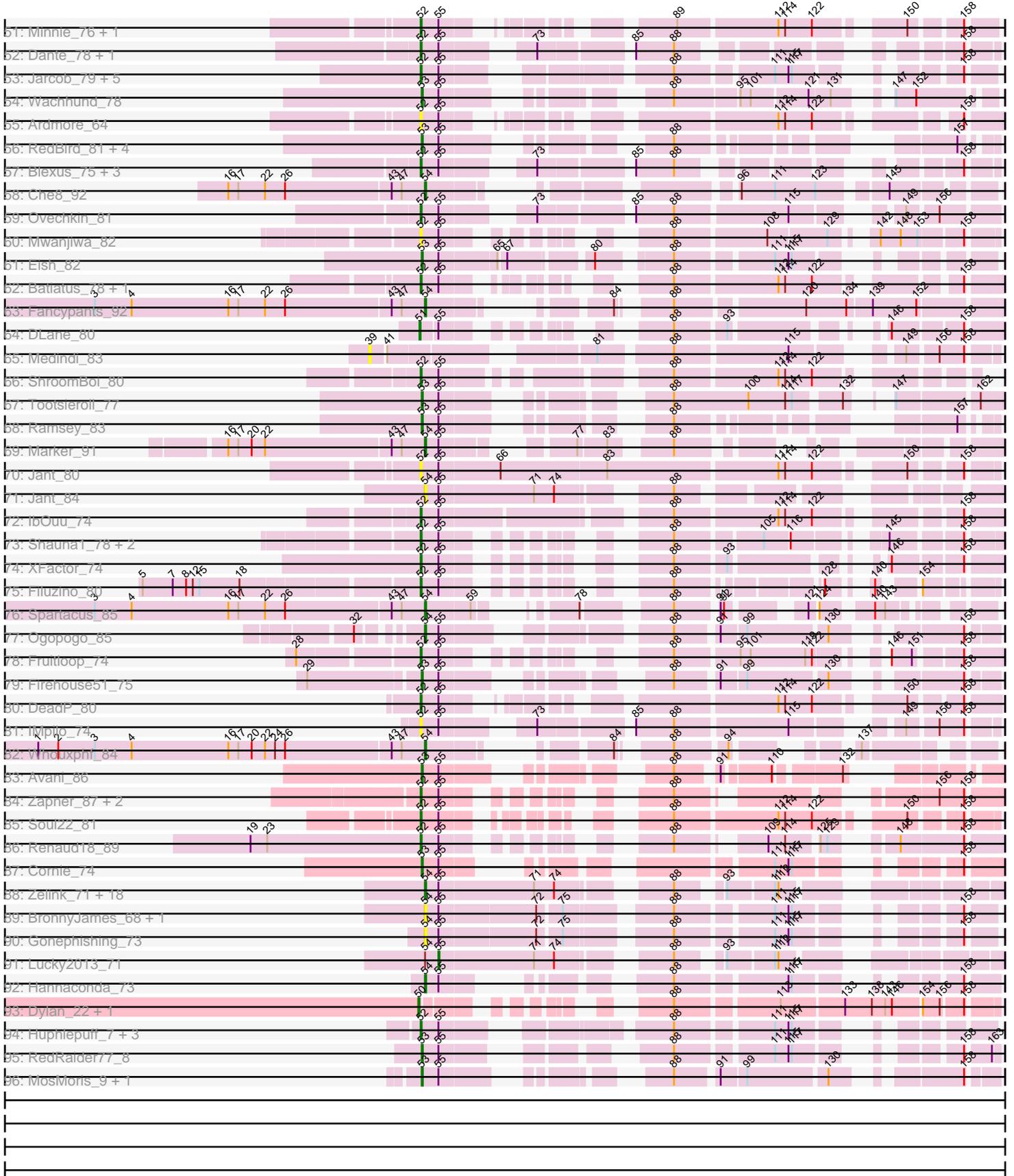


Pham 290756



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 290756 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290756 has 325 members, 30 are drafts.

Phages represented in each track:

- Track 1 : Homines_53
- Track 2 : Ajay_76, Teodoridan_77
- Track 3 : Dreamboat_79, Jasper_78, PherrisBueller_78
- Track 4 : Target_63
- Track 5 : Peterson_79
- Track 6 : Kugel_63
- Track 7 : Alvin_61
- Track 8 : Raid_78
- Track 9 : Inyanga_56, Iqorha_56
- Track 10 : SkiPole_69
- Track 11 : Puppet_75, Eyeball_79, KSSJEB_78
- Track 12 : Alsfro_67
- Track 13 : KBG_62
- Track 14 : Tripl3t_83
- Track 15 : TheloniousMonk_64
- Track 16 : Saskia_69
- Track 17 : DrPhinkDaddy_14, CindyLou_13, SilverDipper_13, Shnickers_13, Loanshark_14, Rizal_13, Megamind_14, Labradorite_12, Pivoine_13, GlutenPhree_13, JPickles_13, Turret_13, Fixie_12, BackyardAgain_12, CharlieB_15, Pinkcreek_9, McWolfish_14, Ngannou_13, TinyTim_14, Babyland_13, FoxtrotP1_15, Atlantean_13, StubbySaigey_13, BananaFence_14, Jessibeth14_14, Audrick_14, Chargie21_13, Matsumoto_13, EmToTheThree_17, Delylah_16, ParkTD_14, ET08_12, Rahel_13, Derek_14, Caravan_16, Catera_13, Essence_13, Littleton_14, LifeSavor_14, ArcherS7_13, ValleyTerrace_13, Belieber_12, MikeLiesIn_15, Ewok_14, Jaygup_13, ChaylaJr_13, YemiJoy2021_14, Kboogie_13, Roots515_14, Rabinovish_12, Shelob_17, Asterius_15, Khaleesi_14, EmmaElysia_13, Jedediah_13, Bipolarisk_14, Shifa_10, Bezza_10, Blackbrain_13, Erdmann_14, Bonray_14, JustHall_13, Dietrick_12, Amataga_13, InigoMontoya_14, NedWong_14, Guwapp_13, Ablatia_13, LRRHood_14, Sprinklers_13, Pleione_15, HyRo_11, Darko_13, Willis_14, Stubby_14, Jemmno_12, Zalkecks_15, BadAgartude_14, Napoleon13_13, SVoro_14, Trinitium_13, Quasimodo_13, Phlegm_14, Bread_14, SrishMeg2525_14, McGee_13, Naija_13, Delilah_14, Gabriel_14, Ghost_14, Janiyra_13, Norm_14, Ava3_15, EasyJones_13, Wally_13, Izajani_14, Burrough_14, Morizzled23_13, Cactojaque_12, Alice_12, Latch_13, Tortoise16_12, Yucca_13, Issimir_14, Gizmo_15, Chomp_13, Basquiat_13, Zeenon_16, Maby2021_14, SmallFry_13, Daffodil_15, Melpomini_13, Phusco_13, Capablanca_14, Momo_13, YoungMoneyMata_13, Salacia_15, Teardrop_13, FudgeTart_14, ShiaLabeouf_13,

Breeniome_14, Bangla1971_13, Phox_14, Substance289_12, Gamgam_13, ChickenPhender_13, Flabslab_13, ZygoTaiga_15, Fludd_13, Adlitam_13, Ading_13, Shrimp_14, ErnieJ_17, PurduePete_14

- Track 18 : BigCity_8, Drazdys_8, PharkleMinkus_8, EggyFarm_8, Grasshills_8, InterFolia_8, LordLeafolot_8, Tyke_8, Specks_8, LolaVinca_8, DTDevon_8, FrayBell_8, Dandelion_7
- Track 19 : JayJay_7, Sebata_7, LinStu_7
- Track 20 : Patter_13
- Track 21 : Spud_6, Astraea_6, ScottMcG_5, Nidhogg_5, Jezreel_6, DirtMonster_6, Pio_6, QBert_6, Mikro_6, MoMoMixon_5, Bxz1_6, JulietS_6, NoodleTree_6, Sauce_5
- Track 22 : NuevoMundo_7, StephanieG_7, Pier_7
- Track 23 : ScottMcG_15
- Track 24 : Yassified_13, Duckfeet_14
- Track 25 : Cali_14
- Track 26 : Blackdragon_12
- Track 27 : Nappy_6
- Track 28 : Mangeria_6
- Track 29 : Tonerili_20
- Track 30 : Eureka_44
- Track 31 : Elite2014_45, ChosenOne_46, Lilpickle_45
- Track 32 : NonchalantPear_45, Ukulele_42
- Track 33 : Amao_44
- Track 34 : Bench_44
- Track 35 : Goku_44
- Track 36 : Manda_46
- Track 37 : Clank_80
- Track 38 : Priscilla_82, Koella_74, NormanBulbieJr_80
- Track 39 : Aubs_80
- Track 40 : PhesterPhotato_82
- Track 41 : LunaBlu_82
- Track 42 : SimranZ1_79
- Track 43 : MinionDave_75, CaptainTrips_79
- Track 44 : Bobi_85, Nitzel_73, KristaRAM_77, Krakatau_74
- Track 45 : Cheesepuff_89
- Track 46 : Mantra_76, Emma_82
- Track 47 : Bubbles123_74, IrishSherpFalk_79, WillSterrel_78
- Track 48 : BlueCrab_63, ByChance_55
- Track 49 : lbhubesi_77
- Track 50 : SiSi_75, MisterCuddles_76, Veteran_71, Ruby_73, Girr_75
- Track 51 : Minnie_76, Sandalphon_74
- Track 52 : Dante_78, Radiance_78
- Track 53 : Jarcob_79, Clifton_72, OlympiaSaint_79, James_80, DRBy19_83, Philus_82
- Track 54 : Wachhund_78
- Track 55 : Ardmore_64
- Track 56 : RedBird_81, Invention_78, Dorothy_81, SuperGrey_79, Sassafras_81
- Track 57 : Blexus_75, Leozinho_78, Pippy_75, Martik_80
- Track 58 : Che8_92
- Track 59 : Ovechkin_81
- Track 60 : Mwanjiwa_82
- Track 61 : Eish_82
- Track 62 : Batiatus_78, Tweety_79
- Track 63 : Fancypants_92

- Track 64 : DLane_80
- Track 65 : Medindi_83
- Track 66 : ShroomBoi_80
- Track 67 : Tootsieroll_77
- Track 68 : Ramsey_83
- Track 69 : Marker_91
- Track 70 : Jant_80
- Track 71 : Jant_84
- Track 72 : lbOuu_74
- Track 73 : Shauna1_78, Kingsley_82, Phanphagia_77
- Track 74 : XFactor_74
- Track 75 : Filuzino_80
- Track 76 : Spartacus_85
- Track 77 : Ogopogo_85
- Track 78 : Fruitloop_74
- Track 79 : Firehouse51_75
- Track 80 : DeadP_80
- Track 81 : IMpilo_74
- Track 82 : Whouxphf_84
- Track 83 : Avani_86
- Track 84 : Zapner_87, Jabbawokkie_88, Blarby_87
- Track 85 : Soul22_81
- Track 86 : Renaud18_89
- Track 87 : Cornie_74
- Track 88 : Zelink_71, Superphikiman_71, Schatzie_68, Redno2_70, Kalah2_68, Ejimix_73, DmpstrDiver_73, Squint_74, Beem_73, JuicyJay_72, NihilNomen_74, Phoebus_76, Dallas_72, Odette_72, HokkenD_66, Porcelain_73, MiaZeal_74, Halley_75, Ariel_73
- Track 89 : BronnyJames_68, Shaboozey_67
- Track 90 : Gonephishing_73
- Track 91 : Lucky2013_71
- Track 92 : Hannaconda_73
- Track 93 : Dylan_22, Zakhe101_23
- Track 94 : Huphlepuuff_7, LittleLaf_7, JoieB_8, Corazon_7
- Track 95 : RedRaider77_8
- Track 96 : MosMoris_9, Gattaca_9

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

The start number called the most often in the published annotations is 53, it was called in 149 of the 295 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia_13, Ading_13, Adlitam_13, Alice_12, Amataga_13, ArcherS7_13, Asterius_15, Atlantean_13, Audrick_14, Ava3_15, Avani_86, Babyland_13, BackyardAgain_12, BadAgartude_14, BananaFence_14, Bangla1971_13, Basquiat_13, Belieber_12, Bezza_10, Bipolarisk_14, Blackbrain_13, Blackdragon_12, Bonray_14, Bread_14, Breeniome_14, Burrough_14, Cactojaque_12, Cali_14, Capablanca_14, Caravan_16, Catera_13, Chargie21_13, CharlieB_15, ChaylaJr_13, ChickenPhender_13, Chomp_13, CindyLou_13, Cornie_74, Daffodil_15, Darko_13,

Delilah_14, Delylah_16, Derek_14, Dietrick_12, Dorothy_81, DrPhinkDaddy_14, Duckfeet_14, ET08_12, EasyJones_13, Eish_82, EmToTheThree_17, EmmaElysia_13, Erdmann_14, ErnieJ_17, Essence_13, Ewok_14, Firehouse51_75, Fixie_12, Flabslab_13, Fludd_13, FoxtrotP1_15, FudgeTart_14, Gabriel_14, Gamgam_13, Gattaca_9, Ghost_14, Gizmo_15, GlutenPhree_13, Guwapp_13, HyRo_11, Ibhubesi_77, InigoMontoya_14, Inventum_78, Issimir_14, Izajani_14, JPickles_13, Janiyra_13, Jaygup_13, Jedediah_13, Jemmno_12, Jessibeth14_14, JustHall_13, Kboogie_13, Khaleesi_14, LRRHood_14, Labradorite_12, Latch_13, LifeSavor_14, Littleton_14, Loanshark_14, LunaBlu_82, Maby2021_14, Matsumoto_13, McGee_13, McWolfish_14, Megamind_14, Melpomini_13, MikeLiesIn_15, Momo_13, Morizzled23_13, MosMoris_9, Naija_13, Napoleon13_13, NedWong_14, Ngannou_13, Norm_14, ParkTD_14, Phlegm_14, Phox_14, Phusco_13, Pinkcreek_9, Pivoine_13, Pleione_15, PurduePete_14, Quasimodo_13, Rabinovich_12, Rahel_13, Ramsey_83, RedBird_81, RedRaider77_8, Rizal_13, Roots515_14, SVoro_14, Salacia_15, Sassafras_81, Shelob_17, ShiaLabeouf_13, Shifa_10, Shnickers_13, Shrimp_14, SilverDipper_13, SmallFry_13, Sprinklers_13, SrishMeg2525_14, StubbySaigey_13, Stubby_14, Substance289_12, SuperGrey_79, Teardrop_13, TinyTim_14, Tonenili_20, Tootsieroll_77, Tortoise16_12, Trinitium_13, Turret_13, ValleyTerrace_13, Wachhund_78, Wally_13, Willis_14, Yassified_13, YemiJoy2021_14, YoungMoneyMata_13, Yucca_13, Zalkecks_15, Zeenon_16, ZyoTaiga_15,

