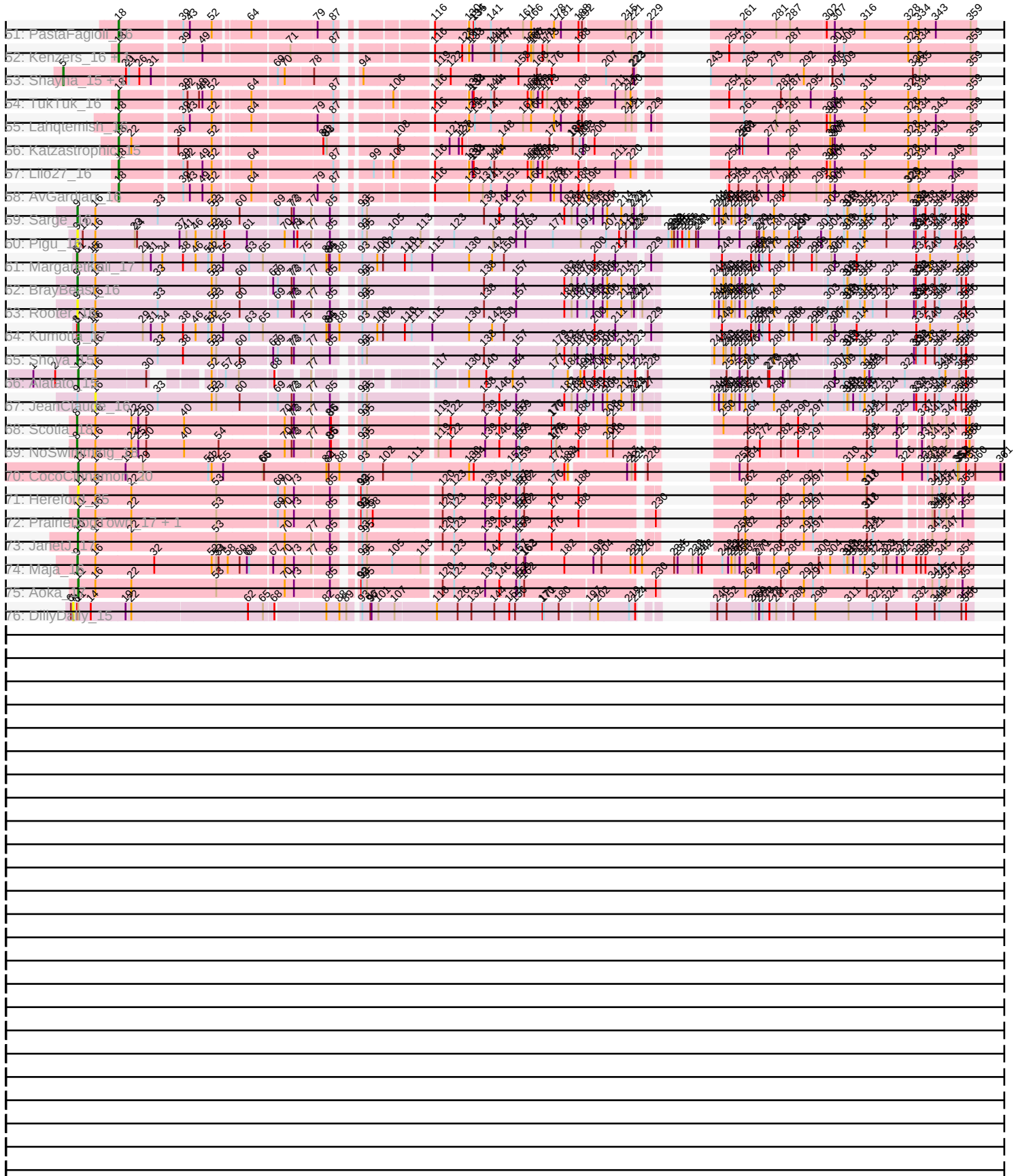


Zoomed Pham 280297

1. DirtyBubble_16	18	28	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359
2. BubbaBear_16 + 2	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
3. Swervy_16 + 16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
4. Jovita_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
5. BAjuniper_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
6. Cashngtore_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
7. Albright_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
8. MsUbiquitous_16 + 2	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
9. Abigail_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
10. FlameThrower_15	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
11. Arroyo_17	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
12. Bengal_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
13. BurntOwl_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
14. DickRichards_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
15. Buldak_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
16. PhigPhack_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
17. Akinou8_15 + 8	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
18. BabyDaisy_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
19. NickyZ2_17	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
20. Stromboli_16 + 2	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
21. Quenya_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
22. Icanan_17	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
23. Kate33_16 + 16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
24. AylexUG_17	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
25. CmiHanger_16 + 2	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
26. Kieran_17	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
27. Squidme_15 + 8	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
28. Stool_16 + 16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
29. Doobus_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
30. Rona_15 + 16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
31. Celaena_15	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
32. SoftSoap_15	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
33. Johnathan_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
34. Slay_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
35. CroZenni_16 + 2	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
36. PondAmelia_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
37. DrogenDoo_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
38. QMacho_17	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
39. Bachaco_15	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
40. ChiliPepper_15 + 2	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
41. Philo_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
42. SansAte_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
43. FinalFrontier_16	38	48	58	64	71	79	87	99	103	116	124	130	139	151	166	174	186	254	261	271	281	295	301	316	323	331	343	359		
44. WalkingDead_16	38	48	58	64	71	79	87	99	103	116	124	130																		

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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 280297 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280297 has 96 members, 16 are drafts.

Phages represented in each track:

- Track 1 : DirtyBubble_16
- Track 2 : BubbaBear_16, SirBeanington_16, Albedo_16
- Track 3 : Swervy_16, SarBear_16
- Track 4 : Jovita_16
- Track 5 : BAJuniper_16
- Track 6 : Cashington_16
- Track 7 : Albright_16
- Track 8 : MsUbiquitous_16, CupcakePrincess_16, Jabb_16
- Track 9 : Abigail_16
- Track 10 : FlameThrower_15
- Track 11 : Arroyo_17
- Track 12 : Bengal_16
- Track 13 : Burritobowl_16
- Track 14 : DickRichards_16
- Track 15 : Buldak_15
- Track 16 : PhigPhack_17
- Track 17 : Akino08_15, Loviatar_16
- Track 18 : BabyDaisy_17
- Track 19 : Nicky22_17
- Track 20 : Stromboli_16
- Track 21 : Quenya_16
- Track 22 : Icarian_17
- Track 23 : Kate33_16, IndyLu_16
- Track 24 : AylexOG_17
- Track 25 : CliffHanger_16
- Track 26 : Kieran_15
- Track 27 : Squircle_15, Olliecat_15
- Track 28 : Stoor_16, SanaSana_17
- Track 29 : Doobus_16
- Track 30 : Rona_15, Dismas_15
- Track 31 : Celaena_15
- Track 32 : Softsoap_15
- Track 33 : Johnathan_16
- Track 34 : Slay_16
- Track 35 : CroZenni_16, BelmontSKP_17, AnnaLie_17
- Track 36 : PondAmelia_20
- Track 37 : Didgeridoo_17

- Track 38 : QMacho_17, Pecas_16, Eula_16
- Track 39 : Bachaco_15
- Track 40 : ChiliPepper_15, Kamdara_15, Sharkboy_15
- Track 41 : Phisb_16
- Track 42 : SansAfet_16
- Track 43 : Finalfrontier_17
- Track 44 : WalkingDead_16
- Track 45 : Teagster_15
- Track 46 : LimaBean_16
- Track 47 : Avocadoman_16
- Track 48 : Solea_18, Milomuff_18
- Track 49 : Elva_17
- Track 50 : BabyYoda_16
- Track 51 : PastaFagioli_16
- Track 52 : Kenzers_16, Lynlen_16
- Track 53 : Shayna_15, SunnyD_15
- Track 54 : TukTuk_16
- Track 55 : Lahqtemish_16
- Track 56 : Katzastrophic_15
- Track 57 : Lilo27_16
- Track 58 : AvGardian_16
- Track 59 : Sarge_16
- Track 60 : Pigu_16
- Track 61 : MargaretKali_17
- Track 62 : BrayBeast_16
- Track 63 : Rooter_16
- Track 64 : Kumotta_17
- Track 65 : Shoya_15
- Track 66 : Alatato_15
- Track 67 : JeanClaude_16
- Track 68 : Scotia_18
- Track 69 : NoSwimming_18
- Track 70 : CocoCinnamon_20
- Track 71 : Hereford_25
- Track 72 : PrairieDogTown_17, EvenBluerMoon_17
- Track 73 : JanetJ_17
- Track 74 : Maja_16
- Track 75 : Aoka_17
- Track 76 : DillyDally_15

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

The start number called the most often in the published annotations is 18, it was called in 60 of the 80 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Abigail_16, Akino08_15, Albedo_16, Albright_16, AnnaLie_17, Arroyo_17, AvGardian_16, Avocadoman_16, AylexOG_17, BAJuniper_16, BabyDaisy_17, BabyYoda_16, Bachaco_15, BelmontSKP_17, Bengal_16, BubbaBear_16, Burritobowl_16, Cashington_16, Celaena_15, ChiliPepper_15, CliffHanger_16,

CroZenni_16, CupcakePrincess_16, DickRichards_16, Didgeridoo_17, DirtyBubble_16, Dismas_15, Doobus_16, Elva_17, Eula_16, Finalfrontier_17, FlameThrower_15, Icarian_17, IndyLu_16, Jabb_16, Johnathan_16, Jovita_16, Kamdara_15, Kate33_16, Katzastrophic_15, Kenzers_16, Kieran_15, Lahqtemish_16, Lilo27_16, LimaBean_16, Loviatar_16, Lynlen_16, Milomuff_18, MsUbiquitous_16, Nicky22_17, PastaFagioli_16, Pecas_16, PhigPhack_17, Phisb_16, PondAmelia_20, QMacho_17, Quenya_16, Rona_15, SanaSana_17, SansAfet_16, SarBear_16, Sharkboy_15, SirBeanington_16, Slay_16, Softsoap_15, Solea_18, Stoor_16, Stromboli_16, Swervy_16, TukTuk_16, WalkingDead_16,

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

-

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

- Alatato_15, Aoka_17, BrayBeast_16, Buldak_15, CocoCinnamon_20, DillyDally_15, EvenBluerMoon_17, Hereford_25, JanetJ_17, JeanClaude_16, Kumotta_17, Maja_16, MargaretKali_17, NoSwimming_18, Olliecat_15, Pigu_16, PrairieDogTown_17, Rooter_16, Sarge_16, Scotia_18, Shayna_15, Shoya_15, Squirrel_15, SunnyD_15, Teagster_15,

Summary by start number:

Start 4:

- Found in 3 of 96 (3.1%) of genes in pham
- Manual Annotations of this start: 3 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Buldak_15 (EB), Olliecat_15 (EB), Squirrel_15 (EB),

Start 5:

- Found in 3 of 96 (3.1%) of genes in pham
- Manual Annotations of this start: 3 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shayna_15 (EB), SunnyD_15 (EB), Teagster_15 (EB),

Start 7:

- Found in 1 of 96 (1.0%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DillyDally_15 (singleton),

Start 8:

- Found in 5 of 96 (5.2%) of genes in pham
- Manual Annotations of this start: 3 of 80
- Called 60.0% of time when present
- Phage (with cluster) where this start called: MargaretKali_17 (FB), NoSwimming_18 (FO), Scotia_18 (FO),

Start 9:

- Found in 7 of 96 (7.3%) of genes in pham
- Manual Annotations of this start: 4 of 80
- Called 85.7% of time when present

- Phage (with cluster) where this start called: BrayBeast_16 (FB), Maja_16 (FO), Pigu_16 (FB), Rooter_16 (FB), Sarge_16 (FB), Shoya_15 (FB),

Start 10:

- Found in 1 of 96 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JanetJ_17 (FO),

Start 11:

- Found in 9 of 96 (9.4%) of genes in pham
- Manual Annotations of this start: 6 of 80
- Called 77.8% of time when present
- Phage (with cluster) where this start called: Alatato_15 (FB), Aoka_17 (FO), CocoCinnamon_20 (FO), EvenBluerMoon_17 (FO), Hereford_25 (FO), Kumotta_17 (FB), PrairieDogTown_17 (FO),

Start 16:

- Found in 18 of 96 (18.8%) of genes in pham
- No Manual Annotations of this start.
- Called 5.6% of time when present
- Phage (with cluster) where this start called: JeanClaude_16 (FB),

Start 18:

- Found in 71 of 96 (74.0%) of genes in pham
- Manual Annotations of this start: 60 of 80
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Abigail_16 (EB), Akino08_15 (EB), Albedo_16 (EB), Albright_16 (EB), AnnaLie_17 (EB), Arroyo_17 (EB), AvGardian_16 (EB), Avocadoman_16 (EB), AylexOG_17 (EB), BAjuniper_16 (EB), BabyDaisy_17 (EB), BabyYoda_16 (EB), Bachaco_15 (EB), BelmontSKP_17 (EB), Bengal_16 (EB), BubbaBear_16 (EB), Burritobowl_16 (EB), Cashington_16 (EB), Celaena_15 (EB), ChiliPepper_15 (EB), CliffHanger_16 (EB), CroZenni_16 (EB), CupcakePrincess_16 (EB), DickRichards_16 (EB), Didgeridoo_17 (EB), DirtyBubble_16 (EB), Dismas_15 (EB), Doobus_16 (EB), Elva_17 (EB), Eula_16 (EB), Finalfrontier_17 (EB), FlameThrower_15 (EB), Icarian_17 (EB), IndyLu_16 (EB), Jabb_16 (EB), Johnathan_16 (EB), Jovita_16 (EB), Kamdara_15 (EB), Kate33_16 (EB), Katzastrophic_15 (EB), Kenzers_16 (EB), Kieran_15 (EB), Lahqtemish_16 (EB), Lilo27_16 (EB), LimaBean_16 (EB), Loviatar_16 (EB), Lynlen_16 (EB), Milomuff_18 (EB), MsUbiquitous_16 (EB), Nicky22_17 (EB), PastaFagioli_16 (EB), Pecas_16 (EB), PhigPhack_17 (EB), Phisb_16 (EB), PondAmelia_20 (EB), QMacho_17 (EB), Quenya_16 (EB), Rona_15 (EB), SanaSana_17 (EB), SansAfet_16 (EB), SarBear_16 (EB), Sharkboy_15 (EB), SirBeanington_16 (EB), Slay_16 (EB), Softsoap_15 (EB), Solea_18 (EB), Stoor_16 (EB), Stromboli_16 (EB), Swervy_16 (EB), TukTuk_16 (EB), WalkingDead_16 (EB),

Summary by clusters:

There are 4 clusters represented in this pham: FB, FO, singleton, EB,

Info for manual annotations of cluster EB:

- Start number 4 was manually annotated 3 times for cluster EB.
- Start number 5 was manually annotated 3 times for cluster EB.

