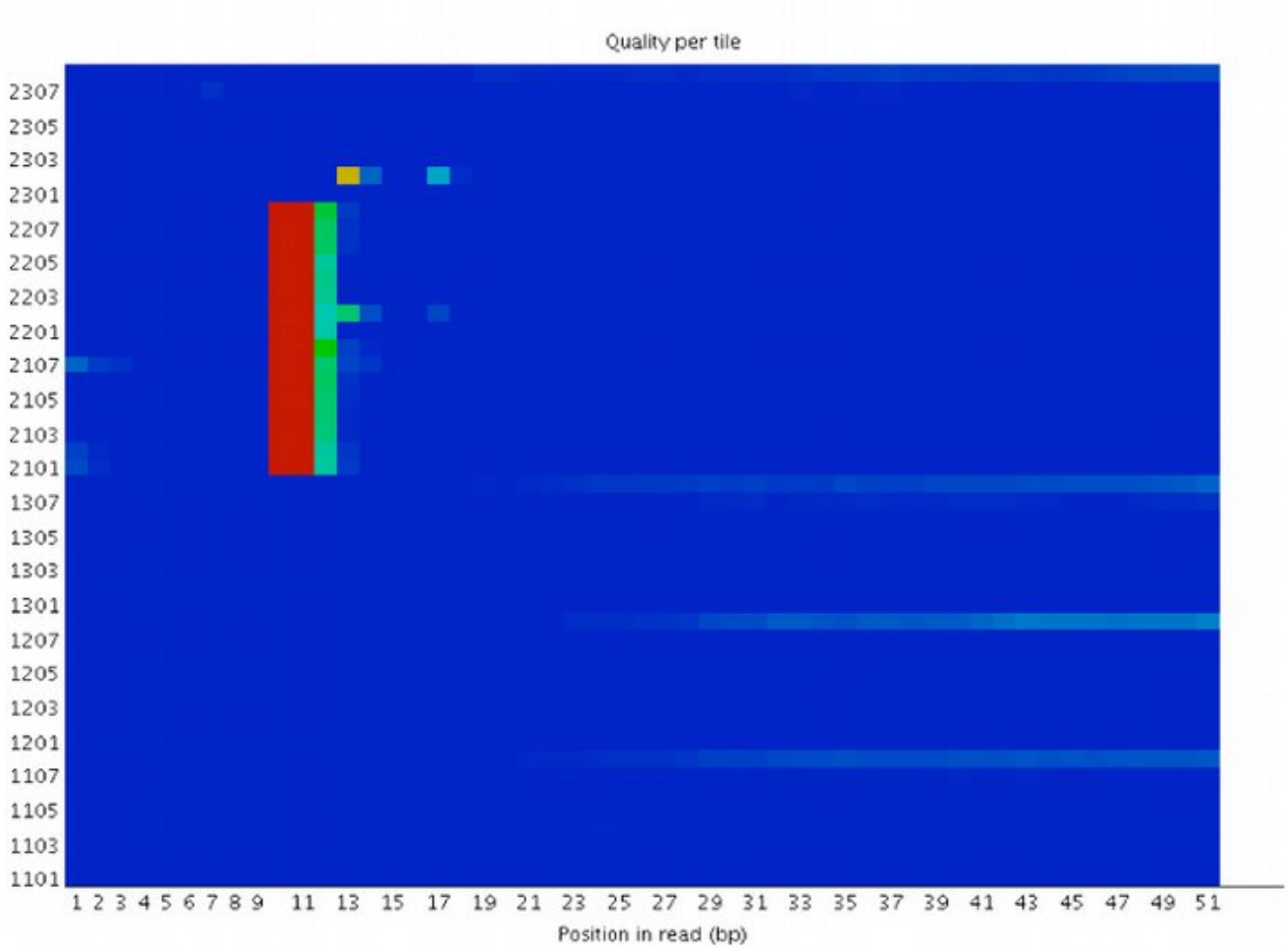
FastQC Puzzles

Puzzle 1

Examine the FastQC diagram below. It shows Per Tile Quality. The red colour indicates a very low read quality.

