

COLUMBINE LOGGING

Scale: 5" / 100'
Measured Depth Log

Well Name SUMMIT 4C-29HZ

Location SEC29, T2N, R65W

State Colorado

County Weld

Country United States

Rig Number Xtreme 6

API Number 05-123-40173

Field Wattenberg

Region DJ Basin

Drilling Completed 10/25/2014

Spud Date 9/24/2014

Surface Coordinates SEC29, T2N, R65W
395 FSL 941 FWL
Lat/Long: 40.10332/-104.693786

Ground Elevation 4943'

K.B. Elevation 4959'

Logged Interval 6800' MD To 12392'

Total Depth 12392'

Formation Codell

Type of Drilling Fluid Water/WBM

Operator

Company Anadarko Petroleum Corporation

Address 1099 18th St Suite 1800
Denver, CO 80202

Geologist

Name Brad Wilson, Tracy Lawson

Company COLUMBINE LOGGING INC.
Address 2385 S. Lipan St.
Denver, CO 80223

Zone Color Coding

Oil
Note
Error

Condensate
Core
Water

Rock Types

UNKNOWN	COAL	MARL
ANHYDRITE	CONGLOMERATE	META
BENTONITE	DOLomite	NO SA
BRECCIA	DOLomitic LIMESTONE	SALT
CHALK	GRANITE	SAND
CEMENT	GYPsum	SALT-
CHERT	IGNEOUS	SHAL
CLAY CHOKE SANC	SIDERite or LIMONITE	SHAL
CLAYSTONE	LIMESTONE	SHAL

Accessories

Fossils			
GASTROPOD	ARGILLITE GRAIN	HEAVY MINERAL	
INOCERAMUS	B BENTONITE	K KAOLIN	
O OOLITE	BIT BITUMENOUS SUBSTANCE	M MARCASITE	
O OSTRACOD	BRE BRECCIA FRAGMENTS	MAR MARLSTONE	ANH ANHYDRITE STRINGER
B BELEMNITE	C CALCAREOUS	MIC MICACEOUS	BEN BENTONITE STRINGER
BIO BIOCLASTIC	CAR CARBONACEOUS FLAKES	MIN MINERAL CRYSTALS	COA COAL STRINGER
BR BRACHIOPOD	CHT CHERT	MOD MODULES	DOLOLOMITE STRINGER
B BRYOZOA	COAL - THIN BEDS	PHO PHOSPHATE PELLETS	GYP GYPSUM STRINGER
C CEPHALOPOD	D DOLOMITIC	PYR PYRITE	LIM LIMESTONE STRINGER
COR CORAL	F FELDSPAR	SALT CAST	MARLSTONE (CALC) STRG
CR CRINOID	FER FERRUGINOUS PELLET	SANDY	MARLSTONE (DOL) STRG
E ECHINOID	FER FERRUGINOUS	S SIDERITE	SAND SANDSTONE STRINGER
F FISH	GLA GLAUCONITE	SIL SILICEOUS	SHA SHALE STRINGER
FOR FORAMINIFERA	GYP GYPSIFEROUS	SIL SILTY	SIL SILTSTONE STRINGER
F FOSSIL	TUF TUFFACEOUS	TUF TUFFACEOUS	

Stringer

ANH ANHYDRITE STRINGER
BEN BENTONITE STRINGER
COA COAL STRINGER
DOLOLOMITE STRINGER
GYP GYPSUM STRINGER
LIM LIMESTONE STRINGER
MARLSTONE (CALC) STRG
MARLSTONE (DOL) STRG
SAND SANDSTONE STRINGER
SHA SHALE STRINGER
SIL SILTSTONE STRINGER

Other Symbols

Oil Show			
P PINPOINT	DST DST INTERVAL	WTL WIRELINE TESTED - LEFT	E EARTHY
V VUGGY	FAULT	WTR WIRELINE TESTED - RT	FX FINELYXLN
Engineering			
D DEAD	TOP FORMATION TOP	DST DRILL STEM TEST	GS GRAINSTONE
E EVEN	GAS GAS SHOW	MN MN DEPTH	L LITHOGRAPHIC
Q QUESTIONABLE	OIL OIL SHOW	MN MN DEPTH	MX MICROXLN
S SPOTTED STAINING	CON CONNECTION (UP)	MN MN DEPTH UP	MS MUDSTONE
CON CONNECTION (DOWN)	MN MN DEPTH (DOWN)	ANG ANGULAR	PS PACKSTONE
Porosity			
CON CONNECTION GAS	NOR NORMAL FAULT	R ROUNDED	WS WACKESTONE
E EARTHY	STR OVERTURNED STRATA	SUB SUBANG	
F FENESTRAL	REV REVERSE FAULT	SUB SUBRAND	
F FRACTURE	CAS CASING		
X INTERCRYSTALLINE	DTG DOWN TIME GAS	SCW SIDEWALL CORE (LEFT)	
I INTEROOLITIC	DTG DOWN TIME GAS (LEFT)	SCW SIDEWALL CORE (RIGHT)	
M MOLDIC	CORE CORE - LOST	SLIDE	
O ORGANIC	CORE CORE - RECOVERED	SUR SURVEY	
		CX CRYPTOXLN	
Textures			
		BS BOUNDSTONE	P POOR
		CHA CHALKY	W WELL
Sorting			
		M MODERATE	

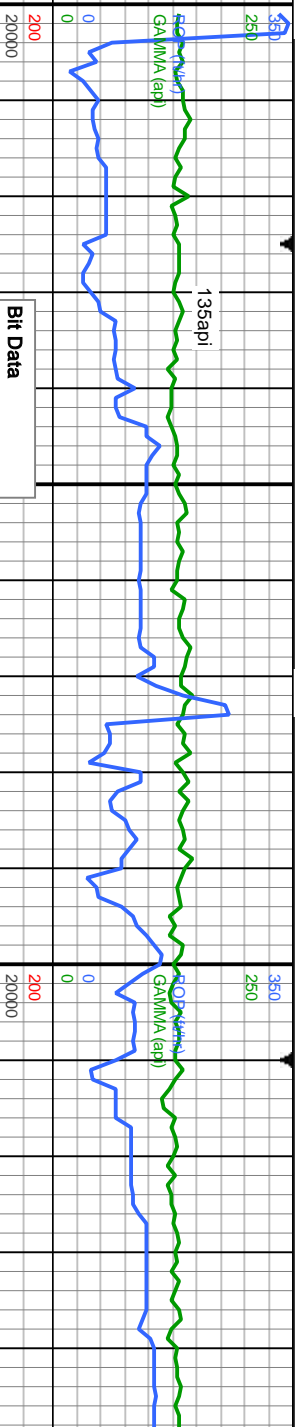
Gas
Pressure
Seal

STONE
MORPHIC
MPLE
STONE
PEPPER SANT
E
E GRAY
STONE
SHALY SANDSTONE
SHALY SILTSTONE
SILT SHALE
SILTSTONE
TILL
TUFF
WELDED TUFF

Slide/Rotate

ROP
ROP
GAMMA

COLUMBINE LOGGING INC.
RIGGED UP ON 10/21/2014
BEGAN 2 PERSON LOGGING
ON 10/21/2014



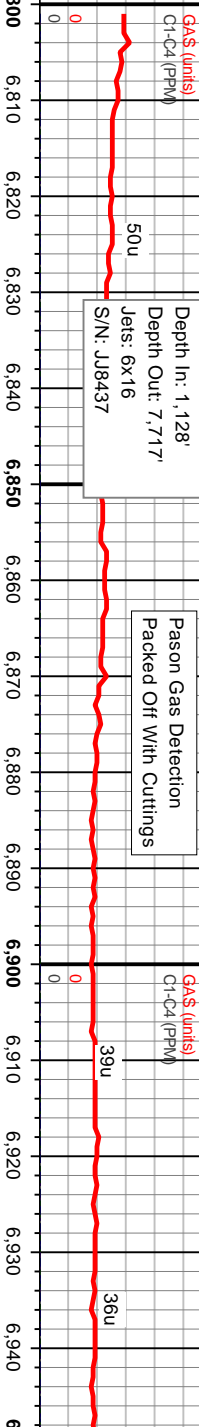
Total Gas & Chromatograph

GAS
C1
C2
C3
C4

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

BEGAN LOGGING CURVE
@ 20.40 ON 10/21/2014

Pason EDR Does Not Export C-Values



Bit Data
Bit #: 1
Type: SMITH SD1613
Size: 8.75
Depth In: 1,128'
Depth Out: 7,717'
Jets: 6x16
S/N: JJ8437

Pason Gas Detection
Packed Off With Cuttings

6,770 6,780 6,790 6,800 6,810 6,820 6,830 6,840 6,850 6,860 6,870 6,880 6,890 6,900 6,910 6,920 6,930 6,940

% Lith

6500 SLTY SH: med gy - dk gy, occ blk, sft, sb blkly -
sb ply, occ ply, arg cnt, non calc, no flor;
frnt lt blk mky cut wi dim yel flor resd

SLTY SH: med gy - dk gy, occ blk, sft, sb blkly -
sb ply, occ ply, arg cnt, non calc, no flor; frnt lt
blk mky cut wi dim yel flor resd

6500 MUD WT 10.2 VIS 44.0
SLTY SH: lt gy - med gy, occ blk, sft, sb blkly -
sb ply, occ ply, arg cnt, non calc, no flor; frnt
lt blk mky cut wi dim yel flor resd

Well Bore
TVD

elone was used as the cutting
ent with the dimple filled to the rim
e ratings are based on 7 descriptors:
ne, Slight trace, Trace, Fair, Moderate,
ood, and Excellent. The descriptor used
based on the loggers observations and
st judgement of brilliance, color and
agevity of the cut.

MD: 6,822'
Inclination: 2.62°
Azimuth: 317.77°
TVD: 6,746.87'
VS: -350.1'

MD: 6,864'
Inclination: 6.35°
Azimuth: 337.68°
TVD: 6,788.74'
VS: -347.2'

MD: 6,907'
Inclination: 9.31°
Azimuth: 338.07°
TVD: 6,831.33'
VS: -341.72'

MD: 6,956'
Inclination:
Azimuth:
TVD: 6,878'
VS: -335.

50' Samples in Curve

50' Oil Shows in Curve

7400

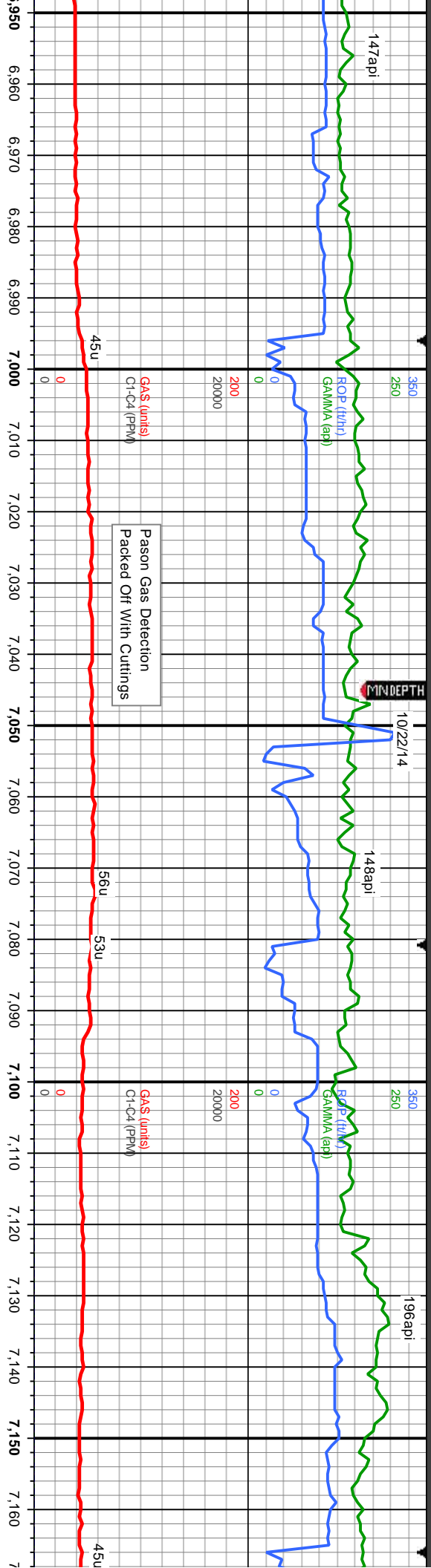
7400

Oil Show

E
G
M
F
T
S

Images





SLTY SH: lt gy - med gy, occ blk, sft, sb blk - sb
ply, occ ply, arg cnt, non calc, no flr; frt lt bl
mky cut wi dim yel flr resd

SLTY SH: gy - dk gy, occ blk, sft, sb blk - sb ply,
occ ply, arg cnt, non calc, v silty tex, tr shy ss, no
mml flr; frt lt bl mky cut wi dim yel flr resd

SLTY SH: gy - dk gy, occ blk, sft, sb blk - sb ply,
occ ply, arg cnt, non calc, v silty tex, tr shy ss, no
flr; frt lt bl mky cut wi dim yel flr resd

