



Scale: 5" / 100'
Measured Depth Log

Well Name Elliott State 8N-17HZ

Location NWNW SEC 17, T3N, R67W

State COLORADO

Country USA

API Number 05-123-39079

Region DJ BASIN

Spud Date 5/13/2014

Surface Coordinates 1546' FNL & 809' FWL

Bottom Hole Coordinates 1854' FFNL & 50' FFELL

County WELD

Rig Number ENSIGN #138

Field WATTENBERG

Drilling Completed 5/21/2014

Ground Elevation 4813'

K.B. Elevation 4825'

Logged Interval 6850' To 12352'

Total Depth 12352'

Formation NIOBRARA B

Type of Drilling Fluid LSND, H2O

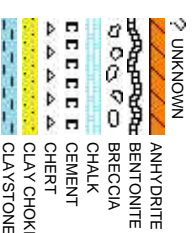
Company Anadarko

Address Granite Tower
1099 18th St, S
Denver, CO 802

Name Zach Uber& Sh

Company Columbine Logg

Address 2385 S. Lipan S
Denver, CO 802



Operator

Unit #1800
202

Geologist

annon Whitmore
ing Inc.

223

Rock Types

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

Accessories

Fossils	GASTROPOD	ARGILLITE GRAIN	HEAVY MINERAL	Stringer
INOCERAMUS	B BENTONITE	K KAOLIN	ANHYDRITE STRINGER	BENTONITE STRINGER
ALGAE	O OOLITE	M MARCASITE	COAL STRINGER	DOLOMITE STRINGER
AMPHIPORA	O OSTRACOD	M MICACEOUS	GYPSUM STRINGER	LIMESTONE STRINGER
BELEMNITE	P PELECYPOD	C CARBONACEOUS FLAKES	P PYRITE	MARLSTONE (CALC) STRG
BIOCLASTIC	P PELLET	M MINERAL CRYSTALS	S SALT CAST	MARLSTONE (DOL) STRG
BRACHIOPOD	P PISOLUTE	N NODULES	S SANDY	SANDSTONE STRINGER
BRYOZOA	P PLANT REMAINS	P PHOSPHATE PELLETS	S SIDERITE	SHALE STRINGER
CEPHALOPOD	P PLANT SPORES	T THIN BEDS	S SILTY	SILTSTONE STRINGER
CORAL	S SCAPHOPOD	D DOLOMITIC	T TUFFACEOUS	
CRINOID	S STROMATOPOROID	F FELDSPAR		
ECHINOID	F FERRUGINOUS PELLETT	F FERRUGINOUS		
Minerals	F FISH	G GLAUCONITE		
FORAMINIFERA	A ANHYDRITIC	G GYPSIFEROUS		
F FOSSIL	A ARGILLACEOUS			

Other Symbols

Oil Show	P PINPOINT	W WIRELINE TESTED - LEFT	E EARTHY
V VUGGY	F FAULT	W WIRELINE TESTED - RT	F FINELY XLN
Engineering	F FORMATION TOP	D DRILL STEM TEST	G GRAINSTONE
D DEAD	G GAS SHOW	M MINDEPTH MN DEPTH	L LITHOGRAPHIC
E EVEN	O OIL SHOW	M MICRO XLN	
Q QUESTIONABLE	B BIT	Rounding	M MUDSTONE
S SPOTTED STAINING	C CONNECTION (UP)	A ANGULAR	P PACKSTONE
Porosity	C CONNECTION (DOWN)	S SUBANG	W WACKESTONE
C CONNECTION GAS	N NORMAL FAULT	R ROUNDED	
E EARTHY	O OVERTURNED STRATA	S SUBANG	
F FENESTRAL	R REVERSE FAULT	S SUBANG	
F FRACTURE	C CASING	Textures	M MODERATE
I INTERCRYSTALLINE	D DOWN TIME GAS	S SIDEWALL CORE (LEFT)	P POOR
I INTERCRYSTALLINE	D DOWN TIME GAS (LEFT)	S SIDEWALL CORE (RIGHT)	W WELL
M MOLDIC	C CORE - LOST	S SLIDE	
O ORGANIC	C CORE - RECOVERED	S SURVEY	C CRYPTO XLN

Slide/Rotate

ROP SCALE:
0 -400 FT/HR

ROP
ROF
GAMMA

GAMMA SCALE:
0 -300 API

Total Gas & Chromatograph

GAS
C1
C2
C3
C4

PASON TOTAL GAS
IN "GAS 10000" UNITS

Depth Labels

% Lith

100' SAMPLE INTERVALS

Bit Data
Type: Smith/ SD1611
Size: 8.75
Jets: 3x15/3x16

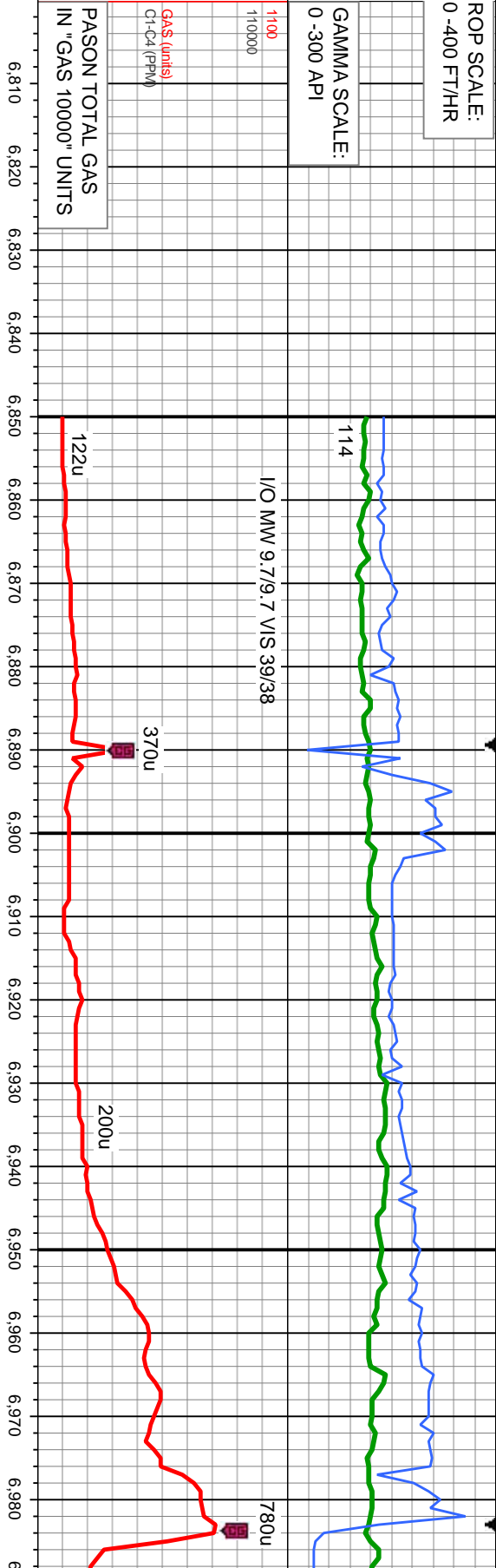
Well Bore
TVD

COLUMBINE LOGGING INC.
RIGGED UP ON 05/14/2014
BEGAN LOGGING ON
05/17/2014 @ 06:52 HRS MST

Oil Show

EGMTST

Images

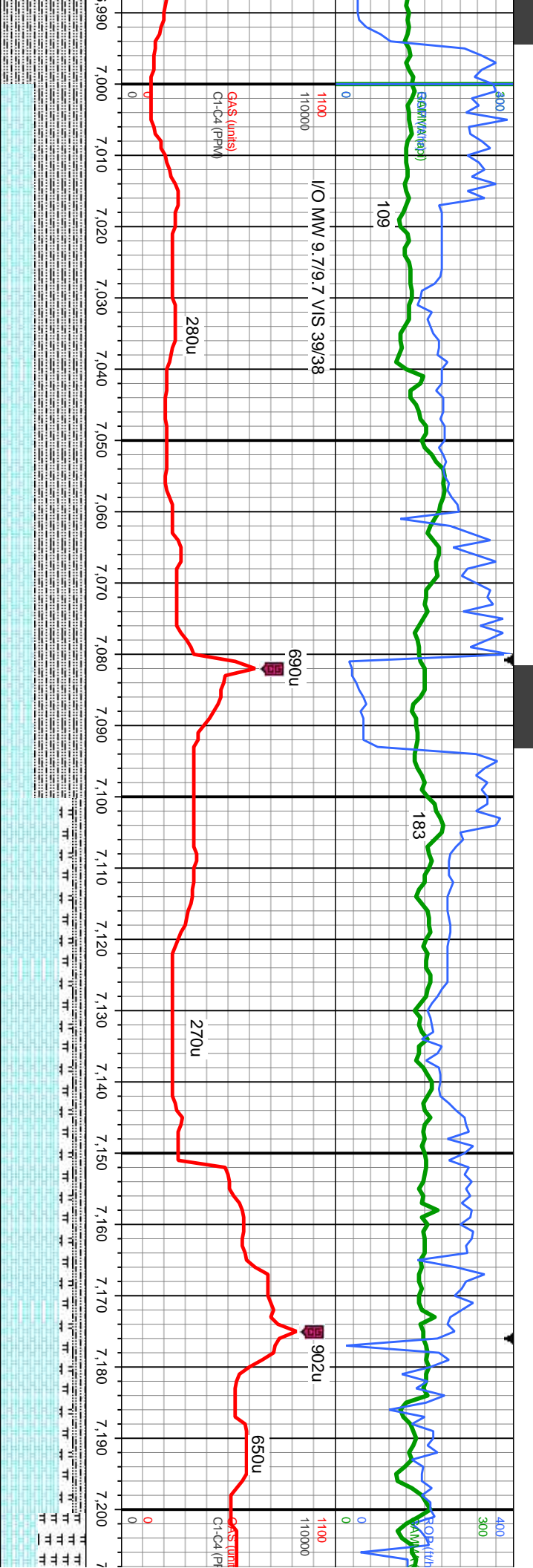


MD: 6.921
TVD: 6,708.02
Inclination: 39.2
Azimuth: 91.6
VS: -1,046.24



100% SLTY SH: lt-med gy brn, sme dk gy, mot ip, frm-hd, sb blk-y-sb ply, silty tex, sl calc

100% SLTY SH: lt-med gy brn, sme dk gy, mot ip, frm-hd, sb blk-y-sb ply, silty tex, sl calc; OIL SH



MD: 7,018.
TVD: 6,778.32
Inclination: 47.8 -
Azimuth: 89.6 -
VS: -979.54

Shaaron Springs Top:
MD: 7046'
TVD: 6797'

