



Scale: 5" / 100'
Measured Depth Log

Well Name 05123394330000_Whipsnake_2C_22HZ

Location SEC.22-T2N-R67W

State COLORADO

Country USA

API Number 05123394330000

Region D-J BASIN

Spud Date 8/16/2014

Surface Coordinates 300' FSL & 2338' FEL, SEC.22

Bottom Hole Coordinates RELATIVE TO WELLHEAD:
4975.91' N & 529.51' E

Ground Elevation 4983'

K.B. Elevation 5003'

Logged Interval 7095' MD To 12,809' MD

Formation CODELL

Type of Drilling Fluid FRESH WATER

Total Depth 12,809' MD

Drilling Completed 8/21/2014

County WELD
Rig Number XTREME 6

AFE # 2089030

Field WATTENBERG

Operator

Company ANADARKO PETROLEUM INC

Address 1099 18th St, Suite 1800
Denver , CO 80202

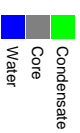
Geologist

Name Jim Frank, John Sabroske

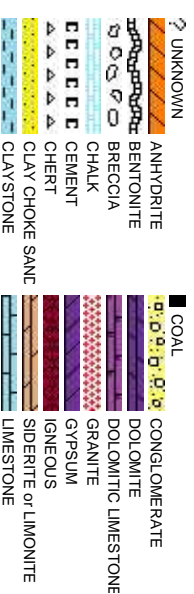
Company COLUMBINE LOGGING INC.

Address 2385 S. Lipan St.
Denver, CO 80223

Zone Color Code



Rock Types



Accessories

Fossils

	GASTROPOD
	INOCERAMUS
	OOLITE
	OSTRACOD
	BELEMNITE
	BIOCLASTIC
	BRACHIOPOD
	BRYOZOA
	CEPHALOPOD
	CORAL
	CRINOID
	ECHINOID
	FISH
	FORAMINIFERA
	FOSSIL

Minerals

	ARGILLITE GRAIN
	BENTONITE
	BITUMENOUS SUBSTANCE
	BRECCIA FRAGMENTS
	CALCAREOUS
	CARBONACEOUS FLAKES
	CHERT
	COAL - THIN BEDS
	DOLOMITIC
	FELDSPAR
	FERRUGINOUS PELLET
	FERRUGINOUS
	GLAUCONITE
	GYPSIFEROUS

Stringer

	ANHYDRITE STRINGER
	BENTONITE STRINGER
	COAL STRINGER
	DOLOMITE STRINGER
	GYPSUM STRINGER
	LIMESTONE STRINGER
	MARLSTONE (CALC) STRG
	MARLSTONE (DOL) STRG
	SANDSTONE STRINGER
	SHALE STRINGER
	SILTSTONE STRINGER

Other Symbols

Oil Show

	PINPOINT
	VUGGY
	DEAD
	EVEN
	QUESTIONABLE
	SPOTTED STAINING
	CONNECTION (UP)

Engineering

	DST INTERVAL
	FAULT
	FORMATION TOP
	GAS SHOW
	OIL SHOW
	BIT
	MN DEPTH UP
	MN DEPTH (DOWN)

Rounding

	WIRELINE TESTED - LEFT
	WIRELINE TESTED - RT
	DRILL STEM TEST
	MN DEPTH
	GRAINSTONE
	LITHOGRAPHIC
	MICROCLIN
	MUDSTONE
	ANGULAR
	ROUNDED
	SUBANG
	SUBRND

Porosity

	CONNECTION (DOWN)
	CONNECTION GAS
	CONNECTION GAS (LEFT)
	TRIP GAS
	TRIP GAS (LEFT)
	INTERGRYSTALLINE
	INTEROOLITIC
	MOLDIC
	ORGANIC
	DOWN TIME GAS
	DOWN TIME GAS (LEFT)
	CORE - LOST
	CORE - RECOVERED

Textures

	SIDEWALL CORE (LEFT)
	SIDEWALL CORE (RIGHT)
	SLIDE
	SURVEY
	BOUNDSTONE
	CHALKY
	CRYPTOCLIN
	POOR
	WELL
	MODERATE
	WACKESTONE
	PACKSTONE

Sorting

M MODERATE

P POOR

W WELL

ding



Gas
Pressure
Seal

	MARLSTONE
	METAMORPHIC
	NO SAMPLE
	SALT
	SANDSTONE
	SALT-PEPPER SAND
	SHALE
	SHALE COLORED
	SHALE GRAY
	SHALY SANDSTONE
	SHALY SILTSTONE
	SILTY SHALE
	SILTSTONE
	TUFF
	WELDED TUFF

Slide/Rotate

ROP
ROP
GAMMA

COLUMBINE LOGGING 2 MAN
RIGGED UP @ 15:30 HRS 8/17/2014
BEGIN LOGGING @ 20:00 HRS 8/17/2014

ROP & GAS DATA PROVIDED BY PASON
GAMMA & SURVEY DATA PROVIDED BY BAKER HUGHES

ROP (min/hr)
GAMMA (api)

Total Gas & Chromatograph
GAS

GAS (units)

DRLG 8.75" HOLE W/ BIT #1
SMITH SD611MPX
IN @ 1378' MD

Depth Labels

6,960 6,970 6,980 6,990 7,000 7,010 7,020 7,030 7,040 7,050 7,060 7,070 7,080 7,090 7,100 7,110 7,120 7,130 7

% Lith

KOP = 7095' MD

DRILLING IN
SUSSEX FM

Well Bore
TVD

TVD (ft)

MD: 7,086.
TVD: 7,032.88.
Inclination: 0.35-
Azimuth: 16.04.
VS: -406.75.

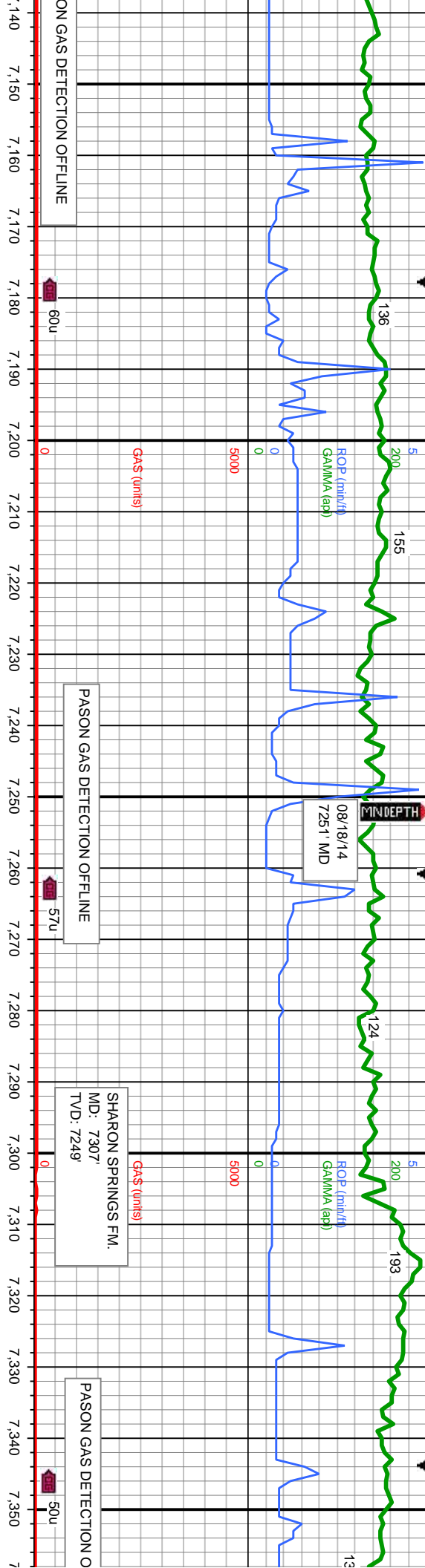
MD: 7,128.
TVD: 7,074.82.
Inclination: 5.11 -
Azimuth: 0.4-
VS: -404.76.

Oil Show

E
G
M
F
T
S

Images





WT: 10
VIS: 40

MD: 7,170.
TVD: 7,116.5.
Inclination: 8.8 -
Azimuth: 8.29 -
VS: -399.7.

MD: 7,212.
TVD: 7,157.89.
Inclination: 10.81 -
Azimuth: 13.3 -
VS: -392.68.

MD: 7,254.
TVD: 7,198.92.
Inclination: 13.83 -
Azimuth: 15.97 -
VS: -384.01.

MD: 7,296.
TVD: 7,239.29.
Inclination: 18.04 -
Azimuth: 15.83 -
VS: -372.9.

MD: 7,338.
TVD: 7,278.52.
Inclination: 23.7 -
Azimuth: 14.97 -
VS: -358.46.

