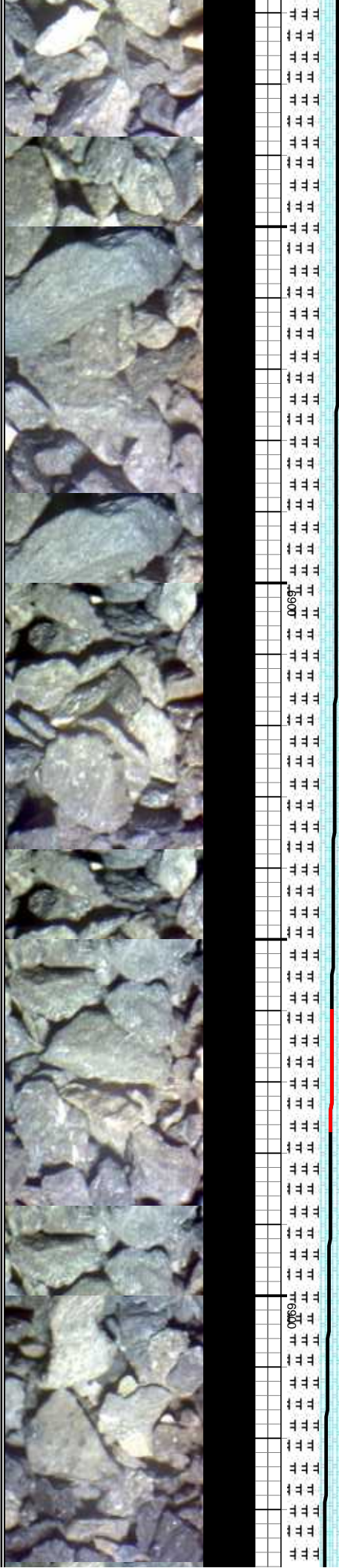


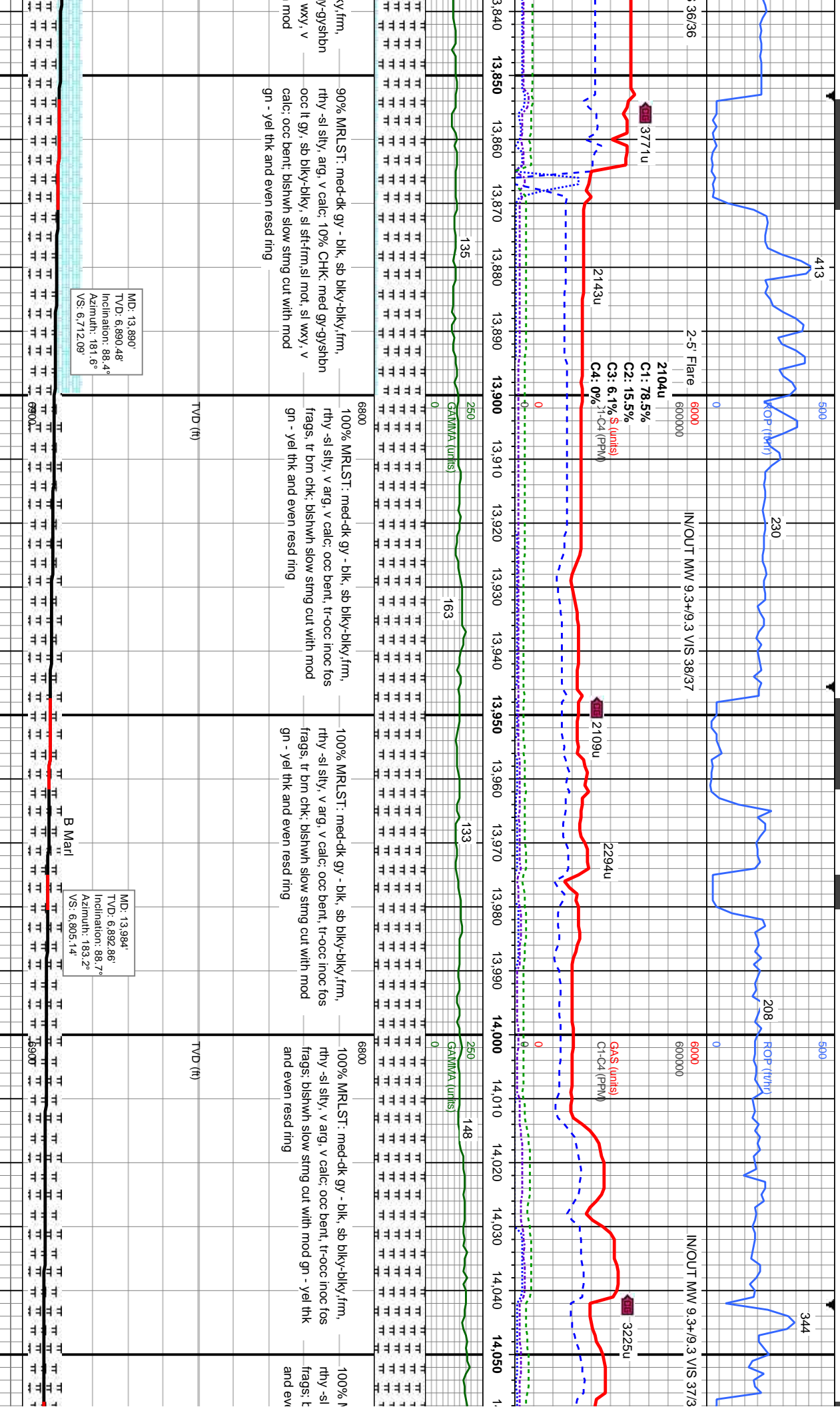
60% CHK: med gy-gyshn occ lt gy-it brn, sb blk-y-bkly, sl sft-frn, sl mot, sl wxy, v calc: 40% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy -sl sily, arg, v calc: r bent, bishwn slow sting cut with mod gn - yel thk and even resd ring	55% CHK: med gy-gyshn occ lt gy-it brn, sb blk-y-bkly, sl sft-frn, sl mot, sl wxy, v calc: 45% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy -sl sily, arg, v calc: occ bent, bishwn slow sting cut with mod gn - yel thk and even resd ring	55% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy -sl sily, arg, v calc: 45% CHK: med gy-gyshn occ lt gy, sb blk-y-bkly, sl sft-frn, sl mot, sl wxy, v calc: occ bent, tr fos frags: bishwn slow sting cut with mod gn - yel thk and even resd ring	65% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy -sl sily, arg, v calc: 35% CHK: med gy-gyshn occ lt gy, sb blk-y-bkly, sl sft-frn, sl mot, sl wxy, v calc: occ bent, tr fos frags: bishwn slow sting cut with mod gn - yel thk and even resd ring	90% MRLST: med rthy -sl sily, arg, v calc: occ lt gy, sb blk-y-b calc: occ bent, bish gn - yel thk and ev
TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)
MD: 13.419' TVD: 6.887.53 Inclination: 91.4° Azimuth: 178.4° VS: 6.242.83	MD: 13.513' TVD: 6.885.8' Inclination: 90.7° Azimuth: 178.4° VS: 6.336.59	Mud Report 3AM WT 9.4 SOLIDS 6% VIS 37 OIL 2.5% TEMP 119 WATER 91.5% YP 10 SAND .5% GEL 5/6 pH 9.0 API 6.2/1 Ca 40	MD: 13.607' TVD: 6.885.39 Inclination: 89.8° Azimuth: 178.6° VS: 6.430.34	

