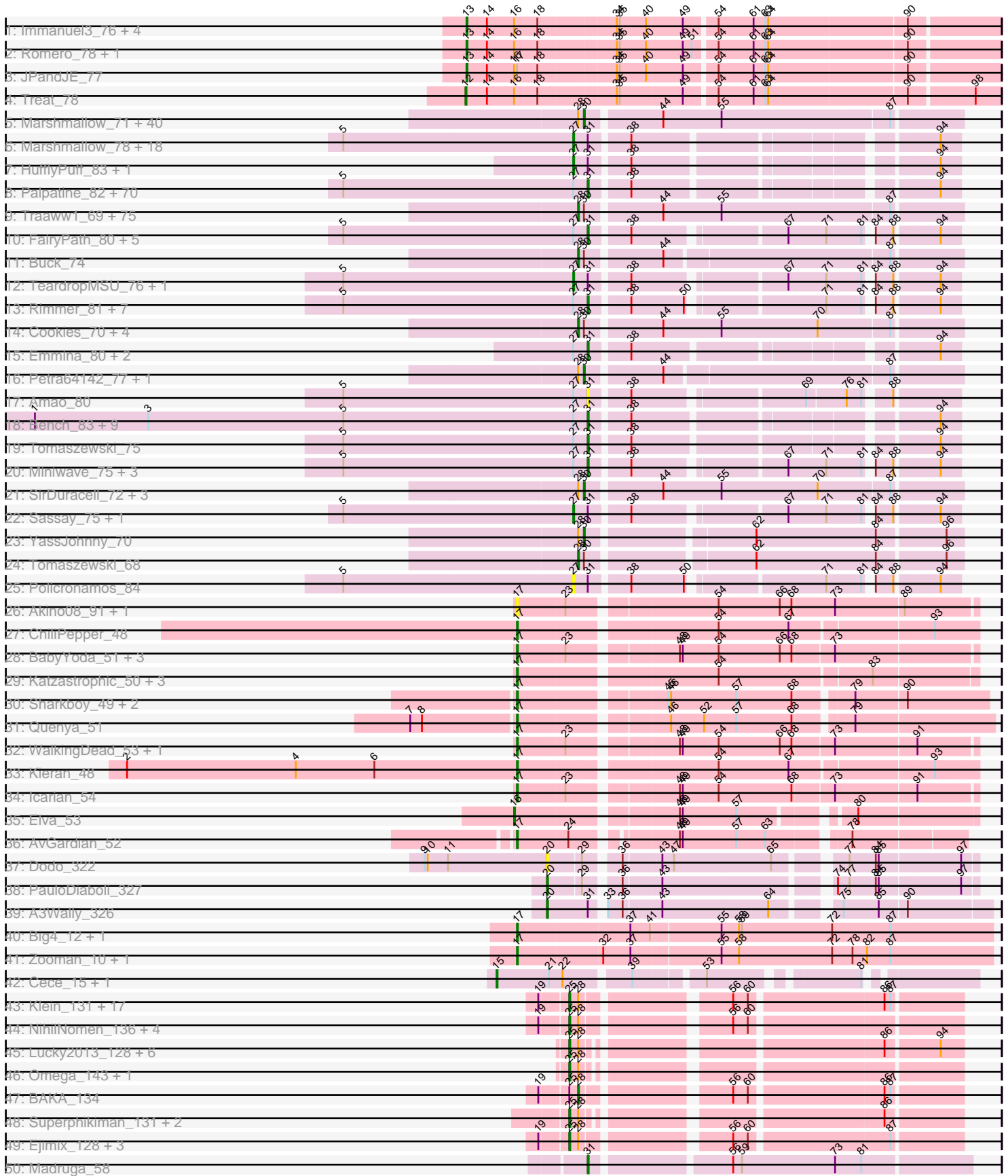


Pham 202601



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 202601 Report

This analysis was run 01/18/25 on database version 583.

Pham number 202601 has 344 members, 23 are drafts.

Phages represented in each track:

- Track 1 : Immanuel3_76, Percastrophe_78, HaugeAnator_78, ZooBear_78, ToriToki_78
- Track 2 : Romero_78, Olicious_78
- Track 3 : JPandJE_77
- Track 4 : Treat_78
- Track 5 : Marshmallow_71, Teaspoon_74, Nala_75, Sassay_68, Thresher_75, Murica_76, 244_74, Nimrod_74, Balomoji_73, Command613_75, Policronamos_77, StellaBean_71, BilboSwaggins_72, Kostya_73, GoldenSpark_77, Youngblood_76, Icee_74, FairyPath_73, Simpliphy_72, Palpatine_75, Dumbo_73, NelitzaMV_71, Eureka_71, Goldilocks_76, Terminus_76, CrystalP_72, Cjw1_73, BugsBunny_73, Daikon_75, Filch_74, Easy2Say_74, Porky_72, Pumpkin_76, Amao_73, Elph10_73, Murphy_73, Maxxinista_75, MadamMonkfish_73, Wiggin_75, FireRed_77, Willez_68
- Track 6 : Marshmallow_78, BugsBunny_80, Kostya_80, Stank_83, BilboSwaggins_79, Cjw1_80, Daikon_82, DrDrey_80, Adnama_84, NelitzaMV_78, Eureka_78, Elph10_80, Goku_78, Bruin_77, GoldenSpark_84, MISSy_81, Command613_82, ABCat_77, Dumbo_80
- Track 7 : HufflyPuff_83, Porky_79
- Track 8 : Palpatine_82, Petra64142_84, Highbury_79, Glexan_79, Mosby_76, Filch_81, Inca_77, Sotrice96_81, Moldemort_83, Manda_81, Kanye_77, StellaBean_78, AmericanBeauty_84, Rakim_81, Ukulele_75, Misfit_81, Lilac_82, Terminus_83, IHOP_78, Dusk_77, Saints25_79, Cactus_83, Buck_81, Simpliphy_79, BadStone_77, GooberAzure_83, Lilpickle_79, Holt_85, JeTaime_80, Gemini_85, Icee_81, MPhalcon_81, Kimchi_84, Czyszczonek_81, Maxxinista_82, Hopey_80, Balomoji_80, Harella_80, TBrady12_83, Stark_81, RiverMonster_80, Easy2Say_81, CrystalP_79, Asriel_79, Murphy_80, Henry_78, Mindy_79, HanKaySha_80, Contagion_76, Goldilocks_83, StolenFromERC_83, Tuco_81, BigBubba_80, Traaww1_76, Barbarian_79, Flypotenuse_76, OrionPax_79, ShamWow_80, ChosenOne_80, Phrux_77, Thresher_82, Youngblood_83, Toto_78, Gator_78, Teaspoon_81, Elite2014_79, NoSleep_81, Wiggin_82, Argent26_84, BaboJay_77, Gage_82
- Track 9 : Traaww1_69, Miniwave_68, Highbury_72, NoSleep_74, Glexan_72, Lilizi_74, Inca_70, Gemini_78, HufflyPuff_76, MISSy_74, Moldemort_76, Gage_75, Henry_71, Phaja_71, HanKaySha_73, Mosby_69, TBrady12_76, Manda_74, SophKB_70, IHOP_71, MPhalcon_74, Dusk_70, Kanye_70, Saints25_72, PhatBacter_77, JeTaime_73, BadStone_70, Lilpickle_72, Contagion_69, ShereKhan_72, StolenFromERC_76, Emmina_73, Flypotenuse_69, Mindy_72, Hoonter_76, Lilac_75, Phaux_75, Ukulele_68, Cactus_76, Adnama_77, Hopey_73,

GooberAzure_76, Myrale_73, Bench_76, Phrux_70, BaboJay_70, Goku_71, Kimchi_77, Asriel_72, Bruin_70, Argent26_77, Xandras_72, Tuco_74, Quallification_74, Stank_76, Barbarian_72, TeardropMSU_69, ShamWow_73, Czyszczonek_74, xkcd_76, RiverMonster_73, Sotrice96_74, Harella_73, AmericanBeauty_77, Toto_71, Pharsalus_70, Gator_71, Stark_74, Elite2014_72, Misfit_74, ChosenOne_73, Tarkin_72, ABCat_70, DrDrey_73, Holt_78, Paperbeatsrock_72

- Track 10 : FairyPath_80, Phaja_78, SophKB_77, ShereKhan_78, Quallification_81, Myrale_80
- Track 11 : Buck_74
- Track 12 : TeardropMSU_76, YassJohnny_77
- Track 13 : Rimmer_81, Cookies_77, Bask21_80, ChotaBhai_80, SirDuracell_79, Pat3_78, Phaux_82, DoctorDiddles_79
- Track 14 : Cookies_70, ChotaBhai_73, Rakim_74, Pat3_71, BigBubba_73
- Track 15 : Emmina_80, xkcd_83, Murica_83
- Track 16 : Petra64142_77, Rimmer_74
- Track 17 : Amao_80
- Track 18 : Bench_83, 244_81, Pumpkin_83, PhatBacter_84, Lilizi_81, FireRed_84, Hoonter_83, Xandras_79, Nimrod_81, Nala_82
- Track 19 : Tomaszewski_75
- Track 20 : Miniwave_75, Pharsalus_77, Tarkin_79, Paperbeatsrock_79
- Track 21 : SirDuracell_72, Bask21_73, OrionPax_72, DoctorDiddles_72
- Track 22 : Sassay_75, Willez_75
- Track 23 : YassJohnny_70
- Track 24 : Tomaszewski_68
- Track 25 : Policronamos_84
- Track 26 : Akino08_91, Loviatar_90
- Track 27 : ChiliPepper_48
- Track 28 : BabyYoda_51, DirtyBubble_50, SanaSana_53, Stromboli_51
- Track 29 : Katzastrophic_50, FlameThrower_48, Celaena_49, Bachaco_49
- Track 30 : Sharkboy_49, Rona_48, Dismas_48
- Track 31 : Quenya_51
- Track 32 : WalkingDead_53, Stoor_51
- Track 33 : Kieran_48
- Track 34 : Icarian_54
- Track 35 : Elva_53
- Track 36 : AvGardian_52
- Track 37 : Dodo_322
- Track 38 : PauloDiaboli_327
- Track 39 : A3Wally_326
- Track 40 : Big4_12, Big4_338
- Track 41 : Zooman_10, Zooman_323
- Track 42 : Cece_15, Cece_317
- Track 43 : Klein_131, Redno2_126, Yeet_128, Wanda_133, Zelink_129, Hughesyang_134, ThreeRngTarjay_130, Minerva_133, Dove_120, HokkenD_126, DmpstrDiver_134, Constella_128, Duke13_129, Schatzie_130, Bagrid_135, Odette_138, Phoebus_135, EricMillard_126
- Track 44 : NihilNomen_136, Bombitas_122, JuicyJay_131, Bobby_126, Beem_136
- Track 45 : Lucky2013_128, MiaZeal_133, Gonephishing_128, Hannaconda_127, KashFlow_131, Porcelain_131, Squint_131
- Track 46 : Omega_143, LittleE_136
- Track 47 : BAKA_134
- Track 48 : Superphikiman_131, Ariel_133, Courthouse_129

- Track 49 : Ejimix_128, Halley_136, Thibault_119, Dallas_135
- Track 50 : Madruga_58
- Track 51 : Labelle_59
- Track 52 : Patience_60
- Track 53 : Kithara_90

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

The start number called the most often in the published annotations is 31, it was called in 103 of the 321 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_81, Amao_80, AmericanBeauty_84, Argent26_84, Asriel_79, BaboJay_77, BadStone_77, Balomoji_80, Barbarian_79, Bask21_80, Bench_83, BigBubba_80, Buck_81, Cactus_83, ChosenOne_80, ChotaBhai_80, Contagion_76, Cookies_77, CrystalP_79, Czyszczon1_81, DoctorDiddles_79, Dusk_77, Easy2Say_81, Elite2014_79, Emmina_80, FairyPath_80, Filch_81, FireRed_84, Flypotenuse_76, Gage_82, Gator_78, Gemini_85, Glexan_79, Goldilocks_83, GooberAzure_83, HanKaySha_80, Harella_80, Henry_78, Highbury_79, Holt_85, Hoonter_83, Hopey_80, IHOP_78, Icee_81, Inca_77, JeTaimé_80, Kanye_77, Kimchi_84, Labelle_59, Lilac_82, Lilizi_81, Lilpickle_79, MPhalcon_81, Madruga_58, Manda_81, Maxxinista_82, Mindy_79, Miniwave_75, Misfit_81, Moldemort_83, Mosby_76, Murica_83, Murphy_80, Myrale_80, Nala_82, Nimrod_81, NoSleep_81, OrionPax_79, Palpatine_82, Paperbeatsrock_79, Pat3_78, Patience_60, Petra64142_84, Phaja_78, Pharsalus_77, PhatBacter_84, Phaux_82, Phrux_77, Pumpkin_83, Quallification_81, Rakim_81, Rimmer_81, RiverMonster_80, Saints25_79, ShamWow_80, ShereKhan_78, Simpliphy_79, SirDuracell_79, SophKB_77, Sotrice96_81, Stark_81, StellaBean_78, StolenFromERC_83, TBrady12_83, Tarkin_79, Teaspoon_81, Terminus_83, Thresher_82, Tomaszewski_75, Toto_78, Traaww1_76, Tuco_81, Ukulele_75, Wiggins_82, Xandras_79, Youngblood_83, xkcd_83,

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

- A3Wally_326, ABCat_77, Adnama_84, BilboSwaggins_79, Bruin_77, BugsBunny_80, Cjw1_80, Command613_82, Daikon_82, DrDrey_80, Dumbo_80, Elph10_80, Eureka_78, Goku_78, GoldenSpark_84, HufflyPuff_83, Kostya_80, MISSy_81, Marshmallow_78, NelitzaMV_78, Policronamos_84, Porky_79, Sassay_75, Stank_83, TeardropMSU_76, Willez_75, YassJohnny_77,

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

- 244_74, ABCat_70, Adnama_77, Akino08_91, Amao_73, AmericanBeauty_77, Argent26_77, Ariel_133, Asriel_72, AvGardian_52, BAKA_134, BaboJay_70, BabyYoda_51, Bachaco_49, BadStone_70, Bagrid_135, Balomoji_73, Barbarian_72, Bask21_73, Beem_136, Bench_76, Big4_12, Big4_338, BigBubba_73, BilboSwaggins_72, Bobby_126, Bombitas_122, Bruin_70, Buck_74, BugsBunny_73, Cactus_76, Cece_15, Cece_317, Celaena_49, ChiliPepper_48, ChosenOne_73, ChotaBhai_73, Cjw1_73, Command613_75, Constella_128, Contagion_69, Cookies_70, Courthouse_129, CrystalP_72, Czyszczon1_74, Daikon_75, Dallas_135, DirtyBubble_50, Dismas_48, DmpstrDiver_134, DoctorDiddles_72, Dodo_322, Dove_120, DrDrey_73, Duke13_129, Dumbo_73, Dusk_70, Easy2Say_74, Ejimix_128, Elite2014_72, Elph10_73, Elva_53, Emmina_73, EricMillard_126,

