# Qualimap Analysis Results

BAM QC analysis Generated by Qualimap v.2.2.1 2023/05/29 21:36:22



#### 1. Input data & parameters

#### 1.1. QualiMap command line

qualimap bamqc -bam /proj/uppstore2018210/Aalpina/working/Kate/Working/F2/MarkDuplicates/144 1 .nodup.bam -nw 400 -hm 3

#### 1.2. Alignment

| BAM file:                             | /proj/uppstore2018210/Aalpina/worki<br>ng/Kate/Working/F2/MarkDuplicates/<br>1441<br>.nodup.bam   |
|---------------------------------------|---|
| Program:                              | bwa (0.7.17-r1188)  |
| Analyze overlapping paired-end reads: | no  |
| Command line:                         | bwa mem -M -t 8 -R @RG\tID:\unit\tPL:IIIumina\tLB:LibA\t SM:\unit\tPL:IIIumina\tLB:LibA\t SM:\unit\tPL:IIIumina\tLB:LibA\t SM:\unit\text{sample} /proj/uppstore2018210/Aalpina/data/r eference/GCA_900128785.1_MPIPZ. v5_genomic.fa /proj/uppstore2018210/Aalpina/data/r awdata/P26207/P26207_128/02- FASTQ/220902_A00621_0737_BHM GCVDSX3/P26207_128_S218_L002 _R1_001.fastq.gz /proj/uppstore2018210/Aalpina/data/r awdata/P26207/P26207_128/02- FASTQ/220902_A00621_0737_BHM GCVDSX3/P26207_128_S218_L002 _R2_001.fastq.gz |
| Size of a homopolymer:                | 3   |



| Number of windows:         | 400                           |
|----------------------------|-------------------------------|
| Analysis date:             | Mon May 29 21:36:21 CEST 2023 |
| Draw chromosome limits:    | no                            |
| Skip duplicate alignments: | no                            |



### 2. Summary

#### 2.1. Globals

| Reference size               | 311,642,060         |
|------------------------------|---------------------|
| Number of reads              | 79,664,757          |
| Mapped reads                 | 74,054,345 / 92.96% |
| Unmapped reads               | 5,610,412 / 7.04%   |
| Mapped paired reads          | 74,054,345 / 92.96% |
| Mapped reads, first in pair  | 37,117,923 / 46.59% |
| Mapped reads, second in pair | 36,936,422 / 46.36% |
| Mapped reads, both in pair   | 72,274,234 / 90.72% |
| Mapped reads, singletons     | 1,780,111 / 2.23%   |
| Read min/max/mean length     | 30 / 151 / 148.09   |
| Duplicated reads (flagged)   | 13,573,844 / 17.04% |
| Clipped reads                | 16,796,147 / 21.08% |

#### 2.2. ACGT Content

| Number/percentage of A's | 3,164,776,412 / 30.85% |
|--------------------------|------------------------|
| Number/percentage of C's | 1,963,460,684 / 19.14% |
| Number/percentage of T's | 3,171,319,587 / 30.92% |
| Number/percentage of G's | 1,957,801,160 / 19.09% |
| Number/percentage of N's | 42,357 / 0%            |
| GC Percentage            | 38.23%                 |

#### 2.3. Coverage



| Mean               | 33.0024  |
|--------------------|----------|
| Standard Deviation | 257.1491 |

### 2.4. Mapping Quality

| Mean Mapping Quality | 43.76 |
|----------------------|-------|

#### 2.5. Insert size

| Mean               | 256,073.43      |  |
|--------------------|-----------------|--|
| Standard Deviation | 2,419,593.27    |  |
| P25/Median/P75     | 349 / 453 / 591 |  |

#### 2.6. Mismatches and indels

| General error rate                       | 2.4%        |
|--|-------------|
| Mismatches                               | 225,859,683 |
| Insertions                               | 7,196,107   |
| Mapped reads with at least one insertion | 8.71%       |
| Deletions                                | 7,281,819   |
| Mapped reads with at least one deletion  | 8.69%       |
| Homopolymer indels                       | 56.21%      |

#### 2.7. Chromosome stats

| Name       | Length   | Mapped bases | Mean<br>coverage | Standard deviation |
|------------|----------|--------------|------------------|--------------------|
| LT669788.1 | 29724344 | 834156479    | 28.0631          | 99.3298            |



| LT669789.1 | 36598175 | 1225707306 | 33.4909 | 280.0204 |
|------------|----------|------------|---------|----------|
| LT669790.1 | 30422129 | 1106423036 | 36.369  | 278.4196 |
| LT669791.1 | 52758100 | 1715661952 | 32.5194 | 262.3956 |
| LT669792.1 | 28376109 | 943557383  | 33.2518 | 301.9701 |
| LT669793.1 | 33388210 | 1007356854 | 30.171  | 129.8326 |
| LT669794.1 | 50579949 | 1581548536 | 31.2683 | 241.4823 |
| LT669795.1 | 49795044 | 1870521909 | 37.5644 | 327.8261 |

