



Scale: 5" / 100'
Measured Depth Log

Well Name Rattler 34N-3HZ

Location SEC 34 T3N R66W

State Colorado

Country USA

API Number 05-123-37076

Region DJ Basin

Spud Date 7/25/2013

Surface Coordinates 281' FNL 761' FEL

Bottom Hole Coordinates 1' FSL 110' FEL

County Weld

Rig Number ENSIGN 145

AFE # 2068465

Field Wattenberg

Drilling Completed 7/31/2013

Ground Elevation 4970'

K.B. Elevation 4983'

Logged Interval 6600' To 12749'

Total Depth 12749'

Formation Sussex, Sharon Springs, Niobrara A, Niobrara B, Niobrara C

Type of Drilling Fluid FW LSND

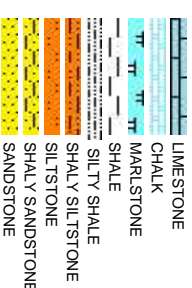
Company Anadarko

Address 1099 18th St, S
Denver, CO 80202

Name CHRISTIAN VERA

Company COLUMBINE LOGGING

Address 2385 S. Lipan St
Denver, CO 80202



Operator

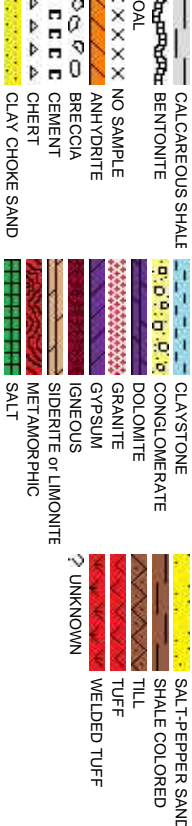
uite 1800,
202

Geologist

NTUIRNO, KALEN SMITH
OGGING INC.

it.
223

Rock Types



Accessories

Fossils		Stringer	
	F FOSSIL		GLAUCONITE
	GASTROPOD		GYPSEIFEROUS
	ALGAE		HEAVY MINERAL
	AMPHIPORA		INOCERAMUS
	BELEMNITE		KAOLIN
	BIOCLASTIC		MARLSTONE
	BRACHIOPOD		MINERAL CRYSTALS
	BRYOZOA		NODULES
	CEPHALOPOD		PHOSPHATE PELLETS
	CORAL		PYRITE
	CRINOID		SALT CAST
	ECHINOID		SANDY
	FISH		SILICEOUS
	FORAMINIFERA		SILTY
	ANHYDRITIC		SHALE STRINGER
	FERRUGINOUS		SILTSTONE STRINGER

Other Symbols

Oil Show		Engineering		Textures		Sorting	
	MOLDIC		NORMAL FAULT		ANGULAR		MICROXLN
	ORGANIC		OIL SHOW		ROUNDED		MUDSTONE
	PINPOINT		GAS SHOW		SUBANG		PACKSTONE
	EVEN		MIN DEPTH		SUBRND		WACKSTONE
	QUESTIONABLE		FAULT		WIRELINE TESTED - LEFT		EARTHY
	SPOTTED STAINING		FORMATION TOP		WIRELINE TESTED - RT		FINELYXLN
	POROSITY		REVERSED STRATA		GRAINSTONE		LITHOGRAPHIC
	EARTHY		OVERTURNED STRATA		ANGULAR		MICROXLN
	FENESTRAL		REVERSE FAULT		ROUNDED		MUDSTONE
	FRACTURE		SIDEWALL CORE (LEFT)		SUBANG		PACKSTONE
	INTERCRYSTALLINE		SIDEWALL CORE (RIGHT)		SUBRND		WACKSTONE
	INTEROOLITIC		CORE - LOST		SLIDE		MODERATE
	DST INTERVAL		CORE - RECOVERED		SURVEY		POOR
	DST INTERVAL		TRIP GAS		CRYPROXLN		WELL