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

- Patter_13,

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

- Ajay_76, Alsfro_67, Alvin_61, Amao_44, Ardmore_64, Ariel_73, Astraea_6, Aubs_80, Batiatus_78, Beem_73, Bench_44, BigCity_8, Blarby_87, Blexus_75, BlueCrab_63, Bobi_85, BronnyJames_68, Bubbles123_74, Bxz1_6, ByChance_55, CaptainTrips_79, Che8_92, Cheesepuff_89, ChosenOne_46, Clank_80, Clifton_72, Corazon_7, DLane_80, DRBy19_83, DTDevon_8, Dallas_72, Dandelion_7, Dante_78, DeadP_80, DirtMonster_6, DmpstrDiver_73, Drazdys_8, Dreamboat_79, Dylan_22, EggyFarm_8, Ejimix_73, Elite2014_45, Emma_82, Eureka_44, Eyeball_79, Fancypants_92, Filuzino_80, FrayBell_8, Fruitloop_74, Girr_75, Goku_44, Gonephishing_73, Grasshills_8, Halley_75, Hannaconda_73, HokkenD_66, Homines_53, Huphleppuff_7, IMpilo_74, IbOuu_74, InterFolia_8, Inyanga_56, Iqorha_56, IrishSherpFalk_79, Jabbawokkie_88, James_80, Jant_80, Jant_84, Jarcob_79, Jasper_78, JayJay_7, Jezreel_6, JoieB_8, JuicyJay_72, JulietS_6, KBG_62, KSSJEB_78, Kalah2_68, Kingsley_82, Koella_74, Krakatau_74, KristaRAM_77, Kugel_63, Leozinho_78, Lilpickle_45, LinStu_7, LittleLaf_7, LolaVinca_8, LordLeafolot_8, Lucky2013_71, Manda_46, Mangeria_6, Mantra_76, Marker_91, Martik_80, Medindi_83, MiaZeal_74, Mikro_6, MinionDave_75, Minnie_76, MisterCuddles_76, MoMoMixon_5, Mwanjiwa_82, Nappy_6, Nidhogg_5, NihilNomen_74, Nitzel_73, NonchalantPear_45, NoodleTree_6, NormanBulbieJr_80, NuevoMundo_7, Odette_72, Ogopogo_85, OlympiaSaint_79, Ovechkin_81, Peterson_79, Phanphagia_77, PharkleMinkus_8, PherrisBueller_78, PhesterPhotato_82, Philus_82, Phoebus_76, Pier_7, Pio_6, Pippy_75, Porcelain_73, Priscilla_82, Puppet_75, QBert_6, Radiance_78, Raid_78, Redno2_70, Renaud18_89, Ruby_73, Sandalphon_74, Saskia_69, Sauce_5, Schatzie_68, ScottMcG_15, ScottMcG_5, Sebata_7, Shaboozey_67, Shauna1_78, ShroomBoi_80, SiSi_75, SimranZ1_79, SkiPole_69, Soul22_81, Spartacus_85, Specks_8, Spud_6, Squint_74, StephanieG_7, Superphikiman_71, Target_63, Teodoridan_77, TheloniousMonk_64, Triple3t_83, Tweety_79, Tyke_8, Ukulele_42, Veteran_71,

Whouxphf_84, WillSterrel_78, XFactor_74, Zakhe101_23, Zapner_87, Zelink_71,

Summary by start number:

Start 39:

- Found in 1 of 325 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Medindi_83 (F1),

Start 40:

- Found in 1 of 325 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Peterson_79 (A1),

Start 46:

- Found in 2 of 325 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: NonchalantPear_45 (E), Ukulele_42 (E),

Start 48:

- Found in 3 of 325 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 295
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Eureka_44 (E),

Start 50:

- Found in 5 of 325 (1.5%) of genes in pham
- Manual Annotations of this start: 4 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bench_44 (E), Dylan_22 (O), Mangeria_6 (C1), Saskia_69 (A11), Zakhe101_23 (O),

Start 51:

- Found in 4 of 325 (1.2%) of genes in pham
- Manual Annotations of this start: 3 of 295
- Called 75.0% of time when present
- Phage (with cluster) where this start called: DLane_80 (F1), Goku_44 (E), Manda_46 (E),

Start 52:

- Found in 58 of 325 (17.8%) of genes in pham
- Manual Annotations of this start: 52 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ardmore_64 (F1), Aubs_80 (F1), Batiatus_78 (F1), Blarby_87 (F), Blexus_75 (F1), Bobi_85 (F1), Bubbles123_74 (F1), Clank_80 (F), Clifton_72 (F1), Corazon_7 (S), DRBy19_83 (F1), Dante_78 (F1), DeadP_80 (F1), Emma_82 (F1), Filuzino_80 (F1), Fruitloop_74 (F1), Girr_75 (F1), Huphlepuuff_7 (S), IMpilo_74 (F1), IbOuu_74 (F1), IrishSherpFalk_79 (F1), Jabbawokkie_88 (F2), James_80 (F1), Jant_80 (F1), Jarcob_79 (F1), JoieB_8 (S), Kingsley_82 (F1), Krakatau_74 (F1), KristaRAM_77 (F1), Leozinho_78 (F1),

LittleLaf_7 (S), Mantra_76 (F1), Martik_80 (F1), Minnie_76 (F1), MisterCuddles_76 (F1), Mwanjiwa_82 (F1), Nitzel_73 (F1), OlympiaSaint_79 (F1), Ovechkin_81 (F1), Phanphagia_77 (F1), PhesterPhotato_82 (F1), Philus_82 (F1), Pippy_75 (F1), Radiance_78 (F1), Renaud18_89 (F4), Ruby_73 (F1), Sandalphon_74 (F1), ScottMcG_15 (C1), Shauna1_78 (F1), ShroomBoi_80 (F1), SiSi_75 (F1), SimranZ1_79 (F1), Soul22_81 (F2), Tweety_79 (F1), Veteran_71 (F1), WillSterrel_78 (F1), XFactor_74 (F1), Zapner_87 (F2),

Start 53:

- Found in 157 of 325 (48.3%) of genes in pham
- Manual Annotations of this start: 149 of 295
- Called 99.4% of time when present
- Phage (with cluster) where this start called: Ablatia_13 (C1), Ading_13 (C1), Adlitam_13 (C1), Alice_12 (C1), Amataga_13 (C1), ArcherS7_13 (C1), Asterius_15 (C1), Atlantean_13 (C1), Audrick_14 (C1), Ava3_15 (C1), Avani_86 (F2), Babyland_13 (C1), BackyardAgain_12 (C1), BadAgartude_14 (C1), BananaFence_14 (C1), Bangla1971_13 (C1), Basquiat_13 (C1), Belieber_12 (C1), Bezza_10 (C1), Bipolarisk_14 (C1), Blackbrain_13 (C1), Blackdragon_12 (C1), Bonray_14 (C1), Bread_14 (C1), Breeniome_14 (C1), Burrough_14 (C1), Cactojaque_12 (C1), Cali_14 (C1), Capablanca_14 (C1), Caravan_16 (C1), Catera_13 (C1), Chargie21_13 (C1), CharlieB_15 (C1), ChaylaJr_13 (C1), ChickenPhender_13 (C1), Chomp_13 (C1), CindyLou_13 (C1), Cornie_74 (F5), Daffodil_15 (C1), Darko_13 (C1), Delilah_14 (C1), Delylah_16 (C1), Derek_14 (C1), Dietrick_12 (C1), Dorothy_81 (F1), DrPhinkDaddy_14 (C1), Duckfeet_14 (C1), ET08_12 (C1), EasyJones_13 (C1), Eish_82 (F1), EmToTheThree_17 (C1), EmmaElysia_13 (C1), Erdmann_14 (C1), ErnieJ_17 (C1), Essence_13 (C1), Ewok_14 (C1), Firehouse51_75 (F1), Fixie_12 (C1), Flabslab_13 (C1), Fludd_13 (C1), FoxtrotP1_15 (C1), FudgeTart_14 (C1), Gabriel_14 (C1), Gangam_13 (C1), Gattaca_9 (S), Ghost_14 (C1), Gizmo_15 (C1), GlutenPhree_13 (C1), Guwapp_13 (C1), HyRo_11 (C1), Ibhubesi_77 (F1), InigoMontoya_14 (C1), Inventum_78 (F1), Issimir_14 (C1), Izajani_14 (C1), JPickles_13 (C1), Janiyra_13 (C1), Jaygup_13 (C1), Jedediah_13 (C1), Jemmno_12 (C1), Jessibeth14_14 (C1), JustHall_13 (C1), Kboogie_13 (C1), Khaleesi_14 (C1), LRRHood_14 (C1), Labradorite_12 (C1), Latch_13 (C1), LifeSavor_14 (C1), Littleton_14 (C1), Loanshark_14 (C1), LunaBlu_82 (F1), Maby2021_14 (C1), Matsumoto_13 (C1), McGee_13 (C1), McWolfish_14 (C1), Megamind_14 (C1), Melpomini_13 (C1), MikeLiesIn_15 (C1), Momo_13 (C1), Morizzled23_13 (C1), MosMoris_9 (S), Naija_13 (C1), Napoleon13_13 (C1), NedWong_14 (C1), Ngannou_13 (C1), Norm_14 (C1), ParkTD_14 (C1), Phlegm_14 (C1), Phox_14 (C1), Phusco_13 (C1), Pinkcreek_9 (C1), Pivoine_13 (C1), Pleione_15 (C1), PurduePete_14 (C1), Quasimodo_13 (C1), Rabinovish_12 (C1), Rahel_13 (C1), Ramsey_83 (F1), RedBird_81 (F1), RedRaider77_8 (S), Rizal_13 (C1), Roots515_14 (C1), SVoro_14 (C1), Salacia_15 (C1), Sassafra_81 (F1), Shelob_17 (C1), ShiaLabeouf_13 (C1), Shifa_10 (C1), Shnickers_13 (C1), Shrimp_14 (C1), SilverDipper_13 (C1), SmallFry_13 (C1), Sprinklers_13 (C1), SrishMeg2525_14 (C1), StubbySaigey_13 (C1), Stubby_14 (C1), Substance289_12 (C1), SuperGrey_79 (F1), Teardrop_13 (C1), TinyTim_14 (C1), Tonenili_20 (C1), Tootsieroll_77 (F1), Tortoise16_12 (C1), Trinitium_13 (C1), Turret_13 (C1), ValleyTerrace_13 (C1), Wachhund_78 (F1), Wally_13 (C1), Willis_14 (C1), Yassified_13 (C1), YemiJoy2021_14 (C1), YoungMoneyMata_13 (C1), Yucca_13 (C1), Zalkecks_15 (C1), Zeenon_16 (C1), ZygoTaiga_15 (C1),

Start 54:

- Found in 80 of 325 (24.6%) of genes in pham

- Manual Annotations of this start: 66 of 295
- Called 95.0% of time when present
- Phage (with cluster) where this start called: Ajay_76 (A1), Alsfro_67 (A1), Alvin_61 (A1), Amao_44 (E), Ariel_73 (J), Astraea_6 (C1), Beem_73 (J), BlueCrab_63 (F1), BronnyJames_68 (J), Bxz1_6 (C1), ByChance_55 (F1), CaptainTrips_79 (F1), Che8_92 (F1), CheesePuff_89 (F1), ChosenOne_46 (E), Dallas_72 (J), DirtMonster_6 (C1), DmpstrDiver_73 (J), Dreamboat_79 (A1), Ejimix_73 (J), Elite2014_45 (E), Eyeball_79 (A1), Fancypants_92 (F1), Gonephishing_73 (J), Halley_75 (J), Hannaconda_73 (J), HokkenD_66 (J), Homines_53 (A1), Inyanga_56 (A1), Iqorha_56 (A1), Jant_84 (F1), Jasper_78 (A1), Jezreel_6 (C1), JuicyJay_72 (J), JulietS_6 (C1), KBG_62 (A1), KSSJEB_78 (A1), Kalah2_68 (J), Koella_74 (F1), Kugel_63 (A1), Lilpickle_45 (E), Marker_91 (F1), MiaZeal_74 (J), Mikro_6 (C1), MinionDave_75 (F1), MoMoMixon_5 (C1), Nidhogg_5 (C1), NihilNomen_74 (J), NoodleTree_6 (C1), NormanBulbieJr_80 (F1), Odette_72 (J), Ogopogo_85 (F1), PherrisBueller_78 (A1), Phoebus_76 (J), Pio_6 (C1), Porcelain_73 (J), Priscilla_82 (F1), Puppet_75 (A1), QBert_6 (C1), Raid_78 (A1), Redno2_70 (J), Sauce_5 (C1), Schatzie_68 (J), ScottMcG_5 (C1), Shaboozey_67 (J), SkiPole_69 (A1), Spartacus_85 (F1), Spud_6 (C1), Squint_74 (J), Superphikiman_71 (J), Target_63 (A1), Teodoridan_77 (A1), TheloniousMonk_64 (A1), Tripl3t_83 (A1), Whouxphf_84 (F1), Zelink_71 (J),

Start 55:

- Found in 283 of 325 (87.1%) of genes in pham
- Manual Annotations of this start: 2 of 295
- Called 0.7% of time when present
- Phage (with cluster) where this start called: Lucky2013_71 (J), Patter_13 (C1),

Start 60:

- Found in 20 of 325 (6.2%) of genes in pham
- Manual Annotations of this start: 16 of 295
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BigCity_8 (C1), DTDevon_8 (C1), Dandelion_7 (C1), Drazdys_8 (C1), EggYFarm_8 (C1), FrayBell_8 (C1), Grasshills_8 (C1), InterFolia_8 (C1), JayJay_7 (C1), LinStu_7 (C1), LolaVinca_8 (C1), LordLeafolot_8 (C1), Nappy_6 (C1), NuevoMundo_7 (C1), PharkleMinkus_8 (C1), Pier_7 (C1), Sebata_7 (C1), Specks_8 (C1), StephanieG_7 (C1), Tyke_8 (C1),

Summary by clusters:

There are 12 clusters represented in this pham: F1, F2, A11, F5, F, F4, J, O, A1, S, E, C1,

Info for manual annotations of cluster A1:

- Start number 40 was manually annotated 1 time for cluster A1.
- Start number 54 was manually annotated 15 times for cluster A1.