Eureka_71, FairyPath_73, Filch_74, FireRed_77, FlameThrower_48, Flypotenuse_69, Gage_75, Gator_71, Gemini_78, Glexan_72, Goku_71, GoldenSpark_77, Goldilocks_76, Gonephishing_128, GooberAzure_76, Halley_136, HanKaySha_73, Hannaconda_127, Harella_73, HaugeAnator_78, Henry_71, Highbury_72, HokkenD_126, Holt_78, Hoonter_76, Hopey_73, HufflyPuff_76, Hughesyang_134, IHOP_71, Icarian_54, Icee_74, Immanuel3_76, Inca_70, JPandJE_77, JeTaime_73, JuicyJay_131, Kanye_70, KashFlow_131, Katzastrophic_50, Kieran_48, Kimchi_77, Kithara_90, Klein_131, Kostya_73, Lilac_75, Lilizi_74, Lilpickle_72, LittleE_136, Loviatar_90, Lucky2013_128, MISSy_74, MPhalcon_74, MadamMonkfish_73, Manda_74, Marshmallow_71, Maxxinista_75, MiaZeal_133, Mindy_72, Minerva_133, Miniwave_68, Misfit_74, Moldemort_76, Mosby_69, Murica_76, Murphy_73, Myrale_73, Nala_75, NelitzaMV_71, NihilNomen_136, Nimrod_74, NoSleep_74, Odette_138, Olicious_78, Omega_143, OrionPax_72, Palpatine_75, Paperbeatsrock_72, Pat3_71, PauloDiaboli_327, Percastrophe_78, Petra64142_77, Phaja_71, Pharsalus_70, PhatBacter_77, Phaux_75, Phoebus_135, Phrux_70, Policronamos_77, Porcelain_131, Porky_72, Pumpkin_76, Quallification_74, Quenya_51, Rakim_74, Redno2_126, Rimmer_74, RiverMonster_73, Romero_78, Rona_48, Saints25_72, SanaSana_53, Sassay_68, Schatzie_130, ShamWow_73, Sharkboy_49, ShereKhan_72, Simpliphy_72, SirDuracell_72, SophKB_70, Sotrice96_74, Squint_131, Stank_76, Stark_74, StellaBean_71, StolenFromERC_76, Stoor_51, Stromboli_51, Superphikiman_131, TBrady12_76, Tarkin_72, TeardropMSU_69, Teaspoon_74, Terminus_76, Thibault_119, ThreeRngTarjay_130, Thresher_75, Tomaszewski_68, ToriToki_78, Toto_71, Traaww1_69, Treat_78, Tuco_74, Ukulele_68, WalkingDead_53, Wanda_133, Wiggin_75, Willez_68, Xandras_72, YassJohnny_70, Yeet_128, Youngblood_76, Zelink_129, ZooBear_78, Zooman_10, Zooman_323, xkcd_76,

Summary by start number:

Start 12:

- Found in 1 of 344 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 321
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Treat_78 (BF),

Start 13:

- Found in 8 of 344 (2.3%) of genes in pham
- Manual Annotations of this start: 8 of 321
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HaugeAnator_78 (BF), Immanuel3_76 (BF), JPandJE_77 (BF), Olicious_78 (BF), Percastrophe_78 (BF), Romero_78 (BF), ToriToki_78 (BF), ZooBear_78 (BF),

Start 15:

- Found in 2 of 344 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 321
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cece_15 (GD3), Cece_317 (GD3),

Start 16:

- Found in 10 of 344 (2.9%) of genes in pham
- Manual Annotations of this start: 1 of 321

- Called 10.0% of time when present
- Phage (with cluster) where this start called: Elva_53 (EB),

Start 17:

- Found in 25 of 344 (7.3%) of genes in pham
- Manual Annotations of this start: 21 of 321
- Called 96.0% of time when present
- Phage (with cluster) where this start called: Akino08_91 (EB), AvGardian_52 (EB), BabyYoda_51 (EB), Bachaco_49 (EB), Big4_12 (GD2), Big4_338 (GD2), Celaena_49 (EB), ChiliPepper_48 (EB), DirtyBubble_50 (EB), Dismas_48 (EB), FlameThrower_48 (EB), Icarian_54 (EB), Katzastrophic_50 (EB), Kieran_48 (EB), Loviatar_90 (EB), Quenya_51 (EB), Rona_48 (EB), SanaSana_53 (EB), Sharkboy_49 (EB), Stoor_51 (EB), Stromboli_51 (EB), WalkingDead_53 (EB), Zooman_10 (GD2), Zooman_323 (GD2),

Start 20:

- Found in 3 of 344 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 321
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally_326 (GD1), Dodo_322 (GD1), PauloDiaboli_327 (GD1),

Start 25:

- Found in 40 of 344 (11.6%) of genes in pham
- Manual Annotations of this start: 36 of 321
- Called 97.5% of time when present
- Phage (with cluster) where this start called: Ariel_133 (J), Bagrid_135 (J), Beem_136 (J), Bobby_126 (J), Bombitas_122 (J), Constella_128 (J), Courthouse_129 (J), Dallas_135 (J), DmpstrDiver_134 (J), Dove_120 (J), Duke13_129 (J), Ejimix_128 (J), EricMillard_126 (J), Gonephishing_128 (J), Halley_136 (J), Hannaconda_127 (J), HokkenD_126 (J), Hughesyang_134 (J), JuicyJay_131 (J), KashFlow_131 (J), Klein_131 (J), LittleE_136 (J), Lucky2013_128 (J), MiaZeal_133 (J), Minerva_133 (J), NihilNomen_136 (J), Odette_138 (J), Omega_143 (J), Phoebus_135 (J), Porcelain_131 (J), Redno2_126 (J), Schatzie_130 (J), Squint_131 (J), Superphikiman_131 (J), Thibault_119 (J), ThreeRngTarjay_130 (J), Wanda_133 (J), Yeet_128 (J), Zelink_129 (J),

Start 26:

- Found in 1 of 344 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 321
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara_90 (singleton),

Start 27:

- Found in 130 of 344 (37.8%) of genes in pham
- Manual Annotations of this start: 22 of 321
- Called 20.0% of time when present
- Phage (with cluster) where this start called: ABCat_77 (E), Adnama_84 (E), BilboSwaggins_79 (E), Bruin_77 (E), BugsBunny_80 (E), Cjw1_80 (E), Command613_82 (E), Daikon_82 (E), DrDrey_80 (E), Dumbo_80 (E), Elph10_80 (E), Eureka_78 (E), Goku_78 (E), GoldenSpark_84 (E), HufflyPuff_83 (E), Kostya_80 (E), MISSy_81 (E), Marshmallow_78 (E), NelitzaMV_78 (E), Policronamos_84 (E), Porky_79 (E), Sassay_75 (E), Stank_83 (E), TeardropMSU_76 (E), Willez_75 (E),

YassJohnny_77 (E),

Start 28:

- Found in 171 of 344 (49.7%) of genes in pham
- Manual Annotations of this start: 84 of 321
- Called 49.1% of time when present
- Phage (with cluster) where this start called: ABCat_70 (E), Adnama_77 (E), AmericanBeauty_77 (E), Argent26_77 (E), Asriel_72 (E), BAKA_134 (J), BaboJay_70 (E), BadStone_70 (E), Barbarian_72 (E), Bench_76 (E), BigBubba_73 (E), Bruin_70 (E), Buck_74 (E), Cactus_76 (E), ChosenOne_73 (E), ChotaBhai_73 (E), Contagion_69 (E), Cookies_70 (E), Czyszczonek_74 (E), DrDrey_73 (E), Dusk_70 (E), Elite2014_72 (E), Emmina_73 (E), Flypotenuse_69 (E), Gage_75 (E), Gator_71 (E), Gemini_78 (E), Glexan_72 (E), Goku_71 (E), GooberAzure_76 (E), HanKaySha_73 (E), Harella_73 (E), Henry_71 (E), Highbury_72 (E), Holt_78 (E), Hoonter_76 (E), Hopey_73 (E), HufflyPuff_76 (E), IHOP_71 (E), Inca_70 (E), JeTaime_73 (E), Kanye_70 (E), Kimchi_77 (E), Lilac_75 (E), Lilizi_74 (E), Lilpickle_72 (E), MISSy_74 (E), MPhalcon_74 (E), Manda_74 (E), Mindy_72 (E), Miniwave_68 (E), Misfit_74 (E), Moldemort_76 (E), Mosby_69 (E), Myrale_73 (E), NoSleep_74 (E), Paperbeatsrock_72 (E), Pat3_71 (E), Phaja_71 (E), Pharsalus_70 (E), PhatBacter_77 (E), Phaux_75 (E), Phrux_70 (E), Qualification_74 (E), Rakim_74 (E), RiverMonster_73 (E), Saints25_72 (E), ShamWow_73 (E), ShereKhan_72 (E), SophKB_70 (E), Sotrice96_74 (E), Stank_76 (E), Stark_74 (E), StolenFromERC_76 (E), TBrady12_76 (E), Tarkin_72 (E), TeardropMSU_69 (E), Tomaszewski_68 (E), Toto_71 (E), Traaww1_69 (E), Tuco_74 (E), Ukulele_68 (E), Xandras_72 (E), xkcd_76 (E),

Start 30:

- Found in 131 of 344 (38.1%) of genes in pham
- Manual Annotations of this start: 40 of 321
- Called 36.6% of time when present
- Phage (with cluster) where this start called: 244_74 (E), Amao_73 (E), Balomoji_73 (E), Bask21_73 (E), BilboSwaggins_72 (E), BugsBunny_73 (E), Cjw1_73 (E), Command613_75 (E), CrystalP_72 (E), Daikon_75 (E), DoctorDiddles_72 (E), Dumbo_73 (E), Easy2Say_74 (E), Elph10_73 (E), Eureka_71 (E), FairyPath_73 (E), Filch_74 (E), FireRed_77 (E), GoldenSpark_77 (E), Goldilocks_76 (E), Icee_74 (E), Kostya_73 (E), MadamMonkfish_73 (E), Marshmallow_71 (E), Maxxinista_75 (E), Murica_76 (E), Murphy_73 (E), Nala_75 (E), NelitzaMV_71 (E), Nimrod_74 (E), OrionPax_72 (E), Palpatine_75 (E), Petra64142_77 (E), Policronamos_77 (E), Porky_72 (E), Pumpkin_76 (E), Rimmer_74 (E), Sassay_68 (E), Simpliphy_72 (E), SirDuracell_72 (E), StellaBean_71 (E), Teaspoon_74 (E), Terminus_76 (E), Thresher_75 (E), Wiggin_75 (E), Willez_68 (E), YassJohnny_70 (E), Youngblood_76 (E),

Start 31:

- Found in 134 of 344 (39.0%) of genes in pham
- Manual Annotations of this start: 103 of 321
- Called 79.9% of time when present
- Phage (with cluster) where this start called: 244_81 (E), Amao_80 (E), AmericanBeauty_84 (E), Argent26_84 (E), Asriel_79 (E), BaboJay_77 (E), BadStone_77 (E), Balomoji_80 (E), Barbarian_79 (E), Bask21_80 (E), Bench_83 (E), BigBubba_80 (E), Buck_81 (E), Cactus_83 (E), ChosenOne_80 (E), ChotaBhai_80 (E), Contagion_76 (E), Cookies_77 (E), CrystalP_79 (E), Czyszczonek_81 (E), DoctorDiddles_79 (E), Dusk_77 (E), Easy2Say_81 (E), Elite2014_79 (E), Emmina_80

(E), FairyPath_80 (E), Filch_81 (E), FireRed_84 (E), Flypotenuse_76 (E), Gage_82 (E), Gator_78 (E), Gemini_85 (E), Glexan_79 (E), Goldilocks_83 (E), GooberAzure_83 (E), HanKaySha_80 (E), Harella_80 (E), Henry_78 (E), Highbury_79 (E), Holt_85 (E), Hoonter_83 (E), Hopey_80 (E), IHOP_78 (E), Icee_81 (E), Inca_77 (E), JeTaime_80 (E), Kanye_77 (E), Kimchi_84 (E), Labelle_59 (U), Lilac_82 (E), Lilizi_81 (E), Lilpickle_79 (E), MPhalcon_81 (E), Madrugua_58 (U), Manda_81 (E), Maxxinista_82 (E), Mindy_79 (E), Miniwave_75 (E), Misfit_81 (E), Moldemort_83 (E), Mosby_76 (E), Murica_83 (E), Murphy_80 (E), Myrale_80 (E), Nala_82 (E), Nimrod_81 (E), NoSleep_81 (E), OrionPax_79 (E), Palpatine_82 (E), Paperbeatsrock_79 (E), Pat3_78 (E), Patience_60 (U), Petra64142_84 (E), Phaja_78 (E), Pharsalus_77 (E), PhatBacter_84 (E), Phaux_82 (E), Phrux_77 (E), Pumpkin_83 (E), Quallification_81 (E), Rakim_81 (E), Rimmer_81 (E), RiverMonster_80 (E), Saints25_79 (E), ShamWow_80 (E), ShereKhan_78 (E), Simpliphy_79 (E), SirDuracell_79 (E), SophKB_77 (E), Sotrice96_81 (E), Stark_81 (E), StellaBean_78 (E), StolenFromERC_83 (E), TBrady12_83 (E), Tarkin_79 (E), Teaspoon_81 (E), Terminus_83 (E), Thresher_82 (E), Tomaszewski_75 (E), Toto_78 (E), Traaww1_76 (E), Tuco_81 (E), Ukulele_75 (E), Wiggin_82 (E), Xandras_79 (E), Youngblood_83 (E), xkcd_83 (E),

Summary by clusters:

There are 9 clusters represented in this pham: GD1, BF, GD3, E, J, GD2, EB, U, singleton,

Info for manual annotations of cluster BF:

- Start number 12 was manually annotated 1 time for cluster BF.
- Start number 13 was manually annotated 8 times for cluster BF.

Info for manual annotations of cluster E:

- Start number 27 was manually annotated 22 times for cluster E.
- Start number 28 was manually annotated 83 times for cluster E.
- Start number 30 was manually annotated 40 times for cluster E.
- Start number 31 was manually annotated 100 times for cluster E.

Info for manual annotations of cluster EB:

- Start number 16 was manually annotated 1 time for cluster EB.
- Start number 17 was manually annotated 17 times for cluster EB.

Info for manual annotations of cluster GD1:

- Start number 20 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 17 was manually annotated 4 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 15 was manually annotated 2 times for cluster GD3.

Info for manual annotations of cluster J:

- Start number 25 was manually annotated 36 times for cluster J.
- Start number 28 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster U:

- Start number 31 was manually annotated 3 times for cluster U.

