

# COLUMBINE LOGGING

Scale: 5" / 100'  
Measured Depth Log

Well Name    Wirkner-Vance 30N-36HZ

Location    SWSW SEC 36, T3N, R67W

State    COLORADO

Country    USA

API Number    051233788500

Region    DJ BASIN

Spud Date    12/24/2013

Surface Coordinates    425' FSL, 851' FWL

Bottom Hole Coordinates    460' FNL, 390' FWL

County    WELD

Rig Number    ENSIGN 138

AFE #    2059184

Field    WATTENBERG

Drilling Completed    12/31/2013

Ground Elevation    4822'

K.B. Elevation    4835'

Logged Interval    6540'    To    11705'

Total Depth    5165'

Formation    Niobrara B

Type of Drilling Fluid    H2O, LSND

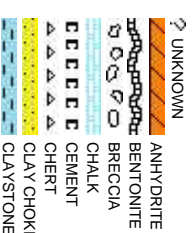
Company    Anadarko

Address    Granite Tower  
1099 18th St, S  
Denver, CO 80202

Name    John-Michael V

Company    Columbine Logging

Address    2385 S. Lipan St  
Denver, CO 80226



Operator

uite #1800  
202

Geologist

illeneuve & Gabe Rubio

ging, Inc.

it.  
223

Rock Types

CONGLOMERATE	MARLSTONE	SHALY SANDSTONE
DOLOMITE	METAMORPHIC	SHALY SILTSTONE
DOLOMITIC LIMESTONE	NO SAMPLE	SILT SHALE
GRANITE	SALT	SILTSTONE
GYPSUM	SANDSTONE	TILL
IGNEOUS	SALT-PEPPER SAN	TUFF
SIDERITE or LIMONITE	SHALE	WELDED TUFF
LIMESTONE	SHALE COLORED	
	SHALE GRAY	

Accessories

<b>Fossils</b>	GASTROPOD	ARGILLITE GRAIN	HEAVY MINERAL
INOCERAMUS	B BENTONITE	K KAOLIN	ANHYDRITE STRINGER
ALGAE	O OOLITE	BIT BITUMENOUS SUBSTANCE	B BENTONITE STRINGER
AMPHIPORA	O OSTRACOD	BRE BRECCIA FRAGMENTS	COAL STRINGER
BELEMNITE	P PELECYPOD	C CALCAREOUS	DOLOMITE STRINGER
BIOCLASTIC	P PELLET	CAR CARBONACEOUS FLAKES	GYPSUM STRINGER
BRACHIOPOD	P PISOLITE	CHT CHERT	LIMESTONE STRINGER
BRYOZOA	P PLANT REMAINS	COAL THIN BEDS	MARLSTONE (CALC) STRG
CEPHALOPOD	S PLANT SPORES	DOLOMITIC	MARLSTONE (DOL) STRG
CORAL	S SCAPHOPOD	F FELDSPAR	SANDSTONE STRINGER
CRINOID	S STROMATOPOROID	F FERRUGINOUS PELLET	SHALE STRINGER
ECHINOID		S SILTY	SILTSTONE STRINGER
FISH	<b>Minerals</b>	F FERRUGINOUS	T TUFACEOUS
FORAMINIFERA	A ANHYDRITIC	G GLAUCONITE	
F FOSSIL	A ARGILLACEOUS	G GYPSIFEROUS	<b>Stringer</b>

Other Symbols

<b>Oil Show</b>	P PINPOINT	DST INTERVAL	WIRELINE TESTED - LEFT	E EARTHY
V VUGGY	FAULT	WIRELINE TESTED - RT	FX FINELXXLN	
D DEAD	FORMATION TOP	DRILL STEM TEST	BS GRAINSTONE	
E EVEN	GAS SHOW	MN DEPTH	L LITHOGRAPHIC	
Q QUESTIONABLE	BIT	OIL SHOW	MX MICROXLN	
S SPOTTED STAINING	CONNECTION (UP)		<b>Rounding</b>	MS MUDSTONE
	CONNECTION (DOWN)		<b>Sorting</b>	
<b>Porosity</b>	CONNECTION GAS	NORMAL FAULT	R ROUNDED	PS PACKSTONE
E EARTHY	CONNECTION GAS (LEFT)	OVERTURNED STRATA	B SUBANG	WS WACKESTONE
F FENESTRAL	TRIP GAS	REVERSE FAULT	F SUBRND	
F FRACTURE	TRIP GAS (LEFT)	CASING		
X INTERCRYSTALLINE	DOWN TIME GAS	SIDEWALL CORE (LEFT)	<b>Textures</b>	M MODERATE
X INTERCRYSTALLINE	DOWN TIME GAS (LEFT)	SIDEWALL CORE (RIGHT)	P POOR	W WELL
M MOLDIC	CORE - LOST	SLIDE	BS BOUNDSTONE	
O ORGANIC	CORE - RECOVERED	SURVEY	C CHALKY	
			CRYPTOXLN	

Slide/Rotate

ROP  
ROF  
GAMMA

GAMMA SCALE:  
0 - 300 API

ROP SCALE :  
0 - 500 FT/HR

Total Gas & Chromatograph

GAS  
C1  
C2  
C3  
C4

Depth Labels

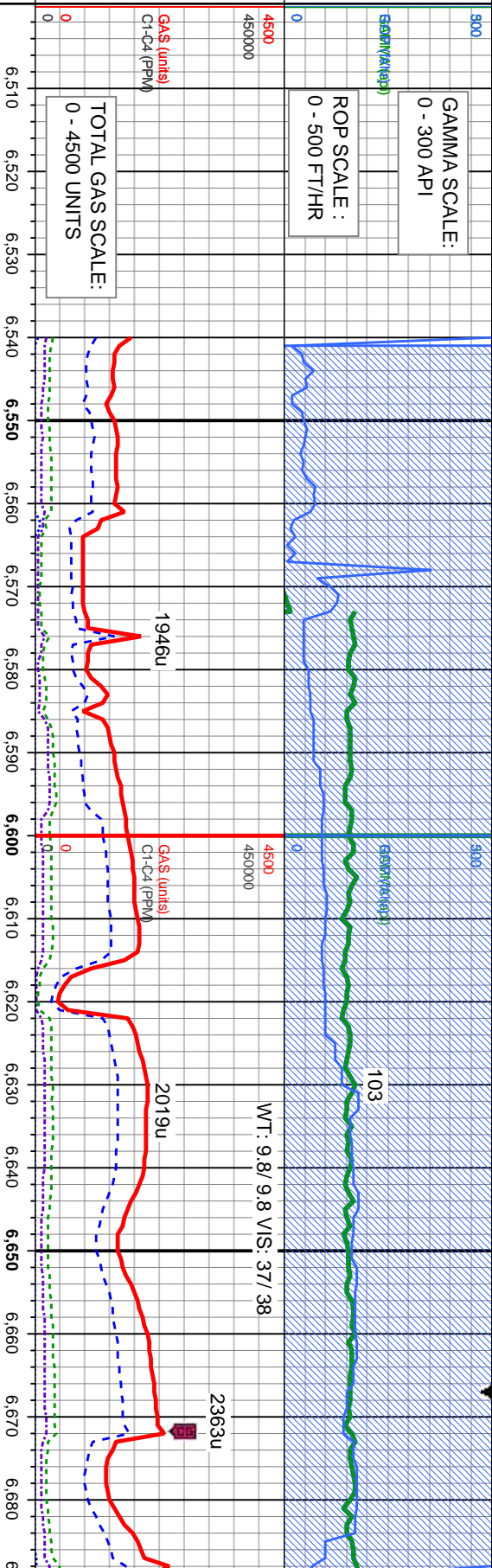
% Lith

Well Bore  
TVD

Oil Show

Images

ESTIMATE



KOP: 6540' MD  
100' SAMPLE  
INTERVALS

Bit Data  
Bit #: 2  
Type: SMITH/ SDI611  
Size: 8.75  
Depth In: 6,564'  
Jets: 3X14/ 3X16