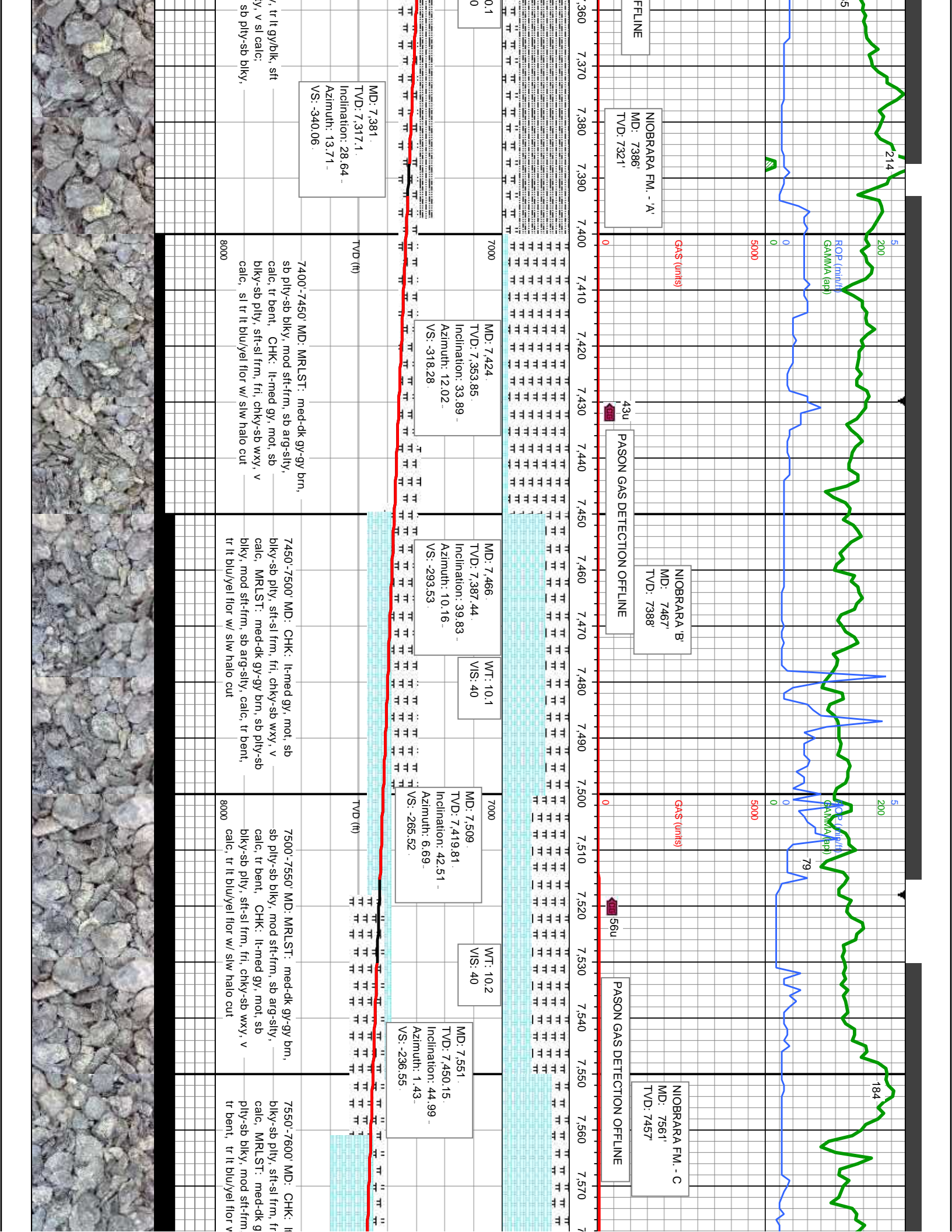
WT: 1
VIS: 4

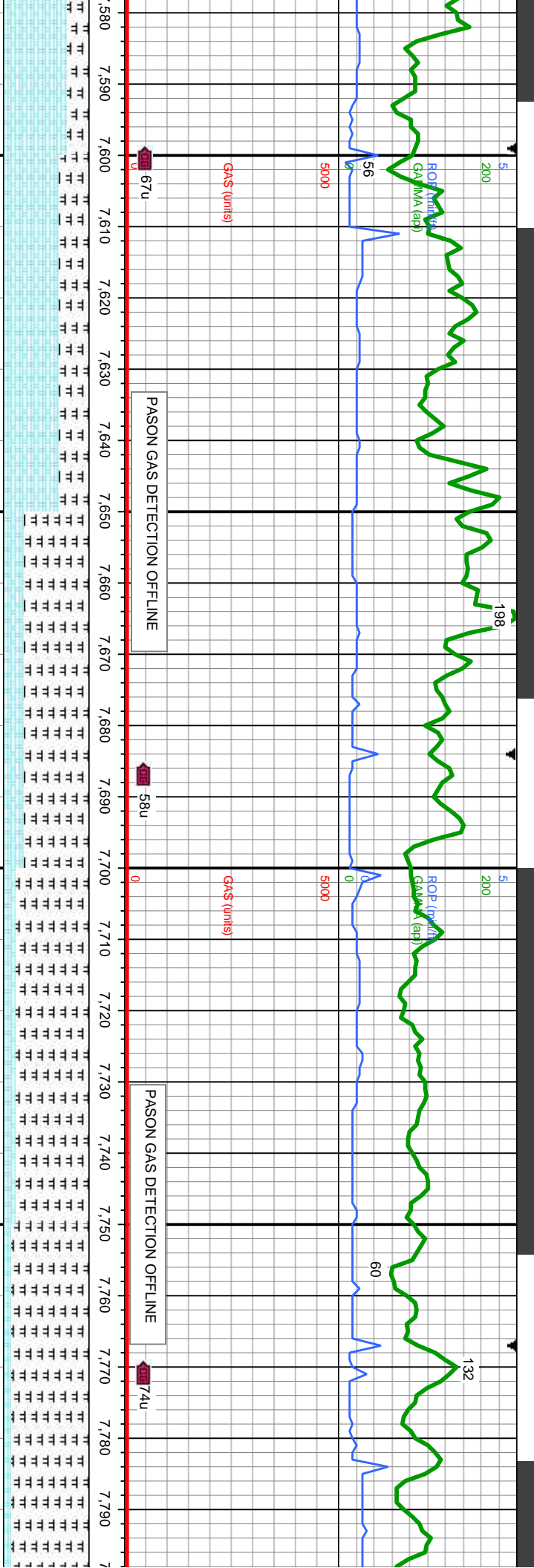
MD SLTY SH: m- dk gy, tr lt gy/bk, sft
- sbply/plty, med-v sily, v sl calc

7200'-7300' MD: SLTY SH: m- dk gy, tr lt gy/bk,
sft - frm, sbply - sbply/plty, med-v sily, v sl calc,
v occ bent

7300'-7400' MD: SLTY SH: m- dk gy
- frm, sbply - sbply/plty, med-v sily,
MRLST: med-dk gy/ brn gy, tr mt,
mod sft-frm, sb sily, v calc







MD: 7.594.
TVD: 7.479.27
Inclination: 49.77
Azimuth: 357.94
VS: -204.93.

MD: 7.636
TVD: 7.505.03
Inclination: 54.52
Azimuth: 357.12
VS: -171.82

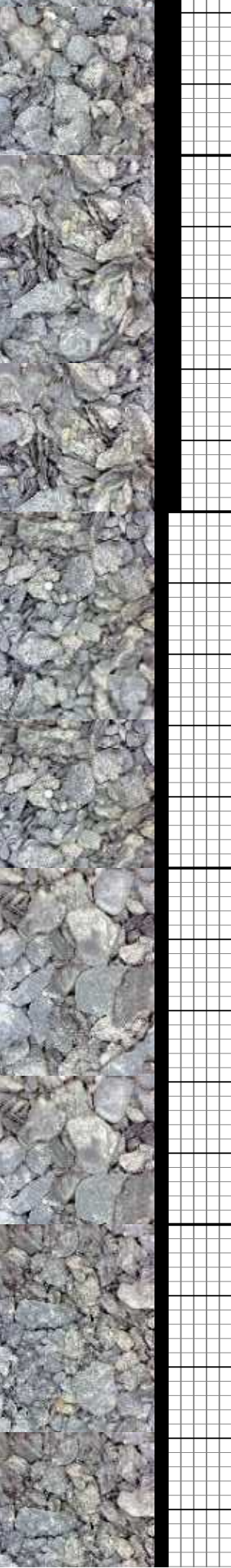
MD: 7.677
TVD: 7.527.04
Inclination: 60.52
Azimuth: 356.72
VS: -137.31

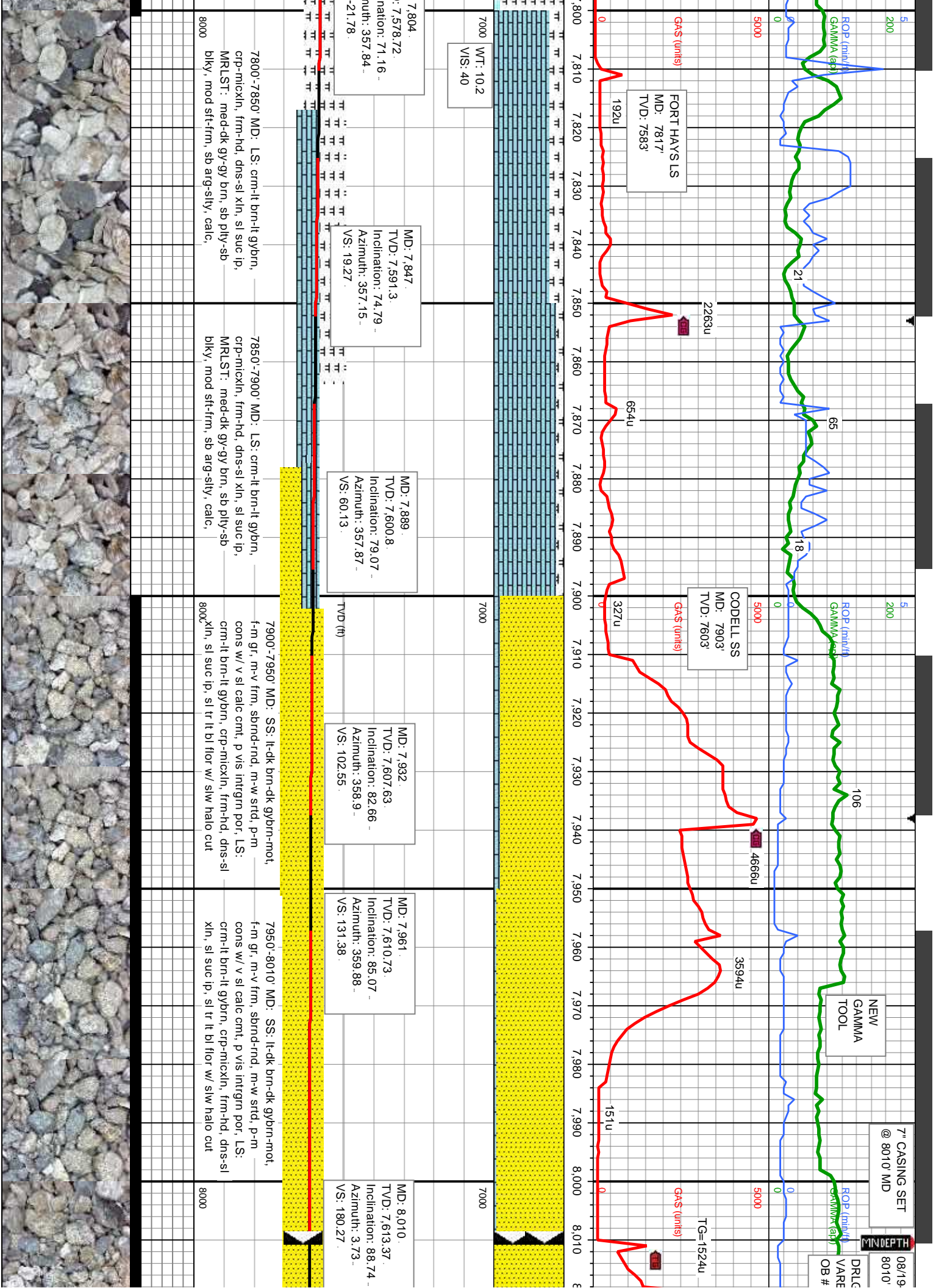
MD: 7.719
TVD: 7.546.81
Inclination: 63.3
Azimuth: 356.52
VS: -100.34

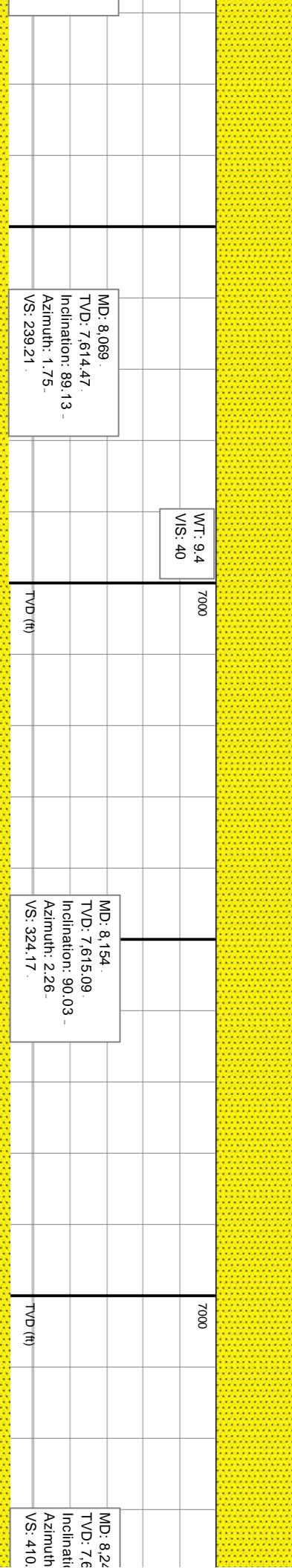
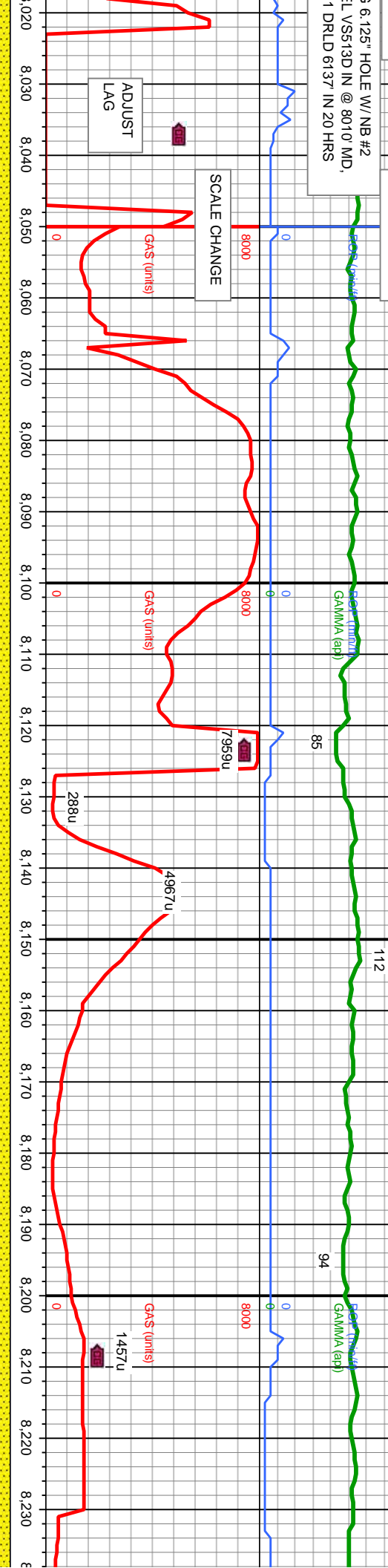
MD: 7.761
TVD: 7.563.93
Inclination: 68.6
Azimuth: 356.36
VS: -62.09

MD:
TVD:
Incl:
Azim:
VS:

7580'-7600' MD: CHK: lt-med gy, mot, sb biky-sb ply, sft-sl frm, fri, chky-sb wxy, v calc, MRLST: med-dk gy-gy brn, sb ply-sb biky, mod sft-frm, sb arg-sily, calc, tr bent, tr lt blu/yel flr w/ slw halo cut	7600'-7650' MD: CHK: lt-med gy, mot, sb biky-sb ply, sft-sl frm, fri, chky-sb wxy, v calc, MRLST: med-dk gy-gy brn, sb ply-sb biky, mod sft-frm, sb arg-sily, calc, tr bent, tr lt blu/yel flr w/ slw halo cut	7650'-7700' MD: MRLST: med-dk gy-gy brn, sb ply-sb biky, mod sft-frm, sb arg-sily, calc, abnt bent, CHK: lt-med gy, mot, sb biky-sb ply, sft-sl frm, fri, chky-sb wxy, v calc, sl tr lt blu/yel flr w/ slw halo cut	7700'-7750' MD: MRLST: med-dk gy-gy brn, sb ply-sb biky, mod sft-frm, sb arg-sily, calc, abnt bent, CHK: lt-med gy, mot, sb biky-sb ply, sft-sl frm, fri, chky-sb wxy, v calc, sl tr lt blu/yel flr w/ slw halo cut	7750'-7800' MD: MRLST: med-dk gy-gy brn, sb ply-sb biky, mod sft-frm, sb arg-sily, calc, abnt bent, CHK: lt-med gy, mot, sb biky-sb ply, sft-sl frm, fri, chky-sb wxy, v calc, sl tr lt blu/yel flr w/ slw halo cut
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MD: 8.069
TVD: 7,614.47
Inclination: 89.13
Azimuth: 1.75
VS: 239.21

WT: 9.4
VIS: 40

MD: 8.154
TVD: 7,615.09
Inclination: 90.03
Azimuth: 2.26
VS: 324.17

MD: 8.22
TVD: 7,616.09
Inclination: 90.03
Azimuth: 2.26
VS: 324.17

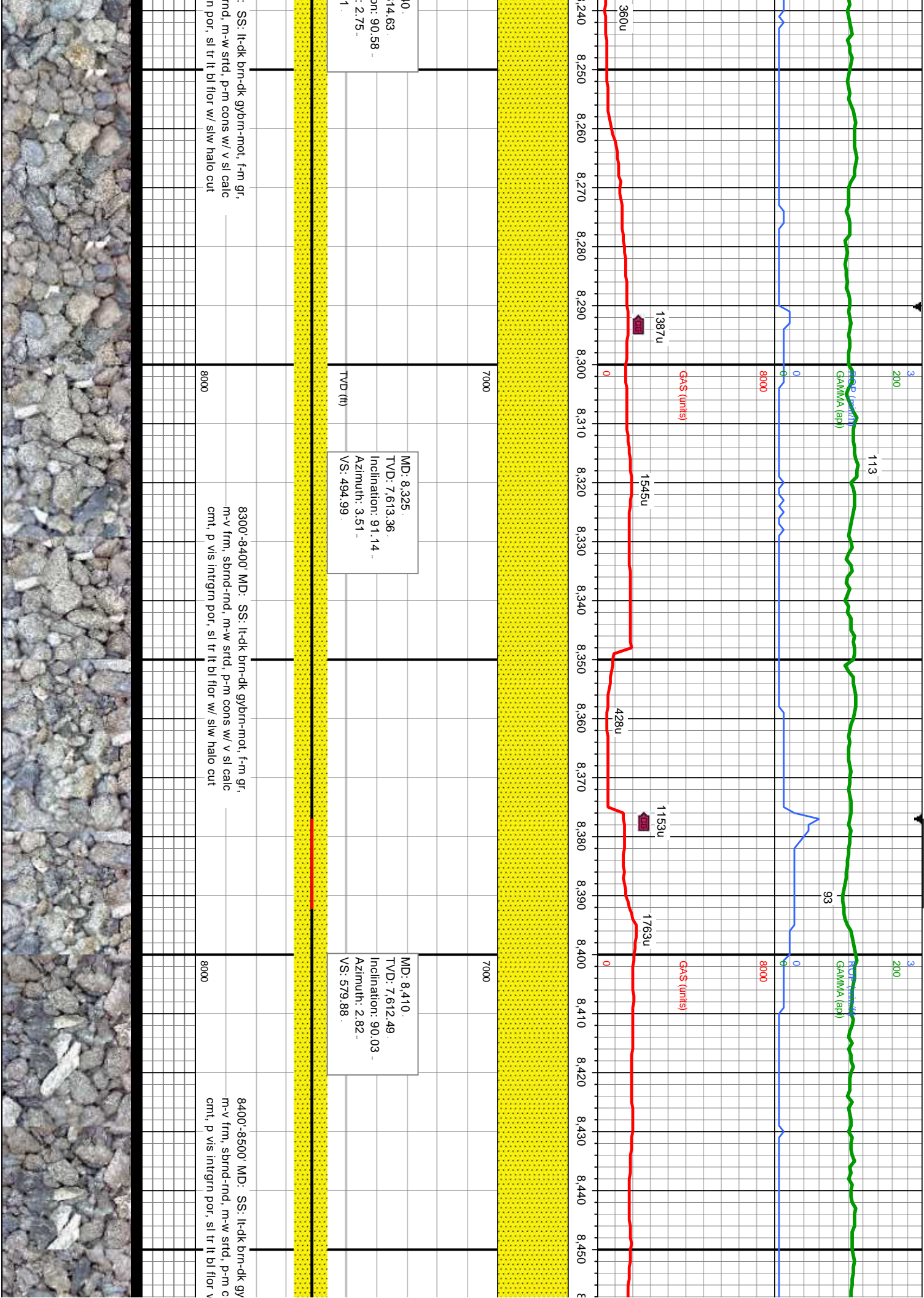
MD: 8.22
TVD: 7,616.09
Inclination: 90.03
Azimuth: 2.26
VS: 324.17

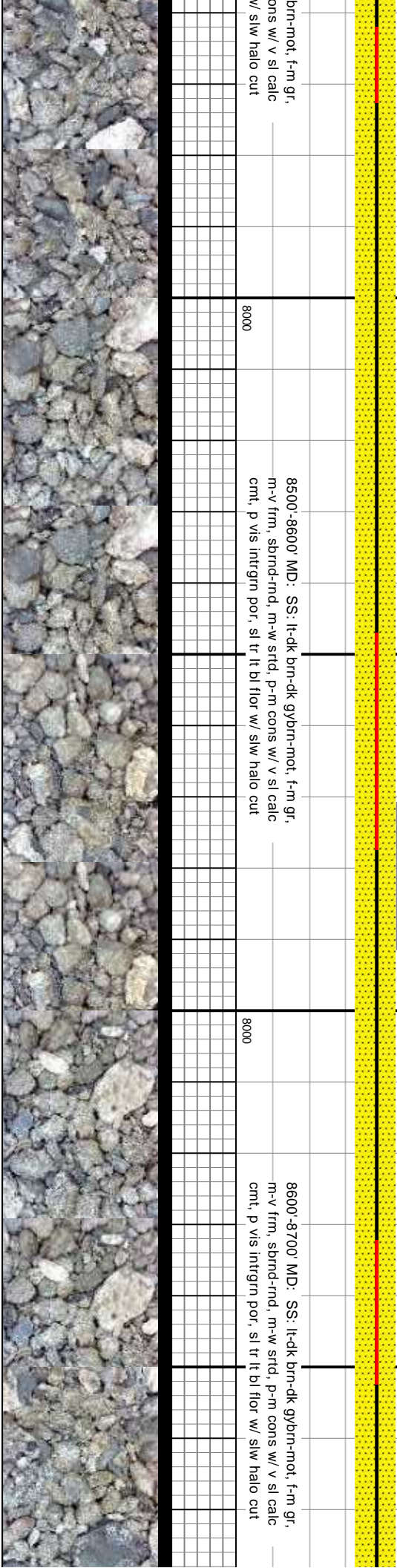
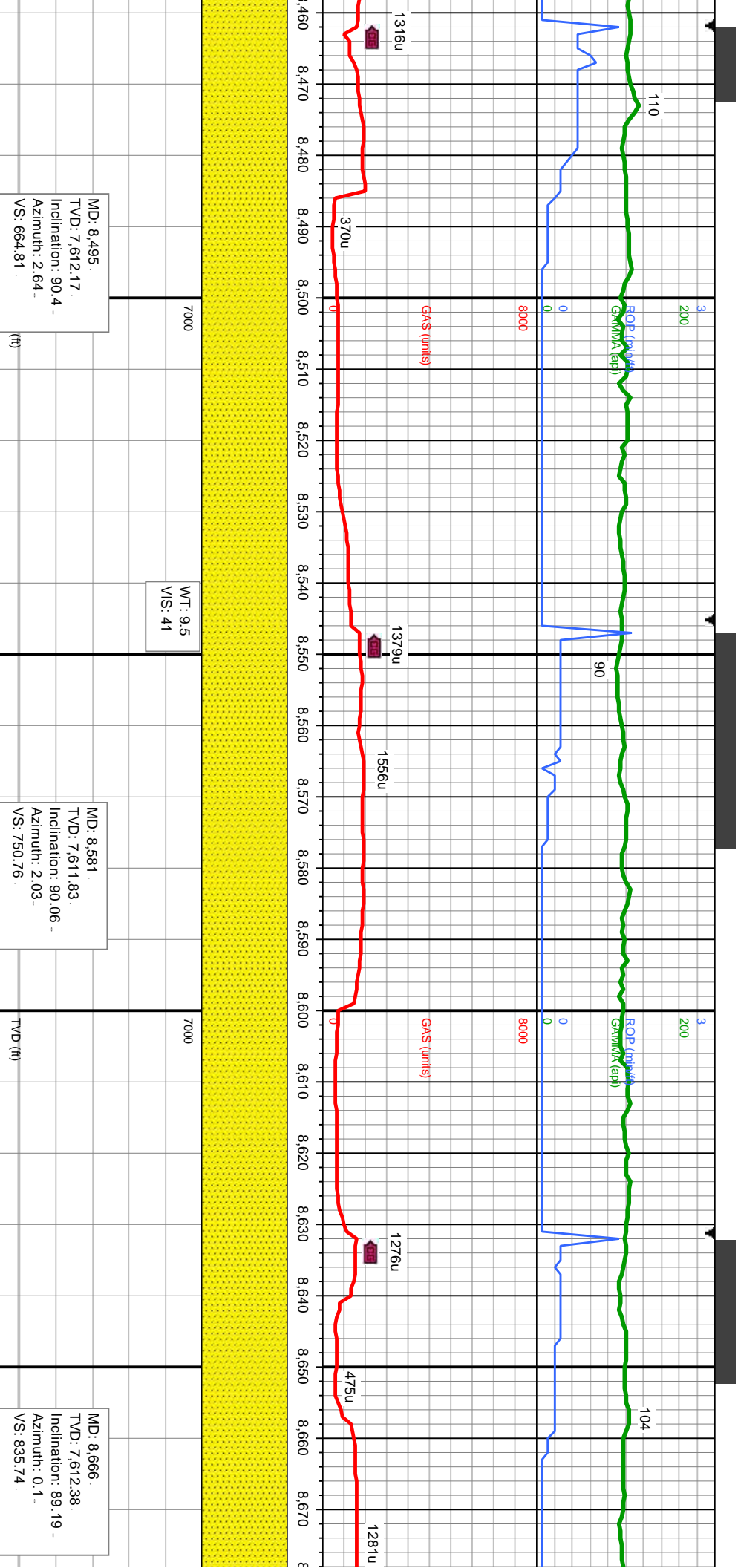
MD: 8.22
TVD: 7,616.09
Inclination: 90.03
Azimuth: 2.26
VS: 324.17

