



Scale: 5" / 100'
Measured Depth Log

Well Name Seltzer LD 09-379HN

Location SECTION 4, T1S, R67W

State COLORADO

Country UNITED STATES

API Number 05001101890000

Geographic Region DJ BASIN

County ADAMS

Rig Number PD 460

AFF # 20DC0273

Field WATTENBERG

Ground Elevation 5140'

K.B. Elevation 5160'

Logged Interval 6000' MD To 18360' MD

Total Depth 18360' 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, TIM BRIGHT

Company TERRA GUIDANCE, LLC

Address 67 W FLOYD AVE
STE 105
ENGLEWOOD, CO 80110



Other





MUDLOG START DATE 06/20/2021
MUDLOG STOP DATE 06/22/2021

Rock Types

 Chalk  TT  TT  TT  Marl  Silty Shale  Shaly Siltstone

Other Symbols

Engineering

 CONNECTION (RIGHT)
 CONNECTION GAS
 FAULT
 MIN DEPTH MIN DEPTH

Onsite Geological Services provided by
Terra Guidance

Loggers on Location: 06/19/2021

Logging Depth Reached:
00:01 MT, 06/20/2021

Bloodhound Unit: #5933

Sample Collection/Description Interval:
Curve 50'

Tangen/Lateral 100'

ROP SCALE (FT/HR): 0-1000
GAMMA SCALE (API): 0-300

GAS SCALE: 0-1500u

- Total Gas & Chromatograph
- GAS ———
 - C1 ———
 - C2 ———
 - C3 ———
 - C4 ———
 - CO2 ———

Depth

5.960 5.970 5.980 5.990 6.000

6.010 6.020 6.030 6.040 6.050 6.060 6.070 6.080 6.090 6.100

6.110 6.120 6.130 6

Images

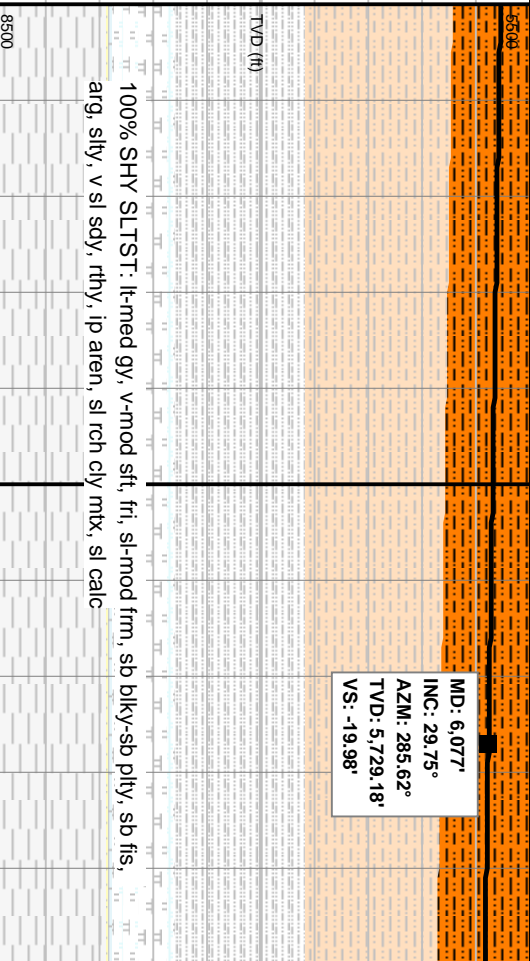


% Lithology

TVD SCALE: 5500' - 8500'

Well Bore
TVD

Bit #: 1
Size: 8.5"
Make: Smith
Model: N516
Jets: 1x11, 6x10
S/N: JV3446
Depth In: 2.039'



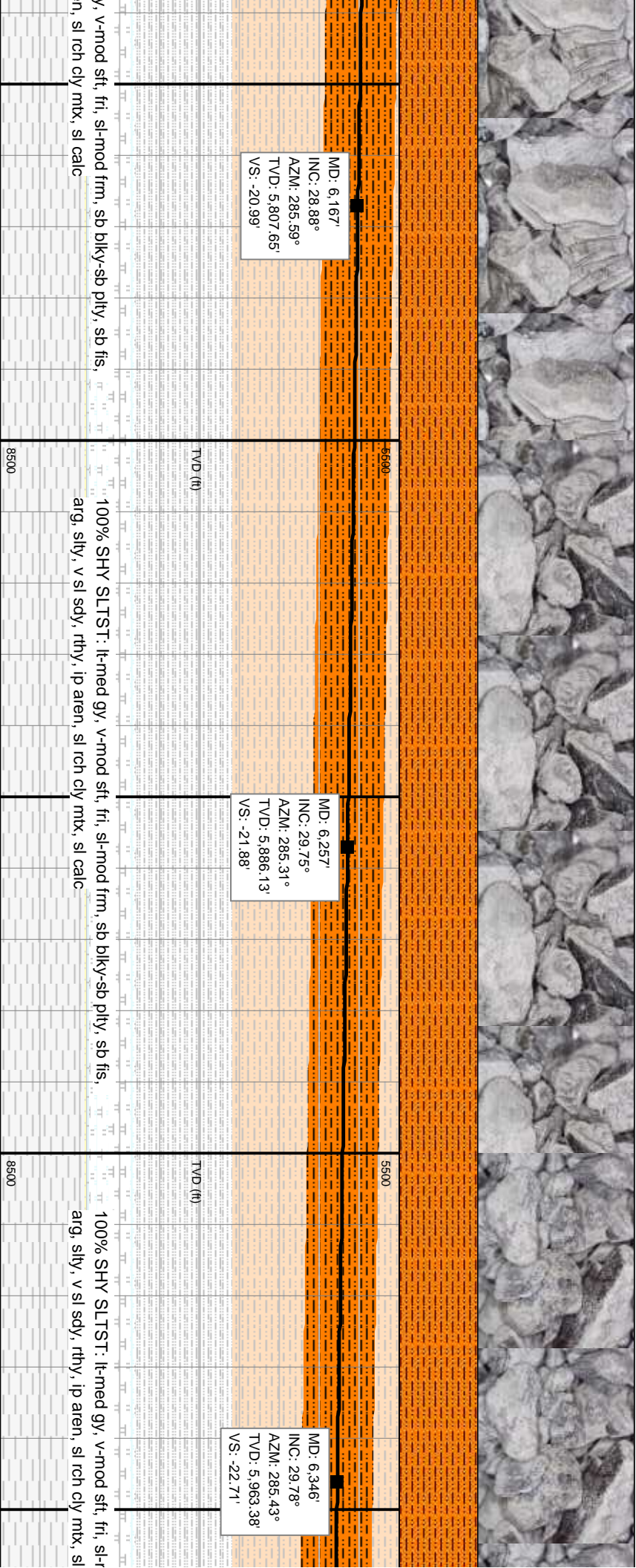
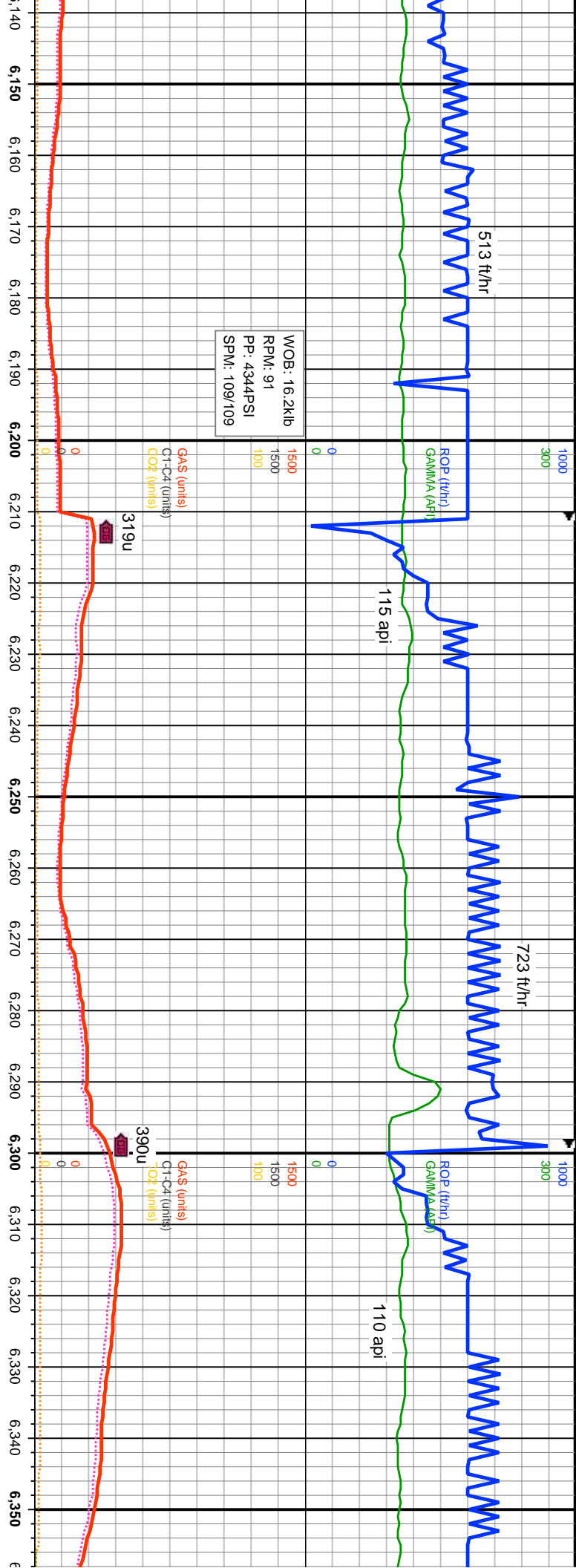
MD: 6.077'
INC: 29.75°
AZM: 285.62°
TVD: 5,729.18'
VS: -19.98°

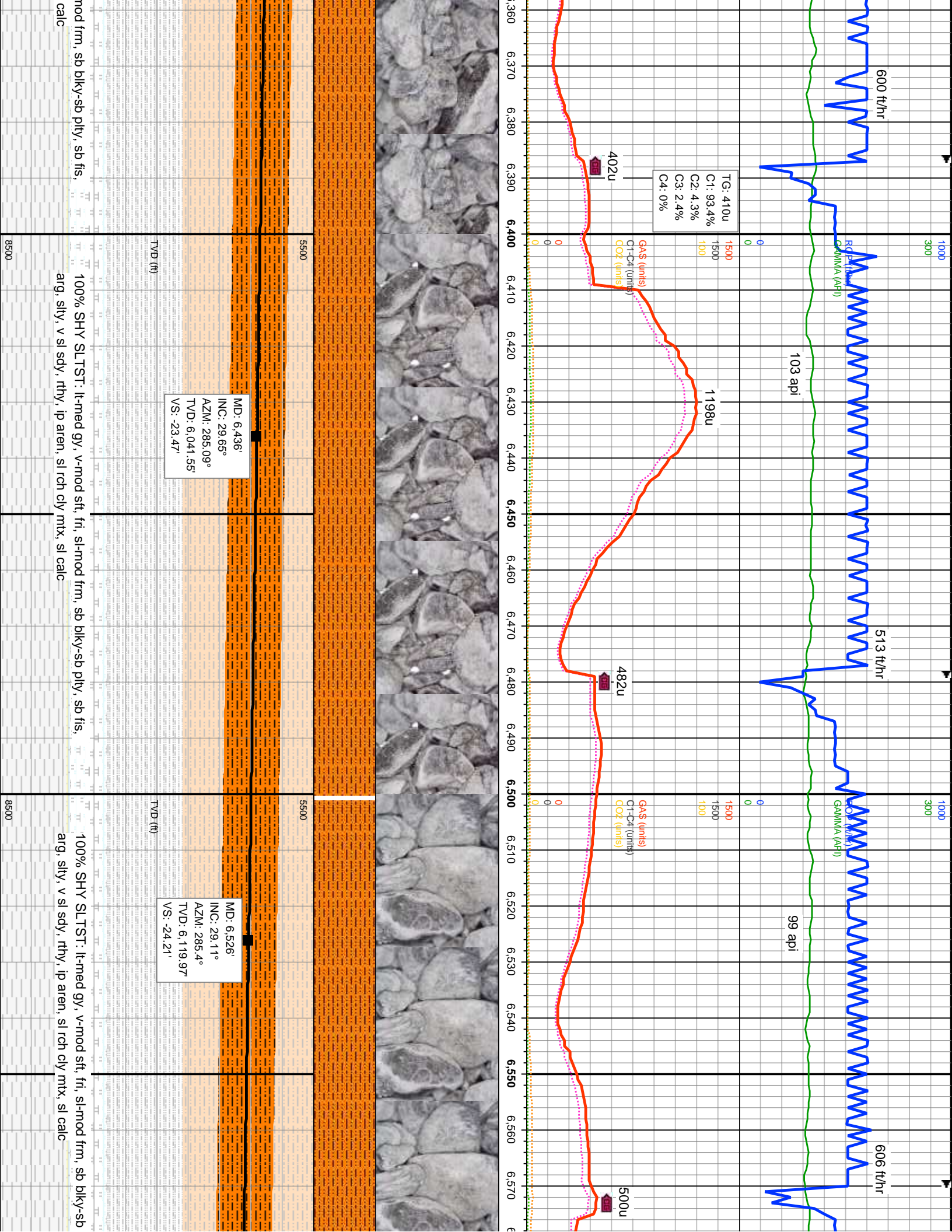
100% SHY SLTST: lt-med gy, v-mod sft, fri, sl-mod frm, sb blk-y-sb plty, sb fis, arg, silty, v sl sdy, rthy, ip aren, sl rch clay mtx, sl calc

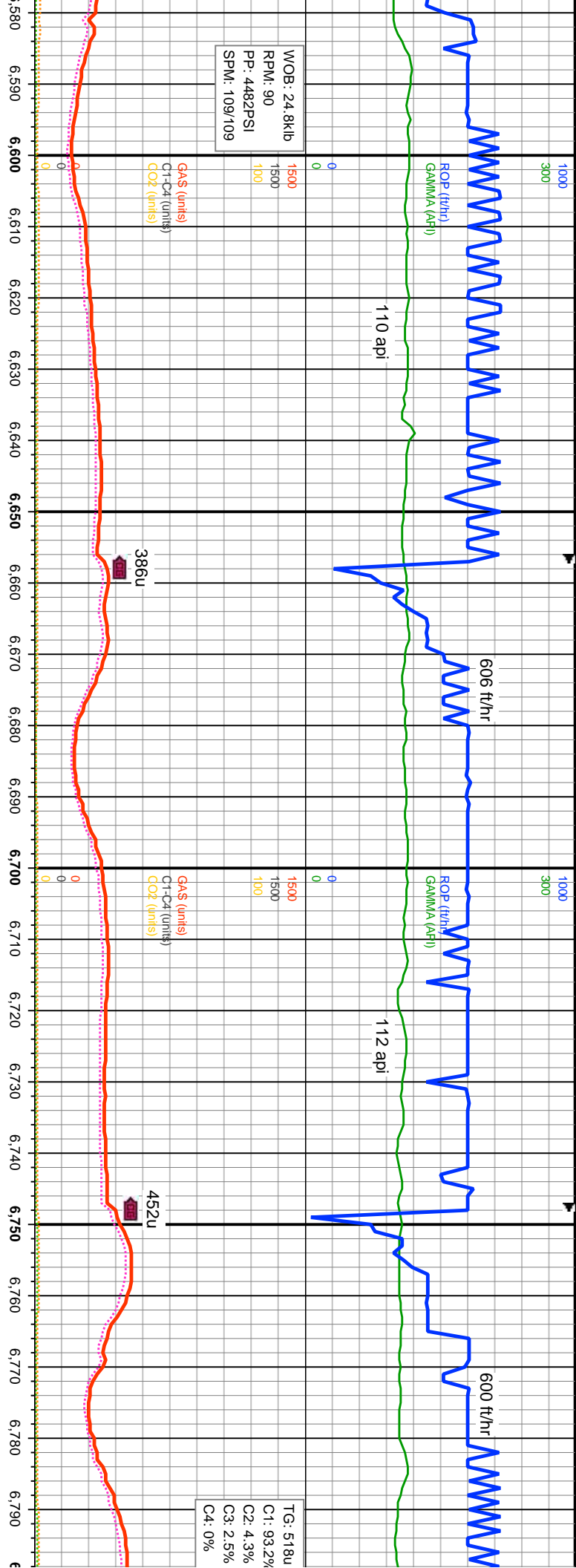
100% SHY SLTST: lt-med gy, v-mod sft, fri, sl-mod frm, sb blk-y-sb plty, sb fis, arg, silty, v sl sdy, rthy, ip aren

8500

8500







TG: 518u
C1: 93.2%
C2: 4.3%
C3: 2.5%
C4: 0%

MD: 6.615'
INC: 28.75°
AZM: 285.33°
TVD: 6,197.87'
VS: -25.01'

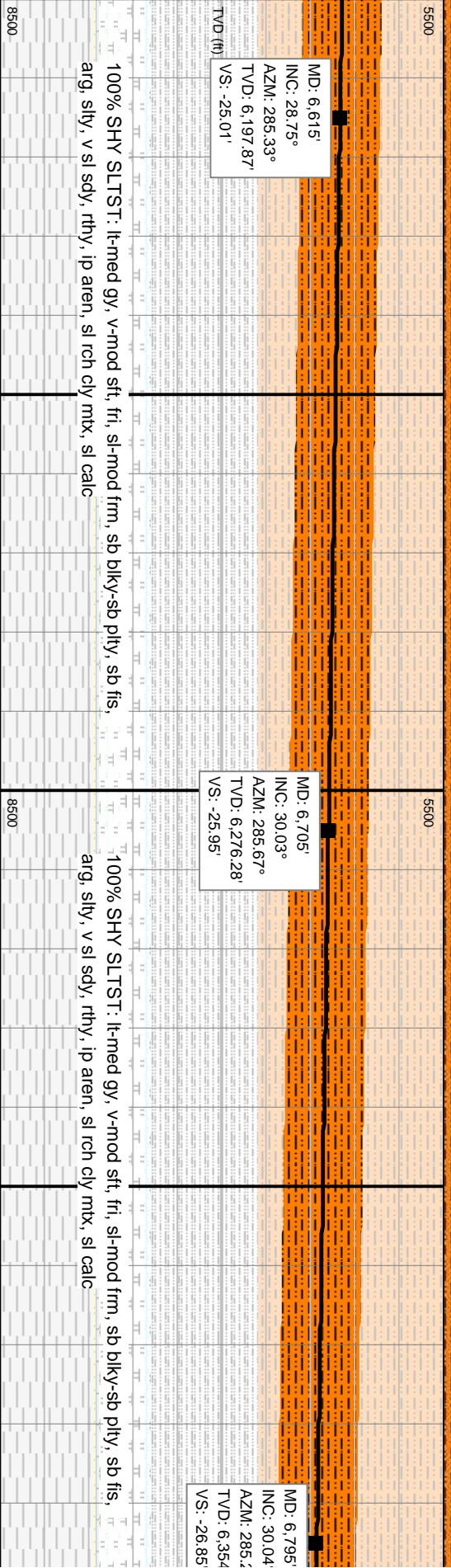
MD: 6.705'
INC: 30.03°
AZM: 285.67°
TVD: 6,276.28'
VS: -25.95'

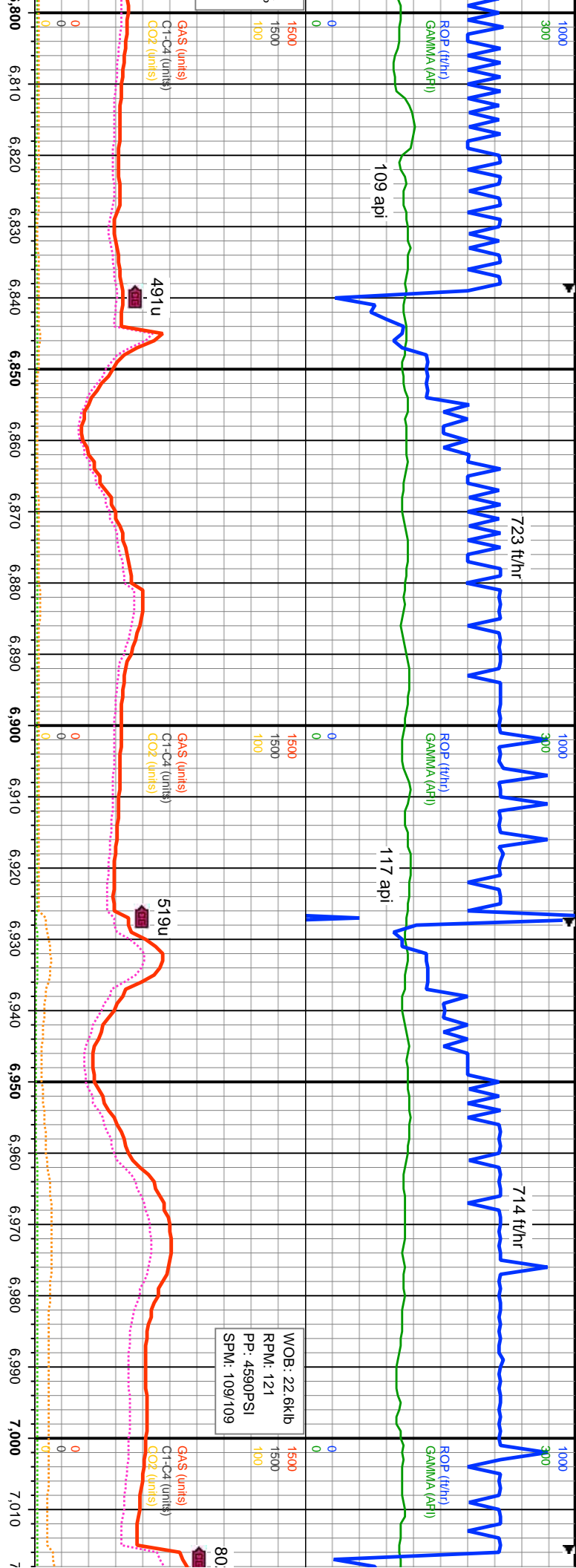
MD: 6.795'
INC: 30.04°
AZM: 285.2°
TVD: 6,354.2'
VS: -26.85'

100% SHY SLTST: lt-med gy, v-mod sft, fri, sl-mod frm, sb blkY-sb pty, sb fis, arg, sily, v sl sdy, rthy, ip aren, sl rch cly mtx, sl calc

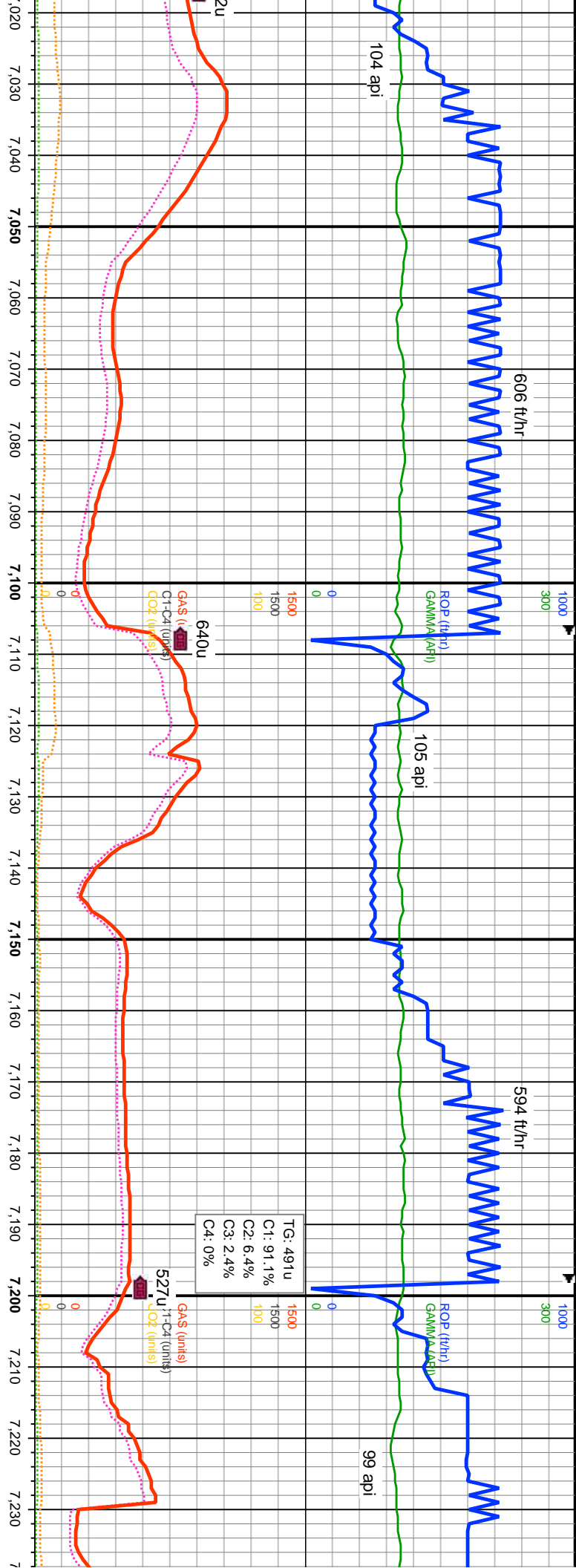
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pty, sb fis,





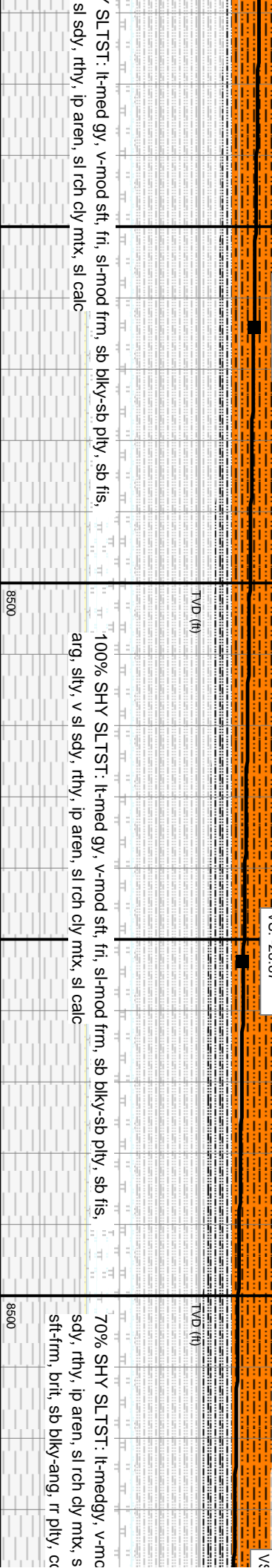
5500	MD: 6.884' INC: 30.02° AZM: 285.06° TVD: 6.431.24' VS: -27.51'	5500	MD: 6.974' INC: 30.04° AZM: 285.35° TVD: 6.509.16' VS: -28.23'	5500
100% SHY SLTST: lt-med gy, v-mod sft, fri, sl-mod frm, sb blk-ly-sb plty, sb fis, arg, silty, v sl sdy, rthy, ip aren, sl rch cly mtx, sl calc				
100% SHY SLTST: lt-med gy, v-mod sft, fri, sl-mod frm, sb blk-ly-sb plty, sb fis, arg, silty, v sl sdy, rthy, ip aren, sl rch cly mtx, sl calc				
100% SHY SLTST: lt-med gy, v-mod sft, fri, sl-mod frm, sb blk-ly-sb plty, sb fis, arg, silty, v sl sdy, rthy, ip aren, sl rch cly mtx, sl calc				



MD: 7.064'
 INC: 29.35°
 AZM: 284.38°
 TVD: 6.587.35'
 VS: -28.68'

MD: 7.153'
 INC: 30.24°
 AZM: 284.69°
 TVD: 6.664.58'
 VS: -28.87'

