



Scale: 5" / 100'
Measured Depth Log

Well Name	Resolute E25-63-1HN		
Location	SESE SEC26 T6N R65W		
State	COLORADO	County	WELD
Country	USA	Rig Number	PRECISION 828
API Number	05-123-38155	Field	WATTENBERG
Region	DENVER JULESBURG BASIN		
Spud Date	6/7/2014		
Surface Coordinates	328' FSL, 280' FEL	Lat/Long:	40.45059/-104.62175
Ground Elevation	4676'	K.B. Elevation	4692'
Logged Interval	6200'		
Formation	TEEPÉE BUTTES, SHARON SPRINGS, NIOBRARA		
Type of Drilling Fluid	LSND		

Operator

Company NOBLE ENERGY INC.
Address 1625 Broadway
Denver, CO 80202

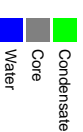
Geologist

Name EVAN HOWELL
Company NOBLE ENERGY INC.
Address 1625 Broadway
Denver, CO 80202

Other

WELLSITE GEOLOGISTS: GARY MYERS, C

Zone Color Coding



Rock Types

UNKNOWN	COAL	MARLSTONE	SHALY SANDSTONE
ANHYDRITE	CONGLOMERATE	METAMORPHIC	SHALY SILTSTONE
BENTONITE	DOLOMITE	NO SAMPLE	SILTY SHALE
BRECCIA	DOLOMITIC LIMESTONE	SALT	SILTSTONE
CHALK	GRANITE	SANDSTONE	TILL
CEMENT	GYPSUM	SALT-PEPPER SAND	TUFF
CHERT	IGNEOUS	SHALE	WELDED TUFF
CLAY CHOKE SAND	SIDERITE or LIMONITE	SHALE COLORED	
CLAYSTONE	LIMESTONE	SHALE GRAY	

Accessories

GASTROPOD	ARGILLITE GRAIN	HEAVY MINERAL	ANHYDRITE STRINGER
INOCERAMUS	BENTONITE	KAOLIN	BENTONITE STRINGER
OOLITE	BITUMENOUS SUBSTANCE	MARLSTONE	COAL STRINGER
OSTRACOD	BRECCIA FRAGMENTS	MICACEOUS	DOLOMITE STRINGER
PELECYPOD	CALCAREOUS	MINERAL CRYSTALS	GYPSUM STRINGER
PELLET	CARBONACEOUS FLAKES	NODULES	LIMESTONE STRINGER
PISOLITE	CHTDK	PHOSPHATE PELLETS	MARLSTONE (CALC) STRG
PLANT REMAINS	CHTLT	PYRITE	MARLSTONE (DOL) STRG
PLANT SPORES	COAL - THIN BEDS	SALT CAST	SANDSTONE STRINGER
SCAPHOPOD	DOLOMITIC	SANDY	SHALE STRINGER
STROMATOPOROID	FELDSPAR	SILICEOUS	SILTSTONE STRINGER
	FERRUGINOUS PELLET	SILTY	
	FERRUGINOUS	TUFFACEOUS	
FISH			
FORAMINIFERA	ANHYDRITIC	GLAUCONITE	
FOSSIL	ARGILLACEOUS	GYPSIFEROUS	

Stringer

Oil Show

P PINPOINT
V VUGGY

Engine

D DEAD
EVEN
QUESTIONABLE
BIT
SPOTTED STAINING
CONNECTED






































Porosity

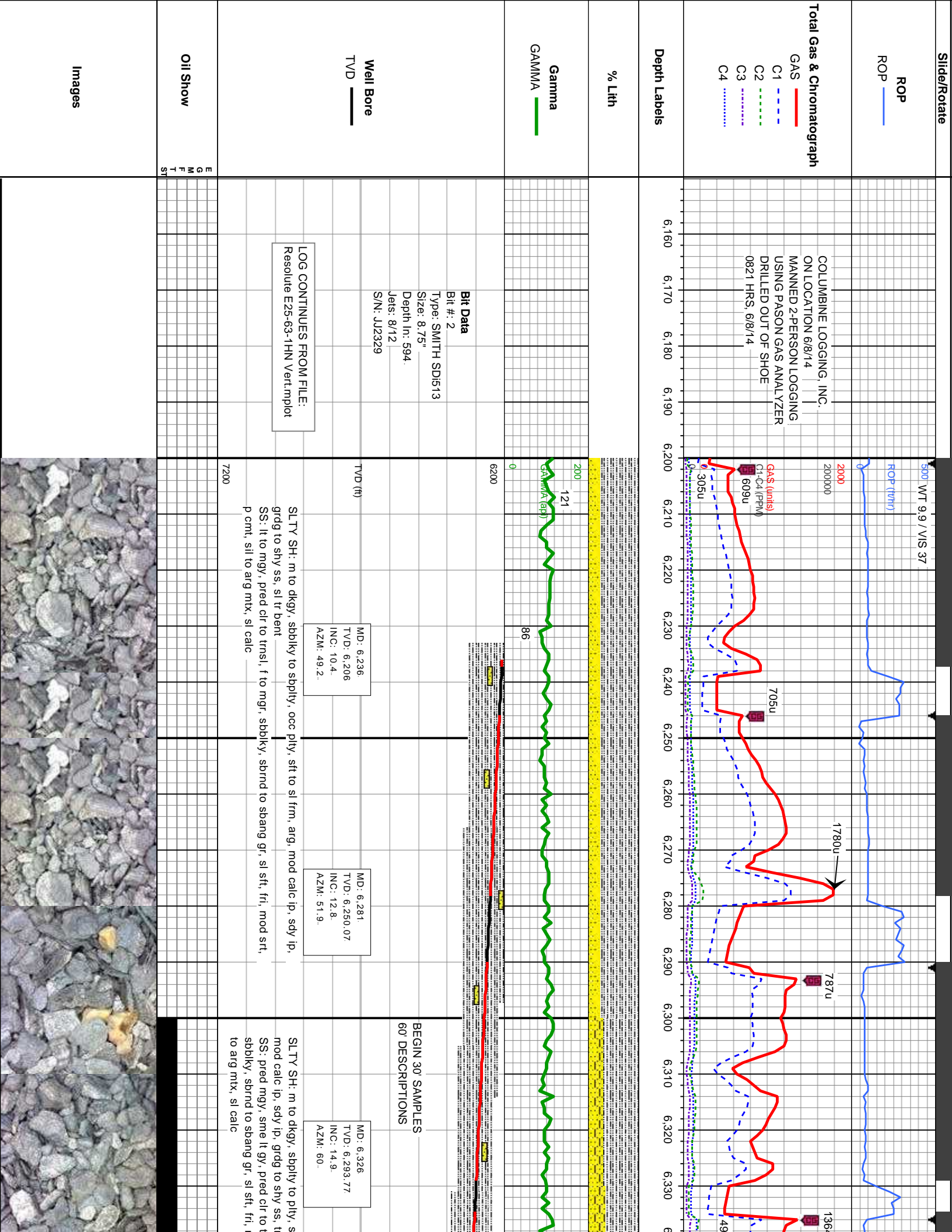
CONNECTED
E EARTHY
FENESTRAL
F FRACTURE
INTERCRYSTALLINE
INTEROOLITIC
MOLDIC
ORGANIC
CONNE
CONN
TRIP G
TRIP
DOW
CORE - L
CORE - F

