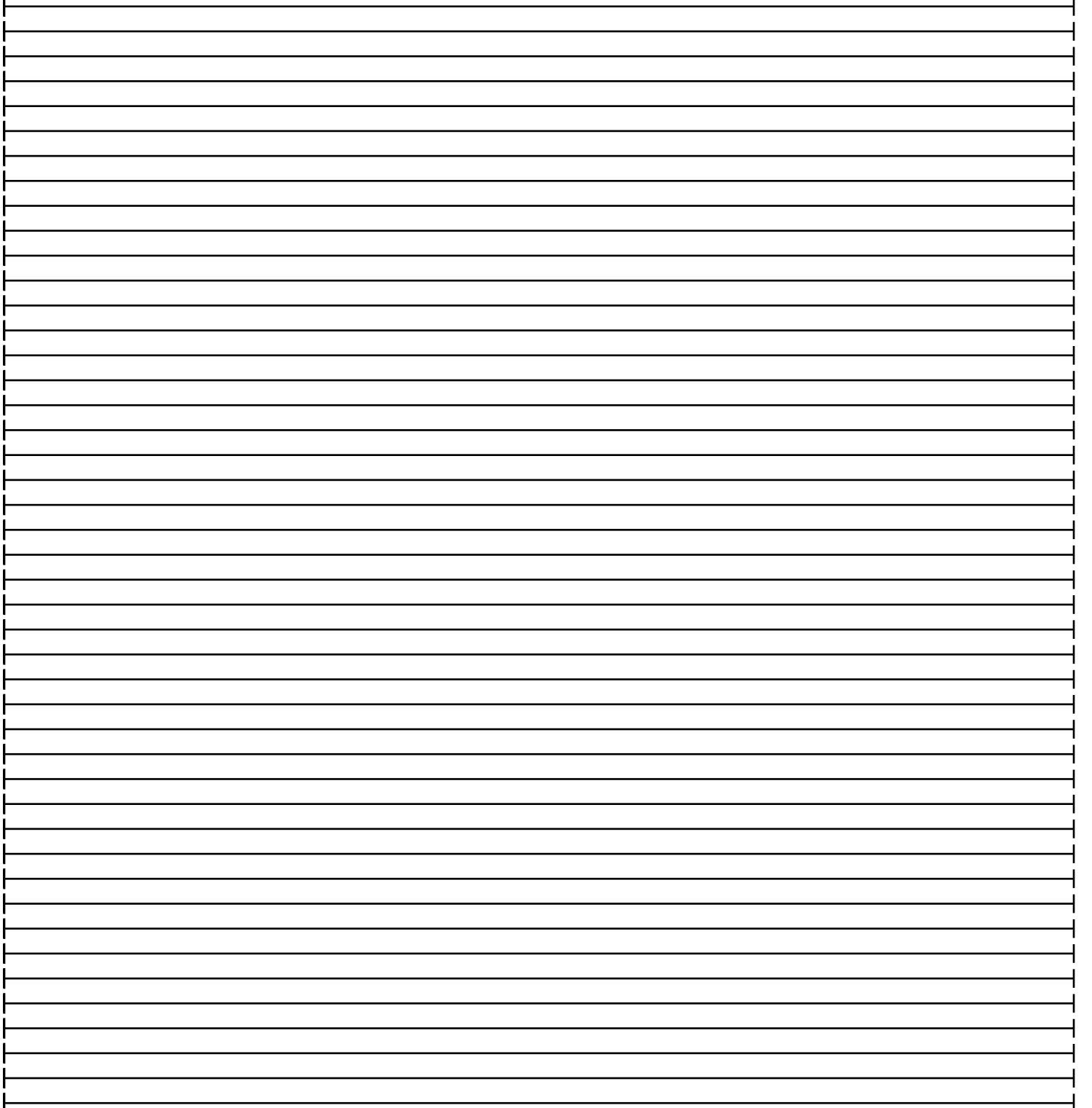
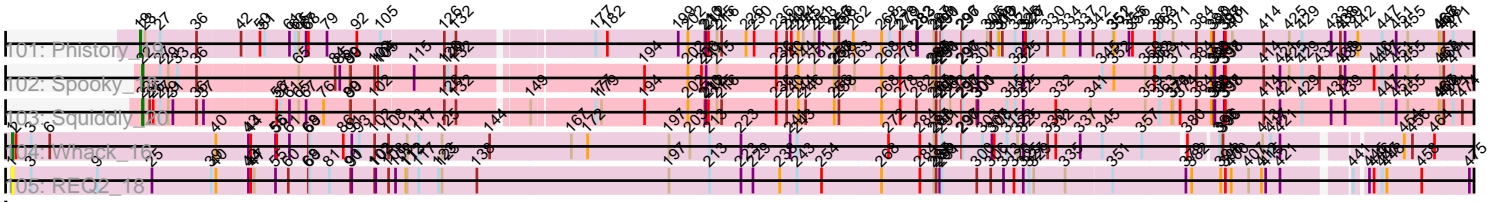


Zoomed Pham 193836



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 193836 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193836 has 127 members, 13 are drafts.

Phages represented in each track:

- Track 1 : AikoCarson_15
- Track 2 : Agatha_16
- Track 3 : Nodigi_18
- Track 4 : Cozz_16
- Track 5 : Quasar_16
- Track 6 : Elliott_16, PsychoKiller_16
- Track 7 : SteamedHams_18
- Track 8 : Feastonyeet_15, BigChungus_15
- Track 9 : Amok_15
- Track 10 : Mayweather_17
- Track 11 : GiKK_19
- Track 12 : Vine_17
- Track 13 : SweatNTears_18
- Track 14 : Nina_17
- Track 15 : Orla_18
- Track 16 : CherryonLim_17
- Track 17 : Lauer_15
- Track 18 : Buttrmilkdreams_16
- Track 19 : Yummy_17, Horseradish_17
- Track 20 : Tolls_18
- Track 21 : Button_17
- Track 22 : PotPie_16
- Track 23 : SheckWes_15
- Track 24 : Jamzy_19
- Track 25 : KayGee_16, Elinal_17
- Track 26 : Biskit_17, SketchMex_15
- Track 27 : Survivors_18
- Track 28 : RanchParmCat_19
- Track 29 : GoldHunter_17
- Track 30 : SummitAcademy_15
- Track 31 : Hexbug_18
- Track 32 : Dre3_16, Gibbous_16
- Track 33 : Carsonalex_17
- Track 34 : MunkgeeRoachy_16
- Track 35 : HippoPololi_18
- Track 36 : MAnor_16
- Track 37 : Cleo_16

- Track 38 : Nibbles_18
- Track 39 : BillDoor_18
- Track 40 : Sopespian_16
- Track 41 : Troje_16
- Track 42 : RedBaron_17
- Track 43 : MScarn_18
- Track 44 : Pons_16
- Track 45 : Typhonomachy_17
- Track 46 : Yarn_15, AndPeggy_15
- Track 47 : Zareef_20
- Track 48 : Axym_16
- Track 49 : MaVan_18
- Track 50 : Emalyn_15
- Track 51 : GTE2_14
- Track 52 : Margaret_19
- Track 53 : Burnsey_16
- Track 54 : Azira_18
- Track 55 : Fribs8_17
- Track 56 : PhrostedPhlake_18
- Track 57 : Wocket_18
- Track 58 : Malachai_18, Begonia_18
- Track 59 : Murp_17
- Track 60 : MintFen_17, Melba_17, BlingBling_17, Barco_17
- Track 61 : CaptainKirk2_17, Delian_17, UmaThurman_17
- Track 62 : Pipp_17
- Track 63 : Wisp_16
- Track 64 : Mellie_16
- Track 65 : Gambino_19, Azula_19, MissRona_19, Blueberry_19
- Track 66 : Frokostdame_17
- Track 67 : Petra_19
- Track 68 : CarolAnn_17
- Track 69 : Guacamole_17, JasperJr_17
- Track 70 : ZiggyZoo_16, Obliviate_16
- Track 71 : Samba_17
- Track 72 : PrincePatrick_17
- Track 73 : Walrus_18
- Track 74 : Blino_17
- Track 75 : William_17
- Track 76 : Archis_18
- Track 77 : Hitter_17
- Track 78 : Jalammah_19
- Track 79 : JuJu_17
- Track 80 : KappaFarmDelta_17
- Track 81 : Lysidious_18
- Track 82 : Utz_17
- Track 83 : PCoral7_17
- Track 84 : Zarbodnamra_17
- Track 85 : Fairfaxidum_17
- Track 86 : Fenry_16
- Track 87 : Toast_17
- Track 88 : Budski_18
- Track 89 : Malisha_19
- Track 90 : Periwinkle_20

- Track 91 : Lutum_18, Kenna_17
- Track 92 : BENtherdunthat_18, Asapag_18
- Track 93 : Whitney_19
- Track 94 : CheeseTouch_18
- Track 95 : Leroy_18
- Track 96 : Horus_18
- Track 97 : Getalong_19
- Track 98 : LitninMcQueen_18, Phabuloso_18
- Track 99 : Frickyeah_18
- Track 100 : Kamaru_18, Holliday_18
- Track 101 : Phistory_19
- Track 102 : Spooky_18
- Track 103 : Squiddly_20
- Track 104 : Whack_16
- Track 105 : REQ2_18

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

The start number called the most often in the published annotations is 8, it was called in 37 of the 114 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Archis_18, Azula_19, Barco_17, Begonia_18, BlingBling_17, Blino_17, Blueberry_19, CaptainKirk2_17, CarolAnn_17, Delian_17, Fairfaxidum_17, Fenry_16, Gambino_19, Guacamole_17, Hitter_17, Jalammah_19, JasperJr_17, JuJu_17, KappaFarmDelta_17, Lysidious_18, Malachai_18, Melba_17, Mellie_16, MintFen_17, MissRona_19, Murp_17, Obliviate_16, PCoral7_17, PhrostedPhlake_18, PrincePatrick_17, Samba_17, UmaThurman_17, Utz_17, William_17, Wocket_18, Zarbodnamra_17, ZiggyZoo_16,

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

- Frokostdame_17, Petra_19, Pipp_17, Toast_17, Walrus_18, Wisp_16,

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

- Agatha_16, AikoCarson_15, Amok_15, AndPeggy_15, Asapag_18, Axym_16, Azira_18, BENtherdunthat_18, BigChungus_15, BillDoor_18, Biskit_17, Budski_18, Burnsey_16, Button_17, Buttrmikedreams_16, Carsonalex_17, CheeseTouch_18, CherryonLim_17, Cleo_16, Cozz_16, Dre3_16, Elinal_17, Elliott_16, Emalyn_15, Feastonyeet_15, Fribs8_17, Frickyeah_18, GTE2_14, Getalong_19, GiKK_19, Gibbous_16, GoldHunter_17, Hexbug_18, HippoPololi_18, Holliday_18, Horseradish_17, Horus_18, Jamzy_19, Kamaru_18, KayGee_16, Kenna_17, Lauer_15, Leroy_18, LitninMcQueen_18, Lutum_18, MAnor_16, MScarn_18, MaVan_18, Malisha_19, Margaret_19, Mayweather_17, MunkgeeRoachy_16, Nibbles_18, Nina_17, Nodigi_18, Orla_18, Periwinkle_20, Phabuloso_18, Phistory_19, Pons_16, PotPie_16, PsychoKiller_16, Quasar_16, REQ2_18, RanchParmCat_19, RedBaron_17, SheckWes_15, SketchMex_15, Sopespian_16, Spooky_18, Squiddly_20, SteamedHams_18, SummitAcademy_15, Survivors_18, SweatNTears_18, Tolls_18, Troje_16, Typhonomachy_17, Vine_17, Whack_16, Whitney_19, Yarn_15, Yummy_17, Zareef_20,

Summary by start number:

Start 1:

- Found in 2 of 127 (1.6%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ2_18 (singleton), Whack_16 (singleton),

Start 5:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp_17 (CV),

Start 7:

- Found in 5 of 127 (3.9%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Toast_17 (CV),

Start 8:

- Found in 43 of 127 (33.9%) of genes in pham
- Manual Annotations of this start: 37 of 114
- Called 86.0% of time when present
- Phage (with cluster) where this start called: Archis_18 (CV), Azula_19 (CV), Barco_17 (CV), Begonia_18 (CV), BlingBling_17 (CV), Blino_17 (CV), Blueberry_19 (CV), CaptainKirk2_17 (CV), CarolAnn_17 (CV), Delian_17 (CV), Fairfaxidum_17 (CV), Fenry_16 (CV), Gambino_19 (CV), Guacamole_17 (CV), Hitter_17 (CV), Jalammah_19 (CV), JasperJr_17 (CV), JuJu_17 (CV), KappaFarmDelta_17 (CV), Lysidious_18 (CV), Malachai_18 (CV), Melba_17 (CV), Mellie_16 (CV), MintFen_17 (CV), MissRona_19 (CV), Murp_17 (CV), Obliviate_16 (CV), PCoral7_17 (CV), PhrostedPhlake_18 (CV), PrincePatrick_17 (CV), Samba_17 (CV), UmaThurman_17 (CV), Utz_17 (CV), William_17 (CV), Wocket_18 (CV), Zarbodnamra_17 (CV), ZiggyZoo_16 (CV),

Start 11:

- Found in 34 of 127 (26.8%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 2.9% of time when present
- Phage (with cluster) where this start called: Frokostdame_17 (CV),

Start 12:

- Found in 36 of 127 (28.3%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 2.8% of time when present
- Phage (with cluster) where this start called: Walrus_18 (CV),

Start 14:

- Found in 38 of 127 (29.9%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Petra_19 (CV), Wisp_16 (CV),

Start 19:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phistory_19 (DN1),

Start 20:

- Found in 1 of 127 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Periwinkle_20 (DN1),

Start 21:

- Found in 13 of 127 (10.2%) of genes in pham
- Manual Annotations of this start: 10 of 114
- Called 76.9% of time when present
- Phage (with cluster) where this start called: Asapag_18 (DN1), BENtherdunthat_18 (DN1), CheeseTouch_18 (DN1), Holliday_18 (DN1), Kamaru_18 (DN1), Kenna_17 (DN1), Leroy_18 (DN1), LitninMcQueen_18 (DN1), Lutum_18 (DN1), Phabuloso_18 (DN1),

Start 22:

- Found in 28 of 127 (22.0%) of genes in pham
- Manual Annotations of this start: 5 of 114
- Called 17.9% of time when present
- Phage (with cluster) where this start called: Getalong_19 (DN1), Malisha_19 (DN), Spooky_18 (DN2), Squiddly_20 (DN2), Whitney_19 (DN1),

Start 25:

- Found in 38 of 127 (29.9%) of genes in pham
- Manual Annotations of this start: 29 of 114
- Called 97.4% of time when present
- Phage (with cluster) where this start called: Agatha_16 (CT), Axym_16 (CT), Azira_18 (CT), BigChungus_15 (CT), Burnsey_16 (CT), Carsonalex_17 (CT), CherryonLim_17 (CT), Cleo_16 (CT), Cozz_16 (CT), Dre3_16 (CT), Elinal_17 (CT), Elliott_16 (CT), Feastonyeet_15 (CT), Fribs8_17 (CT), Gibbous_16 (CT), GoldHunter_17 (CT), HippoPololi_18 (CT), KayGee_16 (CT), Lauer_15 (CT), MAnor_16 (CT), MaVan_18 (CT), Mayweather_17 (CT), MunkgeeRoachy_16 (CT), Nibbles_18 (CT), Nina_17 (CT), Pons_16 (CT), PotPie_16 (CT), PsychoKiller_16 (CT), Quasar_16 (CT), RedBaron_17 (CT), SheckWes_15 (CT), Sopespian_16 (CT), SummitAcademy_15 (CT), Survivors_18 (CT), Typhonmacy_17 (CT), Vine_17 (CT), Zareef_20 (CT),

Start 27:

- Found in 20 of 127 (15.7%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Frickyeah_18 (DN1), Horus_18 (DN1),

Start 37:

- Found in 18 of 127 (14.2%) of genes in pham
- Manual Annotations of this start: 1 of 114

- Called 5.6% of time when present
- Phage (with cluster) where this start called: Budski_18 (DN),

Start 72:

- Found in 8 of 127 (6.3%) of genes in pham
- Manual Annotations of this start: 6 of 114
- Called 87.5% of time when present
- Phage (with cluster) where this start called: GiKK_19 (CT), Hexbug_18 (CT), Jamzy_19 (CT), Margaret_19 (CT), Nodigi_18 (CT), Orla_18 (CT), RanchParmCat_19 (CT),

Start 74:

- Found in 17 of 127 (13.4%) of genes in pham
- Manual Annotations of this start: 16 of 114
- Called 94.1% of time when present
- Phage (with cluster) where this start called: AikoCarson_15 (CT), Amok_15 (CT), AndPeggy_15 (CT), BillDoor_18 (CT), Biskit_17 (CT), Buttrmlkdreams_16 (CT), Emalyn_15 (CT), Horseradish_17 (CT), MScarn_18 (CT), SketchMex_15 (CT), SteamedHams_18 (CT), SweatNTears_18 (CT), Tolls_18 (CT), Troje_16 (CT), Yarn_15 (CT), Yummy_17 (CT),

Start 77:

- Found in 8 of 127 (6.3%) of genes in pham
- Manual Annotations of this start: 1 of 114
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Button_17 (CT),

Start 106:

- Found in 17 of 127 (13.4%) of genes in pham
- No Manual Annotations of this start.
- Called 5.9% of time when present
- Phage (with cluster) where this start called: GTE2_14 (CT),

Summary by clusters:

There are 6 clusters represented in this pham: DN, singleton, DN1, DN2, CV, CT,

Info for manual annotations of cluster CT:

- Start number 25 was manually annotated 29 times for cluster CT.
- Start number 72 was manually annotated 6 times for cluster CT.
- Start number 74 was manually annotated 16 times for cluster CT.
- Start number 77 was manually annotated 1 time for cluster CT.

Info for manual annotations of cluster CV:

- Start number 5 was manually annotated 1 time for cluster CV.
- Start number 7 was manually annotated 1 time for cluster CV.
- Start number 8 was manually annotated 37 times for cluster CV.
- Start number 11 was manually annotated 1 time for cluster CV.
- Start number 12 was manually annotated 1 time for cluster CV.
- Start number 14 was manually annotated 1 time for cluster CV.

Info for manual annotations of cluster DN:

- Start number 22 was manually annotated 1 time for cluster DN.

- Start number 37 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 19 was manually annotated 1 time for cluster DN1.
- Start number 20 was manually annotated 1 time for cluster DN1.
- Start number 21 was manually annotated 10 times for cluster DN1.
- Start number 22 was manually annotated 2 times for cluster DN1.
- Start number 27 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 22 was manually annotated 2 times for cluster DN2.

Gene Information:

Gene: Agatha_16 Start: 9629, Stop: 14767, Start Num: 25

Candidate Starts for Agatha_16:

(Start: 22 @9605 has 5 MA's), (Start: 25 @9629 has 29 MA's), (28, 9656), (40, 9785), (43, 9860), (68, 10013), (69, 10016), (87, 10112), (90, 10121), (96, 10151), (98, 10157), (100, 10172), (101, 10175), (105, 10196), (115, 10268), (118, 10289), (129, 10355), (132, 10376), (147, 10493), (175, 10655), (182, 10694), (190, 10769), (206, 10928), (211, 10940), (215, 10967), (221, 11012), (222, 11024), (236, 11114), (239, 11132), (242, 11153), (245, 11183), (251, 11207), (253, 11219), (256, 11258), (260, 11291), (273, 11393), (274, 11396), (278, 11420), (288, 11513), (291, 11528), (295, 11567), (308, 11663), (317, 11705), (324, 11735), (325, 11738), (335, 11846), (336, 11849), (339, 11900), (353, 11975), (362, 12077), (370, 12122), (374, 12143), (375, 12146), (376, 12149), (388, 12224), (398, 12257), (402, 12278), (406, 12308), (414, 12356), (416, 12362), (420, 12389), (440, 12524), (454, 12641), (457, 12674), (459, 12695), (460, 12698), (472, 12764), (473, 12770), (474, 12785), (490, 12905), (492, 12914), (504, 12998), (559, 13319), (587, 13538), (594, 13574), (622, 13787), (657, 13979), (667, 14027), (670, 14048), (686, 14156), (695, 14222), (697, 14240), (708, 14345), (713, 14375), (714, 14384), (718, 14414), (730, 14480), (733, 14528), (742, 14588), (755, 14675), (764, 14738),

Gene: AikoCarson_15 Start: 9357, Stop: 14072, Start Num: 74

Candidate Starts for AikoCarson_15:

(Start: 74 @9357 has 16 MA's), (80, 9384), (106, 9513), (119, 9600), (122, 9615), (128, 9660), (131, 9672), (133, 9690), (136, 9717), (146, 9789), (148, 9831), (151, 9846), (153, 9849), (158, 9873), (161, 9891), (165, 9909), (173, 9954), (174, 9963), (180, 9990), (184, 10023), (193, 10083), (196, 10122), (199, 10161), (201, 10176), (215, 10245), (220, 10272), (235, 10368), (237, 10386), (248, 10449), (271, 10617), (273, 10623), (287, 10737), (288, 10743), (291, 10758), (321, 10947), (325, 10968), (328, 10986), (329, 10995), (339, 11130), (353, 11205), (355, 11241), (358, 11280), (359, 11283), (362, 11307), (366, 11337), (370, 11352), (375, 11376), (384, 11415), (388, 11454), (390, 11460), (420, 11619), (453, 11868), (454, 11871), (457, 11904), (459, 11925), (472, 11994), (473, 12000), (483, 12099), (492, 12144), (504, 12231), (532, 12366), (559, 12558), (567, 12627), (571, 12651), (591, 12792), (619, 13005), (622, 13026), (630, 13083), (677, 13386), (685, 13443), (686, 13461), (695, 13527), (702, 13599), (708, 13650), (712, 13674), (713, 13680), (714, 13689), (718, 13719), (730, 13785), (733, 13833), (742, 13893), (756, 13983), (764, 14043),

Gene: Amok_15 Start: 9357, Stop: 14069, Start Num: 74

Candidate Starts for Amok_15:

(Start: 74 @9357 has 16 MA's), (80, 9384), (106, 9513), (119, 9600), (122, 9615), (128, 9660), (131, 9672), (133, 9690), (136, 9717), (146, 9789), (148, 9831), (151, 9846), (153, 9849), (158, 9873), (161, 9891), (165, 9909), (169, 9930), (173, 9954), (174, 9963), (180, 9990), (184, 10023), (185, 10032),

(196, 10122), (199, 10161), (201, 10176), (215, 10245), (220, 10272), (235, 10368), (237, 10386), (248, 10449), (271, 10617), (273, 10623), (287, 10737), (288, 10743), (291, 10758), (321, 10947), (325, 10968), (328, 10986), (329, 10995), (339, 11130), (348, 11184), (353, 11205), (355, 11241), (358, 11280), (359, 11283), (362, 11307), (366, 11337), (370, 11352), (375, 11376), (384, 11415), (388, 11454), (390, 11460), (414, 11586), (419, 11616), (420, 11619), (422, 11637), (423, 11640), (453, 11868), (454, 11871), (457, 11904), (459, 11925), (472, 11994), (473, 12000), (504, 12231), (532, 12366), (559, 12558), (567, 12627), (571, 12651), (591, 12792), (619, 13005), (622, 13026), (630, 13080), (677, 13383), (685, 13440), (686, 13458), (695, 13524), (702, 13596), (708, 13647), (713, 13677), (714, 13686), (718, 13716), (730, 13782), (733, 13830), (742, 13890), (756, 13980), (764, 14040),

Gene: AndPeggy_15 Start: 9645, Stop: 14432, Start Num: 74

Candidate Starts for AndPeggy_15:

(Start: 74 @9645 has 16 MA's), (80, 9672), (94, 9750), (106, 9801), (119, 9888), (122, 9903), (131, 9960), (133, 9978), (136, 10005), (137, 10008), (146, 10077), (151, 10134), (161, 10179), (165, 10197), (173, 10242), (180, 10278), (184, 10311), (191, 10359), (192, 10362), (196, 10410), (199, 10449), (201, 10464), (235, 10656), (237, 10674), (252, 10758), (271, 10905), (277, 10932), (287, 11025), (288, 11031), (291, 11046), (295, 11085), (296, 11097), (305, 11163), (321, 11235), (324, 11253), (325, 11256), (329, 11283), (355, 11529), (362, 11595), (370, 11640), (374, 11661), (375, 11664), (376, 11667), (384, 11703), (388, 11742), (390, 11748), (398, 11775), (419, 11904), (420, 11907), (422, 11925), (441, 12048), (443, 12063), (457, 12192), (459, 12213), (468, 12255), (472, 12282), (473, 12288), (489, 12420), (492, 12432), (504, 12519), (511, 12561), (518, 12597), (544, 12723), (550, 12762), (565, 12891), (573, 12948), (579, 12990), (591, 13083), (598, 13158), (607, 13221), (619, 13302), (622, 13323), (646, 13500), (648, 13506), (674, 13725), (685, 13803), (686, 13821), (688, 13827), (695, 13887), (697, 13905), (700, 13938), (708, 14010), (714, 14049), (718, 14079), (730, 14145), (733, 14193), (742, 14253), (756, 14343), (764, 14403),

Gene: Archis_18 Start: 10485, Stop: 16007, Start Num: 8

Candidate Starts for Archis_18:

(Start: 8 @10485 has 37 MA's), (Start: 11 @10500 has 1 MA's), (Start: 12 @10506 has 1 MA's), (Start: 14 @10536 has 1 MA's), (15, 10545), (16, 10548), (18, 10590), (34, 10701), (35, 10722), (41, 10842), (48, 10884), (59, 10950), (61, 10968), (64, 10989), (65, 10992), (67, 11010), (73, 11034), (88, 11118), (90, 11124), (98, 11160), (100, 11175), (102, 11184), (127, 11352), (132, 11379), (147, 11496), (177, 11667), (182, 11697), (202, 11901), (211, 11946), (215, 11973), (216, 11985), (232, 12075), (236, 12120), (240, 12147), (244, 12177), (256, 12264), (257, 12267), (261, 12306), (270, 12390), (278, 12426), (282, 12468), (287, 12513), (288, 12519), (290, 12531), (291, 12534), (297, 12588), (301, 12627), (304, 12648), (305, 12651), (308, 12669), (309, 12678), (314, 12696), (319, 12717), (321, 12723), (325, 12744), (329, 12771), (334, 12849), (369, 13038), (377, 13062), (382, 13074), (383, 13077), (392, 13092), (397, 13107), (398, 13110), (406, 13161), (419, 13242), (420, 13245), (426, 13278), (429, 13308), (431, 13332), (475, 13665), (481, 13713), (485, 13758), (487, 13761), (488, 13776), (496, 13821), (498, 13830), (500, 13839), (507, 13890), (520, 13962), (526, 13980), (531, 14001), (546, 14100), (547, 14103), (551, 14136), (556, 14202), (558, 14220), (561, 14235), (564, 14268), (570, 14319), (576, 14370), (582, 14418), (602, 14613), (603, 14616), (616, 14688), (617, 14691), (625, 14757), (626, 14760), (628, 14778), (633, 14838), (640, 14895), (643, 14913), (651, 14994), (652, 14997), (653, 15012), (675, 15171), (680, 15225), (687, 15291), (693, 15345), (694, 15357), (695, 15363), (699, 15393), (708, 15486), (712, 15510), (715, 15528), (718, 15552), (719, 15558), (723, 15579), (730, 15618), (744, 15759), (755, 15822), (759, 15840), (765, 15897), (768, 15990),

Gene: Asapag_18 Start: 9881, Stop: 15508, Start Num: 21

Candidate Starts for Asapag_18:

(Start: 21 @9881 has 10 MA's), (Start: 27 @9926 has 1 MA's), (29, 9947), (33, 9968), (36, 10013), (Start: 37 @10028 has 1 MA's), (42, 10112), (50, 10154), (51, 10166), (61, 10229), (63, 10244), (65,

10253), (67, 10271), (68, 10277), (79, 10325), (105, 10460), (126, 10610), (132, 10640), (182, 10964),
(194, 11060), (202, 11168), (210, 11210), (211, 11213), (212, 11219), (215, 11240), (227, 11321),
(236, 11387), (240, 11414), (242, 11426), (244, 11444), (245, 11456), (251, 11480), (253, 11492),
(256, 11531), (257, 11534), (258, 11543), (261, 11573), (275, 11678), (278, 11693), (281, 11723),
(282, 11735), (287, 11780), (288, 11786), (291, 11801), (294, 11831), (296, 11852), (297, 11855),
(305, 11918), (309, 11945), (310, 11948), (311, 11951), (312, 11957), (318, 11981), (319, 11984),
(321, 11990), (323, 11996), (325, 12011), (328, 12029), (330, 12074), (337, 12158), (338, 12164),
(342, 12191), (355, 12284), (356, 12293), (362, 12350), (363, 12362), (371, 12398), (372, 12404),
(382, 12446), (384, 12458), (388, 12497), (390, 12503), (391, 12506), (396, 12524), (397, 12527),
(398, 12530), (403, 12554), (414, 12629), (421, 12668), (425, 12692), (429, 12725), (439, 12836),
(442, 12869), (447, 12932), (451, 12968), (455, 12998), (466, 13076), (467, 13079), (468, 13088),
(471, 13112), (480, 13193), (481, 13199), (485, 13244), (487, 13247), (488, 13262), (496, 13307),
(498, 13316), (500, 13325), (501, 13328), (518, 13433), (529, 13481), (530, 13484), (531, 13487),
(546, 13586), (547, 13589), (549, 13601), (561, 13718), (564, 13751), (570, 13802), (575, 13832),
(580, 13892), (592, 13973), (595, 13994), (597, 14027), (606, 14099), (608, 14108), (626, 14222),
(629, 14252), (631, 14261), (634, 14300), (635, 14303), (637, 14333), (640, 14354), (666, 14552),
(672, 14615), (673, 14621), (679, 14672), (698, 14858), (705, 14945), (710, 14972), (711, 14975),
(724, 15050), (728, 15074), (731, 15113), (734, 15149), (738, 15170), (747, 15257), (754, 15299),
(760, 15332), (761, 15344), (766, 15422), (769, 15488),

Gene: Axym_16 Start: 9629, Stop: 14767, Start Num: 25

Candidate Starts for Axym_16:

(Start: 22 @9605 has 5 MA's), (Start: 25 @9629 has 29 MA's), (28, 9656), (40, 9785), (43, 9860), (68,
10013), (69, 10016), (87, 10112), (90, 10121), (96, 10151), (98, 10157), (100, 10172), (101, 10175),
(105, 10196), (115, 10268), (118, 10289), (129, 10355), (132, 10376), (147, 10493), (175, 10655),
(182, 10694), (190, 10769), (206, 10928), (211, 10940), (215, 10967), (221, 11012), (222, 11024),
(236, 11114), (239, 11132), (242, 11153), (245, 11183), (251, 11207), (253, 11219), (256, 11258),
(260, 11291), (273, 11393), (274, 11396), (278, 11420), (288, 11513), (291, 11528), (295, 11567),
(301, 11621), (308, 11663), (310, 11675), (317, 11705), (324, 11735), (325, 11738), (335, 11846),
(336, 11849), (339, 11900), (353, 11975), (360, 12065), (362, 12077), (370, 12122), (374, 12143),
(375, 12146), (376, 12149), (388, 12224), (398, 12257), (402, 12278), (406, 12308), (414, 12356),
(416, 12362), (420, 12389), (440, 12524), (454, 12641), (457, 12674), (459, 12695), (460, 12698),
(472, 12764), (473, 12770), (474, 12785), (490, 12905), (492, 12914), (504, 12998), (559, 13319),
(587, 13538), (594, 13574), (622, 13787), (657, 13979), (667, 14027), (670, 14048), (686, 14156),
(695, 14222), (697, 14240), (703, 14300), (708, 14345), (713, 14375), (714, 14384), (718, 14414),
(730, 14480), (733, 14528), (742, 14588), (755, 14675), (764, 14738),

Gene: Azira_18 Start: 10619, Stop: 15748, Start Num: 25

Candidate Starts for Azira_18:

(Start: 22 @10598 has 5 MA's), (Start: 25 @10619 has 29 MA's), (28, 10646), (40, 10775), (48,
10871), (56, 10922), (66, 10979), (70, 11012), (71, 11015), (87, 11102), (91, 11114), (100, 11162),
(101, 11165), (102, 11171), (110, 11225), (111, 11231), (118, 11279), (129, 11345), (132, 11366),
(190, 11759), (191, 11762), (199, 11864), (211, 11930), (212, 11936), (215, 11957), (244, 12161),
(246, 12179), (249, 12185), (251, 12197), (253, 12209), (256, 12248), (258, 12260), (263, 12296),
(267, 12353), (271, 12377), (273, 12383), (288, 12503), (291, 12518), (295, 12557), (304, 12632),
(310, 12665), (314, 12680), (315, 12686), (316, 12692), (325, 12728), (335, 12836), (342, 12908),
(352, 12962), (362, 13067), (370, 13112), (375, 13136), (386, 13196), (387, 13208), (388, 13214),
(396, 13241), (397, 13244), (398, 13247), (412, 13340), (414, 13346), (422, 13397), (431, 13466),
(437, 13499), (440, 13514), (441, 13520), (447, 13577), (449, 13589), (453, 13628), (454, 13631),
(456, 13652), (457, 13664), (459, 13685), (460, 13688), (468, 13727), (469, 13739), (472, 13754),
(490, 13895), (504, 13991), (516, 14057), (519, 14078), (522, 14084), (559, 14321), (564, 14351),
(567, 14390), (586, 14525), (590, 14555), (594, 14576), (615, 14735), (619, 14768), (657, 14981),
(663, 14999), (667, 15005), (686, 15134), (695, 15200), (700, 15251), (708, 15323), (714, 15362),

(718, 15392), (725, 15425), (730, 15458), (739, 15530), (746, 15602), (755, 15656), (757, 15662), (764, 15719),

Gene: Azula_19 Start: 10619, Stop: 16108, Start Num: 8

Candidate Starts for Azula_19:

(Start: 8 @10619 has 37 MA's), (Start: 11 @10634 has 1 MA's), (Start: 12 @10640 has 1 MA's), (Start: 14 @10670 has 1 MA's), (15, 10679), (16, 10682), (18, 10724), (34, 10835), (35, 10856), (41, 10976), (48, 11018), (59, 11084), (61, 11102), (64, 11123), (65, 11126), (67, 11144), (73, 11168), (88, 11252), (98, 11294), (100, 11309), (102, 11318), (127, 11486), (132, 11513), (147, 11630), (177, 11801), (182, 11831), (202, 12035), (211, 12080), (215, 12107), (216, 12119), (218, 12131), (232, 12209), (236, 12254), (240, 12281), (244, 12311), (256, 12398), (257, 12401), (261, 12440), (267, 12503), (268, 12512), (278, 12560), (282, 12602), (287, 12647), (288, 12653), (291, 12668), (297, 12722), (301, 12761), (304, 12782), (305, 12785), (308, 12803), (314, 12830), (319, 12851), (321, 12857), (325, 12878), (328, 12896), (329, 12905), (365, 13178), (383, 13232), (397, 13262), (398, 13265), (406, 13316), (419, 13397), (420, 13400), (426, 13433), (429, 13463), (431, 13487), (442, 13553), (475, 13820), (481, 13868), (483, 13901), (485, 13913), (487, 13916), (496, 13976), (498, 13985), (500, 13994), (507, 14045), (520, 14117), (526, 14135), (531, 14156), (546, 14255), (547, 14258), (551, 14291), (556, 14357), (558, 14375), (561, 14390), (564, 14423), (570, 14474), (576, 14525), (585, 14594), (602, 14768), (603, 14771), (616, 14843), (617, 14846), (625, 14912), (626, 14915), (628, 14933), (633, 14993), (640, 15050), (643, 15068), (651, 15149), (652, 15152), (653, 15167), (675, 15338), (680, 15392), (691, 15464), (692, 15473), (696, 15509), (704, 15569), (705, 15587), (709, 15605), (717, 15650), (722, 15683), (736, 15794), (744, 15863), (755, 15926), (759, 15944), (768, 16094),