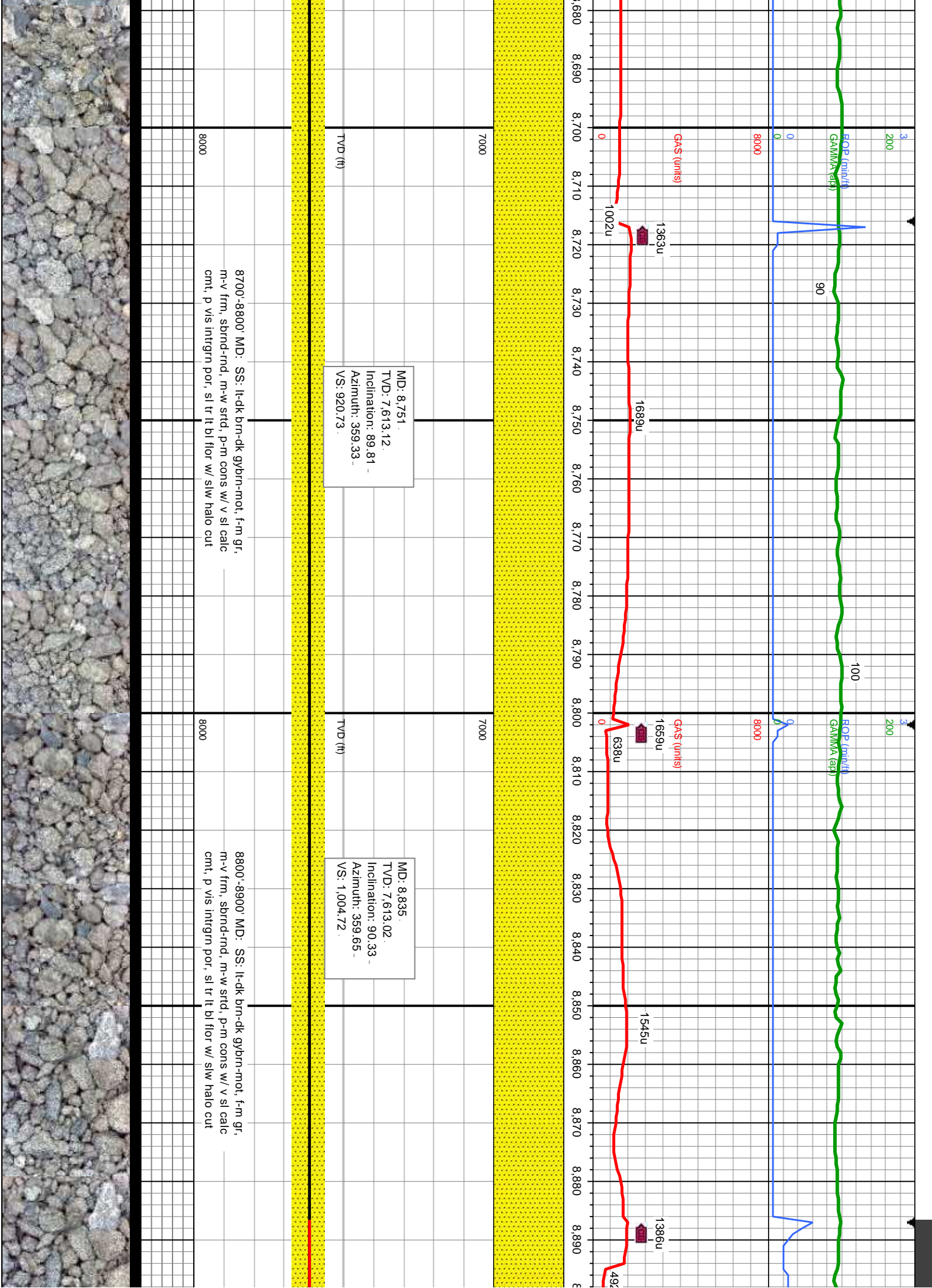
8010'-8100' MD: SS: lt-dk brn-dk gybrn-mot, f-m gr, m-v frm, sbnd-rnd, m-w strd, p-m cons w/ v sl calc cmt, p vis intrgrn por, sl tr lt bl flr w/ slw halo cut

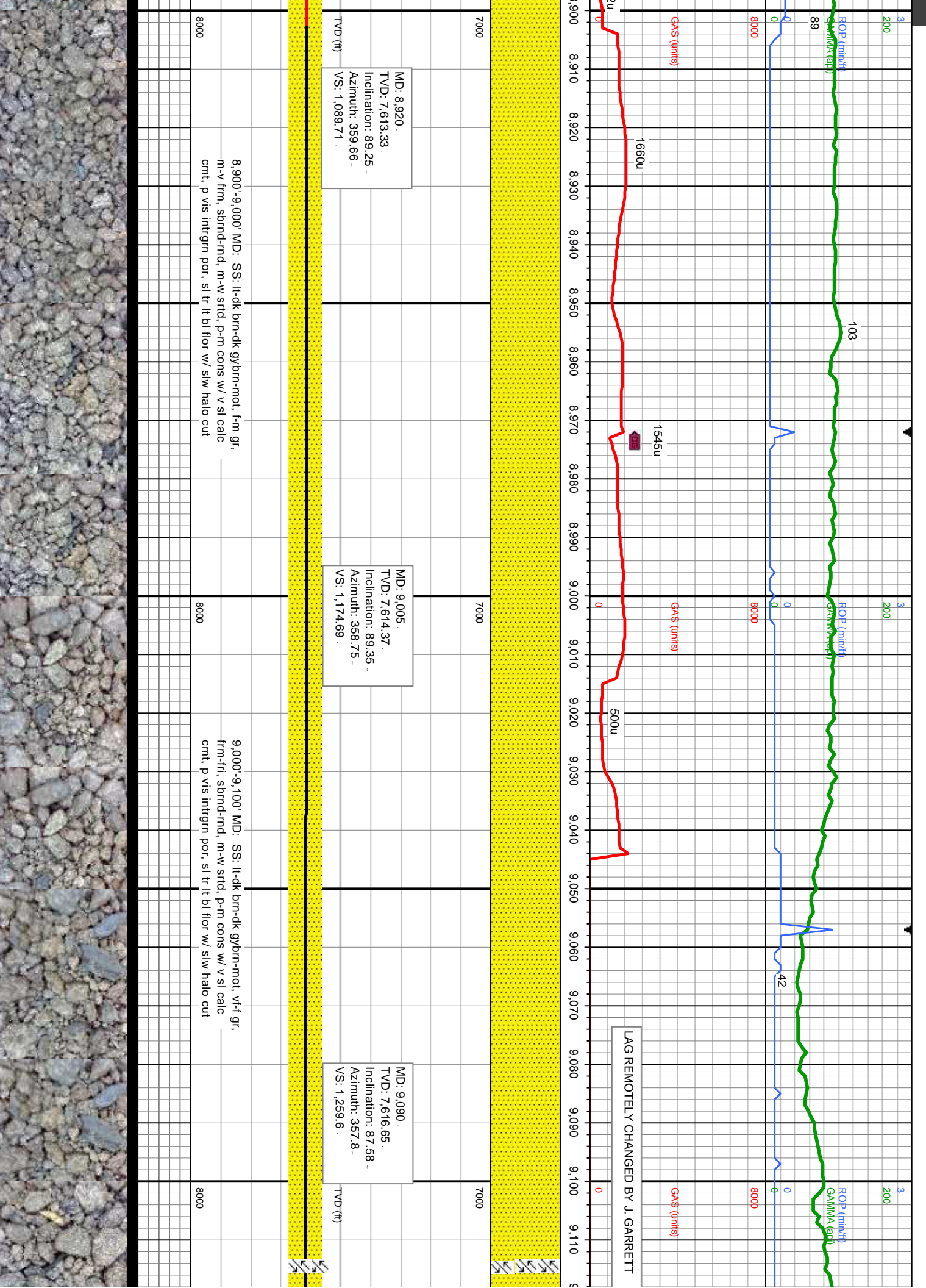
8100'-8200' MD: SS: lt-dk brn-dk gybrn-mot, f-m gr, m-v frm, sbnd-rnd, m-w strd, p-m cons w/ v sl calc cmt, p vis intrgrn por, sl tr lt bl flr w/ slw halo cut

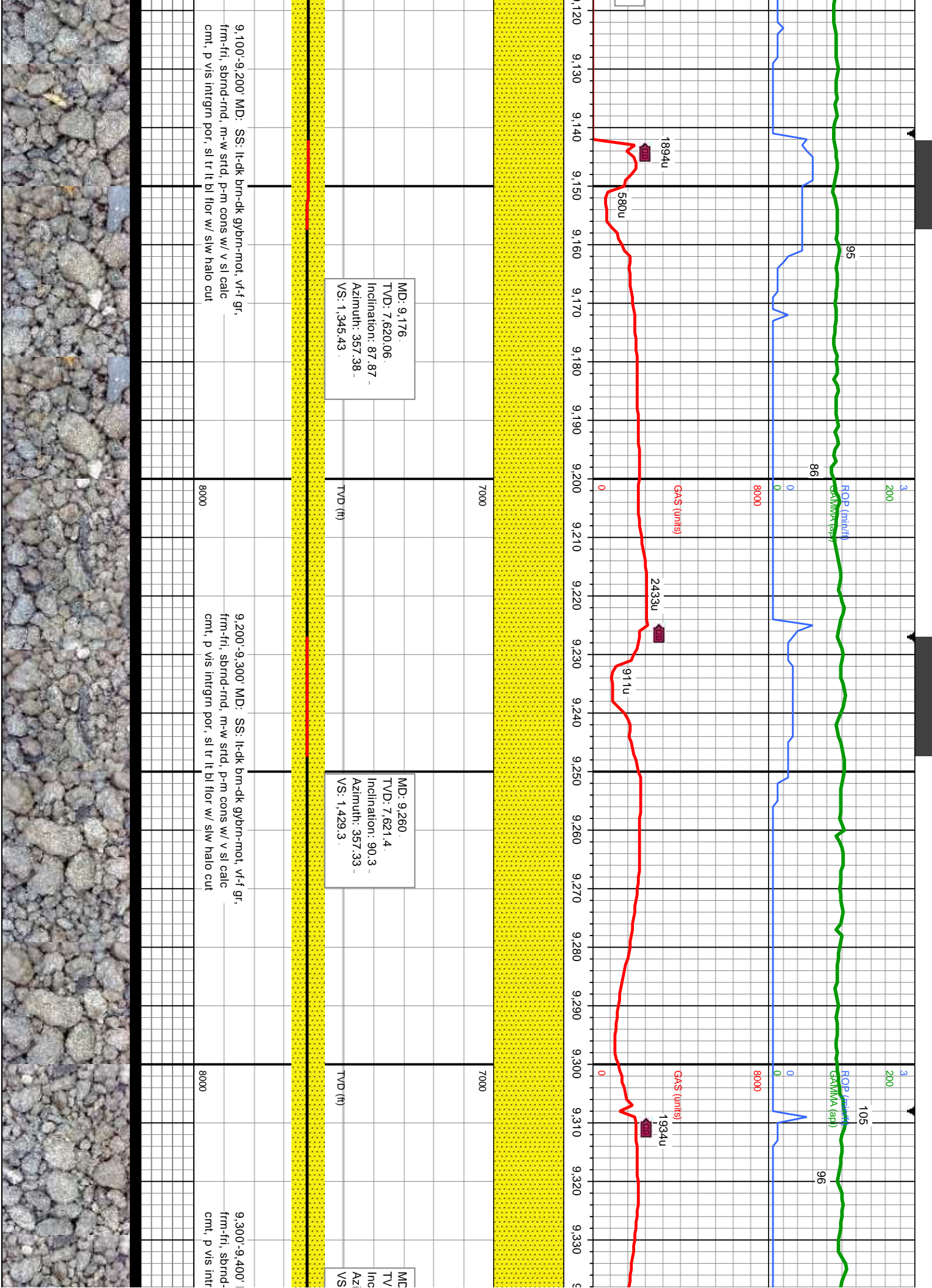
8200'-8300' MD: SS: lt-dk brn-dk gybrn-mot, f-m gr, m-v frm, sbnd-rnd, m-w strd, p-m cons w/ v sl calc cmt, p vis intrgrn por, sl tr lt bl flr w/ slw halo cut