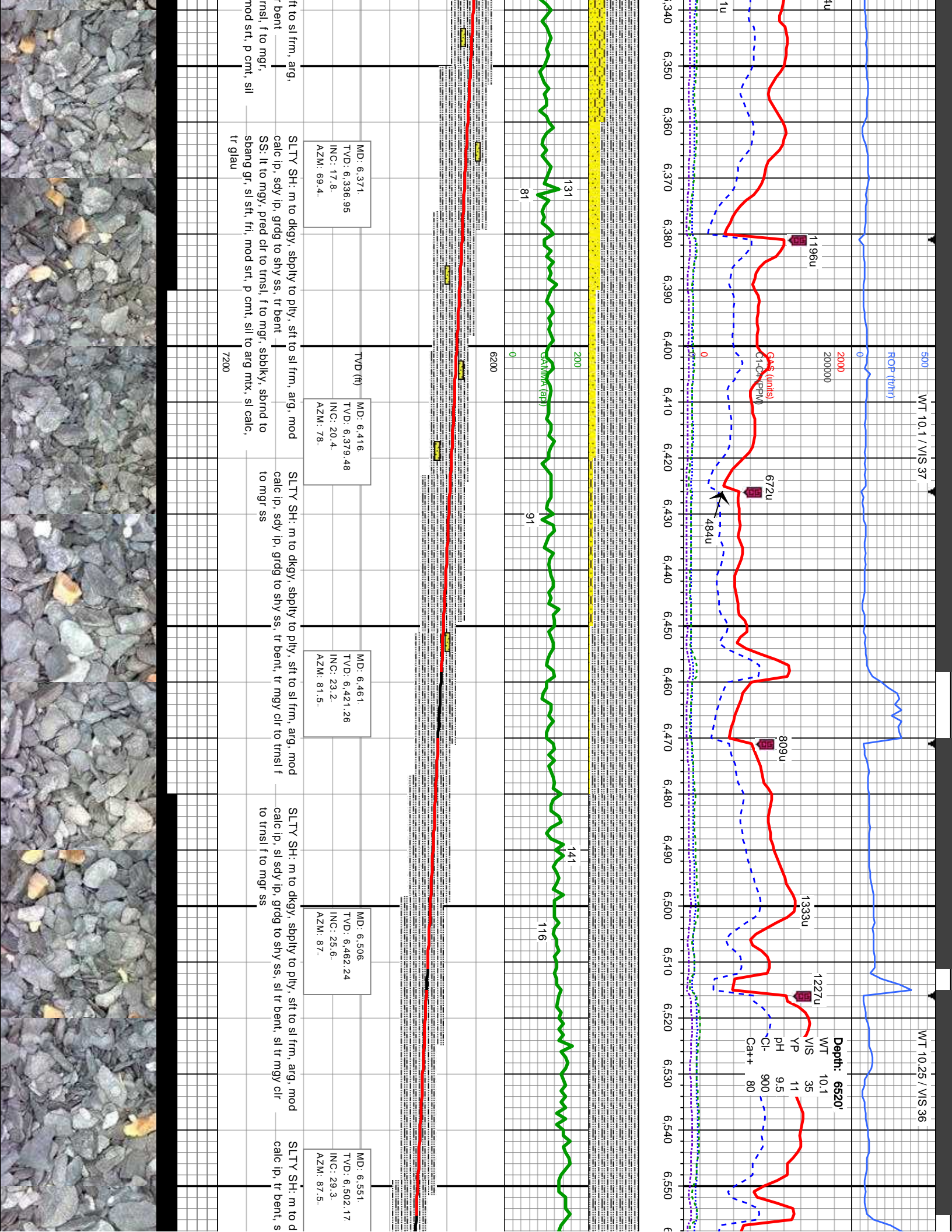
GABRIEL RUBIO

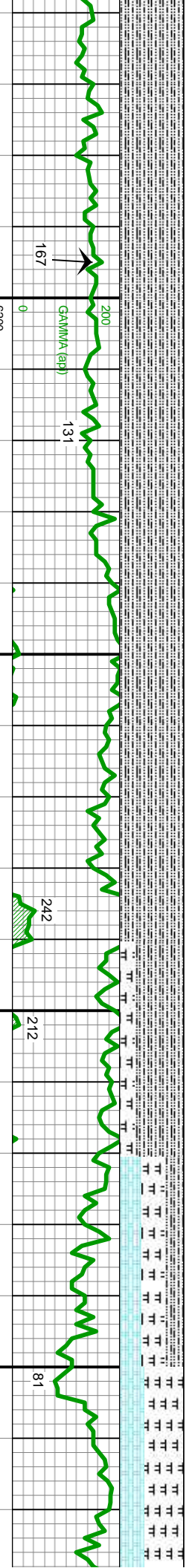
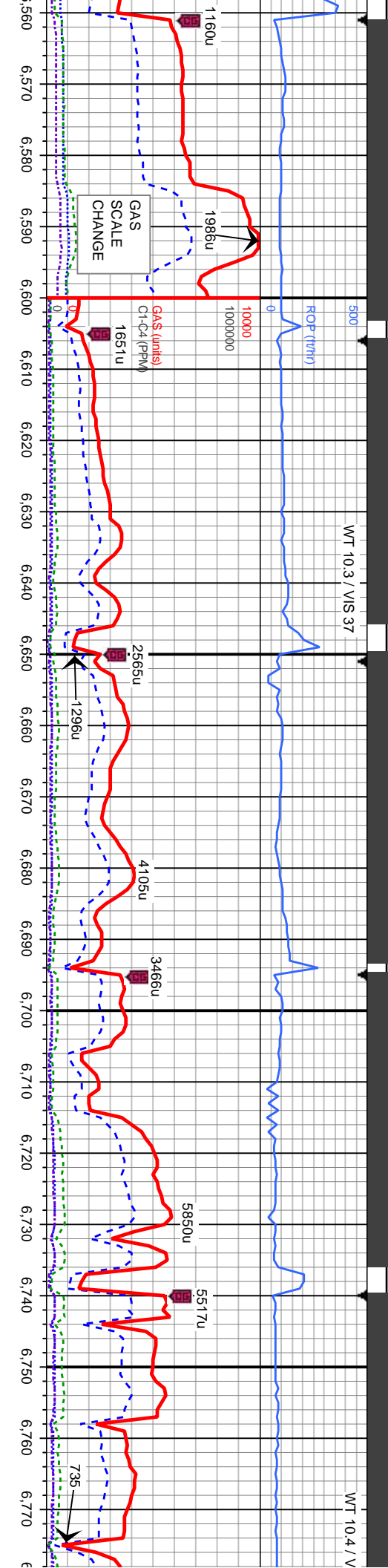
Gas
Pressure
Seal

Other Symbols

TEST		DST INTERVAL		WIRELINE TESTED - LEFT		E EARTHY
		FAULT		WIRELINE TESTED - RT		FX FINELYXLN
Sealing		FORMATION TOP		DRILL STEM TEST		GS GRAINSTONE
		GAS SHOW		MINDEPTH MN DEPTH		L LITHOGRAPHIC
		OIL SHOW				MX MICROXLN
		MINDEPTH MN DEPTH UP	Rounding			
CTION (UP)						MS MUDSTONE
CTION (DOWN)		MINDEPTH MN DEPTH (DOWN)		ANGULAR		PS PACKSTONE
CTION GAS		NORMAL FAULT		ROUNDED		WS WACKESTONE
LECTION GAS (LEFT)		OVERTURNED STRATA		SUBANG		
AS		REVERSE FAULT		SUBRID	Sorting	
GAS (LEFT)		CASING				M MODERATE
	Textures					
TIME GAS		SIDEWALL CORE (LEFT)				P POOR
N TIME GAS (LEFT)		SIDEWALL CORE (RIGHT)		BOUNDSTONE		W WELL
OST		SLIDE		CHALKY		
RECOVERED		SURVEY		CRYPTOXLN		







MD: 6.596
TVD: 6,540.65
INC: 33.1
AZM: 86.8.

MD: 6.640
TVD: 6,576.62
INC: 37.2
AZM: 87.7.

MD: 6.685
TVD: 6,611.44
INC: 41.4
AZM: 88.

MD: 6.730
TVD: 6,643.96
INC: 46.
AZM: 87.4.

MD: 6.775
TVD: 6,673
INC: 51.3
AZM: 85.7.

SHARON SPRINGS
LOWER MARKER
~6700' MD, ~6622' TVD

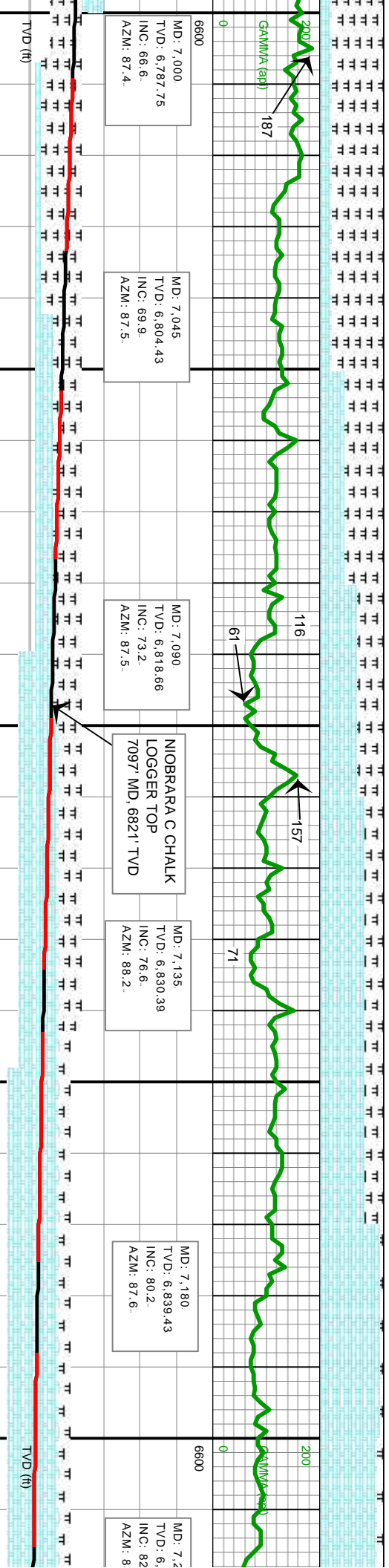
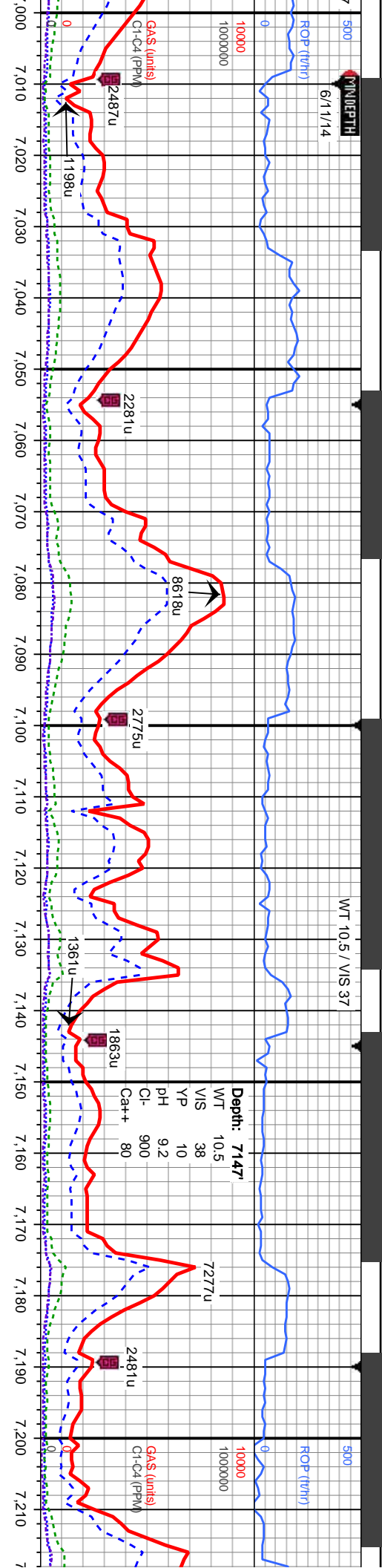
NIOBRARA A CHALK
LOGGER TOP
6721' MD, 6637' TVD

