1001 AH 1001 BC 2462393 reads; of these: 3480996 reads; of these: 2462393 (100.00%) were paired; of these: 3480996 (100.00%) were paired; of these: 905018 (36.75%) aligned concordantly 0 times 1231821 (35.39%) aligned concordantly 0 times 1445319 (58.70%) aligned concordantly exactly 1 time 2089115 (60.01%) aligned concordantly exactly 1 time 112056 (4.55%) aligned concordantly >1 times 160060 (4.60%) aligned concordantly >1 times 905018 pairs aligned concordantly 0 times; of these: 1231821 pairs aligned concordantly 0 times; of these: 271169 (29.96%) aligned discordantly 1 time 340042 (27.60%) aligned discordantly 1 time 891779 pairs aligned 0 times concordantly or discordantly; of 633849 pairs aligned 0 times concordantly or discordantly; of these: these: 1267698 mates make up the pairs; of these: 1783558 mates make up the pairs; of these: 1033401 (81.52%) aligned 0 times 1473678 (82.63%) aligned 0 times 136222 (10.75%) aligned exactly 1 time 184193 (10.33%) aligned exactly 1 time 98075 (7.74%) aligned >1 times 125687 (7.05%) aligned >1 times 79.02% overall alignment rate 78.83% overall alignment rate 1002 AH 1002 BC 1160378 reads; of these: 1853630 reads; of these: 1160378 (100.00%) were paired; of these: 1853630 (100.00%) were paired; of these: 263023 (22.67%) aligned concordantly 0 times 408938 (22.06%) aligned concordantly 0 times 858496 (73.98%) aligned concordantly exactly 1 time 1382088 (74.56%) aligned concordantly exactly 1 time 38859 (3.35%) aligned concordantly >1 times 62604 (3.38%) aligned concordantly >1 times 263023 pairs aligned concordantly 0 times; of these: 408938 pairs aligned concordantly 0 times; of these: 136567 (51.92%) aligned discordantly 1 time 199875 (48.88%) aligned discordantly 1 time 126456 pairs aligned 0 times concordantly or discordantly; of 209063 pairs aligned 0 times concordantly or discordantly; of these: these: 418126 mates make up the pairs; of these: 252912 mates make up the pairs; of these: 226078 (89.39%) aligned 0 times 373515 (89.33%) aligned 0 times 11810 (4.67%) aligned exactly 1 time 22378 (5.35%) aligned exactly 1 time 15024 (5.94%) aligned >1 times 22233 (5.32%) aligned >1 times 90.26% overall alignment rate 89.92% overall alignment rate 1003 AH 1003 BC 2193546 reads; of these: 3349842 reads; of these: 2193546 (100.00%) were paired; of these: 3349842 (100.00%) were paired; of these: 1056970 (48.19%) aligned concordantly 0 times 1549995 (46.27%) aligned concordantly 0 times 1095942 (49.96%) aligned concordantly exactly 1 time 1735573 (51.81%) aligned concordantly exactly 1 time 40634 (1.85%) aligned concordantly >1 times 64274 (1.92%) aligned concordantly >1 times 1056970 pairs aligned concordantly 0 times; of these: 1549995 pairs aligned concordantly 0 times; of these: 451114 (42.68%) aligned discordantly 1 time 632383 (40.80%) aligned discordantly 1 time 605856 pairs aligned 0 times concordantly or discordantly; of 917612 pairs aligned 0 times concordantly or discordantly; of these: these: 1211712 mates make up the pairs; of these: 1835224 mates make up the pairs: of these: 988717 (81.60%) aligned 0 times 1515194 (82.56%) aligned 0 times 155845 (12.86%) aligned exactly 1 time 226560 (12.35%) aligned exactly 1 time 67150 (5.54%) aligned >1 times 93470 (5.09%) aligned >1 times 77.46% overall alignment rate 77.38% overall alignment rate 1004 BC 1004 AH 1558691 reads; of these: 2449087 reads; of these: 1558691 (100.00%) were paired; of these: 2449087 (100.00%) were paired; of these: 682823 (43.81%) aligned concordantly 0 times 1010105 (41.24%) aligned concordantly 0 times 846739 (54.32%) aligned concordantly exactly 1 time 1391693 (56.82%) aligned concordantly exactly 1 time 47289 (1.93%) aligned concordantly >1 times 29129 (1.87%) aligned concordantly >1 times 682823 pairs aligned concordantly 0 times; of these: 1010105 pairs aligned concordantly 0 times; of these: 574709 (56.90%) aligned discordantly 1 time 389590 (57.06%) aligned discordantly 1 time 293233 pairs aligned 0 times concordantly or discordantly; of 435396 pairs aligned 0 times concordantly or discordantly; of these: these:

586466 mates make up the pairs; of these: 870792 mates make up the pairs; of these: 452551 (77.17%) aligned 0 times 693272 (79.61%) aligned 0 times 90254 (15.39%) aligned exactly 1 time 116010 (13.32%) aligned exactly 1 time 43661 (7.44%) aligned >1 times 61510 (7.06%) aligned >1 times 85.48% overall alignment rate 85.85% overall alignment rate 1005 AH 1005 BC 2088288 reads; of these: 2922955 reads; of these: 2088288 (100.00%) were paired; of these: 2922955 (100.00%) were paired; of these: 879799 (42.13%) aligned concordantly 0 times 1157419 (39.60%) aligned concordantly 0 times 1108858 (53.10%) aligned concordantly exactly 1 time 1621857 (55.49%) aligned concordantly exactly 1 time 99631 (4.77%) aligned concordantly >1 times 143679 (4.92%) aligned concordantly >1 times 879799 pairs aligned concordantly 0 times; of these: 1157419 pairs aligned concordantly 0 times; of these: 531417 (60.40%) aligned discordantly 1 time 683194 (59.03%) aligned discordantly 1 time 348382 pairs aligned 0 times concordantly or discordantly; of 474225 pairs aligned 0 times concordantly or discordantly; of these: these: 696764 mates make up the pairs; of these: 948450 mates make up the pairs; of these: 530334 (76.11%) aligned 0 times 743226 (78.36%) aligned 0 times 57426 (6.05%) aligned exactly 1 time 43067 (6.18%) aligned exactly 1 time 123363 (17.71%) aligned >1 times 147798 (15.58%) aligned >1 times 87.30% overall alignment rate 87.29% overall alignment rate 1006 AH 1006 BC 1929277 reads; of these: 2847843 reads; of these: 1929277 (100.00%) were paired; of these: 2847843 (100.00%) were paired; of these: 1859132 (96.36%) aligned concordantly 0 times 2738577 (96.16%) aligned concordantly 0 times 65941 (3.42%) aligned concordantly exactly 1 time 102894 (3.61%) aligned concordantly exactly 1 time 4204 (0.22%) aligned concordantly >1 times 6372 (0.22%) aligned concordantly >1 times 1859132 pairs aligned concordantly 0 times; of these: 2738577 pairs aligned concordantly 0 times; of these: 17818 (0.96%) aligned discordantly 1 time 24854 (0.91%) aligned discordantly 1 time 1841314 pairs aligned 0 times concordantly or discordantly; of 2713723 pairs aligned 0 times concordantly or discordantly; of these: 3682628 mates make up the pairs; of these: 5427446 mates make up the pairs; of these: 3523717 (95.68%) aligned 0 times 5197026 (95.75%) aligned 0 times 151334 (4.11%) aligned exactly 1 time 220231 (4.06%) aligned exactly 1 time 7577 (0.21%) aligned >1 times 10189 (0.19%) aligned >1 times 8.68% overall alignment rate 8.76% overall alignment rate 1007 AH 1007 BC 3473851 reads; of these: 2305984 reads; of these: 2305984 (100.00%) were paired; of these: 3473851 (100.00%) were paired; of these: 877560 (38.06%) aligned concordantly 0 times 1243506 (35.80%) aligned concordantly 0 times 1270551 (55.10%) aligned concordantly exactly 1 time 1988054 (57.23%) aligned concordantly exactly 1 