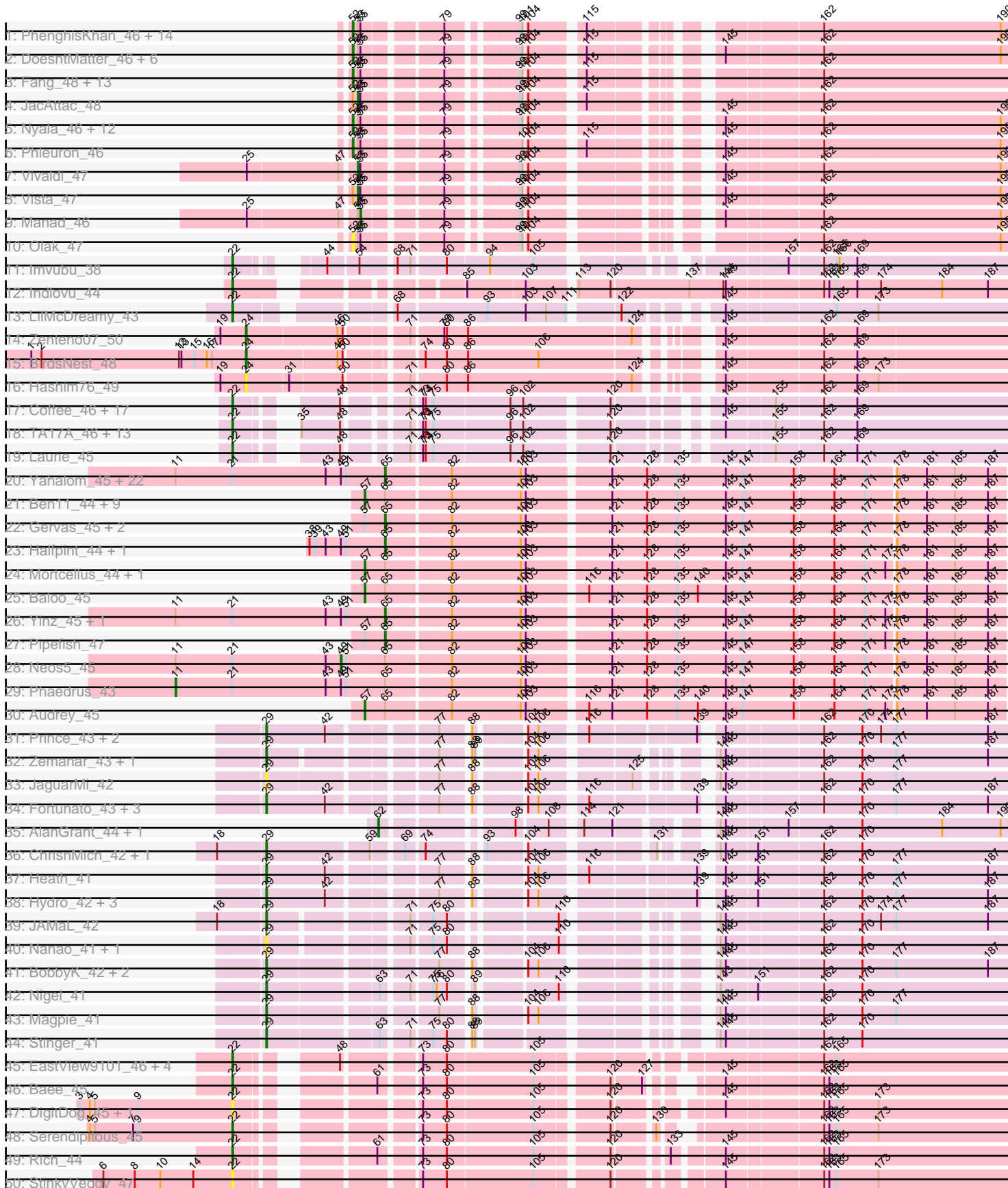


Pham 157500



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 157500 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157500 has 396 members, 50 are drafts.

Phages represented in each track:

- Track 1 : PhenghisKhan_46, Chute_46, PhrankReynolds_45, Colbert_47, Apizium_47, Basato_48, Pipsqueak_47, Hartsy_46, Mcshane_46, Olive_47, OliverWalter_47, Waterdiva_47, Coletti_46, Phergie_46, CheetO_47
- Track 2 : DoesntMatter_46, Orwigg_47, Serpentine_0047, KlimbOn_47, Gyarad_0047, Newman_47, Inverness_47
- Track 3 : Fang_48, Megatron_48, IsaacEli_48, Maskar_47, Nacho_0048, FluffyNinja_48, OSmaximus_48, Chah_49, ThreeOh3D2_48, ImtiyazSitla_47, Ashraf_47, Trypo_48, Kikipoo_48, Sigman_48
- Track 4 : JacAttac_48
- Track 5 : Nyala_46, Oosterbaan_47, Matalotodo_47, Pacifista_49, Giraffe_47, Swiphy_49, Mosaic_46, Selr12_48, Lopsy_46, UncleHowie_47, LeeLot_47, Squid_47, Hertubise_47
- Track 6 : Phleuron_46
- Track 7 : Vivaldi_47
- Track 8 : Vista_47
- Track 9 : Manad_46
- Track 10 : Olak_47
- Track 11 : Imvubu_38
- Track 12 : Indlovu_44
- Track 13 : LilMcDreamy_43
- Track 14 : Zenteno07_50
- Track 15 : BirdsNest_48
- Track 16 : Hashim76_49
- Track 17 : Coffee_46, Tinciduntolum_47, Hedgerow_46, Boyle_46, Eaglehorse_46, Ares_46, FrenchFry_46, Bananafish_46, Tres_46, Sabella_45, Glass_46, Lephleur_46, ItsyBitsy1_46, LizLemon_46, Brownie5_46, West99_46, Rosebush_45, Opia_46
- Track 18 : TA17A_46, Rhinoforte_46, Lars_46, MasterPo_46, Blocker23_46, Holeinone_46, Allegro_46, Kheth_46, Calamitous_46, Faze9_45, Kaleb_46, Phantasmagoria_46, Godines_46, Arbiter_45
- Track 19 : Laurie_45
- Track 20 : Yahalom_45, Nozo_45, Daisy_45, Philly_44, Corofin_45, Heathcliff_45, Chandler_45, Deenasa_45, OrangeOswald_45, Compostia_46, SynergyX_45, Athena_46, Jackstina_42, Phlyer_45, ChaChing_45, Briakila_46, Gadget_46, RagingRooster_45, HarveySr_45, RomaT_45, Akoma_45, GlenHope_46, Tydolla_45
- Track 21 : Ben11_44, Rita1961_45, Obutu_45, Abinghost_45, Devonte_45, Casbah_44, MmasiCarm_45, LestyG_45, Phayeta_46, SlippinJimmy_45

- Track 22 : Gervas_45, Morty007_45, Marley1013_45
- Track 23 : Halfpint_44, Kamiyu_45
- Track 24 : Mortcellus_44, Bernardo_46
- Track 25 : Baloo_45
- Track 26 : Yinz_45, Kronus_44
- Track 27 : Pipefish_47
- Track 28 : Neos5_45
- Track 29 : Phaedrus_43
- Track 30 : Audrey_45
- Track 31 : Prince_43, Apex_43, VioletZ_44
- Track 32 : Zemanar_43, Lolalove_43
- Track 33 : JaguarMi_42
- Track 34 : Fortunato_43, Austelle_43, Mudslide_42, RawrgerThat_43
- Track 35 : AlanGrant_44, Vincenzo_43
- Track 36 : ChrisnMich_42, Cooper_43
- Track 37 : Heath_41
- Track 38 : Hydro_42, Waleliano_42, BrownCNA_44, Hangman_42
- Track 39 : JAMaL_42
- Track 40 : Nanao_41, Poster_41
- Track 41 : BobbyK_42, Frederick_42, Mithril_42
- Track 42 : Nigel_41
- Track 43 : Magpie_41
- Track 44 : Stinger_41
- Track 45 : EastView9101_46, SirJeffery_46, Acadian_46, Donny_46, Suigeneris_46
- Track 46 : Bae_45
- Track 47 : DigitDog_45, Nangang_45
- Track 48 : Serendipitous_45
- Track 49 : Rich_44
- Track 50 : StinkyVeggy_47
- Track 51 : Jolie1_039
- Track 52 : KayaCho_39
- Track 53 : 39HC_039, Hosp_037, 40BC_039
- Track 54 : Thonko_45
- Track 55 : CRB2_48
- Track 56 : Funsized_49
- Track 57 : Knocker_47
- Track 58 : Phox_98, Dietrick_93, Ronan_95, Grungle_89, Janiyra_103, Koguma_98, Babyland_102, Melpomini_95, BackyardAgain_98, StubbySaigey_104, Cali_97, Napoleon13_97, LRRHood_96, EmmaElysia_101, Lukilu_92, Spud_101
- Track 59 : Rizal_97, Astraea_98, Gamgam_101, JPickles_99, LifeSavor_100
- Track 60 : Delylah_104, Littleton_101, Capablanca_103, Kamryn_101, Bigswole_106
- Track 61 : IkeLoa_95, MikeLiesIn_102, Turret_96, Morizzled23_101, DrPhinkDaddy_100, Asterius_98, Izajani_101, Mikro_99, Daffodil_106, Pio_105, Colt_91, ChaylaJr_96, Megamind_100, Blubba_92, DTDevon_102, Grasshills_108, EggyFarm_109, Erdmann_102, Trinitium_98, NedWong_102, Delilah_101, Zeenon_103, Jessibeth14_100, McWolfish_99, ErnieJ_97, Roots515_100, FoxtrotP1_101, Khaleesi_100, Caravan_96, ParkTD_102, Catera_98, YemiJoy2021_102, JustHall_98, Bipolarisk_100, Shelob_103, BigCity_109, EmToTheThree_104, Issimir_100, Shrimp_101, Iota_96, Loanshark_101, I3_107, Bxz1_99, Gizmo_105, Bonray_101, Pier_105, Cane17_90, Norm_102, Shifa_90, StephanieG_100, ZygoTaiga_100, MoMoMixon_102, Dandelion_108, PurduePete_101

- Track 62 : ValleyTerrace_101, Amataga_101, InigoMontoya_102, Derek_101, BadAgartude_97, FrayBell_106, Tortoise16_98, SmallFry_101, Flabslab_95, Ading_101, Atlantean_100, CindyLou_102, Gabriel_102, Shnickers_101, Rahel_100, Guwapp_100, Essence_98, Spec_97, Specks_106, Drazdys_100, Jedediah_104, Ghost_100, Phlegm_103, Chomp_99, Pivoine_100, Adlitam_101, Breeniome_100, Naija_100, Ngannou_97, Audrick_103, Tyke_102, ShiaLabeouf_100, Jemmno_101, Jaygup_101, Phusco_101, Matsumoto_98, InterFolia_109, Bangla1971_102, Latch_101, SilverDipper_102, Teardrop_100, ArcherS7_100, LolaVinca_102, NoodleTree_108, Patter_101, LordLeafolot_105
- Track 63 : Chargie21_98, Yassified_98, Zalkecks_102, Blackbrain_96, Stubby_94, Basquiat_98, Shaqnato_94, JayJay_103, YoungMoneyMata_102, Burrough_101, Yucca_101, Pinkcreek_92, BananaFence_100, Naval22_106, Ewok_102, JulietS_96, Rabinovish_99, Mangeria_101, LinStu_101, EasyJones_104, Salacia_105, Alice_94, DirtMonster_95, NuevoMundo_107, FudgeTart_101, Sebata_103, ScottMcG_98, ET08_90, Sprinklers_97, Wally_100, QBert_95, Cactojaque_96, Bread_101, Fludd_102, Lee7_99, CharlieB_97, BeanWater_93, Sauce_102, Nidhogg_102, Kboogie_105, TinyTim_101, Pleione_104, Darko_101, Quasimodo_102, HyRo_93, ChickenPhender_97, Maby2021_101, SrishMeg2525_100
- Track 64 : Willis_102
- Track 65 : Nappy_104
- Track 66 : McGee_103
- Track 67 : Tonenili_116
- Track 68 : RoMag_96
- Track 69 : Momo_100
- Track 70 : Ava3_102
- Track 71 : Concombre_108
- Track 72 : ScoobyDoobyDoo_226
- Track 73 : Greely_236
- Track 74 : Myrna_229
- Track 75 : Phabba_239
- Track 76 : Trine_54
- Track 77 : Mahdia_50
- Track 78 : Sapo_18
- Track 79 : Archimedes_17
- Track 80 : SCentae_52
- Track 81 : Pupper_52, CherryTomatoes_55
- Track 82 : Sour_45
- Track 83 : Sisko_40, AnClar_41, Yago84_40
- Track 84 : Fresco_40, Ligma_40, Shatter_40, Axumite_40
- Track 85 : Mariokart_40
- Track 86 : LittleMunchkin_42
- Track 87 : BiggityBass_40
- Track 88 : CharlottesWeb_40
- Track 89 : RedWattleHog_178, Stormageddon_179

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

The start number called the most often in the published annotations is 69, it was called in 164 of the 346 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading_101, Adlitam_101, Alice_94, Amataga_101, ArcherS7_100, Asterius_98, Atlantean_100, Audrick_103, Ava3_102, Babyland_102, BackyardAgain_98, BadAgartude_97, BananaFence_100, Bangla1971_102, Basquiat_98, BeanWater_93, BigCity_109, Bigswole_106, Bipolarisk_100, Blackbrain_96, Blubba_92, Bonray_101, Bread_101, Breeniome_100, Burrough_101, Bxz1_99, Cactojaque_96, Cali_97, Cane17_90, Capablanca_103, Caravan_96, Catera_98, Chargie21_98, CharlieB_97, ChaylaJr_96, ChickenPhender_97, Chomp_99, CindyLou_102, Colt_91, Concombre_108, DTDevon_102, Daffodil_106, Dandelion_108, Darko_101, Delilah_101, Delylah_104, Derek_101, Dietrick_93, DirtMonster_95, DrPhinkDaddy_100, Drazdys_100, ET08_90, EasyJones_104, EggyFarm_109, EmToTheThree_104, EmmaElysia_101, Erdmann_102, ErnieJ_97, Essence_98, Ewok_102, Flabslab_95, Fludd_102, FoxtrotP1_101, FrayBell_106, FudgeTart_101, Gabriel_102, Ghost_100, Gizmo_105, Grasshills_108, Grungle_89, Guwapp_100, HyRo_93, I3_107, IkeLoa_95, InigoMontoya_102, InterFolia_109, Iota_96, Issimir_100, Izajani_101, Janiyra_103, JayJay_103, Jaygup_101, Jedediah_104, Jemmno_101, Jessibeth14_100, JulietS_96, JustHall_98, Kamryn_101, Kboogie_105, Khaleesi_100, Koguma_98, LRRHood_96, Latch_101, Lee7_99, LinStu_101, Littleton_101, Loanshark_101, LolaVinca_102, LordLeafolot_105, Lukilu_92, Maby2021_101, Mangeria_101, Matsumoto_98, McGee_103, McWolfish_99, Megamind_100, Melpomini_95, MikeLiesIn_102, Mikro_99, MoMoMixon_102, Momo_100, Morizzled23_101, Myrna_229, Naija_100, Napoleon13_97, Nappy_104, Naval22_106, NedWong_102, Ngannou_97, Nidhogg_102, NoodleTree_108, Norm_102, NuevoMundo_107, ParkTD_102, Patter_101, Phlegm_103, Phox_98, Phusco_101, Pier_105, Pinkcreek_92, Pio_105, Pivoine_100, Pleione_104, PurduePete_101, QBert_95, Quasimodo_102, Rabinovish_99, Rahel_100, RoMag_96, Ronan_95, Roots515_100, Salacia_105, Sauce_102, ScoobyDoobyDoo_226, ScottMcG_98, Sebata_103, Shaqnato_94, Shelob_103, ShiaLabeouf_100, Shifa_90, Shnickers_101, Shrimp_101, SilverDipper_102, SmallFry_101, Spec_97, Specks_106, Sprinklers_97, Spud_101, SrishMeg2525_100, StephanieG_100, StubbySaigey_104, Stubby_94, Teardrop_100, TinyTim_101, Tonenili_116, Tortoise16_98, Trinitium_98, Turret_96, Tyke_102, ValleyTerrace_101, Wally_100, Willis_102, Yassified_98, YemiJoy2021_102, YoungMoneyMata_102, Yucca_101, Zalkecks_102, Zeenon_103, ZygoTaiga_100,

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

- Astraea_98, ChrisnMich_42, Cooper_43, Gamgam_101, JPickles_99, Knocker_47, LifeSavor_100, Rizal_97,

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

- 39HC_039, 40BC_039, Abinghost_45, Acadian_46, Akoma_45, AlanGrant_44, Allegro_46, AnClar_41, Apex_43, Apizium_47, Arbiter_45, Archimedes_17, Ares_46, Ashraf_47, Athena_46, Audrey_45, Austelle_43, Axumite_40, Bae_45, Baloo_45, Bananafish_46, Basato_48, Ben11_44, Bernardo_46, BiggityBass_40, BirdsNest_48, Blocker23_46, BobbyK_42, Boyle_46, Briakila_46, BrownCNA_44, Brownie5_46, CRB2_48, Calamitous_46, Casbah_44, ChaChing_45, Chah_49, Chandler_45, CharlottesWeb_40, CheetO_47, CherryTomatoes_55, Chute_46, Coffee_46, Colbert_47, Coletti_46, Compostia_46, Corofin_45, Daisy_45, Deenasa_45, Devonte_45, DigitDog_45, DoesntMatter_46, Donny_46, Eaglehorse_46, EastView9101_46, Fang_48, Faze9_45, FluffyNinja_48, Fortunato_43, Frederick_42, FrenchFry_46, Fresco_40, Funsized_49, Gadget_46, Gervas_45, Giraffe_47, Glass_46, GlenHope_46, Godines_46, Greely_236, Gyarad_0047, Halfpint_44,

Hangman_42, Hartsy_46, HarveySr_45, Hashim76_49, Heath_41, Heathcliff_45, Hedgerow_46, Hertubise_47, Holeinone_46, Hosp_037, Hydro_42, ImtiyazSitla_47, Imvubu_38, Indlovu_44, Inverness_47, IsaacEli_48, ItsyBitsy1_46, JAMaL_42, JacAttac_48, Jackstina_42, JaguarMi_42, Jolie1_039, Kaleb_46, Kamiyu_45, KayaCho_39, Kheth_46, Kikipoo_48, KlimbOn_47, Kronus_44, Lars_46, Laurie_45, LeeLot_47, Lephleur_46, LestyG_45, Ligma_40, LilMcDreamy_43, LittleMunchkin_42, LizLemon_46, Lolalove_43, Lopsy_46, Magpie_41, Mahdia_50, Manad_46, Mariokart_40, Marley1013_45, Maskar_47, MasterPo_46, Matalotodo_47, Mcshane_46, Megatron_48, Mithril_42, MmasiCarm_45, Mortcellus_44, Morty007_45, Mosaic_46, Mudslide_42, Nacho_0048, Nanao_41, Nangang_45, Neos5_45, Newman_47, Nigel_41, Nozo_45, Nyala_46, OSmaximus_48, Obutu_45, Olak_47, Olive_47, OliverWalter_47, Oosterbaan_47, Opia_46, OrangeOswald_45, Orwigg_47, Pacifista_49, Phabba_239, Phaedrus_43, Phantasmagoria_46, Phayeta_46, PhenghisKhan_46, Phergie_46, Philly_44, Phleuron_46, Phlyer_45, PhrankReynolds_45, Pipefish_47, Pipsqueak_47, Poster_41, Prince_43, Pupper_52, RagingRooster_45, RawrgerThat_43, RedWattleHog_178, Rhinoforte_46, Rich_44, Rita1961_45, RomaT_45, Rosebush_45, SCentae_52, Sabella_45, Sapo_18, Selr12_48, Serendipitous_45, Serpentine_0047, Shatter_40, Sigman_48, SirJeffery_46, Sisko_40, SlippinJimmy_45, Sour_45, Squid_47, Stinger_41, StinkyVeggy_47, Stormageddon_179, Suigeneris_46, Swiphy_49, SynergyX_45, TA17A_46, Thonko_45, ThreeOh3D2_48, Tinciduntolum_47, Tres_46, Trine_54, Trypo_48, Tydolla_45, UncleHowie_47, Vincenzo_43, VioletZ_44, Vista_47, Vivaldi_47, Waleliano_42, Waterdiva_47, West99_46, Yago84_40, Yahalom_45, Yinz_45, Zemanar_43, Zenteno07_50,

Summary by start number:

Start 11:

- Found in 27 of 396 (6.8%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 3.7% of time when present
- Phage (with cluster) where this start called: Phaedrus_43 (B3),

Start 22:

- Found in 55 of 396 (13.9%) of genes in pham
- Manual Annotations of this start: 44 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC_039 (B6), 40BC_039 (B6), Acadian_46 (B5), Allegro_46 (B2), Arbiter_45 (B2), Ares_46 (B2), Bae_45 (B5), Bananafish_46 (B2), Blocker23_46 (B2), Boyle_46 (B2), Brownie5_46 (B2), CRB2_48 (B9), Calamitous_46 (B2), Coffee_46 (B2), DigitDog_45 (B5), Donny_46 (B5), Eaglehorse_46 (B2), EastView9101_46 (B5), Faze9_45 (B2), FrenchFry_46 (B2), Funsized_49 (B9), Glass_46 (B2), Godines_46 (B2), Hedgerow_46 (B2), Holeinone_46 (B2), Hosp_037 (B6), Imvubu_38 (B10), Indlovu_44 (B11), ItsyBitsy1_46 (B2), Jolie1_039 (B6), Kaleb_46 (B2), KayaCho_39 (B6), Kheth_46 (B2), Knocker_47 (B9), Lars_46 (B2), Laurie_45 (B2), Lephleur_46 (B2), LilMcDreamy_43 (B12), LizLemon_46 (B2), MasterPo_46 (B2), Nangang_45 (B5), Opia_46 (B2), Phantasmagoria_46 (B2), Rhinoforte_46 (B2), Rich_44 (B5), Rosebush_45 (B2), Sabella_45 (B2), Serendipitous_45 (B5), SirJeffery_46 (B5), StinkyVeggy_47 (B5), Suigeneris_46 (B5), TA17A_46 (B2), Tinciduntolum_47 (B2), Tres_46 (B2), West99_46 (B2),

Start 24:

- Found in 3 of 396 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BirdsNest_48 (B13), Hashim76_49 (B13), Zenteno07_50 (B13),

Start 27:

- Found in 5 of 396 (1.3%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Thonko_45 (B8),

Start 29:

- Found in 26 of 396 (6.6%) of genes in pham
- Manual Annotations of this start: 20 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Apex_43 (B4), Austelle_43 (B4), BobbyK_42 (B4), BrownCNA_44 (B4), ChrisnMich_42 (B4), Cooper_43 (B4), Fortunato_43 (B4), Frederick_42 (B4), Hangman_42 (B4), Heath_41 (B4), Hydro_42 (B4), JAMaL_42 (B4), JaguarMi_42 (B4), Lolalove_43 (B4), Magpie_41 (B4), Mithril_42 (B4), Mudslide_42 (B4), Nanao_41 (B4), Nigel_41 (B4), Poster_41 (B4), Prince_43 (B4), RawrgerThat_43 (B4), Stinger_41 (B4), VioletZ_44 (B4), Waleliano_42 (B4), Zemanar_43 (B4),

Start 38:

- Found in 5 of 396 (1.3%) of genes in pham
- Manual Annotations of this start: 2 of 346
- Called 60.0% of time when present
- Phage (with cluster) where this start called: CherryTomatoes_55 (DO), Pupper_52 (DO), SCentae_52 (DO),

Start 41:

- Found in 52 of 396 (13.1%) of genes in pham
- Manual Annotations of this start: 5 of 346
- Called 9.6% of time when present
- Phage (with cluster) where this start called: Astraea_98 (C1), Gamgam_101 (C1), JPickles_99 (C1), LifeSavor_100 (C1), Rizal_97 (C1),

Start 44:

- Found in 15 of 396 (3.8%) of genes in pham
- Manual Annotations of this start: 11 of 346
- Called 93.3% of time when present
- Phage (with cluster) where this start called: AnClar_41 (DR), Axumite_40 (DR), BiggityBass_40 (DR), CharlottesWeb_40 (DR), Fresco_40 (DR), Ligma_40 (DR), LittleMunchkin_42 (DR), Mariokart_40 (DR), RedWattleHog_178 (DX), Shatter_40 (DR), Sisko_40 (DR), Sour_45 (DR), Stormageddon_179 (DX), Yago84_40 (DR),

Start 49:

- Found in 29 of 396 (7.3%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 3.4% of time when present
- Phage (with cluster) where this start called: Neos5_45 (B3),

Start 52:

- Found in 53 of 396 (13.4%) of genes in pham
- Manual Annotations of this start: 42 of 346
- Called 96.2% of time when present
- Phage (with cluster) where this start called: Apizium_47 (B1), Ashraf_47 (B1), Basato_48 (B1), Chah_49 (B1), CheetO_47 (B1), Chute_46 (B1), Colbert_47 (B1), Coletti_46 (B1), DoesntMatter_46 (B1), Fang_48 (B1), FluffyNinja_48 (B1), Giraffe_47 (B1), Gyarad_0047 (B1), Hartsy_46 (B1), Hertubise_47 (B1), ImtiyazSitla_47 (B1), Inverness_47 (B1), IsaacEli_48 (B1), Kikipoo_48 (B1), KlimbOn_47 (B1), LeeLot_47 (B1), Lopsy_46 (B1), Maskar_47 (B1), Matalotodo_47 (B1), Mcshane_46 (B1), Megatron_48 (B1), Mosaic_46 (B1), Nacho_0048 (B1), Newman_47 (B1), Nyala_46 (B1), OSmaximus_48 (B1), Olak_47 (B1), Olive_47 (B1), OliverWalter_47 (B1), Oosterbaan_47 (B1), Orwigg_47 (B1), Pacifista_49 (B1), PhenghisKhan_46 (B1), Phergie_46 (B1), Phleuron_46 (B1), PhrankReynolds_45 (B1), Pipsqueak_47 (B1), Selr12_48 (B1), Serpentine_0047 (B1), Sigman_48 (B1), Squid_47 (B1), Swiphy_49 (B1), ThreeOh3D2_48 (B1), Trypo_48 (B1), UncleHowie_47 (B1), Waterdiva_47 (B1),

Start 53:

- Found in 55 of 396 (13.9%) of genes in pham
- Manual Annotations of this start: 3 of 346
- Called 5.5% of time when present
- Phage (with cluster) where this start called: JacAttac_48 (B1), Vista_47 (B1), Vivaldi_47 (B1),

Start 55:

- Found in 55 of 396 (13.9%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 1.8% of time when present
- Phage (with cluster) where this start called: Manad_46 (B1),

Start 57:

- Found in 19 of 396 (4.8%) of genes in pham
- Manual Annotations of this start: 12 of 346
- Called 73.7% of time when present
- Phage (with cluster) where this start called: Abinghost_45 (B3), Audrey_45 (B3), Baloo_45 (B3), Ben11_44 (B3), Bernardo_46 (B3), Casbah_44 (B3), Devonte_45 (B3), LestyG_45 (B3), MmasiCarm_45 (B3), Mortcellus_44 (B3), Obutu_45 (B3), Phayeta_46 (B3), Rita1961_45 (B3), SlippinJimmy_45 (B3),

Start 62:

- Found in 2 of 396 (0.5%) of genes in pham
- Manual Annotations of this start: 2 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlanGrant_44 (B4), Vincenzo_43 (B4),

Start 65:

- Found in 48 of 396 (12.1%) of genes in pham
- Manual Annotations of this start: 31 of 346
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Akoma_45 (B3), Athena_46 (B3), Briakila_46 (B3), ChaChing_45 (B3), Chandler_45 (B3), Compostia_46 (B3),

Corofin_45 (B3), Daisy_45 (B3), Deenasa_45 (B3), Gadget_46 (B3), Gervas_45 (B3), GlenHope_46 (B3), Halfpint_44 (B3), HarveySr_45 (B3), Heathcliff_45 (B3), Jackstina_42 (B3), Kamiyu_45 (B3), Kronus_44 (B3), Marley1013_45 (B3), Morty007_45 (B3), Nozo_45 (B3), OrangeOswald_45 (B3), Philly_44 (B3), Phlyer_45 (B3), Pipefish_47 (B3), RagingRooster_45 (B3), RomaT_45 (B3), SynergyX_45 (B3), Trine_54 (CD), Tydolla_45 (B3), Yahalom_45 (B3), Yinz_45 (B3),

Start 67:

- Found in 1 of 396 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sapo_18 (DA),

Start 69:

- Found in 187 of 396 (47.2%) of genes in pham
- Manual Annotations of this start: 164 of 346
- Called 95.7% of time when present
- Phage (with cluster) where this start called: Ading_101 (C1), Adlitam_101 (C1), Alice_94 (C1), Amataga_101 (C1), ArcherS7_100 (C1), Asterius_98 (C1), Atlantean_100 (C1), Audrick_103 (C1), Ava3_102 (C1), Babyland_102 (C1), BackyardAgain_98 (C1), BadAgartude_97 (C1), BananaFence_100 (C1), Bangla1971_102 (C1), Basquiat_98 (C1), BeanWater_93 (C1), BigCity_109 (C1), Bigswole_106 (C1), Bipolarisk_100 (C1), Blackbrain_96 (C1), Blubba_92 (C1), Bonray_101 (C1), Bread_101 (C1), Breeniome_100 (C1), Burrough_101 (C1), Bxz1_99 (C1), Cactojaque_96 (C1), Cali_97 (C1), Cane17_90 (C1), Capablanca_103 (C1), Caravan_96 (C1), Catera_98 (C1), Chargie21_98 (C1), CharlieB_97 (C1), ChaylaJr_96 (C1), ChickenPhender_97 (C1), Chomp_99 (C1), CindyLou_102 (C1), Colt_91 (C1), Concombre_108 (C1), DTDevon_102 (C1), Daffodil_106 (C1), Dandelion_108 (C1), Darko_101 (C1), Delilah_101 (C1), Delylah_104 (C1), Derek_101 (C1), Dietrick_93 (C1), DirtMonster_95 (C1), DrPhinkDaddy_100 (C1), Drazdys_100 (C1), ET08_90 (C1), EasyJones_104 (C1), EgggyFarm_109 (C1), EmToTheThree_104 (C1), EmmaElysia_101 (C1), Erdmann_102 (C1), ErnieJ_97 (C1), Essence_98 (C1), Ewok_102 (C1), Flabslab_95 (C1), Fludd_102 (C1), FoxtrotP1_101 (C1), FrayBell_106 (C1), FudgeTart_101 (C1), Gabriel_102 (C1), Ghost_100 (C1), Gizmo_105 (C1), Grasshills_108 (C1), Grungle_89 (C1), Guwapp_100 (C1), HyRo_93 (C1), I3_107 (C1), IkeLoa_95 (C1), InigoMontoya_102 (C1), InterFolia_109 (C1), Iota_96 (C1), Issimir_100 (C1), Izajani_101 (C1), Janiyra_103 (C1), JayJay_103 (C1), Jaygup_101 (C1), Jedediah_104 (C1), Jemmno_101 (C1), Jessibeth14_100 (C1), JulietS_96 (C1), JustHall_98 (C1), Kamryn_101 (C1), Kboogie_105 (C1), Khaleesi_100 (C1), Koguma_98 (C1), LRRHood_96 (C1), Latch_101 (C1), Lee7_99 (C1), LinStu_101 (C1), Littleton_101 (C1), Loanshark_101 (C1), LolaVinca_102 (C1), LordLeafolot_105 (C1), Lukilu_92 (C1), Maby2021_101 (C1), Mangeria_101 (C1), Matsumoto_98 (C1), McGee_103 (C1), McWolfish_99 (C1), Megamind_100 (C1), Melpomini_95 (C1), MikeLiesIn_102 (C1), Mikro_99 (C1), MoMoMixon_102 (C1), Momo_100 (C1), Morizzled23_101 (C1), Myrna_229 (C2), Naija_100 (C1), Napoleon13_97 (C1), Nappy_104 (C1), Naval22_106 (C1), NedWong_102 (C1), Ngannou_97 (C1), Nidhogg_102 (C1), NoodleTree_108 (C1), Norm_102 (C1), NuevoMundo_107 (C1), ParkTD_102 (C1), Patter_101 (C1), Phlegm_103 (C1), Phox_98 (C1), Phusco_101 (C1), Pier_105 (C1), Pinkcreek_92 (C1), Pio_105 (C1), Pivoine_100 (C1), Pleione_104 (C1), PurduePete_101 (C1), QBert_95 (C1), Quasimodo_102 (C1), Rabinovich_99 (C1), Rahel_100 (C1), RoMag_96 (C1), Ronan_95 (C1), Roots515_100 (C1), Salacia_105 (C1), Sauce_102 (C1), ScoobyDoobyDoo_226 (C2), ScottMcG_98 (C1), Sebata_103

(C1), Shaqnato_94 (C1), Shelob_103 (C1), ShiaLabeouf_100 (C1), Shifa_90 (C1), Shnickers_101 (C1), Shrimp_101 (C1), SilverDipper_102 (C1), SmallFry_101 (C1), Spec_97 (C1), Specks_106 (C1), Sprinklers_97 (C1), Spud_101 (C1), SrishMeg2525_100 (C1), StephanieG_100 (C1), StubbySaigey_104 (C1), Stubby_94 (C1), Teardrop_100 (C1), TinyTim_101 (C1), Tonenili_116 (C1), Tortoise16_98 (C1), Trinitium_98 (C1), Turret_96 (C1), Tyke_102 (C1), ValleyTerrace_101 (C1), Wally_100 (C1), Willis_102 (C1), Yassified_98 (C1), YemiJoy2021_102 (C1), YoungMoneyMata_102 (C1), Yucca_101 (C1), Zalkecks_102 (C1), Zeenon_103 (C1), ZygoTaiga_100 (C1),

Start 71:

- Found in 50 of 396 (12.6%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 4.0% of time when present
- Phage (with cluster) where this start called: Greely_236 (C2), Phabba_239 (C2),

Start 78:

- Found in 1 of 396 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mahdia_50 (CD),

Start 79:

- Found in 57 of 396 (14.4%) of genes in pham
- Manual Annotations of this start: 1 of 346
- Called 1.8% of time when present
- Phage (with cluster) where this start called: Archimedes_17 (DA),

Summary by clusters:

There are 19 clusters represented in this pham: DO, B10, DR, B3, DX, CD, B4, B5, B6, B12, B1, B2, B11, C2, C1, DA, B8, B9, B13,

Info for manual annotations of cluster B1:

- Start number 52 was manually annotated 42 times for cluster B1.
- Start number 53 was manually annotated 3 times for cluster B1.
- Start number 55 was manually annotated 1 time for cluster B1.

Info for manual annotations of cluster B10:

- Start number 22 was manually annotated 1 time for cluster B10.

Info for manual annotations of cluster B11:

- Start number 22 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 22 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 24 was manually annotated 2 times for cluster B13.

Info for manual annotations of cluster B2:

- Start number 22 was manually annotated 31 times for cluster B2.

Info for manual annotations of cluster B3:

- Start number 11 was manually annotated 1 time for cluster B3.
- Start number 49 was manually annotated 1 time for cluster B3.
- Start number 57 was manually annotated 12 times for cluster B3.
- Start number 65 was manually annotated 30 times for cluster B3.

Info for manual annotations of cluster B4:

- Start number 29 was manually annotated 20 times for cluster B4.
- Start number 62 was manually annotated 2 times for cluster B4.

Info for manual annotations of cluster B5:

- Start number 22 was manually annotated 6 times for cluster B5.

Info for manual annotations of cluster B6:

- Start number 22 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B8:

- Start number 27 was manually annotated 1 time for cluster B8.

Info for manual annotations of cluster B9:

- Start number 22 was manually annotated 3 times for cluster B9.

Info for manual annotations of cluster C1:

- Start number 41 was manually annotated 5 times for cluster C1.
- Start number 69 was manually annotated 162 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 69 was manually annotated 2 times for cluster C2.
- Start number 71 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CD:

- Start number 65 was manually annotated 1 time for cluster CD.
- Start number 78 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster DA:

- Start number 67 was manually annotated 1 time for cluster DA.
- Start number 79 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DO:

- Start number 38 was manually annotated 2 times for cluster DO.

Info for manual annotations of cluster DR:

- Start number 44 was manually annotated 9 times for cluster DR.

Info for manual annotations of cluster DX:

- Start number 44 was manually annotated 2 times for cluster DX.

Gene Information:

Gene: 39HC_039 Start: 38257, Stop: 37487, Start Num: 22

Candidate Starts for 39HC_039:

(Start: 22 @38257 has 44 MA's), (36, 38218), (Start: 71 @38110 has 1 MA's), (74, 38098), (80, 38074), (98, 37996), (144, 37810), (145, 37807), (148, 37786), (162, 37705), (165, 37690),

Gene: 40BC_039 Start: 38257, Stop: 37487, Start Num: 22

Candidate Starts for 40BC_039:

(Start: 22 @38257 has 44 MA's), (36, 38218), (Start: 71 @38110 has 1 MA's), (74, 38098), (80, 38074), (98, 37996), (144, 37810), (145, 37807), (148, 37786), (162, 37705), (165, 37690),

Gene: Abinghost_45 Start: 40228, Stop: 39506, Start Num: 57

Candidate Starts for Abinghost_45:

(Start: 57 @40228 has 12 MA's), (Start: 65 @40204 has 31 MA's), (82, 40132), (100, 40051), (103, 40045), (121, 39955), (128, 39916), (135, 39880), (145, 39823), (147, 39805), (158, 39745), (164, 39700), (171, 39664), (178, 39631), (181, 39598), (185, 39565), (187, 39526),

Gene: Acadian_46 Start: 40902, Stop: 40117, Start Num: 22

Candidate Starts for Acadian_46:

(Start: 22 @40902 has 44 MA's), (48, 40815), (73, 40740), (80, 40713), (105, 40614), (162, 40335), (165, 40320),

Gene: Ading_101 Start: 51076, Stop: 51708, Start Num: 69

Candidate Starts for Ading_101:

(Start: 41 @50989 has 5 MA's), (Start: 69 @51076 has 164 MA's), (149, 51415), (161, 51493), (180, 51601), (192, 51703),

Gene: Adlitam_101 Start: 51093, Stop: 51725, Start Num: 69

Candidate Starts for Adlitam_101:

(Start: 41 @51006 has 5 MA's), (Start: 69 @51093 has 164 MA's), (149, 51432), (161, 51510), (180, 51618), (192, 51720),

Gene: Akoma_45 Start: 40208, Stop: 39510, Start Num: 65

Candidate Starts for Akoma_45:

(Start: 11 @40454 has 1 MA's), (21, 40388), (43, 40277), (Start: 49 @40259 has 1 MA's), (51, 40253), (Start: 65 @40208 has 31 MA's), (82, 40136), (100, 40055), (103, 40049), (121, 39959), (128, 39920), (135, 39884), (145, 39827), (147, 39809), (158, 39749), (164, 39704), (171, 39668), (178, 39635), (181, 39602), (185, 39569), (187, 39530),

Gene: AlanGrant_44 Start: 41068, Stop: 40448, Start Num: 62

Candidate Starts for AlanGrant_44:

(Start: 62 @41068 has 2 MA's), (98, 40942), (108, 40909), (114, 40882), (121, 40849), (143, 40774), (145, 40768), (157, 40702), (170, 40621), (184, 40528), (190, 40459),

Gene: Alice_94 Start: 49991, Stop: 50623, Start Num: 69

Candidate Starts for Alice_94:

(Start: 69 @49991 has 164 MA's), (149, 50330), (161, 50408), (180, 50516), (192, 50618),

Gene: Allegro_46 Start: 40703, Stop: 39927, Start Num: 22

Candidate Starts for Allegro_46:

(Start: 22 @40703 has 44 MA's), (35, 40649), (48, 40604), (Start: 71 @40547 has 1 MA's), (73, 40538), (74, 40535), (75, 40526), (96, 40439), (102, 40424), (120, 40340), (145, 40247), (155, 40196), (162, 40145), (169, 40106),

Gene: Amataga_101 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for Amataga_101:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: AnClar_41 Start: 36812, Stop: 36102, Start Num: 44

Candidate Starts for AnClar_41:

(Start: 44 @36812 has 11 MA's), (99, 36614), (120, 36521), (145, 36416), (162, 36314), (165, 36299), (173, 36251),

Gene: Apex_43 Start: 40637, Stop: 39879, Start Num: 29

Candidate Starts for Apex_43:

(Start: 29 @40637 has 20 MA's), (42, 40568), (77, 40460), (88, 40430), (104, 40382), (106, 40370), (116, 40325), (139, 40214), (145, 40199), (162, 40097), (170, 40052), (174, 40031), (177, 40013), (187, 39905),

Gene: Apizium_47 Start: 40250, Stop: 39606, Start Num: 52

Candidate Starts for Apizium_47:

(Start: 52 @40250 has 42 MA's), (Start: 53 @40244 has 3 MA's), (Start: 55 @40241 has 1 MA's), (Start: 79 @40166 has 1 MA's), (99, 40097), (101, 40094), (104, 40091), (115, 40037), (162, 39824), (190, 39617),

Gene: Arbiter_45 Start: 40777, Stop: 40013, Start Num: 22

Candidate Starts for Arbiter_45:

(Start: 22 @40777 has 44 MA's), (35, 40735), (48, 40690), (Start: 71 @40633 has 1 MA's), (73, 40624), (74, 40621), (75, 40612), (96, 40525), (102, 40510), (120, 40426), (145, 40333), (155, 40282), (162, 40231), (169, 40192),

Gene: ArcherS7_100 Start: 50656, Stop: 51288, Start Num: 69

Candidate Starts for ArcherS7_100:

(Start: 41 @50569 has 5 MA's), (Start: 69 @50656 has 164 MA's), (149, 50995), (161, 51073), (180, 51181), (192, 51283),

Gene: Archimedes_17 Start: 16783, Stop: 16172, Start Num: 79

Candidate Starts for Archimedes_17:

(Start: 79 @16783 has 1 MA's), (95, 16720), (155, 16441), (166, 16372), (167, 16360), (169, 16351), (172, 16333), (182, 16267), (190, 16183),

