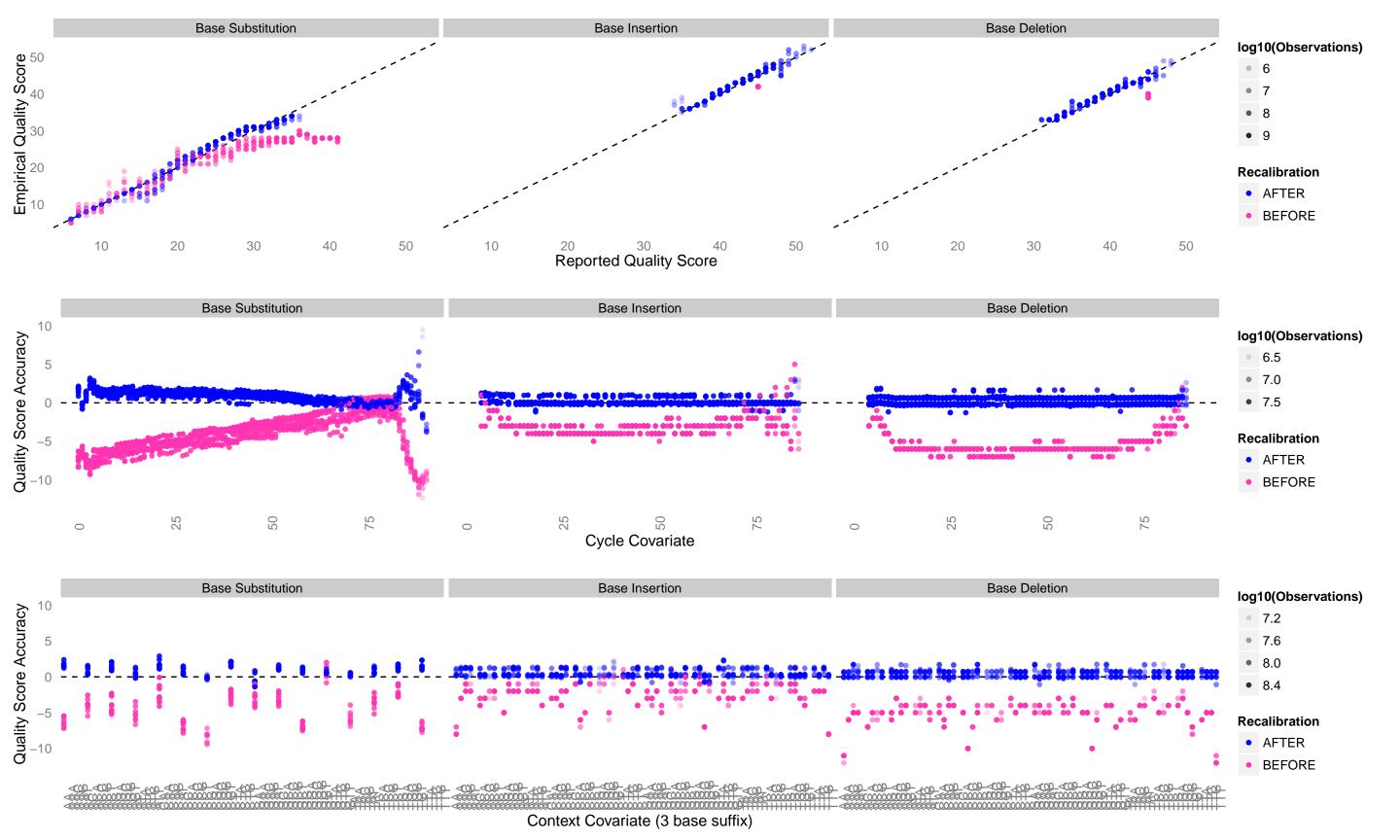
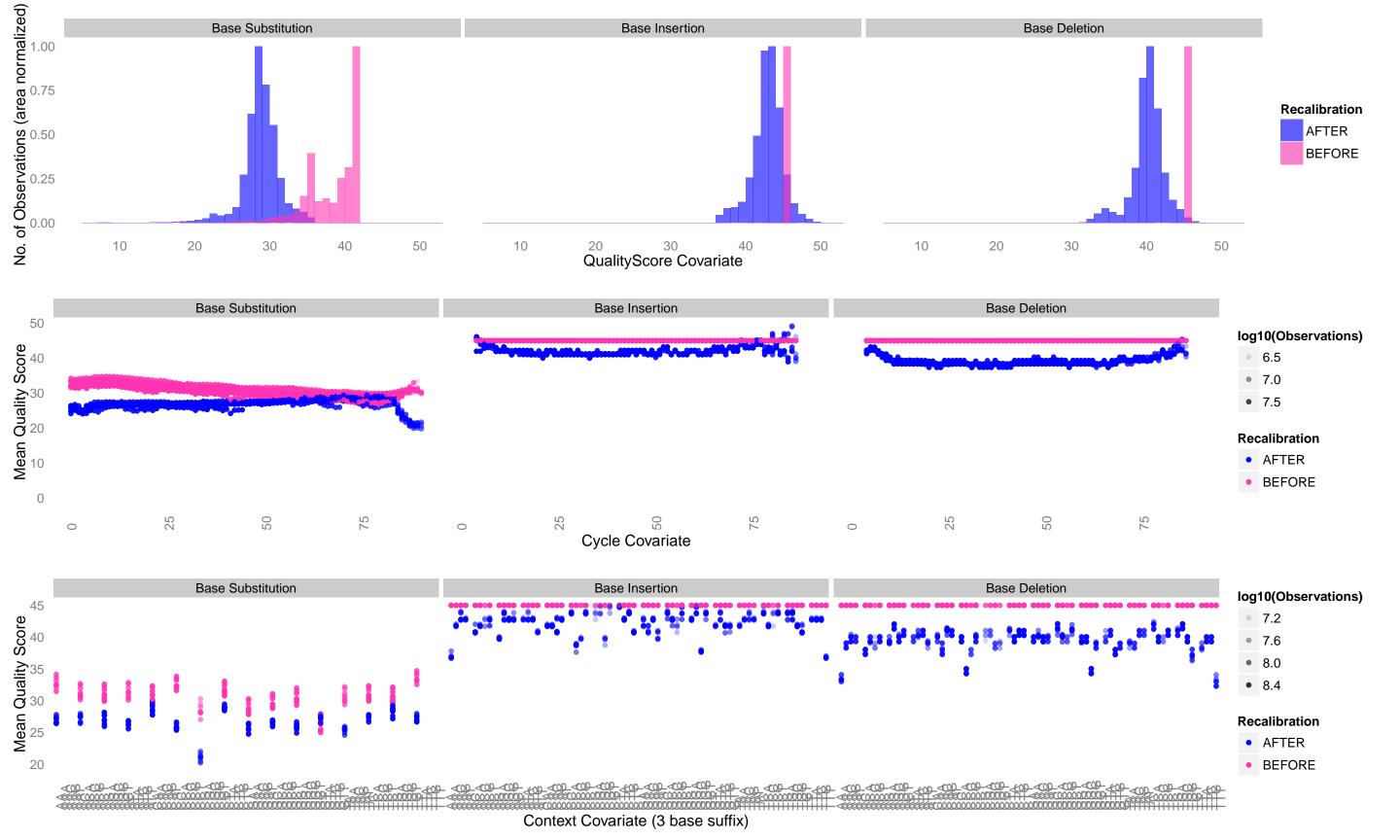
GATK BaseRecalibration report

| Argument | Value |
|----------------------------|---|
| binary_tag_name | None |
| covariate | ReadGroup, QualityScore, Context, Cycle |
| default_platform | None |
| deletions_default_quality | 45 |
| force_platform | None |
| indels_context_size | 3 |
| insertions_default_quality | 45 |
| low_quality_tail | 2 |
| maximum_cycle_value | 500 |
| mismatches_context_size | 2 |
| mismatches_default_quality | —1 |
| no_standard_covs | false |
| quantizing_levels | 16 |
| run_without_dbsnp | false |
| solid_nocall_strategy | THROW_EXCEPTION |
| solid_recal_mode | SET_Q_ZERO |





Overall error rates by event type

| :6 | D7LYMFP1:195:7 | D7LYMFP1:195:7 | D7LYMFP1:195:7 | D7LYMFP1:195:5 | D7LYMFP1:195:5 | D7LYMFP1:195:5 | D7LYMFP1:195:3 | D7LYMFP1:195:3 | D7LYMFP1:195:3 | D7LYMFP1:195:4 | D7LYMFP1:195:4 | D7LYMFP1:195:4 | D7LYMFP1:195:1 | D7LYMFP1:195:1 | D7LYMFP1:195:1 | D7LYMFP1:195:2 | D7LYMFP1:195 |
|----|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|----------------|--------------|
| D | M | 1 | D | M | 1 | D | M | 1 | D | M | I | D | M | 1 | D | M | |
| .0 | 26.0 | 42.0 | 39.0 | 27.0 | 42.0 | 39.0 | 26.0 | 42.0 | 39.0 | 25.0 | 42.0 | 39.0 | 27.0 | 42.0 | 40.0 | 27.0 | 42 |
| .0 | 30.4 | 45.0 | 45.0 | 31.7 | 45.0 | 45.0 | 30.4 | 45.0 | 45.0 | 29.4 | 45.0 | 45.0 | 32.0 | 45.0 | 45.0 | 31.1 | 45 |
|)9 | 6.10e+09 | 6.10e+09 | 6.10e+09 | 4.47e+09 | 4.47e+09 | 4.47e+09 | 4.82e+09 | 4.82e+09 | 4.82e+09 | 5.63e+09 | 5.63e+09 | 5.63e+09 | 4.29e+09 | 4.29e+09 | 4.29e+09 | 4.75e+09 | 4.75e+(|
| 15 | 1 420+07 | 3 830+05 | 7.070+05 | 0.830106 | 2 800+05 | 5.220+05 | 1 200+07 | 2 080+05 | 5.40o±05 | 1.610+07 | 3 380102 | 6.410+05 | 8 420+06 | 2 650+05 | 4 800+05 | 1.060+07 | 2 850+(|

Error rates by event type and initial quality score

| D701MFP1:1866 | 25 | ii. | 24 | 22599301 | 94237.74 |
