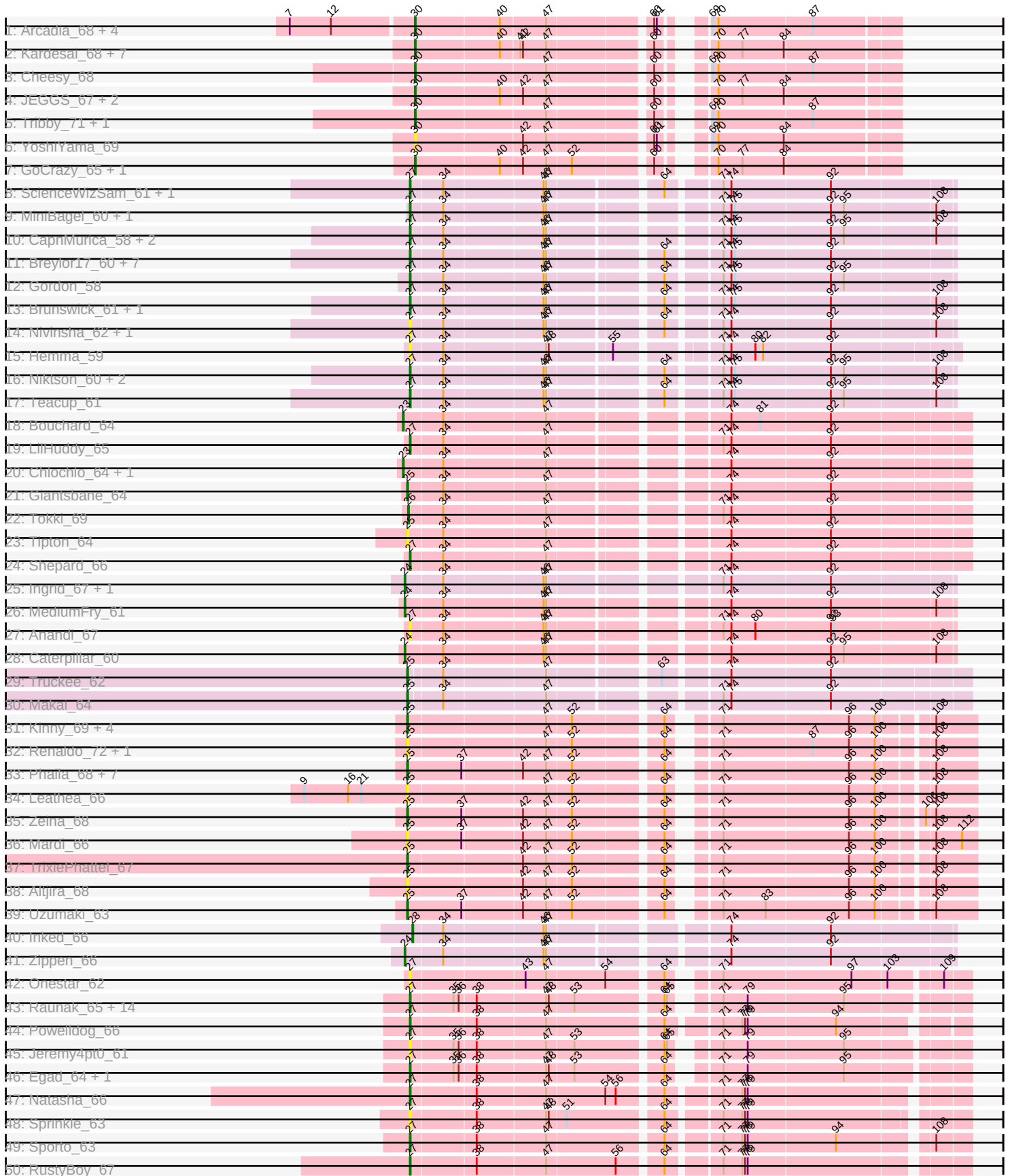
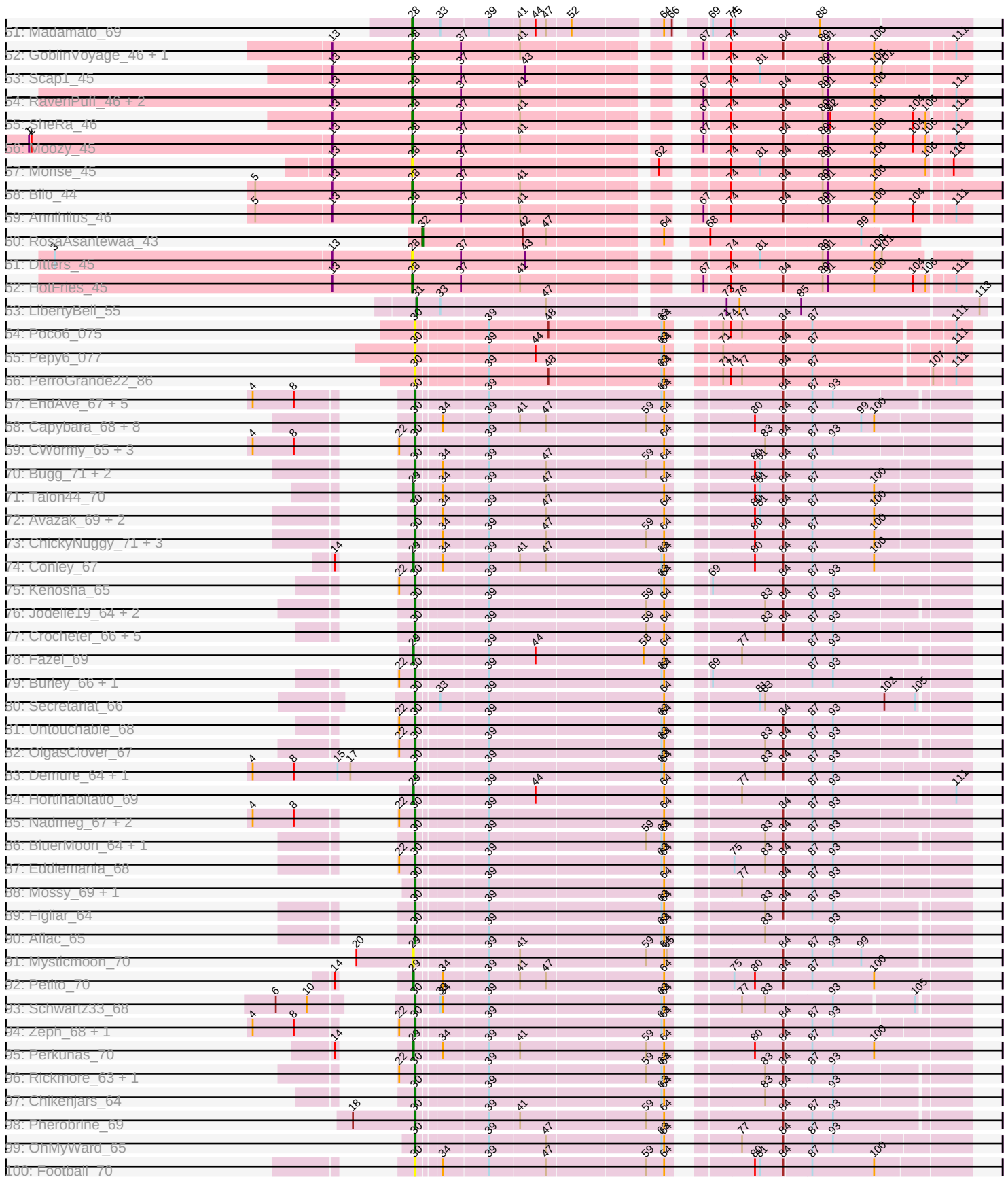


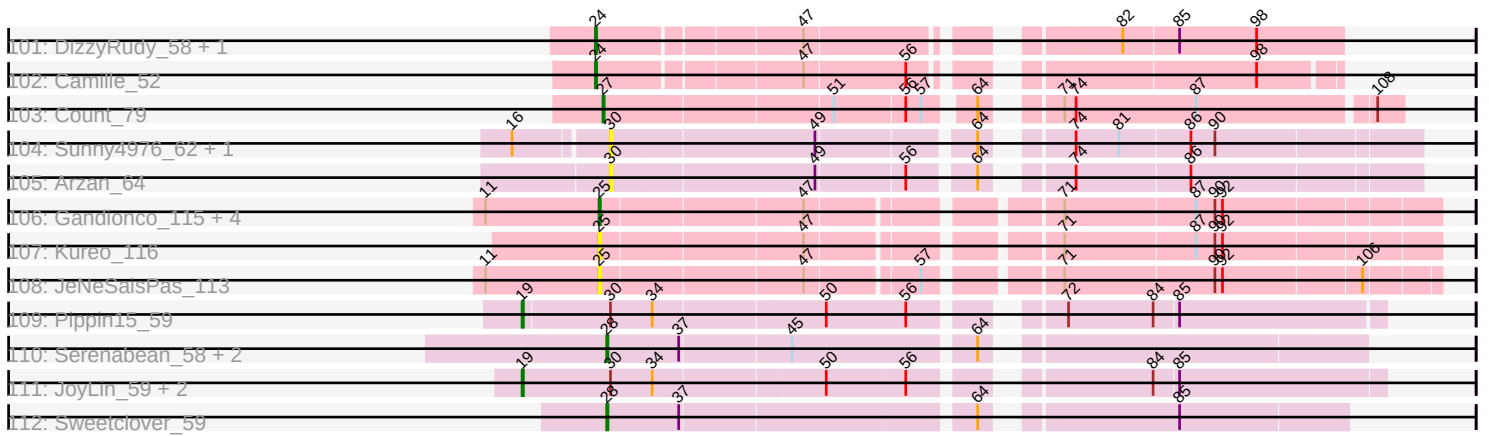
Pham 258758



Pham 258758



Pham 258758



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 258758 Report

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

Pham number 258758 has 222 members, 55 are drafts.

Phages represented in each track:

- Track 1 : Arcadia_68, Nason_68, Elsa_68, Xenomorph_64, Bowling_69
- Track 2 : Kardesai_68, Dynamite_68, Benllo_68, Mooshroom_69, Circum_69, BenitoAntonio_66, NapoleonB_69, Hankly_67
- Track 3 : Cheesy_68
- Track 4 : JEGGS_67, Mudcat_64, Heisenberger_67
- Track 5 : Tribby_71, Correa_66
- Track 6 : YoshiYama_69
- Track 7 : GoCrazy_65, KeaneyLin_64
- Track 8 : ScienceWizSam_61, Synopsis_59
- Track 9 : MiniBagel_60, Dinallo_59
- Track 10 : CapnMurica_58, Tenno_61, Issa_59
- Track 11 : Breylor17_60, Nightmare_62, DevitoJr_60, Tatanka_57, CastorTray_64, Westerlin_60, Trustiboi_60, Darby_59
- Track 12 : Gordon_58
- Track 13 : Brunswick_61, LucySwiss_60
- Track 14 : Nivinsha_62, AreFloNak_63
- Track 15 : Hemma_59
- Track 16 : Niktson_60, ElephantMan_60, Acai_60
- Track 17 : Teacup_61
- Track 18 : Bouchard_64
- Track 19 : LilHuddy_65
- Track 20 : Chlocho_64, Phaby_66
- Track 21 : Giantsbane_64
- Track 22 : Tokki_69
- Track 23 : Tipton_64
- Track 24 : Shepard_66
- Track 25 : Ingrid_67, Loretta_64
- Track 26 : MediumFry_61
- Track 27 : Anandi_67
- Track 28 : Caterpillar_60
- Track 29 : Truckee_62
- Track 30 : Makai_64
- Track 31 : Kinny_69, Muglass_68, Lewando_69, Biscute_66, Barbonzobean_72
- Track 32 : Renaldo_72, BarbieDoll_70
- Track 33 : Phaila_68, Tenney120_67, GantcherGoblin_64, Argan_63, Stardrop_70, PoeMe_67, Navi1117_68, KevinMinion_64
- Track 34 : Leathea_66

