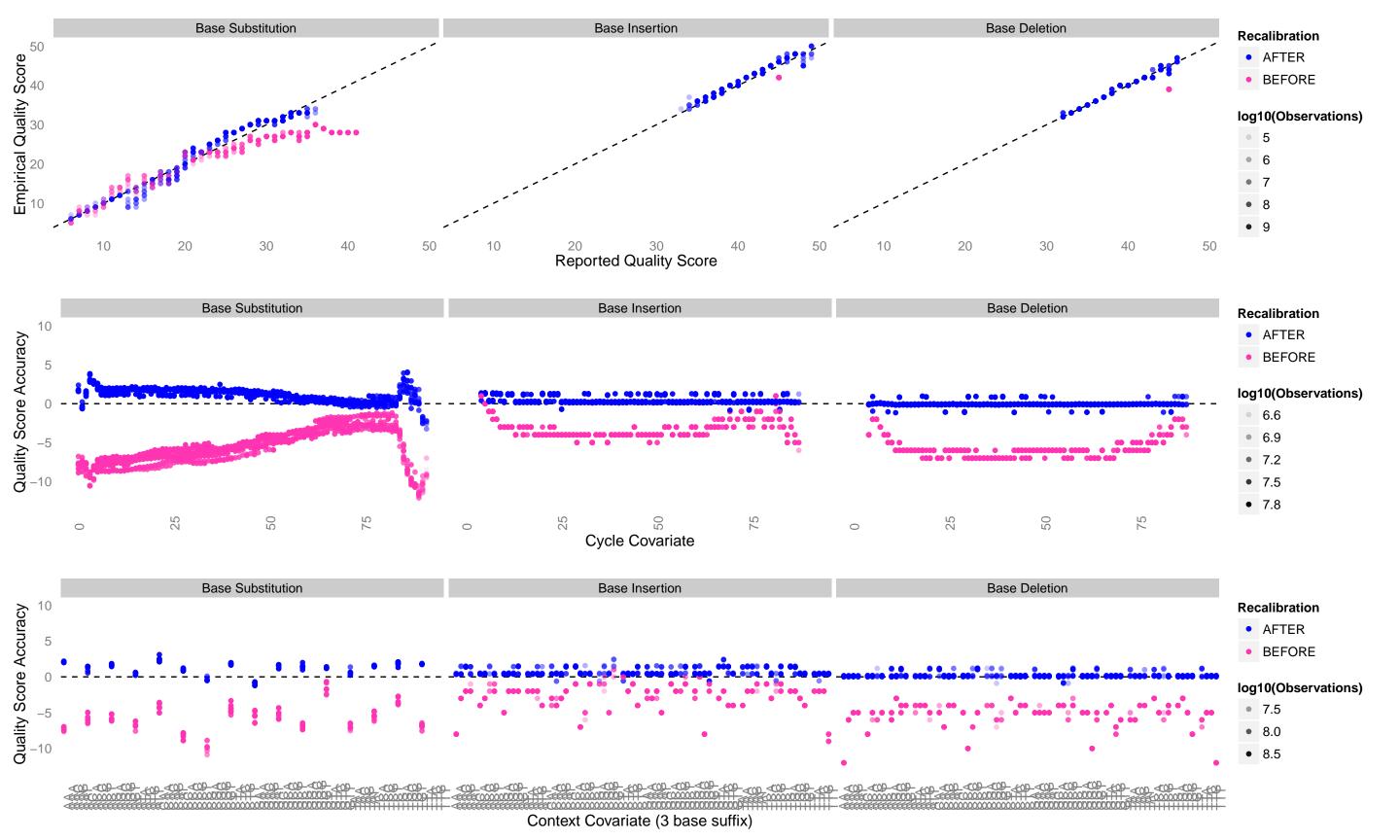
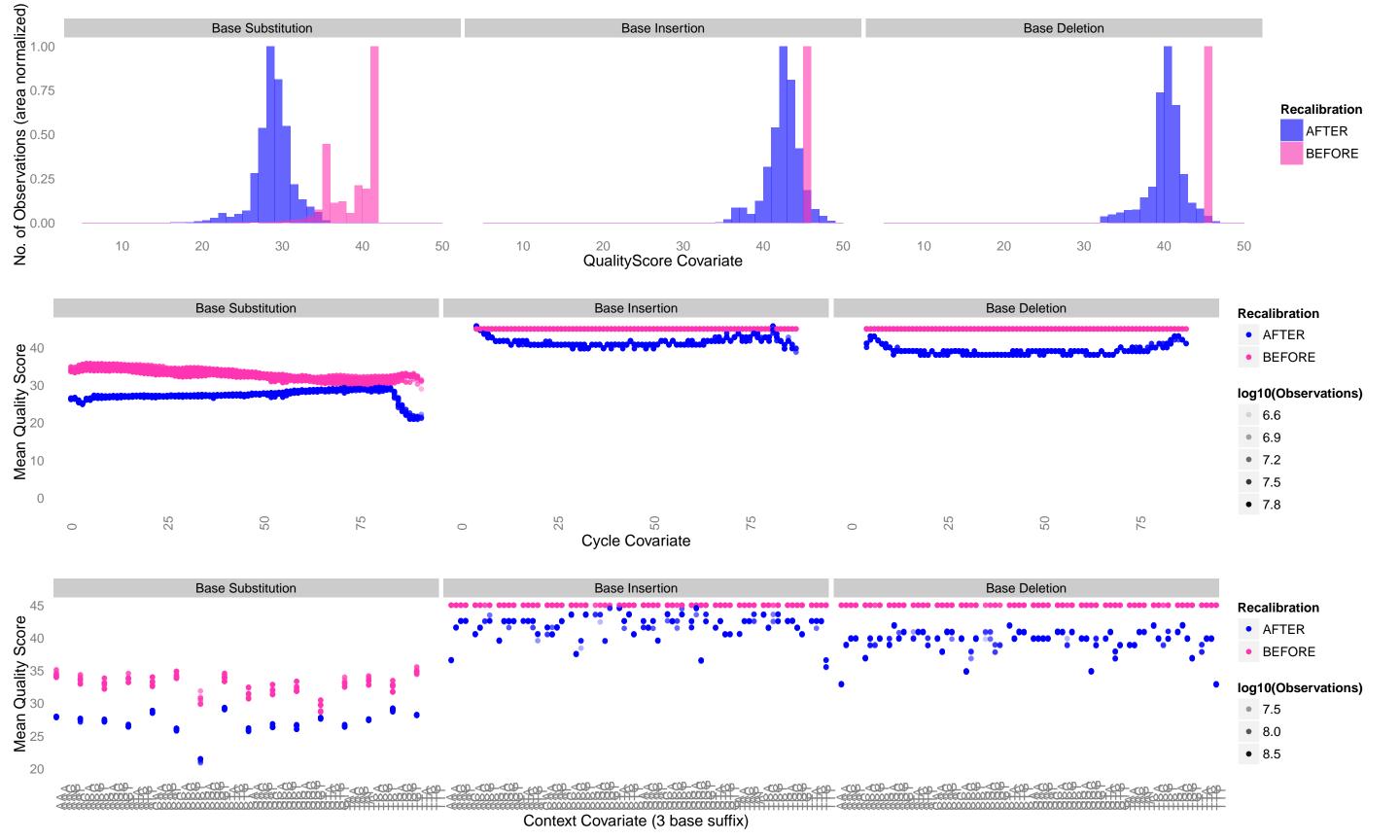
## **GATK BaseRecalibration report**

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	<b>—1</b>
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

7LYMFP1:290:2	7LYMFP1:290:2 D	7LYMFP1:290:7 M	7LYMFP1:290:7	7LYMFP1:290:7 D	7LYMFP1:290:1 M	7LYMFP1:290:1	7LYMFP1:290:1 D	7LYMFP1:290:3 M	7LYMFP1:290:3	7LYMFP1:290:3 D	7LYMFP1:290:6 M	7LYMFP1:290:6	7LYMFP1:290:6 D	7LYMFP1:290:4 M	7LYMFP1:290:4	7LYMFP1:290:4 D	7LYMFP1:290:5 M	7LYMFP1:290:5	7LYMFP1:290:5 D	7LYMF
42.0	39.0	27.0	42.0	39.0	27.0	42.0	39.0	27.0	42.0	39.0	27.0	42.0	39.0	27.0	42.0	39.0	27.0	42.0	39.0	
45.0	45.0	33.3	45.0	45.0	32.8	45.0	45.0	32.9	45.0	45.0	32.2	45.0	45.0	32.1	45.0	45.0	32.7	45.0	45.0	
4.99e+09	4.99e+09	3.20e+09	3.20e+09	3.20e+09	5.20e+09	5.20e+09	5.20e+09	4.98e+09	4.98e+09	4.98e+09	4.86e+09	4.86e+09	4.86e+09	5.13e+09	5.13e+09	5.13e+09	4.89e+09	4.89e+09	4.89e+09	1
3.20e+05	5.86e+05	6.25e+06	2.10e+05	3.79e+05	1.02e+07	3.34e+05	6.16e+05	9.71e+06	3.23e+05	5.89e+05	9.88e+06	3.16e+05	5.83e+05	1.02e+07	3.30e+05	6.00e+05	9.98e+06	3.23e+05	5.90e+05	

## Error rates by event type and initial quality score

TUMFP12902	£	E .	21	9800858	44363.75
TLYMEP 1:280:2 TLYMEP 1:280:2 TLYMEP 1:280:2 TLYMEP 1:280:2 TLYMEP 1:280:2 TLYMEP 1:280:2 TLYMEP 1:280:2 TLYMEP 1:280:2	26 27 28	M	25 25 27	12866817 13266352 10226554 22251249	44363.75 43555.73 46765.74 21035.93 51038.04 61466.19 78712.69
7LYMFP1290:2 7LYMFP1290:2 7LYMFP1290:2	30 31	i i	27 27	32029013	61466.19 78712.69
7LYMFP1290:2 7LYMFP1290:2 7LYMFP1290:2 7LYMFP1290:2	20 24	N N	28 28 28	46413053 86142714 182115127 897922380	78712.69 82652.03 137268.79 219304.54 1017946.45
7LYMFP1290:2 7LYMFP1290:2 7LYMFP1290:2	36 37 38	N N	30 29 28	236455884 254930867 130121989	248412.03 306707.54 214908.73
TAMES 2002	39 40 41	M	28 28 28	449538936 431582883	3441-12 02 4 10 10 10 10 10 10 10 10 10 10 10 10 10