MD: 7,112.
TVD: 6,836.66
Inclination: 55.4 -
Azimuth: 88.6 -
VS: -905.95

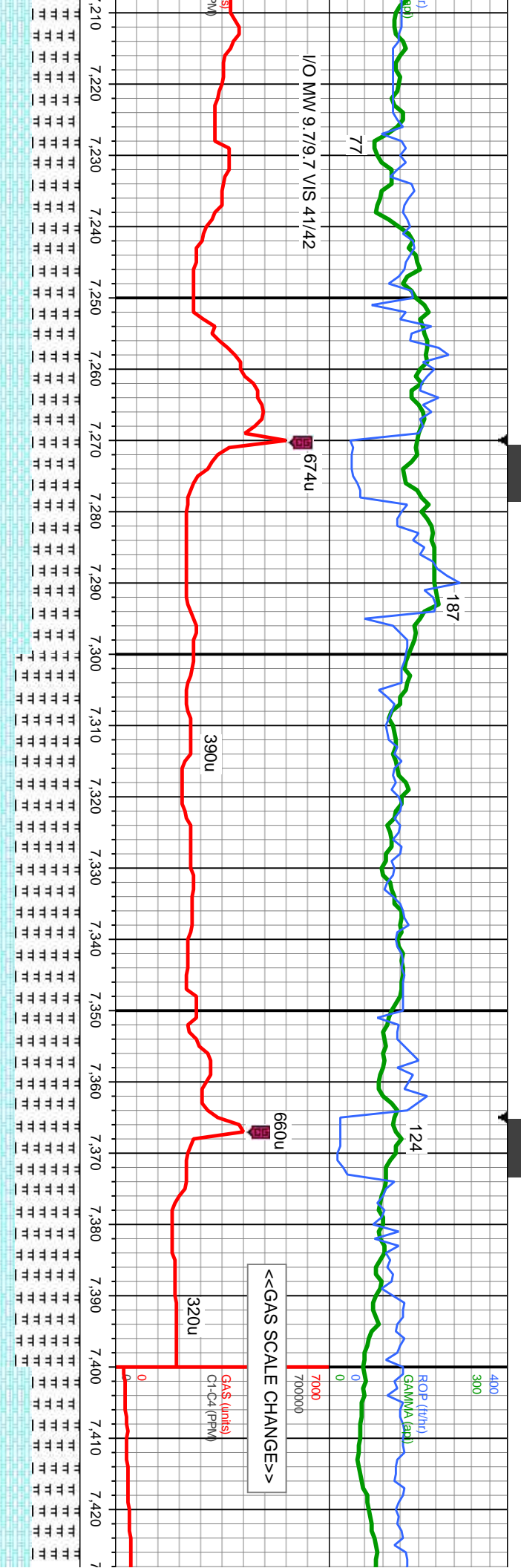
Niobrara Top:
MD: 7184'
TVD: 6874'

MD: 7,207
TVD: 6,884
Inclination
Azimuth: 9
VS: -823.8

60% SLTY SH: lt-med gy brn, sme dk gy, mot ip, frm-hd, sb blk-y-sb ply, silty tex, sl calc; 40% CHK: lt-gy-med gy, wh incl, mot ip, blk-y - sb ply, rthy tex, frm-frt, v calc; OIL SHOW: mod bri gn cut, mod bri gn ring, solid gn-yei resdl stn, no od

70% CHK: lt-gy-med gy, wh incl, mot ip, blk-y - sb ply, rthy tex, frm-frt, v calc; 15% MRLST: dk-med gy brn, mod frm, brit-fr ip, gt tex, sb ply - sb blk-y, arg-sily, calc, sme wh inoc foss; 15% SLTY SH: lt-med gy brn, sme dk gy, mot ip, frm-hd, sb blk-y-sb ply, silty tex, sl calc; OIL SHOW: mod bri, lt bl, string milky cut, bri wh lt bl solid ring, sl gn resdl ring





MD: 7,301.
TVD: 6,918.91.
Inclination: 72.5 -
Azimuth: 91.9 -
VS: -736.59.

Niobrara Top B:
MD: 7348'
TVD: 6931'

MD: 7,390.
TVD: 6,936.86.
Inclination: 84.2 -
Azimuth: 89 -
VS: -649.58.

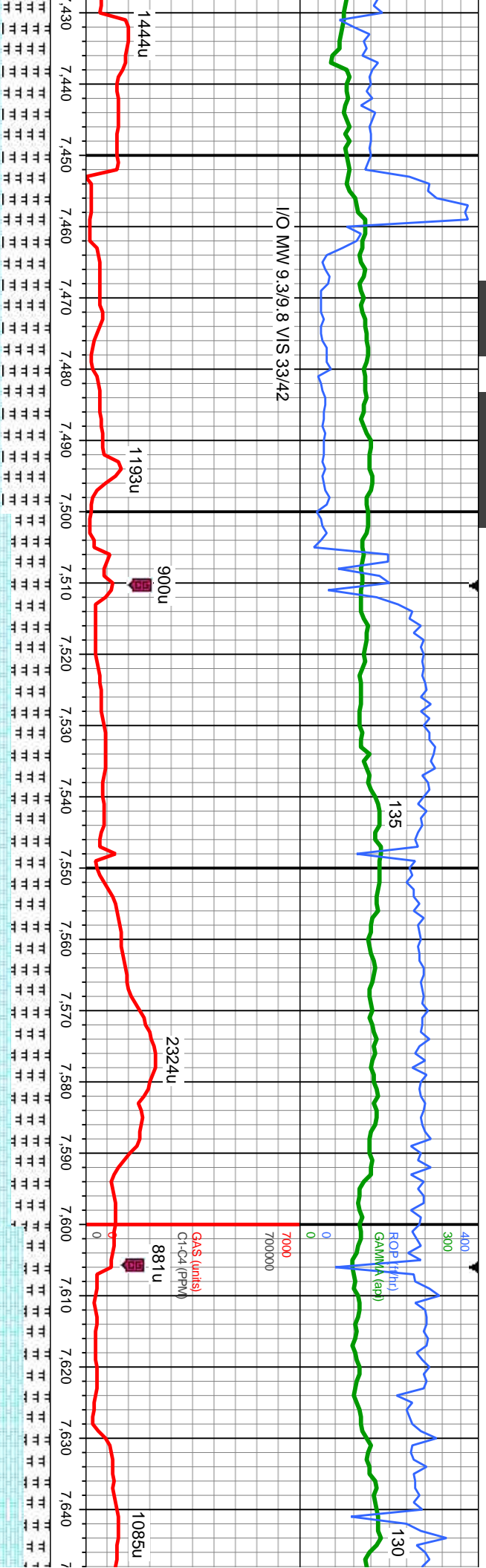
TOOH for intermedi:
on 5/17/14 @ 11:58
RESUME DRILLING
HRS MST ON 05/17/14

% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb ply - sb biky, arg-sily, calc, abnt wh
oc foss: 45% CHK: mot lt-med gy, sb biky-sb ply, frm-occ brit, rthy tex, sme bent, mtx, v calc;
L SHOW: mod bri, lt bl, string mky cut, bri wh-lt bl solid ring, sl gn resd ring

75% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb ply - sb biky, arg-sily, calc, abnt wh
inoc foss: 25% CHK: mot lt-med gy, sb biky-sb ply, frm-occ brit, rthy tex, sme bent, mtx, v calc;
OIL SHOW: mod bri gn cut, mod bri gn ring, solid gn-yel resd strn, no od

55% MRLST: dk-med g
wh inoc foss, 45% CHK
calc; OIL SHOW: mod t





ate casing
HRS MST

5 @ 19:36

PTB

MD: 7.452
TVD: 6.939.8.
Inclination: 90.4 -
Azimuth: 89.
VS: -587.7

TOOH for New Mud Motor on
5/18/14 @ 7505' MD 21:00 MST

RESUME DRILLING @ 07:08
HRS MST ON 05/19/14

MD: 7.541
TVD: 6.945.68.
Inclination: 89.1 -
Azimuth: 86.5 -
VS: -499.06

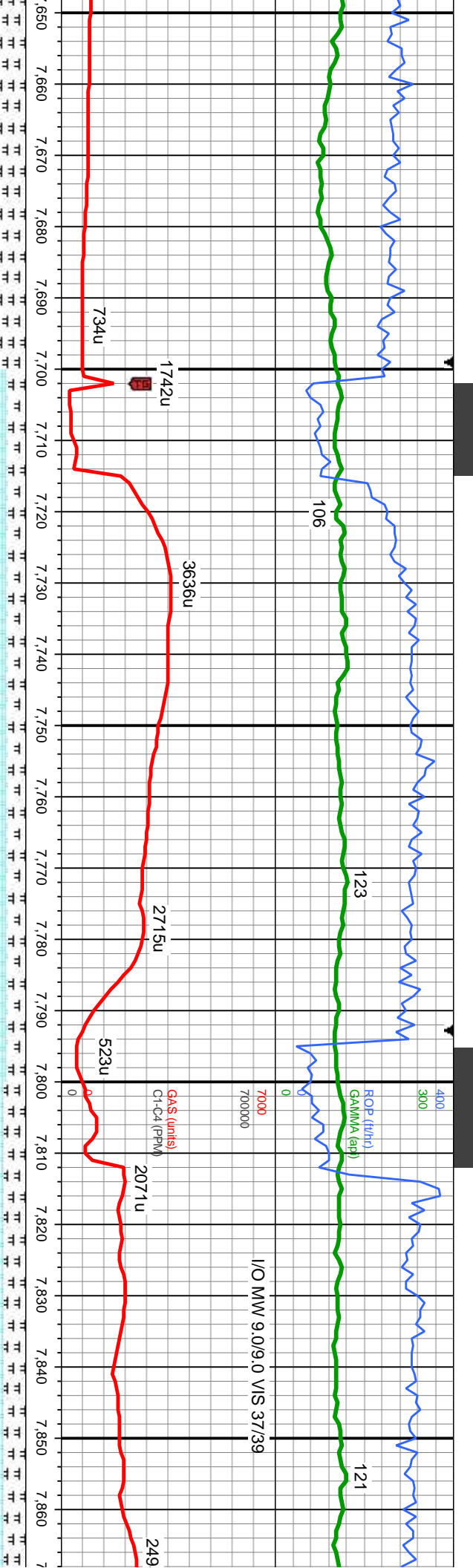
Bit Data
Type: Smith/ MDi813
Size: 6.12
Jets: 5x20

