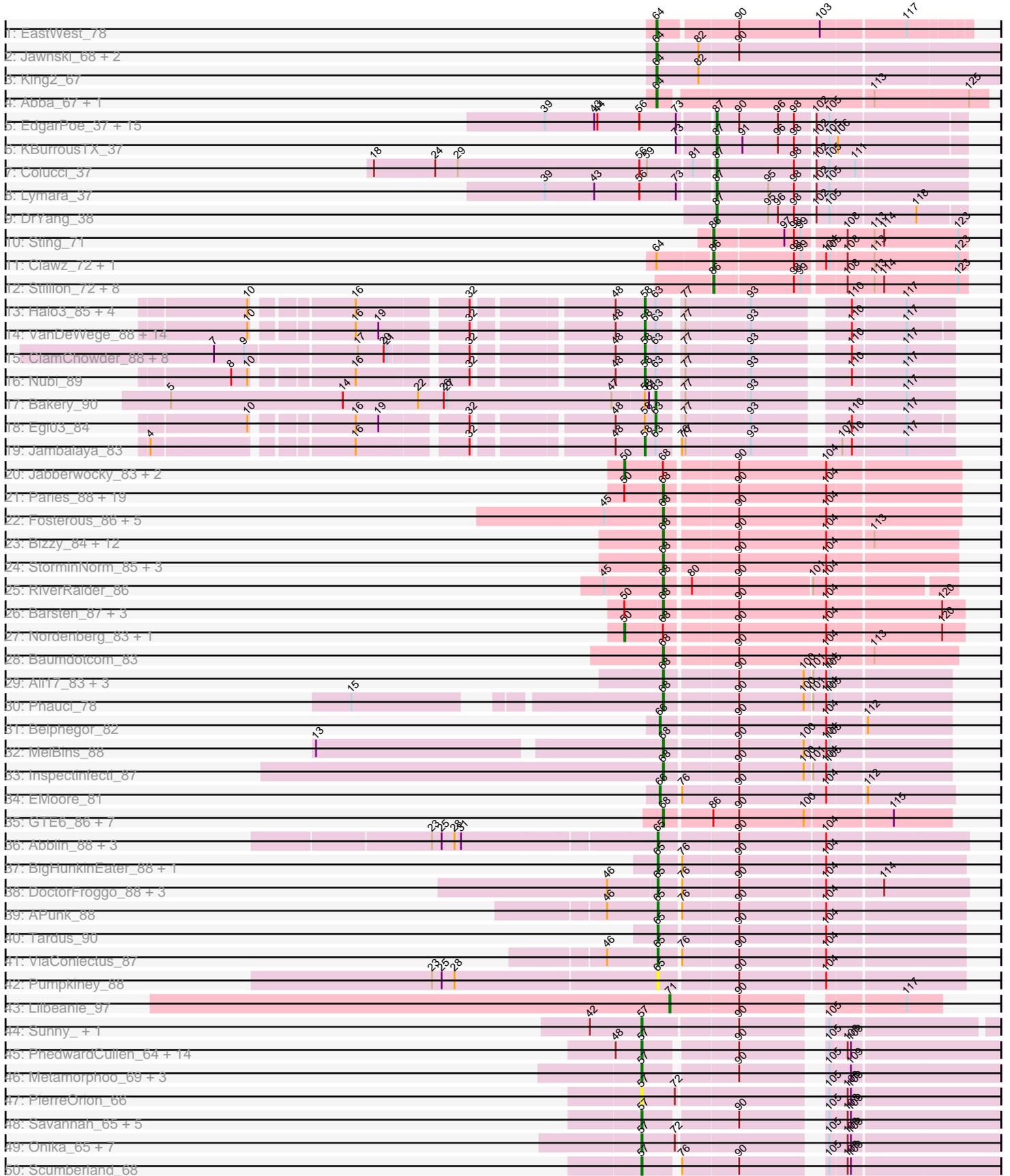
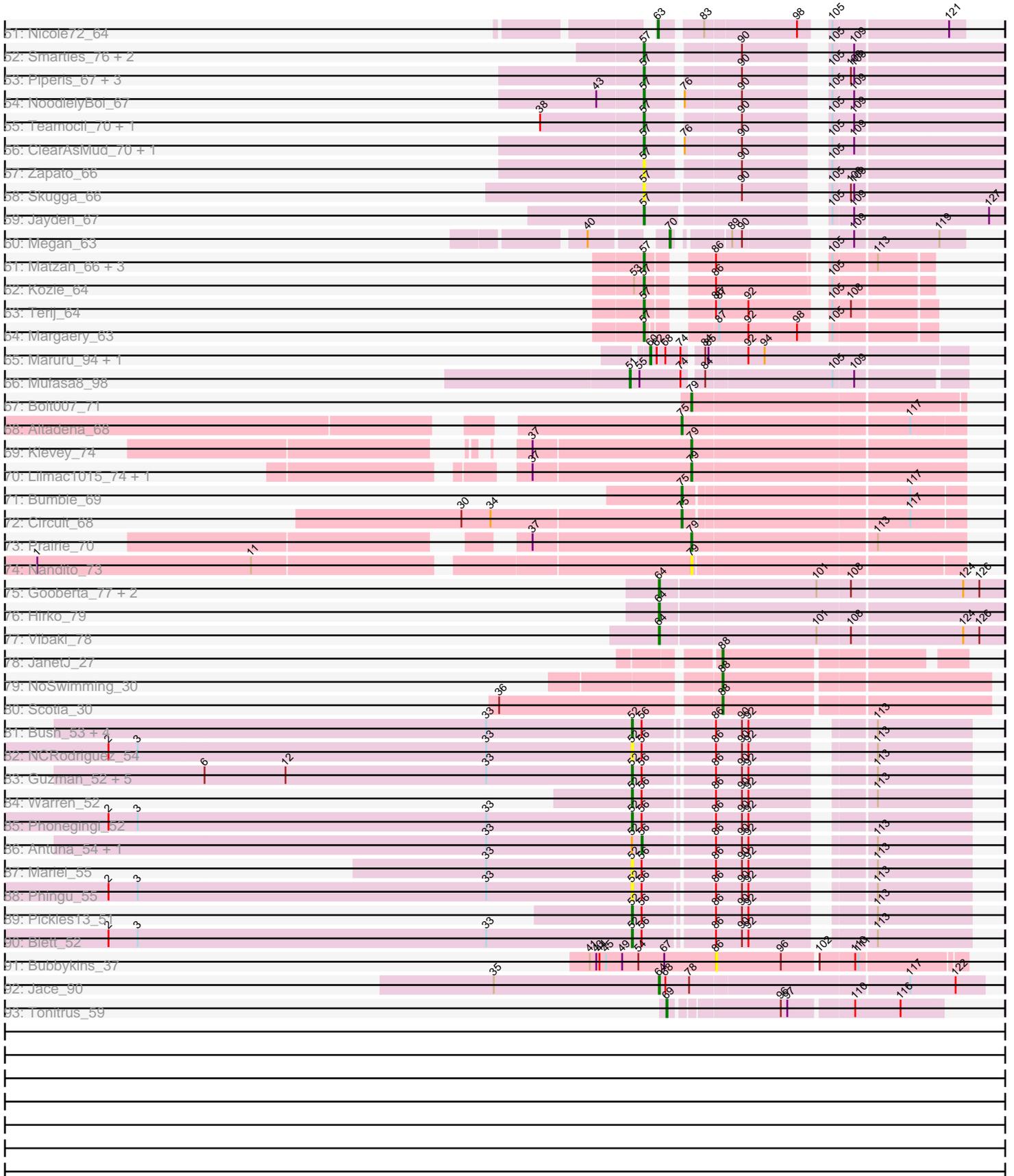


Pham 283443



Pham 283443



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 283443 Report

This analysis was run 02/23/26 on database version 636.

Pham number 283443 has 262 members, 39 are drafts.

Phages represented in each track:

- Track 1 : EastWest_78
- Track 2 : Jawnski_68, Brent_69, Franzy_67
- Track 3 : King2_67
- Track 4 : Abba_67, Nostromo_67
- Track 5 : EdgarPoe_37, Tophat_37, JayCookie_37, Kabreeze_37, Chipper1996_370, Chubster_37, RosiePosie_37, Mordred_37, JaNo_37, Conboy_37, Linus_37, HumptyDumpty_37, Chocolat_37, Scavito_37, PrincessTrina_37, MoyaNatalis_37
- Track 6 : KBurroustX_37
- Track 7 : Colucci_37
- Track 8 : Lymara_37
- Track 9 : DrYang_38
- Track 10 : Sting_71
- Track 11 : Clawz_72, Makar_73
- Track 12 : Stillion_72, KingstonB_73, Grumio_72, DonTron_72, Jollymon_72, ColdSoup_73, Purplicious_71, Soos_68, Amo99_73
- Track 13 : Halo3_85, SmokingBunny_87, Salvador_86, Evamon_86, Togo_86
- Track 14 : VanDeWege_88, Gezellig_82, Twister6_85, Arri_86, Wizard_81, PullumCavea_84, Fireball_89, Valary_87, CherryCola_86, RogerDodger_89, Savbucketdawg_81, KimmyK_84, Phlop_83, Portcullis_86, Shinji_85
- Track 15 : ClamChowder_88, Barb_89, Danyall_86, TillyBobJoe_84, YungMoney_85, Fugax_89, PinkCoffee_87, CoveyB_87, Mutzi_85
- Track 16 : Nubi_89
- Track 17 : Bakery_90
- Track 18 : Egi03_84
- Track 19 : Jambalaya_83
- Track 20 : Jabberwocky_83, Keitabear_82, MoontowerMania_85
- Track 21 : Paries_88, BobBob_86, Stultus_79, FuegoCuervo_89, Fitzgerald_82, ChadMasterC_83, Angelicage_83, Shivanishola_86, Kewpiedoll_85, Sanjuju_82, Ailee_82, Bibwit_82, Affeca_86, McKinley_87, Sitar_83, Love_90, Lennon_84, Brandonk123_88, Baddon_82, Sedona_82
- Track 22 : Fosterous_86, Rofo_84, Galadriel_85, McCrothy_83, Thing3_85, Kamashten_85
- Track 23 : Bizzy_84, Kroos_84, YorkOnyx_83, Ribeye_84, Tycho_84, Tangerine_84, Ashertheman_84, Derg_77, LilHam_78, JKSyngboy_81, Flatwoods_84, SchottB_83, Kwobi_86
- Track 24 : StorminNorm_85, Gaea_85, Saronaya_86, Gustavo_86

- Track 25 : RiverRaider_86
- Track 26 : Barsten_87, Tangent_87, Vivi2_88, Geodirt_84
- Track 27 : Nordenberg_83, Charming_87
- Track 28 : Baumdotcom_83
- Track 29 : Ali17_83, Leonard_86, Hans_87, Phinally_86
- Track 30 : Phauci_78
- Track 31 : Belphegor_82
- Track 32 : MelBins_88
- Track 33 : Inspectinfecti_87
- Track 34 : EMoore_81
- Track 35 : GTE6_86, RoadKill_84, Tiamoceli_80, Kwekel_87, EdmundFerry_85, Dxdert_82, Chickadee_87, Twonlo_84
- Track 36 : Abblin_88, Natkenzie_88, Sampson_90, Scioto_88
- Track 37 : BigHunkinEater_88, Zitch_90
- Track 38 : DoctorFroggo_88, Verity_87, Zipp_88, Delrey21_88
- Track 39 : APunk_88
- Track 40 : Tardus_90
- Track 41 : ViaConlectus_87
- Track 42 : Pumpkiney_88
- Track 43 : Lilbeanie_97
- Track 44 : Sunny_, Merry_
- Track 45 : PhedwardCullen_64, Crisis_67, Antares_66, Phorgeous_66, CrazyRich_65, Honeyfin_67, Phrancesco_66, Jefe_66, Busephilis_65, Ganandorf_65, Shotgun_66, Selwyn23_67, Pulchra_68, Lucretia_66, Glorp_67
- Track 46 : Metamorphoo_69, Tyrumbra_65, Shrubaron_70, RobsFeet_70
- Track 47 : PierreOrion_66
- Track 48 : Savannah_65, Hermeonysus_66, Quhwah_70, BeagleBug_65, LittleFortune_68, Cranjis_67
- Track 49 : Onika_65, Kowalski_65, Rockwell_65, Paschalis_66, BrazzalePHS_65, Jollipop_67, PiperSansNom_67, Ramiel05_65
- Track 50 : Scumberland_68
- Track 51 : Nicole72_64
- Track 52 : Smarties_76, Fireman_69, Ariadne_76
- Track 53 : Piperis_67, KaiHaiDragon_67, Yeti_68, EarickHC_67
- Track 54 : NoodlelyBoi_67
- Track 55 : Teamocil_70, Gina_70
- Track 56 : ClearAsMud_70, SirFrank_66
- Track 57 : Zapato_66
- Track 58 : Skugga_66
- Track 59 : Jayden_67
- Track 60 : Megan_63
- Track 61 : Matzah_66, MementoMori_65, Cressida_67, Cinna_64
- Track 62 : Kozie_64
- Track 63 : Terij_64
- Track 64 : Margaery_63
- Track 65 : Maruru_94, Sonali_93
- Track 66 : Mufasa8_98
- Track 67 : Bolt007_71
- Track 68 : Altadena_68
- Track 69 : Klevey_74
- Track 70 : Lilmac1015_74, CalWood4100_74
- Track 71 : Bumble_69
- Track 72 : Circuit_68