- Track 35 : Zeina_68
- Track 36 : Mardi_66
- Track 37 : TrixiePhattel_67
- Track 38 : Altjira_68
- Track 39 : Uzumaki_63
- Track 40 : Inked_66
- Track 41 : Zippen_66
- Track 42 : Onestar_62
- Track 43 : Raunak_65, Boog_63, BronxBay_64, Shiba_63, MrAaronian_64, DoctorPepper_63, Sloopyjoe_64, Linda_64, Michelle_64, HerbBucket_62, Djungelskog_63, Spain_64, Stayer_64, StarLord_64, Salk_64
- Track 44 : PowellDog_66
- Track 45 : Jeremy4pt0_61
- Track 46 : Egad_64, ProfFrink_64
- Track 47 : Natasha_66
- Track 48 : Sprinkle_63
- Track 49 : Sporto_63
- Track 50 : RustyBoy_67
- Track 51 : Madamato_69
- Track 52 : GoblinVoyage_46, PherryCruz_45
- Track 53 : Scap1_45
- Track 54 : RavenPuff_46, Doxi13_47, Sangak_45
- Track 55 : SheRa_46
- Track 56 : Moozy_45
- Track 57 : Monse_45
- Track 58 : Bilo_44
- Track 59 : Annihilus_46
- Track 60 : RosaAsantewaa_43
- Track 61 : Ditters_45
- Track 62 : HotFries_45
- Track 63 : LibertyBell_55
- Track 64 : Poco6_075
- Track 65 : Pepy6_077
- Track 66 : PerroGrande22_86
- Track 67 : EndAve_67, Luthien_67, Nithya_66, AlainaMarie_65, Glintora_67, Citrus_65
- Track 68 : Capybara_68, Tanis_68, Gravy_67, Magel_69, Dancer_68, Kerry_67, Roney_68, Odesza_67, Gill_68
- Track 69 : CWormy_65, ArtetaBall_66, Dialga_66, Madvan_66
- Track 70 : Bugg_71, FortCran_68, Artorias_68
- Track 71 : Talon44_70
- Track 72 : Avazak_69, Captrips_67, NoPickles_67
- Track 73 : ChickyNuggy_71, JulesRay_68, Trufflozitus_72, Tairn4Wing_70
- Track 74 : Conley_67
- Track 75 : Kenosha_65
- Track 76 : Jodelie19_64, Tonaltzin_69, TenaciousP_66
- Track 77 : Crocheter_66, PestoPenguin_69, Aloe25_68, ShaggyRogers_66, Gusicorn_67, BetterYeti_66
- Track 78 : Fazel_69
- Track 79 : Burley_66, Phepper_67
- Track 80 : Secretariat_66
- Track 81 : Untouchable_68
- Track 82 : OlgasClover_67

- Track 83 : Demure_64, Arataki_65
- Track 84 : Hortihabitatio_69
- Track 85 : Nadmeg_67, Vardy_65, Runhaar_66
- Track 86 : BluerMoon_64, MajinBuu_66
- Track 87 : Eddiemania_68
- Track 88 : Mossy_69, Blanky_66
- Track 89 : Figliar_64
- Track 90 : Aflac_65
- Track 91 : Mysticmoon_70
- Track 92 : Petito_70
- Track 93 : Schwartz33_68
- Track 94 : Zeph_68, Hydrus_68
- Track 95 : Perkunas_70
- Track 96 : Rickmore_63, Duffington_64
- Track 97 : Chickenjars_64
- Track 98 : Pherobrine_69
- Track 99 : OhMyWard_65
- Track 100 : Football_70
- Track 101 : DizzyRudy_58, Damascus_54
- Track 102 : Camille_52
- Track 103 : Count_79
- Track 104 : Sunny4976_62, Jazzy4900_63
- Track 105 : Arzan_64
- Track 106 : Gandionco_115, Elver_118, Qui_118, Paella_118, Marianna39_116
- Track 107 : Kureo_116
- Track 108 : JeNeSaisPas_113
- Track 109 : Pippin15_59
- Track 110 : Serenabean_58, AddiRose_57, Daddyjeff_58
- Track 111 : JoyLin_59, Yotsuba_59, Eevee_59
- Track 112 : Sweetclover_59

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

The start number called the most often in the published annotations is 30, it was called in 70 of the 167 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• Aflac_65, AlainaMarie_65, Aloe25_68, Arataki_65, Arcadia_68, ArtetaBall_66, Artorias_68, Arzan_64, Avazak_69, BenitoAntonio_66, Benllo_68, BetterYeti_66, Blanky_66, BluerMoon_64, Bowling_69, Bugg_71, Burley_66, CWormy_65, Captrips_67, Capybara_68, Cheesy_68, ChickyNuggy_71, Chickenjars_64, Circum_69, Citrus_65, Correa_66, Crocheter_66, Dancer_68, Demure_64, Dialga_66, Duffington_64, Dynamite_68, Eddiemania_68, Elsa_68, EndAve_67, Figliar_64, Football_70, FortCran_68, Gill_68, Glintora_67, GoCrazy_65, Gravy_67, Gusicorn_67, Hankly_67, Heisenberger_67, Hydrus_68, JEGGS_67, Jazzy4900_63, Jodelie19_64, JulesRay_68, Kardesai_68, KeaneyLin_64, Kenosha_65, Kerry_67, Luthien_67, Madvan_66, Magel_69, MajinBuu_66, Mooshroom_69, Mossy_69, Mudcat_64, Nadmeg_67, NapoleonB_69, Nason_68, Nithya_66, NoPickles_67, Odesza_67, OhMyWard_65, OlgasClover_67, Pepy6_077, PerroGrande22_86, PestoPenguin_69, Phepper_67, Pherobrine_69, Poco6_075, Rickmore_63,

Roney_68, Runhaar_66, Schwartz33_68, Secretariat_66, ShaggyRogers_66, Sunny4976_62, Tairn4Wing_70, Tanis_68, TenaciousP_66, Tonaltzin_69, Tribby_71, Trufflozitus_72, Untouchable_68, Vardy_65, Xenomorph_64, YoshiYama_69, Zeph_68,

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

- Eevee_59, JoyLin_59, Pippin15_59, Yotsuba_59,

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

- Acai_60, AddiRose_57, Altjira_68, Anandi_67, Annihilus_46, AreFloNak_63, Argan_63, BarbieDoll_70, Barbonzobean_72, Bilo_44, Biscute_66, Boog_63, Bouchard_64, Breylor17_60, BronxBay_64, Brunswick_61, Camille_52, CapnMurica_58, CastorTray_64, Caterpillar_60, Chlocho_64, Conley_67, Count_79, Daddyjeff_58, Damascus_54, Darby_59, DevitoJr_60, Dinallo_59, Ditters_45, DizzyRudy_58, Djungelskog_63, DoctorPepper_63, Doxi13_47, Egad_64, ElephantMan_60, Elver_118, Fazel_69, Gandionco_115, GantcherGoblin_64, Giantsbane_64, GoblinVoyage_46, Gordon_58, Hemma_59, HerbBucket_62, Hortihabitatio_69, HotFries_45, Ingrid_67, Inked_66, Issa_59, JeNeSaisPas_113, Jeremy4pt0_61, KevinMinion_64, Kinny_69, Kureo_116, Leathea_66, Lewando_69, LibertyBell_55, LilHuddy_65, Linda_64, Loretta_64, LucySwiss_60, Madamato_69, Makai_64, Mardi_66, Marianna39_116, MediumFry_61, Michelle_64, MiniBagel_60, Monse_45, Moozy_45, MrAaronian_64, Muglass_68, Mysticmoon_70, Natasha_66, Navi1117_68, Nightmare_62, Niktsn_60, Nivinsha_62, Onestar_62, Paella_118, Perkunas_70, Petite_70, Phaby_66, Phaila_68, PherryCruz_45, PoeMe_67, Powelldog_66, ProfFrink_64, Qui_118, Raunak_65, RavenPuff_46, Renaldo_72, RosaAsantewaa_43, RustyBoy_67, Salk_64, Sangak_45, Scap1_45, ScienceWizSam_61, Serenabean_58, SheRa_46, Shepard_66, Shiba_63, Sloopyjoe_64, Spain_64, Sporto_63, Sprinkle_63, StarLord_64, Stardrop_70, Stayer_64, Sweetclover_59, Synopsis_59, Talon44_70, Tatanka_57, Teacup_61, Tenney120_67, Tenno_61, Tipton_64, Tokki_69, TrixiePhattel_67, Truckee_62, Trustiboi_60, Uzumaki_63, Westerlin_60, Zeina_68, Zippen_66,

Summary by start number:

Start 19:

- Found in 4 of 222 (1.8%) of genes in pham
- Manual Annotations of this start: 4 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Eevee_59 (JA), JoyLin_59 (JA), Pippin15_59 (JA), Yotsuba_59 (JA),

Start 23:

- Found in 3 of 222 (1.4%) of genes in pham
- Manual Annotations of this start: 3 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bouchard_64 (AU2), Chlocho_64 (AU2), Phaby_66 (AU2),

Start 24:

- Found in 8 of 222 (3.6%) of genes in pham
- Manual Annotations of this start: 8 of 167
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Camille_52 (EL), Caterpillar_60 (AU4), Damascus_54 (EL), DizzyRudy_58 (EL), Ingrid_67 (AU3), Loretta_64 (AU3), MediumFry_61 (AU4), Zippen_66 (AU7),

Start 25:

- Found in 32 of 222 (14.4%) of genes in pham
- Manual Annotations of this start: 17 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altjira_68 (AU6), Argan_63 (AU6), BarbieDoll_70 (AU6), Barbonzobean_72 (AU6), Biscute_66 (AU6), Elver_118 (FK), Gandionco_115 (FK), GantcherGoblin_64 (AU6), Giantsbane_64 (AU2), JeNeSaisPas_113 (FK), KevinMinion_64 (AU6), Kinny_69 (AU6), Kureo_116 (FK), Leathea_66 (AU6), Lewando_69 (AU6), Makai_64 (AU5), Mardi_66 (AU6), Marianna39_116 (FK), Muglass_68 (AU6), Navi1117_68 (AU6), Paella_118 (FK), Phaila_68 (AU6), PoeMe_67 (AU6), Qui_118 (FK), Renaldo_72 (AU6), Stardrop_70 (AU6), Tenney120_67 (AU6), Tipton_64 (AU2), TrixiePhattel_67 (AU6), Truckee_62 (AU5), Uzumaki_63 (AU6), Zeina_68 (AU6),

Start 26:

- Found in 1 of 222 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tokki_69 (AU2),

Start 27:

- Found in 53 of 222 (23.9%) of genes in pham
- Manual Annotations of this start: 40 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Acai_60 (AU1), Anandi_67 (AU4), AreFloNak_63 (AU1), Boog_63 (AW), Breylor17_60 (AU1), BronxBay_64 (AW), Brunswick_61 (AU1), CapnMurica_58 (AU1), CastorTray_64 (AU1), Count_79 (EL), Darby_59 (AU1), DevitoJr_60 (AU1), Dinallo_59 (AU1), Djungelskog_63 (AW), DoctorPepper_63 (AW), Egad_64 (AW), ElephantMan_60 (AU1), Gordon_58 (AU1), Hemma_59 (AU1), HerbBucket_62 (AW), Issa_59 (AU1), Jeremy4pt0_61 (AW), LilHuddy_65 (AU2), Linda_64 (AW), LucySwiss_60 (AU1), Michelle_64 (AW), MiniBage1_60 (AU1), MrAaronian_64 (AW), Natasha_66 (AW), Nightmare_62 (AU1), Niktson_60 (AU1), Nivinsha_62 (AU1), Onestar_62 (AW), PowellDog_66 (AW), ProfFrink_64 (AW), Raunak_65 (AW), RustyBoy_67 (AW), Salk_64 (AW), ScienceWizSam_61 (AU1), Shepard_66 (AU2), Shiba_63 (AW), Sloopyjoe_64 (AW), Spain_64 (AW), Sporto_63 (AW), Sprinkle_63 (AW), StarLord_64 (AW), Stayer_64 (AW), Synepsis_59 (AU1), Tatanka_57 (AU1), Teacup_61 (AU1), Tenno_61 (AU1), Trustiboi_60 (AU1), Westerlin_60 (AU1),

Start 28:

- Found in 19 of 222 (8.6%) of genes in pham
- Manual Annotations of this start: 16 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AddiRose_57 (JA), Annihilus_46 (BI2), Bilo_44 (BI2), Daddyjeff_58 (JA), Ditters_45 (BI2), Doxi13_47 (BI2), GoblinVoyage_46 (BI2), HotFries_45 (BI2), Inked_66 (AU7), Madamoto_69 (BI1), Monse_45 (BI2), Moozy_45 (BI2), PherryCruz_45 (BI2), RavenPuff_46 (BI2), Sangak_45 (BI2), Scap1_45 (BI2), Serenabean_58 (JA), SheRa_46 (BI2), Sweetclover_59 (JA),

Start 29:

- Found in 7 of 222 (3.2%) of genes in pham
- Manual Annotations of this start: 6 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Conley_67 (DJ), Fazel_69 (DJ), Hortihabitatio_69 (DJ), Mysticmoon_70 (DJ), Perkunas_70 (DJ), Petito_70 (DJ), Talon44_70 (DJ),

Start 30:

- Found in 97 of 222 (43.7%) of genes in pham
- Manual Annotations of this start: 70 of 167
- Called 95.9% of time when present
- Phage (with cluster) where this start called: Aflac_65 (DJ), AlainaMarie_65 (DJ), Aloe25_68 (DJ), Arataki_65 (DJ), Arcadia_68 (AM), ArtetaBall_66 (DJ), Artorias_68 (DJ), Arzan_64 (FI), Avazak_69 (DJ), BenitoAntonio_66 (AM), Benllo_68 (AM), BetterYeti_66 (DJ), Blanky_66 (DJ), BluerMoon_64 (DJ), Bowling_69 (AM), Bugg_71 (DJ), Burley_66 (DJ), CWormy_65 (DJ), Captrips_67 (DJ), Cappybara_68 (DJ), Cheesy_68 (AM), ChickyNuggy_71 (DJ), Chickenjars_64 (DJ), Circum_69 (AM), Citrus_65 (DJ), Correa_66 (AM), Crocheter_66 (DJ), Dancer_68 (DJ), Demure_64 (DJ), Dialga_66 (DJ), Duffington_64 (DJ), Dynamite_68 (AM), Eddiemania_68 (DJ), Elsa_68 (AM), EndAve_67 (DJ), Figliar_64 (DJ), Football_70 (DJ), FortCran_68 (DJ), Gill_68 (DJ), Glintora_67 (DJ), GoCrazy_65 (AM), Gravy_67 (DJ), Gusicorn_67 (DJ), Hankly_67 (AM), Heisenberger_67 (AM), Hydrus_68 (DJ), JEGGS_67 (AM), Jazzy4900_63 (FI), Jodelie19_64 (DJ), JulesRay_68 (DJ), Kardesai_68 (AM), KeaneyLin_64 (AM), Kenosha_65 (DJ), Kerry_67 (DJ), Luthien_67 (DJ), Madvan_66 (DJ), Magel_69 (DJ), MajinBuu_66 (DJ), Mooshroom_69 (AM), Mossy_69 (DJ), Mudcat_64 (AM), Nadmeg_67 (DJ), NapoleonB_69 (AM), Nason_68 (AM), Nithya_66 (DJ), NoPickles_67 (DJ), Odesza_67 (DJ), OhMyWard_65 (DJ), OlgasClover_67 (DJ), Pepy6_077 (CC), PerroGrande22_86 (CC), PestoPenguin_69 (DJ), Phepper_67 (DJ), Pherobrine_69 (DJ), Poco6_075 (CC), Rickmore_63 (DJ), Roney_68 (DJ), Runhaar_66 (DJ), Schwartz33_68 (DJ), Secretariat_66 (DJ), ShaggyRogers_66 (DJ), Sunny4976_62 (FI), Tairn4Wing_70 (DJ), Tanis_68 (DJ), TenaciousP_66 (DJ), Tonaltzin_69 (DJ), Tribby_71 (AM), Trufflozitus_72 (DJ), Untouchable_68 (DJ), Vardy_65 (DJ), Xenomorph_64 (AM), YoshiYama_69 (AM), Zeph_68 (DJ),

Start 31:

- Found in 1 of 222 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LibertyBell_55 (BI3),

Start 32:

- Found in 1 of 222 (0.5%) of genes in pham
- Manual Annotations of this start: 1 of 167
- Called 100.0% of time when present
- Phage (with cluster) where this start called: RosaAsantewaa_43 (BI2),

Summary by clusters:

There are 18 clusters represented in this pham: EL, DJ, AU7, CC, AM, BI3, AU1, AU3, AU2, AU5, AU4, AW, AU6, FI, FK, BI2, JA, BI1,

Info for manual annotations of cluster AM:

- Start number 30 was manually annotated 20 times for cluster AM.

Info for manual annotations of cluster AU1:

- Start number 27 was manually annotated 19 times for cluster AU1.

Info for manual annotations of cluster AU2:

- Start number 23 was manually annotated 3 times for cluster AU2.
- Start number 25 was manually annotated 1 time for cluster AU2.
- Start number 26 was manually annotated 1 time for cluster AU2.
- Start number 27 was manually annotated 2 times for cluster AU2.

Info for manual annotations of cluster AU3:

- Start number 24 was manually annotated 2 times for cluster AU3.

Info for manual annotations of cluster AU4:

- Start number 24 was manually annotated 2 times for cluster AU4.

Info for manual annotations of cluster AU5:

- Start number 25 was manually annotated 2 times for cluster AU5.

Info for manual annotations of cluster AU6:

- Start number 25 was manually annotated 11 times for cluster AU6.

Info for manual annotations of cluster AU7:

- Start number 24 was manually annotated 1 time for cluster AU7.
- Start number 28 was manually annotated 1 time for cluster AU7.

Info for manual annotations of cluster AW:

- Start number 27 was manually annotated 18 times for cluster AW.

Info for manual annotations of cluster BI1:

- Start number 28 was manually annotated 1 time for cluster BI1.

Info for manual annotations of cluster BI2:

- Start number 28 was manually annotated 10 times for cluster BI2.
- Start number 32 was manually annotated 1 time for cluster BI2.

Info for manual annotations of cluster BI3:

- Start number 31 was manually annotated 1 time for cluster BI3.

Info for manual annotations of cluster DJ:

- Start number 29 was manually annotated 6 times for cluster DJ.
- Start number 30 was manually annotated 50 times for cluster DJ.

Info for manual annotations of cluster EL:

- Start number 24 was manually annotated 3 times for cluster EL.
- Start number 27 was manually annotated 1 time for cluster EL.

Info for manual annotations of cluster FK:

- Start number 25 was manually annotated 3 times for cluster FK.

Info for manual annotations of cluster JA:

- Start number 19 was manually annotated 4 times for cluster JA.
- Start number 28 was manually annotated 4 times for cluster JA.

Gene Information:

Gene: Acai_60 Start: 43405, Stop: 43980, Start Num: 27

Candidate Starts for Acai_60:

(Start: 27 @43405 has 40 MA's), (34, 43441), (46, 43552), (47, 43555), (64, 43669), (71, 43723), (74, 43732), (75, 43735), (92, 43843), (95, 43858), (108, 43960),

Gene: AddiRose_57 Start: 39940, Stop: 40485, Start Num: 28

Candidate Starts for AddiRose_57:

(Start: 28 @39940 has 16 MA's), (37, 39997), (45, 40081), (64, 40213),

Gene: Aflac_65 Start: 46978, Stop: 47559, Start Num: 30

Candidate Starts for Aflac_65:

(Start: 30 @46978 has 70 MA's), (39, 47053), (63, 47245), (64, 47248), (83, 47335), (93, 47410),

Gene: AlainaMarie_65 Start: 47020, Stop: 47601, Start Num: 30

Candidate Starts for AlainaMarie_65:

(4, 46906), (8, 46954), (Start: 30 @47020 has 70 MA's), (39, 47095), (63, 47287), (64, 47290), (84, 47398), (87, 47428), (93, 47452),

Gene: Aloe25_68 Start: 47048, Stop: 47632, Start Num: 30

Candidate Starts for Aloe25_68:

(Start: 30 @47048 has 70 MA's), (39, 47123), (59, 47297), (64, 47318), (83, 47405), (84, 47426), (87, 47456), (93, 47480),

Gene: Altjira_68 Start: 43383, Stop: 43970, Start Num: 25

Candidate Starts for Altjira_68:

(Start: 25 @43383 has 17 MA's), (42, 43512), (47, 43539), (52, 43566), (64, 43659), (71, 43698), (96, 43839), (100, 43869), (108, 43923),

Gene: Anandi_67 Start: 44069, Stop: 44644, Start Num: 27

Candidate Starts for Anandi_67:

(Start: 27 @44069 has 40 MA's), (34, 44105), (46, 44216), (47, 44219), (71, 44387), (74, 44396), (80, 44423), (92, 44507), (93, 44510),

Gene: Annihilus_46 Start: 35097, Stop: 35678, Start Num: 28

Candidate Starts for Annihilus_46:

(5, 34917), (13, 35004), (Start: 28 @35097 has 16 MA's), (37, 35154), (41, 35220), (67, 35385), (74, 35412), (84, 35472), (89, 35514), (91, 35520), (100, 35574), (104, 35619), (111, 35661),

Gene: Arataki_65 Start: 46684, Stop: 47268, Start Num: 30

Candidate Starts for Arataki_65:

(4, 46495), (8, 46543), (15, 46594), (17, 46609), (Start: 30 @46684 has 70 MA's), (39, 46759), (63, 46951), (64, 46954), (83, 47041), (84, 47062), (87, 47092), (93, 47116),

Gene: Arcadia_68 Start: 42977, Stop: 43471, Start Num: 30

Candidate Starts for Arcadia_68:

(7, 42839), (12, 42887), (Start: 30 @42977 has 70 MA's), (40, 43073), (47, 43124), (60, 43232), (61, 43235), (69, 43265), (70, 43271), (87, 43376),

Gene: AreFloNak_63 Start: 43375, Stop: 43950, Start Num: 27

Candidate Starts for AreFloNak_63:

(Start: 27 @43375 has 40 MA's), (34, 43411), (46, 43522), (47, 43525), (64, 43639), (71, 43693), (74, 43702), (92, 43813), (108, 43930),

Gene: Argan_63 Start: 42106, Stop: 42693, Start Num: 25

Candidate Starts for Argan_63:

(Start: 25 @42106 has 17 MA's), (37, 42169), (42, 42235), (47, 42262), (52, 42289), (64, 42382), (71, 42421), (96, 42562), (100, 42592), (108, 42646),

Gene: ArtetaBall_66 Start: 47246, Stop: 47830, Start Num: 30

Candidate Starts for ArtetaBall_66:

(4, 47132), (8, 47180), (22, 47228), (Start: 30 @47246 has 70 MA's), (39, 47321), (64, 47516), (83, 47603), (84, 47624), (87, 47654), (93, 47678),

Gene: Artorias_68 Start: 47461, Stop: 48048, Start Num: 30

Candidate Starts for Artorias_68:

(Start: 30 @47461 has 70 MA's), (34, 47485), (39, 47536), (47, 47599), (59, 47710), (64, 47731), (80, 47806), (81, 47812), (84, 47839), (87, 47869),

Gene: Arzan_64 Start: 42782, Stop: 43357, Start Num: 30

Candidate Starts for Arzan_64:

(Start: 30 @42782 has 70 MA's), (49, 42938), (56, 43004), (64, 43049), (74, 43097), (86, 43184),

Gene: Avazak_69 Start: 47788, Stop: 48375, Start Num: 30

Candidate Starts for Avazak_69:

(Start: 30 @47788 has 70 MA's), (34, 47812), (39, 47863), (47, 47926), (64, 48058), (80, 48133), (81, 48139), (84, 48166), (87, 48196), (100, 48268),

Gene: BarbieDoll_70 Start: 43789, Stop: 44373, Start Num: 25

Candidate Starts for BarbieDoll_70:

(Start: 25 @43789 has 17 MA's), (47, 43942), (52, 43969), (64, 44062), (71, 44101), (87, 44200), (96, 44242), (100, 44272), (108, 44326),

Gene: Barbonzobean_72 Start: 44037, Stop: 44621, Start Num: 25

Candidate Starts for Barbonzobean_72:

(Start: 25 @44037 has 17 MA's), (47, 44190), (52, 44217), (64, 44310), (71, 44349), (96, 44490), (100, 44520), (108, 44574),

Gene: BenitoAntonio_66 Start: 42012, Stop: 42506, Start Num: 30

Candidate Starts for BenitoAntonio_66:

(Start: 30 @42012 has 70 MA's), (40, 42108), (41, 42129), (42, 42132), (47, 42159), (60, 42267), (70, 42306), (77, 42333), (84, 42381),

Gene: Benllo_68 Start: 42690, Stop: 43184, Start Num: 30

Candidate Starts for Benllo_68:

(Start: 30 @42690 has 70 MA's), (40, 42786), (41, 42807), (42, 42810), (47, 42837), (60, 42945), (70, 42984), (77, 43011), (84, 43059),

Gene: BetterYeti_66 Start: 47047, Stop: 47631, Start Num: 30

Candidate Starts for BetterYeti_66:

(Start: 30 @47047 has 70 MA's), (39, 47122), (59, 47296), (64, 47317), (83, 47404), (84, 47425), (87, 47455), (93, 47479),

Gene: Bilo_44 Start: 35251, Stop: 35868, Start Num: 28

Candidate Starts for Bilo_44:

(5, 35068), (13, 35158), (Start: 28 @35251 has 16 MA's), (37, 35308), (41, 35374), (74, 35566), (84, 35626), (89, 35668), (91, 35674), (100, 35728),

Gene: Biscute_66 Start: 43441, Stop: 44025, Start Num: 25

Candidate Starts for Biscute_66:

(Start: 25 @43441 has 17 MA's), (47, 43594), (52, 43621), (64, 43714), (71, 43753), (96, 43894), (100, 43924), (108, 43978),

Gene: Blanky_66 Start: 48512, Stop: 49096, Start Num: 30

Candidate Starts for Blanky_66:

(Start: 30 @48512 has 70 MA's), (39, 48587), (64, 48782), (77, 48842), (84, 48890), (87, 48920), (93, 48944),

Gene: BluerMoon_64 Start: 47016, Stop: 47597, Start Num: 30

Candidate Starts for BluerMoon_64:

(Start: 30 @47016 has 70 MA's), (39, 47091), (59, 47265), (63, 47283), (64, 47286), (83, 47373), (84, 47394), (87, 47424), (93, 47448),

Gene: Boog_63 Start: 41659, Stop: 42237, Start Num: 27

Candidate Starts for Boog_63:

(Start: 27 @41659 has 40 MA's), (35, 41707), (36, 41713), (38, 41731), (47, 41809), (48, 41812), (53, 41839), (64, 41932), (65, 41935), (71, 41971), (79, 41998), (95, 42106),

Gene: Bouchard_64 Start: 44008, Stop: 44604, Start Num: 23

Candidate Starts for Bouchard_64:

(Start: 23 @44008 has 3 MA's), (34, 44050), (47, 44164), (74, 44341), (81, 44374), (92, 44452),

Gene: Bowling_69 Start: 42966, Stop: 43460, Start Num: 30

Candidate Starts for Bowling_69:

(7, 42828), (12, 42876), (Start: 30 @42966 has 70 MA's), (40, 43062), (47, 43113), (60, 43221), (61, 43224), (69, 43254), (70, 43260), (87, 43365),

Gene: Breylor17_60 Start: 43951, Stop: 44526, Start Num: 27

Candidate Starts for Breylor17_60:

(Start: 27 @43951 has 40 MA's), (34, 43987), (46, 44098), (47, 44101), (64, 44215), (71, 44269), (74, 44278), (75, 44281), (92, 44389),

Gene: BronxBay_64 Start: 41915, Stop: 42493, Start Num: 27

Candidate Starts for BronxBay_64:

(Start: 27 @41915 has 40 MA's), (35, 41963), (36, 41969), (38, 41987), (47, 42065), (48, 42068), (53, 42095), (64, 42188), (65, 42191), (71, 42227), (79, 42254), (95, 42362),

Gene: Brunswick_61 Start: 43248, Stop: 43823, Start Num: 27

Candidate Starts for Brunswick_61:

(Start: 27 @43248 has 40 MA's), (34, 43284), (46, 43395), (47, 43398), (64, 43512), (71, 43566), (74, 43575), (75, 43578), (92, 43686), (108, 43803),

Gene: Bugg_71 Start: 47506, Stop: 48093, Start Num: 30

Candidate Starts for Bugg_71:

(Start: 30 @47506 has 70 MA's), (34, 47530), (39, 47581), (47, 47644), (59, 47755), (64, 47776), (80, 47851), (81, 47857), (84, 47884), (87, 47914),

Gene: Burley_66 Start: 46701, Stop: 47285, Start Num: 30

Candidate Starts for Burley_66:

(22, 46683), (Start: 30 @46701 has 70 MA's), (39, 46776), (63, 46968), (64, 46971), (69, 46998), (87, 47109), (93, 47133),

Gene: CWormy_65 Start: 46660, Stop: 47244, Start Num: 30

Candidate Starts for CWormy_65:

(4, 46546), (8, 46594), (22, 46642), (Start: 30 @46660 has 70 MA's), (39, 46735), (64, 46930), (83, 47017), (84, 47038), (87, 47068), (93, 47092),

Gene: Camille_52 Start: 38577, Stop: 39089, Start Num: 24

Candidate Starts for Camille_52:

(Start: 24 @38577 has 8 MA's), (47, 38727), (56, 38805), (98, 39030),

Gene: CapnMurica_58 Start: 44140, Stop: 44715, Start Num: 27

Candidate Starts for CapnMurica_58:

(Start: 27 @44140 has 40 MA's), (34, 44176), (46, 44287), (47, 44290), (71, 44458), (74, 44467), (75, 44470), (92, 44578), (95, 44593), (108, 44695),

Gene: Captrips_67 Start: 46936, Stop: 47523, Start Num: 30

Candidate Starts for Captrips_67:

(Start: 30 @46936 has 70 MA's), (34, 46960), (39, 47011), (47, 47074), (64, 47206), (80, 47281), (81, 47287), (84, 47314), (87, 47344), (100, 47416),

Gene: Capybara_68 Start: 47267, Stop: 47854, Start Num: 30

Candidate Starts for Capybara_68:

(Start: 30 @47267 has 70 MA's), (34, 47291), (39, 47342), (41, 47375), (47, 47405), (59, 47516), (64, 47537), (80, 47612), (84, 47645), (87, 47675), (99, 47732), (100, 47747),

Gene: CastorTray_64 Start: 44139, Stop: 44714, Start Num: 27

Candidate Starts for CastorTray_64:

(Start: 27 @44139 has 40 MA's), (34, 44175), (46, 44286), (47, 44289), (64, 44403), (71, 44457), (74, 44466), (75, 44469), (92, 44577),

Gene: Caterpillar_60 Start: 43063, Stop: 43644, Start Num: 24

Candidate Starts for Caterpillar_60:

(Start: 24 @43063 has 8 MA's), (34, 43105), (46, 43216), (47, 43219), (74, 43396), (92, 43507), (95, 43522), (108, 43624),

Gene: Cheesy_68 Start: 42204, Stop: 42698, Start Num: 30

Candidate Starts for Cheesy_68:

(Start: 30 @42204 has 70 MA's), (47, 42351), (60, 42459), (69, 42492), (70, 42498), (87, 42603),

Gene: ChickyNuggy_71 Start: 47529, Stop: 48116, Start Num: 30

Candidate Starts for ChickyNuggy_71:

(Start: 30 @47529 has 70 MA's), (34, 47553), (39, 47604), (47, 47667), (59, 47778), (64, 47799), (80, 47874), (84, 47907), (87, 47937), (100, 48009),

Gene: Chikenjars_64 Start: 47040, Stop: 47621, Start Num: 30

Candidate Starts for Chikenjars_64:

(Start: 30 @47040 has 70 MA's), (39, 47115), (63, 47307), (64, 47310), (83, 47397), (84, 47418), (93, 47472),

Gene: Chlochlo_64 Start: 43534, Stop: 44130, Start Num: 23

Candidate Starts for Chlochlo_64:

(Start: 23 @43534 has 3 MA's), (34, 43576), (47, 43690), (74, 43867), (92, 43978),

Gene: Circum_69 Start: 42780, Stop: 43274, Start Num: 30

Candidate Starts for Circum_69:

(Start: 30 @42780 has 70 MA's), (40, 42876), (41, 42897), (42, 42900), (47, 42927), (60, 43035), (70, 43074), (77, 43101), (84, 43149),

Gene: Citrus_65 Start: 47310, Stop: 47891, Start Num: 30

Candidate Starts for Citrus_65:

(4, 47196), (8, 47244), (Start: 30 @47310 has 70 MA's), (39, 47385), (63, 47577), (64, 47580), (84, 47688), (87, 47718), (93, 47742),

Gene: Conley_67 Start: 48039, Stop: 48629, Start Num: 29

Candidate Starts for Conley_67:

(14, 48018), (Start: 29 @48039 has 6 MA's), (34, 48063), (39, 48114), (41, 48147), (47, 48177), (63, 48306), (64, 48309), (80, 48384), (84, 48417), (87, 48447), (100, 48519),

Gene: Correa_66 Start: 41778, Stop: 42272, Start Num: 30

Candidate Starts for Correa_66:

(Start: 30 @41778 has 70 MA's), (47, 41925), (60, 42033), (69, 42066), (70, 42072), (87, 42177),

Gene: Count_79 Start: 54971, Stop: 55534, Start Num: 27

Candidate Starts for Count_79:

(Start: 27 @54971 has 40 MA's), (51, 55145), (56, 55199), (57, 55211), (64, 55241), (71, 55280), (74, 55289), (87, 55382), (108, 55514),

Gene: Crocheter_66 Start: 47141, Stop: 47725, Start Num: 30

Candidate Starts for Crocheter_66:

(Start: 30 @47141 has 70 MA's), (39, 47216), (59, 47390), (64, 47411), (83, 47498), (84, 47519), (87, 47549), (93, 47573),

Gene: Daddyjeff_58 Start: 40160, Stop: 40705, Start Num: 28

Candidate Starts for Daddyjeff_58:

(Start: 28 @40160 has 16 MA's), (37, 40217), (45, 40301), (64, 40433),

Gene: Damascus_54 Start: 40213, Stop: 40734, Start Num: 24

Candidate Starts for Damascus_54:

(Start: 24 @40213 has 8 MA's), (47, 40363), (82, 40564), (85, 40606), (98, 40666),

Gene: Dancer_68 Start: 47196, Stop: 47783, Start Num: 30

Candidate Starts for Dancer_68:

(Start: 30 @47196 has 70 MA's), (34, 47220), (39, 47271), (41, 47304), (47, 47334), (59, 47445), (64, 47466), (80, 47541), (84, 47574), (87, 47604), (99, 47661), (100, 47676),

Gene: Darby_59 Start: 43186, Stop: 43761, Start Num: 27

Candidate Starts for Darby_59:

(Start: 27 @43186 has 40 MA's), (34, 43222), (46, 43333), (47, 43336), (64, 43450), (71, 43504), (74, 43513), (75, 43516), (92, 43624),

Gene: Demure_64 Start: 46684, Stop: 47268, Start Num: 30

Candidate Starts for Demure_64:

(4, 46495), (8, 46543), (15, 46594), (17, 46609), (Start: 30 @46684 has 70 MA's), (39, 46759), (63, 46951), (64, 46954), (83, 47041), (84, 47062), (87, 47092), (93, 47116),

Gene: DevitoJr_60 Start: 43572, Stop: 44147, Start Num: 27

Candidate Starts for DevitoJr_60:

(Start: 27 @43572 has 40 MA's), (34, 43608), (46, 43719), (47, 43722), (64, 43836), (71, 43890), (74, 43899), (75, 43902), (92, 44010),

Gene: Dialga_66 Start: 47265, Stop: 47849, Start Num: 30

Candidate Starts for Dialga_66:

(4, 47151), (8, 47199), (22, 47247), (Start: 30 @47265 has 70 MA's), (39, 47340), (64, 47535), (83, 47622), (84, 47643), (87, 47673), (93, 47697),

Gene: Dinallo_59 Start: 44450, Stop: 45025, Start Num: 27

Candidate Starts for Dinallo_59:

(Start: 27 @44450 has 40 MA's), (34, 44486), (46, 44597), (47, 44600), (71, 44768), (74, 44777), (75, 44780), (92, 44888), (95, 44903), (108, 45005),

Gene: Ditters_45 Start: 35769, Stop: 36347, Start Num: 28

Candidate Starts for Ditters_45:

(3, 35355), (13, 35676), (Start: 28 @35769 has 16 MA's), (37, 35826), (43, 35898), (74, 36084), (81, 36117), (89, 36186), (91, 36192), (100, 36246), (101, 36255),

Gene: DizzyRudy_58 Start: 40100, Stop: 40621, Start Num: 24

Candidate Starts for DizzyRudy_58:

(Start: 24 @40100 has 8 MA's), (47, 40250), (82, 40451), (85, 40493), (98, 40553),

Gene: Djungelskog_63 Start: 41914, Stop: 42492, Start Num: 27

Candidate Starts for Djungelskog_63:

(Start: 27 @41914 has 40 MA's), (35, 41962), (36, 41968), (38, 41986), (47, 42064), (48, 42067), (53, 42094), (64, 42187), (65, 42190), (71, 42226), (79, 42253), (95, 42361),

Gene: DoctorPepper_63 Start: 41619, Stop: 42197, Start Num: 27

Candidate Starts for DoctorPepper_63:

(Start: 27 @41619 has 40 MA's), (35, 41667), (36, 41673), (38, 41691), (47, 41769), (48, 41772), (53, 41799), (64, 41892), (65, 41895), (71, 41931), (79, 41958), (95, 42066),

Gene: Doxi13_47 Start: 35297, Stop: 35878, Start Num: 28

Candidate Starts for Doxi13_47:

(13, 35204), (Start: 28 @35297 has 16 MA's), (37, 35354), (41, 35420), (67, 35585), (74, 35612), (84, 35672), (89, 35714), (91, 35720), (100, 35774), (111, 35861),