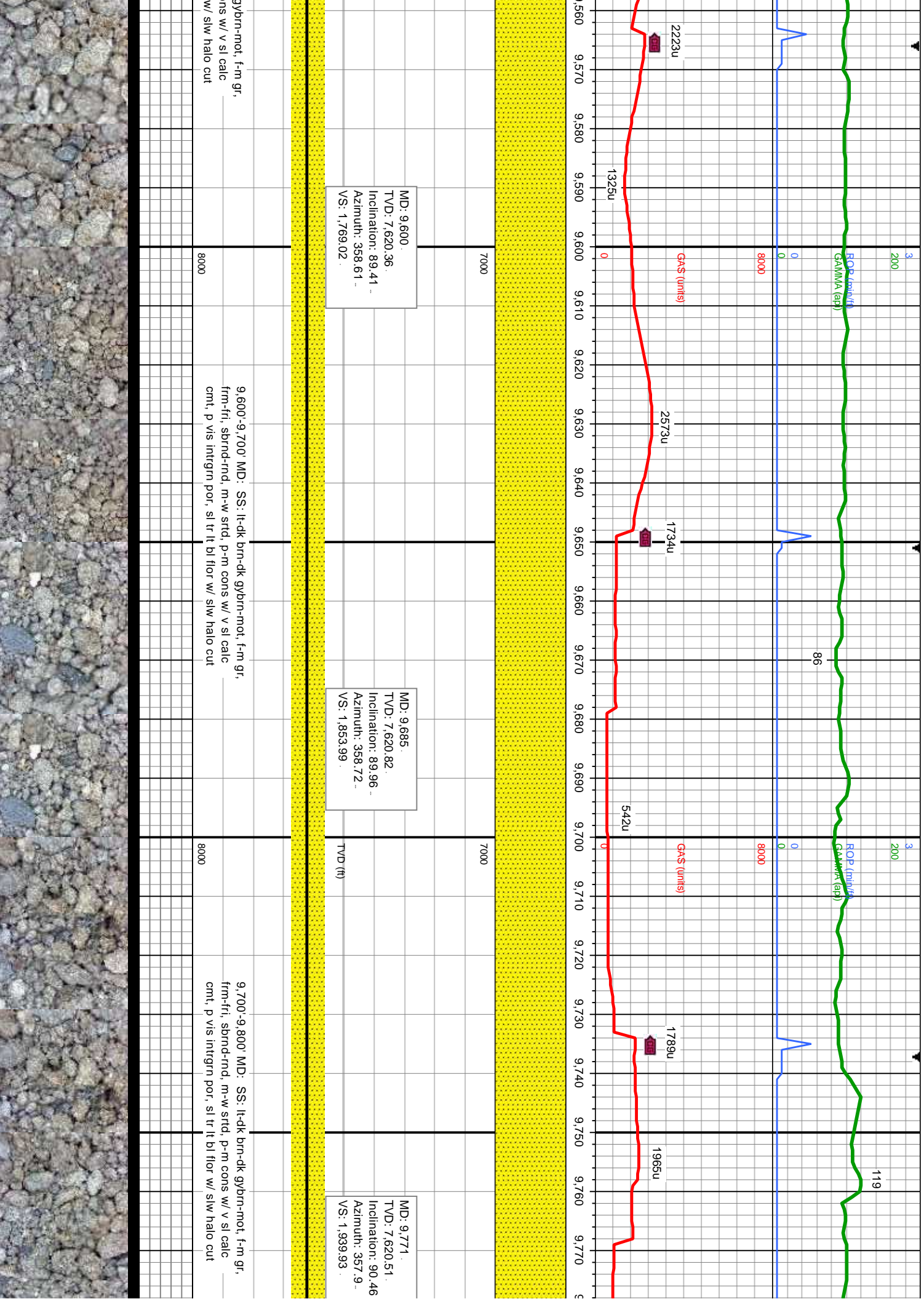


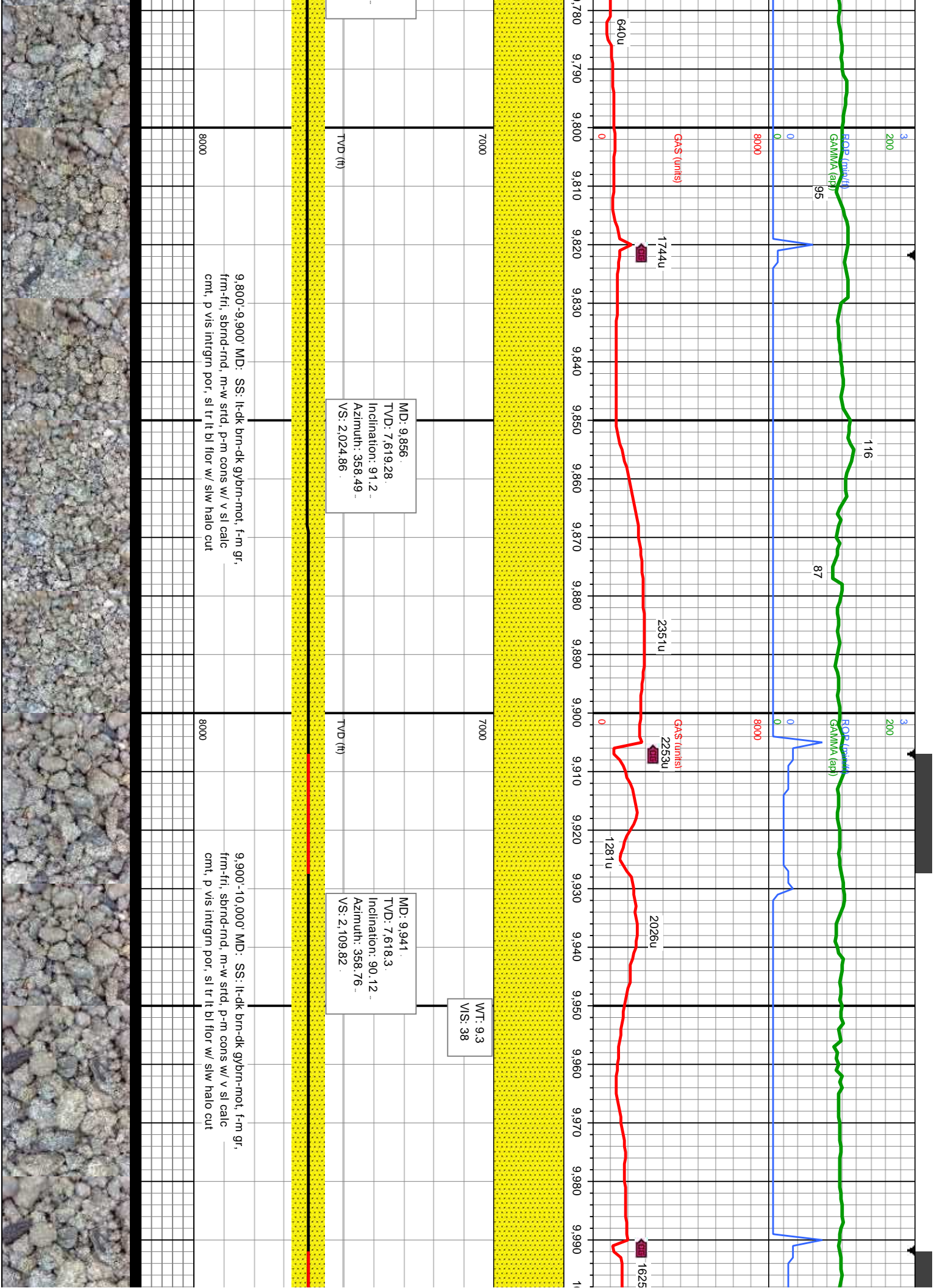








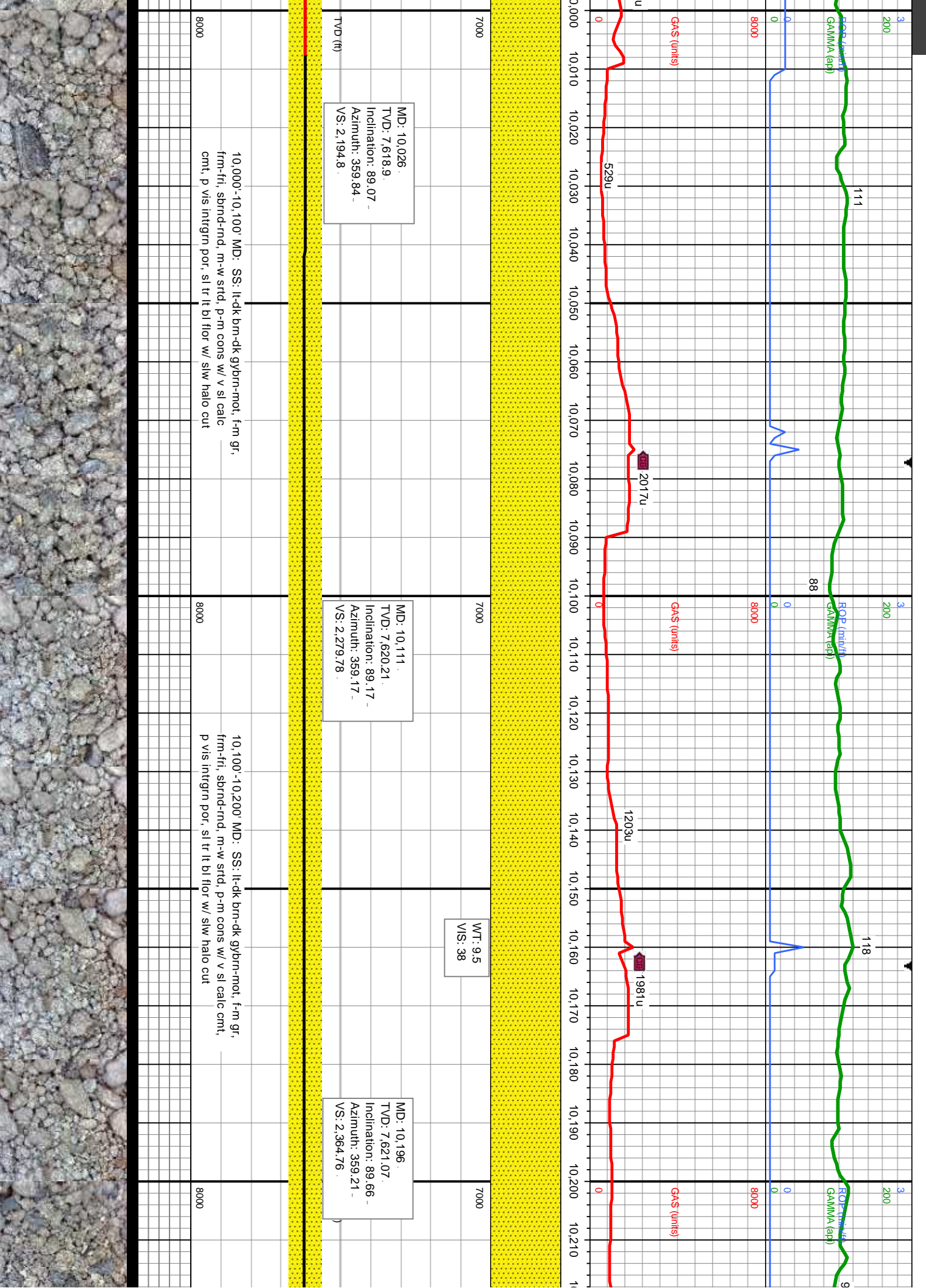


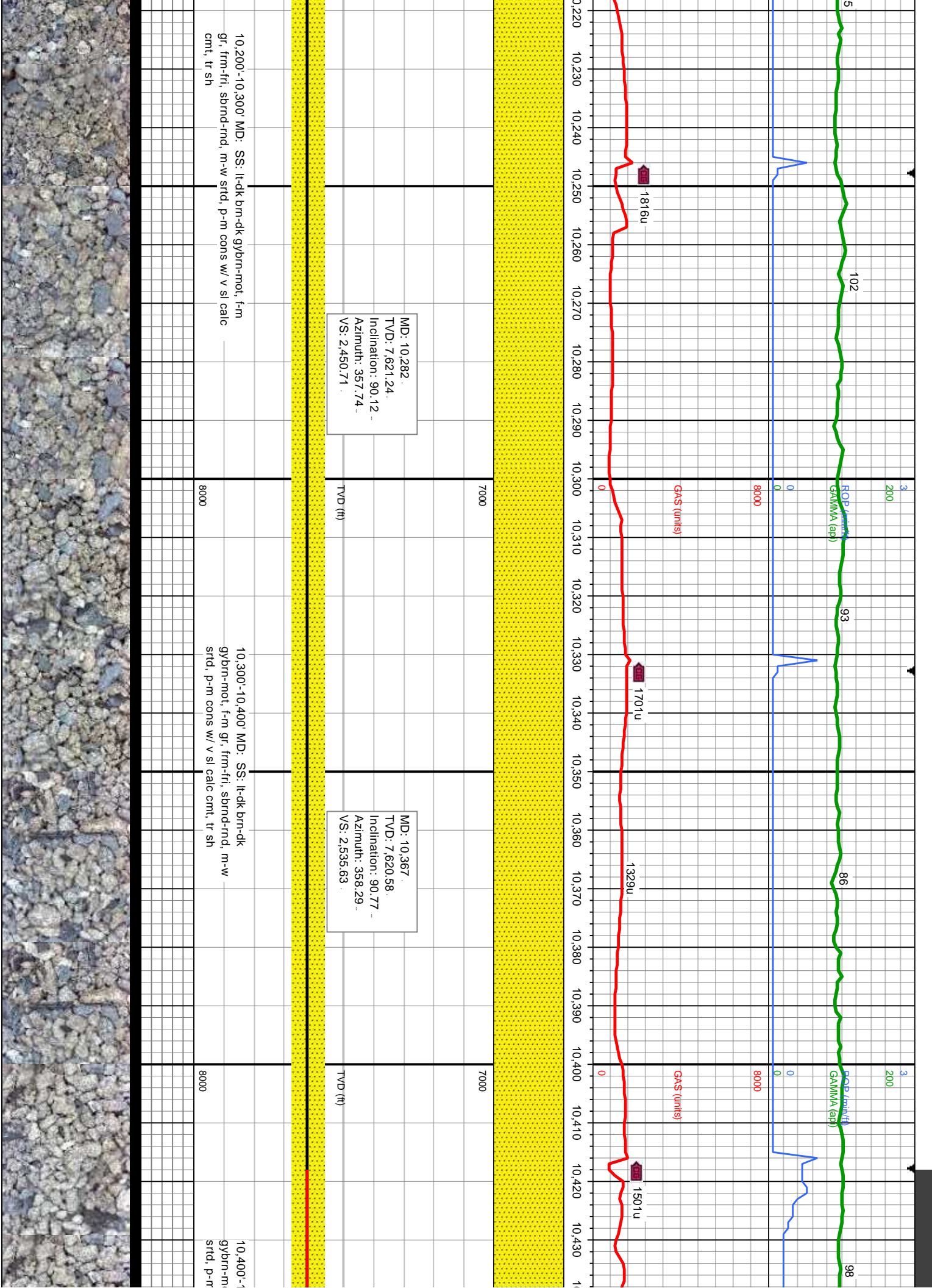


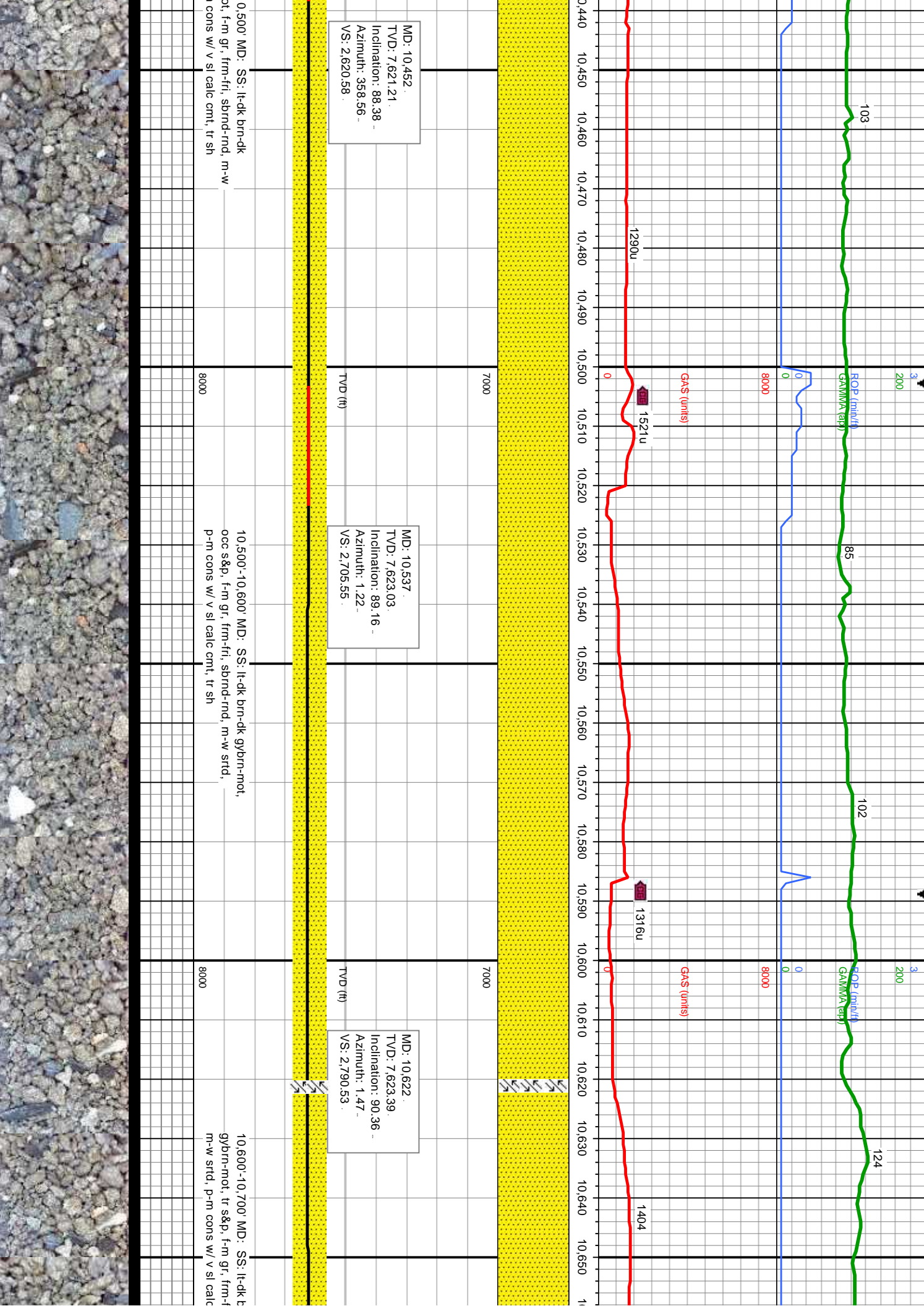