- Track 73 : Prairie_70
- Track 74 : Nandito_73
- Track 75 : Gooberta_77, GoldDust_76, Music_81
- Track 76 : Hirko_79
- Track 77 : Vibaki_78
- Track 78 : JanetJ_27
- Track 79 : NoSwimming_30
- Track 80 : Scotia_30
- Track 81 : Bush_53, Violeta_54, Carrillo_54, Jakelyne_55, MenE_54
- Track 82 : NCRodriguez_54
- Track 83 : Guzman_52, Winchester007_68, CookieDog_52, Dropshot_52, Appa_52, PhillyJawn_53
- Track 84 : Warren_52
- Track 85 : Phonegingi_52
- Track 86 : Antuna_54, Losacky_54
- Track 87 : Mariel_55
- Track 88 : Phingu_55
- Track 89 : Pickles13_51
- Track 90 : Blett_52
- Track 91 : Bubbykins_37
- Track 92 : Jace_90
- Track 93 : Tonitrus_59

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

The start number called the most often in the published annotations is 68, it was called in 61 of the 223 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Affeca_86, Ailee_82, Ali17_83, Angelicage_83, Ashertheman_84, Baddon_82, Barsten_87, Baumdotcom_83, Bibwit_82, Bizzy_84, BobBob_86, Brandonk123_88, ChadMasterC_83, Chickadee_87, Derg_77, Dexdert_82, EdmundFerry_85, Fitzgerald_82, Flatwoods_84, Fosterous_86, FuegoCuervo_89, GTE6_86, Gaea_85, Galadriel_85, Geodirt_84, Gustavo_86, Hans_87, Inspectinfecti_87, JKSyngboy_81, Kamashten_85, Kewpiedoll_85, Kroos_84, Kwekel_87, Kwobi_86, Lennon_84, Leonard_86, LilHam_78, Love_90, McCrothy_83, McKinley_87, MelBins_88, Paries_88, Phauci_78, Phinally_86, Ribeye_84, RiverRaider_86, RoadKill_84, Rofo_84, Sanjuju_82, Saronaya_86, SchottB_83, Sedona_82, Shivanishola_86, Sitar_83, StorminNorm_85, Stultus_79, Tangent_87, Tangerine_84, Thing3_85, Tiamoceli_80, Twonlo_84, Tycho_84, Vivi2_88, YorkOnyx_83,

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

- Charming_87, Jabberwocky_83, Jace_90, Keitabear_82, Maruru_94, MoontowerMania_85, Nordenberg_83, Sonali_93,

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

- APunk_88, Abba_67, Abblin_88, Altadena_68, Amo99_73, Antares_66, Antuna_54, Appa_52, Ariadne_76, Arri_86, Bakery_90, Barb_89, BeagleBug_65, Belphegor_82, BigHunkinEater_88, Blett_52, Bolt007_71, BrazzalePHS_65, Brent_69, Bubbykins_37, Bumble_69, Busephilis_65, Bush_53, CalWood4100_74, Carrillo_54,

CherryCola_86, Chipper1996_370, Chocolat_37, Chubster_37, Cinna_64, Circuit_68, ClamChowder_88, Clawz_72, ClearAsMud_70, ColdSoup_73, Colucci_37, Conboy_37, CookieDog_52, CoveyB_87, Cranjls_67, CrazyRich_65, Cressida_67, Crisis_67, Danyall_86, Delrey21_88, DoctorFroggo_88, DonTron_72, DrYang_38, Dropshot_52, EMoore_81, EarickHC_67, EastWest_78, EdgarPoe_37, Egi03_84, Evamon_86, Fireball_89, Fireman_69, Franzy_67, Fugax_89, Ganandorf_65, Gezellig_82, Gina_70, Glorp_67, GoldDust_76, Gooberta_77, Grumio_72, Guzman_52, Halo3_85, Hermeonysus_66, Hirko_79, Honeyfin_67, HumptyDumpty_37, JaNo_37, Jakelyne_55, Jambalaya_83, JanetJ_27, Jawnski_68, JayCookie_37, Jayden_67, Jefe_66, Jollipop_67, Jollymon_72, KBurrousTX_37, Kabreeze_37, KaiHaiDragon_67, KimmyK_84, King2_67, KingstonB_73, Klevey_74, Kowalski_65, Kozi_64, Lilbeanie_97, Lilmac1015_74, Linus_37, LittleFortune_68, Losacky_54, Lucretia_66, Lymara_37, Makar_73, Margaery_63, Mariel_55, Matzah_66, Megan_63, MementoMori_65, MenE_54, Merry_, Metamorphoo_69, Mordred_37, MoyaNatalis_37, Mufasa8_98, Music_81, Mutzi_85, NCRodriguez_54, Nandito_73, Natkenzie_88, Nicole72_64, NoSwimming_30, NoodlelyBoi_67, Nostromo_67, Nubi_89, Onika_65, Paschalis_66, PhedwardCullen_64, PhillyJawn_53, Phingu_55, Phlop_83, Phonegingi_52, Phorgeous_66, Phrancesco_66, Pickles13_51, PierreOrion_66, PinkCoffee_87, PiperSansNom_67, Piperis_67, Portcullis_86, Prairie_70, PrincessTrina_37, Pulchra_68, PullumCavea_84, Pumpkiney_88, Purplicious_71, Quhwah_70, Ramiel05_65, RobsFeet_70, Rockwell_65, RogerDodger_89, RosiePosie_37, Salvador_86, Sampson_90, Savannah_65, Savbucketdawg_81, Scavito_37, Scioto_88, Scotia_30, Scumberland_68, Selwyn23_67, Shinji_85, Shotgun_66, Shrubaron_70, SirFrank_66, Skugga_66, Smarties_76, SmokingBunny_87, Soos_68, Stillion_72, Sting_71, Sunny_, Tardus_90, Teamocil_70, Terij_64, TillyBobJoe_84, Togo_86, Tonitrus_59, Tophat_37, Twister6_85, Tyumbra_65, Valary_87, VanDeWege_88, Verity_87, ViaConlectus_87, Vibaki_78, Violeta_54, Warren_52, Winchester007_68, Wizard_81, Yeti_68, YungMoney_85, Zapato_66, Zipp_88, Zitch_90,

Summary by start number:

Start 50:

- Found in 29 of 262 (11.1%) of genes in pham
- Manual Annotations of this start: 5 of 223
- Called 17.2% of time when present
- Phage (with cluster) where this start called: Charming_87 (DE1), Jabberwocky_83 (DE1), Keitabear_82 (DE1), MoontowerMania_85 (DE1), Nordenberg_83 (DE1),

Start 51:

- Found in 1 of 262 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mufasa8_98 (FG),

Start 52:

- Found in 20 of 262 (7.6%) of genes in pham
- Manual Annotations of this start: 9 of 223
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Appa_52 (GA), Blett_52 (GA), Bush_53 (GA), Carrillo_54 (GA), CookieDog_52 (GA), Dropshot_52 (GA), Guzman_52 (GA), Jakelyne_55 (GA), Mariel_55 (GA), MenE_54 (GA), NCRodriguez_54 (GA), PhillyJawn_53 (GA), Phingu_55 (GA), Phonegingi_52 (GA), Pickles13_51 (GA),

Violeta_54 (GA), Warren_52 (GA), Winchester007_68 (GA),

Start 56:

- Found in 38 of 262 (14.5%) of genes in pham
- Manual Annotations of this start: 2 of 223
- Called 5.3% of time when present
- Phage (with cluster) where this start called: Antuna_54 (GA), Losacky_54 (GA),

Start 57:

- Found in 59 of 262 (22.5%) of genes in pham
- Manual Annotations of this start: 52 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Antares_66 (EC), Ariadne_76 (EC), BeagleBug_65 (EC), BrazzalePHS_65 (EC), Busephilis_65 (EC), Cinna_64 (EI), ClearAsMud_70 (EC), Cranjis_67 (EC), CrazyRich_65 (EC), Cressida_67 (EI), Crisis_67 (EC), EarickHC_67 (EC), Fireman_69 (EC), Ganandorf_65 (EC), Gina_70 (EC), Glorp_67 (EC), Hermeonysus_66 (EC), Honeyfin_67 (EC), Jayden_67 (EC), Jefe_66 (EC), Jollipop_67 (EC), KaiHaiDragon_67 (EC), Kowalski_65 (EC), Kozié_64 (EI), LittleFortune_68 (EC), Lucretia_66 (EC), Margaery_63 (EI), Matzah_66 (EI), MementoMori_65 (EI), Merry_ (EC), Metamorphoo_69 (EC), NoodlelyBoi_67 (EC), Onika_65 (EC), Paschalis_66 (EC), PhedwardCullen_64 (EC), Phorgeous_66 (EC), Phrancesco_66 (EC), PierreOrion_66 (EC), PiperSansNom_67 (EC), Piperis_67 (EC), Pulchra_68 (EC), Quhwah_70 (EC), Ramiel05_65 (EC), RobsFeet_70 (EC), Rockwell_65 (EC), Savannah_65 (EC), Scumberland_68 (EC), Selwyn23_67 (EC), Shotgun_66 (EC), Shrubaron_70 (EC), SirFrank_66 (EC), Skugga_66 (EC), Smarties_76 (EC), Sunny_ (EC), Teamocil_70 (EC), Terij_64 (EI), Tyumbra_65 (EC), Yeti_68 (EC), Zapato_66 (EC),

Start 58:

- Found in 33 of 262 (12.6%) of genes in pham
- Manual Annotations of this start: 29 of 223
- Called 93.9% of time when present
- Phage (with cluster) where this start called: Arri_86 (DC1), Barb_89 (DC1), CherryCola_86 (DC1), ClamChowder_88 (DC1), CoveyB_87 (DC1), Danyall_86 (DC1), Evamon_86 (DC1), Fireball_89 (DC1), Fugax_89 (DC1), Gezellig_82 (DC1), Halo3_85 (DC1), Jambalaya_83 (DC1), KimmyK_84 (DC1), Mutzi_85 (DC1), Nubi_89 (DC1), Phlop_83 (DC1), PinkCoffee_87 (DC1), Portcullis_86 (DC1), PullumCavea_84 (DC1), RogerDodger_89 (DC1), Salvador_86 (DC1), Savbucketdawg_81 (DC1), Shinji_85 (DC1), SmokingBunny_87 (DC1), TillyBobJoe_84 (DC1), Togo_86 (DC1), Twister6_85 (DC1), Valary_87 (DC1), VanDeWege_88 (DC1), Wizard_81 (DC1), YungMoney_85 (DC1),

Start 60:

- Found in 2 of 262 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Maruru_94 (FG), Sonali_93 (FG),

Start 63:

- Found in 34 of 262 (13.0%) of genes in pham
- Manual Annotations of this start: 3 of 223
- Called 8.8% of time when present

- Phage (with cluster) where this start called: Bakery_90 (DC1), Egi03_84 (DC1), Nicole72_64 (EC),

Start 64:

- Found in 15 of 262 (5.7%) of genes in pham
- Manual Annotations of this start: 11 of 223
- Called 86.7% of time when present
- Phage (with cluster) where this start called: Abba_67 (AO3), Brent_69 (AO1), EastWest_78 (AO), Franzy_67 (AO1), GoldDust_76 (FL), Gooberta_77 (FL), Hirko_79 (FL), Jace_90 (singleton), Jawnski_68 (AO1), King2_67 (AO1), Music_81 (FL), Nostromo_67 (AO3), Vibaki_78 (FL),

Start 65:

- Found in 14 of 262 (5.3%) of genes in pham
- Manual Annotations of this start: 9 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk_88 (DE4), Abblin_88 (DE4), BigHunkinEater_88 (DE4), Delrey21_88 (DE4), DoctorFroggo_88 (DE4), Natkenzie_88 (DE4), Pumpkiney_88 (DE4), Sampson_90 (DE4), Scioto_88 (DE4), Tardus_90 (DE4), Verity_87 (DE4), ViaConlectus_87 (DE4), Zipp_88 (DE4), Zitch_90 (DE4),

Start 66:

- Found in 2 of 262 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Belphegor_82 (DE2), EMOore_81 (DE2),

Start 68:

- Found in 72 of 262 (27.5%) of genes in pham
- Manual Annotations of this start: 61 of 223
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Affeca_86 (DE1), Ailee_82 (DE1), Ali17_83 (DE2), Angelicage_83 (DE1), Ashertheman_84 (DE1), Baddon_82 (DE1), Barsten_87 (DE1), Baumdotcom_83 (DE1), Bibwit_82 (DE1), Bizzy_84 (DE1), BobBob_86 (DE1), Brandonk123_88 (DE1), ChadMasterC_83 (DE1), Chickadee_87 (DE3), Derg_77 (DE1), Dextert_82 (DE3), EdmundFerry_85 (DE3), Fitzgerald_82 (DE1), Flatwoods_84 (DE1), Fosterous_86 (DE1), FuegoCuervo_89 (DE1), GTE6_86 (DE3), Gaea_85 (DE1), Galadriel_85 (DE1), Geodirt_84 (DE1), Gustavo_86 (DE1), Hans_87 (DE2), Inspectinfecti_87 (DE2), JKSyngboy_81 (DE1), Kamashten_85 (DE1), Kewpiedoll_85 (DE1), Kroos_84 (DE1), Kwekel_87 (DE3), Kwobi_86 (DE1), Lennon_84 (DE1), Leonard_86 (DE2), LilHam_78 (DE1), Love_90 (DE1), McCrothy_83 (DE1), McKinley_87 (DE1), MelBins_88 (DE2), Paries_88 (DE1), Phauci_78 (DE2), Phinally_86 (DE2), Ribeye_84 (DE1), RiverRaider_86 (DE1), RoadKill_84 (DE3), Rofo_84 (DE1), Sanjuju_82 (DE1), Saronaya_86 (DE1), SchottB_83 (DE1), Sedona_82 (DE1), Shivanishola_86 (DE1), Sitar_83 (DE1), StorminNorm_85 (DE1), Stultus_79 (DE1), Tangent_87 (DE1), Tangerine_84 (DE1), Thing3_85 (DE1), Tiamoceli_80 (DE3), Twonlo_84 (DE3), Tycho_84 (DE1), Vivi2_88 (DE1), YorkOnyx_83 (DE1),

Start 69:

- Found in 1 of 262 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 223

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Tonitrus_59 (singleton),

Start 70:

- Found in 1 of 262 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Megan_63 (EC),

Start 71:

- Found in 1 of 262 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Lilbeanie_97 (DE5),

Start 75:

- Found in 3 of 262 (1.1%) of genes in pham
- Manual Annotations of this start: 3 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altadena_68 (FH), Bumble_69 (FH), Circuit_68 (FH),

Start 79:

- Found in 6 of 262 (2.3%) of genes in pham
- Manual Annotations of this start: 4 of 223
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bolt007_71 (FH), CalWood4100_74 (FH), Klevey_74 (FH), Lilmac1015_74 (FH), Nandito_73 (FH), Prairie_70 (FH),

Start 86:

- Found in 47 of 262 (17.9%) of genes in pham
- Manual Annotations of this start: 5 of 223
- Called 27.7% of time when present
- Phage (with cluster) where this start called: Amo99_73 (CP), Bubbykins_37 (UNK), Clawz_72 (CP), ColdSoup_73 (CP), DonTron_72 (CP), Grumio_72 (CP), Jollymon_72 (CP), KingstonB_73 (CP), Makar_73 (CP), Purplicious_71 (CP), Soos_68 (CP), Stillion_72 (CP), Sting_71 (CP),

Start 87:

- Found in 22 of 262 (8.4%) of genes in pham
- Manual Annotations of this start: 19 of 223
- Called 90.9% of time when present
- Phage (with cluster) where this start called: Chipper1996_370 (AR), Chocolat_37 (AR), Chubster_37 (AR), Colucci_37 (AR), Conboy_37 (AR), DrYang_38 (AR), EdgarPoe_37 (AR), HumptyDumpty_37 (AR), JaNo_37 (AR), JayCookie_37 (AR), KBurrousTX_37 (AR), Kabreeze_37 (AR), Linus_37 (AR), Lymara_37 (AR), Mordred_37 (AR), MoyaNatalis_37 (AR), PrincessTrina_37 (AR), RosiePosie_37 (AR), Scavito_37 (AR), Tophat_37 (AR),

Start 88:

- Found in 3 of 262 (1.1%) of genes in pham
- Manual Annotations of this start: 3 of 223
- Called 100.0% of time when present

- Phage (with cluster) where this start called: JanetJ_27 (FO), NoSwimming_30 (FO), Scotia_30 (FO),

Summary by clusters:

There are 20 clusters represented in this pham: singleton, CP, EI, AO1, DE1, DE2, DE3, DE4, DE5, EC, AR, AO3, AO, GA, FG, FH, UNK, DC1, FL, FO,

Info for manual annotations of cluster AO:

- Start number 64 was manually annotated 1 time for cluster AO.

Info for manual annotations of cluster AO1:

- Start number 64 was manually annotated 4 times for cluster AO1.

Info for manual annotations of cluster AO3:

- Start number 64 was manually annotated 2 times for cluster AO3.

Info for manual annotations of cluster AR:

- Start number 87 was manually annotated 19 times for cluster AR.

Info for manual annotations of cluster CP:

- Start number 86 was manually annotated 5 times for cluster CP.

Info for manual annotations of cluster DC1:

- Start number 58 was manually annotated 29 times for cluster DC1.
- Start number 63 was manually annotated 2 times for cluster DC1.

Info for manual annotations of cluster DE1:

- Start number 50 was manually annotated 5 times for cluster DE1.
- Start number 68 was manually annotated 47 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 66 was manually annotated 2 times for cluster DE2.
- Start number 68 was manually annotated 7 times for cluster DE2.

Info for manual annotations of cluster DE3:

- Start number 68 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 65 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 71 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster EC:

- Start number 57 was manually annotated 45 times for cluster EC.
- Start number 63 was manually annotated 1 time for cluster EC.
- Start number 70 was manually annotated 1 time for cluster EC.

Info for manual annotations of cluster EI:

- Start number 57 was manually annotated 7 times for cluster EI.

Info for manual annotations of cluster FG:

- Start number 51 was manually annotated 1 time for cluster FG.
- Start number 60 was manually annotated 2 times for cluster FG.

Info for manual annotations of cluster FH:

- Start number 75 was manually annotated 3 times for cluster FH.
- Start number 79 was manually annotated 4 times for cluster FH.

Info for manual annotations of cluster FL:

- Start number 64 was manually annotated 3 times for cluster FL.

Info for manual annotations of cluster FO:

- Start number 88 was manually annotated 3 times for cluster FO.

Info for manual annotations of cluster GA:

- Start number 52 was manually annotated 9 times for cluster GA.
- Start number 56 was manually annotated 2 times for cluster GA.

Gene Information:

Gene: APunk_88 Start: 58714, Stop: 58983, Start Num: 65

Candidate Starts for APunk_88:

(46, 58669), (Start: 65 @58714 has 9 MA's), (76, 58732), (90, 58783), (104, 58861),

Gene: Abba_67 Start: 42825, Stop: 42538, Start Num: 64

Candidate Starts for Abba_67:

(Start: 64 @42825 has 11 MA's), (113, 42639), (125, 42555),

Gene: Abblin_88 Start: 58873, Stop: 59145, Start Num: 65

Candidate Starts for Abblin_88:

(23, 58672), (25, 58681), (28, 58693), (31, 58699), (Start: 65 @58873 has 9 MA's), (90, 58942), (104, 59020),

Gene: Affeca_86 Start: 58157, Stop: 58420, Start Num: 68

Candidate Starts for Affeca_86:

(Start: 50 @58124 has 5 MA's), (Start: 68 @58157 has 61 MA's), (90, 58220), (104, 58301),

Gene: Ailee_82 Start: 57328, Stop: 57591, Start Num: 68

Candidate Starts for Ailee_82:

(Start: 50 @57295 has 5 MA's), (Start: 68 @57328 has 61 MA's), (90, 57391), (104, 57472),

Gene: Ali17_83 Start: 57614, Stop: 57865, Start Num: 68

Candidate Starts for Ali17_83:

(Start: 68 @57614 has 61 MA's), (90, 57677), (100, 57737), (101, 57743), (104, 57755), (105, 57758),

Gene: Altadena_68 Start: 43198, Stop: 42947, Start Num: 75

Candidate Starts for Altadena_68:

(Start: 75 @43198 has 3 MA's), (117, 42994),

Gene: Amo99_73 Start: 48277, Stop: 48501, Start Num: 86

Candidate Starts for Amo99_73:

(Start: 86 @48277 has 5 MA's), (98, 48349), (99, 48355), (108, 48391), (113, 48415), (114, 48424), (123, 48493),

Gene: Angelicage_83 Start: 58231, Stop: 58494, Start Num: 68

Candidate Starts for Angelicage_83:

(Start: 50 @58198 has 5 MA's), (Start: 68 @58231 has 61 MA's), (90, 58294), (104, 58375),

Gene: Antares_66 Start: 41631, Stop: 41924, Start Num: 57

Candidate Starts for Antares_66:

(48, 41607), (Start: 57 @41631 has 52 MA's), (90, 41709), (105, 41772), (108, 41787), (109, 41790),

Gene: Antuna_54 Start: 32652, Stop: 32918, Start Num: 56

Candidate Starts for Antuna_54:

(33, 32508), (Start: 52 @32643 has 9 MA's), (Start: 56 @32652 has 2 MA's), (Start: 86 @32709 has 5 MA's), (90, 32733), (92, 32739), (113, 32832),

Gene: Appa_52 Start: 32408, Stop: 32683, Start Num: 52

Candidate Starts for Appa_52:

(6, 32012), (12, 32087), (33, 32273), (Start: 52 @32408 has 9 MA's), (Start: 56 @32417 has 2 MA's), (Start: 86 @32474 has 5 MA's), (90, 32498), (92, 32504), (113, 32597),

Gene: Ariadne_76 Start: 43251, Stop: 43544, Start Num: 57

Candidate Starts for Ariadne_76:

(Start: 57 @43251 has 52 MA's), (90, 43329), (105, 43392), (109, 43410),

Gene: Arri_86 Start: 56263, Stop: 56015, Start Num: 58

Candidate Starts for Arri_86:

(10, 56575), (16, 56497), (19, 56476), (32, 56404), (48, 56290), (Start: 58 @56263 has 29 MA's), (Start: 63 @56254 has 3 MA's), (77, 56236), (93, 56179), (110, 56104), (117, 56056),

Gene: Ashertheman_84 Start: 56563, Stop: 56823, Start Num: 68

Candidate Starts for Ashertheman_84:

(Start: 68 @56563 has 61 MA's), (90, 56626), (104, 56707), (113, 56746),

Gene: Baddon_82 Start: 57243, Stop: 57506, Start Num: 68

Candidate Starts for Baddon_82:

(Start: 50 @57210 has 5 MA's), (Start: 68 @57243 has 61 MA's), (90, 57306), (104, 57387),

Gene: Bakery_90 Start: 58633, Stop: 58391, Start Num: 63

Candidate Starts for Bakery_90:

(5, 59074), (14, 58915), (22, 58846), (26, 58822), (27, 58819), (47, 58666), (Start: 58 @58639 has 29 MA's), (61, 58636), (Start: 63 @58633 has 3 MA's), (77, 58615), (93, 58558), (117, 58435),

Gene: Barb_89 Start: 56790, Stop: 56539, Start Num: 58

Candidate Starts for Barb_89:

(7, 57147), (9, 57120), (17, 57021), (20, 56997), (21, 56994), (32, 56931), (48, 56817), (Start: 58 @56790 has 29 MA's), (Start: 63 @56781 has 3 MA's), (77, 56763), (93, 56706), (110, 56631), (117, 56583),

Gene: Barsten_87 Start: 58499, Stop: 58765, Start Num: 68

Candidate Starts for Barsten_87:

(Start: 50 @58466 has 5 MA's), (Start: 68 @58499 has 61 MA's), (90, 58562), (104, 58643), (120, 58745),

Gene: Baumdotcom_83 Start: 56963, Stop: 57223, Start Num: 68
Candidate Starts for Baumdotcom_83:
(Start: 68 @56963 has 61 MA's), (90, 57026), (104, 57107), (113, 57146),

Gene: BeagleBug_65 Start: 41411, Stop: 41704, Start Num: 57
Candidate Starts for BeagleBug_65:
(Start: 57 @41411 has 52 MA's), (90, 41489), (105, 41552), (108, 41567), (109, 41570),

Gene: Belphegor_82 Start: 58991, Stop: 59245, Start Num: 66
Candidate Starts for Belphegor_82:
(Start: 66 @58991 has 2 MA's), (90, 59057), (104, 59135), (112, 59168),

Gene: Bibwit_82 Start: 56692, Stop: 56955, Start Num: 68
Candidate Starts for Bibwit_82:
(Start: 50 @56659 has 5 MA's), (Start: 68 @56692 has 61 MA's), (90, 56755), (104, 56836),

Gene: BigHunkinEater_88 Start: 58349, Stop: 58618, Start Num: 65
Candidate Starts for BigHunkinEater_88:
(Start: 65 @58349 has 9 MA's), (76, 58367), (90, 58418), (104, 58496),

Gene: Bizzy_84 Start: 56320, Stop: 56580, Start Num: 68
Candidate Starts for Bizzy_84:
(Start: 68 @56320 has 61 MA's), (90, 56383), (104, 56464), (113, 56503),

Gene: Blett_52 Start: 32593, Stop: 32868, Start Num: 52
Candidate Starts for Blett_52:
(2, 32110), (3, 32137), (33, 32458), (Start: 52 @32593 has 9 MA's), (Start: 56 @32602 has 2 MA's),
(Start: 86 @32659 has 5 MA's), (90, 32683), (92, 32689), (113, 32782),

Gene: BobBob_86 Start: 57531, Stop: 57794, Start Num: 68
Candidate Starts for BobBob_86:
(Start: 50 @57498 has 5 MA's), (Start: 68 @57531 has 61 MA's), (90, 57594), (104, 57675),

Gene: Bolt007_71 Start: 45075, Stop: 44833, Start Num: 79
Candidate Starts for Bolt007_71:
(Start: 79 @45075 has 4 MA's),