7LYMFP1:290:2 7LYMFP1:290:2 7LYMFP1:290:7	8	B	42 39 5	492150918 492150918 197581 1141321 1016720	319642.31 586273.35 66496.95
7L/MFP1:290:7 7L/MFP1:290:7 7L/MFP1:290:7	7 8 9	N N	7	1141391 1016720 456211	208830.41 204832.08 88777.01
7LYMFP1290:7 7LYMFP1290:7 7LYMFP1290:7	10 11 12	ii ii	10 12 12	450211 679194 409036 333072 733328 259193 1055386 782493	19604.23 17328.67
7LYMFP1290:7 7LYMFP1290:7 7LYMFP1290:7	14 15	ii ii	12 15	259193 1055386 782405	15346.76 35019.99 28063.66
7LYMFP1290:7 7LYMFP1290:7 7LYMFP1290:7	17 18 19	N N	17 16 18	1290570 1282209 1189577	25816.75 53857.29 19688.47
7LYMFP1:290:7 7LYMFP1:290:7 7LYMFP1:290:7	20 21 22	M	22 20 21	782465 120570 120520 180520 180577 2275124 762665 1427100 251100 2181200 441500 5720448	13337.00 8592.74 11083.89
7L/MFP1:290:7 7L/MFP1:290:7 7L/MFP1:290:7	20 24 25	M M	22 22 22	2513109 3181300 4415668	15329.97 19706.70 25105.55
7LYMFP1290:7 7LYMFP1290:7 7LYMFP1290:7	20 27 28	ii ii	23 24 26	5904241 4582565 11613333 15938392	26365.65 12195.45
7LYMFP1290:7 7LYMFP1290:7 7LYMFP1290:7	20 20 21 20	N N	26 26 27	21986576	33552.76 50139.20 56334.76
7LYMFP1290:7 7LYMFP1290:7 7LYMFP1290:7	33 34 35	N N	28 27 28	53937861 123159212 584940054	89180.97 253417.86 1020726.81
7LYMFP1:290:7 7LYMFP1:290:7 7LYMFP1:290:7	35 37 38	H	30 29 28	584940054 149854534 158712904 70564360	157883.62 193451.39 121133.79
7L/MFP1:290:7 7L/MFP1:290:7 7L/MFP1:290:7	39 40 41	N.	28 28 28		465987.94 449691.81 2276586.00
7LYMFP1290:7 7LYMFP1290:7 7LYMFP1290:1 7LYMFP1290:1	45	D M	42 29 5	287365653 1357466773 2000553815 3200553815 412097 2000412 2160347 964521 1492797	278983.73 125964.78 122125.50
7LYMFP1:290:1 7LYMFP1:290:1 7LYMFP1:200:1	9 10	ii ii	8	2168347 964521 1490207	341010.33 123133.42 177008.90
7LYMFP1290:1 7LYMFP1290:1 7LYMFP1290:1	11 12 13	M	12 14 16	98-6227 1-620797 795327 659750 1522760 5334-67 1901951 1-463-422 2257744	45385.92 29393.09 39675.29