SLTY SH: gy - dk gy, occ blk, sft, sb blk - sb
ply, occ ply, arg cnt, non calc, v silty tex, tr
shy ss, no flr; mod lt bl-wh mky cut wi mod sl
blochy yel flr resd ring

SLTY SH: gy - dk g
occ ply, arg cnt, n
- dk gy, blk ip, blk
calc; CHK: lt gy - g
mod, v calc; tr bent;
sl blochy yel flr res

MD: 6.992
Inclination: 17.24°
Azimuth: 344.28°
TVD: 6.914.61'
VS: -325.97'

MD: 7.035'
Inclination: 20.93°
Azimuth: 20.14°
TVD: 6.955.38'
VS: -312.61'

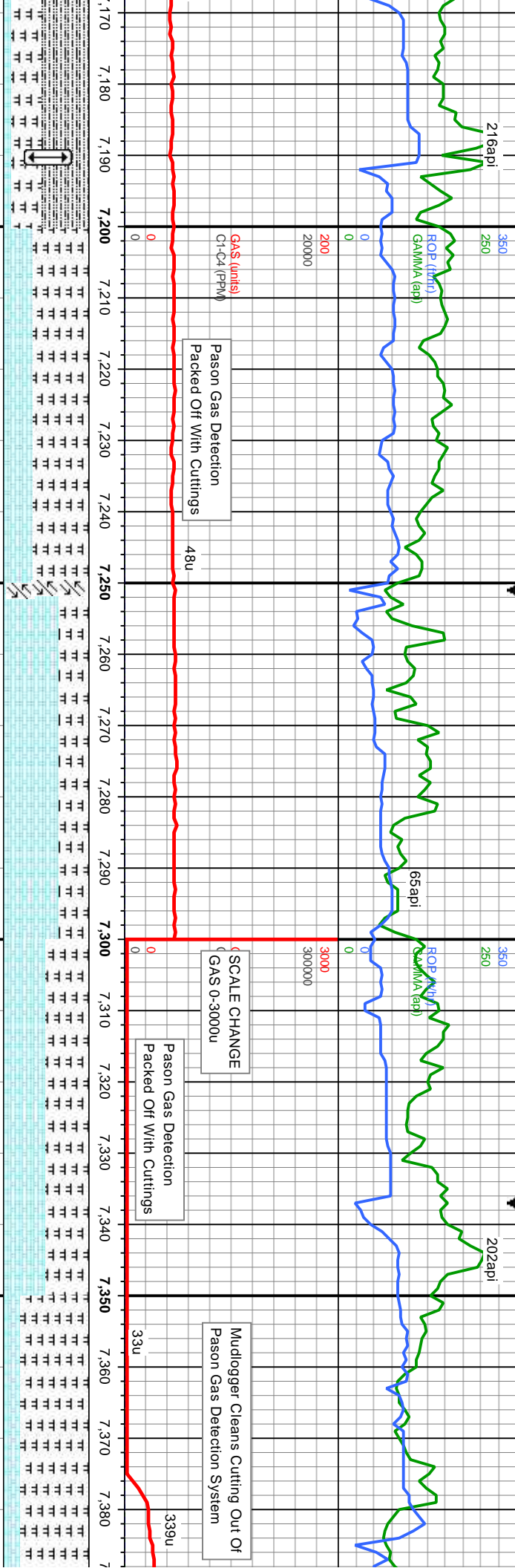
MD: 7.077'
Inclination: 24.77°
Azimuth: 344.27°
TVD: 6.994.26'
VS: -297.02'

MD: 7.120'
Inclination: 28.06°
Azimuth: 347.36°
TVD: 7.031.91'
VS: -275.21'

MD: 7.163'
Inclination: 32.
Azimuth: 349.6
TVD: 7.069.09'
VS: -253.96'

Sharon Springs
7123MD / 7034TVD





MUD WT 10.20 VIS 45.00

MUD WT 10.20 VIS 45.00

6500

MUD WT 10.2 VIS 46

occ blk, sft, sb blk - sb ply, on calc, v silty tex; MRLST: gy - sb ply, mod frm, sl mot tex, v /, sft-frm, sb ply - sb blk, occ mod lt bl-wh mky cut wi mod

MRLST: gy - dk gy, blk ip, blk - sb ply, mod frm, sl mot tex, v calc tr calc frac; CHK: lt gy - gy, sft-frm, sb ply - sb blk, occ mot, v calc; tr bent, mod lt bl-wh mky cut wi mod sl blochy yel flor resd ring

CHK: med-lt gy-gy brn, sft-frm, sb blk, mot, sl rthy, v calc; MRLST: gy-dk gy-gy brn, sb blk-sb ply, sl mot-sily tex, v calc; frt lt bl mky cut wi dim yel flor resd

CHK: med-lt gy-gy brn, sft-frm, sb blk, mot, sl rthy, v calc; MRLST: gy-dk gy-gy brn, sb blk-sb ply, sl mot-sily tex, v calc; v frt lt bl mky cut wi v dim yel flor resd

MRLST: gy-dk gy, sb blk-sb ply, sl mot-calc CHK: med-lt gy-gy brn, sft-frm, sb blk rthy, v calc; frt lt bl mky cut wi dim yel flor

Niobrara A
7190MD / 7091' TVD

MD: 7.205'
Inclination: 35.94°
Azimuth: 350.04°
TVD: 7.103.87'
VS: -230.7'

MD: 7.248'
Inclination: 40.24°
Azimuth: 351.28°
TVD: 7.137.71'
VS: -204.42'

Niobrara B ~Faulted-
Niobrara C
7251MD/7140'TVD

MD: 7.291'
Inclination: 44.23°
Azimuth: 351.46°
TVD: 7.169.54'
VS: -175.75'

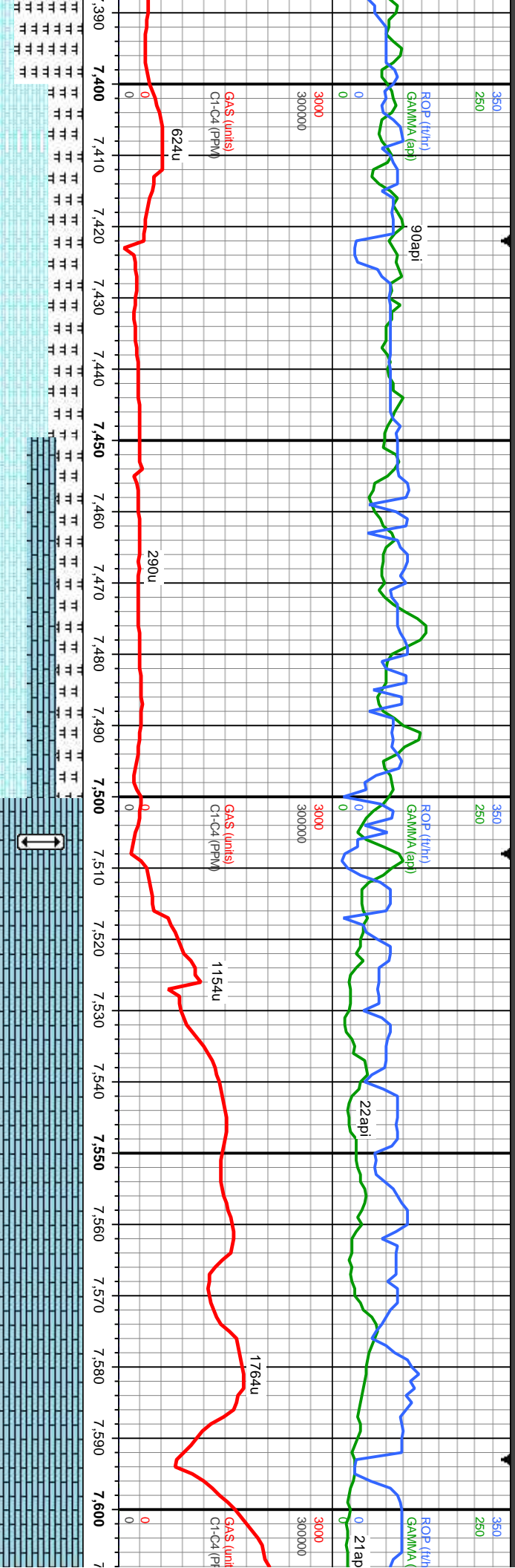
MD: 7.333'
Inclination: 49.75°
Azimuth: 351.28°
TVD: 7.198.18'
VS: -145.29'

MD: 7.376'
Inclination: 54.45°
Azimuth: 352.26°
TVD: 7.224.59'
VS: -111.6'

7400

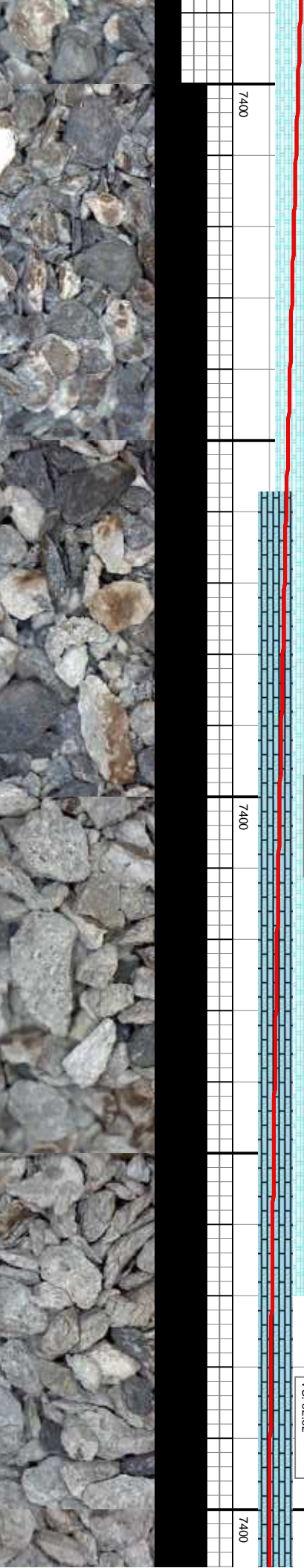
7400

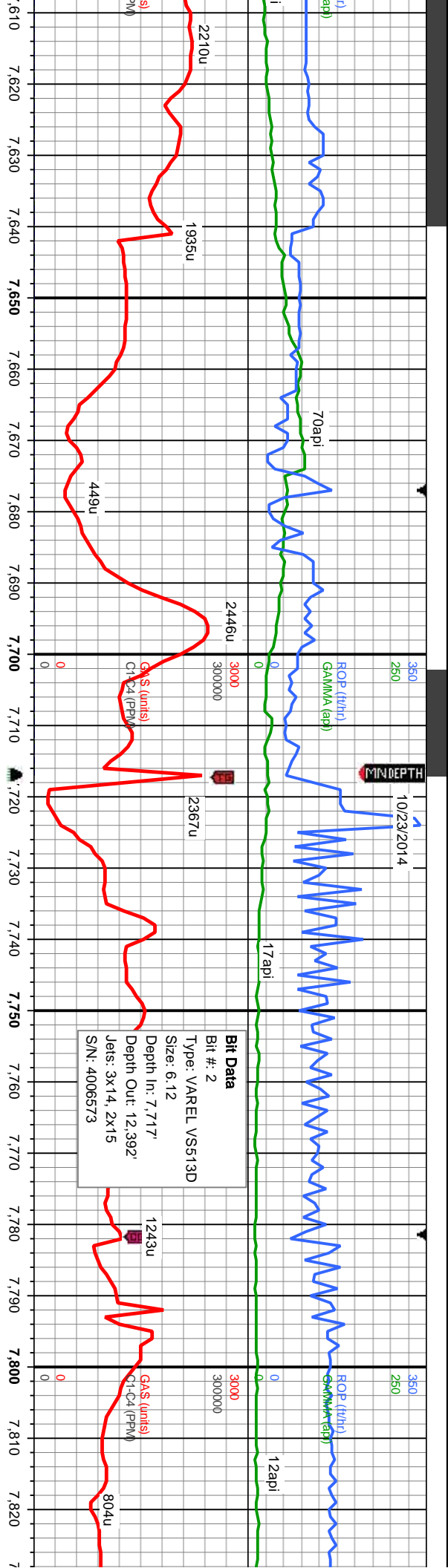




6500	CHK: It gy-crm, sb blk, mot-wxy tex, v calc; MRLST: gy-dk gy-gy brn, sb blk-sb ply, mot-sily tex, v calc; mod lt bl-wh mky cut wi mod sl blochy yel flor resd	6500	CHK: tan-lt brn, sft-sl frm, sb blk, sl wxy tex abnt wi sily tex, v calc, occ grdg -ls LS: tan-off wh, sl frm, blk - sb blk, wxy tex, v cal MRLST: gy-dk gy-gy brn, sb blk-sb ply, mot-sily tex, v calc; mod lt bl-wh mky cut wi mod sl blochy yel flor resd ring	6500	MUD WT 10.2 VIS 44	6500	LS: tan-brn, occ gy-off wh, frm, blk - sb blk, v wxy tex, mic xl v cal; tr blk sh; mod lt bl-wh mky cut wi mod sl blochy yel flor resd ring	6500	LS: tan-brn, occ gy-off wh, frm, blk - sb blk, v wxy tex, mic xl v cal; tr blk sh; mod lt bl-wh mky cut wi mod sl blochy yel flor resd ring	6500	LS: b xl v c cut w
TVD (ft)		TVD (ft)		TVD (ft)		TVD (ft)		TVD (ft)		TVD (ft)	
<div>MD: 7.418' Inclination: 59.49° Azimuth: 353.67° TVD: 7.247.47' VS: -76.56'</div>											
<div>MD: 7.461' Inclination: 63.89° Azimuth: 355.75° TVD: 7.267.86' VS: -38.8'</div>											
<div>MD: 7.504' Inclination: 69.65° Azimuth: 356.92° TVD: 7.284.82' VS: 0.67'</div>											
<div>MD: 7.546' Inclination: 74.79° Azimuth: 356.61° TVD: 7.297.64' VS: 40.63'</div>											
<div>MD: 7.589' Inclination: 80.72° Azimuth: 357.58° TVD: 7.306.75' VS: 82.62'</div>											