|--|----------------------|-------------|----------------------|--|---|
| D7C1MFP1:1656 D7C1MFP1:1656 D7C1MFP1:1656 D7C1MFP1:1656 | 27 28 20 | ii ii | 20 27 27 | 2299301 31732758 28334247 22038443 58415009 74942110 103231337 | 94237.74 90016.00 127074.26 4652.59 109184.65 141614.54 187292.24 |
| D701MFP1:1866 D701MFP1:1866 D701MFP1:1866 | 30 31 92 | i i | 27 27 28 | 74942110 103231337 115371554 | 141614.54 187292.24 191599.88 |
| D701MFP1:186:6 D701MFP1:186:6 D701MFP1:186:6 | 33 34 | ě | 28 28 28 | 115371554 16433203 299475299 609432766 | 271481.23 595985.92 1105180.64 |
| D7CYMFP1:1866 D7CYMFP1:1866 D7CYMFP1:1866 | 36 37 59 | ii . | 29 29 28 | | 316588.41 382184.62 459766.08 |
| D701MFP1:1866 D701MFP1:1866 D701MFP1:1866 | 39 40 41 | ä | 28 28 28 | 282605932 267436115 515698145 705216382 2068193714 5875598751 | 868570.12 1133766.30 3610875.08 |
| D701MFP1:1866 D701MFP1:1866 D701MFP1:1867 | 45 45 | D M | 42 40 5 | 5875593751 5875593751 1047560 | 338584.87 651901.54 329098.47 |
| D7D1MFP1:186.7 D7D1MFP1:186.7 D7D1MFP1:186.7 | 7 8 | ä | | 5875558751 5075568751 5277624 5422877 2275569 342280 542380 543580 5444827 2252500 1205625 4291907 227560 | 813234.75 801859.99 295452.47 |
| D7D1MFP1:1867 D7D1MFP1:1867 D7D1MFP1:1867 | 10 11 12 | ě | 9 13 | 3420390 1635383 1444837 | 402870.95 91208.20 67604.43 |
| D701MFP1:186.7 D701MFP1:186.7 D701MFP1:186.7 | 13 14 15 | ž. | 16 13 16 | 3252909 1205625 4291907 | 85579.57 55520.68 108969.76 |
| D701MFP1:185.7 D701MFP1:185.7 D701MFP1:185.7 | 16 17 18 | M | 15 16 17 | 2375493 4923858 8788884 | 119398.65 130229.77 188210.50 |
| D701MFP1:1867 D701MFP1:1867 D701MFP1:1867 | 19 20 21 | i i | 19 23 20 | 2375400 4023006 8738004 4554237 10042006 2666205 7437402 11610022 14444500 1945072 2566222 2566222 2678511 | 64183.21 55143.65 36863.74 |
| D7D1MFP1:185.7 D7D1MFP1:185.7 | 22 23 24 | ii ii | 21 23 23 | 11610323 14940589 | 57898.61 74875.14 |
| D701MFP1:186:7 D701MFP1:186:7 | 26 27 | ii ii | 24 24 24 | 25663223 25678323 2478313 | 94076.66 107880.11 |
