



Scale: 5" / 100'
Measured Depth Log

Well Name Wilson IC 03-259HN

Location SECTION 1, T3N, R68W

State COLORADO

County WELD

Country UNITED STATES

Rig Number PRECISION 460

API Number 051234545300

AFE # 19DC0062

Geographic Region DJ BASIN

Field WATTENBERG

Ground Elevation 4985.3'

K.B. Elevation 5005.3'

Logged Interval 6000' MD To 17959' MD

Total Depth 17959' MD

Formation NIOBRARA B CHALK

Type of Drilling Fluid OIL BASED MUD

Operator

Company Great Western Operating Company, LLC

Address 1001 17th Street, Suite 2000
Denver, CO 80202



Geologist

Name Joey Luce, Zac Olds, Hunter Newman

Company Terra Guidance

Address 67 W. Floyd Ave. Ste 105
Englewood, CO 80110
(970) 260-5408

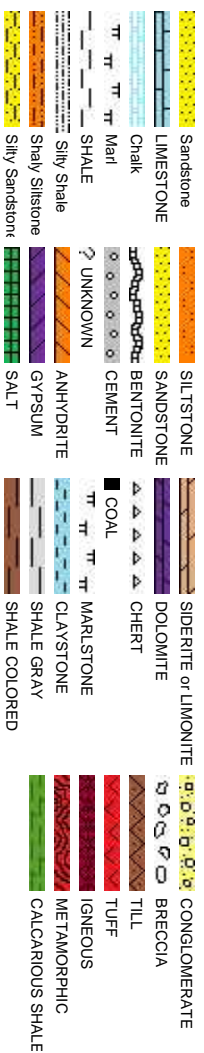


Other

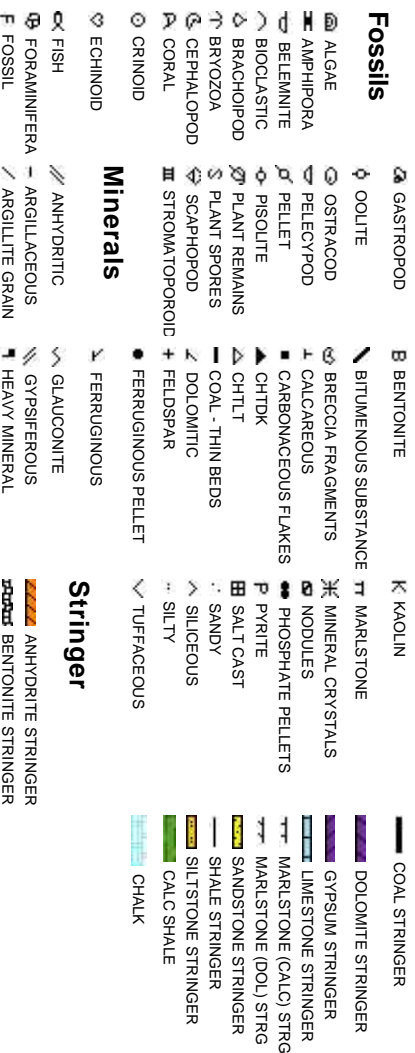
MUDLOG START DATE 05/15/2019

MUDLOG END DATE 05/18/2019

Rock Types



Accessories



Fossils

Minerals

Stringer

Porosity

Engineering

Oil Show

O ORGANIC

P PINPOINT

D DEAD

V VUGGY

E EVEN

Q QUESTIONABLE

S SPOTTED STAINING BIT

C CASING

C CONNECTION (LEFT)

C CONNECTION (RIGHT)

E EARTHY

C CONNECTION GAS

F FRACTURE

C CORE - LOST

X INTERCRYSTALLINE

C CORE - RECOVERED

I INTEROOLITIC

D DST INTERVAL

M MOLDIC



F FAULT

Other Symbols

 FORMATION TOP L LITHOGRAPHIC


Rounding

GAS SHOW  MICROXLN

 MIN DEPTH  ANGULAR  MUDSTONE

NORMAL FAULT  ROUNDED  PACKSTONE

OIL SHOW  SUBANG  WACKESTONE

OVERTURNED STRATA  SUBRND

Sorting

REVERSE FAULT

Textures

SIDEWALL CORE (LEFT)  MODERATE


SIDEWALL CORE (RIGHT)  BOUNDSTONE  POOR

SLIDE  CHALKY  WELL


 SURVEY  CRYPTOXLN

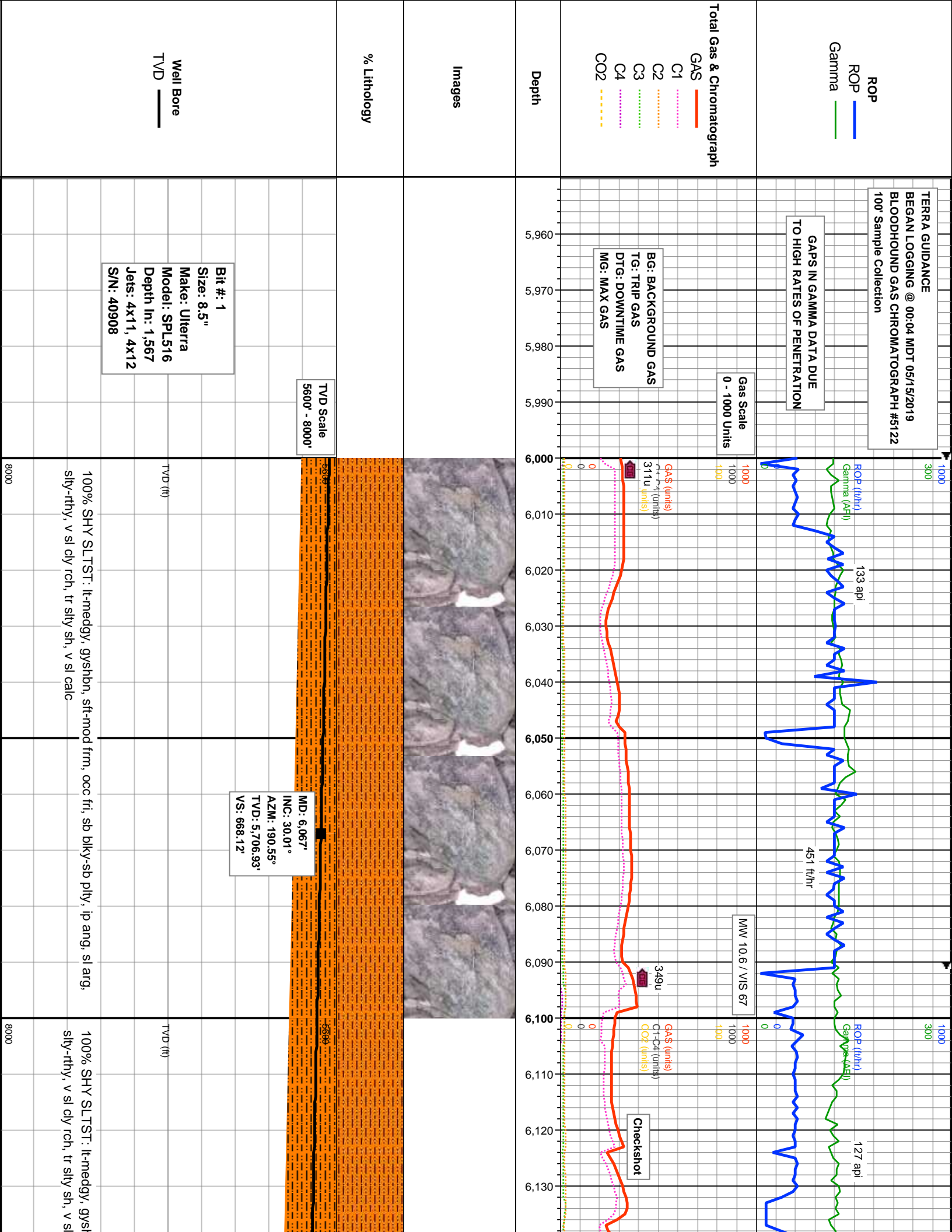
CALCARIUOS SHALE

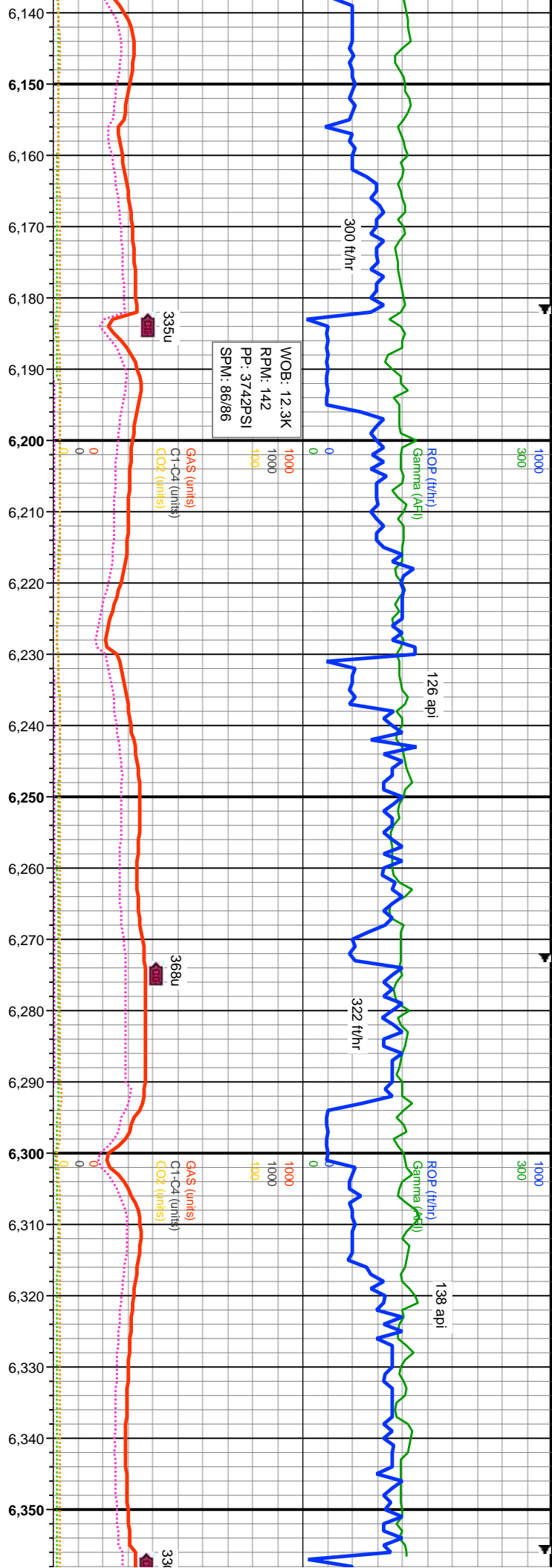
 TRIP GAS  EARTHY

WIRELINE TESTED - LEFT  FINELYXLN

CALCARIOUS SHALE

WIRELINE TESTED - RT  GRAINSTONE

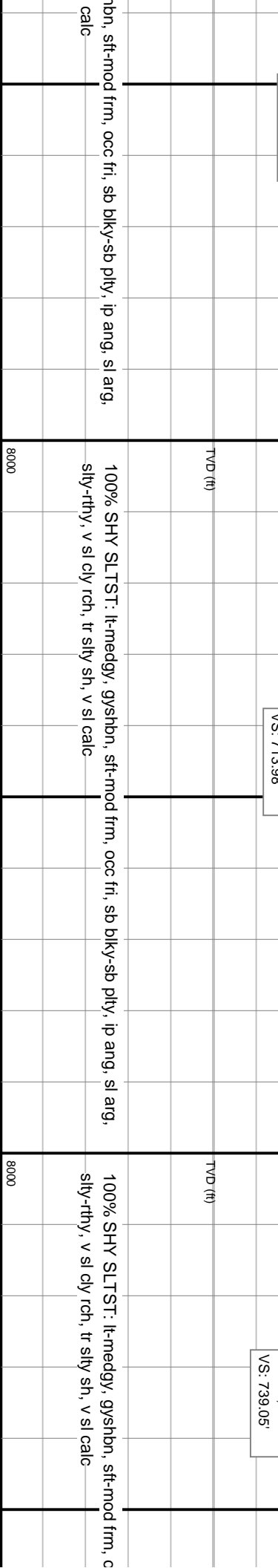


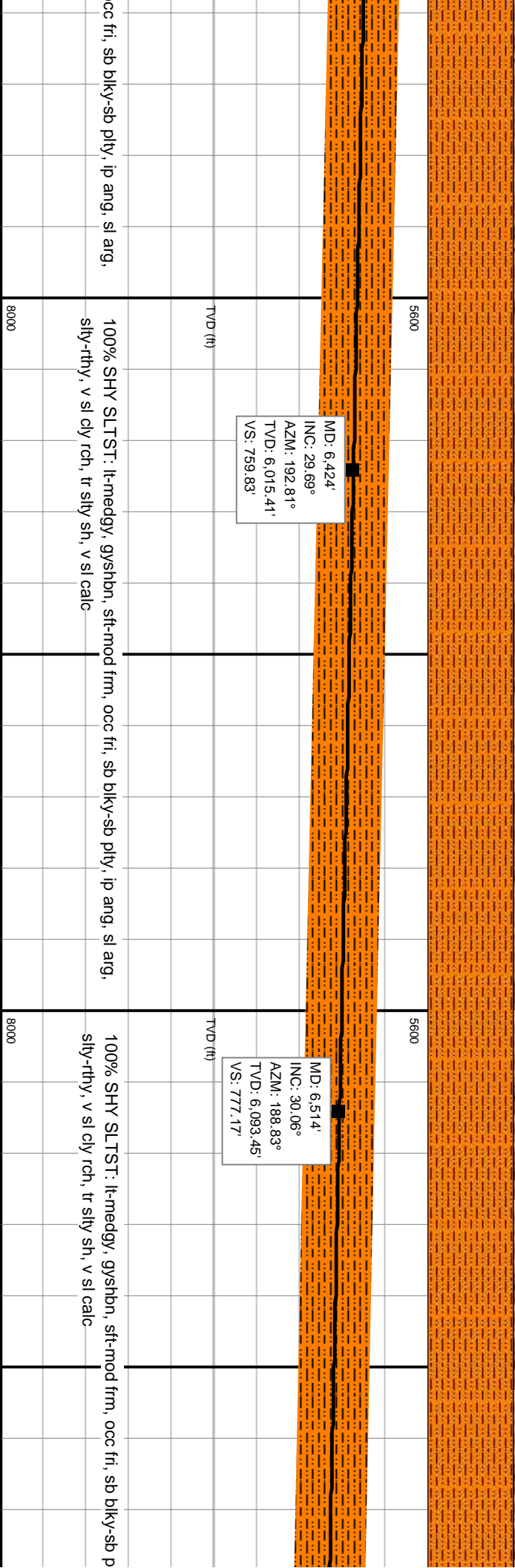
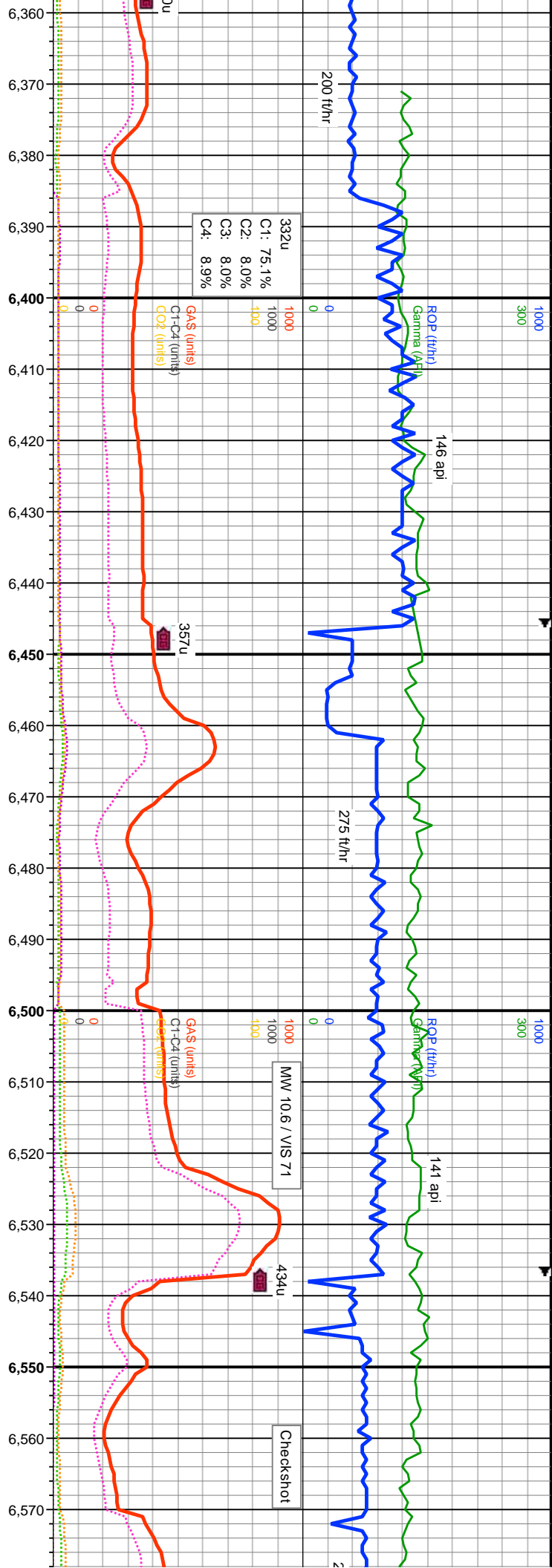


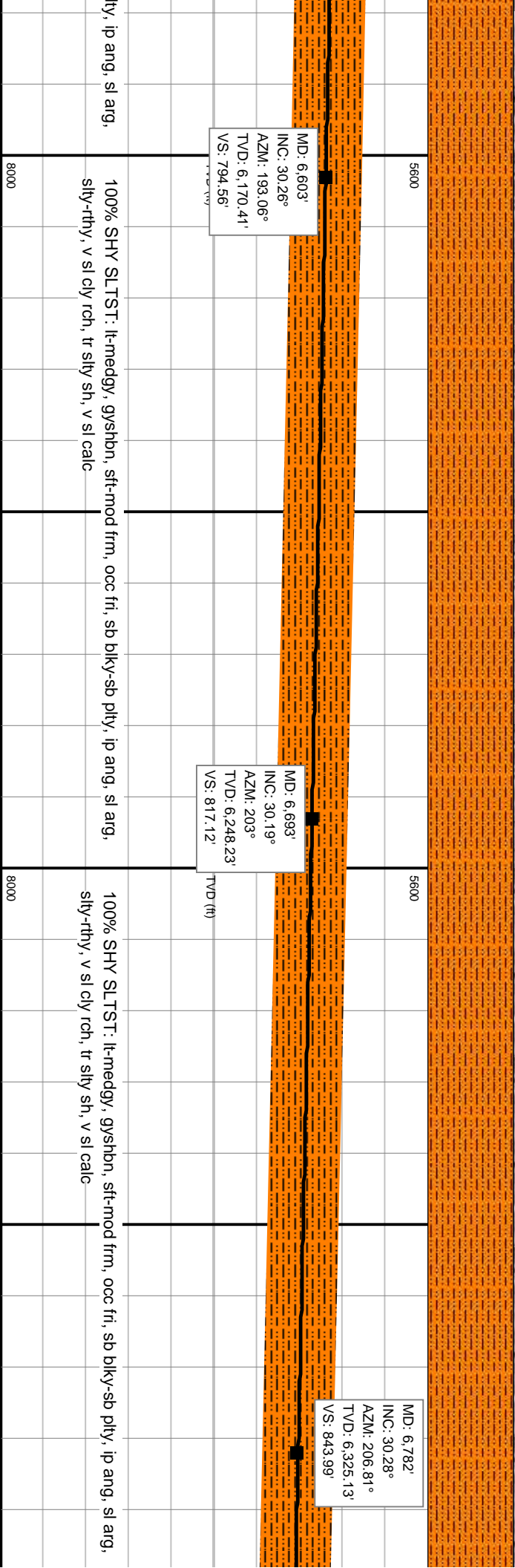
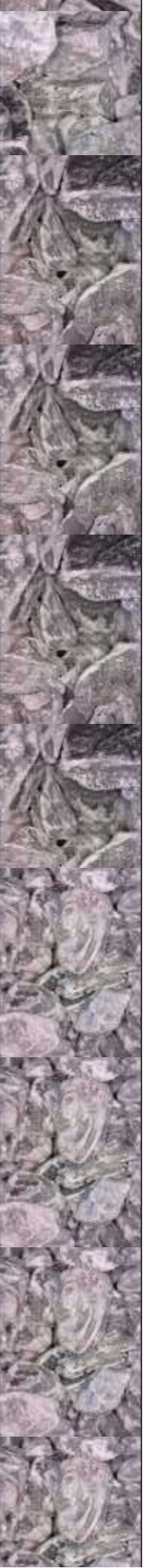
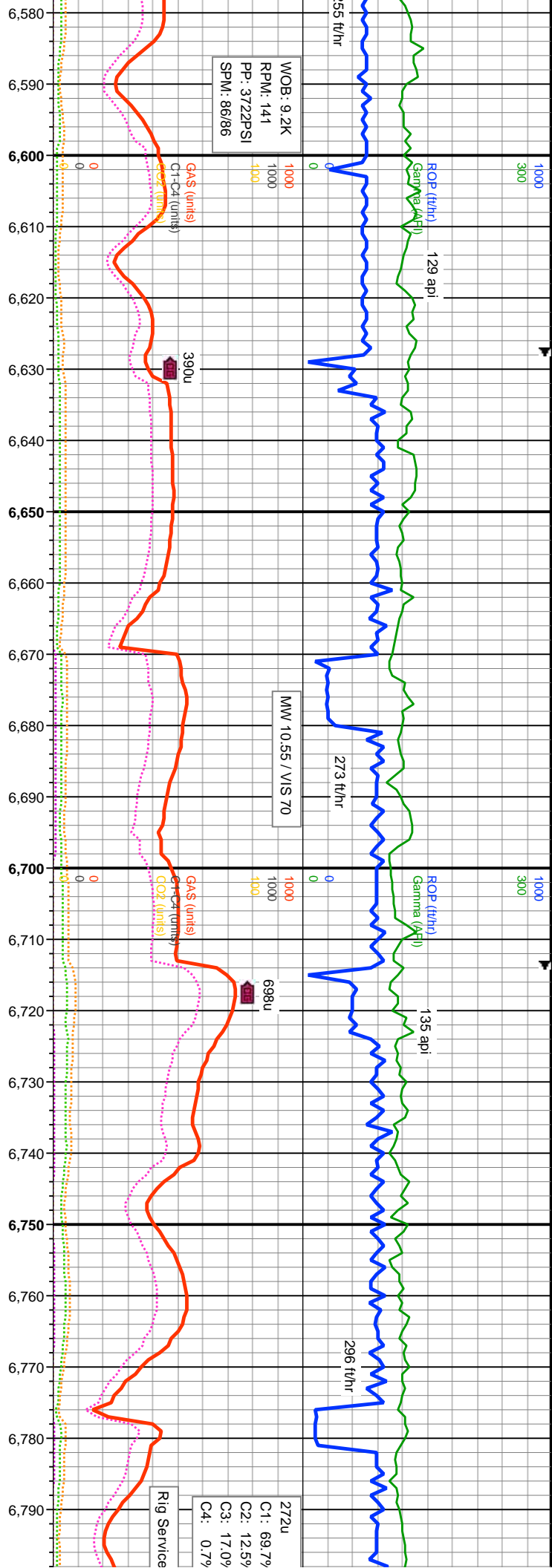
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INC: 30.7°
AZM: 200.09°
TVD: 5,783.78'
VS: 688.7'

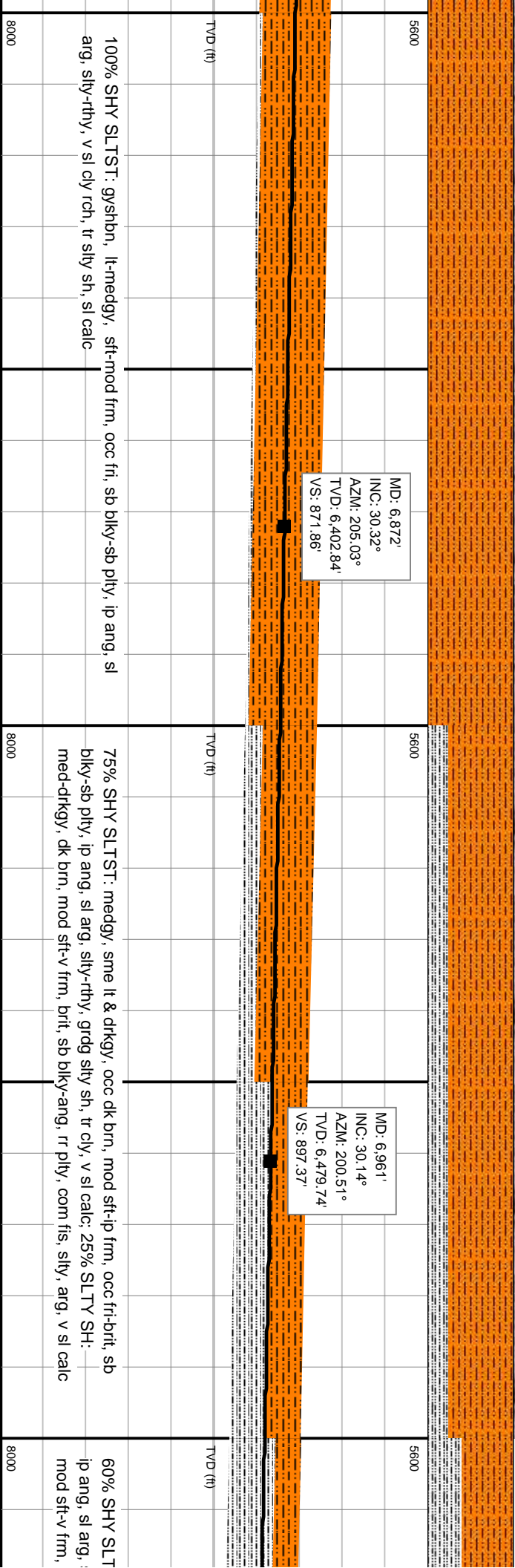
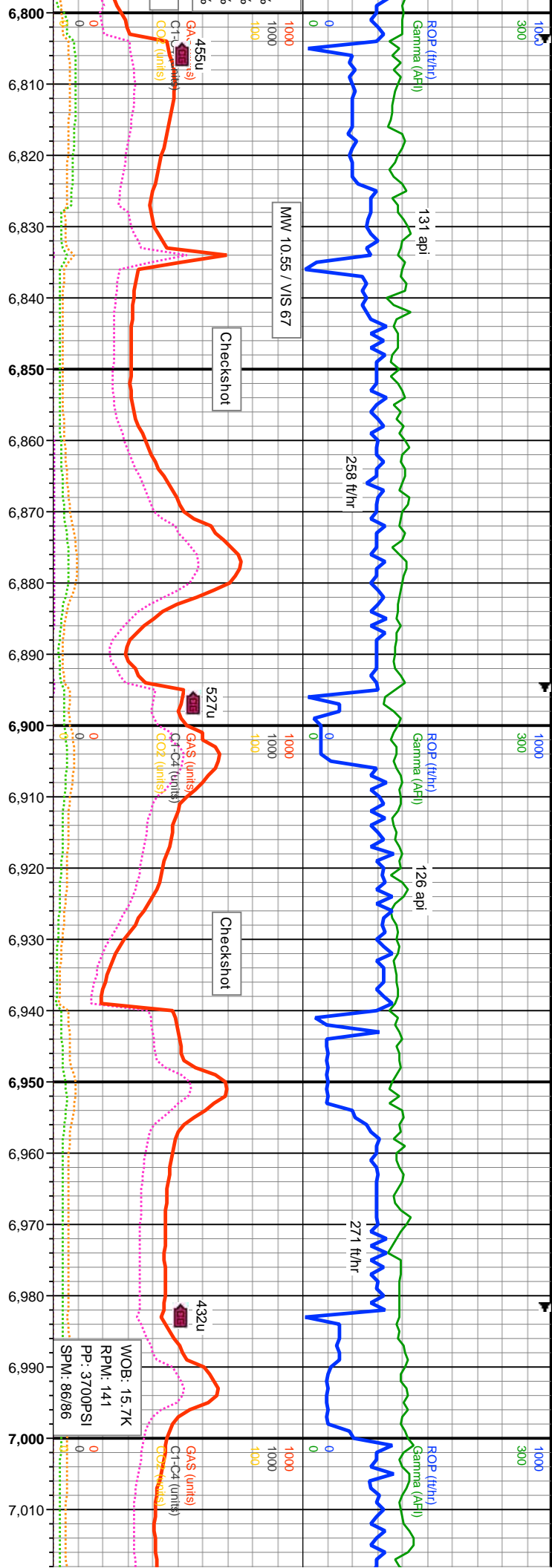
MD: 6,245'
INC: 30.36°
AZM: 204.08°
TVD: 5,860.45'
VS: 713.98'

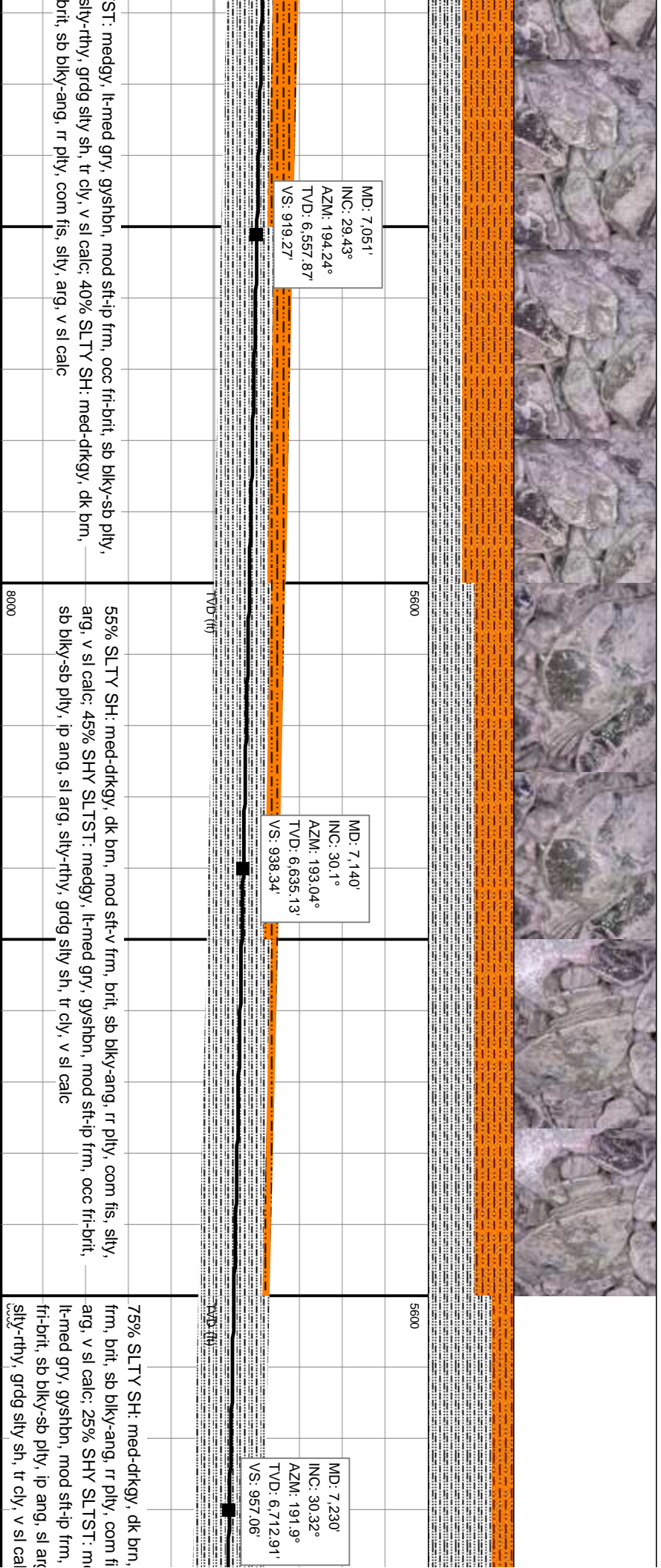
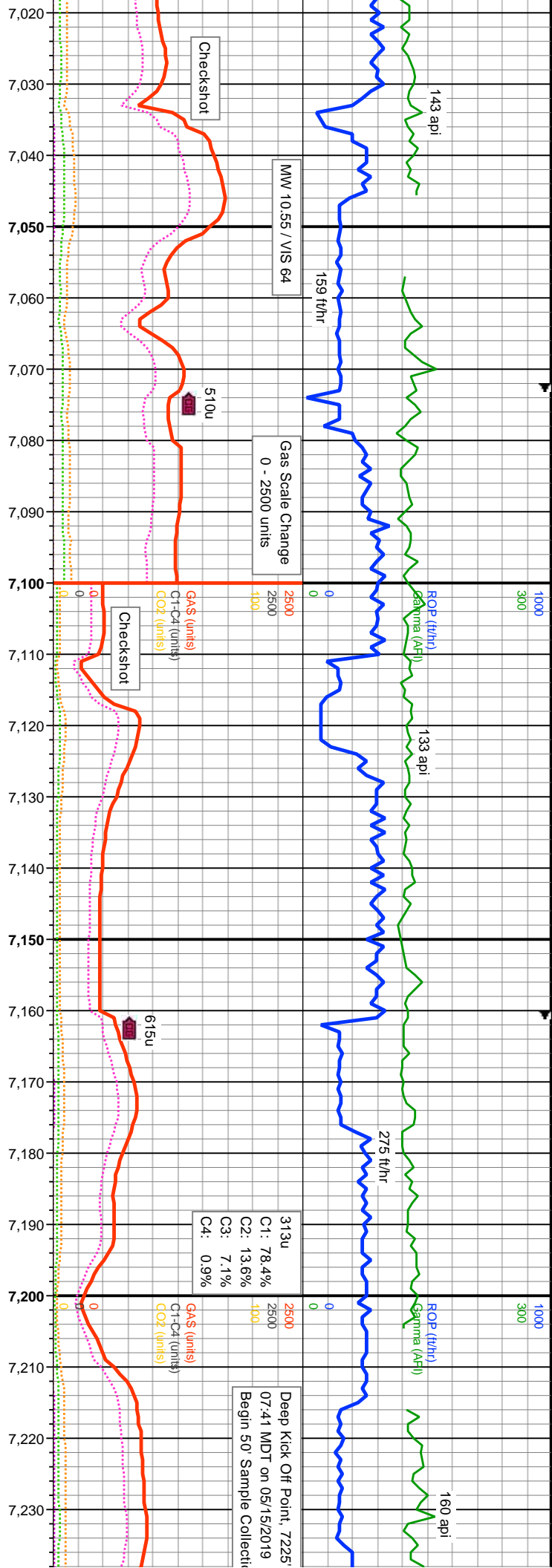
MD: 6,335'
INC: 30.09°
AZM: 199.23°
TVD: 5,938.22'
VS: 739.05'