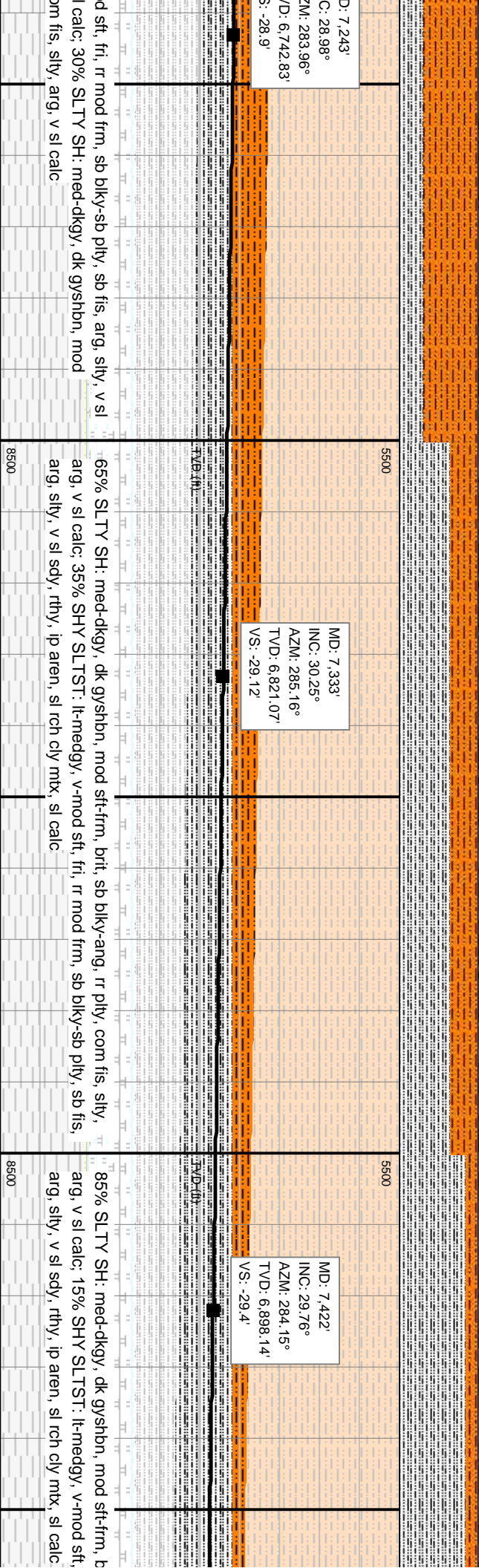
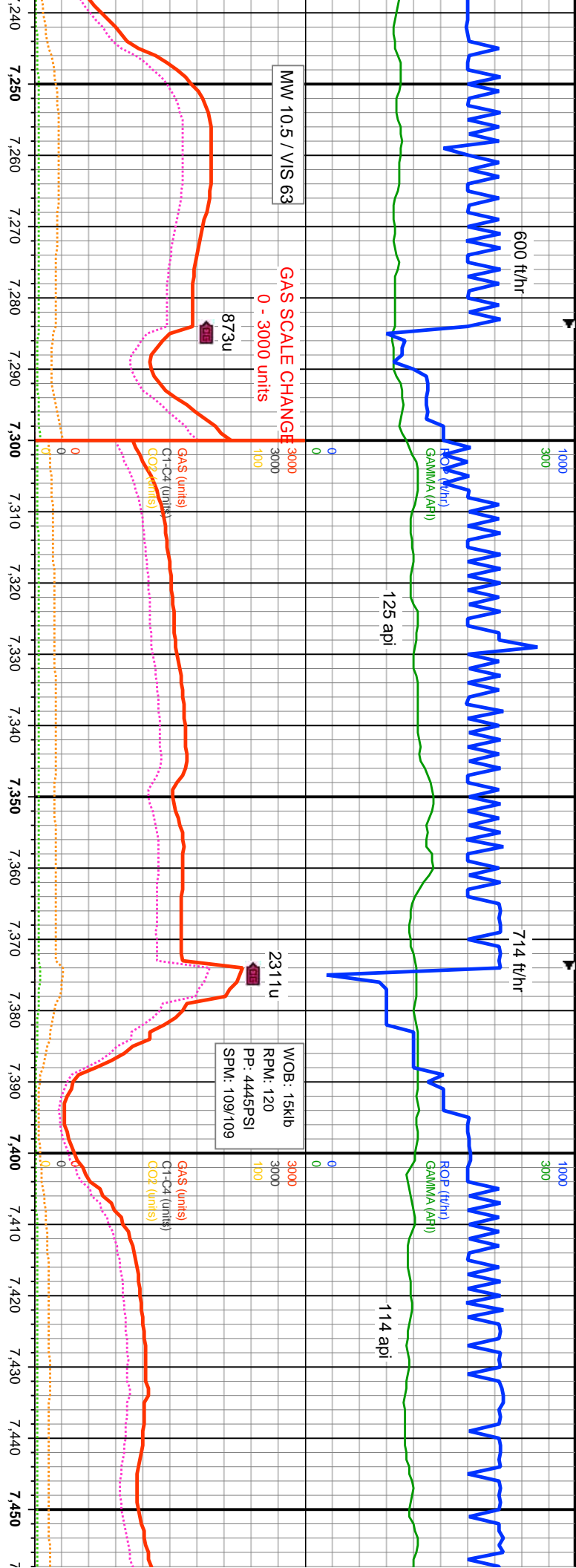
M
 IN
 AZ
 TV
 VS

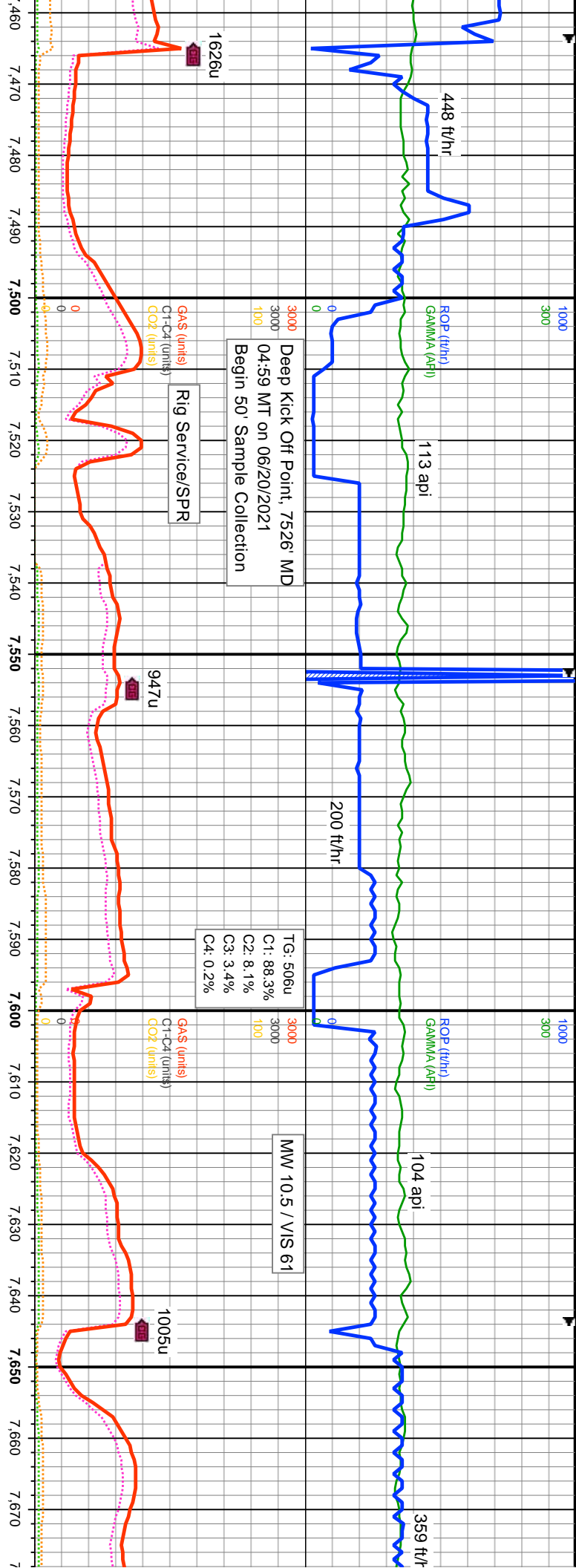


SLTST: lt-med gy, v-mod sft, fri, sl-mod frm, sb blk-y-sb plty, sb fis, arg, silty, ip aren, sl rch cly mtx, sl calc

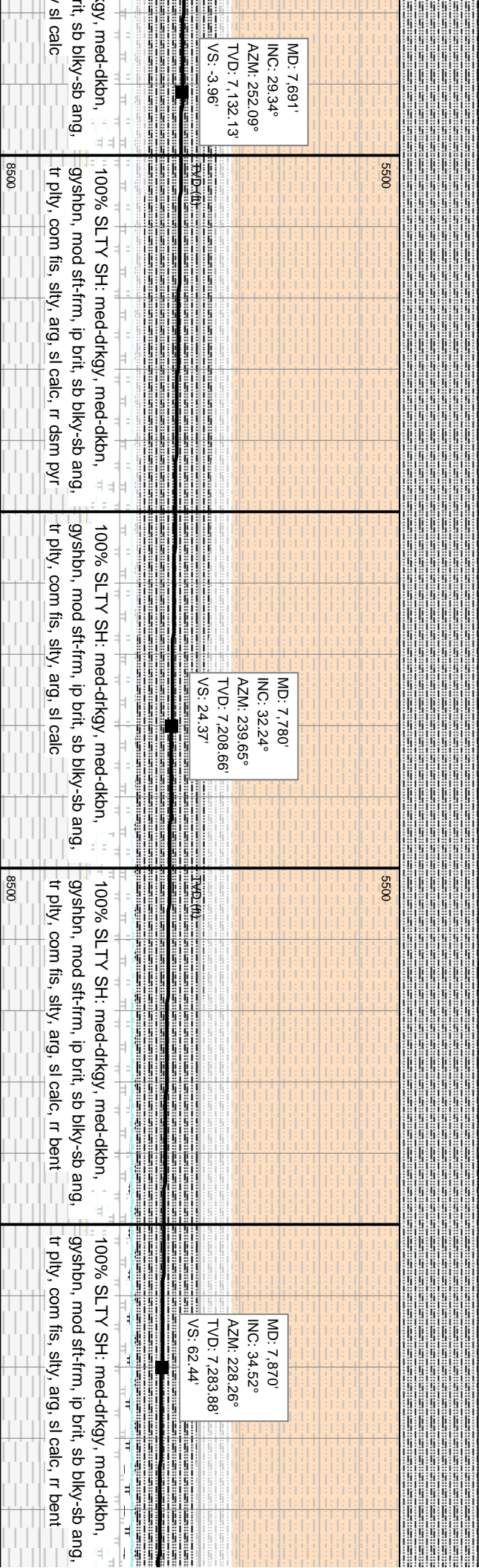
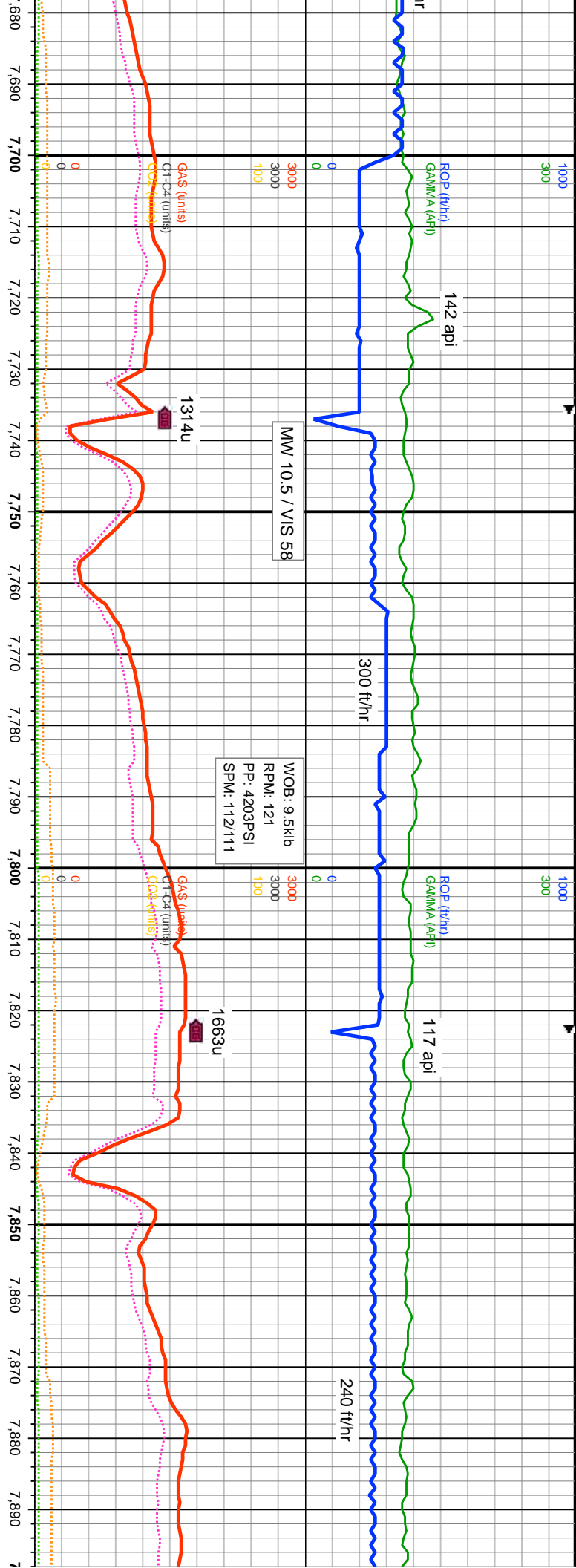
100% SHY SLTST: lt-med gy, v-mod sft, fri, sl-mod frm, sb blk-y-sb plty, sb fis, arg, silty, v sl sdy, rthy, ip aren, sl rch cly mtx, sl calc

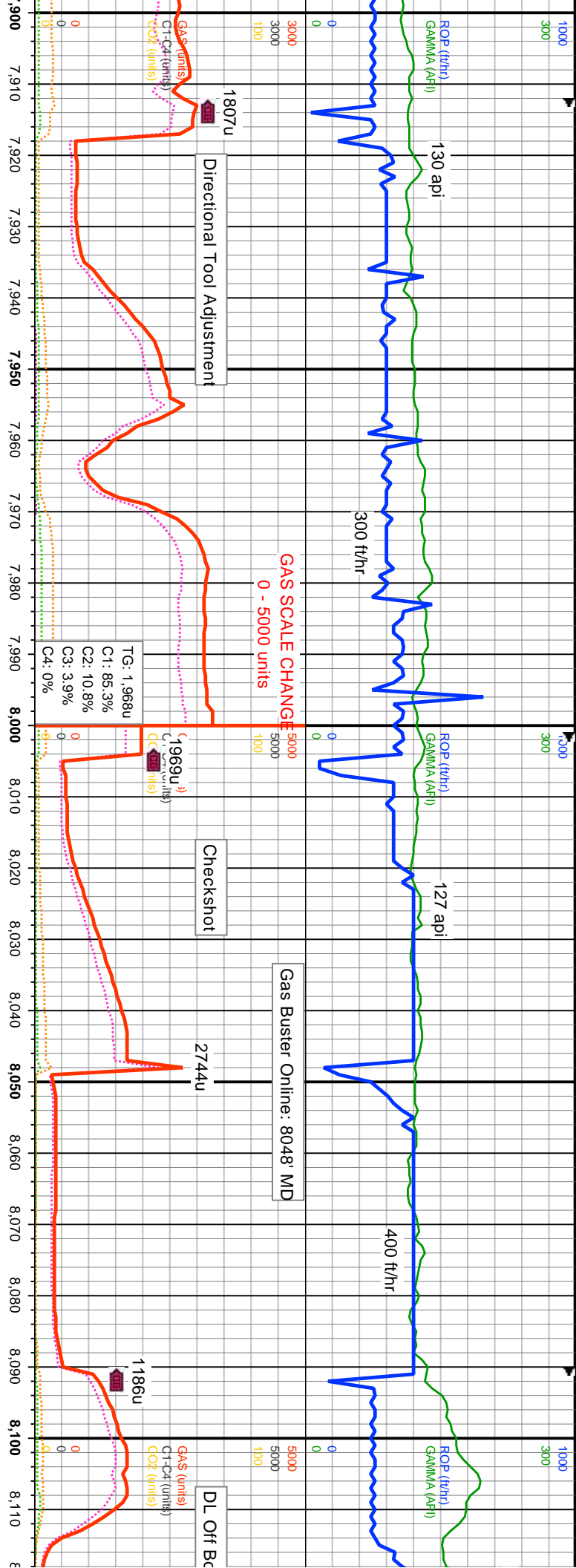
70% SHY SLTST: lt-medgy, v-mc sdy, rthy, ip aren, sl rch cly mtx, s sft-frm, brit, sb blk-y-ang, rr plty, cc



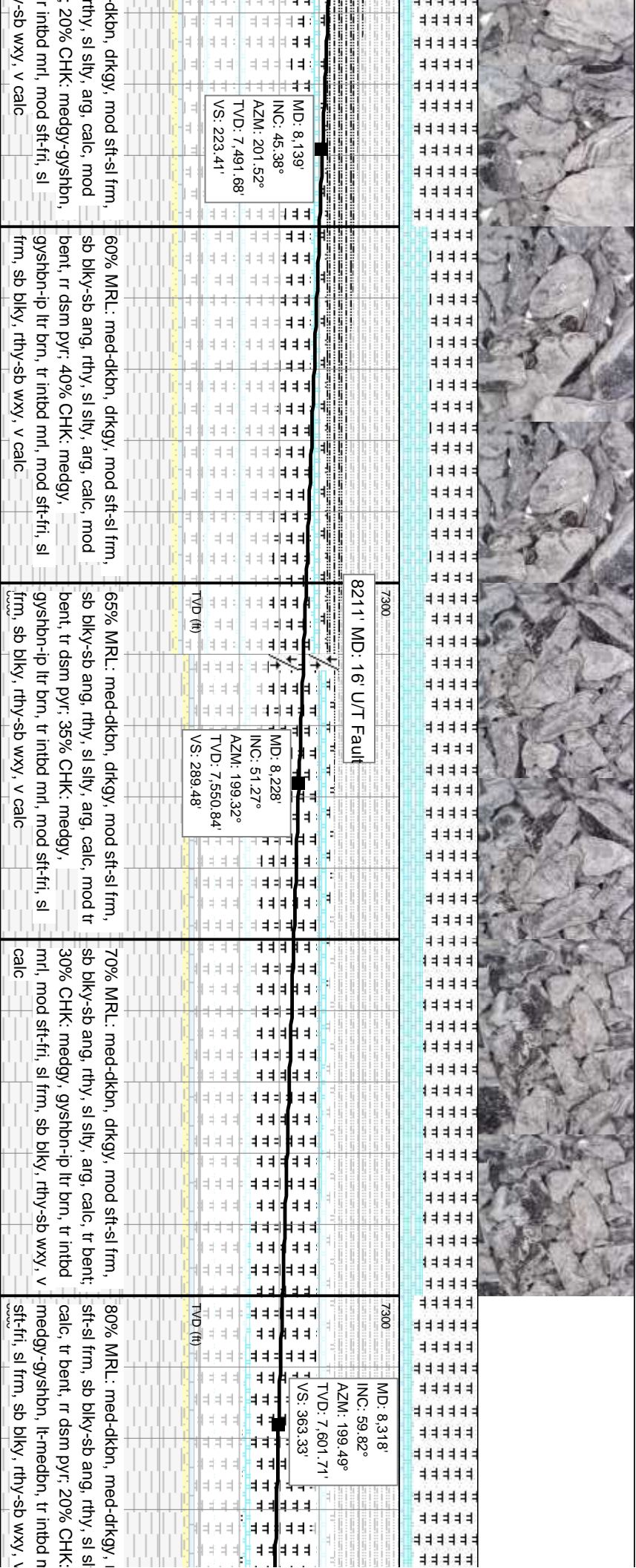
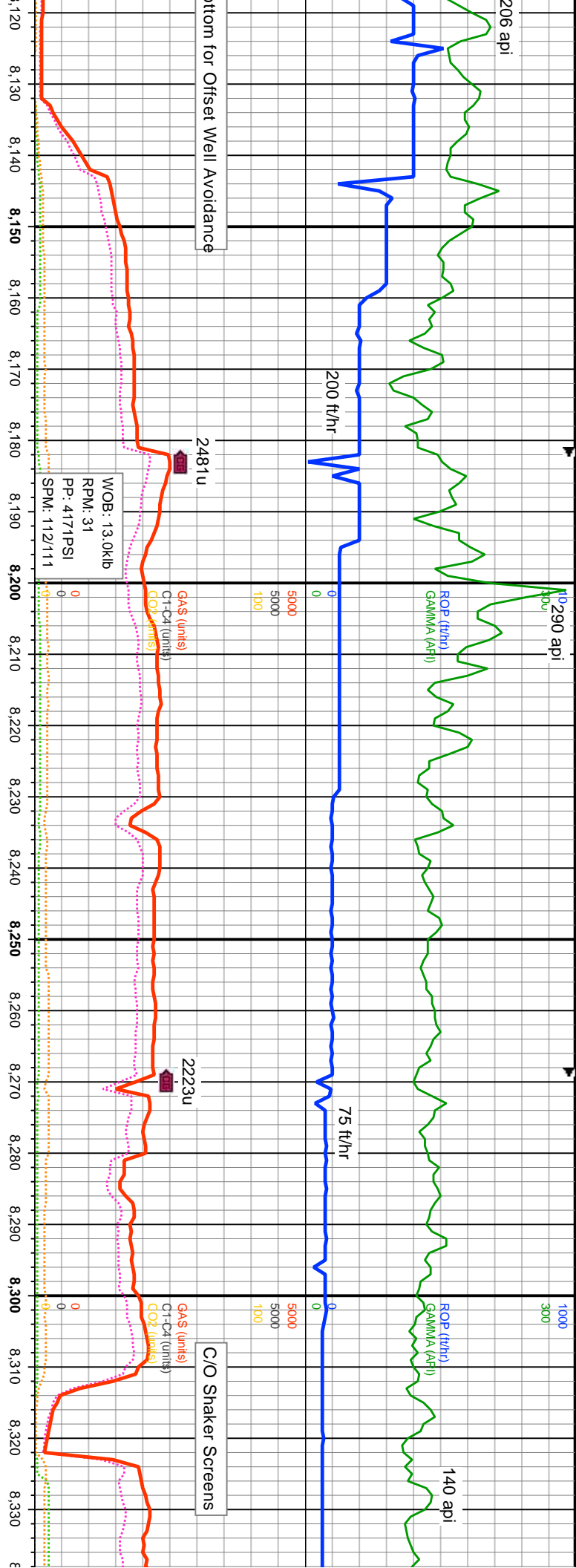


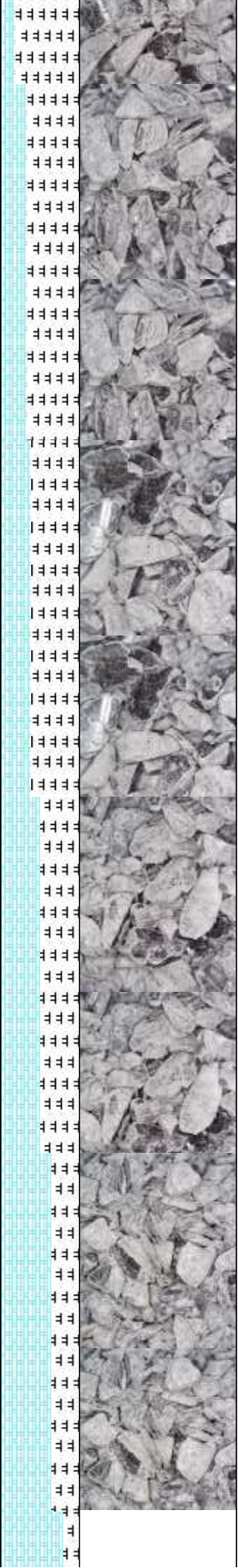
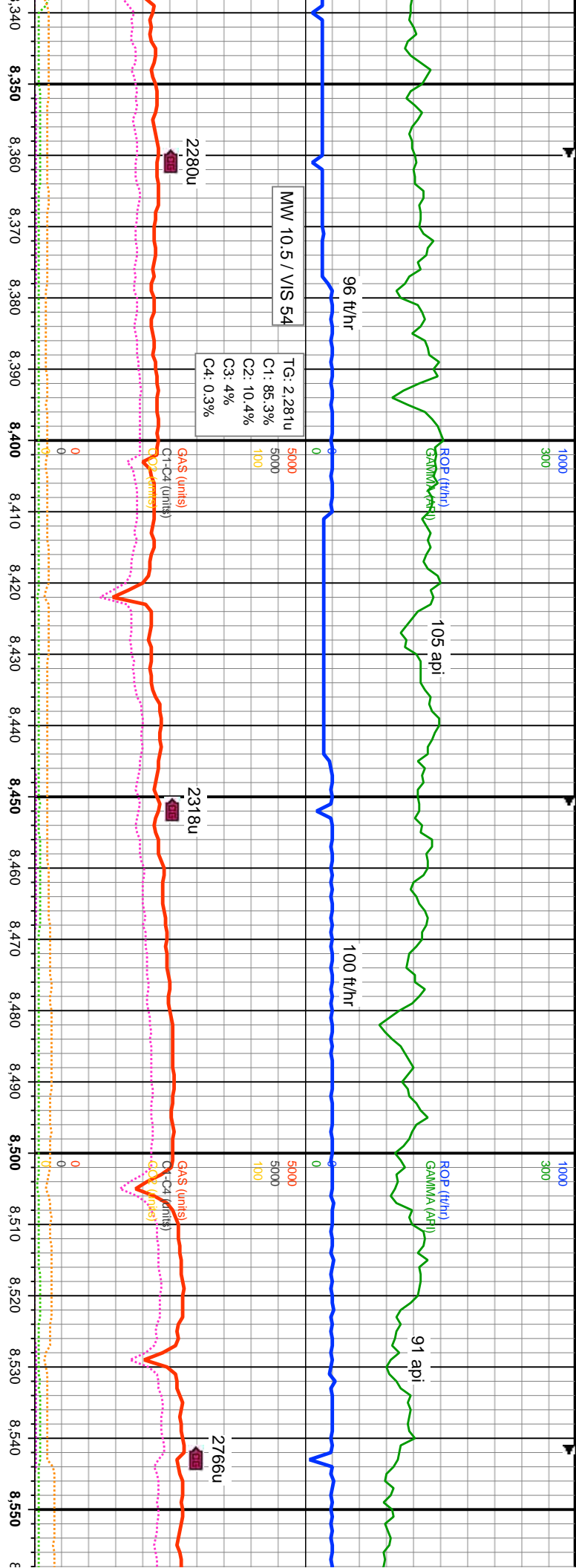
7460	7470	7480	7490	7500	7510	7520	7530	7540	7550	7560	7570	7580	7590	7600	7610	7620	7630	7640	7650	7660	7670
<p>MD: 7.512' INC: 30.21° AZM: 284.47° TVD: 6,976.1' VS: -29.42'</p>																					
<p>MD: 7.601' INC: 29.25° AZM: 265.98° TVD: 7,053.55' VS: -22.64'</p>																					
<p>100% SLTY SH: med-drkgy, med-dkbn, gysbhn, mod sft-frm, ip brit, sb blkly-sb ang, tr pty, com fis, sily, arg, v sl calc</p>																					
<p>100% SLTY SH: med-drkgy, med-dkbn, gysbhn, mod sft-frm, ip brit, sb blkly-sb ang, tr pty, com fis, sily, arg, v sl calc</p>																					
<p>100% SLTY SH: med-drkgy, med-dkbn, gysbhn, mod sft-frm, ip brit, sb blkly-sb ang, tr pty, com fis, sily, arg, v sl calc</p>																					



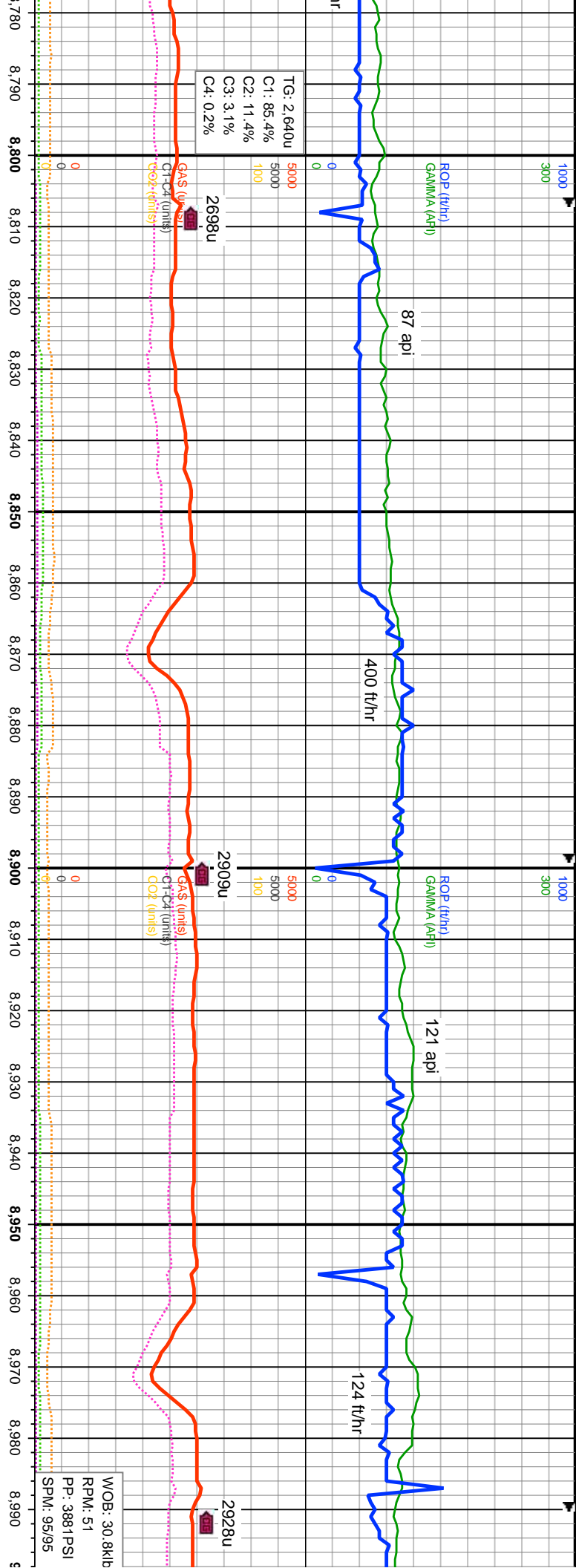


Depth (ft)	MD	INC	AZM	TVD	VS	Notes
5500	7300'	7300'	7300'	7300'	7300'	TVD SCALE CHANGE 7300' - 8300'
7300	7.959'	37.38°	215.59°	7.356, 02'	108.6'	100% SLTY SH: med-drkgy, med-dkbn, gysbhn, mod sft-frm, ip brt, sb blk-y-sb ang, tr pty, com fis, sily, arg, v sl calc, rr bent
7300	8.049'	40.77°	206.34°	7.425, 94'	162.85'	65% SLTY SH: med-drkgy, med-dkbn, gysbhn, mod sft-frm, ip brt, sb blk-y-sb ang, tr pty, com fis, sily, arg, v sl-non calc, tr bent, rr pyr, 35% MRL: med-dkbn, drkgy, mod sft-sl frm, sb blk-y-sb ang, rthy, sl sily, arg, calc, sme chk
8300	7300'	7300'	7300'	7300'	7300'	80% MRL: med-sb blk-y-sb ang, bent, rr dsn pyr dthy brn-rr lbn, t frm, sb blk-y, rthy