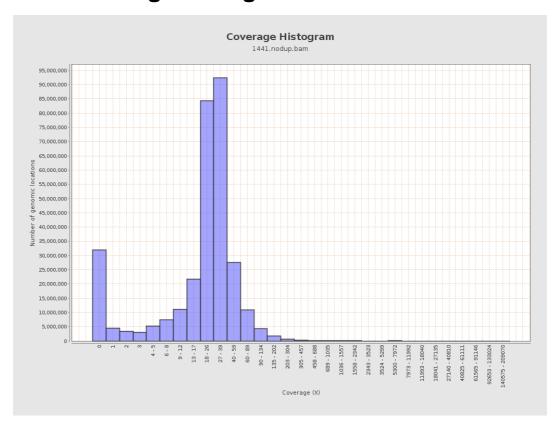


### 3. Results: Coverage across reference



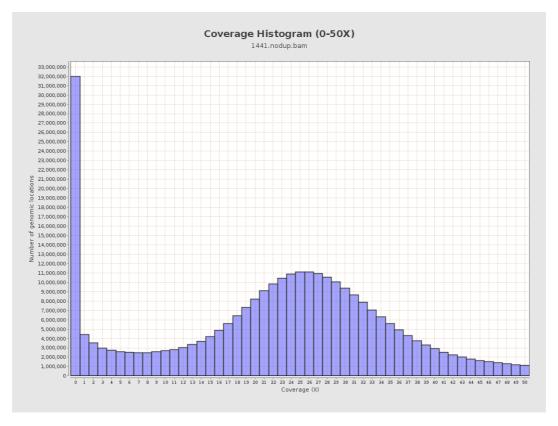


### 4. Results: Coverage Histogram



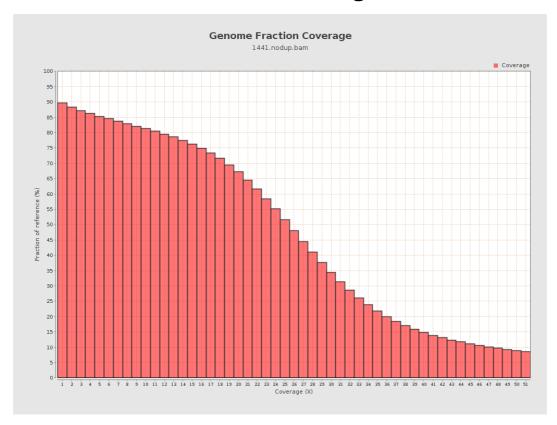


## 5. Results: Coverage Histogram (0-50X)



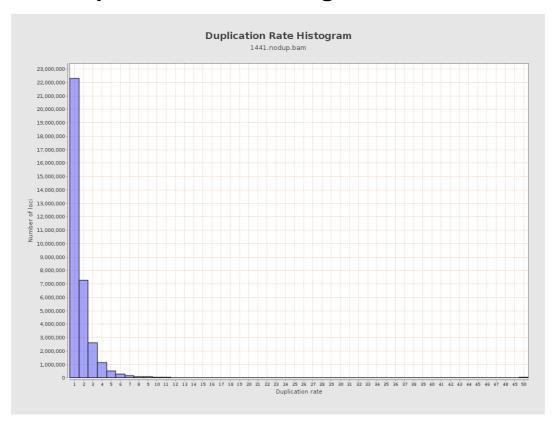


## 6. Results : Genome Fraction Coverage





## 7. Results: Duplication Rate Histogram



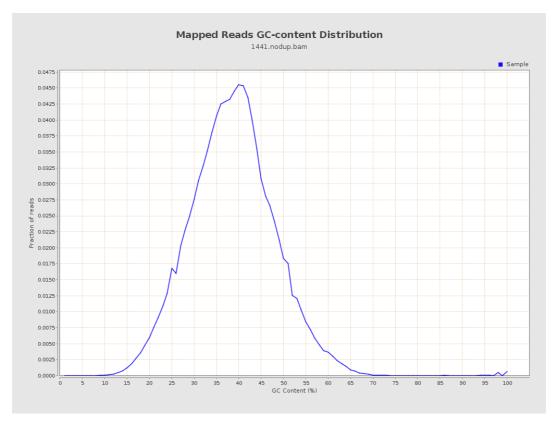


## 8. Results: Mapped Reads Nucleotide Content



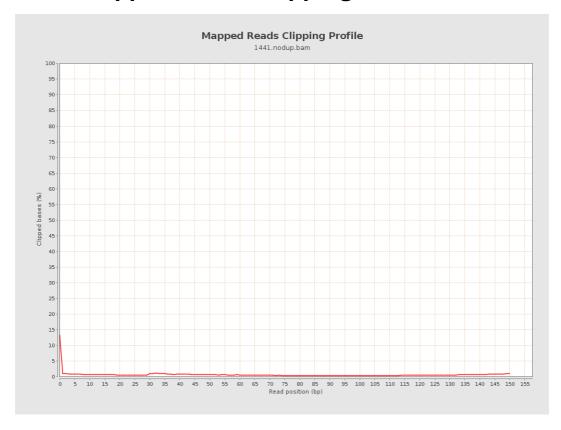