SLTY SH: m to dkgy, sbply to sbply, arg, mod
mod calc ip, tr bent, sl tr mgy cir to trns f to mgr ss

SLTY SH: pred dk gy, sme mgy, sbbky to sbply, occ
ply, sft to sl frm, arg, sl calc ip, abnt bent
MRL: m to dkgy, sft to mod frm, sb bky to sb ply, rthy
lstr, arg ip, org/calc mtx, v calc, occ mgy chk

MRL: med to dk gy, sft to mod frm, sb bky to sb ply, rth
arg ip, org/calc mtx, v calc, scat bent
CHK: pred med gy, v sft to sft, sbbky to sbply, stri tex, r
calc





MRL: med to dk gy, sft to mod frm, sb blkly to sb ply, rthy lstr, gt, arg ip, org/calc mx, v calc

CHK: pred med gy, v sft to sft, sbblkly to sbply, stri tex, rthy lstr, sl arg, v calc, cal incl

MRL: med to dk gy, sft to mod frm, sb blkly to sb ply, rthy lstr, gt, arg ip, org/calc mx, v calc, tr bent

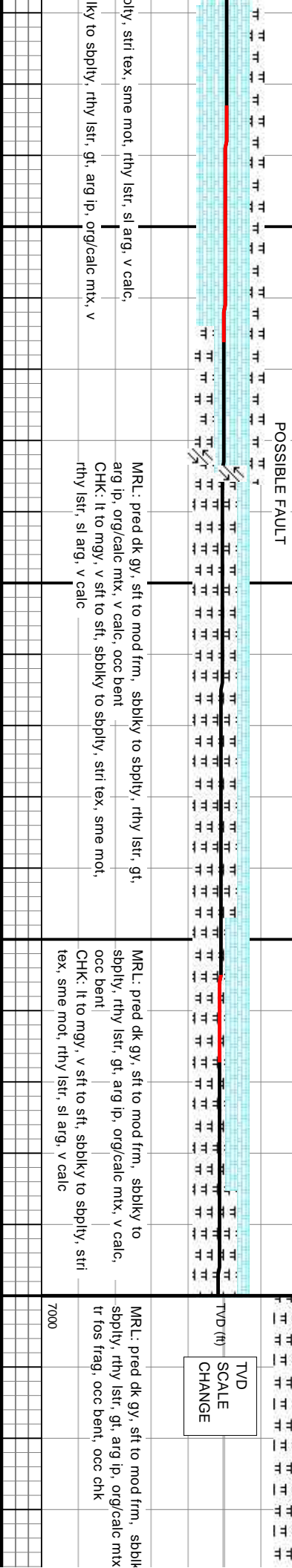
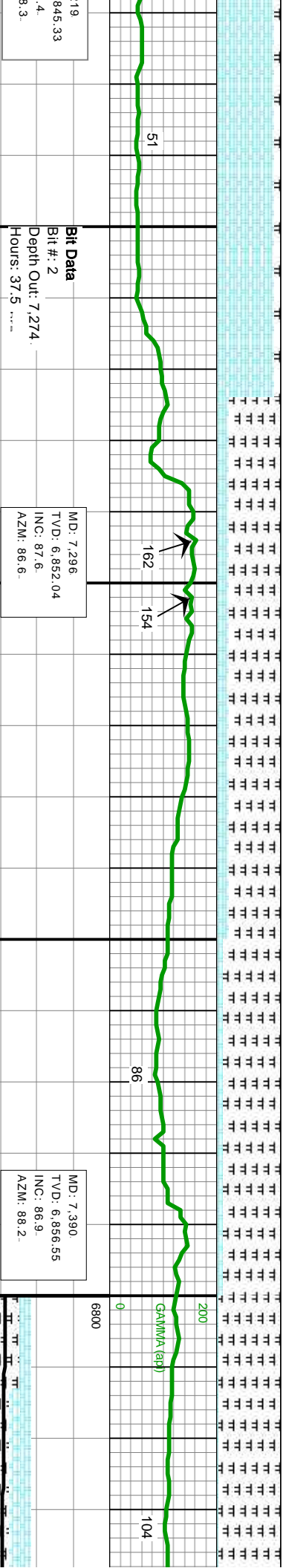
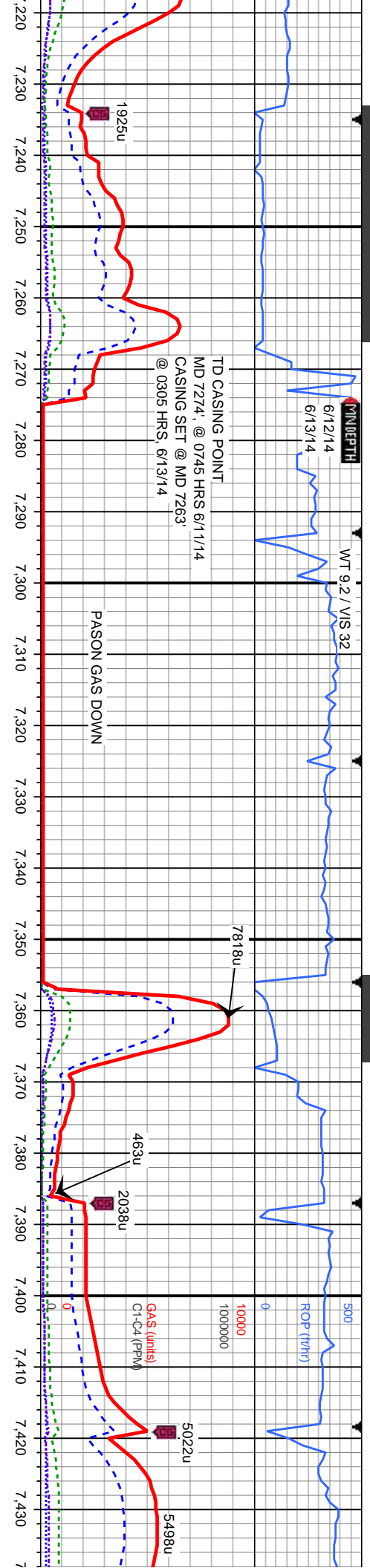
CHK: lt to mgy, v sft to sft, sbblkly to sbply, stri tex, rthy lstr, sl arg, v calc, occ cal incl

