

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 283463 Report

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

Pham number 283463 has 235 members, 45 are drafts.

Phages represented in each track:

- Track 1 : Pharaoh_43
- Track 2 : MyraDee_45
- Track 3 : NearlyHeadless_50
- Track 4 : Dixon_50
- Track 5 : Astro_50, Caitlin_49, Smeadley_51, Danforth_50, Expelliarmus_50, Roary_51
- Track 6 : Groundhog_49
- Track 7 : Stephig9_51
- Track 8 : Saintus_45
- Track 9 : Phroglets_5
- Track 10 : Jaylociraptor_30, Hoshi_30, TaidaOne_30, TonyStarch_30, Maya_30, Namu_30, CherryBlossom_30, FidgetOrca_30, Esketit_30, Spectropatronm_30, IceWarrior_30, TieDye_29, Indigenous_30, Rima_30, OlympicHelado_30, Meibysrarus_30
- Track 11 : Wigberry_31
- Track 12 : Bing_31
- Track 13 : BRock_64
- Track 14 : Garnacho_65
- Track 15 : Alone3_74, Fudan_74, LuckySocke_72
- Track 16 : GiJojo_63
- Track 17 : Park1214_78
- Track 18 : Talos_73
- Track 19 : Beleetus_70
- Track 20 : Beted_23, Lenoshki_23, Oogie_23
- Track 21 : Mikronejon_23
- Track 22 : EmoNemo_23, Hanem_24, Argena_23, Alok_23, Twin_23, Kabocha_25, Farrylous_22, Gray_24, Toneprano_23, MintFritos_23, Pakusa_23, Amoonguss_23
- Track 23 : ChisanaKitsune_20
- Track 24 : FlyingTortilla_23, ScarletRaider_23, FruityLoops_22
- Track 25 : Chidiebere_24
- Track 26 : Schomber_23
- Track 27 : UBSmoodge_25
- Track 28 : Kudrefre_102
- Track 29 : Sephiroth_99
- Track 30 : Syleon_102
- Track 31 : Octobien14_100

- Track 32 : Greep_106, Bruin_99, Miniwave_97, Lilpickle_101, Nimrod_102, Petra64142_106, Paperbeatsrock_101, DrDrey_102, ShamWow_102, Emmina_102, MPhalcon_103, BigBubba_102, SirDuracell_102, Pharsalus_99, Dusk_99, StormChicken_103, TBrady12_105, BilboSwaggins_100, Stank_104, Misfit_103, Phaja_100, Daikon_102, PhatBacter_105, Tarkin_101, Adnama_106, Elite2014_101, Manda_103, Marshmallow_99, Buck_103, ChosenOne_102, Harella_102, Command613_104, Kostya_102, Phaux_104, Mindy_101, Bask21_102, Tomaszewski_97, Mosby_98, CrystalP_101, Wiggin_104, GoldenSpark_106, YassJohnny_99, Qualification_103, xkcd_105, Cookies_99, DoctorDiddles_101, Gator_100, Easy2Say_102, Cactus_106, Hoonter_105, Gemini_107, Barbarian_101, Nala_104, FireRed_105, ABCat_99, Henry_99, Contagion_98, TeamEdward_102, Argent26_106, Goldilocks_105, TeardropMSU_98, Sassay_97, SophKB_100, Icee_103, Inca_99, Bogg_102, Sotrice96_103, Asriel_100, Pat3_99, Youngblood_105, Rimmer_100, StellaBean_101, Terminus_105, Kanye_99, NelitzaMV_99, HufflyPuff_104, BadStone_99, Policronamos_104, Holt_107, ShereKhan_100, Tuco_103, Goku_101, GooberAzure_105, Myrale_102, Amao_102, Eureka_101, Willez_97, IHOP_100, Toto_100, Kimchi_106, Rakim_103, Traaww1_98, Balomoji_102, Flypotenuse_98
- Track 33 : Murica_105, MISSy_103
- Track 34 : NonchalantPear_100, Gage_104, StolenFromERC_104, Xandras_101, Ptowny_98
- Track 35 : ChotaBhai_102
- Track 36 : Theresita_48
- Track 37 : Quhwah_29
- Track 38 : NoodlelyBoi_26
- Track 39 : Quammi_52, EverythinBagel_53, Casend_55, Llemily_54, Sillytadpoles_55, DonaldDuck_54, Viceroy_53, Zhafia_57, Wheelie_54, Jehoshaphat_56, Rudy_52, Wayne3_56, Teehee_55, Phabia_54
- Track 40 : RubyRalph_60, Fransoyer_58
- Track 41 : Altheas_58
- Track 42 : BabyDotz_55
- Track 43 : FrankDeliGuy_52
- Track 44 : Rowlf_52
- Track 45 : StrawberryJamm_59
- Track 46 : Grassboy_58
- Track 47 : Nike_56
- Track 48 : Phinky_64
- Track 49 : SallyK_57
- Track 50 : Lonelysoil_54
- Track 51 : WheelerS25_63
- Track 52 : Kyva_58
- Track 53 : Squash_59
- Track 54 : Judebell_57
- Track 55 : Namago_56, Gazebo_55
- Track 56 : BaconCheese_59
- Track 57 : SlySloth_58
- Track 58 : Zagie_56
- Track 59 : MorillMayhem_57, Mila11_59
- Track 60 : Mentos_60
- Track 61 : Statler_57
- Track 62 : Blab_53
- Track 63 : Tissue_57
- Track 64 : Mashley_55

- Track 65 : Hyperion_56
- Track 66 : Pabst_50
- Track 67 : PSonyx_28
- Track 68 : MicyPS_26
- Track 69 : FloraSnap32_183, FrostedClock_189, Phrampa_179, Mimi_186, GoldenEssence_174, Patbob_186
- Track 70 : Bloom_190, Racecar_187, Talia1610_187
- Track 71 : Stewart25555_179
- Track 72 : Panchaali_189
- Track 73 : Marshawn_5
- Track 74 : Laure_187
- Track 75 : Bipper_125, Cracklewink_126
- Track 76 : BigAnti_27

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

The start number called the most often in the published annotations is 51, it was called in 93 of the 190 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABCat_99, Adnama_106, Amao_102, Argent26_106, Asriel_100, BadStone_99, Balomoji_102, Barbarian_101, Bask21_102, BigBubba_102, BilboSwaggins_100, Bogg_102, Bruin_99, Buck_103, Cactus_106, ChosenOne_102, ChotaBhai_102, Command613_104, Contagion_98, Cookies_99, CrystalP_101, Daikon_102, DoctorDiddles_101, DrDrey_102, Dusk_99, Easy2Say_102, Elite2014_101, Emmina_102, Eureka_101, FireRed_105, Flypotenuse_98, Gage_104, Gator_100, Gemini_107, Goku_101, GoldenSpark_106, Goldilocks_105, GooberAzure_105, Greep_106, Harella_102, Henry_99, Holt_107, Hoonter_105, HufflyPuff_104, IHOP_100, Icee_103, Inca_99, Kanye_99, Kimchi_106, Kostya_102, Lilpickle_101, MISSy_103, MPhalcon_103, Manda_103, Marshmallow_99, Mindy_101, Miniwave_97, Misfit_103, Mosby_98, Murica_105, Myrale_102, Nala_104, NelitzaMV_99, Nimrod_102, NonchalantPear_100, Paperbeatsrock_101, Pat3_99, Petra64142_106, Phaja_100, Pharsalus_99, PhatBacter_105, Phaux_104, Policronamos_104, Ptowny_98, Quallification_103, Rakim_103, Rimmer_100, Sassay_97, ShamWow_102, ShereKhan_100, SirDuracell_102, SophKB_100, Sotrice96_103, Stank_104, StellaBean_101, StolenFromERC_104, StormChicken_103, TBrady12_105, Tarkin_101, TeamEdward_102, TeardropMSU_98, Terminus_105, Tomaszewski_97, Toto_100, Traaww1_98, Tuco_103, Wiggin_104, Willez_97, Xandras_101, YassJohnny_99, Youngblood_105, xkcd_105,

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

- Pabst_50,

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

- Aloki_23, Alone3_74, Altheas_58, Amoonguss_23, Argena_23, Astro_50, BRock_64, BabyDotz_55, BaconCheese_59, Beleetus_70, Beted_23, BigAnti_27, Bing_31, Bipper_125, Blab_53, Bloom_190, Caitlin_49, Casend_55, CherryBlossom_30, Chidiebere_24, ChisanaKitsune_20, Cracklewink_126, Danforth_50, Dixon_50, DonaldDuck_54, EmoNemo_23, Esketit_30,

EverythinBagel_53, Expelliarmus_50, Farrylious_22, FidgetOrca_30, FloraSnap32_183, FlyingTortilla_23, FrankDeliGuy_52, Fransoyer_58, FrostedClock_189, FruityLoops_22, Fudan_74, Garnacho_65, Gazebo_55, GiJojo_63, GoldenEssence_174, Grassboy_58, Gray_24, Groundhog_49, Hanem_24, Hoshi_30, Hyperion_56, IceWarrior_30, Indigenous_30, Jaylociraptor_30, Jehoshaphat_56, Judebell_57, Kabocha_25, Kudrefre_102, Kyva_58, Laure_187, Lenoshki_23, Llemily_54, Lonelysoil_54, LuckySocke_72, Marshawn_5, Mashley_55, Maya_30, Meibysrarus_30, Mentos_60, MicyPS_26, Mikronejon_23, Mila11_59, Mimi_186, MintFritos_23, MorillMayhem_57, MyraDee_45, Namago_56, Namu_30, NearlyHeadless_50, Nike_56, NoodlelyBoi_26, Octobien14_100, OlympicHelado_30, Oogie_23, PSonyx_28, Pakusa_23, Panchaali_189, Park1214_78, Patbob_186, Phabia_54, Pharaoh_43, Phinky_64, Phrampa_179, Phroglets_5, Quammi_52, Quhwah_29, Racecar_187, Rima_30, Roary_51, Rowlf_52, RubyRalph_60, Rudy_52, Saintus_45, SallyK_57, ScarletRaider_23, Schomber_23, Sephiroth_99, Sillytadpoles_55, SlySloth_58, Smeadley_51, Spectropatronm_30, Squash_59, Statler_57, Stephig9_51, Stewart25555_179, StrawberryJamm_59, Syleon_102, TaidaOne_30, Talia1610_187, Talos_73, Teehee_55, Theresita_48, TieDye_29, Tissue_57, Toneprano_23, TonyStarch_30, Twin_23, UBSmoodge_25, Viceroy_53, Wayne3_56, WheelerS25_63, Wheelie_54, Wigberry_31, Zagie_56, Zhafia_57,

Summary by start number:

Start 29:

- Found in 1 of 235 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 190
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nike_56 (EG),

Start 31:

- Found in 33 of 235 (14.0%) of genes in pham
- Manual Annotations of this start: 4 of 190
- Called 12.1% of time when present
- Phage (with cluster) where this start called: Grassboy_58 (EG), Kyva_58 (EG), StrawberryJamm_59 (EG), Tissue_57 (EG),

Start 32:

- Found in 34 of 235 (14.5%) of genes in pham
- Manual Annotations of this start: 28 of 190
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Altheas_58 (EG), BabyDotz_55 (EG), Casend_55 (EG), DonaldDuck_54 (EG), EverythinBagel_53 (EG), FrankDeliGuy_52 (EG), Fransoyer_58 (EG), Gazebo_55 (EG), Hyperion_56 (EG), Jehoshaphat_56 (EG), Judebell_57 (EG), Llemily_54 (EG), Lonelysoil_54 (EG), Mashley_55 (EG), Mentos_60 (EG), Namago_56 (EG), Phabia_54 (EG), Quammi_52 (EG), Rowlf_52 (EG), RubyRalph_60 (EG), Rudy_52 (EG), SallyK_57 (EG), Sillytadpoles_55 (EG), SlySloth_58 (EG), Statler_57 (EG), Teehee_55 (EG), Viceroy_53 (EG), Wayne3_56 (EG), WheelerS25_63 (EG), Wheelie_54 (EG), Zagie_56 (EG), Zhafia_57 (EG),

Start 33:

- Found in 9 of 235 (3.8%) of genes in pham
- Manual Annotations of this start: 3 of 190
- Called 66.7% of time when present

- Phage (with cluster) where this start called: BaconCheese_59 (EG), Blab_53 (EG), Mila11_59 (EG), MorillMayhem_57 (EG), Phinky_64 (EG), Squash_59 (EG),

Start 34:

- Found in 12 of 235 (5.1%) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Phroglets_5 (AV),

Start 37:

- Found in 1 of 235 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 190
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pabst_50 (EK1),

Start 38:

- Found in 1 of 235 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 190
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Theresita_48 (EA7),

Start 39:

- Found in 1 of 235 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 190
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Marshawn_5 (K6),

Start 42:

- Found in 107 of 235 (45.5%) of genes in pham
- Manual Annotations of this start: 4 of 190
- Called 9.3% of time when present
- Phage (with cluster) where this start called: Bloom_190 (FC), FloraSnap32_183 (FC), FrostedClock_189 (FC), GoldenEssence_174 (FC), Laure_187 (UNK), Mimi_186 (FC), Patbob_186 (FC), Phrampa_179 (FC), Racecar_187 (FC), Talia1610_187 (FC),

Start 43:

- Found in 53 of 235 (22.6%) of genes in pham
- Manual Annotations of this start: 26 of 190
- Called 60.4% of time when present
- Phage (with cluster) where this start called: Alone3_74 (BS), BRock_64 (BS), Beleetus_70 (BS), BigAnti_27 (singleton), Bing_31 (BI5), CherryBlossom_30 (BI1), Chidiebere_24 (DQ), Esketit_30 (BI1), FidgetOrca_30 (BI1), Fudan_74 (BS), Garnacho_65 (BS), Hoshi_30 (BI1), IceWarrior_30 (BI1), Indigenous_30 (BI1), Jaylociraptor_30 (BI1), LuckySocke_72 (BS), Maya_30 (BI1), Meibysrarus_30 (BI1), MicyPS_26 (EQ), Mikronejon_23 (DQ), Namu_30 (BI1), NoodlelyBoi_26 (EC), OlympicHelado_30 (BI1), PSonyx_28 (EQ), Park1214_78 (BS), Quhwah_29 (EC), Rima_30 (BI1), Spectropatronm_30 (BI1), TaidaOne_30 (BI1), TieDye_29 (BI1), TonyStarch_30 (BI1), Wigberry_31 (BI1),

Start 44:

- Found in 1 of 235 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 190

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Talos_73 (BS),

Start 45:

- Found in 24 of 235 (10.2%) of genes in pham
- Manual Annotations of this start: 9 of 190
- Called 91.7% of time when present
- Phage (with cluster) where this start called: Aloki_23 (DQ), Amoonguss_23 (DQ), Argena_23 (DQ), Beted_23 (DQ), ChisanaKitsune_20 (DQ), EmoNemo_23 (DQ), Farrylious_22 (DQ), FlyingTortilla_23 (DQ), FruityLoops_22 (DQ), GiJojo_63 (BS), Gray_24 (DQ), Hanem_24 (DQ), Kabocha_25 (DQ), Lenoshki_23 (DQ), MintFritos_23 (DQ), Oogie_23 (DQ), Pakusa_23 (DQ), ScarletRaider_23 (DQ), Schomber_23 (DQ), Toneprano_23 (DQ), Twin_23 (DQ), UBSmoodge_25 (DQ),

Start 46:

- Found in 2 of 235 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 190
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bipper_125 (Y), Cracklewink_126 (Y),

Start 47:

- Found in 8 of 235 (3.4%) of genes in pham
- Manual Annotations of this start: 5 of 190
- Called 75.0% of time when present
- Phage (with cluster) where this start called: Kudrefre_102 (DU1), Octobien14_100 (DU1), Pharaoh_43 (A12), Sephiroth_99 (DU1), Stewart25555_179 (FC), Syleon_102 (DU1),

Start 48:

- Found in 2 of 235 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Panchaali_189 (FC),

Start 50:

- Found in 2 of 235 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 190
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MyraDee_45 (A18), Stephig9_51 (A8),

Start 51:

- Found in 103 of 235 (43.8%) of genes in pham
- Manual Annotations of this start: 93 of 190
- Called 99.0% of time when present
- Phage (with cluster) where this start called: ABCat_99 (E), Adnama_106 (E), Amao_102 (E), Argent26_106 (E), Asriel_100 (E), BadStone_99 (E), Balomoji_102 (E), Barbarian_101 (E), Bask21_102 (E), BigBubba_102 (E), BilboSwaggins_100 (E), Bogg_102 (E), Bruin_99 (E), Buck_103 (E), Cactus_106 (E), ChosenOne_102 (E), ChotaBhai_102 (E), Command613_104 (E), Contagion_98 (E), Cookies_99 (E), CrystalP_101 (E), Daikon_102 (E), DoctorDiddles_101 (E), DrDrey_102 (E), Dusk_99 (E), Easy2Say_102 (E), Elite2014_101 (E), Emmina_102 (E), Eureka_101 (E), FireRed_105 (E), Flypotenuse_98 (E), Gage_104 (E), Gator_100 (E), Gemini_107 (E), Goku_101 (E), GoldenSpark_106 (E), Goldilocks_105 (E), GooberAzure_105 (E),

Greep_106 (E), Harella_102 (E), Henry_99 (E), Holt_107 (E), Hoonter_105 (E), HufflyPuff_104 (E), IHOP_100 (E), Icee_103 (E), Inca_99 (E), Kanye_99 (E), Kimchi_106 (E), Kostya_102 (E), Lilpickle_101 (E), MISSy_103 (E), MPhalcon_103 (E), Manda_103 (E), Marshmallow_99 (E), Mindy_101 (E), Miniwave_97 (E), Misfit_103 (E), Mosby_98 (E), Murica_105 (E), Myrale_102 (E), Nala_104 (E), NelitzaMV_99 (E), Nimrod_102 (E), NonchalantPear_100 (E), Paperbeatsrock_101 (E), Pat3_99 (E), Petra64142_106 (E), Phaja_100 (E), Pharsalus_99 (E), PhatBacter_105 (E), Phaux_104 (E), Policronamos_104 (E), Ptowny_98 (E), Quallification_103 (E), Rakim_103 (E), Rimmer_100 (E), Sassay_97 (E), ShamWow_102 (E), ShereKhan_100 (E), SirDuracell_102 (E), SophKB_100 (E), Sotrice96_103 (E), Stank_104 (E), StellaBean_101 (E), StolenFromERC_104 (E), StormChicken_103 (E), TBrady12_105 (E), Tarkin_101 (E), TeamEdward_102 (E), TeardropMSU_98 (E), Terminus_105 (E), Tomaszewski_97 (E), Toto_100 (E), Traaww1_98 (E), Tuco_103 (E), Wiggin_104 (E), Willez_97 (E), Xandras_101 (E), YassJohnny_99 (E), Youngblood_105 (E), xkcd_105 (E),

Start 55:

- Found in 10 of 235 (4.3%) of genes in pham
- Manual Annotations of this start: 9 of 190
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Astro_50 (A8), Caitlin_49 (A8), Danforth_50 (A8), Dixon_50 (A8), Expelliarmus_50 (A8), Groundhog_49 (A8), NearlyHeadless_50 (A8), Roary_51 (A8), Saintus_45 (A8), Smeadley_51 (A8),

Summary by clusters:

There are 20 clusters represented in this pham: UNK, singleton, BI5, E, A12, EA7, EG, AV, DU1, EC, A18, FC, K6, BS, Y, A8, DQ, EQ, EK1, BI1,

Info for manual annotations of cluster A12:

- Start number 47 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A18:

- Start number 50 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A8:

- Start number 50 was manually annotated 1 time for cluster A8.
- Start number 55 was manually annotated 9 times for cluster A8.

Info for manual annotations of cluster BI1:

- Start number 43 was manually annotated 16 times for cluster BI1.

Info for manual annotations of cluster BI5:

- Start number 43 was manually annotated 1 time for cluster BI5.

Info for manual annotations of cluster BS:

- Start number 43 was manually annotated 4 times for cluster BS.
- Start number 44 was manually annotated 1 time for cluster BS.
- Start number 45 was manually annotated 1 time for cluster BS.

Info for manual annotations of cluster DQ:

- Start number 43 was manually annotated 1 time for cluster DQ.

- Start number 45 was manually annotated 8 times for cluster DQ.

Info for manual annotations of cluster DU1:

- Start number 47 was manually annotated 4 times for cluster DU1.

Info for manual annotations of cluster E:

- Start number 51 was manually annotated 93 times for cluster E.

Info for manual annotations of cluster EA7:

- Start number 38 was manually annotated 1 time for cluster EA7.

Info for manual annotations of cluster EC:

- Start number 43 was manually annotated 2 times for cluster EC.

Info for manual annotations of cluster EG:

- Start number 29 was manually annotated 1 time for cluster EG.
- Start number 31 was manually annotated 4 times for cluster EG.
- Start number 32 was manually annotated 28 times for cluster EG.
- Start number 33 was manually annotated 3 times for cluster EG.

Info for manual annotations of cluster EK1:

- Start number 37 was manually annotated 1 time for cluster EK1.

Info for manual annotations of cluster EQ:

- Start number 43 was manually annotated 2 times for cluster EQ.

Info for manual annotations of cluster FC:

- Start number 42 was manually annotated 4 times for cluster FC.

Info for manual annotations of cluster K6:

- Start number 39 was manually annotated 1 time for cluster K6.

Info for manual annotations of cluster Y:

- Start number 46 was manually annotated 2 times for cluster Y.