Slide/Rotate

ROP
ROF

Total Gas & Chromatograph

GAS
C1
C2
C3
C4

Depth Labels

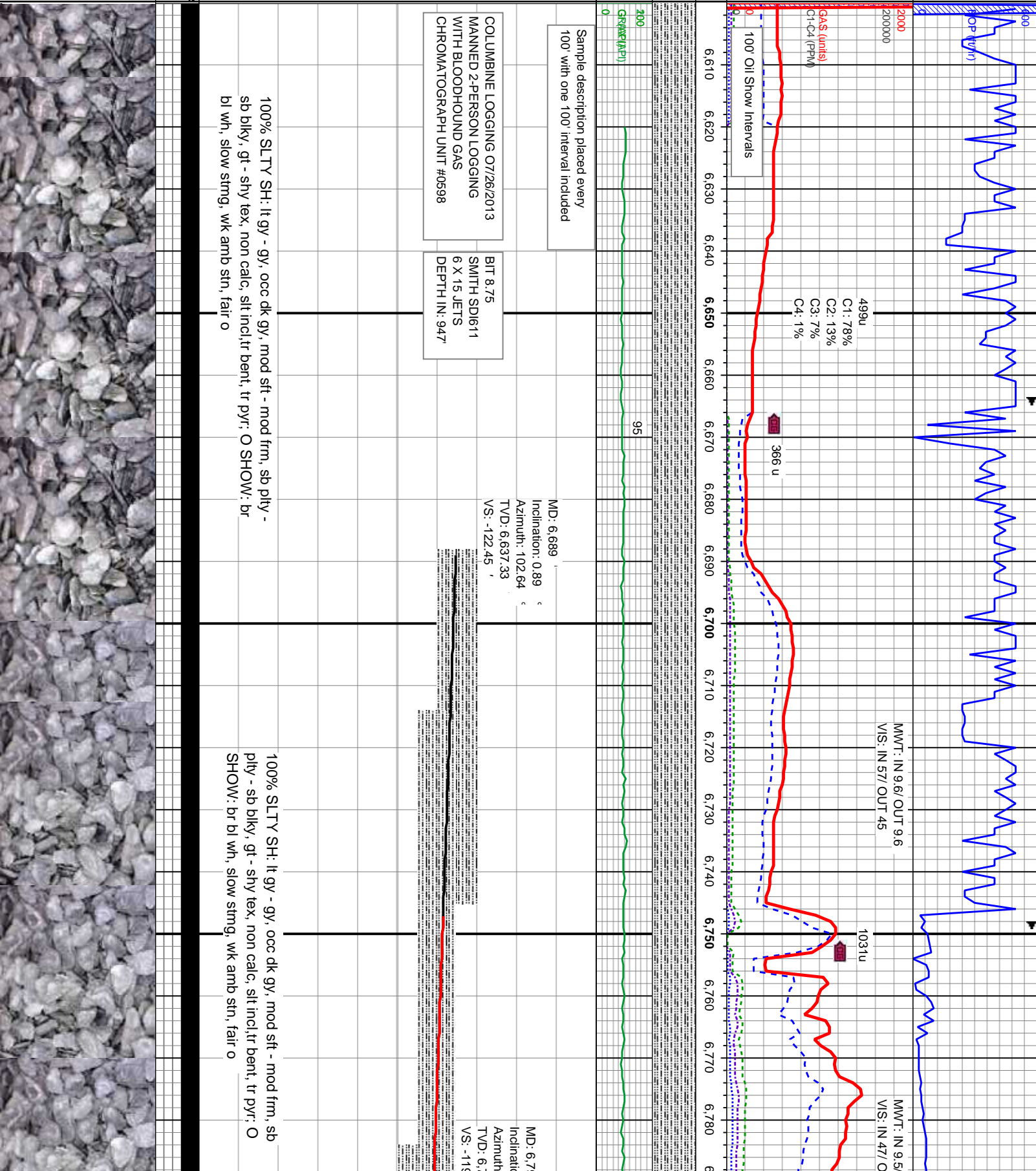
% Lith

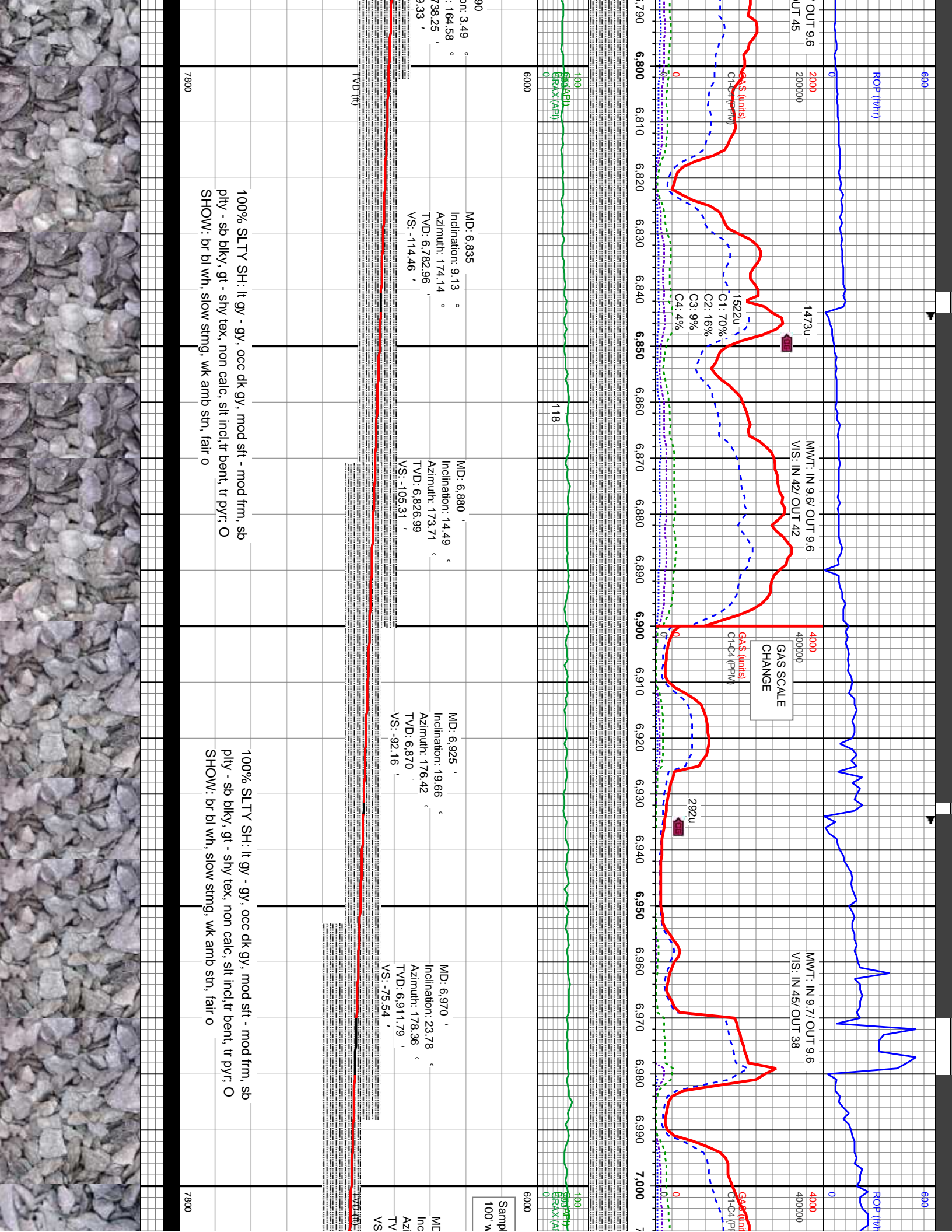
Gamma
Gr
GRAX

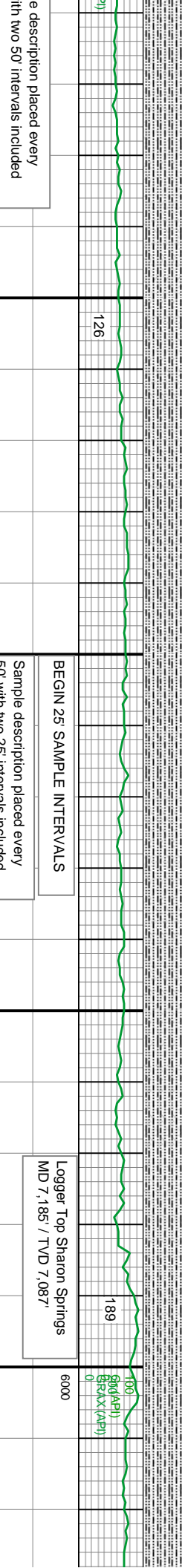
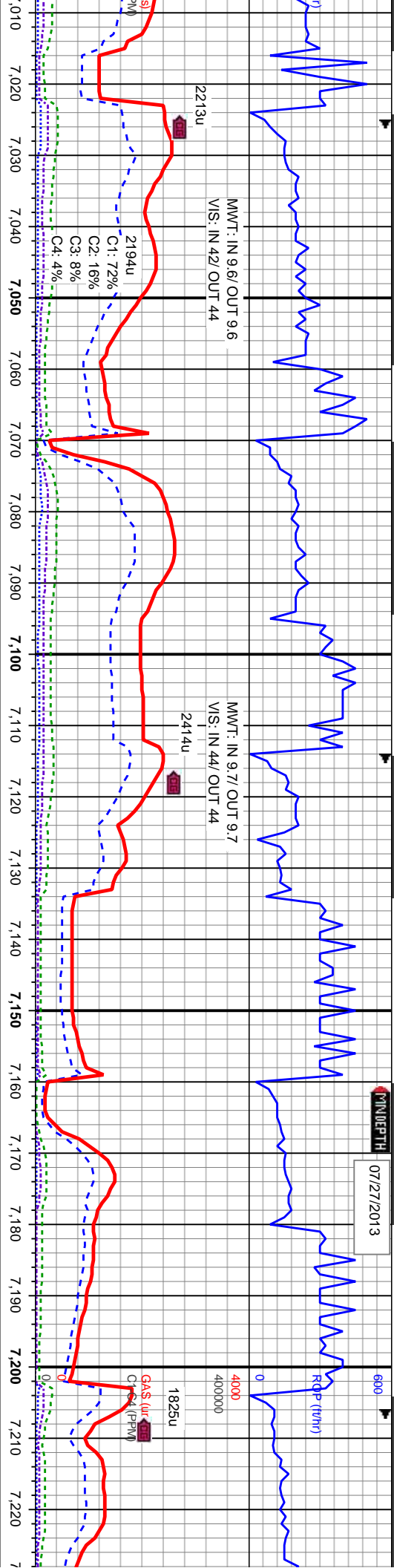
Well Bore
TVD

Oil Show

Images







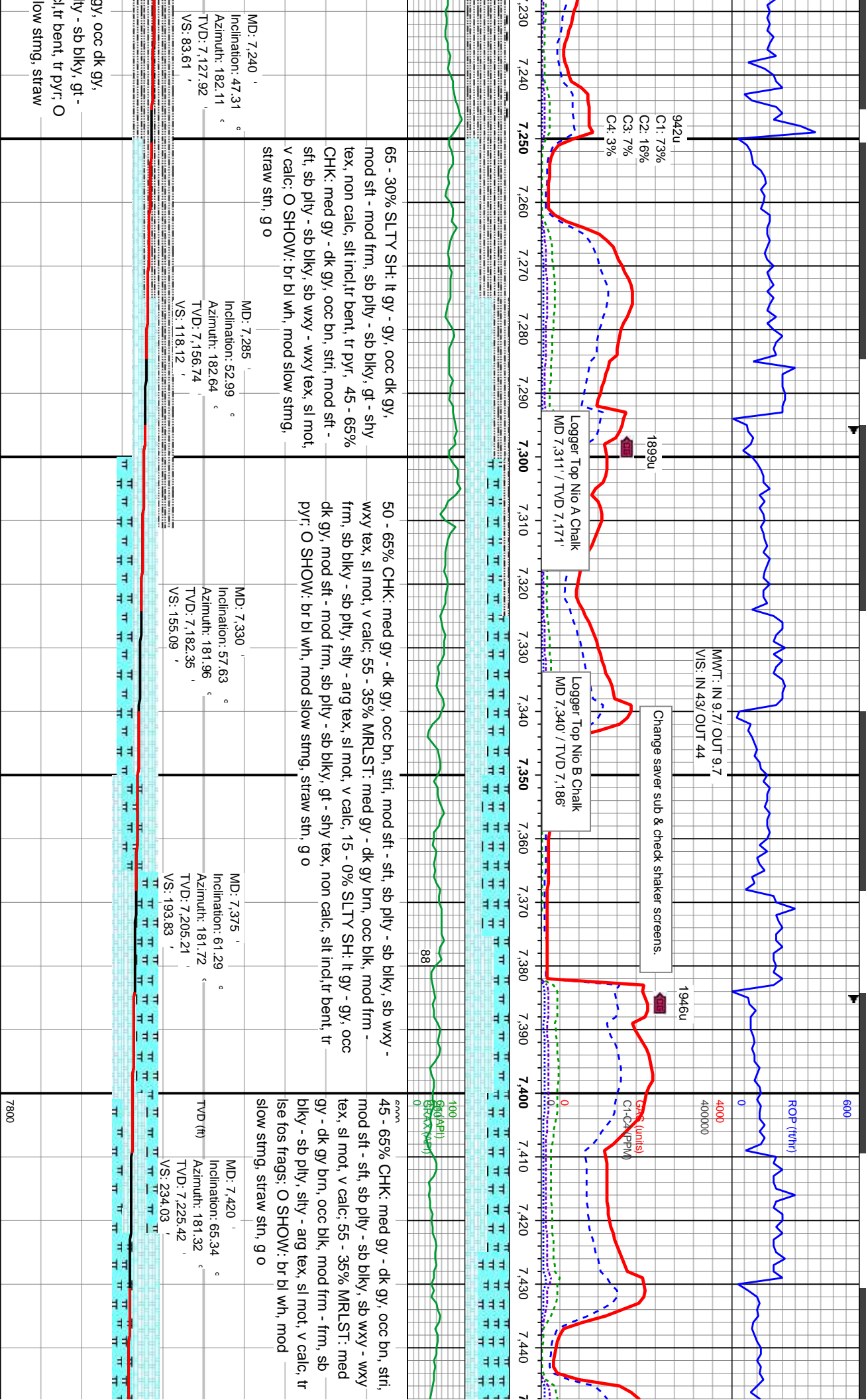
MD: 7,015 ' ° Inclination: 28.69 ° Azimuth: 180.05 ° TVD: 6,952.15 ' VS: -56.66 '	MD: 7,060 ' ° Inclination: 34.19 ° Azimuth: 181.04 ° TVD: 6,990.53 ' VS: -32.19 '	MD: 7,105 ' ° Inclination: 37.95 ° Azimuth: 181.26 ° TVD: 7,026.89 ' VS: -5.71 '	MD: 7,150 ' ° Inclination: 39.65 ° Azimuth: 181.84 ° TVD: 7,061.96 ' VS: -22.48 '	MD: 7,195 ' ° Inclination: 42.17 ° Azimuth: 180.71 ° TVD: 7,095.97 ' VS: 51.95 '
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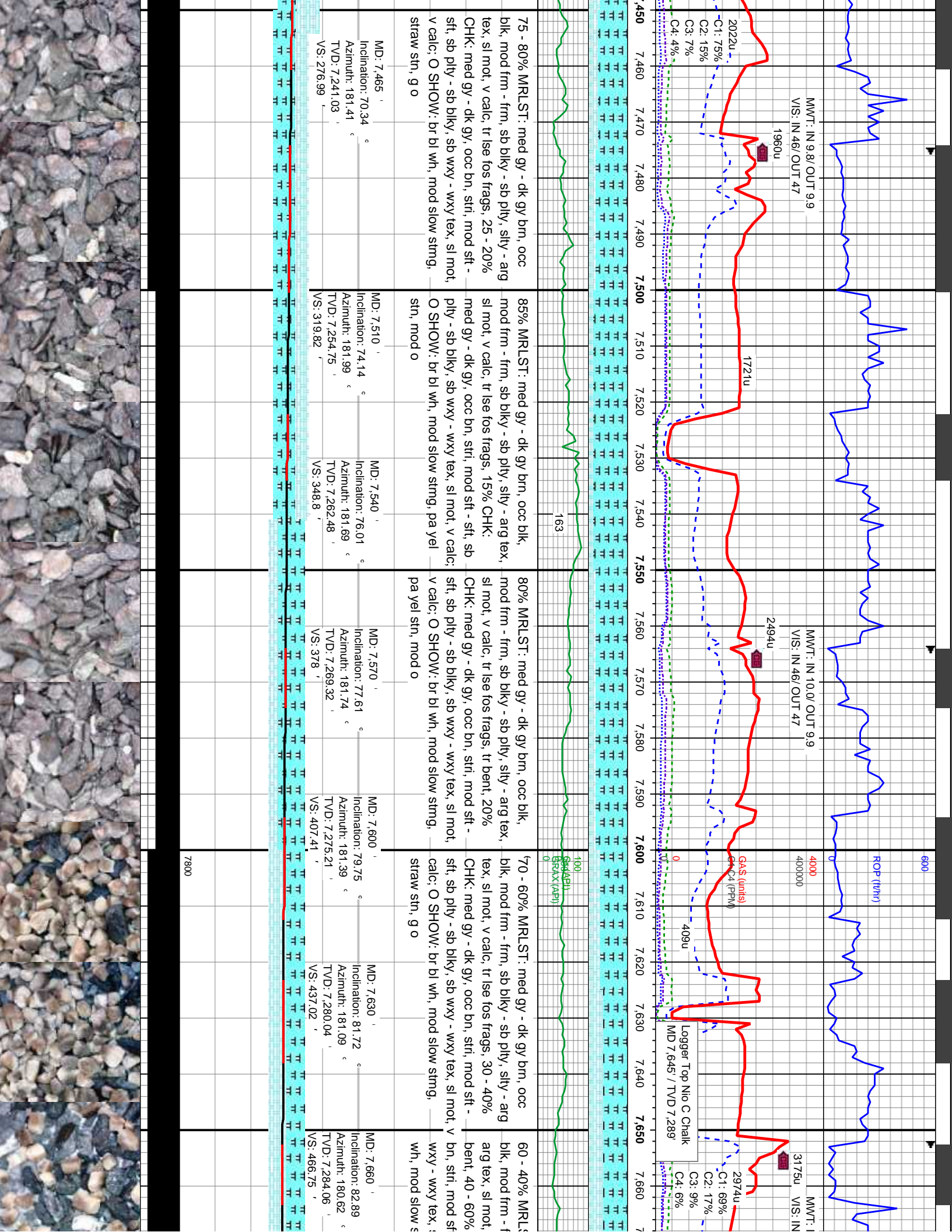
100% SLTY SH: lt gy - gy, occ dk gy, mod sft - mod frm, sb ply - sb blk, gt - shy tex, non calc, silt incl, tr bent, tr pyr; O SHOW: br bl wh, slow strng, wk amb strn, fair o