| D701MFP1:186.7 D701MFP1:186.7 D701MFP1:186.7 | 29 30 31 | ii . | 26 27 27 | 24785313 20329455 43557053 60538067 73594798 84627691 | 116493.58 131970.11 154402.45 |
| D701MFP1:1867 D701MFP1:1867 D701MFP1:1867 | 32 33 34 | M M | 27 28 27 | 84627691 136583860 293345432 | 178442.73 238739.98 603515.48 |
| D7D/MFP1:186.7 D7D/MFP1:186.7 D7D/MFP1:186.7 | 35 36 37 | ž | 27 29 29 | 84027607 130280800 223345402 391178030 290350224 22134670 222077802 544782500 648029104 2188057004 | 1779421.26 341929.34 416382.66 |
| D701MFP1:1867 D701MFP1:1867 D701MFP1:1867 | 39 40 | i i | 28 28 28 | 222077852 544782550 648539104 | 384178.45 876045.73 1026636.77 |
| D701MFP1:186.7 D701MFP1:186.7 | 45 45 | 9 | 42 29 | 6098530038 6098530038 | 381990.35 706569.45 |
| D701MFP1:1865 D701MFP1:1865 | 7 8 | ii ii | 8 | 2695920 2717553 | 444916.44 425753.71 |
| D7DMFP1:1855 D7DMFP1:1855 D7DMFP1:1855 | 10 11 12 | ě | 13 | 1704202 840625 777899 | 193012.18 46123.28 40004.70 |
| D7DWP1:1855 D7DWP1:1855 D7DWP1:1855 | 13 14 15 | ä | 16 13 15 | 1671183 629059 2331861 | 46399.66 34199.74 72774.52 |
| D701MFP1:1955 D701MFP1:1955 D701MFP1:1955 | 16 17 18 | ž | 14 16 16 | 6480237034 6008233038 6008233038 6008230308 6008230308 60082303 60082303 60082303 60082303 600823 600823 7708603 7708 | 60193.52 64107.97 102317.36 |
| D701MFP1:1855 D701MFP1:1855 D701MFP1:1855 | 19 20 21 | ii ii | 18 23 20 | 2362928 5384196 2063759 | 29432.20 29650.00 19299.28 |
| D701MFP1:1655 D701MFP1:1655 D701MFP1:1655 | 22 23 24 | M M | 23 23 23 | 388802 6252206 7953765 | 21543.15 33599.98 44695.26 |
| D701MFP1:1865 D701MFP1:1865 | 26 27 | ě | 24 24 | 13710133 13422246 | 53737.09 59044.52 |
| D701MFP1:1855 D701MFP1:1855 D701MFP1:1855 | 29 30 31 | M M | 25 26 26 | 1342246 11127499 23763944 34149178 41987398 48493001 82075969 | 68311.10 77447.50 99245.58 |
| D701MFP1:1955 D701MFP1:1955 D701MFP1:1955 | 32 33 34 | M M M | 27 27 27 | 48490001 82075969 180227027 | 105196.70 147040.42 393892.04 |