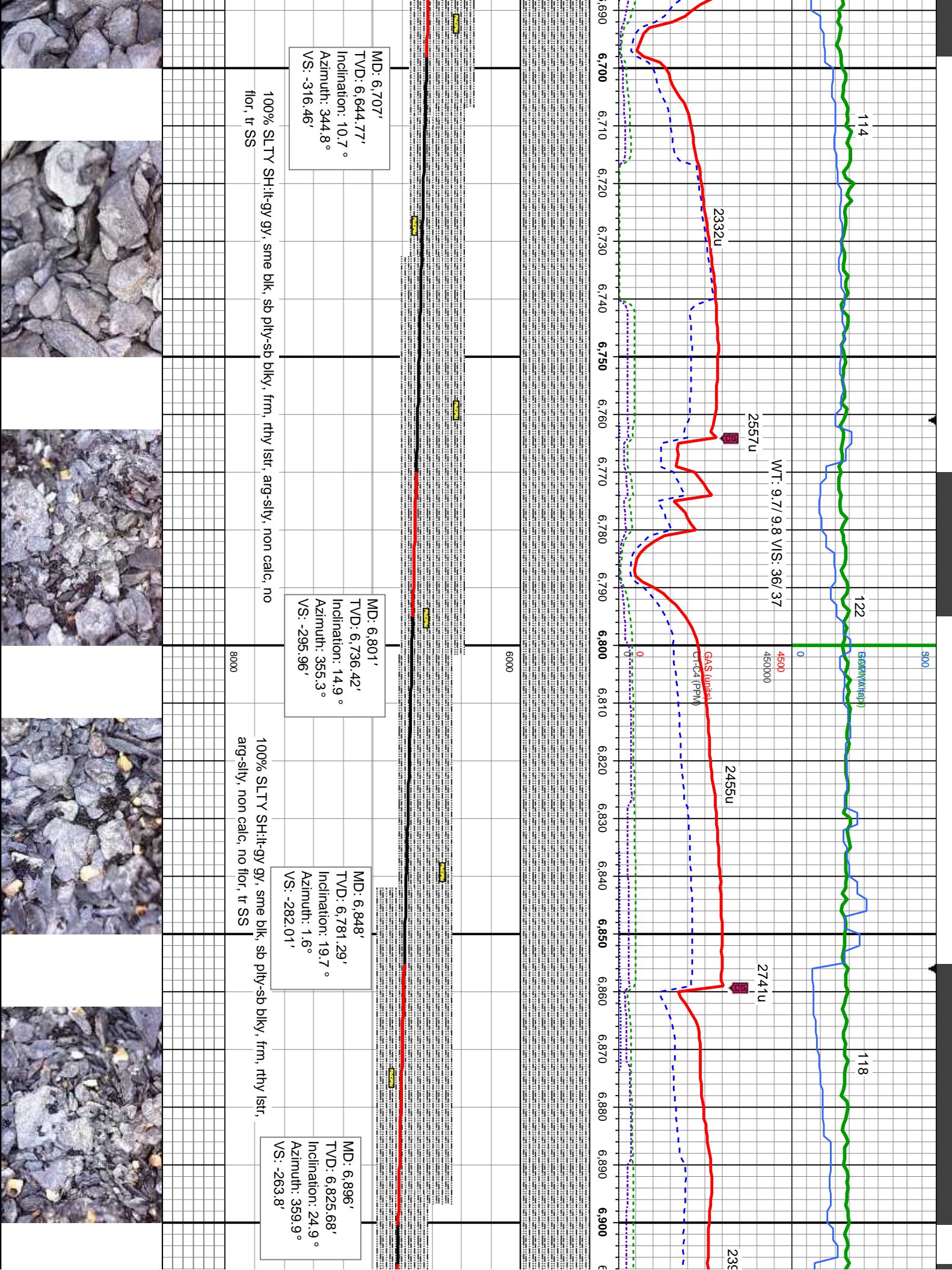
COLUMBINE LOGGING RIGGED UP ON  
12/26/2013 USING MANNED TWO-PERSON  
LOGGING WITH BLOOHOUND GAS  
CHROMATOGRAPH UNIT #0551 HZ BEGAN ON  
12/27/2013 @ 17:07 HRS MST

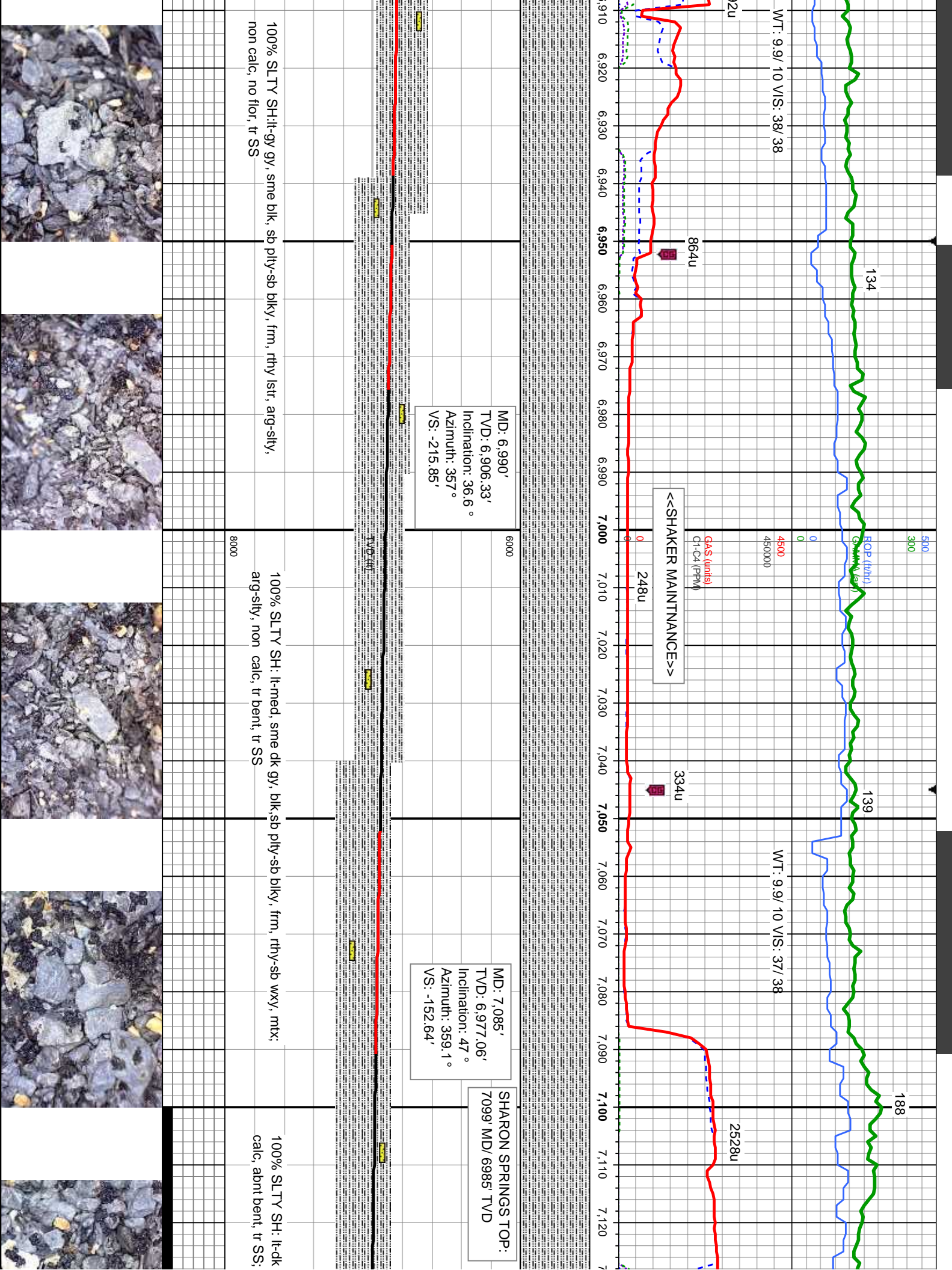
100% SLTY SH:lt-gy, sme blk, sb pily-sb blkly, frm, rthy lstr, arg-sily, non calc, no  
flor, tr SS

MD: 6,613'  
TVD: 6,551.91'  
Inclination: 7.1 °  
Azimuth: 346.4 °  
VS: -330.56'

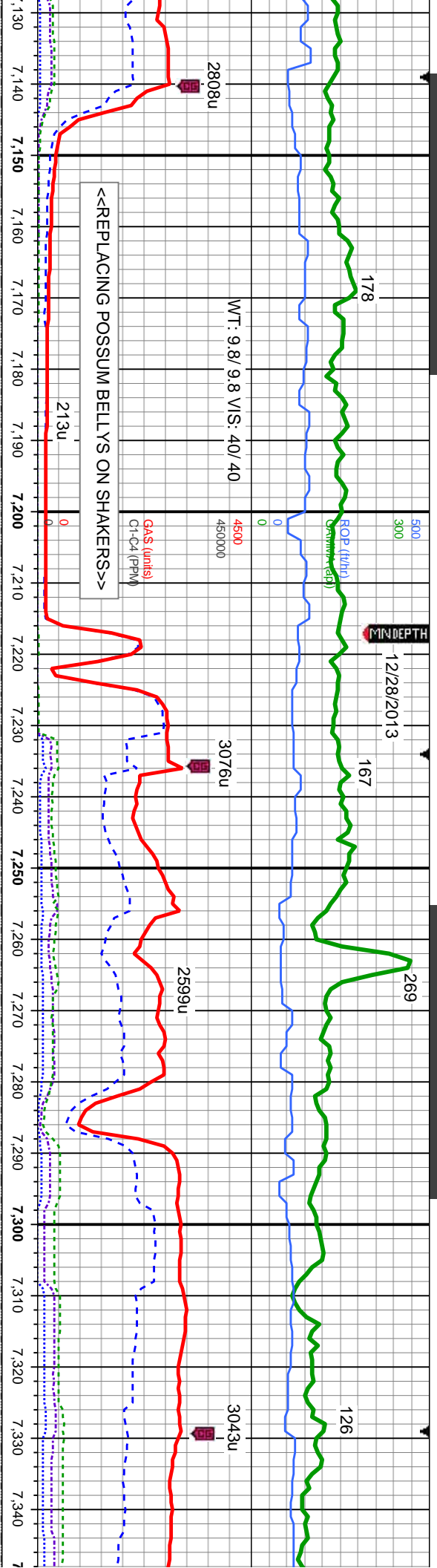












MD: 7,180'  
TVD: 7,033.79'  
Inclination: 59.5 °  
Azimuth: 0.9°  
VS: -76.68'