Gene: BENtherdunthat_18 Start: 9881, Stop: 15508, Start Num: 21

Candidate Starts for BENtherdunthat_18:

(Start: 21 @9881 has 10 MA's), (Start: 27 @9926 has 1 MA's), (29, 9947), (33, 9968), (36, 10013), (Start: 37 @10028 has 1 MA's), (42, 10112), (50, 10154), (51, 10166), (61, 10229), (63, 10244), (65, 10253), (67, 10271), (68, 10277), (79, 10325), (105, 10460), (126, 10610), (132, 10640), (182, 10964), (194, 11060), (202, 11168), (210, 11210), (211, 11213), (212, 11219), (215, 11240), (227, 11321), (236, 11387), (240, 11414), (242, 11426), (244, 11444), (245, 11456), (251, 11480), (253, 11492), (256, 11531), (257, 11534), (258, 11543), (261, 11573), (275, 11678), (278, 11693), (281, 11723), (282, 11735), (287, 11780), (288, 11786), (291, 11801), (294, 11831), (296, 11852), (297, 11855), (305, 11918), (309, 11945), (310, 11948), (311, 11951), (312, 11957), (318, 11981), (319, 11984), (321, 11990), (323, 11996), (325, 12011), (328, 12029), (330, 12074), (337, 12158), (338, 12164), (342, 12191), (355, 12284), (356, 12293), (362, 12350), (363, 12362), (371, 12398), (372, 12404), (382, 12446), (384, 12458), (388, 12497), (390, 12503), (391, 12506), (396, 12524), (397, 12527), (398, 12530), (403, 12554), (414, 12629), (421, 12668), (425, 12692), (429, 12725), (439, 12836), (442, 12869), (447, 12932), (451, 12968), (455, 12998), (466, 13076), (467, 13079), (468, 13088), (471, 13112), (480, 13193), (481, 13199), (485, 13244), (487, 13247), (488, 13262), (496, 13307), (498, 13316), (500, 13325), (501, 13328), (518, 13433), (529, 13481), (530, 13484), (531, 13487), (546, 13586), (547, 13589), (549, 13601), (561, 13718), (564, 13751), (570, 13802), (575, 13832), (580, 13892), (592, 13973), (595, 13994), (597, 14027), (606, 14099), (608, 14108), (626, 14222), (629, 14252), (631, 14261), (634, 14300), (635, 14303), (637, 14333), (640, 14354), (666, 14552), (672, 14615), (673, 14621), (679, 14672), (698, 14858), (705, 14945), (710, 14972), (711, 14975), (724, 15050), (728, 15074), (731, 15113), (734, 15149), (738, 15170), (747, 15257), (754, 15299), (760, 15332), (761, 15344), (766, 15422), (769, 15488),

Gene: Barco_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for Barco_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (34, 10490), (35, 10511), (41, 10631), (48, 10673), (59, 10739), (61, 10757), (64, 10778), (65, 10781), (67, 10799), (73, 10823), (88, 10907),

(89, 10910), (98, 10949), (100, 10964), (102, 10973), (127, 11141), (132, 11168), (147, 11285), (177, 11456), (182, 11486), (202, 11690), (211, 11735), (215, 11762), (216, 11774), (232, 11864), (236, 11909), (240, 11936), (244, 11966), (256, 12053), (257, 12056), (261, 12095), (270, 12179), (278, 12215), (282, 12257), (287, 12302), (288, 12308), (290, 12320), (291, 12323), (297, 12377), (301, 12416), (304, 12437), (305, 12440), (308, 12458), (309, 12467), (314, 12485), (319, 12506), (321, 12512), (325, 12533), (329, 12560), (334, 12638), (369, 12827), (377, 12851), (382, 12863), (383, 12866), (392, 12881), (397, 12896), (398, 12899), (406, 12950), (419, 13031), (420, 13034), (426, 13067), (429, 13097), (431, 13121), (475, 13454), (481, 13502), (485, 13547), (487, 13550), (488, 13565), (496, 13610), (498, 13619), (500, 13628), (507, 13679), (520, 13751), (526, 13769), (531, 13790), (546, 13889), (547, 13892), (551, 13925), (556, 13991), (558, 14009), (561, 14024), (564, 14057), (570, 14108), (576, 14159), (582, 14207), (602, 14402), (603, 14405), (616, 14477), (617, 14480), (625, 14546), (626, 14549), (628, 14567), (633, 14627), (640, 14684), (643, 14702), (651, 14783), (652, 14786), (653, 14801), (680, 15014), (687, 15080), (693, 15134), (694, 15146), (695, 15152), (708, 15275), (712, 15299), (715, 15317), (718, 15341), (719, 15347), (723, 15368), (730, 15407), (744, 15548), (746, 15560), (755, 15611), (759, 15629), (768, 15779),

Gene: Begonia_18 Start: 10785, Stop: 16274, Start Num: 8

Candidate Starts for Begonia_18:

(Start: 8 @10785 has 37 MA's), (13, 10824), (Start: 14 @10836 has 1 MA's), (15, 10845), (16, 10848), (18, 10890), (34, 11001), (35, 11022), (41, 11142), (48, 11184), (59, 11250), (61, 11268), (63, 11283), (64, 11289), (65, 11292), (67, 11310), (73, 11334), (88, 11418), (98, 11460), (100, 11475), (102, 11484), (127, 11652), (132, 11679), (143, 11754), (147, 11796), (155, 11844), (177, 11967), (182, 11997), (202, 12201), (211, 12246), (215, 12273), (216, 12285), (232, 12375), (236, 12420), (240, 12447), (244, 12477), (256, 12564), (261, 12606), (278, 12726), (282, 12768), (287, 12813), (288, 12819), (290, 12831), (291, 12834), (297, 12888), (301, 12927), (304, 12948), (305, 12951), (308, 12969), (314, 12996), (321, 13023), (325, 13044), (329, 13071), (333, 13143), (365, 13344), (369, 13359), (377, 13383), (383, 13398), (397, 13428), (398, 13431), (406, 13482), (419, 13563), (420, 13566), (426, 13599), (429, 13629), (431, 13653), (442, 13719), (475, 13986), (481, 14034), (485, 14079), (487, 14082), (488, 14097), (496, 14142), (498, 14151), (500, 14160), (507, 14211), (520, 14283), (526, 14301), (531, 14322), (546, 14421), (547, 14424), (551, 14457), (556, 14523), (558, 14541), (561, 14556), (564, 14589), (570, 14640), (576, 14691), (602, 14934), (603, 14937), (617, 15012), (625, 15078), (626, 15081), (628, 15099), (633, 15159), (651, 15315), (652, 15318), (653, 15333), (680, 15552), (689, 15609), (691, 15624), (696, 15672), (701, 15717), (720, 15837), (722, 15846), (729, 15885), (736, 15957), (744, 16026), (746, 16038), (755, 16089), (759, 16107), (765, 16164), (768, 16257),

Gene: BigChungus_15 Start: 9403, Stop: 14511, Start Num: 25

Candidate Starts for BigChungus_15:

(Start: 25 @9403 has 29 MA's), (40, 9559), (54, 9688), (58, 9718), (68, 9787), (71, 9799), (79, 9835), (87, 9886), (90, 9895), (98, 9931), (102, 9955), (111, 10015), (120, 10069), (124, 10108), (125, 10114), (129, 10129), (132, 10150), (156, 10321), (168, 10384), (175, 10429), (186, 10510), (202, 10669), (206, 10702), (211, 10714), (215, 10741), (222, 10798), (228, 10828), (231, 10840), (243, 10942), (244, 10945), (256, 11032), (263, 11080), (278, 11194), (288, 11287), (291, 11302), (293, 11323), (297, 11356), (299, 11386), (302, 11398), (308, 11437), (313, 11461), (314, 11464), (320, 11488), (325, 11512), (334, 11617), (345, 11695), (352, 11725), (353, 11728), (355, 11764), (359, 11806), (362, 11830), (364, 11845), (366, 11860), (370, 11875), (375, 11899), (384, 11938), (385, 11953), (386, 11959), (396, 12004), (398, 12010), (418, 12136), (424, 12166), (428, 12202), (429, 12205), (435, 12253), (439, 12274), (440, 12277), (448, 12349), (454, 12394), (457, 12427), (459, 12448), (469, 12502), (479, 12577), (492, 12661), (504, 12748), (559, 13066), (564, 13096), (581, 13234), (589, 13285), (594, 13315), (615, 13480), (619, 13510), (650, 13690), (659, 13741), (667, 13783), (670, 13804), (686, 13900), (692, 13948), (695, 13966), (708, 14089), (712, 14113), (714, 14128), (718, 14158), (723, 14185), (725, 14191), (730, 14224), (737, 14293), (739, 14296), (742, 14332), (756, 14422),

Gene: BillDoor_18 Start: 9610, Stop: 14400, Start Num: 74

Candidate Starts for BillDoor_18:

(Start: 74 @9610 has 16 MA's), (80, 9637), (94, 9715), (106, 9766), (119, 9853), (122, 9868), (131, 9925), (133, 9943), (136, 9970), (137, 9973), (146, 10042), (151, 10099), (161, 10144), (165, 10162), (173, 10207), (180, 10243), (184, 10276), (191, 10324), (192, 10327), (196, 10375), (199, 10414), (201, 10429), (235, 10621), (237, 10639), (252, 10723), (271, 10870), (277, 10897), (287, 10990), (288, 10996), (291, 11011), (295, 11050), (296, 11062), (305, 11128), (321, 11200), (324, 11218), (325, 11221), (329, 11248), (339, 11383), (353, 11458), (355, 11494), (362, 11560), (370, 11605), (374, 11626), (375, 11629), (376, 11632), (384, 11668), (388, 11707), (390, 11713), (398, 11740), (419, 11869), (420, 11872), (422, 11890), (441, 12013), (443, 12028), (457, 12157), (459, 12178), (468, 12220), (472, 12247), (473, 12253), (489, 12385), (492, 12397), (504, 12484), (511, 12526), (518, 12562), (544, 12688), (550, 12727), (565, 12856), (573, 12913), (579, 12958), (591, 13051), (598, 13126), (607, 13189), (619, 13270), (622, 13291), (646, 13468), (648, 13474), (674, 13693), (685, 13771), (686, 13789), (688, 13795), (695, 13855), (697, 13873), (700, 13906), (708, 13978), (714, 14017), (718, 14047), (730, 14113), (733, 14161), (742, 14221), (756, 14311), (764, 14371),

Gene: Biskit_17 Start: 9616, Stop: 14415, Start Num: 74

Candidate Starts for Biskit_17:

(Start: 74 @9616 has 16 MA's), (80, 9643), (106, 9772), (122, 9874), (128, 9919), (131, 9931), (133, 9949), (136, 9976), (137, 9979), (139, 9994), (145, 10045), (146, 10048), (151, 10105), (153, 10108), (161, 10150), (165, 10168), (173, 10213), (180, 10249), (184, 10282), (188, 10315), (189, 10327), (196, 10381), (199, 10420), (201, 10435), (204, 10444), (207, 10471), (217, 10522), (225, 10564), (228, 10582), (231, 10591), (237, 10645), (248, 10708), (251, 10723), (258, 10786), (271, 10876), (277, 10903), (287, 10996), (288, 11002), (291, 11017), (295, 11056), (305, 11134), (311, 11167), (321, 11206), (324, 11224), (325, 11227), (329, 11254), (332, 11311), (334, 11332), (340, 11395), (345, 11431), (348, 11443), (353, 11464), (355, 11500), (359, 11542), (360, 11554), (362, 11566), (370, 11611), (371, 11614), (374, 11632), (375, 11635), (376, 11638), (388, 11713), (390, 11719), (398, 11746), (407, 11806), (410, 11821), (418, 11872), (419, 11875), (420, 11878), (422, 11896), (436, 11995), (439, 12010), (440, 12013), (457, 12163), (459, 12184), (468, 12226), (472, 12253), (473, 12259), (489, 12391), (492, 12403), (504, 12490), (511, 12532), (518, 12568), (535, 12643), (544, 12694), (550, 12733), (557, 12811), (565, 12862), (573, 12919), (591, 13057), (598, 13132), (619, 13276), (622, 13297), (646, 13474), (648, 13480), (686, 13804), (688, 13810), (695, 13870), (697, 13888), (700, 13921), (708, 13993), (714, 14032), (718, 14062), (730, 14128), (733, 14176), (742, 14236), (756, 14326), (764, 14386),

Gene: BlingBling_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for BlingBling_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (34, 10490), (35, 10511), (41, 10631), (48, 10673), (59, 10739), (61, 10757), (64, 10778), (65, 10781), (67, 10799), (73, 10823), (88, 10907), (89, 10910), (98, 10949), (100, 10964), (102, 10973), (127, 11141), (132, 11168), (147, 11285), (177, 11456), (182, 11486), (202, 11690), (211, 11735), (215, 11762), (216, 11774), (232, 11864), (236, 11909), (240, 11936), (244, 11966), (256, 12053), (257, 12056), (261, 12095), (270, 12179), (278, 12215), (282, 12257), (287, 12302), (288, 12308), (290, 12320), (291, 12323), (297, 12377), (301, 12416), (304, 12437), (305, 12440), (308, 12458), (309, 12467), (314, 12485), (319, 12506), (321, 12512), (325, 12533), (329, 12560), (334, 12638), (369, 12827), (377, 12851), (382, 12863), (383, 12866), (392, 12881), (397, 12896), (398, 12899), (406, 12950), (419, 13031), (420, 13034), (426, 13067), (429, 13097), (431, 13121), (475, 13454), (481, 13502), (485, 13547), (487, 13550), (488, 13565), (496, 13610), (498, 13619), (500, 13628), (507, 13679), (520, 13751), (526, 13769), (531, 13790), (546, 13889), (547, 13892), (551, 13925), (556, 13991), (558, 14009), (561, 14024), (564, 14057), (570, 14108), (576, 14159), (582, 14207), (602, 14402), (603, 14405), (616, 14477), (617, 14480), (625, 14546), (626, 14549), (628, 14567), (633, 14627), (640, 14684), (643, 14702), (651,

14783), (652, 14786), (653, 14801), (680, 15014), (687, 15080), (693, 15134), (694, 15146), (695, 15152), (708, 15275), (712, 15299), (715, 15317), (718, 15341), (719, 15347), (723, 15368), (730, 15407), (744, 15548), (746, 15560), (755, 15611), (759, 15629), (768, 15779),

Gene: Blino_17 Start: 10173, Stop: 15764, Start Num: 8

Candidate Starts for Blino_17:

(Start: 8 @10173 has 37 MA's), (Start: 11 @10188 has 1 MA's), (Start: 14 @10224 has 1 MA's), (15, 10233), (16, 10236), (18, 10278), (34, 10389), (35, 10410), (41, 10530), (59, 10638), (61, 10656), (64, 10677), (65, 10680), (67, 10698), (90, 10812), (98, 10848), (100, 10863), (102, 10872), (127, 11040), (132, 11067), (147, 11184), (177, 11355), (182, 11385), (202, 11589), (211, 11634), (236, 11808), (240, 11835), (244, 11865), (256, 11952), (257, 11955), (261, 11994), (267, 12057), (278, 12114), (282, 12156), (287, 12201), (288, 12207), (290, 12219), (291, 12222), (297, 12276), (301, 12315), (304, 12336), (305, 12339), (308, 12357), (314, 12384), (319, 12405), (321, 12411), (325, 12432), (329, 12459), (331, 12507), (334, 12537), (356, 12693), (357, 12717), (359, 12726), (361, 12747), (378, 12828), (397, 12924), (398, 12927), (399, 12933), (405, 12975), (406, 12978), (409, 12999), (419, 13059), (420, 13062), (426, 13095), (429, 13125), (442, 13215), (475, 13482), (481, 13530), (485, 13575), (487, 13578), (488, 13593), (496, 13638), (498, 13647), (500, 13656), (507, 13707), (520, 13779), (526, 13797), (531, 13818), (546, 13917), (547, 13920), (551, 13953), (556, 14019), (558, 14037), (561, 14052), (564, 14085), (570, 14136), (576, 14187), (582, 14235), (602, 14430), (603, 14433), (616, 14505), (617, 14508), (625, 14574), (626, 14577), (628, 14595), (633, 14655), (643, 14730), (652, 14814), (653, 14829), (680, 15042), (689, 15099), (691, 15114), (696, 15162), (701, 15207), (720, 15327), (722, 15336), (729, 15375), (736, 15447), (744, 15516), (755, 15579), (759, 15597), (765, 15654), (768, 15747),

Gene: Blueberry_19 Start: 10619, Stop: 16108, Start Num: 8

Candidate Starts for Blueberry_19:

(Start: 8 @10619 has 37 MA's), (Start: 11 @10634 has 1 MA's), (Start: 12 @10640 has 1 MA's), (Start: 14 @10670 has 1 MA's), (15, 10679), (16, 10682), (18, 10724), (34, 10835), (35, 10856), (41, 10976), (48, 11018), (59, 11084), (61, 11102), (64, 11123), (65, 11126), (67, 11144), (73, 11168), (88, 11252), (98, 11294), (100, 11309), (102, 11318), (127, 11486), (132, 11513), (147, 11630), (177, 11801), (182, 11831), (202, 12035), (211, 12080), (215, 12107), (216, 12119), (218, 12131), (232, 12209), (236, 12254), (240, 12281), (244, 12311), (256, 12398), (257, 12401), (261, 12440), (267, 12503), (268, 12512), (278, 12560), (282, 12602), (287, 12647), (288, 12653), (291, 12668), (297, 12722), (301, 12761), (304, 12782), (305, 12785), (308, 12803), (314, 12830), (319, 12851), (321, 12857), (325, 12878), (328, 12896), (329, 12905), (365, 13178), (383, 13232), (397, 13262), (398, 13265), (406, 13316), (419, 13397), (420, 13400), (426, 13433), (429, 13463), (431, 13487), (442, 13553), (475, 13820), (481, 13868), (483, 13901), (485, 13913), (487, 13916), (496, 13976), (498, 13985), (500, 13994), (507, 14045), (520, 14117), (526, 14135), (531, 14156), (546, 14255), (547, 14258), (551, 14291), (556, 14357), (558, 14375), (561, 14390), (564, 14423), (570, 14474), (576, 14525), (585, 14594), (602, 14768), (603, 14771), (616, 14843), (617, 14846), (625, 14912), (626, 14915), (628, 14933), (633, 14993), (640, 15050), (643, 15068), (651, 15149), (652, 15152), (653, 15167), (675, 15338), (680, 15392), (691, 15464), (692, 15473), (696, 15509), (704, 15569), (705, 15587), (709, 15605), (717, 15650), (722, 15683), (736, 15794), (744, 15863), (755, 15926), (759, 15944), (768, 16094),

Gene: Budski_18 Start: 10015, Stop: 15501, Start Num: 37

Candidate Starts for Budski_18:

(Start: 21 @9868 has 10 MA's), (26, 9895), (Start: 27 @9913 has 1 MA's), (29, 9934), (33, 9955), (36, 10000), (Start: 37 @10015 has 1 MA's), (42, 10099), (50, 10141), (51, 10153), (61, 10216), (63, 10231), (65, 10240), (67, 10258), (68, 10264), (79, 10312), (105, 10447), (126, 10597), (132, 10627), (163, 10846), (177, 10921), (182, 10951), (202, 11155), (210, 11197), (211, 11200), (212, 11206), (215, 11227), (227, 11308), (236, 11374), (240, 11401), (242, 11413), (244, 11431), (245, 11443), (251, 11467), (253, 11479), (256, 11518), (257, 11521), (258, 11530), (261, 11560), (265, 11605),

(275, 11665), (278, 11680), (281, 11710), (282, 11722), (287, 11767), (288, 11773), (291, 11788),
(294, 11818), (296, 11839), (297, 11842), (305, 11905), (309, 11932), (310, 11935), (311, 11938),
(312, 11944), (318, 11968), (319, 11971), (321, 11977), (323, 11983), (325, 11998), (328, 12016),
(333, 12097), (337, 12145), (338, 12151), (342, 12178), (362, 12337), (363, 12349), (371, 12385),
(384, 12445), (388, 12484), (390, 12490), (391, 12493), (397, 12514), (398, 12517), (414, 12616),
(421, 12655), (425, 12679), (429, 12712), (432, 12757), (438, 12811), (446, 12898), (447, 12919),
(451, 12955), (455, 12985), (466, 13063), (467, 13066), (468, 13075), (471, 13099), (480, 13180),
(481, 13186), (485, 13231), (487, 13234), (488, 13249), (496, 13294), (498, 13303), (500, 13312),
(501, 13315), (518, 13420), (529, 13468), (531, 13474), (546, 13573), (547, 13576), (549, 13588),
(561, 13705), (564, 13738), (570, 13789), (572, 13801), (575, 13819), (580, 13879), (592, 13960),
(595, 13981), (597, 14014), (604, 14077), (608, 14095), (626, 14209), (629, 14239), (631, 14248),
(634, 14287), (635, 14290), (637, 14320), (640, 14341), (658, 14494), (666, 14545), (672, 14608),
(673, 14614), (679, 14665), (698, 14851), (705, 14938), (710, 14965), (711, 14968), (724, 15043),
(728, 15067), (731, 15106), (734, 15142), (738, 15163), (747, 15250), (754, 15292), (760, 15325),
(761, 15337), (766, 15415), (769, 15481),

Gene: Burnsey_16 Start: 9630, Stop: 14768, Start Num: 25

Candidate Starts for Burnsey_16:

(Start: 22 @9606 has 5 MA's), (Start: 25 @9630 has 29 MA's), (28, 9657), (40, 9786), (43, 9861), (68,
10014), (69, 10017), (87, 10113), (90, 10122), (96, 10152), (98, 10158), (100, 10173), (101, 10176),
(105, 10197), (118, 10290), (129, 10356), (132, 10377), (147, 10494), (175, 10656), (182, 10695),
(190, 10770), (206, 10929), (211, 10941), (215, 10968), (221, 11013), (222, 11025), (236, 11115),
(239, 11133), (242, 11154), (245, 11184), (251, 11208), (253, 11220), (256, 11259), (260, 11292),
(273, 11394), (274, 11397), (278, 11421), (288, 11514), (291, 11529), (295, 11568), (308, 11664),
(316, 11703), (317, 11706), (325, 11739), (335, 11847), (336, 11850), (339, 11901), (353, 11976),
(362, 12078), (370, 12123), (374, 12144), (375, 12147), (376, 12150), (388, 12225), (398, 12258),
(402, 12279), (406, 12309), (414, 12357), (416, 12363), (420, 12390), (440, 12525), (454, 12642),
(457, 12675), (459, 12696), (460, 12699), (472, 12765), (473, 12771), (474, 12786), (490, 12906),
(492, 12915), (504, 12999), (559, 13320), (587, 13539), (594, 13575), (622, 13788), (657, 13980),
(667, 14028), (670, 14049), (686, 14157), (695, 14223), (697, 14241), (703, 14301), (708, 14346),
(713, 14376), (714, 14385), (718, 14415), (730, 14481), (733, 14529), (742, 14589), (755, 14676),
(764, 14739),

Gene: Button_17 Start: 9644, Stop: 13834, Start Num: 77

Candidate Starts for Button_17:

(Start: 72 @9617 has 6 MA's), (Start: 77 @9644 has 1 MA's), (119, 9890), (129, 9953), (135, 10010),
(142, 10037), (145, 10079), (153, 10142), (157, 10157), (159, 10175), (162, 10193), (164, 10205),
(171, 10238), (178, 10280), (181, 10295), (195, 10400), (196, 10424), (198, 10463), (205, 10487),
(209, 10514), (214, 10544), (219, 10565), (227, 10619), (231, 10634), (249, 10763), (264, 10895),
(266, 10904), (271, 10940), (291, 11081), (293, 11102), (297, 11135), (298, 11153), (300, 11171),
(308, 11216), (321, 11270), (325, 11291), (336, 11354), (350, 11402), (352, 11414), (355, 11453),
(381, 11507), (388, 11534), (390, 11540), (397, 11564), (398, 11567), (407, 11627), (412, 11660),
(420, 11699), (422, 11717), (423, 11720), (429, 11762), (430, 11774), (434, 11807), (439, 11831),
(443, 11855), (444, 11858), (456, 11972), (457, 11984), (461, 12014), (463, 12023), (465, 12029),
(486, 12182), (497, 12242), (499, 12251), (500, 12257), (505, 12293), (541, 12425), (559, 12563),
(563, 12587), (588, 12785), (589, 12788), (610, 12950), (613, 12974), (615, 12977), (645, 13079),
(656, 13184), (689, 13256), (692, 13280), (694, 13292), (697, 13316), (699, 13328), (707, 13412),
(708, 13418), (715, 13460), (718, 13481), (725, 13514), (730, 13547), (732, 13568), (733, 13595),
(742, 13655), (745, 13682), (746, 13691), (748, 13703), (764, 13805),

Gene: Buttrmlkdreams_16 Start: 9601, Stop: 14397, Start Num: 74

Candidate Starts for Buttrmlkdreams_16:

(Start: 74 @9601 has 16 MA's), (80, 9628), (82, 9634), (106, 9757), (122, 9859), (128, 9904), (131, 9916), (133, 9934), (136, 9961), (137, 9964), (139, 9979), (145, 10030), (146, 10033), (151, 10090), (153, 10093), (161, 10135), (165, 10153), (173, 10198), (180, 10234), (184, 10267), (188, 10300), (189, 10312), (196, 10366), (199, 10405), (201, 10420), (204, 10429), (207, 10456), (217, 10507), (228, 10567), (231, 10576), (237, 10630), (248, 10693), (251, 10708), (271, 10861), (277, 10888), (285, 10969), (287, 10981), (288, 10987), (291, 11002), (294, 11032), (295, 11041), (305, 11119), (311, 11152), (321, 11191), (324, 11209), (325, 11212), (329, 11239), (332, 11296), (334, 11317), (340, 11380), (348, 11428), (353, 11449), (355, 11485), (359, 11527), (362, 11551), (370, 11596), (371, 11599), (374, 11617), (375, 11620), (376, 11623), (388, 11698), (390, 11704), (398, 11731), (407, 11791), (418, 11857), (419, 11860), (420, 11863), (422, 11881), (436, 11980), (439, 11995), (440, 11998), (457, 12148), (459, 12169), (468, 12211), (472, 12238), (473, 12244), (492, 12388), (504, 12475), (511, 12517), (518, 12553), (535, 12628), (544, 12679), (550, 12718), (565, 12847), (573, 12904), (591, 13042), (598, 13117), (619, 13261), (622, 13282), (646, 13456), (648, 13462), (686, 13786), (688, 13792), (695, 13852), (700, 13903), (708, 13975), (714, 14014), (718, 14044), (730, 14110), (733, 14158), (742, 14218), (756, 14308), (764, 14368),

Gene: CaptainKirk2_17 Start: 10277, Stop: 15820, Start Num: 8

Candidate Starts for CaptainKirk2_17:

(Start: 8 @10277 has 37 MA's), (Start: 11 @10292 has 1 MA's), (Start: 12 @10298 has 1 MA's), (Start: 14 @10328 has 1 MA's), (15, 10337), (16, 10340), (18, 10382), (34, 10493), (35, 10514), (59, 10742), (61, 10760), (63, 10775), (64, 10781), (65, 10784), (67, 10802), (73, 10826), (88, 10910), (89, 10913), (98, 10952), (100, 10967), (102, 10976), (127, 11144), (132, 11171), (182, 11489), (202, 11693), (211, 11738), (212, 11744), (215, 11765), (216, 11777), (232, 11867), (236, 11912), (240, 11939), (244, 11969), (256, 12056), (257, 12059), (261, 12098), (278, 12218), (282, 12260), (287, 12305), (288, 12311), (291, 12326), (297, 12380), (301, 12419), (304, 12440), (305, 12443), (308, 12461), (309, 12470), (319, 12509), (321, 12515), (325, 12536), (329, 12563), (352, 12770), (365, 12836), (377, 12875), (383, 12890), (397, 12920), (398, 12923), (406, 12974), (419, 13055), (420, 13058), (426, 13091), (429, 13121), (431, 13145), (475, 13478), (481, 13526), (485, 13571), (487, 13574), (488, 13589), (496, 13634), (498, 13643), (500, 13652), (507, 13703), (520, 13775), (526, 13793), (531, 13814), (546, 13913), (547, 13916), (551, 13949), (556, 14015), (558, 14033), (561, 14048), (564, 14081), (570, 14132), (576, 14183), (582, 14231), (602, 14426), (603, 14429), (616, 14501), (617, 14504), (625, 14570), (626, 14573), (628, 14591), (633, 14651), (640, 14708), (643, 14726), (651, 14807), (652, 14810), (653, 14825), (675, 14984), (680, 15038), (687, 15104), (693, 15158), (694, 15170), (695, 15176), (708, 15299), (712, 15323), (715, 15341), (718, 15365), (719, 15371), (723, 15392), (730, 15431), (744, 15572), (746, 15584), (755, 15635), (759, 15653), (768, 15803),

Gene: CarolAnn_17 Start: 10172, Stop: 15763, Start Num: 8

Candidate Starts for CarolAnn_17:

(Start: 8 @10172 has 37 MA's), (Start: 11 @10187 has 1 MA's), (Start: 14 @10223 has 1 MA's), (15, 10232), (16, 10235), (18, 10277), (34, 10388), (35, 10409), (41, 10529), (59, 10637), (61, 10655), (64, 10676), (65, 10679), (67, 10697), (90, 10811), (98, 10847), (100, 10862), (102, 10871), (127, 11039), (132, 11066), (147, 11183), (177, 11354), (182, 11384), (202, 11588), (211, 11633), (236, 11807), (240, 11834), (244, 11864), (248, 11885), (256, 11951), (257, 11954), (261, 11993), (267, 12056), (278, 12113), (282, 12155), (287, 12200), (288, 12206), (290, 12218), (291, 12221), (297, 12275), (301, 12314), (304, 12335), (305, 12338), (308, 12356), (314, 12383), (319, 12404), (321, 12410), (325, 12431), (329, 12458), (331, 12506), (334, 12536), (356, 12692), (357, 12716), (359, 12725), (361, 12746), (378, 12827), (397, 12923), (398, 12926), (399, 12932), (405, 12974), (406, 12977), (409, 12998), (419, 13058), (420, 13061), (426, 13094), (429, 13124), (442, 13214), (475, 13481), (481, 13529), (485, 13574), (487, 13577), (488, 13592), (496, 13637), (498, 13646), (500, 13655), (507, 13706), (520, 13778), (526, 13796), (531, 13817), (546, 13916), (547, 13919), (551, 13952), (556, 14018), (558, 14036), (561, 14051), (564, 14084), (570, 14135), (576, 14186), (582, 14234), (602, 14429), (603, 14432), (616, 14504), (617, 14507), (625, 14573), (626, 14576), (628, 14594), (633, 14654), (643, 14729), (652, 14813), (653, 14828), (680, 15041), (689, 15098), (691, 15113),

(696, 15161), (701, 15206), (720, 15326), (722, 15335), (729, 15374), (736, 15446), (744, 15515), (755, 15578), (759, 15596), (765, 15653), (768, 15746),

Gene: Carsonalex_17 Start: 9687, Stop: 14825, Start Num: 25

Candidate Starts for Carsonalex_17:

(Start: 22 @9663 has 5 MA's), (Start: 25 @9687 has 29 MA's), (28, 9714), (40, 9843), (43, 9918), (68, 10071), (69, 10074), (87, 10170), (90, 10179), (96, 10209), (98, 10215), (100, 10230), (101, 10233), (105, 10254), (115, 10326), (118, 10347), (129, 10413), (132, 10434), (147, 10551), (175, 10713), (182, 10752), (190, 10827), (215, 11025), (233, 11133), (242, 11211), (244, 11229), (246, 11247), (256, 11316), (258, 11328), (262, 11361), (277, 11472), (278, 11478), (288, 11571), (291, 11586), (308, 11721), (315, 11754), (325, 11796), (335, 11904), (339, 11958), (352, 12030), (353, 12033), (362, 12135), (370, 12180), (372, 12189), (374, 12201), (375, 12204), (376, 12207), (388, 12282), (389, 12285), (390, 12288), (393, 12300), (396, 12309), (398, 12315), (404, 12357), (406, 12366), (414, 12414), (420, 12447), (440, 12582), (454, 12699), (457, 12732), (459, 12753), (472, 12822), (473, 12828), (490, 12963), (492, 12972), (504, 13056), (559, 13377), (587, 13596), (594, 13632), (622, 13845), (657, 14037), (667, 14085), (670, 14106), (686, 14214), (695, 14280), (697, 14298), (703, 14358), (708, 14403), (713, 14433), (714, 14442), (718, 14472), (730, 14538), (733, 14586), (742, 14646), (755, 14733), (764, 14796),

Gene: CheeseTouch_18 Start: 9868, Stop: 15501, Start Num: 21

Candidate Starts for CheeseTouch_18:

(Start: 21 @9868 has 10 MA's), (Start: 27 @9913 has 1 MA's), (29, 9934), (33, 9955), (36, 10000), (Start: 37 @10015 has 1 MA's), (42, 10099), (50, 10141), (51, 10153), (61, 10216), (63, 10231), (65, 10240), (67, 10258), (68, 10264), (79, 10312), (105, 10447), (126, 10597), (132, 10627), (177, 10921), (182, 10951), (199, 11134), (202, 11155), (211, 11200), (212, 11206), (215, 11227), (227, 11308), (236, 11374), (240, 11401), (242, 11413), (244, 11431), (245, 11443), (251, 11467), (253, 11479), (256, 11518), (258, 11530), (261, 11560), (265, 11605), (275, 11665), (278, 11680), (281, 11710), (282, 11722), (287, 11767), (288, 11773), (290, 11785), (291, 11788), (293, 11809), (296, 11839), (297, 11842), (305, 11905), (309, 11932), (310, 11935), (311, 11938), (312, 11944), (318, 11968), (319, 11971), (321, 11977), (323, 11983), (325, 11998), (328, 12016), (333, 12097), (337, 12145), (338, 12151), (342, 12178), (362, 12337), (363, 12349), (371, 12385), (372, 12391), (382, 12433), (384, 12445), (388, 12484), (390, 12490), (391, 12493), (396, 12511), (397, 12514), (398, 12517), (403, 12541), (414, 12616), (421, 12655), (425, 12679), (429, 12712), (439, 12823), (442, 12856), (447, 12919), (451, 12955), (455, 12985), (466, 13063), (467, 13066), (468, 13075), (471, 13099), (481, 13186), (485, 13231), (487, 13234), (488, 13249), (496, 13294), (498, 13303), (500, 13312), (501, 13315), (518, 13420), (529, 13468), (531, 13474), (546, 13573), (547, 13576), (549, 13588), (561, 13705), (564, 13738), (570, 13789), (575, 13819), (580, 13879), (592, 13960), (595, 13981), (596, 13984), (597, 14014), (604, 14077), (606, 14086), (608, 14095), (626, 14209), (629, 14239), (634, 14287), (635, 14290), (637, 14320), (640, 14341), (666, 14539), (672, 14602), (673, 14608), (679, 14659), (698, 14851), (705, 14938), (710, 14965), (711, 14968), (724, 15043), (728, 15067), (731, 15106), (734, 15142), (738, 15163), (747, 15250), (754, 15292), (760, 15325), (761, 15337), (766, 15415), (769, 15481),