| D701MFP1:1955 D701MFP1:1955 D701MFP1:1955 | 35 36 37 | M | 27 29 29 | 180227027 696347100 205083158 233265779 | 1323089.08 236128.72 301758.94 |
| | 38 39 40 | M M | 27 28 28 | 141508006 430229635 | |
| D701MFP1:1865 D701MFP1:1865 D701MFP1:1865 | 45 45 | i i | 28 42 29 | 17867195000 44471939000 44471939000 46071939000 8000000 8000000 8000000 8000000 8000000 | 3093617.47 279898.67 521592.76 |
| D701MFP1:186:3 D701MFP1:186:3 D701MFP1:186:3 | 7 8 | ě | | 4001483 4474056 2274018 | 638502.78 823155.46 327057.15 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:1863 | 10 11 12 | ä | 8 11 12 | 2916862 124854 1173104 | 491625.78 93700.26 71567.22 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:1863 | 13 14 15 | ž | 14 12 13 | 2665292 1024783 3812584 | 100657.73 62677.85 183409.86 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:1863 | 16 17 18 | ii ii | 12 13 15 | 2909162 4212195 6675424 | 174030.42 203003.55 188804.76 |
| D701MF91:1863 D701MF91:1863 D701MF91:1863 | 19 20 21 | M M | 17 22 19 | 667/5024 338/3063 724/3750 3007715 5697190 859000 41229943 1423962 189/3001 181/500 555/0006 | 65991.33 47854.02 39203.28 |
| D7CMFP1:16C3 D7CMFP1:16C3 D7CMFP1:16C3 | 22 23 24 95 | i i | 21 21 21 | 8859080 11229943 44538502 | 69435.44 93185.49 110346.90 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:1863 | 26 27 28 | i i | 21 22 22 25 | 18898301 18818526 15516066 | 88188.40 128380.21 45998.60 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:1863 | 29 30 31 | ä | 25 25 26 | 31344440 45707065 54359832 | 97748.38 143638.80 149910.75 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:1863 | 32 33 34 | ž | 26 27 27 | 15314640 31344440 45707065 5435852 63405821 103838919 220637366 | 158850.75 212888.59 488984.71 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:1863 | 35 36 37 | M | 27 29 29 | 765523791 22368566 255978224 178716175 | 1441001.55 287170.42 360126.73 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:4863 | 39 40 | | 20 28 28 | 450992155 531226940 | 784503.28 882531.56 |