### 9. Results: Mapped Reads GC-content Distribution



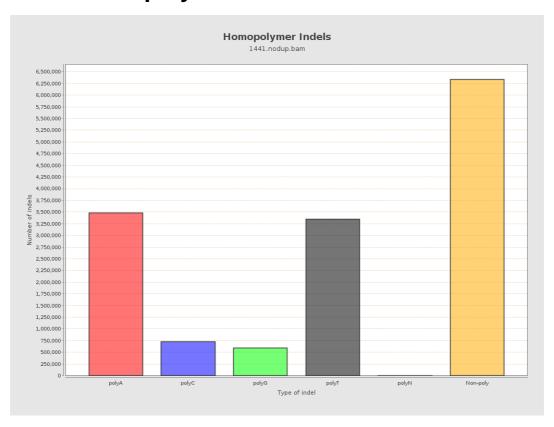


## 10. Results: Mapped Reads Clipping Profile



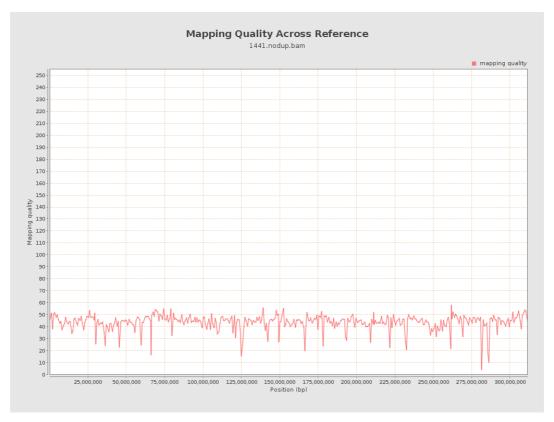


## 11. Results: Homopolymer Indels



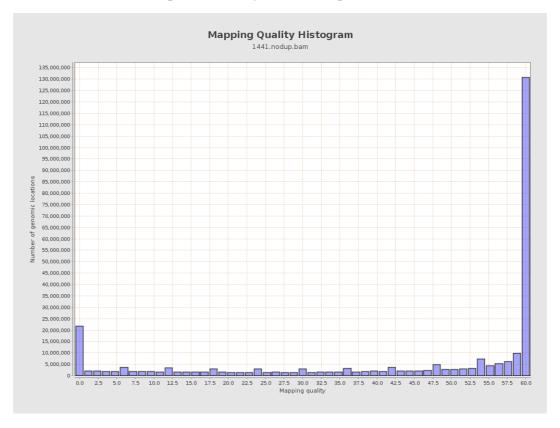


# 12. Results: Mapping Quality Across Reference



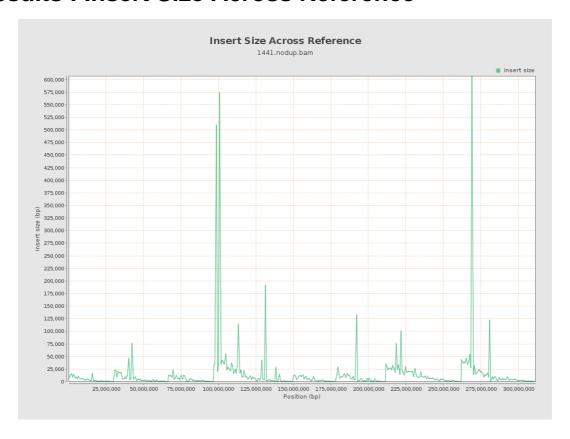


### 13. Results: Mapping Quality Histogram





#### 14. Results: Insert Size Across Reference





## 15. Results: Insert Size Histogram

