



Scale: 5" / 100'
Measured Depth Log

Well Name FINAL_SHOOK 3-10-1NCH_Horiz

Location NWSE SECTION 3 T1S R67W

State COLORADO

County ADAMS

Country USA

Rig Number ENSIGN 145

API Number 05-001-09975

AFE # 1700004

Geographic Region DJ BASIN

Field WATTENBERG

Spud Date 4/9/2017

Drilling Completed 6/15/2017

Surface Coordinates NWSE SECTION 3, T1S, R67W
2058' FSL x 2244' FEL

Bottom Hole Coordinates SEC 10, T1S, R67W
359' FSL x 1584' FWL

Ground Elevation 5098'

K.B. Elevation 5111'

Logged Interval 7700' To 12910'

Total Depth 5210'

Formation NIOBRARA C CHALK

Type of Drilling Fluid OIL BASED MUD

Operator

Company PetroShare Corporation

Address 7200 S Alton Way
Englewood, CO 80112



Geologist

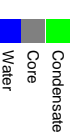
Name WEDGE HOWLAND, SAGE BETTS

Company Terra Guidance

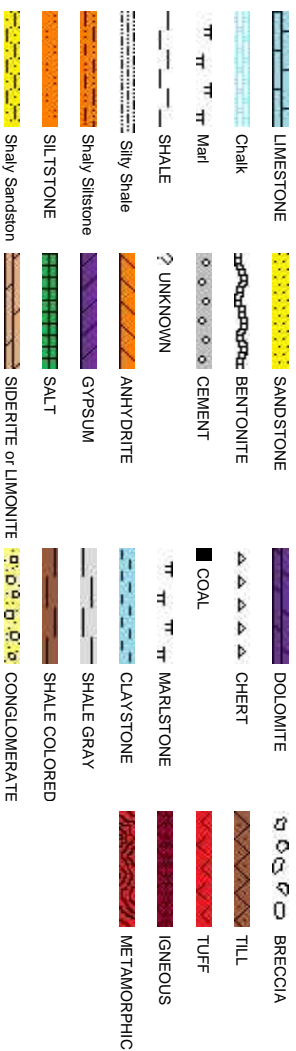
Address 1298 O Road
Loma CO 81524
(970) 260-5408



