

Supplemental Material

SNP-based quantitative deconvolution of biological mixtures: application to the detection of cows with subclinical mastitis by whole genome sequencing of tank milk.

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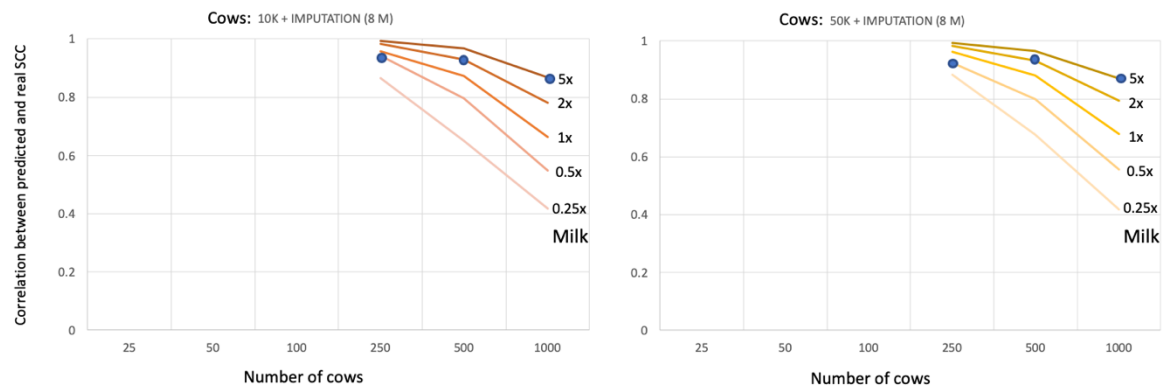
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Supplemental Table 1: Evaluating the efficiency of the proposed approach by simulation. Numbers correspond to the correlations between predicted and real SCC and were used to generate Figure 2. **(A)** Reference scheme I in which individual cows and tank milk are genotyped with the same array interrogating 10K (LD), 50K (MD) or 700K (HD) SNPs. **(B)** Scheme II in which individual cows are genotyped with a LD 10K SNP array and imputed to whole-genome (8 million SNPs), while the tank milk is whole-genome sequenced at depth ranging from 0.25× to 5×. **(C)** Scheme III in which individual cows (0.25×) and tank milk (range: 0.25× to 5×) are genotyped by shallow whole-genome sequencing (SWGS). **(D)** Same as C except that individual cows are sequenced at 1× depth. **(E)** Scheme IV in which individual cows are genotyped by SWGS (0.25×) followed by imputation to whole genome (8M SNPs), and tank milk is genotyped by SWGS (range: 0.25× to 5×). **(F)** Same as E except that individual cows are sequenced at 1× depth. **(G)** Scheme in which the cow genotypes are sampled from a real dataset hence conform to reality with regards to distribution of MAF, LD and relatedness. Genotypes of the cows are assumed to be known (very similar to II and IV) and tank milk genotyped by SWGS (range: 0.25× to 5×). **(H)** Same as G except that the milk volume is estimated with error.

A	50	100	250	500		B	50	100	250	500
10K	0.99	0.95	0.78	0.50		0.25	0.99	0.98	0.86	0.65
50K	1.00	0.99	0.94	0.80		0.50	1.00	0.99	0.94	0.80
750K	1.00	1.00	1.00	0.98		1.00	1.00	0.99	0.96	0.87
						2.00	1.00	1.00	0.98	0.93
						5.00	1.00	1.00	0.99	0.97
C	50	100	250	500		D	50	100	250	500
0.25	0.95	0.83	0.56	0.25		0.25	0.99	0.94	0.73	0.50
0.50	0.97	0.89	0.64	0.41		0.50	0.99	0.97	0.86	0.58
1.00	0.98	0.94	0.74	0.49		1.00	0.99	0.99	0.90	0.74
2.00	0.99	0.97	0.84	0.61		2.00	1.00	0.99	0.95	0.82
5.00	1.00	0.98	0.93	0.78		5.00	1.00	1.00	0.98	0.92
E	50.00	100.00	250.00	500.00		F	50.00	100.00	250.00	500.00
0.25	0.99	0.97	0.85	0.61		0.25	0.99	0.97	0.86	0.64
0.50	1.00	0.98	0.91	0.74		0.50	1.00	0.98	0.91	0.75
1.00	1.00	0.99	0.95	0.83		1.00	1.00	0.99	0.95	0.83
2.00	1.00	1.00	0.97	0.89		2.00	1.00	1.00	0.97	0.90
5.00	1.00	1.00	0.99	0.95		5.00	1.00	1.00	0.99	0.95
G	50.00	100.00	250.00	500.00		H	50.00	100.00	250.00	500.00
0.25	0.99	0.95	0.73	0.35		0.25	0.89	0.86	0.66	0.34
0.50	0.99	0.97	0.78	0.56		0.50	0.88	0.87	0.69	0.54
1.00	1.00	0.99	0.88	0.65		1.00	0.90	0.89	0.82	0.62
2.00	1.00	0.99	0.92	0.77		2.00	0.91	0.90	0.83	0.69
5.00	1.00	1.00	0.96	0.87		5.00	0.89	0.90	0.84	0.78

Supplemental Figure 1: Comparison of the correlation between predicted and real SCC under scheme II when cows are genotyped with a 10K or 50K SNP array.