Info for manual annotations of cluster C1:

- Start number 50 was manually annotated 1 time for cluster C1.
- Start number 52 was manually annotated 1 time for cluster C1.
- Start number 53 was manually annotated 132 times for cluster C1.
- Start number 54 was manually annotated 14 times for cluster C1.
- Start number 55 was manually annotated 1 time for cluster C1.
- Start number 60 was manually annotated 16 times for cluster C1.

Info for manual annotations of cluster E:

- Start number 46 was manually annotated 1 time for cluster E.
- Start number 48 was manually annotated 1 time for cluster E.
- Start number 50 was manually annotated 1 time for cluster E.
- Start number 51 was manually annotated 2 times for cluster E.
- Start number 54 was manually annotated 4 times for cluster E.

Info for manual annotations of cluster F1:

- Start number 51 was manually annotated 1 time for cluster F1.
- Start number 52 was manually annotated 43 times for cluster F1.
- Start number 53 was manually annotated 12 times for cluster F1.
- Start number 54 was manually annotated 14 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 52 was manually annotated 3 times for cluster F2.
- Start number 53 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:

- Start number 52 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster F5:

- Start number 53 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster J:

- Start number 54 was manually annotated 19 times for cluster J.
- Start number 55 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster O:

- Start number 50 was manually annotated 2 times for cluster O.

Info for manual annotations of cluster S:

- Start number 52 was manually annotated 4 times for cluster S.
- Start number 53 was manually annotated 3 times for cluster S.

Gene Information:

Gene: Ablatia_13 Start: 3972, Stop: 4337, Start Num: 53

Candidate Starts for Ablatia_13:

(Start: 53 @3972 has 149 MA's), (Start: 55 @3987 has 2 MA's), (88, 4122), (111, 4200), (115, 4212), (117, 4215), (158, 4308),

Gene: Ading_13 Start: 3949, Stop: 4314, Start Num: 53

Candidate Starts for Ading_13:

(Start: 53 @3949 has 149 MA's), (Start: 55 @3964 has 2 MA's), (88, 4099), (111, 4177), (115, 4189), (117, 4192), (158, 4285),

Gene: Adlitam_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Adlitam_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Ajay_76 Start: 46873, Stop: 46502, Start Num: 54

Candidate Starts for Ajay_76:

(Start: 54 @46873 has 66 MA's), (Start: 55 @46861 has 2 MA's), (61, 46825), (76, 46783), (83, 46759), (88, 46717), (115, 46627), (117, 46624), (154, 46561), (161, 46525),

Gene: Alice_12 Start: 4384, Stop: 4734, Start Num: 53

Candidate Starts for Alice_12:

(Start: 53 @4384 has 149 MA's), (Start: 55 @4399 has 2 MA's), (88, 4519), (111, 4597), (115, 4609), (117, 4612), (158, 4705),

Gene: Alsfro_67 Start: 41490, Stop: 41089, Start Num: 54

Candidate Starts for Alsfro_67:

(10, 41700), (14, 41691), (34, 41547), (36, 41544), (Start: 54 @41490 has 66 MA's), (Start: 55 @41478 has 2 MA's), (63, 41433), (71, 41394), (88, 41298), (91, 41271), (93, 41265), (102, 41244), (127, 41196),

Gene: Alvin_61 Start: 40955, Stop: 40545, Start Num: 54

Candidate Starts for Alvin_61:

(14, 41156), (34, 41012), (36, 41009), (Start: 54 @40955 has 66 MA's), (63, 40898), (71, 40859), (88, 40763),

Gene: Amao_44 Start: 35225, Stop: 34809, Start Num: 54

Candidate Starts for Amao_44:

(44, 35246), (49, 35234), (Start: 54 @35225 has 66 MA's), (Start: 55 @35213 has 2 MA's), (88, 35039), (121, 34937), (142, 34895),

Gene: Amataga_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Amataga_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: ArcherS7_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for ArcherS7_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Ardmore_64 Start: 42842, Stop: 43237, Start Num: 52

Candidate Starts for Ardmore_64:

(Start: 52 @42842 has 52 MA's), (Start: 55 @42857 has 2 MA's), (112, 43079), (114, 43085), (122, 43109), (158, 43208),

Gene: Ariel_73 Start: 46707, Stop: 46291, Start Num: 54

Candidate Starts for Ariel_73:

(Start: 54 @46707 has 66 MA's), (Start: 55 @46695 has 2 MA's), (71, 46611), (74, 46593), (88, 46515), (93, 46485), (111, 46446), (112, 46443),

Gene: Asterius_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Asterius_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Astraea_6 Start: 1759, Stop: 2151, Start Num: 54

Candidate Starts for Astraea_6:

(Start: 54 @1759 has 66 MA's), (Start: 55 @1771 has 2 MA's), (65, 1819), (67, 1825), (80, 1888), (88, 1942), (111, 2020), (115, 2032), (117, 2035),

Gene: Atlantean_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Atlantean_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Aubs_80 Start: 49176, Stop: 49556, Start Num: 52

Candidate Starts for Aubs_80:

(Start: 52 @49176 has 52 MA's), (Start: 55 @49191 has 2 MA's), (112, 49398), (114, 49404), (122, 49428), (158, 49527),

Gene: Audrick_14 Start: 3949, Stop: 4314, Start Num: 53

Candidate Starts for Audrick_14:

(Start: 53 @3949 has 149 MA's), (Start: 55 @3964 has 2 MA's), (88, 4099), (111, 4177), (115, 4189), (117, 4192), (158, 4285),

Gene: Ava3_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Ava3_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Avani_86 Start: 46087, Stop: 46437, Start Num: 53

Candidate Starts for Avani_86:

(Start: 53 @46087 has 149 MA's), (Start: 55 @46102 has 2 MA's), (88, 46237), (91, 46267), (110, 46303), (132, 46354),

Gene: Babyland_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Babyland_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: BackyardAgain_12 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for BackyardAgain_12:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: BadAgartude_14 Start: 4738, Stop: 5088, Start Num: 53

Candidate Starts for BadAgartude_14:

(Start: 53 @4738 has 149 MA's), (Start: 55 @4753 has 2 MA's), (88, 4873), (111, 4951), (115, 4963), (117, 4966), (158, 5059),

Gene: BananaFence_14 Start: 4971, Stop: 5336, Start Num: 53

Candidate Starts for BananaFence_14:

(Start: 53 @4971 has 149 MA's), (Start: 55 @4986 has 2 MA's), (88, 5121), (111, 5199), (115, 5211), (117, 5214), (158, 5307),

Gene: Bangla1971_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Bangla1971_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Basquiat_13 Start: 3951, Stop: 4316, Start Num: 53

Candidate Starts for Basquiat_13:

(Start: 53 @3951 has 149 MA's), (Start: 55 @3966 has 2 MA's), (88, 4101), (111, 4179), (115, 4191), (117, 4194), (158, 4287),

Gene: Batiatus_78 Start: 48266, Stop: 48646, Start Num: 52

Candidate Starts for Batiatus_78:

(Start: 52 @48266 has 52 MA's), (Start: 55 @48281 has 2 MA's), (88, 48401), (112, 48488), (114, 48494), (122, 48518), (158, 48617),

Gene: Beem_73 Start: 50984, Stop: 50568, Start Num: 54

Candidate Starts for Beem_73:

(Start: 54 @50984 has 66 MA's), (Start: 55 @50972 has 2 MA's), (71, 50888), (74, 50870), (88, 50792), (93, 50762), (111, 50723), (112, 50720),

Gene: Belieber_12 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Belieber_12:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Bench_44 Start: 35114, Stop: 34752, Start Num: 50

Candidate Starts for Bench_44:

(Start: 50 @35114 has 4 MA's), (Start: 55 @35102 has 2 MA's), (88, 34982), (119, 34880), (158, 34775),

Gene: Bezza_10 Start: 4384, Stop: 4734, Start Num: 53

Candidate Starts for Bezza_10:

(Start: 53 @4384 has 149 MA's), (Start: 55 @4399 has 2 MA's), (88, 4519), (111, 4597), (115, 4609), (117, 4612), (158, 4705),

Gene: BigCity_8 Start: 2903, Stop: 3259, Start Num: 60

Candidate Starts for BigCity_8:

(Start: 60 @2903 has 16 MA's), (63, 2915), (68, 2942), (79, 2987), (88, 3050), (111, 3128), (115, 3140), (117, 3143),

Gene: Bipolarisk_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Bipolarisk_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Blackbrain_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Blackbrain_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Blackdragon_12 Start: 4007, Stop: 4381, Start Num: 53

Candidate Starts for Blackdragon_12:

(Start: 53 @4007 has 149 MA's), (Start: 55 @4022 has 2 MA's), (61, 4058), (76, 4100), (83, 4124), (88, 4166), (115, 4256), (117, 4259), (158, 4352),

Gene: Blarby_87 Start: 46989, Stop: 47345, Start Num: 52

Candidate Starts for Blarby_87:

(Start: 52 @46989 has 52 MA's), (Start: 55 @47004 has 2 MA's), (88, 47124), (156, 47295), (158, 47316),

Gene: Blexus_75 Start: 48431, Stop: 48811, Start Num: 52

Candidate Starts for Blexus_75:

(Start: 52 @48431 has 52 MA's), (Start: 55 @48446 has 2 MA's), (73, 48506), (85, 48578), (88, 48611), (158, 48788),

Gene: BlueCrab_63 Start: 41722, Stop: 42096, Start Num: 54

Candidate Starts for BlueCrab_63:

(49, 41713), (Start: 54 @41722 has 66 MA's), (58, 41755), (86, 41863), (87, 41866), (91, 41914), (130, 42001), (158, 42085),

Gene: Bobi_85 Start: 50553, Stop: 50930, Start Num: 52

Candidate Starts for Bobi_85:

(Start: 52 @50553 has 52 MA's), (Start: 55 @50568 has 2 MA's), (88, 50688), (112, 50775), (114, 50781), (122, 50805), (150, 50868), (158, 50907),

Gene: Bonray_14 Start: 5044, Stop: 5394, Start Num: 53

Candidate Starts for Bonray_14:

(Start: 53 @5044 has 149 MA's), (Start: 55 @5059 has 2 MA's), (88, 5179), (111, 5257), (115, 5269), (117, 5272), (158, 5365),

Gene: Bread_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Bread_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Breeniome_14 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Breeniome_14:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: BronnyJames_68 Start: 45323, Stop: 44922, Start Num: 54

Candidate Starts for BronnyJames_68:

(Start: 54 @45323 has 66 MA's), (Start: 55 @45311 has 2 MA's), (72, 45227), (75, 45209), (88, 45131), (111, 45053), (115, 45041), (117, 45038), (158, 44945),

Gene: Bubbles123_74 Start: 48058, Stop: 48471, Start Num: 52

Candidate Starts for Bubbles123_74:

(Start: 52 @48058 has 52 MA's), (Start: 55 @48073 has 2 MA's), (88, 48229), (112, 48316), (114, 48322), (122, 48346), (150, 48409), (158, 48448),

Gene: Burrough_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Burrough_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Bxz1_6 Start: 1759, Stop: 2151, Start Num: 54

Candidate Starts for Bxz1_6:

(Start: 54 @1759 has 66 MA's), (Start: 55 @1771 has 2 MA's), (65, 1819), (67, 1825), (80, 1888), (88, 1942), (111, 2020), (115, 2032), (117, 2035),

Gene: ByChance_55 Start: 36650, Stop: 37024, Start Num: 54

Candidate Starts for ByChance_55:

(49, 36641), (Start: 54 @36650 has 66 MA's), (58, 36683), (86, 36791), (87, 36794), (91, 36842), (130, 36929), (158, 37013),

Gene: Cactojaque_12 Start: 3900, Stop: 4265, Start Num: 53

Candidate Starts for Cactojaque_12:

(Start: 53 @3900 has 149 MA's), (Start: 55 @3915 has 2 MA's), (88, 4050), (111, 4128), (115, 4140), (117, 4143), (158, 4236),

Gene: Cali_14 Start: 5699, Stop: 6064, Start Num: 53

Candidate Starts for Cali_14:

(Start: 53 @5699 has 149 MA's), (Start: 55 @5714 has 2 MA's), (56, 5723), (88, 5849), (111, 5927), (115, 5939), (117, 5942), (158, 6035),

Gene: Capablanca_14 Start: 5050, Stop: 5415, Start Num: 53

Candidate Starts for Capablanca_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5200), (111, 5278), (115, 5290), (117, 5293), (158, 5386),

Gene: CaptainTrips_79 Start: 47890, Stop: 48285, Start Num: 54

Candidate Starts for CaptainTrips_79:

(Start: 54 @47890 has 66 MA's), (Start: 55 @47902 has 2 MA's), (88, 48037), (108, 48115), (127, 48166), (142, 48190), (148, 48208), (153, 48223), (159, 48262),

