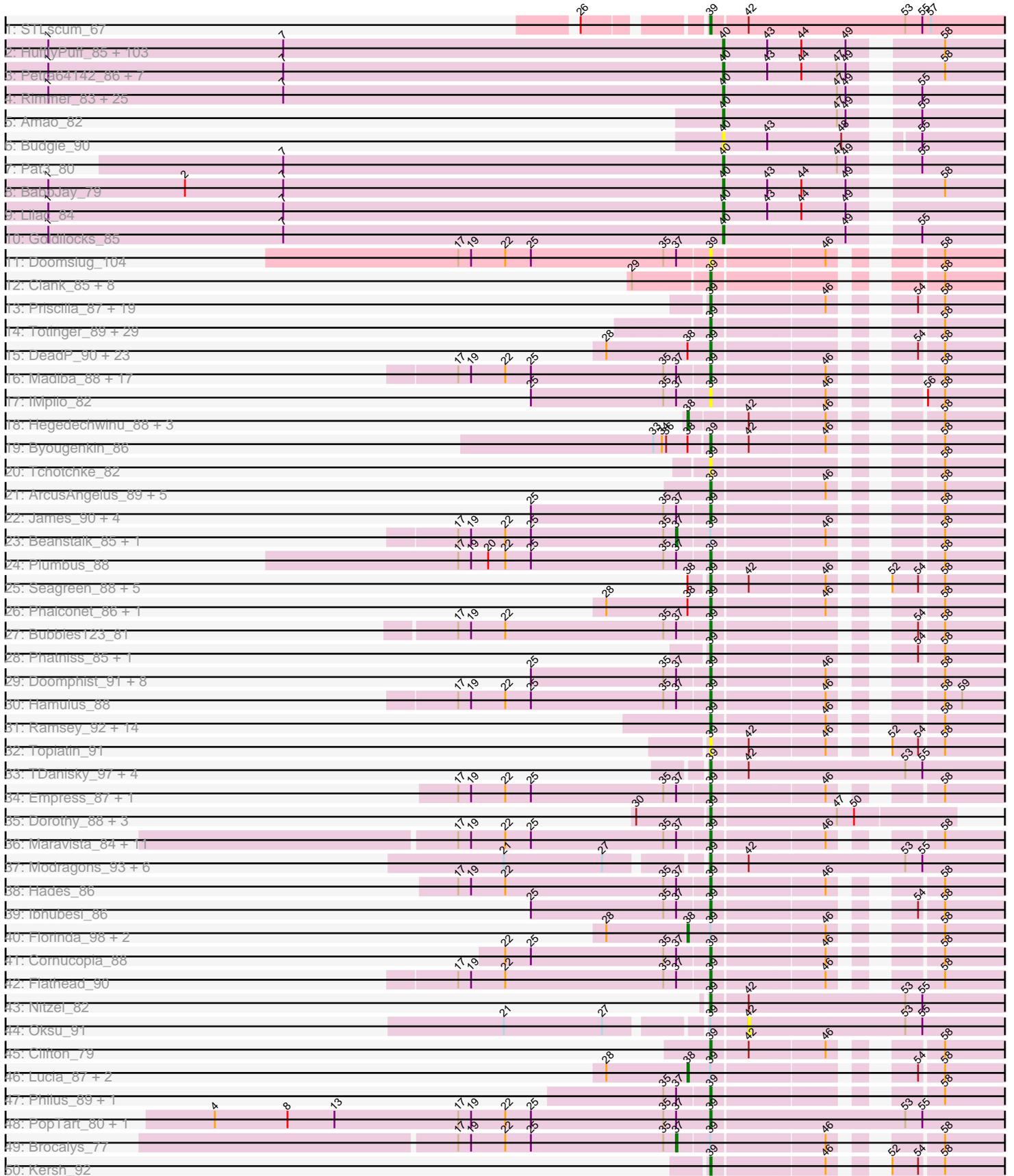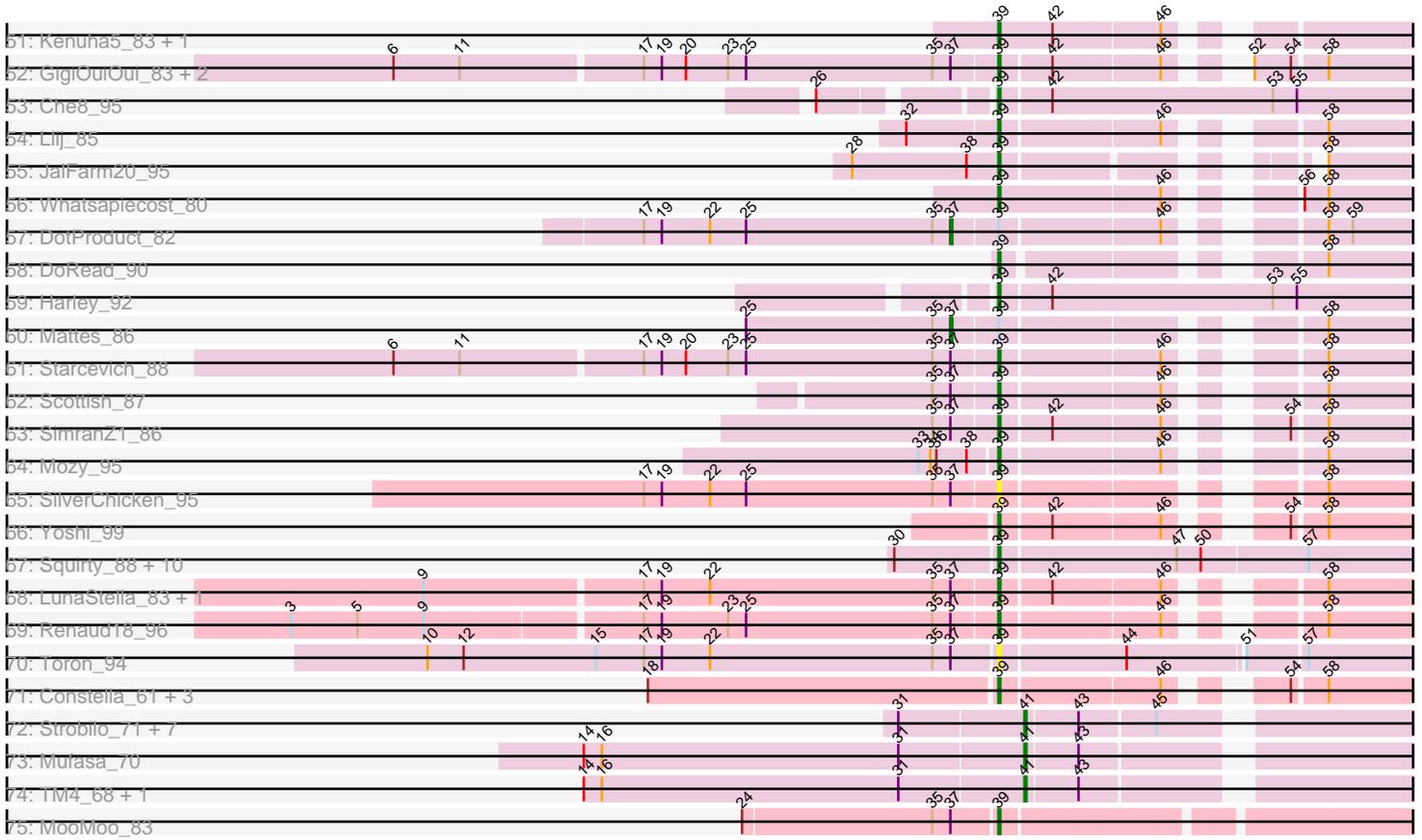# Pham 290722

Pham 290722

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 290722 Report

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

Pham number 290722 has 404 members, 42 are drafts.

Phages represented in each track:
• Track 1 : STLscum_67
• Track 2 : HufflyPuff_85, Lilizi_83, Palpatine_84, FairyPath_82, NelitzaMV_80, BugsBunny_82, StellaBean_80, Mindy_81, Inca_79, Kostya_82, Stank_85, Emmina_82, Moldemort_85, NonchalantPear_80, Bogg_82, Bench_85, AmericanBeauty_86, Tomaszewski_77, Ukulele_77, Hopey_82, Thimble_83, Lilpickle_81, 244_83, Misfit_83, SophKB_79, Pumpkin_85, Terminus_85, Sassay_77, Dusk_79, Goku_80, Cjw1_82, Buck_83, Asriel_81, BadStone_79, Elph10_82, Simpliphy_81, DrDrey_82, Xandras_81, PhatBacter_86, GooberAzure_85, MadamMonkfish_82, BilboSwaggins_80, TeardropMSU_78, Holt_87, Murica_85, NoSleep_83, JeTaime_82, Manda_83, Gemini_87, Adnama_86, IHOP_80, Greep_86, MPhalcon_83, Mosby_78, Nala_84, Porky_81, Filch_83, Czyszczon1_83, ShereKhan_80, Maxxinista_84, FireRed_86, TBrady12_85, Quallification_83, Stark_83, RiverMonster_82, Easy2Say_83, Toto_80, Elite2014_81, Phrux_79, Eureka_80, Willez_77, Barbarian_81, xkcd_85, Murphy_82, Phaux_84, Bruin_79, HanKaySha_82, Contagion_78, Tuco_83, GoldenSpark_86, Traaww1_78, MISSy_83, Highbury_81, CrystalP_81, Thresher_84, Becksu_81, Command613_84, ShamWow_82, ChosenOne_82, Marshmallow_80, Youngblood_85, Policronamos_85, Henry_80, Saints25_81, Teaspoon_83, Nimrod_83, Wiggin_84, Argent26_86, PaddyBaddy_82, OrionPax_81, ABCat_79, Ptowny_79, MollyToe_77, Dumbo_82
• Track 3 : Petra64142_86, Miniwave_77, Phaja_80, Tarkin_81, YassJohnny_79, Brewer_77, Pharsalus_79, Paperbeatsrock_81
• Track 4 : Rimmer_83, Cookies_79, SirDuracell_81, Sotrice96_83, Bask21_82, Kanye_79, DoctorDiddles_81, ChotaBhai_82, Rakim_83, Myrale_82, FoghornLeghorn_76, Balomoji_82, Cactus_85, Harella_82, Daikon_84, StormChicken_84, Icee_83, Hoonter_85, StolenFromERC_85, BigBubba_82, Flypotenuse_78, Glexan_81, Gator_80, Kimchi_86, TeamEdward_84, Gage_84
• Track 5 : Amao_82
• Track 6 : Budgie_90
• Track 7 : Pat3_80
• Track 8 : BaboJay_79
• Track 9 : Lilac_84
• Track 10 : Goldilocks_85
• Track 11 : Doomslug_104
• Track 12 : Clank_85, SuperGrey_88, WillSterrel_86, MadMen_93, Doug_85, Gandalph_87, Bipolar_89, IrishSherpFalk_87, Blexus_84

- Track 13 : Priscilla_87, VRedHorse_89, Nichirin_89, Martik_84, Dante_86, LunaBlu_91, BAKA_79, Duke13_77, Demsculpinboyz_100, Latretium_89, ShowerHandel_85, ByChance_76, Sandalphon_87, Koella_79, SeaLumen_94, Sabbb_92, Polo2Bam_97, NormanBulbieJr_85, Enzomatic_98, NewHope4_92
- Track 14 : Totinger_89, PHappiness_88, Zerg_88, KingJulian_90, Geralt_81, Girr_86, PatoPoderoso_84, Tweety_89, MulchExplorer_93, ShroomBoi_86, Leozinho_86, Corium_84, Veteran_81, LittleShirley_93, Nimbo_80, MisterCuddles_87, Mantra_86, RitaG_88, Krakatau_81, DillTech15_92, QuickMath_89, SiSi_85, OldBen_85, Beakin_80, GUmbie_86, Ruby_84, Juice456_87, Deb65_81, Fastidio_89, Kimberlium_91
- Track 15 : DeadP_90, Jabbawokkie_95, Cerasum_83, Wee_94, Kingsley_93, Karhdo_84, PMC_85, BigPhil_82, Filuzino_89, DaWorst_87, Rockne_89, Drago_85, Brookers_84, Taj_96, Lorde_88, DirtMcgirt_87, Velveteen_83, Shauna1_87, Coco12_86, Enby_89, DLane_87, Phanphagia_90, Sarma624_88, Zapner_94
- Track 16 : Madiba_88, PhesterPhotato_92, MilanaBonita_82, Batiatus_86, Royals2015_93, Hegedechwinu_96, IbOuu_80, Eish_93, Ardmore_73, Akhila_83, BlueCrab_89, Emma_91, Ms6_89, Soul22_88, Jant_93, Mwanjiwa_89, StAnnes_92, XFactor_80
- Track 17 : IMpilo_82
- Track 18 : Hegedechwinu_88, Spartacus_94, Galactic_88, Brushbloom_88
- Track 19 : Byougenkin_86
- Track 20 : Tchotchke_82
- Track 21 : ArcusAngelus_89, Wachhund_85, Whouxphf_88, Firehouse51_83, Mutaforma13_90, Chevrolet_92
- Track 22 : James_90, ShiLan_89, Jarcob_89, OlympiaSaint_89, Spoonbill_85
- Track 23 : Beanstalk_85, Bobi_91
- Track 24 : Plumbus_88
- Track 25 : Seagreen_88, Strokeseat_85, Mandlovu_85, Ovechkin_93, Hlubikazi_85, Violac_91
- Track 26 : Phalconet_86, Mova_91
- Track 27 : Bubbles123_81
- Track 28 : Phatniss_85, EleanorGeorge_89
- Track 29 : Doomphist_91, Medindi_92, Guppsters_81, Polka14_92, Jennelsea_82, Poenanya_91, Zizzle_90, Tootsieroll_83, KingMidas_87
- Track 30 : Hamulus_88
- Track 31 : Ramsey_92, Eradicator_80, OwlsT2W_87, Ogopogo_93, BuzzLyseyear_96, Fruitloop_88, DaddyRickover_91, Pacc40_84, Yorick_80, Phasih_84, MinionDave_86, CaptainTrips_90, Nivrat_86, Job42_88, LilMoolah_88
- Track 32 : Topiatin_91
- Track 33 : TDanisky_97, Rialto_93, Pollywog_89, Sparkdehlily_96, Moonbeam_90
- Track 34 : Empress_87, MilleniumForce_88
- Track 35 : Dorothy_88, Sassafras_89, Inventum_85, RedBird_88
- Track 36 : Maravista_84, Crumble_82, Pippy_82, Cabrinians_83, Saal_83, SwagPigglett_88, Gorge_85, FreddyB_95, LastJedi_77, Burwell21_81, BobaPhett_87, Lizziana_88
- Track 37 : Modragons_93, AlpineSix_87, Seabastian_96, Llama_95, OfUltron_96, Jinglebell_95, Ochi17_94
- Track 38 : Hades_86
- Track 39 : Ibhubesi_86
- Track 40 : Florinda_98, Girafales_95, Quico_95
- Track 41 : Cornucopia_88
- Track 42 : Flathead_90
- Track 43 : Nitzel_82