7LYMFP1:290:1 7LYMFP1:290:1 7LYMFP1:290:1	14 15 16	M	13 16 15	523447 1901951 1463422	24585.06 43403.25 43240.28
7LYMFP1290:1 7LYMFP1290:1 7LYMFP1290:1	17 18 19	M	16 15 17		52178.49 906285.46 33927.40
7LYMFP1:290:1 7LYMFP1:290:1 7LYMFP1:290:1	21 22 22 23	i i	21 21 22 23	1020306 4041695 1677914 2007846 4048764 5092330 7612569 10404417 10291055	14054.54 17306.77 25600.93
7LYMFP1290:1 7LYMFP1290:1 7LYMFP1290:1	24 25 26	N N	23 22 24	5993330 7612569 10404417	33323.83 43188.62 44847.22
7LYMFP1:290:1 7LYMFP1:290:1 7LYMFP1:290:1	27 28 29	ž.	23 26 25	10591055 8879444 168829604 25743742 30915355	48419.42 20367.24 51191.01
7LYMFP1:290:1 7LYMFP1:290:1 7LYMFP1:290:1	30 31 32	M	27 26 27	36356392	52294.73 74176.75 80365.80
7LYMFP1290:1 7LYMFP1290:1 7LYMFP1290:1	2	i i	26 26 28	133036810 1062231060 262862544 273867194	313311.72 1808080.87
7LYMFP1:290:1 7LYMFP1:290:1 7LYMFP1:290:1	27 28 29	i i	29 28 28	273857194 115951879 471538412	332051.05 196713.50 757908.44
7LYMFP1:290:1 7LYMFP1:290:1 7LYMFP1:290:1	40 41 45	M	28 28 42	407499143 2213311546 5198633756	633210.38 3690901.15 333961.60
7L/MFP1:290:1 7L/MFP1:290:3 7L/MFP1:290:3	45 6 7	M M	39 5 8	273867194 115221872 471638412 477639414 67769941 67769941 67769941 67769941 67769941 67769941 67769941 67769941 67769941 6776995 6771973 6771973 6771973 6771973 6771973 6771973 6771973 6771973 6771973 6771973 6771973	Section   Sect
7L/MFP1:290:3 7L/MFP1:290:3 7L/MFP1:290:3	8 9 10	M	9	2018296 886339 1446320	310742.36 113530.45 187752.54
7L/MFP1:290:3 7L/MFP1:290:3 7L/MFP1:290:3	12 13	ě	14 17 17	1435076	25059.96 30722.13 21425.46
7LYMFP1:290:3 7LYMFP1:290:3 7LYMFP1:290:3	15 16 17	M	17 15 15	492078 1772213 1422956 2172523 3303679	36477.11 48876.59 64920.86
7L/MFP1:290:3 7L/MFP1:290:3 7L/MFP1:290:3	18 19 20	M	16 18 23	3303679 1711502 4043424	91502.29 30520.71 21228.11