MD: 7.635.
TVD: 6.947.4.
Inclination: 88.8 -
Azimuth: 86.5 -
VS: -405.29

55% CHK: mot lt-med gy, sb blk-y-sb pily, frm-occ brlt, rthy tex, sme bent, mtx, v calc:
45% MRLST: dk-med gy brn, mod frm, brit-fri lp, gt tex, sb pily - sb blk-y, arg-sily, calc,
abt wh inoc foss. OIL SHOW: mod bri gn cut, mod bri gn ring, solid gn-yei resd sn,
no od

70% CHK: mot lt-med gy, sb blk-y-sb pily, frm-oc
30% MRLST: dk-med gy brn, mod frm, brit-fri lp
OIL SHOW: mod bri, lt bl, string mlky cut, bri wh





TOOH for New MWD Tool on
5/19/14 @ 7701' MD 09:39 MST
RESUME DRILLING @ 01:06
HRS MST ON 05/20/14

MD: 7,730.
TVD: 6,948.64.
Inclination: 89.7 -
Azimuth: 87.5 -
VS: -310.47

6300
TVD (ft)

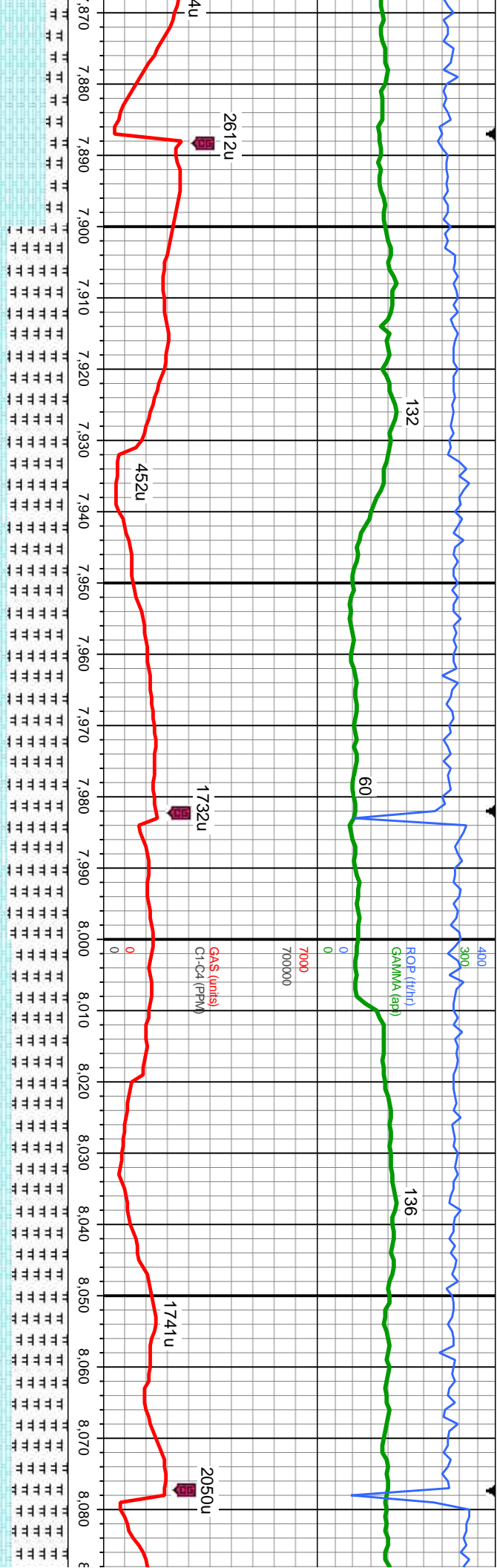
MD: 7,824.
TVD: 6,947.66.
Inclination: 91.5 -
Azimuth: 90.7 -
VS: -216.51

7,650	7,660	7,670	7,680	7,690	7,700	7,710	7,720	7,730	7,740	7,750	7,760	7,770	7,780	7,790	7,800	7,810	7,820	7,830	7,840	7,850	7,860
cc brt, rthy tex, sme bent, mtx, v calc:																					
o, gt tex, sb ply - sb blk, arg-sily, calc, tr foss:																					
lt bl solid ring, sl gn resd ring																					
80% CHK: mot lt-med gy, sb blk-sb ply, frm-occ brt, rthy tex, abnt bent, mtx, v calc:																					
20% MRLST: dk-med gy brn, mod frm, brt-fr ip, gt tex, sb ply - sb blk, arg-sily, calc, tr foss:																					
OIL SHOW: mod brt, lt bl, sting mlky cut, br wh-lt bl solid ring, sl gn resd ring																					
80% CHK: mot lt-med gy, sb blk-sb ply, frm-occ brt, rthy tex, tr be																					
20% MRLST: dk-med gy brn, mod frm, brt-fr ip, gt tex, sb ply - sb																					
OIL SHOW: brt lt bl, sting mlky cut, br wh-lt bl solid ring, tr yel min f																					

7300

TVD (ft)





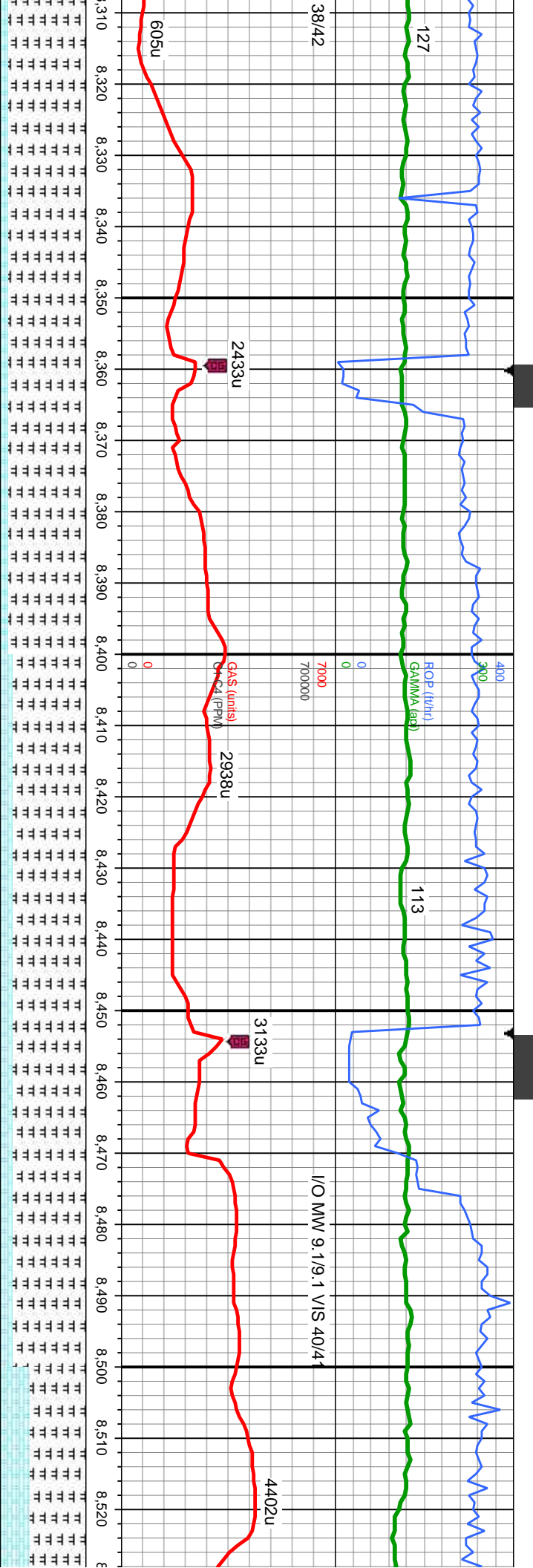
MD: 7,919.
TVD: 6,945.42.
Inclination: 91.2.
Azimuth: 90.8.
VS: -121.54.

MD: 8,013
TVD: 6,943.12.
Inclination: 91.6.
Azimuth: 91.4.
VS: -27.58.

70% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb ply - sb blk, arg-sily, calc, tr inoc, tr pyr, 30% CHK: mot lt-med gy, sb blk-sb ply, frm-occ brit, rthy tex, tr bent, mt, v calc, tr cal; OIL SHOW: dim lt gn slow cut, dim yel-gn thin ring, no sin, no od

65% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb ply - sb blk, arg-sily, calc, tr inoceromus, tr pyr, 35% CHK: mot lt-med gy, sb blk-sb ply, frm-occ brit, rthy tex, tr bent, r calc, tr cal; OIL SHOW: mod bri gn cut, mod bri gn ring, solid gn-yel resd stn, no od





MD: 8,391.
TVD: 6,936.42.
Inclination: 90.5 -
Azimuth: 91.5 -
VS: 350.27.

TVD (ft)

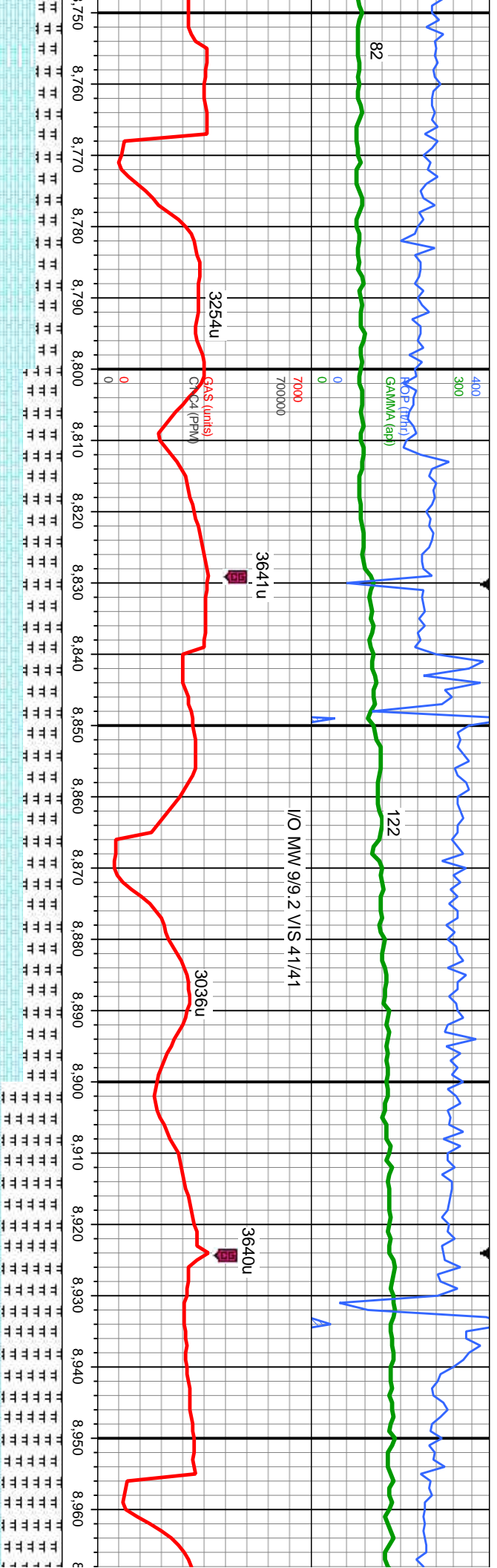
MD: 8,485
TVD: 6,937.16.
Inclination: 88.6 -
Azimuth: 90.7 -
VS: 444.25.