Scheme II



Supplemental Table 2: Sample identifiers, meta-data, and accession numbers

SampleID	FarmSize	Coverage	fastqR1	fastqR2	Volume	SCS	VCF	Accession	Unique Name
MilkSample120	120	4	TankMilk120_R1.fastq.gz	TankMilk120_R2.fastq.gz	29	106	GenRes.vcf.gz	ERS4540913	(SAMEA6813269)
MilkSample133	133	3.5	TankMilk133_R1.fastq.gz	TankMilk133_R2.fastq.gz				ERS4540914	(SAMEA6813270)
MilkSample150	510	4	TankMilk510_R1.fastq.gz	TankMilk510_R2.fastq.gz				ERS4540915	(SAMEA6813271)
202630070042_R15C01	120	1.15369627	480052_R1.fastq.gz	480052_R2.fastq.gz	29	106	GenRes.vcf.gz	ERS4540916	(SAMEA6813272)
202630070075_R11C03	120	1.06387858	479981_R1.fastq.gz	479981_R2.fastq.gz	29	30	GenRes.vcf.gz	ERS4540917	(SAMEA6813273)
202630070075_R17C02	120	1.06499808	480004_R1.fastq.gz	480004_R2.fastq.gz	38	769	GenRes.vcf.gz	ERS4540918	(SAMEA6813274)
202630070052_R16C03	120	1.04921454	479905_R1.fastq.gz	479905_R2.fastq.gz	51	173	GenRes.vcf.gz	ERS4540919	(SAMEA6813275)
202630070075_R16C03	120	0.79135194	480001_R1.fastq.gz	480001_R2.fastq.gz	20	58	GenRes.vcf.gz	ERS4540920	(SAMEA6813276)
202630070075_R16C01	120	1.2264092	479999_R1.fastq.gz	479999_R2.fastq.gz	13	109	GenRes.vcf.gz	ERS4540921	(SAMEA6813277)
202630070052_R17C01	120	0.9832236	479907_R1.fastq.gz	479907_R2.fastq.gz	47	678	GenRes.vcf.gz	ERS4540922	(SAMEA6813278)
202630070075_R15C04	120	1.13481861	479998_R1.fastq.gz	479998_R2.fastq.gz	18	629	GenRes.vcf.gz	ERS4540923	(SAMEA6813279)
202630070052_R14C02	120	0.6658308	479896_R1.fastq.gz	479896_R2.fastq.gz	16	525	GenRes.vcf.gz	ERS4540924	(SAMEA6813280)
202630070075_R15C03	120	0.84992317	479997_R1.fastq.gz	479997_R2.fastq.gz	39	34	GenRes.vcf.gz	ERS4540925	(SAMEA6813281)
202630070052_R17C02	120	1.10166288	479908_R1.fastq.gz	479908_R2.fastq.gz	32	22	GenRes.vcf.gz	ERS4540926	(SAMEA6813282)
202630070075_R15C01	120	0.76538123	479995_R1.fastq.gz	479995_R2.fastq.gz	20	281	GenRes.vcf.gz	ERS4540927	(SAMEA6813283)
202630070075_R14C04	120	0.92557491	479994_R1.fastq.gz	479994_R2.fastq.gz	23	575	GenRes.vcf.gz	ERS4540928	(SAMEA6813284)
202630070075_R17C03	120	1.10780264	480005_R1.fastq.gz	480005_R2.fastq.gz	30	35	GenRes.vcf.gz	ERS4540929	(SAMEA6813285)
202630070075_R14C02	120	0.96637525	479992_R1.fastq.gz	479992_R2.fastq.gz	49	59	GenRes.vcf.gz	ERS4540930	(SAMEA6813286)
202630070052_R15C01	120	0.66415009	479899_R1.fastq.gz	479899_R2.fastq.gz	20	7716	GenRes.vcf.gz	ERS4540931	(SAMEA6813287)
202630070075_R14C01	120	0.88929046	479991_R1.fastq.gz	479991_R2.fastq.gz	30	52	GenRes.vcf.gz	ERS4540932	(SAMEA6813288)
202630070052_R14C01	120	0.76800419	479895_R1.fastq.gz	479895_R2.fastq.gz	33	68	GenRes.vcf.gz	ERS4540933	(SAMEA6813289)
202630070075_R13C04	120	0.81271235	479990_R1.fastq.gz	479990_R2.fastq.gz	22	112	GenRes.vcf.gz	ERS4540934	(SAMEA6813290)
202630070042_R15C04	120	0.75769674	480037_R1.fastq.gz	480037_R2.fastq.gz	29	2967	GenRes.vcf.gz	ERS4540935	(SAMEA6813291)
202630070075_R13C03	120	1.08082456	479989_R1.fastq.gz	479989_R2.fastq.gz	26	179	GenRes.vcf.gz	ERS4540936	(SAMEA6813292)
202630070052_R17C04	120	0.9540365	479910_R1.fastq.gz	479910_R2.fastq.gz	42	38	GenRes.vcf.gz	ERS4540937	(SAMEA6813293)
202630070075_R13C02	120	0.94706424	479988_R1.fastq.gz	479988_R2.fastq.gz	16	99	GenRes.vcf.gz	ERS4540938	(SAMEA6813294)
202630070042_R18C02	120	0.99619289	480047_R1.fastq.gz	480047_R2.fastq.gz	29	125	GenRes.vcf.gz	ERS4540939	(SAMEA6813295)
202630070075_R22C03	120	1.27586903	480025_R1.fastq.gz	480025_R2.fastq.gz	14	39	GenRes.vcf.gz	ERS4540940	(SAMEA6813296)
202630070075_R12C03	120	0.89760465	479985_R1.fastq.gz	479985_R2.fastq.gz	39	77	GenRes.vcf.gz	ERS4540941	(SAMEA6813297)