- Track 44 : Oksu_91
- Track 45 : Clifton_79
- Track 46 : Lucia_87, Blarby_95, UncleRicky_87
- Track 47 : Philus_89, DRBy19_90
- Track 48 : PopTart_80, SassyB_80
- Track 49 : Brocalys_77
- Track 50 : Kersh_92
- Track 51 : Kenuha5_83, Donkeykong_94
- Track 52 : GigiOuiOui_83, Alexphander_90, Vivum_89
- Track 53 : Che8_95
- Track 54 : Llij_85
- Track 55 : JalFarm20_95
- Track 56 : Whatsapiecost_80
- Track 57 : DotProduct_82
- Track 58 : DoRead_90
- Track 59 : Harley_92
- Track 60 : Mattes_86
- Track 61 : Starcevich_88
- Track 62 : Scottish_87
- Track 63 : SimranZ1_86
- Track 64 : Mozy_95
- Track 65 : SilverChicken_95
- Track 66 : Yoshi_99
- Track 67 : Squirty_88, Melissauren88_77, Radiance_84, SG4_90, KristaRAM_88, Aubs_88, BodEinwohner17_96, Leperchaun_89, ThetaBob_89, JoeyJr_91, Stap_84
- Track 68 : LunaStella_83, TChen_85
- Track 69 : Renaud18_96
- Track 70 : Toron_94
- Track 71 : Constella_61, Xiaokay_65, Estave1_96, Avani_93
- Track 72 : Strobilo_71, Doughnut_70, Marcoliusprime_70, DismalStressor_70, ZoeJ_69, Findley_70, DismalFunk_70, Milly_70
- Track 73 : Mufasa_70
- Track 74 : TM4_68, BoostSeason_70
- Track 75 : MooMoo_83

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

The start number called the most often in the published annotations is 39, it was called in 211 of the 362 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Akhila_83, Alexphander_90, AlpineSix_87, ArcusAngelus_89, Ardmore_73, Aubs_88, Avani_93, BAKA_79, Batiatus_86, Beakin_80, BigPhil_82, Bipolar_89, Blexus_84, BlueCrab_89, BobaPhett_87, BodEinwohner17_96, Brookers_84, Bubbles123_81, Burwell21_81, BuzzLyseyear_96, ByChance_76, Byougenkin_86, Cabrinians_83, CaptainTrips_90, Cerasum_83, Che8_95, Chevrolet_92, Clank_85, Clifton_79, Coco12_86, Constella_61, Corium_84, Cornucopia_88, Crumble_82, DLane_87, DRBy19_90, DaWorst_87, DaddyRickover_91, Dante_86, DeadP_90, Deb65_81, Demsculpinboyz_100, DillTech15_92, DirtMcgirt_87, DoRead_90, Donkeykong_94, Doomphist_91, Doomslug_104, Dorothy_88, Doug_85, Drago_85,

Duke13_77, Eish_93, EleanorGeorge_89, Emma_91, Empress_87, Enby_89, Enzomatic_98, Eradicator_80, Estave1_96, Fastidio_89, Filuzino_89, Firehouse51_83, Flathead_90, FreddyB_95, Fruitloop_88, GUmbie_86, Gandalph_87, Geralt_81, GigiOuiOui_83, Girr_86, Gorge_85, Guppsters_81, Hades_86, Hamulus_88, Harley_92, Hegedechwinu_96, Hlubikazi_85, IMpilo_82, IbOuu_80, Ibhubesi_86, Inventum_85, IrishSherpFalk_87, Jabbawokkie_95, JalFarm20_95, James_90, Jant_93, Jarcob_89, Jennelsea_82, Jinglebell_95, Job42_88, JoeyJr_91, Juice456_87, Karhdo_84, Kenuha5_83, Kersh_92, Kimberlium_91, KingJulian_90, KingMidas_87, Kingsley_93, Koella_79, Krakatau_81, KristaRAM_88, LastJedi_77, Latretium_89, Leozinho_86, Leperchaun_89, LilMoolah_88, LittleShirley_93, Lizziana_88, Llama_95, Llij_85, Lorde_88, LunaBlu_91, LunaStella_83, MadMen_93, Madiba_88, Mandlovu_85, Mantra_86, Maravista_84, Martik_84, Medindi_92, Melissauren88_77, MilanaBonita_82, MilleniumForce_88, MinionDave_86, MisterCuddles_87, Modragons_93, MooMoo_83, Moonbeam_90, Mova_91, Mozy_95, Ms6_89, MulchExplorer_93, Mutaforma13_90, Mwanjiwa_89, NewHope4_92, Nichirin_89, Nimbo_80, Nitzel_82, Nivrat_86, NormanBulbieJr_85, Ochi17_94, OfUltron_96, Ogopogo_93, OldBen_85, OlympiaSaint_89, Ovechkin_93, OwlsT2W_87, PHappiness_88, PMC_85, Pacc40_84, PatoPoderoso_84, Phalconet_86, Phanphagia_90, Phasih_84, Phatniss_85, PhesterPhotato_92, Philus_89, Pippy_82, Plumbus_88, Poenanya_91, Polka14_92, Pollywog_89, Polo2Bam_97, PopTart_80, Priscilla_87, QuickMath_89, Radiance_84, Ramsey_92, RedBird_88, Renaud18_96, Rialto_93, RitaG_88, Rockne_89, Royals2015_93, Ruby_84, SG4_90, STLscum_67, Saal_83, Sabbb_92, Sandalphon_87, Sarma624_88, Sassafras_89, SassyB_80, Scottish_87, SeaLumen_94, Seabastian_96, Seagreen_88, Shauna1_87, ShiLan_89, ShowerHandel_85, ShroomBoi_86, SiSi_85, SilverChicken_95, SimranZ1_86, Soul22_88, Sparkdehlily_96, Spoonbill_85, Squirty_88, StAnnes_92, Stap_84, Starcevich_88, Strokeseat_85, SuperGrey_88, SwagPigglett_88, TChen_85, TDanisky_97, Taj_96, Tchotchke_82, ThetaBob_89, Tootsieroll_83, Topiatin_91, Toron_94, Totinger_89, Tweety_89, VRedHorse_89, Velveteen_83, Veteran_81, Violac_91, Vivum_89, Wachhund_85, Wee_94, Whatsapiecost_80, Whouxphf_88, WillSterrel_86, XFactor_80, Xiaokay_65, Yorick_80, Yoshi_99, Zapner_94, Zerg_88, Zizzle_90,

Genes that have the "Most Annotated" start but do not call it:
• Beanstalk_85, Blarby_95, Bobi_91, Brocalys_77, DotProduct_82, Florinda_98, Girafales_95, Lucia_87, Mattes_86, Oksu_91, Quico_95, UncleRicky_87,

Genes that do not have the "Most Annotated" start:
• 244_83, ABCat_79, Adnama_86, Amao_82, AmericanBeauty_86, Argent26_86, Asriel_81, BaboJay_79, BadStone_79, Balomoji_82, Barbarian_81, Bask21_82, Becksu_81, Bench_85, BigBubba_82, BilboSwaggins_80, Bogg_82, BoostSeason_70, Brewer_77, Bruin_79, Brushbloom_88, Buck_83, Budgie_90, BugsBunny_82, Cactus_85, ChosenOne_82, ChotaBhai_82, Cjw1_82, Command613_84, Contagion_78, Cookies_79, CrystalP_81, Czyszczon1_83, Daikon_84, DismalFunk_70, DismalStressor_70, DoctorDiddles_81, Doughnut_70, DrDrey_82, Dumbo_82, Dusk_79, Easy2Say_83, Elite2014_81, Elph10_82, Emmina_82, Eureka_80, FairyPath_82, Filch_83, Findley_70, FireRed_86, Flypotenuse_78, FoghornLeghorn_76, Gage_84, Galactic_88, Gator_80, Gemini_87, Glexan_81, Goku_80, GoldenSpark_86, Goldilocks_85, GooberAzure_85, Greep_86, HanKaySha_82, Harella_82, Hegedechwinu_88, Henry_80, Highbury_81, Holt_87, Hoonter_85, Hopey_82, HufflyPuff_85, IHOP_80, Icee_83, Inca_79, JeTaime_82, Kanye_79, Kimchi_86, Kostya_82, Lilac_84, Lilizi_83, Lilpickle_81, MISSy_83,

MPhalcon_83, MadamMonkfish_82, Manda_83, Marcoliusprime_70,
Marshmallow_80, Maxxinista_84, Milly_70, Mindy_81, Miniwave_77, Misfit_83,
Moldemort_85, MollyToe_77, Mosby_78, Mufasa_70, Murica_85, Murphy_82,
Myrale_82, Nala_84, NelitzaMV_80, Nimrod_83, NoSleep_83, NonchalantPear_80,
OrionPax_81, PaddyBaddy_82, Palpatine_84, Paperbeatsrock_81, Pat3_80,
Petra64142_86, Phaja_80, Pharsalus_79, PhatBacter_86, Phaux_84, Phrux_79,
Policronamos_85, Porky_81, Ptowny_79, Pumpkin_85, Quallification_83, Rakim_83,
Rimmer_83, RiverMonster_82, Saints25_81, Sassay_77, ShamWow_82,
ShereKhan_80, Simpliphy_81, SirDuracell_81, SophKB_79, Sotrice96_83,
Spartacus_94, Stank_85, Stark_83, StellaBean_80, StolenFromERC_85,
StormChicken_84, Strobilo_71, TBrady12_85, TM4_68, Tarkin_81, TeamEdward_84,
TeardropMSU_78, Teaspoon_83, Terminus_85, Thimble_83, Thresher_84,
Tomaszewski_77, Toto_80, Traaww1_78, Tuco_83, Ukulele_77, Wiggin_84,
Willez_77, Xandras_81, YassJohnny_79, Youngblood_85, ZoeJ_69, xkcd_85,

Summary by start number:

Start 37:
• Found in 76 of 404 (18.8%) of genes in pham
• Manual Annotations of this start: 4 of 362
• Called 6.6% of time when present
• Phage (with cluster) where this start called: Beanstalk_85 (F1), Bobi_91 (F1),
Brocalys_77 (F1), DotProduct_82 (F1), Mattes_86 (F1),

Start 38:
• Found in 45 of 404 (11.1%) of genes in pham
• Manual Annotations of this start: 8 of 362
• Called 22.2% of time when present
• Phage (with cluster) where this start called: Blarby_95 (F), Brushbloom_88 (F1),
Florinda_98 (F1), Galactic_88 (F1), Girafales_95 (F1), Hegedechwinu_88 (F1),
Lucia_87 (F1), Quico_95 (F1), Spartacus_94 (F1), UncleRicky_87 (F1),

Start 39:
• Found in 245 of 404 (60.6%) of genes in pham
• Manual Annotations of this start: 211 of 362
• Called 95.1% of time when present
• Phage (with cluster) where this start called: Akhila_83 (F1), Alexphander_90 (F1),
AlpineSix_87 (F1), ArcusAngelus_89 (F1), Ardmore_73 (F1), Aubs_88 (F1), Avani_93
(F2), BAKA_79 (J), Batiatus_86 (F1), Beakin_80 (F1), BigPhil_82 (F1), Bipolar_89
(F1), Blexus_84 (F1), BlueCrab_89 (F1), BobaPhett_87 (F1), BodEinwohner17_96
(F1), Brookers_84 (F1), Bubbles123_81 (F1), Burwell21_81 (F1), BuzzLyseyear_96
(F1), ByChance_76 (F1), Byougenkin_86 (F1), Cabrinians_83 (F1), CaptainTrips_90
(F1), Cerasum_83 (F1), Che8_95 (F1), Chevrolet_92 (F1), Clank_85 (F), Clifton_79
(F1), Coco12_86 (F1), Constella_61 (J), Corium_84 (F1), Cornucopia_88 (F1),
Crumble_82 (F1), DLane_87 (F1), DRBy19_90 (F1), DaWorst_87 (F1),
DaddyRickover_91 (F1), Dante_86 (F1), DeadP_90 (F1), Deb65_81 (F1),
Demsculpinboyz_100 (F2), DillTech15_92 (F1), DirtMcgirt_87 (F1), DoRead_90 (F1),
Donkeykong_94 (F1), Doomphist_91 (F1), Doomslug_104 (F), Dorothy_88 (F1),
Doug_85 (F1), Drago_85 (F1), Duke13_77 (J), Eish_93 (F1), EleanorGeorge_89 (F1),
Emma_91 (F1), Empress_87 (F1), Enby_89 (F1), Enzomatic_98 (F1), Eradicator_80
(F1), Estave1_96 (F1), Fastidio_89 (F1), Filuzino_89 (F1), Firehouse51_83 (F1),
Flathead_90 (F1), FreddyB_95 (F1), Fruitloop_88 (F1), GUmbie_86 (F1),
Gandalph_87 (F1), Geralt_81 (F1), GigiOuiOui_83 (F1), Girr_86 (F1), Gorge_85 (F1),