Gene: Ares_46 Start: 40761, Stop: 39997, Start Num: 22

Candidate Starts for Ares_46:

(Start: 22 @40761 has 44 MA's), (48, 40674), (Start: 71 @40617 has 1 MA's), (73, 40608), (74, 40605), (75, 40596), (96, 40509), (102, 40494), (120, 40410), (145, 40317), (155, 40266), (162, 40215), (169, 40176),

Gene: Ashraf_47 Start: 40051, Stop: 39407, Start Num: 52

Candidate Starts for Ashraf_47:

(Start: 52 @40051 has 42 MA's), (Start: 53 @40045 has 3 MA's), (Start: 55 @40042 has 1 MA's), (Start: 79 @39967 has 1 MA's), (99, 39898), (101, 39895), (104, 39892), (115, 39838), (162, 39625),

Gene: Asterius_98 Start: 51325, Stop: 51963, Start Num: 69

Candidate Starts for Asterius_98:

(Start: 69 @51325 has 164 MA's), (149, 51670), (161, 51748), (180, 51856), (192, 51958),

Gene: Astraea_98 Start: 50020, Stop: 50739, Start Num: 41

Candidate Starts for Astraea_98:

(Start: 41 @50020 has 5 MA's), (Start: 69 @50107 has 164 MA's), (149, 50446), (161, 50524), (180, 50632), (192, 50734),

Gene: Athena_46 Start: 40955, Stop: 40257, Start Num: 65

Candidate Starts for Athena_46:

(Start: 11 @41201 has 1 MA's), (21, 41135), (43, 41024), (Start: 49 @41006 has 1 MA's), (51, 41000), (Start: 65 @40955 has 31 MA's), (82, 40883), (100, 40802), (103, 40796), (121, 40706), (128, 40667), (135, 40631), (145, 40574), (147, 40556), (158, 40496), (164, 40451), (171, 40415), (178, 40382), (181, 40349), (185, 40316), (187, 40277),

Gene: Atlantean_100 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for Atlantean_100:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: Audrey_45 Start: 40228, Stop: 39506, Start Num: 57

Candidate Starts for Audrey_45:

(Start: 57 @40228 has 12 MA's), (Start: 65 @40204 has 31 MA's), (82, 40132), (100, 40051), (103, 40045), (116, 39982), (121, 39955), (128, 39916), (135, 39880), (140, 39856), (145, 39823), (147, 39805), (158, 39745), (164, 39700), (171, 39664), (175, 39640), (178, 39631), (181, 39598), (185, 39565), (187, 39526),

Gene: Audrick_103 Start: 50317, Stop: 50949, Start Num: 69

Candidate Starts for Audrick_103:

(Start: 41 @50230 has 5 MA's), (Start: 69 @50317 has 164 MA's), (149, 50656), (161, 50734), (180, 50842), (192, 50944),

Gene: Austelle_43 Start: 41087, Stop: 40329, Start Num: 29

Candidate Starts for Austelle_43:

(Start: 29 @41087 has 20 MA's), (42, 41018), (77, 40910), (88, 40880), (104, 40832), (106, 40820), (116, 40775), (139, 40664), (145, 40649), (162, 40547), (170, 40502), (177, 40463), (187, 40355),

Gene: Ava3_102 Start: 51251, Stop: 51883, Start Num: 69

Candidate Starts for Ava3_102:

(Start: 69 @51251 has 164 MA's), (149, 51590), (180, 51776), (192, 51878),

Gene: Axumite_40 Start: 34038, Stop: 33349, Start Num: 44

Candidate Starts for Axumite_40:

(Start: 27 @34119 has 1 MA's), (34, 34071), (Start: 44 @34038 has 11 MA's), (88, 33888), (91, 33876), (94, 33867), (148, 33642), (162, 33561), (165, 33546), (173, 33498),

Gene: Babyland_102 Start: 50426, Stop: 51058, Start Num: 69

Candidate Starts for Babyland_102:

(Start: 69 @50426 has 164 MA's), (149, 50765), (161, 50843), (180, 50951), (192, 51053),

Gene: BackyardAgain_98 Start: 50256, Stop: 50888, Start Num: 69

Candidate Starts for BackyardAgain_98:

(Start: 69 @50256 has 164 MA's), (149, 50595), (161, 50673), (180, 50781), (192, 50883),

Gene: BadAgartude_97 Start: 51776, Stop: 52408, Start Num: 69

Candidate Starts for BadAgartude_97:

(Start: 41 @51689 has 5 MA's), (Start: 69 @51776 has 164 MA's), (149, 52115), (161, 52193), (180, 52301), (192, 52403),

Gene: Bae_45 Start: 40787, Stop: 40020, Start Num: 22

Candidate Starts for Bae_45:

(Start: 22 @40787 has 44 MA's), (61, 40664), (73, 40625), (80, 40598), (105, 40499), (120, 40424), (127, 40391), (145, 40340), (162, 40238), (163, 40232), (165, 40223),

Gene: Baloo_45 Start: 40231, Stop: 39509, Start Num: 57

Candidate Starts for Baloo_45:

(Start: 57 @40231 has 12 MA's), (Start: 65 @40207 has 31 MA's), (82, 40135), (100, 40054), (103, 40048), (116, 39985), (121, 39958), (128, 39919), (135, 39883), (140, 39859), (145, 39826), (147, 39808), (158, 39748), (164, 39703), (171, 39667), (178, 39634), (181, 39601), (185, 39568), (187, 39529),

Gene: BananaFence_100 Start: 51510, Stop: 52142, Start Num: 69

Candidate Starts for BananaFence_100:

(Start: 69 @51510 has 164 MA's), (149, 51849), (161, 51927), (180, 52035), (192, 52137),

Gene: Bananafish_46 Start: 40697, Stop: 39933, Start Num: 22

Candidate Starts for Bananafish_46:

(Start: 22 @40697 has 44 MA's), (48, 40610), (Start: 71 @40553 has 1 MA's), (73, 40544), (74, 40541), (75, 40532), (96, 40445), (102, 40430), (120, 40346), (145, 40253), (155, 40202), (162, 40151), (169, 40112),

Gene: Bangla1971_102 Start: 50786, Stop: 51418, Start Num: 69

Candidate Starts for Bangla1971_102:

(Start: 41 @50699 has 5 MA's), (Start: 69 @50786 has 164 MA's), (149, 51125), (161, 51203), (180, 51311), (192, 51413),

Gene: Basato_48 Start: 40633, Stop: 39989, Start Num: 52

Candidate Starts for Basato_48:

(Start: 52 @40633 has 42 MA's), (Start: 53 @40627 has 3 MA's), (Start: 55 @40624 has 1 MA's), (Start: 79 @40549 has 1 MA's), (99, 40480), (101, 40477), (104, 40474), (115, 40420), (162, 40207), (190, 40000),

Gene: Basquiat_98 Start: 50225, Stop: 50857, Start Num: 69

Candidate Starts for Basquiat_98:

(Start: 69 @50225 has 164 MA's), (149, 50564), (161, 50642), (180, 50750), (192, 50852),

Gene: BeanWater_93 Start: 51106, Stop: 51738, Start Num: 69

Candidate Starts for BeanWater_93:

(Start: 69 @51106 has 164 MA's), (149, 51445), (161, 51523), (180, 51631), (192, 51733),

Gene: Ben11_44 Start: 40050, Stop: 39328, Start Num: 57

Candidate Starts for Ben11_44:

(Start: 57 @40050 has 12 MA's), (Start: 65 @40026 has 31 MA's), (82, 39954), (100, 39873), (103, 39867), (121, 39777), (128, 39738), (135, 39702), (145, 39645), (147, 39627), (158, 39567), (164, 39522), (171, 39486), (178, 39453), (181, 39420), (185, 39387), (187, 39348),

Gene: Bernardo_46 Start: 40776, Stop: 40054, Start Num: 57

Candidate Starts for Bernardo_46:

(Start: 57 @40776 has 12 MA's), (Start: 65 @40752 has 31 MA's), (82, 40680), (100, 40599), (103, 40593), (121, 40503), (128, 40464), (135, 40428), (145, 40371), (147, 40353), (158, 40293), (164, 40248), (171, 40212), (175, 40188), (178, 40179), (181, 40146), (185, 40113), (187, 40074),

Gene: BigCity_109 Start: 53767, Stop: 54399, Start Num: 69
Candidate Starts for BigCity_109:
(Start: 69 @53767 has 164 MA's), (149, 54106), (161, 54184), (180, 54292), (192, 54394),

Gene: BiggityBass_40 Start: 36280, Stop: 35564, Start Num: 44
Candidate Starts for BiggityBass_40:
(Start: 44 @36280 has 11 MA's), (72, 36193), (120, 35992), (124, 35971), (145, 35878), (162, 35776),
(165, 35761), (173, 35713),

Gene: Bigswole_106 Start: 54293, Stop: 54931, Start Num: 69
Candidate Starts for Bigswole_106:
(34, 54182), (Start: 69 @54293 has 164 MA's), (149, 54638), (161, 54716), (180, 54824), (192, 54926),

Gene: Bipolarisk_100 Start: 51503, Stop: 52141, Start Num: 69
Candidate Starts for Bipolarisk_100:
(Start: 69 @51503 has 164 MA's), (149, 51848), (161, 51926), (180, 52034), (192, 52136),

Gene: BirdsNest_48 Start: 39192, Stop: 38389, Start Num: 24
Candidate Starts for BirdsNest_48:
(1, 39444), (2, 39432), (12, 39270), (13, 39267), (15, 39252), (16, 39237), (17, 39231), (Start: 24 @39192 has 2 MA's), (46, 39087), (50, 39081), (74, 39009), (80, 38985), (86, 38961), (106, 38880),
(145, 38709), (162, 38604), (169, 38565),

Gene: Blackbrain_96 Start: 49803, Stop: 50435, Start Num: 69
Candidate Starts for Blackbrain_96:
(Start: 69 @49803 has 164 MA's), (149, 50142), (161, 50220), (180, 50328), (192, 50430),

Gene: Blocker23_46 Start: 40815, Stop: 40051, Start Num: 22
Candidate Starts for Blocker23_46:
(Start: 22 @40815 has 44 MA's), (35, 40773), (48, 40728), (Start: 71 @40671 has 1 MA's), (73, 40662), (74, 40659), (75, 40650), (96, 40563), (102, 40548), (120, 40464), (145, 40371), (155, 40320),
(162, 40269), (169, 40230),

Gene: Blubba_92 Start: 49899, Stop: 50531, Start Num: 69
Candidate Starts for Blubba_92:
(Start: 69 @49899 has 164 MA's), (149, 50238), (161, 50316), (180, 50424), (192, 50526),

Gene: BobbyK_42 Start: 40432, Stop: 39698, Start Num: 29
Candidate Starts for BobbyK_42:
(Start: 29 @40432 has 20 MA's), (77, 40258), (88, 40228), (104, 40180), (106, 40168), (143, 40024),
(145, 40018), (162, 39916), (170, 39871), (177, 39832), (187, 39724),

Gene: Bonray_101 Start: 51676, Stop: 52314, Start Num: 69
Candidate Starts for Bonray_101:
(Start: 69 @51676 has 164 MA's), (149, 52021), (161, 52099), (180, 52207), (192, 52309),

Gene: Boyle_46 Start: 40816, Stop: 40052, Start Num: 22
Candidate Starts for Boyle_46:
(Start: 22 @40816 has 44 MA's), (48, 40729), (Start: 71 @40672 has 1 MA's), (73, 40663), (74, 40660), (75, 40651), (96, 40564), (102, 40549), (120, 40465), (145, 40372), (155, 40321), (162, 40270), (169, 40231),

Gene: Bread_101 Start: 51337, Stop: 51969, Start Num: 69

Candidate Starts for Bread_101:

(Start: 69 @51337 has 164 MA's), (149, 51676), (161, 51754), (180, 51862), (192, 51964),

Gene: Breeniome_100 Start: 49919, Stop: 50551, Start Num: 69

Candidate Starts for Breeniome_100:

(Start: 41 @49832 has 5 MA's), (Start: 69 @49919 has 164 MA's), (149, 50258), (161, 50336), (180, 50444), (192, 50546),

Gene: Briakila_46 Start: 40974, Stop: 40276, Start Num: 65

Candidate Starts for Briakila_46:

(Start: 11 @41220 has 1 MA's), (21, 41154), (43, 41043), (Start: 49 @41025 has 1 MA's), (51, 41019), (Start: 65 @40974 has 31 MA's), (82, 40902), (100, 40821), (103, 40815), (121, 40725), (128, 40686), (135, 40650), (145, 40593), (147, 40575), (158, 40515), (164, 40470), (171, 40434), (178, 40401), (181, 40368), (185, 40335), (187, 40296),

Gene: BrownCNA_44 Start: 40717, Stop: 39959, Start Num: 29

Candidate Starts for BrownCNA_44:

(Start: 29 @40717 has 20 MA's), (42, 40648), (77, 40540), (88, 40510), (104, 40462), (106, 40450), (139, 40294), (145, 40279), (151, 40246), (162, 40177), (170, 40132), (177, 40093), (187, 39985),

Gene: Brownie5_46 Start: 40828, Stop: 40058, Start Num: 22

Candidate Starts for Brownie5_46:

(Start: 22 @40828 has 44 MA's), (48, 40735), (Start: 71 @40678 has 1 MA's), (73, 40669), (74, 40666), (75, 40657), (96, 40570), (102, 40555), (120, 40471), (145, 40378), (155, 40327), (162, 40276), (169, 40237),

Gene: Burrough_101 Start: 51836, Stop: 52468, Start Num: 69

Candidate Starts for Burrough_101:

(Start: 69 @51836 has 164 MA's), (149, 52175), (161, 52253), (180, 52361), (192, 52463),

Gene: Bxz1_99 Start: 53274, Stop: 53906, Start Num: 69

Candidate Starts for Bxz1_99:

(Start: 69 @53274 has 164 MA's), (149, 53613), (161, 53691), (180, 53799), (192, 53901),

Gene: CRB2_48 Start: 42937, Stop: 42212, Start Num: 22

Candidate Starts for CRB2_48:

(Start: 22 @42937 has 44 MA's), (87, 42748), (90, 42736), (105, 42685), (112, 42652), (123, 42601), (157, 42466), (162, 42430), (165, 42415), (169, 42391), (177, 42346), (184, 42292),

Gene: Cactojaque_96 Start: 49910, Stop: 50542, Start Num: 69

Candidate Starts for Cactojaque_96:

(Start: 69 @49910 has 164 MA's), (149, 50249), (161, 50327), (180, 50435), (192, 50537),

Gene: Calamitous_46 Start: 40702, Stop: 39938, Start Num: 22

Candidate Starts for Calamitous_46:

(Start: 22 @40702 has 44 MA's), (35, 40660), (48, 40615), (Start: 71 @40558 has 1 MA's), (73, 40549), (74, 40546), (75, 40537), (96, 40450), (102, 40435), (120, 40351), (145, 40258), (155, 40207), (162, 40156), (169, 40117),

Gene: Cali_97 Start: 51838, Stop: 52470, Start Num: 69

Candidate Starts for Cali_97:

(Start: 69 @51838 has 164 MA's), (149, 52177), (161, 52255), (180, 52363), (192, 52465),

Gene: Cane17_90 Start: 49972, Stop: 50604, Start Num: 69

Candidate Starts for Cane17_90:

(Start: 69 @49972 has 164 MA's), (149, 50311), (161, 50389), (180, 50497), (192, 50599),

Gene: Capablanca_103 Start: 52088, Stop: 52720, Start Num: 69

Candidate Starts for Capablanca_103:

(34, 51977), (Start: 69 @52088 has 164 MA's), (149, 52427), (161, 52505), (180, 52613), (192, 52715),

Gene: Caravan_96 Start: 51189, Stop: 51827, Start Num: 69

Candidate Starts for Caravan_96:

(Start: 69 @51189 has 164 MA's), (149, 51534), (161, 51612), (180, 51720), (192, 51822),

Gene: Casbah_44 Start: 40080, Stop: 39358, Start Num: 57

Candidate Starts for Casbah_44:

(Start: 57 @40080 has 12 MA's), (Start: 65 @40056 has 31 MA's), (82, 39984), (100, 39903), (103, 39897), (121, 39807), (128, 39768), (135, 39732), (145, 39675), (147, 39657), (158, 39597), (164, 39552), (171, 39516), (178, 39483), (181, 39450), (185, 39417), (187, 39378),

Gene: Catera_98 Start: 50105, Stop: 50743, Start Num: 69

Candidate Starts for Catera_98:

(Start: 69 @50105 has 164 MA's), (149, 50450), (161, 50528), (180, 50636), (192, 50738),

Gene: ChaChing_45 Start: 40219, Stop: 39521, Start Num: 65

Candidate Starts for ChaChing_45:

(Start: 11 @40465 has 1 MA's), (21, 40399), (43, 40288), (Start: 49 @40270 has 1 MA's), (51, 40264), (Start: 65 @40219 has 31 MA's), (82, 40147), (100, 40066), (103, 40060), (121, 39970), (128, 39931), (135, 39895), (145, 39838), (147, 39820), (158, 39760), (164, 39715), (171, 39679), (178, 39646), (181, 39613), (185, 39580), (187, 39541),

Gene: Chah_49 Start: 40516, Stop: 39872, Start Num: 52

Candidate Starts for Chah_49:

(Start: 52 @40516 has 42 MA's), (Start: 53 @40510 has 3 MA's), (Start: 55 @40507 has 1 MA's), (Start: 79 @40432 has 1 MA's), (99, 40363), (101, 40360), (104, 40357), (115, 40303), (162, 40090),

Gene: Chandler_45 Start: 40987, Stop: 40289, Start Num: 65

Candidate Starts for Chandler_45:

(Start: 11 @41233 has 1 MA's), (21, 41167), (43, 41056), (Start: 49 @41038 has 1 MA's), (51, 41032), (Start: 65 @40987 has 31 MA's), (82, 40915), (100, 40834), (103, 40828), (121, 40738), (128, 40699), (135, 40663), (145, 40606), (147, 40588), (158, 40528), (164, 40483), (171, 40447), (178, 40414), (181, 40381), (185, 40348), (187, 40309),

Gene: Chargie21_98 Start: 50225, Stop: 50857, Start Num: 69

Candidate Starts for Chargie21_98:

(Start: 69 @50225 has 164 MA's), (149, 50564), (161, 50642), (180, 50750), (192, 50852),

Gene: CharlieB_97 Start: 50240, Stop: 50872, Start Num: 69

Candidate Starts for CharlieB_97:

(Start: 69 @50240 has 164 MA's), (149, 50579), (161, 50657), (180, 50765), (192, 50867),

Gene: CharlottesWeb_40 Start: 33924, Stop: 33235, Start Num: 44

Candidate Starts for CharlottesWeb_40:

(Start: 44 @33924 has 11 MA's), (85, 33780), (94, 33753), (109, 33675), (145, 33549), (162, 33447), (165, 33432), (173, 33384),

Gene: ChaylaJr_96 Start: 49731, Stop: 50363, Start Num: 69

Candidate Starts for ChaylaJr_96:

(Start: 69 @49731 has 164 MA's), (149, 50070), (161, 50148), (180, 50256), (192, 50358),

Gene: CheetO_47 Start: 40366, Stop: 39722, Start Num: 52

Candidate Starts for CheetO_47:

(Start: 52 @40366 has 42 MA's), (Start: 53 @40360 has 3 MA's), (Start: 55 @40357 has 1 MA's), (Start: 79 @40282 has 1 MA's), (99, 40213), (101, 40210), (104, 40207), (115, 40153), (162, 39940), (190, 39733),

Gene: CherryTomatoes_55 Start: 17569, Stop: 18327, Start Num: 38

Candidate Starts for CherryTomatoes_55:

(Start: 38 @17569 has 2 MA's), (118, 17890), (155, 18070), (160, 18118), (169, 18166),

Gene: ChickenPhender_97 Start: 50034, Stop: 50666, Start Num: 69

Candidate Starts for ChickenPhender_97:

(Start: 69 @50034 has 164 MA's), (149, 50373), (161, 50451), (180, 50559), (192, 50661),

Gene: Chomp_99 Start: 51626, Stop: 52258, Start Num: 69

Candidate Starts for Chomp_99:

(Start: 41 @51539 has 5 MA's), (Start: 69 @51626 has 164 MA's), (149, 51965), (161, 52043), (180, 52151), (192, 52253),

Gene: ChrisnMich_42 Start: 39396, Stop: 38659, Start Num: 29

Candidate Starts for ChrisnMich_42:

(18, 39450), (Start: 29 @39396 has 20 MA's), (59, 39282), (Start: 69 @39252 has 164 MA's), (74, 39234), (93, 39180), (104, 39141), (131, 39021), (143, 38985), (145, 38979), (151, 38946), (162, 38877), (170, 38832),

Gene: Chute_46 Start: 40410, Stop: 39766, Start Num: 52

Candidate Starts for Chute_46:

(Start: 52 @40410 has 42 MA's), (Start: 53 @40404 has 3 MA's), (Start: 55 @40401 has 1 MA's), (Start: 79 @40326 has 1 MA's), (99, 40257), (101, 40254), (104, 40251), (115, 40197), (162, 39984), (190, 39777),

Gene: CindyLou_102 Start: 51667, Stop: 52299, Start Num: 69

Candidate Starts for CindyLou_102:

(Start: 41 @51580 has 5 MA's), (Start: 69 @51667 has 164 MA's), (149, 52006), (161, 52084), (180, 52192), (192, 52294),

Gene: Coffee_46 Start: 40805, Stop: 40041, Start Num: 22

Candidate Starts for Coffee_46:

(Start: 22 @40805 has 44 MA's), (48, 40718), (Start: 71 @40661 has 1 MA's), (73, 40652), (74, 40649), (75, 40640), (96, 40553), (102, 40538), (120, 40454), (145, 40361), (155, 40310), (162, 40259), (169, 40220),

Gene: Colbert_47 Start: 40422, Stop: 39778, Start Num: 52

Candidate Starts for Colbert_47:

(Start: 52 @40422 has 42 MA's), (Start: 53 @40416 has 3 MA's), (Start: 55 @40413 has 1 MA's),
(Start: 79 @40338 has 1 MA's), (99, 40269), (101, 40266), (104, 40263), (115, 40209), (162, 39996),
(190, 39789),

Gene: Coletti_46 Start: 40410, Stop: 39766, Start Num: 52

Candidate Starts for Coletti_46:

(Start: 52 @40410 has 42 MA's), (Start: 53 @40404 has 3 MA's), (Start: 55 @40401 has 1 MA's),
(Start: 79 @40326 has 1 MA's), (99, 40257), (101, 40254), (104, 40251), (115, 40197), (162, 39984),
(190, 39777),

Gene: Colt_91 Start: 50568, Stop: 51200, Start Num: 69

Candidate Starts for Colt_91:

(Start: 69 @50568 has 164 MA's), (149, 50907), (161, 50985), (180, 51093), (192, 51195),

Gene: Compostia_46 Start: 40635, Stop: 39937, Start Num: 65

Candidate Starts for Compostia_46:

(Start: 11 @40881 has 1 MA's), (21, 40815), (43, 40704), (Start: 49 @40686 has 1 MA's), (51, 40680),
(Start: 65 @40635 has 31 MA's), (82, 40563), (100, 40482), (103, 40476), (121, 40386), (128, 40347),
(135, 40311), (145, 40254), (147, 40236), (158, 40176), (164, 40131), (171, 40095), (178, 40062),
(181, 40029), (185, 39996), (187, 39957),

Gene: Concombre_108 Start: 54002, Stop: 54640, Start Num: 69

Candidate Starts for Concombre_108:

(58, 53966), (Start: 69 @54002 has 164 MA's), (149, 54347), (161, 54425), (180, 54533), (192,
54635),

Gene: Cooper_43 Start: 39615, Stop: 38878, Start Num: 29

Candidate Starts for Cooper_43:

(18, 39669), (Start: 29 @39615 has 20 MA's), (59, 39501), (Start: 69 @39471 has 164 MA's), (74,
39453), (93, 39399), (104, 39360), (131, 39240), (143, 39204), (145, 39198), (151, 39165), (162,
39096), (170, 39051),

Gene: Corofin_45 Start: 40230, Stop: 39532, Start Num: 65

Candidate Starts for Corofin_45:

(Start: 11 @40476 has 1 MA's), (21, 40410), (43, 40299), (Start: 49 @40281 has 1 MA's), (51, 40275),
(Start: 65 @40230 has 31 MA's), (82, 40158), (100, 40077), (103, 40071), (121, 39981), (128, 39942),
(135, 39906), (145, 39849), (147, 39831), (158, 39771), (164, 39726), (171, 39690), (178, 39657),
(181, 39624), (185, 39591), (187, 39552),

Gene: DTDevon_102 Start: 52106, Stop: 52744, Start Num: 69

Candidate Starts for DTDevon_102:

(Start: 69 @52106 has 164 MA's), (149, 52451), (161, 52529), (180, 52637), (192, 52739),

Gene: Daffodil_106 Start: 51803, Stop: 52441, Start Num: 69

Candidate Starts for Daffodil_106:

(Start: 69 @51803 has 164 MA's), (149, 52148), (161, 52226), (180, 52334), (192, 52436),

Gene: Daisy_45 Start: 40231, Stop: 39533, Start Num: 65

Candidate Starts for Daisy_45:

(Start: 11 @40477 has 1 MA's), (21, 40411), (43, 40300), (Start: 49 @40282 has 1 MA's), (51, 40276),
(Start: 65 @40231 has 31 MA's), (82, 40159), (100, 40078), (103, 40072), (121, 39982), (128, 39943),
(135, 39907), (145, 39850), (147, 39832), (158, 39772), (164, 39727), (171, 39691), (178, 39658),
(181, 39625), (185, 39592), (187, 39553),

Gene: Dandelion_108 Start: 54240, Stop: 54878, Start Num: 69

Candidate Starts for Dandelion_108:

(Start: 69 @54240 has 164 MA's), (149, 54585), (161, 54663), (180, 54771), (192, 54873),

Gene: Darko_101 Start: 51745, Stop: 52377, Start Num: 69

Candidate Starts for Darko_101:

(Start: 69 @51745 has 164 MA's), (149, 52084), (161, 52162), (180, 52270), (192, 52372),

Gene: Deenasa_45 Start: 40966, Stop: 40268, Start Num: 65

Candidate Starts for Deenasa_45:

(Start: 11 @41212 has 1 MA's), (21, 41146), (43, 41035), (Start: 49 @41017 has 1 MA's), (51, 41011),
(Start: 65 @40966 has 31 MA's), (82, 40894), (100, 40813), (103, 40807), (121, 40717), (128, 40678),
(135, 40642), (145, 40585), (147, 40567), (158, 40507), (164, 40462), (171, 40426), (178, 40393),
(181, 40360), (185, 40327), (187, 40288),

Gene: Delilah_101 Start: 51957, Stop: 52595, Start Num: 69

Candidate Starts for Delilah_101:

(Start: 69 @51957 has 164 MA's), (149, 52302), (161, 52380), (180, 52488), (192, 52590),

Gene: Delylah_104 Start: 51502, Stop: 52134, Start Num: 69

Candidate Starts for Delylah_104:

(34, 51391), (Start: 69 @51502 has 164 MA's), (149, 51841), (161, 51919), (180, 52027), (192, 52129),

Gene: Derek_101 Start: 51428, Stop: 52060, Start Num: 69

Candidate Starts for Derek_101:

(Start: 41 @51341 has 5 MA's), (Start: 69 @51428 has 164 MA's), (149, 51767), (161, 51845), (180, 51953), (192, 52055),

Gene: Devonte_45 Start: 40219, Stop: 39497, Start Num: 57

Candidate Starts for Devonte_45:

(Start: 57 @40219 has 12 MA's), (Start: 65 @40195 has 31 MA's), (82, 40123), (100, 40042), (103, 40036),
(121, 39946), (128, 39907), (135, 39871), (145, 39814), (147, 39796), (158, 39736), (164, 39691),
(171, 39655), (178, 39622), (181, 39589), (185, 39556), (187, 39517),

Gene: Dietrick_93 Start: 49504, Stop: 50136, Start Num: 69

Candidate Starts for Dietrick_93:

(Start: 69 @49504 has 164 MA's), (149, 49843), (161, 49921), (180, 50029), (192, 50131),

Gene: DigitDog_45 Start: 40602, Stop: 39817, Start Num: 22

Candidate Starts for DigitDog_45:

(3, 40782), (4, 40770), (5, 40764), (9, 40713), (Start: 22 @40602 has 44 MA's), (73, 40440), (80, 40413),
(105, 40314), (120, 40239), (145, 40137), (162, 40035), (163, 40029), (165, 40020), (173, 39972),

Gene: DirtMonster_95 Start: 50996, Stop: 51628, Start Num: 69

Candidate Starts for DirtMonster_95:

(Start: 69 @50996 has 164 MA's), (149, 51335), (161, 51413), (180, 51521), (192, 51623),

Gene: DoesntMatter_46 Start: 40352, Stop: 39708, Start Num: 52

Candidate Starts for DoesntMatter_46:

(Start: 52 @40352 has 42 MA's), (Start: 53 @40346 has 3 MA's), (Start: 55 @40343 has 1 MA's),
(Start: 79 @40268 has 1 MA's), (99, 40199), (101, 40196), (104, 40193), (115, 40139), (145, 40028),
(162, 39926), (190, 39719),

Gene: Donny_46 Start: 40907, Stop: 40122, Start Num: 22

Candidate Starts for Donny_46:

(Start: 22 @40907 has 44 MA's), (48, 40820), (73, 40745), (80, 40718), (105, 40619), (162, 40340),
(165, 40325),

Gene: DrPhinkDaddy_100 Start: 52023, Stop: 52661, Start Num: 69

Candidate Starts for DrPhinkDaddy_100:

(Start: 69 @52023 has 164 MA's), (149, 52368), (161, 52446), (180, 52554), (192, 52656),

Gene: Drazdys_100 Start: 50726, Stop: 51358, Start Num: 69

Candidate Starts for Drazdys_100:

(Start: 41 @50639 has 5 MA's), (Start: 69 @50726 has 164 MA's), (149, 51065), (161, 51143), (180,
51251), (192, 51353),

Gene: ET08_90 Start: 50495, Stop: 51127, Start Num: 69

Candidate Starts for ET08_90:

(Start: 69 @50495 has 164 MA's), (149, 50834), (161, 50912), (180, 51020), (192, 51122),

Gene: Eaglehorse_46 Start: 40729, Stop: 39965, Start Num: 22

Candidate Starts for Eaglehorse_46:

(Start: 22 @40729 has 44 MA's), (48, 40642), (Start: 71 @40585 has 1 MA's), (73, 40576), (74,
40573), (75, 40564), (96, 40477), (102, 40462), (120, 40378), (145, 40285), (155, 40234), (162,
40183), (169, 40144),

Gene: EastView9101_46 Start: 40557, Stop: 39772, Start Num: 22

Candidate Starts for EastView9101_46:

(Start: 22 @40557 has 44 MA's), (48, 40470), (73, 40395), (80, 40368), (105, 40269), (162, 39990),
(165, 39975),

Gene: EasyJones_104 Start: 50888, Stop: 51520, Start Num: 69

Candidate Starts for EasyJones_104:

(Start: 69 @50888 has 164 MA's), (149, 51227), (161, 51305), (180, 51413), (192, 51515),

Gene: EggyFarm_109 Start: 53767, Stop: 54399, Start Num: 69

Candidate Starts for EggyFarm_109:

(Start: 69 @53767 has 164 MA's), (149, 54106), (161, 54184), (180, 54292), (192, 54394),

Gene: EmToTheThree_104 Start: 53020, Stop: 53658, Start Num: 69

Candidate Starts for EmToTheThree_104:

(Start: 69 @53020 has 164 MA's), (149, 53365), (161, 53443), (180, 53551), (192, 53653),

Gene: EmmaElysia_101 Start: 50554, Stop: 51186, Start Num: 69

Candidate Starts for EmmaElysia_101:

(Start: 69 @50554 has 164 MA's), (149, 50893), (161, 50971), (180, 51079), (192, 51181),

Gene: Erdmann_102 Start: 51804, Stop: 52442, Start Num: 69

Candidate Starts for Erdmann_102:

(Start: 69 @51804 has 164 MA's), (149, 52149), (161, 52227), (180, 52335), (192, 52437),

Gene: ErnieJ_97 Start: 50014, Stop: 50652, Start Num: 69
Candidate Starts for ErnieJ_97:
(Start: 69 @50014 has 164 MA's), (149, 50359), (161, 50437), (180, 50545), (192, 50647),

Gene: Essence_98 Start: 50892, Stop: 51524, Start Num: 69
Candidate Starts for Essence_98:
(Start: 41 @50805 has 5 MA's), (Start: 69 @50892 has 164 MA's), (149, 51231), (161, 51309), (180, 51417), (192, 51519),

Gene: Ewok_102 Start: 51197, Stop: 51829, Start Num: 69
Candidate Starts for Ewok_102:
(Start: 69 @51197 has 164 MA's), (149, 51536), (161, 51614), (180, 51722), (192, 51824),

Gene: Fang_48 Start: 40510, Stop: 39866, Start Num: 52
Candidate Starts for Fang_48:
(Start: 52 @40510 has 42 MA's), (Start: 53 @40504 has 3 MA's), (Start: 55 @40501 has 1 MA's),
(Start: 79 @40426 has 1 MA's), (99, 40357), (101, 40354), (104, 40351), (115, 40297), (162, 40084),

Gene: Faze9_45 Start: 40825, Stop: 40061, Start Num: 22
Candidate Starts for Faze9_45:
(Start: 22 @40825 has 44 MA's), (35, 40783), (48, 40738), (Start: 71 @40681 has 1 MA's), (73, 40672), (74, 40669), (75, 40660), (96, 40573), (102, 40558), (120, 40474), (145, 40381), (155, 40330), (162, 40279), (169, 40240),

Gene: Flabslab_95 Start: 48889, Stop: 49521, Start Num: 69
Candidate Starts for Flabslab_95:
(Start: 41 @48802 has 5 MA's), (Start: 69 @48889 has 164 MA's), (149, 49228), (161, 49306), (180, 49414), (192, 49516),

Gene: Fludd_102 Start: 50660, Stop: 51292, Start Num: 69
Candidate Starts for Fludd_102:
(Start: 69 @50660 has 164 MA's), (149, 50999), (161, 51077), (180, 51185), (192, 51287),

Gene: FluffyNinja_48 Start: 40503, Stop: 39859, Start Num: 52
Candidate Starts for FluffyNinja_48:
(Start: 52 @40503 has 42 MA's), (Start: 53 @40497 has 3 MA's), (Start: 55 @40494 has 1 MA's),
(Start: 79 @40419 has 1 MA's), (99, 40350), (101, 40347), (104, 40344), (115, 40290), (162, 40077),

Gene: Fortunato_43 Start: 40450, Stop: 39692, Start Num: 29
Candidate Starts for Fortunato_43:
(Start: 29 @40450 has 20 MA's), (42, 40381), (77, 40273), (88, 40243), (104, 40195), (106, 40183), (116, 40138), (139, 40027), (145, 40012), (162, 39910), (170, 39865), (177, 39826), (187, 39718),

Gene: FoxtrotP1_101 Start: 52974, Stop: 53612, Start Num: 69
Candidate Starts for FoxtrotP1_101:
(Start: 69 @52974 has 164 MA's), (149, 53319), (161, 53397), (180, 53505), (192, 53607),

Gene: FrayBell_106 Start: 52378, Stop: 53010, Start Num: 69
Candidate Starts for FrayBell_106:
(Start: 41 @52291 has 5 MA's), (Start: 69 @52378 has 164 MA's), (149, 52717), (161, 52795), (180, 52903), (192, 53005),

Gene: Frederick_42 Start: 40432, Stop: 39698, Start Num: 29

Candidate Starts for Frederick_42:

(Start: 29 @40432 has 20 MA's), (77, 40258), (88, 40228), (104, 40180), (106, 40168), (143, 40024), (145, 40018), (162, 39916), (170, 39871), (177, 39832), (187, 39724),

Gene: FrenchFry_46 Start: 40819, Stop: 40055, Start Num: 22

Candidate Starts for FrenchFry_46:

(Start: 22 @40819 has 44 MA's), (48, 40732), (Start: 71 @40675 has 1 MA's), (73, 40666), (74, 40663), (75, 40654), (96, 40567), (102, 40552), (120, 40468), (145, 40375), (155, 40324), (162, 40273), (169, 40234),

Gene: Fresco_40 Start: 34038, Stop: 33349, Start Num: 44

Candidate Starts for Fresco_40:

(Start: 27 @34119 has 1 MA's), (34, 34071), (Start: 44 @34038 has 11 MA's), (88, 33888), (91, 33876), (94, 33867), (148, 33642), (162, 33561), (165, 33546), (173, 33498),

Gene: FudgeTart_101 Start: 51094, Stop: 51726, Start Num: 69

Candidate Starts for FudgeTart_101:

(Start: 69 @51094 has 164 MA's), (149, 51433), (161, 51511), (180, 51619), (192, 51721),

Gene: Funsized_49 Start: 43198, Stop: 42434, Start Num: 22

Candidate Starts for Funsized_49:

(Start: 22 @43198 has 44 MA's), (Start: 71 @43051 has 1 MA's), (77, 43024), (80, 43015), (94, 42967), (105, 42916), (124, 42823), (144, 42757), (145, 42754), (152, 42712), (162, 42652), (166, 42634),

Gene: Gabriel_102 Start: 50298, Stop: 50930, Start Num: 69

Candidate Starts for Gabriel_102:

(Start: 41 @50211 has 5 MA's), (Start: 69 @50298 has 164 MA's), (149, 50637), (161, 50715), (180, 50823), (192, 50925),

Gene: Gadget_46 Start: 40218, Stop: 39520, Start Num: 65

Candidate Starts for Gadget_46:

(Start: 11 @40464 has 1 MA's), (21, 40398), (43, 40287), (Start: 49 @40269 has 1 MA's), (51, 40263), (Start: 65 @40218 has 31 MA's), (82, 40146), (100, 40065), (103, 40059), (121, 39969), (128, 39930), (135, 39894), (145, 39837), (147, 39819), (158, 39759), (164, 39714), (171, 39678), (178, 39645), (181, 39612), (185, 39579), (187, 39540),

Gene: Gamgam_101 Start: 50251, Stop: 50970, Start Num: 41

Candidate Starts for Gamgam_101:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: Gervas_45 Start: 40185, Stop: 39487, Start Num: 65

Candidate Starts for Gervas_45:

(Start: 57 @40209 has 12 MA's), (Start: 65 @40185 has 31 MA's), (82, 40113), (100, 40032), (103, 40026), (121, 39936), (128, 39897), (135, 39861), (145, 39804), (147, 39786), (158, 39726), (164, 39681), (171, 39645), (178, 39612), (181, 39579), (185, 39546), (187, 39507),

Gene: Ghost_100 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for Ghost_100:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: Giraffe_47 Start: 40067, Stop: 39423, Start Num: 52

Candidate Starts for Giraffe_47:

(Start: 52 @40067 has 42 MA's), (Start: 53 @40061 has 3 MA's), (Start: 55 @40058 has 1 MA's), (Start: 79 @39983 has 1 MA's), (99, 39914), (101, 39911), (104, 39908), (145, 39743), (162, 39641), (190, 39434),

Gene: Gizmo_105 Start: 52954, Stop: 53592, Start Num: 69

Candidate Starts for Gizmo_105:

(Start: 69 @52954 has 164 MA's), (149, 53299), (161, 53377), (180, 53485), (192, 53587),

Gene: Glass_46 Start: 40819, Stop: 40055, Start Num: 22

Candidate Starts for Glass_46:

(Start: 22 @40819 has 44 MA's), (48, 40732), (Start: 71 @40675 has 1 MA's), (73, 40666), (74, 40663), (75, 40654), (96, 40567), (102, 40552), (120, 40468), (145, 40375), (155, 40324), (162, 40273), (169, 40234),

Gene: GlenHope_46 Start: 40198, Stop: 39500, Start Num: 65

Candidate Starts for GlenHope_46:

(Start: 11 @40444 has 1 MA's), (21, 40378), (43, 40267), (Start: 49 @40249 has 1 MA's), (51, 40243), (Start: 65 @40198 has 31 MA's), (82, 40126), (100, 40045), (103, 40039), (121, 39949), (128, 39910), (135, 39874), (145, 39817), (147, 39799), (158, 39739), (164, 39694), (171, 39658), (178, 39625), (181, 39592), (185, 39559), (187, 39520),

Gene: Godines_46 Start: 40761, Stop: 39997, Start Num: 22

Candidate Starts for Godines_46:

(Start: 22 @40761 has 44 MA's), (35, 40719), (48, 40674), (Start: 71 @40617 has 1 MA's), (73, 40608), (74, 40605), (75, 40596), (96, 40509), (102, 40494), (120, 40410), (145, 40317), (155, 40266), (162, 40215), (169, 40176),

Gene: Grasshills_108 Start: 53767, Stop: 54399, Start Num: 69

Candidate Starts for Grasshills_108:

(Start: 69 @53767 has 164 MA's), (149, 54106), (161, 54184), (180, 54292), (192, 54394),

Gene: Greely_236 Start: 133749, Stop: 134378, Start Num: 71

Candidate Starts for Greely_236:

(Start: 71 @133749 has 1 MA's), (83, 133797), (129, 134001), (142, 134046), (149, 134085), (153, 134106), (155, 134112), (159, 134142), (160, 134160), (188, 134355), (189, 134358),

Gene: Grungle_89 Start: 48153, Stop: 48785, Start Num: 69

Candidate Starts for Grungle_89:

(Start: 69 @48153 has 164 MA's), (149, 48492), (161, 48570), (180, 48678), (192, 48780),

Gene: Guwapp_100 Start: 50463, Stop: 51095, Start Num: 69

Candidate Starts for Guwapp_100:

(Start: 41 @50376 has 5 MA's), (Start: 69 @50463 has 164 MA's), (149, 50802), (161, 50880), (180, 50988), (192, 51090),

Gene: Gyarad_0047 Start: 40364, Stop: 39720, Start Num: 52

Candidate Starts for Gyarad_0047:

(Start: 52 @40364 has 42 MA's), (Start: 53 @40358 has 3 MA's), (Start: 55 @40355 has 1 MA's), (Start: 79 @40280 has 1 MA's), (99, 40211), (101, 40208), (104, 40205), (115, 40151), (145, 40040), (162, 39938), (190, 39731),