202630070075_R12C03	120	0.84868915	480021_R1.fastq.gz	480021_R2.fastq.gz	6	137	GenRes.vcf.gz	ERS4540942	(SAMEA6813298)
202630070075_R12C01	120	1.04639363	479983_R1.fastq.gz	479983_R2.fastq.gz	27	54	GenRes.vcf.gz	ERS4540943	(SAMEA6813299)
202630070052_R13C04	120	0.77742944	479894_R1.fastq.gz	479894_R2.fastq.gz	28	137	GenRes.vcf.gz	ERS4540944	(SAMEA6813300)
202630070052_R17C03	120	1.02153221	479909_R1.fastq.gz	479909_R2.fastq.gz	35	214	GenRes.vcf.gz	ERS4540945	(SAMEA6813301)
202630070075_R20C02	120	0.50642988	480016_R1.fastq.gz	480016_R2.fastq.gz	29	136	GenRes.vcf.gz	ERS4540946	(SAMEA6813302)
202630070075_R22C04	120	1.00794365	480026_R1.fastq.gz	480026_R2.fastq.gz	39	237	GenRes.vcf.gz	ERS4540947	(SAMEA6813303)
202630070075_R13C01	120	1.11116045	480027_R1.fastq.gz	480027_R2.fastq.gz	20	40	GenRes.vcf.gz	ERS4540948	(SAMEA6813304)
202630070075_R22C01	120	1.45174362	480023_R1.fastq.gz	480023_R2.fastq.gz	19	662	GenRes.vcf.gz	ERS4540949	(SAMEA6813305)
202630070075_R23C02	120	0.99554295	480028_R1.fastq.gz	480028_R2.fastq.gz	38	44	GenRes.vcf.gz	ERS4540950	(SAMEA6813306)
202630070075_R17C04	120	0.97712233	480006_R1.fastq.gz	480006_R2.fastq.gz	33	323	GenRes.vcf.gz	ERS4540951	(SAMEA6813307)
202630070075_R23C03	120	0.8636504	480029_R1.fastq.gz	480029_R2.fastq.gz	38	234	GenRes.vcf.gz	ERS4540952	(SAMEA6813308)
202630070075_R23C04	120	1.18703232	480030_R1.fastq.gz	480030_R2.fastq.gz	25	316	GenRes.vcf.gz	ERS4540953	(SAMEA6813309)
202630070052_R10C01	120	1.49894658	479879_R1.fastq.gz	479879_R2.fastq.gz	28	468	GenRes.vcf.gz	ERS4540954	(SAMEA6813310)
202630070075_R24C01	120	0.8113152	480031_R1.fastq.gz	480031_R2.fastq.gz	31	131	GenRes.vcf.gz	ERS4540955	(SAMEA6813311)
202630070075_R21C02	120	1.1138032	480020_R1.fastq.gz	480020_R2.fastq.gz	22	255	GenRes.vcf.gz	ERS4540956	(SAMEA6813312)
202630070075_R24C03	120	0.927966	480033_R1.fastq.gz	480033_R2.fastq.gz	34	543	GenRes.vcf.gz	ERS4540957	(SAMEA6813313)
202630070075_R21C01	120	1.22688742	480019_R1.fastq.gz	480019_R2.fastq.gz	27	52	GenRes.vcf.gz	ERS4540958	(SAMEA6813314)
202630070052_R14C03	120	1.11775175	479897_R1.fastq.gz	479897_R2.fastq.gz	33	61	GenRes.vcf.gz	ERS4540959	(SAMEA6813315)
202630070075_R20C03	120	1.12397274	480017_R1.fastq.gz	480017_R2.fastq.gz	28	113	GenRes.vcf.gz	ERS4540960	(SAMEA6813316)
202630070052_R18C01	120	1.07939037	479911_R1.fastq.gz	479911_R2.fastq.gz	33	1258	GenRes.vcf.gz	ERS4540961	(SAMEA6813317)
202630070075_R20C01	120	0.91579117	480015_R1.fastq.gz	480015_R2.fastq.gz	23	211	GenRes.vcf.gz	ERS4540962	(SAMEA6813318)
202630070075_R19C04	120	0.97316849	480014_R1.fastq.gz	480014_R2.fastq.gz	16	831	GenRes.vcf.gz	ERS4540963	(SAMEA6813319)
202630070075_R19C03	120	1.11855072	480013_R1.fastq.gz	480013_R2.fastq.gz	21	75	GenRes.vcf.gz	ERS4540964	(SAMEA6813320)
202630070052_R15C02	120	0.83033206	479900_R1.fastq.gz	479900_R2.fastq.gz	36	34	GenRes.vcf.gz	ERS4540965	(SAMEA6813321)
202630070075_R19C02	120	0.91036294	480012_R1.fastq.gz	480012_R2.fastq.gz	31	279	GenRes.vcf.gz	ERS4540966	(SAMEA6813322)
202630070075_R19C01	120	0.92869027	480011_R1.fastq.gz	480011_R2.fastq.gz	19	501	GenRes.vcf.gz	ERS4540967	(SAMEA6813323)
202630070052_R15C03	120	0.88143923	479901_R1.fastq.gz	479901_R2.fastq.gz	24	42	GenRes.vcf.gz	ERS4540968	(SAMEA6813324)
202630070075_R18C04	120	1.46770978	480010_R1.fastq.gz	480010_R2.fastq.gz	24	98	GenRes.vcf.gz	ERS4540969	(SAMEA6813325)
202630070052_R14C04	120	0.23111255	479898_R1.fastq.gz	479898_R2.fastq.gz	24	36	GenRes.vcf.gz	ERS4540970	(SAMEA6813326)
202630070075_R18C03	120	0.948967	480009_R1.fastq.gz	480009_R2.fastq.gz	21	80	GenRes.vcf.gz	ERS4540971	(SAMEA6813327)