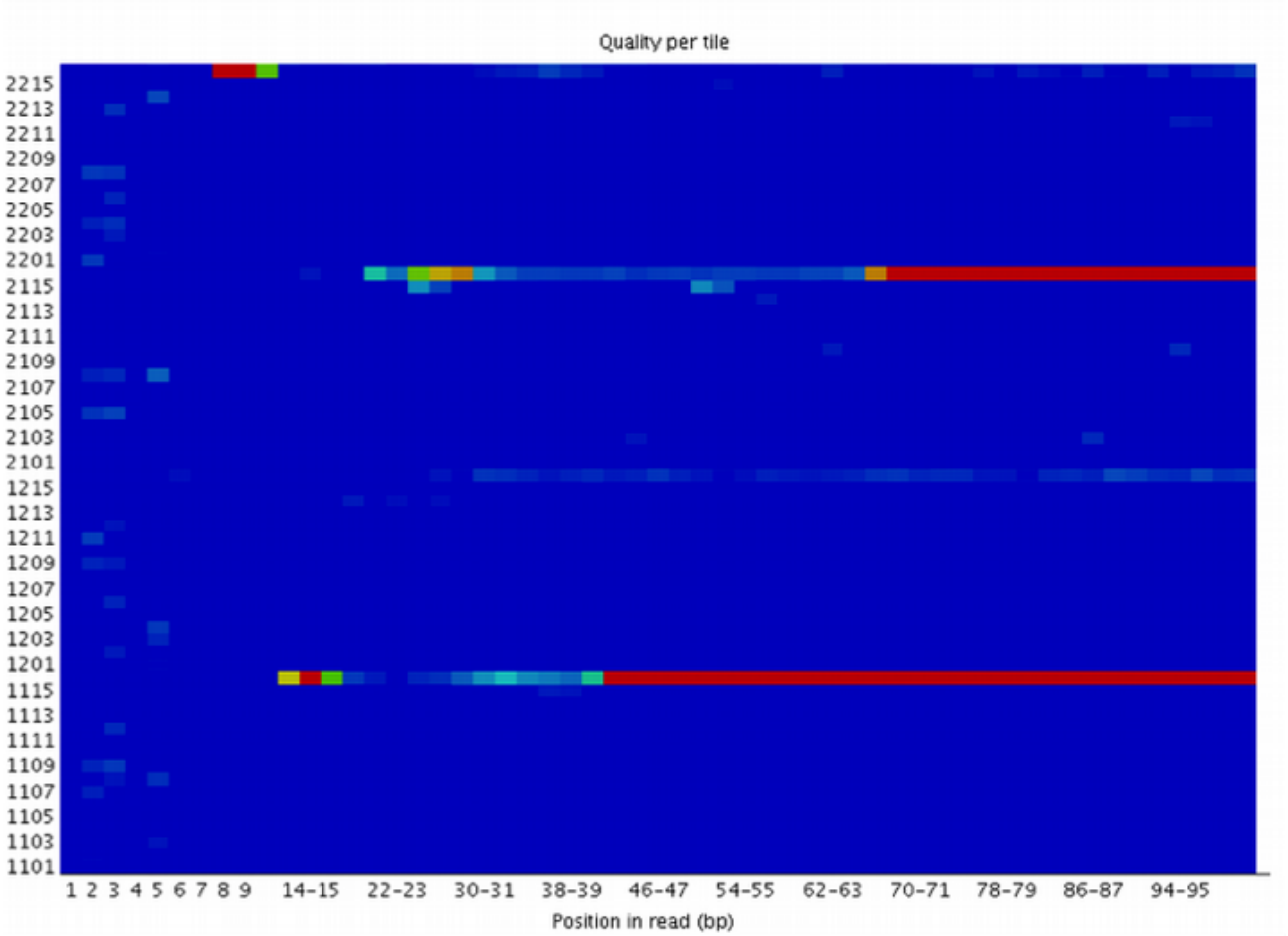
- Interpret what you see: what does the red block tell us, what does it mean for the clusters (= reads) on the affected tiles?
- What will the sequences of the basecalled reads on the affected tiles look like? Assume that the red color means that no base can be called at all.
- What do you think may have happened (wild guessing is OK)?