Gene: Caravan_16 Start: 5077, Stop: 5427, Start Num: 53

Candidate Starts for Caravan_16:

(Start: 53 @5077 has 149 MA's), (Start: 55 @5092 has 2 MA's), (88, 5212), (111, 5290), (115, 5302), (117, 5305), (158, 5398),

Gene: Catera_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Catera_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Chargie21_13 Start: 3951, Stop: 4316, Start Num: 53

Candidate Starts for Chargie21_13:

(Start: 53 @3951 has 149 MA's), (Start: 55 @3966 has 2 MA's), (88, 4101), (111, 4179), (115, 4191), (117, 4194), (158, 4287),

Gene: CharlieB_15 Start: 4563, Stop: 4913, Start Num: 53

Candidate Starts for CharlieB_15:

(Start: 53 @4563 has 149 MA's), (Start: 55 @4578 has 2 MA's), (88, 4698), (111, 4776), (115, 4788), (117, 4791), (158, 4884),

Gene: ChaylaJr_13 Start: 3993, Stop: 4358, Start Num: 53

Candidate Starts for ChaylaJr_13:

(Start: 53 @3993 has 149 MA's), (Start: 55 @4008 has 2 MA's), (88, 4143), (111, 4221), (115, 4233), (117, 4236), (158, 4329),

Gene: Che8_92 Start: 51445, Stop: 51828, Start Num: 54

Candidate Starts for Che8_92:

(16, 51271), (17, 51280), (22, 51304), (26, 51322), (43, 51415), (47, 51424), (Start: 54 @51445 has 66 MA's), (96, 51631), (111, 51661), (123, 51697), (145, 51748),

Gene: Cheese puff_89 Start: 49033, Stop: 49464, Start Num: 54

Candidate Starts for Cheese puff_89:

(Start: 54 @49033 has 66 MA's), (Start: 55 @49045 has 2 MA's), (71, 49129), (74, 49147), (88, 49225), (90, 49252), (107, 49297), (119, 49324), (144, 49369), (155, 49405), (160, 49441),

Gene: ChickenPhender_13 Start: 3951, Stop: 4316, Start Num: 53

Candidate Starts for ChickenPhender_13:

(Start: 53 @3951 has 149 MA's), (Start: 55 @3966 has 2 MA's), (88, 4101), (111, 4179), (115, 4191), (117, 4194), (158, 4287),

Gene: Chomp_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Chomp_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: ChosenOne_46 Start: 35277, Stop: 34882, Start Num: 54

Candidate Starts for ChosenOne_46:

(25, 35379), (27, 35373), (30, 35343), (Start: 54 @35277 has 66 MA's), (Start: 55 @35265 has 2 MA's), (88, 35109), (91, 35076), (99, 35055), (130, 34989), (158, 34905),

Gene: CindyLou_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for CindyLou_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Clank_80 Start: 46512, Stop: 46865, Start Num: 52

Candidate Starts for Clank_80:

(Start: 52 @46512 has 52 MA's), (Start: 55 @46527 has 2 MA's), (88, 46647), (93, 46689), (146, 46785), (158, 46842),

Gene: Clifton_72 Start: 46816, Stop: 47196, Start Num: 52

Candidate Starts for Clifton_72:

(Start: 52 @46816 has 52 MA's), (Start: 55 @46831 has 2 MA's), (88, 46987), (111, 47065), (115, 47077), (117, 47080), (158, 47173),

Gene: Corazon_7 Start: 2530, Stop: 2910, Start Num: 52

Candidate Starts for Corazon_7:

(Start: 52 @2530 has 52 MA's), (Start: 55 @2545 has 2 MA's), (88, 2701), (111, 2779), (115, 2791), (117, 2794),

Gene: Cornie_74 Start: 46648, Stop: 46998, Start Num: 53

Candidate Starts for Cornie_74:

(Start: 53 @46648 has 149 MA's), (Start: 55 @46663 has 2 MA's), (111, 46861), (115, 46873), (117, 46876), (158, 46969),

Gene: DLane_80 Start: 49512, Stop: 49868, Start Num: 51

Candidate Starts for DLane_80:

(Start: 51 @49512 has 3 MA's), (Start: 55 @49524 has 2 MA's), (88, 49644), (93, 49686), (146, 49782), (158, 49839),

Gene: DRBy19_83 Start: 50545, Stop: 50925, Start Num: 52

Candidate Starts for DRBy19_83:

(Start: 52 @50545 has 52 MA's), (Start: 55 @50560 has 2 MA's), (88, 50716), (111, 50794), (115, 50806), (117, 50809), (158, 50902),

Gene: DTDevon_8 Start: 2464, Stop: 2820, Start Num: 60

Candidate Starts for DTDevon_8:

(Start: 60 @2464 has 16 MA's), (63, 2476), (68, 2503), (79, 2548), (88, 2611), (111, 2689), (115, 2701), (117, 2704),

Gene: Daffodil_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Daffodil_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Dallas_72 Start: 49905, Stop: 49489, Start Num: 54

Candidate Starts for Dallas_72:

(Start: 54 @49905 has 66 MA's), (Start: 55 @49893 has 2 MA's), (71, 49809), (74, 49791), (88, 49713), (93, 49683), (111, 49644), (112, 49641),

Gene: Dandelion_7 Start: 2464, Stop: 2820, Start Num: 60

Candidate Starts for Dandelion_7:

(Start: 60 @2464 has 16 MA's), (63, 2476), (68, 2503), (79, 2548), (88, 2611), (111, 2689), (115, 2701), (117, 2704),

Gene: Dante_78 Start: 50103, Stop: 50483, Start Num: 52

Candidate Starts for Dante_78:

(Start: 52 @50103 has 52 MA's), (Start: 55 @50118 has 2 MA's), (73, 50178), (85, 50250), (88, 50283), (158, 50460),

Gene: Darko_13 Start: 4940, Stop: 5305, Start Num: 53

Candidate Starts for Darko_13:

(Start: 53 @4940 has 149 MA's), (Start: 55 @4955 has 2 MA's), (88, 5090), (111, 5168), (115, 5180), (117, 5183), (158, 5276),

Gene: DeadP_80 Start: 47212, Stop: 47607, Start Num: 52

Candidate Starts for DeadP_80:

(Start: 52 @47212 has 52 MA's), (Start: 55 @47227 has 2 MA's), (112, 47449), (114, 47455), (122, 47479), (150, 47542), (158, 47581),

Gene: Delilah_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Delilah_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Delylah_16 Start: 5077, Stop: 5427, Start Num: 53

Candidate Starts for Delylah_16:

(Start: 53 @5077 has 149 MA's), (Start: 55 @5092 has 2 MA's), (88, 5212), (111, 5290), (115, 5302), (117, 5305), (158, 5398),

Gene: Derek_14 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Derek_14:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Dietrick_12 Start: 3968, Stop: 4333, Start Num: 53

Candidate Starts for Dietrick_12:

(Start: 53 @3968 has 149 MA's), (Start: 55 @3983 has 2 MA's), (88, 4118), (111, 4196), (115, 4208), (117, 4211), (158, 4304),

Gene: DirtMonster_6 Start: 2758, Stop: 3150, Start Num: 54

Candidate Starts for DirtMonster_6:

(Start: 54 @2758 has 66 MA's), (Start: 55 @2770 has 2 MA's), (65, 2818), (67, 2824), (80, 2887), (88, 2941), (111, 3019), (115, 3031), (117, 3034),

Gene: DmpstrDiver_73 Start: 50332, Stop: 49916, Start Num: 54

Candidate Starts for DmpstrDiver_73:

(Start: 54 @50332 has 66 MA's), (Start: 55 @50320 has 2 MA's), (71, 50236), (74, 50218), (88, 50140), (93, 50110), (111, 50071), (112, 50068),

Gene: Dorothy_81 Start: 50224, Stop: 50574, Start Num: 53

Candidate Starts for Dorothy_81:

(Start: 53 @50224 has 149 MA's), (Start: 55 @50239 has 2 MA's), (88, 50374), (157, 50551),

Gene: DrPhinkDaddy_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for DrPhinkDaddy_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Drazdys_8 Start: 2464, Stop: 2820, Start Num: 60

Candidate Starts for Drazdys_8:

(Start: 60 @2464 has 16 MA's), (63, 2476), (68, 2503), (79, 2548), (88, 2611), (111, 2689), (115, 2701), (117, 2704),

Gene: Dreamboat_79 Start: 46273, Stop: 45872, Start Num: 54

Candidate Starts for Dreamboat_79:

(Start: 54 @46273 has 66 MA's), (88, 46081), (111, 46003), (115, 45991), (117, 45988), (158, 45895),

Gene: Duckfeet_14 Start: 4700, Stop: 5074, Start Num: 53

Candidate Starts for Duckfeet_14:

(Start: 53 @4700 has 149 MA's), (Start: 55 @4715 has 2 MA's), (56, 4724), (61, 4751), (76, 4793), (83, 4817), (88, 4859), (115, 4949), (117, 4952), (158, 5045),

Gene: Dylan_22 Start: 10677, Stop: 11069, Start Num: 50

Candidate Starts for Dylan_22:

(Start: 50 @10677 has 4 MA's), (88, 10809), (113, 10893), (133, 10947), (138, 10971), (143, 10983), (146, 10989), (154, 11013), (156, 11028), (158, 11046),

Gene: ET08_12 Start: 4991, Stop: 5341, Start Num: 53

Candidate Starts for ET08_12:

(Start: 53 @4991 has 149 MA's), (Start: 55 @5006 has 2 MA's), (88, 5126), (111, 5204), (115, 5216), (117, 5219), (158, 5312),

Gene: EasyJones_13 Start: 3951, Stop: 4316, Start Num: 53

Candidate Starts for EasyJones_13:

(Start: 53 @3951 has 149 MA's), (Start: 55 @3966 has 2 MA's), (88, 4101), (111, 4179), (115, 4191), (117, 4194), (158, 4287),

Gene: EggyFarm_8 Start: 2903, Stop: 3259, Start Num: 60

Candidate Starts for EggyFarm_8:

(Start: 60 @2903 has 16 MA's), (63, 2915), (68, 2942), (79, 2987), (88, 3050), (111, 3128), (115, 3140), (117, 3143),

Gene: Eish_82 Start: 49234, Stop: 49629, Start Num: 53

Candidate Starts for Eish_82:

(Start: 53 @49234 has 149 MA's), (Start: 55 @49249 has 2 MA's), (65, 49297), (67, 49303), (80, 49366), (88, 49420), (111, 49498), (115, 49510), (117, 49513),

Gene: Ejimix_73 Start: 51773, Stop: 51354, Start Num: 54

Candidate Starts for Ejimix_73:

(Start: 54 @51773 has 66 MA's), (Start: 55 @51761 has 2 MA's), (71, 51677), (74, 51659), (88, 51581), (93, 51551), (111, 51512), (112, 51509),

Gene: Elite2014_45 Start: 35276, Stop: 34881, Start Num: 54

Candidate Starts for Elite2014_45:

(25, 35378), (27, 35372), (30, 35342), (Start: 54 @35276 has 66 MA's), (Start: 55 @35264 has 2 MA's), (88, 35108), (91, 35075), (99, 35054), (130, 34988), (158, 34904),

Gene: EmToTheThree_17 Start: 6464, Stop: 6814, Start Num: 53

Candidate Starts for EmToTheThree_17:

(Start: 53 @6464 has 149 MA's), (Start: 55 @6479 has 2 MA's), (88, 6599), (111, 6677), (115, 6689), (117, 6692), (158, 6785),

Gene: Emma_82 Start: 47609, Stop: 47959, Start Num: 52

Candidate Starts for Emma_82:

(28, 47513), (Start: 52 @47609 has 52 MA's), (Start: 55 @47624 has 2 MA's), (88, 47744),

Gene: EmmaElysia_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for EmmaElysia_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Erdmann_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Erdmann_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: ErnieJ_17 Start: 5141, Stop: 5506, Start Num: 53

Candidate Starts for ErnieJ_17:

(Start: 53 @5141 has 149 MA's), (Start: 55 @5156 has 2 MA's), (88, 5291), (111, 5369), (115, 5381), (117, 5384), (158, 5477),

Gene: Essence_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Essence_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Eureka_44 Start: 36100, Stop: 35735, Start Num: 48

Candidate Starts for Eureka_44:

(45, 36112), (Start: 48 @36100 has 1 MA's), (Start: 51 @36091 has 3 MA's), (Start: 55 @36079 has 2 MA's), (88, 35959), (93, 35917), (146, 35821), (158, 35764),

Gene: Ewok_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Ewok_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Eyeball_79 Start: 47899, Stop: 47528, Start Num: 54

Candidate Starts for Eyeball_79:

(Start: 54 @47899 has 66 MA's), (Start: 55 @47887 has 2 MA's), (61, 47851), (76, 47809), (83, 47785), (88, 47743), (115, 47653), (117, 47650), (154, 47587), (161, 47551),

Gene: Fancypants_92 Start: 52024, Stop: 52425, Start Num: 54

Candidate Starts for Fancypants_92:

(3, 51730), (4, 51763), (16, 51850), (17, 51859), (22, 51883), (26, 51901), (43, 51994), (47, 52003), (Start: 54 @52024 has 66 MA's), (84, 52123), (88, 52156), (120, 52261), (134, 52297), (139, 52318), (152, 52357),

Gene: Filuzino_80 Start: 50124, Stop: 50459, Start Num: 52

Candidate Starts for Filuzino_80:

(5, 49893), (7, 49920), (8, 49932), (12, 49938), (15, 49944), (18, 49980), (Start: 52 @50124 has 52 MA's), (Start: 55 @50139 has 2 MA's), (88, 50259), (128, 50361), (140, 50382), (154, 50406),

Gene: Firehouse51_75 Start: 49196, Stop: 49573, Start Num: 53

Candidate Starts for Firehouse51_75:

(29, 49100), (Start: 53 @49196 has 149 MA's), (Start: 55 @49211 has 2 MA's), (88, 49346), (91, 49379), (99, 49400), (130, 49466), (158, 49550),