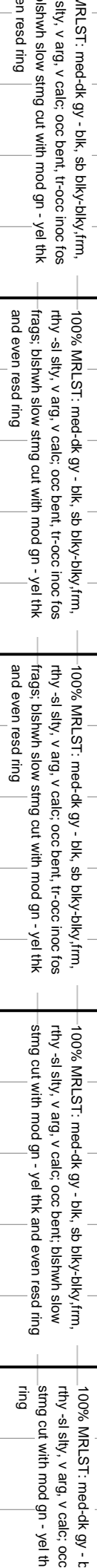


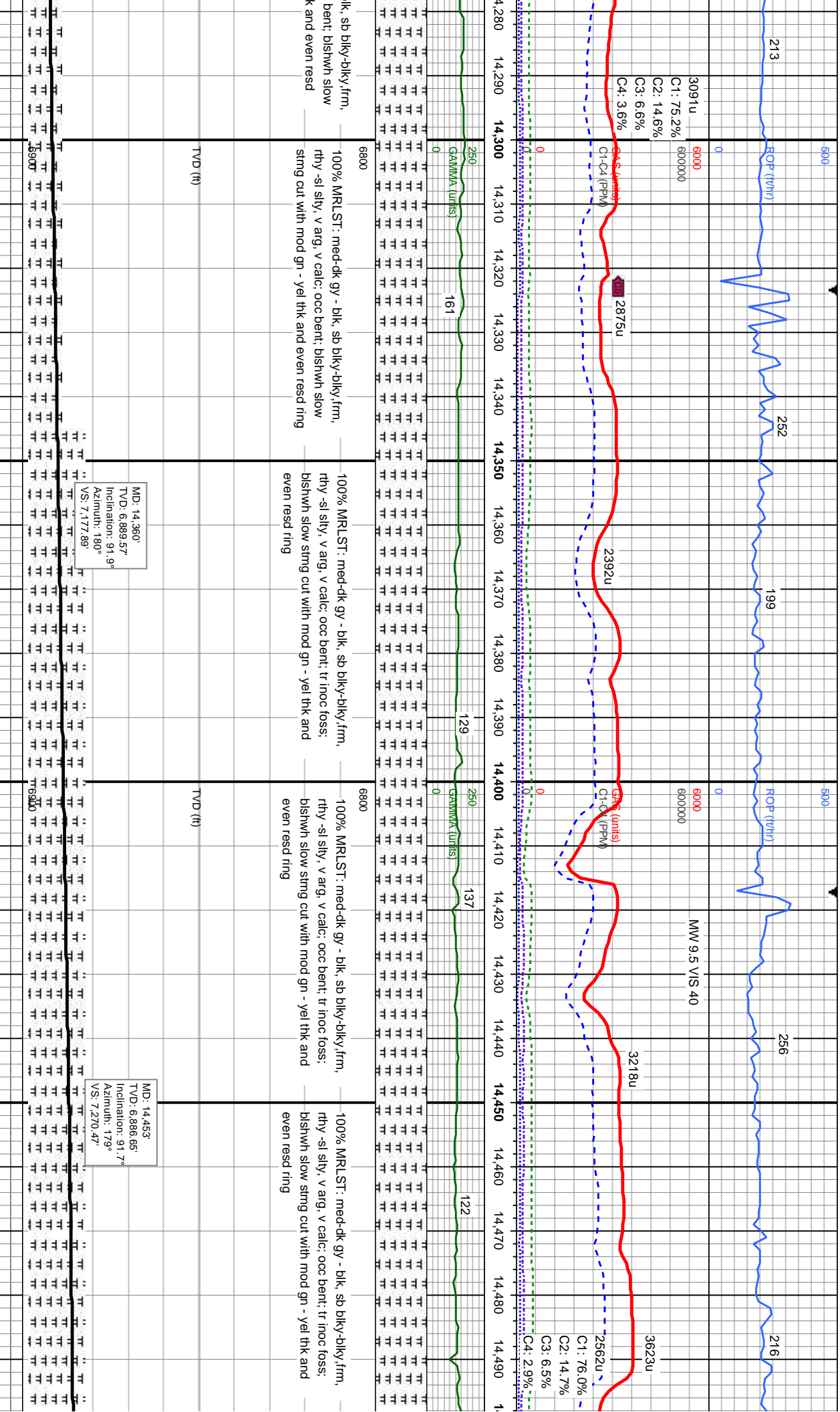


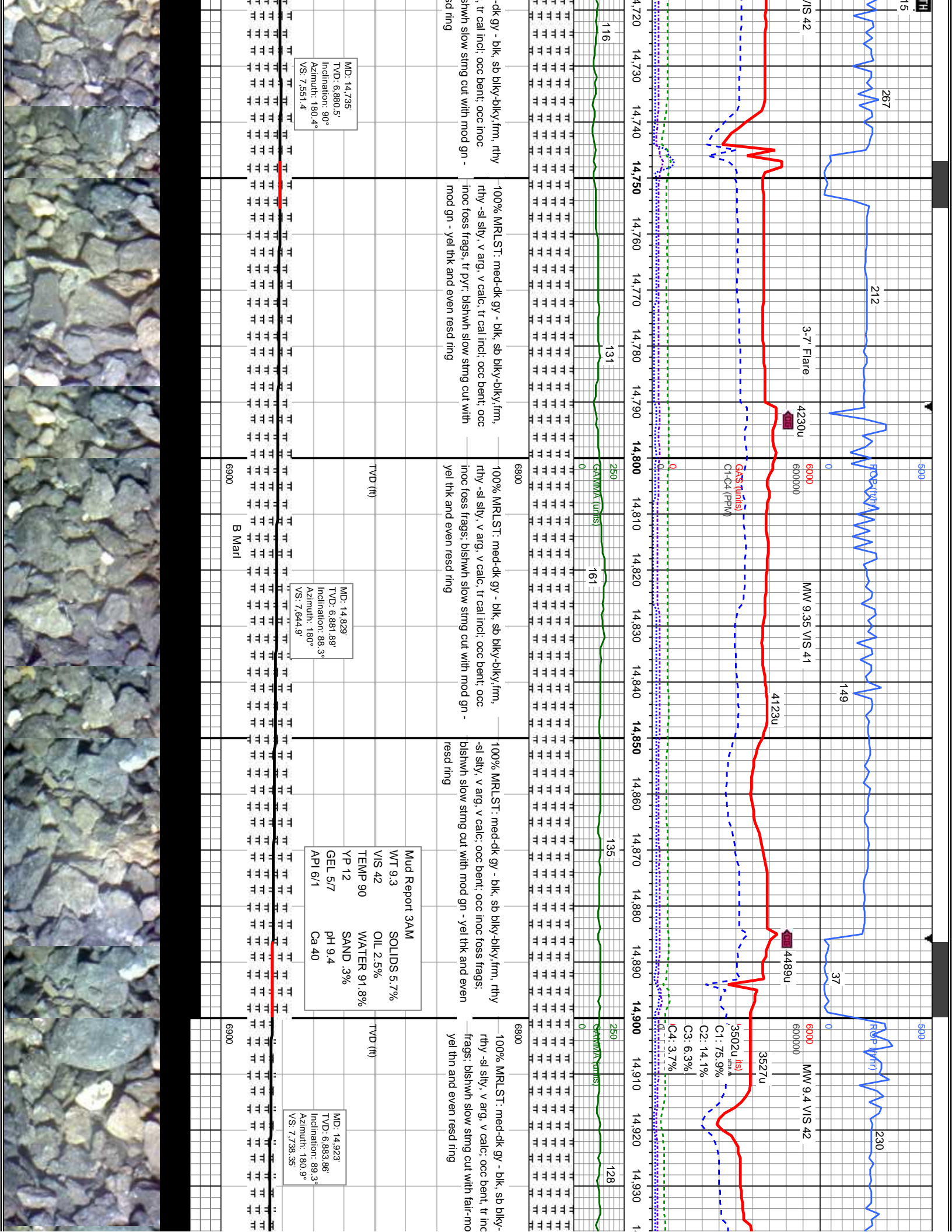
dk gy - blk, sb blk-y-bkly, frm, calc, 10% CHK, med gy-gyshn blk, sl st-frm, sl mot, sl wxy, v mwh slow stmg cut with mod even read ring	100% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy -sl stly, arg, v calc, occ bent, bishwh slow stmg cut with mod gn - yel thk and even read ring	100% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy -sl stly, arg, v calc, occ bent, bishwh slow stmg cut with mod gn - yel thk and even read ring	90% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy -sl stly, arg, v calc, 10% CHK, med gy-gyshn occ lt gy, sb blk-y-bkly, sl st-frm, sl mot, sl wxy, v calc, occ bent, bishwh slow stmg cut with mod gn - yel thk and even read ring	90% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy -sl stly, arg, v calc, 10% CHK, med gy-gyshn occ lt gy, sb blk-y-bkly, sl st-frm, sl mot, sl wxy, v calc, occ bent, bishwh slow stmg cut with mod gn - yel thk and even read ring
6800	6800	6800	6800	6800
MD: 13.702° TVD: 6.885.73° Inclination: 89.8° Azimuth: 178.3° VS: 6.525.11°	MD: 13.796° TVD: 6.887.53° Inclination: 88° Azimuth: 180.2° VS: 6.618.75°			