Gene Information:

Gene: ABCat_99 Start: 61561, Stop: 61758, Start Num: 51

Candidate Starts for ABCat_99:

(15, 61384), (Start: 42 @61540 has 4 MA's), (Start: 51 @61561 has 93 MA's), (60, 61606), (65, 61624), (77, 61666), (85, 61720),

Gene: Adnama_106 Start: 60871, Stop: 61068, Start Num: 51

Candidate Starts for Adnama_106:

(15, 60694), (Start: 42 @60850 has 4 MA's), (Start: 51 @60871 has 93 MA's), (60, 60916), (65, 60934), (77, 60976), (85, 61030),

Gene: Alok_i_23 Start: 11841, Stop: 12056, Start Num: 45

Candidate Starts for Alok_i_23:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: Alone3_74 Start: 28535, Stop: 28747, Start Num: 43

Candidate Starts for Alone3_74:

(Start: 43 @28535 has 26 MA's), (68, 28625), (77, 28652), (82, 28694), (84, 28706), (85, 28709),

Gene: Altheas_58 Start: 42617, Stop: 42345, Start Num: 32

Candidate Starts for Altheas_58:

(Start: 31 @42623 has 4 MA's), (Start: 32 @42617 has 28 MA's), (64, 42494), (81, 42407), (86, 42383),

Gene: Amao_102 Start: 60985, Stop: 61182, Start Num: 51

Candidate Starts for Amao_102:

(15, 60808), (Start: 42 @60964 has 4 MA's), (Start: 51 @60985 has 93 MA's), (60, 61030), (65, 61048), (77, 61090), (85, 61144),

Gene: Amoonguss_23 Start: 11844, Stop: 12059, Start Num: 45

Candidate Starts for Amoonguss_23:

(30, 11787), (Start: 43 @11841 has 26 MA's), (Start: 45 @11844 has 9 MA's), (60, 11901), (68, 11934), (72, 11946), (73, 11949), (86, 12018),

Gene: Argena_23 Start: 11841, Stop: 12056, Start Num: 45

Candidate Starts for Argena_23:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: Argent26_106 Start: 60795, Stop: 60992, Start Num: 51

Candidate Starts for Argent26_106:

(15, 60618), (Start: 42 @60774 has 4 MA's), (Start: 51 @60795 has 93 MA's), (60, 60840), (65, 60858), (77, 60900), (85, 60954),

Gene: Asriel_100 Start: 59208, Stop: 59405, Start Num: 51

Candidate Starts for Asriel_100:

(15, 59031), (Start: 42 @59187 has 4 MA's), (Start: 51 @59208 has 93 MA's), (60, 59253), (65, 59271), (77, 59313), (85, 59367),

Gene: Astro_50 Start: 34486, Stop: 34301, Start Num: 55

Candidate Starts for Astro_50:

(49, 34513), (Start: 55 @34486 has 9 MA's), (75, 34408), (83, 34360),

Gene: BRock_64 Start: 24495, Stop: 24707, Start Num: 43

Candidate Starts for BRock_64:

(Start: 43 @24495 has 26 MA's), (68, 24585), (80, 24639), (84, 24666), (85, 24669),

Gene: BabyDotz_55 Start: 42840, Stop: 42568, Start Num: 32

Candidate Starts for BabyDotz_55:

(Start: 31 @42843 has 4 MA's), (Start: 32 @42840 has 28 MA's), (66, 42696), (76, 42666), (81, 42630), (86, 42606), (89, 42579),

Gene: BaconCheese_59 Start: 43496, Stop: 43224, Start Num: 33

Candidate Starts for BaconCheese_59:

(Start: 31 @43502 has 4 MA's), (Start: 33 @43496 has 3 MA's), (34, 43487), (65, 43379), (71, 43355), (81, 43304), (86, 43280), (95, 43229),

Gene: BadStone_99 Start: 61130, Stop: 61327, Start Num: 51

Candidate Starts for BadStone_99:

(15, 60953), (Start: 42 @61109 has 4 MA's), (Start: 51 @61130 has 93 MA's), (60, 61175), (65, 61193), (77, 61235), (85, 61289),

Gene: Balomoji_102 Start: 60991, Stop: 61188, Start Num: 51

Candidate Starts for Balomoji_102:

(15, 60814), (Start: 42 @60970 has 4 MA's), (Start: 51 @60991 has 93 MA's), (60, 61036), (65, 61054), (77, 61096), (85, 61150),

Gene: Barbarian_101 Start: 59208, Stop: 59405, Start Num: 51

Candidate Starts for Barbarian_101:

(15, 59031), (Start: 42 @59187 has 4 MA's), (Start: 51 @59208 has 93 MA's), (60, 59253), (65, 59271), (77, 59313), (85, 59367),

Gene: Bask21_102 Start: 59847, Stop: 60044, Start Num: 51

Candidate Starts for Bask21_102:

(15, 59670), (Start: 42 @59826 has 4 MA's), (Start: 51 @59847 has 93 MA's), (60, 59892), (65, 59910), (77, 59952), (85, 60006),

Gene: Beleetus_70 Start: 26659, Stop: 26871, Start Num: 43

Candidate Starts for Beleetus_70:

(Start: 43 @26659 has 26 MA's), (56, 26701), (68, 26749), (82, 26818), (84, 26830), (85, 26833),

Gene: Beted_23 Start: 11467, Stop: 11682, Start Num: 45

Candidate Starts for Beted_23:

(Start: 43 @11464 has 26 MA's), (Start: 45 @11467 has 9 MA's), (60, 11524), (68, 11557), (73, 11572), (86, 11641),

Gene: BigAnti_27 Start: 33173, Stop: 33421, Start Num: 43

Candidate Starts for BigAnti_27:

(Start: 43 @33173 has 26 MA's), (78, 33308), (86, 33362),

Gene: BigBubba_102 Start: 59904, Stop: 60101, Start Num: 51

Candidate Starts for BigBubba_102:

(15, 59727), (Start: 42 @59883 has 4 MA's), (Start: 51 @59904 has 93 MA's), (60, 59949), (65, 59967), (77, 60009), (85, 60063),

Gene: BilboSwaggins_100 Start: 61530, Stop: 61727, Start Num: 51

Candidate Starts for BilboSwaggins_100:

(15, 61353), (Start: 42 @61509 has 4 MA's), (Start: 51 @61530 has 93 MA's), (60, 61575), (65, 61593), (77, 61635), (85, 61689),

Gene: Bing_31 Start: 25537, Stop: 25779, Start Num: 43

Candidate Starts for Bing_31:

(Start: 43 @25537 has 26 MA's), (86, 25729), (88, 25747),

Gene: Bipper_125 Start: 73005, Stop: 73226, Start Num: 46

Candidate Starts for Bipper_125:

(9, 72744), (12, 72804), (Start: 46 @73005 has 2 MA's), (63, 73074), (84, 73182), (85, 73185), (87, 73197),

Gene: Blab_53 Start: 41667, Stop: 41395, Start Num: 33

Candidate Starts for Blab_53:

(4, 42102), (5, 42099), (6, 41997), (7, 41937), (8, 41928), (10, 41850), (13, 41811), (14, 41808), (18, 41763), (19, 41754), (Start: 31 @41673 has 4 MA's), (Start: 33 @41667 has 3 MA's), (34, 41658), (65, 41550), (71, 41526), (81, 41475), (86, 41451), (95, 41400),

Gene: Bloom_190 Start: 124505, Stop: 124735, Start Num: 42

Candidate Starts for Bloom_190:

(Start: 42 @124505 has 4 MA's), (86, 124682),

Gene: Bogg_102 Start: 61071, Stop: 61268, Start Num: 51

Candidate Starts for Bogg_102:

(15, 60894), (Start: 42 @61050 has 4 MA's), (Start: 51 @61071 has 93 MA's), (60, 61116), (65, 61134), (77, 61176), (85, 61230),

Gene: Bruin_99 Start: 60236, Stop: 60433, Start Num: 51

Candidate Starts for Bruin_99:

(15, 60059), (Start: 42 @60215 has 4 MA's), (Start: 51 @60236 has 93 MA's), (60, 60281), (65, 60299), (77, 60341), (85, 60395),

Gene: Buck_103 Start: 62073, Stop: 62270, Start Num: 51

Candidate Starts for Buck_103:

(15, 61896), (Start: 42 @62052 has 4 MA's), (Start: 51 @62073 has 93 MA's), (60, 62118), (65, 62136), (77, 62178), (85, 62232),

Gene: Cactus_106 Start: 60490, Stop: 60687, Start Num: 51

Candidate Starts for Cactus_106:

(15, 60313), (Start: 42 @60469 has 4 MA's), (Start: 51 @60490 has 93 MA's), (60, 60535), (65, 60553), (77, 60595), (85, 60649),

Gene: Caitlin_49 Start: 34479, Stop: 34294, Start Num: 55

Candidate Starts for Caitlin_49:

(49, 34506), (Start: 55 @34479 has 9 MA's), (75, 34401), (83, 34353),

Gene: Casend_55 Start: 42251, Stop: 41979, Start Num: 32

Candidate Starts for Casend_55:

(Start: 31 @42254 has 4 MA's), (Start: 32 @42251 has 28 MA's), (64, 42128), (81, 42041), (86, 42017), (89, 41990),

Gene: CherryBlossom_30 Start: 25644, Stop: 25883, Start Num: 43

Candidate Starts for CherryBlossom_30:

(Start: 43 @25644 has 26 MA's), (80, 25803), (86, 25833),

Gene: Chidiebere_24 Start: 11838, Stop: 12056, Start Num: 43

Candidate Starts for Chidiebere_24:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (73, 11946), (83, 12000), (86, 12015),

Gene: ChisanaKitsune_20 Start: 10536, Stop: 10751, Start Num: 45

Candidate Starts for ChisanaKitsune_20:

(Start: 43 @10533 has 26 MA's), (Start: 45 @10536 has 9 MA's), (60, 10593), (68, 10626), (73, 10641), (83, 10695), (86, 10710),

Gene: ChosenOne_102 Start: 60439, Stop: 60636, Start Num: 51

Candidate Starts for ChosenOne_102:

(15, 60262), (Start: 42 @60418 has 4 MA's), (Start: 51 @60439 has 93 MA's), (60, 60484), (65, 60502), (77, 60544), (85, 60598),

Gene: ChotaBhai_102 Start: 60849, Stop: 61046, Start Num: 51

Candidate Starts for ChotaBhai_102:

(15, 60672), (Start: 42 @60828 has 4 MA's), (Start: 51 @60849 has 93 MA's), (60, 60894), (65, 60912), (85, 61008),

Gene: Command613_104 Start: 61005, Stop: 61202, Start Num: 51

Candidate Starts for Command613_104:

(15, 60828), (Start: 42 @60984 has 4 MA's), (Start: 51 @61005 has 93 MA's), (60, 61050), (65, 61068), (77, 61110), (85, 61164),