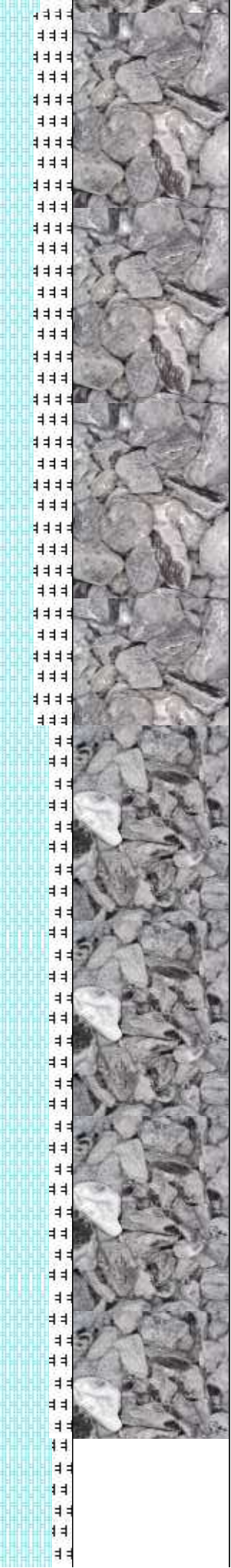
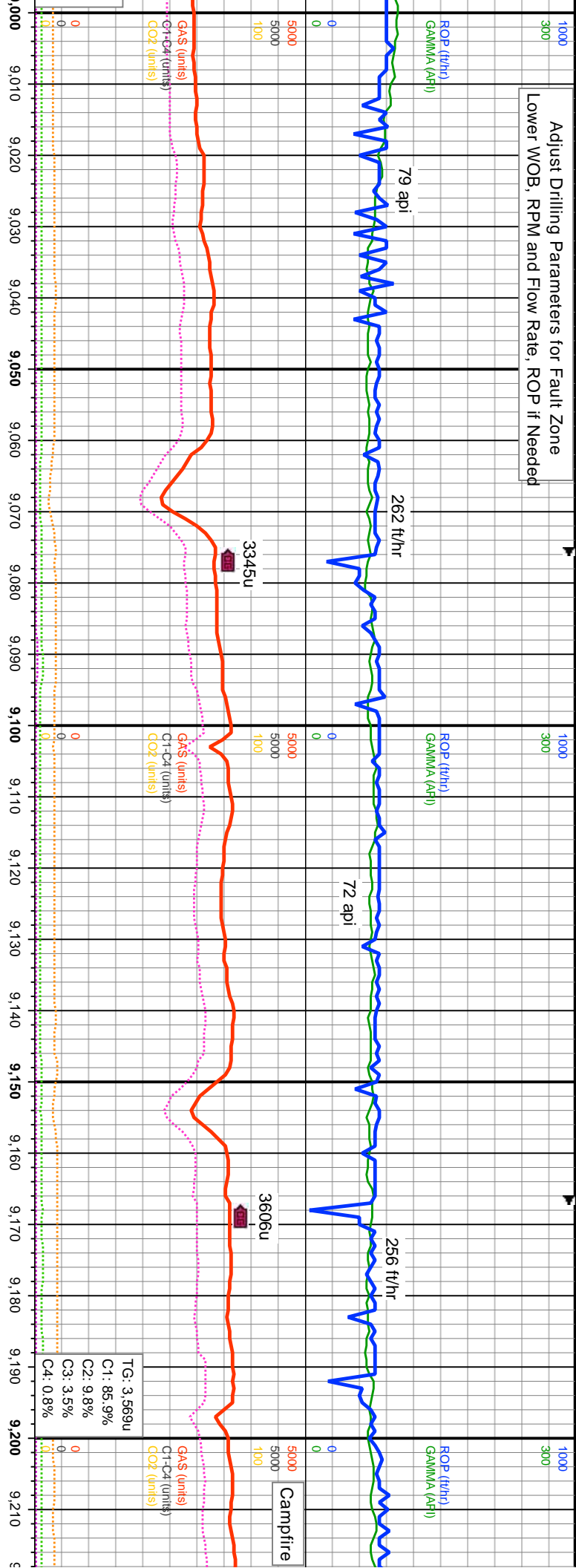


mod	mod	mod	mod
65% MRL: med-dkbn, med-drkgy, mod sft-mod frm, sb blk-y-sb ang, rthy, sl stly, arg, calc, tr bent, tr dsm pyr, tr inoc; 35% CHK: lt-medbn, gyshbn-medgy, tr intbd mrl, sft-ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc	60% MRL: med-dkbn, med-drkgy, mod sft-mod frm, sb blk-y-sb ang, rthy, sl stly, arg, calc, tr bent, tr dsm pyr, tr inoc; 40% CHK: lt-medbn, gyshbn-medgy, tr intbd mrl, sft-ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc	50% MRL: med-dkbn, med-drkgy, mod sft-mod frm, sb blk-y-sb ang, rthy, sl stly, arg, calc, tr nod pyr, tr inoc; 50% CHK: lt-medbn, gyshbn-medgy, tr intbd mrl, sft-ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc	65% CHK: lt-medbn, gyshbn-medgy, tr intbd mrl, sft-ip fri, tr frm, sb blk-y, rthy-sb wxy, v ang, rthy, sl stly, arg, calc
MD: 8.407' INC: 69.1° AZM: 200.12° TVD: 7.640.04' VS: 443.17'	MD: 8.497' INC: 76.94° AZM: 197.2° TVD: 7.666.3' VS: 528.92'	MD: 8.497' INC: 76.94° AZM: 197.2° TVD: 7.666.3' VS: 528.92'	MD: 8.497' INC: 76.94° AZM: 197.2° TVD: 7.666.3' VS: 528.92'
TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)



7600 TVD (ft)	MD: 8.855' INC: 89.85° AZM: 178.57° TVD: 7.691.64' VS: 878.69'	50% MRL: med-dkbn, dkyg-sme blk, mod sft-mod frm, sb blk-y-sb ang, rthy, sl sily, arg, calc: 50% CHK: medgy-gyshbn, medbn, tr intbd mrl, sft-ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc: rr inoc, v rr bent
7825		
7600 TVD (ft)	MD: 8.945' INC: 89.89° AZM: 180.66° TVD: 7.691.85' VS: 965.75'	60% CHK: medgy-gyshbn, medbn, tr intbd mrl, sft-ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc: 40% MRL: med-dkbn, dkyg-sme blk, mod sft-mod frm, sb blk-y-sb ang, rthy, sl sily, arg, calc: rr inoc, tr bent
8950 MD: 11' D/T Fault		
7825		

Adjust Drilling Parameters for Fault Zone
Lower WOB, RPM and Flow Rate, ROP if Needed



MD: 9.034'
INC: 89.68°
AZM: 180.31°
TVD: 7.692.18'
VS: 1.052.18'

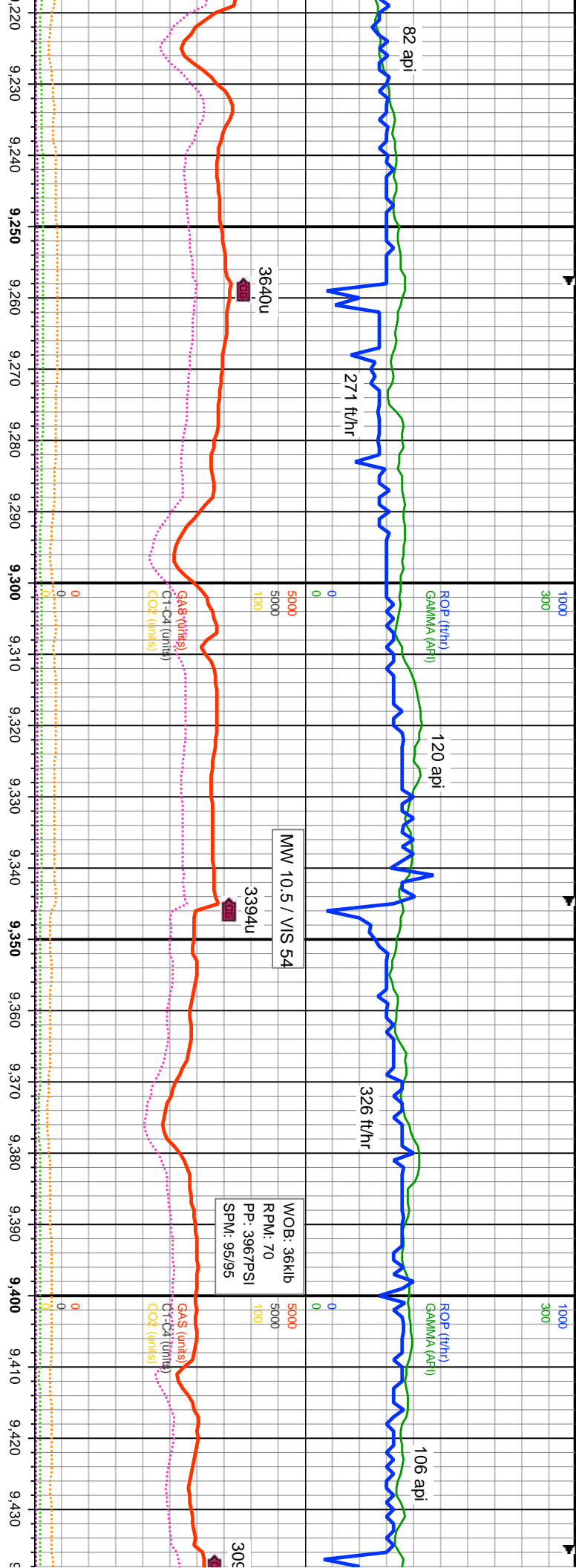
MD: 9.124'
INC: 89.81°
AZM: 180.85°
TVD: 7.692.58'
VS: 1.139.61'

MD: 9.213'
INC: 89.79°
AZM: 181.1°
TVD: 7.692.8'
VS: 1.226.22'

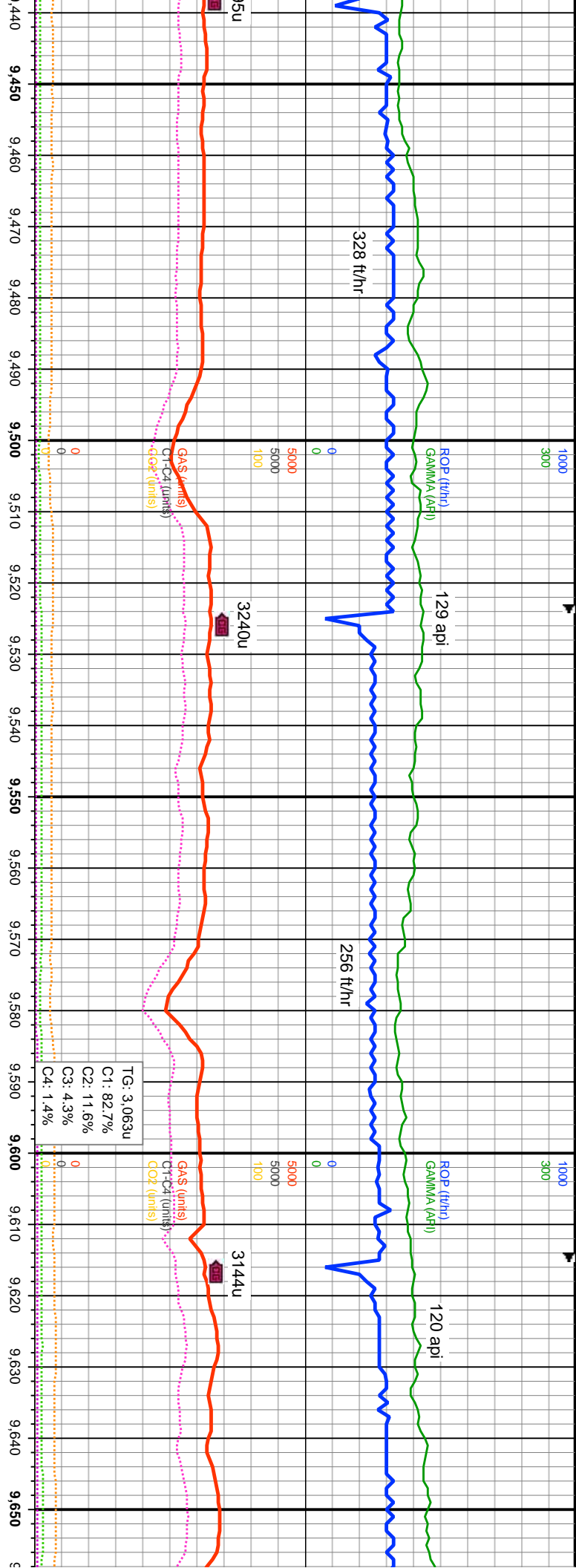
50% CHK: medgy-gyshbn, medbn, tr intbd mri, sti-ip fri, tr frm, sb blkly, rthy-sb wxy, v
calc: 50% MRL: med-dkbn, dkgy-sme blk, mod sti-mod frm, sb blkly-sb ang, rthy, sl
stly, arg, calc: v rr inoc, rr bent

70% CHK: medgy-gyshbn, medbn, tr intbd mri, sti-ip fri, tr frm, sb blkly, rthy-sb wxy, v
calc: 30% MRL: med-dkbn, dkgy-sme blk, mod sti-mod frm, sb blkly-sb ang, rthy, sl
stly, arg, calc

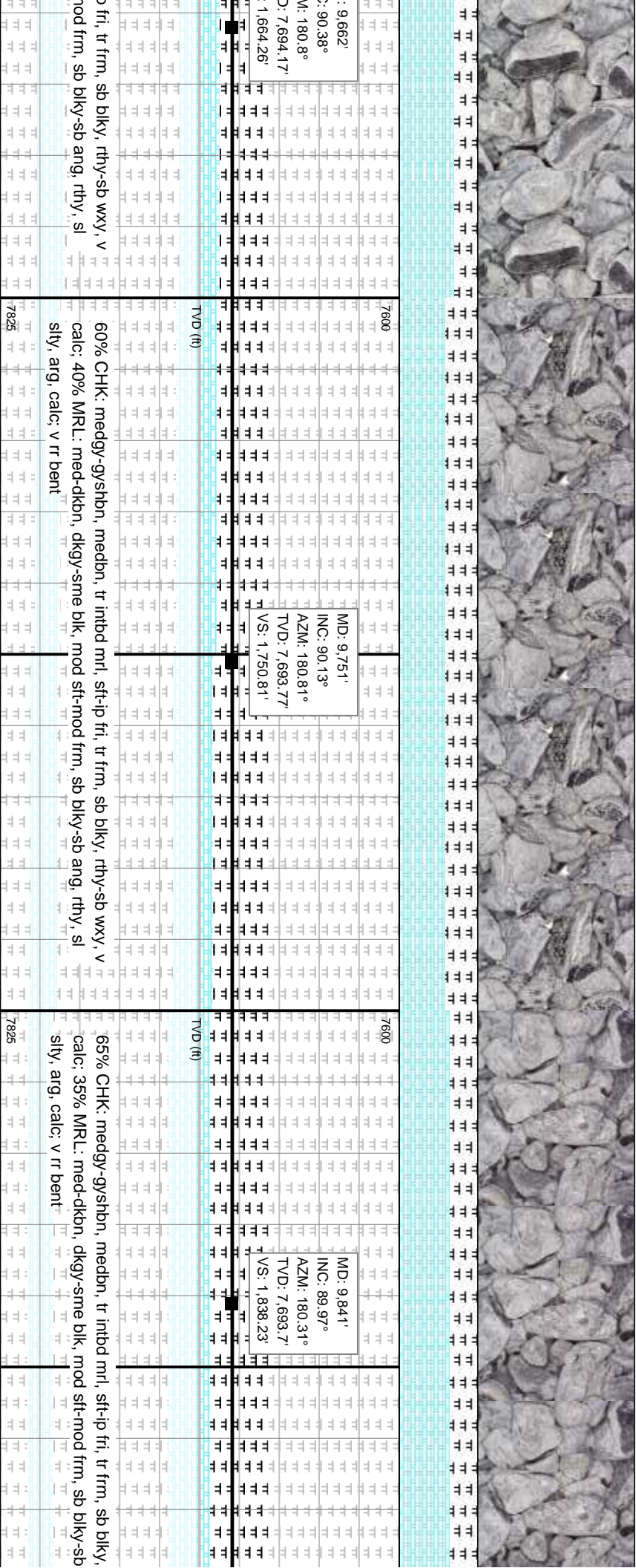
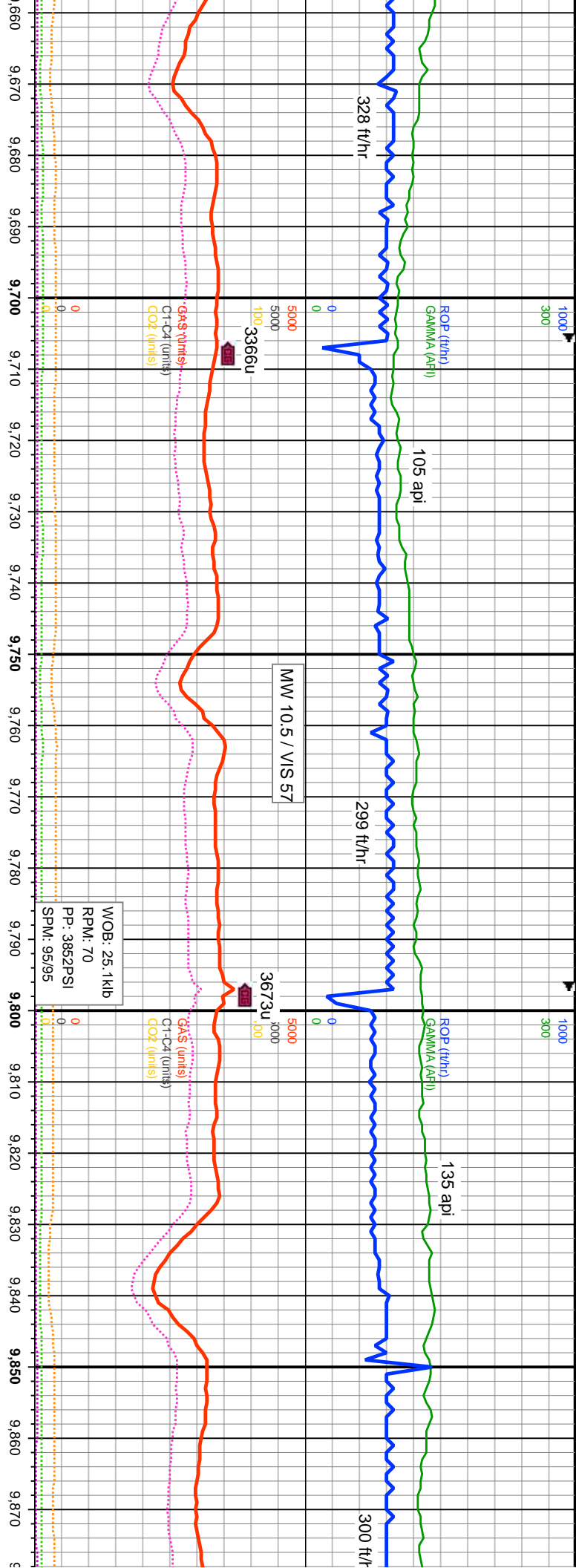
75% CHK: me
calc: 25% MR
stly, arg, calc:

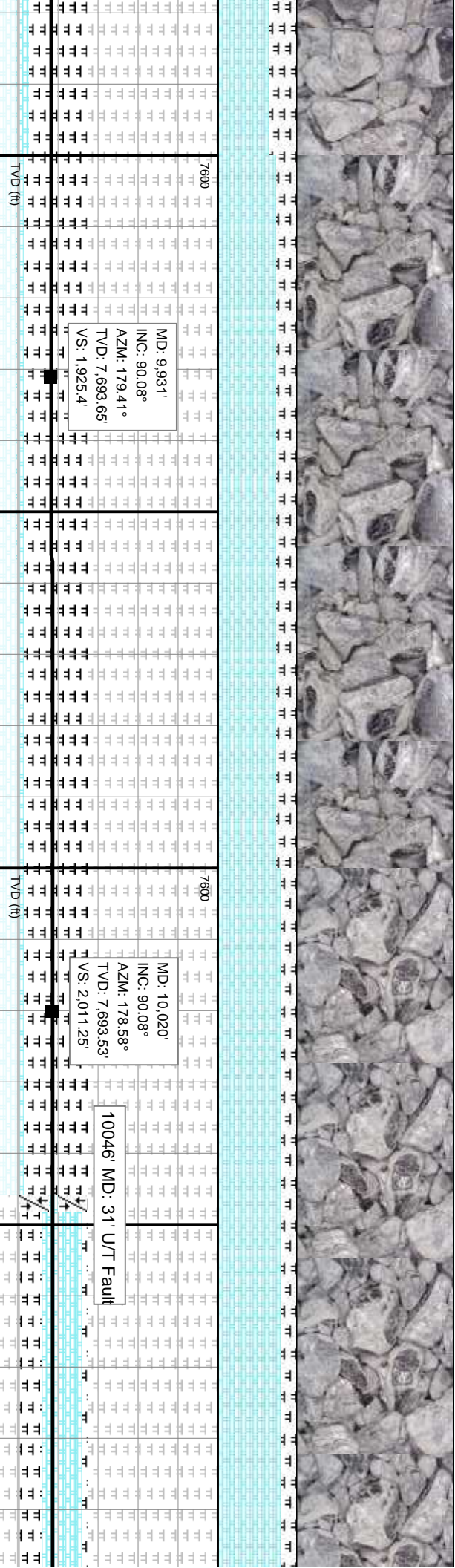
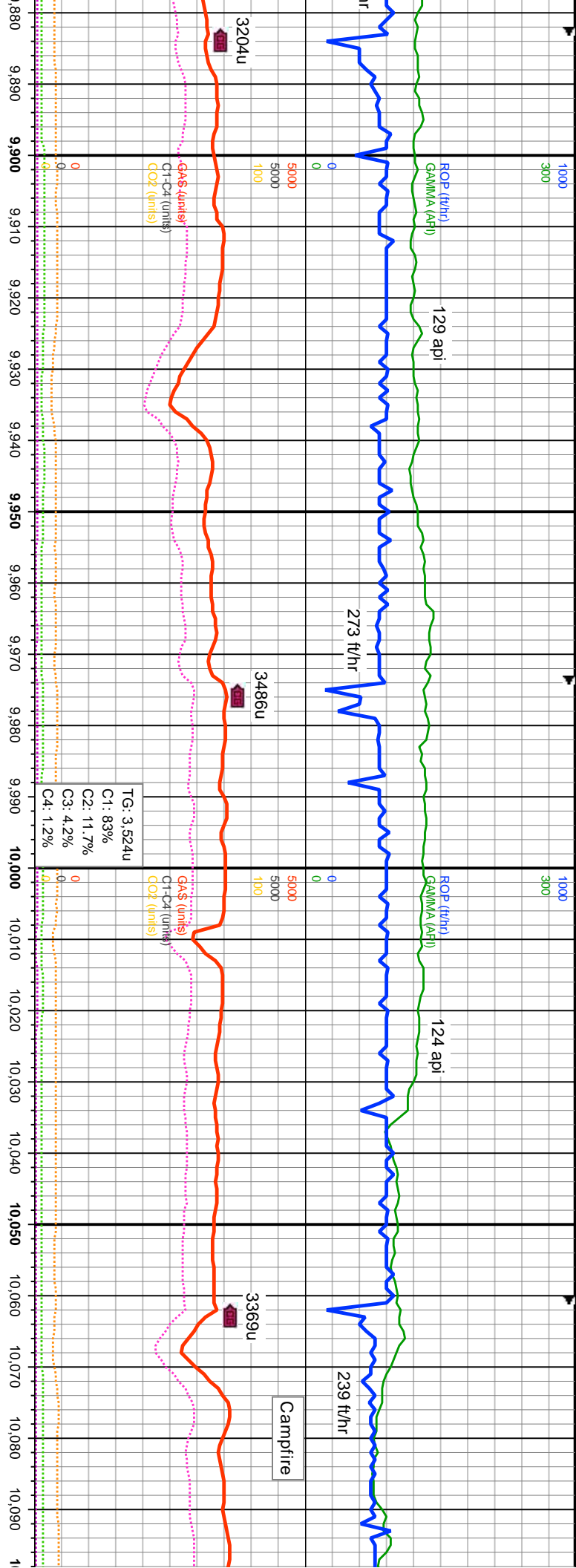


85% CHK: medgy-gy/shbn, medbn, tr intbd nml, stf-ip fri, tr frm, sb blk, rthy-sb wxy, v calc: 15% MRL: med-dkbn, dky-sme blk, mod stf-nod frm, sb blk, sb ang, rthy, sl stly, arg, calc: v rr inoc fos frags	7825
9272' MD: 5' D/T Fault	
85% CHK: medgy-gy/shbn, medbn, tr intbd nml, stf-ip fri, tr frm, sb blk, rthy-sb wxy, v calc: 15% MRL: med-dkbn, dky-sme blk, mod stf-nod frm, sb blk, sb ang, rthy, sl stly, arg, calc: v rr inoc fos frags	7825
70% CHK: medgy-gy/shbn, medbn, tr intbd nml, stf-ip fri, tr frm, sb blk, rthy-sb wxy, v calc: 30% MRL: med-dkbn, dky-sme blk, mod stf-nod frm, sb blk, sb ang, rthy, sl stly, arg, calc: v rr inoc fos frags	7825



MD: 9.482'	MD: 9.572'	MD: 9.572'
INC: 89.7°	INC: 90.3°	INC: 90.3°
AZM: 182.16°	AZM: 181.5°	AZM: 181.5°
TVD: 7.694.7'	TVD: 7.694.7'	TVD: 7.694.7'
VS: 1.488.74'	VS: 1.576.62'	VS: 1.576.62'
7600'	7600'	7600'
7825'	7825'	7825'
tr intbd mli, sti-ip fri, tr frm, sb blk, rhy-sb wxy, v	60% CHK: medgy-gyshbn, medbn, tr intbd mli, sti-ip fri, tr frm, sb blk, rhy-sb wxy, v	70% CHK: medgy-gyshbn, medbn, tr intbd mli, sti-ip fri, tr frm, sb blk, rhy-sb wxy, v
calc: 40% MRL: med-dkbn, dky-sme blk, mod sti-mod frm, sb blk-sb ang, rhy, sl	calc: 40% MRL: med-dkbn, dky-sme blk, mod sti-mod frm, sb blk-sb ang, rhy, sl	calc: 30% MRL: med-dkbn, dky-sme blk, mod sti-n
stly, arg, calc: v rr bent	stly, arg, calc: v rr bent	stly, arg, calc





Depth (ft)	ROP (ft/hr)	GAMMA (API)	Gas (units)	C1-C4 (units)	CO2 (units)	MD (ft)	Notes
9,880	1000	300	0	0	0	7,600	
9,900	1000	300	0	0	0	7,600	
9,920	1000	300	0	0	0	7,600	
9,940	1000	300	0	0	0	7,600	
9,960	1000	300	0	0	0	7,600	
9,980	1000	300	0	0	0	7,600	
10,000	1000	300	0	0	0	7,600	
10,020	1000	300	0	0	0	7,600	
10,040	1000	300	0	0	0	7,600	
10,046	1000	300	0	0	0	7,600	10046 MD: 31 U/T Fault
10,060	1000	300	0	0	0	7,600	
10,080	1000	300	0	0	0	7,600	
10,090	1000	300	0	0	0	7,600	

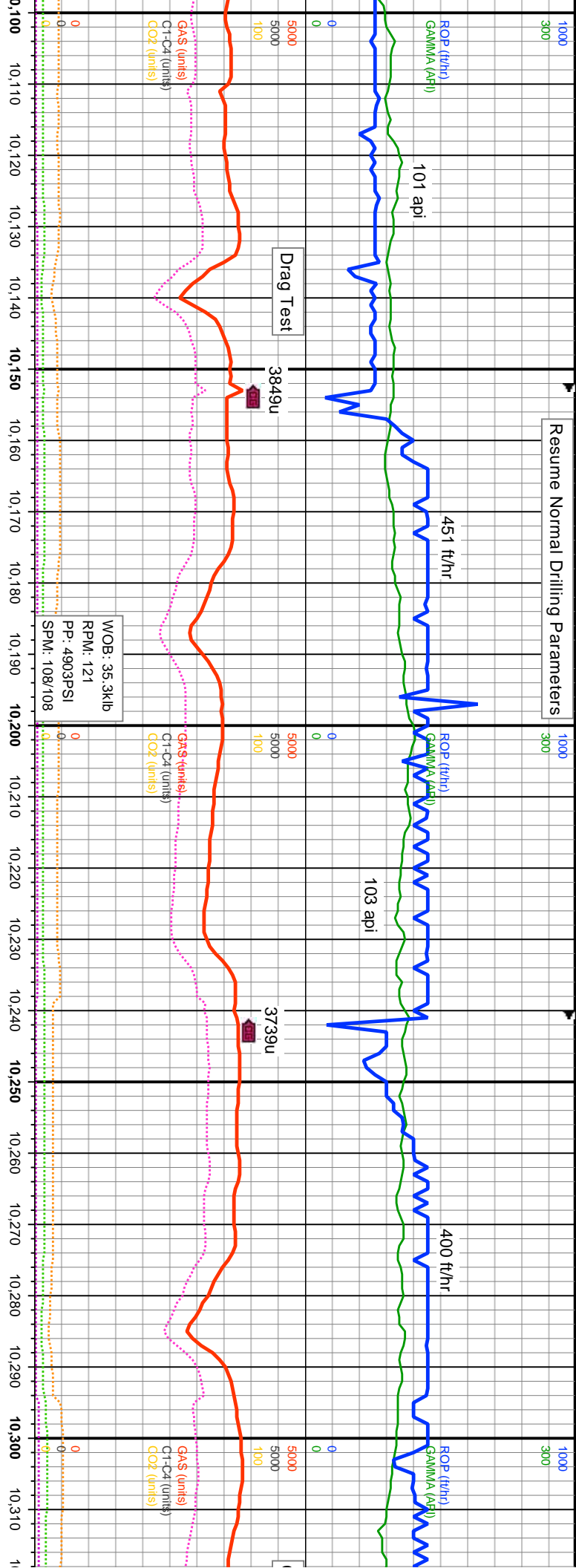
MD: 9,931'
 INC: 90.08°
 AZM: 179.41°
 TVD: 7,693.65'
 VS: 1,925.4'