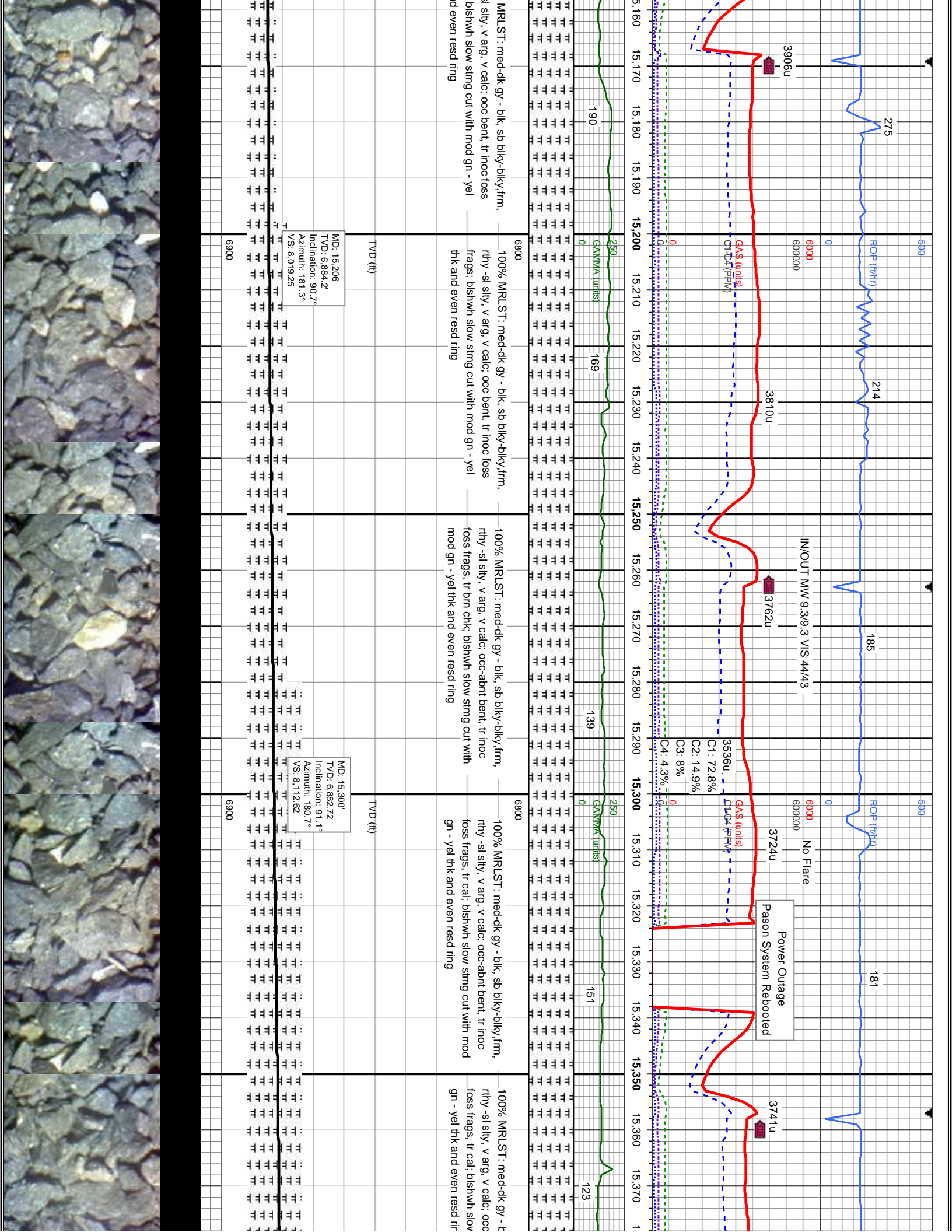


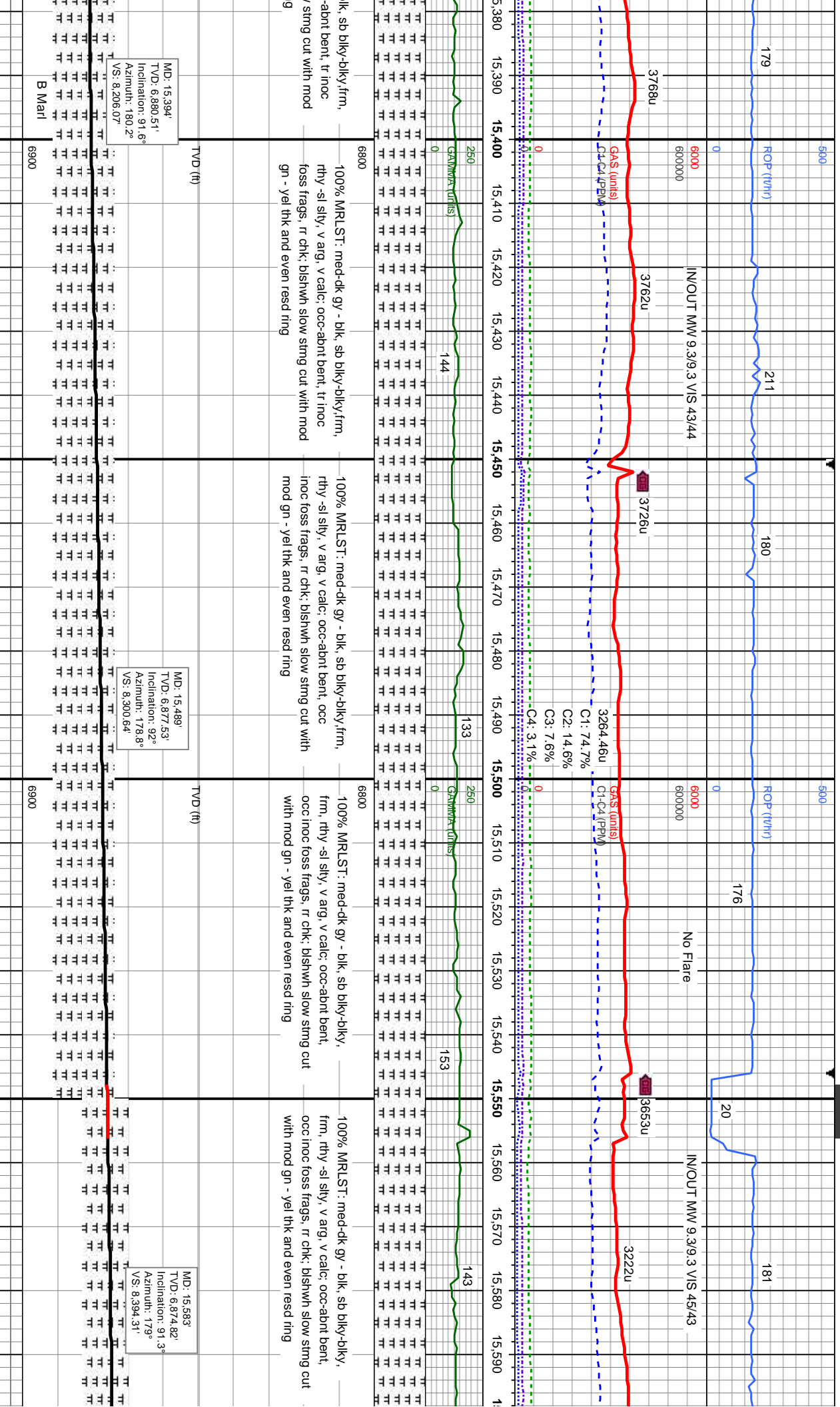


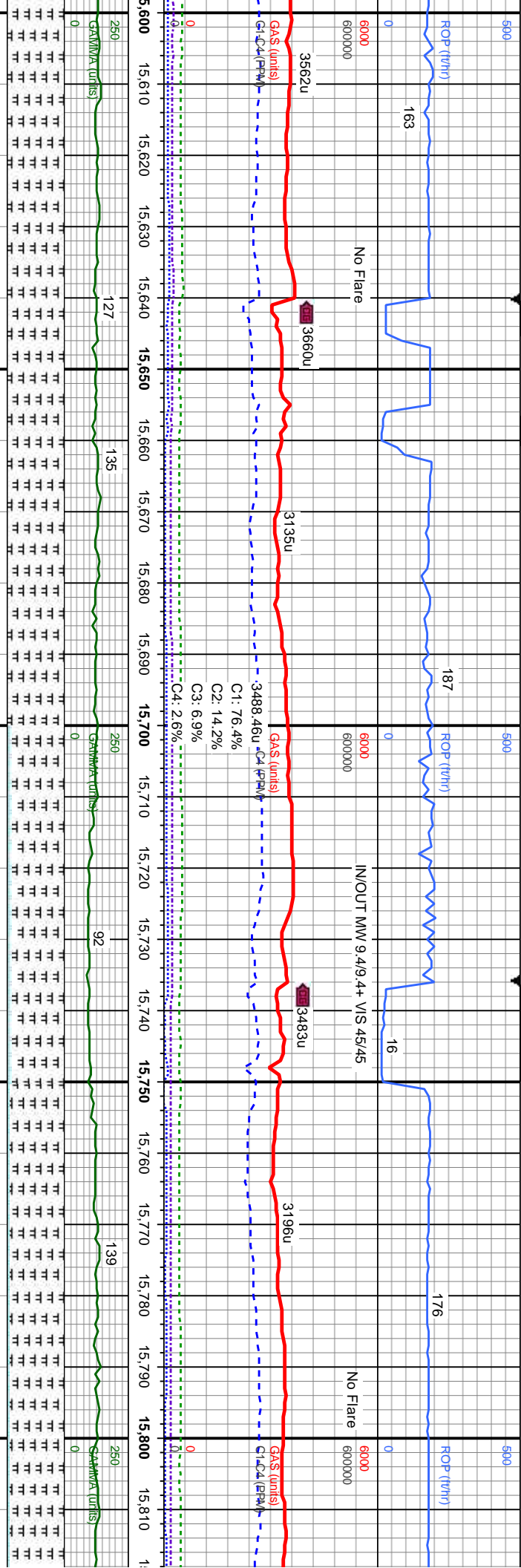












100% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy-sl sily, v arg, v calc; occ-abnt bent, occ inoc foss frags, rr chk; bishwn slow sting cut with mod gn - yel thk and even resd ring

100% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy-sl sily, v arg, v calc; occ-abnt bent, occ inoc foss frags; bishwn slow sting cut with mod gn - yel thk and even resd ring

90% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy-sl sily, arg, v calc; occ cal incl; 10% CHK: med gy-gy, occ lt gy, sb blk-y-bkly, sl stf-frm, sl mot, sl wxy, v calc; occ bent, occ los frags; bishwn slow sting cut with fair-mod gn - yel thn and even resd ring

95% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy-sl sily, arg, v calc; occ cal incl; 5% CHK: med gy-gy, occ lt gy, sb blk-y-bkly, sl stf-frm, sl mot, sl wxy, v calc; occ bent, occ los frags; bishwn slow sting cut with fair-mod gn - yel thn and even resd ring

95% MRLST: med-dk gy - blk, sb blk-y-bkly, frm, rthy-sl sily, arg, v calc; occ cal incl; 5% CHK: med gy-gy, occ lt gy, sb blk-y-bkly, sl stf-frm, sl mot, sl wxy, v calc; occ bent, occ los frags; bishwn slow sting cut with mod