Gene: Contagion_98 Start: 60598, Stop: 60795, Start Num: 51

Candidate Starts for Contagion_98:

(15, 60421), (Start: 42 @60577 has 4 MA's), (Start: 51 @60598 has 93 MA's), (60, 60643), (65, 60661), (77, 60703), (85, 60757),

Gene: Cookies_99 Start: 60775, Stop: 60972, Start Num: 51

Candidate Starts for Cookies_99:

(15, 60598), (Start: 42 @60754 has 4 MA's), (Start: 51 @60775 has 93 MA's), (60, 60820), (65, 60838), (77, 60880), (85, 60934),

Gene: Cracklewink_126 Start: 72157, Stop: 72378, Start Num: 46

Candidate Starts for Cracklewink_126:

(9, 71896), (12, 71956), (Start: 46 @72157 has 2 MA's), (63, 72226), (84, 72334), (85, 72337), (87, 72349),

Gene: CrystalP_101 Start: 61530, Stop: 61727, Start Num: 51

Candidate Starts for CrystalP_101:

(15, 61353), (Start: 42 @61509 has 4 MA's), (Start: 51 @61530 has 93 MA's), (60, 61575), (65, 61593), (77, 61635), (85, 61689),

Gene: Daikon_102 Start: 60404, Stop: 60601, Start Num: 51

Candidate Starts for Daikon_102:

(15, 60227), (Start: 42 @60383 has 4 MA's), (Start: 51 @60404 has 93 MA's), (60, 60449), (65, 60467), (77, 60509), (85, 60563),

Gene: Danforth_50 Start: 34515, Stop: 34330, Start Num: 55

Candidate Starts for Danforth_50:

(49, 34542), (Start: 55 @34515 has 9 MA's), (75, 34437), (83, 34389),

Gene: Dixon_50 Start: 34310, Stop: 34125, Start Num: 55

Candidate Starts for Dixon_50:

(16, 34505), (49, 34337), (Start: 55 @34310 has 9 MA's), (75, 34232), (83, 34184),

Gene: DoctorDiddles_101 Start: 60253, Stop: 60450, Start Num: 51

Candidate Starts for DoctorDiddles_101:

(15, 60076), (Start: 42 @60232 has 4 MA's), (Start: 51 @60253 has 93 MA's), (60, 60298), (65, 60316), (77, 60358), (85, 60412),

Gene: DonaldDuck_54 Start: 41600, Stop: 41328, Start Num: 32

Candidate Starts for DonaldDuck_54:

(Start: 31 @41603 has 4 MA's), (Start: 32 @41600 has 28 MA's), (64, 41477), (81, 41390), (86, 41366), (89, 41339),

Gene: DrDrey_102 Start: 62268, Stop: 62465, Start Num: 51

Candidate Starts for DrDrey_102:

(15, 62091), (Start: 42 @62247 has 4 MA's), (Start: 51 @62268 has 93 MA's), (60, 62313), (65, 62331), (77, 62373), (85, 62427),

Gene: Dusk_99 Start: 60790, Stop: 60987, Start Num: 51

Candidate Starts for Dusk_99:

(15, 60613), (Start: 42 @60769 has 4 MA's), (Start: 51 @60790 has 93 MA's), (60, 60835), (65, 60853), (77, 60895), (85, 60949),

Gene: Easy2Say_102 Start: 61262, Stop: 61459, Start Num: 51

Candidate Starts for Easy2Say_102:

(15, 61085), (Start: 42 @61241 has 4 MA's), (Start: 51 @61262 has 93 MA's), (60, 61307), (65, 61325), (77, 61367), (85, 61421),

Gene: Elite2014_101 Start: 60438, Stop: 60635, Start Num: 51

Candidate Starts for Elite2014_101:

(15, 60261), (Start: 42 @60417 has 4 MA's), (Start: 51 @60438 has 93 MA's), (60, 60483), (65, 60501), (77, 60543), (85, 60597),

Gene: Emmina_102 Start: 60213, Stop: 60410, Start Num: 51

Candidate Starts for Emmina_102:

(15, 60036), (Start: 42 @60192 has 4 MA's), (Start: 51 @60213 has 93 MA's), (60, 60258), (65, 60276), (77, 60318), (85, 60372),

Gene: EmoNemo_23 Start: 11841, Stop: 12056, Start Num: 45

Candidate Starts for EmoNemo_23:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: Esketit_30 Start: 25627, Stop: 25866, Start Num: 43

Candidate Starts for Esketit_30:

(Start: 43 @25627 has 26 MA's), (80, 25786), (86, 25816),

Gene: Eureka_101 Start: 61401, Stop: 61598, Start Num: 51

Candidate Starts for Eureka_101:

(15, 61224), (Start: 42 @61380 has 4 MA's), (Start: 51 @61401 has 93 MA's), (60, 61446), (65, 61464), (77, 61506), (85, 61560),

Gene: EverythinBagel_53 Start: 41961, Stop: 41689, Start Num: 32

Candidate Starts for EverythinBagel_53:

(Start: 31 @41964 has 4 MA's), (Start: 32 @41961 has 28 MA's), (64, 41838), (81, 41751), (86, 41727), (89, 41700),

Gene: Expelliarmus_50 Start: 34544, Stop: 34359, Start Num: 55

Candidate Starts for Expelliarmus_50:

(49, 34571), (Start: 55 @34544 has 9 MA's), (75, 34466), (83, 34418),

Gene: Farrylious_22 Start: 11594, Stop: 11809, Start Num: 45

Candidate Starts for Farrylious_22:

(30, 11537), (Start: 43 @11591 has 26 MA's), (Start: 45 @11594 has 9 MA's), (60, 11651), (68, 11684), (72, 11696), (73, 11699), (86, 11768),

Gene: FidgetOrca_30 Start: 25633, Stop: 25872, Start Num: 43

Candidate Starts for FidgetOrca_30:

(Start: 43 @25633 has 26 MA's), (80, 25792), (86, 25822),

Gene: FireRed_105 Start: 61677, Stop: 61874, Start Num: 51

Candidate Starts for FireRed_105:

(15, 61500), (Start: 42 @61656 has 4 MA's), (Start: 51 @61677 has 93 MA's), (60, 61722), (65, 61740), (77, 61782), (85, 61836),

Gene: FloraSnap32_183 Start: 122836, Stop: 123066, Start Num: 42

Candidate Starts for FloraSnap32_183:

(Start: 42 @122836 has 4 MA's), (86, 123013),

Gene: FlyingTortilla_23 Start: 12855, Stop: 13073, Start Num: 45

Candidate Starts for FlyingTortilla_23:

(Start: 43 @12852 has 26 MA's), (Start: 45 @12855 has 9 MA's), (81, 13008), (84, 13026), (86, 13032),

Gene: Flypotenuse_98 Start: 59862, Stop: 60059, Start Num: 51

Candidate Starts for Flypotenuse_98:

(15, 59685), (Start: 42 @59841 has 4 MA's), (Start: 51 @59862 has 93 MA's), (60, 59907), (65, 59925), (77, 59967), (85, 60021),

Gene: FrankDeliGuy_52 Start: 41773, Stop: 41501, Start Num: 32

Candidate Starts for FrankDeliGuy_52:

(Start: 32 @41773 has 28 MA's), (66, 41629), (76, 41599), (81, 41563), (86, 41539), (89, 41512),

Gene: Fransoyer_58 Start: 44153, Stop: 43872, Start Num: 32

Candidate Starts for Fransoyer_58:

(Start: 32 @44153 has 28 MA's), (64, 44027),

Gene: FrostedClock_189 Start: 125166, Stop: 125396, Start Num: 42

Candidate Starts for FrostedClock_189:

(Start: 42 @125166 has 4 MA's), (86, 125343),

Gene: FruityLoops_22 Start: 12860, Stop: 13078, Start Num: 45

Candidate Starts for FruityLoops_22:

(Start: 43 @12857 has 26 MA's), (Start: 45 @12860 has 9 MA's), (81, 13013), (84, 13031), (86, 13037),

Gene: Fudan_74 Start: 27328, Stop: 27540, Start Num: 43

Candidate Starts for Fudan_74:

(Start: 43 @27328 has 26 MA's), (68, 27418), (77, 27445), (82, 27487), (84, 27499), (85, 27502),

Gene: Gage_104 Start: 60933, Stop: 61130, Start Num: 51

Candidate Starts for Gage_104:

(15, 60756), (Start: 51 @60933 has 93 MA's), (60, 60978), (65, 60996), (77, 61038), (85, 61092),

Gene: Garnacho_65 Start: 26235, Stop: 26447, Start Num: 43

Candidate Starts for Garnacho_65:

(Start: 43 @26235 has 26 MA's), (68, 26325), (80, 26379), (84, 26406), (85, 26409),

Gene: Gator_100 Start: 60718, Stop: 60915, Start Num: 51

Candidate Starts for Gator_100:

(15, 60541), (Start: 42 @60697 has 4 MA's), (Start: 51 @60718 has 93 MA's), (60, 60763), (65, 60781), (77, 60823), (85, 60877),

Gene: Gazebo_55 Start: 42275, Stop: 42003, Start Num: 32

Candidate Starts for Gazebo_55:

(Start: 31 @42281 has 4 MA's), (Start: 32 @42275 has 28 MA's), (64, 42152), (81, 42065), (86, 42041), (89, 42014),

Gene: Gemini_107 Start: 61312, Stop: 61509, Start Num: 51

Candidate Starts for Gemini_107:

(15, 61135), (Start: 42 @61291 has 4 MA's), (Start: 51 @61312 has 93 MA's), (60, 61357), (65, 61375), (77, 61417), (85, 61471),

Gene: GiJojo_63 Start: 26714, Stop: 26926, Start Num: 45

Candidate Starts for GiJojo_63:

(Start: 45 @26714 has 9 MA's), (68, 26804), (80, 26858), (84, 26885), (85, 26888),

Gene: Goku_101 Start: 61130, Stop: 61327, Start Num: 51

Candidate Starts for Goku_101:

(15, 60953), (Start: 42 @61109 has 4 MA's), (Start: 51 @61130 has 93 MA's), (60, 61175), (65, 61193), (77, 61235), (85, 61289),

Gene: GoldenEssence_174 Start: 118714, Stop: 118944, Start Num: 42

Candidate Starts for GoldenEssence_174:

(Start: 42 @118714 has 4 MA's), (86, 118891),

Gene: GoldenSpark_106 Start: 60795, Stop: 60992, Start Num: 51

Candidate Starts for GoldenSpark_106:

(15, 60618), (Start: 42 @60774 has 4 MA's), (Start: 51 @60795 has 93 MA's), (60, 60840), (65, 60858), (77, 60900), (85, 60954),

Gene: Goldilocks_105 Start: 60712, Stop: 60909, Start Num: 51

Candidate Starts for Goldilocks_105:

(15, 60535), (Start: 42 @60691 has 4 MA's), (Start: 51 @60712 has 93 MA's), (60, 60757), (65, 60775), (77, 60817), (85, 60871),

Gene: GooberAzure_105 Start: 60795, Stop: 60992, Start Num: 51

Candidate Starts for GooberAzure_105:

(15, 60618), (Start: 42 @60774 has 4 MA's), (Start: 51 @60795 has 93 MA's), (60, 60840), (65, 60858), (77, 60900), (85, 60954),

Gene: Grassboy_58 Start: 42646, Stop: 42386, Start Num: 31

Candidate Starts for Grassboy_58:

(Start: 31 @42646 has 4 MA's), (Start: 33 @42640 has 3 MA's), (34, 42631), (65, 42523), (71, 42499), (81, 42448), (86, 42424),

Gene: Gray_24 Start: 11841, Stop: 12056, Start Num: 45

Candidate Starts for Gray_24:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: Greep_106 Start: 62367, Stop: 62564, Start Num: 51

Candidate Starts for Greep_106:

(15, 62190), (Start: 42 @62346 has 4 MA's), (Start: 51 @62367 has 93 MA's), (60, 62412), (65, 62430), (77, 62472), (85, 62526),

Gene: Groundhog_49 Start: 34442, Stop: 34257, Start Num: 55

Candidate Starts for Groundhog_49:

(16, 34637), (49, 34469), (Start: 55 @34442 has 9 MA's), (75, 34364), (83, 34316),

Gene: Hanem_24 Start: 11841, Stop: 12056, Start Num: 45

Candidate Starts for Hanem_24:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: Harella_102 Start: 61508, Stop: 61705, Start Num: 51

Candidate Starts for Harella_102:

(15, 61331), (Start: 42 @61487 has 4 MA's), (Start: 51 @61508 has 93 MA's), (60, 61553), (65, 61571), (77, 61613), (85, 61667),

Gene: Henry_99 Start: 60835, Stop: 61032, Start Num: 51

Candidate Starts for Henry_99:

(15, 60658), (Start: 42 @60814 has 4 MA's), (Start: 51 @60835 has 93 MA's), (60, 60880), (65, 60898), (77, 60940), (85, 60994),

Gene: Holt_107 Start: 61209, Stop: 61406, Start Num: 51

Candidate Starts for Holt_107:

(15, 61032), (Start: 42 @61188 has 4 MA's), (Start: 51 @61209 has 93 MA's), (60, 61254), (65, 61272), (77, 61314), (85, 61368),

Gene: Hoonter_105 Start: 61288, Stop: 61485, Start Num: 51

Candidate Starts for Hoonter_105:

(15, 61111), (Start: 42 @61267 has 4 MA's), (Start: 51 @61288 has 93 MA's), (60, 61333), (65, 61351), (77, 61393), (85, 61447),

Gene: Hoshi_30 Start: 25627, Stop: 25866, Start Num: 43

Candidate Starts for Hoshi_30:

(Start: 43 @25627 has 26 MA's), (80, 25786), (86, 25816),

Gene: HufflyPuff_104 Start: 61903, Stop: 62100, Start Num: 51

Candidate Starts for HufflyPuff_104:

(15, 61726), (Start: 42 @61882 has 4 MA's), (Start: 51 @61903 has 93 MA's), (60, 61948), (65, 61966), (77, 62008), (85, 62062),

Gene: Hyperion_56 Start: 42456, Stop: 42184, Start Num: 32

Candidate Starts for Hyperion_56:

(Start: 31 @42459 has 4 MA's), (Start: 32 @42456 has 28 MA's), (64, 42333), (81, 42246), (86, 42222), (89, 42195),

Gene: IHOP_100 Start: 60511, Stop: 60708, Start Num: 51

Candidate Starts for IHOP_100:

(15, 60334), (Start: 42 @60490 has 4 MA's), (Start: 51 @60511 has 93 MA's), (60, 60556), (65, 60574), (77, 60616), (85, 60670),

Gene: IceWarrior_30 Start: 25627, Stop: 25866, Start Num: 43

Candidate Starts for IceWarrior_30:

(Start: 43 @25627 has 26 MA's), (80, 25786), (86, 25816),

Gene: Icee_103 Start: 60319, Stop: 60516, Start Num: 51

Candidate Starts for Icee_103:

(15, 60142), (Start: 42 @60298 has 4 MA's), (Start: 51 @60319 has 93 MA's), (60, 60364), (65, 60382), (77, 60424), (85, 60478),

Gene: Inca_99 Start: 59000, Stop: 59197, Start Num: 51

Candidate Starts for Inca_99:

(15, 58823), (Start: 42 @58979 has 4 MA's), (Start: 51 @59000 has 93 MA's), (60, 59045), (65, 59063), (77, 59105), (85, 59159),

Gene: Indigenous_30 Start: 25627, Stop: 25866, Start Num: 43

Candidate Starts for Indigenous_30:

(Start: 43 @25627 has 26 MA's), (80, 25786), (86, 25816),

Gene: Jaylociraptor_30 Start: 25627, Stop: 25866, Start Num: 43

Candidate Starts for Jaylociraptor_30:

(Start: 43 @25627 has 26 MA's), (80, 25786), (86, 25816),

Gene: Jehoshaphat_56 Start: 42519, Stop: 42247, Start Num: 32

Candidate Starts for Jehoshaphat_56:

(Start: 31 @42522 has 4 MA's), (Start: 32 @42519 has 28 MA's), (64, 42396), (81, 42309), (86, 42285), (89, 42258),

Gene: Judebell_57 Start: 42165, Stop: 41893, Start Num: 32

Candidate Starts for Judebell_57:

(Start: 31 @42168 has 4 MA's), (Start: 32 @42165 has 28 MA's), (66, 42021), (76, 41991), (81, 41955), (86, 41931), (89, 41904),

Gene: Kabocha_25 Start: 12654, Stop: 12869, Start Num: 45

Candidate Starts for Kabocha_25:

(30, 12597), (Start: 43 @12651 has 26 MA's), (Start: 45 @12654 has 9 MA's), (60, 12711), (68, 12744), (72, 12756), (73, 12759), (86, 12828),

Gene: Kanye_99 Start: 61044, Stop: 61241, Start Num: 51

Candidate Starts for Kanye_99:

(15, 60867), (Start: 42 @61023 has 4 MA's), (Start: 51 @61044 has 93 MA's), (60, 61089), (65, 61107), (77, 61149), (85, 61203),

Gene: Kimchi_106 Start: 60936, Stop: 61133, Start Num: 51

Candidate Starts for Kimchi_106:

(15, 60759), (Start: 42 @60915 has 4 MA's), (Start: 51 @60936 has 93 MA's), (60, 60981), (65, 60999), (77, 61041), (85, 61095),

Gene: Kostya_102 Start: 60613, Stop: 60810, Start Num: 51

Candidate Starts for Kostya_102:

(15, 60436), (Start: 42 @60592 has 4 MA's), (Start: 51 @60613 has 93 MA's), (60, 60658), (65, 60676), (77, 60718), (85, 60772),

Gene: Kudefre_102 Start: 58639, Stop: 58851, Start Num: 47

Candidate Starts for Kudefre_102:

(Start: 47 @58639 has 5 MA's), (67, 58729), (74, 58750), (85, 58813), (90, 58843),

Gene: Kyva_58 Start: 42703, Stop: 42443, Start Num: 31

Candidate Starts for Kyva_58:

(Start: 31 @42703 has 4 MA's), (Start: 33 @42697 has 3 MA's), (34, 42688), (65, 42580), (71, 42556), (81, 42505), (86, 42481),

Gene: Laure_187 Start: 116319, Stop: 116528, Start Num: 42

Candidate Starts for Laure_187:

(Start: 42 @116319 has 4 MA's), (53, 116349), (81, 116472), (86, 116496),

Gene: Lenoshki_23 Start: 11467, Stop: 11682, Start Num: 45

Candidate Starts for Lenoshki_23:

(Start: 43 @11464 has 26 MA's), (Start: 45 @11467 has 9 MA's), (60, 11524), (68, 11557), (73, 11572), (86, 11641),

Gene: Lilpickle_101 Start: 60438, Stop: 60635, Start Num: 51

Candidate Starts for Lilpickle_101:

(15, 60261), (Start: 42 @60417 has 4 MA's), (Start: 51 @60438 has 93 MA's), (60, 60483), (65, 60501), (77, 60543), (85, 60597),

Gene: Llemily_54 Start: 41295, Stop: 41023, Start Num: 32

Candidate Starts for Llemily_54:

(Start: 31 @41298 has 4 MA's), (Start: 32 @41295 has 28 MA's), (64, 41172), (81, 41085), (86, 41061), (89, 41034),

Gene: Lonelysoil_54 Start: 41648, Stop: 41376, Start Num: 32

Candidate Starts for Lonelysoil_54:

(Start: 32 @41648 has 28 MA's), (64, 41525), (81, 41438), (86, 41414), (89, 41387),

Gene: LuckySocke_72 Start: 27277, Stop: 27489, Start Num: 43

Candidate Starts for LuckySocke_72:

(Start: 43 @27277 has 26 MA's), (68, 27367), (77, 27394), (82, 27436), (84, 27448), (85, 27451),

Gene: MISSy_103 Start: 61721, Stop: 61918, Start Num: 51

Candidate Starts for MISSy_103:

(15, 61544), (22, 61598), (Start: 42 @61700 has 4 MA's), (Start: 51 @61721 has 93 MA's), (60, 61766), (65, 61784), (77, 61826), (85, 61880),

Gene: MPhalcon_103 Start: 61138, Stop: 61335, Start Num: 51

Candidate Starts for MPhalcon_103:

(15, 60961), (Start: 42 @61117 has 4 MA's), (Start: 51 @61138 has 93 MA's), (60, 61183), (65, 61201), (77, 61243), (85, 61297),

Gene: Manda_103 Start: 61175, Stop: 61372, Start Num: 51

Candidate Starts for Manda_103:

(15, 60998), (Start: 42 @61154 has 4 MA's), (Start: 51 @61175 has 93 MA's), (60, 61220), (65, 61238), (77, 61280), (85, 61334),

Gene: Marshawn_5 Start: 936, Stop: 1178, Start Num: 39

Candidate Starts for Marshawn_5:

(Start: 39 @936 has 1 MA's), (61, 1017), (85, 1128),

Gene: Marshmallow_99 Start: 61133, Stop: 61330, Start Num: 51

Candidate Starts for Marshmallow_99:

(15, 60956), (Start: 42 @61112 has 4 MA's), (Start: 51 @61133 has 93 MA's), (60, 61178), (65, 61196), (77, 61238), (85, 61292),

Gene: Mashley_55 Start: 42232, Stop: 41960, Start Num: 32

Candidate Starts for Mashley_55:

(Start: 32 @42232 has 28 MA's), (66, 42088), (76, 42058), (81, 42022), (86, 41998), (89, 41971),

