Supplementary Table 3: Coverage and mean depth of re-sequencing mapping.

Sample	Total_reads	Dup_reads	Dup_percent	RmDup_reads	Mapped_reads	Mapped_Rate	Mean_coverage	Mean_mapping_quality	1X_coverage	5X_coverage	10X_coverage	F_MISS	call rate
CATCM001	37535406	805118	2.14%	36730288	36491921	99.35%	8.1951X	52.9849	97.14%	66.21%	11.25%	1.58%	98.42%
CATCM002	28403026	354389	1.25%	28048637	27810206	99.15%	6.1892X	52.6894	94.21%	54.03%	7.58%	5.36%	94.64%
CATCM003	25961324	537200	2.07%	25424124	25121480	98.81%	5.6369X	52.9636	95.05%	45.24%	3.57%	4.09%	95.91%
CATCM004	35680816	525778	1.47%	35155038	35016946	99.61%	7.8102X	53.1559	97.60%	71.87%	15.46%	1.15%	98.85%
CATCM005	36037214	431174	1.20%	35606040	35521932	99.76%	7.9029X	53.0266	96.92%	72.59%	18.96%	1.51%	98.49%
CATCM006	30992118	529220	1.71%	30462898	30421943	99.87%	6.8028X	52.8893	96.59%	59.40%	9.05%	2.39%	97.61%
CATCM007	39520726	534685	1.35%	38986041	38847364	99.64%	8.6565X	53.2248	98.08%	80.46%	26.52%	0.67%	99.33%
CATCM008	27838454	357950	1.29%	27480504	27396616	99.69%	6.1004X	53.0579	96.04%	55.48%	6.53%	2.97%	97.03%
CATCM009	30651010	501675	1.64%	30149335	29920864	99.24%	6.6605X	47.7288	90.80%	52.58%	9.87%	12.18%	87.82%
CATCM010	49345562	808078	1.64%	48537484	48193239	99.29%	10.7248X	48.8172	94.91%	83.14%	39.93%	3.08%	96.92%
CATCM011	45467282	718917	1.58%	44748365	44319264	99.04%	9.8549X	48.7616	95.09%	79.51%	31.82%	3.46%	96.54%
CATCM012	41989608	602776	1.44%	41386832	41134811	99.39%	9.1374X	48.8082	94.57%	76.07%	24.38%	4.13%	95.87%
CATCM013	39087294	482779	1.24%	38604515	38398877	99.47%	8.5138X	48.6324	94.57%	72.23%	20.98%	4.79%	95.21%
CATCM014	31858452	464436	1.46%	31394016	31240673	99.51%	6.9433X	49.0607	93.77%	56.13%	8.23%	7.90%	92.10%
CATCM015	37226646	551941	1.48%	36674705	36482662	99.48%	8.1051X	49.0713	94.40%	71.96%	18.72%	4.71%	95.29%
CATCM016	38608630	637410	1.65%	37971220	37182000	97.92%	8.2783X	48.9778	94.99%	71.47%	18.09%	4.69%	95.31%
CATCM018	36847566	747799	2.03%	36099767	35923337	99.51%	8.0325X	48.7277	93.86%	62.54%	11.48%	6.05%	93.95%
CATCM019	47288088	735761	1.56%	46552327	46319735	99.50%	10.3045X	48.9932	94.72%	80.98%	34.50%	3.40%	96.60%
CATCM020	29360194	327188	1.11%	29033006	28844944	99.35%	6.387X	48.601	93.12%	53.52%	8.15%	9.13%	90.87%
CATCM021	31852632	387765	1.22%	31464867	31185844	99.11%	6.9121X	48.7877	93.94%	61.80%	11.04%	6.49%	93.51%
CATCM022	27991010	294336	1.05%	27696674	27609070	99.68%	6.1302X	52.4526	96.33%	55.29%	6.34%	3.44%	96.56%
CATCM023	27781970	443707	1.60%	27338263	27222126	99.58%	6.076X	52.3419	95.91%	53.50%	5.46%	3.46%	96.54%
CATCM024	36123428	497255	1.38%	35626173	35366656	99.27%	7.8514X	48.961	94.12%	70.36%	17.82%	5.00%	95.00%