Guppsters_81 (F1), Hades_86 (F1), Hamulus_88 (F1), Harley_92 (F1), Hegedechwinu_96 (F1), Hlubikazi_85 (F1), IMpilo_82 (F1), IbOuu_80 (F1), Ibhubesi_86 (F1), Inventum_85 (F1), IrishSherpFalk_87 (F1), Jabbawokkie_95 (F2), JalFarm20_95 (F1), James_90 (F1), Jant_93 (F1), Jarcob_89 (F1), Jennelsea_82 (F1), Jinglebell_95 (F1), Job42_88 (F1), JoeyJr_91 (F1), Juice456_87 (F1), Karhdo_84 (F1), Kenuha5_83 (F1), Kersh_92 (F1), Kimberlium_91 (F1), KingJulian_90 (F1), KingMidas_87 (F1), Kingsley_93 (F1), Koella_79 (F1), Krakatau_81 (F1), KristaRAM_88 (F1), LastJedi_77 (F1), Latretium_89 (F1), Leozinho_86 (F1), Leperchaun_89 (F1), LilMoolah_88 (F1), LittleShirley_93 (F1), Lizziana_88 (F1), Llama_95 (F1), Llij_85 (F1), Lorde_88 (F1), LunaBlu_91 (F1), LunaStella_83 (F4), MadMen_93 (F1), Madiba_88 (F1), Mandlovu_85 (F1), Mantra_86 (F1), Maravista_84 (F1), Martik_84 (F1), Medindi_92 (F1), Melissauren88_77 (F1), MilanaBonita_82 (F1), MilleniumForce_88 (F1), MinionDave_86 (F1), MisterCuddles_87 (F1), Modragons_93 (F1), MooMoo_83 (singleton), Moonbeam_90 (F1), Mova_91 (F1), Mozy_95 (F1), Ms6_89 (F1), MulchExplorer_93 (F1), Mutaforma13_90 (F1), Mwanjiwa_89 (F1), NewHope4_92 (F1), Nichirin_89 (F1), Nimbo_80 (F1), Nitzel_82 (F1), Nivrat_86 (F1), NormanBulbieJr_85 (F1), Ochi17_94 (F1), OfUltron_96 (F1), Ogopogo_93 (F1), OldBen_85 (F1), OlympiaSaint_89 (F1), Ovechkin_93 (F1), OwlsT2W_87 (F1), PHappiness_88 (F1), PMC_85 (F1), Pacc40_84 (F1), PatoPoderoso_84 (F1), Phalconet_86 (F1), Phanphagia_90 (F1), Phasih_84 (F1), Phatniss_85 (F1), PhesterPhotato_92 (F1), Philus_89 (F1), Pippy_82 (F1), Plumbus_88 (F1), Poenanya_91 (F1), Polka14_92 (F1), Pollywog_89 (F1), Polo2Bam_97 (F1), PopTart_80 (F1), Priscilla_87 (F1), QuickMath_89 (F1), Radiance_84 (F1), Ramsey_92 (F1), RedBird_88 (F1), Renaud18_96 (F4), Rialto_93 (F1), RitaG_88 (F1), Rockne_89 (F1), Royals2015_93 (F1), Ruby_84 (F1), SG4_90 (F1), STLscum_67 (A1), Saal_83 (F1), Sabbb_92 (F1), Sandalphon_87 (F1), Sarma624_88 (F1), Sassafras_89 (F1), SassyB_80 (F1), Scottish_87 (F1), SeaLumen_94 (F1), Seabastian_96 (F1), Seagreen_88 (F1), Shauna1_87 (F1), ShiLan_89 (F1), ShowerHandel_85 (F1), ShroomBoi_86 (F1), SiSi_85 (F1), SilverChicken_95 (F2), SimranZ1_86 (F1), Soul22_88 (F2), Sparkdehlily_96 (F1), Spoonbill_85 (F1), Squirty_88 (F3), StAnnes_92 (F1), Stap_84 (F1), Starcevich_88 (F1), Strokeseat_85 (F1), SuperGrey_88 (F1), SwagPigglett_88 (F1), TChen_85 (F4), TDanisky_97 (F1), Taj_96 (F1), Tchotchke_82 (F1), ThetaBob_89 (F4), Tootsieroll_83 (F1), Topiatin_91 (F1), Toron_94 (F6), Totinger_89 (F1), Tweety_89 (F1), VRedHorse_89 (F1), Velveteen_83 (F1), Veteran_81 (F1), Violac_91 (F1), Vivum_89 (F1), Wachhund_85 (F1), Wee_94 (F1), Whatsapiecost_80 (F1), Whouxphf_88 (F1), WillSterrel_86 (F1), XFactor_80 (F1), Xiaokay_65 (J), Yorick_80 (F1), Yoshi_99 (F2), Zapner_94 (F2), Zerg_88 (F1), Zizzle_90 (F1),

Start 40:
• Found in 144 of 404 (35.6%) of genes in pham
• Manual Annotations of this start: 128 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: 244_83 (E), ABCat_79 (E), Adnama_86 (E), Amao_82 (E), AmericanBeauty_86 (E), Argent26_86 (E), Asriel_81 (E), BaboJay_79 (E), BadStone_79 (E), Balomoji_82 (E), Barbarian_81 (E), Bask21_82 (E), Becksu_81 (E), Bench_85 (E), BigBubba_82 (E), BilboSwaggins_80 (E), Bogg_82 (E), Brewer_77 (E), Bruin_79 (E), Buck_83 (E), Budgie_90 (E), BugsBunny_82 (E), Cactus_85 (E), ChosenOne_82 (E), ChotaBhai_82 (E), Cjw1_82 (E), Command613_84 (E), Contagion_78 (E), Cookies_79 (E), CrystalP_81 (E), Czyszczon1_83 (E), Daikon_84 (E), DoctorDiddles_81 (E), DrDrey_82 (E), Dumbo_82 (E), Dusk_79 (E), Easy2Say_83 (E), Elite2014_81 (E), Elph10_82 (E),

Emmina_82 (E), Eureka_80 (E), FairyPath_82 (E), Filch_83 (E), FireRed_86 (E), Flypotenuse_78 (E), FoghornLeghorn_76 (E), Gage_84 (E), Gator_80 (E), Gemini_87 (E), Glexan_81 (E), Goku_80 (E), GoldenSpark_86 (E), Goldilocks_85 (E), GooberAzure_85 (E), Greep_86 (E), HanKaySha_82 (E), Harella_82 (E), Henry_80 (E), Highbury_81 (E), Holt_87 (E), Hoonter_85 (E), Hopey_82 (E), HufflyPuff_85 (E), IHOP_80 (E), Icee_83 (E), Inca_79 (E), JeTaime_82 (E), Kanye_79 (E), Kimchi_86 (E), Kostya_82 (E), Lilac_84 (E), Lilizi_83 (E), Lilpickle_81 (E), MISSy_83 (E), MPhalcon_83 (E), MadamMonkfish_82 (E), Manda_83 (E), Marshmallow_80 (E), Maxxinista_84 (E), Mindy_81 (E), Miniwave_77 (E), Misfit_83 (E), Moldemort_85 (E), MollyToe_77 (E), Mosby_78 (E), Murica_85 (E), Murphy_82 (E), Myrale_82 (E), Nala_84 (E), NelitzaMV_80 (E), Nimrod_83 (E), NoSleep_83 (E), NonchalantPear_80 (E), OrionPax_81 (E), PaddyBaddy_82 (E), Palpatine_84 (E), Paperbeatsrock_81 (E), Pat3_80 (E), Petra64142_86 (E), Phaja_80 (E), Pharsalus_79 (E), PhatBacter_86 (E), Phaux_84 (E), Phrux_79 (E), Policronamos_85 (E), Porky_81 (E), Ptowny_79 (E), Pumpkin_85 (E), Quallification_83 (E), Rakim_83 (E), Rimmer_83 (E), RiverMonster_82 (E), Saints25_81 (E), Sassay_77 (E), ShamWow_82 (E), ShereKhan_80 (E), Simpliphy_81 (E), SirDuracell_81 (E), SophKB_79 (E), Sotrice96_83 (E), Stank_85 (E), Stark_83 (E), StellaBean_80 (E), StolenFromERC_85 (E), StormChicken_84 (E), TBrady12_85 (E), Tarkin_81 (E), TeamEdward_84 (E), TeardropMSU_78 (E), Teaspoon_83 (E), Terminus_85 (E), Thimble_83 (E), Thresher_84 (E), Tomaszewski_77 (E), Toto_80 (E), Traaww1_78 (E), Tuco_83 (E), Ukulele_77 (E), Wiggin_84 (E), Willez_77 (E), Xandras_81 (E), YassJohnny_79 (E), Youngblood_85 (E), xkcd_85 (E),

Start 41:
• Found in 11 of 404 (2.7%) of genes in pham
• Manual Annotations of this start: 11 of 362
• Called 100.0% of time when present
• Phage (with cluster) where this start called: BoostSeason_70 (K2), DismalFunk_70 (K2), DismalStressor_70 (K2), Doughnut_70 (K2), Findley_70 (K2), Marcoliusprime_70 (K2), Milly_70 (K2), Mufasa_70 (K2), Strobilo_71 (K2), TM4_68 (K2), ZoeJ_69 (K2),

Start 42:
• Found in 39 of 404 (9.7%) of genes in pham
• No Manual Annotations of this start.
• Called 2.6% of time when present
• Phage (with cluster) where this start called: Oksu_91 (F1),

Summary by clusters:

There are 11 clusters represented in this pham: F1, F2, F3, F4, F6, F, J, singleton, A1, K2, E,

Info for manual annotations of cluster A1:
•Start number 39 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster E:
•Start number 40 was manually annotated 128 times for cluster E.

Info for manual annotations of cluster F1:
•Start number 37 was manually annotated 4 times for cluster F1.

•Start number 38 was manually annotated 8 times for cluster F1.
•Start number 39 was manually annotated 195 times for cluster F1.

Info for manual annotations of cluster F2:
•Start number 39 was manually annotated 6 times for cluster F2.

Info for manual annotations of cluster F3:
•Start number 39 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:
•Start number 39 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster J:
•Start number 39 was manually annotated 3 times for cluster J.

Info for manual annotations of cluster K2:
•Start number 41 was manually annotated 11 times for cluster K2.

Gene Information:

Gene: 244_83 Start: 51383, Stop: 51571, Start Num: 40
Candidate Starts for 244_83:
(1, 50909), (7, 51074), (Start: 40 @51383 has 128 MA's), (43, 51413), (44, 51437), (49, 51467), (58, 51518),

Gene: ABCat_79 Start: 51736, Stop: 51924, Start Num: 40
Candidate Starts for ABCat_79:
(1, 51262), (7, 51427), (Start: 40 @51736 has 128 MA's), (43, 51766), (44, 51790), (49, 51820), (58, 51871),

Gene: Adnama_86 Start: 51759, Stop: 51947, Start Num: 40
Candidate Starts for Adnama_86:
(1, 51285), (7, 51450), (Start: 40 @51759 has 128 MA's), (43, 51789), (44, 51813), (49, 51843), (58, 51894),

Gene: Akhila_83 Start: 49346, Stop: 49525, Start Num: 39
Candidate Starts for Akhila_83:
(17, 49172), (19, 49181), (22, 49205), (25, 49223), (35, 49316), (Start: 37 @49325 has 4 MA's), (Start: 39 @49346 has 211 MA's), (46, 49421), (58, 49472),

Gene: Alexphander_90 Start: 51762, Stop: 51941, Start Num: 39
Candidate Starts for Alexphander_90:
(6, 51468), (11, 51501), (17, 51588), (19, 51597), (20, 51609), (23, 51630), (25, 51639), (35, 51732), (Start: 37 @51741 has 4 MA's), (Start: 39 @51762 has 211 MA's), (42, 51786), (46, 51837), (52, 51855), (54, 51873), (58, 51888),

Gene: AlpineSix_87 Start: 50112, Stop: 50324, Start Num: 39
Candidate Starts for AlpineSix_87:
(21, 49983), (27, 50052), (Start: 39 @50112 has 211 MA's), (42, 50136), (53, 50244), (55, 50256),

Gene: Amao_82 Start: 51153, Stop: 51341, Start Num: 40
Candidate Starts for Amao_82:
(Start: 40 @51153 has 128 MA's), (47, 51231), (49, 51237), (55, 51273),

Gene: AmericanBeauty_86 Start: 51905, Stop: 52093, Start Num: 40
Candidate Starts for AmericanBeauty_86:
(1, 51431), (7, 51596), (Start: 40 @51905 has 128 MA's), (43, 51935), (44, 51959), (49, 51989), (58, 52040),

Gene: ArcusAngelus_89 Start: 51558, Stop: 51737, Start Num: 39
Candidate Starts for ArcusAngelus_89:
(Start: 39 @51558 has 211 MA's), (46, 51633), (58, 51684),