- Start number 18 was manually annotated 60 times for cluster EB.

Info for manual annotations of cluster FB:

- Start number 8 was manually annotated 1 time for cluster FB.
- Start number 9 was manually annotated 3 times for cluster FB.
- Start number 11 was manually annotated 2 times for cluster FB.

Info for manual annotations of cluster FO:

- Start number 8 was manually annotated 2 times for cluster FO.
- Start number 9 was manually annotated 1 time for cluster FO.
- Start number 10 was manually annotated 1 time for cluster FO.
- Start number 11 was manually annotated 4 times for cluster FO.

Gene Information:

Gene: Abigail_16 Start: 10507, Stop: 13266, Start Num: 18

Candidate Starts for Abigail_16:

(Start: 18 @10507 has 60 MA's), (39, 10660), (42, 10666), (49, 10705), (71, 10891), (87, 10993), (116, 11164), (128, 11230), (130, 11242), (133, 11251), (136, 11266), (141, 11299), (144, 11308), (147, 11326), (163, 11386), (164, 11392), (166, 11401), (167, 11407), (170, 11431), (173, 11443), (178, 11461), (188, 11524), (215, 11638), (221, 11650), (254, 11746), (261, 11785), (293, 11944), (302, 11995), (304, 12004), (307, 12016), (316, 12094), (328, 12208), (334, 12235), (349, 12319), (375, 12430), (379, 12439), (388, 12505), (396, 12571), (415, 12667), (419, 12712), (420, 12727), (426, 12766), (436, 12835), (438, 12853), (439, 12856), (441, 12868), (444, 12895), (454, 13009), (455, 13021), (459, 13051), (471, 13159),

Gene: Akino08_15 Start: 10420, Stop: 13050, Start Num: 18

Candidate Starts for Akino08_15:

(Start: 18 @10420 has 60 MA's), (28, 10480), (39, 10573), (48, 10609), (49, 10618), (64, 10714), (79, 10867), (87, 10906), (116, 11077), (122, 11113), (129, 11146), (134, 11167), (136, 11179), (139, 11197), (144, 11221), (156, 11272), (163, 11299), (164, 11305), (166, 11314), (169, 11332), (181, 11392), (188, 11437), (254, 11524), (259, 11551), (260, 11560), (277, 11626), (287, 11683), (328, 11986), (329, 11989), (334, 12013), (339, 12037), (359, 12148), (373, 12208), (388, 12292), (396, 12358), (398, 12370), (401, 12385), (409, 12433), (412, 12442), (413, 12445), (419, 12505), (420, 12520), (433, 12604), (441, 12652), (455, 12805), (457, 12820), (459, 12835), (468, 12922), (474, 12964),

Gene: Alatato_15 Start: 9384, Stop: 12482, Start Num: 11

Candidate Starts for Alatato_15:

(1, 9270), (2, 9327), (Start: 11 @9384 has 6 MA's), (16, 9429), (30, 9552), (52, 9639), (57, 9663), (59, 9696), (68, 9771), (77, 9831), (117, 10026), (130, 10098), (140, 10140), (154, 10191), (177, 10290), (184, 10329), (190, 10344), (194, 10353), (200, 10380), (206, 10404), (214, 10449), (224, 10485), (228, 10494), (252, 10566), (259, 10593), (264, 10614), (276, 10665), (278, 10668), (283, 10698), (287, 10707), (307, 10809), (309, 10833), (316, 10887), (319, 10899), (321, 10908), (327, 10989), (345, 11079), (346, 11094), (353, 11130), (356, 11148), (380, 11217), (389, 11289), (390, 11298), (394, 11334), (401, 11388), (402, 11397), (409, 11436), (417, 11481), (422, 11553), (424, 11571), (429, 11616), (437, 11661), (449, 11772), (463, 11883), (465, 11901), (470, 11973), (476, 12033), (479, 12084), (480, 12114), (482, 12123), (492, 12243), (494, 12264), (513, 12450), (515, 12468), (516, 12471),

Gene: Albedo_16 Start: 10372, Stop: 13134, Start Num: 18

Candidate Starts for Albedo_16:

(Start: 18 @10372 has 60 MA's), (39, 10525), (49, 10570), (71, 10756), (87, 10858), (116, 11029), (128, 11095), (130, 11107), (133, 11116), (141, 11164), (144, 11173), (147, 11191), (164, 11257), (166, 11266), (167, 11272), (170, 11296), (173, 11308), (188, 11389), (211, 11476), (215, 11503), (220, 11512), (254, 11611), (287, 11770), (295, 11824), (307, 11881), (316, 11959), (328, 12073), (334, 12100), (343, 12145), (359, 12235), (368, 12268), (373, 12295), (388, 12373), (392, 12394), (397, 12442), (415, 12535), (419, 12580), (420, 12595), (426, 12634), (436, 12703), (438, 12721), (439, 12724), (441, 12736), (444, 12763), (455, 12889), (457, 12904), (459, 12919), (471, 13027),

Gene: Albright_16 Start: 10286, Stop: 13045, Start Num: 18

Candidate Starts for Albright_16:

(3, 10133), (13, 10214), (Start: 18 @10286 has 60 MA's), (39, 10439), (42, 10445), (49, 10484), (71, 10670), (87, 10772), (116, 10943), (128, 11009), (130, 11021), (133, 11030), (136, 11045), (141, 11078), (144, 11087), (163, 11165), (164, 11171), (166, 11180), (167, 11186), (170, 11210), (173, 11222), (178, 11240), (188, 11303), (215, 11417), (221, 11429), (254, 11525), (261, 11564), (293, 11723), (302, 11774), (304, 11783), (307, 11795), (316, 11873), (328, 11987), (334, 12014), (349, 12098), (372, 12191), (375, 12209), (379, 12218), (388, 12284), (396, 12350), (415, 12446), (419, 12491), (420, 12506), (426, 12545), (436, 12614), (438, 12632), (439, 12635), (441, 12647), (444, 12674), (454, 12788), (455, 12800), (459, 12830), (471, 12938),

Gene: AnnaLie_17 Start: 10694, Stop: 13453, Start Num: 18

Candidate Starts for AnnaLie_17:

(Start: 18 @10694 has 60 MA's), (39, 10847), (42, 10853), (49, 10892), (71, 11078), (82, 11162), (87, 11180), (106, 11279), (116, 11351), (128, 11417), (130, 11429), (133, 11438), (136, 11453), (141, 11486), (144, 11495), (147, 11513), (163, 11573), (164, 11579), (166, 11588), (167, 11594), (170, 11618), (173, 11630), (188, 11711), (215, 11825), (221, 11837), (254, 11933), (261, 11972), (282, 12068), (287, 12092), (295, 12146), (302, 12182), (304, 12191), (307, 12203), (316, 12281), (328, 12395), (334, 12422), (349, 12506), (375, 12617), (379, 12626), (388, 12692), (396, 12758), (415, 12854), (419, 12899), (420, 12914), (426, 12953), (436, 13022), (438, 13040), (439, 13043), (441, 13055), (444, 13082), (454, 13196), (455, 13208), (459, 13238), (471, 13346),

Gene: Aoka_17 Start: 10956, Stop: 14201, Start Num: 11

Candidate Starts for Aoka_17:

(Start: 11 @10956 has 6 MA's), (16, 11001), (22, 11094), (53, 11316), (70, 11478), (73, 11502), (85, 11583), (92, 11625), (93, 11628), (95, 11637), (120, 11808), (123, 11838), (139, 11919), (146, 11955), (157, 11991), (159, 12000), (162, 12012), (230, 12306), (262, 12396), (282, 12474), (292, 12528), (297, 12552), (318, 12681), (341, 12813), (345, 12828), (347, 12846), (355, 12870), (365, 12900), (371, 12921), (403, 13113), (409, 13149), (461, 13593), (464, 13614), (476, 13749), (482, 13839), (496, 14001), (497, 14055), (508, 14145), (509, 14154),

Gene: Arroyo_17 Start: 10895, Stop: 13654, Start Num: 18

Candidate Starts for Arroyo_17:

(Start: 18 @10895 has 60 MA's), (39, 11048), (49, 11093), (71, 11279), (82, 11363), (87, 11381), (106, 11480), (116, 11552), (128, 11618), (130, 11630), (133, 11639), (136, 11654), (141, 11687), (144, 11696), (147, 11714), (163, 11774), (164, 11780), (166, 11789), (167, 11795), (170, 11819), (173, 11831), (180, 11861), (188, 11912), (215, 12026), (221, 12038), (254, 12134), (261, 12173), (282, 12269), (287, 12293), (295, 12347), (302, 12383), (304, 12392), (316, 12482), (328, 12596), (334, 12623), (349, 12707), (372, 12800), (375, 12818), (379, 12827), (396, 12959), (415, 13055), (419, 13100), (420, 13115), (426, 13154), (436, 13223), (438, 13241), (439, 13244), (441, 13256), (444, 13283), (454, 13397), (455, 13409), (459, 13439), (471, 13547),

Gene: AvGardian_16 Start: 10175, Stop: 12796, Start Num: 18

Candidate Starts for AvGardian_16:

(Start: 18 @10175 has 60 MA's), (39, 10328), (43, 10340), (49, 10373), (52, 10397), (64, 10469), (79, 10622), (87, 10661), (116, 10832), (130, 10910), (137, 10946), (141, 10967), (151, 11006), (166, 11069), (175, 11120), (178, 11129), (181, 11147), (188, 11192), (196, 11210), (254, 11279), (258, 11303), (270, 11351), (277, 11381), (284, 11420), (287, 11438), (299, 11507), (304, 11537), (307, 11549), (328, 11741), (329, 11744), (334, 11768), (349, 11852), (372, 11945), (375, 11963), (379, 11972), (384, 12005), (407, 12167), (411, 12185), (413, 12191), (416, 12209), (419, 12242), (420, 12257), (421, 12266), (422, 12269), (426, 12296), (432, 12344), (439, 12386), (441, 12398), (444, 12425), (455, 12551), (457, 12566), (459, 12581), (468, 12668), (474, 12710),

Gene: Avocadoman_16 Start: 10450, Stop: 13209, Start Num: 18

Candidate Starts for Avocadoman_16:

(Start: 18 @10450 has 60 MA's), (39, 10603), (42, 10609), (49, 10648), (71, 10834), (87, 10936), (116, 11107), (128, 11173), (130, 11185), (133, 11194), (136, 11209), (141, 11242), (144, 11251), (147, 11269), (163, 11329), (164, 11335), (166, 11344), (167, 11350), (170, 11374), (173, 11386), (178, 11404), (188, 11467), (215, 11581), (221, 11593), (229, 11620), (254, 11689), (261, 11728), (293, 11887), (302, 11938), (304, 11947), (307, 11959), (316, 12037), (328, 12151), (334, 12178), (349, 12262), (375, 12373), (379, 12382), (388, 12448), (396, 12514), (415, 12610), (419, 12655), (420, 12670), (426, 12709), (436, 12778), (438, 12796), (439, 12799), (441, 12811), (444, 12838), (454, 12952), (455, 12964), (459, 12994), (471, 13102),

Gene: AylexOG_17 Start: 10706, Stop: 13468, Start Num: 18

Candidate Starts for AylexOG_17:

(Start: 18 @10706 has 60 MA's), (39, 10859), (42, 10865), (48, 10895), (49, 10904), (52, 10928), (64, 11000), (87, 11192), (106, 11291), (116, 11363), (130, 11441), (133, 11450), (134, 11453), (141, 11498), (144, 11507), (164, 11591), (166, 11600), (167, 11606), (170, 11630), (173, 11642), (188, 11723), (211, 11810), (215, 11837), (220, 11846), (254, 11945), (282, 12080), (287, 12104), (295, 12158), (307, 12215), (316, 12293), (328, 12407), (334, 12434), (359, 12569), (373, 12629), (388, 12707), (392, 12728), (397, 12776), (415, 12869), (419, 12914), (420, 12929), (426, 12968), (436, 13037), (439, 13058), (441, 13070), (444, 13097), (455, 13223), (457, 13238), (459, 13253),

Gene: BAjuniper_16 Start: 10103, Stop: 12796, Start Num: 18

Candidate Starts for BAjuniper_16:

(Start: 18 @10103 has 60 MA's), (36, 10244), (52, 10322), (81, 10580), (83, 10583), (108, 10724), (112, 10769), (131, 10880), (137, 10910), (145, 10943), (149, 10955), (174, 11042), (188, 11087), (216, 11183), (245, 11237), (259, 11297), (261, 11309), (268, 11336), (269, 11339), (270, 11342), (275, 11363), (287, 11429), (302, 11519), (304, 11528), (307, 11540), (312, 11582), (320, 11636), (328, 11732), (329, 11735), (334, 11759), (339, 11783), (343, 11804), (344, 11807), (359, 11894), (373, 11954), (382, 11993), (384, 12005), (385, 12008), (388, 12038), (397, 12107), (401, 12131), (407, 12167), (409, 12179), (412, 12188), (419, 12251), (420, 12266), (426, 12305), (439, 12386), (441, 12398), (457, 12566), (459, 12581), (468, 12668),

Gene: BabyDaisy_17 Start: 10507, Stop: 13269, Start Num: 18

Candidate Starts for BabyDaisy_17:

(Start: 18 @10507 has 60 MA's), (39, 10660), (43, 10672), (52, 10729), (64, 10801), (79, 10954), (87, 10993), (116, 11164), (130, 11242), (134, 11254), (135, 11257), (141, 11299), (161, 11380), (166, 11401), (178, 11461), (181, 11479), (188, 11524), (196, 11542), (205, 11578), (215, 11638), (221, 11650), (229, 11677), (261, 11785), (281, 11869), (287, 11905), (302, 11995), (304, 12004), (307, 12016), (316, 12094), (328, 12208), (334, 12235), (348, 12310), (359, 12370), (373, 12430), (388, 12508), (392, 12529), (397, 12577), (415, 12670), (419, 12715), (420, 12730), (422, 12742), (426, 12769), (436, 12838), (439, 12859), (441, 12871), (444, 12898), (455, 13024), (457, 13039), (459, 13054), (473, 13180), (477, 13255),

Gene: BabyYoda_16 Start: 10507, Stop: 13137, Start Num: 18

Candidate Starts for BabyYoda_16:

(Start: 18 @10507 has 60 MA's), (28, 10567), (39, 10660), (42, 10666), (43, 10672), (49, 10705), (64, 10801), (79, 10954), (87, 10993), (99, 11053), (103, 11080), (116, 11164), (130, 11242), (135, 11257), (137, 11278), (141, 11299), (161, 11380), (166, 11401), (178, 11461), (181, 11479), (188, 11524), (191, 11530), (196, 11542), (259, 11638), (260, 11647), (261, 11650), (270, 11683), (275, 11704), (287, 11770), (328, 12073), (329, 12076), (334, 12100), (339, 12124), (359, 12235), (373, 12295), (388, 12379), (396, 12445), (398, 12457), (401, 12472), (409, 12520), (412, 12529), (413, 12532), (419, 12592), (420, 12607), (433, 12691), (441, 12739), (455, 12892), (457, 12907), (459, 12922), (468, 13009), (474, 13051),

Gene: Bachaco_15 Start: 9893, Stop: 12670, Start Num: 18

Candidate Starts for Bachaco_15:

(Start: 18 @9893 has 60 MA's), (22, 9926), (36, 10034), (52, 10112), (80, 10364), (81, 10370), (83, 10373), (108, 10514), (121, 10622), (127, 10646), (128, 10655), (148, 10754), (160, 10802), (174, 10874), (185, 10922), (186, 10925), (189, 10943), (193, 10952), (200, 10973), (259, 11171), (260, 11180), (261, 11183), (277, 11246), (304, 11402), (306, 11408), (307, 11414), (328, 11606), (334, 11633), (343, 11678), (359, 11768), (366, 11792), (370, 11810), (373, 11828), (385, 11882), (388, 11912), (397, 11981), (401, 12005), (412, 12062), (413, 12065), (419, 12125), (420, 12140), (439, 12260), (441, 12272), (444, 12299), (447, 12341), (455, 12425), (457, 12440), (458, 12443), (477, 12656),

Gene: BelmontSKP_17 Start: 10694, Stop: 13453, Start Num: 18

Candidate Starts for BelmontSKP_17:

(Start: 18 @10694 has 60 MA's), (39, 10847), (42, 10853), (49, 10892), (71, 11078), (82, 11162), (87, 11180), (106, 11279), (116, 11351), (128, 11417), (130, 11429), (133, 11438), (136, 11453), (141, 11486), (144, 11495), (147, 11513), (163, 11573), (164, 11579), (166, 11588), (167, 11594), (170, 11618), (173, 11630), (188, 11711), (215, 11825), (221, 11837), (254, 11933), (261, 11972), (282, 12068), (287, 12092), (295, 12146), (302, 12182), (304, 12191), (307, 12203), (316, 12281), (328, 12395), (334, 12422), (349, 12506), (375, 12617), (379, 12626), (388, 12692), (396, 12758), (415, 12854), (419, 12899), (420, 12914), (426, 12953), (436, 13022), (438, 13040), (439, 13043), (441, 13055), (444, 13082), (454, 13196), (455, 13208), (459, 13238), (471, 13346),

Gene: Bengal_16 Start: 10285, Stop: 13044, Start Num: 18

Candidate Starts for Bengal_16:

(Start: 18 @10285 has 60 MA's), (39, 10438), (42, 10444), (49, 10483), (71, 10669), (87, 10771), (116, 10942), (128, 11008), (130, 11020), (133, 11029), (136, 11044), (141, 11077), (144, 11086), (147, 11104), (163, 11164), (164, 11170), (166, 11179), (167, 11185), (170, 11209), (173, 11221), (178, 11239), (188, 11302), (215, 11416), (221, 11428), (229, 11455), (254, 11524), (261, 11563), (293, 11722), (302, 11773), (304, 11782), (307, 11794), (316, 11872), (328, 11986), (334, 12013), (349, 12097), (372, 12190), (375, 12208), (379, 12217), (388, 12283), (396, 12349), (415, 12445), (419, 12490), (420, 12505), (426, 12544), (436, 12613), (438, 12631), (439, 12634), (441, 12646), (444, 12673), (454, 12787), (455, 12799), (459, 12829), (471, 12937),

Gene: BrayBeast_16 Start: 9776, Stop: 13165, Start Num: 9

Candidate Starts for BrayBeast_16:

(Start: 9 @9776 has 4 MA's), (16, 9821), (33, 9983), (52, 10124), (53, 10136), (60, 10196), (67, 10268), (69, 10280), (72, 10316), (73, 10322), (77, 10364), (85, 10403), (93, 10448), (95, 10457), (138, 10736), (157, 10811), (182, 10931), (185, 10949), (187, 10964), (195, 10988), (199, 11006), (205, 11030), (208, 11042), (214, 11078), (223, 11111), (244, 11168), (250, 11192), (251, 11198), (256, 11213), (257, 11222), (259, 11234), (262, 11249), (267, 11267), (280, 11324), (303, 11459), (309, 11501), (310, 11510), (311, 11513), (315, 11543), (316, 11555), (324, 11612), (331, 11681), (332, 11687), (333, 11690), (338, 11711), (342, 11735), (345, 11747), (351, 11792), (354, 11804), (356, 11816), (387, 11942), (394, 12002), (401, 12056), (403, 12068), (428, 12287), (435, 12317), (437, 12344),

(441, 12365), (449, 12455), (463, 12566), (470, 12656), (475, 12701), (476, 12716), (479, 12767), (485, 12839), (489, 12899), (492, 12926), (495, 12950), (499, 13052), (500, 13058), (504, 13079), (510, 13109), (513, 13133), (514, 13142), (515, 13151), (516, 13154),

Gene: BubbaBear_16 Start: 10372, Stop: 13134, Start Num: 18

Candidate Starts for BubbaBear_16:

(Start: 18 @10372 has 60 MA's), (39, 10525), (49, 10570), (71, 10756), (87, 10858), (116, 11029), (128, 11095), (130, 11107), (133, 11116), (141, 11164), (144, 11173), (147, 11191), (164, 11257), (166, 11266), (167, 11272), (170, 11296), (173, 11308), (188, 11389), (211, 11476), (215, 11503), (220, 11512), (254, 11611), (287, 11770), (295, 11824), (307, 11881), (316, 11959), (328, 12073), (334, 12100), (343, 12145), (359, 12235), (368, 12268), (373, 12295), (388, 12373), (392, 12394), (397, 12442), (415, 12535), (419, 12580), (420, 12595), (426, 12634), (436, 12703), (438, 12721), (439, 12724), (441, 12736), (444, 12763), (455, 12889), (457, 12904), (459, 12919), (471, 13027),

Gene: Buldak_15 Start: 10073, Stop: 13042, Start Num: 4

Candidate Starts for Buldak_15:

(Start: 4 @10073 has 3 MA's), (14, 10148), (17, 10163), (26, 10271), (27, 10274), (35, 10340), (44, 10397), (46, 10409), (58, 10493), (63, 10544), (69, 10607), (70, 10625), (75, 10670), (76, 10679), (78, 10691), (93, 10772), (95, 10784), (98, 10799), (109, 10871), (119, 10946), (122, 10976), (124, 10988), (139, 11066), (143, 11087), (149, 11114), (158, 11150), (178, 11240), (183, 11273), (187, 11300), (207, 11366), (210, 11384), (218, 11423), (223, 11438), (255, 11534), (265, 11582), (285, 11678), (289, 11699), (294, 11729), (309, 11810), (320, 11882), (322, 11888), (328, 11978), (343, 12050), (359, 12140), (366, 12164), (373, 12200), (388, 12281), (390, 12290), (395, 12335), (410, 12425), (413, 12434), (419, 12494), (420, 12509), (426, 12548), (430, 12587), (441, 12650), (444, 12677), (453, 12776), (455, 12803), (462, 12848), (466, 12872),

Gene: Burritobowl_16 Start: 10453, Stop: 13212, Start Num: 18

Candidate Starts for Burritobowl_16:

(Start: 18 @10453 has 60 MA's), (39, 10606), (42, 10612), (49, 10651), (71, 10837), (82, 10921), (87, 10939), (106, 11038), (116, 11110), (128, 11176), (130, 11188), (133, 11197), (136, 11212), (141, 11245), (144, 11254), (147, 11272), (163, 11332), (164, 11338), (166, 11347), (167, 11353), (170, 11377), (173, 11389), (178, 11407), (188, 11470), (215, 11584), (221, 11596), (254, 11692), (261, 11731), (282, 11827), (287, 11851), (295, 11905), (302, 11941), (304, 11950), (307, 11962), (316, 12040), (328, 12154), (334, 12181), (349, 12265), (375, 12376), (379, 12385), (388, 12451), (396, 12517), (415, 12613), (419, 12658), (420, 12673), (426, 12712), (430, 12751), (436, 12781), (438, 12799), (439, 12802), (441, 12814), (444, 12841), (454, 12955), (455, 12967), (459, 12997), (471, 13105),

Gene: Cashington_16 Start: 10302, Stop: 13061, Start Num: 18

Candidate Starts for Cashington_16:

(Start: 18 @10302 has 60 MA's), (39, 10455), (42, 10461), (48, 10491), (49, 10500), (52, 10524), (64, 10596), (87, 10788), (106, 10887), (116, 10959), (130, 11037), (133, 11046), (134, 11049), (141, 11094), (144, 11103), (163, 11181), (164, 11187), (166, 11196), (167, 11202), (170, 11226), (173, 11238), (178, 11256), (188, 11319), (215, 11433), (221, 11445), (229, 11472), (254, 11541), (261, 11580), (293, 11739), (302, 11790), (304, 11799), (307, 11811), (316, 11889), (328, 12003), (334, 12030), (349, 12114), (375, 12225), (379, 12234), (388, 12300), (396, 12366), (415, 12462), (419, 12507), (420, 12522), (426, 12561), (436, 12630), (438, 12648), (439, 12651), (441, 12663), (444, 12690), (455, 12816), (457, 12831), (459, 12846),

Gene: Celaena_15 Start: 9829, Stop: 12606, Start Num: 18

Candidate Starts for Celaena_15:

(Start: 18 @9829 has 60 MA's), (22, 9862), (36, 9970), (52, 10048), (80, 10300), (81, 10306), (83, 10309), (108, 10450), (121, 10558), (127, 10582), (128, 10591), (148, 10690), (174, 10810), (185,

10858), (186, 10861), (189, 10879), (193, 10888), (200, 10909), (259, 11107), (260, 11116), (261, 11119), (277, 11182), (304, 11338), (306, 11344), (307, 11350), (328, 11542), (334, 11569), (343, 11614), (359, 11704), (366, 11728), (370, 11746), (373, 11764), (385, 11818), (388, 11848), (397, 11917), (401, 11941), (412, 11998), (413, 12001), (419, 12061), (420, 12076), (439, 12196), (441, 12208), (444, 12235), (447, 12277), (455, 12361), (457, 12376), (458, 12379), (477, 12592),

Gene: ChiliPepper_15 Start: 10180, Stop: 12810, Start Num: 18

Candidate Starts for ChiliPepper_15:

(Start: 18 @10180 has 60 MA's), (22, 10213), (28, 10240), (39, 10333), (43, 10345), (48, 10369), (52, 10402), (64, 10474), (79, 10627), (87, 10666), (116, 10837), (130, 10915), (134, 10927), (155, 11029), (166, 11074), (178, 11134), (188, 11197), (205, 11251), (259, 11311), (261, 11323), (269, 11353), (270, 11356), (275, 11377), (287, 11443), (306, 11548), (307, 11554), (316, 11632), (334, 11773), (339, 11797), (344, 11821), (359, 11908), (401, 12145), (407, 12181), (408, 12190), (416, 12223), (419, 12265), (420, 12280), (423, 12304), (441, 12412), (455, 12565), (457, 12580), (459, 12595),

Gene: CliffHanger_16 Start: 9935, Stop: 12646, Start Num: 18

Candidate Starts for CliffHanger_16:

(Start: 18 @9935 has 60 MA's), (22, 9968), (44, 10109), (45, 10115), (50, 10151), (52, 10163), (90, 10415), (91, 10421), (108, 10514), (114, 10565), (125, 10631), (165, 10793), (172, 10826), (181, 10862), (198, 10928), (201, 10937), (213, 11000), (222, 11033), (258, 11153), (267, 11189), (274, 11219), (292, 11321), (301, 11363), (303, 11375), (308, 11396), (309, 11408), (328, 11576), (359, 11738), (370, 11780), (373, 11798), (374, 11804), (382, 11834), (393, 11912), (396, 11945), (405, 11999), (406, 12005), (419, 12092), (420, 12107), (421, 12116), (426, 12146), (441, 12248), (444, 12275), (448, 12332), (453, 12374), (455, 12401), (472, 12548),

Gene: CocoCinnamon_20 Start: 11134, Stop: 14817, Start Num: 11

Candidate Starts for CocoCinnamon_20:

(Start: 11 @11134 has 6 MA's), (16, 11179), (19, 11257), (29, 11302), (51, 11473), (52, 11482), (55, 11512), (65, 11611), (66, 11614), (82, 11770), (84, 11776), (88, 11803), (93, 11863), (102, 11917), (111, 11992), (130, 12142), (134, 12154), (153, 12244), (159, 12265), (177, 12346), (182, 12376), (184, 12385), (217, 12520), (221, 12532), (224, 12541), (228, 12550), (259, 12649), (264, 12670), (310, 12898), (316, 12943), (326, 13039), (337, 13090), (339, 13105), (342, 13123), (345, 13135), (351, 13180), (352, 13183), (353, 13186), (356, 13204), (360, 13228), (361, 13294), (362, 13318), (363, 13321), (364, 13324), (365, 13342), (367, 13366), (376, 13462), (377, 13468), (378, 13480), (380, 13549), (381, 13570), (397, 13696), (399, 13714), (401, 13720), (403, 13732), (404, 13741), (417, 13813), (422, 13885), (424, 13903), (431, 13954), (437, 13993), (440, 14011), (443, 14038), (449, 14104), (463, 14215), (470, 14305), (476, 14365), (479, 14416), (484, 14470), (486, 14503), (492, 14575), (494, 14596), (499, 14701), (502, 14719), (504, 14728), (513, 14782), (514, 14791), (515, 14800), (516, 14803), (517, 14806),

Gene: CroZenni_16 Start: 10285, Stop: 13044, Start Num: 18

Candidate Starts for CroZenni_16:

(Start: 18 @10285 has 60 MA's), (39, 10438), (42, 10444), (49, 10483), (71, 10669), (82, 10753), (87, 10771), (106, 10870), (116, 10942), (128, 11008), (130, 11020), (133, 11029), (136, 11044), (141, 11077), (144, 11086), (147, 11104), (163, 11164), (164, 11170), (166, 11179), (167, 11185), (170, 11209), (173, 11221), (188, 11302), (215, 11416), (221, 11428), (254, 11524), (261, 11563), (282, 11659), (287, 11683), (295, 11737), (302, 11773), (304, 11782), (307, 11794), (316, 11872), (328, 11986), (334, 12013), (349, 12097), (375, 12208), (379, 12217), (388, 12283), (396, 12349), (415, 12445), (419, 12490), (420, 12505), (426, 12544), (436, 12613), (438, 12631), (439, 12634), (441, 12646), (444, 12673), (454, 12787), (455, 12799), (459, 12829), (471, 12937),