Supplementary Table 3 (Continued):

CATCM025	29206070	307268	1.05%	28898802	28462120	98.49%	6.2974X	48.7272	93.04%	56.42%	9.08%	7.96%	92.04%
CATCM026	34041246	471858	1.39%	33569388	33296511	99.19%	7.3934X	48.8493	94.28%	62.91%	11.88%	6.36%	93.64%
CATCM027	32919522	402701	1.22%	32516821	32341814	99.46%	7.1942X	52.3057	96.93%	66.21%	10.41%	2.35%	97.65%
CATCM028	25529048	294021	1.15%	25235027	25124480	99.56%	5.5826X	51.7857	93.51%	44.79%	4.47%	7.13%	92.87%
CATCM029	35834688	498349	1.39%	35336339	35132567	99.42%	7.8286X	52.1088	96.03%	68.09%	13.92%	2.64%	97.36%
CATCM030	34995090	497770	1.42%	34497320	34255555	99.30%	7.608X	49.2344	94.06%	65.90%	13.71%	6.02%	93.98%
CATCM031	32866900	430679	1.31%	32436221	32260680	99.46%	7.1586X	49.0823	93.92%	62.82%	11.32%	6.35%	93.65%
CATCM032	33625298	456599	1.36%	33168699	32880668	99.13%	7.3223X	52.5811	97.23%	68.99%	12.10%	1.94%	98.06%
CATCM033	49180982	760034	1.55%	48420948	48079952	99.30%	10.6912X	48.9162	97.14%	83.11%	38.59%	2.79%	97.21%
CATCM034	37290472	677204	1.82%	36613268	36398813	99.41%	8.1169X	48.412	93.09%	67.49%	18.97%	6.77%	93.23%
CATCM035	33404566	486083	1.46%	32918483	32749598	99.49%	7.3013X	52.6361	97.27%	66.51%	11%	2.12%	97.88%
CATCM036	33640378	676097	2.01%	32964281	32792800	99.48%	7.3493X	52.4444	97.02%	67.16%	10.84%	2.09%	97.91%
CATCM037	33225462	478426	1.44%	32747036	32626722	99.63%	7.2707X	52.1687	96.89%	66.99%	12.03%	2.12%	97.88%
CATCM038	30129828	459062	1.52%	29670766	29506231	99.45%	6.5795X	51.8597	94.36%	56.40%	8.53%	4.78%	95.22%
CATCM039	30756200	449013	1.46%	30307187	28679750	94.63%	6.3767X	49.2748	93.51%	52.26%	6.65%	9.01%	90.99%
CATCM040	35011200	463815	1.32%	34547385	34309568	99.31%	7.6379X	52.3637	96.78%	68.10%	11.87%	2.24%	97.76%
CATCM041	35624620	475660	1.34%	35148960	34852529	99.16%	7.7574X	52.0041	97.52%	69.67%	12.69%	2.43%	97.57%
CATCM042	34783294	457721	1.32%	34325573	34066780	99.25%	7.5587X	48.8328	94.18%	64.34%	12.76%	5.97%	94.03%
CATCM043	35081728	433336	1.24%	34648392	34374530	99.21%	7.6207X	49.0252	94.22%	65.63%	14.02%	6.03%	93.97%
CATCM044	34691232	393478	1.13%	34297754	33857857	98.72%	7.5X	48.8139	93.97%	63.80%	12.11%	6.08%	93.92%
CATCM045	22484120	241935	1.08%	22242185	22063900	99.20%	4.8828X	48.9638	91.46%	35.88%	3.16%	14.03%	85.97%
CATCM046	38157012	496333	1.30%	37660679	37427011	99.38%	8.3017X	49.0917	94.49%	72.62%	19.22%	4.71%	95.29%
CATCM047	30877550	463618	1.50%	30413932	30270604	99.53%	6.7314X	49.0251	93.03%	52.59%	7.07%	8.74%	91.26%
CATCM048	40698472	974201	2.39%	39724271	39363636	99.09%	8.8613X	52.9451	97.74%	75.86%	17.36%	1.27%	98.73%
CATCM049	40437004	588599	1.46%	39848405	39576026	99.32%	8.8235X	52.5405	97.38%	76.72%	18.86%	1.46%	98.54%