MRLST: dk-med gy brn, mod frm, brt-fri ip, gt tex, sb pily - sb blk, arg-sily, calc, abnt
10% CHK: mot lt-med gy, sb blk-ly-sb pily, frm-occ brt, rthy tex, tr bent, mix, v calc, mod
OIL SHOW: mod bri gn cut, mod bri gn ring, solid gn-yel resd str, no od

85% MRLST: dk-med gy brn, mod frm, brt-fri ip, gt tex, sb pily - sb blk, arg-sily, calc, abnt
inoc, 15% CHK: mot lt-med gy, sb blk-ly-sb pily, frm-occ brt, rthy tex, tr bent, mix, v calc, mod
cal, OIL SHOW: lt gn slow cut, dlm yel-gn thn ring, no str, no od

65% MRLST: dk-med gy l
inoc foss, 35% CHK: mot l
OIL SHOW: mod bri gn-ye





MD: 8,768.
TVD: 6,942.51.
Inclination: 89.9 -
Azimuth: 91.4 -
VS: 727.19.

TVD (ft)

6300

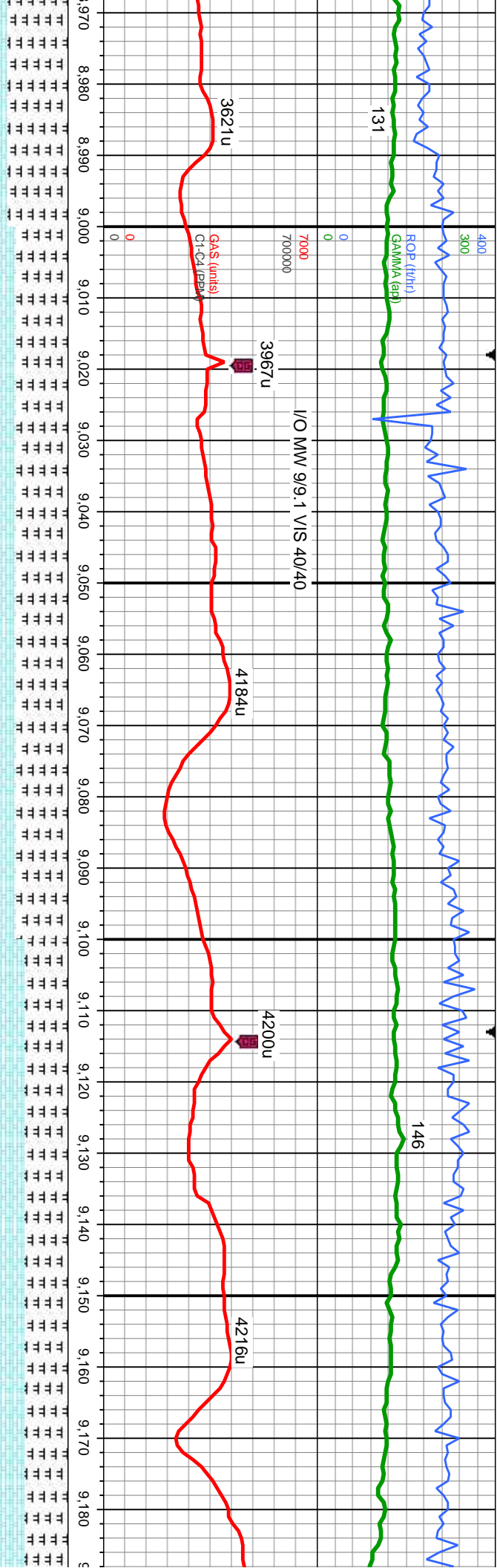
MD: 8,862.
TVD: 6,942.27.
Inclination: 90.4 -
Azimuth: 91.5 -
VS: 821.17.

rthy tex, mix, v calc, mod cal:
x, sb pily - sb blkly, arg-sily, calc, mod wh inoc foss,
scold ring, tr yel min flor, gn resd ring, no od

55% CHK: mot lt-med gy, sb blkly-sb pily, frm-occ brit, rthy tex, mtk, v calc, mod cal:
45% MRLST: dk-med gy brn, mod frm, brit-fr ip, gt tex, sb pily - sb blkly, arg-sily, calc, mod
wh inoc foss, tr cal, OIL SHOW: bri lt bl, smtg mky cut, bri wh-lt bl solid ring, tr yel min flor,
gn resd ring, no od

70% MRLST: dk-med gy brn, mod frm, brit-fr ip, gt tex, sb pily - sb blkly, arg-sily, calc, mod
foss, tr cal: 30% CHK: mot lt-med gy, sb blkly-sb pily, frm-occ brit, rthy tex,
SHOW: mod bri gn-yel cut, mod gn ring, botchy gn-yel resd str, no od

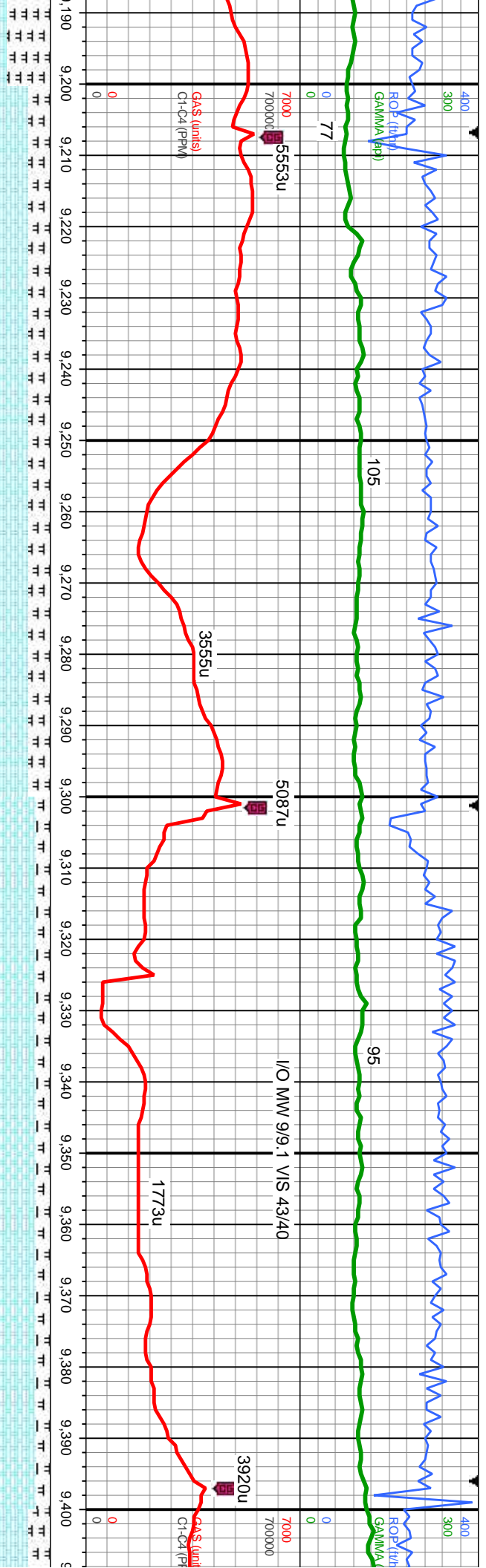




MD: 9.050.
TVD: 6,941.45.
Inclination: 90.1 -
Azimuth: 91.4 -
VS: 1,009.14.

arg-sily, calc, abnt wh inoc	70% MRLST: dk-med gy, mod frm, brit-fr ip, gt tex, sb pily - sb blk, arg-sily, calc, abnt wh inoc	50% MRLST: dk-med gy, mod frm, brit-fr ip, gt tex, sb pily - sb blk, arg-sily, calc, abnt wh inoc
mtx, v calc, abnt cal, OIL	foss, abnt cal; 30% CHK: mot lt-med gy, sb blk-sb pily, frm-occ brit, rthy tex, mtx, v calc, OIL	abnt cal; 50% CHK: mot lt-med gy, sb blk-sb pily, frm-occ brit, rthy tex, mtx, v calc, OIL
7300	SHOW: mod bri gn-yel cut, mod gn ring, botchy gn-yel resd sh, no od	bl-wh string mlky cut, bri wh-it bl solid ring, tr yel mln flr, gn resd ring, no od

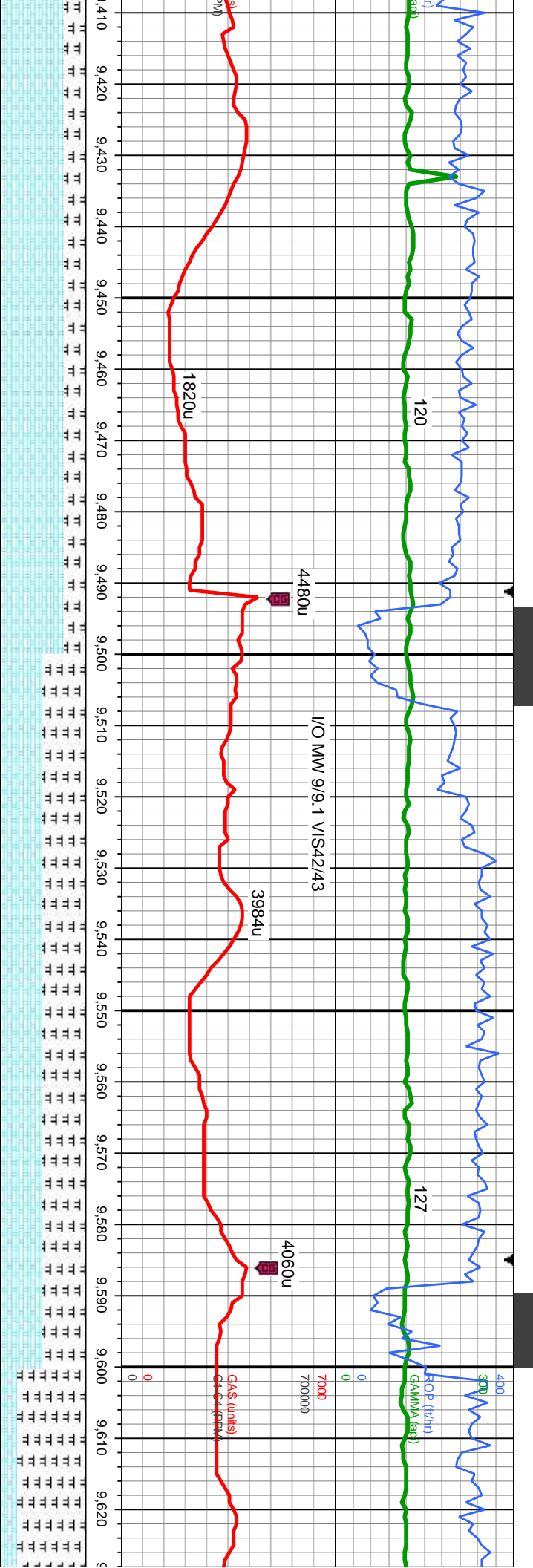




MD: 9,239.
TVD: 6,941.12.
Inclination: 90.1 -
Azimuth: 92.7 -
VS: 1,198.05.