Gene: CupcakePrincess_16 Start: 10399, Stop: 13161, Start Num: 18

Candidate Starts for CupcakePrincess_16:

(Start: 18 @10399 has 60 MA's), (39, 10552), (42, 10558), (48, 10588), (49, 10597), (52, 10621), (64, 10693), (87, 10885), (106, 10984), (116, 11056), (130, 11134), (133, 11143), (134, 11146), (141, 11191), (144, 11200), (164, 11284), (166, 11293), (167, 11299), (169, 11311), (170, 11323), (173, 11335), (188, 11416), (211, 11503), (215, 11530), (220, 11539), (254, 11638), (261, 11677), (282, 11773), (287, 11797), (295, 11851), (307, 11908), (316, 11986), (328, 12100), (334, 12127), (359, 12262), (373, 12322), (388, 12400), (392, 12421), (397, 12469), (415, 12562), (419, 12607), (420, 12622), (426, 12661), (436, 12730), (438, 12748), (439, 12751), (441, 12763), (444, 12790), (455, 12916), (457, 12931), (459, 12946),

Gene: DickRichards_16 Start: 10780, Stop: 13539, Start Num: 18

Candidate Starts for DickRichards_16:

(Start: 18 @10780 has 60 MA's), (39, 10933), (42, 10939), (49, 10978), (71, 11164), (82, 11248), (87, 11266), (106, 11365), (116, 11437), (128, 11503), (130, 11515), (133, 11524), (136, 11539), (141, 11572), (144, 11581), (147, 11599), (163, 11659), (164, 11665), (166, 11674), (167, 11680), (170, 11704), (173, 11716), (180, 11746), (188, 11797), (215, 11911), (221, 11923), (254, 12019), (261, 12058), (282, 12154), (295, 12232), (302, 12268), (304, 12277), (307, 12289), (316, 12367), (328, 12481), (334, 12508), (349, 12592), (372, 12685), (375, 12703), (379, 12712), (388, 12778), (396, 12844), (415, 12940), (419, 12985), (420, 13000), (426, 13039), (436, 13108), (438, 13126), (439, 13129), (441, 13141), (444, 13168), (454, 13282), (455, 13294), (459, 13324), (471, 13432),

Gene: Didgeridoo_17 Start: 10509, Stop: 13271, Start Num: 18

Candidate Starts for Didgeridoo_17:

(Start: 18 @10509 has 60 MA's), (39, 10662), (43, 10674), (52, 10731), (64, 10803), (79, 10956), (87, 10995), (116, 11166), (130, 11244), (134, 11256), (135, 11259), (141, 11301), (161, 11382), (166, 11403), (178, 11463), (181, 11481), (188, 11526), (205, 11580), (215, 11640), (221, 11652), (229, 11679), (261, 11787), (281, 11871), (287, 11907), (302, 11997), (304, 12006), (307, 12018), (316, 12096), (328, 12210), (334, 12237), (348, 12312), (359, 12372), (373, 12432), (388, 12510), (392, 12531), (397, 12579), (415, 12672), (419, 12717), (420, 12732), (422, 12744), (426, 12771), (436, 12840), (439, 12861), (441, 12873), (444, 12900), (455, 13026), (457, 13041), (459, 13056), (473, 13182), (477, 13257),

Gene: DillyDally_15 Start: 9981, Stop: 13370, Start Num: 7

Candidate Starts for DillyDally_15:

(6, 9975), (7, 9981), (Start: 8 @9990 has 3 MA's), (Start: 11 @9993 has 6 MA's), (14, 10026), (19, 10110), (22, 10122), (62, 10413), (65, 10452), (68, 10476), (82, 10593), (88, 10626), (89, 10644), (93, 10668), (96, 10689), (97, 10692), (101, 10710), (107, 10752), (118, 10857), (126, 10911), (132, 10944), (144, 11004), (152, 11043), (156, 11058), (170, 11130), (171, 11133), (180, 11172), (197, 11241), (202, 11262), (219, 11340), (224, 11355), (246, 11409), (252, 11433), (267, 11499), (269, 11508), (271, 11517), (273, 11526), (278, 11544), (281, 11562), (288, 11598), (298, 11655), (311, 11742), (321, 11805), (324, 11841), (332, 11916), (342, 11964), (345, 11976), (354, 12033), (356, 12045), (383, 12147), (401, 12285), (404, 12306), (422, 12450), (424, 12468), (431, 12522), (439, 12567), (446, 12645), (452, 12705), (465, 12798), (467, 12822), (470, 12870), (475, 12915), (476, 12930), (479, 12981), (481, 13017), (483, 13029), (487, 13077), (488, 13089), (490, 13128), (491, 13131), (497, 13236), (501, 13296), (507, 13320), (511, 13344),

Gene: DirtyBubble_16 Start: 10465, Stop: 13095, Start Num: 18

Candidate Starts for DirtyBubble_16:

(Start: 18 @10465 has 60 MA's), (28, 10525), (39, 10618), (42, 10624), (43, 10630), (49, 10663), (64, 10759), (79, 10912), (87, 10951), (99, 11011), (103, 11038), (116, 11122), (130, 11200), (135, 11215), (137, 11236), (139, 11242), (151, 11296), (161, 11338), (166, 11359), (178, 11419), (181, 11437), (188, 11482), (196, 11500), (259, 11596), (260, 11605), (261, 11608), (270, 11641), (275, 11662), (287, 11728), (328, 12031), (329, 12034), (334, 12058), (339, 12082), (359, 12193), (373, 12253), (388, 12337), (396, 12403), (398, 12415), (401, 12430), (409, 12478), (412, 12487), (413, 12490),

(419, 12550), (420, 12565), (433, 12649), (441, 12697), (455, 12850), (457, 12865), (459, 12880), (468, 12967), (474, 13009),

Gene: Dismas_15 Start: 10180, Stop: 12810, Start Num: 18

Candidate Starts for Dismas_15:

(Start: 18 @10180 has 60 MA's), (22, 10213), (28, 10240), (39, 10333), (43, 10345), (48, 10369), (52, 10402), (64, 10474), (79, 10627), (87, 10666), (116, 10837), (130, 10915), (134, 10927), (155, 11029), (166, 11074), (178, 11134), (188, 11197), (205, 11251), (259, 11311), (261, 11323), (268, 11350), (269, 11353), (270, 11356), (275, 11377), (287, 11443), (306, 11548), (307, 11554), (316, 11632), (334, 11773), (339, 11797), (344, 11821), (359, 11908), (401, 12145), (407, 12181), (408, 12190), (416, 12223), (419, 12265), (420, 12280), (423, 12304), (441, 12412), (455, 12565), (457, 12580), (459, 12595),

Gene: Doobus_16 Start: 10637, Stop: 13396, Start Num: 18

Candidate Starts for Doobus_16:

(Start: 18 @10637 has 60 MA's), (39, 10790), (49, 10835), (67, 10976), (87, 11123), (116, 11294), (128, 11360), (130, 11372), (133, 11381), (141, 11429), (144, 11438), (163, 11516), (164, 11522), (166, 11531), (167, 11537), (170, 11561), (173, 11573), (178, 11591), (188, 11654), (215, 11768), (221, 11780), (254, 11876), (261, 11915), (293, 12074), (302, 12125), (304, 12134), (307, 12146), (316, 12224), (328, 12338), (334, 12365), (349, 12449), (372, 12542), (375, 12560), (379, 12569), (388, 12635), (396, 12701), (415, 12797), (419, 12842), (420, 12857), (426, 12896), (436, 12965), (438, 12983), (439, 12986), (441, 12998), (444, 13025), (454, 13139), (455, 13151), (459, 13181), (471, 13289),

Gene: Elva_17 Start: 10426, Stop: 13056, Start Num: 18

Candidate Starts for Elva_17:

(Start: 18 @10426 has 60 MA's), (28, 10486), (39, 10579), (43, 10591), (49, 10624), (64, 10720), (79, 10873), (87, 10912), (99, 10972), (116, 11083), (130, 11161), (133, 11170), (135, 11176), (137, 11197), (141, 11218), (151, 11257), (161, 11299), (166, 11320), (178, 11380), (188, 11443), (196, 11461), (205, 11497), (258, 11554), (261, 11569), (270, 11602), (284, 11671), (287, 11689), (299, 11758), (328, 11992), (334, 12019), (339, 12043), (359, 12154), (373, 12214), (388, 12298), (391, 12316), (396, 12364), (401, 12391), (412, 12448), (413, 12451), (419, 12511), (420, 12526), (433, 12610), (441, 12658), (455, 12811), (457, 12826), (459, 12841), (468, 12928), (474, 12970),

Gene: Eula_16 Start: 10360, Stop: 13122, Start Num: 18

Candidate Starts for Eula_16:

(Start: 18 @10360 has 60 MA's), (39, 10513), (48, 10549), (49, 10558), (67, 10699), (71, 10744), (82, 10828), (87, 10846), (116, 11017), (128, 11083), (130, 11095), (133, 11104), (141, 11152), (144, 11161), (164, 11245), (166, 11254), (167, 11260), (169, 11272), (170, 11284), (173, 11296), (188, 11377), (211, 11464), (215, 11491), (220, 11500), (254, 11599), (282, 11734), (287, 11758), (316, 11947), (328, 12061), (334, 12088), (359, 12223), (373, 12283), (388, 12361), (392, 12382), (397, 12430), (415, 12523), (419, 12568), (420, 12583), (426, 12622), (436, 12691), (438, 12709), (439, 12712), (441, 12724), (444, 12751), (455, 12877), (457, 12892), (459, 12907),

Gene: EvenBluerMoon_17 Start: 10991, Stop: 14236, Start Num: 11

Candidate Starts for EvenBluerMoon_17:

(Start: 11 @10991 has 6 MA's), (16, 11036), (22, 11129), (53, 11351), (69, 11495), (70, 11513), (73, 11537), (85, 11618), (92, 11660), (93, 11663), (95, 11672), (98, 11687), (120, 11843), (123, 11873), (139, 11954), (146, 11990), (157, 12026), (159, 12035), (162, 12047), (176, 12113), (188, 12182), (230, 12341), (262, 12431), (282, 12509), (292, 12563), (297, 12587), (317, 12713), (318, 12716), (341, 12848), (342, 12854), (345, 12863), (347, 12881), (355, 12905), (365, 12935), (371, 12956), (403, 13148), (409, 13184), (461, 13628), (464, 13649), (476, 13784), (482, 13874), (496, 14036), (497, 14090), (508, 14180), (509, 14189),

Gene: Finalfrontier_17 Start: 10873, Stop: 13635, Start Num: 18

Candidate Starts for Finalfrontier_17:

(Start: 18 @10873 has 60 MA's), (39, 11026), (42, 11032), (48, 11062), (49, 11071), (52, 11095), (64, 11167), (87, 11359), (106, 11458), (116, 11530), (130, 11608), (133, 11617), (134, 11620), (141, 11665), (144, 11674), (164, 11758), (166, 11767), (167, 11773), (169, 11785), (170, 11797), (173, 11809), (188, 11890), (211, 11977), (215, 12004), (220, 12013), (254, 12112), (261, 12151), (282, 12247), (287, 12271), (295, 12325), (307, 12382), (316, 12460), (328, 12574), (334, 12601), (348, 12676), (359, 12736), (373, 12796), (388, 12874), (392, 12895), (397, 12943), (415, 13036), (419, 13081), (420, 13096), (422, 13108), (426, 13135), (436, 13204), (439, 13225), (441, 13237), (444, 13264), (455, 13390), (457, 13405), (459, 13420), (473, 13546), (477, 13621),

Gene: FlameThrower_15 Start: 9717, Stop: 12494, Start Num: 18

Candidate Starts for FlameThrower_15:

(Start: 18 @9717 has 60 MA's), (22, 9750), (36, 9858), (52, 9936), (80, 10188), (81, 10194), (83, 10197), (108, 10338), (121, 10446), (127, 10470), (174, 10698), (185, 10746), (186, 10749), (189, 10767), (193, 10776), (200, 10797), (259, 10995), (260, 11004), (261, 11007), (277, 11070), (287, 11127), (304, 11226), (306, 11232), (307, 11238), (328, 11430), (334, 11457), (343, 11502), (359, 11592), (366, 11616), (370, 11634), (373, 11652), (385, 11706), (388, 11736), (397, 11805), (401, 11829), (412, 11886), (413, 11889), (419, 11949), (420, 11964), (439, 12084), (441, 12096), (444, 12123), (447, 12165), (455, 12249), (457, 12264), (458, 12267), (477, 12480),

Gene: Hereford_25 Start: 11115, Stop: 14360, Start Num: 11

Candidate Starts for Hereford_25:

(Start: 11 @11115 has 6 MA's), (16, 11160), (22, 11253), (53, 11475), (69, 11619), (70, 11637), (73, 11661), (85, 11742), (92, 11784), (93, 11787), (95, 11796), (120, 11967), (123, 11997), (139, 12078), (146, 12114), (157, 12150), (159, 12159), (162, 12171), (176, 12237), (188, 12306), (262, 12555), (282, 12633), (292, 12687), (297, 12711), (317, 12837), (318, 12840), (341, 12972), (345, 12987), (347, 13005), (355, 13029), (365, 13059), (371, 13080), (403, 13272), (409, 13308), (461, 13752), (464, 13773), (476, 13908), (482, 13998), (496, 14160), (497, 14214), (508, 14304), (509, 14313),

Gene: Icarian_17 Start: 10347, Stop: 12977, Start Num: 18

Candidate Starts for Icarian_17:

(Start: 18 @10347 has 60 MA's), (28, 10407), (39, 10500), (43, 10512), (49, 10545), (64, 10641), (79, 10794), (87, 10833), (116, 11004), (130, 11082), (135, 11097), (137, 11118), (139, 11124), (151, 11178), (166, 11241), (178, 11301), (188, 11364), (196, 11382), (205, 11418), (259, 11478), (260, 11487), (261, 11490), (270, 11523), (275, 11544), (287, 11610), (299, 11679), (328, 11913), (329, 11916), (334, 11940), (339, 11964), (359, 12075), (373, 12135), (388, 12219), (391, 12237), (396, 12285), (400, 12309), (401, 12312), (407, 12348), (412, 12369), (413, 12372), (419, 12432), (420, 12447), (439, 12567), (441, 12579), (455, 12732), (457, 12747), (459, 12762), (468, 12849), (474, 12891),

Gene: IndyLu_16 Start: 10331, Stop: 13093, Start Num: 18

Candidate Starts for IndyLu_16:

(Start: 18 @10331 has 60 MA's), (39, 10484), (43, 10496), (52, 10553), (64, 10625), (79, 10778), (87, 10817), (116, 10988), (130, 11066), (134, 11078), (135, 11081), (141, 11123), (161, 11204), (166, 11225), (178, 11285), (181, 11303), (188, 11348), (196, 11366), (205, 11402), (215, 11462), (221, 11474), (229, 11501), (261, 11609), (281, 11693), (287, 11729), (302, 11819), (316, 11918), (328, 12032), (334, 12059), (348, 12134), (359, 12194), (373, 12254), (388, 12332), (392, 12353), (397, 12401), (415, 12494), (419, 12539), (420, 12554), (422, 12566), (426, 12593), (436, 12662), (439, 12683), (441, 12695), (444, 12722), (455, 12848), (457, 12863), (459, 12878), (473, 13004), (477, 13079),

Gene: Jabb_16 Start: 10399, Stop: 13161, Start Num: 18

Candidate Starts for Jabb_16:

(Start: 18 @10399 has 60 MA's), (39, 10552), (42, 10558), (48, 10588), (49, 10597), (52, 10621), (64, 10693), (87, 10885), (106, 10984), (116, 11056), (130, 11134), (133, 11143), (134, 11146), (141, 11191), (144, 11200), (164, 11284), (166, 11293), (167, 11299), (169, 11311), (170, 11323), (173, 11335), (188, 11416), (211, 11503), (215, 11530), (220, 11539), (254, 11638), (261, 11677), (282, 11773), (287, 11797), (295, 11851), (307, 11908), (316, 11986), (328, 12100), (334, 12127), (359, 12262), (373, 12322), (388, 12400), (392, 12421), (397, 12469), (415, 12562), (419, 12607), (420, 12622), (426, 12661), (436, 12730), (438, 12748), (439, 12751), (441, 12763), (444, 12790), (455, 12916), (457, 12931), (459, 12946),

Gene: JanetJ_17 Start: 10770, Stop: 14018, Start Num: 10

Candidate Starts for JanetJ_17:

(Start: 10 @10770 has 1 MA's), (16, 10815), (22, 10908), (53, 11130), (70, 11292), (77, 11358), (85, 11397), (93, 11442), (95, 11451), (120, 11622), (123, 11652), (139, 11733), (146, 11769), (157, 11805), (159, 11814), (176, 11892), (258, 12192), (262, 12210), (282, 12288), (292, 12342), (297, 12366), (318, 12495), (321, 12510), (341, 12627), (347, 12660), (371, 12735), (409, 12963), (482, 13650), (496, 13812), (505, 13938), (508, 13950), (509, 13959),

Gene: JeanClaude_16 Start: 9728, Stop: 13072, Start Num: 16

Candidate Starts for JeanClaude_16:

(Start: 9 @9683 has 4 MA's), (16, 9728), (33, 9890), (52, 10031), (53, 10043), (60, 10103), (69, 10187), (72, 10223), (73, 10229), (77, 10271), (85, 10310), (93, 10355), (95, 10364), (138, 10643), (146, 10682), (157, 10718), (182, 10838), (185, 10856), (187, 10871), (195, 10895), (199, 10913), (205, 10937), (208, 10949), (214, 10985), (221, 11012), (223, 11018), (227, 11030), (244, 11075), (247, 11087), (250, 11099), (251, 11105), (256, 11120), (257, 11129), (259, 11141), (262, 11156), (267, 11174), (280, 11231), (303, 11366), (309, 11408), (310, 11417), (311, 11420), (313, 11432), (315, 11450), (316, 11462), (321, 11483), (324, 11519), (331, 11588), (332, 11594), (338, 11618), (342, 11642), (345, 11654), (350, 11696), (354, 11711), (356, 11723), (387, 11849), (394, 11909), (401, 11963), (403, 11975), (428, 12194), (435, 12224), (437, 12251), (441, 12272), (449, 12362), (452, 12398), (463, 12473), (470, 12563), (475, 12608), (476, 12623), (479, 12674), (485, 12746), (492, 12833), (495, 12857), (498, 12923), (499, 12959), (500, 12965), (504, 12986), (510, 13016), (513, 13040), (514, 13049), (515, 13058), (516, 13061),

Gene: Johnathan_16 Start: 10389, Stop: 13148, Start Num: 18

Candidate Starts for Johnathan_16:

(3, 10236), (13, 10317), (Start: 18 @10389 has 60 MA's), (39, 10542), (42, 10548), (49, 10587), (71, 10773), (87, 10875), (116, 11046), (128, 11112), (130, 11124), (133, 11133), (136, 11148), (141, 11181), (144, 11190), (147, 11208), (163, 11268), (164, 11274), (166, 11283), (167, 11289), (170, 11313), (173, 11325), (178, 11343), (188, 11406), (215, 11520), (221, 11532), (254, 11628), (261, 11667), (293, 11826), (302, 11877), (304, 11886), (307, 11898), (316, 11976), (328, 12090), (334, 12117), (349, 12201), (372, 12294), (375, 12312), (379, 12321), (388, 12387), (396, 12453), (415, 12549), (419, 12594), (420, 12609), (426, 12648), (436, 12717), (438, 12735), (439, 12738), (441, 12750), (444, 12777), (454, 12891), (455, 12903), (459, 12933), (471, 13041),

Gene: Jovita_16 Start: 10461, Stop: 13223, Start Num: 18

Candidate Starts for Jovita_16:

(Start: 18 @10461 has 60 MA's), (39, 10614), (42, 10620), (49, 10659), (52, 10683), (64, 10755), (87, 10947), (106, 11046), (116, 11118), (130, 11196), (133, 11205), (134, 11208), (141, 11253), (144, 11262), (164, 11346), (166, 11355), (167, 11361), (169, 11373), (170, 11385), (173, 11397), (188, 11478), (211, 11565), (215, 11592), (220, 11601), (254, 11700), (261, 11739), (282, 11835), (287, 11859), (295, 11913), (302, 11949), (304, 11958), (307, 11970), (328, 12162), (334, 12189), (359, 12324), (373, 12384), (388, 12462), (415, 12624), (419, 12669), (420, 12684), (426, 12723), (436,

12792), (438, 12810), (439, 12813), (441, 12825), (444, 12852), (455, 12978), (457, 12993), (459, 13008),

Gene: Kamdara_15 Start: 10179, Stop: 12809, Start Num: 18

Candidate Starts for Kamdara_15:

(Start: 18 @10179 has 60 MA's), (22, 10212), (28, 10239), (39, 10332), (43, 10344), (48, 10368), (52, 10401), (64, 10473), (79, 10626), (87, 10665), (116, 10836), (130, 10914), (134, 10926), (155, 11028), (166, 11073), (178, 11133), (188, 11196), (205, 11250), (259, 11310), (261, 11322), (269, 11352), (270, 11355), (275, 11376), (287, 11442), (306, 11547), (307, 11553), (316, 11631), (334, 11772), (339, 11796), (344, 11820), (359, 11907), (401, 12144), (407, 12180), (408, 12189), (416, 12222), (419, 12264), (420, 12279), (423, 12303), (441, 12411), (455, 12564), (457, 12579), (459, 12594),

Gene: Kate33_16 Start: 10330, Stop: 13092, Start Num: 18

Candidate Starts for Kate33_16:

(Start: 18 @10330 has 60 MA's), (39, 10483), (43, 10495), (52, 10552), (64, 10624), (79, 10777), (87, 10816), (116, 10987), (130, 11065), (134, 11077), (135, 11080), (141, 11122), (161, 11203), (166, 11224), (178, 11284), (181, 11302), (188, 11347), (196, 11365), (205, 11401), (215, 11461), (221, 11473), (229, 11500), (261, 11608), (281, 11692), (287, 11728), (302, 11818), (316, 11917), (328, 12031), (334, 12058), (348, 12133), (359, 12193), (373, 12253), (388, 12331), (392, 12352), (397, 12400), (415, 12493), (419, 12538), (420, 12553), (422, 12565), (426, 12592), (436, 12661), (439, 12682), (441, 12694), (444, 12721), (455, 12847), (457, 12862), (459, 12877), (473, 13003), (477, 13078),

Gene: Katzastrophic_15 Start: 9892, Stop: 12669, Start Num: 18

Candidate Starts for Katzastrophic_15:

(Start: 18 @9892 has 60 MA's), (22, 9925), (36, 10033), (52, 10111), (80, 10363), (81, 10369), (83, 10372), (108, 10513), (121, 10621), (127, 10645), (128, 10654), (148, 10753), (174, 10873), (185, 10921), (186, 10924), (189, 10942), (193, 10951), (200, 10972), (259, 11170), (260, 11179), (261, 11182), (277, 11245), (287, 11302), (304, 11401), (306, 11407), (307, 11413), (328, 11605), (334, 11632), (343, 11677), (359, 11767), (366, 11791), (370, 11809), (373, 11827), (385, 11881), (388, 11911), (397, 11980), (401, 12004), (412, 12061), (413, 12064), (419, 12124), (420, 12139), (439, 12259), (441, 12271), (444, 12298), (447, 12340), (455, 12424), (457, 12439), (458, 12442), (477, 12655),

Gene: Kenzers_16 Start: 10373, Stop: 13135, Start Num: 18

Candidate Starts for Kenzers_16:

(Start: 18 @10373 has 60 MA's), (39, 10526), (49, 10571), (71, 10757), (87, 10859), (116, 11030), (128, 11096), (130, 11108), (133, 11117), (141, 11165), (144, 11174), (147, 11192), (164, 11258), (166, 11267), (167, 11273), (170, 11297), (173, 11309), (188, 11390), (221, 11516), (254, 11612), (261, 11651), (287, 11771), (307, 11882), (309, 11906), (328, 12074), (334, 12101), (359, 12236), (366, 12260), (373, 12296), (387, 12365), (396, 12443), (413, 12530), (415, 12539), (419, 12590), (420, 12605), (423, 12629), (439, 12725), (441, 12737), (455, 12890), (459, 12920), (471, 13028),

Gene: Kieran_15 Start: 10183, Stop: 12813, Start Num: 18

Candidate Starts for Kieran_15:

(Start: 18 @10183 has 60 MA's), (22, 10216), (28, 10243), (39, 10336), (43, 10348), (48, 10372), (52, 10405), (64, 10477), (79, 10630), (87, 10669), (116, 10840), (130, 10918), (134, 10930), (155, 11032), (166, 11077), (178, 11137), (181, 11155), (188, 11200), (205, 11254), (259, 11314), (261, 11326), (268, 11353), (269, 11356), (270, 11359), (275, 11380), (282, 11422), (287, 11446), (306, 11551), (316, 11635), (334, 11776), (339, 11800), (344, 11824), (359, 11911), (401, 12148), (407, 12184), (408, 12193), (416, 12226), (419, 12268), (420, 12283), (423, 12307), (441, 12415), (455, 12568), (457, 12583), (459, 12598),

Gene: Kumotta_17 Start: 10633, Stop: 14061, Start Num: 11

Candidate Starts for Kumotta_17:

(Start: 8 @10630 has 3 MA's), (Start: 11 @10633 has 6 MA's), (15, 10669), (16, 10678), (29, 10801), (31, 10822), (34, 10852), (38, 10906), (46, 10939), (51, 10972), (52, 10981), (55, 11011), (63, 11074), (65, 11110), (75, 11215), (82, 11269), (84, 11275), (85, 11278), (88, 11302), (93, 11362), (100, 11401), (102, 11416), (110, 11473), (111, 11491), (115, 11545), (130, 11641), (142, 11701), (150, 11731), (200, 11950), (211, 12004), (229, 12073), (248, 12127), (266, 12202), (269, 12214), (271, 12223), (273, 12232), (278, 12250), (286, 12292), (288, 12304), (296, 12352), (299, 12364), (305, 12403), (307, 12412), (314, 12469), (332, 12622), (340, 12658), (352, 12730), (357, 12754), (383, 12853), (387, 12877), (394, 12937), (401, 12991), (402, 13000), (403, 13003), (414, 13057), (418, 13090), (422, 13156), (424, 13174), (427, 13207), (429, 13216), (431, 13225), (435, 13237), (450, 13375), (456, 13441), (460, 13462), (463, 13477), (464, 13492), (465, 13495), (469, 13564), (470, 13567), (478, 13663), (481, 13711), (493, 13858), (495, 13867), (496, 13870), (503, 13987), (506, 14005), (512, 14038),

Gene: Lahqtemish_16 Start: 10376, Stop: 13138, Start Num: 18

Candidate Starts for Lahqtemish_16:

(Start: 18 @10376 has 60 MA's), (39, 10529), (43, 10541), (52, 10598), (64, 10670), (79, 10823), (87, 10862), (116, 11033), (130, 11111), (135, 11126), (141, 11168), (161, 11249), (166, 11270), (178, 11330), (181, 11348), (188, 11393), (192, 11402), (215, 11507), (221, 11519), (229, 11546), (261, 11654), (281, 11738), (287, 11774), (302, 11864), (304, 11873), (307, 11885), (316, 11963), (328, 12077), (334, 12104), (343, 12149), (359, 12239), (368, 12272), (373, 12299), (388, 12377), (392, 12398), (397, 12446), (415, 12539), (419, 12584), (420, 12599), (422, 12611), (426, 12638), (439, 12728), (441, 12740), (444, 12767), (455, 12893), (457, 12908), (459, 12923), (466, 12962), (474, 13052),

Gene: Lilo27_16 Start: 10336, Stop: 13095, Start Num: 18

Candidate Starts for Lilo27_16:

(Start: 18 @10336 has 60 MA's), (39, 10489), (42, 10495), (49, 10534), (52, 10558), (64, 10630), (87, 10822), (99, 10882), (106, 10921), (116, 10993), (130, 11071), (133, 11080), (134, 11083), (141, 11128), (144, 11137), (164, 11221), (166, 11230), (167, 11236), (169, 11248), (170, 11260), (173, 11272), (188, 11353), (211, 11440), (220, 11476), (254, 11575), (287, 11734), (302, 11824), (304, 11833), (307, 11845), (316, 11923), (328, 12037), (334, 12064), (349, 12148), (375, 12259), (379, 12268), (388, 12334), (413, 12487), (415, 12496), (419, 12541), (420, 12556), (426, 12595), (436, 12664), (438, 12682), (439, 12685), (441, 12697), (444, 12724), (454, 12838), (455, 12850), (459, 12880),

Gene: LimaBean_16 Start: 10388, Stop: 13147, Start Num: 18

Candidate Starts for LimaBean_16:

(Start: 18 @10388 has 60 MA's), (39, 10541), (42, 10547), (49, 10586), (71, 10772), (87, 10874), (116, 11045), (128, 11111), (130, 11123), (133, 11132), (136, 11147), (141, 11180), (144, 11189), (147, 11207), (163, 11267), (164, 11273), (166, 11282), (167, 11288), (170, 11312), (173, 11324), (178, 11342), (188, 11405), (215, 11519), (221, 11531), (229, 11558), (254, 11627), (261, 11666), (293, 11825), (302, 11876), (304, 11885), (316, 11975), (328, 12089), (334, 12116), (349, 12200), (372, 12293), (375, 12311), (379, 12320), (388, 12386), (396, 12452), (415, 12548), (419, 12593), (420, 12608), (426, 12647), (436, 12716), (438, 12734), (439, 12737), (441, 12749), (444, 12776), (454, 12890), (455, 12902), (459, 12932), (471, 13040),

Gene: Loviatar_16 Start: 10435, Stop: 13065, Start Num: 18

Candidate Starts for Loviatar_16:

(Start: 18 @10435 has 60 MA's), (28, 10495), (39, 10588), (48, 10624), (49, 10633), (64, 10729), (79, 10882), (87, 10921), (116, 11092), (122, 11128), (129, 11161), (134, 11182), (136, 11194), (139, 11212), (144, 11236), (156, 11287), (163, 11314), (164, 11320), (166, 11329), (169, 11347), (181,

11407), (188, 11452), (254, 11539), (259, 11566), (260, 11575), (277, 11641), (287, 11698), (328, 12001), (329, 12004), (334, 12028), (339, 12052), (359, 12163), (373, 12223), (388, 12307), (396, 12373), (398, 12385), (401, 12400), (409, 12448), (412, 12457), (413, 12460), (419, 12520), (420, 12535), (433, 12619), (441, 12667), (455, 12820), (457, 12835), (459, 12850), (468, 12937), (474, 12979),

Gene: Lynlen_16 Start: 10373, Stop: 13135, Start Num: 18

Candidate Starts for Lynlen_16:

(Start: 18 @10373 has 60 MA's), (39, 10526), (49, 10571), (71, 10757), (87, 10859), (116, 11030), (128, 11096), (130, 11108), (133, 11117), (141, 11165), (144, 11174), (147, 11192), (164, 11258), (166, 11267), (167, 11273), (170, 11297), (173, 11309), (188, 11390), (221, 11516), (254, 11612), (261, 11651), (287, 11771), (307, 11882), (309, 11906), (328, 12074), (334, 12101), (359, 12236), (366, 12260), (373, 12296), (387, 12365), (396, 12443), (413, 12530), (415, 12539), (419, 12590), (420, 12605), (423, 12629), (439, 12725), (441, 12737), (455, 12890), (459, 12920), (471, 13028),

Gene: Maja_16 Start: 10263, Stop: 13793, Start Num: 9

Candidate Starts for Maja_16:

(Start: 9 @10263 has 4 MA's), (16, 10308), (32, 10461), (52, 10611), (53, 10623), (54, 10629), (58, 10653), (60, 10683), (61, 10698), (63, 10704), (67, 10755), (70, 10785), (73, 10809), (77, 10851), (85, 10890), (93, 10935), (95, 10944), (105, 11007), (113, 11076), (123, 11145), (141, 11241), (157, 11298), (162, 11319), (163, 11322), (182, 11418), (199, 11493), (204, 11514), (220, 11589), (224, 11601), (226, 11619), (234, 11703), (235, 11712), (239, 11751), (241, 11766), (242, 11775), (249, 11829), (253, 11844), (256, 11853), (257, 11862), (259, 11874), (262, 11889), (270, 11919), (271, 11925), (280, 11964), (286, 12003), (300, 12081), (304, 12105), (309, 12141), (310, 12150), (311, 12153), (313, 12165), (315, 12183), (316, 12195), (321, 12216), (323, 12243), (324, 12252), (325, 12276), (326, 12291), (332, 12327), (336, 12339), (338, 12351), (345, 12387), (354, 12444), (387, 12582), (404, 12717), (417, 12789), (422, 12861), (424, 12879), (431, 12930), (437, 12969), (440, 12987), (441, 12990), (446, 13056), (449, 13080), (463, 13191), (470, 13281), (476, 13341), (492, 13551), (494, 13572), (499, 13677), (502, 13695), (504, 13704), (513, 13758), (514, 13767), (515, 13776), (516, 13779), (517, 13782),

Gene: MargaretKali_17 Start: 10265, Stop: 13696, Start Num: 8

Candidate Starts for MargaretKali_17:

(Start: 8 @10265 has 3 MA's), (Start: 11 @10268 has 6 MA's), (15, 10304), (16, 10313), (29, 10436), (31, 10457), (34, 10487), (38, 10541), (46, 10574), (51, 10607), (52, 10616), (55, 10646), (63, 10709), (65, 10745), (75, 10850), (82, 10904), (84, 10910), (85, 10913), (88, 10937), (93, 10997), (100, 11036), (102, 11051), (110, 11108), (111, 11126), (115, 11180), (130, 11276), (142, 11336), (150, 11366), (200, 11585), (211, 11639), (229, 11708), (248, 11762), (266, 11837), (269, 11849), (271, 11858), (273, 11867), (278, 11885), (286, 11927), (288, 11939), (296, 11987), (299, 11999), (305, 12038), (307, 12047), (314, 12104), (332, 12257), (340, 12293), (352, 12365), (357, 12389), (383, 12488), (387, 12512), (394, 12572), (401, 12626), (402, 12635), (403, 12638), (414, 12692), (418, 12725), (422, 12791), (424, 12809), (427, 12842), (429, 12851), (431, 12860), (435, 12872), (450, 13010), (456, 13076), (460, 13097), (463, 13112), (464, 13127), (465, 13130), (469, 13199), (470, 13202), (478, 13298), (481, 13346), (493, 13493), (495, 13502), (496, 13505), (503, 13622), (506, 13640), (512, 13673),

Gene: Milomuff_18 Start: 10774, Stop: 13533, Start Num: 18

Candidate Starts for Milomuff_18:

(Start: 18 @10774 has 60 MA's), (39, 10927), (42, 10933), (49, 10972), (71, 11158), (87, 11260), (116, 11431), (128, 11497), (130, 11509), (133, 11518), (136, 11533), (141, 11566), (144, 11575), (147, 11593), (163, 11653), (164, 11659), (166, 11668), (167, 11674), (170, 11698), (173, 11710), (178, 11728), (188, 11791), (215, 11905), (221, 11917), (254, 12013), (261, 12052), (293, 12211), (302, 12262), (304, 12271), (307, 12283), (316, 12361), (328, 12475), (334, 12502), (349, 12586), (372,

12679), (375, 12697), (379, 12706), (388, 12772), (396, 12838), (415, 12934), (419, 12979), (420, 12994), (426, 13033), (436, 13102), (438, 13120), (439, 13123), (441, 13135), (444, 13162), (454, 13276), (455, 13288), (458, 13306), (459, 13318), (471, 13426),

Gene: MsUbiquitous_16 Start: 10399, Stop: 13161, Start Num: 18

Candidate Starts for MsUbiquitous_16:

(Start: 18 @10399 has 60 MA's), (39, 10552), (42, 10558), (48, 10588), (49, 10597), (52, 10621), (64, 10693), (87, 10885), (106, 10984), (116, 11056), (130, 11134), (133, 11143), (134, 11146), (141, 11191), (144, 11200), (164, 11284), (166, 11293), (167, 11299), (169, 11311), (170, 11323), (173, 11335), (188, 11416), (211, 11503), (215, 11530), (220, 11539), (254, 11638), (261, 11677), (282, 11773), (287, 11797), (295, 11851), (307, 11908), (316, 11986), (328, 12100), (334, 12127), (359, 12262), (373, 12322), (388, 12400), (392, 12421), (397, 12469), (415, 12562), (419, 12607), (420, 12622), (426, 12661), (436, 12730), (438, 12748), (439, 12751), (441, 12763), (444, 12790), (455, 12916), (457, 12931), (459, 12946),

Gene: Nicky22_17 Start: 10807, Stop: 13566, Start Num: 18

Candidate Starts for Nicky22_17:

(Start: 18 @10807 has 60 MA's), (39, 10960), (42, 10966), (49, 11005), (52, 11029), (64, 11101), (87, 11293), (99, 11353), (106, 11392), (116, 11464), (130, 11542), (133, 11551), (134, 11554), (141, 11599), (144, 11608), (164, 11692), (166, 11701), (167, 11707), (169, 11719), (170, 11731), (173, 11743), (188, 11824), (211, 11911), (220, 11947), (254, 12046), (287, 12205), (302, 12295), (304, 12304), (307, 12316), (316, 12394), (328, 12508), (334, 12535), (349, 12619), (372, 12712), (375, 12730), (379, 12739), (388, 12805), (413, 12958), (415, 12967), (419, 13012), (420, 13027), (426, 13066), (436, 13135), (438, 13153), (439, 13156), (441, 13168), (444, 13195), (455, 13321), (459, 13351),

Gene: NoSwimming_18 Start: 11925, Stop: 15167, Start Num: 8

Candidate Starts for NoSwimming_18:

(Start: 8 @11925 has 3 MA's), (16, 11970), (22, 12063), (25, 12081), (30, 12102), (40, 12201), (54, 12291), (70, 12447), (72, 12465), (73, 12471), (77, 12513), (85, 12552), (86, 12555), (93, 12597), (95, 12606), (119, 12768), (122, 12798), (139, 12888), (146, 12924), (157, 12960), (159, 12969), (176, 13047), (177, 13050), (179, 13059), (188, 13116), (208, 13182), (210, 13197), (264, 13371), (272, 13398), (282, 13443), (290, 13482), (297, 13521), (318, 13650), (321, 13665), (325, 13725), (337, 13764), (341, 13782), (347, 13815), (356, 13848), (358, 13857), (365, 13869), (399, 14064), (401, 14070), (403, 14082), (409, 14118), (446, 14430), (463, 14565), (470, 14655), (482, 14805), (493, 14955), (497, 15021), (505, 15093), (508, 15105),

Gene: Olliecat_15 Start: 10032, Stop: 13001, Start Num: 4

Candidate Starts for Olliecat_15:

(Start: 4 @10032 has 3 MA's), (14, 10107), (17, 10122), (26, 10230), (44, 10356), (46, 10368), (51, 10401), (67, 10554), (69, 10566), (70, 10584), (72, 10602), (75, 10629), (76, 10638), (78, 10650), (93, 10731), (95, 10743), (98, 10758), (105, 10806), (109, 10830), (113, 10875), (119, 10905), (122, 10935), (124, 10947), (139, 11025), (143, 11046), (152, 11085), (158, 11109), (174, 11190), (176, 11196), (187, 11259), (207, 11325), (210, 11343), (213, 11361), (218, 11382), (265, 11541), (285, 11637), (289, 11658), (322, 11847), (328, 11937), (343, 12009), (359, 12099), (366, 12123), (370, 12141), (373, 12159), (386, 12216), (388, 12240), (390, 12249), (410, 12384), (413, 12393), (419, 12453), (420, 12468), (421, 12477), (426, 12507), (430, 12546), (441, 12609), (444, 12636), (453, 12735), (455, 12762), (457, 12777), (465, 12828), (466, 12831),

Gene: PastaFagioli_16 Start: 10364, Stop: 13126, Start Num: 18

Candidate Starts for PastaFagioli_16:

(Start: 18 @10364 has 60 MA's), (39, 10517), (43, 10529), (52, 10586), (64, 10658), (79, 10811), (87, 10850), (116, 11021), (130, 11099), (134, 11111), (135, 11114), (141, 11156), (161, 11237), (166,

11258), (178, 11318), (181, 11336), (188, 11381), (192, 11390), (215, 11495), (221, 11507), (229, 11534), (261, 11642), (281, 11726), (287, 11762), (302, 11852), (307, 11873), (316, 11951), (328, 12065), (334, 12092), (343, 12137), (359, 12227), (368, 12260), (373, 12287), (388, 12365), (392, 12386), (397, 12434), (415, 12527), (419, 12572), (420, 12587), (422, 12599), (426, 12626), (439, 12716), (441, 12728), (444, 12755), (455, 12881), (457, 12896), (459, 12911), (466, 12950), (474, 13040),

Gene: Pecas_16 Start: 10360, Stop: 13122, Start Num: 18

Candidate Starts for Pecas_16:

(Start: 18 @10360 has 60 MA's), (39, 10513), (48, 10549), (49, 10558), (67, 10699), (71, 10744), (82, 10828), (87, 10846), (116, 11017), (128, 11083), (130, 11095), (133, 11104), (141, 11152), (144, 11161), (164, 11245), (166, 11254), (167, 11260), (169, 11272), (170, 11284), (173, 11296), (188, 11377), (211, 11464), (215, 11491), (220, 11500), (254, 11599), (282, 11734), (287, 11758), (316, 11947), (328, 12061), (334, 12088), (359, 12223), (373, 12283), (388, 12361), (392, 12382), (397, 12430), (415, 12523), (419, 12568), (420, 12583), (426, 12622), (436, 12691), (438, 12709), (439, 12712), (441, 12724), (444, 12751), (455, 12877), (457, 12892), (459, 12907),

Gene: PhigPhack_17 Start: 10362, Stop: 13121, Start Num: 18

Candidate Starts for PhigPhack_17:

(Start: 18 @10362 has 60 MA's), (39, 10515), (42, 10521), (49, 10560), (71, 10746), (82, 10830), (87, 10848), (106, 10947), (116, 11019), (128, 11085), (130, 11097), (133, 11106), (136, 11121), (141, 11154), (144, 11163), (147, 11181), (163, 11241), (164, 11247), (166, 11256), (167, 11262), (170, 11286), (173, 11298), (180, 11328), (188, 11379), (215, 11493), (221, 11505), (254, 11601), (261, 11640), (282, 11736), (287, 11760), (295, 11814), (302, 11850), (304, 11859), (307, 11871), (316, 11949), (328, 12063), (334, 12090), (349, 12174), (372, 12267), (375, 12285), (379, 12294), (388, 12360), (396, 12426), (415, 12522), (419, 12567), (420, 12582), (426, 12621), (436, 12690), (438, 12708), (439, 12711), (441, 12723), (444, 12750), (454, 12864), (455, 12876), (459, 12906), (471, 13014),

Gene: Phisb_16 Start: 10373, Stop: 13135, Start Num: 18

Candidate Starts for Phisb_16:

(Start: 18 @10373 has 60 MA's), (39, 10526), (49, 10571), (71, 10757), (87, 10859), (116, 11030), (128, 11096), (130, 11108), (133, 11117), (141, 11165), (144, 11174), (147, 11192), (164, 11258), (166, 11267), (167, 11273), (170, 11297), (173, 11309), (188, 11390), (211, 11477), (215, 11504), (220, 11513), (254, 11612), (287, 11771), (295, 11825), (307, 11882), (316, 11960), (328, 12074), (334, 12101), (343, 12146), (359, 12236), (368, 12269), (373, 12296), (388, 12374), (392, 12395), (397, 12443), (415, 12536), (419, 12581), (420, 12596), (426, 12635), (436, 12704), (438, 12722), (439, 12725), (441, 12737), (444, 12764), (455, 12890), (457, 12905), (459, 12920),