MD: 9,856.
TVD: 7,619.28.
Inclination: 91.2 -
Azimuth: 358.49 -
VS: 2,024.86

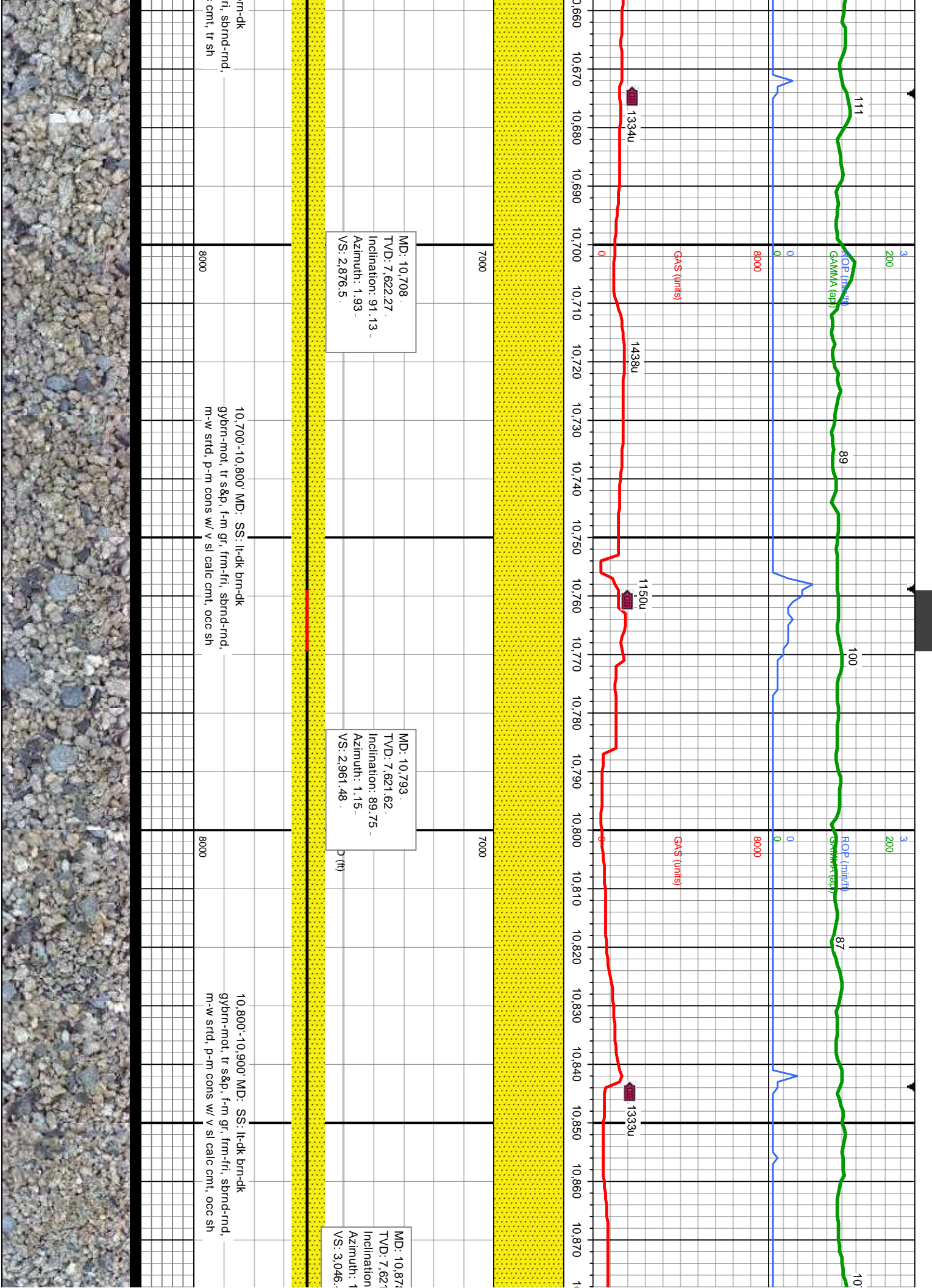
MD: 9,941.
TVD: 7,618.3.
Inclination: 90.12 -
Azimuth: 358.76 -
VS: 2,109.82