Gene: Brandonk123_88 Start: 57696, Stop: 57959, Start Num: 68
Candidate Starts for Brandonk123_88:
(Start: 50 @57663 has 5 MA's), (Start: 68 @57696 has 61 MA's), (90, 57759), (104, 57840),

Gene: BrazzalePHS_65 Start: 41393, Stop: 41692, Start Num: 57
Candidate Starts for BrazzalePHS_65:
(Start: 57 @41393 has 52 MA's), (72, 41423), (105, 41540), (108, 41555), (109, 41558),

Gene: Brent_69 Start: 46039, Stop: 45731, Start Num: 64
Candidate Starts for Brent_69:
(Start: 64 @46039 has 11 MA's), (82, 46000), (90, 45964),

Gene: Bubbykins_37 Start: 28274, Stop: 28059, Start Num: 86
Candidate Starts for Bubbykins_37:

(41, 28391), (43, 28385), (44, 28382), (45, 28376), (49, 28361), (54, 28346), (67, 28322), (Start: 86 @28274 has 5 MA's), (96, 28214), (102, 28184), (110, 28154), (111, 28151),

Gene: Bumble_69 Start: 44314, Stop: 44069, Start Num: 75

Candidate Starts for Bumble_69:

(Start: 75 @44314 has 3 MA's), (117, 44116),

Gene: Busephilis_65 Start: 41338, Stop: 41631, Start Num: 57

Candidate Starts for Busephilis_65:

(48, 41314), (Start: 57 @41338 has 52 MA's), (90, 41416), (105, 41479), (108, 41494), (109, 41497),

Gene: Bush_53 Start: 32542, Stop: 32817, Start Num: 52

Candidate Starts for Bush_53:

(33, 32407), (Start: 52 @32542 has 9 MA's), (Start: 56 @32551 has 2 MA's), (Start: 86 @32608 has 5 MA's), (90, 32632), (92, 32638), (113, 32731),

Gene: CalWood4100_74 Start: 45377, Stop: 45132, Start Num: 79

Candidate Starts for CalWood4100_74:

(37, 45521), (Start: 79 @45377 has 4 MA's),

Gene: Carrillo_54 Start: 32516, Stop: 32791, Start Num: 52

Candidate Starts for Carrillo_54:

(33, 32381), (Start: 52 @32516 has 9 MA's), (Start: 56 @32525 has 2 MA's), (Start: 86 @32582 has 5 MA's), (90, 32606), (92, 32612), (113, 32705),

Gene: ChadMasterC_83 Start: 58686, Stop: 58949, Start Num: 68

Candidate Starts for ChadMasterC_83:

(Start: 50 @58653 has 5 MA's), (Start: 68 @58686 has 61 MA's), (90, 58749), (104, 58830),

Gene: Charming_87 Start: 56965, Stop: 57264, Start Num: 50

Candidate Starts for Charming_87:

(Start: 50 @56965 has 5 MA's), (Start: 68 @56998 has 61 MA's), (90, 57061), (104, 57142), (120, 57244),

Gene: CherryCola_86 Start: 56676, Stop: 56428, Start Num: 58

Candidate Starts for CherryCola_86:

(10, 56988), (16, 56910), (19, 56889), (32, 56817), (48, 56703), (Start: 58 @56676 has 29 MA's), (Start: 63 @56667 has 3 MA's), (77, 56649), (93, 56592), (110, 56517), (117, 56469),

Gene: Chickadee_87 Start: 56050, Stop: 56301, Start Num: 68

Candidate Starts for Chickadee_87:

(Start: 68 @56050 has 61 MA's), (Start: 86 @56089 has 5 MA's), (90, 56113), (100, 56173), (115, 56248),

Gene: Chipper1996_370 Start: 30385, Stop: 30167, Start Num: 87

Candidate Starts for Chipper1996_370:

(39, 30535), (43, 30490), (44, 30487), (Start: 56 @30448 has 2 MA's), (73, 30415), (Start: 87 @30385 has 19 MA's), (90, 30364), (96, 30328), (98, 30313), (102, 30298), (105, 30286),

Gene: Chocolat_37 Start: 30385, Stop: 30167, Start Num: 87

Candidate Starts for Chocolat_37:

(39, 30535), (43, 30490), (44, 30487), (Start: 56 @30448 has 2 MA's), (73, 30415), (Start: 87 @30385 has 19 MA's), (90, 30364), (96, 30328), (98, 30313), (102, 30298), (105, 30286),

Gene: Chubster_37 Start: 30157, Stop: 29939, Start Num: 87

Candidate Starts for Chubster_37:

(39, 30307), (43, 30262), (44, 30259), (Start: 56 @30220 has 2 MA's), (73, 30187), (Start: 87 @30157 has 19 MA's), (90, 30136), (96, 30100), (98, 30085), (102, 30070), (105, 30058),

Gene: Cinna_64 Start: 43061, Stop: 43273, Start Num: 57

Candidate Starts for Cinna_64:

(Start: 57 @43061 has 52 MA's), (Start: 86 @43103 has 5 MA's), (105, 43190), (113, 43226),

Gene: Circuit_68 Start: 44623, Stop: 44378, Start Num: 75

Candidate Starts for Circuit_68:

(30, 44824), (34, 44797), (Start: 75 @44623 has 3 MA's), (117, 44425),

Gene: ClamChowder_88 Start: 56790, Stop: 56539, Start Num: 58

Candidate Starts for ClamChowder_88:

(7, 57147), (9, 57120), (17, 57021), (20, 56997), (21, 56994), (32, 56931), (48, 56817), (Start: 58 @56790 has 29 MA's), (Start: 63 @56781 has 3 MA's), (77, 56763), (93, 56706), (110, 56631), (117, 56583),

Gene: Clawz_72 Start: 48155, Stop: 48379, Start Num: 86

Candidate Starts for Clawz_72:

(Start: 64 @48107 has 11 MA's), (Start: 86 @48155 has 5 MA's), (98, 48227), (99, 48233), (104, 48251), (105, 48254), (108, 48269), (113, 48293), (123, 48371),

Gene: ClearAsMud_70 Start: 41913, Stop: 42206, Start Num: 57

Candidate Starts for ClearAsMud_70:

(Start: 57 @41913 has 52 MA's), (76, 41940), (90, 41991), (105, 42054), (109, 42072),

Gene: ColdSoup_73 Start: 48358, Stop: 48582, Start Num: 86

Candidate Starts for ColdSoup_73:

(Start: 86 @48358 has 5 MA's), (98, 48430), (99, 48436), (108, 48472), (113, 48496), (114, 48505), (123, 48574),

Gene: Colucci_37 Start: 29963, Stop: 29742, Start Num: 87

Candidate Starts for Colucci_37:

(18, 30272), (24, 30215), (29, 30194), (Start: 56 @30026 has 2 MA's), (59, 30020), (81, 29981), (Start: 87 @29963 has 19 MA's), (98, 29891), (102, 29876), (105, 29864), (111, 29843),

Gene: Conboy_37 Start: 30384, Stop: 30166, Start Num: 87

Candidate Starts for Conboy_37:

(39, 30534), (43, 30489), (44, 30486), (Start: 56 @30447 has 2 MA's), (73, 30414), (Start: 87 @30384 has 19 MA's), (90, 30363), (96, 30327), (98, 30312), (102, 30297), (105, 30285),

Gene: CookieDog_52 Start: 32516, Stop: 32791, Start Num: 52

Candidate Starts for CookieDog_52:

(6, 32120), (12, 32195), (33, 32381), (Start: 52 @32516 has 9 MA's), (Start: 56 @32525 has 2 MA's), (Start: 86 @32582 has 5 MA's), (90, 32606), (92, 32612), (113, 32705),

Gene: CoveyB_87 Start: 56277, Stop: 56026, Start Num: 58

Candidate Starts for CoveyB_87:

(7, 56634), (9, 56607), (17, 56508), (20, 56484), (21, 56481), (32, 56418), (48, 56304), (Start: 58 @56277 has 29 MA's), (Start: 63 @56268 has 3 MA's), (77, 56250), (93, 56193), (110, 56118), (117,

56070),

Gene: Cranjjs_67 Start: 41586, Stop: 41879, Start Num: 57

Candidate Starts for Cranjjs_67:

(Start: 57 @41586 has 52 MA's), (90, 41664), (105, 41727), (108, 41742), (109, 41745),

Gene: CrazyRich_65 Start: 41392, Stop: 41685, Start Num: 57

Candidate Starts for CrazyRich_65:

(48, 41368), (Start: 57 @41392 has 52 MA's), (90, 41470), (105, 41533), (108, 41548), (109, 41551),

Gene: Cressida_67 Start: 42667, Stop: 42879, Start Num: 57

Candidate Starts for Cressida_67:

(Start: 57 @42667 has 52 MA's), (Start: 86 @42709 has 5 MA's), (105, 42796), (113, 42832),

Gene: Crisis_67 Start: 41401, Stop: 41694, Start Num: 57

Candidate Starts for Crisis_67:

(48, 41377), (Start: 57 @41401 has 52 MA's), (90, 41479), (105, 41542), (108, 41557), (109, 41560),

Gene: Danyall_86 Start: 55971, Stop: 55720, Start Num: 58

Candidate Starts for Danyall_86:

(7, 56328), (9, 56301), (17, 56202), (20, 56178), (21, 56175), (32, 56112), (48, 55998), (Start: 58 @55971 has 29 MA's), (Start: 63 @55962 has 3 MA's), (77, 55944), (93, 55887), (110, 55812), (117, 55764),

Gene: Delrey21_88 Start: 60349, Stop: 60621, Start Num: 65

Candidate Starts for Delrey21_88:

(46, 60304), (Start: 65 @60349 has 9 MA's), (76, 60367), (90, 60418), (104, 60496), (114, 60544),

Gene: Derg_77 Start: 55217, Stop: 55477, Start Num: 68

Candidate Starts for Derg_77:

(Start: 68 @55217 has 61 MA's), (90, 55280), (104, 55361), (113, 55400),

Gene: Dxdert_82 Start: 54559, Stop: 54810, Start Num: 68

Candidate Starts for Dxdert_82:

(Start: 68 @54559 has 61 MA's), (Start: 86 @54598 has 5 MA's), (90, 54622), (100, 54682), (115, 54757),

Gene: DoctorFroggo_88 Start: 60349, Stop: 60621, Start Num: 65

Candidate Starts for DoctorFroggo_88:

(46, 60304), (Start: 65 @60349 has 9 MA's), (76, 60367), (90, 60418), (104, 60496), (114, 60544),

Gene: DonTron_72 Start: 48395, Stop: 48619, Start Num: 86

Candidate Starts for DonTron_72:

(Start: 86 @48395 has 5 MA's), (98, 48467), (99, 48473), (108, 48509), (113, 48533), (114, 48542), (123, 48611),

Gene: DrYang_38 Start: 31723, Stop: 31505, Start Num: 87

Candidate Starts for DrYang_38:

(Start: 87 @31723 has 19 MA's), (95, 31675), (96, 31666), (98, 31651), (102, 31636), (105, 31624), (118, 31549),

Gene: Dropshot_52 Start: 32243, Stop: 32518, Start Num: 52

Candidate Starts for Dropshot_52:

(6, 31847), (12, 31922), (33, 32108), (Start: 52 @32243 has 9 MA's), (Start: 56 @32252 has 2 MA's), (Start: 86 @32309 has 5 MA's), (90, 32333), (92, 32339), (113, 32432),

Gene: EMoore_81 Start: 58164, Stop: 58421, Start Num: 66

Candidate Starts for EMoore_81:

(Start: 66 @58164 has 2 MA's), (76, 58179), (90, 58230), (104, 58308), (112, 58341),

Gene: EarickHC_67 Start: 41323, Stop: 41616, Start Num: 57

Candidate Starts for EarickHC_67:

(Start: 57 @41323 has 52 MA's), (90, 41401), (105, 41464), (108, 41479), (109, 41482),

Gene: EastWest_78 Start: 46071, Stop: 45799, Start Num: 64

Candidate Starts for EastWest_78:

(Start: 64 @46071 has 11 MA's), (90, 46002), (103, 45927), (117, 45852),

Gene: EdgarPoe_37 Start: 30384, Stop: 30166, Start Num: 87

Candidate Starts for EdgarPoe_37:

(39, 30534), (43, 30489), (44, 30486), (Start: 56 @30447 has 2 MA's), (73, 30414), (Start: 87 @30384 has 19 MA's), (90, 30363), (96, 30327), (98, 30312), (102, 30297), (105, 30285),

Gene: EdmundFerry_85 Start: 55426, Stop: 55677, Start Num: 68

Candidate Starts for EdmundFerry_85:

(Start: 68 @55426 has 61 MA's), (Start: 86 @55465 has 5 MA's), (90, 55489), (100, 55549), (115, 55624),

Gene: Egi03_84 Start: 55689, Stop: 55450, Start Num: 63

Candidate Starts for Egi03_84:

(10, 56010), (16, 55932), (19, 55911), (32, 55839), (48, 55725), (Start: 58 @55698 has 29 MA's), (Start: 63 @55689 has 3 MA's), (77, 55671), (93, 55614), (110, 55539), (117, 55491),

Gene: Evamon_86 Start: 56075, Stop: 55827, Start Num: 58

Candidate Starts for Evamon_86:

(10, 56387), (16, 56309), (32, 56216), (48, 56102), (Start: 58 @56075 has 29 MA's), (Start: 63 @56066 has 3 MA's), (77, 56048), (93, 55991), (110, 55916), (117, 55868),

Gene: Fireball_89 Start: 56537, Stop: 56289, Start Num: 58

Candidate Starts for Fireball_89:

(10, 56849), (16, 56771), (19, 56750), (32, 56678), (48, 56564), (Start: 58 @56537 has 29 MA's), (Start: 63 @56528 has 3 MA's), (77, 56510), (93, 56453), (110, 56378), (117, 56330),

Gene: Fireman_69 Start: 43363, Stop: 43656, Start Num: 57

Candidate Starts for Fireman_69:

(Start: 57 @43363 has 52 MA's), (90, 43441), (105, 43504), (109, 43522),

Gene: Fitzgerald_82 Start: 57842, Stop: 58105, Start Num: 68

Candidate Starts for Fitzgerald_82:

(Start: 50 @57809 has 5 MA's), (Start: 68 @57842 has 61 MA's), (90, 57905), (104, 57986),

Gene: Flatwoods_84 Start: 56131, Stop: 56391, Start Num: 68

Candidate Starts for Flatwoods_84:

(Start: 68 @56131 has 61 MA's), (90, 56194), (104, 56275), (113, 56314),

Gene: Fosterous_86 Start: 57990, Stop: 58253, Start Num: 68

Candidate Starts for Fosterous_86:

(45, 57939), (Start: 68 @57990 has 61 MA's), (90, 58053), (104, 58134),

Gene: Franzy_67 Start: 46121, Stop: 45813, Start Num: 64

Candidate Starts for Franzy_67:

(Start: 64 @46121 has 11 MA's), (82, 46082), (90, 46046),

Gene: FuegoCuervo_89 Start: 58028, Stop: 58291, Start Num: 68

Candidate Starts for FuegoCuervo_89:

(Start: 50 @57995 has 5 MA's), (Start: 68 @58028 has 61 MA's), (90, 58091), (104, 58172),

Gene: Fugax_89 Start: 56782, Stop: 56531, Start Num: 58

Candidate Starts for Fugax_89:

(7, 57139), (9, 57112), (17, 57013), (20, 56989), (21, 56986), (32, 56923), (48, 56809), (Start: 58 @56782 has 29 MA's), (Start: 63 @56773 has 3 MA's), (77, 56755), (93, 56698), (110, 56623), (117, 56575),

Gene: GTE6_86 Start: 56599, Stop: 56850, Start Num: 68

Candidate Starts for GTE6_86:

(Start: 68 @56599 has 61 MA's), (Start: 86 @56638 has 5 MA's), (90, 56662), (100, 56722), (115, 56797),

Gene: Gaea_85 Start: 56481, Stop: 56741, Start Num: 68

Candidate Starts for Gaea_85:

(Start: 68 @56481 has 61 MA's), (90, 56544), (104, 56625),

Gene: Galadriel_85 Start: 58206, Stop: 58469, Start Num: 68

Candidate Starts for Galadriel_85:

(45, 58155), (Start: 68 @58206 has 61 MA's), (90, 58269), (104, 58350),

Gene: Ganandorf_65 Start: 41419, Stop: 41712, Start Num: 57

Candidate Starts for Ganandorf_65:

(48, 41395), (Start: 57 @41419 has 52 MA's), (90, 41497), (105, 41560), (108, 41575), (109, 41578),

Gene: Geodirt_84 Start: 58493, Stop: 58759, Start Num: 68

Candidate Starts for Geodirt_84:

(Start: 50 @58460 has 5 MA's), (Start: 68 @58493 has 61 MA's), (90, 58556), (104, 58637), (120, 58739),

Gene: Gezellig_82 Start: 55921, Stop: 55673, Start Num: 58

Candidate Starts for Gezellig_82:

(10, 56233), (16, 56155), (19, 56134), (32, 56062), (48, 55948), (Start: 58 @55921 has 29 MA's), (Start: 63 @55912 has 3 MA's), (77, 55894), (93, 55837), (110, 55762), (117, 55714),

Gene: Gina_70 Start: 41480, Stop: 41773, Start Num: 57

Candidate Starts for Gina_70:

(38, 41387), (Start: 57 @41480 has 52 MA's), (90, 41558), (105, 41621), (109, 41639),

Gene: Glorp_67 Start: 41383, Stop: 41676, Start Num: 57

Candidate Starts for Glorp_67:

(48, 41359), (Start: 57 @41383 has 52 MA's), (90, 41461), (105, 41524), (108, 41539), (109, 41542),

Gene: GoldDust_76 Start: 48481, Stop: 48173, Start Num: 64

Candidate Starts for GoldDust_76:

(Start: 64 @48481 has 11 MA's), (101, 48340), (108, 48310), (124, 48211), (126, 48196),

Gene: Gooberta_77 Start: 49208, Stop: 48900, Start Num: 64

Candidate Starts for Gooberta_77:

(Start: 64 @49208 has 11 MA's), (101, 49067), (108, 49037), (124, 48938), (126, 48923),

Gene: Grumio_72 Start: 47836, Stop: 48060, Start Num: 86

Candidate Starts for Grumio_72:

(Start: 86 @47836 has 5 MA's), (98, 47908), (99, 47914), (108, 47950), (113, 47974), (114, 47983),
(123, 48052),

Gene: Gustavo_86 Start: 57313, Stop: 57573, Start Num: 68

Candidate Starts for Gustavo_86:

(Start: 68 @57313 has 61 MA's), (90, 57376), (104, 57457),

Gene: Guzman_52 Start: 32499, Stop: 32774, Start Num: 52

Candidate Starts for Guzman_52:

(6, 32103), (12, 32178), (33, 32364), (Start: 52 @32499 has 9 MA's), (Start: 56 @32508 has 2 MA's),
(Start: 86 @32565 has 5 MA's), (90, 32589), (92, 32595), (113, 32688),

Gene: Halo3_85 Start: 56796, Stop: 56545, Start Num: 58

Candidate Starts for Halo3_85:

(10, 57108), (16, 57030), (32, 56937), (48, 56823), (Start: 58 @56796 has 29 MA's), (Start: 63 @56787
has 3 MA's), (77, 56769), (93, 56712), (110, 56637), (117, 56589),

Gene: Hans_87 Start: 58571, Stop: 58822, Start Num: 68

Candidate Starts for Hans_87:

(Start: 68 @58571 has 61 MA's), (90, 58634), (100, 58694), (101, 58700), (104, 58712), (105, 58715),

Gene: Hermeonysus_66 Start: 41314, Stop: 41607, Start Num: 57

Candidate Starts for Hermeonysus_66:

(Start: 57 @41314 has 52 MA's), (90, 41392), (105, 41455), (108, 41470), (109, 41473),

Gene: Hirko_79 Start: 48513, Stop: 48205, Start Num: 64

Candidate Starts for Hirko_79:

(Start: 64 @48513 has 11 MA's),

Gene: Honeyfin_67 Start: 41574, Stop: 41867, Start Num: 57

Candidate Starts for Honeyfin_67:

(48, 41550), (Start: 57 @41574 has 52 MA's), (90, 41652), (105, 41715), (108, 41730), (109, 41733),

Gene: HumptyDumpty_37 Start: 30383, Stop: 30165, Start Num: 87

Candidate Starts for HumptyDumpty_37:

(39, 30533), (43, 30488), (44, 30485), (Start: 56 @30446 has 2 MA's), (73, 30413), (Start: 87 @30383
has 19 MA's), (90, 30362), (96, 30326), (98, 30311), (102, 30296), (105, 30284),

Gene: Inspectinfecti_87 Start: 58519, Stop: 58770, Start Num: 68

Candidate Starts for Inspectinfecti_87:

(Start: 68 @58519 has 61 MA's), (90, 58582), (100, 58642), (101, 58648), (104, 58660), (105, 58663),

Gene: JKSyngboy_81 Start: 56985, Stop: 57245, Start Num: 68

Candidate Starts for JKSyngboy_81:

(Start: 68 @56985 has 61 MA's), (90, 57048), (104, 57129), (113, 57168),

Gene: JaNo_37 Start: 30383, Stop: 30165, Start Num: 87

Candidate Starts for JaNo_37:

(39, 30533), (43, 30488), (44, 30485), (Start: 56 @30446 has 2 MA's), (73, 30413), (Start: 87 @30383 has 19 MA's), (90, 30362), (96, 30326), (98, 30311), (102, 30296), (105, 30284),

Gene: Jabberwocky_83 Start: 58270, Stop: 58566, Start Num: 50

Candidate Starts for Jabberwocky_83:

(Start: 50 @58270 has 5 MA's), (Start: 68 @58303 has 61 MA's), (90, 58366), (104, 58447),

Gene: Jace_90 Start: 50456, Stop: 50166, Start Num: 64

Candidate Starts for Jace_90:

(35, 50609), (Start: 64 @50456 has 11 MA's), (Start: 68 @50450 has 61 MA's), (78, 50429), (117, 50234), (122, 50192),

Gene: Jakelyne_55 Start: 32609, Stop: 32884, Start Num: 52

Candidate Starts for Jakelyne_55:

(33, 32474), (Start: 52 @32609 has 9 MA's), (Start: 56 @32618 has 2 MA's), (Start: 86 @32675 has 5 MA's), (90, 32699), (92, 32705), (113, 32798),

Gene: Jambalaya_83 Start: 55378, Stop: 55127, Start Num: 58

Candidate Starts for Jambalaya_83:

(4, 55774), (16, 55612), (32, 55519), (48, 55405), (Start: 58 @55378 has 29 MA's), (Start: 63 @55369 has 3 MA's), (76, 55354), (77, 55351), (93, 55294), (107, 55228), (110, 55219), (117, 55171),

Gene: JanetJ_27 Start: 24007, Stop: 23804, Start Num: 88

Candidate Starts for JanetJ_27:

(Start: 88 @24007 has 3 MA's),

Gene: Jawnski_68 Start: 45564, Stop: 45256, Start Num: 64

Candidate Starts for Jawnski_68:

(Start: 64 @45564 has 11 MA's), (82, 45525), (90, 45489),

Gene: JayCookie_37 Start: 30387, Stop: 30169, Start Num: 87

Candidate Starts for JayCookie_37:

(39, 30537), (43, 30492), (44, 30489), (Start: 56 @30450 has 2 MA's), (73, 30417), (Start: 87 @30387 has 19 MA's), (90, 30366), (96, 30330), (98, 30315), (102, 30300), (105, 30288),

Gene: Jayden_67 Start: 41914, Stop: 42210, Start Num: 57

Candidate Starts for Jayden_67:

(Start: 57 @41914 has 52 MA's), (105, 42058), (109, 42076), (127, 42196),

Gene: Jefe_66 Start: 41369, Stop: 41662, Start Num: 57

Candidate Starts for Jefe_66:

(48, 41345), (Start: 57 @41369 has 52 MA's), (90, 41447), (105, 41510), (108, 41525), (109, 41528),

Gene: Jollipop_67 Start: 41751, Stop: 42050, Start Num: 57

Candidate Starts for Jollipop_67:

(Start: 57 @41751 has 52 MA's), (72, 41781), (105, 41898), (108, 41913), (109, 41916),

Gene: Jollymon_72 Start: 48358, Stop: 48582, Start Num: 86

Candidate Starts for Jollymon_72:

(Start: 86 @48358 has 5 MA's), (98, 48430), (99, 48436), (108, 48472), (113, 48496), (114, 48505), (123, 48574),

Gene: KBurrousTX_37 Start: 31486, Stop: 31268, Start Num: 87

Candidate Starts for KBurrousTX_37:

(73, 31513), (Start: 87 @31486 has 19 MA's), (91, 31462), (96, 31429), (98, 31414), (102, 31399), (105, 31387), (106, 31381),

Gene: Kabreeze_37 Start: 30383, Stop: 30165, Start Num: 87

Candidate Starts for Kabreeze_37:

(39, 30533), (43, 30488), (44, 30485), (Start: 56 @30446 has 2 MA's), (73, 30413), (Start: 87 @30383 has 19 MA's), (90, 30362), (96, 30326), (98, 30311), (102, 30296), (105, 30284),

Gene: KaiHaiDragon_67 Start: 41323, Stop: 41616, Start Num: 57

Candidate Starts for KaiHaiDragon_67:

(Start: 57 @41323 has 52 MA's), (90, 41401), (105, 41464), (108, 41479), (109, 41482),

Gene: Kamashten_85 Start: 58100, Stop: 58363, Start Num: 68

Candidate Starts for Kamashten_85:

(45, 58049), (Start: 68 @58100 has 61 MA's), (90, 58163), (104, 58244),

Gene: Keitabear_82 Start: 58580, Stop: 58876, Start Num: 50

Candidate Starts for Keitabear_82:

(Start: 50 @58580 has 5 MA's), (Start: 68 @58613 has 61 MA's), (90, 58676), (104, 58757),

Gene: Kewpiedoll_85 Start: 58474, Stop: 58737, Start Num: 68

Candidate Starts for Kewpiedoll_85:

(Start: 50 @58441 has 5 MA's), (Start: 68 @58474 has 61 MA's), (90, 58537), (104, 58618),

Gene: KimmyK_84 Start: 56368, Stop: 56120, Start Num: 58

Candidate Starts for KimmyK_84:

(10, 56680), (16, 56602), (19, 56581), (32, 56509), (48, 56395), (Start: 58 @56368 has 29 MA's), (Start: 63 @56359 has 3 MA's), (77, 56341), (93, 56284), (110, 56209), (117, 56161),

Gene: King2_67 Start: 46100, Stop: 45792, Start Num: 64

Candidate Starts for King2_67:

(Start: 64 @46100 has 11 MA's), (82, 46061),

Gene: KingstonB_73 Start: 47833, Stop: 48057, Start Num: 86

Candidate Starts for KingstonB_73:

(Start: 86 @47833 has 5 MA's), (98, 47905), (99, 47911), (108, 47947), (113, 47971), (114, 47980), (123, 48049),

Gene: Klevey_74 Start: 45284, Stop: 45039, Start Num: 79

Candidate Starts for Klevey_74:

(37, 45428), (Start: 79 @45284 has 4 MA's),

Gene: Kowalski_65 Start: 41388, Stop: 41687, Start Num: 57

Candidate Starts for Kowalski_65:

(Start: 57 @41388 has 52 MA's), (72, 41418), (105, 41535), (108, 41550), (109, 41553),

Gene: Kozie_64 Start: 42302, Stop: 42514, Start Num: 57

Candidate Starts for Kozie_64:

(53, 42293), (Start: 57 @42302 has 52 MA's), (Start: 86 @42344 has 5 MA's), (105, 42431),

Gene: Kroos_84 Start: 56981, Stop: 57241, Start Num: 68

Candidate Starts for Kroos_84:

(Start: 68 @56981 has 61 MA's), (90, 57044), (104, 57125), (113, 57164),

Gene: Kwekel_87 Start: 55963, Stop: 56214, Start Num: 68

Candidate Starts for Kwekel_87:

(Start: 68 @55963 has 61 MA's), (Start: 86 @56002 has 5 MA's), (90, 56026), (100, 56086), (115, 56161),

Gene: Kwobi_86 Start: 57490, Stop: 57750, Start Num: 68

Candidate Starts for Kwobi_86:

(Start: 68 @57490 has 61 MA's), (90, 57553), (104, 57634), (113, 57673),

Gene: Lennon_84 Start: 59043, Stop: 59306, Start Num: 68

Candidate Starts for Lennon_84:

(Start: 50 @59010 has 5 MA's), (Start: 68 @59043 has 61 MA's), (90, 59106), (104, 59187),

Gene: Leonard_86 Start: 58581, Stop: 58832, Start Num: 68

Candidate Starts for Leonard_86:

(Start: 68 @58581 has 61 MA's), (90, 58644), (100, 58704), (101, 58710), (104, 58722), (105, 58725),

Gene: LilHam_78 Start: 54602, Stop: 54862, Start Num: 68

Candidate Starts for LilHam_78:

(Start: 68 @54602 has 61 MA's), (90, 54665), (104, 54746), (113, 54785),

Gene: Lilbeanie_97 Start: 58823, Stop: 59047, Start Num: 71

Candidate Starts for Lilbeanie_97:

(Start: 71 @58823 has 1 MA's), (90, 58886), (117, 59015),

Gene: Lilmac1015_74 Start: 45377, Stop: 45132, Start Num: 79

Candidate Starts for Lilmac1015_74:

(37, 45521), (Start: 79 @45377 has 4 MA's),

Gene: Linus_37 Start: 30384, Stop: 30166, Start Num: 87

Candidate Starts for Linus_37:

(39, 30534), (43, 30489), (44, 30486), (Start: 56 @30447 has 2 MA's), (73, 30414), (Start: 87 @30384 has 19 MA's), (90, 30363), (96, 30327), (98, 30312), (102, 30297), (105, 30285),

Gene: LittleFortune_68 Start: 41679, Stop: 41972, Start Num: 57

Candidate Starts for LittleFortune_68:

(Start: 57 @41679 has 52 MA's), (90, 41757), (105, 41820), (108, 41835), (109, 41838),

Gene: Losacky_54 Start: 32783, Stop: 33049, Start Num: 56

Candidate Starts for Losacky_54:

(33, 32639), (Start: 52 @32774 has 9 MA's), (Start: 56 @32783 has 2 MA's), (Start: 86 @32840 has 5 MA's), (90, 32864), (92, 32870), (113, 32963),

Gene: Love_90 Start: 58854, Stop: 59117, Start Num: 68

Candidate Starts for Love_90:

(Start: 50 @58821 has 5 MA's), (Start: 68 @58854 has 61 MA's), (90, 58917), (104, 58998),

Gene: Lucretia_66 Start: 41301, Stop: 41594, Start Num: 57
Candidate Starts for Lucretia_66:
(48, 41277), (Start: 57 @41301 has 52 MA's), (90, 41379), (105, 41442), (108, 41457), (109, 41460),

Gene: Lymara_37 Start: 30202, Stop: 29981, Start Num: 87
Candidate Starts for Lymara_37:
(39, 30352), (43, 30307), (Start: 56 @30265 has 2 MA's), (73, 30232), (Start: 87 @30202 has 19 MA's),
(95, 30154), (98, 30130), (102, 30115), (105, 30103),

Gene: Makar_73 Start: 48182, Stop: 48406, Start Num: 86
Candidate Starts for Makar_73:
(Start: 64 @48134 has 11 MA's), (Start: 86 @48182 has 5 MA's), (98, 48254), (99, 48260), (104,
48278), (105, 48281), (108, 48296), (113, 48320), (123, 48398),

Gene: Margaery_63 Start: 42267, Stop: 42482, Start Num: 57
Candidate Starts for Margaery_63:
(Start: 57 @42267 has 52 MA's), (Start: 87 @42309 has 19 MA's), (92, 42336), (98, 42381), (105,
42396),

Gene: Mariel_55 Start: 32980, Stop: 33258, Start Num: 52
Candidate Starts for Mariel_55:
(33, 32845), (Start: 52 @32980 has 9 MA's), (Start: 56 @32989 has 2 MA's), (Start: 86 @33049 has 5
MA's), (90, 33073), (92, 33079), (113, 33172),

Gene: Maruru_94 Start: 57349, Stop: 57080, Start Num: 60
Candidate Starts for Maruru_94:
(Start: 60 @57349 has 2 MA's), (62, 57343), (Start: 68 @57337 has 61 MA's), (74, 57325), (84, 57310),
(85, 57307), (92, 57274), (94, 57259),

Gene: Matzah_66 Start: 43128, Stop: 43340, Start Num: 57
Candidate Starts for Matzah_66:
(Start: 57 @43128 has 52 MA's), (Start: 86 @43170 has 5 MA's), (105, 43257), (113, 43293),

Gene: McCrothy_83 Start: 58830, Stop: 59093, Start Num: 68
Candidate Starts for McCrothy_83:
(45, 58779), (Start: 68 @58830 has 61 MA's), (90, 58893), (104, 58974),

Gene: McKinley_87 Start: 57834, Stop: 58097, Start Num: 68
Candidate Starts for McKinley_87:
(Start: 50 @57801 has 5 MA's), (Start: 68 @57834 has 61 MA's), (90, 57897), (104, 57978),

Gene: Megan_63 Start: 45613, Stop: 45837, Start Num: 70
Candidate Starts for Megan_63:
(40, 45556), (Start: 70 @45613 has 1 MA's), (89, 45652), (90, 45661), (109, 45739), (119, 45814),

Gene: MelBins_88 Start: 59070, Stop: 59321, Start Num: 68
Candidate Starts for MelBins_88:
(13, 58767), (Start: 68 @59070 has 61 MA's), (90, 59133), (100, 59193), (104, 59211), (105, 59214),

Gene: MementoMori_65 Start: 42723, Stop: 42935, Start Num: 57
Candidate Starts for MementoMori_65:
(Start: 57 @42723 has 52 MA's), (Start: 86 @42765 has 5 MA's), (105, 42852), (113, 42888),

Gene: MenE_54 Start: 32665, Stop: 32940, Start Num: 52

Candidate Starts for MenE_54:

(33, 32530), (Start: 52 @32665 has 9 MA's), (Start: 56 @32674 has 2 MA's), (Start: 86 @32731 has 5 MA's), (90, 32755), (92, 32761), (113, 32854),

Gene: Merry_ Start: 43564, Stop: 43854, Start Num: 57

Candidate Starts for Merry_:

(42, 43516), (Start: 57 @43564 has 52 MA's), (90, 43648), (105, 43711),

Gene: Metamorphoo_69 Start: 42657, Stop: 42950, Start Num: 57

Candidate Starts for Metamorphoo_69:

(Start: 57 @42657 has 52 MA's), (90, 42735), (105, 42798), (109, 42816),

Gene: MoontowerMania_85 Start: 58915, Stop: 59211, Start Num: 50

Candidate Starts for MoontowerMania_85:

(Start: 50 @58915 has 5 MA's), (Start: 68 @58948 has 61 MA's), (90, 59011), (104, 59092),

Gene: Mordred_37 Start: 30383, Stop: 30165, Start Num: 87

Candidate Starts for Mordred_37:

(39, 30533), (43, 30488), (44, 30485), (Start: 56 @30446 has 2 MA's), (73, 30413), (Start: 87 @30383 has 19 MA's), (90, 30362), (96, 30326), (98, 30311), (102, 30296), (105, 30284),

Gene: MoyaNatalis_37 Start: 30387, Stop: 30169, Start Num: 87

Candidate Starts for MoyaNatalis_37:

(39, 30537), (43, 30492), (44, 30489), (Start: 56 @30450 has 2 MA's), (73, 30417), (Start: 87 @30387 has 19 MA's), (90, 30366), (96, 30330), (98, 30315), (102, 30300), (105, 30288),

Gene: Mufasa8_98 Start: 57231, Stop: 56944, Start Num: 51

Candidate Starts for Mufasa8_98:

(Start: 51 @57231 has 1 MA's), (55, 57222), (74, 57186), (84, 57171), (105, 57057), (109, 57039),

Gene: Music_81 Start: 49006, Stop: 48698, Start Num: 64

Candidate Starts for Music_81:

(Start: 64 @49006 has 11 MA's), (101, 48865), (108, 48835), (124, 48736), (126, 48721),

Gene: Mutzi_85 Start: 56931, Stop: 56680, Start Num: 58

Candidate Starts for Mutzi_85:

(7, 57288), (9, 57261), (17, 57162), (20, 57138), (21, 57135), (32, 57072), (48, 56958), (Start: 58 @56931 has 29 MA's), (Start: 63 @56922 has 3 MA's), (77, 56904), (93, 56847), (110, 56772), (117, 56724),

Gene: NCRodriguez_54 Start: 32734, Stop: 33009, Start Num: 52

Candidate Starts for NCRodriguez_54:

(2, 32251), (3, 32278), (33, 32599), (Start: 52 @32734 has 9 MA's), (Start: 56 @32743 has 2 MA's), (Start: 86 @32800 has 5 MA's), (90, 32824), (92, 32830), (113, 32923),

Gene: Nandito_73 Start: 45609, Stop: 45370, Start Num: 79

Candidate Starts for Nandito_73:

(1, 46188), (11, 45990), (Start: 79 @45609 has 4 MA's),

Gene: Natkenzie_88 Start: 58873, Stop: 59145, Start Num: 65

Candidate Starts for Natkenzie_88:

(23, 58672), (25, 58681), (28, 58693), (31, 58699), (Start: 65 @58873 has 9 MA's), (90, 58942), (104, 59020),

Gene: Nicole72_64 Start: 46099, Stop: 46344, Start Num: 63

Candidate Starts for Nicole72_64:

(Start: 63 @46099 has 3 MA's), (83, 46132), (98, 46213), (105, 46228), (121, 46330),

Gene: NoSwimming_30 Start: 25642, Stop: 25406, Start Num: 88

Candidate Starts for NoSwimming_30:

(Start: 88 @25642 has 3 MA's),

Gene: NoodlelyBoi_67 Start: 42162, Stop: 42455, Start Num: 57

Candidate Starts for NoodlelyBoi_67:

(43, 42120), (Start: 57 @42162 has 52 MA's), (76, 42189), (90, 42240), (105, 42303), (109, 42321),

Gene: Nordenberg_83 Start: 56540, Stop: 56839, Start Num: 50

Candidate Starts for Nordenberg_83:

(Start: 50 @56540 has 5 MA's), (Start: 68 @56573 has 61 MA's), (90, 56636), (104, 56717), (120, 56819),

Gene: Nostromo_67 Start: 43577, Stop: 43287, Start Num: 64

Candidate Starts for Nostromo_67:

(Start: 64 @43577 has 11 MA's), (113, 43391), (125, 43307),

Gene: Nubi_89 Start: 56334, Stop: 56083, Start Num: 58

Candidate Starts for Nubi_89:

(8, 56661), (10, 56646), (16, 56568), (32, 56475), (48, 56361), (Start: 58 @56334 has 29 MA's), (Start: 63 @56325 has 3 MA's), (77, 56307), (93, 56250), (110, 56175), (117, 56127),

Gene: Onika_65 Start: 41397, Stop: 41696, Start Num: 57

Candidate Starts for Onika_65:

(Start: 57 @41397 has 52 MA's), (72, 41427), (105, 41544), (108, 41559), (109, 41562),