Gene: Ardmore_73 Start: 45470, Stop: 45649, Start Num: 39
Candidate Starts for Ardmore_73:
(17, 45296), (19, 45305), (22, 45329), (25, 45347), (35, 45440), (Start: 37 @45449 has 4 MA's), (Start: 39 @45470 has 211 MA's), (46, 45545), (58, 45596),

Gene: Argent26_86 Start: 51543, Stop: 51731, Start Num: 40
Candidate Starts for Argent26_86:
(1, 51069), (7, 51234), (Start: 40 @51543 has 128 MA's), (43, 51573), (44, 51597), (49, 51627), (58, 51678),

Gene: Asriel_81 Start: 50096, Stop: 50284, Start Num: 40
Candidate Starts for Asriel_81:
(1, 49622), (7, 49787), (Start: 40 @50096 has 128 MA's), (43, 50126), (44, 50150), (49, 50180), (58, 50231),

Gene: Aubs_88 Start: 51536, Stop: 51745, Start Num: 39
Candidate Starts for Aubs_88:
(30, 51488), (Start: 39 @51536 has 211 MA's), (47, 51620), (50, 51632), (57, 51683),

Gene: Avani_93 Start: 48223, Stop: 48402, Start Num: 39
Candidate Starts for Avani_93:
(18, 48052), (Start: 39 @48223 has 211 MA's), (46, 48298), (54, 48334), (58, 48349),

Gene: BAKA_79 Start: 51643, Stop: 51464, Start Num: 39
Candidate Starts for BAKA_79:
(Start: 39 @51643 has 211 MA's), (46, 51568), (54, 51532), (58, 51517),

Gene: BaboJay_79 Start: 50936, Stop: 51139, Start Num: 40
Candidate Starts for BaboJay_79:
(1, 50462), (2, 50558), (7, 50627), (Start: 40 @50936 has 128 MA's), (43, 50966), (44, 50990), (49, 51020), (58, 51071),

Gene: BadStone_79 Start: 51305, Stop: 51493, Start Num: 40
Candidate Starts for BadStone_79:
(1, 50831), (7, 50996), (Start: 40 @51305 has 128 MA's), (43, 51335), (44, 51359), (49, 51389), (58, 51440),

Gene: Balomoji_82 Start: 51866, Stop: 52054, Start Num: 40
Candidate Starts for Balomoji_82:
(1, 51392), (7, 51557), (Start: 40 @51866 has 128 MA's), (47, 51944), (49, 51950), (55, 51986),

Gene: Barbarian_81 Start: 50096, Stop: 50284, Start Num: 40
Candidate Starts for Barbarian_81:
(1, 49622), (7, 49787), (Start: 40 @50096 has 128 MA's), (43, 50126), (44, 50150), (49, 50180), (58, 50231),

Gene: Bask21_82 Start: 50719, Stop: 50907, Start Num: 40
Candidate Starts for Bask21_82:
(1, 50245), (7, 50410), (Start: 40 @50719 has 128 MA's), (47, 50797), (49, 50803), (55, 50839),

Gene: Batiatus_86 Start: 50344, Stop: 50523, Start Num: 39
Candidate Starts for Batiatus_86:
(17, 50170), (19, 50179), (22, 50203), (25, 50221), (35, 50314), (Start: 37 @50323 has 4 MA's), (Start: 39 @50344 has 211 MA's), (46, 50419), (58, 50470),

Gene: Beakin_80 Start: 47095, Stop: 47274, Start Num: 39
Candidate Starts for Beakin_80:
(Start: 39 @47095 has 211 MA's), (58, 47221),

Gene: Beanstalk_85 Start: 49808, Stop: 50008, Start Num: 37
Candidate Starts for Beanstalk_85:
(17, 49655), (19, 49664), (22, 49688), (25, 49706), (35, 49799), (Start: 37 @49808 has 4 MA's), (Start: 39 @49829 has 211 MA's), (46, 49904), (58, 49955),

Gene: Becksu_81 Start: 51935, Stop: 52123, Start Num: 40
Candidate Starts for Becksu_81:
(1, 51461), (7, 51626), (Start: 40 @51935 has 128 MA's), (43, 51965), (44, 51989), (49, 52019), (58, 52070),

Gene: Bench_85 Start: 51400, Stop: 51588, Start Num: 40
Candidate Starts for Bench_85:
(1, 50926), (7, 51091), (Start: 40 @51400 has 128 MA's), (43, 51430), (44, 51454), (49, 51484), (58, 51535),

Gene: BigBubba_82 Start: 51112, Stop: 51300, Start Num: 40
Candidate Starts for BigBubba_82:
(1, 50638), (7, 50803), (Start: 40 @51112 has 128 MA's), (47, 51190), (49, 51196), (55, 51232),

Gene: BigPhil_82 Start: 46962, Stop: 47141, Start Num: 39
Candidate Starts for BigPhil_82:
(28, 46890), (Start: 38 @46947 has 8 MA's), (Start: 39 @46962 has 211 MA's), (54, 47073), (58, 47088),

Gene: BilboSwaggins_80 Start: 51741, Stop: 51929, Start Num: 40
Candidate Starts for BilboSwaggins_80:
(1, 51267), (7, 51432), (Start: 40 @51741 has 128 MA's), (43, 51771), (44, 51795), (49, 51825), (58, 51876),

Gene: Bipolar_89 Start: 52261, Stop: 52440, Start Num: 39
Candidate Starts for Bipolar_89:
(29, 52213), (Start: 39 @52261 has 211 MA's), (58, 52387),

Gene: Blarby_95 Start: 48975, Stop: 49169, Start Num: 38

Candidate Starts for Blarby_95:
(28, 48918), (Start: 38 @48975 has 8 MA's), (Start: 39 @48990 has 211 MA's), (54, 49101), (58, 49116),

Gene: Blexus_84 Start: 50870, Stop: 51049, Start Num: 39
Candidate Starts for Blexus_84:
(29, 50822), (Start: 39 @50870 has 211 MA's), (58, 50996),

Gene: BlueCrab_89 Start: 51554, Stop: 51733, Start Num: 39
Candidate Starts for BlueCrab_89:
(17, 51380), (19, 51389), (22, 51413), (25, 51431), (35, 51524), (Start: 37 @51533 has 4 MA's), (Start: 39 @51554 has 211 MA's), (46, 51629), (58, 51680),

Gene: BobaPhett_87 Start: 52286, Stop: 52465, Start Num: 39
Candidate Starts for BobaPhett_87:
(17, 52112), (19, 52121), (22, 52145), (25, 52163), (35, 52256), (Start: 37 @52265 has 4 MA's), (Start: 39 @52286 has 211 MA's), (46, 52361), (58, 52412),

Gene: Bobi_91 Start: 52068, Stop: 52268, Start Num: 37
Candidate Starts for Bobi_91:
(17, 51915), (19, 51924), (22, 51948), (25, 51966), (35, 52059), (Start: 37 @52068 has 4 MA's), (Start: 39 @52089 has 211 MA's), (46, 52164), (58, 52215),

Gene: BodEinwohner17_96 Start: 53328, Stop: 53537, Start Num: 39
Candidate Starts for BodEinwohner17_96:
(30, 53280), (Start: 39 @53328 has 211 MA's), (47, 53412), (50, 53424), (57, 53475),

Gene: Bogg_82 Start: 50679, Stop: 50882, Start Num: 40
Candidate Starts for Bogg_82:
(1, 50205), (7, 50370), (Start: 40 @50679 has 128 MA's), (43, 50709), (44, 50733), (49, 50763), (58, 50814),

Gene: BoostSeason_70 Start: 45912, Stop: 46079, Start Num: 41
Candidate Starts for BoostSeason_70:
(14, 45696), (16, 45705), (31, 45852), (Start: 41 @45912 has 11 MA's), (43, 45936),

Gene: Brewer_77 Start: 50202, Stop: 50390, Start Num: 40
Candidate Starts for Brewer_77:
(1, 49728), (7, 49893), (Start: 40 @50202 has 128 MA's), (43, 50232), (44, 50256), (47, 50280), (49, 50286), (58, 50337),

Gene: Brocalys_77 Start: 47745, Stop: 47945, Start Num: 37
Candidate Starts for Brocalys_77:
(17, 47592), (19, 47601), (22, 47625), (25, 47643), (35, 47736), (Start: 37 @47745 has 4 MA's), (Start: 39 @47766 has 211 MA's), (46, 47841), (58, 47892),

Gene: Brookers_84 Start: 49913, Stop: 50092, Start Num: 39
Candidate Starts for Brookers_84:
(28, 49841), (Start: 38 @49898 has 8 MA's), (Start: 39 @49913 has 211 MA's), (54, 50024), (58, 50039),

Gene: Bruin_79 Start: 50279, Stop: 50467, Start Num: 40
Candidate Starts for Bruin_79:

(1, 49805), (7, 49970), (Start: 40 @50279 has 128 MA's), (43, 50309), (44, 50333), (49, 50363), (58, 50414),

Gene: Brushbloom_88 Start: 51527, Stop: 51718, Start Num: 38
Candidate Starts for Brushbloom_88:
(Start: 38 @51527 has 8 MA's), (42, 51563), (46, 51614), (58, 51665),

Gene: Bubbles123_81 Start: 50063, Stop: 50242, Start Num: 39
Candidate Starts for Bubbles123_81:
(17, 49889), (19, 49898), (22, 49922), (35, 50033), (Start: 37 @50042 has 4 MA's), (Start: 39 @50063 has 211 MA's), (54, 50174), (58, 50189),

Gene: Buck_83 Start: 51984, Stop: 52172, Start Num: 40
Candidate Starts for Buck_83:
(1, 51510), (7, 51675), (Start: 40 @51984 has 128 MA's), (43, 52014), (44, 52038), (49, 52068), (58, 52119),

Gene: Budgie_90 Start: 51771, Stop: 51956, Start Num: 40
Candidate Starts for Budgie_90:
(Start: 40 @51771 has 128 MA's), (43, 51801), (48, 51852), (55, 51888),

Gene: BugsBunny_82 Start: 51808, Stop: 51996, Start Num: 40
Candidate Starts for BugsBunny_82:
(1, 51334), (7, 51499), (Start: 40 @51808 has 128 MA's), (43, 51838), (44, 51862), (49, 51892), (58, 51943),

Gene: Burwell21_81 Start: 50052, Stop: 50231, Start Num: 39
Candidate Starts for Burwell21_81:
(17, 49878), (19, 49887), (22, 49911), (25, 49929), (35, 50022), (Start: 37 @50031 has 4 MA's), (Start: 39 @50052 has 211 MA's), (46, 50127), (58, 50178),

Gene: BuzzLyseyear_96 Start: 53526, Stop: 53705, Start Num: 39
Candidate Starts for BuzzLyseyear_96:
(Start: 39 @53526 has 211 MA's), (46, 53601), (58, 53652),

Gene: ByChance_76 Start: 45678, Stop: 45857, Start Num: 39
Candidate Starts for ByChance_76:
(Start: 39 @45678 has 211 MA's), (46, 45753), (54, 45789), (58, 45804),

Gene: Byougenkin_86 Start: 48273, Stop: 48452, Start Num: 39
Candidate Starts for Byougenkin_86:
(33, 48237), (34, 48243), (36, 48246), (Start: 38 @48261 has 8 MA's), (Start: 39 @48273 has 211 MA's), (42, 48297), (46, 48348), (58, 48399),

Gene: Cabrinians_83 Start: 49686, Stop: 49865, Start Num: 39
Candidate Starts for Cabrinians_83:
(17, 49512), (19, 49521), (22, 49545), (25, 49563), (35, 49656), (Start: 37 @49665 has 4 MA's), (Start: 39 @49686 has 211 MA's), (46, 49761), (58, 49812),

Gene: Cactus_85 Start: 50760, Stop: 50948, Start Num: 40
Candidate Starts for Cactus_85:
(1, 50286), (7, 50451), (Start: 40 @50760 has 128 MA's), (47, 50838), (49, 50844), (55, 50880),

Gene: CaptainTrips_90 Start: 50975, Stop: 51154, Start Num: 39
Candidate Starts for CaptainTrips_90:
(Start: 39 @50975 has 211 MA's), (46, 51050), (58, 51101),

Gene: Cerasum_83 Start: 46980, Stop: 47159, Start Num: 39
Candidate Starts for Cerasum_83:
(28, 46908), (Start: 38 @46965 has 8 MA's), (Start: 39 @46980 has 211 MA's), (54, 47091), (58, 47106),

Gene: Che8_95 Start: 52189, Stop: 52401, Start Num: 39
Candidate Starts for Che8_95:
(26, 52117), (Start: 39 @52189 has 211 MA's), (42, 52213), (53, 52321), (55, 52333),

Gene: Chevrolet_92 Start: 51559, Stop: 51738, Start Num: 39
Candidate Starts for Chevrolet_92:
(Start: 39 @51559 has 211 MA's), (46, 51634), (58, 51685),

Gene: ChosenOne_82 Start: 50760, Stop: 50948, Start Num: 40
Candidate Starts for ChosenOne_82:
(1, 50286), (7, 50451), (Start: 40 @50760 has 128 MA's), (43, 50790), (44, 50814), (49, 50844), (58, 50895),

Gene: ChotaBhai_82 Start: 51084, Stop: 51272, Start Num: 40
Candidate Starts for ChotaBhai_82:
(1, 50610), (7, 50775), (Start: 40 @51084 has 128 MA's), (47, 51162), (49, 51168), (55, 51204),