Fort Hayes
7505MD / 7285' TVD





tan, frm, blk - sb blk, v wxy tex, mic
al, occ arg ls; tr blk sh; mod lt bl-wh mky
i mod sl blochy yel flr resd ring

MD: 7.632'
Inclination: 86.32°
Azimuth: 359.44°
TVD: 7.311.6'
VS: 125.33'

Codell Top
7657MD / 7313' TVD

MD: 7.670'
Inclination: 88.52°
Azimuth: 358.96°
TVD: 7.313.31'
VS: 163.28'

MUD WT 10.2 VIS 44

ARG LS: dk brn, occ gy-off wh, frm, blk - sb blk,
v wxy tex, v arg v calc
SS cons dk brn -blk oil strnd mtk wi/op - wh gr,occ
lt brn-off wh mtk grdg from arg ls - ss, brlt-frm, v f-f
gr, rr c gr, sb md - sb ang, sl aren-sily
SLTY SH: med gy- blk, frm, sb blk - sb ply, occ
ply, non calc; mod lt bl-wh mky cut wi mod sl
blochy yel flr resd ring

TD Curve Section 7717MD
9:38AM MDT 10/21/2014

Saturated Drilling Lateral
8:30PM MDT 10/23/2014

TVD (ft)

MD: 7.730'
Inclination: 90.55°
Azimuth: 359.95°
TVD: 7.313.8'
VS: 223.27'

MUD WT 10.2 VIS 42

LS: brn-tan, frm, blk - sb blk, v wxy tex, mic xl v calc, occ arg
SS: cons dk brn/red -blk oil strnd mtk wi/op - wh gr,occ lt brn-off wh
mky grdg from arg ls - ss, brlt-frm, v f-f gr, rr c gr, sb md - sb ang, sl
aren-sily
SLTY SH: med gy- blk, frm, sb blk - sb ply, occ ply, non calc; mod
lt bl-wh mky cut wi mod sl blochy yel flr resd ring

SCALE CHANGE
TVD 7250-7350'

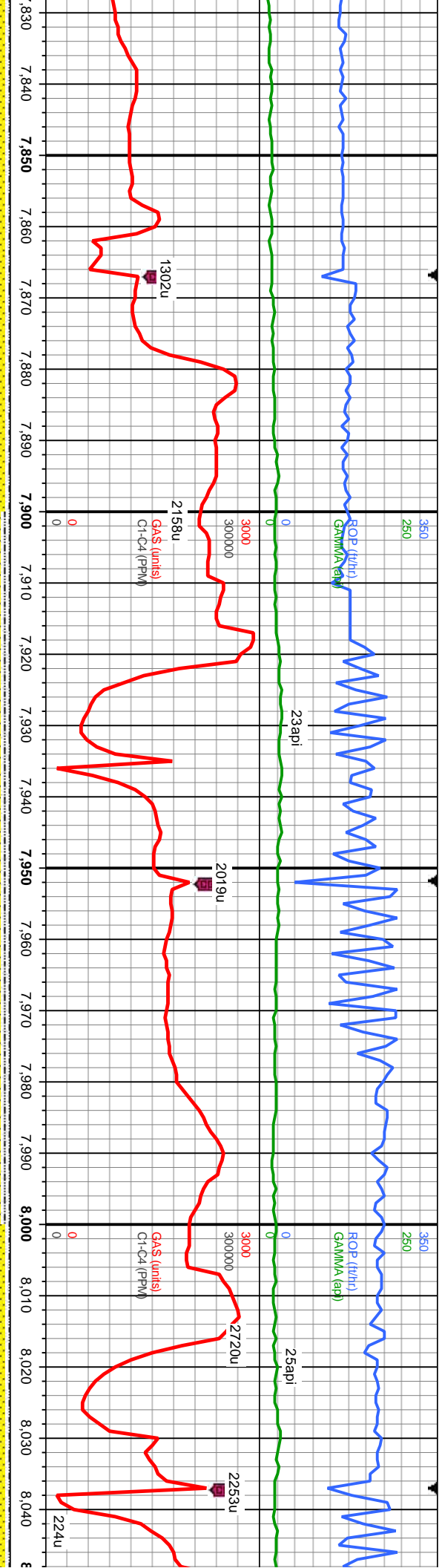
MD: 7.815'
Inclination: 89.9°
Azimuth: 0.55°
TVD: 7.313.47'
VS: 308.23'

LS: brn-tan, frm, blk - sb b
SS: cons dk brn/red -blk oil
f-f gr, rr c gr, sb md - sb an
SLTY SH: med gy- blk, frm
blochy yel flr resd ring

TVD (ft)

7400

7350



MUD WT 10.2 VIS 41

blky, v wxy tex, mic xl v calc, occ arg
sind mtx wi op - wh gr,occ lt brn-off wh mtx grdg from arg ls - ss, brit-frm, v
g, sl aren-sily
i, sb blkly - sb ply, occ ply, non calc; mod lt bl-wh mky cut wi mod sl

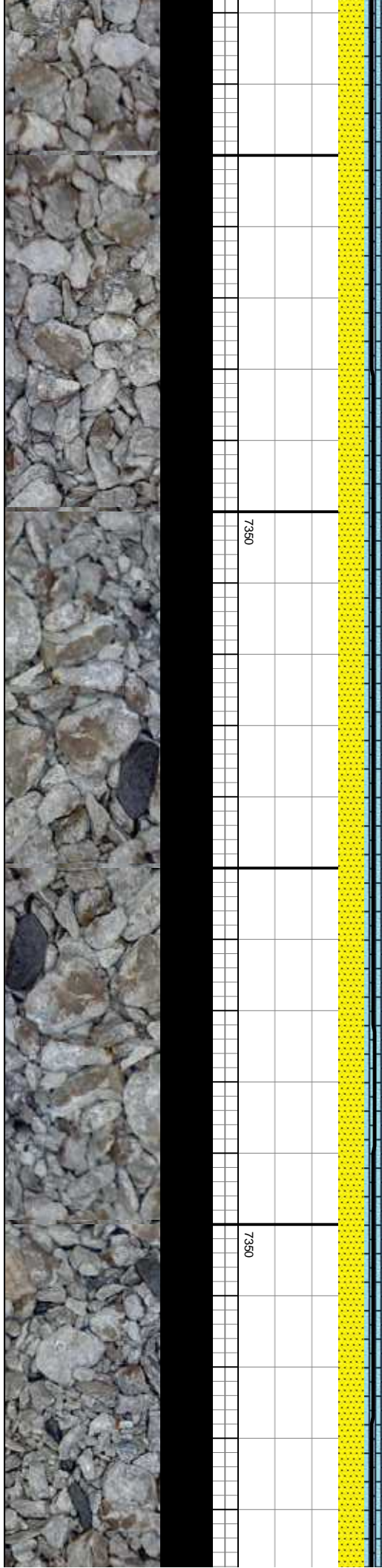
MD: 7.900'
Inclination: 90.77°
Azimuth: 0.85°
TVD: 7.312.97
VS: 393.16

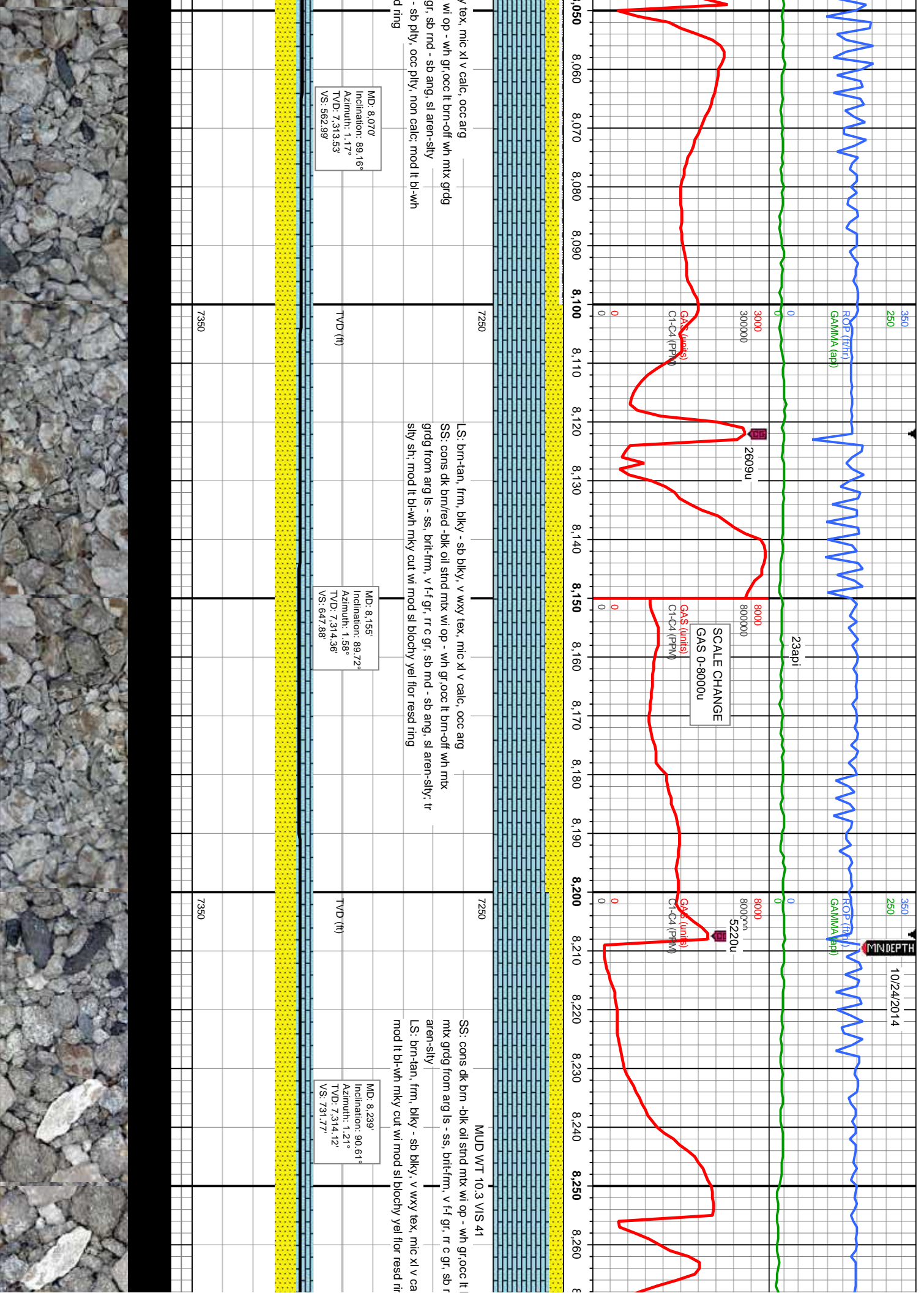
LS: brn-tan, frm, blkly - sb blkly, v wxy tex, mic xl v calc, occ arg
SS: cons dk brn/red - blk oil sind mtx wi op - wh gr,occ lt brn-off wh mtx grdg from arg ls - ss,
brit-frm, v f-f gr, r c gr, sb md - sb ang, sl aren-sily
SLTY SH: med gy- blk, frm, sb blkly - sb ply, occ ply, non calc; mod lt bl-wh mky cut wi mod
sl blocchy yel flr resd ring