Gene: Fixie_12 Start: 3951, Stop: 4316, Start Num: 53

Candidate Starts for Fixie_12:

(Start: 53 @3951 has 149 MA's), (Start: 55 @3966 has 2 MA's), (88, 4101), (111, 4179), (115, 4191), (117, 4194), (158, 4287),

Gene: Flabslab_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Flabslab_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Fludd_13 Start: 3952, Stop: 4317, Start Num: 53

Candidate Starts for Fludd_13:

(Start: 53 @3952 has 149 MA's), (Start: 55 @3967 has 2 MA's), (88, 4102), (111, 4180), (115, 4192), (117, 4195), (158, 4288),

Gene: FoxtrotP1_15 Start: 5609, Stop: 5959, Start Num: 53

Candidate Starts for FoxtrotP1_15:

(Start: 53 @5609 has 149 MA's), (Start: 55 @5624 has 2 MA's), (88, 5744), (111, 5822), (115, 5834), (117, 5837), (158, 5930),

Gene: FrayBell_8 Start: 2465, Stop: 2821, Start Num: 60

Candidate Starts for FrayBell_8:

(Start: 60 @2465 has 16 MA's), (63, 2477), (68, 2504), (79, 2549), (88, 2612), (111, 2690), (115, 2702), (117, 2705),

Gene: Fruitloop_74 Start: 47706, Stop: 48077, Start Num: 52

Candidate Starts for Fruitloop_74:

(28, 47610), (Start: 52 @47706 has 52 MA's), (Start: 55 @47721 has 2 MA's), (88, 47841), (95, 47895), (101, 47904), (119, 47952), (122, 47958), (146, 47994), (151, 48012), (158, 48048),

Gene: FudgeTart_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for FudgeTart_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Gabriel_14 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Gabriel_14:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Gamgam_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Gamgam_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Gattaca_9 Start: 2524, Stop: 2901, Start Num: 53

Candidate Starts for Gattaca_9:

(Start: 53 @2524 has 149 MA's), (Start: 55 @2539 has 2 MA's), (88, 2674), (91, 2707), (99, 2728), (130, 2794), (158, 2878),

Gene: Ghost_14 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Ghost_14:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Girr_75 Start: 48247, Stop: 48597, Start Num: 52

Candidate Starts for Girr_75:

(Start: 52 @48247 has 52 MA's), (Start: 55 @48262 has 2 MA's), (88, 48382),

Gene: Gizmo_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Gizmo_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: GlutenPhree_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for GlutenPhree_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Goku_44 Start: 35820, Stop: 35464, Start Num: 51

Candidate Starts for Goku_44:

(45, 35841), (Start: 48 @35829 has 1 MA's), (Start: 51 @35820 has 3 MA's), (Start: 55 @35808 has 2 MA's), (88, 35688), (93, 35646), (146, 35550), (158, 35493),

Gene: Gonephishing_73 Start: 48084, Stop: 47683, Start Num: 54

Candidate Starts for Gonephishing_73:

(Start: 54 @48084 has 66 MA's), (Start: 55 @48072 has 2 MA's), (72, 47988), (75, 47970), (88, 47892), (111, 47814), (115, 47802), (117, 47799), (158, 47706),

Gene: Grasshills_8 Start: 2903, Stop: 3259, Start Num: 60

Candidate Starts for Grasshills_8:

(Start: 60 @2903 has 16 MA's), (63, 2915), (68, 2942), (79, 2987), (88, 3050), (111, 3128), (115, 3140), (117, 3143),

Gene: Guwapp_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Guwapp_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Halley_75 Start: 50984, Stop: 50568, Start Num: 54

Candidate Starts for Halley_75:

(Start: 54 @50984 has 66 MA's), (Start: 55 @50972 has 2 MA's), (71, 50888), (74, 50870), (88, 50792), (93, 50762), (111, 50723), (112, 50720),

Gene: Hannaconda_73 Start: 46951, Stop: 46607, Start Num: 54

Candidate Starts for Hannaconda_73:

(Start: 54 @46951 has 66 MA's), (Start: 55 @46939 has 2 MA's), (88, 46819), (115, 46729), (117, 46726), (158, 46633),

Gene: HokkenD_66 Start: 49253, Stop: 48837, Start Num: 54

Candidate Starts for HokkenD_66:

(Start: 54 @49253 has 66 MA's), (Start: 55 @49241 has 2 MA's), (71, 49157), (74, 49139), (88, 49061), (93, 49031), (111, 48992), (112, 48989),

Gene: Homines_53 Start: 37028, Stop: 36645, Start Num: 54

Candidate Starts for Homines_53:

(11, 37238), (15, 37229), (36, 37085), (37, 37082), (Start: 54 @37028 has 66 MA's), (Start: 55 @37016 has 2 MA's), (69, 36968), (70, 36962), (82, 36899), (88, 36845), (126, 36743), (141, 36722), (152, 36698),

Gene: Huphleuff_7 Start: 2307, Stop: 2687, Start Num: 52

Candidate Starts for Huphleuff_7:

(Start: 52 @2307 has 52 MA's), (Start: 55 @2322 has 2 MA's), (88, 2478), (111, 2556), (115, 2568), (117, 2571),

Gene: HyRo_11 Start: 4892, Stop: 5257, Start Num: 53

Candidate Starts for HyRo_11:

(Start: 53 @4892 has 149 MA's), (Start: 55 @4907 has 2 MA's), (88, 5042), (111, 5120), (115, 5132), (117, 5135), (158, 5228),

Gene: IMpilo_74 Start: 45725, Stop: 46135, Start Num: 52

Candidate Starts for IMpilo_74:

(Start: 52 @45725 has 52 MA's), (Start: 55 @45740 has 2 MA's), (73, 45800), (85, 45872), (88, 45905), (115, 46001), (149, 46067), (156, 46091), (158, 46112),

Gene: lbOuu_74 Start: 46622, Stop: 47065, Start Num: 52

Candidate Starts for lbOuu_74:

(Start: 52 @46622 has 52 MA's), (Start: 55 @46637 has 2 MA's), (88, 46817), (112, 46904), (114, 46910), (122, 46934), (158, 47036),

Gene: Ibhubesi_77 Start: 46004, Stop: 46342, Start Num: 53

Candidate Starts for Ibhubesi_77:

(Start: 53 @46004 has 149 MA's), (Start: 55 @46019 has 2 MA's), (59, 46046), (88, 46139), (98, 46181), (137, 46247),

Gene: InigoMontoya_14 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for InigoMontoya_14:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: InterFolia_8 Start: 2464, Stop: 2820, Start Num: 60

Candidate Starts for InterFolia_8:

(Start: 60 @2464 has 16 MA's), (63, 2476), (68, 2503), (79, 2548), (88, 2611), (111, 2689), (115, 2701), (117, 2704),

Gene: Inventum_78 Start: 48409, Stop: 48759, Start Num: 53

Candidate Starts for Inventum_78:

(Start: 53 @48409 has 149 MA's), (Start: 55 @48424 has 2 MA's), (88, 48559), (157, 48736),

Gene: Inyanga_56 Start: 40763, Stop: 40362, Start Num: 54

Candidate Starts for Inyanga_56:

(Start: 54 @40763 has 66 MA's), (Start: 55 @40751 has 2 MA's), (63, 40706), (71, 40667), (88, 40571),

Gene: Iqorha_56 Start: 40762, Stop: 40361, Start Num: 54

Candidate Starts for Iqorha_56:

(Start: 54 @40762 has 66 MA's), (Start: 55 @40750 has 2 MA's), (63, 40705), (71, 40666), (88, 40570),

Gene: IrishSherpFalk_79 Start: 48781, Stop: 49194, Start Num: 52

Candidate Starts for IrishSherpFalk_79:

(Start: 52 @48781 has 52 MA's), (Start: 55 @48796 has 2 MA's), (88, 48952), (112, 49039), (114, 49045), (122, 49069), (150, 49132), (158, 49171),

Gene: Issimir_14 Start: 5044, Stop: 5394, Start Num: 53

Candidate Starts for Issimir_14:

(Start: 53 @5044 has 149 MA's), (Start: 55 @5059 has 2 MA's), (88, 5179), (111, 5257), (115, 5269), (117, 5272), (158, 5365),

Gene: Izajani_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Izajani_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: JPickles_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for JPickles_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Jabbawokkie_88 Start: 46909, Stop: 47265, Start Num: 52

Candidate Starts for Jabbawokkie_88:

(Start: 52 @46909 has 52 MA's), (Start: 55 @46924 has 2 MA's), (88, 47044), (156, 47215), (158, 47236),

Gene: James_80 Start: 49880, Stop: 50260, Start Num: 52

Candidate Starts for James_80:

(Start: 52 @49880 has 52 MA's), (Start: 55 @49895 has 2 MA's), (88, 50051), (111, 50129), (115, 50141), (117, 50144), (158, 50237),

Gene: Janiyra_13 Start: 3949, Stop: 4314, Start Num: 53

Candidate Starts for Janiyra_13:

(Start: 53 @3949 has 149 MA's), (Start: 55 @3964 has 2 MA's), (88, 4099), (111, 4177), (115, 4189), (117, 4192), (158, 4285),

Gene: Jant_80 Start: 46925, Stop: 47389, Start Num: 52

Candidate Starts for Jant_80:

(Start: 52 @46925 has 52 MA's), (Start: 55 @46940 has 2 MA's), (66, 46994), (83, 47087), (112, 47234), (114, 47240), (122, 47264), (150, 47327), (158, 47366),

Gene: Jant_84 Start: 48028, Stop: 48438, Start Num: 54

Candidate Starts for Jant_84:

(Start: 54 @48028 has 66 MA's), (Start: 55 @48040 has 2 MA's), (71, 48124), (74, 48142), (88, 48220),

Gene: Jacob_79 Start: 49477, Stop: 49857, Start Num: 52

Candidate Starts for Jacob_79:

(Start: 52 @49477 has 52 MA's), (Start: 55 @49492 has 2 MA's), (88, 49648), (111, 49726), (115, 49738), (117, 49741), (158, 49834),

Gene: Jasper_78 Start: 46159, Stop: 45758, Start Num: 54

Candidate Starts for Jasper_78:

(Start: 54 @46159 has 66 MA's), (88, 45967), (111, 45889), (115, 45877), (117, 45874), (158, 45781),

Gene: JayJay_7 Start: 1993, Stop: 2349, Start Num: 60

Candidate Starts for JayJay_7:

(49, 1942), (Start: 60 @1993 has 16 MA's), (63, 2005), (68, 2032), (79, 2077), (88, 2140), (111, 2218), (115, 2230), (117, 2233),

Gene: Jaygup_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Jaygup_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Jedediah_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Jedediah_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Jemmno_12 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Jemmno_12:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Jessibeth14_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Jessibeth14_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Jezreel_6 Start: 1759, Stop: 2151, Start Num: 54

Candidate Starts for Jezreel_6:

(Start: 54 @1759 has 66 MA's), (Start: 55 @1771 has 2 MA's), (65, 1819), (67, 1825), (80, 1888), (88, 1942), (111, 2020), (115, 2032), (117, 2035),

Gene: JoieB_8 Start: 2529, Stop: 2909, Start Num: 52

Candidate Starts for JoieB_8:

(Start: 52 @2529 has 52 MA's), (Start: 55 @2544 has 2 MA's), (88, 2700), (111, 2778), (115, 2790), (117, 2793),

Gene: JuicyJay_72 Start: 52118, Stop: 51702, Start Num: 54

Candidate Starts for JuicyJay_72:

(Start: 54 @52118 has 66 MA's), (Start: 55 @52106 has 2 MA's), (71, 52022), (74, 52004), (88, 51926), (93, 51896), (111, 51857), (112, 51854),

Gene: JulietS_6 Start: 1759, Stop: 2151, Start Num: 54

Candidate Starts for JulietS_6:

(Start: 54 @1759 has 66 MA's), (Start: 55 @1771 has 2 MA's), (65, 1819), (67, 1825), (80, 1888), (88, 1942), (111, 2020), (115, 2032), (117, 2035),

Gene: JustHall_13 Start: 4965, Stop: 5330, Start Num: 53

Candidate Starts for JustHall_13:

(Start: 53 @4965 has 149 MA's), (Start: 55 @4980 has 2 MA's), (88, 5115), (111, 5193), (115, 5205), (117, 5208), (158, 5301),

Gene: KBG_62 Start: 42879, Stop: 42511, Start Num: 54

Candidate Starts for KBG_62:

(33, 42936), (35, 42933), (Start: 54 @42879 has 66 MA's), (Start: 55 @42867 has 2 MA's), (88, 42732), (98, 42672), (115, 42636), (135, 42588), (140, 42585), (158, 42522),

Gene: KSSJEB_78 Start: 46842, Stop: 46471, Start Num: 54

Candidate Starts for KSSJEB_78:

(Start: 54 @46842 has 66 MA's), (Start: 55 @46830 has 2 MA's), (61, 46794), (76, 46752), (83, 46728), (88, 46686), (115, 46596), (117, 46593), (154, 46530), (161, 46494),

Gene: Kalah2_68 Start: 50277, Stop: 49861, Start Num: 54

Candidate Starts for Kalah2_68:

(Start: 54 @50277 has 66 MA's), (Start: 55 @50265 has 2 MA's), (71, 50181), (74, 50163), (88, 50085), (93, 50055), (111, 50016), (112, 50013),

Gene: Kboogie_13 Start: 3968, Stop: 4333, Start Num: 53

Candidate Starts for Kboogie_13:

(Start: 53 @3968 has 149 MA's), (Start: 55 @3983 has 2 MA's), (88, 4118), (111, 4196), (115, 4208), (117, 4211), (158, 4304),

Gene: Khaleesi_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Khaleesi_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Kingsley_82 Start: 50469, Stop: 50837, Start Num: 52

Candidate Starts for Kingsley_82:

(Start: 52 @50469 has 52 MA's), (Start: 55 @50484 has 2 MA's), (88, 50604), (105, 50673), (116, 50694), (145, 50754), (158, 50811),