Zone Color Coding

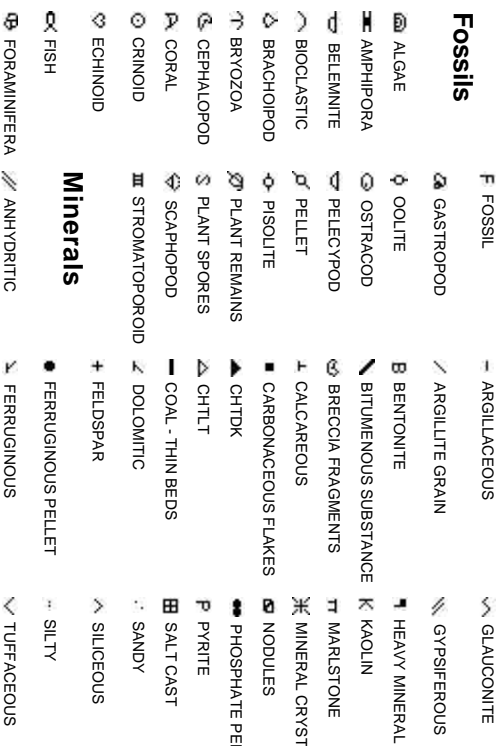


Rock Types

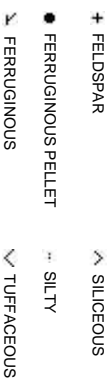


Accessories

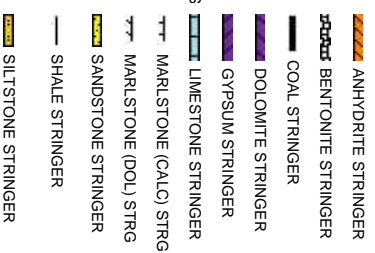
Fossils



Minerals



Springer



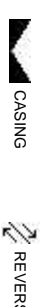
Other



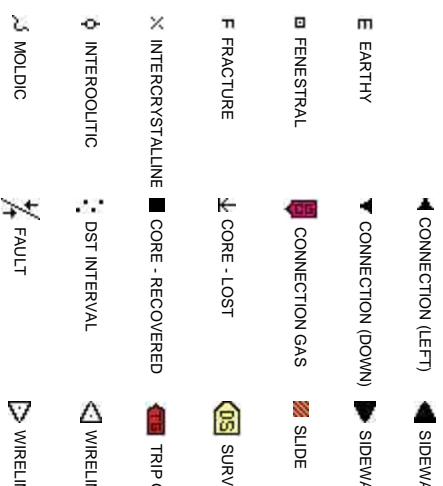
Oil Show



Engineering



Porosity



er Symbols

FORMATION TOP L LITHOGRAPHIC

Rounding

HOW MX MICROXLN

PTH A ANGULAR MS MUDSTONE

L FAULT R ROUNDED PS PACKSTONE

OW B SUBANG WS WACKESTONE

JURNED STRATA T SUBRND

Sorting

SE FAULT

Textures

ALL CORE (LEFT) M MODERATE

ALL CORE (RIGHT) BS BOUNDSTONE P POOR

C CHALKY W WELL

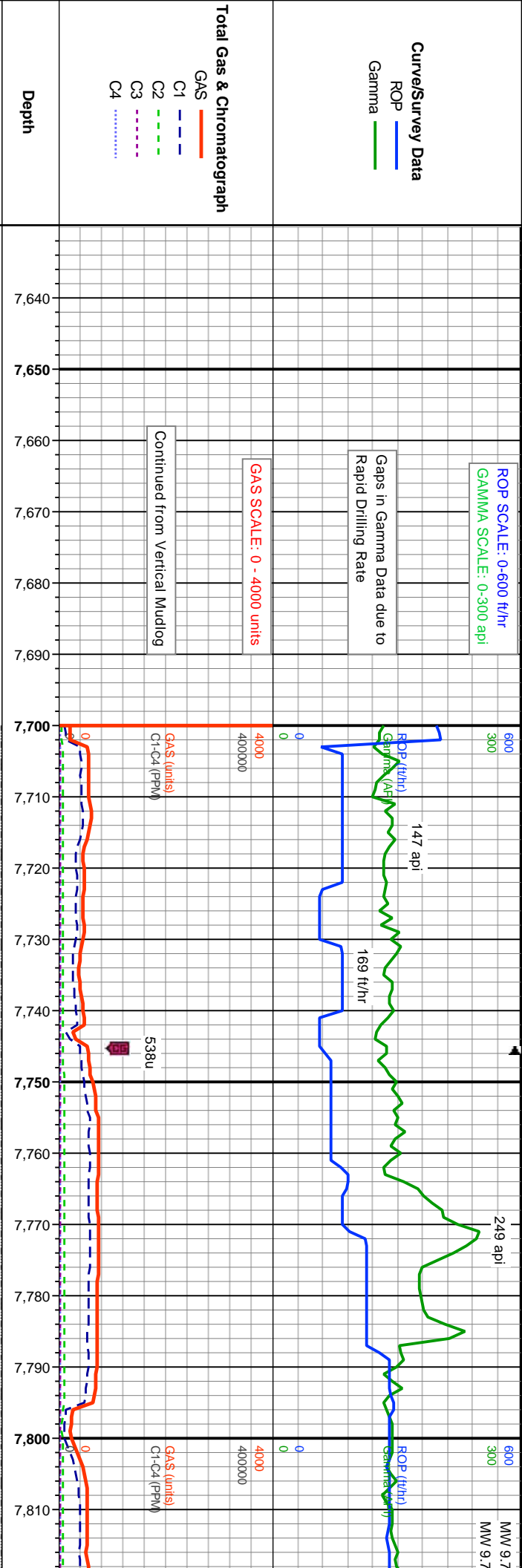
EY CX CRYPTOXLN

EGAS E EARTHY

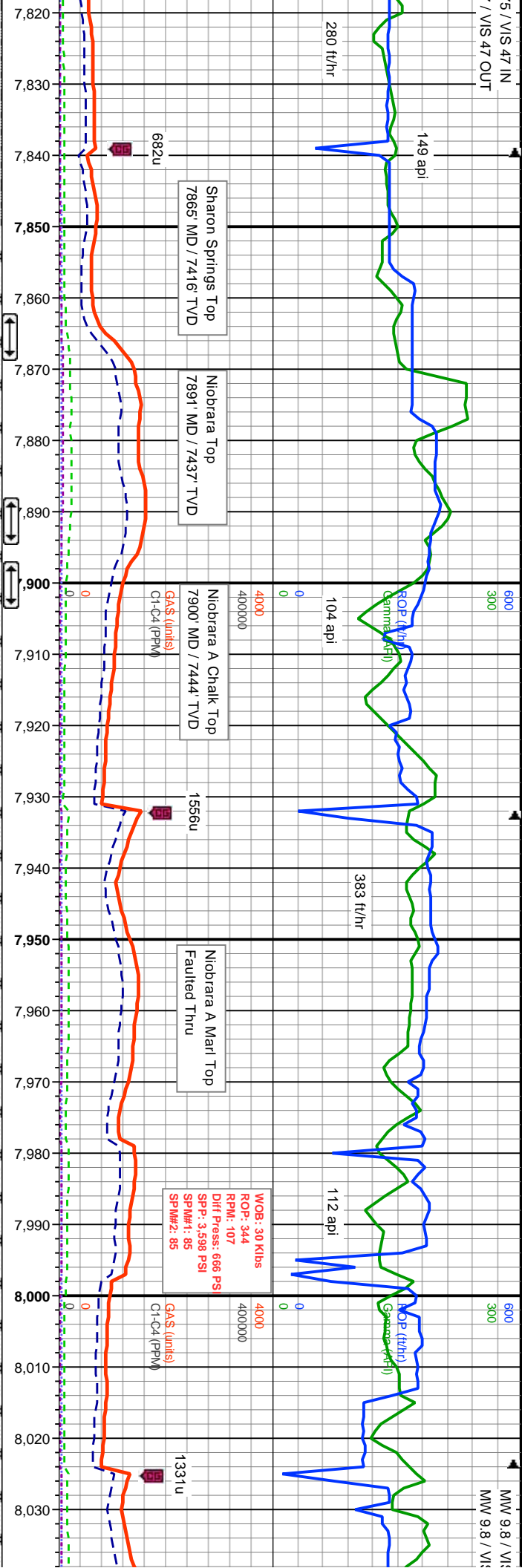
ConnectionGas(Vert)

NE TESTED - LEFT FX FINELYXLN

NE TESTED - RT BS GRAINSTONE



% Lithology		Well Bore	
		TVD	
		TVD SCALE: 7000-8700'	
		MD: 7,721' INC: 22.96° AZM: 207.36° TVD: 7,293.4' VS: 2,193.82'	
		100% SLTY SH: dk gy-med gy, vfg, frm-hrd, sb blk-ymd-pty, mod srt, arg mtx, non-calc cnt, tr bent	
		100% SLTY SH: dk gy-med gy, frm-hrd, blk-ymd-pty, com pty, silty, mod srt, arg mtx, non-calc cnt, mntr bent	
		MD: 7,814' INC: 33.37° AZM: 199° TVD: 7,377° VS: 2,236°	
		100% SLTY SH: blk-ymd-pty, mntr v calc cnt, mntr	
Images			



Sharon Springs Top
7865' MD / 7416' TVD

Niobrara Top
7891' MD / 7437' TVD

Niobrara A Chalk Top
7900' MD / 7444' TVD

1556u

Niobrara A Marl Top
Faulted Thru

WOB: 30 Klbs
ROP: 344
RPM: 107
Diff Press: 666 PSI
SP: 3.598 PSI
SPW#1: 85
SPW#2: 85

682u

1331u

7000

7000

03°	MD: 7,907'	INC: 41.81°	AZM: 192.03°	TVD: 7,448.96'	VS: 2,293.3'
5.3'					
8'					

	MD: 8,001'	INC: 47.63°	AZM: 188.9°	TVD: 7,515.73'	VS: 2,359.38'
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90% MRLST: dk brn gy, frm-hrd, blk-ly-sb
ply, mnr rnd, slty, arg mtx, calc cnt, mnr
bent, 10% CHK: med gy, sft, sb blk, rhy,
slty

100% MRLST: dk brn gy-med gy, frm-hrd,
blk-ly-sb rnd, slty, arg mtx, calc cnt, mnr
bent, mnr pyr nod, lam pyr wi tr chk or pos
cal repl foss

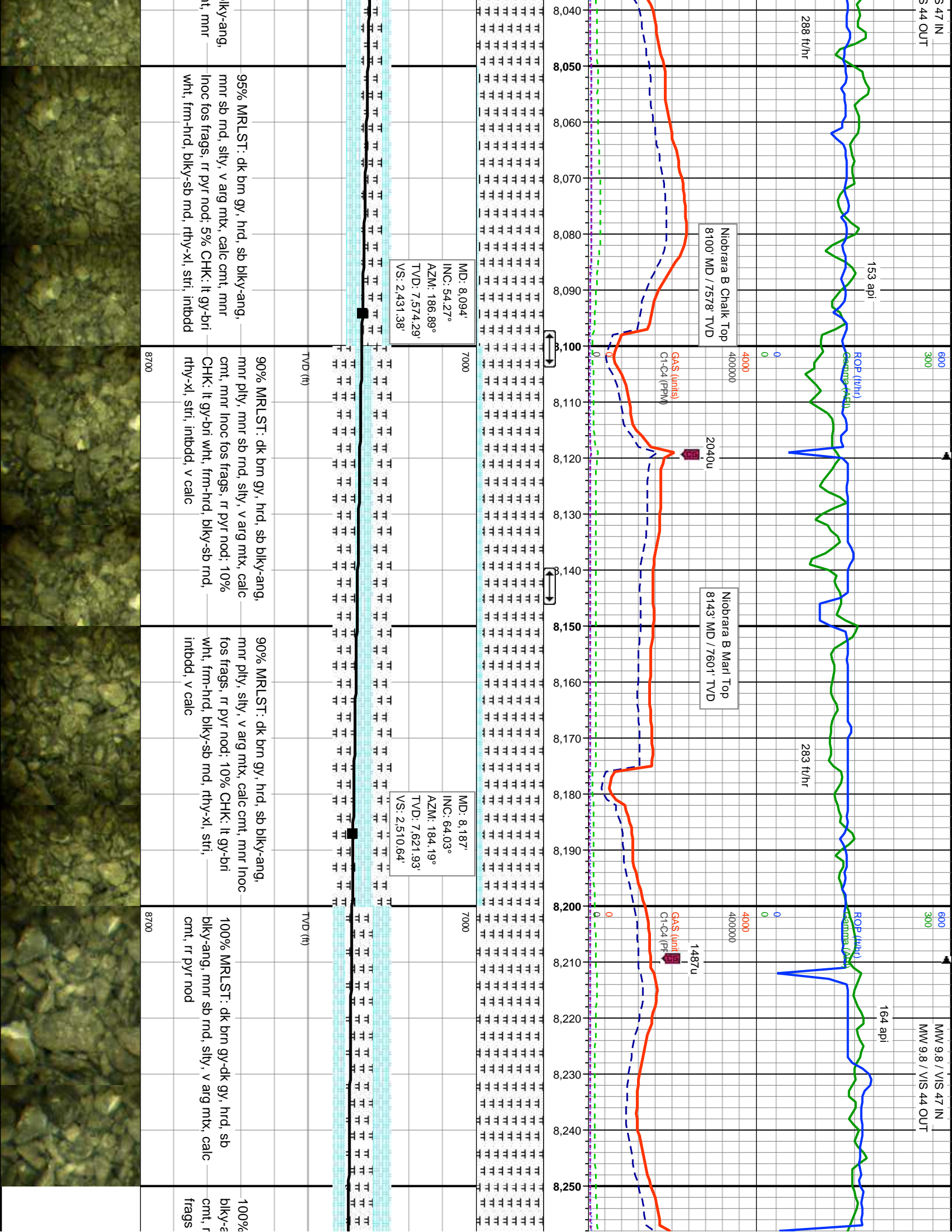
100% MRLST: dk brn gy-med gy, frm-hrd,
blk-ly-ang, mnr sb rnd, slty, v arg mtx, calc
cnt

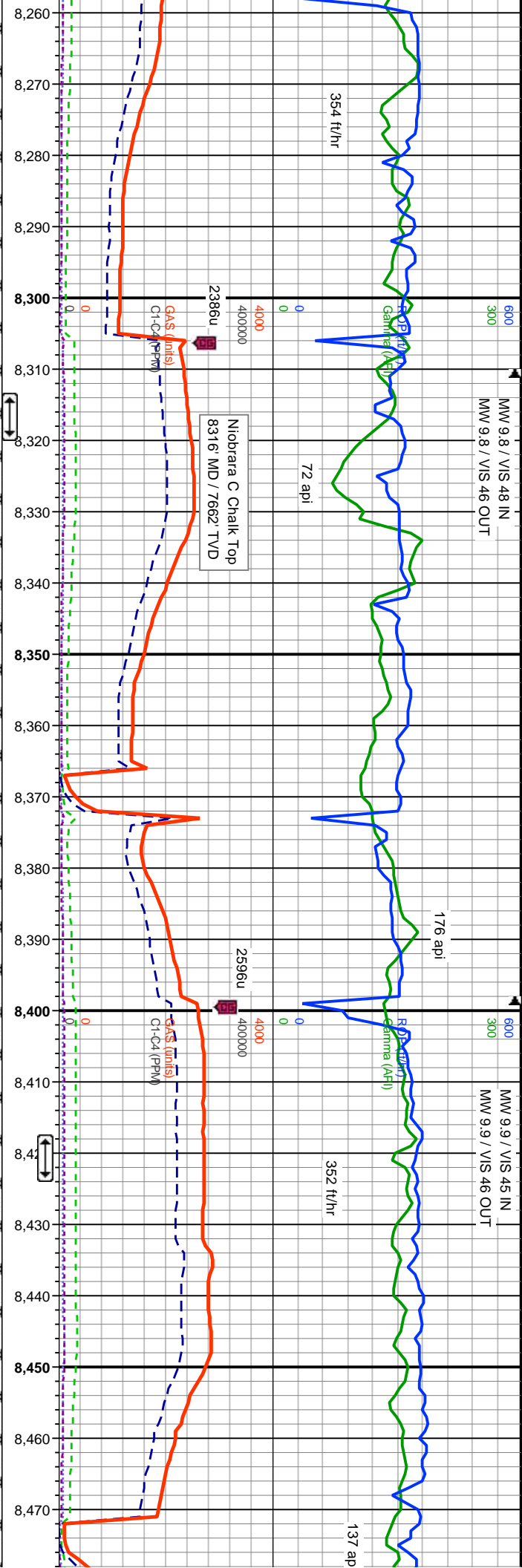
100% MRLST: dk brn gy, hrd, sb b
mnr sb rnd, slty, v arg mtx, calc cr
lnoc fos frags, rr pyr nod

