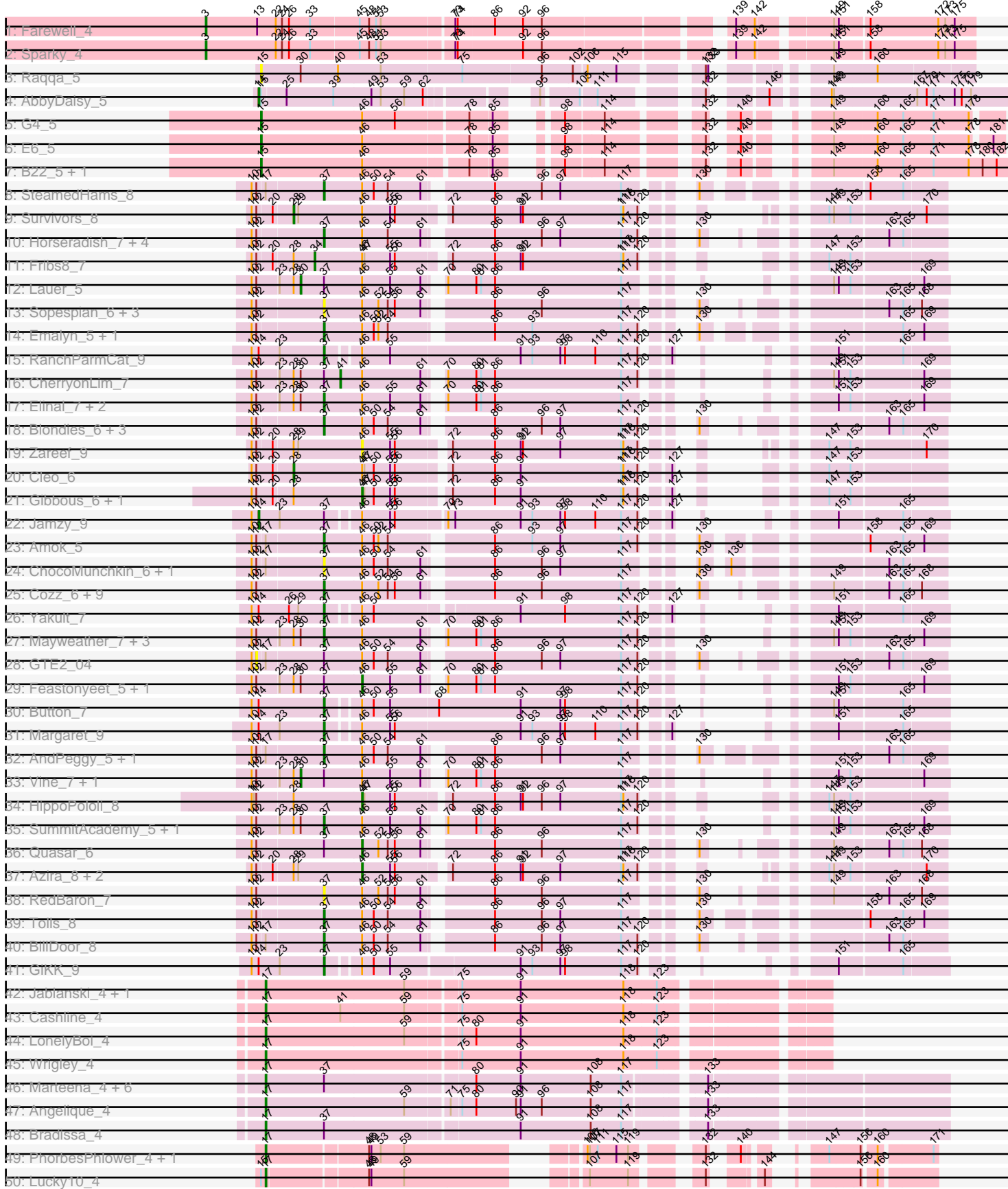
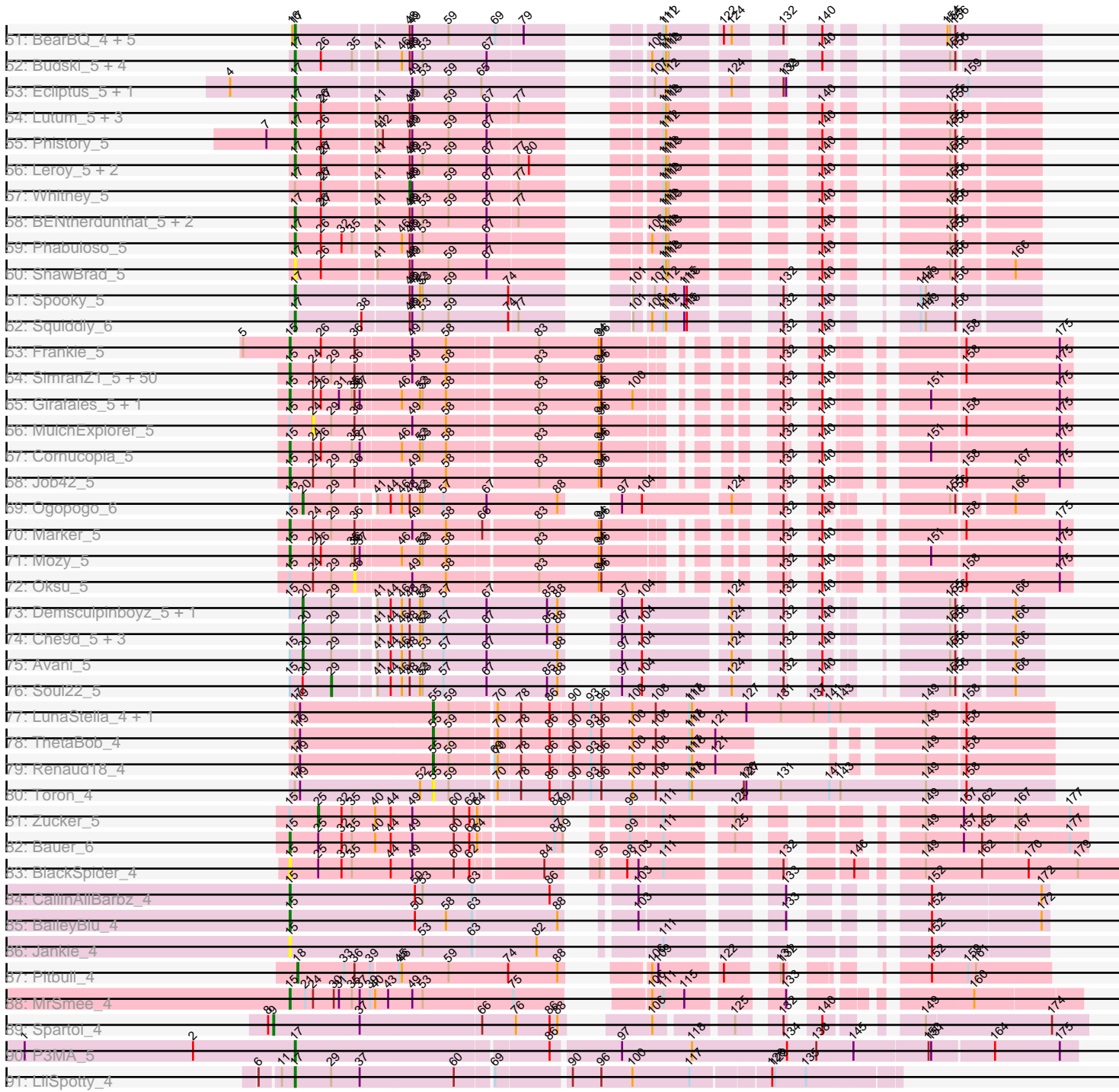


Pham 224297



Pham 224297



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 224297 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224297 has 206 members, 33 are drafts.

Phages represented in each track:

- Track 1 : Farewell_4
- Track 2 : Sparky_4
- Track 3 : Raqqa_5
- Track 4 : AbbyDaisy_5
- Track 5 : G4_5
- Track 6 : E6_5
- Track 7 : B22_5, Doucette_5
- Track 8 : SteamedHams_8
- Track 9 : Survivors_8
- Track 10 : Horseradish_7, SweatNTears_8, Biskit_7, SketchMex_5, Yummy_7
- Track 11 : Fribs8_7
- Track 12 : Lauer_5
- Track 13 : Sopespian_6, Carsonalex_7, PsychoKiller_6, Elliott_6
- Track 14 : Emalyn_5, AikoCarson_5
- Track 15 : RanchParmCat_9
- Track 16 : CherryonLim_7
- Track 17 : Elinal_7, KayGee_6, Bavidard_6
- Track 18 : Blondies_6, MScarn_8, Troje_6, Buttrmlkdreams_6
- Track 19 : Zareef_9
- Track 20 : Cleo_6
- Track 21 : Gibbous_6, Dre3_6
- Track 22 : Jamzy_9
- Track 23 : Amok_5
- Track 24 : ChocoMunchkin_6, CanesSauce_6
- Track 25 : Cozz_6, ChickenTender_8, MunkgeeRoachy_6, Agatha_6, Typhonomachy_7, Socotra_7, GoldHunter_7, Starburst_7, Burnsey_6, Axym_6
- Track 26 : Yakult_7
- Track 27 : Mayweather_7, MAnor_6, SheckWes_5, Pons_6
- Track 28 : GTE2_04
- Track 29 : Feastonyeet_5, BigChungus_5
- Track 30 : Button_7
- Track 31 : Margaret_9
- Track 32 : AndPeggy_5, Yarn_5
- Track 33 : Vine_7, Yucky_8
- Track 34 : HippoPololi_8
- Track 35 : SummitAcademy_5, PotPie_6
- Track 36 : Quasar_6

- Track 37 : Azira_8, Nibbles_8, MaVan_8
- Track 38 : RedBaron_7
- Track 39 : Tolls_8
- Track 40 : BillDoor_8
- Track 41 : GiKK_9
- Track 42 : Jablanski_4, Pytheas_4
- Track 43 : Cashline_4
- Track 44 : LonelyBoi_4
- Track 45 : Wrigley_4
- Track 46 : Marteena_4, EnalisNailo_4, EMSquaredA_4, Floral_4, BritBrat_4, Lilas_4, Pollux_4
- Track 47 : Angelique_4
- Track 48 : Bradissa_4
- Track 49 : PhorbPhlower_4, Morkie_4
- Track 50 : Lucky10_4
- Track 51 : BearBQ_4, MortyNRick_4, Crater_4, Apricot_4, Kuwabara_4, Birdsong_4
- Track 52 : Budski_5, CheeseTouch_5, LitninMcQueen_5, Kamaru_5, Holliday_5
- Track 53 : Ecliptus_5, ODay_5
- Track 54 : Lutum_5, Periwinkle_5, Getalong_5, Kenna_5
- Track 55 : Phistory_5
- Track 56 : Leroy_5, Horus_5, Frickyeah_5
- Track 57 : Whitney_5
- Track 58 : BENtherdunthat_5, Asapag_5, BotCity_5
- Track 59 : Phabuloso_5
- Track 60 : ShawBrad_5
- Track 61 : Spooky_5
- Track 62 : Squiddly_6
- Track 63 : Frankie_5
- Track 64 : SimranZ1_5, Leozinho_5, Spikelee_5, Brookers_5, OwlsT2W_5, Plumbus_5, Alexphander_5, Coco12_5, BigPhil_5, Bobi_5, Beakin_5, Kingsley_5, Lorde_5, RockyHorror_5, Boomer_5, Enby_5, BuzzLyseyear_5, Aloeri_5, Rialto_5, JalFarm20_5, Starcevich_5, ChickenDinner_5, DirtMcGirt_5, Stap_5, Piper2020_5, Juice456_5, Cerasum_5, Drago_5, Hegedechwinu_5, LittleShirley_5, DocMcStuffins_5, Pollywog_5, Madiba_5, Tchotchke_5, TootsiePop_5, Sarma624_5, Brushbloom_5, DosHalletts_5, Mova_5, Flathead_5, UncleRicky_5, Seagreen_5, DaWorst_5, Ramsey_5, Kimberlium_5, Awesomesauce_5, Squirry_5, Misha28_5, Totinger_5, Velveteen_5, Tootsieroll_5
- Track 65 : Girafales_5, Quico_5
- Track 66 : MulchExplorer_5
- Track 67 : Cornucopia_5
- Track 68 : Job42_5
- Track 69 : Ogopogo_6
- Track 70 : Marker_5
- Track 71 : Mozy_5
- Track 72 : Oksu_5
- Track 73 : Demsculpinboyz_5, Blarby_6
- Track 74 : Che9d_5, Zapner_6, Jabbawokkie_6, Yoshi_5
- Track 75 : Avani_5
- Track 76 : Soul22_5
- Track 77 : LunaStella_4, TChen_4
- Track 78 : ThetaBob_4
- Track 79 : Renaud18_4
- Track 80 : Toron_4