100% SLTY SH: lt gy - gy, occ dk gy, mod sft - mod frm, sb ply - sb blk, gt - shy tex, non calc, silt incl, tr bent, tr pyr; O SHOW: br bl wh, slow strng, wk amb strn, fair o

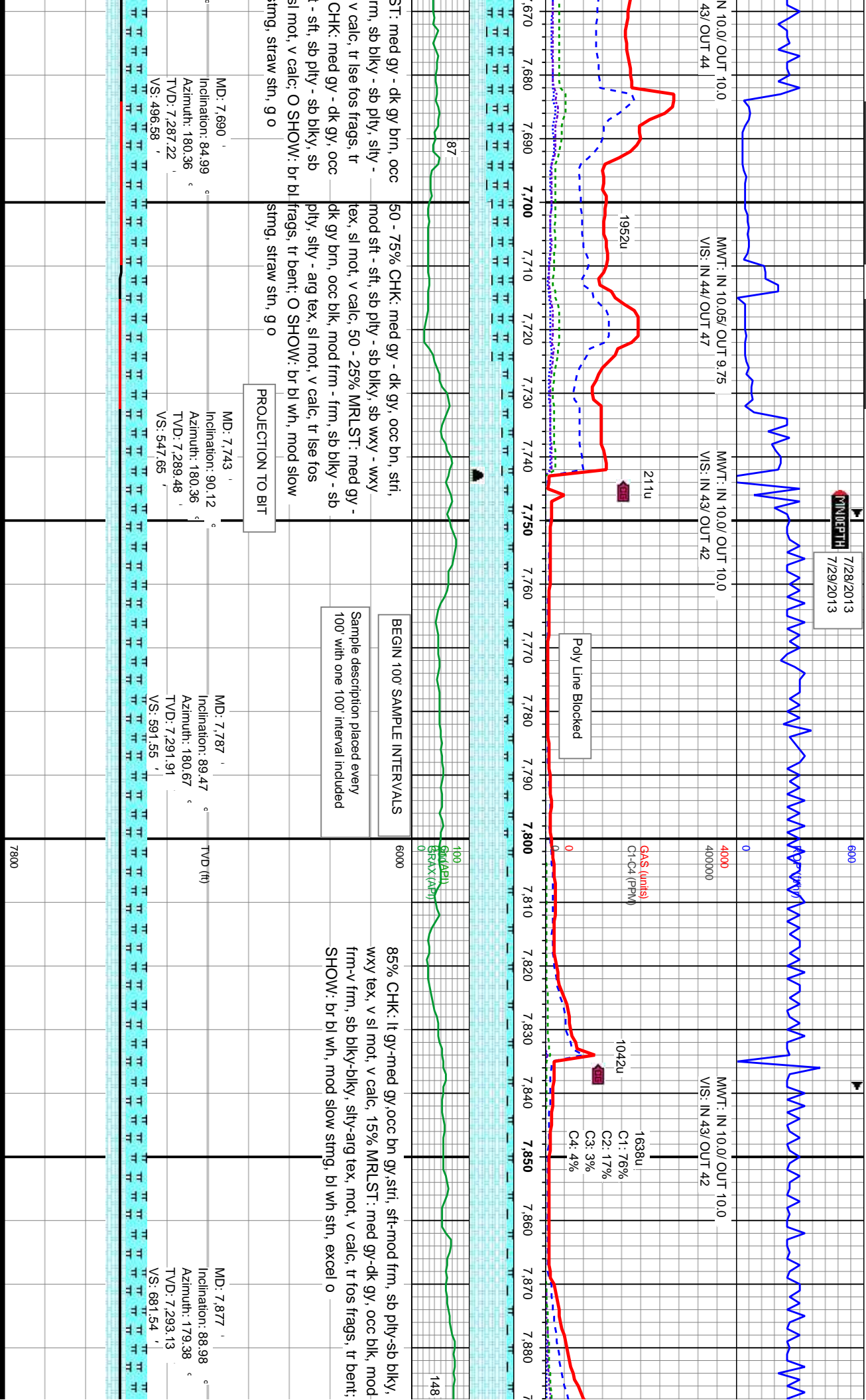
100% SLTY SH: lt gy - gy, occ dk gy, mod sft - mod frm, sb ply - sb blk, gt - shy tex, non calc, silt incl, tr bent, tr pyr; O SHOW: br bl wh, slow strng, wk amb strn, fair o