time 157873 (6.85%) aligned concordantly >1 times 242291 (6.97%) aligned concordantly >1 times 877560 pairs aligned concordantly 0 times; of these: 1243506 pairs aligned concordantly 0 times; of these: 486337 (55.42%) aligned discordantly 1 time 670064 (53.89%) aligned discordantly 1 time 391223 pairs aligned 0 times concordantly or discordantly; of 573442 pairs aligned 0 times concordantly or discordantly; of 782446 mates make up the pairs; of these: 1146884 mates make up the pairs; of these: 571295 (73.01%) aligned 0 times 869843 (75.84%) aligned 0 times 41515 (5.31%) aligned exactly 1 time 60117 (5.24%) aligned exactly 1 time 169636 (21.68%) aligned >1 times 216924 (18.91%) aligned >1 times 87.61% overall alignment rate 87.48% overall alignment rate 1008 AH 1008 BC 1312616 reads; of these: 1940489 reads; of these: 1312616 (100.00%) were paired; of these: 1940489 (100.00%) were paired; of these: 429246 (32.70%) aligned concordantly 0 times 602734 (31.06%) aligned concordantly 0 times 829762 (63.21%) aligned concordantly exactly 1 time 1257924 (64.83%) aligned concordantly exactly 1 time 53608 (4.08%) aligned concordantly >1 times 79831 (4.11%) aligned concordantly >1 times

429246 pairs aligned concordantly 0 times; of these: 602734 pairs aligned concordantly 0 times; of these: 254975 (59.40%) aligned discordantly 1 time 344876 (57.22%) aligned discordantly 1 time 174271 pairs aligned 0 times concordantly or discordantly; of 257858 pairs aligned 0 times concordantly or discordantly; of these: these: 348542 mates make up the pairs; of these: 515716 mates make up the pairs; of these: 282793 (81.14%) aligned 0 times 426804 (82.76%) aligned 0 times 20806 (5.97%) aligned exactly 1 time 30474 (5.91%) aligned exactly 1 time 44943 (12.89%) aligned >1 times 58438 (11.33%) aligned >1 times 89.00% overall alignment rate 89.23% overall alignment rate 1009 AH 1009 BC 1944249 reads; of these: 2894462 reads; of these: 1944249 (100.00%) were paired; of these: 2894462 (100.00%) were paired; of these: 974177 (50.11%) aligned concordantly 0 times 1410561 (48.73%) aligned concordantly 0 times 944803 (48.59%) aligned concordantly exactly 1 time 1445925 (49.95%) aligned concordantly exactly 1 time 25269 (1.30%) aligned concordantly >1 times 37976 (1.31%) aligned concordantly >1 times 974177 pairs aligned concordantly 0 times; of these: 1410561 pairs aligned concordantly 0 times; of these: 270628 (27.78%) aligned discordantly 1 time 368388 (26.12%) aligned discordantly 1 time 703549 pairs aligned 0 times concordantly or discordantly; of 1042173 pairs aligned 0 times concordantly or discordantly; of these 1407098 mates make up the pairs; of these: 2084346 mates make up the pairs; of these: 1797978 (86.26%) aligned 0 times 1205899 (85.70%) aligned 0 times 167747 (11.92%) aligned exactly 1 time 239415 (11.49%) aligned exactly 1 time 33452 (2.38%) aligned >1 times 46953 (2.25%) aligned >1 times 68.99% overall alignment rate 68.94% overall alignment rate 1010 BC 1010 AH 1319601 reads; of these: 1909206 reads; of these: 1319601 (100.00%) were paired; of these: 1909206 (100.00%) were paired; of these: 1291012 (97.83%) aligned concordantly 0 times 1865673 (97.72%) aligned concordantly 0 times 26681 (2.02%) aligned concordantly exactly 1 time 40810 (2.14%) aligned concordantly exactly 1 time 1908 (0.14%) aligned concordantly >1 times 2723 (0.14%) aligned concordantly >1 times 1291012 pairs aligned concordantly 0 times; of these: 1865673 pairs aligned concordantly 0 times; of