Supplementary Table 3 (Continued):

CATCM050	43002596	582242	1.35%	42420354	41986115	98.98%	9.3481X	52.6813	97.72%	83.82%	28.48%	0.93%	99.07%
CATCM051	37334008	594085	1.59%	36739923	36647449	99.75%	8.1848X	53.187	98.13%	73.56%	14.48%	0.75%	99.25%
CATCM052	36054648	543649	1.51%	35510999	35426995	99.76%	7.907X	53.3872	98.19%	71.26%	12.02%	0.98%	99.02%
CATCM053	29747250	346186	1.16%	29401064	29183281	99.26%	6.4859X	52.0858	94.99%	58.08%	9.07%	4.49%	95.51%
CATCM054	40407568	684655	1.69%	39722913	39215788	98.72%	8.764X	52.2537	96.52%	74.76%	22.13%	1.81%	98.19%
CATCM055	42443682	1032377	2.43%	41411305	41207622	99.51%	9.2729X	51.9249	96.34%	76.86%	27.45%	2.02%	97.98%
CATCM056	38457308	548527	1.43%	37908781	37647644	99.31%	8.3595X	47.8647	93.79%	68.78%	21.41%	6.18%	93.82%
CATCM057	37804844	474665	1.26%	37330179	37227044	99.72%	8.2823X	51.8994	95.82%	70.23%	18.55%	2.73%	97.27%
CATCM058	34894936	448789	1.29%	34446147	34294836	99.56%	7.6311X	52.2765	96.17%	67.11%	13.23%	2.47%	97.53%
CATCM059	34939462	484658	1.39%	34454804	34027688	98.76%	7.5827X	52.2156	95.67%	63.47%	11.11%	3.09%	96.91%
CATCM060	34125330	420396	1.23%	33704934	33625578	99.76%	7.4791X	51.9558	96.05%	64.37%	11.79%	2.88%	97.12%
CATCM061	36519940	509214	1.39%	36010726	35735457	99.24%	7.9611X	52.2314	97.05%	74.68%	20.89%	1.67%	98.33%
CATCM062	31296422	429135	1.37%	30867287	30746973	99.61%	6.8481X	52.135	95.90%	60.47%	9.40%	3.64%	96.36%
CATCM063	35327440	616816	1.75%	34710624	34573317	99.60%	7.7325X	52.8256	96.93%	70.17%	15.55%	1.62%	98.38%
CATCM064	32320618	846986	2.62%	31473632	31258284	99.32%	7.0552X	52.9104	95.83%	59.73%	8.76%	2.94%	97.06%
CATCM065	31452068	498619	1.59%	30953449	30893953	99.81%	6.9X	53.1636	96.73%	63.48%	9.68%	1.85%	98.15%
CATCM066	31242534	358228	1.15%	30884306	30737346	99.52%	6.8342X	52.8912	95.40%	64.41%	13.85%	3.32%	96.68%
CATCM067	23813654	520633	2.19%	23293021	23179619	99.51%	5.2055X	52.7137	93.03%	43.81%	4.19%	6.37%	93.63%
CATCM068	37756546	705125	1.87%	37051421	36961159	99.76%	8.2764X	52.7432	96.70%	74.75%	21.99%	1.40%	98.60%
CATCM069	35835682	457459	1.28%	35378223	35134195	99.31%	7.8244X	53.4337	98.05%	77.89%	19.60%	0.63%	99.37%
CATCM070	33535950	631863	1.88%	32904087	32823651	99.76%	7.3512X	52.9104	96.72%	66.48%	11.80%	1.75%	98.25%
CATCM071	32706632	441592	1.35%	32265040	32131857	99.59%	7.1574X	52.7677	96.28%	68.65%	14.86%	1.95%	98.05%
CATCM072	37093010	598632	1.61%	36494378	36402084	99.75%	8.1319X	52.8127	96.79%	70.65%	15.61%	1.50%	98.50%
CATCM073	34323804	597252	1.74%	33726552	33616477	99.67%	7.5207X	53.0992	96.75%	69.11%	14.60%	1.67%	98.33%
CATCM074	31790580	363049	1.14%	31427531	31360740	99.79%	6.9732X	52.748	95.68%	59.90%	9.75%	3.01%	96.99%