6000  
NIOBRARA TOP:  
7210' MD/ 7046' TVD

MD: 7,274'  
TVD: 7,074.73'  
Inclination: 68.8 °  
Azimuth: 2.6°  
VS: 7.75'

gy, blk, sb pily-sb blk, frm, rthy-sb wxy, mt; arg-sily, non-v sl  
OIL SHOW: thn yel-gn cut, no min flr, no str

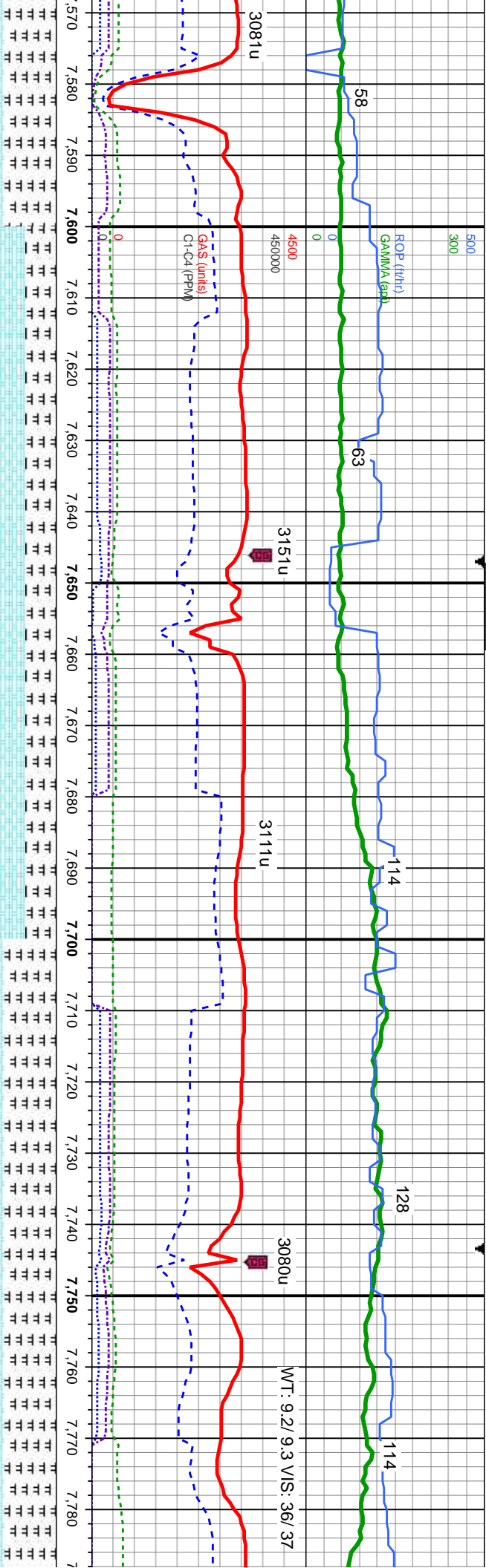
80% SLTY SH: lt-dk gy, blk, sb pily-sb blk, frm, rthy-sb wxy, mt; arg-sily, non-v sl  
calc; 20% CHK: lt-med gy, tr wh, sb blk-sb pily, frm-occ brt, rthy tex, tr bent,  
mt; calc; OIL SHOW: tr yel mnrl flr, fast dfse, mod sting, gn cut, sl gn str, no od

25% SLTY SH: lt-dk gy, blk, sb pily-sb blk, fr  
CHK: lt-med gy, tr wh, sb blk-sb pily, frm-oc  
MARLSTONE: dark - medium gray, gray bro  
part, gt texture, sub platy - sub blocky, argilla  
SHOW: tr yel mnrl flr, fast dfse, mod sting,









576' MD FOR INTERMEDIATE  
06:32 HRS MST ON 12/28/2013

RESUMED LATERAL @ 04:15  
HRS MST ON 12/30/13

MD: 7,592'  
TVD: 7,140.34'  
Inclination: 89.5 °  
Azimuth: 358.4 °  
VS: 317'

MD: 7,688'  
TVD: 7,139.5'  
Inclination: 91.5 °  
Azimuth: 358 °  
VS: 412.96'

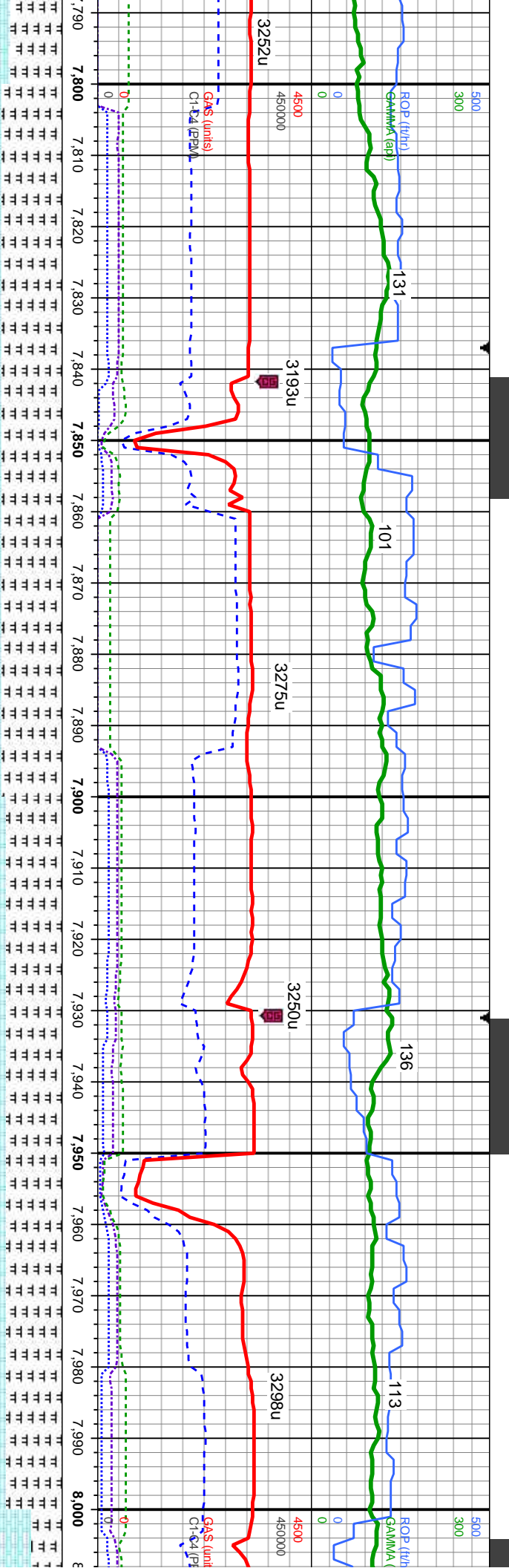
MD: 7,782'  
TVD: 7,136.14'  
Inclination: 92  
Azimuth: 357.  
VS: 506.87'

65% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v  
calc; 35% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb  
ply - sb blk, arg - slty mt, fos frag, cal inci; OIL SHOW: tr yel mnrl flr,  
fast difse, mod strng, gn cut, sl gn str, no od

40% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v  
calc; 60% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex,  
sb ply - sb blk, arg - slty mt, fos frag, cal inci; OIL SHOW: bl-gn strng  
cut, fast difse, tr-mod yel min flr, solid gn resdl str, no od







6°  
9°

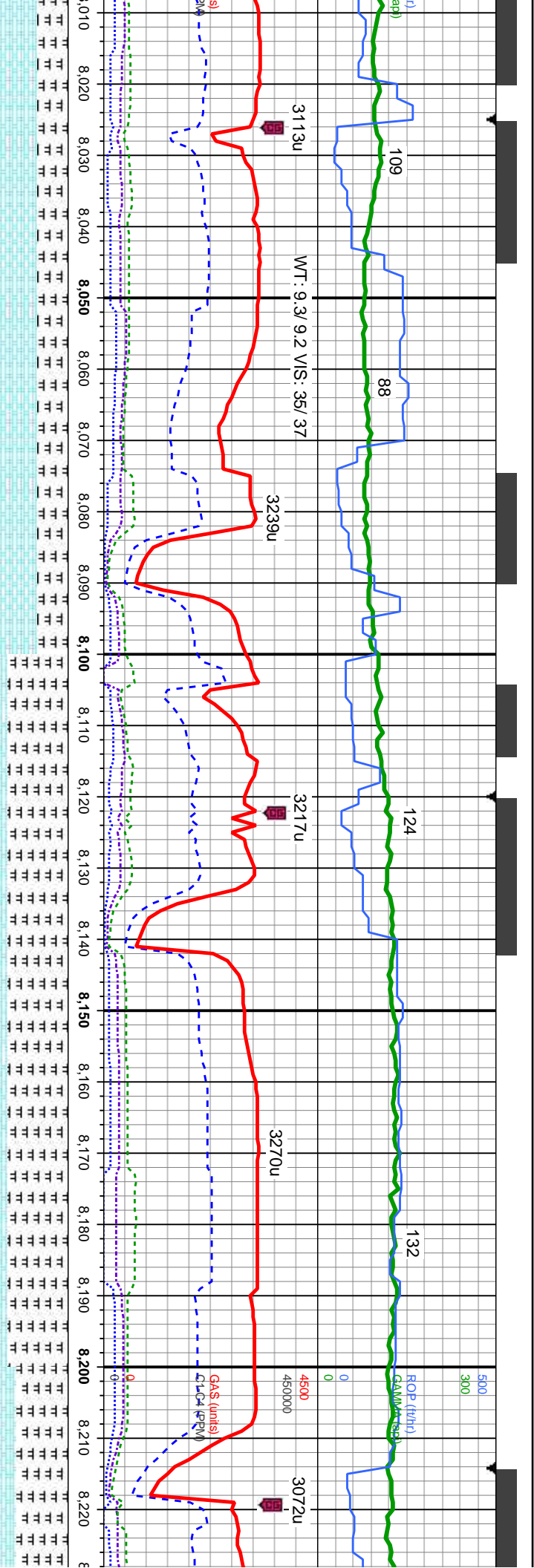
MD: 7,876'  
TVD: 7,131.71'  
Inclination: 92.8°  
Azimuth: 358°  
VS: 600.72'