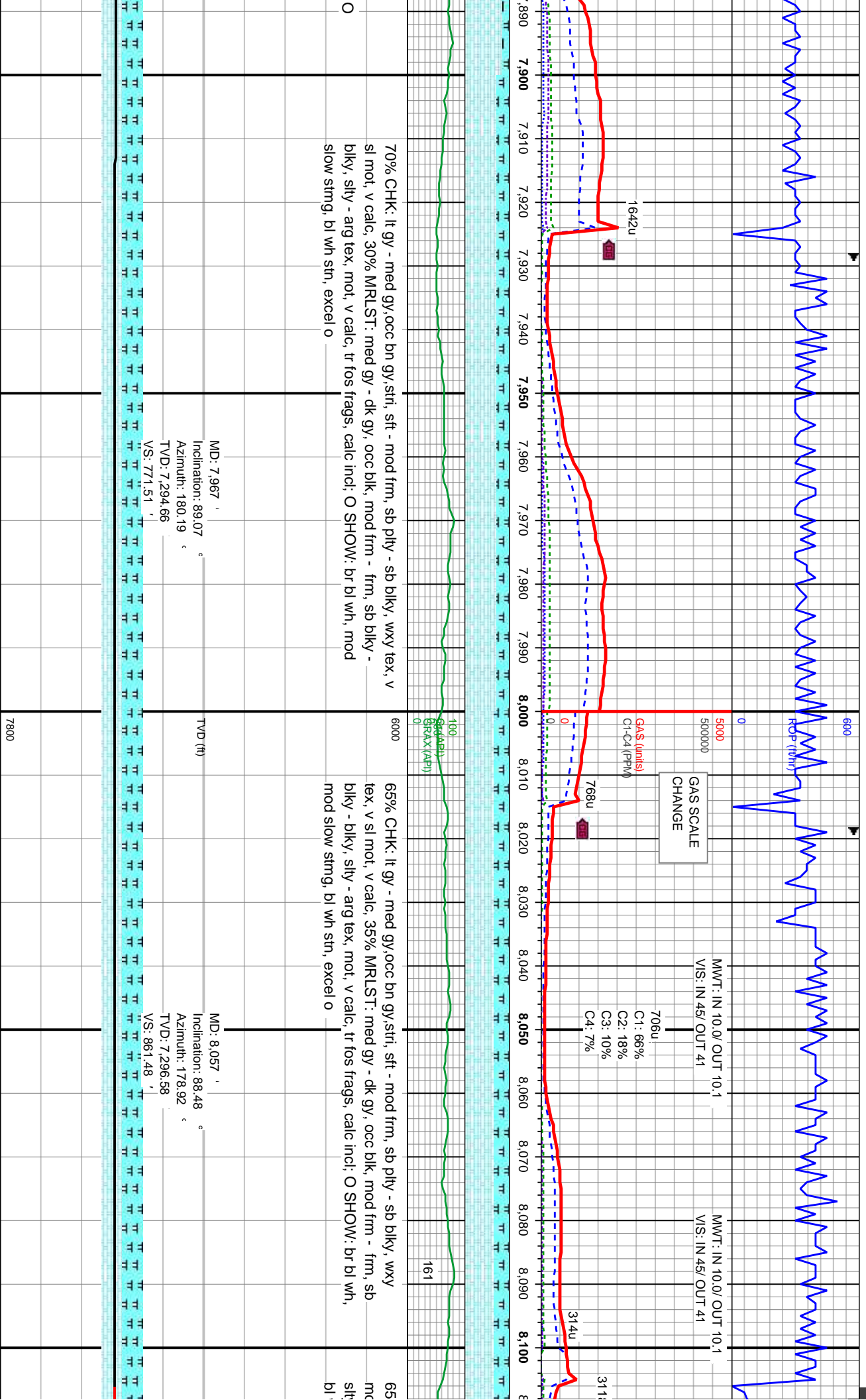


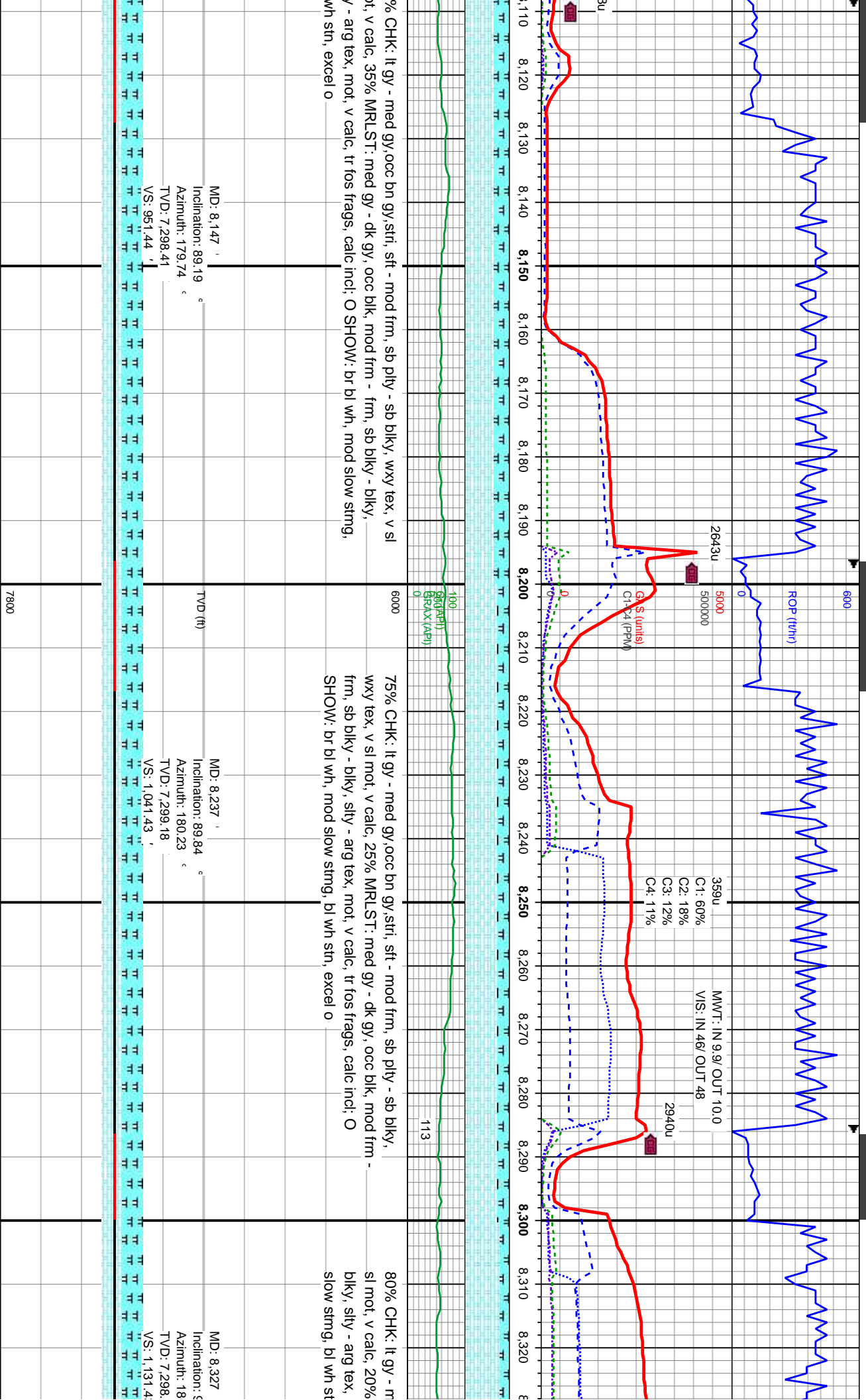


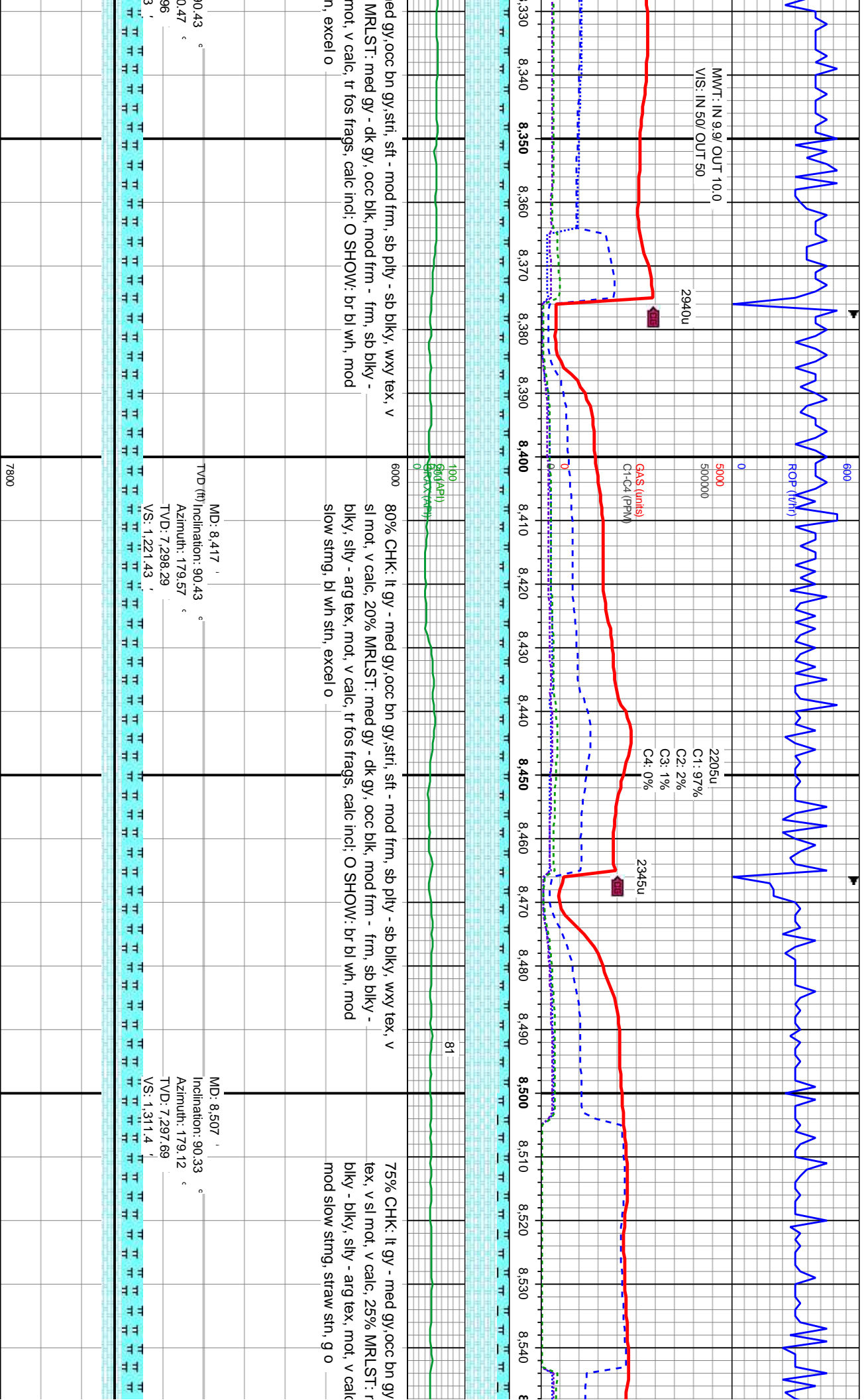


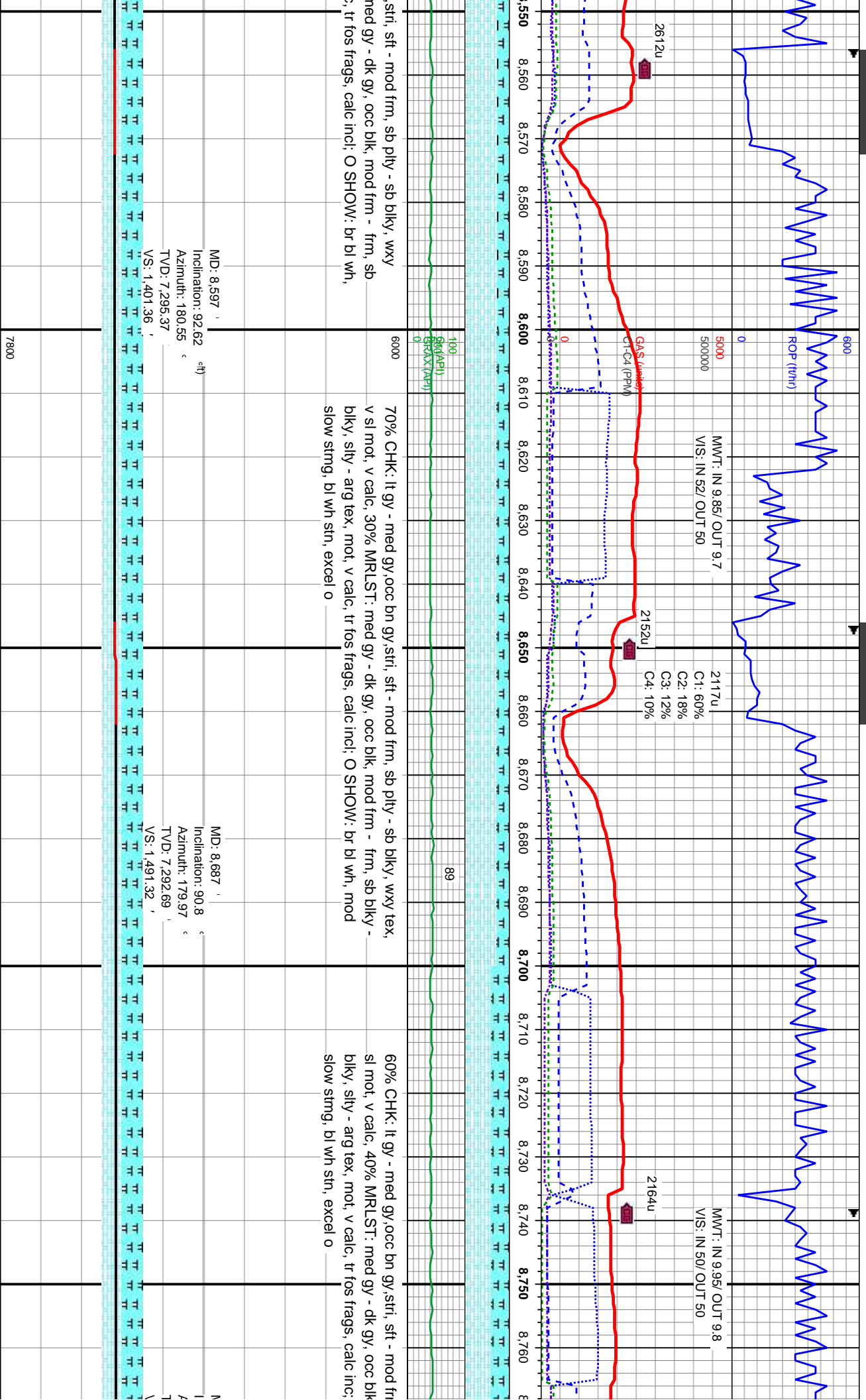
DATE
7/28/2013
TIME
7:29/2013

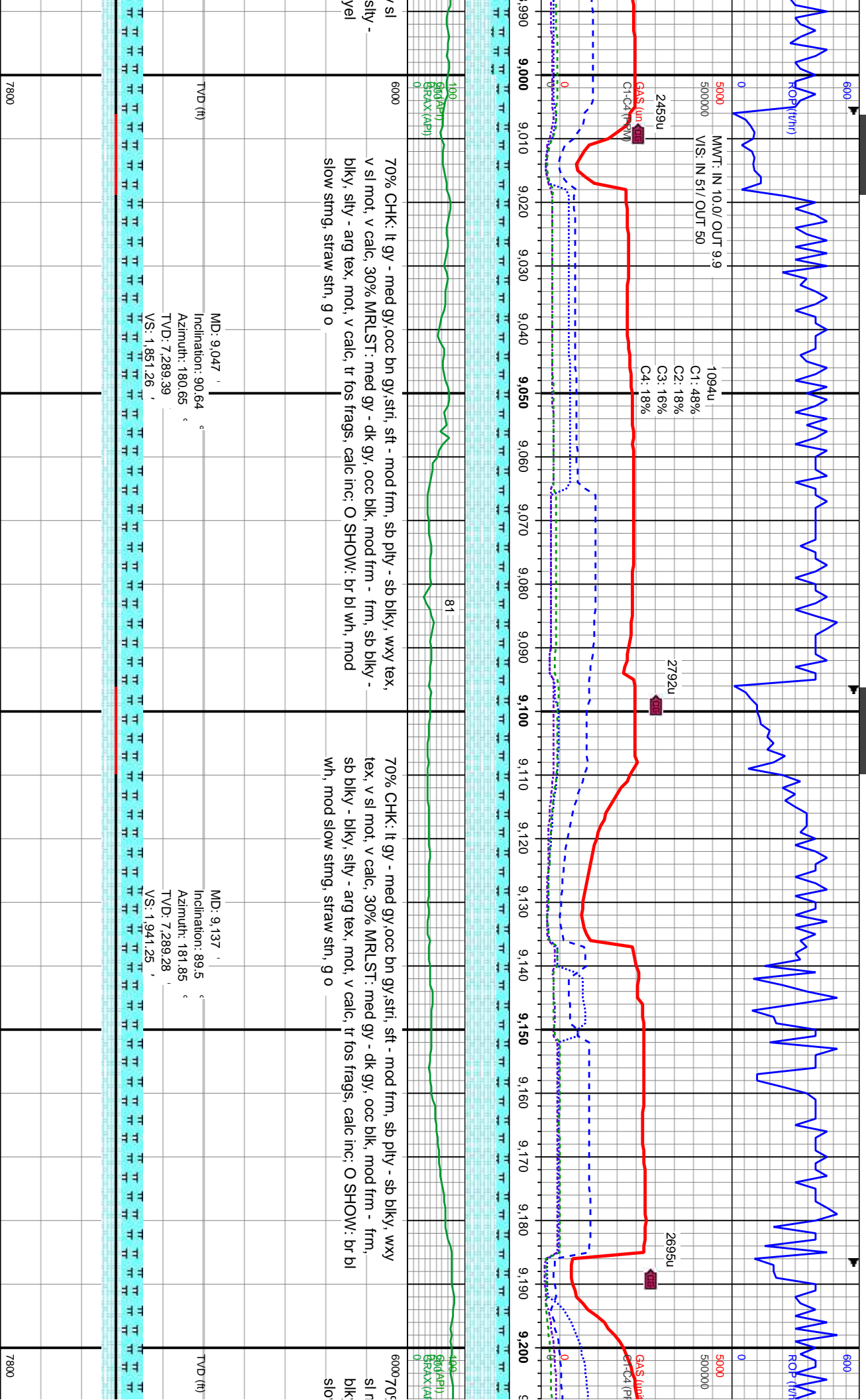


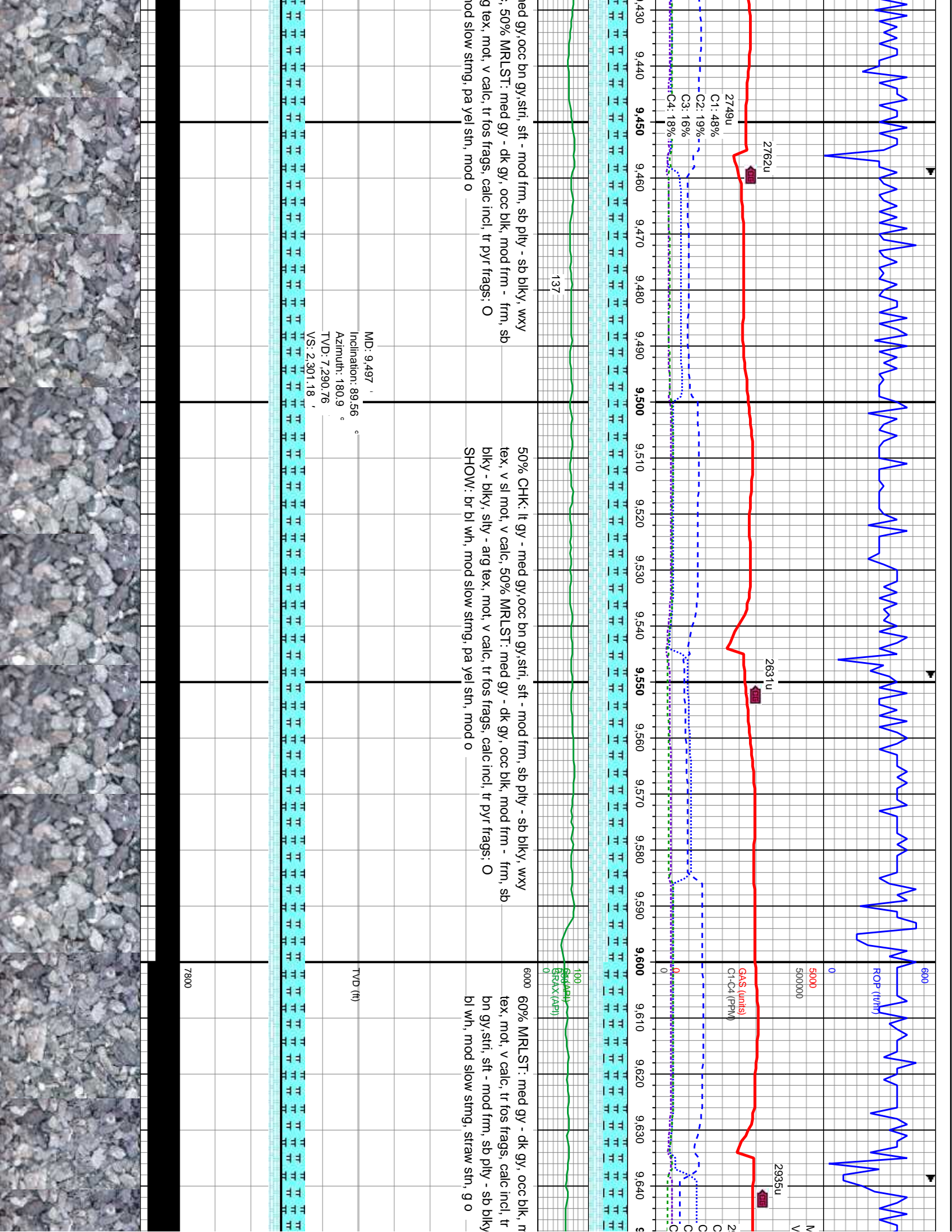


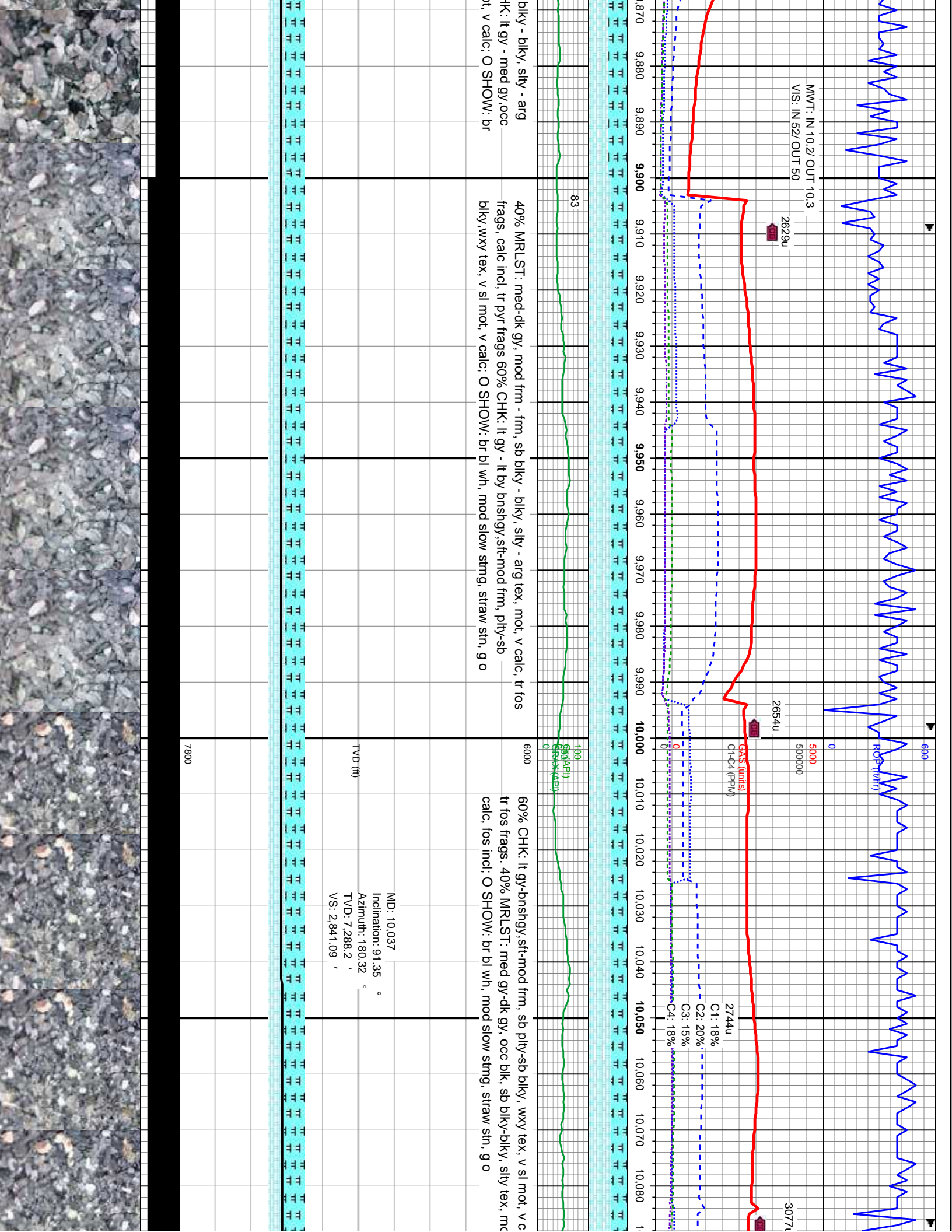


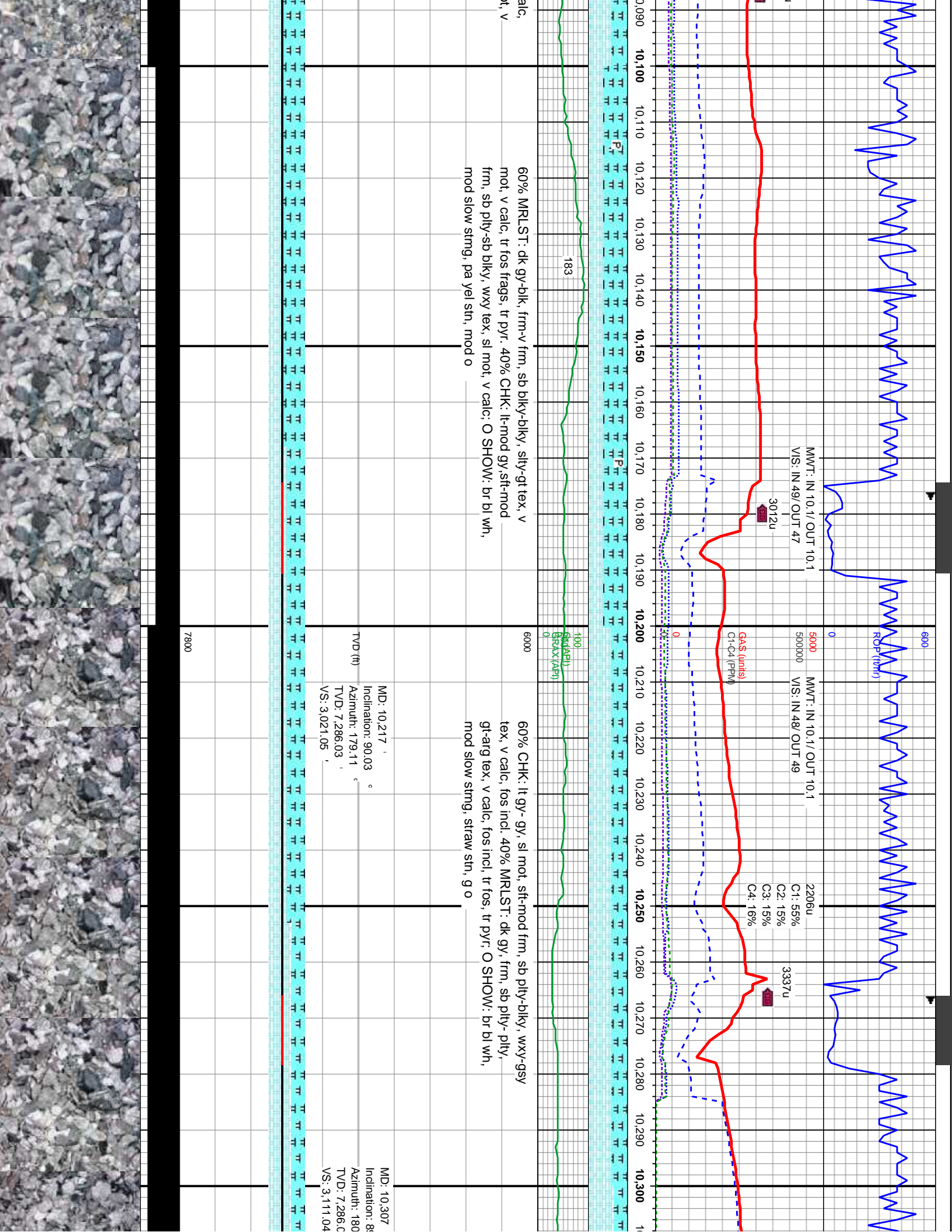


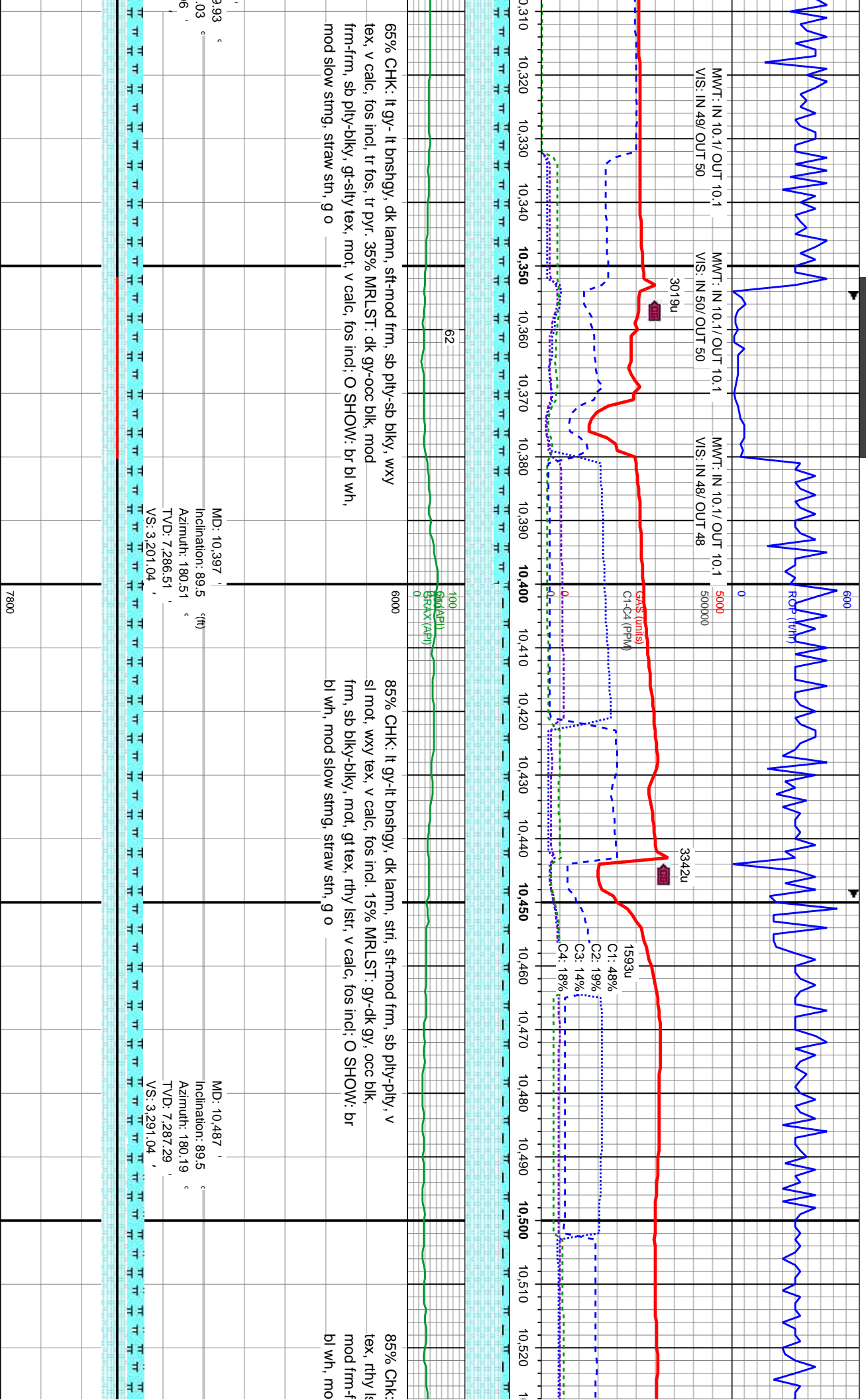


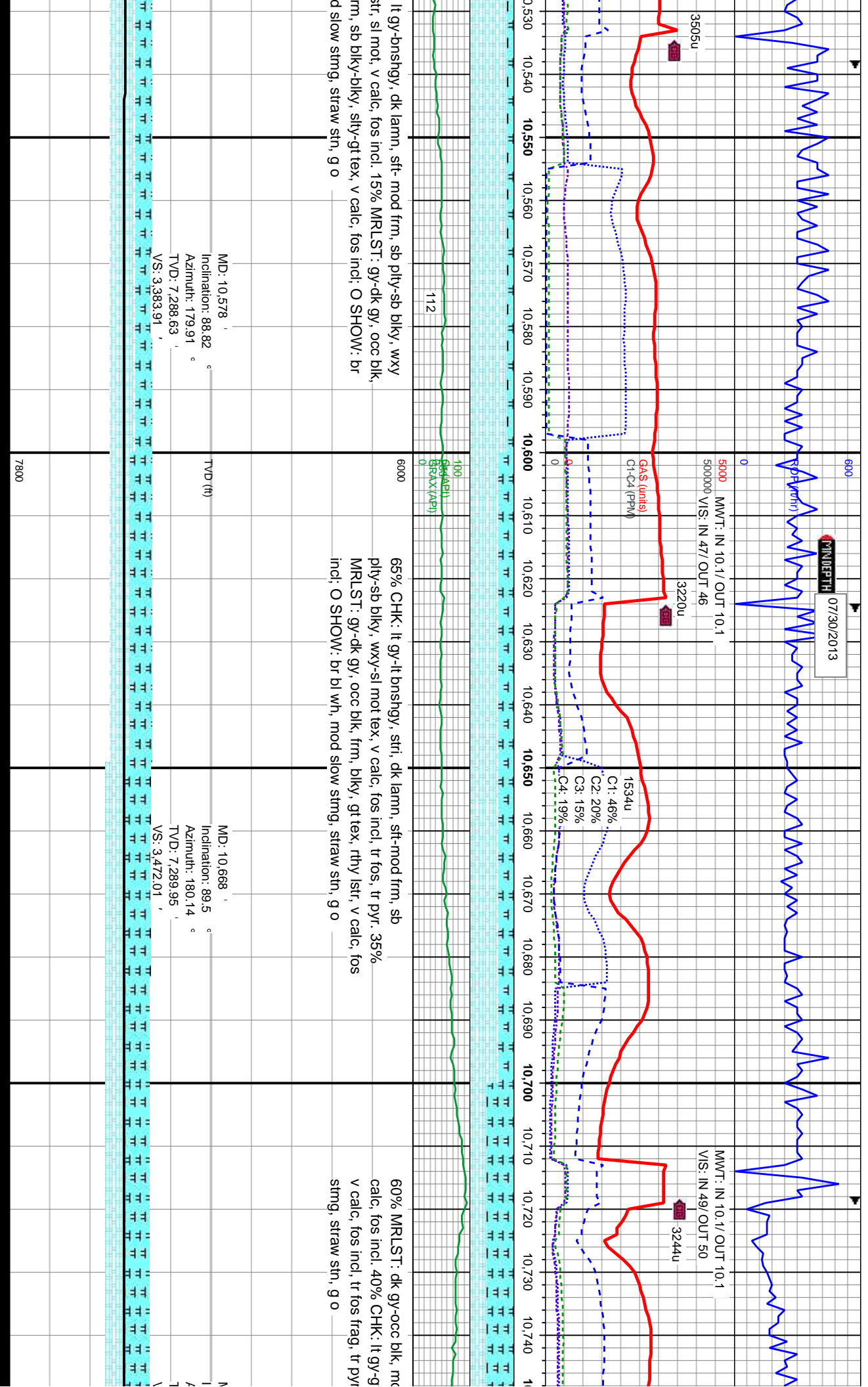