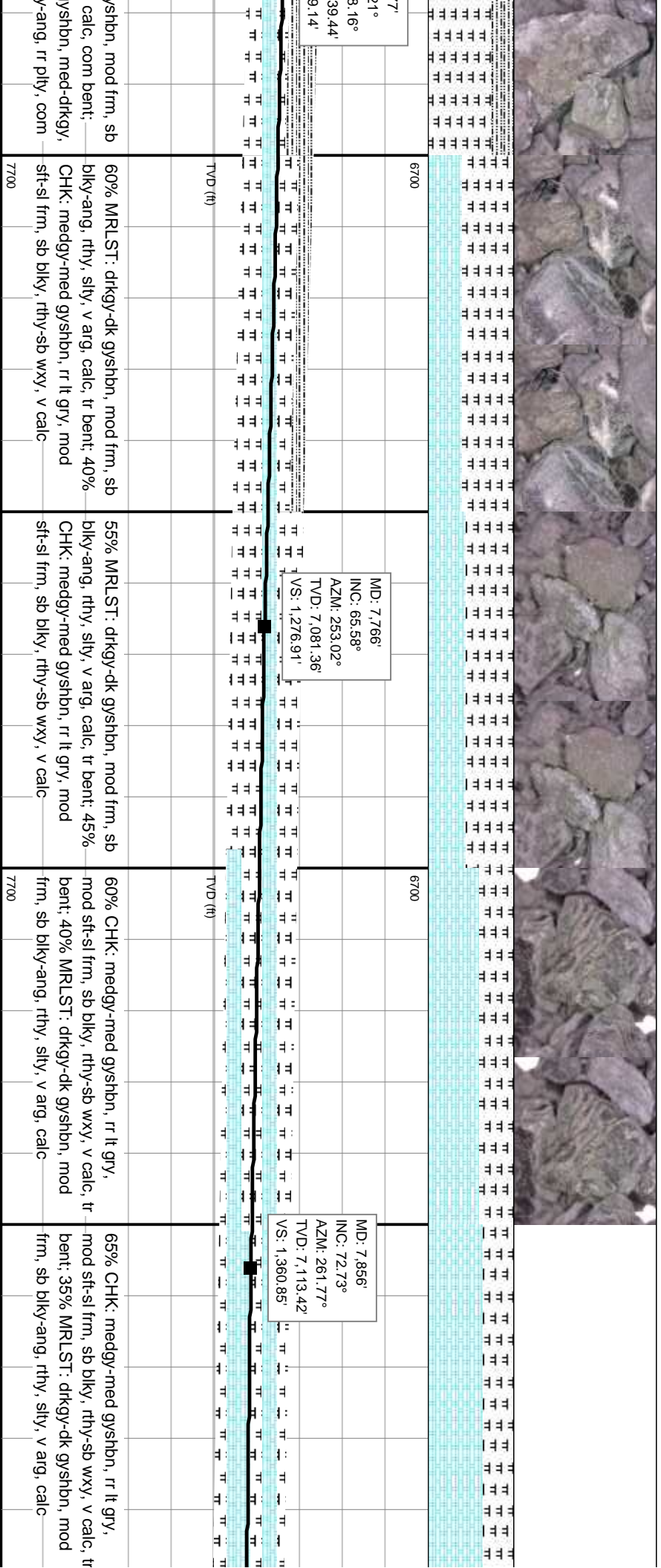
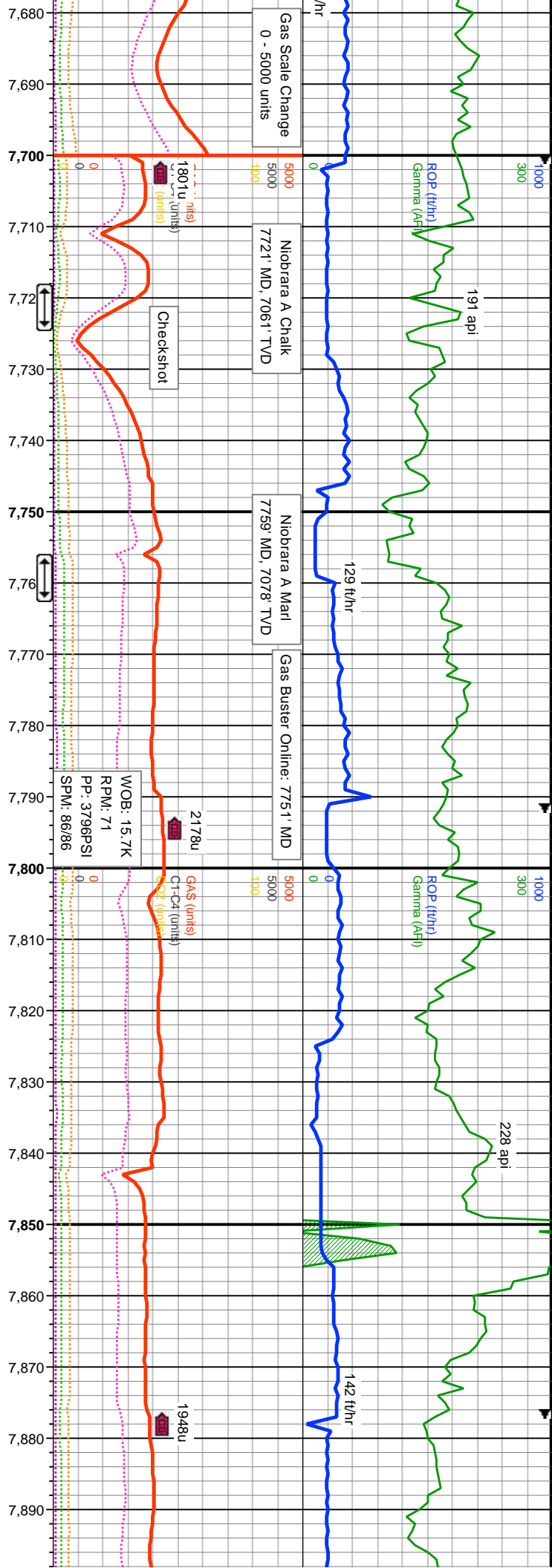


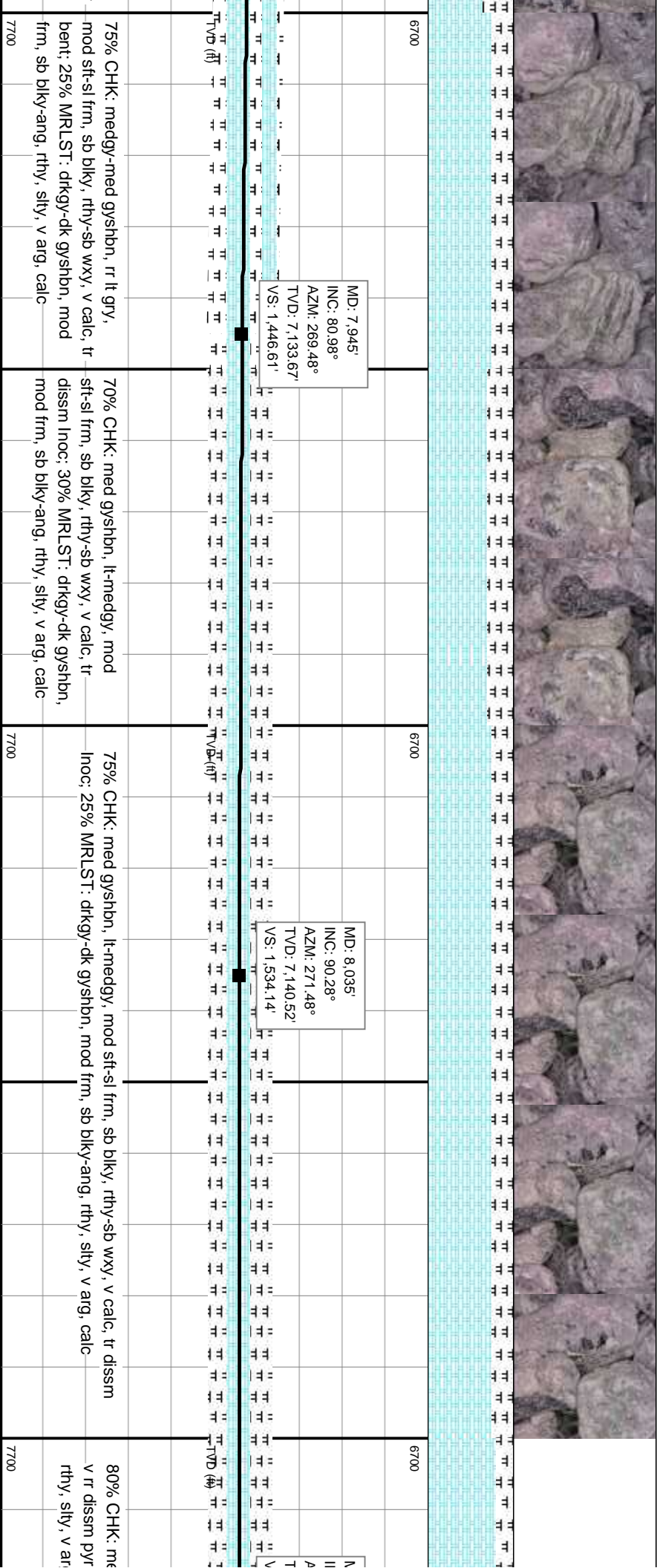
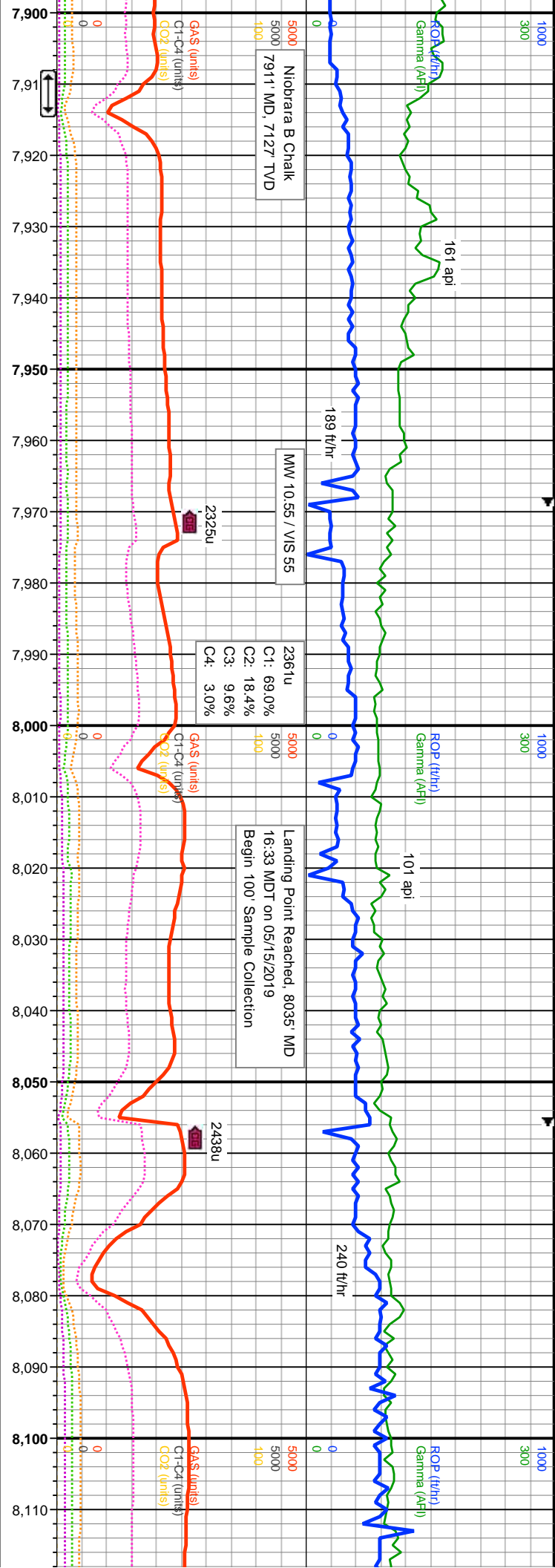


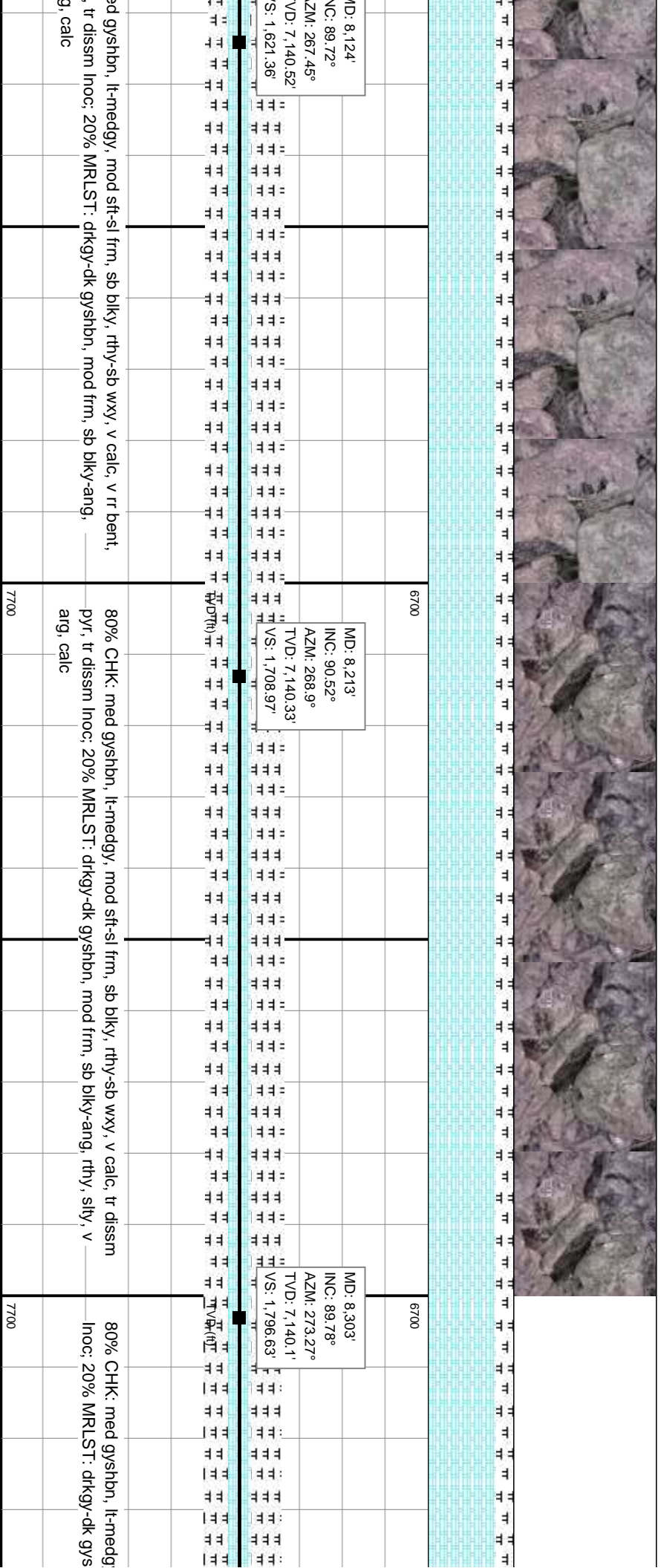
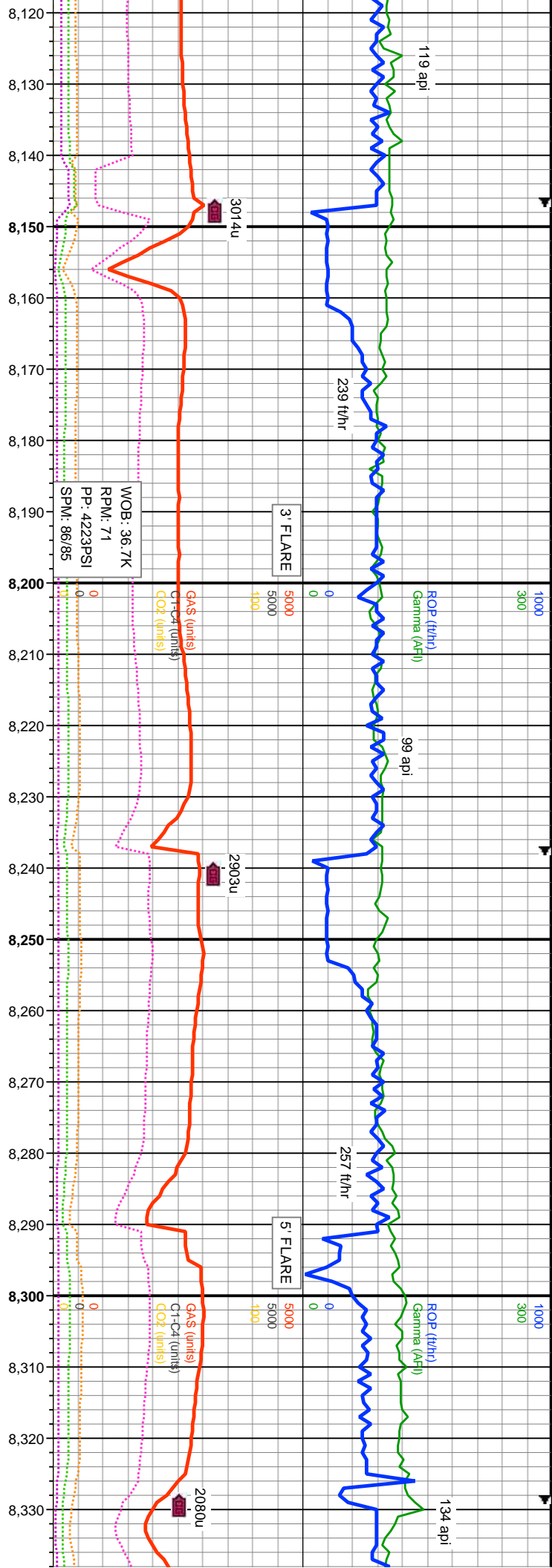


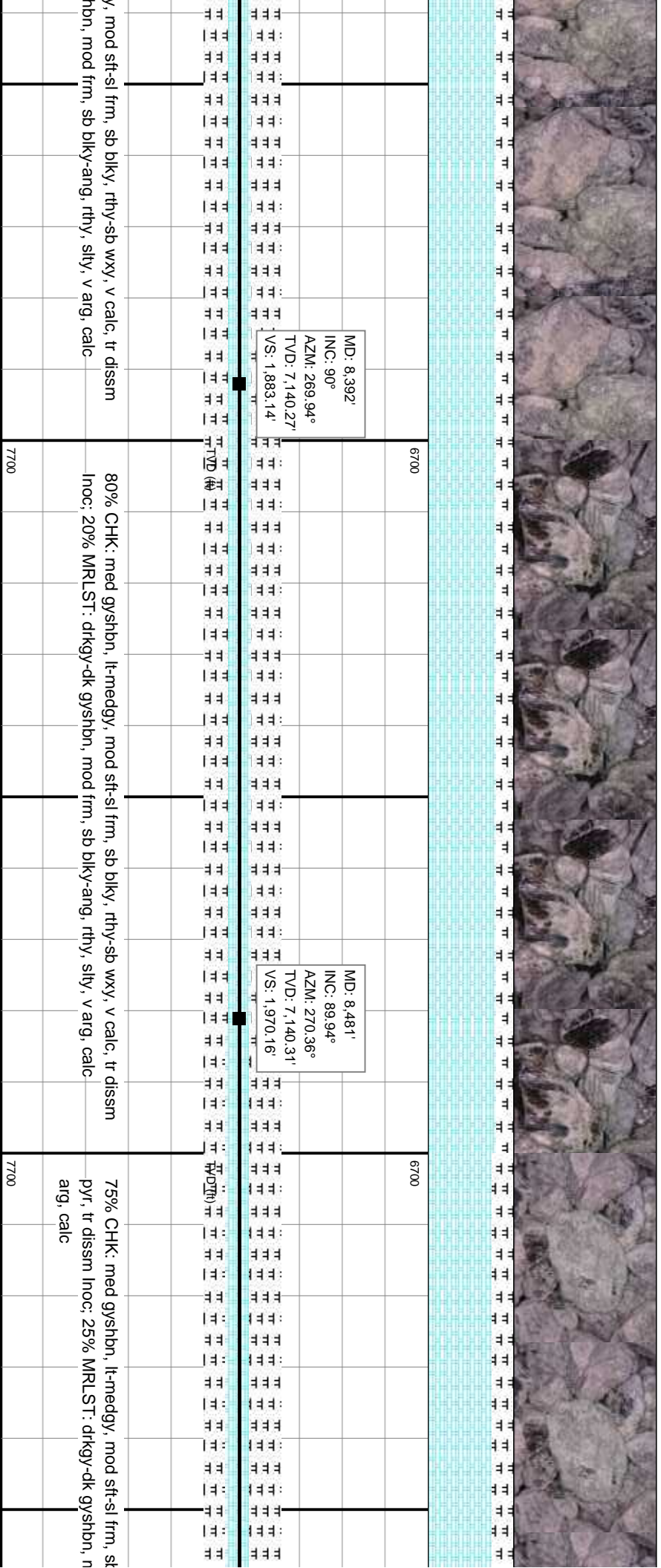
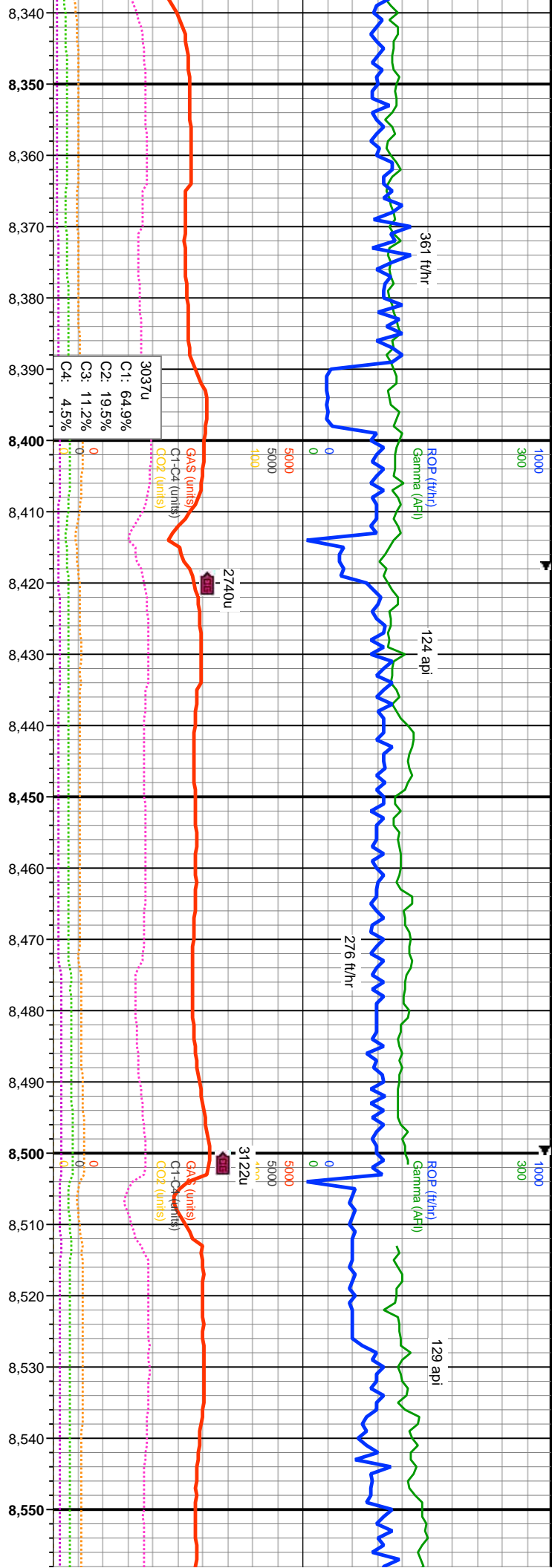


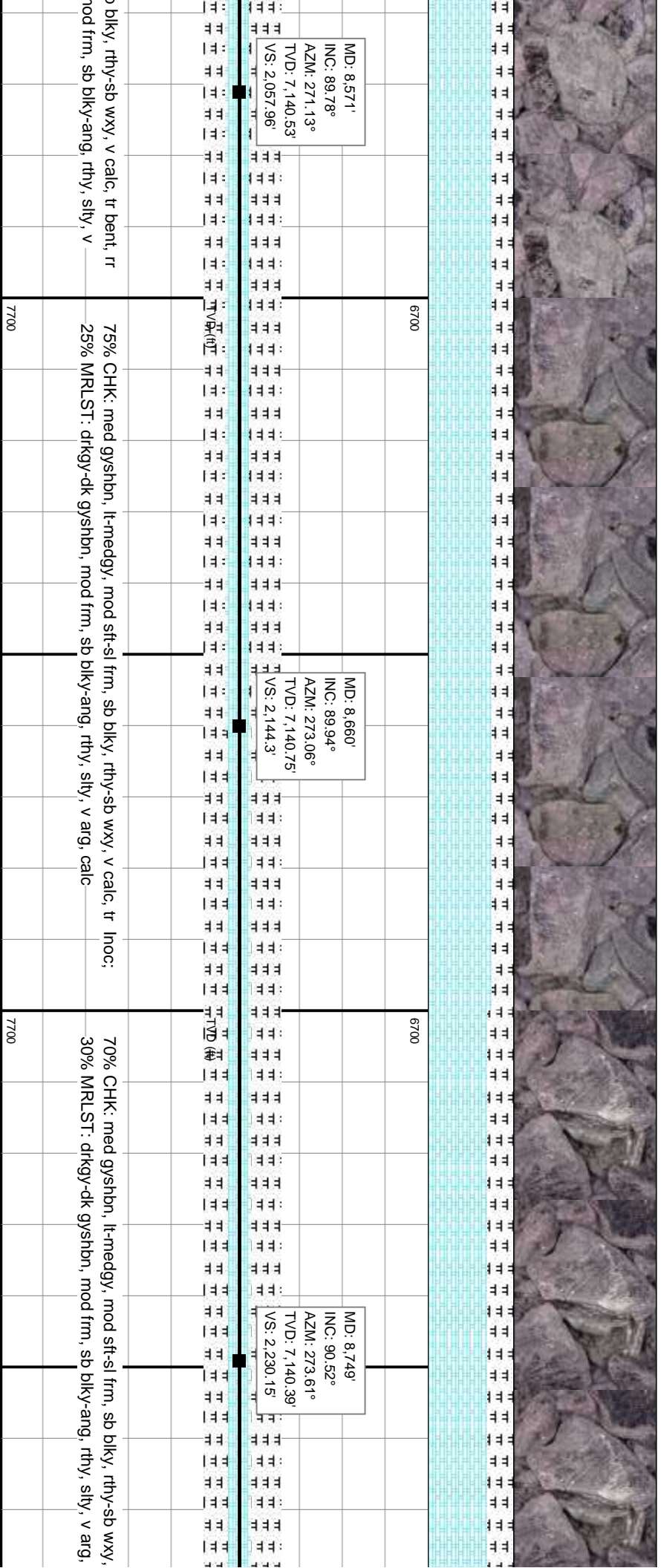
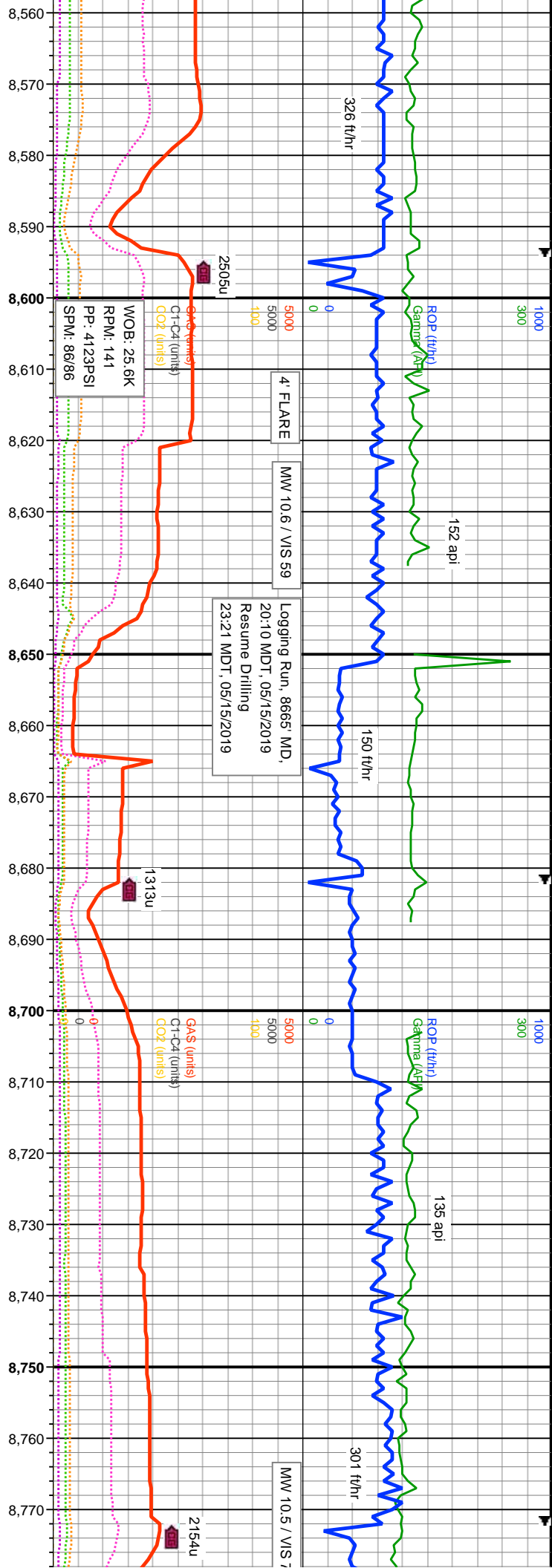