7L/MFP1:290:3 7L/MFP1:290:3 7L/MFP1:290:3	21 22 23	N N	21 23 23	217,2522 330879 1711502 604024 6003269 3138544 472574 5021102 7483403 1020603 1020603 1020603 1020603	91500.291 31223.11 31230.106 15260.06 5260.249 30020.349 30020.49 31138.22 46081.52 46081.52 46081.52 47040.28 46081.52 47040.28 47040.28 47040.28 47040.28 47040.28 47040.28 47040.28 47040.28
7LYMFP1290:3 7LYMFP1290:3 7LYMFP1290:3	2 2	ě	23 24	7483477 10290508	39662.79 41138.22
7LYMFP1290:3 7LYMFP1290:3 7LYMFP1290:3	20 20 20	ii ii	27 26 27	8560705 17042735 25547520	18975.32 47040.78 49947.25
7LYMFP1:290:3 7LYMFP1:290:3 7LYMFP1:290:3	21 22 23	M	27 27 28	856705 17042735 25547520 31390140 37004436 70106794 141361740	70219.94 76698.24 115880.21
7LYMFP1:290:3 7LYMFP1:290:3 7LYMFP1:290:3	34 35 36	M	27 28 30	141261740 952929930 242961818	306246.32 9659675.70 254418.62
7L/MFP1:290:3 7L/MFP1:290:3 7L/MFP1:290:3	37 38 39	M M	29 28 28	95222930 242951818 254934621 107892445 456185276 384998933	308537.03 183004.21 733397.44
7LYMFP1290:3 7LYMFP1290:3 7LYMFP1290:3	41 45	-	28 28 42	384098803 2177759882 4276456110 4276456110 447754 2482246 2452960 11602329 1702558	1997   19
7LYMFP1290:6 7LYMFP1290:6 7LYMFP1290:6 7LYMFP1290:6	6 7	M M	1	4970455110 446754 2483246 3455500	133468.53 407751.62 964651.43
7LYMFP1:290:6 7LYMFP1:290:6 7LYMFP1:290:6	9 10 11	ii ii	9 10 13	1160339 1705558 904910	146235.11 168554.84 41684.02
7LYMFP1:290:6 7LYMFP1:290:6 7LYMFP1:290:6	12 13 14	M	14 16 14	1705558 904910 728762 1667940 575228 2137493 1674315 2477763 287363 2655796	29986.13 38229.29 23824.24
7LYMFP1290:6 7LYMFP1290:6 7LYMFP1290:6	15 16 17	M	16 15 17	2137493 1674315 2477953	48828.10 53918.85 49978.13
7LYMFP1290:6 7LYMFP1290:6 7LYMFP1290:6	19 20 21	i i	18 23 21	2055796 4793497 1881071	31248.76 24032.98 15435.88
7LYMFP1:290:6 7LYMFP1:290:6 7LYMFP1:290:6	22 23 24	M	21 21 21	4793497 1881071 3614822 5564222 7033239 9017798	16766.18 24984.94 34465.90