8700

8700

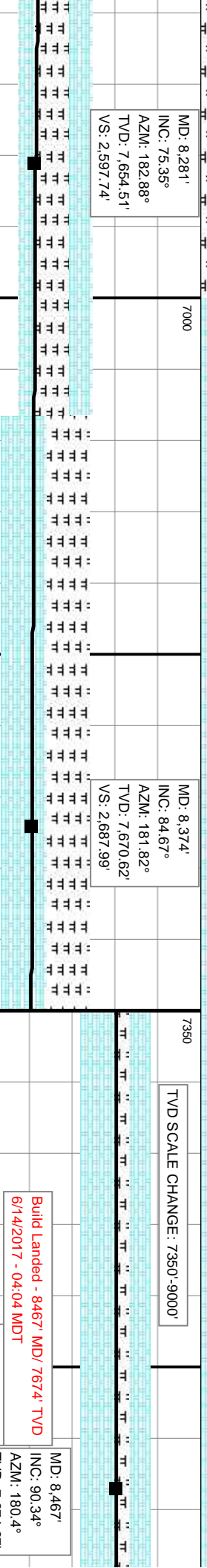






MD: 8,281'
INC: 75.35°
AZM: 182.88°
TVD: 7,654.51'
VS: 2,597.74'

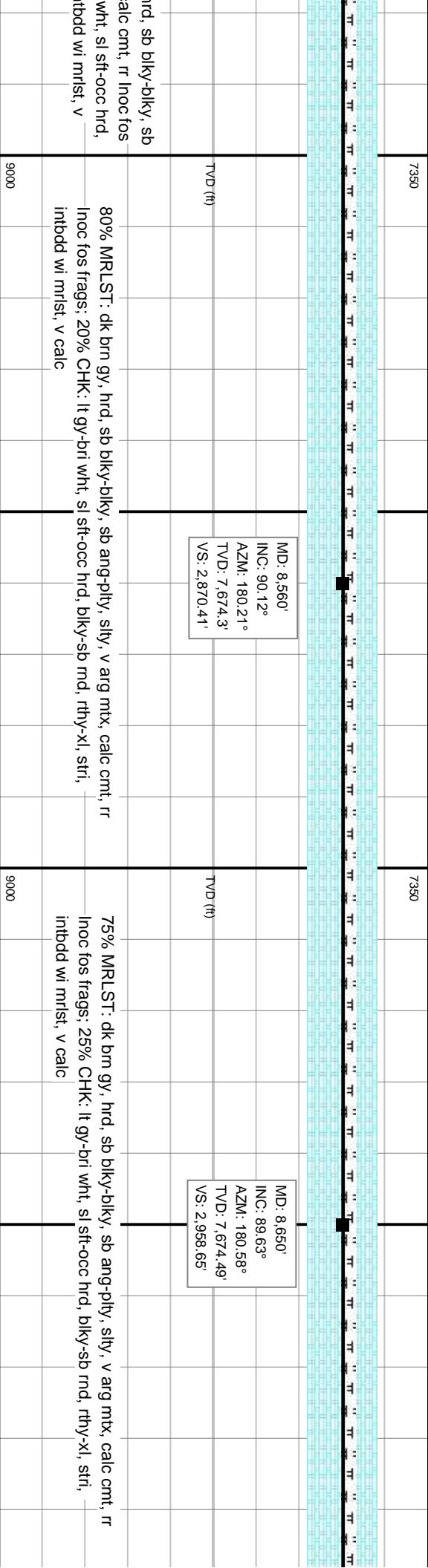
MD: 8,374'
INC: 84.67°
AZM: 181.82°
TVD: 7,670.62'
VS: 2,687.99'

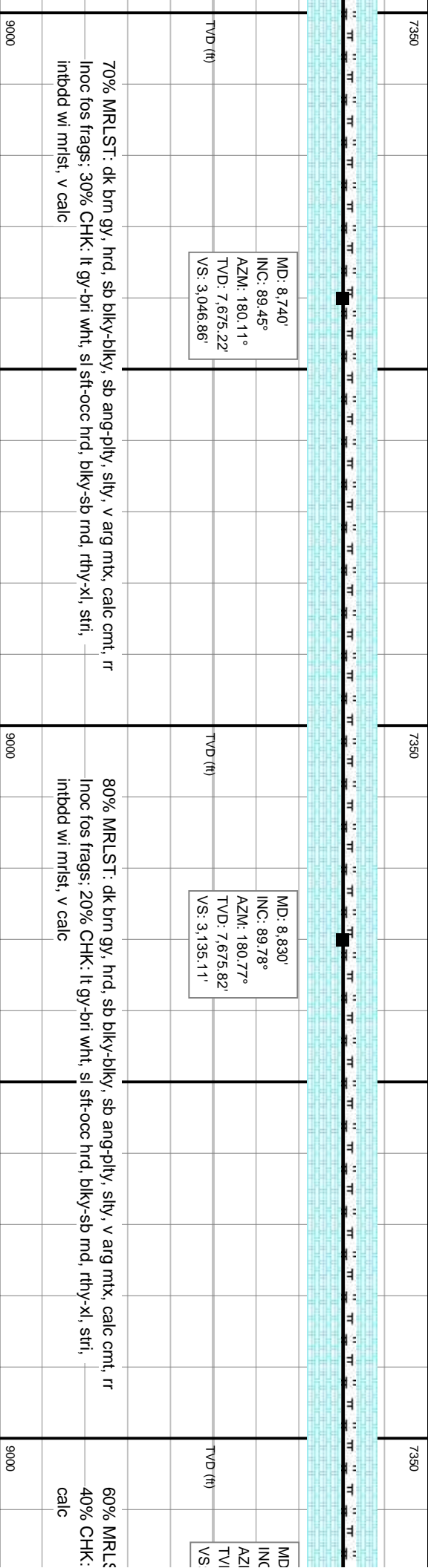


MD: 8,281' INC: 75.35° AZM: 182.88° TVD: 7,654.51' VS: 2,597.74'	MD: 8,374' INC: 84.67° AZM: 181.82° TVD: 7,670.62' VS: 2,687.99'	MD: 8,467' INC: 90.34° AZM: 180.4° TVD: 7,674.67' VS: 2,779.26'
65% MRLST: med-dk gy, frm, sb blk-y-sb plty, silty, mot-stri tex v calc; 35% CHK: medgy, pred sft, sb blk-y, wxy-rthy-sl stri tex, silty, v rr bent	75% MRLST: med-dk gy, frm, sb blk-y-sb plty, silty, mot-stri tex v calc; 25% CHK: medgy, pred sft, sb blk-y, wxy-rthy-sl stri tex, silty, v rr bent	80% MRLST: dk bn gy, hrd, sb blk-y-blky, t ang-plty, silty, v arg mtx, calc cnt, rr inoc fos frags; 20% CHK: lt gy-brl wht, blk-y-sb rnd, rthy-xl, stri, ir calc

Build Landed - 8467' MD/ 7674' TVD
6/14/2017 - 04:04 MDT

START LATERAL





Faulted from Base to Upper C Chalk

600 MW 10.1 / VIS 45 IN
300 MW 10.1 / VIS 46 OUT

172 api

273 ft/hr

135

ROP (ft/hr)
Gamma (API)

ROP (ft/hr)
Gamma (API)