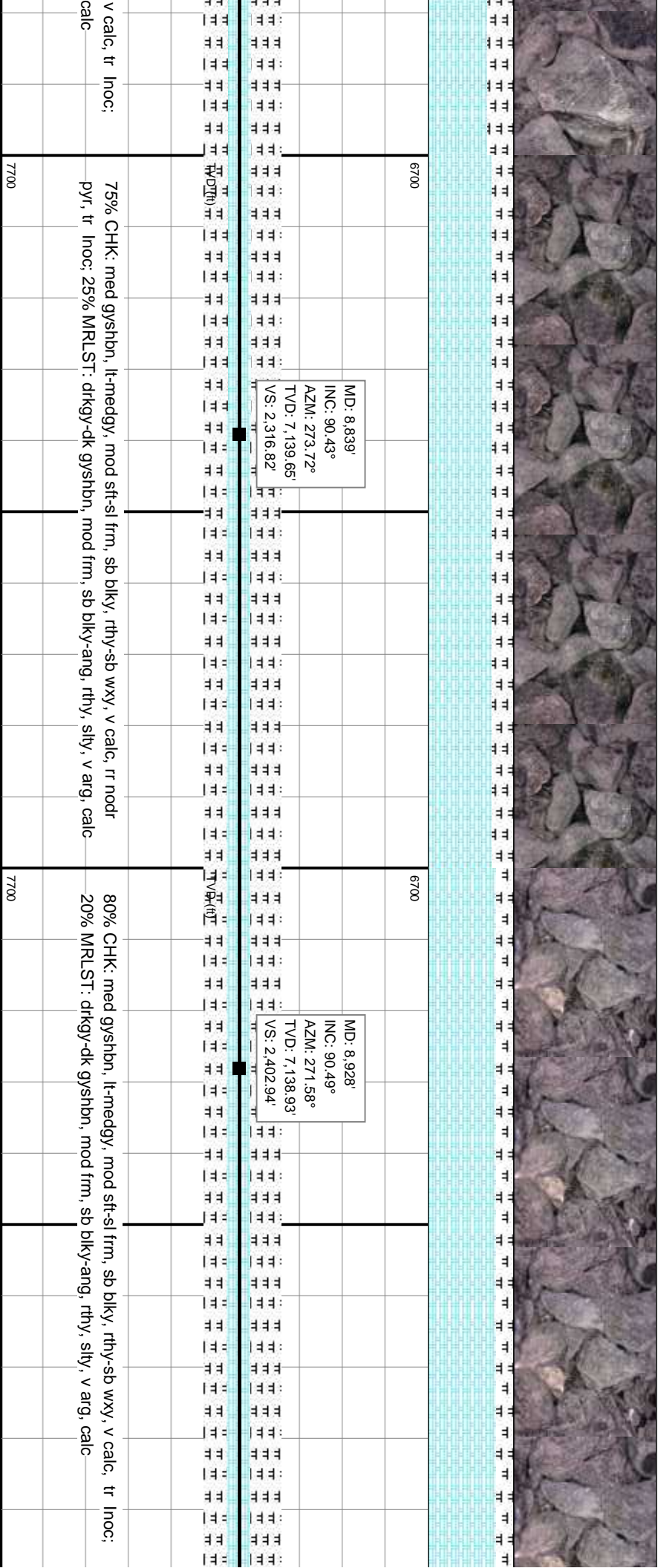
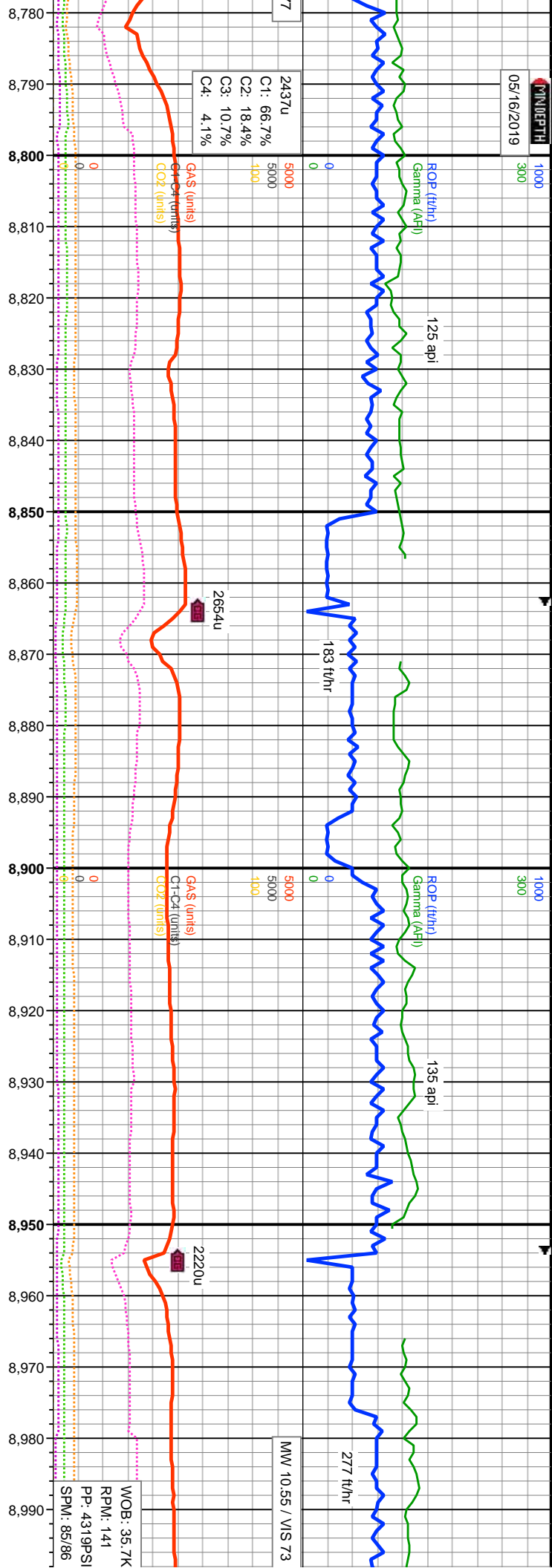


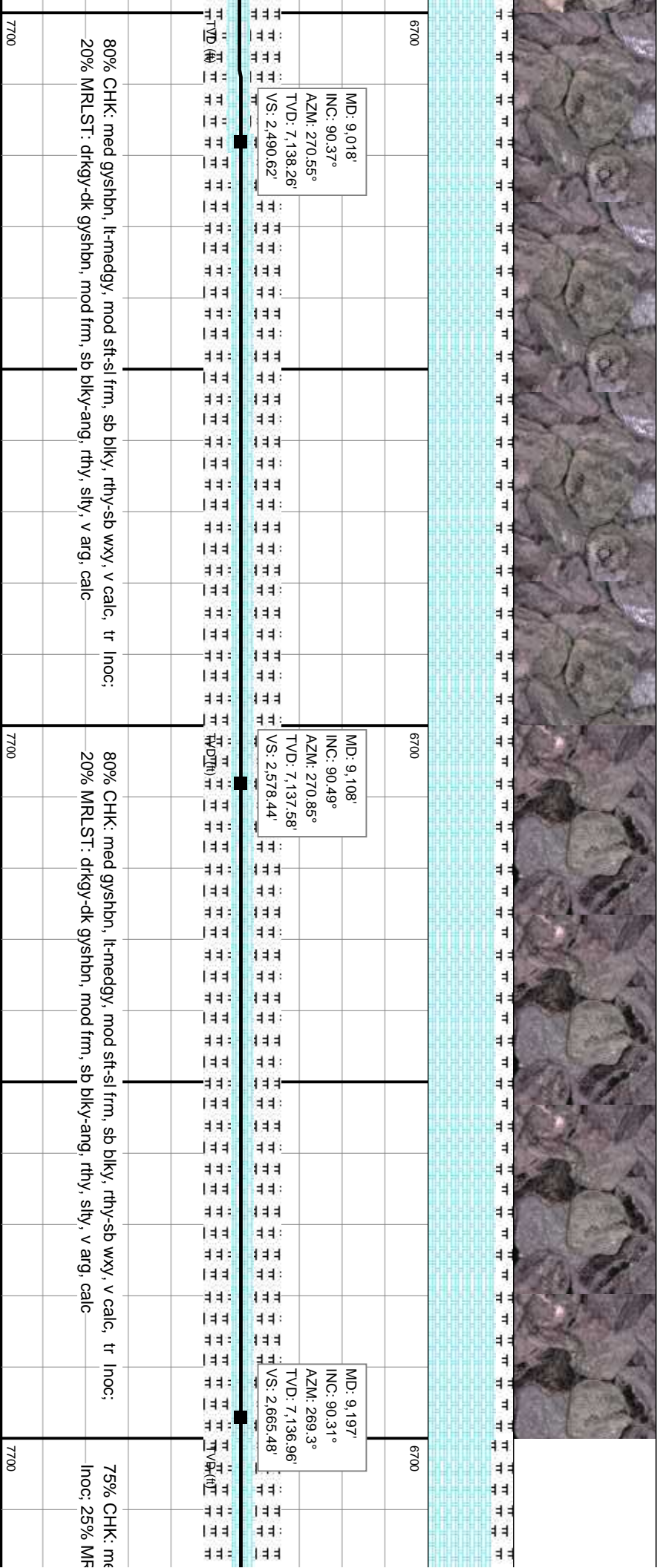
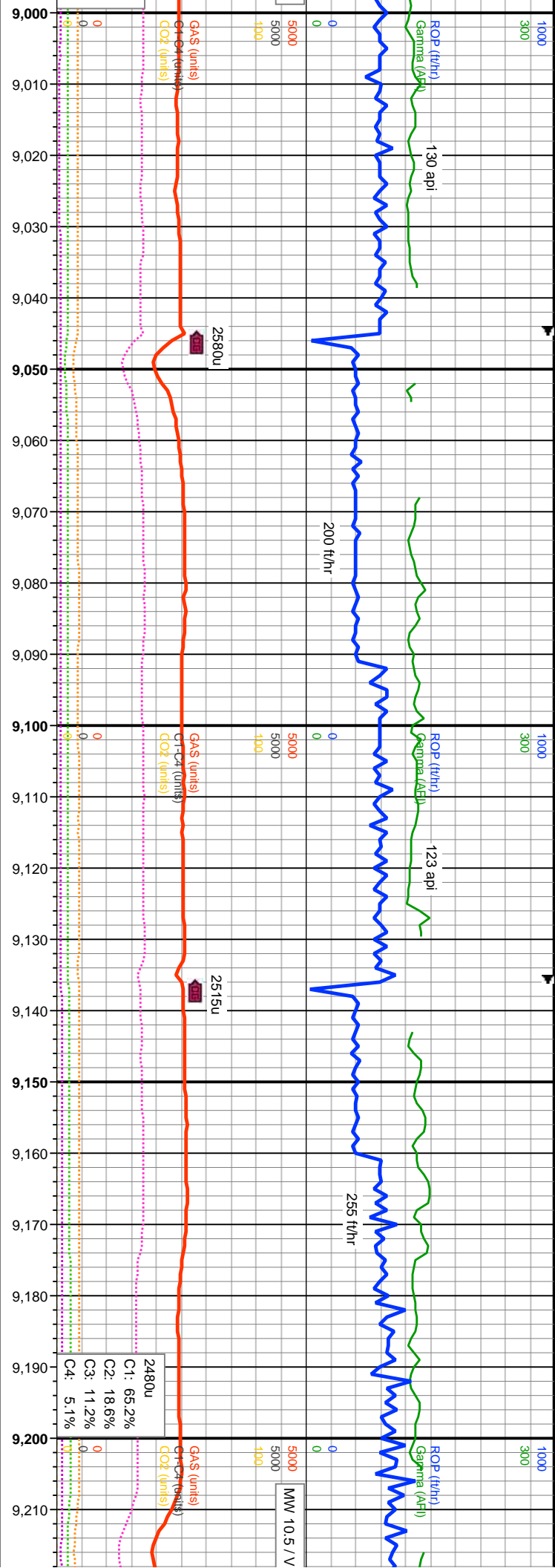


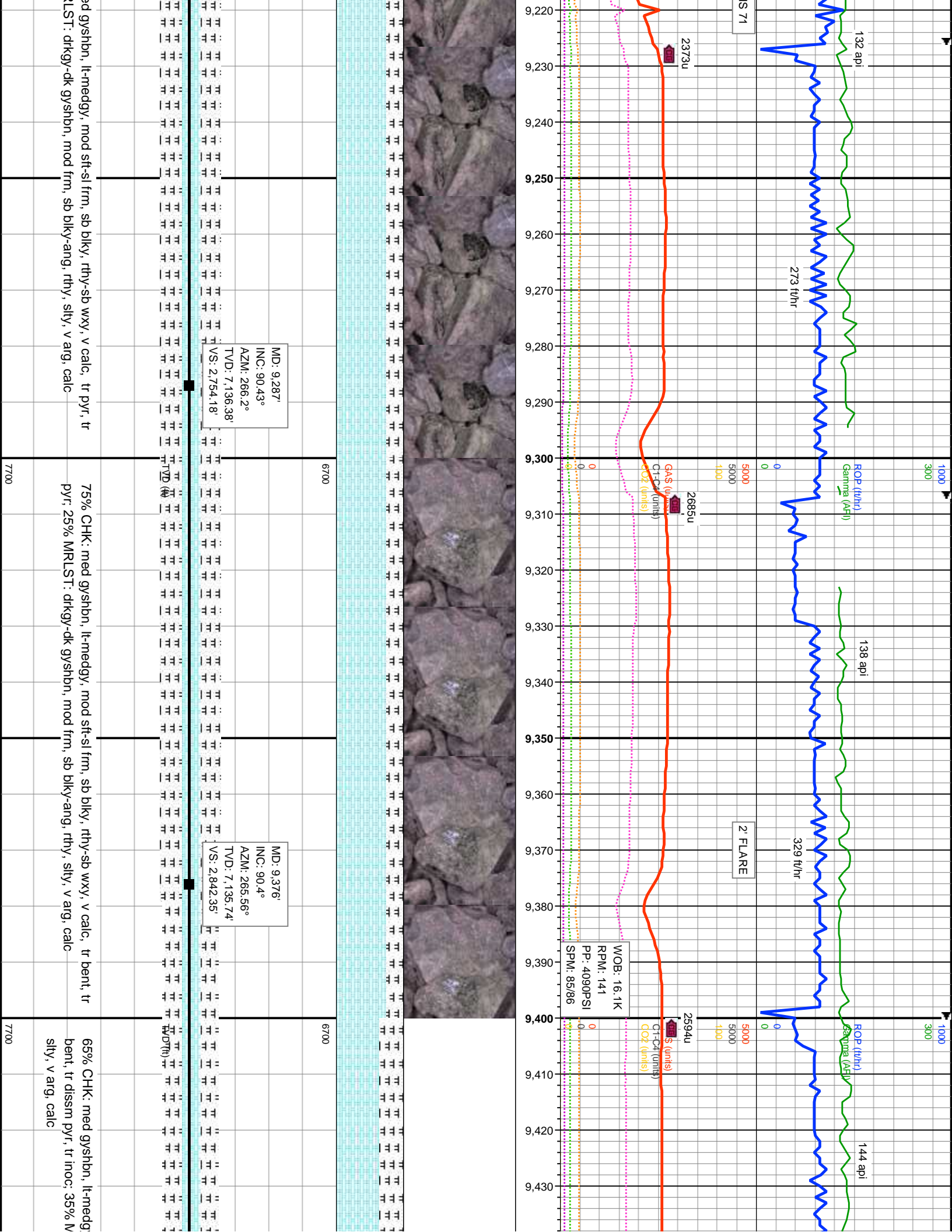


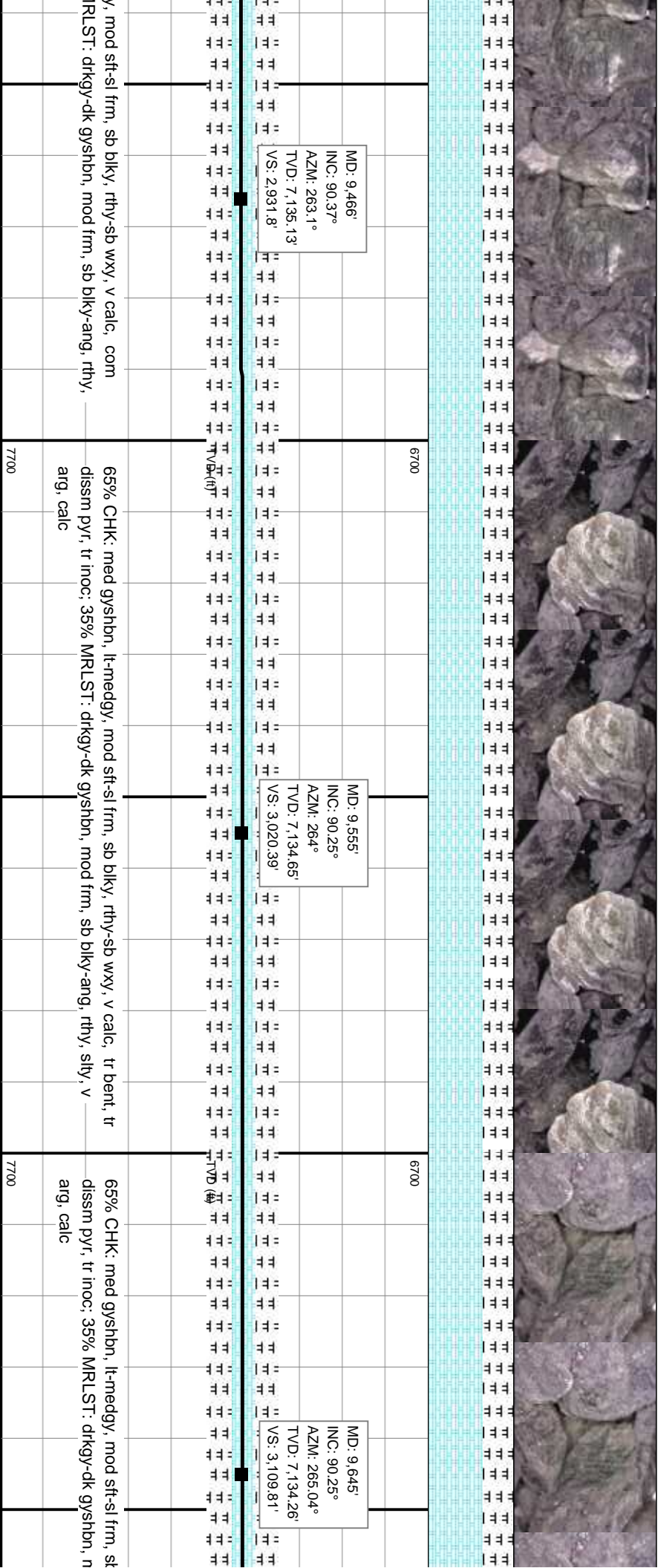
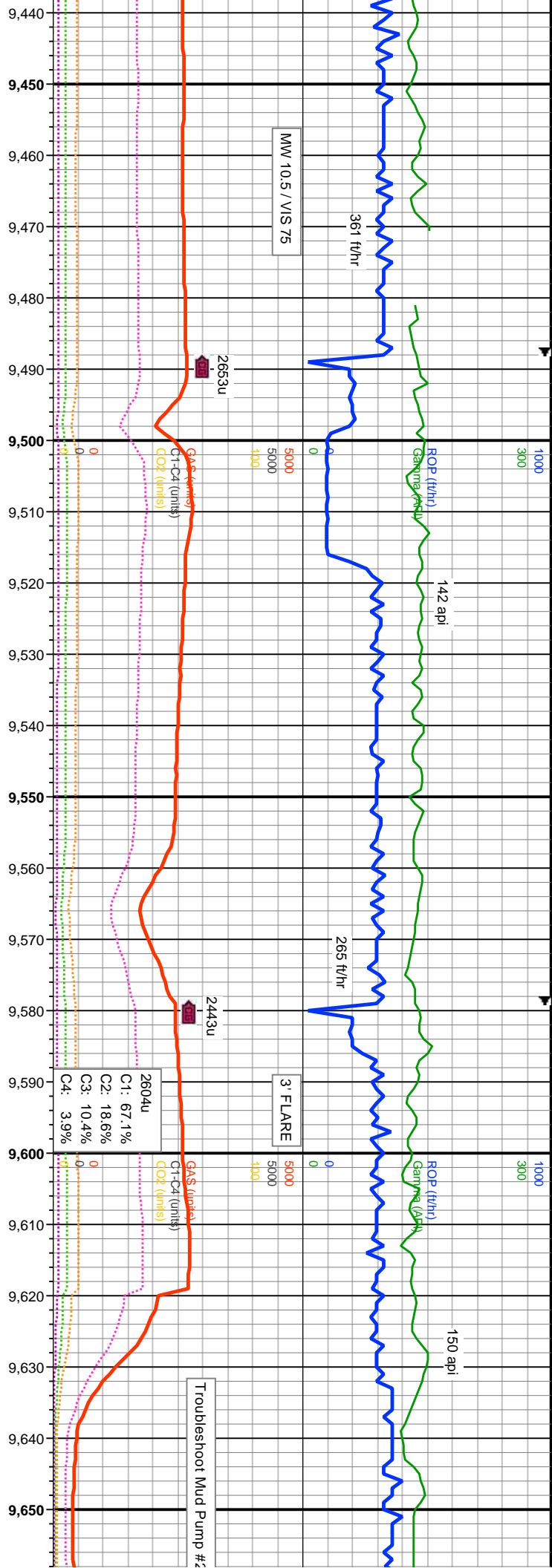


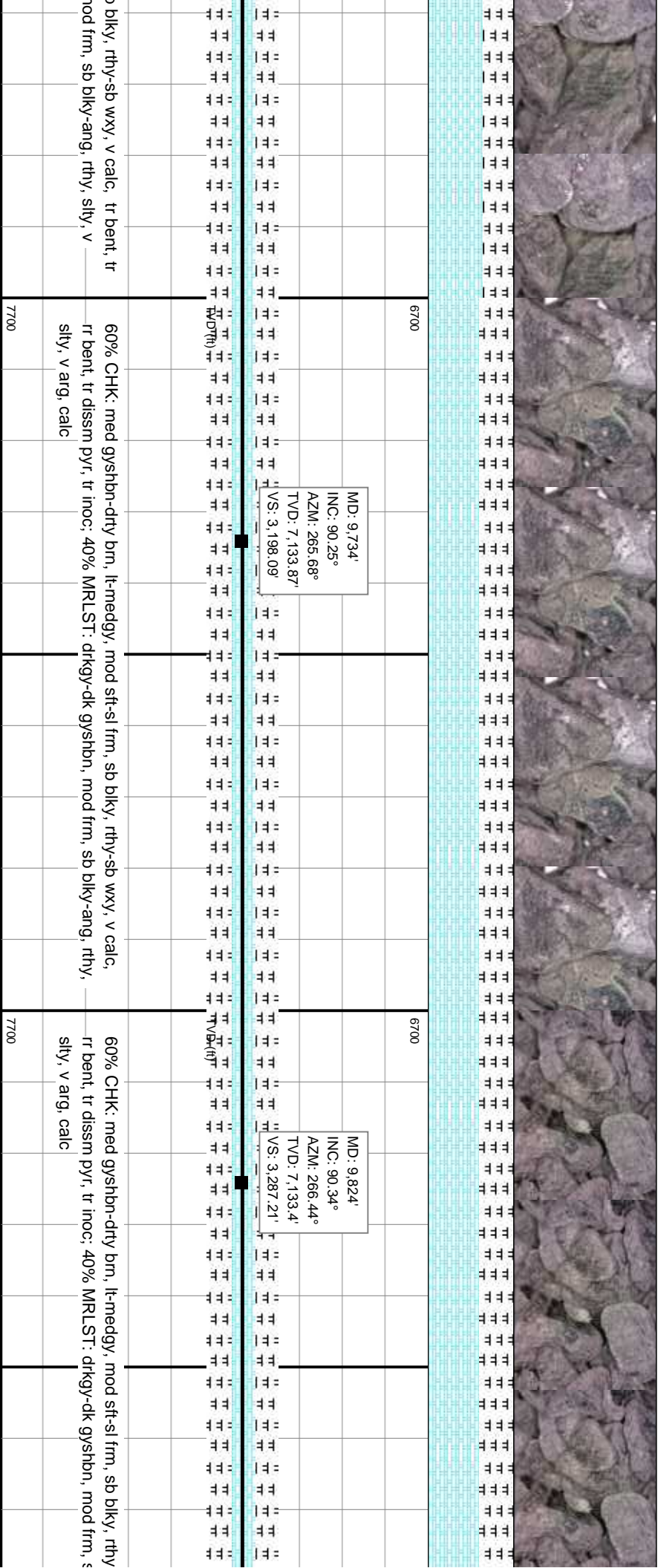
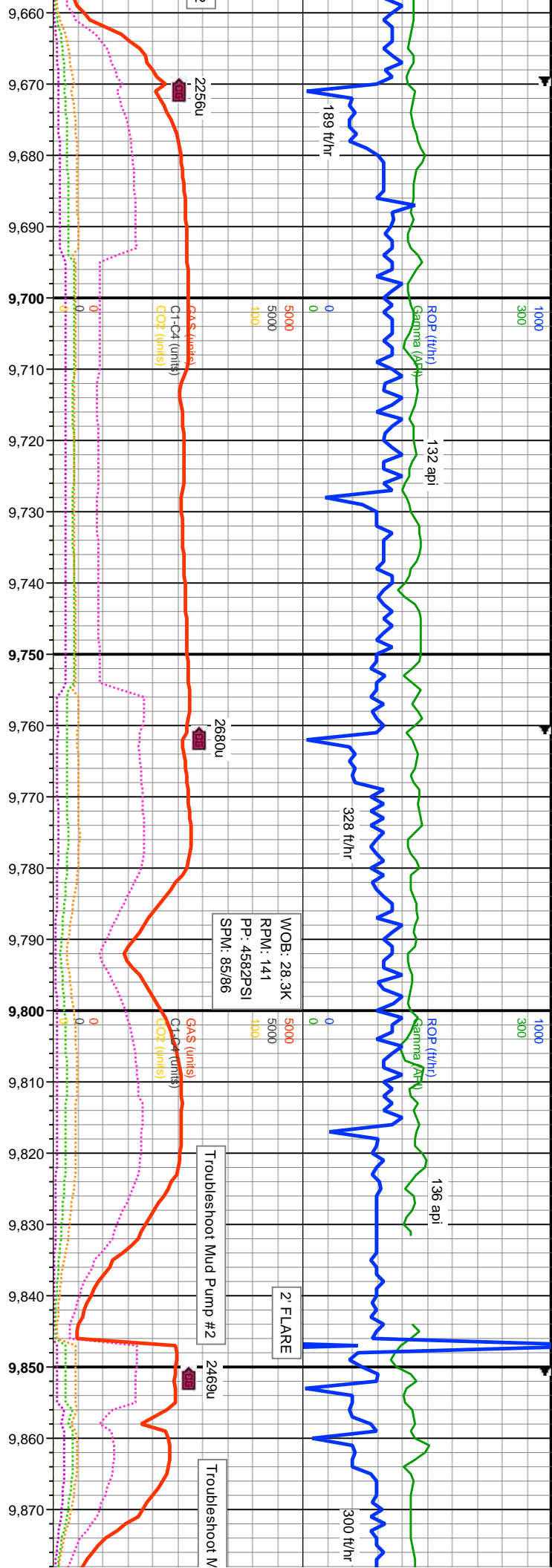


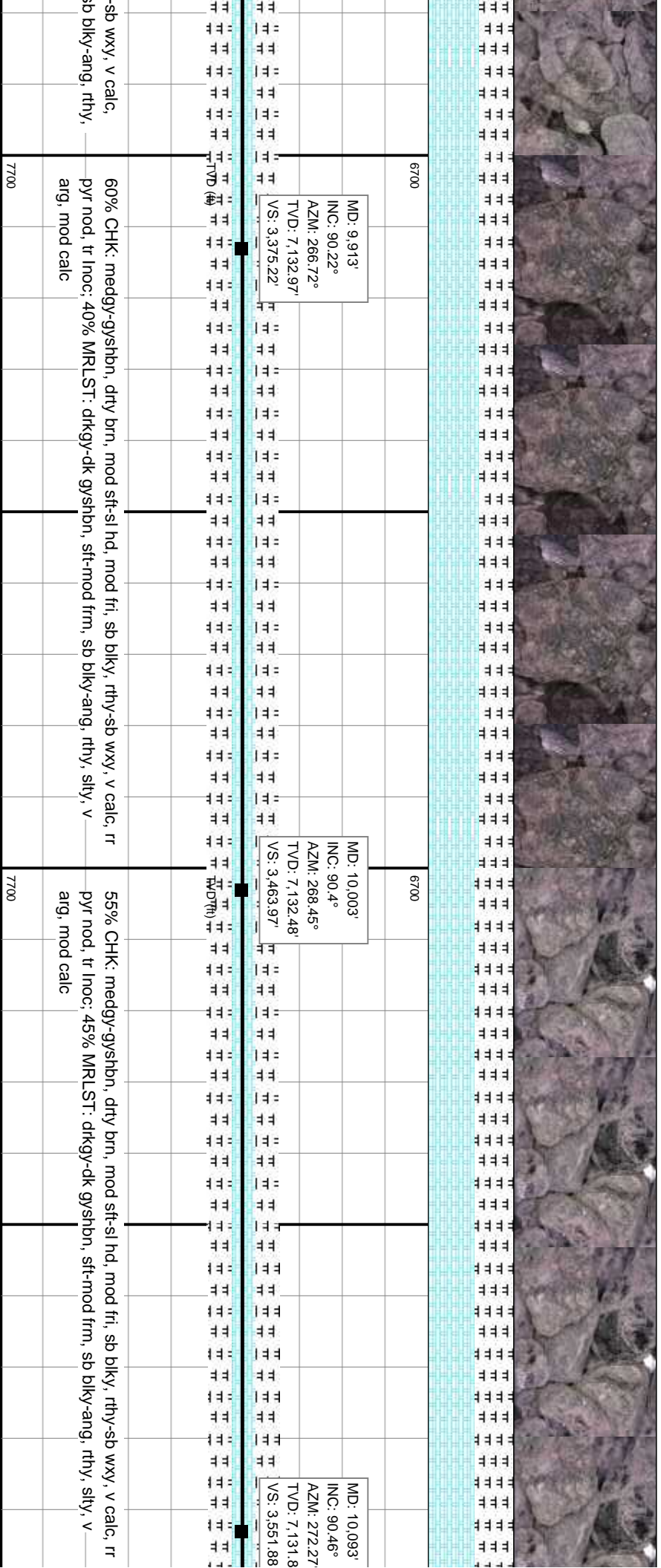
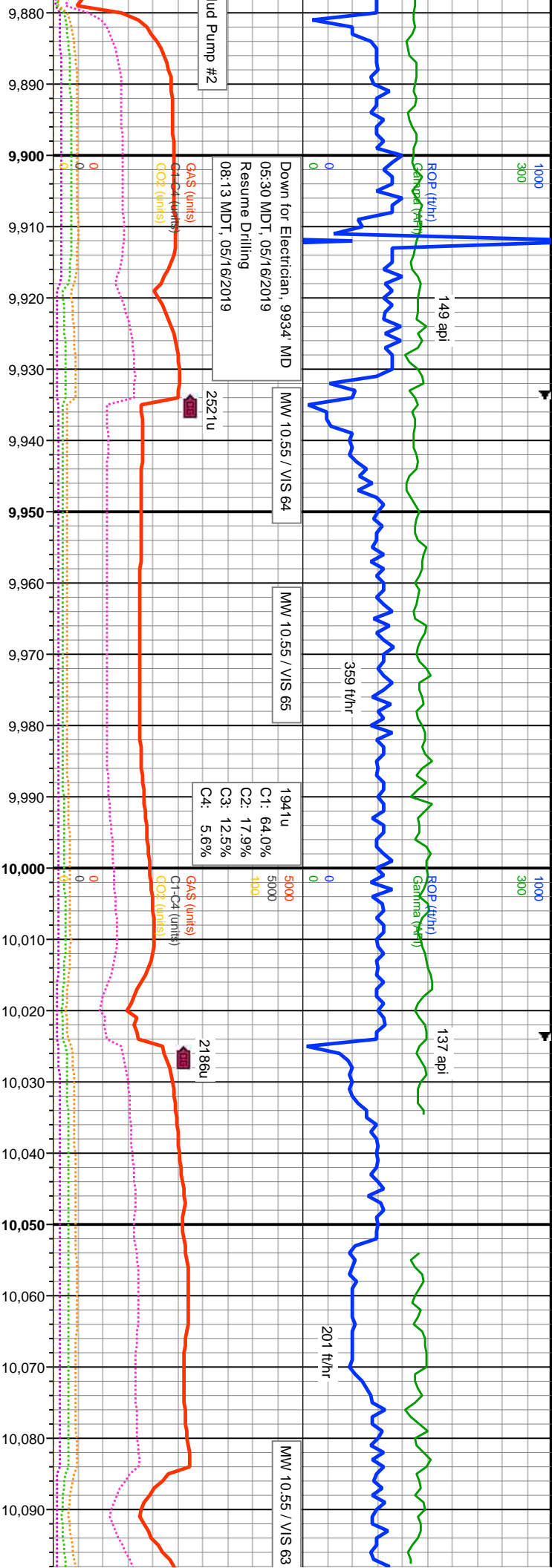