Gene: Duffington_64 Start: 46736, Stop: 47317, Start Num: 30

Candidate Starts for Duffington_64:

(22, 46718), (Start: 30 @46736 has 70 MA's), (39, 46811), (59, 46985), (63, 47003), (64, 47006), (83, 47093), (84, 47114), (87, 47144), (93, 47168),

Gene: Dynamite_68 Start: 42793, Stop: 43287, Start Num: 30

Candidate Starts for Dynamite_68:

(Start: 30 @42793 has 70 MA's), (40, 42889), (41, 42910), (42, 42913), (47, 42940), (60, 43048), (70, 43087), (77, 43114), (84, 43162),

Gene: Eddiemania_68 Start: 47892, Stop: 48476, Start Num: 30

Candidate Starts for Eddiemania_68:

(22, 47874), (Start: 30 @47892 has 70 MA's), (39, 47967), (63, 48159), (64, 48162), (75, 48213), (83, 48249), (84, 48270), (87, 48300), (93, 48324),

Gene: Eevee_59 Start: 43509, Stop: 44129, Start Num: 19

Candidate Starts for Eevee_59:

(Start: 19 @43509 has 4 MA's), (Start: 30 @43578 has 70 MA's), (34, 43611), (50, 43740), (56, 43800), (84, 43953), (85, 43971),

Gene: Egad_64 Start: 41910, Stop: 42488, Start Num: 27

Candidate Starts for Egad_64:

(Start: 27 @41910 has 40 MA's), (35, 41958), (36, 41964), (38, 41982), (47, 42060), (48, 42063), (53, 42090), (64, 42183), (71, 42222), (79, 42249), (95, 42357),

Gene: ElephantMan_60 Start: 43878, Stop: 44453, Start Num: 27

Candidate Starts for ElephantMan_60:

(Start: 27 @43878 has 40 MA's), (34, 43914), (46, 44025), (47, 44028), (64, 44142), (71, 44196), (74, 44205), (75, 44208), (92, 44316), (95, 44331), (108, 44433),

Gene: Elsa_68 Start: 42977, Stop: 43471, Start Num: 30

Candidate Starts for Elsa_68:

(7, 42839), (12, 42887), (Start: 30 @42977 has 70 MA's), (40, 43073), (47, 43124), (60, 43232), (61, 43235), (69, 43265), (70, 43271), (87, 43376),

Gene: Elver_118 Start: 65179, Stop: 65781, Start Num: 25

Candidate Starts for Elver_118:

(11, 65089), (Start: 25 @65179 has 17 MA's), (47, 65332), (71, 65500), (87, 65599), (90, 65614), (92, 65620),

Gene: EndAve_67 Start: 47204, Stop: 47785, Start Num: 30

Candidate Starts for EndAve_67:

(4, 47090), (8, 47138), (Start: 30 @47204 has 70 MA's), (39, 47279), (63, 47471), (64, 47474), (84, 47582), (87, 47612), (93, 47636),

Gene: Fazel_69 Start: 47551, Stop: 48135, Start Num: 29

Candidate Starts for Fazel_69:

(Start: 29 @47551 has 6 MA's), (39, 47626), (44, 47677), (58, 47797), (64, 47821), (77, 47881), (87, 47959), (93, 47983),

Gene: Figliar_64 Start: 47046, Stop: 47627, Start Num: 30

Candidate Starts for Figliar_64:

(Start: 30 @47046 has 70 MA's), (39, 47121), (63, 47313), (64, 47316), (83, 47403), (84, 47424), (87, 47454), (93, 47478),

Gene: Football_70 Start: 47087, Stop: 47674, Start Num: 30

Candidate Starts for Football_70:

(Start: 30 @47087 has 70 MA's), (34, 47111), (39, 47162), (47, 47225), (59, 47336), (64, 47357), (80, 47432), (81, 47438), (84, 47465), (87, 47495), (100, 47567),

Gene: FortCran_68 Start: 47461, Stop: 48048, Start Num: 30

Candidate Starts for FortCran_68:

(Start: 30 @47461 has 70 MA's), (34, 47485), (39, 47536), (47, 47599), (59, 47710), (64, 47731), (80, 47806), (81, 47812), (84, 47839), (87, 47869),

Gene: Gandionco_115 Start: 63991, Stop: 64593, Start Num: 25

Candidate Starts for Gandionco_115:

(11, 63901), (Start: 25 @63991 has 17 MA's), (47, 64144), (71, 64312), (87, 64411), (90, 64426), (92, 64432),

Gene: GantcherGoblin_64 Start: 42162, Stop: 42749, Start Num: 25

Candidate Starts for GantcherGoblin_64:

(Start: 25 @42162 has 17 MA's), (37, 42225), (42, 42291), (47, 42318), (52, 42345), (64, 42438), (71, 42477), (96, 42618), (100, 42648), (108, 42702),

Gene: Giantsbane_64 Start: 42742, Stop: 43335, Start Num: 25

Candidate Starts for Giantsbane_64:

(Start: 25 @42742 has 17 MA's), (34, 42781), (47, 42895), (74, 43072), (92, 43183),

Gene: Gill_68 Start: 47279, Stop: 47866, Start Num: 30

Candidate Starts for Gill_68:

(Start: 30 @47279 has 70 MA's), (34, 47303), (39, 47354), (41, 47387), (47, 47417), (59, 47528), (64, 47549), (80, 47624), (84, 47657), (87, 47687), (99, 47744), (100, 47759),

Gene: Glintora_67 Start: 47637, Stop: 48218, Start Num: 30

Candidate Starts for Glintora_67:

(4, 47523), (8, 47571), (Start: 30 @47637 has 70 MA's), (39, 47712), (63, 47904), (64, 47907), (84, 48015), (87, 48045), (93, 48069),

Gene: GoCrazy_65 Start: 42237, Stop: 42731, Start Num: 30

Candidate Starts for GoCrazy_65:

(Start: 30 @42237 has 70 MA's), (40, 42333), (42, 42357), (47, 42384), (52, 42411), (60, 42492), (70, 42531), (77, 42558), (84, 42606),

Gene: GoblinVoyage_46 Start: 35085, Stop: 35666, Start Num: 28

Candidate Starts for GoblinVoyage_46:

(13, 34992), (Start: 28 @35085 has 16 MA's), (37, 35142), (41, 35208), (67, 35373), (74, 35400), (84, 35460), (89, 35502), (91, 35508), (100, 35562), (111, 35649),

Gene: Gordon_58 Start: 44058, Stop: 44633, Start Num: 27

Candidate Starts for Gordon_58:

(Start: 27 @44058 has 40 MA's), (34, 44094), (46, 44205), (47, 44208), (64, 44322), (71, 44376), (74, 44385), (75, 44388), (92, 44496), (95, 44511),

Gene: Gravy_67 Start: 46957, Stop: 47544, Start Num: 30

Candidate Starts for Gravy_67:

(Start: 30 @46957 has 70 MA's), (34, 46981), (39, 47032), (41, 47065), (47, 47095), (59, 47206), (64, 47227), (80, 47302), (84, 47335), (87, 47365), (99, 47422), (100, 47437),

Gene: Gusicorn_67 Start: 47048, Stop: 47632, Start Num: 30

Candidate Starts for Gusicorn_67:

(Start: 30 @47048 has 70 MA's), (39, 47123), (59, 47297), (64, 47318), (83, 47405), (84, 47426), (87, 47456), (93, 47480),

Gene: Hankly_67 Start: 41861, Stop: 42355, Start Num: 30

Candidate Starts for Hankly_67:

(Start: 30 @41861 has 70 MA's), (40, 41957), (41, 41978), (42, 41981), (47, 42008), (60, 42116), (70, 42155), (77, 42182), (84, 42230),

Gene: Heisenberger_67 Start: 42199, Stop: 42693, Start Num: 30

Candidate Starts for Heisenberger_67:

(Start: 30 @42199 has 70 MA's), (40, 42295), (42, 42319), (47, 42346), (60, 42454), (70, 42493), (77, 42520), (84, 42568),

Gene: Hemma_59 Start: 40648, Stop: 41223, Start Num: 27

Candidate Starts for Hemma_59:

(Start: 27 @40648 has 40 MA's), (34, 40684), (47, 40798), (48, 40801), (55, 40864), (71, 40963), (74, 40972), (80, 40999), (82, 41008), (92, 41083),

Gene: HerbBucket_62 Start: 41641, Stop: 42219, Start Num: 27

Candidate Starts for HerbBucket_62:

(Start: 27 @41641 has 40 MA's), (35, 41689), (36, 41695), (38, 41713), (47, 41791), (48, 41794), (53, 41821), (64, 41914), (65, 41917), (71, 41953), (79, 41980), (95, 42088),

Gene: Hortihabitatio_69 Start: 47935, Stop: 48519, Start Num: 29

Candidate Starts for Hortihabitatio_69:

(Start: 29 @47935 has 6 MA's), (39, 48010), (44, 48061), (64, 48205), (77, 48265), (87, 48343), (93, 48367), (111, 48502),

Gene: HotFries_45 Start: 35274, Stop: 35855, Start Num: 28

Candidate Starts for HotFries_45:

(13, 35181), (Start: 28 @35274 has 16 MA's), (37, 35331), (41, 35397), (67, 35562), (74, 35589), (84, 35649), (89, 35691), (91, 35697), (100, 35751), (104, 35796), (106, 35811), (111, 35838),

Gene: Hydrus_68 Start: 47867, Stop: 48451, Start Num: 30

Candidate Starts for Hydrus_68:

(4, 47753), (8, 47801), (22, 47849), (Start: 30 @47867 has 70 MA's), (39, 47942), (63, 48134), (64, 48137), (84, 48245), (87, 48275), (93, 48299),

Gene: Ingrid_67 Start: 43933, Stop: 44514, Start Num: 24

Candidate Starts for Ingrid_67:

(Start: 24 @43933 has 8 MA's), (34, 43975), (46, 44086), (47, 44089), (71, 44257), (74, 44266), (92, 44377),

Gene: Inked_66 Start: 44617, Stop: 45189, Start Num: 28

Candidate Starts for Inked_66:

(Start: 28 @44617 has 16 MA's), (34, 44650), (46, 44761), (47, 44764), (74, 44941), (92, 45052),

Gene: Issa_59 Start: 43234, Stop: 43809, Start Num: 27

Candidate Starts for Issa_59:

(Start: 27 @43234 has 40 MA's), (34, 43270), (46, 43381), (47, 43384), (71, 43552), (74, 43561), (75, 43564), (92, 43672), (95, 43687), (108, 43789),

Gene: JEGGS_67 Start: 42278, Stop: 42772, Start Num: 30

Candidate Starts for JEGGS_67:

(Start: 30 @42278 has 70 MA's), (40, 42374), (42, 42398), (47, 42425), (60, 42533), (70, 42572), (77, 42599), (84, 42647),

Gene: Jazzy4900_63 Start: 43553, Stop: 44128, Start Num: 30

Candidate Starts for Jazzy4900_63:

(16, 43484), (Start: 30 @43553 has 70 MA's), (49, 43709), (64, 43820), (74, 43868), (81, 43901), (86, 43955), (90, 43973),

Gene: JeNeSaisPas_113 Start: 64597, Stop: 65196, Start Num: 25

Candidate Starts for JeNeSaisPas_113:

(11, 64507), (Start: 25 @64597 has 17 MA's), (47, 64750), (57, 64831), (71, 64918), (90, 65032), (92, 65038), (106, 65143),

Gene: Jeremy4pt0_61 Start: 41614, Stop: 42192, Start Num: 27

Candidate Starts for Jeremy4pt0_61:

(Start: 27 @41614 has 40 MA's), (35, 41662), (36, 41668), (38, 41686), (47, 41764), (53, 41794), (64, 41887), (65, 41890), (71, 41926), (79, 41953), (95, 42061),

Gene: Jodelie19_64 Start: 48450, Stop: 49031, Start Num: 30

Candidate Starts for Jodelie19_64:

(Start: 30 @48450 has 70 MA's), (39, 48525), (59, 48699), (64, 48720), (83, 48807), (84, 48828), (87, 48858), (93, 48882),

Gene: JoyLin_59 Start: 43629, Stop: 44249, Start Num: 19

Candidate Starts for JoyLin_59:

(Start: 19 @43629 has 4 MA's), (Start: 30 @43698 has 70 MA's), (34, 43731), (50, 43860), (56, 43920), (84, 44073), (85, 44091),

Gene: JulesRay_68 Start: 47454, Stop: 48041, Start Num: 30

Candidate Starts for JulesRay_68:

(Start: 30 @47454 has 70 MA's), (34, 47478), (39, 47529), (47, 47592), (59, 47703), (64, 47724), (80, 47799), (84, 47832), (87, 47862), (100, 47934),

