



Scale: 5" / 100'
Measured Depth Log

Well Name Hester Farms G-36HN

Location SEC 31 T7N R66W

State Colorado

County Weld

Country United States

Rig Number Frontier (Utah) 8

API Number 05-123-41996

AFE # 41996

Geographic Region DJ Basin

Field Wattenberg

Spud Date 11/29/2015

Drilling Completed 12/22/2015

Surface Coordinates 40.533374/-104.831381
1679 FNL 202 FWL

Bottom Hole Coordinates 1480 FFNLL 470 FFWLL

Ground Elevation 4914'

K.B. Elevation 4936'

Logged Interval 6000 To 12052'

Total Depth 12052'

Formation Niobrara

Type of Drilling Fluid WBM

Operator

Company Bayswater Exploration & Production, LLC.

Address 730 17th St.
Denver, CO 80202



Geologist

Name Mark E. Brown

Company Bayswater Exploration & Production, LLC.

Address 730 17th St.
Denver, CO 80202

Other

Robert Davis Senior Lead Wellsite Geologist

Andrew Martens Wellsite Geologist

Columbine Logging Computer 148

Bloodhound Unit 331

Zone Color Coding

Oil

Note

Error

Condensate

Core

Water

Gas

Pressure

Seal

Oil Show

P PINPOINT

V VUGGY

Engineering

D DEAD

E EVEN

Q QUESTIONABLE

B BIT

S SPOTTED STAINING

C CONNECTION (UP)

Porosity

C CONNECTION (DOWN)

C CONNECTION GAS

F FENESTRAL

T TRIP GAS

F FRACTURE

T TRIP GAS (LEFT)

I INTERCRYSTALLINE

D DOWN TIME GAS

Rock Types

UNKNOWN

ANHYDRITE

BENTONITE

BRECCIA

CHALK

CEMENT

CHERT

CLAY CHOKE SANC

CLAYSTONE

COAL

CONGLOMERATE

DOLOMITE

DOLOMITIC LIMESTONE

GRANITE

GYPSUM

IGNEOUS

SIDERITE or LIMONITE

LIMESTONE

MARLSTONE

METAMORPHIC

NO SAMPLE

SALT

SANDSTONE

SALT-PEPPER SANC

SHALE

SHALE COLORED

SHALE GRAY

SHALY SANDSTONE

SHALY SILTSTONE

SILTY SHALE

SILTSTONE

TILL

TUFF

WELDED TUFF

Accessories

GASTROPOD

INOCERAMUS

OOLITE

OSTRACOD

PELECYPOD

PELLET

PISOLITE

BRYOZOA

CEPHALOPOD

CORAL

CRINOID

ECHINOID

FISH

FORAMINIFERA

FOSSIL

ARGILLITE GRAIN

B BENTONITE

BIT BITUMENOUS SUBSTANCE

B BRECCIA FRAGMENTS

C CALCAREOUS

C CARBONACEOUS FLAKES

C CHERT

C COAL - THIN BEDS

D DOLOMITIC

F FELDSPAR

F FERRUGINOUS PELLET

F FERRUGINOUS

G GLAUCONITE

G GYPSIFEROUS

H HEAVY MINERAL

K KAOLIN

M MARCASITE

M MARLSTONE

M MICACEOUS

M MINERAL CRYSTALS

N NODULES

P PHOSPHATE PELLETS

P PYRITE

S SALT CAST

S SANDY

S SIDERITE

S SILTACEOUS

S SILTY

T TUFFACEOUS

A ANHYDRITE STRINGER

B BENTONITE STRINGER

C COAL STRINGER

D DOLOMITE STRINGER

G GYPSUM STRINGER

L LIMESTONE STRINGER

M MARLSTONE (CALO) STRG

M MARLSTONE STRINGER

S SHALE STRINGER

S SILTSTONE STRINGER

Fossils

Minerals

Stringer

Other Symbols

 DST INTERVAL  WIRELINE TESTED - LEFT **E** EARTHY

 FAULT  WIRELINE TESTED - RT **FX** FINELYXLN

 FORMATION TOP  DRILL STEM TEST **GS** GRAINSTONE

 GAS SHOW  **MINDEPTH** MN DEPTH **L** LITHOGRAPHIC


 OIL SHOW **MX** MICROXLN


 **MINDEPTH** MN DEPTH UP **MS** MUDSTONE

Rounding

 **MINDEPTH** MN DEPTH (DOWN) **A** ANGULAR **PS** PACKSTONE

 NORMAL FAULT **R** ROUNDED **WS** WACKSTONE


 **(LEFT)** OVERTURNED STRATA **B** SUBANG

 REVERSE FAULT **R** SUBRND

Sorting

 CASING **M** MODERATE

Textures

 SIDEWALL CORE (LEFT) **P** POOR

 **(LEFT)** SIDEWALL CORE (RIGHT) **BS** BOUNDSTONE **W** WELL

 SLIDE **C** CHALKY

 **DST** SURVEY **CX** CRYPTOXLN

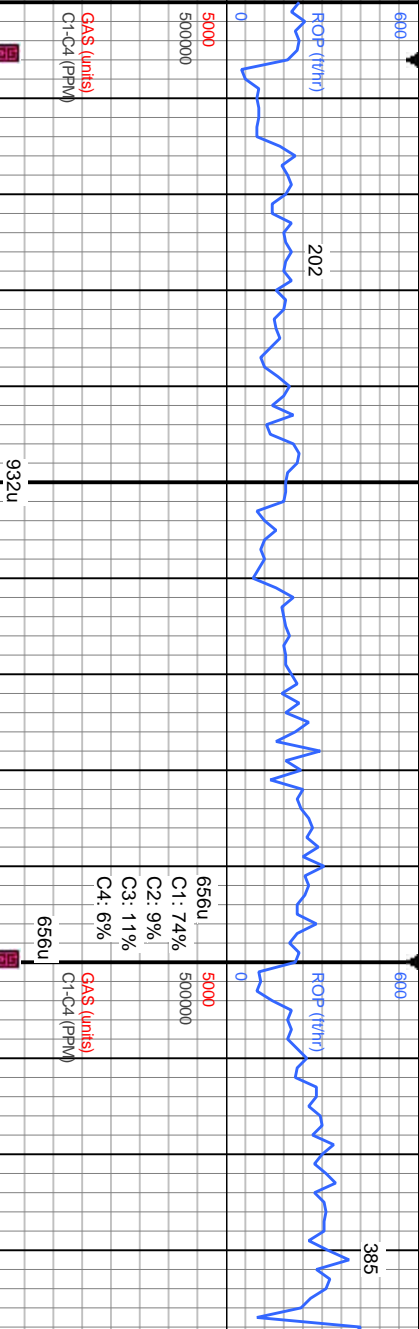
Slide/Rotate

ROP

COLUMBINE LOGGING RIGGED UP ON
12/19/2015 MANNED 2-PERSON LOGGING.
STARTED LOGGING AT 6000' @ 18:43 MDT
12/19/2015.

Total Gas & Chromatograph

GAS DATA FROM BLOODHOUND
CHROMATOGRAPH UNIT #0331 JOB
NUMBER 63 via IBALL GAS CHART DATA
BASE "Hester Farms G_36_HN.mdb"



Depth Labels

% Lith

Gamma
GAMMA

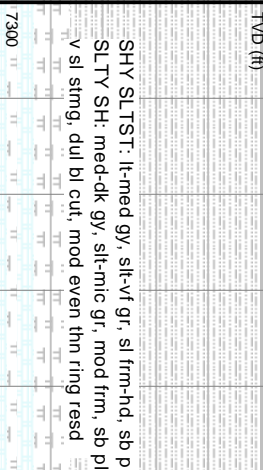
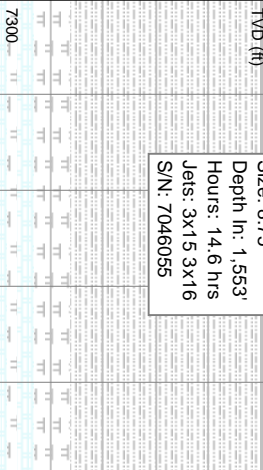


SURVEY, GAMMA, and ROP DATA
PROVIDED BY BAKER HUGHES

Bit Data

Bit #: 3
Type: AT506S
Size: 8.75
Depth In: 1,553'
Hours: 14.6 hrs
Jets: 3x15 3x16
S/N: 7046055

Well Bore
TVD

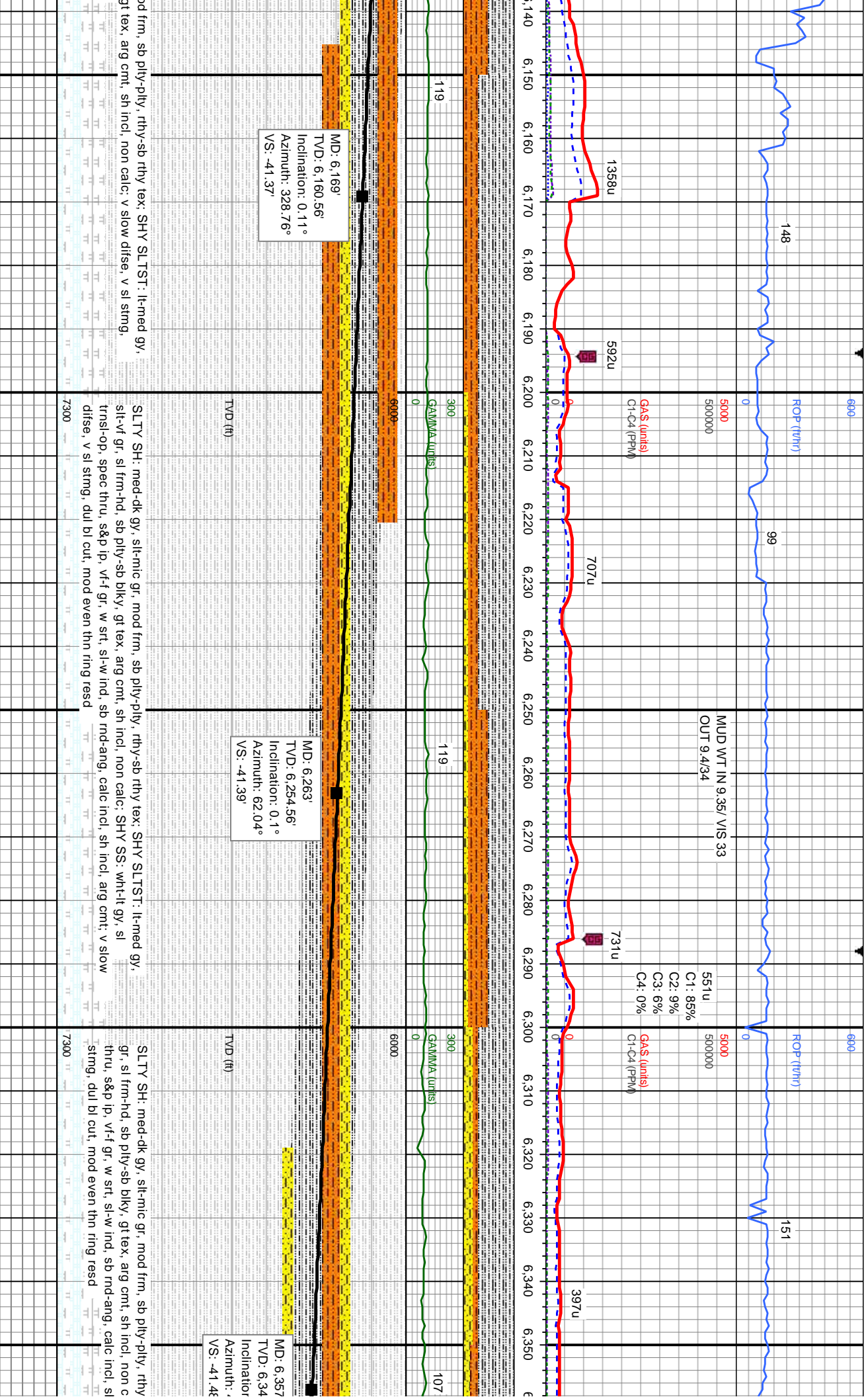


Oil Show

E
G
M
F
T
S

Images





mod frm, sb plty-plty, rthy-sb rthy tex; SHY SLTST: lt-med gy, arg cmt, sh incl, non calc; v slow difse, v sl stmg,