Gene: Halfpint_44 Start: 40024, Stop: 39326, Start Num: 65

Candidate Starts for Halfpint_44:

(Start: 38 @40111 has 2 MA's), (39, 40105), (43, 40093), (Start: 49 @40075 has 1 MA's), (51, 40069), (Start: 65 @40024 has 31 MA's), (82, 39952), (100, 39871), (103, 39865), (121, 39775), (128, 39736), (135, 39700), (145, 39643), (147, 39625), (158, 39565), (164, 39520), (171, 39484), (178, 39451), (181, 39418), (185, 39385), (187, 39346),

Gene: Hangman_42 Start: 40448, Stop: 39690, Start Num: 29

Candidate Starts for Hangman_42:

(Start: 29 @40448 has 20 MA's), (42, 40379), (77, 40271), (88, 40241), (104, 40193), (106, 40181), (139, 40025), (145, 40010), (151, 39977), (162, 39908), (170, 39863), (177, 39824), (187, 39716),

Gene: Hartsy_46 Start: 40405, Stop: 39761, Start Num: 52

Candidate Starts for Hartsy_46:

(Start: 52 @40405 has 42 MA's), (Start: 53 @40399 has 3 MA's), (Start: 55 @40396 has 1 MA's), (Start: 79 @40321 has 1 MA's), (99, 40252), (101, 40249), (104, 40246), (115, 40192), (162, 39979), (190, 39772),

Gene: HarveySr_45 Start: 40191, Stop: 39493, Start Num: 65

Candidate Starts for HarveySr_45:

(Start: 11 @40437 has 1 MA's), (21, 40371), (43, 40260), (Start: 49 @40242 has 1 MA's), (51, 40236), (Start: 65 @40191 has 31 MA's), (82, 40119), (100, 40038), (103, 40032), (121, 39942), (128, 39903), (135, 39867), (145, 39810), (147, 39792), (158, 39732), (164, 39687), (171, 39651), (178, 39618), (181, 39585), (185, 39552), (187, 39513),

Gene: Hashim76_49 Start: 39661, Stop: 38867, Start Num: 24

Candidate Starts for Hashim76_49:

(19, 39691), (Start: 24 @39661 has 2 MA's), (31, 39613), (50, 39553), (Start: 71 @39490 has 1 MA's), (80, 39454), (86, 39430), (124, 39244), (145, 39187), (162, 39082), (169, 39043), (173, 39019),

Gene: Heath_41 Start: 40055, Stop: 39297, Start Num: 29

Candidate Starts for Heath_41:

(Start: 29 @40055 has 20 MA's), (42, 39986), (77, 39878), (88, 39848), (104, 39800), (106, 39788), (116, 39743), (139, 39632), (145, 39617), (151, 39584), (162, 39515), (170, 39470), (177, 39431), (187, 39323),

Gene: Heathcliff_45 Start: 40169, Stop: 39471, Start Num: 65

Candidate Starts for Heathcliff_45:

(Start: 11 @40415 has 1 MA's), (21, 40349), (43, 40238), (Start: 49 @40220 has 1 MA's), (51, 40214), (Start: 65 @40169 has 31 MA's), (82, 40097), (100, 40016), (103, 40010), (121, 39920), (128, 39881), (135, 39845), (145, 39788), (147, 39770), (158, 39710), (164, 39665), (171, 39629), (178, 39596), (181, 39563), (185, 39530), (187, 39491),

Gene: Hedgerow_46 Start: 40801, Stop: 40037, Start Num: 22

Candidate Starts for Hedgerow_46:

(Start: 22 @40801 has 44 MA's), (48, 40714), (Start: 71 @40657 has 1 MA's), (73, 40648), (74, 40645), (75, 40636), (96, 40549), (102, 40534), (120, 40450), (145, 40357), (155, 40306), (162, 40255), (169, 40216),

Gene: Hertubise_47 Start: 40376, Stop: 39732, Start Num: 52

Candidate Starts for Hertubise_47:

(Start: 52 @40376 has 42 MA's), (Start: 53 @40370 has 3 MA's), (Start: 55 @40367 has 1 MA's), (Start: 79 @40292 has 1 MA's), (99, 40223), (101, 40220), (104, 40217), (145, 40052), (162, 39950),

(190, 39743),

Gene: Holeinone_46 Start: 40681, Stop: 39917, Start Num: 22

Candidate Starts for Holeinone_46:

(Start: 22 @40681 has 44 MA's), (35, 40639), (48, 40594), (Start: 71 @40537 has 1 MA's), (73, 40528), (74, 40525), (75, 40516), (96, 40429), (102, 40414), (120, 40330), (145, 40237), (155, 40186), (162, 40135), (169, 40096),

Gene: Hosp_037 Start: 36449, Stop: 35679, Start Num: 22

Candidate Starts for Hosp_037:

(Start: 22 @36449 has 44 MA's), (36, 36410), (Start: 71 @36302 has 1 MA's), (74, 36290), (80, 36266), (98, 36188), (144, 36002), (145, 35999), (148, 35978), (162, 35897), (165, 35882),

Gene: HyRo_93 Start: 50590, Stop: 51222, Start Num: 69

Candidate Starts for HyRo_93:

(Start: 69 @50590 has 164 MA's), (149, 50929), (161, 51007), (180, 51115), (192, 51217),

Gene: Hydro_42 Start: 40465, Stop: 39707, Start Num: 29

Candidate Starts for Hydro_42:

(Start: 29 @40465 has 20 MA's), (42, 40396), (77, 40288), (88, 40258), (104, 40210), (106, 40198), (139, 40042), (145, 40027), (151, 39994), (162, 39925), (170, 39880), (177, 39841), (187, 39733),

Gene: I3_107 Start: 52305, Stop: 52937, Start Num: 69

Candidate Starts for I3_107:

(Start: 69 @52305 has 164 MA's), (149, 52644), (161, 52722), (180, 52830), (192, 52932),

Gene: IkeLoa_95 Start: 50415, Stop: 51053, Start Num: 69

Candidate Starts for IkeLoa_95:

(Start: 69 @50415 has 164 MA's), (149, 50760), (161, 50838), (180, 50946), (192, 51048),

Gene: ImtiyazSitla_47 Start: 40051, Stop: 39407, Start Num: 52

Candidate Starts for ImtiyazSitla_47:

(Start: 52 @40051 has 42 MA's), (Start: 53 @40045 has 3 MA's), (Start: 55 @40042 has 1 MA's), (Start: 79 @39967 has 1 MA's), (99, 39898), (101, 39895), (104, 39892), (115, 39838), (162, 39625),

Gene: Imvubu_38 Start: 37209, Stop: 36445, Start Num: 22

Candidate Starts for Imvubu_38:

(Start: 22 @37209 has 44 MA's), (Start: 44 @37146 has 11 MA's), (54, 37113), (68, 37077), (Start: 71 @37062 has 1 MA's), (80, 37026), (94, 36978), (105, 36927), (157, 36699), (162, 36663), (165, 36648), (166, 36645), (169, 36624),

Gene: Indlovu_44 Start: 39795, Stop: 38992, Start Num: 22

Candidate Starts for Indlovu_44:

(Start: 22 @39795 has 44 MA's), (85, 39591), (103, 39525), (113, 39477), (120, 39441), (137, 39354), (144, 39315), (145, 39312), (162, 39210), (163, 39204), (165, 39195), (169, 39171), (174, 39144), (184, 39072), (187, 39018),

Gene: InigoMontoya_102 Start: 50299, Stop: 50931, Start Num: 69

Candidate Starts for InigoMontoya_102:

(Start: 41 @50212 has 5 MA's), (Start: 69 @50299 has 164 MA's), (149, 50638), (161, 50716), (180, 50824), (192, 50926),

Gene: InterFolia_109 Start: 53313, Stop: 53945, Start Num: 69

Candidate Starts for InterFolia_109:

(Start: 41 @53226 has 5 MA's), (Start: 69 @53313 has 164 MA's), (149, 53652), (161, 53730), (180, 53838), (192, 53940),

Gene: Inverness_47 Start: 40365, Stop: 39721, Start Num: 52

Candidate Starts for Inverness_47:

(Start: 52 @40365 has 42 MA's), (Start: 53 @40359 has 3 MA's), (Start: 55 @40356 has 1 MA's), (Start: 79 @40281 has 1 MA's), (99, 40212), (101, 40209), (104, 40206), (115, 40152), (145, 40041), (162, 39939), (190, 39732),

Gene: Iota_96 Start: 50775, Stop: 51407, Start Num: 69

Candidate Starts for Iota_96:

(Start: 69 @50775 has 164 MA's), (149, 51114), (161, 51192), (180, 51300), (192, 51402),

Gene: IsaacEli_48 Start: 40507, Stop: 39863, Start Num: 52

Candidate Starts for IsaacEli_48:

(Start: 52 @40507 has 42 MA's), (Start: 53 @40501 has 3 MA's), (Start: 55 @40498 has 1 MA's), (Start: 79 @40423 has 1 MA's), (99, 40354), (101, 40351), (104, 40348), (115, 40294), (162, 40081),

Gene: Issimir_100 Start: 51778, Stop: 52416, Start Num: 69

Candidate Starts for Issimir_100:

(Start: 69 @51778 has 164 MA's), (149, 52123), (161, 52201), (180, 52309), (192, 52411),

Gene: ItsyBitsy1_46 Start: 40683, Stop: 39919, Start Num: 22

Candidate Starts for ItsyBitsy1_46:

(Start: 22 @40683 has 44 MA's), (48, 40596), (Start: 71 @40539 has 1 MA's), (73, 40530), (74, 40527), (75, 40518), (96, 40431), (102, 40416), (120, 40332), (145, 40239), (155, 40188), (162, 40137), (169, 40098),

Gene: Izajani_101 Start: 51984, Stop: 52622, Start Num: 69

Candidate Starts for Izajani_101:

(Start: 69 @51984 has 164 MA's), (149, 52329), (161, 52407), (180, 52515), (192, 52617),

Gene: JAMaL_42 Start: 40606, Stop: 39878, Start Num: 29

Candidate Starts for JAMaL_42:

(18, 40660), (Start: 29 @40606 has 20 MA's), (Start: 71 @40465 has 1 MA's), (75, 40444), (80, 40429), (110, 40324), (143, 40204), (145, 40198), (162, 40096), (170, 40051), (174, 40030), (177, 40012), (187, 39904),

Gene: JPickles_99 Start: 49482, Stop: 50201, Start Num: 41

Candidate Starts for JPickles_99:

(Start: 41 @49482 has 5 MA's), (Start: 69 @49569 has 164 MA's), (149, 49908), (161, 49986), (180, 50094), (192, 50196),

Gene: JacAttac_48 Start: 40483, Stop: 39845, Start Num: 53

Candidate Starts for JacAttac_48:

(Start: 52 @40489 has 42 MA's), (Start: 53 @40483 has 3 MA's), (Start: 55 @40480 has 1 MA's), (Start: 79 @40405 has 1 MA's), (99, 40336), (101, 40333), (104, 40330), (115, 40276), (162, 40063),

Gene: Jackstina_42 Start: 40128, Stop: 39430, Start Num: 65

Candidate Starts for Jackstina_42:

(Start: 11 @40374 has 1 MA's), (21, 40308), (43, 40197), (Start: 49 @40179 has 1 MA's), (51, 40173), (Start: 65 @40128 has 31 MA's), (82, 40056), (100, 39975), (103, 39969), (121, 39879), (128, 39840),

(135, 39804), (145, 39747), (147, 39729), (158, 39669), (164, 39624), (171, 39588), (178, 39555), (181, 39522), (185, 39489), (187, 39450),

Gene: JaguarMi_42 Start: 39908, Stop: 39174, Start Num: 29

Candidate Starts for JaguarMi_42:

(Start: 29 @39908 has 20 MA's), (77, 39734), (88, 39704), (104, 39656), (106, 39644), (125, 39554), (143, 39500), (145, 39494), (162, 39392), (170, 39347), (177, 39308),

Gene: Janiyra_103 Start: 51265, Stop: 51897, Start Num: 69

Candidate Starts for Janiyra_103:

(Start: 69 @51265 has 164 MA's), (149, 51604), (161, 51682), (180, 51790), (192, 51892),

Gene: JayJay_103 Start: 53030, Stop: 53662, Start Num: 69

Candidate Starts for JayJay_103:

(Start: 69 @53030 has 164 MA's), (149, 53369), (161, 53447), (180, 53555), (192, 53657),

Gene: Jaygup_101 Start: 51094, Stop: 51726, Start Num: 69

Candidate Starts for Jaygup_101:

(Start: 41 @51007 has 5 MA's), (Start: 69 @51094 has 164 MA's), (149, 51433), (161, 51511), (180, 51619), (192, 51721),

Gene: Jedediah_104 Start: 51627, Stop: 52259, Start Num: 69

Candidate Starts for Jedediah_104:

(Start: 41 @51540 has 5 MA's), (Start: 69 @51627 has 164 MA's), (149, 51966), (161, 52044), (180, 52152), (192, 52254),

Gene: Jemmno_101 Start: 51074, Stop: 51706, Start Num: 69

Candidate Starts for Jemmno_101:

(Start: 41 @50987 has 5 MA's), (Start: 69 @51074 has 164 MA's), (149, 51413), (161, 51491), (180, 51599), (192, 51701),

Gene: Jessibeth14_100 Start: 51589, Stop: 52227, Start Num: 69

Candidate Starts for Jessibeth14_100:

(Start: 69 @51589 has 164 MA's), (149, 51934), (161, 52012), (180, 52120), (192, 52222),

Gene: Jolie1_039 Start: 38233, Stop: 37463, Start Num: 22

Candidate Starts for Jolie1_039:

(Start: 22 @38233 has 44 MA's), (36, 38194), (Start: 71 @38086 has 1 MA's), (74, 38074), (80, 38050), (98, 37972), (138, 37813), (144, 37786), (145, 37783), (148, 37762), (162, 37681), (165, 37666),

Gene: JulietS_96 Start: 49032, Stop: 49664, Start Num: 69

Candidate Starts for JulietS_96:

(Start: 69 @49032 has 164 MA's), (149, 49371), (161, 49449), (180, 49557), (192, 49659),

Gene: JustHall_98 Start: 51127, Stop: 51765, Start Num: 69

Candidate Starts for JustHall_98:

(Start: 69 @51127 has 164 MA's), (149, 51472), (161, 51550), (180, 51658), (192, 51760),

Gene: Kaleb_46 Start: 40816, Stop: 40052, Start Num: 22

Candidate Starts for Kaleb_46:

(Start: 22 @40816 has 44 MA's), (35, 40774), (48, 40729), (Start: 71 @40672 has 1 MA's), (73, 40663), (74, 40660), (75, 40651), (96, 40564), (102, 40549), (120, 40465), (145, 40372), (155, 40321),

(162, 40270), (169, 40231),

Gene: Kamiyu_45 Start: 40177, Stop: 39479, Start Num: 65

Candidate Starts for Kamiyu_45:

(Start: 38 @40264 has 2 MA's), (39, 40258), (43, 40246), (Start: 49 @40228 has 1 MA's), (51, 40222), (Start: 65 @40177 has 31 MA's), (82, 40105), (100, 40024), (103, 40018), (121, 39928), (128, 39889), (135, 39853), (145, 39796), (147, 39778), (158, 39718), (164, 39673), (171, 39637), (178, 39604), (181, 39571), (185, 39538), (187, 39499),

Gene: Kamryn_101 Start: 52411, Stop: 53043, Start Num: 69

Candidate Starts for Kamryn_101:

(34, 52300), (Start: 69 @52411 has 164 MA's), (149, 52750), (161, 52828), (180, 52936), (192, 53038),

Gene: KayaCho_39 Start: 38235, Stop: 37462, Start Num: 22

Candidate Starts for KayaCho_39:

(Start: 22 @38235 has 44 MA's), (Start: 71 @38085 has 1 MA's), (80, 38049), (98, 37971), (138, 37812), (144, 37785), (145, 37782), (148, 37761), (162, 37680), (165, 37665), (168, 37647),

Gene: Kboogie_105 Start: 50769, Stop: 51401, Start Num: 69

Candidate Starts for Kboogie_105:

(Start: 69 @50769 has 164 MA's), (149, 51108), (161, 51186), (180, 51294), (192, 51396),

Gene: Khaleesi_100 Start: 51704, Stop: 52342, Start Num: 69

Candidate Starts for Khaleesi_100:

(Start: 69 @51704 has 164 MA's), (149, 52049), (161, 52127), (180, 52235), (192, 52337),

Gene: Kheth_46 Start: 40734, Stop: 39940, Start Num: 22

Candidate Starts for Kheth_46:

(Start: 22 @40734 has 44 MA's), (35, 40662), (48, 40617), (Start: 71 @40560 has 1 MA's), (73, 40551), (74, 40548), (75, 40539), (96, 40452), (102, 40437), (120, 40353), (145, 40260), (155, 40209), (162, 40158), (169, 40119),

Gene: Kikipoo_48 Start: 40507, Stop: 39863, Start Num: 52

Candidate Starts for Kikipoo_48:

(Start: 52 @40507 has 42 MA's), (Start: 53 @40501 has 3 MA's), (Start: 55 @40498 has 1 MA's), (Start: 79 @40423 has 1 MA's), (99, 40354), (101, 40351), (104, 40348), (115, 40294), (162, 40081),

Gene: KlimbOn_47 Start: 40357, Stop: 39713, Start Num: 52

Candidate Starts for KlimbOn_47:

(Start: 52 @40357 has 42 MA's), (Start: 53 @40351 has 3 MA's), (Start: 55 @40348 has 1 MA's), (Start: 79 @40273 has 1 MA's), (99, 40204), (101, 40201), (104, 40198), (115, 40144), (145, 40033), (162, 39931), (190, 39724),

Gene: Knocker_47 Start: 42121, Stop: 41354, Start Num: 22

Candidate Starts for Knocker_47:

(Start: 22 @42121 has 44 MA's), (68, 41983), (Start: 69 @41974 has 164 MA's), (Start: 71 @41968 has 1 MA's), (77, 41941), (80, 41932), (87, 41908), (138, 41704), (144, 41677), (145, 41674), (148, 41653), (157, 41608), (162, 41572), (169, 41533), (185, 41419), (187, 41380),

Gene: Koguma_98 Start: 49254, Stop: 49886, Start Num: 69

Candidate Starts for Koguma_98:

(Start: 69 @49254 has 164 MA's), (149, 49593), (161, 49671), (180, 49779), (192, 49881),

Gene: Kronus_44 Start: 40787, Stop: 40089, Start Num: 65

Candidate Starts for Kronus_44:

(Start: 11 @41033 has 1 MA's), (21, 40967), (43, 40856), (Start: 49 @40838 has 1 MA's), (51, 40832), (Start: 65 @40787 has 31 MA's), (82, 40715), (100, 40634), (103, 40628), (121, 40538), (128, 40499), (135, 40463), (145, 40406), (147, 40388), (158, 40328), (164, 40283), (171, 40247), (175, 40223), (178, 40214), (181, 40181), (185, 40148), (187, 40109),

Gene: LRRHood_96 Start: 51308, Stop: 51940, Start Num: 69

Candidate Starts for LRRHood_96:

(Start: 69 @51308 has 164 MA's), (149, 51647), (161, 51725), (180, 51833), (192, 51935),

Gene: Lars_46 Start: 40806, Stop: 40042, Start Num: 22

Candidate Starts for Lars_46:

(Start: 22 @40806 has 44 MA's), (35, 40764), (48, 40719), (Start: 71 @40662 has 1 MA's), (73, 40653), (74, 40650), (75, 40641), (96, 40554), (102, 40539), (120, 40455), (145, 40362), (155, 40311), (162, 40260), (169, 40221),

Gene: Latch_101 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for Latch_101:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: Laurie_45 Start: 40205, Stop: 39441, Start Num: 22

Candidate Starts for Laurie_45:

(Start: 22 @40205 has 44 MA's), (48, 40118), (Start: 71 @40061 has 1 MA's), (73, 40052), (74, 40049), (75, 40040), (96, 39953), (102, 39938), (120, 39854), (155, 39710), (162, 39659), (169, 39620),

Gene: Lee7_99 Start: 52340, Stop: 52972, Start Num: 69

Candidate Starts for Lee7_99:

(Start: 69 @52340 has 164 MA's), (149, 52679), (161, 52757), (180, 52865), (192, 52967),

Gene: LeeLot_47 Start: 40367, Stop: 39723, Start Num: 52

Candidate Starts for LeeLot_47:

(Start: 52 @40367 has 42 MA's), (Start: 53 @40361 has 3 MA's), (Start: 55 @40358 has 1 MA's), (Start: 79 @40283 has 1 MA's), (99, 40214), (101, 40211), (104, 40208), (145, 40043), (162, 39941), (190, 39734),

Gene: Lephleur_46 Start: 40699, Stop: 39935, Start Num: 22

Candidate Starts for Lephleur_46:

(Start: 22 @40699 has 44 MA's), (48, 40612), (Start: 71 @40555 has 1 MA's), (73, 40546), (74, 40543), (75, 40534), (96, 40447), (102, 40432), (120, 40348), (145, 40255), (155, 40204), (162, 40153), (169, 40114),

Gene: LestyG_45 Start: 40232, Stop: 39510, Start Num: 57

Candidate Starts for LestyG_45:

(Start: 57 @40232 has 12 MA's), (Start: 65 @40208 has 31 MA's), (82, 40136), (100, 40055), (103, 40049), (121, 39959), (128, 39920), (135, 39884), (145, 39827), (147, 39809), (158, 39749), (164, 39704), (171, 39668), (178, 39635), (181, 39602), (185, 39569), (187, 39530),

Gene: LifeSavor_100 Start: 50939, Stop: 51658, Start Num: 41

Candidate Starts for LifeSavor_100:

(Start: 41 @50939 has 5 MA's), (Start: 69 @51026 has 164 MA's), (149, 51365), (161, 51443), (180, 51551), (192, 51653),

Gene: Ligma_40 Start: 34038, Stop: 33349, Start Num: 44

Candidate Starts for Ligma_40:

(Start: 27 @34119 has 1 MA's), (34, 34071), (Start: 44 @34038 has 11 MA's), (88, 33888), (91, 33876), (94, 33867), (148, 33642), (162, 33561), (165, 33546), (173, 33498),

Gene: LilMcDreamy_43 Start: 40014, Stop: 39223, Start Num: 22

Candidate Starts for LilMcDreamy_43:

(Start: 22 @40014 has 44 MA's), (68, 39864), (93, 39765), (103, 39720), (107, 39696), (111, 39675), (122, 39627), (145, 39543), (165, 39426), (173, 39378),

Gene: LinStu_101 Start: 51916, Stop: 52548, Start Num: 69

Candidate Starts for LinStu_101:

(Start: 69 @51916 has 164 MA's), (149, 52255), (161, 52333), (180, 52441), (192, 52543),

Gene: LittleMunchkin_42 Start: 37302, Stop: 36634, Start Num: 44

Candidate Starts for LittleMunchkin_42:

(32, 37341), (Start: 44 @37302 has 11 MA's), (80, 37188), (110, 37071), (120, 37023), (145, 36948), (152, 36906), (162, 36846), (165, 36831), (173, 36783),

Gene: Littleton_101 Start: 51158, Stop: 51790, Start Num: 69

Candidate Starts for Littleton_101:

(34, 51047), (Start: 69 @51158 has 164 MA's), (149, 51497), (161, 51575), (180, 51683), (192, 51785),

Gene: LizLemon_46 Start: 40815, Stop: 40051, Start Num: 22

Candidate Starts for LizLemon_46:

(Start: 22 @40815 has 44 MA's), (48, 40728), (Start: 71 @40671 has 1 MA's), (73, 40662), (74, 40659), (75, 40650), (96, 40563), (102, 40548), (120, 40464), (145, 40371), (155, 40320), (162, 40269), (169, 40230),

Gene: Loanshark_101 Start: 51927, Stop: 52565, Start Num: 69

Candidate Starts for Loanshark_101:

(Start: 69 @51927 has 164 MA's), (149, 52272), (161, 52350), (180, 52458), (192, 52560),

Gene: LolaVinca_102 Start: 52032, Stop: 52664, Start Num: 69

Candidate Starts for LolaVinca_102:

(Start: 41 @51945 has 5 MA's), (Start: 69 @52032 has 164 MA's), (149, 52371), (161, 52449), (180, 52557), (192, 52659),

Gene: Lolalove_43 Start: 40432, Stop: 39704, Start Num: 29

Candidate Starts for Lolalove_43:

(Start: 29 @40432 has 20 MA's), (77, 40264), (88, 40234), (89, 40231), (104, 40186), (106, 40174), (143, 40030), (145, 40024), (162, 39922), (170, 39877), (177, 39838), (187, 39730),

Gene: Lopsy_46 Start: 39916, Stop: 39278, Start Num: 52

Candidate Starts for Lopsy_46:

(Start: 52 @39916 has 42 MA's), (Start: 53 @39910 has 3 MA's), (Start: 55 @39907 has 1 MA's), (Start: 79 @39832 has 1 MA's), (99, 39769), (101, 39766), (104, 39763), (145, 39598), (162, 39496), (190, 39289),

Gene: LordLeafolot_105 Start: 52996, Stop: 53628, Start Num: 69
Candidate Starts for LordLeafolot_105:
(Start: 41 @52909 has 5 MA's), (Start: 69 @52996 has 164 MA's), (149, 53335), (161, 53413), (180, 53521), (192, 53623),

Gene: Lukilu_92 Start: 51439, Stop: 52071, Start Num: 69
Candidate Starts for Lukilu_92:
(Start: 69 @51439 has 164 MA's), (149, 51778), (161, 51856), (180, 51964), (192, 52066),

Gene: Maby2021_101 Start: 51803, Stop: 52435, Start Num: 69
Candidate Starts for Maby2021_101:
(Start: 69 @51803 has 164 MA's), (149, 52142), (161, 52220), (180, 52328), (192, 52430),

Gene: Magpie_41 Start: 40274, Stop: 39540, Start Num: 29
Candidate Starts for Magpie_41:
(Start: 29 @40274 has 20 MA's), (77, 40100), (88, 40070), (104, 40022), (106, 40010), (143, 39866), (145, 39860), (162, 39758), (170, 39713), (177, 39674),

Gene: Mahdia_50 Start: 37783, Stop: 37172, Start Num: 78
Candidate Starts for Mahdia_50:
(Start: 78 @37783 has 1 MA's), (124, 37585), (152, 37432), (154, 37426), (157, 37408), (179, 37285), (183, 37255),

Gene: Manad_46 Start: 39912, Stop: 39277, Start Num: 55
Candidate Starts for Manad_46:
(25, 40035), (47, 39930), (Start: 53 @39915 has 3 MA's), (Start: 55 @39912 has 1 MA's), (Start: 79 @39837 has 1 MA's), (99, 39768), (101, 39765), (104, 39762), (145, 39597), (162, 39495), (190, 39288),

Gene: Mangeria_101 Start: 51872, Stop: 52504, Start Num: 69
Candidate Starts for Mangeria_101:
(Start: 69 @51872 has 164 MA's), (149, 52211), (161, 52289), (180, 52397), (192, 52499),

Gene: Mariokart_40 Start: 33941, Stop: 33252, Start Num: 44
Candidate Starts for Mariokart_40:
(Start: 44 @33941 has 11 MA's), (85, 33797), (94, 33770), (109, 33692), (145, 33566), (162, 33464), (165, 33449), (173, 33401), (186, 33287),

Gene: Marley1013_45 Start: 40986, Stop: 40288, Start Num: 65
Candidate Starts for Marley1013_45:
(Start: 57 @41010 has 12 MA's), (Start: 65 @40986 has 31 MA's), (82, 40914), (100, 40833), (103, 40827), (121, 40737), (128, 40698), (135, 40662), (145, 40605), (147, 40587), (158, 40527), (164, 40482), (171, 40446), (178, 40413), (181, 40380), (185, 40347), (187, 40308),

Gene: Maskar_47 Start: 40051, Stop: 39407, Start Num: 52
Candidate Starts for Maskar_47:
(Start: 52 @40051 has 42 MA's), (Start: 53 @40045 has 3 MA's), (Start: 55 @40042 has 1 MA's), (Start: 79 @39967 has 1 MA's), (99, 39898), (101, 39895), (104, 39892), (115, 39838), (162, 39625),

Gene: MasterPo_46 Start: 40702, Stop: 39938, Start Num: 22
Candidate Starts for MasterPo_46:
(Start: 22 @40702 has 44 MA's), (35, 40660), (48, 40615), (Start: 71 @40558 has 1 MA's), (73, 40549), (74, 40546), (75, 40537), (96, 40450), (102, 40435), (120, 40351), (145, 40258), (155, 40207),

(162, 40156), (169, 40117),

Gene: Matalotodo_47 Start: 40365, Stop: 39721, Start Num: 52

Candidate Starts for Matalotodo_47:

(Start: 52 @40365 has 42 MA's), (Start: 53 @40359 has 3 MA's), (Start: 55 @40356 has 1 MA's),
(Start: 79 @40281 has 1 MA's), (99, 40212), (101, 40209), (104, 40206), (145, 40041), (162, 39939),
(190, 39732),

Gene: Matsumoto_98 Start: 50654, Stop: 51286, Start Num: 69

Candidate Starts for Matsumoto_98:

(Start: 41 @50567 has 5 MA's), (Start: 69 @50654 has 164 MA's), (149, 50993), (161, 51071), (180,
51179), (192, 51281),

Gene: McGee_103 Start: 50410, Stop: 51042, Start Num: 69

Candidate Starts for McGee_103:

(Start: 69 @50410 has 164 MA's), (149, 50749), (161, 50827), (180, 50935), (192, 51037),

Gene: McWolfish_99 Start: 51587, Stop: 52225, Start Num: 69

Candidate Starts for McWolfish_99:

(Start: 69 @51587 has 164 MA's), (149, 51932), (161, 52010), (180, 52118), (192, 52220),

Gene: Mcshane_46 Start: 40062, Stop: 39418, Start Num: 52

Candidate Starts for Mcshane_46:

(Start: 52 @40062 has 42 MA's), (Start: 53 @40056 has 3 MA's), (Start: 55 @40053 has 1 MA's),
(Start: 79 @39978 has 1 MA's), (99, 39909), (101, 39906), (104, 39903), (115, 39849), (162, 39636),
(190, 39429),

Gene: Megamind_100 Start: 51470, Stop: 52108, Start Num: 69

Candidate Starts for Megamind_100:

(Start: 69 @51470 has 164 MA's), (149, 51815), (161, 51893), (180, 52001), (192, 52103),

Gene: Megatron_48 Start: 40498, Stop: 39854, Start Num: 52

Candidate Starts for Megatron_48:

(Start: 52 @40498 has 42 MA's), (Start: 53 @40492 has 3 MA's), (Start: 55 @40489 has 1 MA's),
(Start: 79 @40414 has 1 MA's), (99, 40345), (101, 40342), (104, 40339), (115, 40285), (162, 40072),

Gene: Melpomini_95 Start: 48945, Stop: 49577, Start Num: 69

Candidate Starts for Melpomini_95:

(Start: 69 @48945 has 164 MA's), (149, 49284), (161, 49362), (180, 49470), (192, 49572),

Gene: MikeLiesIn_102 Start: 51817, Stop: 52455, Start Num: 69

Candidate Starts for MikeLiesIn_102:

(Start: 69 @51817 has 164 MA's), (149, 52162), (161, 52240), (180, 52348), (192, 52450),

Gene: Mikro_99 Start: 53045, Stop: 53677, Start Num: 69

Candidate Starts for Mikro_99:

(Start: 69 @53045 has 164 MA's), (149, 53384), (161, 53462), (180, 53570), (192, 53672),

Gene: Mithril_42 Start: 40442, Stop: 39708, Start Num: 29

Candidate Starts for Mithril_42:

(Start: 29 @40442 has 20 MA's), (77, 40268), (88, 40238), (104, 40190), (106, 40178), (143, 40034),
(145, 40028), (162, 39926), (170, 39881), (177, 39842), (187, 39734),

Gene: MmasiCarm_45 Start: 40214, Stop: 39492, Start Num: 57

Candidate Starts for MmasiCarm_45:

(Start: 57 @40214 has 12 MA's), (Start: 65 @40190 has 31 MA's), (82, 40118), (100, 40037), (103, 40031), (121, 39941), (128, 39902), (135, 39866), (145, 39809), (147, 39791), (158, 39731), (164, 39686), (171, 39650), (178, 39617), (181, 39584), (185, 39551), (187, 39512),

Gene: MoMoMixon_102 Start: 51293, Stop: 51931, Start Num: 69

Candidate Starts for MoMoMixon_102:

(Start: 69 @51293 has 164 MA's), (149, 51638), (161, 51716), (180, 51824), (192, 51926),

Gene: Momo_100 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for Momo_100:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (161, 50755), (180, 50863), (192, 50965),

Gene: Morizzled23_101 Start: 50697, Stop: 51335, Start Num: 69

Candidate Starts for Morizzled23_101:

(Start: 69 @50697 has 164 MA's), (149, 51042), (161, 51120), (180, 51228), (192, 51330),

Gene: Mortcellus_44 Start: 40866, Stop: 40144, Start Num: 57

Candidate Starts for Mortcellus_44:

(Start: 57 @40866 has 12 MA's), (Start: 65 @40842 has 31 MA's), (82, 40770), (100, 40689), (103, 40683), (121, 40593), (128, 40554), (135, 40518), (145, 40461), (147, 40443), (158, 40383), (164, 40338), (171, 40302), (175, 40278), (178, 40269), (181, 40236), (185, 40203), (187, 40164),

Gene: Morty007_45 Start: 40986, Stop: 40288, Start Num: 65

Candidate Starts for Morty007_45:

(Start: 57 @41010 has 12 MA's), (Start: 65 @40986 has 31 MA's), (82, 40914), (100, 40833), (103, 40827), (121, 40737), (128, 40698), (135, 40662), (145, 40605), (147, 40587), (158, 40527), (164, 40482), (171, 40446), (178, 40413), (181, 40380), (185, 40347), (187, 40308),

Gene: Mosaic_46 Start: 40062, Stop: 39418, Start Num: 52

Candidate Starts for Mosaic_46:

(Start: 52 @40062 has 42 MA's), (Start: 53 @40056 has 3 MA's), (Start: 55 @40053 has 1 MA's), (Start: 79 @39978 has 1 MA's), (99, 39909), (101, 39906), (104, 39903), (145, 39738), (162, 39636), (190, 39429),

Gene: Mudslide_42 Start: 40698, Stop: 39940, Start Num: 29

Candidate Starts for Mudslide_42:

(Start: 29 @40698 has 20 MA's), (42, 40629), (77, 40521), (88, 40491), (104, 40443), (106, 40431), (116, 40386), (139, 40275), (145, 40260), (162, 40158), (170, 40113), (177, 40074), (187, 39966),

Gene: Myrna_229 Start: 133429, Stop: 134043, Start Num: 69

Candidate Starts for Myrna_229:

(Start: 69 @133429 has 164 MA's), (83, 133477), (87, 133492), (103, 133555), (134, 133681), (149, 133750), (161, 133828), (180, 133936),

Gene: Nacho_0048 Start: 40501, Stop: 39857, Start Num: 52

Candidate Starts for Nacho_0048:

(Start: 52 @40501 has 42 MA's), (Start: 53 @40495 has 3 MA's), (Start: 55 @40492 has 1 MA's), (Start: 79 @40417 has 1 MA's), (99, 40348), (101, 40345), (104, 40342), (115, 40288), (162, 40075),

Gene: Naija_100 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for Naija_100:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: Nanao_41 Start: 39394, Stop: 38666, Start Num: 29

Candidate Starts for Nanao_41:

(Start: 29 @39394 has 20 MA's), (Start: 71 @39253 has 1 MA's), (75, 39232), (80, 39217), (110, 39112), (143, 38992), (145, 38986), (162, 38884), (170, 38839),

Gene: Nangang_45 Start: 40967, Stop: 40182, Start Num: 22

Candidate Starts for Nangang_45:

(3, 41147), (4, 41135), (5, 41129), (9, 41078), (Start: 22 @40967 has 44 MA's), (73, 40805), (80, 40778), (105, 40679), (120, 40604), (145, 40502), (162, 40400), (163, 40394), (165, 40385), (173, 40337),

Gene: Napoleon13_97 Start: 49383, Stop: 50015, Start Num: 69

Candidate Starts for Napoleon13_97:

(Start: 69 @49383 has 164 MA's), (149, 49722), (161, 49800), (180, 49908), (192, 50010),

Gene: Nappy_104 Start: 52733, Stop: 53365, Start Num: 69

Candidate Starts for Nappy_104:

(51, 52670), (Start: 69 @52733 has 164 MA's), (149, 53072), (161, 53150), (180, 53258), (192, 53360),

Gene: Naval22_106 Start: 53313, Stop: 53945, Start Num: 69

Candidate Starts for Naval22_106:

(Start: 69 @53313 has 164 MA's), (149, 53652), (161, 53730), (180, 53838), (192, 53940),

Gene: NedWong_102 Start: 51804, Stop: 52442, Start Num: 69

Candidate Starts for NedWong_102:

(Start: 69 @51804 has 164 MA's), (149, 52149), (161, 52227), (180, 52335), (192, 52437),

Gene: Neos5_45 Start: 41052, Stop: 40303, Start Num: 49

Candidate Starts for Neos5_45:

(Start: 11 @41247 has 1 MA's), (21, 41181), (43, 41070), (Start: 49 @41052 has 1 MA's), (51, 41046), (Start: 65 @41001 has 31 MA's), (82, 40929), (100, 40848), (103, 40842), (121, 40752), (128, 40713), (135, 40677), (145, 40620), (147, 40602), (158, 40542), (164, 40497), (171, 40461), (178, 40428), (181, 40395), (185, 40362), (187, 40323),

Gene: Newman_47 Start: 40360, Stop: 39716, Start Num: 52

Candidate Starts for Newman_47:

(Start: 52 @40360 has 42 MA's), (Start: 53 @40354 has 3 MA's), (Start: 55 @40351 has 1 MA's), (Start: 79 @40276 has 1 MA's), (99, 40207), (101, 40204), (104, 40201), (115, 40147), (145, 40036), (162, 39934), (190, 39727),

Gene: Ngannou_97 Start: 49320, Stop: 49952, Start Num: 69

Candidate Starts for Ngannou_97:

(Start: 41 @49233 has 5 MA's), (Start: 69 @49320 has 164 MA's), (149, 49659), (161, 49737), (180, 49845), (192, 49947),

Gene: Nidhogg_102 Start: 51544, Stop: 52176, Start Num: 69

Candidate Starts for Nidhogg_102:

(Start: 69 @51544 has 164 MA's), (149, 51883), (161, 51961), (180, 52069), (192, 52171),

Gene: Nigel_41 Start: 39313, Stop: 38579, Start Num: 29

Candidate Starts for Nigel_41:

(Start: 29 @39313 has 20 MA's), (63, 39193), (Start: 71 @39166 has 1 MA's), (75, 39145), (76, 39142), (80, 39130), (89, 39106), (110, 39025), (143, 38905), (151, 38866), (162, 38797), (170, 38752),

Gene: NoodleTree_108 Start: 52136, Stop: 52768, Start Num: 69

Candidate Starts for NoodleTree_108:

(Start: 41 @52049 has 5 MA's), (Start: 69 @52136 has 164 MA's), (149, 52475), (161, 52553), (180, 52661), (192, 52763),

Gene: Norm_102 Start: 52733, Stop: 53371, Start Num: 69

Candidate Starts for Norm_102:

(Start: 69 @52733 has 164 MA's), (149, 53078), (161, 53156), (180, 53264), (192, 53366),

Gene: Nozo_45 Start: 40966, Stop: 40268, Start Num: 65

Candidate Starts for Nozo_45:

(Start: 11 @41212 has 1 MA's), (21, 41146), (43, 41035), (Start: 49 @41017 has 1 MA's), (51, 41011), (Start: 65 @40966 has 31 MA's), (82, 40894), (100, 40813), (103, 40807), (121, 40717), (128, 40678), (135, 40642), (145, 40585), (147, 40567), (158, 40507), (164, 40462), (171, 40426), (178, 40393), (181, 40360), (185, 40327), (187, 40288),

Gene: NuevoMundo_107 Start: 54087, Stop: 54719, Start Num: 69

Candidate Starts for NuevoMundo_107:

(Start: 69 @54087 has 164 MA's), (149, 54426), (161, 54504), (180, 54612), (192, 54714),

Gene: Nyala_46 Start: 40066, Stop: 39422, Start Num: 52

Candidate Starts for Nyala_46:

(Start: 52 @40066 has 42 MA's), (Start: 53 @40060 has 3 MA's), (Start: 55 @40057 has 1 MA's), (Start: 79 @39982 has 1 MA's), (99, 39913), (101, 39910), (104, 39907), (145, 39742), (162, 39640), (190, 39433),

Gene: OSmaximus_48 Start: 40540, Stop: 39896, Start Num: 52

Candidate Starts for OSmaximus_48:

(Start: 52 @40540 has 42 MA's), (Start: 53 @40534 has 3 MA's), (Start: 55 @40531 has 1 MA's), (Start: 79 @40456 has 1 MA's), (99, 40387), (101, 40384), (104, 40381), (115, 40327), (162, 40114),

Gene: Obutu_45 Start: 40214, Stop: 39492, Start Num: 57

Candidate Starts for Obutu_45:

(Start: 57 @40214 has 12 MA's), (Start: 65 @40190 has 31 MA's), (82, 40118), (100, 40037), (103, 40031), (121, 39941), (128, 39902), (135, 39866), (145, 39809), (147, 39791), (158, 39731), (164, 39686), (171, 39650), (178, 39617), (181, 39584), (185, 39551), (187, 39512),

Gene: Olak_47 Start: 40069, Stop: 39425, Start Num: 52

Candidate Starts for Olak_47:

(Start: 52 @40069 has 42 MA's), (Start: 53 @40063 has 3 MA's), (Start: 55 @40060 has 1 MA's), (Start: 79 @39985 has 1 MA's), (99, 39916), (101, 39913), (104, 39910), (162, 39643), (190, 39436),

Gene: Olive_47 Start: 40356, Stop: 39712, Start Num: 52

Candidate Starts for Olive_47:

(Start: 52 @40356 has 42 MA's), (Start: 53 @40350 has 3 MA's), (Start: 55 @40347 has 1 MA's), (Start: 79 @40272 has 1 MA's), (99, 40203), (101, 40200), (104, 40197), (115, 40143), (162, 39930),