301 ft/hr

2842u

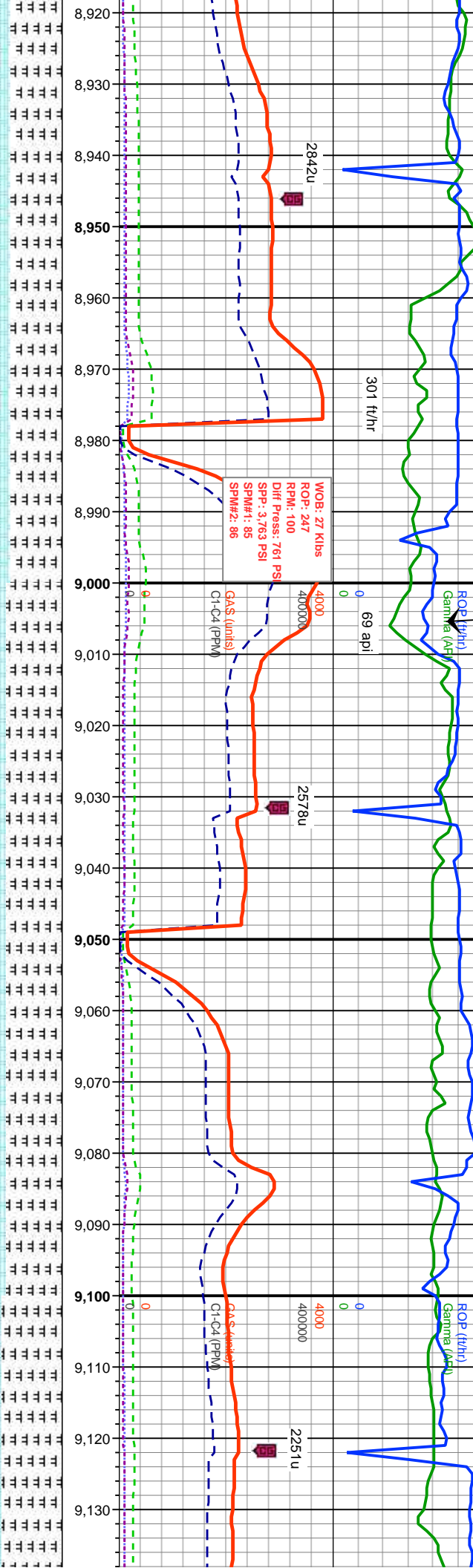
2578u

2251u

WOB: 27 Klbs
ROP: 247
RPM: 100
Dif Press: 761 PSI
SP: 3.763 PSI
SPMW1: 85
SPMW2: 86

GAS (units)
C1-C4 (PPM)

GAS (units)
C1-C4 (PPM)



7350

7350

MD: 8,920'
INC: 89.35°
W: 181.38°
D: 7,676.51'
3,223.54'

MD: 9,010'
INC: 89.42°
AZM: 181.92°
TVD: 7,677.47'
VS: 3,312.14'

MD: 9,100'
INC: 89.45°
AZM: 180.79°
TVD: 7,678.36'
VS: 3,400.66'

dk brn gy, hrd, sb blk-y-bkly, sb ang-pty, silty, v arg mtx, calc cnt;
lt gy-brl wht, sl sft-occ hrd, blk-y-sb rnd, rthy-xl, stri, intbdd wi mrlst, v

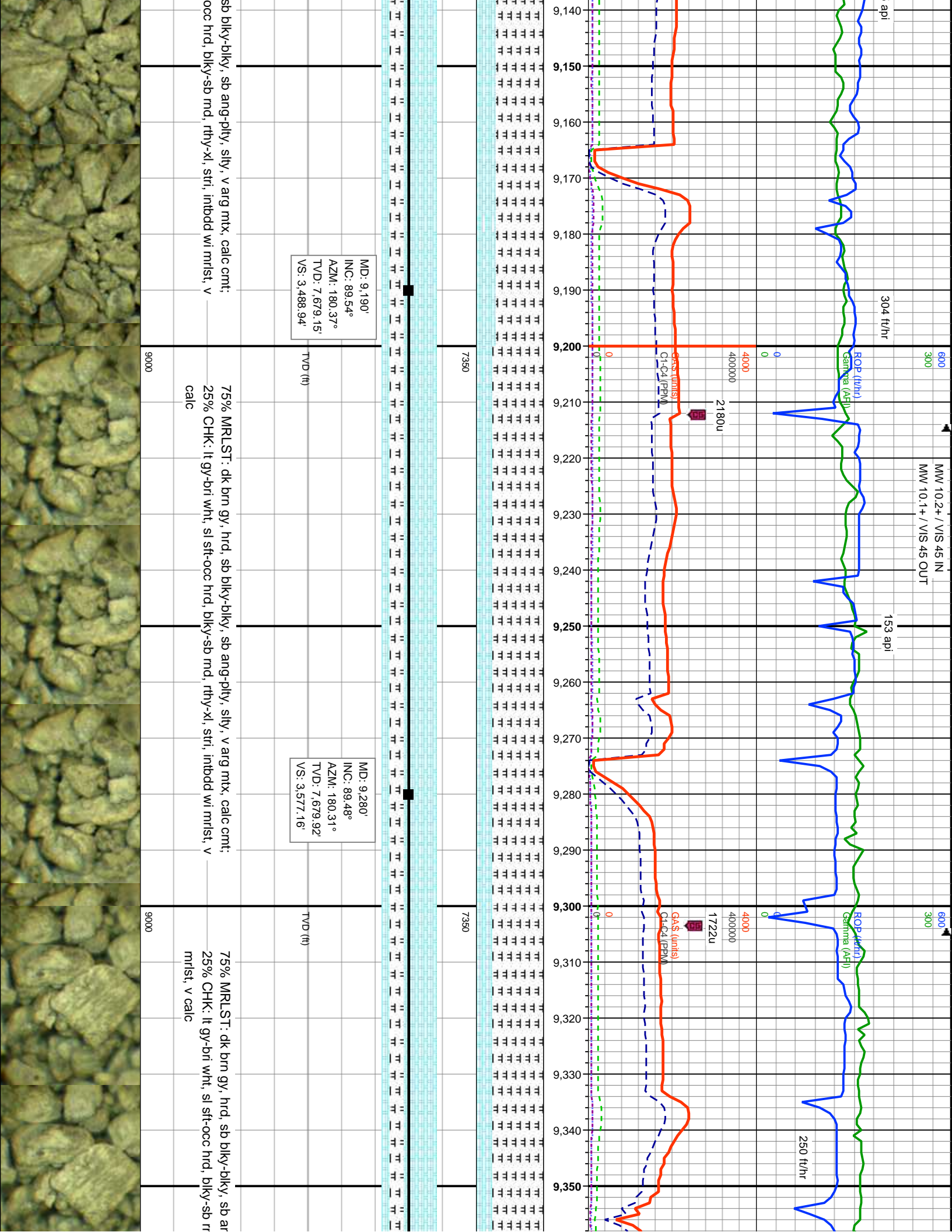
65% MRLST: dk brn gy, hrd, sb blk-y-bkly, sb ang-pty, silty, v arg mtx, calc cnt;
35% CHK: lt gy-brl wht, sl sft-occ hrd, blk-y-sb rnd, rthy-xl, stri, intbdd wi mrlst, v calc

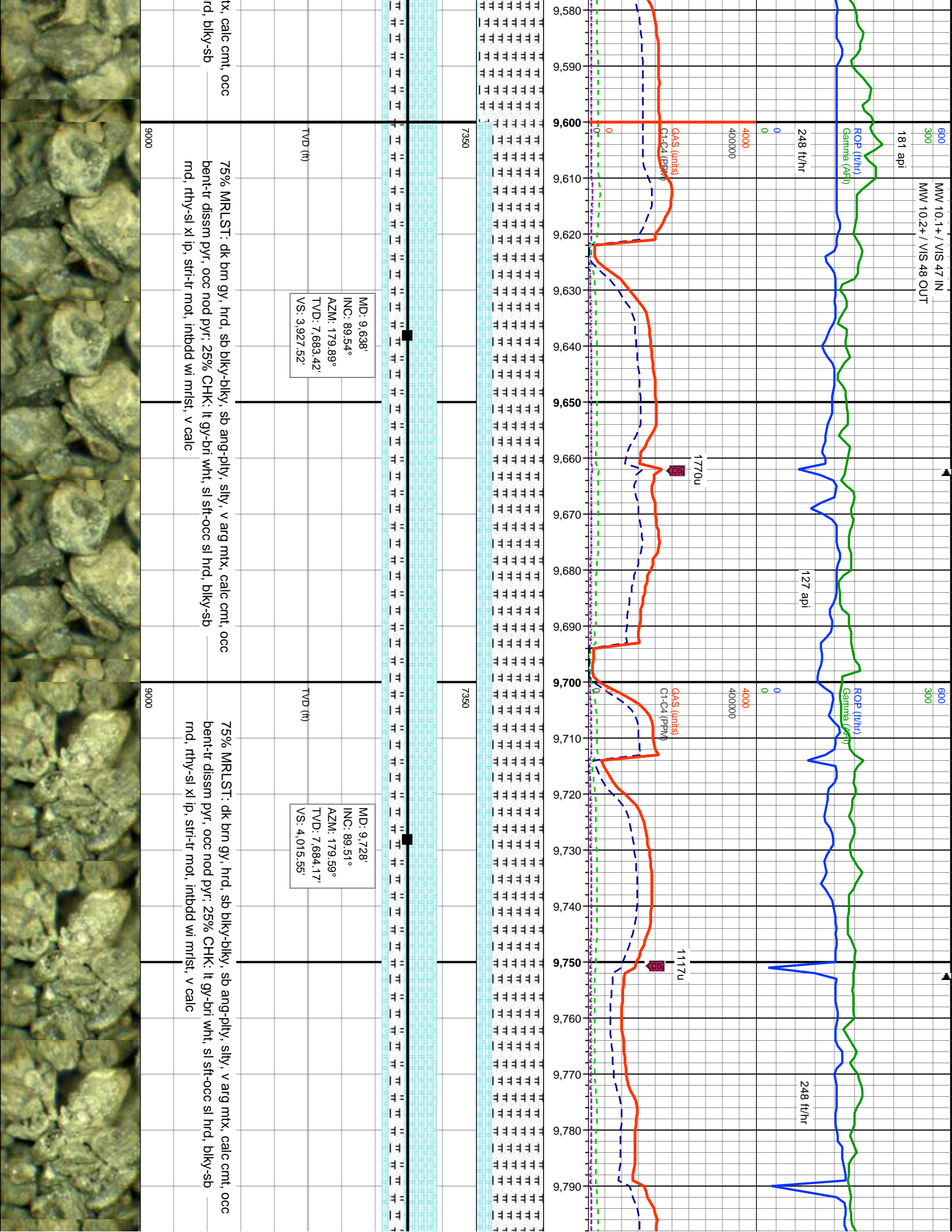
70% MRLST: dk brn gy, hrd,
30% CHK: lt gy-brl wht, sl sft-occ hrd, blk-y-sb rnd, rthy-xl, stri, intbdd wi mrlst, v calc