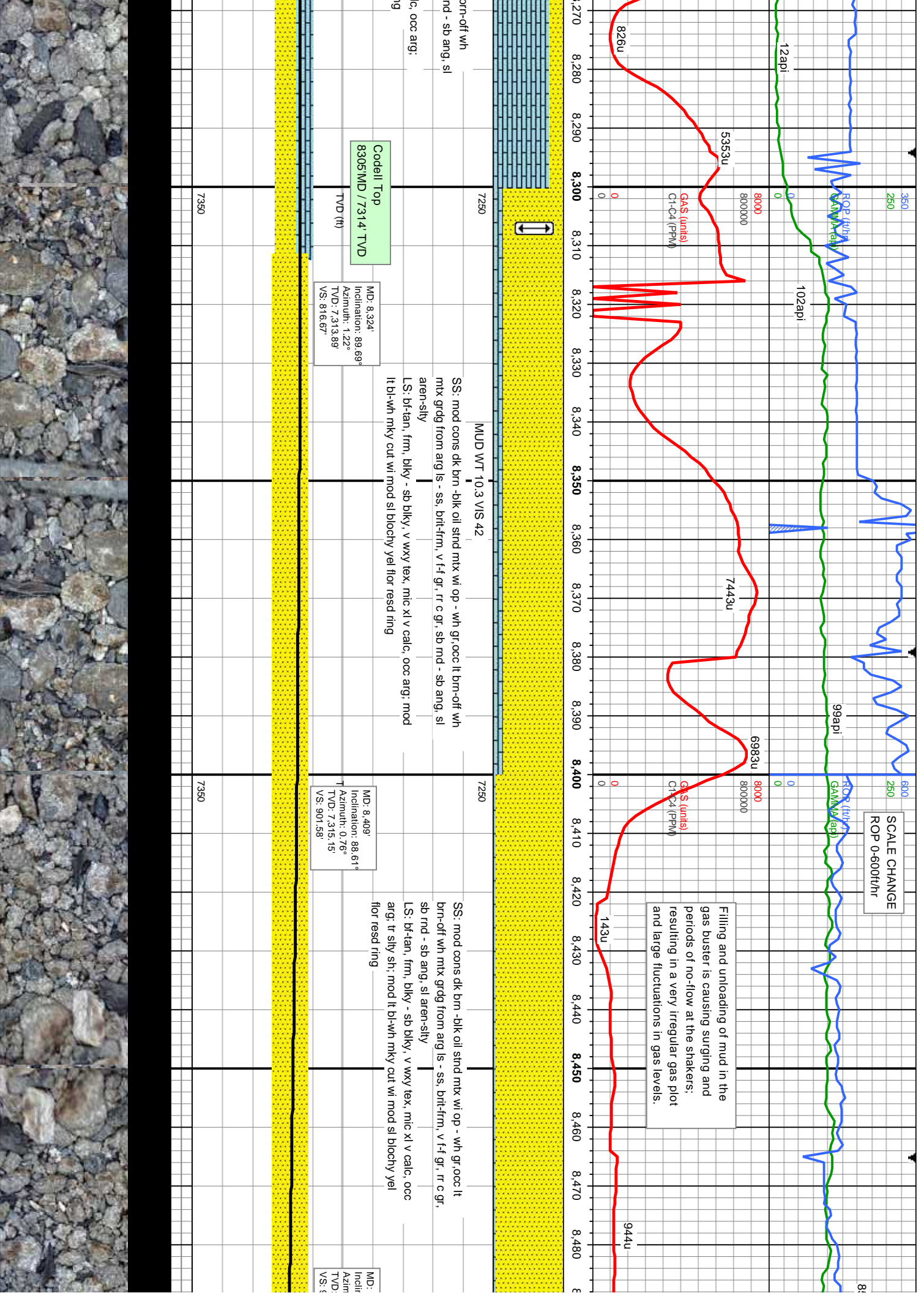
MD: 7.985'
Inclination: 89.66°
Azimuth: 1.06°
TVD: 7.312.65
VS: 478.08

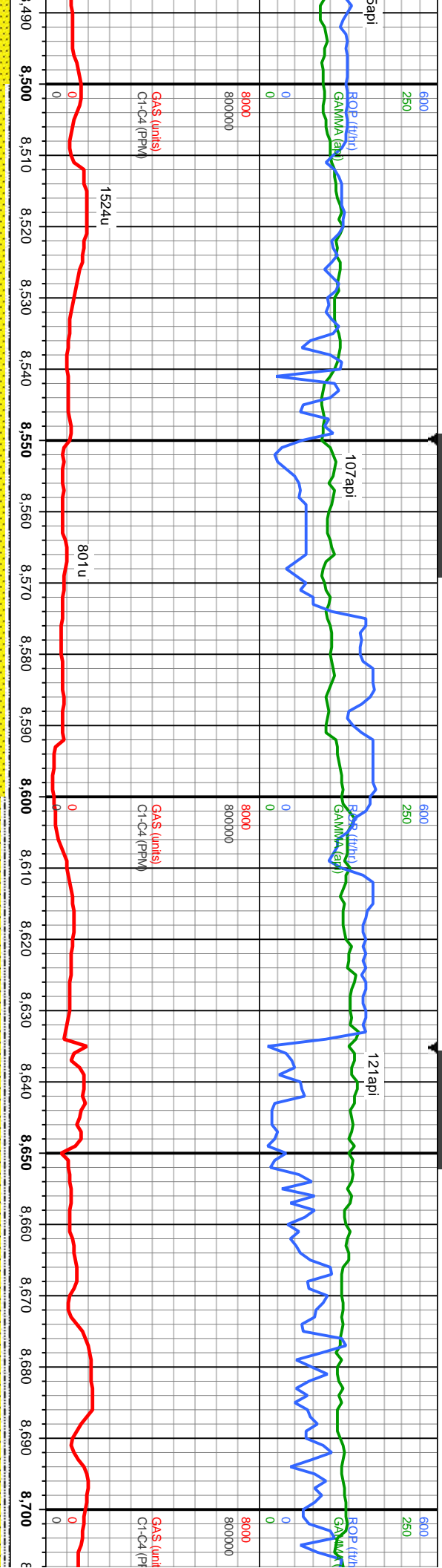
TVD (ft)

LS: brn-tan, frm, blkly - sb blkly, v wxy
SS: cons dk brn/red - blk oil sind mtx
from arg ls - ss, brit-frm, v f-f gr, r c
SLTY SH: med gy- blk, frm, sb blkly
mky cut wi mod sl blocchy yel flr res









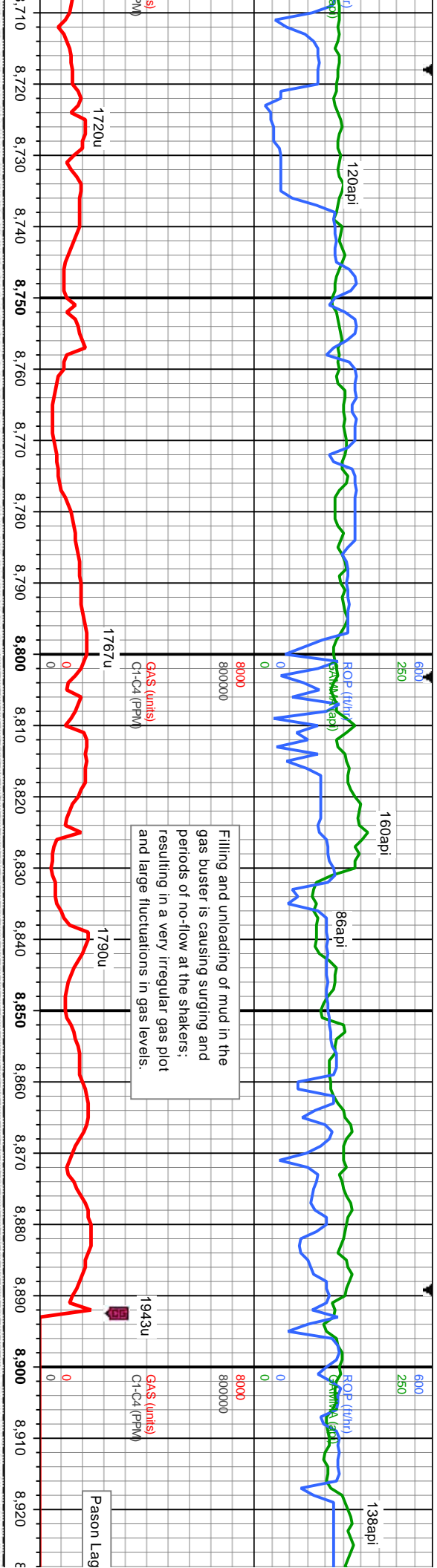
MUD WT 10.2 VIS 43	
7250	7250
SS: cons dk brn -blk oil strand mx w/ op - wh gr, occ lt brn-off wh mx grdg frnm arg ls - ss, brit-frm, v f f gr, rr c gr, sb md - sb ang, sl aren-sily	
LS: brn-tan, frm, blk-y - sb blk-y, v wxy tex, mic xl v calc, occ arg SLTY SH: med gy- blk, frm, sb blk-y - sb ply, occ ply, non calc; mod lt bl-wh mky cut w/ mod sl blochy yel flr resd ring	
MD: 8.579° Inclination: 88.73° Azimuth: 1.18° TVD: 7,320.15' VS: 1.071.35'	
TVD (ft)	TVD (ft)

8.494°
ation: 87.96°
uth: 0.92°
7,317.7'
986.47'

MUD WT 10.3 VIS 45	
7250	7250
SS: cons dk brn mx w/ op - wh gr, brit-frm, v f gr, sb md - sb ang, sl aren-sily, sl calc SH: blk-dk gry, sl hd, sily tex, sb ply-ply, non-calc; mod lt bl-wh mky cut w/ mod sl blochy yel flr resd ring	
MD: 8.664° Inclination: 89.75° Azimuth: 1.14° TVD: 7,321.28' VS: 1.156.25'	
TVD (ft)	TVD (ft)

MD: 8.664°
Inclination: 89.75°
Azimuth: 1.14°
TVD: 7,321.28'
VS: 1.156.25'





SS: cons dk brn mix w/ op - wh gr, brit-frm, v f gr, sb md - sb ang, sl aren-sily, sl calc SH: blk-dk gry, sl hd, silty tex, sb pily-pty, non-calc; mod lt bl-wh mky cut wi mod sl blochy yel flr resd ring

MUD WT 10.2 VIS 44

MD: 8,750'
Inclination: 90.58°
Azimuth: 359.97°
TVD: 7,321.03'
VS: 1,242.19'

TVD (ft)

~FAULT~
UPPER CODELL

SS: cons dk brn mix w/ op - wh gr, brit-frm, v f gr, sb md - sb ang, sl aren-sily, sl calc SH: blk-dk gry, sl hd, silty tex, sb pily-pty, non-calc; mod lt bl-wh mky cut wi mod sl blochy yel flr resd ring

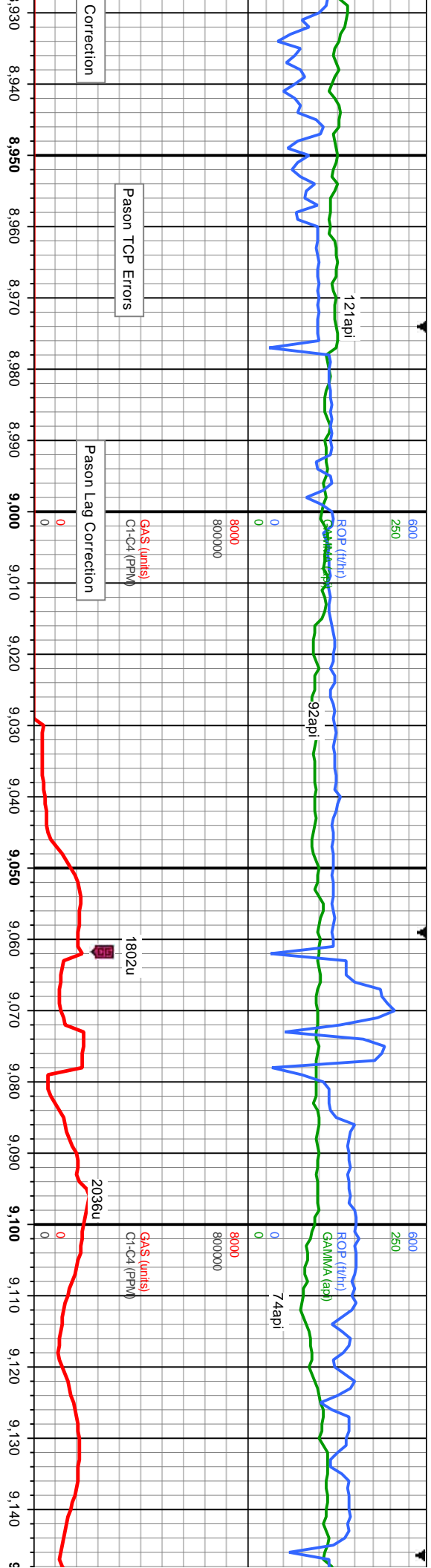
MD: 8,835'
Inclination: 90.33°
Azimuth: 359.91°
TVD: 7,320.36'
VS: 1,327.16'

TVD (ft)

MD: 8,920'
Inclination: 90.43°
Azimuth: 0.17°
TVD: 7,319.79'
VS: 1,412.13'