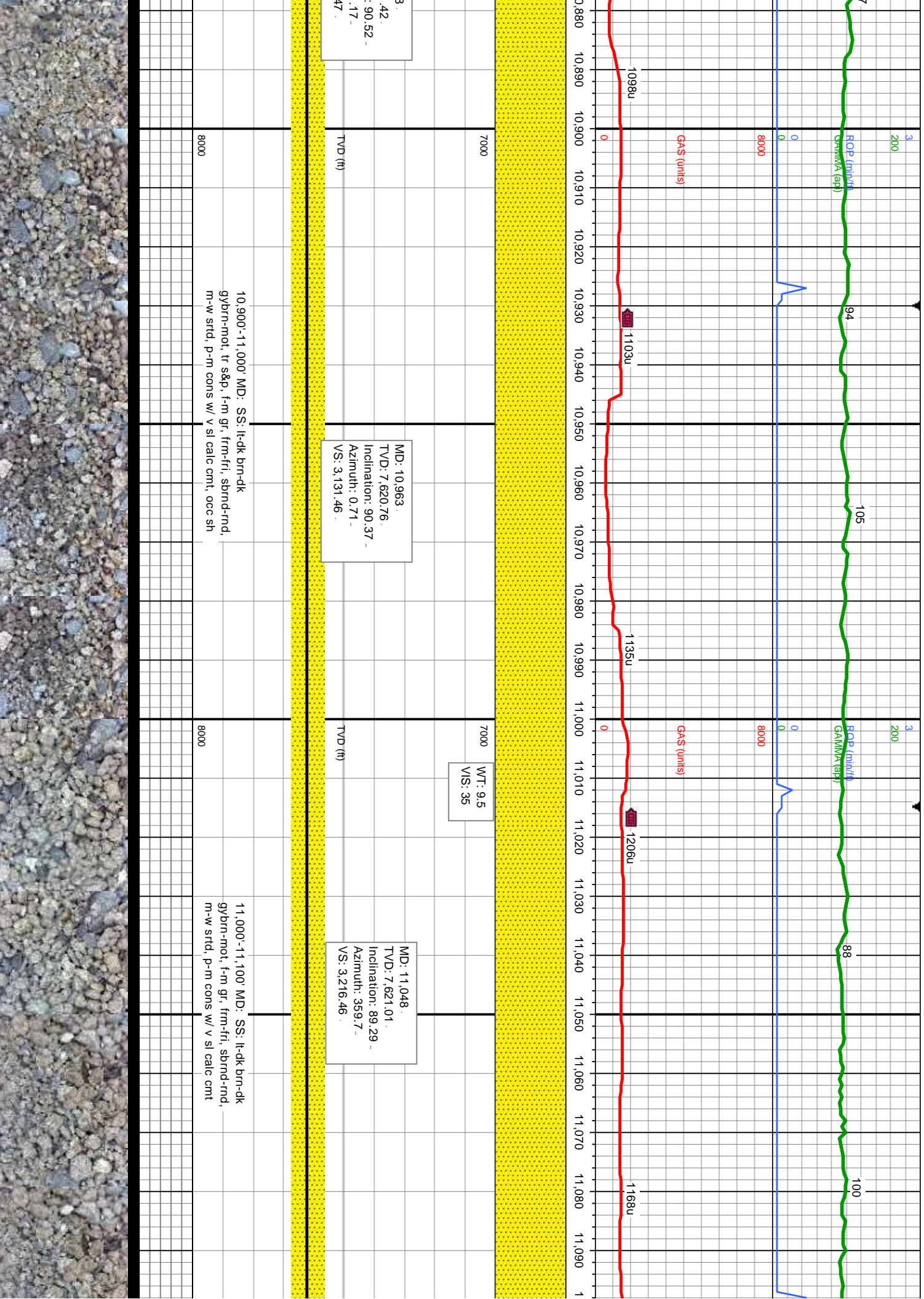
WT: 9.3
VIS: 38

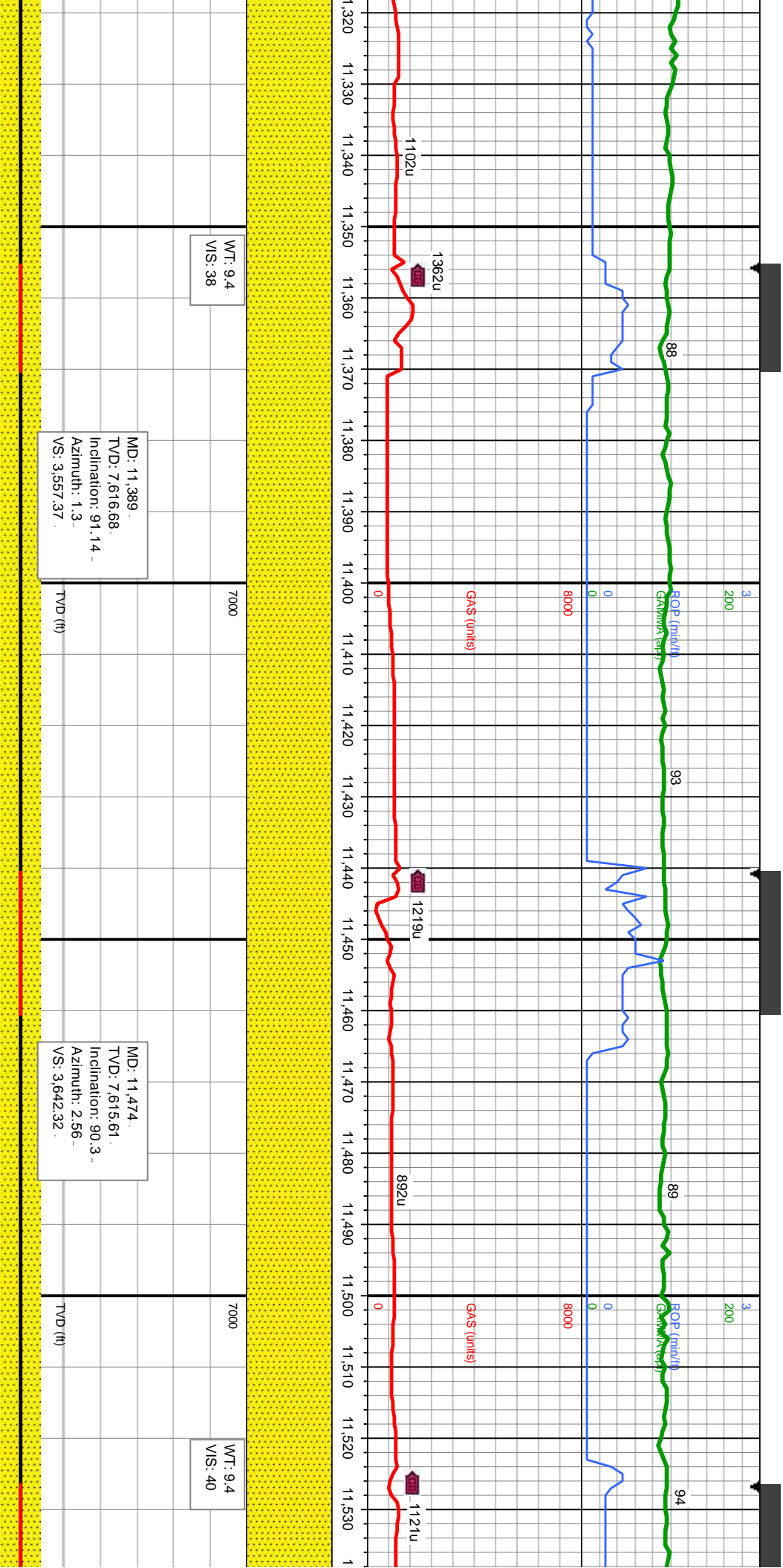












WT: 9.4
VIS: 38

MD: 11,389.
TVD: 7,616.68
Inclination: 91.14
Azimuth: 1.3
VS: 3,557.37

TVD (ft)

7000

MD: 11,474
TVD: 7,615.61
Inclination: 90.3
Azimuth: 2.56
VS: 3,642.32

TVD (ft)

7000

WT: 9.4
VIS: 40

11,300'-11,400' MD: SS: lt-dk brn-dk gybrn-mol, tr s&p, f-m gr, frm-fri, sbnd-rnd, m-w strd, p-m cons w/ v sl calc cntl, occ sh, tr pyr

8000

11,400'-11,500' MD: SS: lt-dk brn-dk gybrn-mol, f-m gr, frm-fri, sbnd-rnd, m-w strd, p-m cons w/ v sl calc cntl, tr sh

8000

11,500'-11, gybrn-mol/ m-w strd, p



8/21/14
11,544 MD

MINDEPTH

88

93

98

88

EOP (min/ft)
GAMMA (api)

EOP (min/ft)
GAMMA (api)

0

0

8000

8000

GA\$ (units)

GA\$ (units)

1370u

1059u

1126u

966u

475u

0

0

GA\$ (units)

GA\$ (units)

7000

7000

WT: 9.4
VIS: 39

MD: 11,559
TVD: 7,615.82
Inclination: 89.41
Azimuth: 3.47
VS: 3.727.23

TVD (ft)

MD: 11,645
TVD: 7,616.3
Inclination: 89.96
Azimuth: 3.49
VS: 3.813.1

TVD (ft)

MD: 11,730
TVD: 7,616.24
Inclination: 90.12
Azimuth: 3.64
VS: 3.897.96

600' MD: SS: lt-dk brn-dk
s&g, f-m gr, frm-fri, sbnd-rnd,
-m cons w/ v sl calc cmf, tr sh

11,600'-11,700' MD: SS: lt-dk brn-dk gybm-mot, f-m gr, —
frm-fri, sbnd-rnd, m-w strd, p-m cons w/ v sl calc cmf, tr sh

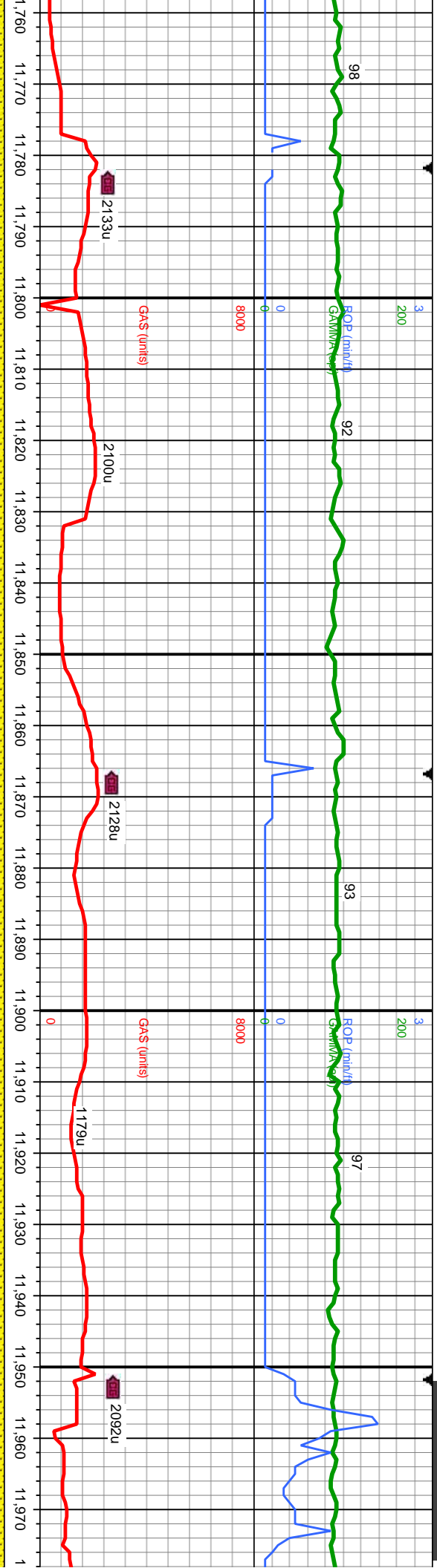
11,700'-11,800' MD: SS: lt-dk b
gybm-mot, f-m gr, frm-fri, sbnd
strd, p-m cons w/ v sl calc cmf,

8000

8000

GA\$ (units)

GA\$ (units)