Gene: Koella_74 Start: 45585, Stop: 45968, Start Num: 54

Candidate Starts for Koella_74:

(16, 45411), (17, 45420), (22, 45444), (26, 45462), (43, 45555), (47, 45564), (Start: 54 @45585 has 66 MA's), (96, 45771), (111, 45801), (123, 45837), (145, 45888),

Gene: Krakatau_74 Start: 44687, Stop: 45067, Start Num: 52

Candidate Starts for Krakatau_74:

(Start: 52 @44687 has 52 MA's), (Start: 55 @44702 has 2 MA's), (88, 44822), (112, 44909), (114, 44915), (122, 44939), (150, 45002), (158, 45038),

Gene: KristaRAM_77 Start: 47329, Stop: 47721, Start Num: 52

Candidate Starts for KristaRAM_77:

(Start: 52 @47329 has 52 MA's), (Start: 55 @47344 has 2 MA's), (88, 47479), (112, 47566), (114, 47572), (122, 47596), (150, 47659), (158, 47698),

Gene: Kugel_63 Start: 41957, Stop: 41598, Start Num: 54

Candidate Starts for Kugel_63:

(13, 42158), (33, 42014), (35, 42011), (Start: 54 @41957 has 66 MA's), (88, 41825), (91, 41792), (99, 41771), (130, 41705), (158, 41621),

Gene: LRRHood_14 Start: 5702, Stop: 6052, Start Num: 53

Candidate Starts for LRRHood_14:

(Start: 53 @5702 has 149 MA's), (Start: 55 @5717 has 2 MA's), (88, 5837), (111, 5915), (115, 5927), (117, 5930), (158, 6023),

Gene: Labradorite_12 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Labradorite_12:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Latch_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Latch_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Leozinho_78 Start: 46065, Stop: 46445, Start Num: 52

Candidate Starts for Leozinho_78:

(Start: 52 @46065 has 52 MA's), (Start: 55 @46080 has 2 MA's), (73, 46140), (85, 46212), (88, 46245), (158, 46422),

Gene: LifeSavor_14 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for LifeSavor_14:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Lilpickle_45 Start: 35276, Stop: 34881, Start Num: 54

Candidate Starts for Lilpickle_45:

(25, 35378), (27, 35372), (30, 35342), (Start: 54 @35276 has 66 MA's), (Start: 55 @35264 has 2 MA's), (88, 35108), (91, 35075), (99, 35054), (130, 34988), (158, 34904),

Gene: LinStu_7 Start: 2992, Stop: 3348, Start Num: 60

Candidate Starts for LinStu_7:

(49, 2941), (Start: 60 @2992 has 16 MA's), (63, 3004), (68, 3031), (79, 3076), (88, 3139), (111, 3217), (115, 3229), (117, 3232),

Gene: LittleLaf_7 Start: 2307, Stop: 2687, Start Num: 52

Candidate Starts for LittleLaf_7:

(Start: 52 @2307 has 52 MA's), (Start: 55 @2322 has 2 MA's), (88, 2478), (111, 2556), (115, 2568), (117, 2571),

Gene: Littleton_14 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Littleton_14:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Loanshark_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Loanshark_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: LolaVinca_8 Start: 2464, Stop: 2820, Start Num: 60

Candidate Starts for LolaVinca_8:

(Start: 60 @2464 has 16 MA's), (63, 2476), (68, 2503), (79, 2548), (88, 2611), (111, 2689), (115, 2701), (117, 2704),

Gene: LordLeafolot_8 Start: 2464, Stop: 2820, Start Num: 60

Candidate Starts for LordLeafolot_8:

(Start: 60 @2464 has 16 MA's), (63, 2476), (68, 2503), (79, 2548), (88, 2611), (111, 2689), (115, 2701), (117, 2704),

Gene: Lucky2013_71 Start: 46711, Stop: 46307, Start Num: 55

Candidate Starts for Lucky2013_71:

(Start: 54 @46723 has 66 MA's), (Start: 55 @46711 has 2 MA's), (71, 46627), (74, 46609), (88, 46531), (93, 46501), (111, 46462), (112, 46459),

Gene: LunaBlu_82 Start: 48900, Stop: 49268, Start Num: 53

Candidate Starts for LunaBlu_82:

(Start: 53 @48900 has 149 MA's), (Start: 55 @48915 has 2 MA's), (88, 49050), (90, 49080), (104, 49119), (106, 49122), (157, 49245),

Gene: Maby2021_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Maby2021_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Manda_46 Start: 36625, Stop: 36245, Start Num: 51

Candidate Starts for Manda_46:

(45, 36646), (Start: 48 @36634 has 1 MA's), (Start: 51 @36625 has 3 MA's), (Start: 55 @36613 has 2 MA's), (88, 36493), (112, 36406), (114, 36400), (150, 36313), (158, 36274),

Gene: Mangeria_6 Start: 1759, Stop: 2133, Start Num: 50
Candidate Starts for Mangeria_6:
(Start: 50 @1759 has 4 MA's), (59, 1798), (74, 1843), (88, 1906), (119, 2008),

Gene: Mantra_76 Start: 47820, Stop: 48170, Start Num: 52
Candidate Starts for Mantra_76:
(28, 47724), (Start: 52 @47820 has 52 MA's), (Start: 55 @47835 has 2 MA's), (88, 47955),

Gene: Marker_91 Start: 50605, Stop: 50967, Start Num: 54
Candidate Starts for Marker_91:
(16, 50431), (17, 50440), (20, 50452), (22, 50464), (43, 50575), (47, 50584), (Start: 54 @50605 has 66 MA's), (Start: 55 @50617 has 2 MA's), (77, 50695), (83, 50719), (88, 50761),

Gene: Martik_80 Start: 50276, Stop: 50662, Start Num: 52
Candidate Starts for Martik_80:
(Start: 52 @50276 has 52 MA's), (Start: 55 @50291 has 2 MA's), (73, 50351), (85, 50423), (88, 50456), (158, 50633),

Gene: Matsumoto_13 Start: 3970, Stop: 4335, Start Num: 53
Candidate Starts for Matsumoto_13:
(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: McGee_13 Start: 3968, Stop: 4333, Start Num: 53
Candidate Starts for McGee_13:
(Start: 53 @3968 has 149 MA's), (Start: 55 @3983 has 2 MA's), (88, 4118), (111, 4196), (115, 4208), (117, 4211), (158, 4304),

Gene: McWolfish_14 Start: 5050, Stop: 5400, Start Num: 53
Candidate Starts for McWolfish_14:
(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Medindi_83 Start: 49245, Stop: 49694, Start Num: 39
Candidate Starts for Medindi_83:
(39, 49245), (41, 49257), (81, 49407), (88, 49464), (115, 49560), (149, 49626), (156, 49650), (158, 49671),

Gene: Megamind_14 Start: 5050, Stop: 5400, Start Num: 53
Candidate Starts for Megamind_14:
(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Melpomini_13 Start: 3949, Stop: 4314, Start Num: 53
Candidate Starts for Melpomini_13:
(Start: 53 @3949 has 149 MA's), (Start: 55 @3964 has 2 MA's), (88, 4099), (111, 4177), (115, 4189), (117, 4192), (158, 4285),

Gene: MiaZeal_74 Start: 47379, Stop: 46963, Start Num: 54
Candidate Starts for MiaZeal_74:
(Start: 54 @47379 has 66 MA's), (Start: 55 @47367 has 2 MA's), (71, 47283), (74, 47265), (88, 47187), (93, 47157), (111, 47118), (112, 47115),

Gene: MikeLiesIn_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for MikeLiesIn_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Mikro_6 Start: 2758, Stop: 3150, Start Num: 54

Candidate Starts for Mikro_6:

(Start: 54 @2758 has 66 MA's), (Start: 55 @2770 has 2 MA's), (65, 2818), (67, 2824), (80, 2887), (88, 2941), (111, 3019), (115, 3031), (117, 3034),

Gene: MinionDave_75 Start: 47890, Stop: 48285, Start Num: 54

Candidate Starts for MinionDave_75:

(Start: 54 @47890 has 66 MA's), (Start: 55 @47902 has 2 MA's), (88, 48037), (108, 48115), (127, 48166), (142, 48190), (148, 48208), (153, 48223), (159, 48262),

Gene: Minnie_76 Start: 50008, Stop: 50400, Start Num: 52

Candidate Starts for Minnie_76:

(Start: 52 @50008 has 52 MA's), (Start: 55 @50023 has 2 MA's), (89, 50161), (112, 50245), (114, 50251), (122, 50275), (150, 50338), (158, 50377),

Gene: MisterCuddles_76 Start: 48247, Stop: 48597, Start Num: 52

Candidate Starts for MisterCuddles_76:

(Start: 52 @48247 has 52 MA's), (Start: 55 @48262 has 2 MA's), (88, 48382),

Gene: MoMoMixon_5 Start: 1605, Stop: 1997, Start Num: 54

Candidate Starts for MoMoMixon_5:

(Start: 54 @1605 has 66 MA's), (Start: 55 @1617 has 2 MA's), (65, 1665), (67, 1671), (80, 1734), (88, 1788), (111, 1866), (115, 1878), (117, 1881),

Gene: Momo_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Momo_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Morizzled23_13 Start: 3949, Stop: 4314, Start Num: 53

Candidate Starts for Morizzled23_13:

(Start: 53 @3949 has 149 MA's), (Start: 55 @3964 has 2 MA's), (88, 4099), (111, 4177), (115, 4189), (117, 4192), (158, 4285),

Gene: MosMoris_9 Start: 2524, Stop: 2901, Start Num: 53

Candidate Starts for MosMoris_9:

(Start: 53 @2524 has 149 MA's), (Start: 55 @2539 has 2 MA's), (88, 2674), (91, 2707), (99, 2728), (130, 2794), (158, 2878),

Gene: Mwanjiwa_82 Start: 49238, Stop: 49618, Start Num: 52

Candidate Starts for Mwanjiwa_82:

(Start: 52 @49238 has 52 MA's), (Start: 55 @49253 has 2 MA's), (88, 49373), (108, 49451), (129, 49502), (142, 49526), (148, 49544), (153, 49559), (158, 49595),

Gene: Naija_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Naija_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Napoleon13_13 Start: 3968, Stop: 4333, Start Num: 53

Candidate Starts for Napoleon13_13:

(Start: 53 @3968 has 149 MA's), (Start: 55 @3983 has 2 MA's), (88, 4118), (111, 4196), (115, 4208), (117, 4211), (158, 4304),

Gene: Nappy_6 Start: 1987, Stop: 2343, Start Num: 60

Candidate Starts for Nappy_6:

(Start: 60 @1987 has 16 MA's), (68, 2026), (79, 2071), (88, 2134), (111, 2212), (115, 2224), (117, 2227),

Gene: NedWong_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for NedWong_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Ngannou_13 Start: 3949, Stop: 4314, Start Num: 53

Candidate Starts for Ngannou_13:

(Start: 53 @3949 has 149 MA's), (Start: 55 @3964 has 2 MA's), (88, 4099), (111, 4177), (115, 4189), (117, 4192), (158, 4285),

Gene: Nidhogg_5 Start: 1605, Stop: 1997, Start Num: 54

Candidate Starts for Nidhogg_5:

(Start: 54 @1605 has 66 MA's), (Start: 55 @1617 has 2 MA's), (65, 1665), (67, 1671), (80, 1734), (88, 1788), (111, 1866), (115, 1878), (117, 1881),

Gene: NihilNomen_74 Start: 51071, Stop: 50655, Start Num: 54

Candidate Starts for NihilNomen_74:

(Start: 54 @51071 has 66 MA's), (Start: 55 @51059 has 2 MA's), (71, 50975), (74, 50957), (88, 50879), (93, 50849), (111, 50810), (112, 50807),

Gene: Nitzel_73 Start: 45555, Stop: 45947, Start Num: 52

Candidate Starts for Nitzel_73:

(Start: 52 @45555 has 52 MA's), (Start: 55 @45570 has 2 MA's), (88, 45705), (112, 45792), (114, 45798), (122, 45822), (150, 45885), (158, 45924),

Gene: NonchalantPear_45 Start: 35570, Stop: 35184, Start Num: 46

Candidate Starts for NonchalantPear_45:

(6, 35774), (21, 35690), (Start: 46 @35570 has 1 MA's), (Start: 54 @35546 has 66 MA's), (Start: 55 @35534 has 2 MA's), (88, 35414), (95, 35360), (101, 35351), (119, 35303), (122, 35297), (146, 35261), (151, 35243), (158, 35207),

Gene: NoodleTree_6 Start: 1759, Stop: 2151, Start Num: 54

Candidate Starts for NoodleTree_6:

(Start: 54 @1759 has 66 MA's), (Start: 55 @1771 has 2 MA's), (65, 1819), (67, 1825), (80, 1888), (88, 1942), (111, 2020), (115, 2032), (117, 2035),

Gene: Norm_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Norm_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: NormanBulbieJr_80 Start: 49599, Stop: 49982, Start Num: 54

Candidate Starts for NormanBulbieJr_80:

(16, 49425), (17, 49434), (22, 49458), (26, 49476), (43, 49569), (47, 49578), (Start: 54 @49599 has 66 MA's), (96, 49785), (111, 49815), (123, 49851), (145, 49902),

Gene: NuevoMundo_7 Start: 2137, Stop: 2493, Start Num: 60

Candidate Starts for NuevoMundo_7:

(Start: 60 @2137 has 16 MA's), (63, 2149), (68, 2176), (79, 2221), (88, 2284), (111, 2362), (115, 2374), (117, 2377),

Gene: Odette_72 Start: 50114, Stop: 49698, Start Num: 54

Candidate Starts for Odette_72:

(Start: 54 @50114 has 66 MA's), (Start: 55 @50102 has 2 MA's), (71, 50018), (74, 50000), (88, 49922), (93, 49892), (111, 49853), (112, 49850),

Gene: Ogotogo_85 Start: 48076, Stop: 48471, Start Num: 54

Candidate Starts for Ogotogo_85:

(32, 48034), (Start: 54 @48076 has 66 MA's), (Start: 55 @48088 has 2 MA's), (88, 48244), (91, 48277), (99, 48298), (130, 48364), (158, 48448),

Gene: OlympiaSaint_79 Start: 48822, Stop: 49202, Start Num: 52

Candidate Starts for OlympiaSaint_79:

(Start: 52 @48822 has 52 MA's), (Start: 55 @48837 has 2 MA's), (88, 48993), (111, 49071), (115, 49083), (117, 49086), (158, 49179),

Gene: Ovechkin_81 Start: 48812, Stop: 49225, Start Num: 52

Candidate Starts for Ovechkin_81:

(Start: 52 @48812 has 52 MA's), (Start: 55 @48827 has 2 MA's), (73, 48887), (85, 48959), (88, 48992), (115, 49088), (149, 49154), (156, 49178),

Gene: ParkTD_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for ParkTD_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Patter_13 Start: 4002, Stop: 4352, Start Num: 55

Candidate Starts for Patter_13:

(Start: 53 @3987 has 149 MA's), (Start: 55 @4002 has 2 MA's), (88, 4137), (111, 4215), (115, 4227), (117, 4230), (158, 4323),

Gene: Peterson_79 Start: 49024, Stop: 48623, Start Num: 40

Candidate Starts for Peterson_79:

(Start: 40 @49024 has 1 MA's), (42, 49012), (57, 48949), (64, 48940), (88, 48847), (93, 48805), (146, 48709), (158, 48652),

Gene: Phanphagia_77 Start: 48265, Stop: 48633, Start Num: 52

Candidate Starts for Phanphagia_77:

(Start: 52 @48265 has 52 MA's), (Start: 55 @48280 has 2 MA's), (88, 48400), (105, 48469), (116, 48490), (145, 48550), (158, 48607),

Gene: PharkleMinkus_8 Start: 2465, Stop: 2821, Start Num: 60

Candidate Starts for PharkleMinkus_8:

(Start: 60 @2465 has 16 MA's), (63, 2477), (68, 2504), (79, 2549), (88, 2612), (111, 2690), (115, 2702), (117, 2705),

Gene: PherrisBueller_78 Start: 45810, Stop: 45409, Start Num: 54
Candidate Starts for PherrisBueller_78:
(Start: 54 @45810 has 66 MA's), (88, 45618), (111, 45540), (115, 45528), (117, 45525), (158, 45432),

Gene: PhesterPhotato_82 Start: 48233, Stop: 48610, Start Num: 52
Candidate Starts for PhesterPhotato_82:
(Start: 52 @48233 has 52 MA's), (Start: 55 @48248 has 2 MA's), (88, 48383), (112, 48470), (114, 48476), (122, 48500),

Gene: Philus_82 Start: 50521, Stop: 50901, Start Num: 52
Candidate Starts for Philus_82:
(Start: 52 @50521 has 52 MA's), (Start: 55 @50536 has 2 MA's), (88, 50692), (111, 50770), (115, 50782), (117, 50785), (158, 50878),

Gene: Phlegm_14 Start: 3970, Stop: 4335, Start Num: 53
Candidate Starts for Phlegm_14:
(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Phoebus_76 Start: 52253, Stop: 51837, Start Num: 54
Candidate Starts for Phoebus_76:
(Start: 54 @52253 has 66 MA's), (Start: 55 @52241 has 2 MA's), (71, 52157), (74, 52139), (88, 52061), (93, 52031), (111, 51992), (112, 51989),

Gene: Phox_14 Start: 5699, Stop: 6049, Start Num: 53
Candidate Starts for Phox_14:
(Start: 53 @5699 has 149 MA's), (Start: 55 @5714 has 2 MA's), (88, 5834), (111, 5912), (115, 5924), (117, 5927), (158, 6020),

Gene: Phusco_13 Start: 3966, Stop: 4331, Start Num: 53
Candidate Starts for Phusco_13:
(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Pier_7 Start: 2140, Stop: 2496, Start Num: 60
Candidate Starts for Pier_7:
(Start: 60 @2140 has 16 MA's), (63, 2152), (68, 2179), (79, 2224), (88, 2287), (111, 2365), (115, 2377), (117, 2380),

Gene: Pinkcreek_9 Start: 4088, Stop: 4453, Start Num: 53
Candidate Starts for Pinkcreek_9:
(Start: 53 @4088 has 149 MA's), (Start: 55 @4103 has 2 MA's), (88, 4238), (111, 4316), (115, 4328), (117, 4331), (158, 4424),

Gene: Pio_6 Start: 1759, Stop: 2151, Start Num: 54
Candidate Starts for Pio_6:
(Start: 54 @1759 has 66 MA's), (Start: 55 @1771 has 2 MA's), (65, 1819), (67, 1825), (80, 1888), (88, 1942), (111, 2020), (115, 2032), (117, 2035),

Gene: Pippy_75 Start: 47171, Stop: 47551, Start Num: 52
Candidate Starts for Pippy_75:

(Start: 52 @47171 has 52 MA's), (Start: 55 @47186 has 2 MA's), (73, 47246), (85, 47318), (88, 47351), (158, 47528),

Gene: Pivoine_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Pivoine_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Pleione_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Pleione_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Porcelain_73 Start: 47379, Stop: 46963, Start Num: 54

Candidate Starts for Porcelain_73:

(Start: 54 @47379 has 66 MA's), (Start: 55 @47367 has 2 MA's), (71, 47283), (74, 47265), (88, 47187), (93, 47157), (111, 47118), (112, 47115),

Gene: Priscilla_82 Start: 49697, Stop: 50080, Start Num: 54

Candidate Starts for Priscilla_82:

(16, 49523), (17, 49532), (22, 49556), (26, 49574), (43, 49667), (47, 49676), (Start: 54 @49697 has 66 MA's), (96, 49883), (111, 49913), (123, 49949), (145, 50000),

Gene: Puppet_75 Start: 48323, Stop: 47952, Start Num: 54

Candidate Starts for Puppet_75:

(Start: 54 @48323 has 66 MA's), (Start: 55 @48311 has 2 MA's), (61, 48275), (76, 48233), (83, 48209), (88, 48167), (115, 48077), (117, 48074), (154, 48011), (161, 47975),

Gene: PurduePete_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for PurduePete_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: QBert_6 Start: 2762, Stop: 3154, Start Num: 54

Candidate Starts for QBert_6:

(Start: 54 @2762 has 66 MA's), (Start: 55 @2774 has 2 MA's), (65, 2822), (67, 2828), (80, 2891), (88, 2945), (111, 3023), (115, 3035), (117, 3038),

Gene: Quasimodo_13 Start: 4969, Stop: 5334, Start Num: 53

Candidate Starts for Quasimodo_13:

(Start: 53 @4969 has 149 MA's), (Start: 55 @4984 has 2 MA's), (88, 5119), (111, 5197), (115, 5209), (117, 5212), (158, 5305),

Gene: Rabinovish_12 Start: 4755, Stop: 5105, Start Num: 53

Candidate Starts for Rabinovish_12:

(Start: 53 @4755 has 149 MA's), (Start: 55 @4770 has 2 MA's), (88, 4890), (111, 4968), (115, 4980), (117, 4983), (158, 5076),

Gene: Radiance_78 Start: 48851, Stop: 49231, Start Num: 52

Candidate Starts for Radiance_78:

(Start: 52 @48851 has 52 MA's), (Start: 55 @48866 has 2 MA's), (73, 48926), (85, 48998), (88, 49031), (158, 49208),

Gene: Rahel_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Rahel_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Raid_78 Start: 47398, Stop: 46961, Start Num: 54

Candidate Starts for Raid_78:

(Start: 54 @47398 has 66 MA's), (Start: 55 @47386 has 2 MA's), (71, 47302), (88, 47206), (108, 47128), (127, 47077), (142, 47053), (148, 47035), (153, 47020), (159, 46984),

Gene: Ramsey_83 Start: 50333, Stop: 50683, Start Num: 53

Candidate Starts for Ramsey_83:

(Start: 53 @50333 has 149 MA's), (Start: 55 @50348 has 2 MA's), (88, 50483), (157, 50660),

Gene: RedBird_81 Start: 50091, Stop: 50441, Start Num: 53

Candidate Starts for RedBird_81:

(Start: 53 @50091 has 149 MA's), (Start: 55 @50106 has 2 MA's), (88, 50241), (157, 50418),

Gene: RedRaider77_8 Start: 2530, Stop: 2889, Start Num: 53

Candidate Starts for RedRaider77_8:

(Start: 53 @2530 has 149 MA's), (Start: 55 @2545 has 2 MA's), (88, 2680), (111, 2758), (115, 2770), (117, 2773), (158, 2866), (163, 2884),

Gene: Redno2_70 Start: 47867, Stop: 47451, Start Num: 54

Candidate Starts for Redno2_70:

(Start: 54 @47867 has 66 MA's), (Start: 55 @47855 has 2 MA's), (71, 47771), (74, 47753), (88, 47675), (93, 47645), (111, 47606), (112, 47603),

Gene: Renaud18_89 Start: 49475, Stop: 49831, Start Num: 52

Candidate Starts for Renaud18_89:

(19, 49322), (23, 49337), (Start: 52 @49475 has 52 MA's), (Start: 55 @49490 has 2 MA's), (88, 49610), (109, 49670), (114, 49685), (125, 49709), (129, 49715), (148, 49748), (158, 49802),

Gene: Rizal_13 Start: 3965, Stop: 4330, Start Num: 53

Candidate Starts for Rizal_13:

(Start: 53 @3965 has 149 MA's), (Start: 55 @3980 has 2 MA's), (88, 4115), (111, 4193), (115, 4205), (117, 4208), (158, 4301),

Gene: Roots515_14 Start: 5049, Stop: 5399, Start Num: 53

Candidate Starts for Roots515_14:

(Start: 53 @5049 has 149 MA's), (Start: 55 @5064 has 2 MA's), (88, 5184), (111, 5262), (115, 5274), (117, 5277), (158, 5370),

Gene: Ruby_73 Start: 48248, Stop: 48598, Start Num: 52

Candidate Starts for Ruby_73:

(Start: 52 @48248 has 52 MA's), (Start: 55 @48263 has 2 MA's), (88, 48383),

Gene: SVoro_14 Start: 5044, Stop: 5394, Start Num: 53

Candidate Starts for SVoro_14:

(Start: 53 @5044 has 149 MA's), (Start: 55 @5059 has 2 MA's), (88, 5179), (111, 5257), (115, 5269), (117, 5272), (158, 5365),

Gene: Salacia_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Salacia_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Sandalphon_74 Start: 47993, Stop: 48385, Start Num: 52

Candidate Starts for Sandalphon_74:

(Start: 52 @47993 has 52 MA's), (Start: 55 @48008 has 2 MA's), (89, 48146), (112, 48230), (114, 48236), (122, 48260), (150, 48323), (158, 48362),

Gene: Saskia_69 Start: 41717, Stop: 41358, Start Num: 50

Candidate Starts for Saskia_69:

(31, 41786), (38, 41762), (Start: 50 @41717 has 4 MA's), (Start: 55 @41705 has 2 MA's), (88, 41585), (114, 41501), (117, 41495), (118, 41492), (154, 41408),

Gene: Sassafras_81 Start: 48408, Stop: 48758, Start Num: 53

Candidate Starts for Sassafras_81:

(Start: 53 @48408 has 149 MA's), (Start: 55 @48423 has 2 MA's), (88, 48558), (157, 48735),

Gene: Sauce_5 Start: 1609, Stop: 2001, Start Num: 54

Candidate Starts for Sauce_5:

(Start: 54 @1609 has 66 MA's), (Start: 55 @1621 has 2 MA's), (65, 1669), (67, 1675), (80, 1738), (88, 1792), (111, 1870), (115, 1882), (117, 1885),

Gene: Schatzie_68 Start: 49861, Stop: 49445, Start Num: 54

Candidate Starts for Schatzie_68:

(Start: 54 @49861 has 66 MA's), (Start: 55 @49849 has 2 MA's), (71, 49765), (74, 49747), (88, 49669), (93, 49639), (111, 49600), (112, 49597),

Gene: ScottMcG_15 Start: 5206, Stop: 5562, Start Num: 52

Candidate Starts for ScottMcG_15:

(Start: 52 @5206 has 52 MA's), (Start: 55 @5221 has 2 MA's), (88, 5341), (156, 5512), (158, 5533),

Gene: ScottMcG_5 Start: 1605, Stop: 1997, Start Num: 54

Candidate Starts for ScottMcG_5:

(Start: 54 @1605 has 66 MA's), (Start: 55 @1617 has 2 MA's), (65, 1665), (67, 1671), (80, 1734), (88, 1788), (111, 1866), (115, 1878), (117, 1881),

Gene: Sebata_7 Start: 2992, Stop: 3348, Start Num: 60

Candidate Starts for Sebata_7:

(49, 2941), (Start: 60 @2992 has 16 MA's), (63, 3004), (68, 3031), (79, 3076), (88, 3139), (111, 3217), (115, 3229), (117, 3232),

Gene: Shaboozey_67 Start: 45344, Stop: 44943, Start Num: 54

Candidate Starts for Shaboozey_67:

(Start: 54 @45344 has 66 MA's), (Start: 55 @45332 has 2 MA's), (72, 45248), (75, 45230), (88, 45152), (111, 45074), (115, 45062), (117, 45059), (158, 44966),

Gene: Shauna1_78 Start: 48515, Stop: 48883, Start Num: 52

Candidate Starts for Shauna1_78:

(Start: 52 @48515 has 52 MA's), (Start: 55 @48530 has 2 MA's), (88, 48650), (105, 48719), (116, 48740), (145, 48800), (158, 48857),

Gene: Shelob_17 Start: 6224, Stop: 6574, Start Num: 53

Candidate Starts for Shelob_17:

(Start: 53 @6224 has 149 MA's), (Start: 55 @6239 has 2 MA's), (88, 6359), (111, 6437), (115, 6449), (117, 6452), (158, 6545),