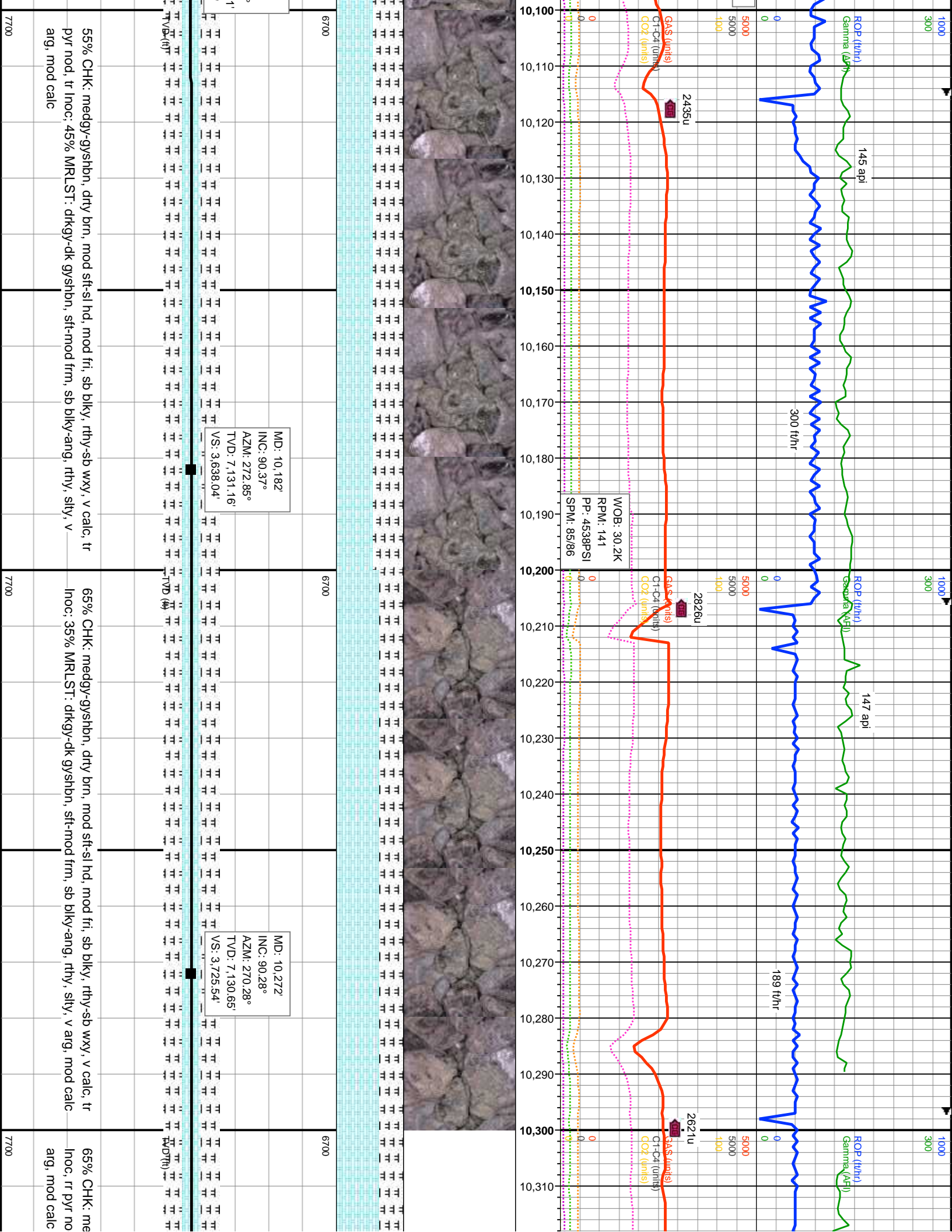


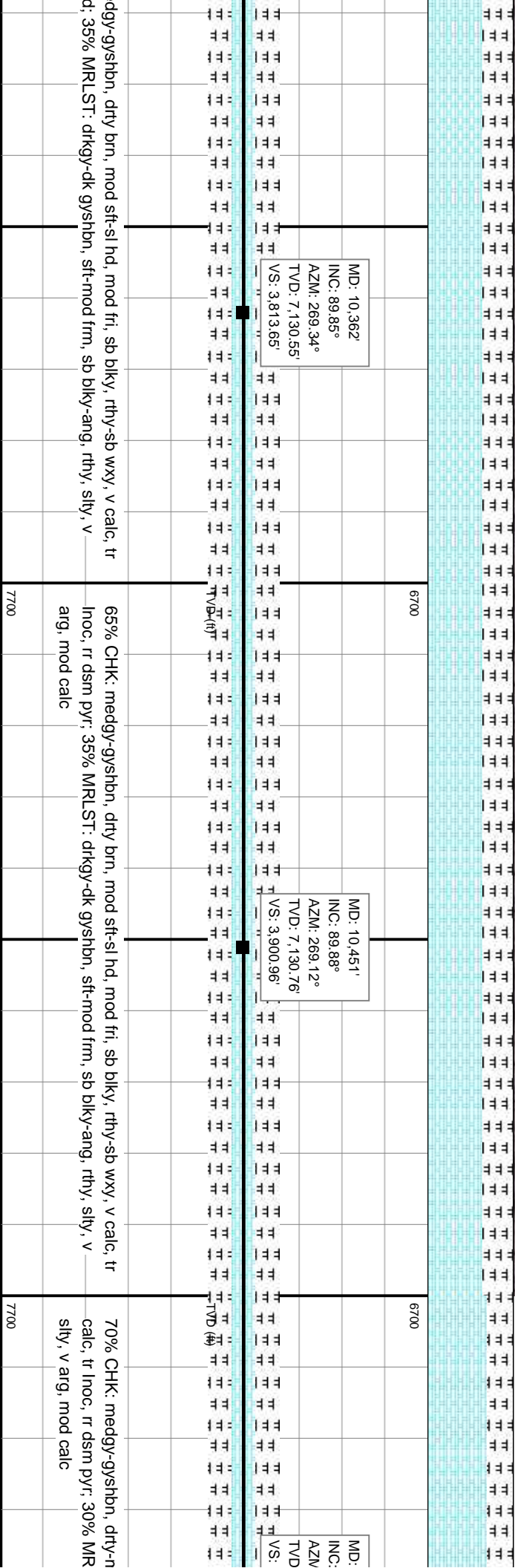
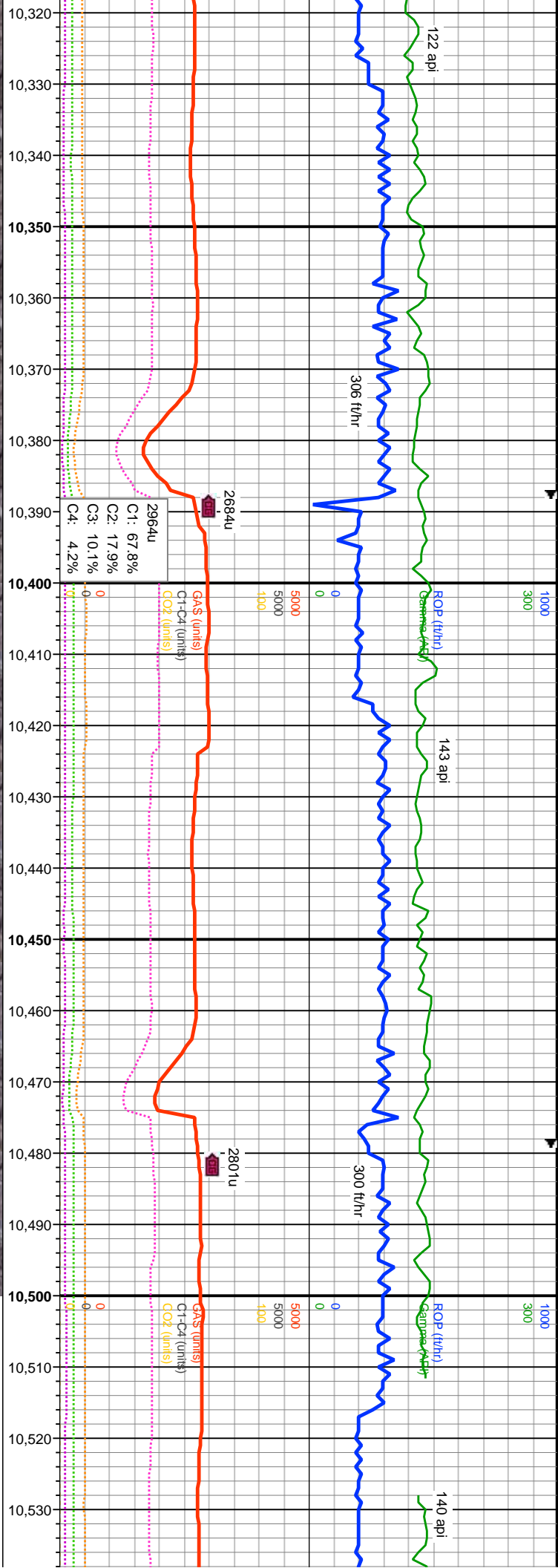


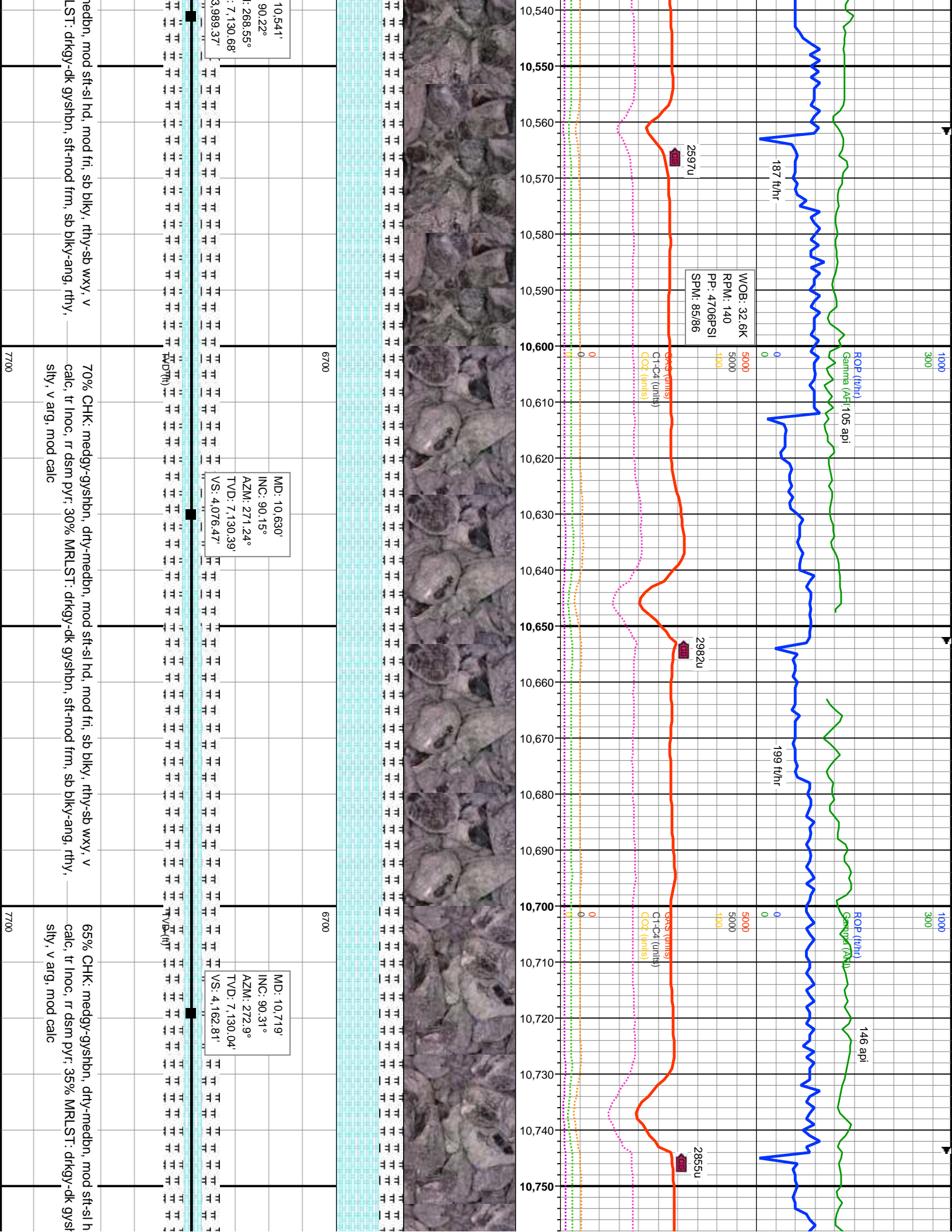


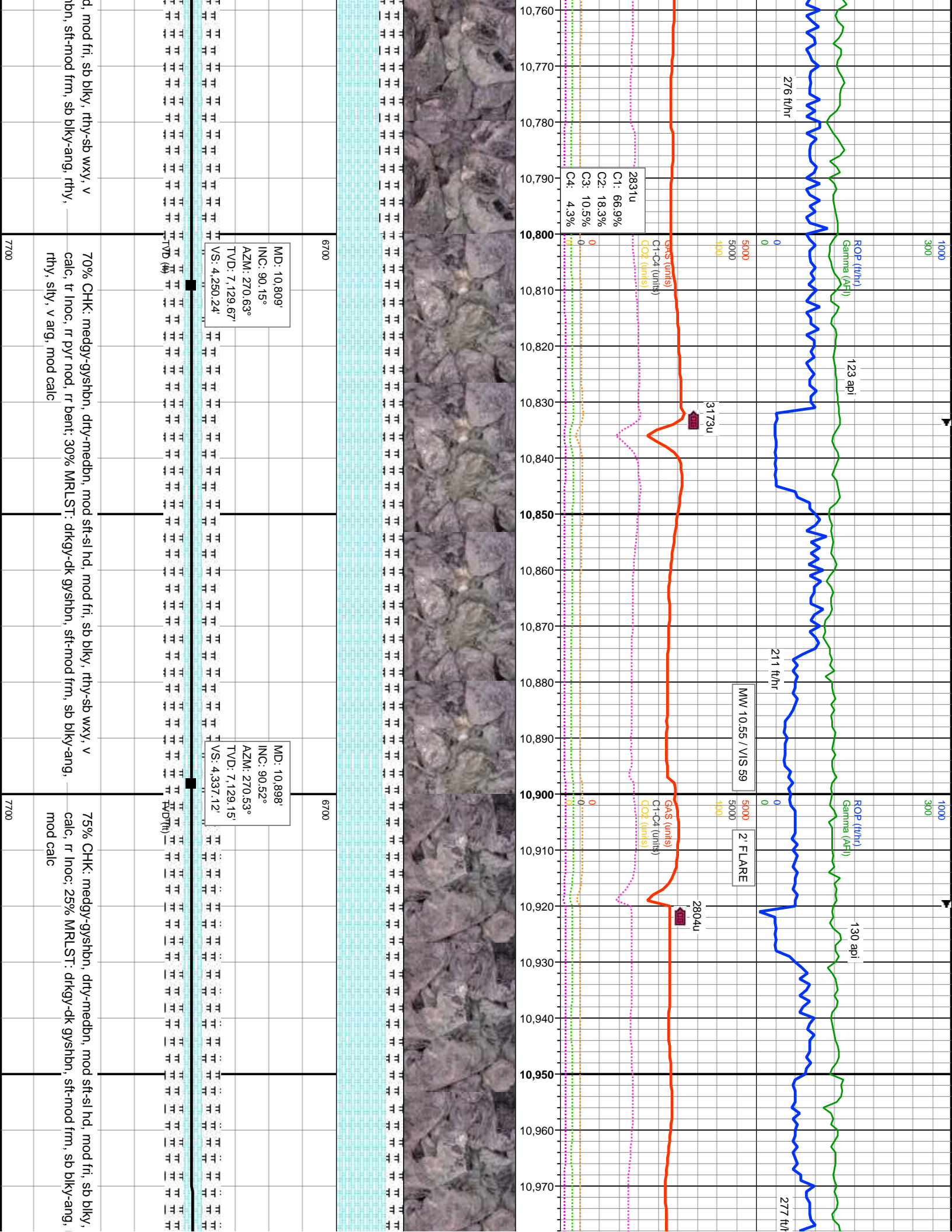


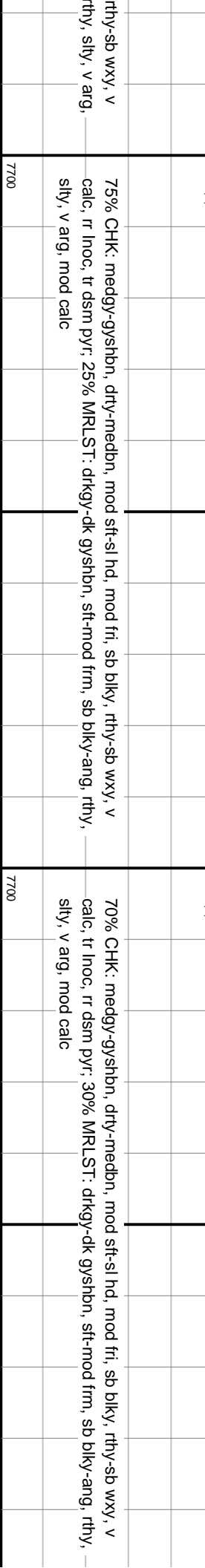


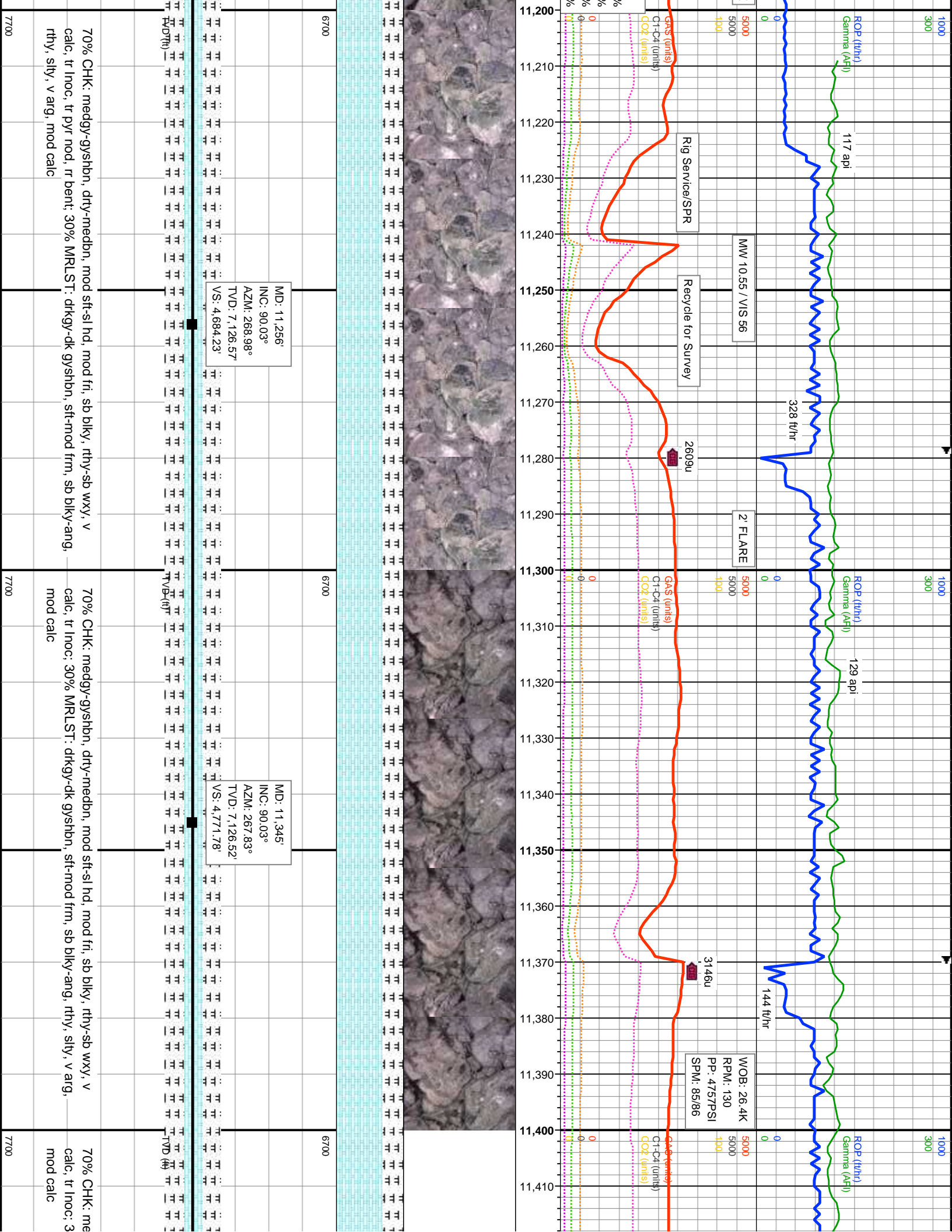


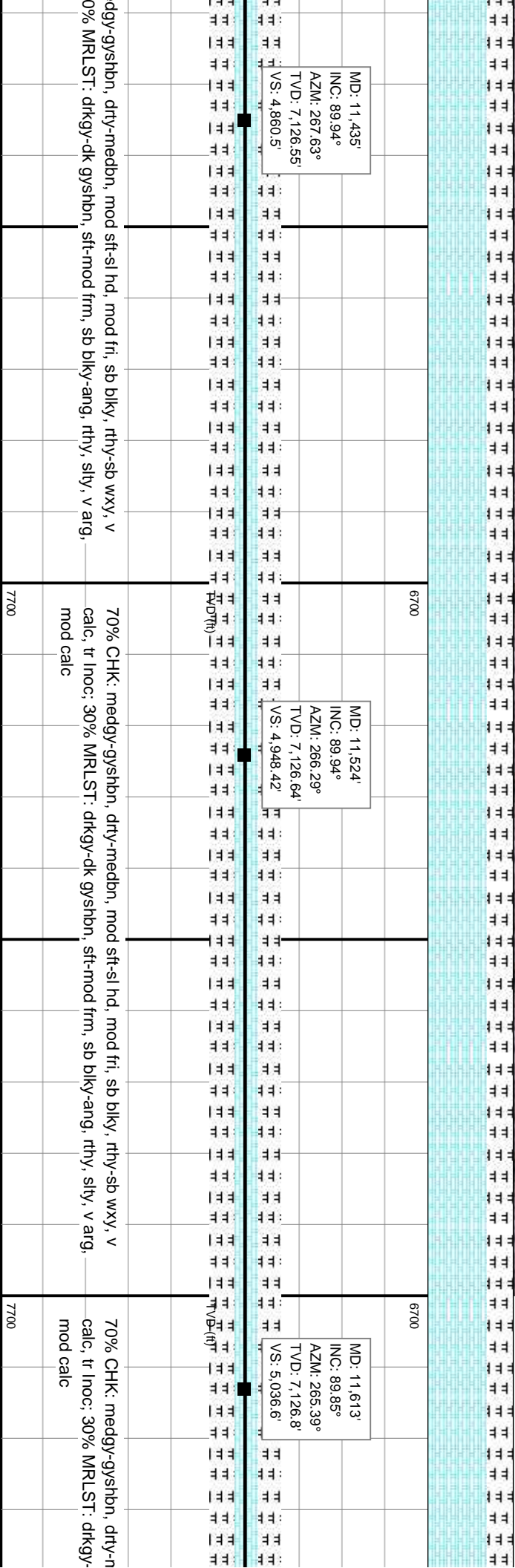
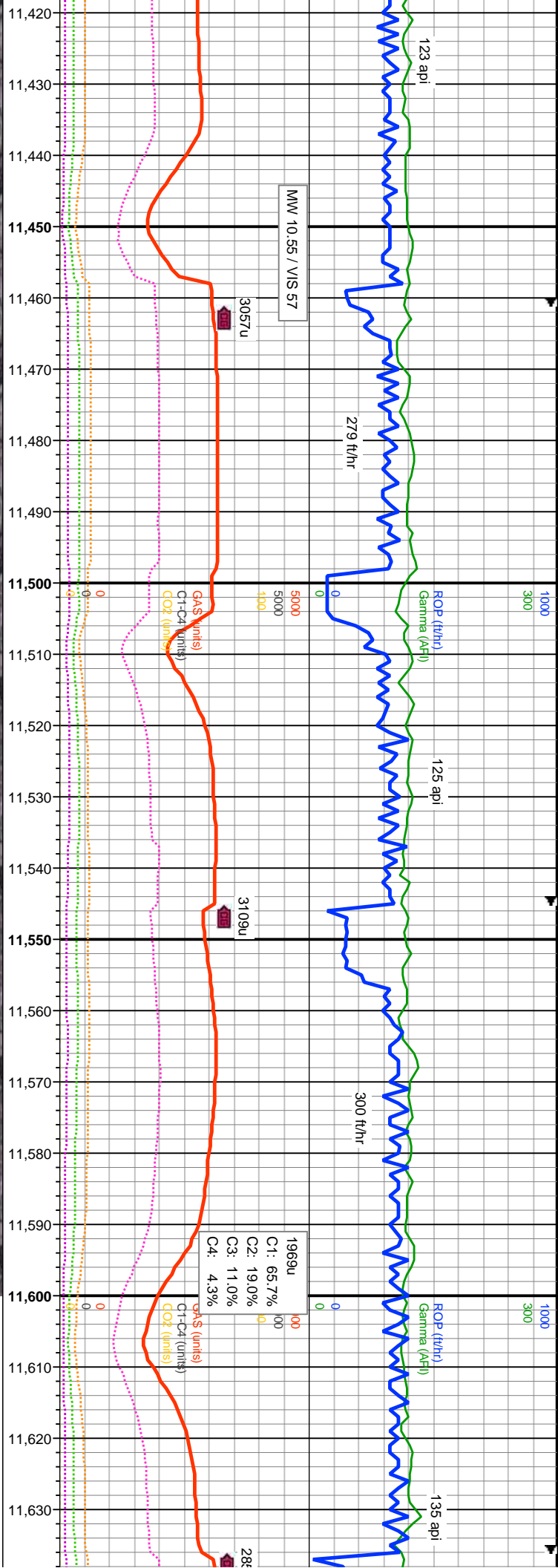