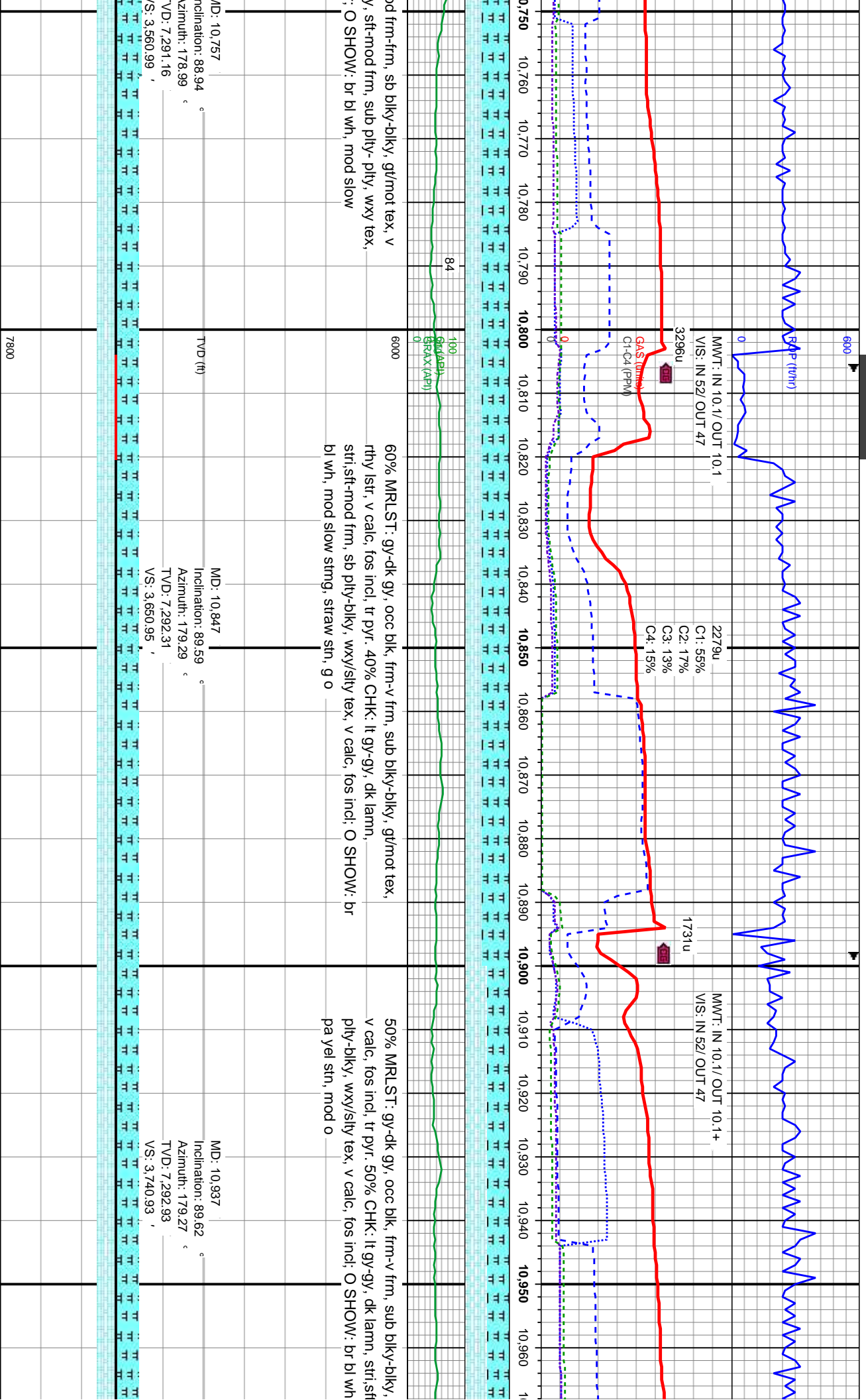


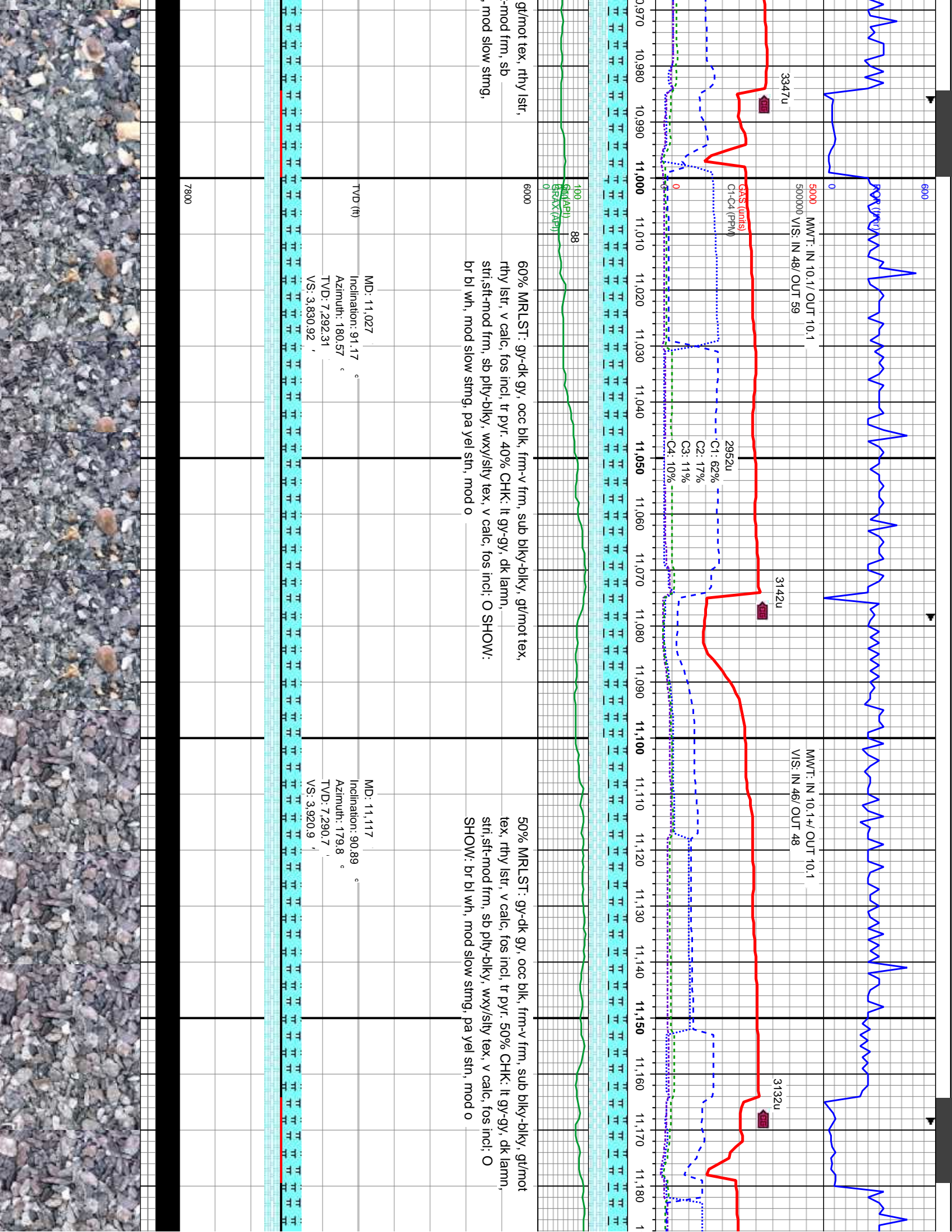


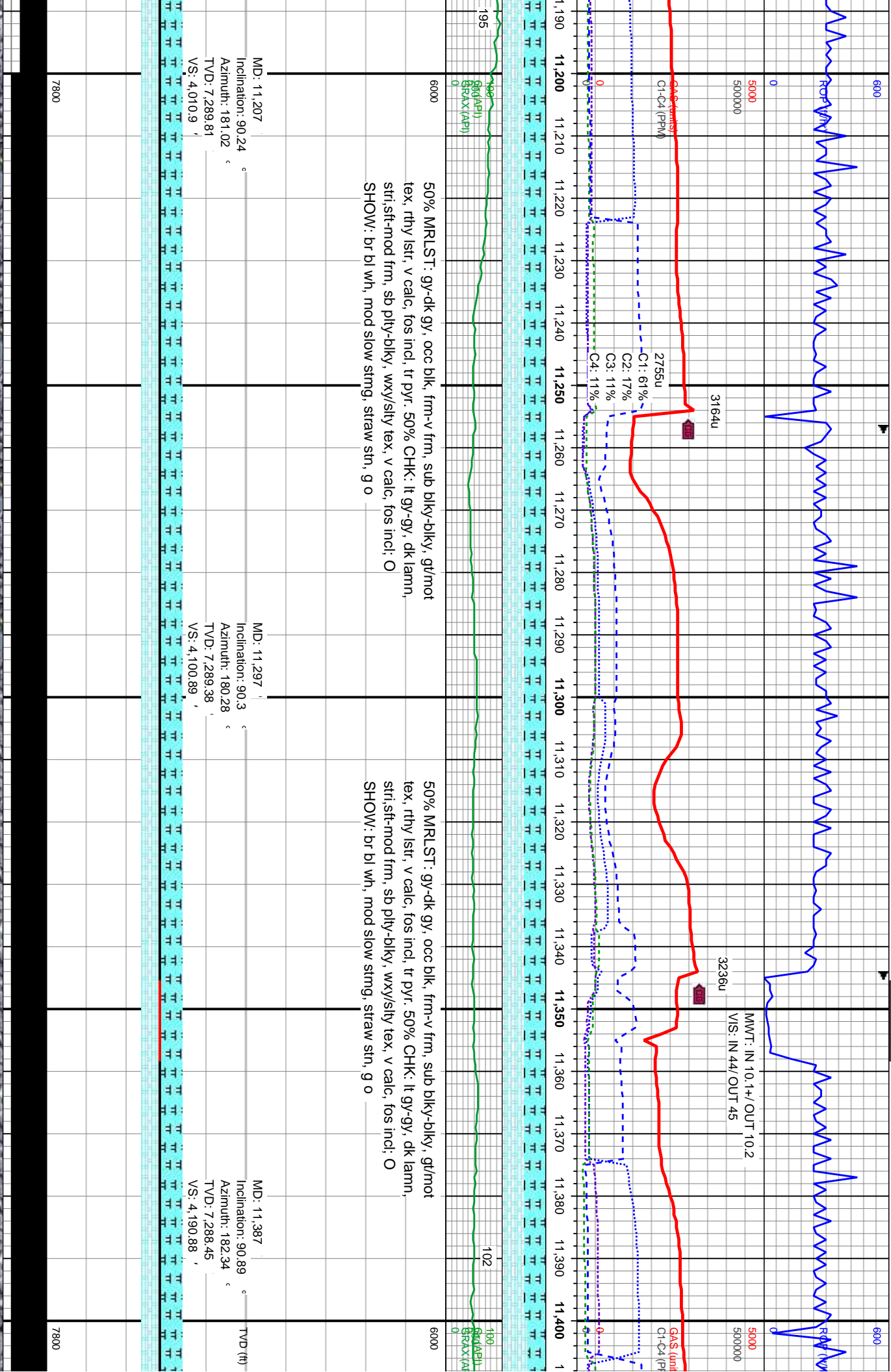


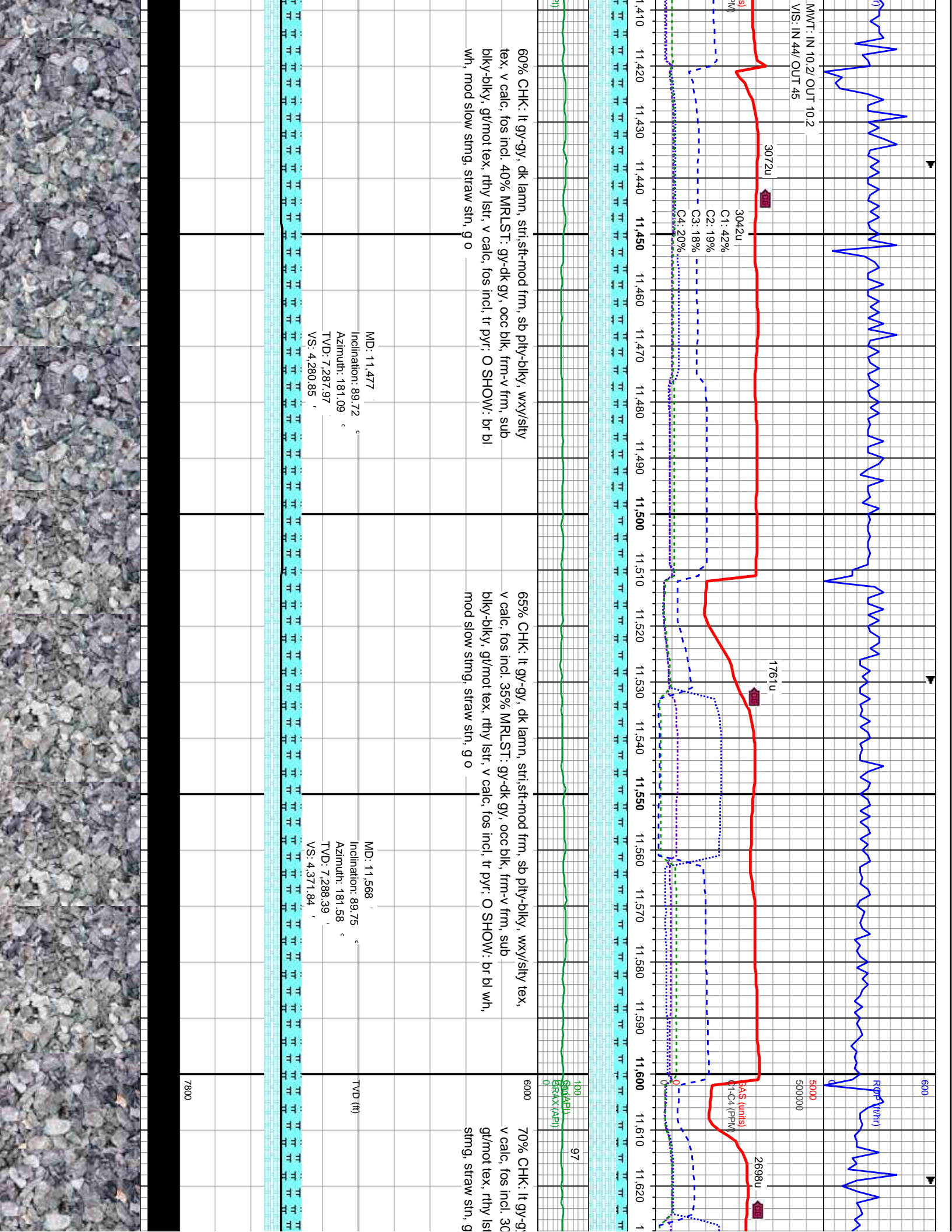


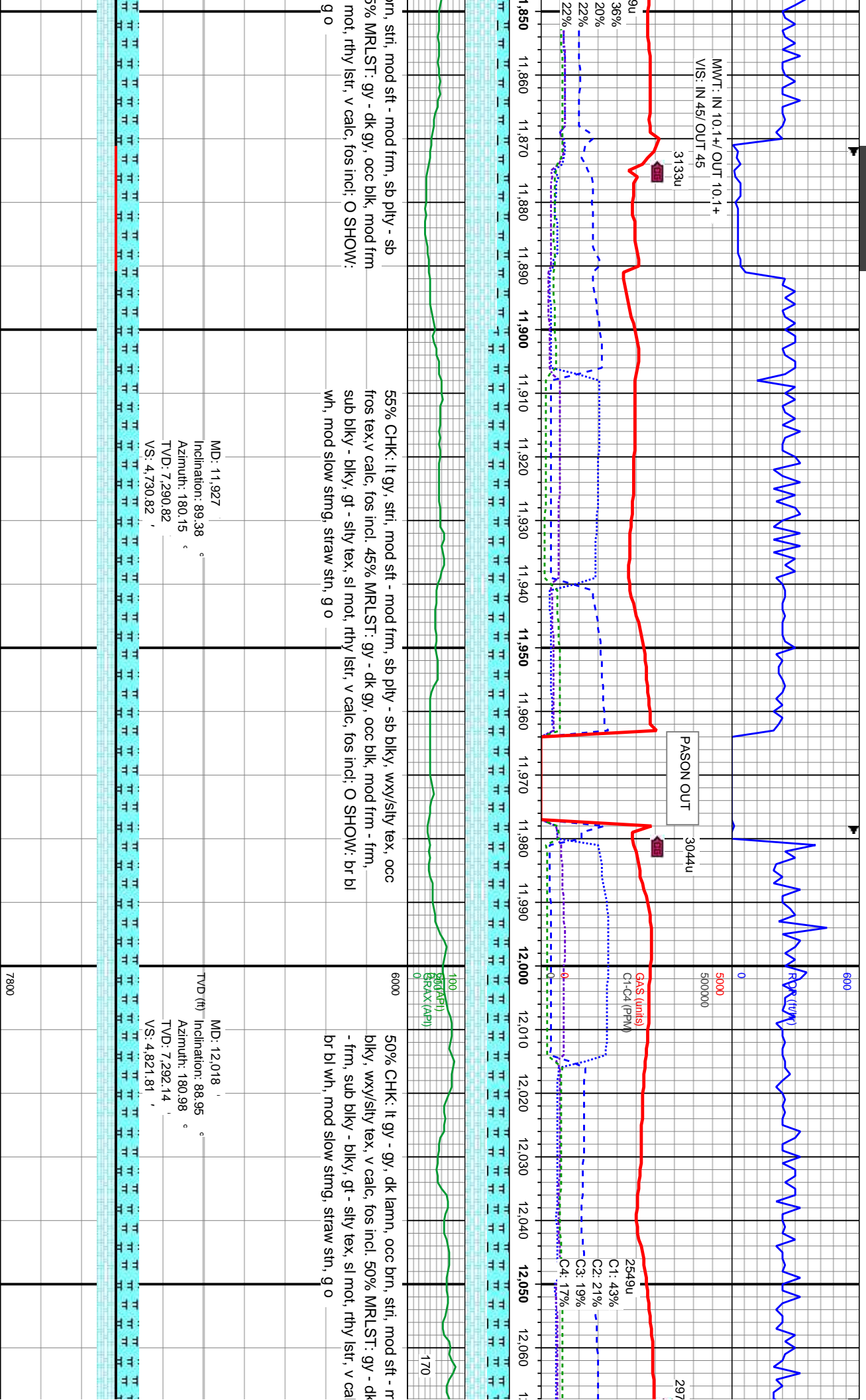


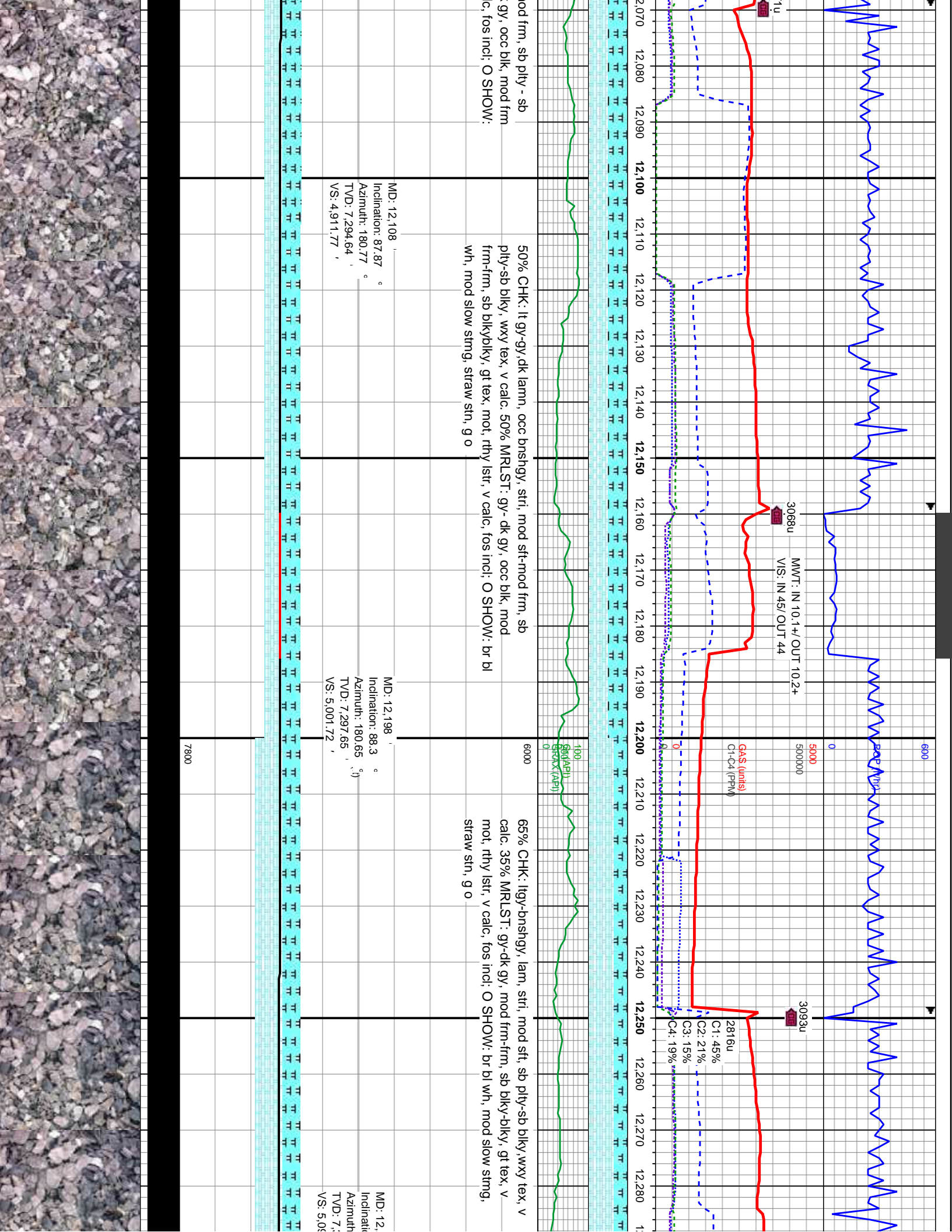


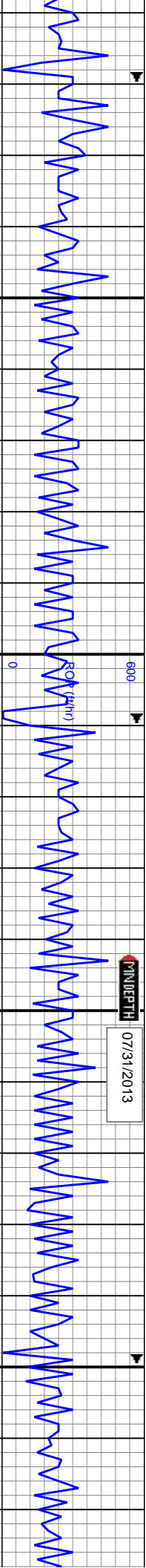












3068u

MMWT: IN 10.2+ / OUT 10.3+
VIS: IN 48 / OUT 50

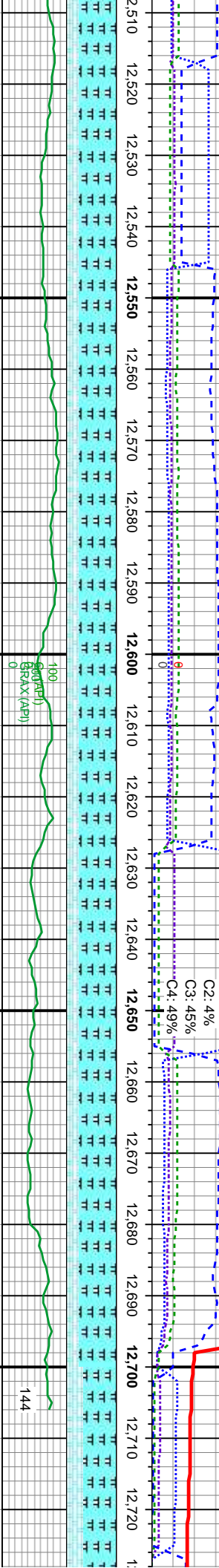
3066u