Gene: Pigu_16 Start: 9334, Stop: 12879, Start Num: 9

Candidate Starts for Pigu_16:

(Start: 9 @9334 has 4 MA's), (12, 9346), (16, 9379), (23, 9481), (24, 9487), (37, 9598), (41, 9616), (46, 9640), (52, 9682), (53, 9694), (56, 9715), (61, 9769), (70, 9856), (73, 9880), (74, 9889), (77, 9922), (85, 9961), (93, 10006), (95, 10015), (105, 10078), (113, 10147), (123, 10216), (143, 10318), (157, 10369), (163, 10393), (177, 10459), (191, 10531), (207, 10597), (212, 10630), (216, 10648), (223, 10669), (225, 10675), (231, 10759), (232, 10768), (233, 10771), (234, 10774), (235, 10783), (236, 10795), (237, 10804), (238, 10813), (240, 10831), (241, 10837), (247, 10891), (259, 10945), (270, 10990), (271, 10996), (274, 11008), (280, 11035), (286, 11074), (290, 11098), (291, 11101), (301, 11158), (304, 11176), (309, 11212), (310, 11221), (315, 11254), (316, 11266), (324, 11323), (331, 11392), (332, 11398), (333, 11401), (338, 11422), (342, 11446), (345, 11458), (350, 11500), (354, 11515), (369, 11560), (387, 11653), (401, 11767), (403, 11779), (421, 11929), (422, 11932), (424, 11950), (428, 11998), (434, 12025), (435, 12028), (439, 12064), (443, 12100), (445, 12130), (446, 12142), (449, 12166), (452, 12202), (463, 12277), (470, 12367), (476, 12427), (494, 12658), (497, 12718),

(499, 12763), (502, 12781), (504, 12790), (513, 12844), (514, 12853), (515, 12862), (516, 12865), (517, 12868),

Gene: PondAmelia_20 Start: 10487, Stop: 13117, Start Num: 18

Candidate Starts for PondAmelia_20:

(Start: 18 @10487 has 60 MA's), (28, 10547), (39, 10640), (43, 10652), (49, 10685), (64, 10781), (79, 10934), (87, 10973), (116, 11144), (130, 11222), (135, 11237), (137, 11258), (141, 11279), (151, 11318), (161, 11360), (166, 11381), (178, 11441), (181, 11459), (187, 11501), (188, 11504), (196, 11522), (209, 11579), (259, 11618), (260, 11627), (261, 11630), (270, 11663), (275, 11684), (328, 12053), (329, 12056), (334, 12080), (339, 12104), (359, 12215), (373, 12275), (388, 12359), (396, 12425), (401, 12452), (409, 12500), (412, 12509), (413, 12512), (419, 12572), (420, 12587), (433, 12671), (441, 12719), (455, 12872), (457, 12887), (459, 12902), (468, 12989), (474, 13031),

Gene: PrairieDogTown_17 Start: 10993, Stop: 14238, Start Num: 11

Candidate Starts for PrairieDogTown_17:

(Start: 11 @10993 has 6 MA's), (16, 11038), (22, 11131), (53, 11353), (69, 11497), (70, 11515), (73, 11539), (85, 11620), (92, 11662), (93, 11665), (95, 11674), (98, 11689), (120, 11845), (123, 11875), (139, 11956), (146, 11992), (157, 12028), (159, 12037), (162, 12049), (176, 12115), (188, 12184), (230, 12343), (262, 12433), (282, 12511), (292, 12565), (297, 12589), (317, 12715), (318, 12718), (341, 12850), (342, 12856), (345, 12865), (347, 12883), (355, 12907), (365, 12937), (371, 12958), (403, 13150), (409, 13186), (461, 13630), (464, 13651), (476, 13786), (482, 13876), (496, 14038), (497, 14092), (508, 14182), (509, 14191),

Gene: QMacho_17 Start: 10843, Stop: 13605, Start Num: 18

Candidate Starts for QMacho_17:

(Start: 18 @10843 has 60 MA's), (39, 10996), (48, 11032), (49, 11041), (67, 11182), (71, 11227), (82, 11311), (87, 11329), (116, 11500), (128, 11566), (130, 11578), (133, 11587), (141, 11635), (144, 11644), (164, 11728), (166, 11737), (167, 11743), (169, 11755), (170, 11767), (173, 11779), (188, 11860), (211, 11947), (215, 11974), (220, 11983), (254, 12082), (282, 12217), (287, 12241), (316, 12430), (328, 12544), (334, 12571), (359, 12706), (373, 12766), (388, 12844), (392, 12865), (397, 12913), (415, 13006), (419, 13051), (420, 13066), (426, 13105), (436, 13174), (438, 13192), (439, 13195), (441, 13207), (444, 13234), (455, 13360), (457, 13375), (459, 13390),

Gene: Quenya_16 Start: 9890, Stop: 12667, Start Num: 18

Candidate Starts for Quenya_16:

(Start: 18 @9890 has 60 MA's), (22, 9923), (36, 10031), (52, 10109), (80, 10361), (81, 10367), (83, 10370), (104, 10490), (108, 10511), (121, 10619), (127, 10643), (128, 10652), (174, 10871), (186, 10922), (189, 10940), (193, 10949), (200, 10970), (203, 10982), (259, 11168), (277, 11243), (287, 11300), (302, 11390), (304, 11399), (306, 11405), (307, 11411), (328, 11603), (334, 11630), (339, 11654), (344, 11678), (359, 11765), (370, 11807), (373, 11825), (385, 11879), (388, 11909), (397, 11978), (401, 12002), (412, 12059), (413, 12062), (419, 12122), (420, 12137), (422, 12149), (439, 12257), (441, 12269), (444, 12296), (447, 12338), (451, 12386), (455, 12422), (457, 12437), (458, 12440), (462, 12467),

Gene: Rona_15 Start: 10180, Stop: 12810, Start Num: 18

Candidate Starts for Rona_15:

(Start: 18 @10180 has 60 MA's), (22, 10213), (28, 10240), (39, 10333), (43, 10345), (48, 10369), (52, 10402), (64, 10474), (79, 10627), (87, 10666), (116, 10837), (130, 10915), (134, 10927), (155, 11029), (166, 11074), (178, 11134), (188, 11197), (205, 11251), (259, 11311), (261, 11323), (268, 11350), (269, 11353), (270, 11356), (275, 11377), (287, 11443), (306, 11548), (307, 11554), (316, 11632), (334, 11773), (339, 11797), (344, 11821), (359, 11908), (401, 12145), (407, 12181), (408, 12190), (416, 12223), (419, 12265), (420, 12280), (423, 12304), (441, 12412), (455, 12565), (457, 12580), (459, 12595),

Gene: Rooter_16 Start: 9320, Stop: 12709, Start Num: 9

Candidate Starts for Rooter_16:

(Start: 9 @9320 has 4 MA's), (16, 9365), (33, 9527), (52, 9668), (53, 9680), (60, 9740), (69, 9824), (72, 9860), (73, 9866), (77, 9908), (85, 9947), (93, 9992), (95, 10001), (138, 10280), (157, 10355), (182, 10475), (185, 10493), (187, 10508), (195, 10532), (199, 10550), (205, 10574), (208, 10586), (214, 10622), (221, 10649), (223, 10655), (227, 10667), (244, 10712), (247, 10724), (250, 10736), (251, 10742), (256, 10757), (257, 10766), (259, 10778), (262, 10793), (267, 10811), (280, 10868), (303, 11003), (309, 11045), (310, 11054), (311, 11057), (315, 11087), (316, 11099), (321, 11120), (324, 11156), (331, 11225), (332, 11231), (333, 11234), (338, 11255), (342, 11279), (345, 11291), (354, 11348), (356, 11360), (387, 11486), (394, 11546), (401, 11600), (403, 11612), (435, 11861), (437, 11888), (441, 11909), (449, 11999), (463, 12110), (475, 12245), (476, 12260), (479, 12311), (485, 12383), (489, 12443), (492, 12470), (495, 12494), (498, 12560), (499, 12596), (500, 12602), (504, 12623), (510, 12653), (513, 12677), (514, 12686), (515, 12695), (516, 12698),

Gene: SanaSana_17 Start: 10377, Stop: 13007, Start Num: 18

Candidate Starts for SanaSana_17:

(Start: 18 @10377 has 60 MA's), (28, 10437), (39, 10530), (42, 10536), (43, 10542), (49, 10575), (64, 10671), (79, 10824), (87, 10863), (116, 11034), (130, 11112), (135, 11127), (137, 11148), (141, 11169), (151, 11208), (161, 11250), (166, 11271), (178, 11331), (181, 11349), (188, 11394), (191, 11400), (196, 11412), (259, 11508), (260, 11517), (261, 11520), (270, 11553), (275, 11574), (287, 11640), (328, 11943), (329, 11946), (334, 11970), (339, 11994), (359, 12105), (373, 12165), (388, 12249), (396, 12315), (401, 12342), (409, 12390), (412, 12399), (413, 12402), (419, 12462), (420, 12477), (433, 12561), (441, 12609), (455, 12762), (457, 12777), (459, 12792), (468, 12879), (474, 12921),

Gene: SansAfet_16 Start: 10296, Stop: 13055, Start Num: 18

Candidate Starts for SansAfet_16:

(Start: 18 @10296 has 60 MA's), (39, 10449), (42, 10455), (49, 10494), (71, 10680), (82, 10764), (87, 10782), (106, 10881), (116, 10953), (128, 11019), (130, 11031), (133, 11040), (136, 11055), (141, 11088), (144, 11097), (147, 11115), (163, 11175), (164, 11181), (166, 11190), (167, 11196), (170, 11220), (173, 11232), (188, 11313), (215, 11427), (221, 11439), (254, 11535), (261, 11574), (282, 11670), (287, 11694), (295, 11748), (302, 11784), (304, 11793), (307, 11805), (316, 11883), (328, 11997), (334, 12024), (349, 12108), (375, 12219), (379, 12228), (388, 12294), (396, 12360), (415, 12456), (419, 12501), (420, 12516), (426, 12555), (436, 12624), (438, 12642), (439, 12645), (441, 12657), (444, 12684), (454, 12798), (455, 12810), (459, 12840), (471, 12948),

Gene: SarBear_16 Start: 10338, Stop: 13100, Start Num: 18

Candidate Starts for SarBear_16:

(Start: 18 @10338 has 60 MA's), (39, 10491), (42, 10497), (48, 10527), (49, 10536), (52, 10560), (64, 10632), (87, 10824), (106, 10923), (116, 10995), (130, 11073), (133, 11082), (134, 11085), (141, 11130), (144, 11139), (164, 11223), (166, 11232), (167, 11238), (169, 11250), (170, 11262), (173, 11274), (188, 11355), (211, 11442), (215, 11469), (220, 11478), (254, 11577), (261, 11616), (282, 11712), (287, 11736), (295, 11790), (307, 11847), (316, 11925), (328, 12039), (334, 12066), (359, 12201), (373, 12261), (388, 12339), (392, 12360), (397, 12408), (415, 12501), (419, 12546), (420, 12561), (426, 12600), (436, 12669), (438, 12687), (439, 12690), (441, 12702), (444, 12729), (455, 12855), (457, 12870), (459, 12885),

Gene: Sarge_16 Start: 9687, Stop: 13076, Start Num: 9

Candidate Starts for Sarge_16:

(Start: 9 @9687 has 4 MA's), (16, 9732), (33, 9894), (52, 10035), (53, 10047), (60, 10107), (69, 10191), (72, 10227), (73, 10233), (77, 10275), (85, 10314), (93, 10359), (95, 10368), (138, 10647), (146, 10686), (157, 10722), (182, 10842), (185, 10860), (187, 10875), (195, 10899), (199, 10917), (205,

10941), (208, 10953), (214, 10989), (221, 11016), (223, 11022), (227, 11034), (244, 11079), (247, 11091), (250, 11103), (251, 11109), (256, 11124), (257, 11133), (259, 11145), (262, 11160), (267, 11178), (280, 11235), (303, 11370), (309, 11412), (310, 11421), (311, 11424), (315, 11454), (316, 11466), (321, 11487), (324, 11523), (331, 11592), (332, 11598), (333, 11601), (338, 11622), (342, 11646), (345, 11658), (350, 11700), (354, 11715), (356, 11727), (387, 11853), (394, 11913), (401, 11967), (403, 11979), (416, 12051), (424, 12150), (428, 12198), (435, 12228), (437, 12255), (441, 12276), (449, 12366), (452, 12402), (463, 12477), (470, 12567), (476, 12627), (479, 12678), (485, 12750), (489, 12810), (492, 12837), (495, 12861), (498, 12927), (499, 12963), (500, 12969), (504, 12990), (510, 13020), (513, 13044), (514, 13053), (515, 13062), (516, 13065),

Gene: Scotia_18 Start: 11925, Stop: 15167, Start Num: 8

Candidate Starts for Scotia_18:

(Start: 8 @11925 has 3 MA's), (16, 11970), (22, 12063), (25, 12081), (30, 12102), (40, 12201), (70, 12447), (72, 12465), (73, 12471), (77, 12513), (85, 12552), (86, 12555), (93, 12597), (95, 12606), (119, 12768), (122, 12798), (139, 12888), (146, 12924), (157, 12960), (159, 12969), (176, 13047), (177, 13050), (188, 13116), (208, 13182), (210, 13197), (250, 13311), (264, 13371), (282, 13443), (290, 13482), (297, 13521), (318, 13650), (321, 13665), (325, 13725), (337, 13764), (341, 13782), (347, 13815), (356, 13848), (358, 13857), (365, 13869), (399, 14064), (401, 14070), (403, 14082), (409, 14118), (446, 14430), (463, 14565), (470, 14655), (482, 14805), (493, 14955), (497, 15021), (505, 15093), (508, 15105),

Gene: Sharkboy_15 Start: 10179, Stop: 12809, Start Num: 18

Candidate Starts for Sharkboy_15:

(Start: 18 @10179 has 60 MA's), (22, 10212), (28, 10239), (39, 10332), (43, 10344), (48, 10368), (52, 10401), (64, 10473), (79, 10626), (87, 10665), (116, 10836), (130, 10914), (134, 10926), (155, 11028), (166, 11073), (178, 11133), (188, 11196), (205, 11250), (259, 11310), (261, 11322), (269, 11352), (270, 11355), (275, 11376), (287, 11442), (306, 11547), (307, 11553), (316, 11631), (334, 11772), (339, 11796), (344, 11820), (359, 11907), (401, 12144), (407, 12180), (408, 12189), (416, 12222), (419, 12264), (420, 12279), (423, 12303), (441, 12411), (455, 12564), (457, 12579), (459, 12594),