Gene: CherryonLim_17 Start: 10133, Stop: 15220, Start Num: 25

Candidate Starts for CherryonLim_17:

(Start: 25 @10133 has 29 MA's), (40, 10289), (54, 10418), (64, 10490), (68, 10517), (79, 10565), (83, 10574), (87, 10616), (89, 10622), (90, 10625), (98, 10661), (102, 10685), (107, 10712), (120, 10799), (124, 10838), (125, 10844), (129, 10859), (132, 10880), (140, 10934), (156, 11051), (168, 11114), (175, 11159), (186, 11240), (202, 11402), (205, 11411), (206, 11435), (211, 11447), (215, 11474), (216, 11486), (222, 11531), (228, 11561), (231, 11573), (243, 11675), (244, 11678), (256, 11765), (259, 11792), (269, 11882), (274, 11903), (278, 11927), (284, 11978), (288, 12020), (291, 12035), (292, 12044), (293, 12056), (297, 12089), (302, 12131), (312, 12191), (313, 12194), (314, 12197), (315, 12203), (320, 12221), (325, 12245), (330, 12308), (332, 12329), (334, 12350), (341, 12398),

(345, 12428), (351, 12455), (352, 12458), (359, 12539), (360, 12551), (362, 12563), (364, 12578), (370, 12608), (374, 12629), (375, 12632), (386, 12692), (389, 12713), (396, 12737), (398, 12743), (411, 12827), (418, 12869), (424, 12899), (429, 12938), (435, 12986), (439, 13007), (440, 13010), (441, 13016), (448, 13082), (454, 13127), (457, 13160), (459, 13181), (469, 13235), (490, 13385), (492, 13394), (504, 13481), (540, 13658), (559, 13799), (564, 13829), (581, 13967), (594, 14048), (615, 14201), (619, 14231), (654, 14441), (657, 14450), (659, 14456), (667, 14492), (686, 14609), (688, 14615), (692, 14657), (695, 14675), (708, 14798), (712, 14822), (714, 14837), (718, 14867), (723, 14894), (725, 14900), (730, 14933), (737, 15002), (739, 15005), (742, 15041), (752, 15113), (756, 15131),

Gene: Cleo_16 Start: 9909, Stop: 15023, Start Num: 25

Candidate Starts for Cleo_16:

(Start: 22 @9888 has 5 MA's), (Start: 25 @9909 has 29 MA's), (28, 9936), (40, 10065), (45, 10149), (48, 10161), (56, 10212), (62, 10245), (66, 10269), (70, 10302), (87, 10392), (100, 10452), (101, 10455), (111, 10521), (116, 10557), (118, 10569), (126, 10626), (129, 10635), (132, 10656), (183, 10995), (191, 11052), (199, 11154), (211, 11220), (212, 11226), (215, 11247), (236, 11394), (244, 11451), (246, 11469), (250, 11484), (253, 11499), (256, 11538), (267, 11643), (271, 11667), (273, 11673), (286, 11784), (288, 11793), (291, 11808), (295, 11847), (308, 11943), (314, 11970), (315, 11976), (316, 11982), (324, 12015), (325, 12018), (335, 12126), (337, 12165), (342, 12198), (346, 12228), (347, 12231), (352, 12252), (353, 12255), (362, 12357), (370, 12402), (375, 12426), (376, 12429), (396, 12531), (397, 12534), (398, 12537), (406, 12588), (414, 12636), (416, 12642), (422, 12687), (440, 12804), (441, 12810), (447, 12867), (454, 12921), (456, 12942), (457, 12954), (459, 12975), (460, 12978), (472, 13044), (473, 13050), (490, 13185), (502, 13251), (504, 13278), (518, 13356), (559, 13596), (564, 13626), (586, 13800), (590, 13830), (594, 13851), (605, 13959), (612, 13995), (619, 14043), (667, 14280), (685, 14391), (686, 14409), (695, 14475), (700, 14526), (708, 14598), (713, 14628), (714, 14637), (715, 14640), (718, 14667), (723, 14694), (730, 14733), (733, 14781), (742, 14841), (746, 14877), (755, 14931),

Gene: Cozz_16 Start: 9630, Stop: 14768, Start Num: 25

Candidate Starts for Cozz_16:

(Start: 22 @9606 has 5 MA's), (Start: 25 @9630 has 29 MA's), (28, 9657), (40, 9786), (43, 9861), (68, 10014), (69, 10017), (87, 10113), (90, 10122), (96, 10152), (98, 10158), (100, 10173), (101, 10176), (105, 10197), (115, 10269), (118, 10290), (129, 10356), (132, 10377), (147, 10494), (175, 10656), (182, 10695), (190, 10770), (206, 10929), (211, 10941), (215, 10968), (221, 11013), (222, 11025), (236, 11115), (239, 11133), (242, 11154), (245, 11184), (251, 11208), (253, 11220), (256, 11259), (260, 11292), (273, 11394), (274, 11397), (278, 11421), (288, 11514), (291, 11529), (295, 11568), (308, 11664), (316, 11703), (317, 11706), (325, 11739), (335, 11847), (336, 11850), (339, 11901), (353, 11976), (362, 12078), (370, 12123), (374, 12144), (375, 12147), (376, 12150), (388, 12225), (398, 12258), (402, 12279), (414, 12357), (416, 12363), (420, 12390), (440, 12525), (454, 12642), (457, 12675), (459, 12696), (472, 12765), (473, 12771), (474, 12786), (490, 12906), (492, 12915), (504, 12999), (559, 13320), (587, 13539), (594, 13575), (622, 13788), (657, 13980), (667, 14028), (670, 14049), (686, 14157), (695, 14223), (697, 14241), (703, 14301), (708, 14346), (713, 14376), (714, 14385), (718, 14415), (730, 14481), (733, 14529), (742, 14589), (755, 14676), (764, 14739),

Gene: Delian_17 Start: 10277, Stop: 15820, Start Num: 8

Candidate Starts for Delian_17:

(Start: 8 @10277 has 37 MA's), (Start: 11 @10292 has 1 MA's), (Start: 12 @10298 has 1 MA's), (Start: 14 @10328 has 1 MA's), (15, 10337), (16, 10340), (18, 10382), (34, 10493), (35, 10514), (59, 10742), (61, 10760), (63, 10775), (64, 10781), (65, 10784), (67, 10802), (73, 10826), (88, 10910), (89, 10913), (98, 10952), (100, 10967), (102, 10976), (127, 11144), (132, 11171), (182, 11489), (202, 11693), (211, 11738), (212, 11744), (215, 11765), (216, 11777), (232, 11867), (236, 11912), (240, 11939), (244, 11969), (256, 12056), (257, 12059), (261, 12098), (278, 12218), (282, 12260), (287, 12305), (288, 12311), (291, 12326), (297, 12380), (301, 12419), (304, 12440), (305, 12443), (308, 12461), (309,

12470), (319, 12509), (321, 12515), (325, 12536), (329, 12563), (352, 12770), (365, 12836), (377, 12875), (383, 12890), (397, 12920), (398, 12923), (406, 12974), (419, 13055), (420, 13058), (426, 13091), (429, 13121), (431, 13145), (475, 13478), (481, 13526), (485, 13571), (487, 13574), (488, 13589), (496, 13634), (498, 13643), (500, 13652), (507, 13703), (520, 13775), (526, 13793), (531, 13814), (546, 13913), (547, 13916), (551, 13949), (556, 14015), (558, 14033), (561, 14048), (564, 14081), (570, 14132), (576, 14183), (582, 14231), (602, 14426), (603, 14429), (616, 14501), (617, 14504), (625, 14570), (626, 14573), (628, 14591), (633, 14651), (640, 14708), (643, 14726), (651, 14807), (652, 14810), (653, 14825), (675, 14984), (680, 15038), (687, 15104), (693, 15158), (694, 15170), (695, 15176), (708, 15299), (712, 15323), (715, 15341), (718, 15365), (719, 15371), (723, 15392), (730, 15431), (744, 15572), (746, 15584), (755, 15635), (759, 15653), (768, 15803),

Gene: Dre3_16 Start: 9856, Stop: 14970, Start Num: 25

Candidate Starts for Dre3_16:

(Start: 22 @9835 has 5 MA's), (Start: 25 @9856 has 29 MA's), (28, 9883), (40, 10012), (45, 10096), (48, 10108), (56, 10159), (62, 10192), (66, 10216), (70, 10249), (87, 10339), (100, 10399), (101, 10402), (111, 10468), (116, 10504), (118, 10516), (126, 10573), (129, 10582), (132, 10603), (183, 10942), (191, 10999), (199, 11101), (211, 11167), (212, 11173), (215, 11194), (236, 11341), (244, 11398), (246, 11416), (250, 11431), (253, 11446), (256, 11485), (267, 11590), (271, 11614), (273, 11620), (286, 11731), (288, 11740), (291, 11755), (295, 11794), (308, 11890), (314, 11917), (315, 11923), (316, 11929), (324, 11962), (325, 11965), (335, 12073), (337, 12112), (342, 12145), (346, 12175), (347, 12178), (352, 12199), (353, 12202), (362, 12304), (370, 12349), (375, 12373), (376, 12376), (389, 12454), (396, 12478), (397, 12481), (398, 12484), (406, 12535), (414, 12583), (416, 12589), (422, 12634), (440, 12751), (441, 12757), (447, 12814), (454, 12868), (456, 12889), (457, 12901), (459, 12922), (460, 12925), (472, 12991), (473, 12997), (490, 13132), (502, 13198), (504, 13225), (518, 13303), (559, 13543), (564, 13573), (586, 13747), (590, 13777), (594, 13798), (605, 13906), (619, 13990), (667, 14227), (685, 14338), (686, 14356), (695, 14422), (700, 14473), (708, 14545), (714, 14584), (715, 14587), (718, 14614), (723, 14641), (730, 14680), (733, 14728), (742, 14788), (746, 14824), (755, 14878),

Gene: Elinal_17 Start: 9384, Stop: 14468, Start Num: 25

Candidate Starts for Elinal_17:

(Start: 25 @9384 has 29 MA's), (40, 9540), (54, 9669), (58, 9699), (68, 9768), (71, 9780), (83, 9825), (87, 9867), (90, 9876), (98, 9912), (102, 9936), (120, 10050), (124, 10089), (125, 10095), (126, 10101), (129, 10110), (132, 10131), (156, 10302), (168, 10365), (175, 10410), (186, 10491), (202, 10650), (206, 10683), (211, 10695), (215, 10722), (222, 10779), (228, 10809), (231, 10821), (243, 10923), (244, 10926), (256, 11013), (263, 11061), (278, 11175), (288, 11268), (291, 11283), (293, 11304), (297, 11337), (299, 11367), (302, 11379), (308, 11418), (313, 11442), (314, 11445), (320, 11469), (325, 11493), (334, 11598), (341, 11646), (345, 11676), (349, 11691), (352, 11706), (355, 11745), (359, 11787), (360, 11799), (362, 11811), (364, 11826), (366, 11841), (370, 11856), (375, 11880), (384, 11919), (385, 11934), (386, 11940), (389, 11961), (396, 11985), (398, 11991), (418, 12117), (424, 12147), (430, 12198), (435, 12234), (439, 12255), (440, 12258), (448, 12330), (454, 12375), (457, 12408), (459, 12429), (469, 12483), (479, 12558), (492, 12642), (504, 12729), (542, 12915), (559, 13047), (564, 13077), (581, 13215), (589, 13266), (594, 13296), (615, 13452), (619, 13482), (650, 13662), (659, 13713), (667, 13740), (670, 13761), (686, 13857), (692, 13905), (695, 13923), (708, 14046), (712, 14070), (714, 14085), (718, 14115), (723, 14142), (725, 14148), (730, 14181), (737, 14250), (739, 14253), (742, 14289), (756, 14379),

Gene: Elliott_16 Start: 9629, Stop: 14767, Start Num: 25

Candidate Starts for Elliott_16:

(Start: 22 @9605 has 5 MA's), (Start: 25 @9629 has 29 MA's), (28, 9656), (40, 9785), (43, 9860), (68, 10013), (69, 10016), (87, 10112), (90, 10121), (96, 10151), (98, 10157), (100, 10172), (101, 10175), (105, 10196), (115, 10268), (118, 10289), (129, 10355), (132, 10376), (147, 10493), (175, 10655), (182, 10694), (190, 10769), (206, 10928), (211, 10940), (215, 10967), (221, 11012), (222, 11024),

(236, 11114), (239, 11132), (242, 11153), (245, 11183), (251, 11207), (253, 11219), (256, 11258), (260, 11291), (273, 11393), (274, 11396), (278, 11420), (288, 11513), (291, 11528), (295, 11567), (316, 11702), (317, 11705), (325, 11738), (335, 11846), (336, 11849), (339, 11900), (353, 11975), (362, 12077), (370, 12122), (374, 12143), (375, 12146), (376, 12149), (388, 12224), (398, 12257), (402, 12278), (406, 12308), (414, 12356), (416, 12362), (420, 12389), (440, 12524), (454, 12641), (457, 12674), (459, 12695), (472, 12764), (473, 12770), (474, 12785), (490, 12905), (492, 12914), (504, 12998), (559, 13319), (587, 13538), (594, 13574), (622, 13787), (657, 13979), (667, 14027), (670, 14048), (686, 14156), (695, 14222), (697, 14240), (708, 14345), (713, 14375), (714, 14384), (718, 14414), (730, 14480), (733, 14528), (742, 14588), (755, 14675), (764, 14738),

Gene: Emalyn_15 Start: 9356, Stop: 14068, Start Num: 74

Candidate Starts for Emalyn_15:

(Start: 74 @9356 has 16 MA's), (106, 9512), (119, 9599), (122, 9614), (128, 9659), (131, 9671), (133, 9689), (136, 9716), (146, 9788), (148, 9830), (151, 9845), (153, 9848), (158, 9872), (161, 9890), (165, 9908), (169, 9929), (173, 9953), (174, 9962), (180, 9989), (184, 10022), (185, 10031), (196, 10121), (199, 10160), (201, 10175), (215, 10244), (220, 10271), (235, 10367), (237, 10385), (248, 10448), (271, 10616), (273, 10622), (287, 10736), (288, 10742), (291, 10757), (321, 10946), (325, 10967), (328, 10985), (329, 10994), (339, 11129), (353, 11204), (355, 11240), (358, 11279), (359, 11282), (362, 11306), (366, 11336), (370, 11351), (375, 11375), (384, 11414), (388, 11453), (390, 11459), (420, 11618), (453, 11867), (454, 11870), (457, 11903), (459, 11924), (472, 11993), (473, 11999), (504, 12230), (532, 12365), (559, 12557), (567, 12626), (571, 12650), (591, 12791), (619, 13004), (622, 13025), (630, 13079), (677, 13382), (685, 13439), (686, 13457), (695, 13523), (702, 13595), (708, 13646), (712, 13670), (713, 13676), (714, 13685), (718, 13715), (730, 13781), (733, 13829), (742, 13889), (756, 13979), (764, 14039),

Gene: Fairfaxidum_17 Start: 10343, Stop: 15964, Start Num: 8

Candidate Starts for Fairfaxidum_17:

(Start: 7 @10307 has 1 MA's), (Start: 8 @10343 has 37 MA's), (Start: 12 @10364 has 1 MA's), (13, 10382), (16, 10406), (18, 10448), (32, 10547), (34, 10559), (35, 10580), (38, 10637), (42, 10709), (45, 10730), (50, 10751), (53, 10772), (54, 10775), (60, 10823), (61, 10826), (65, 10850), (67, 10868), (79, 10922), (90, 10982), (98, 11018), (99, 11024), (132, 11237), (159, 11423), (177, 11525), (179, 11540), (182, 11555), (187, 11612), (211, 11804), (230, 11924), (240, 12005), (244, 12035), (251, 12071), (256, 12122), (261, 12164), (278, 12284), (284, 12335), (287, 12371), (288, 12377), (291, 12392), (297, 12446), (301, 12485), (305, 12509), (308, 12527), (315, 12560), (319, 12575), (321, 12581), (324, 12599), (325, 12602), (329, 12629), (330, 12665), (359, 12896), (363, 12932), (364, 12935), (371, 12968), (389, 13070), (398, 13103), (408, 13166), (414, 13202), (420, 13238), (424, 13262), (427, 13289), (439, 13370), (447, 13436), (450, 13454), (462, 13559), (468, 13592), (475, 13658), (476, 13667), (481, 13706), (483, 13739), (485, 13751), (487, 13754), (488, 13769), (491, 13778), (496, 13814), (498, 13823), (500, 13832), (516, 13928), (529, 13988), (530, 13991), (531, 13994), (533, 14015), (547, 14096), (552, 14138), (561, 14225), (564, 14258), (566, 14267), (570, 14309), (585, 14423), (602, 14597), (616, 14672), (617, 14675), (620, 14705), (621, 14708), (624, 14732), (625, 14741), (626, 14744), (633, 14822), (640, 14879), (653, 14996), (660, 15047), (680, 15185), (687, 15251), (694, 15317), (695, 15323), (697, 15341), (706, 15434), (708, 15446), (716, 15494), (718, 15512), (719, 15518), (723, 15539), (730, 15578), (744, 15719), (755, 15782), (765, 15857), (768, 15950),

Gene: Feastonyeet_15 Start: 9403, Stop: 14511, Start Num: 25

Candidate Starts for Feastonyeet_15:

(Start: 25 @9403 has 29 MA's), (40, 9559), (54, 9688), (58, 9718), (68, 9787), (71, 9799), (79, 9835), (87, 9886), (90, 9895), (98, 9931), (102, 9955), (111, 10015), (120, 10069), (124, 10108), (125, 10114), (129, 10129), (132, 10150), (156, 10321), (168, 10384), (175, 10429), (186, 10510), (202, 10669), (206, 10702), (211, 10714), (215, 10741), (222, 10798), (228, 10828), (231, 10840), (243, 10942), (244, 10945), (256, 11032), (263, 11080), (278, 11194), (288, 11287), (291, 11302), (293,

11323), (297, 11356), (299, 11386), (302, 11398), (308, 11437), (313, 11461), (314, 11464), (320, 11488), (325, 11512), (334, 11617), (345, 11695), (352, 11725), (353, 11728), (355, 11764), (359, 11806), (362, 11830), (364, 11845), (366, 11860), (370, 11875), (375, 11899), (384, 11938), (385, 11953), (386, 11959), (396, 12004), (398, 12010), (418, 12136), (424, 12166), (428, 12202), (429, 12205), (435, 12253), (439, 12274), (440, 12277), (448, 12349), (454, 12394), (457, 12427), (459, 12448), (469, 12502), (479, 12577), (492, 12661), (504, 12748), (559, 13066), (564, 13096), (581, 13234), (589, 13285), (594, 13315), (615, 13480), (619, 13510), (650, 13690), (659, 13741), (667, 13783), (670, 13804), (686, 13900), (692, 13948), (695, 13966), (708, 14089), (712, 14113), (714, 14128), (718, 14158), (723, 14185), (725, 14191), (730, 14224), (737, 14293), (739, 14296), (742, 14332), (756, 14422),

Gene: Fenry_16 Start: 10023, Stop: 15515, Start Num: 8

Candidate Starts for Fenry_16:

(Start: 8 @10023 has 37 MA's), (Start: 11 @10038 has 1 MA's), (Start: 12 @10044 has 1 MA's), (Start: 14 @10074 has 1 MA's), (15, 10083), (16, 10086), (18, 10128), (34, 10239), (35, 10260), (41, 10380), (59, 10488), (61, 10506), (63, 10521), (64, 10527), (65, 10530), (67, 10548), (73, 10572), (88, 10656), (90, 10662), (98, 10698), (100, 10713), (102, 10722), (127, 10890), (132, 10917), (163, 11130), (182, 11235), (202, 11439), (211, 11484), (215, 11511), (216, 11523), (232, 11613), (236, 11658), (240, 11685), (244, 11715), (256, 11802), (257, 11805), (261, 11844), (278, 11964), (282, 12006), (287, 12051), (288, 12057), (290, 12069), (291, 12072), (297, 12126), (301, 12165), (304, 12186), (305, 12189), (308, 12207), (319, 12255), (321, 12261), (325, 12282), (329, 12309), (333, 12381), (352, 12516), (367, 12588), (369, 12597), (373, 12609), (377, 12621), (383, 12636), (397, 12666), (398, 12669), (406, 12720), (419, 12801), (420, 12804), (426, 12837), (429, 12867), (431, 12891), (442, 12957), (470, 13173), (475, 13224), (481, 13272), (485, 13317), (487, 13320), (488, 13335), (496, 13380), (498, 13389), (500, 13398), (507, 13449), (520, 13521), (526, 13539), (531, 13560), (546, 13659), (547, 13662), (551, 13695), (556, 13761), (558, 13779), (561, 13794), (564, 13827), (570, 13878), (576, 13929), (602, 14172), (603, 14175), (616, 14247), (617, 14250), (625, 14316), (626, 14319), (628, 14337), (633, 14397), (651, 14553), (652, 14556), (653, 14571), (675, 14742), (680, 14796), (689, 14853), (691, 14868), (696, 14916), (701, 14961), (720, 15081), (722, 15090), (729, 15129), (736, 15201), (744, 15270), (746, 15282), (755, 15333), (759, 15351), (768, 15501),

Gene: Fribs8_17 Start: 10424, Stop: 15559, Start Num: 25

Candidate Starts for Fribs8_17:

(Start: 25 @10424 has 29 MA's), (28, 10451), (40, 10580), (48, 10676), (56, 10727), (62, 10760), (66, 10784), (70, 10817), (87, 10907), (100, 10967), (101, 10970), (110, 11030), (111, 11036), (118, 11084), (129, 11150), (132, 11171), (137, 11207), (191, 11567), (199, 11669), (206, 11723), (208, 11726), (211, 11735), (212, 11741), (215, 11762), (236, 11909), (244, 11966), (246, 11984), (251, 12002), (253, 12014), (256, 12053), (263, 12101), (267, 12158), (271, 12182), (273, 12188), (286, 12299), (288, 12308), (291, 12323), (295, 12362), (304, 12437), (314, 12485), (315, 12491), (325, 12533), (335, 12641), (337, 12680), (342, 12713), (362, 12872), (370, 12917), (375, 12941), (389, 13022), (396, 13046), (397, 13049), (398, 13052), (401, 13070), (406, 13103), (412, 13145), (420, 13184), (427, 13235), (440, 13319), (441, 13325), (447, 13382), (449, 13394), (454, 13436), (456, 13457), (457, 13469), (459, 13490), (460, 13493), (472, 13559), (474, 13580), (490, 13700), (502, 13766), (504, 13793), (512, 13838), (516, 13859), (519, 13880), (559, 14123), (564, 14153), (567, 14192), (586, 14327), (590, 14357), (594, 14378), (619, 14570), (657, 14783), (662, 14801), (667, 14816), (685, 14927), (686, 14945), (695, 15011), (700, 15062), (706, 15122), (708, 15134), (714, 15173), (715, 15176), (718, 15203), (725, 15236), (730, 15269), (755, 15467), (757, 15473), (764, 15530),

Gene: Frickyeah_18 Start: 9926, Stop: 15508, Start Num: 27

Candidate Starts for Frickyeah_18:

(Start: 21 @9881 has 10 MA's), (Start: 27 @9926 has 1 MA's), (29, 9947), (33, 9968), (36, 10013), (Start: 37 @10028 has 1 MA's), (42, 10112), (50, 10154), (51, 10166), (61, 10229), (63, 10244), (65,

10253), (67, 10271), (68, 10277), (79, 10325), (105, 10460), (126, 10610), (132, 10640), (182, 10964), (194, 11060), (202, 11168), (211, 11213), (212, 11219), (215, 11240), (227, 11321), (236, 11387), (240, 11414), (242, 11426), (244, 11444), (245, 11456), (251, 11480), (253, 11492), (256, 11531), (257, 11534), (258, 11543), (261, 11573), (265, 11618), (275, 11678), (278, 11693), (281, 11723), (282, 11735), (287, 11780), (288, 11786), (291, 11801), (294, 11831), (296, 11852), (297, 11855), (305, 11918), (309, 11945), (310, 11948), (311, 11951), (312, 11957), (318, 11981), (319, 11984), (321, 11990), (323, 11996), (325, 12011), (328, 12029), (330, 12074), (337, 12158), (338, 12164), (342, 12191), (355, 12284), (356, 12293), (362, 12350), (363, 12362), (371, 12398), (372, 12404), (382, 12446), (384, 12458), (388, 12497), (390, 12503), (391, 12506), (396, 12524), (397, 12527), (398, 12530), (403, 12554), (414, 12629), (421, 12668), (425, 12692), (429, 12725), (439, 12836), (442, 12869), (447, 12932), (451, 12968), (455, 12998), (466, 13076), (467, 13079), (468, 13088), (471, 13112), (480, 13193), (481, 13199), (485, 13244), (487, 13247), (488, 13262), (496, 13307), (498, 13316), (500, 13325), (501, 13328), (518, 13433), (529, 13481), (530, 13484), (531, 13487), (546, 13586), (547, 13589), (549, 13601), (561, 13718), (564, 13751), (570, 13802), (575, 13832), (580, 13892), (592, 13973), (595, 13994), (597, 14027), (606, 14099), (608, 14108), (626, 14222), (629, 14252), (631, 14261), (634, 14300), (635, 14303), (637, 14333), (640, 14354), (666, 14552), (672, 14615), (673, 14621), (679, 14672), (698, 14858), (705, 14945), (710, 14972), (711, 14975), (724, 15050), (728, 15074), (731, 15113), (734, 15149), (738, 15170), (747, 15257), (754, 15299), (760, 15332), (761, 15344), (766, 15422), (769, 15488),

Gene: Frokostdame_17 Start: 10288, Stop: 15762, Start Num: 11

Candidate Starts for Frokostdame_17:

(Start: 8 @10273 has 37 MA's), (10, 10285), (Start: 11 @10288 has 1 MA's), (Start: 12 @10294 has 1 MA's), (Start: 14 @10324 has 1 MA's), (15, 10333), (18, 10378), (34, 10489), (35, 10510), (41, 10630), (48, 10672), (59, 10738), (61, 10756), (64, 10777), (65, 10780), (67, 10798), (73, 10822), (88, 10906), (98, 10948), (100, 10963), (102, 10972), (127, 11140), (132, 11167), (147, 11284), (156, 11338), (163, 11380), (182, 11485), (202, 11689), (211, 11734), (212, 11740), (215, 11761), (216, 11773), (232, 11863), (236, 11908), (240, 11935), (244, 11965), (256, 12052), (257, 12055), (261, 12094), (267, 12157), (268, 12166), (278, 12214), (282, 12256), (288, 12307), (291, 12322), (297, 12376), (301, 12415), (304, 12436), (305, 12439), (308, 12457), (314, 12484), (319, 12505), (321, 12511), (325, 12532), (328, 12550), (329, 12559), (365, 12832), (373, 12859), (377, 12871), (383, 12886), (397, 12916), (398, 12919), (406, 12970), (412, 13012), (419, 13051), (420, 13054), (426, 13087), (429, 13117), (431, 13141), (442, 13207), (475, 13474), (481, 13522), (483, 13555), (485, 13567), (487, 13570), (488, 13585), (496, 13630), (498, 13639), (500, 13648), (507, 13699), (520, 13771), (526, 13789), (531, 13810), (546, 13909), (547, 13912), (551, 13945), (556, 14011), (558, 14029), (561, 14044), (564, 14077), (570, 14128), (576, 14179), (602, 14422), (603, 14425), (616, 14497), (617, 14500), (625, 14566), (626, 14569), (628, 14587), (633, 14647), (640, 14704), (643, 14722), (651, 14803), (652, 14806), (653, 14821), (675, 14992), (680, 15046), (691, 15118), (692, 15127), (696, 15163), (704, 15223), (705, 15241), (709, 15259), (717, 15304), (722, 15337), (736, 15448), (744, 15517), (755, 15580), (759, 15598), (768, 15748),

Gene: GTE2_14 Start: 9463, Stop: 14106, Start Num: 106

Candidate Starts for GTE2_14:

(Start: 74 @9307 has 16 MA's), (80, 9334), (94, 9412), (106, 9463), (119, 9550), (122, 9565), (131, 9622), (133, 9640), (136, 9667), (137, 9670), (146, 9739), (151, 9796), (161, 9841), (165, 9859), (173, 9904), (180, 9940), (184, 9973), (191, 10021), (192, 10024), (196, 10072), (199, 10111), (201, 10126), (235, 10318), (237, 10336), (252, 10420), (271, 10567), (277, 10594), (287, 10687), (288, 10693), (291, 10708), (295, 10747), (305, 10825), (321, 10897), (324, 10915), (325, 10918), (339, 11080), (353, 11155), (355, 11191), (362, 11257), (370, 11302), (374, 11323), (375, 11326), (376, 11329), (384, 11365), (388, 11404), (390, 11410), (396, 11431), (398, 11437), (407, 11497), (419, 11566), (420, 11569), (422, 11587), (441, 11710), (443, 11725), (457, 11854), (459, 11875), (467, 11908), (472, 11944), (473, 11950), (489, 12082), (492, 12094), (504, 12181), (535, 12334), (544, 12385), (550, 12424), (565, 12553), (573, 12610), (579, 12655), (591, 12748), (598, 12823), (607, 12886),

(619, 12967), (622, 12988), (646, 13174), (648, 13180), (674, 13399), (685, 13477), (686, 13495), (688, 13501), (695, 13561), (697, 13579), (700, 13612), (708, 13684), (714, 13723), (718, 13753), (730, 13819), (733, 13867), (742, 13927), (756, 14017), (764, 14077),

Gene: Gambino_19 Start: 10619, Stop: 16108, Start Num: 8

Candidate Starts for Gambino_19:

(Start: 8 @10619 has 37 MA's), (Start: 11 @10634 has 1 MA's), (Start: 12 @10640 has 1 MA's), (Start: 14 @10670 has 1 MA's), (15, 10679), (16, 10682), (18, 10724), (34, 10835), (35, 10856), (41, 10976), (48, 11018), (59, 11084), (61, 11102), (64, 11123), (65, 11126), (67, 11144), (73, 11168), (88, 11252), (98, 11294), (100, 11309), (102, 11318), (127, 11486), (132, 11513), (147, 11630), (177, 11801), (182, 11831), (202, 12035), (211, 12080), (215, 12107), (216, 12119), (218, 12131), (232, 12209), (236, 12254), (240, 12281), (244, 12311), (256, 12398), (257, 12401), (261, 12440), (267, 12503), (268, 12512), (278, 12560), (282, 12602), (287, 12647), (288, 12653), (291, 12668), (297, 12722), (301, 12761), (304, 12782), (305, 12785), (308, 12803), (314, 12830), (319, 12851), (321, 12857), (325, 12878), (328, 12896), (329, 12905), (365, 13178), (383, 13232), (397, 13262), (398, 13265), (406, 13316), (419, 13397), (420, 13400), (426, 13433), (429, 13463), (431, 13487), (442, 13553), (475, 13820), (481, 13868), (483, 13901), (485, 13913), (487, 13916), (496, 13976), (498, 13985), (500, 13994), (507, 14045), (520, 14117), (526, 14135), (531, 14156), (546, 14255), (547, 14258), (551, 14291), (556, 14357), (558, 14375), (561, 14390), (564, 14423), (570, 14474), (576, 14525), (585, 14594), (602, 14768), (603, 14771), (616, 14843), (617, 14846), (625, 14912), (626, 14915), (628, 14933), (633, 14993), (640, 15050), (643, 15068), (651, 15149), (652, 15152), (653, 15167), (675, 15338), (680, 15392), (691, 15464), (692, 15473), (696, 15509), (704, 15569), (705, 15587), (709, 15605), (717, 15650), (722, 15683), (736, 15794), (744, 15863), (755, 15926), (759, 15944), (768, 16094),

Gene: Getalong_19 Start: 10672, Stop: 16305, Start Num: 22

Candidate Starts for Getalong_19:

(Start: 22 @10672 has 5 MA's), (Start: 27 @10717 has 1 MA's), (29, 10738), (33, 10759), (36, 10804), (Start: 37 @10819 has 1 MA's), (42, 10903), (50, 10945), (51, 10957), (61, 11020), (63, 11035), (65, 11044), (67, 11062), (68, 11068), (79, 11116), (105, 11251), (126, 11401), (132, 11431), (163, 11650), (177, 11725), (182, 11755), (202, 11959), (211, 12004), (212, 12010), (215, 12031), (218, 12055), (227, 12112), (236, 12178), (240, 12205), (242, 12217), (244, 12235), (245, 12247), (251, 12271), (253, 12283), (256, 12322), (257, 12325), (258, 12334), (261, 12364), (265, 12409), (275, 12469), (278, 12484), (281, 12514), (282, 12526), (287, 12571), (288, 12577), (291, 12592), (294, 12622), (296, 12643), (297, 12646), (305, 12709), (309, 12736), (310, 12739), (311, 12742), (312, 12748), (318, 12772), (319, 12775), (321, 12781), (323, 12787), (325, 12802), (328, 12820), (330, 12865), (337, 12949), (338, 12955), (342, 12982), (355, 13075), (356, 13084), (362, 13141), (363, 13153), (371, 13189), (372, 13195), (382, 13237), (384, 13249), (388, 13288), (390, 13294), (391, 13297), (396, 13315), (397, 13318), (398, 13321), (414, 13420), (421, 13459), (425, 13483), (429, 13516), (439, 13627), (442, 13660), (447, 13723), (451, 13759), (455, 13789), (466, 13867), (467, 13870), (468, 13879), (471, 13903), (481, 13990), (485, 14035), (487, 14038), (488, 14053), (496, 14098), (498, 14107), (500, 14116), (501, 14119), (518, 14224), (529, 14272), (531, 14278), (546, 14377), (547, 14380), (549, 14392), (561, 14509), (564, 14542), (570, 14593), (575, 14623), (580, 14683), (592, 14764), (595, 14785), (596, 14788), (597, 14818), (604, 14881), (606, 14890), (608, 14899), (626, 15013), (629, 15043), (634, 15091), (635, 15094), (637, 15124), (640, 15145), (666, 15343), (672, 15406), (673, 15412), (679, 15463), (698, 15655), (705, 15742), (710, 15769), (711, 15772), (724, 15847), (728, 15871), (731, 15910), (734, 15946), (738, 15967), (747, 16054), (754, 16096), (760, 16129), (761, 16141), (769, 16285),