Gene: Maya_30 Start: 25641, Stop: 25880, Start Num: 43

Candidate Starts for Maya_30:

(Start: 43 @25641 has 26 MA's), (80, 25800), (86, 25830),

Gene: Meibysrarus_30 Start: 25627, Stop: 25866, Start Num: 43

Candidate Starts for Meibysrarus_30:

(Start: 43 @25627 has 26 MA's), (80, 25786), (86, 25816),

Gene: Mentos_60 Start: 43466, Stop: 43194, Start Num: 32

Candidate Starts for Mentos_60:

(18, 43562), (Start: 32 @43466 has 28 MA's), (66, 43322), (76, 43292), (81, 43256), (86, 43232), (89, 43205),

Gene: MicyPS_26 Start: 28079, Stop: 28330, Start Num: 43

Candidate Starts for MicyPS_26:

(21, 27974), (23, 27977), (24, 27983), (27, 27998), (28, 28010), (35, 28049), (Start: 43 @28079 has 26 MA's), (58, 28139), (65, 28169), (73, 28199), (77, 28211), (78, 28214), (83, 28253), (86, 28268), (92, 28304),

Gene: Mikronejon_23 Start: 11838, Stop: 12056, Start Num: 43

Candidate Starts for Mikronejon_23:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: Mila11_59 Start: 43685, Stop: 43431, Start Num: 33

Candidate Starts for Mila11_59:

(Start: 31 @43691 has 4 MA's), (Start: 33 @43685 has 3 MA's), (34, 43676), (65, 43568), (71, 43544), (81, 43493), (86, 43469), (89, 43442),

Gene: Mimi_186 Start: 124218, Stop: 124448, Start Num: 42

Candidate Starts for Mimi_186:

(Start: 42 @124218 has 4 MA's), (86, 124395),

Gene: Mindy_101 Start: 60454, Stop: 60651, Start Num: 51

Candidate Starts for Mindy_101:

(15, 60277), (Start: 42 @60433 has 4 MA's), (Start: 51 @60454 has 93 MA's), (60, 60499), (65, 60517), (77, 60559), (85, 60613),

Gene: Miniwave_97 Start: 60631, Stop: 60828, Start Num: 51

Candidate Starts for Miniwave_97:

(15, 60454), (Start: 42 @60610 has 4 MA's), (Start: 51 @60631 has 93 MA's), (60, 60676), (65, 60694), (77, 60736), (85, 60790),

Gene: MintFritos_23 Start: 11841, Stop: 12056, Start Num: 45

Candidate Starts for MintFritos_23:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: Misfit_103 Start: 62234, Stop: 62431, Start Num: 51

Candidate Starts for Misfit_103:

(15, 62057), (Start: 42 @62213 has 4 MA's), (Start: 51 @62234 has 93 MA's), (60, 62279), (65, 62297), (77, 62339), (85, 62393),

Gene: MorillMayhem_57 Start: 42562, Stop: 42308, Start Num: 33

Candidate Starts for MorillMayhem_57:

(Start: 31 @42568 has 4 MA's), (Start: 33 @42562 has 3 MA's), (34, 42553), (65, 42445), (71, 42421), (81, 42370), (86, 42346), (89, 42319),

Gene: Mosby_98 Start: 60598, Stop: 60795, Start Num: 51

Candidate Starts for Mosby_98:

(15, 60421), (Start: 42 @60577 has 4 MA's), (Start: 51 @60598 has 93 MA's), (60, 60643), (65, 60661), (77, 60703), (85, 60757),

Gene: Murica_105 Start: 62937, Stop: 63134, Start Num: 51

Candidate Starts for Murica_105:

(15, 62760), (22, 62814), (Start: 42 @62916 has 4 MA's), (Start: 51 @62937 has 93 MA's), (60, 62982), (65, 63000), (77, 63042), (85, 63096),

Gene: MyraDee_45 Start: 32187, Stop: 31999, Start Num: 50

Candidate Starts for MyraDee_45:

(Start: 50 @32187 has 2 MA's), (75, 32094),

Gene: Myrale_102 Start: 61293, Stop: 61490, Start Num: 51

Candidate Starts for Myrale_102:

(15, 61116), (Start: 42 @61272 has 4 MA's), (Start: 51 @61293 has 93 MA's), (60, 61338), (65, 61356), (77, 61398), (85, 61452),

Gene: Nala_104 Start: 61647, Stop: 61844, Start Num: 51

Candidate Starts for Nala_104:

(15, 61470), (Start: 42 @61626 has 4 MA's), (Start: 51 @61647 has 93 MA's), (60, 61692), (65, 61710), (77, 61752), (85, 61806),

Gene: Namago_56 Start: 41635, Stop: 41363, Start Num: 32

Candidate Starts for Namago_56:

(Start: 31 @41641 has 4 MA's), (Start: 32 @41635 has 28 MA's), (64, 41512), (81, 41425), (86, 41401), (89, 41374),

Gene: Namo_30 Start: 25633, Stop: 25872, Start Num: 43

Candidate Starts for Namo_30:

(Start: 43 @25633 has 26 MA's), (80, 25792), (86, 25822),

Gene: NearlyHeadless_50 Start: 34281, Stop: 34096, Start Num: 55

Candidate Starts for NearlyHeadless_50:

(17, 34473), (49, 34308), (Start: 55 @34281 has 9 MA's), (65, 34239), (75, 34203), (83, 34155),

Gene: NelitzaMV_99 Start: 59641, Stop: 59838, Start Num: 51

Candidate Starts for NelitzaMV_99:

(15, 59464), (Start: 42 @59620 has 4 MA's), (Start: 51 @59641 has 93 MA's), (60, 59686), (65, 59704), (77, 59746), (85, 59800),

Gene: Nike_56 Start: 42603, Stop: 42349, Start Num: 29

Candidate Starts for Nike_56:

(17, 42684), (Start: 29 @42603 has 1 MA's), (34, 42594), (65, 42486), (71, 42462), (81, 42411), (86, 42387), (89, 42360),

Gene: Nimrod_102 Start: 61260, Stop: 61457, Start Num: 51

Candidate Starts for Nimrod_102:

(15, 61083), (Start: 42 @61239 has 4 MA's), (Start: 51 @61260 has 93 MA's), (60, 61305), (65, 61323), (77, 61365), (85, 61419),

Gene: NonchalantPear_100 Start: 59888, Stop: 60085, Start Num: 51

Candidate Starts for NonchalantPear_100:

(15, 59711), (Start: 51 @59888 has 93 MA's), (60, 59933), (65, 59951), (77, 59993), (85, 60047),

Gene: NoodlelyBoi_26 Start: 13691, Stop: 13933, Start Num: 43

Candidate Starts for NoodlelyBoi_26:

(Start: 43 @13691 has 26 MA's), (64, 13772), (81, 13859), (86, 13883),

Gene: Octobien14_100 Start: 58045, Stop: 58257, Start Num: 47

Candidate Starts for Octobien14_100:

(Start: 47 @58045 has 5 MA's), (67, 58135), (74, 58156), (85, 58219), (91, 58252),

Gene: OlympicHelado_30 Start: 25633, Stop: 25872, Start Num: 43

Candidate Starts for OlympicHelado_30:

(Start: 43 @25633 has 26 MA's), (80, 25792), (86, 25822),

Gene: Oogie_23 Start: 11493, Stop: 11708, Start Num: 45

Candidate Starts for Oogie_23:

(Start: 43 @11490 has 26 MA's), (Start: 45 @11493 has 9 MA's), (60, 11550), (68, 11583), (73, 11598), (86, 11667),

Gene: PSonyx_28 Start: 27311, Stop: 27562, Start Num: 43

Candidate Starts for PSonyx_28:

(Start: 43 @27311 has 26 MA's), (Start: 47 @27314 has 5 MA's), (58, 27371), (73, 27431), (74, 27434), (77, 27443), (78, 27446), (83, 27485), (86, 27500), (92, 27536), (93, 27539),

Gene: Pabst_50 Start: 50450, Stop: 50701, Start Num: 37

Candidate Starts for Pabst_50:

(26, 50399), (Start: 37 @50450 has 1 MA's), (41, 50459), (Start: 51 @50489 has 93 MA's), (57, 50525), (59, 50537), (64, 50555), (65, 50567), (86, 50666),

Gene: Pakusa_23 Start: 11583, Stop: 11798, Start Num: 45

Candidate Starts for Pakusa_23:

(30, 11526), (Start: 43 @11580 has 26 MA's), (Start: 45 @11583 has 9 MA's), (60, 11640), (68, 11673), (72, 11685), (73, 11688), (86, 11757),

Gene: Panchaali_189 Start: 122700, Stop: 122903, Start Num: 48

Candidate Starts for Panchaali_189:

(40, 122679), (48, 122700), (69, 122790), (86, 122871),

Gene: Paperbeatsrock_101 Start: 61309, Stop: 61506, Start Num: 51

Candidate Starts for Paperbeatsrock_101:

(15, 61132), (Start: 42 @61288 has 4 MA's), (Start: 51 @61309 has 93 MA's), (60, 61354), (65, 61372), (77, 61414), (85, 61468),

Gene: Park1214_78 Start: 27760, Stop: 27972, Start Num: 43

Candidate Starts for Park1214_78:

(Start: 43 @27760 has 26 MA's), (62, 27823), (68, 27850), (84, 27931), (85, 27934),

Gene: Pat3_99 Start: 59826, Stop: 60023, Start Num: 51

Candidate Starts for Pat3_99:

(15, 59649), (Start: 42 @59805 has 4 MA's), (Start: 51 @59826 has 93 MA's), (60, 59871), (65, 59889), (77, 59931), (85, 59985),

Gene: Patbob_186 Start: 125330, Stop: 125560, Start Num: 42

Candidate Starts for Patbob_186:

(Start: 42 @125330 has 4 MA's), (86, 125507),

Gene: Petra64142_106 Start: 61798, Stop: 61995, Start Num: 51

Candidate Starts for Petra64142_106:

(15, 61621), (Start: 42 @61777 has 4 MA's), (Start: 51 @61798 has 93 MA's), (60, 61843), (65, 61861), (77, 61903), (85, 61957),

Gene: Phabia_54 Start: 41710, Stop: 41438, Start Num: 32

Candidate Starts for Phabia_54:

(Start: 31 @41713 has 4 MA's), (Start: 32 @41710 has 28 MA's), (64, 41587), (81, 41500), (86, 41476), (89, 41449),

Gene: Phaja_100 Start: 60513, Stop: 60710, Start Num: 51

Candidate Starts for Phaja_100:

(15, 60336), (Start: 42 @60492 has 4 MA's), (Start: 51 @60513 has 93 MA's), (60, 60558), (65, 60576), (77, 60618), (85, 60672),

Gene: Pharaoh_43 Start: 32085, Stop: 31876, Start Num: 47

Candidate Starts for Pharaoh_43:

(23, 32193), (25, 32181), (Start: 47 @32085 has 5 MA's), (65, 32010), (74, 31977), (85, 31914),

Gene: Pharsalus_99 Start: 61008, Stop: 61205, Start Num: 51

Candidate Starts for Pharsalus_99:

(15, 60831), (Start: 42 @60987 has 4 MA's), (Start: 51 @61008 has 93 MA's), (60, 61053), (65, 61071), (77, 61113), (85, 61167),

Gene: PhatBacter_105 Start: 61677, Stop: 61874, Start Num: 51

Candidate Starts for PhatBacter_105:

(15, 61500), (Start: 42 @61656 has 4 MA's), (Start: 51 @61677 has 93 MA's), (60, 61722), (65, 61740), (77, 61782), (85, 61836),

Gene: Phaux_104 Start: 62237, Stop: 62434, Start Num: 51

Candidate Starts for Phaux_104:

(15, 62060), (Start: 42 @62216 has 4 MA's), (Start: 51 @62237 has 93 MA's), (60, 62282), (65, 62300), (77, 62342), (85, 62396),

Gene: Phinky_64 Start: 44342, Stop: 44070, Start Num: 33

Candidate Starts for Phinky_64:

(20, 44396), (Start: 32 @44345 has 28 MA's), (Start: 33 @44342 has 3 MA's), (34, 44333), (65, 44225), (71, 44201), (81, 44150), (86, 44126), (94, 44081),

Gene: Phrampa_179 Start: 126373, Stop: 126600, Start Num: 42

Candidate Starts for Phrampa_179:

(Start: 42 @126373 has 4 MA's), (86, 126550),

Gene: Phroglets_5 Start: 3497, Stop: 3736, Start Num: 34

Candidate Starts for Phroglets_5:

(34, 3497), (36, 3506), (79, 3656), (83, 3689), (86, 3704),

Gene: Policronamos_104 Start: 61941, Stop: 62138, Start Num: 51

Candidate Starts for Policronamos_104:

(15, 61764), (Start: 42 @61920 has 4 MA's), (Start: 51 @61941 has 93 MA's), (60, 61986), (65, 62004), (77, 62046), (85, 62100),

Gene: Ptowny_98 Start: 59349, Stop: 59546, Start Num: 51

Candidate Starts for Ptowny_98:

(15, 59172), (Start: 51 @59349 has 93 MA's), (60, 59394), (65, 59412), (77, 59454), (85, 59508),

Gene: Quallification_103 Start: 61723, Stop: 61920, Start Num: 51

Candidate Starts for Quallification_103:

(15, 61546), (Start: 42 @61702 has 4 MA's), (Start: 51 @61723 has 93 MA's), (60, 61768), (65, 61786), (77, 61828), (85, 61882),

Gene: Quammi_52 Start: 41410, Stop: 41138, Start Num: 32

Candidate Starts for Quammi_52:

(Start: 31 @41413 has 4 MA's), (Start: 32 @41410 has 28 MA's), (64, 41287), (81, 41200), (86, 41176), (89, 41149),

Gene: Quhwah_29 Start: 14012, Stop: 14254, Start Num: 43

Candidate Starts for Quhwah_29:

(11, 13787), (Start: 43 @14012 has 26 MA's), (78, 14150), (81, 14180), (86, 14204),

Gene: Racecar_187 Start: 125098, Stop: 125328, Start Num: 42

Candidate Starts for Racecar_187:

(Start: 42 @125098 has 4 MA's), (86, 125275),

Gene: Rakim_103 Start: 60745, Stop: 60942, Start Num: 51

Candidate Starts for Rakim_103:

(15, 60568), (Start: 42 @60724 has 4 MA's), (Start: 51 @60745 has 93 MA's), (60, 60790), (65, 60808), (77, 60850), (85, 60904),

Gene: Rima_30 Start: 25633, Stop: 25872, Start Num: 43

Candidate Starts for Rima_30:

(Start: 43 @25633 has 26 MA's), (80, 25792), (86, 25822),

Gene: Rimmer_100 Start: 61135, Stop: 61332, Start Num: 51

Candidate Starts for Rimmer_100:

(15, 60958), (Start: 42 @61114 has 4 MA's), (Start: 51 @61135 has 93 MA's), (60, 61180), (65, 61198), (77, 61240), (85, 61294),

Gene: Roary_51 Start: 34500, Stop: 34315, Start Num: 55

Candidate Starts for Roary_51:

(49, 34527), (Start: 55 @34500 has 9 MA's), (75, 34422), (83, 34374),

Gene: Rowlf_52 Start: 41508, Stop: 41236, Start Num: 32

Candidate Starts for Rowlf_52:

(Start: 31 @41511 has 4 MA's), (Start: 32 @41508 has 28 MA's), (34, 41499), (64, 41403), (65, 41391), (70, 41370), (71, 41367), (81, 41316), (86, 41292), (94, 41247),

Gene: RubyRalph_60 Start: 44491, Stop: 44210, Start Num: 32

Candidate Starts for RubyRalph_60:

(Start: 32 @44491 has 28 MA's), (64, 44365),

Gene: Rudy_52 Start: 41446, Stop: 41174, Start Num: 32

Candidate Starts for Rudy_52:

(Start: 31 @41449 has 4 MA's), (Start: 32 @41446 has 28 MA's), (64, 41323), (81, 41236), (86, 41212), (89, 41185),

Gene: Saintus_45 Start: 31216, Stop: 31031, Start Num: 55

Candidate Starts for Saintus_45:

(49, 31243), (Start: 55 @31216 has 9 MA's), (73, 31144), (75, 31138), (83, 31090),

Gene: SallyK_57 Start: 42760, Stop: 42488, Start Num: 32

Candidate Starts for SallyK_57:

(1, 43315), (2, 43294), (3, 43264), (Start: 32 @42760 has 28 MA's), (66, 42616), (76, 42586), (81, 42550), (86, 42526), (89, 42499),

Gene: Sassay_97 Start: 59560, Stop: 59757, Start Num: 51

Candidate Starts for Sassay_97:

(15, 59383), (Start: 42 @59539 has 4 MA's), (Start: 51 @59560 has 93 MA's), (60, 59605), (65, 59623), (77, 59665), (85, 59719),

Gene: ScarletRaider_23 Start: 12882, Stop: 13100, Start Num: 45

Candidate Starts for ScarletRaider_23:

(Start: 43 @12879 has 26 MA's), (Start: 45 @12882 has 9 MA's), (81, 13035), (84, 13053), (86, 13059),

Gene: Schomber_23 Start: 11591, Stop: 11806, Start Num: 45

Candidate Starts for Schomber_23:

(30, 11534), (Start: 43 @11588 has 26 MA's), (Start: 45 @11591 has 9 MA's), (60, 11648), (68, 11681), (73, 11696), (83, 11750), (86, 11765),

Gene: Sephiroth_99 Start: 58611, Stop: 58823, Start Num: 47

Candidate Starts for Sephiroth_99:

(Start: 47 @58611 has 5 MA's), (67, 58701), (68, 58704), (74, 58722), (85, 58785),

Gene: ShamWow_102 Start: 61530, Stop: 61727, Start Num: 51

Candidate Starts for ShamWow_102:

(15, 61353), (Start: 42 @61509 has 4 MA's), (Start: 51 @61530 has 93 MA's), (60, 61575), (65, 61593), (77, 61635), (85, 61689),

Gene: ShereKhan_100 Start: 61969, Stop: 62166, Start Num: 51

Candidate Starts for ShereKhan_100:

(15, 61792), (Start: 42 @61948 has 4 MA's), (Start: 51 @61969 has 93 MA's), (60, 62014), (65, 62032), (77, 62074), (85, 62128),

Gene: Sillytadpoles_55 Start: 41283, Stop: 41011, Start Num: 32

Candidate Starts for Sillytadpoles_55:

(Start: 31 @41286 has 4 MA's), (Start: 32 @41283 has 28 MA's), (64, 41160), (81, 41073), (86, 41049), (89, 41022),

Gene: SirDuracell_102 Start: 60347, Stop: 60544, Start Num: 51

Candidate Starts for SirDuracell_102:

(15, 60170), (Start: 42 @60326 has 4 MA's), (Start: 51 @60347 has 93 MA's), (60, 60392), (65, 60410), (77, 60452), (85, 60506),

Gene: SlySloth_58 Start: 42152, Stop: 41880, Start Num: 32

Candidate Starts for SlySloth_58:

(Start: 31 @42155 has 4 MA's), (Start: 32 @42152 has 28 MA's), (66, 42008), (76, 41978), (81, 41942), (86, 41918),

Gene: Smeadley_51 Start: 34666, Stop: 34481, Start Num: 55

Candidate Starts for Smeadley_51:

(49, 34693), (Start: 55 @34666 has 9 MA's), (75, 34588), (83, 34540),

Gene: SophKB_100 Start: 60770, Stop: 60967, Start Num: 51

Candidate Starts for SophKB_100:

(15, 60593), (Start: 42 @60749 has 4 MA's), (Start: 51 @60770 has 93 MA's), (60, 60815), (65, 60833), (77, 60875), (85, 60929),

Gene: Sotrice96_103 Start: 61234, Stop: 61431, Start Num: 51

Candidate Starts for Sotrice96_103:

(15, 61057), (Start: 42 @61213 has 4 MA's), (Start: 51 @61234 has 93 MA's), (60, 61279), (65, 61297), (77, 61339), (85, 61393),

Gene: Spectropatronm_30 Start: 25627, Stop: 25866, Start Num: 43

Candidate Starts for Spectropatronm_30:

(Start: 43 @25627 has 26 MA's), (80, 25786), (86, 25816),

Gene: Squash_59 Start: 42626, Stop: 42354, Start Num: 33

Candidate Starts for Squash_59:

(4, 43061), (5, 43058), (6, 42956), (7, 42896), (8, 42887), (10, 42809), (13, 42770), (14, 42767), (18, 42722), (19, 42713), (Start: 31 @42632 has 4 MA's), (Start: 33 @42626 has 3 MA's), (34, 42617), (65, 42509), (71, 42485), (81, 42434), (86, 42410), (94, 42365),

Gene: Stank_104 Start: 61008, Stop: 61205, Start Num: 51

Candidate Starts for Stank_104:

(15, 60831), (Start: 42 @60987 has 4 MA's), (Start: 51 @61008 has 93 MA's), (60, 61053), (65, 61071), (77, 61113), (85, 61167),

Gene: Statler_57 Start: 42227, Stop: 41955, Start Num: 32

Candidate Starts for Statler_57:

(Start: 32 @42227 has 28 MA's), (66, 42083), (76, 42053), (81, 42017), (86, 41993),

Gene: StellaBean_101 Start: 61370, Stop: 61567, Start Num: 51

Candidate Starts for StellaBean_101:

(15, 61193), (Start: 42 @61349 has 4 MA's), (Start: 51 @61370 has 93 MA's), (60, 61415), (65, 61433), (77, 61475), (85, 61529),