(190, 39723),

Gene: OliverWalter_47 Start: 40378, Stop: 39734, Start Num: 52

Candidate Starts for OliverWalter_47:

(Start: 52 @40378 has 42 MA's), (Start: 53 @40372 has 3 MA's), (Start: 55 @40369 has 1 MA's), (Start: 79 @40294 has 1 MA's), (99, 40225), (101, 40222), (104, 40219), (115, 40165), (162, 39952), (190, 39745),

Gene: Oosterbaan_47 Start: 40363, Stop: 39719, Start Num: 52

Candidate Starts for Oosterbaan_47:

(Start: 52 @40363 has 42 MA's), (Start: 53 @40357 has 3 MA's), (Start: 55 @40354 has 1 MA's), (Start: 79 @40279 has 1 MA's), (99, 40210), (101, 40207), (104, 40204), (145, 40039), (162, 39937), (190, 39730),

Gene: Opia_46 Start: 40688, Stop: 39924, Start Num: 22

Candidate Starts for Opia_46:

(Start: 22 @40688 has 44 MA's), (48, 40601), (Start: 71 @40544 has 1 MA's), (73, 40535), (74, 40532), (75, 40523), (96, 40436), (102, 40421), (120, 40337), (145, 40244), (155, 40193), (162, 40142), (169, 40103),

Gene: OrangeOswald_45 Start: 40207, Stop: 39509, Start Num: 65

Candidate Starts for OrangeOswald_45:

(Start: 11 @40453 has 1 MA's), (21, 40387), (43, 40276), (Start: 49 @40258 has 1 MA's), (51, 40252), (Start: 65 @40207 has 31 MA's), (82, 40135), (100, 40054), (103, 40048), (121, 39958), (128, 39919), (135, 39883), (145, 39826), (147, 39808), (158, 39748), (164, 39703), (171, 39667), (178, 39634), (181, 39601), (185, 39568), (187, 39529),

Gene: Orwigg_47 Start: 40062, Stop: 39418, Start Num: 52

Candidate Starts for Orwigg_47:

(Start: 52 @40062 has 42 MA's), (Start: 53 @40056 has 3 MA's), (Start: 55 @40053 has 1 MA's), (Start: 79 @39978 has 1 MA's), (99, 39909), (101, 39906), (104, 39903), (115, 39849), (145, 39738), (162, 39636), (190, 39429),

Gene: Pacifista_49 Start: 40065, Stop: 39421, Start Num: 52

Candidate Starts for Pacifista_49:

(Start: 52 @40065 has 42 MA's), (Start: 53 @40059 has 3 MA's), (Start: 55 @40056 has 1 MA's), (Start: 79 @39981 has 1 MA's), (99, 39912), (101, 39909), (104, 39906), (145, 39741), (162, 39639), (190, 39432),

Gene: ParkTD_102 Start: 51800, Stop: 52438, Start Num: 69

Candidate Starts for ParkTD_102:

(Start: 69 @51800 has 164 MA's), (149, 52145), (161, 52223), (180, 52331), (192, 52433),

Gene: Patter_101 Start: 50355, Stop: 50987, Start Num: 69

Candidate Starts for Patter_101:

(Start: 41 @50268 has 5 MA's), (Start: 69 @50355 has 164 MA's), (149, 50694), (161, 50772), (180, 50880), (192, 50982),

Gene: Phabba_239 Start: 133129, Stop: 133758, Start Num: 71

Candidate Starts for Phabba_239:

(Start: 71 @133129 has 1 MA's), (83, 133177), (129, 133381), (142, 133426), (146, 133447), (149, 133465), (153, 133486), (155, 133492), (159, 133522), (160, 133540), (188, 133735), (189, 133738), (191, 133750),

Gene: Phaedrus_43 Start: 40373, Stop: 39429, Start Num: 11

Candidate Starts for Phaedrus_43:

(Start: 11 @40373 has 1 MA's), (21, 40307), (43, 40196), (Start: 49 @40178 has 1 MA's), (51, 40172), (Start: 65 @40127 has 31 MA's), (82, 40055), (100, 39974), (103, 39968), (121, 39878), (128, 39839), (135, 39803), (145, 39746), (147, 39728), (158, 39668), (164, 39623), (171, 39587), (178, 39554), (181, 39521), (185, 39488), (187, 39449),

Gene: Phantasmagoria_46 Start: 40700, Stop: 39936, Start Num: 22

Candidate Starts for Phantasmagoria_46:

(Start: 22 @40700 has 44 MA's), (35, 40658), (48, 40613), (Start: 71 @40556 has 1 MA's), (73, 40547), (74, 40544), (75, 40535), (96, 40448), (102, 40433), (120, 40349), (145, 40256), (155, 40205), (162, 40154), (169, 40115),

Gene: Phayeta_46 Start: 40096, Stop: 39374, Start Num: 57

Candidate Starts for Phayeta_46:

(Start: 57 @40096 has 12 MA's), (Start: 65 @40072 has 31 MA's), (82, 40000), (100, 39919), (103, 39913), (121, 39823), (128, 39784), (135, 39748), (145, 39691), (147, 39673), (158, 39613), (164, 39568), (171, 39532), (178, 39499), (181, 39466), (185, 39433), (187, 39394),

Gene: PhenghisKhan_46 Start: 39973, Stop: 39329, Start Num: 52

Candidate Starts for PhenghisKhan_46:

(Start: 52 @39973 has 42 MA's), (Start: 53 @39967 has 3 MA's), (Start: 55 @39964 has 1 MA's), (Start: 79 @39889 has 1 MA's), (99, 39820), (101, 39817), (104, 39814), (115, 39760), (162, 39547), (190, 39340),

Gene: Phergie_46 Start: 39964, Stop: 39320, Start Num: 52

Candidate Starts for Phergie_46:

(Start: 52 @39964 has 42 MA's), (Start: 53 @39958 has 3 MA's), (Start: 55 @39955 has 1 MA's), (Start: 79 @39880 has 1 MA's), (99, 39811), (101, 39808), (104, 39805), (115, 39751), (162, 39538), (190, 39331),

Gene: Philly_44 Start: 40058, Stop: 39360, Start Num: 65

Candidate Starts for Philly_44:

(Start: 11 @40304 has 1 MA's), (21, 40238), (43, 40127), (Start: 49 @40109 has 1 MA's), (51, 40103), (Start: 65 @40058 has 31 MA's), (82, 39986), (100, 39905), (103, 39899), (121, 39809), (128, 39770), (135, 39734), (145, 39677), (147, 39659), (158, 39599), (164, 39554), (171, 39518), (178, 39485), (181, 39452), (185, 39419), (187, 39380),

Gene: Phlegm_103 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for Phlegm_103:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: Phleuron_46 Start: 39970, Stop: 39326, Start Num: 52

Candidate Starts for Phleuron_46:

(Start: 52 @39970 has 42 MA's), (Start: 53 @39964 has 3 MA's), (Start: 55 @39961 has 1 MA's), (Start: 79 @39886 has 1 MA's), (101, 39814), (104, 39811), (115, 39757), (145, 39646), (162, 39544), (190, 39337),

Gene: Phlyer_45 Start: 40946, Stop: 40248, Start Num: 65

Candidate Starts for Phlyer_45:

(Start: 11 @41192 has 1 MA's), (21, 41126), (43, 41015), (Start: 49 @40997 has 1 MA's), (51, 40991), (Start: 65 @40946 has 31 MA's), (82, 40874), (100, 40793), (103, 40787), (121, 40697), (128, 40658), (135, 40622), (145, 40565), (147, 40547), (158, 40487), (164, 40442), (171, 40406), (178, 40373), (181, 40340), (185, 40307), (187, 40268),

Gene: Phox_98 Start: 52086, Stop: 52718, Start Num: 69

Candidate Starts for Phox_98:

(Start: 69 @52086 has 164 MA's), (149, 52425), (161, 52503), (180, 52611), (192, 52713),

Gene: PhrankReynolds_45 Start: 39970, Stop: 39326, Start Num: 52

Candidate Starts for PhrankReynolds_45:

(Start: 52 @39970 has 42 MA's), (Start: 53 @39964 has 3 MA's), (Start: 55 @39961 has 1 MA's), (Start: 79 @39886 has 1 MA's), (99, 39817), (101, 39814), (104, 39811), (115, 39757), (162, 39544), (190, 39337),

Gene: Phusco_101 Start: 51103, Stop: 51735, Start Num: 69

Candidate Starts for Phusco_101:

(Start: 41 @51016 has 5 MA's), (Start: 69 @51103 has 164 MA's), (149, 51442), (161, 51520), (180, 51628), (192, 51730),

Gene: Pier_105 Start: 52448, Stop: 53080, Start Num: 69

Candidate Starts for Pier_105:

(Start: 69 @52448 has 164 MA's), (149, 52787), (161, 52865), (180, 52973), (192, 53075),

Gene: Pinkcreek_92 Start: 48897, Stop: 49529, Start Num: 69

Candidate Starts for Pinkcreek_92:

(Start: 69 @48897 has 164 MA's), (149, 49236), (161, 49314), (180, 49422), (192, 49524),

Gene: Pio_105 Start: 53696, Stop: 54328, Start Num: 69

Candidate Starts for Pio_105:

(Start: 69 @53696 has 164 MA's), (149, 54035), (161, 54113), (180, 54221), (192, 54323),

Gene: Pipefish_47 Start: 41599, Stop: 40901, Start Num: 65

Candidate Starts for Pipefish_47:

(Start: 57 @41623 has 12 MA's), (Start: 65 @41599 has 31 MA's), (82, 41527), (100, 41446), (103, 41440), (121, 41350), (128, 41311), (135, 41275), (145, 41218), (147, 41200), (158, 41140), (164, 41095), (171, 41059), (175, 41035), (178, 41026), (181, 40993), (185, 40960), (187, 40921),

Gene: Pipsqueak_47 Start: 40368, Stop: 39724, Start Num: 52

Candidate Starts for Pipsqueak_47:

(Start: 52 @40368 has 42 MA's), (Start: 53 @40362 has 3 MA's), (Start: 55 @40359 has 1 MA's), (Start: 79 @40284 has 1 MA's), (99, 40215), (101, 40212), (104, 40209), (115, 40155), (162, 39942), (190, 39735),

Gene: Pivoine_100 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for Pivoine_100:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: Pleione_104 Start: 51973, Stop: 52605, Start Num: 69

Candidate Starts for Pleione_104:

(Start: 69 @51973 has 164 MA's), (149, 52312), (161, 52390), (180, 52498), (192, 52600),

Gene: Poster_41 Start: 39395, Stop: 38667, Start Num: 29

Candidate Starts for Poster_41:

(Start: 29 @39395 has 20 MA's), (Start: 71 @39254 has 1 MA's), (75, 39233), (80, 39218), (110, 39113), (143, 38993), (145, 38987), (162, 38885), (170, 38840),

Gene: Prince_43 Start: 40608, Stop: 39850, Start Num: 29

Candidate Starts for Prince_43:

(Start: 29 @40608 has 20 MA's), (42, 40539), (77, 40431), (88, 40401), (104, 40353), (106, 40341), (116, 40296), (139, 40185), (145, 40170), (162, 40068), (170, 40023), (174, 40002), (177, 39984), (187, 39876),

Gene: Pupper_52 Start: 17408, Stop: 18166, Start Num: 38

Candidate Starts for Pupper_52:

(Start: 38 @17408 has 2 MA's), (118, 17729), (155, 17909), (160, 17957), (169, 18005),

Gene: PurduePete_101 Start: 52225, Stop: 52863, Start Num: 69

Candidate Starts for PurduePete_101:

(Start: 69 @52225 has 164 MA's), (149, 52570), (161, 52648), (180, 52756), (192, 52858),

Gene: QBert_95 Start: 50881, Stop: 51513, Start Num: 69

Candidate Starts for QBert_95:

(Start: 69 @50881 has 164 MA's), (149, 51220), (161, 51298), (180, 51406), (192, 51508),

Gene: Quasimodo_102 Start: 51762, Stop: 52394, Start Num: 69

Candidate Starts for Quasimodo_102:

(Start: 69 @51762 has 164 MA's), (149, 52101), (161, 52179), (180, 52287), (192, 52389),

Gene: Rabinovish_99 Start: 51861, Stop: 52493, Start Num: 69

Candidate Starts for Rabinovish_99:

(Start: 69 @51861 has 164 MA's), (149, 52200), (161, 52278), (180, 52386), (192, 52488),

Gene: RagingRooster_45 Start: 40208, Stop: 39510, Start Num: 65

Candidate Starts for RagingRooster_45:

(Start: 11 @40454 has 1 MA's), (21, 40388), (43, 40277), (Start: 49 @40259 has 1 MA's), (51, 40253), (Start: 65 @40208 has 31 MA's), (82, 40136), (100, 40055), (103, 40049), (121, 39959), (128, 39920), (135, 39884), (145, 39827), (147, 39809), (158, 39749), (164, 39704), (171, 39668), (178, 39635), (181, 39602), (185, 39569), (187, 39530),

Gene: Rahel_100 Start: 50695, Stop: 51327, Start Num: 69

Candidate Starts for Rahel_100:

(Start: 41 @50608 has 5 MA's), (Start: 69 @50695 has 164 MA's), (149, 51034), (161, 51112), (180, 51220), (192, 51322),

Gene: RawrgerThat_43 Start: 40453, Stop: 39695, Start Num: 29

Candidate Starts for RawrgerThat_43:

(Start: 29 @40453 has 20 MA's), (42, 40384), (77, 40276), (88, 40246), (104, 40198), (106, 40186), (116, 40141), (139, 40030), (145, 40015), (162, 39913), (170, 39868), (177, 39829), (187, 39721),

Gene: RedWattleHog_178 Start: 112519, Stop: 113199, Start Num: 44

Candidate Starts for RedWattleHog_178:

(Start: 44 @112519 has 11 MA's), (84, 112642), (109, 112747), (124, 112819), (156, 112945), (173, 113047),

Gene: Rhinoforte_46 Start: 40821, Stop: 40045, Start Num: 22

Candidate Starts for Rhinoforte_46:

(Start: 22 @40821 has 44 MA's), (35, 40767), (48, 40722), (Start: 71 @40665 has 1 MA's), (73, 40656), (74, 40653), (75, 40644), (96, 40557), (102, 40542), (120, 40458), (145, 40365), (155, 40314), (162, 40263), (169, 40224),

Gene: Rich_44 Start: 40775, Stop: 39990, Start Num: 22

Candidate Starts for Rich_44:

(Start: 22 @40775 has 44 MA's), (61, 40652), (73, 40613), (80, 40586), (105, 40487), (120, 40412), (133, 40361), (145, 40310), (162, 40208), (163, 40202), (165, 40193),

Gene: Rita1961_45 Start: 40215, Stop: 39493, Start Num: 57

Candidate Starts for Rita1961_45:

(Start: 57 @40215 has 12 MA's), (Start: 65 @40191 has 31 MA's), (82, 40119), (100, 40038), (103, 40032), (121, 39942), (128, 39903), (135, 39867), (145, 39810), (147, 39792), (158, 39732), (164, 39687), (171, 39651), (178, 39618), (181, 39585), (185, 39552), (187, 39513),

Gene: Rizal_97 Start: 49756, Stop: 50475, Start Num: 41

Candidate Starts for Rizal_97:

(Start: 41 @49756 has 5 MA's), (Start: 69 @49843 has 164 MA's), (149, 50182), (161, 50260), (180, 50368), (192, 50470),

Gene: RoMag_96 Start: 51018, Stop: 51650, Start Num: 69

Candidate Starts for RoMag_96:

(56, 50976), (Start: 57 @50979 has 12 MA's), (Start: 69 @51018 has 164 MA's), (149, 51357), (161, 51435), (180, 51543), (192, 51645),

Gene: RomaT_45 Start: 40981, Stop: 40283, Start Num: 65

Candidate Starts for RomaT_45:

(Start: 11 @41227 has 1 MA's), (21, 41161), (43, 41050), (Start: 49 @41032 has 1 MA's), (51, 41026), (Start: 65 @40981 has 31 MA's), (82, 40909), (100, 40828), (103, 40822), (121, 40732), (128, 40693), (135, 40657), (145, 40600), (147, 40582), (158, 40522), (164, 40477), (171, 40441), (178, 40408), (181, 40375), (185, 40342), (187, 40303),

Gene: Ronan_95 Start: 48969, Stop: 49601, Start Num: 69

Candidate Starts for Ronan_95:

(Start: 69 @48969 has 164 MA's), (149, 49308), (161, 49386), (180, 49494), (192, 49596),

Gene: Roots515_100 Start: 51997, Stop: 52635, Start Num: 69

Candidate Starts for Roots515_100:

(Start: 69 @51997 has 164 MA's), (149, 52342), (161, 52420), (180, 52528), (192, 52630),

Gene: Rosebush_45 Start: 40816, Stop: 40052, Start Num: 22

Candidate Starts for Rosebush_45:

(Start: 22 @40816 has 44 MA's), (48, 40729), (Start: 71 @40672 has 1 MA's), (73, 40663), (74, 40660), (75, 40651), (96, 40564), (102, 40549), (120, 40465), (145, 40372), (155, 40321), (162, 40270), (169, 40231),

Gene: SCentae_52 Start: 17425, Stop: 18183, Start Num: 38

Candidate Starts for SCentae_52:

(Start: 38 @17425 has 2 MA's), (92, 17620), (118, 17746), (155, 17926), (160, 17974), (169, 18022),

Gene: Sabella_45 Start: 40693, Stop: 39929, Start Num: 22

Candidate Starts for Sabella_45:

(Start: 22 @40693 has 44 MA's), (48, 40606), (Start: 71 @40549 has 1 MA's), (73, 40540), (74, 40537), (75, 40528), (96, 40441), (102, 40426), (120, 40342), (145, 40249), (155, 40198), (162, 40147), (169, 40108),

Gene: Salacia_105 Start: 52144, Stop: 52776, Start Num: 69

Candidate Starts for Salacia_105:

(Start: 69 @52144 has 164 MA's), (149, 52483), (161, 52561), (180, 52669), (192, 52771),

Gene: Sapo_18 Start: 17320, Stop: 16661, Start Num: 67

Candidate Starts for Sapo_18:

(26, 17491), (31, 17446), (37, 17428), (64, 17338), (Start: 67 @17320 has 1 MA's), (70, 17308), (77, 17275), (119, 17101), (163, 16867), (176, 16798), (177, 16789),

Gene: Sauce_102 Start: 51006, Stop: 51638, Start Num: 69

Candidate Starts for Sauce_102:

(Start: 69 @51006 has 164 MA's), (149, 51345), (161, 51423), (180, 51531), (192, 51633),

Gene: ScoobyDoobyDoo_226 Start: 130612, Stop: 131253, Start Num: 69

Candidate Starts for ScoobyDoobyDoo_226:

(Start: 69 @130612 has 164 MA's), (97, 130723), (118, 130816), (132, 130882), (136, 130903), (146, 130942), (149, 130960), (150, 130966), (161, 131038), (180, 131146), (182, 131164),

Gene: ScottMcG_98 Start: 50768, Stop: 51400, Start Num: 69

Candidate Starts for ScottMcG_98:

(Start: 69 @50768 has 164 MA's), (149, 51107), (161, 51185), (180, 51293), (192, 51395),

Gene: Sebata_103 Start: 52475, Stop: 53107, Start Num: 69

Candidate Starts for Sebata_103:

(Start: 69 @52475 has 164 MA's), (149, 52814), (161, 52892), (180, 53000), (192, 53102),

Gene: Selr12_48 Start: 40094, Stop: 39450, Start Num: 52

Candidate Starts for Selr12_48:

(Start: 52 @40094 has 42 MA's), (Start: 53 @40088 has 3 MA's), (Start: 55 @40085 has 1 MA's), (Start: 79 @40010 has 1 MA's), (99, 39941), (101, 39938), (104, 39935), (145, 39770), (162, 39668), (190, 39461),

Gene: Serendipitous_45 Start: 40717, Stop: 39950, Start Num: 22

Candidate Starts for Serendipitous_45:

(4, 40885), (5, 40879), (7, 40834), (9, 40828), (Start: 22 @40717 has 44 MA's), (73, 40555), (80, 40528), (105, 40429), (120, 40354), (130, 40315), (162, 40168), (163, 40162), (165, 40153), (173, 40105),

Gene: Serpentine_0047 Start: 40366, Stop: 39722, Start Num: 52

Candidate Starts for Serpentine_0047:

(Start: 52 @40366 has 42 MA's), (Start: 53 @40360 has 3 MA's), (Start: 55 @40357 has 1 MA's), (Start: 79 @40282 has 1 MA's), (99, 40213), (101, 40210), (104, 40207), (115, 40153), (145, 40042), (162, 39940), (190, 39733),

Gene: Shaqnato_94 Start: 49881, Stop: 50513, Start Num: 69

Candidate Starts for Shaqnato_94:

(Start: 69 @49881 has 164 MA's), (149, 50220), (161, 50298), (180, 50406), (192, 50508),

Gene: Shatter_40 Start: 34038, Stop: 33349, Start Num: 44

Candidate Starts for Shatter_40:

(Start: 27 @34119 has 1 MA's), (34, 34071), (Start: 44 @34038 has 11 MA's), (88, 33888), (91, 33876), (94, 33867), (148, 33642), (162, 33561), (165, 33546), (173, 33498),