Gene: GiKK_19 Start: 9920, Stop: 14137, Start Num: 72

Candidate Starts for GiKK_19:

(Start: 72 @9920 has 6 MA's), (Start: 77 @9947 has 1 MA's), (119, 10193), (129, 10256), (135, 10313), (142, 10340), (145, 10382), (153, 10445), (157, 10460), (159, 10478), (162, 10496), (164,

10508), (171, 10541), (178, 10583), (181, 10598), (194, 10694), (195, 10703), (198, 10766), (200, 10781), (209, 10817), (219, 10868), (224, 10901), (225, 10910), (238, 10991), (247, 11057), (249, 11066), (250, 11075), (254, 11096), (269, 11231), (271, 11243), (291, 11384), (293, 11405), (297, 11438), (298, 11456), (300, 11474), (308, 11519), (321, 11573), (323, 11579), (325, 11594), (336, 11657), (350, 11705), (353, 11720), (355, 11756), (381, 11810), (388, 11837), (389, 11840), (390, 11843), (397, 11867), (398, 11870), (407, 11930), (419, 11999), (420, 12002), (422, 12020), (427, 12053), (433, 12104), (439, 12134), (443, 12158), (444, 12161), (457, 12287), (459, 12308), (461, 12317), (463, 12326), (465, 12332), (486, 12485), (499, 12554), (500, 12560), (505, 12596), (540, 12725), (559, 12866), (563, 12890), (567, 12935), (588, 13088), (589, 13091), (615, 13283), (619, 13313), (656, 13487), (689, 13559), (694, 13595), (697, 13619), (699, 13631), (702, 13673), (707, 13715), (708, 13721), (712, 13745), (715, 13763), (718, 13784), (723, 13811), (725, 13817), (730, 13850), (732, 13871), (733, 13898), (739, 13922), (742, 13958), (748, 14006), (764, 14108),

Gene: Gibbous_16 Start: 9856, Stop: 14970, Start Num: 25

Candidate Starts for Gibbous_16:

(Start: 22 @9835 has 5 MA's), (Start: 25 @9856 has 29 MA's), (28, 9883), (40, 10012), (45, 10096), (48, 10108), (56, 10159), (62, 10192), (66, 10216), (70, 10249), (87, 10339), (100, 10399), (101, 10402), (111, 10468), (116, 10504), (118, 10516), (126, 10573), (129, 10582), (132, 10603), (183, 10942), (191, 10999), (199, 11101), (211, 11167), (212, 11173), (215, 11194), (236, 11341), (244, 11398), (246, 11416), (250, 11431), (253, 11446), (256, 11485), (267, 11590), (271, 11614), (273, 11620), (286, 11731), (288, 11740), (291, 11755), (295, 11794), (308, 11890), (314, 11917), (315, 11923), (316, 11929), (324, 11962), (325, 11965), (335, 12073), (337, 12112), (342, 12145), (346, 12175), (347, 12178), (352, 12199), (353, 12202), (362, 12304), (370, 12349), (375, 12373), (376, 12376), (389, 12454), (396, 12478), (397, 12481), (398, 12484), (406, 12535), (414, 12583), (416, 12589), (422, 12634), (440, 12751), (441, 12757), (447, 12814), (454, 12868), (456, 12889), (457, 12901), (459, 12922), (460, 12925), (472, 12991), (473, 12997), (490, 13132), (502, 13198), (504, 13225), (518, 13303), (559, 13543), (564, 13573), (586, 13747), (590, 13777), (594, 13798), (605, 13906), (619, 13990), (667, 14227), (685, 14338), (686, 14356), (695, 14422), (700, 14473), (708, 14545), (714, 14584), (715, 14587), (718, 14614), (723, 14641), (730, 14680), (733, 14728), (742, 14788), (746, 14824), (755, 14878),

Gene: GoldHunter_17 Start: 9630, Stop: 14768, Start Num: 25

Candidate Starts for GoldHunter_17:

(Start: 22 @9606 has 5 MA's), (Start: 25 @9630 has 29 MA's), (28, 9657), (40, 9786), (43, 9861), (68, 10014), (69, 10017), (87, 10113), (90, 10122), (96, 10152), (98, 10158), (100, 10173), (101, 10176), (105, 10197), (115, 10269), (118, 10290), (129, 10356), (132, 10377), (147, 10494), (175, 10656), (182, 10695), (190, 10770), (206, 10929), (211, 10941), (215, 10968), (221, 11013), (222, 11025), (236, 11115), (239, 11133), (242, 11154), (245, 11184), (251, 11208), (253, 11220), (256, 11259), (260, 11292), (273, 11394), (274, 11397), (278, 11421), (288, 11514), (291, 11529), (295, 11568), (301, 11622), (308, 11664), (317, 11706), (324, 11736), (325, 11739), (335, 11847), (336, 11850), (339, 11901), (353, 11976), (360, 12066), (362, 12078), (370, 12123), (374, 12144), (375, 12147), (376, 12150), (388, 12225), (398, 12258), (402, 12279), (406, 12309), (414, 12357), (416, 12363), (420, 12390), (440, 12525), (454, 12642), (457, 12675), (459, 12696), (460, 12699), (472, 12765), (473, 12771), (474, 12786), (490, 12906), (492, 12915), (504, 12999), (559, 13320), (587, 13539), (594, 13575), (622, 13788), (657, 13980), (667, 14028), (670, 14049), (686, 14157), (695, 14223), (697, 14241), (703, 14301), (708, 14346), (713, 14376), (714, 14385), (718, 14415), (730, 14481), (733, 14529), (742, 14589), (755, 14676), (764, 14739),

Gene: Guacamole_17 Start: 10278, Stop: 15800, Start Num: 8

Candidate Starts for Guacamole_17:

(Start: 8 @10278 has 37 MA's), (Start: 11 @10293 has 1 MA's), (Start: 12 @10299 has 1 MA's), (Start: 14 @10329 has 1 MA's), (15, 10338), (16, 10341), (18, 10383), (34, 10494), (35, 10515), (41, 10635), (48, 10677), (59, 10743), (61, 10761), (64, 10782), (65, 10785), (67, 10803), (73, 10827), (88, 10911),

(89, 10914), (98, 10953), (100, 10968), (102, 10977), (127, 11145), (132, 11172), (147, 11289), (155, 11337), (177, 11460), (182, 11490), (202, 11694), (211, 11739), (215, 11766), (216, 11778), (232, 11868), (236, 11913), (240, 11940), (244, 11970), (256, 12057), (257, 12060), (261, 12099), (270, 12183), (278, 12219), (282, 12261), (287, 12306), (288, 12312), (290, 12324), (291, 12327), (297, 12381), (301, 12420), (304, 12441), (305, 12444), (308, 12462), (309, 12471), (314, 12489), (319, 12510), (321, 12516), (325, 12537), (329, 12564), (334, 12642), (369, 12831), (377, 12855), (382, 12867), (383, 12870), (392, 12885), (397, 12900), (398, 12903), (406, 12954), (419, 13035), (420, 13038), (426, 13071), (429, 13101), (431, 13125), (452, 13284), (475, 13458), (481, 13506), (485, 13551), (487, 13554), (488, 13569), (496, 13614), (498, 13623), (500, 13632), (507, 13683), (520, 13755), (526, 13773), (531, 13794), (546, 13893), (547, 13896), (551, 13929), (556, 13995), (558, 14013), (561, 14028), (564, 14061), (570, 14112), (576, 14163), (582, 14211), (602, 14406), (603, 14409), (616, 14481), (617, 14484), (625, 14550), (626, 14553), (628, 14571), (633, 14631), (640, 14688), (643, 14706), (651, 14787), (652, 14790), (653, 14805), (680, 15018), (687, 15084), (693, 15138), (694, 15150), (695, 15156), (708, 15279), (712, 15303), (715, 15321), (718, 15345), (719, 15351), (723, 15372), (730, 15411), (744, 15552), (746, 15564), (755, 15615), (759, 15633), (768, 15783),

Gene: Hexbug_18 Start: 10603, Stop: 14823, Start Num: 72

Candidate Starts for Hexbug_18:

(Start: 72 @10603 has 6 MA's), (Start: 77 @10630 has 1 MA's), (129, 10939), (135, 10996), (141, 11020), (145, 11065), (146, 11068), (148, 11110), (153, 11128), (157, 11143), (159, 11161), (160, 11170), (171, 11224), (181, 11281), (192, 11362), (196, 11410), (198, 11449), (200, 11464), (205, 11473), (209, 11500), (214, 11530), (215, 11533), (219, 11551), (238, 11674), (247, 11740), (255, 11803), (266, 11890), (278, 11959), (290, 12064), (291, 12067), (293, 12088), (297, 12121), (298, 12139), (300, 12157), (304, 12181), (308, 12202), (309, 12211), (321, 12256), (322, 12259), (325, 12277), (350, 12388), (352, 12400), (353, 12403), (355, 12439), (369, 12481), (381, 12493), (388, 12520), (398, 12553), (410, 12628), (419, 12682), (420, 12685), (422, 12703), (429, 12748), (433, 12787), (434, 12793), (439, 12817), (442, 12838), (443, 12841), (444, 12844), (457, 12970), (459, 12991), (461, 13000), (463, 13009), (465, 13015), (486, 13168), (495, 13213), (499, 13237), (500, 13243), (505, 13279), (511, 13312), (517, 13336), (532, 13387), (541, 13432), (559, 13570), (564, 13600), (615, 13981), (656, 14173), (689, 14245), (694, 14281), (697, 14305), (699, 14317), (702, 14359), (708, 14407), (718, 14470), (725, 14503), (730, 14536), (732, 14557), (733, 14584), (739, 14608), (742, 14644), (745, 14671), (746, 14680), (748, 14692), (764, 14794),

Gene: HippoPololi_18 Start: 10513, Stop: 15630, Start Num: 25

Candidate Starts for HippoPololi_18:

(Start: 22 @10492 has 5 MA's), (Start: 25 @10513 has 29 MA's), (28, 10540), (40, 10669), (45, 10753), (52, 10792), (56, 10816), (66, 10873), (69, 10900), (70, 10906), (87, 10996), (100, 11056), (101, 11059), (111, 11125), (118, 11173), (129, 11239), (132, 11260), (183, 11599), (190, 11653), (191, 11656), (199, 11758), (208, 11815), (210, 11821), (211, 11824), (212, 11830), (215, 11851), (232, 11953), (244, 12055), (246, 12073), (256, 12142), (263, 12190), (267, 12247), (271, 12271), (273, 12277), (288, 12397), (291, 12412), (295, 12451), (304, 12526), (308, 12547), (314, 12574), (315, 12580), (324, 12619), (325, 12622), (335, 12730), (342, 12802), (352, 12856), (362, 12961), (370, 13006), (375, 13030), (389, 13111), (397, 13138), (398, 13141), (406, 13192), (414, 13240), (416, 13246), (422, 13291), (440, 13408), (441, 13414), (447, 13471), (454, 13525), (456, 13546), (457, 13558), (459, 13579), (460, 13582), (472, 13648), (473, 13654), (490, 13789), (492, 13798), (502, 13855), (504, 13882), (522, 13975), (559, 14203), (562, 14224), (564, 14233), (586, 14407), (590, 14437), (594, 14458), (619, 14650), (641, 14740), (667, 14887), (670, 14908), (686, 15016), (690, 15049), (695, 15082), (700, 15133), (708, 15205), (714, 15244), (715, 15247), (718, 15274), (725, 15307), (730, 15340), (732, 15361), (733, 15388), (746, 15484), (755, 15538),

Gene: Hitter_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for Hitter_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (34, 10490), (35, 10511), (59, 10739), (61, 10757), (63, 10772), (64, 10778), (65, 10781), (67, 10799), (73, 10823), (88, 10907), (90, 10913), (98, 10949), (100, 10964), (102, 10973), (127, 11141), (132, 11168), (147, 11285), (177, 11456), (182, 11486), (202, 11690), (211, 11735), (236, 11909), (240, 11936), (244, 11966), (256, 12053), (261, 12095), (270, 12179), (278, 12215), (282, 12257), (287, 12302), (288, 12308), (290, 12320), (291, 12323), (297, 12377), (301, 12416), (304, 12437), (305, 12440), (308, 12458), (309, 12467), (314, 12485), (319, 12506), (321, 12512), (325, 12533), (329, 12560), (334, 12638), (369, 12827), (377, 12851), (382, 12863), (383, 12866), (392, 12881), (397, 12896), (398, 12899), (406, 12950), (419, 13031), (420, 13034), (426, 13067), (429, 13097), (431, 13121), (475, 13454), (481, 13502), (485, 13547), (487, 13550), (488, 13565), (496, 13610), (498, 13619), (500, 13628), (507, 13679), (520, 13751), (526, 13769), (531, 13790), (546, 13889), (547, 13892), (551, 13925), (556, 13991), (558, 14009), (561, 14024), (564, 14057), (570, 14108), (576, 14159), (602, 14402), (603, 14405), (616, 14477), (617, 14480), (625, 14546), (626, 14549), (628, 14567), (633, 14627), (640, 14684), (643, 14702), (651, 14783), (652, 14786), (653, 14801), (680, 15014), (687, 15080), (688, 15086), (694, 15146), (695, 15152), (708, 15275), (712, 15299), (715, 15317), (718, 15341), (719, 15347), (723, 15368), (730, 15407), (744, 15548), (746, 15560), (755, 15611), (759, 15629), (768, 15779),

Gene: Holliday_18 Start: 9868, Stop: 15501, Start Num: 21

Candidate Starts for Holliday_18:

(Start: 21 @9868 has 10 MA's), (26, 9895), (Start: 27 @9913 has 1 MA's), (29, 9934), (33, 9955), (36, 10000), (Start: 37 @10015 has 1 MA's), (42, 10099), (50, 10141), (51, 10153), (61, 10216), (63, 10231), (65, 10240), (67, 10258), (68, 10264), (79, 10312), (105, 10447), (126, 10597), (132, 10627), (163, 10846), (177, 10921), (182, 10951), (202, 11155), (210, 11197), (211, 11200), (212, 11206), (215, 11227), (227, 11308), (236, 11374), (240, 11401), (242, 11413), (244, 11431), (245, 11443), (251, 11467), (253, 11479), (256, 11518), (257, 11521), (258, 11530), (261, 11560), (265, 11605), (275, 11665), (278, 11680), (281, 11710), (282, 11722), (287, 11767), (288, 11773), (291, 11788), (294, 11818), (296, 11839), (297, 11842), (305, 11905), (309, 11932), (310, 11935), (311, 11938), (312, 11944), (318, 11968), (319, 11971), (321, 11977), (323, 11983), (325, 11998), (328, 12016), (333, 12097), (337, 12145), (338, 12151), (342, 12178), (362, 12337), (363, 12349), (371, 12385), (384, 12445), (388, 12484), (390, 12490), (391, 12493), (397, 12514), (398, 12517), (414, 12616), (421, 12655), (425, 12679), (429, 12712), (432, 12757), (438, 12811), (446, 12898), (447, 12919), (451, 12955), (455, 12985), (466, 13063), (467, 13066), (468, 13075), (471, 13099), (480, 13180), (481, 13186), (485, 13231), (487, 13234), (488, 13249), (496, 13294), (498, 13303), (500, 13312), (501, 13315), (518, 13420), (529, 13468), (531, 13474), (546, 13573), (547, 13576), (549, 13588), (561, 13705), (564, 13738), (570, 13789), (572, 13801), (575, 13819), (580, 13879), (592, 13960), (595, 13981), (597, 14014), (604, 14077), (608, 14095), (626, 14209), (629, 14239), (631, 14248), (634, 14287), (635, 14290), (637, 14320), (640, 14341), (658, 14494), (666, 14545), (672, 14608), (673, 14614), (679, 14665), (698, 14851), (705, 14938), (710, 14965), (711, 14968), (724, 15043), (728, 15067), (731, 15106), (734, 15142), (738, 15163), (747, 15250), (754, 15292), (760, 15325), (761, 15337), (766, 15415), (769, 15481),

Gene: Horseradish_17 Start: 9515, Stop: 14311, Start Num: 74

Candidate Starts for Horseradish_17:

(Start: 74 @9515 has 16 MA's), (80, 9542), (82, 9548), (106, 9671), (122, 9773), (128, 9818), (131, 9830), (133, 9848), (136, 9875), (137, 9878), (139, 9893), (145, 9944), (146, 9947), (151, 10004), (153, 10007), (154, 10010), (161, 10049), (165, 10067), (173, 10112), (180, 10148), (184, 10181), (188, 10214), (189, 10226), (196, 10280), (199, 10319), (201, 10334), (204, 10343), (207, 10370), (217, 10421), (228, 10481), (231, 10490), (237, 10544), (248, 10607), (251, 10622), (258, 10685), (271, 10775), (277, 10802), (287, 10895), (288, 10901), (291, 10916), (295, 10955), (305, 11033), (311, 11066), (321, 11105), (324, 11123), (325, 11126), (329, 11153), (332, 11210), (334, 11231), (348, 11342), (353, 11363), (355, 11399), (359, 11441), (360, 11453), (362, 11465), (370, 11510), (371, 11513), (374, 11531), (375, 11534), (376, 11537), (388, 11612), (398, 11645), (407, 11705),

(418, 11771), (419, 11774), (420, 11777), (422, 11795), (436, 11894), (439, 11909), (440, 11912), (457, 12062), (459, 12083), (468, 12125), (472, 12152), (473, 12158), (489, 12290), (492, 12302), (504, 12389), (511, 12431), (518, 12467), (528, 12503), (535, 12542), (544, 12593), (550, 12632), (557, 12710), (565, 12761), (573, 12818), (591, 12956), (598, 13028), (619, 13172), (622, 13193), (646, 13370), (648, 13376), (686, 13700), (688, 13706), (695, 13766), (697, 13784), (700, 13817), (708, 13889), (714, 13928), (718, 13958), (730, 14024), (731, 14042), (733, 14072), (742, 14132), (756, 14222), (764, 14282),

Gene: Horus_18 Start: 9926, Stop: 15514, Start Num: 27

Candidate Starts for Horus_18:

(Start: 21 @9881 has 10 MA's), (Start: 27 @9926 has 1 MA's), (29, 9947), (33, 9968), (36, 10013), (Start: 37 @10028 has 1 MA's), (42, 10112), (50, 10154), (51, 10166), (61, 10229), (63, 10244), (65, 10253), (67, 10271), (68, 10277), (79, 10325), (105, 10460), (126, 10610), (132, 10640), (182, 10964), (194, 11060), (202, 11168), (210, 11210), (211, 11213), (212, 11219), (215, 11240), (227, 11321), (236, 11387), (240, 11414), (242, 11426), (244, 11444), (245, 11456), (251, 11480), (253, 11492), (256, 11531), (257, 11534), (258, 11543), (261, 11573), (275, 11678), (278, 11693), (281, 11723), (282, 11735), (287, 11780), (288, 11786), (291, 11801), (294, 11831), (296, 11852), (297, 11855), (305, 11918), (309, 11945), (310, 11948), (311, 11951), (312, 11957), (318, 11981), (319, 11984), (321, 11990), (323, 11996), (325, 12011), (328, 12029), (330, 12074), (337, 12158), (338, 12164), (342, 12191), (355, 12284), (356, 12293), (362, 12350), (363, 12362), (371, 12398), (382, 12446), (384, 12458), (388, 12497), (390, 12503), (391, 12506), (396, 12524), (397, 12527), (398, 12530), (403, 12554), (414, 12629), (425, 12692), (429, 12725), (433, 12800), (438, 12824), (439, 12836), (442, 12869), (447, 12932), (451, 12968), (455, 12998), (466, 13076), (467, 13079), (468, 13088), (481, 13199), (485, 13244), (487, 13247), (488, 13262), (496, 13307), (498, 13316), (500, 13325), (501, 13328), (518, 13433), (529, 13481), (531, 13487), (546, 13586), (547, 13589), (549, 13601), (561, 13718), (564, 13751), (570, 13802), (575, 13832), (580, 13892), (592, 13973), (595, 13994), (596, 13997), (597, 14027), (604, 14090), (606, 14099), (608, 14108), (626, 14222), (629, 14252), (634, 14300), (635, 14303), (637, 14333), (640, 14354), (666, 14552), (672, 14615), (673, 14621), (679, 14672), (698, 14864), (705, 14951), (710, 14978), (711, 14981), (724, 15056), (728, 15080), (731, 15119), (734, 15155), (738, 15176), (747, 15263), (754, 15305), (760, 15338), (761, 15350), (769, 15494),

Gene: Jalammah_19 Start: 11050, Stop: 16590, Start Num: 8

Candidate Starts for Jalammah_19:

(Start: 8 @11050 has 37 MA's), (Start: 14 @11101 has 1 MA's), (15, 11110), (16, 11113), (18, 11155), (34, 11266), (35, 11287), (41, 11407), (48, 11449), (59, 11515), (61, 11533), (64, 11554), (65, 11557), (67, 11575), (73, 11599), (88, 11683), (98, 11725), (100, 11740), (102, 11749), (127, 11917), (132, 11944), (147, 12061), (177, 12232), (182, 12262), (202, 12466), (211, 12511), (215, 12538), (216, 12550), (232, 12640), (236, 12685), (240, 12712), (244, 12742), (256, 12829), (257, 12832), (261, 12871), (270, 12955), (278, 12991), (282, 13033), (287, 13078), (288, 13084), (290, 13096), (291, 13099), (297, 13153), (301, 13192), (304, 13213), (305, 13216), (308, 13234), (314, 13261), (319, 13282), (321, 13288), (325, 13309), (329, 13336), (353, 13546), (369, 13624), (377, 13648), (382, 13660), (383, 13663), (392, 13678), (397, 13693), (398, 13696), (406, 13747), (419, 13828), (420, 13831), (426, 13864), (429, 13894), (431, 13918), (442, 13984), (475, 14251), (481, 14299), (485, 14344), (487, 14347), (488, 14362), (496, 14407), (498, 14416), (500, 14425), (507, 14476), (520, 14548), (526, 14566), (531, 14587), (546, 14686), (547, 14689), (551, 14722), (556, 14788), (558, 14806), (561, 14821), (564, 14854), (570, 14905), (576, 14956), (602, 15199), (603, 15202), (616, 15274), (617, 15277), (625, 15343), (626, 15346), (628, 15364), (633, 15424), (640, 15481), (643, 15499), (651, 15580), (652, 15583), (653, 15598), (675, 15757), (680, 15811), (687, 15877), (688, 15883), (694, 15943), (695, 15949), (699, 15979), (708, 16072), (712, 16096), (715, 16114), (718, 16138), (719, 16144), (723, 16165), (730, 16204), (744, 16345), (746, 16357), (755, 16408), (759, 16426), (768, 16576),

Gene: Jamzy_19 Start: 9930, Stop: 14147, Start Num: 72

Candidate Starts for Jamzy_19:

(Start: 72 @9930 has 6 MA's), (Start: 77 @9957 has 1 MA's), (119, 10203), (129, 10266), (135, 10323), (142, 10350), (145, 10392), (153, 10455), (157, 10470), (159, 10488), (162, 10506), (164, 10518), (171, 10551), (178, 10593), (181, 10608), (194, 10704), (195, 10713), (198, 10776), (200, 10791), (209, 10827), (219, 10878), (224, 10911), (225, 10920), (238, 11001), (247, 11067), (249, 11076), (250, 11085), (254, 11106), (269, 11241), (271, 11253), (291, 11394), (293, 11415), (297, 11448), (298, 11466), (300, 11484), (308, 11529), (321, 11583), (325, 11604), (336, 11667), (350, 11715), (353, 11730), (355, 11766), (381, 11820), (388, 11847), (390, 11853), (397, 11877), (398, 11880), (407, 11940), (412, 11973), (420, 12012), (422, 12030), (423, 12033), (429, 12075), (430, 12087), (434, 12120), (435, 12123), (439, 12144), (443, 12168), (444, 12171), (454, 12264), (456, 12285), (457, 12297), (459, 12318), (461, 12327), (463, 12336), (465, 12342), (486, 12495), (497, 12555), (499, 12564), (500, 12570), (505, 12606), (541, 12738), (559, 12876), (563, 12900), (588, 13098), (589, 13101), (610, 13263), (613, 13287), (615, 13290), (645, 13392), (656, 13497), (689, 13569), (692, 13593), (694, 13605), (697, 13629), (699, 13641), (707, 13725), (708, 13731), (715, 13773), (718, 13794), (725, 13827), (730, 13860), (732, 13881), (733, 13908), (742, 13968), (745, 13995), (746, 14004), (748, 14016), (764, 14118),

Gene: JasperJr_17 Start: 10278, Stop: 15800, Start Num: 8

Candidate Starts for JasperJr_17:

(Start: 8 @10278 has 37 MA's), (Start: 11 @10293 has 1 MA's), (Start: 12 @10299 has 1 MA's), (Start: 14 @10329 has 1 MA's), (15, 10338), (16, 10341), (18, 10383), (34, 10494), (35, 10515), (41, 10635), (48, 10677), (59, 10743), (61, 10761), (64, 10782), (65, 10785), (67, 10803), (73, 10827), (88, 10911), (89, 10914), (98, 10953), (100, 10968), (102, 10977), (127, 11145), (132, 11172), (147, 11289), (155, 11337), (177, 11460), (182, 11490), (202, 11694), (211, 11739), (215, 11766), (216, 11778), (232, 11868), (236, 11913), (240, 11940), (244, 11970), (256, 12057), (257, 12060), (261, 12099), (270, 12183), (278, 12219), (282, 12261), (287, 12306), (288, 12312), (290, 12324), (291, 12327), (297, 12381), (301, 12420), (304, 12441), (305, 12444), (308, 12462), (309, 12471), (314, 12489), (319, 12510), (321, 12516), (325, 12537), (329, 12564), (334, 12642), (369, 12831), (377, 12855), (382, 12867), (383, 12870), (392, 12885), (397, 12900), (398, 12903), (406, 12954), (419, 13035), (420, 13038), (426, 13071), (429, 13101), (431, 13125), (452, 13284), (475, 13458), (481, 13506), (485, 13551), (487, 13554), (488, 13569), (496, 13614), (498, 13623), (500, 13632), (507, 13683), (520, 13755), (526, 13773), (531, 13794), (546, 13893), (547, 13896), (551, 13929), (556, 13995), (558, 14013), (561, 14028), (564, 14061), (570, 14112), (576, 14163), (582, 14211), (602, 14406), (603, 14409), (616, 14481), (617, 14484), (625, 14550), (626, 14553), (628, 14571), (633, 14631), (640, 14688), (643, 14706), (651, 14787), (652, 14790), (653, 14805), (680, 15018), (687, 15084), (693, 15138), (694, 15150), (695, 15156), (708, 15279), (712, 15303), (715, 15321), (718, 15345), (719, 15351), (723, 15372), (730, 15411), (744, 15552), (746, 15564), (755, 15615), (759, 15633), (768, 15783),

Gene: JuJu_17 Start: 10202, Stop: 15721, Start Num: 8

Candidate Starts for JuJu_17:

(Start: 8 @10202 has 37 MA's), (Start: 11 @10217 has 1 MA's), (Start: 12 @10223 has 1 MA's), (Start: 14 @10253 has 1 MA's), (15, 10262), (16, 10265), (18, 10307), (34, 10418), (35, 10439), (61, 10685), (64, 10706), (65, 10709), (67, 10727), (73, 10751), (88, 10835), (90, 10841), (98, 10877), (100, 10892), (102, 10901), (105, 10916), (111, 10961), (127, 11069), (132, 11096), (136, 11129), (182, 11414), (202, 11618), (211, 11663), (236, 11837), (240, 11864), (244, 11894), (256, 11981), (261, 12023), (268, 12095), (278, 12143), (282, 12185), (287, 12230), (288, 12236), (290, 12248), (291, 12251), (297, 12305), (301, 12344), (304, 12365), (305, 12368), (308, 12386), (309, 12395), (314, 12413), (319, 12434), (321, 12440), (325, 12461), (329, 12488), (334, 12566), (352, 12674), (365, 12740), (377, 12779), (397, 12824), (398, 12827), (406, 12878), (419, 12959), (420, 12962), (426, 12995), (429, 13025), (442, 13115), (451, 13196), (468, 13316), (475, 13382), (481, 13430), (485, 13475), (487, 13478), (488, 13493), (491, 13502), (496, 13538), (498, 13547), (500, 13556), (520,

13679), (531, 13718), (546, 13817), (547, 13820), (556, 13919), (558, 13937), (561, 13952), (564, 13985), (570, 14036), (576, 14087), (585, 14156), (602, 14330), (603, 14333), (614, 14399), (616, 14405), (617, 14408), (625, 14474), (626, 14477), (628, 14495), (633, 14555), (640, 14612), (643, 14630), (651, 14711), (653, 14729), (660, 14780), (675, 14888), (680, 14942), (687, 15008), (693, 15062), (694, 15074), (695, 15080), (699, 15110), (708, 15203), (712, 15227), (715, 15245), (718, 15269), (719, 15275), (723, 15296), (730, 15335), (744, 15476), (755, 15539), (759, 15557), (765, 15614), (768, 15707),

Gene: Kamaru_18 Start: 9868, Stop: 15501, Start Num: 21

Candidate Starts for Kamaru_18:

(Start: 21 @9868 has 10 MA's), (26, 9895), (Start: 27 @9913 has 1 MA's), (29, 9934), (33, 9955), (36, 10000), (Start: 37 @10015 has 1 MA's), (42, 10099), (50, 10141), (51, 10153), (61, 10216), (63, 10231), (65, 10240), (67, 10258), (68, 10264), (79, 10312), (105, 10447), (126, 10597), (132, 10627), (163, 10846), (177, 10921), (182, 10951), (202, 11155), (210, 11197), (211, 11200), (212, 11206), (215, 11227), (227, 11308), (236, 11374), (240, 11401), (242, 11413), (244, 11431), (245, 11443), (251, 11467), (253, 11479), (256, 11518), (257, 11521), (258, 11530), (261, 11560), (265, 11605), (275, 11665), (278, 11680), (281, 11710), (282, 11722), (287, 11767), (288, 11773), (291, 11788), (294, 11818), (296, 11839), (297, 11842), (305, 11905), (309, 11932), (310, 11935), (311, 11938), (312, 11944), (318, 11968), (319, 11971), (321, 11977), (323, 11983), (325, 11998), (328, 12016), (333, 12097), (337, 12145), (338, 12151), (342, 12178), (362, 12337), (363, 12349), (371, 12385), (384, 12445), (388, 12484), (390, 12490), (391, 12493), (397, 12514), (398, 12517), (414, 12616), (421, 12655), (425, 12679), (429, 12712), (432, 12757), (438, 12811), (446, 12898), (447, 12919), (451, 12955), (455, 12985), (466, 13063), (467, 13066), (468, 13075), (471, 13099), (480, 13180), (481, 13186), (485, 13231), (487, 13234), (488, 13249), (496, 13294), (498, 13303), (500, 13312), (501, 13315), (518, 13420), (529, 13468), (531, 13474), (546, 13573), (547, 13576), (549, 13588), (561, 13705), (564, 13738), (570, 13789), (572, 13801), (575, 13819), (580, 13879), (592, 13960), (595, 13981), (597, 14014), (604, 14077), (608, 14095), (626, 14209), (629, 14239), (631, 14248), (634, 14287), (635, 14290), (637, 14320), (640, 14341), (658, 14494), (666, 14545), (672, 14608), (673, 14614), (679, 14665), (698, 14851), (705, 14938), (710, 14965), (711, 14968), (724, 15043), (728, 15067), (731, 15106), (734, 15142), (738, 15163), (747, 15250), (754, 15292), (760, 15325), (761, 15337), (766, 15415), (769, 15481),

Gene: KappaFarmDelta_17 Start: 10424, Stop: 15964, Start Num: 8

Candidate Starts for KappaFarmDelta_17:

(Start: 8 @10424 has 37 MA's), (Start: 11 @10439 has 1 MA's), (Start: 12 @10445 has 1 MA's), (Start: 14 @10475 has 1 MA's), (15, 10484), (16, 10487), (18, 10529), (34, 10640), (35, 10661), (59, 10889), (61, 10907), (64, 10928), (65, 10931), (67, 10949), (73, 10973), (88, 11057), (90, 11063), (98, 11099), (100, 11114), (102, 11123), (127, 11291), (132, 11318), (147, 11435), (177, 11606), (182, 11636), (202, 11840), (211, 11885), (215, 11912), (236, 12059), (240, 12086), (244, 12116), (256, 12203), (257, 12206), (261, 12245), (263, 12251), (278, 12365), (282, 12407), (287, 12452), (288, 12458), (290, 12470), (291, 12473), (297, 12527), (301, 12566), (304, 12587), (305, 12590), (308, 12608), (314, 12635), (319, 12656), (321, 12662), (325, 12683), (329, 12710), (333, 12782), (365, 12983), (369, 12998), (377, 13022), (383, 13037), (397, 13067), (398, 13070), (406, 13121), (420, 13205), (426, 13238), (431, 13292), (466, 13547), (475, 13625), (481, 13673), (483, 13706), (485, 13718), (487, 13721), (488, 13736), (491, 13745), (496, 13781), (498, 13790), (500, 13799), (518, 13907), (529, 13955), (530, 13958), (531, 13961), (533, 13982), (547, 14063), (548, 14066), (561, 14192), (564, 14225), (569, 14273), (570, 14276), (573, 14291), (576, 14327), (602, 14570), (603, 14573), (616, 14645), (617, 14648), (625, 14714), (626, 14717), (628, 14735), (633, 14795), (640, 14852), (643, 14870), (651, 14951), (653, 14969), (680, 15182), (687, 15248), (694, 15314), (695, 15320), (699, 15350), (708, 15443), (712, 15467), (718, 15509), (723, 15536), (730, 15575), (744, 15716), (755, 15779), (759, 15797), (765, 15854),

Gene: KayGee_16 Start: 9384, Stop: 14468, Start Num: 25

Candidate Starts for KayGee_16:

(Start: 25 @9384 has 29 MA's), (40, 9540), (54, 9669), (58, 9699), (68, 9768), (71, 9780), (83, 9825), (87, 9867), (90, 9876), (98, 9912), (102, 9936), (120, 10050), (124, 10089), (125, 10095), (126, 10101), (129, 10110), (132, 10131), (156, 10302), (168, 10365), (175, 10410), (186, 10491), (202, 10650), (206, 10683), (211, 10695), (215, 10722), (222, 10779), (228, 10809), (231, 10821), (243, 10923), (244, 10926), (256, 11013), (263, 11061), (278, 11175), (288, 11268), (291, 11283), (293, 11304), (297, 11337), (299, 11367), (302, 11379), (308, 11418), (313, 11442), (314, 11445), (320, 11469), (325, 11493), (334, 11598), (341, 11646), (345, 11676), (349, 11691), (352, 11706), (355, 11745), (359, 11787), (360, 11799), (362, 11811), (364, 11826), (366, 11841), (370, 11856), (375, 11880), (384, 11919), (385, 11934), (386, 11940), (389, 11961), (396, 11985), (398, 11991), (418, 12117), (424, 12147), (430, 12198), (435, 12234), (439, 12255), (440, 12258), (448, 12330), (454, 12375), (457, 12408), (459, 12429), (469, 12483), (479, 12558), (492, 12642), (504, 12729), (542, 12915), (559, 13047), (564, 13077), (581, 13215), (589, 13266), (594, 13296), (615, 13452), (619, 13482), (650, 13662), (659, 13713), (667, 13740), (670, 13761), (686, 13857), (692, 13905), (695, 13923), (708, 14046), (712, 14070), (714, 14085), (718, 14115), (723, 14142), (725, 14148), (730, 14181), (737, 14250), (739, 14253), (742, 14289), (756, 14379),