TVD (ft)





s: cons dk brn mtx w/ op - wh gr, brit-frn, v f gr, sb md -
ang, sl aren-sily, sl calc
t: blk-dk gry, sl hd, sily tex, sb pily-pily, non-calc; mod lt
wh mky cut wi mod sl blochy yel flr resd ring

MD: 9.005'
Inclination: 90.89°
Azimuth: 0.72°
TVD: 7,318.81'
VS: 1.497,08

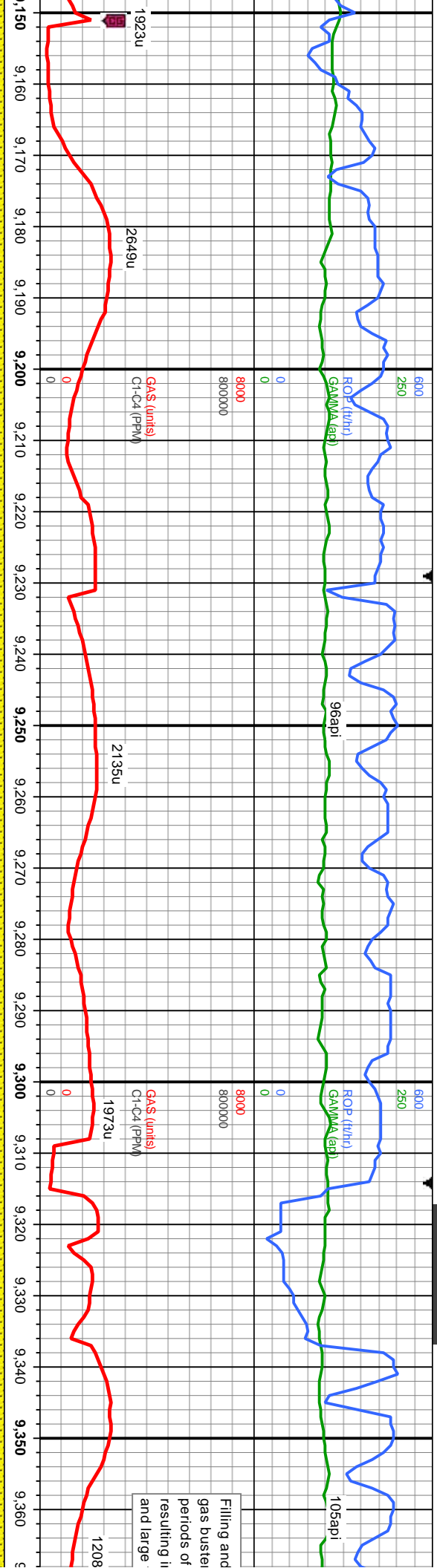
SS: cons dk brn mtx w/ op - wh gr, brit-frn, v f gr, sb
md - sb ang, sl aren-sily, sl calc; occ sh; mod lt bl-wh
mky cut wi mod sl blochy yel flr resd ring

MD: 9.090'
Inclination: 90.03°
Azimuth: 0.56°
TVD: 7,318.13'
VS: 1.582,01

TVD (ft)

SS: cons dk brn mtx w/ op
md - sb ang, sl aren-sily, sl
mky cut wi mod sl blochy yel





- wh gr, brlt-firm, v f gr, sb
calc: occ sh; mod lt bl-wh
sl floor resd ring

MD: 9.176'
Inclination: 90.58°
Azimuth: 1.29°
TVD: 7,317.67'
VS: 1.667.93'

TVD (ft)

SS: cons dk brn mtx w/ op - wh gr, brlt-firm, v f gr, sb
rnd - sb ang, sl aren-sily, sl calc; tr sh, mod lt bl-wh
mky cut w/ mod sl blocly yel flr resd ring

MD: 9.261'
Inclination: 89.93°
Azimuth: 1.25°
TVD: 7,317.3'
VS: 1.752.83'

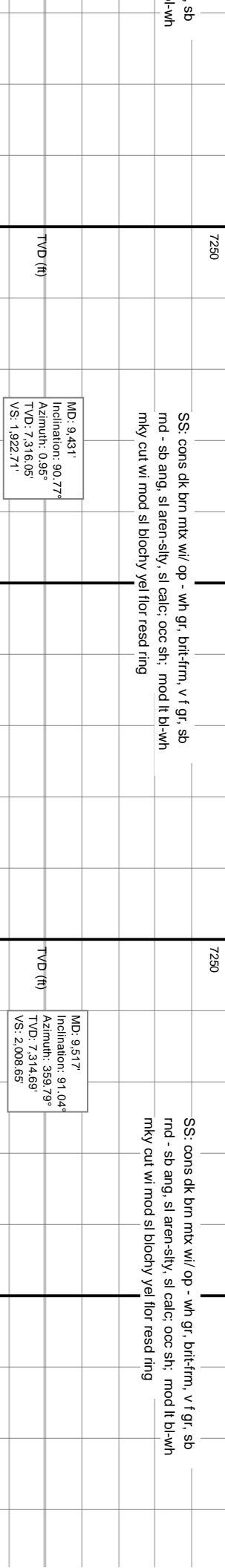
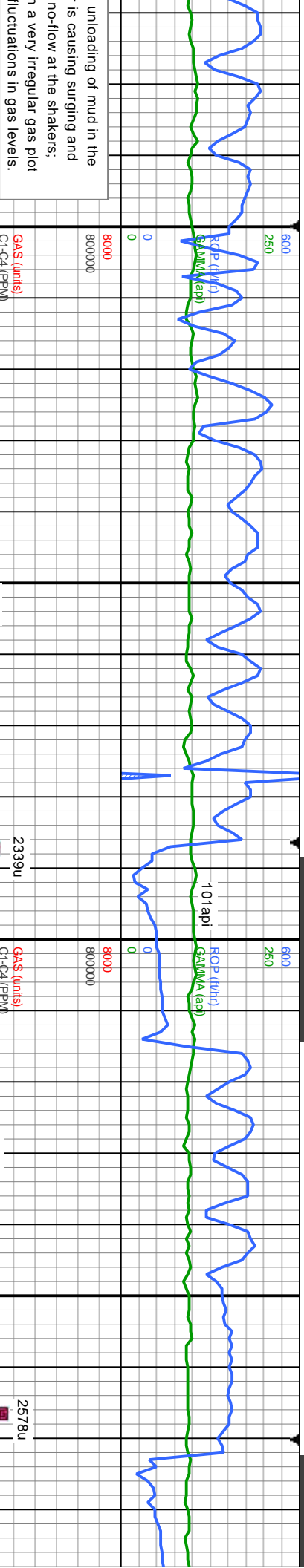
TVD (ft)

SS: cons dk brn mtx w/ op - wh gr, brlt-firm, v f gr
rnd - sb ang, sl aren-sily, sl calc; occ sh; mod lt bl
mky cut w/ mod sl blocly yel flr resd ring

MD: 9.346'
Inclination: 90.49°
Azimuth: 0.18°
TVD: 7,316.98'
VS: 1.837.77'

TVD (ft)





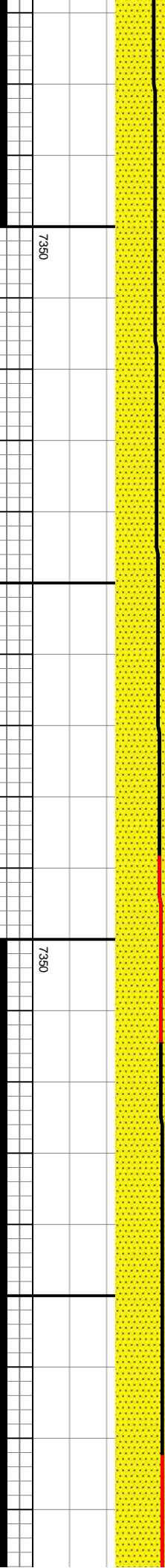
2777u

2508u

2339u

2528u

2578u



7250

7250

7250

7250

7250



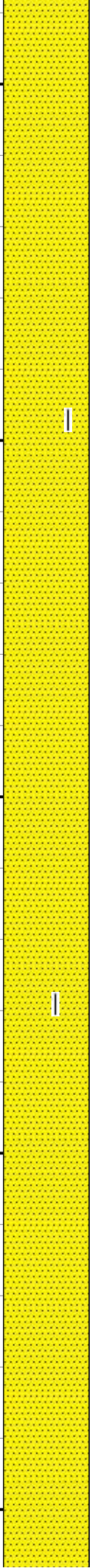
7350

7350

7350

7350

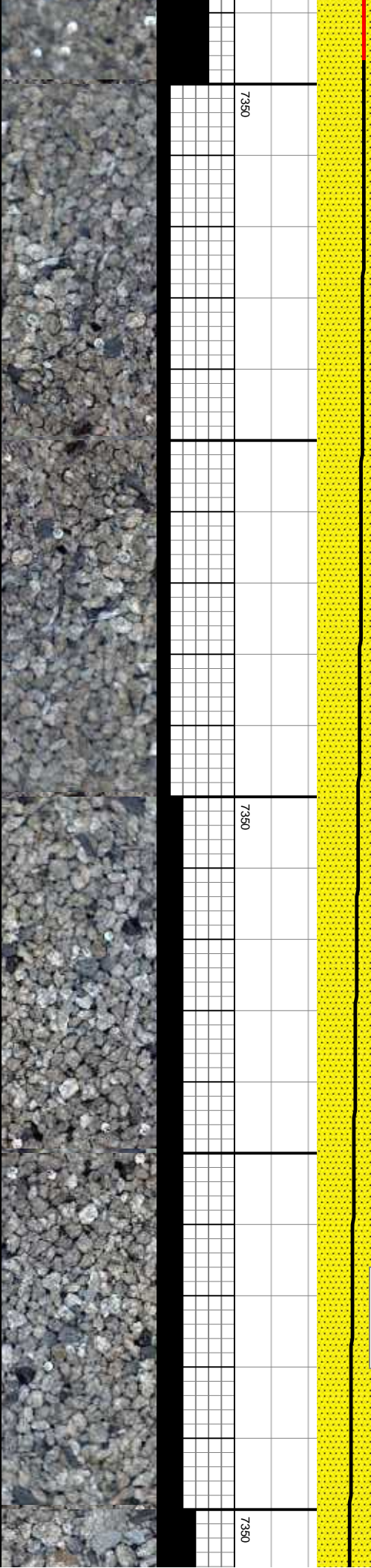
7350

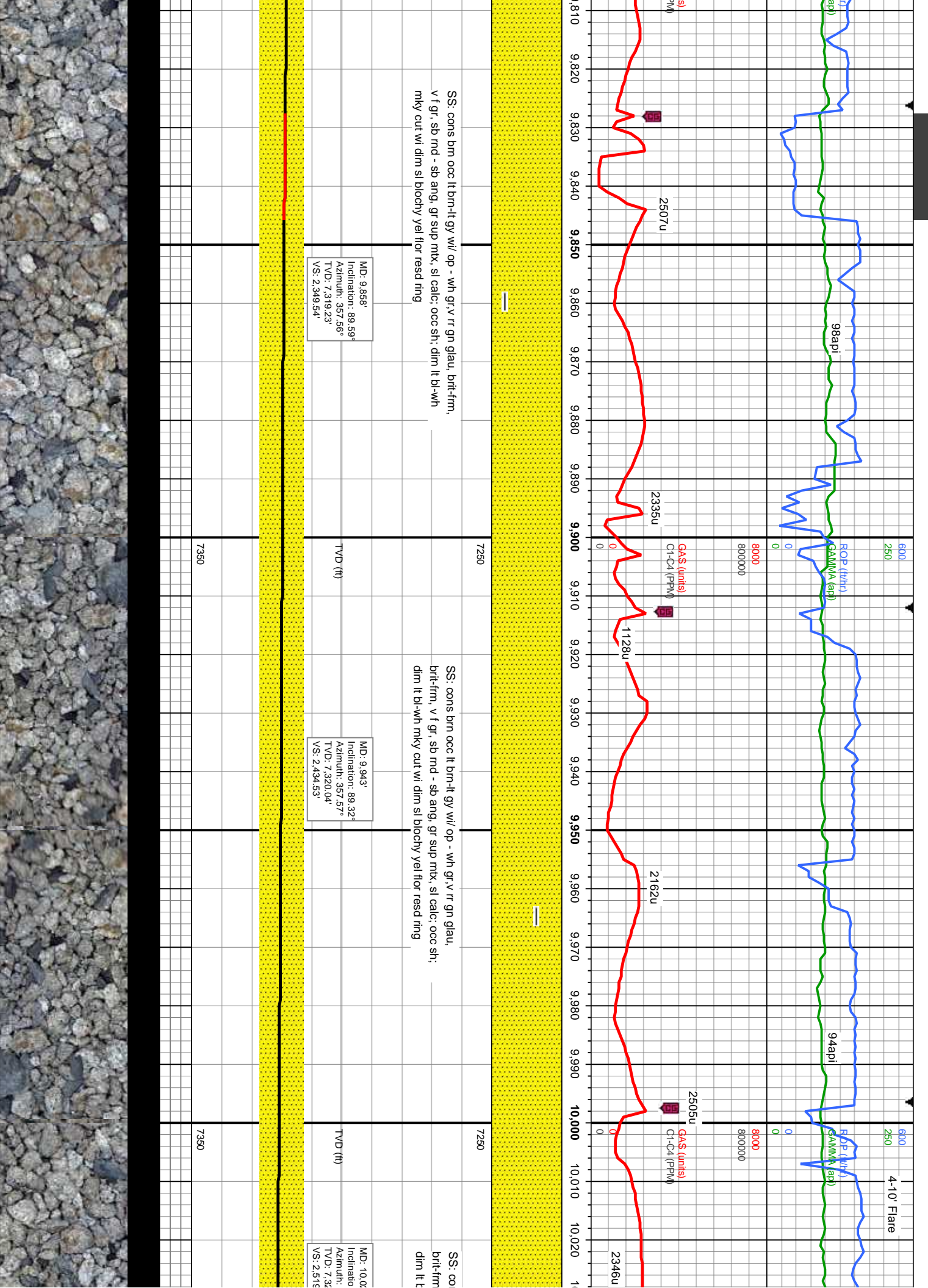


SS: cons brn occ; lt brn-lt gy w/ op - wh gr v r r gn glau,
brt-frn, v f gr, sb md - sb ang, gr sup mt, sl calc; r sh;
dim lt bl-wh mky cut wi dim sl blochy yel flwr resd ring