Gene: Stephig9_51 Start: 34732, Stop: 34514, Start Num: 50

Candidate Starts for Stephig9_51:

(Start: 50 @34732 has 2 MA's), (52, 34723), (54, 34714), (66, 34660), (70, 34648), (80, 34600),

Gene: Stewart25555_179 Start: 124346, Stop: 124552, Start Num: 47

Candidate Starts for Stewart25555_179:

(Start: 47 @124346 has 5 MA's), (86, 124520),

Gene: StolenFromERC_104 Start: 60933, Stop: 61130, Start Num: 51

Candidate Starts for StolenFromERC_104:

(15, 60756), (Start: 51 @60933 has 93 MA's), (60, 60978), (65, 60996), (77, 61038), (85, 61092),

Gene: StormChicken_103 Start: 61299, Stop: 61496, Start Num: 51

Candidate Starts for StormChicken_103:

(15, 61122), (Start: 42 @61278 has 4 MA's), (Start: 51 @61299 has 93 MA's), (60, 61344), (65, 61362), (77, 61404), (85, 61458),

Gene: StrawberryJamm_59 Start: 41944, Stop: 41666, Start Num: 31

Candidate Starts for StrawberryJamm_59:

(Start: 31 @41944 has 4 MA's), (Start: 32 @41938 has 28 MA's), (64, 41815), (81, 41728), (86, 41704), (89, 41677),

Gene: Syleon_102 Start: 58815, Stop: 59036, Start Num: 47

Candidate Starts for Syleon_102:

(Start: 47 @58815 has 5 MA's), (67, 58905), (74, 58926), (85, 58989),

Gene: TBrady12_105 Start: 60448, Stop: 60645, Start Num: 51

Candidate Starts for TBrady12_105:

(15, 60271), (Start: 42 @60427 has 4 MA's), (Start: 51 @60448 has 93 MA's), (60, 60493), (65, 60511), (77, 60553), (85, 60607),

Gene: TaidaOne_30 Start: 26275, Stop: 26514, Start Num: 43

Candidate Starts for TaidaOne_30:

(Start: 43 @26275 has 26 MA's), (80, 26434), (86, 26464),

Gene: Talia1610_187 Start: 124515, Stop: 124745, Start Num: 42

Candidate Starts for Talia1610_187:

(Start: 42 @124515 has 4 MA's), (86, 124692),

Gene: Talos_73 Start: 27089, Stop: 27301, Start Num: 44

Candidate Starts for Talos_73:

(Start: 44 @27089 has 1 MA's), (68, 27179), (77, 27206), (80, 27233), (82, 27248), (84, 27260), (85, 27263),

Gene: Tarkin_101 Start: 61834, Stop: 62031, Start Num: 51

Candidate Starts for Tarkin_101:

(15, 61657), (Start: 42 @61813 has 4 MA's), (Start: 51 @61834 has 93 MA's), (60, 61879), (65, 61897), (77, 61939), (85, 61993),

Gene: TeamEdward_102 Start: 61496, Stop: 61693, Start Num: 51

Candidate Starts for TeamEdward_102:

(15, 61319), (Start: 42 @61475 has 4 MA's), (Start: 51 @61496 has 93 MA's), (60, 61541), (65, 61559), (77, 61601), (85, 61655),

Gene: TeardropMSU_98 Start: 60315, Stop: 60512, Start Num: 51

Candidate Starts for TeardropMSU_98:

(15, 60138), (Start: 42 @60294 has 4 MA's), (Start: 51 @60315 has 93 MA's), (60, 60360), (65, 60378), (77, 60420), (85, 60474),

Gene: Teehee_55 Start: 42516, Stop: 42244, Start Num: 32

Candidate Starts for Teehee_55:

(Start: 31 @42519 has 4 MA's), (Start: 32 @42516 has 28 MA's), (64, 42393), (81, 42306), (86, 42282), (89, 42255),

Gene: Terminus_105 Start: 62234, Stop: 62431, Start Num: 51

Candidate Starts for Terminus_105:

(15, 62057), (Start: 42 @62213 has 4 MA's), (Start: 51 @62234 has 93 MA's), (60, 62279), (65, 62297), (77, 62339), (85, 62393),

Gene: Theresita_48 Start: 29943, Stop: 30182, Start Num: 38

Candidate Starts for Theresita_48:

(Start: 38 @29943 has 1 MA's), (48, 29967), (70, 30075), (78, 30099),

Gene: TieDye_29 Start: 25319, Stop: 25558, Start Num: 43

Candidate Starts for TieDye_29:

(Start: 43 @25319 has 26 MA's), (80, 25478), (86, 25508),

Gene: Tissue_57 Start: 42542, Stop: 42282, Start Num: 31

Candidate Starts for Tissue_57:

(Start: 31 @42542 has 4 MA's), (Start: 33 @42536 has 3 MA's), (34, 42527), (65, 42419), (71, 42395), (81, 42344), (86, 42320),

Gene: Tomaszewski_97 Start: 60772, Stop: 60969, Start Num: 51

Candidate Starts for Tomaszewski_97:

(15, 60595), (Start: 42 @60751 has 4 MA's), (Start: 51 @60772 has 93 MA's), (60, 60817), (65, 60835), (77, 60877), (85, 60931),

Gene: Toneprano_23 Start: 11841, Stop: 12056, Start Num: 45

Candidate Starts for Toneprano_23:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: TonyStarch_30 Start: 25633, Stop: 25872, Start Num: 43

Candidate Starts for TonyStarch_30:

(Start: 43 @25633 has 26 MA's), (80, 25792), (86, 25822),

Gene: Toto_100 Start: 61530, Stop: 61727, Start Num: 51

Candidate Starts for Toto_100:

(15, 61353), (Start: 42 @61509 has 4 MA's), (Start: 51 @61530 has 93 MA's), (60, 61575), (65, 61593), (77, 61635), (85, 61689),

Gene: Traaww1_98 Start: 60037, Stop: 60234, Start Num: 51

Candidate Starts for Traaww1_98:

(15, 59860), (Start: 42 @60016 has 4 MA's), (Start: 51 @60037 has 93 MA's), (60, 60082), (65, 60100), (77, 60142), (85, 60196),

Gene: Tuco_103 Start: 62395, Stop: 62592, Start Num: 51

Candidate Starts for Tuco_103:

(15, 62218), (Start: 42 @62374 has 4 MA's), (Start: 51 @62395 has 93 MA's), (60, 62440), (65, 62458), (77, 62500), (85, 62554),

Gene: Twin_23 Start: 11841, Stop: 12056, Start Num: 45

Candidate Starts for Twin_23:

(30, 11784), (Start: 43 @11838 has 26 MA's), (Start: 45 @11841 has 9 MA's), (60, 11898), (68, 11931), (72, 11943), (73, 11946), (86, 12015),

Gene: UBSmoodge_25 Start: 13351, Stop: 13569, Start Num: 45

Candidate Starts for UBSmoodge_25:

(Start: 43 @13348 has 26 MA's), (Start: 45 @13351 has 9 MA's), (60, 13411), (81, 13504), (84, 13522), (86, 13528),

Gene: Viceroy_53 Start: 41416, Stop: 41144, Start Num: 32

Candidate Starts for Viceroy_53:

(Start: 31 @41419 has 4 MA's), (Start: 32 @41416 has 28 MA's), (64, 41293), (81, 41206), (86, 41182), (89, 41155),

Gene: Wayne3_56 Start: 42279, Stop: 42007, Start Num: 32

Candidate Starts for Wayne3_56:

(Start: 31 @42282 has 4 MA's), (Start: 32 @42279 has 28 MA's), (64, 42156), (81, 42069), (86, 42045), (89, 42018),

Gene: WheelerS25_63 Start: 43635, Stop: 43363, Start Num: 32

Candidate Starts for WheelerS25_63:

(18, 43731), (Start: 31 @43638 has 4 MA's), (Start: 32 @43635 has 28 MA's), (66, 43491), (76, 43461), (81, 43425), (86, 43401), (89, 43374),

Gene: Wheelie_54 Start: 41600, Stop: 41328, Start Num: 32

Candidate Starts for Wheelie_54:

(Start: 31 @41603 has 4 MA's), (Start: 32 @41600 has 28 MA's), (64, 41477), (81, 41390), (86, 41366), (89, 41339),

Gene: Wigberry_31 Start: 25089, Stop: 25331, Start Num: 43

Candidate Starts for Wigberry_31:

(Start: 43 @25089 has 26 MA's), (Start: 47 @25095 has 5 MA's), (86, 25281), (88, 25299),

Gene: Wiggin_104 Start: 60438, Stop: 60635, Start Num: 51

Candidate Starts for Wiggin_104:

(15, 60261), (Start: 42 @60417 has 4 MA's), (Start: 51 @60438 has 93 MA's), (60, 60483), (65, 60501), (77, 60543), (85, 60597),

Gene: Willez_97 Start: 59560, Stop: 59757, Start Num: 51

Candidate Starts for Willez_97:

(15, 59383), (Start: 42 @59539 has 4 MA's), (Start: 51 @59560 has 93 MA's), (60, 59605), (65, 59623), (77, 59665), (85, 59719),

Gene: Xandras_101 Start: 60261, Stop: 60458, Start Num: 51

Candidate Starts for Xandras_101:

(15, 60084), (Start: 51 @60261 has 93 MA's), (60, 60306), (65, 60324), (77, 60366), (85, 60420),

Gene: YassJohnny_99 Start: 59581, Stop: 59778, Start Num: 51

Candidate Starts for YassJohnny_99:

(15, 59404), (Start: 42 @59560 has 4 MA's), (Start: 51 @59581 has 93 MA's), (60, 59626), (65, 59644), (77, 59686), (85, 59740),

Gene: Youngblood_105 Start: 61731, Stop: 61928, Start Num: 51

Candidate Starts for Youngblood_105:

(15, 61554), (Start: 42 @61710 has 4 MA's), (Start: 51 @61731 has 93 MA's), (60, 61776), (65, 61794), (77, 61836), (85, 61890),

Gene: Zagie_56 Start: 42135, Stop: 41863, Start Num: 32

Candidate Starts for Zagie_56:

(Start: 31 @42141 has 4 MA's), (Start: 32 @42135 has 28 MA's), (64, 42012), (81, 41925), (86, 41901), (89, 41874),

Gene: Zhafia_57 Start: 42080, Stop: 41808, Start Num: 32

Candidate Starts for Zhafia_57:

(Start: 31 @42083 has 4 MA's), (Start: 32 @42080 has 28 MA's), (64, 41957), (81, 41870), (86, 41846), (89, 41819),

Gene: xkcd_105 Start: 61915, Stop: 62112, Start Num: 51

Candidate Starts for xkcd_105:

(15, 61738), (Start: 42 @61894 has 4 MA's), (Start: 51 @61915 has 93 MA's), (60, 61960), (65, 61978), (77, 62020), (85, 62074),