Gene: Kenna_17 Start: 9881, Stop: 15508, Start Num: 21

Candidate Starts for Kenna_17:

(Start: 21 @9881 has 10 MA's), (26, 9908), (Start: 27 @9926 has 1 MA's), (29, 9947), (33, 9968), (36, 10013), (Start: 37 @10028 has 1 MA's), (42, 10112), (50, 10154), (51, 10166), (61, 10229), (63, 10244), (65, 10253), (67, 10271), (68, 10277), (79, 10325), (105, 10460), (126, 10610), (132, 10640), (182, 10964), (194, 11060), (202, 11168), (211, 11213), (212, 11219), (215, 11240), (218, 11264), (227, 11321), (236, 11387), (240, 11414), (242, 11426), (244, 11444), (245, 11456), (251, 11480), (253, 11492), (256, 11531), (257, 11534), (258, 11543), (261, 11573), (265, 11618), (275, 11678), (278, 11693), (281, 11723), (282, 11735), (287, 11780), (288, 11786), (291, 11801), (294, 11831), (296, 11852), (297, 11855), (305, 11918), (309, 11945), (310, 11948), (311, 11951), (312, 11957), (318, 11981), (319, 11984), (321, 11990), (323, 11996), (325, 12011), (328, 12029), (330, 12074), (337, 12158), (338, 12164), (342, 12191), (355, 12284), (356, 12293), (362, 12350), (363, 12362), (371, 12398), (372, 12404), (382, 12446), (384, 12458), (388, 12497), (390, 12503), (391, 12506), (396, 12524), (397, 12527), (398, 12530), (403, 12554), (414, 12629), (421, 12668), (425, 12692), (429, 12725), (439, 12836), (442, 12869), (447, 12932), (451, 12968), (455, 12998), (466, 13076), (467, 13079), (468, 13088), (471, 13112), (480, 13193), (481, 13199), (485, 13244), (487, 13247), (488, 13262), (496, 13307), (498, 13316), (500, 13325), (501, 13328), (518, 13433), (529, 13481), (530, 13484), (531, 13487), (546, 13586), (547, 13589), (549, 13601), (561, 13718), (564, 13751), (570, 13802), (575, 13832), (580, 13892), (592, 13973), (595, 13994), (597, 14027), (606, 14099), (608, 14108), (626, 14222), (629, 14252), (631, 14261), (634, 14300), (635, 14303), (637, 14333), (640, 14354), (666, 14552), (672, 14615), (673, 14621), (679, 14672), (698, 14858), (705, 14945), (710, 14972), (711, 14975), (724, 15050), (728, 15074), (731, 15113), (734, 15149), (738, 15170), (747, 15257), (754, 15299), (760, 15332), (761, 15344), (766, 15422), (769, 15488),

Gene: Lauer_15 Start: 9433, Stop: 14517, Start Num: 25

Candidate Starts for Lauer_15:

(Start: 25 @9433 has 29 MA's), (40, 9589), (54, 9718), (58, 9748), (68, 9817), (71, 9829), (87, 9916), (90, 9925), (98, 9961), (102, 9985), (111, 10045), (120, 10099), (124, 10138), (125, 10144), (129, 10159), (132, 10180), (156, 10351), (168, 10414), (175, 10459), (186, 10540), (202, 10699), (206, 10732), (211, 10744), (215, 10771), (222, 10828), (228, 10858), (231, 10870), (243, 10972), (244, 10975), (256, 11062), (263, 11110), (278, 11224), (288, 11317), (291, 11332), (293, 11353), (297, 11386), (299, 11416), (302, 11428), (308, 11467), (313, 11491), (314, 11494), (320, 11518), (325, 11542), (334, 11647), (345, 11725), (352, 11755), (353, 11758), (355, 11794), (359, 11836), (362, 11860), (364, 11875), (366, 11890), (370, 11905), (375, 11929), (384, 11968), (385, 11983), (386, 11989), (389, 12010), (396, 12034), (398, 12040), (418, 12166), (424, 12196), (429, 12235), (435, 12283), (439, 12304), (440, 12307), (448, 12379), (454, 12424), (457, 12457), (459, 12478), (469,

12532), (479, 12607), (492, 12691), (504, 12778), (542, 12964), (559, 13096), (564, 13126), (581, 13264), (589, 13315), (594, 13345), (615, 13501), (619, 13531), (650, 13711), (659, 13762), (667, 13789), (670, 13810), (686, 13906), (692, 13954), (695, 13972), (708, 14095), (712, 14119), (714, 14134), (718, 14164), (723, 14191), (725, 14197), (730, 14230), (737, 14299), (739, 14302), (742, 14338), (756, 14428),

Gene: Leroy_18 Start: 9882, Stop: 15515, Start Num: 21

Candidate Starts for Leroy_18:

(Start: 21 @9882 has 10 MA's), (Start: 27 @9927 has 1 MA's), (29, 9948), (33, 9969), (36, 10014), (Start: 37 @10029 has 1 MA's), (42, 10113), (50, 10155), (51, 10167), (61, 10230), (63, 10245), (65, 10254), (67, 10272), (68, 10278), (79, 10326), (105, 10461), (126, 10611), (132, 10641), (177, 10935), (182, 10965), (202, 11169), (210, 11211), (211, 11214), (212, 11220), (215, 11241), (218, 11265), (227, 11322), (236, 11388), (240, 11415), (242, 11427), (244, 11445), (245, 11457), (251, 11481), (253, 11493), (256, 11532), (257, 11535), (258, 11544), (261, 11574), (263, 11580), (275, 11679), (278, 11694), (281, 11724), (282, 11736), (287, 11781), (288, 11787), (291, 11802), (294, 11832), (296, 11853), (297, 11856), (305, 11919), (309, 11946), (311, 11952), (318, 11982), (319, 11985), (321, 11991), (323, 11997), (325, 12012), (328, 12030), (333, 12111), (337, 12159), (338, 12165), (340, 12180), (342, 12192), (362, 12351), (363, 12363), (371, 12399), (372, 12405), (384, 12459), (388, 12498), (390, 12504), (391, 12507), (396, 12525), (397, 12528), (398, 12531), (403, 12555), (414, 12630), (425, 12693), (429, 12726), (432, 12771), (438, 12825), (439, 12837), (446, 12912), (447, 12933), (451, 12969), (455, 12999), (467, 13080), (468, 13089), (471, 13113), (481, 13200), (485, 13245), (487, 13248), (496, 13308), (498, 13317), (500, 13326), (518, 13434), (529, 13482), (531, 13488), (546, 13587), (547, 13590), (549, 13602), (561, 13719), (564, 13752), (570, 13803), (575, 13833), (580, 13893), (592, 13974), (595, 13995), (597, 14028), (606, 14100), (608, 14109), (626, 14223), (629, 14253), (631, 14262), (634, 14301), (635, 14304), (637, 14334), (640, 14355), (666, 14553), (672, 14616), (673, 14622), (679, 14673), (698, 14865), (705, 14952), (710, 14979), (711, 14982), (724, 15057), (728, 15081), (731, 15120), (734, 15156), (738, 15177), (747, 15264), (754, 15306), (760, 15339), (761, 15351), (769, 15495),

Gene: LitninMcQueen_18 Start: 9869, Stop: 15502, Start Num: 21

Candidate Starts for LitninMcQueen_18:

(Start: 21 @9869 has 10 MA's), (26, 9896), (Start: 27 @9914 has 1 MA's), (29, 9935), (33, 9956), (36, 10001), (Start: 37 @10016 has 1 MA's), (42, 10100), (50, 10142), (51, 10154), (61, 10217), (63, 10232), (65, 10241), (67, 10259), (68, 10265), (79, 10313), (105, 10448), (126, 10598), (132, 10628), (163, 10847), (177, 10922), (182, 10952), (202, 11156), (210, 11198), (211, 11201), (212, 11207), (215, 11228), (227, 11309), (236, 11375), (240, 11402), (242, 11414), (244, 11432), (245, 11444), (251, 11468), (253, 11480), (256, 11519), (257, 11522), (258, 11531), (261, 11561), (265, 11606), (275, 11666), (278, 11681), (281, 11711), (282, 11723), (287, 11768), (288, 11774), (291, 11789), (294, 11819), (296, 11840), (297, 11843), (305, 11906), (309, 11933), (310, 11936), (311, 11939), (312, 11945), (318, 11969), (319, 11972), (321, 11978), (323, 11984), (325, 11999), (328, 12017), (333, 12098), (337, 12146), (338, 12152), (342, 12179), (362, 12338), (363, 12350), (371, 12386), (384, 12446), (388, 12485), (390, 12491), (391, 12494), (397, 12515), (398, 12518), (414, 12617), (421, 12656), (425, 12680), (429, 12713), (432, 12758), (438, 12812), (446, 12899), (447, 12920), (451, 12956), (455, 12986), (466, 13064), (467, 13067), (468, 13076), (471, 13100), (480, 13181), (481, 13187), (485, 13232), (487, 13235), (488, 13250), (496, 13295), (498, 13304), (500, 13313), (501, 13316), (518, 13421), (529, 13469), (531, 13475), (546, 13574), (547, 13577), (549, 13589), (561, 13706), (564, 13739), (570, 13790), (575, 13820), (580, 13880), (592, 13961), (595, 13982), (597, 14015), (604, 14078), (608, 14096), (626, 14210), (629, 14240), (631, 14249), (634, 14288), (635, 14291), (637, 14321), (640, 14342), (658, 14495), (666, 14546), (672, 14609), (673, 14615), (679, 14666), (698, 14852), (705, 14939), (710, 14966), (711, 14969), (724, 15044), (728, 15068), (731, 15107), (734, 15143), (738, 15164), (747, 15251), (754, 15293), (760, 15326), (761, 15338), (766, 15416), (769, 15482),

Gene: Lutum_18 Start: 9881, Stop: 15508, Start Num: 21

Candidate Starts for Lutum_18:

(Start: 21 @9881 has 10 MA's), (26, 9908), (Start: 27 @9926 has 1 MA's), (29, 9947), (33, 9968), (36, 10013), (Start: 37 @10028 has 1 MA's), (42, 10112), (50, 10154), (51, 10166), (61, 10229), (63, 10244), (65, 10253), (67, 10271), (68, 10277), (79, 10325), (105, 10460), (126, 10610), (132, 10640), (182, 10964), (194, 11060), (202, 11168), (211, 11213), (212, 11219), (215, 11240), (218, 11264), (227, 11321), (236, 11387), (240, 11414), (242, 11426), (244, 11444), (245, 11456), (251, 11480), (253, 11492), (256, 11531), (257, 11534), (258, 11543), (261, 11573), (265, 11618), (275, 11678), (278, 11693), (281, 11723), (282, 11735), (287, 11780), (288, 11786), (291, 11801), (294, 11831), (296, 11852), (297, 11855), (305, 11918), (309, 11945), (310, 11948), (311, 11951), (312, 11957), (318, 11981), (319, 11984), (321, 11990), (323, 11996), (325, 12011), (328, 12029), (330, 12074), (337, 12158), (338, 12164), (342, 12191), (355, 12284), (356, 12293), (362, 12350), (363, 12362), (371, 12398), (372, 12404), (382, 12446), (384, 12458), (388, 12497), (390, 12503), (391, 12506), (396, 12524), (397, 12527), (398, 12530), (403, 12554), (414, 12629), (421, 12668), (425, 12692), (429, 12725), (439, 12836), (442, 12869), (447, 12932), (451, 12968), (455, 12998), (466, 13076), (467, 13079), (468, 13088), (471, 13112), (480, 13193), (481, 13199), (485, 13244), (487, 13247), (488, 13262), (496, 13307), (498, 13316), (500, 13325), (501, 13328), (518, 13433), (529, 13481), (530, 13484), (531, 13487), (546, 13586), (547, 13589), (549, 13601), (561, 13718), (564, 13751), (570, 13802), (575, 13832), (580, 13892), (592, 13973), (595, 13994), (597, 14027), (606, 14099), (608, 14108), (626, 14222), (629, 14252), (631, 14261), (634, 14300), (635, 14303), (637, 14333), (640, 14354), (666, 14552), (672, 14615), (673, 14621), (679, 14672), (698, 14858), (705, 14945), (710, 14972), (711, 14975), (724, 15050), (728, 15074), (731, 15113), (734, 15149), (738, 15170), (747, 15257), (754, 15299), (760, 15332), (761, 15344), (766, 15422), (769, 15488),

Gene: Lysidious_18 Start: 10777, Stop: 16320, Start Num: 8

Candidate Starts for Lysidious_18:

(Start: 8 @10777 has 37 MA's), (Start: 14 @10828 has 1 MA's), (15, 10837), (16, 10840), (18, 10882), (34, 10993), (35, 11014), (41, 11134), (48, 11176), (59, 11242), (61, 11260), (64, 11281), (65, 11284), (67, 11302), (73, 11326), (88, 11410), (90, 11416), (98, 11452), (100, 11467), (102, 11476), (127, 11644), (132, 11671), (147, 11788), (177, 11959), (182, 11989), (202, 12193), (211, 12238), (215, 12265), (216, 12277), (232, 12367), (236, 12412), (240, 12439), (244, 12469), (256, 12556), (257, 12559), (261, 12598), (278, 12718), (282, 12760), (287, 12805), (288, 12811), (290, 12823), (291, 12826), (297, 12880), (301, 12919), (304, 12940), (305, 12943), (308, 12961), (309, 12970), (314, 12988), (319, 13009), (321, 13015), (325, 13036), (329, 13063), (352, 13270), (369, 13351), (377, 13375), (382, 13387), (383, 13390), (392, 13405), (397, 13420), (398, 13423), (406, 13474), (419, 13555), (420, 13558), (426, 13591), (429, 13621), (431, 13645), (442, 13711), (475, 13978), (481, 14026), (485, 14071), (487, 14074), (488, 14089), (496, 14134), (498, 14143), (500, 14152), (507, 14203), (520, 14275), (526, 14293), (531, 14314), (546, 14413), (547, 14416), (551, 14449), (556, 14515), (558, 14533), (561, 14548), (564, 14581), (570, 14632), (576, 14683), (602, 14926), (603, 14929), (616, 15001), (617, 15004), (625, 15070), (626, 15073), (628, 15091), (633, 15151), (640, 15208), (643, 15226), (651, 15307), (652, 15310), (653, 15325), (675, 15484), (680, 15538), (687, 15604), (688, 15610), (694, 15670), (695, 15676), (708, 15799), (712, 15823), (715, 15841), (718, 15865), (719, 15871), (723, 15892), (730, 15931), (744, 16072), (746, 16084), (755, 16135), (759, 16153), (765, 16210), (768, 16303),

Gene: MAnor_16 Start: 9376, Stop: 14475, Start Num: 25

Candidate Starts for MAnor_16:

(Start: 25 @9376 has 29 MA's), (40, 9532), (50, 9637), (54, 9661), (61, 9712), (68, 9760), (79, 9808), (83, 9817), (87, 9859), (89, 9865), (90, 9868), (98, 9904), (102, 9928), (107, 9955), (120, 10042), (124, 10081), (125, 10087), (129, 10102), (132, 10123), (156, 10294), (168, 10357), (175, 10402), (182, 10441), (186, 10483), (202, 10645), (205, 10654), (206, 10678), (211, 10690), (215, 10717), (216, 10729), (222, 10774), (228, 10804), (231, 10816), (243, 10918), (244, 10921), (256, 11008), (259, 11035), (265, 11095), (269, 11125), (274, 11146), (278, 11170), (288, 11263), (291, 11278), (292,

11287), (293, 11299), (297, 11332), (302, 11374), (312, 11434), (313, 11437), (314, 11440), (315, 11446), (320, 11464), (325, 11488), (334, 11593), (352, 11701), (353, 11704), (355, 11740), (362, 11806), (364, 11821), (366, 11836), (370, 11851), (374, 11872), (375, 11875), (376, 11878), (384, 11914), (385, 11929), (386, 11935), (389, 11956), (396, 11980), (398, 11986), (418, 12112), (424, 12142), (429, 12181), (435, 12229), (439, 12250), (440, 12253), (441, 12259), (448, 12325), (454, 12370), (457, 12403), (459, 12424), (469, 12478), (490, 12628), (492, 12637), (504, 12724), (540, 12901), (559, 13042), (564, 13072), (581, 13210), (594, 13291), (615, 13444), (619, 13474), (654, 13696), (657, 13705), (659, 13711), (667, 13747), (686, 13864), (692, 13912), (695, 13930), (708, 14053), (712, 14077), (714, 14092), (718, 14122), (723, 14149), (725, 14155), (730, 14188), (737, 14257), (739, 14260), (742, 14296), (752, 14368), (753, 14371), (756, 14386),

Gene: MScarn_18 Start: 9601, Stop: 14400, Start Num: 74

Candidate Starts for MScarn_18:

(Start: 74 @9601 has 16 MA's), (80, 9628), (82, 9634), (106, 9757), (122, 9859), (128, 9904), (131, 9916), (133, 9934), (136, 9961), (137, 9964), (139, 9979), (145, 10030), (146, 10033), (151, 10090), (153, 10093), (161, 10135), (165, 10153), (173, 10198), (180, 10234), (184, 10267), (188, 10300), (189, 10312), (196, 10366), (199, 10405), (201, 10420), (204, 10429), (207, 10456), (217, 10507), (228, 10567), (231, 10576), (237, 10630), (248, 10693), (251, 10708), (271, 10861), (277, 10888), (287, 10981), (288, 10987), (291, 11002), (295, 11041), (305, 11119), (311, 11152), (321, 11191), (324, 11209), (325, 11212), (329, 11239), (332, 11296), (334, 11317), (348, 11428), (353, 11449), (355, 11485), (359, 11527), (360, 11539), (362, 11551), (370, 11596), (371, 11599), (374, 11617), (375, 11620), (376, 11623), (388, 11698), (398, 11731), (407, 11791), (418, 11857), (419, 11860), (420, 11863), (422, 11881), (436, 11980), (439, 11995), (440, 11998), (457, 12148), (459, 12169), (468, 12211), (472, 12238), (473, 12244), (492, 12388), (504, 12475), (511, 12517), (518, 12553), (535, 12628), (544, 12679), (550, 12718), (553, 12742), (565, 12847), (573, 12904), (591, 13042), (598, 13117), (619, 13261), (622, 13282), (646, 13459), (648, 13465), (686, 13789), (688, 13795), (695, 13855), (700, 13906), (708, 13978), (714, 14017), (718, 14047), (730, 14113), (733, 14161), (742, 14221), (756, 14311), (764, 14371),

Gene: MaVan_18 Start: 10619, Stop: 15748, Start Num: 25

Candidate Starts for MaVan_18:

(Start: 22 @10598 has 5 MA's), (Start: 25 @10619 has 29 MA's), (28, 10646), (40, 10775), (48, 10871), (56, 10922), (66, 10979), (70, 11012), (71, 11015), (87, 11102), (91, 11114), (100, 11162), (101, 11165), (102, 11171), (110, 11225), (111, 11231), (118, 11279), (129, 11345), (132, 11366), (190, 11759), (191, 11762), (199, 11864), (211, 11930), (212, 11936), (215, 11957), (244, 12161), (246, 12179), (251, 12197), (253, 12209), (256, 12248), (258, 12260), (263, 12296), (267, 12353), (271, 12377), (273, 12383), (288, 12503), (291, 12518), (295, 12557), (304, 12632), (310, 12665), (314, 12680), (315, 12686), (316, 12692), (325, 12728), (335, 12836), (342, 12908), (352, 12962), (354, 12968), (370, 13112), (375, 13136), (386, 13196), (387, 13208), (388, 13214), (396, 13241), (397, 13244), (398, 13247), (412, 13340), (414, 13346), (422, 13397), (431, 13466), (437, 13499), (440, 13514), (441, 13520), (447, 13577), (449, 13589), (453, 13628), (454, 13631), (456, 13652), (457, 13664), (459, 13685), (460, 13688), (468, 13727), (469, 13739), (472, 13754), (490, 13895), (504, 13991), (516, 14057), (519, 14078), (522, 14084), (559, 14321), (564, 14351), (567, 14390), (586, 14525), (590, 14555), (594, 14576), (615, 14735), (619, 14768), (657, 14981), (663, 14999), (667, 15005), (686, 15134), (695, 15200), (700, 15251), (708, 15323), (714, 15362), (718, 15392), (725, 15425), (730, 15458), (739, 15530), (746, 15602), (755, 15656), (757, 15662), (764, 15719),

Gene: Malachai_18 Start: 10785, Stop: 16274, Start Num: 8

Candidate Starts for Malachai_18:

(Start: 8 @10785 has 37 MA's), (13, 10824), (Start: 14 @10836 has 1 MA's), (15, 10845), (16, 10848), (18, 10890), (34, 11001), (35, 11022), (41, 11142), (48, 11184), (59, 11250), (61, 11268), (63, 11283), (64, 11289), (65, 11292), (67, 11310), (73, 11334), (88, 11418), (98, 11460), (100, 11475), (102, 11484), (127, 11652), (132, 11679), (143, 11754), (147, 11796), (155, 11844), (177, 11967), (182,

11997), (202, 12201), (211, 12246), (215, 12273), (216, 12285), (232, 12375), (236, 12420), (240, 12447), (244, 12477), (256, 12564), (261, 12606), (278, 12726), (282, 12768), (287, 12813), (288, 12819), (290, 12831), (291, 12834), (297, 12888), (301, 12927), (304, 12948), (305, 12951), (308, 12969), (314, 12996), (321, 13023), (325, 13044), (329, 13071), (333, 13143), (365, 13344), (369, 13359), (377, 13383), (383, 13398), (397, 13428), (398, 13431), (406, 13482), (419, 13563), (420, 13566), (426, 13599), (429, 13629), (431, 13653), (442, 13719), (475, 13986), (481, 14034), (485, 14079), (487, 14082), (488, 14097), (496, 14142), (498, 14151), (500, 14160), (507, 14211), (520, 14283), (526, 14301), (531, 14322), (546, 14421), (547, 14424), (551, 14457), (556, 14523), (558, 14541), (561, 14556), (564, 14589), (570, 14640), (576, 14691), (602, 14934), (603, 14937), (617, 15012), (625, 15078), (626, 15081), (628, 15099), (633, 15159), (651, 15315), (652, 15318), (653, 15333), (680, 15552), (689, 15609), (691, 15624), (696, 15672), (701, 15717), (720, 15837), (722, 15846), (729, 15885), (736, 15957), (744, 16026), (746, 16038), (755, 16089), (759, 16107), (765, 16164), (768, 16257),

Gene: Malisha_19 Start: 11668, Stop: 17280, Start Num: 22

Candidate Starts for Malisha_19:

(Start: 22 @11668 has 5 MA's), (24, 11686), (26, 11695), (Start: 27 @11713 has 1 MA's), (29, 11734), (31, 11746), (36, 11800), (Start: 37 @11815 has 1 MA's), (57, 11992), (61, 12016), (65, 12040), (67, 12058), (76, 12103), (89, 12169), (90, 12172), (102, 12232), (126, 12397), (132, 12427), (149, 12583), (177, 12721), (194, 12847), (202, 12955), (206, 12988), (211, 13000), (215, 13027), (236, 13174), (240, 13201), (244, 13231), (251, 13267), (256, 13318), (257, 13321), (258, 13330), (263, 13366), (268, 13432), (278, 13480), (280, 13495), (281, 13510), (286, 13564), (287, 13567), (288, 13573), (290, 13585), (291, 13588), (296, 13639), (297, 13642), (301, 13681), (321, 13777), (325, 13798), (345, 14002), (352, 14032), (359, 14113), (362, 14137), (363, 14149), (371, 14185), (384, 14245), (388, 14284), (391, 14293), (397, 14314), (398, 14317), (414, 14416), (421, 14455), (425, 14479), (429, 14512), (432, 14557), (438, 14611), (439, 14623), (446, 14698), (447, 14719), (451, 14755), (455, 14785), (467, 14866), (468, 14875), (471, 14899), (480, 14980), (481, 14986), (485, 15031), (487, 15034), (496, 15094), (498, 15103), (500, 15112), (518, 15220), (529, 15268), (531, 15274), (546, 15373), (547, 15376), (549, 15388), (561, 15505), (564, 15538), (569, 15586), (570, 15589), (575, 15619), (580, 15679), (592, 15760), (595, 15781), (596, 15784), (604, 15877), (606, 15886), (623, 15988), (626, 16009), (629, 16039), (631, 16048), (634, 16087), (635, 16090), (636, 16093), (637, 16120), (646, 16174), (658, 16291), (669, 16375), (671, 16387), (672, 16399), (673, 16405), (676, 16432), (679, 16456), (698, 16633), (705, 16720), (709, 16738), (710, 16747), (724, 16825), (726, 16840), (728, 16849), (734, 16924), (735, 16933), (738, 16945), (747, 17032), (754, 17074), (760, 17107), (761, 17119), (766, 17194), (769, 17260),

Gene: Margaret_19 Start: 10311, Stop: 14516, Start Num: 72

Candidate Starts for Margaret_19:

(Start: 72 @10311 has 6 MA's), (Start: 77 @10338 has 1 MA's), (124, 10626), (129, 10647), (130, 10653), (134, 10686), (135, 10704), (141, 10728), (148, 10818), (150, 10827), (153, 10836), (159, 10869), (163, 10896), (166, 10905), (170, 10929), (195, 11082), (198, 11145), (200, 11160), (209, 11196), (214, 11226), (219, 11247), (225, 11289), (238, 11370), (249, 11445), (250, 11454), (254, 11475), (271, 11622), (291, 11763), (293, 11784), (297, 11817), (298, 11835), (301, 11856), (304, 11877), (308, 11898), (320, 11949), (321, 11952), (322, 11955), (325, 11973), (343, 12054), (350, 12084), (355, 12135), (381, 12189), (388, 12216), (398, 12249), (407, 12309), (419, 12378), (420, 12381), (433, 12483), (434, 12489), (439, 12513), (443, 12537), (444, 12540), (454, 12633), (457, 12666), (459, 12687), (461, 12696), (463, 12705), (465, 12711), (486, 12864), (499, 12933), (500, 12939), (505, 12975), (540, 13104), (559, 13245), (563, 13269), (567, 13314), (588, 13467), (589, 13470), (615, 13659), (619, 13689), (656, 13866), (689, 13938), (692, 13962), (694, 13974), (697, 13998), (699, 14010), (707, 14094), (708, 14100), (715, 14142), (718, 14163), (725, 14196), (730, 14229), (732, 14250), (733, 14277), (739, 14301), (742, 14337), (748, 14385), (764, 14487),

Gene: Mayweather_17 Start: 10006, Stop: 15090, Start Num: 25

Candidate Starts for Mayweather_17:

(Start: 25 @10006 has 29 MA's), (40, 10162), (54, 10291), (58, 10321), (68, 10390), (71, 10402), (75, 10417), (79, 10438), (83, 10447), (87, 10489), (90, 10498), (98, 10534), (102, 10558), (111, 10618), (120, 10672), (124, 10711), (125, 10717), (129, 10732), (132, 10753), (156, 10924), (168, 10987), (175, 11032), (186, 11113), (202, 11272), (206, 11305), (211, 11317), (215, 11344), (222, 11401), (228, 11431), (231, 11443), (243, 11545), (244, 11548), (256, 11635), (263, 11683), (278, 11797), (288, 11890), (291, 11905), (293, 11926), (297, 11959), (302, 12001), (308, 12040), (313, 12064), (314, 12067), (315, 12073), (320, 12091), (325, 12115), (334, 12220), (341, 12268), (352, 12328), (353, 12331), (355, 12367), (362, 12433), (364, 12448), (370, 12478), (374, 12499), (375, 12502), (384, 12541), (386, 12562), (389, 12583), (396, 12607), (398, 12613), (418, 12739), (424, 12769), (429, 12808), (435, 12856), (439, 12877), (440, 12880), (448, 12952), (454, 12997), (457, 13030), (459, 13051), (469, 13105), (479, 13180), (492, 13264), (504, 13351), (559, 13669), (564, 13699), (581, 13837), (589, 13888), (594, 13918), (615, 14071), (619, 14101), (654, 14311), (657, 14320), (659, 14326), (667, 14362), (686, 14479), (688, 14485), (692, 14527), (695, 14545), (708, 14668), (712, 14692), (714, 14707), (718, 14737), (723, 14764), (725, 14770), (730, 14803), (737, 14872), (739, 14875), (742, 14911), (752, 14983), (756, 15001),

Gene: Melba_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for Melba_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (34, 10490), (35, 10511), (41, 10631), (48, 10673), (59, 10739), (61, 10757), (64, 10778), (65, 10781), (67, 10799), (73, 10823), (88, 10907), (89, 10910), (98, 10949), (100, 10964), (102, 10973), (127, 11141), (132, 11168), (147, 11285), (177, 11456), (182, 11486), (202, 11690), (211, 11735), (215, 11762), (216, 11774), (232, 11864), (236, 11909), (240, 11936), (244, 11966), (256, 12053), (257, 12056), (261, 12095), (270, 12179), (278, 12215), (282, 12257), (287, 12302), (288, 12308), (290, 12320), (291, 12323), (297, 12377), (301, 12416), (304, 12437), (305, 12440), (308, 12458), (309, 12467), (314, 12485), (319, 12506), (321, 12512), (325, 12533), (329, 12560), (334, 12638), (369, 12827), (377, 12851), (382, 12863), (383, 12866), (392, 12881), (397, 12896), (398, 12899), (406, 12950), (419, 13031), (420, 13034), (426, 13067), (429, 13097), (431, 13121), (475, 13454), (481, 13502), (485, 13547), (487, 13550), (488, 13565), (496, 13610), (498, 13619), (500, 13628), (507, 13679), (520, 13751), (526, 13769), (531, 13790), (546, 13889), (547, 13892), (551, 13925), (556, 13991), (558, 14009), (561, 14024), (564, 14057), (570, 14108), (576, 14159), (582, 14207), (602, 14402), (603, 14405), (616, 14477), (617, 14480), (625, 14546), (626, 14549), (628, 14567), (633, 14627), (640, 14684), (643, 14702), (651, 14783), (652, 14786), (653, 14801), (680, 15014), (687, 15080), (693, 15134), (694, 15146), (695, 15152), (708, 15275), (712, 15299), (715, 15317), (718, 15341), (719, 15347), (723, 15368), (730, 15407), (744, 15548), (746, 15560), (755, 15611), (759, 15629), (768, 15779),

Gene: Mellie_16 Start: 10014, Stop: 15557, Start Num: 8

Candidate Starts for Mellie_16:

(Start: 8 @10014 has 37 MA's), (Start: 11 @10029 has 1 MA's), (Start: 12 @10035 has 1 MA's), (Start: 14 @10065 has 1 MA's), (15, 10074), (16, 10077), (18, 10119), (34, 10230), (35, 10251), (59, 10479), (61, 10497), (63, 10512), (64, 10518), (65, 10521), (67, 10539), (73, 10563), (88, 10647), (90, 10653), (98, 10689), (100, 10704), (102, 10713), (127, 10881), (132, 10908), (147, 11025), (177, 11196), (182, 11226), (202, 11430), (211, 11475), (215, 11502), (216, 11514), (232, 11604), (240, 11676), (244, 11706), (256, 11793), (257, 11796), (261, 11835), (278, 11955), (282, 11997), (287, 12042), (288, 12048), (290, 12060), (291, 12063), (297, 12117), (301, 12156), (304, 12177), (305, 12180), (308, 12198), (319, 12246), (321, 12252), (325, 12273), (329, 12300), (333, 12372), (352, 12507), (369, 12588), (377, 12612), (383, 12627), (397, 12657), (398, 12660), (406, 12711), (419, 12792), (420, 12795), (426, 12828), (429, 12858), (431, 12882), (442, 12948), (475, 13215), (478, 13233), (481, 13263), (485, 13308), (487, 13311), (488, 13326), (491, 13335), (496, 13371), (498, 13380), (500, 13389), (507, 13440), (520, 13512), (526, 13530), (531, 13551), (546, 13650), (547, 13653), (551, 13686), (556, 13752), (558, 13770), (561, 13785), (564, 13818), (570, 13869), (576, 13920), (602,

14163), (603, 14166), (616, 14238), (617, 14241), (625, 14307), (626, 14310), (628, 14328), (633, 14388), (640, 14445), (643, 14463), (651, 14544), (652, 14547), (653, 14562), (680, 14775), (687, 14841), (688, 14847), (694, 14907), (695, 14913), (708, 15036), (712, 15060), (715, 15078), (718, 15102), (719, 15108), (723, 15129), (730, 15168), (744, 15309), (746, 15321), (755, 15372), (759, 15390), (768, 15540),

Gene: MintFen_17 Start: 10274, Stop: 15796, Start Num: 8

Candidate Starts for MintFen_17:

(Start: 8 @10274 has 37 MA's), (Start: 11 @10289 has 1 MA's), (Start: 12 @10295 has 1 MA's), (Start: 14 @10325 has 1 MA's), (15, 10334), (16, 10337), (18, 10379), (34, 10490), (35, 10511), (41, 10631), (48, 10673), (59, 10739), (61, 10757), (64, 10778), (65, 10781), (67, 10799), (73, 10823), (88, 10907), (89, 10910), (98, 10949), (100, 10964), (102, 10973), (127, 11141), (132, 11168), (147, 11285), (177, 11456), (182, 11486), (202, 11690), (211, 11735), (215, 11762), (216, 11774), (232, 11864), (236, 11909), (240, 11936), (244, 11966), (256, 12053), (257, 12056), (261, 12095), (270, 12179), (278, 12215), (282, 12257), (287, 12302), (288, 12308), (290, 12320), (291, 12323), (297, 12377), (301, 12416), (304, 12437), (305, 12440), (308, 12458), (309, 12467), (314, 12485), (319, 12506), (321, 12512), (325, 12533), (329, 12560), (334, 12638), (369, 12827), (377, 12851), (382, 12863), (383, 12866), (392, 12881), (397, 12896), (398, 12899), (406, 12950), (419, 13031), (420, 13034), (426, 13067), (429, 13097), (431, 13121), (475, 13454), (481, 13502), (485, 13547), (487, 13550), (488, 13565), (496, 13610), (498, 13619), (500, 13628), (507, 13679), (520, 13751), (526, 13769), (531, 13790), (546, 13889), (547, 13892), (551, 13925), (556, 13991), (558, 14009), (561, 14024), (564, 14057), (570, 14108), (576, 14159), (582, 14207), (602, 14402), (603, 14405), (616, 14477), (617, 14480), (625, 14546), (626, 14549), (628, 14567), (633, 14627), (640, 14684), (643, 14702), (651, 14783), (652, 14786), (653, 14801), (680, 15014), (687, 15080), (693, 15134), (694, 15146), (695, 15152), (708, 15275), (712, 15299), (715, 15317), (718, 15341), (719, 15347), (723, 15368), (730, 15407), (744, 15548), (746, 15560), (755, 15611), (759, 15629), (768, 15779),