Gene: Paries_88 Start: 59125, Stop: 59388, Start Num: 68

Candidate Starts for Paries_88:

(Start: 50 @59092 has 5 MA's), (Start: 68 @59125 has 61 MA's), (90, 59188), (104, 59269),

Gene: Paschalis_66 Start: 41416, Stop: 41715, Start Num: 57

Candidate Starts for Paschalis_66:

(Start: 57 @41416 has 52 MA's), (72, 41446), (105, 41563), (108, 41578), (109, 41581),

Gene: Phauci_78 Start: 55646, Stop: 55897, Start Num: 68

Candidate Starts for Phauci_78:

(15, 55400), (Start: 68 @55646 has 61 MA's), (90, 55709), (100, 55769), (101, 55775), (104, 55787), (105, 55790),

Gene: PhedwardCullen_64 Start: 41139, Stop: 41432, Start Num: 57

Candidate Starts for PhedwardCullen_64:

(48, 41115), (Start: 57 @41139 has 52 MA's), (90, 41217), (105, 41280), (108, 41295), (109, 41298),

Gene: PhillyJawn_53 Start: 32405, Stop: 32680, Start Num: 52

Candidate Starts for PhillyJawn_53:

(6, 32009), (12, 32084), (33, 32270), (Start: 52 @32405 has 9 MA's), (Start: 56 @32414 has 2 MA's), (Start: 86 @32471 has 5 MA's), (90, 32495), (92, 32501), (113, 32594),

Gene: Phinally_86 Start: 58578, Stop: 58829, Start Num: 68

Candidate Starts for Phinally_86:

(Start: 68 @58578 has 61 MA's), (90, 58641), (100, 58701), (101, 58707), (104, 58719), (105, 58722),

Gene: Phingu_55 Start: 32629, Stop: 32904, Start Num: 52

Candidate Starts for Phingu_55:

(2, 32146), (3, 32173), (33, 32494), (Start: 52 @32629 has 9 MA's), (Start: 56 @32638 has 2 MA's), (Start: 86 @32695 has 5 MA's), (90, 32719), (92, 32725), (113, 32818),

Gene: Phlop_83 Start: 55971, Stop: 55723, Start Num: 58

Candidate Starts for Phlop_83:

(10, 56283), (16, 56205), (19, 56184), (32, 56112), (48, 55998), (Start: 58 @55971 has 29 MA's), (Start: 63 @55962 has 3 MA's), (77, 55944), (93, 55887), (110, 55812), (117, 55764),

Gene: Phonegingi_52 Start: 32447, Stop: 32722, Start Num: 52

Candidate Starts for Phonegingi_52:

(2, 31964), (3, 31991), (33, 32312), (Start: 52 @32447 has 9 MA's), (Start: 56 @32456 has 2 MA's), (Start: 86 @32513 has 5 MA's), (90, 32537), (92, 32543),

Gene: Phorgeous_66 Start: 41205, Stop: 41498, Start Num: 57

Candidate Starts for Phorgeous_66:

(48, 41181), (Start: 57 @41205 has 52 MA's), (90, 41283), (105, 41346), (108, 41361), (109, 41364),

Gene: Phrancesco_66 Start: 41528, Stop: 41821, Start Num: 57

Candidate Starts for Phrancesco_66:

(48, 41504), (Start: 57 @41528 has 52 MA's), (90, 41606), (105, 41669), (108, 41684), (109, 41687),

Gene: Pickles13_51 Start: 32723, Stop: 32998, Start Num: 52

Candidate Starts for Pickles13_51:

(Start: 52 @32723 has 9 MA's), (Start: 56 @32732 has 2 MA's), (Start: 86 @32789 has 5 MA's), (90, 32813), (92, 32819), (113, 32912),

Gene: PierreOrion_66 Start: 41628, Stop: 41927, Start Num: 57

Candidate Starts for PierreOrion_66:

(Start: 57 @41628 has 52 MA's), (72, 41658), (105, 41775), (108, 41790), (109, 41793),

Gene: PinkCoffee_87 Start: 55835, Stop: 55587, Start Num: 58

Candidate Starts for PinkCoffee_87:

(7, 56192), (9, 56165), (17, 56066), (20, 56042), (21, 56039), (32, 55976), (48, 55862), (Start: 58 @55835 has 29 MA's), (Start: 63 @55826 has 3 MA's), (77, 55808), (93, 55751), (110, 55676), (117, 55628),

Gene: PiperSansNom_67 Start: 41707, Stop: 42006, Start Num: 57

Candidate Starts for PiperSansNom_67:

(Start: 57 @41707 has 52 MA's), (72, 41737), (105, 41854), (108, 41869), (109, 41872),

Gene: Piperis_67 Start: 41330, Stop: 41623, Start Num: 57

Candidate Starts for Piperis_67:

(Start: 57 @41330 has 52 MA's), (90, 41408), (105, 41471), (108, 41486), (109, 41489),

Gene: Portcullis_86 Start: 55977, Stop: 55729, Start Num: 58
Candidate Starts for Portcullis_86:
(10, 56289), (16, 56211), (19, 56190), (32, 56118), (48, 56004), (Start: 58 @55977 has 29 MA's),
(Start: 63 @55968 has 3 MA's), (77, 55950), (93, 55893), (110, 55818), (117, 55770),

Gene: Prairie_70 Start: 44683, Stop: 44438, Start Num: 79
Candidate Starts for Prairie_70:
(37, 44827), (Start: 79 @44683 has 4 MA's), (113, 44518),

Gene: PrincessTrina_37 Start: 30387, Stop: 30169, Start Num: 87
Candidate Starts for PrincessTrina_37:
(39, 30537), (43, 30492), (44, 30489), (Start: 56 @30450 has 2 MA's), (73, 30417), (Start: 87 @30387
has 19 MA's), (90, 30366), (96, 30330), (98, 30315), (102, 30300), (105, 30288),

Gene: Pulchra_68 Start: 41726, Stop: 42019, Start Num: 57
Candidate Starts for Pulchra_68:
(48, 41702), (Start: 57 @41726 has 52 MA's), (90, 41804), (105, 41867), (108, 41882), (109, 41885),

Gene: PullumCavea_84 Start: 56148, Stop: 55900, Start Num: 58
Candidate Starts for PullumCavea_84:
(10, 56460), (16, 56382), (19, 56361), (32, 56289), (48, 56175), (Start: 58 @56148 has 29 MA's),
(Start: 63 @56139 has 3 MA's), (77, 56121), (93, 56064), (110, 55989), (117, 55941),

Gene: Pumpkiney_88 Start: 57465, Stop: 57734, Start Num: 65
Candidate Starts for Pumpkiney_88:
(23, 57261), (25, 57270), (28, 57282), (Start: 65 @57465 has 9 MA's), (90, 57534), (104, 57612),

Gene: Purplicious_71 Start: 47601, Stop: 47825, Start Num: 86
Candidate Starts for Purplicious_71:
(Start: 86 @47601 has 5 MA's), (98, 47673), (99, 47679), (108, 47715), (113, 47739), (114, 47748),
(123, 47817),

Gene: Quhwah_70 Start: 42015, Stop: 42308, Start Num: 57
Candidate Starts for Quhwah_70:
(Start: 57 @42015 has 52 MA's), (90, 42093), (105, 42156), (108, 42171), (109, 42174),

Gene: Ramiel05_65 Start: 41388, Stop: 41687, Start Num: 57
Candidate Starts for Ramiel05_65:
(Start: 57 @41388 has 52 MA's), (72, 41418), (105, 41535), (108, 41550), (109, 41553),

Gene: Ribeye_84 Start: 56456, Stop: 56716, Start Num: 68
Candidate Starts for Ribeye_84:
(Start: 68 @56456 has 61 MA's), (90, 56519), (104, 56600), (113, 56639),

Gene: RiverRaider_86 Start: 55943, Stop: 56194, Start Num: 68
Candidate Starts for RiverRaider_86:
(45, 55889), (Start: 68 @55943 has 61 MA's), (80, 55964), (90, 56006), (101, 56072), (104, 56084),

Gene: RoadKill_84 Start: 55492, Stop: 55743, Start Num: 68
Candidate Starts for RoadKill_84:
(Start: 68 @55492 has 61 MA's), (Start: 86 @55531 has 5 MA's), (90, 55555), (100, 55615), (115,
55690),

Gene: RobsFeet_70 Start: 42943, Stop: 43236, Start Num: 57
Candidate Starts for RobsFeet_70:
(Start: 57 @42943 has 52 MA's), (90, 43021), (105, 43084), (109, 43102),

Gene: Rockwell_65 Start: 41418, Stop: 41717, Start Num: 57
Candidate Starts for Rockwell_65:
(Start: 57 @41418 has 52 MA's), (72, 41448), (105, 41565), (108, 41580), (109, 41583),

Gene: Rofo_84 Start: 57573, Stop: 57836, Start Num: 68
Candidate Starts for Rofo_84:
(45, 57522), (Start: 68 @57573 has 61 MA's), (90, 57636), (104, 57717),

Gene: RogerDodger_89 Start: 56736, Stop: 56488, Start Num: 58
Candidate Starts for RogerDodger_89:
(10, 57048), (16, 56970), (19, 56949), (32, 56877), (48, 56763), (Start: 58 @56736 has 29 MA's),
(Start: 63 @56727 has 3 MA's), (77, 56709), (93, 56652), (110, 56577), (117, 56529),

Gene: RosiePosie_37 Start: 30386, Stop: 30168, Start Num: 87
Candidate Starts for RosiePosie_37:
(39, 30536), (43, 30491), (44, 30488), (Start: 56 @30449 has 2 MA's), (73, 30416), (Start: 87 @30386
has 19 MA's), (90, 30365), (96, 30329), (98, 30314), (102, 30299), (105, 30287),

Gene: Salvador_86 Start: 56073, Stop: 55825, Start Num: 58
Candidate Starts for Salvador_86:
(10, 56385), (16, 56307), (32, 56214), (48, 56100), (Start: 58 @56073 has 29 MA's), (Start: 63 @56064
has 3 MA's), (77, 56046), (93, 55989), (110, 55914), (117, 55866),

Gene: Sampson_90 Start: 59024, Stop: 59296, Start Num: 65
Candidate Starts for Sampson_90:
(23, 58823), (25, 58832), (28, 58844), (31, 58850), (Start: 65 @59024 has 9 MA's), (90, 59093), (104,
59171),

Gene: Sanjuju_82 Start: 57928, Stop: 58191, Start Num: 68
Candidate Starts for Sanjuju_82:
(Start: 50 @57895 has 5 MA's), (Start: 68 @57928 has 61 MA's), (90, 57991), (104, 58072),

Gene: Saronaya_86 Start: 57313, Stop: 57573, Start Num: 68
Candidate Starts for Saronaya_86:
(Start: 68 @57313 has 61 MA's), (90, 57376), (104, 57457),

Gene: Savannah_65 Start: 41445, Stop: 41738, Start Num: 57
Candidate Starts for Savannah_65:
(Start: 57 @41445 has 52 MA's), (90, 41523), (105, 41586), (108, 41601), (109, 41604),

Gene: Savbucketdawg_81 Start: 55415, Stop: 55167, Start Num: 58
Candidate Starts for Savbucketdawg_81:
(10, 55727), (16, 55649), (19, 55628), (32, 55556), (48, 55442), (Start: 58 @55415 has 29 MA's),
(Start: 63 @55406 has 3 MA's), (77, 55388), (93, 55331), (110, 55256), (117, 55208),

Gene: Scavito_37 Start: 30384, Stop: 30166, Start Num: 87
Candidate Starts for Scavito_37:
(39, 30534), (43, 30489), (44, 30486), (Start: 56 @30447 has 2 MA's), (73, 30414), (Start: 87 @30384
has 19 MA's), (90, 30363), (96, 30327), (98, 30312), (102, 30297), (105, 30285),

Gene: SchottB_83 Start: 57376, Stop: 57636, Start Num: 68
Candidate Starts for SchottB_83:
(Start: 68 @57376 has 61 MA's), (90, 57439), (104, 57520), (113, 57559),

Gene: Scioto_88 Start: 58874, Stop: 59146, Start Num: 65
Candidate Starts for Scioto_88:
(23, 58673), (25, 58682), (28, 58694), (31, 58700), (Start: 65 @58874 has 9 MA's), (90, 58943), (104, 59021),

Gene: Scotia_30 Start: 25627, Stop: 25391, Start Num: 88
Candidate Starts for Scotia_30:
(36, 25822), (Start: 88 @25627 has 3 MA's),

Gene: Scumberland_68 Start: 41640, Stop: 41933, Start Num: 57
Candidate Starts for Scumberland_68:
(Start: 57 @41640 has 52 MA's), (76, 41667), (90, 41718), (105, 41781), (108, 41796), (109, 41799),

Gene: Sedona_82 Start: 58425, Stop: 58688, Start Num: 68
Candidate Starts for Sedona_82:
(Start: 50 @58392 has 5 MA's), (Start: 68 @58425 has 61 MA's), (90, 58488), (104, 58569),

Gene: Selwyn23_67 Start: 41557, Stop: 41850, Start Num: 57
Candidate Starts for Selwyn23_67:
(48, 41533), (Start: 57 @41557 has 52 MA's), (90, 41635), (105, 41698), (108, 41713), (109, 41716),