9000

9000







600

MW 10.2+ / VIS 48 IN

300

MW 10.2 / VIS 47 OUT

600

MW 10.2+ / VIS 47 IN

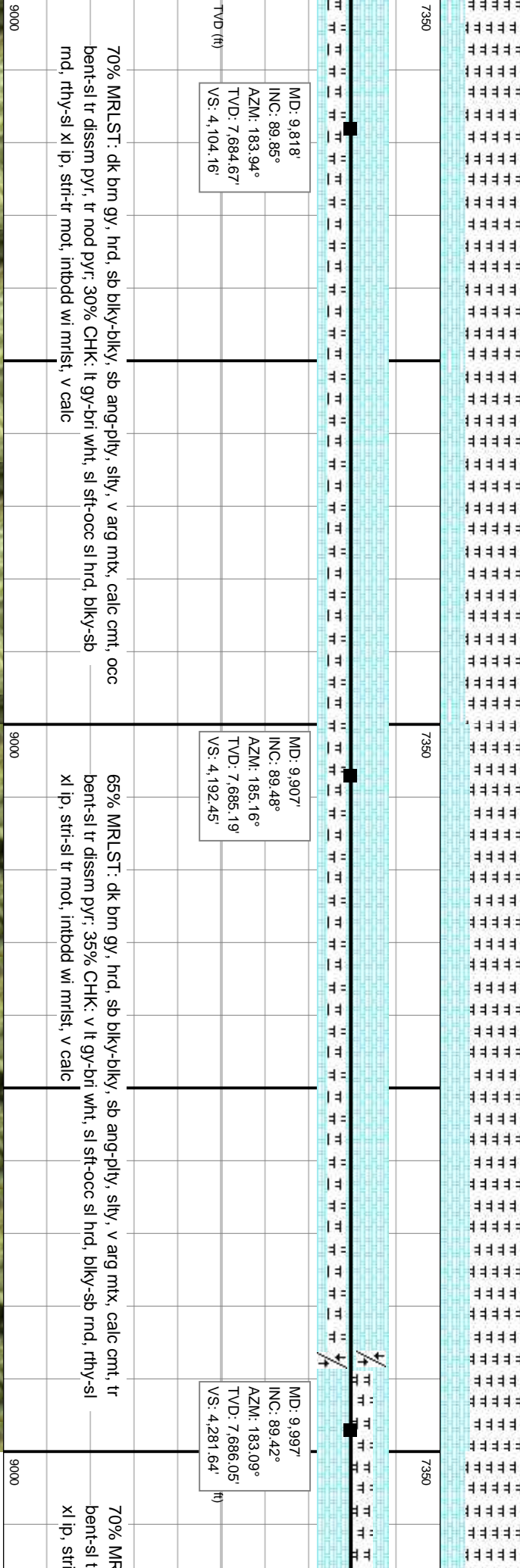
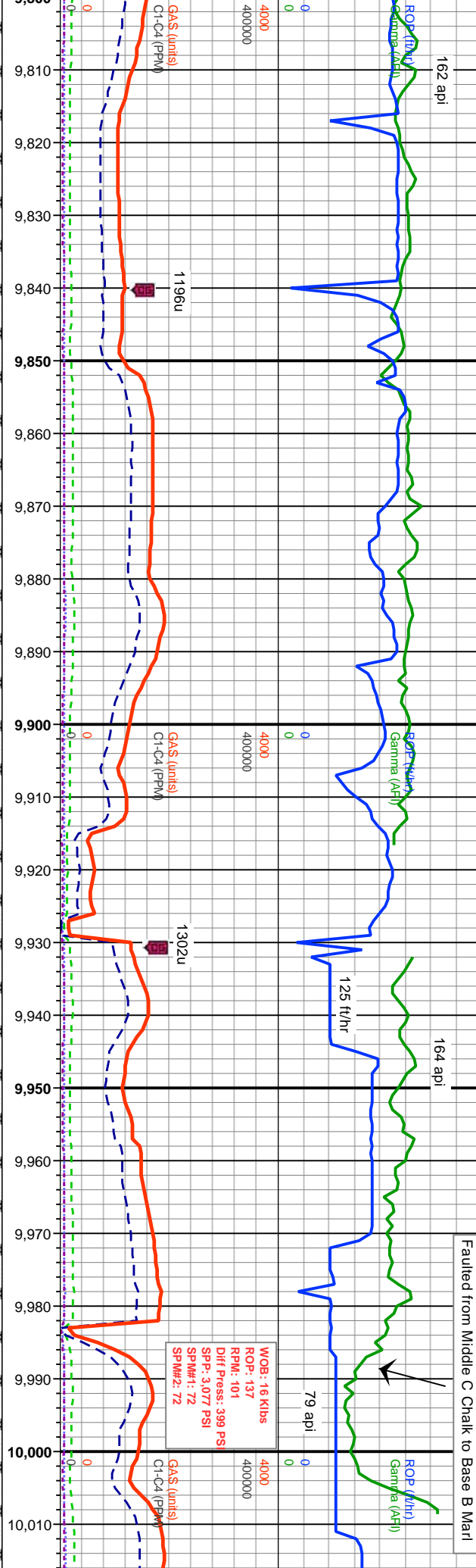
300