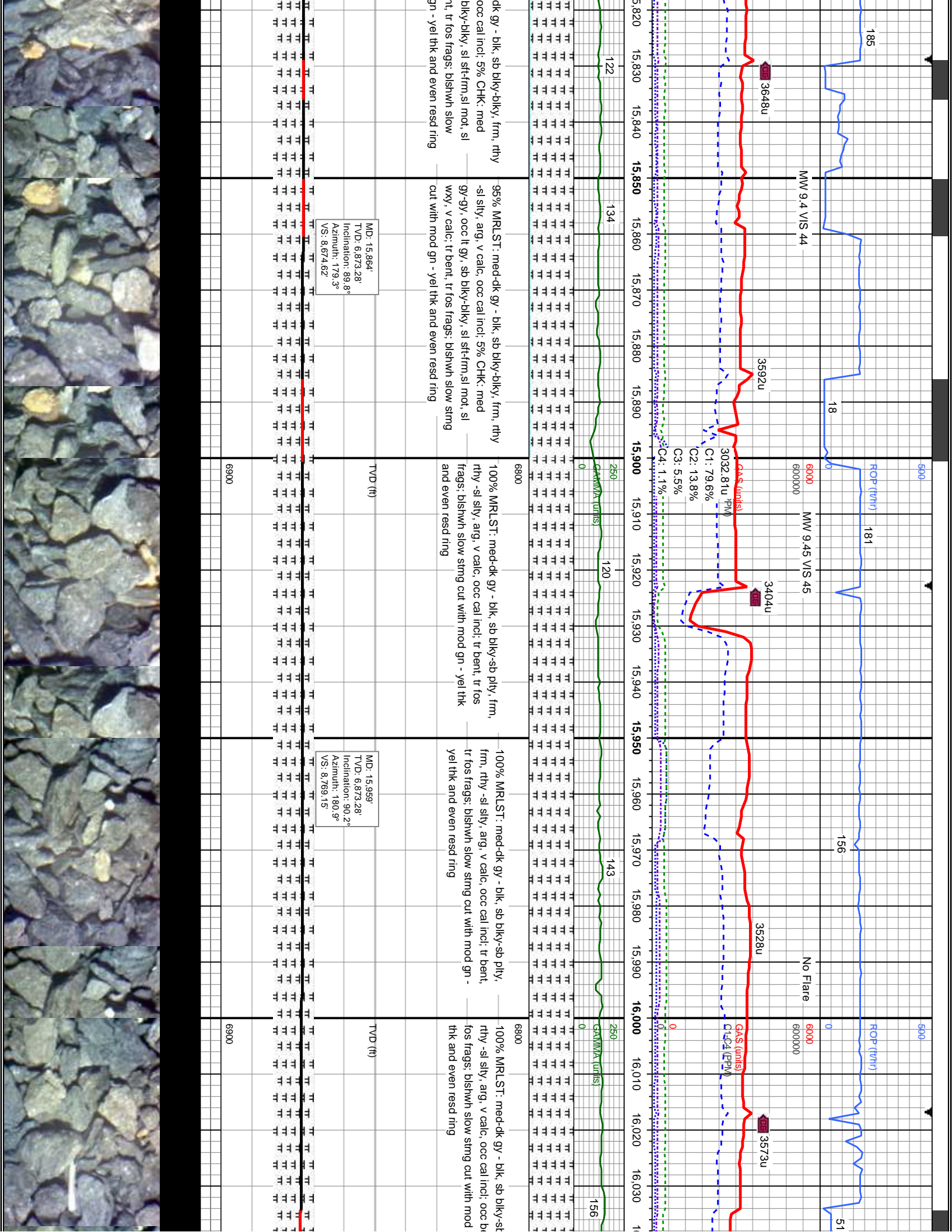
MD: 15,676'
TVD: 6,872.87'
Inclination: 91.1°
Azimuth: 177.9°
VS: 8,487.06'