| D701MFP1:1863 D701MFP1:1863 D701MFP1:1864 | 45 45 | | 42 39 5 | 40000000000000000000000000000000000000 | 297731.31 548927.86 481677.39 |
| D7U1MFP1:1864 D7U1MFP1:1864 D7U1MFP1:1864 | 7 8 | ä | | 7104867 6599909 2905712 | 1146319.47 1120311.73 518343.69 |
| D70/MFP1:195/4 D70/MFP1:195/4 D70/MFP1:195/4 | 10 11 12 | ž | 9 11 11 | 3742565 1885246 1791424 | 453115.48 142677.54 141100.48 |
| D701MFP1:1854 D701MFP1:1854 D701MFP1:1854 | 13 14 15 | M | 14 11 13 | 3583814 1486722 5005850 | 152024.54 110905.23 235411.55 |
| D7C1MFP1:1954 D7C1MFP1:1954 D7C1MFP1:1954 | 16 17 18 | M | 13 16 17 | 3791480 5338364 10673348 | 195260.97 149593.78 234250.46 |
| D707MFP1:1854 D707MFP1:1854 D707MFP1:1854 | 20 21 | ě | 21 19 21 | 11875405 4659228 8603950 | 90873.57 61056.80 66219.14 |
| D701MFP1:1864 D701MFP1:1864 D701MFP1:1864 | 23 24 25 | M M | 21 21 22 | 13231016 16983949 22596046 | 112670.22 136231.65 144119.40 |
| D7U1MFP1:1864 D7U1MFP1:1864 D7U1MFP1:1864 | 26 27 28 | ä | 24 23 25 | 22038073 28259548 23778364 | 131460.53 142475.59 74158.56 |
| D70/MFP1:195/4 D70/MFP1:195/4 D70/MFP1:195/4 | 29 30 31 | ž | 26 25 26 | 54612441 70700247 93543538 | 147011.65 207292.77 222128.18 |
| D701MFP1:1854 D701MFP1:1854 D701MFP1:1854 | 32 33 34 | M | 27 27 27 | 105455594 155531288 364690831 | 221628.06 305407.82 715471.05 |
| D701MFP1:1864 D701MFP1:1864 D701MFP1:1864 | 36 36 37 | M | 27 29 28 | 674902435 231015872 267857803 | 1470338.17 318754.47 390787.04 |
| D7UMEP1:1864 D7UMEP1:1864 D7UMEP1:1864 | 39 40 | i i | 26 28 28 | 231015872 267857803 271582803 509829849 681448717 1928882268 | 885843.02 1131917.48 |
| D701MFP1:1864 D701MFP1:1864 D701MFP1:1864 | 45 45 | i i | 42 39 | 5632317437 5632317437 491196 | 337578.19 640529.59 651953.68 |
| D70/MFP1:185:1 D70/MFP1:185:1 D70/MFP1:185:1 | 7 8 9 | ž. | 9 9 | 2468526 2281991 978385 | 317505.48 285742.81 114650.98 |