Gene: Kardesai_68 Start: 42587, Stop: 43081, Start Num: 30

Candidate Starts for Kardesai_68:

(Start: 30 @42587 has 70 MA's), (40, 42683), (41, 42704), (42, 42707), (47, 42734), (60, 42842), (70, 42881), (77, 42908), (84, 42956),

Gene: KeaneyLin_64 Start: 42237, Stop: 42731, Start Num: 30

Candidate Starts for KeaneyLin_64:

(Start: 30 @42237 has 70 MA's), (40, 42333), (42, 42357), (47, 42384), (52, 42411), (60, 42492), (70, 42531), (77, 42558), (84, 42606),

Gene: Kenosha_65 Start: 47320, Stop: 47904, Start Num: 30

Candidate Starts for Kenosha_65:

(22, 47302), (Start: 30 @47320 has 70 MA's), (39, 47395), (63, 47587), (64, 47590), (69, 47617), (84, 47698), (87, 47728), (93, 47752),

Gene: Kerry_67 Start: 46957, Stop: 47544, Start Num: 30

Candidate Starts for Kerry_67:

(Start: 30 @46957 has 70 MA's), (34, 46981), (39, 47032), (41, 47065), (47, 47095), (59, 47206), (64, 47227), (80, 47302), (84, 47335), (87, 47365), (99, 47422), (100, 47437),

Gene: KevinMinion_64 Start: 43057, Stop: 43644, Start Num: 25

Candidate Starts for KevinMinion_64:

(Start: 25 @43057 has 17 MA's), (37, 43120), (42, 43186), (47, 43213), (52, 43240), (64, 43333), (71, 43372), (96, 43513), (100, 43543), (108, 43597),

Gene: Kinny_69 Start: 44269, Stop: 44853, Start Num: 25

Candidate Starts for Kinny_69:

(Start: 25 @44269 has 17 MA's), (47, 44422), (52, 44449), (64, 44542), (71, 44581), (96, 44722), (100, 44752), (108, 44806),

Gene: Kureo_116 Start: 64187, Stop: 64789, Start Num: 25

Candidate Starts for Kureo_116:

(Start: 25 @64187 has 17 MA's), (47, 64340), (71, 64508), (87, 64607), (90, 64622), (92, 64628),

Gene: Leathea_66 Start: 41902, Stop: 42486, Start Num: 25

Candidate Starts for Leathea_66:

(9, 41782), (16, 41833), (21, 41848), (Start: 25 @41902 has 17 MA's), (47, 42055), (52, 42082), (64, 42175), (71, 42214), (96, 42355), (100, 42385), (108, 42439),

Gene: Lewando_69 Start: 43861, Stop: 44445, Start Num: 25

Candidate Starts for Lewando_69:

(Start: 25 @43861 has 17 MA's), (47, 44014), (52, 44041), (64, 44134), (71, 44173), (96, 44314), (100, 44344), (108, 44398),

Gene: LibertyBell_55 Start: 39572, Stop: 40195, Start Num: 31

Candidate Starts for LibertyBell_55:

(Start: 31 @39572 has 1 MA's), (33, 39599), (47, 39716), (73, 39902), (76, 39917), (85, 39986), (113, 40187),

Gene: LilHuddy_65 Start: 43852, Stop: 44442, Start Num: 27

Candidate Starts for LilHuddy_65:

(Start: 27 @43852 has 40 MA's), (34, 43888), (47, 44002), (71, 44170), (74, 44179), (92, 44290),

Gene: Linda_64 Start: 41912, Stop: 42490, Start Num: 27

Candidate Starts for Linda_64:

(Start: 27 @41912 has 40 MA's), (35, 41960), (36, 41966), (38, 41984), (47, 42062), (48, 42065), (53, 42092), (64, 42185), (65, 42188), (71, 42224), (79, 42251), (95, 42359),

Gene: Loretta_64 Start: 43933, Stop: 44514, Start Num: 24

Candidate Starts for Loretta_64:

(Start: 24 @43933 has 8 MA's), (34, 43975), (46, 44086), (47, 44089), (71, 44257), (74, 44266), (92, 44377),

Gene: LucySwiss_60 Start: 43028, Stop: 43603, Start Num: 27

Candidate Starts for LucySwiss_60:

(Start: 27 @43028 has 40 MA's), (34, 43064), (46, 43175), (47, 43178), (64, 43292), (71, 43346), (74, 43355), (75, 43358), (92, 43466), (108, 43583),

Gene: Luthien_67 Start: 47198, Stop: 47779, Start Num: 30

Candidate Starts for Luthien_67:

(4, 47084), (8, 47132), (Start: 30 @47198 has 70 MA's), (39, 47273), (63, 47465), (64, 47468), (84, 47576), (87, 47606), (93, 47630),

Gene: Madamoto_69 Start: 44307, Stop: 44897, Start Num: 28

Candidate Starts for Madamoto_69:

(Start: 28 @44307 has 16 MA's), (33, 44340), (39, 44394), (41, 44427), (44, 44445), (47, 44457), (52, 44484), (64, 44574), (66, 44583), (69, 44607), (74, 44628), (75, 44631), (88, 44727),

Gene: Madvan_66 Start: 46753, Stop: 47337, Start Num: 30

Candidate Starts for Madvan_66:

(4, 46639), (8, 46687), (22, 46735), (Start: 30 @46753 has 70 MA's), (39, 46828), (64, 47023), (83, 47110), (84, 47131), (87, 47161), (93, 47185),

Gene: Magel_69 Start: 47194, Stop: 47781, Start Num: 30

Candidate Starts for Magel_69:

(Start: 30 @47194 has 70 MA's), (34, 47218), (39, 47269), (41, 47302), (47, 47332), (59, 47443), (64, 47464), (80, 47539), (84, 47572), (87, 47602), (99, 47659), (100, 47674),

Gene: MajinBuu_66 Start: 47428, Stop: 48009, Start Num: 30

Candidate Starts for MajinBuu_66:

(Start: 30 @47428 has 70 MA's), (39, 47503), (59, 47677), (63, 47695), (64, 47698), (83, 47785), (84, 47806), (87, 47836), (93, 47860),

Gene: Makai_64 Start: 43998, Stop: 44588, Start Num: 25

Candidate Starts for Makai_64:

(Start: 25 @43998 has 17 MA's), (34, 44034), (47, 44148), (71, 44316), (74, 44325), (92, 44436),

Gene: Mardi_66 Start: 42624, Stop: 43211, Start Num: 25

Candidate Starts for Mardi_66:

(Start: 25 @42624 has 17 MA's), (37, 42687), (42, 42753), (47, 42780), (52, 42807), (64, 42900), (71, 42939), (96, 43080), (100, 43110), (108, 43164), (112, 43194),

Gene: Marianna39_116 Start: 64602, Stop: 65204, Start Num: 25

Candidate Starts for Marianna39_116:

(11, 64512), (Start: 25 @64602 has 17 MA's), (47, 64755), (71, 64923), (87, 65022), (90, 65037), (92, 65043),

Gene: MediumFry_61 Start: 43358, Stop: 43939, Start Num: 24

Candidate Starts for MediumFry_61:

(Start: 24 @43358 has 8 MA's), (34, 43400), (46, 43511), (47, 43514), (74, 43691), (92, 43802), (108, 43919),

Gene: Michelle_64 Start: 41914, Stop: 42492, Start Num: 27

Candidate Starts for Michelle_64:

(Start: 27 @41914 has 40 MA's), (35, 41962), (36, 41968), (38, 41986), (47, 42064), (48, 42067), (53, 42094), (64, 42187), (65, 42190), (71, 42226), (79, 42253), (95, 42361),

Gene: MiniBagel_60 Start: 44123, Stop: 44698, Start Num: 27

Candidate Starts for MiniBagel_60:

(Start: 27 @44123 has 40 MA's), (34, 44159), (46, 44270), (47, 44273), (71, 44441), (74, 44450), (75, 44453), (92, 44561), (95, 44576), (108, 44678),

Gene: Monse_45 Start: 34990, Stop: 35571, Start Num: 28

Candidate Starts for Monse_45:

(13, 34897), (Start: 28 @34990 has 16 MA's), (37, 35047), (62, 35251), (74, 35305), (81, 35338), (84, 35365), (89, 35407), (91, 35413), (100, 35467), (106, 35527), (110, 35551),

Gene: Mooshroom_69 Start: 42587, Stop: 43081, Start Num: 30

Candidate Starts for Mooshroom_69:

(Start: 30 @42587 has 70 MA's), (40, 42683), (41, 42704), (42, 42707), (47, 42734), (60, 42842), (70, 42881), (77, 42908), (84, 42956),

Gene: Moozy_45 Start: 35081, Stop: 35662, Start Num: 28

Candidate Starts for Moozy_45:

(1, 34637), (2, 34640), (13, 34988), (Start: 28 @35081 has 16 MA's), (37, 35138), (41, 35204), (67, 35369), (74, 35396), (84, 35456), (89, 35498), (91, 35504), (100, 35558), (104, 35603), (106, 35618), (111, 35645),

Gene: Mossy_69 Start: 48724, Stop: 49308, Start Num: 30

Candidate Starts for Mossy_69:

(Start: 30 @48724 has 70 MA's), (39, 48799), (64, 48994), (77, 49054), (84, 49102), (87, 49132), (93, 49156),

Gene: MrAaronian_64 Start: 41914, Stop: 42492, Start Num: 27

Candidate Starts for MrAaronian_64:

(Start: 27 @41914 has 40 MA's), (35, 41962), (36, 41968), (38, 41986), (47, 42064), (48, 42067), (53, 42094), (64, 42187), (65, 42190), (71, 42226), (79, 42253), (95, 42361),

Gene: Mudcat_64 Start: 43636, Stop: 44130, Start Num: 30

Candidate Starts for Mudcat_64:

(Start: 30 @43636 has 70 MA's), (40, 43732), (42, 43756), (47, 43783), (60, 43891), (70, 43930), (77, 43957), (84, 44005),

Gene: Muglass_68 Start: 43345, Stop: 43929, Start Num: 25

Candidate Starts for Muglass_68:

(Start: 25 @43345 has 17 MA's), (47, 43498), (52, 43525), (64, 43618), (71, 43657), (96, 43798), (100, 43828), (108, 43882),

Gene: Mysticmoon_70 Start: 48698, Stop: 49282, Start Num: 29

Candidate Starts for Mysticmoon_70:

(20, 48632), (Start: 29 @48698 has 6 MA's), (39, 48773), (41, 48806), (59, 48947), (64, 48968), (65, 48971), (84, 49076), (87, 49106), (93, 49130), (99, 49163),

Gene: Nadmeg_67 Start: 47984, Stop: 48568, Start Num: 30

Candidate Starts for Nadmeg_67:

(4, 47870), (8, 47918), (22, 47966), (Start: 30 @47984 has 70 MA's), (39, 48059), (64, 48254), (84, 48362), (87, 48392), (93, 48416),

Gene: NapoleonB_69 Start: 42793, Stop: 43287, Start Num: 30

Candidate Starts for NapoleonB_69:

(Start: 30 @42793 has 70 MA's), (40, 42889), (41, 42910), (42, 42913), (47, 42940), (60, 43048), (70, 43087), (77, 43114), (84, 43162),

Gene: Nason_68 Start: 42977, Stop: 43471, Start Num: 30

Candidate Starts for Nason_68:

(7, 42839), (12, 42887), (Start: 30 @42977 has 70 MA's), (40, 43073), (47, 43124), (60, 43232), (61, 43235), (69, 43265), (70, 43271), (87, 43376),

Gene: Natasha_66 Start: 41855, Stop: 42442, Start Num: 27

Candidate Starts for Natasha_66:

(Start: 27 @41855 has 40 MA's), (38, 41927), (47, 42005), (54, 42071), (56, 42083), (64, 42128), (71, 42182), (77, 42203), (78, 42206), (79, 42209),

Gene: Navi1117_68 Start: 43066, Stop: 43653, Start Num: 25

Candidate Starts for Navi1117_68:

(Start: 25 @43066 has 17 MA's), (37, 43129), (42, 43195), (47, 43222), (52, 43249), (64, 43342), (71, 43381), (96, 43522), (100, 43552), (108, 43606),

Gene: Nightmare_62 Start: 44420, Stop: 44995, Start Num: 27

Candidate Starts for Nightmare_62:

(Start: 27 @44420 has 40 MA's), (34, 44456), (46, 44567), (47, 44570), (64, 44684), (71, 44738), (74, 44747), (75, 44750), (92, 44858),

Gene: Niktson_60 Start: 43878, Stop: 44453, Start Num: 27

Candidate Starts for Niktson_60:

(Start: 27 @43878 has 40 MA's), (34, 43914), (46, 44025), (47, 44028), (64, 44142), (71, 44196), (74, 44205), (75, 44208), (92, 44316), (95, 44331), (108, 44433),

Gene: Nithya_66 Start: 46904, Stop: 47485, Start Num: 30

Candidate Starts for Nithya_66:

(4, 46790), (8, 46838), (Start: 30 @46904 has 70 MA's), (39, 46979), (63, 47171), (64, 47174), (84, 47282), (87, 47312), (93, 47336),

Gene: Nivinsha_62 Start: 43375, Stop: 43950, Start Num: 27

Candidate Starts for Nivinsha_62:

(Start: 27 @43375 has 40 MA's), (34, 43411), (46, 43522), (47, 43525), (64, 43639), (71, 43693), (74, 43702), (92, 43813), (108, 43930),

Gene: NoPickles_67 Start: 46622, Stop: 47209, Start Num: 30

Candidate Starts for NoPickles_67:

(Start: 30 @46622 has 70 MA's), (34, 46646), (39, 46697), (47, 46760), (64, 46892), (80, 46967), (81, 46973), (84, 47000), (87, 47030), (100, 47102),

Gene: Odesza_67 Start: 47138, Stop: 47725, Start Num: 30

Candidate Starts for Odesza_67:

(Start: 30 @47138 has 70 MA's), (34, 47162), (39, 47213), (41, 47246), (47, 47276), (59, 47387), (64, 47408), (80, 47483), (84, 47516), (87, 47546), (99, 47603), (100, 47618),

Gene: OhMyWard_65 Start: 48483, Stop: 49067, Start Num: 30

Candidate Starts for OhMyWard_65:

(Start: 30 @48483 has 70 MA's), (39, 48558), (47, 48621), (63, 48750), (64, 48753), (77, 48813), (84, 48861), (87, 48891), (93, 48915),

Gene: OlgasClover_67 Start: 48040, Stop: 48621, Start Num: 30

Candidate Starts for OlgasClover_67:

(22, 48022), (Start: 30 @48040 has 70 MA's), (39, 48115), (63, 48307), (64, 48310), (83, 48397), (84, 48418), (87, 48448), (93, 48472),

Gene: Onestar_62 Start: 41671, Stop: 42249, Start Num: 27

Candidate Starts for Onestar_62:

(Start: 27 @41671 has 40 MA's), (43, 41797), (47, 41821), (54, 41887), (64, 41944), (71, 41983), (97, 42127), (103, 42166), (109, 42220),

Gene: Paella_118 Start: 65767, Stop: 66369, Start Num: 25

Candidate Starts for Paella_118:

(11, 65677), (Start: 25 @65767 has 17 MA's), (47, 65920), (71, 66088), (87, 66187), (90, 66202), (92, 66208),

Gene: Pepy6_077 Start: 58658, Stop: 59239, Start Num: 30

Candidate Starts for Pepy6_077:

(Start: 30 @58658 has 70 MA's), (39, 58736), (44, 58787), (63, 58928), (64, 58931), (71, 58970), (84, 59039), (87, 59069), (111, 59222),

Gene: Perkunas_70 Start: 47540, Stop: 48130, Start Num: 29

Candidate Starts for Perkunas_70:

(14, 47519), (Start: 29 @47540 has 6 MA's), (34, 47564), (39, 47615), (41, 47648), (59, 47789), (64, 47810), (80, 47885), (84, 47918), (87, 47948), (100, 48020),

Gene: PerroGrande22_86 Start: 60446, Stop: 61027, Start Num: 30

Candidate Starts for PerroGrande22_86:

(Start: 30 @60446 has 70 MA's), (39, 60521), (48, 60587), (63, 60713), (64, 60716), (71, 60755), (74, 60764), (77, 60776), (84, 60824), (87, 60854), (107, 60986), (111, 61010),

Gene: PestoPenguin_69 Start: 47048, Stop: 47632, Start Num: 30

Candidate Starts for PestoPenguin_69:

(Start: 30 @47048 has 70 MA's), (39, 47123), (59, 47297), (64, 47318), (83, 47405), (84, 47426), (87, 47456), (93, 47480),

Gene: Petito_70 Start: 48710, Stop: 49300, Start Num: 29

Candidate Starts for Petito_70:

(14, 48689), (Start: 29 @48710 has 6 MA's), (34, 48734), (39, 48785), (41, 48818), (47, 48848), (64, 48980), (75, 49031), (80, 49055), (84, 49088), (87, 49118), (100, 49190),

Gene: Phaby_66 Start: 44410, Stop: 45006, Start Num: 23

Candidate Starts for Phaby_66:

(Start: 23 @44410 has 3 MA's), (34, 44452), (47, 44566), (74, 44743), (92, 44854),

Gene: Phaila_68 Start: 42289, Stop: 42876, Start Num: 25

Candidate Starts for Phaila_68:

(Start: 25 @42289 has 17 MA's), (37, 42352), (42, 42418), (47, 42445), (52, 42472), (64, 42565), (71, 42604), (96, 42745), (100, 42775), (108, 42829),

Gene: Phepper_67 Start: 46995, Stop: 47579, Start Num: 30

Candidate Starts for Phepper_67:

(22, 46977), (Start: 30 @46995 has 70 MA's), (39, 47070), (63, 47262), (64, 47265), (69, 47292), (87, 47403), (93, 47427),

Gene: Pherobrine_69 Start: 48757, Stop: 49341, Start Num: 30

Candidate Starts for Pherobrine_69:

(18, 48685), (Start: 30 @48757 has 70 MA's), (39, 48832), (41, 48865), (59, 49006), (64, 49027), (84, 49135), (87, 49165), (93, 49189),

Gene: PherryCruz_45 Start: 35270, Stop: 35851, Start Num: 28

Candidate Starts for PherryCruz_45:

(13, 35177), (Start: 28 @35270 has 16 MA's), (37, 35327), (41, 35393), (67, 35558), (74, 35585), (84, 35645), (89, 35687), (91, 35693), (100, 35747), (111, 35834),

Gene: Pippin15_59 Start: 40275, Stop: 40889, Start Num: 19

Candidate Starts for Pippin15_59:

(Start: 19 @40275 has 4 MA's), (Start: 30 @40341 has 70 MA's), (34, 40374), (50, 40503), (56, 40563), (72, 40650), (84, 40716), (85, 40734),

Gene: Poco6_075 Start: 59837, Stop: 60418, Start Num: 30

Candidate Starts for Poco6_075:

(Start: 30 @59837 has 70 MA's), (39, 59912), (48, 59978), (63, 60104), (64, 60107), (71, 60146), (74, 60155), (77, 60167), (84, 60215), (87, 60245), (111, 60401),

Gene: PoeMe_67 Start: 42774, Stop: 43361, Start Num: 25

Candidate Starts for PoeMe_67:

(Start: 25 @42774 has 17 MA's), (37, 42837), (42, 42903), (47, 42930), (52, 42957), (64, 43050), (71, 43089), (96, 43230), (100, 43260), (108, 43314),

Gene: Powelldog_66 Start: 42322, Stop: 42906, Start Num: 27

Candidate Starts for Powelldog_66:

(Start: 27 @42322 has 40 MA's), (38, 42394), (47, 42472), (64, 42595), (71, 42649), (77, 42670), (78, 42673), (79, 42676), (94, 42775),

Gene: ProfFrink_64 Start: 41909, Stop: 42487, Start Num: 27

Candidate Starts for ProfFrink_64:

(Start: 27 @41909 has 40 MA's), (35, 41957), (36, 41963), (38, 41981), (47, 42059), (48, 42062), (53, 42089), (64, 42182), (71, 42221), (79, 42248), (95, 42356),

Gene: Qui_118 Start: 65767, Stop: 66369, Start Num: 25

Candidate Starts for Qui_118:

(11, 65677), (Start: 25 @65767 has 17 MA's), (47, 65920), (71, 66088), (87, 66187), (90, 66202), (92, 66208),

Gene: Raunak_65 Start: 41570, Stop: 42148, Start Num: 27

Candidate Starts for Raunak_65:

(Start: 27 @41570 has 40 MA's), (35, 41618), (36, 41624), (38, 41642), (47, 41720), (48, 41723), (53, 41750), (64, 41843), (65, 41846), (71, 41882), (79, 41909), (95, 42017),

Gene: RavenPuff_46 Start: 35293, Stop: 35874, Start Num: 28

Candidate Starts for RavenPuff_46:

(13, 35200), (Start: 28 @35293 has 16 MA's), (37, 35350), (41, 35416), (67, 35581), (74, 35608), (84, 35668), (89, 35710), (91, 35716), (100, 35770), (111, 35857),

Gene: Renaldo_72 Start: 44085, Stop: 44669, Start Num: 25

Candidate Starts for Renaldo_72:

(Start: 25 @44085 has 17 MA's), (47, 44238), (52, 44265), (64, 44358), (71, 44397), (87, 44496), (96, 44538), (100, 44568), (108, 44622),

Gene: Rickmore_63 Start: 45423, Stop: 46004, Start Num: 30

Candidate Starts for Rickmore_63:

(22, 45405), (Start: 30 @45423 has 70 MA's), (39, 45498), (59, 45672), (63, 45690), (64, 45693), (83, 45780), (84, 45801), (87, 45831), (93, 45855),

Gene: Roney_68 Start: 47304, Stop: 47891, Start Num: 30

Candidate Starts for Roney_68:

(Start: 30 @47304 has 70 MA's), (34, 47328), (39, 47379), (41, 47412), (47, 47442), (59, 47553), (64, 47574), (80, 47649), (84, 47682), (87, 47712), (99, 47769), (100, 47784),

Gene: RosaAsantewaa_43 Start: 34545, Stop: 35060, Start Num: 32

Candidate Starts for RosaAsantewaa_43:

(Start: 32 @34545 has 1 MA's), (42, 34656), (47, 34683), (64, 34797), (68, 34827), (99, 34998),

Gene: Runhaar_66 Start: 46805, Stop: 47389, Start Num: 30

Candidate Starts for Runhaar_66:

(4, 46691), (8, 46739), (22, 46787), (Start: 30 @46805 has 70 MA's), (39, 46880), (64, 47075), (84, 47183), (87, 47213), (93, 47237),

Gene: RustyBoy_67 Start: 42054, Stop: 42641, Start Num: 27

Candidate Starts for RustyBoy_67:

(Start: 27 @42054 has 40 MA's), (38, 42126), (47, 42204), (56, 42282), (64, 42327), (71, 42381), (77, 42402), (78, 42405), (79, 42408),

Gene: Salk_64 Start: 41912, Stop: 42490, Start Num: 27

Candidate Starts for Salk_64:

(Start: 27 @41912 has 40 MA's), (35, 41960), (36, 41966), (38, 41984), (47, 42062), (48, 42065), (53, 42092), (64, 42185), (65, 42188), (71, 42224), (79, 42251), (95, 42359),

Gene: Sangak_45 Start: 34851, Stop: 35432, Start Num: 28

Candidate Starts for Sangak_45:

(13, 34758), (Start: 28 @34851 has 16 MA's), (37, 34908), (41, 34974), (67, 35139), (74, 35166), (84, 35226), (89, 35268), (91, 35274), (100, 35328), (111, 35415),

Gene: Scap1_45 Start: 34871, Stop: 35452, Start Num: 28

Candidate Starts for Scap1_45:

(13, 34778), (Start: 28 @34871 has 16 MA's), (37, 34928), (43, 35000), (74, 35186), (81, 35219), (89, 35288), (91, 35294), (100, 35348), (101, 35357),

Gene: Schwartz33_68 Start: 47476, Stop: 48054, Start Num: 30

Candidate Starts for Schwartz33_68:

(6, 47380), (10, 47416), (Start: 30 @47476 has 70 MA's), (33, 47497), (34, 47500), (39, 47551), (63, 47743), (64, 47746), (77, 47806), (83, 47833), (93, 47908), (105, 47998),

Gene: ScienceWizSam_61 Start: 43537, Stop: 44112, Start Num: 27

Candidate Starts for ScienceWizSam_61:

(Start: 27 @43537 has 40 MA's), (34, 43573), (46, 43684), (47, 43687), (64, 43801), (71, 43855), (74, 43864), (92, 43975),

Gene: Secretariat_66 Start: 46436, Stop: 47020, Start Num: 30

Candidate Starts for Secretariat_66:

(Start: 30 @46436 has 70 MA's), (33, 46457), (39, 46511), (64, 46706), (81, 46787), (83, 46793), (102, 46928), (105, 46964),

Gene: Serenabean_58 Start: 40188, Stop: 40733, Start Num: 28

Candidate Starts for Serenabeau_58:
(Start: 28 @40188 has 16 MA's), (37, 40245), (45, 40329), (64, 40461),