202630070052_R16C01	120	1.230561	479903_R1.fastq.gz	479903_R2.fastq.gz	27	46	GenRes.vcf.gz	ERS4540972	(SAMEA6813328)
202630070075_R18C02	120	0.93500545	480008_R1.fastq.gz	480008_R2.fastq.gz	23	554	GenRes.vcf.gz	ERS4540973	(SAMEA6813329)
202630070052_R16C02	120	0.64143572	479904_R1.fastq.gz	479904_R2.fastq.gz	34	61	GenRes.vcf.gz	ERS4540974	(SAMEA6813330)
202630070075_R20C04	120	1.21150434	480018_R1.fastq.gz	480018_R2.fastq.gz	23	39	GenRes.vcf.gz	ERS4540975	(SAMEA6813331)
202630070052_R24C02	120	1.13420187	479936_R1.fastq.gz	479936_R2.fastq.gz	20	57	GenRes.vcf.gz	ERS4540976	(SAMEA6813332)
202630070052_R03C02	120	0.82486203	479852_R1.fastq.gz	479852_R2.fastq.gz	29	146	GenRes.vcf.gz	ERS4540977	(SAMEA6813333)
202630070052_R23C01	120	0.96932326	479931_R1.fastq.gz	479931_R2.fastq.gz	31	126	GenRes.vcf.gz	ERS4540978	(SAMEA6813334)
202630070052_R04C01	120	0.83222423	479855_R1.fastq.gz	479855_R2.fastq.gz	14	177	GenRes.vcf.gz	ERS4540979	(SAMEA6813335)
202630070052_R18C03	120	0.72991002	479913_R1.fastq.gz	479913_R2.fastq.gz	42	31	GenRes.vcf.gz	ERS4540980	(SAMEA6813336)
202630070052_R04C02	120	0.27254888	479856_R1.fastq.gz	479856_R2.fastq.gz	29	288	GenRes.vcf.gz	ERS4540981	(SAMEA6813337)
202630070075_R12C04	120	0.73205645	479986_R1.fastq.gz	479986_R2.fastq.gz	31	1162	GenRes.vcf.gz	ERS4540982	(SAMEA6813338)
202630070052_R04C04	120	1.30997093	479858_R1.fastq.gz	479858_R2.fastq.gz	12	71	GenRes.vcf.gz	ERS4540983	(SAMEA6813339)
202630070052_R05C01	120	0.82622336	479859_R1.fastq.gz	479859_R2.fastq.gz	36	570	GenRes.vcf.gz	ERS4540984	(SAMEA6813340)
202630070052_R23C03	120	1.03974956	479933_R1.fastq.gz	479933_R2.fastq.gz	33	159	GenRes.vcf.gz	ERS4540985	(SAMEA6813341)
202630070052_R11C03	120	1.23818989	479885_R1.fastq.gz	479885_R2.fastq.gz	23	81	GenRes.vcf.gz	ERS4540986	(SAMEA6813342)
202630070052_R05C03	120	1.11467343	479861_R1.fastq.gz	479861_R2.fastq.gz	24	952	GenRes.vcf.gz	ERS4540987	(SAMEA6813343)
202630070052_R24C01	120	0.74090883	479935_R1.fastq.gz	479935_R2.fastq.gz	39	48	GenRes.vcf.gz	ERS4540988	(SAMEA6813344)
202630070052_R03C01	120	1.05123963	479851_R1.fastq.gz	479851_R2.fastq.gz	37	191	GenRes.vcf.gz	ERS4540989	(SAMEA6813345)
202630070052_R06C03	120	0.90618092	479865_R1.fastq.gz	479865_R2.fastq.gz	37	84	GenRes.vcf.gz	ERS4540990	(SAMEA6813346)
202630070052_R11C04	120	0.83467691	479886_R1.fastq.gz	479886_R2.fastq.gz	16	39	GenRes.vcf.gz	ERS4540991	(SAMEA6813347)
202630070052_R07C01	120	0.78925529	479867_R1.fastq.gz	479867_R2.fastq.gz	46	1068	GenRes.vcf.gz	ERS4540992	(SAMEA6813348)
202630070052_R11C02	120	1.24794847	479884_R1.fastq.gz	479884_R2.fastq.gz	29	85	GenRes.vcf.gz	ERS4540993	(SAMEA6813349)
202630070052_R07C02	120	1.04806666	479868_R1.fastq.gz	479868_R2.fastq.gz	20	138	GenRes.vcf.gz	ERS4540994	(SAMEA6813350)
202630070052_R24C04	120	0.96761954	479938_R1.fastq.gz	479938_R2.fastq.gz	18	41	GenRes.vcf.gz	ERS4540995	(SAMEA6813351)
202630070052_R07C03	120	0.98817752	479869_R1.fastq.gz	479869_R2.fastq.gz	27	32	GenRes.vcf.gz	ERS4540996	(SAMEA6813352)
202630070052_R07C04	120	0.83679335	479870_R1.fastq.gz	479870_R2.fastq.gz	7	2972	GenRes.vcf.gz	ERS4540997	(SAMEA6813353)
202630070052_R10C04	120	1.190093	479882_R1.fastq.gz	479882_R2.fastq.gz	20	31	GenRes.vcf.gz	ERS4540998	(SAMEA6813354)
202630070052_R08C01	120	1.02161604	479871_R1.fastq.gz	479871_R2.fastq.gz	43	172	GenRes.vcf.gz	ERS4540999	(SAMEA6813355)
202630070052_R08C02	120	1.01651448	479872_R1.fastq.gz	479872_R2.fastq.gz	31	11	GenRes.vcf.gz	ERS4541000	(SAMEA6813356)