MD: 11,815
TVD: 7,615.83
Inclination: 90.43
Azimuth: 3.13
VS: 3,982.84

MD: 11,900
TVD: 7,614.81
Inclination: 90.95
Azimuth: 3.18
VS: 4,067.73

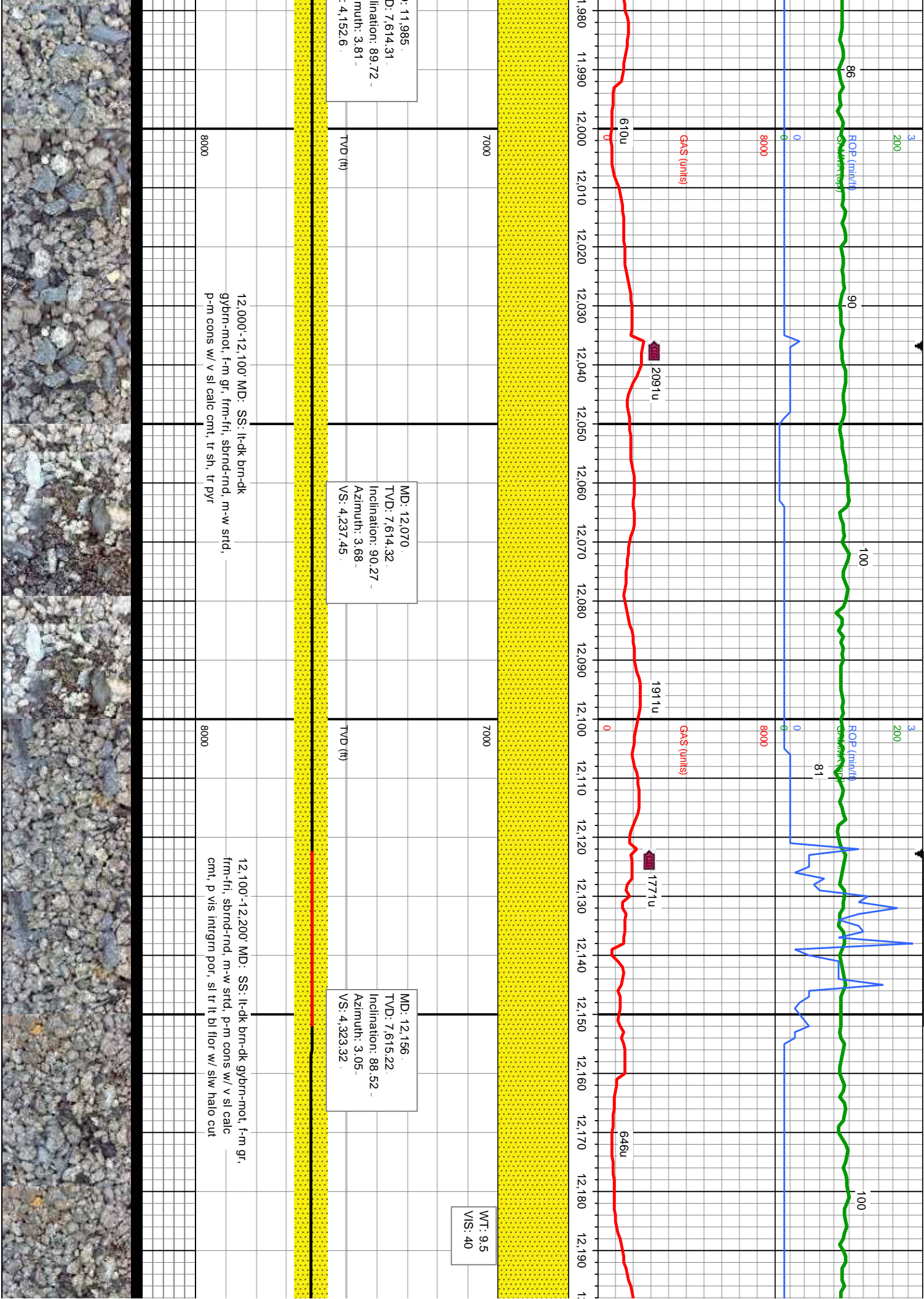
WT: 9.5
VIS: 40

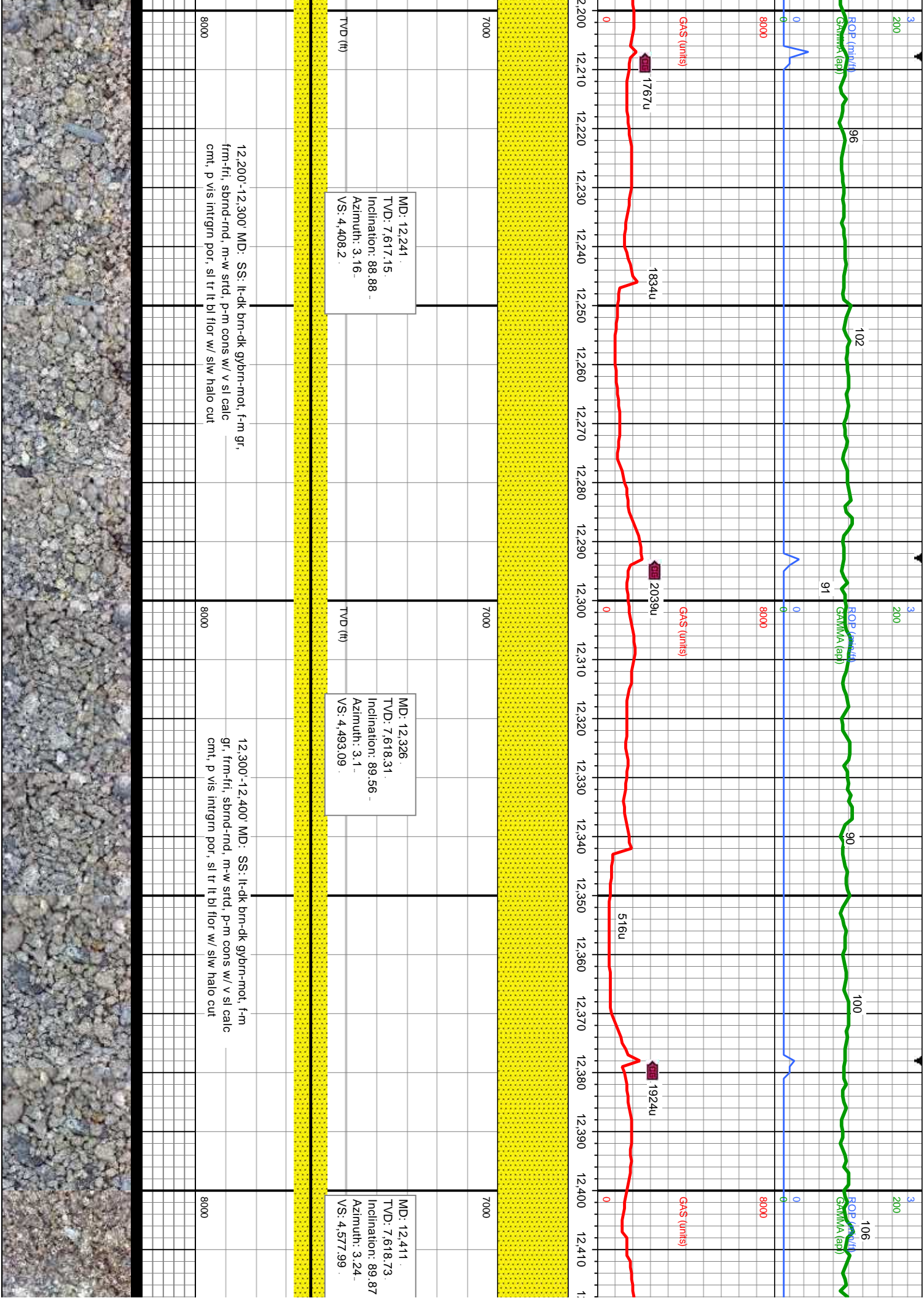
MC
TV
Inc
Azi
VS

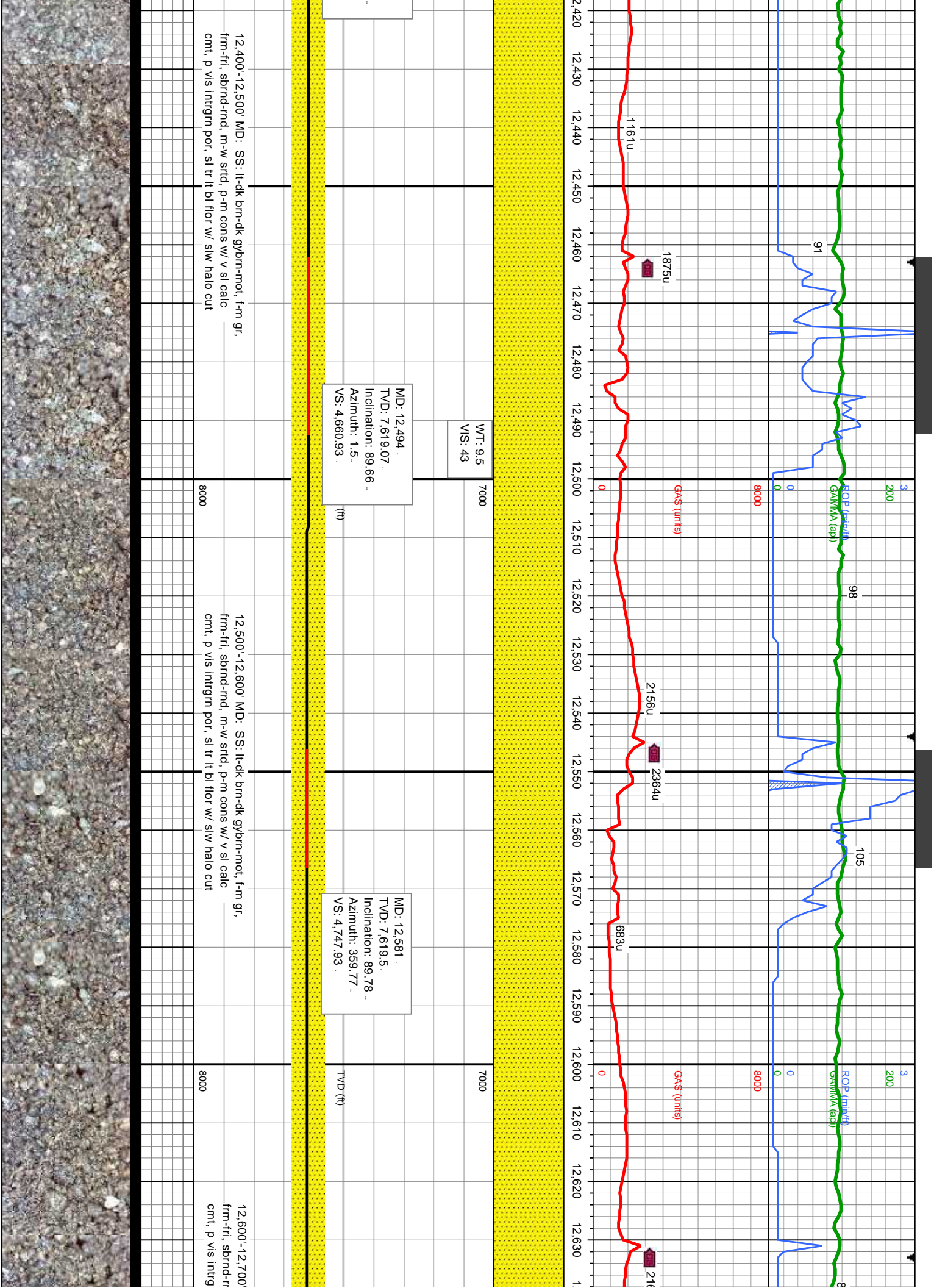
11,800'-11,900' MD: SS: lt-dk brn-dk
gy/brn-mot, f-m gr, frm-fri, sbnd-rnd, m-w
strd, p-m cons w/ v sl calc cmt, tr sh

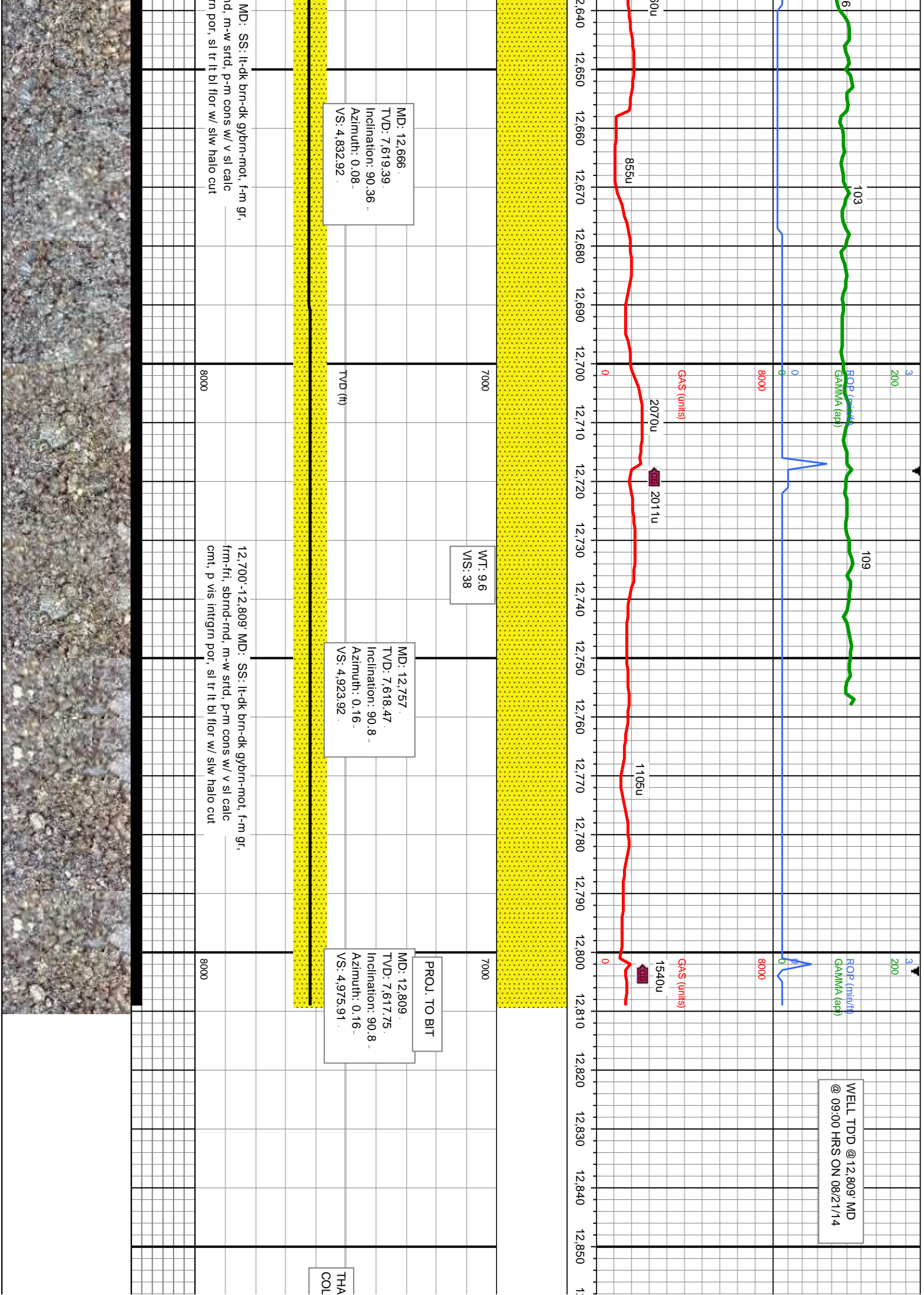
11,900'-12,000' MD: SS: lt-dk brn-dk
gy/brn-mot, f-m gr, frm-fri, sbnd-rnd, m-w
strd, p-m cons w/ v sl calc cmt, tr sh, tr pyr

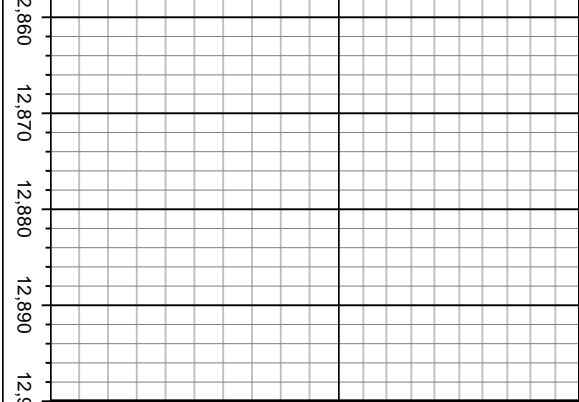












THANK YOU FOR USING
UMBINE LOGGING INC.