7LYMFP1:290:6 7LYMFP1:290:6 7LYMFP1:290:6	25 26 27	M M	23 24 24	9017798 12189836 12197740 9731665 20362387	42544.64 44679.93 48240.08
7LYMFP1290:6 7LYMFP1290:6 7LYMFP1290:6	20 29 30	M M	27 26 27	9731665 20360287 29608005	20449.83 51098.32 58519.78
7LYMFP1290:6 7LYMFP1290:6 7LYMFP1290:6	37 32 33	i i	27 27 28	2900005 36724961 4285436 79274908 164198111 898122204	81072.38 13393.71
7LYMFP1:290:6 7LYMFP1:290:6 7LYMFP1:290:6	25 26 27	M M	27 30 29	898122204 236124187 249286673 124711108 442212290	1631042.94 256028.00 312790.55
7LYMFP1:290:6 7LYMFP1:290:6 7LYMFP1:290:6	38 39 40	ž.	28 28 28	124711108 442212290 414511958	212723.59 727635.70 655310.34
7LYMFP1290:6 7LYMFP1290:6 7LYMFP1290:6	45	1	42 29	442212290 4442112290 4442112291 20207822916 4857277246 4857277246 4857277246 4857277246 485727746 48572774 2011434 1138221 1725566 900177 773186 900177 773186 900177	3478607.01 315926.56 582776.54
7L/MFP1:290:4 7L/MFP1:290:4 7L/MFP1:290:4	7 8	ii ii	i	2643171 2611434 1138921	397313.81 405673.28 135332.58
7LYMFP1:290:4 7LYMFP1:290:4 7LYMFP1:290:4	10 11 12	M	11 14 14	1725616 900171 773186	149553.85 35845.64 32723.62
7LYMFP1:290:4 7LYMFP1:290:4 7LYMFP1:290:4	13 14 15	M	15 14 17	1831403 639033 2319927	61247.94 27874.92 42049.82
7LYMFP1290:4 7LYMFP1290:4 7LYMFP1290:4 7LYMFP1290:4	10 17 18	ii ii	10 10 17	1031403 639033 2319927 1814722 2719959 499631 2523447 5623419	99779.24 39263.76 95722.56 35687.76
A	20 21 22	M		5623419 2543474 3966998	28244.40 17903.56 25138.94
7LYMFP1:290:4 7LYMFP1:290:4 7LYMFP1:290:4	23 24 25	M	23 23 24	2043474 2060298 6650504 8409521 11622412 13467476	30223.48 38781.18 50266.83
7L/MFP1:290:4 7L/MFP1:290:4 7L/MFP1:290:4	26 27 28	M M	24 25 26	13467476 14734987 10751498 26074484 35471054	27933.55 25138.64 30223.46 30223.46 50206.83 50206.83 50206.83 50304.10 6073.76 77033.46 9703.44 9703.46 9703.47 9703.