202630070052_R10C03	120	0.84462824	479881_R1.fastq.gz	479881_R2.fastq.gz	23	147	GenRes.vcf.gz	ERS4541001	(SAMEA6813357)
202630070052_R08C03	120	0.84250552	479873_R1.fastq.gz	479873_R2.fastq.gz	17	302	GenRes.vcf.gz	ERS4541002	(SAMEA6813358)
202630070052_R09C04	120	0.94594543	479878_R1.fastq.gz	479878_R2.fastq.gz	21	83	GenRes.vcf.gz	ERS4541003	(SAMEA6813359)
202630070052_R10C02	120	1.08060313	479880_R1.fastq.gz	479880_R2.fastq.gz	32	71	GenRes.vcf.gz	ERS4541004	(SAMEA6813360

202630070075_R09C03	120	1.05144273	479973_R1.fastq.gz	479973_R2.fastq.gz	28	187	GenRes.vcf.gz	ERS4541011	(SAMEA6813367)
202630070052_R12C04	120	0.6917163	479890_R1.fastq.gz	479890_R2.fastq.gz	42	565	GenRes.vcf.gz	ERS4541012	(SAMEA6813368)
202630070052_R13C02	120	0.92784873	479892_R1.fastq.gz	479892_R2.fastq.gz	18	232	GenRes.vcf.gz	ERS4541013	(SAMEA6813369)
202630070075_R07C04	120	1.11248221	479966_R1.fastq.gz	479966_R2.fastq.gz	39	67	GenRes.vcf.gz	ERS4541014	(SAMEA6813370)
202630070052_R23C02	120	1.00712827	479932_R1.fastq.gz	479932_R2.fastq.gz	32	43	GenRes.vcf.gz	ERS4541015	(SAMEA6813371)
202630070075_R09C04	120	0.23758013	479974_R1.fastq.gz	479974_R2.fastq.gz	16	2717	GenRes.vcf.gz	ERS4541016	(SAMEA6813372)
202630070052_R22C02	120	0.6910165	479928_R1.fastq.gz	479928_R2.fastq.gz	13	2427	GenRes.vcf.gz	ERS4541017	(SAMEA6813373)
202630070075_R03C04	120	0.81076749	479950_R1.fastq.gz	479950_R2.fastq.gz	24	47	GenRes.vcf.gz	ERS4541018	(SAMEA6813374)
202630070052_R18C04	120	0.76936544	479914_R1.fastq.gz	479914_R2.fastq.gz	35	139	GenRes.vcf.gz	ERS4541019	(SAMEA6813375)
202630070052_R19C01	120	0.9206466	479915_R1.fastq.gz	479915_R2.fastq.gz	47	902	GenRes.vcf.gz	ERS4541020	(SAMEA6813376)
202630070075_R09C04	120	1.00700279	479844_R1.fastq.gz	479844_R2.fastq.gz	23	41	GenRes.vcf.gz	ERS4541021	(SAMEA6813377)
202630070052_R02C04	120	0.62085726	479850_R1.fastq.gz	479850_R2.fastq.gz	28	2300	GenRes.vcf.gz	ERS4541022	(SAMEA6813378)
202630070052_R12C01	120	0.93855885	479887_R1.fastq.gz	479887_R2.fastq.gz	32	320	GenRes.vcf.gz	ERS4541023	(SAMEA6813379)
202630070052_R02C03	120	1.33943767	479849_R1.fastq.gz	479849_R2.fastq.gz	9	184	GenRes.vcf.gz	ERS4541024	(SAMEA6813380)
202630070052_R21C03	120	0.9418678	479925_R1.fastq.gz	479925_R2.fastq.gz	37	41	GenRes.vcf.gz	ERS4541025	(SAMEA6813381)
202630070052_R02C01	120	1.54495371	479847_R1.fastq.gz	479847_R2.fastq.gz	26	18	GenRes.vcf.gz	ERS4541026	(SAMEA6813382)
202630070075_R01C04	120	0.88842169	479942_R1.fastq.gz	479942_R2.fastq.gz	21	97	GenRes.vcf.gz	ERS4541027	(SAMEA6813383)
202630070052_R21C02	120	1.29206321	479924_R1.fastq.gz	479924_R2.fastq.gz	18	2835	GenRes.vcf.gz	ERS4541028	(SAMEA6813384)
202630070075_R10C04	120	1.00827208	479978_R1.fastq.gz	479978_R2.fastq.gz	15	33	GenRes.vcf.gz	ERS4541029	(SAMEA6813385)
202630070075_R11C01	120	1.17856152	479979_R1.fastq.gz	479979_R2.fastq.gz	17	389	GenRes.vcf.gz	ERS4541030	(SAMEA6813386)
202630070052_R12C03	120	0.94867163	479889_R1.fastq.gz	479889_R2.fastq.gz	31	38	GenRes.vcf.gz	ERS4541031	(SAMEA6813387)
202630070052_R05C02	120	0.60979556	479860_R1.fastq.gz	479860_R2.fastq.gz	16	239	GenRes.vcf.gz	ERS4541032	(SAMEA6813388)
202630070052_R01C01	120	0.95206802	479843_R1.fastq.gz	479843_R2.fastq.gz	23	679	GenRes.vcf.gz	ERS4541033	(SAMEA6813389)
202630070052_R19C03	120	1.19553987	479917_R1.fastq.gz	479917_R2.fastq.gz	37	89	GenRes.vcf.gz	ERS4541034	(SAMEA6813390)
202630070052_R01C03	120	0.78092561	479845_R1.fastq.gz	479845_R2.fastq.gz	32	133	GenRes.vcf.gz	ERS4541035	(SAMEA6813391)
201472140031_R22C02	133				23	66	GenRes.vcf.gz		
201472140031_R22C03	133				24	699	GenRes.vcf.gz		
201472140031_R23C02	133				33	24	GenRes.vcf.gz		
