

| Ref <sub>BAC</sub> | Ref <sub>EX</sub> | Aligner | SZr | number of reads aligned to |                    |                   | P <sub>mis</sub> | P <sub>uq</sub> |
|--------------------|-------------------|---------|-----|----------------------------|--------------------|-------------------|------------------|-----------------|
|                    |                   |         |     | Ref <sub>BAC</sub> *       | Ref <sub>BAC</sub> | Ref <sub>EX</sub> |                  |                 |
| CT302              | CE_ch1            | Eland   | 27  | 2,031,172                  | 2,029,756          | 2,308             | 0.114%           | 99.930%         |
| CT302              | CE_ch1            | RMAP    | 27  | 2,019,184                  | 2,017,834          | 2,280             | 0.113%           | 99.933%         |
| CT302              | CE_ch1            | Slider  | 27  | 1,962,980                  | 1,962,405          | 1,067             | 0.054%           | 99.971%         |
| CT302              | CE_ch1            | Eland   | 32  | 1,868,157                  | 1,867,855          | 1,110             | 0.059%           | 99.984%         |
| CT302              | CE_ch1            | RMAP    | 32  | 1,877,140                  | 1,876,839          | 1,100             | 0.059%           | 99.984%         |
| CT302              | CE_ch1            | Slider  | 32  | 1,709,421                  | 1,709,287          | 467               | 0.027%           | 99.992%         |
| CT302              | CE_ch1            | RMAP    | 36  | 1,626,071                  | 1,625,979          | 266               | 0.016%           | 99.994%         |
| CT302              | CE_ch1            | Slider  | 36  | 1,339,159                  | 1,339,136          | 59                | 0.004%           | 99.998%         |
| CT302              | H_ch1             | Eland   | 27  | 2,031,172                  | 1,683,423          | 32,012            | 1.902%           | 82.879%         |
| CT302              | H_ch1             | RMAP    | 27  | 2,019,184                  | 1,674,277          | 32,530            | 1.943%           | 82.918%         |
| CT302              | H_ch1             | Slider  | 27  | 1,962,980                  | 1,632,788          | 14,062            | 0.861%           | 83.179%         |
| CT302              | H_ch1             | Eland   | 32  | 1,868,157                  | 1,596,347          | 32,748            | 2.051%           | 85.450%         |
| CT302              | H_ch1             | RMAP    | 32  | 1,877,140                  | 1,603,530          | 33,263            | 2.074%           | 85.424%         |
| CT302              | H_ch1             | Slider  | 32  | 1,709,421                  | 1,471,127          | 12,466            | 0.847%           | 86.060%         |
| CT302              | H_ch1             | RMAP    | 36  | 1,626,071                  | 1,420,896          | 33,198            | 2.336%           | 87.382%         |
| CT302              | H_ch1             | Slider  | 36  | 1,339,159                  | 1,186,272          | 10,789            | 0.909%           | 88.583%         |
| CT302              | H_G               | Eland   | 27  | 2,031,172                  | 1,556,836          | 43,454            | 2.791%           | 76.647%         |
| CT302              | H_G               | RMAP    | 27  | 2,019,184                  | 1,548,580          | 43,797            | 2.828%           | 76.693%         |
| CT302              | H_G               | Slider  | 27  | 1,962,980                  | 1,512,994          | 17,680            | 1.169%           | 77.076%         |
| CT302              | H_G               | Eland   | 32  | 1,868,157                  | 1,484,658          | 44,566            | 3.002%           | 79.472%         |
| CT302              | H_G               | RMAP    | 32  | 1,877,140                  | 1,491,424          | 44,768            | 3.002%           | 79.452%         |
| CT302              | H_G               | Slider  | 32  | 1,709,421                  | 1,370,847          | 16,060            | 1.172%           | 80.194%         |
| CT302              | H_G               | RMAP    | 36  | 1,626,071                  | 1,328,199          | 46,754            | 3.520%           | 81.681%         |
| CT302              | H_G               | Slider  | 36  | 1,339,159                  | 1,113,174          | 14,495            | 1.302%           | 83.125%         |
| T02                | CE_ch1            | Eland   | 27  | 335,212                    | 334,996            | 602               | 0.180%           | 99.936%         |
| T02                | CE_ch1            | RMAP    | 27  | 334,567                    | 334,355            | 578               | 0.173%           | 99.937%         |
| T02                | CE_ch1            | Slider  | 27  | 329,821                    | 329,712            | 115               | 0.035%           | 99.967%         |
| T02                | H_ch1             | Eland   | 27  | 335,212                    | 280,540            | 8,828             | 3.147%           | 83.690%         |
| T02                | H_ch1             | RMAP    | 27  | 334,567                    | 280,014            | 8,935             | 3.191%           | 83.694%         |
| T02                | H_ch1             | Slider  | 27  | 329,821                    | 277,160            | 5,399             | 1.948%           | 84.033%         |

**Expanded Table 3:** Results of aligning sequences from CT302 and T02 BACs to its reference Ref<sub>BAC</sub>\*, and to their reference Ref<sub>BAC</sub> coupled with three extra sequences (Ref<sub>EX</sub>): (CE\_ch1: C.elegans chromosome I), (H\_ch1: human chromosome 1) and (H\_G: human genome not including chromosome 6). We see that when Ref<sub>EX</sub> is added to the reference that the reads are aligned to, some reads that originally aligned to the BAC, now align to Human chromosome 1 or C.elegans chromosome 1. However, with Slider, this generally occurs less than with RMAP or Eland.