MW 10.2+ / VIS 49 OUT

600

Faulted from Middle C Chalk to Base B Marl

300



600

MW 10.2+ / VIS 48 IN

300

MW 10.2 / VIS 47 OUT

600

MW 10.2+ / VIS 47 IN

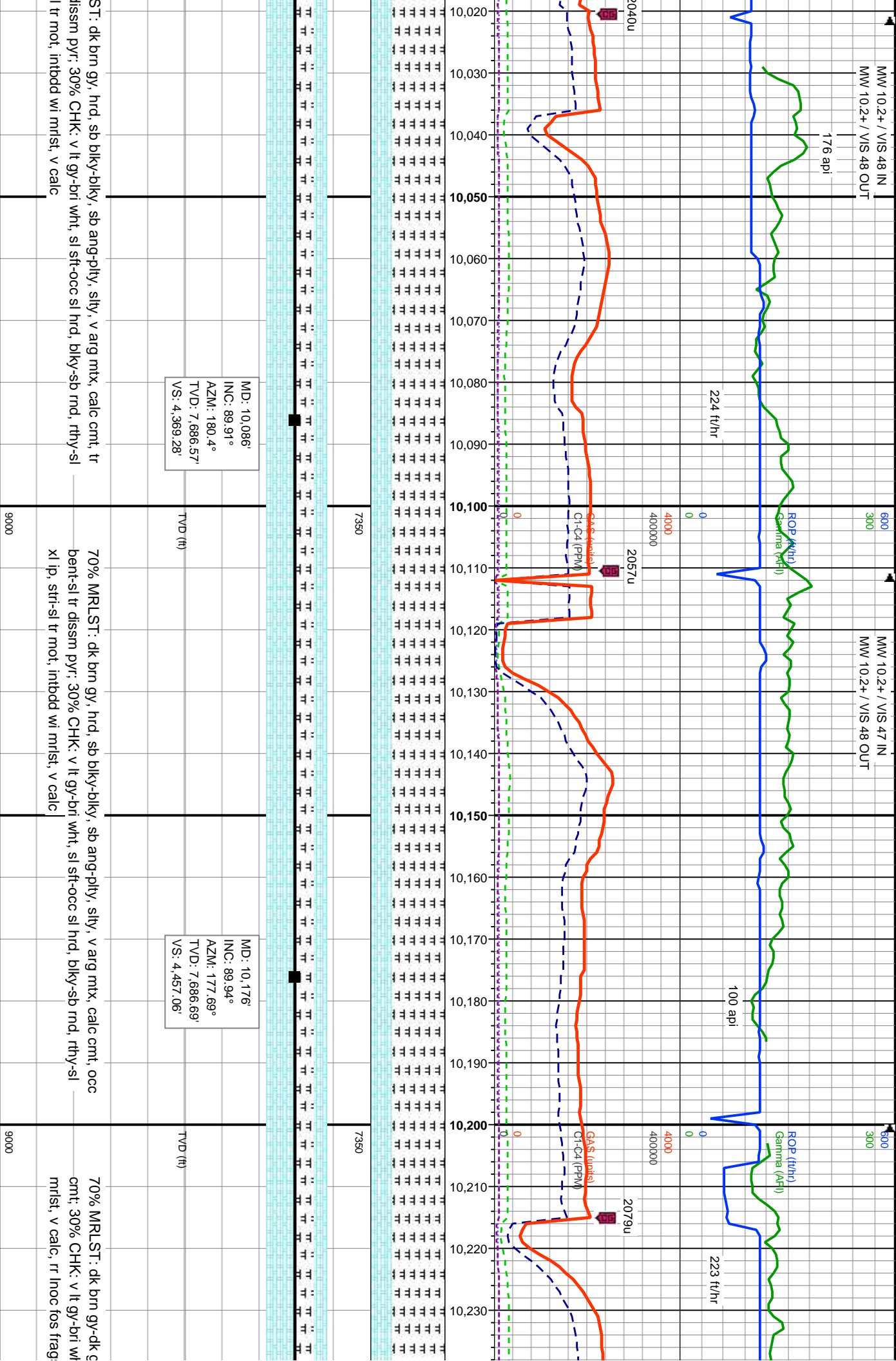
300

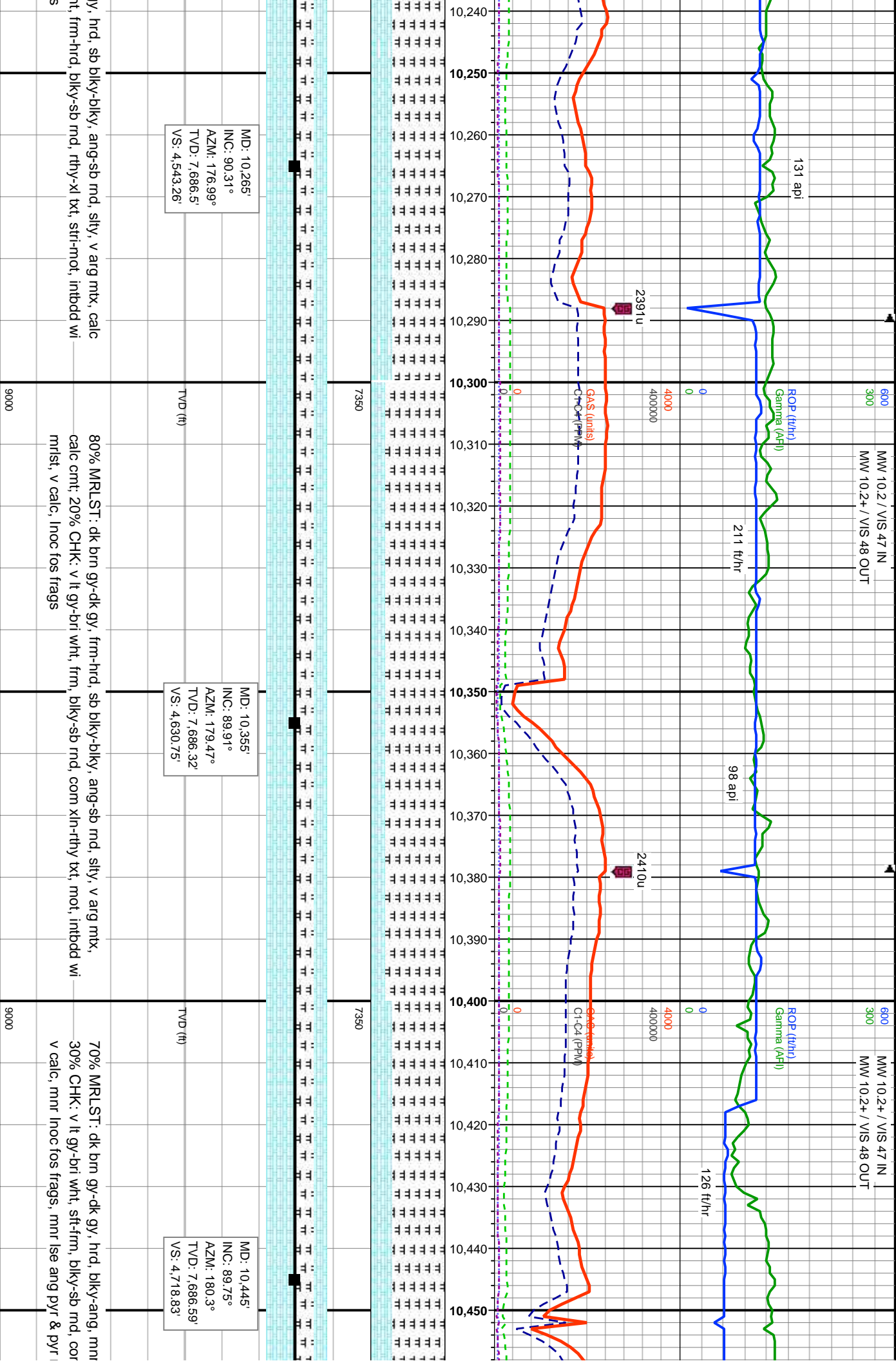
MW 10.2+ / VIS 49 OUT

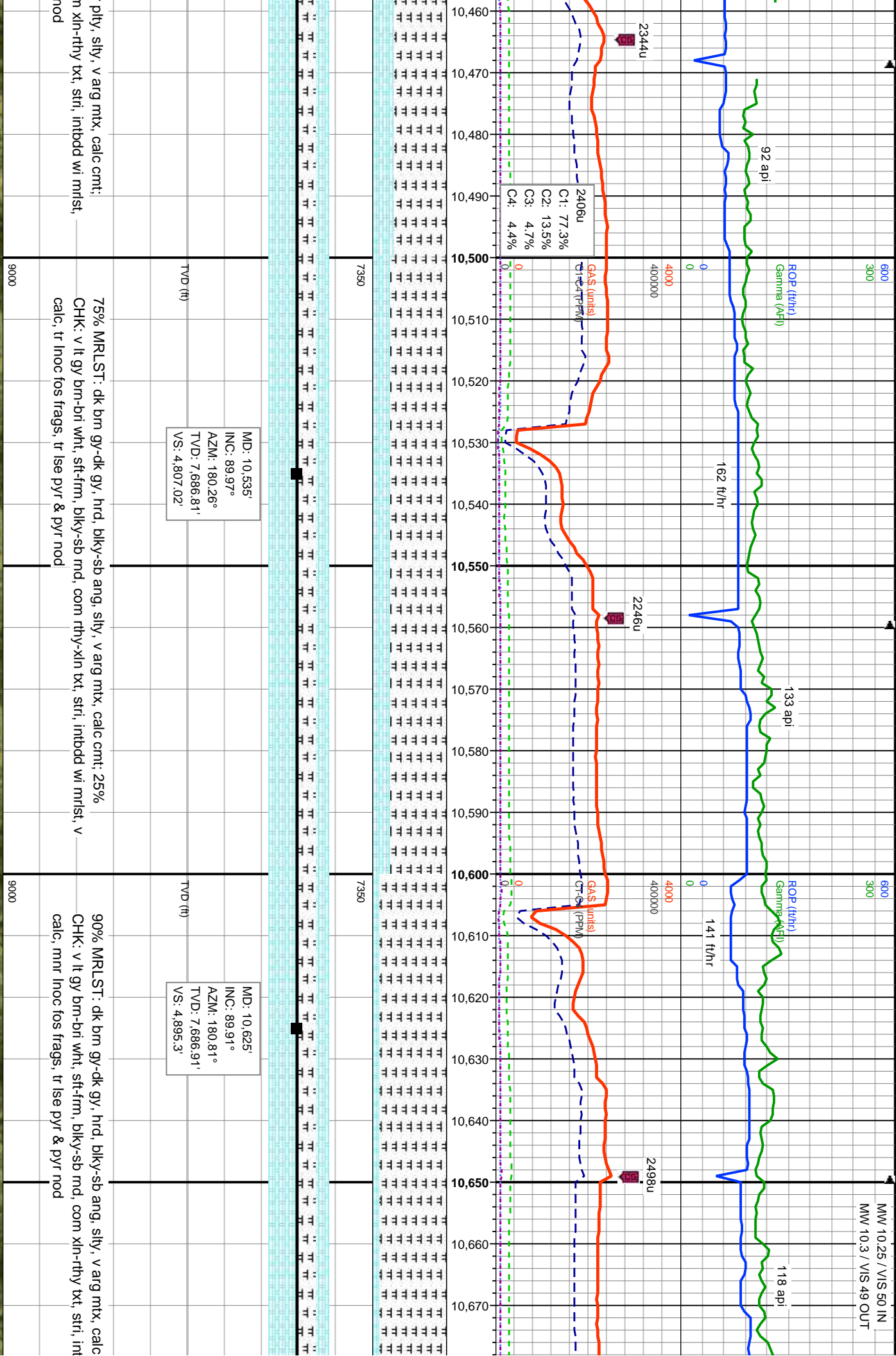
600

Faulted from Middle C Chalk to Base B Marl

300