Gene: Shinji_85 Start: 56154, Stop: 55906, Start Num: 58
Candidate Starts for Shinji_85:
(10, 56466), (16, 56388), (19, 56367), (32, 56295), (48, 56181), (Start: 58 @56154 has 29 MA's),
(Start: 63 @56145 has 3 MA's), (77, 56127), (93, 56070), (110, 55995), (117, 55947),

Gene: Shivanishola_86 Start: 56589, Stop: 56852, Start Num: 68
Candidate Starts for Shivanishola_86:
(Start: 50 @56556 has 5 MA's), (Start: 68 @56589 has 61 MA's), (90, 56652), (104, 56733),

Gene: Shotgun_66 Start: 41324, Stop: 41617, Start Num: 57
Candidate Starts for Shotgun_66:
(48, 41300), (Start: 57 @41324 has 52 MA's), (90, 41402), (105, 41465), (108, 41480), (109, 41483),

Gene: Shrubaron_70 Start: 42538, Stop: 42831, Start Num: 57
Candidate Starts for Shrubaron_70:
(Start: 57 @42538 has 52 MA's), (90, 42616), (105, 42679), (109, 42697),

Gene: SirFrank_66 Start: 41608, Stop: 41901, Start Num: 57
Candidate Starts for SirFrank_66:
(Start: 57 @41608 has 52 MA's), (76, 41635), (90, 41686), (105, 41749), (109, 41767),

Gene: Sitar_83 Start: 58447, Stop: 58710, Start Num: 68
Candidate Starts for Sitar_83:
(Start: 50 @58414 has 5 MA's), (Start: 68 @58447 has 61 MA's), (90, 58510), (104, 58591),

Gene: Skugga_66 Start: 41866, Stop: 42165, Start Num: 57
Candidate Starts for Skugga_66:

(Start: 57 @41866 has 52 MA's), (90, 41950), (105, 42013), (108, 42028), (109, 42031),

Gene: Smarties_76 Start: 43251, Stop: 43544, Start Num: 57

Candidate Starts for Smarties_76:

(Start: 57 @43251 has 52 MA's), (90, 43329), (105, 43392), (109, 43410),

Gene: SmokingBunny_87 Start: 57069, Stop: 56821, Start Num: 58

Candidate Starts for SmokingBunny_87:

(10, 57381), (16, 57303), (32, 57210), (48, 57096), (Start: 58 @57069 has 29 MA's), (Start: 63 @57060 has 3 MA's), (77, 57042), (93, 56985), (110, 56910), (117, 56862),

Gene: Sonali_93 Start: 57959, Stop: 57690, Start Num: 60

Candidate Starts for Sonali_93:

(Start: 60 @57959 has 2 MA's), (62, 57953), (Start: 68 @57947 has 61 MA's), (74, 57935), (84, 57920), (85, 57917), (92, 57884), (94, 57869),

Gene: Soos_68 Start: 47562, Stop: 47786, Start Num: 86

Candidate Starts for Soos_68:

(Start: 86 @47562 has 5 MA's), (98, 47634), (99, 47640), (108, 47676), (113, 47700), (114, 47709), (123, 47778),

Gene: Stillion_72 Start: 48159, Stop: 48383, Start Num: 86

Candidate Starts for Stillion_72:

(Start: 86 @48159 has 5 MA's), (98, 48231), (99, 48237), (108, 48273), (113, 48297), (114, 48306), (123, 48375),

Gene: Sting_71 Start: 48001, Stop: 48225, Start Num: 86

Candidate Starts for Sting_71:

(Start: 86 @48001 has 5 MA's), (97, 48064), (98, 48073), (99, 48079), (108, 48115), (113, 48139), (114, 48148), (123, 48217),

Gene: StorminNorm_85 Start: 57257, Stop: 57517, Start Num: 68

Candidate Starts for StorminNorm_85:

(Start: 68 @57257 has 61 MA's), (90, 57320), (104, 57401),

Gene: Stultus_79 Start: 56719, Stop: 56982, Start Num: 68

Candidate Starts for Stultus_79:

(Start: 50 @56686 has 5 MA's), (Start: 68 @56719 has 61 MA's), (90, 56782), (104, 56863),

Gene: Sunny_ Start: 43566, Stop: 43856, Start Num: 57

Candidate Starts for Sunny_:

(42, 43518), (Start: 57 @43566 has 52 MA's), (90, 43650), (105, 43713),

Gene: Tangent_87 Start: 57279, Stop: 57545, Start Num: 68

Candidate Starts for Tangent_87:

(Start: 50 @57246 has 5 MA's), (Start: 68 @57279 has 61 MA's), (90, 57342), (104, 57423), (120, 57525),

Gene: Tangerine_84 Start: 56314, Stop: 56574, Start Num: 68

Candidate Starts for Tangerine_84:

(Start: 68 @56314 has 61 MA's), (90, 56377), (104, 56458), (113, 56497),

Gene: Tardus_90 Start: 59420, Stop: 59689, Start Num: 65

Candidate Starts for Tardus_90:
(Start: 65 @59420 has 9 MA's), (90, 59489), (104, 59567),

Gene: Teamocil_70 Start: 41573, Stop: 41866, Start Num: 57
Candidate Starts for Teamocil_70:
(38, 41480), (Start: 57 @41573 has 52 MA's), (90, 41651), (105, 41714), (109, 41732),

Gene: Terij_64 Start: 41499, Stop: 41717, Start Num: 57
Candidate Starts for Terij_64:
(Start: 57 @41499 has 52 MA's), (Start: 86 @41541 has 5 MA's), (Start: 87 @41544 has 19 MA's), (92, 41571), (105, 41631), (108, 41646),

Gene: Thing3_85 Start: 58100, Stop: 58363, Start Num: 68
Candidate Starts for Thing3_85:
(45, 58049), (Start: 68 @58100 has 61 MA's), (90, 58163), (104, 58244),

Gene: Tiamoceli_80 Start: 55382, Stop: 55633, Start Num: 68
Candidate Starts for Tiamoceli_80:
(Start: 68 @55382 has 61 MA's), (Start: 86 @55421 has 5 MA's), (90, 55445), (100, 55505), (115, 55580),

Gene: TillyBobJoe_84 Start: 55955, Stop: 55707, Start Num: 58
Candidate Starts for TillyBobJoe_84:
(7, 56312), (9, 56285), (17, 56186), (20, 56162), (21, 56159), (32, 56096), (48, 55982), (Start: 58 @55955 has 29 MA's), (Start: 63 @55946 has 3 MA's), (77, 55928), (93, 55871), (110, 55796), (117, 55748),

Gene: Togo_86 Start: 57069, Stop: 56821, Start Num: 58
Candidate Starts for Togo_86:
(10, 57381), (16, 57303), (32, 57210), (48, 57096), (Start: 58 @57069 has 29 MA's), (Start: 63 @57060 has 3 MA's), (77, 57042), (93, 56985), (110, 56910), (117, 56862),

Gene: Tonitrus_59 Start: 44270, Stop: 44503, Start Num: 69
Candidate Starts for Tonitrus_59:
(Start: 69 @44270 has 1 MA's), (96, 44363), (97, 44369), (110, 44423), (116, 44465),

Gene: Tophat_37 Start: 30385, Stop: 30167, Start Num: 87
Candidate Starts for Tophat_37:
(39, 30535), (43, 30490), (44, 30487), (Start: 56 @30448 has 2 MA's), (73, 30415), (Start: 87 @30385 has 19 MA's), (90, 30364), (96, 30328), (98, 30313), (102, 30298), (105, 30286),

Gene: Twister6_85 Start: 55418, Stop: 55170, Start Num: 58
Candidate Starts for Twister6_85:
(10, 55730), (16, 55652), (19, 55631), (32, 55559), (48, 55445), (Start: 58 @55418 has 29 MA's), (Start: 63 @55409 has 3 MA's), (77, 55391), (93, 55334), (110, 55259), (117, 55211),

Gene: Twonlo_84 Start: 56083, Stop: 56334, Start Num: 68
Candidate Starts for Twonlo_84:
(Start: 68 @56083 has 61 MA's), (Start: 86 @56122 has 5 MA's), (90, 56146), (100, 56206), (115, 56281),

Gene: Tycho_84 Start: 56791, Stop: 57051, Start Num: 68
Candidate Starts for Tycho_84:

(Start: 68 @56791 has 61 MA's), (90, 56854), (104, 56935), (113, 56974),

Gene: Tyrumbra_65 Start: 42225, Stop: 42518, Start Num: 57

Candidate Starts for Tyrumbra_65:

(Start: 57 @42225 has 52 MA's), (90, 42303), (105, 42366), (109, 42384),

Gene: Valary_87 Start: 57061, Stop: 56813, Start Num: 58

Candidate Starts for Valary_87:

(10, 57373), (16, 57295), (19, 57274), (32, 57202), (48, 57088), (Start: 58 @57061 has 29 MA's),
(Start: 63 @57052 has 3 MA's), (77, 57034), (93, 56977), (110, 56902), (117, 56854),

Gene: VanDeWege_88 Start: 56586, Stop: 56338, Start Num: 58

Candidate Starts for VanDeWege_88:

(10, 56898), (16, 56820), (19, 56799), (32, 56727), (48, 56613), (Start: 58 @56586 has 29 MA's),
(Start: 63 @56577 has 3 MA's), (77, 56559), (93, 56502), (110, 56427), (117, 56379),

Gene: Verity_87 Start: 60121, Stop: 60393, Start Num: 65

Candidate Starts for Verity_87:

(46, 60076), (Start: 65 @60121 has 9 MA's), (76, 60139), (90, 60190), (104, 60268), (114, 60316),

Gene: ViaConlectus_87 Start: 57801, Stop: 58070, Start Num: 65

Candidate Starts for ViaConlectus_87:

(46, 57756), (Start: 65 @57801 has 9 MA's), (76, 57819), (90, 57870), (104, 57948),

Gene: Vibaki_78 Start: 47924, Stop: 47616, Start Num: 64

Candidate Starts for Vibaki_78:

(Start: 64 @47924 has 11 MA's), (101, 47783), (108, 47753), (124, 47654), (126, 47639),

Gene: Violeta_54 Start: 32507, Stop: 32782, Start Num: 52

Candidate Starts for Violeta_54:

(33, 32372), (Start: 52 @32507 has 9 MA's), (Start: 56 @32516 has 2 MA's), (Start: 86 @32573 has 5 MA's),
(90, 32597), (92, 32603), (113, 32696),

Gene: Vivi2_88 Start: 58335, Stop: 58601, Start Num: 68

Candidate Starts for Vivi2_88:

(Start: 50 @58302 has 5 MA's), (Start: 68 @58335 has 61 MA's), (90, 58398), (104, 58479), (120, 58581),

Gene: Warren_52 Start: 32462, Stop: 32737, Start Num: 52

Candidate Starts for Warren_52:

(Start: 52 @32462 has 9 MA's), (Start: 56 @32471 has 2 MA's), (Start: 86 @32528 has 5 MA's), (90, 32552), (92, 32558), (113, 32651),

Gene: Winchester007_68 Start: 38187, Stop: 38462, Start Num: 52

Candidate Starts for Winchester007_68:

(6, 37791), (12, 37866), (33, 38052), (Start: 52 @38187 has 9 MA's), (Start: 56 @38196 has 2 MA's),
(Start: 86 @38253 has 5 MA's), (90, 38277), (92, 38283), (113, 38376),

Gene: Wizard_81 Start: 55921, Stop: 55673, Start Num: 58

Candidate Starts for Wizard_81:

(10, 56233), (16, 56155), (19, 56134), (32, 56062), (48, 55948), (Start: 58 @55921 has 29 MA's),
(Start: 63 @55912 has 3 MA's), (77, 55894), (93, 55837), (110, 55762), (117, 55714),

Gene: Yeti_68 Start: 41362, Stop: 41655, Start Num: 57

Candidate Starts for Yeti_68:

(Start: 57 @41362 has 52 MA's), (90, 41440), (105, 41503), (108, 41518), (109, 41521),

Gene: YorkOnyx_83 Start: 56426, Stop: 56686, Start Num: 68

Candidate Starts for YorkOnyx_83:

(Start: 68 @56426 has 61 MA's), (90, 56489), (104, 56570), (113, 56609),

Gene: YungMoney_85 Start: 57771, Stop: 57520, Start Num: 58

Candidate Starts for YungMoney_85:

(7, 58128), (9, 58101), (17, 58002), (20, 57978), (21, 57975), (32, 57912), (48, 57798), (Start: 58 @57771 has 29 MA's), (Start: 63 @57762 has 3 MA's), (77, 57744), (93, 57687), (110, 57612), (117, 57564),

Gene: Zapato_66 Start: 42216, Stop: 42509, Start Num: 57

Candidate Starts for Zapato_66:

(Start: 57 @42216 has 52 MA's), (90, 42294), (105, 42357),

Gene: Zipp_88 Start: 60092, Stop: 60364, Start Num: 65

Candidate Starts for Zipp_88:

(46, 60047), (Start: 65 @60092 has 9 MA's), (76, 60110), (90, 60161), (104, 60239), (114, 60287),

Gene: Zitch_90 Start: 58345, Stop: 58614, Start Num: 65

Candidate Starts for Zitch_90:

(Start: 65 @58345 has 9 MA's), (76, 58363), (90, 58414), (104, 58492),