MD: 7,970'  
TVD: 7,127.29'  
Inclination: 92.6°  
Azimuth: 358.3°  
VS: 694.59'

30% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 70%  
MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blk, arg -  
sily mt, fos frag, cal inci; OIL SHOW: mod difse, tr yel min flr, bl-wh sting, bl-wh  
mky cut, mod gn-bl stn, no od

35% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc;  
65% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb  
blk, arg - sily mt, fos frag, cal inci; OIL SHOW: mod difse, tr yel min flr,  
bl-wh sting, bl-wh mky cut, mod gn-bl stn, no od





MD: 8,065'  
TVD: 7,123.8'  
Inclination: 91.6 °  
Azimuth: 358.7°  
VS: 1.13'

MD: 8,159'  
TVD: 7,122.74'  
Inclination: 89.7 °  
Azimuth: 357.9°  
VS: 883.48'

55% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc;  
55% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pily - sb blk,  
arg - slty mtx, fos frag, cal inci; OIL SHOW: bl-gn string cut, fast difse, tr-mod yel  
min flr, solid gn resd stn, no od

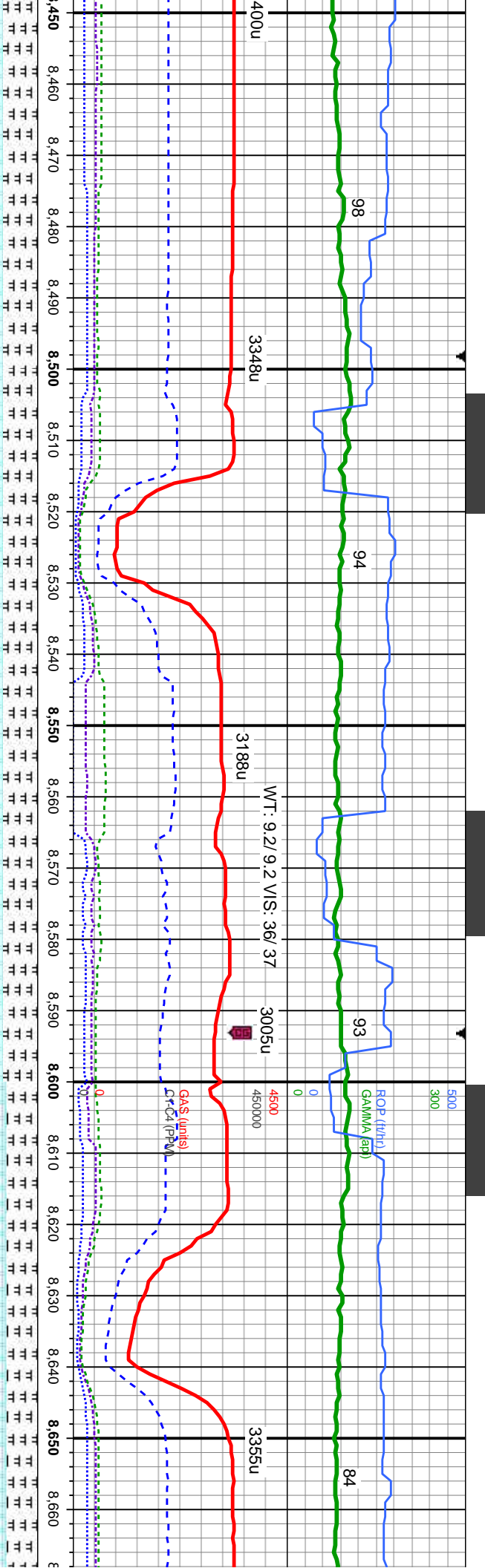
30% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc;  
70% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pily - sb  
blk, arg - slty mtx, fos frag, cal inci; OIL SHOW: mod difse, tr yel min flr,  
bl-wh string, bl-wh mky cut, mod gn-bl stn, no od

40% CHK: mot gy brn  
MRLST: dk - med gy,  $\gamma$   
slty mtx, fos frag, cal in  
mky cut, mod gn-bl stn









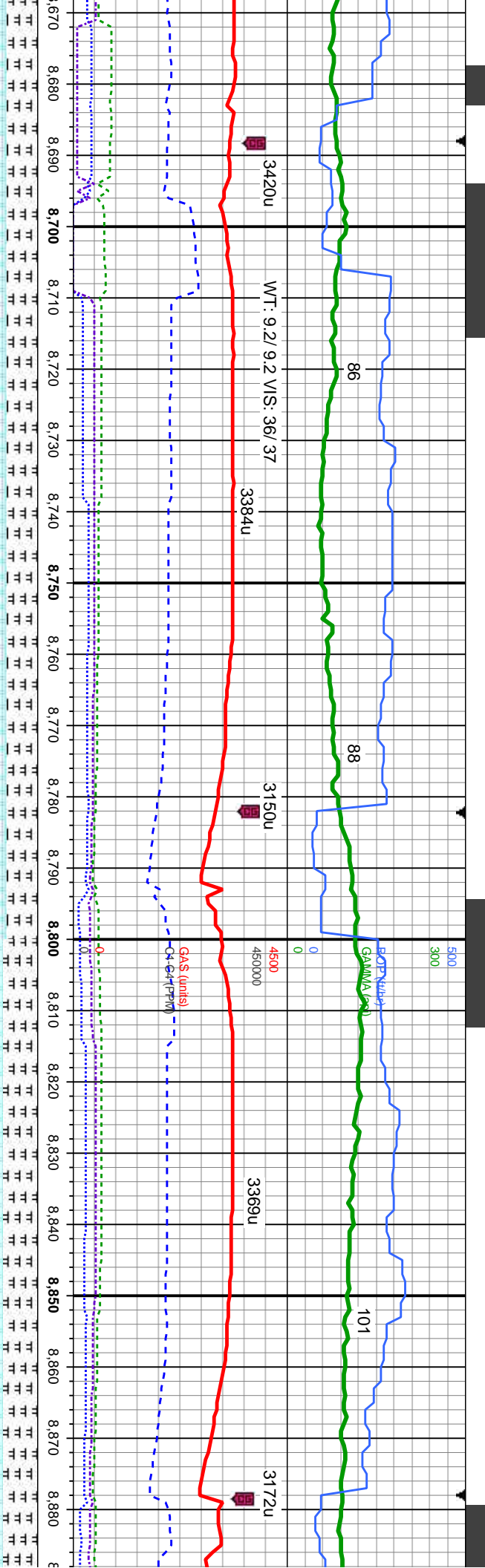
MD: 8,538'  
TVD: 7,123.81'  
Inclination: 90.1°  
Azimuth: 357.6°  
VS: 1,262.37'

MD: 8,633'  
TVD: 7,124.4'  
Inclination: 89.2°  
Azimuth: 357.4°  
VS: 357.4'

n, fri, sb blk, rthy - sb wxy tex, v calc: 40%	60% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc: 40%	65% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy -
m, brit - fri ip, gt tex, sb ply - sb blk, arg - silty	MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb blk, arg -	MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex,
sting cut, fast difse, tr-mod yel min flr, solid	silty mtx, fos frag, cal inci; OIL SHOW: bl-gn sting cut, fast difse, tr-mod yel min	mtx, inoc fos frag, cal inci; OIL SHOW: bl-gn sting cut, fast
	flr, solid gn resd stn, no od	solid gn resd stn, no od







MD: 8,728'  
TVD: 7,125.72'  
Inclination: 89.2 °  
Azimuth: 356.7°  
VS: 356.7'

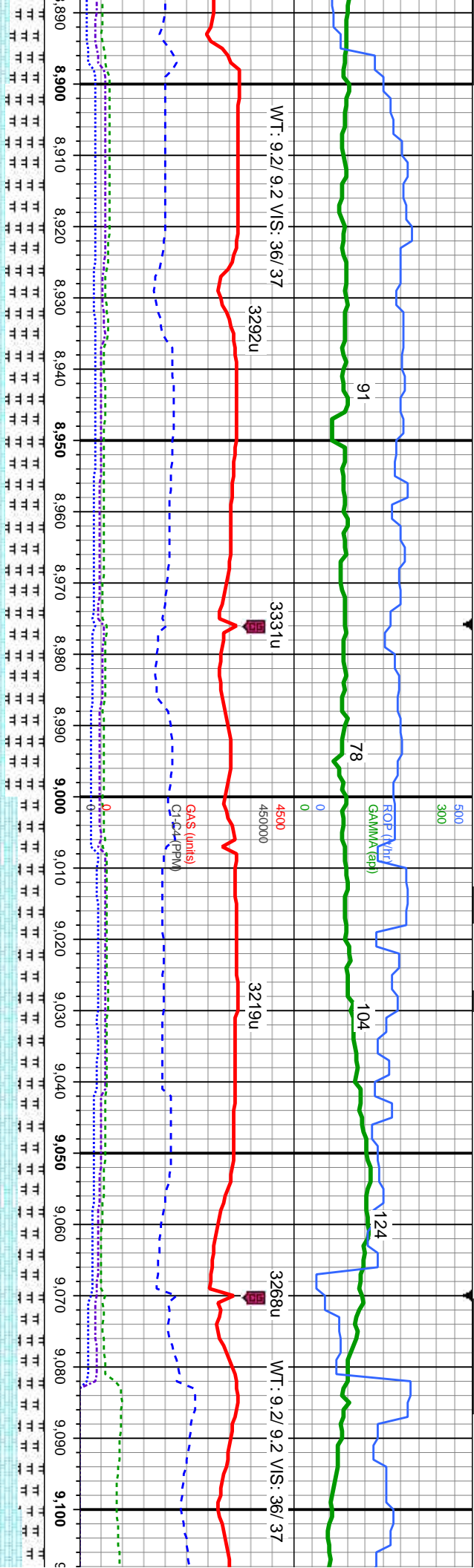
MD: 8,823'  
TVD: 7,126.88'  
Inclination: 89.4 °  
Azimuth: 356.8°  
VS: 356.8'

sb wxy tex, v calc; 35%  
sb pty - sb blk, arg - stly  
dijise, tr-mod yel min flor,

65% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 15%  
MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pty - sb blk, arg - stly  
mtx, inoc fos frag, cal incl; OIL SHOW: bl-gn stmg cut, fast diise, tr-mod yel min flor, solid gn resdl stn, no od

60% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 40%  
MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pty - sb blk, arg - stly  
mtx, inoc fos frag, cal incl; OIL SHOW: bl-gn stmg cut, fast diise, tr-mod yel min flor, solid gn resdl stn, no od





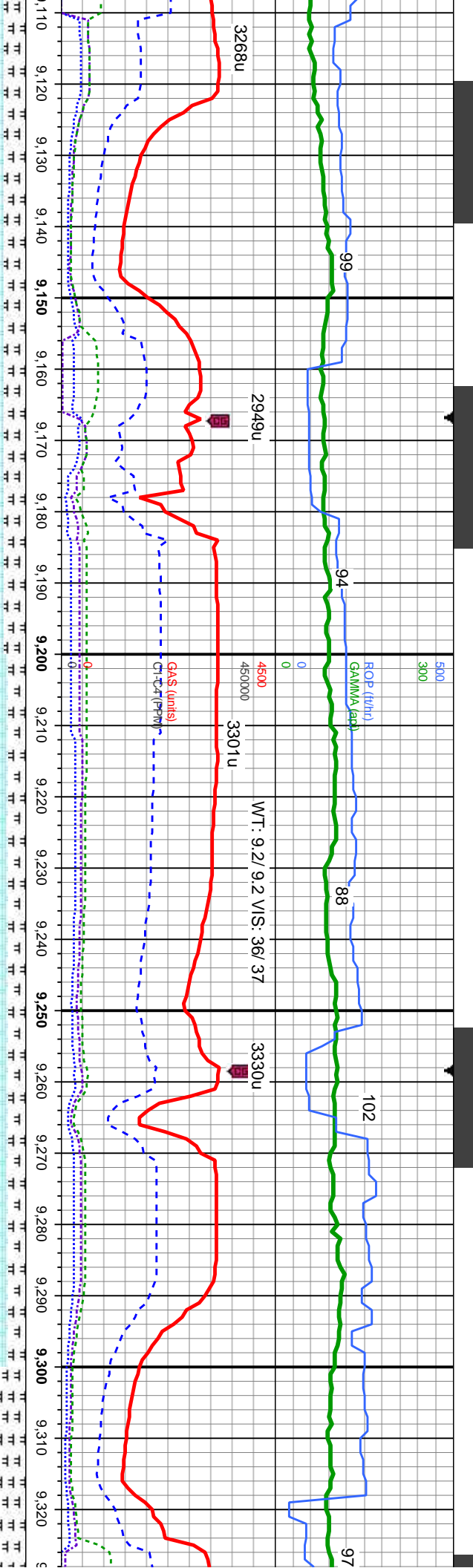
MD: 9,013'  
TVD: 7,127.05'  
Inclination: 90.5°  
Azimuth: 1.1°  
VS: 1.1'

MD: 9,100'  
TVD: 7,110'  
Inclination: 90.5°  
Azimuth: 1.1°  
VS: 1.83'

alc:	55% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc: 45%	70% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc: 30%	75% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc: 30%
sh	MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blk, arg - silty	MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blk, arg - silty	MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blk, arg - silty
lfse,	mtx, inoc fos frag, cal inci; OIL SHOW: bl-gn string cut, fast difse, tr-mod yel min flor,	mtx, inoc fos frag, cal inci; OIL SHOW: tr yel mnrl flor, fast difse, mod string, gn cut, sl	mtx, inoc fos frag, cal inci; OIL SHOW: tr yel mnrl flor, fast difse, mod string, gn cut, sl
	solid gn resdl stn, no od	gn stn, no od	stn, no od







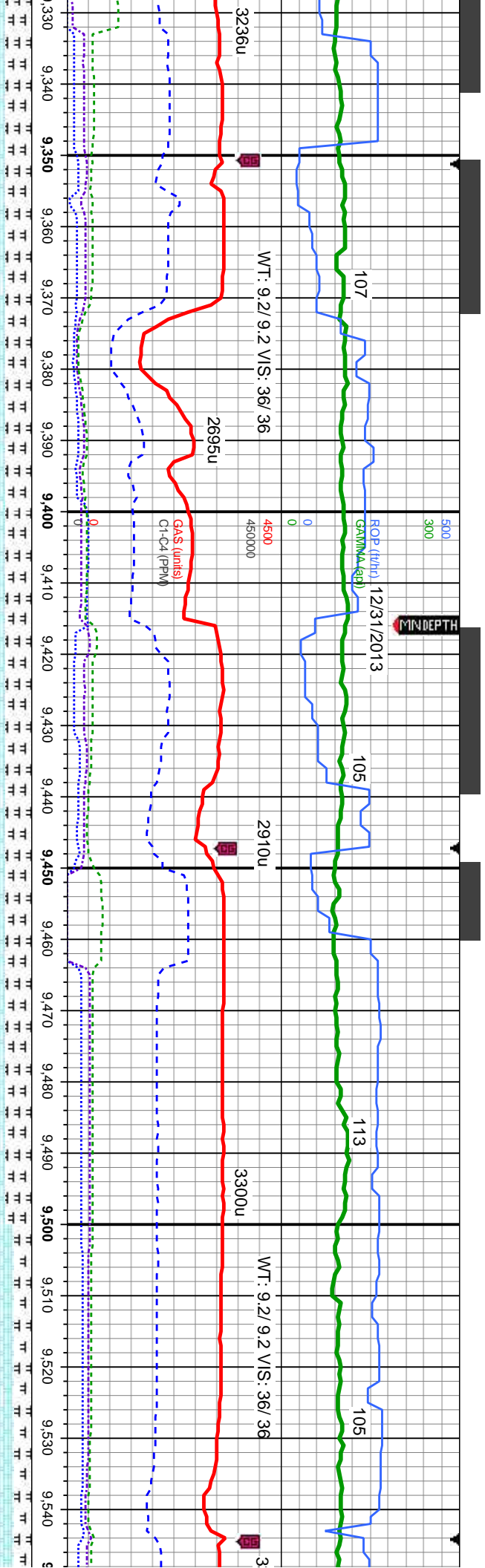
8'  
25.64'  
In: 90.9 °  
356.9°  
1.8'

MD: 9,202'  
TVD: 7,124.16'  
Inclination: 90.9 °  
Azimuth: 357.8 °  
VS: 1,925.72'

MD: 9,297'  
TVD: 7,122.5'  
Inclination: 91.1 °  
Azimuth: 357.3°  
VS: 2,020.65'

CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blkly, rthy - sb wxy tex, v calc; 25%	80% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blkly, rthy - sb wxy tex, v calc; 20%	70% CHK: mot gy brn
TLT: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blkly, arg - silty	MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blkly, arg - silty	MRLST: dk - med gy,
noc fos frag, cal inci; OIL SHOW: tr yel mnrl flr, fast difse, mod strng, gn cut, sl gn	mx, inoc fos frag, cal inci; OIL SHOW: tr yel mnrl flr, fast difse, mod strng, gn cut, sl	mx, inoc fos frag, cal
o od	gn strn, no od	gn strn, no od





MD: 9,392'  
TVD: 7,121.68'  
Inclination: 89.9 °  
Azimuth: 358.3 °  
VS: 2,115.6'

MD: 9,486'  
TVD: 7,122.91'  
Inclination: 88.6 °  
Azimuth: 358.5 °  
VS: 2,209.57'