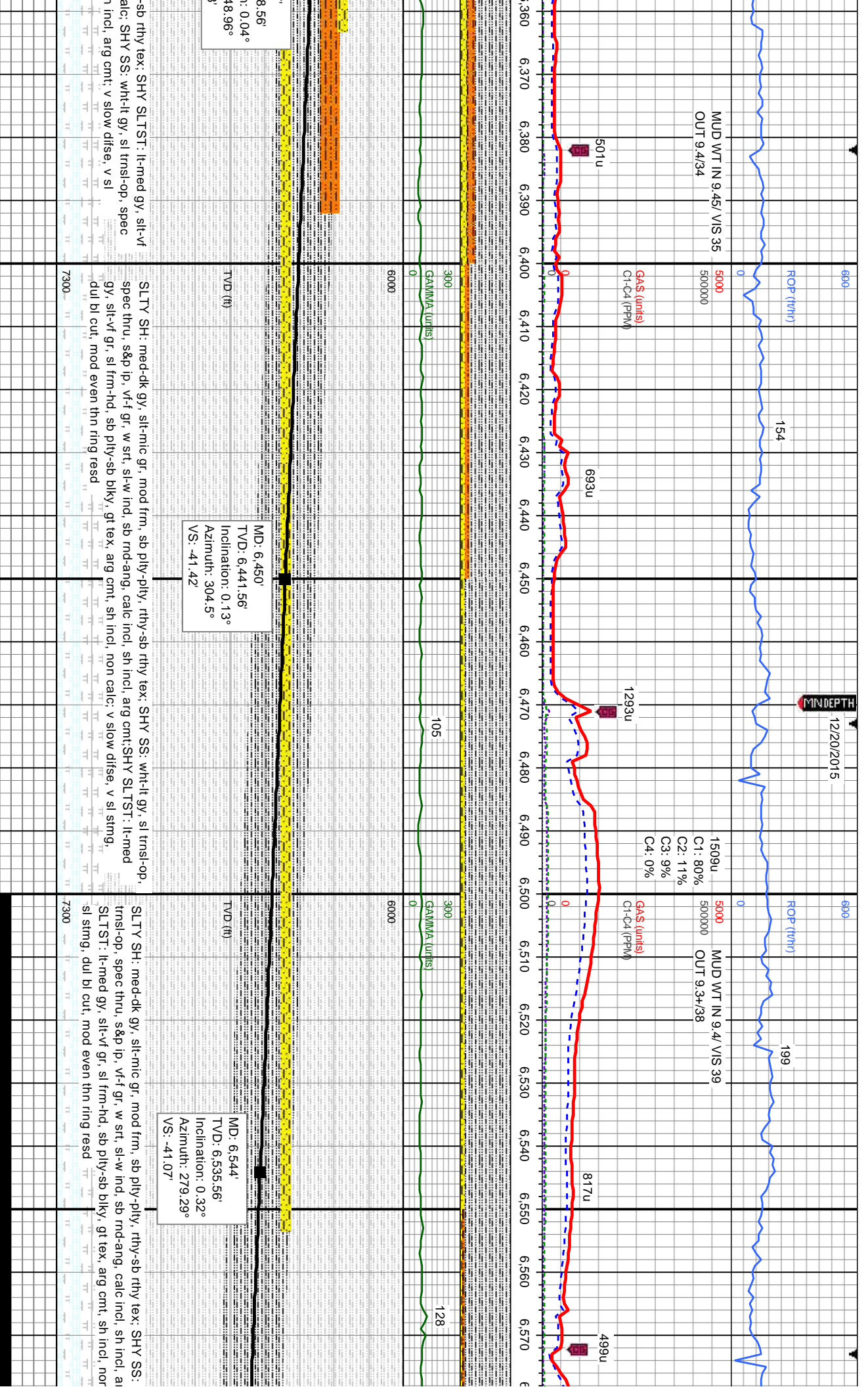
SLTY SH: meo-ek gy, slt-mic gr, mod frm, sb ply-ply, rthy-sb rthy tex; SHY SLTST: lk-med gy, slt-vf gr, sl frm-hd, sb ply-sb blyk, gt tex, arg cmt, sh incl, non calc; SHY SS: wh-ilt gy, sl trns-op, spec thru, s&p ip, vf-gr, w stf, sl-w-ind, sb md-ang, calc incl, sh incl, arg cmt, v slow difse, v sl stmg, dul bl cut, mod even thn ring red

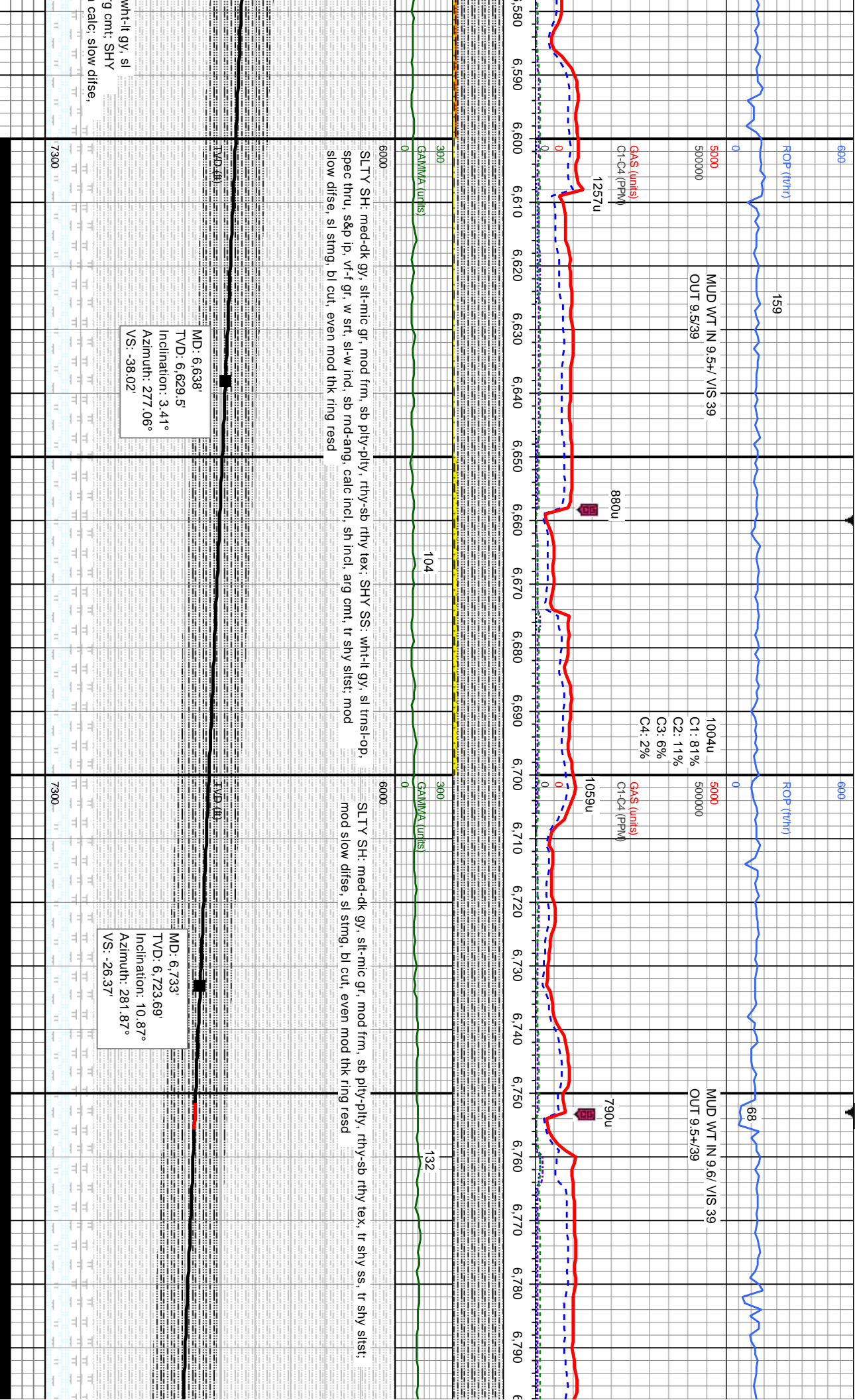
SLTY SH: med-dk gy, slt-mic gr, mod frm, sb pily-pily, rthy gr, sl frm-hd, sb pily-sb biky, gt tex, aig cmt, sh incl, non c thru, s&p ip, vt-f gr, w srt, sl-w incl, sb rnd-ang, calc incl, sl stmg, du bl cut, mod even thn ring resd