Gene: Shayna_15 Start: 9869, Stop: 12856, Start Num: 5

Candidate Starts for Shayna_15:

(Start: 5 @9869 has 3 MA's), (20, 10031), (21, 10037), (26, 10064), (31, 10094), (69, 10400), (70, 10418), (78, 10484), (94, 10568), (119, 10739), (122, 10769), (158, 10943), (168, 10991), (176, 11030), (207, 11159), (222, 11228), (223, 11231), (243, 11276), (263, 11369), (279, 11435), (292, 11516), (306, 11573), (309, 11603), (330, 11783), (335, 11801), (359, 11933), (382, 12041), (384, 12053), (390, 12095), (393, 12119), (401, 12179), (406, 12212), (419, 12308), (420, 12323), (426, 12362), (441, 12464), (444, 12491), (453, 12590), (455, 12617), (466, 12686), (472, 12764),

Gene: Shoya_15 Start: 9323, Stop: 12712, Start Num: 9

Candidate Starts for Shoya_15:

(Start: 9 @9323 has 4 MA's), (16, 9368), (33, 9530), (38, 9596), (52, 9671), (53, 9683), (60, 9743), (67, 9815), (69, 9827), (72, 9863), (73, 9869), (77, 9911), (85, 9950), (93, 9995), (95, 10004), (138, 10283), (157, 10358), (179, 10457), (182, 10478), (185, 10496), (187, 10511), (195, 10535), (199, 10553), (205, 10577), (208, 10589), (214, 10625), (223, 10658), (244, 10715), (250, 10739), (251, 10745), (256, 10760), (257, 10769), (259, 10781), (262, 10796), (267, 10814), (280, 10871), (303, 11006), (309, 11048), (310, 11057), (311, 11060), (315, 11090), (316, 11102), (324, 11159), (331, 11228), (332, 11234), (333, 11237), (338, 11258), (342, 11282), (345, 11294), (351, 11339), (354, 11351), (356, 11363), (387, 11489), (394, 11549), (401, 11603), (403, 11615), (428, 11834), (435, 11864), (437, 11891), (441, 11912), (449, 12002), (463, 12113), (470, 12203), (475, 12248), (476, 12263), (479, 12314), (485, 12386), (492, 12473), (495, 12497), (498, 12563), (499, 12599), (500, 12605), (504, 12626), (510, 12656), (513, 12680), (514, 12689), (515, 12698), (516, 12701),

Gene: SirBeanington_16 Start: 10380, Stop: 13142, Start Num: 18

Candidate Starts for SirBeanington_16:

(Start: 18 @10380 has 60 MA's), (39, 10533), (49, 10578), (71, 10764), (87, 10866), (116, 11037), (128, 11103), (130, 11115), (133, 11124), (141, 11172), (144, 11181), (147, 11199), (164, 11265), (166, 11274), (167, 11280), (170, 11304), (173, 11316), (188, 11397), (211, 11484), (215, 11511), (220, 11520), (254, 11619), (287, 11778), (295, 11832), (307, 11889), (316, 11967), (328, 12081), (334, 12108), (343, 12153), (359, 12243), (368, 12276), (373, 12303), (388, 12381), (392, 12402), (397, 12450), (415, 12543), (419, 12588), (420, 12603), (426, 12642), (436, 12711), (438, 12729), (439, 12732), (441, 12744), (444, 12771), (455, 12897), (457, 12912), (459, 12927), (471, 13035),

Gene: Slay_16 Start: 10880, Stop: 13642, Start Num: 18

Candidate Starts for Slay_16:

(Start: 18 @10880 has 60 MA's), (39, 11033), (42, 11039), (48, 11069), (49, 11078), (52, 11102), (64, 11174), (87, 11366), (106, 11465), (116, 11537), (130, 11615), (133, 11624), (134, 11627), (141, 11672), (144, 11681), (164, 11765), (166, 11774), (167, 11780), (169, 11792), (170, 11804), (173, 11816), (188, 11897), (211, 11984), (215, 12011), (220, 12020), (254, 12119), (261, 12158), (282, 12254), (287, 12278), (295, 12332), (307, 12389), (316, 12467), (328, 12581), (334, 12608), (359, 12743), (368, 12776), (373, 12803), (388, 12881), (392, 12902), (397, 12950), (415, 13043), (419, 13088), (420, 13103), (426, 13142), (436, 13211), (438, 13229), (439, 13232), (441, 13244), (444, 13271), (455, 13397), (457, 13412), (459, 13427),

Gene: Softsoap_15 Start: 10114, Stop: 12876, Start Num: 18

Candidate Starts for Softsoap_15:

(Start: 18 @10114 has 60 MA's), (39, 10267), (47, 10297), (48, 10303), (49, 10312), (71, 10498), (87, 10600), (116, 10771), (122, 10807), (129, 10840), (130, 10849), (144, 10915), (156, 10966), (164, 10999), (166, 11008), (170, 11038), (173, 11050), (188, 11131), (211, 11218), (215, 11245), (221, 11257), (254, 11353), (261, 11392), (287, 11512), (302, 11602), (304, 11611), (307, 11623), (316, 11701), (328, 11815), (334, 11842), (343, 11887), (359, 11977), (368, 12010), (373, 12037), (388, 12115), (392, 12136), (397, 12184), (415, 12277), (419, 12322), (420, 12337), (426, 12376), (436, 12445), (438, 12463), (439, 12466), (441, 12478), (444, 12505), (455, 12631), (457, 12646), (459, 12661), (471, 12769),

Gene: Solea_18 Start: 10774, Stop: 13533, Start Num: 18

Candidate Starts for Solea_18:

(Start: 18 @10774 has 60 MA's), (39, 10927), (42, 10933), (49, 10972), (71, 11158), (87, 11260), (116, 11431), (128, 11497), (130, 11509), (133, 11518), (136, 11533), (141, 11566), (144, 11575), (147, 11593), (163, 11653), (164, 11659), (166, 11668), (167, 11674), (170, 11698), (173, 11710), (178, 11728), (188, 11791), (215, 11905), (221, 11917), (254, 12013), (261, 12052), (293, 12211), (302, 12262), (304, 12271), (307, 12283), (316, 12361), (328, 12475), (334, 12502), (349, 12586), (372, 12679), (375, 12697), (379, 12706), (388, 12772), (396, 12838), (415, 12934), (419, 12979), (420, 12994), (426, 13033), (436, 13102), (438, 13120), (439, 13123), (441, 13135), (444, 13162), (454, 13276), (455, 13288), (458, 13306), (459, 13318), (471, 13426),

Gene: Squirrel_15 Start: 10031, Stop: 13000, Start Num: 4

Candidate Starts for Squirrel_15:

(Start: 4 @10031 has 3 MA's), (14, 10106), (17, 10121), (26, 10229), (44, 10355), (46, 10367), (51, 10400), (67, 10553), (69, 10565), (70, 10583), (72, 10601), (75, 10628), (76, 10637), (78, 10649), (93, 10730), (95, 10742), (98, 10757), (105, 10805), (109, 10829), (113, 10874), (119, 10904), (122, 10934), (124, 10946), (139, 11024), (143, 11045), (152, 11084), (158, 11108), (174, 11189), (176, 11195), (187, 11258), (207, 11324), (210, 11342), (213, 11360), (218, 11381), (265, 11540), (285, 11636), (289, 11657), (322, 11846), (328, 11936), (343, 12008), (359, 12098), (366, 12122), (370, 12140), (373, 12158), (386, 12215), (388, 12239), (390, 12248), (410, 12383), (413, 12392), (419, 12452), (420, 12467), (421, 12476), (426, 12506), (430, 12545), (441, 12608), (444, 12635), (453,

12734), (455, 12761), (457, 12776), (465, 12827), (466, 12830),

Gene: Stoor_16 Start: 10374, Stop: 13004, Start Num: 18

Candidate Starts for Stoor_16:

(Start: 18 @10374 has 60 MA's), (28, 10434), (39, 10527), (42, 10533), (43, 10539), (49, 10572), (64, 10668), (79, 10821), (87, 10860), (116, 11031), (130, 11109), (135, 11124), (137, 11145), (141, 11166), (151, 11205), (161, 11247), (166, 11268), (178, 11328), (181, 11346), (188, 11391), (191, 11397), (196, 11409), (259, 11505), (260, 11514), (261, 11517), (270, 11550), (275, 11571), (287, 11637), (328, 11940), (329, 11943), (334, 11967), (339, 11991), (359, 12102), (373, 12162), (388, 12246), (396, 12312), (401, 12339), (409, 12387), (412, 12396), (413, 12399), (419, 12459), (420, 12474), (433, 12558), (441, 12606), (455, 12759), (457, 12774), (459, 12789), (468, 12876), (474, 12918),

Gene: Stromboli_16 Start: 10505, Stop: 13135, Start Num: 18

Candidate Starts for Stromboli_16:

(Start: 18 @10505 has 60 MA's), (39, 10658), (42, 10664), (43, 10670), (49, 10703), (64, 10799), (79, 10952), (87, 10991), (99, 11051), (103, 11078), (116, 11162), (130, 11240), (135, 11255), (137, 11276), (139, 11282), (151, 11336), (161, 11378), (166, 11399), (178, 11459), (181, 11477), (188, 11522), (191, 11528), (196, 11540), (259, 11636), (260, 11645), (261, 11648), (270, 11681), (275, 11702), (287, 11768), (328, 12071), (329, 12074), (334, 12098), (339, 12122), (359, 12233), (373, 12293), (388, 12377), (396, 12443), (398, 12455), (401, 12470), (409, 12518), (412, 12527), (413, 12530), (419, 12590), (420, 12605), (433, 12689), (441, 12737), (455, 12890), (457, 12905), (459, 12920), (468, 13007), (474, 13049),

Gene: SunnyD_15 Start: 9869, Stop: 12856, Start Num: 5

Candidate Starts for SunnyD_15:

(Start: 5 @9869 has 3 MA's), (20, 10031), (21, 10037), (26, 10064), (31, 10094), (69, 10400), (70, 10418), (78, 10484), (94, 10568), (119, 10739), (122, 10769), (158, 10943), (168, 10991), (176, 11030), (207, 11159), (222, 11228), (223, 11231), (243, 11276), (263, 11369), (279, 11435), (292, 11516), (306, 11573), (309, 11603), (330, 11783), (335, 11801), (359, 11933), (382, 12041), (384, 12053), (390, 12095), (393, 12119), (401, 12179), (406, 12212), (419, 12308), (420, 12323), (426, 12362), (441, 12464), (444, 12491), (453, 12590), (455, 12617), (466, 12686), (472, 12764),

Gene: Swervy_16 Start: 10338, Stop: 13100, Start Num: 18

Candidate Starts for Swervy_16:

(Start: 18 @10338 has 60 MA's), (39, 10491), (42, 10497), (48, 10527), (49, 10536), (52, 10560), (64, 10632), (87, 10824), (106, 10923), (116, 10995), (130, 11073), (133, 11082), (134, 11085), (141, 11130), (144, 11139), (164, 11223), (166, 11232), (167, 11238), (169, 11250), (170, 11262), (173, 11274), (188, 11355), (211, 11442), (215, 11469), (220, 11478), (254, 11577), (261, 11616), (282, 11712), (287, 11736), (295, 11790), (307, 11847), (316, 11925), (328, 12039), (334, 12066), (359, 12201), (373, 12261), (388, 12339), (392, 12360), (397, 12408), (415, 12501), (419, 12546), (420, 12561), (426, 12600), (436, 12669), (438, 12687), (439, 12690), (441, 12702), (444, 12729), (455, 12855), (457, 12870), (459, 12885),

Gene: Teagster_15 Start: 9869, Stop: 12856, Start Num: 5

Candidate Starts for Teagster_15:

(Start: 5 @9869 has 3 MA's), (20, 10031), (21, 10037), (26, 10064), (31, 10094), (35, 10133), (53, 10256), (60, 10316), (69, 10400), (70, 10418), (78, 10484), (98, 10592), (122, 10769), (158, 10943), (168, 10991), (175, 11027), (207, 11159), (210, 11177), (222, 11228), (223, 11231), (263, 11369), (279, 11435), (292, 11516), (306, 11573), (330, 11783), (335, 11801), (359, 11933), (382, 12041), (384, 12053), (390, 12095), (393, 12119), (401, 12179), (406, 12212), (419, 12308), (420, 12323), (425, 12356), (426, 12362), (441, 12464), (442, 12482), (444, 12491), (453, 12590), (455, 12617), (472, 12764),

Gene: TukTuk_16 Start: 10396, Stop: 13158, Start Num: 18

Candidate Starts for TukTuk_16:

(Start: 18 @10396 has 60 MA's), (39, 10549), (42, 10555), (48, 10585), (49, 10594), (52, 10618), (64, 10690), (87, 10882), (106, 10981), (116, 11053), (130, 11131), (133, 11140), (134, 11143), (141, 11188), (144, 11197), (164, 11281), (166, 11290), (167, 11296), (169, 11308), (170, 11320), (173, 11332), (188, 11413), (211, 11500), (215, 11527), (220, 11536), (254, 11635), (261, 11674), (282, 11770), (287, 11794), (295, 11848), (307, 11905), (316, 11983), (328, 12097), (334, 12124), (359, 12259), (373, 12319), (388, 12397), (415, 12559), (419, 12604), (420, 12619), (426, 12658), (436, 12727), (438, 12745), (439, 12748), (441, 12760), (444, 12787), (455, 12913), (459, 12943),

Gene: WalkingDead_16 Start: 10494, Stop: 13124, Start Num: 18

Candidate Starts for WalkingDead_16:

(Start: 18 @10494 has 60 MA's), (28, 10554), (39, 10647), (48, 10683), (49, 10692), (64, 10788), (79, 10941), (87, 10980), (116, 11151), (122, 11187), (129, 11220), (134, 11241), (136, 11253), (139, 11271), (144, 11295), (156, 11346), (163, 11373), (164, 11379), (166, 11388), (169, 11406), (181, 11466), (188, 11511), (254, 11598), (259, 11625), (260, 11634), (277, 11700), (287, 11757), (305, 11859), (328, 12060), (329, 12063), (334, 12087), (339, 12111), (344, 12135), (359, 12222), (373, 12282), (388, 12366), (396, 12432), (398, 12444), (401, 12459), (409, 12507), (412, 12516), (413, 12519), (419, 12579), (420, 12594), (433, 12678), (441, 12726), (455, 12879), (457, 12894), (459, 12909), (468, 12996), (474, 13038),