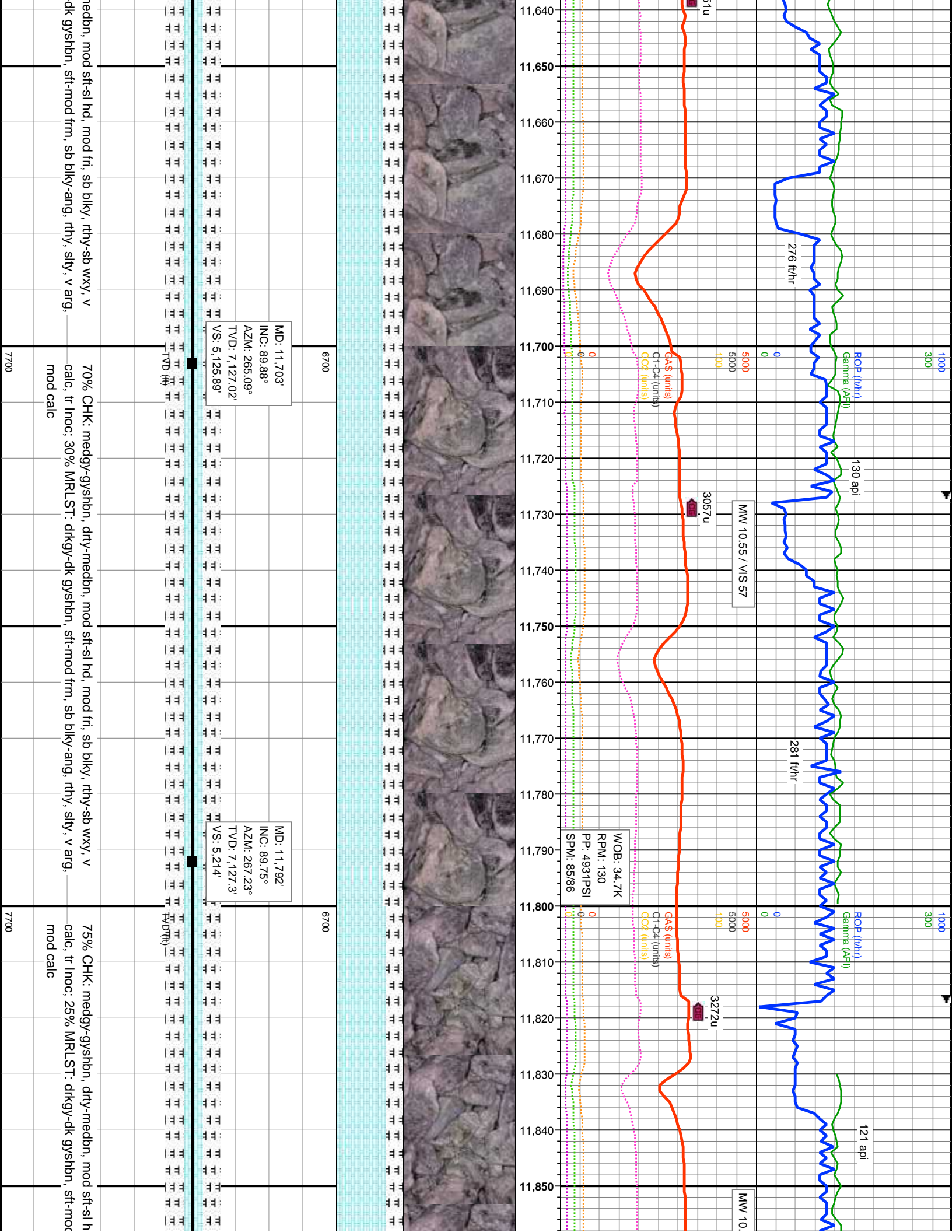


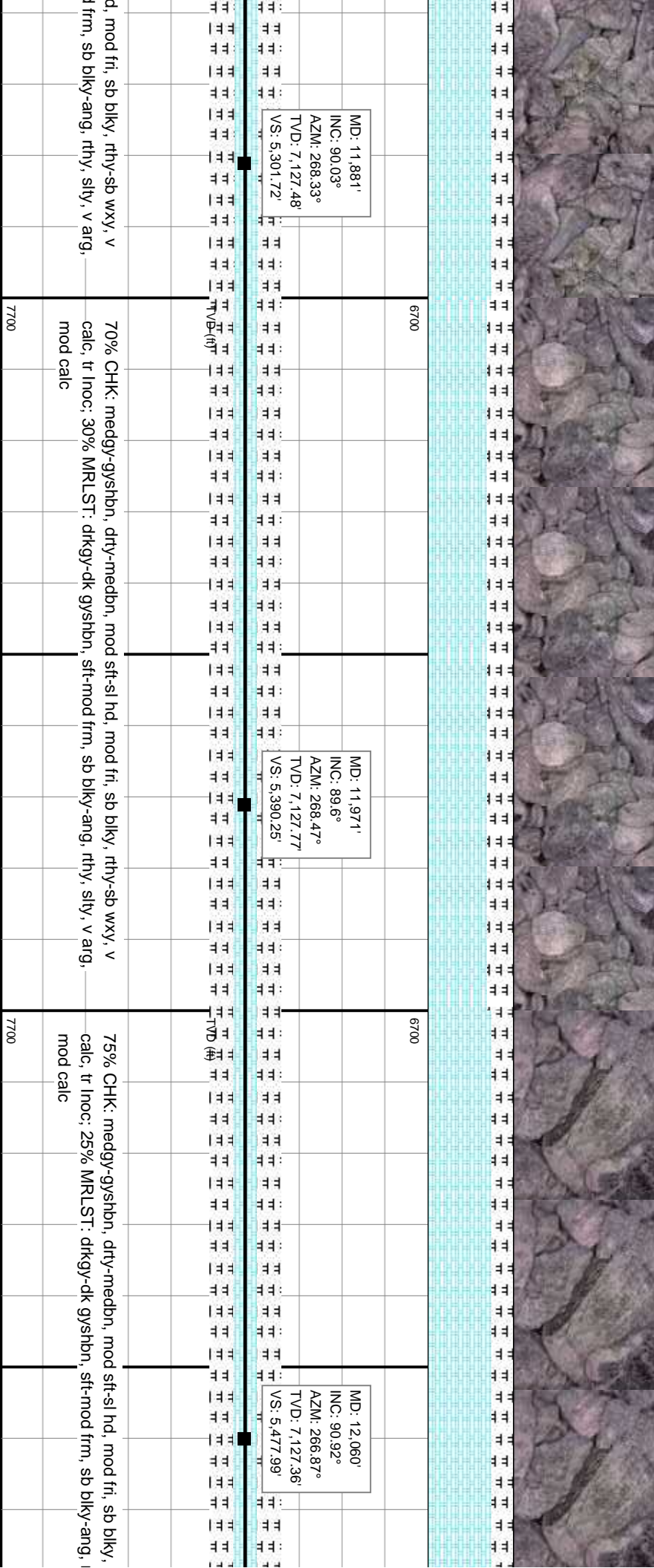
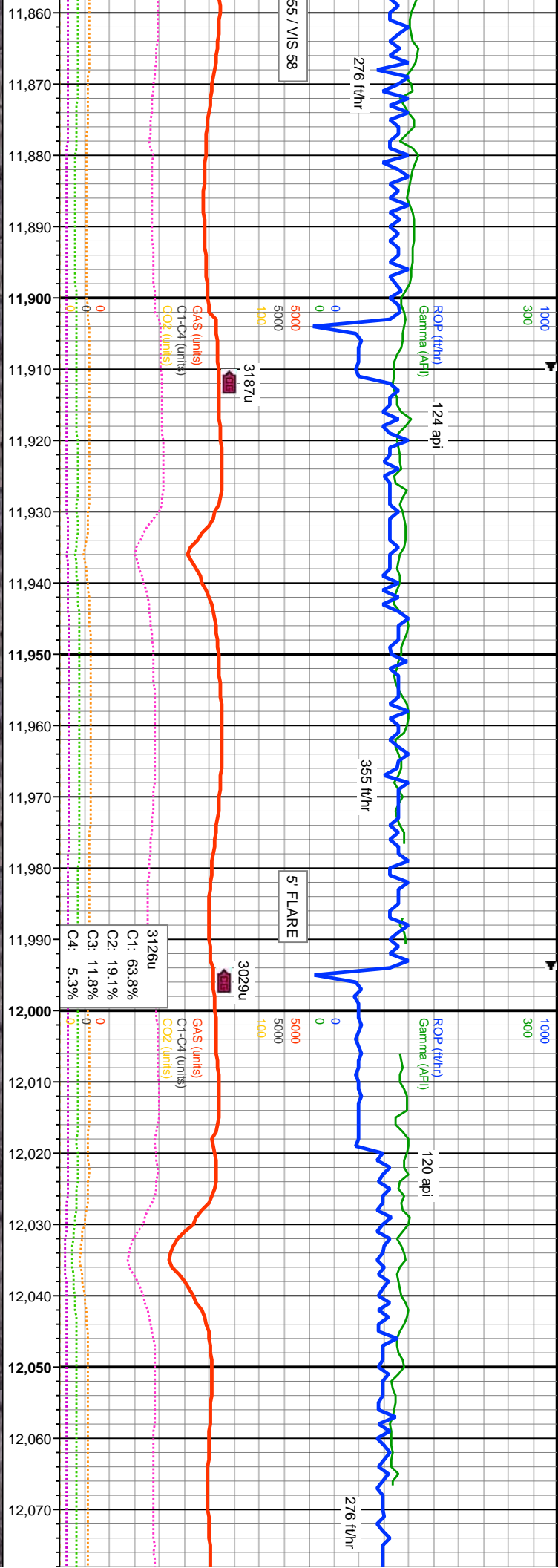


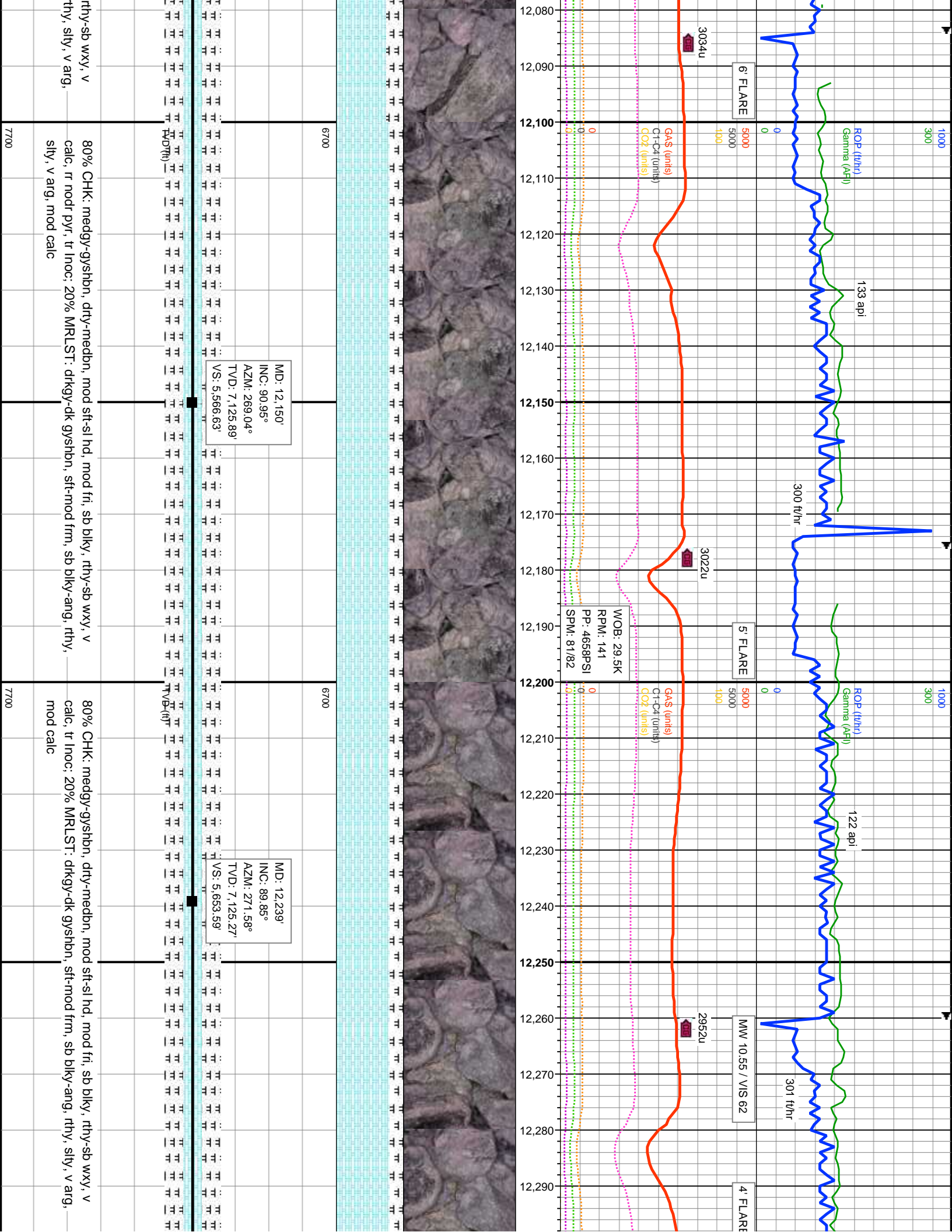


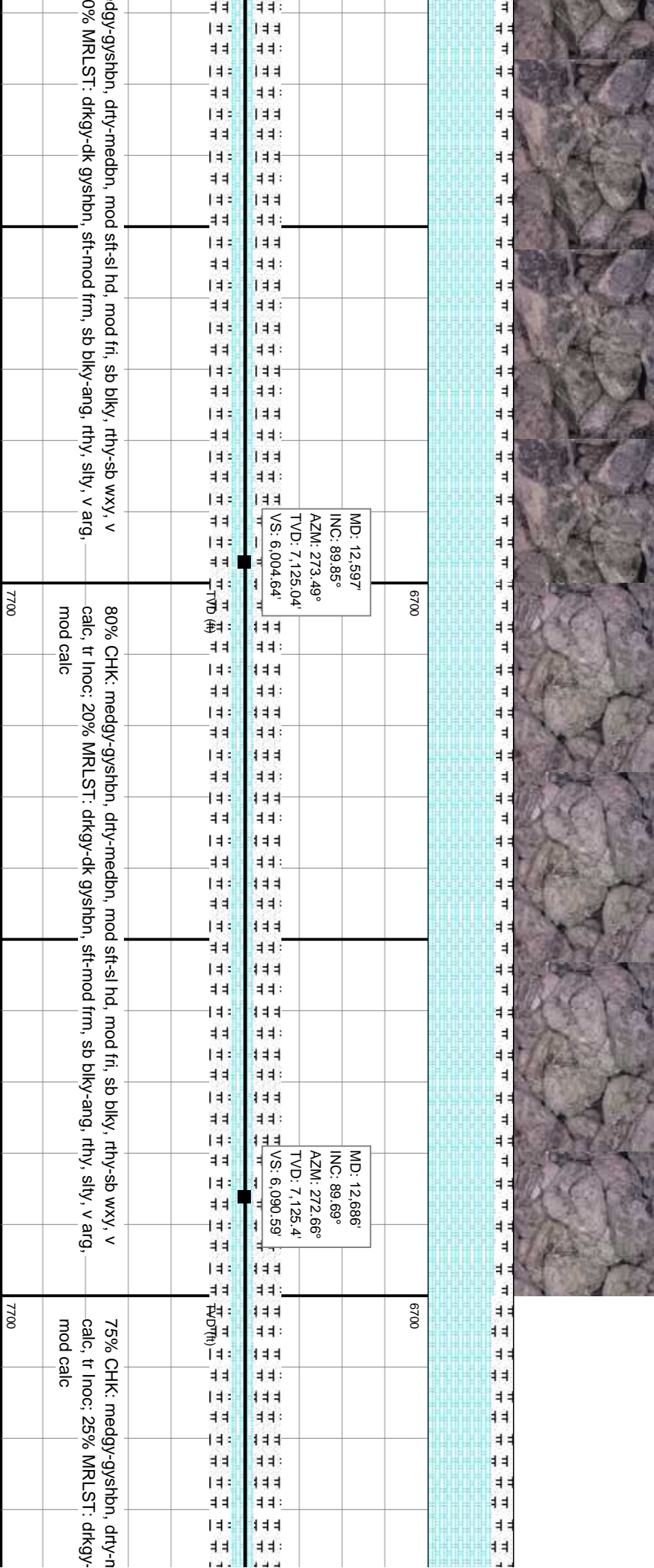
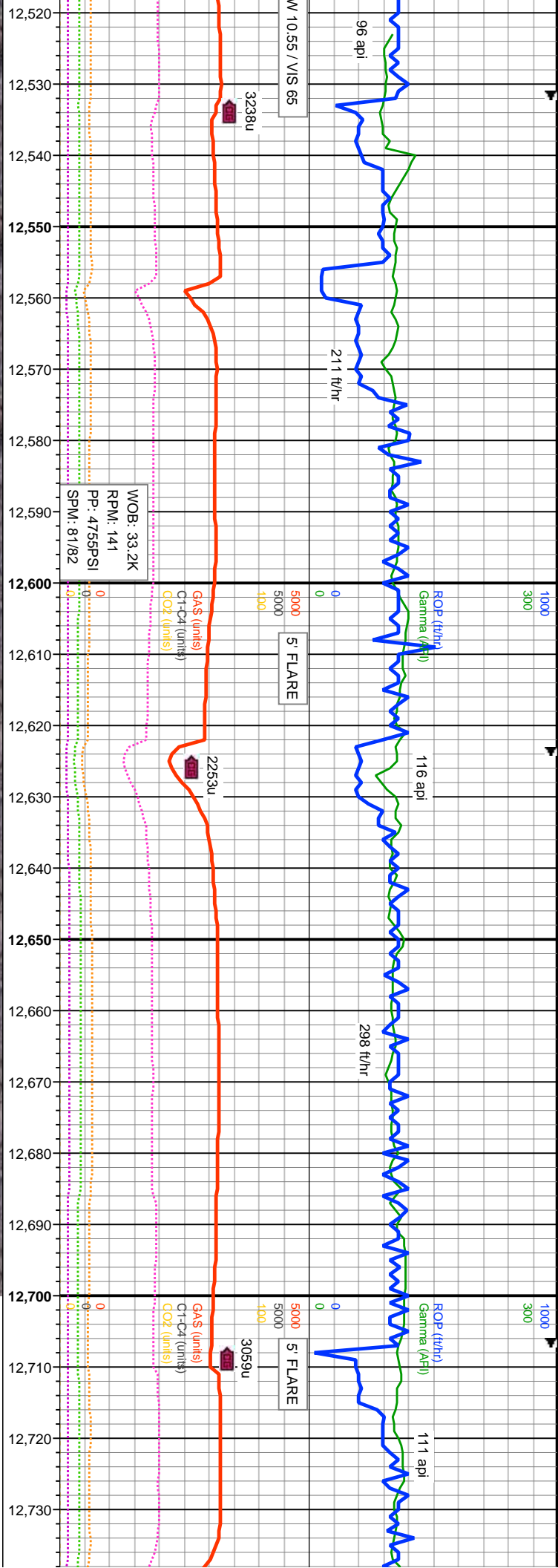


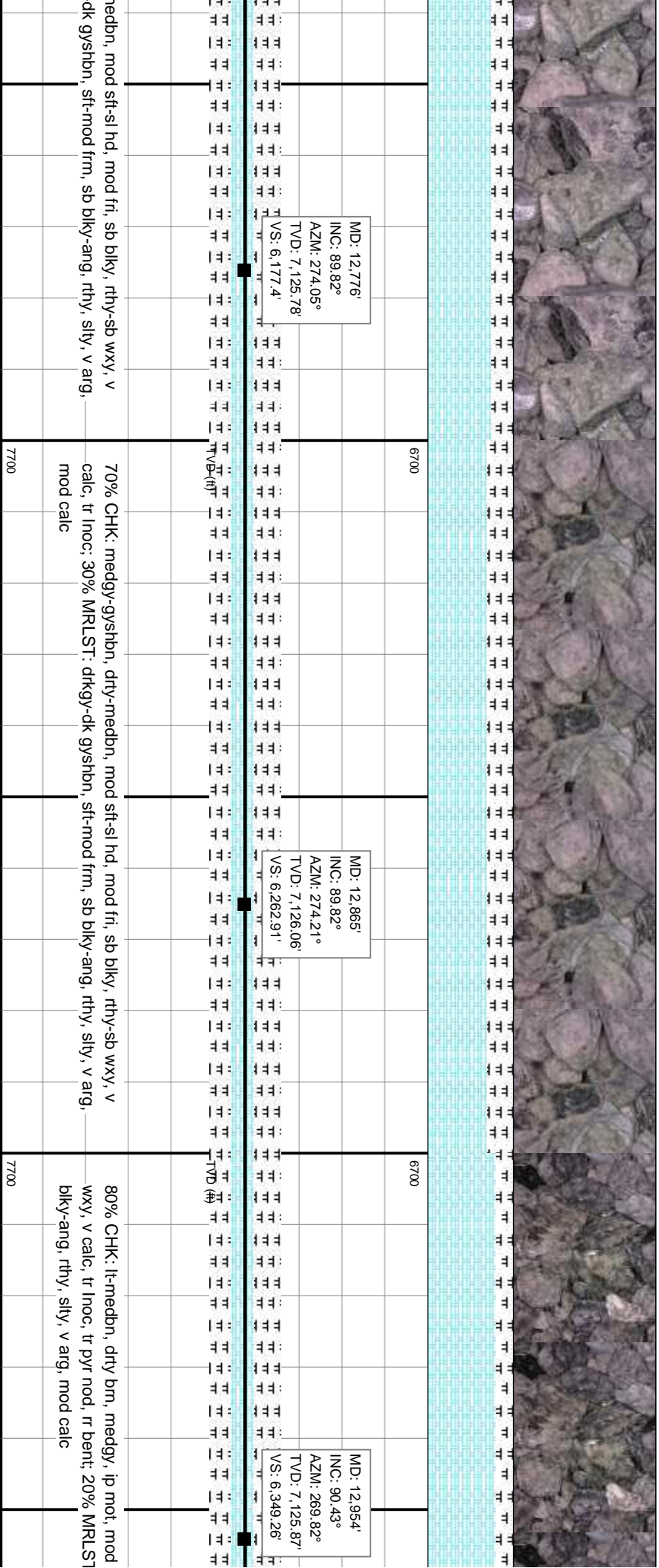
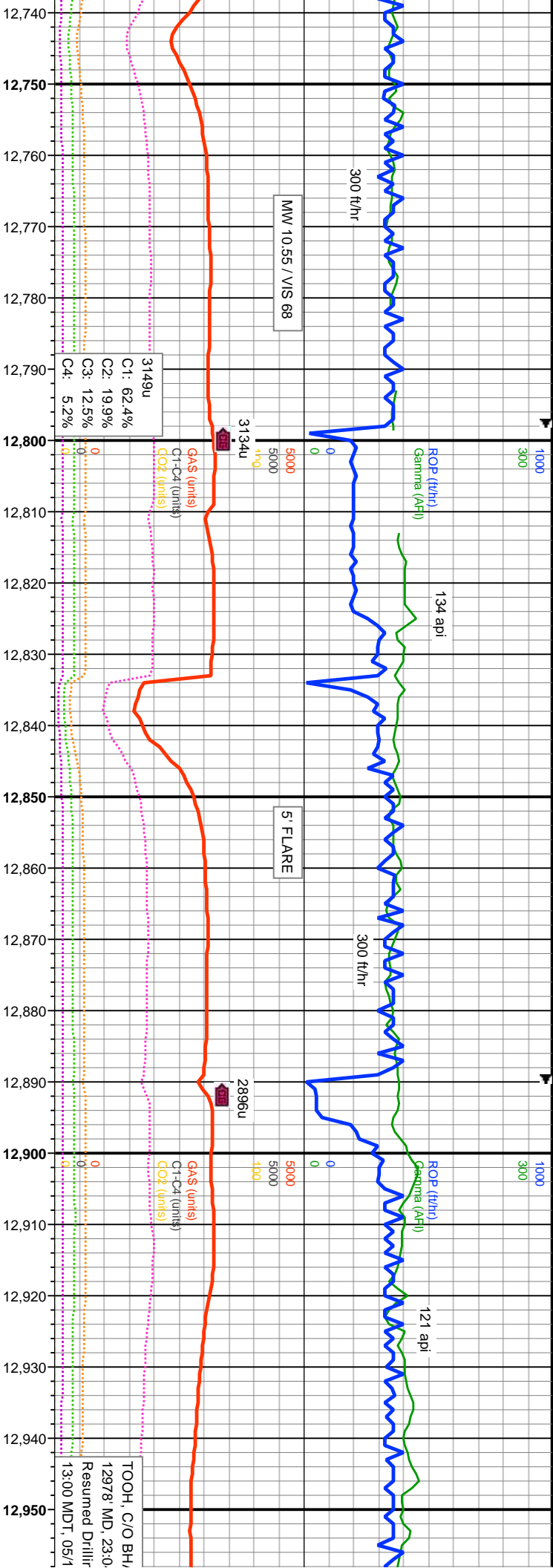


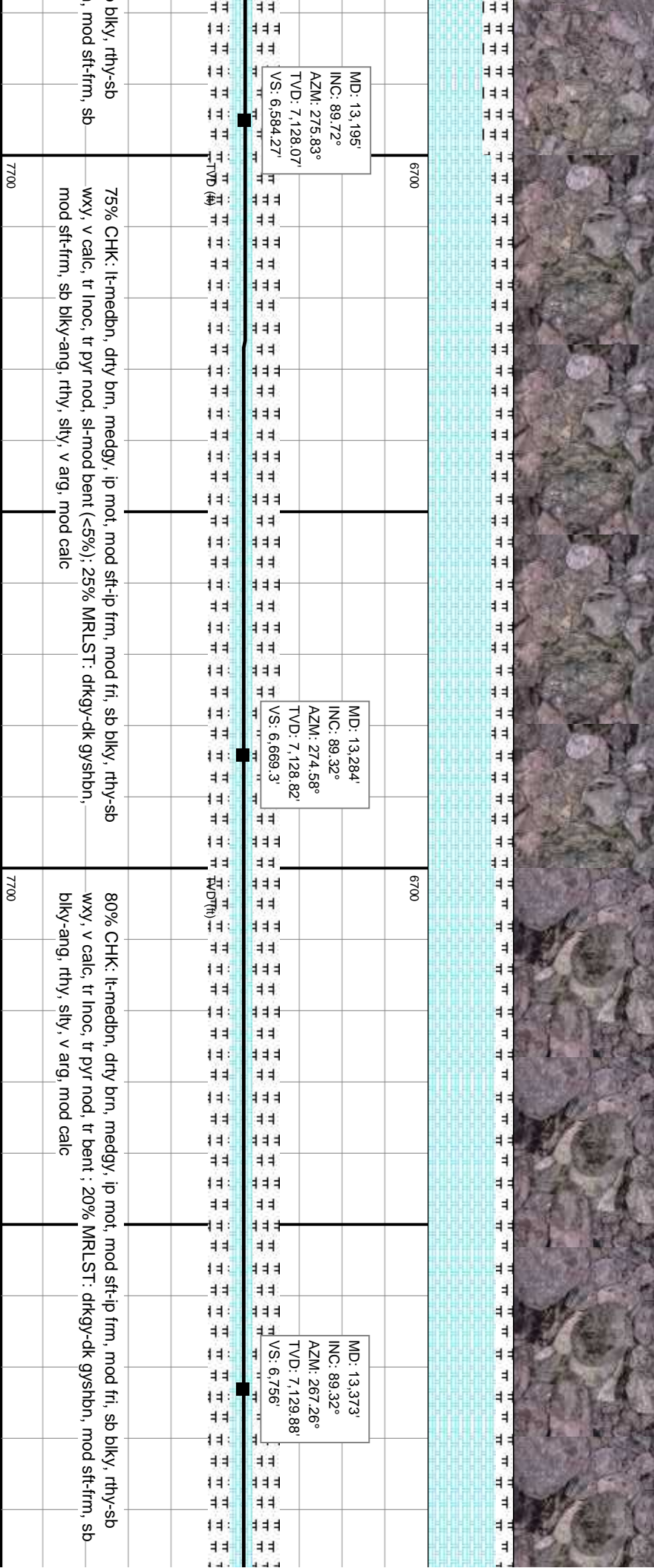
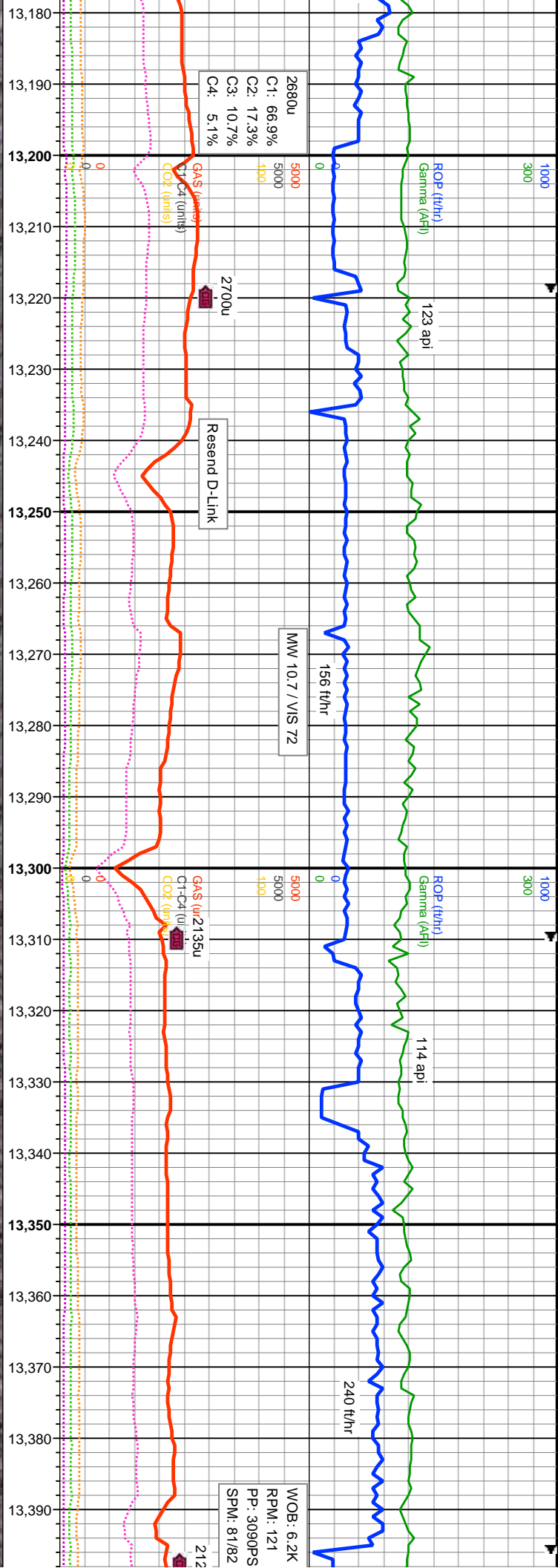


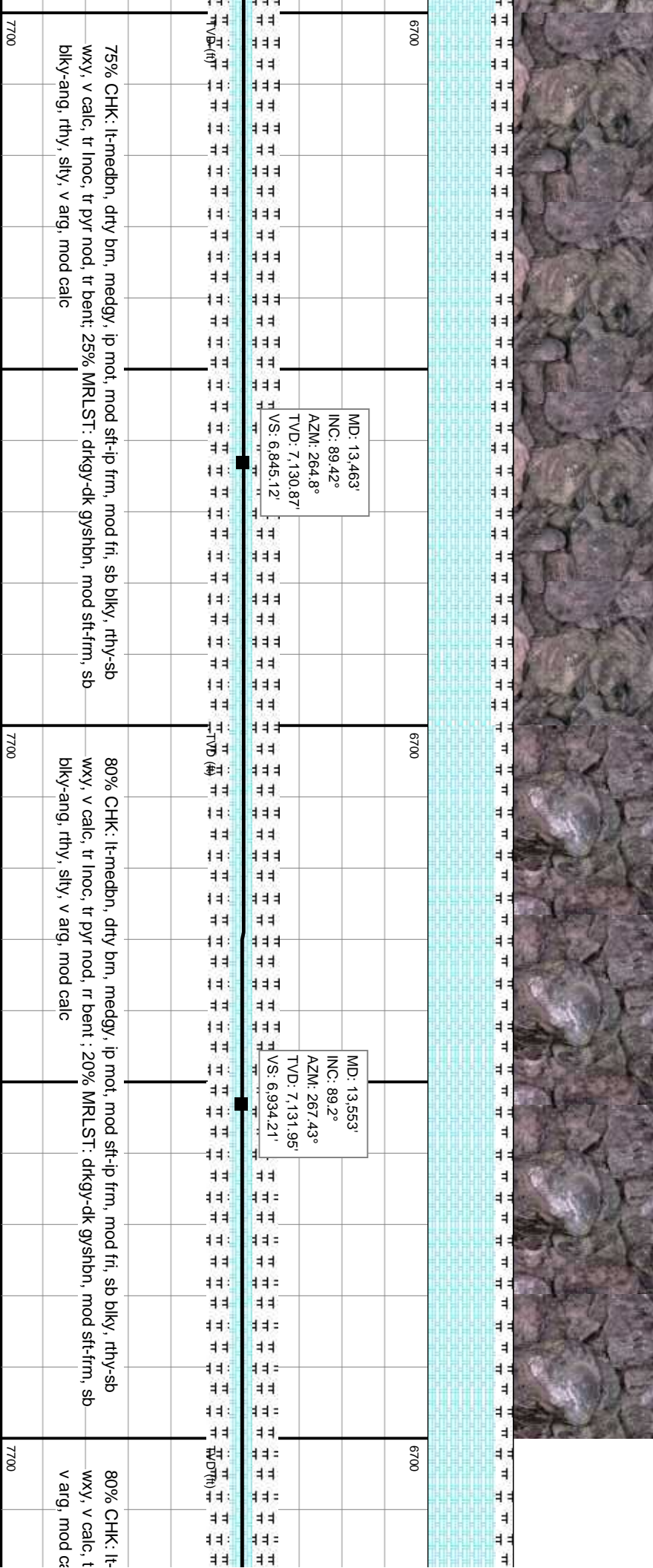
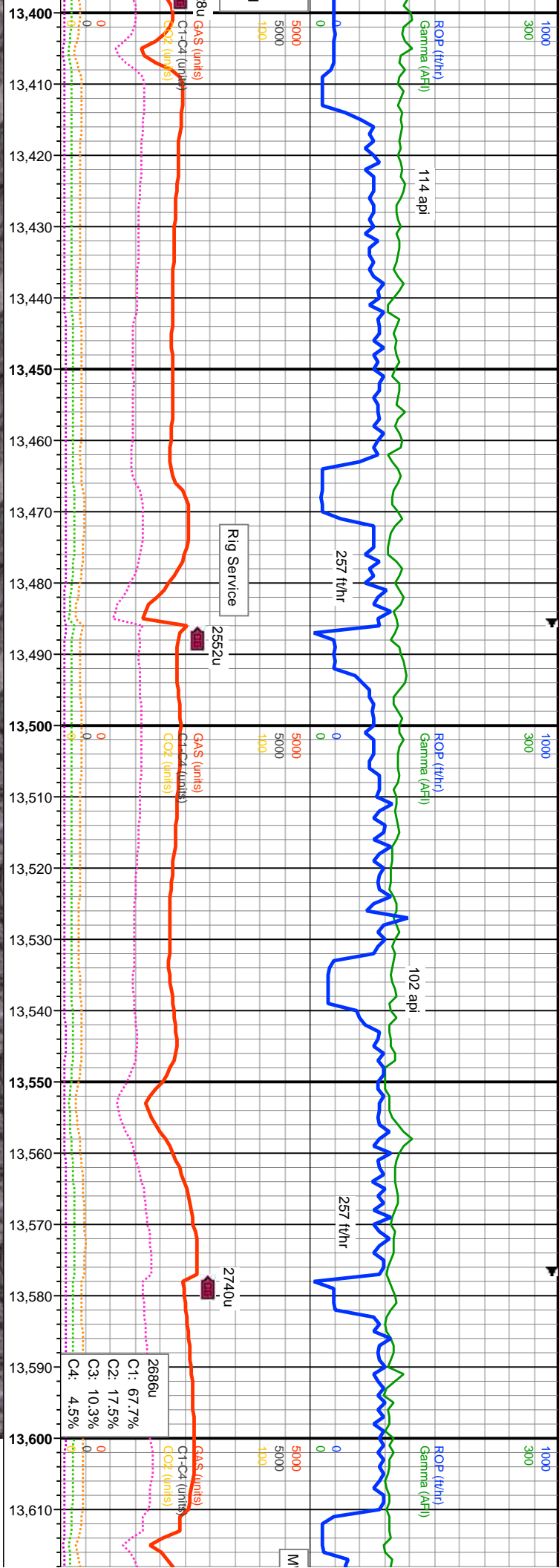