201472140031_R23C03	133				21	640	GenRes.vcf.gz		
201472140031_R24C01	133				33	42	GenRes.vcf.gz		
201472140031_R24C02	133				12	168	GenRes.vcf.gz		
201472140031_R24C03	133				22	178	GenRes.vcf.gz		
201472140031_R24C04	133				32	197	GenRes.vcf.gz		
201472140010_R01C01	133				29	66	GenRes.vcf.gz		
201472140031_R23C04	133				34	25	GenRes.vcf.gz		
201472140010_R11C04	133				34	34	GenRes.vcf.gz		
201472140010_R09C03	133				43	13	GenRes.vcf.gz		
201472140010_R13C03	133				21	30	GenRes.vcf.gz		
201472140010_R13C02	133				25	168	GenRes.vcf.gz		
201472140010_R13C01	133				21	257	GenRes.vcf.gz		
201472140010_R12C04	133				27	197	GenRes.vcf.gz		
201472140010_R14C02	133				43	22	GenRes.vcf.gz		
201472140010_R12C01	133				33	784	GenRes.vcf.gz		
201472140010_R14C04	133				21	91	GenRes.vcf.gz		
201472140010_R11C03	133				28	48	GenRes.vcf.gz		
201472140010_R11C02	133				23	29	GenRes.vcf.gz		
201472140010_R10C04	133				15	69	GenRes.vcf.gz		
201472140010_R10C02	133				26	23	GenRes.vcf.gz		
201472140010_R10C01	133				23	258	GenRes.vcf.gz		
201472140031_R04C04	133				23	368	GenRes.vcf.gz		
201472140010_R12C03	133				12	328	GenRes.vcf.gz		
201472140031_R02C03	133				23	111	GenRes.vcf.gz		
201472140031_R04C03	133				28	112	GenRes.vcf.gz		
201472140031_R04C01	133				29	47	GenRes.vcf.gz		
201472140031_R22C01	133				28	29	GenRes.vcf.gz		
201472140031_R03C03	133				24	196	GenRes.vcf.gz		
201472140031_R23C01	133				27	20	GenRes.vcf.gz		
201472140010_R13C04	133				29	301	GenRes.vcf.gz		
201472140031_R02C04	133				32	66	GenRes.vcf.gz		
201472140010_R09C02	133				23	109	GenRes.vcf.gz		
201472140031_R02C02	133				27	37	GenRes.vcf.gz		
201472140031_R02C01	133				20	63	GenRes.vcf.gz		
201472140031_R01C03	133				18	224	GenRes.vcf.gz		
201472140031_R01C02	133				19	53	GenRes.vcf.gz		
201472140031_R01C01	133				21	219	GenRes.vcf.gz		
201472140010_R15C01	133				25	964	GenRes.vcf.gz		
201472140031_R03C01	133				26	42	GenRes.vcf.gz		
201472140010_R02C04	133				32	40	GenRes.vcf.gz		
201472140010_R09C04	133				24	101	GenRes.vcf.gz		
201472140010_R04C02	133				30	53	GenRes.vcf.gz		
201472140010_R04C01	133				27	188	GenRes.vcf.gz		
201472140010_R03C04	133				38	29	GenRes.vcf.gz		
201472140010_R03C03	133				40	18	GenRes.vcf.gz		
201472140010_R04C04	133				29	113	GenRes.vcf.gz		
201472140010_R03C01	133				25	87	GenRes.vcf.gz		
201472140010_R05C01	133				20	731	GenRes.vcf.gz		
201472140010_R02C03	133				17	251	GenRes.vcf.gz		
201472140010_R02C02	133				26	39	GenRes.vcf.gz		
201472140010_R02C01	133				19	196	GenRes.vcf.gz		
201472140010_R01C04	133				27	106	GenRes.vcf.gz		
201472140010_R01C03	133				24	97	GenRes.vcf.gz		
201472140010_R01C02	133				30	53	GenRes.vcf.gz		
201472140010_R03C02	133				25	19	GenRes.vcf.gz		
201472140010_R07C01	133				16	607	GenRes.vcf.gz		
201472140010_R09C01	133				19	374	GenRes.vcf.gz		
201472140010_R08C04	133				32	1207	GenRes.vcf.gz		
201472140010_R08C02	133				34	38	GenRes.vcf.gz		
201472140010_R08C01	133				23	30	GenRes.vcf.gz		
201472140010_R07C04	133				29	120	GenRes.vcf.gz		
201472140010_R04C03	133				28	113	GenRes.vcf.gz		
201472140010_R07C02	133				17	1222	GenRes.vcf.gz		
201472140031_R03C04	133				23	50	GenRes.vcf.gz		
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201472140010_R06C03	133				22	44	GenRes.vcf.gz		
201472140010_R06C02	133				27	116	GenRes.vcf.gz		
201472140010_R06C01	133				31	23	GenRes.vcf.gz		
201472140010_R05C04	133				20	93	GenRes.vcf.gz		
201472140010_R05C02	133				30	34	GenRes.vcf.gz		
201472140010_R07C03	133				27	124	GenRes.vcf.gz		
201472140031_R20C01	133				30	22	GenRes.vcf.gz		