MD: 10,020'
 INC: 90.08°
 AZM: 178.58°
 TVD: 7,693.53'
 VS: 2,011.25'

10046 MD: 31 U/T Fault

75% CHK: medgy-gyshbn, medbn, tr intbd nml, stf-ip fri, tr frm, sb blk, rthy-sb wxy, v
 calc: 25% MRL: med-dkbn, dky-sme blk, mod stf-nod frm, sb blk-sb ang, rthy, sl
 stly, arg, calc

80% CHK: medgy-gyshbn, medbn, tr intbd nml, stf-ip fri, tr frm, sb blk, rthy-sb wxy, v
 calc: 20% MRL: med-dkbn, dky-sme blk, mod stf-nod frm, sb blk-sb ang, rthy, sl
 stly, arg, calc



MD: 10,110'
INC: 90.46°
AZM: 178.23°
TVD: 7,693.11'
VS: 2,097.81'

MD: 10,200'
INC: 89.97°
AZM: 178.07°
TVD: 7,692.77'
VS: 2,184.26'

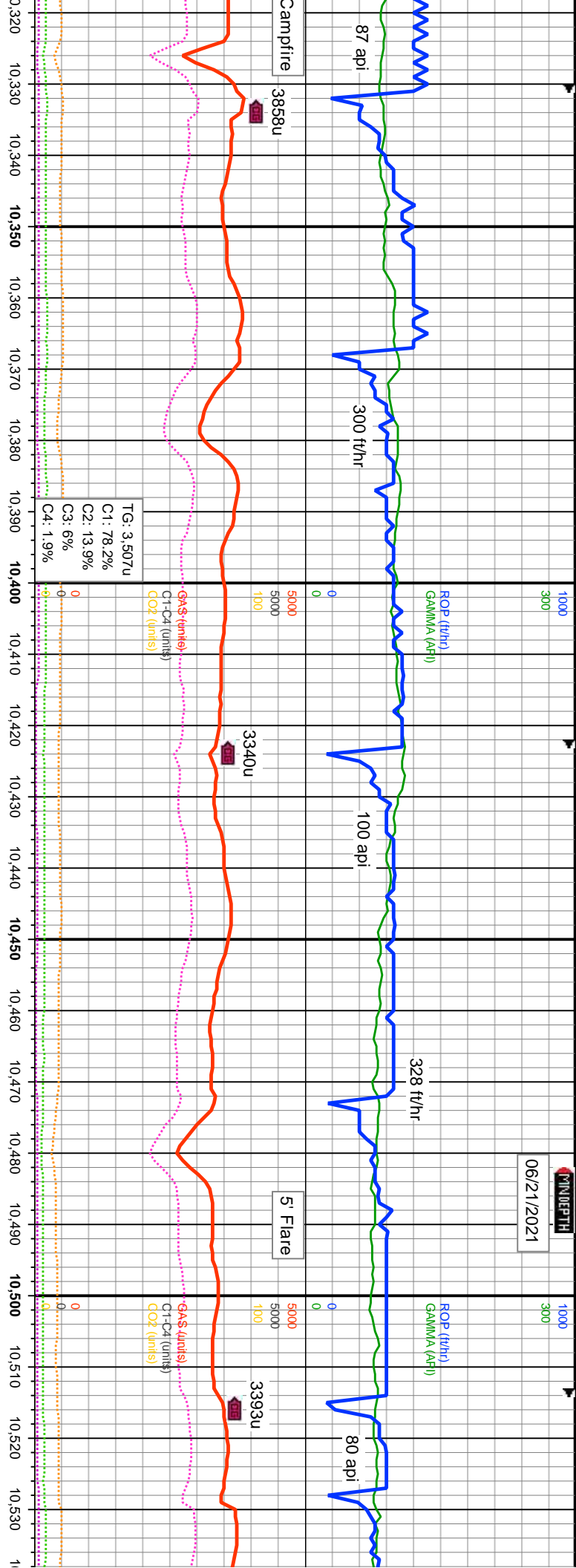
MD: 10,289'
INC: 90.25°
AZM: 181.78°
TVD: 7,692.6'
VS: 2,270.46'

70% CHK: medgy-gyshbn, medbn, tr inbd ml, stf-ip fri, tr frm, sb blk, rthy-sb wxy, v
calc: 30% MRL: med-dkbn, dkgy-sme blk, mod stf-mod frm, sb blk-sb ang, rthy, sl
sily, arg, calc

50% CHK: medgy-gyshbn, medbn, tr inbd ml, stf-ip fri, tr frm, sb blk, rthy-sb wxy, v
calc: 50% MRL: med-dkbn, dkgy-sme blk, mod stf-mod frm, sb blk-sb ang, rthy, sl
sily, arg, calc: rr bent

70% CHK: me
calc: 30% MR
sily, arg, calc:

06/21/2021



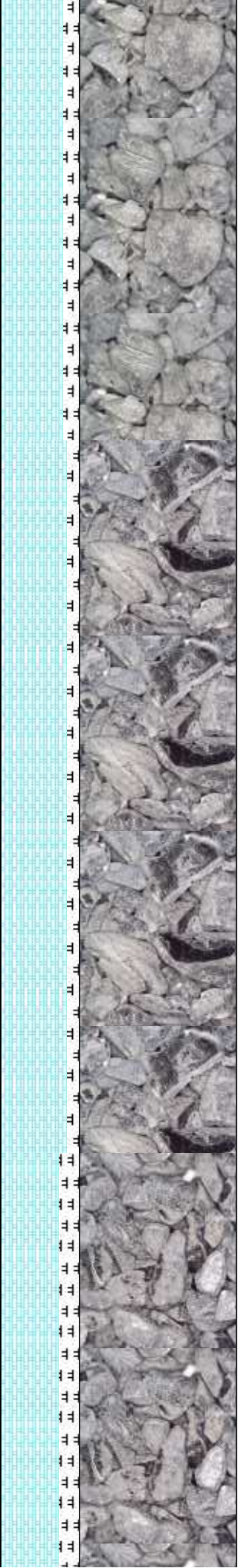
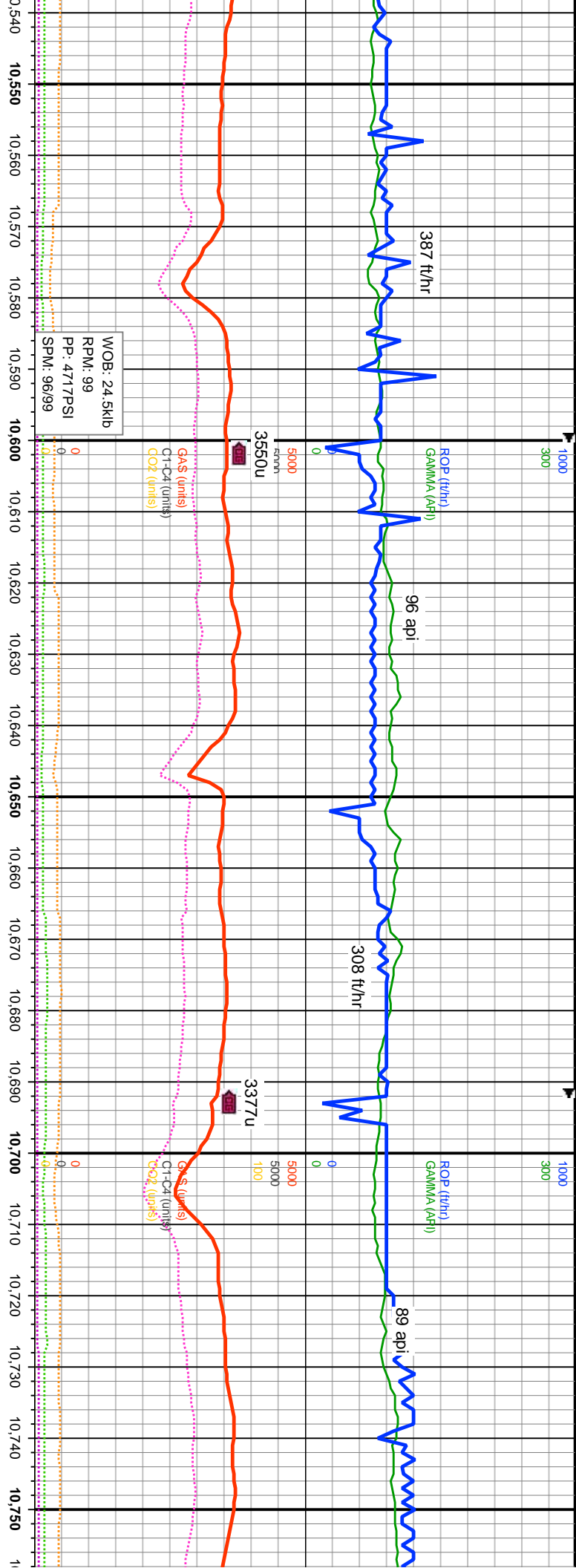
MD: 10.379'
 INC: 90.21°
 AZM: 178.41°
 TVD: 7.692.23'
 VS: 2.357.7'

MD: 10.469'
 INC: 90.32°
 AZM: 181.52°
 TVD: 7.691.81'
 VS: 2.444.89'

Time	ROP (ft/hr)	GAMMA (API)	GAS (units)	C1-C4 (units)	CO2 (units)
10:320	87	~300	~5000	~5000	~100
10:330	87	~300	~5000	~5000	~100
10:340	87	~300	~5000	~5000	~100
10:350	87	~300	~5000	~5000	~100
10:360	87	~300	~5000	~5000	~100
10:370	87	~300	~5000	~5000	~100
10:380	87	~300	~5000	~5000	~100
10:390	87	~300	~5000	~5000	~100
10:400	87	~300	~5000	~5000	~100
10:410	87	~300	~5000	~5000	~100
10:420	100	~300	~5000	~5000	~100
10:430	100	~300	~5000	~5000	~100
10:440	100	~300	~5000	~5000	~100
10:450	100	~300	~5000	~5000	~100
10:460	100	~300	~5000	~5000	~100
10:470	100	~300	~5000	~5000	~100
10:480	100	~300	~5000	~5000	~100
10:490	100	~300	~5000	~5000	~100
10:500	328	~300	~5000	~5000	~100
10:510	328	~300	~5000	~5000	~100
10:520	80	~300	~5000	~5000	~100
10:530	80	~300	~5000	~5000	~100

75% CHK: medgy-gyshbn, medbn, tr intbd mrl, sft-ip fri, tr frm, sb blk, rthy-sb wxy, v
 calc: 25% MRL: med-dkbn, dky-sme blk, mod sft-mod frm, sb blk-sb ang, rthy, sl
 sly, arg, calc: v rr bent

80% CHK: medgy-gyshbn, medbn, tr intbd cal, 20% MRL: med
 ang, rthy, sl sly, arg, calc



MD: 10.558'
INC: 90.35°
AZM: 181.75°
TVD: 7.691.3'
VS: 2.531.73'

MD: 10.648'
INC: 89.75°
AZM: 180.84°
TVD: 7.691.22'
VS: 2.619.42'

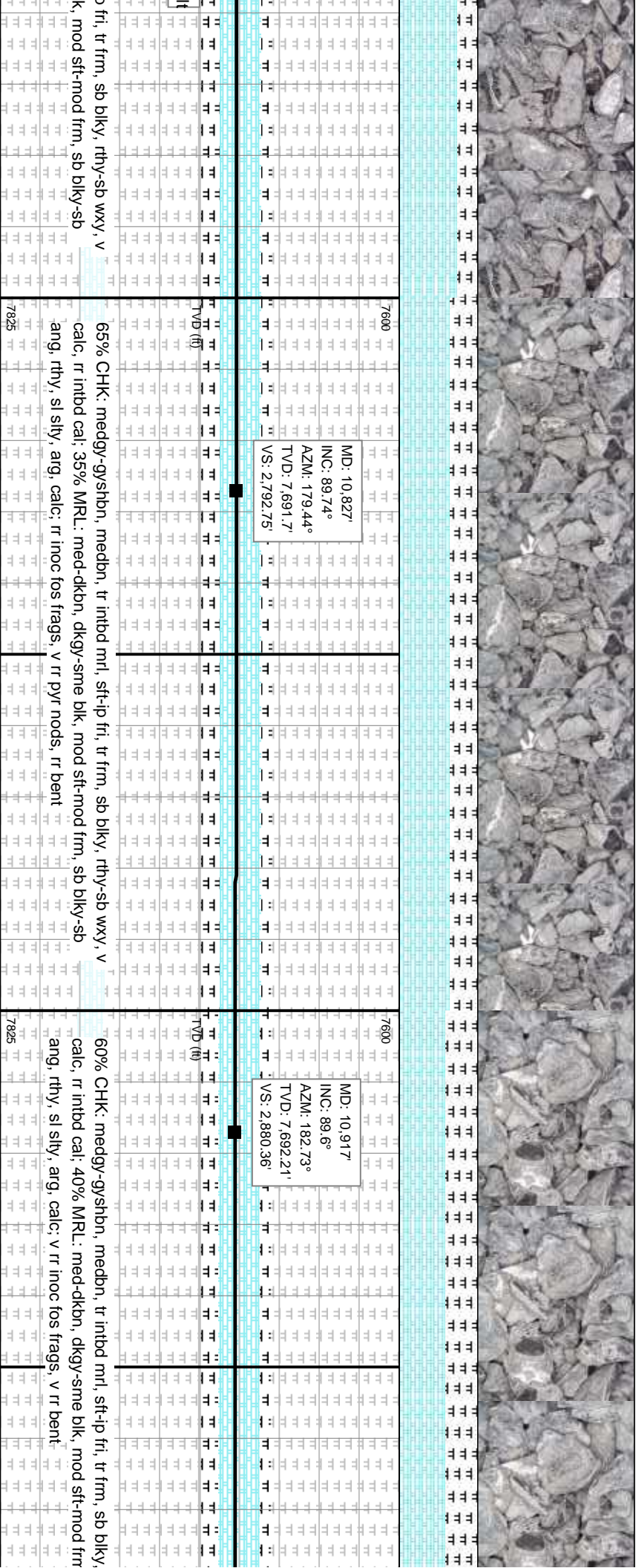
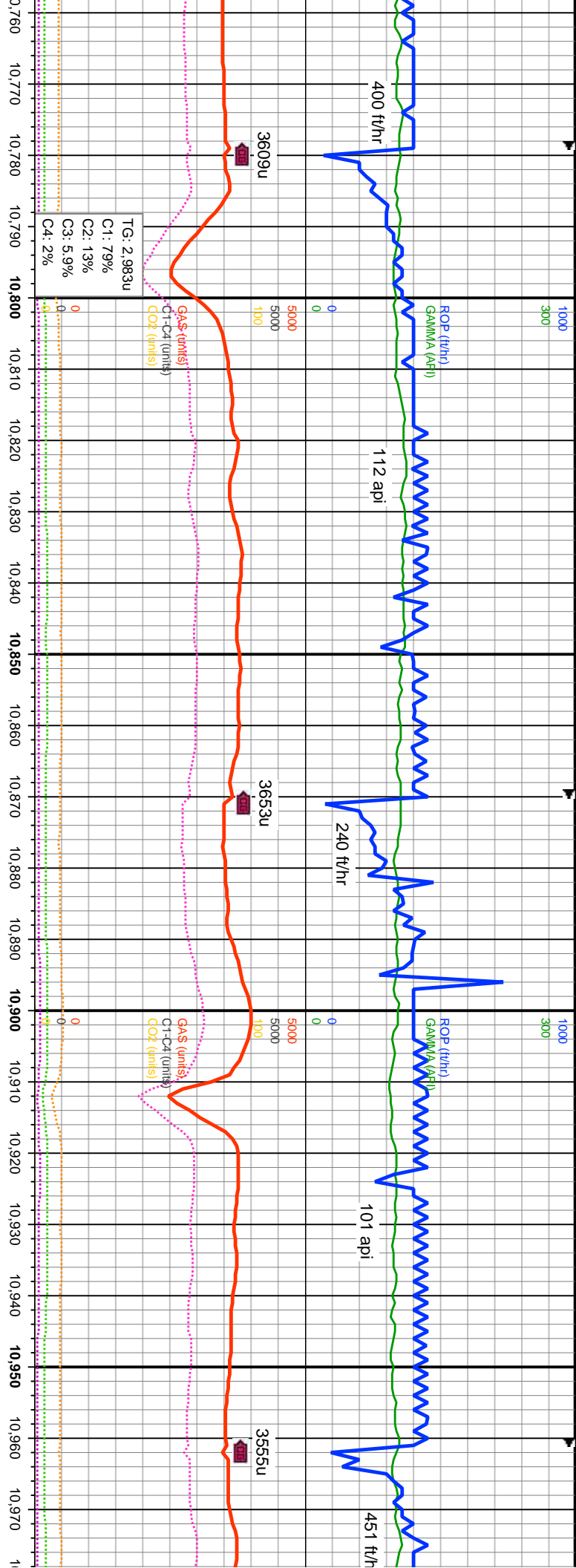
MD: 10.737'
INC: 89.95°
AZM: 179.54°
TVD: 7.691.45'
VS: 2.705.74'

10746' MD: 9' D/T Fau

Depth (ft)	ROP (ft/hr)	GAMMA (API)	G4S (units)	C1-C4 (units)	CO2 (units)	WOB (klb)	RPM	SPM
10,558	387	96				24.5	99	4717/96/99
10,648	96	96				10.6	89.75	4717/96/99
10,737	89	89				10.7	89.95	4717/96/99

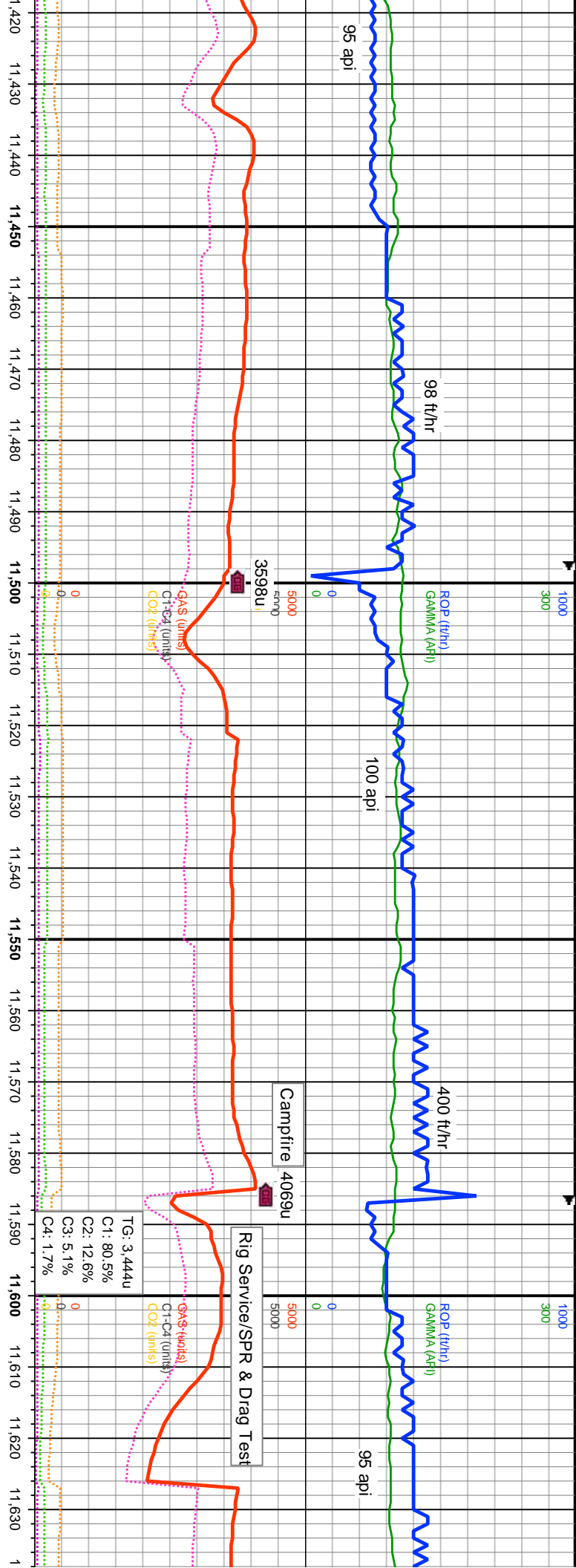
85% CHK: medgy-gyshbn, medbn, tr inbnd mri, sti-ip fri, tr frm, sb blk, rhy-sb wxy, v
calc, rr inbnd cal: 15% MRL: med-dkbn, dkgv-sme blk, mod sft-mod frm, sb blk-sb
ang, rhy, sl sly, arg, calc: v rr inoc fos frags

75% CHK: medgy-gyshbn, medbn, tr inbnd mri, sti-ip fri, tr frm, sb blk, rhy-sb wxy, v
calc, tr inbnd cal: 25% MRL: med-dkbn, dkgv-sme blk, mod sft-mod frm, sb blk-sb
ang, rhy, sl sly, arg, calc: v rr inoc fos frags



65% CHK: medgy-gyshbn, medbn, tr intbd mrl, sft-ip fri, tr frm, sb blk, rhy-sb wxy, v calc, rr intbd cal: 35% MRL: med-dkbn, dky-sme blk, mod sft-mod frm, sb blk-sb ang, rhy, sl sly, arg, calc: rr inoc fos frags, v rr pyr nodes, rr bent

60% CHK: medgy-gyshbn, medbn, tr intbd mrl, sft-ip fri, tr frm, sb blk, rhy-sb wxy, v calc, rr intbd cal: 40% MRL: med-dkbn, dky-sme blk, mod sft-mod frm ang, rhy, sl sly, arg, calc: v rr inoc fos frags, v rr bent

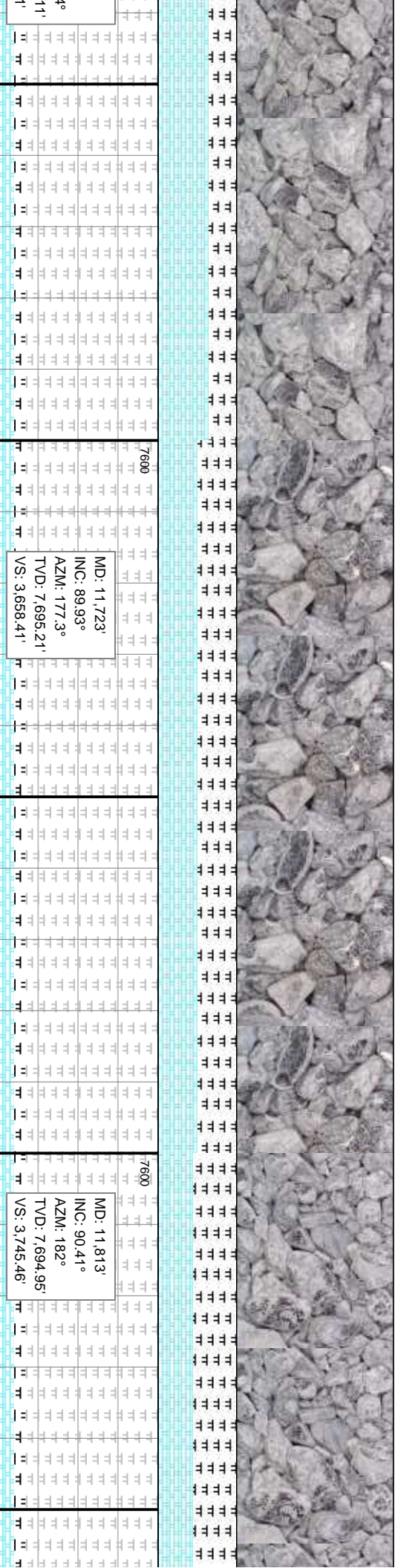
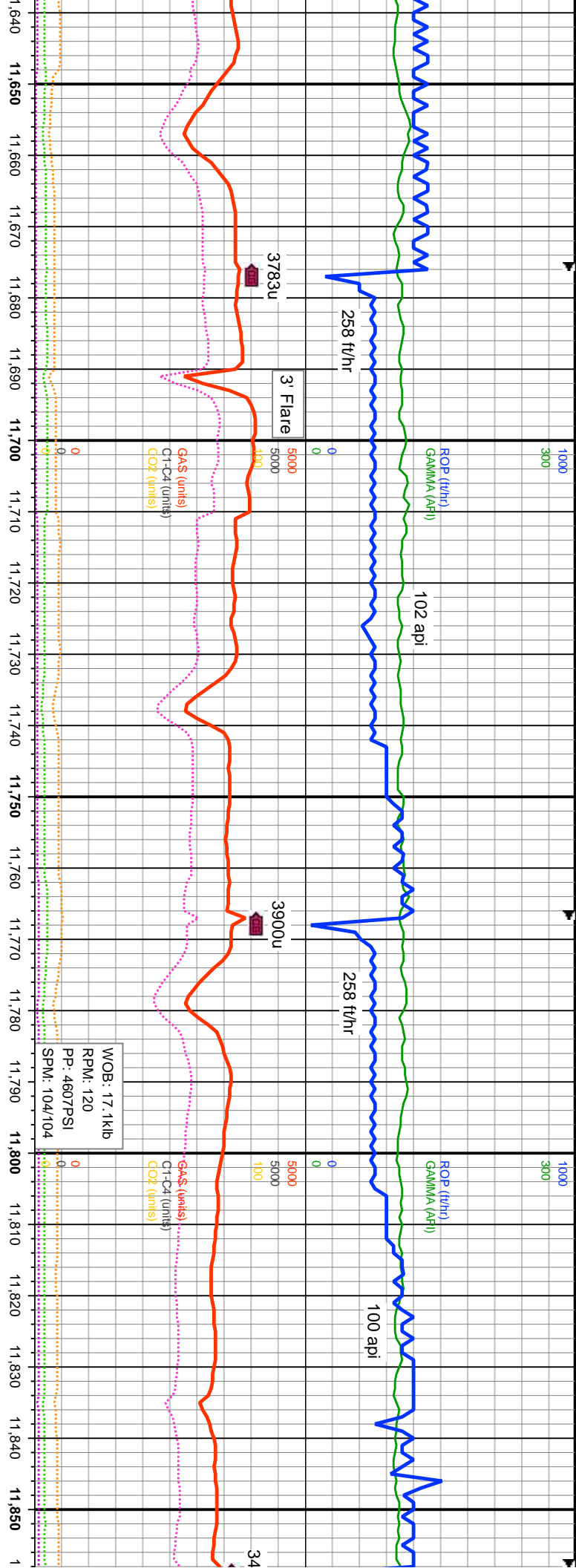


MD: 11,454'
 INC: 89.76°
 AZM: 179.85°
 TVD: 7,695.07'
 VS: 3,400.43'

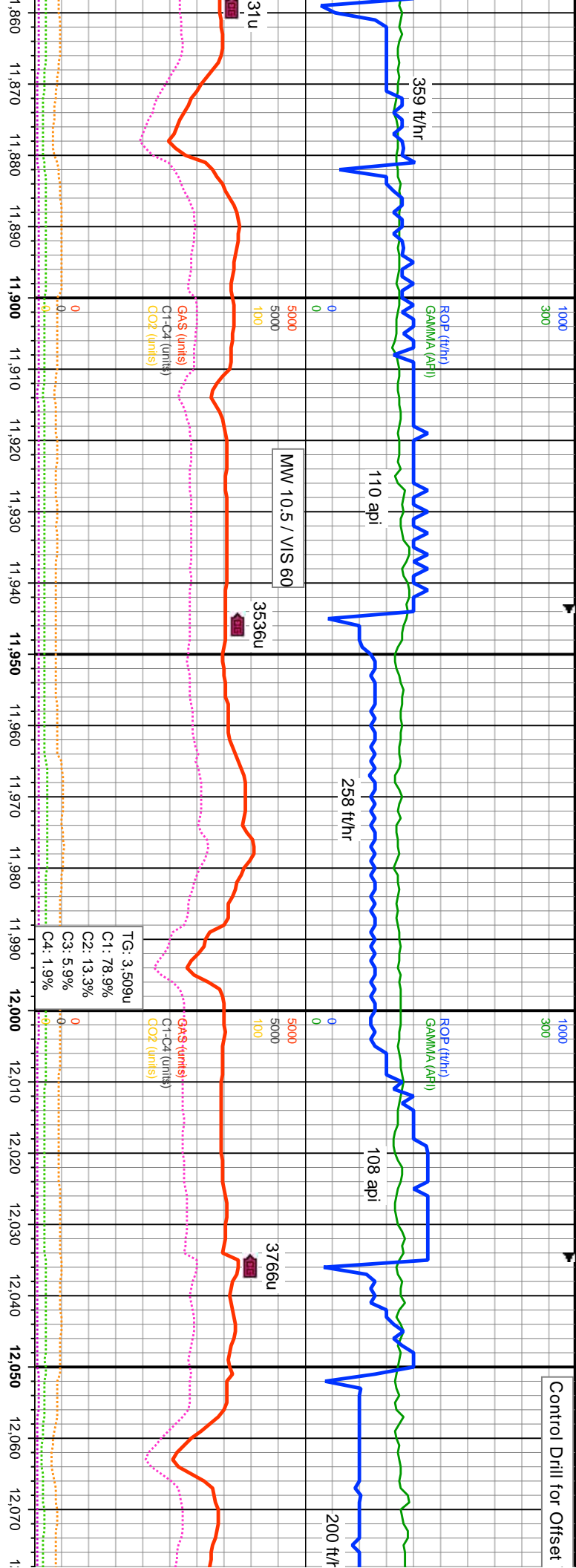
MD: 11,544'
 INC: 90.13°
 AZM: 177.74°
 TVD: 7,695.16'
 VS: 3,487.15'

