

Pham 307790

1: Caterpie	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
2: JohnLor	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
3: Mao1_6301	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
4: Sejanus_30 + 1	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
5: Causa_130	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
6: StAugustine_143	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
7: Ranunculus_307	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
8: Tank_17 + 1	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
9: Rizwana_130	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
10: Kubuix_230	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
11: NyleyCien_30178	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
12: Nikan_1830	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
13: Hive_2230	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
14: Onypop_230	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
15: Udysey3303 + 1	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
16: Forrestel_3073	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
17: Beagle_230	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
18: BrumVommi_1830	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
19: AWGoal_30	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
20: SilentR_2018	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
21: Struggle30 + 22	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
22: Aonishi_38 + 1830	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
23: Fozzie_30 + 61	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
24: Swish_301	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
25: BoogieBoogie_8302	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
26: GreenCastle_9 + 1	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
27: PallasAthena_930	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
28: Riverton_38 + 2	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
29: Basato_30 + 10	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
30: SchadelAeude_30	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
31: Hocus_30	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
32: Windsor_30 + 2	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
33: Carthage_306	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
34: Keithen_308	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
35: SirBeausgard_30	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
36: Imvubu_30	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
37: Indiovu_30	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
38: LilVicDrummy_10	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
39: Zentend_37_13	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
40: BirdsNew_12	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
41: Hashim_30_13	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
42: LittleMissy_308	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
43: Boyle_15 + 16	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
44: AtDite_30	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
45: Khein_30 + 56	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
46: Godines_3012	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
47: TA17A_302	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616	616	643	649	670
48: Laurie_30	30	89	87	120	169	176	216	228	239	255	275	302	302	308	335	351	388	395	412	436	444	471	580	622	616	616				

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51: GienHos	90	87	106	122	131	173	206	232	251	261	272	291	300	300	300	317	300	419	461	461	461	499	584	606	626	626	670
52: RagingH	90	87	106	122	131	173	206	232	251	261	272	291	300	300	300	317	300	419	461	461	461	499	584	606	626	626	670
53: Pipetish	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
54: JAMAL	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
55: Apex	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
56: Fortunat	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
57: Violet	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
58: Amine	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
59: Cooper	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
60: Anwer	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
61: Stinger	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
62: Hydro	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
63: Renkel	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
64: AlanGlas	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
65: Magpie	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
66: QueenF	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
67: Xincheng	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
68: GinPors	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
69: JaguarM	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
70: Fanaw	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
71: Frederic	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
72: Nigel	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
73: Mitnil	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
74: ChrisM	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
75: Waietia	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
76: Austelle	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
77: Rawige	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
78: DigitDob	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
79: Karasun	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
80: Rich	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
81: Pheimon	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
82: Mysterio	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
83: SirJen	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
84: Acadian	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
85: Bae	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
86: Serendip	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
87: EastVie	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
88: 4UBC_U	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
89: KayaCh	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
90: Hosp_U	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
91: Jolie	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
92: ForDig	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
93: Saguaro	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
94: Thonko	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
95: Quesada	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
96: Penguin	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
97: Knocke	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
98: Funsize	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
99: CRB2	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670
100: Rinkes	80	84	106	123	131	169	178	208	221	239	258	276	301	301	301	318	301	420	477	477	477	523	594	606	626	626	670



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151: McKinley	41	73	83	103	130	138	154	216	236	259	260	261	262	263	264	265	266	267	268	269	270	271	272	273	274	275	276	277	278	279	280	281	282	283	284	285	286	287	288	289	290	291	292	293	294	295	296	297	298	299	300	301	302	303	304	305	306	307	308	309	310	311	312	313	314	315	316	317	318	319	320	321	322	323	324	325	326	327	328	329	330	331	332	333	334	335	336	337	338	339	340	341	342	343	344	345	346	347	348	349	350	351	352	353	354	355	356	357	358	359	360	361	362	363	364	365	366	367	368	369	370	371	372	373	374	375	376	377	378	379	380	381	382	383	384	385	386	387	388	389	390	391	392	393	394	395	396	397	398	399	400	401	402	403	404	405	406	407	408	409	410	411	412	413	414	415	416	417	418	419	420	421	422	423	424	425	426	427	428	429	430	431	432	433	434	435	436	437	438	439	440	441	442	443	444	445	446	447	448	449	450	451	452	453	454	455	456	457	458	459	460	461	462	463	464	465	466	467	468	469	470	471	472	473	474	475	476	477	478	479	480	481	482	483	484	485	486	487	488	489	490	491	492	493	494	495	496	497	498	499	500	501	502	503	504	505	506	507	508	509	510	511	512	513	514	515	516	517	518	519	520	521	522	523	524	525	526	527	528	529	530	531	532	533	534	535	536	537	538	539	540	541	542	543	544	545	546	547	548	549	550	551	552	553	554	555	556	557	558	559	560	561	562	563	564	565	566	567	568	569	570	571	572	573	574	575	576	577	578	579	580	581	582	583	584	585	586	587	588	589	590	591	592	593	594	595	596	597	598	599	600	601	602	603	604	605	606	607	608	609	610	611	612	613	614	615	616	617	618	619	620	621	622	623	624	625	626	627	628	629	630	631	632	633	634	635	636	637	638	639	640	641	642	643	644	645	646	647	648	649	650	651	652	653	654	655	656	657	658	659	660	661	662	663	664	665	666	667	668	669	670	671	672	673	674	675	676	677	678	679	680	681	682	683	684	685	686	687	688	689	690	691	692	693	694	695	696	697	698	699	700	701	702	703	704	705	706	707	708	709	710	711	712	713	714	715	716	717	718	719	720	721	722	723	724	725	726	727	728	729	730	731	732	733	734	735	736	737	738	739	740	741	742	743	744	745	746	747	748	749	750	751	752	753	754	755	756	757	758	759	760	761	762	763	764	765	766	767	768	769	770	771	772	773	774	775	776	777	778	779	780	781	782	783	784	785	786	787	788	789	790	791	792	793	794	795	796	797	798	799	800	801	802	803	804	805	806	807	808	809	810	811	812	813	814	815	816	817	818	819	820	821	822	823	824	825	826	827	828	829	830	831	832	833	834	835	836	837	838	839	840	841	842	843	844	845	846	847	848	849	850	851	852	853	854	855	856	857	858	859	860	861	862	863	864	865	866	867	868	869	870	871	872	873	874	875	876	877	878	879	880	881	882	883	884	885	886	887	888	889	890	891	892	893	894	895	896	897	898	899	900	901	902	903	904	905	906	907	908	909	910	911	912	913	914	915	916	917	918	919	920	921	922	923	924	925	926	927	928	929	930	931	932	933	934	935	936	937	938	939	940	941	942	943	944	945	946	947	948	949	950	951	952	953	954	955	956	957	958	959	960	961	962	963	964	965	966	967	968	969	970	971	972	973	974	975	976	977	978	979	980	981	982	983	984	985	986	987	988	989	990	991	992	993	994	995	996	997	998	999	1000
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201: Shinaron_21 + 1	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
202: Clearasil_22	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
203: Jayden_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
204: INGREDIENTS_Bot_28	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
205: IMAG_13	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
206: Kairis_Dragon_20 +	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
207: Phantescor_21 + 2	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
208: Gim_20 +	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
209: Pastalis_13 + 1	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
210: Skugga_18	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
211: Anthea_23	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
212: IMAG_11	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
213: Gen_21	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
214: Hermonyls_19 +	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
215: Gainsbor_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
216: Cran_21	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
217: Chris_21	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
218: Joim_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
219: Pui_21	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
220: Lud_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
221: Gloria_21	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
222: BrandiePH_19	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
223: Simoes_23	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
224: Quin_22	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
225: Antas_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
226: Tyndra_13	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
227: Phegwardien_13	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
228: Zapato_17	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
229: Pipa_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
230: Sini_13	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
231: PipaTransNan_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
232: Onim_19 +	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
233: Sen_23	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
234: Fire_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
235: Nic_14	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
236: Rob_21	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
237: Liemity_13 + 19	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
238: Statler_13 + 4	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
239: Mentos_13 + 4	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
240: Tempo_13 + 5	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
241: CandC_13 + 1	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
242: Wica_21 + 1	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
243: Squash_13 + 1	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
244: Fransoy_13 + 1	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
245: Biab_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
246: Atumungalesus_20	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
247: SadLat_13	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
248: Altheas_13	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
249: MorimMajiem_22	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559
250: Fizzles_22	106	132	188	203	251	291	304	351	359	372	377	406	448	478	489	559



Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly with annotated starts, the track will be further scaled to only show that region of the ORF with annotated starts. This action will be indicated by adding "Zoomed" to the title. For starts, yellow indicates the location of called starts comprised solely of Glimmer/GeneMark auto-annotations, green indicates the location of called starts with at least 1 manual gene annotation.

## Pham 307790 Report

This analysis was run 06/27/26 on database version 652.

Pham number 307790 has 879 members, 122 are drafts.

Phages represented in each track:

- Track 1 : Caterpie\_6
- Track 2 : JohnLord\_7
- Track 3 : Mao1\_6, Mask\_7
- Track 4 : Sejanus\_7, Dori\_7
- Track 5 : Causa\_16
- Track 6 : StAugustine\_14
- Track 7 : Ranunculus\_17
- Track 8 : Tank\_17, Wilde\_17
- Track 9 : Rizwana\_16
- Track 10 : Kubulix\_23, MellowYellow\_19, Popstraw\_21, Pointis\_22, BetaFish\_22, RIPWilbur\_20, DogYard\_22, PhuzzTulsa\_20
- Track 11 : NyleyClemson\_18
- Track 12 : Nikan\_18, Ren19\_16
- Track 13 : Hive\_22
- Track 14 : Ollypop\_20
- Track 15 : Odyssey395\_24, Pureglobe5\_24
- Track 16 : Forrestell\_19, RazzB\_18
- Track 17 : Beagle\_23
- Track 18 : BruhMoment\_18
- Track 19 : AWGoat\_17
- Track 20 : SilentRX\_18
- Track 21 : Struggle\_8, MelsMeow\_8, Mag7\_8, Veritas\_8, MichaelPhcott\_8, PhrankReynolds\_8, Wallhey\_8, CharlieGBrown\_8, Phleuron\_8, Oline\_8, Derpp\_8, PhenghisKhan\_8, Labeouficaum\_8, DuchessDung\_8, Ashraf\_8, BatteryCK\_8, ImtiyazSitla\_8, Pinkman\_8, Maskar\_8, TyrionL\_8, Kailash\_8, Kwksand96\_8, Phergie\_8
- Track 22 : Aonishiki\_8, Selr12\_8, Morty\_8, Newman\_8, Orion\_8, HenryJackson\_8, Weher20\_8, Colbert\_8, Chipette\_10, Eugenia\_8, Childish\_8, Skippy\_8, Adriana\_8, Kloppinator\_8, Robyn\_8, EmpTee\_8, LemonSlice\_8, Legolas\_8, Puhltonio\_8, Buckeye\_8, Pops\_8, Virgeve\_8, DoesntMatter\_8, ThreeOh3D2\_8, Banjo\_8, ProfessorX\_8, DonSanchon\_8, Riggan\_8, Dice\_8, Fringe\_8, ShiVal\_8, Orwigg\_8, Matalotodo\_8, Serendipity\_8, Craff\_8, ABU\_8, Grand2040\_8, FriarPreacher\_8, True\_8, Timmi\_8, Surely\_8, Kimbrough\_8, Haimas\_8, Oosterbaan\_8, Spartan300\_8, Megatron\_8, Aelin\_8, Burr\_8, UAch1\_8, DirtJuice\_8, JacAttac\_8, Mana\_8, Valjean\_8, Nyala\_8, Usavi\_8, SilverBell\_8, Eremos\_8, Hetaeria\_8, Inchworm\_8, Cobra\_8, Boehler\_8, Placalicious\_8, KingTut\_8, Vaishali24\_8, FluffyNinja\_8, Lulwa\_8, Badfish\_8, Gyarad\_008, Xavier\_8, Iridoclysis\_8, TallGrassMM\_8, MRabcd\_8,

RedMaple\_8, Prickles\_8, Yoshand\_8, Pipsqueak\_8, Lopsy\_8, Simielle\_8,  
 Squiggle\_8, BlackStallion\_8, Cosmolli16\_8, Potter\_8, Fang\_8, Sigman\_8, Solosis\_8,  
 AbsoluteMadLad\_8, HSavage\_8, LeeLot\_8, Hertubise\_8, Tooj\_8, Emiris\_8,  
 Caspiboi\_8, Freya\_8, OliverWalter\_8, Hartsy\_8, Lehmann\_9, Thora\_8, Suffolk\_8,  
 KlimbOn\_8, Nicole21\_8, Andre\_8, TomBombadil\_8, Zaider\_9, LasagnaCat\_8,  
 Kahve\_8, YouGoGlencoco\_8, IsaacEli\_8, Mutante\_8, Omniscient\_8, Vista\_8,  
 CampRoach\_8, Toni\_8, QueenBeane\_8, Scoot17C\_8, Flake\_8, Frankicide\_8,  
 Apizium\_8, Virapocalypse\_8, SassyCat97\_8, FugateOSU\_8, Piglet\_008, Charles1\_8,  
 Hamish\_8, Nacho\_008, Mesh1\_8, JangoPhett\_8, Olak\_8, Antonia\_8, Chorkpop\_8,  
 LostAndPhound\_8, Kikipoo\_8, Lego3393\_8, Beaglebox\_8, HighStump\_8, PG1\_8,  
 Vortex\_8, DoOn\_10, Mulan\_8, PinheadLarry\_8, Mecca\_8, Mosaic\_8, ShadowBud\_8,  
 Altwerkus\_8, Pherdinand\_8, Cornbread\_8, Phunky\_8, Bluephacebaby\_8, Gareth\_8,  
 Serpentine\_008, Phamished\_8, AngelCake\_8, CamL\_8, Telesworld\_8, Maru\_8,  
 Jillium\_8, Magic8\_8, Cannibal\_8, Vaticameos\_8, Podrick\_8, Ricotta\_8,  
 PhrodoBaggins\_8, Dati\_8, Gwilliam\_8, Quisquilliae\_8, Waterdiva\_8, Manad\_8,  
 Murdoc\_8, Lasso\_8, Daka\_8, Phareon\_8, Schueller\_8, Cher\_8, Cornobble\_8,  
 Morgushi\_8, Zelda\_8, Kwadwo\_8, Squid\_8, PhatCats2014\_8, Slatt\_8, Samaymay\_8,  
 Chah\_8, Vivaldi\_8, Mcshane\_8, UncleHowie\_8, Numberten\_8, Tomlarah\_8  
 • Track 23 : Fozzie\_8, Brilliant\_8, Plmatters\_8, Held\_8, Chunky\_8, DaddyDaniels\_8,  
 LeiMonet\_8, Crownjwl\_9, KingVeVeVe\_8, Mesmerelda\_8, Lumine\_8,  
 RedRaider89\_9, Roliet\_8, Melc17\_8, Lulumae\_8, MitKao\_8, Roy17\_8,  
 ElvisPhasley\_8, Phipps\_8, Longacauda\_8, JakeO\_8, MrPhizzler\_8, Jesabah\_8,  
 Etaye\_8, Soile\_8, Swiphy\_8, Gwennie1\_8, Durga\_8, LuckyMarjie\_8, Soto\_8,  
 Jiminy\_8, Daffy\_8, JDog\_8, AltPhacts\_8, Nathan\_8, Dione\_8, Roscoe\_9,  
 KLucky39\_8, Coletti\_8, DelRivs\_8, Harvey\_8, Zonia\_8, Haleema\_8, Scrick\_8,  
 Jiraiya\_8, OSmaximus\_8, Horchata\_8, Duggie\_8, Pacifista\_8, Giraffe\_8,  
 SDcharge11\_8, GeneCoco\_8, Iridessa\_8, Sheila\_8, Dingo\_8, MiniBoss\_8,  
 PhatLouie\_8, Mikota\_8, BlueHusk\_8, Orfeu\_8, Rimu\_8, Doddsville\_8  
 • Track 24 : Swish\_8, Sophia\_8  
 • Track 25 : BoogieWoogie\_8, EmGer13\_8, SallyH\_9  
 • Track 26 : GreenChile\_9, Gophee\_8, NiaNia\_8, FremontTroll\_9, BlacksBerry\_8,  
 Katniss\_8, Hekos\_8, TooFast2Furius\_9, Larson\_9, CheetO\_8, OneBrain\_8  
 • Track 27 : PallasAthena\_9, Inverness\_8, Bishoperium\_8, Triad\_8, Olive\_8,  
 Megamind20\_9, Anderson\_8  
 • Track 28 : Riverton\_8, FleetyMac\_8, Happabalu\_8  
 • Track 29 : Basato\_9, Chuni\_8, Khan1\_8, Plata\_8, Karn\_8, HogWash\_8, Nova1\_8,  
 Taraxa\_8, Aleia\_8, Thunderbird\_8, Chute\_8  
 • Track 30 : Schadenfreude\_8  
 • Track 31 : Hocus\_8  
 • Track 32 : Windsor\_8, Trypo\_8, Chaelin\_8  
 • Track 33 : Carthage\_8  
 • Track 34 : Keitherie\_8  
 • Track 35 : SirBeauregard\_8  
 • Track 36 : Imvubu\_5  
 • Track 37 : Indlovu\_9  
 • Track 38 : LilMcDreamy\_10  
 • Track 39 : Zenteno07\_13  
 • Track 40 : BirdsNest\_12  
 • Track 41 : Hashim76\_13  
 • Track 42 : LittleMinkey\_14  
 • Track 43 : Boyle\_12, Glass\_12  
 • Track 44 : Arbiter\_12

- Track 45 : Kheth\_12, Eaglehorse\_12, Lephleur\_12, FrenchFry\_12, Calamitous\_12, Blocker23\_12, LizLemon\_12, Rhinoforte\_12, Faze9\_12, Lars\_12, Ares\_12, Kaleb\_12, Brownie5\_12, Rosebush\_12, Tinciduntolum\_13, West99\_12, Qyrzula\_12, LilSmirk\_12, Hedgerow\_12, Opia\_12, Sabella\_12, MasterPo\_12, Bananafish\_12, Coffee\_12
- Track 46 : Godines\_12, ItsyBitsy1\_12, Phantasmagoria\_12, Tres\_12, PrinceCharming\_12, Kolhan\_12, Allegro\_12, Holeinone\_12
- Track 47 : TA17A\_12
- Track 48 : Laurie\_12
- Track 49 : Vic9\_00012
- Track 50 : Jackstina\_10, Yinz\_11, Casbah\_10, Compostia\_11, Neos5\_11, Corofin\_11, Chandler\_11, Baloo\_11, Chalmers\_11, Halfpint\_10, Daisy\_11, Athena\_12, RomaT\_11, ChaChing\_11, Philly\_10, Yahalom\_11, Kamiyu\_11, OrangeOswald\_11, Nozo\_11, Tydolla\_11, Abinghost\_11, Gadjet\_12, MmasiCarm\_11, Devonte\_11
- Track 51 : GlenHope\_12, Chentzyk\_10, Audrey\_11, Olivio\_10, HarveySr\_11, Ben11\_10, Marlia\_11, Mulaychimus\_11, Briakila\_11, Heathcliff\_11, SwainyDoc\_11, Gervas\_11, Rita1961\_11, Phaedrus\_10, Morty007\_11, Glubnar\_11, Marley1013\_11, SlippinJimmy\_11, TinyTerror\_11, Phlyer\_11, Phayeta\_11, Shenandoah\_11
- Track 52 : RagingRooster\_11, Deenasa\_11, SynergyX\_11
- Track 53 : Pipefish\_11, Bernardo\_11, Kronus\_10, Mortcellus\_10, Akoma\_11, LestyG\_11, Obutu\_11
- Track 54 : JAMaL\_8
- Track 55 : Apex\_8, Mudslide\_9, Prince\_9
- Track 56 : Fortunato\_9
- Track 57 : VioletZ\_9, Heath\_9
- Track 58 : Antihero\_8, Lambano\_8, Epah\_8, Poster\_8, Hally898\_8, Nanao\_8
- Track 59 : Cooper\_9
- Track 60 : Ahwei\_8
- Track 61 : Stinger\_7
- Track 62 : Hydro\_9, Lolalove\_9, JoyceMaria\_9, BobbyK\_9, Hangman\_9, Zemanar\_10
- Track 63 : Renkei\_8, LittleDigger\_8
- Track 64 : AlanGrant\_10, Vincenzo\_10
- Track 65 : Magpie\_9
- Track 66 : QueenPie\_9
- Track 67 : Xincheng\_9
- Track 68 : GinPorsche\_8
- Track 69 : JaguarMi\_10
- Track 70 : Fanaw\_9
- Track 71 : Frederick\_9
- Track 72 : Nigel\_7
- Track 73 : Mithril\_9
- Track 74 : ChrisnMich\_8
- Track 75 : Waleliano\_9, BrownCNA\_10
- Track 76 : Austelle\_9
- Track 77 : RawrgerThat\_9
- Track 78 : DigitDog\_10, Shenyu\_10, Nangang\_10
- Track 79 : KarasumaRum\_11, StinkyVeggy\_11
- Track 80 : Rich\_10
- Track 81 : Phelemich\_10, Reprobate\_10
- Track 82 : Mysterious\_10, Nehemiah\_9
- Track 83 : SirJeffery\_10, Donny\_10, Suigeneris\_10, Rita130\_10, Reccee\_10

- Track 84 : Acadian\_10
- Track 85 : Bae\_10
- Track 86 : Serendipitous\_10
- Track 87 : EastView9101\_10
- Track 88 : 40BC\_07, 39HC\_07
- Track 89 : KayaCho\_7
- Track 90 : Hosp\_05
- Track 91 : Jolie1\_07
- Track 92 : ForDig\_7
- Track 93 : Saguaro\_11
- Track 94 : Thonko\_7
- Track 95 : Quesadilla\_11
- Track 96 : PenguinLover67\_12
- Track 97 : Knocker\_14
- Track 98 : Funsized\_14
- Track 99 : CRB2\_11
- Track 100 : Rinkes\_13
- Track 101 : Maih\_10, BayC\_10, Salete\_10
- Track 102 : TP1604\_10
- Track 103 : Mischief19\_11
- Track 104 : Asis\_10
- Track 105 : Xkcd426\_11
- Track 106 : Abt2graduatex2\_10
- Track 107 : YDN12\_11
- Track 108 : RainyPolka\_10
- Track 109 : BabyGotBac\_10
- Track 110 : Makar\_42
- Track 111 : Grumio\_41
- Track 112 : Purplicious\_39
- Track 113 : Stillion\_41
- Track 114 : Jollymon\_41, ColdSoup\_42, Amo99\_42
- Track 115 : Clawz\_41
- Track 116 : Soos\_37, DonTron\_41
- Track 117 : Sting\_40, KingstonB\_39
- Track 118 : Fugax\_12, PinkCoffee\_12, Mutzi\_12, KimmyK\_12, ClamChowder\_12, Barb\_12, Salvador\_12, Twister6\_12, Evamon\_12, CoveyB\_12, Togo\_12, Danyall\_12, SmokingBunny\_12
- Track 119 : YungMoney\_12
- Track 120 : Shinji\_12, Jambalaya\_12, Savbucketdawg\_12, JohnPork\_12, Portcullis\_12, TillyBobJoe\_12
- Track 121 : Halo3\_13
- Track 122 : Sixsevenium\_13, SharkTale\_12, Bakery\_13
- Track 123 : RogerDodger\_13
- Track 124 : Fireball\_13, Sendy\_12, Gezellig\_12, Phlop\_12, Egi03\_12, Wizard\_12, PullumCavea\_12
- Track 125 : CherryCola\_13, Valary\_13
- Track 126 : Arri\_13
- Track 127 : Nubi\_12
- Track 128 : VanDeWege\_13
- Track 129 : Clown\_16
- Track 130 : YorkOnyx\_12
- Track 131 : Bibwit\_12, Nordenberg\_7, Galadriel\_14, Rofo\_12
- Track 132 : Ailee\_12, Angelicage\_12, Keitabear\_13

- Track 133 : McCrothy\_13
- Track 134 : Sitar\_13, Lennon\_13
- Track 135 : Charming\_10, Tangent\_10, Paries\_13, BobBob\_10, Brandonk123\_15
- Track 136 : Bizzy\_13, Saronaya\_12, Kwobi\_12, Gustavo\_12, LiiHam\_10, Ashertheman\_12, SchottB\_11, Ribeye\_13
- Track 137 : Stichling\_12, Derg\_8
- Track 138 : Love\_14
- Track 139 : Fosterous\_10
- Track 140 : Brawn1\_11, Jabberwocky\_11, Fitzgerald\_11, Kewpiedoll\_13, Sanjuju\_11
- Track 141 : Tycho\_12, Flatwoods\_13
- Track 142 : Kroos\_12
- Track 143 : RiverRaider\_13
- Track 144 : FuegoCuervo\_16, Barsten\_13, Vivi2\_11, Sedona\_13, ChadMasterC\_12, Geodirt\_12
- Track 145 : Kamashten\_13, Thing3\_13
- Track 146 : Baumdotcom\_12, StorminNorm\_12, Tangerine\_12, Gaea\_12
- Track 147 : MoontowerMania\_11
- Track 148 : Stultus\_12
- Track 149 : Shivanishola\_12
- Track 150 : Baddon\_12
- Track 151 : McKinley\_13
- Track 152 : Affeca\_12
- Track 153 : JKSyngboy\_11
- Track 154 : MelBins\_13
- Track 155 : Leonard\_13, Inspectinfecti\_14, Phinally\_13, Ali17\_11
- Track 156 : EMOore\_7
- Track 157 : Hans\_15, Phauci\_6
- Track 158 : Dexdert\_14
- Track 159 : Tiamoceli\_14, Chickadee\_13, EdmundFerry\_12, Twonlo\_11, RoadKill\_11
- Track 160 : GTE6\_14
- Track 161 : Kwekel\_13
- Track 162 : Verity\_14, Delrey21\_14, DoctorFroggo\_14
- Track 163 : Scioto\_14, ViaConlectus\_14, Abblin\_14, Natkenzie\_14, Sampson\_14
- Track 164 : Tardus\_14
- Track 165 : APunk\_15
- Track 166 : Zitch\_15
- Track 167 : Pumpkiney\_15
- Track 168 : BigHunkinEater\_17
- Track 169 : Zipp\_14
- Track 170 : Lilbeanie\_13
- Track 171 : Phendrix\_65
- Track 172 : GodonK\_66
- Track 173 : JellyBelly\_8, CharlottesWeb\_8, Mariokart\_8
- Track 174 : Wooper\_10
- Track 175 : AksarBAT\_8
- Track 176 : Shatter\_8, Fresco\_8, Axumite\_8
- Track 177 : AnarQue\_10
- Track 178 : TraderJ\_10
- Track 179 : CaiB\_10
- Track 180 : Yago84\_7, Sisko\_7, AnClar\_7
- Track 181 : Blackpen\_10

- Track 182 : MakoManhole\_10
- Track 183 : NHagos\_8
- Track 184 : Ligma\_8
- Track 185 : Coldpizza\_10
- Track 186 : Evaa\_9
- Track 187 : BiggityBass\_7
- Track 188 : FelixTres\_10
- Track 189 : LittleMunchkin\_9
- Track 190 : CloverMinnie\_10
- Track 191 : BobRoss2024\_7
- Track 192 : Yeshua\_10
- Track 193 : Sour\_11
- Track 194 : MossRose\_10
- Track 195 : Sixama\_72
- Track 196 : Mareelih\_76, Boopy\_77, BlueNGold\_76, Forza\_77
- Track 197 : GMA2\_9
- Track 198 : Ramiel05\_19, CrazyRich\_19, Shotgun\_19, Kowalski\_19, Rockwell\_19, Savannah\_19
- Track 199 : LittleFortune\_21, Yeti\_20, Phorgeous\_19
- Track 200 : Jefe\_20
- Track 201 : Shrubaron\_20, Metamorphoo\_20
- Track 202 : ClearAsMud\_22
- Track 203 : Jayden\_20
- Track 204 : NoodlelyBoi\_19
- Track 205 : Megan\_13
- Track 206 : KaiHaiDragon\_20, EarickHC\_20
- Track 207 : Phrancesco\_21, Scumberland\_21, Honeyfin\_21
- Track 208 : Gina\_20, Teamocil\_20
- Track 209 : Paschalis\_19, PierreOrion\_20
- Track 210 : Skugga\_18
- Track 211 : Ariadne\_28
- Track 212 : Merry\_, Sunny\_
- Track 213 : Germa\_21
- Track 214 : Hermeonysus\_19, Busephilis\_20
- Track 215 : Ganandorf\_19
- Track 216 : Cranjis\_21
- Track 217 : Crisis\_21
- Track 218 : Jollipop\_20
- Track 219 : Pulchra\_21
- Track 220 : Lucretia\_20
- Track 221 : Glorp\_21
- Track 222 : BrazzalePHS\_19
- Track 223 : Smarties\_28
- Track 224 : Quhwah\_22
- Track 225 : Antares\_20
- Track 226 : Tyumbra\_18
- Track 227 : PhedwardCullen\_19
- Track 228 : Zapato\_17
- Track 229 : Piperis\_20
- Track 230 : SirFrank\_19
- Track 231 : PiperSansNom\_20
- Track 232 : Onika\_19, BeagleBug\_19
- Track 233 : Selwyn23\_21

- Track 234 : Fireman\_20
- Track 235 : Nicole72\_14
- Track 236 : RobsFeet\_21
- Track 237 : Llemily\_21, StrawberryJamm\_24, Quammi\_20, Zagie\_22, Teehee\_23, WheelerS25\_27, Judebell\_24, Wayne3\_23, Rudy\_20, SlySloth\_24, FrankDeliGuy\_19, DonaldDuck\_21, Lonelysoil\_21, Sillytadpoles\_21, Phabia\_22, Casend\_23, Viceroy\_21, Wheelie\_21, Jehoshaphat\_24, Tissue\_22
- Track 238 : Statler\_23, BaconCheese\_25, Mila11\_25, Rowlf\_18, BabyDotz\_21
- Track 239 : Mentos\_26, Hyperion\_21, Grassboy\_23, Kyva\_24, Mashley\_20
- Track 240 : Tempo\_21, KillerQueen\_22, Kelcole\_20, Fregley\_22, RobinRose\_23, Romm\_23
- Track 241 : CandC\_20, OneinaGillian\_21
- Track 242 : Wilca\_21, BirdInFrench\_21
- Track 243 : Squash\_24, Nike\_22
- Track 244 : Fransoyer\_24, RubyRalph\_24
- Track 245 : Blab\_20, Gazebo\_21
- Track 246 : AluminumJesus\_20
- Track 247 : SadLad\_25
- Track 248 : Altheas\_24
- Track 249 : MorillMayhem\_22
- Track 250 : Fizzles\_22
- Track 251 : Zhafia\_24, Namago\_22
- Track 252 : Pepe25\_20
- Track 253 : Marcie\_26
- Track 254 : Phinky\_28
- Track 255 : EverythinBagel\_21
- Track 256 : SallyK\_23
- Track 257 : Margaery\_12
- Track 258 : Cressida\_13
- Track 259 : Matzah\_13
- Track 260 : Kozie\_14
- Track 261 : Cinna\_12
- Track 262 : MementoMori\_13
- Track 263 : Terij\_13
- Track 264 : KSunshine22\_70, Ellewin\_64, Emmetator\_68, Artu\_68, BooTeria\_72
- Track 265 : Rockabye\_78
- Track 266 : WaddleDee\_63, DunneganBoMo\_65
- Track 267 : Chilliams\_73
- Track 268 : Atuin\_70, LeoJr\_75, ReginaGlobina\_75
- Track 269 : Mimi\_76, Patbob\_74, Racecar\_77
- Track 270 : FrostedClock\_79, Bloom\_80
- Track 271 : Panchaali\_68
- Track 272 : Phrampa\_68
- Track 273 : Talia1610\_76
- Track 274 : FloraSnap32\_75
- Track 275 : SJReid\_79
- Track 276 : Stewart25555\_66
- Track 277 : GoldenEssence\_62
- Track 278 : RomansRevenge\_13
- Track 279 : Boise\_13
- Track 280 : PauloDiaboli\_82, Dodo\_84, A3Wally\_82
- Track 281 : Erasmago\_75
- Track 282 : Zooman\_67

- Track 283 : Big4\_71
- Track 284 : Cece\_66
- Track 285 : Pumpernickel\_80
- Track 286 : MisoSoup\_11
- Track 287 : FuzzBuster\_24
- Track 288 : Laure\_78
- Track 289 : Taptic\_6, Jeon\_6, Megabear\_6
- Track 290 : Argie\_7, GodPhather\_7, Cepens\_6
- Track 291 : D12\_06, PR\_06
- Track 292 : Sunfish\_26
- Track 293 : Kithara\_22
- Track 294 : Tonitrus\_26
- Track 295 : Pine5\_11
- Track 296 : phiAsp2\_4
- Track 297 : TPA2\_17
- Track 298 : TurkishDelight\_11

***Summary of Final Annotations (See graph section above for start numbers):***

The start number called the most often in the published annotations is 30, it was called in 441 of the 757 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 39HC\_07, 40BC\_07, ABU\_8, Abinghost\_11, AbsoluteMadLad\_8, Acadian\_10, Adriana\_8, Aelin\_8, Ahwei\_8, Akoma\_11, AksarBAT\_8, AlanGrant\_10, Allegro\_12, AltPhacts\_8, Altwerkus\_8, AnClar\_7, AnarQue\_10, Andre\_8, AngelCake\_8, Antihero\_8, Antonia\_8, Aonishiki\_8, Apex\_8, Apizium\_8, Arbiter\_12, Ares\_12, Argie\_7, Ashraf\_8, Athena\_12, Audrey\_11, Austelle\_9, Axumite\_8, Badfish\_8, Bae\_10, Baloo\_11, Bananafish\_12, Banjo\_8, BatteryCK\_8, Beaglebox\_8, Ben11\_10, Bernardo\_11, BiggityBass\_7, BirdsNest\_12, BlackStallion\_8, Blocker23\_12, BlueHusk\_8, Bluephacebaby\_8, BobRoss2024\_7, BobbyK\_9, Boehler\_8, Boyle\_12, Briakila\_11, Brilliant\_8, BrownCNA\_10, Brownie5\_12, Buckeye\_8, Burr\_8, CRB2\_11, Calamitous\_12, CamL\_8, CampRoach\_8, Cannibal\_8, Carthage\_8, Casbah\_10, Caspiboi\_8, Caterpie\_6, Causa\_16, Cepens\_6, ChaChing\_11, Chaelin\_8, Chah\_8, Chalmers\_11, Chandler\_11, Charles1\_8, CharlieGBrown\_8, Chentzyk\_10, Cher\_8, Childish\_8, Chipette\_10, Chorkpop\_8, ChrisnMich\_8, Chunky\_8, CloverMinnie\_10, Cobra\_8, Coffee\_12, Colbert\_8, Coldpizza\_10, Coletti\_8, Compostia\_11, Cooper\_9, Cornbread\_8, Cornobble\_8, Corofin\_11, Cosmolli16\_8, Craff\_8, Crownjwl\_9, DaddyDaniels\_8, Daffy\_8, Daisy\_11, Daka\_8, Dati\_8, Deenasa\_11, DelRivs\_8, Derpp\_8, Devonte\_11, Dice\_8, DigitDog\_10, Dingo\_8, Dione\_8, DirtJuice\_8, Doddsville\_8, DoesntMatter\_8, DoIOn\_10, DonSanchon\_8, Donny\_10, DuchessDung\_8, Duggie\_8, Durga\_8, Eaglehorse\_12, EastView9101\_10, ElvisPhasley\_8, Emiris\_8, EmpTee\_8, Epah\_8, Eremos\_8, Etaye\_8, Eugenia\_8, Evaa\_9, Fang\_8, Faze9\_12, FelixTres\_10, Flake\_8, FluffyNinja\_8, ForDig\_7, Fortunato\_9, Fozzie\_8, Frankicide\_8, Frederick\_9, FrenchFry\_12, Fresco\_8, Freya\_8, FriarPreacher\_8, Fringe\_8, FugateOSU\_8, Funsized\_14, Gadget\_12, Gareth\_8, GeneCoco\_8, Gervas\_11, GinPorsche\_8, Giraffe\_8, Glass\_12, GlenHope\_12, Glubnar\_11, GodPhather\_7, Godines\_12, Grand2040\_8, Gwennie1\_8, Gwilliam\_8, Gyarad\_008, HSavage\_8, Haimas\_8, Haleema\_8, Halfpint\_10, Hally898\_8, Hamish\_8, Hangman\_9, Hartsy\_8,

HarveySr\_11, Harvey\_8, Hashim76\_13, Heath\_9, Heathcliff\_11, Hedgerow\_12, Held\_8, HenryJackson\_8, Hertubise\_8, Hetaeria\_8, HighStump\_8, Hocus\_8, Holeinone\_12, Horchata\_8, Hosp\_05, Hydro\_9, ImtiyazSitla\_8, Imvubu\_5, Inchworm\_8, Indlovu\_9, Iridessa\_8, Iridoclysis\_8, IsaacEli\_8, ItsyBitsy1\_12, JAMaL\_8, JDog\_8, JacAttac\_8, Jackstina\_10, JaguarMi\_10, JakeO\_8, JangoPhett\_8, Jesabah\_8, Jillium\_8, Jiminy\_8, Jiraiya\_8, JohnLord\_7, Jolie1\_07, JoyceMaria\_9, KLucky39\_8, Kahve\_8, Kailash\_8, Kaleb\_12, Kamiyu\_11, KarasumaRum\_11, KayaCho\_7, Keitherie\_8, Kheth\_12, Kikipoo\_8, Kimbrough\_8, KingTut\_8, KingVeVeVe\_8, KlimbOn\_8, Kloppinator\_8, Knocker\_14, Kolhan\_12, Kronus\_10, Kwadwo\_8, Kwksand96\_8, Labeouficaum\_8, Lambano\_8, Lars\_12, LasagnaCat\_8, Lasso\_8, Laurie\_12, LeeLot\_8, Lego3393\_8, Legolas\_8, Lehmann\_9, LeiMonet\_8, LemonSlice\_8, Lephleur\_12, LestyG\_11, LilMcDreamy\_10, LilSmirk\_12, LittleDigger\_8, LittleMinkey\_14, LittleMunchkin\_9, LizLemon\_12, Lolalove\_9, Longacauda\_8, Lopsy\_8, LostAndPhound\_8, LuckyMarjie\_8, Lulumae\_8, Lulwa\_8, Lumine\_8, MRabcd\_8, Mag7\_8, Magic8\_8, Magpie\_9, MakoManhole\_10, Mana\_8, Manad\_8, Marley1013\_11, Marlia\_11, Maru\_8, Maskar\_8, MasterPo\_12, Matalotodo\_8, Mcshane\_8, Mecca\_8, Megatron\_8, Melc17\_8, MelsMeow\_8, Mesh1\_8, Mesmerelda\_8, MichaelPhcott\_8, Mikota\_8, MiniBoss\_8, MitKao\_8, Mithril\_9, MmasiCarm\_11, Morgushi\_8, Mortcellus\_10, Morty007\_11, Morty\_8, Mosaic\_8, MrPhizzler\_8, Mudslide\_9, Mulan\_8, Mulaychimus\_11, Murdoc\_8, Mutante\_8, Mysterious\_10, NHagos\_8, Nacho\_008, Nanao\_8, Nangang\_10, Nathan\_8, Nehemiah\_9, Neos5\_11, Newman\_8, Nicole21\_8, Nigel\_7, Nozo\_11, Numberten\_8, Nyala\_8, OSmaximus\_8, Obutu\_11, Olak\_8, Oline\_8, OliverWalter\_8, Olivio\_10, Omniscient\_8, Oosterbaan\_8, Opia\_12, OrangeOswald\_11, Orfeu\_8, Orion\_8, Orwigg\_8, PG1\_8, Pacifista\_8, PenguinLover67\_12, Phaedrus\_10, Phamished\_8, Phantasmagoria\_12, Phareon\_8, PhatCats2014\_8, PhatLouie\_8, Phayeta\_11, Phelemich\_10, PhenghisKhan\_8, Pherdinand\_8, Phergie\_8, Philly\_10, Phipps\_8, Phleuron\_8, Phlyer\_11, PhrankReynolds\_8, PhrodoBaggins\_8, Phunky\_8, Piglet\_008, PinheadLarry\_8, Pinkman\_8, Pipefish\_11, Pipsqueak\_8, Placalicious\_8, Plmatters\_8, Podrick\_8, Pops\_8, Poster\_8, Potter\_8, Prickles\_8, PrinceCharming\_12, Prince\_9, ProfessorX\_8, Puhltonio\_8, QueenBeane\_8, QueenPie\_9, Quesadilla\_11, Quisquilliae\_8, Qyrzula\_12, RagingRooster\_11, Reccee\_10, RedMaple\_8, RedRaider89\_9, Renkei\_8, Reprobate\_10, Rhinoforte\_12, Rich\_10, Ricotta\_8, Riggan\_8, Rimu\_8, Rinkes\_13, Rita130\_10, Rita1961\_11, Robyn\_8, Roliet\_8, RomaT\_11, Roscoe\_9, Rosebush\_12, Roy17\_8, SDcharge11\_8, Sabella\_12, Saguaro\_11, Samaymay\_8, SassyCat97\_8, Schadenfreude\_8, Schueller\_8, Scoot17C\_8, Scrick\_8, Selr12\_8, Serendipitous\_10, Serendipity\_8, Serpentine\_008, ShadowBud\_8, Shatter\_8, Sheila\_8, Shenandoah\_11, Shenyu\_10, ShiVal\_8, Sigman\_8, SilverBell\_8, Simielle\_8, SirJeffery\_10, Sisko\_7, Skippy\_8, Slatt\_8, SlippinJimmy\_11, Soile\_8, Solosis\_8, Sophia\_8, Soto\_8, Sour\_11, Spartan300\_8, Squid\_8, Squiggle\_8, StAugustine\_14, Stinger\_7, StinkyVeggy\_11, Struggle\_8, Suffolk\_8, Suigeneris\_10, Surely\_8, SwainyDoc\_11, Swiphy\_8, Swish\_8, SynergyX\_11, TA17A\_12, TPA2\_17, TallGrassMM\_8, Telesworld\_8, Thonko\_7, Thora\_8, ThreeOh3D2\_8, Timmi\_8, Tinciduntolum\_13, TinyTerror\_11, TomBombadil\_8, Tomlarah\_8, Toni\_8, Tooj\_8, Tres\_12, True\_8, Trypo\_8, Tydolla\_11, TyrionL\_8, UAch1\_8, UncleHowie\_8, Usavi\_8, Vaishali24\_8, Valjean\_8, Vaticameos\_8, Veritas\_8, Vic9\_00012, Vincenzo\_10, VioletZ\_9, Virapocalypse\_8, Virgeve\_8, Vista\_8, Vivaldi\_8, Vortex\_8, Waleliano\_9, Wallhey\_8, Waterdiva\_8, Weher20\_8, West99\_12, Windsor\_8, Wooper\_10, Xavier\_8, Yago84\_7, Yahalom\_11, Yeshua\_10, Yinz\_11, Yoshand\_8, YouGoGlencoco\_8, Zaider\_9, Zelda\_8, Zemanar\_10, Zenteno07\_13, Zonia\_8,

Genes that have the "Most Annotated" start but do not call it:

• Aleia\_8, Anderson\_8, Basato\_9, Bishoperium\_8, Blackpen\_10, BlacksBerry\_8, BoogieWoogie\_8, CaiB\_10, CharlottesWeb\_8, CheetO\_8, Chuni\_8, Chute\_8, D12\_06, Dori\_7, EmGer13\_8, Fanaw\_9, FleetyMac\_8, FremontTroll\_9, Gophee\_8, GreenChile\_9, Happabalu\_8, Hekos\_8, HogWash\_8, Inverness\_8, JellyBelly\_8, Jeon\_6, Karn\_8, Katniss\_8, Khan1\_8, Larson\_9, Ligma\_8, Mao1\_6, Mariokart\_8, Mask\_7, Megabear\_6, Megamind20\_9, MossRose\_10, NiaNia\_8, Nova1\_8, Olive\_8, OneBrain\_8, PR\_06, PallasAthena\_9, Plata\_8, RawrgerThat\_9, Riverton\_8, SallyH\_9, Sejanus\_7, SirBeauregard\_8, Taptic\_6, Taraxa\_8, Thunderbird\_8, TooFast2Furius\_9, TraderJ\_10, Triad\_8, Xincheng\_9,

Genes that do not have the "Most Annotated" start:

• A3Wally\_82, APunk\_15, AWGoat\_17, Abblin\_14, Abt2graduatex2\_10, Affeca\_12, Ailee\_12, Ali17\_11, Altheas\_24, AluminumJesus\_20, Amo99\_42, Angelicage\_12, Antares\_20, Ariadne\_28, Arri\_13, Artu\_68, Ashertheman\_12, Asis\_10, Atuin\_70, BabyDotz\_21, BabyGotBac\_10, BaconCheese\_25, Baddon\_12, Bakery\_13, Barb\_12, Barsten\_13, Baumdotcom\_12, BayC\_10, BeagleBug\_19, Beagle\_23, BetaFish\_22, Bibwit\_12, Big4\_71, BigHunkinEater\_17, BirdInFrench\_21, Bizzy\_13, Blab\_20, Bloom\_80, BlueNGold\_76, BobBob\_10, Boise\_13, BooTeria\_72, Boopy\_77, Brandonk123\_15, Brawn1\_11, BrazzalePHS\_19, BruhMoment\_18, Busephilis\_20, CandC\_20, Casend\_23, Cece\_66, ChadMasterC\_12, Charming\_10, CherryCola\_13, Chickadee\_13, Chilliams\_73, Cinna\_12, ClamChowder\_12, Clawz\_41, ClearAsMud\_22, Clown\_16, ColdSoup\_42, CoveyB\_12, Cranjis\_21, CrazyRich\_19, Cressida\_13, Crisis\_21, Danyall\_12, Delrey21\_14, Derg\_8, Dexdert\_14, DoctorFroggo\_14, Dodo\_84, DogYard\_22, DonTron\_41, DonaldDuck\_21, DunneganBoMo\_65, EMOore\_7, EarickHC\_20, EdmundFerry\_12, Egi03\_12, Ellewin\_64, Emmetator\_68, Erasmago\_75, Evamon\_12, EverythinBagel\_21, Fireball\_13, Fireman\_20, Fitzgerald\_11, Fizzles\_22, Flatwoods\_13, FloraSnap32\_75, Forrestell\_19, Forza\_77, Fosterous\_10, FrankDeliGuy\_19, Fransoyer\_24, Fregley\_22, FrostedClock\_79, FuegoCuervo\_16, Fugax\_12, FuzzBuster\_24, GMA2\_9, GTE6\_14, Gaea\_12, Galadriel\_14, Ganandorf\_19, Gazebo\_21, Geodirt\_12, Germa\_21, Gezellig\_12, Gina\_20, Glorp\_21, GodonK\_66, GoldenEssence\_62, Grassboy\_23, Grumio\_41, Gustavo\_12, Halo3\_13, Hans\_15, Hermeonysus\_19, Hive\_22, Honeyfin\_21, Hyperion\_21, Inspectinfecti\_14, JKSyngboy\_11, Jabberwocky\_11, Jambalaya\_12, Jayden\_20, Jefe\_20, Jehoshaphat\_24, JohnPork\_12, Jollipop\_20, Jollymon\_41, Judebell\_24, KSunshine22\_70, KaiHaiDragon\_20, Kamashten\_13, Keitabear\_13, Kelcole\_20, Kewpiedoll\_13, KillerQueen\_22, KimmyK\_12, KingstonB\_39, Kithara\_22, Kowalski\_19, Kozie\_14, Kroos\_12, Kubulix\_23, Kwekel\_13, Kwobi\_12, Kyva\_24, Laure\_78, Lennon\_13, LeoJr\_75, Leonard\_13, LilHam\_10, Lilbeanie\_13, LittleFortune\_21, Llemily\_21, Lonelysoil\_21, Love\_14, Lucretia\_20, Maih\_10, Makar\_42, Marcie\_26, Mareelih\_76, Margaery\_12, Mashley\_20, Matzah\_13, McCrothy\_13, McKinley\_13, Megan\_13, MelBins\_13, MellowYellow\_19, MementoMori\_13, Mentos\_26, Merry\_, Metamorphoo\_20, Mila11\_25, Mimi\_76, Mischief19\_11, MisoSoup\_11, MoontowerMania\_11, MorillMayhem\_22, Mutzi\_12, Namago\_22, Natkenzie\_14, Nicole72\_14, Nikan\_18, Nike\_22, NoodlelyBoi\_19, Nordenberg\_7, Nubi\_12, NyleyClemson\_18, Odyssey395\_24, Ollypop\_20, OneinaGillian\_21, Onika\_19, Panchaali\_68, Paries\_13, Paschalis\_19, Patbob\_74, PauloDiaboli\_82, Pepe25\_20, Phabia\_22, Phauci\_6, PhedwardCullen\_19, Phendrix\_65, Phinally\_13, Phinky\_28, Phlop\_12, Phorgeous\_19, Phrampa\_68, Phrancesco\_21, PhuzzTulsa\_20, PierreOrion\_20, Pine5\_11, PinkCoffee\_12, PiperSansNom\_20, Piperis\_20, Pointis\_22, Popstraw\_21, Portcullis\_12, Pulchra\_21, PullumCavea\_12, Pumpernickel\_80, Pumpkiney\_15, Pureglobe5\_24, Purplicious\_39, Quammi\_20, Quhwah\_22, RIPWilbur\_20, Racecar\_77, RainyPolka\_10,

Ramiel05\_19, Ranunculus\_17, RazzB\_18, ReginaGlobina\_75, Ren19\_16, Ribeye\_13, RiverRaider\_13, Rizwana\_16, RoadKill\_11, RobinRose\_23, RobsFeet\_21, Rockabye\_78, Rockwell\_19, Rofo\_12, RogerDodger\_13, RomansRevenge\_13, Romm\_23, Rowlf\_18, RubyRalph\_24, Rudy\_20, SJReid\_79, SadLad\_25, Salete\_10, SallyK\_23, Salvador\_12, Sampson\_14, Sanjuju\_11, Saronaya\_12, Savannah\_19, Savbucketdawg\_12, SchottB\_11, Scioto\_14, Scumberland\_21, Sedona\_13, Selwyn23\_21, Sendy\_12, SharkTale\_12, Shinji\_12, Shivanishola\_12, Shotgun\_19, Shrubaron\_20, SilentRX\_18, Sillytadpoles\_21, SirFrank\_19, Sitar\_13, Sixama\_72, Sixsevenium\_13, Skugga\_18, SlySloth\_24, Smarties\_28, SmokingBunny\_12, Soos\_37, Squash\_24, Statler\_23, Stewart25555\_66, Stichling\_12, Stillion\_41, Sting\_40, StorminNorm\_12, StrawberryJamm\_24, Stultus\_12, Sunfish\_26, Sunny\_, TP1604\_10, Talia1610\_76, Tangent\_10, Tangerine\_12, Tank\_17, Tardus\_14, Teamocil\_20, Teehee\_23, Tempo\_21, Terij\_13, Thing3\_13, Tiamoceli\_14, TillyBobJoe\_12, Tissue\_22, Togo\_12, Tonitrus\_26, TurkishDelight\_11, Twister6\_12, Twonlo\_11, Tycho\_12, Tyrumbra\_18, Valary\_13, VanDeWege\_13, Verity\_14, ViaConlectus\_14, Viceroy\_21, Vivi2\_11, WaddleDee\_63, Wayne3\_23, WheelerS25\_27, Wheelie\_21, Wilca\_21, Wilde\_17, Wizard\_12, Xkcd426\_11, YDN12\_11, Yeti\_20, YorkOnyx\_12, YungMoney\_12, Zagie\_22, Zapato\_17, Zhafia\_24, Zipp\_14, Zitch\_15, Zooman\_67, phiAsp2\_4,

### Summary by start number:

#### Start 2:

- Found in 2 of 879 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 2 of 757
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Merry\_ (EC), Sunny\_ (EC),

#### Start 6:

- Found in 2 of 879 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 757
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Lilbeanie\_13 (DE5),

#### Start 7:

- Found in 124 of 879 ( 14.1% ) of genes in pham
- Manual Annotations of this start: 114 of 757
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk\_15 (DE4), Abblin\_14 (DE4), Affeca\_12 (DE1), Ailee\_12 (DE1), Ali17\_11 (DE2), Angelicage\_12 (DE1), Arri\_13 (DC1), Ashertheman\_12 (DE1), Baddon\_12 (DE1), Bakery\_13 (DC1), Barb\_12 (DC1), Barsten\_13 (DE1), Baumdotcom\_12 (DE1), Bibwit\_12 (DE1), BigHunkinEater\_17 (DE4), Bizzy\_13 (DE1), BobBob\_10 (DE1), Brandonk123\_15 (DE1), Brawn1\_11 (DE1), ChadMasterC\_12 (DE1), Charming\_10 (DE1), CherryCola\_13 (DC1), Chickadee\_13 (DE3), ClamChowder\_12 (DC1), Clown\_16 (DC2), CoveyB\_12 (DC1), Danyall\_12 (DC1), Delrey21\_14 (DE4), Derg\_8 (DE1), Dextert\_14 (DE3), DoctorFroggo\_14 (DE4), EMoore\_7 (DE2), EdmundFerry\_12 (DE3), Egi03\_12 (DC1), Evamon\_12 (DC1), Fireball\_13 (DC1), Fitzgerald\_11 (DE1), Flatwoods\_13 (DE1), Fosterous\_10 (DE1), FuegoCuervo\_16 (DE1), Fugax\_12 (DC1), GTE6\_14 (DE3), Gaea\_12 (DE1), Galadriel\_14 (DE1), Geodirt\_12 (DE1), Gezellig\_12 (DC1), Gustavo\_12 (DE1), Halo3\_13 (DC1), Hans\_15 (DE2), Inspectinfecti\_14 (DE2), JKSyngboy\_11 (DE1), Jabberwocky\_11 (DE1), Jambalaya\_12 (DC1), JohnPork\_12

(DC1), Kamashten\_13 (DE1), Keitabear\_13 (DE1), Kewpiedoll\_13 (DE1), KimmyK\_12 (DC1), Kroos\_12 (DE1), Kwekel\_13 (DE3), Kwobi\_12 (DE1), Lennon\_13 (DE1), Leonard\_13 (DE2), LilHam\_10 (DE1), Love\_14 (DE1), McCrothy\_13 (DE1), McKinley\_13 (DE1), MelBins\_13 (DE2), MoontowerMania\_11 (DE1), Mutzi\_12 (DC1), Natkenzie\_14 (DE4), Nordenberg\_7 (DE1), Nubi\_12 (DC1), Paries\_13 (DE1), Phauci\_6 (DE2), Phinally\_13 (DE2), Phlop\_12 (DC1), PinkCoffee\_12 (DC1), Portcullis\_12 (DC1), PullumCavea\_12 (DC1), Pumpkiney\_15 (DE4), Ribeye\_13 (DE1), RiverRaider\_13 (DE1), RoadKill\_11 (DE3), Rofo\_12 (DE1), RogerDodger\_13 (DC1), Salvador\_12 (DC1), Sampson\_14 (DE4), Sanjuju\_11 (DE1), Saronaya\_12 (DE1), Savbucketdawg\_12 (DC1), SchottB\_11 (DE1), Scioto\_14 (DE4), Sedona\_13 (DE1), Sendy\_12 (DC1), SharkTale\_12 (DC1), Shinji\_12 (DC1), Shivanishola\_12 (DE1), Sitar\_13 (DE1), Sixsevenium\_13 (DC1), SmokingBunny\_12 (DC1), Stichling\_12 (DE1), StorminNorm\_12 (DE1), Stultus\_12 (DE1), Tangent\_10 (DE1), Tangerine\_12 (DE1), Tardus\_14 (DE4), Thing3\_13 (DE1), Tiamoceli\_14 (DE3), TillyBobJoe\_12 (DC1), Togo\_12 (DC1), Twister6\_12 (DC1), Twonlo\_11 (DE3), Tycho\_12 (DE1), Valary\_13 (DC1), VanDeWege\_13 (DC1), Verity\_14 (DE4), ViaConlectus\_14 (DE4), Vivi2\_11 (DE1), Wizard\_12 (DC1), YorkOnyx\_12 (DE1), YungMoney\_12 (DC1), Zipp\_14 (DE4), Zitch\_15 (DE4),

#### Start 12:

- Found in 63 of 879 ( 7.2% ) of genes in pham
- Manual Annotations of this start: 40 of 757
- Called 71.4% of time when present
- Phage (with cluster) where this start called: Antares\_20 (EC), BeagleBug\_19 (EC), Busephilis\_20 (EC), ClearAsMud\_22 (EC), Cranjis\_21 (EC), CrazyRich\_19 (EC), Crisis\_21 (EC), FuzzBuster\_24 (GM), Germa\_21 (EC), Gina\_20 (EC), Hermeonysus\_19 (EC), Honeyfin\_21 (EC), Jayden\_20 (EC), Jefe\_20 (EC), Jollipop\_20 (EC), Kowalski\_19 (EC), LittleFortune\_21 (EC), Lucretia\_20 (EC), Megan\_13 (EC), MementoMori\_13 (EI), Metamorphoo\_20 (EC), Nicole72\_14 (EC), NoodlelyBoi\_19 (EC), Onika\_19 (EC), Paschalis\_19 (EC), Phorgeous\_19 (EC), Phrancesco\_21 (EC), PierreOrion\_20 (EC), PiperSansNom\_20 (EC), Piperis\_20 (EC), Pulchra\_21 (EC), Quhwah\_22 (EC), Ramiel05\_19 (EC), RobsFeet\_21 (EC), Rockwell\_19 (EC), Savannah\_19 (EC), Scumberland\_21 (EC), Selwyn23\_21 (EC), Shotgun\_19 (EC), Shrubaron\_20 (EC), SirFrank\_19 (EC), Skugga\_18 (EC), Smarties\_28 (EC), Teamocil\_20 (EC), Yeti\_20 (EC),

#### Start 13:

- Found in 1 of 879 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA2\_9 (DS),

#### Start 14:

- Found in 65 of 879 ( 7.4% ) of genes in pham
- Manual Annotations of this start: 15 of 757
- Called 26.2% of time when present
- Phage (with cluster) where this start called: Ariadne\_28 (EC), BrazzalePHS\_19 (EC), Cinna\_12 (EI), Cressida\_13 (EI), EarickHC\_20 (EC), Fireman\_20 (EC), Ganandorf\_19 (EC), Glorp\_21 (EC), KaiHaiDragon\_20 (EC), Kozie\_14 (EI), Margaery\_12 (EI), Matzah\_13 (EI), MisoSoup\_11 (GM), PhedwardCullen\_19 (EC), Terij\_13 (EI), Tyrumbra\_18 (EC), Zapato\_17 (EC),

#### Start 16:

- Found in 2 of 879 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 757
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Phendrix\_65 (DK),

#### Start 21:

- Found in 14 of 879 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 7 of 757
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dori\_7 (AD), Jeon\_6 (W), Mao1\_6 (AD), Mask\_7 (AD), Megabear\_6 (W), Sejanus\_7 (AD), Taptic\_6 (W),

#### Start 22:

- Found in 30 of 879 ( 3.4% ) of genes in pham
- Manual Annotations of this start: 3 of 757
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Mimi\_76 (FC), Patbob\_74 (FC), Racecar\_77 (FC),

#### Start 23:

- Found in 2 of 879 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 757
- Called 50.0% of time when present
- Phage (with cluster) where this start called: GodonK\_66 (DK),

#### Start 25:

- Found in 13 of 879 ( 1.5% ) of genes in pham
- Manual Annotations of this start: 7 of 757
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amo99\_42 (CP), Clawz\_41 (CP), ColdSoup\_42 (CP), DonTron\_41 (CP), Grumio\_41 (CP), Jollymon\_41 (CP), KingstonB\_39 (CP), Makar\_42 (CP), Purplicious\_39 (CP), Soos\_37 (CP), Stillion\_41 (CP), Sting\_40 (CP), Tonitrus\_26 (singleton),

#### Start 26:

- Found in 24 of 879 ( 2.7% ) of genes in pham
- Manual Annotations of this start: 8 of 757
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Atuin\_70 (FC), Bloom\_80 (FC), Chilliams\_73 (FC), DunneganBoMo\_65 (FC), FrostedClock\_79 (FC), GoldenEssence\_62 (FC), LeoJr\_75 (FC), Panchaali\_68 (FC), Phrampa\_68 (FC), ReginaGlobina\_75 (FC), Rockabye\_78 (FC), SJReid\_79 (FC), Stewart25555\_66 (FC), Talia1610\_76 (FC), WaddleDee\_63 (FC),

#### Start 27:

- Found in 6 of 879 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 5 of 757
- Called 83.3% of time when present
- Phage (with cluster) where this start called: BlueNGold\_76 (DS), Boopy\_77 (DS), Forza\_77 (DS), Mareelih\_76 (DS), Sixama\_72 (DS),