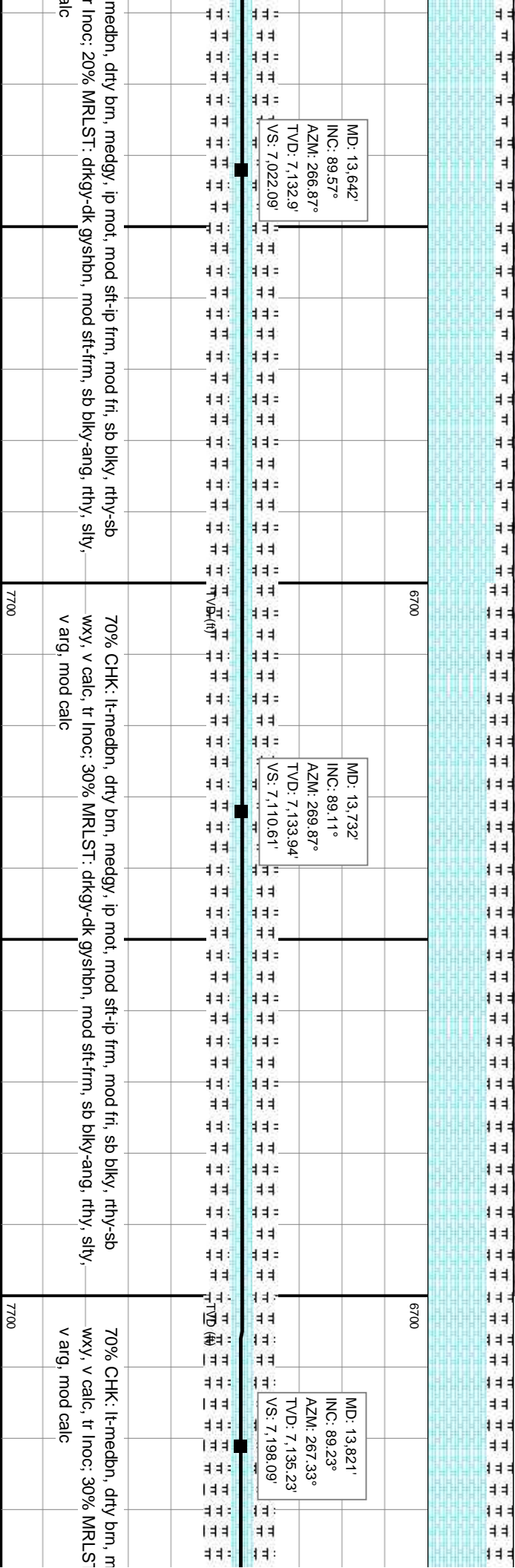
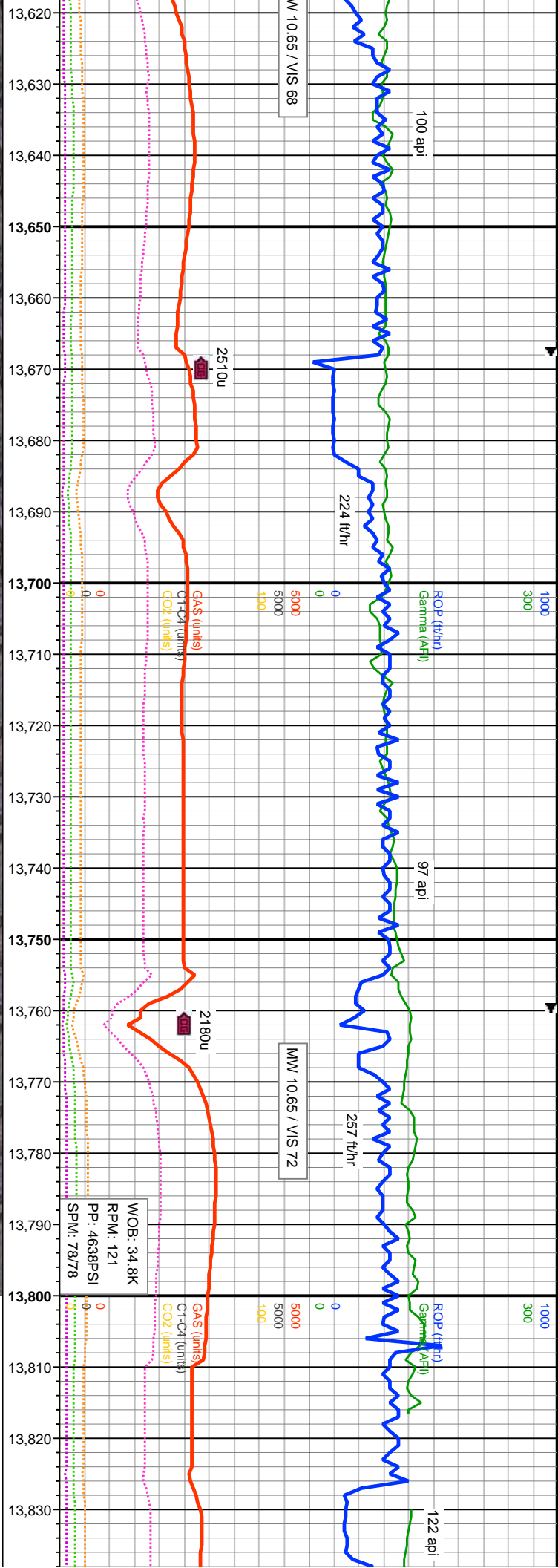


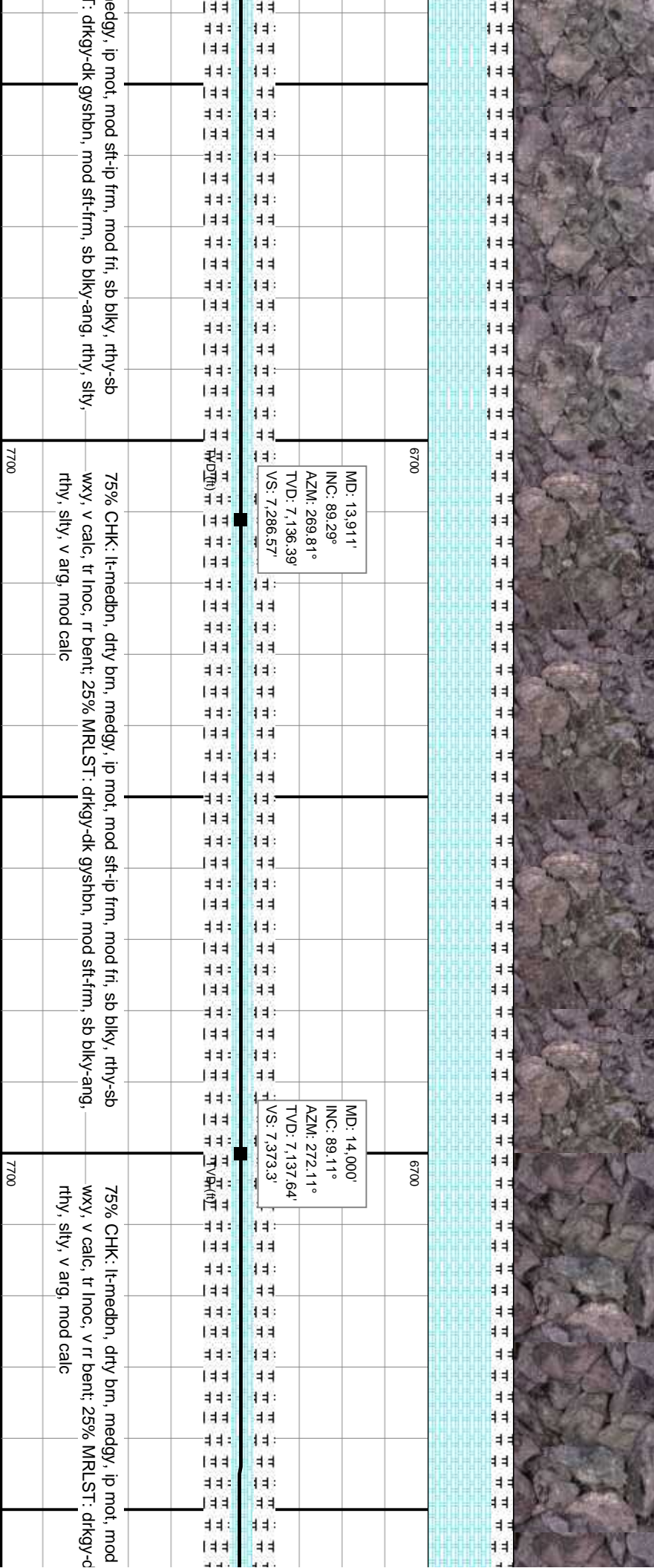
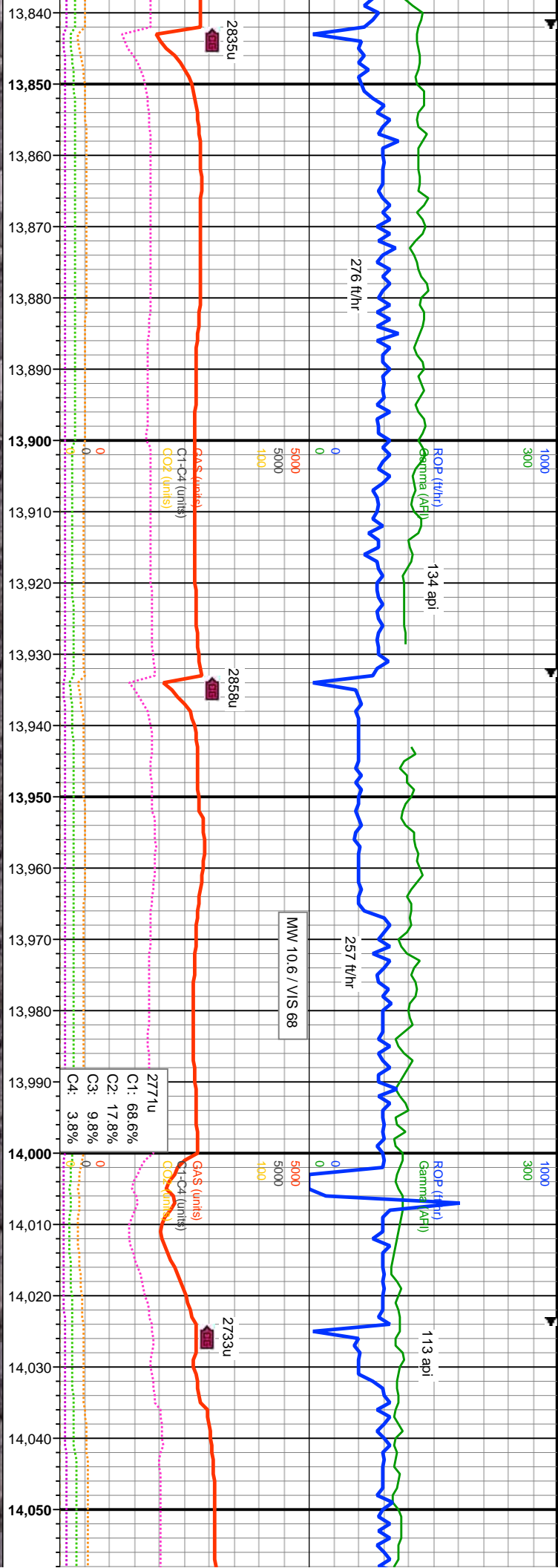


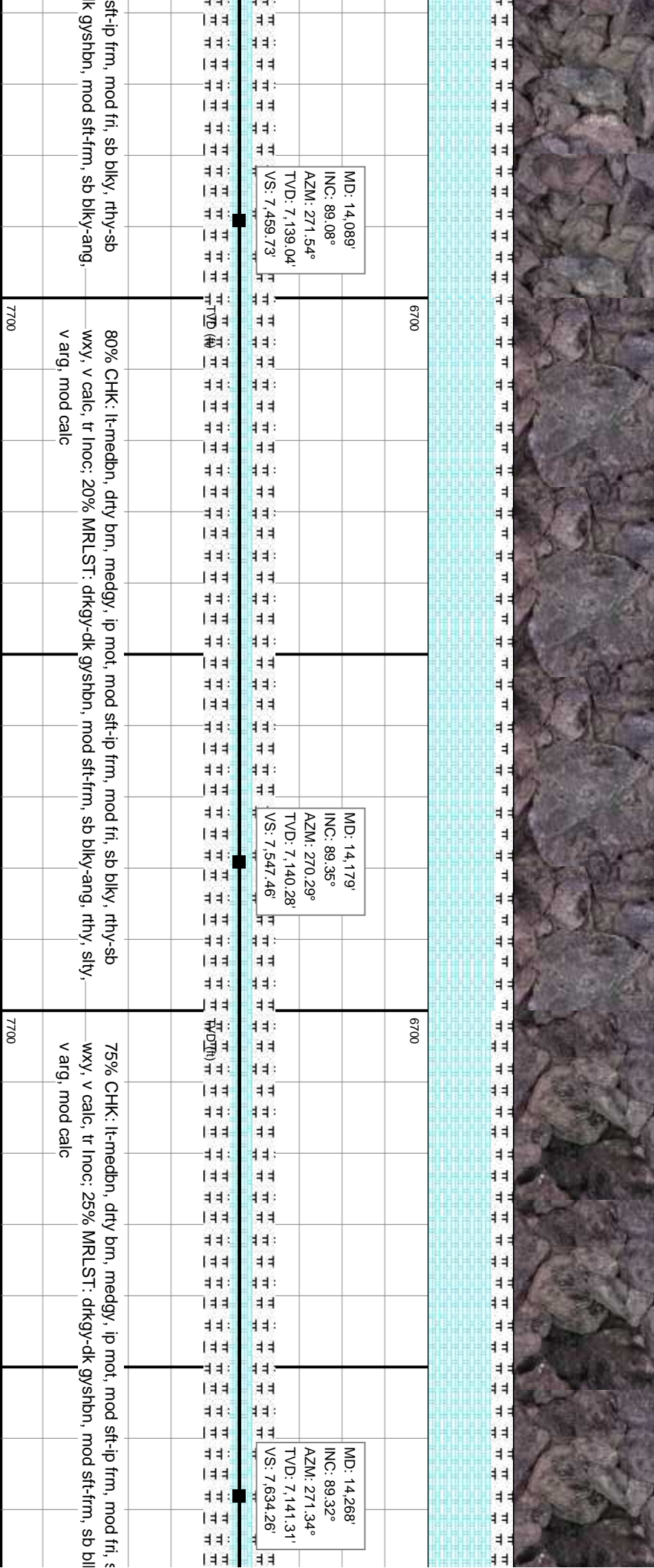
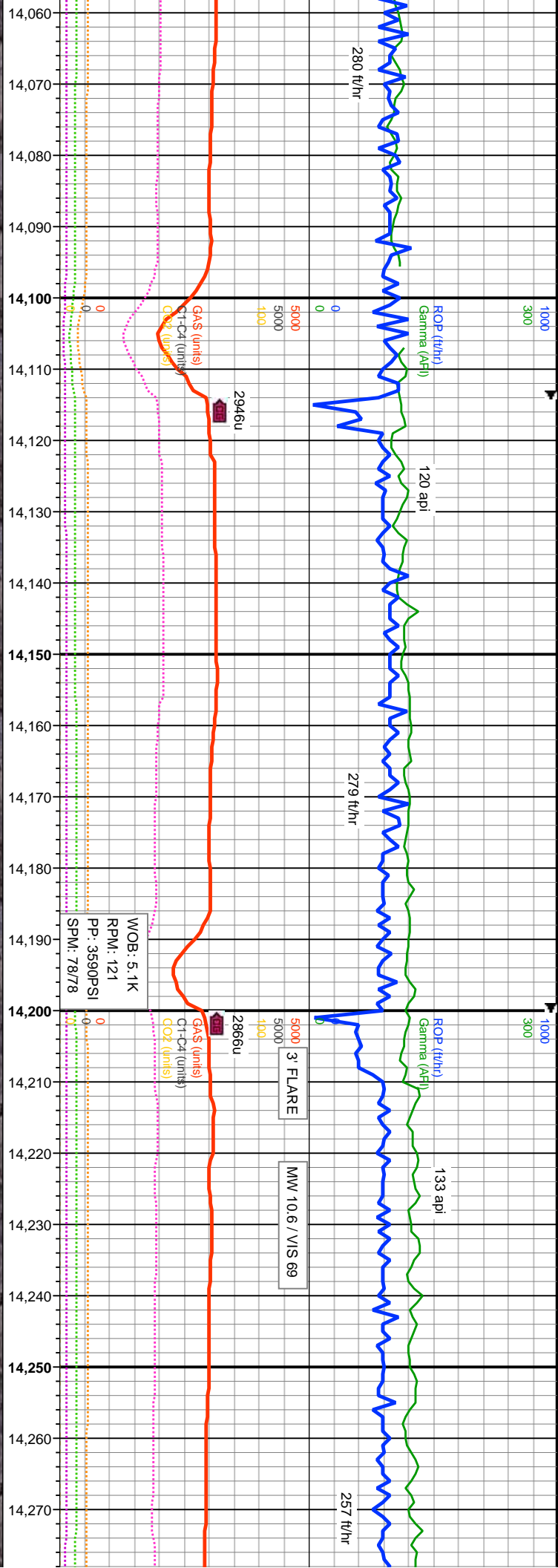


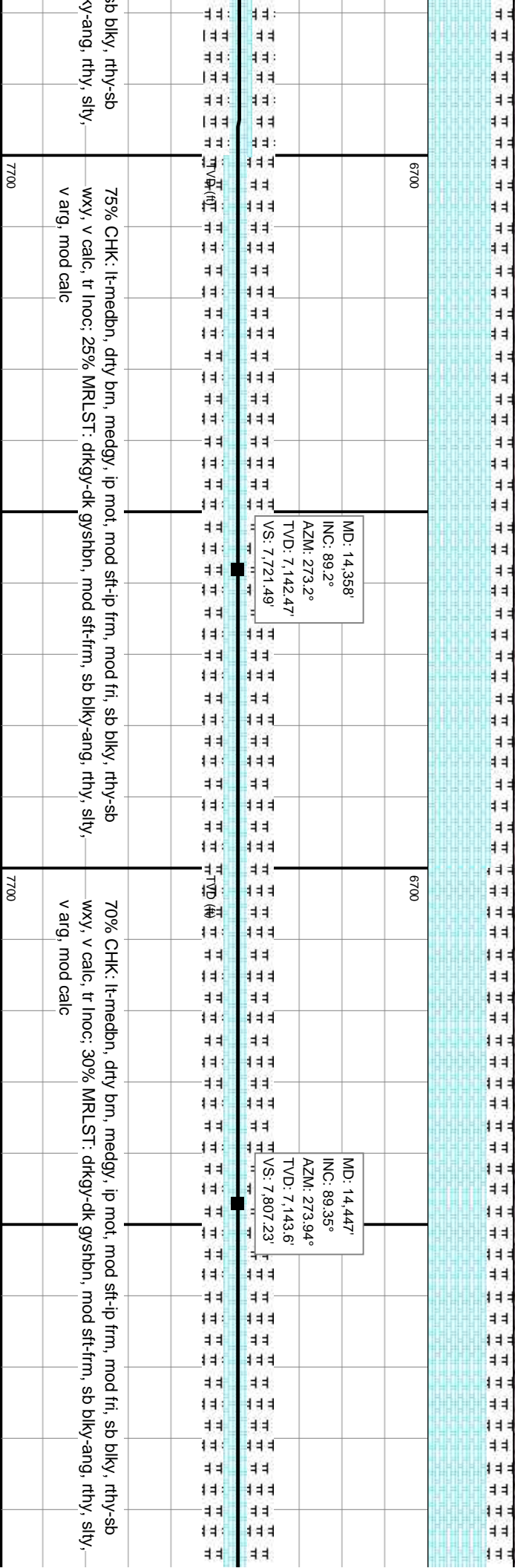
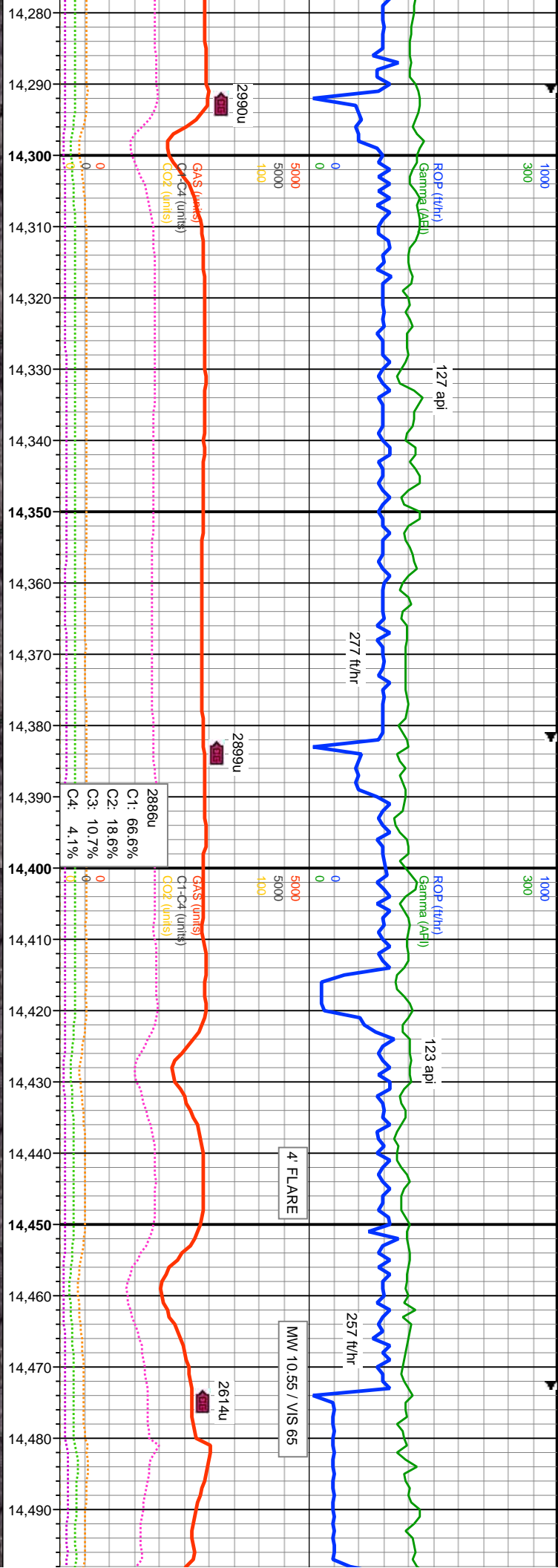


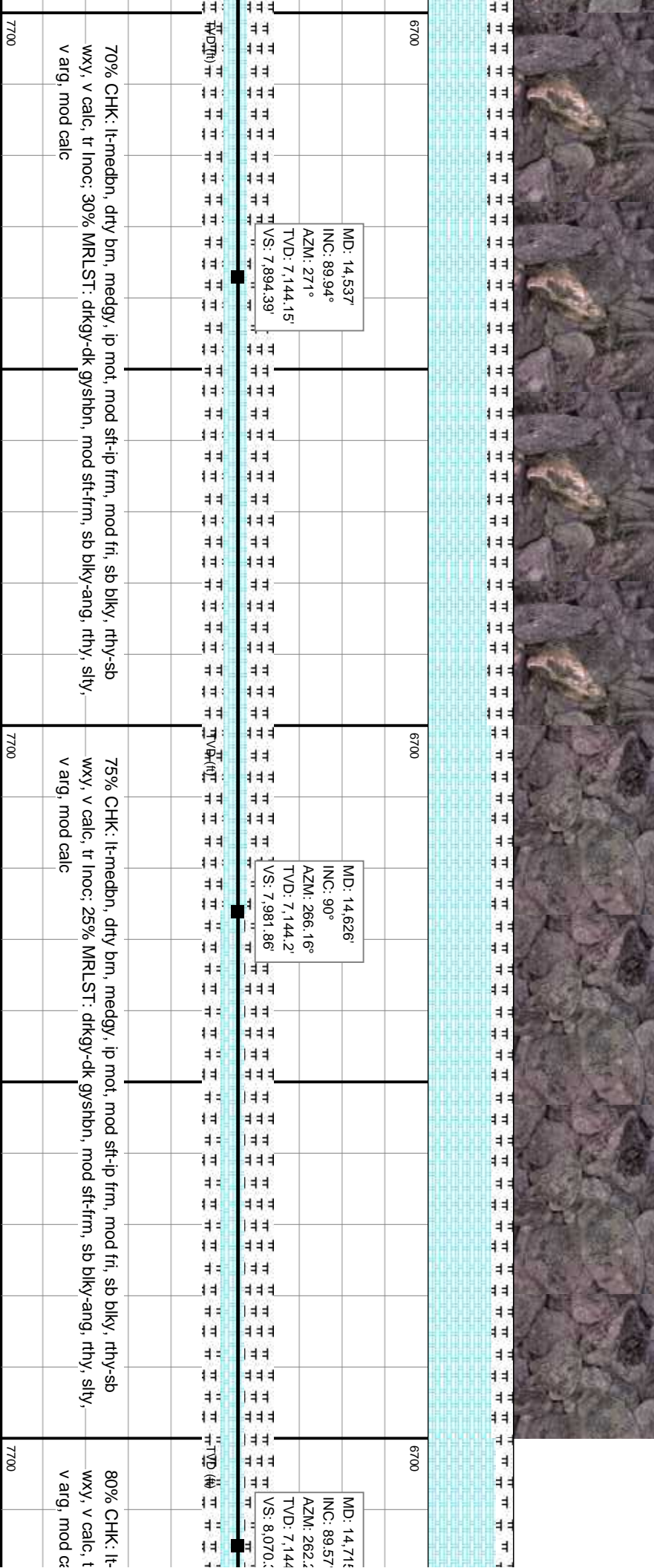
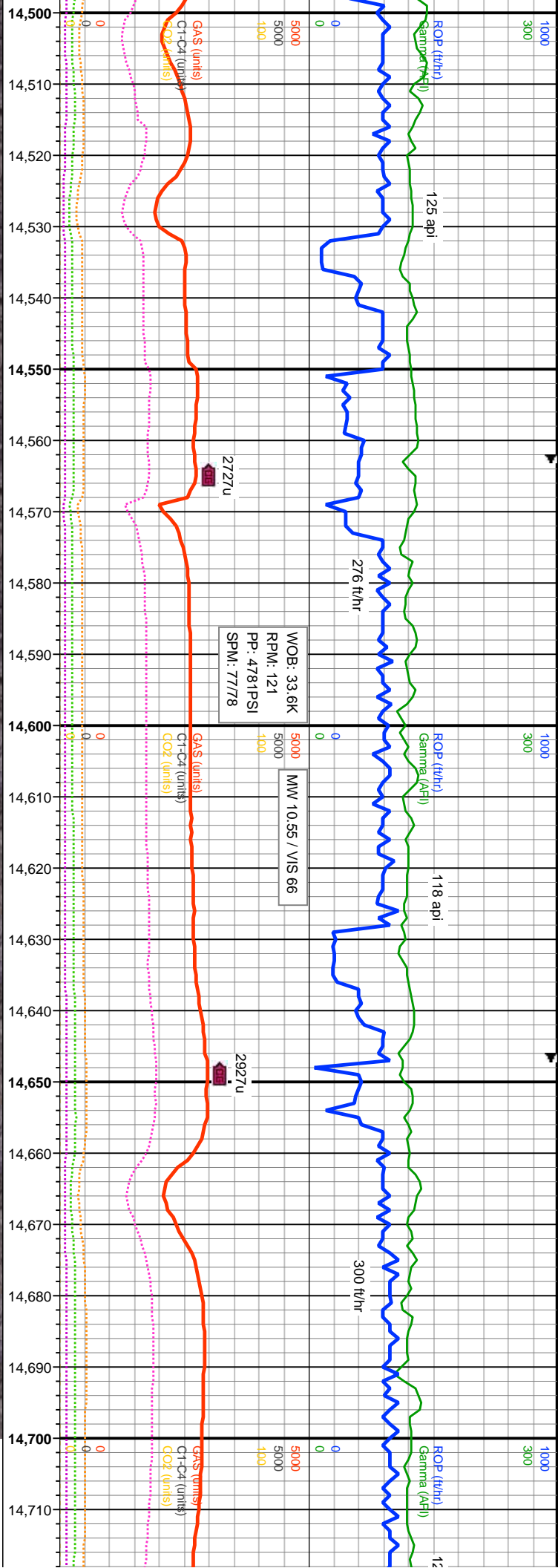