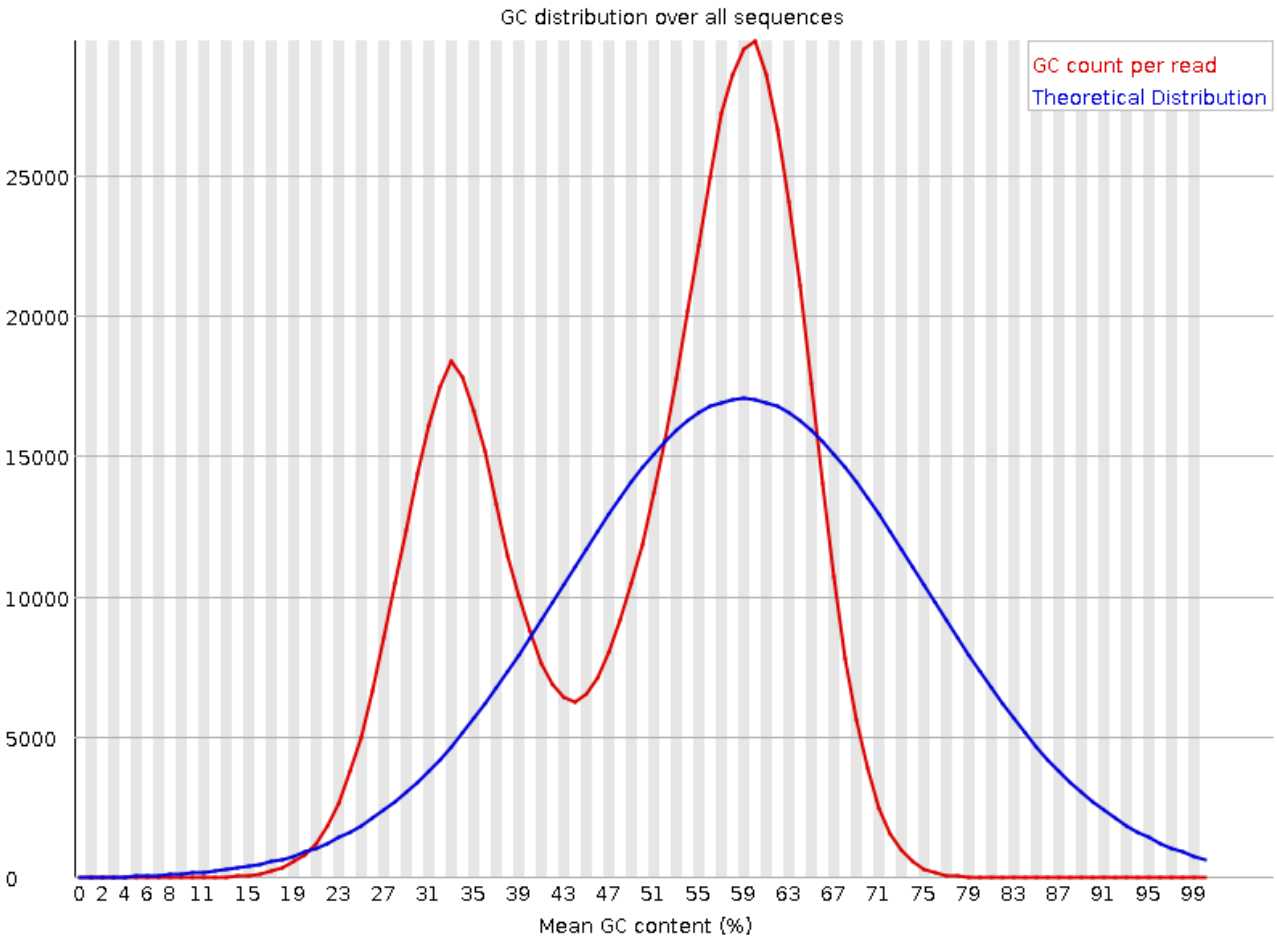
Puzzle 2

Examine the FastQC Diagram below. It displays an issue similar to that in the previous question.

- Interpret the image. What does it mean that the red line extends all the way to the right? What is different to the previous question in terms of what may have happened?
- What will the sequences of the basecalled reads on the affected tiles most likely look like in this case?



Puzzle 3

Examine “FastQC Diagram 3” (see appendix). It shows a GC distribution plot. It is for a sample in a bacterial whole genome sequencing run.

- What do you think caused the special shape of the GC curve?