#### Start 30:

- Found in 535 of 879 ( 60.9% ) of genes in pham

- Manual Annotations of this start: 441 of 757
- Called 89.5% of time when present
- Phage (with cluster) where this start called: 39HC\_07 (B6), 40BC\_07 (B6), ABU\_8 (B1), Abinghost\_11 (B3), AbsoluteMadLad\_8 (B1), Acadian\_10 (B5), Adriana\_8 (B1), Aelin\_8 (B1), Ahwei\_8 (B4), Akoma\_11 (B3), AksarBAT\_8 (DR), AlanGrant\_10 (B4), Allegro\_12 (B2), AltPhacts\_8 (B1), Altwerkus\_8 (B1), AnClar\_7 (DR), AnarQue\_10 (DR), Andre\_8 (B1), AngelCake\_8 (B1), Antihero\_8 (B4), Antonia\_8 (B1), Aonishiki\_8 (B1), Apex\_8 (B4), Apizium\_8 (B1), Arbitrator\_12 (B2), Ares\_12 (B2), Argie\_7 (W), Ashraf\_8 (B1), Athena\_12 (B3), Audrey\_11 (B3), Austelle\_9 (B4), Axumite\_8 (DR), Badfish\_8 (B1), Bae\_10 (B5), Baloo\_11 (B3), Bananafish\_12 (B2), Banjo\_8 (B1), BatteryCK\_8 (B1), Beaglebox\_8 (B1), Ben11\_10 (B3), Bernardo\_11 (B3), BiggityBass\_7 (DR), BirdsNest\_12 (B13), BlackStallion\_8 (B1), Blocker23\_12 (B2), BlueHusk\_8 (B1), Bluephacebaby\_8 (B1), BobRoss2024\_7 (DR), BobbyK\_9 (B4), Boehler\_8 (B1), Boyle\_12 (B2), Briakila\_11 (B3), Brilliant\_8 (B1), BrownCNA\_10 (B4), Brownie5\_12 (B2), Buckeye\_8 (B1), Burr\_8 (B1), CRB2\_11 (B9), Calamitous\_12 (B2), CamL\_8 (B1), CampRoach\_8 (B1), Cannibal\_8 (B1), Carthage\_8 (B1), Casbah\_10 (B3), Caspiroi\_8 (B1), Caterpie\_6 (AD), Causa\_16 (AI), Cepens\_6 (W), ChaChing\_11 (B3), Chaelin\_8 (B1), Chah\_8 (B1), Chalmers\_11 (B3), Chandler\_11 (B3), Charles1\_8 (B1), CharlieGBrown\_8 (B1), Chentzyk\_10 (B3), Cher\_8 (B1), Childish\_8 (B1), Chipette\_10 (B1), Chorkpop\_8 (B1), ChrisnMich\_8 (B4), Chunky\_8 (B1), CloverMinnie\_10 (DR), Cobra\_8 (B1), Coffee\_12 (B2), Colbert\_8 (B1), Coldpizza\_10 (DR), Coletti\_8 (B1), Compostia\_11 (B3), Cooper\_9 (B4), Cornbread\_8 (B1), Cornobble\_8 (B1), Corofin\_11 (B3), Cosmolli16\_8 (B1), Craff\_8 (B1), Crownjwl\_9 (B1), DaddyDaniels\_8 (B1), Daffy\_8 (B1), Daisy\_11 (B3), Daka\_8 (B1), Dati\_8 (B1), Deenasa\_11 (B3), DelRivs\_8 (B1), Derpp\_8 (B1), Devonte\_11 (B3), Dice\_8 (B1), DigitDog\_10 (B5), Dingo\_8 (B1), Dione\_8 (B1), DirtJuice\_8 (B1), Doddsville\_8 (B1), DoesntMatter\_8 (B1), DolOn\_10 (B1), DonSanchon\_8 (B1), Donny\_10 (B5), DuchessDung\_8 (B1), Duggie\_8 (B1), Durga\_8 (B1), Eaglehorse\_12 (B2), EastView9101\_10 (B5), ElvisPhasley\_8 (B1), Emiris\_8 (B1), EmpTee\_8 (B1), Epah\_8 (B4), Eremos\_8 (B1), Etaye\_8 (B1), Eugenia\_8 (B1), Evaa\_9 (DR), Fang\_8 (B1), Faze9\_12 (B2), FelixTres\_10 (DR), Flake\_8 (B1), FluffyNinja\_8 (B1), ForDig\_7 (B6), Fortunato\_9 (B4), Fozzie\_8 (B1), Frankicide\_8 (B1), Frederick\_9 (B4), FrenchFry\_12 (B2), Fresco\_8 (DR), Freya\_8 (B1), FriarPreacher\_8 (B1), Fringe\_8 (B1), FugateOSU\_8 (B1), Funsized\_14 (B9), Gadget\_12 (B3), Gareth\_8 (B1), GeneCoco\_8 (B1), Gervas\_11 (B3), GinPorsche\_8 (B4), Giraffe\_8 (B1), Glass\_12 (B2), GlenHope\_12 (B3), Glubnar\_11 (B3), GodPhather\_7 (W), Godines\_12 (B2), Grand2040\_8 (B1), Gwennie1\_8 (B1), Gwilliam\_8 (B1), Gyarad\_008 (B1), HSavage\_8 (B1), Haimas\_8 (B1), Haleema\_8 (B1), Halfpint\_10 (B3), Hally898\_8 (B4), Hamish\_8 (B1), Hangman\_9 (B4), Hartsy\_8 (B1), HarveySr\_11 (B3), Harvey\_8 (B1), Hashim76\_13 (B13), Heath\_9 (B4), Heathcliff\_11 (B3), Hedgerow\_12 (B2), Held\_8 (B1), HenryJackson\_8 (B1), Hertubise\_8 (B1), Hetaeria\_8 (B1), HighStump\_8 (B1), Hocus\_8 (B1), Holeinone\_12 (B2), Horchata\_8 (B1), Hosp\_05 (B6), Hydro\_9 (B4), ImtiyazSitla\_8 (B1), Imvubu\_5 (B10), Inchworm\_8 (B1), Indlovu\_9 (B11), Iridessa\_8 (B1), Iridoclysis\_8 (B1), IsaacEli\_8 (B1), ItsyBitsy1\_12 (B2), JAMaL\_8 (B4), JDog\_8 (B1), JacAttac\_8 (B1), Jackstina\_10 (B3), JaguarMi\_10 (B4), JakeO\_8 (B1), JangoPhett\_8 (B1), Jesabah\_8 (B1), Jillium\_8 (B1), Jiminy\_8 (B1), Jiraiya\_8 (B1), JohnLord\_7 (AD), Jolie1\_07 (B6), JoyceMaria\_9 (B4), KLucky39\_8 (B1), Kahve\_8 (B1), Kailash\_8 (B1), Kaleb\_12 (B2), Kamiyu\_11 (B3), KarasumaRum\_11 (B5), KayaCho\_7 (B6), Keitherie\_8 (B1), Kheth\_12 (B2), Kikipoo\_8 (B1), Kimbrough\_8 (B1), KingTut\_8 (B1), KingVeVeVe\_8 (B1), KlimbOn\_8 (B1), Kloppinator\_8 (B1), Knocker\_14 (B9), Kolhan\_12 (B2), Kronus\_10 (B3), Kwadwo\_8 (B1), Kwksand96\_8 (B1), Labeouficaum\_8 (B1), Lambano\_8 (B4), Lars\_12 (B2), LasagnaCat\_8 (B1), Lasso\_8 (B1), Laurie\_12 (B2), LeeLot\_8 (B1), Lego3393\_8 (B1),

Legolas\_8 (B1), Lehmann\_9 (B1), LeiMonet\_8 (B1), LemonSlice\_8 (B1), Lephleur\_12 (B2), LestyG\_11 (B3), LilMcDreamy\_10 (B12), LilSmirk\_12 (B2), LittleDigger\_8 (B4), LittleMinkey\_14 (B13), LittleMunchkin\_9 (DR), LizLemon\_12 (B2), Lolalove\_9 (B4), Longacauda\_8 (B1), Lopsy\_8 (B1), LostAndPhound\_8 (B1), LuckyMarjie\_8 (B1), Lulumae\_8 (B1), Lulwa\_8 (B1), Lumine\_8 (B1), MRabcd\_8 (B1), Mag7\_8 (B1), Magic8\_8 (B1), Magpie\_9 (B4), MakoManhole\_10 (DR), Mana\_8 (B1), Manad\_8 (B1), Marley1013\_11 (B3), Marlia\_11 (B3), Maru\_8 (B1), Maskar\_8 (B1), MasterPo\_12 (B2), Matalotodo\_8 (B1), Mcshane\_8 (B1), Mecca\_8 (B1), Megatron\_8 (B1), Melc17\_8 (B1), MelsMeow\_8 (B1), Mesh1\_8 (B1), Mesmerelda\_8 (B1), MichaelPhcott\_8 (B1), Mikota\_8 (B1), MiniBoss\_8 (B1), MitKao\_8 (B1), Mithril\_9 (B4), MmasiCarm\_11 (B3), Morgushi\_8 (B1), Mortcellus\_10 (B3), Morty007\_11 (B3), Morty\_8 (B1), Mosaic\_8 (B1), MrPhizzler\_8 (B1), Mudslide\_9 (B4), Mulan\_8 (B1), Mulaychimus\_11 (B3), Murdoc\_8 (B1), Mutante\_8 (B1), Mysterious\_10 (B5), NHagos\_8 (DR), Nacho\_008 (B1), Nanao\_8 (B4), Nangang\_10 (B5), Nathan\_8 (B1), Nehemiah\_9 (B5), Neos5\_11 (B3), Newman\_8 (B1), Nicole21\_8 (B1), Nigel\_7 (B4), Nozo\_11 (B3), Numberten\_8 (B1), Nyala\_8 (B1), OSmaximus\_8 (B1), Obutu\_11 (B3), Olak\_8 (B1), Oline\_8 (B1), OliverWalter\_8 (B1), Olivio\_10 (B3), Omniscient\_8 (B1), Oosterbaan\_8 (B1), Opia\_12 (B2), OrangeOswald\_11 (B3), Orfeu\_8 (B1), Orion\_8 (B1), Orwigg\_8 (B1), PG1\_8 (B1), Pacifista\_8 (B1), PenguinLover67\_12 (B9), Phaedrus\_10 (B3), Phamished\_8 (B1), Phantasmagoria\_12 (B2), Phareon\_8 (B1), PhatCats2014\_8 (B1), PhatLouie\_8 (B1), Phayeta\_11 (B3), Phelemich\_10 (B5), PhenghisKhan\_8 (B1), Pherdinand\_8 (B1), Phergie\_8 (B1), Philly\_10 (B3), Phipps\_8 (B1), Phleuron\_8 (B1), Phlyer\_11 (B3), PhrankReynolds\_8 (B1), PhrodoBaggins\_8 (B1), Phunky\_8 (B1), Piglet\_008 (B1), PinheadLarry\_8 (B1), Pinkman\_8 (B1), Pipefish\_11 (B3), Pipsqueak\_8 (B1), Placalicious\_8 (B1), PImatters\_8 (B1), Podrick\_8 (B1), Pops\_8 (B1), Poster\_8 (B4), Potter\_8 (B1), Prickles\_8 (B1), PrinceCharming\_12 (B2), Prince\_9 (B4), ProfessorX\_8 (B1), Puhltonio\_8 (B1), QueenBeane\_8 (B1), QueenPie\_9 (B4), Quesadilla\_11 (B9), Quisquillae\_8 (B1), Qyrzula\_12 (B2), RagingRooster\_11 (B3), Reccee\_10 (B5), RedMaple\_8 (B1), RedRaider89\_9 (B1), Renkei\_8 (B4), Reprobate\_10 (B5), Rhinoforte\_12 (B2), Rich\_10 (B5), Ricotta\_8 (B1), Riggan\_8 (B1), Rimu\_8 (B1), Rinkes\_13 (B9), Rita130\_10 (B5), Rita1961\_11 (B3), Robyn\_8 (B1), Roliet\_8 (B1), RomaT\_11 (B3), Roscoe\_9 (B1), Rosebush\_12 (B2), Roy17\_8 (B1), SDcharge11\_8 (B1), Sabella\_12 (B2), Saguaro\_11 (B7), Samaymay\_8 (B1), SassyCat97\_8 (B1), Schadenfreude\_8 (B1), Schueller\_8 (B1), Scoot17C\_8 (B1), Scrick\_8 (B1), Selr12\_8 (B1), Serendipitous\_10 (B5), Serendipity\_8 (B1), Serpentine\_008 (B1), ShadowBud\_8 (B1), Shatter\_8 (DR), Sheila\_8 (B1), Shenandoah\_11 (B3), Shenyu\_10 (B5), ShiVal\_8 (B1), Sigman\_8 (B1), SilverBell\_8 (B1), Simielle\_8 (B1), SirJeffery\_10 (B5), Sisko\_7 (DR), Skippy\_8 (B1), Slatt\_8 (B1), SlippinJimmy\_11 (B3), Soile\_8 (B1), Solosis\_8 (B1), Sophia\_8 (B1), Soto\_8 (B1), Sour\_11 (DR), Spartan300\_8 (B1), Squid\_8 (B1), Squiggle\_8 (B1), StAugustine\_14 (A1), Stinger\_7 (B4), StinkyVeggy\_11 (B5), Struggle\_8 (B1), Suffolk\_8 (B1), Suigeneris\_10 (B5), Surely\_8 (B1), SwainyDoc\_11 (B3), Swiphy\_8 (B1), Swish\_8 (B1), SynergyX\_11 (B3), TA17A\_12 (B2), TPA2\_17 (singleton), TallGrassMM\_8 (B1), Telesworld\_8 (B1), Thonko\_7 (B8), Thora\_8 (B1), ThreeOh3D2\_8 (B1), Timmi\_8 (B1), Tinciduntolum\_13 (B2), TinyTerror\_11 (B3), TomBombadil\_8 (B1), Tomlarah\_8 (B1), Toni\_8 (B1), Tooj\_8 (B1), Tres\_12 (B2), True\_8 (B1), Trypo\_8 (B1), Tydolla\_11 (B3), TyrionL\_8 (B1), UAch1\_8 (B1), UncleHowie\_8 (B1), Usavi\_8 (B1), Vaishali24\_8 (B1), Valjean\_8 (B1), Vaticameos\_8 (B1), Veritas\_8 (B1), Vic9\_00012 (B2), Vincenzo\_10 (B4), VioletZ\_9 (B4), Virapocalypse\_8 (B1), Virgeve\_8 (B1), Vista\_8 (B1), Vivaldi\_8 (B1), Vortex\_8 (B1), Waleliano\_9 (B4), Wallhey\_8 (B1), Waterdiva\_8 (B1), Weher20\_8 (B1), West99\_12 (B2), Windsor\_8 (B1), Wooper\_10 (DR), Xavier\_8 (B1), Yago84\_7 (DR), Yahalom\_11 (B3), Yeshua\_10 (DR), Yinz\_11 (B3), Yoshand\_8 (B1), YouGoGlencoco\_8 (B1),

Zaider\_9 (B1), Zelda\_8 (B1), Zemanar\_10 (B4), Zenteno07\_13 (B13), Zonia\_8 (B1),

Start 34:

- Found in 8 of 879 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 7 of 757
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally\_82 (GD1), Big4\_71 (GD2), Cece\_66 (GD3), Dodo\_84 (GD1), Erasmago\_75 (GD2), PauloDiaboli\_82 (GD1), Pumpernickel\_80 (GD4), Zooman\_67 (GD2),

Start 35:

- Found in 1 of 879 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 757
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara\_22 (singleton),

Start 36:

- Found in 4 of 879 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 2 of 757
- Called 50.0% of time when present
- Phage (with cluster) where this start called: SadLad\_25 (EG), Sunfish\_26 (singleton),

Start 37:

- Found in 256 of 879 ( 29.1% ) of genes in pham
- Manual Annotations of this start: 5 of 757
- Called 3.9% of time when present
- Phage (with cluster) where this start called: Anderson\_8 (B1), Bishoperium\_8 (B1), Fanaw\_9 (B4), Inverness\_8 (B1), Megamind20\_9 (B1), Olive\_8 (B1), PallasAthena\_9 (B1), RawrgerThat\_9 (B4), Triad\_8 (B1), Xincheng\_9 (B4),

Start 39:

- Found in 7 of 879 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 757
- Called 14.3% of time when present
- Phage (with cluster) where this start called: RomansRevenge\_13 (FT),

Start 44:

- Found in 1 of 879 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 757
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BruhMoment\_18 (AP3),

Start 45:

- Found in 70 of 879 ( 8.0% ) of genes in pham
- Manual Annotations of this start: 50 of 757
- Called 81.4% of time when present
- Phage (with cluster) where this start called: Altheas\_24 (EG), AluminumJesus\_20 (EG), BabyDotz\_21 (EG), BaconCheese\_25 (EG), BirdInFrench\_21 (EG), Blab\_20 (EG), CandC\_20 (EG), Casend\_23 (EG), DonaldDuck\_21 (EG), EverythinBagel\_21 (EG), Fizzles\_22 (EG), FrankDeliGuy\_19 (EG), Fransoyer\_24 (EG), Fregley\_22 (EG), Gazebo\_21 (EG), Grassboy\_23 (EG), Hyperion\_21 (EG), Jehoshaphat\_24 (EG), Judebell\_24 (EG), Kelcole\_20 (EG), KillerQueen\_22 (EG), Kyva\_24 (EG), Llemily\_21

(EG), Lonelysoil\_21 (EG), Marcie\_26 (EG), Mashley\_20 (EG), Mentos\_26 (EG), Mila11\_25 (EG), MorillMayhem\_22 (EG), Namago\_22 (EG), Nike\_22 (EG), OneinaGillian\_21 (EG), Pepe25\_20 (EG), Phabia\_22 (EG), Phinky\_28 (EG), Quammi\_20 (EG), RobinRose\_23 (EG), Romm\_23 (EG), Rowlf\_18 (EG), RubyRalph\_24 (EG), Rudy\_20 (EG), SallyK\_23 (EG), Sillytadpoles\_21 (EG), SlySloth\_24 (EG), Squash\_24 (EG), Statler\_23 (EG), StrawberryJamm\_24 (EG), Teehee\_23 (EG), Tempo\_21 (EG), Tissue\_22 (EG), Viceroy\_21 (EG), Wayne3\_23 (EG), WheelerS25\_27 (EG), Wheelie\_21 (EG), Wilca\_21 (EG), Zagie\_22 (EG), Zhafia\_24 (EG),

Start 47:

- Found in 58 of 879 ( 6.6% ) of genes in pham
- Manual Annotations of this start: 18 of 757
- Called 41.4% of time when present
- Phage (with cluster) where this start called: AWGoat\_17 (AP4), Beagle\_23 (AP2), BetaFish\_22 (AP2), Boise\_13 (FT), DogYard\_22 (AP2), Forrestell\_19 (AP2), Kubulix\_23 (AP2), MellowYellow\_19 (AP2), Nikan\_18 (AP2), NyleyClemson\_18 (AP2), Odyssey395\_24 (AP2), Ollypop\_20 (AP2), PhuzzTulsa\_20 (AP2), Pointis\_22 (AP2), Popstraw\_21 (AP2), Pureglobe5\_24 (AP2), RIPWilbur\_20 (AP2), Ranunculus\_17 (AP), RazzB\_18 (AP2), Ren19\_16 (AP2), Rizwana\_16 (AP1), SilentRX\_18 (AP4), Tank\_17 (AP1), Wilde\_17 (AP1),

Start 58:

- Found in 23 of 879 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 3 of 757
- Called 39.1% of time when present
- Phage (with cluster) where this start called: Artu\_68 (FC), BooTeria\_72 (FC), CharlottesWeb\_8 (DR), Ellewin\_64 (FC), Emmetator\_68 (FC), JellyBelly\_8 (DR), KSunshine22\_70 (FC), Ligma\_8 (DR), Mariokart\_8 (DR),

Start 62:

- Found in 8 of 879 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 2 of 757
- Called 25.0% of time when present
- Phage (with cluster) where this start called: D12\_06 (W), PR\_06 (W),

Start 75:

- Found in 1 of 879 ( 0.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pine5\_11 (singleton),

Start 76:

- Found in 1 of 879 ( 0.1% ) of genes in pham
- Manual Annotations of this start: 1 of 757
- Called 100.0% of time when present
- Phage (with cluster) where this start called: TurkishDelight\_11 (singleton),

Start 78:

- Found in 3 of 879 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: phiAsp2\_4 (singleton),

Start 80:

- Found in 97 of 879 ( 11.0% ) of genes in pham
- Manual Annotations of this start: 11 of 757
- Called 12.4% of time when present
- Phage (with cluster) where this start called: Abt2graduatex2\_10 (BG), Asis\_10 (BG), BabyGotBac\_10 (BG), BayC\_10 (BG), FloraSnap32\_75 (FC), Maih\_10 (BG), Mischief19\_11 (BG), RainyPolka\_10 (BG), Salete\_10 (BG), TP1604\_10 (BG), Xkcd426\_11 (BG), YDN12\_11 (BG),

Start 81:

- Found in 4 of 879 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Laure\_78 (UNK),

Start 88:

- Found in 322 of 879 ( 36.6% ) of genes in pham
- Manual Annotations of this start: 7 of 757
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Aleia\_8 (B1), Basato\_9 (B1), BlacksBerry\_8 (B1), CheetO\_8 (B1), Chuni\_8 (B1), Chute\_8 (B1), FremontTroll\_9 (B1), Gophee\_8 (B1), GreenChile\_9 (B1), Hekos\_8 (B1), HogWash\_8 (B1), Karn\_8 (B1), Katniss\_8 (B1), Khan1\_8 (B1), Larson\_9 (B1), NiaNia\_8 (B1), Nova1\_8 (B1), OneBrain\_8 (B1), Plata\_8 (B1), SirBeauregard\_8 (B1), Taraxa\_8 (B1), Thunderbird\_8 (B1), TooFast2Furius\_9 (B1),

Start 95:

- Found in 73 of 879 ( 8.3% ) of genes in pham
- Manual Annotations of this start: 2 of 757
- Called 5.5% of time when present
- Phage (with cluster) where this start called: Blackpen\_10 (DR), CaiB\_10 (DR), MossRose\_10 (DR), TraderJ\_10 (DR),

Start 96:

- Found in 316 of 879 ( 35.9% ) of genes in pham
- Manual Annotations of this start: 1 of 757
- Called 1.9% of time when present
- Phage (with cluster) where this start called: BoogieWoogie\_8 (B1), EmGer13\_8 (B1), FleetyMac\_8 (B1), Happabalu\_8 (B1), Riverton\_8 (B1), SallyH\_9 (B1),

Start 112:

- Found in 36 of 879 ( 4.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 2.8% of time when present
- Phage (with cluster) where this start called: Hive\_22 (AP2),

**Summary by clusters:**

There are 45 clusters represented in this pham: GD1, singleton, BG, FT, DK, AP2, AP3, AP1, GD2, AP4, FC, B12, B13, B10, B11, GD3, GD4, DR, DS, UNK, EI, AD, AI, EG, EC, AP, W, GM, CP, DC2, DC1, DE1, DE2, DE3, DE4, DE5, B4, B5, B6, B7, B1, B2, B3, B8, B9,

Info for manual annotations of cluster AD:

- Start number 21 was manually annotated 4 times for cluster AD.

Info for manual annotations of cluster AI:

- Start number 30 was manually annotated 2 times for cluster AI.

Info for manual annotations of cluster AP:

- Start number 47 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:

- Start number 47 was manually annotated 3 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 47 was manually annotated 12 times for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 44 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 47 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster B1:

- Start number 30 was manually annotated 276 times for cluster B1.
- Start number 37 was manually annotated 4 times for cluster B1.
- Start number 88 was manually annotated 7 times for cluster B1.
- Start number 96 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B10:

- Start number 30 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 30 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 30 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 30 was manually annotated 3 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 30 was manually annotated 37 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 30 was manually annotated 51 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 30 was manually annotated 27 times for cluster B4.
- Start number 37 was manually annotated 1 time for cluster B4.

Info for manual annotations of cluster B5:

- Start number 30 was manually annotated 11 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 30 was manually annotated 2 times for cluster B6.

Info for manual annotations of cluster B7:

- Start number 30 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster B8:

- Start number 30 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 30 was manually annotated 6 times for cluster B9.

Info for manual annotations of cluster BG:

- Start number 80 was manually annotated 11 times for cluster BG.

Info for manual annotations of cluster CP:

- Start number 25 was manually annotated 6 times for cluster CP.

Info for manual annotations of cluster DC1:

- Start number 7 was manually annotated 32 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 7 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 7 was manually annotated 53 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 7 was manually annotated 8 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 7 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 7 was manually annotated 13 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 6 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DK:

- Start number 16 was manually annotated 1 time for cluster DK.
- Start number 23 was manually annotated 1 time for cluster DK.

Info for manual annotations of cluster DR:

- Start number 30 was manually annotated 18 times for cluster DR.
- Start number 58 was manually annotated 2 times for cluster DR.
- Start number 95 was manually annotated 2 times for cluster DR.

Info for manual annotations of cluster DS:

- Start number 27 was manually annotated 5 times for cluster DS.

Info for manual annotations of cluster EC:

- Start number 2 was manually annotated 2 times for cluster EC.

- Start number 12 was manually annotated 38 times for cluster EC.
- Start number 14 was manually annotated 9 times for cluster EC.

Info for manual annotations of cluster EG:

- Start number 36 was manually annotated 1 time for cluster EG.
- Start number 45 was manually annotated 50 times for cluster EG.

Info for manual annotations of cluster EI:

- Start number 12 was manually annotated 1 time for cluster EI.
- Start number 14 was manually annotated 6 times for cluster EI.

Info for manual annotations of cluster FC:

- Start number 22 was manually annotated 3 times for cluster FC.
- Start number 26 was manually annotated 8 times for cluster FC.
- Start number 58 was manually annotated 1 time for cluster FC.

Info for manual annotations of cluster FT:

- Start number 39 was manually annotated 1 time for cluster FT.

Info for manual annotations of cluster GD1:

- Start number 34 was manually annotated 3 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 34 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 34 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster GD4:

- Start number 34 was manually annotated 1 time for cluster GD4.

Info for manual annotations of cluster GM:

- Start number 12 was manually annotated 1 time for cluster GM.

Info for manual annotations of cluster W:

- Start number 21 was manually annotated 3 times for cluster W.
- Start number 30 was manually annotated 3 times for cluster W.
- Start number 62 was manually annotated 2 times for cluster W.

### **Gene Information:**

Gene: 39HC\_07 Start: 5208, Stop: 7124, Start Num: 30

Candidate Starts for 39HC\_07:

(Start: 30 @5208 has 441 MA's), (Start: 37 @5223 has 5 MA's), (79, 5286), (Start: 88 @5310 has 7 MA's), (102, 5352), (104, 5367), (105, 5370), (108, 5379), (154, 5529), (179, 5610), (191, 5640), (213, 5688), (248, 5781), (249, 5784), (251, 5793), (259, 5838), (261, 5847), (277, 5928), (278, 5931), (282, 5949), (303, 6012), (313, 6030), (330, 6078), (342, 6132), (356, 6192), (363, 6234), (375, 6306), (377, 6321), (381, 6342), (391, 6378), (395, 6390), (412, 6426), (452, 6573), (484, 6639), (515, 6705), (574, 6828), (588, 6858), (590, 6867), (595, 6885), (634, 7017), (635, 7020), (660, 7098),

Gene: 40BC\_07 Start: 5208, Stop: 7124, Start Num: 30

Candidate Starts for 40BC\_07:

(Start: 30 @5208 has 441 MA's), (Start: 37 @5223 has 5 MA's), (79, 5286), (Start: 88 @5310 has 7 MA's), (102, 5352), (104, 5367), (105, 5370), (108, 5379), (154, 5529), (179, 5610), (191, 5640), (213, 5688), (248, 5781), (249, 5784), (251, 5793), (259, 5838), (261, 5847), (277, 5928), (278, 5931), (282, 5949), (303, 6012), (313, 6030), (330, 6078), (342, 6132), (356, 6192), (363, 6234), (375, 6306), (377, 6321), (381, 6342), (391, 6378), (395, 6390), (412, 6426), (452, 6573), (484, 6639), (515, 6705), (574, 6828), (588, 6858), (590, 6867), (595, 6885), (634, 7017), (635, 7020), (660, 7098),

Gene: A3Wally\_82 Start: 29832, Stop: 31568, Start Num: 34

Candidate Starts for A3Wally\_82:

(Start: 34 @29832 has 7 MA's), (67, 29895), (73, 29904), (100, 29982), (116, 30054), (118, 30063), (124, 30087), (127, 30096), (158, 30177), (187, 30270), (219, 30327), (249, 30450), (259, 30504), (282, 30612), (328, 30723), (337, 30765), (357, 30846), (360, 30867), (372, 30930), (381, 30990), (390, 31023), (409, 31071), (423, 31131), (453, 31242), (498, 31350), (534, 31470), (541, 31494),

Gene: ABU\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for ABU\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: APunk\_15 Start: 7441, Stop: 9111, Start Num: 7

Candidate Starts for APunk\_15:

(Start: 7 @7441 has 114 MA's), (Start: 22 @7516 has 3 MA's), (42, 7564), (79, 7651), (103, 7732), (109, 7762), (111, 7771), (157, 7894), (171, 7939), (212, 8011), (216, 8020), (252, 8131), (259, 8170), (264, 8188), (266, 8200), (267, 8203), (269, 8209), (288, 8284), (328, 8344), (357, 8479), (364, 8524), (372, 8563), (379, 8614), (388, 8647), (391, 8659), (392, 8662), (404, 8689), (413, 8713), (428, 8791), (443, 8842), (460, 8872), (464, 8878), (475, 8896), (492, 8935), (505, 8980),

Gene: AWGoat\_17 Start: 8723, Stop: 10624, Start Num: 47

Candidate Starts for AWGoat\_17:

(Start: 47 @8723 has 18 MA's), (87, 8810), (93, 8819), (102, 8852), (126, 8948), (147, 8993), (170, 9041), (177, 9065), (246, 9236), (248, 9239), (262, 9308), (277, 9386), (280, 9395), (282, 9407), (320, 9479), (325, 9491), (328, 9500), (337, 9542), (351, 9593), (358, 9626), (364, 9668), (365, 9674), (368, 9686), (419, 9908), (429, 9974), (443, 10016), (536, 10277), (551, 10328), (555, 10334), (652, 10595),

Gene: Abblin\_14 Start: 6957, Stop: 8627, Start Num: 7

Candidate Starts for Abblin\_14:

(Start: 7 @6957 has 114 MA's), (Start: 22 @7032 has 3 MA's), (33, 7053), (42, 7080), (79, 7167), (103, 7248), (109, 7278), (111, 7287), (136, 7362), (141, 7374), (157, 7410), (171, 7455), (212, 7527), (216, 7536), (252, 7647), (259, 7686), (261, 7695), (264, 7704), (266, 7716), (267, 7719), (269, 7725), (288, 7800), (324, 7848), (328, 7860), (354, 7980), (357, 7995), (364, 8040), (372, 8079), (379, 8130), (388, 8163), (391, 8175), (392, 8178), (404, 8205), (413, 8229), (428, 8307), (443, 8358), (460, 8388), (464, 8394), (492, 8451), (505, 8496),

Gene: Abinghost\_11 Start: 6314, Stop: 8218, Start Num: 30

Candidate Starts for Abinghost\_11:

(Start: 30 @6314 has 441 MA's), (40, 6341), (87, 6422), (105, 6485), (122, 6551), (131, 6584), (173, 6692), (205, 6782), (232, 6860), (251, 6917), (261, 6971), (277, 7052), (282, 7073), (291, 7100), (316, 7151), (318, 7160), (323, 7169), (363, 7346), (365, 7358), (377, 7433), (382, 7457), (388, 7478), (419,

7562), (461, 7700), (471, 7718), (481, 7745), (499, 7769), (581, 7934), (584, 7943), (612, 8048), (615, 8057), (626, 8084), (652, 8174), (662, 8198), (670, 8210),

Gene: AbsoluteMadLad\_8 Start: 4437, Stop: 6356, Start Num: 30

Candidate Starts for AbsoluteMadLad\_8:

(Start: 30 @4437 has 441 MA's), (Start: 37 @4452 has 5 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: Abt2graduatex2\_10 Start: 8030, Stop: 9832, Start Num: 80

Candidate Starts for Abt2graduatex2\_10:

(Start: 80 @8030 has 11 MA's), (117, 8156), (127, 8189), (142, 8237), (159, 8276), (179, 8345), (204, 8414), (214, 8435), (250, 8543), (251, 8549), (273, 8645), (326, 8771), (337, 8816), (339, 8825), (348, 8858), (351, 8867), (356, 8894), (378, 9026), (476, 9320), (496, 9359), (504, 9383), (530, 9431), (543, 9479), (549, 9491), (586, 9542), (606, 9611), (631, 9701), (661, 9803), (669, 9821),

Gene: Acadian\_10 Start: 6693, Stop: 8558, Start Num: 30

Candidate Starts for Acadian\_10:

(Start: 30 @6693 has 441 MA's), (Start: 37 @6708 has 5 MA's), (66, 6750), (104, 6846), (108, 6858), (172, 7044), (174, 7056), (177, 7065), (233, 7182), (236, 7197), (278, 7374), (282, 7392), (305, 7452), (348, 7590), (356, 7626), (363, 7668), (365, 7680), (377, 7755), (382, 7779), (391, 7812), (395, 7824), (400, 7836), (412, 7860), (471, 8040), (477, 8058), (561, 8238), (574, 8259), (585, 8280), (611, 8382), (630, 8442), (670, 8550), (671, 8553),

Gene: Adriana\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Adriana\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Aelin\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Aelin\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Affeca\_12 Start: 6664, Stop: 8292, Start Num: 7

Candidate Starts for Affeca\_12:

(Start: 7 @6664 has 114 MA's), (Start: 47 @6784 has 18 MA's), (73, 6823), (83, 6862), (103, 6925), (130, 7018), (138, 7045), (154, 7084), (216, 7213), (235, 7273), (255, 7342), (259, 7363), (264, 7381), (267, 7396), (269, 7402), (281, 7465), (324, 7525), (328, 7537), (336, 7576), (339, 7588), (342, 7597), (347, 7630), (351, 7642), (357, 7672), (364, 7717), (367, 7732), (368, 7735), (373, 7771), (382, 7819), (385, 7828), (391, 7852), (392, 7855), (443, 8032), (476, 8089), (480, 8095), (490, 8110), (496, 8131), (515, 8179), (526, 8206),

Gene: Ahwei\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for Ahwei\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (377, 6735), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (572, 7221), (574, 7224), (595, 7281), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Ailee\_12 Start: 7526, Stop: 9148, Start Num: 7

Candidate Starts for Ailee\_12:

(Start: 7 @7526 has 114 MA's), (Start: 47 @7646 has 18 MA's), (73, 7685), (Start: 80 @7706 has 11 MA's), (83, 7724), (103, 7787), (130, 7880), (138, 7907), (154, 7946), (216, 8075), (235, 8135), (255, 8204), (259, 8225), (264, 8243), (267, 8258), (269, 8264), (281, 8327), (324, 8387), (328, 8399), (336, 8438), (339, 8450), (342, 8459), (347, 8492), (351, 8504), (357, 8534), (364, 8579), (367, 8594), (368, 8597), (373, 8633), (382, 8681), (385, 8690), (392, 8717), (443, 8894), (476, 8951), (480, 8957), (490, 8972), (496, 8993), (499, 8999), (515, 9035), (526, 9062),

Gene: Akoma\_11 Start: 6314, Stop: 8218, Start Num: 30

Candidate Starts for Akoma\_11:

(Start: 30 @6314 has 441 MA's), (40, 6341), (87, 6422), (105, 6485), (122, 6551), (131, 6584), (173, 6692), (205, 6782), (232, 6860), (251, 6917), (261, 6971), (277, 7052), (282, 7073), (291, 7100), (316, 7151), (318, 7160), (323, 7169), (363, 7346), (365, 7358), (377, 7433), (382, 7457), (388, 7478), (419, 7562), (461, 7700), (471, 7718), (481, 7745), (499, 7769), (581, 7934), (584, 7943), (612, 8048), (615, 8057), (626, 8084), (635, 8120), (652, 8174), (653, 8177), (662, 8198), (670, 8210),

Gene: AksarBAT\_8 Start: 5267, Stop: 7105, Start Num: 30

Candidate Starts for AksarBAT\_8:

(Start: 30 @5267 has 441 MA's), (Start: 95 @5381 has 2 MA's), (104, 5423), (145, 5558), (179, 5639), (184, 5657), (228, 5735), (229, 5738), (230, 5741), (242, 5774), (277, 5936), (278, 5939), (282, 5957), (327, 6083), (329, 6089), (334, 6116), (338, 6134), (342, 6146), (363, 6248), (365, 6260), (377, 6335), (382, 6359), (391, 6392), (478, 6638), (489, 6659), (497, 6665), (578, 6821), (583, 6830), (584, 6833), (612, 6932), (630, 6989), (634, 7001), (643, 7034), (649, 7046), (662, 7082), (663, 7085), (670, 7097),

Gene: AlanGrant\_10 Start: 7459, Stop: 9357, Start Num: 30

Candidate Starts for AlanGrant\_10:

(Start: 30 @7459 has 441 MA's), (Start: 80 @7540 has 11 MA's), (105, 7621), (106, 7627), (120, 7681), (156, 7768), (161, 7786), (179, 7846), (185, 7867), (218, 7927), (249, 8023), (259, 8077), (277, 8167), (284, 8194), (303, 8245), (332, 8317), (342, 8365), (344, 8380), (356, 8425), (363, 8467), (382, 8578), (384, 8584), (391, 8611), (412, 8659), (472, 8842), (516, 8917), (566, 9037), (572, 9046), (574, 9049), (595, 9106), (596, 9112), (612, 9175), (615, 9184), (658, 9328), (670, 9349),

Gene: Aleia\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Aleia\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Ali17\_11 Start: 6421, Stop: 8055, Start Num: 7

Candidate Starts for Ali17\_11:

(Start: 7 @6421 has 114 MA's), (9, 6448), (11, 6457), (Start: 22 @6493 has 3 MA's), (Start: 39 @6535 has 1 MA's), (50, 6559), (Start: 80 @6616 has 11 MA's), (91, 6649), (103, 6694), (109, 6724), (111, 6733), (119, 6757), (122, 6772), (154, 6853), (173, 6910), (211, 6970), (216, 6982), (221, 7000), (235, 7042), (259, 7132), (264, 7150), (267, 7165), (269, 7171), (279, 7225), (288, 7246), (328, 7306), (329,

7309), (342, 7366), (345, 7390), (357, 7441), (364, 7486), (368, 7504), (372, 7525), (382, 7588), (388, 7609), (392, 7624), (413, 7675), (437, 7780), (443, 7801), (460, 7831), (472, 7849), (499, 7915), (505, 7936), (528, 7990),

Gene: Allegro\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Allegro\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: AltPhacts\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for AltPhacts\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Altheas\_24 Start: 9157, Stop: 10980, Start Num: 45

Candidate Starts for Altheas\_24:

(Start: 45 @9157 has 50 MA's), (129, 9388), (134, 9409), (147, 9433), (155, 9442), (170, 9481), (201, 9559), (215, 9577), (277, 9799), (303, 9868), (320, 9916), (357, 10060), (364, 10105), (365, 10111), (368, 10123), (377, 10183), (419, 10312), (420, 10318), (447, 10444), (468, 10489), (520, 10594), (553, 10684), (574, 10720), (584, 10738), (599, 10783), (654, 10957),

Gene: Altwerkus\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Altwerkus\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: AluminumJesus\_20 Start: 8498, Stop: 10324, Start Num: 45

Candidate Starts for AluminumJesus\_20:

(Start: 45 @8498 has 50 MA's), (155, 8783), (170, 8822), (173, 8834), (201, 8900), (215, 8918), (264, 9068), (267, 9083), (277, 9140), (320, 9257), (324, 9266), (357, 9401), (364, 9446), (365, 9452), (368, 9464), (377, 9524), (419, 9653), (420, 9659), (424, 9686), (447, 9785), (468, 9830), (553, 10025), (574, 10061), (584, 10079), (599, 10124),

Gene: Amo99\_42 Start: 18192, Stop: 20150, Start Num: 25

Candidate Starts for Amo99\_42:

(Start: 25 @18192 has 7 MA's), (Start: 45 @18237 has 50 MA's), (74, 18288), (82, 18315), (146, 18504), (221, 18663), (251, 18756), (266, 18831), (280, 18900), (282, 18912), (283, 18918), (310, 19020), (321, 19053), (339, 19125), (340, 19128), (348, 19158), (357, 19197), (365, 19248), (372, 19281), (411, 19425), (412, 19428), (420, 19458), (448, 19566), (469, 19602), (472, 19611), (534, 19746), (593, 19860), (621, 19950), (665, 20103), (674, 20142),

Gene: AnClar\_7 Start: 5605, Stop: 7446, Start Num: 30

Candidate Starts for AnClar\_7:

(Start: 30 @5605 has 441 MA's), (Start: 95 @5719 has 2 MA's), (104, 5761), (120, 5824), (173, 5956), (179, 5974), (215, 6028), (221, 6049), (259, 6181), (267, 6214), (277, 6271), (278, 6274), (282, 6292), (296, 6343), (303, 6364), (338, 6472), (342, 6484), (363, 6586), (392, 6733), (395, 6742), (418, 6799), (535, 7078), (581, 7165), (583, 7171), (605, 7246), (607, 7252), (612, 7273), (638, 7354), (649, 7387), (652, 7399), (662, 7423), (663, 7426),

Gene: AnarQue\_10 Start: 6780, Stop: 8627, Start Num: 30

Candidate Starts for AnarQue\_10:

(Start: 30 @6780 has 441 MA's), (Start: 95 @6894 has 2 MA's), (104, 6936), (120, 6999), (141, 7065), (184, 7170), (243, 7293), (245, 7299), (249, 7308), (251, 7317), (278, 7455), (282, 7473), (329, 7614), (334, 7641), (338, 7659), (342, 7671), (355, 7722), (363, 7773), (377, 7860), (382, 7884), (471, 8142), (505, 8202), (510, 8211), (531, 8259), (583, 8352), (584, 8355), (605, 8427), (607, 8433), (612, 8454), (630, 8511), (634, 8523), (643, 8556), (649, 8568), (652, 8580), (655, 8592), (662, 8604), (663, 8607),

Gene: Anderson\_8 Start: 4456, Stop: 6360, Start Num: 37

Candidate Starts for Anderson\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Andre\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Andre\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: AngelCake\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for AngelCake\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Angelicage\_12 Start: 7093, Stop: 8715, Start Num: 7

Candidate Starts for Angelicage\_12:

(Start: 7 @7093 has 114 MA's), (Start: 47 @7213 has 18 MA's), (73, 7252), (Start: 80 @7273 has 11 MA's), (83, 7291), (103, 7354), (130, 7447), (138, 7474), (154, 7513), (216, 7642), (235, 7702), (255, 7771), (259, 7792), (264, 7810), (267, 7825), (269, 7831), (281, 7894), (324, 7954), (328, 7966), (336, 8005), (339, 8017), (342, 8026), (347, 8059), (351, 8071), (357, 8101), (364, 8146), (367, 8161), (368, 8164), (373, 8200), (382, 8248), (385, 8257), (392, 8284), (443, 8461), (476, 8518), (480, 8524), (490, 8539), (496, 8560), (499, 8566), (515, 8602), (526, 8629),

Gene: Antares\_20 Start: 8653, Stop: 10359, Start Num: 12

Candidate Starts for Antares\_20:

(Start: 12 @8653 has 40 MA's), (Start: 14 @8662 has 15 MA's), (20, 8677), (68, 8776), (71, 8782), (104, 8887), (108, 8899), (134, 9004), (138, 9016), (158, 9070), (163, 9088), (179, 9142), (188, 9172),

(212, 9211), (219, 9229), (221, 9238), (233, 9274), (251, 9337), (264, 9400), (271, 9427), (277, 9472), (328, 9574), (329, 9577), (337, 9616), (342, 9634), (359, 9706), (371, 9772), (372, 9781), (377, 9820), (385, 9853), (394, 9886), (396, 9892), (406, 9922), (448, 10075), (457, 10090), (470, 10111), (471, 10114), (552, 10318), (559, 10327),

Gene: Antihero\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for Antihero\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (377, 6735), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (566, 7212), (572, 7221), (574, 7224), (595, 7281), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Antonia\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Antonia\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Aonishiki\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Aonishiki\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Apex\_8 Start: 6292, Stop: 8181, Start Num: 30

Candidate Starts for Apex\_8:

(Start: 30 @6292 has 441 MA's), (Start: 37 @6307 has 5 MA's), (86, 6388), (94, 6403), (105, 6454), (108, 6463), (120, 6514), (161, 6619), (179, 6679), (221, 6775), (248, 6853), (249, 6856), (251, 6865), (259, 6910), (277, 7000), (278, 7003), (305, 7081), (313, 7093), (342, 7195), (356, 7255), (363, 7297), (365, 7309), (382, 7408), (384, 7414), (391, 7441), (393, 7447), (396, 7456), (412, 7489), (439, 7597), (566, 7861), (572, 7870), (574, 7873), (596, 7936), (611, 7996), (612, 7999), (615, 8008), (649, 8122), (666, 8167), (670, 8173),

Gene: Apizium\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Apizium\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Arbiter\_12 Start: 7818, Stop: 9707, Start Num: 30

Candidate Starts for Arbiter\_12:

(Start: 30 @7818 has 441 MA's), (57, 7866), (68, 7890), (Start: 80 @7908 has 11 MA's), (Start: 95 @7941 has 2 MA's), (120, 8049), (154, 8133), (173, 8196), (184, 8232), (209, 8283), (215, 8295), (221, 8316), (249, 8394), (251, 8403), (259, 8448), (277, 8538), (278, 8541), (280, 8547), (282, 8559), (287, 8574), (291, 8586), (327, 8670), (334, 8703), (338, 8721), (351, 8766), (363, 8835), (365, 8847), (377, 8922), (382, 8946), (384, 8952), (391, 8979), (395, 8991), (399, 8997), (412, 9027), (413, 9030), (420,

9057), (435, 9123), (438, 9132), (471, 9207), (485, 9243), (578, 9426), (581, 9429), (585, 9441), (609, 9528), (612, 9537), (615, 9546), (618, 9561), (629, 9591), (635, 9609), (641, 9624), (649, 9651), (652, 9663), (670, 9699),

Gene: Ares\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Ares\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: Argie\_7 Start: 3607, Stop: 5463, Start Num: 30

Candidate Starts for Argie\_7:

(Start: 21 @3589 has 7 MA's), (Start: 30 @3607 has 441 MA's), (Start: 62 @3664 has 2 MA's), (112, 3802), (120, 3832), (139, 3886), (179, 3997), (228, 4126), (249, 4183), (251, 4192), (259, 4237), (264, 4255), (279, 4333), (280, 4336), (323, 4420), (331, 4444), (335, 4468), (363, 4597), (365, 4609), (371, 4633), (377, 4684), (391, 4741), (395, 4753), (448, 4927), (481, 4996), (605, 5248), (649, 5389), (652, 5401), (671, 5443),

Gene: Ariadne\_28 Start: 10109, Stop: 11824, Start Num: 14

Candidate Starts for Ariadne\_28:

(Start: 12 @10100 has 40 MA's), (Start: 14 @10109 has 15 MA's), (71, 10229), (104, 10334), (108, 10346), (132, 10445), (158, 10517), (163, 10535), (230, 10715), (233, 10721), (239, 10745), (251, 10784), (264, 10847), (271, 10874), (277, 10919), (328, 11021), (329, 11024), (337, 11063), (339, 11072), (351, 11114), (359, 11153), (371, 11219), (372, 11228), (373, 11243), (377, 11267), (394, 11333), (396, 11339), (406, 11366), (448, 11519), (459, 11537), (478, 11579), (489, 11603), (495, 11624), (522, 11660), (572, 11801), (579, 11813),

Gene: Arri\_13 Start: 5627, Stop: 7213, Start Num: 7

Candidate Starts for Arri\_13:

(Start: 7 @5627 has 114 MA's), (104, 5879), (111, 5909), (154, 6026), (162, 6047), (166, 6062), (248, 6236), (257, 6278), (261, 6302), (262, 6305), (273, 6344), (288, 6416), (328, 6476), (329, 6479), (330, 6482), (337, 6518), (339, 6527), (341, 6533), (342, 6536), (357, 6599), (364, 6644), (371, 6674), (377, 6722), (392, 6779), (395, 6788), (399, 6800), (420, 6857), (428, 6908),

Gene: Artu\_68 Start: 28004, Stop: 29578, Start Num: 58

Candidate Starts for Artu\_68:

(Start: 26 @27944 has 8 MA's), (Start: 58 @28004 has 3 MA's), (177, 28361), (249, 28550), (251, 28559), (312, 28763), (328, 28811), (366, 28991), (381, 29078), (404, 29144), (408, 29156), (475, 29387), (514, 29474), (562, 29567),

Gene: Ashertheman\_12 Start: 6272, Stop: 7900, Start Num: 7

Candidate Starts for Ashertheman\_12:

(Start: 7 @6272 has 114 MA's), (Start: 47 @6395 has 18 MA's), (61, 6416), (83, 6473), (103, 6536), (109, 6566), (130, 6629), (138, 6656), (216, 6824), (246, 6911), (254, 6950), (259, 6974), (264, 6992), (267, 7007), (269, 7013), (281, 7076), (328, 7148), (336, 7187), (351, 7253), (357, 7283), (364, 7328), (367, 7343), (368, 7346), (373, 7382), (382, 7430), (385, 7439), (392, 7466), (404, 7493), (419, 7538), (434, 7613), (443, 7643), (451, 7661), (476, 7700), (480, 7706), (490, 7721), (496, 7742), (499, 7748), (515, 7784), (528, 7817),

Gene: Ashraf\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Ashraf\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Asis\_10 Start: 8087, Stop: 9889, Start Num: 80

Candidate Starts for Asis\_10:

(Start: 80 @8087 has 11 MA's), (117, 8213), (123, 8234), (127, 8246), (142, 8294), (159, 8333), (172, 8375), (179, 8402), (204, 8471), (214, 8492), (221, 8513), (248, 8591), (250, 8597), (251, 8603), (273, 8699), (280, 8747), (326, 8825), (337, 8870), (339, 8879), (348, 8912), (356, 8948), (378, 9080), (476, 9377), (493, 9413), (511, 9458), (532, 9503), (543, 9536), (549, 9548), (586, 9599), (603, 9650), (606, 9668), (619, 9716), (623, 9722), (644, 9803), (652, 9833), (661, 9860), (669, 9878),

Gene: Athena\_12 Start: 7077, Stop: 8981, Start Num: 30

Candidate Starts for Athena\_12:

(Start: 30 @7077 has 441 MA's), (40, 7104), (87, 7185), (105, 7248), (122, 7314), (131, 7347), (173, 7455), (205, 7545), (232, 7623), (251, 7680), (261, 7734), (277, 7815), (282, 7836), (291, 7863), (316, 7914), (318, 7923), (323, 7932), (363, 8109), (365, 8121), (377, 8196), (382, 8220), (388, 8241), (419, 8325), (461, 8463), (471, 8481), (481, 8508), (499, 8532), (581, 8697), (584, 8706), (612, 8811), (615, 8820), (626, 8847), (652, 8937), (662, 8961), (670, 8973),

Gene: Atuin\_70 Start: 31058, Stop: 32686, Start Num: 26

Candidate Starts for Atuin\_70:

(Start: 26 @31058 has 8 MA's), (119, 31298), (177, 31475), (251, 31673), (284, 31835), (312, 31877), (315, 31889), (328, 31925), (366, 32105), (381, 32192), (408, 32270), (475, 32501), (514, 32588), (542, 32636), (562, 32675),

Gene: Audrey\_11 Start: 6314, Stop: 8218, Start Num: 30

Candidate Starts for Audrey\_11:

(Start: 30 @6314 has 441 MA's), (40, 6341), (87, 6422), (105, 6485), (122, 6551), (131, 6584), (173, 6692), (205, 6782), (232, 6860), (251, 6917), (261, 6971), (277, 7052), (282, 7073), (291, 7100), (316, 7151), (318, 7160), (323, 7169), (363, 7346), (365, 7358), (377, 7433), (382, 7457), (388, 7478), (419, 7562), (461, 7700), (471, 7718), (481, 7745), (499, 7769), (581, 7934), (584, 7943), (612, 8048), (615, 8057), (626, 8084), (652, 8174), (653, 8177), (662, 8198), (670, 8210),

Gene: Austelle\_9 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for Austelle\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (377, 7840), (382, 7864), (384, 7870), (385, 7873), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (420, 7975), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (612, 8455), (615, 8464), (649, 8578), (666, 8623), (670, 8629),

Gene: Axumite\_8 Start: 5303, Stop: 7141, Start Num: 30

Candidate Starts for Axumite\_8:

(Start: 30 @5303 has 441 MA's), (Start: 58 @5351 has 3 MA's), (Start: 95 @5417 has 2 MA's), (104, 5459), (145, 5591), (173, 5654), (179, 5672), (249, 5825), (251, 5834), (259, 5879), (267, 5912), (277, 5969), (278, 5972), (282, 5990), (293, 6023), (302, 6050), (338, 6161), (342, 6173), (344, 6188), (363,

6275), (365, 6287), (377, 6362), (382, 6386), (392, 6422), (394, 6428), (395, 6431), (396, 6434), (412, 6467), (583, 6866), (584, 6869), (585, 6872), (605, 6941), (607, 6947), (612, 6968), (626, 7004), (638, 7049), (643, 7070), (652, 7094), (655, 7106), (662, 7118), (663, 7121),

Gene: BabyDotz\_21 Start: 8763, Stop: 10589, Start Num: 45

Candidate Starts for BabyDotz\_21:

(Start: 45 @8763 has 50 MA's), (155, 9048), (170, 9087), (201, 9165), (215, 9183), (264, 9333), (267, 9348), (277, 9405), (303, 9474), (320, 9522), (324, 9531), (357, 9666), (364, 9711), (365, 9717), (368, 9729), (377, 9789), (419, 9918), (420, 9924), (424, 9951), (447, 10050), (468, 10095), (553, 10290), (574, 10326), (584, 10344), (599, 10389),

Gene: BabyGotBac\_10 Start: 8087, Stop: 9889, Start Num: 80

Candidate Starts for BabyGotBac\_10:

(Start: 80 @8087 has 11 MA's), (117, 8213), (123, 8234), (127, 8246), (142, 8294), (159, 8333), (172, 8375), (179, 8402), (204, 8471), (214, 8492), (221, 8513), (248, 8591), (250, 8597), (251, 8603), (273, 8699), (280, 8747), (326, 8825), (337, 8870), (339, 8879), (348, 8912), (356, 8948), (378, 9080), (476, 9377), (493, 9413), (511, 9458), (532, 9503), (549, 9548), (586, 9599), (603, 9650), (606, 9668), (619, 9716), (644, 9803), (652, 9833), (661, 9860), (669, 9878),

Gene: BaconCheese\_25 Start: 9916, Stop: 11742, Start Num: 45

Candidate Starts for BaconCheese\_25:

(Start: 45 @9916 has 50 MA's), (155, 10201), (170, 10240), (201, 10318), (215, 10336), (264, 10486), (267, 10501), (277, 10558), (303, 10627), (320, 10675), (324, 10684), (357, 10819), (364, 10864), (365, 10870), (368, 10882), (377, 10942), (419, 11071), (420, 11077), (424, 11104), (447, 11203), (468, 11248), (553, 11443), (574, 11479), (584, 11497), (599, 11542),

Gene: Baddon\_12 Start: 6982, Stop: 8613, Start Num: 7

Candidate Starts for Baddon\_12:

(Start: 7 @6982 has 114 MA's), (Start: 47 @7105 has 18 MA's), (61, 7126), (83, 7183), (103, 7246), (109, 7276), (130, 7339), (138, 7366), (211, 7522), (216, 7534), (246, 7621), (254, 7660), (259, 7684), (264, 7702), (267, 7717), (269, 7723), (281, 7786), (328, 7858), (332, 7870), (336, 7897), (342, 7918), (351, 7963), (357, 7993), (364, 8038), (367, 8053), (368, 8056), (373, 8092), (382, 8140), (385, 8149), (419, 8248), (428, 8305), (434, 8323), (443, 8353), (451, 8371), (476, 8410), (480, 8416), (490, 8431), (496, 8452), (499, 8458), (515, 8497),

Gene: Badfish\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Badfish\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Bae\_10 Start: 6699, Stop: 8567, Start Num: 30

Candidate Starts for Bae\_10:

(Start: 30 @6699 has 441 MA's), (40, 6723), (99, 6819), (104, 6855), (108, 6867), (172, 7053), (177, 7074), (179, 7080), (233, 7191), (236, 7206), (251, 7245), (278, 7383), (282, 7401), (305, 7461), (348, 7599), (363, 7677), (365, 7689), (382, 7788), (391, 7821), (395, 7833), (400, 7845), (412, 7869), (477, 8067), (561, 8247), (574, 8268), (576, 8271), (585, 8289), (611, 8391), (630, 8451), (670, 8559), (671, 8562),

Gene: Bakery\_13 Start: 5328, Stop: 6914, Start Num: 7

Candidate Starts for Bakery\_13:

(Start: 7 @5328 has 114 MA's), (43, 5442), (99, 5544), (111, 5610), (120, 5643), (157, 5730), (162, 5748), (261, 6003), (262, 6006), (273, 6045), (288, 6117), (328, 6177), (329, 6180), (330, 6183), (336, 6216), (337, 6219), (339, 6228), (341, 6234), (342, 6237), (357, 6300), (364, 6345), (371, 6375), (377, 6423), (392, 6480), (395, 6489), (399, 6501), (420, 6558), (428, 6609),

Gene: Baloo\_11 Start: 6314, Stop: 8218, Start Num: 30

Candidate Starts for Baloo\_11:

(Start: 30 @6314 has 441 MA's), (40, 6341), (87, 6422), (105, 6485), (122, 6551), (131, 6584), (173, 6692), (205, 6782), (232, 6860), (251, 6917), (261, 6971), (277, 7052), (282, 7073), (291, 7100), (316, 7151), (318, 7160), (323, 7169), (363, 7346), (365, 7358), (377, 7433), (382, 7457), (388, 7478), (419, 7562), (461, 7700), (471, 7718), (481, 7745), (499, 7769), (581, 7934), (584, 7943), (612, 8048), (615, 8057), (626, 8084), (652, 8174), (662, 8198), (670, 8210),

Gene: Bananafish\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Bananafish\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: Banjo\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Banjo\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Barb\_12 Start: 5583, Stop: 7169, Start Num: 7

Candidate Starts for Barb\_12:

(Start: 7 @5583 has 114 MA's), (104, 5835), (111, 5865), (154, 5982), (162, 6003), (166, 6018), (248, 6192), (257, 6234), (261, 6258), (262, 6261), (273, 6300), (288, 6372), (328, 6432), (329, 6435), (330, 6438), (337, 6474), (339, 6483), (341, 6489), (342, 6492), (357, 6555), (364, 6600), (371, 6630), (377, 6678), (392, 6735), (399, 6756), (412, 6783), (413, 6786), (420, 6813), (428, 6864), (443, 6912),

Gene: Barsten\_13 Start: 6478, Stop: 8100, Start Num: 7

Candidate Starts for Barsten\_13:

(Start: 7 @6478 has 114 MA's), (73, 6637), (83, 6676), (103, 6739), (130, 6832), (138, 6859), (154, 6898), (216, 7027), (235, 7087), (255, 7156), (259, 7177), (264, 7195), (267, 7210), (269, 7216), (281, 7279), (324, 7339), (328, 7351), (336, 7390), (339, 7402), (342, 7411), (347, 7444), (351, 7456), (357, 7486), (364, 7531), (367, 7546), (368, 7549), (373, 7585), (382, 7633), (385, 7642), (392, 7669), (443, 7846), (476, 7903), (480, 7909), (490, 7924), (496, 7945), (499, 7951), (515, 7987), (526, 8014),

Gene: Basato\_9 Start: 4786, Stop: 6594, Start Num: 88

Candidate Starts for Basato\_9:

(Start: 30 @4675 has 441 MA's), (Start: 88 @4786 has 7 MA's), (Start: 96 @4801 has 1 MA's), (122, 4912), (170, 5044), (177, 5068), (179, 5074), (181, 5086), (186, 5098), (250, 5263), (275, 5389), (276, 5392), (277, 5404), (280, 5413), (282, 5425), (303, 5488), (307, 5497), (323, 5533), (329, 5551), (332, 5560), (342, 5608), (362, 5704), (363, 5710), (371, 5746), (377, 5794), (382, 5818), (440, 6013), (481,

6106), (596, 6358), (635, 6493), (649, 6535), (652, 6547),

Gene: BatteryCK\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for BatteryCK\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Baumdotcom\_12 Start: 6295, Stop: 7923, Start Num: 7

Candidate Starts for Baumdotcom\_12:

(Start: 7 @6295 has 114 MA's), (Start: 47 @6418 has 18 MA's), (61, 6439), (83, 6496), (103, 6559), (109, 6589), (130, 6652), (138, 6679), (216, 6847), (246, 6934), (254, 6973), (259, 6997), (264, 7015), (267, 7030), (269, 7036), (281, 7099), (328, 7171), (336, 7210), (351, 7276), (357, 7306), (364, 7351), (367, 7366), (368, 7369), (373, 7405), (382, 7453), (385, 7462), (392, 7489), (404, 7516), (419, 7561), (428, 7618), (434, 7636), (443, 7666), (451, 7684), (476, 7723), (480, 7729), (490, 7744), (496, 7765), (499, 7771), (515, 7807), (528, 7840),

Gene: BayC\_10 Start: 8087, Stop: 9889, Start Num: 80

Candidate Starts for BayC\_10:

(Start: 80 @8087 has 11 MA's), (117, 8213), (123, 8234), (127, 8246), (142, 8294), (159, 8333), (172, 8375), (179, 8402), (204, 8471), (214, 8492), (221, 8513), (248, 8591), (250, 8597), (251, 8603), (273, 8699), (280, 8747), (326, 8825), (337, 8870), (339, 8879), (348, 8912), (356, 8948), (378, 9080), (476, 9377), (493, 9413), (532, 9503), (543, 9536), (549, 9548), (586, 9599), (603, 9650), (606, 9668), (619, 9716), (623, 9722), (644, 9803), (652, 9833), (661, 9860), (669, 9878),

Gene: Beagle\_23 Start: 9245, Stop: 11137, Start Num: 47

Candidate Starts for Beagle\_23:

(Start: 47 @9245 has 18 MA's), (50, 9254), (73, 9293), (112, 9416), (118, 9434), (146, 9509), (177, 9584), (261, 9827), (328, 10019), (365, 10193), (368, 10205), (401, 10355), (419, 10406), (424, 10439), (425, 10445), (433, 10478), (443, 10514), (449, 10541), (467, 10580), (474, 10601), (478, 10613), (481, 10619), (584, 10883), (622, 11000), (652, 11096),

Gene: BeagleBug\_19 Start: 8461, Stop: 10137, Start Num: 12

Candidate Starts for BeagleBug\_19:

(Start: 12 @8461 has 40 MA's), (Start: 14 @8470 has 15 MA's), (68, 8584), (71, 8590), (104, 8695), (108, 8707), (132, 8806), (134, 8812), (138, 8824), (158, 8878), (163, 8896), (179, 8950), (188, 8980), (212, 9019), (219, 9037), (221, 9046), (233, 9082), (251, 9145), (264, 9208), (271, 9235), (277, 9280), (328, 9382), (329, 9385), (337, 9424), (342, 9442), (359, 9514), (371, 9580), (372, 9589), (377, 9628), (385, 9661), (394, 9694), (396, 9700), (406, 9730), (412, 9745), (448, 9883), (457, 9898), (470, 9919), (471, 9922),

Gene: Beaglebox\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Beaglebox\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Ben11\_10 Start: 6162, Stop: 8066, Start Num: 30

Candidate Starts for Ben11\_10:

(Start: 30 @6162 has 441 MA's), (40, 6189), (87, 6270), (105, 6333), (122, 6399), (131, 6432), (173, 6540), (205, 6630), (232, 6708), (251, 6765), (261, 6819), (277, 6900), (282, 6921), (291, 6948), (316, 6999), (318, 7008), (323, 7017), (363, 7194), (365, 7206), (377, 7281), (382, 7305), (388, 7326), (419, 7410), (461, 7548), (471, 7566), (481, 7593), (499, 7617), (581, 7782), (584, 7791), (612, 7896), (615, 7905), (626, 7932), (652, 8022), (653, 8025), (662, 8046), (670, 8058),

Gene: Bernardo\_11 Start: 6342, Stop: 8240, Start Num: 30

Candidate Starts for Bernardo\_11:

(Start: 30 @6342 has 441 MA's), (40, 6369), (87, 6450), (105, 6513), (122, 6579), (131, 6612), (173, 6720), (205, 6810), (232, 6888), (251, 6945), (261, 6999), (277, 7080), (282, 7101), (291, 7128), (316, 7179), (318, 7188), (323, 7197), (363, 7374), (365, 7386), (377, 7461), (382, 7485), (388, 7506), (419, 7590), (461, 7728), (471, 7746), (481, 7773), (499, 7797), (581, 7956), (584, 7965), (612, 8070), (615, 8079), (626, 8106), (635, 8142), (652, 8196), (653, 8199), (662, 8220), (670, 8232),

Gene: BetaFish\_22 Start: 9448, Stop: 11340, Start Num: 47

Candidate Starts for BetaFish\_22:

(Start: 47 @9448 has 18 MA's), (50, 9457), (73, 9496), (112, 9619), (118, 9637), (133, 9688), (146, 9712), (177, 9787), (261, 10030), (328, 10222), (365, 10396), (368, 10408), (401, 10558), (419, 10609), (424, 10642), (425, 10648), (433, 10681), (443, 10717), (449, 10744), (467, 10783), (474, 10804), (478, 10816), (584, 11086), (622, 11203), (652, 11299),

Gene: Bibwit\_12 Start: 7349, Stop: 8971, Start Num: 7

Candidate Starts for Bibwit\_12:

(Start: 7 @7349 has 114 MA's), (73, 7508), (83, 7547), (103, 7610), (130, 7703), (138, 7730), (154, 7769), (216, 7898), (235, 7958), (255, 8027), (259, 8048), (264, 8066), (267, 8081), (269, 8087), (281, 8150), (324, 8210), (328, 8222), (336, 8261), (339, 8273), (342, 8282), (351, 8327), (357, 8357), (364, 8402), (367, 8417), (368, 8420), (373, 8456), (382, 8504), (385, 8513), (392, 8540), (443, 8717), (476, 8774), (480, 8780), (490, 8795), (496, 8816), (499, 8822), (515, 8858), (526, 8885),

Gene: Big4\_71 Start: 29132, Stop: 30859, Start Num: 34

Candidate Starts for Big4\_71:

(Start: 34 @29132 has 7 MA's), (Start: 58 @29186 has 3 MA's), (73, 29210), (89, 29261), (101, 29297), (126, 29399), (143, 29450), (158, 29483), (177, 29549), (249, 29756), (259, 29810), (328, 30026), (351, 30119), (357, 30149), (372, 30233), (376, 30269), (381, 30293), (390, 30326), (395, 30341), (453, 30545), (454, 30548), (456, 30551), (475, 30602), (534, 30773),

Gene: BigHunkinEater\_17 Start: 6888, Stop: 8561, Start Num: 7

Candidate Starts for BigHunkinEater\_17:

(Start: 7 @6888 has 114 MA's), (Start: 22 @6963 has 3 MA's), (42, 7011), (79, 7098), (103, 7179), (109, 7209), (111, 7218), (157, 7341), (171, 7386), (212, 7458), (216, 7467), (252, 7578), (254, 7593), (259, 7617), (264, 7635), (266, 7647), (267, 7650), (269, 7656), (288, 7731), (324, 7779), (328, 7791), (357, 7926), (364, 7971), (372, 8010), (379, 8061), (388, 8094), (391, 8106), (392, 8109), (404, 8136), (413, 8160), (428, 8238), (443, 8289), (460, 8319), (464, 8325), (492, 8382), (505, 8427),

Gene: BiggityBass\_7 Start: 5116, Stop: 6957, Start Num: 30

Candidate Starts for BiggityBass\_7:

(Start: 30 @5116 has 441 MA's), (Start: 95 @5230 has 2 MA's), (104, 5272), (120, 5335), (173, 5467), (179, 5485), (221, 5560), (259, 5692), (267, 5725), (277, 5782), (278, 5785), (282, 5803), (296, 5854), (338, 5983), (342, 5995), (344, 6010), (363, 6097), (392, 6244), (395, 6253), (399, 6259), (418, 6310), (535, 6589), (581, 6676), (583, 6682), (605, 6757), (607, 6763), (612, 6784), (638, 6865), (649, 6898), (652, 6910), (662, 6934), (663, 6937),

Gene: BirdInFrench\_21 Start: 7665, Stop: 9464, Start Num: 45

Candidate Starts for BirdInFrench\_21:

(Start: 45 @7665 has 50 MA's), (170, 7980), (179, 8010), (215, 8076), (292, 8343), (308, 8388), (336, 8475), (348, 8520), (356, 8556), (364, 8604), (365, 8610), (368, 8622), (373, 8658), (377, 8682), (419, 8817), (443, 8925), (446, 8946), (479, 9027), (553, 9165), (574, 9201), (600, 9267), (617, 9336), (631, 9369), (654, 9438),

Gene: BirdsNest\_12 Start: 5147, Stop: 7066, Start Num: 30

Candidate Starts for BirdsNest\_12:

(Start: 30 @5147 has 441 MA's), (172, 5522), (174, 5534), (186, 5573), (211, 5624), (218, 5639), (252, 5750), (259, 5789), (275, 5864), (276, 5867), (282, 5900), (297, 5948), (307, 5972), (313, 5981), (318, 5999), (332, 6035), (355, 6134), (363, 6185), (371, 6221), (382, 6293), (461, 6536), (471, 6554), (576, 6770), (583, 6782), (612, 6893), (615, 6902), (618, 6917), (635, 6965), (666, 7052),

Gene: Bishoperium\_8 Start: 4457, Stop: 6361, Start Num: 37

Candidate Starts for Bishoperium\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Bizzy\_13 Start: 6469, Stop: 8097, Start Num: 7

Candidate Starts for Bizzy\_13:

(Start: 7 @6469 has 114 MA's), (Start: 47 @6592 has 18 MA's), (61, 6613), (83, 6670), (103, 6733), (109, 6763), (130, 6826), (138, 6853), (216, 7021), (246, 7108), (254, 7147), (259, 7171), (264, 7189), (267, 7204), (269, 7210), (281, 7273), (328, 7345), (336, 7384), (351, 7450), (357, 7480), (364, 7525), (367, 7540), (368, 7543), (373, 7579), (382, 7627), (385, 7636), (392, 7663), (404, 7690), (419, 7735), (434, 7810), (443, 7840), (451, 7858), (476, 7897), (480, 7903), (490, 7918), (496, 7939), (499, 7945), (515, 7981), (528, 8014),

Gene: Blab\_20 Start: 8374, Stop: 10200, Start Num: 45

Candidate Starts for Blab\_20:

(Start: 45 @8374 has 50 MA's), (155, 8659), (170, 8698), (201, 8776), (215, 8794), (264, 8944), (267, 8959), (277, 9016), (320, 9133), (324, 9142), (357, 9277), (364, 9322), (365, 9328), (368, 9340), (377, 9400), (419, 9529), (420, 9535), (424, 9562), (447, 9661), (468, 9706), (553, 9901), (574, 9937), (584, 9955), (599, 10000),

Gene: BlackStallion\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for BlackStallion\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Blackpen\_10 Start: 6386, Stop: 8119, Start Num: 95

Candidate Starts for Blackpen\_10:

(Start: 30 @6272 has 441 MA's), (Start: 95 @6386 has 2 MA's), (104, 6428), (120, 6491), (141, 6557), (165, 6599), (184, 6662), (243, 6785), (245, 6791), (249, 6800), (251, 6809), (278, 6947), (282, 6965), (329, 7106), (334, 7133), (338, 7151), (342, 7163), (355, 7214), (363, 7265), (377, 7352), (382, 7376), (471, 7634), (505, 7694), (510, 7703), (583, 7844), (584, 7847), (605, 7919), (607, 7925), (612, 7946), (630, 8003), (634, 8015), (643, 8048), (649, 8060), (652, 8072), (655, 8084), (662, 8096), (663, 8099),

Gene: BlacksBerry\_8 Start: 4552, Stop: 6360, Start Num: 88

Candidate Starts for BlacksBerry\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Blocker23\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Blocker23\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Bloom\_80 Start: 33695, Stop: 35374, Start Num: 26

Candidate Starts for Bloom\_80:

(Start: 22 @33689 has 3 MA's), (Start: 26 @33695 has 8 MA's), (Start: 80 @33800 has 11 MA's), (116, 33923), (119, 33935), (161, 34058), (251, 34310), (259, 34355), (309, 34511), (312, 34520), (315, 34532), (328, 34568), (333, 34589), (371, 34766), (467, 35120), (496, 35186), (499, 35192), (542, 35318), (545, 35327), (562, 35363),

Gene: BlueHusk\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for BlueHusk\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: BlueNGold\_76 Start: 31373, Stop: 33103, Start Num: 27

Candidate Starts for BlueNGold\_76:

(Start: 27 @31373 has 5 MA's), (73, 31451), (92, 31505), (98, 31517), (119, 31604), (122, 31619), (149, 31709), (173, 31784), (203, 31874), (256, 32069), (259, 32087), (260, 32090), (264, 32105), (267, 32120), (272, 32135), (275, 32162), (283, 32201), (350, 32372), (357, 32405), (365, 32456), (369, 32471), (371, 32480), (383, 32555), (384, 32558), (390, 32582), (454, 32807), (464, 32822), (472, 32852), (491, 32900), (499, 32915), (500, 32921),

Gene: Bluephacebaby\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Bluephacebaby\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: BobBob\_10 Start: 6015, Stop: 7637, Start Num: 7

Candidate Starts for BobBob\_10:

(Start: 7 @6015 has 114 MA's), (73, 6174), (83, 6213), (103, 6276), (130, 6369), (138, 6396), (154, 6435), (212, 6555), (216, 6564), (235, 6624), (255, 6693), (259, 6714), (264, 6732), (267, 6747), (269, 6753), (281, 6816), (324, 6876), (328, 6888), (336, 6927), (339, 6939), (342, 6948), (351, 6993), (357, 7023), (364, 7068), (367, 7083), (368, 7086), (373, 7122), (382, 7170), (385, 7179), (392, 7206), (443, 7383), (476, 7440), (480, 7446), (490, 7461), (496, 7482), (499, 7488), (515, 7524), (526, 7551),

Gene: BobRoss2024\_7 Start: 5144, Stop: 6973, Start Num: 30

Candidate Starts for BobRoss2024\_7:

(Start: 30 @5144 has 441 MA's), (Start: 95 @5258 has 2 MA's), (104, 5300), (179, 5513), (218, 5573), (251, 5675), (259, 5720), (278, 5813), (282, 5831), (327, 5960), (329, 5966), (334, 5993), (338, 6011), (342, 6023), (363, 6125), (382, 6236), (385, 6245), (386, 6248), (395, 6281), (471, 6494), (510, 6563), (581, 6692), (583, 6698), (584, 6701), (585, 6704), (589, 6716), (605, 6773), (607, 6779), (612, 6800), (626, 6836), (630, 6857), (634, 6869), (643, 6902), (652, 6926), (663, 6953),

Gene: BobbyK\_9 Start: 6745, Stop: 8634, Start Num: 30

Candidate Starts for BobbyK\_9:

(Start: 30 @6745 has 441 MA's), (Start: 37 @6760 has 5 MA's), (86, 6841), (94, 6856), (105, 6907), (108, 6916), (120, 6967), (161, 7072), (179, 7132), (221, 7228), (248, 7306), (249, 7309), (251, 7318), (259, 7363), (277, 7453), (278, 7456), (305, 7534), (313, 7546), (342, 7648), (356, 7708), (363, 7750), (365, 7762), (377, 7837), (382, 7861), (384, 7867), (391, 7894), (393, 7900), (396, 7909), (412, 7942), (420, 7972), (566, 8314), (572, 8323), (574, 8326), (596, 8389), (611, 8449), (612, 8452), (615, 8461), (649, 8575), (655, 8599), (670, 8626),

Gene: Boehler\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Boehler\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Boise\_13 Start: 6378, Stop: 8228, Start Num: 47

Candidate Starts for Boise\_13:

(Start: 39 @6363 has 1 MA's), (Start: 47 @6378 has 18 MA's), (Start: 80 @6444 has 11 MA's), (87, 6462), (116, 6561), (118, 6570), (119, 6573), (121, 6585), (122, 6588), (134, 6621), (149, 6648), (170, 6693), (218, 6795), (225, 6822), (231, 6837), (246, 6876), (253, 6909), (258, 6927), (261, 6945), (280, 7035), (282, 7047), (320, 7131), (328, 7152), (337, 7194), (351, 7245), (364, 7320), (365, 7326), (368, 7338), (381, 7419), (389, 7449), (402, 7485), (419, 7530), (443, 7638), (529, 7845), (545, 7881), (582, 7950), (597, 7998), (607, 8037), (622, 8082), (652, 8178),

Gene: BooTeria\_72 Start: 28459, Stop: 30033, Start Num: 58

Candidate Starts for BooTeria\_72:

(Start: 26 @28399 has 8 MA's), (Start: 58 @28459 has 3 MA's), (177, 28816), (249, 29005), (251, 29014), (312, 29218), (328, 29266), (366, 29446), (381, 29533), (404, 29599), (408, 29611), (475, 29842), (514, 29929), (562, 30022),

Gene: BoogieWoogie\_8 Start: 4564, Stop: 6357, Start Num: 96

Candidate Starts for BoogieWoogie\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Boopy\_77 Start: 31385, Stop: 33115, Start Num: 27

Candidate Starts for Boopy\_77:

(Start: 27 @31385 has 5 MA's), (73, 31463), (92, 31517), (98, 31529), (119, 31616), (122, 31631), (149, 31721), (173, 31796), (203, 31886), (256, 32081), (259, 32099), (260, 32102), (264, 32117), (267, 32132), (272, 32147), (275, 32174), (283, 32213), (350, 32384), (357, 32417), (365, 32468), (369, 32483), (371, 32492), (383, 32567), (384, 32570), (390, 32594), (454, 32819), (464, 32834), (472, 32864), (491, 32912), (499, 32927), (500, 32933),

Gene: Boyle\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Boyle\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Brandonk123\_15 Start: 7162, Stop: 8784, Start Num: 7

Candidate Starts for Brandonk123\_15:

(Start: 7 @7162 has 114 MA's), (73, 7321), (83, 7360), (103, 7423), (130, 7516), (138, 7543), (154, 7582), (212, 7702), (216, 7711), (235, 7771), (255, 7840), (259, 7861), (264, 7879), (267, 7894), (269, 7900), (281, 7963), (324, 8023), (328, 8035), (336, 8074), (339, 8086), (342, 8095), (351, 8140), (357, 8170), (364, 8215), (367, 8230), (368, 8233), (373, 8269), (382, 8317), (385, 8326), (392, 8353), (443, 8530), (476, 8587), (480, 8593), (490, 8608), (496, 8629), (499, 8635), (515, 8671), (526, 8698),

Gene: Brawn1\_11 Start: 6845, Stop: 8467, Start Num: 7

Candidate Starts for Brawn1\_11:

(Start: 7 @6845 has 114 MA's), (Start: 47 @6965 has 18 MA's), (73, 7004), (83, 7043), (103, 7106), (130, 7199), (138, 7226), (154, 7265), (216, 7394), (235, 7454), (255, 7523), (259, 7544), (264, 7562), (267, 7577), (269, 7583), (281, 7646), (324, 7706), (328, 7718), (336, 7757), (339, 7769), (342, 7778), (347, 7811), (351, 7823), (357, 7853), (364, 7898), (367, 7913), (368, 7916), (373, 7952), (382, 8000), (385, 8009), (392, 8036), (443, 8213), (476, 8270), (480, 8276), (490, 8291), (496, 8312), (499, 8318), (515, 8354), (526, 8381),

Gene: BrazzalePHS\_19 Start: 8484, Stop: 10151, Start Num: 14

Candidate Starts for BrazzalePHS\_19:

(Start: 12 @8475 has 40 MA's), (Start: 14 @8484 has 15 MA's), (68, 8598), (71, 8604), (104, 8709), (108, 8721), (132, 8820), (134, 8826), (138, 8838), (158, 8892), (163, 8910), (179, 8964), (188, 8994), (212, 9033), (219, 9051), (221, 9060), (233, 9096), (251, 9159), (264, 9222), (271, 9249), (328, 9396), (329, 9399), (337, 9438), (342, 9456), (359, 9528), (371, 9594), (372, 9603), (385, 9675), (394, 9708), (396, 9714), (406, 9744), (412, 9759), (448, 9897), (457, 9912), (470, 9933), (471, 9936),

Gene: Briakila\_11 Start: 7103, Stop: 9007, Start Num: 30

Candidate Starts for Briakila\_11:

(Start: 30 @7103 has 441 MA's), (40, 7130), (87, 7211), (105, 7274), (122, 7340), (131, 7373), (173, 7481), (205, 7571), (232, 7649), (251, 7706), (261, 7760), (277, 7841), (282, 7862), (291, 7889), (316, 7940), (318, 7949), (323, 7958), (363, 8135), (365, 8147), (377, 8222), (382, 8246), (388, 8267), (419, 8351), (461, 8489), (471, 8507), (481, 8534), (499, 8558), (581, 8723), (584, 8732), (612, 8837), (615, 8846), (626, 8873), (652, 8963), (653, 8966), (662, 8987), (670, 8999),

Gene: Brilliant\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Brilliant\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: BrownCNA\_10 Start: 6999, Stop: 8888, Start Num: 30

Candidate Starts for BrownCNA\_10:

(Start: 30 @6999 has 441 MA's), (Start: 37 @7014 has 5 MA's), (86, 7095), (94, 7110), (105, 7161), (108, 7170), (120, 7221), (161, 7326), (179, 7386), (221, 7482), (248, 7560), (249, 7563), (251, 7572), (259, 7617), (277, 7707), (278, 7710), (305, 7788), (313, 7800), (338, 7890), (342, 7902), (356, 7962), (363, 8004), (365, 8016), (382, 8115), (384, 8121), (391, 8148), (393, 8154), (396, 8163), (412, 8196), (566, 8568), (572, 8577), (574, 8580), (596, 8643), (611, 8703), (612, 8706), (615, 8715), (649, 8829), (655, 8853), (670, 8880),

Gene: Brownie5\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Brownie5\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: BruhMoment\_18 Start: 8617, Stop: 10521, Start Num: 44

Candidate Starts for BruhMoment\_18:

(Start: 44 @8617 has 1 MA's), (49, 8626), (118, 8815), (147, 8890), (170, 8938), (177, 8962), (216, 9040), (234, 9103), (277, 9283), (280, 9292), (282, 9304), (320, 9379), (325, 9391), (328, 9400), (336, 9439), (351, 9493), (364, 9568), (368, 9586), (419, 9787), (443, 9895), (477, 9991), (539, 10177), (555, 10219), (582, 10264), (627, 10402), (652, 10483),

Gene: Buckeye\_8 Start: 4443, Stop: 6362, Start Num: 30

Candidate Starts for Buckeye\_8:

(Start: 30 @4443 has 441 MA's), (Start: 37 @4458 has 5 MA's), (Start: 88 @4554 has 7 MA's), (Start: 96 @4569 has 1 MA's), (122, 4680), (170, 4812), (177, 4836), (179, 4842), (181, 4854), (186, 4866), (250, 5031), (275, 5157), (276, 5160), (277, 5172), (280, 5181), (282, 5193), (303, 5256), (307, 5265), (323, 5301), (329, 5319), (332, 5328), (342, 5376), (362, 5472), (363, 5478), (371, 5514), (377, 5562), (382, 5586), (440, 5781), (481, 5874), (596, 6126), (635, 6261), (649, 6303), (652, 6315),

Gene: Burr\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Burr\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Busephilis\_20 Start: 8414, Stop: 10090, Start Num: 12

Candidate Starts for Busephilis\_20:

(Start: 12 @8414 has 40 MA's), (Start: 14 @8423 has 15 MA's), (68, 8537), (71, 8543), (104, 8648), (108, 8660), (132, 8759), (134, 8765), (138, 8777), (158, 8831), (163, 8849), (179, 8903), (188, 8933), (212, 8972), (219, 8990), (221, 8999), (233, 9035), (251, 9098), (264, 9161), (271, 9188), (328, 9335), (329, 9338), (337, 9377), (342, 9395), (359, 9467), (371, 9533), (372, 9542), (385, 9614), (394, 9647), (396, 9653), (406, 9683), (412, 9698), (448, 9836), (457, 9851), (470, 9872), (471, 9875),

Gene: CRB2\_11 Start: 7447, Stop: 9324, Start Num: 30

Candidate Starts for CRB2\_11:

(Start: 30 @7447 has 441 MA's), (Start: 95 @7561 has 2 MA's), (138, 7723), (151, 7747), (154, 7753), (170, 7804), (179, 7834), (181, 7846), (221, 7909), (233, 7945), (236, 7960), (267, 8077), (277, 8134), (282, 8155), (291, 8182), (297, 8203), (305, 8224), (313, 8236), (327, 8275), (330, 8284), (339, 8329), (342, 8338), (355, 8389), (363, 8440), (382, 8551), (391, 8584), (395, 8596), (420, 8662), (461, 8794), (471, 8812), (473, 8818), (564, 9016), (572, 9028), (583, 9046), (584, 9049), (611, 9148), (615, 9160), (637, 9229),

Gene: CaiB\_10 Start: 6894, Stop: 8627, Start Num: 95

Candidate Starts for CaiB\_10:

(Start: 30 @6780 has 441 MA's), (Start: 95 @6894 has 2 MA's), (104, 6936), (120, 6999), (141, 7065), (184, 7170), (243, 7293), (245, 7299), (249, 7308), (251, 7317), (278, 7455), (282, 7473), (329, 7614), (334, 7641), (338, 7659), (342, 7671), (355, 7722), (363, 7773), (377, 7860), (471, 8142), (505, 8202), (510, 8211), (583, 8352), (584, 8355), (605, 8427), (607, 8433), (612, 8454), (630, 8511), (634, 8523), (643, 8556), (649, 8568), (652, 8580), (655, 8592), (662, 8604), (663, 8607),

Gene: Calamitous\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Calamitous\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: CamL\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for CamL\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: CampRoach\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for CampRoach\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: CandC\_20 Start: 7351, Stop: 9150, Start Num: 45

Candidate Starts for CandC\_20:

(Start: 45 @7351 has 50 MA's), (94, 7450), (146, 7615), (170, 7666), (179, 7696), (215, 7762), (292, 8029), (308, 8074), (336, 8161), (338, 8170), (348, 8206), (356, 8242), (364, 8290), (365, 8296), (368, 8308), (373, 8344), (377, 8368), (419, 8503), (443, 8611), (446, 8632), (479, 8713), (485, 8722), (547, 8833), (553, 8851), (574, 8887), (600, 8953), (617, 9022), (631, 9055), (655, 9130),

Gene: Cannibal\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Cannibal\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Carthage\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Carthage\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Casbah\_10 Start: 6163, Stop: 8070, Start Num: 30

Candidate Starts for Casbah\_10:

(Start: 30 @6163 has 441 MA's), (40, 6190), (87, 6271), (105, 6334), (122, 6400), (131, 6433), (173, 6541), (205, 6631), (232, 6709), (251, 6766), (261, 6820), (277, 6901), (282, 6922), (291, 6949), (316, 7000), (318, 7009), (323, 7018), (363, 7195), (365, 7207), (377, 7282), (382, 7306), (388, 7327), (419, 7411), (461, 7549), (471, 7567), (481, 7594), (499, 7618), (581, 7786), (584, 7795), (612, 7900), (615, 7909), (626, 7936), (652, 8026), (662, 8050), (670, 8062),

Gene: Casend\_23 Start: 9100, Stop: 10926, Start Num: 45

Candidate Starts for Casend\_23:

(Start: 45 @9100 has 50 MA's), (108, 9250), (155, 9385), (170, 9424), (201, 9502), (215, 9520), (264, 9670), (267, 9685), (277, 9742), (303, 9811), (320, 9859), (324, 9868), (357, 10003), (364, 10048), (365, 10054), (368, 10066), (377, 10126), (419, 10255), (420, 10261), (424, 10288), (447, 10387), (468, 10432), (553, 10627), (574, 10663), (584, 10681), (599, 10726),

Gene: Caspiboi\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Caspiboi\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Caterpie\_6 Start: 3074, Stop: 5023, Start Num: 30

Candidate Starts for Caterpie\_6:

(Start: 21 @3056 has 7 MA's), (Start: 30 @3074 has 441 MA's), (69, 3152), (Start: 80 @3182 has 11 MA's), (87, 3200), (120, 3323), (159, 3419), (161, 3428), (176, 3479), (216, 3578), (228, 3623), (249, 3683), (251, 3692), (259, 3737), (265, 3758), (276, 3815), (279, 3833), (303, 3911), (304, 3914), (314, 3935), (319, 3947), (323, 3956), (327, 3968), (338, 4019), (339, 4022), (348, 4055), (363, 4133), (365, 4145), (371, 4169), (381, 4241), (382, 4244), (385, 4253), (395, 4289), (412, 4325), (436, 4424), (444, 4454), (471, 4505), (580, 4739), (581, 4742), (602, 4805), (604, 4814), (612, 4850), (618, 4874), (643, 4952), (649, 4964), (670, 5015), (671, 5018),

Gene: Causa\_16 Start: 9403, Stop: 11370, Start Num: 30

Candidate Starts for Causa\_16:

(Start: 30 @9403 has 441 MA's), (Start: 80 @9496 has 11 MA's), (Start: 95 @9529 has 2 MA's), (104, 9571), (122, 9640), (174, 9790), (211, 9871), (216, 9883), (259, 10036), (280, 10135), (282, 10147), (316, 10240), (327, 10270), (334, 10303), (338, 10321), (339, 10324), (363, 10435), (369, 10462), (381, 10543), (382, 10546), (412, 10627), (486, 10846), (569, 11065), (577, 11077), (583, 11089), (585, 11095), (594, 11128), (605, 11164), (608, 11176), (612, 11191), (629, 11245), (638, 11272), (660, 11341), (663, 11350),

Gene: Cece\_66 Start: 27502, Stop: 29211, Start Num: 34

Candidate Starts for Cece\_66:

(Start: 34 @27502 has 7 MA's), (67, 27565), (73, 27574), (118, 27733), (190, 27946), (223, 28012), (249, 28117), (259, 28171), (277, 28258), (326, 28384), (328, 28390), (343, 28462), (357, 28513), (372, 28597), (381, 28657), (449, 28900), (456, 28915), (466, 28930), (470, 28951), (472, 28957), (504, 29038), (541, 29125),

Gene: Cepens\_6 Start: 3346, Stop: 5202, Start Num: 30

Candidate Starts for Cepens\_6:

(Start: 21 @3328 has 7 MA's), (Start: 30 @3346 has 441 MA's), (Start: 62 @3403 has 2 MA's), (112, 3541), (120, 3571), (139, 3625), (179, 3736), (228, 3865), (249, 3922), (251, 3931), (259, 3976), (264, 3994), (279, 4072), (280, 4075), (323, 4159), (331, 4183), (335, 4207), (363, 4336), (365, 4348), (371, 4372), (377, 4423), (391, 4480), (395, 4492), (448, 4666), (481, 4735), (605, 4987), (649, 5128), (652, 5140), (671, 5182),

Gene: ChaChing\_11 Start: 6329, Stop: 8233, Start Num: 30

Candidate Starts for ChaChing\_11:

(Start: 30 @6329 has 441 MA's), (40, 6356), (87, 6437), (105, 6500), (122, 6566), (131, 6599), (173, 6707), (205, 6797), (232, 6875), (251, 6932), (261, 6986), (277, 7067), (282, 7088), (291, 7115), (316, 7166), (318, 7175), (323, 7184), (363, 7361), (365, 7373), (377, 7448), (382, 7472), (388, 7493), (419, 7577), (461, 7715), (471, 7733), (481, 7760), (499, 7784), (581, 7949), (584, 7958), (612, 8063), (615, 8072), (626, 8099), (652, 8189), (662, 8213), (670, 8225),

Gene: ChadMasterC\_12 Start: 6750, Stop: 8372, Start Num: 7

Candidate Starts for ChadMasterC\_12:

(Start: 7 @6750 has 114 MA's), (73, 6909), (83, 6948), (103, 7011), (130, 7104), (138, 7131), (154, 7170), (216, 7299), (235, 7359), (255, 7428), (259, 7449), (264, 7467), (267, 7482), (269, 7488), (281, 7551), (324, 7611), (328, 7623), (336, 7662), (339, 7674), (342, 7683), (347, 7716), (351, 7728), (357, 7758), (364, 7803), (367, 7818), (368, 7821), (373, 7857), (382, 7905), (385, 7914), (392, 7941), (443, 8118), (476, 8175), (480, 8181), (490, 8196), (496, 8217), (499, 8223), (515, 8259), (526, 8286),

Gene: Chaelin\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Chaelin\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (186, 4862), (232, 4976), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Chah\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Chah\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862),

(250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Chalmers\_11 Start: 7104, Stop: 9008, Start Num: 30

Candidate Starts for Chalmers\_11:

(Start: 30 @7104 has 441 MA's), (40, 7131), (87, 7212), (105, 7275), (122, 7341), (131, 7374), (173, 7482), (205, 7572), (232, 7650), (251, 7707), (261, 7761), (277, 7842), (282, 7863), (291, 7890), (316, 7941), (318, 7950), (323, 7959), (363, 8136), (365, 8148), (377, 8223), (382, 8247), (388, 8268), (419, 8352), (461, 8490), (471, 8508), (481, 8535), (499, 8559), (581, 8724), (584, 8733), (612, 8838), (615, 8847), (626, 8874), (652, 8964), (662, 8988), (670, 9000),

Gene: Chandler\_11 Start: 7077, Stop: 8981, Start Num: 30

Candidate Starts for Chandler\_11:

(Start: 30 @7077 has 441 MA's), (40, 7104), (87, 7185), (105, 7248), (122, 7314), (131, 7347), (173, 7455), (205, 7545), (232, 7623), (251, 7680), (261, 7734), (277, 7815), (282, 7836), (291, 7863), (316, 7914), (318, 7923), (323, 7932), (363, 8109), (365, 8121), (377, 8196), (382, 8220), (388, 8241), (419, 8325), (461, 8463), (471, 8481), (481, 8508), (499, 8532), (581, 8697), (584, 8706), (612, 8811), (615, 8820), (626, 8847), (652, 8937), (662, 8961), (670, 8973),

Gene: Charles1\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Charles1\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: CharlieGBrown\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for CharlieGBrown\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: CharlottesWeb\_8 Start: 5358, Stop: 7151, Start Num: 58

Candidate Starts for CharlottesWeb\_8:

(Start: 30 @5310 has 441 MA's), (Start: 58 @5358 has 3 MA's), (Start: 95 @5424 has 2 MA's), (104, 5466), (122, 5535), (173, 5661), (179, 5679), (223, 5760), (249, 5832), (259, 5886), (267, 5919), (277, 5976), (278, 5979), (282, 5997), (294, 6042), (302, 6063), (338, 6174), (342, 6186), (344, 6201), (355, 6237), (363, 6288), (365, 6300), (377, 6375), (382, 6399), (392, 6435), (395, 6444), (412, 6480), (418, 6501), (578, 6867), (583, 6876), (584, 6879), (605, 6951), (607, 6957), (612, 6978), (615, 6987), (638, 7059), (649, 7092), (652, 7104), (655, 7116), (662, 7128), (663, 7131),

Gene: Charming\_10 Start: 6017, Stop: 7639, Start Num: 7

Candidate Starts for Charming\_10:

(Start: 7 @6017 has 114 MA's), (73, 6176), (83, 6215), (103, 6278), (130, 6371), (138, 6398), (154, 6437), (212, 6557), (216, 6566), (235, 6626), (255, 6695), (259, 6716), (264, 6734), (267, 6749), (269, 6755), (281, 6818), (324, 6878), (328, 6890), (336, 6929), (339, 6941), (342, 6950), (351, 6995), (357, 7025), (364, 7070), (367, 7085), (368, 7088), (373, 7124), (382, 7172), (385, 7181), (392, 7208), (443, 7385), (476, 7442), (480, 7448), (490, 7463), (496, 7484), (499, 7490), (515, 7526), (526, 7553),

Gene: CheetO\_8 Start: 4552, Stop: 6360, Start Num: 88

Candidate Starts for CheetO\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Chentzyk\_10 Start: 6190, Stop: 8094, Start Num: 30

Candidate Starts for Chentzyk\_10:

(Start: 30 @6190 has 441 MA's), (40, 6217), (87, 6298), (105, 6361), (122, 6427), (131, 6460), (173, 6568), (205, 6658), (232, 6736), (251, 6793), (261, 6847), (277, 6928), (282, 6949), (291, 6976), (316, 7027), (318, 7036), (323, 7045), (363, 7222), (365, 7234), (377, 7309), (382, 7333), (388, 7354), (419, 7438), (461, 7576), (471, 7594), (481, 7621), (499, 7645), (581, 7810), (584, 7819), (612, 7924), (615, 7933), (626, 7960), (652, 8050), (653, 8053), (662, 8074), (670, 8086),

Gene: Cher\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Cher\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: CherryCola\_13 Start: 5819, Stop: 7405, Start Num: 7

Candidate Starts for CherryCola\_13:

(Start: 7 @5819 has 114 MA's), (43, 5933), (99, 6035), (111, 6101), (120, 6134), (157, 6221), (162, 6239), (166, 6254), (250, 6434), (261, 6494), (262, 6497), (273, 6536), (288, 6608), (328, 6668), (329, 6671), (330, 6674), (337, 6710), (339, 6719), (341, 6725), (342, 6728), (357, 6791), (364, 6836), (371, 6866), (377, 6914), (392, 6971), (399, 6992), (412, 7019), (413, 7022), (420, 7049), (428, 7100), (443, 7148),

Gene: Chickadee\_13 Start: 5786, Stop: 7462, Start Num: 7

Candidate Starts for Chickadee\_13:

(Start: 7 @5786 has 114 MA's), (10, 5819), (38, 5897), (63, 5951), (103, 6083), (109, 6113), (134, 6191), (141, 6209), (171, 6290), (212, 6362), (216, 6371), (235, 6431), (264, 6539), (266, 6551), (267, 6554), (269, 6560), (328, 6695), (329, 6698), (342, 6755), (357, 6830), (364, 6875), (368, 6893), (372, 6914), (377, 6953), (382, 6977), (388, 6998), (392, 7013), (413, 7064), (419, 7085), (443, 7190), (460, 7220), (475, 7244), (476, 7247), (505, 7325),

Gene: Childish\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Childish\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Chilliams\_73 Start: 34081, Stop: 35706, Start Num: 26

Candidate Starts for Chilliams\_73:

(Start: 26 @34081 has 8 MA's), (73, 34162), (81, 34189), (116, 34306), (119, 34318), (141, 34387), (219, 34579), (229, 34621), (261, 34747), (275, 34813), (309, 34888), (329, 34948), (360, 35089), (371, 35143), (372, 35152), (381, 35212), (453, 35464), (467, 35497), (481, 35536), (499, 35569),

(507, 35596), (562, 35695),

Gene: Chipette\_10 Start: 4676, Stop: 6595, Start Num: 30

Candidate Starts for Chipette\_10:

(Start: 30 @4676 has 441 MA's), (Start: 37 @4691 has 5 MA's), (Start: 88 @4787 has 7 MA's), (Start: 96 @4802 has 1 MA's), (122, 4913), (170, 5045), (177, 5069), (179, 5075), (181, 5087), (186, 5099), (250, 5264), (275, 5390), (276, 5393), (277, 5405), (280, 5414), (282, 5426), (303, 5489), (307, 5498), (323, 5534), (329, 5552), (332, 5561), (342, 5609), (362, 5705), (363, 5711), (371, 5747), (377, 5795), (382, 5819), (440, 6014), (481, 6107), (596, 6359), (635, 6494), (649, 6536), (652, 6548),

Gene: Chorkpop\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Chorkpop\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: ChrisnMich\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for ChrisnMich\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (377, 6735), (378, 6741), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (566, 7212), (572, 7221), (574, 7224), (595, 7281), (596, 7287), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Chuni\_8 Start: 4550, Stop: 6358, Start Num: 88

Candidate Starts for Chuni\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Chunky\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Chunky\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Chute\_8 Start: 4549, Stop: 6357, Start Num: 88

Candidate Starts for Chute\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Cinna\_12 Start: 5856, Stop: 7613, Start Num: 14

Candidate Starts for Cinna\_12:

(Start: 12 @5847 has 40 MA's), (Start: 14 @5856 has 15 MA's), (50, 5940), (71, 5976), (Start: 80 @6009 has 11 MA's), (104, 6087), (108, 6099), (109, 6108), (112, 6120), (114, 6126), (132, 6198), (134, 6204), (166, 6300), (179, 6342), (186, 6372), (198, 6402), (212, 6438), (216, 6447), (219, 6456), (221, 6465), (247, 6546), (249, 6552), (251, 6561), (264, 6624), (271, 6651), (277, 6696), (304, 6747), (328, 6798), (337, 6840), (342, 6858), (346, 6873), (359, 6930), (372, 7005), (375, 7029), (395, 7113), (396, 7116), (412, 7161), (420, 7191), (427, 7239), (459, 7320), (470, 7338), (471, 7341), (496, 7410), (504, 7434), (556, 7569), (568, 7593),

Gene: ClamChowder\_12 Start: 5583, Stop: 7169, Start Num: 7

Candidate Starts for ClamChowder\_12:

(Start: 7 @5583 has 114 MA's), (104, 5835), (111, 5865), (154, 5982), (162, 6003), (166, 6018), (248, 6192), (257, 6234), (261, 6258), (262, 6261), (273, 6300), (288, 6372), (328, 6432), (329, 6435), (330, 6438), (337, 6474), (339, 6483), (341, 6489), (342, 6492), (357, 6555), (364, 6600), (371, 6630), (377, 6678), (392, 6735), (399, 6756), (412, 6783), (413, 6786), (420, 6813), (428, 6864), (443, 6912),

Gene: Clawz\_41 Start: 18090, Stop: 20060, Start Num: 25

Candidate Starts for Clawz\_41:

(Start: 25 @18090 has 7 MA's), (Start: 45 @18135 has 50 MA's), (74, 18186), (119, 18330), (144, 18402), (179, 18489), (221, 18564), (232, 18600), (251, 18657), (266, 18732), (282, 18813), (298, 18885), (299, 18888), (310, 18918), (321, 18951), (340, 19026), (348, 19056), (357, 19095), (365, 19146), (372, 19179), (385, 19251), (411, 19323), (412, 19326), (420, 19356), (439, 19434), (448, 19464), (472, 19509), (524, 19602), (573, 19710), (582, 19725), (593, 19767), (616, 19845), (632, 19896), (639, 19914), (674, 20052),

Gene: ClearAsMud\_22 Start: 9173, Stop: 10873, Start Num: 12

Candidate Starts for ClearAsMud\_22:

(Start: 12 @9173 has 40 MA's), (Start: 14 @9182 has 15 MA's), (71, 9302), (104, 9407), (108, 9419), (132, 9518), (134, 9524), (137, 9533), (158, 9590), (163, 9608), (179, 9662), (185, 9686), (186, 9689), (203, 9713), (212, 9731), (219, 9749), (221, 9758), (233, 9794), (251, 9857), (264, 9920), (271, 9947), (277, 9992), (328, 10094), (329, 10097), (337, 10136), (342, 10154), (359, 10226), (371, 10292), (372, 10301), (377, 10340), (394, 10406), (396, 10412), (406, 10442), (448, 10595), (459, 10613), (471, 10634), (478, 10655), (479, 10658), (489, 10679), (552, 10832),

Gene: CloverMinnie\_10 Start: 6780, Stop: 8627, Start Num: 30

Candidate Starts for CloverMinnie\_10:

(Start: 30 @6780 has 441 MA's), (Start: 95 @6894 has 2 MA's), (104, 6936), (120, 6999), (184, 7170), (243, 7293), (245, 7299), (249, 7308), (251, 7317), (278, 7455), (282, 7473), (329, 7614), (334, 7641), (338, 7659), (342, 7671), (355, 7722), (363, 7773), (377, 7860), (395, 7929), (471, 8142), (505, 8202), (510, 8211), (583, 8352), (584, 8355), (605, 8427), (607, 8433), (612, 8454), (630, 8511), (643, 8556), (649, 8568), (652, 8580), (655, 8592), (662, 8604), (663, 8607),

Gene: Clown\_16 Start: 8860, Stop: 10452, Start Num: 7

Candidate Starts for Clown\_16:

(Start: 7 @8860 has 114 MA's), (111, 9139), (150, 9247), (153, 9253), (154, 9256), (162, 9277), (166, 9292), (269, 9565), (273, 9577), (275, 9601), (286, 9646), (288, 9649), (328, 9706), (336, 9745), (337, 9748), (339, 9757), (341, 9763), (357, 9829), (364, 9874), (371, 9904), (377, 9952), (392, 10009), (399, 10030), (404, 10036), (412, 10057), (413, 10060), (419, 10081), (420, 10087), (482, 10264),

Gene: Cobra\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Cobra\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260),

(323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Coffee\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Coffee\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Colbert\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Colbert\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: ColdSoup\_42 Start: 18192, Stop: 20150, Start Num: 25

Candidate Starts for ColdSoup\_42:

(Start: 25 @18192 has 7 MA's), (Start: 45 @18237 has 50 MA's), (74, 18288), (82, 18315), (146, 18504), (221, 18663), (251, 18756), (266, 18831), (280, 18900), (282, 18912), (283, 18918), (310, 19020), (321, 19053), (339, 19125), (340, 19128), (348, 19158), (357, 19197), (365, 19248), (372, 19281), (411, 19425), (412, 19428), (420, 19458), (448, 19566), (469, 19602), (472, 19611), (534, 19746), (593, 19860), (621, 19950), (665, 20103), (674, 20142),

Gene: Coldpizza\_10 Start: 7235, Stop: 9073, Start Num: 30

Candidate Starts for Coldpizza\_10:

(Start: 30 @7235 has 441 MA's), (Start: 95 @7349 has 2 MA's), (104, 7391), (122, 7460), (179, 7604), (180, 7607), (186, 7628), (189, 7631), (223, 7694), (277, 7910), (280, 7919), (282, 7931), (303, 7985), (311, 7997), (327, 8042), (338, 8093), (342, 8105), (344, 8120), (363, 8207), (384, 8324), (395, 8363), (581, 8789), (584, 8798), (612, 8897), (615, 8906), (662, 9047), (668, 9059),

Gene: Coletti\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Coletti\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Compostia\_11 Start: 6322, Stop: 8226, Start Num: 30

Candidate Starts for Compostia\_11:

(Start: 30 @6322 has 441 MA's), (40, 6349), (87, 6430), (105, 6493), (122, 6559), (131, 6592), (173, 6700), (205, 6790), (232, 6868), (251, 6925), (261, 6979), (277, 7060), (282, 7081), (291, 7108), (316, 7159), (318, 7168), (323, 7177), (363, 7354), (365, 7366), (377, 7441), (382, 7465), (388, 7486), (419, 7570), (461, 7708), (471, 7726), (481, 7753), (499, 7777), (581, 7942), (584, 7951), (612, 8056), (615, 8065), (626, 8092), (652, 8182), (662, 8206), (670, 8218),

Gene: Cooper\_9 Start: 5704, Stop: 7593, Start Num: 30

Candidate Starts for Cooper\_9:

(Start: 30 @5704 has 441 MA's), (Start: 80 @5785 has 11 MA's), (94, 5815), (105, 5866), (108, 5875), (161, 6031), (179, 6091), (208, 6151), (248, 6265), (249, 6268), (259, 6322), (277, 6412), (278, 6415), (291, 6460), (303, 6487), (313, 6505), (342, 6607), (344, 6622), (356, 6667), (363, 6709), (365, 6721), (377, 6796), (382, 6820), (384, 6826), (391, 6853), (393, 6859), (412, 6901), (472, 7084), (481, 7108), (572, 7282), (574, 7285), (587, 7309), (595, 7342), (611, 7408), (612, 7411), (615, 7420), (641, 7498), (658, 7564), (670, 7585),

Gene: Cornbread\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Cornbread\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Cornobble\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Cornobble\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Corofin\_11 Start: 6339, Stop: 8243, Start Num: 30

Candidate Starts for Corofin\_11:

(Start: 30 @6339 has 441 MA's), (40, 6366), (87, 6447), (105, 6510), (122, 6576), (131, 6609), (173, 6717), (205, 6807), (232, 6885), (251, 6942), (261, 6996), (277, 7077), (282, 7098), (291, 7125), (316, 7176), (318, 7185), (323, 7194), (363, 7371), (365, 7383), (377, 7458), (382, 7482), (388, 7503), (419, 7587), (461, 7725), (471, 7743), (481, 7770), (499, 7794), (581, 7959), (584, 7968), (612, 8073), (615, 8082), (626, 8109), (652, 8199), (662, 8223), (670, 8235),

Gene: Cosmolli16\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Cosmolli16\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: CoveyB\_12 Start: 5455, Stop: 7041, Start Num: 7

Candidate Starts for CoveyB\_12:

(Start: 7 @5455 has 114 MA's), (104, 5707), (111, 5737), (154, 5854), (162, 5875), (166, 5890), (248, 6064), (257, 6106), (261, 6130), (262, 6133), (273, 6172), (288, 6244), (328, 6304), (329, 6307), (330, 6310), (337, 6346), (339, 6355), (341, 6361), (342, 6364), (357, 6427), (364, 6472), (371, 6502), (377, 6550), (392, 6607), (399, 6628), (412, 6655), (413, 6658), (420, 6685), (428, 6736), (443, 6784),

Gene: Craff\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Craff\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263),

(323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Cranjjs\_21 Start: 8638, Stop: 10314, Start Num: 12

Candidate Starts for Cranjjs\_21:

(Start: 12 @8638 has 40 MA's), (Start: 14 @8647 has 15 MA's), (20, 8662), (68, 8761), (71, 8767), (104, 8872), (108, 8884), (132, 8983), (134, 8989), (138, 9001), (158, 9055), (163, 9073), (179, 9127), (188, 9157), (212, 9196), (219, 9214), (221, 9223), (233, 9259), (251, 9322), (264, 9385), (271, 9412), (328, 9559), (329, 9562), (337, 9601), (342, 9619), (359, 9691), (371, 9757), (372, 9766), (377, 9805), (385, 9838), (394, 9871), (396, 9877), (406, 9907), (412, 9922), (448, 10060), (457, 10075), (470, 10096), (471, 10099),

Gene: CrazyRich\_19 Start: 8448, Stop: 10124, Start Num: 12

Candidate Starts for CrazyRich\_19:

(Start: 12 @8448 has 40 MA's), (Start: 14 @8457 has 15 MA's), (68, 8571), (71, 8577), (104, 8682), (108, 8694), (132, 8793), (134, 8799), (138, 8811), (158, 8865), (163, 8883), (179, 8937), (188, 8967), (212, 9006), (219, 9024), (221, 9033), (233, 9069), (251, 9132), (264, 9195), (271, 9222), (328, 9369), (329, 9372), (337, 9411), (342, 9429), (359, 9501), (371, 9567), (372, 9576), (385, 9648), (394, 9681), (396, 9687), (406, 9717), (412, 9732), (448, 9870), (457, 9885), (470, 9906), (471, 9909),

Gene: Cressida\_13 Start: 6076, Stop: 7833, Start Num: 14

Candidate Starts for Cressida\_13:

(Start: 12 @6067 has 40 MA's), (Start: 14 @6076 has 15 MA's), (50, 6160), (Start: 80 @6232 has 11 MA's), (104, 6310), (108, 6322), (109, 6331), (112, 6343), (114, 6349), (132, 6421), (134, 6427), (166, 6523), (179, 6565), (198, 6625), (199, 6628), (212, 6661), (216, 6670), (219, 6679), (221, 6688), (247, 6769), (249, 6775), (251, 6784), (264, 6847), (271, 6874), (277, 6919), (328, 7021), (336, 7060), (342, 7081), (346, 7096), (359, 7153), (372, 7228), (375, 7252), (395, 7336), (396, 7339), (399, 7348), (412, 7384), (420, 7414), (421, 7420), (427, 7462), (459, 7543), (470, 7561), (471, 7564), (495, 7630), (496, 7633),

Gene: Crisis\_21 Start: 8432, Stop: 10108, Start Num: 12

Candidate Starts for Crisis\_21:

(Start: 12 @8432 has 40 MA's), (Start: 14 @8441 has 15 MA's), (20, 8456), (68, 8555), (71, 8561), (104, 8666), (108, 8678), (132, 8777), (134, 8783), (138, 8795), (158, 8849), (163, 8867), (179, 8921), (188, 8951), (212, 8990), (219, 9008), (221, 9017), (233, 9053), (251, 9116), (264, 9179), (271, 9206), (328, 9353), (329, 9356), (337, 9395), (342, 9413), (359, 9485), (371, 9551), (372, 9560), (385, 9632), (394, 9665), (396, 9671), (406, 9701), (412, 9716), (448, 9854), (457, 9869), (470, 9890), (471, 9893),

Gene: Crownjwl\_9 Start: 4676, Stop: 6595, Start Num: 30

Candidate Starts for Crownjwl\_9:

(Start: 30 @4676 has 441 MA's), (Start: 88 @4787 has 7 MA's), (Start: 96 @4802 has 1 MA's), (122, 4913), (170, 5045), (177, 5069), (179, 5075), (181, 5087), (186, 5099), (250, 5264), (275, 5390), (276, 5393), (277, 5405), (280, 5414), (282, 5426), (303, 5489), (307, 5498), (323, 5534), (329, 5552), (332, 5561), (342, 5609), (362, 5705), (363, 5711), (371, 5747), (377, 5795), (382, 5819), (440, 6014), (481, 6107), (596, 6359), (635, 6494), (649, 6536), (652, 6548),

Gene: D12\_06 Start: 3403, Stop: 5202, Start Num: 62

Candidate Starts for D12\_06:

(Start: 21 @3328 has 7 MA's), (Start: 30 @3346 has 441 MA's), (Start: 62 @3403 has 2 MA's), (112, 3541), (120, 3571), (139, 3625), (179, 3736), (228, 3865), (249, 3922), (251, 3931), (259, 3976), (264, 3994), (279, 4072), (280, 4075), (323, 4159), (331, 4183), (335, 4207), (363, 4336), (365, 4348), (371, 4372), (377, 4423), (391, 4480), (395, 4492), (448, 4666), (481, 4735), (605, 4987), (649, 5128), (652, 5140), (671, 5182),

Gene: DaddyDaniels\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for DaddyDaniels\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Daffy\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Daffy\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Daisy\_11 Start: 6317, Stop: 8221, Start Num: 30

Candidate Starts for Daisy\_11:

(Start: 30 @6317 has 441 MA's), (40, 6344), (87, 6425), (105, 6488), (122, 6554), (131, 6587), (173, 6695), (205, 6785), (232, 6863), (251, 6920), (261, 6974), (277, 7055), (282, 7076), (291, 7103), (316, 7154), (318, 7163), (323, 7172), (363, 7349), (365, 7361), (377, 7436), (382, 7460), (388, 7481), (419, 7565), (461, 7703), (471, 7721), (481, 7748), (499, 7772), (581, 7937), (584, 7946), (612, 8051), (615, 8060), (626, 8087), (652, 8177), (662, 8201), (670, 8213),

Gene: Daka\_8 Start: 4444, Stop: 6363, Start Num: 30

Candidate Starts for Daka\_8:

(Start: 30 @4444 has 441 MA's), (Start: 37 @4459 has 5 MA's), (Start: 88 @4555 has 7 MA's), (Start: 96 @4570 has 1 MA's), (122, 4681), (170, 4813), (177, 4837), (179, 4843), (181, 4855), (186, 4867), (250, 5032), (275, 5158), (276, 5161), (277, 5173), (280, 5182), (282, 5194), (303, 5257), (307, 5266), (323, 5302), (329, 5320), (332, 5329), (342, 5377), (362, 5473), (363, 5479), (371, 5515), (377, 5563), (382, 5587), (440, 5782), (481, 5875), (596, 6127), (635, 6262), (649, 6304), (652, 6316),

Gene: Danyall\_12 Start: 5455, Stop: 7041, Start Num: 7

Candidate Starts for Danyall\_12:

(Start: 7 @5455 has 114 MA's), (104, 5707), (111, 5737), (154, 5854), (162, 5875), (166, 5890), (248, 6064), (257, 6106), (261, 6130), (262, 6133), (273, 6172), (288, 6244), (328, 6304), (329, 6307), (330, 6310), (337, 6346), (339, 6355), (341, 6361), (342, 6364), (357, 6427), (364, 6472), (371, 6502), (377, 6550), (392, 6607), (399, 6628), (412, 6655), (413, 6658), (420, 6685), (428, 6736), (443, 6784),

Gene: Dati\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Dati\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Deenasa\_11 Start: 7077, Stop: 8981, Start Num: 30

Candidate Starts for Deenasa\_11:

(Start: 30 @7077 has 441 MA's), (40, 7104), (87, 7185), (105, 7248), (122, 7314), (131, 7347), (173, 7455), (205, 7545), (232, 7623), (251, 7680), (261, 7734), (277, 7815), (282, 7836), (291, 7863), (316, 7914), (318, 7923), (323, 7932), (363, 8109), (365, 8121), (377, 8196), (382, 8220), (388, 8241), (419,

8325), (461, 8463), (471, 8481), (481, 8508), (499, 8532), (584, 8706), (612, 8811), (615, 8820), (626, 8847), (652, 8937), (662, 8961), (670, 8973),

Gene: DelRivs\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for DelRivs\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Delrey21\_14 Start: 7230, Stop: 8897, Start Num: 7

Candidate Starts for Delrey21\_14:

(Start: 7 @7230 has 114 MA's), (Start: 22 @7305 has 3 MA's), (33, 7326), (42, 7353), (79, 7440), (103, 7521), (109, 7551), (141, 7647), (146, 7662), (157, 7683), (163, 7704), (171, 7728), (212, 7800), (216, 7809), (252, 7920), (254, 7935), (259, 7959), (264, 7977), (267, 7992), (269, 7998), (288, 8073), (328, 8133), (357, 8268), (364, 8313), (372, 8352), (379, 8403), (388, 8436), (391, 8448), (392, 8451), (396, 8463), (404, 8478), (413, 8502), (419, 8523), (428, 8580), (443, 8631), (460, 8661), (464, 8667), (492, 8724), (505, 8769), (526, 8817),

Gene: Derg\_8 Start: 5599, Stop: 7227, Start Num: 7

Candidate Starts for Derg\_8:

(Start: 7 @5599 has 114 MA's), (Start: 47 @5722 has 18 MA's), (61, 5743), (83, 5800), (103, 5863), (109, 5893), (130, 5956), (138, 5983), (216, 6151), (246, 6238), (254, 6277), (259, 6301), (264, 6319), (267, 6334), (269, 6340), (281, 6403), (328, 6475), (336, 6514), (342, 6535), (351, 6580), (357, 6610), (364, 6655), (367, 6670), (368, 6673), (373, 6709), (382, 6757), (385, 6766), (392, 6793), (404, 6820), (419, 6865), (434, 6940), (443, 6970), (451, 6988), (476, 7027), (480, 7033), (490, 7048), (496, 7069), (499, 7075), (515, 7111), (528, 7144),

Gene: Derpp\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Derpp\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Devonte\_11 Start: 6314, Stop: 8218, Start Num: 30

Candidate Starts for Devonte\_11:

(Start: 30 @6314 has 441 MA's), (40, 6341), (87, 6422), (105, 6485), (122, 6551), (131, 6584), (173, 6692), (205, 6782), (232, 6860), (251, 6917), (261, 6971), (277, 7052), (282, 7073), (291, 7100), (316, 7151), (318, 7160), (323, 7169), (363, 7346), (365, 7358), (377, 7433), (382, 7457), (388, 7478), (419, 7562), (461, 7700), (471, 7718), (481, 7745), (499, 7769), (581, 7934), (584, 7943), (612, 8048), (615, 8057), (626, 8084), (652, 8174), (662, 8198), (670, 8210),

Gene: Dxdert\_14 Start: 6244, Stop: 7917, Start Num: 7

Candidate Starts for Dxdert\_14:

(Start: 7 @6244 has 114 MA's), (9, 6271), (38, 6352), (103, 6538), (109, 6568), (134, 6646), (141, 6664), (171, 6745), (212, 6817), (216, 6826), (235, 6886), (264, 6994), (266, 7006), (267, 7009), (269, 7015), (328, 7150), (329, 7153), (342, 7210), (357, 7285), (364, 7330), (368, 7348), (371, 7360), (377, 7408), (382, 7432), (388, 7453), (392, 7468), (413, 7519), (443, 7645), (460, 7675), (476, 7702),

Gene: Dice\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Dice\_8:

(Start: 30 @4440 has 441 MA's), (Start: 37 @4455 has 5 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: DigitDog\_10 Start: 6702, Stop: 8567, Start Num: 30

Candidate Starts for DigitDog\_10:

(Start: 30 @6702 has 441 MA's), (Start: 37 @6717 has 5 MA's), (104, 6855), (108, 6867), (123, 6927), (138, 6969), (172, 7053), (174, 7065), (177, 7074), (233, 7191), (236, 7206), (251, 7245), (278, 7383), (282, 7401), (303, 7455), (348, 7599), (356, 7635), (363, 7677), (377, 7764), (382, 7788), (391, 7821), (395, 7833), (400, 7845), (412, 7869), (471, 8049), (477, 8067), (561, 8247), (574, 8268), (585, 8289), (611, 8391), (630, 8451), (670, 8559), (671, 8562),

Gene: Dingo\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Dingo\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Dione\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Dione\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: DirtJuice\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for DirtJuice\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: DoctorFroggo\_14 Start: 7230, Stop: 8897, Start Num: 7

Candidate Starts for DoctorFroggo\_14:

(Start: 7 @7230 has 114 MA's), (Start: 22 @7305 has 3 MA's), (33, 7326), (42, 7353), (79, 7440), (103, 7521), (109, 7551), (141, 7647), (146, 7662), (157, 7683), (163, 7704), (171, 7728), (212, 7800), (216, 7809), (252, 7920), (254, 7935), (259, 7959), (264, 7977), (267, 7992), (269, 7998), (288, 8073), (328, 8133), (357, 8268), (364, 8313), (372, 8352), (379, 8403), (388, 8436), (391, 8448), (392, 8451), (396, 8463), (404, 8478), (413, 8502), (419, 8523), (428, 8580), (443, 8631), (460, 8661), (464, 8667), (492, 8724), (505, 8769), (526, 8817),

Gene: Doddsville\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Doddsville\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323),

5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Dodo\_84 Start: 30154, Stop: 31890, Start Num: 34

Candidate Starts for Dodo\_84:

(Start: 34 @30154 has 7 MA's), (67, 30217), (73, 30226), (100, 30304), (116, 30376), (118, 30385), (124, 30409), (127, 30418), (158, 30499), (187, 30592), (219, 30649), (249, 30772), (259, 30826), (282, 30934), (328, 31045), (337, 31087), (357, 31168), (360, 31189), (372, 31252), (381, 31312), (390, 31345), (409, 31393), (423, 31453), (453, 31564), (498, 31672), (534, 31792), (541, 31816),

Gene: DoesntMatter\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for DoesntMatter\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: DogYard\_22 Start: 9315, Stop: 11207, Start Num: 47

Candidate Starts for DogYard\_22:

(Start: 47 @9315 has 18 MA's), (50, 9324), (73, 9363), (112, 9486), (118, 9504), (133, 9555), (146, 9579), (177, 9654), (261, 9897), (328, 10089), (365, 10263), (368, 10275), (401, 10425), (419, 10476), (424, 10509), (425, 10515), (433, 10548), (443, 10584), (449, 10611), (467, 10650), (474, 10671), (478, 10683), (584, 10953), (622, 11070), (652, 11166),

Gene: DolOn\_10 Start: 4676, Stop: 6595, Start Num: 30

Candidate Starts for DolOn\_10:

(Start: 30 @4676 has 441 MA's), (Start: 37 @4691 has 5 MA's), (Start: 88 @4787 has 7 MA's), (Start: 96 @4802 has 1 MA's), (122, 4913), (170, 5045), (177, 5069), (179, 5075), (181, 5087), (186, 5099), (250, 5264), (275, 5390), (276, 5393), (277, 5405), (280, 5414), (282, 5426), (303, 5489), (307, 5498), (323, 5534), (329, 5552), (332, 5561), (342, 5609), (362, 5705), (363, 5711), (371, 5747), (377, 5795), (382, 5819), (440, 6014), (481, 6107), (596, 6359), (635, 6494), (649, 6536), (652, 6548),

Gene: DonSanchon\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for DonSanchon\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: DonTron\_41 Start: 18262, Stop: 20220, Start Num: 25

Candidate Starts for DonTron\_41:

(Start: 25 @18262 has 7 MA's), (Start: 45 @18307 has 50 MA's), (74, 18358), (82, 18385), (146, 18574), (221, 18733), (251, 18826), (266, 18901), (280, 18970), (282, 18982), (283, 18988), (310, 19090), (321, 19123), (339, 19195), (340, 19198), (348, 19228), (357, 19267), (372, 19351), (411, 19495), (412, 19498), (420, 19528), (448, 19636), (469, 19672), (472, 19681), (534, 19816), (585, 19897), (593, 19930), (621, 20020), (665, 20173), (674, 20212),

Gene: DonaldDuck\_21 Start: 8446, Stop: 10272, Start Num: 45

Candidate Starts for DonaldDuck\_21:

(Start: 45 @8446 has 50 MA's), (108, 8596), (155, 8731), (170, 8770), (201, 8848), (215, 8866), (264, 9016), (267, 9031), (277, 9088), (303, 9157), (320, 9205), (324, 9214), (357, 9349), (364, 9394), (365,

9400), (368, 9412), (377, 9472), (419, 9601), (420, 9607), (424, 9634), (447, 9733), (468, 9778), (553, 9973), (574, 10009), (584, 10027), (599, 10072),

Gene: Donny\_10 Start: 6695, Stop: 8560, Start Num: 30

Candidate Starts for Donny\_10:

(Start: 30 @6695 has 441 MA's), (Start: 37 @6710 has 5 MA's), (66, 6752), (104, 6848), (108, 6860), (172, 7046), (174, 7058), (177, 7067), (233, 7184), (236, 7199), (251, 7238), (278, 7376), (282, 7394), (305, 7454), (348, 7592), (356, 7628), (363, 7670), (365, 7682), (377, 7757), (382, 7781), (391, 7814), (395, 7826), (400, 7838), (412, 7862), (471, 8042), (477, 8060), (561, 8240), (574, 8261), (585, 8282), (611, 8384), (630, 8444), (670, 8552), (671, 8555),

Gene: Dori\_7 Start: 3691, Stop: 5658, Start Num: 21

Candidate Starts for Dori\_7:

(Start: 21 @3691 has 7 MA's), (Start: 30 @3709 has 441 MA's), (69, 3787), (Start: 80 @3817 has 11 MA's), (87, 3835), (120, 3958), (159, 4054), (161, 4063), (176, 4114), (216, 4213), (228, 4258), (249, 4318), (251, 4327), (259, 4372), (265, 4393), (276, 4450), (279, 4468), (304, 4549), (314, 4570), (319, 4582), (323, 4591), (327, 4603), (338, 4654), (339, 4657), (348, 4690), (363, 4768), (365, 4780), (371, 4804), (381, 4876), (382, 4879), (412, 4960), (436, 5059), (444, 5089), (471, 5140), (580, 5374), (602, 5440), (604, 5449), (612, 5485), (618, 5509), (643, 5587), (649, 5599), (670, 5650), (671, 5653),

Gene: DuchessDung\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for DuchessDung\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Duggie\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Duggie\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: DunneganBoMo\_65 Start: 27824, Stop: 29458, Start Num: 26

Candidate Starts for DunneganBoMo\_65:

(Start: 26 @27824 has 8 MA's), (Start: 58 @27884 has 3 MA's), (177, 28241), (249, 28430), (251, 28439), (312, 28643), (328, 28691), (366, 28871), (381, 28958), (404, 29024), (408, 29036), (475, 29267), (514, 29354), (562, 29447),

Gene: Durga\_8 Start: 4437, Stop: 6356, Start Num: 30

Candidate Starts for Durga\_8:

(Start: 30 @4437 has 441 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: EMoore\_7 Start: 4408, Stop: 6045, Start Num: 7

Candidate Starts for EMoore\_7:

(Start: 7 @4408 has 114 MA's), (11, 4444), (Start: 14 @4462 has 15 MA's), (Start: 39 @4522 has 1 MA's), (50, 4546), (Start: 80 @4603 has 11 MA's), (91, 4636), (103, 4681), (109, 4711), (119, 4744), (122, 4759), (154, 4840), (211, 4957), (212, 4960), (235, 5029), (259, 5119), (261, 5128), (264, 5137), (267, 5152), (269, 5158), (279, 5212), (288, 5233), (328, 5293), (329, 5296), (342, 5353), (345, 5377), (347, 5386), (357, 5428), (364, 5473), (368, 5491), (372, 5512), (382, 5575), (388, 5596), (392, 5611), (413, 5662), (437, 5767), (443, 5788), (460, 5818), (472, 5836), (475, 5842), (492, 5878), (499, 5902), (500, 5908), (505, 5923), (528, 5980), (538, 6016),

Gene: Eaglehorse\_12 Start: 7746, Stop: 9635, Start Num: 30

Candidate Starts for Eaglehorse\_12:

(Start: 30 @7746 has 441 MA's), (57, 7794), (68, 7818), (Start: 80 @7836 has 11 MA's), (Start: 95 @7869 has 2 MA's), (120, 7977), (154, 8061), (173, 8124), (184, 8160), (209, 8211), (215, 8223), (221, 8244), (249, 8322), (251, 8331), (259, 8376), (277, 8466), (278, 8469), (280, 8475), (282, 8487), (287, 8502), (291, 8514), (327, 8598), (334, 8631), (338, 8649), (351, 8694), (363, 8763), (365, 8775), (377, 8850), (382, 8874), (384, 8880), (391, 8907), (395, 8919), (399, 8925), (412, 8955), (413, 8958), (420, 8985), (435, 9051), (438, 9060), (471, 9135), (485, 9171), (519, 9216), (578, 9354), (581, 9357), (585, 9369), (609, 9456), (612, 9465), (615, 9474), (618, 9489), (629, 9519), (635, 9537), (641, 9552), (649, 9579), (652, 9591), (670, 9627),

Gene: EarickHC\_20 Start: 8353, Stop: 10035, Start Num: 14

Candidate Starts for EarickHC\_20:

(Start: 12 @8344 has 40 MA's), (Start: 14 @8353 has 15 MA's), (20, 8368), (68, 8467), (71, 8473), (104, 8578), (108, 8590), (132, 8689), (134, 8695), (138, 8707), (158, 8761), (163, 8779), (179, 8833), (188, 8863), (212, 8902), (219, 8920), (221, 8929), (233, 8965), (251, 9028), (264, 9091), (271, 9118), (328, 9265), (329, 9268), (337, 9307), (359, 9397), (371, 9463), (372, 9472), (385, 9544), (394, 9577), (396, 9583), (406, 9613), (412, 9628), (448, 9766), (457, 9781), (470, 9802), (471, 9805),

Gene: EastView9101\_10 Start: 6695, Stop: 8563, Start Num: 30

Candidate Starts for EastView9101\_10:

(Start: 30 @6695 has 441 MA's), (Start: 37 @6710 has 5 MA's), (40, 6719), (104, 6851), (108, 6863), (109, 6872), (172, 7049), (174, 7061), (177, 7070), (179, 7076), (233, 7187), (236, 7202), (251, 7241), (278, 7379), (282, 7397), (305, 7457), (348, 7595), (356, 7631), (363, 7673), (365, 7685), (377, 7760), (382, 7784), (391, 7817), (395, 7829), (400, 7841), (412, 7865), (471, 8045), (477, 8063), (561, 8243), (574, 8264), (585, 8285), (611, 8387), (630, 8447), (670, 8555), (671, 8558),

Gene: EdmundFerry\_12 Start: 5801, Stop: 7477, Start Num: 7

Candidate Starts for EdmundFerry\_12:

(Start: 7 @5801 has 114 MA's), (10, 5834), (38, 5912), (63, 5966), (103, 6098), (109, 6128), (134, 6206), (141, 6224), (171, 6305), (212, 6377), (216, 6386), (235, 6446), (264, 6554), (266, 6566), (267, 6569), (269, 6575), (328, 6710), (329, 6713), (342, 6770), (357, 6845), (364, 6890), (368, 6908), (372, 6929), (377, 6968), (382, 6992), (388, 7013), (392, 7028), (413, 7079), (419, 7100), (443, 7205), (460, 7235), (475, 7259), (476, 7262), (505, 7340),

Gene: Egi03\_12 Start: 5562, Stop: 7145, Start Num: 7

Candidate Starts for Egi03\_12:

(Start: 7 @5562 has 114 MA's), (43, 5676), (111, 5844), (157, 5964), (162, 5982), (166, 5997), (238, 6147), (250, 6177), (261, 6237), (262, 6240), (273, 6279), (288, 6351), (328, 6411), (329, 6414), (330, 6417), (337, 6453), (339, 6462), (341, 6468), (342, 6471), (357, 6534), (364, 6579), (371, 6609), (377, 6657), (392, 6714), (399, 6735), (404, 6741), (412, 6762), (420, 6792), (428, 6843), (443, 6891),

Gene: Ellewin\_64 Start: 27611, Stop: 29185, Start Num: 58

Candidate Starts for Ellewin\_64:

(Start: 26 @27551 has 8 MA's), (Start: 58 @27611 has 3 MA's), (177, 27968), (249, 28157), (251, 28166), (312, 28370), (328, 28418), (366, 28598), (381, 28685), (404, 28751), (408, 28763), (475, 28994), (514, 29081), (562, 29174),

Gene: ElvisPhasley\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for ElvisPhasley\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: EmGer13\_8 Start: 4567, Stop: 6360, Start Num: 96

Candidate Starts for EmGer13\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Emiris\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Emiris\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Emmetator\_68 Start: 28631, Stop: 30205, Start Num: 58

Candidate Starts for Emmetator\_68:

(Start: 26 @28571 has 8 MA's), (Start: 58 @28631 has 3 MA's), (177, 28988), (249, 29177), (251, 29186), (312, 29390), (328, 29438), (366, 29618), (381, 29705), (404, 29771), (408, 29783), (475, 30014), (514, 30101), (562, 30194),

Gene: EmpTee\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for EmpTee\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Epah\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for Epah\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (377, 6735), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (566, 7212), (572, 7221), (574, 7224), (595, 7281), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Erasmago\_75 Start: 28819, Stop: 30543, Start Num: 34

Candidate Starts for Erasmago\_75:

(3, 28681), (4, 28687), (5, 28690), (Start: 34 @28819 has 7 MA's), (Start: 58 @28873 has 3 MA's), (73, 28897), (89, 28948), (170, 29212), (190, 29269), (249, 29443), (259, 29497), (328, 29713), (357, 29836), (372, 29920), (381, 29980), (390, 30013), (453, 30232), (534, 30457),

Gene: Eremos\_8 Start: 4441, Stop: 6354, Start Num: 30

Candidate Starts for Eremos\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6118), (635, 6253), (649, 6295), (652, 6307),

Gene: Etaye\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Etaye\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Eugenia\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Eugenia\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Evaa\_9 Start: 6619, Stop: 8448, Start Num: 30

Candidate Starts for Evaa\_9:

(Start: 30 @6619 has 441 MA's), (56, 6664), (Start: 95 @6733 has 2 MA's), (104, 6775), (120, 6838), (145, 6907), (160, 6925), (186, 7012), (239, 7132), (262, 7222), (267, 7243), (277, 7300), (280, 7309), (282, 7321), (327, 7432), (338, 7483), (342, 7495), (344, 7510), (363, 7597), (365, 7609), (377, 7684), (382, 7708), (395, 7753), (412, 7789), (471, 7966), (578, 8173), (583, 8182), (584, 8185), (605, 8257), (612, 8284), (615, 8293), (649, 8398), (662, 8434), (663, 8437),

Gene: Evamon\_12 Start: 5436, Stop: 7022, Start Num: 7

Candidate Starts for Evamon\_12:

(Start: 7 @5436 has 114 MA's), (104, 5688), (111, 5718), (154, 5835), (162, 5856), (166, 5871), (248, 6045), (257, 6087), (261, 6111), (262, 6114), (273, 6153), (288, 6225), (328, 6285), (329, 6288), (330, 6291), (337, 6327), (339, 6336), (341, 6342), (342, 6345), (357, 6408), (364, 6453), (371, 6483), (377, 6531), (392, 6588), (399, 6609), (412, 6636), (413, 6639), (420, 6666), (428, 6717), (443, 6765),

Gene: EverythinBagel\_21 Start: 8840, Stop: 10666, Start Num: 45

Candidate Starts for EverythinBagel\_21:

(Start: 45 @8840 has 50 MA's), (94, 8939), (108, 8990), (155, 9125), (170, 9164), (201, 9242), (215, 9260), (264, 9410), (267, 9425), (277, 9482), (303, 9551), (320, 9599), (324, 9608), (357, 9743), (364, 9788), (365, 9794), (368, 9806), (377, 9866), (419, 9995), (420, 10001), (424, 10028), (447, 10127), (468, 10172), (553, 10367), (574, 10403), (584, 10421), (599, 10466),

Gene: Fanaw\_9 Start: 6763, Stop: 8637, Start Num: 37

Candidate Starts for Fanaw\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (420, 7975), (566, 8317), (572, 8326), (590, 8368), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (666, 8623), (670, 8629),

Gene: Fang\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Fang\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Faze9\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Faze9\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: FelixTres\_10 Start: 6780, Stop: 8627, Start Num: 30

Candidate Starts for FelixTres\_10:

(Start: 30 @6780 has 441 MA's), (Start: 95 @6894 has 2 MA's), (104, 6936), (120, 6999), (141, 7065), (165, 7107), (184, 7170), (243, 7293), (245, 7299), (249, 7308), (251, 7317), (278, 7455), (282, 7473), (329, 7614), (334, 7641), (338, 7659), (342, 7671), (355, 7722), (363, 7773), (377, 7860), (382, 7884), (471, 8142), (505, 8202), (510, 8211), (583, 8352), (584, 8355), (605, 8427), (607, 8433), (612, 8454), (630, 8511), (634, 8523), (643, 8556), (649, 8568), (652, 8580), (655, 8592), (662, 8604), (663, 8607),

Gene: Fireball\_13 Start: 5562, Stop: 7145, Start Num: 7

Candidate Starts for Fireball\_13:

(Start: 7 @5562 has 114 MA's), (43, 5676), (111, 5844), (157, 5964), (162, 5982), (166, 5997), (238, 6147), (250, 6177), (261, 6237), (262, 6240), (273, 6279), (288, 6351), (328, 6411), (329, 6414), (330, 6417), (337, 6453), (339, 6462), (341, 6468), (342, 6471), (357, 6534), (364, 6579), (371, 6609), (377, 6657), (392, 6714), (399, 6735), (404, 6741), (412, 6762), (420, 6792), (428, 6843), (443, 6891),

Gene: Fireman\_20 Start: 8089, Stop: 9774, Start Num: 14

Candidate Starts for Fireman\_20:

(Start: 12 @8080 has 40 MA's), (Start: 14 @8089 has 15 MA's), (71, 8212), (104, 8317), (108, 8329), (158, 8500), (163, 8518), (178, 8569), (212, 8641), (218, 8653), (219, 8659), (221, 8668), (233, 8704), (251, 8767), (264, 8830), (271, 8857), (277, 8902), (280, 8911), (304, 8953), (328, 9004), (329, 9007), (337, 9046), (339, 9055), (342, 9064), (351, 9097), (359, 9136), (371, 9202), (372, 9211), (373, 9226), (377, 9250), (394, 9316), (396, 9322), (406, 9349), (448, 9502), (471, 9541), (478, 9562), (495, 9607), (559, 9754),

Gene: Fitzgerald\_11 Start: 6943, Stop: 8565, Start Num: 7

Candidate Starts for Fitzgerald\_11:

(Start: 7 @6943 has 114 MA's), (Start: 47 @7063 has 18 MA's), (73, 7102), (83, 7141), (103, 7204), (130, 7297), (138, 7324), (154, 7363), (216, 7492), (235, 7552), (255, 7621), (259, 7642), (264, 7660), (267, 7675), (269, 7681), (281, 7744), (324, 7804), (328, 7816), (336, 7855), (339, 7867), (342, 7876), (347, 7909), (351, 7921), (357, 7951), (364, 7996), (367, 8011), (368, 8014), (373, 8050), (382, 8098), (385, 8107), (392, 8134), (443, 8311), (476, 8368), (480, 8374), (490, 8389), (496, 8410), (499, 8416), (515, 8452), (526, 8479),

Gene: Fizzles\_22 Start: 8440, Stop: 10269, Start Num: 45

Candidate Starts for Fizzles\_22:

(Start: 45 @8440 has 50 MA's), (131, 8683), (132, 8689), (170, 8767), (201, 8845), (215, 8863), (245, 8935), (264, 9013), (267, 9028), (277, 9085), (307, 9157), (317, 9181), (320, 9193), (324, 9202), (357, 9337), (360, 9358), (364, 9382), (365, 9388), (368, 9400), (377, 9460), (392, 9520), (419, 9589), (420, 9595), (433, 9661), (447, 9721), (475, 9787), (483, 9805), (520, 9871), (553, 9970), (574, 10006), (596, 10060), (640, 10195),

Gene: Flake\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Flake\_8:

(Start: 30 @4440 has 441 MA's), (Start: 37 @4455 has 5 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Flatwoods\_13 Start: 6473, Stop: 8101, Start Num: 7

Candidate Starts for Flatwoods\_13:

(Start: 7 @6473 has 114 MA's), (Start: 47 @6596 has 18 MA's), (61, 6617), (83, 6674), (103, 6737), (109, 6767), (130, 6830), (138, 6857), (212, 7016), (216, 7025), (246, 7112), (254, 7151), (259, 7175), (264, 7193), (267, 7208), (269, 7214), (281, 7277), (328, 7349), (336, 7388), (351, 7454), (357, 7484), (364, 7529), (367, 7544), (368, 7547), (373, 7583), (382, 7631), (385, 7640), (392, 7667), (404, 7694), (419, 7739), (434, 7814), (443, 7844), (451, 7862), (476, 7901), (480, 7907), (490, 7922), (496, 7943), (499, 7949), (515, 7985), (528, 8018),

Gene: FleetyMac\_8 Start: 4565, Stop: 6358, Start Num: 96

Candidate Starts for FleetyMac\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: FloraSnap32\_75 Start: 32255, Stop: 33829, Start Num: 80

Candidate Starts for FloraSnap32\_75:

(Start: 22 @32144 has 3 MA's), (Start: 26 @32150 has 8 MA's), (Start: 80 @32255 has 11 MA's), (116, 32378), (119, 32390), (161, 32513), (251, 32765), (259, 32810), (309, 32966), (312, 32975), (315, 32987), (328, 33023), (333, 33044), (371, 33221), (467, 33575), (496, 33641), (499, 33647), (542, 33773), (545, 33782), (562, 33818),

Gene: FluffyNinja\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for FluffyNinja\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558),

(382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: ForDig\_7 Start: 5208, Stop: 7124, Start Num: 30

Candidate Starts for ForDig\_7:

(Start: 30 @5208 has 441 MA's), (Start: 37 @5223 has 5 MA's), (79, 5286), (Start: 80 @5289 has 11 MA's), (Start: 88 @5310 has 7 MA's), (102, 5352), (104, 5367), (105, 5370), (108, 5379), (154, 5529), (179, 5610), (191, 5640), (213, 5688), (248, 5781), (249, 5784), (259, 5838), (261, 5847), (277, 5928), (278, 5931), (282, 5949), (303, 6012), (313, 6030), (330, 6078), (342, 6132), (356, 6192), (363, 6234), (375, 6306), (377, 6321), (381, 6342), (391, 6378), (395, 6390), (412, 6426), (452, 6573), (465, 6594), (484, 6639), (515, 6705), (574, 6828), (590, 6867), (595, 6885), (634, 7017), (635, 7020), (660, 7098),

Gene: Forrestell\_19 Start: 7959, Stop: 9848, Start Num: 47

Candidate Starts for Forrestell\_19:

(Start: 47 @7959 has 18 MA's), (50, 7968), (73, 8007), (112, 8130), (118, 8148), (133, 8199), (146, 8223), (177, 8298), (261, 8541), (328, 8733), (365, 8907), (368, 8919), (401, 9069), (419, 9120), (424, 9153), (425, 9159), (433, 9192), (443, 9228), (449, 9255), (467, 9294), (478, 9327), (584, 9594), (622, 9711), (652, 9807),

Gene: Fortunato\_9 Start: 6742, Stop: 8628, Start Num: 30

Candidate Starts for Fortunato\_9:

(Start: 30 @6742 has 441 MA's), (Start: 37 @6757 has 5 MA's), (86, 6838), (94, 6853), (105, 6904), (108, 6913), (120, 6964), (161, 7069), (179, 7129), (221, 7225), (248, 7303), (249, 7306), (259, 7360), (277, 7450), (278, 7453), (305, 7531), (313, 7543), (342, 7645), (356, 7705), (363, 7747), (365, 7759), (382, 7858), (384, 7864), (391, 7891), (393, 7897), (412, 7939), (420, 7969), (566, 8308), (572, 8317), (574, 8320), (590, 8359), (596, 8383), (611, 8443), (612, 8446), (615, 8455), (649, 8569), (666, 8614), (670, 8620),

Gene: Forza\_77 Start: 31301, Stop: 33031, Start Num: 27

Candidate Starts for Forza\_77:

(Start: 27 @31301 has 5 MA's), (73, 31379), (92, 31433), (98, 31445), (119, 31532), (122, 31547), (149, 31637), (173, 31712), (203, 31802), (256, 31997), (259, 32015), (260, 32018), (264, 32033), (267, 32048), (272, 32063), (275, 32090), (283, 32129), (350, 32300), (357, 32333), (365, 32384), (369, 32399), (371, 32408), (383, 32483), (384, 32486), (390, 32510), (454, 32735), (464, 32750), (472, 32780), (491, 32828), (499, 32843), (500, 32849),

Gene: Fosterous\_10 Start: 6015, Stop: 7637, Start Num: 7

Candidate Starts for Fosterous\_10:

(Start: 7 @6015 has 114 MA's), (73, 6174), (83, 6213), (103, 6276), (130, 6369), (138, 6396), (154, 6435), (212, 6555), (216, 6564), (235, 6624), (255, 6693), (259, 6714), (264, 6732), (267, 6747), (269, 6753), (281, 6816), (324, 6876), (328, 6888), (336, 6927), (339, 6939), (342, 6948), (351, 6993), (357, 7023), (364, 7068), (367, 7083), (368, 7086), (373, 7122), (382, 7170), (385, 7179), (392, 7206), (433, 7350), (443, 7383), (476, 7440), (480, 7446), (490, 7461), (496, 7482), (499, 7488), (515, 7524), (526, 7551),

Gene: Fozzie\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Fozzie\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: FrankDeliGuy\_19 Start: 8306, Stop: 10132, Start Num: 45

Candidate Starts for FrankDeliGuy\_19:

(Start: 45 @8306 has 50 MA's), (108, 8456), (155, 8591), (170, 8630), (201, 8708), (215, 8726), (264, 8876), (267, 8891), (277, 8948), (303, 9017), (320, 9065), (324, 9074), (357, 9209), (364, 9254), (365, 9260), (368, 9272), (377, 9332), (419, 9461), (420, 9467), (424, 9494), (447, 9593), (468, 9638), (553, 9833), (574, 9869), (584, 9887), (599, 9932),

Gene: Frankicide\_8 Start: 4443, Stop: 6362, Start Num: 30

Candidate Starts for Frankicide\_8:

(Start: 30 @4443 has 441 MA's), (Start: 37 @4458 has 5 MA's), (Start: 88 @4554 has 7 MA's), (Start: 96 @4569 has 1 MA's), (122, 4680), (170, 4812), (177, 4836), (179, 4842), (181, 4854), (186, 4866), (250, 5031), (275, 5157), (276, 5160), (277, 5172), (280, 5181), (282, 5193), (303, 5256), (307, 5265), (323, 5301), (329, 5319), (332, 5328), (342, 5376), (362, 5472), (363, 5478), (371, 5514), (377, 5562), (382, 5586), (440, 5781), (481, 5874), (596, 6126), (635, 6261), (649, 6303), (652, 6315),

Gene: Fransoyer\_24 Start: 9057, Stop: 10871, Start Num: 45

Candidate Starts for Fransoyer\_24:

(Start: 36 @9036 has 2 MA's), (Start: 45 @9057 has 50 MA's), (170, 9384), (175, 9402), (179, 9414), (249, 9558), (264, 9630), (270, 9654), (278, 9705), (323, 9819), (332, 9846), (337, 9876), (357, 9957), (364, 10002), (365, 10008), (368, 10020), (377, 10080), (403, 10164), (419, 10209), (420, 10215), (433, 10281), (447, 10341), (485, 10431), (520, 10491), (553, 10572), (640, 10797),

Gene: Frederick\_9 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for Frederick\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (420, 7975), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (655, 8602), (670, 8629),

Gene: Fregley\_22 Start: 7891, Stop: 9690, Start Num: 45

Candidate Starts for Fregley\_22:

(Start: 45 @7891 has 50 MA's), (94, 7990), (146, 8155), (170, 8206), (179, 8236), (215, 8302), (292, 8569), (308, 8614), (336, 8701), (348, 8746), (356, 8782), (364, 8830), (365, 8836), (368, 8848), (373, 8884), (377, 8908), (419, 9043), (443, 9151), (446, 9172), (479, 9253), (485, 9262), (547, 9373), (553, 9391), (574, 9427), (600, 9493), (617, 9562), (631, 9595), (655, 9670),

Gene: FremontTroll\_9 Start: 4550, Stop: 6358, Start Num: 88

Candidate Starts for FremontTroll\_9:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: FrenchFry\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for FrenchFry\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585,

9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Fresco\_8 Start: 5303, Stop: 7141, Start Num: 30

Candidate Starts for Fresco\_8:

(Start: 30 @5303 has 441 MA's), (Start: 58 @5351 has 3 MA's), (Start: 95 @5417 has 2 MA's), (104, 5459), (145, 5591), (173, 5654), (179, 5672), (249, 5825), (251, 5834), (259, 5879), (267, 5912), (277, 5969), (278, 5972), (282, 5990), (293, 6023), (302, 6050), (338, 6161), (342, 6173), (344, 6188), (363, 6275), (365, 6287), (377, 6362), (382, 6386), (392, 6422), (394, 6428), (395, 6431), (396, 6434), (412, 6467), (583, 6866), (584, 6869), (585, 6872), (605, 6941), (607, 6947), (612, 6968), (626, 7004), (638, 7049), (643, 7070), (652, 7094), (655, 7106), (662, 7118), (663, 7121),

Gene: Freya\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Freya\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: FriarPreacher\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for FriarPreacher\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Fringe\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Fringe\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: FrostedClock\_79 Start: 33183, Stop: 34862, Start Num: 26

Candidate Starts for FrostedClock\_79:

(Start: 22 @33177 has 3 MA's), (Start: 26 @33183 has 8 MA's), (Start: 80 @33288 has 11 MA's), (116, 33411), (119, 33423), (161, 33546), (251, 33798), (259, 33843), (309, 33999), (312, 34008), (315, 34020), (328, 34056), (333, 34077), (371, 34254), (467, 34608), (496, 34674), (499, 34680), (542, 34806), (545, 34815), (562, 34851),

Gene: FuegoCuervo\_16 Start: 6765, Stop: 8387, Start Num: 7

Candidate Starts for FuegoCuervo\_16:

(Start: 7 @6765 has 114 MA's), (73, 6924), (83, 6963), (103, 7026), (130, 7119), (138, 7146), (154, 7185), (216, 7314), (235, 7374), (255, 7443), (259, 7464), (264, 7482), (267, 7497), (269, 7503), (281, 7566), (324, 7626), (328, 7638), (336, 7677), (339, 7689), (342, 7698), (347, 7731), (351, 7743), (357, 7773), (364, 7818), (367, 7833), (368, 7836), (373, 7872), (382, 7920), (385, 7929), (392, 7956), (443, 8133), (476, 8190), (480, 8196), (490, 8211), (496, 8232), (499, 8238), (515, 8274), (526, 8301),

Gene: FugateOSU\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for FugateOSU\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Fugax\_12 Start: 5583, Stop: 7169, Start Num: 7

Candidate Starts for Fugax\_12:

(Start: 7 @5583 has 114 MA's), (104, 5835), (111, 5865), (154, 5982), (162, 6003), (166, 6018), (248, 6192), (257, 6234), (261, 6258), (262, 6261), (273, 6300), (288, 6372), (328, 6432), (329, 6435), (330, 6438), (337, 6474), (339, 6483), (341, 6489), (342, 6492), (357, 6555), (364, 6600), (371, 6630), (377, 6678), (392, 6735), (399, 6756), (412, 6783), (413, 6786), (420, 6813), (428, 6864), (443, 6912),

Gene: Funsized\_14 Start: 8736, Stop: 10637, Start Num: 30

Candidate Starts for Funsized\_14:

(Start: 30 @8736 has 441 MA's), (Start: 80 @8817 has 11 MA's), (111, 8931), (154, 9063), (205, 9207), (242, 9303), (251, 9330), (259, 9375), (274, 9432), (277, 9465), (278, 9468), (282, 9486), (307, 9549), (313, 9558), (318, 9576), (337, 9642), (338, 9648), (356, 9720), (363, 9762), (364, 9768), (391, 9903), (392, 9906), (395, 9915), (419, 9975), (452, 10098), (472, 10134), (483, 10161), (521, 10221), (572, 10335), (615, 10473), (637, 10542), (641, 10551),

Gene: FuzzBuster\_24 Start: 8570, Stop: 10354, Start Num: 12

Candidate Starts for FuzzBuster\_24:

(Start: 12 @8570 has 40 MA's), (Start: 14 @8579 has 15 MA's), (40, 8636), (104, 8798), (114, 8837), (138, 8930), (186, 9086), (207, 9116), (208, 9119), (264, 9314), (271, 9341), (277, 9386), (279, 9392), (280, 9395), (285, 9419), (328, 9488), (337, 9530), (339, 9539), (340, 9542), (357, 9611), (372, 9695), (375, 9719), (395, 9803), (396, 9806), (417, 9863), (419, 9872), (420, 9878), (470, 10025), (478, 10049), (490, 10076), (495, 10094), (518, 10136), (560, 10265),

Gene: GMA2\_9 Start: 6225, Stop: 7979, Start Num: 13

Candidate Starts for GMA2\_9:

(13, 6225), (92, 6396), (119, 6495), (120, 6504), (131, 6543), (195, 6741), (226, 6834), (256, 6963), (259, 6981), (272, 7029), (275, 7056), (277, 7068), (317, 7143), (371, 7374), (384, 7452), (395, 7491), (458, 7707), (472, 7746), (499, 7809), (500, 7815), (514, 7851), (537, 7926),

Gene: GTE6\_14 Start: 6302, Stop: 7978, Start Num: 7

Candidate Starts for GTE6\_14:

(Start: 7 @6302 has 114 MA's), (10, 6335), (38, 6413), (50, 6440), (63, 6467), (103, 6599), (109, 6629), (134, 6707), (141, 6725), (171, 6806), (212, 6878), (216, 6887), (235, 6947), (264, 7055), (266, 7067), (267, 7070), (269, 7076), (328, 7211), (329, 7214), (342, 7271), (357, 7346), (364, 7391), (368, 7409), (372, 7430), (377, 7469), (382, 7493), (388, 7514), (392, 7529), (413, 7580), (419, 7601), (443, 7706), (460, 7736),

Gene: Gadget\_12 Start: 6318, Stop: 8222, Start Num: 30

Candidate Starts for Gadget\_12:

(Start: 30 @6318 has 441 MA's), (40, 6345), (87, 6426), (105, 6489), (122, 6555), (131, 6588), (173, 6696), (205, 6786), (232, 6864), (251, 6921), (261, 6975), (277, 7056), (282, 7077), (291, 7104), (316, 7155), (318, 7164), (323, 7173), (363, 7350), (365, 7362), (377, 7437), (382, 7461), (388, 7482), (419, 7566), (461, 7704), (471, 7722), (481, 7749), (499, 7773), (581, 7938), (584, 7947), (612, 8052), (615, 8061), (626, 8088), (652, 8178), (662, 8202), (670, 8214),

Gene: Gaea\_12 Start: 6275, Stop: 7903, Start Num: 7

Candidate Starts for Gaea\_12:

(Start: 7 @6275 has 114 MA's), (Start: 47 @6398 has 18 MA's), (61, 6419), (83, 6476), (103, 6539), (109, 6569), (130, 6632), (138, 6659), (216, 6827), (246, 6914), (254, 6953), (259, 6977), (264, 6995), (267, 7010), (269, 7016), (281, 7079), (328, 7151), (336, 7190), (351, 7256), (357, 7286), (364, 7331), (367, 7346), (368, 7349), (373, 7385), (382, 7433), (385, 7442), (392, 7469), (404, 7496), (419, 7541), (428, 7598), (434, 7616), (443, 7646), (451, 7664), (476, 7703), (480, 7709), (490, 7724), (496, 7745), (499, 7751), (515, 7787), (528, 7820),

Gene: Galadriel\_14 Start: 6783, Stop: 8405, Start Num: 7

Candidate Starts for Galadriel\_14:

(Start: 7 @6783 has 114 MA's), (73, 6942), (83, 6981), (103, 7044), (130, 7137), (138, 7164), (154, 7203), (216, 7332), (235, 7392), (255, 7461), (259, 7482), (264, 7500), (267, 7515), (269, 7521), (281, 7584), (324, 7644), (328, 7656), (336, 7695), (339, 7707), (342, 7716), (351, 7761), (357, 7791), (364, 7836), (367, 7851), (368, 7854), (373, 7890), (382, 7938), (385, 7947), (392, 7974), (443, 8151), (476, 8208), (480, 8214), (490, 8229), (496, 8250), (499, 8256), (515, 8292), (526, 8319),

Gene: Ganandorf\_19 Start: 8504, Stop: 10171, Start Num: 14

Candidate Starts for Ganandorf\_19:

(Start: 12 @8495 has 40 MA's), (Start: 14 @8504 has 15 MA's), (68, 8618), (71, 8624), (104, 8729), (108, 8741), (132, 8840), (134, 8846), (138, 8858), (158, 8912), (163, 8930), (179, 8984), (188, 9014), (212, 9053), (219, 9071), (221, 9080), (233, 9116), (251, 9179), (264, 9242), (271, 9269), (328, 9416), (329, 9419), (337, 9458), (342, 9476), (359, 9548), (371, 9614), (372, 9623), (385, 9695), (394, 9728), (396, 9734), (406, 9764), (412, 9779), (448, 9917), (457, 9932), (470, 9953), (471, 9956),

Gene: Gareth\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Gareth\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Gazebo\_21 Start: 8940, Stop: 10766, Start Num: 45

Candidate Starts for Gazebo\_21:

(Start: 45 @8940 has 50 MA's), (155, 9225), (170, 9264), (201, 9342), (215, 9360), (264, 9510), (267, 9525), (277, 9582), (320, 9699), (324, 9708), (357, 9843), (364, 9888), (365, 9894), (368, 9906), (377, 9966), (419, 10095), (420, 10101), (424, 10128), (447, 10227), (468, 10272), (553, 10467), (574, 10503), (584, 10521), (599, 10566),

Gene: GeneCoco\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for GeneCoco\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Geodirt\_12 Start: 6790, Stop: 8412, Start Num: 7

Candidate Starts for Geodirt\_12:

(Start: 7 @6790 has 114 MA's), (73, 6949), (83, 6988), (103, 7051), (130, 7144), (138, 7171), (154, 7210), (216, 7339), (235, 7399), (255, 7468), (259, 7489), (264, 7507), (267, 7522), (269, 7528), (281, 7591), (324, 7651), (328, 7663), (336, 7702), (339, 7714), (342, 7723), (347, 7756), (351, 7768), (357, 7798), (364, 7843), (367, 7858), (368, 7861), (373, 7897), (382, 7945), (385, 7954), (392, 7981), (443, 8158), (476, 8215), (480, 8221), (490, 8236), (496, 8257), (499, 8263), (515, 8299), (526, 8326),

Gene: Germa\_21 Start: 8324, Stop: 10000, Start Num: 12

Candidate Starts for Germa\_21:

(Start: 12 @8324 has 40 MA's), (Start: 14 @8333 has 15 MA's), (20, 8348), (68, 8447), (71, 8453), (104, 8558), (108, 8570), (132, 8669), (134, 8675), (138, 8687), (158, 8741), (163, 8759), (179, 8813), (188, 8843), (212, 8882), (219, 8900), (221, 8909), (233, 8945), (251, 9008), (264, 9071), (271, 9098), (328, 9245), (329, 9248), (337, 9287), (342, 9305), (359, 9377), (371, 9443), (372, 9452), (385, 9524), (394, 9557), (396, 9563), (406, 9593), (412, 9608), (448, 9746), (470, 9782), (471, 9785),

Gene: Gervas\_11 Start: 6309, Stop: 8207, Start Num: 30

Candidate Starts for Gervas\_11:

(Start: 30 @6309 has 441 MA's), (40, 6336), (87, 6417), (105, 6480), (122, 6546), (131, 6579), (173, 6687), (205, 6777), (232, 6855), (251, 6912), (261, 6966), (277, 7047), (282, 7068), (291, 7095), (316, 7146), (318, 7155), (323, 7164), (363, 7341), (365, 7353), (377, 7428), (382, 7452), (388, 7473), (419, 7557), (461, 7695), (471, 7713), (481, 7740), (499, 7764), (581, 7923), (584, 7932), (612, 8037), (615, 8046), (626, 8073), (652, 8163), (653, 8166), (662, 8187), (670, 8199),

Gene: Gezellig\_12 Start: 5562, Stop: 7145, Start Num: 7

Candidate Starts for Gezellig\_12:

(Start: 7 @5562 has 114 MA's), (43, 5676), (111, 5844), (157, 5964), (162, 5982), (166, 5997), (238, 6147), (250, 6177), (261, 6237), (262, 6240), (273, 6279), (288, 6351), (328, 6411), (329, 6414), (330, 6417), (337, 6453), (339, 6462), (341, 6468), (342, 6471), (357, 6534), (364, 6579), (371, 6609), (377, 6657), (392, 6714), (399, 6735), (404, 6741), (412, 6762), (420, 6792), (428, 6843), (443, 6891),

Gene: GinPorsche\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for GinPorsche\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (208, 6090), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (371, 6684), (377, 6735), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (572, 7221), (574, 7224), (595, 7281), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Gina\_20 Start: 7583, Stop: 9301, Start Num: 12

Candidate Starts for Gina\_20:

(Start: 12 @7583 has 40 MA's), (Start: 14 @7592 has 15 MA's), (71, 7712), (104, 7817), (108, 7829), (132, 7928), (138, 7946), (158, 8000), (163, 8018), (178, 8069), (183, 8093), (203, 8123), (218, 8153), (219, 8159), (221, 8168), (233, 8204), (251, 8267), (264, 8330), (271, 8357), (277, 8402), (328, 8504), (329, 8507), (339, 8555), (342, 8564), (351, 8597), (359, 8636), (371, 8702), (372, 8711), (373, 8726), (375, 8735), (377, 8750), (379, 8762), (385, 8783), (394, 8816), (396, 8822), (406, 8852), (420, 8897), (448, 9005), (463, 9029), (478, 9065), (479, 9068), (489, 9089), (495, 9110), (550, 9245), (559, 9257), (570, 9284),

Gene: Giraffe\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Giraffe\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Glass\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Glass\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: GlenHope\_12 Start: 6328, Stop: 8232, Start Num: 30

Candidate Starts for GlenHope\_12:

(Start: 30 @6328 has 441 MA's), (40, 6355), (87, 6436), (105, 6499), (122, 6565), (131, 6598), (173, 6706), (205, 6796), (232, 6874), (251, 6931), (261, 6985), (277, 7066), (282, 7087), (291, 7114), (316, 7165), (318, 7174), (323, 7183), (363, 7360), (365, 7372), (377, 7447), (382, 7471), (388, 7492), (419, 7576), (461, 7714), (471, 7732), (481, 7759), (499, 7783), (581, 7948), (584, 7957), (612, 8062), (615, 8071), (626, 8098), (652, 8188), (653, 8191), (662, 8212), (670, 8224),

Gene: Glorp\_21 Start: 8506, Stop: 10173, Start Num: 14

Candidate Starts for Glorp\_21:

(Start: 12 @8497 has 40 MA's), (Start: 14 @8506 has 15 MA's), (20, 8521), (68, 8620), (71, 8626), (104, 8731), (108, 8743), (132, 8842), (134, 8848), (138, 8860), (158, 8914), (163, 8932), (179, 8986), (188, 9016), (212, 9055), (219, 9073), (221, 9082), (233, 9118), (251, 9181), (264, 9244), (271, 9271), (328, 9418), (329, 9421), (337, 9460), (342, 9478), (359, 9550), (371, 9616), (372, 9625), (385, 9697), (394, 9730), (396, 9736), (406, 9766), (412, 9781), (448, 9919), (457, 9934), (470, 9955), (471, 9958),

Gene: Glubnar\_11 Start: 6318, Stop: 8222, Start Num: 30

Candidate Starts for Glubnar\_11:

(Start: 30 @6318 has 441 MA's), (40, 6345), (87, 6426), (105, 6489), (122, 6555), (131, 6588), (173, 6696), (205, 6786), (232, 6864), (251, 6921), (261, 6975), (277, 7056), (282, 7077), (291, 7104), (316, 7155), (318, 7164), (323, 7173), (363, 7350), (365, 7362), (377, 7437), (382, 7461), (388, 7482), (419, 7566), (461, 7704), (471, 7722), (481, 7749), (499, 7773), (581, 7938), (584, 7947), (612, 8052), (615, 8061), (626, 8088), (652, 8178), (653, 8181), (662, 8202), (670, 8214),

Gene: GodPhather\_7 Start: 3607, Stop: 5463, Start Num: 30

Candidate Starts for GodPhather\_7:

(Start: 21 @3589 has 7 MA's), (Start: 30 @3607 has 441 MA's), (Start: 62 @3664 has 2 MA's), (112, 3802), (120, 3832), (139, 3886), (179, 3997), (228, 4126), (249, 4183), (251, 4192), (259, 4237), (264, 4255), (279, 4333), (280, 4336), (323, 4420), (331, 4444), (335, 4468), (363, 4597), (365, 4609), (371, 4633), (377, 4684), (391, 4741), (395, 4753), (448, 4927), (481, 4996), (605, 5248), (649, 5389), (652, 5401), (671, 5443),

Gene: Godines\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Godines\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: GodonK\_66 Start: 24698, Stop: 26512, Start Num: 23

Candidate Starts for GodonK\_66:

(Start: 16 @24686 has 1 MA's), (Start: 23 @24698 has 1 MA's), (41, 24743), (52, 24767), (92, 24854), (114, 24938), (116, 24941), (128, 24986), (195, 25199), (227, 25298), (232, 25322), (259, 25442), (266, 25472), (272, 25490), (275, 25517), (318, 25613), (328, 25637), (336, 25676), (340, 25691), (351, 25730), (352, 25733), (353, 25736), (361, 25784), (365, 25811), (371, 25835), (383, 25910), (384, 25913), (385, 25916), (388, 25928), (390, 25937), (395, 25952), (396, 25955), (447, 26150), (470, 26201), (500, 26276), (506, 26297), (548, 26414),

Gene: GoldenEssence\_62 Start: 27488, Stop: 29167, Start Num: 26

Candidate Starts for GoldenEssence\_62:

(Start: 22 @27482 has 3 MA's), (Start: 26 @27488 has 8 MA's), (Start: 80 @27593 has 11 MA's), (116, 27716), (119, 27728), (161, 27851), (222, 28001), (251, 28103), (259, 28148), (267, 28181), (309, 28304), (312, 28313), (315, 28325), (328, 28361), (371, 28559), (381, 28628), (467, 28913), (496, 28979), (499, 28985), (542, 29111), (545, 29120), (562, 29156),

Gene: Gophee\_8 Start: 4552, Stop: 6360, Start Num: 88

Candidate Starts for Gophee\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Grand2040\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Grand2040\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Grassboy\_23 Start: 9122, Stop: 10948, Start Num: 45

Candidate Starts for Grassboy\_23:

(Start: 45 @9122 has 50 MA's), (108, 9272), (155, 9407), (170, 9446), (201, 9524), (215, 9542), (264, 9692), (267, 9707), (277, 9764), (320, 9881), (324, 9890), (357, 10025), (364, 10070), (365, 10076), (368, 10088), (377, 10148), (419, 10277), (420, 10283), (424, 10310), (447, 10409), (468, 10454), (553, 10649), (574, 10685), (584, 10703), (599, 10748),

Gene: GreenChile\_9 Start: 4554, Stop: 6362, Start Num: 88

Candidate Starts for GreenChile\_9:

(Start: 30 @4443 has 441 MA's), (Start: 37 @4458 has 5 MA's), (Start: 88 @4554 has 7 MA's), (Start: 96 @4569 has 1 MA's), (122, 4680), (170, 4812), (177, 4836), (179, 4842), (181, 4854), (186, 4866), (250, 5031), (275, 5157), (276, 5160), (277, 5172), (280, 5181), (282, 5193), (303, 5256), (307, 5265), (323, 5301), (329, 5319), (332, 5328), (342, 5376), (362, 5472), (363, 5478), (371, 5514), (377, 5562), (382, 5586), (440, 5781), (481, 5874), (596, 6126), (635, 6261), (649, 6303), (652, 6315),

Gene: Grumio\_41 Start: 17700, Stop: 19658, Start Num: 25

Candidate Starts for Grumio\_41:

(Start: 25 @17700 has 7 MA's), (Start: 45 @17745 has 50 MA's), (74, 17796), (82, 17823), (146, 18012), (221, 18171), (251, 18264), (266, 18339), (280, 18408), (282, 18420), (283, 18426), (310, 18528), (321, 18561), (339, 18633), (340, 18636), (348, 18666), (357, 18705), (372, 18789), (411, 18933), (412, 18936), (420, 18966), (448, 19074), (469, 19110), (472, 19119), (523, 19209), (534, 19254), (593, 19368), (614, 19437), (621, 19458), (665, 19611), (674, 19650),

Gene: Gustavo\_12 Start: 6272, Stop: 7900, Start Num: 7

Candidate Starts for Gustavo\_12:

(Start: 7 @6272 has 114 MA's), (Start: 47 @6395 has 18 MA's), (61, 6416), (83, 6473), (103, 6536), (109, 6566), (130, 6629), (138, 6656), (216, 6824), (246, 6911), (254, 6950), (259, 6974), (264, 6992), (267, 7007), (269, 7013), (281, 7076), (328, 7148), (336, 7187), (351, 7253), (357, 7283), (364, 7328), (367, 7343), (368, 7346), (373, 7382), (382, 7430), (385, 7439), (392, 7466), (404, 7493), (419, 7538), (434, 7613), (443, 7643), (451, 7661), (476, 7700), (480, 7706), (490, 7721), (496, 7742), (499, 7748), (515, 7784), (528, 7817),

Gene: Gwennie1\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Gwennie1\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Gwilliam\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Gwilliam\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Gyarad\_008 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Gyarad\_008:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: HSavage\_8 Start: 4443, Stop: 6362, Start Num: 30

Candidate Starts for HSavage\_8:

(Start: 30 @4443 has 441 MA's), (Start: 37 @4458 has 5 MA's), (Start: 88 @4554 has 7 MA's), (Start: 96 @4569 has 1 MA's), (122, 4680), (170, 4812), (177, 4836), (179, 4842), (181, 4854), (186, 4866), (250, 5031), (275, 5157), (276, 5160), (277, 5172), (280, 5181), (282, 5193), (303, 5256), (307, 5265), (323, 5301), (329, 5319), (332, 5328), (342, 5376), (362, 5472), (363, 5478), (371, 5514), (377, 5562), (382, 5586), (440, 5781), (481, 5874), (596, 6126), (635, 6261), (649, 6303), (652, 6315),

Gene: Haimas\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Haimas\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Haleema\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Haleema\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Halfpint\_10 Start: 6163, Stop: 8067, Start Num: 30

Candidate Starts for Halfpint\_10:

(Start: 30 @6163 has 441 MA's), (40, 6190), (87, 6271), (105, 6334), (122, 6400), (131, 6433), (173, 6541), (205, 6631), (232, 6709), (251, 6766), (261, 6820), (277, 6901), (282, 6922), (291, 6949), (316, 7000), (318, 7009), (323, 7018), (363, 7195), (365, 7207), (377, 7282), (382, 7306), (388, 7327), (419, 7411), (461, 7549), (471, 7567), (481, 7594), (499, 7618), (581, 7783), (584, 7792), (612, 7897), (615, 7906), (626, 7933), (652, 8023), (662, 8047), (670, 8059),

Gene: Hally898\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for Hally898\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (377, 6735), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (566, 7212), (572, 7221), (574, 7224), (595, 7281), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Halo3\_13 Start: 5892, Stop: 7478, Start Num: 7

Candidate Starts for Halo3\_13:

(Start: 7 @5892 has 114 MA's), (19, 5955), (104, 6144), (111, 6174), (154, 6291), (162, 6312), (166, 6327), (248, 6501), (250, 6507), (257, 6543), (261, 6567), (262, 6570), (273, 6609), (288, 6681), (328, 6741), (336, 6780), (337, 6783), (339, 6792), (341, 6798), (357, 6864), (364, 6909), (371, 6939), (377, 6987), (392, 7044), (399, 7065), (412, 7092), (413, 7095), (420, 7122), (428, 7173), (443, 7221),

Gene: Hamish\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Hamish\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Hangman\_9 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for Hangman\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (377, 7840), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (420, 7975), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (655, 8602), (670, 8629),

Gene: Hans\_15 Start: 6962, Stop: 8596, Start Num: 7

Candidate Starts for Hans\_15:

(Start: 7 @6962 has 114 MA's), (9, 6989), (11, 6998), (Start: 22 @7034 has 3 MA's), (50, 7100), (Start: 80 @7157 has 11 MA's), (91, 7190), (103, 7235), (109, 7265), (111, 7274), (119, 7298), (122, 7313), (154, 7394), (173, 7451), (211, 7511), (216, 7523), (221, 7541), (235, 7583), (259, 7673), (264, 7691), (267, 7706), (269, 7712), (279, 7766), (288, 7787), (328, 7847), (329, 7850), (342, 7907), (345, 7931), (351, 7952), (357, 7982), (364, 8027), (368, 8045), (372, 8066), (382, 8129), (388, 8150), (392, 8165),

(413, 8216), (437, 8321), (443, 8342), (460, 8372), (472, 8390), (499, 8456), (505, 8477), (528, 8531),

Gene: Happabalu\_8 Start: 4563, Stop: 6356, Start Num: 96

Candidate Starts for Happabalu\_8:

(Start: 30 @4437 has 441 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: Hartsy\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Hartsy\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Harvey\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Harvey\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: HarveySr\_11 Start: 6315, Stop: 8219, Start Num: 30

Candidate Starts for HarveySr\_11:

(Start: 30 @6315 has 441 MA's), (40, 6342), (87, 6423), (105, 6486), (122, 6552), (131, 6585), (173, 6693), (205, 6783), (232, 6861), (251, 6918), (261, 6972), (277, 7053), (282, 7074), (291, 7101), (316, 7152), (318, 7161), (323, 7170), (363, 7347), (365, 7359), (377, 7434), (382, 7458), (388, 7479), (419, 7563), (461, 7701), (471, 7719), (481, 7746), (499, 7770), (581, 7935), (584, 7944), (612, 8049), (615, 8058), (626, 8085), (652, 8175), (653, 8178), (662, 8199), (670, 8211),

Gene: Hashim76\_13 Start: 5567, Stop: 7492, Start Num: 30

Candidate Starts for Hashim76\_13:

(Start: 30 @5567 has 441 MA's), (172, 5942), (174, 5954), (186, 5993), (211, 6044), (218, 6059), (252, 6170), (259, 6209), (265, 6230), (275, 6284), (276, 6287), (282, 6320), (297, 6368), (307, 6392), (313, 6401), (318, 6419), (332, 6455), (355, 6554), (363, 6605), (371, 6641), (382, 6713), (461, 6956), (471, 6974), (583, 7208), (612, 7319), (615, 7328), (618, 7343), (635, 7391), (666, 7478),

Gene: Heath\_9 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for Heath\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (377, 7840), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (420, 7975), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (666, 8623), (670, 8629),

Gene: Heathcliff\_11 Start: 6309, Stop: 8204, Start Num: 30

Candidate Starts for Heathcliff\_11:

(Start: 30 @6309 has 441 MA's), (40, 6336), (87, 6417), (105, 6480), (122, 6546), (131, 6579), (173, 6687), (205, 6777), (232, 6855), (251, 6912), (261, 6966), (277, 7047), (282, 7068), (291, 7095), (316, 7146), (318, 7155), (323, 7164), (363, 7341), (365, 7353), (377, 7428), (382, 7452), (388, 7473), (419, 7557), (461, 7695), (471, 7713), (481, 7740), (499, 7764), (581, 7920), (584, 7929), (612, 8034), (615, 8043), (626, 8070), (652, 8160), (653, 8163), (662, 8184), (670, 8196),

Gene: Hedgerow\_12 Start: 7827, Stop: 9716, Start Num: 30

Candidate Starts for Hedgerow\_12:

(Start: 30 @7827 has 441 MA's), (57, 7875), (68, 7899), (Start: 80 @7917 has 11 MA's), (Start: 95 @7950 has 2 MA's), (120, 8058), (154, 8142), (173, 8205), (184, 8241), (209, 8292), (215, 8304), (221, 8325), (249, 8403), (251, 8412), (259, 8457), (277, 8547), (278, 8550), (280, 8556), (282, 8568), (287, 8583), (291, 8595), (327, 8679), (334, 8712), (338, 8730), (351, 8775), (363, 8844), (365, 8856), (377, 8931), (382, 8955), (384, 8961), (391, 8988), (395, 9000), (399, 9006), (412, 9036), (413, 9039), (420, 9066), (435, 9132), (438, 9141), (471, 9216), (485, 9252), (519, 9297), (578, 9435), (581, 9438), (585, 9450), (609, 9537), (612, 9546), (615, 9555), (618, 9570), (629, 9600), (635, 9618), (641, 9633), (649, 9660), (652, 9672), (670, 9708),

Gene: Hekos\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Hekos\_8:

(Start: 30 @4440 has 441 MA's), (Start: 37 @4455 has 5 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Held\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Held\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: HenryJackson\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for HenryJackson\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Hermeonysus\_19 Start: 8365, Stop: 10041, Start Num: 12

Candidate Starts for Hermeonysus\_19:

(Start: 12 @8365 has 40 MA's), (Start: 14 @8374 has 15 MA's), (68, 8488), (71, 8494), (104, 8599), (108, 8611), (132, 8710), (134, 8716), (138, 8728), (158, 8782), (163, 8800), (179, 8854), (188, 8884), (212, 8923), (219, 8941), (221, 8950), (233, 8986), (251, 9049), (264, 9112), (271, 9139), (328, 9286), (329, 9289), (337, 9328), (342, 9346), (359, 9418), (371, 9484), (372, 9493), (385, 9565), (394, 9598), (396, 9604), (406, 9634), (412, 9649), (448, 9787), (457, 9802), (470, 9823), (471, 9826),

Gene: Hertubise\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Hertubise\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864),

(250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Hetaeria\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Hetaeria\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: HighStump\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for HighStump\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Hive\_22 Start: 9500, Stop: 11221, Start Num: 112

Candidate Starts for Hive\_22:

(Start: 47 @9329 has 18 MA's), (50, 9338), (73, 9377), (112, 9500), (118, 9518), (146, 9593), (177, 9668), (261, 9911), (328, 10103), (365, 10277), (368, 10289), (401, 10439), (419, 10490), (424, 10523), (425, 10529), (433, 10562), (443, 10598), (449, 10625), (467, 10664), (474, 10685), (478, 10697), (481, 10703), (584, 10967), (622, 11084), (652, 11180),

Gene: Hocus\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Hocus\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: HogWash\_8 Start: 4549, Stop: 6357, Start Num: 88

Candidate Starts for HogWash\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Holeinone\_12 Start: 7727, Stop: 9616, Start Num: 30

Candidate Starts for Holeinone\_12:

(Start: 30 @7727 has 441 MA's), (57, 7775), (68, 7799), (Start: 80 @7817 has 11 MA's), (Start: 95 @7850 has 2 MA's), (120, 7958), (154, 8042), (173, 8105), (184, 8141), (209, 8192), (221, 8225), (249, 8303), (251, 8312), (259, 8357), (277, 8447), (278, 8450), (280, 8456), (282, 8468), (287, 8483), (291, 8495), (327, 8579), (334, 8612), (338, 8630), (351, 8675), (363, 8744), (365, 8756), (377, 8831), (382, 8855), (384, 8861), (391, 8888), (395, 8900), (399, 8906), (412, 8936), (413, 8939), (420, 8966), (435, 9032), (438, 9041), (471, 9116), (485, 9152), (519, 9197), (578, 9335), (581, 9338), (585, 9350), (609, 9437), (612, 9446), (615, 9455), (618, 9470), (629, 9500), (635, 9518), (641, 9533), (649, 9560), (652, 9572), (670, 9608),

Gene: Honeyfin\_21 Start: 8650, Stop: 10356, Start Num: 12

Candidate Starts for Honeyfin\_21:

(Start: 12 @8650 has 40 MA's), (Start: 14 @8659 has 15 MA's), (20, 8674), (68, 8773), (71, 8779), (104, 8884), (108, 8896), (132, 8995), (134, 9001), (158, 9067), (163, 9085), (179, 9139), (188, 9169), (212, 9208), (219, 9226), (221, 9235), (233, 9271), (251, 9334), (264, 9397), (271, 9424), (277, 9469), (328, 9571), (329, 9574), (337, 9613), (342, 9631), (359, 9703), (371, 9769), (372, 9778), (377, 9817), (385, 9850), (394, 9883), (396, 9889), (406, 9919), (448, 10072), (457, 10087), (470, 10108), (471, 10111), (559, 10324),

Gene: Horchata\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Horchata\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Hosp\_05 Start: 3410, Stop: 5326, Start Num: 30

Candidate Starts for Hosp\_05:

(Start: 30 @3410 has 441 MA's), (Start: 37 @3425 has 5 MA's), (79, 3488), (Start: 88 @3512 has 7 MA's), (102, 3554), (104, 3569), (105, 3572), (108, 3581), (154, 3731), (179, 3812), (191, 3842), (213, 3890), (248, 3983), (249, 3986), (251, 3995), (261, 4049), (262, 4052), (277, 4130), (278, 4133), (282, 4151), (303, 4214), (313, 4232), (330, 4280), (342, 4334), (356, 4394), (363, 4436), (375, 4508), (377, 4523), (381, 4544), (391, 4580), (395, 4592), (412, 4628), (452, 4775), (484, 4841), (515, 4907), (574, 5030), (588, 5060), (590, 5069), (595, 5087), (634, 5219), (635, 5222), (660, 5300),

Gene: Hydro\_9 Start: 6745, Stop: 8634, Start Num: 30

Candidate Starts for Hydro\_9:

(Start: 30 @6745 has 441 MA's), (Start: 37 @6760 has 5 MA's), (86, 6841), (94, 6856), (105, 6907), (108, 6916), (120, 6967), (161, 7072), (179, 7132), (221, 7228), (248, 7306), (249, 7309), (251, 7318), (259, 7363), (277, 7453), (278, 7456), (305, 7534), (313, 7546), (342, 7648), (356, 7708), (363, 7750), (365, 7762), (377, 7837), (382, 7861), (384, 7867), (391, 7894), (393, 7900), (396, 7909), (412, 7942), (420, 7972), (566, 8314), (572, 8323), (574, 8326), (596, 8389), (611, 8449), (612, 8452), (615, 8461), (649, 8575), (655, 8599), (670, 8626),

Gene: Hyperion\_21 Start: 8813, Stop: 10639, Start Num: 45

Candidate Starts for Hyperion\_21:

(Start: 45 @8813 has 50 MA's), (108, 8963), (155, 9098), (170, 9137), (201, 9215), (215, 9233), (264, 9383), (267, 9398), (277, 9455), (320, 9572), (324, 9581), (357, 9716), (364, 9761), (365, 9767), (368, 9779), (377, 9839), (419, 9968), (420, 9974), (424, 10001), (447, 10100), (468, 10145), (553, 10340), (574, 10376), (584, 10394), (599, 10439),

Gene: ImtiyazSitla\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for ImtiyazSitla\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Imvubu\_5 Start: 3537, Stop: 5456, Start Num: 30

Candidate Starts for Imvubu\_5:

(Start: 30 @3537 has 441 MA's), (Start: 80 @3618 has 11 MA's), (108, 3708), (131, 3798), (154, 3858), (159, 3870), (170, 3909), (205, 4002), (228, 4071), (230, 4077), (240, 4107), (242, 4110), (251, 4137), (259, 4182), (277, 4272), (278, 4275), (282, 4293), (329, 4410), (332, 4419), (337, 4449), (342, 4467), (363, 4569), (371, 4605), (386, 4689), (394, 4719), (395, 4722), (430, 4851), (438, 4863), (521, 5028), (555, 5133), (612, 5283), (618, 5307), (637, 5361), (641, 5370), (652, 5409), (666, 5442),

Gene: Inchworm\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Inchworm\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Indlovu\_9 Start: 6386, Stop: 8284, Start Num: 30

Candidate Starts for Indlovu\_9:

(Start: 30 @6386 has 441 MA's), (112, 6608), (120, 6638), (129, 6668), (144, 6716), (154, 6737), (179, 6818), (233, 6929), (242, 6956), (251, 6983), (259, 7028), (313, 7211), (339, 7304), (342, 7313), (355, 7364), (363, 7415), (365, 7427), (377, 7502), (382, 7526), (391, 7559), (471, 7787), (483, 7817), (571, 7988), (585, 8012), (611, 8108), (615, 8120), (641, 8198), (643, 8213), (670, 8276),

Gene: Inspectinfecti\_14 Start: 7478, Stop: 9112, Start Num: 7

Candidate Starts for Inspectinfecti\_14:

(Start: 7 @7478 has 114 MA's), (9, 7505), (11, 7514), (Start: 22 @7550 has 3 MA's), (Start: 39 @7592 has 1 MA's), (50, 7616), (Start: 80 @7673 has 11 MA's), (91, 7706), (103, 7751), (109, 7781), (111, 7790), (119, 7814), (122, 7829), (154, 7910), (173, 7967), (211, 8027), (216, 8039), (221, 8057), (235, 8099), (259, 8189), (264, 8207), (267, 8222), (269, 8228), (279, 8282), (288, 8303), (328, 8363), (329, 8366), (342, 8423), (345, 8447), (357, 8498), (364, 8543), (368, 8561), (372, 8582), (382, 8645), (388, 8666), (392, 8681), (413, 8732), (437, 8837), (443, 8858), (460, 8888), (472, 8906), (499, 8972), (505, 8993), (528, 9047),

Gene: Inverness\_8 Start: 4458, Stop: 6362, Start Num: 37

Candidate Starts for Inverness\_8:

(Start: 30 @4443 has 441 MA's), (Start: 37 @4458 has 5 MA's), (Start: 88 @4554 has 7 MA's), (Start: 96 @4569 has 1 MA's), (122, 4680), (170, 4812), (177, 4836), (179, 4842), (181, 4854), (186, 4866), (250, 5031), (275, 5157), (276, 5160), (277, 5172), (280, 5181), (282, 5193), (303, 5256), (307, 5265), (323, 5301), (329, 5319), (332, 5328), (342, 5376), (362, 5472), (363, 5478), (371, 5514), (377, 5562), (382, 5586), (440, 5781), (481, 5874), (596, 6126), (635, 6261), (649, 6303), (652, 6315),

Gene: Iridessa\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Iridessa\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Iridoclysis\_8 Start: 4445, Stop: 6364, Start Num: 30

Candidate Starts for Iridoclysis\_8:

(Start: 30 @4445 has 441 MA's), (Start: 37 @4460 has 5 MA's), (Start: 88 @4556 has 7 MA's), (Start: 96 @4571 has 1 MA's), (122, 4682), (170, 4814), (177, 4838), (179, 4844), (181, 4856), (186, 4868), (250, 5033), (275, 5159), (276, 5162), (277, 5174), (280, 5183), (282, 5195), (303, 5258), (307, 5267), (323, 5303), (329, 5321), (332, 5330), (342, 5378), (362, 5474), (363, 5480), (371, 5516), (377, 5564),

(382, 5588), (440, 5783), (481, 5876), (596, 6128), (635, 6263), (649, 6305), (652, 6317),

Gene: IsaacEli\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for IsaacEli\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: ItsyBitsy1\_12 Start: 7719, Stop: 9608, Start Num: 30

Candidate Starts for ItsyBitsy1\_12:

(Start: 30 @7719 has 441 MA's), (57, 7767), (68, 7791), (Start: 80 @7809 has 11 MA's), (Start: 95 @7842 has 2 MA's), (120, 7950), (154, 8034), (173, 8097), (184, 8133), (209, 8184), (221, 8217), (249, 8295), (251, 8304), (259, 8349), (277, 8439), (278, 8442), (280, 8448), (282, 8460), (287, 8475), (291, 8487), (327, 8571), (334, 8604), (338, 8622), (351, 8667), (363, 8736), (365, 8748), (377, 8823), (382, 8847), (384, 8853), (391, 8880), (395, 8892), (399, 8898), (412, 8928), (413, 8931), (420, 8958), (435, 9024), (438, 9033), (471, 9108), (485, 9144), (519, 9189), (578, 9327), (581, 9330), (585, 9342), (609, 9429), (612, 9438), (615, 9447), (618, 9462), (629, 9492), (635, 9510), (641, 9525), (649, 9552), (652, 9564), (670, 9600),

Gene: JAMaL\_8 Start: 6274, Stop: 8166, Start Num: 30

Candidate Starts for JAMaL\_8:

(Start: 30 @6274 has 441 MA's), (Start: 80 @6355 has 11 MA's), (94, 6385), (97, 6394), (105, 6436), (108, 6445), (123, 6505), (159, 6592), (161, 6601), (179, 6661), (185, 6682), (208, 6721), (221, 6757), (248, 6835), (249, 6838), (251, 6847), (259, 6892), (277, 6982), (278, 6985), (303, 7057), (305, 7063), (307, 7066), (313, 7075), (332, 7129), (338, 7165), (342, 7177), (344, 7192), (356, 7237), (363, 7279), (365, 7291), (381, 7387), (382, 7390), (384, 7396), (391, 7423), (393, 7429), (420, 7501), (472, 7654), (523, 7744), (566, 7846), (572, 7855), (574, 7858), (595, 7915), (596, 7921), (612, 7984), (615, 7993), (649, 8107), (658, 8137), (670, 8158),

Gene: JDog\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for JDog\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: JKSyngboy\_11 Start: 6783, Stop: 8414, Start Num: 7

Candidate Starts for JKSyngboy\_11:

(Start: 7 @6783 has 114 MA's), (Start: 47 @6906 has 18 MA's), (61, 6927), (83, 6984), (103, 7047), (130, 7140), (138, 7167), (216, 7335), (246, 7422), (254, 7461), (259, 7485), (264, 7503), (267, 7518), (269, 7524), (281, 7587), (328, 7659), (332, 7671), (336, 7698), (342, 7719), (351, 7764), (357, 7794), (364, 7839), (367, 7854), (368, 7857), (373, 7893), (382, 7941), (385, 7950), (419, 8049), (428, 8106), (434, 8124), (443, 8154), (451, 8172), (476, 8211), (480, 8217), (490, 8232), (496, 8253), (499, 8259), (515, 8298),

Gene: Jabberwocky\_11 Start: 6945, Stop: 8567, Start Num: 7

Candidate Starts for Jabberwocky\_11:

(Start: 7 @6945 has 114 MA's), (Start: 47 @7065 has 18 MA's), (73, 7104), (83, 7143), (103, 7206), (130, 7299), (138, 7326), (154, 7365), (216, 7494), (235, 7554), (255, 7623), (259, 7644), (264, 7662), (267, 7677), (269, 7683), (281, 7746), (324, 7806), (328, 7818), (336, 7857), (339, 7869), (342, 7878),

(347, 7911), (351, 7923), (357, 7953), (364, 7998), (367, 8013), (368, 8016), (373, 8052), (382, 8100), (385, 8109), (392, 8136), (443, 8313), (476, 8370), (480, 8376), (490, 8391), (496, 8412), (499, 8418), (515, 8454), (526, 8481),

Gene: JacAttac\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for JacAttac\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Jackstina\_10 Start: 6231, Stop: 8135, Start Num: 30

Candidate Starts for Jackstina\_10:

(Start: 30 @6231 has 441 MA's), (40, 6258), (87, 6339), (105, 6402), (122, 6468), (131, 6501), (173, 6609), (205, 6699), (232, 6777), (251, 6834), (261, 6888), (277, 6969), (282, 6990), (291, 7017), (316, 7068), (318, 7077), (323, 7086), (363, 7263), (365, 7275), (377, 7350), (382, 7374), (388, 7395), (419, 7479), (461, 7617), (471, 7635), (481, 7662), (499, 7686), (581, 7851), (584, 7860), (612, 7965), (615, 7974), (626, 8001), (652, 8091), (662, 8115), (670, 8127),

Gene: JaguarMi\_10 Start: 6572, Stop: 8458, Start Num: 30

Candidate Starts for JaguarMi\_10:

(Start: 30 @6572 has 441 MA's), (Start: 37 @6587 has 5 MA's), (86, 6668), (94, 6683), (105, 6734), (108, 6743), (120, 6794), (161, 6899), (179, 6959), (221, 7055), (248, 7133), (249, 7136), (251, 7145), (259, 7190), (277, 7280), (278, 7283), (305, 7361), (313, 7373), (323, 7400), (342, 7475), (356, 7535), (363, 7577), (365, 7589), (369, 7604), (382, 7688), (384, 7694), (391, 7721), (393, 7727), (396, 7736), (412, 7769), (566, 8138), (572, 8147), (574, 8150), (583, 8165), (596, 8213), (612, 8276), (615, 8285), (649, 8399), (666, 8444), (670, 8450),

Gene: JakeO\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for JakeO\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Jambalaya\_12 Start: 5267, Stop: 6853, Start Num: 7

Candidate Starts for Jambalaya\_12:

(Start: 7 @5267 has 114 MA's), (43, 5381), (111, 5549), (157, 5669), (162, 5687), (166, 5702), (238, 5852), (250, 5882), (261, 5942), (262, 5945), (273, 5984), (288, 6056), (328, 6116), (329, 6119), (330, 6122), (337, 6158), (339, 6167), (341, 6173), (342, 6176), (357, 6239), (364, 6284), (371, 6314), (377, 6362), (392, 6419), (399, 6440), (404, 6446), (412, 6467), (413, 6470), (420, 6497), (428, 6548), (443, 6596),

Gene: JangoPhett\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for JangoPhett\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Jayden\_20 Start: 7979, Stop: 9697, Start Num: 12

Candidate Starts for Jayden\_20:

(1, 7835), (Start: 12 @7979 has 40 MA's), (Start: 14 @7988 has 15 MA's), (Start: 58 @8084 has 3 MA's), (71, 8108), (104, 8213), (108, 8225), (132, 8324), (138, 8342), (158, 8396), (163, 8414), (178, 8465), (179, 8468), (192, 8507), (203, 8519), (212, 8537), (219, 8555), (221, 8564), (233, 8600), (251, 8663), (264, 8726), (271, 8753), (277, 8798), (328, 8900), (329, 8903), (342, 8960), (351, 8993), (359, 9032), (371, 9098), (372, 9107), (373, 9122), (377, 9146), (379, 9158), (394, 9212), (396, 9218), (406, 9248), (448, 9401), (470, 9437), (478, 9461), (479, 9464), (489, 9485), (495, 9506), (546, 9629), (550, 9641), (559, 9653), (570, 9680),

Gene: Jefe\_20 Start: 8418, Stop: 10094, Start Num: 12

Candidate Starts for Jefe\_20:

(Start: 12 @8418 has 40 MA's), (Start: 14 @8427 has 15 MA's), (68, 8541), (71, 8547), (104, 8652), (108, 8664), (134, 8769), (138, 8781), (158, 8835), (163, 8853), (179, 8907), (188, 8937), (212, 8976), (219, 8994), (221, 9003), (233, 9039), (251, 9102), (264, 9165), (271, 9192), (328, 9339), (329, 9342), (337, 9381), (342, 9399), (359, 9471), (371, 9537), (372, 9546), (385, 9618), (394, 9651), (396, 9657), (406, 9687), (412, 9702), (448, 9840), (457, 9855), (470, 9876), (471, 9879),

Gene: Jehoshaphat\_24 Start: 9365, Stop: 11191, Start Num: 45

Candidate Starts for Jehoshaphat\_24:

(Start: 45 @9365 has 50 MA's), (108, 9515), (155, 9650), (170, 9689), (201, 9767), (215, 9785), (264, 9935), (267, 9950), (277, 10007), (303, 10076), (320, 10124), (324, 10133), (357, 10268), (364, 10313), (365, 10319), (368, 10331), (377, 10391), (419, 10520), (420, 10526), (424, 10553), (447, 10652), (468, 10697), (553, 10892), (574, 10928), (584, 10946), (599, 10991),

Gene: JellyBelly\_8 Start: 5358, Stop: 7151, Start Num: 58

Candidate Starts for JellyBelly\_8:

(Start: 30 @5310 has 441 MA's), (Start: 58 @5358 has 3 MA's), (Start: 95 @5424 has 2 MA's), (104, 5466), (122, 5535), (173, 5661), (179, 5679), (223, 5760), (249, 5832), (259, 5886), (267, 5919), (277, 5976), (278, 5979), (282, 5997), (294, 6042), (302, 6063), (338, 6174), (342, 6186), (344, 6201), (355, 6237), (363, 6288), (365, 6300), (377, 6375), (382, 6399), (392, 6435), (395, 6444), (412, 6480), (418, 6501), (578, 6867), (583, 6876), (584, 6879), (605, 6951), (607, 6957), (612, 6978), (615, 6987), (638, 7059), (649, 7092), (652, 7104), (655, 7116), (662, 7128), (663, 7131),

Gene: Jeon\_6 Start: 3322, Stop: 5196, Start Num: 21

Candidate Starts for Jeon\_6:

(Start: 21 @3322 has 7 MA's), (Start: 30 @3340 has 441 MA's), (Start: 62 @3397 has 2 MA's), (112, 3535), (120, 3565), (139, 3619), (179, 3730), (228, 3859), (249, 3916), (251, 3925), (259, 3970), (264, 3988), (279, 4066), (280, 4069), (323, 4153), (331, 4177), (335, 4201), (363, 4330), (365, 4342), (371, 4366), (377, 4417), (391, 4474), (395, 4486), (448, 4660), (481, 4729), (605, 4981), (649, 5122), (652, 5134), (671, 5176),

Gene: Jesabah\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Jesabah\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Jillium\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Jillium\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Jiminy\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Jiminy\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Jiraiya\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Jiraiya\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: JohnLord\_7 Start: 3412, Stop: 5361, Start Num: 30

Candidate Starts for JohnLord\_7:

(Start: 21 @3394 has 7 MA's), (Start: 30 @3412 has 441 MA's), (69, 3490), (Start: 80 @3520 has 11 MA's), (87, 3538), (120, 3661), (159, 3757), (161, 3766), (176, 3817), (216, 3916), (228, 3961), (249, 4021), (251, 4030), (259, 4075), (276, 4153), (279, 4171), (304, 4252), (314, 4273), (319, 4285), (323, 4294), (327, 4306), (338, 4357), (339, 4360), (348, 4393), (363, 4471), (365, 4483), (371, 4507), (381, 4579), (382, 4582), (412, 4663), (436, 4762), (444, 4792), (471, 4843), (580, 5077), (602, 5143), (604, 5152), (612, 5188), (618, 5212), (643, 5290), (649, 5302), (670, 5353), (671, 5356),

Gene: JohnPork\_12 Start: 5515, Stop: 7101, Start Num: 7

Candidate Starts for JohnPork\_12:

(Start: 7 @5515 has 114 MA's), (43, 5629), (111, 5797), (157, 5917), (162, 5935), (166, 5950), (238, 6100), (250, 6130), (261, 6190), (262, 6193), (273, 6232), (288, 6304), (328, 6364), (329, 6367), (330, 6370), (337, 6406), (339, 6415), (341, 6421), (342, 6424), (357, 6487), (364, 6532), (371, 6562), (377, 6610), (392, 6667), (399, 6688), (404, 6694), (412, 6715), (413, 6718), (420, 6745), (428, 6796), (443, 6844),

Gene: Jolie1\_07 Start: 5208, Stop: 7124, Start Num: 30

Candidate Starts for Jolie1\_07:

(Start: 30 @5208 has 441 MA's), (Start: 37 @5223 has 5 MA's), (Start: 88 @5310 has 7 MA's), (102, 5352), (104, 5367), (105, 5370), (108, 5379), (154, 5529), (179, 5610), (191, 5640), (213, 5688), (248, 5781), (249, 5784), (251, 5793), (259, 5838), (261, 5847), (277, 5928), (278, 5931), (282, 5949), (303, 6012), (313, 6030), (330, 6078), (342, 6132), (356, 6192), (363, 6234), (375, 6306), (377, 6321), (381, 6342), (391, 6378), (395, 6390), (412, 6426), (452, 6573), (465, 6594), (484, 6639), (515, 6705), (574, 6828), (590, 6867), (634, 7017), (635, 7020), (660, 7098),

Gene: Jollipop\_20 Start: 8736, Stop: 10442, Start Num: 12

Candidate Starts for Jollipop\_20:

(Start: 12 @8736 has 40 MA's), (Start: 14 @8745 has 15 MA's), (20, 8760), (68, 8859), (71, 8865), (104, 8970), (108, 8982), (132, 9081), (134, 9087), (138, 9099), (158, 9153), (163, 9171), (179, 9225), (188, 9255), (212, 9294), (219, 9312), (221, 9321), (233, 9357), (251, 9420), (264, 9483), (271, 9510),

(277, 9555), (328, 9657), (329, 9660), (337, 9699), (342, 9717), (359, 9789), (371, 9855), (372, 9864), (377, 9903), (385, 9936), (394, 9969), (396, 9975), (406, 10005), (448, 10158), (457, 10173), (470, 10194), (471, 10197), (552, 10401), (559, 10410),

Gene: Jollymon\_41 Start: 18192, Stop: 20150, Start Num: 25

Candidate Starts for Jollymon\_41:

(Start: 25 @18192 has 7 MA's), (Start: 45 @18237 has 50 MA's), (74, 18288), (82, 18315), (146, 18504), (221, 18663), (251, 18756), (266, 18831), (280, 18900), (282, 18912), (283, 18918), (310, 19020), (321, 19053), (339, 19125), (340, 19128), (348, 19158), (357, 19197), (365, 19248), (372, 19281), (411, 19425), (412, 19428), (420, 19458), (448, 19566), (469, 19602), (472, 19611), (534, 19746), (593, 19860), (621, 19950), (665, 20103), (674, 20142),

Gene: JoyceMaria\_9 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for JoyceMaria\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (377, 7840), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (420, 7975), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (655, 8602), (670, 8629),

Gene: Judebell\_24 Start: 8906, Stop: 10732, Start Num: 45

Candidate Starts for Judebell\_24:

(Start: 45 @8906 has 50 MA's), (108, 9056), (155, 9191), (170, 9230), (201, 9308), (215, 9326), (264, 9476), (267, 9491), (277, 9548), (303, 9617), (320, 9665), (324, 9674), (357, 9809), (364, 9854), (365, 9860), (368, 9872), (377, 9932), (419, 10061), (420, 10067), (424, 10094), (447, 10193), (468, 10238), (553, 10433), (574, 10469), (584, 10487), (599, 10532),

Gene: KLucky39\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for KLucky39\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: KSunshine22\_70 Start: 29151, Stop: 30725, Start Num: 58

Candidate Starts for KSunshine22\_70:

(Start: 26 @29091 has 8 MA's), (Start: 58 @29151 has 3 MA's), (177, 29508), (249, 29697), (251, 29706), (312, 29910), (328, 29958), (366, 30138), (381, 30225), (404, 30291), (408, 30303), (475, 30534), (514, 30621), (562, 30714),

Gene: Kahve\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Kahve\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: KaiHaiDragon\_20 Start: 8353, Stop: 10035, Start Num: 14

Candidate Starts for KaiHaiDragon\_20:

(Start: 12 @8344 has 40 MA's), (Start: 14 @8353 has 15 MA's), (20, 8368), (68, 8467), (71, 8473), (104, 8578), (108, 8590), (132, 8689), (134, 8695), (138, 8707), (158, 8761), (163, 8779), (179, 8833), (188, 8863), (212, 8902), (219, 8920), (221, 8929), (233, 8965), (251, 9028), (264, 9091), (271, 9118), (328, 9265), (329, 9268), (337, 9307), (359, 9397), (371, 9463), (372, 9472), (385, 9544), (394, 9577), (396, 9583), (406, 9613), (412, 9628), (448, 9766), (457, 9781), (470, 9802), (471, 9805),

Gene: Kailash\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Kailash\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Kaleb\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Kaleb\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Kamashten\_13 Start: 7104, Stop: 8729, Start Num: 7

Candidate Starts for Kamashten\_13:

(Start: 7 @7104 has 114 MA's), (73, 7263), (83, 7302), (103, 7365), (138, 7485), (154, 7524), (216, 7653), (235, 7713), (255, 7782), (259, 7803), (264, 7821), (267, 7836), (269, 7842), (281, 7905), (324, 7965), (328, 7977), (336, 8016), (339, 8028), (342, 8037), (347, 8070), (351, 8082), (357, 8112), (364, 8157), (367, 8172), (368, 8175), (373, 8211), (382, 8259), (385, 8268), (392, 8295), (443, 8472), (476, 8529), (480, 8535), (490, 8550), (496, 8571), (499, 8577), (515, 8613), (526, 8643),

Gene: Kamiyu\_11 Start: 6309, Stop: 8213, Start Num: 30

Candidate Starts for Kamiyu\_11:

(Start: 30 @6309 has 441 MA's), (40, 6336), (87, 6417), (105, 6480), (122, 6546), (131, 6579), (173, 6687), (205, 6777), (232, 6855), (251, 6912), (261, 6966), (277, 7047), (282, 7068), (291, 7095), (316, 7146), (318, 7155), (323, 7164), (363, 7341), (365, 7353), (377, 7428), (382, 7452), (388, 7473), (419, 7557), (461, 7695), (471, 7713), (481, 7740), (499, 7764), (581, 7929), (584, 7938), (612, 8043), (615, 8052), (626, 8079), (652, 8169), (662, 8193), (670, 8205),

Gene: KarasumaRum\_11 Start: 6863, Stop: 8728, Start Num: 30

Candidate Starts for KarasumaRum\_11:

(Start: 30 @6863 has 441 MA's), (Start: 37 @6878 has 5 MA's), (104, 7016), (172, 7214), (174, 7226), (177, 7235), (233, 7352), (236, 7367), (251, 7406), (278, 7544), (282, 7562), (348, 7760), (356, 7796), (363, 7838), (377, 7925), (382, 7949), (391, 7982), (395, 7994), (400, 8006), (412, 8030), (471, 8210), (477, 8228), (561, 8408), (574, 8429), (585, 8450), (611, 8552), (630, 8612), (670, 8720), (671, 8723),

Gene: Karn\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Karn\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332,

5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Katniss\_8 Start: 4553, Stop: 6361, Start Num: 88

Candidate Starts for Katniss\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: KayaCho\_7 Start: 5211, Stop: 7142, Start Num: 30

Candidate Starts for KayaCho\_7:

(Start: 30 @5211 has 441 MA's), (Start: 37 @5226 has 5 MA's), (Start: 88 @5313 has 7 MA's), (104, 5370), (105, 5373), (154, 5532), (185, 5634), (191, 5643), (213, 5691), (249, 5787), (259, 5841), (261, 5850), (277, 5931), (278, 5934), (282, 5952), (303, 6015), (313, 6033), (330, 6081), (356, 6195), (363, 6237), (375, 6309), (377, 6324), (381, 6345), (391, 6381), (395, 6393), (412, 6429), (452, 6576), (484, 6642), (515, 6708), (574, 6846), (588, 6876), (590, 6885), (595, 6903), (634, 7035), (635, 7038), (660, 7116),

Gene: Keitabear\_13 Start: 8156, Stop: 9778, Start Num: 7

Candidate Starts for Keitabear\_13:

(Start: 7 @8156 has 114 MA's), (Start: 47 @8276 has 18 MA's), (73, 8315), (Start: 80 @8336 has 11 MA's), (83, 8354), (103, 8417), (130, 8510), (138, 8537), (154, 8576), (216, 8705), (235, 8765), (255, 8834), (259, 8855), (264, 8873), (267, 8888), (269, 8894), (281, 8957), (324, 9017), (328, 9029), (336, 9068), (339, 9080), (342, 9089), (347, 9122), (351, 9134), (357, 9164), (364, 9209), (367, 9224), (368, 9227), (373, 9263), (382, 9311), (385, 9320), (392, 9347), (443, 9524), (476, 9581), (480, 9587), (490, 9602), (496, 9623), (499, 9629), (515, 9665), (526, 9692),

Gene: Keitherie\_8 Start: 4437, Stop: 6356, Start Num: 30

Candidate Starts for Keitherie\_8:

(Start: 30 @4437 has 441 MA's), (Start: 37 @4452 has 5 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (232, 4974), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: Kelcole\_20 Start: 7743, Stop: 9542, Start Num: 45

Candidate Starts for Kelcole\_20:

(Start: 45 @7743 has 50 MA's), (94, 7842), (146, 8007), (170, 8058), (179, 8088), (215, 8154), (292, 8421), (308, 8466), (336, 8553), (348, 8598), (356, 8634), (364, 8682), (365, 8688), (368, 8700), (373, 8736), (377, 8760), (419, 8895), (443, 9003), (446, 9024), (479, 9105), (485, 9114), (547, 9225), (553, 9243), (574, 9279), (600, 9345), (617, 9414), (631, 9447), (655, 9522),

Gene: Kewpiedoll\_13 Start: 6506, Stop: 8128, Start Num: 7

Candidate Starts for Kewpiedoll\_13:

(Start: 7 @6506 has 114 MA's), (Start: 47 @6626 has 18 MA's), (73, 6665), (83, 6704), (103, 6767), (130, 6860), (138, 6887), (154, 6926), (216, 7055), (235, 7115), (255, 7184), (259, 7205), (264, 7223), (267, 7238), (269, 7244), (281, 7307), (324, 7367), (328, 7379), (336, 7418), (339, 7430), (342, 7439), (347, 7472), (351, 7484), (357, 7514), (364, 7559), (367, 7574), (368, 7577), (373, 7613), (382, 7661), (385, 7670), (392, 7697), (443, 7874), (476, 7931), (480, 7937), (490, 7952), (496, 7973), (499, 7979), (515, 8015), (526, 8042),

Gene: Khan1\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Khan1\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Kheth\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Kheth\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: Kikipoo\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Kikipoo\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: KillerQueen\_22 Start: 7559, Stop: 9358, Start Num: 45

Candidate Starts for KillerQueen\_22:

(Start: 45 @7559 has 50 MA's), (94, 7658), (146, 7823), (170, 7874), (179, 7904), (215, 7970), (292, 8237), (308, 8282), (336, 8369), (348, 8414), (356, 8450), (364, 8498), (365, 8504), (368, 8516), (373, 8552), (377, 8576), (419, 8711), (443, 8819), (446, 8840), (479, 8921), (485, 8930), (547, 9041), (553, 9059), (574, 9095), (600, 9161), (617, 9230), (631, 9263), (655, 9338),

Gene: Kimbrough\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Kimbrough\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: KimmyK\_12 Start: 5583, Stop: 7169, Start Num: 7

Candidate Starts for KimmyK\_12:

(Start: 7 @5583 has 114 MA's), (104, 5835), (111, 5865), (154, 5982), (162, 6003), (166, 6018), (248, 6192), (257, 6234), (261, 6258), (262, 6261), (273, 6300), (288, 6372), (328, 6432), (329, 6435), (330, 6438), (337, 6474), (339, 6483), (341, 6489), (342, 6492), (357, 6555), (364, 6600), (371, 6630), (377, 6678), (392, 6735), (399, 6756), (412, 6783), (413, 6786), (420, 6813), (428, 6864), (443, 6912),

Gene: KingTut\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for KingTut\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865),

(250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: KingVeVeVe\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for KingVeVeVe\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: KingstonB\_39 Start: 17700, Stop: 19658, Start Num: 25

Candidate Starts for KingstonB\_39:

(Start: 25 @17700 has 7 MA's), (Start: 45 @17745 has 50 MA's), (74, 17796), (82, 17823), (146, 18012), (221, 18171), (251, 18264), (266, 18339), (280, 18408), (282, 18420), (283, 18426), (310, 18528), (321, 18561), (339, 18633), (340, 18636), (348, 18666), (357, 18705), (372, 18789), (411, 18933), (412, 18936), (420, 18966), (448, 19074), (469, 19110), (472, 19119), (534, 19254), (593, 19368), (614, 19437), (621, 19458), (665, 19611), (674, 19650),

Gene: Kithara\_22 Start: 9733, Stop: 11709, Start Num: 35

Candidate Starts for Kithara\_22:

(Start: 35 @9733 has 1 MA's), (54, 9775), (90, 9859), (99, 9877), (106, 9922), (113, 9949), (164, 10093), (168, 10108), (175, 10135), (186, 10177), (193, 10195), (210, 10231), (251, 10366), (278, 10504), (282, 10522), (289, 10540), (292, 10543), (320, 10606), (325, 10618), (332, 10639), (338, 10675), (340, 10681), (342, 10687), (364, 10795), (365, 10801), (415, 11002), (443, 11125), (445, 11143), (508, 11281), (538, 11359), (574, 11437), (592, 11485), (600, 11503), (610, 11548), (638, 11638), (652, 11683),

Gene: KlimbOn\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for KlimbOn\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Kloppinator\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Kloppinator\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Knocker\_14 Start: 9188, Stop: 11104, Start Num: 30

Candidate Starts for Knocker\_14:

(Start: 30 @9188 has 441 MA's), (40, 9212), (Start: 80 @9269 has 11 MA's), (97, 9305), (108, 9356), (109, 9365), (119, 9398), (122, 9413), (135, 9461), (154, 9506), (165, 9542), (205, 9650), (214, 9668), (228, 9707), (251, 9773), (259, 9818), (265, 9839), (274, 9875), (277, 9908), (278, 9911), (282, 9929), (284, 9935), (303, 9983), (305, 9989), (307, 9992), (313, 10001), (318, 10019), (336, 10082), (337, 10085), (338, 10091), (358, 10169), (363, 10205), (364, 10211), (371, 10241), (377, 10289), (395, 10358), (438, 10499), (452, 10541), (483, 10604), (488, 10613), (501, 10631), (572, 10796), (584,

10817), (604, 10889), (611, 10922), (612, 10925), (615, 10934), (618, 10949), (625, 10958), (637, 11003), (638, 11006), (641, 11012), (643, 11027), (650, 11042), (652, 11051), (655, 11063), (660, 11075), (662, 11081),

Gene: Kolhan\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Kolhan\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: Kowalski\_19 Start: 8475, Stop: 10151, Start Num: 12

Candidate Starts for Kowalski\_19:

(Start: 12 @8475 has 40 MA's), (Start: 14 @8484 has 15 MA's), (68, 8598), (71, 8604), (104, 8709), (108, 8721), (132, 8820), (134, 8826), (138, 8838), (158, 8892), (163, 8910), (179, 8964), (188, 8994), (212, 9033), (219, 9051), (221, 9060), (233, 9096), (251, 9159), (264, 9222), (271, 9249), (328, 9396), (329, 9399), (337, 9438), (342, 9456), (359, 9528), (371, 9594), (372, 9603), (385, 9675), (394, 9708), (396, 9714), (406, 9744), (412, 9759), (448, 9897), (457, 9912), (470, 9933), (471, 9936),

Gene: Kozie\_14 Start: 7119, Stop: 8849, Start Num: 14

Candidate Starts for Kozie\_14:

(Start: 12 @7110 has 40 MA's), (Start: 14 @7119 has 15 MA's), (50, 7200), (85, 7275), (104, 7341), (108, 7353), (109, 7362), (114, 7380), (132, 7452), (158, 7524), (166, 7554), (178, 7593), (179, 7596), (196, 7650), (203, 7677), (212, 7695), (216, 7704), (219, 7713), (221, 7722), (229, 7746), (240, 7779), (247, 7800), (249, 7806), (271, 7905), (277, 7950), (328, 8052), (342, 8112), (346, 8127), (359, 8184), (372, 8259), (377, 8298), (396, 8370), (399, 8379), (459, 8574), (470, 8592), (471, 8595), (490, 8643), (496, 8664), (504, 8688), (509, 8694), (522, 8712), (550, 8805),

Gene: Kronus\_10 Start: 6924, Stop: 8825, Start Num: 30

Candidate Starts for Kronus\_10:

(Start: 30 @6924 has 441 MA's), (40, 6951), (87, 7032), (105, 7095), (122, 7161), (131, 7194), (173, 7302), (205, 7392), (232, 7470), (251, 7527), (261, 7581), (277, 7662), (282, 7683), (291, 7710), (316, 7761), (318, 7770), (323, 7779), (363, 7956), (365, 7968), (377, 8043), (382, 8067), (388, 8088), (419, 8172), (461, 8310), (471, 8328), (481, 8355), (499, 8379), (581, 8541), (584, 8550), (612, 8655), (615, 8664), (626, 8691), (635, 8727), (652, 8781), (653, 8784), (662, 8805), (670, 8817),

Gene: Kroos\_12 Start: 6436, Stop: 8064, Start Num: 7

Candidate Starts for Kroos\_12:

(Start: 7 @6436 has 114 MA's), (Start: 47 @6559 has 18 MA's), (61, 6580), (83, 6637), (103, 6700), (109, 6730), (130, 6793), (138, 6820), (157, 6862), (216, 6988), (246, 7075), (254, 7114), (259, 7138), (264, 7156), (267, 7171), (269, 7177), (281, 7240), (328, 7312), (336, 7351), (351, 7417), (357, 7447), (364, 7492), (367, 7507), (368, 7510), (373, 7546), (382, 7594), (385, 7603), (392, 7630), (404, 7657), (419, 7702), (428, 7759), (434, 7777), (443, 7807), (451, 7825), (476, 7864), (480, 7870), (490, 7885), (496, 7906), (499, 7912), (515, 7948), (528, 7981),

Gene: Kubulix\_23 Start: 9444, Stop: 11330, Start Num: 47

Candidate Starts for Kubulix\_23:

(Start: 47 @9444 has 18 MA's), (50, 9453), (73, 9492), (112, 9615), (118, 9633), (133, 9684), (146, 9708), (177, 9783), (261, 10026), (328, 10218), (365, 10392), (368, 10404), (401, 10554), (419,

10605), (424, 10638), (425, 10644), (433, 10677), (443, 10713), (449, 10740), (467, 10779), (474, 10800), (478, 10812), (584, 11076), (622, 11193), (652, 11289),

Gene: Kwadwo\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Kwadwo\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Kwekel\_13 Start: 5795, Stop: 7471, Start Num: 7

Candidate Starts for Kwekel\_13:

(Start: 7 @5795 has 114 MA's), (38, 5906), (50, 5933), (64, 5963), (103, 6092), (109, 6122), (134, 6200), (171, 6299), (212, 6371), (216, 6380), (222, 6401), (235, 6440), (259, 6530), (264, 6548), (267, 6563), (269, 6569), (288, 6644), (328, 6704), (329, 6707), (342, 6764), (357, 6839), (364, 6884), (372, 6923), (377, 6962), (382, 6986), (388, 7007), (392, 7022), (396, 7034), (413, 7073), (443, 7199), (460, 7229), (505, 7334),

Gene: Kwksand96\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Kwksand96\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Kwobi\_12 Start: 6275, Stop: 7903, Start Num: 7

Candidate Starts for Kwobi\_12:

(Start: 7 @6275 has 114 MA's), (Start: 47 @6398 has 18 MA's), (61, 6419), (83, 6476), (103, 6539), (109, 6569), (130, 6632), (138, 6659), (216, 6827), (246, 6914), (254, 6953), (259, 6977), (264, 6995), (267, 7010), (269, 7016), (281, 7079), (328, 7151), (336, 7190), (351, 7256), (357, 7286), (364, 7331), (367, 7346), (368, 7349), (373, 7385), (382, 7433), (385, 7442), (392, 7469), (404, 7496), (419, 7541), (434, 7616), (443, 7646), (451, 7664), (476, 7703), (480, 7709), (490, 7724), (496, 7745), (499, 7751), (515, 7787), (528, 7820),

Gene: Kyva\_24 Start: 9157, Stop: 10983, Start Num: 45

Candidate Starts for Kyva\_24:

(Start: 45 @9157 has 50 MA's), (108, 9307), (155, 9442), (170, 9481), (201, 9559), (215, 9577), (264, 9727), (267, 9742), (277, 9799), (320, 9916), (324, 9925), (357, 10060), (364, 10105), (365, 10111), (368, 10123), (377, 10183), (419, 10312), (420, 10318), (424, 10345), (447, 10444), (468, 10489), (553, 10684), (574, 10720), (584, 10738), (599, 10783),

Gene: Labeouficaum\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Labeouficaum\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Lambano\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for Lambano\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (377, 6735), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (566, 7212), (572, 7221), (574, 7224), (595, 7281), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Lars\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Lars\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Larson\_9 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Larson\_9:

(Start: 30 @4440 has 441 MA's), (Start: 37 @4455 has 5 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: LasagnaCat\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for LasagnaCat\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Lasso\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Lasso\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Laure\_78 Start: 33903, Stop: 35429, Start Num: 81

Candidate Starts for Laure\_78:

(28, 33795), (Start: 80 @33897 has 11 MA's), (81, 33903), (119, 34032), (127, 34062), (175, 34203), (177, 34209), (222, 34305), (261, 34461), (300, 34590), (309, 34608), (312, 34617), (328, 34665), (337, 34707), (339, 34716), (371, 34863), (386, 34947), (396, 34983), (413, 35031), (425, 35091), (453, 35187), (464, 35205), (467, 35220), (472, 35235), (481, 35259), (542, 35376), (562, 35418),

Gene: Laurie\_12 Start: 7729, Stop: 9618, Start Num: 30

Candidate Starts for Laurie\_12:

(Start: 30 @7729 has 441 MA's), (57, 7777), (68, 7801), (Start: 80 @7819 has 11 MA's), (Start: 95 @7852 has 2 MA's), (120, 7960), (170, 8095), (173, 8107), (184, 8143), (209, 8194), (249, 8305), (251, 8314), (259, 8359), (277, 8449), (278, 8452), (280, 8458), (282, 8470), (287, 8485), (291, 8497), (327,

8581), (334, 8614), (338, 8632), (351, 8677), (363, 8746), (365, 8758), (377, 8833), (382, 8857), (384, 8863), (391, 8890), (395, 8902), (399, 8908), (412, 8938), (413, 8941), (420, 8968), (435, 9034), (438, 9043), (471, 9118), (485, 9154), (519, 9199), (578, 9337), (581, 9340), (585, 9352), (609, 9439), (612, 9448), (615, 9457), (618, 9472), (629, 9502), (635, 9520), (641, 9535), (649, 9562), (652, 9574), (670, 9610),

Gene: LeeLot\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for LeeLot\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Lego3393\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Lego3393\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Legolas\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Legolas\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Lehmann\_9 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Lehmann\_9:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: LeiMonet\_8 Start: 4437, Stop: 6356, Start Num: 30

Candidate Starts for LeiMonet\_8:

(Start: 30 @4437 has 441 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: LemonSlice\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for LemonSlice\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Lennon\_13 Start: 7365, Stop: 8987, Start Num: 7

Candidate Starts for Lennon\_13:

(Start: 7 @7365 has 114 MA's), (73, 7524), (83, 7563), (103, 7626), (138, 7746), (154, 7785), (212, 7905), (216, 7914), (235, 7974), (255, 8043), (259, 8064), (264, 8082), (267, 8097), (269, 8103), (281, 8166), (324, 8226), (328, 8238), (336, 8277), (339, 8289), (342, 8298), (347, 8331), (351, 8343), (357, 8373), (364, 8418), (367, 8433), (368, 8436), (373, 8472), (382, 8520), (385, 8529), (392, 8556), (443, 8733), (476, 8790), (480, 8796), (490, 8811), (496, 8832), (499, 8838), (515, 8874), (526, 8901),

Gene: LeoJr\_75 Start: 31198, Stop: 32826, Start Num: 26

Candidate Starts for LeoJr\_75:

(Start: 26 @31198 has 8 MA's), (119, 31438), (177, 31615), (251, 31813), (284, 31975), (312, 32017), (315, 32029), (328, 32065), (366, 32245), (381, 32332), (408, 32410), (475, 32641), (514, 32728), (542, 32776), (562, 32815),

Gene: Leonard\_13 Start: 7073, Stop: 8707, Start Num: 7

Candidate Starts for Leonard\_13:

(Start: 7 @7073 has 114 MA's), (9, 7100), (11, 7109), (Start: 22 @7145 has 3 MA's), (Start: 39 @7187 has 1 MA's), (50, 7211), (Start: 80 @7268 has 11 MA's), (91, 7301), (103, 7346), (109, 7376), (111, 7385), (119, 7409), (122, 7424), (154, 7505), (173, 7562), (211, 7622), (216, 7634), (221, 7652), (235, 7694), (259, 7784), (264, 7802), (267, 7817), (269, 7823), (279, 7877), (288, 7898), (328, 7958), (329, 7961), (342, 8018), (345, 8042), (357, 8093), (364, 8138), (368, 8156), (372, 8177), (382, 8240), (388, 8261), (392, 8276), (413, 8327), (437, 8432), (443, 8453), (460, 8483), (472, 8501), (499, 8567), (505, 8588), (528, 8642),

Gene: Lephleur\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Lephleur\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: LestyG\_11 Start: 6318, Stop: 8222, Start Num: 30

Candidate Starts for LestyG\_11:

(Start: 30 @6318 has 441 MA's), (40, 6345), (87, 6426), (105, 6489), (122, 6555), (131, 6588), (173, 6696), (205, 6786), (232, 6864), (251, 6921), (261, 6975), (277, 7056), (282, 7077), (291, 7104), (316, 7155), (318, 7164), (323, 7173), (363, 7350), (365, 7362), (377, 7437), (382, 7461), (388, 7482), (419, 7566), (461, 7704), (471, 7722), (481, 7749), (499, 7773), (581, 7938), (584, 7947), (612, 8052), (615, 8061), (626, 8088), (635, 8124), (652, 8178), (653, 8181), (662, 8202), (670, 8214),

Gene: Ligma\_8 Start: 5351, Stop: 7141, Start Num: 58

Candidate Starts for Ligma\_8:

(Start: 30 @5303 has 441 MA's), (Start: 58 @5351 has 3 MA's), (Start: 95 @5417 has 2 MA's), (104, 5459), (145, 5591), (173, 5654), (179, 5672), (249, 5825), (251, 5834), (259, 5879), (267, 5912), (277, 5969), (278, 5972), (282, 5990), (293, 6023), (302, 6050), (338, 6161), (342, 6173), (344, 6188), (363, 6275), (365, 6287), (377, 6362), (382, 6386), (392, 6422), (394, 6428), (395, 6431), (396, 6434), (412, 6467), (583, 6866), (584, 6869), (585, 6872), (605, 6941), (607, 6947), (612, 6968), (626, 7004), (638, 7049), (643, 7070), (652, 7094), (655, 7106), (662, 7118), (663, 7121),

Gene: LilHam\_10 Start: 5591, Stop: 7219, Start Num: 7

Candidate Starts for LilHam\_10:

(Start: 7 @5591 has 114 MA's), (Start: 47 @5714 has 18 MA's), (61, 5735), (83, 5792), (103, 5855), (109, 5885), (130, 5948), (138, 5975), (216, 6143), (246, 6230), (254, 6269), (259, 6293), (264, 6311), (267, 6326), (269, 6332), (281, 6395), (328, 6467), (336, 6506), (351, 6572), (357, 6602), (364, 6647), (367, 6662), (368, 6665), (373, 6701), (382, 6749), (385, 6758), (392, 6785), (404, 6812), (419, 6857), (434, 6932), (443, 6962), (451, 6980), (476, 7019), (480, 7025), (490, 7040), (496, 7061), (499, 7067), (515, 7103), (528, 7136),

Gene: LilMcDreamy\_10 Start: 7470, Stop: 9329, Start Num: 30

Candidate Starts for LilMcDreamy\_10:

(Start: 30 @7470 has 441 MA's), (104, 7614), (124, 7689), (131, 7713), (179, 7839), (233, 7950), (242, 7977), (251, 8004), (259, 8049), (267, 8082), (282, 8160), (303, 8214), (305, 8220), (342, 8334), (349, 8361), (363, 8436), (365, 8448), (377, 8523), (382, 8547), (391, 8580), (412, 8628), (461, 8790), (471, 8808), (477, 8826), (501, 8859), (576, 9033), (583, 9045), (595, 9087), (611, 9153), (625, 9189), (649, 9270),

Gene: LilSmirk\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for LilSmirk\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: Lilbeanie\_13 Start: 5278, Stop: 6954, Start Num: 6

Candidate Starts for Lilbeanie\_13:

(Start: 6 @5278 has 1 MA's), (Start: 27 @5377 has 5 MA's), (51, 5437), (79, 5512), (Start: 80 @5515 has 11 MA's), (103, 5593), (154, 5752), (163, 5776), (174, 5812), (235, 5935), (238, 5944), (273, 6076), (288, 6148), (328, 6208), (329, 6211), (332, 6220), (342, 6268), (347, 6292), (348, 6295), (357, 6334), (371, 6409), (377, 6457), (391, 6514), (397, 6532), (413, 6568), (427, 6643), (433, 6661), (525, 6853),

Gene: LittleDigger\_8 Start: 5644, Stop: 7533, Start Num: 30

Candidate Starts for LittleDigger\_8:

(Start: 30 @5644 has 441 MA's), (86, 5740), (94, 5755), (105, 5806), (108, 5815), (120, 5866), (123, 5875), (161, 5971), (179, 6031), (221, 6127), (249, 6208), (259, 6262), (277, 6352), (278, 6355), (305, 6433), (313, 6445), (342, 6547), (356, 6607), (363, 6649), (365, 6661), (377, 6736), (382, 6760), (384, 6766), (391, 6793), (393, 6799), (412, 6841), (420, 6871), (566, 7213), (572, 7222), (574, 7225), (595, 7282), (596, 7288), (611, 7348), (612, 7351), (615, 7360), (649, 7474), (666, 7519), (670, 7525),

Gene: LittleFortune\_21 Start: 8692, Stop: 10398, Start Num: 12

Candidate Starts for LittleFortune\_21:

(Start: 12 @8692 has 40 MA's), (Start: 14 @8701 has 15 MA's), (20, 8716), (68, 8815), (71, 8821), (104, 8926), (108, 8938), (132, 9037), (134, 9043), (158, 9109), (163, 9127), (179, 9181), (188, 9211), (212, 9250), (219, 9268), (221, 9277), (233, 9313), (251, 9376), (264, 9439), (271, 9466), (277, 9511), (328, 9613), (329, 9616), (337, 9655), (342, 9673), (359, 9745), (371, 9811), (372, 9820), (377, 9859), (385, 9892), (394, 9925), (396, 9931), (406, 9961), (448, 10114), (457, 10129), (470, 10150), (471, 10153), (552, 10357), (559, 10366),

Gene: LittleMinkey\_14 Start: 5767, Stop: 7686, Start Num: 30

Candidate Starts for LittleMinkey\_14:

(Start: 30 @5767 has 441 MA's), (174, 6154), (186, 6193), (191, 6199), (211, 6244), (252, 6370), (261, 6418), (275, 6484), (276, 6487), (282, 6520), (297, 6568), (307, 6592), (313, 6601), (318, 6619), (332, 6655), (355, 6754), (371, 6841), (382, 6913), (387, 6928), (439, 7102), (487, 7216), (574, 7399), (612, 7525), (618, 7549), (634, 7594),

Gene: LittleMunchkin\_9 Start: 6586, Stop: 8433, Start Num: 30

Candidate Starts for LittleMunchkin\_9:

(Start: 30 @6586 has 441 MA's), (Start: 95 @6700 has 2 MA's), (104, 6742), (145, 6874), (172, 6928), (173, 6937), (251, 7120), (267, 7198), (277, 7255), (278, 7258), (282, 7276), (294, 7321), (338, 7459), (342, 7471), (344, 7486), (355, 7522), (363, 7573), (377, 7660), (392, 7720), (471, 7942), (578, 8149), (581, 8152), (583, 8158), (584, 8161), (605, 8233), (607, 8239), (612, 8260), (618, 8284), (638, 8341), (643, 8362), (648, 8371), (662, 8410), (663, 8413),

Gene: LizLemon\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for LizLemon\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Llemily\_21 Start: 8141, Stop: 9967, Start Num: 45

Candidate Starts for Llemily\_21:

(Start: 45 @8141 has 50 MA's), (108, 8291), (155, 8426), (170, 8465), (201, 8543), (215, 8561), (264, 8711), (267, 8726), (277, 8783), (303, 8852), (320, 8900), (324, 8909), (357, 9044), (364, 9089), (365, 9095), (368, 9107), (377, 9167), (419, 9296), (420, 9302), (424, 9329), (447, 9428), (468, 9473), (553, 9668), (574, 9704), (584, 9722), (599, 9767),

Gene: Lolalove\_9 Start: 6745, Stop: 8634, Start Num: 30

Candidate Starts for Lolalove\_9:

(Start: 30 @6745 has 441 MA's), (Start: 37 @6760 has 5 MA's), (86, 6841), (94, 6856), (105, 6907), (108, 6916), (120, 6967), (161, 7072), (179, 7132), (221, 7228), (248, 7306), (249, 7309), (251, 7318), (259, 7363), (277, 7453), (278, 7456), (305, 7534), (313, 7546), (342, 7648), (356, 7708), (363, 7750), (365, 7762), (377, 7837), (382, 7861), (384, 7867), (391, 7894), (393, 7900), (396, 7909), (412, 7942), (420, 7972), (566, 8314), (572, 8323), (574, 8326), (596, 8389), (611, 8449), (612, 8452), (615, 8461), (649, 8575), (655, 8599), (670, 8626),

Gene: Lonelysoil\_21 Start: 8386, Stop: 10212, Start Num: 45

Candidate Starts for Lonelysoil\_21:

(Start: 45 @8386 has 50 MA's), (108, 8536), (155, 8671), (170, 8710), (201, 8788), (215, 8806), (264, 8956), (267, 8971), (277, 9028), (303, 9097), (320, 9145), (324, 9154), (357, 9289), (364, 9334), (365, 9340), (368, 9352), (377, 9412), (419, 9541), (420, 9547), (424, 9574), (447, 9673), (468, 9718), (553, 9913), (574, 9949), (584, 9967), (599, 10012),

Gene: Longacauda\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Longacauda\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332,

5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Lopsy\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Lopsy\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: LostAndPhound\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for LostAndPhound\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Love\_14 Start: 7094, Stop: 8716, Start Num: 7

Candidate Starts for Love\_14:

(Start: 7 @7094 has 114 MA's), (Start: 47 @7214 has 18 MA's), (73, 7253), (83, 7292), (103, 7355), (130, 7448), (138, 7475), (154, 7514), (212, 7634), (216, 7643), (235, 7703), (255, 7772), (259, 7793), (264, 7811), (267, 7826), (269, 7832), (281, 7895), (324, 7955), (328, 7967), (336, 8006), (339, 8018), (342, 8027), (351, 8072), (357, 8102), (364, 8147), (367, 8162), (368, 8165), (373, 8201), (382, 8249), (385, 8258), (392, 8285), (443, 8462), (476, 8519), (480, 8525), (490, 8540), (496, 8561), (499, 8567), (515, 8603), (526, 8630),

Gene: LuckyMarjie\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for LuckyMarjie\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Lucretia\_20 Start: 8412, Stop: 10088, Start Num: 12

Candidate Starts for Lucretia\_20:

(Start: 12 @8412 has 40 MA's), (Start: 14 @8421 has 15 MA's), (20, 8436), (68, 8535), (71, 8541), (104, 8646), (108, 8658), (132, 8757), (134, 8763), (138, 8775), (158, 8829), (163, 8847), (179, 8901), (188, 8931), (212, 8970), (219, 8988), (221, 8997), (233, 9033), (251, 9096), (264, 9159), (271, 9186), (328, 9333), (329, 9336), (337, 9375), (342, 9393), (359, 9465), (371, 9531), (372, 9540), (385, 9612), (394, 9645), (396, 9651), (406, 9681), (412, 9696), (448, 9834), (457, 9849), (470, 9870), (471, 9873),

Gene: Lulumae\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Lulumae\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Lulwa\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Lulwa\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Lumine\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Lumine\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: MRabcd\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for MRabcd\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Mag7\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Mag7\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Magic8\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Magic8\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Magpie\_9 Start: 6903, Stop: 8792, Start Num: 30

Candidate Starts for Magpie\_9:

(Start: 30 @6903 has 441 MA's), (Start: 37 @6918 has 5 MA's), (86, 6999), (94, 7014), (105, 7065), (108, 7074), (120, 7125), (161, 7230), (179, 7290), (221, 7386), (248, 7464), (249, 7467), (251, 7476), (259, 7521), (277, 7611), (278, 7614), (305, 7692), (313, 7704), (342, 7806), (356, 7866), (363, 7908), (365, 7920), (382, 8019), (384, 8025), (391, 8052), (393, 8058), (396, 8067), (412, 8100), (420, 8130), (566, 8472), (572, 8481), (590, 8523), (596, 8547), (611, 8607), (612, 8610), (615, 8619), (649, 8733), (666, 8778), (670, 8784),

Gene: Maih\_10 Start: 8086, Stop: 9888, Start Num: 80

Candidate Starts for Maih\_10:

(Start: 80 @8086 has 11 MA's), (117, 8212), (123, 8233), (127, 8245), (142, 8293), (159, 8332), (172, 8374), (179, 8401), (204, 8470), (214, 8491), (221, 8512), (248, 8590), (250, 8596), (251, 8602), (273, 8698), (280, 8746), (326, 8824), (337, 8869), (339, 8878), (348, 8911), (356, 8947), (378, 9079), (476,

9376), (493, 9412), (532, 9502), (543, 9535), (549, 9547), (586, 9598), (603, 9649), (606, 9667), (619, 9715), (623, 9721), (644, 9802), (652, 9832), (661, 9859), (669, 9877),

Gene: Makar\_42 Start: 18159, Stop: 20129, Start Num: 25

Candidate Starts for Makar\_42:

(Start: 25 @18159 has 7 MA's), (Start: 45 @18204 has 50 MA's), (74, 18255), (119, 18399), (144, 18471), (179, 18558), (221, 18633), (232, 18669), (251, 18726), (266, 18801), (282, 18882), (298, 18954), (299, 18957), (310, 18987), (321, 19020), (340, 19095), (348, 19125), (357, 19164), (365, 19215), (372, 19248), (385, 19320), (411, 19392), (412, 19395), (420, 19425), (439, 19503), (448, 19533), (472, 19578), (524, 19671), (573, 19779), (582, 19794), (593, 19836), (616, 19914), (632, 19965), (639, 19983), (671, 20094), (674, 20121),

Gene: MakoManhole\_10 Start: 6780, Stop: 8627, Start Num: 30

Candidate Starts for MakoManhole\_10:

(Start: 30 @6780 has 441 MA's), (Start: 95 @6894 has 2 MA's), (104, 6936), (120, 6999), (141, 7065), (184, 7170), (243, 7293), (245, 7299), (249, 7308), (251, 7317), (278, 7455), (282, 7473), (329, 7614), (334, 7641), (338, 7659), (342, 7671), (355, 7722), (363, 7773), (377, 7860), (395, 7929), (471, 8142), (505, 8202), (510, 8211), (583, 8352), (584, 8355), (605, 8427), (607, 8433), (612, 8454), (630, 8511), (643, 8556), (649, 8568), (652, 8580), (655, 8592), (662, 8604), (663, 8607),

Gene: Mana\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Mana\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Manad\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Manad\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Mao1\_6 Start: 4087, Stop: 6054, Start Num: 21

Candidate Starts for Mao1\_6:

(Start: 21 @4087 has 7 MA's), (Start: 30 @4105 has 441 MA's), (69, 4183), (87, 4231), (120, 4354), (159, 4450), (161, 4459), (176, 4510), (216, 4609), (228, 4654), (249, 4714), (251, 4723), (259, 4768), (265, 4789), (276, 4846), (279, 4864), (304, 4945), (314, 4966), (319, 4978), (323, 4987), (327, 4999), (338, 5050), (339, 5053), (348, 5086), (363, 5164), (365, 5176), (371, 5200), (381, 5272), (382, 5275), (412, 5356), (436, 5455), (444, 5485), (471, 5536), (580, 5770), (602, 5836), (604, 5845), (612, 5881), (618, 5905), (643, 5983), (649, 5995), (670, 6046), (671, 6049),

Gene: Marcie\_26 Start: 8457, Stop: 10256, Start Num: 45

Candidate Starts for Marcie\_26:

(Start: 45 @8457 has 50 MA's), (124, 8670), (170, 8772), (179, 8802), (215, 8868), (292, 9135), (295, 9150), (304, 9168), (308, 9180), (336, 9267), (338, 9276), (348, 9312), (356, 9348), (364, 9396), (365, 9402), (368, 9414), (373, 9450), (377, 9474), (419, 9609), (443, 9717), (479, 9819), (485, 9828), (532, 9927), (547, 9939), (553, 9957), (574, 9993), (600, 10059), (617, 10128), (631, 10161), (654, 10230), (655, 10236),

Gene: Mareelih\_76 Start: 30803, Stop: 32533, Start Num: 27

Candidate Starts for Mareelih\_76:

(Start: 27 @30803 has 5 MA's), (73, 30881), (92, 30935), (98, 30947), (119, 31034), (122, 31049), (149, 31139), (173, 31214), (203, 31304), (256, 31499), (259, 31517), (260, 31520), (264, 31535), (267, 31550), (272, 31565), (275, 31592), (283, 31631), (350, 31802), (357, 31835), (365, 31886), (369, 31901), (371, 31910), (383, 31985), (384, 31988), (390, 32012), (454, 32237), (464, 32252), (472, 32282), (491, 32330), (499, 32345), (500, 32351),

Gene: Margaery\_12 Start: 5952, Stop: 7694, Start Num: 14

Candidate Starts for Margaery\_12:

(Start: 12 @5943 has 40 MA's), (Start: 14 @5952 has 15 MA's), (46, 6021), (50, 6033), (Start: 80 @6090 has 11 MA's), (85, 6105), (104, 6168), (108, 6180), (109, 6189), (114, 6207), (132, 6279), (166, 6381), (179, 6423), (196, 6474), (203, 6501), (207, 6507), (212, 6519), (216, 6528), (228, 6567), (229, 6570), (240, 6606), (247, 6627), (249, 6633), (251, 6642), (264, 6705), (271, 6732), (277, 6777), (328, 6879), (339, 6930), (351, 6972), (359, 7011), (371, 7077), (372, 7086), (375, 7110), (376, 7122), (377, 7125), (396, 7197), (412, 7242), (417, 7257), (470, 7419), (490, 7470), (496, 7491), (518, 7536), (533, 7590),

Gene: Mariokart\_8 Start: 5358, Stop: 7151, Start Num: 58

Candidate Starts for Mariokart\_8:

(Start: 30 @5310 has 441 MA's), (Start: 58 @5358 has 3 MA's), (Start: 95 @5424 has 2 MA's), (104, 5466), (122, 5535), (173, 5661), (179, 5679), (223, 5760), (249, 5832), (259, 5886), (267, 5919), (277, 5976), (278, 5979), (282, 5997), (294, 6042), (302, 6063), (338, 6174), (342, 6186), (344, 6201), (355, 6237), (363, 6288), (365, 6300), (377, 6375), (382, 6399), (392, 6435), (395, 6444), (412, 6480), (418, 6501), (578, 6867), (583, 6876), (584, 6879), (605, 6951), (607, 6957), (612, 6978), (615, 6987), (638, 7059), (649, 7092), (652, 7104), (655, 7116), (662, 7128), (663, 7131),

Gene: Marley1013\_11 Start: 7104, Stop: 9008, Start Num: 30

Candidate Starts for Marley1013\_11:

(Start: 30 @7104 has 441 MA's), (40, 7131), (87, 7212), (105, 7275), (122, 7341), (131, 7374), (173, 7482), (205, 7572), (232, 7650), (251, 7707), (261, 7761), (277, 7842), (282, 7863), (291, 7890), (316, 7941), (318, 7950), (323, 7959), (363, 8136), (365, 8148), (377, 8223), (382, 8247), (388, 8268), (419, 8352), (461, 8490), (471, 8508), (481, 8535), (499, 8559), (581, 8724), (584, 8733), (612, 8838), (615, 8847), (626, 8874), (652, 8964), (653, 8967), (662, 8988), (670, 9000),

Gene: Marlia\_11 Start: 6309, Stop: 8210, Start Num: 30

Candidate Starts for Marlia\_11:

(Start: 30 @6309 has 441 MA's), (40, 6336), (87, 6417), (105, 6480), (122, 6546), (131, 6579), (173, 6687), (205, 6777), (232, 6855), (251, 6912), (261, 6966), (277, 7047), (282, 7068), (291, 7095), (316, 7146), (318, 7155), (323, 7164), (363, 7341), (365, 7353), (377, 7428), (382, 7452), (388, 7473), (419, 7557), (461, 7695), (471, 7713), (481, 7740), (499, 7764), (581, 7926), (584, 7935), (612, 8040), (615, 8049), (626, 8076), (652, 8166), (653, 8169), (662, 8190), (670, 8202),

Gene: Maru\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Maru\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Mashley\_20 Start: 8624, Stop: 10450, Start Num: 45

Candidate Starts for Mashley\_20:

(Start: 45 @8624 has 50 MA's), (108, 8774), (155, 8909), (170, 8948), (201, 9026), (215, 9044), (264, 9194), (267, 9209), (277, 9266), (320, 9383), (324, 9392), (357, 9527), (364, 9572), (365, 9578), (368, 9590), (377, 9650), (419, 9779), (420, 9785), (424, 9812), (447, 9911), (468, 9956), (553, 10151), (574, 10187), (584, 10205), (599, 10250),

Gene: Mask\_7 Start: 4088, Stop: 6055, Start Num: 21

Candidate Starts for Mask\_7:

(Start: 21 @4088 has 7 MA's), (Start: 30 @4106 has 441 MA's), (69, 4184), (87, 4232), (120, 4355), (159, 4451), (161, 4460), (176, 4511), (216, 4610), (228, 4655), (249, 4715), (251, 4724), (259, 4769), (265, 4790), (276, 4847), (279, 4865), (304, 4946), (314, 4967), (319, 4979), (323, 4988), (327, 5000), (338, 5051), (339, 5054), (348, 5087), (363, 5165), (365, 5177), (371, 5201), (381, 5273), (382, 5276), (412, 5357), (436, 5456), (444, 5486), (471, 5537), (580, 5771), (602, 5837), (604, 5846), (612, 5882), (618, 5906), (643, 5984), (649, 5996), (670, 6047), (671, 6050),

Gene: Maskar\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Maskar\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: MasterPo\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for MasterPo\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: Matalotodo\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Matalotodo\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Matzah\_13 Start: 6000, Stop: 7757, Start Num: 14

Candidate Starts for Matzah\_13:

(Start: 12 @5991 has 40 MA's), (Start: 14 @6000 has 15 MA's), (50, 6084), (71, 6120), (Start: 80 @6153 has 11 MA's), (104, 6231), (108, 6243), (109, 6252), (112, 6264), (114, 6270), (132, 6342), (134, 6348), (166, 6444), (179, 6486), (186, 6516), (198, 6546), (212, 6582), (216, 6591), (219, 6600), (221, 6609), (247, 6690), (249, 6696), (251, 6705), (264, 6768), (271, 6795), (277, 6840), (304, 6891), (328, 6942), (342, 7002), (346, 7017), (359, 7074), (372, 7149), (375, 7173), (395, 7257), (396, 7260), (412, 7305), (420, 7335), (427, 7383), (459, 7464), (470, 7482), (471, 7485), (496, 7554), (504, 7578), (556, 7713), (568, 7737),

Gene: McCrothy\_13 Start: 6960, Stop: 8582, Start Num: 7

Candidate Starts for McCrothy\_13:

(Start: 7 @6960 has 114 MA's), (73, 7119), (83, 7158), (103, 7221), (130, 7314), (138, 7341), (154, 7380), (212, 7500), (216, 7509), (235, 7569), (255, 7638), (259, 7659), (264, 7677), (267, 7692), (269, 7698), (281, 7761), (324, 7821), (328, 7833), (336, 7872), (339, 7884), (342, 7893), (347, 7926), (351, 7938), (357, 7968), (364, 8013), (367, 8028), (368, 8031), (373, 8067), (382, 8115), (385, 8124), (392, 8151), (443, 8328), (476, 8385), (480, 8391), (490, 8406), (496, 8427), (499, 8433), (515, 8469), (526, 8496),

Gene: McKinley\_13 Start: 7453, Stop: 9075, Start Num: 7

Candidate Starts for McKinley\_13:

(Start: 7 @7453 has 114 MA's), (Start: 47 @7573 has 18 MA's), (73, 7612), (83, 7651), (103, 7714), (130, 7807), (138, 7834), (154, 7873), (216, 8002), (235, 8062), (255, 8131), (259, 8152), (264, 8170), (267, 8185), (269, 8191), (281, 8254), (324, 8314), (328, 8326), (336, 8365), (339, 8377), (342, 8386), (351, 8431), (357, 8461), (364, 8506), (367, 8521), (368, 8524), (373, 8560), (382, 8608), (385, 8617), (392, 8644), (433, 8788), (443, 8821), (476, 8878), (480, 8884), (490, 8899), (496, 8920), (499, 8926), (515, 8962), (526, 8989),

Gene: Mcshane\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Mcshane\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Mecca\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Mecca\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Megabear\_6 Start: 3328, Stop: 5202, Start Num: 21

Candidate Starts for Megabear\_6:

(Start: 21 @3328 has 7 MA's), (Start: 30 @3346 has 441 MA's), (Start: 62 @3403 has 2 MA's), (112, 3541), (120, 3571), (139, 3625), (179, 3736), (228, 3865), (249, 3922), (251, 3931), (259, 3976), (264, 3994), (279, 4072), (280, 4075), (323, 4159), (331, 4183), (335, 4207), (363, 4336), (365, 4348), (371, 4372), (377, 4423), (391, 4480), (395, 4492), (448, 4666), (481, 4735), (605, 4987), (649, 5128), (652, 5140), (671, 5182),

Gene: Megamind20\_9 Start: 4457, Stop: 6361, Start Num: 37

Candidate Starts for Megamind20\_9:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Megan\_13 Start: 8673, Stop: 10412, Start Num: 12

Candidate Starts for Megan\_13:

(8, 8646), (Start: 12 @8673 has 40 MA's), (Start: 14 @8682 has 15 MA's), (29, 8712), (68, 8790), (78, 8826), (104, 8910), (108, 8922), (119, 8964), (124, 8985), (138, 9039), (158, 9093), (159, 9096), (178, 9162), (212, 9225), (219, 9243), (221, 9252), (251, 9345), (264, 9408), (271, 9435), (277, 9480), (285,

9513), (288, 9522), (290, 9525), (328, 9582), (329, 9585), (337, 9624), (339, 9633), (342, 9642), (351, 9675), (359, 9714), (371, 9780), (372, 9789), (375, 9813), (377, 9828), (396, 9900), (417, 9975), (420, 9990), (452, 10110), (455, 10116), (470, 10140), (471, 10143), (490, 10191), (509, 10242), (518, 10254), (530, 10290), (540, 10332), (567, 10395),

Gene: Megatron\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Megatron\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: MelBins\_13 Start: 6850, Stop: 8484, Start Num: 7

Candidate Starts for MelBins\_13:

(Start: 7 @6850 has 114 MA's), (9, 6877), (11, 6886), (Start: 22 @6922 has 3 MA's), (50, 6988), (Start: 80 @7045 has 11 MA's), (91, 7078), (103, 7123), (109, 7153), (111, 7162), (119, 7186), (122, 7201), (154, 7282), (173, 7339), (211, 7399), (216, 7411), (221, 7429), (235, 7471), (259, 7561), (264, 7579), (267, 7594), (269, 7600), (279, 7654), (288, 7675), (328, 7735), (329, 7738), (342, 7795), (345, 7819), (357, 7870), (364, 7915), (368, 7933), (372, 7954), (382, 8017), (388, 8038), (392, 8053), (413, 8104), (437, 8209), (443, 8230), (460, 8260), (472, 8278), (475, 8284), (492, 8320), (499, 8344), (500, 8350), (505, 8365), (528, 8419),

Gene: Melc17\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Melc17\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: MellowYellow\_19 Start: 7989, Stop: 9875, Start Num: 47

Candidate Starts for MellowYellow\_19:

(Start: 47 @7989 has 18 MA's), (50, 7998), (73, 8037), (112, 8160), (118, 8178), (133, 8229), (146, 8253), (177, 8328), (261, 8571), (328, 8763), (365, 8937), (368, 8949), (401, 9099), (419, 9150), (424, 9183), (425, 9189), (433, 9222), (443, 9258), (449, 9285), (467, 9324), (474, 9345), (478, 9357), (584, 9621), (622, 9738), (652, 9834),

Gene: MelsMeow\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for MelsMeow\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: MementoMori\_13 Start: 5993, Stop: 7759, Start Num: 12

Candidate Starts for MementoMori\_13:

(Start: 12 @5993 has 40 MA's), (Start: 14 @6002 has 15 MA's), (50, 6083), (71, 6119), (Start: 80 @6152 has 11 MA's), (104, 6230), (108, 6242), (109, 6251), (112, 6263), (114, 6269), (132, 6341), (134, 6347), (166, 6443), (179, 6485), (186, 6515), (196, 6536), (198, 6545), (212, 6581), (216, 6590), (219, 6599), (221, 6608), (247, 6689), (249, 6695), (251, 6704), (264, 6767), (271, 6794), (277, 6839), (304, 6890), (328, 6941), (342, 7001), (346, 7016), (359, 7073), (372, 7148), (375, 7172), (395, 7256),

(396, 7259), (412, 7304), (420, 7334), (427, 7382), (459, 7463), (470, 7481), (471, 7484), (490, 7532), (496, 7553), (504, 7577), (509, 7583), (556, 7715), (568, 7739),

Gene: Mentos\_26 Start: 9720, Stop: 11546, Start Num: 45

Candidate Starts for Mentos\_26:

(Start: 45 @9720 has 50 MA's), (108, 9870), (155, 10005), (170, 10044), (201, 10122), (215, 10140), (264, 10290), (267, 10305), (277, 10362), (320, 10479), (324, 10488), (357, 10623), (364, 10668), (365, 10674), (368, 10686), (377, 10746), (419, 10875), (420, 10881), (424, 10908), (447, 11007), (468, 11052), (553, 11247), (574, 11283), (584, 11301), (599, 11346),

Gene: Merry\_ Start: 8363, Stop: 10132, Start Num: 2

Candidate Starts for Merry\_:

(Start: 2 @8363 has 2 MA's), (8, 8429), (Start: 12 @8456 has 40 MA's), (Start: 14 @8465 has 15 MA's), (Start: 58 @8561 has 3 MA's), (71, 8585), (104, 8690), (108, 8702), (132, 8801), (158, 8873), (163, 8891), (183, 8966), (186, 8972), (212, 9011), (218, 9023), (221, 9038), (228, 9062), (233, 9074), (240, 9101), (249, 9128), (251, 9137), (271, 9227), (277, 9272), (328, 9374), (329, 9377), (339, 9425), (342, 9434), (359, 9506), (371, 9572), (372, 9581), (396, 9692), (416, 9749), (459, 9893), (468, 9905), (478, 9935), (546, 10103),

Gene: Mesh1\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Mesh1\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Mesmerelda\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Mesmerelda\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Metamorphoo\_20 Start: 8066, Stop: 9760, Start Num: 12

Candidate Starts for Metamorphoo\_20:

(Start: 12 @8066 has 40 MA's), (Start: 14 @8075 has 15 MA's), (71, 8198), (104, 8303), (108, 8315), (132, 8414), (158, 8486), (163, 8504), (212, 8627), (218, 8639), (219, 8645), (221, 8654), (233, 8690), (251, 8753), (264, 8816), (271, 8843), (277, 8888), (280, 8897), (304, 8939), (328, 8990), (329, 8993), (337, 9032), (339, 9041), (342, 9050), (351, 9083), (359, 9122), (371, 9188), (372, 9197), (373, 9212), (377, 9236), (394, 9302), (396, 9308), (406, 9335), (448, 9488), (471, 9527), (478, 9548), (495, 9593), (559, 9740),

Gene: MichaelPhcott\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for MichaelPhcott\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Mikota\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Mikota\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Mila11\_25 Start: 9699, Stop: 11525, Start Num: 45

Candidate Starts for Mila11\_25:

(Start: 45 @9699 has 50 MA's), (155, 9984), (170, 10023), (201, 10101), (215, 10119), (264, 10269), (267, 10284), (277, 10341), (303, 10410), (320, 10458), (324, 10467), (357, 10602), (364, 10647), (365, 10653), (368, 10665), (377, 10725), (419, 10854), (420, 10860), (424, 10887), (447, 10986), (468, 11031), (553, 11226), (574, 11262), (584, 11280), (599, 11325),

Gene: Mimi\_76 Start: 33036, Stop: 34721, Start Num: 22

Candidate Starts for Mimi\_76:

(Start: 22 @33036 has 3 MA's), (Start: 26 @33042 has 8 MA's), (Start: 80 @33147 has 11 MA's), (116, 33270), (119, 33282), (161, 33405), (251, 33657), (259, 33702), (309, 33858), (312, 33867), (315, 33879), (328, 33915), (333, 33936), (371, 34113), (467, 34467), (496, 34533), (499, 34539), (542, 34665), (545, 34674), (562, 34710),

Gene: MiniBoss\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for MiniBoss\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Mischief19\_11 Start: 9640, Stop: 11433, Start Num: 80

Candidate Starts for Mischief19\_11:

(Start: 80 @9640 has 11 MA's), (107, 9733), (123, 9796), (127, 9808), (130, 9823), (159, 9895), (169, 9931), (206, 10036), (217, 10060), (250, 10159), (259, 10210), (268, 10246), (280, 10309), (331, 10402), (337, 10432), (339, 10441), (343, 10462), (365, 10564), (368, 10576), (413, 10747), (476, 10948), (549, 11107), (586, 11158), (603, 11209), (604, 11218), (623, 11284), (652, 11395), (659, 11416),

Gene: MisoSoup\_11 Start: 4288, Stop: 6081, Start Num: 14

Candidate Starts for MisoSoup\_11:

(Start: 14 @4288 has 15 MA's), (32, 4321), (104, 4504), (138, 4636), (141, 4648), (159, 4693), (161, 4702), (162, 4705), (163, 4708), (203, 4813), (207, 4819), (216, 4840), (232, 4891), (264, 5017), (271, 5044), (277, 5089), (285, 5122), (290, 5134), (328, 5191), (339, 5242), (357, 5314), (362, 5347), (372, 5398), (375, 5422), (377, 5437), (396, 5509), (419, 5575), (420, 5581), (478, 5755), (495, 5800), (558, 5989), (570, 6016),