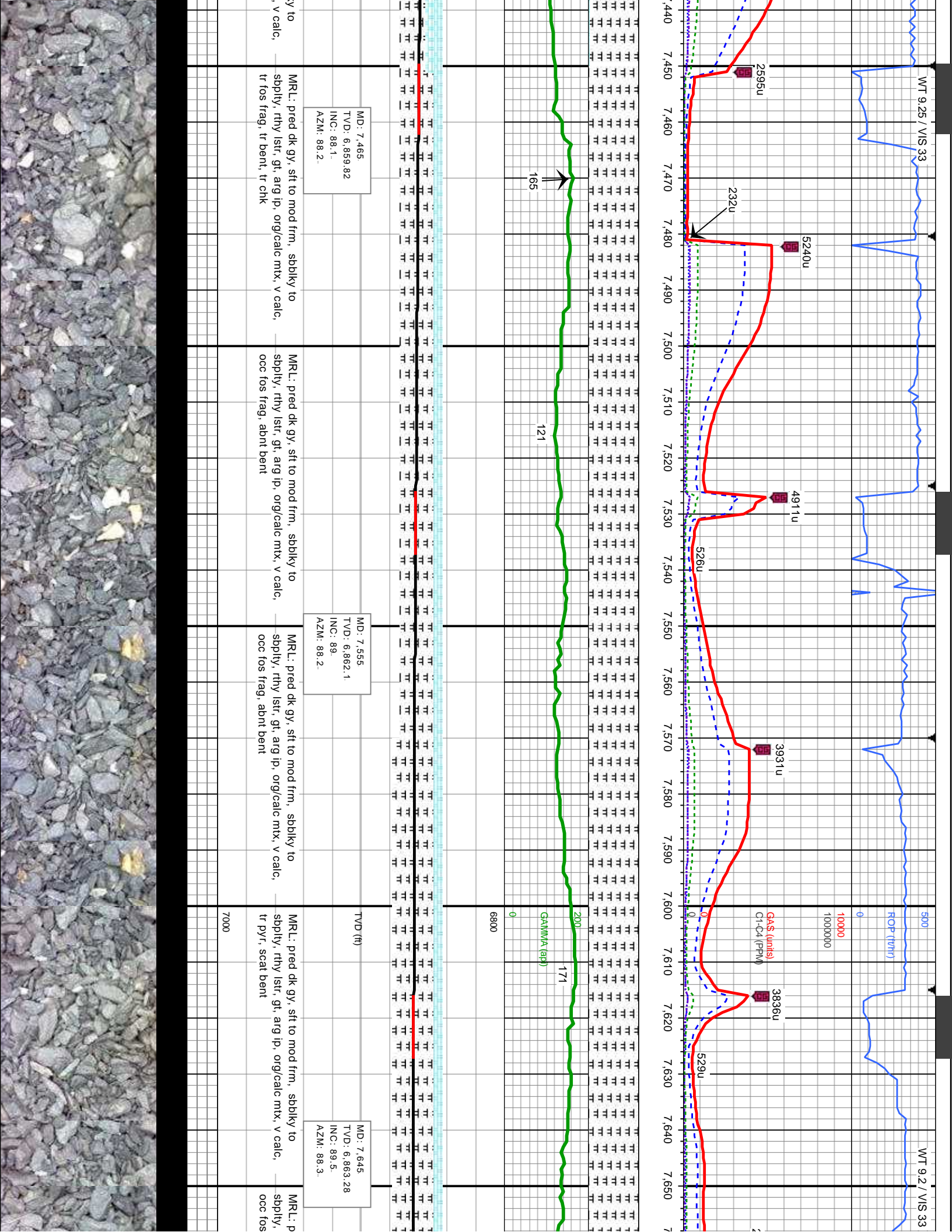
MRL: med to dk gy, sft to mod frm, sbblkly to sbply, rthy lstr, gt, arg ip, org/calc mx, v calc, tr fos frag, occ bent

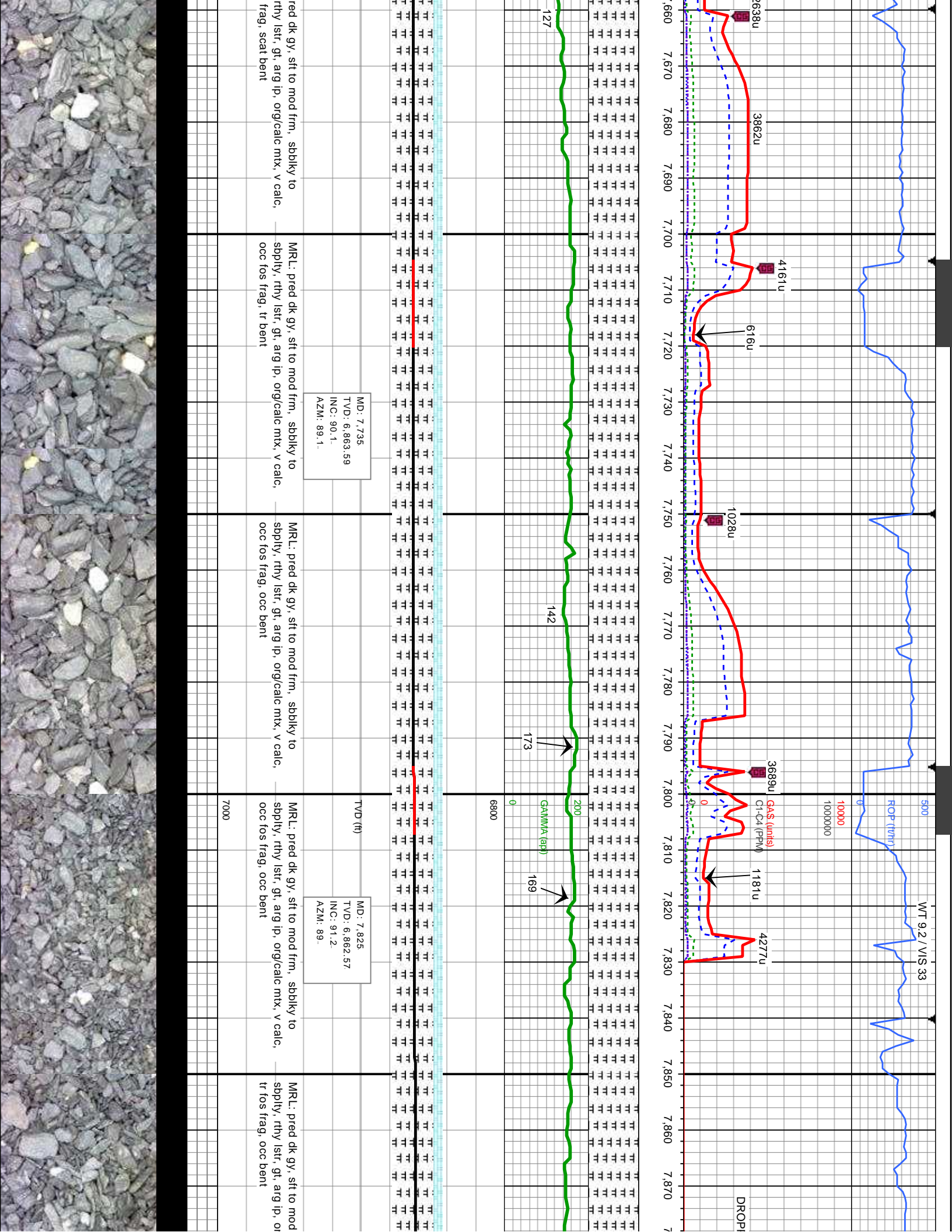
CHK: lt to mgy, v sft to sft, sbblkly to sbply, occ cal incl

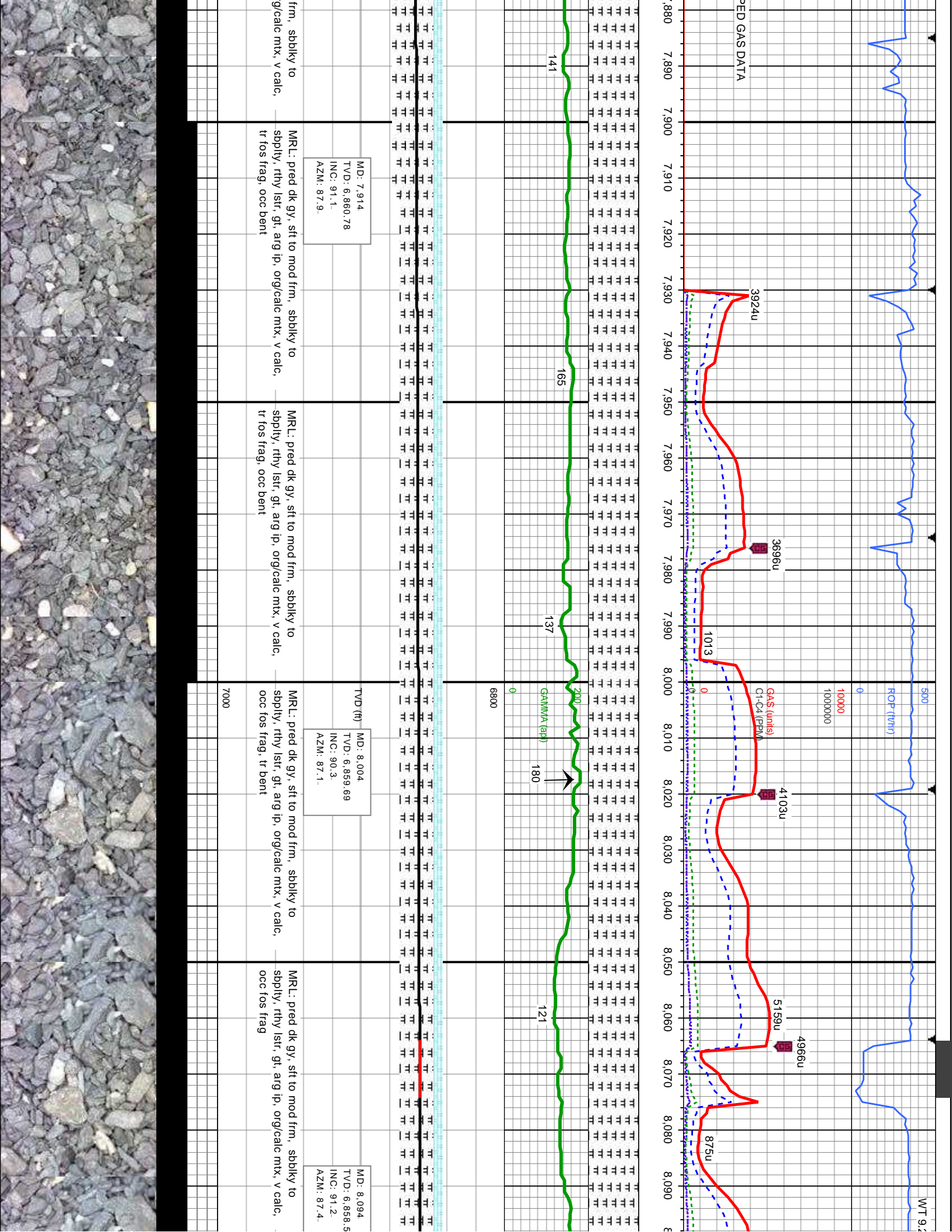
MRL: med to dk gy, sft to mod frm, sbblkly to sbply, calc, tr bent