| D701MFP1:185:1 D701MFP1:185:1 D701MFP1:185:1 | 10 11 12 | ž | 11 15 13 | 1363474 724024 697033 | 118242.96 25677.68 31850.33 |
| D7C1MFP1:195:1 D7C1MFP1:195:1 D7C1MFP1:195:1 | 13 14 15 | M | 17 13 16 | 1367323 534672 2097687 | 28571.97 49643.12 |
| D7C1MFP1:185:1 D7C1MFP1:185:1 D7C1MFP1:185:1 | 17 18 19 | 8 | 15 17 17 | 19.000000000000000000000000000000000000 | 40230.43 44933.26 76775.59 34977.76 |
| D701MFP1:186:1 D701MFP1:186:1 D701MFP1:186:1 | 20 21 22 | M M | 24 21 23 | 5432751 1825464 3543027 | 24105.36 15423.71 16095.63 |
| D7CHMFP1:195:1 D7CHMFP1:195:1 D7CHMFP1:195:1 | 23 24 25 | M | 24 23 23 | 5432751 1825464 3543027 6027987 7584660 9797934 12979756 | 40206.43 44231.26 76775.59 3427.26 24105.36 15223.71 16035.63 28118.08 45172.08 45172.08 45172.08 65675.42 |
| D701MFP1:186:1 D701MFP1:186:1 D701MFP1:186:1 D701MFP1:186:1 D701MFP1:186:1 | 26 27 28 | ii ii | 25 24 27 | 12979756 12760595 10218038 22358260 21766063 | 45108.76 49359.90 21107.16 |
| D7CMFP1:1851 D7CMFP1:1851 D7CMFP1:1851 D7CMFP1:1851 | 20 30 31 | ii ii | 26 27 27 | 42153301 | 61673.87 65675.42 88322.21 |
| OZCHMP P.:198:1 OZCHMP P.:198:1 OZCHMP P.:198:1 OZCHMP P.:198:1 OZCHMP P.:198:1 OZCHMP P.:198:1 | 20 34 25 | 8 | | 84796971 | 88322.21 82482.45 122798.65 369117.28 1256914.90 |
| D701MFP1:195:1 D701MFP1:195:1 D701MFP1:195:1 | 36 37 38 | M | | 699660174 197318502 22099800 151556184 | 1250914.90 212012.14 265421.93 249449.68 |
| D701MFP1:195:1 D701MFP1:195:1 D701MFP1:195:1 | 39 40 41 | M | 28 28 28 | 420527317 463956074 1624275113 | 658048.48 698102.19 2624538.68 |
| D701MFP1:185:1 D701MFP1:185:1 D701MFP1:185:2 | 45 45 6 | å | 42 40 5 | 4290940936 4290940936 732065 | 265289.08 480075.78 246250.05 |
| D701MP11162 D701MP11162 D701MP11162 D701MP11162 | 7 8 9 | M | | 3556490 3171412 1228546 | 602403.36 511748.03 179759.11 |
| D701MFP1:1852 D701MFP1:1852 D701MFP1:1852 | 11 12 12 | 8 | 10 12 13 | 1159178 1058518 1954899 | 103762.02 74176.60 93600.73 |