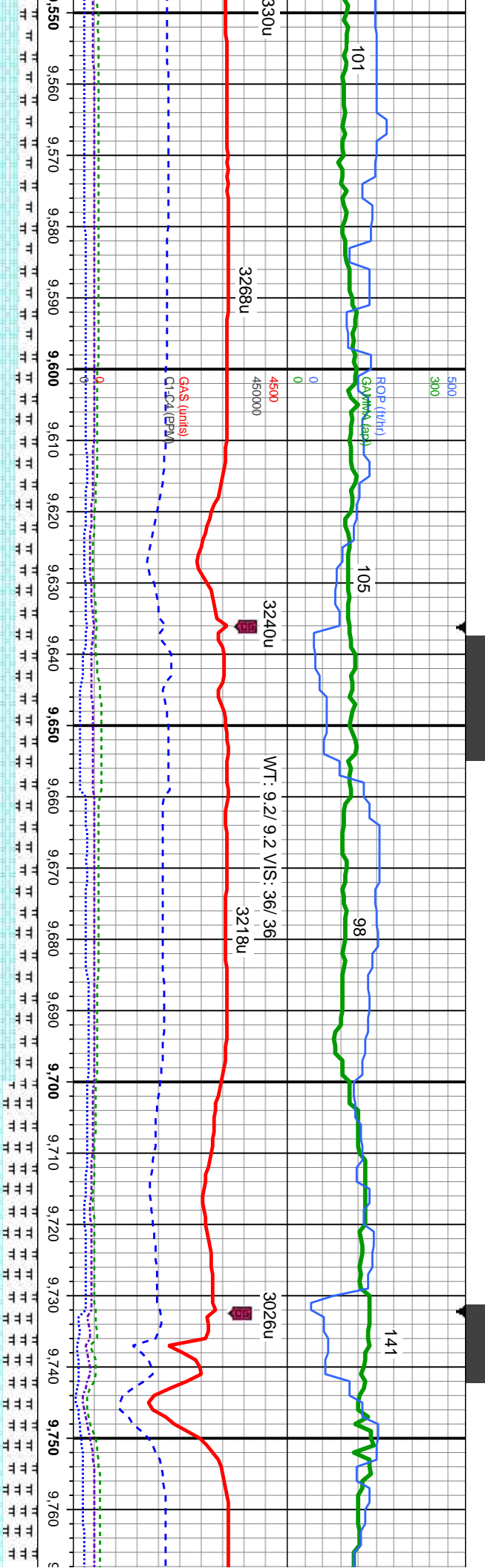
- lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc: 30%  
gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blk, arg - slty  
incl: OIL SHOW: tr yel mnrl flr, fast dfse, mod string, gn cut, sl

70% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc: 30%  
MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blk, arg -  
slty mx, inoc fos frag, cal incl: OIL SHOW: tr yel mnrl flr, fast dfse, mod string,  
gn cut, sl gn str, no od

80% CHK: mot gy brn - lt gy, v sft - sl frm, tr  
MRLST: dk - med gy, gy brn, mod - sl frm, t  
inoc fos frag, cal incl: OIL SHOW: tr yel mnrl







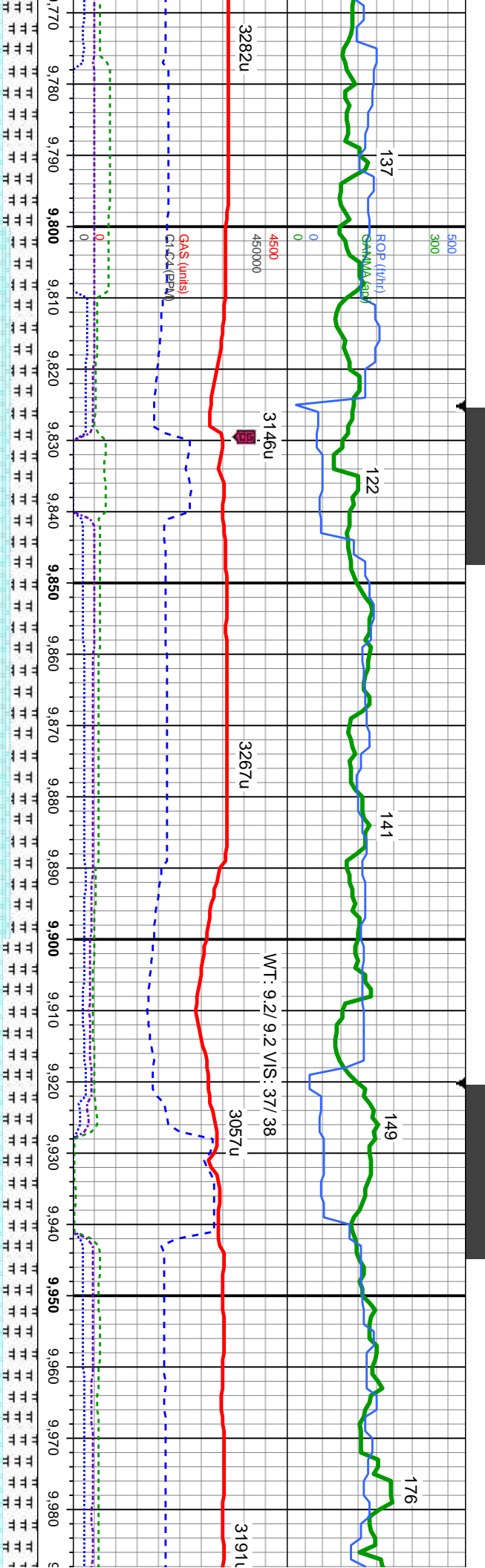
MD: 9,581'  
TVD: 7,123.9'  
Inclination: 90.2 °  
Azimuth: 358.6 °  
VS: 2,304.55'

MD: 9,676'  
TVD: 7,124.23'  
Inclination: 89.4 °  
Azimuth: 359 °  
VS: 2,399.54'

MD: 9,7  
TVD: 7,  
Inclinatio  
Azimuth  
VS: 2,49

i, sb blkly, rthy - sb wxy tex, v calc; 20%	75% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blkly, rthy - sb wxy tex, v calc; 25%	60% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blkly, rthy
brt - fri lp, gt tex, sb plty - sb blkly, arg - slty mtx,	MRLST: dk - med gy, gy brn, mod - sl frm, brt - fri lp, gt tex, sb plty - sb blkly, arg - slty mtx,	calc: 40% MRLST: dk - med gy, gy brn, mod - sl frm, brt
lt flr, fast dfse, mod string, gn cut, sl gn str,	inoc fos frag, cal inci: OIL SHOW: bl-gn string cut, fast dfse, tr-mod yel min flr, solid gn	ply - sb blkly, arg - slty mtx, inoc fos frag, cal inci: OIL SH
	resd str, no od	cut, fast dfse, tr-mod yel min flr, solid gn resd str, no o





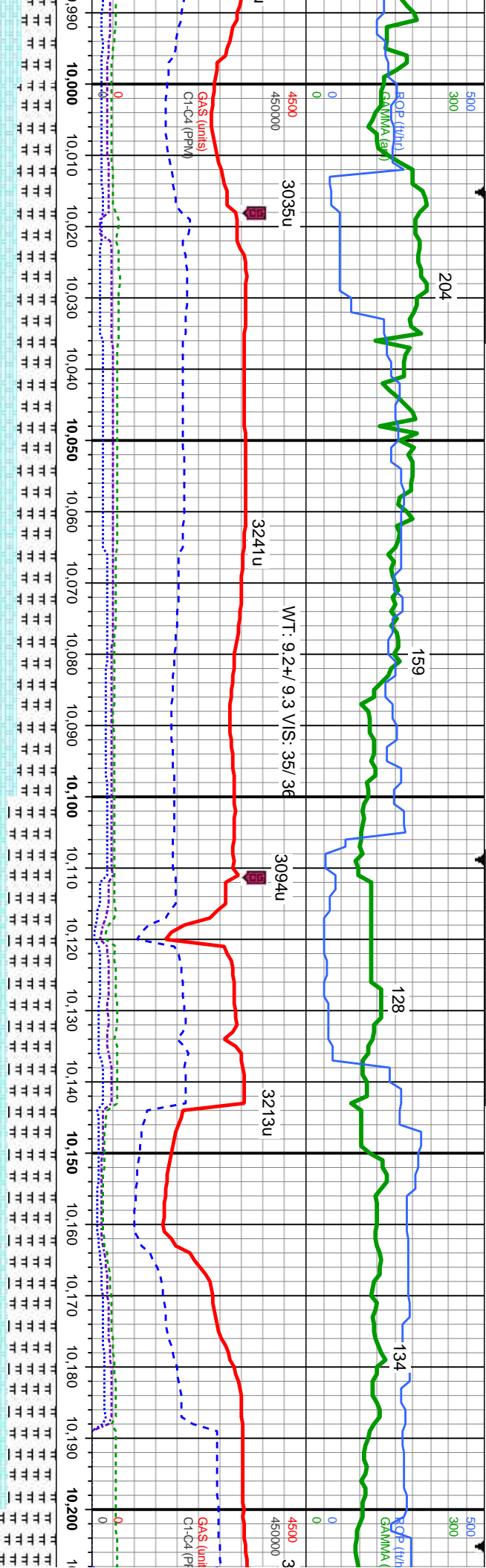
MD: 9,865'  
TVD: 7,125.55'  
Inclination: 89.4°  
Azimuth: 359.3°  
VS: 2,588.53'

MD: 9,960'  
TVD: 7,126.63'  
Inclination: 89.3°  
Azimuth: 0.8°  
VS: 2,683.51'

70' - sb wxy tex, v	70% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 30% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri lp, gt tex, sb pily - sb blk, arg - silty mtx, inoc fos frag, cal inci; OIL SHOW: tr yel mnrl flor, fast difse, mod stmg, gn cut, sl gn stn, no od	60% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 30% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri lp, gt tex, sb pily - sb blk, arg - silty mtx, inoc fos frag, cal inci; OIL SHOW: bl-gn string cut, fast difse, tr-mod y min flor, solid gn resdl stn, no od
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MD: 10,055'  
TVD: 7,127.62'  
Inclination: 89.5 °  
Azimuth: 1.9°  
VS: 2,778.46'