- Track 81 : Zucker_5
- Track 82 : Bauer_6
- Track 83 : BlackSpider_4
- Track 84 : CallinAllBarbz_4
- Track 85 : BaileyBlu_4
- Track 86 : Jankie_4
- Track 87 : Pitbull_4
- Track 88 : MrSmee_4
- Track 89 : Spartoi_4
- Track 90 : P3MA_5
- Track 91 : LilSpotty_4

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

The start number called the most often in the published annotations is 15, it was called in 61 of the 173 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Alexphander_5, Aloeri_5, Awesomesauce_5, B22_5, BaileyBlu_4, Bauer_6, Beakin_5, BigPhil_5, BlackSpider_4, Bobi_5, Boomer_5, Brookers_5, Brushbloom_5, BuzzLyseyear_5, CallinAllBarbz_4, Cerasum_5, ChickenDinner_5, Coco12_5, Cornucopia_5, DaWorst_5, DirtMcGirt_5, DocMcStuffins_5, DosHalletts_5, Doucette_5, Drago_5, E6_5, Enby_5, Flathead_5, Frankie_5, G4_5, Girafales_5, Hegedechwinu_5, JalFarm20_5, Jankie_4, Job42_5, Juice456_5, Kimberlium_5, Kingsley_5, Leozinho_5, LittleShirley_5, Lorde_5, Madiba_5, Marker_5, Misha28_5, Mova_5, Mozy_5, MrSmee_4, OwlsT2W_5, Piper2020_5, Plumbus_5, Pollywog_5, Quico_5, Ramsey_5, Raqqa_5, Rialto_5, RockyHorror_5, Sarma624_5, Seagreen_5, SimranZ1_5, Spikelee_5, Squirty_5, Stap_5, Starcevich_5, Tchotchke_5, TootsiePop_5, Tootsieroll_5, Totinger_5, UncleRicky_5, Velveteen_5,

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

- AbbyDaisy_5, Avani_5, Blarby_6, Demsculpinboyz_5, Lucky10_4, MulchExplorer_5, Opopogo_6, Oksu_5, Soul22_5, Zucker_5,

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

- Agatha_6, AikoCarson_5, Amok_5, AndPeggy_5, Angelique_4, Apricot_4, Asapag_5, Axym_6, Azira_8, BENtherdunthat_5, Bavailard_6, BearBQ_4, BigChungus_5, BillDoor_8, Birdsong_4, Biskit_7, Blondies_6, BotCity_5, Bradissa_4, BritBrat_4, Budski_5, Burnsey_6, Button_7, Buttrmilkdreams_6, CanesSauce_6, Carsonalex_7, Cashline_4, Che9d_5, CheeseTouch_5, CherryonLim_7, ChickenTender_8, ChocoMunchkin_6, Cleo_6, Cozz_6, Crater_4, Dre3_6, EMsquaredA_4, Ecliptus_5, Elinal_7, Elliott_6, Emalyn_5, EnalisNailo_4, Farewell_4, Feastonyeet_5, Floral_4, Fribs8_7, Frickyeah_5, GTE2_04, Getalong_5, GiKK_9, Gibbous_6, GoldHunter_7, HippoPololi_8, Holliday_5, Horseradish_7, Horus_5, Jabbawokkie_6, Jablanski_4, Jamzy_9, Kamaru_5, KayGee_6, Kenna_5, Kuwabara_4, Lauer_5, Leroy_5, LilSpotty_4, Lilas_4, LitninMcQueen_5, LonelyBoi_4, LunaStella_4, Lutum_5, MAnor_6, MScarn_8, MaVan_8, Margaret_9, Marteena_4, Mayweather_7, Morkie_4, MortyNRick_4, MunkgeeRoachy_6, Nibbles_8, ODay_5, P3MA_5, Periwinkle_5, Phabuloso_5, Phistory_5, PhorbesPhlower_4, Pitbull_4, Pollux_4, Pons_6, PotPie_6, PsychoKiller_6, Pytheas_4, Quasar_6,

RanchParmCat_9, RedBaron_7, Renaud18_4, ShawBrad_5, SheckWes_5, SketchMex_5, Socotra_7, Sopesian_6, Sparky_4, Spartoi_4, Spooky_5, Squiddly_6, Starburst_7, SteamedHams_8, SummitAcademy_5, Survivors_8, SweatNTears_8, TChen_4, ThetaBob_4, Tolls_8, Toron_4, Troje_6, Typhonomachy_7, Vine_7, Whitney_5, Wrigley_4, Yakult_7, Yarn_5, Yoshi_5, Yucky_8, Yummy_7, Zapner_6, Zareef_9,

Summary by start number:

Start 3:

- Found in 2 of 206 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Farewell_4 (AF), Sparky_4 (AF),

Start 9:

- Found in 1 of 206 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Spartoi_4 (singleton),

Start 12:

- Found in 61 of 206 (29.6%) of genes in pham
- No Manual Annotations of this start.
- Called 1.6% of time when present
- Phage (with cluster) where this start called: GTE2_04 (CT),

Start 14:

- Found in 7 of 206 (3.4%) of genes in pham
- Manual Annotations of this start: 2 of 173
- Called 28.6% of time when present
- Phage (with cluster) where this start called: AbbyDaisy_5 (AY), Jamzy_9 (CT),

Start 15:

- Found in 79 of 206 (38.3%) of genes in pham
- Manual Annotations of this start: 61 of 173
- Called 87.3% of time when present
- Phage (with cluster) where this start called: Alexphander_5 (F1), Aloeri_5 (F1), Awesomesauce_5 (F1), B22_5 (BW), BaileyBlu_4 (FP), Bauer_6 (FN), Beakin_5 (F1), BigPhil_5 (F1), BlackSpider_4 (FN), Bobi_5 (F1), Boomer_5 (F1), Brookers_5 (F1), Brushbloom_5 (F1), BuzzLyseyear_5 (F1), CallinAllBarbz_4 (FP), Cerasum_5 (F1), ChickenDinner_5 (F1), Coco12_5 (F1), Cornucopia_5 (F1), DaWorst_5 (F1), DirtMcgirt_5 (F1), DocMcStuffins_5 (F1), DosHalletts_5 (F1), Doucette_5 (BW), Drago_5 (F1), E6_5 (BW), Enby_5 (F1), Flathead_5 (F1), Frankie_5 (F1), G4_5 (BW), Girafales_5 (F1), Hegedechwinu_5 (F1), JalFarm20_5 (F1), Jankie_4 (FP), Job42_5 (F1), Juice456_5 (F1), Kimberlium_5 (F1), Kingsley_5 (F1), Leozinho_5 (F1), LittleShirley_5 (F1), Lorde_5 (F1), Madiba_5 (F1), Marker_5 (F1), Misha28_5 (F1), Mova_5 (F1), Mozy_5 (F1), MrSmee_4 (FQ), OwisT2W_5 (F1), Piper2020_5 (F1), Plumbus_5 (F1), Pollywog_5 (F1), Quico_5 (F1), Ramsey_5 (F1), Raqqa_5 (AY), Rialto_5 (F1), RockyHorror_5 (F1), Sarma624_5 (F1), Seagreen_5 (F1), SimranZ1_5 (F1), Spikelee_5 (F1), Squirty_5 (F3), Stap_5 (F1), Starcevich_5 (F1), Tchotchke_5 (F1), TootsiePop_5 (F1), Tootsieroll_5 (F1), Totinger_5 (F1), UncleRicky_5 (F1), Velveteen_5 (F1),

Start 17:

- Found in 61 of 206 (29.6%) of genes in pham
- Manual Annotations of this start: 43 of 173
- Called 77.0% of time when present
- Phage (with cluster) where this start called: Angelique_4 (CY1), Apricot_4 (DN3), Asapag_5 (DN1), BENtherdunthat_5 (DN1), BearBQ_4 (DN), Birdsong_4 (DN), BotCity_5 (DN), Bradissa_4 (CY1), BritBrat_4 (CY2), Budski_5 (DN), Cashline_4 (CY), CheeseTouch_5 (DN1), Crater_4 (DN3), EMSquaredA_4 (CY1), Ecliptus_5 (DN), EnalisNailo_4 (CY1), Floral_4 (CY1), Frickyeah_5 (DN1), Getalong_5 (DN1), Holliday_5 (DN1), Horus_5 (DN1), Jablanski_4 (CY), Kamaru_5 (DN1), Kenna_5 (DN1), Kuwabara_4 (DN4), Leroy_5 (DN1), LilSpotty_4 (singleton), Lilas_4 (CY1), LitninMcQueen_5 (DN1), LonelyBoi_4 (CY), Lucky10_4 (DH), Lutum_5 (DN1), Marteen_4 (CY1), Morkie_4 (DH), MortyNRick_4 (DN), ODay_5 (DN), P3MA_5 (singleton), Periwinkle_5 (DN1), Phabuloso_5 (DN1), Phistory_5 (DN1), PhorbesPhlower_4 (DH), Pollux_4 (CY1), Pytheas_4 (CY), ShawBrad_5 (DN1), Spooky_5 (DN2), Squiddly_6 (DN2), Wrigley_4 (CY),

Start 18:

- Found in 1 of 206 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pitbull_4 (FQ),

Start 20:

- Found in 18 of 206 (8.7%) of genes in pham
- Manual Annotations of this start: 7 of 173
- Called 44.4% of time when present
- Phage (with cluster) where this start called: Avani_5 (F2), Blarby_6 (F), Che9d_5 (F2), Demsculpinboyz_5 (F2), Jabbawokkie_6 (F2), Ogopogo_6 (F1), Yoshi_5 (F2), Zapner_6 (F2),

Start 24:

- Found in 62 of 206 (30.1%) of genes in pham
- No Manual Annotations of this start.
- Called 1.6% of time when present
- Phage (with cluster) where this start called: MulchExplorer_5 (F1),

Start 25:

- Found in 4 of 206 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Zucker_5 (FN),

Start 28:

- Found in 25 of 206 (12.1%) of genes in pham
- Manual Annotations of this start: 2 of 173
- Called 8.0% of time when present
- Phage (with cluster) where this start called: Cleo_6 (CT), Survivors_8 (CT),

Start 29:

- Found in 71 of 206 (34.5%) of genes in pham
- Manual Annotations of this start: 1 of 173

- Called 1.4% of time when present
- Phage (with cluster) where this start called: Soul22_5 (F2),

Start 30:

- Found in 17 of 206 (8.3%) of genes in pham
- Manual Annotations of this start: 2 of 173
- Called 17.6% of time when present
- Phage (with cluster) where this start called: Lauer_5 (CT), Vine_7 (CT), Yucky_8 (CT),

Start 34:

- Found in 1 of 206 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fribs8_7 (CT),

Start 36:

- Found in 60 of 206 (29.1%) of genes in pham
- No Manual Annotations of this start.
- Called 1.7% of time when present
- Phage (with cluster) where this start called: Oksu_5 (F1),

Start 37:

- Found in 72 of 206 (35.0%) of genes in pham
- Manual Annotations of this start: 34 of 173
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Agatha_6 (CT), AikoCarson_5 (CT), Amok_5 (CT), AndPeggy_5 (CT), Axym_6 (CT), Bavidard_6 (CT), BillDoor_8 (CT), Biskit_7 (CT), Blondies_6 (CT), Burnsey_6 (CT), Button_7 (CT), Buttrmlkdreams_6 (CT), CanesSauce_6 (CT), Carsonalex_7 (CT), ChickenTender_8 (CT), ChocoMunchkin_6 (CT), Cozz_6 (CT), Elinal_7 (CT), Elliott_6 (CT), Emalyn_5 (CT), GiKK_9 (CT), GoldHunter_7 (CT), Horseradish_7 (CT), KayGee_6 (CT), MAnor_6 (CT), MScarn_8 (CT), Margaret_9 (CT), Mayweather_7 (CT), MunkgeeRoachy_6 (CT), Pons_6 (CT), PotPie_6 (CT), PsychoKiller_6 (CT), RanchParmCat_9 (CT), RedBaron_7 (CT), SheckWes_5 (CT), SketchMex_5 (CT), Socotra_7 (CT), Sopespian_6 (CT), Starburst_7 (CT), SteamedHams_8 (CT), SummitAcademy_5 (CT), SweatNTears_8 (CT), Tolls_8 (CT), Troje_6 (CT), Typhonmarchy_7 (CT), Yakult_7 (CT), Yarn_5 (CT), Yummy_7 (CT),

Start 41:

- Found in 30 of 206 (14.6%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 3.3% of time when present
- Phage (with cluster) where this start called: CherryonLim_7 (CT),

Start 46:

- Found in 91 of 206 (44.2%) of genes in pham
- Manual Annotations of this start: 9 of 173
- Called 11.0% of time when present
- Phage (with cluster) where this start called: Azira_8 (CT), BigChungus_5 (CT), Dre3_6 (CT), Feastonyeet_5 (CT), Gibbous_6 (CT), HippoPololi_8 (CT), MaVan_8 (CT), Nibbles_8 (CT), Quasar_6 (CT), Zareef_9 (CT),

Start 48:

- Found in 41 of 206 (19.9%) of genes in pham
- Manual Annotations of this start: 1 of 173
- Called 2.4% of time when present
- Phage (with cluster) where this start called: Whitney_5 (DN1),

Start 55:

- Found in 30 of 206 (14.6%) of genes in pham
- Manual Annotations of this start: 4 of 173
- Called 16.7% of time when present
- Phage (with cluster) where this start called: LunaStella_4 (F4), Renaud18_4 (F4), TChen_4 (F4), ThetaBob_4 (F4), Toron_4 (F6),

Summary by clusters:

There are 23 clusters represented in this pham: DN, FQ, singleton, DH, BW, FN, F, DN4, DN1, DN3, DN2, CY2, CY1, AF, FP, CY, AY, CT, F1, F2, F3, F4, F6,

Info for manual annotations of cluster AF:

- Start number 3 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AY:

- Start number 14 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster BW:

- Start number 15 was manually annotated 4 times for cluster BW.