TVD (ft)

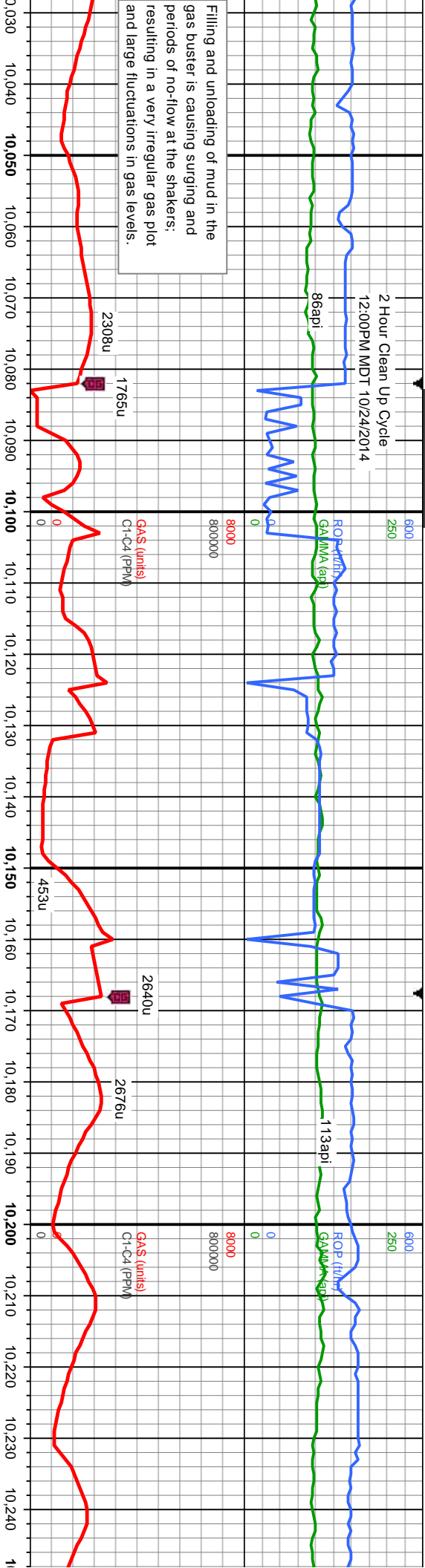
MD: 9,773'
Inclination: 88.36°
Azimuth: 357.36°
TVD: 7,317.71'
VS: 2,264.57'





2 Hour Clean Up Cycle
12:00PM MDT 10/24/2014

Filling and unloading of mud in the gas buster is causing surging and periods of no-flow at the shakers; resulting in a very irregular gas plot and large fluctuations in gas levels.



ss brn occ lt brn-lt gy w/ op - wh gr, v r gn glau,
v f gr, sb rnd - sb ang, gr sup mtz, sl calc; occ sh;
lt-bl-wh mky cut wi dim sl blochy yel flr resd ring

28'
n: 89.2°
357.77°
1.14'
1.51'

TVD (ft)

7250

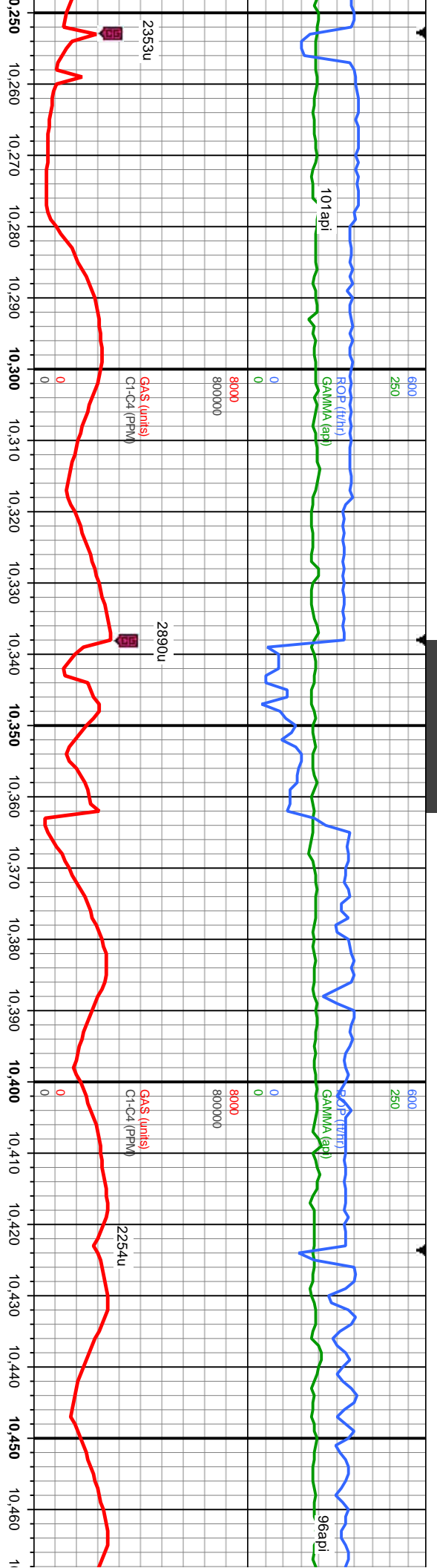
SS: cons brn occ lt brn-lt gy w/ op - wh gr, v r gn glau,
brn-lt, v f gr, sb rnd - sb ang, gr sup mtz, sl calc; occ sh; dim
lt-bl-wh mky cut wi dim sl blochy yel flr resd ring

TVD (ft)

7250

SS: cons brn occ lt brn-lt gy w/ op - wh gr, v r gn glau,
v f gr, sb rnd - sb ang, gr sup mtz, sl calc; occ sh;
lt-bl-wh mky cut wi dim sl blochy yel flr resd ring





101api

600
250

ROP (ft/hr)

GAMA (api)

0
8000
8000000

2353u

GAs (units)
C1-C4 (PPM)

0

10,250 10,260 10,270 10,280 10,290 10,300 10,310 10,320 10,330 10,340 10,350 10,360 10,370 10,380 10,390 10,400 10,410 10,420 10,430 10,440 10,450 10,460

2890u

2254u

96api

600
250

ROP (ft/hr)

GAMA (api)

0
8000
8000000

GAs (units)
C1-C4 (PPM)

0

7250

7350

SS: cons brn occ lt brn-lt gy w/ op - wh gr, v rr gn glau, brit-firm, v f gr, sb rnd - sb ang, gr sup mtx, sl calc; occ sh; dim lt bl-wh mky cut wi dim sl blocchy yel flor resd ring

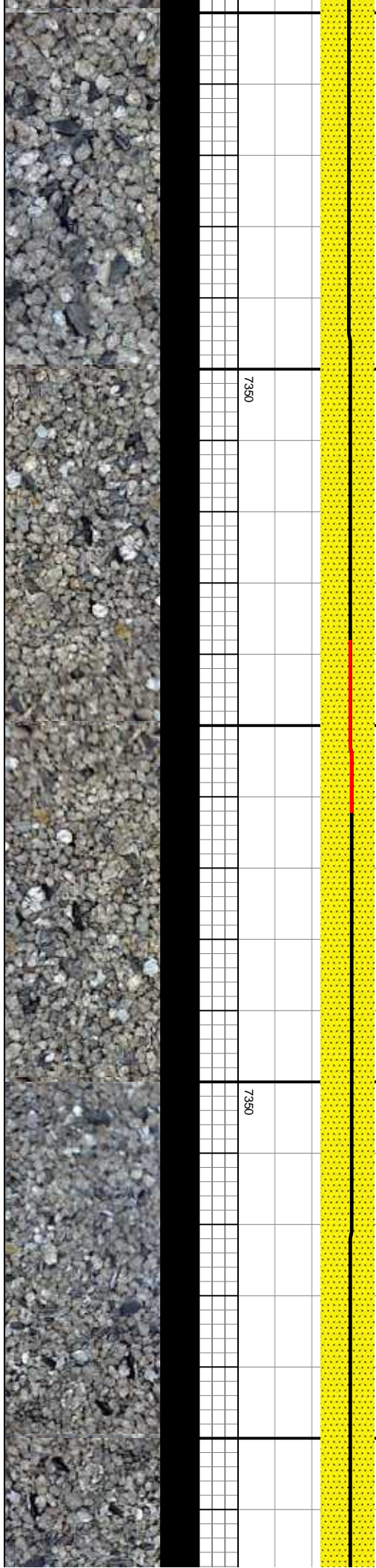
SS: cons brn occ lt brn-lt gy w/ op - wh gr, v rr gn glau, brit-firm, brit-firm, v f gr, sb rnd - sb ang, gr sup mtx, sl calc; dim lt bl-wh mky cut wi dim sl blocchy yel flor resd ring

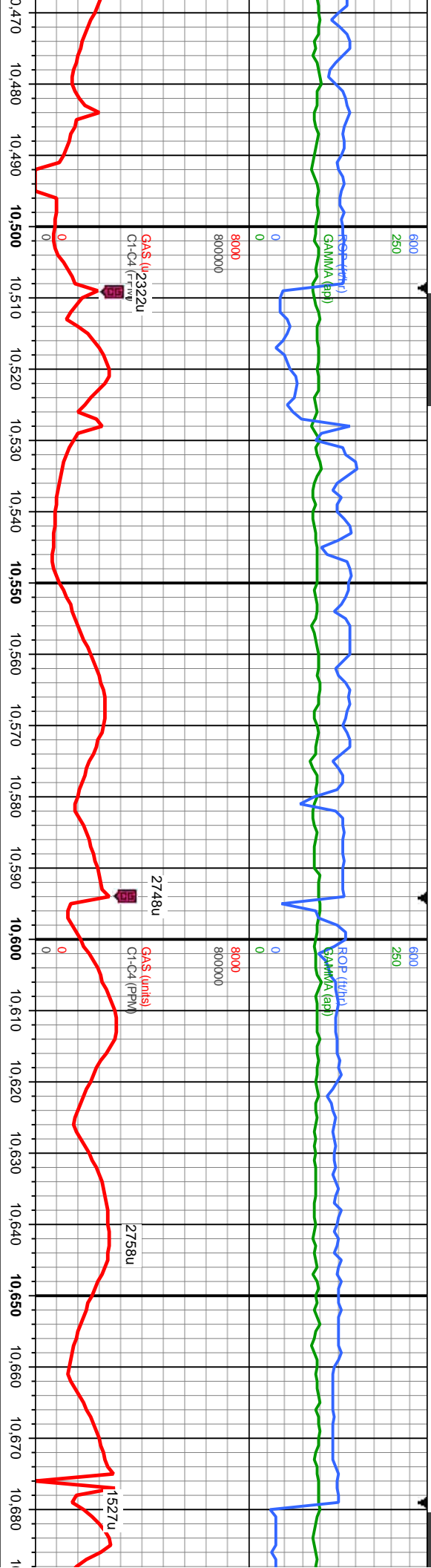
MD: 10.369
Inclination: 90.33°
Azimuth: 357.55°
TVD: 7,318.84°
VS: 2,860.48

TVD (ft)