Gene: ShaggyRogers_66 Start: 46784, Stop: 47368, Start Num: 30
Candidate Starts for ShaggyRogers_66:
(Start: 30 @46784 has 70 MA's), (39, 46859), (59, 47033), (64, 47054), (83, 47141), (84, 47162), (87, 47192), (93, 47216),

Gene: SheRa_46 Start: 35151, Stop: 35732, Start Num: 28
Candidate Starts for SheRa_46:
(13, 35058), (Start: 28 @35151 has 16 MA's), (37, 35208), (41, 35274), (67, 35439), (74, 35466), (84, 35526), (89, 35568), (91, 35574), (92, 35577), (100, 35628), (104, 35673), (106, 35688), (111, 35715),

Gene: Shepard_66 Start: 43711, Stop: 44301, Start Num: 27
Candidate Starts for Shepard_66:
(Start: 27 @43711 has 40 MA's), (34, 43747), (47, 43861), (74, 44038), (92, 44149),

Gene: Shiba_63 Start: 41570, Stop: 42148, Start Num: 27
Candidate Starts for Shiba_63:
(Start: 27 @41570 has 40 MA's), (35, 41618), (36, 41624), (38, 41642), (47, 41720), (48, 41723), (53, 41750), (64, 41843), (65, 41846), (71, 41882), (79, 41909), (95, 42017),

Gene: Sloopyjoe_64 Start: 41916, Stop: 42494, Start Num: 27
Candidate Starts for Sloopyjoe_64:
(Start: 27 @41916 has 40 MA's), (35, 41964), (36, 41970), (38, 41988), (47, 42066), (48, 42069), (53, 42096), (64, 42189), (65, 42192), (71, 42228), (79, 42255), (95, 42363),

Gene: Spain_64 Start: 41914, Stop: 42492, Start Num: 27
Candidate Starts for Spain_64:
(Start: 27 @41914 has 40 MA's), (35, 41962), (36, 41968), (38, 41986), (47, 42064), (48, 42067), (53, 42094), (64, 42187), (65, 42190), (71, 42226), (79, 42253), (95, 42361),

Gene: Sporto_63 Start: 43022, Stop: 43609, Start Num: 27
Candidate Starts for Sporto_63:
(Start: 27 @43022 has 40 MA's), (38, 43094), (47, 43172), (64, 43295), (71, 43349), (77, 43370), (78, 43373), (79, 43376), (94, 43475), (108, 43571),

Gene: Sprinkle_63 Start: 42066, Stop: 42650, Start Num: 27
Candidate Starts for Sprinkle_63:
(Start: 27 @42066 has 40 MA's), (38, 42138), (47, 42216), (48, 42219), (51, 42237), (64, 42339), (71, 42393), (77, 42414), (78, 42417), (79, 42420),

Gene: StarLord_64 Start: 41909, Stop: 42487, Start Num: 27
Candidate Starts for StarLord_64:
(Start: 27 @41909 has 40 MA's), (35, 41957), (36, 41963), (38, 41981), (47, 42059), (48, 42062), (53, 42089), (64, 42182), (65, 42185), (71, 42221), (79, 42248), (95, 42356),

Gene: Stardrop_70 Start: 42876, Stop: 43463, Start Num: 25
Candidate Starts for Stardrop_70:
(Start: 25 @42876 has 17 MA's), (37, 42939), (42, 43005), (47, 43032), (52, 43059), (64, 43152), (71, 43191), (96, 43332), (100, 43362), (108, 43416),

Gene: Stayer_64 Start: 41912, Stop: 42490, Start Num: 27

Candidate Starts for Stayer_64:

(Start: 27 @41912 has 40 MA's), (35, 41960), (36, 41966), (38, 41984), (47, 42062), (48, 42065), (53, 42092), (64, 42185), (65, 42188), (71, 42224), (79, 42251), (95, 42359),

Gene: Sunny4976_62 Start: 43553, Stop: 44128, Start Num: 30

Candidate Starts for Sunny4976_62:

(16, 43484), (Start: 30 @43553 has 70 MA's), (49, 43709), (64, 43820), (74, 43868), (81, 43901), (86, 43955), (90, 43973),

Gene: Sweetclover_59 Start: 39196, Stop: 39726, Start Num: 28

Candidate Starts for Sweetclover_59:

(Start: 28 @39196 has 16 MA's), (37, 39253), (64, 39469), (85, 39598),

Gene: Synopsis_59 Start: 43542, Stop: 44117, Start Num: 27

Candidate Starts for Synopsis_59:

(Start: 27 @43542 has 40 MA's), (34, 43578), (46, 43689), (47, 43692), (64, 43806), (71, 43860), (74, 43869), (92, 43980),

Gene: Tairn4Wing_70 Start: 47298, Stop: 47885, Start Num: 30

Candidate Starts for Tairn4Wing_70:

(Start: 30 @47298 has 70 MA's), (34, 47322), (39, 47373), (47, 47436), (59, 47547), (64, 47568), (80, 47643), (84, 47676), (87, 47706), (100, 47778),

Gene: Talon44_70 Start: 47574, Stop: 48161, Start Num: 29

Candidate Starts for Talon44_70:

(Start: 29 @47574 has 6 MA's), (34, 47598), (39, 47649), (47, 47712), (64, 47844), (80, 47919), (81, 47925), (84, 47952), (87, 47982), (100, 48054),

Gene: Tanis_68 Start: 47124, Stop: 47711, Start Num: 30

Candidate Starts for Tanis_68:

(Start: 30 @47124 has 70 MA's), (34, 47148), (39, 47199), (41, 47232), (47, 47262), (59, 47373), (64, 47394), (80, 47469), (84, 47502), (87, 47532), (99, 47589), (100, 47604),

Gene: Tatanka_57 Start: 43674, Stop: 44249, Start Num: 27

Candidate Starts for Tatanka_57:

(Start: 27 @43674 has 40 MA's), (34, 43710), (46, 43821), (47, 43824), (64, 43938), (71, 43992), (74, 44001), (75, 44004), (92, 44112),

Gene: Teacup_61 Start: 43957, Stop: 44532, Start Num: 27

Candidate Starts for Teacup_61:

(Start: 27 @43957 has 40 MA's), (34, 43993), (46, 44104), (47, 44107), (64, 44221), (71, 44275), (74, 44284), (75, 44287), (92, 44395), (95, 44410), (108, 44512),

Gene: TenaciousP_66 Start: 48412, Stop: 48993, Start Num: 30

Candidate Starts for TenaciousP_66:

(Start: 30 @48412 has 70 MA's), (39, 48487), (59, 48661), (64, 48682), (83, 48769), (84, 48790), (87, 48820), (93, 48844),

Gene: Tenney120_67 Start: 42822, Stop: 43409, Start Num: 25

Candidate Starts for Tenney120_67:

(Start: 25 @42822 has 17 MA's), (37, 42885), (42, 42951), (47, 42978), (52, 43005), (64, 43098), (71, 43137), (96, 43278), (100, 43308), (108, 43362),

Gene: Tenno_61 Start: 44195, Stop: 44770, Start Num: 27

Candidate Starts for Tenno_61:

(Start: 27 @44195 has 40 MA's), (34, 44231), (46, 44342), (47, 44345), (71, 44513), (74, 44522), (75, 44525), (92, 44633), (95, 44648), (108, 44750),

Gene: Tipton_64 Start: 44031, Stop: 44624, Start Num: 25

Candidate Starts for Tipton_64:

(Start: 25 @44031 has 17 MA's), (34, 44070), (47, 44184), (74, 44361), (92, 44472),

Gene: Tokki_69 Start: 44065, Stop: 44655, Start Num: 26

Candidate Starts for Tokki_69:

(Start: 26 @44065 has 1 MA's), (34, 44101), (47, 44215), (71, 44383), (74, 44392), (92, 44503),

Gene: Tonaltzin_69 Start: 46982, Stop: 47563, Start Num: 30

Candidate Starts for Tonaltzin_69:

(Start: 30 @46982 has 70 MA's), (39, 47057), (59, 47231), (64, 47252), (83, 47339), (84, 47360), (87, 47390), (93, 47414),

Gene: Tribby_71 Start: 43164, Stop: 43658, Start Num: 30

Candidate Starts for Tribby_71:

(Start: 30 @43164 has 70 MA's), (47, 43311), (60, 43419), (69, 43452), (70, 43458), (87, 43563),

Gene: TrixiePhattel_67 Start: 42452, Stop: 43036, Start Num: 25

Candidate Starts for TrixiePhattel_67:

(Start: 25 @42452 has 17 MA's), (42, 42578), (47, 42605), (52, 42632), (64, 42725), (71, 42764), (96, 42905), (100, 42935), (108, 42989),

Gene: Truckee_62 Start: 43782, Stop: 44372, Start Num: 25

Candidate Starts for Truckee_62:

(Start: 25 @43782 has 17 MA's), (34, 43818), (47, 43932), (63, 44043), (74, 44109), (92, 44220),

Gene: Trufflozitus_72 Start: 47812, Stop: 48399, Start Num: 30

Candidate Starts for Trufflozitus_72:

(Start: 30 @47812 has 70 MA's), (34, 47836), (39, 47887), (47, 47950), (59, 48061), (64, 48082), (80, 48157), (84, 48190), (87, 48220), (100, 48292),

Gene: Trustiboi_60 Start: 43797, Stop: 44372, Start Num: 27

Candidate Starts for Trustiboi_60:

(Start: 27 @43797 has 40 MA's), (34, 43833), (46, 43944), (47, 43947), (64, 44061), (71, 44115), (74, 44124), (75, 44127), (92, 44235),

Gene: Untouchable_68 Start: 47995, Stop: 48579, Start Num: 30

Candidate Starts for Untouchable_68:

(22, 47977), (Start: 30 @47995 has 70 MA's), (39, 48070), (63, 48262), (64, 48265), (84, 48373), (87, 48403), (93, 48427),

Gene: Uzumaki_63 Start: 42263, Stop: 42850, Start Num: 25

Candidate Starts for Uzumaki_63:

(Start: 25 @42263 has 17 MA's), (37, 42326), (42, 42392), (47, 42419), (52, 42446), (64, 42539), (71, 42578), (83, 42626), (96, 42719), (100, 42749), (108, 42803),

Gene: Vardy_65 Start: 46695, Stop: 47279, Start Num: 30

Candidate Starts for Vardy_65:

(4, 46581), (8, 46629), (22, 46677), (Start: 30 @46695 has 70 MA's), (39, 46770), (64, 46965), (84, 47073), (87, 47103), (93, 47127),

Gene: Westerlin_60 Start: 44877, Stop: 45452, Start Num: 27

Candidate Starts for Westerlin_60:

(Start: 27 @44877 has 40 MA's), (34, 44913), (46, 45024), (47, 45027), (64, 45141), (71, 45195), (74, 45204), (75, 45207), (92, 45315),

Gene: Xenomorph_64 Start: 42648, Stop: 43142, Start Num: 30

Candidate Starts for Xenomorph_64:

(7, 42510), (12, 42558), (Start: 30 @42648 has 70 MA's), (40, 42744), (47, 42795), (60, 42903), (61, 42906), (69, 42936), (70, 42942), (87, 43047),

Gene: YoshiYama_69 Start: 43220, Stop: 43714, Start Num: 30

Candidate Starts for YoshiYama_69:

(Start: 30 @43220 has 70 MA's), (42, 43340), (47, 43367), (60, 43475), (61, 43478), (69, 43508), (70, 43514), (84, 43589),

Gene: Yotsuba_59 Start: 43647, Stop: 44267, Start Num: 19

Candidate Starts for Yotsuba_59:

(Start: 19 @43647 has 4 MA's), (Start: 30 @43716 has 70 MA's), (34, 43749), (50, 43878), (56, 43938), (84, 44091), (85, 44109),

Gene: Zeina_68 Start: 42957, Stop: 43544, Start Num: 25

Candidate Starts for Zeina_68:

(Start: 25 @42957 has 17 MA's), (37, 43020), (42, 43086), (47, 43113), (52, 43140), (64, 43233), (71, 43272), (96, 43413), (100, 43443), (106, 43488), (108, 43497),

Gene: Zeph_68 Start: 47834, Stop: 48418, Start Num: 30

Candidate Starts for Zeph_68:

(4, 47720), (8, 47768), (22, 47816), (Start: 30 @47834 has 70 MA's), (39, 47909), (63, 48101), (64, 48104), (84, 48212), (87, 48242), (93, 48266),

Gene: Zippen_66 Start: 44476, Stop: 45057, Start Num: 24

Candidate Starts for Zippen_66:

(Start: 24 @44476 has 8 MA's), (34, 44518), (46, 44629), (47, 44632), (74, 44809), (92, 44920),