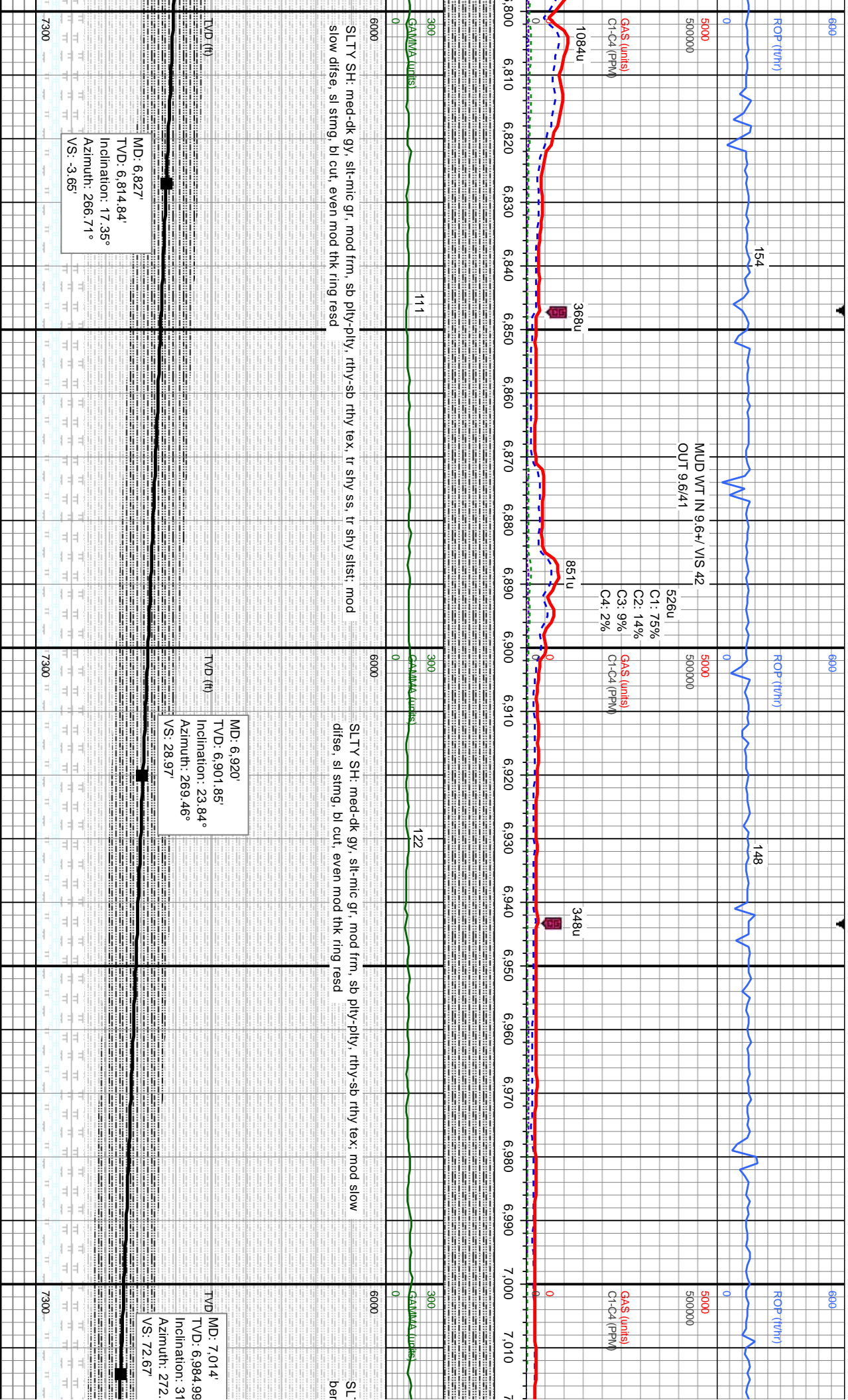
MD: 6,169'
TVD: 6,160.56'
Inclination: 0.11°
Azimuth: 328.76°
VS: -41.37'

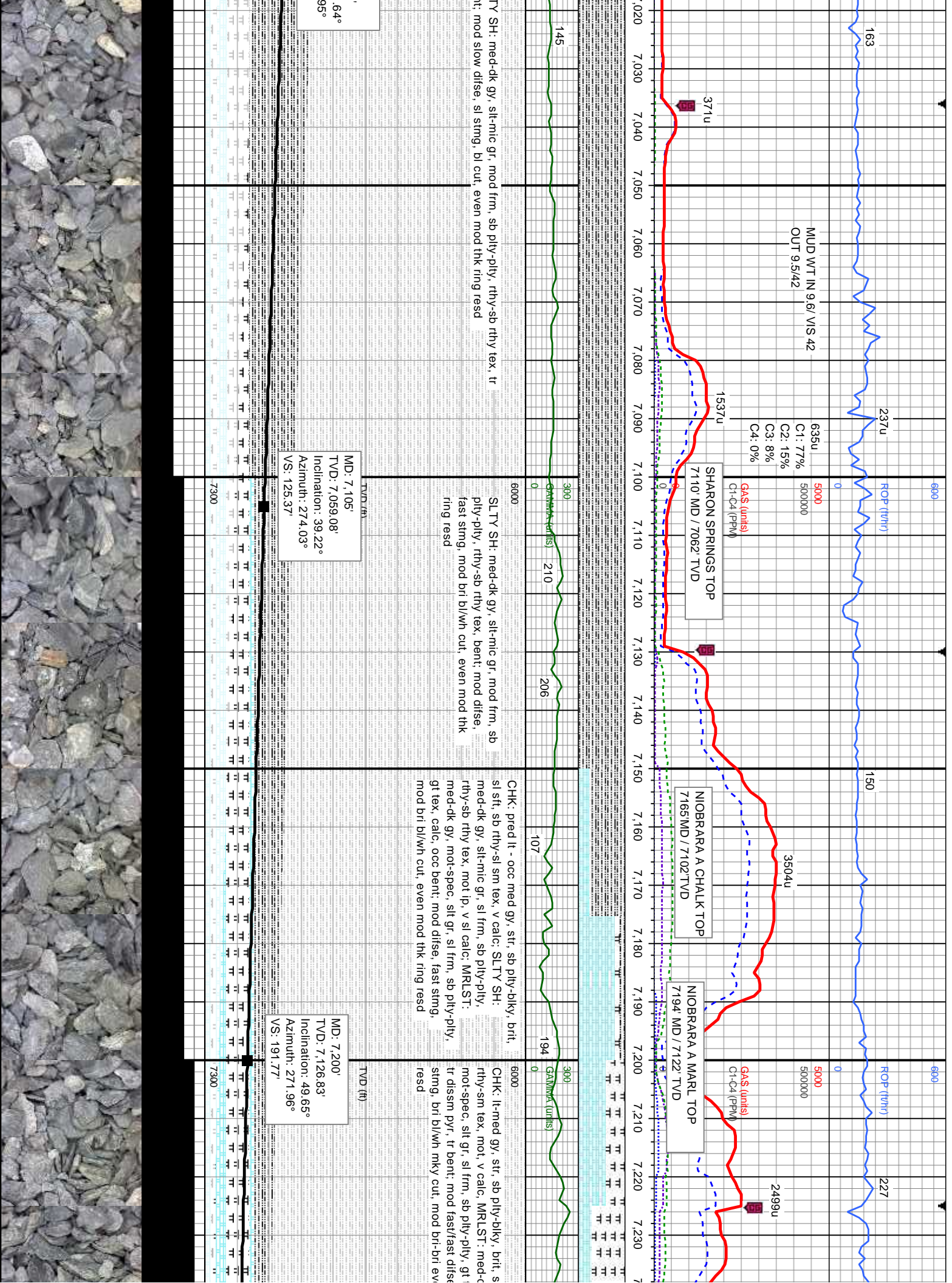
MD: 6,263'
TVD: 6,254.56'
Inclination: 0.1°
Azimuth: 62.04°
VS: -41.39'

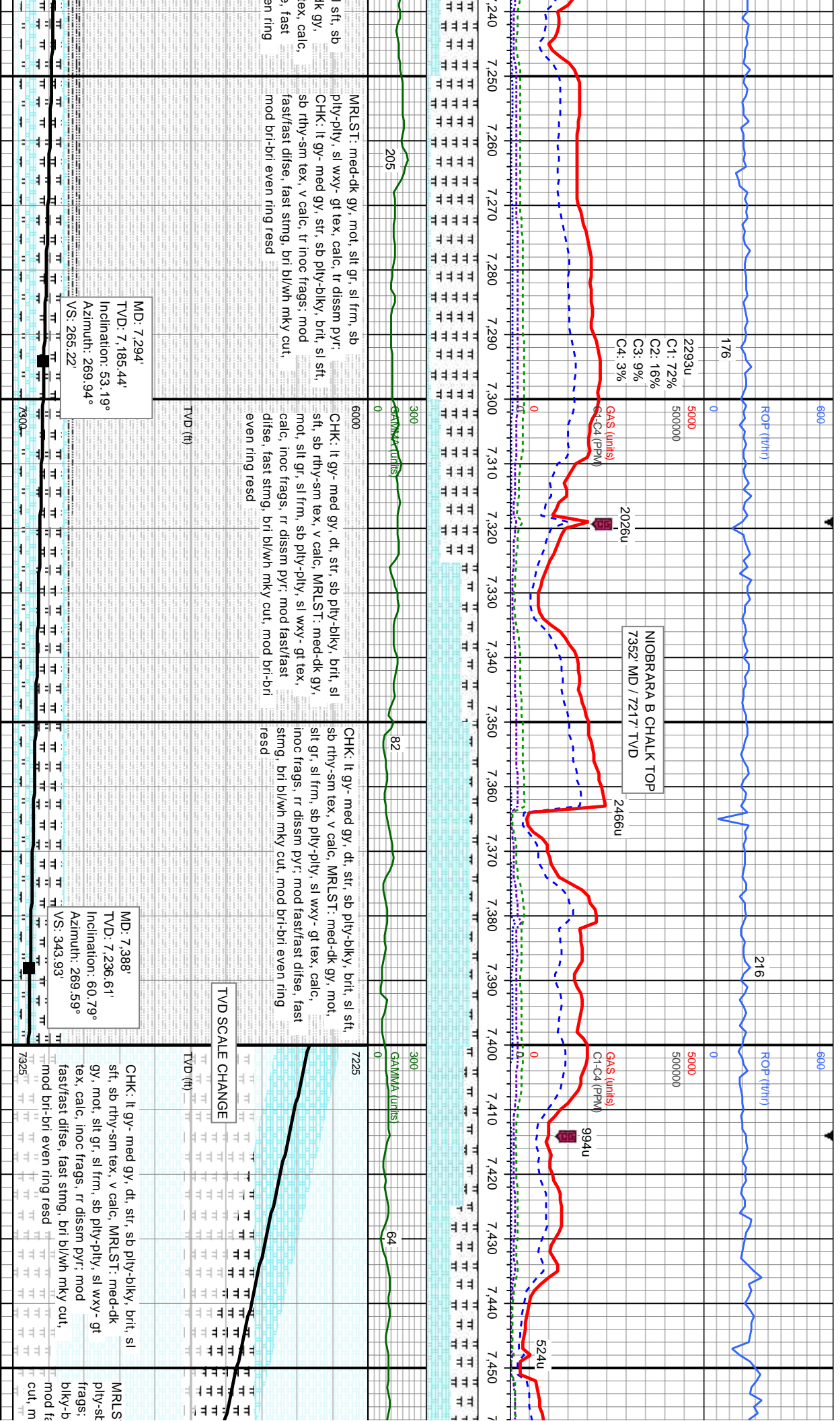
MD: 6,357
TVD: 6,34
Inclinatio
Azimuth: 4
VS: -41.48