toss,	75% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ bri, rthy tex, mtx, v calc; 25% MRLST: dk-med gy,	85% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ bri, rthy tex, sme tr bent, mtx, v calc; 15% MRLST: dk-med gy brn, mod frm, brit-frn ip, gt tex, sb ply - sb blk-y, arg-sily, calc; OIL SHOW: bri	7300
bri	mod frm, brit-frn ip, gt tex, sb ply - sb blk-y, arg-sily, calc, abnt wh inoc toss, mod cal, tr dissim pyr;	bl-wh stmg milky cut, bri wh-lt bl solid ring;tr yel min flor, gn resd ring, no od	7300
	OIL SHOW: bri bl-wh stmg milky cut, bri wh-lt bl solid ring;tr yel min flor, gn resd ring, no od		7300





MD: 9.428.
TVD: 6,938.97.
Inclination: 91.2.
Azimuth: 94.
VS: 1,386.78.

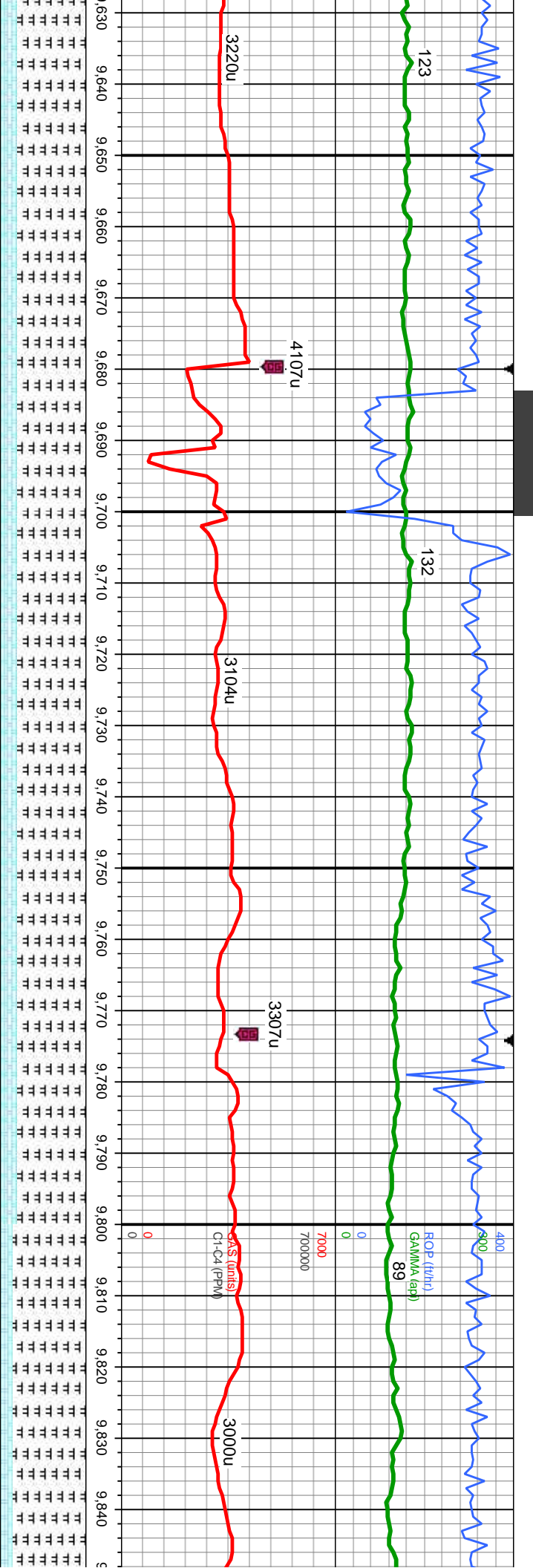
5% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ brit, rthy tex, sme tr bent, mtx, v calc; 25%
MR.LST: dk-med gy brn, mod frm, brit-fri ip, gt tex, sb ply - sb blk-y, arg-sily, calc, tr cal, v sl tr
ssm py; OIL SHOW: bri bl-wh string milky cut, bri wh-it bl solid ring, tr yel min flor, gn resd ring,
o od

50% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ brit, rthy tex, tr bent, mtx, v calc; 50% MR.LST:
dk-med gy brn, mod frm, brit-fri ip, gt tex, sb ply - sb blk-y, arg-sily, calc, tr cal, tr diss py; OIL
SHOW: bri bl-wh string milky cut, bri wh-it bl solid ring, tr yel min flor, gn resd ring, no od

MD: 9.617.
TVD: 6,936.5.
Inclination: 90.3.
Azimuth: 92.7.
VS: 1,575.51.

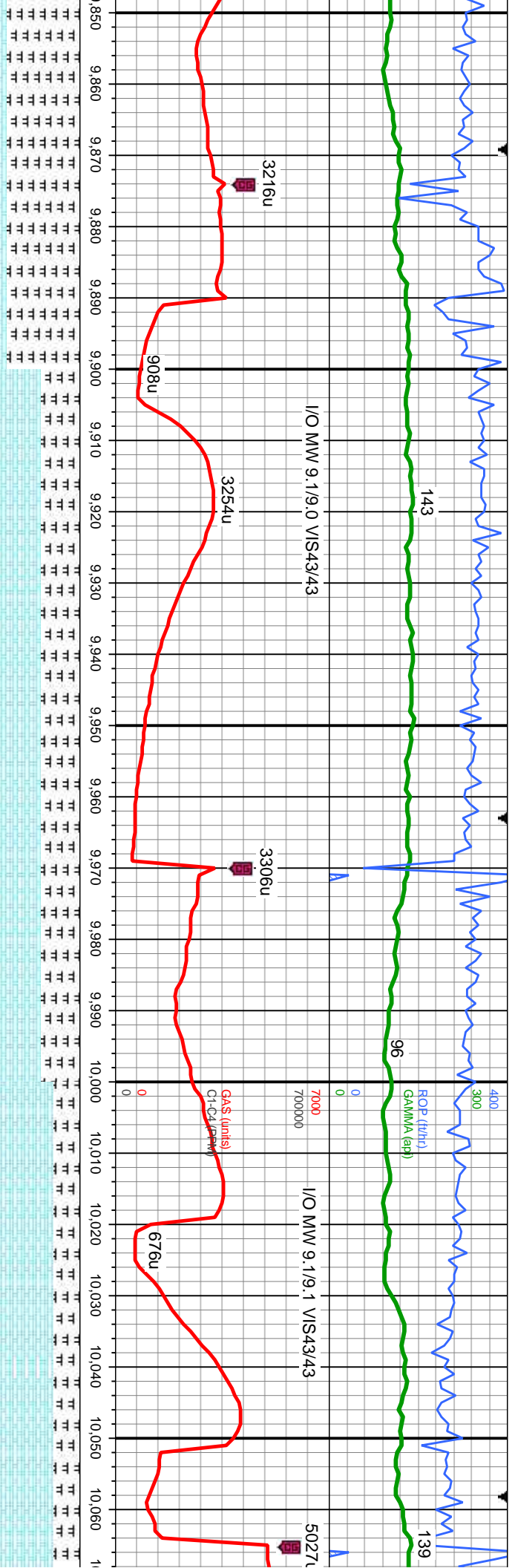
80% MR.LST: dk-med g
dissm py; 20% CHK: m
SHOW: bri bl-wh string





3220u	9,630	9,640	9,650	9,660	9,670	9,680	9,690	9,700	9,710	9,720	9,730	9,740	9,750	9,760	9,770	9,780	9,790	9,800	9,810	9,820	9,830	9,840
4107u																						
3104u																						
3307u																						
3000u																						
GRS (units)																						
CI-C4 (PPM)																						
MD: 9,806 .																						
TVD: 6,938.64 .																						
Inclination: 88.4																						
Azimuth: 91.3																						
VS: 1,764.41																						
80% MRLST: dk-med gy brn, mod frm, britfri ip, gt tex, sb ply - sb blk, arg-sily, calc, tr cal, tr																						
dissm pyr: 20% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ brit, rthy tex, tr bent, mtx, v calc; OIL																						
SHOW: bri br-wh simg mlky cut, bri wh-it bl solid ring; tr yel min flor, gn rescl ring, no od																						
85% MRLST: dk-med gy brn, mod frm, britfri																						
dissm pyr: 15% CHK: mot lt-med gy, sb blk-y-																						
SHOW: mod bri gn-yel cut, mod gn ring, botc																						