Supplementary Table 3 (Continued):

CATCM075	30671872	611754	1.99%	30060118	30005126	99.82%	6.7269X	53.1371	96.72%	60.79%	8.25%	2.05%	97.95%
CATCM076	29530130	314986	1.07%	29215144	29084846	99.55%	6.4603X	53.0929	96.93%	62.11%	8.61%	1.87%	98.13%
CATCM077	36138780	634883	1.76%	35503897	35435369	99.81%	7.9294X	53.1789	96.49%	67.20%	12.76%	1.93%	98.07%
CATCM078	30827310	383797	1.24%	30443513	30342092	99.67%	6.7529X	52.9105	96.73%	63.74%	10.26%	1.94%	98.06%
CATCM079	32273564	531320	1.65%	31742244	31457546	99.10%	7.0295X	53.1271	96.98%	64.84%	10.85%	1.71%	98.29%
CATCM080	34318186	592013	1.73%	33726173	33661897	99.81%	7.5258X	52.8358	96.96%	67.76%	12.50%	1.53%	98.47%
CATCM081	36802486	394870	1.07%	36407616	36327569	99.78%	8.0732X	52.9989	97.45%	73.19%	16.96%	1.14%	98.86%
CATCM082	34930138	369930	1.06%	34560208	34205680	98.97%	7.6006X	53.0976	97.03%	74.69%	21.44%	1.34%	98.66%
CATCM083	28588012	573318	2.01%	28014694	27879636	99.52%	7.806X	53.9374	95.98%	69.27%	18.33%	2.43%	97.57%
CATCM084	31451952	482193	1.53%	30969759	30859530	99.64%	8.5918X	53.7356	97.22%	77.66%	24.87%	1.27%	98.73%
CATCM085	34915788	597748	1.71%	34318040	34270452	99.86%	7.6634X	52.8483	96.89%	65.48%	11.45%	1.66%	98.34%
CATCM086	29107432	474177	1.63%	28633255	27506419	96.06%	7.6693X	53.8043	95.77%	70.17%	21.63%	3.00%	97.00%
CATCM087	38175374	437431	1.15%	37737943	36106734	95.68%	8.0304X	52.9033	97.44%	75.49%	23.17%	1.35%	98.65%
CATCM088	33163784	496807	1.50%	32666977	32370825	99.09%	9.0204X	54.3635	97.70%	79.84%	28.60%	0.82%	99.18%
CATCM089	36773776	715173	1.94%	36058603	35926111	99.63%	10.0568X	54.0989	96.89%	81.56%	36.74%	0.97%	99.03%
CATCM090	31408366	415132	1.32%	30993234	30933641	99.81%	6.8901X	53.2964	97.91%	66.25%	10.11%	1.31%	98.69%
CATCM091	32724464	520561	1.59%	32203903	32097109	99.67%	7.1688X	53.1178	97.14%	62.52%	8.91%	1.80%	98.20%
CATCM092	31989194	503119	1.57%	31486075	31371946	99.64%	7.0047X	52.9952	96.84%	64.35%	10.45%	1.77%	98.23%
CATCM093	36444920	612746	1.68%	35832174	35776065	99.84%	9.9904X	54.2231	97.37%	82.48%	34.39%	0.78%	99.22%
CATCM094	32912946	580481	1.76%	32332465	32130301	99.37%	8.9773X	53.9543	96.73%	76.35%	24.89%	1.38%	98.62%
CATCM095	34072550	484274	1.42%	33588276	33457959	99.61%	9.3127X	53.6019	94.58%	73.33%	30.60%	3.69%	96.31%
CATCM096	34838080	513777	1.47%	34324303	33807193	98.49%	7.5406X	53.2124	97.96%	68.93%	11.61%	1.05%	98.95%
CATCM097	34131736	530904	1.56%	33600832	33489725	99.67%	7.4737X	52.9877	97.28%	66.94%	12.08%	1.55%	98.45%
CATCM098	33446294	498051	1.49%	32948243	32907030	99.87%	7.3421X	53.0858	97.09%	67.03%	12.28%	1.51%	98.49%
CATCM099	37625398	697809	1.85%	36927589	36794000	99.64%	10.2886X	54.159	97.48%	84.94%	41.59%	0.68%	99.32%