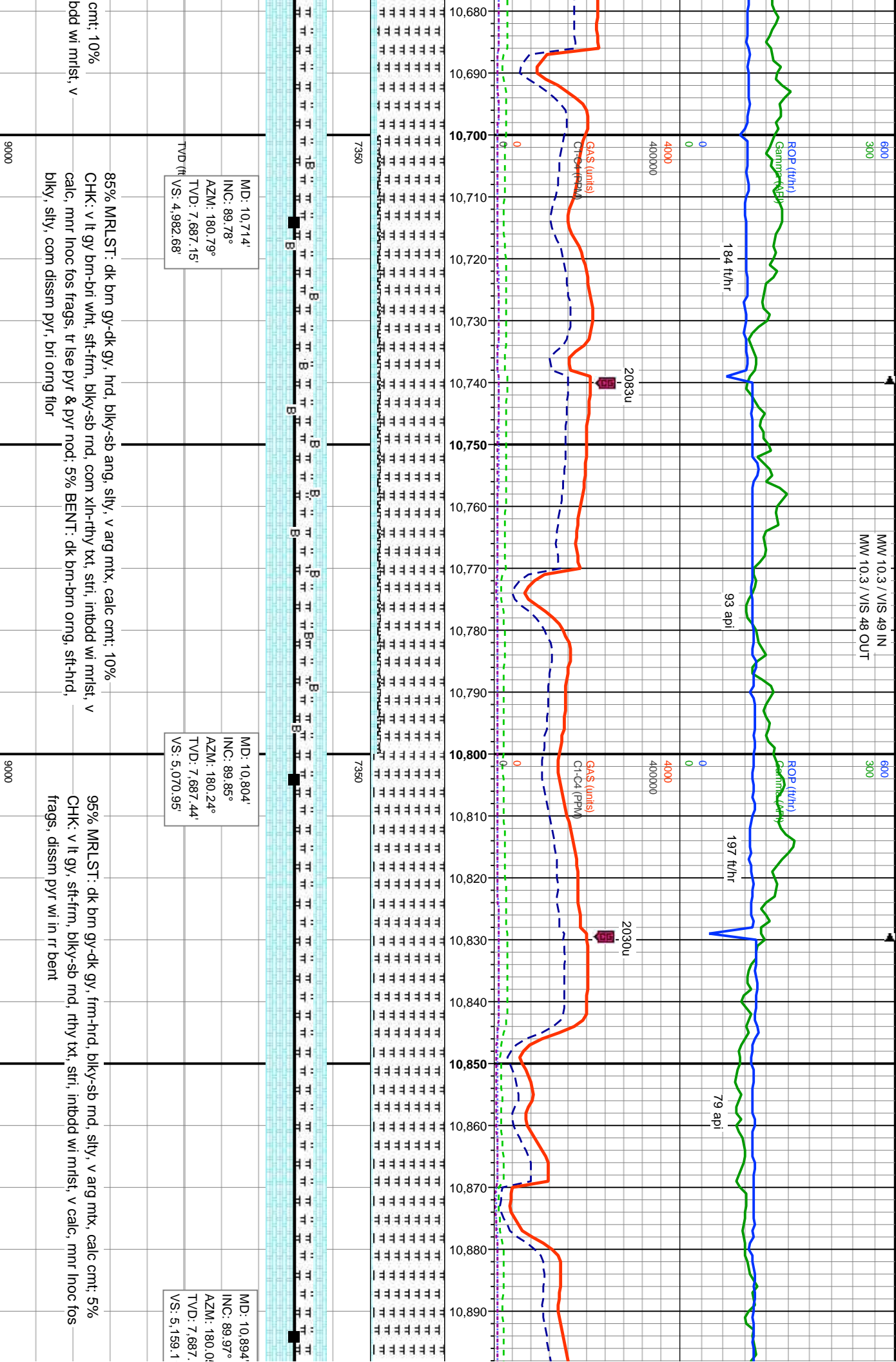




ply, sily, v arg mt, calc cmt;
n xln-rthy tx, stri, intbdd wi mlst,
nod

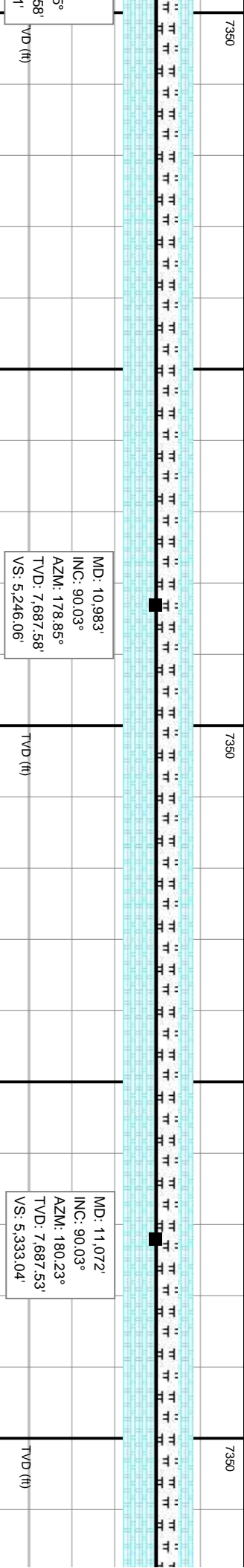
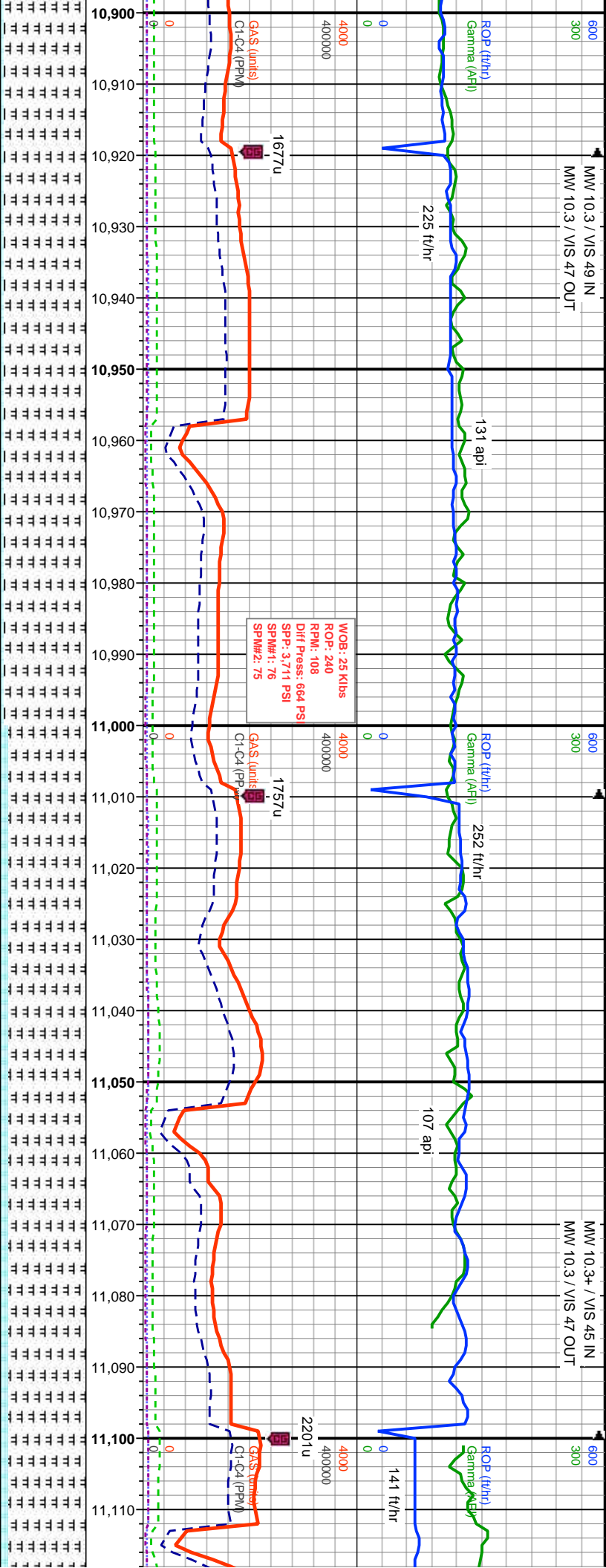
75% MRLST: dk brn gy-dk gy, hrd, bly-sb ang, sily, v arg mt, calc cmt; 25%
CHK: v lt gy brn-brl wht, sft-fm, bly-sb rnd, com rthy-xln tx, stri, intbdd wi mlst, v
calc, tr inoc fos frags, tr ise pyr & pyr nod