| D701MFP1:1852 D701MFP1:1852 D701MFP1:1852 | 14 15 16 | M | 12 | 739374 3043503 1915296 | 46104.36 87945.42 87928.17 |
| D701MFP1:1952 D701MFP1:1952 D701MFP1:1952 | 17 18 19 | M | 14 16 18 | 3252842 5611217 2915373 | 123246.72 134988.83 45868.13 |
| D701MFP1:1952 D701MFP1:1952 D701MFP1:1952 | 20 21 22 22 | | 22 19 22 | 7346312 2456756 474958 | 51835.03 29302.71 30709.58 |
| D707MFP1-1952 D707MFP1-1952 D707MFP1-1952 D707MFP1-1952 | 24 25 25 | ii ii | 23 23 22 | 10177426 12486719 12486719 | 45418.08 57230.76 70752.46 |
| D701MFP1-1862 D701MFP1-1862 D701MFP1-1862 | 27 28 29 | i i | 24 23 26 25 | 17150774 13180777 30203104 | 742/0.00 00544.51 33094.29 86160.60 |
| D701MFP1:1852 D701MFP1:1852 D701MFP1:1852 | 30 31 32 | ii ii | 26 27 27 | 41342262 54163286 60244302 | 94338.81 119452.98 125504.77 |
| D701MFP1:1852 D701MFP1:1852 D701MFP1:1852 | 33 34 25 | M | 28 27 28 | 111335797 232279624 787722249 | 179959.50 452325.43 1378303.30 |
| D7DMFP1:1952 D7DMFP1:1952 D7DMFP1:1952 D7DMFP1:1952 | 36 37 38 50 | M M | 20 29 28 | 211392526 237298012 180301291 436067703 | 236142.73 289715.08 292126.03 |
| D7DWFP1:1952 D7DWFP1:1952 D7DWFP1:1952 | 40 41 45 | 1 | 28 28 28 | 524291128 1719869696 4751645108 | 783823.15 2769120.10 284517.01 |
| D701MFP1:1952 D701MFP1:1958 D701MFP1:1958 | 45 6 7 | o M M | 42 40 5 10 | 4751645308 1475844 7945362 | 442500.22 822093.86 |
| D701MFP1:195:8 D701MFP1:195:8 D701MFP1:195:8 | 8 9 10 | M | 10 10 11 | 6684407 2853051 3797885 | 723553.15 289507.08 291811.35 |
| D7C1MFP1:195.8 D7C1MFP1:195.8 D7C1MFP1:195.8 | 11 12 13 | M | 16 13 19 | 1936776 1854293 3611028 | 47774.06 83788.35 45107.43 |
| SOURCE 100 | | | | ### Company of the Co | 600-64 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| D7DMFP1:1958 D7DMFP1:1958 D7DMFP1:1958 | 18 19 20 | 1 | 19 19 20 25 | 12480068 5765270 14811148 | 157834.88 60712.16 40100.75 |
| D701MFP1:1958 D701MFP1:1958 D701MFP1:1958 | 21 22 23 | ii ii | 22 24 24 | 5435835 10015395 15836586 | 35534.43 36509.52 59272.54 |