MD: 11,634'
 INC: 89.94°
 AZM: 177.2°
 TVD: 7,695.07'
 VS: 3,573.3'

Time	ROP (ft/hr)	GAMMA (API)	GAS (units)	C1-C4 (units)	CO2 (units)
11,420	95	~100	~100	~100	~100
11,430	95	~100	~100	~100	~100
11,440	95	~100	~100	~100	~100
11,450	95	~100	~100	~100	~100
11,460	95	~100	~100	~100	~100
11,470	95	~100	~100	~100	~100
11,480	95	~100	~100	~100	~100
11,490	95	~100	~100	~100	~100
11,500	95	~100	~100	~100	~100
11,510	95	~100	~100	~100	~100
11,520	95	~100	~100	~100	~100
11,530	95	~100	~100	~100	~100
11,540	95	~100	~100	~100	~100
11,550	95	~100	~100	~100	~100
11,560	95	~100	~100	~100	~100
11,570	95	~100	~100	~100	~100
11,580	95	~100	~100	~100	~100
11,590	95	~100	~100	~100	~100
11,600	95	~100	~100	~100	~100
11,610	95	~100	~100	~100	~100
11,620	95	~100	~100	~100	~100
11,630	95	~100	~100	~100	~100



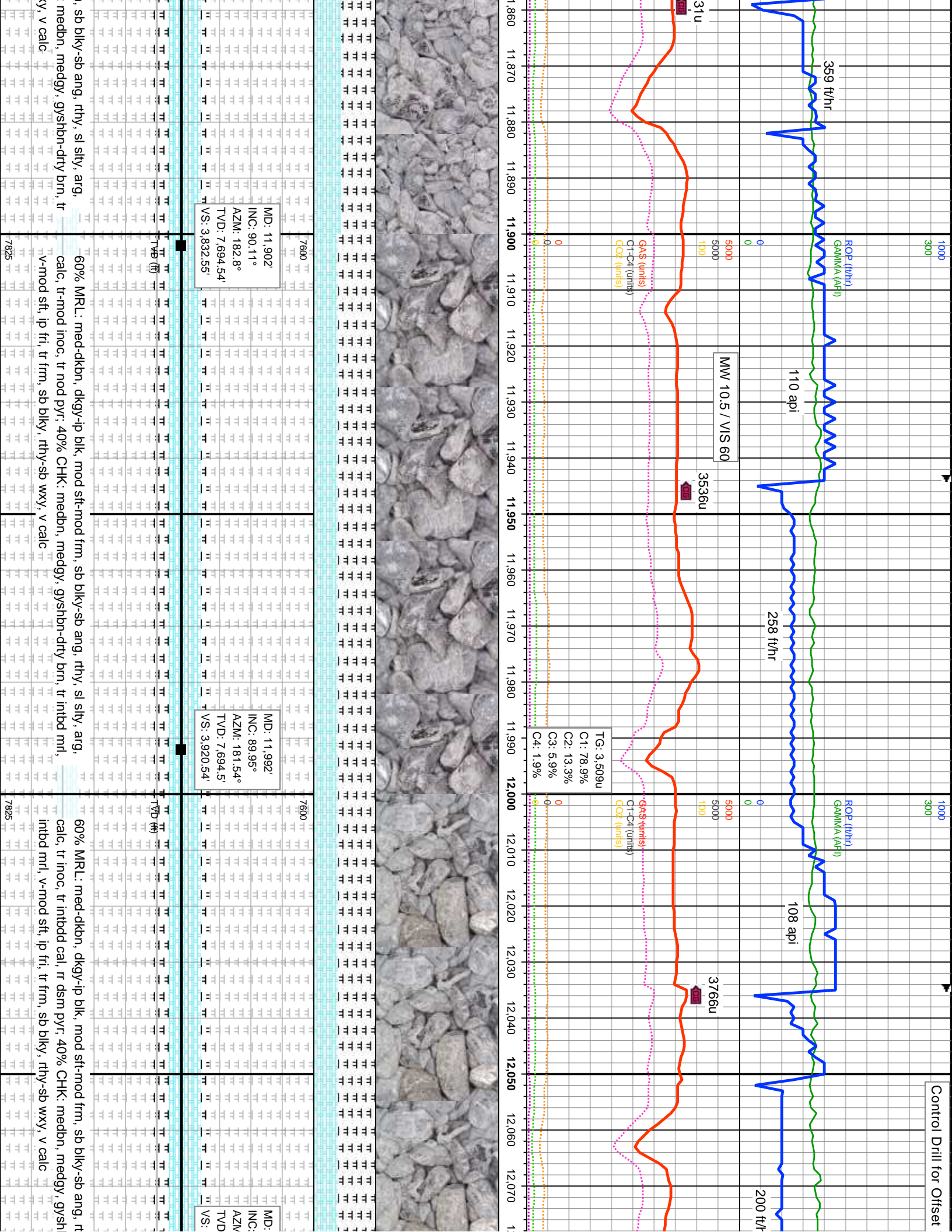
shbn-drfy brn, tr inbnd mrl, v-mod sft, ip fri, tr frm, sb	7600	MD: 11,723' INC: 89.93° AZM: 177.3° TVD: 7,695.21' VS: 3,658.41'	50% CHK: medbn, medgy, gysbn-drfy brn, tr inbnd mrl, v-mod sft, ip fri, tr frm, sb blkly, rhy-sb wxv, v calc, tr-mod inoc, rr inbnd cal, rr dsb pyr: 50% MRL: med-dkbn, dkgy-ip blk, mod sft-mod frm, sb blkly-sb ang, rhy, sl sily, arg, calc
rr inbnd cal, tr dsb/mod pyr: 35% MRL: med-dkbn, dkgy, rhy, sl sily, arg, calc	7825		
shbn-drfy brn, tr inbnd mrl, v-mod sft, ip fri, tr frm, sb	7600	MD: 11,813' INC: 90.41° AZM: 182° TVD: 7,694.95' VS: 3,745.46'	55% MRL: med-dkbn, dkgy-ip blk, mod sft-mod frm calc, tr-mod inoc, tr inbnd cal, tr nod pyr: 45% CHK: inbnd mrl, v-mod sft, ip fri, tr frm, sb blkly, rhy-sb wxv
rr inbnd cal, tr dsb/mod pyr: 35% MRL: med-dkbn, dkgy, rhy, sl sily, arg, calc	7825		



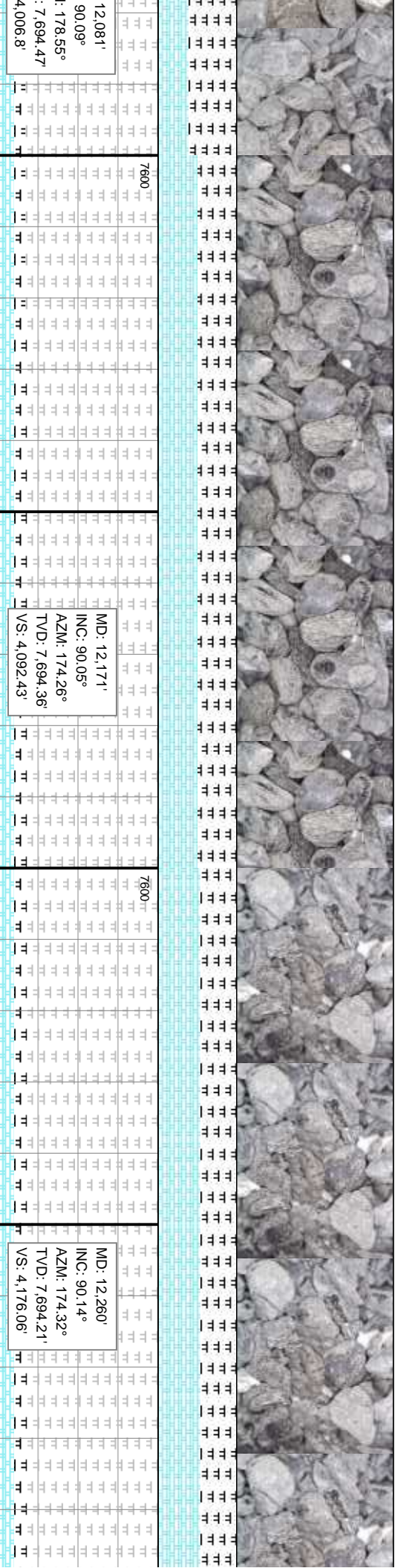
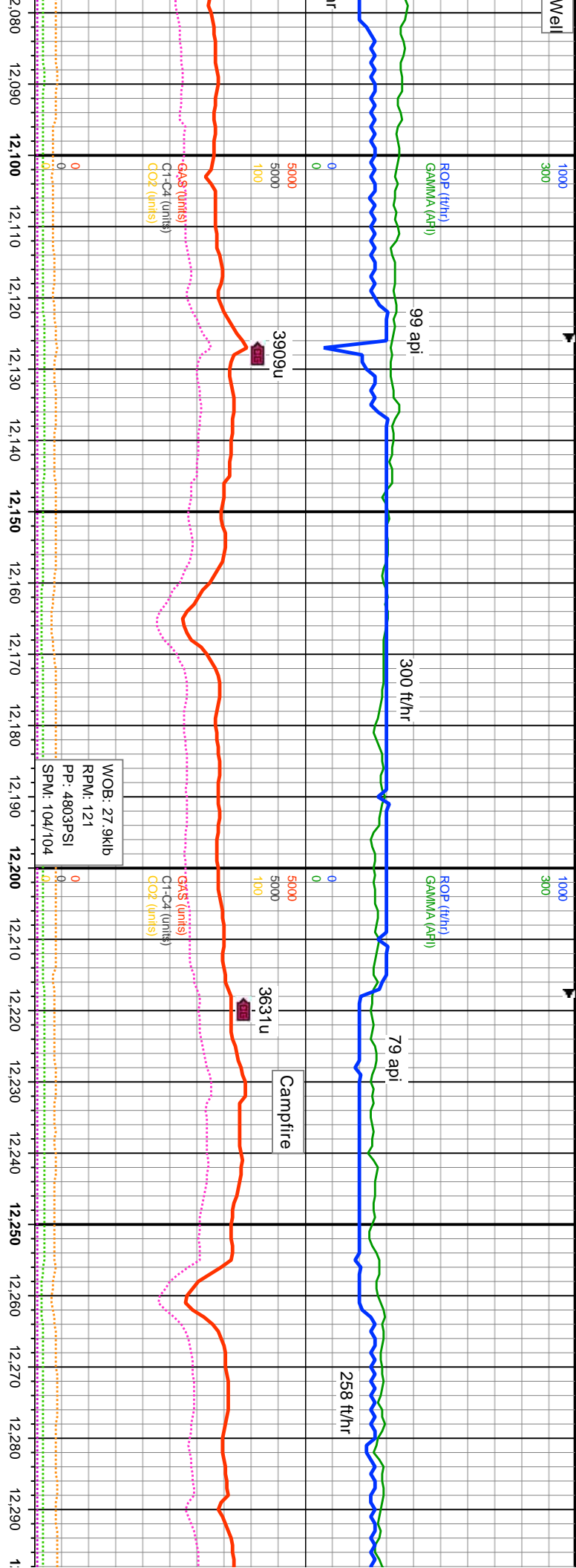
MD: 11.902'
INC: 90.11°
AZMI: 182.8°
TVD: 7.694.54'
VS: 3.832.55'

MD: 11.992'
INC: 89.95°
AZMI: 181.54°
TVD: 7.694.5'
VS: 3.920.54'

MD:
INC:
AZM:
TVD
VS:



sb blk-y-sb ang, rthy, sl sily, arg.
medbn, medgy, gyshbn-dty brn, tr
v-mod sft, ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc
60% MRL: med-dkbn, dkgy-ip blk, mod sft-mod frm, sb blk-y-sb ang, rthy, sl sily, arg.
calc, tr-mod inoc, tr nod pyr: 40% CHK: medbn, medgy, gyshbn-dty brn, tr intbd mrl,
v-mod sft, ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc
60% MRL: med-dkbn, dkgy-ip blk, mod sft-mod frm, sb blk-y-sb ang, rthy, sl sily, arg.
calc, tr inoc, tr intbd cal, rr dsb pyr: 40% CHK: medbn, medgy, gyshbn-dty brn, tr intbd mrl,
v-mod sft, ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc

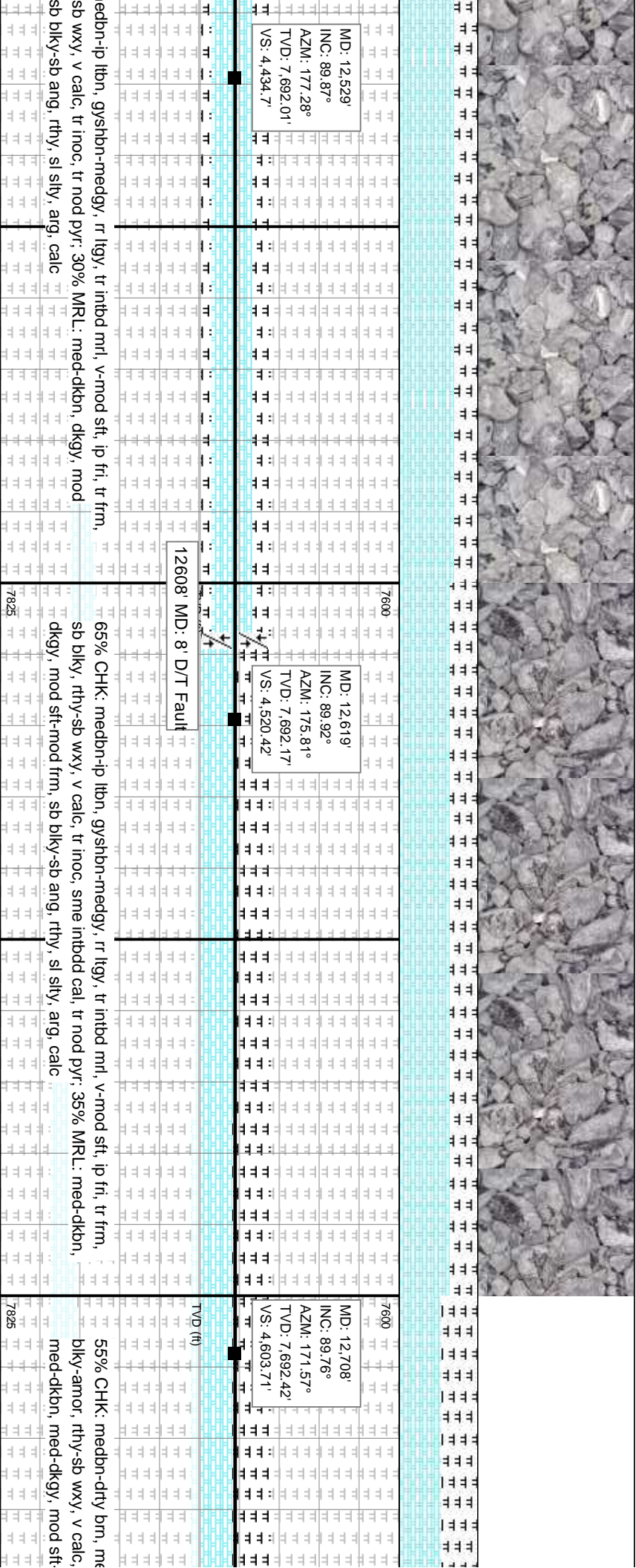
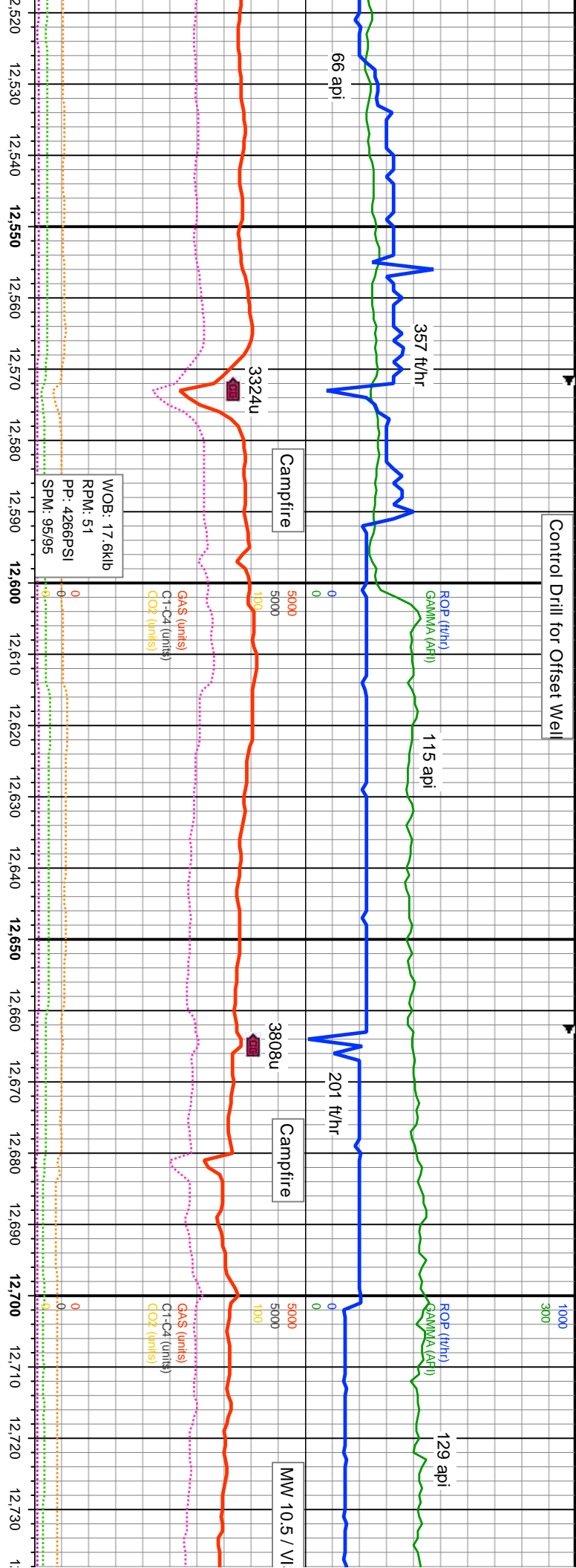


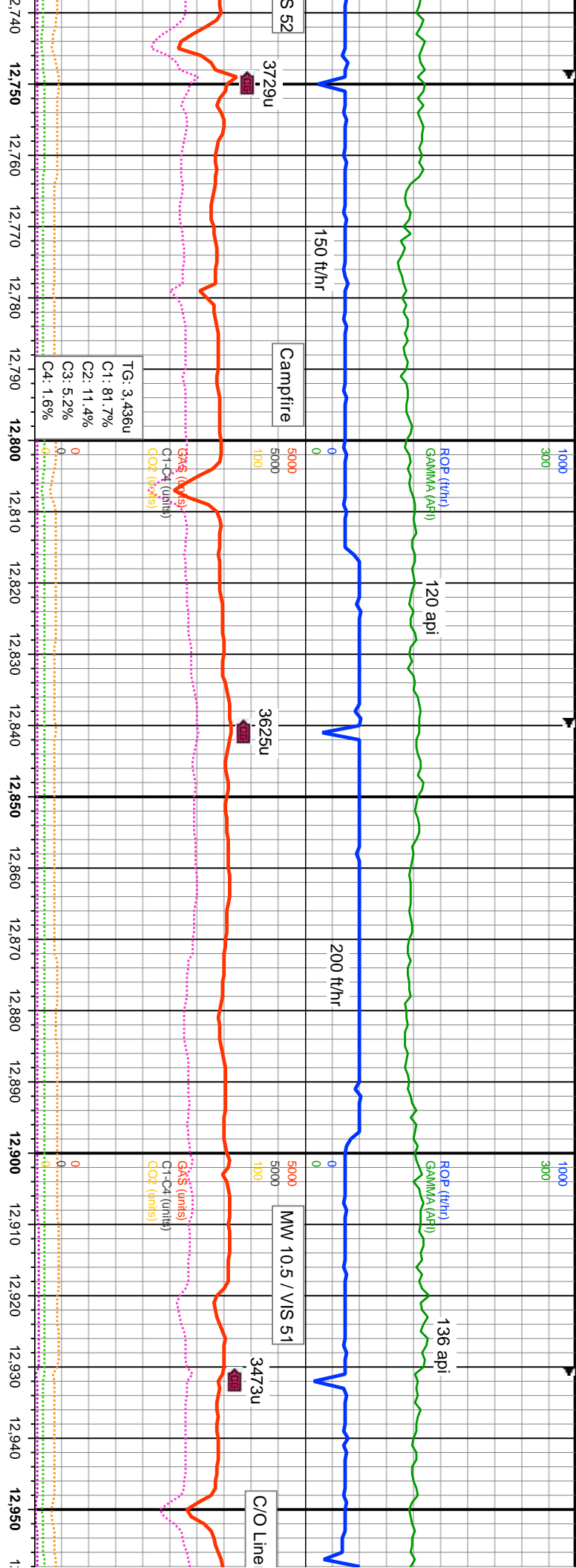
12.081'	INC: 90.09°	MD: 12.171'	INC: 90.05°
178.55°	AZM: 174.26°	174.26°	174.32°
7.694.47	TVD: 7.694.36	7.694.21'	7.694.21'
4.006.8'	VS: 4.092.43'	4.176.06'	

hy, sl sily, arg, 50% MRL: med-dkbn, dkyg-ip blk, mod sft-mod frm, sb blk-y-sb ang, rthy, sl sily, arg, calc, tr inoc, rr dsm pyr, rr bent: 50% CHK: lt-medbn, medgy, gysbhn-dtry brn, tr inbd mrl, v-mod sft, ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc

55% CHK: lt-medbn, medgy, gysbhn-dtry brn, tr inbd mrl, v-mod sft, ip fri, tr frm, sb blk-y, rthy-sb wxy, v calc, tr inoc, rr dsm pyr, rr bent: 45% MRL: med-dkbn, dkyg-ip blk, mod sft-mod frm, sb blk-y-sb ang, rthy, sl sily, arg, calc

Control Drill for Offset Well



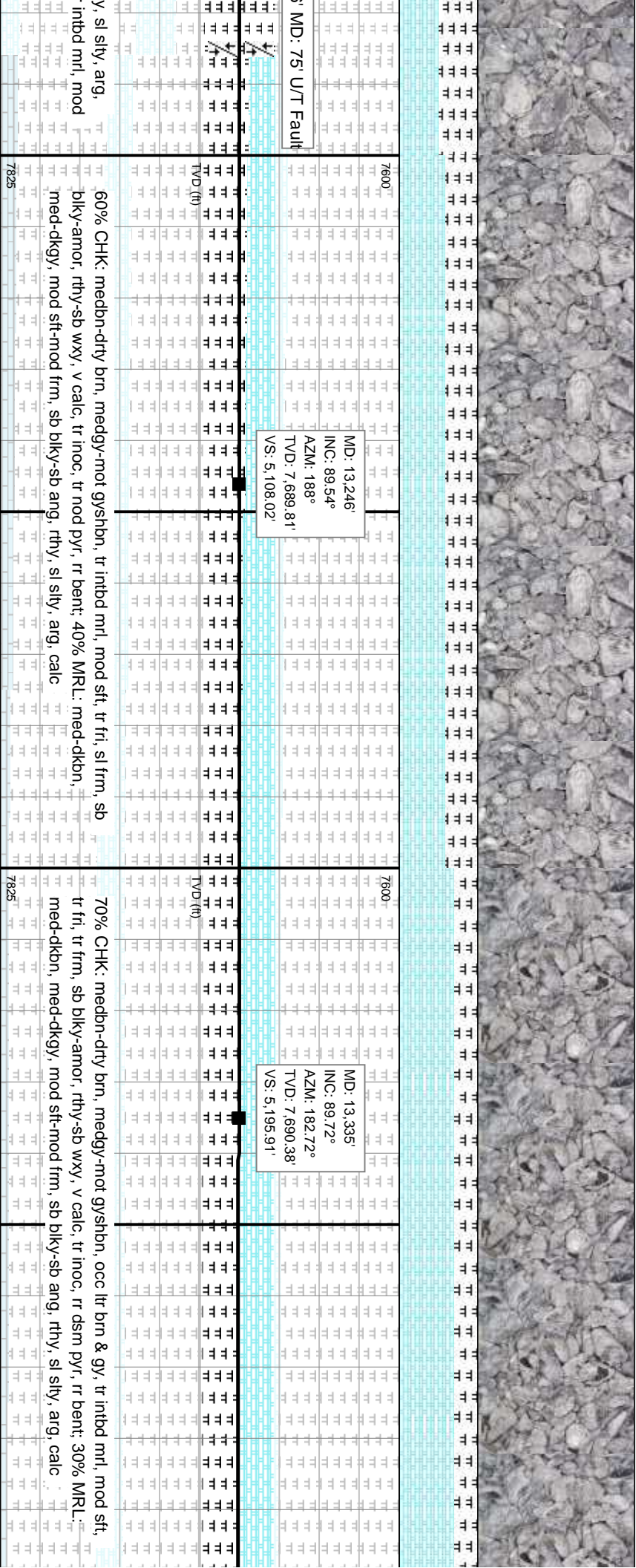
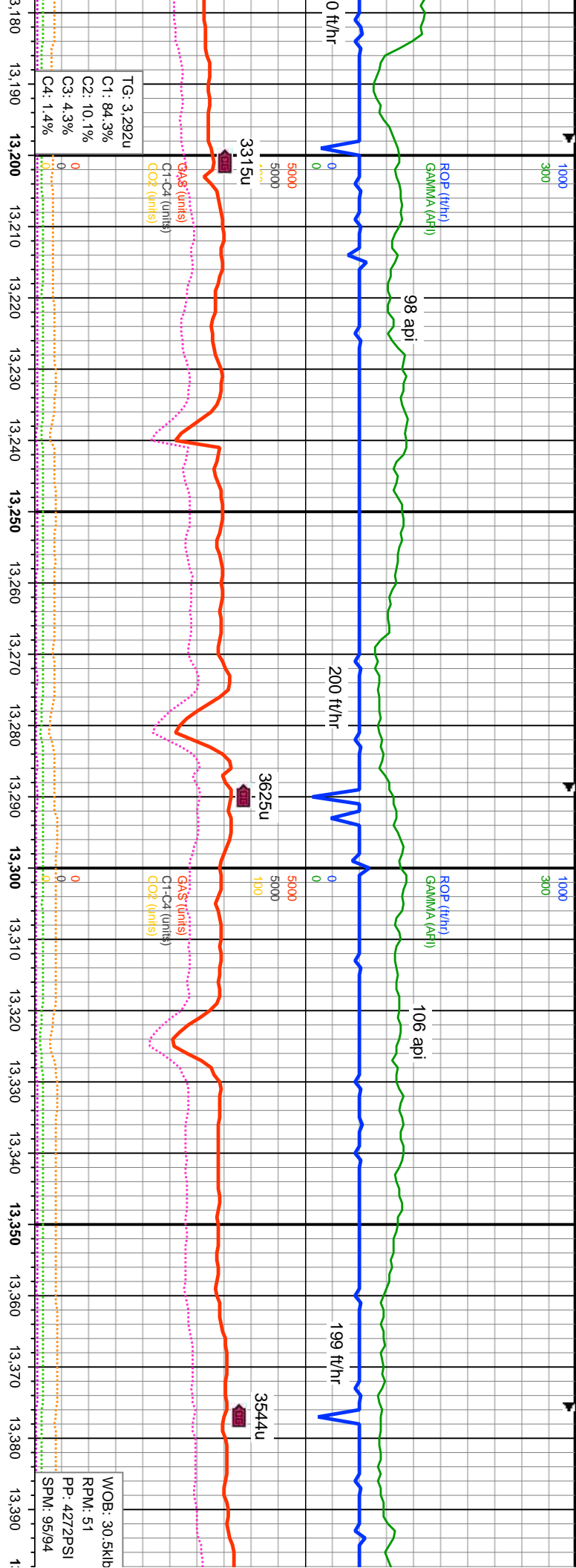