90% MRLST: dk brn gy-dk gy, hrd, bly-sb ang, sily, v arg mt, calc
CHK: v lt gy brn-brl wht, sft-fm, bly-sb rnd, com xln-rthy tx, stri, int
calc, mnr inoc fos frags, tr ise pyr & pyr nod



MW 10.3 / VIS 49 IN
MW 10.3 / VIS 47 OUT

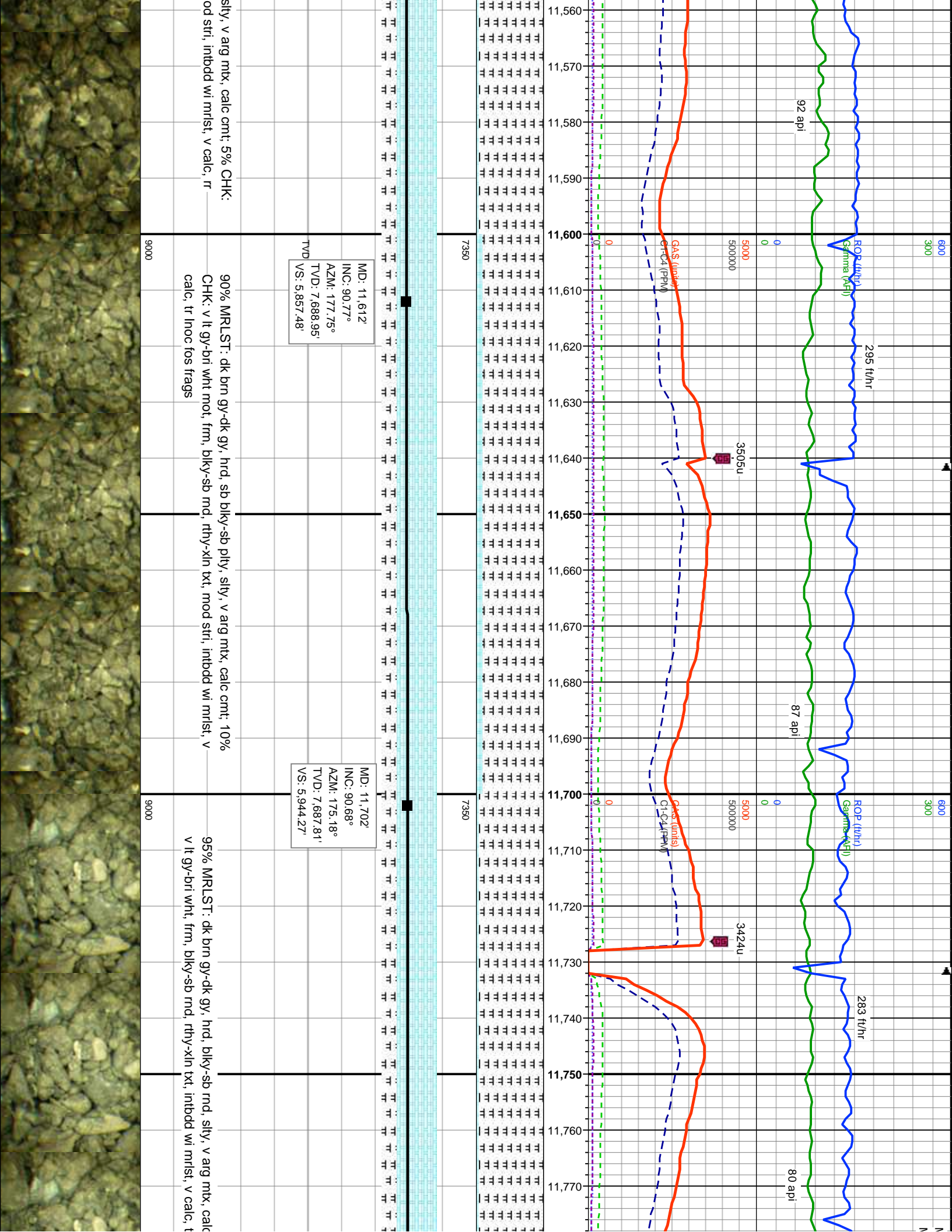
MW 10.3+ / VIS 45 IN
MW 10.3 / VIS 47 OUT



95% MRLST: dk brn gy-dk gy, hrd, blk-y-sb md, silty, v arg mtx, calc cmt, intbdd wi bent, tr xin pyr in bent; 5% CHK: v lt gy-brl wht, sft-firm, blk-y-sb md, rthy-xln txt, mod stri, intbdd wi mrlst, v calc, mnr lnoc fos frags

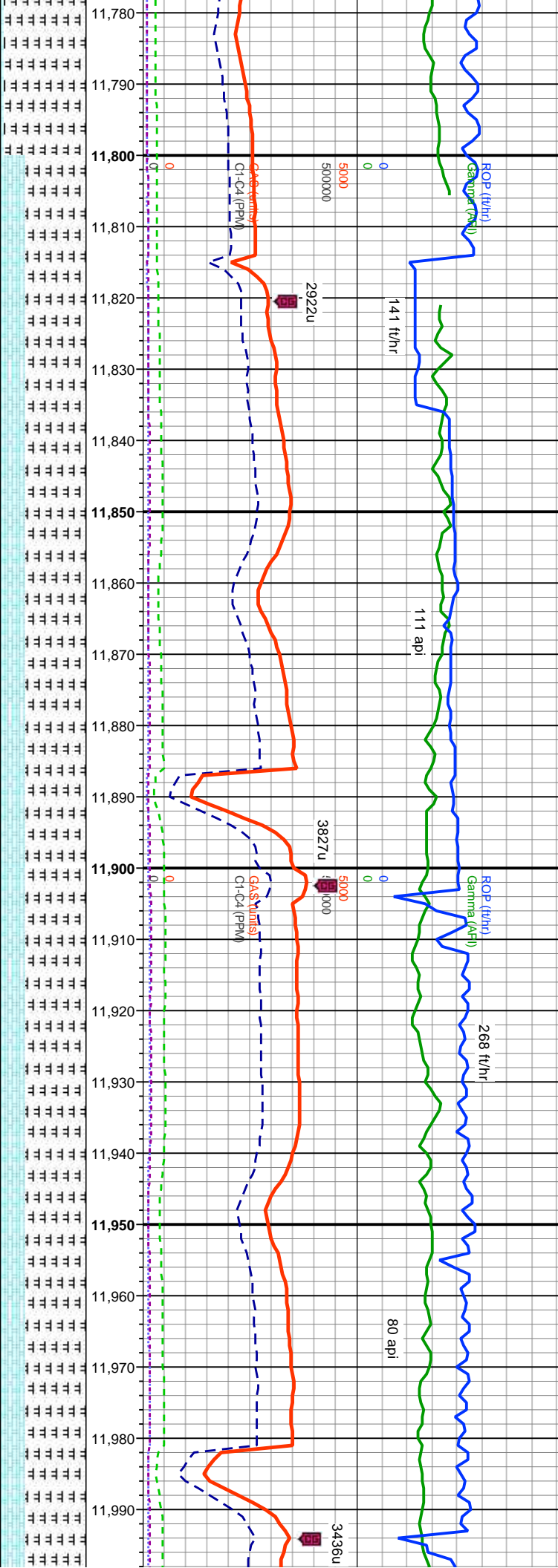
90% MRLST: dk brn gy-dk gy, frm-hrd, sb ang-sb md, silty, v arg mtx, calc cmt; 10% CHK: v lt gy-brl wht, sft-firm, blk-y-sb md, rthy-xln txt, mod stri, intbdd wi mrlst, v calc, tr lnoc fos frags, tr pyr nod

90% MRLST: dk brn gy-dk gy, frm-hrd, sb ang-sb md, silty, v arg mtx, calc cmt; 10% CHK: v lt gy-brl wht, sft-firm, blk-y-sb md, rthy-xln txt, mod stri, intbdd wi mrlst, v calc, tr lnoc fos frags, tr pyr nod



MW 10.4 / VIS 52 IN 600
MW 10.4 / VIS 48 OUT 300

MW 10.3+ / VIS 51 IN 600
MW 10.4 / VIS 49 OUT 300



MD: 11,792'
INC: 90.68°
AZM: 177.55°
TVD: 7,686.74'
VS: 6,031.03'

MD: 11,882'
INC: 90.25°
AZM: 179.98°
TVD: 7,686.01'
VS: 6,118.72'

MD: 11,972'
INC: 90.12°
AZM: 180.88°
TVD: 7,685.72'
VS: 6,206.96'

70% MRLST: dk brn gy, hrd, sb blk-y-bkly, sb ang-ppty, silty, v arg ntx, calc cnt, sl tr bent, sl tr inoc los frag; 30% CHK: lt gy-brl wht, sl sft-occ sl hrd, blk-y-sb md, rthy-sl xl lp, str-tr mot, inbddd wí mrlst, v calc

70% MRLST: dk brn gy, hrd, sb blk-y-bkly, sb ang-ppty, silty, v arg ntx, calc cnt, sl tr bent, sl tr inoc los frag; 30% CHK: lt gy-brl wht, sl sft-occ sl hrd, blk-y-sb md, rthy-sl xl lp, str-tr mot, inbddd wí mrlst, v calc