Info for manual annotations of cluster CT:

- Start number 14 was manually annotated 1 time for cluster CT.
- Start number 28 was manually annotated 2 times for cluster CT.
- Start number 30 was manually annotated 2 times for cluster CT.
- Start number 34 was manually annotated 1 time for cluster CT.
- Start number 37 was manually annotated 34 times for cluster CT.
- Start number 41 was manually annotated 1 time for cluster CT.
- Start number 46 was manually annotated 9 times for cluster CT.

Info for manual annotations of cluster CY:

- Start number 17 was manually annotated 5 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 17 was manually annotated 8 times for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 17 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster DH:

- Start number 17 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster DN:

- Start number 17 was manually annotated 5 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 17 was manually annotated 14 times for cluster DN1.

- Start number 48 was manually annotated 1 time for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 17 was manually annotated 2 times for cluster DN2.

Info for manual annotations of cluster DN3:

- Start number 17 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster DN4:

- Start number 17 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster F1:

- Start number 15 was manually annotated 52 times for cluster F1.
- Start number 20 was manually annotated 1 time for cluster F1.

Info for manual annotations of cluster F2:

- Start number 20 was manually annotated 6 times for cluster F2.
- Start number 29 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F3:

- Start number 15 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:

- Start number 55 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster FN:

- Start number 15 was manually annotated 1 time for cluster FN.
- Start number 25 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster FP:

- Start number 15 was manually annotated 2 times for cluster FP.

Info for manual annotations of cluster FQ:

- Start number 15 was manually annotated 1 time for cluster FQ.
- Start number 18 was manually annotated 1 time for cluster FQ.

Gene Information:

Gene: AbbyDaisy_5 Start: 3558, Stop: 4358, Start Num: 14

Candidate Starts for AbbyDaisy_5:

(Start: 14 @3558 has 2 MA's), (Start: 15 @3561 has 61 MA's), (Start: 25 @3591 has 1 MA's), (39, 3651), (49, 3699), (53, 3711), (59, 3741), (62, 3765), (95, 3867), (105, 3909), (111, 3927), (132, 4029), (146, 4080), (148, 4131), (149, 4134), (167, 4236), (170, 4248), (171, 4257), (175, 4284), (176, 4293), (179, 4305),

Gene: Agatha_6 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Agatha_6:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (149, 4707), (163,

4773), (165, 4791), (168, 4812),

Gene: AikoCarson_5 Start: 3913, Stop: 4572, Start Num: 37

Candidate Starts for AikoCarson_5:

(10, 3826), (12, 3832), (Start: 37 @3913 has 34 MA's), (Start: 46 @3961 has 9 MA's), (50, 3976), (52, 3982), (54, 3994), (86, 4108), (93, 4156), (117, 4270), (120, 4291), (130, 4321), (165, 4516), (169, 4543),

Gene: Alexphander_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Alexphander_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Aloeri_5 Start: 3607, Stop: 4332, Start Num: 15

Candidate Starts for Aloeri_5:

(Start: 15 @3607 has 61 MA's), (24, 3634), (Start: 29 @3655 has 1 MA's), (36, 3682), (49, 3742), (58, 3781), (83, 3880), (94, 3949), (96, 3952), (132, 4081), (140, 4102), (158, 4210), (175, 4318),

Gene: Amok_5 Start: 3914, Stop: 4573, Start Num: 37

Candidate Starts for Amok_5:

(10, 3827), (12, 3833), (Start: 17 @3842 has 43 MA's), (Start: 37 @3914 has 34 MA's), (Start: 46 @3962 has 9 MA's), (50, 3977), (52, 3983), (54, 3995), (86, 4109), (93, 4157), (97, 4193), (117, 4271), (120, 4292), (130, 4322), (158, 4475), (165, 4517), (169, 4544),

Gene: AndPeggy_5 Start: 4225, Stop: 4881, Start Num: 37

Candidate Starts for AndPeggy_5:

(10, 4138), (12, 4144), (Start: 17 @4153 has 43 MA's), (Start: 37 @4225 has 34 MA's), (Start: 46 @4273 has 9 MA's), (50, 4288), (54, 4306), (61, 4348), (86, 4420), (96, 4480), (97, 4504), (117, 4582), (130, 4633), (163, 4810), (165, 4828),

Gene: Angelique_4 Start: 3707, Stop: 4519, Start Num: 17

Candidate Starts for Angelique_4:

(Start: 17 @3707 has 43 MA's), (59, 3884), (71, 3935), (75, 3947), (80, 3965), (90, 4016), (91, 4022), (96, 4049), (108, 4112), (117, 4151), (133, 4238),

Gene: Apricot_4 Start: 3576, Stop: 4232, Start Num: 17

Candidate Starts for Apricot_4:

(16, 3573), (Start: 17 @3576 has 43 MA's), (Start: 48 @3696 has 1 MA's), (49, 3699), (59, 3741), (69, 3792), (79, 3822), (111, 3918), (112, 3921), (122, 3975), (124, 3984), (132, 4020), (140, 4041), (154, 4125), (155, 4128), (156, 4134),

Gene: Asapag_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for Asapag_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (53, 3737), (59, 3767), (67, 3809), (77, 3842), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: Avani_5 Start: 3585, Stop: 4229, Start Num: 20

Candidate Starts for Avani_5:

(Start: 15 @3570 has 61 MA's), (Start: 20 @3585 has 7 MA's), (Start: 29 @3618 has 1 MA's), (Start: 41 @3660 has 1 MA's), (44, 3675), (Start: 46 @3687 has 9 MA's), (Start: 48 @3696 has 1 MA's), (53, 3711), (57, 3735), (67, 3783), (88, 3864), (97, 3885), (104, 3906), (124, 3996), (132, 4035), (140, 4056), (155, 4137), (156, 4143), (166, 4197),

Gene: Awesomesauce_5 Start: 3607, Stop: 4332, Start Num: 15

Candidate Starts for Awesomesauce_5:

(Start: 15 @3607 has 61 MA's), (24, 3634), (Start: 29 @3655 has 1 MA's), (36, 3682), (49, 3742), (58, 3781), (83, 3880), (94, 3949), (96, 3952), (132, 4081), (140, 4102), (158, 4210), (175, 4318),

Gene: Axym_6 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Axym_6:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (149, 4707), (163, 4773), (165, 4791), (168, 4812),

Gene: Azira_8 Start: 5151, Stop: 5714, Start Num: 46

Candidate Starts for Azira_8:

(10, 5016), (12, 5022), (Start: 20 @5040 has 7 MA's), (Start: 28 @5064 has 2 MA's), (Start: 29 @5070 has 1 MA's), (Start: 46 @5151 has 9 MA's), (Start: 55 @5187 has 4 MA's), (56, 5193), (72, 5250), (86, 5304), (91, 5337), (92, 5340), (97, 5388), (117, 5466), (118, 5469), (120, 5487), (147, 5571), (149, 5577), (153, 5598), (170, 5688),

Gene: B22_5 Start: 3905, Stop: 4687, Start Num: 15

Candidate Starts for B22_5:

(Start: 15 @3905 has 61 MA's), (Start: 46 @4034 has 9 MA's), (78, 4157), (85, 4184), (98, 4229), (114, 4274), (132, 4373), (140, 4394), (149, 4460), (160, 4514), (165, 4547), (171, 4586), (178, 4631), (180, 4649), (182, 4667),

Gene: BENtherdunthat_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for BENtherdunthat_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (53, 3737), (59, 3767), (67, 3809), (77, 3842), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: BaileyBlu_4 Start: 3397, Stop: 4089, Start Num: 15

Candidate Starts for BaileyBlu_4:

(Start: 15 @3397 has 61 MA's), (50, 3541), (58, 3577), (63, 3607), (88, 3703), (103, 3745), (133, 3874), (152, 3961), (172, 4081),

Gene: Bauer_6 Start: 4443, Stop: 5192, Start Num: 15

Candidate Starts for Bauer_6:

(Start: 15 @4443 has 61 MA's), (Start: 25 @4476 has 1 MA's), (32, 4503), (35, 4515), (40, 4542), (44, 4560), (49, 4584), (60, 4632), (62, 4650), (64, 4656), (87, 4737), (89, 4746), (99, 4785), (111, 4818), (125, 4884), (149, 5016), (157, 5055), (162, 5076), (167, 5115), (177, 5172),

Gene: Bavilard_6 Start: 4775, Stop: 5368, Start Num: 37

Candidate Starts for Bavilard_6:

(10, 4685), (12, 4691), (23, 4718), (Start: 28 @4736 has 2 MA's), (Start: 30 @4745 has 2 MA's), (Start: 37 @4775 has 34 MA's), (Start: 46 @4823 has 9 MA's), (Start: 55 @4859 has 4 MA's), (61, 4898), (70, 4910), (80, 4946), (81, 4952), (86, 4970), (117, 5132), (151, 5234), (153, 5249), (169, 5336),

Gene: Beakin_5 Start: 3607, Stop: 4332, Start Num: 15

Candidate Starts for Beakin_5:

(Start: 15 @3607 has 61 MA's), (24, 3634), (Start: 29 @3655 has 1 MA's), (36, 3682), (49, 3742), (58, 3781), (83, 3880), (94, 3949), (96, 3952), (132, 4081), (140, 4102), (158, 4210), (175, 4318),

Gene: BearBQ_4 Start: 3576, Stop: 4232, Start Num: 17

Candidate Starts for BearBQ_4:

(16, 3573), (Start: 17 @3576 has 43 MA's), (Start: 48 @3696 has 1 MA's), (49, 3699), (59, 3741), (69, 3792), (79, 3822), (111, 3918), (112, 3921), (122, 3975), (124, 3984), (132, 4020), (140, 4041), (154, 4125), (155, 4128), (156, 4134),

Gene: BigChungus_5 Start: 4072, Stop: 4617, Start Num: 46

Candidate Starts for BigChungus_5:

(10, 3934), (12, 3940), (23, 3967), (Start: 28 @3985 has 2 MA's), (Start: 30 @3994 has 2 MA's), (Start: 37 @4024 has 34 MA's), (Start: 46 @4072 has 9 MA's), (Start: 55 @4108 has 4 MA's), (61, 4147), (70, 4159), (80, 4195), (81, 4201), (86, 4219), (117, 4381), (120, 4402), (151, 4483), (153, 4498), (169, 4585),

Gene: BigPhil_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for BigPhil_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: BillDoor_8 Start: 4220, Stop: 4846, Start Num: 37

Candidate Starts for BillDoor_8:

(10, 4133), (12, 4139), (Start: 17 @4148 has 43 MA's), (Start: 37 @4220 has 34 MA's), (Start: 46 @4268 has 9 MA's), (50, 4283), (54, 4301), (61, 4343), (86, 4415), (96, 4475), (97, 4499), (117, 4577), (120, 4598), (130, 4628), (163, 4775), (165, 4793),

Gene: Birdsong_4 Start: 3576, Stop: 4232, Start Num: 17

Candidate Starts for Birdsong_4:

(16, 3573), (Start: 17 @3576 has 43 MA's), (Start: 48 @3696 has 1 MA's), (49, 3699), (59, 3741), (69, 3792), (79, 3822), (111, 3918), (112, 3921), (122, 3975), (124, 3984), (132, 4020), (140, 4041), (154, 4125), (155, 4128), (156, 4134),

Gene: Biskit_7 Start: 4215, Stop: 4838, Start Num: 37

Candidate Starts for Biskit_7:

(10, 4128), (12, 4134), (Start: 37 @4215 has 34 MA's), (Start: 46 @4263 has 9 MA's), (54, 4296), (61, 4338), (86, 4410), (96, 4470), (97, 4494), (117, 4572), (120, 4593), (130, 4623), (163, 4767), (165, 4785),