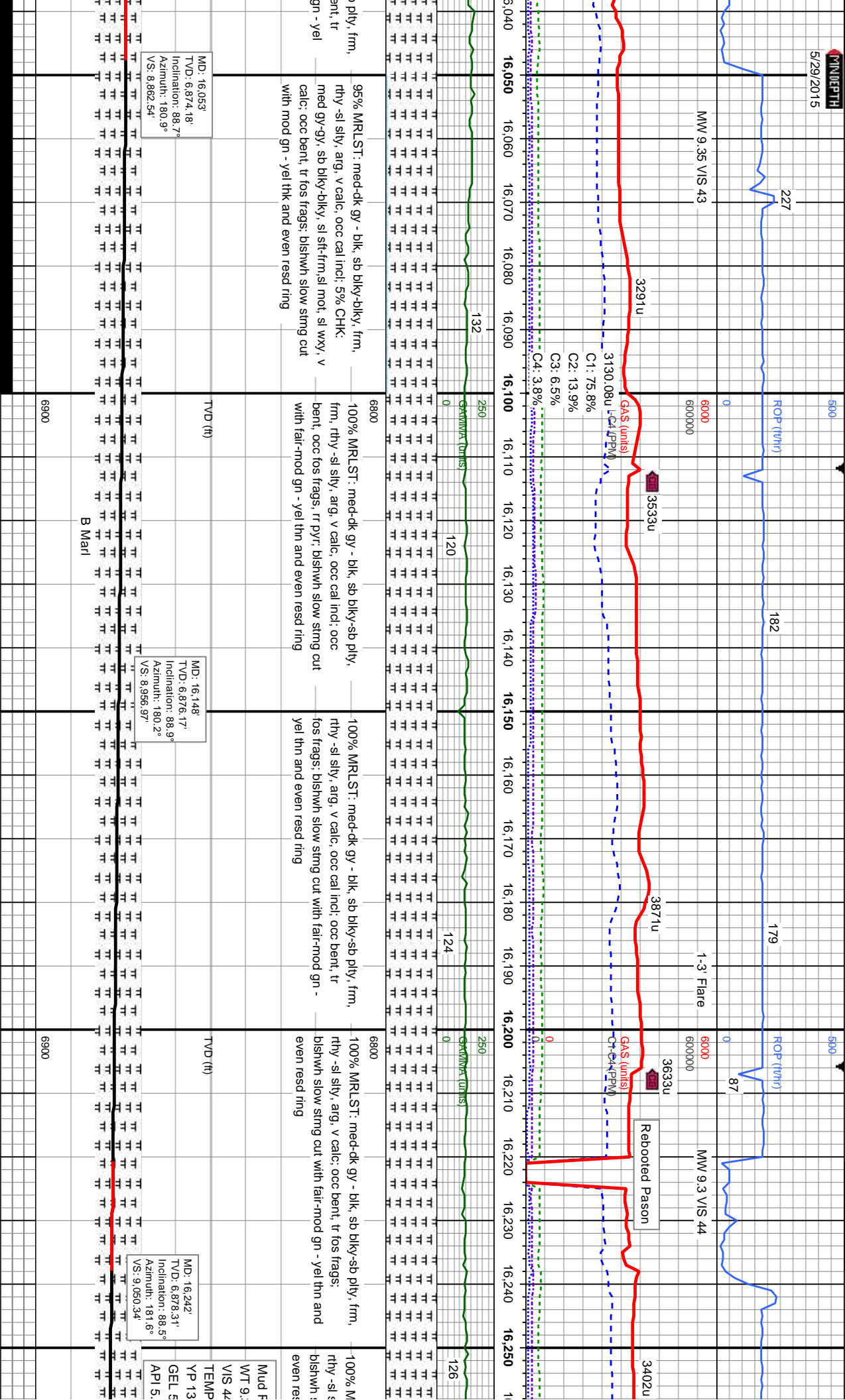
Mud Report 3PM
WT 9.5 SOLIDS 6.7%
VIS 45 OIL 2.5%
TEMP 107 WATER 90.8%
YP 9 SAND .5%
GEL 9 pH 9.0
API 5.8/1 Ca 40