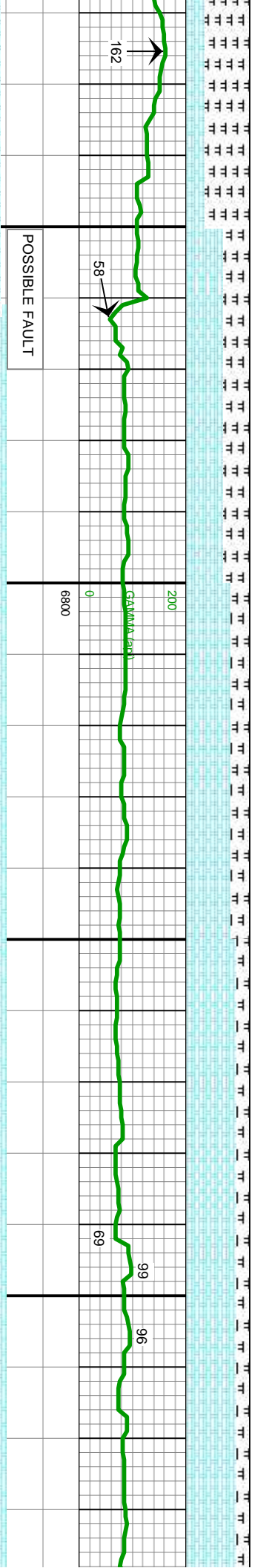
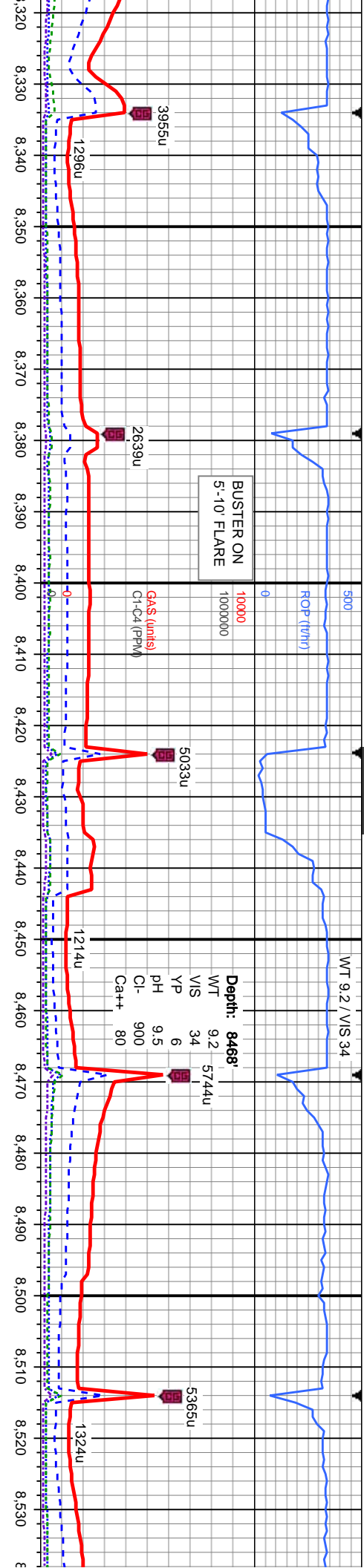