Gene: BlackSpider_4 Start: 3452, Stop: 4255, Start Num: 15

Candidate Starts for BlackSpider_4:

(Start: 15 @3452 has 61 MA's), (Start: 25 @3485 has 1 MA's), (32, 3512), (35, 3524), (44, 3569), (49, 3593), (60, 3641), (62, 3659), (84, 3734), (95, 3767), (98, 3791), (103, 3803), (111, 3827), (132, 3929), (146, 3980), (149, 4034), (162, 4094), (170, 4148), (179, 4205),

Gene: Blarby_6 Start: 4110, Stop: 4754, Start Num: 20

Candidate Starts for Blarby_6:

(Start: 15 @4095 has 61 MA's), (Start: 20 @4110 has 7 MA's), (Start: 29 @4143 has 1 MA's), (Start: 41 @4185 has 1 MA's), (44, 4200), (Start: 46 @4212 has 9 MA's), (Start: 48 @4221 has 1 MA's), (52, 4233), (53, 4236), (57, 4260), (67, 4308), (85, 4377), (88, 4389), (97, 4410), (104, 4431), (124, 4521), (132, 4560), (140, 4581), (155, 4662), (156, 4668), (166, 4722),

Gene: Blondies_6 Start: 4216, Stop: 4839, Start Num: 37

Candidate Starts for Blondies_6:

(10, 4129), (12, 4135), (Start: 37 @4216 has 34 MA's), (Start: 46 @4264 has 9 MA's), (50, 4279), (54, 4297), (61, 4339), (86, 4411), (96, 4471), (97, 4495), (117, 4573), (120, 4594), (130, 4624), (163,

4768), (165, 4786),

Gene: Bobi_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Bobi_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Boomer_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Boomer_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: BotCity_5 Start: 3597, Stop: 4241, Start Num: 17

Candidate Starts for BotCity_5:

(Start: 17 @3597 has 43 MA's), (26, 3627), (27, 3630), (Start: 41 @3684 has 1 MA's), (Start: 48 @3720 has 1 MA's), (49, 3723), (53, 3735), (59, 3765), (67, 3807), (77, 3840), (111, 3942), (112, 3945), (113, 3948), (140, 4068), (155, 4152), (156, 4158),

Gene: Bradissa_4 Start: 3716, Stop: 4528, Start Num: 17

Candidate Starts for Bradissa_4:

(Start: 17 @3716 has 43 MA's), (Start: 37 @3791 has 34 MA's), (91, 4031), (108, 4121), (117, 4160), (133, 4247),

Gene: BritBrat_4 Start: 3716, Stop: 4528, Start Num: 17

Candidate Starts for BritBrat_4:

(Start: 17 @3716 has 43 MA's), (Start: 37 @3791 has 34 MA's), (80, 3974), (91, 4031), (108, 4121), (117, 4160), (133, 4247),

Gene: Brookers_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Brookers_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Brushbloom_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Brushbloom_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Budski_5 Start: 3597, Stop: 4241, Start Num: 17

Candidate Starts for Budski_5:

(Start: 17 @3597 has 43 MA's), (26, 3627), (35, 3663), (Start: 41 @3684 has 1 MA's), (Start: 46 @3711 has 9 MA's), (Start: 48 @3720 has 1 MA's), (49, 3723), (53, 3735), (67, 3807), (106, 3930), (111, 3942), (112, 3945), (113, 3948), (140, 4068), (155, 4152), (156, 4158),

Gene: Burnsey_6 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Burnsey_6:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (149, 4707), (163, 4773), (165, 4791), (168, 4812),

Gene: Button_7 Start: 4307, Stop: 4906, Start Num: 37

Candidate Starts for Button_7:

(10, 4214), (Start: 14 @4223 has 2 MA's), (Start: 37 @4307 has 34 MA's), (Start: 46 @4343 has 9 MA's), (50, 4358), (Start: 55 @4379 has 4 MA's), (68, 4439), (91, 4544), (97, 4595), (98, 4601), (117, 4673), (120, 4694), (149, 4766), (151, 4772), (165, 4850),

Gene: Buttrmlkdreams_6 Start: 4216, Stop: 4839, Start Num: 37

Candidate Starts for Buttrmlkdreams_6:

(10, 4129), (12, 4135), (Start: 37 @4216 has 34 MA's), (Start: 46 @4264 has 9 MA's), (50, 4279), (54, 4297), (61, 4339), (86, 4411), (96, 4471), (97, 4495), (117, 4573), (120, 4594), (130, 4624), (163, 4768), (165, 4786),

Gene: BuzzLyseyear_5 Start: 3603, Stop: 4328, Start Num: 15

Candidate Starts for BuzzLyseyear_5:

(Start: 15 @3603 has 61 MA's), (24, 3630), (Start: 29 @3651 has 1 MA's), (36, 3678), (49, 3738), (58, 3777), (83, 3876), (94, 3945), (96, 3948), (132, 4077), (140, 4098), (158, 4206), (175, 4314),

Gene: CallinAllBarbz_4 Start: 3399, Stop: 4091, Start Num: 15

Candidate Starts for CallinAllBarbz_4:

(Start: 15 @3399 has 61 MA's), (50, 3543), (53, 3552), (63, 3609), (86, 3696), (103, 3747), (133, 3876), (152, 3963), (172, 4083),

Gene: CanesSauce_6 Start: 4225, Stop: 4881, Start Num: 37

Candidate Starts for CanesSauce_6:

(10, 4138), (12, 4144), (Start: 17 @4153 has 43 MA's), (Start: 37 @4225 has 34 MA's), (Start: 46 @4273 has 9 MA's), (50, 4288), (54, 4306), (61, 4348), (86, 4420), (96, 4480), (97, 4504), (117, 4582), (130, 4633), (136, 4657), (163, 4810), (165, 4828),

Gene: Carsonalex_7 Start: 4278, Stop: 4901, Start Num: 37

Candidate Starts for Carsonalex_7:

(10, 4188), (12, 4194), (Start: 37 @4278 has 34 MA's), (Start: 46 @4326 has 9 MA's), (52, 4347), (54, 4359), (56, 4368), (61, 4401), (86, 4473), (96, 4533), (117, 4635), (130, 4686), (163, 4830), (165, 4848), (168, 4869),

Gene: Cashline_4 Start: 3710, Stop: 4375, Start Num: 17

Candidate Starts for Cashline_4:

(Start: 17 @3710 has 43 MA's), (Start: 41 @3806 has 1 MA's), (59, 3887), (75, 3950), (91, 4025), (118, 4157), (123, 4199),

Gene: Cerasum_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Cerasum_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Che9d_5 Start: 3595, Stop: 4239, Start Num: 20

Candidate Starts for Che9d_5:

(Start: 20 @3595 has 7 MA's), (Start: 29 @3628 has 1 MA's), (Start: 41 @3670 has 1 MA's), (44, 3685), (Start: 46 @3697 has 9 MA's), (Start: 48 @3706 has 1 MA's), (52, 3718), (53, 3721), (57, 3745), (67, 3793), (85, 3862), (88, 3874), (97, 3895), (104, 3916), (124, 4006), (132, 4045), (140, 4066), (155, 4147), (156, 4153), (166, 4207),

Gene: CheeseTouch_5 Start: 3597, Stop: 4241, Start Num: 17

Candidate Starts for CheeseTouch_5:

(Start: 17 @3597 has 43 MA's), (26, 3627), (35, 3663), (Start: 41 @3684 has 1 MA's), (Start: 46 @3711 has 9 MA's), (Start: 48 @3720 has 1 MA's), (49, 3723), (53, 3735), (67, 3807), (106, 3930), (111,

3942), (112, 3945), (113, 3948), (140, 4068), (155, 4152), (156, 4158),

Gene: CherryonLim_7 Start: 4771, Stop: 5343, Start Num: 41

Candidate Starts for CherryonLim_7:

(10, 4660), (12, 4666), (23, 4693), (Start: 28 @4711 has 2 MA's), (Start: 30 @4720 has 2 MA's), (Start: 37 @4750 has 34 MA's), (Start: 41 @4771 has 1 MA's), (Start: 46 @4798 has 9 MA's), (61, 4873), (70, 4885), (80, 4921), (81, 4927), (86, 4945), (117, 5107), (120, 5128), (149, 5203), (151, 5209), (153, 5224), (169, 5311),

Gene: ChickenDinner_5 Start: 3607, Stop: 4332, Start Num: 15

Candidate Starts for ChickenDinner_5:

(Start: 15 @3607 has 61 MA's), (24, 3634), (Start: 29 @3655 has 1 MA's), (36, 3682), (49, 3742), (58, 3781), (83, 3880), (94, 3949), (96, 3952), (132, 4081), (140, 4102), (158, 4210), (175, 4318),

Gene: ChickenTender_8 Start: 4269, Stop: 4892, Start Num: 37

Candidate Starts for ChickenTender_8:

(10, 4179), (12, 4185), (Start: 37 @4269 has 34 MA's), (Start: 46 @4317 has 9 MA's), (52, 4338), (54, 4350), (56, 4359), (61, 4392), (86, 4464), (96, 4524), (117, 4626), (130, 4677), (149, 4755), (163, 4821), (165, 4839), (168, 4860),

Gene: ChocoMunchkin_6 Start: 4225, Stop: 4881, Start Num: 37

Candidate Starts for ChocoMunchkin_6:

(10, 4138), (12, 4144), (Start: 17 @4153 has 43 MA's), (Start: 37 @4225 has 34 MA's), (Start: 46 @4273 has 9 MA's), (50, 4288), (54, 4306), (61, 4348), (86, 4420), (96, 4480), (97, 4504), (117, 4582), (130, 4633), (136, 4657), (163, 4810), (165, 4828),

Gene: Cleo_6 Start: 4357, Stop: 5013, Start Num: 28

Candidate Starts for Cleo_6:

(10, 4306), (12, 4312), (Start: 20 @4333 has 7 MA's), (Start: 28 @4357 has 2 MA's), (Start: 46 @4444 has 9 MA's), (47, 4447), (50, 4459), (Start: 55 @4480 has 4 MA's), (56, 4486), (72, 4543), (86, 4597), (91, 4630), (117, 4759), (118, 4762), (120, 4780), (127, 4804), (147, 4870), (153, 4897),

Gene: Coco12_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Coco12_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Cornucopia_5 Start: 3606, Stop: 4331, Start Num: 15

Candidate Starts for Cornucopia_5:

(Start: 15 @3606 has 61 MA's), (24, 3633), (26, 3642), (35, 3678), (Start: 37 @3687 has 34 MA's), (Start: 46 @3729 has 9 MA's), (52, 3750), (53, 3753), (58, 3780), (83, 3879), (94, 3948), (96, 3951), (132, 4080), (140, 4101), (151, 4173), (175, 4317),

Gene: Cozz_6 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Cozz_6:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (149, 4707), (163, 4773), (165, 4791), (168, 4812),

Gene: Crater_4 Start: 3576, Stop: 4232, Start Num: 17

Candidate Starts for Crater_4:

(16, 3573), (Start: 17 @3576 has 43 MA's), (Start: 48 @3696 has 1 MA's), (49, 3699), (59, 3741), (69, 3792), (79, 3822), (111, 3918), (112, 3921), (122, 3975), (124, 3984), (132, 4020), (140, 4041), (154,

4125), (155, 4128), (156, 4134),

Gene: DaWorst_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for DaWorst_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Demsculpinboyz_5 Start: 3586, Stop: 4230, Start Num: 20

Candidate Starts for Demsculpinboyz_5:

(Start: 15 @3571 has 61 MA's), (Start: 20 @3586 has 7 MA's), (Start: 29 @3619 has 1 MA's), (Start: 41 @3661 has 1 MA's), (44, 3676), (Start: 46 @3688 has 9 MA's), (Start: 48 @3697 has 1 MA's), (52, 3709), (53, 3712), (57, 3736), (67, 3784), (85, 3853), (88, 3865), (97, 3886), (104, 3907), (124, 3997), (132, 4036), (140, 4057), (155, 4138), (156, 4144), (166, 4198),

Gene: DirtMcgirt_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for DirtMcgirt_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: DocMcStuffins_5 Start: 3607, Stop: 4332, Start Num: 15

Candidate Starts for DocMcStuffins_5:

(Start: 15 @3607 has 61 MA's), (24, 3634), (Start: 29 @3655 has 1 MA's), (36, 3682), (49, 3742), (58, 3781), (83, 3880), (94, 3949), (96, 3952), (132, 4081), (140, 4102), (158, 4210), (175, 4318),

Gene: DosHalletts_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for DosHalletts_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Doucette_5 Start: 3905, Stop: 4690, Start Num: 15

Candidate Starts for Doucette_5:

(Start: 15 @3905 has 61 MA's), (Start: 46 @4034 has 9 MA's), (78, 4160), (85, 4187), (98, 4232), (114, 4277), (132, 4376), (140, 4397), (149, 4463), (160, 4517), (165, 4550), (171, 4589), (178, 4634), (180, 4652), (182, 4670),

Gene: Drago_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Drago_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Dre3_6 Start: 4388, Stop: 4960, Start Num: 46

Candidate Starts for Dre3_6:

(10, 4250), (12, 4256), (Start: 20 @4277 has 7 MA's), (Start: 28 @4301 has 2 MA's), (Start: 46 @4388 has 9 MA's), (47, 4391), (50, 4403), (Start: 55 @4424 has 4 MA's), (56, 4430), (72, 4490), (86, 4544), (91, 4577), (117, 4706), (118, 4709), (120, 4727), (127, 4751), (147, 4817), (153, 4844),

Gene: E6_5 Start: 3906, Stop: 4670, Start Num: 15

Candidate Starts for E6_5:

(Start: 15 @3906 has 61 MA's), (Start: 46 @4035 has 9 MA's), (78, 4161), (85, 4188), (98, 4233), (114, 4278), (132, 4377), (140, 4398), (149, 4464), (160, 4518), (165, 4551), (171, 4590), (178, 4635), (181, 4656),

Gene: EMSquaredA_4 Start: 3716, Stop: 4528, Start Num: 17

Candidate Starts for EMSquaredA_4:

(Start: 17 @3716 has 43 MA's), (Start: 37 @3791 has 34 MA's), (80, 3974), (91, 4031), (108, 4121), (117, 4160), (133, 4247),

Gene: Ecliptus_5 Start: 3608, Stop: 4267, Start Num: 17

Candidate Starts for Ecliptus_5:

(4, 3533), (Start: 17 @3608 has 43 MA's), (49, 3731), (53, 3743), (59, 3773), (65, 3809), (107, 3944), (112, 3956), (124, 4019), (132, 4055), (133, 4058), (159, 4184),

Gene: Elinal_7 Start: 4002, Stop: 4595, Start Num: 37

Candidate Starts for Elinal_7:

(10, 3912), (12, 3918), (23, 3945), (Start: 28 @3963 has 2 MA's), (Start: 30 @3972 has 2 MA's), (Start: 37 @4002 has 34 MA's), (Start: 46 @4050 has 9 MA's), (Start: 55 @4086 has 4 MA's), (61, 4125), (70, 4137), (80, 4173), (81, 4179), (86, 4197), (117, 4359), (151, 4461), (153, 4476), (169, 4563),

Gene: Elliott_6 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Elliott_6:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (163, 4773), (165, 4791), (168, 4812),

Gene: Emalyn_5 Start: 3913, Stop: 4572, Start Num: 37

Candidate Starts for Emalyn_5:

(10, 3826), (12, 3832), (Start: 37 @3913 has 34 MA's), (Start: 46 @3961 has 9 MA's), (50, 3976), (52, 3982), (54, 3994), (86, 4108), (93, 4156), (117, 4270), (120, 4291), (130, 4321), (165, 4516), (169, 4543),

Gene: EnalisNailo_4 Start: 3716, Stop: 4528, Start Num: 17

Candidate Starts for EnalisNailo_4:

(Start: 17 @3716 has 43 MA's), (Start: 37 @3791 has 34 MA's), (80, 3974), (91, 4031), (108, 4121), (117, 4160), (133, 4247),

Gene: Enby_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Enby_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Farewell_4 Start: 3759, Stop: 4664, Start Num: 3

Candidate Starts for Farewell_4:

(Start: 3 @3759 has 2 MA's), (13, 3825), (22, 3849), (24, 3855), (26, 3864), (33, 3891), (45, 3951), (Start: 48 @3963 has 1 MA's), (51, 3972), (53, 3978), (73, 4065), (74, 4068), (86, 4113), (92, 4149), (96, 4173), (139, 4383), (142, 4407), (149, 4488), (151, 4494), (158, 4530), (172, 4617), (173, 4626), (175, 4638),

Gene: Feastonyeet_5 Start: 4072, Stop: 4617, Start Num: 46

Candidate Starts for Feastonyeet_5:

(10, 3934), (12, 3940), (23, 3967), (Start: 28 @3985 has 2 MA's), (Start: 30 @3994 has 2 MA's), (Start: 37 @4024 has 34 MA's), (Start: 46 @4072 has 9 MA's), (Start: 55 @4108 has 4 MA's), (61, 4147), (70, 4159), (80, 4195), (81, 4201), (86, 4219), (117, 4381), (120, 4402), (151, 4483), (153, 4498), (169, 4585),

Gene: Flathead_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Flathead_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Floral_4 Start: 3716, Stop: 4528, Start Num: 17

Candidate Starts for Floral_4:

(Start: 17 @3716 has 43 MA's), (Start: 37 @3791 has 34 MA's), (80, 3974), (91, 4031), (108, 4121), (117, 4160), (133, 4247),

Gene: Frankie_5 Start: 3798, Stop: 4523, Start Num: 15

Candidate Starts for Frankie_5:

(5, 3744), (Start: 15 @3798 has 61 MA's), (26, 3834), (36, 3873), (49, 3933), (58, 3972), (83, 4071), (94, 4140), (96, 4143), (132, 4272), (140, 4293), (158, 4401), (175, 4509),

Gene: Fribs8_7 Start: 4879, Stop: 5508, Start Num: 34

Candidate Starts for Fribs8_7:

(10, 4804), (12, 4810), (Start: 20 @4828 has 7 MA's), (Start: 28 @4852 has 2 MA's), (Start: 34 @4879 has 1 MA's), (Start: 46 @4939 has 9 MA's), (47, 4942), (Start: 55 @4975 has 4 MA's), (56, 4981), (72, 5038), (86, 5092), (91, 5125), (92, 5128), (117, 5254), (118, 5257), (120, 5275), (147, 5365), (153, 5392),

Gene: Frickyeah_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for Frickyeah_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (53, 3737), (59, 3767), (67, 3809), (77, 3842), (80, 3854), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: G4_5 Start: 3905, Stop: 4669, Start Num: 15

Candidate Starts for G4_5:

(Start: 15 @3905 has 61 MA's), (Start: 46 @4034 has 9 MA's), (56, 4076), (78, 4160), (85, 4187), (98, 4232), (114, 4277), (132, 4376), (140, 4397), (149, 4463), (160, 4517), (165, 4550), (171, 4589), (178, 4634),

Gene: GTE2_04 Start: 3827, Stop: 4531, Start Num: 12

Candidate Starts for GTE2_04:

(10, 3821), (12, 3827), (Start: 17 @3836 has 43 MA's), (Start: 37 @3908 has 34 MA's), (Start: 46 @3956 has 9 MA's), (50, 3971), (54, 3989), (61, 4031), (86, 4103), (96, 4163), (97, 4187), (117, 4265), (120, 4286), (130, 4316), (163, 4460), (165, 4478),

Gene: Getalong_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for Getalong_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (59, 3767), (67, 3809), (77, 3842), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: GiKK_9 Start: 4616, Stop: 5209, Start Num: 37

Candidate Starts for GiKK_9:

(10, 4523), (Start: 14 @4532 has 2 MA's), (23, 4559), (Start: 37 @4616 has 34 MA's), (Start: 46 @4652 has 9 MA's), (50, 4667), (Start: 55 @4688 has 4 MA's), (91, 4847), (93, 4862), (97, 4898), (98, 4904), (117, 4976), (120, 4997), (151, 5075), (165, 5153),

Gene: Gibbous_6 Start: 4388, Stop: 4960, Start Num: 46

Candidate Starts for Gibbous_6:

(10, 4250), (12, 4256), (Start: 20 @4277 has 7 MA's), (Start: 28 @4301 has 2 MA's), (Start: 46 @4388 has 9 MA's), (47, 4391), (50, 4403), (Start: 55 @4424 has 4 MA's), (56, 4430), (72, 4490), (86, 4544), (91, 4577), (117, 4706), (118, 4709), (120, 4727), (127, 4751), (147, 4817), (153, 4844),

Gene: Girafales_5 Start: 3602, Stop: 4327, Start Num: 15

Candidate Starts for Girafales_5:

(Start: 15 @3602 has 61 MA's), (24, 3629), (26, 3638), (31, 3659), (35, 3674), (36, 3677), (Start: 37 @3683 has 34 MA's), (Start: 46 @3725 has 9 MA's), (52, 3746), (53, 3749), (58, 3776), (83, 3875), (94, 3944), (96, 3947), (100, 3983), (132, 4076), (140, 4097), (151, 4169), (175, 4313),

Gene: GoldHunter_7 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for GoldHunter_7:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (149, 4707), (163, 4773), (165, 4791), (168, 4812),

Gene: Hegedechwinu_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Hegedechwinu_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: HippoPololi_8 Start: 5028, Stop: 5600, Start Num: 46

Candidate Starts for HippoPololi_8:

(10, 4890), (11, 4893), (12, 4896), (Start: 28 @4941 has 2 MA's), (Start: 46 @5028 has 9 MA's), (47, 5031), (Start: 55 @5064 has 4 MA's), (56, 5070), (72, 5130), (86, 5184), (91, 5217), (92, 5220), (96, 5244), (97, 5268), (117, 5346), (118, 5349), (120, 5367), (147, 5457), (149, 5463), (153, 5484),

Gene: Holliday_5 Start: 3597, Stop: 4241, Start Num: 17

Candidate Starts for Holliday_5:

(Start: 17 @3597 has 43 MA's), (26, 3627), (35, 3663), (Start: 41 @3684 has 1 MA's), (Start: 46 @3711 has 9 MA's), (Start: 48 @3720 has 1 MA's), (49, 3723), (53, 3735), (67, 3807), (106, 3930), (111, 3942), (112, 3945), (113, 3948), (140, 4068), (155, 4152), (156, 4158),

Gene: Horseradish_7 Start: 4122, Stop: 4745, Start Num: 37

Candidate Starts for Horseradish_7:

(10, 4035), (12, 4041), (Start: 37 @4122 has 34 MA's), (Start: 46 @4170 has 9 MA's), (54, 4203), (61, 4245), (86, 4317), (96, 4377), (97, 4401), (117, 4479), (120, 4500), (130, 4530), (163, 4674), (165, 4692),

Gene: Horus_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for Horus_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (53, 3737), (59, 3767), (67, 3809), (77, 3842), (80, 3854), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: Jabbawokkie_6 Start: 4109, Stop: 4753, Start Num: 20

Candidate Starts for Jabbawokkie_6:

(Start: 20 @4109 has 7 MA's), (Start: 29 @4142 has 1 MA's), (Start: 41 @4184 has 1 MA's), (44, 4199), (Start: 46 @4211 has 9 MA's), (Start: 48 @4220 has 1 MA's), (52, 4232), (53, 4235), (57, 4259), (67, 4307), (85, 4376), (88, 4388), (97, 4409), (104, 4430), (124, 4520), (132, 4559), (140, 4580), (155, 4661), (156, 4667), (166, 4721),

Gene: Jablanski_4 Start: 3710, Stop: 4375, Start Num: 17

Candidate Starts for Jablanski_4:

(Start: 17 @3710 has 43 MA's), (59, 3887), (75, 3950), (91, 4025), (118, 4157), (123, 4199),

Gene: JalFarm20_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for JalFarm20_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Jamzy_9 Start: 4537, Stop: 5217, Start Num: 14

Candidate Starts for Jamzy_9:

(10, 4528), (Start: 14 @4537 has 2 MA's), (23, 4564), (Start: 37 @4621 has 34 MA's), (Start: 46 @4657 has 9 MA's), (Start: 55 @4693 has 4 MA's), (56, 4699), (70, 4759), (73, 4768), (91, 4852), (93, 4867), (97, 4903), (98, 4909), (110, 4948), (117, 4981), (120, 5002), (127, 5026), (151, 5083), (165, 5161),

Gene: Jankie_4 Start: 3408, Stop: 4106, Start Num: 15

Candidate Starts for Jankie_4:

(Start: 15 @3408 has 61 MA's), (53, 3561), (63, 3618), (82, 3690), (111, 3780), (152, 3978),

Gene: Job42_5 Start: 3603, Stop: 4328, Start Num: 15

Candidate Starts for Job42_5:

(Start: 15 @3603 has 61 MA's), (24, 3630), (Start: 29 @3651 has 1 MA's), (36, 3678), (49, 3738), (58, 3777), (83, 3876), (94, 3945), (96, 3948), (132, 4077), (140, 4098), (158, 4206), (167, 4266), (175, 4314),

Gene: Juice456_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for Juice456_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: Kamaru_5 Start: 3597, Stop: 4241, Start Num: 17

Candidate Starts for Kamaru_5:

(Start: 17 @3597 has 43 MA's), (26, 3627), (35, 3663), (Start: 41 @3684 has 1 MA's), (Start: 46 @3711 has 9 MA's), (Start: 48 @3720 has 1 MA's), (49, 3723), (53, 3735), (67, 3807), (106, 3930), (111, 3942), (112, 3945), (113, 3948), (140, 4068), (155, 4152), (156, 4158),

Gene: KayGee_6 Start: 4002, Stop: 4595, Start Num: 37

Candidate Starts for KayGee_6:

(10, 3912), (12, 3918), (23, 3945), (Start: 28 @3963 has 2 MA's), (Start: 30 @3972 has 2 MA's), (Start: 37 @4002 has 34 MA's), (Start: 46 @4050 has 9 MA's), (Start: 55 @4086 has 4 MA's), (61, 4125), (70, 4137), (80, 4173), (81, 4179), (86, 4197), (117, 4359), (151, 4461), (153, 4476), (169, 4563),

Gene: Kenna_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for Kenna_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (59, 3767), (67, 3809), (77, 3842), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: Kimberlium_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for Kimberlium_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: Kingsley_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Kingsley_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Kuwabara_4 Start: 3576, Stop: 4232, Start Num: 17

Candidate Starts for Kuwabara_4:

(16, 3573), (Start: 17 @3576 has 43 MA's), (Start: 48 @3696 has 1 MA's), (49, 3699), (59, 3741), (69, 3792), (79, 3822), (111, 3918), (112, 3921), (122, 3975), (124, 3984), (132, 4020), (140, 4041), (154, 4125), (155, 4128), (156, 4134),

Gene: Lauer_5 Start: 4024, Stop: 4647, Start Num: 30

Candidate Starts for Lauer_5:

(10, 3964), (12, 3970), (23, 3997), (Start: 28 @4015 has 2 MA's), (Start: 30 @4024 has 2 MA's), (Start: 37 @4054 has 34 MA's), (Start: 46 @4102 has 9 MA's), (Start: 55 @4138 has 4 MA's), (61, 4177), (70, 4189), (80, 4225), (81, 4231), (86, 4249), (117, 4411), (149, 4507), (151, 4513), (153, 4528), (169, 4615),

Gene: Leozinho_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Leozinho_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Leroy_5 Start: 3600, Stop: 4244, Start Num: 17

Candidate Starts for Leroy_5:

(Start: 17 @3600 has 43 MA's), (26, 3630), (27, 3633), (Start: 41 @3687 has 1 MA's), (Start: 48 @3723 has 1 MA's), (49, 3726), (53, 3738), (59, 3768), (67, 3810), (77, 3843), (80, 3855), (111, 3945), (112, 3948), (113, 3951), (140, 4071), (155, 4155), (156, 4161),

Gene: LilSpotty_4 Start: 3229, Stop: 3888, Start Num: 17

Candidate Starts for LilSpotty_4:

(6, 3193), (11, 3214), (Start: 17 @3229 has 43 MA's), (Start: 29 @3271 has 1 MA's), (Start: 37 @3304 has 34 MA's), (60, 3412), (69, 3451), (90, 3529), (96, 3562), (100, 3598), (117, 3664), (128, 3748), (129, 3751), (135, 3787),

Gene: Lilas_4 Start: 3716, Stop: 4528, Start Num: 17

Candidate Starts for Lilas_4:

(Start: 17 @3716 has 43 MA's), (Start: 37 @3791 has 34 MA's), (80, 3974), (91, 4031), (108, 4121), (117, 4160), (133, 4247),

Gene: LitninMcQueen_5 Start: 3597, Stop: 4241, Start Num: 17

Candidate Starts for LitninMcQueen_5:

(Start: 17 @3597 has 43 MA's), (26, 3627), (35, 3663), (Start: 41 @3684 has 1 MA's), (Start: 46 @3711 has 9 MA's), (Start: 48 @3720 has 1 MA's), (49, 3723), (53, 3735), (67, 3807), (106, 3930), (111, 3942), (112, 3945), (113, 3948), (140, 4068), (155, 4152), (156, 4158),

Gene: LittleShirley_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for LittleShirley_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: LonelyBoi_4 Start: 3710, Stop: 4375, Start Num: 17

Candidate Starts for LonelyBoi_4:

(Start: 17 @3710 has 43 MA's), (59, 3887), (75, 3950), (80, 3968), (91, 4025), (118, 4157), (123, 4199),

Gene: Lorde_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Lorde_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Lucky10_4 Start: 3151, Stop: 3789, Start Num: 17

Candidate Starts for Lucky10_4:

(Start: 15 @3145 has 61 MA's), (Start: 17 @3151 has 43 MA's), (Start: 48 @3271 has 1 MA's), (49, 3274), (59, 3316), (107, 3487), (119, 3535), (132, 3598), (144, 3637), (156, 3706), (160, 3721),

Gene: LunaStella_4 Start: 3803, Stop: 4498, Start Num: 55

Candidate Starts for LunaStella_4:

(Start: 17 @3644 has 43 MA's), (19, 3650), (Start: 55 @3803 has 4 MA's), (59, 3821), (70, 3869), (78, 3893), (86, 3926), (90, 3950), (93, 3971), (96, 3983), (100, 4019), (108, 4046), (117, 4085), (118, 4088), (127, 4151), (131, 4190), (137, 4226), (141, 4244), (143, 4256), (149, 4355), (158, 4397),

Gene: Lutum_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for Lutum_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (59, 3767), (67, 3809), (77, 3842), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: MAnor_6 Start: 3999, Stop: 4592, Start Num: 37

Candidate Starts for MAnor_6:

(10, 3909), (12, 3915), (23, 3942), (Start: 28 @3960 has 2 MA's), (Start: 30 @3969 has 2 MA's), (Start: 37 @3999 has 34 MA's), (Start: 46 @4047 has 9 MA's), (61, 4122), (70, 4134), (80, 4170), (81, 4176), (86, 4194), (117, 4356), (120, 4377), (149, 4452), (151, 4458), (153, 4473), (169, 4560),

Gene: MScarn_8 Start: 4216, Stop: 4839, Start Num: 37

Candidate Starts for MScarn_8:

(10, 4129), (12, 4135), (Start: 37 @4216 has 34 MA's), (Start: 46 @4264 has 9 MA's), (50, 4279), (54, 4297), (61, 4339), (86, 4411), (96, 4471), (97, 4495), (117, 4573), (120, 4594), (130, 4624), (163, 4768), (165, 4786),

Gene: MaVan_8 Start: 5151, Stop: 5714, Start Num: 46

Candidate Starts for MaVan_8:

(10, 5016), (12, 5022), (Start: 20 @5040 has 7 MA's), (Start: 28 @5064 has 2 MA's), (Start: 29 @5070 has 1 MA's), (Start: 46 @5151 has 9 MA's), (Start: 55 @5187 has 4 MA's), (56, 5193), (72, 5250), (86, 5304), (91, 5337), (92, 5340), (97, 5388), (117, 5466), (118, 5469), (120, 5487), (147, 5571), (149, 5577), (153, 5598), (170, 5688),

Gene: Madiba_5 Start: 3603, Stop: 4328, Start Num: 15

Candidate Starts for Madiba_5:

(Start: 15 @3603 has 61 MA's), (24, 3630), (Start: 29 @3651 has 1 MA's), (36, 3678), (49, 3738), (58, 3777), (83, 3876), (94, 3945), (96, 3948), (132, 4077), (140, 4098), (158, 4206), (175, 4314),

Gene: Margaret_9 Start: 4991, Stop: 5593, Start Num: 37

Candidate Starts for Margaret_9:

(10, 4898), (Start: 14 @4907 has 2 MA's), (23, 4934), (Start: 37 @4991 has 34 MA's), (Start: 46 @5027 has 9 MA's), (Start: 55 @5063 has 4 MA's), (56, 5069), (91, 5228), (93, 5243), (97, 5279), (98, 5285), (110, 5324), (117, 5357), (120, 5378), (127, 5402), (151, 5459), (165, 5537),

Gene: Marker_5 Start: 3603, Stop: 4328, Start Num: 15

Candidate Starts for Marker_5:

(Start: 15 @3603 has 61 MA's), (24, 3630), (Start: 29 @3651 has 1 MA's), (36, 3678), (49, 3738), (58, 3777), (66, 3816), (83, 3876), (94, 3945), (96, 3948), (132, 4077), (140, 4098), (158, 4206), (175, 4314),

Gene: Marteena_4 Start: 3716, Stop: 4528, Start Num: 17

Candidate Starts for Marteena_4:

(Start: 17 @3716 has 43 MA's), (Start: 37 @3791 has 34 MA's), (80, 3974), (91, 4031), (108, 4121), (117, 4160), (133, 4247),

Gene: Mayweather_7 Start: 4620, Stop: 5213, Start Num: 37

Candidate Starts for Mayweather_7:

(10, 4530), (12, 4536), (23, 4563), (Start: 28 @4581 has 2 MA's), (Start: 30 @4590 has 2 MA's), (Start: 37 @4620 has 34 MA's), (Start: 46 @4668 has 9 MA's), (61, 4743), (70, 4755), (80, 4791), (81, 4797), (86, 4815), (117, 4977), (120, 4998), (149, 5073), (151, 5079), (153, 5094), (169, 5181),

Gene: Misha28_5 Start: 3607, Stop: 4332, Start Num: 15

Candidate Starts for Misha28_5:

(Start: 15 @3607 has 61 MA's), (24, 3634), (Start: 29 @3655 has 1 MA's), (36, 3682), (49, 3742), (58, 3781), (83, 3880), (94, 3949), (96, 3952), (132, 4081), (140, 4102), (158, 4210), (175, 4318),

Gene: Morkie_4 Start: 3159, Stop: 3800, Start Num: 17

Candidate Starts for Morkie_4:

(Start: 17 @3159 has 43 MA's), (Start: 48 @3282 has 1 MA's), (49, 3285), (53, 3297), (59, 3327), (106, 3495), (107, 3498), (111, 3507), (115, 3531), (119, 3546), (132, 3609), (140, 3630), (147, 3681), (156, 3717), (160, 3732), (171, 3795),

Gene: MortyNRick_4 Start: 3576, Stop: 4232, Start Num: 17

Candidate Starts for MortyNRick_4:

(16, 3573), (Start: 17 @3576 has 43 MA's), (Start: 48 @3696 has 1 MA's), (49, 3699), (59, 3741), (69, 3792), (79, 3822), (111, 3918), (112, 3921), (122, 3975), (124, 3984), (132, 4020), (140, 4041), (154, 4125), (155, 4128), (156, 4134),

Gene: Mova_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for Mova_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: Mozy_5 Start: 3603, Stop: 4328, Start Num: 15

Candidate Starts for Mozy_5:

(Start: 15 @3603 has 61 MA's), (24, 3630), (26, 3639), (35, 3675), (36, 3678), (Start: 37 @3684 has 34 MA's), (Start: 46 @3726 has 9 MA's), (52, 3747), (53, 3750), (58, 3777), (83, 3876), (94, 3945), (96, 3948), (132, 4077), (140, 4098), (151, 4170), (175, 4314),

Gene: MrSmee_4 Start: 3158, Stop: 3907, Start Num: 15

Candidate Starts for MrSmee_4:

(Start: 15 @3158 has 61 MA's), (21, 3176), (24, 3185), (Start: 30 @3209 has 2 MA's), (31, 3215), (35, 3230), (Start: 37 @3239 has 34 MA's), (39, 3251), (40, 3257), (43, 3272), (49, 3299), (53, 3311), (75, 3413), (106, 3512), (111, 3524), (115, 3548), (133, 3635), (160, 3788),

Gene: MulchExplorer_5 Start: 3632, Stop: 4330, Start Num: 24

Candidate Starts for MulchExplorer_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: MunkgeeRoachy_6 Start: 4269, Stop: 4892, Start Num: 37

Candidate Starts for MunkgeeRoachy_6:

(10, 4179), (12, 4185), (Start: 37 @4269 has 34 MA's), (Start: 46 @4317 has 9 MA's), (52, 4338), (54, 4350), (56, 4359), (61, 4392), (86, 4464), (96, 4524), (117, 4626), (130, 4677), (149, 4755), (163, 4821), (165, 4839), (168, 4860),

Gene: Nibbles_8 Start: 5151, Stop: 5714, Start Num: 46

Candidate Starts for Nibbles_8:

(10, 5016), (12, 5022), (Start: 20 @5040 has 7 MA's), (Start: 28 @5064 has 2 MA's), (Start: 29 @5070 has 1 MA's), (Start: 46 @5151 has 9 MA's), (Start: 55 @5187 has 4 MA's), (56, 5193), (72, 5250), (86, 5304), (91, 5337), (92, 5340), (97, 5388), (117, 5466), (118, 5469), (120, 5487), (147, 5571), (149, 5577), (153, 5598), (170, 5688),