Gene: MitKao\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for MitKao\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Mithril\_9 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for Mithril\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (655, 8602), (670, 8629),

Gene: MmasiCarm\_11 Start: 6314, Stop: 8218, Start Num: 30

Candidate Starts for MmasiCarm\_11:

(Start: 30 @6314 has 441 MA's), (40, 6341), (87, 6422), (105, 6485), (122, 6551), (131, 6584), (173, 6692), (205, 6782), (232, 6860), (251, 6917), (261, 6971), (277, 7052), (282, 7073), (291, 7100), (316, 7151), (318, 7160), (323, 7169), (363, 7346), (365, 7358), (377, 7433), (382, 7457), (388, 7478), (419, 7562), (461, 7700), (471, 7718), (481, 7745), (499, 7769), (581, 7934), (584, 7943), (612, 8048), (615, 8057), (626, 8084), (652, 8174), (662, 8198), (670, 8210),

Gene: MoontowerMania\_11 Start: 6493, Stop: 8115, Start Num: 7

Candidate Starts for MoontowerMania\_11:

(Start: 7 @6493 has 114 MA's), (Start: 47 @6613 has 18 MA's), (73, 6652), (83, 6691), (103, 6754), (130, 6847), (138, 6874), (154, 6913), (212, 7033), (216, 7042), (235, 7102), (255, 7171), (259, 7192), (264, 7210), (267, 7225), (269, 7231), (281, 7294), (324, 7354), (328, 7366), (336, 7405), (339, 7417), (342, 7426), (347, 7459), (351, 7471), (357, 7501), (364, 7546), (367, 7561), (368, 7564), (373, 7600), (382, 7648), (385, 7657), (392, 7684), (443, 7861), (476, 7918), (480, 7924), (490, 7939), (496, 7960), (499, 7966), (515, 8002), (526, 8029),

Gene: Morgushi\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Morgushi\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: MorillMayhem\_22 Start: 8632, Stop: 10458, Start Num: 45

Candidate Starts for MorillMayhem\_22:

(Start: 45 @8632 has 50 MA's), (155, 8917), (170, 8956), (173, 8968), (201, 9034), (215, 9052), (264, 9202), (267, 9217), (277, 9274), (303, 9343), (320, 9391), (324, 9400), (357, 9535), (364, 9580), (365, 9586), (368, 9598), (377, 9658), (419, 9787), (420, 9793), (424, 9820), (447, 9919), (468, 9964), (553, 10159), (574, 10195), (584, 10213), (599, 10258),

Gene: Mortcellus\_10 Start: 6952, Stop: 8856, Start Num: 30

Candidate Starts for Mortcellus\_10:

(Start: 30 @6952 has 441 MA's), (40, 6979), (87, 7060), (105, 7123), (122, 7189), (131, 7222), (173, 7330), (205, 7420), (232, 7498), (251, 7555), (261, 7609), (277, 7690), (282, 7711), (291, 7738), (316, 7789), (318, 7798), (323, 7807), (363, 7984), (365, 7996), (377, 8071), (382, 8095), (388, 8116), (419, 8200), (461, 8338), (471, 8356), (481, 8383), (499, 8407), (581, 8572), (584, 8581), (612, 8686), (615, 8695), (626, 8722), (635, 8758), (652, 8812), (653, 8815), (662, 8836), (670, 8848),

Gene: Morty\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Morty\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861),

(250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Morty007\_11 Start: 7104, Stop: 9008, Start Num: 30

Candidate Starts for Morty007\_11:

(Start: 30 @7104 has 441 MA's), (40, 7131), (87, 7212), (105, 7275), (122, 7341), (131, 7374), (173, 7482), (205, 7572), (232, 7650), (251, 7707), (261, 7761), (277, 7842), (282, 7863), (291, 7890), (316, 7941), (318, 7950), (323, 7959), (363, 8136), (365, 8148), (377, 8223), (382, 8247), (388, 8268), (419, 8352), (461, 8490), (471, 8508), (481, 8535), (499, 8559), (581, 8724), (584, 8733), (612, 8838), (615, 8847), (626, 8874), (652, 8964), (653, 8967), (662, 8988), (670, 9000),

Gene: Mosaic\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Mosaic\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: MossRose\_10 Start: 6894, Stop: 8627, Start Num: 95

Candidate Starts for MossRose\_10:

(Start: 30 @6780 has 441 MA's), (Start: 95 @6894 has 2 MA's), (104, 6936), (120, 6999), (141, 7065), (184, 7170), (194, 7194), (243, 7293), (245, 7299), (249, 7308), (251, 7317), (278, 7455), (282, 7473), (329, 7614), (334, 7641), (338, 7659), (342, 7671), (355, 7722), (363, 7773), (377, 7860), (382, 7884), (471, 8142), (505, 8202), (510, 8211), (583, 8352), (584, 8355), (605, 8427), (607, 8433), (612, 8454), (630, 8511), (634, 8523), (643, 8556), (649, 8568), (652, 8580), (655, 8592), (662, 8604), (663, 8607),

Gene: MrPhizzler\_8 Start: 4437, Stop: 6356, Start Num: 30

Candidate Starts for MrPhizzler\_8:

(Start: 30 @4437 has 441 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: Mudslide\_9 Start: 6996, Stop: 8885, Start Num: 30

Candidate Starts for Mudslide\_9:

(Start: 30 @6996 has 441 MA's), (Start: 37 @7011 has 5 MA's), (86, 7092), (94, 7107), (105, 7158), (108, 7167), (120, 7218), (161, 7323), (179, 7383), (221, 7479), (248, 7557), (249, 7560), (251, 7569), (259, 7614), (277, 7704), (278, 7707), (305, 7785), (313, 7797), (342, 7899), (356, 7959), (363, 8001), (365, 8013), (382, 8112), (384, 8118), (391, 8145), (393, 8151), (396, 8160), (412, 8193), (439, 8301), (566, 8565), (572, 8574), (574, 8577), (596, 8640), (611, 8700), (612, 8703), (615, 8712), (649, 8826), (666, 8871), (670, 8877),

Gene: Mulan\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Mulan\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Mulaychimus\_11 Start: 6315, Stop: 8219, Start Num: 30

Candidate Starts for Mulaychimus\_11:

(Start: 30 @6315 has 441 MA's), (40, 6342), (87, 6423), (105, 6486), (122, 6552), (131, 6585), (173, 6693), (205, 6783), (232, 6861), (251, 6918), (261, 6972), (277, 7053), (282, 7074), (291, 7101), (316, 7152), (318, 7161), (323, 7170), (363, 7347), (365, 7359), (377, 7434), (382, 7458), (388, 7479), (419, 7563), (461, 7701), (471, 7719), (481, 7746), (499, 7770), (581, 7935), (584, 7944), (612, 8049), (615, 8058), (626, 8085), (652, 8175), (653, 8178), (662, 8199), (670, 8211),

Gene: Murdoc\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Murdoc\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Mutante\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Mutante\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Mutzi\_12 Start: 5455, Stop: 7041, Start Num: 7

Candidate Starts for Mutzi\_12:

(Start: 7 @5455 has 114 MA's), (104, 5707), (111, 5737), (154, 5854), (162, 5875), (166, 5890), (248, 6064), (257, 6106), (261, 6130), (262, 6133), (273, 6172), (288, 6244), (328, 6304), (329, 6307), (330, 6310), (337, 6346), (339, 6355), (341, 6361), (342, 6364), (357, 6427), (364, 6472), (371, 6502), (377, 6550), (392, 6607), (399, 6628), (412, 6655), (413, 6658), (420, 6685), (428, 6736), (443, 6784),

Gene: Mysterious\_10 Start: 6968, Stop: 8833, Start Num: 30

Candidate Starts for Mysterious\_10:

(Start: 30 @6968 has 441 MA's), (99, 7088), (104, 7124), (108, 7136), (109, 7145), (131, 7223), (152, 7268), (177, 7343), (179, 7349), (228, 7448), (233, 7460), (236, 7475), (251, 7514), (259, 7559), (278, 7652), (282, 7670), (332, 7796), (342, 7844), (348, 7868), (356, 7904), (363, 7946), (369, 7973), (377, 8033), (382, 8057), (391, 8090), (395, 8102), (400, 8114), (412, 8138), (461, 8300), (471, 8318), (477, 8336), (576, 8537), (585, 8555), (589, 8567), (595, 8591), (611, 8657), (643, 8762), (670, 8825), (671, 8828),

Gene: NHagos\_8 Start: 5267, Stop: 7105, Start Num: 30

Candidate Starts for NHagos\_8:

(Start: 30 @5267 has 441 MA's), (Start: 95 @5381 has 2 MA's), (104, 5423), (145, 5558), (179, 5639), (184, 5657), (228, 5735), (229, 5738), (230, 5741), (242, 5774), (277, 5936), (278, 5939), (282, 5957), (284, 5963), (327, 6083), (329, 6089), (334, 6116), (338, 6134), (342, 6146), (363, 6248), (365, 6260), (377, 6335), (382, 6359), (391, 6392), (478, 6638), (489, 6659), (497, 6665), (578, 6821), (583, 6830), (584, 6833), (612, 6932), (630, 6989), (634, 7001), (643, 7034), (649, 7046), (662, 7082), (663, 7085), (670, 7097),

Gene: Nacho\_008 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Nacho\_008:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864),

(250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Namago\_22 Start: 8194, Stop: 10020, Start Num: 45

Candidate Starts for Namago\_22:

(Start: 45 @8194 has 50 MA's), (155, 8479), (170, 8518), (201, 8596), (215, 8614), (267, 8779), (277, 8836), (320, 8953), (324, 8962), (357, 9097), (364, 9142), (365, 9148), (368, 9160), (377, 9220), (419, 9349), (420, 9355), (424, 9382), (447, 9481), (468, 9526), (553, 9721), (574, 9757), (584, 9775), (599, 9820),

Gene: Nanao\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for Nanao\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (377, 6735), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (566, 7212), (572, 7221), (574, 7224), (595, 7281), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Nangang\_10 Start: 6702, Stop: 8567, Start Num: 30

Candidate Starts for Nangang\_10:

(Start: 30 @6702 has 441 MA's), (Start: 37 @6717 has 5 MA's), (104, 6855), (108, 6867), (123, 6927), (138, 6969), (172, 7053), (174, 7065), (177, 7074), (233, 7191), (236, 7206), (251, 7245), (278, 7383), (282, 7401), (303, 7455), (348, 7599), (356, 7635), (363, 7677), (377, 7764), (382, 7788), (391, 7821), (395, 7833), (400, 7845), (412, 7869), (471, 8049), (477, 8067), (561, 8247), (574, 8268), (585, 8289), (611, 8391), (630, 8451), (670, 8559), (671, 8562),

Gene: Nathan\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Nathan\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Natkenzie\_14 Start: 6957, Stop: 8627, Start Num: 7

Candidate Starts for Natkenzie\_14:

(Start: 7 @6957 has 114 MA's), (Start: 22 @7032 has 3 MA's), (33, 7053), (42, 7080), (79, 7167), (103, 7248), (109, 7278), (111, 7287), (136, 7362), (141, 7374), (157, 7410), (171, 7455), (212, 7527), (216, 7536), (252, 7647), (259, 7686), (261, 7695), (264, 7704), (266, 7716), (267, 7719), (269, 7725), (288, 7800), (324, 7848), (328, 7860), (354, 7980), (357, 7995), (364, 8040), (372, 8079), (379, 8130), (388, 8163), (391, 8175), (392, 8178), (404, 8205), (413, 8229), (428, 8307), (443, 8358), (460, 8388), (464, 8394), (492, 8451), (505, 8496),

Gene: Nehemiah\_9 Start: 6968, Stop: 8833, Start Num: 30

Candidate Starts for Nehemiah\_9:

(Start: 30 @6968 has 441 MA's), (99, 7088), (104, 7124), (108, 7136), (109, 7145), (131, 7223), (152, 7268), (177, 7343), (179, 7349), (228, 7448), (233, 7460), (236, 7475), (251, 7514), (259, 7559), (278, 7652), (282, 7670), (332, 7796), (342, 7844), (348, 7868), (356, 7904), (363, 7946), (369, 7973), (377, 8033), (382, 8057), (391, 8090), (395, 8102), (400, 8114), (412, 8138), (461, 8300), (471, 8318), (477, 8336), (576, 8537), (585, 8555), (589, 8567), (595, 8591), (611, 8657), (643, 8762), (670, 8825), (671, 8828),

Gene: Neos5\_11 Start: 7104, Stop: 9008, Start Num: 30

Candidate Starts for Neos5\_11:

(Start: 30 @7104 has 441 MA's), (40, 7131), (87, 7212), (105, 7275), (122, 7341), (131, 7374), (173, 7482), (205, 7572), (232, 7650), (251, 7707), (261, 7761), (277, 7842), (282, 7863), (291, 7890), (316, 7941), (318, 7950), (323, 7959), (363, 8136), (365, 8148), (377, 8223), (382, 8247), (388, 8268), (419, 8352), (461, 8490), (471, 8508), (481, 8535), (499, 8559), (581, 8724), (584, 8733), (612, 8838), (615, 8847), (626, 8874), (652, 8964), (662, 8988), (670, 9000),

Gene: Newman\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Newman\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: NiaNia\_8 Start: 4552, Stop: 6360, Start Num: 88

Candidate Starts for NiaNia\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Nicole21\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Nicole21\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Nicole72\_14 Start: 8906, Stop: 10651, Start Num: 12

Candidate Starts for Nicole72\_14:

(Start: 12 @8906 has 40 MA's), (Start: 14 @8915 has 15 MA's), (78, 9056), (104, 9140), (108, 9152), (112, 9173), (119, 9194), (132, 9251), (138, 9269), (163, 9341), (178, 9392), (212, 9455), (219, 9473), (221, 9482), (251, 9575), (264, 9638), (271, 9665), (277, 9710), (285, 9743), (288, 9752), (290, 9755), (328, 9812), (329, 9815), (337, 9854), (339, 9863), (342, 9872), (351, 9905), (359, 9944), (371, 10010), (372, 10019), (375, 10043), (377, 10058), (396, 10130), (406, 10175), (452, 10340), (455, 10346), (470, 10370), (471, 10373), (490, 10421), (495, 10439), (512, 10478), (518, 10487), (540, 10565), (554, 10607),

Gene: Nigel\_7 Start: 5552, Stop: 7444, Start Num: 30

Candidate Starts for Nigel\_7:

(Start: 30 @5552 has 441 MA's), (Start: 80 @5633 has 11 MA's), (94, 5663), (97, 5672), (105, 5714), (108, 5723), (123, 5783), (159, 5870), (161, 5879), (179, 5939), (185, 5960), (248, 6113), (249, 6116), (251, 6125), (259, 6170), (277, 6260), (278, 6263), (303, 6335), (305, 6341), (307, 6344), (313, 6353), (332, 6407), (338, 6443), (342, 6455), (344, 6470), (356, 6515), (363, 6557), (381, 6665), (382, 6668), (384, 6674), (391, 6701), (393, 6707), (395, 6713), (472, 6932), (483, 6959), (523, 7022), (566, 7124), (572, 7133), (574, 7136), (595, 7193), (596, 7199), (611, 7259), (612, 7262), (615, 7271), (649, 7385), (658, 7415), (670, 7436),

Gene: Nikan\_18 Start: 8462, Stop: 10354, Start Num: 47

Candidate Starts for Nikan\_18:

(Start: 47 @8462 has 18 MA's), (50, 8471), (72, 8507), (73, 8510), (112, 8633), (118, 8651), (133, 8702), (146, 8726), (155, 8738), (170, 8777), (175, 8795), (177, 8801), (261, 9044), (302, 9185), (328, 9236), (365, 9410), (368, 9422), (419, 9623), (424, 9656), (425, 9662), (433, 9695), (442, 9728), (443, 9731), (467, 9797), (468, 9800), (478, 9830), (584, 10103), (598, 10142), (652, 10316),

Gene: Nike\_22 Start: 9101, Stop: 10927, Start Num: 45

Candidate Starts for Nike\_22:

(Start: 45 @9101 has 50 MA's), (155, 9386), (170, 9425), (201, 9503), (215, 9521), (264, 9671), (267, 9686), (277, 9743), (303, 9812), (320, 9860), (324, 9869), (357, 10004), (364, 10049), (365, 10055), (368, 10067), (377, 10127), (419, 10256), (420, 10262), (424, 10289), (447, 10388), (468, 10433), (553, 10628), (574, 10664), (584, 10682), (599, 10727), (649, 10883),

Gene: NoodlelyBoi\_19 Start: 8480, Stop: 10180, Start Num: 12

Candidate Starts for NoodlelyBoi\_19:

(Start: 12 @8480 has 40 MA's), (Start: 14 @8489 has 15 MA's), (71, 8609), (104, 8714), (108, 8726), (132, 8825), (134, 8831), (137, 8840), (158, 8897), (163, 8915), (179, 8969), (185, 8993), (186, 8996), (203, 9020), (212, 9038), (219, 9056), (221, 9065), (233, 9101), (251, 9164), (264, 9227), (271, 9254), (277, 9299), (328, 9401), (329, 9404), (337, 9443), (342, 9461), (359, 9533), (371, 9599), (372, 9608), (377, 9647), (394, 9713), (396, 9719), (406, 9749), (448, 9902), (459, 9920), (471, 9941), (478, 9962), (479, 9965), (489, 9986),

Gene: Nordenberg\_7 Start: 4637, Stop: 6259, Start Num: 7

Candidate Starts for Nordenberg\_7:

(Start: 7 @4637 has 114 MA's), (73, 4796), (83, 4835), (103, 4898), (130, 4991), (138, 5018), (154, 5057), (216, 5186), (235, 5246), (255, 5315), (259, 5336), (264, 5354), (267, 5369), (269, 5375), (281, 5438), (324, 5498), (328, 5510), (336, 5549), (339, 5561), (342, 5570), (351, 5615), (357, 5645), (364, 5690), (367, 5705), (368, 5708), (373, 5744), (382, 5792), (385, 5801), (392, 5828), (443, 6005), (476, 6062), (480, 6068), (490, 6083), (496, 6104), (499, 6110), (515, 6146), (526, 6173),

Gene: Nova1\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Nova1\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Nozo\_11 Start: 7076, Stop: 8983, Start Num: 30

Candidate Starts for Nozo\_11:

(Start: 30 @7076 has 441 MA's), (40, 7103), (87, 7184), (105, 7247), (122, 7313), (131, 7346), (173, 7454), (205, 7544), (232, 7622), (251, 7679), (261, 7733), (277, 7814), (282, 7835), (291, 7862), (316, 7913), (318, 7922), (323, 7931), (363, 8108), (365, 8120), (377, 8195), (382, 8219), (388, 8240), (419, 8324), (461, 8462), (471, 8480), (481, 8507), (499, 8531), (581, 8699), (584, 8708), (612, 8813), (615, 8822), (626, 8849), (652, 8939), (662, 8963), (670, 8975),

Gene: Nubi\_12 Start: 5453, Stop: 7042, Start Num: 7

Candidate Starts for Nubi\_12:

(Start: 7 @5453 has 114 MA's), (19, 5516), (104, 5708), (111, 5738), (154, 5855), (162, 5876), (166, 5891), (248, 6065), (257, 6107), (261, 6131), (262, 6134), (273, 6173), (288, 6245), (328, 6305), (329, 6308), (330, 6311), (337, 6347), (339, 6356), (341, 6362), (342, 6365), (357, 6428), (364, 6473), (371, 6503), (377, 6551), (392, 6608), (399, 6629), (412, 6656), (413, 6659), (420, 6686), (428, 6737), (443, 6785),

Gene: Numberten\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Numberten\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Nyala\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Nyala\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: NyleyClemson\_18 Start: 7931, Stop: 9820, Start Num: 47

Candidate Starts for NyleyClemson\_18:

(Start: 47 @7931 has 18 MA's), (50, 7940), (73, 7979), (112, 8102), (118, 8120), (146, 8195), (177, 8270), (261, 8513), (328, 8705), (365, 8879), (368, 8891), (401, 9041), (419, 9092), (424, 9125), (425, 9131), (433, 9164), (443, 9200), (449, 9227), (467, 9266), (478, 9299), (584, 9566), (622, 9683), (652, 9779),

Gene: OSmaximus\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for OSmaximus\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Obutu\_11 Start: 6315, Stop: 8219, Start Num: 30

Candidate Starts for Obutu\_11:

(Start: 30 @6315 has 441 MA's), (40, 6342), (87, 6423), (105, 6486), (122, 6552), (131, 6585), (173, 6693), (205, 6783), (232, 6861), (251, 6918), (261, 6972), (277, 7053), (282, 7074), (291, 7101), (316, 7152), (318, 7161), (323, 7170), (363, 7347), (365, 7359), (377, 7434), (382, 7458), (388, 7479), (419, 7563), (461, 7701), (471, 7719), (481, 7746), (499, 7770), (581, 7935), (584, 7944), (612, 8049), (615, 8058), (626, 8085), (635, 8121), (652, 8175), (653, 8178), (662, 8199), (670, 8211),

Gene: Odyssey395\_24 Start: 9446, Stop: 11332, Start Num: 47

Candidate Starts for Odyssey395\_24:

(Start: 47 @9446 has 18 MA's), (50, 9455), (73, 9494), (112, 9617), (118, 9635), (133, 9686), (146, 9710), (177, 9785), (328, 10220), (365, 10394), (368, 10406), (401, 10556), (419, 10607), (424, 10640), (425, 10646), (433, 10679), (443, 10715), (449, 10742), (467, 10781), (474, 10802), (478, 10814), (584, 11078), (622, 11195), (652, 11291),

Gene: Olak\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Olak\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558),

(382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Oline\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Oline\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Olive\_8 Start: 4453, Stop: 6357, Start Num: 37

Candidate Starts for Olive\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: OliverWalter\_8 Start: 4437, Stop: 6356, Start Num: 30

Candidate Starts for OliverWalter\_8:

(Start: 30 @4437 has 441 MA's), (Start: 37 @4452 has 5 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: Olivio\_10 Start: 6163, Stop: 8067, Start Num: 30

Candidate Starts for Olivio\_10:

(Start: 30 @6163 has 441 MA's), (40, 6190), (87, 6271), (105, 6334), (122, 6400), (131, 6433), (173, 6541), (205, 6631), (232, 6709), (251, 6766), (261, 6820), (277, 6901), (282, 6922), (291, 6949), (316, 7000), (318, 7009), (323, 7018), (363, 7195), (365, 7207), (377, 7282), (382, 7306), (388, 7327), (419, 7411), (461, 7549), (471, 7567), (481, 7594), (499, 7618), (581, 7783), (584, 7792), (612, 7897), (615, 7906), (626, 7933), (652, 8023), (653, 8026), (662, 8047), (670, 8059),

Gene: Ollypop\_20 Start: 8427, Stop: 10322, Start Num: 47

Candidate Starts for Ollypop\_20:

(Start: 47 @8427 has 18 MA's), (50, 8436), (72, 8472), (73, 8475), (112, 8598), (118, 8616), (126, 8646), (133, 8667), (146, 8691), (155, 8703), (170, 8742), (175, 8760), (177, 8766), (246, 8940), (261, 9009), (302, 9150), (328, 9201), (365, 9375), (368, 9387), (401, 9537), (419, 9588), (424, 9621), (425, 9627), (433, 9660), (443, 9696), (467, 9762), (478, 9795), (584, 10071), (591, 10092), (598, 10110), (652, 10284),

Gene: Omniscient\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Omniscient\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: OneBrain\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for OneBrain\_8:

(Start: 30 @4440 has 441 MA's), (Start: 37 @4455 has 5 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: OneinaGillian\_21 Start: 7426, Stop: 9225, Start Num: 45

Candidate Starts for OneinaGillian\_21:

(Start: 45 @7426 has 50 MA's), (94, 7525), (146, 7690), (170, 7741), (179, 7771), (215, 7837), (292, 8104), (308, 8149), (336, 8236), (338, 8245), (348, 8281), (356, 8317), (364, 8365), (365, 8371), (368, 8383), (373, 8419), (377, 8443), (419, 8578), (443, 8686), (446, 8707), (479, 8788), (485, 8797), (547, 8908), (553, 8926), (574, 8962), (600, 9028), (617, 9097), (631, 9130), (655, 9205),

Gene: Onika\_19 Start: 8448, Stop: 10124, Start Num: 12

Candidate Starts for Onika\_19:

(Start: 12 @8448 has 40 MA's), (Start: 14 @8457 has 15 MA's), (68, 8571), (71, 8577), (104, 8682), (108, 8694), (132, 8793), (134, 8799), (138, 8811), (158, 8865), (163, 8883), (179, 8937), (188, 8967), (212, 9006), (219, 9024), (221, 9033), (233, 9069), (251, 9132), (264, 9195), (271, 9222), (277, 9267), (328, 9369), (329, 9372), (337, 9411), (342, 9429), (359, 9501), (371, 9567), (372, 9576), (377, 9615), (385, 9648), (394, 9681), (396, 9687), (406, 9717), (412, 9732), (448, 9870), (457, 9885), (470, 9906), (471, 9909),

Gene: Oosterbaan\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Oosterbaan\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Opia\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Opia\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: OrangeOswald\_11 Start: 6314, Stop: 8218, Start Num: 30

Candidate Starts for OrangeOswald\_11:

(Start: 30 @6314 has 441 MA's), (40, 6341), (87, 6422), (105, 6485), (122, 6551), (131, 6584), (173, 6692), (205, 6782), (232, 6860), (251, 6917), (261, 6971), (277, 7052), (282, 7073), (291, 7100), (316, 7151), (318, 7160), (323, 7169), (363, 7346), (365, 7358), (377, 7433), (382, 7457), (388, 7478), (419, 7562), (461, 7700), (471, 7718), (481, 7745), (499, 7769), (581, 7934), (584, 7943), (612, 8048), (615, 8057), (626, 8084), (652, 8174), (662, 8198), (670, 8210),

Gene: Orfeu\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Orfeu\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276,

5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Orion\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Orion\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Orwigg\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Orwigg\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: PG1\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for PG1\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: PR\_06 Start: 3403, Stop: 5202, Start Num: 62

Candidate Starts for PR\_06:

(Start: 21 @3328 has 7 MA's), (Start: 30 @3346 has 441 MA's), (Start: 62 @3403 has 2 MA's), (112, 3541), (120, 3571), (139, 3625), (179, 3736), (228, 3865), (249, 3922), (251, 3931), (259, 3976), (264, 3994), (279, 4072), (280, 4075), (323, 4159), (331, 4183), (335, 4207), (363, 4336), (365, 4348), (371, 4372), (377, 4423), (391, 4480), (395, 4492), (448, 4666), (481, 4735), (605, 4987), (649, 5128), (652, 5140), (671, 5182),

Gene: Pacifista\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Pacifista\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: PallasAthena\_9 Start: 4457, Stop: 6361, Start Num: 37

Candidate Starts for PallasAthena\_9:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Panchaali\_68 Start: 28678, Stop: 30309, Start Num: 26

Candidate Starts for Panchaali\_68:

(Start: 26 @28678 has 8 MA's), (Start: 58 @28738 has 3 MA's), (118, 28915), (119, 28918), (175, 29089), (177, 29095), (249, 29284), (251, 29293), (284, 29455), (312, 29500), (328, 29548), (338, 29596), (343, 29620), (366, 29728), (408, 29893), (475, 30124), (496, 30166), (562, 30298),

Gene: Paries\_13 Start: 6785, Stop: 8407, Start Num: 7

Candidate Starts for Paries\_13:

(Start: 7 @6785 has 114 MA's), (73, 6944), (83, 6983), (103, 7046), (130, 7139), (138, 7166), (154, 7205), (212, 7325), (216, 7334), (235, 7394), (255, 7463), (259, 7484), (264, 7502), (267, 7517), (269, 7523), (281, 7586), (324, 7646), (328, 7658), (336, 7697), (339, 7709), (342, 7718), (351, 7763), (357, 7793), (364, 7838), (367, 7853), (368, 7856), (373, 7892), (382, 7940), (385, 7949), (392, 7976), (443, 8153), (476, 8210), (480, 8216), (490, 8231), (496, 8252), (499, 8258), (515, 8294), (526, 8321),

Gene: Paschalis\_19 Start: 8434, Stop: 10140, Start Num: 12

Candidate Starts for Paschalis\_19:

(Start: 12 @8434 has 40 MA's), (Start: 14 @8443 has 15 MA's), (20, 8458), (68, 8557), (71, 8563), (104, 8668), (108, 8680), (132, 8779), (134, 8785), (138, 8797), (158, 8851), (163, 8869), (179, 8923), (188, 8953), (212, 8992), (219, 9010), (221, 9019), (233, 9055), (251, 9118), (264, 9181), (271, 9208), (277, 9253), (328, 9355), (329, 9358), (337, 9397), (342, 9415), (359, 9487), (371, 9553), (372, 9562), (377, 9601), (385, 9634), (394, 9667), (396, 9673), (406, 9703), (448, 9856), (457, 9871), (470, 9892), (471, 9895), (559, 10108),

Gene: Patbob\_74 Start: 33329, Stop: 35014, Start Num: 22

Candidate Starts for Patbob\_74:

(Start: 22 @33329 has 3 MA's), (Start: 26 @33335 has 8 MA's), (Start: 80 @33440 has 11 MA's), (116, 33563), (119, 33575), (161, 33698), (251, 33950), (259, 33995), (309, 34151), (312, 34160), (315, 34172), (328, 34208), (333, 34229), (371, 34406), (467, 34760), (496, 34826), (499, 34832), (542, 34958), (545, 34967), (562, 35003),

Gene: PauloDiaboli\_82 Start: 29189, Stop: 30925, Start Num: 34

Candidate Starts for PauloDiaboli\_82:

(Start: 34 @29189 has 7 MA's), (67, 29252), (73, 29261), (100, 29339), (116, 29411), (118, 29420), (124, 29444), (127, 29453), (158, 29534), (187, 29627), (219, 29684), (249, 29807), (259, 29861), (282, 29969), (328, 30080), (337, 30122), (357, 30203), (360, 30224), (372, 30287), (381, 30347), (390, 30380), (409, 30428), (423, 30488), (453, 30599), (498, 30707), (534, 30827), (541, 30851),

Gene: PenguinLover67\_12 Start: 7600, Stop: 9486, Start Num: 30

Candidate Starts for PenguinLover67\_12:

(Start: 30 @7600 has 441 MA's), (Start: 95 @7714 has 2 MA's), (120, 7822), (151, 7900), (154, 7906), (170, 7957), (179, 7987), (218, 8047), (221, 8062), (233, 8098), (236, 8113), (259, 8197), (267, 8230), (277, 8287), (282, 8308), (291, 8335), (297, 8356), (305, 8377), (313, 8389), (339, 8482), (342, 8491), (355, 8542), (363, 8593), (382, 8704), (391, 8737), (395, 8749), (420, 8815), (471, 8965), (473, 8971), (483, 8995), (513, 9046), (564, 9178), (572, 9190), (583, 9208), (611, 9310), (615, 9322), (637, 9391), (638, 9394),

Gene: Pepe25\_20 Start: 7682, Stop: 9481, Start Num: 45

Candidate Starts for Pepe25\_20:

(Start: 45 @7682 has 50 MA's), (170, 7997), (179, 8027), (215, 8093), (292, 8360), (336, 8492), (348, 8537), (356, 8573), (364, 8621), (365, 8627), (368, 8639), (373, 8675), (377, 8699), (419, 8834), (443, 8942), (446, 8963), (467, 9008), (479, 9044), (553, 9182), (574, 9218), (600, 9284), (617, 9353), (631, 9386), (654, 9455),

Gene: Phabia\_22 Start: 8559, Stop: 10385, Start Num: 45

Candidate Starts for Phabia\_22:

(Start: 45 @8559 has 50 MA's), (108, 8709), (155, 8844), (170, 8883), (201, 8961), (215, 8979), (264, 9129), (267, 9144), (277, 9201), (303, 9270), (320, 9318), (324, 9327), (357, 9462), (364, 9507), (365, 9513), (368, 9525), (377, 9585), (419, 9714), (420, 9720), (424, 9747), (447, 9846), (468, 9891), (553, 10086), (574, 10122), (584, 10140), (599, 10185),

Gene: Phaedrus\_10 Start: 6231, Stop: 8135, Start Num: 30

Candidate Starts for Phaedrus\_10:

(Start: 30 @6231 has 441 MA's), (40, 6258), (87, 6339), (105, 6402), (122, 6468), (131, 6501), (173, 6609), (205, 6699), (232, 6777), (251, 6834), (261, 6888), (277, 6969), (282, 6990), (291, 7017), (316, 7068), (318, 7077), (323, 7086), (363, 7263), (365, 7275), (377, 7350), (382, 7374), (388, 7395), (419, 7479), (461, 7617), (471, 7635), (481, 7662), (499, 7686), (581, 7851), (584, 7860), (612, 7965), (615, 7974), (626, 8001), (652, 8091), (653, 8094), (662, 8115), (670, 8127),

Gene: Phamished\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Phamished\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Phantasmagoria\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Phantasmagoria\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: Phareon\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Phareon\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: PhatCats2014\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for PhatCats2014\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: PhatLouie\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for PhatLouie\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276,

5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Phauci\_6 Start: 3603, Stop: 5237, Start Num: 7

Candidate Starts for Phauci\_6:

(Start: 7 @3603 has 114 MA's), (9, 3630), (11, 3639), (Start: 22 @3675 has 3 MA's), (50, 3741), (Start: 80 @3798 has 11 MA's), (91, 3831), (103, 3876), (109, 3906), (111, 3915), (119, 3939), (122, 3954), (154, 4035), (173, 4092), (211, 4152), (216, 4164), (221, 4182), (235, 4224), (259, 4314), (264, 4332), (267, 4347), (269, 4353), (279, 4407), (288, 4428), (328, 4488), (329, 4491), (342, 4548), (345, 4572), (351, 4593), (357, 4623), (364, 4668), (368, 4686), (372, 4707), (382, 4770), (388, 4791), (392, 4806), (413, 4857), (437, 4962), (443, 4983), (460, 5013), (472, 5031), (499, 5097), (505, 5118), (528, 5172),

Gene: Phayeta\_11 Start: 6190, Stop: 8094, Start Num: 30

Candidate Starts for Phayeta\_11:

(Start: 30 @6190 has 441 MA's), (40, 6217), (87, 6298), (105, 6361), (122, 6427), (131, 6460), (173, 6568), (205, 6658), (232, 6736), (251, 6793), (261, 6847), (277, 6928), (282, 6949), (291, 6976), (316, 7027), (318, 7036), (323, 7045), (363, 7222), (365, 7234), (377, 7309), (382, 7333), (388, 7354), (419, 7438), (461, 7576), (471, 7594), (481, 7621), (499, 7645), (581, 7810), (584, 7819), (612, 7924), (615, 7933), (626, 7960), (652, 8050), (653, 8053), (662, 8074), (670, 8086),

Gene: PhedwardCullen\_19 Start: 8217, Stop: 9884, Start Num: 14

Candidate Starts for PhedwardCullen\_19:

(Start: 12 @8208 has 40 MA's), (Start: 14 @8217 has 15 MA's), (20, 8232), (68, 8331), (71, 8337), (104, 8442), (108, 8454), (132, 8553), (134, 8559), (138, 8571), (158, 8625), (163, 8643), (179, 8697), (188, 8727), (212, 8766), (219, 8784), (221, 8793), (233, 8829), (251, 8892), (264, 8955), (271, 8982), (277, 9027), (328, 9129), (329, 9132), (337, 9171), (342, 9189), (359, 9261), (371, 9327), (372, 9336), (377, 9375), (385, 9408), (394, 9441), (396, 9447), (406, 9477), (412, 9492), (448, 9630), (457, 9645), (470, 9666), (471, 9669),

Gene: Phelemich\_10 Start: 6971, Stop: 8836, Start Num: 30

Candidate Starts for Phelemich\_10:

(Start: 30 @6971 has 441 MA's), (Start: 37 @6986 has 5 MA's), (99, 7091), (104, 7127), (108, 7139), (109, 7148), (131, 7226), (152, 7271), (177, 7346), (179, 7352), (228, 7451), (233, 7463), (236, 7478), (251, 7517), (259, 7562), (267, 7595), (278, 7655), (282, 7673), (332, 7799), (342, 7847), (348, 7871), (356, 7907), (363, 7949), (377, 8036), (382, 8060), (391, 8093), (395, 8105), (400, 8117), (412, 8141), (471, 8321), (501, 8372), (576, 8540), (585, 8558), (589, 8570), (595, 8594), (611, 8660), (643, 8765), (670, 8828), (671, 8831),

Gene: Phendrix\_65 Start: 24534, Stop: 26360, Start Num: 16

Candidate Starts for Phendrix\_65:

(Start: 16 @24534 has 1 MA's), (Start: 23 @24546 has 1 MA's), (41, 24591), (52, 24615), (92, 24702), (114, 24786), (116, 24789), (128, 24834), (195, 25047), (227, 25146), (232, 25170), (259, 25290), (266, 25320), (272, 25338), (275, 25365), (318, 25461), (328, 25485), (336, 25524), (340, 25539), (351, 25578), (352, 25581), (353, 25584), (361, 25632), (365, 25659), (371, 25683), (383, 25758), (384, 25761), (385, 25764), (388, 25776), (390, 25785), (395, 25800), (447, 25998), (470, 26049), (500, 26124), (506, 26145), (548, 26262),

Gene: PhenghisKhan\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for PhenghisKhan\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332,

5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Pherdinand\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Pherdinand\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Phergie\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Phergie\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Philly\_10 Start: 6204, Stop: 8108, Start Num: 30

Candidate Starts for Philly\_10:

(Start: 30 @6204 has 441 MA's), (40, 6231), (87, 6312), (105, 6375), (122, 6441), (131, 6474), (173, 6582), (205, 6672), (232, 6750), (251, 6807), (261, 6861), (277, 6942), (282, 6963), (291, 6990), (316, 7041), (318, 7050), (323, 7059), (363, 7236), (365, 7248), (377, 7323), (382, 7347), (388, 7368), (419, 7452), (461, 7590), (471, 7608), (481, 7635), (499, 7659), (581, 7824), (584, 7833), (612, 7938), (615, 7947), (626, 7974), (652, 8064), (662, 8088), (670, 8100),

Gene: Phinally\_13 Start: 7070, Stop: 8704, Start Num: 7

Candidate Starts for Phinally\_13:

(Start: 7 @7070 has 114 MA's), (9, 7097), (11, 7106), (Start: 22 @7142 has 3 MA's), (Start: 39 @7184 has 1 MA's), (50, 7208), (Start: 80 @7265 has 11 MA's), (91, 7298), (103, 7343), (109, 7373), (111, 7382), (119, 7406), (122, 7421), (154, 7502), (173, 7559), (211, 7619), (216, 7631), (221, 7649), (235, 7691), (259, 7781), (264, 7799), (267, 7814), (269, 7820), (279, 7874), (288, 7895), (328, 7955), (329, 7958), (342, 8015), (345, 8039), (357, 8090), (364, 8135), (368, 8153), (372, 8174), (382, 8237), (388, 8258), (392, 8273), (413, 8324), (437, 8429), (443, 8450), (460, 8480), (472, 8498), (499, 8564), (505, 8585), (528, 8639),

Gene: Phinky\_28 Start: 9498, Stop: 11324, Start Num: 45

Candidate Starts for Phinky\_28:

(Start: 45 @9498 has 50 MA's), (55, 9519), (108, 9648), (170, 9825), (193, 9897), (200, 9906), (201, 9909), (234, 9993), (279, 10158), (306, 10224), (357, 10401), (364, 10446), (365, 10452), (368, 10464), (377, 10524), (419, 10653), (420, 10659), (433, 10725), (447, 10785), (553, 11025), (600, 11127), (654, 11298), (660, 11316),

Gene: Phipps\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Phipps\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Phleuron\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Phleuron\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Phlop\_12 Start: 5562, Stop: 7145, Start Num: 7

Candidate Starts for Phlop\_12:

(Start: 7 @5562 has 114 MA's), (43, 5676), (111, 5844), (157, 5964), (162, 5982), (166, 5997), (238, 6147), (250, 6177), (261, 6237), (262, 6240), (273, 6279), (288, 6351), (328, 6411), (329, 6414), (330, 6417), (337, 6453), (339, 6462), (341, 6468), (342, 6471), (357, 6534), (364, 6579), (371, 6609), (377, 6657), (392, 6714), (399, 6735), (404, 6741), (412, 6762), (420, 6792), (428, 6843), (443, 6891),

Gene: Phlyer\_11 Start: 7071, Stop: 8975, Start Num: 30

Candidate Starts for Phlyer\_11:

(Start: 30 @7071 has 441 MA's), (40, 7098), (87, 7179), (105, 7242), (122, 7308), (131, 7341), (173, 7449), (205, 7539), (232, 7617), (251, 7674), (261, 7728), (277, 7809), (282, 7830), (291, 7857), (316, 7908), (318, 7917), (323, 7926), (363, 8103), (365, 8115), (377, 8190), (382, 8214), (388, 8235), (419, 8319), (461, 8457), (471, 8475), (481, 8502), (499, 8526), (581, 8691), (584, 8700), (612, 8805), (615, 8814), (626, 8841), (652, 8931), (653, 8934), (662, 8955), (670, 8967),

Gene: Phorgeous\_19 Start: 8286, Stop: 9992, Start Num: 12

Candidate Starts for Phorgeous\_19:

(Start: 12 @8286 has 40 MA's), (Start: 14 @8295 has 15 MA's), (20, 8310), (68, 8409), (71, 8415), (104, 8520), (108, 8532), (132, 8631), (134, 8637), (158, 8703), (163, 8721), (179, 8775), (188, 8805), (212, 8844), (219, 8862), (221, 8871), (233, 8907), (251, 8970), (264, 9033), (271, 9060), (277, 9105), (328, 9207), (329, 9210), (337, 9249), (342, 9267), (359, 9339), (371, 9405), (372, 9414), (377, 9453), (385, 9486), (394, 9519), (396, 9525), (406, 9555), (448, 9708), (457, 9723), (470, 9744), (471, 9747), (552, 9951), (559, 9960),

Gene: Phrampa\_68 Start: 30361, Stop: 32055, Start Num: 26

Candidate Starts for Phrampa\_68:

(Start: 22 @30355 has 3 MA's), (Start: 26 @30361 has 8 MA's), (Start: 80 @30463 has 11 MA's), (116, 30586), (119, 30598), (131, 30646), (161, 30721), (187, 30802), (251, 30973), (259, 31018), (277, 31105), (309, 31174), (312, 31183), (328, 31231), (333, 31252), (339, 31282), (371, 31429), (467, 31783), (499, 31855), (542, 31996), (545, 32005), (562, 32044),

Gene: Phrancesco\_21 Start: 8565, Stop: 10271, Start Num: 12

Candidate Starts for Phrancesco\_21:

(Start: 12 @8565 has 40 MA's), (Start: 14 @8574 has 15 MA's), (20, 8589), (68, 8688), (71, 8694), (104, 8799), (108, 8811), (132, 8910), (134, 8916), (158, 8982), (163, 9000), (179, 9054), (188, 9084), (212, 9123), (219, 9141), (221, 9150), (233, 9186), (251, 9249), (264, 9312), (271, 9339), (277, 9384), (328, 9486), (329, 9489), (337, 9528), (342, 9546), (359, 9618), (371, 9684), (372, 9693), (377, 9732), (385, 9765), (394, 9798), (396, 9804), (406, 9834), (448, 9987), (457, 10002), (470, 10023), (471, 10026), (559, 10239),

Gene: PhrankReynolds\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for PhrankReynolds\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869),

5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: PhrodoBaggins\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for PhrodoBaggins\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Phunky\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Phunky\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: PhuzzTulsa\_20 Start: 9233, Stop: 11119, Start Num: 47

Candidate Starts for PhuzzTulsa\_20:

(Start: 47 @9233 has 18 MA's), (50, 9242), (73, 9281), (112, 9404), (118, 9422), (133, 9473), (146, 9497), (177, 9572), (261, 9815), (328, 10007), (365, 10181), (368, 10193), (401, 10343), (419, 10394), (424, 10427), (425, 10433), (433, 10466), (443, 10502), (449, 10529), (467, 10568), (474, 10589), (478, 10601), (584, 10865), (622, 10982), (652, 11078),

Gene: PierreOrion\_20 Start: 8589, Stop: 10295, Start Num: 12

Candidate Starts for PierreOrion\_20:

(Start: 12 @8589 has 40 MA's), (Start: 14 @8598 has 15 MA's), (20, 8613), (68, 8712), (71, 8718), (104, 8823), (108, 8835), (132, 8934), (134, 8940), (138, 8952), (158, 9006), (163, 9024), (179, 9078), (188, 9108), (212, 9147), (219, 9165), (221, 9174), (233, 9210), (251, 9273), (264, 9336), (271, 9363), (277, 9408), (328, 9510), (329, 9513), (337, 9552), (342, 9570), (359, 9642), (371, 9708), (372, 9717), (377, 9756), (385, 9789), (394, 9822), (396, 9828), (406, 9858), (448, 10011), (457, 10026), (470, 10047), (471, 10050), (559, 10263),

Gene: Piglet\_008 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Piglet\_008:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Pine5\_11 Start: 6413, Stop: 8443, Start Num: 75

Candidate Starts for Pine5\_11:

(42, 6338), (59, 6371), (63, 6380), (75, 6413), (167, 6716), (223, 6875), (280, 7112), (363, 7397), (413, 7592), (427, 7667), (439, 7697), (488, 7868), (489, 7871), (490, 7874), (494, 7883), (565, 8096), (581, 8135), (604, 8207), (630, 8303), (634, 8315), (635, 8318), (636, 8321), (649, 8360), (657, 8387), (658, 8390), (670, 8420), (671, 8423), (673, 8432),

Gene: PinheadLarry\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for PinheadLarry\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864),

(250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: PinkCoffee\_12 Start: 5592, Stop: 7178, Start Num: 7

Candidate Starts for PinkCoffee\_12:

(Start: 7 @5592 has 114 MA's), (104, 5844), (111, 5874), (154, 5991), (162, 6012), (166, 6027), (248, 6201), (257, 6243), (261, 6267), (262, 6270), (273, 6309), (288, 6381), (328, 6441), (329, 6444), (330, 6447), (337, 6483), (339, 6492), (341, 6498), (342, 6501), (357, 6564), (364, 6609), (371, 6639), (377, 6687), (392, 6744), (399, 6765), (412, 6792), (413, 6795), (420, 6822), (428, 6873), (443, 6921),

Gene: Pinkman\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Pinkman\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Pipefish\_11 Start: 7209, Stop: 9104, Start Num: 30

Candidate Starts for Pipefish\_11:

(Start: 30 @7209 has 441 MA's), (40, 7236), (87, 7317), (105, 7380), (122, 7446), (131, 7479), (173, 7587), (205, 7677), (232, 7755), (251, 7812), (261, 7866), (277, 7947), (282, 7968), (291, 7995), (316, 8046), (318, 8055), (323, 8064), (363, 8241), (365, 8253), (377, 8328), (382, 8352), (388, 8373), (419, 8457), (461, 8595), (471, 8613), (481, 8640), (499, 8664), (581, 8820), (584, 8829), (612, 8934), (615, 8943), (626, 8970), (635, 9006), (652, 9060), (653, 9063), (662, 9084), (670, 9096),

Gene: PiperSansNom\_20 Start: 8738, Stop: 10444, Start Num: 12

Candidate Starts for PiperSansNom\_20:

(Start: 12 @8738 has 40 MA's), (Start: 14 @8747 has 15 MA's), (20, 8762), (68, 8861), (71, 8867), (104, 8972), (108, 8984), (132, 9083), (134, 9089), (138, 9101), (158, 9155), (163, 9173), (179, 9227), (188, 9257), (212, 9296), (219, 9314), (221, 9323), (233, 9359), (251, 9422), (264, 9485), (271, 9512), (328, 9659), (329, 9662), (337, 9701), (342, 9719), (359, 9791), (371, 9857), (372, 9866), (377, 9905), (385, 9938), (394, 9971), (396, 9977), (406, 10007), (448, 10160), (457, 10175), (470, 10196), (471, 10199), (552, 10403), (559, 10412),

Gene: Piperis\_20 Start: 8441, Stop: 10117, Start Num: 12

Candidate Starts for Piperis\_20:

(Start: 12 @8441 has 40 MA's), (Start: 14 @8450 has 15 MA's), (20, 8465), (68, 8564), (71, 8570), (104, 8675), (108, 8687), (132, 8786), (134, 8792), (138, 8804), (158, 8858), (163, 8876), (179, 8930), (188, 8960), (212, 8999), (219, 9017), (221, 9026), (233, 9062), (251, 9125), (264, 9188), (271, 9215), (277, 9260), (328, 9362), (329, 9365), (337, 9404), (342, 9422), (359, 9494), (371, 9560), (372, 9569), (377, 9608), (385, 9641), (394, 9674), (396, 9680), (406, 9710), (448, 9863), (457, 9878), (470, 9899), (471, 9902),

Gene: Pipsqueak\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Pipsqueak\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Placalicious\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Placalicious\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Plata\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Plata\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Plmatters\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Plmatters\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Podrick\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Podrick\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Pointis\_22 Start: 9444, Stop: 11336, Start Num: 47

Candidate Starts for Pointis\_22:

(Start: 47 @9444 has 18 MA's), (50, 9453), (73, 9492), (112, 9615), (118, 9633), (133, 9684), (146, 9708), (177, 9783), (261, 10026), (328, 10218), (365, 10392), (368, 10404), (401, 10554), (419, 10605), (424, 10638), (425, 10644), (433, 10677), (443, 10713), (449, 10740), (467, 10779), (474, 10800), (478, 10812), (584, 11082), (622, 11199), (652, 11295),

Gene: Pops\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Pops\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Popstraw\_21 Start: 9233, Stop: 11122, Start Num: 47

Candidate Starts for Popstraw\_21:

(Start: 47 @9233 has 18 MA's), (50, 9242), (73, 9281), (112, 9404), (118, 9422), (133, 9473), (146, 9497), (177, 9572), (261, 9815), (328, 10007), (365, 10181), (368, 10193), (401, 10343), (419, 10394), (424, 10427), (425, 10433), (433, 10466), (443, 10502), (449, 10529), (467, 10568), (474, 10589), (478, 10601), (584, 10868), (622, 10985), (652, 11081),

Gene: Portcullis\_12 Start: 5515, Stop: 7101, Start Num: 7

Candidate Starts for Portcullis\_12:

(Start: 7 @5515 has 114 MA's), (43, 5629), (111, 5797), (157, 5917), (162, 5935), (166, 5950), (238, 6100), (250, 6130), (261, 6190), (262, 6193), (273, 6232), (288, 6304), (328, 6364), (329, 6367), (330, 6370), (337, 6406), (339, 6415), (341, 6421), (342, 6424), (357, 6487), (364, 6532), (371, 6562), (377, 6610), (392, 6667), (399, 6688), (404, 6694), (412, 6715), (413, 6718), (420, 6745), (428, 6796), (443, 6844),

Gene: Poster\_8 Start: 5643, Stop: 7532, Start Num: 30

Candidate Starts for Poster\_8:

(Start: 30 @5643 has 441 MA's), (86, 5739), (94, 5754), (105, 5805), (108, 5814), (120, 5865), (123, 5874), (161, 5970), (179, 6030), (221, 6126), (249, 6207), (259, 6261), (277, 6351), (278, 6354), (305, 6432), (313, 6444), (342, 6546), (356, 6606), (363, 6648), (365, 6660), (377, 6735), (382, 6759), (384, 6765), (391, 6792), (393, 6798), (412, 6840), (420, 6870), (566, 7212), (572, 7221), (574, 7224), (595, 7281), (611, 7347), (612, 7350), (615, 7359), (649, 7473), (666, 7518), (670, 7524),

Gene: Potter\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Potter\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Prickles\_8 Start: 4447, Stop: 6366, Start Num: 30

Candidate Starts for Prickles\_8:

(Start: 30 @4447 has 441 MA's), (Start: 37 @4462 has 5 MA's), (Start: 88 @4558 has 7 MA's), (Start: 96 @4573 has 1 MA's), (122, 4684), (170, 4816), (177, 4840), (179, 4846), (181, 4858), (186, 4870), (250, 5035), (275, 5161), (276, 5164), (277, 5176), (280, 5185), (282, 5197), (303, 5260), (307, 5269), (323, 5305), (329, 5323), (332, 5332), (342, 5380), (362, 5476), (363, 5482), (371, 5518), (377, 5566), (382, 5590), (440, 5785), (481, 5878), (596, 6130), (635, 6265), (649, 6307), (652, 6319),

Gene: Prince\_9 Start: 6908, Stop: 8797, Start Num: 30

Candidate Starts for Prince\_9:

(Start: 30 @6908 has 441 MA's), (Start: 37 @6923 has 5 MA's), (86, 7004), (94, 7019), (105, 7070), (108, 7079), (120, 7130), (161, 7235), (179, 7295), (221, 7391), (248, 7469), (249, 7472), (251, 7481), (259, 7526), (277, 7616), (278, 7619), (305, 7697), (313, 7709), (342, 7811), (356, 7871), (363, 7913), (365, 7925), (382, 8024), (384, 8030), (391, 8057), (393, 8063), (396, 8072), (412, 8105), (439, 8213), (566, 8477), (572, 8486), (574, 8489), (596, 8552), (611, 8612), (612, 8615), (615, 8624), (649, 8738), (666, 8783), (670, 8789),

Gene: PrinceCharming\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for PrinceCharming\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: ProfessorX\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for ProfessorX\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Puhltonio\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Puhltonio\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Pulchra\_21 Start: 8840, Stop: 10516, Start Num: 12

Candidate Starts for Pulchra\_21:

(Start: 12 @8840 has 40 MA's), (Start: 14 @8849 has 15 MA's), (20, 8864), (68, 8963), (71, 8969), (104, 9074), (108, 9086), (132, 9185), (134, 9191), (138, 9203), (158, 9257), (163, 9275), (179, 9329), (188, 9359), (212, 9398), (219, 9416), (221, 9425), (233, 9461), (251, 9524), (264, 9587), (271, 9614), (328, 9761), (329, 9764), (337, 9803), (342, 9821), (359, 9893), (371, 9959), (372, 9968), (377, 10007), (385, 10040), (394, 10073), (396, 10079), (406, 10109), (412, 10124), (448, 10262), (457, 10277), (470, 10298), (471, 10301),

Gene: PullumCavea\_12 Start: 5562, Stop: 7145, Start Num: 7

Candidate Starts for PullumCavea\_12:

(Start: 7 @5562 has 114 MA's), (43, 5676), (111, 5844), (157, 5964), (162, 5982), (166, 5997), (238, 6147), (250, 6177), (261, 6237), (262, 6240), (273, 6279), (288, 6351), (328, 6411), (329, 6414), (330, 6417), (337, 6453), (339, 6462), (341, 6468), (342, 6471), (357, 6534), (364, 6579), (371, 6609), (377, 6657), (392, 6714), (399, 6735), (404, 6741), (412, 6762), (420, 6792), (428, 6843), (443, 6891),

Gene: Pumpernickel\_80 Start: 31376, Stop: 33094, Start Num: 34

Candidate Starts for Pumpernickel\_80:

(3, 31238), (5, 31247), (Start: 6 @31259 has 1 MA's), (Start: 34 @31376 has 7 MA's), (84, 31490), (187, 31817), (232, 31934), (259, 32051), (282, 32159), (328, 32267), (357, 32390), (360, 32411), (371, 32465), (381, 32534), (426, 32702), (453, 32786), (454, 32789), (456, 32792), (481, 32858),

Gene: Pumpkiney\_15 Start: 6191, Stop: 7864, Start Num: 7

Candidate Starts for Pumpkiney\_15:

(Start: 7 @6191 has 114 MA's), (Start: 22 @6266 has 3 MA's), (42, 6314), (79, 6401), (103, 6482), (109, 6512), (111, 6521), (157, 6644), (163, 6665), (171, 6689), (212, 6761), (216, 6770), (252, 6881), (259, 6920), (261, 6929), (264, 6938), (266, 6950), (267, 6953), (269, 6959), (288, 7034), (328, 7094), (357, 7229), (364, 7274), (372, 7313), (379, 7364), (388, 7397), (391, 7409), (392, 7412), (404, 7439), (413, 7463), (428, 7541), (443, 7592), (460, 7622), (464, 7628), (492, 7685), (505, 7730),

Gene: Pureglobe5\_24 Start: 9460, Stop: 11346, Start Num: 47

Candidate Starts for Pureglobe5\_24:

(Start: 47 @9460 has 18 MA's), (50, 9469), (73, 9508), (112, 9631), (118, 9649), (133, 9700), (146, 9724), (177, 9799), (328, 10234), (365, 10408), (368, 10420), (401, 10570), (419, 10621), (424, 10654), (425, 10660), (433, 10693), (443, 10729), (449, 10756), (467, 10795), (474, 10816), (478, 10828), (584, 11092), (622, 11209), (652, 11305),

Gene: Purplicious\_39 Start: 17441, Stop: 19399, Start Num: 25

Candidate Starts for Purplicious\_39:

(Start: 25 @17441 has 7 MA's), (Start: 45 @17486 has 50 MA's), (74, 17537), (82, 17564), (146, 17753), (221, 17912), (251, 18005), (266, 18080), (280, 18149), (282, 18161), (283, 18167), (310, 18269), (321, 18302), (339, 18374), (340, 18377), (348, 18407), (357, 18446), (365, 18497), (372, 18530), (411, 18674), (412, 18677), (420, 18707), (448, 18815), (469, 18851), (472, 18860), (534, 18995), (585, 19076), (593, 19109), (621, 19199), (665, 19352), (674, 19391),

Gene: Quammi\_20 Start: 8130, Stop: 9956, Start Num: 45

Candidate Starts for Quammi\_20:

(Start: 45 @8130 has 50 MA's), (108, 8280), (155, 8415), (170, 8454), (201, 8532), (215, 8550), (264, 8700), (267, 8715), (277, 8772), (303, 8841), (320, 8889), (324, 8898), (357, 9033), (364, 9078), (365, 9084), (368, 9096), (377, 9156), (419, 9285), (420, 9291), (424, 9318), (447, 9417), (468, 9462), (553, 9657), (574, 9693), (584, 9711), (599, 9756),

Gene: QueenBeane\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for QueenBeane\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: QueenPie\_9 Start: 6601, Stop: 8490, Start Num: 30

Candidate Starts for QueenPie\_9:

(Start: 30 @6601 has 441 MA's), (86, 6697), (94, 6712), (105, 6763), (108, 6772), (120, 6823), (123, 6832), (161, 6928), (179, 6988), (221, 7084), (249, 7165), (259, 7219), (277, 7309), (278, 7312), (305, 7390), (313, 7402), (342, 7504), (356, 7564), (363, 7606), (365, 7618), (377, 7693), (382, 7717), (384, 7723), (391, 7750), (393, 7756), (412, 7798), (566, 8170), (572, 8179), (574, 8182), (596, 8245), (611, 8305), (612, 8308), (615, 8317), (649, 8431), (666, 8476), (670, 8482),

Gene: Quesadilla\_11 Start: 7419, Stop: 9299, Start Num: 30

Candidate Starts for Quesadilla\_11:

(Start: 30 @7419 has 441 MA's), (Start: 95 @7533 has 2 MA's), (104, 7578), (154, 7725), (159, 7737), (170, 7776), (191, 7836), (221, 7881), (233, 7917), (236, 7932), (259, 8016), (267, 8049), (276, 8094), (277, 8106), (282, 8127), (305, 8196), (313, 8208), (355, 8361), (363, 8412), (391, 8556), (392, 8559), (395, 8568), (420, 8634), (471, 8784), (479, 8808), (564, 8991), (572, 9003), (583, 9021), (611, 9123), (615, 9135), (637, 9204), (662, 9276),

Gene: Quhwah\_22 Start: 8789, Stop: 10495, Start Num: 12

Candidate Starts for Quhwah\_22:

(Start: 12 @8789 has 40 MA's), (Start: 14 @8798 has 15 MA's), (68, 8912), (71, 8918), (104, 9023), (108, 9035), (132, 9134), (134, 9140), (138, 9152), (158, 9206), (163, 9224), (179, 9278), (188, 9308), (212, 9347), (219, 9365), (221, 9374), (233, 9410), (251, 9473), (264, 9536), (271, 9563), (277, 9608), (328, 9710), (329, 9713), (337, 9752), (342, 9770), (359, 9842), (371, 9908), (372, 9917), (377, 9956), (385, 9989), (394, 10022), (396, 10028), (406, 10058), (448, 10211), (457, 10226), (470, 10247), (471, 10250), (552, 10454), (559, 10463),

Gene: Quisquilliae\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Quisquilliae\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263),

(323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Qyrzula\_12 Start: 7818, Stop: 9707, Start Num: 30

Candidate Starts for Qyrzula\_12:

(Start: 30 @7818 has 441 MA's), (57, 7866), (68, 7890), (Start: 80 @7908 has 11 MA's), (Start: 95 @7941 has 2 MA's), (120, 8049), (154, 8133), (173, 8196), (184, 8232), (209, 8283), (215, 8295), (221, 8316), (249, 8394), (251, 8403), (259, 8448), (277, 8538), (278, 8541), (280, 8547), (282, 8559), (287, 8574), (291, 8586), (327, 8670), (334, 8703), (338, 8721), (351, 8766), (363, 8835), (365, 8847), (377, 8922), (382, 8946), (384, 8952), (391, 8979), (395, 8991), (399, 8997), (412, 9027), (413, 9030), (420, 9057), (435, 9123), (438, 9132), (471, 9207), (485, 9243), (519, 9288), (578, 9426), (581, 9429), (585, 9441), (609, 9528), (612, 9537), (615, 9546), (618, 9561), (629, 9591), (635, 9609), (641, 9624), (649, 9651), (652, 9663), (670, 9699),

Gene: RIPWilbur\_20 Start: 8596, Stop: 10482, Start Num: 47

Candidate Starts for RIPWilbur\_20:

(Start: 47 @8596 has 18 MA's), (50, 8605), (73, 8644), (112, 8767), (118, 8785), (133, 8836), (146, 8860), (177, 8935), (261, 9178), (328, 9370), (365, 9544), (368, 9556), (401, 9706), (419, 9757), (424, 9790), (425, 9796), (433, 9829), (443, 9865), (449, 9892), (467, 9931), (474, 9952), (478, 9964), (584, 10228), (622, 10345), (652, 10441),

Gene: Racecar\_77 Start: 33689, Stop: 35374, Start Num: 22

Candidate Starts for Racecar\_77:

(Start: 22 @33689 has 3 MA's), (Start: 26 @33695 has 8 MA's), (Start: 80 @33800 has 11 MA's), (116, 33923), (119, 33935), (161, 34058), (251, 34310), (259, 34355), (309, 34511), (312, 34520), (315, 34532), (328, 34568), (333, 34589), (371, 34766), (467, 35120), (496, 35186), (499, 35192), (542, 35318), (545, 35327), (562, 35363),

Gene: RagingRooster\_11 Start: 6315, Stop: 8219, Start Num: 30

Candidate Starts for RagingRooster\_11:

(Start: 30 @6315 has 441 MA's), (40, 6342), (87, 6423), (105, 6486), (122, 6552), (131, 6585), (173, 6693), (205, 6783), (232, 6861), (251, 6918), (261, 6972), (277, 7053), (282, 7074), (291, 7101), (316, 7152), (318, 7161), (323, 7170), (363, 7347), (365, 7359), (377, 7434), (382, 7458), (388, 7479), (419, 7563), (461, 7701), (471, 7719), (481, 7746), (499, 7770), (584, 7944), (612, 8049), (615, 8058), (626, 8085), (652, 8175), (662, 8199), (670, 8211),

Gene: RainyPolka\_10 Start: 8039, Stop: 9838, Start Num: 80

Candidate Starts for RainyPolka\_10:

(Start: 80 @8039 has 11 MA's), (115, 8156), (117, 8165), (127, 8198), (142, 8246), (159, 8285), (179, 8354), (204, 8423), (206, 8426), (214, 8444), (221, 8465), (230, 8492), (248, 8546), (250, 8552), (251, 8558), (259, 8603), (273, 8654), (280, 8702), (326, 8780), (329, 8789), (339, 8834), (348, 8867), (351, 8876), (356, 8903), (378, 9035), (476, 9326), (493, 9362), (504, 9389), (530, 9437), (543, 9485), (549, 9497), (577, 9530), (586, 9548), (606, 9617), (661, 9809), (669, 9827),