201472140031_R13C01	133				20	27	GenRes.vcf.gz		

201472140031_R19C04	133				26	33	GenRes.vcf.gz
201472140031_R13C03	133				28	24	GenRes.vcf.gz
201472140031_R14C01	133				24	42	GenRes.vcf.gz
201472140031_R14C02	133				14	1113	GenRes.vcf.gz
201472140031_R05C01	133				23	34	GenRes.vcf.gz
201472140031_R20C03	133				27	743	GenRes.vcf.gz
201472140031_R14C04	133				27	16	GenRes.vcf.gz
201472140031_R15C01	133				24	16	GenRes.vcf.gz
201472140031_R15C02	133				30	94	GenRes.vcf.gz
201472140031_R15C03	133				22	379	GenRes.vcf.gz
201472140031_R15C04	133				24	30	GenRes.vcf.gz
201472140031_R14C03	133				31	98	GenRes.vcf.gz
201472140031_R20C02	133				26	428	GenRes.vcf.gz
201472140031_R20C04	133				26	29	GenRes.vcf.gz
201472140031_R16C02	133				31	35	GenRes.vcf.gz
201472140031_R16C03	133				24	17	GenRes.vcf.gz
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201472140031_R17C01	133				18	45	GenRes.vcf.gz
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201472140031_R17C03	133				24	69	GenRes.vcf.gz
201472140031_R17C04	133				20	68	GenRes.vcf.gz
201472140031_R18C01	133				32	124	GenRes.vcf.gz
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201472140031_R18C04	133				28	41	GenRes.vcf.gz
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201472140031_R19C02	133				24	97	GenRes.vcf.gz
201472140031_R19C03	133				29	162	GenRes.vcf.gz
201472140031_R16C01	133				24	31	GenRes.vcf.gz
201472140031_R08C02	133				23	978	GenRes.vcf.gz
201472140031_R05C02	133				23	136	GenRes.vcf.gz
201472140031_R05C03	133				29	236	GenRes.vcf.gz
201472140031_R21C04	133				11	172	GenRes.vcf.gz
201472140031_R05C04	133				30	139	GenRes.vcf.gz
201472140031_R06C01	133				24	35	GenRes.vcf.gz
201472140031_R06C02	133				34	25	GenRes.vcf.gz
201472140031_R06C03	133				21	156	GenRes.vcf.gz
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201472140031_R07C01	133				23	254	GenRes.vcf.gz
201472140031_R07C02	133				27	336	GenRes.vcf.gz
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201472140031_R07C04	133				33	16	GenRes.vcf.gz
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201472140031_R08C01	133				39	165	GenRes.vcf.gz
201472140031_R09C04	133				26	19	GenRes.vcf.gz
201472140031_R08C04	133				24	27	GenRes.vcf.gz
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201472140031_R12C04	133				27	203	GenRes.vcf.gz
201472140031_R21C01	133				25	39	GenRes.vcf.gz
201472140031_R21C03	133				30	29	GenRes.vcf.gz
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202623100011_R20C03	510				21	51	GenRes.vcf.gz
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202579060009_R02C04	510				45	63	GenRes.vcf.gz
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202579060009_R10C01	510				24	624	GenRes.vcf.gz
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202579060009_R18C02	510				30	98	GenRes.vcf.gz
202579060009_R05C02	510				32	150	GenRes.vcf.gz
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202579060009_R07C03	510				28	162	GenRes.vcf.gz
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202630070086_R15C02	510				34	53	GenRes.vcf.gz
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202630070086_R21C02	510				26	96	GenRes.vcf.gz

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202630070052_R08C03	510				17	302	GenRes.vcf.gz
202630070052_R08C02	510				31	11	GenRes.vcf.gz
202630070052_R08C01	510				43	172	GenRes.vcf.gz
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202630070052_R10C03	510				23	147	GenRes.vcf.gz
202630070052_R07C02	510				20	138	GenRes.vcf.gz
202630070052_R10C04	510				20	31	GenRes.vcf.gz