Gene: Cjw1_82 Start: 52454, Stop: 52642, Start Num: 40
Candidate Starts for Cjw1_82:
(1, 51980), (7, 52145), (Start: 40 @52454 has 128 MA's), (43, 52484), (44, 52508), (49, 52538), (58, 52589),

Gene: Clank_85 Start: 47845, Stop: 48024, Start Num: 39
Candidate Starts for Clank_85:
(29, 47797), (Start: 39 @47845 has 211 MA's), (58, 47971),

Gene: Clifton_79 Start: 48858, Stop: 49037, Start Num: 39
Candidate Starts for Clifton_79:
(Start: 39 @48858 has 211 MA's), (42, 48882), (46, 48933), (58, 48984),

Gene: Coco12_86 Start: 51037, Stop: 51216, Start Num: 39
Candidate Starts for Coco12_86:
(28, 50965), (Start: 38 @51022 has 8 MA's), (Start: 39 @51037 has 211 MA's), (54, 51148), (58, 51163),

Gene: Command613_84 Start: 51799, Stop: 51987, Start Num: 40
Candidate Starts for Command613_84:
(1, 51325), (7, 51490), (Start: 40 @51799 has 128 MA's), (43, 51829), (44, 51853), (49, 51883), (58, 51934),

Gene: Constella_61 Start: 45314, Stop: 45135, Start Num: 39
Candidate Starts for Constella_61:
(18, 45485), (Start: 39 @45314 has 211 MA's), (46, 45239), (54, 45203), (58, 45188),

Gene: Contagion_78 Start: 50560, Stop: 50748, Start Num: 40
Candidate Starts for Contagion_78:
(1, 50086), (7, 50251), (Start: 40 @50560 has 128 MA's), (43, 50590), (44, 50614), (49, 50644), (58, 50695),

Gene: Cookies_79 Start: 50941, Stop: 51129, Start Num: 40
Candidate Starts for Cookies_79:
(1, 50467), (7, 50632), (Start: 40 @50941 has 128 MA's), (47, 51019), (49, 51025), (55, 51061),

Gene: Corium_84 Start: 51616, Stop: 51795, Start Num: 39
Candidate Starts for Corium_84:
(Start: 39 @51616 has 211 MA's), (58, 51742),

Gene: Cornucopia_88 Start: 49212, Stop: 49391, Start Num: 39
Candidate Starts for Cornucopia_88:
(22, 49071), (25, 49089), (35, 49182), (Start: 37 @49191 has 4 MA's), (Start: 39 @49212 has 211 MA's), (46, 49287), (58, 49338),

Gene: Crumble_82 Start: 46411, Stop: 46590, Start Num: 39
Candidate Starts for Crumble_82:
(17, 46237), (19, 46246), (22, 46270), (25, 46288), (35, 46381), (Start: 37 @46390 has 4 MA's), (Start: 39 @46411 has 211 MA's), (46, 46486), (58, 46537),

Gene: CrystalP_81 Start: 51741, Stop: 51929, Start Num: 40
Candidate Starts for CrystalP_81:
(1, 51267), (7, 51432), (Start: 40 @51741 has 128 MA's), (43, 51771), (44, 51795), (49, 51825), (58, 51876),

Gene: Czyszczon1_83 Start: 51263, Stop: 51451, Start Num: 40
Candidate Starts for Czyszczon1_83:
(1, 50789), (7, 50954), (Start: 40 @51263 has 128 MA's), (43, 51293), (44, 51317), (49, 51347), (58, 51398),

Gene: DLane_87 Start: 51666, Stop: 51845, Start Num: 39
Candidate Starts for DLane_87:
(28, 51594), (Start: 38 @51651 has 8 MA's), (Start: 39 @51666 has 211 MA's), (54, 51777), (58, 51792),

Gene: DRBy19_90 Start: 52394, Stop: 52573, Start Num: 39
Candidate Starts for DRBy19_90:
(35, 52364), (Start: 37 @52373 has 4 MA's), (Start: 39 @52394 has 211 MA's), (58, 52520),

Gene: DaWorst_87 Start: 49979, Stop: 50158, Start Num: 39
Candidate Starts for DaWorst_87:
(28, 49907), (Start: 38 @49964 has 8 MA's), (Start: 39 @49979 has 211 MA's), (54, 50090), (58, 50105),

Gene: DaddyRickover_91 Start: 51901, Stop: 52080, Start Num: 39
Candidate Starts for DaddyRickover_91:
(Start: 39 @51901 has 211 MA's), (46, 51976), (58, 52027),

Gene: Daikon_84 Start: 51887, Stop: 52075, Start Num: 40
Candidate Starts for Daikon_84:

(1, 51413), (7, 51578), (Start: 40 @51887 has 128 MA's), (47, 51965), (49, 51971), (55, 52007),

Gene: Dante_86 Start: 52237, Stop: 52416, Start Num: 39
Candidate Starts for Dante_86:
(Start: 39 @52237 has 211 MA's), (46, 52312), (54, 52348), (58, 52363),

Gene: DeadP_90 Start: 50061, Stop: 50240, Start Num: 39
Candidate Starts for DeadP_90:
(28, 49989), (Start: 38 @50046 has 8 MA's), (Start: 39 @50061 has 211 MA's), (54, 50172), (58, 50187),

Gene: Deb65_81 Start: 49784, Stop: 49963, Start Num: 39
Candidate Starts for Deb65_81:
(Start: 39 @49784 has 211 MA's), (58, 49910),

Gene: Demsculpinboyz_100 Start: 50162, Stop: 50341, Start Num: 39
Candidate Starts for Demsculpinboyz_100:
(Start: 39 @50162 has 211 MA's), (46, 50237), (54, 50273), (58, 50288),

Gene: DillTech15_92 Start: 50171, Stop: 50350, Start Num: 39
Candidate Starts for DillTech15_92:
(Start: 39 @50171 has 211 MA's), (58, 50297),

Gene: DirtMcgirt_87 Start: 48038, Stop: 48217, Start Num: 39
Candidate Starts for DirtMcgirt_87:
(28, 47966), (Start: 38 @48023 has 8 MA's), (Start: 39 @48038 has 211 MA's), (54, 48149), (58, 48164),

Gene: DismalFunk_70 Start: 46337, Stop: 46504, Start Num: 41
Candidate Starts for DismalFunk_70:
(31, 46277), (Start: 41 @46337 has 11 MA's), (43, 46361), (45, 46397),

Gene: DismalStressor_70 Start: 46337, Stop: 46504, Start Num: 41
Candidate Starts for DismalStressor_70:
(31, 46277), (Start: 41 @46337 has 11 MA's), (43, 46361), (45, 46397),

Gene: DoRead_90 Start: 49398, Stop: 49574, Start Num: 39
Candidate Starts for DoRead_90:
(Start: 39 @49398 has 211 MA's), (58, 49521),

Gene: DoctorDiddles_81 Start: 51128, Stop: 51316, Start Num: 40
Candidate Starts for DoctorDiddles_81:
(1, 50654), (7, 50819), (Start: 40 @51128 has 128 MA's), (47, 51206), (49, 51212), (55, 51248),

Gene: Donkeykong_94 Start: 52976, Stop: 53158, Start Num: 39
Candidate Starts for Donkeykong_94:
(Start: 39 @52976 has 211 MA's), (42, 53003), (46, 53054),

Gene: Doomphist_91 Start: 51481, Stop: 51660, Start Num: 39
Candidate Starts for Doomphist_91:
(25, 51358), (35, 51451), (Start: 37 @51460 has 4 MA's), (Start: 39 @51481 has 211 MA's), (46, 51556), (58, 51607),

Gene: Doomslug_104 Start: 53152, Stop: 53331, Start Num: 39
Candidate Starts for Doomslug_104:
(17, 52978), (19, 52987), (22, 53011), (25, 53029), (35, 53122), (Start: 37 @53131 has 4 MA's), (Start: 39 @53152 has 211 MA's), (46, 53227), (58, 53278),

Gene: Dorothy_88 Start: 52513, Stop: 52677, Start Num: 39
Candidate Starts for Dorothy_88:
(30, 52465), (Start: 39 @52513 has 211 MA's), (47, 52597), (50, 52609),

Gene: DotProduct_82 Start: 48547, Stop: 48747, Start Num: 37
Candidate Starts for DotProduct_82:
(17, 48394), (19, 48403), (22, 48427), (25, 48445), (35, 48538), (Start: 37 @48547 has 4 MA's), (Start: 39 @48568 has 211 MA's), (46, 48643), (58, 48694), (59, 48706),

Gene: Doug_85 Start: 51570, Stop: 51749, Start Num: 39
Candidate Starts for Doug_85:
(29, 51522), (Start: 39 @51570 has 211 MA's), (58, 51696),

Gene: Doughnut_70 Start: 45953, Stop: 46120, Start Num: 41
Candidate Starts for Doughnut_70:
(31, 45893), (Start: 41 @45953 has 11 MA's), (43, 45977), (45, 46013),

Gene: DrDrey_82 Start: 52182, Stop: 52370, Start Num: 40
Candidate Starts for DrDrey_82:
(1, 51708), (7, 51873), (Start: 40 @52182 has 128 MA's), (43, 52212), (44, 52236), (49, 52266), (58, 52317),

Gene: Drago_85 Start: 48041, Stop: 48220, Start Num: 39
Candidate Starts for Drago_85:
(28, 47969), (Start: 38 @48026 has 8 MA's), (Start: 39 @48041 has 211 MA's), (54, 48152), (58, 48167),

Gene: Duke13_77 Start: 50855, Stop: 50676, Start Num: 39
Candidate Starts for Duke13_77:
(Start: 39 @50855 has 211 MA's), (46, 50780), (54, 50744), (58, 50729),

Gene: Dumbo_82 Start: 50665, Stop: 50853, Start Num: 40
Candidate Starts for Dumbo_82:
(1, 50191), (7, 50356), (Start: 40 @50665 has 128 MA's), (43, 50695), (44, 50719), (49, 50749), (58, 50800),

Gene: Dusk_79 Start: 50965, Stop: 51153, Start Num: 40
Candidate Starts for Dusk_79:
(1, 50491), (7, 50656), (Start: 40 @50965 has 128 MA's), (43, 50995), (44, 51019), (49, 51049), (58, 51100),

Gene: Easy2Say_83 Start: 52206, Stop: 52394, Start Num: 40
Candidate Starts for Easy2Say_83:
(1, 51732), (7, 51897), (Start: 40 @52206 has 128 MA's), (43, 52236), (44, 52260), (49, 52290), (58, 52341),

Gene: Eish_93 Start: 52092, Stop: 52271, Start Num: 39
Candidate Starts for Eish_93:

(17, 51918), (19, 51927), (22, 51951), (25, 51969), (35, 52062), (Start: 37 @52071 has 4 MA's), (Start: 39 @52092 has 211 MA's), (46, 52167), (58, 52218),

Gene: EleanorGeorge_89 Start: 51749, Stop: 51928, Start Num: 39
Candidate Starts for EleanorGeorge_89:
(Start: 39 @51749 has 211 MA's), (54, 51860), (58, 51875),

Gene: Elite2014_81 Start: 50759, Stop: 50947, Start Num: 40
Candidate Starts for Elite2014_81:
(1, 50285), (7, 50450), (Start: 40 @50759 has 128 MA's), (43, 50789), (44, 50813), (49, 50843), (58, 50894),

Gene: Elph10_82 Start: 50761, Stop: 50949, Start Num: 40
Candidate Starts for Elph10_82:
(1, 50287), (7, 50452), (Start: 40 @50761 has 128 MA's), (43, 50791), (44, 50815), (49, 50845), (58, 50896),

Gene: Emma_91 Start: 49790, Stop: 49969, Start Num: 39
Candidate Starts for Emma_91:
(17, 49616), (19, 49625), (22, 49649), (25, 49667), (35, 49760), (Start: 37 @49769 has 4 MA's), (Start: 39 @49790 has 211 MA's), (46, 49865), (58, 49916),

Gene: Emmina_82 Start: 50663, Stop: 50851, Start Num: 40
Candidate Starts for Emmina_82:
(1, 50189), (7, 50354), (Start: 40 @50663 has 128 MA's), (43, 50693), (44, 50717), (49, 50747), (58, 50798),

Gene: Empress_87 Start: 50476, Stop: 50655, Start Num: 39
Candidate Starts for Empress_87:
(17, 50302), (19, 50311), (22, 50335), (25, 50353), (35, 50446), (Start: 37 @50455 has 4 MA's), (Start: 39 @50476 has 211 MA's), (46, 50551), (58, 50602),

Gene: Enby_89 Start: 48317, Stop: 48496, Start Num: 39
Candidate Starts for Enby_89:
(28, 48245), (Start: 38 @48302 has 8 MA's), (Start: 39 @48317 has 211 MA's), (54, 48428), (58, 48443),

Gene: Enzomatic_98 Start: 49594, Stop: 49773, Start Num: 39
Candidate Starts for Enzomatic_98:
(Start: 39 @49594 has 211 MA's), (46, 49669), (54, 49705), (58, 49720),

Gene: Eradicator_80 Start: 48972, Stop: 49151, Start Num: 39
Candidate Starts for Eradicator_80:
(Start: 39 @48972 has 211 MA's), (46, 49047), (58, 49098),

Gene: Estave1_96 Start: 54581, Stop: 54760, Start Num: 39
Candidate Starts for Estave1_96:
(18, 54410), (Start: 39 @54581 has 211 MA's), (46, 54656), (54, 54692), (58, 54707),

Gene: Eureka_80 Start: 51227, Stop: 51430, Start Num: 40
Candidate Starts for Eureka_80:
(1, 50753), (7, 50918), (Start: 40 @51227 has 128 MA's), (43, 51257), (44, 51281), (49, 51311), (58, 51362),