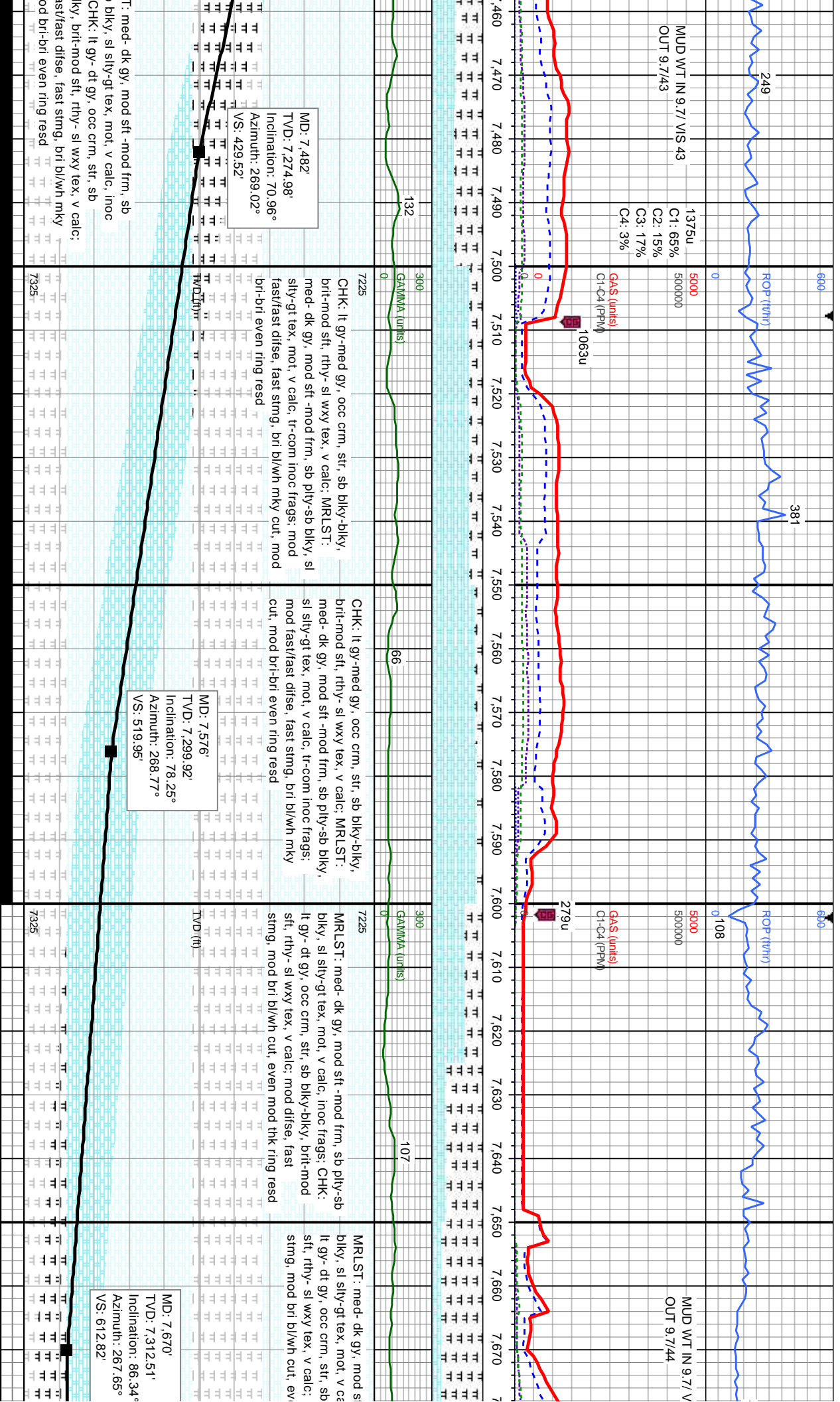


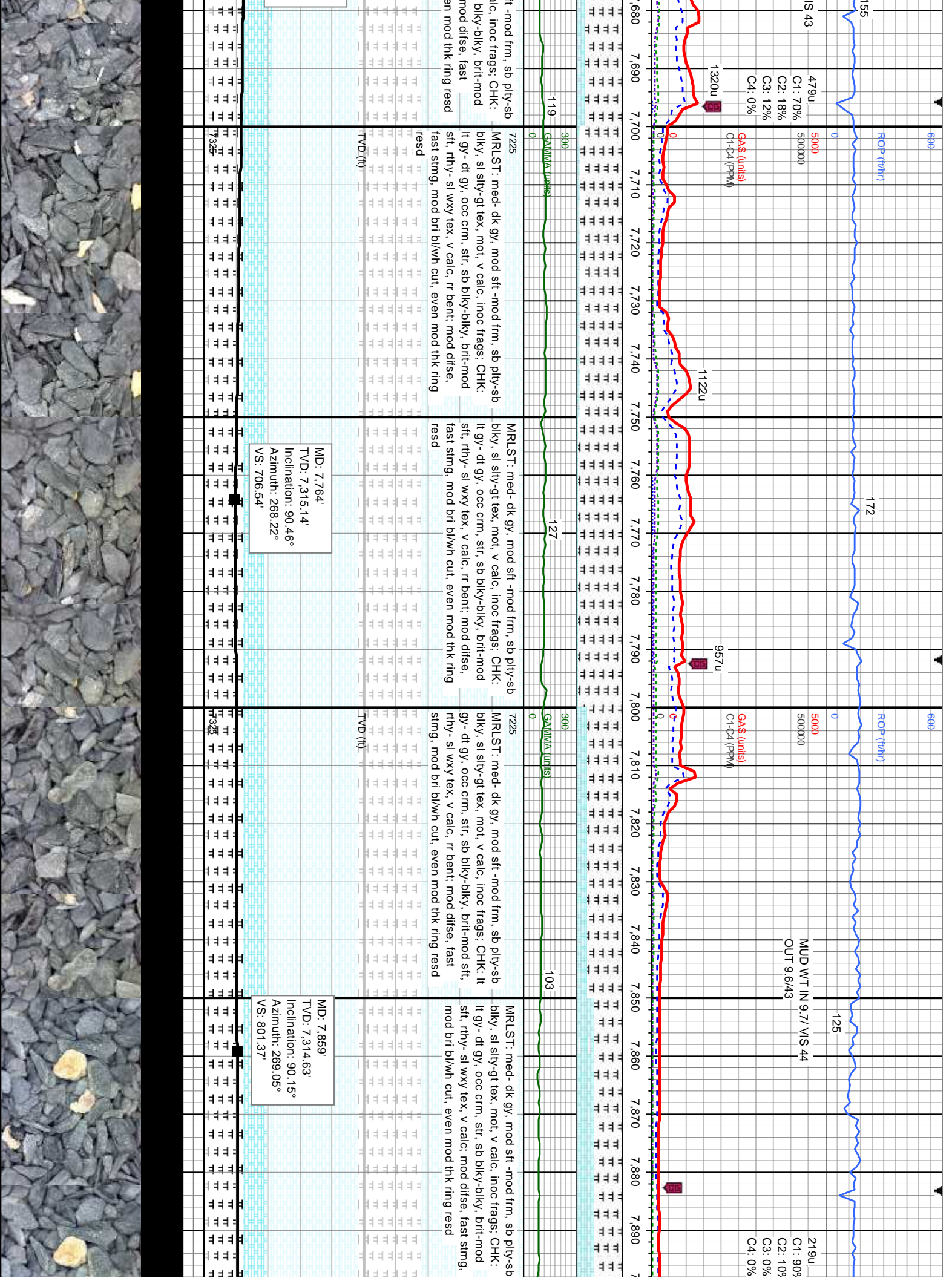


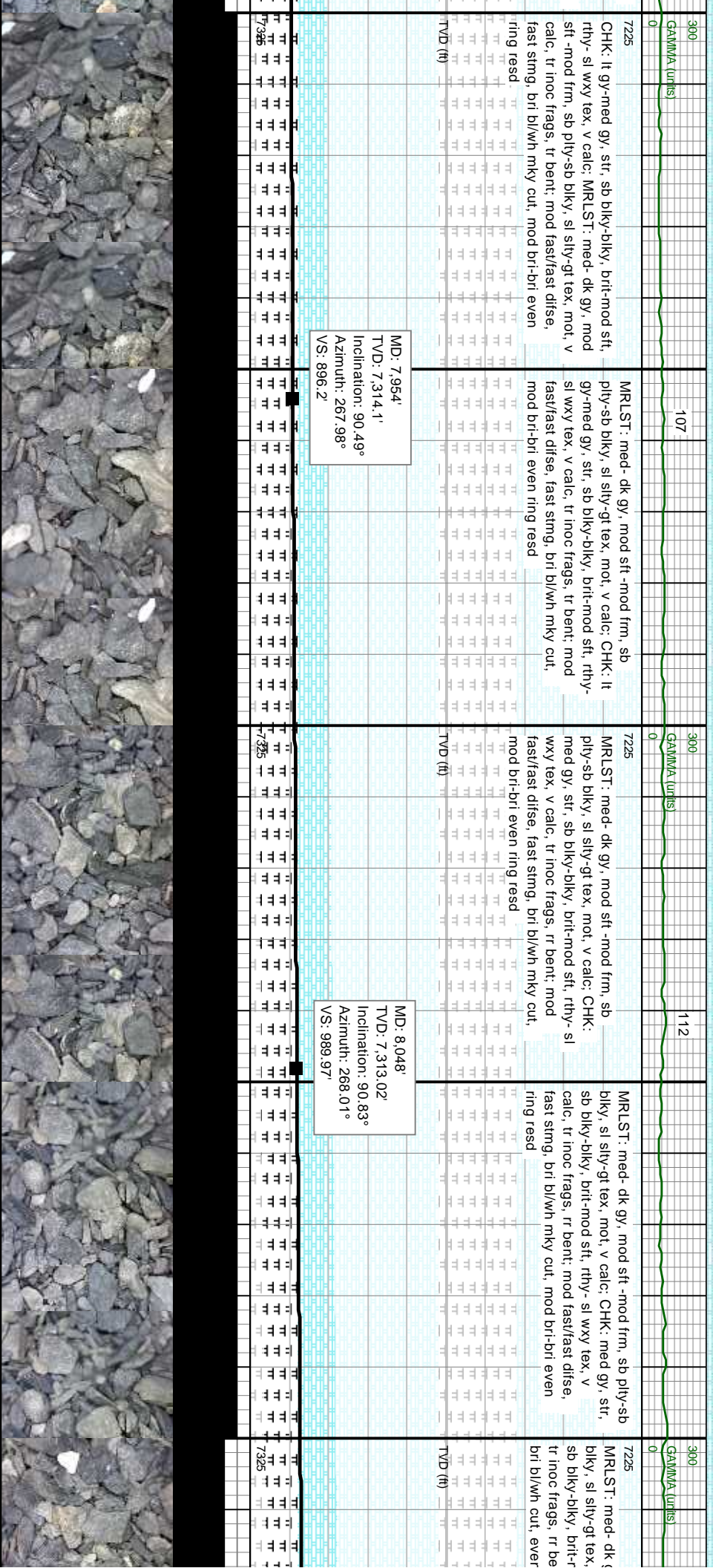


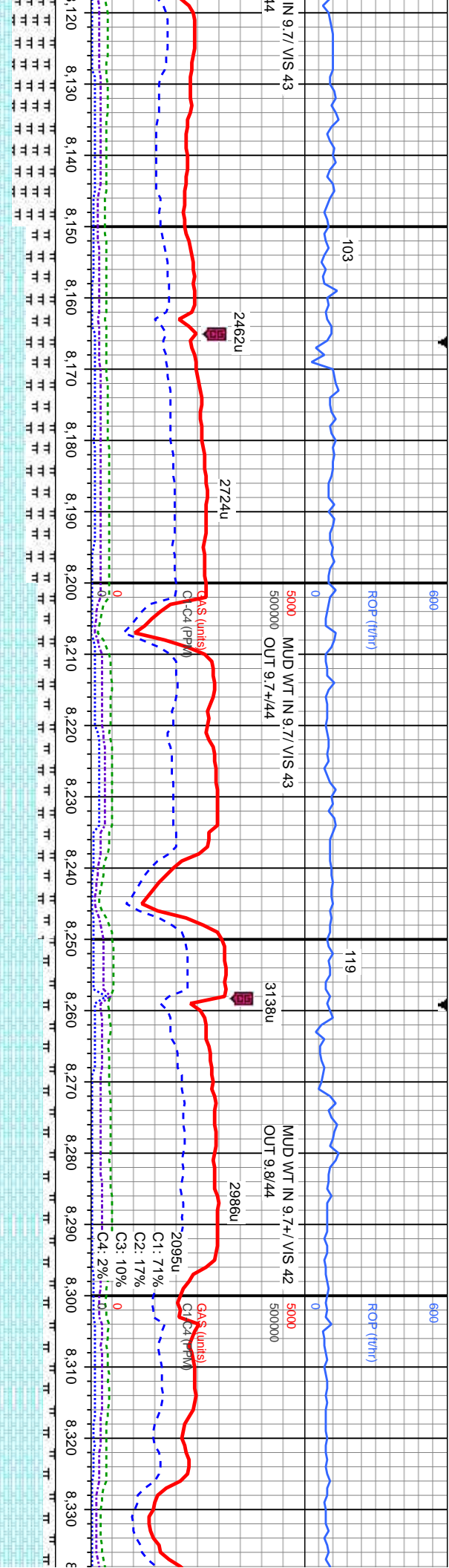






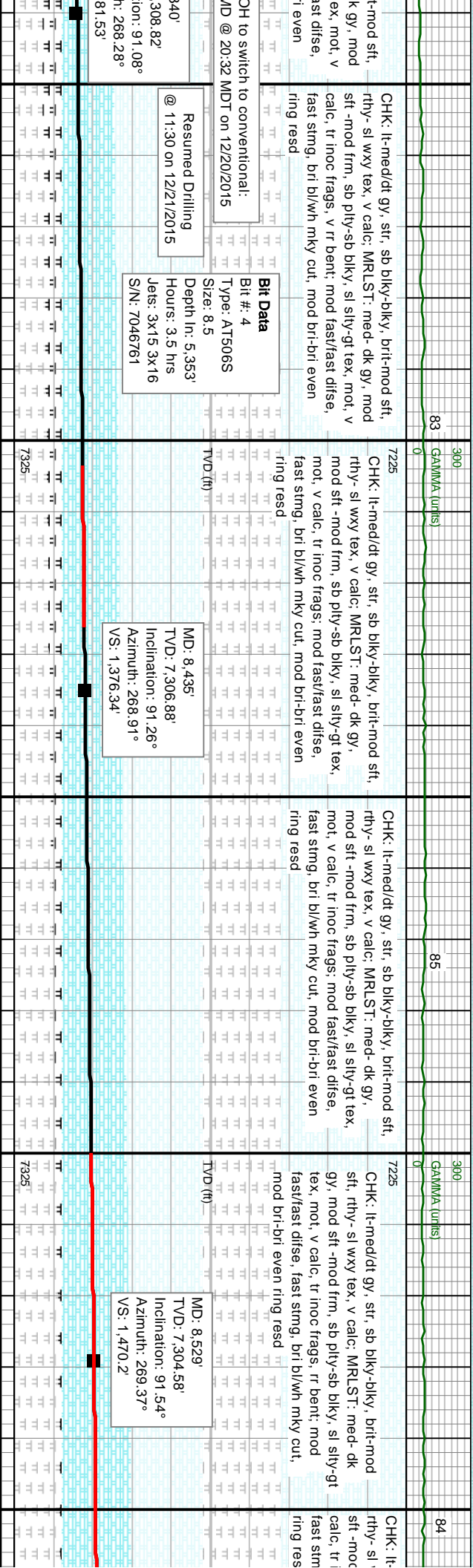


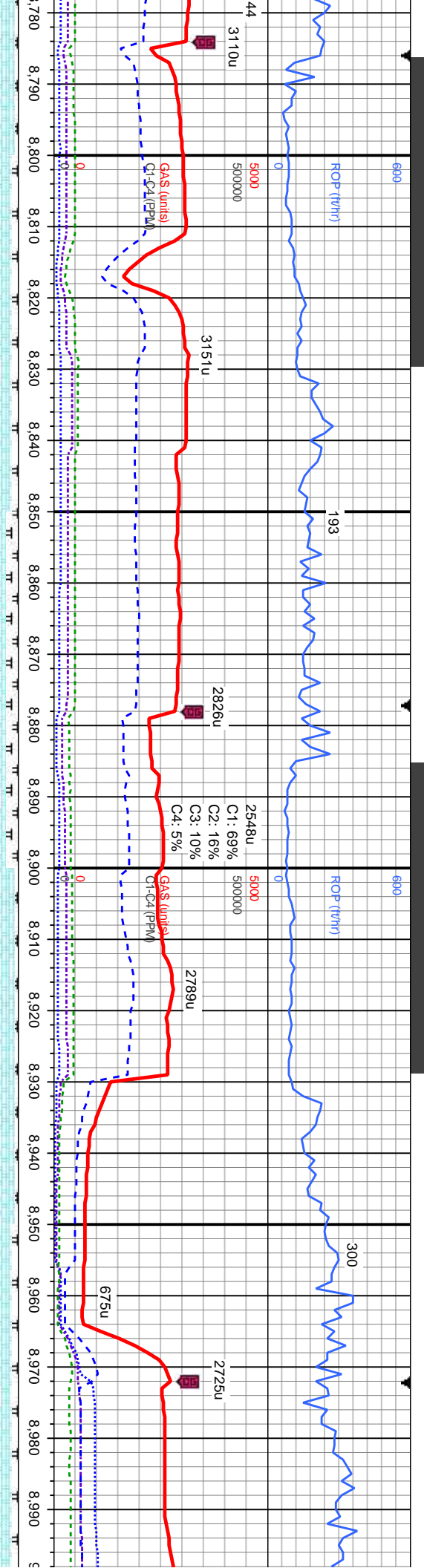




115	CHK: med-dt gy, str, sb blkly-blky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med-dk gy, mod sft -mod frm, sb ply-sb blkly, sl sily-gt tex, mot, v calc, rr inoc frags, v rr bent; mod disse, fast stmg, mod bri bl/wt cut, even mod thk ring resd	7225	CHK: med-dt gy, lt gy, str, sb blkly-blky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med-dk gy, mod sft -mod frm, sb ply-sb blkly, sl sily-gt tex, mot, v calc, rr inoc frags, v rr bent; mod fast/fast disse, fast stmg, bri bl/wt mky cut, mod bri-bri even ring resd	7225	CHK: lt-med/dt gy, str, sb blkly-blky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med-dk gy, mod sft -mod frm, sb ply-sb blkly, sl sily-gt tex, mot, v calc, tr inoc frags, v rr bent; mod fast/fast disse, fast stmg, bri bl/wt mky cut, mod bri-bri even ring resd
115	MD: 8,142' TVD: 7,311.5' Inclination: 91.02° Azimuth: 269.37° VS: 1,083.8'	7225	MD: 8,237' TVD: 7,310.22' Inclination: 90.52° Azimuth: 269.04° VS: 1,178.68'	7225	MD: 8,332' TVD: 7,310.22' Inclination: 90.52° Azimuth: 269.04° VS: 1,178.68'