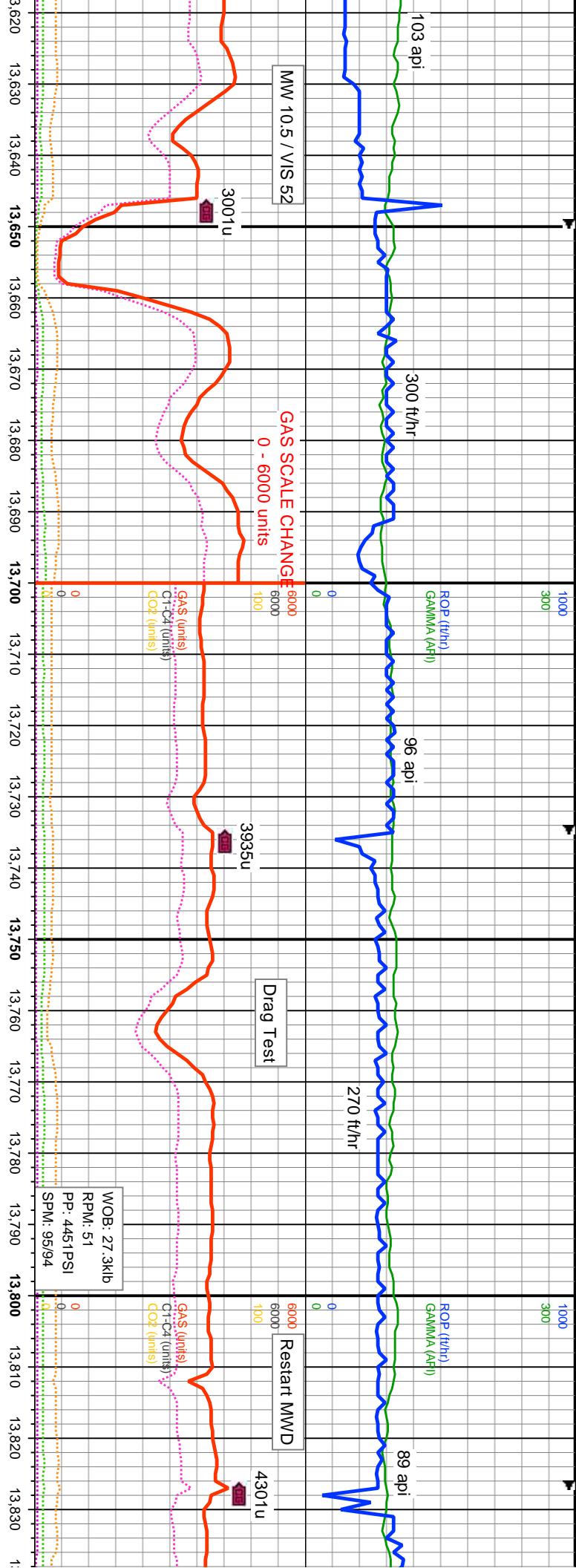
MD: 12,798'	MD: 12,887'
INC: 90.11°	INC: 90.42°
AZM: 166.19°	AZM: 167.18°
TVD: 7,692.52'	TVD: 7,692.1'
VS: 4,684.97'	VS: 4,763.84'

12764 MD: 8' D/T Fault

55% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb blk-y-sb ang, rthy, sl stly, arg, calc, tr inoc, rr nod pyr, rr bent; 45% CHK: medbn-drtly brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, sl frm, sb blk-y-sb ang, rthy, sl stly, arg, calc

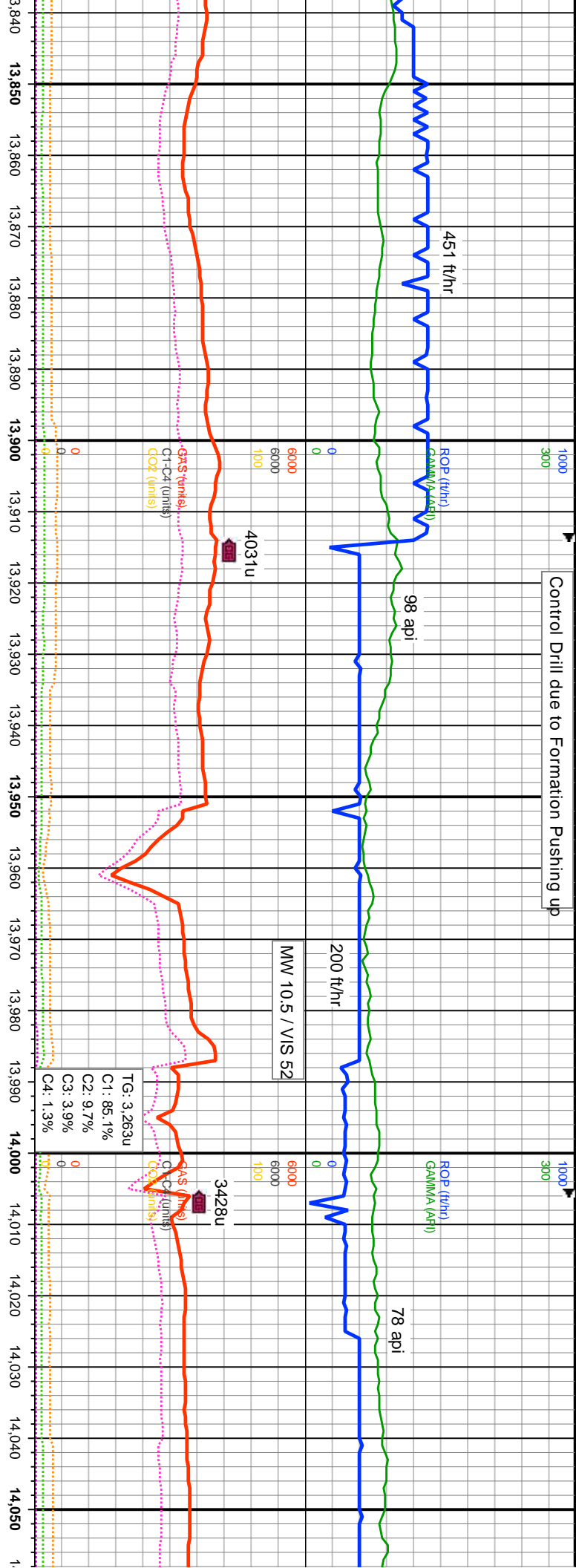
60% MRL: med-dkbn, med-dkgy, mod sft-mod frm, calc, tr inoc; 40% CHK: medbn-drtly brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, sl frm, sb blk-y-sb ang, rthy, sl stly, arg, calc





medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb
fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent
70% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	70% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	70% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	70% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb
blkv-amor, rthy-sb wxy, v calc: 30% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb	blkv-amor, rthy-sb wxy, v calc: 30% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb	blkv-amor, rthy-sb wxy, v calc: 30% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb	blkv-amor, rthy-sb wxy, v calc: 30% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb
fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent
60% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	60% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	60% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb	60% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mrl, mod sft, tr fri, tr frm, sb
blkv-amor, rthy-sb wxy, v calc: 35% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb	blkv-amor, rthy-sb wxy, v calc: 35% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb	blkv-amor, rthy-sb wxy, v calc: 35% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb	blkv-amor, rthy-sb wxy, v calc: 35% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb
fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent	fm, sb blk-sb ang, rthy, sl sily, arg, calc: rr bent

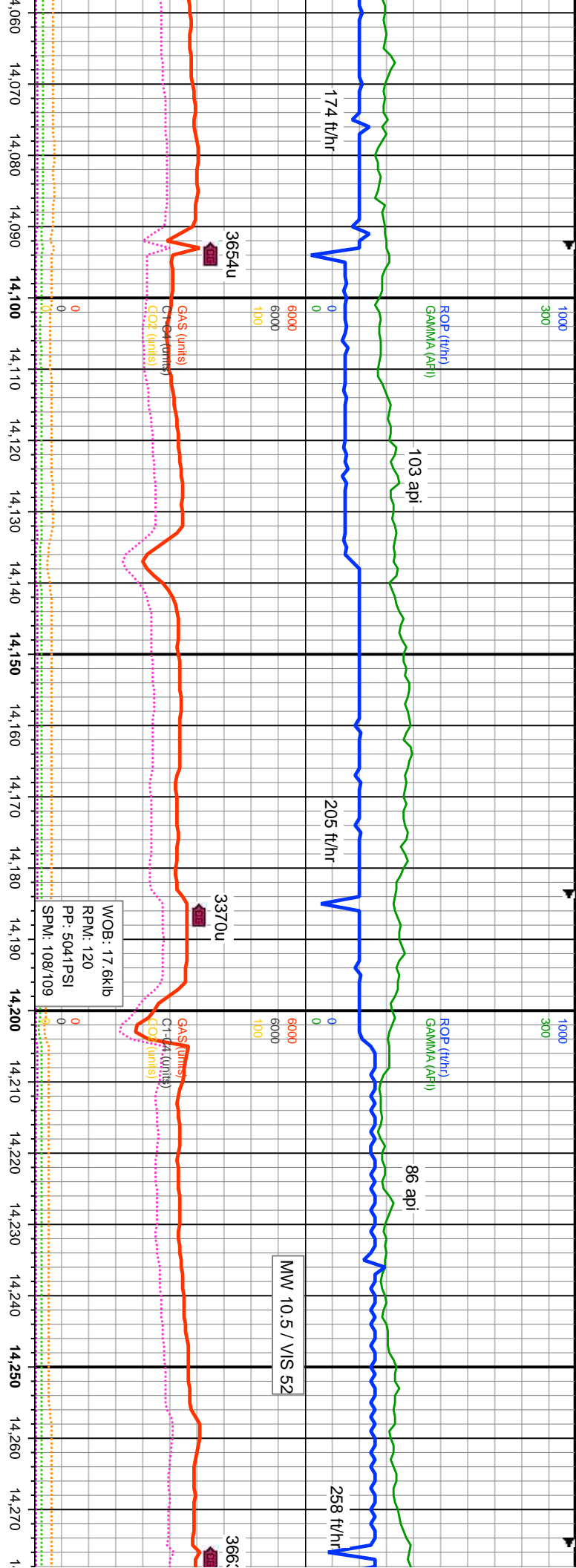
Control Drill due to Formation Pushing up



Time	MD	INC	AZM	TVD	VS	ROP (ft/hr)	GAMMA (API)	GAS (units)	CO2 (units)
13,873'	13.873'	90.89°	189.43°	7.688.65'	5.722.24'	451	98	4031u	
13,963'	13.963'	90.15°	188.57°	7.687.84'	5.811.85'	200	78	3428u	
14,052'	14.052'	90.08°	184.11°	7.687.66'	5.899.97'				

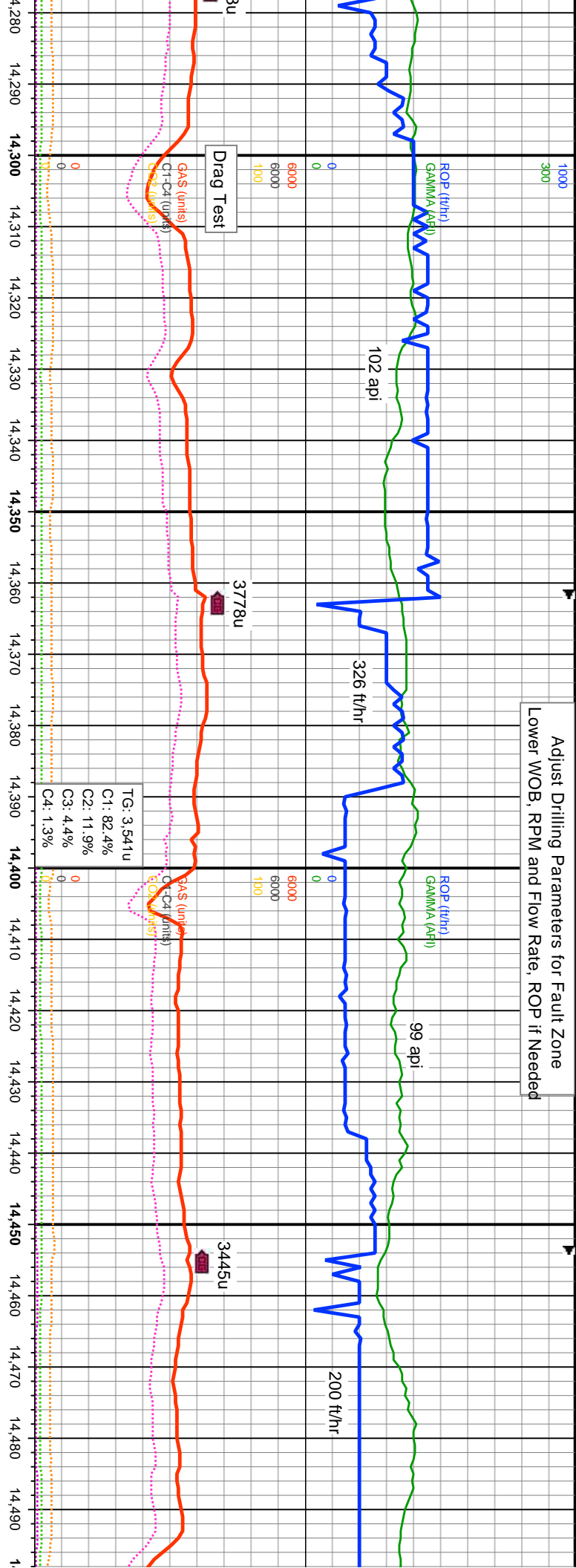
65% CHK: medbn-dty brn, medgy-mot gysbhn, tr intbd mri, mod sti, tr fri, tr frm, sb
 blkv-armor, rthy-sb wxj, v calc: 35% MRL: med-dkbn, med-dkgy, mod sti-nod frm, sb
 blkv-sb ang, rthy, sl silv, arg, calc: tr pyr nodes

70% CHK: medbn-dty brn, medgy-mot gysbhn, tr
 blkv-armor, rthy-sb wxj, v calc: 30% MRL: med-dkbn, med-dkgy, mod sti-nod frm, sb
 blkv-sb ang, rthy, sl silv, arg, calc:

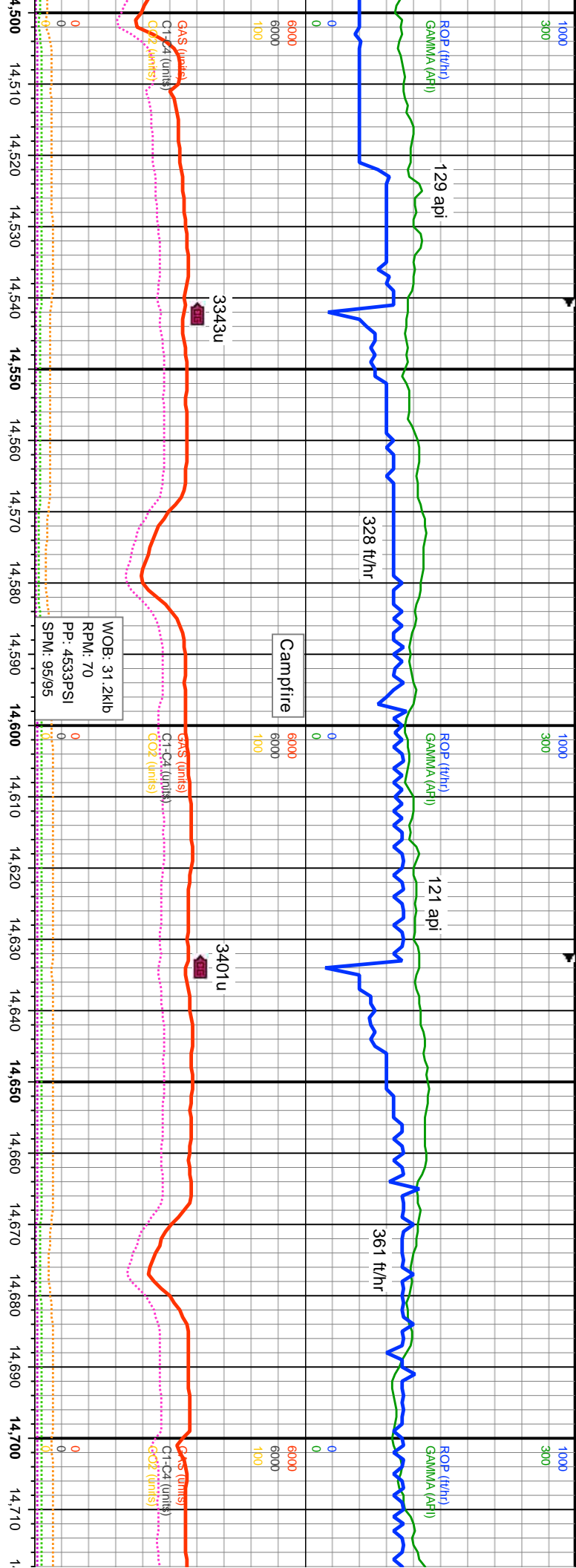


14,060	14,070	14,080	14,090	14,100	14,110	14,120	14,130	14,140	14,150	14,160	14,170	14,180	14,190	14,200	14,210	14,220	14,230	14,240	14,250	14,260	14,270	1-
<p>60% CHK: medbn-dfry brn, medgy-mot gysbhn, tr inbnd mri, mod sft, tr fri, tr frm, sb blk-amor, rthy-sb wxy, v calc, v rr inbnd cal: 40% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb blk-ang, rthy, sl sily, arg, calc: v rr pyr nods</p>																						
<p>75% CHK: medbn-dfry brn, medgy-mot gysbhn, tr inbnd mri, mod sft, tr fri, tr frm, sb blk-amor, rthy-sb wxy, v calc, v rr inbnd cal: 25% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb blk-ang, rthy, sl sily, arg, calc: v rr inoc fos frags</p>																						
<p>MD: 14.142 INC: 89.83° AZMI: 182.54° TVD: 7.687.73' VS: 5.988.33'</p>																						
<p>MD: 14.231 INC: 90° AZMI: 180.4° TVD: 7.687.86' VS: 6.075.1'</p>																						
<p>14187' MD: 4 D/T Fault</p>																						
<p>MW 10.5 / VIS 52</p>																						
<p>WOB: 17.6klb RPM: 120 PP: 5041PSI SPM: 108/109</p>																						
<p>ROP (ft/hr) GAMMA (API) GAS (units) C1-C4 (units) CO2 (units)</p>																						
<p>inbnd mri, mod sft, tr fri, tr frm, sb RL: med-dkbn, med-dkgy, mod tr pyr nods</p>																						

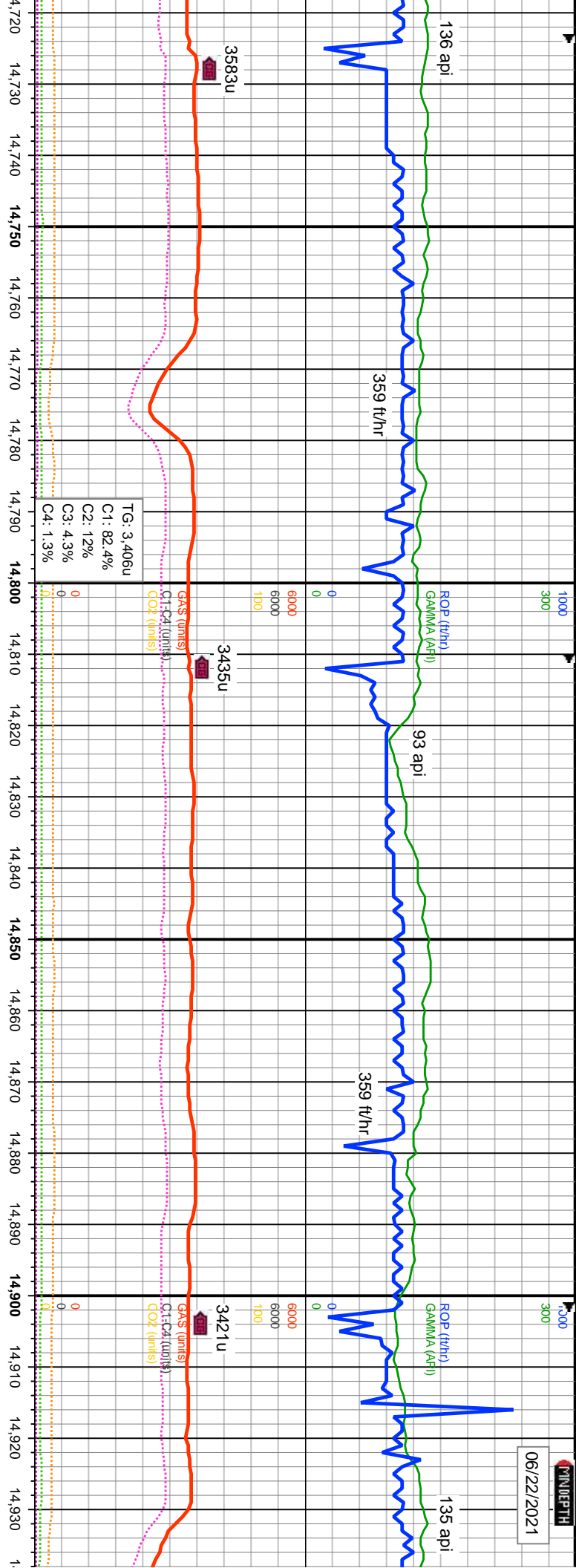
Adjust Drilling Parameters for Fault Zone
Lower WOB, RPM and Flow Rate, ROP if Needed



7600	MD: 14.321' INC: 90.46° AZM: 182.21° TVD: 7.687.51' VS: 6.162.79'	70% CHK: medbn-dty brn, medgy-mot gysbhn, tr inbnd mrl, mod sti, tr fri, tr frm, sb blk-armor, rthy-sb wxy, v calc, v rr inbnd cal: 30% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb blk-armor, rthy, sl sily, arg, calc: v rr inoc fos frags, v rr pyr nodes	7825
7600	MD: 14.411' INC: 89.57° AZM: 180.57° TVD: 7.687.48' VS: 6.250.52'	60% CHK: medbn-dty brn, medgy-mot gysbhn, tr inbnd mrl, mod sti, tr fri, tr frm, sb blk-armor, rthy-sb wxy, v calc, v rr inbnd cal: 40% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb blk-armor, rthy, sl sily, arg, calc: v rr inoc fos frags	7825



MD: 14.500'	MD: 14.590'	MD: 14.680'	MD: 14.700'
INC: 90.02°	INC: 89.56°	INC: 89.54°	INC: 89.54°
179.33°	AZM: 179.4°	AZM: 179.38°	AZM: 179.38°
7.687.8'	TVD: 7.688.13'	TVD: 7.688.84'	TVD: 7.688.84'
7.336.74'	VS: 6.423.65'	VS: 6.510.56'	VS: 6.510.56'
7600	7600	7600	7600
TVD (ft)	TVD (ft)	TVD (ft)	TVD (ft)
50% CHK: medbn-dtry bm, medgy-mot gysbhn, tr inbd mrl, mod sft, tr fri, tr frm, sb	60% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb blkly-sb ang, rthy, sl stly, arg,	70% MRL: r	
blkly-armor, rthy-sb wxy, v calc; 50% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb	calc: 40% CHK: medbn-dtry bm, medgy-mot gysbhn, tr inbd mrl, mod sft, tr fri, tr	calc: 30% C	
blkly-sb ang, rthy, sl stly, arg, calc	frm, sb blkly-armor, rthy-sb wxy, v calc	frm, sb blkly	
7825	7825	7825	7825



MD: 14.769'	MD: 14.859'
INC: 89.43°	INC: 89.33°
AZM: 177.82°	AZM: 179.35°
TVD: 7.689.64'	TVD: 7.690.61'
VS: 6.596.23'	VS: 6.682.86'

7600
TVD (ft)

7825

7600
TVD (ft)

7825

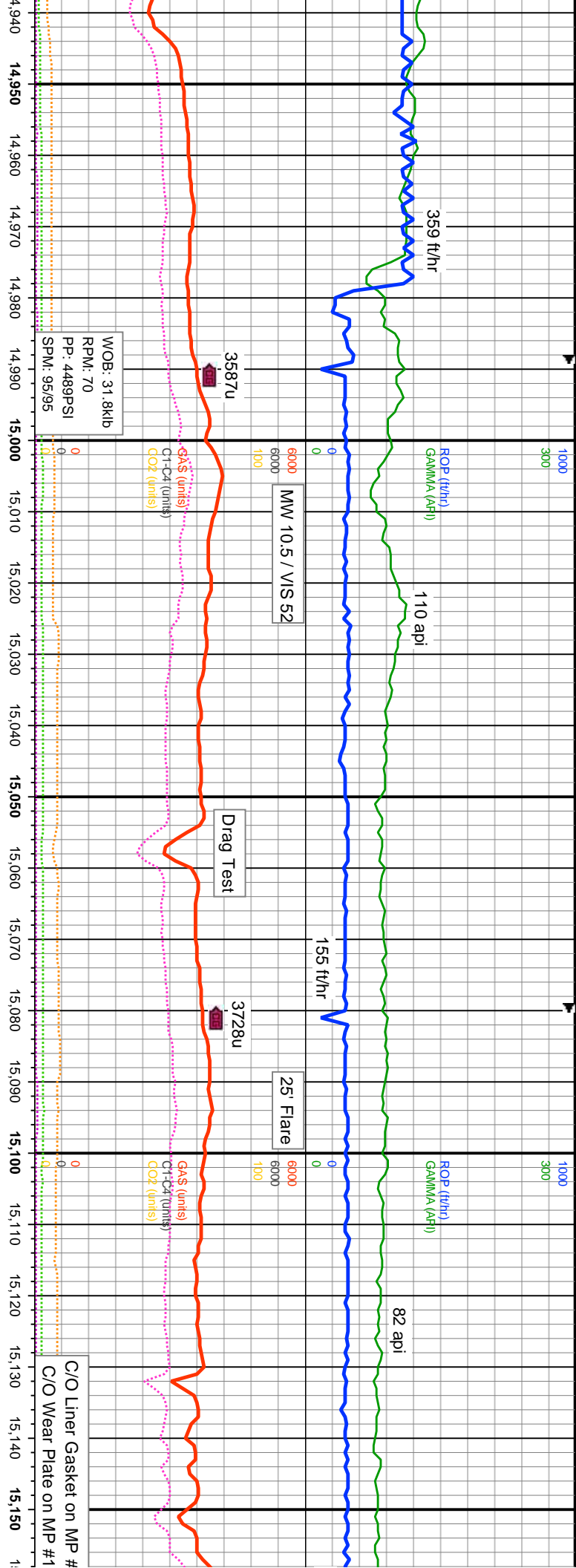
7600
TVD (ft)

7825

med-dkbn, med-dkgy, mod sft-mod frm, sb blkly-sb ang, rthy, sl stly, arg.
 HK: medbn-dty brn, medgy-mot gyshbn, tr intbd mrl, mod sft, tr fr, tr
 -amor, rthy-sb wxy, v calc

70% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb blkly-sb ang, rthy, sl stly, arg.
 calc: 30% CHK: medbn-dty brn, medgy-mot gyshbn, tr intbd mrl, mod sft, tr fr, tr
 frm, sb blkly-amor, rthy-sb wxy, v calc: v rr bent

50% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb blkly-sb ang, rthy, sl stly, arg.
 calc: 50% CHK: medbn-dty brn, medgy-mot gyshbn, tr intbd mrl, mod sft, tr fr, tr
 frm, sb blkly-amor, rthy-sb wxy, v calc: v rr bent



MD: 14,949'
 INC: 89.44°
 AZM: 179.39°
 TVD: 7,691.57'
 VS: 6,769.82'