these: 8338 (0.65%) aligned discordantly 1 time 11360 (0.61%) aligned discordantly 1 time 1282674 pairs aligned 0 times concordantly or discordantly; of 1854313 pairs aligned 0 times concordantly or discordantly; of these: 2565348 mates make up the pairs; of these: 3708626 mates make up the pairs; of these: 2488483 (97.00%) aligned 0 times 3599606 (97.06%) aligned 0 times 71231 (2.78%) aligned exactly 1 time 101160 (2.73%) aligned exactly 1 time 5634 (0.22%) aligned >1 times 7860 (0.21%) aligned >1 times 5.71% overall alignment rate 5.73% overall alignment rate 1011 AH 1011 BC 768699 reads; of these: 1178421 reads; of these: 768699 (100.00%) were paired; of these: 1178421 (100.00%) were paired; of these: 433237 (56.36%) aligned concordantly 0 times 664251 (56.37%) aligned concordantly 0 times 324783 (42.25%) aligned concordantly exactly 1 time 497953 (42.26%) aligned concordantly exactly 1 time 10679 (1.39%) aligned concordantly >1 times 16217 (1.38%) aligned concordantly >1 times 433237 pairs aligned concordantly 0 times; of these: 664251 pairs aligned concordantly 0 times; of these: 24501 (5.66%) aligned discordantly 1 time 35447 (5.34%) aligned discordantly 1 time 408736 pairs aligned 0 times concordantly or discordantly; of 628804 pairs aligned 0 times concordantly or discordantly; of these: these: 817472 mates make up the pairs; of these: 1257608 mates make up the pairs; of these: 747091 (91.39%) aligned 0 times 1152247 (91.62%) aligned 0 times 63055 (7.71%) aligned exactly 1 time 94976 (7.55%) aligned exactly 1 time 7326 (0.90%) aligned >1 times 10385 (0.83%) aligned >1 times 51.41% overall alignment rate 51.11% overall alignment rate

1012 AH 1012 BC 2073205 reads; of these: 3224847 reads; of these: 2073205 (100.00%) were paired; of these: 3224847 (100.00%) were paired; of these: 1973418 (95.19%) aligned concordantly 0 times 3067754 (95.13%) aligned concordantly 0 times 93837 (4.53%) aligned concordantly exactly 1 time 147522 (4.57%) aligned concordantly exactly 1 time 5950 (0.29%) aligned concordantly >1 times 9571 (0.30%) aligned concordantly >1 times 1973418 pairs aligned concordantly 0 times; of these: 3067754 pairs aligned concordantly 0 times; of these: 10524 (0.53%) aligned discordantly 1 time 15177 (0.49%) aligned discordantly 1 time 1962894 pairs aligned 0 times concordantly or discordantly; of 3052577 pairs aligned 0 times concordantly or discordantly; of these: these: 3925788 mates make up the pairs; of these: 6105154 mates make up the pairs; of these: 3773917 (96.13%) aligned 0 times 5871601 (96.17%) aligned 0 times 145756 (3.71%) aligned exactly 1 time 224467 (3.68%) aligned exactly 1 time 6115 (0.16%) aligned >1 times 9086 (0.15%) aligned >1 times 8.98% overall alignment rate 8.96% overall alignment 1013 AH 1013 BC 1828482 reads; of these: 2736996 reads; of these: 1828482 (100.00%) were paired; of these: 2736996 (100.00%) were paired; of these: 771500 (42.19%) aligned concordantly 0 times 1091557 (39.88%) aligned concordantly 0 times 1004718 (54.95%) aligned concordantly exactly 1 time 1565676 (57.20%) aligned concordantly exactly 1 time 52264 (2.86%) aligned concordantly >1 times 79763 (2.91%) aligned concordantly >1 times 771500 pairs aligned concordantly 0 times; of these: 1091557 pairs aligned concordantly 0 times; of these: 468798 (60.76%) aligned discordantly 1 time 646106 (59.19%) aligned discordantly 1 time 302702 pairs aligned 0 times concordantly or discordantly; of 445451 pairs aligned 0 times concordantly or