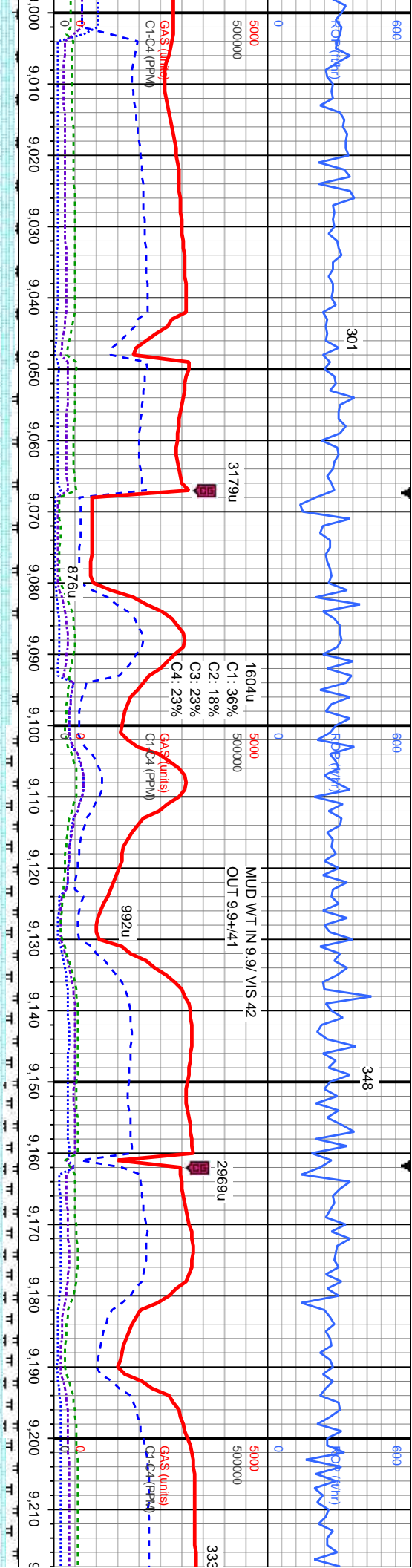




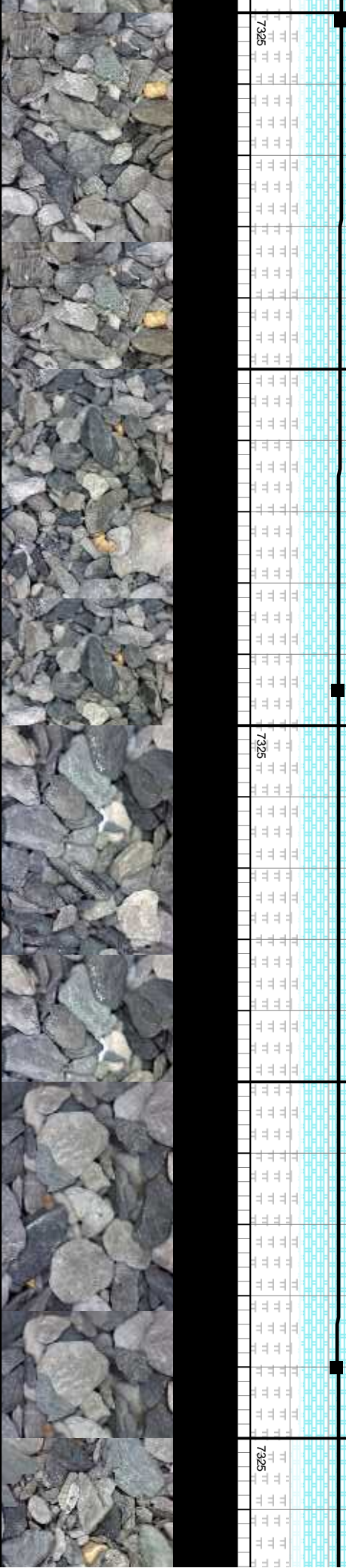


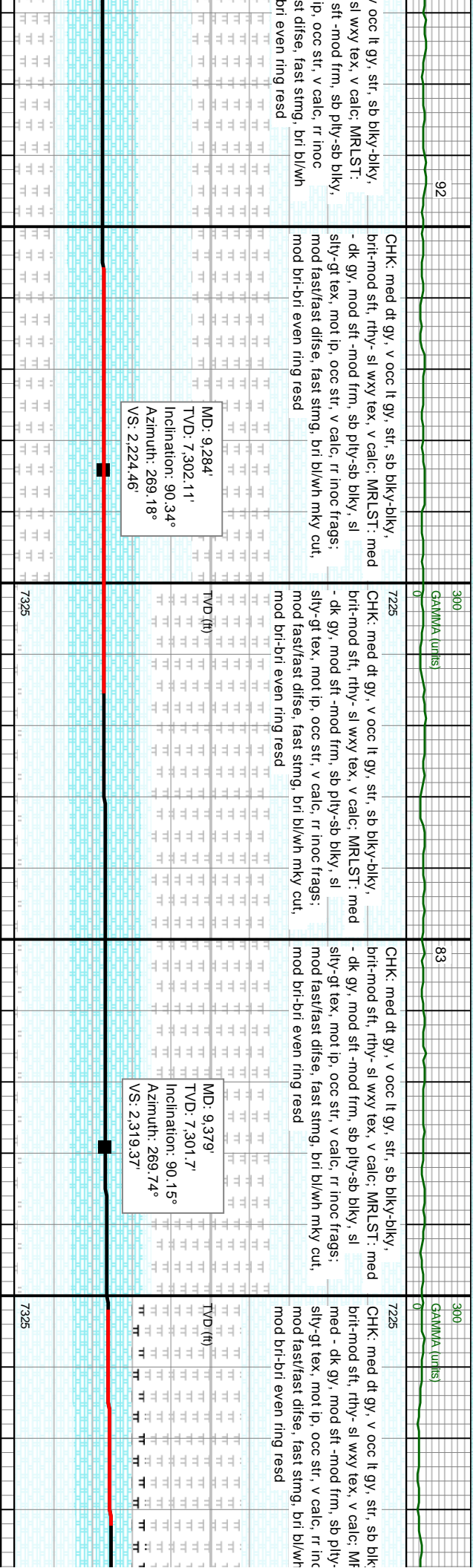
str, sb blkly-blky, v calc: MRLST: m, sb ply-sb blkly, sl inoc frags; mod bl/wh mky cut, mod		7225	CHK: med dt gy, v occ lt gy, str, sb blkly-blky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med-dk gy, mod sft -mod frm, sb ply-sb blkly, sl sily-gt tex, mot ip, occ str, v calc, tr inoc frags, rr yel min flor; mod fast/fast difse, fast stmg, bri bl/wh mky cut, mod bri-bri even ring resd	64	7225	CHK: med dt gy, v occ lt gy, str, sb blkly-blky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med-dk gy, mod sft -mod frm, sb ply-sb blkly, sl sily-gt tex, mot ip, occ str, v calc, tr inoc frags, rr yel min flor; mod fast/fast difse, fast stmg, bri bl/wh mky cut, mod bri-bri even ring resd	84	CHK: med dt gy, v occ lt gy, str, sb blkly-blky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med-dk gy, mod sft -mod frm, sb ply-sb blkly, sl sily-gt tex, mot ip, occ str, v calc, tr inoc frags; mod fast/fast difse, fast stmg, bri bl/wh mky cut, mod bri-bri even ring resd
MD: 8.813' TVD: 7,300.56' Inclination: 90.25° Azimuth: 269.13° VS: 1,753.92'		7325			7325			

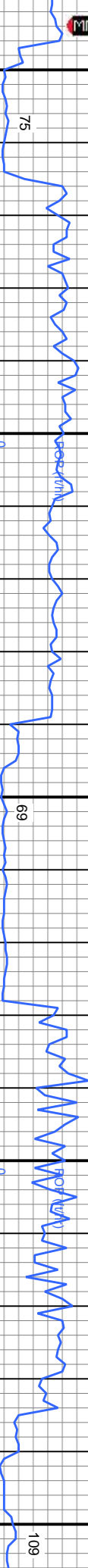




300	GA(MMA (units)	82	300	GA(MMA (units)	84	300	GA(MMA (units)
0			0			0	
7225	CHK: med dt gy, v occ lt gy, str, sb blk-y-biky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med -dk gy, mod sft -mod frm, sb ply-sb biky, sl sily-gt tex, mot ip, occ str, v calc, tr inoc frags; mod fast/last difse, fast sting, bri bl/wlh mky cut, mod bri-bri even ring resd		7225	CHK: med dt gy, v occ lt gy, str, sb blk-y-biky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med -dk gy, mod sft -mod frm, sb ply-sb biky, sl sily-gt tex, mot ip, occ str, v calc, tr inoc frags; mod fast/last difse, fast sting, bri bl/wlh mky cut, mod bri-bri even ring resd		7225	CHK: med dt gy, v occ lt gy, str, sb blk-y-biky, brit-mod sft, rthy-sl wxy tex, v calc: MRLST: med -dk gy, mod sft -mod frm, sb ply-sb biky, sl sily-gt tex, mot ip, occ str, v calc, tr inoc frags; mod fast/last difse, fast sting, bri bl/wlh mky cut, mod bri-bri even ring resd
001'							
301.61'							
MD: 9.095'							
TVD: 7,302.59'							
Inclination: 89.17°							
Azimuth: 270.72°							
VS: 2.036.76'							
MD: 9.190'							
TVD: 7,302.64'							
Inclination: 89.63°							
Azimuth: 269.86°							
VS: 2.036.76'							
MD: 9.190'							
TVD: 7,302.64'							
Inclination: 89.31°							
Azimuth: 268.09°							
VS: 2.130.62'							







MUD WT IN 9.9/ VIS 41
OUT 9.9/41

2474u
C1: 66%
C2: 17%
C3: 11%
C4: 6%

GA\$ (units)
C1-C4 (PPM)

2443u

3148u

MUD WT IN 9.9/ VIS 41
OUT 9.9/41

5000
5000000

GA\$ (units)
C1-C4 (PPM)

1646u

109

MD: 9.474'
TVD: 7,299.38'
Inclination: 92.65°
Azimuth: 271.28°
VS: 2,414.3'

CHK: med dt gy, v occ lt gy, str, sb blk-y-blky, brit-mod sft, rthy-slt wxy tex, v calc: MRLST: med - dk gy, mod sft -mod frm, sb ply-sb blk-y, sltly-gt tex, mot ip, occ str, v calc, tr inoc frags: mod fast/fast difse, fast stmg, bri bl/wh mky cut, mod bri-bri even ring resd

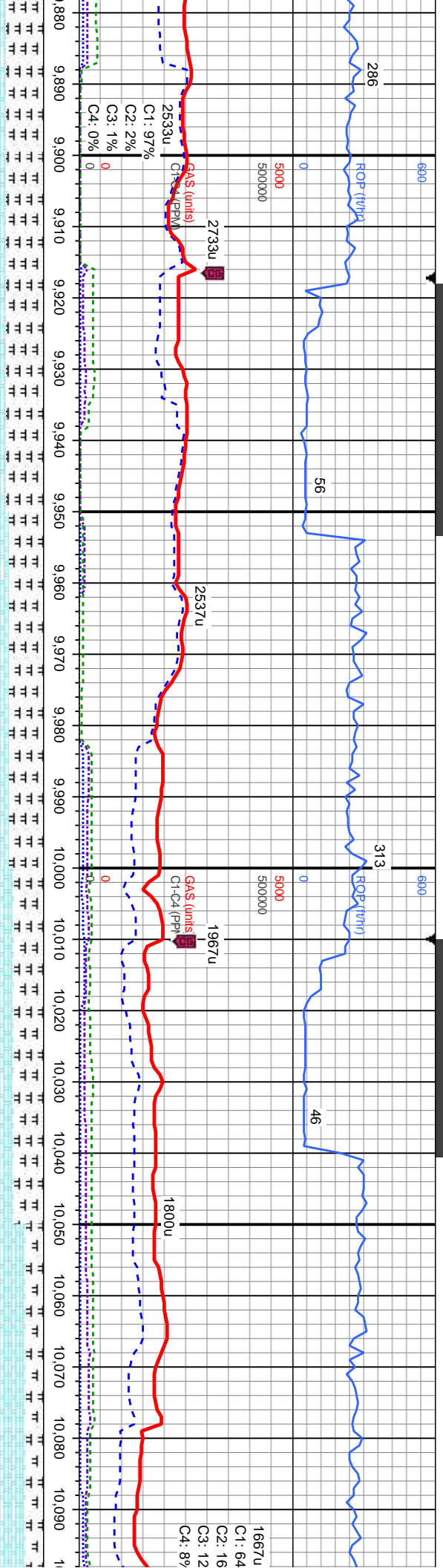
MD: 9.568'
TVD: 7,295.08'
Inclination: 92.59°
Azimuth: 271.2°
VS: 2,508.2'

MRSLT: pred dk gy, occ med gy, mod sft-mod frm, sb ply-sb blk-y, ply ip, sltly-gt tex, mot ip, v calc: CHK: med/dt gy, sb blk-y-blky, rthy-wxy tex, v calc, tr inoc frags: mod fast/fast difse, fast stmg, bri bl/wh mky cut, mod bri-bri even ring resd

MD: 9.568'
TVD: 7,295.08'
Inclination: 92.59°
Azimuth: 271.2°
VS: 2,508.2'

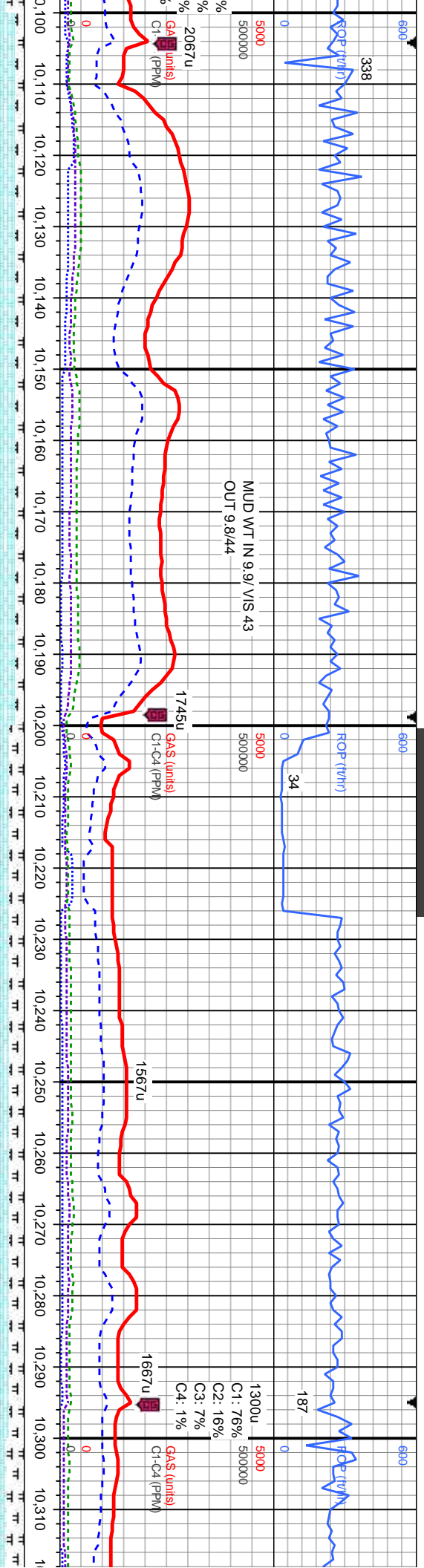
MRSLT: pred dk gy, occ med gy, mod sft-mod frm, sb ply-sb blk-y, ply ip, sltly-gt tex, mot ip, v calc: CHK: med/dt gy, sb blk-y-blky, rthy-wxy tex, v calc, tr inoc frags: mod fast/fast difse, fast stmg, bri bl/wh mky cut, even mod thk ring resd