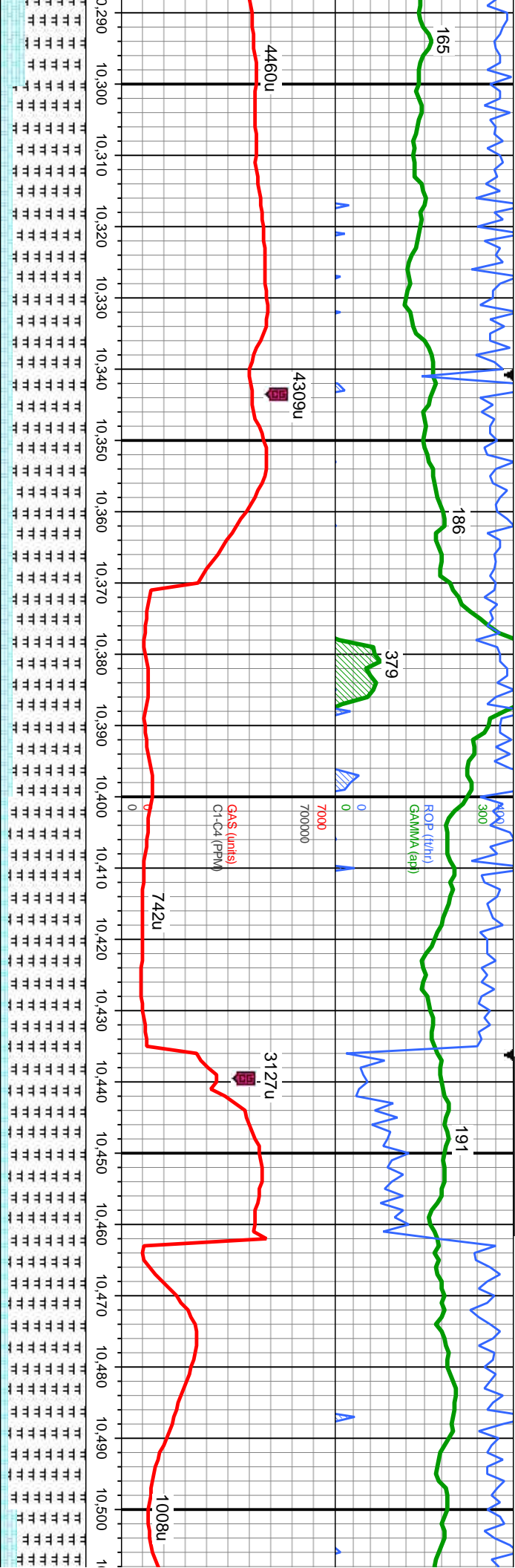
MD: 9,995
TVD: 6,943.26
Inclination: 88.8 -
Azimuth: 91.8 -
VS: 1,953.31

ip, gt tex, sb ply - sb blkly, arg-sily, calc, tr cal, tr
sb ply, frm-occ brit, rthy tex, tr bent, mtx, v calc, OIL
chy gn-yel resdl stn, no od

55% CHK: mot lt-med gy, sb blkly-sb ply, frm-occ brit, rthy tex, tr bent, mtx, v calc:
45% MRLST: dk-med gy brn, mod frm, britfri ip, gt tex, sb ply - sb blkly, arg-sily, calc, tr cal, tr diss pyr:
OIL SHOW: mod bri gn cut, solid gn ring, fnt gn-yel resdl stn, no od

70% CHK: mot lt-med gy, sb blkly-sb ply, frm-occ brit, rthy tex, tr bent
30% MRLST: dk-med gy brn, mod frm, britfri ip, gt tex, sb ply - sb bl
OIL SHOW: mod bri gn cut, solid gn ring, fnt gn-yel resdl stn, no od





MD: 10,373.
TVD: 6,939.8.
Inclination: 91.9-
Azimuth: 89.9-
VS: 2,331.16.

TVD (ft)

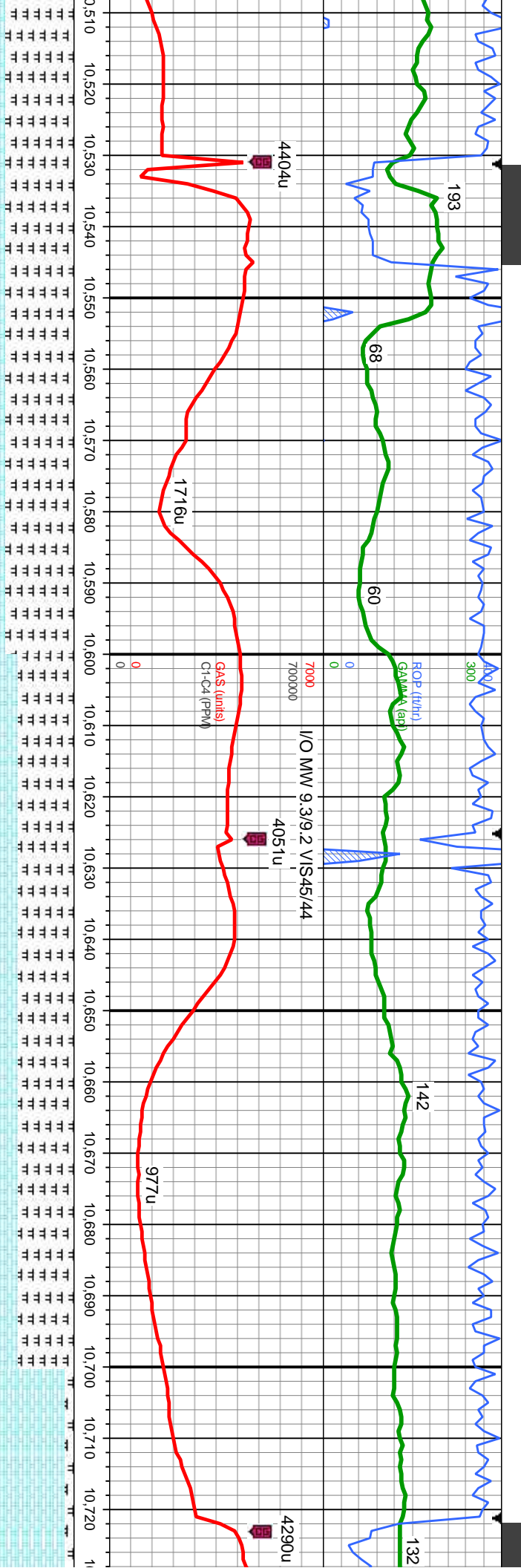
6300

pyr: 85% MRLST: dk-med gy brn, mod frm, britfri lp, gt tex, sb pily - sb blkly, arg-sily, calc, tr dissm pyr;
HOW: 10% CHK: mot lt-med gy, sb blkly-sb pily, frm-occ brit, rthy tex, tr bent, mnx, v calc, tr cal; OIL
SHOW: dim lt yel cut, dim yel-gn thn ring, no sin

90% MRLST: dk-med gy brn, mod frm, britfri lp, gt tex, sb pily - sb blkly, arg-sily, calc, tr dissm pyr;
10% CHK: mot lt-med gy, sb blkly-sb pily, frm-occ brit, rthy tex, tr bent, mnx, v calc, tr cal; OIL
7300 SHOW: dim lt gn slow cut, dim yel-gn thn ring, no sin, no od

80%
20%
dim

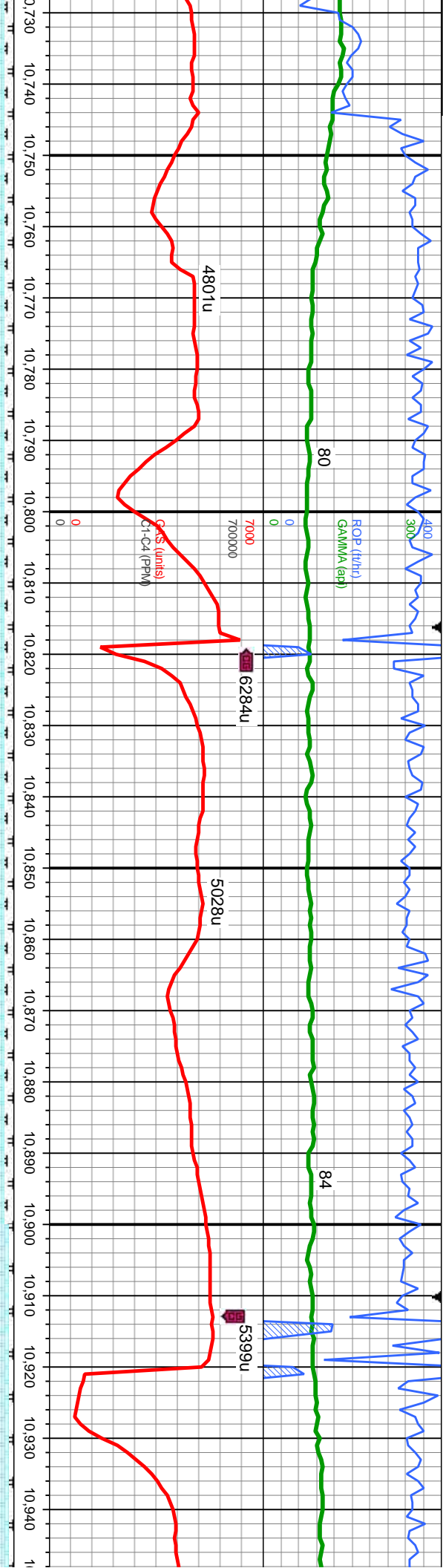




MD: 10,562.
TVD: 6,937.32.
Inclination: 89.6
Azimuth: 89.9
VS: 2,520.12

65% MR.LST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb blk-y-sb ply, frm-occ brt, rthy tex, tr bent, mnx, v calc, tr cal: calc, tr cal: OIL SHOW: mod bri gn cut, solid gn ring, fnt gn-yel rescl stn, no od	7300
90% CHK: mot lt-med gy, 10% MR.LST: dk-med gy, abnt fos frag: OIL SHOW:	