Gene: MissRona_19 Start: 10619, Stop: 16108, Start Num: 8

Candidate Starts for MissRona_19:

(Start: 8 @10619 has 37 MA's), (Start: 11 @10634 has 1 MA's), (Start: 12 @10640 has 1 MA's), (Start: 14 @10670 has 1 MA's), (15, 10679), (16, 10682), (18, 10724), (34, 10835), (35, 10856), (41, 10976), (48, 11018), (59, 11084), (61, 11102), (64, 11123), (65, 11126), (67, 11144), (73, 11168), (88, 11252), (98, 11294), (100, 11309), (102, 11318), (127, 11486), (132, 11513), (147, 11630), (177, 11801), (182, 11831), (202, 12035), (211, 12080), (215, 12107), (216, 12119), (218, 12131), (232, 12209), (236, 12254), (240, 12281), (244, 12311), (256, 12398), (257, 12401), (261, 12440), (267, 12503), (268, 12512), (278, 12560), (282, 12602), (287, 12647), (288, 12653), (291, 12668), (297, 12722), (301, 12761), (304, 12782), (305, 12785), (308, 12803), (314, 12830), (319, 12851), (321, 12857), (325, 12878), (328, 12896), (329, 12905), (365, 13178), (383, 13232), (397, 13262), (398, 13265), (406, 13316), (419, 13397), (420, 13400), (426, 13433), (429, 13463), (431, 13487), (442, 13553), (475, 13820), (481, 13868), (483, 13901), (485, 13913), (487, 13916), (496, 13976), (498, 13985), (500, 13994), (507, 14045), (520, 14117), (526, 14135), (531, 14156), (546, 14255), (547, 14258), (551, 14291), (556, 14357), (558, 14375), (561, 14390), (564, 14423), (570, 14474), (576, 14525), (585, 14594), (602, 14768), (603, 14771), (616, 14843), (617, 14846), (625, 14912), (626, 14915), (628, 14933), (633, 14993), (640, 15050), (643, 15068), (651, 15149), (652, 15152), (653, 15167), (675, 15338), (680, 15392), (691, 15464), (692, 15473), (696, 15509), (704, 15569), (705, 15587), (709, 15605), (717, 15650), (722, 15683), (736, 15794), (744, 15863), (755, 15926), (759, 15944), (768, 16094),

Gene: MunkgeeRoachy_16 Start: 9677, Stop: 14815, Start Num: 25

Candidate Starts for MunkgeeRoachy_16:

(Start: 22 @9653 has 5 MA's), (Start: 25 @9677 has 29 MA's), (28, 9704), (40, 9833), (43, 9908), (68, 10061), (69, 10064), (87, 10160), (90, 10169), (96, 10199), (98, 10205), (100, 10220), (101, 10223), (105, 10244), (115, 10316), (118, 10337), (129, 10403), (132, 10424), (147, 10541), (175, 10703),

(182, 10742), (190, 10817), (206, 10976), (211, 10988), (215, 11015), (221, 11060), (222, 11072), (239, 11180), (242, 11201), (245, 11231), (251, 11255), (253, 11267), (256, 11306), (260, 11339), (273, 11441), (274, 11444), (277, 11462), (278, 11468), (288, 11561), (291, 11576), (295, 11615), (301, 11669), (308, 11711), (317, 11753), (324, 11783), (325, 11786), (335, 11894), (336, 11897), (339, 11948), (353, 12023), (360, 12113), (362, 12125), (370, 12170), (374, 12191), (375, 12194), (376, 12197), (388, 12272), (398, 12305), (402, 12326), (406, 12356), (414, 12404), (416, 12410), (420, 12437), (440, 12572), (454, 12689), (457, 12722), (459, 12743), (460, 12746), (472, 12812), (473, 12818), (474, 12833), (490, 12953), (492, 12962), (504, 13046), (559, 13367), (587, 13586), (594, 13622), (622, 13835), (657, 14027), (667, 14075), (670, 14096), (686, 14204), (695, 14270), (697, 14288), (708, 14393), (713, 14423), (714, 14432), (718, 14462), (730, 14528), (733, 14576), (742, 14636), (755, 14723), (764, 14786),

Gene: Murp_17 Start: 10264, Stop: 15864, Start Num: 8

Candidate Starts for Murp_17:

(Start: 8 @10264 has 37 MA's), (Start: 11 @10279 has 1 MA's), (Start: 12 @10285 has 1 MA's), (Start: 14 @10315 has 1 MA's), (15, 10324), (16, 10327), (18, 10369), (34, 10480), (35, 10501), (41, 10621), (49, 10669), (59, 10729), (61, 10747), (64, 10768), (65, 10771), (67, 10789), (88, 10897), (90, 10903), (98, 10939), (100, 10954), (102, 10963), (127, 11131), (132, 11158), (147, 11275), (177, 11446), (182, 11476), (194, 11572), (202, 11680), (211, 11725), (215, 11752), (216, 11764), (232, 11854), (236, 11899), (240, 11926), (244, 11956), (256, 12043), (261, 12085), (263, 12091), (278, 12205), (282, 12247), (287, 12292), (288, 12298), (291, 12313), (297, 12367), (301, 12406), (304, 12427), (305, 12430), (308, 12448), (309, 12457), (314, 12475), (319, 12496), (321, 12502), (325, 12523), (329, 12550), (331, 12598), (334, 12628), (365, 12802), (377, 12841), (383, 12856), (397, 12886), (398, 12889), (406, 12940), (419, 13021), (420, 13024), (426, 13057), (429, 13087), (431, 13111), (441, 13165), (442, 13177), (466, 13366), (475, 13444), (480, 13486), (485, 13537), (487, 13540), (488, 13555), (492, 13567), (496, 13600), (498, 13609), (515, 13723), (521, 13777), (524, 13795), (536, 13879), (538, 13885), (543, 13921), (578, 14245), (583, 14293), (585, 14305), (593, 14368), (599, 14437), (600, 14467), (601, 14470), (602, 14479), (603, 14482), (609, 14515), (616, 14554), (617, 14557), (625, 14623), (626, 14626), (628, 14644), (633, 14704), (640, 14761), (643, 14779), (651, 14860), (653, 14878), (680, 15079), (687, 15145), (694, 15211), (695, 15217), (708, 15343), (712, 15367), (715, 15385), (718, 15409), (719, 15415), (723, 15436), (730, 15475), (744, 15616), (755, 15679), (759, 15697), (765, 15757), (768, 15850),

Gene: Nibbles_18 Start: 10619, Stop: 15748, Start Num: 25

Candidate Starts for Nibbles_18:

(Start: 22 @10598 has 5 MA's), (Start: 25 @10619 has 29 MA's), (28, 10646), (40, 10775), (48, 10871), (56, 10922), (66, 10979), (70, 11012), (71, 11015), (87, 11102), (91, 11114), (100, 11162), (101, 11165), (102, 11171), (110, 11225), (111, 11231), (118, 11279), (129, 11345), (132, 11366), (190, 11759), (191, 11762), (199, 11864), (211, 11930), (212, 11936), (215, 11957), (244, 12161), (246, 12179), (249, 12185), (251, 12197), (253, 12209), (256, 12248), (258, 12260), (263, 12296), (267, 12353), (271, 12377), (288, 12503), (291, 12518), (295, 12557), (304, 12632), (310, 12665), (314, 12680), (315, 12686), (316, 12692), (325, 12728), (335, 12836), (342, 12908), (352, 12962), (370, 13112), (375, 13136), (386, 13196), (387, 13208), (388, 13214), (396, 13241), (397, 13244), (398, 13247), (412, 13340), (414, 13346), (422, 13397), (431, 13466), (437, 13499), (440, 13514), (441, 13520), (447, 13577), (449, 13589), (453, 13628), (454, 13631), (456, 13652), (457, 13664), (459, 13685), (460, 13688), (468, 13727), (469, 13739), (472, 13754), (490, 13895), (504, 13991), (516, 14057), (519, 14078), (522, 14084), (559, 14321), (564, 14351), (567, 14390), (586, 14525), (590, 14555), (594, 14576), (615, 14735), (619, 14768), (657, 14981), (663, 14999), (667, 15005), (686, 15134), (695, 15200), (700, 15251), (708, 15323), (714, 15362), (718, 15392), (725, 15425), (730, 15458), (739, 15530), (746, 15602), (755, 15656), (757, 15662), (764, 15719),

Gene: Nina_17 Start: 10662, Stop: 15809, Start Num: 25

Candidate Starts for Nina_17:

(Start: 22 @10638 has 5 MA's), (Start: 25 @10662 has 29 MA's), (28, 10689), (40, 10818), (45, 10911), (46, 10914), (60, 11004), (64, 11028), (73, 11073), (75, 11082), (87, 11154), (89, 11160), (90, 11163), (95, 11190), (97, 11196), (100, 11214), (101, 11217), (105, 11238), (115, 11310), (118, 11331), (129, 11397), (132, 11418), (147, 11535), (175, 11697), (182, 11736), (190, 11811), (206, 11970), (211, 11982), (215, 12009), (221, 12054), (222, 12066), (236, 12156), (239, 12174), (242, 12195), (245, 12225), (251, 12249), (253, 12261), (256, 12300), (260, 12333), (273, 12435), (274, 12438), (278, 12462), (288, 12555), (291, 12570), (295, 12609), (301, 12663), (308, 12705), (310, 12717), (317, 12747), (324, 12777), (325, 12780), (335, 12888), (336, 12891), (339, 12942), (340, 12948), (353, 13017), (360, 13107), (362, 13119), (370, 13164), (374, 13185), (375, 13188), (376, 13191), (388, 13266), (398, 13299), (402, 13320), (406, 13350), (414, 13398), (416, 13404), (420, 13431), (440, 13566), (454, 13683), (457, 13716), (459, 13737), (472, 13806), (473, 13812), (474, 13827), (490, 13947), (492, 13956), (504, 14040), (559, 14361), (562, 14382), (587, 14580), (594, 14616), (622, 14829), (657, 15021), (667, 15069), (670, 15090), (686, 15198), (695, 15264), (697, 15282), (708, 15387), (713, 15417), (714, 15426), (718, 15456), (730, 15522), (733, 15570), (742, 15630), (755, 15717), (764, 15780),

Gene: Nodigi_18 Start: 10594, Stop: 14802, Start Num: 72

Candidate Starts for Nodigi_18:

(Start: 72 @10594 has 6 MA's), (Start: 77 @10621 has 1 MA's), (129, 10930), (135, 10987), (141, 11011), (145, 11056), (148, 11101), (153, 11119), (157, 11134), (159, 11152), (160, 11161), (171, 11215), (181, 11272), (192, 11353), (196, 11401), (198, 11440), (200, 11455), (205, 11464), (209, 11491), (214, 11521), (219, 11542), (238, 11665), (247, 11731), (255, 11794), (266, 11881), (278, 11950), (291, 12058), (293, 12079), (297, 12112), (298, 12130), (300, 12148), (304, 12172), (309, 12202), (321, 12247), (322, 12250), (325, 12268), (350, 12379), (352, 12391), (353, 12394), (355, 12430), (369, 12472), (381, 12484), (388, 12511), (398, 12544), (410, 12619), (419, 12673), (420, 12676), (422, 12694), (429, 12739), (434, 12784), (443, 12832), (444, 12835), (457, 12961), (461, 12991), (463, 13000), (465, 13006), (486, 13159), (495, 13204), (499, 13228), (500, 13234), (505, 13270), (517, 13327), (532, 13378), (541, 13423), (559, 13561), (564, 13591), (588, 13783), (615, 13960), (656, 14152), (689, 14224), (694, 14260), (697, 14284), (699, 14296), (702, 14338), (708, 14386), (718, 14449), (723, 14476), (725, 14482), (730, 14515), (732, 14536), (733, 14563), (739, 14587), (742, 14623), (745, 14650), (746, 14659), (748, 14671), (764, 14773),

Gene: Obliviate_16 Start: 10043, Stop: 15586, Start Num: 8

Candidate Starts for Obliviate_16:

(Start: 8 @10043 has 37 MA's), (Start: 11 @10058 has 1 MA's), (Start: 12 @10064 has 1 MA's), (Start: 14 @10094 has 1 MA's), (15, 10103), (16, 10106), (18, 10148), (34, 10259), (35, 10280), (59, 10508), (61, 10526), (63, 10541), (64, 10547), (65, 10550), (67, 10568), (73, 10592), (88, 10676), (90, 10682), (98, 10718), (100, 10733), (102, 10742), (127, 10910), (132, 10937), (147, 11054), (156, 11108), (177, 11225), (182, 11255), (202, 11459), (211, 11504), (215, 11531), (216, 11543), (232, 11633), (236, 11678), (240, 11705), (244, 11735), (256, 11822), (257, 11825), (261, 11864), (278, 11984), (282, 12026), (287, 12071), (288, 12077), (290, 12089), (291, 12092), (297, 12146), (301, 12185), (304, 12206), (305, 12209), (308, 12227), (314, 12254), (319, 12275), (321, 12281), (325, 12302), (329, 12329), (333, 12401), (352, 12536), (369, 12617), (377, 12641), (383, 12656), (397, 12686), (398, 12689), (406, 12740), (419, 12821), (420, 12824), (426, 12857), (429, 12887), (431, 12911), (442, 12977), (475, 13244), (478, 13262), (481, 13292), (485, 13337), (487, 13340), (488, 13355), (491, 13364), (496, 13400), (498, 13409), (500, 13418), (507, 13469), (520, 13541), (526, 13559), (531, 13580), (546, 13679), (547, 13682), (551, 13715), (556, 13781), (558, 13799), (561, 13814), (564, 13847), (570, 13898), (576, 13949), (602, 14192), (603, 14195), (616, 14267), (617, 14270), (625, 14336), (626, 14339), (628, 14357), (633, 14417), (640, 14474), (643, 14492), (651, 14573), (652, 14576), (653, 14591), (675, 14750), (680, 14804), (687, 14870), (688, 14876), (694, 14936), (695, 14942), (700, 14993), (708, 15065), (712, 15089), (715, 15107), (718, 15131), (719, 15137), (723, 15158), (730, 15197), (744, 15338), (746, 15350), (755, 15401), (759, 15419), (768, 15569),

Gene: Orla_18 Start: 10598, Stop: 14806, Start Num: 72

Candidate Starts for Orla_18:

(Start: 72 @10598 has 6 MA's), (Start: 77 @10625 has 1 MA's), (129, 10934), (135, 10991), (141, 11015), (145, 11060), (148, 11105), (153, 11123), (157, 11138), (159, 11156), (160, 11165), (171, 11219), (181, 11276), (192, 11357), (196, 11405), (198, 11444), (200, 11459), (205, 11468), (209, 11495), (214, 11525), (219, 11546), (238, 11669), (247, 11735), (255, 11798), (266, 11885), (278, 11954), (291, 12062), (293, 12083), (297, 12116), (298, 12134), (300, 12152), (304, 12176), (309, 12206), (321, 12251), (322, 12254), (325, 12272), (350, 12383), (352, 12395), (355, 12434), (369, 12476), (381, 12488), (383, 12500), (388, 12515), (398, 12548), (410, 12623), (419, 12677), (420, 12680), (422, 12698), (429, 12743), (433, 12782), (434, 12788), (439, 12812), (442, 12833), (443, 12836), (444, 12839), (457, 12965), (459, 12986), (461, 12995), (463, 13004), (465, 13010), (486, 13163), (495, 13208), (499, 13232), (500, 13238), (505, 13274), (511, 13307), (517, 13331), (532, 13382), (541, 13427), (559, 13565), (564, 13595), (588, 13787), (615, 13964), (656, 14156), (689, 14228), (694, 14264), (697, 14288), (699, 14300), (702, 14342), (708, 14390), (718, 14453), (723, 14480), (725, 14486), (730, 14519), (732, 14540), (733, 14567), (739, 14591), (742, 14627), (745, 14654), (746, 14663), (748, 14675), (764, 14777),

Gene: PCoral7_17 Start: 10271, Stop: 15886, Start Num: 8

Candidate Starts for PCoral7_17:

(Start: 7 @10235 has 1 MA's), (Start: 8 @10271 has 37 MA's), (Start: 12 @10292 has 1 MA's), (15, 10331), (18, 10376), (30, 10466), (32, 10475), (34, 10487), (35, 10508), (38, 10565), (42, 10637), (45, 10658), (53, 10700), (54, 10703), (57, 10730), (60, 10751), (61, 10754), (64, 10775), (67, 10796), (78, 10847), (79, 10850), (90, 10910), (121, 11093), (132, 11165), (159, 11351), (177, 11453), (179, 11468), (182, 11483), (187, 11540), (211, 11732), (230, 11852), (240, 11933), (244, 11963), (251, 11999), (256, 12050), (273, 12185), (274, 12188), (278, 12212), (284, 12263), (287, 12299), (288, 12305), (291, 12320), (297, 12374), (301, 12413), (305, 12437), (308, 12455), (319, 12503), (321, 12509), (324, 12527), (325, 12530), (327, 12545), (329, 12557), (331, 12605), (352, 12743), (359, 12824), (362, 12848), (363, 12860), (364, 12863), (371, 12896), (389, 12998), (396, 13025), (397, 13028), (398, 13031), (399, 13037), (406, 13082), (408, 13094), (410, 13106), (414, 13130), (417, 13145), (419, 13160), (420, 13163), (424, 13187), (427, 13214), (439, 13295), (450, 13379), (462, 13484), (468, 13517), (475, 13583), (476, 13592), (481, 13631), (483, 13664), (485, 13676), (487, 13679), (488, 13694), (491, 13703), (496, 13739), (498, 13748), (500, 13757), (529, 13913), (530, 13916), (531, 13919), (533, 13940), (547, 14021), (552, 14063), (561, 14150), (564, 14183), (566, 14192), (570, 14234), (585, 14348), (601, 14513), (616, 14597), (617, 14600), (620, 14630), (621, 14633), (625, 14666), (626, 14669), (633, 14747), (640, 14804), (653, 14921), (660, 14972), (678, 15074), (680, 15107), (687, 15173), (694, 15239), (695, 15245), (697, 15263), (700, 15296), (708, 15368), (715, 15410), (716, 15416), (718, 15434), (719, 15440), (723, 15461), (730, 15500), (744, 15641), (755, 15704), (765, 15779), (768, 15872),

Gene: Periwinkle_20 Start: 10340, Stop: 15973, Start Num: 20

Candidate Starts for Periwinkle_20:

(17, 10313), (Start: 20 @10340 has 1 MA's), (Start: 27 @10385 has 1 MA's), (29, 10406), (33, 10427), (36, 10472), (Start: 37 @10487 has 1 MA's), (42, 10571), (50, 10613), (51, 10625), (61, 10688), (63, 10703), (65, 10712), (67, 10730), (68, 10736), (79, 10784), (88, 10838), (105, 10919), (125, 11063), (126, 11069), (132, 11099), (163, 11318), (177, 11393), (182, 11423), (199, 11606), (202, 11627), (211, 11672), (212, 11678), (215, 11699), (227, 11780), (236, 11846), (240, 11873), (242, 11885), (244, 11903), (245, 11915), (251, 11939), (253, 11951), (256, 11990), (257, 11993), (258, 12002), (261, 12032), (265, 12077), (275, 12137), (278, 12152), (281, 12182), (282, 12194), (287, 12239), (288, 12245), (290, 12257), (291, 12260), (293, 12281), (296, 12311), (297, 12314), (305, 12377), (309, 12404), (310, 12407), (311, 12410), (312, 12416), (318, 12440), (319, 12443), (321, 12449), (323, 12455), (325, 12470), (328, 12488), (333, 12569), (337, 12617), (338, 12623), (342, 12650), (362, 12809), (363, 12821), (371, 12857), (384, 12917), (388, 12956), (390, 12962), (391, 12965), (397, 12986), (398, 12989), (414, 13088), (421, 13127), (425, 13151), (429, 13184), (432, 13229),

(438, 13283), (446, 13370), (447, 13391), (451, 13427), (455, 13457), (467, 13538), (468, 13547), (471, 13571), (480, 13652), (481, 13658), (485, 13703), (487, 13706), (496, 13766), (498, 13775), (500, 13784), (518, 13892), (529, 13940), (531, 13946), (546, 14045), (547, 14048), (549, 14060), (561, 14177), (564, 14210), (570, 14261), (575, 14291), (580, 14351), (592, 14432), (595, 14453), (597, 14486), (604, 14549), (606, 14558), (608, 14567), (626, 14681), (629, 14711), (631, 14720), (634, 14759), (635, 14762), (637, 14792), (640, 14813), (666, 15017), (672, 15080), (673, 15086), (679, 15137), (698, 15323), (705, 15410), (710, 15437), (711, 15440), (724, 15515), (728, 15539), (731, 15578), (734, 15614), (738, 15635), (747, 15722), (754, 15764), (760, 15797), (761, 15809), (766, 15887), (769, 15953),

Gene: Petra_19 Start: 10705, Stop: 16197, Start Num: 14

Candidate Starts for Petra_19:

(Start: 8 @10654 has 37 MA's), (Start: 11 @10669 has 1 MA's), (Start: 12 @10675 has 1 MA's), (Start: 14 @10705 has 1 MA's), (15, 10714), (16, 10717), (18, 10759), (34, 10870), (35, 10891), (59, 11119), (61, 11137), (64, 11158), (65, 11161), (67, 11179), (73, 11203), (88, 11287), (98, 11329), (100, 11344), (102, 11353), (127, 11521), (132, 11548), (147, 11665), (177, 11836), (182, 11866), (202, 12070), (211, 12115), (236, 12289), (240, 12316), (244, 12346), (256, 12433), (261, 12475), (263, 12481), (278, 12595), (280, 12610), (282, 12637), (287, 12682), (288, 12688), (291, 12703), (297, 12757), (301, 12796), (304, 12817), (305, 12820), (308, 12838), (314, 12865), (319, 12886), (321, 12892), (325, 12913), (329, 12940), (365, 13213), (377, 13252), (383, 13267), (397, 13297), (398, 13300), (406, 13351), (419, 13432), (420, 13435), (426, 13468), (429, 13498), (442, 13588), (475, 13855), (481, 13903), (485, 13948), (487, 13951), (488, 13966), (491, 13975), (496, 14011), (498, 14020), (500, 14029), (507, 14080), (520, 14152), (526, 14170), (531, 14191), (546, 14290), (547, 14293), (551, 14326), (556, 14392), (558, 14410), (561, 14425), (564, 14458), (570, 14509), (576, 14560), (602, 14803), (603, 14806), (616, 14878), (617, 14881), (625, 14947), (626, 14950), (628, 14968), (633, 15028), (640, 15085), (643, 15103), (651, 15184), (652, 15187), (653, 15202), (675, 15361), (680, 15415), (687, 15481), (694, 15547), (695, 15553), (708, 15676), (712, 15700), (715, 15718), (718, 15742), (719, 15748), (723, 15769), (730, 15808), (744, 15949), (746, 15961), (755, 16012), (759, 16030), (765, 16087), (768, 16180),

Gene: Phabuloso_18 Start: 9869, Stop: 15502, Start Num: 21

Candidate Starts for Phabuloso_18:

(Start: 21 @9869 has 10 MA's), (26, 9896), (Start: 27 @9914 has 1 MA's), (29, 9935), (33, 9956), (36, 10001), (Start: 37 @10016 has 1 MA's), (42, 10100), (50, 10142), (51, 10154), (61, 10217), (63, 10232), (65, 10241), (67, 10259), (68, 10265), (79, 10313), (105, 10448), (126, 10598), (132, 10628), (163, 10847), (177, 10922), (182, 10952), (202, 11156), (210, 11198), (211, 11201), (212, 11207), (215, 11228), (227, 11309), (236, 11375), (240, 11402), (242, 11414), (244, 11432), (245, 11444), (251, 11468), (253, 11480), (256, 11519), (257, 11522), (258, 11531), (261, 11561), (265, 11606), (275, 11666), (278, 11681), (281, 11711), (282, 11723), (287, 11768), (288, 11774), (291, 11789), (294, 11819), (296, 11840), (297, 11843), (305, 11906), (309, 11933), (310, 11936), (311, 11939), (312, 11945), (318, 11969), (319, 11972), (321, 11978), (323, 11984), (325, 11999), (328, 12017), (333, 12098), (337, 12146), (338, 12152), (342, 12179), (362, 12338), (363, 12350), (371, 12386), (384, 12446), (388, 12485), (390, 12491), (391, 12494), (397, 12515), (398, 12518), (414, 12617), (421, 12656), (425, 12680), (429, 12713), (432, 12758), (438, 12812), (446, 12899), (447, 12920), (451, 12956), (455, 12986), (466, 13064), (467, 13067), (468, 13076), (471, 13100), (480, 13181), (481, 13187), (485, 13232), (487, 13235), (488, 13250), (496, 13295), (498, 13304), (500, 13313), (501, 13316), (518, 13421), (529, 13469), (531, 13475), (546, 13574), (547, 13577), (549, 13589), (561, 13706), (564, 13739), (570, 13790), (575, 13820), (580, 13880), (592, 13961), (595, 13982), (597, 14015), (604, 14078), (608, 14096), (626, 14210), (629, 14240), (631, 14249), (634, 14288), (635, 14291), (637, 14321), (640, 14342), (658, 14495), (666, 14546), (672, 14609), (673, 14615), (679, 14666), (698, 14852), (705, 14939), (710, 14966), (711, 14969), (724, 15044), (728, 15068), (731, 15107), (734, 15143), (738, 15164), (747, 15251), (754, 15293), (760, 15326), (761, 15338), (766, 15416), (769, 15482),

Gene: Phistory_19 Start: 10653, Stop: 16280, Start Num: 19

Candidate Starts for Phistory_19:

(Start: 19 @10653 has 1 MA's), (23, 10659), (Start: 27 @10698 has 1 MA's), (36, 10785), (42, 10884), (50, 10926), (51, 10938), (61, 11001), (63, 11016), (65, 11025), (67, 11043), (68, 11049), (79, 11097), (92, 11172), (105, 11232), (126, 11382), (132, 11412), (177, 11706), (182, 11736), (199, 11919), (202, 11940), (210, 11982), (211, 11985), (212, 11991), (215, 12012), (216, 12024), (226, 12084), (230, 12105), (236, 12159), (240, 12186), (242, 12198), (244, 12216), (245, 12228), (251, 12252), (253, 12264), (256, 12303), (257, 12306), (258, 12315), (262, 12348), (268, 12417), (273, 12438), (278, 12465), (279, 12471), (282, 12507), (283, 12510), (287, 12552), (288, 12558), (290, 12570), (291, 12573), (296, 12624), (297, 12627), (305, 12690), (306, 12699), (309, 12717), (310, 12720), (312, 12729), (321, 12762), (325, 12783), (326, 12789), (327, 12798), (330, 12846), (334, 12888), (337, 12930), (342, 12963), (351, 13014), (352, 13017), (355, 13056), (356, 13065), (362, 13122), (363, 13134), (371, 13170), (384, 13230), (388, 13269), (390, 13275), (397, 13299), (398, 13302), (401, 13320), (414, 13401), (425, 13464), (429, 13497), (433, 13572), (438, 13596), (439, 13608), (442, 13641), (447, 13704), (451, 13740), (455, 13770), (466, 13848), (467, 13851), (468, 13860), (471, 13884), (481, 13971), (485, 14016), (487, 14019), (488, 14034), (496, 14079), (498, 14088), (500, 14097), (501, 14100), (518, 14205), (529, 14253), (531, 14259), (546, 14358), (547, 14361), (549, 14373), (561, 14490), (564, 14523), (570, 14574), (575, 14604), (580, 14664), (592, 14745), (595, 14766), (596, 14769), (604, 14862), (608, 14880), (626, 14994), (629, 15024), (631, 15033), (634, 15072), (635, 15075), (637, 15105), (640, 15126), (666, 15324), (672, 15387), (673, 15393), (676, 15420), (679, 15444), (698, 15630), (705, 15717), (710, 15744), (711, 15747), (724, 15822), (728, 15846), (731, 15885), (734, 15921), (738, 15942), (747, 16029), (754, 16071), (760, 16104), (761, 16116), (766, 16194), (769, 16260),

Gene: PhrostedPhlake_18 Start: 10632, Stop: 16172, Start Num: 8

Candidate Starts for PhrostedPhlake_18:

(Start: 8 @10632 has 37 MA's), (Start: 11 @10647 has 1 MA's), (Start: 12 @10653 has 1 MA's), (Start: 14 @10683 has 1 MA's), (15, 10692), (18, 10737), (34, 10848), (35, 10869), (59, 11097), (61, 11115), (64, 11136), (65, 11139), (67, 11157), (73, 11181), (88, 11265), (90, 11271), (98, 11307), (100, 11322), (102, 11331), (111, 11391), (127, 11499), (132, 11526), (147, 11643), (156, 11697), (163, 11739), (177, 11814), (182, 11844), (202, 12048), (211, 12093), (236, 12267), (240, 12294), (244, 12324), (256, 12411), (261, 12453), (267, 12516), (278, 12573), (282, 12615), (287, 12660), (288, 12666), (291, 12681), (297, 12735), (301, 12774), (304, 12795), (305, 12798), (308, 12816), (314, 12843), (319, 12864), (321, 12870), (325, 12891), (329, 12918), (377, 13230), (383, 13245), (397, 13275), (398, 13278), (406, 13329), (419, 13410), (420, 13413), (426, 13446), (429, 13476), (442, 13566), (475, 13833), (481, 13881), (483, 13914), (485, 13926), (487, 13929), (488, 13944), (491, 13953), (496, 13989), (498, 13998), (500, 14007), (518, 14115), (529, 14163), (530, 14166), (531, 14169), (547, 14271), (548, 14274), (561, 14400), (564, 14433), (569, 14481), (570, 14484), (576, 14535), (585, 14604), (602, 14778), (603, 14781), (616, 14853), (617, 14856), (625, 14922), (626, 14925), (628, 14943), (633, 15003), (640, 15060), (643, 15078), (651, 15159), (652, 15162), (653, 15177), (675, 15336), (680, 15390), (687, 15456), (694, 15522), (695, 15528), (699, 15558), (708, 15651), (712, 15675), (715, 15693), (718, 15717), (719, 15723), (723, 15744), (730, 15783), (744, 15924), (755, 15987), (759, 16005), (768, 16155),

Gene: Pipp_17 Start: 10133, Stop: 15790, Start Num: 5

Candidate Starts for Pipp_17:

(4, 10094), (Start: 5 @10133 has 1 MA's), (Start: 8 @10247 has 37 MA's), (Start: 11 @10262 has 1 MA's), (Start: 12 @10268 has 1 MA's), (Start: 14 @10298 has 1 MA's), (15, 10307), (16, 10310), (18, 10352), (34, 10463), (35, 10484), (61, 10730), (64, 10751), (65, 10754), (67, 10772), (73, 10796), (88, 10880), (90, 10886), (98, 10922), (100, 10937), (102, 10946), (105, 10961), (111, 11006), (127, 11114), (132, 11141), (136, 11174), (147, 11258), (182, 11459), (202, 11663), (212, 11714), (215, 11735), (216, 11747), (232, 11837), (236, 11882), (240, 11909), (244, 11939), (256, 12026), (257,

12029), (261, 12068), (268, 12140), (278, 12188), (282, 12230), (287, 12275), (288, 12281), (290, 12293), (291, 12296), (297, 12350), (301, 12389), (304, 12410), (305, 12413), (308, 12431), (314, 12458), (319, 12479), (321, 12485), (325, 12506), (352, 12740), (365, 12806), (377, 12845), (383, 12860), (397, 12890), (398, 12893), (406, 12944), (419, 13025), (420, 13028), (426, 13061), (429, 13091), (442, 13181), (468, 13382), (475, 13448), (481, 13496), (485, 13541), (487, 13544), (488, 13559), (491, 13568), (496, 13604), (498, 13613), (500, 13622), (520, 13745), (531, 13784), (546, 13883), (547, 13886), (556, 13985), (558, 14003), (561, 14018), (564, 14051), (570, 14102), (576, 14153), (585, 14222), (602, 14396), (603, 14399), (614, 14465), (616, 14471), (617, 14474), (625, 14540), (626, 14543), (628, 14561), (633, 14621), (640, 14678), (643, 14696), (651, 14777), (653, 14795), (660, 14846), (675, 14954), (680, 15008), (687, 15074), (693, 15128), (694, 15140), (695, 15146), (699, 15176), (708, 15269), (712, 15293), (715, 15311), (718, 15335), (719, 15341), (723, 15362), (730, 15401), (744, 15542), (755, 15605), (759, 15623), (765, 15680), (768, 15773),

Gene: Pons_16 Start: 9384, Stop: 14465, Start Num: 25

Candidate Starts for Pons_16:

(Start: 25 @9384 has 29 MA's), (40, 9540), (54, 9669), (58, 9699), (68, 9768), (71, 9780), (75, 9795), (79, 9816), (83, 9825), (87, 9867), (90, 9876), (98, 9912), (102, 9936), (111, 9996), (120, 10050), (124, 10089), (125, 10095), (129, 10110), (132, 10131), (140, 10185), (156, 10302), (168, 10365), (175, 10410), (182, 10449), (186, 10491), (202, 10650), (206, 10683), (211, 10695), (215, 10722), (222, 10779), (228, 10809), (231, 10821), (243, 10923), (244, 10926), (256, 11013), (263, 11061), (278, 11175), (284, 11226), (288, 11268), (291, 11283), (292, 11292), (293, 11304), (297, 11337), (302, 11379), (312, 11439), (313, 11442), (314, 11445), (315, 11451), (320, 11469), (325, 11493), (334, 11598), (341, 11646), (352, 11706), (353, 11709), (355, 11745), (364, 11826), (370, 11856), (374, 11877), (375, 11880), (376, 11883), (389, 11961), (396, 11985), (398, 11991), (418, 12117), (424, 12147), (429, 12186), (435, 12234), (439, 12255), (440, 12258), (441, 12264), (448, 12330), (454, 12375), (457, 12408), (459, 12429), (469, 12483), (490, 12633), (492, 12642), (504, 12729), (559, 13047), (564, 13077), (581, 13215), (594, 13296), (615, 13446), (619, 13476), (654, 13686), (657, 13695), (659, 13701), (667, 13737), (686, 13854), (688, 13860), (692, 13902), (695, 13920), (708, 14043), (712, 14067), (714, 14082), (718, 14112), (723, 14139), (725, 14145), (730, 14178), (737, 14247), (739, 14250), (742, 14286), (752, 14358), (756, 14376),

Gene: PotPie_16 Start: 10237, Stop: 15330, Start Num: 25

Candidate Starts for PotPie_16:

(Start: 25 @10237 has 29 MA's), (40, 10393), (54, 10522), (58, 10552), (68, 10621), (71, 10633), (79, 10669), (83, 10678), (87, 10720), (90, 10729), (98, 10765), (102, 10789), (120, 10903), (124, 10942), (129, 10963), (132, 10984), (156, 11155), (168, 11218), (175, 11263), (186, 11344), (202, 11503), (206, 11536), (211, 11548), (215, 11575), (222, 11632), (228, 11662), (231, 11674), (243, 11776), (244, 11779), (256, 11866), (263, 11914), (278, 12028), (288, 12121), (291, 12136), (293, 12157), (297, 12190), (299, 12220), (302, 12232), (308, 12271), (313, 12295), (314, 12298), (320, 12322), (325, 12346), (334, 12451), (345, 12529), (352, 12559), (353, 12562), (355, 12598), (359, 12640), (362, 12664), (364, 12679), (366, 12694), (370, 12709), (375, 12733), (384, 12772), (385, 12787), (386, 12793), (396, 12838), (398, 12844), (418, 12970), (424, 13000), (430, 13051), (435, 13087), (439, 13108), (440, 13111), (448, 13183), (454, 13228), (457, 13261), (459, 13282), (469, 13336), (479, 13411), (492, 13495), (504, 13582), (559, 13900), (564, 13930), (581, 14068), (589, 14119), (594, 14149), (615, 14314), (619, 14344), (650, 14524), (659, 14575), (667, 14602), (670, 14623), (686, 14719), (692, 14767), (695, 14785), (708, 14908), (712, 14932), (714, 14947), (718, 14977), (723, 15004), (725, 15010), (730, 15043), (737, 15112), (739, 15115), (742, 15151), (756, 15241),

Gene: PrincePatrick_17 Start: 10339, Stop: 15960, Start Num: 8

Candidate Starts for PrincePatrick_17:

(Start: 7 @10303 has 1 MA's), (Start: 8 @10339 has 37 MA's), (Start: 12 @10360 has 1 MA's), (15, 10399), (18, 10444), (30, 10534), (32, 10543), (34, 10555), (35, 10576), (38, 10633), (42, 10705), (45, 10726), (53, 10768), (54, 10771), (57, 10798), (60, 10819), (61, 10822), (64, 10843), (67, 10864), (78,

10915), (79, 10918), (90, 10978), (121, 11161), (132, 11233), (159, 11419), (177, 11521), (179, 11536), (182, 11551), (187, 11608), (211, 11800), (230, 11920), (240, 12001), (244, 12031), (251, 12067), (256, 12118), (261, 12160), (268, 12232), (276, 12268), (278, 12280), (284, 12331), (288, 12373), (291, 12388), (297, 12442), (301, 12481), (305, 12505), (308, 12523), (319, 12571), (321, 12577), (324, 12595), (325, 12598), (327, 12613), (329, 12625), (331, 12673), (334, 12703), (344, 12778), (359, 12892), (362, 12916), (363, 12928), (364, 12931), (371, 12964), (389, 13066), (398, 13099), (406, 13150), (408, 13162), (410, 13174), (414, 13198), (420, 13234), (424, 13258), (427, 13285), (439, 13366), (450, 13450), (462, 13555), (468, 13588), (475, 13654), (476, 13663), (481, 13702), (483, 13735), (485, 13747), (487, 13750), (488, 13765), (491, 13774), (496, 13810), (498, 13819), (500, 13828), (506, 13870), (529, 13984), (530, 13987), (531, 13990), (533, 14011), (547, 14092), (552, 14134), (561, 14221), (564, 14254), (566, 14263), (570, 14305), (585, 14419), (616, 14668), (617, 14671), (620, 14701), (621, 14704), (624, 14728), (625, 14737), (626, 14740), (633, 14818), (640, 14875), (653, 14992), (660, 15043), (680, 15181), (687, 15247), (694, 15313), (695, 15319), (697, 15337), (706, 15430), (708, 15442), (716, 15490), (718, 15508), (719, 15514), (723, 15535), (730, 15574), (744, 15715), (755, 15778), (765, 15853), (768, 15946),

Gene: PsychoKiller_16 Start: 9629, Stop: 14767, Start Num: 25

Candidate Starts for PsychoKiller_16:

(Start: 22 @9605 has 5 MA's), (Start: 25 @9629 has 29 MA's), (28, 9656), (40, 9785), (43, 9860), (68, 10013), (69, 10016), (87, 10112), (90, 10121), (96, 10151), (98, 10157), (100, 10172), (101, 10175), (105, 10196), (115, 10268), (118, 10289), (129, 10355), (132, 10376), (147, 10493), (175, 10655), (182, 10694), (190, 10769), (206, 10928), (211, 10940), (215, 10967), (221, 11012), (222, 11024), (236, 11114), (239, 11132), (242, 11153), (245, 11183), (251, 11207), (253, 11219), (256, 11258), (260, 11291), (273, 11393), (274, 11396), (278, 11420), (288, 11513), (291, 11528), (295, 11567), (316, 11702), (317, 11705), (325, 11738), (335, 11846), (336, 11849), (339, 11900), (353, 11975), (362, 12077), (370, 12122), (374, 12143), (375, 12146), (376, 12149), (388, 12224), (398, 12257), (402, 12278), (406, 12308), (414, 12356), (416, 12362), (420, 12389), (440, 12524), (454, 12641), (457, 12674), (459, 12695), (472, 12764), (473, 12770), (474, 12785), (490, 12905), (492, 12914), (504, 12998), (559, 13319), (587, 13538), (594, 13574), (622, 13787), (657, 13979), (667, 14027), (670, 14048), (686, 14156), (695, 14222), (697, 14240), (708, 14345), (713, 14375), (714, 14384), (718, 14414), (730, 14480), (733, 14528), (742, 14588), (755, 14675), (764, 14738),

Gene: Quasar_16 Start: 10238, Stop: 15376, Start Num: 25

Candidate Starts for Quasar_16:

(Start: 22 @10214 has 5 MA's), (Start: 25 @10238 has 29 MA's), (28, 10265), (40, 10394), (43, 10469), (68, 10622), (69, 10625), (87, 10721), (90, 10730), (96, 10760), (98, 10766), (100, 10781), (101, 10784), (105, 10805), (115, 10877), (118, 10898), (129, 10964), (132, 10985), (147, 11102), (175, 11264), (182, 11303), (190, 11378), (206, 11537), (211, 11549), (215, 11576), (221, 11621), (222, 11633), (236, 11723), (239, 11741), (242, 11762), (245, 11792), (251, 11816), (253, 11828), (256, 11867), (260, 11900), (273, 12002), (274, 12005), (278, 12029), (279, 12035), (288, 12122), (291, 12137), (295, 12176), (317, 12314), (324, 12344), (325, 12347), (335, 12455), (336, 12458), (339, 12509), (353, 12584), (362, 12686), (370, 12731), (374, 12752), (375, 12755), (376, 12758), (388, 12833), (398, 12866), (402, 12887), (406, 12917), (414, 12965), (416, 12971), (420, 12998), (440, 13133), (454, 13250), (457, 13283), (459, 13304), (460, 13307), (472, 13373), (473, 13379), (474, 13394), (490, 13514), (492, 13523), (504, 13607), (559, 13928), (587, 14147), (594, 14183), (622, 14396), (657, 14588), (667, 14636), (670, 14657), (686, 14765), (695, 14831), (697, 14849), (708, 14954), (713, 14984), (714, 14993), (718, 15023), (730, 15089), (733, 15137), (742, 15197), (755, 15284), (764, 15347),

Gene: REQ2_18 Start: 12445, Stop: 18258, Start Num: 1

Candidate Starts for REQ2_18:

(Start: 1 @12445 has 1 MA's), (3, 12493), (9, 12664), (Start: 25 @12805 has 29 MA's), (39, 12958), (40, 12970), (43, 13045), (44, 13051), (47, 13060), (55, 13114), (60, 13147), (68, 13198), (69, 13201),

(81, 13252), (90, 13306), (91, 13309), (102, 13366), (103, 13369), (108, 13402), (109, 13420), (112, 13447), (113, 13450), (117, 13480), (123, 13531), (125, 13540), (138, 13630), (197, 14125), (213, 14227), (223, 14308), (229, 14338), (238, 14407), (243, 14452), (254, 14515), (268, 14668), (284, 14767), (287, 14803), (288, 14809), (289, 14818), (291, 14824), (300, 14914), (306, 14950), (313, 14983), (320, 15010), (325, 15034), (327, 15049), (329, 15061), (335, 15142), (351, 15244), (379, 15430), (382, 15445), (394, 15517), (398, 15529), (400, 15544), (407, 15589), (412, 15622), (415, 15631), (421, 15667), (441, 15802), (445, 15826), (446, 15838), (447, 15859), (448, 15871), (458, 15961), (475, 16075), (478, 16093), (484, 16150), (503, 16264), (508, 16297), (527, 16405), (533, 16441), (537, 16480), (539, 16498), (544, 16519), (545, 16522), (555, 16615), (574, 16750), (577, 16771), (584, 16828), (627, 17152), (632, 17185), (639, 17263), (647, 17308), (649, 17347), (652, 17377), (653, 17392), (655, 17410), (661, 17443), (683, 17611), (740, 18052), (741, 18064), (743, 18094), (744, 18097), (751, 18142), (760, 18190),

Gene: RanchParmCat_19 Start: 10311, Stop: 14516, Start Num: 72

Candidate Starts for RanchParmCat_19:

(Start: 72 @10311 has 6 MA's), (Start: 77 @10338 has 1 MA's), (124, 10626), (129, 10647), (130, 10653), (134, 10686), (135, 10704), (141, 10728), (148, 10818), (150, 10827), (153, 10836), (159, 10869), (163, 10896), (166, 10905), (170, 10929), (195, 11082), (198, 11145), (200, 11160), (209, 11196), (214, 11226), (219, 11247), (225, 11289), (238, 11370), (249, 11445), (250, 11454), (254, 11475), (271, 11622), (291, 11763), (293, 11784), (296, 11814), (297, 11817), (298, 11835), (301, 11856), (304, 11877), (308, 11898), (320, 11949), (321, 11952), (322, 11955), (325, 11973), (343, 12054), (350, 12084), (355, 12135), (381, 12189), (388, 12216), (398, 12249), (407, 12309), (419, 12378), (420, 12381), (433, 12483), (434, 12489), (443, 12537), (444, 12540), (454, 12633), (457, 12666), (459, 12687), (461, 12696), (463, 12705), (465, 12711), (486, 12864), (499, 12933), (500, 12939), (505, 12975), (540, 13104), (559, 13245), (563, 13269), (567, 13314), (588, 13467), (589, 13470), (615, 13659), (619, 13689), (656, 13866), (689, 13938), (692, 13962), (694, 13974), (697, 13998), (699, 14010), (707, 14094), (708, 14100), (715, 14142), (718, 14163), (725, 14196), (730, 14229), (732, 14250), (733, 14277), (739, 14301), (742, 14337), (748, 14385), (764, 14487),

Gene: RedBaron_17 Start: 9673, Stop: 14811, Start Num: 25

Candidate Starts for RedBaron_17:

(Start: 22 @9649 has 5 MA's), (Start: 25 @9673 has 29 MA's), (28, 9700), (40, 9829), (43, 9904), (68, 10057), (69, 10060), (87, 10156), (90, 10165), (96, 10195), (98, 10201), (100, 10216), (101, 10219), (105, 10240), (115, 10312), (118, 10333), (129, 10399), (132, 10420), (147, 10537), (175, 10699), (182, 10738), (190, 10813), (215, 11011), (233, 11119), (242, 11197), (244, 11215), (246, 11233), (256, 11302), (257, 11305), (258, 11314), (262, 11347), (277, 11458), (278, 11464), (288, 11557), (291, 11572), (308, 11707), (315, 11740), (325, 11782), (335, 11890), (339, 11944), (352, 12016), (353, 12019), (362, 12121), (370, 12166), (372, 12175), (374, 12187), (375, 12190), (376, 12193), (388, 12268), (389, 12271), (390, 12274), (393, 12286), (396, 12295), (398, 12301), (404, 12343), (406, 12352), (414, 12400), (420, 12433), (440, 12568), (454, 12685), (457, 12718), (459, 12739), (472, 12808), (473, 12814), (490, 12949), (492, 12958), (504, 13042), (559, 13363), (587, 13582), (594, 13618), (657, 14023), (667, 14071), (670, 14092), (686, 14200), (695, 14266), (697, 14284), (708, 14389), (713, 14419), (714, 14428), (718, 14458), (730, 14524), (733, 14572), (742, 14632), (755, 14719), (764, 14782),

Gene: Samba_17 Start: 10382, Stop: 15874, Start Num: 8

Candidate Starts for Samba_17:

(Start: 8 @10382 has 37 MA's), (Start: 11 @10397 has 1 MA's), (Start: 12 @10403 has 1 MA's), (Start: 14 @10433 has 1 MA's), (15, 10442), (16, 10445), (18, 10487), (34, 10598), (35, 10619), (41, 10739), (48, 10781), (59, 10847), (61, 10865), (63, 10880), (64, 10886), (65, 10889), (67, 10907), (73, 10931), (88, 11015), (98, 11057), (100, 11072), (102, 11081), (127, 11249), (132, 11276), (147, 11393), (177, 11564), (182, 11594), (202, 11798), (211, 11843), (215, 11870), (216, 11882), (232, 11972), (236, 12017), (240, 12044), (244, 12074), (256, 12161), (261, 12203), (267, 12266), (268, 12275), (278,

12323), (282, 12365), (287, 12410), (288, 12416), (290, 12428), (291, 12431), (297, 12485), (301, 12524), (304, 12545), (305, 12548), (308, 12566), (309, 12575), (319, 12614), (321, 12620), (324, 12638), (325, 12641), (329, 12668), (365, 12941), (373, 12968), (377, 12980), (382, 12992), (383, 12995), (397, 13025), (398, 13028), (406, 13079), (419, 13160), (420, 13163), (426, 13196), (429, 13226), (431, 13250), (442, 13316), (475, 13583), (481, 13631), (485, 13676), (487, 13679), (488, 13694), (496, 13739), (498, 13748), (500, 13757), (507, 13808), (520, 13880), (526, 13898), (531, 13919), (546, 14018), (547, 14021), (551, 14054), (556, 14120), (558, 14138), (561, 14153), (564, 14186), (570, 14237), (576, 14288), (602, 14531), (603, 14534), (616, 14606), (617, 14609), (625, 14675), (626, 14678), (628, 14696), (633, 14756), (651, 14912), (652, 14915), (653, 14930), (675, 15101), (680, 15155), (689, 15212), (691, 15227), (696, 15275), (701, 15320), (720, 15440), (722, 15449), (729, 15488), (736, 15560), (744, 15629), (755, 15692), (759, 15710), (768, 15860),

Gene: SheckWes_15 Start: 9372, Stop: 14465, Start Num: 25

Candidate Starts for SheckWes_15:

(Start: 25 @9372 has 29 MA's), (40, 9528), (50, 9633), (54, 9657), (61, 9708), (63, 9723), (68, 9756), (79, 9804), (83, 9813), (87, 9855), (89, 9861), (90, 9864), (98, 9900), (102, 9924), (107, 9951), (120, 10038), (124, 10077), (125, 10083), (129, 10098), (132, 10119), (140, 10173), (156, 10290), (168, 10353), (175, 10398), (182, 10437), (186, 10479), (202, 10641), (205, 10650), (206, 10674), (211, 10686), (215, 10713), (216, 10725), (222, 10770), (228, 10800), (231, 10812), (243, 10914), (244, 10917), (256, 11004), (259, 11031), (265, 11091), (269, 11121), (274, 11142), (278, 11166), (284, 11217), (288, 11259), (291, 11274), (292, 11283), (293, 11295), (297, 11328), (302, 11370), (312, 11430), (313, 11433), (314, 11436), (315, 11442), (320, 11460), (325, 11484), (332, 11568), (334, 11589), (341, 11637), (352, 11697), (353, 11700), (355, 11736), (362, 11802), (364, 11817), (370, 11847), (374, 11868), (375, 11871), (376, 11874), (389, 11952), (396, 11976), (398, 11982), (418, 12108), (424, 12138), (429, 12177), (435, 12225), (439, 12246), (440, 12249), (441, 12255), (448, 12321), (454, 12366), (457, 12399), (459, 12420), (469, 12474), (490, 12624), (492, 12633), (504, 12720), (540, 12897), (559, 13038), (564, 13068), (581, 13206), (594, 13287), (615, 13440), (619, 13470), (654, 13686), (657, 13695), (659, 13701), (667, 13737), (686, 13854), (688, 13860), (692, 13902), (695, 13920), (708, 14043), (712, 14067), (714, 14082), (718, 14112), (723, 14139), (725, 14145), (730, 14178), (737, 14247), (739, 14250), (742, 14286), (752, 14358), (753, 14361), (756, 14376),

Gene: SketchMex_15 Start: 9616, Stop: 14415, Start Num: 74

Candidate Starts for SketchMex_15:

(Start: 74 @9616 has 16 MA's), (80, 9643), (106, 9772), (122, 9874), (128, 9919), (131, 9931), (133, 9949), (136, 9976), (137, 9979), (139, 9994), (145, 10045), (146, 10048), (151, 10105), (153, 10108), (161, 10150), (165, 10168), (173, 10213), (180, 10249), (184, 10282), (188, 10315), (189, 10327), (196, 10381), (199, 10420), (201, 10435), (204, 10444), (207, 10471), (217, 10522), (225, 10564), (228, 10582), (231, 10591), (237, 10645), (248, 10708), (251, 10723), (258, 10786), (271, 10876), (277, 10903), (287, 10996), (288, 11002), (291, 11017), (295, 11056), (305, 11134), (311, 11167), (321, 11206), (324, 11224), (325, 11227), (329, 11254), (332, 11311), (334, 11332), (340, 11395), (345, 11431), (348, 11443), (353, 11464), (355, 11500), (359, 11542), (360, 11554), (362, 11566), (370, 11611), (371, 11614), (374, 11632), (375, 11635), (376, 11638), (388, 11713), (390, 11719), (398, 11746), (407, 11806), (410, 11821), (418, 11872), (419, 11875), (420, 11878), (422, 11896), (436, 11995), (439, 12010), (440, 12013), (457, 12163), (459, 12184), (468, 12226), (472, 12253), (473, 12259), (489, 12391), (492, 12403), (504, 12490), (511, 12532), (518, 12568), (535, 12643), (544, 12694), (550, 12733), (557, 12811), (565, 12862), (573, 12919), (591, 13057), (598, 13132), (619, 13276), (622, 13297), (646, 13474), (648, 13480), (686, 13804), (688, 13810), (695, 13870), (697, 13888), (700, 13921), (708, 13993), (714, 14032), (718, 14062), (730, 14128), (733, 14176), (742, 14236), (756, 14326), (764, 14386),

Gene: Sopespian_16 Start: 9630, Stop: 14768, Start Num: 25

Candidate Starts for Sopespian_16:

(Start: 22 @9606 has 5 MA's), (Start: 25 @9630 has 29 MA's), (28, 9657), (40, 9786), (43, 9861), (68, 10014), (69, 10017), (87, 10113), (90, 10122), (96, 10152), (98, 10158), (100, 10173), (101, 10176), (105, 10197), (115, 10269), (118, 10290), (129, 10356), (132, 10377), (147, 10494), (175, 10656), (182, 10695), (190, 10770), (206, 10929), (211, 10941), (215, 10968), (221, 11013), (222, 11025), (236, 11115), (239, 11133), (242, 11154), (245, 11184), (251, 11208), (253, 11220), (256, 11259), (260, 11292), (273, 11394), (274, 11397), (278, 11421), (288, 11514), (291, 11529), (295, 11568), (316, 11703), (317, 11706), (325, 11739), (335, 11847), (336, 11850), (339, 11901), (353, 11976), (360, 12066), (362, 12078), (370, 12123), (374, 12144), (375, 12147), (376, 12150), (388, 12225), (398, 12258), (402, 12279), (406, 12309), (414, 12357), (416, 12363), (420, 12390), (440, 12525), (454, 12642), (457, 12675), (459, 12696), (472, 12765), (473, 12771), (474, 12786), (490, 12906), (492, 12915), (504, 12999), (559, 13320), (587, 13539), (594, 13575), (622, 13788), (657, 13980), (667, 14028), (670, 14049), (686, 14157), (695, 14223), (697, 14241), (708, 14346), (713, 14376), (714, 14385), (718, 14415), (730, 14481), (733, 14529), (742, 14589), (755, 14676), (764, 14739),

Gene: Spooky_18 Start: 9874, Stop: 15489, Start Num: 22

Candidate Starts for Spooky_18:

(Start: 22 @9874 has 5 MA's), (Start: 27 @9919 has 1 MA's), (29, 9940), (33, 9961), (36, 10006), (65, 10246), (84, 10339), (85, 10351), (89, 10375), (90, 10378), (102, 10438), (104, 10447), (105, 10453), (115, 10525), (126, 10603), (129, 10612), (132, 10633), (194, 11053), (202, 11161), (206, 11194), (211, 11206), (215, 11233), (236, 11380), (240, 11407), (244, 11437), (251, 11473), (256, 11524), (257, 11527), (258, 11536), (263, 11572), (268, 11638), (278, 11686), (286, 11770), (287, 11773), (288, 11779), (290, 11791), (291, 11794), (296, 11845), (297, 11848), (301, 11887), (321, 11983), (325, 12004), (345, 12208), (352, 12238), (359, 12319), (362, 12343), (363, 12355), (371, 12391), (384, 12451), (388, 12490), (390, 12496), (391, 12499), (397, 12520), (398, 12523), (414, 12622), (421, 12661), (425, 12685), (429, 12718), (432, 12763), (438, 12817), (439, 12829), (446, 12904), (447, 12925), (451, 12961), (455, 12991), (467, 13072), (468, 13081), (471, 13105), (480, 13186), (481, 13192), (485, 13237), (487, 13240), (488, 13255), (496, 13300), (498, 13309), (500, 13318), (518, 13426), (526, 13459), (529, 13474), (531, 13480), (546, 13579), (547, 13582), (548, 13585), (549, 13594), (561, 13711), (564, 13744), (569, 13792), (570, 13795), (575, 13825), (580, 13885), (592, 13966), (595, 13987), (596, 13990), (604, 14083), (606, 14092), (623, 14194), (626, 14215), (629, 14245), (631, 14254), (634, 14293), (635, 14296), (636, 14299), (637, 14326), (646, 14380), (658, 14497), (669, 14581), (671, 14593), (672, 14605), (673, 14611), (676, 14638), (679, 14662), (698, 14839), (705, 14926), (709, 14944), (710, 14953), (724, 15031), (727, 15049), (735, 15139), (738, 15151), (747, 15238), (754, 15280), (760, 15313), (761, 15325), (769, 15469),

Gene: Squiddly_20 Start: 11289, Stop: 16901, Start Num: 22

Candidate Starts for Squiddly_20:

(Start: 22 @11289 has 5 MA's), (24, 11307), (26, 11316), (Start: 27 @11334 has 1 MA's), (29, 11355), (31, 11367), (36, 11421), (Start: 37 @11436 has 1 MA's), (56, 11604), (57, 11613), (61, 11637), (65, 11661), (67, 11679), (76, 11724), (89, 11790), (90, 11793), (102, 11853), (126, 12018), (132, 12048), (149, 12204), (177, 12342), (179, 12357), (194, 12468), (202, 12576), (210, 12618), (211, 12621), (212, 12627), (215, 12648), (216, 12660), (236, 12795), (240, 12822), (244, 12852), (246, 12870), (256, 12939), (258, 12951), (268, 13053), (278, 13101), (282, 13143), (287, 13188), (288, 13194), (290, 13206), (291, 13209), (293, 13230), (296, 13260), (297, 13263), (300, 13299), (301, 13302), (315, 13377), (321, 13398), (325, 13419), (332, 13503), (341, 13593), (359, 13734), (363, 13770), (370, 13803), (371, 13806), (374, 13824), (384, 13866), (388, 13905), (390, 13911), (391, 13914), (397, 13935), (398, 13938), (414, 14037), (421, 14076), (429, 14133), (433, 14208), (439, 14244), (447, 14340), (451, 14376), (455, 14406), (466, 14484), (467, 14487), (468, 14496), (471, 14520), (474, 14544), (477, 14577), (480, 14601), (481, 14607), (483, 14640), (485, 14652), (487, 14655), (488, 14670), (493, 14688), (496, 14715), (498, 14724), (500, 14733), (501, 14736), (518, 14841), (529, 14889), (531, 14895), (547, 14997), (549, 15009), (561, 15126), (564, 15159), (570, 15210), (572, 15222), (575, 15240), (580, 15300), (592, 15381), (595, 15402), (604, 15498), (608, 15516), (612, 15540), (623, 15609), (626, 15630), (629, 15660), (631, 15669), (634, 15708), (635, 15711),

(636, 15714), (637, 15741), (646, 15795), (658, 15912), (669, 15996), (671, 16008), (672, 16020), (673, 16026), (676, 16053), (679, 16077), (698, 16254), (705, 16341), (709, 16359), (710, 16368), (724, 16446), (726, 16461), (728, 16470), (734, 16545), (735, 16554), (738, 16566), (747, 16653), (754, 16695), (760, 16728), (761, 16740), (766, 16815), (769, 16881),

Gene: SteamedHams_18 Start: 9646, Stop: 14433, Start Num: 74

Candidate Starts for SteamedHams_18:

(Start: 74 @9646 has 16 MA's), (80, 9673), (94, 9751), (106, 9802), (119, 9889), (122, 9904), (131, 9961), (133, 9979), (136, 10006), (137, 10009), (146, 10078), (151, 10135), (161, 10180), (165, 10198), (173, 10243), (180, 10279), (184, 10312), (191, 10360), (192, 10363), (196, 10411), (199, 10450), (201, 10465), (227, 10606), (235, 10657), (237, 10675), (245, 10729), (271, 10906), (277, 10933), (287, 11026), (288, 11032), (291, 11047), (295, 11086), (296, 11098), (305, 11164), (321, 11236), (324, 11254), (325, 11257), (329, 11284), (355, 11530), (362, 11596), (370, 11641), (374, 11662), (375, 11665), (376, 11668), (384, 11704), (388, 11743), (390, 11749), (398, 11776), (419, 11905), (420, 11908), (422, 11926), (441, 12049), (443, 12064), (457, 12193), (459, 12214), (468, 12256), (472, 12283), (473, 12289), (489, 12421), (492, 12433), (504, 12520), (511, 12562), (518, 12598), (544, 12724), (550, 12763), (565, 12892), (573, 12949), (579, 12991), (591, 13084), (598, 13159), (607, 13222), (619, 13303), (622, 13324), (646, 13501), (648, 13507), (674, 13726), (685, 13804), (686, 13822), (688, 13828), (695, 13888), (697, 13906), (700, 13939), (708, 14011), (714, 14050), (718, 14080), (730, 14146), (733, 14194), (742, 14254), (756, 14344), (764, 14404),

Gene: SummitAcademy_15 Start: 9452, Stop: 14545, Start Num: 25

Candidate Starts for SummitAcademy_15:

(Start: 25 @9452 has 29 MA's), (40, 9608), (54, 9737), (58, 9767), (68, 9836), (71, 9848), (79, 9884), (87, 9935), (90, 9944), (98, 9980), (102, 10004), (111, 10064), (120, 10118), (124, 10157), (125, 10163), (129, 10178), (132, 10199), (156, 10370), (168, 10433), (175, 10478), (186, 10559), (202, 10718), (206, 10751), (211, 10763), (215, 10790), (222, 10847), (228, 10877), (231, 10889), (243, 10991), (244, 10994), (256, 11081), (263, 11129), (278, 11243), (288, 11336), (291, 11351), (293, 11372), (297, 11405), (299, 11435), (302, 11447), (308, 11486), (313, 11510), (314, 11513), (320, 11537), (325, 11561), (334, 11666), (345, 11744), (352, 11774), (353, 11777), (355, 11813), (359, 11855), (362, 11879), (364, 11894), (366, 11909), (370, 11924), (375, 11948), (384, 11987), (385, 12002), (386, 12008), (389, 12029), (396, 12053), (398, 12059), (418, 12185), (424, 12215), (430, 12266), (435, 12302), (439, 12323), (440, 12326), (448, 12398), (454, 12443), (457, 12476), (459, 12497), (469, 12551), (479, 12626), (492, 12710), (504, 12797), (559, 13115), (564, 13145), (581, 13283), (589, 13334), (594, 13364), (615, 13529), (619, 13559), (650, 13739), (659, 13790), (667, 13817), (670, 13838), (686, 13934), (692, 13982), (695, 14000), (708, 14123), (712, 14147), (714, 14162), (718, 14192), (723, 14219), (725, 14225), (730, 14258), (737, 14327), (739, 14330), (742, 14366), (756, 14456),

Gene: Survivors_18 Start: 10474, Stop: 15597, Start Num: 25

Candidate Starts for Survivors_18:

(Start: 22 @10453 has 5 MA's), (Start: 25 @10474 has 29 MA's), (28, 10501), (40, 10630), (48, 10726), (56, 10777), (66, 10834), (70, 10867), (71, 10870), (87, 10957), (91, 10969), (100, 11017), (101, 11020), (102, 11026), (110, 11080), (111, 11086), (118, 11134), (129, 11200), (132, 11221), (190, 11614), (191, 11617), (199, 11719), (211, 11785), (212, 11791), (215, 11812), (244, 12016), (246, 12034), (249, 12040), (251, 12052), (253, 12064), (256, 12103), (258, 12115), (263, 12151), (267, 12208), (271, 12232), (273, 12238), (288, 12358), (291, 12373), (295, 12412), (304, 12487), (310, 12520), (314, 12535), (315, 12541), (316, 12547), (325, 12583), (335, 12691), (342, 12763), (352, 12817), (370, 12967), (375, 12991), (386, 13051), (387, 13063), (388, 13069), (396, 13096), (397, 13099), (398, 13102), (412, 13195), (414, 13201), (422, 13252), (431, 13321), (437, 13354), (440, 13369), (441, 13375), (447, 13432), (449, 13444), (453, 13483), (454, 13486), (456, 13507), (457, 13519), (459, 13540), (460, 13543), (468, 13582), (469, 13594), (472, 13609), (490, 13750), (504, 13846), (516, 13912), (519, 13933), (522, 13939), (559, 14176), (564, 14206), (567, 14245),

(586, 14380), (590, 14410), (594, 14431), (612, 14569), (619, 14617), (663, 14848), (667, 14854), (686, 14983), (695, 15049), (700, 15100), (708, 15172), (714, 15211), (718, 15241), (725, 15274), (730, 15307), (739, 15379), (746, 15451), (755, 15505), (757, 15511), (764, 15568),

Gene: SweatNTears_18 Start: 10127, Stop: 14926, Start Num: 74

Candidate Starts for SweatNTears_18:

(Start: 74 @10127 has 16 MA's), (80, 10154), (82, 10160), (106, 10283), (122, 10385), (128, 10430), (131, 10442), (133, 10460), (136, 10487), (137, 10490), (139, 10505), (145, 10556), (146, 10559), (151, 10616), (153, 10619), (161, 10661), (165, 10679), (173, 10724), (180, 10760), (184, 10793), (188, 10826), (189, 10838), (196, 10892), (199, 10931), (201, 10946), (204, 10955), (207, 10982), (217, 11033), (228, 11093), (231, 11102), (237, 11156), (248, 11219), (251, 11234), (258, 11297), (271, 11387), (277, 11414), (285, 11495), (287, 11507), (288, 11513), (291, 11528), (294, 11558), (295, 11567), (305, 11645), (311, 11678), (321, 11717), (324, 11735), (325, 11738), (329, 11765), (332, 11822), (334, 11843), (348, 11954), (353, 11975), (355, 12011), (359, 12053), (360, 12065), (362, 12077), (370, 12122), (371, 12125), (374, 12143), (375, 12146), (376, 12149), (388, 12224), (398, 12257), (407, 12317), (418, 12383), (419, 12386), (420, 12389), (422, 12407), (436, 12506), (439, 12521), (440, 12524), (457, 12674), (459, 12695), (468, 12737), (472, 12764), (473, 12770), (489, 12902), (492, 12914), (504, 13001), (511, 13043), (518, 13079), (535, 13154), (544, 13205), (550, 13244), (553, 13268), (565, 13373), (573, 13430), (591, 13568), (598, 13643), (619, 13787), (622, 13808), (646, 13985), (648, 13991), (686, 14315), (688, 14321), (695, 14381), (697, 14399), (700, 14432), (708, 14504), (714, 14543), (718, 14573), (730, 14639), (733, 14687), (742, 14747), (756, 14837), (764, 14897),

Gene: Toast_17 Start: 10235, Stop: 15886, Start Num: 7

Candidate Starts for Toast_17:

(Start: 7 @10235 has 1 MA's), (Start: 8 @10271 has 37 MA's), (Start: 12 @10292 has 1 MA's), (15, 10331), (18, 10376), (30, 10466), (32, 10475), (34, 10487), (35, 10508), (38, 10565), (42, 10637), (45, 10658), (53, 10700), (54, 10703), (57, 10730), (60, 10751), (61, 10754), (64, 10775), (67, 10796), (78, 10847), (79, 10850), (90, 10910), (121, 11093), (132, 11165), (159, 11351), (177, 11453), (179, 11468), (182, 11483), (187, 11540), (211, 11732), (230, 11852), (240, 11933), (244, 11963), (251, 11999), (256, 12050), (273, 12185), (274, 12188), (278, 12212), (284, 12263), (287, 12299), (288, 12305), (291, 12320), (297, 12374), (301, 12413), (305, 12437), (308, 12455), (319, 12503), (321, 12509), (324, 12527), (325, 12530), (327, 12545), (329, 12557), (331, 12605), (352, 12743), (359, 12824), (362, 12848), (363, 12860), (364, 12863), (371, 12896), (389, 12998), (396, 13025), (397, 13028), (398, 13031), (399, 13037), (406, 13082), (408, 13094), (410, 13106), (414, 13130), (417, 13145), (419, 13160), (420, 13163), (424, 13187), (427, 13214), (439, 13295), (450, 13379), (462, 13484), (468, 13517), (475, 13583), (476, 13592), (481, 13631), (483, 13664), (485, 13676), (487, 13679), (488, 13694), (491, 13703), (496, 13739), (498, 13748), (500, 13757), (529, 13913), (530, 13916), (531, 13919), (533, 13940), (547, 14021), (552, 14063), (561, 14150), (564, 14183), (566, 14192), (570, 14234), (585, 14348), (601, 14513), (616, 14597), (617, 14600), (620, 14630), (621, 14633), (625, 14666), (626, 14669), (633, 14747), (640, 14804), (653, 14921), (660, 14972), (678, 15074), (680, 15107), (687, 15173), (694, 15239), (695, 15245), (697, 15263), (700, 15296), (708, 15368), (715, 15410), (716, 15416), (718, 15434), (719, 15440), (723, 15461), (730, 15500), (744, 15641), (755, 15704), (765, 15779), (768, 15872),

Gene: Tolls_18 Start: 9649, Stop: 14436, Start Num: 74

Candidate Starts for Tolls_18:

(Start: 74 @9649 has 16 MA's), (80, 9676), (94, 9754), (106, 9805), (119, 9892), (122, 9907), (131, 9964), (133, 9982), (136, 10009), (137, 10012), (146, 10081), (151, 10138), (161, 10183), (165, 10201), (173, 10246), (176, 10261), (180, 10282), (184, 10315), (191, 10363), (192, 10366), (196, 10414), (199, 10453), (201, 10468), (235, 10660), (237, 10678), (252, 10762), (271, 10909), (277, 10936), (287, 11029), (288, 11035), (291, 11050), (295, 11089), (296, 11101), (305, 11167), (321, 11239), (324, 11257), (325, 11260), (329, 11287), (355, 11533), (362, 11599), (370, 11644), (374,

11665), (375, 11668), (376, 11671), (384, 11707), (388, 11746), (390, 11752), (398, 11779), (419, 11908), (420, 11911), (422, 11929), (441, 12052), (443, 12067), (457, 12196), (459, 12217), (468, 12259), (472, 12286), (473, 12292), (489, 12424), (492, 12436), (504, 12523), (511, 12565), (518, 12601), (544, 12727), (550, 12766), (565, 12895), (573, 12952), (579, 12994), (591, 13087), (598, 13162), (607, 13225), (619, 13306), (622, 13327), (646, 13504), (648, 13510), (674, 13729), (685, 13807), (686, 13825), (688, 13831), (695, 13891), (697, 13909), (700, 13942), (708, 14014), (714, 14053), (718, 14083), (730, 14149), (733, 14197), (742, 14257), (756, 14347), (764, 14407),

Gene: Troje_16 Start: 9601, Stop: 14397, Start Num: 74

Candidate Starts for Troje_16:

(Start: 74 @9601 has 16 MA's), (80, 9628), (82, 9634), (106, 9757), (122, 9859), (128, 9904), (131, 9916), (133, 9934), (136, 9961), (137, 9964), (139, 9979), (145, 10030), (146, 10033), (151, 10090), (153, 10093), (161, 10135), (165, 10153), (173, 10198), (180, 10234), (184, 10267), (188, 10300), (189, 10312), (196, 10366), (199, 10405), (201, 10420), (204, 10429), (207, 10456), (217, 10507), (228, 10567), (231, 10576), (237, 10630), (248, 10693), (251, 10708), (271, 10861), (277, 10888), (285, 10969), (287, 10981), (288, 10987), (291, 11002), (295, 11041), (305, 11119), (311, 11152), (321, 11191), (324, 11209), (325, 11212), (329, 11239), (332, 11296), (334, 11317), (340, 11380), (348, 11428), (353, 11449), (355, 11485), (359, 11527), (362, 11551), (370, 11596), (371, 11599), (374, 11617), (375, 11620), (376, 11623), (388, 11698), (390, 11704), (398, 11731), (407, 11791), (418, 11857), (419, 11860), (420, 11863), (422, 11881), (436, 11980), (439, 11995), (440, 11998), (457, 12148), (459, 12169), (468, 12211), (472, 12238), (473, 12244), (492, 12388), (504, 12475), (511, 12517), (518, 12553), (535, 12628), (544, 12679), (550, 12718), (557, 12796), (565, 12847), (573, 12904), (591, 13042), (598, 13114), (619, 13258), (622, 13279), (646, 13456), (648, 13462), (686, 13786), (688, 13792), (695, 13852), (697, 13870), (700, 13903), (708, 13975), (714, 14014), (718, 14044), (730, 14110), (731, 14128), (733, 14158), (742, 14218), (756, 14308), (764, 14368),

Gene: Typhonomachy_17 Start: 9629, Stop: 14767, Start Num: 25

Candidate Starts for Typhonomachy_17:

(Start: 22 @9605 has 5 MA's), (Start: 25 @9629 has 29 MA's), (28, 9656), (40, 9785), (43, 9860), (68, 10013), (69, 10016), (87, 10112), (90, 10121), (96, 10151), (98, 10157), (100, 10172), (101, 10175), (105, 10196), (115, 10268), (118, 10289), (129, 10355), (132, 10376), (147, 10493), (175, 10655), (182, 10694), (190, 10769), (206, 10928), (211, 10940), (215, 10967), (221, 11012), (222, 11024), (236, 11114), (239, 11132), (242, 11153), (245, 11183), (251, 11207), (253, 11219), (256, 11258), (260, 11291), (262, 11303), (273, 11393), (274, 11396), (278, 11420), (288, 11513), (291, 11528), (295, 11567), (301, 11621), (308, 11663), (317, 11705), (324, 11735), (325, 11738), (335, 11846), (336, 11849), (339, 11900), (353, 11975), (360, 12065), (362, 12077), (368, 12116), (370, 12122), (374, 12143), (375, 12146), (376, 12149), (388, 12224), (398, 12257), (402, 12278), (406, 12308), (414, 12356), (416, 12362), (420, 12389), (440, 12524), (454, 12641), (457, 12674), (459, 12695), (472, 12764), (473, 12770), (474, 12785), (490, 12905), (492, 12914), (504, 12998), (559, 13319), (587, 13538), (594, 13574), (622, 13787), (657, 13979), (667, 14027), (670, 14048), (686, 14156), (695, 14222), (697, 14240), (708, 14345), (713, 14375), (714, 14384), (718, 14414), (730, 14480), (733, 14528), (742, 14588), (755, 14675), (764, 14738),

Gene: UmaThurman_17 Start: 10381, Stop: 15924, Start Num: 8

Candidate Starts for UmaThurman_17:

(Start: 8 @10381 has 37 MA's), (Start: 11 @10396 has 1 MA's), (Start: 12 @10402 has 1 MA's), (Start: 14 @10432 has 1 MA's), (15, 10441), (16, 10444), (18, 10486), (34, 10597), (35, 10618), (59, 10846), (61, 10864), (63, 10879), (64, 10885), (65, 10888), (67, 10906), (73, 10930), (88, 11014), (89, 11017), (98, 11056), (100, 11071), (102, 11080), (127, 11248), (132, 11275), (182, 11593), (202, 11797), (211, 11842), (212, 11848), (215, 11869), (216, 11881), (232, 11971), (236, 12016), (240, 12043), (244, 12073), (256, 12160), (257, 12163), (261, 12202), (278, 12322), (282, 12364), (287, 12409), (288, 12415), (291, 12430), (297, 12484), (301, 12523), (304, 12544), (305, 12547), (308, 12565), (309, 12574), (319, 12613), (321, 12619), (325, 12640), (329, 12667), (352, 12874), (365, 12940), (377,

12979), (383, 12994), (397, 13024), (398, 13027), (406, 13078), (419, 13159), (420, 13162), (426, 13195), (429, 13225), (431, 13249), (475, 13582), (481, 13630), (485, 13675), (487, 13678), (488, 13693), (496, 13738), (498, 13747), (500, 13756), (507, 13807), (520, 13879), (526, 13897), (531, 13918), (546, 14017), (547, 14020), (551, 14053), (556, 14119), (558, 14137), (561, 14152), (564, 14185), (570, 14236), (576, 14287), (582, 14335), (602, 14530), (603, 14533), (616, 14605), (617, 14608), (625, 14674), (626, 14677), (628, 14695), (633, 14755), (640, 14812), (643, 14830), (651, 14911), (652, 14914), (653, 14929), (675, 15088), (680, 15142), (687, 15208), (693, 15262), (694, 15274), (695, 15280), (708, 15403), (712, 15427), (715, 15445), (718, 15469), (719, 15475), (723, 15496), (730, 15535), (744, 15676), (746, 15688), (755, 15739), (759, 15757), (768, 15907),

Gene: Utz_17 Start: 10248, Stop: 15791, Start Num: 8

Candidate Starts for Utz_17:

(Start: 8 @10248 has 37 MA's), (Start: 11 @10263 has 1 MA's), (Start: 12 @10269 has 1 MA's), (Start: 14 @10299 has 1 MA's), (15, 10308), (16, 10311), (18, 10353), (34, 10464), (35, 10485), (41, 10605), (48, 10647), (59, 10713), (61, 10731), (64, 10752), (65, 10755), (67, 10773), (73, 10797), (88, 10881), (89, 10884), (98, 10923), (100, 10938), (102, 10947), (127, 11115), (132, 11142), (147, 11259), (177, 11430), (182, 11460), (202, 11664), (211, 11709), (215, 11736), (216, 11748), (232, 11838), (240, 11910), (244, 11940), (256, 12027), (257, 12030), (261, 12069), (278, 12189), (282, 12231), (287, 12276), (288, 12282), (290, 12294), (291, 12297), (297, 12351), (301, 12390), (304, 12411), (305, 12414), (308, 12432), (319, 12480), (321, 12486), (325, 12507), (329, 12534), (365, 12807), (377, 12846), (383, 12861), (397, 12891), (398, 12894), (406, 12945), (419, 13026), (420, 13029), (426, 13062), (429, 13092), (431, 13116), (442, 13182), (475, 13449), (478, 13467), (481, 13497), (485, 13542), (487, 13545), (488, 13560), (491, 13569), (496, 13605), (498, 13614), (500, 13623), (507, 13674), (520, 13746), (526, 13764), (531, 13785), (546, 13884), (547, 13887), (551, 13920), (556, 13986), (558, 14004), (561, 14019), (564, 14052), (570, 14103), (576, 14154), (602, 14397), (603, 14400), (616, 14472), (617, 14475), (625, 14541), (626, 14544), (628, 14562), (633, 14622), (640, 14679), (643, 14697), (651, 14778), (652, 14781), (653, 14796), (680, 15009), (687, 15075), (694, 15141), (695, 15147), (708, 15270), (712, 15294), (715, 15312), (718, 15336), (719, 15342), (723, 15363), (730, 15402), (744, 15543), (755, 15606), (759, 15624), (762, 15651), (765, 15681), (768, 15774),

Gene: Vine_17 Start: 10381, Stop: 15480, Start Num: 25

Candidate Starts for Vine_17:

(Start: 25 @10381 has 29 MA's), (40, 10537), (54, 10666), (58, 10696), (68, 10765), (71, 10777), (79, 10813), (83, 10822), (87, 10864), (90, 10873), (98, 10909), (102, 10933), (111, 10993), (120, 11047), (124, 11086), (129, 11107), (132, 11128), (152, 11287), (156, 11299), (168, 11362), (175, 11407), (186, 11488), (202, 11647), (206, 11680), (211, 11692), (215, 11719), (222, 11776), (228, 11806), (231, 11818), (243, 11920), (244, 11923), (256, 12010), (262, 12055), (263, 12058), (278, 12172), (288, 12265), (291, 12280), (293, 12301), (297, 12334), (299, 12364), (302, 12376), (308, 12415), (313, 12439), (314, 12442), (320, 12466), (325, 12490), (334, 12595), (345, 12673), (352, 12703), (353, 12706), (355, 12742), (359, 12784), (362, 12808), (364, 12823), (366, 12838), (370, 12853), (375, 12877), (384, 12916), (385, 12931), (386, 12937), (389, 12958), (396, 12982), (398, 12988), (418, 13114), (424, 13144), (430, 13195), (435, 13231), (439, 13252), (440, 13255), (448, 13327), (454, 13372), (457, 13405), (459, 13426), (469, 13480), (479, 13555), (492, 13639), (504, 13726), (542, 13912), (559, 14044), (564, 14074), (581, 14212), (589, 14263), (594, 14293), (605, 14398), (615, 14449), (619, 14479), (650, 14659), (659, 14710), (667, 14752), (670, 14773), (686, 14869), (692, 14917), (695, 14935), (708, 15058), (712, 15082), (714, 15097), (718, 15127), (723, 15154), (725, 15160), (730, 15193), (737, 15262), (739, 15265), (742, 15301), (756, 15391),

Gene: Walrus_18 Start: 10497, Stop: 16019, Start Num: 12

Candidate Starts for Walrus_18:

(Start: 8 @10476 has 37 MA's), (Start: 11 @10491 has 1 MA's), (Start: 12 @10497 has 1 MA's), (Start: 14 @10527 has 1 MA's), (15, 10536), (16, 10539), (18, 10581), (34, 10692), (35, 10713), (41, 10833),

(59, 10941), (61, 10959), (65, 10983), (67, 11001), (73, 11025), (88, 11109), (90, 11115), (98, 11151), (100, 11166), (102, 11175), (105, 11190), (111, 11235), (114, 11256), (127, 11343), (132, 11370), (136, 11403), (147, 11487), (156, 11541), (163, 11583), (177, 11658), (182, 11688), (202, 11892), (211, 11937), (236, 12111), (240, 12138), (244, 12168), (256, 12255), (257, 12258), (261, 12297), (263, 12303), (267, 12360), (278, 12417), (282, 12459), (287, 12504), (288, 12510), (291, 12525), (297, 12579), (301, 12618), (304, 12639), (305, 12642), (308, 12660), (314, 12687), (319, 12708), (321, 12714), (325, 12735), (333, 12834), (365, 13035), (369, 13050), (377, 13074), (383, 13089), (397, 13119), (398, 13122), (406, 13173), (419, 13254), (420, 13257), (426, 13290), (429, 13320), (431, 13344), (442, 13410), (475, 13677), (481, 13725), (485, 13770), (487, 13773), (488, 13788), (493, 13806), (496, 13833), (498, 13842), (500, 13851), (507, 13902), (520, 13974), (526, 13992), (531, 14013), (546, 14112), (547, 14115), (551, 14148), (556, 14214), (558, 14232), (561, 14247), (564, 14280), (570, 14331), (576, 14382), (602, 14625), (603, 14628), (616, 14700), (617, 14703), (625, 14769), (626, 14772), (628, 14790), (633, 14850), (640, 14907), (643, 14925), (651, 15006), (652, 15009), (653, 15024), (675, 15183), (680, 15237), (687, 15303), (688, 15309), (694, 15369), (695, 15375), (708, 15498), (712, 15522), (715, 15540), (718, 15564), (719, 15570), (723, 15591), (730, 15630), (744, 15771), (746, 15783), (755, 15834), (759, 15852), (767, 15981), (768, 16002),

Gene: Whack_16 Start: 10349, Stop: 16249, Start Num: 1

Candidate Starts for Whack_16:

(Start: 1 @10349 has 1 MA's), (2, 10358), (3, 10397), (6, 10445), (40, 10874), (43, 10949), (44, 10955), (55, 11018), (56, 11021), (61, 11054), (68, 11102), (69, 11105), (86, 11192), (91, 11213), (93, 11231), (102, 11270), (108, 11306), (113, 11354), (117, 11384), (125, 11444), (144, 11567), (167, 11777), (172, 11819), (197, 12029), (203, 12083), (213, 12134), (223, 12215), (241, 12341), (243, 12359), (272, 12593), (284, 12674), (287, 12710), (288, 12716), (291, 12731), (296, 12782), (297, 12785), (303, 12836), (307, 12860), (308, 12866), (315, 12899), (323, 12926), (325, 12941), (330, 13004), (332, 13025), (337, 13088), (345, 13145), (357, 13247), (380, 13343), (393, 13400), (395, 13406), (396, 13409), (413, 13511), (417, 13529), (421, 13553), (454, 13802), (456, 13823), (464, 13880), (482, 14024), (494, 14081), (509, 14183), (513, 14207), (514, 14210), (523, 14270), (525, 14276), (534, 14324), (545, 14399), (554, 14498), (560, 14549), (561, 14555), (568, 14636), (570, 14645), (607, 14966), (611, 14990), (618, 15026), (622, 15065), (628, 15110), (634, 15170), (638, 15212), (642, 15242), (644, 15245), (664, 15416), (665, 15419), (668, 15446), (681, 15578), (682, 15593), (684, 15599), (685, 15608), (689, 15656), (721, 15905), (731, 15977), (740, 16052), (744, 16097), (749, 16127), (750, 16136), (758, 16172), (760, 16187),

Gene: Whitney_19 Start: 10672, Stop: 16305, Start Num: 22

Candidate Starts for Whitney_19:

(Start: 22 @10672 has 5 MA's), (Start: 27 @10717 has 1 MA's), (29, 10738), (33, 10759), (36, 10804), (Start: 37 @10819 has 1 MA's), (42, 10903), (50, 10945), (51, 10957), (61, 11020), (63, 11035), (65, 11044), (67, 11062), (68, 11068), (79, 11116), (105, 11251), (126, 11401), (132, 11431), (163, 11650), (177, 11725), (182, 11755), (202, 11959), (211, 12004), (212, 12010), (215, 12031), (218, 12055), (227, 12112), (236, 12178), (240, 12205), (242, 12217), (244, 12235), (245, 12247), (251, 12271), (253, 12283), (256, 12322), (257, 12325), (258, 12334), (261, 12364), (265, 12409), (275, 12469), (278, 12484), (281, 12514), (282, 12526), (287, 12571), (288, 12577), (291, 12592), (294, 12622), (296, 12643), (297, 12646), (305, 12709), (309, 12736), (310, 12739), (311, 12742), (312, 12748), (318, 12772), (319, 12775), (321, 12781), (323, 12787), (325, 12802), (328, 12820), (330, 12865), (337, 12949), (338, 12955), (342, 12982), (355, 13075), (356, 13084), (362, 13141), (363, 13153), (371, 13189), (372, 13195), (382, 13237), (384, 13249), (388, 13288), (390, 13294), (391, 13297), (396, 13315), (397, 13318), (398, 13321), (403, 13345), (414, 13420), (421, 13459), (425, 13483), (429, 13516), (439, 13627), (442, 13660), (447, 13723), (451, 13759), (455, 13789), (466, 13867), (467, 13870), (468, 13879), (471, 13903), (481, 13990), (485, 14035), (487, 14038), (488, 14053), (496, 14098), (498, 14107), (500, 14116), (501, 14119), (518, 14224), (529, 14272), (531, 14278), (546, 14377), (547, 14380), (549, 14392), (561, 14509), (564, 14542), (570, 14593), (575, 14623), (580, 14683), (592, 14764), (595, 14785), (596, 14788), (597, 14818), (604, 14881), (606, 14890),

(608, 14899), (626, 15013), (629, 15043), (634, 15091), (635, 15094), (637, 15124), (640, 15145), (666, 15343), (672, 15406), (673, 15412), (679, 15463), (698, 15655), (705, 15742), (710, 15769), (711, 15772), (724, 15847), (728, 15871), (731, 15910), (734, 15946), (738, 15967), (747, 16054), (754, 16096), (760, 16129), (761, 16141), (769, 16285),

Gene: William_17 Start: 10217, Stop: 15835, Start Num: 8

Candidate Starts for William_17:

(Start: 7 @10181 has 1 MA's), (Start: 8 @10217 has 37 MA's), (Start: 12 @10238 has 1 MA's), (16, 10280), (18, 10322), (30, 10412), (32, 10421), (34, 10433), (35, 10454), (40, 10520), (42, 10583), (45, 10604), (53, 10646), (54, 10649), (57, 10676), (60, 10697), (61, 10700), (64, 10721), (67, 10742), (78, 10793), (79, 10796), (90, 10856), (121, 11039), (132, 11111), (159, 11297), (177, 11399), (179, 11414), (182, 11429), (187, 11486), (211, 11678), (230, 11798), (240, 11879), (244, 11909), (251, 11945), (256, 11996), (273, 12131), (274, 12134), (278, 12158), (284, 12209), (287, 12245), (288, 12251), (291, 12266), (297, 12320), (301, 12359), (305, 12383), (308, 12401), (319, 12449), (321, 12455), (324, 12473), (325, 12476), (327, 12491), (329, 12503), (331, 12551), (352, 12689), (359, 12770), (362, 12794), (363, 12806), (364, 12809), (371, 12842), (389, 12944), (396, 12971), (397, 12974), (398, 12977), (399, 12983), (408, 13040), (410, 13052), (414, 13076), (417, 13091), (419, 13106), (420, 13109), (424, 13133), (427, 13160), (439, 13241), (450, 13325), (462, 13430), (468, 13463), (475, 13529), (476, 13538), (481, 13577), (483, 13610), (485, 13622), (487, 13625), (488, 13640), (491, 13649), (496, 13685), (498, 13694), (500, 13703), (529, 13859), (530, 13862), (531, 13865), (533, 13886), (547, 13967), (552, 14009), (561, 14096), (564, 14129), (566, 14138), (570, 14180), (585, 14294), (616, 14543), (617, 14546), (620, 14576), (621, 14579), (624, 14603), (625, 14612), (626, 14615), (633, 14693), (640, 14750), (653, 14867), (660, 14918), (680, 15056), (687, 15122), (694, 15188), (695, 15194), (697, 15212), (706, 15305), (708, 15317), (716, 15365), (718, 15383), (719, 15389), (723, 15410), (730, 15449), (744, 15590), (755, 15653), (765, 15728), (768, 15821),

Gene: Wisp_16 Start: 10065, Stop: 15509, Start Num: 14

Candidate Starts for Wisp_16:

(Start: 8 @10014 has 37 MA's), (Start: 11 @10029 has 1 MA's), (Start: 12 @10035 has 1 MA's), (Start: 14 @10065 has 1 MA's), (15, 10074), (16, 10077), (18, 10119), (34, 10230), (35, 10251), (41, 10371), (48, 10413), (54, 10446), (59, 10479), (61, 10497), (63, 10512), (64, 10518), (65, 10521), (67, 10539), (73, 10563), (88, 10647), (98, 10689), (100, 10704), (102, 10713), (127, 10881), (132, 10908), (147, 11025), (177, 11196), (182, 11226), (202, 11430), (211, 11475), (215, 11502), (216, 11514), (232, 11604), (236, 11649), (240, 11676), (244, 11706), (256, 11793), (257, 11796), (261, 11835), (267, 11898), (278, 11955), (282, 11997), (287, 12042), (288, 12048), (290, 12060), (291, 12063), (297, 12117), (301, 12156), (304, 12177), (305, 12180), (308, 12198), (314, 12225), (319, 12246), (321, 12252), (324, 12270), (325, 12273), (326, 12279), (329, 12300), (365, 12573), (373, 12600), (377, 12612), (383, 12627), (397, 12657), (398, 12660), (419, 12792), (420, 12795), (426, 12828), (429, 12858), (431, 12882), (442, 12948), (475, 13215), (481, 13263), (485, 13308), (487, 13311), (488, 13326), (496, 13371), (498, 13380), (500, 13389), (507, 13440), (520, 13512), (526, 13530), (531, 13551), (546, 13650), (547, 13653), (551, 13686), (556, 13752), (558, 13770), (561, 13785), (564, 13818), (570, 13869), (576, 13920), (602, 14163), (603, 14166), (616, 14238), (617, 14241), (625, 14307), (626, 14310), (628, 14328), (633, 14388), (651, 14544), (652, 14547), (653, 14562), (675, 14733), (680, 14787), (689, 14844), (691, 14859), (696, 14907), (701, 14952), (720, 15072), (722, 15081), (729, 15120), (736, 15192), (744, 15261), (746, 15273), (755, 15324), (759, 15342), (765, 15399), (768, 15492),

Gene: Wocket_18 Start: 10497, Stop: 15983, Start Num: 8

Candidate Starts for Wocket_18:

(Start: 8 @10497 has 37 MA's), (Start: 11 @10512 has 1 MA's), (Start: 14 @10548 has 1 MA's), (15, 10557), (16, 10560), (18, 10602), (34, 10713), (35, 10734), (41, 10854), (59, 10962), (61, 10980), (64, 11001), (65, 11004), (67, 11022), (73, 11046), (79, 11076), (88, 11130), (90, 11136), (98, 11172),

(100, 11187), (102, 11196), (127, 11364), (132, 11391), (156, 11562), (163, 11604), (177, 11679), (182, 11709), (202, 11913), (211, 11958), (212, 11964), (215, 11985), (216, 11997), (232, 12087), (236, 12132), (240, 12159), (244, 12189), (256, 12276), (261, 12318), (268, 12390), (278, 12438), (282, 12480), (287, 12525), (288, 12531), (291, 12546), (297, 12600), (301, 12639), (304, 12660), (305, 12663), (308, 12681), (314, 12708), (319, 12729), (321, 12735), (325, 12756), (329, 12783), (377, 13095), (383, 13110), (397, 13140), (398, 13143), (406, 13194), (419, 13275), (420, 13278), (426, 13311), (429, 13341), (431, 13365), (442, 13431), (475, 13698), (480, 13740), (481, 13746), (483, 13779), (485, 13791), (487, 13794), (488, 13809), (493, 13827), (496, 13854), (498, 13863), (500, 13872), (518, 13980), (529, 14028), (530, 14031), (531, 14034), (533, 14055), (547, 14136), (548, 14139), (561, 14265), (564, 14298), (569, 14346), (570, 14349), (573, 14364), (576, 14400), (603, 14646), (616, 14718), (617, 14721), (625, 14787), (626, 14790), (628, 14808), (633, 14868), (651, 15024), (653, 15042), (675, 15207), (680, 15261), (689, 15318), (691, 15333), (696, 15381), (701, 15426), (720, 15546), (722, 15555), (729, 15594), (736, 15666), (744, 15735), (755, 15798), (759, 15816), (763, 15846),

Gene: Yarn_15 Start: 9639, Stop: 14426, Start Num: 74

Candidate Starts for Yarn_15:

(Start: 74 @9639 has 16 MA's), (80, 9666), (94, 9744), (106, 9795), (119, 9882), (122, 9897), (131, 9954), (133, 9972), (136, 9999), (137, 10002), (146, 10071), (151, 10128), (161, 10173), (165, 10191), (173, 10236), (180, 10272), (184, 10305), (191, 10353), (192, 10356), (196, 10404), (199, 10443), (201, 10458), (235, 10650), (237, 10668), (252, 10752), (271, 10899), (277, 10926), (287, 11019), (288, 11025), (291, 11040), (295, 11079), (296, 11091), (305, 11157), (321, 11229), (324, 11247), (325, 11250), (329, 11277), (355, 11523), (362, 11589), (370, 11634), (374, 11655), (375, 11658), (376, 11661), (384, 11697), (388, 11736), (390, 11742), (398, 11769), (419, 11898), (420, 11901), (422, 11919), (441, 12042), (443, 12057), (457, 12186), (459, 12207), (468, 12249), (472, 12276), (473, 12282), (489, 12414), (492, 12426), (504, 12513), (511, 12555), (518, 12591), (544, 12717), (550, 12756), (565, 12885), (573, 12942), (579, 12984), (591, 13077), (598, 13152), (607, 13215), (619, 13296), (622, 13317), (646, 13494), (648, 13500), (674, 13719), (685, 13797), (686, 13815), (688, 13821), (695, 13881), (697, 13899), (700, 13932), (708, 14004), (714, 14043), (718, 14073), (730, 14139), (733, 14187), (742, 14247), (756, 14337), (764, 14397),

Gene: Yummy_17 Start: 9515, Stop: 14311, Start Num: 74

Candidate Starts for Yummy_17:

(Start: 74 @9515 has 16 MA's), (80, 9542), (82, 9548), (106, 9671), (122, 9773), (128, 9818), (131, 9830), (133, 9848), (136, 9875), (137, 9878), (139, 9893), (145, 9944), (146, 9947), (151, 10004), (153, 10007), (154, 10010), (161, 10049), (165, 10067), (173, 10112), (180, 10148), (184, 10181), (188, 10214), (189, 10226), (196, 10280), (199, 10319), (201, 10334), (204, 10343), (207, 10370), (217, 10421), (228, 10481), (231, 10490), (237, 10544), (248, 10607), (251, 10622), (258, 10685), (271, 10775), (277, 10802), (287, 10895), (288, 10901), (291, 10916), (295, 10955), (305, 11033), (311, 11066), (321, 11105), (324, 11123), (325, 11126), (329, 11153), (332, 11210), (334, 11231), (348, 11342), (353, 11363), (355, 11399), (359, 11441), (360, 11453), (362, 11465), (370, 11510), (371, 11513), (374, 11531), (375, 11534), (376, 11537), (388, 11612), (398, 11645), (407, 11705), (418, 11771), (419, 11774), (420, 11777), (422, 11795), (436, 11894), (439, 11909), (440, 11912), (457, 12062), (459, 12083), (468, 12125), (472, 12152), (473, 12158), (489, 12290), (492, 12302), (504, 12389), (511, 12431), (518, 12467), (528, 12503), (535, 12542), (544, 12593), (550, 12632), (557, 12710), (565, 12761), (573, 12818), (591, 12956), (598, 13028), (619, 13172), (622, 13193), (646, 13370), (648, 13376), (686, 13700), (688, 13706), (695, 13766), (697, 13784), (700, 13817), (708, 13889), (714, 13928), (718, 13958), (730, 14024), (731, 14042), (733, 14072), (742, 14132), (756, 14222), (764, 14282),

Gene: Zarbodnamra_17 Start: 10273, Stop: 15795, Start Num: 8

Candidate Starts for Zarbodnamra_17:

(Start: 8 @10273 has 37 MA's), (Start: 11 @10288 has 1 MA's), (Start: 12 @10294 has 1 MA's), (Start: 14 @10324 has 1 MA's), (15, 10333), (16, 10336), (18, 10378), (34, 10489), (35, 10510), (59, 10738), (61, 10756), (63, 10771), (64, 10777), (65, 10780), (67, 10798), (73, 10822), (88, 10906), (89, 10909), (98, 10948), (100, 10963), (102, 10972), (127, 11140), (132, 11167), (177, 11455), (182, 11485), (202, 11689), (211, 11734), (215, 11761), (216, 11773), (232, 11863), (236, 11908), (240, 11935), (244, 11965), (256, 12052), (257, 12055), (261, 12094), (270, 12178), (278, 12214), (282, 12256), (287, 12301), (288, 12307), (290, 12319), (291, 12322), (297, 12376), (301, 12415), (304, 12436), (305, 12439), (308, 12457), (309, 12466), (314, 12484), (319, 12505), (321, 12511), (325, 12532), (329, 12559), (334, 12637), (369, 12826), (377, 12850), (382, 12862), (383, 12865), (392, 12880), (397, 12895), (398, 12898), (406, 12949), (419, 13030), (420, 13033), (426, 13066), (429, 13096), (431, 13120), (475, 13453), (481, 13501), (485, 13546), (487, 13549), (488, 13564), (496, 13609), (498, 13618), (500, 13627), (507, 13678), (520, 13750), (526, 13768), (531, 13789), (546, 13888), (547, 13891), (551, 13924), (556, 13990), (558, 14008), (561, 14023), (564, 14056), (570, 14107), (576, 14158), (602, 14401), (603, 14404), (616, 14476), (617, 14479), (625, 14545), (626, 14548), (628, 14566), (633, 14626), (640, 14683), (643, 14701), (651, 14782), (652, 14785), (653, 14800), (675, 14959), (680, 15013), (687, 15079), (688, 15085), (694, 15145), (695, 15151), (708, 15274), (712, 15298), (715, 15316), (718, 15340), (719, 15346), (723, 15367), (730, 15406), (744, 15547), (746, 15559), (755, 15610), (759, 15628), (768, 15778),

Gene: Zareef_20 Start: 10620, Stop: 15749, Start Num: 25

Candidate Starts for Zareef_20:

(Start: 22 @10599 has 5 MA's), (Start: 25 @10620 has 29 MA's), (28, 10647), (40, 10776), (48, 10872), (56, 10923), (66, 10980), (70, 11013), (71, 11016), (87, 11103), (91, 11115), (100, 11163), (101, 11166), (102, 11172), (103, 11175), (110, 11226), (111, 11232), (118, 11280), (129, 11346), (132, 11367), (190, 11760), (191, 11763), (199, 11865), (208, 11922), (210, 11928), (211, 11931), (212, 11937), (215, 11958), (232, 12060), (234, 12087), (244, 12162), (246, 12180), (251, 12198), (253, 12210), (256, 12249), (263, 12297), (267, 12354), (271, 12378), (273, 12384), (288, 12504), (291, 12519), (295, 12558), (304, 12633), (310, 12666), (314, 12681), (315, 12687), (316, 12693), (325, 12729), (335, 12837), (342, 12909), (352, 12963), (362, 13068), (370, 13113), (375, 13137), (383, 13167), (386, 13197), (387, 13209), (388, 13215), (396, 13242), (398, 13248), (412, 13341), (414, 13347), (422, 13398), (431, 13467), (437, 13500), (440, 13515), (441, 13521), (447, 13578), (454, 13632), (456, 13653), (457, 13665), (459, 13686), (460, 13689), (472, 13755), (490, 13896), (504, 13992), (510, 14025), (516, 14058), (519, 14079), (522, 14085), (559, 14322), (564, 14352), (586, 14526), (590, 14556), (594, 14577), (619, 14769), (621, 14778), (641, 14859), (663, 15000), (667, 15006), (686, 15135), (695, 15201), (700, 15252), (708, 15324), (714, 15363), (715, 15366), (718, 15393), (725, 15426), (730, 15459), (739, 15531), (746, 15603), (755, 15657), (757, 15663), (764, 15720),

Gene: ZiggyZoo_16 Start: 10043, Stop: 15586, Start Num: 8

Candidate Starts for ZiggyZoo_16:

(Start: 8 @10043 has 37 MA's), (Start: 11 @10058 has 1 MA's), (Start: 12 @10064 has 1 MA's), (Start: 14 @10094 has 1 MA's), (15, 10103), (16, 10106), (18, 10148), (34, 10259), (35, 10280), (59, 10508), (61, 10526), (63, 10541), (64, 10547), (65, 10550), (67, 10568), (73, 10592), (88, 10676), (90, 10682), (98, 10718), (100, 10733), (102, 10742), (127, 10910), (132, 10937), (147, 11054), (156, 11108), (177, 11225), (182, 11255), (202, 11459), (211, 11504), (215, 11531), (216, 11543), (232, 11633), (236, 11678), (240, 11705), (244, 11735), (256, 11822), (257, 11825), (261, 11864), (278, 11984), (282, 12026), (287, 12071), (288, 12077), (290, 12089), (291, 12092), (297, 12146), (301, 12185), (304, 12206), (305, 12209), (308, 12227), (314, 12254), (319, 12275), (321, 12281), (325, 12302), (329, 12329), (333, 12401), (352, 12536), (369, 12617), (377, 12641), (383, 12656), (397, 12686), (398, 12689), (406, 12740), (419, 12821), (420, 12824), (426, 12857), (429, 12887), (431, 12911), (442, 12977), (475, 13244), (478, 13262), (481, 13292), (485, 13337), (487, 13340), (488, 13355), (491, 13364), (496, 13400), (498, 13409), (500, 13418), (507, 13469), (520, 13541), (526, 13559), (531, 13580), (546, 13679), (547, 13682), (551, 13715), (556, 13781), (558, 13799), (561, 13814), (564,

13847), (570, 13898), (576, 13949), (602, 14192), (603, 14195), (616, 14267), (617, 14270), (625, 14336), (626, 14339), (628, 14357), (633, 14417), (640, 14474), (643, 14492), (651, 14573), (652, 14576), (653, 14591), (675, 14750), (680, 14804), (687, 14870), (688, 14876), (694, 14936), (695, 14942), (700, 14993), (708, 15065), (712, 15089), (715, 15107), (718, 15131), (719, 15137), (723, 15158), (730, 15197), (744, 15338), (746, 15350), (755, 15401), (759, 15419), (768, 15569),