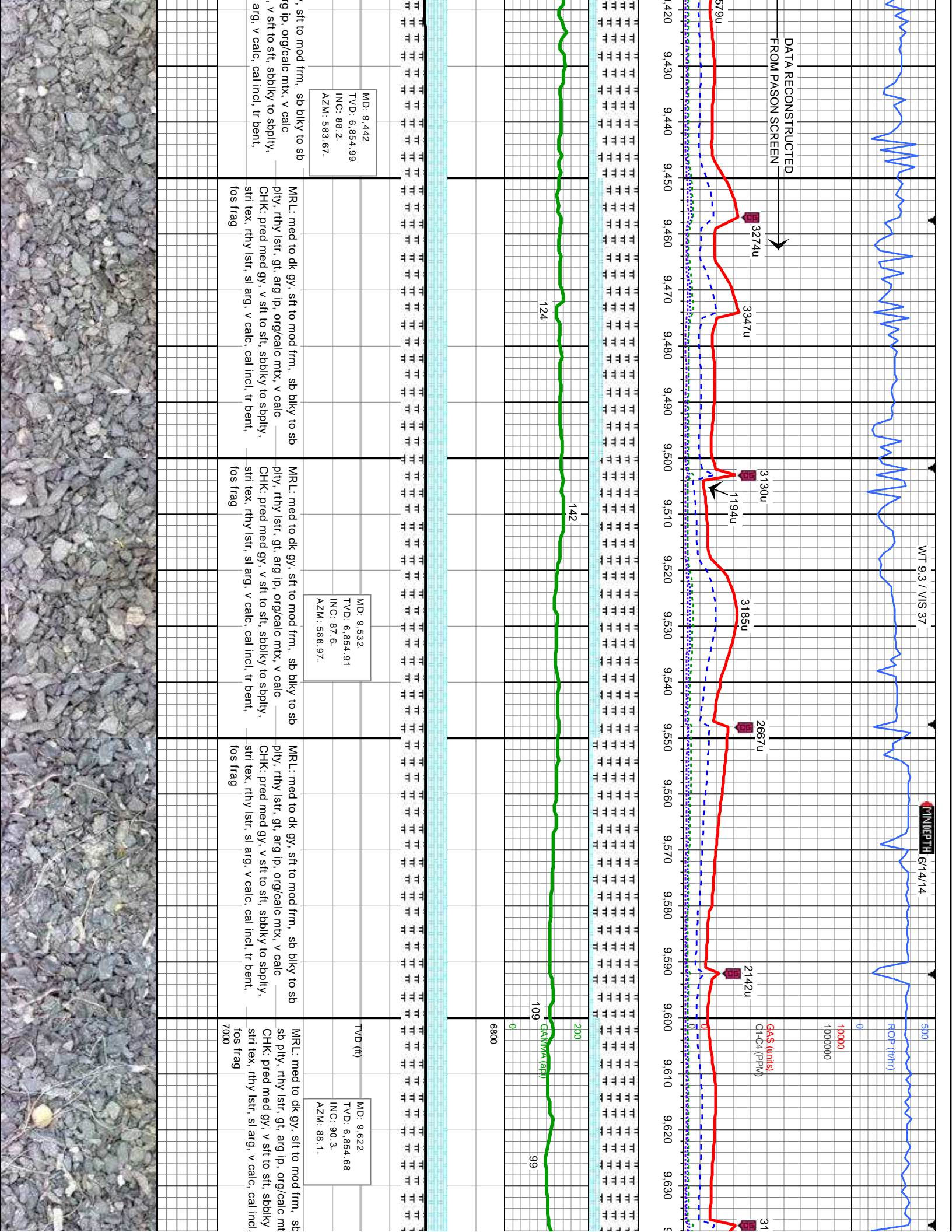


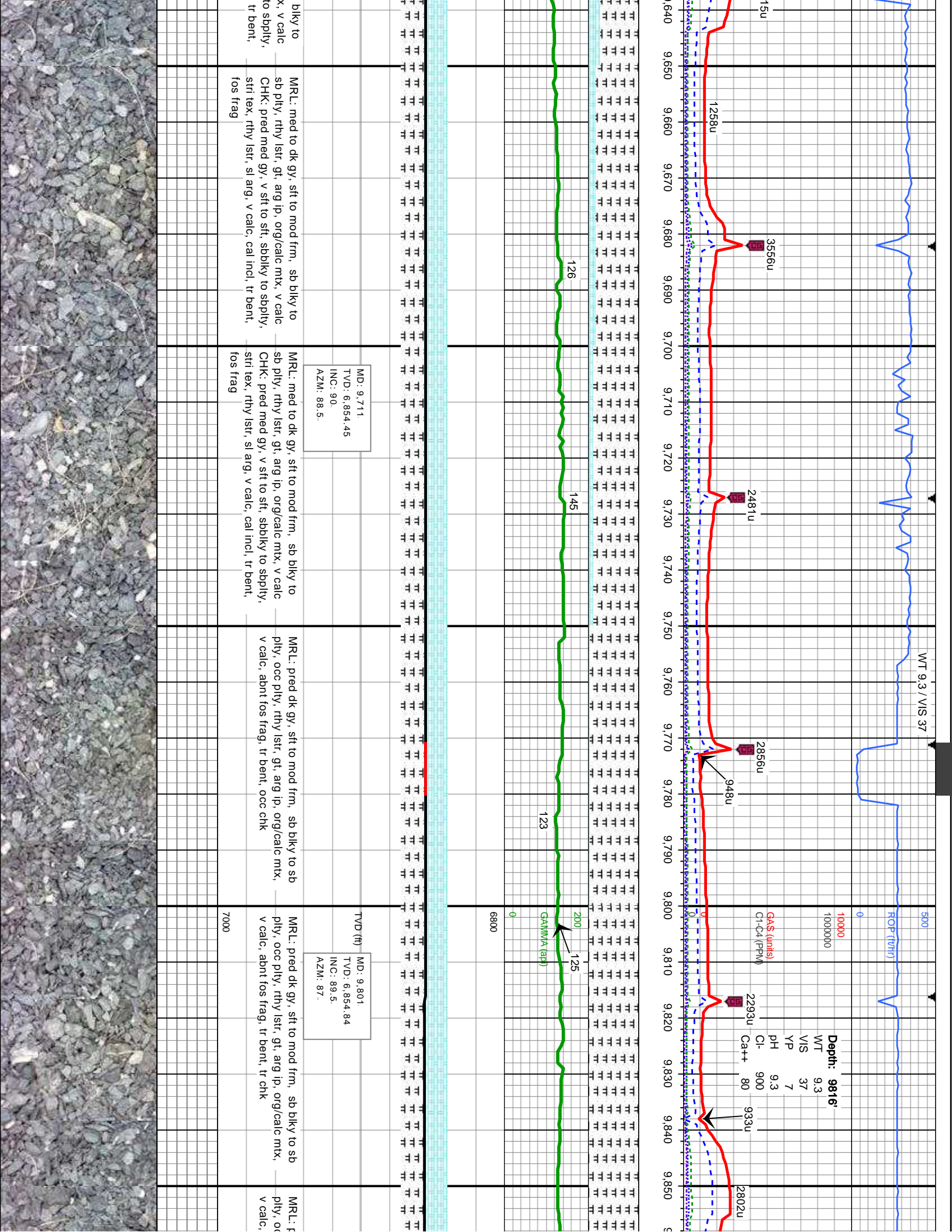


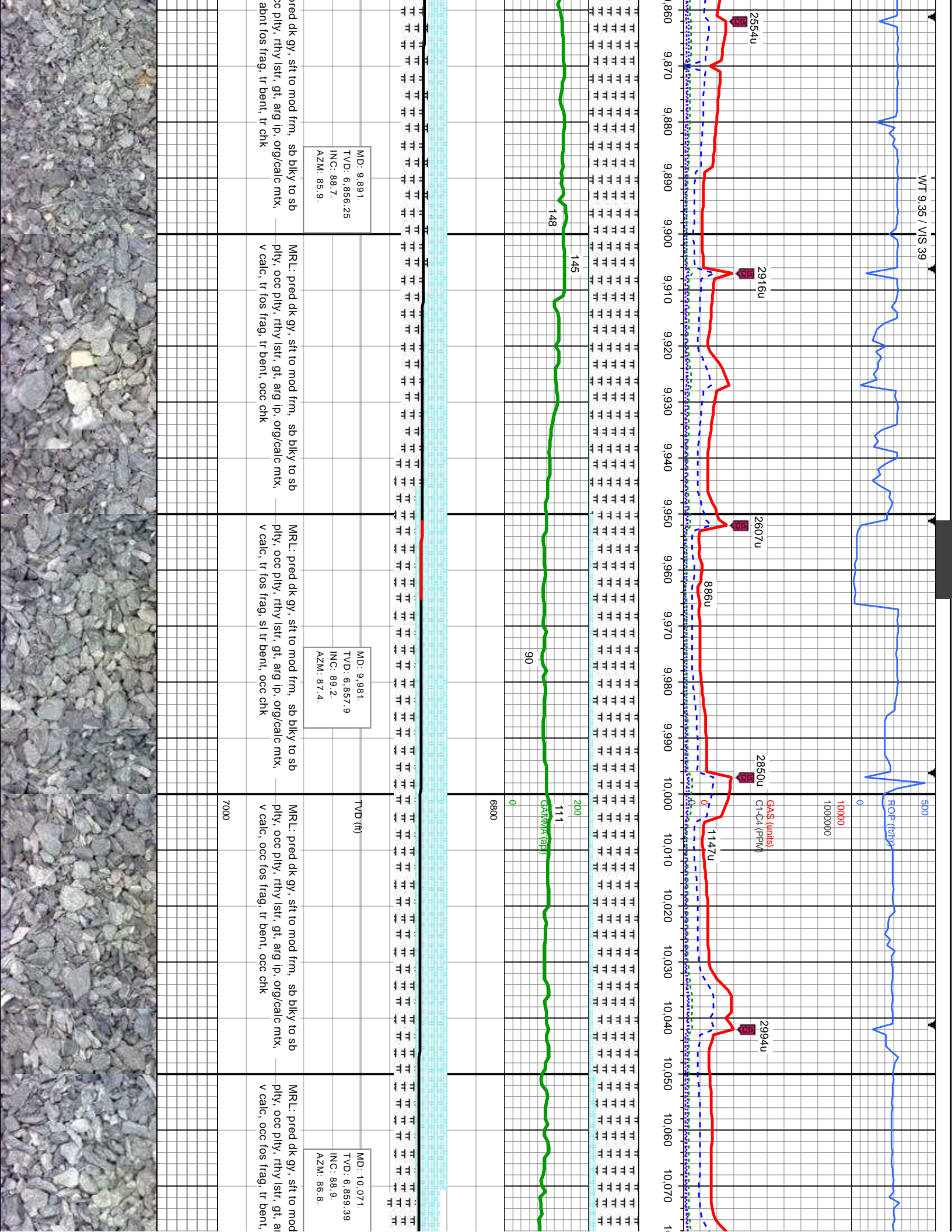


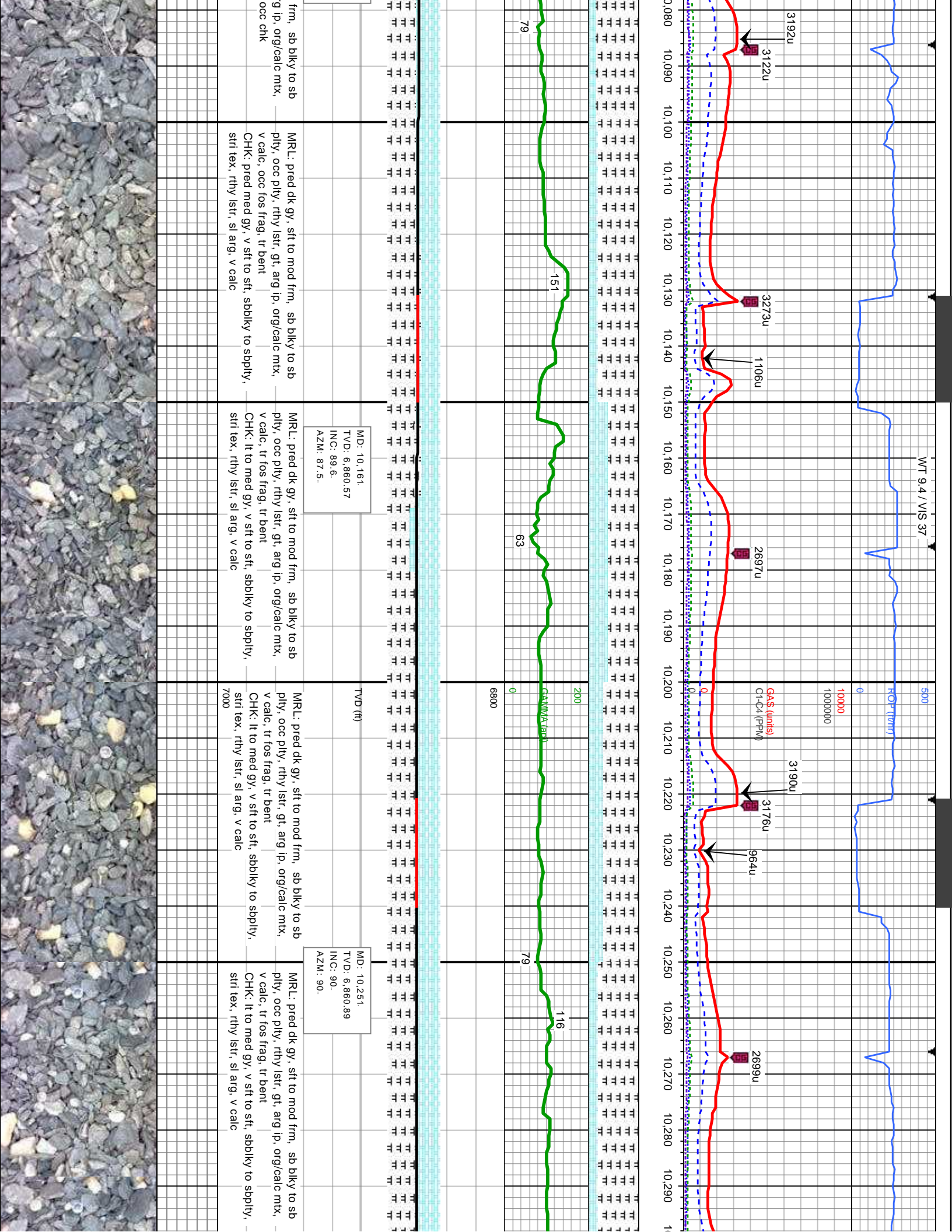
MD: 8.364 TVD: 6,853.8 INC: 91.6 AZM: 86.	CHK: It to mgy, v sft to sft, sbbkly to sbbkly, stri to sl mot tex, rthy lstr, sl arg, v calc, r cal incl MRL: med to dkg, sft to mod frm, sbbkly to sbbkly, rthy lstr, gt, arg ip, org/calc mtx, v calc, occ fos frag, sl tr bent	TVD (ft)	CHK: It to mgy, v sft to sft, sbbkly to sbbkly, stri to sl mot tex, rthy lstr, sl arg, v calc, r cal incl MRL: med to dkg, sft to mod frm, sbbkly to sbbkly, rthy lstr, gt, arg ip, org/calc mtx, v calc, occ fos frag, sl tr bent	MD: 8.454 TVD: 6,852.85 INC: 89.6 AZM: 86.	CHK: It to mgy, v sft to sft, sbbkly to sbbkly, stri to sl mot tex, rthy lstr, sl arg, v calc, r cal incl MRL: med to dkg, sft to mod frm, sbbkly to sbbkly, rthy lstr, gt, arg ip, org/calc mtx, v calc, occ fos frag, sl tr bent	MD: 8.454 TVD: 6,852.85 INC: 89.6 AZM: 86.	CHK: It to mgy, v sft to sft, sbbkly to sbbkly, stri to sl mot tex, rthy lstr, sl arg, v calc, r cal incl MRL: med to dkg, sft to mod frm, sbbkly to sbbkly, rthy lstr, gt, arg ip, org/calc mtx, v calc, occ fos frag, sl tr bent