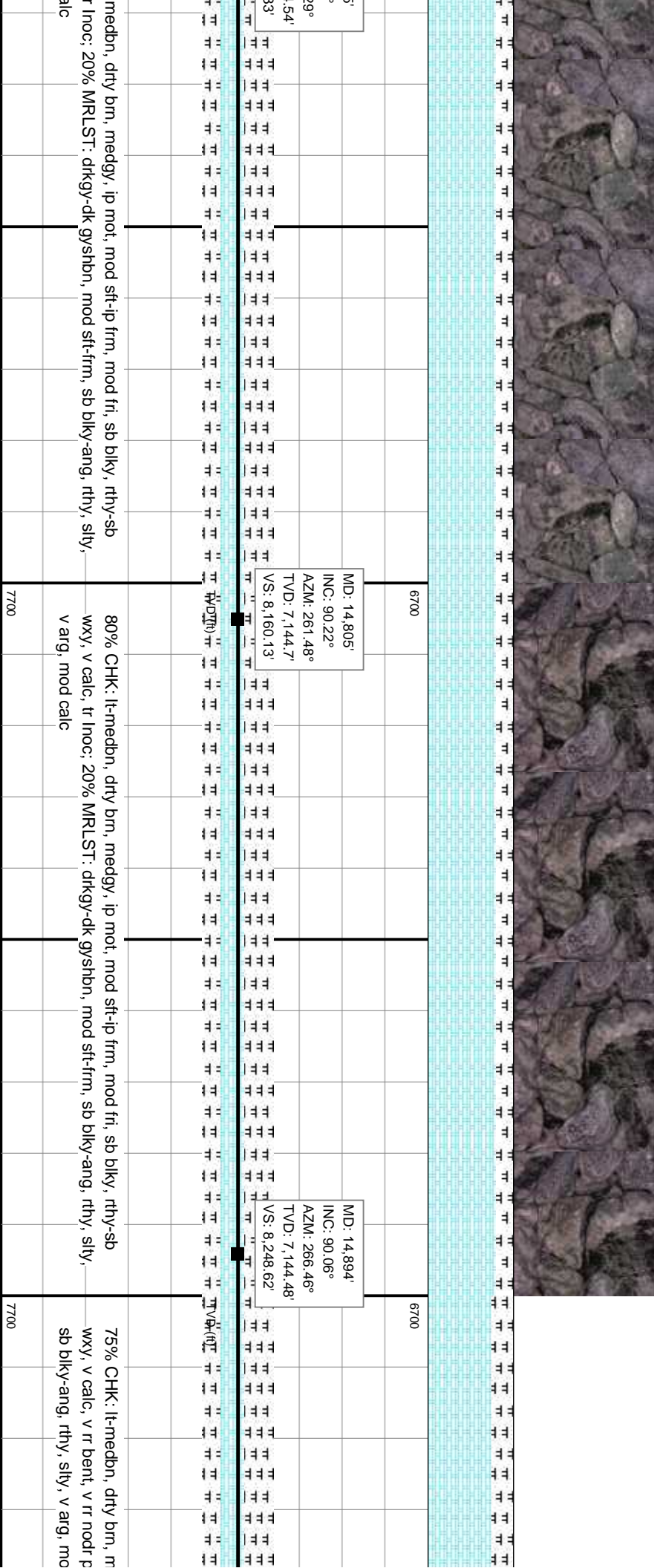
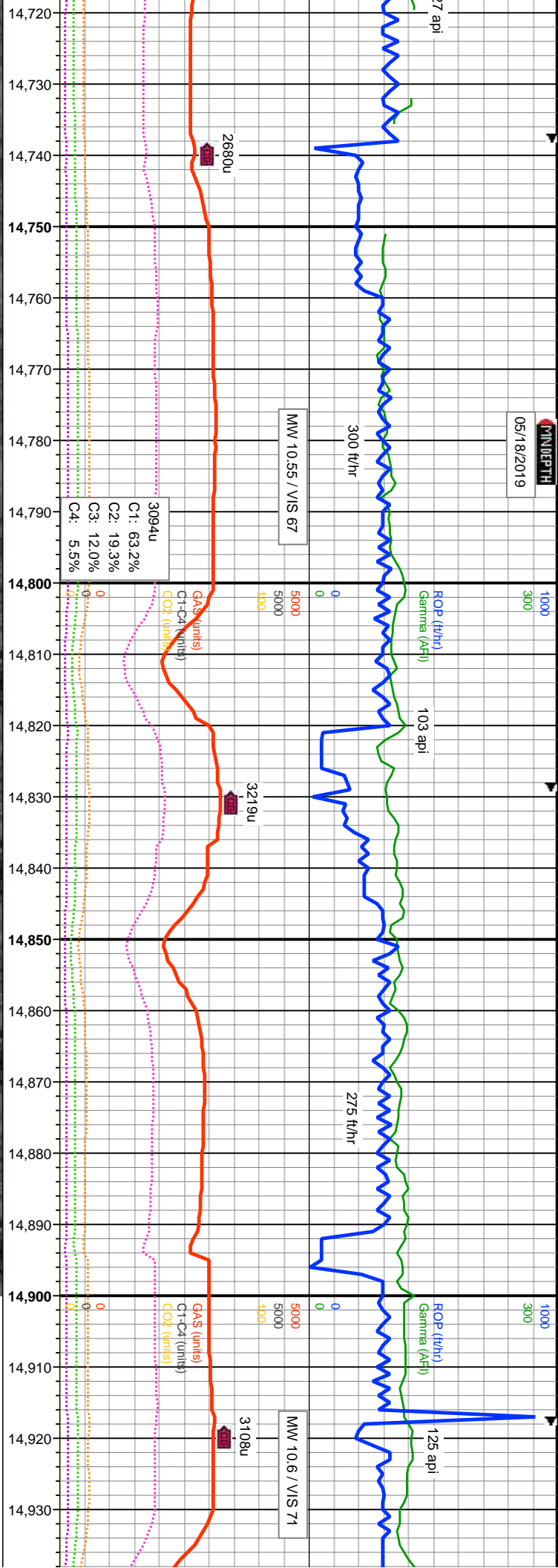


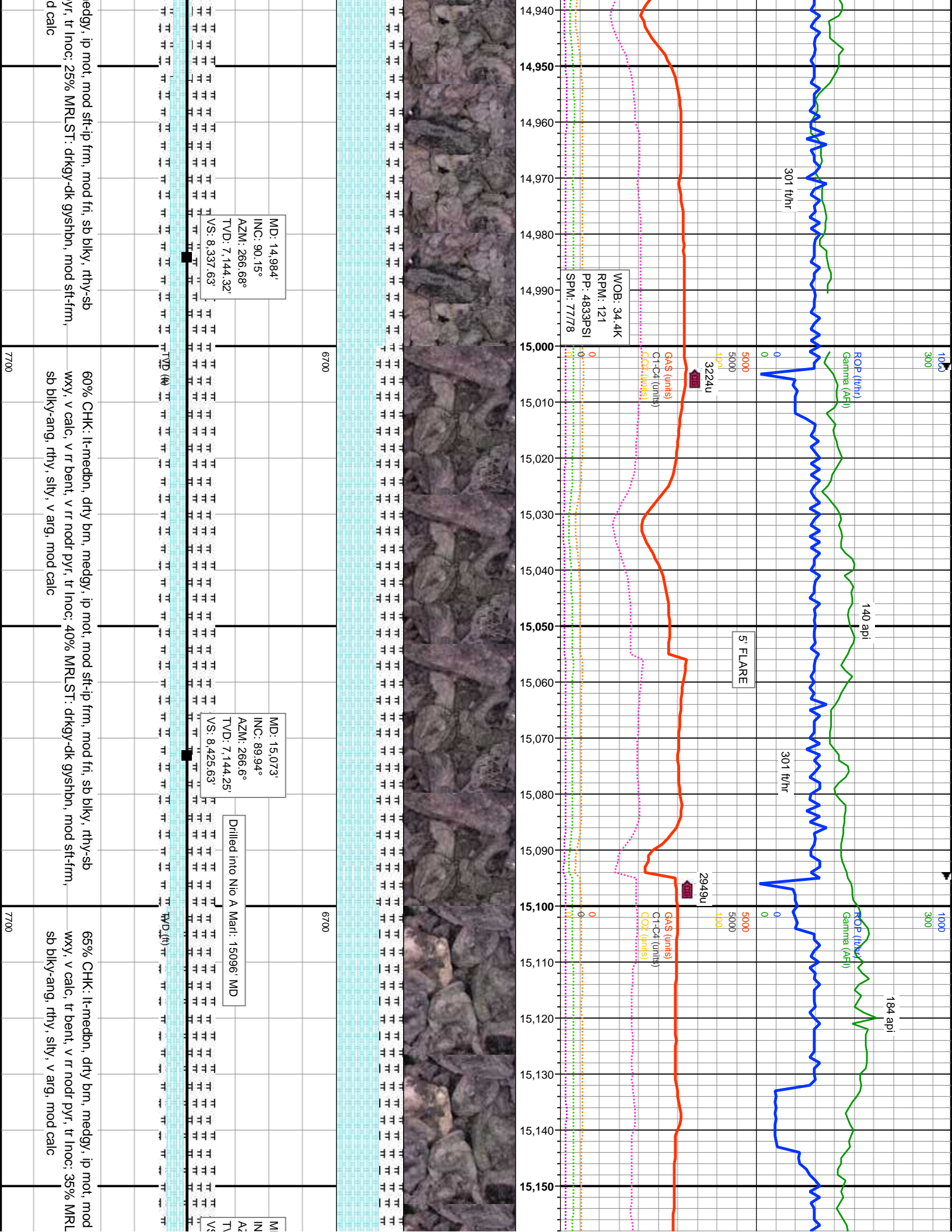


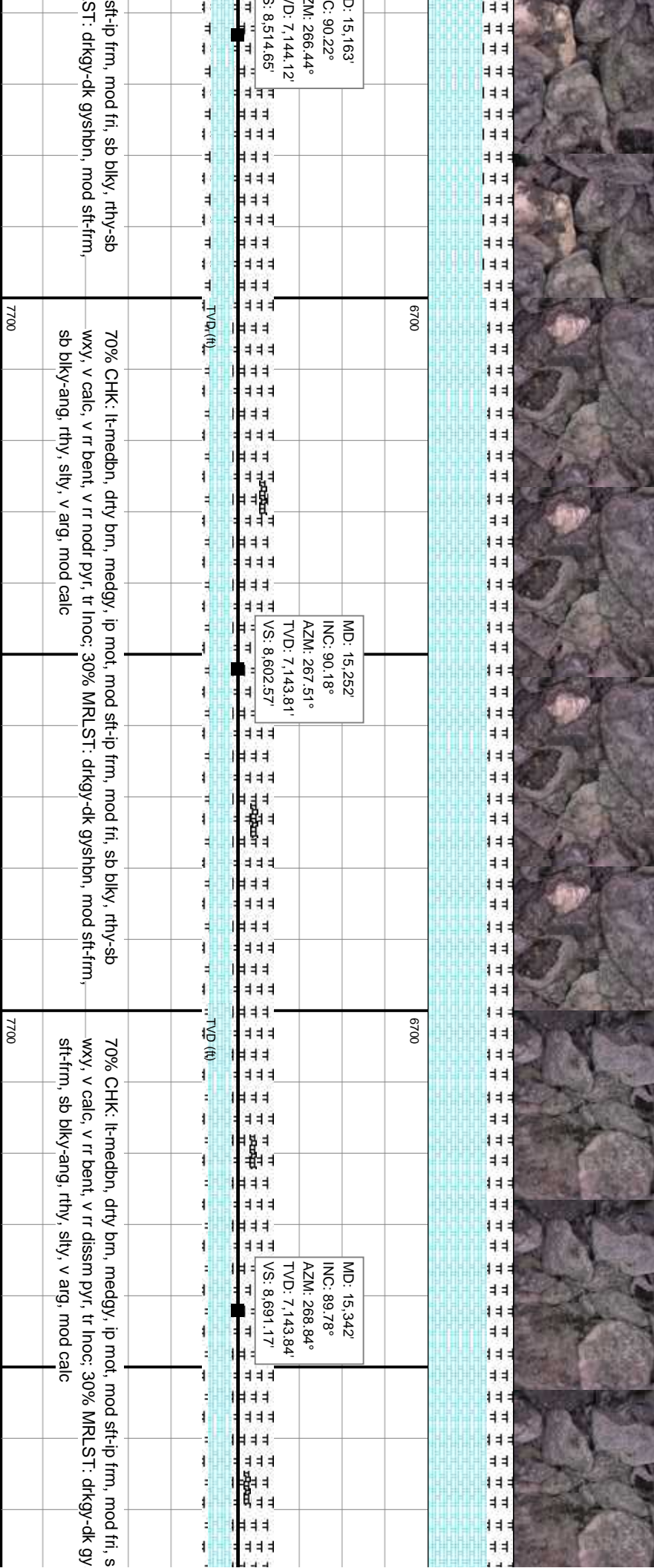
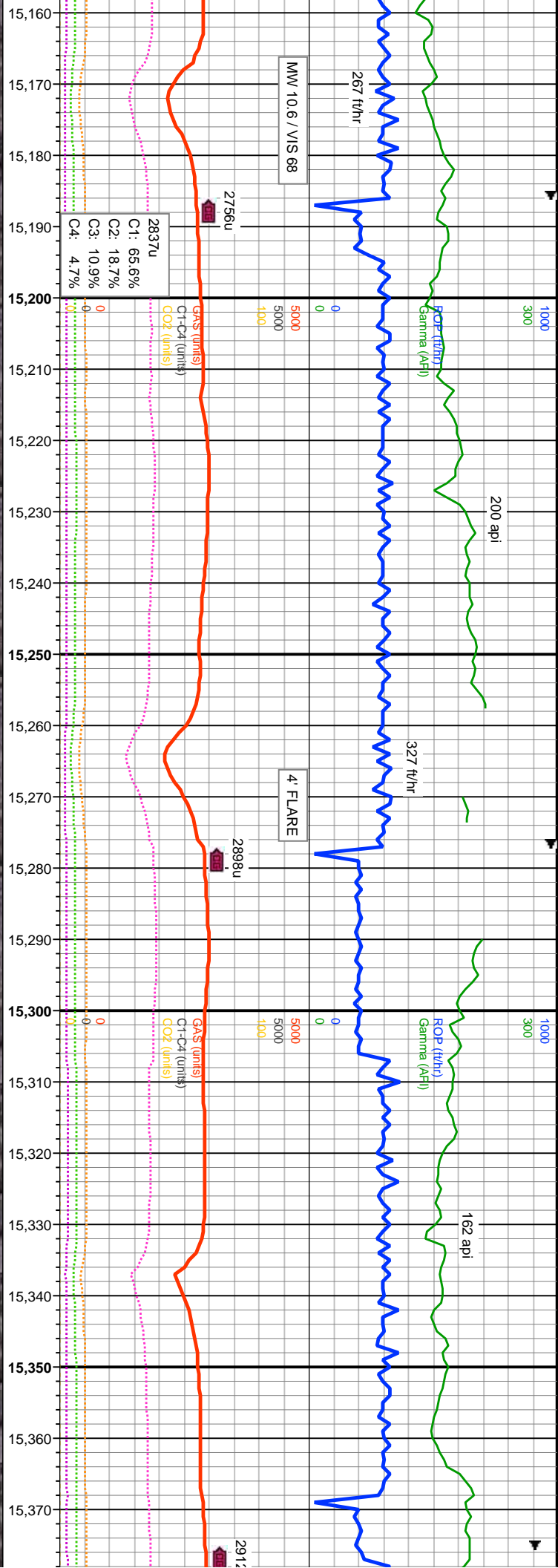


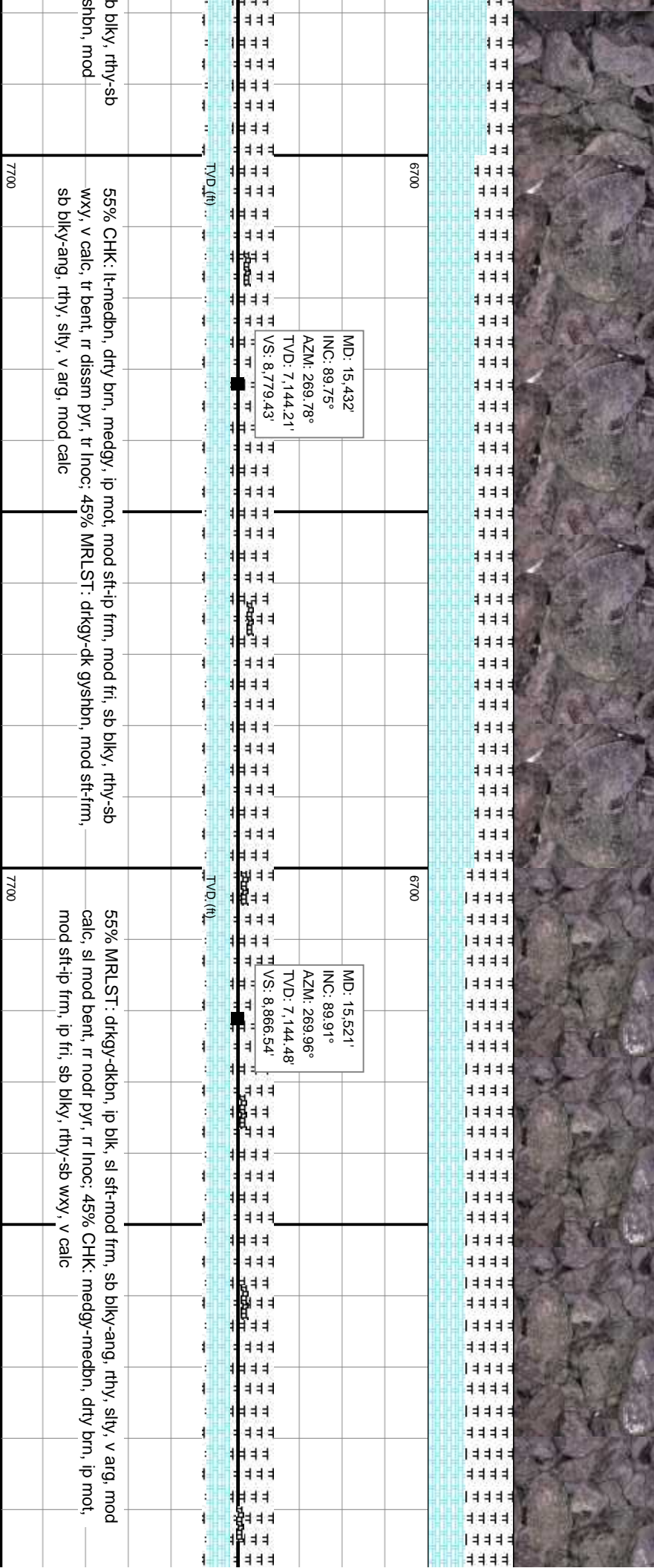
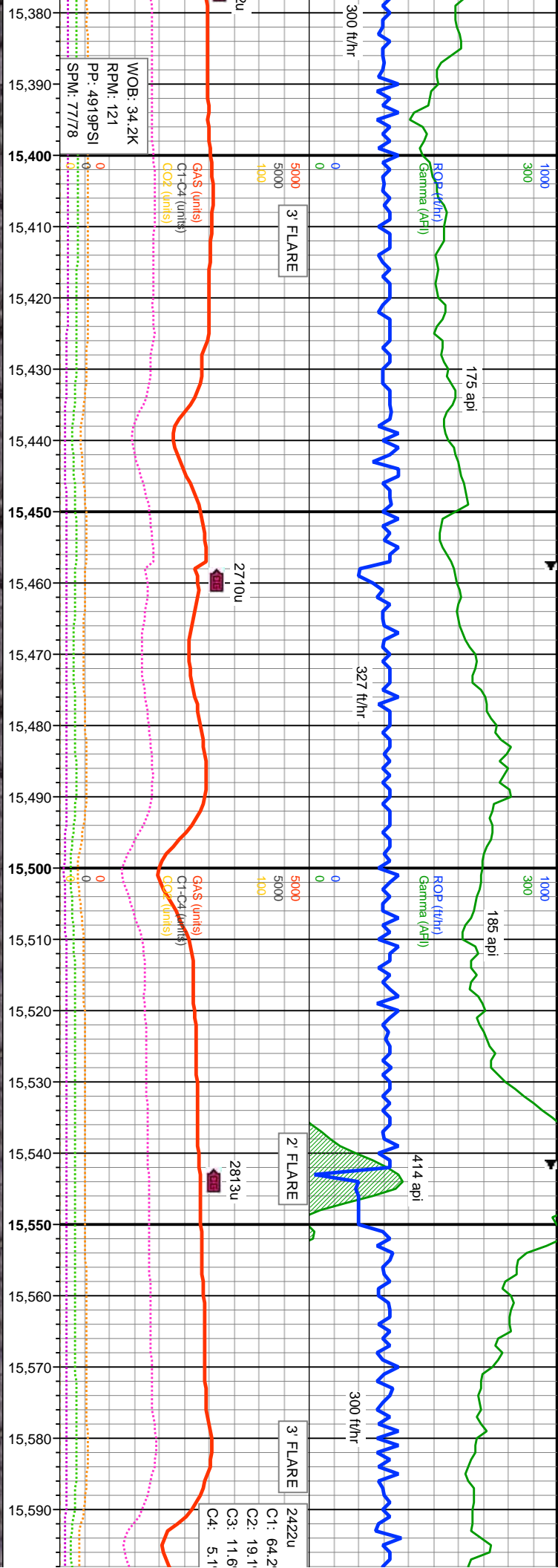


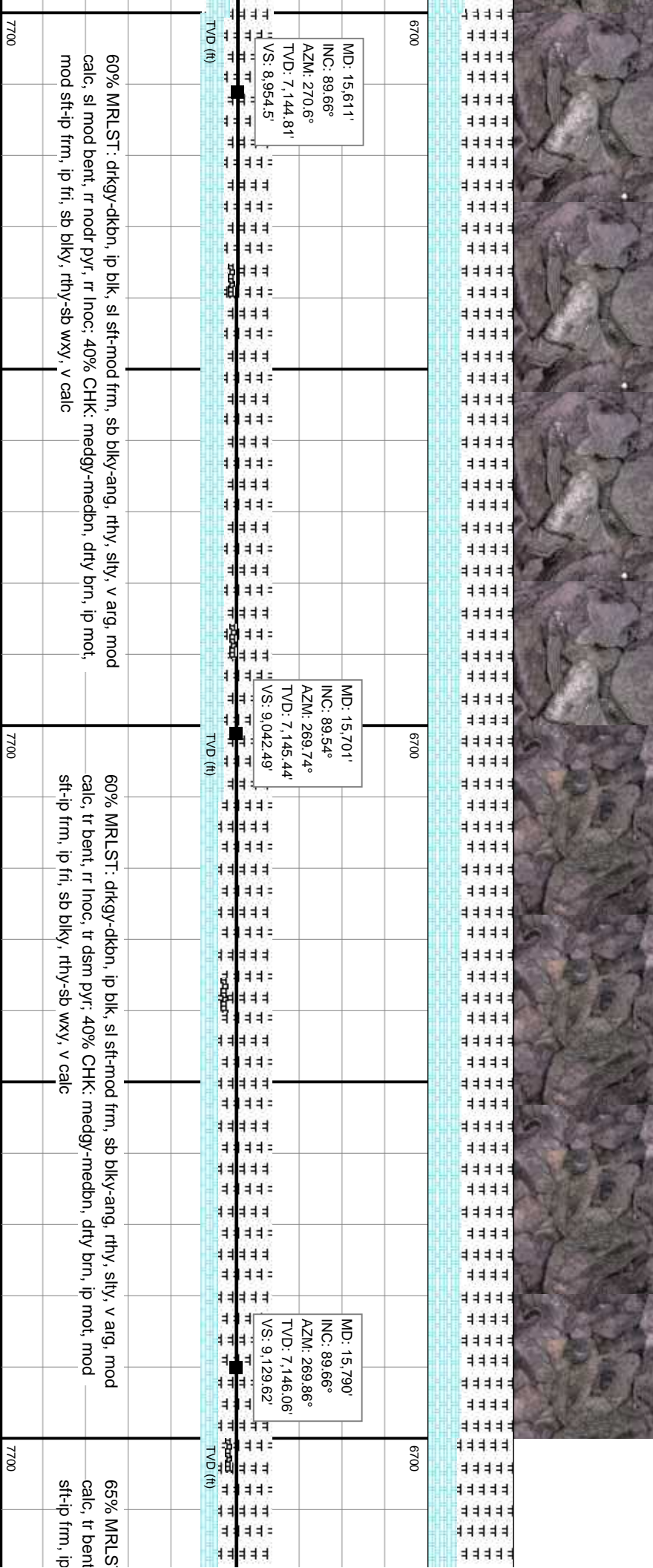
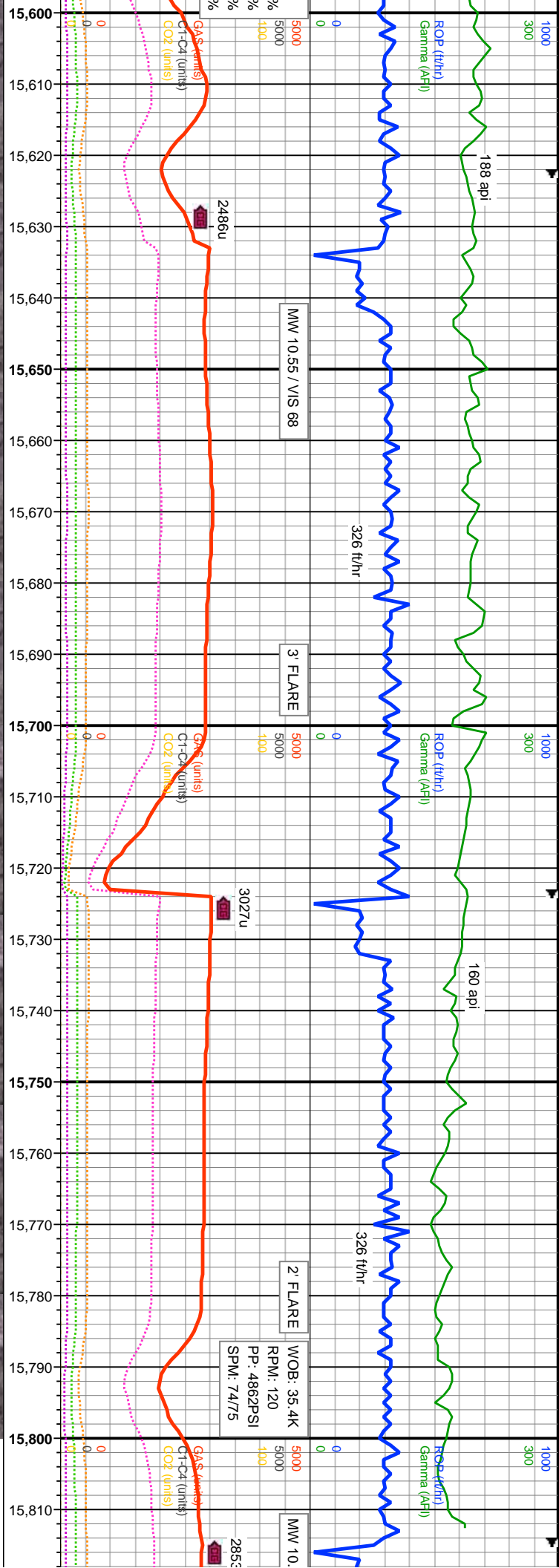


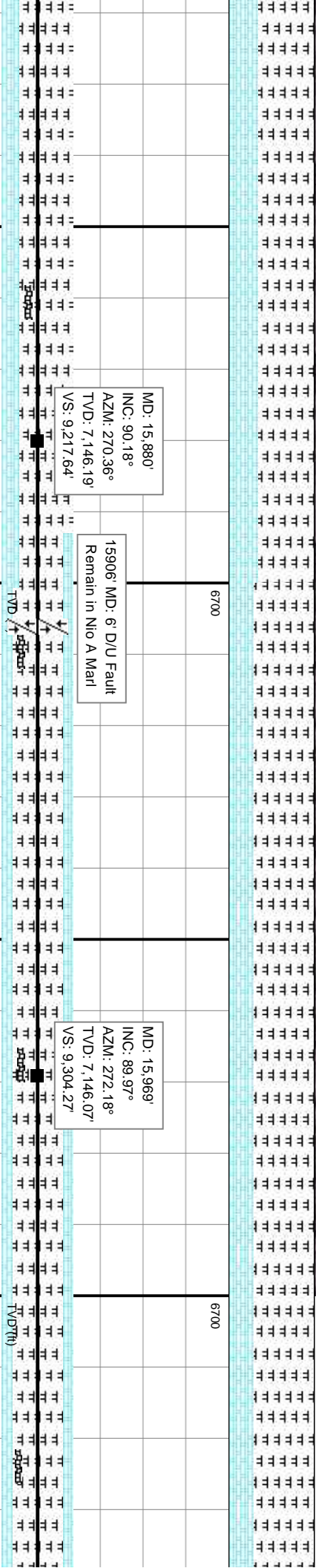
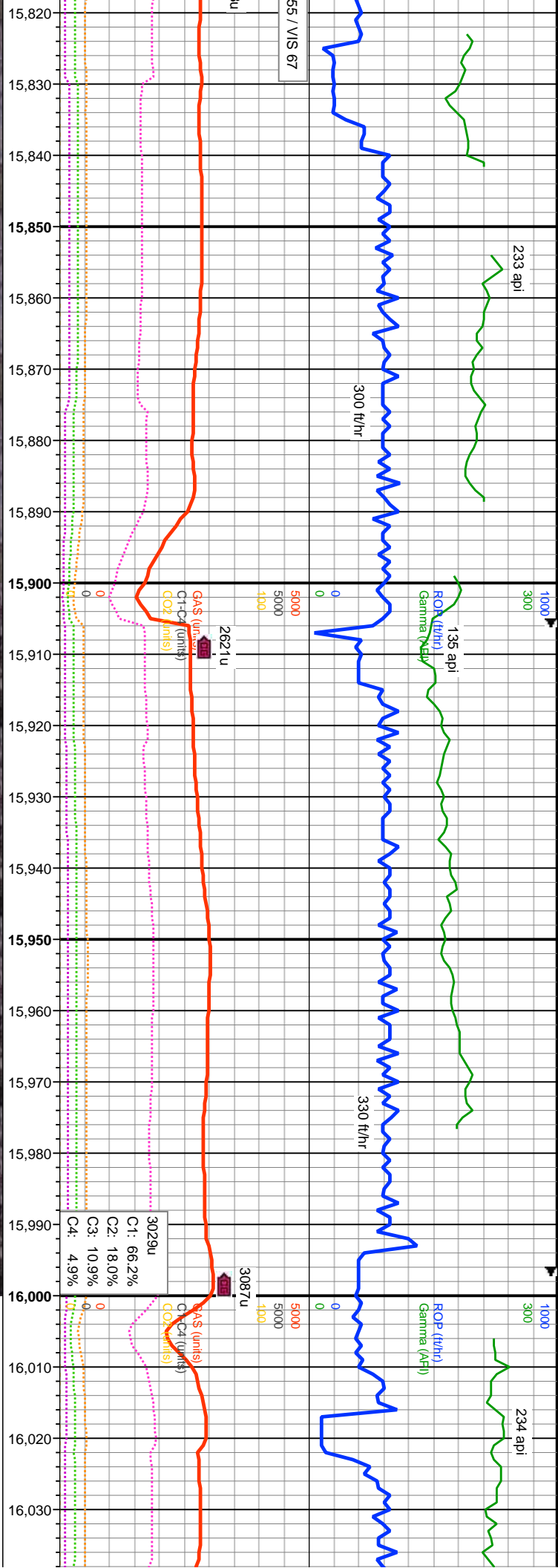




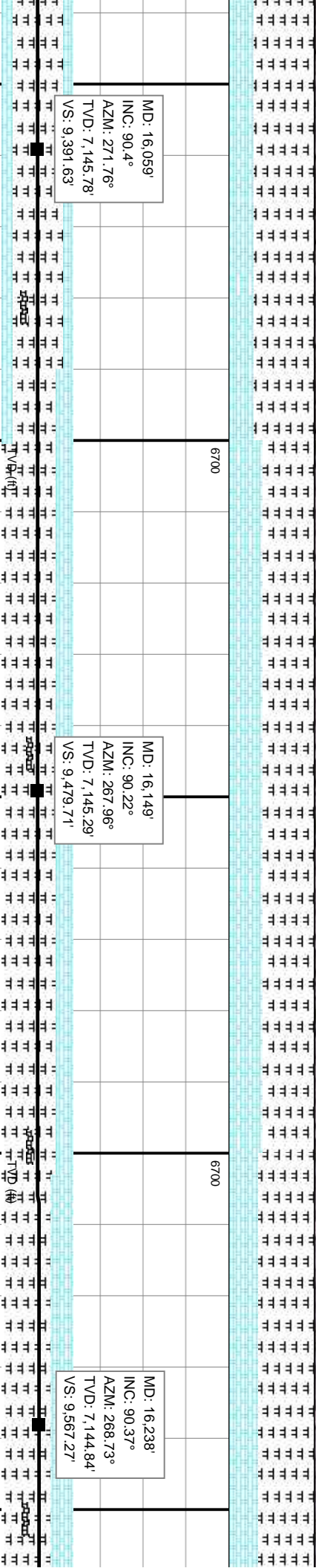
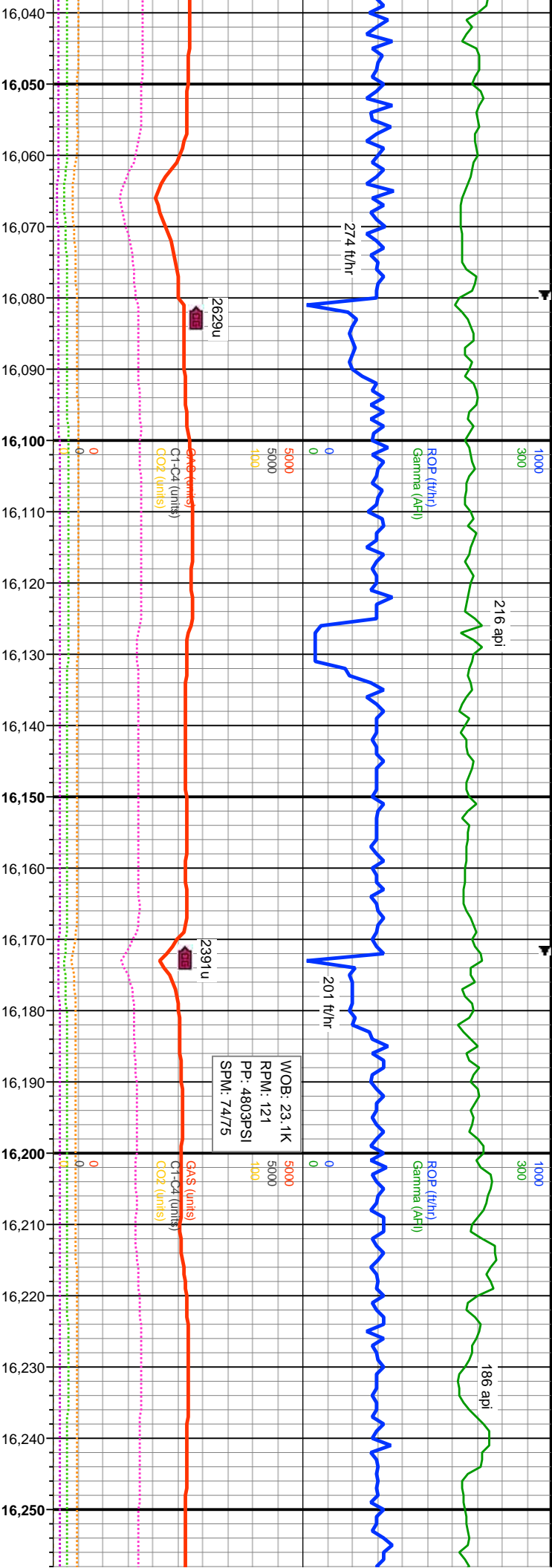