Gene Information:

Gene: 244_74 Start: 47428, Stop: 47793, Start Num: 30

Candidate Starts for 244_74:

(Start: 28 @47422 has 84 MA's), (Start: 30 @47428 has 40 MA's), (44, 47500), (55, 47554), (87, 47725),

Gene: 244_81 Start: 49796, Stop: 50131, Start Num: 31

Candidate Starts for 244_81:

(1, 49226), (3, 49343), (5, 49544), (Start: 27 @49781 has 22 MA's), (Start: 31 @49796 has 103 MA's), (38, 49832), (94, 50111),

Gene: A3Wally_326 Start: 170993, Stop: 171403, Start Num: 20

Candidate Starts for A3Wally_326:

(Start: 20 @170993 has 2 MA's), (Start: 31 @171035 has 103 MA's), (33, 171044), (36, 171059), (43, 171095), (64, 171203), (75, 171257), (85, 171293), (90, 171320),

Gene: ABCat_70 Start: 47769, Stop: 48146, Start Num: 28

Candidate Starts for ABCat_70:

(Start: 28 @47769 has 84 MA's), (Start: 30 @47775 has 40 MA's), (44, 47847), (55, 47907), (87, 48078),

Gene: ABCat_77 Start: 50134, Stop: 50484, Start Num: 27

Candidate Starts for ABCat_77:

(5, 49897), (Start: 27 @50134 has 22 MA's), (Start: 31 @50149 has 103 MA's), (38, 50185), (94, 50464),

Gene: Adnama_84 Start: 50160, Stop: 50507, Start Num: 27

Candidate Starts for Adnama_84:

(5, 49923), (Start: 27 @50160 has 22 MA's), (Start: 31 @50175 has 103 MA's), (38, 50211), (94, 50487),

Gene: Adnama_77 Start: 47795, Stop: 48172, Start Num: 28

Candidate Starts for Adnama_77:

(Start: 28 @47795 has 84 MA's), (Start: 30 @47801 has 40 MA's), (44, 47873), (55, 47933), (87, 48104),

Gene: Akino08_91 Start: 36189, Stop: 36629, Start Num: 17

Candidate Starts for Akino08_91:

(Start: 17 @36189 has 21 MA's), (23, 36237), (54, 36375), (66, 36438), (68, 36450), (73, 36492), (89, 36561),

Gene: Amao_80 Start: 49569, Stop: 49901, Start Num: 31

Candidate Starts for Amao_80:

(5, 49317), (Start: 27 @49554 has 22 MA's), (Start: 31 @49569 has 103 MA's), (38, 49605), (69, 49764), (76, 49803), (81, 49818), (88, 49839),

Gene: Amao_73 Start: 47195, Stop: 47566, Start Num: 30

Candidate Starts for Amao_73:

(Start: 28 @47189 has 84 MA's), (Start: 30 @47195 has 40 MA's), (44, 47267), (55, 47327), (87, 47498),

Gene: AmericanBeauty_84 Start: 50318, Stop: 50653, Start Num: 31

Candidate Starts for AmericanBeauty_84:

(5, 50066), (Start: 27 @50303 has 22 MA's), (Start: 31 @50318 has 103 MA's), (38, 50354), (94, 50633),

Gene: AmericanBeauty_77 Start: 47938, Stop: 48315, Start Num: 28

Candidate Starts for AmericanBeauty_77:

(Start: 28 @47938 has 84 MA's), (Start: 30 @47944 has 40 MA's), (44, 48016), (55, 48076), (87, 48247),

Gene: Argent26_77 Start: 47576, Stop: 47953, Start Num: 28

Candidate Starts for Argent26_77:

(Start: 28 @47576 has 84 MA's), (Start: 30 @47582 has 40 MA's), (44, 47654), (55, 47714), (87, 47885),

Gene: Argent26_84 Start: 49956, Stop: 50291, Start Num: 31

Candidate Starts for Argent26_84:

(5, 49704), (Start: 27 @49941 has 22 MA's), (Start: 31 @49956 has 103 MA's), (38, 49992), (94, 50271),

Gene: Ariel_133 Start: 69964, Stop: 70317, Start Num: 25

Candidate Starts for Ariel_133:

(Start: 25 @69964 has 36 MA's), (Start: 28 @69973 has 84 MA's), (86, 70243),

Gene: Asriel_72 Start: 46132, Stop: 46509, Start Num: 28

Candidate Starts for Asriel_72:

(Start: 28 @46132 has 84 MA's), (Start: 30 @46138 has 40 MA's), (44, 46210), (55, 46270), (87, 46441),

Gene: Asriel_79 Start: 48512, Stop: 48844, Start Num: 31

Candidate Starts for Asriel_79:

(5, 48260), (Start: 27 @48497 has 22 MA's), (Start: 31 @48512 has 103 MA's), (38, 48548), (94, 48824),

Gene: AvGardian_52 Start: 34737, Stop: 35147, Start Num: 17

Candidate Starts for AvGardian_52:

(Start: 17 @34737 has 21 MA's), (24, 34788), (48, 34878), (49, 34881), (57, 34935), (63, 34965), (78, 35037),

Gene: BAKA_134 Start: 72670, Stop: 73020, Start Num: 28

Candidate Starts for BAKA_134:

(19, 72634), (Start: 25 @72661 has 36 MA's), (Start: 28 @72670 has 84 MA's), (56, 72802), (60, 72817), (86, 72946), (87, 72952),

Gene: BaboJay_70 Start: 46969, Stop: 47346, Start Num: 28

Candidate Starts for BaboJay_70:

(Start: 28 @46969 has 84 MA's), (Start: 30 @46975 has 40 MA's), (44, 47047), (55, 47107), (87, 47278),

Gene: BaboJay_77 Start: 49349, Stop: 49684, Start Num: 31

Candidate Starts for BaboJay_77:

(5, 49097), (Start: 27 @49334 has 22 MA's), (Start: 31 @49349 has 103 MA's), (38, 49385), (94, 49664),

Gene: BabyYoda_51 Start: 35131, Stop: 35568, Start Num: 17

Candidate Starts for BabyYoda_51:

(Start: 17 @35131 has 21 MA's), (23, 35179), (48, 35278), (49, 35281), (54, 35317), (66, 35380), (68, 35392), (73, 35431),

Gene: Bachaco_49 Start: 35861, Stop: 36301, Start Num: 17

Candidate Starts for Bachaco_49:

(Start: 17 @35861 has 21 MA's), (54, 36050), (83, 36200),

Gene: BadStone_77 Start: 49718, Stop: 50053, Start Num: 31

Candidate Starts for BadStone_77:

(5, 49466), (Start: 27 @49703 has 22 MA's), (Start: 31 @49718 has 103 MA's), (38, 49754), (94, 50033),

Gene: BadStone_70 Start: 47338, Stop: 47715, Start Num: 28

Candidate Starts for BadStone_70:

(Start: 28 @47338 has 84 MA's), (Start: 30 @47344 has 40 MA's), (44, 47416), (55, 47476), (87, 47647),

Gene: Bagrid_135 Start: 72784, Stop: 73143, Start Num: 25

Candidate Starts for Bagrid_135:

(19, 72757), (Start: 25 @72784 has 36 MA's), (Start: 28 @72793 has 84 MA's), (56, 72925), (60, 72940), (86, 73069), (87, 73075),

Gene: Balomoji_73 Start: 47905, Stop: 48276, Start Num: 30

Candidate Starts for Balomoji_73:

(Start: 28 @47899 has 84 MA's), (Start: 30 @47905 has 40 MA's), (44, 47977), (55, 48037), (87, 48208),

Gene: Balomoji_80 Start: 50279, Stop: 50614, Start Num: 31

Candidate Starts for Balomoji_80:

(5, 50027), (Start: 27 @50264 has 22 MA's), (Start: 31 @50279 has 103 MA's), (38, 50315), (94, 50594),

Gene: Barbarian_72 Start: 46132, Stop: 46509, Start Num: 28

Candidate Starts for Barbarian_72:

(Start: 28 @46132 has 84 MA's), (Start: 30 @46138 has 40 MA's), (44, 46210), (55, 46270), (87, 46441),

Gene: Barbarian_79 Start: 48512, Stop: 48844, Start Num: 31

Candidate Starts for Barbarian_79:

(5, 48260), (Start: 27 @48497 has 22 MA's), (Start: 31 @48512 has 103 MA's), (38, 48548), (94, 48824),

Gene: Bask21_80 Start: 49132, Stop: 49467, Start Num: 31

Candidate Starts for Bask21_80:

(5, 48880), (Start: 27 @49117 has 22 MA's), (Start: 31 @49132 has 103 MA's), (38, 49168), (50, 49222), (71, 49348), (81, 49384), (84, 49387), (88, 49405), (94, 49447),

Gene: Bask21_73 Start: 46758, Stop: 47129, Start Num: 30

Candidate Starts for Bask21_73:

(Start: 28 @46752 has 84 MA's), (Start: 30 @46758 has 40 MA's), (44, 46830), (55, 46890), (70, 46989), (87, 47061),

Gene: Beem_136 Start: 74259, Stop: 74618, Start Num: 25

Candidate Starts for Beem_136:

(19, 74232), (Start: 25 @74259 has 36 MA's), (Start: 28 @74268 has 84 MA's), (56, 74400), (60, 74415),

Gene: Bench_83 Start: 49816, Stop: 50148, Start Num: 31

Candidate Starts for Bench_83:

(1, 49246), (3, 49363), (5, 49564), (Start: 27 @49801 has 22 MA's), (Start: 31 @49816 has 103 MA's), (38, 49852), (94, 50128),

Gene: Bench_76 Start: 47439, Stop: 47813, Start Num: 28

Candidate Starts for Bench_76:

(Start: 28 @47439 has 84 MA's), (Start: 30 @47445 has 40 MA's), (44, 47517), (55, 47577), (87, 47745),

Gene: Big4_12 Start: 5535, Stop: 6011, Start Num: 17

Candidate Starts for Big4_12:

(Start: 17 @5535 has 21 MA's), (37, 5646), (41, 5664), (55, 5733), (58, 5751), (59, 5754), (72, 5847), (87, 5907),

Gene: Big4_338 Start: 180229, Stop: 180705, Start Num: 17

Candidate Starts for Big4_338:

(Start: 17 @180229 has 21 MA's), (37, 180340), (41, 180358), (55, 180427), (58, 180445), (59, 180448), (72, 180541), (87, 180601),

Gene: BigBubba_73 Start: 47151, Stop: 47525, Start Num: 28

Candidate Starts for BigBubba_73:

(Start: 28 @47151 has 84 MA's), (Start: 30 @47157 has 40 MA's), (44, 47229), (55, 47289), (70, 47385), (87, 47457),

Gene: BigBubba_80 Start: 49528, Stop: 49860, Start Num: 31

Candidate Starts for BigBubba_80:

(5, 49276), (Start: 27 @49513 has 22 MA's), (Start: 31 @49528 has 103 MA's), (38, 49564), (94, 49840),

Gene: BilboSwaggins_72 Start: 47783, Stop: 48154, Start Num: 30

Candidate Starts for BilboSwaggins_72:

(Start: 28 @47777 has 84 MA's), (Start: 30 @47783 has 40 MA's), (44, 47855), (55, 47915), (87, 48086),

Gene: BilboSwaggins_79 Start: 50142, Stop: 50489, Start Num: 27

Candidate Starts for BilboSwaggins_79:

(5, 49905), (Start: 27 @50142 has 22 MA's), (Start: 31 @50157 has 103 MA's), (38, 50193), (94, 50469),

Gene: Bobby_126 Start: 74360, Stop: 74719, Start Num: 25

Candidate Starts for Bobby_126:

(19, 74333), (Start: 25 @74360 has 36 MA's), (Start: 28 @74369 has 84 MA's), (56, 74501), (60, 74516),

Gene: Bombitas_122 Start: 71670, Stop: 72029, Start Num: 25

Candidate Starts for Bombitas_122:

(19, 71643), (Start: 25 @71670 has 36 MA's), (Start: 28 @71679 has 84 MA's), (56, 71811), (60, 71826),

Gene: Bruin_77 Start: 48677, Stop: 49027, Start Num: 27

Candidate Starts for Bruin_77:

(5, 48440), (Start: 27 @48677 has 22 MA's), (Start: 31 @48692 has 103 MA's), (38, 48728), (94, 49007),

Gene: Bruin_70 Start: 46315, Stop: 46689, Start Num: 28

Candidate Starts for Bruin_70:

(Start: 28 @46315 has 84 MA's), (Start: 30 @46321 has 40 MA's), (44, 46393), (55, 46453), (87, 46621),

Gene: Buck_74 Start: 48026, Stop: 48394, Start Num: 28

Candidate Starts for Buck_74:

(Start: 28 @48026 has 84 MA's), (Start: 30 @48032 has 40 MA's), (44, 48104), (87, 48326),

Gene: Buck_81 Start: 50397, Stop: 50732, Start Num: 31

Candidate Starts for Buck_81:

(5, 50145), (Start: 27 @50382 has 22 MA's), (Start: 31 @50397 has 103 MA's), (38, 50433), (94, 50712),

Gene: BugsBunny_80 Start: 50209, Stop: 50556, Start Num: 27

Candidate Starts for BugsBunny_80:

(5, 49972), (Start: 27 @50209 has 22 MA's), (Start: 31 @50224 has 103 MA's), (38, 50260), (94, 50536),

Gene: BugsBunny_73 Start: 47853, Stop: 48221, Start Num: 30

Candidate Starts for BugsBunny_73:

(Start: 28 @47847 has 84 MA's), (Start: 30 @47853 has 40 MA's), (44, 47925), (55, 47985), (87, 48153),

Gene: Cactus_83 Start: 49173, Stop: 49508, Start Num: 31

Candidate Starts for Cactus_83:

(5, 48921), (Start: 27 @49158 has 22 MA's), (Start: 31 @49173 has 103 MA's), (38, 49209), (94, 49488),

Gene: Cactus_76 Start: 46793, Stop: 47170, Start Num: 28

Candidate Starts for Cactus_76:

(Start: 28 @46793 has 84 MA's), (Start: 30 @46799 has 40 MA's), (44, 46871), (55, 46931), (87, 47102),

Gene: Cece_15 Start: 5418, Stop: 5840, Start Num: 15

Candidate Starts for Cece_15:

(Start: 15 @5418 has 2 MA's), (21, 5472), (22, 5484), (39, 5544), (53, 5607), (81, 5742),

Gene: Cece_317 Start: 173852, Stop: 174274, Start Num: 15

Candidate Starts for Cece_317:

(Start: 15 @173852 has 2 MA's), (21, 173906), (22, 173918), (39, 173978), (53, 174041), (81, 174176),

Gene: Celaena_49 Start: 35623, Stop: 36063, Start Num: 17

Candidate Starts for Celaena_49:

(Start: 17 @35623 has 21 MA's), (54, 35812), (83, 35962),

Gene: ChiliPepper_48 Start: 34921, Stop: 35364, Start Num: 17

Candidate Starts for ChiliPepper_48:

(Start: 17 @34921 has 21 MA's), (54, 35110), (67, 35182), (93, 35320),

Gene: ChosenOne_80 Start: 49173, Stop: 49508, Start Num: 31

Candidate Starts for ChosenOne_80:

(5, 48921), (Start: 27 @49158 has 22 MA's), (Start: 31 @49173 has 103 MA's), (38, 49209), (94, 49488),

Gene: ChosenOne_73 Start: 46796, Stop: 47170, Start Num: 28

Candidate Starts for ChosenOne_73:

(Start: 28 @46796 has 84 MA's), (Start: 30 @46802 has 40 MA's), (44, 46874), (55, 46934), (87, 47102),

Gene: ChotaBhai_73 Start: 47117, Stop: 47494, Start Num: 28

Candidate Starts for ChotaBhai_73:

(Start: 28 @47117 has 84 MA's), (Start: 30 @47123 has 40 MA's), (44, 47195), (55, 47255), (70, 47354), (87, 47426),

Gene: ChotaBhai_80 Start: 49497, Stop: 49832, Start Num: 31

Candidate Starts for ChotaBhai_80:

(5, 49245), (Start: 27 @49482 has 22 MA's), (Start: 31 @49497 has 103 MA's), (38, 49533), (50, 49587), (71, 49713), (81, 49749), (84, 49752), (88, 49770), (94, 49812),

Gene: Cjw1_80 Start: 50855, Stop: 51202, Start Num: 27

Candidate Starts for Cjw1_80:

(5, 50618), (Start: 27 @50855 has 22 MA's), (Start: 31 @50870 has 103 MA's), (38, 50906), (94, 51182),

Gene: Cjw1_73 Start: 48499, Stop: 48867, Start Num: 30

Candidate Starts for Cjw1_73:

(Start: 28 @48493 has 84 MA's), (Start: 30 @48499 has 40 MA's), (44, 48571), (55, 48631), (87, 48799),

Gene: Command613_75 Start: 47838, Stop: 48209, Start Num: 30

Candidate Starts for Command613_75:

(Start: 28 @47832 has 84 MA's), (Start: 30 @47838 has 40 MA's), (44, 47910), (55, 47970), (87, 48141),

Gene: Command613_82 Start: 50197, Stop: 50547, Start Num: 27

Candidate Starts for Command613_82:

(5, 49960), (Start: 27 @50197 has 22 MA's), (Start: 31 @50212 has 103 MA's), (38, 50248), (94, 50527),

Gene: Constella_128 Start: 72912, Stop: 73271, Start Num: 25

Candidate Starts for Constella_128:

(19, 72885), (Start: 25 @72912 has 36 MA's), (Start: 28 @72921 has 84 MA's), (56, 73053), (60, 73068), (86, 73197), (87, 73203),

Gene: Contagion_69 Start: 46596, Stop: 46970, Start Num: 28

Candidate Starts for Contagion_69:

(Start: 28 @46596 has 84 MA's), (Start: 30 @46602 has 40 MA's), (44, 46674), (55, 46734), (87, 46902),

Gene: Contagion_76 Start: 48973, Stop: 49308, Start Num: 31

Candidate Starts for Contagion_76:

(5, 48721), (Start: 27 @48958 has 22 MA's), (Start: 31 @48973 has 103 MA's), (38, 49009), (94, 49288),

Gene: Cookies_77 Start: 49354, Stop: 49689, Start Num: 31

Candidate Starts for Cookies_77:

(5, 49102), (Start: 27 @49339 has 22 MA's), (Start: 31 @49354 has 103 MA's), (38, 49390), (50, 49444), (71, 49570), (81, 49606), (84, 49609), (88, 49627), (94, 49669),

Gene: Cookies_70 Start: 46974, Stop: 47351, Start Num: 28

Candidate Starts for Cookies_70:

(Start: 28 @46974 has 84 MA's), (Start: 30 @46980 has 40 MA's), (44, 47052), (55, 47112), (70, 47211), (87, 47283),

Gene: Courthouse_129 Start: 69822, Stop: 70175, Start Num: 25

Candidate Starts for Courthouse_129:

(Start: 25 @69822 has 36 MA's), (Start: 28 @69831 has 84 MA's), (86, 70101),

Gene: CrystalP_72 Start: 47783, Stop: 48154, Start Num: 30

Candidate Starts for CrystalP_72:

(Start: 28 @47777 has 84 MA's), (Start: 30 @47783 has 40 MA's), (44, 47855), (55, 47915), (87, 48086),

Gene: CrystalP_79 Start: 50157, Stop: 50489, Start Num: 31

Candidate Starts for CrystalP_79:

(5, 49905), (Start: 27 @50142 has 22 MA's), (Start: 31 @50157 has 103 MA's), (38, 50193), (94, 50469),

Gene: Czyszczone1_81 Start: 49679, Stop: 50011, Start Num: 31

Candidate Starts for Czyszczone1_81:

(5, 49427), (Start: 27 @49664 has 22 MA's), (Start: 31 @49679 has 103 MA's), (38, 49715), (94, 49991),

Gene: Czyszczone1_74 Start: 47302, Stop: 47676, Start Num: 28

Candidate Starts for Czyszczone1_74:

(Start: 28 @47302 has 84 MA's), (Start: 30 @47308 has 40 MA's), (44, 47380), (55, 47440), (87, 47608),

Gene: Daikon_82 Start: 50285, Stop: 50635, Start Num: 27

Candidate Starts for Daikon_82:

(5, 50048), (Start: 27 @50285 has 22 MA's), (Start: 31 @50300 has 103 MA's), (38, 50336), (94, 50615),

Gene: Daikon_75 Start: 47926, Stop: 48297, Start Num: 30

Candidate Starts for Daikon_75:

(Start: 28 @47920 has 84 MA's), (Start: 30 @47926 has 40 MA's), (44, 47998), (55, 48058), (87, 48229),

Gene: Dallas_135 Start: 73726, Stop: 74085, Start Num: 25

Candidate Starts for Dallas_135:

(19, 73699), (Start: 25 @73726 has 36 MA's), (Start: 28 @73735 has 84 MA's), (56, 73867), (60, 73882), (87, 74017),

Gene: DirtyBubble_50 Start: 34799, Stop: 35236, Start Num: 17

Candidate Starts for DirtyBubble_50:

(Start: 17 @34799 has 21 MA's), (23, 34847), (48, 34946), (49, 34949), (54, 34985), (66, 35048), (68, 35060), (73, 35099),

Gene: Dismas_48 Start: 34843, Stop: 35286, Start Num: 17

Candidate Starts for Dismas_48:

(Start: 17 @34843 has 21 MA's), (45, 34978), (46, 34981), (57, 35047), (68, 35104), (79, 35155), (90, 35206),

Gene: DmpstrDiver_134 Start: 73073, Stop: 73432, Start Num: 25

Candidate Starts for DmpstrDiver_134:

(19, 73046), (Start: 25 @73073 has 36 MA's), (Start: 28 @73082 has 84 MA's), (56, 73214), (60, 73229), (86, 73358), (87, 73364),

Gene: DoctorDiddles_72 Start: 47167, Stop: 47538, Start Num: 30

Candidate Starts for DoctorDiddles_72:

(Start: 28 @47161 has 84 MA's), (Start: 30 @47167 has 40 MA's), (44, 47239), (55, 47299), (70, 47398), (87, 47470),

Gene: DoctorDiddles_79 Start: 49541, Stop: 49876, Start Num: 31

Candidate Starts for DoctorDiddles_79:

(5, 49289), (Start: 27 @49526 has 22 MA's), (Start: 31 @49541 has 103 MA's), (38, 49577), (50, 49631), (71, 49757), (81, 49793), (84, 49796), (88, 49814), (94, 49856),

Gene: Dodo_322 Start: 170077, Stop: 170469, Start Num: 20

Candidate Starts for Dodo_322:

(9, 169951), (10, 169954), (11, 169975), (Start: 20 @170077 has 2 MA's), (29, 170110), (36, 170140), (43, 170176), (47, 170188), (65, 170287), (77, 170344), (84, 170371), (85, 170374), (97, 170455),

Gene: Dove_120 Start: 68672, Stop: 69031, Start Num: 25

Candidate Starts for Dove_120:

(19, 68645), (Start: 25 @68672 has 36 MA's), (Start: 28 @68681 has 84 MA's), (56, 68813), (60, 68828), (86, 68957), (87, 68963),

Gene: DrDrey_80 Start: 50583, Stop: 50930, Start Num: 27

Candidate Starts for DrDrey_80:

(5, 50346), (Start: 27 @50583 has 22 MA's), (Start: 31 @50598 has 103 MA's), (38, 50634), (94, 50910),

Gene: DrDrey_73 Start: 48218, Stop: 48595, Start Num: 28

Candidate Starts for DrDrey_73:

(Start: 28 @48218 has 84 MA's), (Start: 30 @48224 has 40 MA's), (44, 48296), (55, 48356), (87, 48527),

Gene: Duke13_129 Start: 70374, Stop: 70733, Start Num: 25

Candidate Starts for Duke13_129:

(19, 70347), (Start: 25 @70374 has 36 MA's), (Start: 28 @70383 has 84 MA's), (56, 70515), (60, 70530), (86, 70659), (87, 70665),

Gene: Dumbo_73 Start: 46707, Stop: 47075, Start Num: 30

Candidate Starts for Dumbo_73:

(Start: 28 @46701 has 84 MA's), (Start: 30 @46707 has 40 MA's), (44, 46779), (55, 46839), (87, 47007),

Gene: Dumbo_80 Start: 49063, Stop: 49413, Start Num: 27

Candidate Starts for Dumbo_80:

(5, 48826), (Start: 27 @49063 has 22 MA's), (Start: 31 @49078 has 103 MA's), (38, 49114), (94, 49393),

Gene: Dusk_70 Start: 46998, Stop: 47375, Start Num: 28

Candidate Starts for Dusk_70:

(Start: 28 @46998 has 84 MA's), (Start: 30 @47004 has 40 MA's), (44, 47076), (55, 47136), (87, 47307),

Gene: Dusk_77 Start: 49378, Stop: 49713, Start Num: 31

Candidate Starts for Dusk_77:

(5, 49126), (Start: 27 @49363 has 22 MA's), (Start: 31 @49378 has 103 MA's), (38, 49414), (94, 49693),

Gene: Easy2Say_81 Start: 50622, Stop: 50954, Start Num: 31

Candidate Starts for Easy2Say_81:

(5, 50370), (Start: 27 @50607 has 22 MA's), (Start: 31 @50622 has 103 MA's), (38, 50658), (94, 50934),

Gene: Easy2Say_74 Start: 48248, Stop: 48619, Start Num: 30

Candidate Starts for Easy2Say_74:

(Start: 28 @48242 has 84 MA's), (Start: 30 @48248 has 40 MA's), (44, 48320), (55, 48380), (87, 48551),

Gene: Ejimix_128 Start: 73794, Stop: 74153, Start Num: 25

Candidate Starts for Ejimix_128:

(19, 73767), (Start: 25 @73794 has 36 MA's), (Start: 28 @73803 has 84 MA's), (56, 73935), (60, 73950), (87, 74085),

Gene: Elite2014_79 Start: 49172, Stop: 49507, Start Num: 31

Candidate Starts for Elite2014_79:

(5, 48920), (Start: 27 @49157 has 22 MA's), (Start: 31 @49172 has 103 MA's), (38, 49208), (94, 49487),

Gene: Elite2014_72 Start: 46795, Stop: 47169, Start Num: 28

Candidate Starts for Elite2014_72:

(Start: 28 @46795 has 84 MA's), (Start: 30 @46801 has 40 MA's), (44, 46873), (55, 46933), (87, 47101),

Gene: Elph10_80 Start: 49162, Stop: 49509, Start Num: 27

Candidate Starts for Elph10_80:

(5, 48925), (Start: 27 @49162 has 22 MA's), (Start: 31 @49177 has 103 MA's), (38, 49213), (94, 49489),

Gene: Elph10_73 Start: 46806, Stop: 47174, Start Num: 30

Candidate Starts for Elph10_73:

(Start: 28 @46800 has 84 MA's), (Start: 30 @46806 has 40 MA's), (44, 46878), (55, 46938), (87, 47106),

Gene: Elva_53 Start: 35217, Stop: 35639, Start Num: 16

Candidate Starts for Elva_53:

(Start: 16 @35217 has 1 MA's), (48, 35367), (49, 35370), (57, 35424), (80, 35523),

Gene: Emmina_80 Start: 49079, Stop: 49411, Start Num: 31

Candidate Starts for Emmina_80:

(Start: 27 @49064 has 22 MA's), (Start: 31 @49079 has 103 MA's), (38, 49115), (94, 49391),

Gene: Emmina_73 Start: 46702, Stop: 47076, Start Num: 28

Candidate Starts for Emmina_73:

(Start: 28 @46702 has 84 MA's), (Start: 30 @46708 has 40 MA's), (44, 46780), (55, 46840), (87, 47008),

Gene: EricMillard_126 Start: 72298, Stop: 72657, Start Num: 25

Candidate Starts for EricMillard_126:

(19, 72271), (Start: 25 @72298 has 36 MA's), (Start: 28 @72307 has 84 MA's), (56, 72439), (60, 72454), (86, 72583), (87, 72589),

Gene: Eureka_78 Start: 49628, Stop: 49975, Start Num: 27

Candidate Starts for Eureka_78:

(5, 49391), (Start: 27 @49628 has 22 MA's), (Start: 31 @49643 has 103 MA's), (38, 49679), (94, 49955),

Gene: Eureka_71 Start: 47272, Stop: 47640, Start Num: 30

Candidate Starts for Eureka_71:

(Start: 28 @47266 has 84 MA's), (Start: 30 @47272 has 40 MA's), (44, 47344), (55, 47404), (87, 47572),

Gene: FairyPath_80 Start: 50291, Stop: 50626, Start Num: 31

Candidate Starts for FairyPath_80:

(5, 50039), (Start: 27 @50276 has 22 MA's), (Start: 31 @50291 has 103 MA's), (38, 50327), (67, 50468), (71, 50507), (81, 50543), (84, 50546), (88, 50564), (94, 50606),

Gene: FairyPath_73 Start: 47917, Stop: 48288, Start Num: 30

Candidate Starts for FairyPath_73:

(Start: 28 @47911 has 84 MA's), (Start: 30 @47917 has 40 MA's), (44, 47989), (55, 48049), (87, 48220),

Gene: Filch_81 Start: 49104, Stop: 49436, Start Num: 31

Candidate Starts for Filch_81:

(5, 48852), (Start: 27 @49089 has 22 MA's), (Start: 31 @49104 has 103 MA's), (38, 49140), (94, 49416),

Gene: Filch_74 Start: 46733, Stop: 47101, Start Num: 30

Candidate Starts for Filch_74:

(Start: 28 @46727 has 84 MA's), (Start: 30 @46733 has 40 MA's), (44, 46805), (55, 46865), (87, 47033),

Gene: FireRed_84 Start: 50666, Stop: 51001, Start Num: 31

Candidate Starts for FireRed_84:

(1, 50096), (3, 50213), (5, 50414), (Start: 27 @50651 has 22 MA's), (Start: 31 @50666 has 103 MA's), (38, 50702), (94, 50981),

Gene: FireRed_77 Start: 48298, Stop: 48663, Start Num: 30

Candidate Starts for FireRed_77:

(Start: 28 @48292 has 84 MA's), (Start: 30 @48298 has 40 MA's), (44, 48370), (55, 48424), (87, 48595),

Gene: FlameThrower_48 Start: 34660, Stop: 35100, Start Num: 17

Candidate Starts for FlameThrower_48:

(Start: 17 @34660 has 21 MA's), (54, 34849), (83, 34999),

Gene: Flypotenuse_69 Start: 46783, Stop: 47160, Start Num: 28

Candidate Starts for Flypotenuse_69:

(Start: 28 @46783 has 84 MA's), (Start: 30 @46789 has 40 MA's), (44, 46861), (55, 46921), (87, 47092),

Gene: Flypotenuse_76 Start: 49163, Stop: 49498, Start Num: 31

Candidate Starts for Flypotenuse_76:

(5, 48911), (Start: 27 @49148 has 22 MA's), (Start: 31 @49163 has 103 MA's), (38, 49199), (94, 49478),

Gene: Gage_75 Start: 47576, Stop: 47953, Start Num: 28

Candidate Starts for Gage_75:

(Start: 28 @47576 has 84 MA's), (Start: 30 @47582 has 40 MA's), (44, 47654), (55, 47714), (87, 47885),

Gene: Gage_82 Start: 49956, Stop: 50291, Start Num: 31

Candidate Starts for Gage_82:

(5, 49704), (Start: 27 @49941 has 22 MA's), (Start: 31 @49956 has 103 MA's), (38, 49992), (94, 50271),

Gene: Gator_71 Start: 47629, Stop: 48006, Start Num: 28

Candidate Starts for Gator_71:

(Start: 28 @47629 has 84 MA's), (Start: 30 @47635 has 40 MA's), (44, 47707), (55, 47767), (87, 47938),

Gene: Gator_78 Start: 50009, Stop: 50341, Start Num: 31

Candidate Starts for Gator_78:

(5, 49757), (Start: 27 @49994 has 22 MA's), (Start: 31 @50009 has 103 MA's), (38, 50045), (94, 50321),

Gene: Gemini_78 Start: 48093, Stop: 48470, Start Num: 28

Candidate Starts for Gemini_78:

(Start: 28 @48093 has 84 MA's), (Start: 30 @48099 has 40 MA's), (44, 48171), (55, 48231), (87, 48402),

Gene: Gemini_85 Start: 50473, Stop: 50808, Start Num: 31

Candidate Starts for Gemini_85:

(5, 50221), (Start: 27 @50458 has 22 MA's), (Start: 31 @50473 has 103 MA's), (38, 50509), (94, 50788),

Gene: Glexan_72 Start: 47913, Stop: 48290, Start Num: 28

Candidate Starts for Glexan_72:

(Start: 28 @47913 has 84 MA's), (Start: 30 @47919 has 40 MA's), (44, 47991), (55, 48051), (87, 48222),

Gene: Glexan_79 Start: 50293, Stop: 50628, Start Num: 31

Candidate Starts for Glexan_79:

(5, 50041), (Start: 27 @50278 has 22 MA's), (Start: 31 @50293 has 103 MA's), (38, 50329), (94, 50608),

Gene: Goku_78 Start: 49357, Stop: 49704, Start Num: 27

Candidate Starts for Goku_78:

(5, 49120), (Start: 27 @49357 has 22 MA's), (Start: 31 @49372 has 103 MA's), (38, 49408), (94, 49684),

Gene: Goku_71 Start: 46995, Stop: 47369, Start Num: 28

Candidate Starts for Goku_71:

(Start: 28 @46995 has 84 MA's), (Start: 30 @47001 has 40 MA's), (44, 47073), (55, 47133), (87, 47301),

Gene: GoldenSpark_77 Start: 47582, Stop: 47953, Start Num: 30

Candidate Starts for GoldenSpark_77:

(Start: 28 @47576 has 84 MA's), (Start: 30 @47582 has 40 MA's), (44, 47654), (55, 47714), (87, 47885),

Gene: GoldenSpark_84 Start: 49941, Stop: 50291, Start Num: 27

Candidate Starts for GoldenSpark_84:

(5, 49704), (Start: 27 @49941 has 22 MA's), (Start: 31 @49956 has 103 MA's), (38, 49992), (94, 50271),

Gene: Goldilocks_76 Start: 47080, Stop: 47451, Start Num: 30

Candidate Starts for Goldilocks_76:

(Start: 28 @47074 has 84 MA's), (Start: 30 @47080 has 40 MA's), (44, 47152), (55, 47212), (87, 47383),

Gene: Goldilocks_83 Start: 49454, Stop: 49786, Start Num: 31

Candidate Starts for Goldilocks_83:

(5, 49202), (Start: 27 @49439 has 22 MA's), (Start: 31 @49454 has 103 MA's), (38, 49490), (94, 49766),

Gene: Gonephishing_128 Start: 69464, Stop: 69817, Start Num: 25

Candidate Starts for Gonephishing_128:

(Start: 25 @69464 has 36 MA's), (Start: 28 @69473 has 84 MA's), (86, 69743), (94, 69794),

Gene: GooberAzure_83 Start: 49956, Stop: 50291, Start Num: 31

Candidate Starts for GooberAzure_83:

(5, 49704), (Start: 27 @49941 has 22 MA's), (Start: 31 @49956 has 103 MA's), (38, 49992), (94, 50271),

Gene: GooberAzure_76 Start: 47576, Stop: 47953, Start Num: 28
Candidate Starts for GooberAzure_76:
(Start: 28 @47576 has 84 MA's), (Start: 30 @47582 has 40 MA's), (44, 47654), (55, 47714), (87, 47885),

Gene: Halley_136 Start: 74110, Stop: 74469, Start Num: 25
Candidate Starts for Halley_136:
(19, 74083), (Start: 25 @74110 has 36 MA's), (Start: 28 @74119 has 84 MA's), (56, 74251), (60, 74266), (87, 74401),

Gene: HanKaySha_73 Start: 46880, Stop: 47254, Start Num: 28
Candidate Starts for HanKaySha_73:
(Start: 28 @46880 has 84 MA's), (Start: 30 @46886 has 40 MA's), (44, 46958), (55, 47018), (87, 47186),

Gene: HanKaySha_80 Start: 49257, Stop: 49589, Start Num: 31
Candidate Starts for HanKaySha_80:
(5, 49005), (Start: 27 @49242 has 22 MA's), (Start: 31 @49257 has 103 MA's), (38, 49293), (94, 49569),

Gene: Hannaconda_127 Start: 70117, Stop: 70470, Start Num: 25
Candidate Starts for Hannaconda_127:
(Start: 25 @70117 has 36 MA's), (Start: 28 @70126 has 84 MA's), (86, 70396), (94, 70447),

Gene: Harella_80 Start: 50809, Stop: 51144, Start Num: 31
Candidate Starts for Harella_80:
(5, 50557), (Start: 27 @50794 has 22 MA's), (Start: 31 @50809 has 103 MA's), (38, 50845), (94, 51124),

Gene: Harella_73 Start: 48429, Stop: 48806, Start Num: 28
Candidate Starts for Harella_73:
(Start: 28 @48429 has 84 MA's), (Start: 30 @48435 has 40 MA's), (44, 48507), (55, 48567), (87, 48738),

Gene: HaugeAnator_78 Start: 40177, Stop: 39656, Start Num: 13
Candidate Starts for HaugeAnator_78:
(Start: 13 @40177 has 8 MA's), (14, 40156), (Start: 16 @40129 has 1 MA's), (18, 40105), (34, 40030), (35, 40027), (40, 40000), (49, 39964), (54, 39934), (61, 39898), (63, 39886), (64, 39883), (90, 39745),

Gene: Henry_71 Start: 47217, Stop: 47594, Start Num: 28
Candidate Starts for Henry_71:
(Start: 28 @47217 has 84 MA's), (Start: 30 @47223 has 40 MA's), (44, 47295), (55, 47355), (87, 47526),

Gene: Henry_78 Start: 49597, Stop: 49929, Start Num: 31
Candidate Starts for Henry_78:
(5, 49345), (Start: 27 @49582 has 22 MA's), (Start: 31 @49597 has 103 MA's), (38, 49633), (94, 49909),

Gene: Highbury_72 Start: 46868, Stop: 47242, Start Num: 28
Candidate Starts for Highbury_72:
(Start: 28 @46868 has 84 MA's), (Start: 30 @46874 has 40 MA's), (44, 46946), (55, 47006), (87, 47174),

Gene: Highbury_79 Start: 49245, Stop: 49580, Start Num: 31

Candidate Starts for Highbury_79:

(5, 48993), (Start: 27 @49230 has 22 MA's), (Start: 31 @49245 has 103 MA's), (38, 49281), (94, 49560),

Gene: HokkenD_126 Start: 72994, Stop: 73353, Start Num: 25

Candidate Starts for HokkenD_126:

(19, 72967), (Start: 25 @72994 has 36 MA's), (Start: 28 @73003 has 84 MA's), (56, 73135), (60, 73150), (86, 73279), (87, 73285),

Gene: Holt_85 Start: 50370, Stop: 50705, Start Num: 31

Candidate Starts for Holt_85:

(5, 50118), (Start: 27 @50355 has 22 MA's), (Start: 31 @50370 has 103 MA's), (38, 50406), (94, 50685),

Gene: Holt_78 Start: 47990, Stop: 48367, Start Num: 28

Candidate Starts for Holt_78:

(Start: 28 @47990 has 84 MA's), (Start: 30 @47996 has 40 MA's), (44, 48068), (55, 48128), (87, 48299),

Gene: Hoonter_76 Start: 47576, Stop: 47953, Start Num: 28

Candidate Starts for Hoonter_76:

(Start: 28 @47576 has 84 MA's), (Start: 30 @47582 has 40 MA's), (44, 47654), (55, 47714), (87, 47885),

Gene: Hoonter_83 Start: 49956, Stop: 50288, Start Num: 31

Candidate Starts for Hoonter_83:

(1, 49386), (3, 49503), (5, 49704), (Start: 27 @49941 has 22 MA's), (Start: 31 @49956 has 103 MA's), (38, 49992), (94, 50268),

Gene: Hokey_80 Start: 49789, Stop: 50121, Start Num: 31

Candidate Starts for Hokey_80:

(5, 49537), (Start: 27 @49774 has 22 MA's), (Start: 31 @49789 has 103 MA's), (38, 49825), (94, 50101),

Gene: Hokey_73 Start: 47412, Stop: 47786, Start Num: 28

Candidate Starts for Hokey_73:

(Start: 28 @47412 has 84 MA's), (Start: 30 @47418 has 40 MA's), (44, 47490), (55, 47550), (87, 47718),

Gene: HufflyPuff_83 Start: 50607, Stop: 50954, Start Num: 27

Candidate Starts for HufflyPuff_83:

(Start: 27 @50607 has 22 MA's), (Start: 31 @50622 has 103 MA's), (38, 50658), (94, 50934),

Gene: HufflyPuff_76 Start: 48245, Stop: 48619, Start Num: 28

Candidate Starts for HufflyPuff_76:

(Start: 28 @48245 has 84 MA's), (Start: 30 @48251 has 40 MA's), (44, 48323), (55, 48383), (87, 48551),

Gene: Hughesyang_134 Start: 73880, Stop: 74239, Start Num: 25

Candidate Starts for Hughesyang_134:

(19, 73853), (Start: 25 @73880 has 36 MA's), (Start: 28 @73889 has 84 MA's), (56, 74021), (60, 74036), (86, 74165), (87, 74171),

Gene: IHOP_71 Start: 47341, Stop: 47718, Start Num: 28

Candidate Starts for IHOP_71:

(Start: 28 @47341 has 84 MA's), (Start: 30 @47347 has 40 MA's), (44, 47419), (55, 47479), (87, 47650),

Gene: IHOP_78 Start: 49721, Stop: 50053, Start Num: 31

Candidate Starts for IHOP_78:

(5, 49469), (Start: 27 @49706 has 22 MA's), (Start: 31 @49721 has 103 MA's), (38, 49757), (94, 50033),

Gene: Icarian_54 Start: 35804, Stop: 36241, Start Num: 17

Candidate Starts for Icarian_54:

(Start: 17 @35804 has 21 MA's), (23, 35852), (48, 35951), (49, 35954), (54, 35990), (68, 36065), (73, 36104), (91, 36185),

Gene: Icee_74 Start: 47246, Stop: 47617, Start Num: 30

Candidate Starts for Icee_74:

(Start: 28 @47240 has 84 MA's), (Start: 30 @47246 has 40 MA's), (44, 47318), (55, 47378), (87, 47549),

Gene: Icee_81 Start: 49620, Stop: 49955, Start Num: 31

Candidate Starts for Icee_81:

(5, 49368), (Start: 27 @49605 has 22 MA's), (Start: 31 @49620 has 103 MA's), (38, 49656), (94, 49935),

Gene: Immanuel3_76 Start: 40182, Stop: 39661, Start Num: 13

Candidate Starts for Immanuel3_76:

(Start: 13 @40182 has 8 MA's), (14, 40161), (Start: 16 @40134 has 1 MA's), (18, 40110), (34, 40035), (35, 40032), (40, 40005), (49, 39969), (54, 39939), (61, 39903), (63, 39891), (64, 39888), (90, 39750),

Gene: Inca_70 Start: 45869, Stop: 46243, Start Num: 28

Candidate Starts for Inca_70:

(Start: 28 @45869 has 84 MA's), (Start: 30 @45875 has 40 MA's), (44, 45947), (55, 46007), (87, 46175),

Gene: Inca_77 Start: 48246, Stop: 48581, Start Num: 31

Candidate Starts for Inca_77:

(5, 47994), (Start: 27 @48231 has 22 MA's), (Start: 31 @48246 has 103 MA's), (38, 48282), (94, 48561),

Gene: JPandJE_77 Start: 40528, Stop: 40007, Start Num: 13

Candidate Starts for JPandJE_77:

(Start: 13 @40528 has 8 MA's), (14, 40507), (Start: 16 @40480 has 1 MA's), (Start: 17 @40477 has 21 MA's), (18, 40456), (34, 40381), (35, 40378), (40, 40351), (49, 40315), (54, 40285), (61, 40249), (63, 40237), (64, 40234), (90, 40096),

Gene: JeTaime_73 Start: 48064, Stop: 48435, Start Num: 28

Candidate Starts for JeTaime_73:

(Start: 28 @48064 has 84 MA's), (Start: 30 @48070 has 40 MA's), (44, 48142), (55, 48196), (87, 48367),

Gene: JeTaime_80 Start: 50438, Stop: 50770, Start Num: 31

Candidate Starts for JeTaime_80:

(5, 50186), (Start: 27 @50423 has 22 MA's), (Start: 31 @50438 has 103 MA's), (38, 50474), (94, 50750),

Gene: JuicyJay_131 Start: 75395, Stop: 75754, Start Num: 25

Candidate Starts for JuicyJay_131:

(19, 75368), (Start: 25 @75395 has 36 MA's), (Start: 28 @75404 has 84 MA's), (56, 75536), (60, 75551),

Gene: Kanye_77 Start: 49302, Stop: 49637, Start Num: 31

Candidate Starts for Kanye_77:

(5, 49050), (Start: 27 @49287 has 22 MA's), (Start: 31 @49302 has 103 MA's), (38, 49338), (94, 49617),

Gene: Kanye_70 Start: 46922, Stop: 47299, Start Num: 28

Candidate Starts for Kanye_70:

(Start: 28 @46922 has 84 MA's), (Start: 30 @46928 has 40 MA's), (44, 47000), (55, 47060), (87, 47231),

Gene: KashFlow_131 Start: 71552, Stop: 71905, Start Num: 25

Candidate Starts for KashFlow_131:

(Start: 25 @71552 has 36 MA's), (Start: 28 @71561 has 84 MA's), (86, 71831), (94, 71882),

Gene: Katzastrophic_50 Start: 35170, Stop: 35610, Start Num: 17

Candidate Starts for Katzastrophic_50:

(Start: 17 @35170 has 21 MA's), (54, 35359), (83, 35509),

Gene: Kieran_48 Start: 34884, Stop: 35327, Start Num: 17

Candidate Starts for Kieran_48:

(2, 34482), (4, 34656), (6, 34737), (Start: 17 @34884 has 21 MA's), (54, 35073), (67, 35145), (93, 35283),

Gene: Kimchi_84 Start: 49959, Stop: 50294, Start Num: 31

Candidate Starts for Kimchi_84:

(5, 49707), (Start: 27 @49944 has 22 MA's), (Start: 31 @49959 has 103 MA's), (38, 49995), (94, 50274),

Gene: Kimchi_77 Start: 47579, Stop: 47956, Start Num: 28

Candidate Starts for Kimchi_77:

(Start: 28 @47579 has 84 MA's), (Start: 30 @47585 has 40 MA's), (44, 47657), (55, 47717), (87, 47888),

Gene: Kithara_90 Start: 59830, Stop: 59399, Start Num: 26

Candidate Starts for Kithara_90:

(Start: 26 @59830 has 1 MA's), (42, 59746), (73, 59566), (95, 59455),

Gene: Klein_131 Start: 71031, Stop: 71390, Start Num: 25

Candidate Starts for Klein_131:

(19, 71004), (Start: 25 @71031 has 36 MA's), (Start: 28 @71040 has 84 MA's), (56, 71172), (60, 71187), (86, 71316), (87, 71322),

Gene: Kostya_80 Start: 49805, Stop: 50155, Start Num: 27

Candidate Starts for Kostya_80:

(5, 49568), (Start: 27 @49805 has 22 MA's), (Start: 31 @49820 has 103 MA's), (38, 49856), (94, 50135),

Gene: Kostya_73 Start: 47446, Stop: 47817, Start Num: 30

Candidate Starts for Kostya_73:

(Start: 28 @47440 has 84 MA's), (Start: 30 @47446 has 40 MA's), (44, 47518), (55, 47578), (87, 47749),

Gene: Labelle_59 Start: 43035, Stop: 43403, Start Num: 31

Candidate Starts for Labelle_59:

(Start: 31 @43035 has 103 MA's), (35, 43056), (56, 43164), (59, 43173), (73, 43269), (81, 43296),

Gene: Lilac_82 Start: 49574, Stop: 49906, Start Num: 31

Candidate Starts for Lilac_82:

(5, 49322), (Start: 27 @49559 has 22 MA's), (Start: 31 @49574 has 103 MA's), (38, 49610), (94, 49886),

Gene: Lilac_75 Start: 47197, Stop: 47571, Start Num: 28

Candidate Starts for Lilac_75:

(Start: 28 @47197 has 84 MA's), (Start: 30 @47203 has 40 MA's), (44, 47275), (55, 47335), (87, 47503),

Gene: Lilizi_74 Start: 46910, Stop: 47284, Start Num: 28

Candidate Starts for Lilizi_74:

(Start: 28 @46910 has 84 MA's), (Start: 30 @46916 has 40 MA's), (44, 46988), (55, 47048), (87, 47216),

Gene: Lilizi_81 Start: 49287, Stop: 49619, Start Num: 31

Candidate Starts for Lilizi_81:

(1, 48717), (3, 48834), (5, 49035), (Start: 27 @49272 has 22 MA's), (Start: 31 @49287 has 103 MA's), (38, 49323), (94, 49599),

Gene: Lilpickle_72 Start: 46795, Stop: 47169, Start Num: 28

Candidate Starts for Lilpickle_72:

(Start: 28 @46795 has 84 MA's), (Start: 30 @46801 has 40 MA's), (44, 46873), (55, 46933), (87, 47101),

Gene: Lilpickle_79 Start: 49172, Stop: 49507, Start Num: 31

Candidate Starts for Lilpickle_79:

(5, 48920), (Start: 27 @49157 has 22 MA's), (Start: 31 @49172 has 103 MA's), (38, 49208), (94, 49487),

Gene: LittleE_136 Start: 72806, Stop: 73159, Start Num: 25

Candidate Starts for LittleE_136:

(Start: 25 @72806 has 36 MA's), (Start: 28 @72815 has 84 MA's),

Gene: Loviatar_90 Start: 36204, Stop: 36644, Start Num: 17

Candidate Starts for Loviatar_90:

(Start: 17 @36204 has 21 MA's), (23, 36252), (54, 36390), (66, 36453), (68, 36465), (73, 36507), (89, 36576),

Gene: Lucky2013_128 Start: 69682, Stop: 70035, Start Num: 25
Candidate Starts for Lucky2013_128:
(Start: 25 @69682 has 36 MA's), (Start: 28 @69691 has 84 MA's), (86, 69961), (94, 70012),

Gene: MISSy_74 Start: 47301, Stop: 47675, Start Num: 28
Candidate Starts for MISSy_74:
(Start: 28 @47301 has 84 MA's), (Start: 30 @47307 has 40 MA's), (44, 47379), (55, 47439), (87, 47607),

Gene: MISSy_81 Start: 49663, Stop: 50013, Start Num: 27
Candidate Starts for MISSy_81:
(5, 49426), (Start: 27 @49663 has 22 MA's), (Start: 31 @49678 has 103 MA's), (38, 49714), (94, 49993),

Gene: MPhalcon_74 Start: 47294, Stop: 47668, Start Num: 28
Candidate Starts for MPhalcon_74:
(Start: 28 @47294 has 84 MA's), (Start: 30 @47300 has 40 MA's), (44, 47372), (55, 47432), (87, 47600),

Gene: MPhalcon_81 Start: 49671, Stop: 50006, Start Num: 31
Candidate Starts for MPhalcon_81:
(5, 49419), (Start: 27 @49656 has 22 MA's), (Start: 31 @49671 has 103 MA's), (38, 49707), (94, 49986),

Gene: MadamMonkfish_73 Start: 46525, Stop: 46893, Start Num: 30
Candidate Starts for MadamMonkfish_73:
(Start: 28 @46519 has 84 MA's), (Start: 30 @46525 has 40 MA's), (44, 46597), (55, 46657), (87, 46825),

Gene: Madruga_58 Start: 42688, Stop: 43056, Start Num: 31
Candidate Starts for Madruga_58:
(Start: 31 @42688 has 103 MA's), (56, 42817), (59, 42826), (73, 42922), (81, 42949),

Gene: Manda_81 Start: 50758, Stop: 51093, Start Num: 31
Candidate Starts for Manda_81:
(5, 50506), (Start: 27 @50743 has 22 MA's), (Start: 31 @50758 has 103 MA's), (38, 50794), (94, 51073),

Gene: Manda_74 Start: 48378, Stop: 48755, Start Num: 28
Candidate Starts for Manda_74:
(Start: 28 @48378 has 84 MA's), (Start: 30 @48384 has 40 MA's), (44, 48456), (55, 48516), (87, 48687),

Gene: Marshmallow_71 Start: 48077, Stop: 48448, Start Num: 30
Candidate Starts for Marshmallow_71:
(Start: 28 @48071 has 84 MA's), (Start: 30 @48077 has 40 MA's), (44, 48149), (55, 48209), (87, 48380),

Gene: Marshmallow_78 Start: 50436, Stop: 50783, Start Num: 27
Candidate Starts for Marshmallow_78:
(5, 50199), (Start: 27 @50436 has 22 MA's), (Start: 31 @50451 has 103 MA's), (38, 50487), (94, 50763),

Gene: Maxxinista_82 Start: 49547, Stop: 49879, Start Num: 31

Candidate Starts for Maxxinista_82:

(5, 49295), (Start: 27 @49532 has 22 MA's), (Start: 31 @49547 has 103 MA's), (38, 49583), (94, 49859),

Gene: Maxxinista_75 Start: 47176, Stop: 47544, Start Num: 30

Candidate Starts for Maxxinista_75:

(Start: 28 @47170 has 84 MA's), (Start: 30 @47176 has 40 MA's), (44, 47248), (55, 47308), (87, 47476),

Gene: MiaZeal_133 Start: 70821, Stop: 71174, Start Num: 25

Candidate Starts for MiaZeal_133:

(Start: 25 @70821 has 36 MA's), (Start: 28 @70830 has 84 MA's), (86, 71100), (94, 71151),

Gene: Mindy_72 Start: 46383, Stop: 46760, Start Num: 28

Candidate Starts for Mindy_72:

(Start: 28 @46383 has 84 MA's), (Start: 30 @46389 has 40 MA's), (44, 46461), (55, 46521), (87, 46692),

Gene: Mindy_79 Start: 48763, Stop: 49095, Start Num: 31

Candidate Starts for Mindy_79:

(5, 48511), (Start: 27 @48748 has 22 MA's), (Start: 31 @48763 has 103 MA's), (38, 48799), (94, 49075),

Gene: Minerva_133 Start: 72481, Stop: 72840, Start Num: 25

Candidate Starts for Minerva_133:

(19, 72454), (Start: 25 @72481 has 36 MA's), (Start: 28 @72490 has 84 MA's), (56, 72622), (60, 72637), (86, 72766), (87, 72772),

Gene: Miniwave_68 Start: 46836, Stop: 47213, Start Num: 28

Candidate Starts for Miniwave_68:

(Start: 28 @46836 has 84 MA's), (Start: 30 @46842 has 40 MA's), (44, 46914), (55, 46974), (87, 47145),

Gene: Miniwave_75 Start: 49216, Stop: 49551, Start Num: 31

Candidate Starts for Miniwave_75:

(5, 48964), (Start: 27 @49201 has 22 MA's), (Start: 31 @49216 has 103 MA's), (38, 49252), (67, 49393), (71, 49432), (81, 49468), (84, 49471), (88, 49489), (94, 49531),

Gene: Misfit_81 Start: 50690, Stop: 51025, Start Num: 31

Candidate Starts for Misfit_81:

(5, 50438), (Start: 27 @50675 has 22 MA's), (Start: 31 @50690 has 103 MA's), (38, 50726), (94, 51005),

Gene: Misfit_74 Start: 48313, Stop: 48687, Start Num: 28

Candidate Starts for Misfit_74:

(Start: 28 @48313 has 84 MA's), (Start: 30 @48319 has 40 MA's), (44, 48391), (55, 48451), (87, 48619),

Gene: Moldemort_76 Start: 47395, Stop: 47772, Start Num: 28

Candidate Starts for Moldemort_76:

(Start: 28 @47395 has 84 MA's), (Start: 30 @47401 has 40 MA's), (44, 47473), (55, 47533), (87, 47704),

Gene: Moldemort_83 Start: 49775, Stop: 50107, Start Num: 31

Candidate Starts for Moldemort_83:

(5, 49523), (Start: 27 @49760 has 22 MA's), (Start: 31 @49775 has 103 MA's), (38, 49811), (94, 50087),

Gene: Mosby_76 Start: 48973, Stop: 49308, Start Num: 31

Candidate Starts for Mosby_76:

(5, 48721), (Start: 27 @48958 has 22 MA's), (Start: 31 @48973 has 103 MA's), (38, 49009), (94, 49288),

Gene: Mosby_69 Start: 46596, Stop: 46970, Start Num: 28

Candidate Starts for Mosby_69:

(Start: 28 @46596 has 84 MA's), (Start: 30 @46602 has 40 MA's), (44, 46674), (55, 46734), (87, 46902),

Gene: Murica_76 Start: 48251, Stop: 48619, Start Num: 30

Candidate Starts for Murica_76:

(Start: 28 @48245 has 84 MA's), (Start: 30 @48251 has 40 MA's), (44, 48323), (55, 48383), (87, 48551),

Gene: Murica_83 Start: 50622, Stop: 50954, Start Num: 31

Candidate Starts for Murica_83:

(Start: 27 @50607 has 22 MA's), (Start: 31 @50622 has 103 MA's), (38, 50658), (94, 50934),

Gene: Murphy_80 Start: 50059, Stop: 50391, Start Num: 31

Candidate Starts for Murphy_80:

(5, 49807), (Start: 27 @50044 has 22 MA's), (Start: 31 @50059 has 103 MA's), (38, 50095), (94, 50371),

Gene: Murphy_73 Start: 47688, Stop: 48056, Start Num: 30

Candidate Starts for Murphy_73:

(Start: 28 @47682 has 84 MA's), (Start: 30 @47688 has 40 MA's), (44, 47760), (55, 47820), (87, 47988),

Gene: Myrale_73 Start: 47936, Stop: 48313, Start Num: 28

Candidate Starts for Myrale_73:

(Start: 28 @47936 has 84 MA's), (Start: 30 @47942 has 40 MA's), (44, 48014), (55, 48074), (87, 48245),

Gene: Myrale_80 Start: 50316, Stop: 50651, Start Num: 31

Candidate Starts for Myrale_80:

(5, 50064), (Start: 27 @50301 has 22 MA's), (Start: 31 @50316 has 103 MA's), (38, 50352), (67, 50493), (71, 50532), (81, 50568), (84, 50571), (88, 50589), (94, 50631),

Gene: Nala_75 Start: 47812, Stop: 48177, Start Num: 30

Candidate Starts for Nala_75:

(Start: 28 @47806 has 84 MA's), (Start: 30 @47812 has 40 MA's), (44, 47884), (55, 47938), (87, 48109),

Gene: Nala_82 Start: 50180, Stop: 50515, Start Num: 31

Candidate Starts for Nala_82:

(1, 49610), (3, 49727), (5, 49928), (Start: 27 @50165 has 22 MA's), (Start: 31 @50180 has 103 MA's), (38, 50216), (94, 50495),

Gene: NelitzaMV_78 Start: 49247, Stop: 49597, Start Num: 27

Candidate Starts for NelitzaMV_78:

(5, 49010), (Start: 27 @49247 has 22 MA's), (Start: 31 @49262 has 103 MA's), (38, 49298), (94, 49577),

Gene: NelitzaMV_71 Start: 46888, Stop: 47259, Start Num: 30

Candidate Starts for NelitzaMV_71:

(Start: 28 @46882 has 84 MA's), (Start: 30 @46888 has 40 MA's), (44, 46960), (55, 47020), (87, 47191),

Gene: NihilNomen_136 Start: 73340, Stop: 73699, Start Num: 25

Candidate Starts for NihilNomen_136:

(19, 73313), (Start: 25 @73340 has 36 MA's), (Start: 28 @73349 has 84 MA's), (56, 73481), (60, 73496),

Gene: Nimrod_74 Start: 48509, Stop: 48880, Start Num: 30

Candidate Starts for Nimrod_74:

(Start: 28 @48503 has 84 MA's), (Start: 30 @48509 has 40 MA's), (44, 48581), (55, 48641), (87, 48812),

Gene: Nimrod_81 Start: 50883, Stop: 51218, Start Num: 31

Candidate Starts for Nimrod_81:

(1, 50313), (3, 50430), (5, 50631), (Start: 27 @50868 has 22 MA's), (Start: 31 @50883 has 103 MA's), (38, 50919), (94, 51198),

Gene: NoSleep_74 Start: 47140, Stop: 47514, Start Num: 28

Candidate Starts for NoSleep_74:

(Start: 28 @47140 has 84 MA's), (Start: 30 @47146 has 40 MA's), (44, 47218), (55, 47278), (87, 47446),

Gene: NoSleep_81 Start: 49517, Stop: 49852, Start Num: 31

Candidate Starts for NoSleep_81:

(5, 49265), (Start: 27 @49502 has 22 MA's), (Start: 31 @49517 has 103 MA's), (38, 49553), (94, 49832),

Gene: Odette_138 Start: 74911, Stop: 75270, Start Num: 25

Candidate Starts for Odette_138:

(19, 74884), (Start: 25 @74911 has 36 MA's), (Start: 28 @74920 has 84 MA's), (56, 75052), (60, 75067), (86, 75196), (87, 75202),

Gene: Olicious_78 Start: 40180, Stop: 39659, Start Num: 13

Candidate Starts for Olicious_78:

(Start: 13 @40180 has 8 MA's), (14, 40159), (Start: 16 @40132 has 1 MA's), (18, 40108), (34, 40033), (35, 40030), (40, 40003), (49, 39967), (51, 39958), (54, 39937), (61, 39901), (63, 39889), (64, 39886), (90, 39748),

Gene: Omega_143 Start: 74487, Stop: 74840, Start Num: 25

Candidate Starts for Omega_143:

(Start: 25 @74487 has 36 MA's), (Start: 28 @74496 has 84 MA's),

Gene: OrionPax_72 Start: 46894, Stop: 47265, Start Num: 30

Candidate Starts for OrionPax_72:

(Start: 28 @46888 has 84 MA's), (Start: 30 @46894 has 40 MA's), (44, 46966), (55, 47026), (70, 47125), (87, 47197),

Gene: OrionPax_79 Start: 49268, Stop: 49603, Start Num: 31

Candidate Starts for OrionPax_79:

(5, 49016), (Start: 27 @49253 has 22 MA's), (Start: 31 @49268 has 103 MA's), (38, 49304), (94, 49583),

Gene: Palpatine_82 Start: 50649, Stop: 50981, Start Num: 31

Candidate Starts for Palpatine_82:

(5, 50397), (Start: 27 @50634 has 22 MA's), (Start: 31 @50649 has 103 MA's), (38, 50685), (94, 50961),

Gene: Palpatine_75 Start: 48278, Stop: 48646, Start Num: 30

Candidate Starts for Palpatine_75:

(Start: 28 @48272 has 84 MA's), (Start: 30 @48278 has 40 MA's), (44, 48350), (55, 48410), (87, 48578),

Gene: Paperbeatsrock_72 Start: 47514, Stop: 47891, Start Num: 28

Candidate Starts for Paperbeatsrock_72:

(Start: 28 @47514 has 84 MA's), (Start: 30 @47520 has 40 MA's), (44, 47592), (55, 47652), (87, 47823),

Gene: Paperbeatsrock_79 Start: 49894, Stop: 50229, Start Num: 31

Candidate Starts for Paperbeatsrock_79:

(5, 49642), (Start: 27 @49879 has 22 MA's), (Start: 31 @49894 has 103 MA's), (38, 49930), (67, 50071), (71, 50110), (81, 50146), (84, 50149), (88, 50167), (94, 50209),

Gene: Pat3_78 Start: 48426, Stop: 48761, Start Num: 31

Candidate Starts for Pat3_78:

(5, 48174), (Start: 27 @48411 has 22 MA's), (Start: 31 @48426 has 103 MA's), (38, 48462), (50, 48516), (71, 48642), (81, 48678), (84, 48681), (88, 48699), (94, 48741),

Gene: Pat3_71 Start: 46046, Stop: 46423, Start Num: 28

Candidate Starts for Pat3_71:

(Start: 28 @46046 has 84 MA's), (Start: 30 @46052 has 40 MA's), (44, 46124), (55, 46184), (70, 46283), (87, 46355),

Gene: Patience_60 Start: 43583, Stop: 43951, Start Num: 31

Candidate Starts for Patience_60:

(Start: 31 @43583 has 103 MA's), (35, 43604), (56, 43712), (59, 43721), (73, 43817), (81, 43844), (92, 43901),

Gene: PauloDiaboli_327 Start: 168500, Stop: 168892, Start Num: 20

Candidate Starts for PauloDiaboli_327:

(Start: 20 @168500 has 2 MA's), (29, 168533), (36, 168563), (43, 168599), (74, 168755), (77, 168767), (84, 168794), (85, 168797), (97, 168878),

Gene: Percastrophe_78 Start: 40112, Stop: 39591, Start Num: 13

Candidate Starts for Percastrophe_78:

(Start: 13 @40112 has 8 MA's), (14, 40091), (Start: 16 @40064 has 1 MA's), (18, 40040), (34, 39965), (35, 39962), (40, 39935), (49, 39899), (54, 39869), (61, 39833), (63, 39821), (64, 39818), (90, 39680),

Gene: Petra64142_84 Start: 51113, Stop: 51448, Start Num: 31

Candidate Starts for Petra64142_84:

(5, 50861), (Start: 27 @51098 has 22 MA's), (Start: 31 @51113 has 103 MA's), (38, 51149), (94, 51428),

Gene: Petra64142_77 Start: 48748, Stop: 49110, Start Num: 30

Candidate Starts for Petra64142_77:

(Start: 28 @48742 has 84 MA's), (Start: 30 @48748 has 40 MA's), (44, 48820), (87, 49042),

Gene: Phaja_71 Start: 47340, Stop: 47717, Start Num: 28

Candidate Starts for Phaja_71:

(Start: 28 @47340 has 84 MA's), (Start: 30 @47346 has 40 MA's), (44, 47418), (55, 47478), (87, 47649),

Gene: Phaja_78 Start: 49720, Stop: 50055, Start Num: 31

Candidate Starts for Phaja_78:

(5, 49468), (Start: 27 @49705 has 22 MA's), (Start: 31 @49720 has 103 MA's), (38, 49756), (67, 49897), (71, 49936), (81, 49972), (84, 49975), (88, 49993), (94, 50035),

Gene: Pharsalus_70 Start: 47314, Stop: 47691, Start Num: 28

Candidate Starts for Pharsalus_70:

(Start: 28 @47314 has 84 MA's), (Start: 30 @47320 has 40 MA's), (44, 47392), (55, 47452), (87, 47623),

Gene: Pharsalus_77 Start: 49694, Stop: 50029, Start Num: 31

Candidate Starts for Pharsalus_77:

(5, 49442), (Start: 27 @49679 has 22 MA's), (Start: 31 @49694 has 103 MA's), (38, 49730), (67, 49871), (71, 49910), (81, 49946), (84, 49949), (88, 49967), (94, 50009),

Gene: PhatBacter_77 Start: 48289, Stop: 48663, Start Num: 28

Candidate Starts for PhatBacter_77:

(Start: 28 @48289 has 84 MA's), (Start: 30 @48295 has 40 MA's), (44, 48367), (55, 48427), (87, 48595),

Gene: PhatBacter_84 Start: 50666, Stop: 51001, Start Num: 31

Candidate Starts for PhatBacter_84:

(1, 50096), (3, 50213), (5, 50414), (Start: 27 @50651 has 22 MA's), (Start: 31 @50666 has 103 MA's), (38, 50702), (94, 50981),

Gene: Phaux_75 Start: 48284, Stop: 48658, Start Num: 28

Candidate Starts for Phaux_75:

(Start: 28 @48284 has 84 MA's), (Start: 30 @48290 has 40 MA's), (44, 48362), (55, 48422), (87, 48590),

Gene: Phaux_82 Start: 50661, Stop: 50996, Start Num: 31

Candidate Starts for Phaux_82:

(5, 50409), (Start: 27 @50646 has 22 MA's), (Start: 31 @50661 has 103 MA's), (38, 50697), (50, 50751), (71, 50877), (81, 50913), (84, 50916), (88, 50934), (94, 50976),

Gene: Phoebus_135 Start: 75234, Stop: 75593, Start Num: 25

Candidate Starts for Phoebus_135:

(19, 75207), (Start: 25 @75234 has 36 MA's), (Start: 28 @75243 has 84 MA's), (56, 75375), (60, 75390), (86, 75519), (87, 75525),

Gene: Phrux_70 Start: 46880, Stop: 47254, Start Num: 28

Candidate Starts for Phrux_70:

(Start: 28 @46880 has 84 MA's), (Start: 30 @46886 has 40 MA's), (44, 46958), (55, 47018), (87, 47186),

Gene: Phrux_77 Start: 49257, Stop: 49589, Start Num: 31

Candidate Starts for Phrux_77:

(5, 49005), (Start: 27 @49242 has 22 MA's), (Start: 31 @49257 has 103 MA's), (38, 49293), (94, 49569),

Gene: Policronamos_77 Start: 48290, Stop: 48658, Start Num: 30

Candidate Starts for Policronamos_77:

(Start: 28 @48284 has 84 MA's), (Start: 30 @48290 has 40 MA's), (44, 48362), (55, 48422), (87, 48590),

Gene: Policronamos_84 Start: 50646, Stop: 50996, Start Num: 27

Candidate Starts for Policronamos_84:

(5, 50409), (Start: 27 @50646 has 22 MA's), (Start: 31 @50661 has 103 MA's), (38, 50697), (50, 50751), (71, 50877), (81, 50913), (84, 50916), (88, 50934), (94, 50976),

Gene: Porcelain_131 Start: 70628, Stop: 70981, Start Num: 25

Candidate Starts for Porcelain_131:

(Start: 25 @70628 has 36 MA's), (Start: 28 @70637 has 84 MA's), (86, 70907), (94, 70958),

Gene: Porky_72 Start: 46716, Stop: 47084, Start Num: 30

Candidate Starts for Porky_72:

(Start: 28 @46710 has 84 MA's), (Start: 30 @46716 has 40 MA's), (44, 46788), (55, 46848), (87, 47016),

Gene: Porky_79 Start: 49072, Stop: 49419, Start Num: 27

Candidate Starts for Porky_79:

(Start: 27 @49072 has 22 MA's), (Start: 31 @49087 has 103 MA's), (38, 49123), (94, 49399),

Gene: Pumpkin_83 Start: 50315, Stop: 50647, Start Num: 31

Candidate Starts for Pumpkin_83:

(1, 49745), (3, 49862), (5, 50063), (Start: 27 @50300 has 22 MA's), (Start: 31 @50315 has 103 MA's), (38, 50351), (94, 50627),

Gene: Pumpkin_76 Start: 47944, Stop: 48312, Start Num: 30

Candidate Starts for Pumpkin_76:

(Start: 28 @47938 has 84 MA's), (Start: 30 @47944 has 40 MA's), (44, 48016), (55, 48076), (87, 48244),

Gene: Quallification_81 Start: 50302, Stop: 50637, Start Num: 31

Candidate Starts for Quallification_81:

(5, 50050), (Start: 27 @50287 has 22 MA's), (Start: 31 @50302 has 103 MA's), (38, 50338), (67, 50479), (71, 50518), (81, 50554), (84, 50557), (88, 50575), (94, 50617),

Gene: Quallification_74 Start: 47922, Stop: 48299, Start Num: 28

Candidate Starts for Quallification_74:

(Start: 28 @47922 has 84 MA's), (Start: 30 @47928 has 40 MA's), (44, 48000), (55, 48060), (87, 48231),

Gene: Quenya_51 Start: 35296, Stop: 35745, Start Num: 17

Candidate Starts for Quenya_51:

(7, 35191), (8, 35203), (Start: 17 @35296 has 21 MA's), (46, 35434), (52, 35467), (57, 35500), (68, 35557), (79, 35608),

Gene: Rakim_81 Start: 49771, Stop: 50103, Start Num: 31

Candidate Starts for Rakim_81:

(5, 49519), (Start: 27 @49756 has 22 MA's), (Start: 31 @49771 has 103 MA's), (38, 49807), (94, 50083),

Gene: Rakim_74 Start: 47394, Stop: 47768, Start Num: 28

Candidate Starts for Rakim_74:

(Start: 28 @47394 has 84 MA's), (Start: 30 @47400 has 40 MA's), (44, 47472), (55, 47532), (70, 47628), (87, 47700),

Gene: Redno2_126 Start: 70622, Stop: 70981, Start Num: 25

Candidate Starts for Redno2_126:

(19, 70595), (Start: 25 @70622 has 36 MA's), (Start: 28 @70631 has 84 MA's), (56, 70763), (60, 70778), (86, 70907), (87, 70913),

Gene: Rimmer_81 Start: 50007, Stop: 50342, Start Num: 31

Candidate Starts for Rimmer_81:

(5, 49755), (Start: 27 @49992 has 22 MA's), (Start: 31 @50007 has 103 MA's), (38, 50043), (50, 50097), (71, 50223), (81, 50259), (84, 50262), (88, 50280), (94, 50322),

Gene: Rimmer_74 Start: 47642, Stop: 48004, Start Num: 30

Candidate Starts for Rimmer_74:

(Start: 28 @47636 has 84 MA's), (Start: 30 @47642 has 40 MA's), (44, 47714), (87, 47936),

Gene: RiverMonster_80 Start: 49835, Stop: 50167, Start Num: 31

Candidate Starts for RiverMonster_80:

(5, 49583), (Start: 27 @49820 has 22 MA's), (Start: 31 @49835 has 103 MA's), (38, 49871), (94, 50147),

Gene: RiverMonster_73 Start: 47458, Stop: 47832, Start Num: 28

Candidate Starts for RiverMonster_73:

(Start: 28 @47458 has 84 MA's), (Start: 30 @47464 has 40 MA's), (44, 47536), (55, 47596), (87, 47764),

Gene: Romero_78 Start: 40173, Stop: 39652, Start Num: 13

Candidate Starts for Romero_78:

(Start: 13 @40173 has 8 MA's), (14, 40152), (Start: 16 @40125 has 1 MA's), (18, 40101), (34, 40026), (35, 40023), (40, 39996), (49, 39960), (51, 39951), (54, 39930), (61, 39894), (63, 39882), (64, 39879), (90, 39741),

Gene: Rona_48 Start: 34834, Stop: 35277, Start Num: 17

Candidate Starts for Rona_48:

(Start: 17 @34834 has 21 MA's), (45, 34969), (46, 34972), (57, 35038), (68, 35095), (79, 35146), (90, 35197),

Gene: Saints25_72 Start: 46868, Stop: 47242, Start Num: 28

Candidate Starts for Saints25_72:

(Start: 28 @46868 has 84 MA's), (Start: 30 @46874 has 40 MA's), (44, 46946), (55, 47006), (87, 47174),

Gene: Saints25_79 Start: 49245, Stop: 49580, Start Num: 31

Candidate Starts for Saints25_79:

(5, 48993), (Start: 27 @49230 has 22 MA's), (Start: 31 @49245 has 103 MA's), (38, 49281), (94, 49560),

Gene: SanaSana_53 Start: 35511, Stop: 35948, Start Num: 17

Candidate Starts for SanaSana_53:

(Start: 17 @35511 has 21 MA's), (23, 35559), (48, 35658), (49, 35661), (54, 35697), (66, 35760), (68, 35772), (73, 35811),

Gene: Sassay_68 Start: 45564, Stop: 45932, Start Num: 30

Candidate Starts for Sassay_68:

(Start: 28 @45558 has 84 MA's), (Start: 30 @45564 has 40 MA's), (44, 45636), (55, 45696), (87, 45864),

Gene: Sassay_75 Start: 47920, Stop: 48270, Start Num: 27

Candidate Starts for Sassay_75:

(5, 47683), (Start: 27 @47920 has 22 MA's), (Start: 31 @47935 has 103 MA's), (38, 47971), (67, 48112), (71, 48151), (81, 48187), (84, 48190), (88, 48208), (94, 48250),

Gene: Schatzie_130 Start: 73330, Stop: 73689, Start Num: 25

Candidate Starts for Schatzie_130:

(19, 73303), (Start: 25 @73330 has 36 MA's), (Start: 28 @73339 has 84 MA's), (56, 73471), (60, 73486), (86, 73615), (87, 73621),

Gene: ShamWow_73 Start: 47777, Stop: 48154, Start Num: 28

Candidate Starts for ShamWow_73:

(Start: 28 @47777 has 84 MA's), (Start: 30 @47783 has 40 MA's), (44, 47855), (55, 47915), (87, 48086),

Gene: ShamWow_80 Start: 50157, Stop: 50489, Start Num: 31

Candidate Starts for ShamWow_80:

(5, 49905), (Start: 27 @50142 has 22 MA's), (Start: 31 @50157 has 103 MA's), (38, 50193), (94, 50469),

Gene: Sharkboy_49 Start: 34933, Stop: 35376, Start Num: 17

Candidate Starts for Sharkboy_49:

(Start: 17 @34933 has 21 MA's), (45, 35068), (46, 35071), (57, 35137), (68, 35194), (79, 35245), (90, 35296),

Gene: ShereKhan_72 Start: 47846, Stop: 48223, Start Num: 28

Candidate Starts for ShereKhan_72:

(Start: 28 @47846 has 84 MA's), (Start: 30 @47852 has 40 MA's), (44, 47924), (55, 47984), (87, 48155),

Gene: ShereKhan_78 Start: 50227, Stop: 50562, Start Num: 31

Candidate Starts for ShereKhan_78:

(5, 49975), (Start: 27 @50212 has 22 MA's), (Start: 31 @50227 has 103 MA's), (38, 50263), (67, 50404), (71, 50443), (81, 50479), (84, 50482), (88, 50500), (94, 50542),

Gene: Simpliphy_79 Start: 49235, Stop: 49570, Start Num: 31

Candidate Starts for Simpliphy_79:

(5, 48983), (Start: 27 @49220 has 22 MA's), (Start: 31 @49235 has 103 MA's), (38, 49271), (94, 49550),

Gene: Simpliphy_72 Start: 46864, Stop: 47232, Start Num: 30

Candidate Starts for Simpliphy_72:

(Start: 28 @46858 has 84 MA's), (Start: 30 @46864 has 40 MA's), (44, 46936), (55, 46996), (87, 47164),

Gene: SirDuracell_79 Start: 48521, Stop: 48856, Start Num: 31

Candidate Starts for SirDuracell_79:

(5, 48269), (Start: 27 @48506 has 22 MA's), (Start: 31 @48521 has 103 MA's), (38, 48557), (50, 48611), (71, 48737), (81, 48773), (84, 48776), (88, 48794), (94, 48836),

Gene: SirDuracell_72 Start: 46147, Stop: 46518, Start Num: 30

Candidate Starts for SirDuracell_72:

(Start: 28 @46141 has 84 MA's), (Start: 30 @46147 has 40 MA's), (44, 46219), (55, 46279), (70, 46378), (87, 46450),

Gene: SophKB_70 Start: 46533, Stop: 46910, Start Num: 28

Candidate Starts for SophKB_70:

(Start: 28 @46533 has 84 MA's), (Start: 30 @46539 has 40 MA's), (44, 46611), (55, 46671), (87, 46842),

Gene: SophKB_77 Start: 48913, Stop: 49248, Start Num: 31

Candidate Starts for SophKB_77:

(5, 48661), (Start: 27 @48898 has 22 MA's), (Start: 31 @48913 has 103 MA's), (38, 48949), (67, 49090), (71, 49129), (81, 49165), (84, 49168), (88, 49186), (94, 49228),

Gene: Sotrice96_81 Start: 49916, Stop: 50251, Start Num: 31

Candidate Starts for Sotrice96_81:

(5, 49664), (Start: 27 @49901 has 22 MA's), (Start: 31 @49916 has 103 MA's), (38, 49952), (94, 50231),

Gene: Sotrice96_74 Start: 47536, Stop: 47913, Start Num: 28

Candidate Starts for Sotrice96_74:

(Start: 28 @47536 has 84 MA's), (Start: 30 @47542 has 40 MA's), (44, 47614), (55, 47674), (87, 47845),

Gene: Squint_131 Start: 70888, Stop: 71241, Start Num: 25

Candidate Starts for Squint_131:

(Start: 25 @70888 has 36 MA's), (Start: 28 @70897 has 84 MA's), (86, 71167), (94, 71218),

Gene: Stank_83 Start: 50159, Stop: 50509, Start Num: 27

Candidate Starts for Stank_83:

(5, 49922), (Start: 27 @50159 has 22 MA's), (Start: 31 @50174 has 103 MA's), (38, 50210), (94, 50489),

Gene: Stank_76 Start: 47794, Stop: 48171, Start Num: 28

Candidate Starts for Stank_76:

(Start: 28 @47794 has 84 MA's), (Start: 30 @47800 has 40 MA's), (44, 47872), (55, 47932), (87, 48103),

Gene: Stark_81 Start: 49718, Stop: 50050, Start Num: 31

Candidate Starts for Stark_81:

(5, 49466), (Start: 27 @49703 has 22 MA's), (Start: 31 @49718 has 103 MA's), (38, 49754), (94, 50030),

Gene: Stark_74 Start: 47341, Stop: 47715, Start Num: 28

Candidate Starts for Stark_74:

(Start: 28 @47341 has 84 MA's), (Start: 30 @47347 has 40 MA's), (44, 47419), (55, 47479), (87, 47647),

Gene: StellaBean_71 Start: 47107, Stop: 47478, Start Num: 30

Candidate Starts for StellaBean_71:

(Start: 28 @47101 has 84 MA's), (Start: 30 @47107 has 40 MA's), (44, 47179), (55, 47239), (87, 47410),

Gene: StellaBean_78 Start: 49481, Stop: 49813, Start Num: 31

Candidate Starts for StellaBean_78:

(5, 49229), (Start: 27 @49466 has 22 MA's), (Start: 31 @49481 has 103 MA's), (38, 49517), (94, 49793),

Gene: StolenFromERC_76 Start: 47576, Stop: 47953, Start Num: 28

Candidate Starts for StolenFromERC_76:

(Start: 28 @47576 has 84 MA's), (Start: 30 @47582 has 40 MA's), (44, 47654), (55, 47714), (87, 47885),

Gene: StolenFromERC_83 Start: 49956, Stop: 50291, Start Num: 31

Candidate Starts for StolenFromERC_83:

(5, 49704), (Start: 27 @49941 has 22 MA's), (Start: 31 @49956 has 103 MA's), (38, 49992), (94, 50271),

Gene: Stoor_51 Start: 35304, Stop: 35735, Start Num: 17

Candidate Starts for Stoor_51:

(Start: 17 @35304 has 21 MA's), (23, 35352), (48, 35451), (49, 35454), (54, 35490), (66, 35553), (68, 35565), (73, 35598), (91, 35679),

Gene: Stromboli_51 Start: 35169, Stop: 35606, Start Num: 17

Candidate Starts for Stromboli_51:

(Start: 17 @35169 has 21 MA's), (23, 35217), (48, 35316), (49, 35319), (54, 35355), (66, 35418), (68, 35430), (73, 35469),

Gene: Superphikiman_131 Start: 70104, Stop: 70457, Start Num: 25

Candidate Starts for Superphikiman_131:

(Start: 25 @70104 has 36 MA's), (Start: 28 @70113 has 84 MA's), (86, 70383),

Gene: TBrady12_76 Start: 47275, Stop: 47652, Start Num: 28

Candidate Starts for TBrady12_76:

(Start: 28 @47275 has 84 MA's), (Start: 30 @47281 has 40 MA's), (44, 47353), (55, 47413), (87, 47584),

Gene: TBrady12_83 Start: 49655, Stop: 49990, Start Num: 31

Candidate Starts for TBrady12_83:

(5, 49403), (Start: 27 @49640 has 22 MA's), (Start: 31 @49655 has 103 MA's), (38, 49691), (94, 49970),

Gene: Tarkin_72 Start: 47523, Stop: 47900, Start Num: 28

Candidate Starts for Tarkin_72:

(Start: 28 @47523 has 84 MA's), (Start: 30 @47529 has 40 MA's), (44, 47601), (55, 47661), (87, 47832),

Gene: Tarkin_79 Start: 49903, Stop: 50238, Start Num: 31

Candidate Starts for Tarkin_79:

(5, 49651), (Start: 27 @49888 has 22 MA's), (Start: 31 @49903 has 103 MA's), (38, 49939), (67, 50080), (71, 50119), (81, 50155), (84, 50158), (88, 50176), (94, 50218),

Gene: TeardropMSU_76 Start: 48888, Stop: 49238, Start Num: 27

Candidate Starts for TeardropMSU_76:

(5, 48651), (Start: 27 @48888 has 22 MA's), (Start: 31 @48903 has 103 MA's), (38, 48939), (67, 49080), (71, 49119), (81, 49155), (84, 49158), (88, 49176), (94, 49218),

Gene: TeardropMSU_69 Start: 46523, Stop: 46900, Start Num: 28

Candidate Starts for TeardropMSU_69:

(Start: 28 @46523 has 84 MA's), (Start: 30 @46529 has 40 MA's), (44, 46601), (55, 46661), (87, 46832),

Gene: Teaspoon_74 Start: 47423, Stop: 47794, Start Num: 30

Candidate Starts for Teaspoon_74:

(Start: 28 @47417 has 84 MA's), (Start: 30 @47423 has 40 MA's), (44, 47495), (55, 47555), (87, 47726),

Gene: Teaspoon_81 Start: 49797, Stop: 50132, Start Num: 31

Candidate Starts for Teaspoon_81:

(5, 49545), (Start: 27 @49782 has 22 MA's), (Start: 31 @49797 has 103 MA's), (38, 49833), (94, 50112),

Gene: Terminus_83 Start: 50690, Stop: 51025, Start Num: 31

Candidate Starts for Terminus_83:

(5, 50438), (Start: 27 @50675 has 22 MA's), (Start: 31 @50690 has 103 MA's), (38, 50726), (94, 51005),

Gene: Terminus_76 Start: 48319, Stop: 48687, Start Num: 30

Candidate Starts for Terminus_76:

(Start: 28 @48313 has 84 MA's), (Start: 30 @48319 has 40 MA's), (44, 48391), (55, 48451), (87, 48619),

Gene: Thibault_119 Start: 70544, Stop: 70903, Start Num: 25

Candidate Starts for Thibault_119:

(19, 70517), (Start: 25 @70544 has 36 MA's), (Start: 28 @70553 has 84 MA's), (56, 70685), (60, 70700), (87, 70835),

Gene: ThreeRngTarjay_130 Start: 73825, Stop: 74184, Start Num: 25

Candidate Starts for ThreeRngTarjay_130:

(19, 73798), (Start: 25 @73825 has 36 MA's), (Start: 28 @73834 has 84 MA's), (56, 73966), (60, 73981), (86, 74110), (87, 74116),

Gene: Thresher_75 Start: 48406, Stop: 48774, Start Num: 30

Candidate Starts for Thresher_75:

(Start: 28 @48400 has 84 MA's), (Start: 30 @48406 has 40 MA's), (44, 48478), (55, 48538), (87, 48706),

Gene: Thresher_82 Start: 50777, Stop: 51109, Start Num: 31

Candidate Starts for Thresher_82:

(5, 50525), (Start: 27 @50762 has 22 MA's), (Start: 31 @50777 has 103 MA's), (38, 50813), (94, 51089),

Gene: Tomaszewski_75 Start: 49066, Stop: 49401, Start Num: 31

Candidate Starts for Tomaszewski_75:

(5, 48814), (Start: 27 @49051 has 22 MA's), (Start: 31 @49066 has 103 MA's), (38, 49102), (94, 49381),

Gene: Tomaszewski_68 Start: 46695, Stop: 47063, Start Num: 28

Candidate Starts for Tomaszewski_68:

(Start: 28 @46695 has 84 MA's), (Start: 30 @46701 has 40 MA's), (62, 46857), (84, 46980), (96, 47046),

Gene: ToriToki_78 Start: 40176, Stop: 39655, Start Num: 13

Candidate Starts for ToriToki_78:

(Start: 13 @40176 has 8 MA's), (14, 40155), (Start: 16 @40128 has 1 MA's), (18, 40104), (34, 40029), (35, 40026), (40, 39999), (49, 39963), (54, 39933), (61, 39897), (63, 39885), (64, 39882), (90, 39744),

Gene: Toto_71 Start: 47777, Stop: 48154, Start Num: 28

Candidate Starts for Toto_71:

(Start: 28 @47777 has 84 MA's), (Start: 30 @47783 has 40 MA's), (44, 47855), (55, 47915), (87, 48086),

Gene: Toto_78 Start: 50157, Stop: 50489, Start Num: 31

Candidate Starts for Toto_78:

(5, 49905), (Start: 27 @50142 has 22 MA's), (Start: 31 @50157 has 103 MA's), (38, 50193), (94, 50469),

Gene: Traaww1_69 Start: 46961, Stop: 47338, Start Num: 28

Candidate Starts for Traaww1_69:

(Start: 28 @46961 has 84 MA's), (Start: 30 @46967 has 40 MA's), (44, 47039), (55, 47099), (87, 47270),

Gene: Traaww1_76 Start: 49341, Stop: 49673, Start Num: 31

Candidate Starts for Traaww1_76:

(5, 49089), (Start: 27 @49326 has 22 MA's), (Start: 31 @49341 has 103 MA's), (38, 49377), (94, 49653),

Gene: Treat_78 Start: 40051, Stop: 39530, Start Num: 12

Candidate Starts for Treat_78:

(Start: 12 @40051 has 1 MA's), (14, 40030), (Start: 16 @40003 has 1 MA's), (18, 39979), (34, 39904), (35, 39901), (49, 39838), (54, 39808), (61, 39772), (63, 39760), (64, 39757), (90, 39619), (98, 39556),

Gene: Tuco_74 Start: 48285, Stop: 48662, Start Num: 28

Candidate Starts for Tuco_74:

(Start: 28 @48285 has 84 MA's), (Start: 30 @48291 has 40 MA's), (44, 48363), (55, 48423), (87, 48594),

Gene: Tuco_81 Start: 50665, Stop: 50997, Start Num: 31

Candidate Starts for Tuco_81:

(5, 50413), (Start: 27 @50650 has 22 MA's), (Start: 31 @50665 has 103 MA's), (38, 50701), (94, 50977),

Gene: Ukulele_75 Start: 49048, Stop: 49383, Start Num: 31

Candidate Starts for Ukulele_75:

(5, 48796), (Start: 27 @49033 has 22 MA's), (Start: 31 @49048 has 103 MA's), (38, 49084), (94, 49363),

Gene: Ukulele_68 Start: 46671, Stop: 47045, Start Num: 28

Candidate Starts for Ukulele_68:

(Start: 28 @46671 has 84 MA's), (Start: 30 @46677 has 40 MA's), (44, 46749), (55, 46809), (87, 46977),

Gene: WalkingDead_53 Start: 35918, Stop: 36355, Start Num: 17

Candidate Starts for WalkingDead_53:

(Start: 17 @35918 has 21 MA's), (23, 35966), (48, 36065), (49, 36068), (54, 36104), (66, 36167), (68, 36179), (73, 36218), (91, 36299),

Gene: Wanda_133 Start: 70960, Stop: 71319, Start Num: 25

Candidate Starts for Wanda_133:

(19, 70933), (Start: 25 @70960 has 36 MA's), (Start: 28 @70969 has 84 MA's), (56, 71101), (60, 71116), (86, 71245), (87, 71251),

Gene: Wiggin_82 Start: 49742, Stop: 50074, Start Num: 31

Candidate Starts for Wiggin_82:

(5, 49490), (Start: 27 @49727 has 22 MA's), (Start: 31 @49742 has 103 MA's), (38, 49778), (94, 50054),

Gene: Wiggin_75 Start: 47368, Stop: 47739, Start Num: 30

Candidate Starts for Wiggin_75:

(Start: 28 @47362 has 84 MA's), (Start: 30 @47368 has 40 MA's), (44, 47440), (55, 47500), (87, 47671),

Gene: Willez_75 Start: 47920, Stop: 48270, Start Num: 27

Candidate Starts for Willez_75:

(5, 47683), (Start: 27 @47920 has 22 MA's), (Start: 31 @47935 has 103 MA's), (38, 47971), (67, 48112), (71, 48151), (81, 48187), (84, 48190), (88, 48208), (94, 48250),

Gene: Willez_68 Start: 45564, Stop: 45932, Start Num: 30

Candidate Starts for Willez_68:

(Start: 28 @45558 has 84 MA's), (Start: 30 @45564 has 40 MA's), (44, 45636), (55, 45696), (87, 45864),

Gene: Xandras_72 Start: 46773, Stop: 47147, Start Num: 28

Candidate Starts for Xandras_72:

(Start: 28 @46773 has 84 MA's), (Start: 30 @46779 has 40 MA's), (44, 46851), (55, 46911), (87, 47079),

Gene: Xandras_79 Start: 49150, Stop: 49482, Start Num: 31

Candidate Starts for Xandras_79:

(1, 48580), (3, 48697), (5, 48898), (Start: 27 @49135 has 22 MA's), (Start: 31 @49150 has 103 MA's), (38, 49186), (94, 49462),

Gene: YassJohnny_77 Start: 49090, Stop: 49440, Start Num: 27

Candidate Starts for YassJohnny_77:

(5, 48853), (Start: 27 @49090 has 22 MA's), (Start: 31 @49105 has 103 MA's), (38, 49141), (67, 49282), (71, 49321), (81, 49357), (84, 49360), (88, 49378), (94, 49420),

Gene: YassJohnny_70 Start: 46740, Stop: 47102, Start Num: 30

Candidate Starts for YassJohnny_70:

(Start: 28 @46734 has 84 MA's), (Start: 30 @46740 has 40 MA's), (62, 46896), (84, 47019), (96, 47085),

Gene: Yeet_128 Start: 73023, Stop: 73382, Start Num: 25

Candidate Starts for Yeet_128:

(19, 72996), (Start: 25 @73023 has 36 MA's), (Start: 28 @73032 has 84 MA's), (56, 73164), (60, 73179), (86, 73308), (87, 73314),

Gene: Youngblood_76 Start: 48246, Stop: 48614, Start Num: 30

Candidate Starts for Youngblood_76:

(Start: 28 @48240 has 84 MA's), (Start: 30 @48246 has 40 MA's), (44, 48318), (55, 48378), (87, 48546),

Gene: Youngblood_83 Start: 50617, Stop: 50952, Start Num: 31

Candidate Starts for Youngblood_83:

(5, 50365), (Start: 27 @50602 has 22 MA's), (Start: 31 @50617 has 103 MA's), (38, 50653), (94, 50932),

Gene: Zelink_129 Start: 73772, Stop: 74131, Start Num: 25

Candidate Starts for Zelink_129:

(19, 73745), (Start: 25 @73772 has 36 MA's), (Start: 28 @73781 has 84 MA's), (56, 73913), (60, 73928), (86, 74057), (87, 74063),

Gene: ZooBear_78 Start: 40177, Stop: 39656, Start Num: 13

Candidate Starts for ZooBear_78:

(Start: 13 @40177 has 8 MA's), (14, 40156), (Start: 16 @40129 has 1 MA's), (18, 40105), (34, 40030), (35, 40027), (40, 40000), (49, 39964), (54, 39934), (61, 39898), (63, 39886), (64, 39883), (90, 39745),

Gene: Zooman_10 Start: 4723, Stop: 5199, Start Num: 17

Candidate Starts for Zooman_10:

(Start: 17 @4723 has 21 MA's), (32, 4807), (37, 4834), (55, 4921), (58, 4939), (72, 5035), (78, 5056), (82, 5071), (87, 5095),

Gene: Zooman_323 Start: 180374, Stop: 180850, Start Num: 17

Candidate Starts for Zooman_323:

(Start: 17 @180374 has 21 MA's), (32, 180458), (37, 180485), (55, 180572), (58, 180590), (72, 180686), (78, 180707), (82, 180722), (87, 180746),

Gene: xkcd_83 Start: 50807, Stop: 51139, Start Num: 31

Candidate Starts for xkcd_83:

(Start: 27 @50792 has 22 MA's), (Start: 31 @50807 has 103 MA's), (38, 50843), (94, 51119),

Gene: xkcd_76 Start: 48430, Stop: 48804, Start Num: 28

Candidate Starts for xkcd_76:

(Start: 28 @48430 has 84 MA's), (Start: 30 @48436 has 40 MA's), (44, 48508), (55, 48568), (87, 48736),