7LYMFP1290:4 7LYMFP1290:4 7LYMFP1290:4	20 21	ii ii	27 27	25471054 45551744	70131.41 97629.46
7L/MFP1:290:4 7L/MFP1:290:4 7L/MFP1:290:4	33 34 35	ě	28 27 28	35471054 45551744 53349527 98332054 215171413 941492458	162740.71 465335.50 4517527.75
7LYMFP1:290:4 7LYMFP1:290:4 7LYMFP1:290:4	35 37 38	ž.	30 29 28	240673329 259947452 128827960	254421.79 314099.73 214909.66
7L/MFP1:290:4 7L/MFP1:290:4 7L/MFP1:290:4	39 40 41	N.	28 28 28	451158220 423968391 2134187480	711207.59 655140.93 3549899.18
7LYMFP1290:4 7LYMFP1290:4 7LYMFP1290:5	-	, and the second	42 29 5	5120997144 5120997144 290464	599733.70 116978.56
7LYMFP1290:5 7LYMFP1290:5 7LYMFP1290:5	9	N N		2237490 1051751 1552037	34750.30 375347.38 966562.40 917789.42
7LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:5	11 12 13	M M	12 13 16	775910 629568 1543991	46490.55 28362.75 40141.89
7LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:5	14 15 16	M	13 15 14	537115 1861491 1573434	24998.38 57367.24 60095.09
/LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:7	17 18 19	M M	16 15 17	2191171 3328250 1702055 3677775	58111.60 113565.70 32753.12
7LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:5	21 21 22 22	M M	22 21 23 23	1617018 3252229 4634036	14180.58 17028.44 26075.50
7LYMFP 1:280:5 7LYMFP 1:280:5 7LYMFP 1:280:5	24 25 26	M M	22 22 24	5598315 7225372 9899751	33310.98 40879.11 42427.81
7LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:5	27 28 29	M	23 26 25	9971881 8768172 1545080	47497.89 20352.53 45269.38
7LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:5	30 31 32	M	27 26 27	24265141 28179574 33092906	51405.61 67411.64 72680.79
/LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:7	35 35 35	M M	28 26 28	61580336 118282010 970868577	909124.51 268823.12 1705907.14
7LYMFP 1:290:5 7LYMFP 1:290:5 7LYMFP 1:290:5	20 20 20	M	29 28 28	263471555 111473768 458071437	330349.48 192278.64 753673.22
7LYMFP1:290:5 7LYMFP1:290:5 7LYMFP1:290:5	40 41 45	M	28 28 42	390678717 2086707172 4889975148	614890.35 3596559.90 322640.27
/LYMFP1:290:5 7LYMFP1:290:8 7LYMFP1:290:8	45 6 7	M M	29 6 9	4889975148 252737 1284770	589809.60 71321.99 178723.47
The content of the			A ROMA A MARA MARA DE SE	Called Today  Ca	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
7UMEP12908 7UMEP12908 7UMEP12908 7UMEP12908	11 12 13 14	M	14 14 17	403224 408589 936151 324396	16619.71 15897.53 19277.94 (Kat7.80
7LYMFP 1:290:8 7LYMFP 1:290:8 7LYMFP 1:290:8	15 15 17	M	12 17 15 17	1199363 911991 1367419	24376.52 28862.97 25629.79
7LYMFP1:290:8 7LYMFP1:290:8 7LYMFP1:290:8	18 19 20	M	15 17 23	2194054 1154672 2733766	63436.86 23114.13 14403.43
7LYMFP1:290:8 7LYMFP1:290:8 7LYMFP1:290:8	21 22 23	ä	21 23 23	1075616 2126597 3241442	9593.44 10956.36 16733.20