MD: 10,753.
TVD: 6,939.32
Inclination: 89.2
Azimuth: 89.7
VS: 2,711.1

6300
TVD (ft)

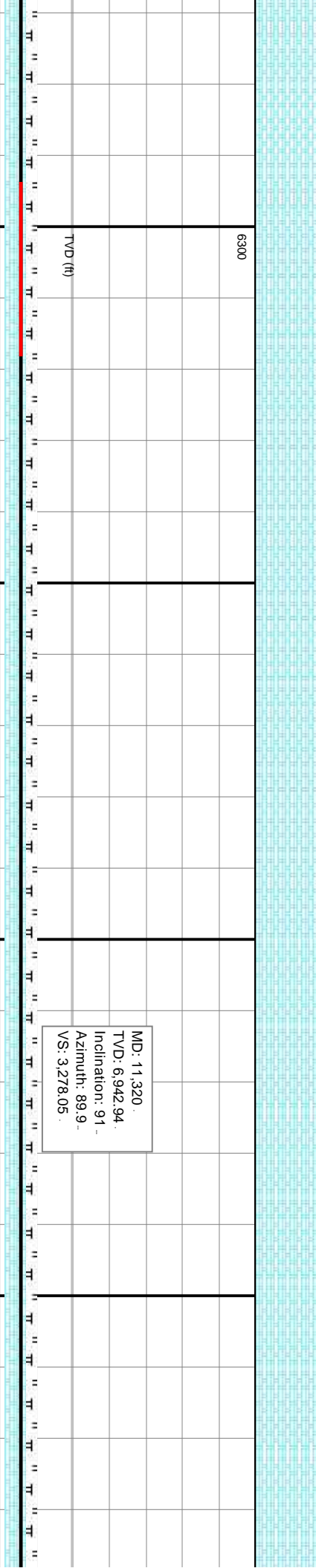
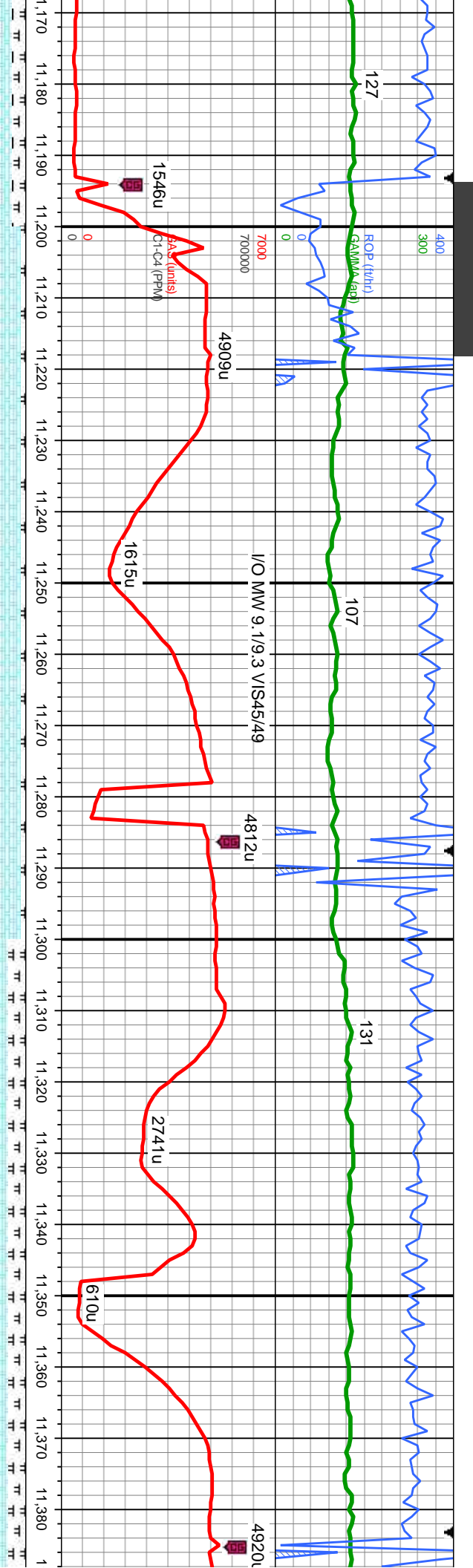
MD: 10,941
TVD: 6,941.29
Inclination: 89.6
Azimuth: 90.2
VS: 2,899.08

90% CHK: mot lt-med gy, sb biky-sb pily, frm-occ brif, rthy tex, tr bent, mtb, v calc, tr cal;
10% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb pily - sb biky, arg-sily, calc, tr dissn pyr,
OIL SHOW: brt lt bl-wh string cut, brt wh thk ring, solid brt bl resd stn, no od

90% CHK: mot lt-med gy, sb biky-sb pily, frm-occ brif, rthy tex, tr bent, mtb, v calc, tr cal;
10% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb pily - sb biky, arg-sily, calc, tr dissn pyr,
OIL SHOW: brt lt bl-wh string cut, brt wh thk ring, solid brt bl resd stn, no od

95% CHK: mot lt-med gy, sb biky-sb pily, frm-occ
5% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt
OIL SHOW: brt lt bl-wh string cut, brt wh thk



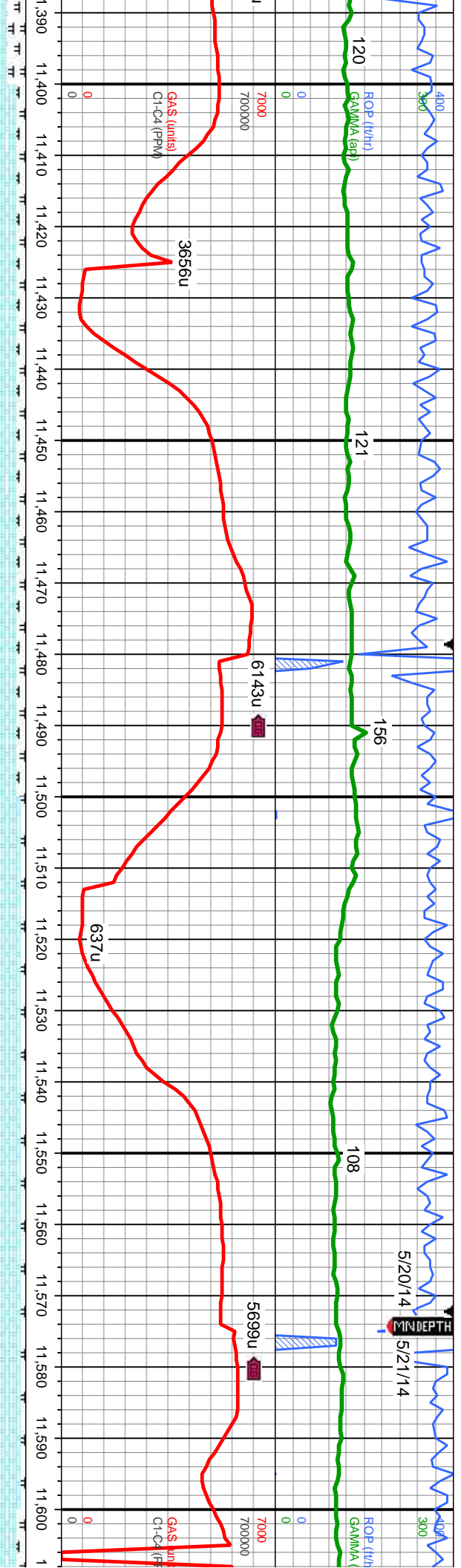


arg-sily, calc, tr cal; 95% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ brt, rthy tex, tr bent, mix, v calc, tr cal; 5% MRU: dk-med gy brn, mod frm, brit-fr ip, gt tex, sb ply - sb blk-y, arg-sily, calc, tr fos frag; OIL SHOW: bri lt bl-wh milky string cut, bri wh thk ring, solid bri bl resd sin, no od

MD: 11,320
TVD: 6,942.94
Inclination: 91
Azimuth: 89.9
VS: 3,278.05

80% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ brt, rthy tex, tr bent, mix, v calc, tr cal; 20% MRU: dk-med gy brn, mod frm, brit-fr ip, gt tex, sb ply - sb blk-y, arg-sily, calc, tr fos frag; OIL SHOW: bri bl-wh string milky cut, bri wh-tt bl solid ring, tr yel min flr, gn resd ring, no od





6300

6300

TVD (ft)

TVD (ft)

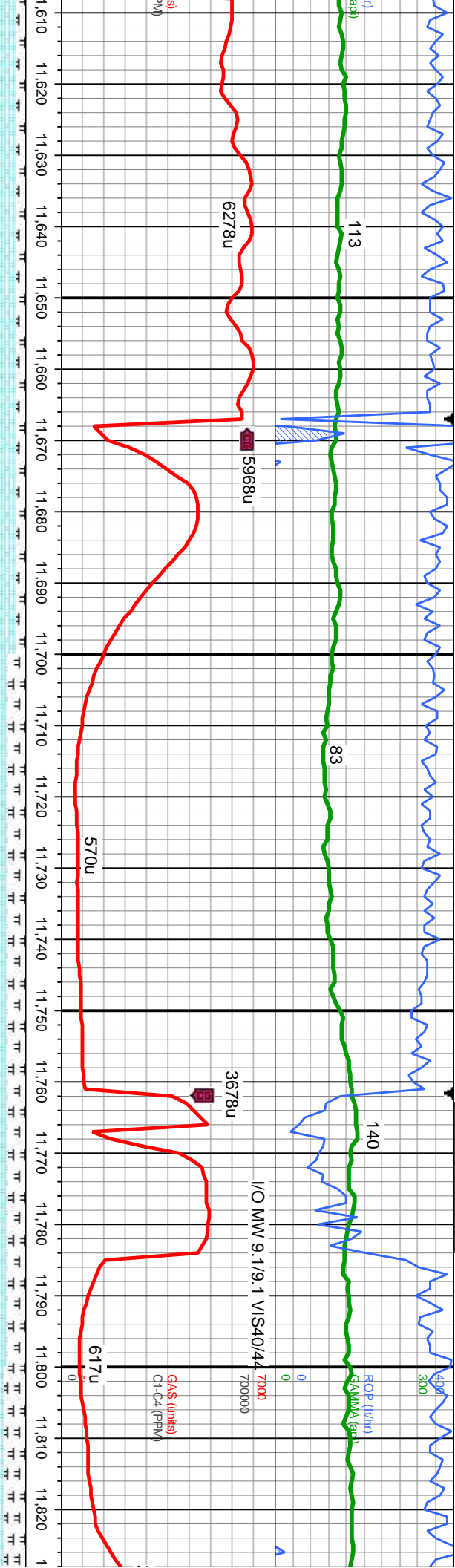
MD: 11,510.
TVD: 6,939.29
Inclination: 91.2 -
Azimuth: 89.8 -
VS: 3,468.