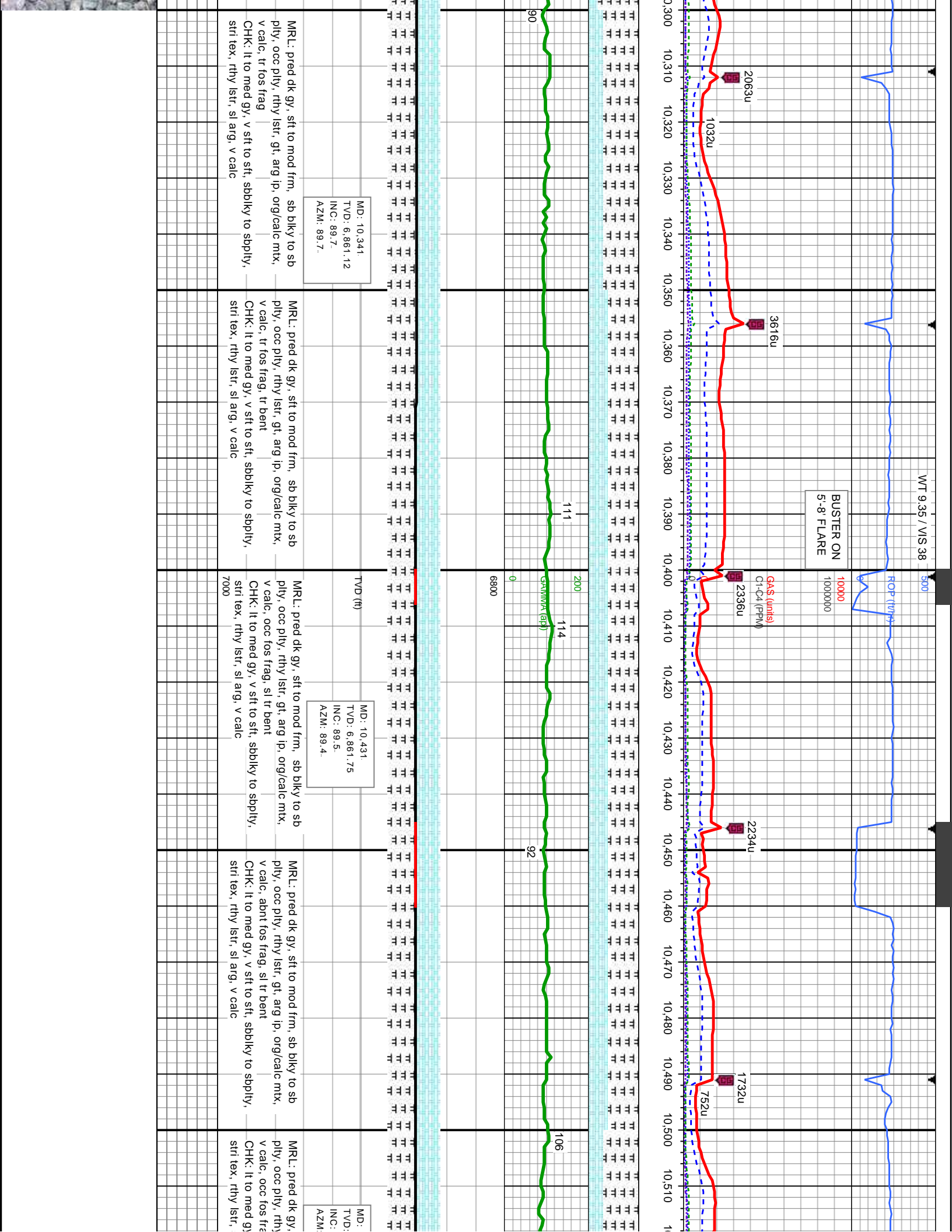


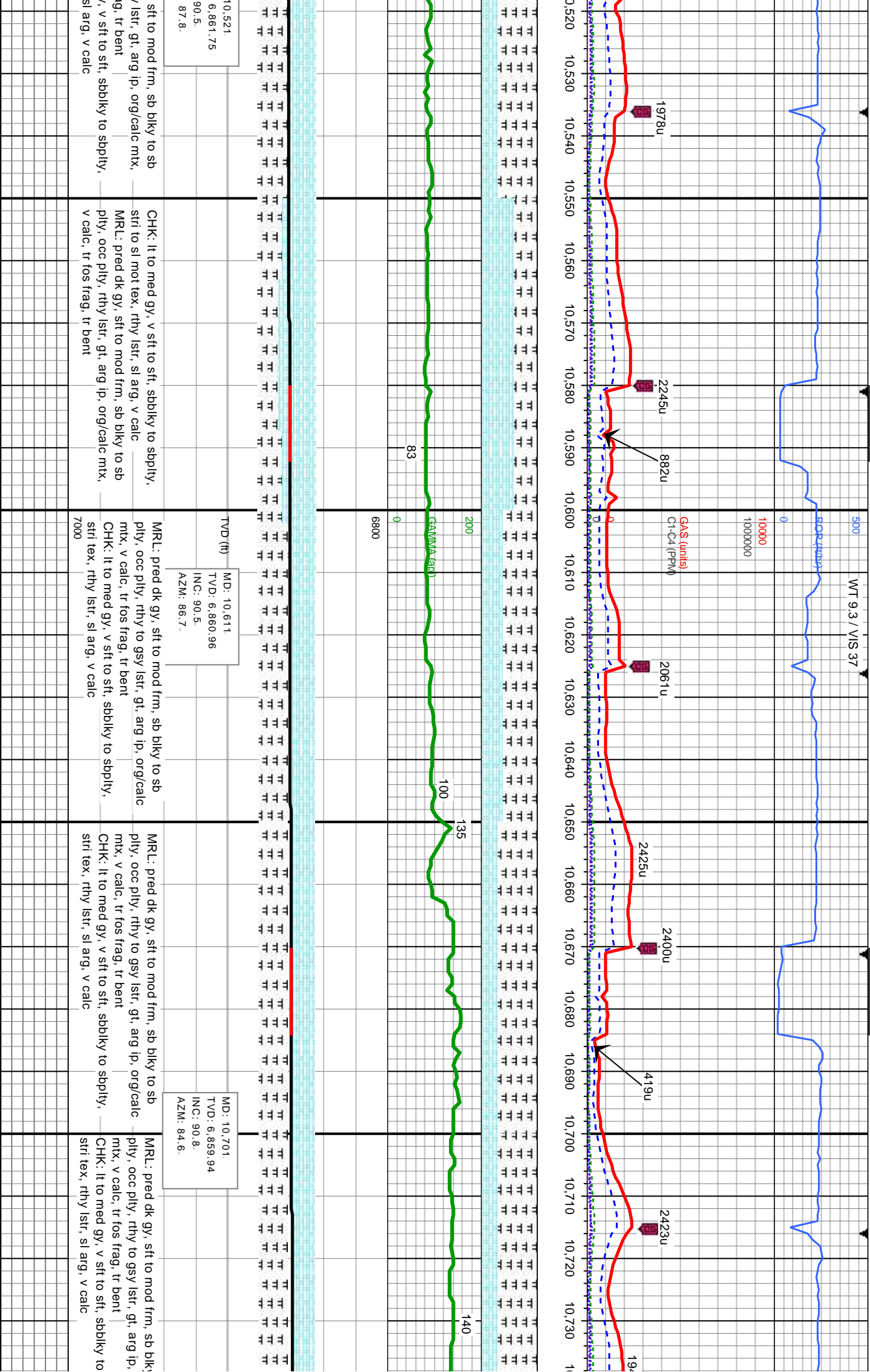


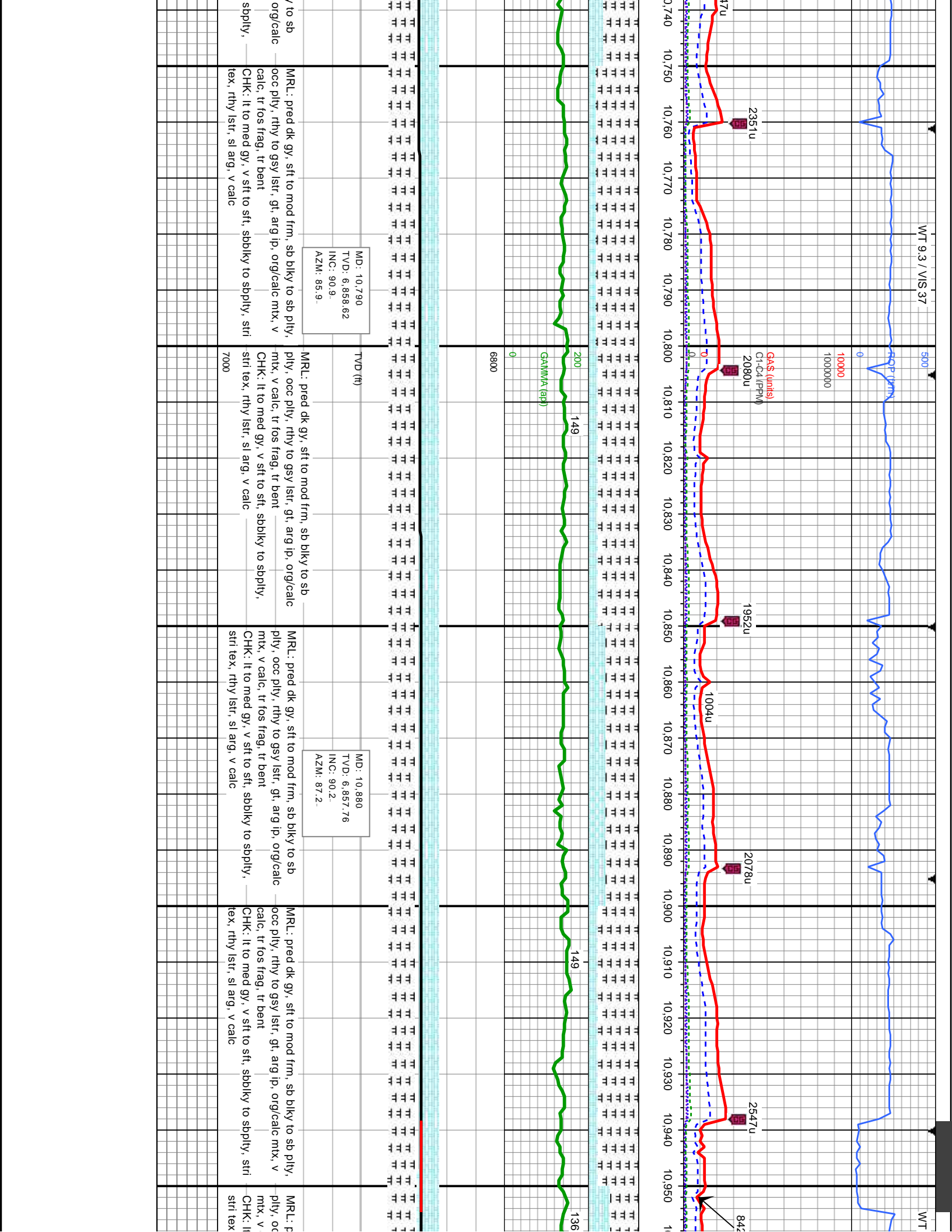


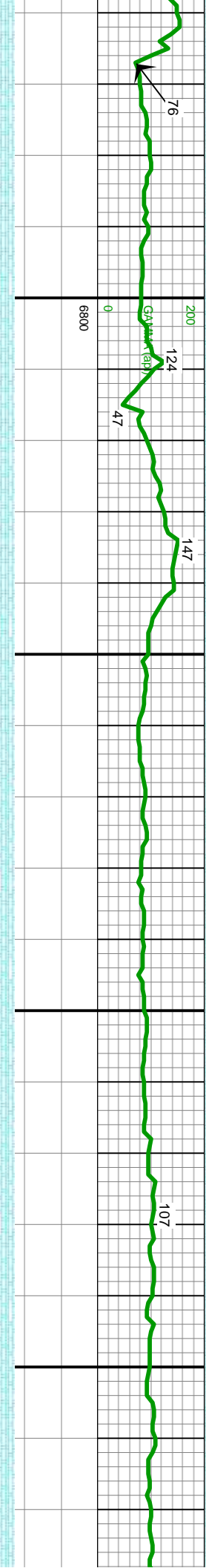
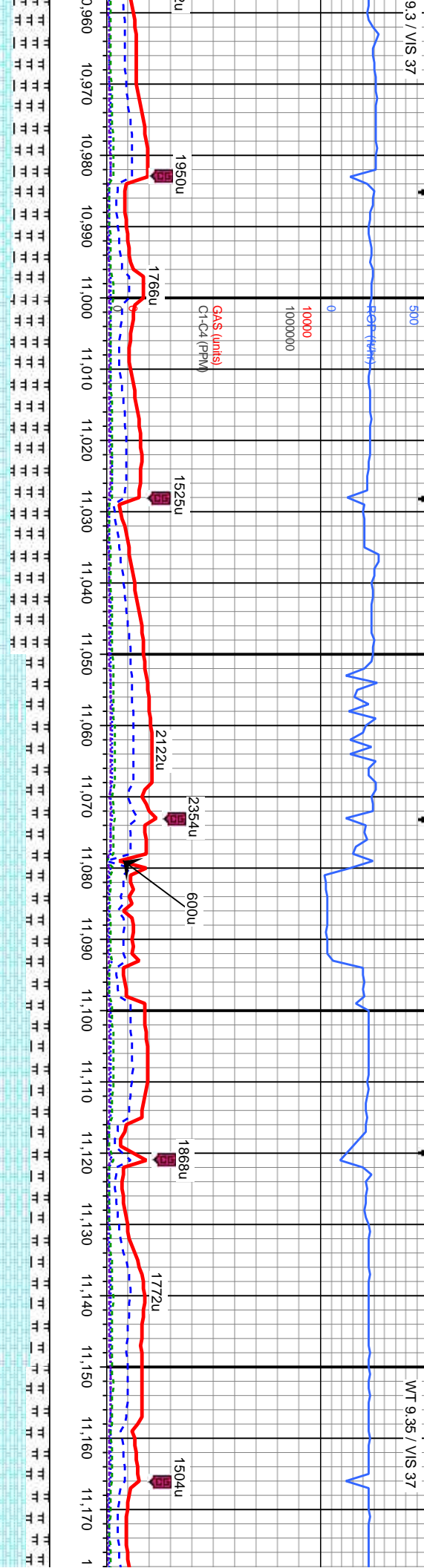












MD: 10.970 TVD: 6,857.52 INC: 90.1- AZM: 84.6		TVD (ft)		MD: 11.060 TVD: 6,857.84 INC: 89.5 AZM: 84.6		MD: 11.150 TVD: 6,857.76 INC: 90.6 AZM: 83.3	
pred dk gy, sft to mod frm, sb blkly to sb oc ply, rthy to gsy lstr, gt, arg ip, org/calc calc, tr fos frag, tr bent to med gy, v sft to sft, sbblkly to sbply, rthy lstr, sl arg, v calc		MRL: pred dk gy, sft to mod frm, sb blkly to sb ply, occ ply, rthy to gsy lstr, gt, arg ip, org/calc mtx, v calc, tr fos frag, tr bent CHK: It to med gy, v sft to sft, sbblkly to sbply, stri tex, rthy lstr, sl arg, v calc		CHK: It to mgy, v sft to sft, sbblkly to sbply, stri to sl mot tex, rthy lstr, sl arg, v calc, tr cal incl MRL: med to dkgy, sft to mod frm, sbblkly to sbply, rthy lstr, gt, arg ip, org/calc mtx, v calc, tr fos frag		CHK: It to mgy, v sft to sft, sbblkly to sbply, stri to sl mot tex, rthy lstr, sl arg, v calc, tr cal incl MRL: med to dkgy, sft to mod frm, sbblkly to sbply, rthy lstr, gt, arg ip, org/calc mtx, v calc, tr fos frag	
7000							