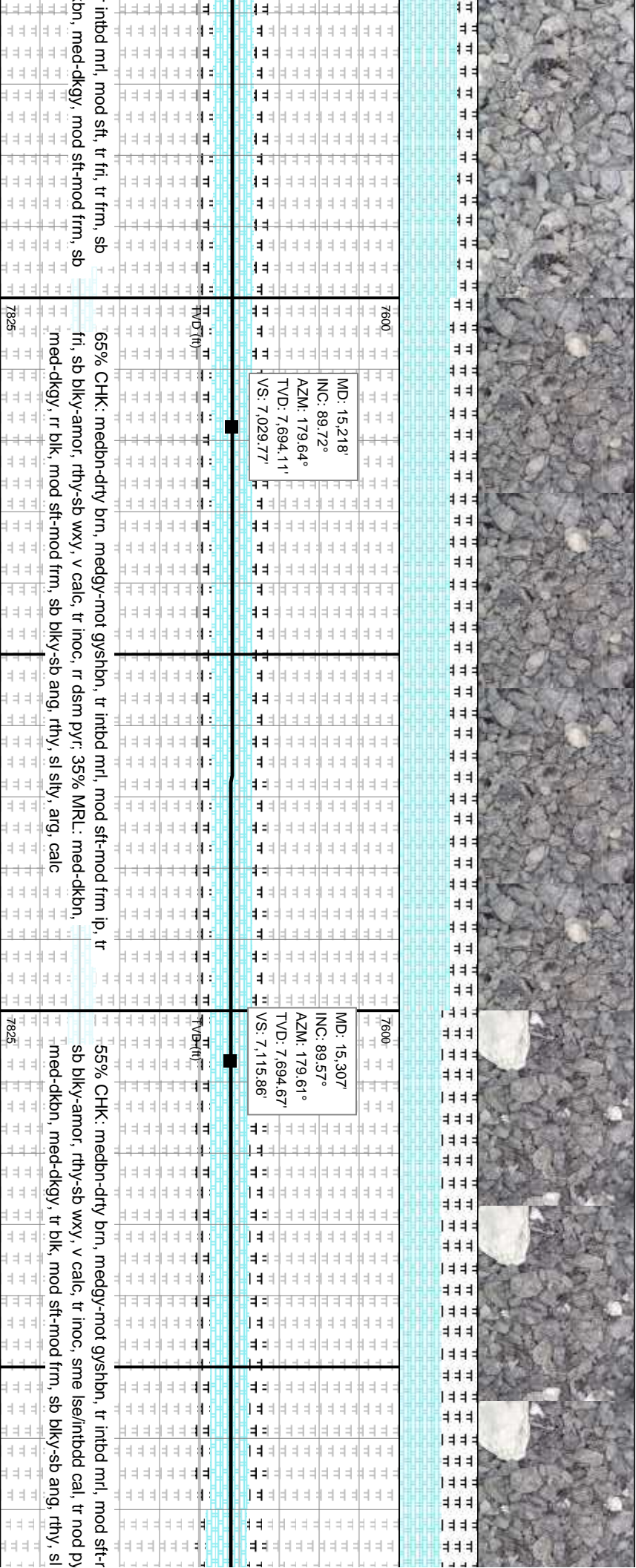
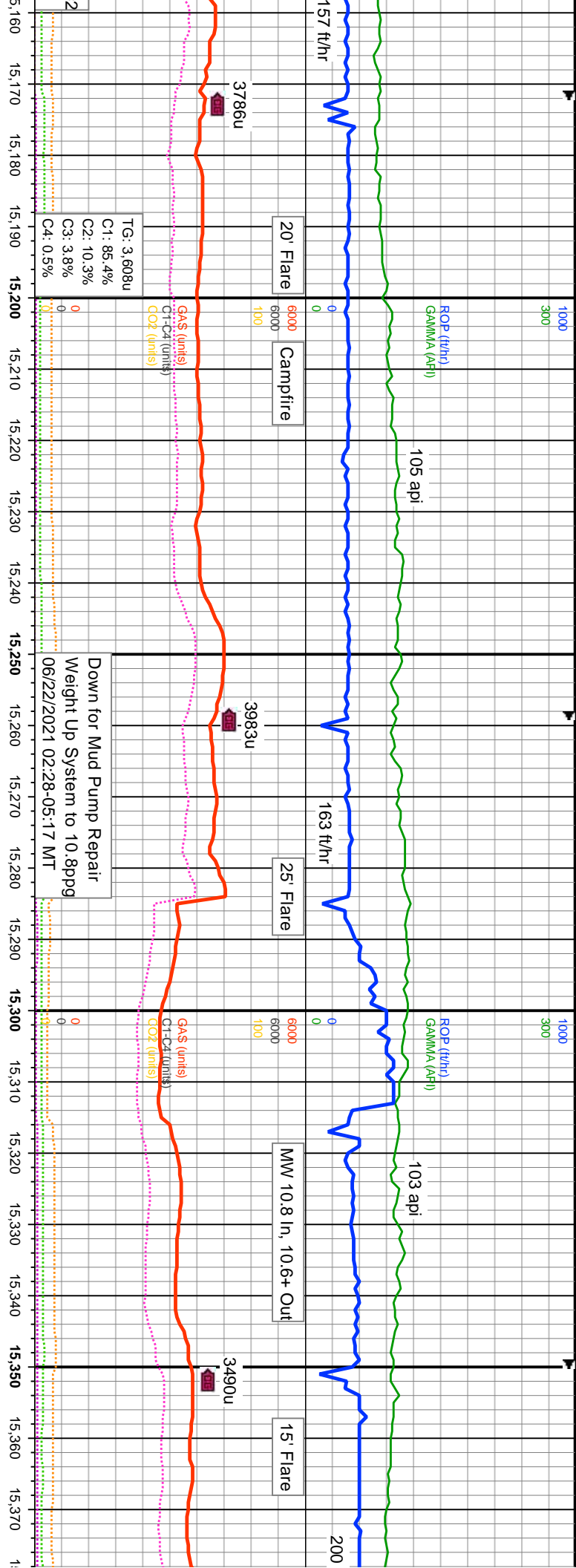
14981' MD: 59' U/T Fault

MD: 15,038'
 INC: 89.43°
 AZM: 179.41°
 TVD: 7,692.45'
 VS: 6,855.83'

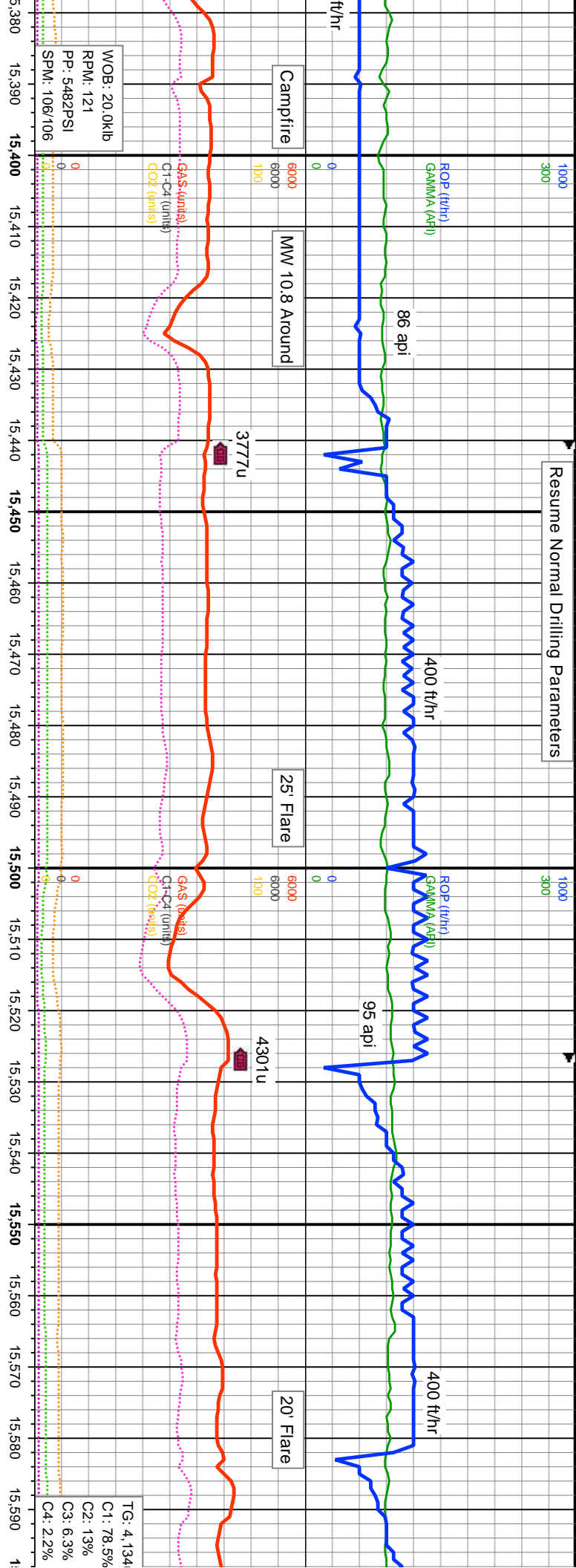
MD: 15,128'
 INC: 89.37°
 AZM: 179.24°
 TVD: 7,693.39'
 VS: 6,942.78'

65% CHK: medbn-dtry brn, medgy-mot gysbhn, tr inbnd nrl, mod sft, tr frl, tr frm, sb
 blk-amor, rthy-sb wxy, v calc: 35% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb
 blk-sb ang, rthy, sl sily, arg, calc: v rr pyr nod

75% CHK: medbn-dtry brn, medgy-mot gysbhn, tr inbnd nrl, mod sft, tr frl, tr frm, sb
 blk-amor, rthy-sb wxy, v calc: 25% MRL: med-dkbn, med-dkgy, mod sft-mod frm, sb
 blk-sb ang, rthy, sl sily, arg, calc: v rr bent



Resume Normal Drilling Parameters



MD: 15.397
INC: 89.61°
AZM: 180.02°
TVD: 7.696.32
VS: 7.203

MD: 15.486
INC: 89.59°
AZM: 178.73°
TVD: 7.695.94
VS: 7.289

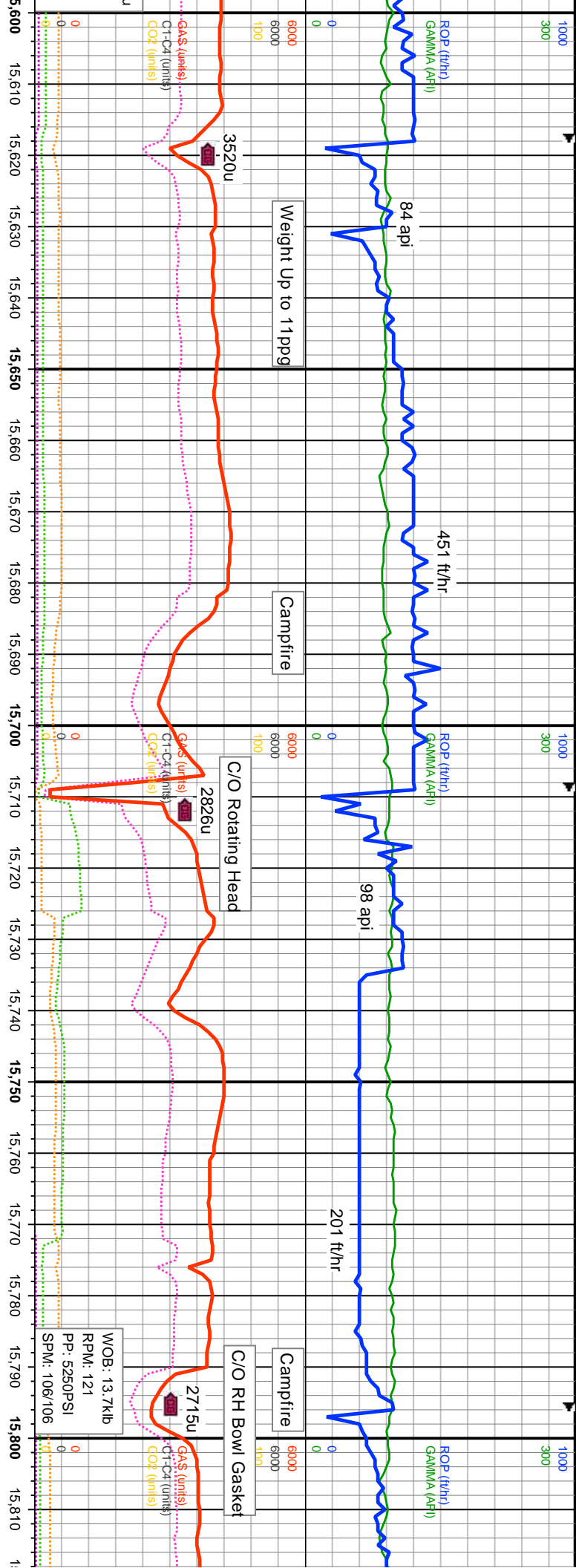
MD: 15.576
INC: 90.25°
AZM: 182.96°
TVD: 7.696.07
VS: 7.376.51

mod frm ip, tr fri, 55% CHK: medbn-dtry brn, medgy-mot gysbhn, tr intbd mrl, mod sft-mod frm ip, tr fri, sb blkly-amor, rthy-sb wxy, v calc, tr inoc, tr isel/ntbdc cal, tr nod pyr, 45% MRL: med-dkbn, med-dkgy, tr blk, mod sft-mod frm, sb blkly-sb ang, rthy, sl stly, argi, calc

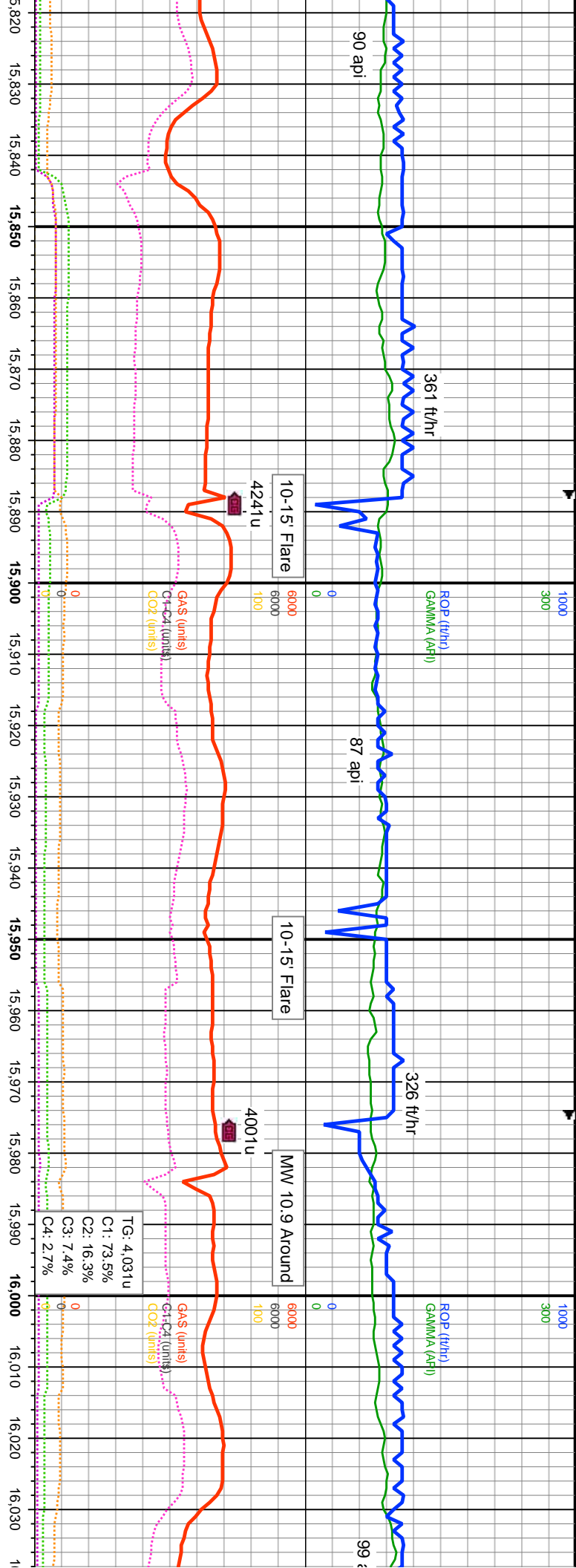
7826

mod frm ip, tr fri, 65% CHK: lt-med dry brn, medgy-gysbhn, com intbd mrl, mod sft-mod frm ip, sl fri-ip brit, sb blkly-amor, rthy-sb wxy, v calc, tr inoc, tr intbd cal, tr nod pyr, rr bent: 35% MRL: med-dkbn, med-dkgy, tr blk, mod sft-mod frm, sb blkly-sb ang, rthy, sl stly, argi, calc

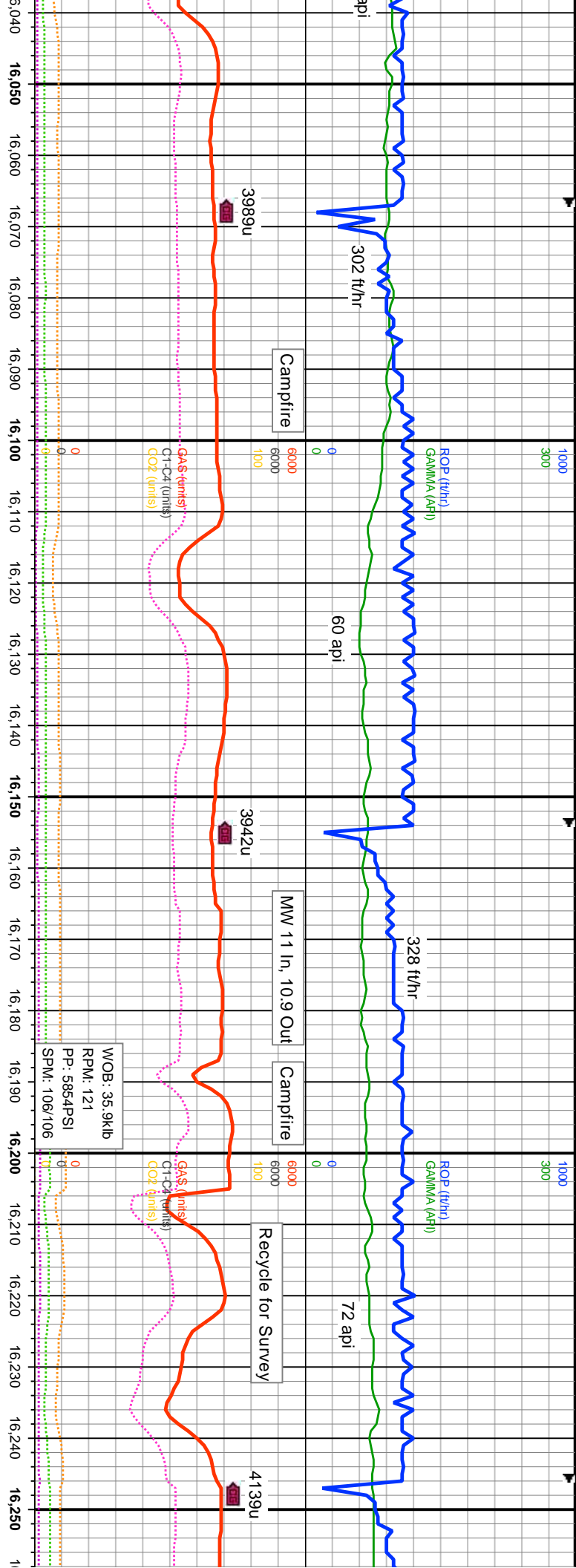
7826



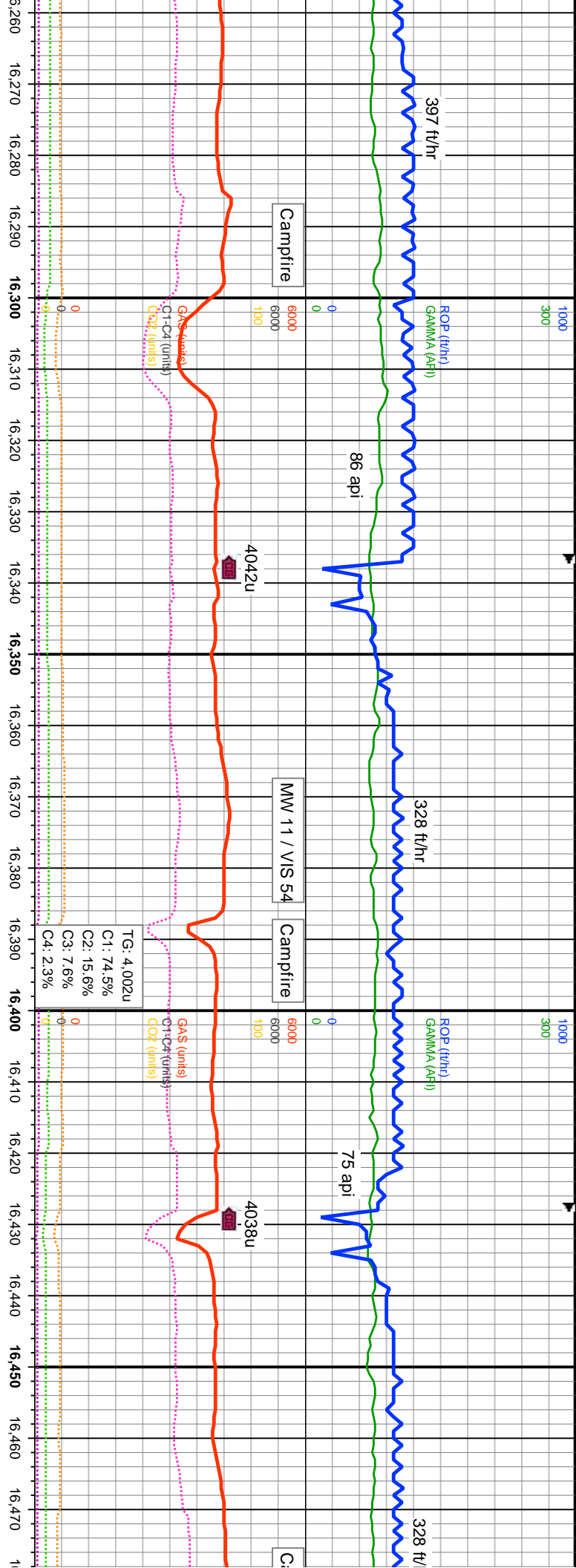
7800	7825	7800	7825	7800	7825
MD: 15.665' INC: 90.2° AZM: 182° TVD: 7.695,72' VS: 7.463,63'		MD: 15.755' INC: 90.15° AZM: 180.39° TVD: 7.695,45' VS: 7.551,28'			
60% CHK: lt-med drty brn, medgy-gyshbn, com intbd mrl, mod stf-mod frm ip, sl fr-i-p brit, sb blk-armor, rthy-sb wxy, v calc, tr inoc, rr dsm pyr; 40% MRL: med-dkbn, med-dkgy, tr blk, mod stf-mod frm, sb blk-ysb ang, rthy, sl stly, arg, calc		60% CHK: lt-med drty brn, medgy-gyshbn, com intbd mrl, mod stf-mod frm ip, sl fr-i-p brit, sb blk-armor, rthy-sb wxy, v calc, tr inoc, rr bent; 40% MRL: med-dkbn, med-dkgy, tr blk, mod stf-mod frm, sb blk-ysb ang, rthy, sl stly, arg, calc		60% CHK: lt-med drty brn, medgy-gyshbn, com intbd mrl, mod stf-mod frm ip, sl fr-i-p brit, sb blk-armor, rthy-sb wxy, v calc, tr inoc, rr dsm pyr; 40% MRL: med-dkbn, med-dkgy, tr blk, mod stf-mod frm, sb blk-ysb ang, rthy, sl stly, arg, calc	



Time	MD	INC	AZM	TVD	VS	Notes
15,820 - 15,850	15.845'	89.41°	178.5°	7.695,79'	7.638,27'	mod drty brn, medgy-gyshbn, com intbd mrl, mod sft-mod frm ip, sl fri-ip
15,850 - 15,900	15.934'	89.96°	180.7°	7.696,28'	7.724,35'	65% CHK: lt-med drty brn, medgy-gyshbn, com intbd mrl, mod sft-mod frm ip, sl fri-ip
15,900 - 15,950	15.934'	89.96°	180.7°	7.696,28'	7.724,35'	brit, sb blkly-amor, rthy-sb wxy, v calc, tr inoc, tr nod pyr; 35% MRL: med-dkbn, med-dkgy, tr blk, mod sft-mod frm, sb blkly-sb ang, rthy, sl slty, arg, calc
15,950 - 16,000	16.024'	90.18°	180.68°	7.696,16'	7.811,83'	70% CHK: lt-med drty brn, medgy-gyshbn, com intbd mrl, mod sft-mod frm ip, sl fri-ip
16,000 - 16,030	16.024'	90.18°	180.68°	7.696,16'	7.811,83'	brit, sb blkly-amor, rthy-sb wxy, v calc, tr inoc, tr nod pyr; 35% MRL: med-dkbn, med-dkgy, tr blk, mod sft-mod frm, sb blkly-sb ang, rthy, sl slty, arg, calc



7825-	calc, tr inoc, tr mod pyr, rr bent; 30% MRL: med-dkbn, n, sb blk-y-sb ang, rthy, sl stly, arg, calc	7825-	75% CHK: lt-med drty brn, medgy-gyshbn, tr inbd mri, mod sft-mod frm ip, sl fri-ip brit, sb blk-y-amor, rthy-sb wxy, v calc, tr inoc, rr nod pyr; 25% MRL: med-dkbn, med-dkgy, tr blk, mod sft-mod frm, sb blk-y-sb ang, rthy, sl stly, arg, calc	7825-	80% CHK: lt-medbn, ip crm, medgy-gyshbn, ip int fri-ip brit, sb blk-y-amor, rthy-sb wxy, v calc, tr inoc med-dkgy, tr blk, mod sft-tr frm, sb blk-y-sb ang, r
7600-		7600-		7600-	

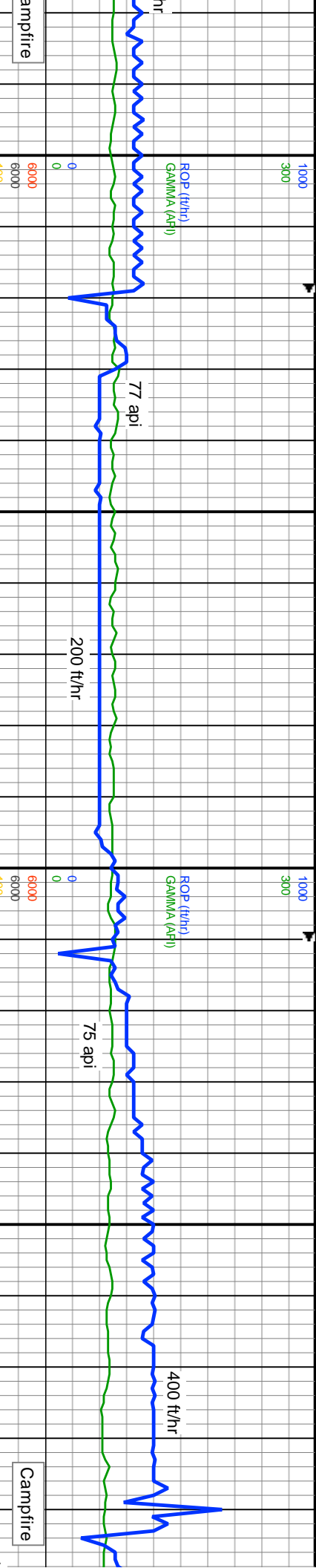
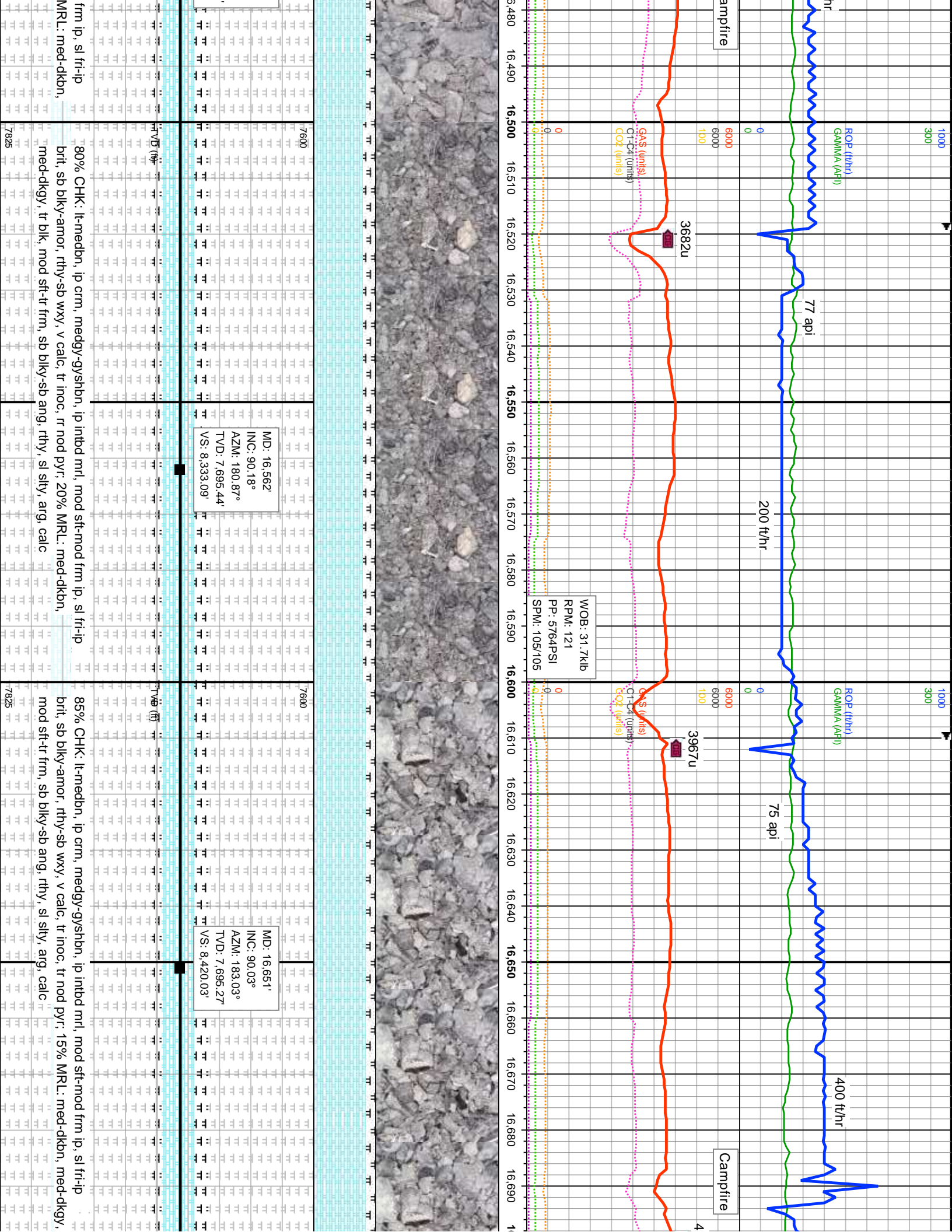


MD: 16,293
INC: 89.83°
AZM: 178.29°
TVD: 7,696.1'
VS: 8,073.29'

MD: 16,382
INC: 90.59°
AZM: 179.75°
TVD: 7,696.77'
VS: 8,159.14'

MD: 16,472
INC: 89.83°
AZM: 178.49°
TVD: 7,696.45'
VS: 8,246'

bd ml, mod sft-mod frm ip, sl
r nod pvr. 20% MRL: med-dkn,
80% CHK: lt-medbn, ip crm, medgy-gyshbn, ip inbd ml, mod sft-mod frm ip, sl
fri-ip brt, sb blk-amor, rthy-sb wxy, v calc, tr inoc. 20% MRL: med-dkn, med-dkgy,
tr blk, mod sft-tr frm, sb blk-ang, rthy, sl sily, arg, calc
85% CHK: lt-medbn, ip crm, medgy-gyshbn, ip inbd ml, mod sft-mod
brt, sb blk-amor, rthy-sb wxy, v calc, tr inoc, r nod pvr, r bent. 15%
med-dkgy, tr blk, mod sft-tr frm, sb blk-ang, rthy, sl sily, arg, calc