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

2867u

C1: 2%
C2: 4%
C3: 45%
C4: 49%

1000u



100
600 (AF1)
600 (AF1)
600 (AF1)

144

75% MRLST: dk gy-occ blk, silty/gt tex, mod rthy tex, mod sft-frm, sb blk-y-blk, v calc, fos incl, 25% CHK: gy, sl silty tex, sb ply-blk, v calc; O SHOW: br bl wh, mod slow strng, straw str, g o

75% MRLST: dk gy-occ blk, silty/gt tex, mod sft-mod frm, sb blk-y-blk, v calc, 25% CHK: gy, sl silty tex, rthy lstr, sb ply-blk, v calc; O SHOW: br bl wh, mod slow strng, straw str, g o

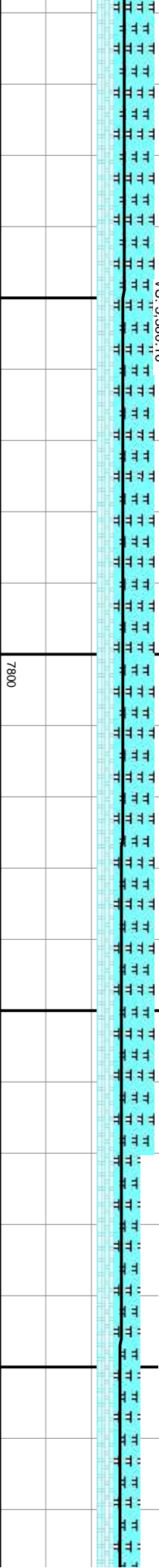
65% MRLST: dk gy-occ b sft-mod frm, sb blk-y-blk, gy, sl silty tex, rthy lstr, sb SHOW: br bl wh, mod slo str, g o

MD: 12,557
Inclination: 86.02 °
Azimuth: 180.38 °
TVD: 7,316.74
VS: 5,360.16

TVD (ft)

MD: 12,648
Inclination: 85.45 °
Azimuth: 180.61 °
TVD: 7,323.5
VS: 5,450.91

MD: 12,698
Inclination: 85.15 °
Azimuth: 180.42 °
TVD: 7,327.6
VS: 5,500.74





12,730 12,740 12,750 12,760 12,770 12,780 12,790 12,800

12,730 12,740 12,750 12,760 12,770 12,780 12,790 12,800

slty/gt tex, mod
v calc. 35% CHK:
ply-blky, v calc; O
w stmg, straw

Thank you for using
Columbine Logging, Inc.

TD @ MD 12,749'
on 07/31/2013 @ 0:46 MST

PROJECTION TO BIT

MD: 12,749 '
Inclination: 85.15 °
Azimuth: 180.42 °
TVD: 7,331.9 '

12,730 12,740 12,750 12,760 12,770 12,780 12,790 12,800