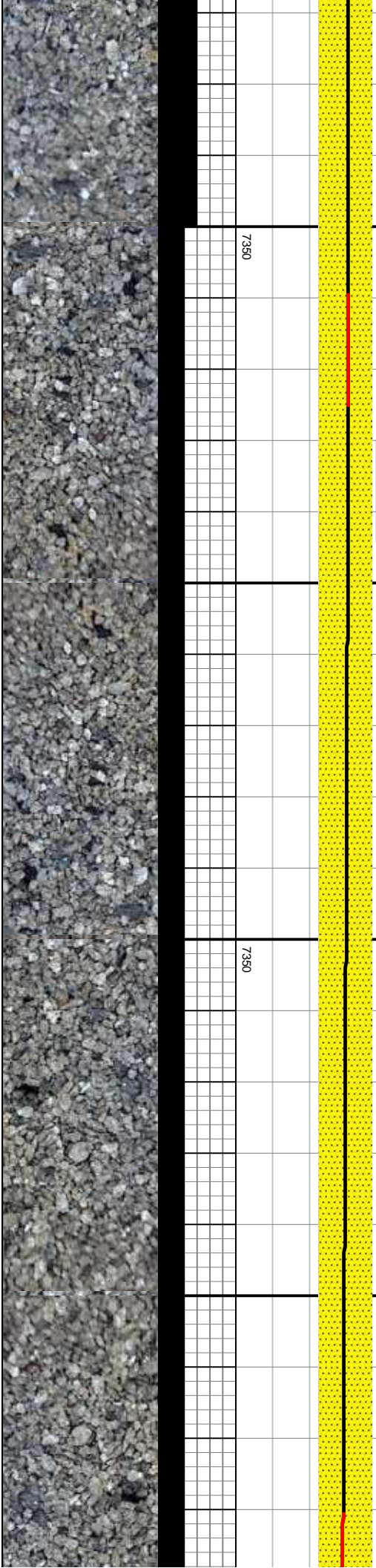
MD: 10.454
Inclination: 89.44°
Azimuth: 357.51°
TVD: 7,319.07°
VS: 2,945.47

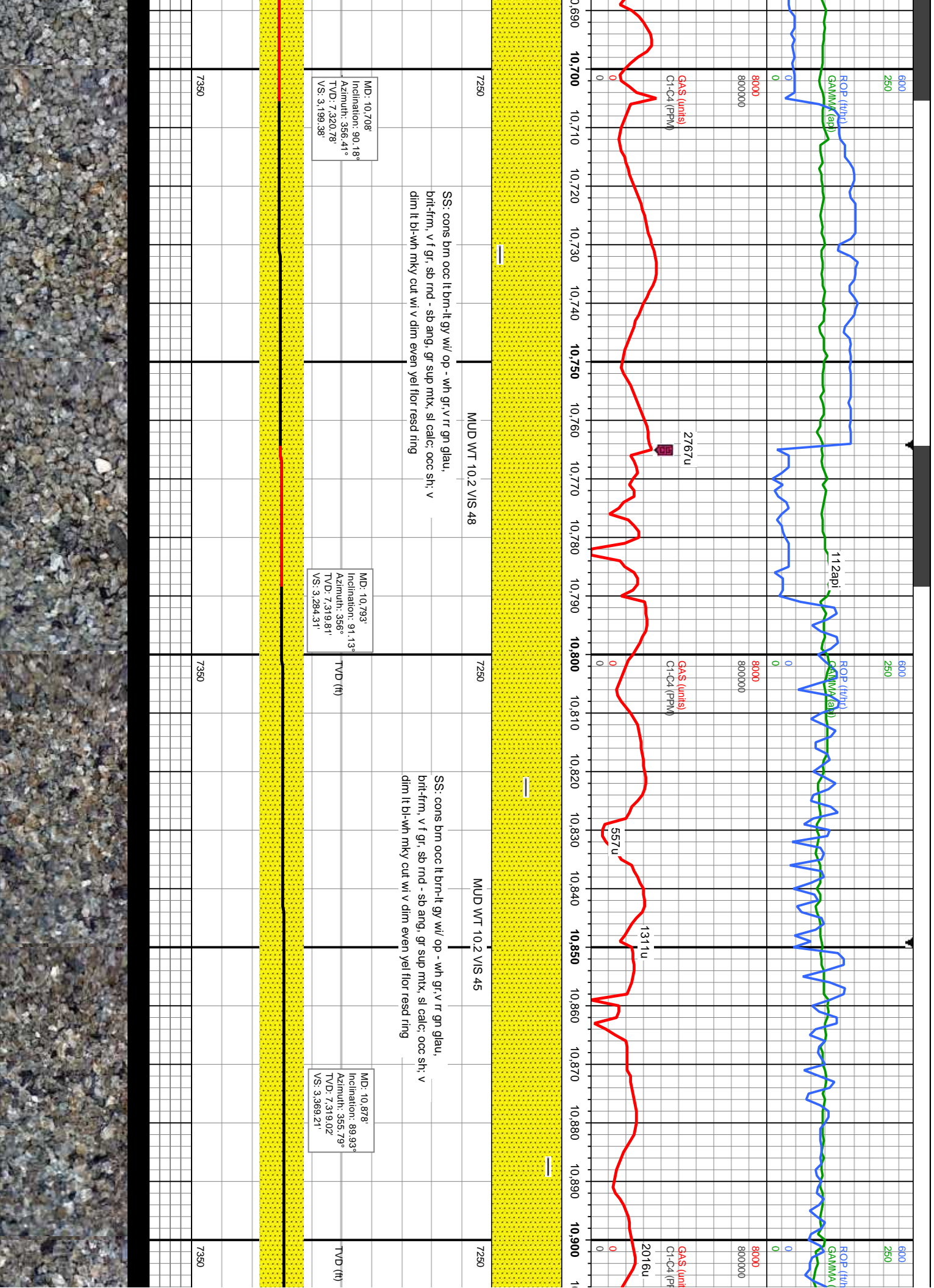
TVD (ft)