Gene: ShiaLabeouf_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for ShiaLabeouf_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Shifa_10 Start: 4323, Stop: 4688, Start Num: 53

Candidate Starts for Shifa_10:

(Start: 53 @4323 has 149 MA's), (Start: 55 @4338 has 2 MA's), (88, 4473), (111, 4551), (115, 4563), (117, 4566), (158, 4659),

Gene: Shnickers_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Shnickers_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Shrimp_14 Start: 5054, Stop: 5404, Start Num: 53

Candidate Starts for Shrimp_14:

(Start: 53 @5054 has 149 MA's), (Start: 55 @5069 has 2 MA's), (88, 5189), (111, 5267), (115, 5279), (117, 5282), (158, 5375),

Gene: ShroomBoi_80 Start: 48740, Stop: 49138, Start Num: 52

Candidate Starts for ShroomBoi_80:

(Start: 52 @48740 has 52 MA's), (Start: 55 @48755 has 2 MA's), (88, 48911), (112, 48998), (114, 49004), (122, 49028),

Gene: SiSi_75 Start: 47345, Stop: 47695, Start Num: 52

Candidate Starts for SiSi_75:

(Start: 52 @47345 has 52 MA's), (Start: 55 @47360 has 2 MA's), (88, 47480),

Gene: SilverDipper_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for SilverDipper_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: SimranZ1_79 Start: 47570, Stop: 47956, Start Num: 52

Candidate Starts for SimranZ1_79:

(Start: 52 @47570 has 52 MA's), (Start: 55 @47585 has 2 MA's), (73, 47645), (85, 47717), (88, 47750), (126, 47852), (141, 47873), (152, 47897),

Gene: SkiPole_69 Start: 42424, Stop: 42029, Start Num: 54

Candidate Starts for SkiPole_69:

(9, 42634), (13, 42625), (33, 42481), (35, 42478), (Start: 54 @42424 has 66 MA's), (88, 42256), (91, 42223), (99, 42202), (130, 42136), (158, 42052),

Gene: SmallFry_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for SmallFry_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Soul22_81 Start: 46673, Stop: 47050, Start Num: 52

Candidate Starts for Soul22_81:

(Start: 52 @46673 has 52 MA's), (Start: 55 @46688 has 2 MA's), (88, 46808), (112, 46895), (114, 46901), (122, 46925), (150, 46988), (158, 47027),

Gene: Spartacus_85 Start: 51000, Stop: 51356, Start Num: 54

Candidate Starts for Spartacus_85:

(3, 50706), (4, 50739), (16, 50826), (17, 50835), (22, 50859), (26, 50877), (43, 50970), (47, 50979), (Start: 54 @51000 has 66 MA's), (59, 51039), (78, 51084), (88, 51147), (91, 51180), (92, 51183), (121, 51234), (124, 51240), (140, 51276), (143, 51285),

Gene: Specks_8 Start: 2464, Stop: 2820, Start Num: 60

Candidate Starts for Specks_8:

(Start: 60 @2464 has 16 MA's), (63, 2476), (68, 2503), (79, 2548), (88, 2611), (111, 2689), (115, 2701), (117, 2704),

Gene: Sprinklers_13 Start: 4140, Stop: 4490, Start Num: 53

Candidate Starts for Sprinklers_13:

(Start: 53 @4140 has 149 MA's), (Start: 55 @4155 has 2 MA's), (88, 4275), (111, 4353), (115, 4365), (117, 4368), (158, 4461),

Gene: Spud_6 Start: 1759, Stop: 2151, Start Num: 54

Candidate Starts for Spud_6:

(Start: 54 @1759 has 66 MA's), (Start: 55 @1771 has 2 MA's), (65, 1819), (67, 1825), (80, 1888), (88, 1942), (111, 2020), (115, 2032), (117, 2035),

Gene: Squint_74 Start: 47498, Stop: 47082, Start Num: 54

Candidate Starts for Squint_74:

(Start: 54 @47498 has 66 MA's), (Start: 55 @47486 has 2 MA's), (71, 47402), (74, 47384), (88, 47306), (93, 47276), (111, 47237), (112, 47234),

Gene: SrishMeg2525_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for SrishMeg2525_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: StephanieG_7 Start: 2140, Stop: 2496, Start Num: 60

Candidate Starts for StephanieG_7:

(Start: 60 @2140 has 16 MA's), (63, 2152), (68, 2179), (79, 2224), (88, 2287), (111, 2365), (115, 2377), (117, 2380),

Gene: Stubby_14 Start: 5456, Stop: 5821, Start Num: 53

Candidate Starts for Stubby_14:

(Start: 53 @5456 has 149 MA's), (Start: 55 @5471 has 2 MA's), (88, 5606), (111, 5684), (115, 5696), (117, 5699), (158, 5792),

Gene: StubbySaigey_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for StubbySaigey_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Substance289_12 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Substance289_12:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: SuperGrey_79 Start: 50245, Stop: 50601, Start Num: 53

Candidate Starts for SuperGrey_79:

(Start: 53 @50245 has 149 MA's), (Start: 55 @50260 has 2 MA's), (88, 50395), (157, 50572),

Gene: Superphikiman_71 Start: 46589, Stop: 46173, Start Num: 54

Candidate Starts for Superphikiman_71:

(Start: 54 @46589 has 66 MA's), (Start: 55 @46577 has 2 MA's), (71, 46493), (74, 46475), (88, 46397), (93, 46367), (111, 46328), (112, 46325),

Gene: Target_63 Start: 40851, Stop: 40456, Start Num: 54

Candidate Starts for Target_63:

(13, 41052), (33, 40908), (35, 40905), (Start: 54 @40851 has 66 MA's), (Start: 55 @40839 has 2 MA's), (88, 40683), (91, 40650), (99, 40629), (130, 40563), (158, 40479),

Gene: Teardrop_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Teardrop_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Teodoridan_77 Start: 45969, Stop: 45598, Start Num: 54

Candidate Starts for Teodoridan_77:

(Start: 54 @45969 has 66 MA's), (Start: 55 @45957 has 2 MA's), (61, 45921), (76, 45879), (83, 45855), (88, 45813), (115, 45723), (117, 45720), (154, 45657), (161, 45621),

Gene: TheloniousMonk_64 Start: 43165, Stop: 42755, Start Num: 54

Candidate Starts for TheloniousMonk_64:

(34, 43222), (36, 43219), (Start: 54 @43165 has 66 MA's), (63, 43108), (71, 43069), (88, 42973),

Gene: TinyTim_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for TinyTim_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Tonenili_20 Start: 6077, Stop: 6418, Start Num: 53

Candidate Starts for Tonenili_20:

(Start: 53 @6077 has 149 MA's), (Start: 54 @6080 has 66 MA's), (Start: 55 @6092 has 2 MA's), (59, 6119), (62, 6128), (77, 6170), (83, 6194), (88, 6236), (103, 6287), (136, 6329),

Gene: Tootsieroll_77 Start: 49368, Stop: 49754, Start Num: 53

Candidate Starts for Tootsieroll_77:

(Start: 53 @49368 has 149 MA's), (Start: 55 @49383 has 2 MA's), (88, 49518), (100, 49584), (114, 49617), (117, 49623), (132, 49659), (147, 49668), (162, 49734),

Gene: Tortoise16_12 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Tortoise16_12:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Trinitium_13 Start: 3966, Stop: 4331, Start Num: 53

Candidate Starts for Trinitium_13:

(Start: 53 @3966 has 149 MA's), (Start: 55 @3981 has 2 MA's), (88, 4116), (111, 4194), (115, 4206), (117, 4209), (158, 4302),

Gene: Tripl3t_83 Start: 50856, Stop: 50458, Start Num: 54

Candidate Starts for Tripl3t_83:

(Start: 54 @50856 has 66 MA's), (88, 50664), (97, 50613), (110, 50589), (120, 50562), (158, 50481),

Gene: Turret_13 Start: 3949, Stop: 4314, Start Num: 53

Candidate Starts for Turret_13:

(Start: 53 @3949 has 149 MA's), (Start: 55 @3964 has 2 MA's), (88, 4099), (111, 4177), (115, 4189), (117, 4192), (158, 4285),

Gene: Tweety_79 Start: 48958, Stop: 49341, Start Num: 52

Candidate Starts for Tweety_79:

(Start: 52 @48958 has 52 MA's), (Start: 55 @48973 has 2 MA's), (88, 49093), (112, 49180), (114, 49186), (122, 49210), (158, 49312),

Gene: Tyke_8 Start: 2464, Stop: 2820, Start Num: 60

Candidate Starts for Tyke_8:

(Start: 60 @2464 has 16 MA's), (63, 2476), (68, 2503), (79, 2548), (88, 2611), (111, 2689), (115, 2701), (117, 2704),

Gene: Ukulele_42 Start: 35251, Stop: 34865, Start Num: 46

Candidate Starts for Ukulele_42:

(6, 35455), (21, 35371), (Start: 46 @35251 has 1 MA's), (Start: 54 @35227 has 66 MA's), (Start: 55 @35215 has 2 MA's), (88, 35095), (95, 35041), (101, 35032), (119, 34984), (122, 34978), (146, 34942), (151, 34924), (158, 34888),

Gene: ValleyTerrace_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for ValleyTerrace_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Veteran_71 Start: 47213, Stop: 47563, Start Num: 52

Candidate Starts for Veteran_71:

(Start: 52 @47213 has 52 MA's), (Start: 55 @47228 has 2 MA's), (88, 47348),

Gene: Wachhund_78 Start: 45999, Stop: 46379, Start Num: 53

Candidate Starts for Wachhund_78:

(Start: 53 @45999 has 149 MA's), (Start: 55 @46014 has 2 MA's), (88, 46149), (95, 46203), (101, 46212), (121, 46260), (131, 46278), (147, 46302), (152, 46320),

Gene: Wally_13 Start: 3970, Stop: 4335, Start Num: 53

Candidate Starts for Wally_13:

(Start: 53 @3970 has 149 MA's), (Start: 55 @3985 has 2 MA's), (88, 4120), (111, 4198), (115, 4210), (117, 4213), (158, 4306),

Gene: Whouxphf_84 Start: 50087, Stop: 50422, Start Num: 54

Candidate Starts for Whouxphf_84:

(1, 49742), (2, 49760), (3, 49793), (4, 49826), (16, 49913), (17, 49922), (20, 49934), (22, 49946), (24, 49955), (26, 49964), (43, 50057), (47, 50066), (Start: 54 @50087 has 66 MA's), (84, 50186), (88, 50219), (94, 50261), (137, 50327),

Gene: WillSterrel_78 Start: 48814, Stop: 49227, Start Num: 52

Candidate Starts for WillSterrel_78:

(Start: 52 @48814 has 52 MA's), (Start: 55 @48829 has 2 MA's), (88, 48985), (112, 49072), (114, 49078), (122, 49102), (150, 49165), (158, 49204),

Gene: Willis_14 Start: 4975, Stop: 5340, Start Num: 53

Candidate Starts for Willis_14:

(Start: 53 @4975 has 149 MA's), (Start: 55 @4990 has 2 MA's), (88, 5125), (111, 5203), (115, 5215), (117, 5218), (158, 5311),

Gene: XFactor_74 Start: 47423, Stop: 47782, Start Num: 52

Candidate Starts for XFactor_74:

(Start: 52 @47423 has 52 MA's), (Start: 55 @47438 has 2 MA's), (88, 47558), (93, 47600), (146, 47696), (158, 47753),

Gene: Yassified_13 Start: 4163, Stop: 4537, Start Num: 53

Candidate Starts for Yassified_13:

(Start: 53 @4163 has 149 MA's), (Start: 55 @4178 has 2 MA's), (56, 4187), (61, 4214), (76, 4256), (83, 4280), (88, 4322), (115, 4412), (117, 4415), (158, 4508),

Gene: YemiJoy2021_14 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for YemiJoy2021_14:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: YoungMoneyMata_13 Start: 3968, Stop: 4333, Start Num: 53

Candidate Starts for YoungMoneyMata_13:

(Start: 53 @3968 has 149 MA's), (Start: 55 @3983 has 2 MA's), (88, 4118), (111, 4196), (115, 4208), (117, 4211), (158, 4304),

Gene: Yucca_13 Start: 4972, Stop: 5322, Start Num: 53

Candidate Starts for Yucca_13:

(Start: 53 @4972 has 149 MA's), (Start: 55 @4987 has 2 MA's), (88, 5107), (111, 5185), (115, 5197), (117, 5200), (158, 5293),

Gene: Zakhe101_23 Start: 10681, Stop: 11073, Start Num: 50

Candidate Starts for Zakhe101_23:

(Start: 50 @10681 has 4 MA's), (88, 10813), (113, 10897), (133, 10951), (138, 10975), (143, 10987), (146, 10993), (154, 11017), (156, 11032), (158, 11050),

Gene: Zalkecks_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for Zalkecks_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),

Gene: Zapner_87 Start: 47003, Stop: 47359, Start Num: 52

Candidate Starts for Zapner_87:

(Start: 52 @47003 has 52 MA's), (Start: 55 @47018 has 2 MA's), (88, 47138), (156, 47309), (158, 47330),

Gene: Zeenon_16 Start: 5051, Stop: 5401, Start Num: 53

Candidate Starts for Zeenon_16:

(Start: 53 @5051 has 149 MA's), (Start: 55 @5066 has 2 MA's), (88, 5186), (111, 5264), (115, 5276), (117, 5279), (158, 5372),

Gene: Zelink_71 Start: 51457, Stop: 51044, Start Num: 54

Candidate Starts for Zelink_71:

(Start: 54 @51457 has 66 MA's), (Start: 55 @51445 has 2 MA's), (71, 51361), (74, 51343), (88, 51265), (93, 51235), (111, 51196), (112, 51193),

Gene: ZygoTaiga_15 Start: 5050, Stop: 5400, Start Num: 53

Candidate Starts for ZygoTaiga_15:

(Start: 53 @5050 has 149 MA's), (Start: 55 @5065 has 2 MA's), (88, 5185), (111, 5263), (115, 5275), (117, 5278), (158, 5371),