Gene: Shelob_103 Start: 52591, Stop: 53223, Start Num: 69

Candidate Starts for Shelob_103:

(Start: 69 @52591 has 164 MA's), (149, 52930), (161, 53008), (180, 53116), (192, 53218),

Gene: ShiaLabeouf_100 Start: 51130, Stop: 51762, Start Num: 69

Candidate Starts for ShiaLabeouf_100:

(Start: 41 @51043 has 5 MA's), (Start: 69 @51130 has 164 MA's), (149, 51469), (161, 51547), (180, 51655), (192, 51757),

Gene: Shifa_90 Start: 49856, Stop: 50488, Start Num: 69

Candidate Starts for Shifa_90:

(Start: 69 @49856 has 164 MA's), (149, 50195), (161, 50273), (180, 50381), (192, 50483),

Gene: Shnickers_101 Start: 51094, Stop: 51726, Start Num: 69

Candidate Starts for Shnickers_101:

(Start: 41 @51007 has 5 MA's), (Start: 69 @51094 has 164 MA's), (149, 51433), (161, 51511), (180, 51619), (192, 51721),

Gene: Shrimp_101 Start: 51808, Stop: 52446, Start Num: 69

Candidate Starts for Shrimp_101:

(Start: 69 @51808 has 164 MA's), (149, 52153), (161, 52231), (180, 52339), (192, 52441),

Gene: Sigman_48 Start: 40489, Stop: 39845, Start Num: 52

Candidate Starts for Sigman_48:

(Start: 52 @40489 has 42 MA's), (Start: 53 @40483 has 3 MA's), (Start: 55 @40480 has 1 MA's), (Start: 79 @40405 has 1 MA's), (99, 40336), (101, 40333), (104, 40330), (115, 40276), (162, 40063),

Gene: SilverDipper_102 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for SilverDipper_102:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: SirJeffery_46 Start: 40904, Stop: 40119, Start Num: 22

Candidate Starts for SirJeffery_46:

(Start: 22 @40904 has 44 MA's), (48, 40817), (73, 40742), (80, 40715), (105, 40616), (162, 40337), (165, 40322),

Gene: Sisko_40 Start: 34816, Stop: 34106, Start Num: 44

Candidate Starts for Sisko_40:

(Start: 44 @34816 has 11 MA's), (99, 34618), (120, 34525), (145, 34420), (162, 34318), (165, 34303), (173, 34255),

Gene: SlippinJimmy_45 Start: 40997, Stop: 40275, Start Num: 57

Candidate Starts for SlippinJimmy_45:

(Start: 57 @40997 has 12 MA's), (Start: 65 @40973 has 31 MA's), (82, 40901), (100, 40820), (103, 40814), (121, 40724), (128, 40685), (135, 40649), (145, 40592), (147, 40574), (158, 40514), (164, 40469), (171, 40433), (178, 40400), (181, 40367), (185, 40334), (187, 40295),

Gene: SmallFry_101 Start: 50319, Stop: 50951, Start Num: 69

Candidate Starts for SmallFry_101:

(Start: 41 @50232 has 5 MA's), (Start: 69 @50319 has 164 MA's), (149, 50658), (161, 50736), (180, 50844), (192, 50946),

Gene: Sour_45 Start: 38694, Stop: 38008, Start Num: 44

Candidate Starts for Sour_45:

(33, 38730), (Start: 44 @38694 has 11 MA's), (99, 38487), (120, 38394), (145, 38322), (165, 38205), (186, 38043),

Gene: Spec_97 Start: 50859, Stop: 51491, Start Num: 69

Candidate Starts for Spec_97:

(Start: 41 @50772 has 5 MA's), (Start: 69 @50859 has 164 MA's), (149, 51198), (161, 51276), (180, 51384), (192, 51486),

Gene: Specks_106 Start: 52993, Stop: 53625, Start Num: 69

Candidate Starts for Specks_106:

(Start: 41 @52906 has 5 MA's), (Start: 69 @52993 has 164 MA's), (149, 53332), (161, 53410), (180, 53518), (192, 53620),

Gene: Sprinklers_97 Start: 50378, Stop: 51010, Start Num: 69

Candidate Starts for Sprinklers_97:

(Start: 69 @50378 has 164 MA's), (149, 50717), (161, 50795), (180, 50903), (192, 51005),

Gene: Spud_101 Start: 51893, Stop: 52525, Start Num: 69

Candidate Starts for Spud_101:

(Start: 69 @51893 has 164 MA's), (149, 52232), (161, 52310), (180, 52418), (192, 52520),

Gene: Squid_47 Start: 40067, Stop: 39423, Start Num: 52

Candidate Starts for Squid_47:

(Start: 52 @40067 has 42 MA's), (Start: 53 @40061 has 3 MA's), (Start: 55 @40058 has 1 MA's), (Start: 79 @39983 has 1 MA's), (99, 39914), (101, 39911), (104, 39908), (145, 39743), (162, 39641), (190, 39434),

Gene: SrishMeg2525_100 Start: 51912, Stop: 52544, Start Num: 69

Candidate Starts for SrishMeg2525_100:

(Start: 69 @51912 has 164 MA's), (149, 52251), (161, 52329), (180, 52437), (192, 52539),

Gene: StephanieG_100 Start: 52717, Stop: 53355, Start Num: 69

Candidate Starts for StephanieG_100:

(Start: 69 @52717 has 164 MA's), (149, 53062), (161, 53140), (180, 53248), (192, 53350),

Gene: Stinger_41 Start: 39003, Stop: 38269, Start Num: 29

Candidate Starts for Stinger_41:

(Start: 29 @39003 has 20 MA's), (63, 38883), (Start: 71 @38856 has 1 MA's), (75, 38835), (80, 38820), (88, 38799), (89, 38796), (143, 38595), (145, 38589), (162, 38487), (170, 38442),

Gene: StinkyVeggy_47 Start: 41044, Stop: 40259, Start Num: 22

Candidate Starts for StinkyVeggy_47:

(6, 41194), (8, 41158), (10, 41128), (14, 41089), (Start: 22 @41044 has 44 MA's), (73, 40882), (80, 40855), (105, 40756), (120, 40681), (145, 40579), (162, 40477), (163, 40471), (165, 40462), (173, 40414),

Gene: Stormageddon_179 Start: 113484, Stop: 114164, Start Num: 44
Candidate Starts for Stormageddon_179:
(Start: 44 @113484 has 11 MA's), (84, 113607), (109, 113712), (124, 113784), (156, 113910), (173, 114012),

Gene: Stubby_94 Start: 50013, Stop: 50645, Start Num: 69
Candidate Starts for Stubby_94:
(Start: 69 @50013 has 164 MA's), (149, 50352), (161, 50430), (180, 50538), (192, 50640),

Gene: StubbySaigey_104 Start: 50510, Stop: 51142, Start Num: 69
Candidate Starts for StubbySaigey_104:
(Start: 69 @50510 has 164 MA's), (149, 50849), (161, 50927), (180, 51035), (192, 51137),

Gene: Suigeneris_46 Start: 40907, Stop: 40122, Start Num: 22
Candidate Starts for Suigeneris_46:
(Start: 22 @40907 has 44 MA's), (48, 40820), (73, 40745), (80, 40718), (105, 40619), (162, 40340), (165, 40325),

Gene: Swiphy_49 Start: 40367, Stop: 39723, Start Num: 52
Candidate Starts for Swiphy_49:
(Start: 52 @40367 has 42 MA's), (Start: 53 @40361 has 3 MA's), (Start: 55 @40358 has 1 MA's), (Start: 79 @40283 has 1 MA's), (99, 40214), (101, 40211), (104, 40208), (145, 40043), (162, 39941), (190, 39734),

Gene: SynergyX_45 Start: 40208, Stop: 39510, Start Num: 65
Candidate Starts for SynergyX_45:
(Start: 11 @40454 has 1 MA's), (21, 40388), (43, 40277), (Start: 49 @40259 has 1 MA's), (51, 40253), (Start: 65 @40208 has 31 MA's), (82, 40136), (100, 40055), (103, 40049), (121, 39959), (128, 39920), (135, 39884), (145, 39827), (147, 39809), (158, 39749), (164, 39704), (171, 39668), (178, 39635), (181, 39602), (185, 39569), (187, 39530),

Gene: TA17A_46 Start: 40683, Stop: 39919, Start Num: 22
Candidate Starts for TA17A_46:
(Start: 22 @40683 has 44 MA's), (35, 40641), (48, 40596), (Start: 71 @40539 has 1 MA's), (73, 40530), (74, 40527), (75, 40518), (96, 40431), (102, 40416), (120, 40332), (145, 40239), (155, 40188), (162, 40137), (169, 40098),

Gene: Teardrop_100 Start: 50317, Stop: 50949, Start Num: 69
Candidate Starts for Teardrop_100:
(Start: 41 @50230 has 5 MA's), (Start: 69 @50317 has 164 MA's), (149, 50656), (161, 50734), (180, 50842), (192, 50944),

Gene: Thonko_45 Start: 38227, Stop: 37415, Start Num: 27
Candidate Starts for Thonko_45:
(23, 38251), (Start: 27 @38227 has 1 MA's), (30, 38212), (45, 38143), (46, 38137), (76, 38041), (82, 38023), (104, 37951), (115, 37897), (145, 37735), (185, 37480),

Gene: ThreeOh3D2_48 Start: 40504, Stop: 39860, Start Num: 52
Candidate Starts for ThreeOh3D2_48:
(Start: 52 @40504 has 42 MA's), (Start: 53 @40498 has 3 MA's), (Start: 55 @40495 has 1 MA's), (Start: 79 @40420 has 1 MA's), (99, 40351), (101, 40348), (104, 40345), (115, 40291), (162, 40078),

Gene: Tinciduntolum_47 Start: 40827, Stop: 40057, Start Num: 22

Candidate Starts for Tinciduntsum_47:

(Start: 22 @40827 has 44 MA's), (48, 40734), (Start: 71 @40677 has 1 MA's), (73, 40668), (74, 40665), (75, 40656), (96, 40569), (102, 40554), (120, 40470), (145, 40377), (155, 40326), (162, 40275), (169, 40236),

Gene: TinyTim_101 Start: 51570, Stop: 52202, Start Num: 69

Candidate Starts for TinyTim_101:

(Start: 69 @51570 has 164 MA's), (149, 51909), (161, 51987), (180, 52095), (192, 52197),

Gene: Tonenili_116 Start: 55317, Stop: 55949, Start Num: 69

Candidate Starts for Tonenili_116:

(40, 55221), (Start: 69 @55317 has 164 MA's), (149, 55656), (159, 55713), (161, 55734), (180, 55842), (192, 55944),

Gene: Tortoise16_98 Start: 50918, Stop: 51550, Start Num: 69

Candidate Starts for Tortoise16_98:

(Start: 41 @50831 has 5 MA's), (Start: 69 @50918 has 164 MA's), (149, 51257), (161, 51335), (180, 51443), (192, 51545),

Gene: Tres_46 Start: 40696, Stop: 39932, Start Num: 22

Candidate Starts for Tres_46:

(Start: 22 @40696 has 44 MA's), (48, 40609), (Start: 71 @40552 has 1 MA's), (73, 40543), (74, 40540), (75, 40531), (96, 40444), (102, 40429), (120, 40345), (145, 40252), (155, 40201), (162, 40150), (169, 40111),

Gene: Trine_54 Start: 39655, Stop: 38969, Start Num: 65

Candidate Starts for Trine_54:

(20, 39847), (28, 39799), (60, 39667), (Start: 65 @39655 has 31 MA's), (66, 39652), (81, 39583), (97, 39514), (113, 39448), (117, 39433), (124, 39394), (126, 39391), (141, 39310), (155, 39235), (157, 39220), (190, 38980),

Gene: Trinitium_98 Start: 50276, Stop: 50908, Start Num: 69

Candidate Starts for Trinitium_98:

(Start: 69 @50276 has 164 MA's), (149, 50615), (161, 50693), (180, 50801), (192, 50903),

Gene: Trypo_48 Start: 40500, Stop: 39856, Start Num: 52

Candidate Starts for Trypo_48:

(Start: 52 @40500 has 42 MA's), (Start: 53 @40494 has 3 MA's), (Start: 55 @40491 has 1 MA's), (Start: 79 @40416 has 1 MA's), (99, 40347), (101, 40344), (104, 40341), (115, 40287), (162, 40074),

Gene: Turret_96 Start: 49715, Stop: 50353, Start Num: 69

Candidate Starts for Turret_96:

(Start: 69 @49715 has 164 MA's), (149, 50060), (161, 50138), (180, 50246), (192, 50348),

Gene: Tydolla_45 Start: 40942, Stop: 40244, Start Num: 65

Candidate Starts for Tydolla_45:

(Start: 11 @41188 has 1 MA's), (21, 41122), (43, 41011), (Start: 49 @40993 has 1 MA's), (51, 40987), (Start: 65 @40942 has 31 MA's), (82, 40870), (100, 40789), (103, 40783), (121, 40693), (128, 40654), (135, 40618), (145, 40561), (147, 40543), (158, 40483), (164, 40438), (171, 40402), (178, 40369), (181, 40336), (185, 40303), (187, 40264),

Gene: Tyke_102 Start: 52459, Stop: 53091, Start Num: 69

Candidate Starts for Tyke_102:

(Start: 41 @52372 has 5 MA's), (Start: 69 @52459 has 164 MA's), (149, 52798), (161, 52876), (180, 52984), (192, 53086),

Gene: UncleHowie_47 Start: 40068, Stop: 39424, Start Num: 52

Candidate Starts for UncleHowie_47:

(Start: 52 @40068 has 42 MA's), (Start: 53 @40062 has 3 MA's), (Start: 55 @40059 has 1 MA's), (Start: 79 @39984 has 1 MA's), (99, 39915), (101, 39912), (104, 39909), (145, 39744), (162, 39642), (190, 39435),

Gene: ValleyTerrace_101 Start: 50338, Stop: 50970, Start Num: 69

Candidate Starts for ValleyTerrace_101:

(Start: 41 @50251 has 5 MA's), (Start: 69 @50338 has 164 MA's), (149, 50677), (161, 50755), (180, 50863), (192, 50965),

Gene: Vincenzo_43 Start: 41068, Stop: 40448, Start Num: 62

Candidate Starts for Vincenzo_43:

(Start: 62 @41068 has 2 MA's), (98, 40942), (108, 40909), (114, 40882), (121, 40849), (143, 40774), (145, 40768), (157, 40702), (170, 40621), (184, 40528), (190, 40459),

Gene: VioletZ_44 Start: 40524, Stop: 39766, Start Num: 29

Candidate Starts for VioletZ_44:

(Start: 29 @40524 has 20 MA's), (42, 40455), (77, 40347), (88, 40317), (104, 40269), (106, 40257), (116, 40212), (139, 40101), (145, 40086), (162, 39984), (170, 39939), (174, 39918), (177, 39900), (187, 39792),

Gene: Vista_47 Start: 40363, Stop: 39725, Start Num: 53

Candidate Starts for Vista_47:

(Start: 52 @40369 has 42 MA's), (Start: 53 @40363 has 3 MA's), (Start: 55 @40360 has 1 MA's), (Start: 79 @40285 has 1 MA's), (99, 40216), (101, 40213), (104, 40210), (145, 40045), (162, 39943), (190, 39736),

Gene: Vivaldi_47 Start: 40389, Stop: 39751, Start Num: 53

Candidate Starts for Vivaldi_47:

(25, 40509), (47, 40404), (Start: 53 @40389 has 3 MA's), (Start: 55 @40386 has 1 MA's), (Start: 79 @40311 has 1 MA's), (99, 40242), (101, 40239), (104, 40236), (145, 40071), (162, 39969), (190, 39762),

Gene: Waleliano_42 Start: 40448, Stop: 39693, Start Num: 29

Candidate Starts for Waleliano_42:

(Start: 29 @40448 has 20 MA's), (42, 40382), (77, 40274), (88, 40244), (104, 40196), (106, 40184), (139, 40028), (145, 40013), (151, 39980), (162, 39911), (170, 39866), (177, 39827), (187, 39719),

Gene: Wally_100 Start: 50348, Stop: 50980, Start Num: 69

Candidate Starts for Wally_100:

(Start: 69 @50348 has 164 MA's), (149, 50687), (161, 50765), (180, 50873), (192, 50975),

Gene: Waterdiva_47 Start: 40361, Stop: 39717, Start Num: 52

Candidate Starts for Waterdiva_47:

(Start: 52 @40361 has 42 MA's), (Start: 53 @40355 has 3 MA's), (Start: 55 @40352 has 1 MA's), (Start: 79 @40277 has 1 MA's), (99, 40208), (101, 40205), (104, 40202), (115, 40148), (162, 39935), (190, 39728),

Gene: West99_46 Start: 40816, Stop: 40052, Start Num: 22

Candidate Starts for West99_46:

(Start: 22 @40816 has 44 MA's), (48, 40729), (Start: 71 @40672 has 1 MA's), (73, 40663), (74, 40660), (75, 40651), (96, 40564), (102, 40549), (120, 40465), (145, 40372), (155, 40321), (162, 40270), (169, 40231),

Gene: Willis_102 Start: 51699, Stop: 52337, Start Num: 69

Candidate Starts for Willis_102:

(Start: 69 @51699 has 164 MA's), (149, 52044), (180, 52230), (192, 52332),

Gene: Yago84_40 Start: 34890, Stop: 34180, Start Num: 44

Candidate Starts for Yago84_40:

(Start: 44 @34890 has 11 MA's), (99, 34692), (120, 34599), (145, 34494), (162, 34392), (165, 34377), (173, 34329),

Gene: Yahalom_45 Start: 40218, Stop: 39520, Start Num: 65

Candidate Starts for Yahalom_45:

(Start: 11 @40464 has 1 MA's), (21, 40398), (43, 40287), (Start: 49 @40269 has 1 MA's), (51, 40263), (Start: 65 @40218 has 31 MA's), (82, 40146), (100, 40065), (103, 40059), (121, 39969), (128, 39930), (135, 39894), (145, 39837), (147, 39819), (158, 39759), (164, 39714), (171, 39678), (178, 39645), (181, 39612), (185, 39579), (187, 39540),

Gene: Yassified_98 Start: 50425, Stop: 51057, Start Num: 69

Candidate Starts for Yassified_98:

(Start: 69 @50425 has 164 MA's), (149, 50764), (161, 50842), (180, 50950), (192, 51052),

Gene: YemiJoy2021_102 Start: 51801, Stop: 52439, Start Num: 69

Candidate Starts for YemiJoy2021_102:

(Start: 69 @51801 has 164 MA's), (149, 52146), (161, 52224), (180, 52332), (192, 52434),

Gene: Yinz_45 Start: 40244, Stop: 39546, Start Num: 65

Candidate Starts for Yinz_45:

(Start: 11 @40490 has 1 MA's), (21, 40424), (43, 40313), (Start: 49 @40295 has 1 MA's), (51, 40289), (Start: 65 @40244 has 31 MA's), (82, 40172), (100, 40091), (103, 40085), (121, 39995), (128, 39956), (135, 39920), (145, 39863), (147, 39845), (158, 39785), (164, 39740), (171, 39704), (175, 39680), (178, 39671), (181, 39638), (185, 39605), (187, 39566),

Gene: YoungMoneyMata_102 Start: 50971, Stop: 51603, Start Num: 69

Candidate Starts for YoungMoneyMata_102:

(Start: 69 @50971 has 164 MA's), (149, 51310), (161, 51388), (180, 51496), (192, 51598),

Gene: Yucca_101 Start: 51489, Stop: 52121, Start Num: 69

Candidate Starts for Yucca_101:

(Start: 69 @51489 has 164 MA's), (149, 51828), (161, 51906), (180, 52014), (192, 52116),

Gene: Zalkecks_102 Start: 51490, Stop: 52122, Start Num: 69

Candidate Starts for Zalkecks_102:

(Start: 69 @51490 has 164 MA's), (149, 51829), (161, 51907), (180, 52015), (192, 52117),

Gene: Zeenon_103 Start: 51575, Stop: 52207, Start Num: 69

Candidate Starts for Zeenon_103:

(Start: 69 @51575 has 164 MA's), (149, 51914), (161, 51992), (180, 52100), (192, 52202),

Gene: Zemanar_43 Start: 40424, Stop: 39696, Start Num: 29

Candidate Starts for Zemanar_43:

(Start: 29 @40424 has 20 MA's), (77, 40256), (88, 40226), (89, 40223), (104, 40178), (106, 40166), (143, 40022), (145, 40016), (162, 39914), (170, 39869), (177, 39830), (187, 39722),

Gene: Zenteno07_50 Start: 39868, Stop: 39071, Start Num: 24

Candidate Starts for Zenteno07_50:

(19, 39898), (Start: 24 @39868 has 2 MA's), (46, 39763), (50, 39757), (Start: 71 @39694 has 1 MA's), (Start: 79 @39661 has 1 MA's), (80, 39658), (86, 39634), (124, 39448), (145, 39391), (162, 39286), (169, 39247),

Gene: ZygoTaiga_100 Start: 52729, Stop: 53367, Start Num: 69

Candidate Starts for ZygoTaiga_100:

(Start: 69 @52729 has 164 MA's), (149, 53074), (161, 53152), (180, 53260), (192, 53362),