90% CHK: mot li-med gy, sb blkly-sb ply, frm-occ brit, rthy tex, tr bent, mtx, v calc, tr cal;
10% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb ply - sb blkly, arg-sily, calc, tr
fos frag: OIL SHOW: brit li bl-wh mlky sting cut, brit wh thk ring, solid brit bl resd stn, no od

95% CHK: mot li-med gy, sb blkly-sb ply, frm-occ brit, rthy tex, tr bent, mtx, v calc, tr cal;
5% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb ply - sb blkly, arg-sily, calc, tr fos frag;
OIL SHOW: brit li bl-wh mlky sting cut, brit wh thk ring, solid brit bl resd stn, no od

90
10
OIL





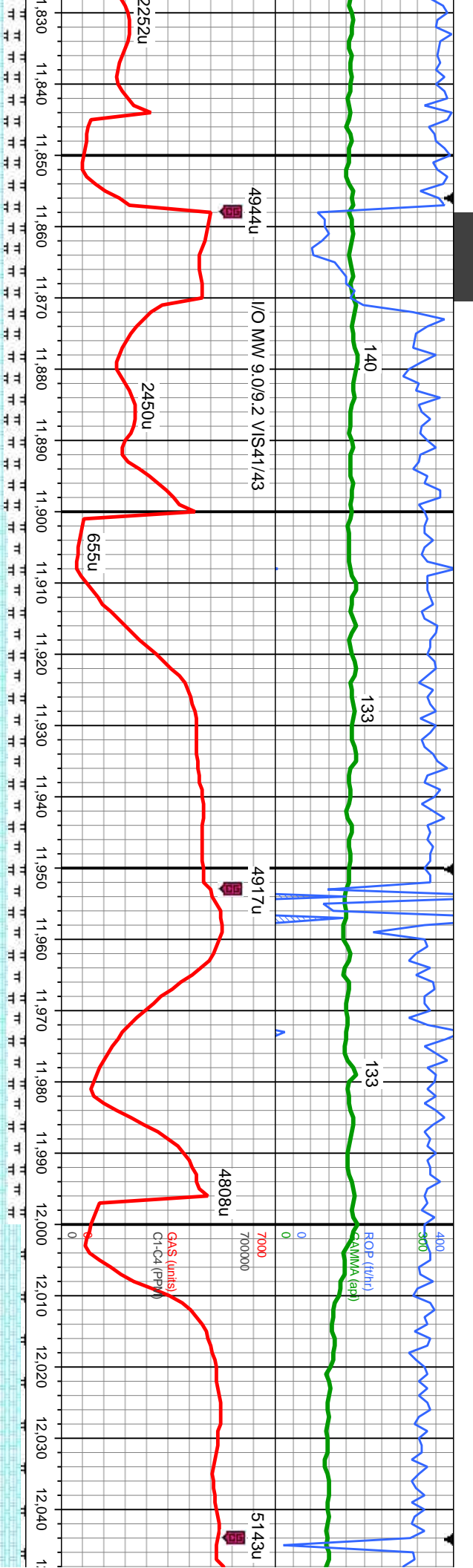
MD: 11,699.
TVD: 6,934.02
Inclination: 92.
Azimuth: 90.3
VS: 3,656.92

% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ brit, rthy tex, tr bent, mtz, v calc, tr cal;
% MRLST: dk-med gy brn, mod frm, britfri ip, gt tex, sb ply - sb blk-y, arg-sily, calc, tr fos frag;
SHOW: bri lt bl-wh mlky sting cut, bri wh thk ring, solid bri bl resd stn, no od

80% CHK: mot lt-med gy, sb blk-y-sb ply, frm-occ brit, rthy tex, tr bent, mtz, v calc, tr cal;
20% MRLST: dk-med gy brn, mod frm, britfri ip, gt tex, sb ply - sb blk-y, arg-sily, calc, abnt fos frag;
OIL SHOW: bri bl sting mlky cut, bri wh lt bl solid ring, tr yel min flor, bl-gn resd ring, no od

75% CHK: mot lt-med gy,
25% MRLST: dk-med gy
OIL SHOW: bri bl-wh str





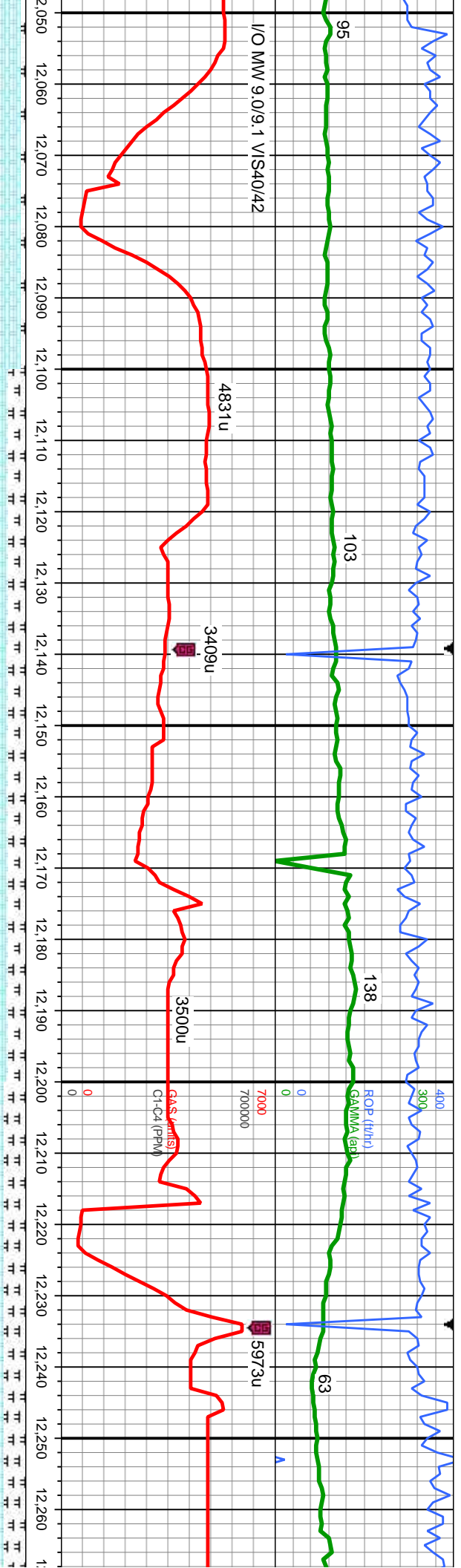
MD: 11,887
TVD: 6,931.72
Inclination: 89.4
Azimuth: 88.9
VS: 3,844.87

sb blkly-sb pily, frm-occ bnt, rthy tex, tr bent, mtz, v calc, tr cal;
brn, mod frm, britfri ip, gt tex, sb pily - sb blkly, arg-sily, calc, abnt fos frag;
gng mlky cut, bri wh-it bl solid ring, tr yel min flr, gn resd ring, no od

80% CHK: mot lt-med gy, sb blkly-sb pily, frm-occ bnt, rthy tex, tr bent, mtz, v calc, tr cal;
20% MRLST: dk-med gy brn, mod frm, britfri ip, gt tex, sb pily - sb blkly, arg-sily, calc, abnt fos frag;
OIL SHOW: bri bl-wh string mlky cut, bri wh-it bl solid ring, tr yel min flr, gn resd ring, no od

95% CHK: mot lt-med gy, sb blkly-sb pily, frm-occ bnt, rthy tex, tr bent, mtz, v calc, tr cal;
5% MRLST: dk-med gy brn, mod frm, britfri ip, gt tex, sb pily - sb blkly, arg-sily, calc, abnt fos frag;
OIL SHOW: bri lt bl-wh string mlky cut, bri wh-it bl solid ring, tr yel min flr, gn resd ring, no od

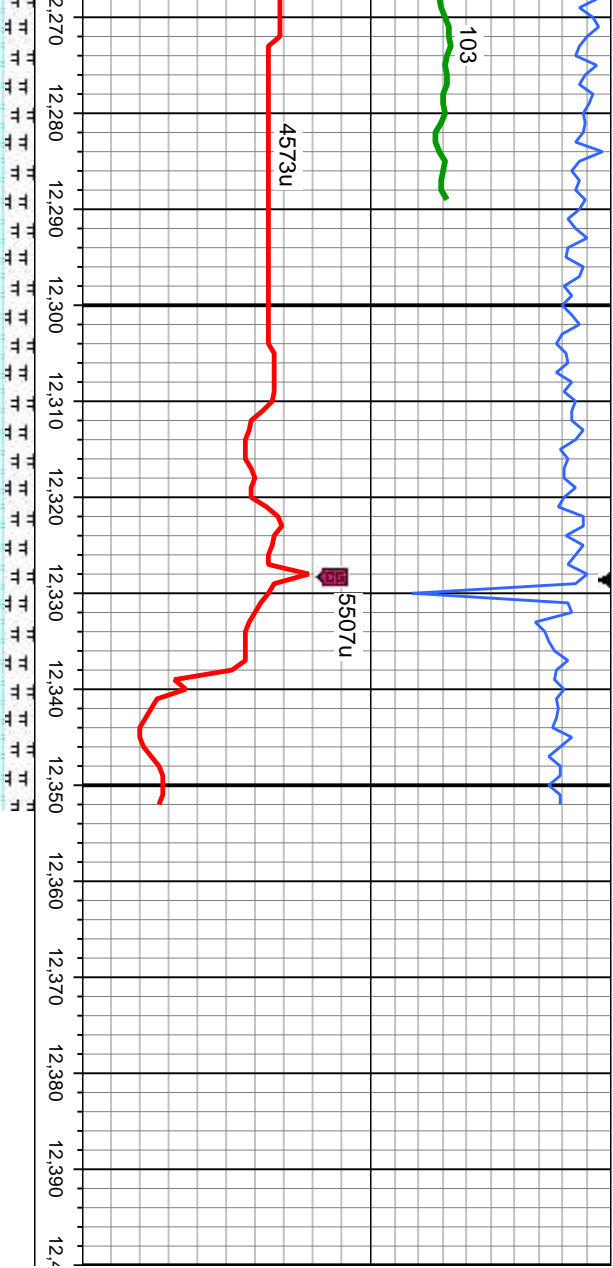




MD: 12.076.
TVD: 6,932.38.
Inclination: 90.2-
Azimuth: 90.1-
VS: 4,033.84.

c brit, rthy tex, tr bent, mtx, v calc, tr cal;	80% CHK: mot lt-med gy, sb blkly-sb pily, frm-occ brit, rthy tex, tr bent, mtx, v calc;	75% CHK: mot lt-med gy, sb blkly-sb pily, frm-occ brit, rthy tex, tr bent, mtx, v calc;
gt tex, sb pily - sb blkly, arg-sily, calc, abnt fos frag;	20% MRLST: dk-med gy brn, mod frm, brit-frt ip, gt tex, sb pily - sb blkly, arg-sily, calc, tr fos frag;	gt tex, sb pily - sb blkly, arg-sily, calc, abnt fos frag; OIL SHOW: b
ring, solid brit bl resdl str, no od	OIL SHOW: brit bl-wh sting mlky cut, brit wh-lt bl solid ring, tr yel min flor, gn resdl ring, no od	no od





Thank you for using Columbine Logging, Inc.

PTB

MD: 12,291
TVD: 6,928.44
Inclination: 91.9
Azimuth: 90.4
VS: 4,248.8

MD: 12,352
TVD: 6,926.42
Inclination: 91.9
Azimuth: 90.1
VS: 0

TD'd @ 12352' MD on
5/21/2014 at 03:43 HRS MST

ent, mtx, v cal, tr cal; 25% MRLST: dk-med gy brn, mod frm, britfri ip,
ri bl-wh string milky cut, bri wh-it bl solid ring, tr yel min flor, gn reed ring,