Gene: Ramiel05\_19 Start: 8475, Stop: 10151, Start Num: 12

Candidate Starts for Ramiel05\_19:

(Start: 12 @8475 has 40 MA's), (Start: 14 @8484 has 15 MA's), (68, 8598), (71, 8604), (104, 8709), (108, 8721), (132, 8820), (134, 8826), (138, 8838), (158, 8892), (163, 8910), (179, 8964), (188, 8994), (212, 9033), (219, 9051), (221, 9060), (233, 9096), (251, 9159), (264, 9222), (271, 9249), (328, 9396), (329, 9399), (337, 9438), (342, 9456), (359, 9528), (371, 9594), (372, 9603), (385, 9675), (394, 9708), (396, 9714), (406, 9744), (412, 9759), (448, 9897), (457, 9912), (470, 9933), (471, 9936),

Gene: Ranunculus\_17 Start: 8385, Stop: 10292, Start Num: 47

Candidate Starts for Ranunculus\_17:

(Start: 47 @8385 has 18 MA's), (73, 8433), (112, 8556), (118, 8574), (133, 8625), (146, 8649), (155, 8661), (175, 8718), (177, 8724), (328, 9159), (364, 9327), (365, 9333), (368, 9345), (419, 9546), (424, 9579), (425, 9585), (433, 9618), (443, 9654), (467, 9720), (478, 9753), (484, 9765), (536, 9921), (547, 9957), (555, 9978), (574, 10011), (622, 10155), (640, 10209), (649, 10239),

Gene: RawrgerThat\_9 Start: 6757, Stop: 8628, Start Num: 37

Candidate Starts for RawrgerThat\_9:

(Start: 30 @6742 has 441 MA's), (Start: 37 @6757 has 5 MA's), (86, 6838), (94, 6853), (105, 6904), (108, 6913), (120, 6964), (161, 7069), (179, 7129), (221, 7225), (248, 7303), (249, 7306), (259, 7360), (277, 7450), (278, 7453), (305, 7531), (313, 7543), (342, 7645), (356, 7705), (363, 7747), (365, 7759), (382, 7858), (384, 7864), (391, 7891), (393, 7897), (412, 7939), (420, 7969), (566, 8308), (572, 8317), (574, 8320), (590, 8359), (596, 8383), (611, 8443), (612, 8446), (615, 8455), (649, 8569), (666, 8614), (670, 8620),

Gene: RazzB\_18 Start: 7759, Stop: 9648, Start Num: 47

Candidate Starts for RazzB\_18:

(Start: 47 @7759 has 18 MA's), (50, 7768), (73, 7807), (112, 7930), (118, 7948), (133, 7999), (146, 8023), (177, 8098), (261, 8341), (328, 8533), (365, 8707), (368, 8719), (401, 8869), (419, 8920), (424, 8953), (425, 8959), (433, 8992), (443, 9028), (449, 9055), (467, 9094), (478, 9127), (584, 9394), (622, 9511), (652, 9607),

Gene: Reccee\_10 Start: 6875, Stop: 8740, Start Num: 30

Candidate Starts for Reccee\_10:

(Start: 30 @6875 has 441 MA's), (Start: 37 @6890 has 5 MA's), (66, 6932), (104, 7028), (108, 7040), (172, 7226), (174, 7238), (177, 7247), (233, 7364), (236, 7379), (251, 7418), (278, 7556), (282, 7574), (305, 7634), (348, 7772), (356, 7808), (363, 7850), (365, 7862), (377, 7937), (382, 7961), (391, 7994), (395, 8006), (400, 8018), (412, 8042), (471, 8222), (477, 8240), (561, 8420), (574, 8441), (585, 8462), (611, 8564), (630, 8624), (670, 8732), (671, 8735),

Gene: RedMaple\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for RedMaple\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: RedRaider89\_9 Start: 4673, Stop: 6592, Start Num: 30

Candidate Starts for RedRaider89\_9:

(Start: 30 @4673 has 441 MA's), (Start: 88 @4784 has 7 MA's), (Start: 96 @4799 has 1 MA's), (122, 4910), (170, 5042), (177, 5066), (179, 5072), (181, 5084), (186, 5096), (250, 5261), (275, 5387), (276, 5390), (277, 5402), (280, 5411), (282, 5423), (303, 5486), (307, 5495), (323, 5531), (329, 5549), (332, 5558), (342, 5606), (362, 5702), (363, 5708), (371, 5744), (377, 5792), (382, 5816), (440, 6011), (481, 6104), (596, 6356), (635, 6491), (649, 6533), (652, 6545),

Gene: ReginaGlobina\_75 Start: 31755, Stop: 33383, Start Num: 26

Candidate Starts for ReginaGlobina\_75:

(Start: 26 @31755 has 8 MA's), (119, 31995), (177, 32172), (251, 32370), (284, 32532), (312, 32574), (315, 32586), (328, 32622), (366, 32802), (381, 32889), (408, 32967), (475, 33198), (514, 33285), (542, 33333), (562, 33372),

Gene: Ren19\_16 Start: 8462, Stop: 10354, Start Num: 47

Candidate Starts for Ren19\_16:

(Start: 47 @8462 has 18 MA's), (50, 8471), (72, 8507), (73, 8510), (112, 8633), (118, 8651), (133, 8702), (146, 8726), (155, 8738), (170, 8777), (175, 8795), (177, 8801), (261, 9044), (302, 9185), (328, 9236), (365, 9410), (368, 9422), (419, 9623), (424, 9656), (425, 9662), (433, 9695), (442, 9728), (443, 9731), (467, 9797), (468, 9800), (478, 9830), (584, 10103), (598, 10142), (652, 10316),

Gene: Renkei\_8 Start: 5644, Stop: 7533, Start Num: 30

Candidate Starts for Renkei\_8:

(Start: 30 @5644 has 441 MA's), (86, 5740), (94, 5755), (105, 5806), (108, 5815), (120, 5866), (123, 5875), (161, 5971), (179, 6031), (221, 6127), (249, 6208), (259, 6262), (277, 6352), (278, 6355), (305, 6433), (313, 6445), (342, 6547), (356, 6607), (363, 6649), (365, 6661), (377, 6736), (382, 6760), (384, 6766), (391, 6793), (393, 6799), (412, 6841), (420, 6871), (566, 7213), (572, 7222), (574, 7225), (595, 7282), (596, 7288), (611, 7348), (612, 7351), (615, 7360), (649, 7474), (666, 7519), (670, 7525),

Gene: Reprobate\_10 Start: 6968, Stop: 8833, Start Num: 30

Candidate Starts for Reprobate\_10:

(Start: 30 @6968 has 441 MA's), (Start: 37 @6983 has 5 MA's), (99, 7088), (104, 7124), (108, 7136), (109, 7145), (131, 7223), (152, 7268), (177, 7343), (179, 7349), (228, 7448), (233, 7460), (236, 7475), (251, 7514), (259, 7559), (267, 7592), (278, 7652), (282, 7670), (332, 7796), (342, 7844), (348, 7868), (356, 7904), (363, 7946), (377, 8033), (382, 8057), (391, 8090), (395, 8102), (400, 8114), (412, 8138), (471, 8318), (501, 8369), (576, 8537), (585, 8555), (589, 8567), (595, 8591), (611, 8657), (643, 8762), (670, 8825), (671, 8828),

Gene: Rhinoforte\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Rhinoforte\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Ribeye\_13 Start: 6470, Stop: 8098, Start Num: 7

Candidate Starts for Ribeye\_13:

(Start: 7 @6470 has 114 MA's), (Start: 47 @6593 has 18 MA's), (61, 6614), (83, 6671), (103, 6734), (109, 6764), (130, 6827), (138, 6854), (216, 7022), (246, 7109), (254, 7148), (259, 7172), (264, 7190), (267, 7205), (269, 7211), (281, 7274), (328, 7346), (336, 7385), (351, 7451), (357, 7481), (364, 7526), (367, 7541), (368, 7544), (373, 7580), (382, 7628), (385, 7637), (392, 7664), (404, 7691), (419, 7736), (434, 7811), (443, 7841), (451, 7859), (476, 7898), (480, 7904), (490, 7919), (496, 7940), (499, 7946), (515, 7982), (528, 8015),

Gene: Rich\_10 Start: 6696, Stop: 8564, Start Num: 30

Candidate Starts for Rich\_10:

(Start: 30 @6696 has 441 MA's), (40, 6720), (99, 6816), (104, 6852), (108, 6864), (172, 7050), (177, 7071), (179, 7077), (233, 7188), (236, 7203), (251, 7242), (278, 7380), (282, 7398), (305, 7458), (348, 7596), (363, 7674), (365, 7686), (370, 7704), (382, 7785), (391, 7818), (395, 7830), (400, 7842), (412, 7866), (477, 8064), (488, 8085), (561, 8244), (574, 8265), (576, 8268), (585, 8286), (611, 8388), (630, 8448), (670, 8556), (671, 8559),

Gene: Ricotta\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Ricotta\_8:

(Start: 30 @4440 has 441 MA's), (Start: 37 @4455 has 5 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Riggan\_8 Start: 4445, Stop: 6364, Start Num: 30

Candidate Starts for Riggan\_8:

(Start: 30 @4445 has 441 MA's), (Start: 37 @4460 has 5 MA's), (Start: 88 @4556 has 7 MA's), (Start: 96 @4571 has 1 MA's), (122, 4682), (170, 4814), (177, 4838), (179, 4844), (181, 4856), (186, 4868), (250, 5033), (275, 5159), (276, 5162), (277, 5174), (280, 5183), (282, 5195), (303, 5258), (307, 5267), (323, 5303), (329, 5321), (332, 5330), (342, 5378), (362, 5474), (363, 5480), (371, 5516), (377, 5564), (382, 5588), (440, 5783), (481, 5876), (596, 6128), (635, 6263), (649, 6305), (652, 6317),

Gene: Rimu\_8 Start: 4437, Stop: 6356, Start Num: 30

Candidate Starts for Rimu\_8:

(Start: 30 @4437 has 441 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: Rinkes\_13 Start: 8554, Stop: 10458, Start Num: 30

Candidate Starts for Rinkes\_13:

(Start: 30 @8554 has 441 MA's), (112, 8749), (120, 8779), (154, 8878), (170, 8929), (205, 9022), (265, 9211), (274, 9247), (277, 9280), (278, 9283), (282, 9301), (284, 9307), (303, 9355), (307, 9364), (318, 9391), (336, 9454), (337, 9457), (338, 9463), (342, 9475), (356, 9535), (363, 9577), (364, 9583), (381, 9682), (385, 9694), (391, 9718), (392, 9721), (395, 9730), (419, 9790), (428, 9847), (430, 9859), (438, 9871), (521, 10036), (555, 10141), (572, 10156), (585, 10180), (600, 10234), (611, 10282), (612, 10285), (615, 10294), (637, 10363), (641, 10372), (652, 10411), (655, 10423), (671, 10453),

Gene: Rita130\_10 Start: 6695, Stop: 8560, Start Num: 30

Candidate Starts for Rita130\_10:

(Start: 30 @6695 has 441 MA's), (Start: 37 @6710 has 5 MA's), (66, 6752), (104, 6848), (108, 6860), (172, 7046), (174, 7058), (177, 7067), (233, 7184), (236, 7199), (251, 7238), (278, 7376), (282, 7394), (305, 7454), (348, 7592), (356, 7628), (363, 7670), (365, 7682), (377, 7757), (382, 7781), (391, 7814), (395, 7826), (400, 7838), (412, 7862), (471, 8042), (477, 8060), (561, 8240), (574, 8261), (585, 8282), (611, 8384), (630, 8444), (670, 8552), (671, 8555),

Gene: Rita1961\_11 Start: 6315, Stop: 8219, Start Num: 30

Candidate Starts for Rita1961\_11:

(Start: 30 @6315 has 441 MA's), (40, 6342), (87, 6423), (105, 6486), (122, 6552), (131, 6585), (173, 6693), (205, 6783), (232, 6861), (251, 6918), (261, 6972), (277, 7053), (282, 7074), (291, 7101), (316, 7152), (318, 7161), (323, 7170), (363, 7347), (365, 7359), (377, 7434), (382, 7458), (388, 7479), (419, 7563), (461, 7701), (471, 7719), (481, 7746), (499, 7770), (581, 7935), (584, 7944), (612, 8049), (615, 8058), (626, 8085), (652, 8175), (653, 8178), (662, 8199), (670, 8211),

Gene: RiverRaider\_13 Start: 6026, Stop: 7657, Start Num: 7

Candidate Starts for RiverRaider\_13:

(Start: 7 @6026 has 114 MA's), (83, 6227), (103, 6290), (130, 6383), (150, 6440), (211, 6566), (216, 6578), (255, 6707), (259, 6728), (264, 6746), (267, 6761), (269, 6767), (328, 6902), (336, 6941), (342, 6962), (351, 7007), (357, 7037), (364, 7082), (367, 7097), (368, 7100), (373, 7136), (385, 7193), (392, 7220), (404, 7247), (427, 7346), (428, 7349), (433, 7364), (441, 7388), (443, 7397), (451, 7415), (462,

7430), (476, 7454), (489, 7472), (490, 7475), (496, 7496), (503, 7517), (515, 7541), (526, 7568), (538, 7607),

Gene: Riverton\_8 Start: 4567, Stop: 6360, Start Num: 96

Candidate Starts for Riverton\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Rizwana\_16 Start: 8365, Stop: 10227, Start Num: 47

Candidate Starts for Rizwana\_16:

(Start: 47 @8365 has 18 MA's), (50, 8374), (87, 8449), (103, 8497), (118, 8557), (126, 8587), (140, 8614), (170, 8680), (224, 8812), (246, 8872), (248, 8875), (280, 9031), (282, 9043), (320, 9118), (325, 9130), (328, 9139), (336, 9178), (351, 9232), (364, 9307), (395, 9454), (405, 9478), (407, 9484), (414, 9508), (419, 9526), (433, 9598), (443, 9634), (450, 9664), (468, 9703), (472, 9715), (484, 9745), (527, 9841), (536, 9880), (563, 9949), (582, 9982), (649, 10186), (650, 10189), (652, 10198),

Gene: RoadKill\_11 Start: 5257, Stop: 6933, Start Num: 7

Candidate Starts for RoadKill\_11:

(Start: 7 @5257 has 114 MA's), (10, 5290), (38, 5368), (63, 5422), (103, 5554), (109, 5584), (134, 5662), (141, 5680), (171, 5761), (212, 5833), (216, 5842), (235, 5902), (264, 6010), (266, 6022), (267, 6025), (269, 6031), (328, 6166), (329, 6169), (342, 6226), (357, 6301), (364, 6346), (368, 6364), (372, 6385), (377, 6424), (382, 6448), (388, 6469), (392, 6484), (413, 6535), (419, 6556), (443, 6661), (460, 6691), (475, 6715), (476, 6718), (505, 6796),

Gene: RobinRose\_23 Start: 7894, Stop: 9693, Start Num: 45

Candidate Starts for RobinRose\_23:

(Start: 45 @7894 has 50 MA's), (94, 7993), (146, 8158), (170, 8209), (179, 8239), (215, 8305), (292, 8572), (308, 8617), (336, 8704), (348, 8749), (356, 8785), (364, 8833), (365, 8839), (368, 8851), (373, 8887), (377, 8911), (419, 9046), (443, 9154), (446, 9175), (479, 9256), (485, 9265), (547, 9376), (553, 9394), (574, 9430), (600, 9496), (617, 9565), (631, 9598), (655, 9673),

Gene: RobsFeet\_21 Start: 8347, Stop: 10041, Start Num: 12

Candidate Starts for RobsFeet\_21:

(Start: 12 @8347 has 40 MA's), (Start: 14 @8356 has 15 MA's), (71, 8479), (104, 8584), (108, 8596), (132, 8695), (158, 8767), (163, 8785), (212, 8908), (218, 8920), (219, 8926), (221, 8935), (233, 8971), (251, 9034), (264, 9097), (271, 9124), (277, 9169), (304, 9220), (328, 9271), (329, 9274), (337, 9313), (339, 9322), (342, 9331), (351, 9364), (359, 9403), (371, 9469), (372, 9478), (373, 9493), (377, 9517), (394, 9583), (396, 9589), (406, 9616), (448, 9769), (471, 9808), (478, 9829), (495, 9874), (559, 10021),

Gene: Robyn\_8 Start: 4443, Stop: 6362, Start Num: 30

Candidate Starts for Robyn\_8:

(Start: 30 @4443 has 441 MA's), (Start: 37 @4458 has 5 MA's), (Start: 88 @4554 has 7 MA's), (Start: 96 @4569 has 1 MA's), (122, 4680), (170, 4812), (177, 4836), (179, 4842), (181, 4854), (186, 4866), (250, 5031), (275, 5157), (276, 5160), (277, 5172), (280, 5181), (282, 5193), (303, 5256), (307, 5265), (323, 5301), (329, 5319), (332, 5328), (342, 5376), (362, 5472), (363, 5478), (371, 5514), (377, 5562), (382, 5586), (440, 5781), (481, 5874), (596, 6126), (635, 6261), (649, 6303), (652, 6315),

Gene: Rockabye\_78 Start: 34436, Stop: 36061, Start Num: 26

Candidate Starts for Rockabye\_78:

(Start: 26 @34436 has 8 MA's), (81, 34544), (116, 34661), (119, 34673), (141, 34742), (219, 34934), (275, 35168), (309, 35243), (329, 35303), (360, 35444), (371, 35498), (372, 35507), (381, 35567), (453, 35819), (467, 35852), (499, 35924), (507, 35951), (562, 36050),

Gene: Rockwell\_19 Start: 8475, Stop: 10151, Start Num: 12

Candidate Starts for Rockwell\_19:

(Start: 12 @8475 has 40 MA's), (Start: 14 @8484 has 15 MA's), (68, 8598), (71, 8604), (104, 8709), (108, 8721), (132, 8820), (134, 8826), (138, 8838), (158, 8892), (163, 8910), (179, 8964), (188, 8994), (212, 9033), (219, 9051), (221, 9060), (233, 9096), (251, 9159), (264, 9222), (271, 9249), (328, 9396), (329, 9399), (337, 9438), (342, 9456), (359, 9528), (371, 9594), (372, 9603), (385, 9675), (394, 9708), (396, 9714), (406, 9744), (412, 9759), (448, 9897), (457, 9912), (470, 9933), (471, 9936),

Gene: Rofo\_12 Start: 7025, Stop: 8647, Start Num: 7

Candidate Starts for Rofo\_12:

(Start: 7 @7025 has 114 MA's), (73, 7184), (83, 7223), (103, 7286), (130, 7379), (138, 7406), (154, 7445), (216, 7574), (235, 7634), (255, 7703), (259, 7724), (264, 7742), (267, 7757), (269, 7763), (281, 7826), (324, 7886), (328, 7898), (336, 7937), (339, 7949), (342, 7958), (351, 8003), (357, 8033), (364, 8078), (367, 8093), (368, 8096), (373, 8132), (382, 8180), (385, 8189), (392, 8216), (443, 8393), (476, 8450), (480, 8456), (490, 8471), (496, 8492), (499, 8498), (515, 8534), (526, 8561),

Gene: RogerDodger\_13 Start: 5819, Stop: 7405, Start Num: 7

Candidate Starts for RogerDodger\_13:

(Start: 7 @5819 has 114 MA's), (70, 5963), (99, 6035), (111, 6101), (120, 6134), (154, 6218), (162, 6239), (166, 6254), (248, 6428), (250, 6434), (257, 6470), (261, 6494), (262, 6497), (273, 6536), (288, 6608), (328, 6668), (329, 6671), (330, 6674), (337, 6710), (339, 6719), (341, 6725), (342, 6728), (357, 6791), (364, 6836), (371, 6866), (377, 6914), (392, 6971), (399, 6992), (412, 7019), (413, 7022), (420, 7049), (428, 7100), (443, 7148),

Gene: Roliet\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Roliet\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: RomaT\_11 Start: 7077, Stop: 8981, Start Num: 30

Candidate Starts for RomaT\_11:

(Start: 30 @7077 has 441 MA's), (40, 7104), (87, 7185), (105, 7248), (122, 7314), (131, 7347), (173, 7455), (205, 7545), (232, 7623), (251, 7680), (261, 7734), (277, 7815), (282, 7836), (291, 7863), (316, 7914), (318, 7923), (323, 7932), (363, 8109), (365, 8121), (377, 8196), (382, 8220), (388, 8241), (419, 8325), (461, 8463), (471, 8481), (481, 8508), (499, 8532), (581, 8697), (584, 8706), (612, 8811), (615, 8820), (626, 8847), (652, 8937), (662, 8961), (670, 8973),

Gene: RomansRevenge\_13 Start: 6363, Stop: 8228, Start Num: 39

Candidate Starts for RomansRevenge\_13:

(Start: 39 @6363 has 1 MA's), (Start: 47 @6378 has 18 MA's), (Start: 80 @6444 has 11 MA's), (87, 6462), (116, 6561), (118, 6570), (119, 6573), (121, 6585), (122, 6588), (134, 6621), (149, 6648), (170, 6693), (218, 6795), (225, 6822), (231, 6837), (246, 6876), (253, 6909), (258, 6927), (261, 6945), (280, 7035), (282, 7047), (320, 7131), (328, 7152), (337, 7194), (351, 7245), (364, 7320), (365, 7326), (368, 7338), (381, 7419), (389, 7449), (402, 7485), (419, 7530), (443, 7638), (529, 7845), (545, 7881), (582, 7950), (597, 7998), (607, 8037), (622, 8082), (652, 8178),

Gene: Romm\_23 Start: 7894, Stop: 9693, Start Num: 45

Candidate Starts for Romm\_23:

(Start: 45 @7894 has 50 MA's), (94, 7993), (146, 8158), (170, 8209), (179, 8239), (215, 8305), (292, 8572), (308, 8617), (336, 8704), (348, 8749), (356, 8785), (364, 8833), (365, 8839), (368, 8851), (373, 8887), (377, 8911), (419, 9046), (443, 9154), (446, 9175), (479, 9256), (485, 9265), (547, 9376), (553, 9394), (574, 9430), (600, 9496), (617, 9565), (631, 9598), (655, 9673),

Gene: Roscoe\_9 Start: 4676, Stop: 6595, Start Num: 30

Candidate Starts for Roscoe\_9:

(Start: 30 @4676 has 441 MA's), (Start: 88 @4787 has 7 MA's), (Start: 96 @4802 has 1 MA's), (122, 4913), (170, 5045), (177, 5069), (179, 5075), (181, 5087), (186, 5099), (250, 5264), (275, 5390), (276, 5393), (277, 5405), (280, 5414), (282, 5426), (303, 5489), (307, 5498), (323, 5534), (329, 5552), (332, 5561), (342, 5609), (362, 5705), (363, 5711), (371, 5747), (377, 5795), (382, 5819), (440, 6014), (481, 6107), (596, 6359), (635, 6494), (649, 6536), (652, 6548),

Gene: Rosebush\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for Rosebush\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: Rowlf\_18 Start: 7897, Stop: 9723, Start Num: 45

Candidate Starts for Rowlf\_18:

(Start: 45 @7897 has 50 MA's), (155, 8182), (170, 8221), (201, 8299), (215, 8317), (264, 8467), (267, 8482), (277, 8539), (303, 8608), (320, 8656), (324, 8665), (357, 8800), (364, 8845), (365, 8851), (368, 8863), (377, 8923), (419, 9052), (420, 9058), (424, 9085), (447, 9184), (468, 9229), (553, 9424), (574, 9460), (584, 9478), (599, 9523),

Gene: Roy17\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Roy17\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: RubyRalph\_24 Start: 8991, Stop: 10805, Start Num: 45

Candidate Starts for RubyRalph\_24:

(Start: 36 @8970 has 2 MA's), (Start: 45 @8991 has 50 MA's), (170, 9318), (175, 9336), (179, 9348), (249, 9492), (264, 9564), (270, 9588), (278, 9639), (323, 9753), (332, 9780), (337, 9810), (357, 9891), (364, 9936), (365, 9942), (368, 9954), (377, 10014), (403, 10098), (419, 10143), (420, 10149), (433, 10215), (447, 10275), (485, 10365), (520, 10425), (553, 10506), (640, 10731),

Gene: Rudy\_20 Start: 8130, Stop: 9956, Start Num: 45

Candidate Starts for Rudy\_20:

(Start: 45 @8130 has 50 MA's), (108, 8280), (155, 8415), (170, 8454), (201, 8532), (215, 8550), (264, 8700), (267, 8715), (277, 8772), (303, 8841), (320, 8889), (324, 8898), (357, 9033), (364, 9078), (365, 9084), (368, 9096), (377, 9156), (419, 9285), (420, 9291), (424, 9318), (447, 9417), (468, 9462), (553,

9657), (574, 9693), (584, 9711), (599, 9756),

Gene: SDcharge11\_8 Start: 4440, Stop: 6353, Start Num: 30

Candidate Starts for SDcharge11\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6117), (635, 6252), (649, 6294), (652, 6306),

Gene: SJReid\_79 Start: 34914, Stop: 36533, Start Num: 26

Candidate Starts for SJReid\_79:

(Start: 26 @34914 has 8 MA's), (Start: 80 @35016 has 11 MA's), (81, 35022), (119, 35151), (179, 35334), (325, 35763), (329, 35775), (333, 35793), (371, 35970), (381, 36039), (453, 36291), (467, 36324), (499, 36396), (507, 36423), (542, 36480), (562, 36522),

Gene: Sabella\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Sabella\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (215, 8205), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: SadLad\_25 Start: 9427, Stop: 11262, Start Num: 36

Candidate Starts for SadLad\_25:

(Start: 36 @9427 has 2 MA's), (Start: 45 @9448 has 50 MA's), (170, 9775), (175, 9793), (179, 9805), (249, 9949), (264, 10021), (270, 10045), (278, 10096), (323, 10210), (332, 10237), (337, 10267), (357, 10348), (364, 10393), (365, 10399), (368, 10411), (377, 10471), (403, 10555), (419, 10600), (420, 10606), (433, 10672), (447, 10732), (485, 10822), (520, 10882), (553, 10963), (640, 11188),

Gene: Saguaro\_11 Start: 7627, Stop: 9525, Start Num: 30

Candidate Starts for Saguaro\_11:

(Start: 30 @7627 has 441 MA's), (Start: 95 @7741 has 2 MA's), (108, 7798), (120, 7849), (131, 7888), (154, 7948), (159, 7960), (165, 7984), (181, 8041), (221, 8104), (233, 8140), (251, 8194), (259, 8239), (265, 8260), (267, 8272), (277, 8329), (282, 8350), (291, 8377), (297, 8398), (305, 8419), (313, 8431), (327, 8470), (330, 8479), (339, 8524), (342, 8533), (348, 8557), (363, 8635), (365, 8647), (377, 8722), (382, 8746), (395, 8791), (412, 8827), (419, 8851), (452, 8974), (471, 9007), (478, 9028), (641, 9439), (648, 9463), (649, 9466), (666, 9511),

Gene: Salete\_10 Start: 8087, Stop: 9889, Start Num: 80

Candidate Starts for Salete\_10:

(Start: 80 @8087 has 11 MA's), (117, 8213), (123, 8234), (127, 8246), (142, 8294), (159, 8333), (172, 8375), (179, 8402), (204, 8471), (214, 8492), (221, 8513), (248, 8591), (250, 8597), (251, 8603), (273, 8699), (280, 8747), (326, 8825), (337, 8870), (339, 8879), (348, 8912), (356, 8948), (378, 9080), (476, 9377), (493, 9413), (532, 9503), (543, 9536), (549, 9548), (586, 9599), (603, 9650), (606, 9668), (619, 9716), (623, 9722), (644, 9803), (652, 9833), (661, 9860), (669, 9878),

Gene: SallyH\_9 Start: 4565, Stop: 6358, Start Num: 96

Candidate Starts for SallyH\_9:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: SallyK\_23 Start: 9291, Stop: 11117, Start Num: 45

Candidate Starts for SallyK\_23:

(Start: 45 @9291 has 50 MA's), (108, 9441), (155, 9576), (170, 9615), (201, 9693), (215, 9711), (264, 9861), (267, 9876), (277, 9933), (303, 10002), (320, 10050), (324, 10059), (357, 10194), (364, 10239), (365, 10245), (377, 10317), (419, 10446), (420, 10452), (424, 10479), (447, 10578), (468, 10623), (553, 10818), (574, 10854), (584, 10872), (599, 10917),

Gene: Salvador\_12 Start: 5434, Stop: 7020, Start Num: 7

Candidate Starts for Salvador\_12:

(Start: 7 @5434 has 114 MA's), (104, 5686), (111, 5716), (154, 5833), (162, 5854), (166, 5869), (248, 6043), (257, 6085), (261, 6109), (262, 6112), (273, 6151), (288, 6223), (328, 6283), (329, 6286), (330, 6289), (337, 6325), (339, 6334), (341, 6340), (342, 6343), (357, 6406), (364, 6451), (371, 6481), (377, 6529), (392, 6586), (399, 6607), (412, 6634), (413, 6637), (420, 6664), (428, 6715), (443, 6763),

Gene: Samaymay\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Samaymay\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Sampson\_14 Start: 6902, Stop: 8572, Start Num: 7

Candidate Starts for Sampson\_14:

(Start: 7 @6902 has 114 MA's), (Start: 22 @6977 has 3 MA's), (33, 6998), (42, 7025), (79, 7112), (103, 7193), (109, 7223), (111, 7232), (136, 7307), (141, 7319), (157, 7355), (171, 7400), (212, 7472), (216, 7481), (252, 7592), (259, 7631), (261, 7640), (264, 7649), (266, 7661), (267, 7664), (269, 7670), (288, 7745), (324, 7793), (328, 7805), (354, 7925), (357, 7940), (364, 7985), (372, 8024), (379, 8075), (388, 8108), (391, 8120), (392, 8123), (404, 8150), (413, 8174), (428, 8252), (443, 8303), (460, 8333), (464, 8339), (492, 8396), (505, 8441),

Gene: Sanjuju\_11 Start: 6983, Stop: 8605, Start Num: 7

Candidate Starts for Sanjuju\_11:

(Start: 7 @6983 has 114 MA's), (Start: 47 @7103 has 18 MA's), (73, 7142), (83, 7181), (103, 7244), (130, 7337), (138, 7364), (154, 7403), (216, 7532), (235, 7592), (255, 7661), (259, 7682), (264, 7700), (267, 7715), (269, 7721), (281, 7784), (324, 7844), (328, 7856), (336, 7895), (339, 7907), (342, 7916), (347, 7949), (351, 7961), (357, 7991), (364, 8036), (367, 8051), (368, 8054), (373, 8090), (382, 8138), (385, 8147), (392, 8174), (443, 8351), (476, 8408), (480, 8414), (490, 8429), (496, 8450), (499, 8456), (515, 8492), (526, 8519),

Gene: Saronaya\_12 Start: 6272, Stop: 7900, Start Num: 7

Candidate Starts for Saronaya\_12:

(Start: 7 @6272 has 114 MA's), (Start: 47 @6395 has 18 MA's), (61, 6416), (83, 6473), (103, 6536), (109, 6566), (130, 6629), (138, 6656), (216, 6824), (246, 6911), (254, 6950), (259, 6974), (264, 6992), (267, 7007), (269, 7013), (281, 7076), (328, 7148), (336, 7187), (351, 7253), (357, 7283), (364, 7328), (367, 7343), (368, 7346), (373, 7382), (382, 7430), (385, 7439), (392, 7466), (404, 7493), (419, 7538), (434, 7613), (443, 7643), (451, 7661), (476, 7700), (480, 7706), (490, 7721), (496, 7742), (499, 7748),

(515, 7784), (528, 7817),

Gene: SassyCat97\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for SassyCat97\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Savannah\_19 Start: 8499, Stop: 10175, Start Num: 12

Candidate Starts for Savannah\_19:

(Start: 12 @8499 has 40 MA's), (Start: 14 @8508 has 15 MA's), (68, 8622), (71, 8628), (104, 8733), (108, 8745), (132, 8844), (134, 8850), (138, 8862), (158, 8916), (163, 8934), (179, 8988), (188, 9018), (212, 9057), (219, 9075), (221, 9084), (233, 9120), (251, 9183), (264, 9246), (271, 9273), (328, 9420), (329, 9423), (337, 9462), (342, 9480), (359, 9552), (371, 9618), (372, 9627), (385, 9699), (394, 9732), (396, 9738), (406, 9768), (412, 9783), (448, 9921), (457, 9936), (470, 9957), (471, 9960),

Gene: Savbucketdawg\_12 Start: 5267, Stop: 6853, Start Num: 7

Candidate Starts for Savbucketdawg\_12:

(Start: 7 @5267 has 114 MA's), (43, 5381), (111, 5549), (157, 5669), (162, 5687), (166, 5702), (238, 5852), (250, 5882), (261, 5942), (262, 5945), (273, 5984), (288, 6056), (328, 6116), (329, 6119), (330, 6122), (337, 6158), (339, 6167), (341, 6173), (342, 6176), (357, 6239), (364, 6284), (371, 6314), (377, 6362), (392, 6419), (399, 6440), (404, 6446), (412, 6467), (413, 6470), (420, 6497), (428, 6548), (443, 6596),

Gene: Schadenfreude\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Schadenfreude\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: SchottB\_11 Start: 6448, Stop: 8076, Start Num: 7

Candidate Starts for SchottB\_11:

(Start: 7 @6448 has 114 MA's), (Start: 47 @6571 has 18 MA's), (61, 6592), (83, 6649), (103, 6712), (109, 6742), (130, 6805), (138, 6832), (216, 7000), (246, 7087), (254, 7126), (259, 7150), (264, 7168), (267, 7183), (269, 7189), (281, 7252), (328, 7324), (336, 7363), (351, 7429), (357, 7459), (364, 7504), (367, 7519), (368, 7522), (373, 7558), (382, 7606), (385, 7615), (392, 7642), (404, 7669), (419, 7714), (434, 7789), (443, 7819), (451, 7837), (476, 7876), (480, 7882), (490, 7897), (496, 7918), (499, 7924), (515, 7960), (528, 7993),

Gene: Schueller\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Schueller\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Scioto\_14 Start: 6957, Stop: 8627, Start Num: 7

Candidate Starts for Scioto\_14:

(Start: 7 @6957 has 114 MA's), (Start: 22 @7032 has 3 MA's), (33, 7053), (42, 7080), (79, 7167), (103, 7248), (109, 7278), (111, 7287), (136, 7362), (141, 7374), (157, 7410), (171, 7455), (212, 7527), (216, 7536), (252, 7647), (259, 7686), (261, 7695), (264, 7704), (266, 7716), (267, 7719), (269, 7725), (288, 7800), (324, 7848), (328, 7860), (354, 7980), (357, 7995), (364, 8040), (372, 8079), (379, 8130), (388, 8163), (391, 8175), (392, 8178), (404, 8205), (413, 8229), (428, 8307), (443, 8358), (460, 8388), (464, 8394), (492, 8451), (505, 8496),

Gene: Scoot17C\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Scoot17C\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Scrick\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Scrick\_8:

(Start: 30 @4442 has 441 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Scumberland\_21 Start: 8659, Stop: 10365, Start Num: 12

Candidate Starts for Scumberland\_21:

(Start: 12 @8659 has 40 MA's), (Start: 14 @8668 has 15 MA's), (20, 8683), (68, 8782), (71, 8788), (104, 8893), (108, 8905), (132, 9004), (134, 9010), (158, 9076), (163, 9094), (179, 9148), (188, 9178), (212, 9217), (219, 9235), (221, 9244), (233, 9280), (251, 9343), (264, 9406), (271, 9433), (277, 9478), (328, 9580), (329, 9583), (337, 9622), (342, 9640), (359, 9712), (371, 9778), (372, 9787), (377, 9826), (385, 9859), (394, 9892), (396, 9898), (406, 9928), (448, 10081), (457, 10096), (470, 10117), (471, 10120), (559, 10333),

Gene: Sedona\_13 Start: 7991, Stop: 9613, Start Num: 7

Candidate Starts for Sedona\_13:

(Start: 7 @7991 has 114 MA's), (73, 8150), (83, 8189), (103, 8252), (130, 8345), (138, 8372), (154, 8411), (216, 8540), (235, 8600), (255, 8669), (259, 8690), (264, 8708), (267, 8723), (269, 8729), (281, 8792), (324, 8852), (328, 8864), (336, 8903), (339, 8915), (342, 8924), (347, 8957), (351, 8969), (357, 8999), (364, 9044), (367, 9059), (368, 9062), (373, 9098), (382, 9146), (385, 9155), (392, 9182), (443, 9359), (476, 9416), (480, 9422), (490, 9437), (496, 9458), (499, 9464), (515, 9500), (526, 9527),

Gene: Sejanus\_7 Start: 4088, Stop: 6055, Start Num: 21

Candidate Starts for Sejanus\_7:

(Start: 21 @4088 has 7 MA's), (Start: 30 @4106 has 441 MA's), (69, 4184), (Start: 80 @4214 has 11 MA's), (87, 4232), (120, 4355), (159, 4451), (161, 4460), (176, 4511), (216, 4610), (228, 4655), (249, 4715), (251, 4724), (259, 4769), (265, 4790), (276, 4847), (279, 4865), (304, 4946), (314, 4967), (319, 4979), (323, 4988), (327, 5000), (338, 5051), (339, 5054), (348, 5087), (363, 5165), (365, 5177), (371, 5201), (381, 5273), (382, 5276), (412, 5357), (436, 5456), (444, 5486), (471, 5537), (580, 5771), (602, 5837), (604, 5846), (612, 5882), (618, 5906), (643, 5984), (649, 5996), (670, 6047), (671, 6050),

Gene: Selr12\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Selr12\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864),

(250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Selwyn23\_21 Start: 8668, Stop: 10344, Start Num: 12

Candidate Starts for Selwyn23\_21:

(Start: 12 @8668 has 40 MA's), (Start: 14 @8677 has 15 MA's), (20, 8692), (68, 8791), (71, 8797), (104, 8902), (108, 8914), (132, 9013), (134, 9019), (138, 9031), (158, 9085), (163, 9103), (179, 9157), (188, 9187), (212, 9226), (219, 9244), (221, 9253), (233, 9289), (251, 9352), (264, 9415), (271, 9442), (328, 9589), (329, 9592), (337, 9631), (342, 9649), (359, 9721), (371, 9787), (372, 9796), (385, 9868), (394, 9901), (396, 9907), (406, 9937), (412, 9952), (448, 10090), (457, 10105), (470, 10126), (471, 10129),

Gene: Sendy\_12 Start: 5562, Stop: 7145, Start Num: 7

Candidate Starts for Sendy\_12:

(Start: 7 @5562 has 114 MA's), (43, 5676), (111, 5844), (157, 5964), (162, 5982), (166, 5997), (238, 6147), (250, 6177), (261, 6237), (262, 6240), (273, 6279), (288, 6351), (328, 6411), (329, 6414), (330, 6417), (337, 6453), (339, 6462), (341, 6468), (342, 6471), (357, 6534), (364, 6579), (371, 6609), (377, 6657), (392, 6714), (399, 6735), (404, 6741), (412, 6762), (420, 6792), (428, 6843), (443, 6891),

Gene: Serendipitous\_10 Start: 6747, Stop: 8612, Start Num: 30

Candidate Starts for Serendipitous\_10:

(Start: 30 @6747 has 441 MA's), (Start: 37 @6762 has 5 MA's), (104, 6900), (108, 6912), (123, 6972), (152, 7044), (177, 7119), (179, 7125), (233, 7236), (236, 7251), (242, 7263), (251, 7290), (278, 7428), (282, 7446), (305, 7506), (348, 7644), (356, 7680), (363, 7722), (365, 7734), (377, 7809), (382, 7833), (391, 7866), (395, 7878), (400, 7890), (412, 7914), (471, 8094), (477, 8112), (585, 8334), (611, 8436), (649, 8553),

Gene: Serendipity\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Serendipity\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Serpentine\_008 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Serpentine\_008:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: ShadowBud\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for ShadowBud\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: SharkTale\_12 Start: 6176, Stop: 7762, Start Num: 7

Candidate Starts for SharkTale\_12:

(Start: 7 @6176 has 114 MA's), (43, 6290), (99, 6392), (111, 6458), (120, 6491), (157, 6578), (162, 6596), (261, 6851), (262, 6854), (273, 6893), (288, 6965), (328, 7025), (329, 7028), (330, 7031), (336, 7064), (337, 7067), (339, 7076), (341, 7082), (342, 7085), (357, 7148), (364, 7193), (371, 7223), (377, 7271), (392, 7328), (395, 7337), (399, 7349), (420, 7406), (428, 7457),

Gene: Shatter\_8 Start: 5303, Stop: 7141, Start Num: 30

Candidate Starts for Shatter\_8:

(Start: 30 @5303 has 441 MA's), (Start: 58 @5351 has 3 MA's), (Start: 95 @5417 has 2 MA's), (104, 5459), (145, 5591), (173, 5654), (179, 5672), (249, 5825), (251, 5834), (259, 5879), (267, 5912), (277, 5969), (278, 5972), (282, 5990), (293, 6023), (302, 6050), (338, 6161), (342, 6173), (344, 6188), (363, 6275), (365, 6287), (377, 6362), (382, 6386), (392, 6422), (394, 6428), (395, 6431), (396, 6434), (412, 6467), (583, 6866), (584, 6869), (585, 6872), (605, 6941), (607, 6947), (612, 6968), (626, 7004), (638, 7049), (643, 7070), (652, 7094), (655, 7106), (662, 7118), (663, 7121),

Gene: Sheila\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Sheila\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Shenandoah\_11 Start: 6314, Stop: 8221, Start Num: 30

Candidate Starts for Shenandoah\_11:

(Start: 30 @6314 has 441 MA's), (40, 6341), (87, 6422), (105, 6485), (122, 6551), (131, 6584), (173, 6692), (205, 6782), (232, 6860), (251, 6917), (261, 6971), (277, 7052), (282, 7073), (291, 7100), (316, 7151), (318, 7160), (323, 7169), (363, 7346), (365, 7358), (377, 7433), (382, 7457), (388, 7478), (419, 7562), (461, 7700), (471, 7718), (481, 7745), (499, 7769), (581, 7937), (584, 7946), (612, 8051), (615, 8060), (626, 8087), (652, 8177), (653, 8180), (662, 8201), (670, 8213),

Gene: Shenyu\_10 Start: 6702, Stop: 8567, Start Num: 30

Candidate Starts for Shenyu\_10:

(Start: 30 @6702 has 441 MA's), (Start: 37 @6717 has 5 MA's), (104, 6855), (108, 6867), (123, 6927), (138, 6969), (172, 7053), (174, 7065), (177, 7074), (233, 7191), (236, 7206), (251, 7245), (278, 7383), (282, 7401), (303, 7455), (348, 7599), (356, 7635), (363, 7677), (377, 7764), (382, 7788), (391, 7821), (395, 7833), (400, 7845), (412, 7869), (471, 8049), (477, 8067), (561, 8247), (574, 8268), (585, 8289), (611, 8391), (630, 8451), (670, 8559), (671, 8562),

Gene: ShiVal\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for ShiVal\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Shinji\_12 Start: 5456, Stop: 7042, Start Num: 7

Candidate Starts for Shinji\_12:

(Start: 7 @5456 has 114 MA's), (43, 5570), (111, 5738), (157, 5858), (162, 5876), (166, 5891), (238, 6041), (250, 6071), (261, 6131), (262, 6134), (273, 6173), (288, 6245), (328, 6305), (329, 6308), (330, 6311), (337, 6347), (339, 6356), (341, 6362), (342, 6365), (357, 6428), (364, 6473), (371, 6503), (377, 6551), (392, 6608), (399, 6629), (404, 6635), (412, 6656), (413, 6659), (420, 6686), (428, 6737), (443,

6785),

Gene: Shivanishola\_12 Start: 7199, Stop: 8818, Start Num: 7

Candidate Starts for Shivanishola\_12:

(Start: 7 @7199 has 114 MA's), (73, 7358), (83, 7397), (103, 7460), (130, 7553), (138, 7580), (154, 7619), (216, 7748), (235, 7808), (255, 7877), (259, 7898), (264, 7916), (267, 7931), (269, 7937), (281, 8000), (328, 8072), (336, 8111), (339, 8123), (342, 8132), (347, 8165), (351, 8177), (357, 8207), (364, 8252), (367, 8267), (368, 8270), (373, 8306), (382, 8354), (385, 8363), (392, 8390), (443, 8567), (476, 8624), (480, 8630), (490, 8645), (496, 8666), (499, 8672), (515, 8708), (526, 8735),

Gene: Shotgun\_19 Start: 8297, Stop: 9973, Start Num: 12

Candidate Starts for Shotgun\_19:

(Start: 12 @8297 has 40 MA's), (Start: 14 @8306 has 15 MA's), (68, 8420), (71, 8426), (104, 8531), (108, 8543), (132, 8642), (134, 8648), (138, 8660), (158, 8714), (163, 8732), (179, 8786), (188, 8816), (212, 8855), (219, 8873), (221, 8882), (233, 8918), (251, 8981), (264, 9044), (271, 9071), (328, 9218), (329, 9221), (337, 9260), (342, 9278), (359, 9350), (371, 9416), (372, 9425), (385, 9497), (394, 9530), (396, 9536), (406, 9566), (412, 9581), (448, 9719), (457, 9734), (470, 9755), (471, 9758),

Gene: Shrubaron\_20 Start: 7982, Stop: 9676, Start Num: 12

Candidate Starts for Shrubaron\_20:

(Start: 12 @7982 has 40 MA's), (Start: 14 @7991 has 15 MA's), (71, 8114), (104, 8219), (108, 8231), (132, 8330), (158, 8402), (163, 8420), (212, 8543), (218, 8555), (219, 8561), (221, 8570), (233, 8606), (251, 8669), (264, 8732), (271, 8759), (277, 8804), (280, 8813), (304, 8855), (328, 8906), (329, 8909), (337, 8948), (339, 8957), (342, 8966), (351, 8999), (359, 9038), (371, 9104), (372, 9113), (373, 9128), (377, 9152), (394, 9218), (396, 9224), (406, 9251), (448, 9404), (471, 9443), (478, 9464), (495, 9509), (559, 9656),

Gene: Sigman\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Sigman\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: SilentRX\_18 Start: 8516, Stop: 10414, Start Num: 47

Candidate Starts for SilentRX\_18:

(Start: 47 @8516 has 18 MA's), (87, 8603), (93, 8612), (102, 8645), (126, 8741), (147, 8786), (170, 8834), (177, 8858), (246, 9029), (248, 9032), (262, 9101), (277, 9179), (280, 9188), (282, 9200), (320, 9272), (325, 9284), (328, 9293), (337, 9335), (351, 9386), (358, 9419), (364, 9461), (365, 9467), (368, 9479), (419, 9701), (429, 9767), (443, 9809), (536, 10058), (555, 10115), (585, 10166), (628, 10301), (652, 10376), (655, 10388),

Gene: Sillytadpoles\_21 Start: 8128, Stop: 9954, Start Num: 45

Candidate Starts for Sillytadpoles\_21:

(Start: 45 @8128 has 50 MA's), (108, 8278), (155, 8413), (170, 8452), (201, 8530), (215, 8548), (264, 8698), (267, 8713), (277, 8770), (303, 8839), (320, 8887), (324, 8896), (357, 9031), (364, 9076), (365, 9082), (368, 9094), (377, 9154), (419, 9283), (420, 9289), (424, 9316), (447, 9415), (468, 9460), (553, 9655), (574, 9691), (584, 9709), (599, 9754),

Gene: SilverBell\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for SilverBell\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Simielle\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Simielle\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: SirBeauregard\_8 Start: 4550, Stop: 6358, Start Num: 88

Candidate Starts for SirBeauregard\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (186, 4862), (232, 4976), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: SirFrank\_19 Start: 8327, Stop: 10030, Start Num: 12

Candidate Starts for SirFrank\_19:

(Start: 12 @8327 has 40 MA's), (Start: 14 @8336 has 15 MA's), (71, 8456), (104, 8561), (108, 8573), (132, 8672), (134, 8678), (137, 8687), (158, 8744), (179, 8816), (185, 8840), (186, 8843), (203, 8867), (212, 8885), (219, 8903), (221, 8912), (233, 8948), (251, 9011), (264, 9074), (271, 9101), (277, 9146), (328, 9248), (329, 9251), (337, 9290), (342, 9308), (359, 9380), (371, 9446), (372, 9455), (377, 9494), (394, 9560), (396, 9566), (406, 9596), (448, 9749), (459, 9767), (471, 9788), (478, 9809), (479, 9812), (489, 9833), (552, 9989),

Gene: SirJeffery\_10 Start: 6695, Stop: 8560, Start Num: 30

Candidate Starts for SirJeffery\_10:

(Start: 30 @6695 has 441 MA's), (Start: 37 @6710 has 5 MA's), (66, 6752), (104, 6848), (108, 6860), (172, 7046), (174, 7058), (177, 7067), (233, 7184), (236, 7199), (251, 7238), (278, 7376), (282, 7394), (305, 7454), (348, 7592), (356, 7628), (363, 7670), (365, 7682), (377, 7757), (382, 7781), (391, 7814), (395, 7826), (400, 7838), (412, 7862), (471, 8042), (477, 8060), (561, 8240), (574, 8261), (585, 8282), (611, 8384), (630, 8444), (670, 8552), (671, 8555),

Gene: Sisko\_7 Start: 5107, Stop: 6948, Start Num: 30

Candidate Starts for Sisko\_7:

(Start: 30 @5107 has 441 MA's), (Start: 95 @5221 has 2 MA's), (104, 5263), (120, 5326), (173, 5458), (179, 5476), (215, 5530), (221, 5551), (259, 5683), (267, 5716), (277, 5773), (278, 5776), (282, 5794), (296, 5845), (303, 5866), (338, 5974), (342, 5986), (363, 6088), (392, 6235), (395, 6244), (418, 6301), (535, 6580), (581, 6667), (583, 6673), (605, 6748), (607, 6754), (612, 6775), (638, 6856), (649, 6889), (652, 6901), (662, 6925), (663, 6928),

Gene: Sitar\_13 Start: 7365, Stop: 8987, Start Num: 7

Candidate Starts for Sitar\_13:

(Start: 7 @7365 has 114 MA's), (73, 7524), (83, 7563), (103, 7626), (138, 7746), (154, 7785), (212, 7905), (216, 7914), (235, 7974), (255, 8043), (259, 8064), (264, 8082), (267, 8097), (269, 8103), (281, 8166), (324, 8226), (328, 8238), (336, 8277), (339, 8289), (342, 8298), (347, 8331), (351, 8343), (357, 8373), (364, 8418), (367, 8433), (368, 8436), (373, 8472), (382, 8520), (385, 8529), (392, 8556), (443,

8733), (476, 8790), (480, 8796), (490, 8811), (496, 8832), (499, 8838), (515, 8874), (526, 8901),

Gene: Sixama\_72 Start: 30011, Stop: 31756, Start Num: 27

Candidate Starts for Sixama\_72:

(Start: 27 @30011 has 5 MA's), (29, 30017), (31, 30020), (73, 30098), (119, 30251), (131, 30299), (195, 30497), (259, 30740), (260, 30743), (264, 30758), (266, 30770), (272, 30788), (275, 30815), (280, 30836), (282, 30848), (348, 31019), (357, 31058), (365, 31109), (371, 31133), (383, 31208), (384, 31211), (390, 31235), (472, 31505), (500, 31574), (537, 31685), (557, 31733),

Gene: Sixsevenium\_13 Start: 5328, Stop: 6914, Start Num: 7

Candidate Starts for Sixsevenium\_13:

(Start: 7 @5328 has 114 MA's), (43, 5442), (99, 5544), (111, 5610), (120, 5643), (157, 5730), (162, 5748), (261, 6003), (262, 6006), (273, 6045), (288, 6117), (328, 6177), (329, 6180), (330, 6183), (336, 6216), (337, 6219), (339, 6228), (341, 6234), (342, 6237), (357, 6300), (364, 6345), (371, 6375), (377, 6423), (392, 6480), (395, 6489), (399, 6501), (420, 6558), (428, 6609),

Gene: Skippy\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Skippy\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Skugga\_18 Start: 7422, Stop: 9140, Start Num: 12

Candidate Starts for Skugga\_18:

(Start: 12 @7422 has 40 MA's), (Start: 14 @7431 has 15 MA's), (71, 7551), (104, 7656), (108, 7668), (132, 7767), (138, 7785), (158, 7839), (178, 7908), (183, 7932), (203, 7962), (218, 7992), (219, 7998), (221, 8007), (233, 8043), (251, 8106), (264, 8169), (271, 8196), (277, 8241), (328, 8343), (329, 8346), (342, 8403), (351, 8436), (359, 8475), (371, 8541), (372, 8550), (373, 8565), (375, 8574), (377, 8589), (385, 8622), (394, 8655), (396, 8661), (406, 8691), (420, 8736), (448, 8844), (463, 8868), (478, 8904), (479, 8907), (489, 8928), (495, 8949), (522, 8985), (550, 9084), (559, 9096), (570, 9123),

Gene: Slatt\_8 Start: 4443, Stop: 6362, Start Num: 30

Candidate Starts for Slatt\_8:

(Start: 30 @4443 has 441 MA's), (Start: 37 @4458 has 5 MA's), (Start: 88 @4554 has 7 MA's), (Start: 96 @4569 has 1 MA's), (122, 4680), (170, 4812), (177, 4836), (179, 4842), (181, 4854), (186, 4866), (250, 5031), (275, 5157), (276, 5160), (277, 5172), (280, 5181), (282, 5193), (303, 5256), (307, 5265), (323, 5301), (329, 5319), (332, 5328), (342, 5376), (362, 5472), (363, 5478), (371, 5514), (377, 5562), (382, 5586), (440, 5781), (481, 5874), (596, 6126), (635, 6261), (649, 6303), (652, 6315),

Gene: SlippinJimmy\_11 Start: 7076, Stop: 8980, Start Num: 30

Candidate Starts for SlippinJimmy\_11:

(Start: 30 @7076 has 441 MA's), (40, 7103), (87, 7184), (105, 7247), (122, 7313), (131, 7346), (173, 7454), (205, 7544), (232, 7622), (251, 7679), (261, 7733), (277, 7814), (282, 7835), (291, 7862), (316, 7913), (318, 7922), (323, 7931), (363, 8108), (365, 8120), (377, 8195), (382, 8219), (388, 8240), (419, 8324), (461, 8462), (471, 8480), (481, 8507), (499, 8531), (581, 8696), (584, 8705), (612, 8810), (615, 8819), (626, 8846), (652, 8936), (653, 8939), (662, 8960), (670, 8972),

Gene: SlySloth\_24 Start: 9083, Stop: 10909, Start Num: 45

Candidate Starts for SlySloth\_24:

(Start: 45 @9083 has 50 MA's), (108, 9233), (155, 9368), (170, 9407), (201, 9485), (215, 9503), (264, 9653), (267, 9668), (277, 9725), (303, 9794), (320, 9842), (324, 9851), (357, 9986), (364, 10031), (365,

10037), (368, 10049), (377, 10109), (419, 10238), (420, 10244), (424, 10271), (447, 10370), (468, 10415), (553, 10610), (574, 10646), (584, 10664), (599, 10709),

Gene: Smarties\_28 Start: 10100, Stop: 11824, Start Num: 12

Candidate Starts for Smarties\_28:

(Start: 12 @10100 has 40 MA's), (Start: 14 @10109 has 15 MA's), (71, 10229), (104, 10334), (108, 10346), (132, 10445), (158, 10517), (163, 10535), (230, 10715), (233, 10721), (239, 10745), (251, 10784), (264, 10847), (271, 10874), (277, 10919), (328, 11021), (329, 11024), (337, 11063), (339, 11072), (351, 11114), (359, 11153), (371, 11219), (372, 11228), (373, 11243), (377, 11267), (394, 11333), (396, 11339), (406, 11366), (448, 11519), (459, 11537), (478, 11579), (489, 11603), (495, 11624), (522, 11660), (572, 11801), (579, 11813),

Gene: SmokingBunny\_12 Start: 5434, Stop: 7020, Start Num: 7

Candidate Starts for SmokingBunny\_12:

(Start: 7 @5434 has 114 MA's), (104, 5686), (111, 5716), (154, 5833), (162, 5854), (166, 5869), (248, 6043), (257, 6085), (261, 6109), (262, 6112), (273, 6151), (288, 6223), (328, 6283), (329, 6286), (330, 6289), (337, 6325), (339, 6334), (341, 6340), (342, 6343), (357, 6406), (364, 6451), (371, 6481), (377, 6529), (392, 6586), (399, 6607), (412, 6634), (413, 6637), (420, 6664), (428, 6715), (443, 6763),

Gene: Soile\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Soile\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Solosis\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Solosis\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Soos\_37 Start: 17429, Stop: 19387, Start Num: 25

Candidate Starts for Soos\_37:

(Start: 25 @17429 has 7 MA's), (Start: 45 @17474 has 50 MA's), (74, 17525), (82, 17552), (146, 17741), (221, 17900), (251, 17993), (266, 18068), (280, 18137), (282, 18149), (283, 18155), (310, 18257), (321, 18290), (339, 18362), (340, 18365), (348, 18395), (357, 18434), (372, 18518), (411, 18662), (412, 18665), (420, 18695), (448, 18803), (469, 18839), (472, 18848), (534, 18983), (585, 19064), (593, 19097), (621, 19187), (665, 19340), (674, 19379),

Gene: Sophia\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Sophia\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Soto\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Soto\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Sour\_11 Start: 6964, Stop: 8784, Start Num: 30

Candidate Starts for Sour\_11:

(Start: 30 @6964 has 441 MA's), (Start: 95 @7078 has 2 MA's), (104, 7120), (112, 7153), (120, 7183), (145, 7252), (173, 7315), (179, 7333), (184, 7351), (249, 7486), (259, 7540), (262, 7552), (267, 7573), (277, 7630), (278, 7633), (280, 7639), (282, 7651), (338, 7828), (342, 7840), (344, 7855), (363, 7942), (365, 7954), (377, 8029), (392, 8089), (418, 8155), (422, 8176), (502, 8365), (578, 8509), (584, 8521), (605, 8593), (607, 8599), (612, 8620), (615, 8629), (618, 8644), (643, 8722), (649, 8734), (662, 8770), (663, 8773),

Gene: Spartan300\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Spartan300\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Squash\_24 Start: 9156, Stop: 10982, Start Num: 45

Candidate Starts for Squash\_24:

(Start: 45 @9156 has 50 MA's), (155, 9441), (170, 9480), (201, 9558), (215, 9576), (264, 9726), (267, 9741), (277, 9798), (303, 9867), (320, 9915), (324, 9924), (357, 10059), (364, 10104), (365, 10110), (368, 10122), (377, 10182), (419, 10311), (420, 10317), (424, 10344), (447, 10443), (468, 10488), (553, 10683), (574, 10719), (584, 10737), (599, 10782), (649, 10938),

Gene: Squid\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Squid\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Squiggle\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Squiggle\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: StAugustine\_14 Start: 9397, Stop: 11364, Start Num: 30

Candidate Starts for StAugustine\_14:

(Start: 30 @9397 has 441 MA's), (Start: 80 @9490 has 11 MA's), (Start: 95 @9523 has 2 MA's), (104, 9565), (122, 9634), (174, 9784), (211, 9865), (216, 9877), (259, 10030), (280, 10129), (282, 10141), (316, 10234), (334, 10297), (338, 10315), (339, 10318), (363, 10429), (369, 10456), (381, 10537), (382, 10540), (412, 10621), (486, 10840), (569, 11059), (577, 11071), (583, 11083), (594, 11122), (605, 11158), (608, 11170), (612, 11185), (629, 11239), (638, 11266), (660, 11335), (663, 11344),

Gene: Statler\_23 Start: 9110, Stop: 10936, Start Num: 45

Candidate Starts for Statler\_23:

(Start: 45 @9110 has 50 MA's), (155, 9395), (170, 9434), (201, 9512), (215, 9530), (264, 9680), (267, 9695), (277, 9752), (303, 9821), (320, 9869), (324, 9878), (357, 10013), (364, 10058), (365, 10064), (368, 10076), (377, 10136), (419, 10265), (420, 10271), (424, 10298), (447, 10397), (468, 10442), (553, 10637), (574, 10673), (584, 10691), (599, 10736),

Gene: Stewart25555\_66 Start: 28084, Stop: 29715, Start Num: 26

Candidate Starts for Stewart25555\_66:

(Start: 26 @28084 has 8 MA's), (Start: 58 @28144 has 3 MA's), (119, 28324), (120, 28333), (177, 28501), (251, 28699), (302, 28882), (312, 28903), (328, 28951), (333, 28972), (338, 28999), (366, 29131), (381, 29218), (408, 29296), (475, 29527), (562, 29704),

Gene: Stichling\_12 Start: 5659, Stop: 7287, Start Num: 7

Candidate Starts for Stichling\_12:

(Start: 7 @5659 has 114 MA's), (Start: 47 @5782 has 18 MA's), (61, 5803), (83, 5860), (103, 5923), (109, 5953), (130, 6016), (138, 6043), (216, 6211), (246, 6298), (254, 6337), (259, 6361), (264, 6379), (267, 6394), (269, 6400), (281, 6463), (328, 6535), (336, 6574), (342, 6595), (351, 6640), (357, 6670), (364, 6715), (367, 6730), (368, 6733), (373, 6769), (382, 6817), (385, 6826), (392, 6853), (404, 6880), (419, 6925), (434, 7000), (443, 7030), (451, 7048), (476, 7087), (480, 7093), (490, 7108), (496, 7129), (499, 7135), (515, 7171), (528, 7204),

Gene: Stillion\_41 Start: 18014, Stop: 19972, Start Num: 25

Candidate Starts for Stillion\_41:

(Start: 25 @18014 has 7 MA's), (Start: 45 @18059 has 50 MA's), (74, 18110), (82, 18137), (146, 18326), (221, 18485), (251, 18578), (266, 18653), (280, 18722), (282, 18734), (283, 18740), (310, 18842), (321, 18875), (339, 18947), (340, 18950), (348, 18980), (357, 19019), (372, 19103), (411, 19247), (412, 19250), (420, 19280), (448, 19388), (469, 19424), (472, 19433), (534, 19568), (593, 19682), (621, 19772), (624, 19778), (665, 19925), (674, 19964),

Gene: Sting\_40 Start: 17868, Stop: 19826, Start Num: 25

Candidate Starts for Sting\_40:

(Start: 25 @17868 has 7 MA's), (Start: 45 @17913 has 50 MA's), (74, 17964), (82, 17991), (146, 18180), (221, 18339), (251, 18432), (266, 18507), (280, 18576), (282, 18588), (283, 18594), (310, 18696), (321, 18729), (339, 18801), (340, 18804), (348, 18834), (357, 18873), (372, 18957), (411, 19101), (412, 19104), (420, 19134), (448, 19242), (469, 19278), (472, 19287), (534, 19422), (593, 19536), (614, 19605), (621, 19626), (665, 19779), (674, 19818),

Gene: Stinger\_7 Start: 5191, Stop: 7080, Start Num: 30

Candidate Starts for Stinger\_7:

(Start: 30 @5191 has 441 MA's), (Start: 80 @5272 has 11 MA's), (94, 5302), (97, 5311), (105, 5353), (108, 5362), (123, 5422), (159, 5509), (161, 5518), (179, 5578), (208, 5638), (221, 5674), (248, 5752), (249, 5755), (259, 5809), (262, 5821), (277, 5899), (278, 5902), (303, 5974), (307, 5983), (342, 6094), (344, 6109), (356, 6154), (363, 6196), (365, 6208), (381, 6304), (382, 6307), (384, 6313), (391, 6340), (393, 6346), (412, 6388), (472, 6571), (483, 6598), (523, 6661), (572, 6769), (574, 6772), (576, 6775), (583, 6787), (595, 6829), (596, 6835), (611, 6895), (612, 6898), (615, 6907), (649, 7021), (658, 7051), (670, 7072),

Gene: StinkyVeggy\_11 Start: 6863, Stop: 8728, Start Num: 30

Candidate Starts for StinkyVeggy\_11:

(Start: 30 @6863 has 441 MA's), (Start: 37 @6878 has 5 MA's), (104, 7016), (172, 7214), (174, 7226), (177, 7235), (233, 7352), (236, 7367), (251, 7406), (278, 7544), (282, 7562), (348, 7760), (356, 7796),