Gene: FairyPath_82 Start: 51878, Stop: 52066, Start Num: 40
Candidate Starts for FairyPath_82:
(1, 51404), (7, 51569), (Start: 40 @51878 has 128 MA's), (43, 51908), (44, 51932), (49, 51962), (58, 52013),

Gene: Fastidio_89 Start: 48066, Stop: 48245, Start Num: 39
Candidate Starts for Fastidio_89:
(Start: 39 @48066 has 211 MA's), (58, 48192),

Gene: Filch_83 Start: 50688, Stop: 50876, Start Num: 40
Candidate Starts for Filch_83:
(1, 50214), (7, 50379), (Start: 40 @50688 has 128 MA's), (43, 50718), (44, 50742), (49, 50772), (58, 50823),

Gene: Filuzino_89 Start: 52975, Stop: 53154, Start Num: 39
Candidate Starts for Filuzino_89:
(28, 52903), (Start: 38 @52960 has 8 MA's), (Start: 39 @52975 has 211 MA's), (54, 53086), (58, 53101),

Gene: Findley_70 Start: 46331, Stop: 46498, Start Num: 41
Candidate Starts for Findley_70:
(31, 46271), (Start: 41 @46331 has 11 MA's), (43, 46355), (45, 46391),

Gene: FireRed_86 Start: 52253, Stop: 52441, Start Num: 40
Candidate Starts for FireRed_86:
(1, 51779), (7, 51944), (Start: 40 @52253 has 128 MA's), (43, 52283), (44, 52307), (49, 52337), (58, 52388),

Gene: Firehouse51_83 Start: 51603, Stop: 51785, Start Num: 39
Candidate Starts for Firehouse51_83:
(Start: 39 @51603 has 211 MA's), (46, 51681), (58, 51732),

Gene: Flathead_90 Start: 50924, Stop: 51103, Start Num: 39
Candidate Starts for Flathead_90:
(17, 50750), (19, 50759), (22, 50783), (35, 50894), (Start: 37 @50903 has 4 MA's), (Start: 39 @50924 has 211 MA's), (46, 50999), (58, 51050),

Gene: Florinda_98 Start: 52463, Stop: 52657, Start Num: 38
Candidate Starts for Florinda_98:
(28, 52406), (Start: 38 @52463 has 8 MA's), (Start: 39 @52478 has 211 MA's), (46, 52553), (58, 52604),

Gene: Flypotenuse_78 Start: 50750, Stop: 50938, Start Num: 40
Candidate Starts for Flypotenuse_78:
(1, 50276), (7, 50441), (Start: 40 @50750 has 128 MA's), (47, 50828), (49, 50834), (55, 50870),

Gene: FoghornLeghorn_76 Start: 49763, Stop: 49951, Start Num: 40
Candidate Starts for FoghornLeghorn_76:
(1, 49289), (7, 49454), (Start: 40 @49763 has 128 MA's), (47, 49841), (49, 49847), (55, 49883),

Gene: FreddyB_95 Start: 51333, Stop: 51512, Start Num: 39
Candidate Starts for FreddyB_95:

(17, 51159), (19, 51168), (22, 51192), (25, 51210), (35, 51303), (Start: 37 @51312 has 4 MA's), (Start: 39 @51333 has 211 MA's), (46, 51408), (58, 51459),

Gene: Fruitloop_88 Start: 52115, Stop: 52294, Start Num: 39
Candidate Starts for Fruitloop_88:
(Start: 39 @52115 has 211 MA's), (46, 52190), (58, 52241),

Gene: GUmbie_86 Start: 50787, Stop: 50966, Start Num: 39
Candidate Starts for GUmbie_86:
(Start: 39 @50787 has 211 MA's), (58, 50913),

Gene: Gage_84 Start: 51543, Stop: 51731, Start Num: 40
Candidate Starts for Gage_84:
(1, 51069), (7, 51234), (Start: 40 @51543 has 128 MA's), (47, 51621), (49, 51627), (55, 51663),

Gene: Galactic_88 Start: 50334, Stop: 50525, Start Num: 38
Candidate Starts for Galactic_88:
(Start: 38 @50334 has 8 MA's), (42, 50370), (46, 50421), (58, 50472),

Gene: Gandalph_87 Start: 48105, Stop: 48284, Start Num: 39
Candidate Starts for Gandalph_87:
(29, 48057), (Start: 39 @48105 has 211 MA's), (58, 48231),

Gene: Gator_80 Start: 51593, Stop: 51781, Start Num: 40
Candidate Starts for Gator_80:
(1, 51119), (7, 51284), (Start: 40 @51593 has 128 MA's), (47, 51671), (49, 51677), (55, 51713),

Gene: Gemini_87 Start: 52060, Stop: 52248, Start Num: 40
Candidate Starts for Gemini_87:
(1, 51586), (7, 51751), (Start: 40 @52060 has 128 MA's), (43, 52090), (44, 52114), (49, 52144), (58, 52195),

Gene: Geralt_81 Start: 49782, Stop: 49961, Start Num: 39
Candidate Starts for Geralt_81:
(Start: 39 @49782 has 211 MA's), (58, 49908),

Gene: GigiOuiOui_83 Start: 49914, Stop: 50093, Start Num: 39
Candidate Starts for GigiOuiOui_83:
(6, 49620), (11, 49653), (17, 49740), (19, 49749), (20, 49761), (23, 49782), (25, 49791), (35, 49884), (Start: 37 @49893 has 4 MA's), (Start: 39 @49914 has 211 MA's), (42, 49938), (46, 49989), (52, 50007), (54, 50025), (58, 50040),

Gene: Girafales_95 Start: 52068, Stop: 52262, Start Num: 38
Candidate Starts for Girafales_95:
(28, 52011), (Start: 38 @52068 has 8 MA's), (Start: 39 @52083 has 211 MA's), (46, 52158), (58, 52209),

Gene: Girr_86 Start: 51179, Stop: 51358, Start Num: 39
Candidate Starts for Girr_86:
(Start: 39 @51179 has 211 MA's), (58, 51305),

Gene: Glexan_81 Start: 51880, Stop: 52068, Start Num: 40
Candidate Starts for Glexan_81:

(1, 51406), (7, 51571), (Start: 40 @51880 has 128 MA's), (47, 51958), (49, 51964), (55, 52000),

Gene: Goku_80 Start: 50956, Stop: 51159, Start Num: 40
Candidate Starts for Goku_80:
(1, 50482), (7, 50647), (Start: 40 @50956 has 128 MA's), (43, 50986), (44, 51010), (49, 51040), (58, 51091),

Gene: GoldenSpark_86 Start: 51543, Stop: 51731, Start Num: 40
Candidate Starts for GoldenSpark_86:
(1, 51069), (7, 51234), (Start: 40 @51543 has 128 MA's), (43, 51573), (44, 51597), (49, 51627), (58, 51678),

Gene: Goldilocks_85 Start: 51038, Stop: 51226, Start Num: 40
Candidate Starts for Goldilocks_85:
(1, 50564), (7, 50729), (Start: 40 @51038 has 128 MA's), (49, 51122), (55, 51158),

Gene: GooberAzure_85 Start: 51543, Stop: 51731, Start Num: 40
Candidate Starts for GooberAzure_85:
(1, 51069), (7, 51234), (Start: 40 @51543 has 128 MA's), (43, 51573), (44, 51597), (49, 51627), (58, 51678),

Gene: Gorge_85 Start: 50960, Stop: 51139, Start Num: 39
Candidate Starts for Gorge_85:
(17, 50786), (19, 50795), (22, 50819), (25, 50837), (35, 50930), (Start: 37 @50939 has 4 MA's), (Start: 39 @50960 has 211 MA's), (46, 51035), (58, 51086),

Gene: Greep_86 Start: 52539, Stop: 52727, Start Num: 40
Candidate Starts for Greep_86:
(1, 52065), (7, 52230), (Start: 40 @52539 has 128 MA's), (43, 52569), (44, 52593), (49, 52623), (58, 52674),

Gene: Guppsters_81 Start: 48017, Stop: 48196, Start Num: 39
Candidate Starts for Guppsters_81:
(25, 47894), (35, 47987), (Start: 37 @47996 has 4 MA's), (Start: 39 @48017 has 211 MA's), (46, 48092), (58, 48143),

Gene: Hades_86 Start: 48507, Stop: 48686, Start Num: 39
Candidate Starts for Hades_86:
(17, 48333), (19, 48342), (22, 48366), (35, 48477), (Start: 37 @48486 has 4 MA's), (Start: 39 @48507 has 211 MA's), (46, 48582), (58, 48633),

Gene: Hamulus_88 Start: 50433, Stop: 50612, Start Num: 39
Candidate Starts for Hamulus_88:
(17, 50259), (19, 50268), (22, 50292), (25, 50310), (35, 50403), (Start: 37 @50412 has 4 MA's), (Start: 39 @50433 has 211 MA's), (46, 50508), (58, 50559), (59, 50571),

Gene: HanKaySha_82 Start: 50841, Stop: 51029, Start Num: 40
Candidate Starts for HanKaySha_82:
(1, 50367), (7, 50532), (Start: 40 @50841 has 128 MA's), (43, 50871), (44, 50895), (49, 50925), (58, 50976),

Gene: Harella_82 Start: 52396, Stop: 52584, Start Num: 40
Candidate Starts for Harella_82:

(1, 51922), (7, 52087), (Start: 40 @52396 has 128 MA's), (47, 52474), (49, 52480), (55, 52516),

Gene: Harley_92 Start: 51737, Stop: 51949, Start Num: 39
Candidate Starts for Harley_92:
(Start: 39 @51737 has 211 MA's), (42, 51761), (53, 51869), (55, 51881),

Gene: Hegedechwinu_88 Start: 49433, Stop: 49624, Start Num: 38
Candidate Starts for Hegedechwinu_88:
(Start: 38 @49433 has 8 MA's), (42, 49469), (46, 49520), (58, 49571),

Gene: Hegedechwinu_96 Start: 51479, Stop: 51658, Start Num: 39
Candidate Starts for Hegedechwinu_96:
(17, 51305), (19, 51314), (22, 51338), (25, 51356), (35, 51449), (Start: 37 @51458 has 4 MA's), (Start: 39 @51479 has 211 MA's), (46, 51554), (58, 51605),

Gene: Henry_80 Start: 51181, Stop: 51369, Start Num: 40
Candidate Starts for Henry_80:
(1, 50707), (7, 50872), (Start: 40 @51181 has 128 MA's), (43, 51211), (44, 51235), (49, 51265), (58, 51316),

Gene: Highbury_81 Start: 50832, Stop: 51020, Start Num: 40
Candidate Starts for Highbury_81:
(1, 50358), (7, 50523), (Start: 40 @50832 has 128 MA's), (43, 50862), (44, 50886), (49, 50916), (58, 50967),

Gene: Hlubikazi_85 Start: 48622, Stop: 48801, Start Num: 39
Candidate Starts for Hlubikazi_85:
(Start: 38 @48610 has 8 MA's), (Start: 39 @48622 has 211 MA's), (42, 48646), (46, 48697), (52, 48715), (54, 48733), (58, 48748),

Gene: Holt_87 Start: 51957, Stop: 52145, Start Num: 40
Candidate Starts for Holt_87:
(1, 51483), (7, 51648), (Start: 40 @51957 has 128 MA's), (43, 51987), (44, 52011), (49, 52041), (58, 52092),

Gene: Hoonter_85 Start: 51540, Stop: 51728, Start Num: 40
Candidate Starts for Hoonter_85:
(1, 51066), (7, 51231), (Start: 40 @51540 has 128 MA's), (47, 51618), (49, 51624), (55, 51660),

Gene: Hopey_82 Start: 51373, Stop: 51561, Start Num: 40
Candidate Starts for Hopey_82:
(1, 50899), (7, 51064), (Start: 40 @51373 has 128 MA's), (43, 51403), (44, 51427), (49, 51457), (58, 51508),

Gene: HufflyPuff_85 Start: 52206, Stop: 52394, Start Num: 40
Candidate Starts for HufflyPuff_85:
(1, 51732), (7, 51897), (Start: 40 @52206 has 128 MA's), (43, 52236), (44, 52260), (49, 52290), (58, 52341),

Gene: IHOP_80 Start: 51305, Stop: 51493, Start Num: 40
Candidate Starts for IHOP_80:
(1, 50831), (7, 50996), (Start: 40 @51305 has 128 MA's), (43, 51335), (44, 51359), (49, 51389), (58, 51440),

Gene: IMpilo_82 Start: 48351, Stop: 48530, Start Num: 39
Candidate Starts for IMpilo_82:
(25, 48228), (35, 48321), (Start: 37 @48330 has 4 MA's), (Start: 39 @48351 has 211 MA's), (46, 48426), (56, 48465), (58, 48477),

Gene: IbOuu_80 Start: 48764, Stop: 48943, Start Num: 39
Candidate Starts for IbOuu_80:
(17, 48590), (19, 48599), (22, 48623), (25, 48641), (35, 48734), (Start: 37 @48743 has 4 MA's), (Start: 39 @48764 has 211 MA's), (46, 48839), (58, 48890),

Gene: Ibhubesi_86 Start: 48818, Stop: 48997, Start Num: 39
Candidate Starts for Ibhubesi_86:
(25, 48695), (35, 48788), (Start: 37 @48797 has 4 MA's), (Start: 39 @48818 has 211 MA's), (54, 48929), (58, 48944),

Gene: Icee_83 Start: 51207, Stop: 51395, Start Num: 40
Candidate Starts for Icee_83:
(1, 50733), (7, 50898), (Start: 40 @51207 has 128 MA's), (47, 51285), (49, 51291), (55, 51327),