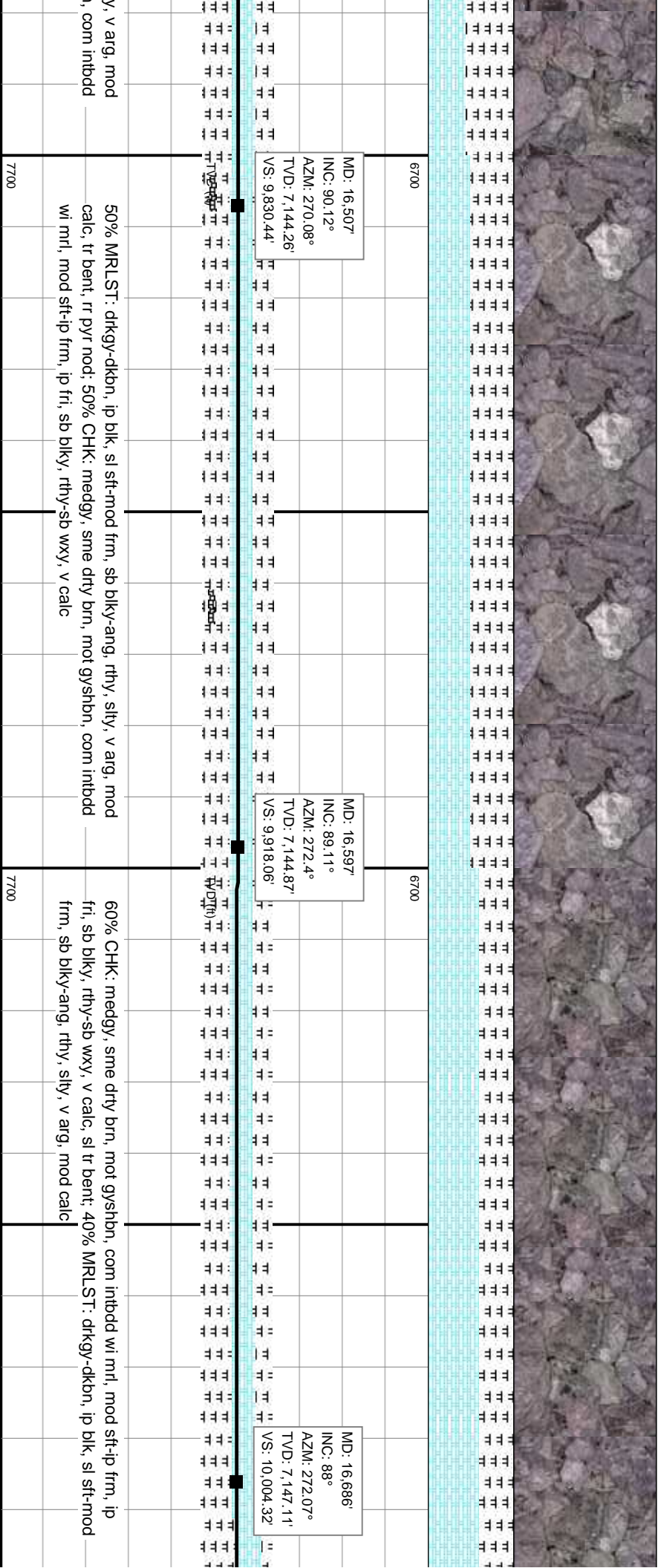
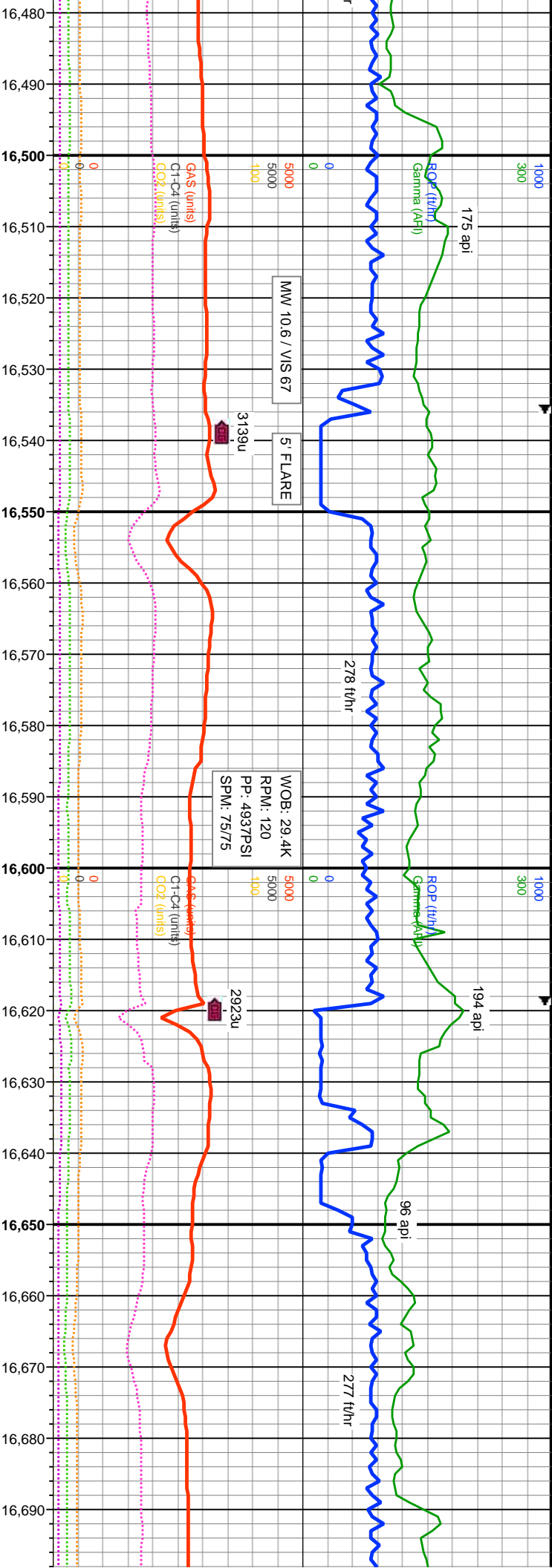
T: drkgy-dkbn, ip blk, sl sft-mod frm, sb blk-y-ang, rthy, slty, v arg, mod rr nodt & dsm pyr, rr lnoc: 35% CHK: medgy-medbn, tr mot, mod fri, sb blk-y, rthy-sb wxy, v calc	MD: 15,880' INC: 90.18° AZM: 270.36° TVD: 7,146.19' VS: 9,217.64'	15906 MD: 6' D/U Fault Remain in Nio A Marl	MD: 15,969' INC: 89.97° AZM: 272.18° TVD: 7,146.07' VS: 9,304.27'	70% MRLST: drkgy-dkbn, ip blk, sl sft-mod frm, sb blk-y-ang, rthy, slty, v arg, mod calc, sl mod bent, rr dsm pyr, rr lnoc: 30% CHK: medgy, mot gysbhn, com intbnd wi mrl, mod sft-ip frm, ip fri, sb blk-y, rthy-sb wxy, v calc	70% MRLST: drkgy-dkbn, ip blk calc, tr bent, rr dsm pyr, rr lnoc mod sft-ip frm, ip fri, sb blk-y, r

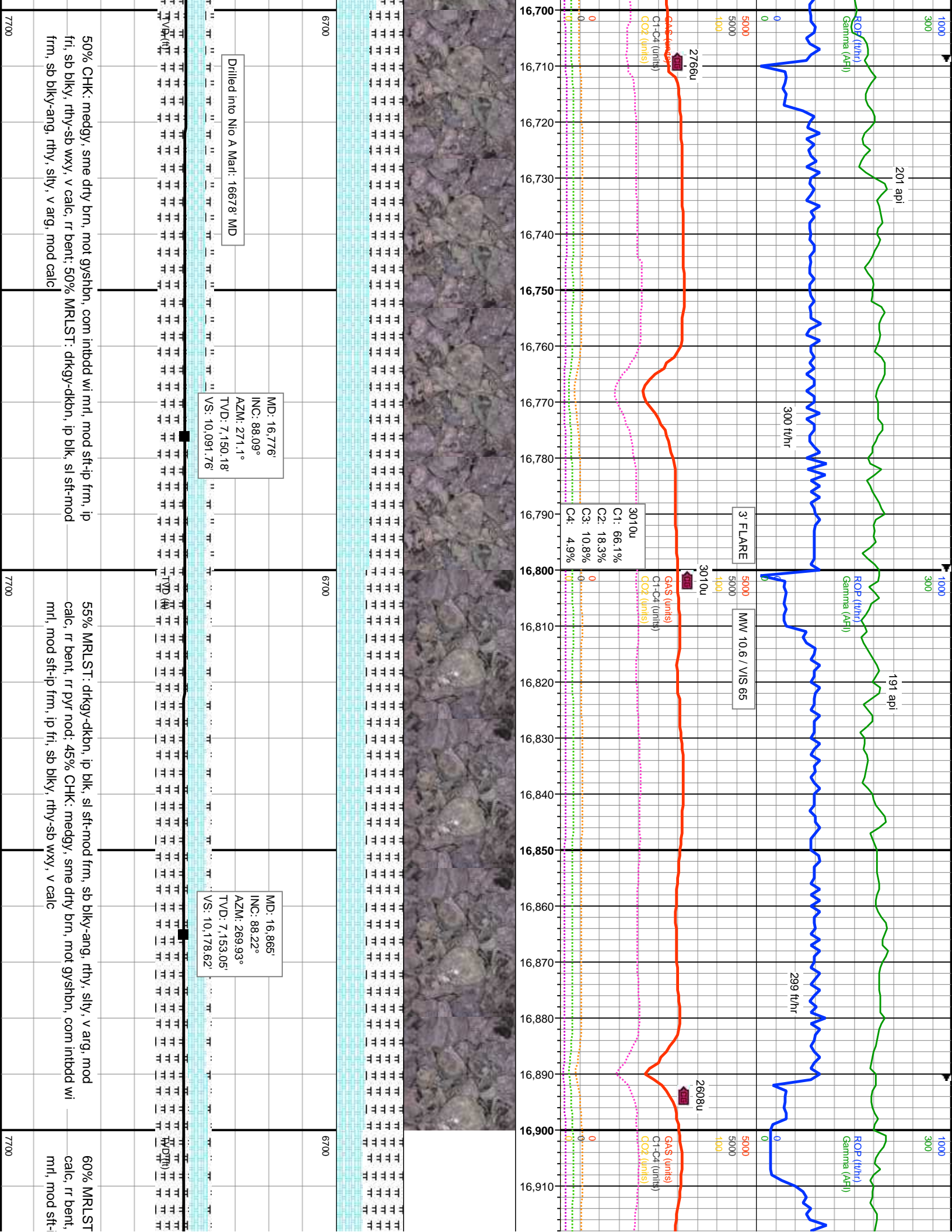


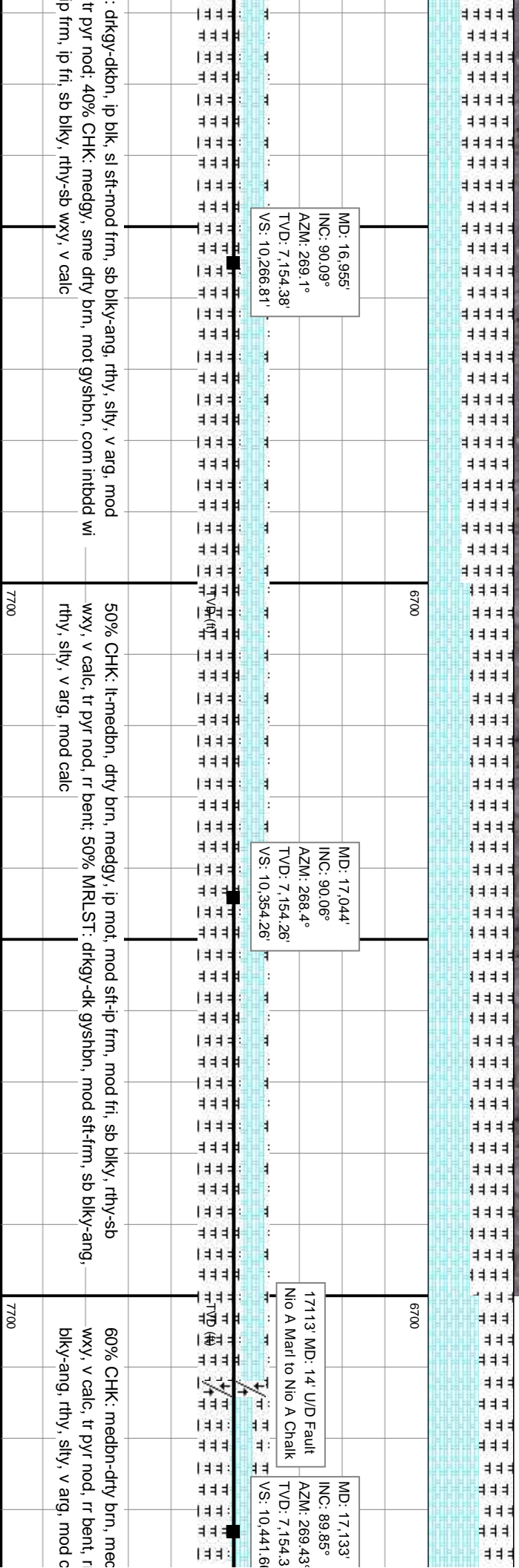
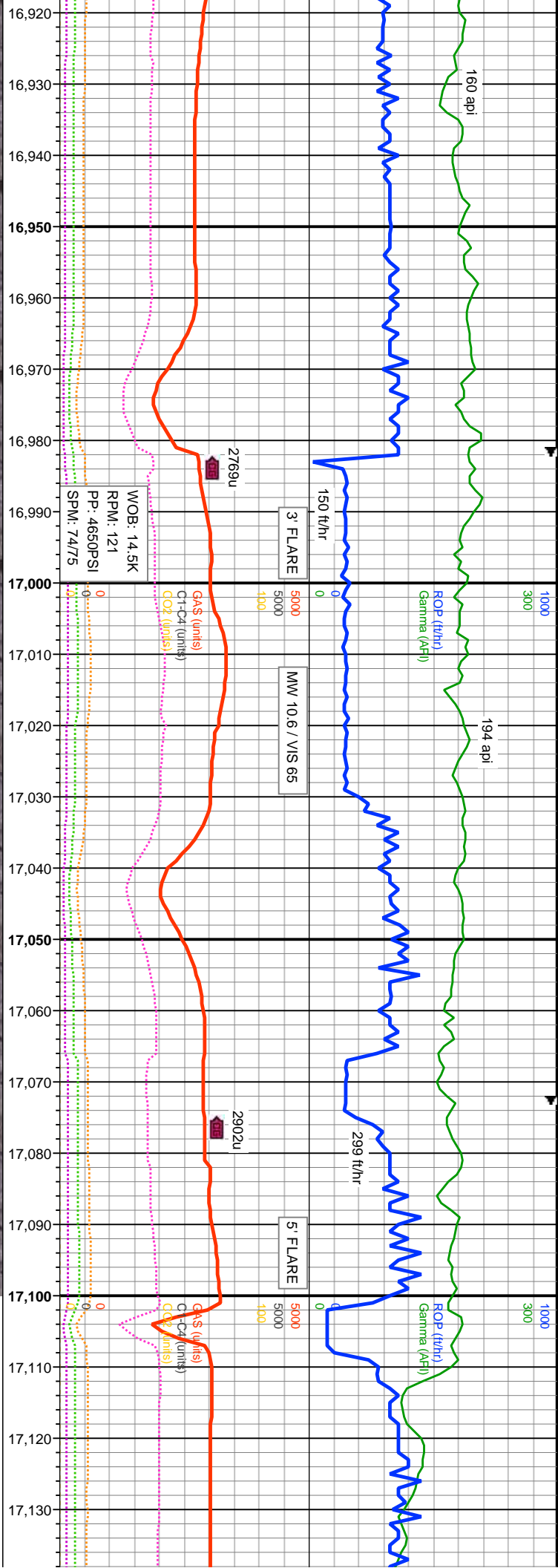
MD: 16,059'	MD: 16,149'	MD: 16,238'
INC: 90.4°	INC: 90.22°	INC: 90.37°
AZM: 271.76°	AZM: 267.96°	AZM: 268.73°
TVD: 7,145.78'	TVD: 7,145.29'	TVD: 7,144.84'
VS: 9,391.63'	VS: 9,479.71'	VS: 9,567.27'

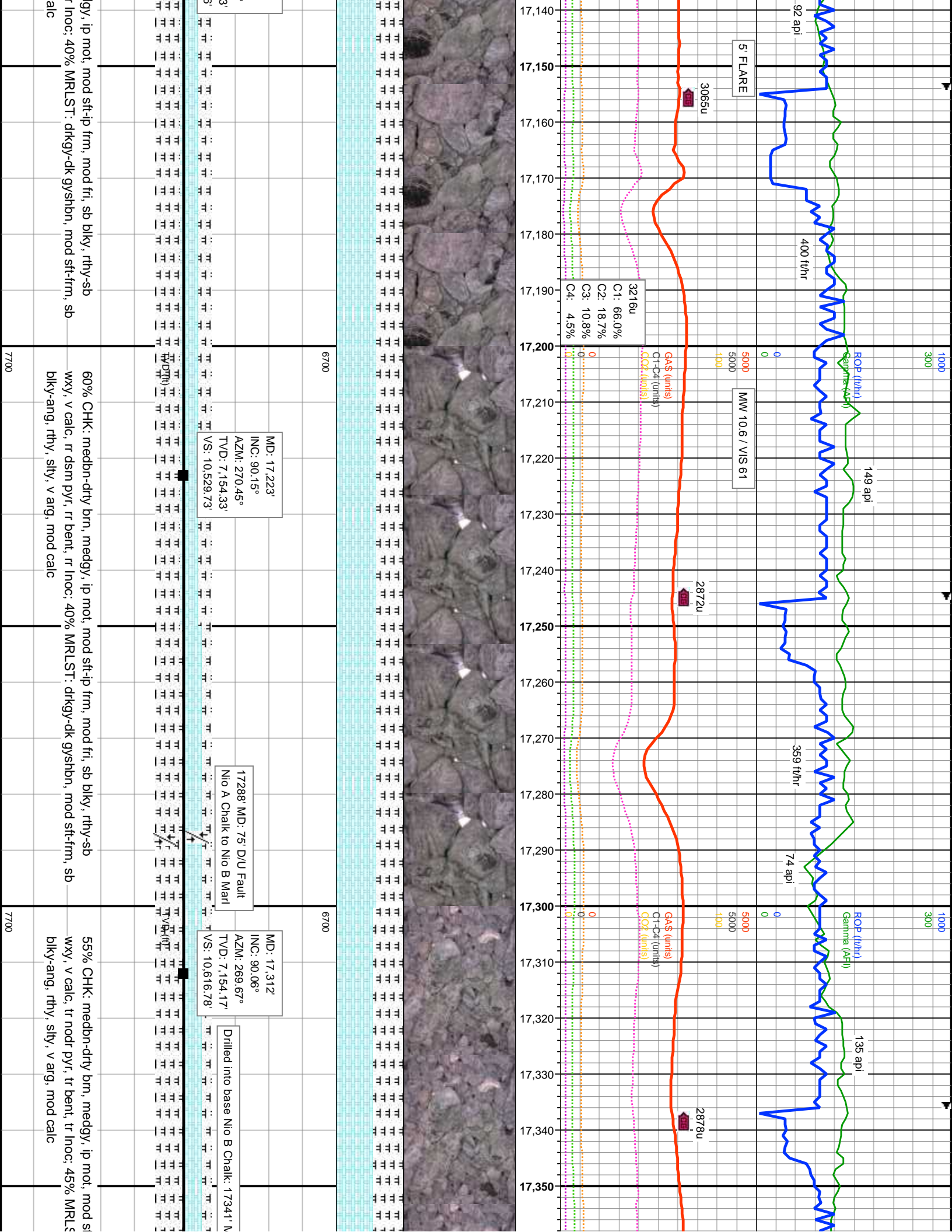
60% MRU-ST: dtkgy-dkn, ip blk, si sft-mod frm, sb blk-ang, rthy, silty, v arg, mod calc, tr bent, rr dsn pyr, rr inoc, 40% CHK: medgy, sme dty brn, mot gysbhn, com intbdd wi mrl, mod sft-ip frm, ip fri, sb blk, rthy-sb wxy, v calc

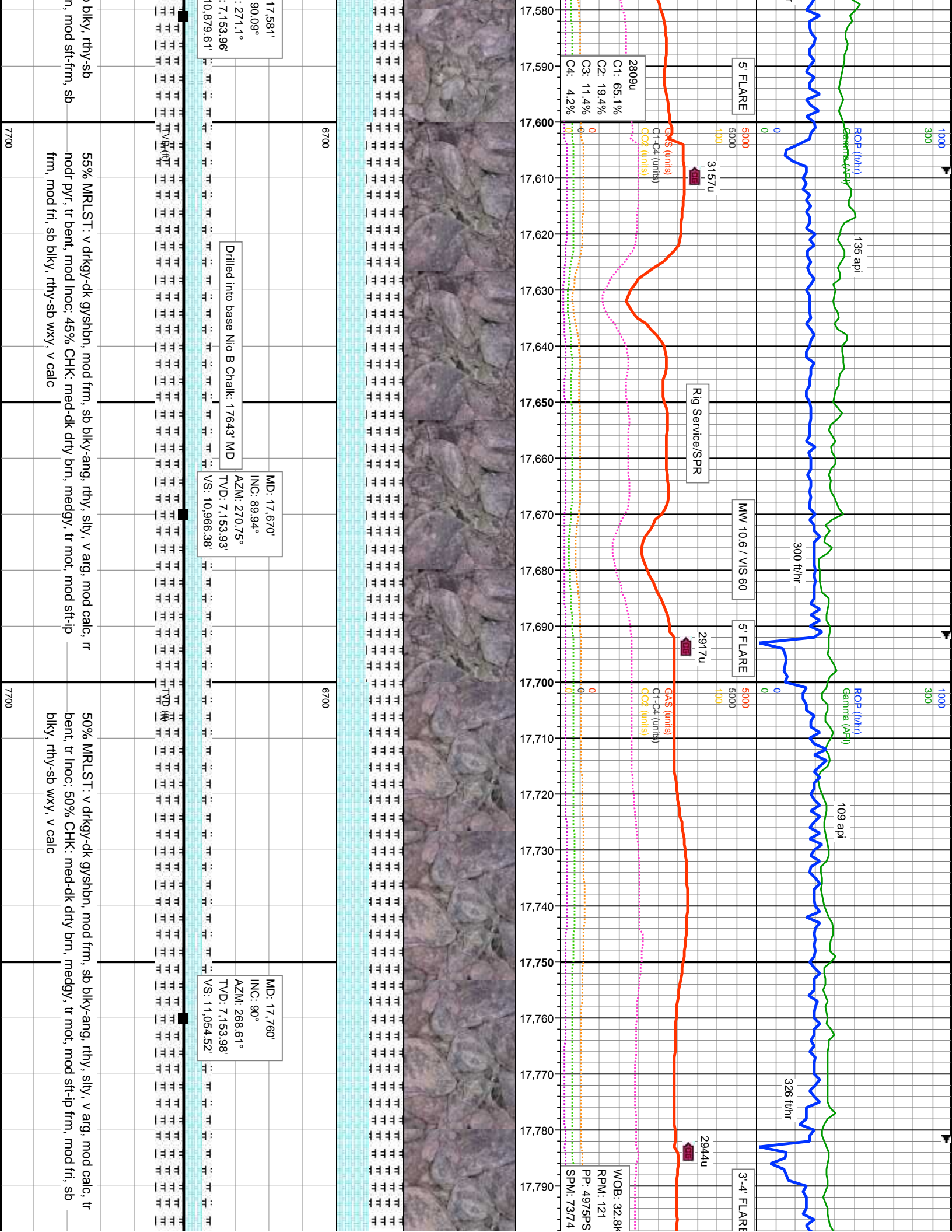
65% MRU-ST: dtkgy-dkn, ip blk, si sft-mod frm, sb blk-ang, rthy, silty, v arg, mod calc, tr bent, tr pyr nod, 35% CHK: medgy, sme dty brn, mot gysbhn, com intbdd wi mrl, mod sft-ip frm, ip fri, sb blk, rthy-sb wxy, v calc

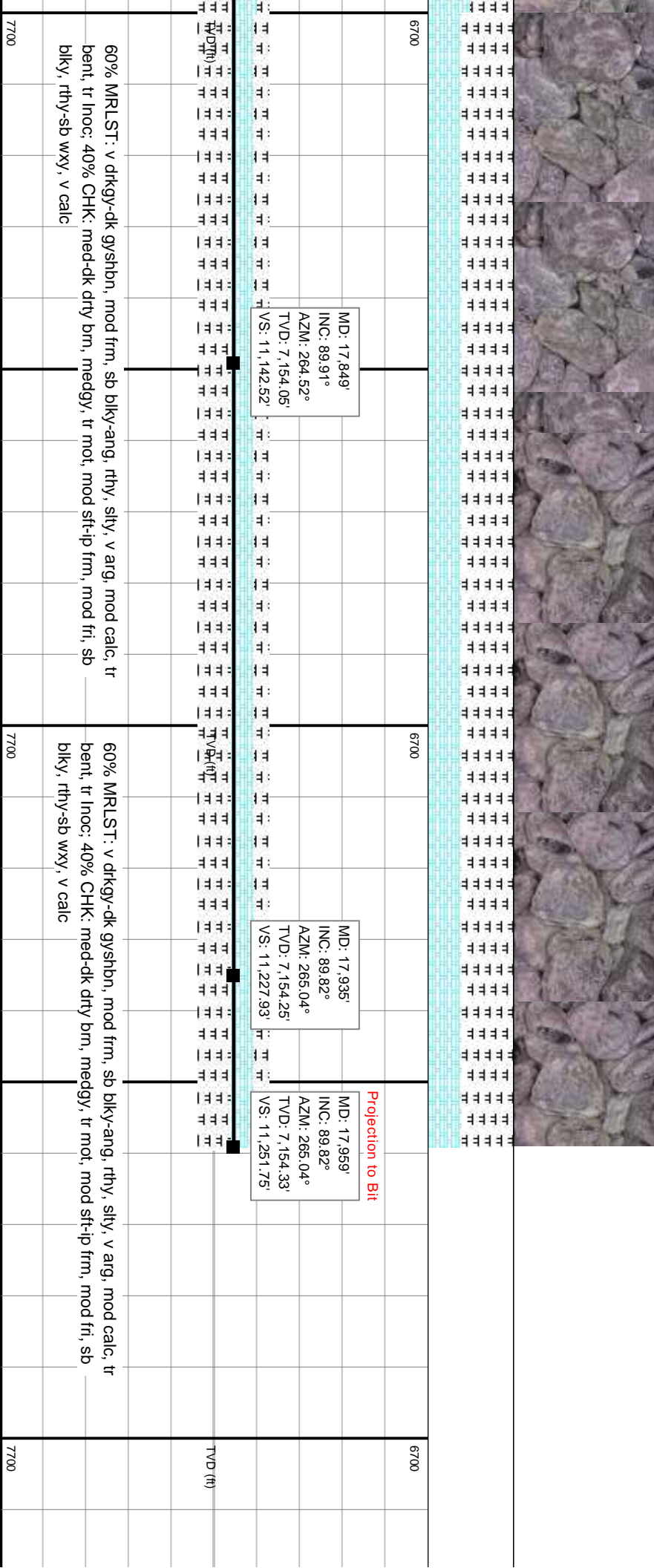
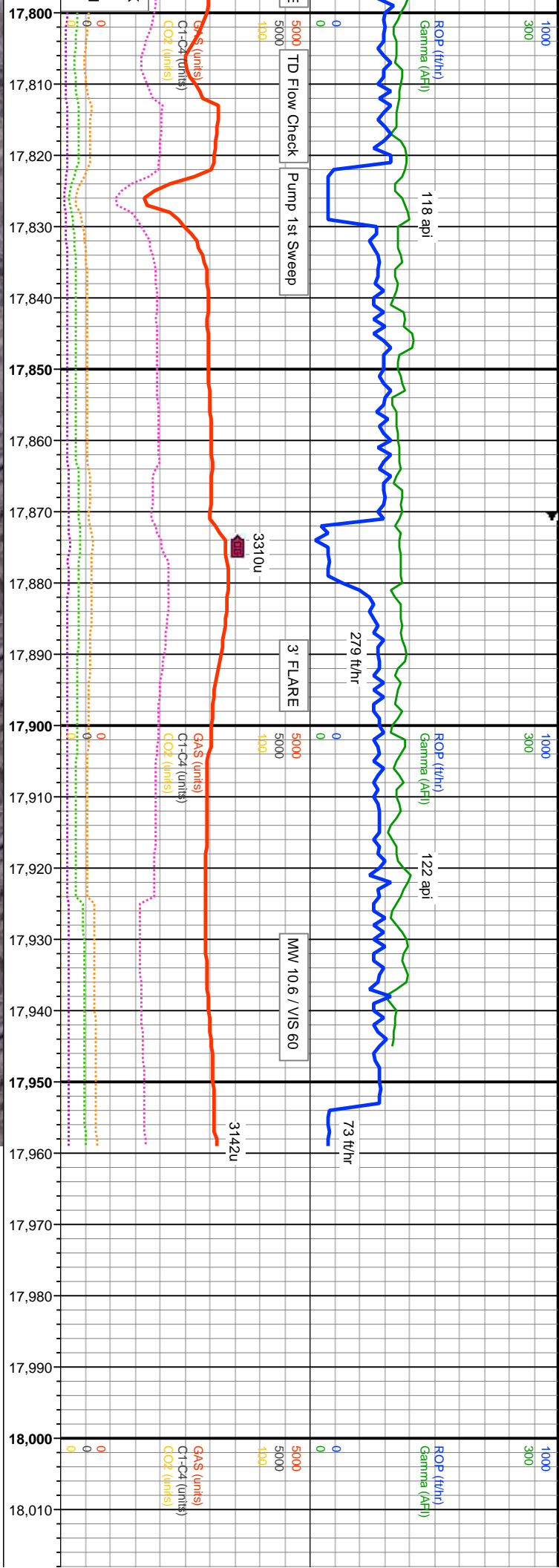




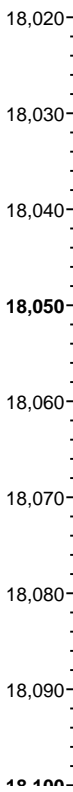








TD Reached, 17959' MD, 16:23 MDT, 05/18/2019
Thank you for using Terra Guidance, LLC.



FM Name	Excursion Depths ('MD)
Sharon Springs	7429
Niobrara	7669