Supplementary Table 3 (Continued):

CATCM100	39578314	854140	2.16%	38724174	38415815	99.20%	10.7711X	53.687	95.71%	78.92%	39.57%	2.20%	97.80%
CATCM101	36162160	650574	1.80%	35511586	35349449	99.54%	7.9094X	52.7197	96.99%	70.42%	17.18%	1.70%	98.30%
CATCM102	33442962	655710	1.96%	32787252	32468147	99.03%	9.0932X	54.3851	98.57%	80.85%	26.46%	0.51%	99.49%
CATCM103	34335372	382607	1.11%	33952765	33840704	99.67%	7.5234X	53.0327	96.86%	71.10%	17.56%	1.52%	98.48%
CATCM104	32855524	543013	1.65%	32312511	32193796	99.63%	8.9835X	54.0844	96.77%	77.86%	28.02%	1.23%	98.77%
CATCM105	38235002	786650	2.06%	37448352	37311476	99.63%	10.4524X	54.0591	98.04%	84.13%	36.60%	0.57%	99.43%
CATCM106	33596348	461287	1.37%	33135061	32915416	99.34%	7.3342X	53.0917	97.19%	68.79%	13.91%	1.50%	98.50%
CATCM107	30201858	481707	1.59%	29720151	29659369	99.80%	8.2747X	54.4839	97.07%	71.60%	21.43%	1.36%	98.64%
CATCM108	30351258	393436	1.30%	29957822	29818254	99.53%	8.2923X	54.3936	97.18%	72.91%	23.39%	1.28%	98.72%
CATCM109	30147036	488018	1.62%	29659018	28777255	97.03%	8.0173X	53.6251	96.84%	71.24%	21.20%	1.79%	98.21%
CATCM110	32692666	542250	1.66%	32150416	31234832	97.15%	8.7177X	54.0443	96.74%	71.47%	22.43%	1.70%	98.30%
CATCM111	33396628	580973	1.74%	32815655	32445611	98.87%	9.0615X	54.2368	97.06%	76.30%	28.35%	1.36%	98.64%
CATCM112	31647152	476419	1.51%	31170733	29408076	94.35%	8.1993X	54.1277	96.35%	70.60%	21.32%	1.97%	98.03%
CATCM113	29221366	566495	1.94%	28654871	27683930	96.61%	7.7327X	53.3612	95.77%	59.89%	11.28%	3.31%	96.69%
CATCM114	29295578	424450	1.45%	28871128	28173333	97.58%	7.8412X	53.8885	96.52%	68.61%	16.16%	1.96%	98.04%
CATCM115	28628770	380968	1.33%	28247802	27056202	95.78%	7.5275X	53.9004	95.95%	66.78%	19.32%	2.74%	97.26%
CATCM116	29441090	463778	1.58%	28977312	28301065	97.67%	7.8961X	54.2528	96.62%	68.51%	17.69%	2.16%	97.84%
CATCM117	29930476	471040	1.57%	29459436	28646854	97.24%	7.9887X	54.031	96.97%	69.95%	18.32%	1.83%	98.17%
CATCM118	28274248	379652	1.34%	27894596	26849271	96.25%	7.4464X	52.9111	95.94%	65.40%	18.11%	3.53%	96.47%
CATCM119	30218162	429550	1.42%	29788612	29068286	97.58%	8.0956X	53.8483	96.13%	68.17%	21.53%	2.58%	97.42%
total &	4021081452	61726000	1.8036	3959355452	3924590306	116.932		6148.6936	96.03%	67.83%	16.71%	3.09%	96.91%