GAS (units)

C1-C4 (units)

CO2 (units)

WOB: 31.7klb

RPM: 121

PP: 5764PSI

SPM: 105/105

MD: 16,562'

INC: 90.18°

AZM: 180.87°

TVD: 7,695.44'

VS: 8,333.09'

MD: 16,651'

INC: 90.03°

AZM: 183.03°

TVD: 7,695.27'

VS: 8,420.03'

16:480 16:490 16:500 16:510 16:520 16:530 16:540 16:550 16:560 16:570 16:580 16:590 16:600 16:610 16:620 16:630 16:640 16:650 16:660 16:670 16:680 16:690 1

from ip, sl fri-ip

MRL: med-dkbn,

7825

80% CHK: lt-medbn, ip crm, medgy-gyshbn, ip inbd mtl, mod sft-mod frm ip, sl fri-ip

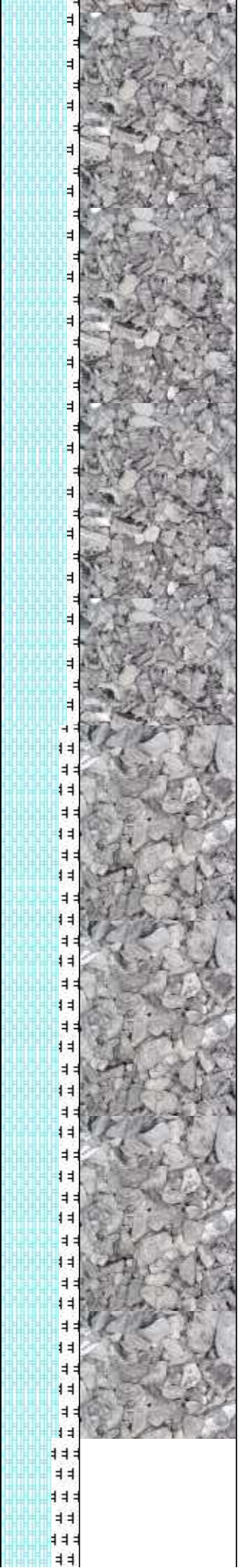
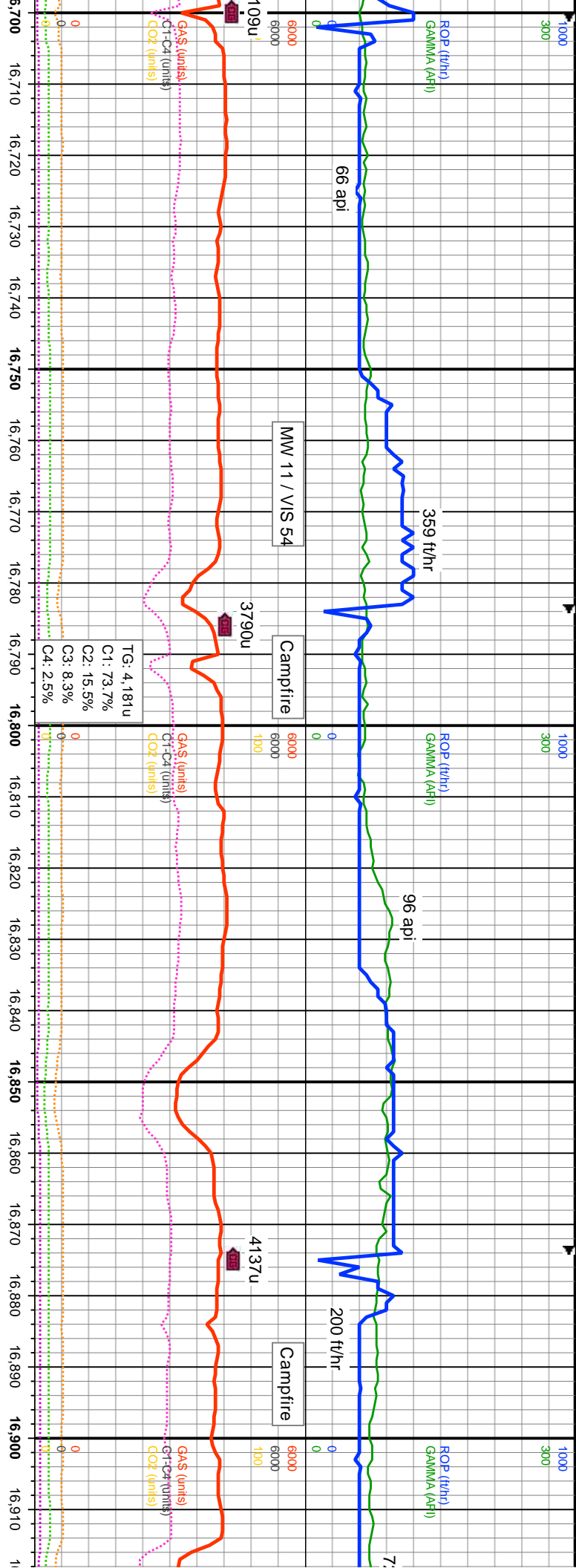
brit, sb blk-armor, rthy-sb wxy, v calc, tr inoc, tr nod pyr, 20% MRL: med-dkbn, med-dkgy, tr blk, mod sft-tr frm, sb blk-armor, rthy, sl sily, arg, calc

7825

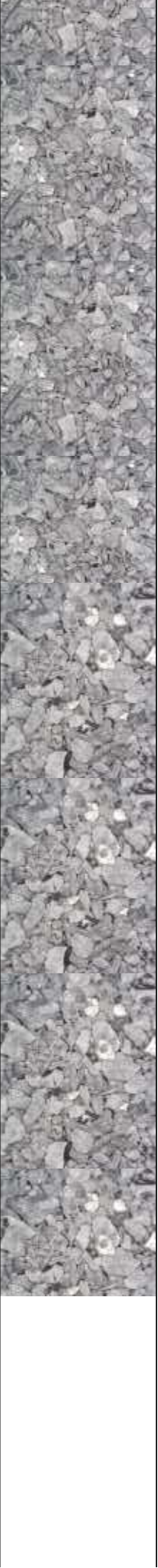
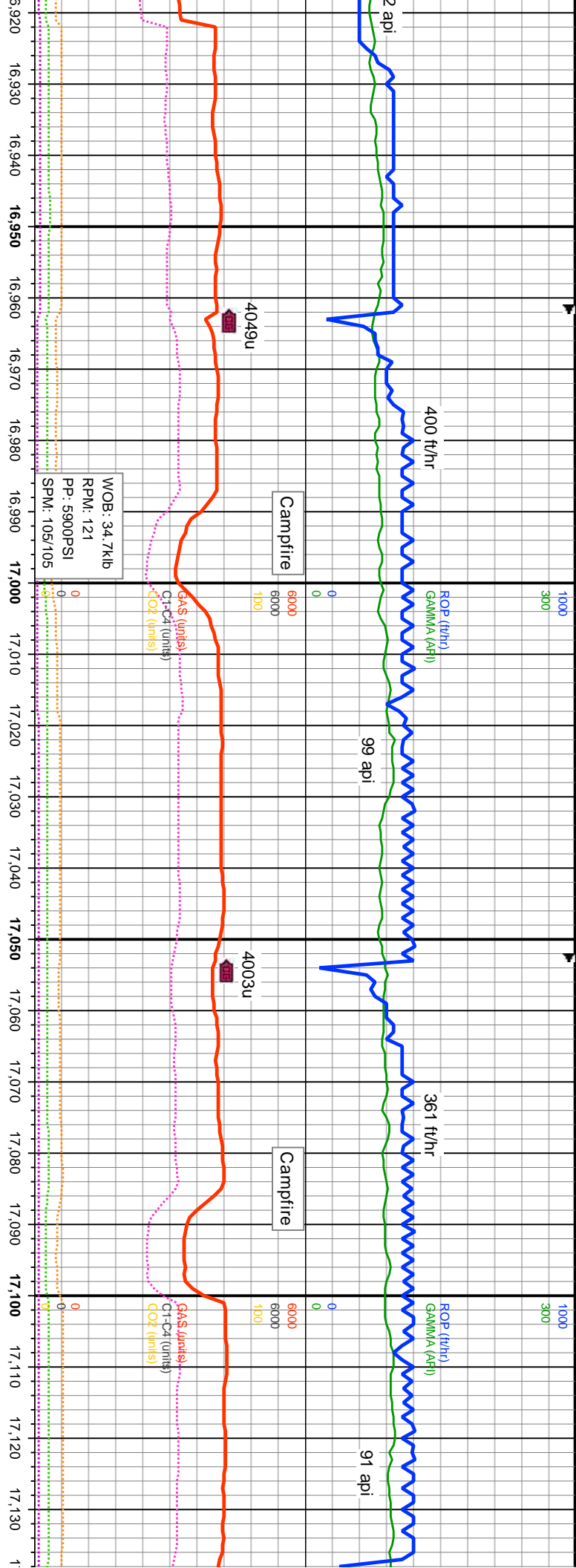
85% CHK: lt-medbn, ip crm, medgy-gyshbn, ip inbd mtl, mod sft-mod frm ip, sl fri-ip

brit, sb blk-armor, rthy-sb wxy, v calc, tr inoc, tr nod pyr, 15% MRL: med-dkbn, med-dkgy, mod sft-tr frm, sb blk-armor, rthy, sl sily, arg, calc

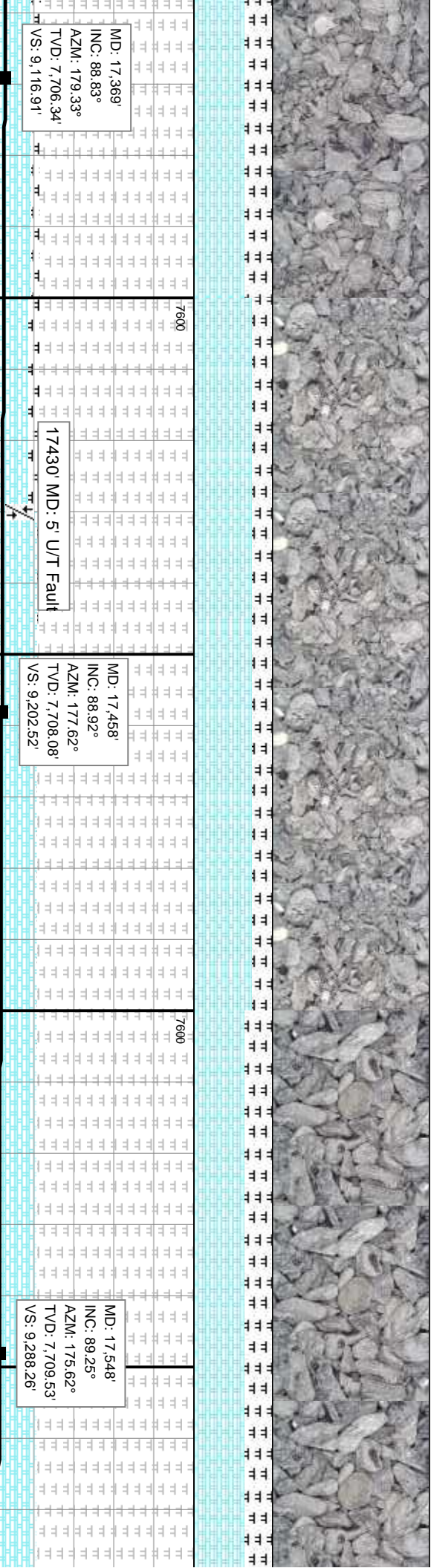
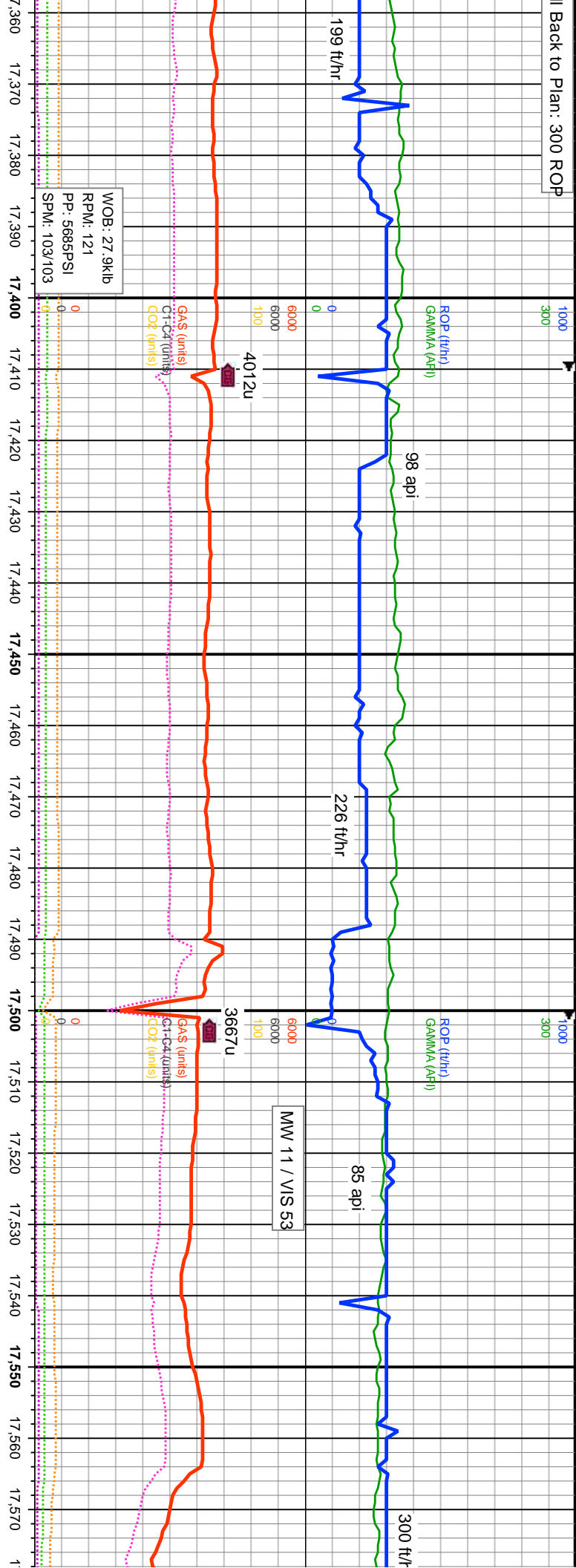
7825



Depth (ft)	ROP (ft/hr)	GAMMA (API)	Notes
7600	TT	TT	MD: 16.741' INC: 89.75° AZM: 181.74° TVD: 7.695.44 VS: 8.508.09'
7825	TT	TT	85% CHK: lt-medbn, ip crm, medgy-gyshbn, ip inbd mrl, mod sft-mod frm ip, sl fri-ip brit, sb blkly-amor, rthy-sb wxy, v calc, tr inoc, tr nod pyr, rr bent: 15%, MRL: med-dkbn, med-dkgy, mod sft-tr frm, sb blkly-sb ang, rthy, sl sily, arg, calc
7600	TT	TT	MD: 16.831' INC: 89.31° AZM: 180.15° TVD: 7.696.18 VS: 8.595.65'
7825	TT	TT	75% CHK: lt-medbn, ip crm, medgy-gyshbn, ip inbd mrl, mod sft-mod frm ip, sl fri-ip brit, sb blkly-amor, rthy-sb wxy, v calc, mod inoc, tr nod pyr, 25% MRL: med-dkbn, med-dkgy, mod sft-tr frm, sb blkly-sb ang, rthy, sl sily, arg, calc
7600	TT	TT	MD: 16.831' INC: 89.31° AZM: 180.15° TVD: 7.696.18 VS: 8.595.65'
7825	TT	TT	65% CHK: lt-medbn, ip crm, medgy-gyshbn, ip inbd mrl, mod sft-mod frm ip, sl fri-ip brit, sb blkly-amor, rthy-sb wxy, v calc, mod inoc, tr nod pyr, 25% MRL: med-dkbn, med-dkgy, mod sft-tr frm, sb blkly-sb ang, rthy, sl sily, arg, calc



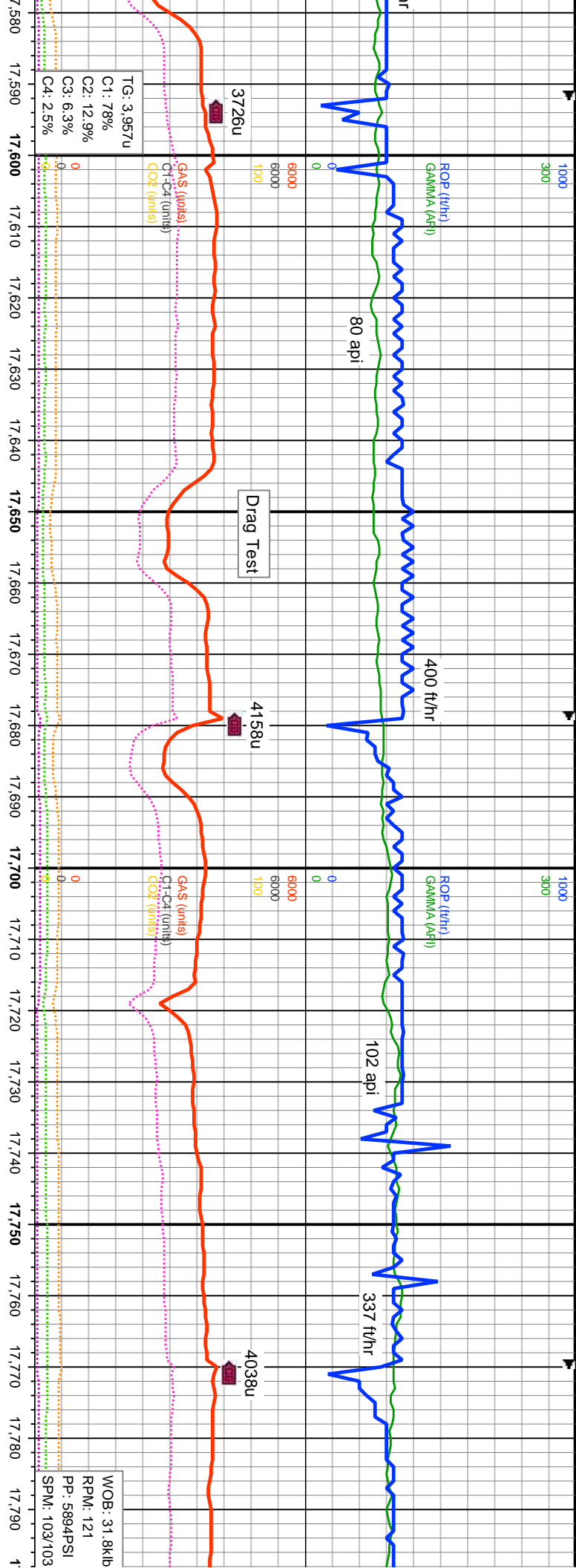
6.920'	88.7°	179.29°	7.697.73'	681.78'	medbn, dty brn, medgy-gyshbn, ip intbd mrl, mod sft-mod frm ip, sl
7600'					70% CHK: lt-medbn, dty brn, medgy-gyshbn, ip intbd mrl, mod sft-mod frm ip, sl
MD: 17.010'	INC: 88.89°	AZM: 177.8°	TVD: 7.699.62'	VS: 8.768.38'	fr-ip brit, sb blk-y-amor, rthy-sb wxy, v calc, mod inoc, tr nod pyr: 35% MRL: med-dkbn,
7600'					med-dkgy, mod sft-tr frm, sb blk-y-sb ang, rthy, sl sily, arg, calc
MD: 17.100'	INC: 89.17°	AZM: 182.14°	TVD: 7.701.15'	VS: 8.855.55'	70% CHK: lt-medbn, dty brn, me
7600'					brit, sb blk-y-amor, rthy-sb wxy, v v
					med-dkgy, mod sft-tr frm, sb blk-y-



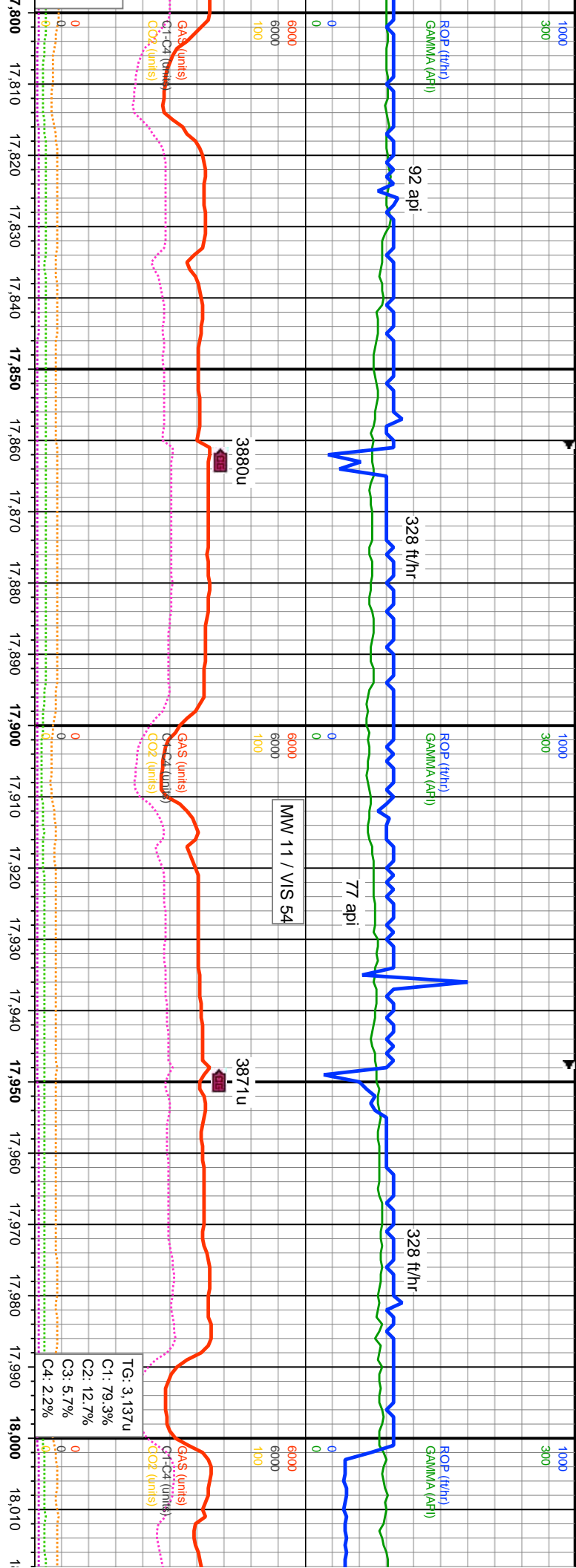
mod mri, mod stf-mod frm ip, sl fri-ip
 pyr: 35% MRL: med-dkbn,
 /, arg, calc

75% CHK: lt-medbn, drty brn, medgy-gyshbn, ip inbd mri, mod stf-mod frm ip, sl fri-ip
 brit, sb blkly-armor, rthy-sb wxy, v calc, v rr inoc, v rr nod pyr: 25% MRL: med-dkbn,
 med-dkgy, mod stf-tr frm, sb blkly-sb ang, rthy, sl stly, arg, calc: v rr bent

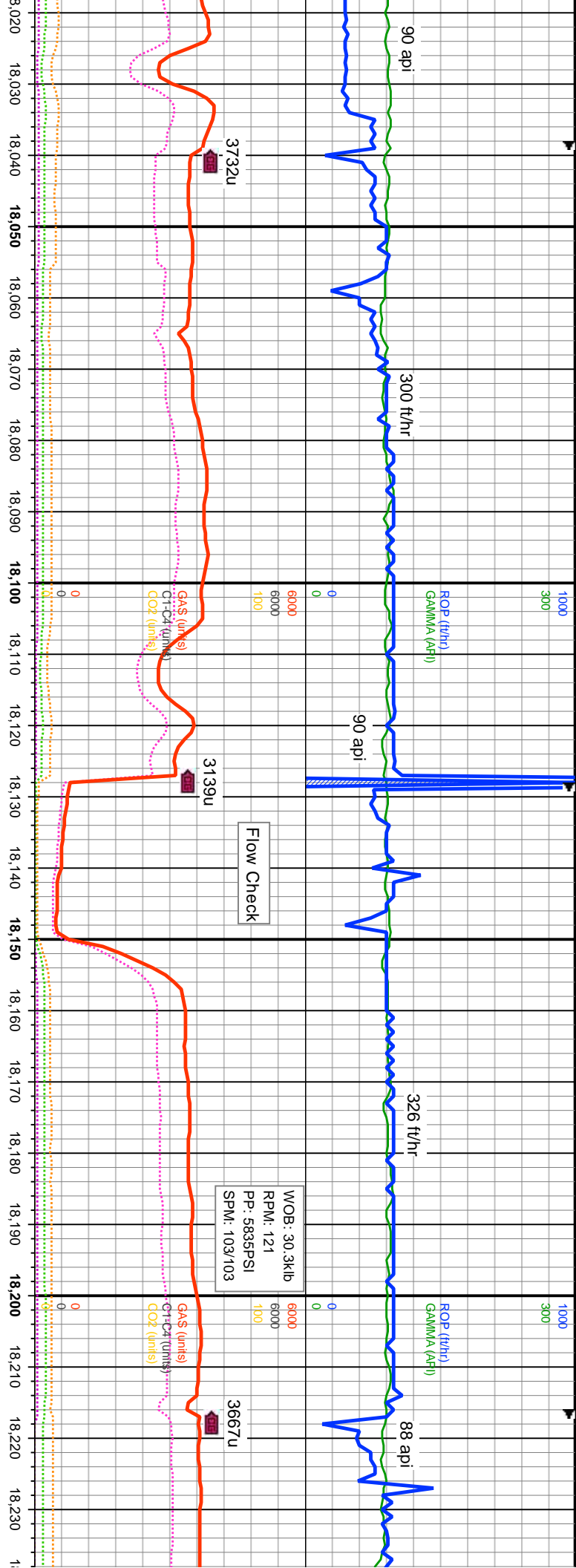
65% CHK: lt-medbn, drty brn, medgy-gyshbn, ip inbd mri, mod stf-mod frm ip, sl fri-ip
 brit, sb blkly-armor, rthy-sb wxy, v calc, v rr inoc; 35% MRL: med-dkbn,
 stf-tr frm, sb blkly-sb ang, rthy, sl stly, arg, calc



Time	MD	INC	AZM	TVD	VS	Notes
17,580	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	80% CHK: It-medbn, dry brn, medgy-gyshbn, ip intbd nrl, mod stf-mod frm ip, sl fr-ip bri, sb blk-armor, rthy-sb wxy, v calc, v rr inoc: 20% MRL: med-dkbn, med-dkgy, mod stf-tr frm, sb blk-armor, rthy, sl slty, arg, calc
17,600	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	
17,620	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	
17,640	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	
17,650	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	
17,660	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	
17,670	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	
17,680	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	
17,690	17.638'	89.59°	179.35°	7,710.44'	9,374.39'	
17,700	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	80% CHK: It-medbn, dry brn, medgy-gyshbn, ip intbd nrl, mod stf-mod frm ip, sl fr-ip bri, sb blk-armor, rthy-sb wxy, v calc, rr inoc: 20% MRL: med-dkbn, med-dkgy, mod stf-tr frm, sb blk-armor, rthy, sl slty, arg, calc
17,710	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	
17,720	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	
17,730	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	
17,740	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	
17,750	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	
17,760	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	
17,770	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	
17,780	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	
17,790	17.727'	89.32°	178.27°	7,711.28'	9,460.16'	



7600	MD: 17.817° INC: 89.55° AZM: 180.36° TVD: 7,712.17' VS: 9,547.09'	70% CHK: lt-medbn, drty brn, medgy-gyshbn, ip inbnd mrl, mod sft-mod frm ip, sl fr-ip bri, sb blkly-armor, rthy-sb wxy, v calc, rr inoc: 30% MRL: med-dkbn, med-dkgy, mod sft-tr frm, sb blkly-sb ang, rthy, sl slty, arg, calc
7600	MD: 17.907° INC: 89.5° AZM: 179.57° TVD: 7,712.91' VS: 9,634.29'	85% CHK: lt-medbn, drty brn, medgy-gyshbn, ip inbnd mrl, mod sft-mod frm ip, sl fr-ip bri, sb blkly-armor, rthy-sb wxy, v calc, rr inoc: 15% MRL: med-dkbn, med-dkgy, mod sft-tr frm, sb blkly-sb ang, rthy, sl slty, arg, calc
7600	MD: 17.996° INC: 89.62° AZM: 179.33° TVD: 7,713.6' VS: 9,720.32'	75% CHK: lt-n bri, sb blkly-ar sft-tr frm, sb b



MD: 18.086 INC: 89.96° AZM: 179.96° TVD: 7,713.93 VS: 9.807.39		65% CHK: It-medbn, dry brn, medgy-gyshbn, ip intbd mrl, mod stf-mod frm ip, sl fri-ip bri, sb blkv-armor, rthy-sb wxy, v calc, tr inoc: 25% MRL: med-dkbn, med-dkgy, mod sft-tr frm, sb blkv-sb ang, rthy, sl slty, arg, calc: v rr bent	
7600		7600	
MD: 18.175 INC: 89.76° AZM: 179.61° TVD: 7,714.15 VS: 9.893.56		65% CHK: It-medbn, dry brn, medgy-gyshbn, ip intbd mrl, mod stf-mod frm ip, sl fri-ip bri, sb blkv-armor, rthy-sb wxy, v calc, tr inoc: 35% MRL: med-dkbn, med-dkgy, mod sft-tr frm, sb blkv-sb ang, rthy, sl slty, arg, calc: occ bent	
7600		7600	