MD: 9.568'
TVD: 7,295.08'
Inclination: 92.59°
Azimuth: 271.2°
VS: 2,508.2'



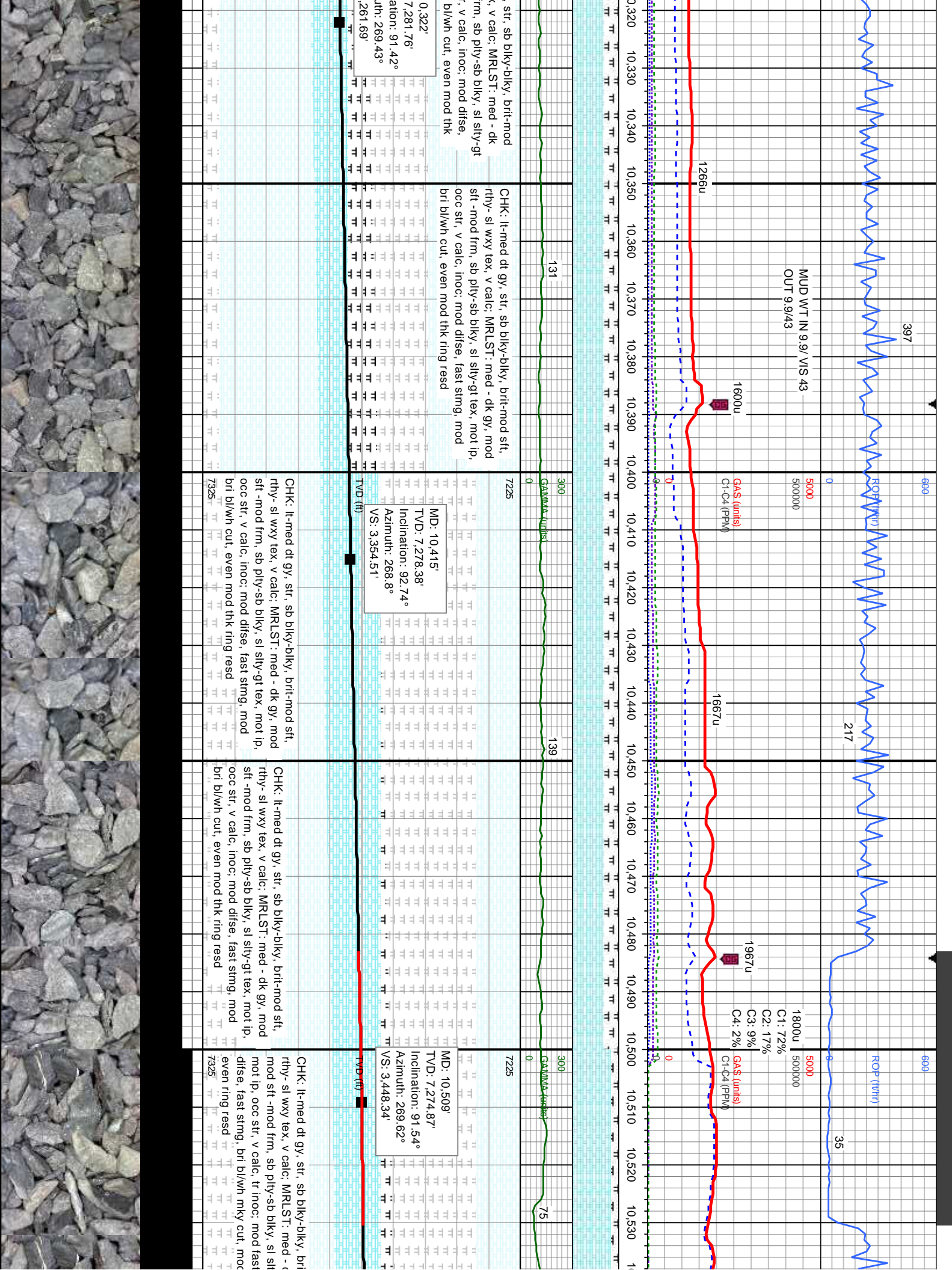
d gy, mod sft-mod sily-gt tex, mot ip, biky-biky, rthy-wxy mod difse, fast mod thk ring	7225	MR.LST: pred dk gy, ooc med gy, mod sft-mod frm, sb ply- sb biky, ply ip, sily-gt tex, mot ip, v calc: CHK: lt-med gy, sb biky-biky, rthy-wxy tex, v calc, inoc frags, tr bent; mod fast/fast difse, fast stmg, bri bl/wh mky cut, mod bri-bri even ring resd	MD: 9.945' TVD: 7,286.73' Inclination: 90.31° Azimuth: 269.64° VS: 2,884.97'	TVD (ft)	7325
d gy, mod sft-mod sily-gt tex, mot ip, biky-biky, rthy-wxy mod difse, fast mod thk ring	7225	MR.LST: pred dk gy, ooc med gy, mod sft-mod frm, sb ply- sb biky, ply ip, sily-gt tex, mot ip, v calc: CHK: lt-med gy, sb biky-biky, rthy-wxy tex, fast stmg, bri bl/wh mky cut, mod bri-bri even ring resd	MD: 10.038' TVD: 7,286.43' Inclination: 90.06° Azimuth: 270.3° VS: 2,977.92'	TVD (ft)	7325