202630070052_R06C03	510				37	84	GenRes.vcf.gz
202630070052_R05C04	510				28	130	GenRes.vcf.gz
202630070052_R05C03	510				24	952	GenRes.vcf.gz
203081500092_R18C01	510				18	51	GenRes.vcf.gz
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202630070052_R04C04	510				12	71	GenRes.vcf.gz
202630070052_R04C02	510				29	288	GenRes.vcf.gz
202630070075_R09C03	510				28	187	GenRes.vcf.gz
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202630070052_R16C02	510				34	61	GenRes.vcf.gz
202630070052_R16C01	510				27	46	GenRes.vcf.gz
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202630070052_R15C02	510				36	34	GenRes.vcf.gz
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202630070052_R13C02	510				18	232	GenRes.vcf.gz
202630070052_R12C04	510				42	565	GenRes.vcf.gz
202630070052_R12C03	510				31	38	GenRes.vcf.gz
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202630070052_R11C04	510				16	39	GenRes.vcf.gz
202630070052_R11C03	510				23	81	GenRes.vcf.gz
202630070052_R11C02	510				29	85	GenRes.vcf.gz
202630070052_R14C03	510				33	61	GenRes.vcf.gz
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202630070052_R04C01	510				14	177	GenRes.vcf.gz
202630070042_R15C01	510				29	106	GenRes.vcf.gz
202630070042_R14C03	510				32	986	GenRes.vcf.gz
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202630070042_R13C04	510				18	305	GenRes.vcf.gz
202630070042_R13C03	510				15	328	GenRes.vcf.gz
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202630070042_R12C01	510				26	1032	GenRes.vcf.gz
202630070042_R11C03	510				18	244	GenRes.vcf.gz
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202630070042_R13C01	510				34	154	GenRes.vcf.gz
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202630070052_R02C04	510				28	2300	GenRes.vcf.gz
202630070052_R02C03	510				9	184	GenRes.vcf.gz
202630070052_R02C01	510				26	18	GenRes.vcf.gz
202630070052_R01C03	510				32	133	GenRes.vcf.gz
202630070052_R01C02	510				23	41	GenRes.vcf.gz
202630070052_R01C01	510				23	679	GenRes.vcf.gz
202630070043_R18C03	510				36	435	GenRes.vcf.gz
202630070042_R15C04	510				29	2967	GenRes.vcf.gz
202630070042_R22C01	510				14	271	GenRes.vcf.gz
202630070052_R17C03	510				35	214	GenRes.vcf.gz
202630070042_R21C02	510				25	209	GenRes.vcf.gz
202630070042_R21C01	510				32	46	GenRes.vcf.gz
202630070042_R20C04	510				29	345	GenRes.vcf.gz
202630070042_R20C03	510				27	58	GenRes.vcf.gz
202630070042_R20C02	510				28	532	GenRes.vcf.gz
202630070042_R20C01	510				32	343	GenRes.vcf.gz
202630070042_R19C04	510				27	65	GenRes.vcf.gz
202630070042_R19C03	510				38	1526	GenRes.vcf.gz
202630070043_R18C02	510				36	174	GenRes.vcf.gz
202630070071_R12C04	510				29	2804	GenRes.vcf.gz
202630070052_R17C01	510				47	678	GenRes.vcf.gz
202630070071_R16C02	510				27	2485	GenRes.vcf.gz
202630070071_R16C01	510				46	66	GenRes.vcf.gz
202630070071_R15C02	510				36	569	GenRes.vcf.gz
202630070071_R14C03	510				39	702	GenRes.vcf.gz
202630070071_R14C01	510				20	4685	GenRes.vcf.gz
202630070071_R13C03	510				14	6494	GenRes.vcf.gz
202630070071_R16C04	510				35	1093	GenRes.vcf.gz
202630070071_R13C01	510				26	233	GenRes.vcf.gz
202630070071_R17C01	510				34	150	GenRes.vcf.gz
202630070071_R12C02	510				32	277	GenRes.vcf.gz
202630070071_R11C02	510				28	1075	GenRes.vcf.gz
202630070071_R11C01	510				22	5685	GenRes.vcf.gz
202630070071_R10C04	510				35	371	GenRes.vcf.gz
202630070071_R10C03	510				30	34	GenRes.vcf.gz
202630070071_R10C02	510				21	113	GenRes.vcf.gz
202630070071_R10C01	510				40	598	GenRes.vcf.gz
202630070071_R09C03	510				32	553	GenRes.vcf.gz