Gene: ODay_5 Start: 3606, Stop: 4265, Start Num: 17

Candidate Starts for ODay_5:

(4, 3531), (Start: 17 @3606 has 43 MA's), (49, 3729), (53, 3741), (59, 3771), (65, 3807), (107, 3942), (112, 3954), (124, 4017), (132, 4053), (133, 4056), (159, 4182),

Gene: Ogopogo_6 Start: 3847, Stop: 4491, Start Num: 20

Candidate Starts for Ogopogo_6:

(Start: 15 @3832 has 61 MA's), (Start: 20 @3847 has 7 MA's), (Start: 29 @3880 has 1 MA's), (Start: 41 @3922 has 1 MA's), (44, 3937), (Start: 46 @3949 has 9 MA's), (Start: 48 @3958 has 1 MA's), (52, 3970), (53, 3973), (57, 3997), (67, 4045), (88, 4126), (97, 4147), (104, 4168), (124, 4258), (132, 4297), (140, 4318), (155, 4399), (156, 4405), (166, 4459),

Gene: Oksu_5 Start: 3680, Stop: 4330, Start Num: 36

Candidate Starts for Oksu_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: OwlsT2W_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for OwlsT2W_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: P3MA_5 Start: 3858, Stop: 4730, Start Num: 17

Candidate Starts for P3MA_5:

(1, 3546), (2, 3741), (Start: 17 @3858 has 43 MA's), (86, 4140), (97, 4215), (118, 4296), (134, 4404), (138, 4437), (145, 4479), (150, 4563), (151, 4566), (164, 4635), (175, 4710),

Gene: Periwinkle_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for Periwinkle_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (59, 3767), (67, 3809), (77, 3842), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: Phabuloso_5 Start: 3597, Stop: 4241, Start Num: 17

Candidate Starts for Phabuloso_5:

(Start: 17 @3597 has 43 MA's), (26, 3627), (32, 3651), (35, 3663), (Start: 41 @3684 has 1 MA's), (Start: 46 @3711 has 9 MA's), (Start: 48 @3720 has 1 MA's), (49, 3723), (53, 3735), (67, 3807), (106,

3930), (111, 3942), (112, 3945), (113, 3948), (140, 4068), (155, 4152), (156, 4158),

Gene: Phistory_5 Start: 3598, Stop: 4242, Start Num: 17

Candidate Starts for Phistory_5:

(7, 3565), (Start: 17 @3598 has 43 MA's), (26, 3628), (Start: 41 @3685 has 1 MA's), (42, 3691), (Start: 48 @3721 has 1 MA's), (49, 3724), (59, 3766), (67, 3808), (111, 3943), (112, 3946), (140, 4069), (155, 4153), (156, 4159),

Gene: PhorbesPhlower_4 Start: 3159, Stop: 3800, Start Num: 17

Candidate Starts for PhorbesPhlower_4:

(Start: 17 @3159 has 43 MA's), (Start: 48 @3282 has 1 MA's), (49, 3285), (53, 3297), (59, 3327), (106, 3495), (107, 3498), (111, 3507), (115, 3531), (119, 3546), (132, 3609), (140, 3630), (147, 3681), (156, 3717), (160, 3732), (171, 3795),

Gene: Piper2020_5 Start: 3607, Stop: 4332, Start Num: 15

Candidate Starts for Piper2020_5:

(Start: 15 @3607 has 61 MA's), (24, 3634), (Start: 29 @3655 has 1 MA's), (36, 3682), (49, 3742), (58, 3781), (83, 3880), (94, 3949), (96, 3952), (132, 4081), (140, 4102), (158, 4210), (175, 4318),

Gene: Pitbull_4 Start: 3185, Stop: 3862, Start Num: 18

Candidate Starts for Pitbull_4:

(Start: 18 @3185 has 1 MA's), (33, 3239), (36, 3251), (39, 3269), (45, 3299), (Start: 46 @3302 has 9 MA's), (59, 3356), (74, 3425), (88, 3482), (106, 3530), (109, 3536), (122, 3599), (131, 3641), (132, 3644), (152, 3728), (159, 3767), (161, 3776),

Gene: Plumbus_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for Plumbus_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: Pollux_4 Start: 3716, Stop: 4528, Start Num: 17

Candidate Starts for Pollux_4:

(Start: 17 @3716 has 43 MA's), (Start: 37 @3791 has 34 MA's), (80, 3974), (91, 4031), (108, 4121), (117, 4160), (133, 4247),

Gene: Pollywog_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Pollywog_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Pons_6 Start: 3999, Stop: 4592, Start Num: 37

Candidate Starts for Pons_6:

(10, 3909), (12, 3915), (23, 3942), (Start: 28 @3960 has 2 MA's), (Start: 30 @3969 has 2 MA's), (Start: 37 @3999 has 34 MA's), (Start: 46 @4047 has 9 MA's), (61, 4122), (70, 4134), (80, 4170), (81, 4176), (86, 4194), (117, 4356), (120, 4377), (149, 4452), (151, 4458), (153, 4473), (169, 4560),

Gene: PotPie_6 Start: 4858, Stop: 5451, Start Num: 37

Candidate Starts for PotPie_6:

(10, 4768), (12, 4774), (23, 4801), (Start: 28 @4819 has 2 MA's), (Start: 30 @4828 has 2 MA's), (Start: 37 @4858 has 34 MA's), (Start: 46 @4906 has 9 MA's), (Start: 55 @4942 has 4 MA's), (61, 4981), (70, 4993), (80, 5029), (81, 5035), (86, 5053), (117, 5215), (120, 5236), (149, 5311), (151, 5317), (153, 5332), (169, 5419),

Gene: PsychoKiller_6 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for PsychoKiller_6:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (163, 4773), (165, 4791), (168, 4812),

Gene: Pytheas_4 Start: 3710, Stop: 4375, Start Num: 17

Candidate Starts for Pytheas_4:

(Start: 17 @3710 has 43 MA's), (59, 3887), (75, 3950), (91, 4025), (118, 4157), (123, 4199),

Gene: Quasar_6 Start: 4890, Stop: 5465, Start Num: 46

Candidate Starts for Quasar_6:

(10, 4752), (12, 4758), (Start: 37 @4842 has 34 MA's), (Start: 46 @4890 has 9 MA's), (52, 4911), (54, 4923), (56, 4932), (61, 4965), (86, 5037), (96, 5097), (117, 5199), (130, 5250), (149, 5328), (163, 5394), (165, 5412), (168, 5433),

Gene: Quico_5 Start: 3602, Stop: 4327, Start Num: 15

Candidate Starts for Quico_5:

(Start: 15 @3602 has 61 MA's), (24, 3629), (26, 3638), (31, 3659), (35, 3674), (36, 3677), (Start: 37 @3683 has 34 MA's), (Start: 46 @3725 has 9 MA's), (52, 3746), (53, 3749), (58, 3776), (83, 3875), (94, 3944), (96, 3947), (100, 3983), (132, 4076), (140, 4097), (151, 4169), (175, 4313),

Gene: Ramsey_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Ramsey_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: RanchParmCat_9 Start: 4991, Stop: 5593, Start Num: 37

Candidate Starts for RanchParmCat_9:

(10, 4898), (Start: 14 @4907 has 2 MA's), (23, 4934), (Start: 37 @4991 has 34 MA's), (Start: 46 @5027 has 9 MA's), (Start: 55 @5063 has 4 MA's), (91, 5228), (93, 5243), (97, 5279), (98, 5285), (110, 5324), (117, 5357), (120, 5378), (127, 5402), (151, 5459), (165, 5537),

Gene: Raqqa_5 Start: 3858, Stop: 4661, Start Num: 15

Candidate Starts for Raqqa_5:

(Start: 15 @3858 has 61 MA's), (Start: 30 @3909 has 2 MA's), (40, 3957), (53, 4011), (75, 4113), (96, 4212), (102, 4251), (106, 4266), (115, 4302), (132, 4386), (133, 4389), (149, 4488), (160, 4542),

Gene: RedBaron_7 Start: 4266, Stop: 4889, Start Num: 37

Candidate Starts for RedBaron_7:

(10, 4176), (12, 4182), (Start: 37 @4266 has 34 MA's), (Start: 46 @4314 has 9 MA's), (52, 4335), (54, 4347), (56, 4356), (61, 4389), (86, 4461), (96, 4521), (117, 4623), (130, 4674), (149, 4752), (163, 4818), (168, 4857),

Gene: Renaud18_4 Start: 3803, Stop: 4378, Start Num: 55

Candidate Starts for Renaud18_4:

(Start: 17 @3644 has 43 MA's), (19, 3650), (Start: 55 @3803 has 4 MA's), (59, 3821), (69, 3866), (70, 3869), (78, 3893), (86, 3926), (90, 3950), (93, 3971), (96, 3983), (100, 4019), (108, 4046), (117, 4085), (118, 4088), (121, 4115), (149, 4235), (158, 4277),

Gene: Rialto_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for Rialto_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: RockyHorror_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for RockyHorror_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Sarma624_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Sarma624_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Seagreen_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for Seagreen_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: ShawBrad_5 Start: 3599, Stop: 4243, Start Num: 17

Candidate Starts for ShawBrad_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (59, 3767), (67, 3809), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160), (166, 4214),

Gene: SheckWes_5 Start: 3999, Stop: 4592, Start Num: 37

Candidate Starts for SheckWes_5:

(10, 3909), (12, 3915), (23, 3942), (Start: 28 @3960 has 2 MA's), (Start: 30 @3969 has 2 MA's), (Start: 37 @3999 has 34 MA's), (Start: 46 @4047 has 9 MA's), (61, 4122), (70, 4134), (80, 4170), (81, 4176), (86, 4194), (117, 4356), (120, 4377), (149, 4452), (151, 4458), (153, 4473), (169, 4560),

Gene: SimranZ1_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for SimranZ1_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: SketchMex_5 Start: 4215, Stop: 4838, Start Num: 37

Candidate Starts for SketchMex_5:

(10, 4128), (12, 4134), (Start: 37 @4215 has 34 MA's), (Start: 46 @4263 has 9 MA's), (54, 4296), (61, 4338), (86, 4410), (96, 4470), (97, 4494), (117, 4572), (120, 4593), (130, 4623), (163, 4767), (165, 4785),

Gene: Socotra_7 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Socotra_7:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (149, 4707), (163, 4773), (165, 4791), (168, 4812),

Gene: Sopespian_6 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Sopespian_6:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (163, 4773), (165, 4791), (168, 4812),

Gene: Soul22_5 Start: 3618, Stop: 4229, Start Num: 29

Candidate Starts for Soul22_5:

(Start: 15 @3570 has 61 MA's), (Start: 20 @3585 has 7 MA's), (Start: 29 @3618 has 1 MA's), (Start: 41 @3660 has 1 MA's), (44, 3675), (Start: 46 @3687 has 9 MA's), (Start: 48 @3696 has 1 MA's), (52, 3708), (53, 3711), (57, 3735), (67, 3783), (85, 3852), (88, 3864), (97, 3885), (104, 3906), (124, 3996), (132, 4035), (140, 4056), (155, 4137), (156, 4143), (166, 4197),

Gene: Sparky_4 Start: 3760, Stop: 4665, Start Num: 3

Candidate Starts for Sparky_4:

(Start: 3 @3760 has 2 MA's), (22, 3850), (24, 3856), (26, 3865), (33, 3892), (45, 3952), (Start: 48 @3964 has 1 MA's), (51, 3973), (53, 3979), (73, 4066), (74, 4069), (92, 4150), (96, 4174), (139, 4384), (142, 4408), (149, 4489), (151, 4495), (158, 4531), (172, 4618), (173, 4627), (175, 4639),

Gene: Spartoi_4 Start: 3328, Stop: 4098, Start Num: 9

Candidate Starts for Spartoi_4:

(8, 3322), (Start: 9 @3328 has 1 MA's), (Start: 37 @3427 has 34 MA's), (66, 3565), (76, 3604), (86, 3643), (88, 3652), (106, 3715), (125, 3790), (132, 3826), (140, 3847), (149, 3916), (174, 4057),

Gene: Spikelee_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Spikelee_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Spooky_5 Start: 3598, Stop: 4242, Start Num: 17

Candidate Starts for Spooky_5:

(Start: 17 @3598 has 43 MA's), (Start: 48 @3721 has 1 MA's), (49, 3724), (52, 3733), (53, 3736), (59, 3766), (74, 3832), (101, 3916), (107, 3934), (112, 3946), (115, 3967), (116, 3970), (132, 4048), (140, 4069), (147, 4123), (149, 4129), (156, 4159),

Gene: Squiddly_6 Start: 4291, Stop: 4935, Start Num: 17

Candidate Starts for Squiddly_6:

(Start: 17 @4291 has 43 MA's), (38, 4363), (Start: 48 @4414 has 1 MA's), (49, 4417), (53, 4429), (59, 4459), (74, 4525), (77, 4534), (101, 4609), (106, 4624), (111, 4636), (112, 4639), (115, 4660), (116, 4663), (132, 4741), (140, 4762), (147, 4816), (149, 4822), (156, 4852),

Gene: Squirty_5 Start: 3603, Stop: 4328, Start Num: 15

Candidate Starts for Squirty_5:

(Start: 15 @3603 has 61 MA's), (24, 3630), (Start: 29 @3651 has 1 MA's), (36, 3678), (49, 3738), (58, 3777), (83, 3876), (94, 3945), (96, 3948), (132, 4077), (140, 4098), (158, 4206), (175, 4314),

Gene: Stap_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Stap_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Starburst_7 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Starburst_7:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (149, 4707), (163, 4773), (165, 4791), (168, 4812),

Gene: Starcevich_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Starcevich_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: SteamedHams_8 Start: 4225, Stop: 4881, Start Num: 37

Candidate Starts for SteamedHams_8:

(10, 4138), (12, 4144), (Start: 17 @4153 has 43 MA's), (Start: 37 @4225 has 34 MA's), (Start: 46 @4273 has 9 MA's), (50, 4288), (54, 4306), (61, 4348), (86, 4420), (96, 4480), (97, 4504), (117, 4582), (130, 4633), (158, 4786), (165, 4828),

Gene: SummitAcademy_5 Start: 4073, Stop: 4666, Start Num: 37

Candidate Starts for SummitAcademy_5:

(10, 3983), (12, 3989), (23, 4016), (Start: 28 @4034 has 2 MA's), (Start: 30 @4043 has 2 MA's), (Start: 37 @4073 has 34 MA's), (Start: 46 @4121 has 9 MA's), (Start: 55 @4157 has 4 MA's), (61, 4196), (70, 4208), (80, 4244), (81, 4250), (86, 4268), (117, 4430), (120, 4451), (149, 4526), (151, 4532), (153, 4547), (169, 4634),

Gene: Survivors_8 Start: 4918, Stop: 5568, Start Num: 28

Candidate Starts for Survivors_8:

(10, 4870), (12, 4876), (Start: 20 @4894 has 7 MA's), (Start: 28 @4918 has 2 MA's), (Start: 29 @4924 has 1 MA's), (Start: 46 @5005 has 9 MA's), (Start: 55 @5041 has 4 MA's), (56, 5047), (72, 5104), (86, 5158), (91, 5191), (92, 5194), (117, 5320), (118, 5323), (120, 5341), (147, 5425), (149, 5431), (153, 5452), (170, 5542),

Gene: SweatNTears_8 Start: 4742, Stop: 5365, Start Num: 37

Candidate Starts for SweatNTears_8:

(10, 4655), (12, 4661), (Start: 37 @4742 has 34 MA's), (Start: 46 @4790 has 9 MA's), (54, 4823), (61, 4865), (86, 4937), (96, 4997), (97, 5021), (117, 5099), (120, 5120), (130, 5150), (163, 5294), (165, 5312),

Gene: TChen_4 Start: 3803, Stop: 4498, Start Num: 55

Candidate Starts for TChen_4:

(Start: 17 @3644 has 43 MA's), (19, 3650), (Start: 55 @3803 has 4 MA's), (59, 3821), (70, 3869), (78, 3893), (86, 3926), (90, 3950), (93, 3971), (96, 3983), (100, 4019), (108, 4046), (117, 4085), (118, 4088), (127, 4151), (131, 4190), (137, 4226), (141, 4244), (143, 4256), (149, 4355), (158, 4397),

Gene: Tchotchke_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for Tchotchke_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: ThetaBob_4 Start: 3803, Stop: 4378, Start Num: 55

Candidate Starts for ThetaBob_4:

(Start: 17 @3644 has 43 MA's), (19, 3650), (Start: 55 @3803 has 4 MA's), (59, 3821), (70, 3869), (78, 3893), (86, 3926), (90, 3950), (93, 3971), (96, 3983), (100, 4019), (108, 4046), (117, 4085), (118, 4088), (121, 4115), (149, 4235), (158, 4277),

Gene: Tolls_8 Start: 4226, Stop: 4885, Start Num: 37

Candidate Starts for Tolls_8:

(10, 4139), (12, 4145), (Start: 37 @4226 has 34 MA's), (Start: 46 @4274 has 9 MA's), (50, 4289), (54, 4307), (61, 4349), (86, 4421), (96, 4481), (97, 4505), (117, 4583), (130, 4634), (158, 4787), (165, 4829), (169, 4856),

Gene: TootsiePop_5 Start: 3607, Stop: 4332, Start Num: 15

Candidate Starts for TootsiePop_5:

(Start: 15 @3607 has 61 MA's), (24, 3634), (Start: 29 @3655 has 1 MA's), (36, 3682), (49, 3742), (58, 3781), (83, 3880), (94, 3949), (96, 3952), (132, 4081), (140, 4102), (158, 4210), (175, 4318),

Gene: Tootsieroll_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Tootsieroll_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Toron_4 Start: 3803, Stop: 4498, Start Num: 55

Candidate Starts for Toron_4:

(Start: 17 @3644 has 43 MA's), (19, 3650), (52, 3788), (Start: 55 @3803 has 4 MA's), (59, 3821), (70, 3869), (78, 3893), (86, 3926), (90, 3950), (93, 3971), (96, 3983), (100, 4019), (108, 4046), (117, 4085), (118, 4088), (126, 4148), (127, 4151), (131, 4190), (141, 4244), (143, 4256), (149, 4355), (158, 4397),

Gene: Totinger_5 Start: 3605, Stop: 4330, Start Num: 15

Candidate Starts for Totinger_5:

(Start: 15 @3605 has 61 MA's), (24, 3632), (Start: 29 @3653 has 1 MA's), (36, 3680), (49, 3740), (58, 3779), (83, 3878), (94, 3947), (96, 3950), (132, 4079), (140, 4100), (158, 4208), (175, 4316),

Gene: Troje_6 Start: 4216, Stop: 4839, Start Num: 37

Candidate Starts for Troje_6:

(10, 4129), (12, 4135), (Start: 37 @4216 has 34 MA's), (Start: 46 @4264 has 9 MA's), (50, 4279), (54, 4297), (61, 4339), (86, 4411), (96, 4471), (97, 4495), (117, 4573), (120, 4594), (130, 4624), (163, 4768), (165, 4786),

Gene: Typhonomachy_7 Start: 4221, Stop: 4844, Start Num: 37

Candidate Starts for Typhonomachy_7:

(10, 4131), (12, 4137), (Start: 37 @4221 has 34 MA's), (Start: 46 @4269 has 9 MA's), (52, 4290), (54, 4302), (56, 4311), (61, 4344), (86, 4416), (96, 4476), (117, 4578), (130, 4629), (149, 4707), (163, 4773), (165, 4791), (168, 4812),

Gene: UncleRicky_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for UncleRicky_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Velveteen_5 Start: 3604, Stop: 4329, Start Num: 15

Candidate Starts for Velveteen_5:

(Start: 15 @3604 has 61 MA's), (24, 3631), (Start: 29 @3652 has 1 MA's), (36, 3679), (49, 3739), (58, 3778), (83, 3877), (94, 3946), (96, 3949), (132, 4078), (140, 4099), (158, 4207), (175, 4315),

Gene: Vine_7 Start: 4967, Stop: 5590, Start Num: 30

Candidate Starts for Vine_7:

(10, 4907), (12, 4913), (23, 4940), (Start: 28 @4958 has 2 MA's), (Start: 30 @4967 has 2 MA's), (Start: 37 @4997 has 34 MA's), (Start: 46 @5045 has 9 MA's), (Start: 55 @5081 has 4 MA's), (61, 5120), (70, 5132), (80, 5168), (81, 5174), (86, 5192), (117, 5354), (151, 5456), (153, 5471), (169, 5558),

Gene: Whitney_5 Start: 3722, Stop: 4243, Start Num: 48

Candidate Starts for Whitney_5:

(Start: 17 @3599 has 43 MA's), (26, 3629), (27, 3632), (Start: 41 @3686 has 1 MA's), (Start: 48 @3722 has 1 MA's), (49, 3725), (59, 3767), (67, 3809), (77, 3842), (111, 3944), (112, 3947), (113, 3950), (140, 4070), (155, 4154), (156, 4160),

Gene: Wrigley_4 Start: 3707, Stop: 4372, Start Num: 17

Candidate Starts for Wrigley_4:

(Start: 17 @3707 has 43 MA's), (75, 3947), (91, 4022), (118, 4154), (123, 4196),

Gene: Yakult_7 Start: 4190, Stop: 4777, Start Num: 37

Candidate Starts for Yakult_7:

(10, 4097), (Start: 14 @4106 has 2 MA's), (26, 4145), (Start: 29 @4157 has 1 MA's), (Start: 37 @4190 has 34 MA's), (Start: 46 @4226 has 9 MA's), (50, 4241), (91, 4412), (98, 4469), (117, 4541), (120, 4562), (127, 4586), (151, 4643), (165, 4721),

Gene: Yarn_5 Start: 4219, Stop: 4875, Start Num: 37

Candidate Starts for Yarn_5:

(10, 4132), (12, 4138), (Start: 17 @4147 has 43 MA's), (Start: 37 @4219 has 34 MA's), (Start: 46 @4267 has 9 MA's), (50, 4282), (54, 4300), (61, 4342), (86, 4414), (96, 4474), (97, 4498), (117, 4576), (130, 4627), (163, 4804), (165, 4822),

Gene: Yoshi_5 Start: 3585, Stop: 4229, Start Num: 20

Candidate Starts for Yoshi_5:

(Start: 20 @3585 has 7 MA's), (Start: 29 @3618 has 1 MA's), (Start: 41 @3660 has 1 MA's), (44, 3675), (Start: 46 @3687 has 9 MA's), (Start: 48 @3696 has 1 MA's), (52, 3708), (53, 3711), (57, 3735), (67, 3783), (85, 3852), (88, 3864), (97, 3885), (104, 3906), (124, 3996), (132, 4035), (140, 4056), (155, 4137), (156, 4143), (166, 4197),

Gene: Yucky_8 Start: 4828, Stop: 5451, Start Num: 30

Candidate Starts for Yucky_8:

(10, 4768), (12, 4774), (23, 4801), (Start: 28 @4819 has 2 MA's), (Start: 30 @4828 has 2 MA's), (Start: 37 @4858 has 34 MA's), (Start: 46 @4906 has 9 MA's), (Start: 55 @4942 has 4 MA's), (61, 4981), (70, 4993), (80, 5029), (81, 5035), (86, 5053), (117, 5215), (151, 5317), (153, 5332), (169, 5419),

Gene: Yummy_7 Start: 4122, Stop: 4745, Start Num: 37

Candidate Starts for Yummy_7:

(10, 4035), (12, 4041), (Start: 37 @4122 has 34 MA's), (Start: 46 @4170 has 9 MA's), (54, 4203), (61, 4245), (86, 4317), (96, 4377), (97, 4401), (117, 4479), (120, 4500), (130, 4530), (163, 4674), (165, 4692),

Gene: Zapner_6 Start: 4110, Stop: 4754, Start Num: 20

Candidate Starts for Zapner_6:

(Start: 20 @4110 has 7 MA's), (Start: 29 @4143 has 1 MA's), (Start: 41 @4185 has 1 MA's), (44, 4200), (Start: 46 @4212 has 9 MA's), (Start: 48 @4221 has 1 MA's), (52, 4233), (53, 4236), (57, 4260), (67, 4308), (85, 4377), (88, 4389), (97, 4410), (104, 4431), (124, 4521), (132, 4560), (140, 4581), (155, 4662), (156, 4668), (166, 4722),

Gene: Zareef_9 Start: 5152, Stop: 5715, Start Num: 46

Candidate Starts for Zareef_9:

(10, 5017), (12, 5023), (Start: 20 @5041 has 7 MA's), (Start: 28 @5065 has 2 MA's), (Start: 29 @5071 has 1 MA's), (Start: 46 @5152 has 9 MA's), (Start: 55 @5188 has 4 MA's), (56, 5194), (72, 5251), (86, 5305), (91, 5338), (92, 5341), (97, 5389), (117, 5467), (118, 5470), (120, 5488), (147, 5572), (153, 5599), (170, 5689),

Gene: Zucker_5 Start: 3788, Stop: 4504, Start Num: 25

Candidate Starts for Zucker_5:

(Start: 15 @3755 has 61 MA's), (Start: 25 @3788 has 1 MA's), (32, 3815), (35, 3827), (40, 3854), (44, 3872), (49, 3896), (60, 3944), (62, 3962), (64, 3968), (87, 4049), (89, 4058), (99, 4097), (111, 4130), (125, 4196), (149, 4328), (157, 4367), (162, 4388), (167, 4427), (177, 4484),