Gene: Inca_79 Start: 49833, Stop: 50021, Start Num: 40
Candidate Starts for Inca_79:
(1, 49359), (7, 49524), (Start: 40 @49833 has 128 MA's), (43, 49863), (44, 49887), (49, 49917), (58, 49968),

Gene: Inventum_85 Start: 50698, Stop: 50862, Start Num: 39
Candidate Starts for Inventum_85:
(30, 50650), (Start: 39 @50698 has 211 MA's), (47, 50782), (50, 50794),

Gene: IrishSherpFalk_87 Start: 51061, Stop: 51240, Start Num: 39
Candidate Starts for IrishSherpFalk_87:
(29, 51013), (Start: 39 @51061 has 211 MA's), (58, 51187),

Gene: Jabbawokkie_95 Start: 48910, Stop: 49089, Start Num: 39
Candidate Starts for Jabbawokkie_95:
(28, 48838), (Start: 38 @48895 has 8 MA's), (Start: 39 @48910 has 211 MA's), (54, 49021), (58, 49036),

Gene: JalFarm20_95 Start: 51589, Stop: 51753, Start Num: 39
Candidate Starts for JalFarm20_95:
(28, 51517), (Start: 38 @51574 has 8 MA's), (Start: 39 @51589 has 211 MA's), (58, 51700),

Gene: James_90 Start: 52478, Stop: 52657, Start Num: 39
Candidate Starts for James_90:
(25, 52355), (35, 52448), (Start: 37 @52457 has 4 MA's), (Start: 39 @52478 has 211 MA's), (58, 52604),

Gene: Jant_93 Start: 50580, Stop: 50759, Start Num: 39
Candidate Starts for Jant_93:
(17, 50406), (19, 50415), (22, 50439), (25, 50457), (35, 50550), (Start: 37 @50559 has 4 MA's), (Start: 39 @50580 has 211 MA's), (46, 50655), (58, 50706),

Gene: Jarcob_89 Start: 52077, Stop: 52256, Start Num: 39

Candidate Starts for Jarcob_89:
(25, 51954), (35, 52047), (Start: 37 @52056 has 4 MA's), (Start: 39 @52077 has 211 MA's), (58, 52203),

Gene: JeTaime_82 Start: 52022, Stop: 52210, Start Num: 40
Candidate Starts for JeTaime_82:
(1, 51548), (7, 51713), (Start: 40 @52022 has 128 MA's), (43, 52052), (44, 52076), (49, 52106), (58, 52157),

Gene: Jennelsea_82 Start: 49191, Stop: 49370, Start Num: 39
Candidate Starts for Jennelsea_82:
(25, 49068), (35, 49161), (Start: 37 @49170 has 4 MA's), (Start: 39 @49191 has 211 MA's), (46, 49266), (58, 49317),

Gene: Jinglebell_95 Start: 52009, Stop: 52221, Start Num: 39
Candidate Starts for Jinglebell_95:
(21, 51880), (27, 51949), (Start: 39 @52009 has 211 MA's), (42, 52033), (53, 52141), (55, 52153),

Gene: Job42_88 Start: 53278, Stop: 53457, Start Num: 39
Candidate Starts for Job42_88:
(Start: 39 @53278 has 211 MA's), (46, 53353), (58, 53404),

Gene: JoeyJr_91 Start: 52607, Stop: 52816, Start Num: 39
Candidate Starts for JoeyJr_91:
(30, 52559), (Start: 39 @52607 has 211 MA's), (47, 52691), (50, 52703), (57, 52754),

Gene: Juice456_87 Start: 50688, Stop: 50867, Start Num: 39
Candidate Starts for Juice456_87:
(Start: 39 @50688 has 211 MA's), (58, 50814),

Gene: Kanye_79 Start: 50889, Stop: 51077, Start Num: 40
Candidate Starts for Kanye_79:
(1, 50415), (7, 50580), (Start: 40 @50889 has 128 MA's), (47, 50967), (49, 50973), (55, 51009),

Gene: Karhdo_84 Start: 48593, Stop: 48772, Start Num: 39
Candidate Starts for Karhdo_84:
(28, 48521), (Start: 38 @48578 has 8 MA's), (Start: 39 @48593 has 211 MA's), (54, 48704), (58, 48719),

Gene: Kenuha5_83 Start: 51021, Stop: 51203, Start Num: 39
Candidate Starts for Kenuha5_83:
(Start: 39 @51021 has 211 MA's), (42, 51048), (46, 51099),

Gene: Kersh_92 Start: 53467, Stop: 53646, Start Num: 39
Candidate Starts for Kersh_92:
(Start: 39 @53467 has 211 MA's), (46, 53542), (52, 53560), (54, 53578), (58, 53593),

Gene: Kimberlium_91 Start: 50788, Stop: 50967, Start Num: 39
Candidate Starts for Kimberlium_91:
(Start: 39 @50788 has 211 MA's), (58, 50914),

Gene: Kimchi_86 Start: 51546, Stop: 51734, Start Num: 40
Candidate Starts for Kimchi_86:

(1, 51072), (7, 51237), (Start: 40 @51546 has 128 MA's), (47, 51624), (49, 51630), (55, 51666),

Gene: KingJulian_90 Start: 51616, Stop: 51795, Start Num: 39
Candidate Starts for KingJulian_90:
(Start: 39 @51616 has 211 MA's), (58, 51742),

Gene: KingMidas_87 Start: 50707, Stop: 50886, Start Num: 39
Candidate Starts for KingMidas_87:
(25, 50584), (35, 50677), (Start: 37 @50686 has 4 MA's), (Start: 39 @50707 has 211 MA's), (46, 50782), (58, 50833),

Gene: Kingsley_93 Start: 53644, Stop: 53823, Start Num: 39
Candidate Starts for Kingsley_93:
(28, 53572), (Start: 38 @53629 has 8 MA's), (Start: 39 @53644 has 211 MA's), (54, 53755), (58, 53770),

Gene: Koella_79 Start: 47172, Stop: 47351, Start Num: 39
Candidate Starts for Koella_79:
(Start: 39 @47172 has 211 MA's), (46, 47247), (54, 47283), (58, 47298),

Gene: Kostya_82 Start: 51407, Stop: 51595, Start Num: 40
Candidate Starts for Kostya_82:
(1, 50933), (7, 51098), (Start: 40 @51407 has 128 MA's), (43, 51437), (44, 51461), (49, 51491), (58, 51542),

Gene: Krakatau_81 Start: 46587, Stop: 46766, Start Num: 39
Candidate Starts for Krakatau_81:
(Start: 39 @46587 has 211 MA's), (58, 46713),

Gene: KristaRAM_88 Start: 50345, Stop: 50554, Start Num: 39
Candidate Starts for KristaRAM_88:
(30, 50297), (Start: 39 @50345 has 211 MA's), (47, 50429), (50, 50441), (57, 50492),

Gene: LastJedi_77 Start: 48160, Stop: 48339, Start Num: 39
Candidate Starts for LastJedi_77:
(17, 47986), (19, 47995), (22, 48019), (25, 48037), (35, 48130), (Start: 37 @48139 has 4 MA's), (Start: 39 @48160 has 211 MA's), (46, 48235), (58, 48286),

Gene: Latretium_89 Start: 50528, Stop: 50707, Start Num: 39
Candidate Starts for Latretium_89:
(Start: 39 @50528 has 211 MA's), (46, 50603), (54, 50639), (58, 50654),

Gene: Leozinho_86 Start: 48229, Stop: 48408, Start Num: 39
Candidate Starts for Leozinho_86:
(Start: 39 @48229 has 211 MA's), (58, 48355),

Gene: Leperchaun_89 Start: 51841, Stop: 52050, Start Num: 39
Candidate Starts for Leperchaun_89:
(30, 51793), (Start: 39 @51841 has 211 MA's), (47, 51925), (50, 51937), (57, 51988),

Gene: LilMoolah_88 Start: 51366, Stop: 51545, Start Num: 39
Candidate Starts for LilMoolah_88:
(Start: 39 @51366 has 211 MA's), (46, 51441), (58, 51492),

Gene: Lilac_84 Start: 51158, Stop: 51346, Start Num: 40
Candidate Starts for Lilac_84:
(1, 50684), (7, 50849), (Start: 40 @51158 has 128 MA's), (43, 51188), (44, 51212), (49, 51242),

Gene: Lilizi_83 Start: 50871, Stop: 51059, Start Num: 40
Candidate Starts for Lilizi_83:
(1, 50397), (7, 50562), (Start: 40 @50871 has 128 MA's), (43, 50901), (44, 50925), (49, 50955), (58, 51006),

Gene: Lilpickle_81 Start: 50759, Stop: 50947, Start Num: 40
Candidate Starts for Lilpickle_81:
(1, 50285), (7, 50450), (Start: 40 @50759 has 128 MA's), (43, 50789), (44, 50813), (49, 50843), (58, 50894),

Gene: LittleShirley_93 Start: 51342, Stop: 51521, Start Num: 39
Candidate Starts for LittleShirley_93:
(Start: 39 @51342 has 211 MA's), (58, 51468),

Gene: Lizziana_88 Start: 51409, Stop: 51588, Start Num: 39
Candidate Starts for Lizziana_88:
(17, 51235), (19, 51244), (22, 51268), (25, 51286), (35, 51379), (Start: 37 @51388 has 4 MA's), (Start: 39 @51409 has 211 MA's), (46, 51484), (58, 51535),

Gene: Llama_95 Start: 51865, Stop: 52077, Start Num: 39
Candidate Starts for Llama_95:
(21, 51736), (27, 51805), (Start: 39 @51865 has 211 MA's), (42, 51889), (53, 51997), (55, 52009),

Gene: Llij_85 Start: 49760, Stop: 49939, Start Num: 39
Candidate Starts for Llij_85:
(32, 49718), (Start: 39 @49760 has 211 MA's), (46, 49835), (58, 49886),

Gene: Lorde_88 Start: 47482, Stop: 47661, Start Num: 39
Candidate Starts for Lorde_88:
(28, 47410), (Start: 38 @47467 has 8 MA's), (Start: 39 @47482 has 211 MA's), (54, 47593), (58, 47608),

Gene: Lucia_87 Start: 48315, Stop: 48509, Start Num: 38
Candidate Starts for Lucia_87:
(28, 48258), (Start: 38 @48315 has 8 MA's), (Start: 39 @48330 has 211 MA's), (54, 48441), (58, 48456),

Gene: LunaBlu_91 Start: 51670, Stop: 51849, Start Num: 39
Candidate Starts for LunaBlu_91:
(Start: 39 @51670 has 211 MA's), (46, 51745), (54, 51781), (58, 51796),

Gene: LunaStella_83 Start: 49219, Stop: 49398, Start Num: 39
Candidate Starts for LunaStella_83:
(9, 48940), (17, 49045), (19, 49054), (22, 49078), (35, 49189), (Start: 37 @49198 has 4 MA's), (Start: 39 @49219 has 211 MA's), (42, 49243), (46, 49294), (58, 49345),

Gene: MISSy_83 Start: 51265, Stop: 51453, Start Num: 40
Candidate Starts for MISSy_83:

(1, 50791), (7, 50956), (Start: 40 @51265 has 128 MA's), (43, 51295), (44, 51319), (49, 51349), (58, 51400),

Gene: MPhalcon_83 Start: 51258, Stop: 51446, Start Num: 40
Candidate Starts for MPhalcon_83:
(1, 50784), (7, 50949), (Start: 40 @51258 has 128 MA's), (43, 51288), (44, 51312), (49, 51342), (58, 51393),

Gene: MadMen_93 Start: 51324, Stop: 51503, Start Num: 39
Candidate Starts for MadMen_93:
(29, 51276), (Start: 39 @51324 has 211 MA's), (58, 51450),

Gene: MadamMonkfish_82 Start: 50486, Stop: 50674, Start Num: 40
Candidate Starts for MadamMonkfish_82:
(1, 50012), (7, 50177), (Start: 40 @50486 has 128 MA's), (43, 50516), (44, 50540), (49, 50570), (58, 50621),

Gene: Madiba_88 Start: 50610, Stop: 50789, Start Num: 39
Candidate Starts for Madiba_88:
(17, 50436), (19, 50445), (22, 50469), (25, 50487), (35, 50580), (Start: 37 @50589 has 4 MA's), (Start: 39 @50610 has 211 MA's), (46, 50685), (58, 50736),

Gene: Manda_83 Start: 52345, Stop: 52548, Start Num: 40
Candidate Starts for Manda_83:
(1, 51871), (7, 52036), (Start: 40 @52345 has 128 MA's), (43, 52375), (44, 52399), (49, 52429), (58, 52480),

Gene: Mandlovu_85 Start: 48564, Stop: 48743, Start Num: 39
Candidate Starts for Mandlovu_85:
(Start: 38 @48552 has 8 MA's), (Start: 39 @48564 has 211 MA's), (42, 48588), (46, 48639), (52, 48657), (54, 48675), (58, 48690),

Gene: Mantra_86 Start: 50751, Stop: 50930, Start Num: 39
Candidate Starts for Mantra_86:
(Start: 39 @50751 has 211 MA's), (58, 50877),

Gene: Maravista_84 Start: 52017, Stop: 52196, Start Num: 39
Candidate Starts for Maravista_84:
(17, 51843), (19, 51852), (22, 51876), (25, 51894), (35, 51987), (Start: 37 @51996 has 4 MA's), (Start: 39 @52017 has 211 MA's), (46, 52092), (58, 52143),