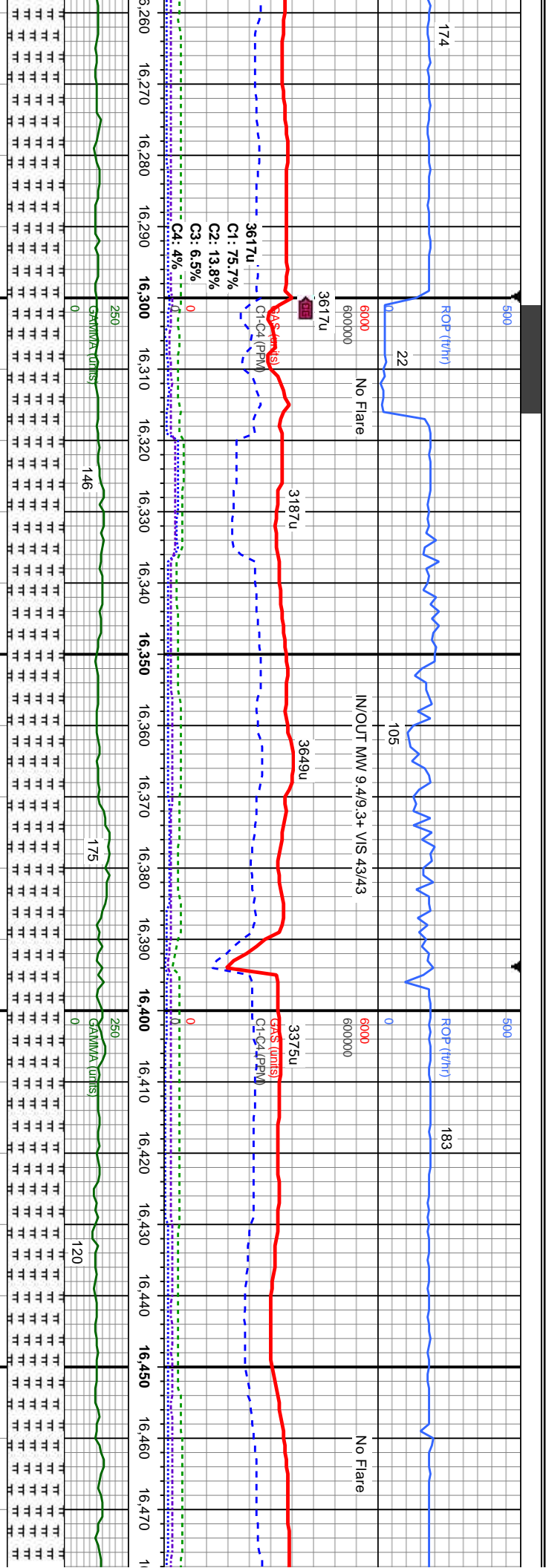
MD: 15,770'
TVD: 6,872.54'
Inclination: 89.3°
Azimuth: 177.9°
VS: 8,580.88'

B Mar









100% MRLST: med-dk gy - blk, sb blk-ly-sb ply, frm, rthy -sl silty, arg, v calc: occ bent, rr fos frags; bishwh slow sting cut with fair-mod gn - yel thn and even resd ring

100% MRLST: med-dk gy - blk, sb blk-ly-sb ply, frm, rthy -sl silty, arg, v calc: occ bent, rr fos frags; bishwh slow sting cut with fair-mod gn - yel thn and even resd ring

100% MRLST: med-dk gy - blk, sb blk-ly-sb ply, frm, rthy -sl silty, arg, v calc: occ bent, rr fos frags; bishwh slow sting cut with mod gn - yel thk and even resd ring

Report 3AM
SOLIDS 5.7%
OIL 2.1%
WATER 92.2%
SAND .3%
pH 9.1
Ca 40

MD: 16.336
TVD: 6.879.45
Inclination: 90.1°
Azimuth: 181.4°

MD: 16.430
TVD: 6.879.04
Inclination: 90.4°
Azimuth: 180.4°