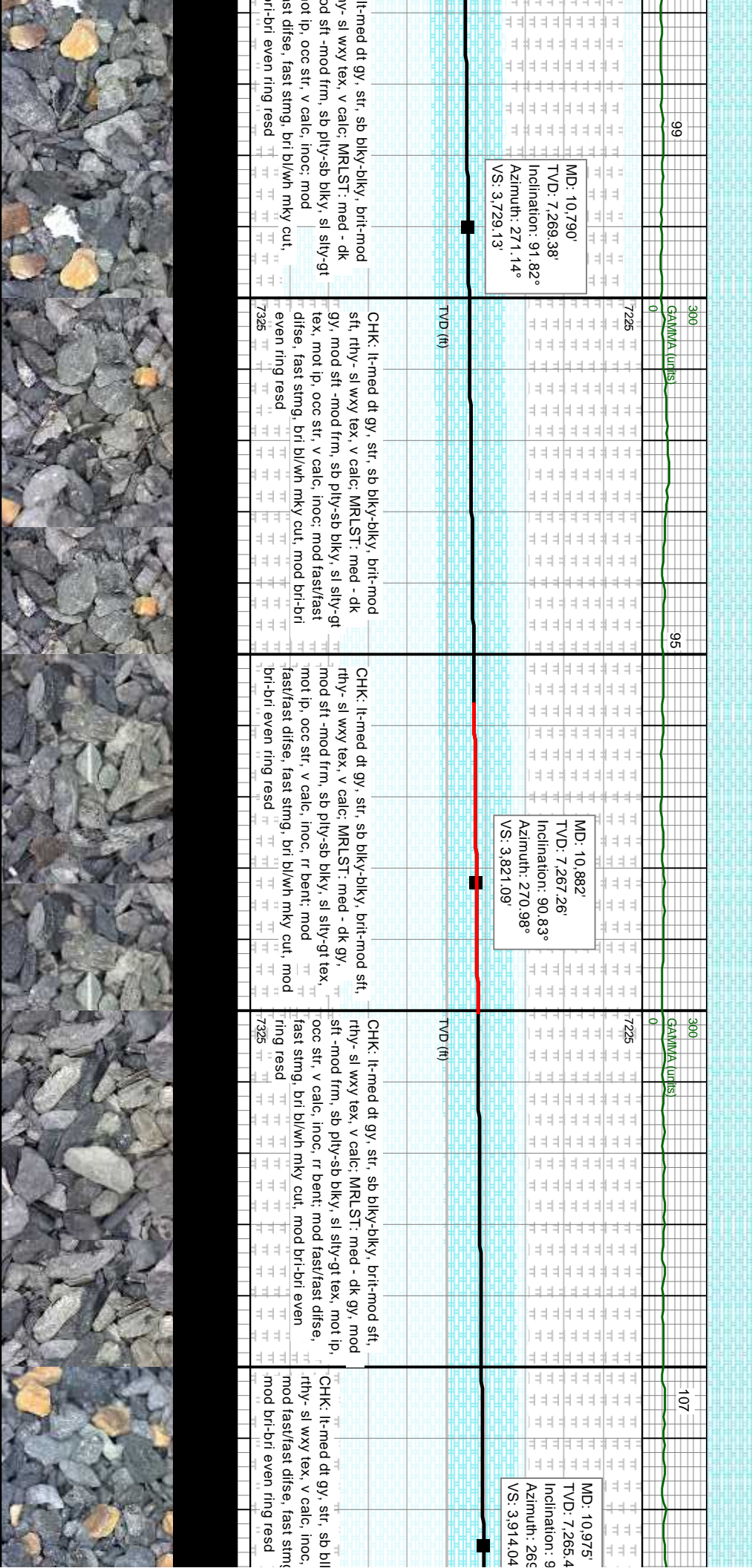


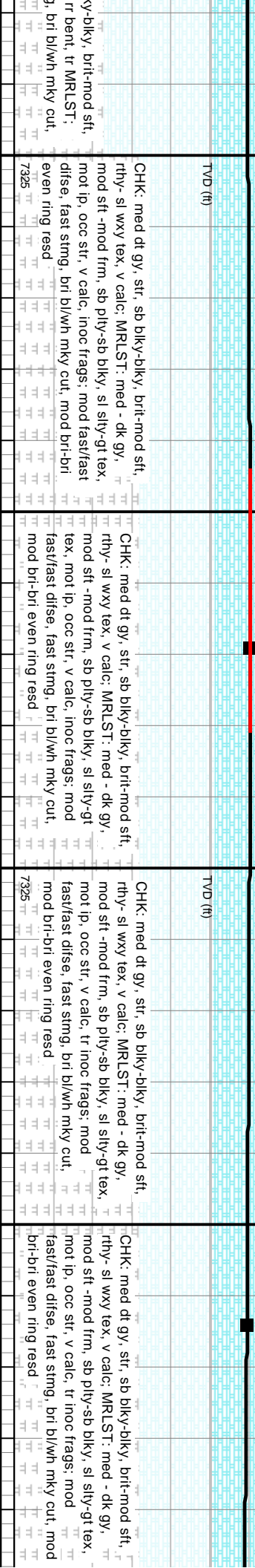
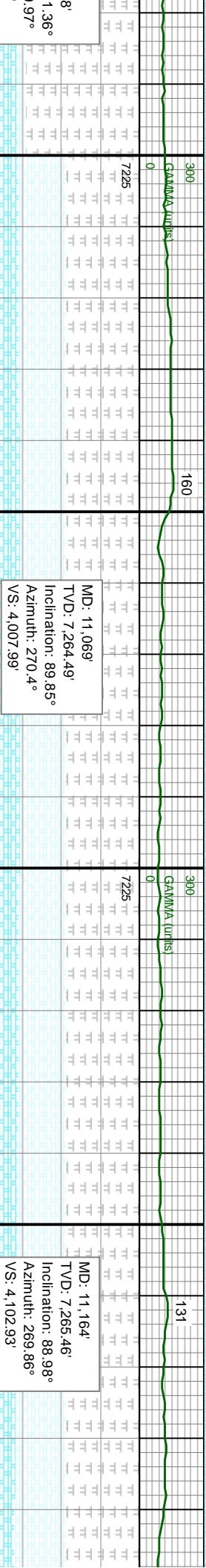
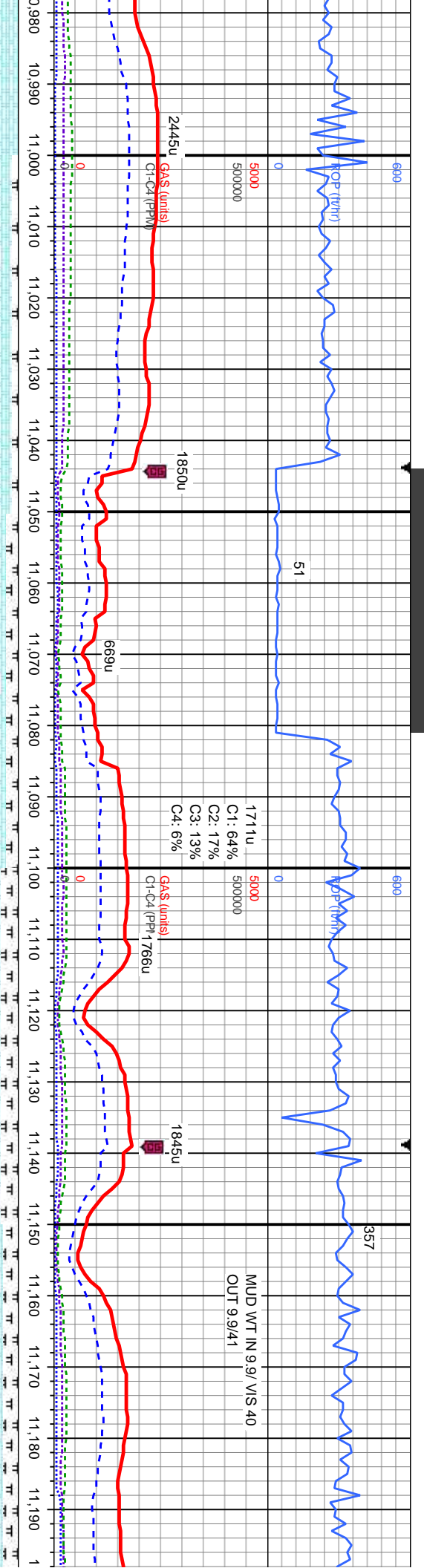


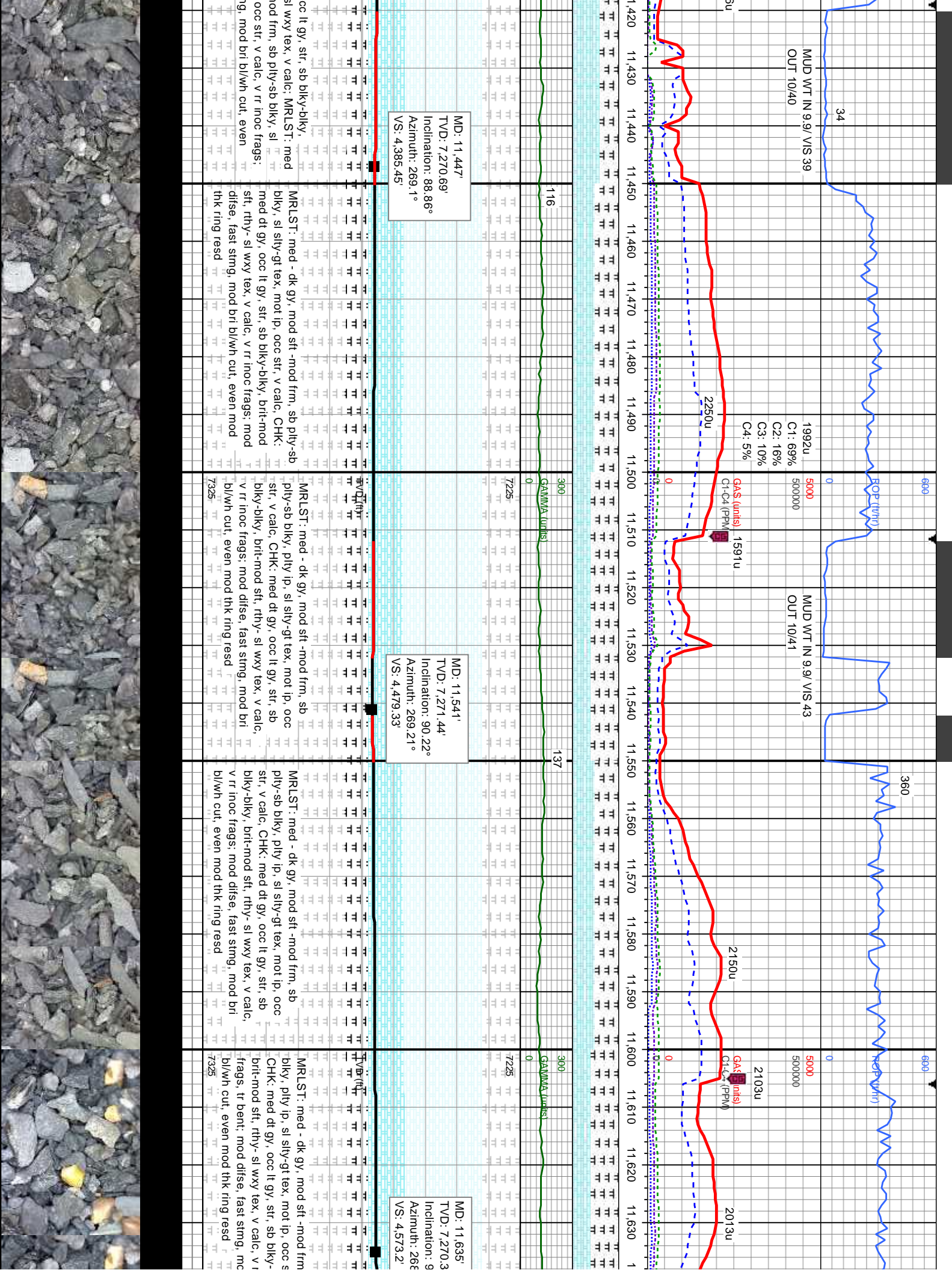
7225	CHK: It-med dt gy, str, sb blk-y-bkly, brit-mod sft, rthy- sl wxy tex, v calc: MRLST: med - dk gy, mod sft -mod frm, sb ply-sb blk-y, sl sily-gt tex, mot ip, occ str, v calc, incc: mod fast/fast difse, fast sting, bri bl/wh mky cut, mod bri-bri even ring resd	MD: 10.133' TVD: 7.285.31' Inclination: 91.29° Azimuth: 270.24° VS: 3.072.87'	7225	CHK: It-med dt gy, str, sb blk-y-bkly, brit-mod sft, rthy- sl wxy tex, v calc: MRLST: med - dk gy, mod sft -mod frm, sb ply-sb blk-y, sl sily-gt tex, mot ip, occ str, v calc, incc: mod fast/fast difse, fast sting, bri bl/wh mky cut, mod bri-bri even ring resd	MD: 10.228' TVD: 7.283.58' Inclination: 90.8° Azimuth: 269.72° VS: 3.167.79'	7225	CHK: It-med dt gy, str, sb blk-y-bkly, brit-mod sft, rthy- sl wxy tex, v calc: MRLST: med - dk gy, mod sft -mod frm, sb ply-sb blk-y, sl sily-gt tex, mot ip, occ str, v calc, incc: mod fast/fast difse, fast sting, bri bl/wh mky cut, mod bri-bri even ring resd	MD: 10.228' TVD: 7.283.58' Inclination: 90.8° Azimuth: 269.72° VS: 3.167.79'	7225	CHK: It-med dt gy, str, sb blk-y-bkly, brit-mod sft, rthy- sl wxy tex, v calc: MRLST: med - dk gy, mod sft -mod frm, sb ply-sb blk-y, sl sily-gt tex, mot ip, occ str, v calc, incc: mod fast/fast difse, fast sting, bri bl/wh mky cut, mod bri-bri even ring resd	MD: 10.228' TVD: 7.283.58' Inclination: 90.8° Azimuth: 269.72° VS: 3.167.79'
300			300			300			300		
GAMMA (units)	95		GAMMA (units)	141		GAMMA (units)	112		GAMMA (units)		
0			0			0			0		











12/23/2015

246

348

310

TOP (TWH)

MIDDEPTH

529u
C1: 63%
C2: 18%
C3: 12%
C4: 7%

MUD WT IN 9.9/ VIS 42
OUT 9.9/42

MUD WT IN 9.9/ VIS 43
OUT 9.9/43

1045u

1675u

1384u

GAS (units)
C1-C4 (PPM)

GAS (units)
C1-C4 (PPM)

125

119

126

MD: 11,730'
TVD: 7,269.12'
Inclination: 90.25°
Azimuth: 267.86°
VS: 4.667.99

MD: 11,824'
TVD: 7,267.89'
Inclination: 91.26°
Azimuth: 268.5°
VS: 4.761.78

sb ply-sb
tr v calc,
ply-sb
r inoc
d bri

MRLST: med - dk gy, mod sft -mod frm, sb
ply-sb blkly, ply ip, sl sily-gt tex, mot ip, occ str,
v calc, CHK: med dt gy, occ lt gy, str, sb
blkly-bkly, brit-mod sft, rthy- sl wxy tex, v calc, v
rr inoc frags, tr bent; mod difse, fast sting, mod
bri bl/wh cut, even mod thk ring resd

MRLST: med - dk gy, mod sft -mod frm, sb ply-sb
blkly, ply ip, sl sily-gt tex, mot ip, occ str, v calc,
CHK: med dt gy, occ lt gy, str, sb blkly-bkly,
brit-mod sft, rthy- sl wxy tex, v calc, v rr inoc
frags: mod difse, fast sting, mod bri bl/wh cut,
even mod thk ring resd

MRLST: med - dk gy, mod sft -mod frm, sb ply-sb
blkly, ply ip, sl sily-gt tex, mot ip, occ str, v calc,
CHK: med dt gy, occ lt gy, str, sb blkly-bkly,
brit-mod sft, rthy- sl wxy tex, v calc, v rr inoc
frags: mod difse, fast sting, mod bri bl/wh cut,
even mod thk ring resd

MRLST: med - dk gy, mod sft -mod frm, sb
ply-sb blkly, ply ip, sl sily-gt tex, mot ip, occ
str, v calc, CHK: med dt gy, str, sb blkly-bkly,
brit-mod sft, rthy- sl wxy tex, v calc, v rr inoc
frags: mod difse, fast sting, mod bri bl/wh cut,
even mod thk ring resd

MRLST: med - dk gy, mod sft -mod frm, sb
blkly, p
CHK: n
rthy- sl
difse, f
thk ring

1.17°
1.76°