(363, 7838), (377, 7925), (382, 7949), (391, 7982), (395, 7994), (400, 8006), (412, 8030), (471, 8210), (477, 8228), (561, 8408), (574, 8429), (585, 8450), (611, 8552), (630, 8612), (670, 8720), (671, 8723),

Gene: StorminNorm\_12 Start: 6275, Stop: 7903, Start Num: 7

Candidate Starts for StorminNorm\_12:

(Start: 7 @6275 has 114 MA's), (Start: 47 @6398 has 18 MA's), (61, 6419), (83, 6476), (103, 6539), (109, 6569), (130, 6632), (138, 6659), (216, 6827), (246, 6914), (254, 6953), (259, 6977), (264, 6995), (267, 7010), (269, 7016), (281, 7079), (328, 7151), (336, 7190), (351, 7256), (357, 7286), (364, 7331), (367, 7346), (368, 7349), (373, 7385), (382, 7433), (385, 7442), (392, 7469), (404, 7496), (419, 7541), (428, 7598), (434, 7616), (443, 7646), (451, 7664), (476, 7703), (480, 7709), (490, 7724), (496, 7745), (499, 7751), (515, 7787), (528, 7820),

Gene: StrawberryJamm\_24 Start: 8430, Stop: 10256, Start Num: 45

Candidate Starts for StrawberryJamm\_24:

(Start: 45 @8430 has 50 MA's), (108, 8580), (155, 8715), (170, 8754), (201, 8832), (215, 8850), (264, 9000), (267, 9015), (277, 9072), (303, 9141), (320, 9189), (324, 9198), (357, 9333), (364, 9378), (365, 9384), (368, 9396), (377, 9456), (419, 9585), (420, 9591), (424, 9618), (447, 9717), (468, 9762), (553, 9957), (574, 9993), (584, 10011), (599, 10056),

Gene: Struggle\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Struggle\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Stultus\_12 Start: 7189, Stop: 8811, Start Num: 7

Candidate Starts for Stultus\_12:

(Start: 7 @7189 has 114 MA's), (73, 7348), (83, 7387), (103, 7450), (130, 7543), (138, 7570), (154, 7609), (216, 7738), (235, 7798), (240, 7813), (255, 7867), (259, 7888), (264, 7906), (267, 7921), (269, 7927), (281, 7990), (324, 8050), (328, 8062), (336, 8101), (339, 8113), (342, 8122), (347, 8155), (351, 8167), (357, 8197), (364, 8242), (367, 8257), (368, 8260), (373, 8296), (382, 8344), (385, 8353), (392, 8380), (443, 8557), (476, 8614), (480, 8620), (490, 8635), (496, 8656), (499, 8662), (515, 8698), (526, 8725),

Gene: Suffolk\_8 Start: 4440, Stop: 6359, Start Num: 30

Candidate Starts for Suffolk\_8:

(Start: 30 @4440 has 441 MA's), (Start: 37 @4455 has 5 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Suigeneris\_10 Start: 6695, Stop: 8560, Start Num: 30

Candidate Starts for Suigeneris\_10:

(Start: 30 @6695 has 441 MA's), (Start: 37 @6710 has 5 MA's), (66, 6752), (104, 6848), (108, 6860), (172, 7046), (174, 7058), (177, 7067), (233, 7184), (236, 7199), (251, 7238), (278, 7376), (282, 7394), (305, 7454), (348, 7592), (356, 7628), (363, 7670), (365, 7682), (377, 7757), (382, 7781), (391, 7814), (395, 7826), (400, 7838), (412, 7862), (471, 8042), (477, 8060), (561, 8240), (574, 8261), (585, 8282), (611, 8384), (630, 8444), (670, 8552), (671, 8555),

Gene: Sunfish\_26 Start: 9771, Stop: 11576, Start Num: 36

Candidate Starts for Sunfish\_26:

(Start: 36 @9771 has 2 MA's), (53, 9810), (108, 9951), (118, 9990), (125, 10017), (155, 10065), (182, 10149), (251, 10290), (262, 10347), (292, 10467), (318, 10518), (337, 10581), (339, 10590), (342, 10599), (364, 10707), (365, 10713), (372, 10746), (410, 10887), (433, 10986), (442, 11022), (443, 11025), (520, 11199), (587, 11334), (600, 11379), (613, 11433), (620, 11457),

Gene: Sunny\_ Start: 8363, Stop: 10132, Start Num: 2

Candidate Starts for Sunny\_:

(Start: 2 @8363 has 2 MA's), (8, 8429), (Start: 12 @8456 has 40 MA's), (Start: 14 @8465 has 15 MA's), (Start: 58 @8561 has 3 MA's), (71, 8585), (104, 8690), (108, 8702), (132, 8801), (158, 8873), (163, 8891), (183, 8966), (186, 8972), (212, 9011), (218, 9023), (221, 9038), (228, 9062), (233, 9074), (240, 9101), (249, 9128), (251, 9137), (271, 9227), (277, 9272), (328, 9374), (329, 9377), (339, 9425), (342, 9434), (359, 9506), (371, 9572), (372, 9581), (396, 9692), (416, 9749), (459, 9893), (468, 9905), (478, 9935), (546, 10103),

Gene: Surely\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Surely\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: SwainyDoc\_11 Start: 6312, Stop: 8216, Start Num: 30

Candidate Starts for SwainyDoc\_11:

(Start: 30 @6312 has 441 MA's), (40, 6339), (87, 6420), (105, 6483), (122, 6549), (131, 6582), (173, 6690), (205, 6780), (232, 6858), (251, 6915), (261, 6969), (277, 7050), (282, 7071), (291, 7098), (316, 7149), (318, 7158), (323, 7167), (363, 7344), (365, 7356), (377, 7431), (382, 7455), (388, 7476), (419, 7560), (461, 7698), (471, 7716), (481, 7743), (499, 7767), (581, 7932), (584, 7941), (612, 8046), (615, 8055), (626, 8082), (652, 8172), (653, 8175), (662, 8196), (670, 8208),

Gene: Swiphy\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Swiphy\_8:

(Start: 30 @4441 has 441 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Swish\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Swish\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: SynergyX\_11 Start: 6315, Stop: 8219, Start Num: 30

Candidate Starts for SynergyX\_11:

(Start: 30 @6315 has 441 MA's), (40, 6342), (87, 6423), (105, 6486), (122, 6552), (131, 6585), (173, 6693), (205, 6783), (232, 6861), (251, 6918), (261, 6972), (277, 7053), (282, 7074), (291, 7101), (316, 7152), (318, 7161), (323, 7170), (363, 7347), (365, 7359), (377, 7434), (382, 7458), (388, 7479), (419, 7563), (461, 7701), (471, 7719), (481, 7746), (499, 7770), (584, 7944), (612, 8049), (615, 8058), (626,

8085), (652, 8175), (662, 8199), (670, 8211),

Gene: TA17A\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for TA17A\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (197, 8172), (209, 8193), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: TP1604\_10 Start: 8087, Stop: 9889, Start Num: 80

Candidate Starts for TP1604\_10:

(Start: 80 @8087 has 11 MA's), (117, 8213), (123, 8234), (127, 8246), (142, 8294), (159, 8333), (172, 8375), (179, 8402), (204, 8471), (214, 8492), (221, 8513), (248, 8591), (250, 8597), (251, 8603), (273, 8699), (280, 8747), (326, 8825), (337, 8870), (339, 8879), (348, 8912), (351, 8921), (356, 8948), (378, 9080), (476, 9377), (493, 9413), (511, 9458), (532, 9503), (549, 9548), (586, 9599), (603, 9650), (606, 9668), (619, 9716), (644, 9803), (652, 9833), (661, 9860), (669, 9878),

Gene: TPA2\_17 Start: 7975, Stop: 9807, Start Num: 30

Candidate Starts for TPA2\_17:

(Start: 30 @7975 has 441 MA's), (60, 8026), (74, 8044), (104, 8143), (120, 8203), (148, 8272), (159, 8284), (179, 8353), (185, 8374), (186, 8377), (224, 8434), (249, 8506), (251, 8515), (267, 8593), (277, 8650), (278, 8653), (280, 8659), (282, 8671), (305, 8719), (323, 8758), (342, 8833), (348, 8857), (356, 8893), (365, 8947), (374, 9001), (377, 9019), (380, 9034), (391, 9076), (395, 9088), (412, 9124), (427, 9202), (501, 9361), (578, 9523), (583, 9532), (584, 9535), (585, 9538), (607, 9613), (612, 9634), (615, 9643), (618, 9658), (621, 9661), (638, 9715), (643, 9736), (649, 9748), (652, 9760), (655, 9772), (657, 9775),

Gene: Talia1610\_76 Start: 33060, Stop: 34739, Start Num: 26

Candidate Starts for Talia1610\_76:

(Start: 22 @33054 has 3 MA's), (Start: 26 @33060 has 8 MA's), (Start: 80 @33165 has 11 MA's), (116, 33288), (119, 33300), (161, 33423), (251, 33675), (259, 33720), (267, 33753), (309, 33876), (312, 33885), (315, 33897), (328, 33933), (371, 34131), (381, 34200), (467, 34485), (496, 34551), (499, 34557), (542, 34683), (545, 34692), (562, 34728),

Gene: TallGrassMM\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for TallGrassMM\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Tangent\_10 Start: 6017, Stop: 7639, Start Num: 7

Candidate Starts for Tangent\_10:

(Start: 7 @6017 has 114 MA's), (73, 6176), (83, 6215), (103, 6278), (130, 6371), (138, 6398), (154, 6437), (212, 6557), (216, 6566), (235, 6626), (255, 6695), (259, 6716), (264, 6734), (267, 6749), (269, 6755), (281, 6818), (324, 6878), (328, 6890), (336, 6929), (339, 6941), (342, 6950), (351, 6995), (357, 7025), (364, 7070), (367, 7085), (368, 7088), (373, 7124), (382, 7172), (385, 7181), (392, 7208), (443, 7385), (476, 7442), (480, 7448), (490, 7463), (496, 7484), (499, 7490), (515, 7526), (526, 7553),

Gene: Tangerine\_12 Start: 6284, Stop: 7912, Start Num: 7

Candidate Starts for Tangerine\_12:

(Start: 7 @6284 has 114 MA's), (Start: 47 @6407 has 18 MA's), (61, 6428), (83, 6485), (103, 6548), (109, 6578), (130, 6641), (138, 6668), (216, 6836), (246, 6923), (254, 6962), (259, 6986), (264, 7004), (267, 7019), (269, 7025), (281, 7088), (328, 7160), (336, 7199), (351, 7265), (357, 7295), (364, 7340), (367, 7355), (368, 7358), (373, 7394), (382, 7442), (385, 7451), (392, 7478), (404, 7505), (419, 7550), (428, 7607), (434, 7625), (443, 7655), (451, 7673), (476, 7712), (480, 7718), (490, 7733), (496, 7754), (499, 7760), (515, 7796), (528, 7829),

Gene: Tank\_17 Start: 8380, Stop: 10260, Start Num: 47

Candidate Starts for Tank\_17:

(Start: 47 @8380 has 18 MA's), (50, 8389), (87, 8464), (103, 8512), (118, 8572), (126, 8602), (170, 8695), (221, 8815), (238, 8872), (246, 8887), (257, 8932), (280, 9046), (282, 9058), (320, 9133), (325, 9145), (328, 9154), (329, 9157), (336, 9193), (351, 9247), (364, 9322), (368, 9340), (405, 9493), (407, 9499), (409, 9505), (413, 9520), (419, 9541), (443, 9649), (454, 9688), (468, 9718), (536, 9895), (582, 9997), (614, 10096), (628, 10138), (652, 10213), (655, 10225),

Gene: Taptic\_6 Start: 3328, Stop: 5202, Start Num: 21

Candidate Starts for Taptic\_6:

(Start: 21 @3328 has 7 MA's), (Start: 30 @3346 has 441 MA's), (Start: 62 @3403 has 2 MA's), (112, 3541), (120, 3571), (139, 3625), (179, 3736), (228, 3865), (249, 3922), (251, 3931), (259, 3976), (264, 3994), (279, 4072), (280, 4075), (323, 4159), (331, 4183), (335, 4207), (363, 4336), (365, 4348), (371, 4372), (377, 4423), (391, 4480), (395, 4492), (448, 4666), (481, 4735), (605, 4987), (649, 5128), (652, 5140), (671, 5182),

Gene: Taraxa\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Taraxa\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Tardus\_14 Start: 5997, Stop: 7670, Start Num: 7

Candidate Starts for Tardus\_14:

(Start: 7 @5997 has 114 MA's), (Start: 22 @6072 has 3 MA's), (42, 6120), (79, 6207), (103, 6288), (109, 6318), (157, 6450), (171, 6495), (212, 6567), (216, 6576), (252, 6687), (259, 6726), (264, 6744), (266, 6756), (267, 6759), (269, 6765), (288, 6840), (328, 6900), (354, 7020), (357, 7035), (364, 7080), (372, 7119), (379, 7170), (388, 7203), (391, 7215), (392, 7218), (404, 7245), (413, 7269), (428, 7347), (443, 7398), (460, 7428), (464, 7434), (492, 7491), (505, 7536),

Gene: Teamocil\_20 Start: 7583, Stop: 9301, Start Num: 12

Candidate Starts for Teamocil\_20:

(Start: 12 @7583 has 40 MA's), (Start: 14 @7592 has 15 MA's), (71, 7712), (104, 7817), (108, 7829), (132, 7928), (138, 7946), (158, 8000), (163, 8018), (178, 8069), (183, 8093), (203, 8123), (218, 8153), (219, 8159), (221, 8168), (233, 8204), (251, 8267), (264, 8330), (271, 8357), (277, 8402), (328, 8504), (329, 8507), (339, 8555), (342, 8564), (351, 8597), (359, 8636), (371, 8702), (372, 8711), (373, 8726), (375, 8735), (377, 8750), (379, 8762), (385, 8783), (394, 8816), (396, 8822), (406, 8852), (420, 8897), (448, 9005), (463, 9029), (478, 9065), (479, 9068), (489, 9089), (495, 9110), (550, 9245), (559, 9257), (570, 9284),

Gene: Teehee\_23 Start: 9365, Stop: 11191, Start Num: 45

Candidate Starts for Teehee\_23:

(Start: 45 @9365 has 50 MA's), (108, 9515), (155, 9650), (170, 9689), (201, 9767), (215, 9785), (264, 9935), (267, 9950), (277, 10007), (303, 10076), (320, 10124), (324, 10133), (357, 10268), (364, 10313), (365, 10319), (368, 10331), (377, 10391), (419, 10520), (420, 10526), (424, 10553), (447, 10652), (468, 10697), (553, 10892), (574, 10928), (584, 10946), (599, 10991),

Gene: Telesworld\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Telesworld\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Tempo\_21 Start: 7770, Stop: 9569, Start Num: 45

Candidate Starts for Tempo\_21:

(Start: 45 @7770 has 50 MA's), (94, 7869), (146, 8034), (170, 8085), (179, 8115), (215, 8181), (292, 8448), (308, 8493), (336, 8580), (348, 8625), (356, 8661), (364, 8709), (365, 8715), (368, 8727), (373, 8763), (377, 8787), (419, 8922), (443, 9030), (446, 9051), (479, 9132), (485, 9141), (547, 9252), (553, 9270), (574, 9306), (600, 9372), (617, 9441), (631, 9474), (655, 9549),

Gene: Terij\_13 Start: 6017, Stop: 7762, Start Num: 14

Candidate Starts for Terij\_13:

(Start: 12 @6008 has 40 MA's), (Start: 14 @6017 has 15 MA's), (50, 6098), (65, 6119), (Start: 80 @6155 has 11 MA's), (85, 6170), (104, 6233), (108, 6245), (109, 6254), (132, 6344), (179, 6488), (196, 6539), (212, 6584), (216, 6593), (228, 6632), (240, 6668), (247, 6689), (249, 6695), (251, 6704), (264, 6767), (271, 6794), (328, 6941), (337, 6983), (339, 6992), (342, 7001), (346, 7016), (351, 7034), (359, 7073), (371, 7139), (372, 7148), (375, 7172), (376, 7184), (377, 7187), (396, 7259), (412, 7310), (417, 7325), (427, 7388), (459, 7469), (470, 7487), (495, 7556), (496, 7559), (518, 7604),

Gene: Thing3\_13 Start: 7104, Stop: 8729, Start Num: 7

Candidate Starts for Thing3\_13:

(Start: 7 @7104 has 114 MA's), (73, 7263), (83, 7302), (103, 7365), (138, 7485), (154, 7524), (216, 7653), (235, 7713), (255, 7782), (259, 7803), (264, 7821), (267, 7836), (269, 7842), (281, 7905), (324, 7965), (328, 7977), (336, 8016), (339, 8028), (342, 8037), (347, 8070), (351, 8082), (357, 8112), (364, 8157), (367, 8172), (368, 8175), (373, 8211), (382, 8259), (385, 8268), (392, 8295), (443, 8472), (476, 8529), (480, 8535), (490, 8550), (496, 8571), (499, 8577), (515, 8613), (526, 8643),

Gene: Thonko\_7 Start: 3729, Stop: 5618, Start Num: 30

Candidate Starts for Thonko\_7:

(Start: 30 @3729 has 441 MA's), (66, 3795), (Start: 95 @3852 has 2 MA's), (104, 3897), (170, 4095), (181, 4137), (259, 4347), (261, 4356), (267, 4380), (277, 4437), (280, 4446), (282, 4458), (300, 4506), (316, 4539), (334, 4602), (342, 4632), (377, 4821), (471, 5106), (572, 5325), (583, 5343), (605, 5418), (612, 5445), (655, 5583),

Gene: Thora\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Thora\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: ThreeOh3D2\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for ThreeOh3D2\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Thunderbird\_8 Start: 4551, Stop: 6359, Start Num: 88

Candidate Starts for Thunderbird\_8:

(Start: 30 @4440 has 441 MA's), (Start: 88 @4551 has 7 MA's), (Start: 96 @4566 has 1 MA's), (122, 4677), (170, 4809), (177, 4833), (179, 4839), (181, 4851), (186, 4863), (250, 5028), (275, 5154), (276, 5157), (277, 5169), (280, 5178), (282, 5190), (303, 5253), (307, 5262), (323, 5298), (329, 5316), (332, 5325), (342, 5373), (362, 5469), (363, 5475), (371, 5511), (377, 5559), (382, 5583), (440, 5778), (481, 5871), (596, 6123), (635, 6258), (649, 6300), (652, 6312),

Gene: Tiamoceli\_14 Start: 6640, Stop: 8316, Start Num: 7

Candidate Starts for Tiamoceli\_14:

(Start: 7 @6640 has 114 MA's), (10, 6673), (38, 6751), (63, 6805), (103, 6937), (109, 6967), (134, 7045), (141, 7063), (171, 7144), (212, 7216), (216, 7225), (235, 7285), (264, 7393), (266, 7405), (267, 7408), (269, 7414), (328, 7549), (329, 7552), (342, 7609), (357, 7684), (364, 7729), (368, 7747), (372, 7768), (377, 7807), (382, 7831), (388, 7852), (392, 7867), (413, 7918), (419, 7939), (443, 8044), (460, 8074), (475, 8098), (476, 8101), (505, 8179),

Gene: TillyBobJoe\_12 Start: 5270, Stop: 6856, Start Num: 7

Candidate Starts for TillyBobJoe\_12:

(Start: 7 @5270 has 114 MA's), (43, 5384), (111, 5552), (157, 5672), (162, 5690), (166, 5705), (238, 5855), (250, 5885), (261, 5945), (262, 5948), (273, 5987), (288, 6059), (328, 6119), (329, 6122), (330, 6125), (337, 6161), (339, 6170), (341, 6176), (342, 6179), (357, 6242), (364, 6287), (371, 6317), (377, 6365), (392, 6422), (399, 6443), (404, 6449), (412, 6470), (413, 6473), (420, 6500), (428, 6551), (443, 6599),

Gene: Timmi\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Timmi\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Tinciduntolum\_13 Start: 7844, Stop: 9733, Start Num: 30

Candidate Starts for Tinciduntolum\_13:

(Start: 30 @7844 has 441 MA's), (57, 7892), (68, 7916), (Start: 80 @7934 has 11 MA's), (Start: 95 @7967 has 2 MA's), (120, 8075), (154, 8159), (173, 8222), (184, 8258), (209, 8309), (215, 8321), (221, 8342), (249, 8420), (251, 8429), (259, 8474), (277, 8564), (278, 8567), (280, 8573), (282, 8585), (287, 8600), (291, 8612), (327, 8696), (334, 8729), (338, 8747), (351, 8792), (363, 8861), (365, 8873), (377, 8948), (382, 8972), (384, 8978), (391, 9005), (395, 9017), (399, 9023), (412, 9053), (413, 9056), (420, 9083), (435, 9149), (438, 9158), (471, 9233), (485, 9269), (519, 9314), (578, 9452), (581, 9455), (585, 9467), (609, 9554), (612, 9563), (615, 9572), (618, 9587), (629, 9617), (635, 9635), (641, 9650), (649, 9677), (652, 9689), (670, 9725),

Gene: TinyTerror\_11 Start: 6317, Stop: 8221, Start Num: 30

Candidate Starts for TinyTerror\_11:

(Start: 30 @6317 has 441 MA's), (40, 6344), (87, 6425), (105, 6488), (122, 6554), (131, 6587), (173, 6695), (205, 6785), (232, 6863), (251, 6920), (261, 6974), (277, 7055), (282, 7076), (291, 7103), (316, 7154), (318, 7163), (323, 7172), (363, 7349), (365, 7361), (377, 7436), (382, 7460), (388, 7481), (419, 7565), (461, 7703), (471, 7721), (481, 7748), (499, 7772), (581, 7937), (584, 7946), (612, 8051), (615, 8060), (626, 8087), (652, 8177), (653, 8180), (662, 8201), (670, 8213),

Gene: Tissue\_22 Start: 8939, Stop: 10765, Start Num: 45

Candidate Starts for Tissue\_22:

(Start: 45 @8939 has 50 MA's), (108, 9089), (155, 9224), (170, 9263), (201, 9341), (215, 9359), (264, 9509), (267, 9524), (277, 9581), (303, 9650), (320, 9698), (324, 9707), (357, 9842), (364, 9887), (365, 9893), (368, 9905), (377, 9965), (419, 10094), (420, 10100), (424, 10127), (447, 10226), (468, 10271), (553, 10466), (574, 10502), (584, 10520), (599, 10565),

Gene: Togo\_12 Start: 5434, Stop: 7020, Start Num: 7

Candidate Starts for Togo\_12:

(Start: 7 @5434 has 114 MA's), (104, 5686), (111, 5716), (154, 5833), (162, 5854), (166, 5869), (248, 6043), (257, 6085), (261, 6109), (262, 6112), (273, 6151), (288, 6223), (328, 6283), (329, 6286), (330, 6289), (337, 6325), (339, 6334), (341, 6340), (342, 6343), (357, 6406), (364, 6451), (371, 6481), (377, 6529), (392, 6586), (399, 6607), (412, 6634), (413, 6637), (420, 6664), (428, 6715), (443, 6763),

Gene: TomBombadil\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for TomBombadil\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Tomlarah\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Tomlarah\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Toni\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Toni\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Tonitrus\_26 Start: 14379, Stop: 16331, Start Num: 25

Candidate Starts for Tonitrus\_26:

(Start: 25 @14379 has 7 MA's), (48, 14427), (Start: 80 @14487 has 11 MA's), (93, 14514), (108, 14577), (111, 14595), (112, 14598), (170, 14748), (173, 14760), (179, 14778), (181, 14790), (202, 14829), (228, 14889), (259, 15000), (267, 15033), (278, 15093), (283, 15117), (319, 15270), (321, 15273), (325, 15285), (340, 15348), (357, 15417), (358, 15420), (372, 15501), (382, 15564), (391, 15597), (395, 15609), (398, 15615), (411, 15645), (420, 15678), (427, 15726), (435, 15744), (457, 15804), (517, 15900), (538, 15960), (604, 16083), (610, 16113), (621, 16149), (630, 16182), (633, 16191), (645, 16239), (647, 16251), (659, 16290), (671, 16320), (672, 16323),

Gene: TooFast2Furius\_9 Start: 4787, Stop: 6595, Start Num: 88

Candidate Starts for TooFast2Furius\_9:

(Start: 30 @4676 has 441 MA's), (Start: 37 @4691 has 5 MA's), (Start: 88 @4787 has 7 MA's), (Start: 96 @4802 has 1 MA's), (122, 4913), (170, 5045), (177, 5069), (179, 5075), (181, 5087), (186, 5099), (250, 5264), (275, 5390), (276, 5393), (277, 5405), (280, 5414), (282, 5426), (303, 5489), (307, 5498), (323, 5534), (329, 5552), (332, 5561), (342, 5609), (362, 5705), (363, 5711), (371, 5747), (377, 5795), (382, 5819), (440, 6014), (481, 6107), (596, 6359), (635, 6494), (649, 6536), (652, 6548),

Gene: Tooj\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Tooj\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: TraderJ\_10 Start: 6891, Stop: 8624, Start Num: 95

Candidate Starts for TraderJ\_10:

(Start: 30 @6777 has 441 MA's), (Start: 95 @6891 has 2 MA's), (104, 6933), (120, 6996), (141, 7062), (184, 7167), (243, 7290), (245, 7296), (249, 7305), (251, 7314), (278, 7452), (282, 7470), (329, 7611), (334, 7638), (338, 7656), (342, 7668), (355, 7719), (363, 7770), (377, 7857), (382, 7881), (471, 8139), (505, 8199), (510, 8208), (583, 8349), (584, 8352), (605, 8424), (607, 8430), (612, 8451), (630, 8508), (634, 8520), (643, 8553), (649, 8565), (652, 8577), (655, 8589), (662, 8601), (663, 8604),

Gene: Tres\_12 Start: 7728, Stop: 9617, Start Num: 30

Candidate Starts for Tres\_12:

(Start: 30 @7728 has 441 MA's), (57, 7776), (68, 7800), (Start: 80 @7818 has 11 MA's), (Start: 95 @7851 has 2 MA's), (120, 7959), (154, 8043), (173, 8106), (184, 8142), (209, 8193), (221, 8226), (249, 8304), (251, 8313), (259, 8358), (277, 8448), (278, 8451), (280, 8457), (282, 8469), (287, 8484), (291, 8496), (327, 8580), (334, 8613), (338, 8631), (351, 8676), (363, 8745), (365, 8757), (377, 8832), (382, 8856), (384, 8862), (391, 8889), (395, 8901), (399, 8907), (412, 8937), (413, 8940), (420, 8967), (435, 9033), (438, 9042), (471, 9117), (485, 9153), (519, 9198), (578, 9336), (581, 9339), (585, 9351), (609, 9438), (612, 9447), (615, 9456), (618, 9471), (629, 9501), (635, 9519), (641, 9534), (649, 9561), (652, 9573), (670, 9609),

Gene: Triad\_8 Start: 4456, Stop: 6360, Start Num: 37

Candidate Starts for Triad\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: True\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for True\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Trypo\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Trypo\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: TurkishDelight\_11 Start: 6388, Stop: 8154, Start Num: 76

Candidate Starts for TurkishDelight\_11:

(Start: 76 @6388 has 1 MA's), (127, 6565), (188, 6745), (189, 6748), (222, 6826), (230, 6850), (241, 6886), (251, 6916), (273, 7012), (280, 7060), (322, 7126), (324, 7132), (337, 7183), (356, 7261), (358, 7267), (371, 7339), (377, 7387), (379, 7399), (403, 7474), (412, 7495), (501, 7738), (604, 7936), (606, 7945), (664, 8143),

Gene: Twister6\_12 Start: 5366, Stop: 6952, Start Num: 7

Candidate Starts for Twister6\_12:

(Start: 7 @5366 has 114 MA's), (104, 5618), (111, 5648), (154, 5765), (162, 5786), (166, 5801), (248, 5975), (257, 6017), (261, 6041), (262, 6044), (273, 6083), (288, 6155), (328, 6215), (329, 6218), (330, 6221), (337, 6257), (339, 6266), (341, 6272), (342, 6275), (357, 6338), (364, 6383), (371, 6413), (377, 6461), (392, 6518), (399, 6539), (412, 6566), (413, 6569), (420, 6596), (428, 6647), (443, 6695),

Gene: Twonlo\_11 Start: 5257, Stop: 6933, Start Num: 7

Candidate Starts for Twonlo\_11:

(Start: 7 @5257 has 114 MA's), (10, 5290), (38, 5368), (63, 5422), (103, 5554), (109, 5584), (134, 5662), (141, 5680), (171, 5761), (212, 5833), (216, 5842), (235, 5902), (264, 6010), (266, 6022), (267, 6025), (269, 6031), (328, 6166), (329, 6169), (342, 6226), (357, 6301), (364, 6346), (368, 6364), (372, 6385), (377, 6424), (382, 6448), (388, 6469), (392, 6484), (413, 6535), (419, 6556), (443, 6661), (460, 6691), (475, 6715), (476, 6718), (505, 6796),

Gene: Tycho\_12 Start: 6284, Stop: 7912, Start Num: 7

Candidate Starts for Tycho\_12:

(Start: 7 @6284 has 114 MA's), (Start: 47 @6407 has 18 MA's), (61, 6428), (83, 6485), (103, 6548), (109, 6578), (130, 6641), (138, 6668), (212, 6827), (216, 6836), (246, 6923), (254, 6962), (259, 6986), (264, 7004), (267, 7019), (269, 7025), (281, 7088), (328, 7160), (336, 7199), (351, 7265), (357, 7295), (364, 7340), (367, 7355), (368, 7358), (373, 7394), (382, 7442), (385, 7451), (392, 7478), (404, 7505), (419, 7550), (434, 7625), (443, 7655), (451, 7673), (476, 7712), (480, 7718), (490, 7733), (496, 7754), (499, 7760), (515, 7796), (528, 7829),

Gene: Tydolla\_11 Start: 7076, Stop: 8980, Start Num: 30

Candidate Starts for Tydolla\_11:

(Start: 30 @7076 has 441 MA's), (40, 7103), (87, 7184), (105, 7247), (122, 7313), (131, 7346), (173, 7454), (205, 7544), (232, 7622), (251, 7679), (261, 7733), (277, 7814), (282, 7835), (291, 7862), (316, 7913), (318, 7922), (323, 7931), (363, 8108), (365, 8120), (377, 8195), (382, 8219), (388, 8240), (419, 8324), (461, 8462), (471, 8480), (481, 8507), (499, 8531), (581, 8696), (584, 8705), (612, 8810), (615, 8819), (626, 8846), (652, 8936), (662, 8960), (670, 8972),

Gene: TyrionL\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for TyrionL\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Tyrumbra\_18 Start: 7432, Stop: 9117, Start Num: 14

Candidate Starts for Tyrumbra\_18:

(Start: 12 @7423 has 40 MA's), (Start: 14 @7432 has 15 MA's), (71, 7555), (104, 7660), (108, 7672), (132, 7771), (158, 7843), (163, 7861), (203, 7966), (212, 7984), (218, 7996), (219, 8002), (221, 8011), (233, 8047), (251, 8110), (264, 8173), (271, 8200), (277, 8245), (280, 8254), (304, 8296), (328, 8347), (329, 8350), (337, 8389), (339, 8398), (342, 8407), (351, 8440), (359, 8479), (371, 8545), (372, 8554), (373, 8569), (377, 8593), (394, 8659), (396, 8665), (406, 8692), (448, 8845), (471, 8884), (478, 8905), (495, 8950), (522, 8986), (524, 8992), (559, 9097),

Gene: UAch1\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for UAch1\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: UncleHowie\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for UncleHowie\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Usavi\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Usavi\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Vaishali24\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Vaishali24\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Valary\_13 Start: 5819, Stop: 7405, Start Num: 7

Candidate Starts for Valary\_13:

(Start: 7 @5819 has 114 MA's), (43, 5933), (99, 6035), (111, 6101), (120, 6134), (157, 6221), (162, 6239), (166, 6254), (250, 6434), (261, 6494), (262, 6497), (273, 6536), (288, 6608), (328, 6668), (329, 6671), (330, 6674), (337, 6710), (339, 6719), (341, 6725), (342, 6728), (357, 6791), (364, 6836), (371, 6866), (377, 6914), (392, 6971), (399, 6992), (412, 7019), (413, 7022), (420, 7049), (428, 7100), (443, 7148),

Gene: Valjean\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Valjean\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: VanDeWege\_13 Start: 5747, Stop: 7333, Start Num: 7

Candidate Starts for VanDeWege\_13:

(Start: 7 @5747 has 114 MA's), (43, 5861), (99, 5963), (111, 6029), (120, 6062), (157, 6149), (162, 6167), (166, 6182), (250, 6362), (261, 6422), (262, 6425), (273, 6464), (288, 6536), (328, 6596), (329, 6599), (330, 6602), (336, 6635), (337, 6638), (339, 6647), (341, 6653), (342, 6656), (357, 6719), (364, 6764), (371, 6794), (377, 6842), (392, 6899), (399, 6920), (412, 6947), (413, 6950), (420, 6977), (428, 7028), (443, 7076),

Gene: Vaticameos\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Vaticameos\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: Veritas\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Veritas\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Verity\_14 Start: 7230, Stop: 8897, Start Num: 7

Candidate Starts for Verity\_14:

(Start: 7 @7230 has 114 MA's), (Start: 22 @7305 has 3 MA's), (33, 7326), (42, 7353), (79, 7440), (103, 7521), (109, 7551), (141, 7647), (146, 7662), (157, 7683), (163, 7704), (171, 7728), (212, 7800), (216, 7809), (252, 7920), (254, 7935), (259, 7959), (264, 7977), (267, 7992), (269, 7998), (288, 8073), (328, 8133), (357, 8268), (364, 8313), (372, 8352), (379, 8403), (388, 8436), (391, 8448), (392, 8451), (396, 8463), (404, 8478), (413, 8502), (419, 8523), (428, 8580), (443, 8631), (460, 8661), (464, 8667), (492, 8724), (505, 8769), (526, 8817),

Gene: ViaConlectus\_14 Start: 6957, Stop: 8627, Start Num: 7

Candidate Starts for ViaConlectus\_14:

(Start: 7 @6957 has 114 MA's), (Start: 22 @7032 has 3 MA's), (33, 7053), (42, 7080), (79, 7167), (103, 7248), (109, 7278), (111, 7287), (136, 7362), (141, 7374), (157, 7410), (171, 7455), (212, 7527), (216, 7536), (252, 7647), (259, 7686), (261, 7695), (264, 7704), (266, 7716), (267, 7719), (269, 7725), (288, 7800), (324, 7848), (328, 7860), (354, 7980), (357, 7995), (364, 8040), (372, 8079), (379, 8130), (388, 8163), (391, 8175), (392, 8178), (404, 8205), (413, 8229), (428, 8307), (443, 8358), (460, 8388), (464, 8394), (492, 8451), (505, 8496),

Gene: Vic9\_00012 Start: 8171, Stop: 10060, Start Num: 30

Candidate Starts for Vic9\_00012:

(Start: 30 @8171 has 441 MA's), (57, 8219), (68, 8243), (Start: 80 @8261 has 11 MA's), (Start: 95 @8294 has 2 MA's), (120, 8402), (154, 8486), (173, 8549), (184, 8585), (209, 8636), (215, 8648), (221, 8669), (249, 8747), (251, 8756), (259, 8801), (277, 8891), (278, 8894), (280, 8900), (282, 8912), (287,

8927), (291, 8939), (327, 9023), (334, 9056), (338, 9074), (351, 9119), (363, 9188), (364, 9194), (365, 9200), (377, 9275), (382, 9299), (384, 9305), (391, 9332), (395, 9344), (399, 9350), (412, 9380), (413, 9383), (420, 9410), (435, 9476), (438, 9485), (471, 9560), (485, 9596), (519, 9641), (578, 9779), (581, 9782), (585, 9794), (609, 9881), (612, 9890), (615, 9899), (618, 9914), (629, 9944), (635, 9962), (641, 9977), (649, 10004), (652, 10016), (670, 10052),

Gene: Viceroy\_21 Start: 8130, Stop: 9956, Start Num: 45

Candidate Starts for Viceroy\_21:

(Start: 45 @8130 has 50 MA's), (108, 8280), (155, 8415), (170, 8454), (201, 8532), (215, 8550), (264, 8700), (267, 8715), (277, 8772), (303, 8841), (320, 8889), (324, 8898), (357, 9033), (364, 9078), (365, 9084), (368, 9096), (377, 9156), (419, 9285), (420, 9291), (424, 9318), (447, 9417), (468, 9462), (553, 9657), (574, 9693), (584, 9711), (599, 9756),

Gene: Vincenzo\_10 Start: 7459, Stop: 9357, Start Num: 30

Candidate Starts for Vincenzo\_10:

(Start: 30 @7459 has 441 MA's), (Start: 80 @7540 has 11 MA's), (105, 7621), (106, 7627), (120, 7681), (156, 7768), (161, 7786), (179, 7846), (185, 7867), (218, 7927), (249, 8023), (259, 8077), (277, 8167), (284, 8194), (303, 8245), (332, 8317), (342, 8365), (344, 8380), (356, 8425), (363, 8467), (382, 8578), (384, 8584), (391, 8611), (412, 8659), (472, 8842), (516, 8917), (566, 9037), (572, 9046), (574, 9049), (595, 9106), (596, 9112), (612, 9175), (615, 9184), (658, 9328), (670, 9349),

Gene: VioletZ\_9 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for VioletZ\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (377, 7840), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (420, 7975), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (666, 8623), (670, 8629),

Gene: Virapocalypse\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Virapocalypse\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Virgeve\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Virgeve\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Vista\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Vista\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Vivaldi\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Vivaldi\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Vivi2\_11 Start: 6178, Stop: 7800, Start Num: 7

Candidate Starts for Vivi2\_11:

(Start: 7 @6178 has 114 MA's), (73, 6337), (83, 6376), (103, 6439), (130, 6532), (138, 6559), (154, 6598), (216, 6727), (235, 6787), (255, 6856), (259, 6877), (264, 6895), (267, 6910), (269, 6916), (281, 6979), (324, 7039), (328, 7051), (336, 7090), (339, 7102), (342, 7111), (347, 7144), (351, 7156), (357, 7186), (364, 7231), (367, 7246), (368, 7249), (373, 7285), (382, 7333), (385, 7342), (392, 7369), (443, 7546), (476, 7603), (480, 7609), (490, 7624), (496, 7645), (499, 7651), (515, 7687), (526, 7714),

Gene: Vortex\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Vortex\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264), (323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: WaddleDee\_63 Start: 27676, Stop: 29310, Start Num: 26

Candidate Starts for WaddleDee\_63:

(Start: 26 @27676 has 8 MA's), (Start: 58 @27736 has 3 MA's), (177, 28093), (249, 28282), (251, 28291), (312, 28495), (328, 28543), (366, 28723), (381, 28810), (404, 28876), (408, 28888), (475, 29119), (514, 29206), (562, 29299),

Gene: Waleliano\_9 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for Waleliano\_9:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (338, 7639), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (655, 8602), (670, 8629),

Gene: Wallhey\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Wallhey\_8:

(Start: 30 @4438 has 441 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (186, 4861), (232, 4975), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (611, 6181), (635, 6256), (649, 6298), (652, 6310),

Gene: Waterdiva\_8 Start: 4442, Stop: 6361, Start Num: 30

Candidate Starts for Waterdiva\_8:

(Start: 30 @4442 has 441 MA's), (Start: 37 @4457 has 5 MA's), (Start: 88 @4553 has 7 MA's), (Start: 96 @4568 has 1 MA's), (122, 4679), (170, 4811), (177, 4835), (179, 4841), (181, 4853), (186, 4865), (250, 5030), (275, 5156), (276, 5159), (277, 5171), (280, 5180), (282, 5192), (303, 5255), (307, 5264),

(323, 5300), (329, 5318), (332, 5327), (342, 5375), (362, 5471), (363, 5477), (371, 5513), (377, 5561), (382, 5585), (440, 5780), (481, 5873), (596, 6125), (635, 6260), (649, 6302), (652, 6314),

Gene: Wayne3\_23 Start: 9095, Stop: 10921, Start Num: 45

Candidate Starts for Wayne3\_23:

(Start: 45 @9095 has 50 MA's), (108, 9245), (155, 9380), (170, 9419), (201, 9497), (215, 9515), (264, 9665), (267, 9680), (277, 9737), (303, 9806), (320, 9854), (324, 9863), (357, 9998), (364, 10043), (365, 10049), (368, 10061), (377, 10121), (419, 10250), (420, 10256), (424, 10283), (447, 10382), (468, 10427), (553, 10622), (574, 10658), (584, 10676), (599, 10721),

Gene: Weher20\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for Weher20\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: West99\_12 Start: 7845, Stop: 9734, Start Num: 30

Candidate Starts for West99\_12:

(Start: 30 @7845 has 441 MA's), (57, 7893), (68, 7917), (Start: 80 @7935 has 11 MA's), (Start: 95 @7968 has 2 MA's), (120, 8076), (154, 8160), (173, 8223), (184, 8259), (209, 8310), (215, 8322), (221, 8343), (249, 8421), (251, 8430), (259, 8475), (277, 8565), (278, 8568), (280, 8574), (282, 8586), (287, 8601), (291, 8613), (327, 8697), (334, 8730), (338, 8748), (351, 8793), (363, 8862), (365, 8874), (377, 8949), (382, 8973), (384, 8979), (391, 9006), (395, 9018), (399, 9024), (412, 9054), (413, 9057), (420, 9084), (435, 9150), (438, 9159), (471, 9234), (485, 9270), (519, 9315), (578, 9453), (581, 9456), (585, 9468), (609, 9555), (612, 9564), (615, 9573), (618, 9588), (629, 9618), (635, 9636), (641, 9651), (649, 9678), (652, 9690), (670, 9726),

Gene: WheelerS25\_27 Start: 9871, Stop: 11697, Start Num: 45

Candidate Starts for WheelerS25\_27:

(Start: 45 @9871 has 50 MA's), (108, 10021), (155, 10156), (170, 10195), (201, 10273), (215, 10291), (264, 10441), (267, 10456), (277, 10513), (303, 10582), (320, 10630), (324, 10639), (357, 10774), (364, 10819), (365, 10825), (368, 10837), (377, 10897), (419, 11026), (420, 11032), (424, 11059), (447, 11158), (468, 11203), (553, 11398), (574, 11434), (584, 11452), (599, 11497),

Gene: Wheelie\_21 Start: 8446, Stop: 10272, Start Num: 45

Candidate Starts for Wheelie\_21:

(Start: 45 @8446 has 50 MA's), (108, 8596), (155, 8731), (170, 8770), (201, 8848), (215, 8866), (264, 9016), (267, 9031), (277, 9088), (303, 9157), (320, 9205), (324, 9214), (357, 9349), (364, 9394), (365, 9400), (368, 9412), (377, 9472), (419, 9601), (420, 9607), (424, 9634), (447, 9733), (468, 9778), (553, 9973), (574, 10009), (584, 10027), (599, 10072),

Gene: Wilca\_21 Start: 7665, Stop: 9464, Start Num: 45

Candidate Starts for Wilca\_21:

(Start: 45 @7665 has 50 MA's), (170, 7980), (179, 8010), (215, 8076), (292, 8343), (308, 8388), (336, 8475), (348, 8520), (356, 8556), (364, 8604), (365, 8610), (368, 8622), (373, 8658), (377, 8682), (419, 8817), (443, 8925), (446, 8946), (479, 9027), (553, 9165), (574, 9201), (600, 9267), (617, 9336), (631, 9369), (654, 9438),

Gene: Wilde\_17 Start: 8308, Stop: 10188, Start Num: 47

Candidate Starts for Wilde\_17:

(Start: 47 @8308 has 18 MA's), (50, 8317), (87, 8392), (103, 8440), (118, 8500), (126, 8530), (170, 8623), (221, 8743), (238, 8800), (246, 8815), (257, 8860), (280, 8974), (282, 8986), (320, 9061), (325, 9073), (328, 9082), (329, 9085), (336, 9121), (351, 9175), (364, 9250), (368, 9268), (405, 9421), (407, 9427), (409, 9433), (413, 9448), (419, 9469), (443, 9577), (454, 9616), (468, 9646), (536, 9823), (582, 9925), (614, 10024), (628, 10066), (652, 10141), (655, 10153),

Gene: Windsor\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Windsor\_8:

(Start: 30 @4439 has 441 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (186, 4862), (232, 4976), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: Wizard\_12 Start: 5562, Stop: 7145, Start Num: 7

Candidate Starts for Wizard\_12:

(Start: 7 @5562 has 114 MA's), (43, 5676), (111, 5844), (157, 5964), (162, 5982), (166, 5997), (238, 6147), (250, 6177), (261, 6237), (262, 6240), (273, 6279), (288, 6351), (328, 6411), (329, 6414), (330, 6417), (337, 6453), (339, 6462), (341, 6468), (342, 6471), (357, 6534), (364, 6579), (371, 6609), (377, 6657), (392, 6714), (399, 6735), (404, 6741), (412, 6762), (420, 6792), (428, 6843), (443, 6891),

Gene: Wooper\_10 Start: 6780, Stop: 8627, Start Num: 30

Candidate Starts for Wooper\_10:

(Start: 30 @6780 has 441 MA's), (Start: 95 @6894 has 2 MA's), (104, 6936), (120, 6999), (141, 7065), (184, 7170), (194, 7194), (243, 7293), (245, 7299), (249, 7308), (251, 7317), (278, 7455), (282, 7473), (329, 7614), (334, 7641), (338, 7659), (342, 7671), (355, 7722), (363, 7773), (377, 7860), (382, 7884), (471, 8142), (505, 8202), (510, 8211), (583, 8352), (584, 8355), (605, 8427), (607, 8433), (612, 8454), (630, 8511), (634, 8523), (643, 8556), (649, 8568), (652, 8580), (655, 8592), (662, 8604), (663, 8607),

Gene: Xavier\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Xavier\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Xincheng\_9 Start: 6587, Stop: 8458, Start Num: 37

Candidate Starts for Xincheng\_9:

(Start: 30 @6572 has 441 MA's), (Start: 37 @6587 has 5 MA's), (86, 6668), (94, 6683), (105, 6734), (108, 6743), (120, 6794), (161, 6899), (179, 6959), (221, 7055), (248, 7133), (249, 7136), (251, 7145), (259, 7190), (277, 7280), (278, 7283), (305, 7361), (313, 7373), (323, 7400), (342, 7475), (356, 7535), (363, 7577), (365, 7589), (369, 7604), (382, 7688), (384, 7694), (391, 7721), (393, 7727), (396, 7736), (412, 7769), (566, 8138), (572, 8147), (574, 8150), (583, 8165), (596, 8213), (612, 8276), (615, 8285), (649, 8399), (666, 8444), (670, 8450),

Gene: Xkcd426\_11 Start: 9122, Stop: 10924, Start Num: 80

Candidate Starts for Xkcd426\_11:

(Start: 80 @9122 has 11 MA's), (87, 9143), (99, 9164), (110, 9227), (127, 9281), (159, 9368), (179, 9437), (204, 9506), (221, 9548), (235, 9593), (248, 9626), (250, 9632), (269, 9722), (273, 9734), (280, 9782), (326, 9860), (339, 9914), (348, 9947), (356, 9983), (368, 10049), (378, 10115), (427, 10295), (476, 10415), (484, 10433), (501, 10469), (543, 10571), (549, 10583), (609, 10718), (626, 10766), (644, 10838), (646, 10847), (652, 10868), (661, 10895), (669, 10913),

Gene: YDN12\_11 Start: 8033, Stop: 9832, Start Num: 80

Candidate Starts for YDN12\_11:

(Start: 80 @8033 has 11 MA's), (117, 8159), (123, 8180), (127, 8192), (142, 8240), (159, 8279), (172, 8321), (179, 8348), (204, 8417), (214, 8438), (221, 8459), (237, 8513), (248, 8537), (250, 8543), (251, 8549), (259, 8594), (273, 8645), (280, 8693), (337, 8816), (339, 8825), (348, 8858), (356, 8894), (358, 8900), (378, 9026), (412, 9128), (476, 9323), (493, 9359), (499, 9368), (532, 9449), (543, 9482), (549, 9494), (565, 9512), (586, 9545), (606, 9614), (619, 9662), (623, 9668), (644, 9749), (652, 9779), (661, 9806), (669, 9821),

Gene: Yago84\_7 Start: 5116, Stop: 6957, Start Num: 30

Candidate Starts for Yago84\_7:

(Start: 30 @5116 has 441 MA's), (Start: 95 @5230 has 2 MA's), (104, 5272), (120, 5335), (173, 5467), (179, 5485), (215, 5539), (221, 5560), (259, 5692), (267, 5725), (277, 5782), (278, 5785), (282, 5803), (296, 5854), (303, 5875), (338, 5983), (342, 5995), (363, 6097), (392, 6244), (395, 6253), (418, 6310), (535, 6589), (581, 6676), (583, 6682), (605, 6757), (607, 6763), (612, 6784), (638, 6865), (649, 6898), (652, 6910), (662, 6934), (663, 6937),

Gene: Yahalom\_11 Start: 6315, Stop: 8219, Start Num: 30

Candidate Starts for Yahalom\_11:

(Start: 30 @6315 has 441 MA's), (40, 6342), (87, 6423), (105, 6486), (122, 6552), (131, 6585), (173, 6693), (205, 6783), (232, 6861), (251, 6918), (261, 6972), (277, 7053), (282, 7074), (291, 7101), (316, 7152), (318, 7161), (323, 7170), (363, 7347), (365, 7359), (377, 7434), (382, 7458), (388, 7479), (419, 7563), (461, 7701), (471, 7719), (481, 7746), (499, 7770), (581, 7935), (584, 7944), (612, 8049), (615, 8058), (626, 8085), (652, 8175), (662, 8199), (670, 8211),

Gene: Yeshua\_10 Start: 6784, Stop: 8628, Start Num: 30

Candidate Starts for Yeshua\_10:

(Start: 30 @6784 has 441 MA's), (Start: 95 @6898 has 2 MA's), (104, 6940), (120, 7003), (141, 7069), (184, 7174), (215, 7213), (243, 7297), (245, 7303), (249, 7312), (251, 7321), (277, 7456), (278, 7459), (282, 7477), (301, 7549), (329, 7618), (334, 7645), (338, 7663), (342, 7675), (355, 7726), (363, 7777), (377, 7864), (382, 7888), (439, 8077), (471, 8146), (505, 8206), (583, 8353), (584, 8356), (605, 8428), (607, 8434), (612, 8455), (615, 8464), (630, 8512), (634, 8524), (643, 8557), (649, 8569), (652, 8581), (662, 8605), (663, 8608),

Gene: Yeti\_20 Start: 8441, Stop: 10147, Start Num: 12

Candidate Starts for Yeti\_20:

(Start: 12 @8441 has 40 MA's), (Start: 14 @8450 has 15 MA's), (20, 8465), (68, 8564), (71, 8570), (104, 8675), (108, 8687), (132, 8786), (134, 8792), (158, 8858), (163, 8876), (179, 8930), (188, 8960), (212, 8999), (219, 9017), (221, 9026), (233, 9062), (251, 9125), (264, 9188), (271, 9215), (277, 9260), (328, 9362), (329, 9365), (337, 9404), (342, 9422), (359, 9494), (371, 9560), (372, 9569), (377, 9608), (385, 9641), (394, 9674), (396, 9680), (406, 9710), (448, 9863), (457, 9878), (470, 9899), (471, 9902), (552, 10106), (559, 10115),

Gene: Yinz\_11 Start: 6341, Stop: 8248, Start Num: 30

Candidate Starts for Yinz\_11:

(Start: 30 @6341 has 441 MA's), (40, 6368), (87, 6449), (105, 6512), (122, 6578), (131, 6611), (173, 6719), (205, 6809), (232, 6887), (251, 6944), (261, 6998), (277, 7079), (282, 7100), (291, 7127), (316, 7178), (318, 7187), (323, 7196), (363, 7373), (365, 7385), (377, 7460), (382, 7484), (388, 7505), (419, 7589), (461, 7727), (471, 7745), (481, 7772), (499, 7796), (581, 7964), (584, 7973), (612, 8078), (615, 8087), (626, 8114), (652, 8204), (662, 8228), (670, 8240),

Gene: YorkOnyx\_12 Start: 6233, Stop: 7861, Start Num: 7

Candidate Starts for YorkOnyx\_12:

(Start: 7 @6233 has 114 MA's), (Start: 47 @6356 has 18 MA's), (61, 6377), (77, 6407), (83, 6434), (103, 6497), (109, 6527), (130, 6590), (138, 6617), (157, 6659), (216, 6785), (254, 6911), (259, 6935), (264, 6953), (267, 6968), (269, 6974), (281, 7037), (328, 7109), (336, 7148), (351, 7214), (357, 7244), (364, 7289), (367, 7304), (368, 7307), (373, 7343), (382, 7391), (385, 7400), (392, 7427), (404, 7454), (419, 7499), (427, 7553), (428, 7556), (433, 7571), (443, 7604), (451, 7622), (476, 7661), (480, 7667), (490, 7682), (496, 7703), (499, 7709), (515, 7745), (528, 7778),

Gene: Yoshand\_8 Start: 4439, Stop: 6358, Start Num: 30

Candidate Starts for Yoshand\_8:

(Start: 30 @4439 has 441 MA's), (Start: 37 @4454 has 5 MA's), (Start: 88 @4550 has 7 MA's), (Start: 96 @4565 has 1 MA's), (122, 4676), (170, 4808), (177, 4832), (179, 4838), (181, 4850), (186, 4862), (250, 5027), (275, 5153), (276, 5156), (277, 5168), (280, 5177), (282, 5189), (303, 5252), (307, 5261), (323, 5297), (329, 5315), (332, 5324), (342, 5372), (362, 5468), (363, 5474), (371, 5510), (377, 5558), (382, 5582), (440, 5777), (481, 5870), (596, 6122), (635, 6257), (649, 6299), (652, 6311),

Gene: YouGoGlencoco\_8 Start: 4438, Stop: 6357, Start Num: 30

Candidate Starts for YouGoGlencoco\_8:

(Start: 30 @4438 has 441 MA's), (Start: 37 @4453 has 5 MA's), (Start: 88 @4549 has 7 MA's), (Start: 96 @4564 has 1 MA's), (122, 4675), (170, 4807), (177, 4831), (179, 4837), (181, 4849), (186, 4861), (250, 5026), (275, 5152), (276, 5155), (277, 5167), (280, 5176), (282, 5188), (303, 5251), (307, 5260), (323, 5296), (329, 5314), (332, 5323), (342, 5371), (362, 5467), (363, 5473), (371, 5509), (377, 5557), (382, 5581), (440, 5776), (481, 5869), (596, 6121), (635, 6256), (649, 6298), (652, 6310),

Gene: YungMoney\_12 Start: 6514, Stop: 8100, Start Num: 7

Candidate Starts for YungMoney\_12:

(Start: 7 @6514 has 114 MA's), (19, 6577), (104, 6766), (111, 6796), (120, 6829), (154, 6913), (162, 6934), (166, 6949), (248, 7123), (250, 7129), (257, 7165), (261, 7189), (262, 7192), (273, 7231), (288, 7303), (328, 7363), (329, 7366), (330, 7369), (337, 7405), (339, 7414), (341, 7420), (342, 7423), (357, 7486), (364, 7531), (371, 7561), (377, 7609), (392, 7666), (399, 7687), (412, 7714), (413, 7717), (420, 7744), (428, 7795), (443, 7843),

Gene: Zagie\_22 Start: 8634, Stop: 10460, Start Num: 45

Candidate Starts for Zagie\_22:

(Start: 45 @8634 has 50 MA's), (108, 8784), (155, 8919), (170, 8958), (201, 9036), (215, 9054), (264, 9204), (267, 9219), (277, 9276), (303, 9345), (320, 9393), (324, 9402), (357, 9537), (364, 9582), (365, 9588), (368, 9600), (377, 9660), (419, 9789), (420, 9795), (424, 9822), (447, 9921), (468, 9966), (553, 10161), (574, 10197), (584, 10215), (599, 10260),

Gene: Zaider\_9 Start: 4671, Stop: 6590, Start Num: 30

Candidate Starts for Zaider\_9:

(Start: 30 @4671 has 441 MA's), (Start: 37 @4686 has 5 MA's), (Start: 88 @4782 has 7 MA's), (Start: 96 @4797 has 1 MA's), (122, 4908), (170, 5040), (177, 5064), (179, 5070), (181, 5082), (186, 5094), (250, 5259), (275, 5385), (276, 5388), (277, 5400), (280, 5409), (282, 5421), (303, 5484), (307, 5493), (323, 5529), (329, 5547), (332, 5556), (342, 5604), (362, 5700), (363, 5706), (371, 5742), (377, 5790), (382, 5814), (440, 6009), (481, 6102), (596, 6354), (635, 6489), (649, 6531), (652, 6543),

Gene: Zapato\_17 Start: 7638, Stop: 9347, Start Num: 14

Candidate Starts for Zapato\_17:

(Start: 12 @7629 has 40 MA's), (Start: 14 @7638 has 15 MA's), (Start: 58 @7734 has 3 MA's), (71, 7758), (104, 7863), (108, 7875), (132, 7974), (138, 7992), (158, 8046), (163, 8064), (173, 8097), (178, 8115), (203, 8169), (218, 8199), (219, 8205), (221, 8214), (233, 8250), (251, 8313), (264, 8376), (271, 8403), (277, 8448), (328, 8550), (329, 8553), (337, 8592), (339, 8601), (342, 8610), (351, 8643), (359,

8682), (371, 8748), (372, 8757), (373, 8772), (375, 8781), (377, 8796), (379, 8808), (394, 8862), (396, 8868), (406, 8898), (463, 9075), (470, 9087), (478, 9111), (479, 9114), (489, 9135), (490, 9138), (546, 9279), (550, 9291), (559, 9303), (570, 9330),

Gene: Zelda\_8 Start: 4441, Stop: 6360, Start Num: 30

Candidate Starts for Zelda\_8:

(Start: 30 @4441 has 441 MA's), (Start: 37 @4456 has 5 MA's), (Start: 88 @4552 has 7 MA's), (Start: 96 @4567 has 1 MA's), (122, 4678), (170, 4810), (177, 4834), (179, 4840), (181, 4852), (186, 4864), (250, 5029), (275, 5155), (276, 5158), (277, 5170), (280, 5179), (282, 5191), (303, 5254), (307, 5263), (323, 5299), (329, 5317), (332, 5326), (342, 5374), (362, 5470), (363, 5476), (371, 5512), (377, 5560), (382, 5584), (440, 5779), (481, 5872), (596, 6124), (635, 6259), (649, 6301), (652, 6313),

Gene: Zemanar\_10 Start: 6748, Stop: 8637, Start Num: 30

Candidate Starts for Zemanar\_10:

(Start: 30 @6748 has 441 MA's), (Start: 37 @6763 has 5 MA's), (86, 6844), (94, 6859), (105, 6910), (108, 6919), (120, 6970), (161, 7075), (179, 7135), (221, 7231), (248, 7309), (249, 7312), (251, 7321), (259, 7366), (277, 7456), (278, 7459), (305, 7537), (313, 7549), (342, 7651), (356, 7711), (363, 7753), (365, 7765), (377, 7840), (382, 7864), (384, 7870), (391, 7897), (393, 7903), (396, 7912), (412, 7945), (420, 7975), (566, 8317), (572, 8326), (574, 8329), (596, 8392), (611, 8452), (612, 8455), (615, 8464), (649, 8578), (655, 8602), (670, 8629),

Gene: Zenteno07\_13 Start: 5606, Stop: 7525, Start Num: 30

Candidate Starts for Zenteno07\_13:

(Start: 30 @5606 has 441 MA's), (172, 5981), (174, 5993), (186, 6032), (211, 6083), (252, 6209), (259, 6248), (275, 6323), (276, 6326), (282, 6359), (297, 6407), (300, 6416), (307, 6431), (313, 6440), (332, 6494), (355, 6593), (363, 6644), (371, 6680), (381, 6749), (382, 6752), (461, 6995), (471, 7013), (576, 7229), (583, 7241), (612, 7352), (615, 7361), (618, 7376), (635, 7424), (666, 7511),

Gene: Zhafia\_24 Start: 8864, Stop: 10690, Start Num: 45

Candidate Starts for Zhafia\_24:

(Start: 45 @8864 has 50 MA's), (155, 9149), (170, 9188), (201, 9266), (215, 9284), (267, 9449), (277, 9506), (320, 9623), (324, 9632), (357, 9767), (364, 9812), (365, 9818), (368, 9830), (377, 9890), (419, 10019), (420, 10025), (424, 10052), (447, 10151), (468, 10196), (553, 10391), (574, 10427), (584, 10445), (599, 10490),

Gene: Zipp\_14 Start: 7375, Stop: 9042, Start Num: 7

Candidate Starts for Zipp\_14:

(Start: 7 @7375 has 114 MA's), (Start: 22 @7450 has 3 MA's), (33, 7471), (42, 7498), (79, 7585), (103, 7666), (109, 7696), (141, 7792), (146, 7807), (157, 7828), (160, 7840), (163, 7849), (171, 7873), (212, 7945), (216, 7954), (252, 8065), (254, 8080), (259, 8104), (264, 8122), (267, 8137), (269, 8143), (288, 8218), (328, 8278), (357, 8413), (364, 8458), (372, 8497), (379, 8548), (388, 8581), (391, 8593), (392, 8596), (404, 8623), (413, 8647), (428, 8725), (443, 8776), (460, 8806), (464, 8812), (492, 8869), (505, 8914), (526, 8962),

Gene: Zitch\_15 Start: 6694, Stop: 8367, Start Num: 7

Candidate Starts for Zitch\_15:

(Start: 7 @6694 has 114 MA's), (Start: 22 @6769 has 3 MA's), (42, 6817), (79, 6904), (103, 6985), (109, 7015), (157, 7147), (171, 7192), (212, 7264), (216, 7273), (252, 7384), (259, 7423), (264, 7441), (266, 7453), (267, 7456), (269, 7462), (288, 7537), (324, 7585), (328, 7597), (357, 7732), (364, 7777), (372, 7816), (379, 7867), (388, 7900), (391, 7912), (392, 7915), (404, 7942), (413, 7966), (428, 8044), (443, 8095), (460, 8125), (464, 8131), (475, 8149), (492, 8188), (505, 8233),

Gene: Zonia\_8 Start: 4437, Stop: 6356, Start Num: 30

Candidate Starts for Zonia\_8:

(Start: 30 @4437 has 441 MA's), (Start: 88 @4548 has 7 MA's), (Start: 96 @4563 has 1 MA's), (122, 4674), (170, 4806), (177, 4830), (179, 4836), (181, 4848), (186, 4860), (250, 5025), (275, 5151), (276, 5154), (277, 5166), (280, 5175), (282, 5187), (303, 5250), (307, 5259), (323, 5295), (329, 5313), (332, 5322), (342, 5370), (362, 5466), (363, 5472), (371, 5508), (377, 5556), (382, 5580), (440, 5775), (481, 5868), (596, 6120), (635, 6255), (649, 6297), (652, 6309),

Gene: Zooman\_67 Start: 27800, Stop: 29527, Start Num: 34

Candidate Starts for Zooman\_67:

(3, 27662), (4, 27668), (5, 27671), (Start: 34 @27800 has 7 MA's), (Start: 58 @27854 has 3 MA's), (73, 27878), (89, 27929), (118, 28037), (124, 28061), (158, 28151), (161, 28163), (177, 28217), (249, 28424), (259, 28478), (328, 28694), (351, 28787), (357, 28817), (372, 28901), (381, 28961), (390, 28994), (395, 29009), (453, 29213), (454, 29216), (456, 29219), (475, 29270), (534, 29441),

Gene: phiAsp2\_4 Start: 1019, Stop: 2959, Start Num: 78

Candidate Starts for phiAsp2\_4:

(15, 869), (17, 875), (18, 878), (24, 890), (78, 1019), (99, 1070), (141, 1238), (150, 1259), (154, 1268), (173, 1331), (193, 1394), (201, 1415), (220, 1466), (221, 1469), (244, 1553), (263, 1640), (265, 1646), (269, 1664), (278, 1718), (282, 1736), (320, 1784), (332, 1817), (336, 1844), (337, 1847), (339, 1856), (343, 1877), (344, 1880), (359, 1946), (368, 2000), (400, 2138), (431, 2261), (432, 2264), (435, 2285), (438, 2294), (481, 2411), (544, 2576), (555, 2603), (575, 2627), (601, 2702), (623, 2786), (625, 2792), (629, 2813), (637, 2837), (642, 2852), (651, 2894), (656, 2915), (667, 2945),