MD: 10,150'  
TVD: 7,128.95'  
Inclination: 88.9 °  
Azimuth: 1.6°  
VS: 2,873.38'

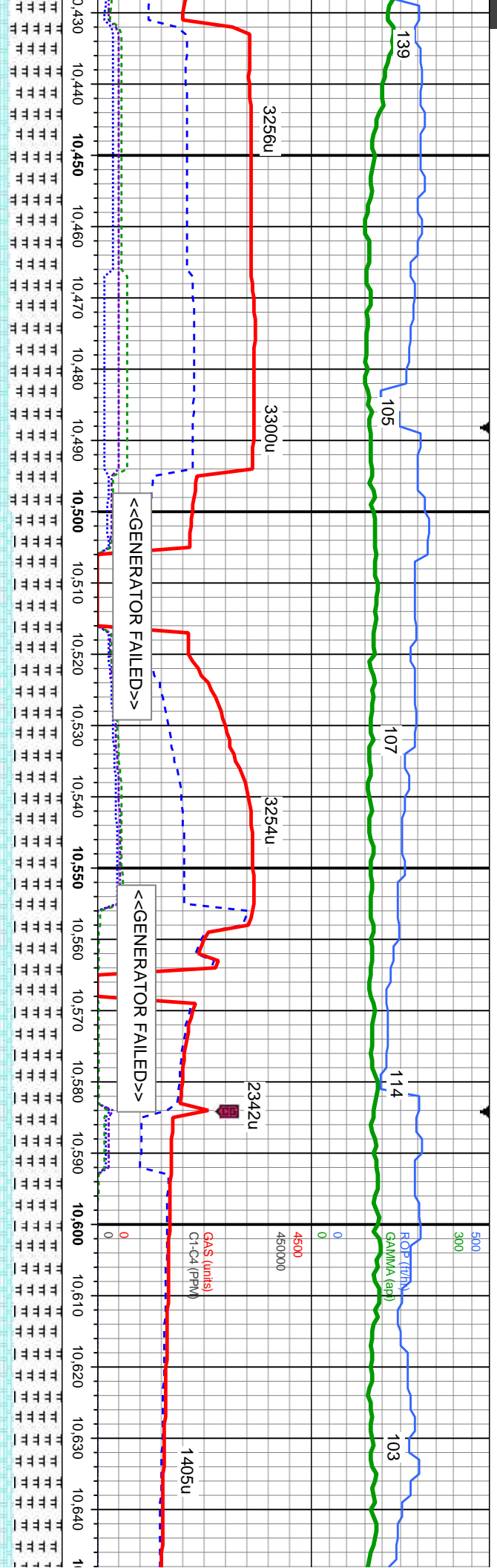
FAULT #1  
MD: 10,149'  
TVD: 7,129'  
THROW: 34' UP

40%	55% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 45% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri lp, gt tex, sb ply - sb blk, arg - silty mtx, inoc fos frag, cal inci; OIL SHOW: bl-gn stmg cut, fast difse, tr-mod yel min flor, solid gn resd stn, no od	45% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 55% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri lp, gt tex, sb ply - sb blk, arg - silty mtx, inoc fos frag, cal inci; OIL SHOW: bl-gn stmg cut, fast difse, tr-mod yel min flor, solid gn resd stn, no od
8000		8000



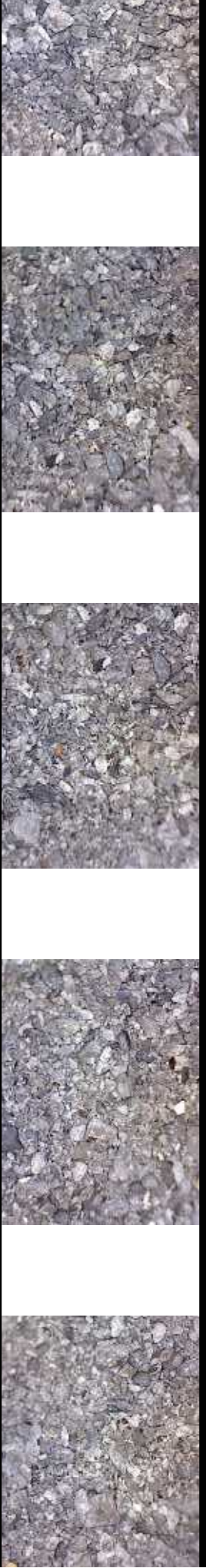


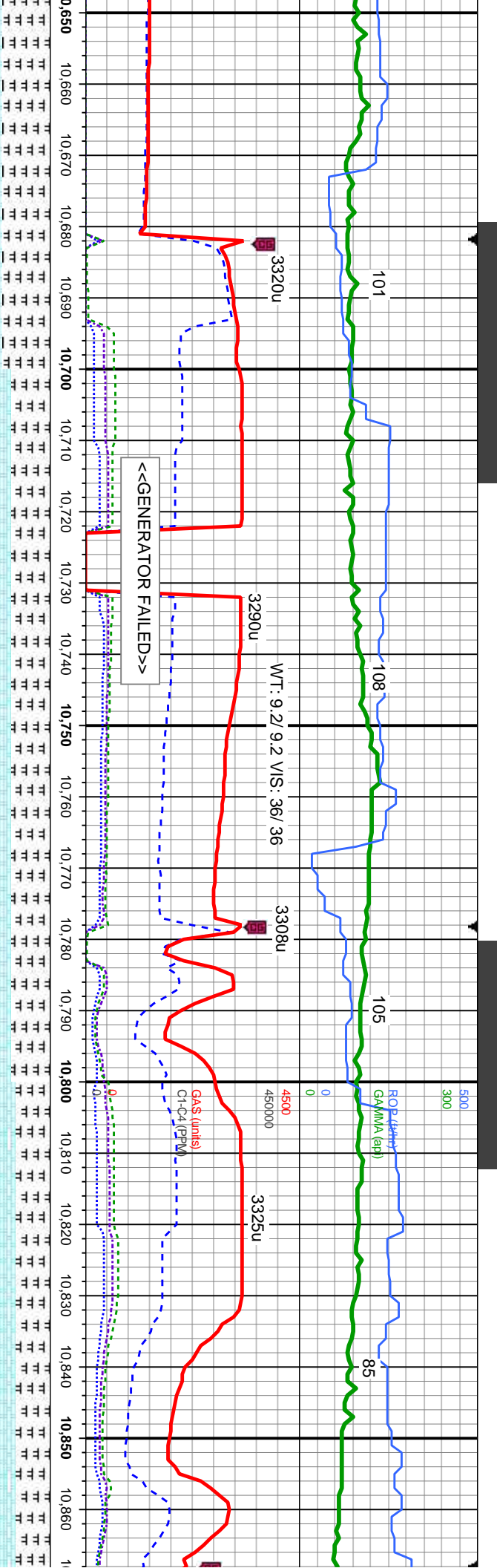




MD: 10,624'  
TVD: 7,125.7'  
Inclination: 91.4°  
Azimuth: 1.5°  
VS: 3.347.07'

brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc: med gy, gy brn, mod - sl frm, brt - fri ip, gt tex, sb ply - sb ino fos frag, cal inci: OIL SHOW: bl-gn string cut, fast in flr, solid gn resdl str, no od	45% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc: 55% MRLST: dk - med gy, gy brn, mod - sl frm, brt - fri ip, gt tex, sb ply - sb blk, arg - silty mix, ino fos frag, cal inci: OIL SHOW: bl-gn string cut, fast difse, tr-mod yel min flr, solid gn resdl str, no od	45% CHK: mot gy brn - lt gy, v sft - sl blk, rthy - sb wxy tex, v 55% MRLST: dk - med gy, gy brn, mod - sl frm, brt - fri ip, gt tex, sb blk, arg - silty mix, ino fos frag, cal inci: OIL SHOW: bl-gn string cut, fast difse, tr-mod yel min flr, solid gn resdl str, no od
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MD: 10,718'  
TVD: 7,124.39'  
Inclination: 90.2°  
Azimuth: 1.8°  
VS: 3,440.99'