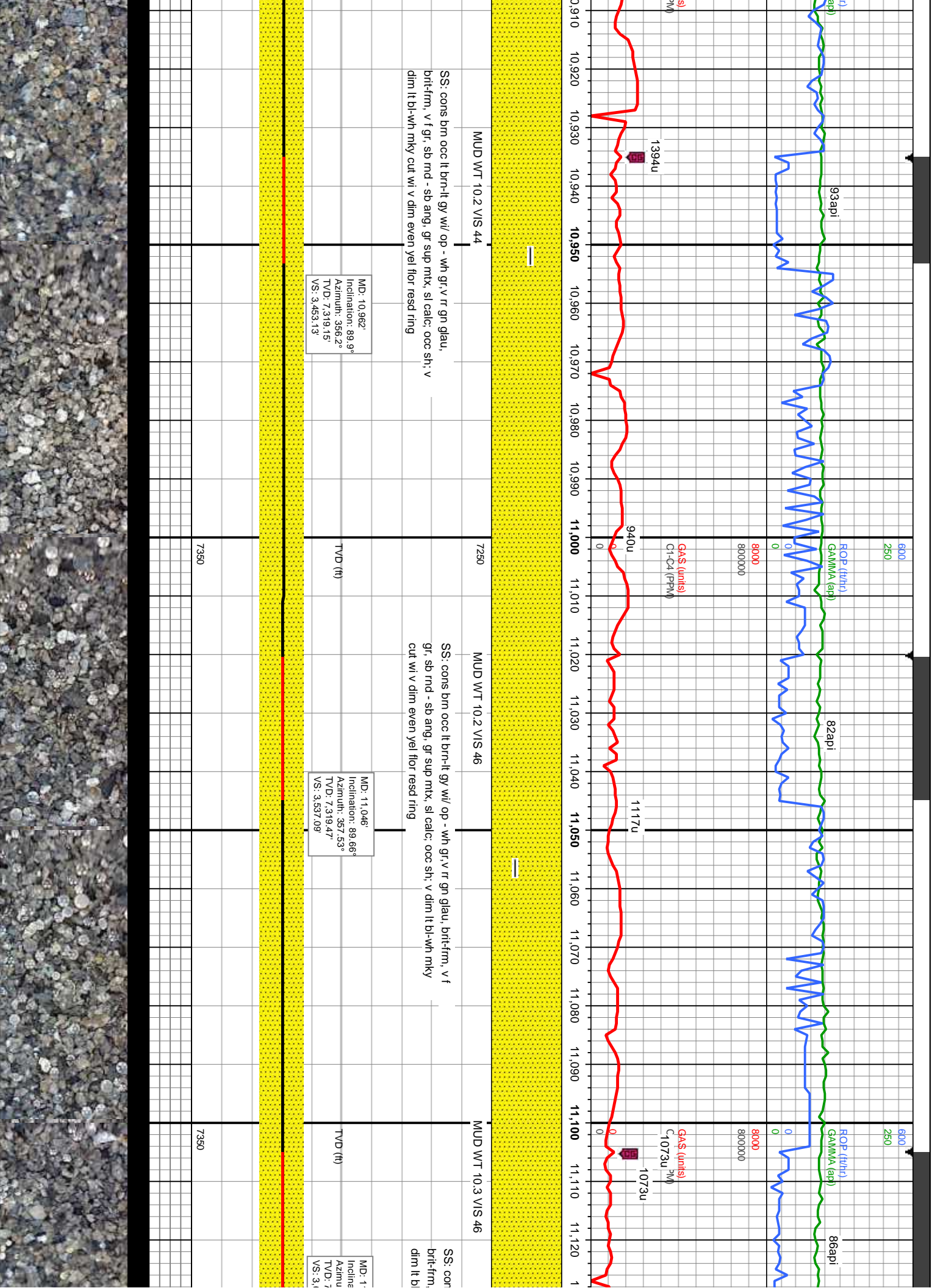


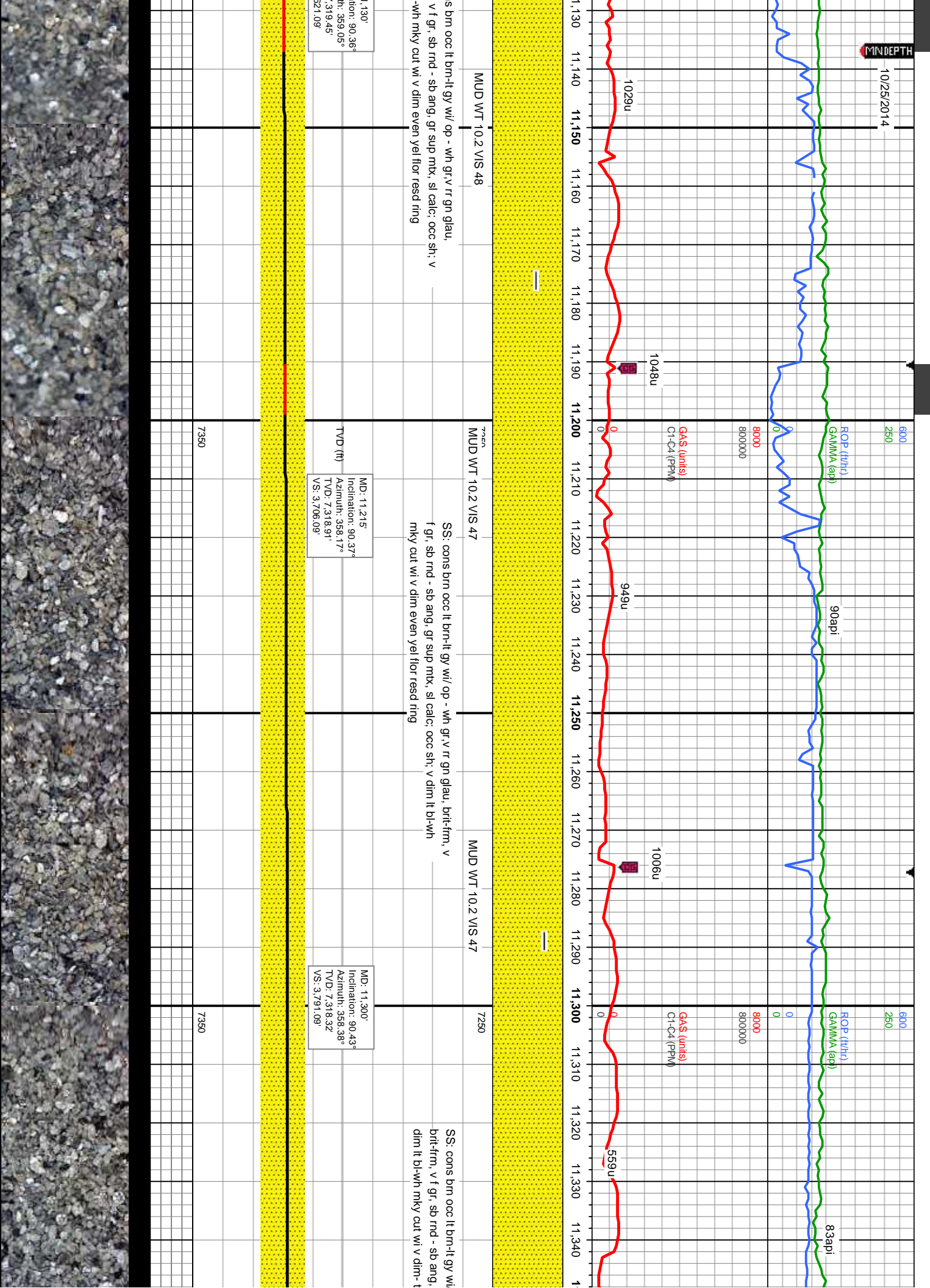


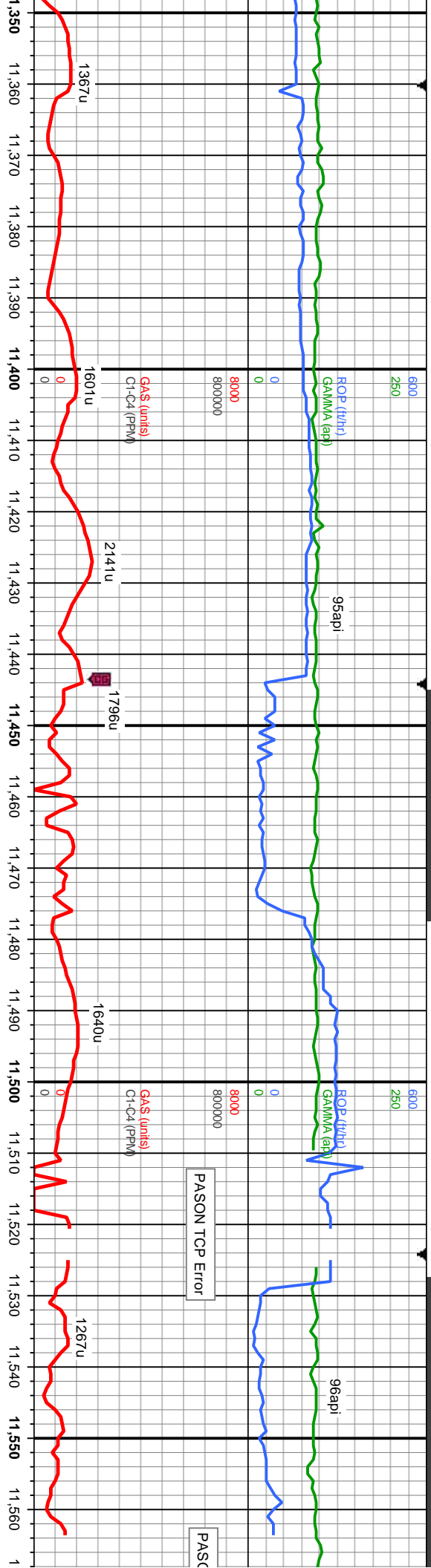
7250	TVD (ft)	MD: 10.537 Inclination: 90.36° Azimuth: 357.44° TVD: 7319.15 VS: 3.02846	SS: cons brn occ lt brn-lt gy w/ op - wh gr v rr gn glau, brit-frm, v f gr, sb rnd - sb ang, gr sup mtz, sl calc; occ sh; v dim lt bl-wh mky cut wi v dim even yel flr resd ring
7250	TVD (ft)	MD: 10.622 Inclination: 88.64° Azimuth: 357.02° TVD: 7319.89 VS: 3.11343	SS: cons brn occ lt brn-lt gy w/ op - wh gr v rr gn glau, brit-frm, v f gr, sb rnd - sb ang, gr sup mtz, sl calc; occ sh; v dim lt bl-wh mky cut wi v dim even yel flr resd ring



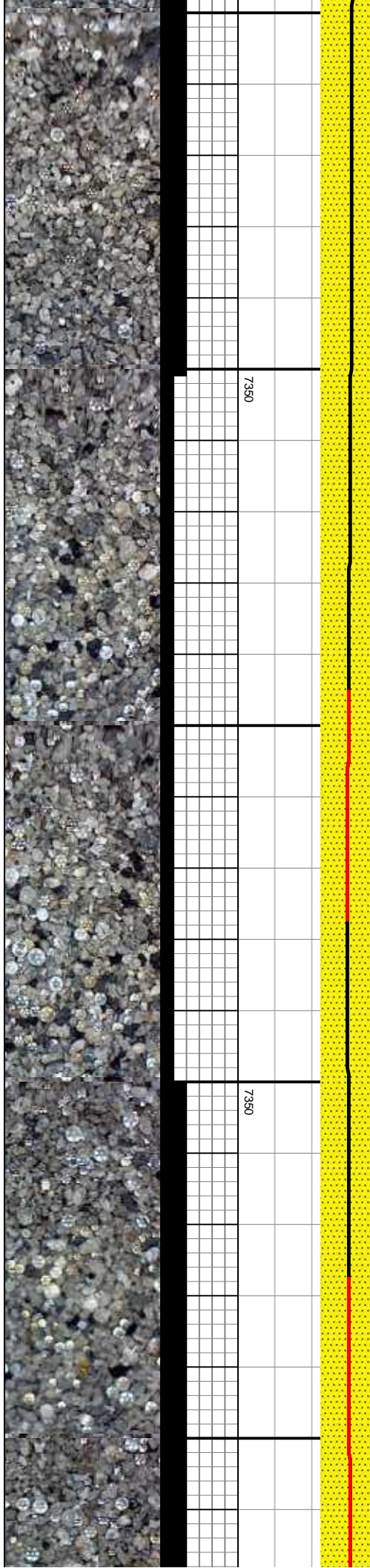


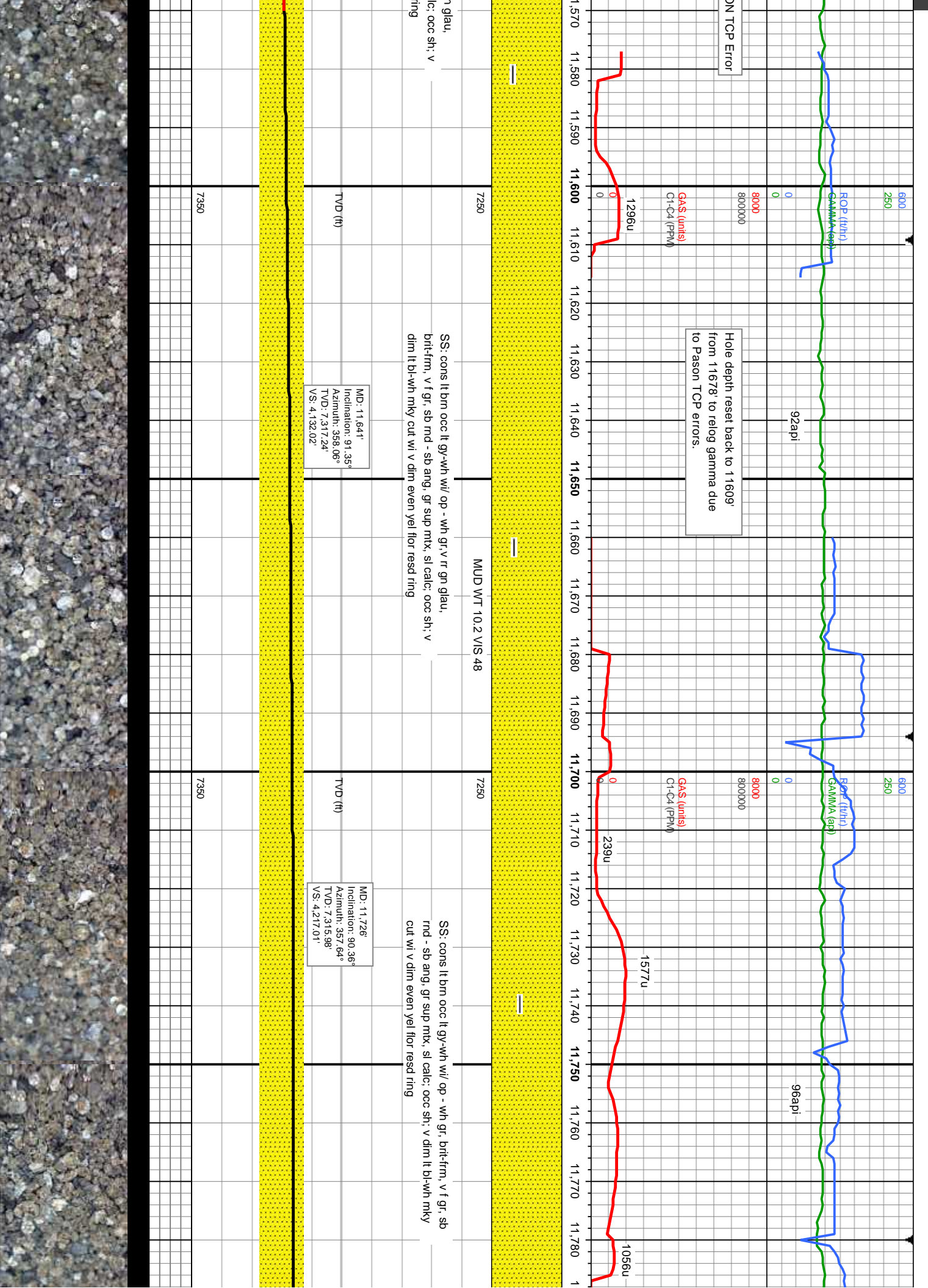


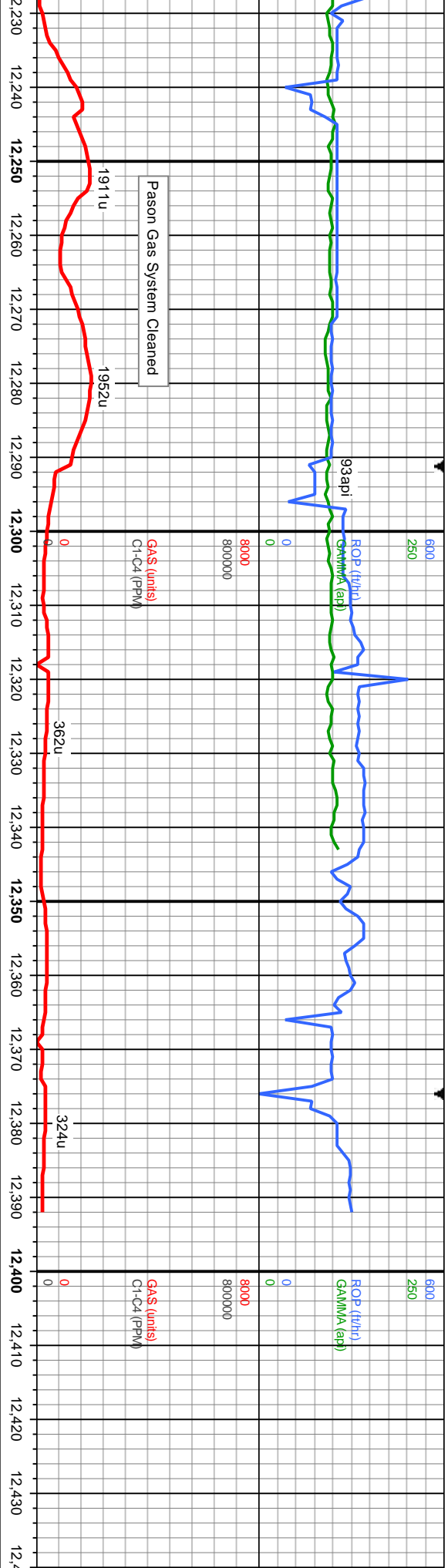




MUD WT 10.2 VIS 47		7250	MUD WT 10.2 VIS 47		7250
op - wh gr, v rr gn glau,	SS: cons brn occ lt brn-lt gy w/ op - wh gr, v rr gn glau,		brt-frn, v f gr, sb md - sb ang, gr sup mtx, sl calc, occ sh, v		
gr sup mtx, sl calc, occ sh, v	dim lt bl-wh mky cut wi v dim even yel flr resd ring				
yel flr resd ring					
MD: 11.385° Inclination: 89.01° Azimuth: 357.62° TVD: 7,318.73 VS: 3.876,08°		TVD (ft)	MD: 11.470° Inclination: 89.38° Azimuth: 358.07° TVD: 7,319.93 VS: 3.961,06°		TVD (ft)







ons It brn occ lt gy-wh w/ op - wh gr, v rr gn glau,
n, v f gr, sb md - sb ang, gr sup mtix, sl calc; occ sh;
od lt bl-wh mky cut wi v dim even yel flr resd ring

SS: cons lt brn occ lt gy-wh w/ op - wh gr, v rr gn glau,
brlt frm, v f gr, sb md - sb ang, gr sup mtix, sl calc; occ sh;
dim-mod lt bl-wh mky cut wi v dim even yel flr resd ring

MD: 12,238'
Inclination: 89.87°
Azimuth: 357.25°
TVD: 7,314.57'
VS: 4,728.92'

TVD (ft)

MD: 12,323'
Inclination: 89.16°
Azimuth: 357.49°
TVD: 7,315.29'
VS: 4,813.9'

MD: 12,338'
Inclination: 88.98°
Azimuth: 357.29°
TVD: 7,315.53'
VS: 4,828.89'

TVD (ft)

TD 12392 MD Codel
11:30AM MDT 10/25/2014

Thank you for using
Colimbine Logging Inc