discordantly; of these: these: 605404 mates make up the pairs; of these: 890902 mates make up the pairs; of these: 494589 (81.70%) aligned 0 times 741747 (83.26%) aligned 0 times 41682 (6.88%) aligned exactly 1 time 58399 (6.56%) aligned exactly 1 time 69133 (11.42%) aligned >1 times 90756 (10.19%) aligned >1 times 86.48% overall alignment rate 86.45% overall alignment rate 1014 AH 1014 BC 2206902 reads; of these: 3528456 reads; of these: 2206902 (100.00%) were paired; of these: 3528456 (100.00%) were paired; of these: 883017 (40.01%) aligned concordantly 0 times 1368296 (38.78%) aligned concordantly 0 times 1261513 (57.16%) aligned concordantly exactly 1 time 2058287 (58.33%) aligned concordantly exactly 1 time 62372 (2.83%) aligned concordantly >1 times 101873 (2.89%) aligned concordantly >1 times 883017 pairs aligned concordantly 0 times; of these: 1368296 pairs aligned concordantly 0 times; of these: 297966 (33.74%) aligned discordantly 1 time 432211 (31.59%) aligned discordantly 1 time 585051 pairs aligned 0 times concordantly or discordantly; of 936085 pairs aligned 0 times concordantly or discordantly; of these: these: 1170102 mates make up the pairs: of these: 1872170 mates make up the pairs: of these: 965258 (82.49%) aligned 0 times 1558414 (83.24%) aligned 0 times 135423 (11.57%) aligned exactly 1 time 211356 (11.29%) aligned exactly 1 time 69421 (5.93%) aligned >1 times 102400 (5.47%) aligned >1 times 78.13% overall alignment rate 77.92% overall alignment rate 1015 AH 1015 BC 1923464 reads; of these: 3181425 reads; of these: 1923464 (100.00%) were paired; of these: 3181425 (100.00%) were paired; of these: 599262 (31.16%) aligned concordantly 0 times 941898 (29.61%) aligned concordantly 0 times 1219947 (63.42%) aligned concordantly exactly 1 time 2066854 (64.97%) aligned concordantly exactly 1 time 104255 (5.42%) aligned concordantly >1 times 172673 (5.43%) aligned concordantly >1 times 599262 pairs aligned concordantly 0 times; of these: 941898 pairs aligned concordantly 0 times; of these: 326365 (54.46%) aligned discordantly 1 time 492889 (52.33%) aligned discordantly 1 time 272897 pairs aligned 0 times concordantly or discordantly; of 449009 pairs aligned 0 times concordantly or discordantly; of these: these:

545794 mates make up the pairs; of these: 898018 mates make up the pairs; of these: 436631 (80.00%) aligned 0 times 733851 (81.72%) aligned 0 times 29014 (5.32%) aligned exactly 1 time 50043 (5.57%) aligned exactly 1 time 80149 (14.68%) aligned >1 times 114124 (12.71%) aligned >1 times 88.65% overall alignment rate 88.47% overall alignment rate 1016 AH 1016 BC 2646260 reads; of these: 3919163 reads; of these: 2646260 (100.00%) were paired; of these: 3919163 (100.00%) were paired; of these: 1121545 (42.38%) aligned concordantly 0 times 1611354 (41.11%) aligned concordantly 0 times 1486499 (56.17%) aligned concordantly exactly 1 time 2250244 (57.42%) aligned concordantly exactly 1 time 38216 (1.44%) aligned concordantly >1 times 57565 (1.47%) aligned concordantly >1 times 1121545 pairs aligned concordantly 0 times; of these: 1611354 pairs aligned concordantly 0 times; of these: 380808 (33.95%) aligned discordantly 1 time 516575 (32.06%) aligned discordantly 1 time 740737 pairs aligned 0 times concordantly or discordantly; of 1094779 pairs aligned 0 times concordantly or discordantly; of these: these: 1481474 mates make up the pairs; of these: 2189558 mates make up the pairs; of these: 1271260 (85.81%) aligned 0 times 1891752 (86.40%) aligned 0 times 162196 (10.95%) aligned exactly 1 time 231659 (10.58%) aligned exactly 1 time 48018 (3.24%) aligned >1 times 66147 (3.02%) aligned >1 times 75.98% overall alignment rate 75.87% overall alignment rate 1017 AH 1017 BC 1889165 reads; of these: 2738771 reads; of these: 1889165 (100.00%) were paired; of these: 2738771 (100.00%) were paired; of these: 1888328 (99.96%) aligned concordantly 0 times 2737559 (99.96%) aligned concordantly 0 times 728 (0.04%) aligned concordantly exactly 1 time 1064 (0.04%) aligned concordantly exactly 1 time 109 (0.01%) aligned concordantly >1 times 148 (0.01%) aligned concordantly >1 times 1888328 pairs aligned concordantly 0 times; of these: 2737559 pairs aligned concordantly 0 times; of these: 100 (0.01%) aligned discordantly 1 time 133 (0.00%) aligned discordantly 1 time 1888228 pairs aligned 0 times concordantly or discordantly; of 2737426 pairs aligned 0 times concordantly or discordantly; of these: 3776456 mates make up the pairs; of these: 5474852 mates make up the pairs; of these: 3775259 (99.97%) aligned 0 times 5472883 (99.96%) aligned 0 times 964 (0.03%) aligned exactly 1 time 1634 (0.03%) aligned exactly 1 time 233 (0.01%) aligned >1 times 335 (0.01%) aligned >1 times 0.08% overall alignment rate 0.09% overall alignment rate 1018 BC 1018 AH 2628541 reads; of these: 3662396 reads; of these: 2628541 (100.00%) were paired; of these: 3662396 (100.00%) were paired; of these: 2627501 (99.96%) aligned concordantly 0 times 3660960 (99.96%) aligned concordantly 0 times 920 (0.04%) aligned concordantly exactly 1 time 1258 (0.03%) aligned concordantly exactly 1 time 120 (0.00%) aligned concordantly >1 times 178 (0.00%) aligned concordantly >1 times 2627501 pairs aligned concordantly 0 times; of these: 3660960 pairs aligned concordantly 0 times; of these: 102 (0.00%) aligned discordantly 1 time 117 (0.00%) aligned discordantly 1 time 2627399 pairs aligned 0 times concordantly or discordantly; of 3660843 pairs aligned 0 times concordantly or discordantly; of these: 5254798 mates make up the pairs; of these: 7321686 mates make up the pairs; of these: 5253047 (99.97%) aligned 0 times 7319128 (99.97%) aligned 0 times 1410 (0.03%) aligned exactly 1 time 2105 (0.03%) aligned exactly 1 time 341 (0.01%) aligned >1 times 453 (0.01%) aligned >1 times 0.08% overall alignment rate 0.08% overall alignment rate 1019 AH 1019 BC 2000344 reads; of these: 2664496 reads; of these: 2664496 (100.00%) were paired; of these: 2000344 (100.00%) were paired; of these: 850992 (42.54%) aligned concordantly 0 times 1058047 (39.71%) aligned concordantly 0 times 1100838 (55.03%) aligned concordantly exactly 1 time 1538791 (57.75%) aligned concordantly exactly 1 time 48514 (2.43%) aligned concordantly >1 times 67658 (2.54%) aligned concordantly >1 times

850992 pairs aligned concordantly 0 times; of these: $543262\ (63.84\%)$ aligned discordantly 1 time

307730 pairs aligned 0 times concordantly or discordantly; of these:

615460 mates make up the pairs; of these: 499731 (81.20%) aligned 0 times 57960 (9.42%) aligned exactly 1 time 57769 (9.39%) aligned >1 times 87.51% overall alignment rate

1058047 pairs aligned concordantly 0 times; of these: 673604 (63.66%) aligned discordantly 1 time

 $384443\ pairs\ aligned\ 0$ times concordantly or discordantly; of these:

768886 mates make up the pairs; of these: 642612 (83.58%) aligned 0 times 56149 (7.30%) aligned exactly 1 time 70125 (9.12%) aligned >1 times 87.94% overall alignment rate