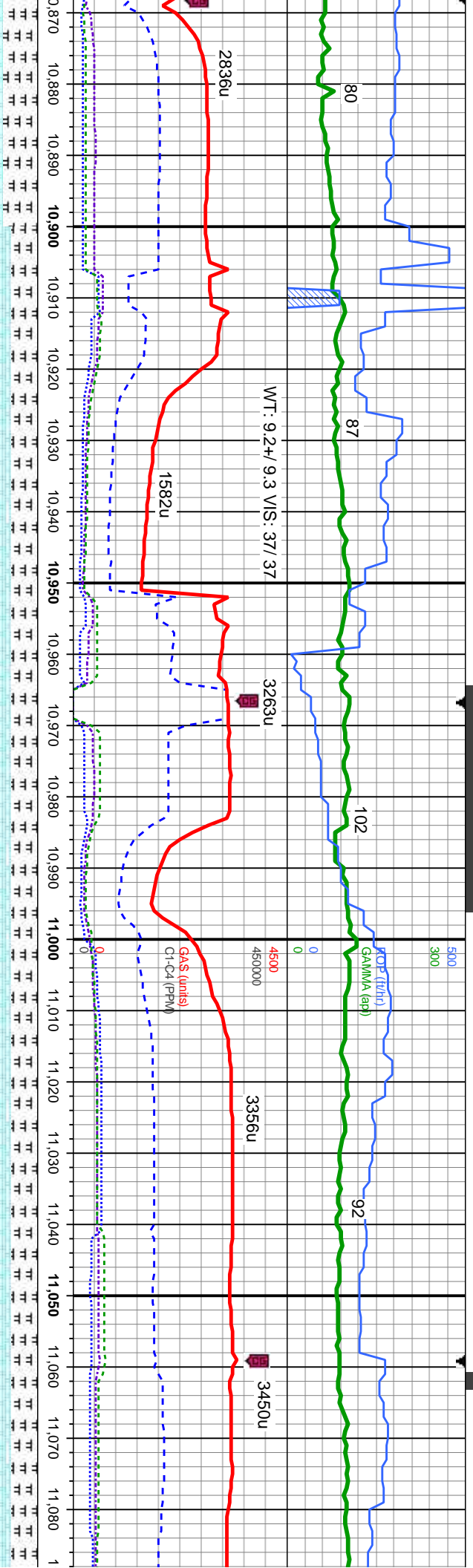
frm, fri, sb blkly, rthy - sb wxy tex, v calc;  
d - sl frm, brit - fri ip, gt tex, sb ply - sb  
nci; OIL SHOW: bl-gn string cut, fast difse,  
no od

55% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blkly, rthy - sb wxy tex, v  
calc; 45% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb  
ply - sb blkly, arg - silty mtz, inoc fos frag, cal inci; OIL SHOW: bl-gn string  
cut, fast difse, tr-mod yel min flur, solid gn resdl str, no od

60% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blkly,  
calc; 40% MRLST: dk - med gy, gy brn, mod - sl frm, t  
ply - sb blkly, arg - silty mtz, inoc fos frag, cal inci; OIL  
cut, fast difse, tr-mod yel min flur, solid gn resdl str, n







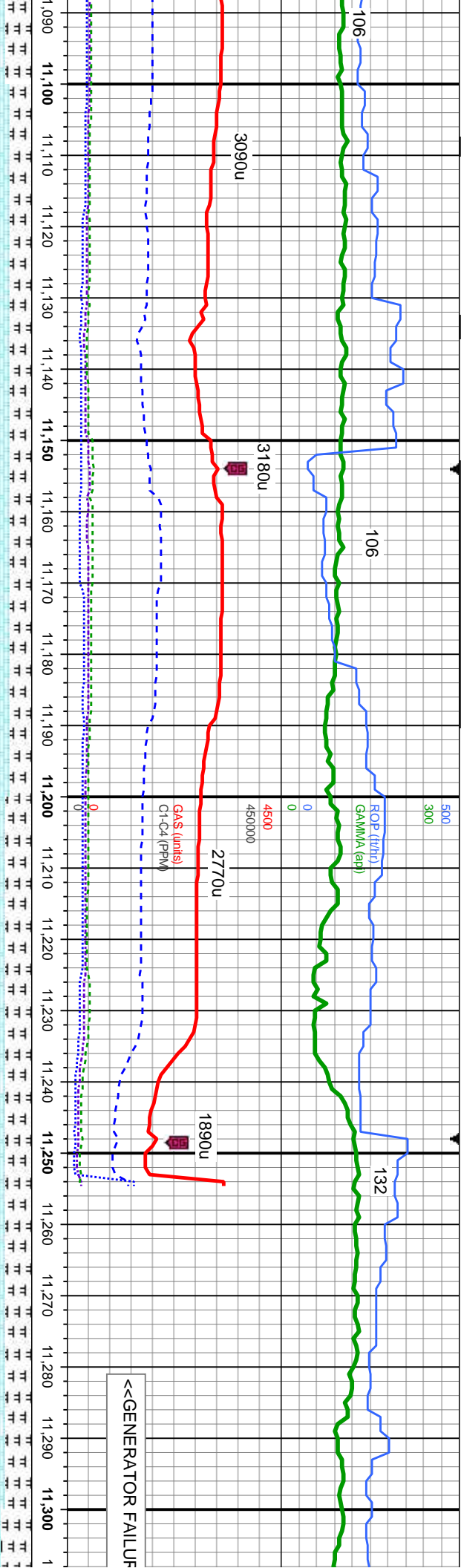
MD: 10,910'  
TVD: 7,124.56'  
Inclination: 89.7 °  
Azimuth: 2.2 °  
VS: 3,632.82'

rtly - sb wxy tex, v  
brit - fri ip, gt tex, sb  
SHOW: bl-gn stmg  
o od

70% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc;  
30% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pty - sb  
blk, arg - stly mtk, inoc fos frag, cal incl; OIL SHOW: bl-gn stmg cut, fast disse,  
tr-mod yel min flor, solid gn rescl stn, no od

70% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc;  
MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pty - sb blk, a  
mtx, inoc fos frag, cal incl; OIL SHOW: bl-gn stmg cut, fast disse, tr-mod yel min  
solid gn rescl stn, no od





MD: 11,099'  
TVD: 7,125.71'  
Inclination: 89.6 °  
Azimuth: 1.5°  
VS: 3,821.66'

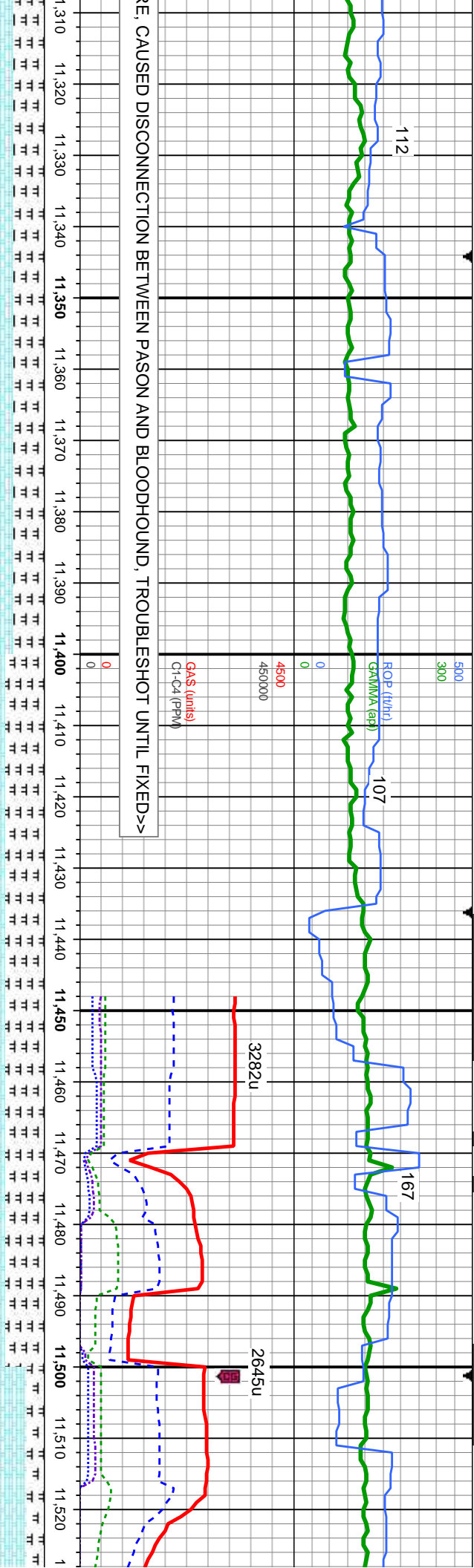
FAULT #2  
MD: 11,206'  
TVD: 7,127'  
THROW: 4' UP

MD: 11,288'  
TVD: 7,128.02'  
Inclination: 89 °  
Azimuth: 1.5°  
VS: 4,010.53'

30%	75% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 25% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pily - sb blk, arg - silty mx, inoc fos frag, cal incl; OIL SHOW: bl-gn stmg cut, fast difse, tr-mod yel min flr,	70% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 30% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pily - sb blk, arg - silty mx, inoc fos frag, cal incl; OIL SHOW: bl-gn stmg cut, fast difse, tr-mod yel min flr,	65% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb pily - sb blk, arg - silty mx, inoc fos frag, cal incl; OIL SHOW: bl-gn stmg cut, fast difse, tr-mod yel min flr,
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CAUSED DISCONNECTION BETWEEN PASON AND BLOODHOUND, TROUBLESHOT UNTIL FIXED>>

F #3  
1,286'  
1,128'  
W: 6' UP

MD: 11,382'  
TVD: 7,129.09'  
Inclination: 89.7°  
Azimuth: 1.2°  
VS: 4,104.48'

MD: 11,478'  
TVD: 7,130.01'  
Inclination: 89.2°  
Azimuth: 1.4°  
VS: 4,200.43'

CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 35% sft: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blk, arg - silty noc fos frag, cal inci; OIL SHOW: bl-gn string cut, fast difse, tr-mod yel min flr, gn resd stn, no od	55% CHK: mot gy brn - lt gy, v sft - sl frm, fri, sb blk, rthy - sb wxy tex, v calc; 45% MRLST: dk - med gy, gy brn, mod - sl frm, brit - fri ip, gt tex, sb ply - sb blk, arg - silty mt, inoc fos frag, cal inci; OIL SHOW: bl-gn string cut, fast difse, tr-mod yel min flr, solid gn resd stn, no od	80% CHK: mot gy brn - lt dk - med gy, gy brn, mod frag, cal inci; OIL SHOW no od
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