Gene: Marcoliusprime_70 Start: 46337, Stop: 46504, Start Num: 41
Candidate Starts for Marcoliusprime_70:
(31, 46277), (Start: 41 @46337 has 11 MA's), (43, 46361), (45, 46397),

Gene: Marshmallow_80 Start: 52035, Stop: 52223, Start Num: 40
Candidate Starts for Marshmallow_80:
(1, 51561), (7, 51726), (Start: 40 @52035 has 128 MA's), (43, 52065), (44, 52089), (49, 52119), (58, 52170),

Gene: Martik_84 Start: 51689, Stop: 51868, Start Num: 39
Candidate Starts for Martik_84:
(Start: 39 @51689 has 211 MA's), (46, 51764), (54, 51800), (58, 51815),

Gene: Mattes_86 Start: 51189, Stop: 51389, Start Num: 37
Candidate Starts for Mattes_86:
(25, 51087), (35, 51180), (Start: 37 @51189 has 4 MA's), (Start: 39 @51210 has 211 MA's), (58, 51336),

Gene: Maxxinista_84 Start: 51131, Stop: 51319, Start Num: 40
Candidate Starts for Maxxinista_84:
(1, 50657), (7, 50822), (Start: 40 @51131 has 128 MA's), (43, 51161), (44, 51185), (49, 51215), (58, 51266),

Gene: Medindi_92 Start: 51908, Stop: 52087, Start Num: 39
Candidate Starts for Medindi_92:
(25, 51785), (35, 51878), (Start: 37 @51887 has 4 MA's), (Start: 39 @51908 has 211 MA's), (46, 51983), (58, 52034),

Gene: Melissauren88_77 Start: 46817, Stop: 47026, Start Num: 39
Candidate Starts for Melissauren88_77:
(30, 46769), (Start: 39 @46817 has 211 MA's), (47, 46901), (50, 46913), (57, 46964),

Gene: MilanaBonita_82 Start: 49346, Stop: 49525, Start Num: 39
Candidate Starts for MilanaBonita_82:
(17, 49172), (19, 49181), (22, 49205), (25, 49223), (35, 49316), (Start: 37 @49325 has 4 MA's), (Start: 39 @49346 has 211 MA's), (46, 49421), (58, 49472),

Gene: MilleniumForce_88 Start: 51311, Stop: 51490, Start Num: 39
Candidate Starts for MilleniumForce_88:
(17, 51137), (19, 51146), (22, 51170), (25, 51188), (35, 51281), (Start: 37 @51290 has 4 MA's), (Start: 39 @51311 has 211 MA's), (46, 51386), (58, 51437),

Gene: Milly_70 Start: 46311, Stop: 46478, Start Num: 41
Candidate Starts for Milly_70:
(31, 46251), (Start: 41 @46311 has 11 MA's), (43, 46335), (45, 46371),

Gene: Mindy_81 Start: 50347, Stop: 50535, Start Num: 40
Candidate Starts for Mindy_81:
(1, 49873), (7, 50038), (Start: 40 @50347 has 128 MA's), (43, 50377), (44, 50401), (49, 50431), (58, 50482),

Gene: MinionDave_86 Start: 50975, Stop: 51154, Start Num: 39
Candidate Starts for MinionDave_86:
(Start: 39 @50975 has 211 MA's), (46, 51050), (58, 51101),

Gene: Miniwave_77 Start: 50803, Stop: 50991, Start Num: 40
Candidate Starts for Miniwave_77:
(1, 50329), (7, 50494), (Start: 40 @50803 has 128 MA's), (43, 50833), (44, 50857), (47, 50881), (49, 50887), (58, 50938),

Gene: Misfit_83 Start: 52277, Stop: 52465, Start Num: 40
Candidate Starts for Misfit_83:
(1, 51803), (7, 51968), (Start: 40 @52277 has 128 MA's), (43, 52307), (44, 52331), (49, 52361), (58, 52412),

Gene: MisterCuddles_87 Start: 51179, Stop: 51358, Start Num: 39
Candidate Starts for MisterCuddles_87:
(Start: 39 @51179 has 211 MA's), (58, 51305),

Gene: Modragons_93 Start: 51853, Stop: 52065, Start Num: 39
Candidate Starts for Modragons_93:
(21, 51724), (27, 51793), (Start: 39 @51853 has 211 MA's), (42, 51877), (53, 51985), (55, 51997),

Gene: Moldemort_85 Start: 51359, Stop: 51547, Start Num: 40
Candidate Starts for Moldemort_85:
(1, 50885), (7, 51050), (Start: 40 @51359 has 128 MA's), (43, 51389), (44, 51413), (49, 51443), (58, 51494),

Gene: MollyToe_77 Start: 50104, Stop: 50292, Start Num: 40
Candidate Starts for MollyToe_77:
(1, 49630), (7, 49795), (Start: 40 @50104 has 128 MA's), (43, 50134), (44, 50158), (49, 50188), (58, 50239),

Gene: MooMoo_83 Start: 48800, Stop: 48997, Start Num: 39
Candidate Starts for MooMoo_83:
(24, 48677), (35, 48770), (Start: 37 @48779 has 4 MA's), (Start: 39 @48800 has 211 MA's),

Gene: Moonbeam_90 Start: 51626, Stop: 51838, Start Num: 39
Candidate Starts for Moonbeam_90:
(Start: 39 @51626 has 211 MA's), (42, 51650), (53, 51758), (55, 51770),

Gene: Mosby_78 Start: 50560, Stop: 50748, Start Num: 40
Candidate Starts for Mosby_78:
(1, 50086), (7, 50251), (Start: 40 @50560 has 128 MA's), (43, 50590), (44, 50614), (49, 50644), (58, 50695),

Gene: Mova_91 Start: 51149, Stop: 51328, Start Num: 39
Candidate Starts for Mova_91:
(28, 51077), (Start: 38 @51134 has 8 MA's), (Start: 39 @51149 has 211 MA's), (46, 51224), (58, 51275),

Gene: Mozy_95 Start: 50915, Stop: 51094, Start Num: 39
Candidate Starts for Mozy_95:
(33, 50879), (34, 50885), (36, 50888), (Start: 38 @50903 has 8 MA's), (Start: 39 @50915 has 211 MA's), (46, 50990), (58, 51041),

Gene: Ms6_89 Start: 47480, Stop: 47659, Start Num: 39
Candidate Starts for Ms6_89:
(17, 47306), (19, 47315), (22, 47339), (25, 47357), (35, 47450), (Start: 37 @47459 has 4 MA's), (Start: 39 @47480 has 211 MA's), (46, 47555), (58, 47606),

Gene: Mufasa_70 Start: 45897, Stop: 46064, Start Num: 41
Candidate Starts for Mufasa_70:
(14, 45681), (16, 45690), (31, 45837), (Start: 41 @45897 has 11 MA's), (43, 45921),

Gene: MulchExplorer_93 Start: 50459, Stop: 50638, Start Num: 39
Candidate Starts for MulchExplorer_93:
(Start: 39 @50459 has 211 MA's), (58, 50585),

Gene: Murica_85 Start: 52206, Stop: 52394, Start Num: 40
Candidate Starts for Murica_85:
(1, 51732), (7, 51897), (Start: 40 @52206 has 128 MA's), (43, 52236), (44, 52260), (49, 52290), (58, 52341),

Gene: Murphy_82 Start: 51643, Stop: 51831, Start Num: 40
Candidate Starts for Murphy_82:
(1, 51169), (7, 51334), (Start: 40 @51643 has 128 MA's), (43, 51673), (44, 51697), (49, 51727), (58, 51778),

Gene: Mutaforma13_90 Start: 50446, Stop: 50628, Start Num: 39
Candidate Starts for Mutaforma13_90:
(Start: 39 @50446 has 211 MA's), (46, 50524), (58, 50575),

Gene: Mwanjiwa_89 Start: 51141, Stop: 51320, Start Num: 39
Candidate Starts for Mwanjiwa_89:
(17, 50967), (19, 50976), (22, 51000), (25, 51018), (35, 51111), (Start: 37 @51120 has 4 MA's), (Start: 39 @51141 has 211 MA's), (46, 51216), (58, 51267),

Gene: Myrale_82 Start: 51903, Stop: 52091, Start Num: 40
Candidate Starts for Myrale_82:
(1, 51429), (7, 51594), (Start: 40 @51903 has 128 MA's), (47, 51981), (49, 51987), (55, 52023),

Gene: Nala_84 Start: 51767, Stop: 51955, Start Num: 40
Candidate Starts for Nala_84:
(1, 51293), (7, 51458), (Start: 40 @51767 has 128 MA's), (43, 51797), (44, 51821), (49, 51851), (58, 51902),

Gene: NelitzaMV_80 Start: 50849, Stop: 51037, Start Num: 40
Candidate Starts for NelitzaMV_80:
(1, 50375), (7, 50540), (Start: 40 @50849 has 128 MA's), (43, 50879), (44, 50903), (49, 50933), (58, 50984),

Gene: NewHope4_92 Start: 49740, Stop: 49919, Start Num: 39
Candidate Starts for NewHope4_92:
(Start: 39 @49740 has 211 MA's), (46, 49815), (54, 49851), (58, 49866),

Gene: Nichirin_89 Start: 51489, Stop: 51668, Start Num: 39
Candidate Starts for Nichirin_89:
(Start: 39 @51489 has 211 MA's), (46, 51564), (54, 51600), (58, 51615),

Gene: Nimbo_80 Start: 49784, Stop: 49963, Start Num: 39
Candidate Starts for Nimbo_80:
(Start: 39 @49784 has 211 MA's), (58, 49910),

Gene: Nimrod_83 Start: 52470, Stop: 52658, Start Num: 40
Candidate Starts for Nimrod_83:
(1, 51996), (7, 52161), (Start: 40 @52470 has 128 MA's), (43, 52500), (44, 52524), (49, 52554), (58, 52605),

Gene: Nitzel_82 Start: 47847, Stop: 48059, Start Num: 39
Candidate Starts for Nitzel_82:

(Start: 39 @47847 has 211 MA's), (42, 47871), (53, 47979), (55, 47991),

Gene: Nivrat_86 Start: 51239, Stop: 51418, Start Num: 39
Candidate Starts for Nivrat_86:
(Start: 39 @51239 has 211 MA's), (46, 51314), (58, 51365),

Gene: NoSleep_83 Start: 51104, Stop: 51292, Start Num: 40
Candidate Starts for NoSleep_83:
(1, 50630), (7, 50795), (Start: 40 @51104 has 128 MA's), (43, 51134), (44, 51158), (49, 51188), (58, 51239),

Gene: NonchalantPear_80 Start: 50960, Stop: 51148, Start Num: 40
Candidate Starts for NonchalantPear_80:
(1, 50486), (7, 50651), (Start: 40 @50960 has 128 MA's), (43, 50990), (44, 51014), (49, 51044), (58, 51095),

Gene: NormanBulbieJr_85 Start: 51186, Stop: 51365, Start Num: 39
Candidate Starts for NormanBulbieJr_85:
(Start: 39 @51186 has 211 MA's), (46, 51261), (54, 51297), (58, 51312),

Gene: Ochi17_94 Start: 51460, Stop: 51672, Start Num: 39
Candidate Starts for Ochi17_94:
(21, 51331), (27, 51400), (Start: 39 @51460 has 211 MA's), (42, 51484), (53, 51592), (55, 51604),

Gene: OfUltron_96 Start: 52009, Stop: 52221, Start Num: 39
Candidate Starts for OfUltron_96:
(21, 51880), (27, 51949), (Start: 39 @52009 has 211 MA's), (42, 52033), (53, 52141), (55, 52153),

Gene: Ogopogo_93 Start: 50508, Stop: 50687, Start Num: 39
Candidate Starts for Ogopogo_93:
(Start: 39 @50508 has 211 MA's), (46, 50583), (58, 50634),

Gene: Oksu_91 Start: 52614, Stop: 52802, Start Num: 42
Candidate Starts for Oksu_91:
(21, 52461), (27, 52530), (Start: 39 @52590 has 211 MA's), (42, 52614), (53, 52722), (55, 52734),

Gene: OldBen_85 Start: 51176, Stop: 51355, Start Num: 39
Candidate Starts for OldBen_85:
(Start: 39 @51176 has 211 MA's), (58, 51302),

Gene: OlympiaSaint_89 Start: 51420, Stop: 51599, Start Num: 39
Candidate Starts for OlympiaSaint_89:
(25, 51297), (35, 51390), (Start: 37 @51399 has 4 MA's), (Start: 39 @51420 has 211 MA's), (58, 51546),

Gene: OrionPax_81 Start: 50855, Stop: 51043, Start Num: 40
Candidate Starts for OrionPax_81:
(1, 50381), (7, 50546), (Start: 40 @50855 has 128 MA's), (43, 50885), (44, 50909), (49, 50939), (58, 50990),

Gene: Ovechkin_93 Start: 52013, Stop: 52192, Start Num: 39
Candidate Starts for Ovechkin_93:

(Start: 38 @52001 has 8 MA's), (Start: 39 @52013 has 211 MA's), (42, 52037), (46, 52088), (52, 52106), (54, 52124), (58, 52139),

Gene: OwlsT2W_87 Start: 49851, Stop: 50030, Start Num: 39
Candidate Starts for OwlsT2W_87:
(Start: 39 @49851 has 211 MA's), (46, 49926), (58, 49977),

Gene: PHappiness_88 Start: 52005, Stop: 52184, Start Num: 39
Candidate Starts for PHappiness_88:
(Start: 39 @52005 has 211 MA's), (58, 52131),

Gene: PMC_85 Start: 49652, Stop: 49831, Start Num: 39
Candidate Starts for PMC_85:
(28, 49580), (Start: 38 @49637 has 8 MA's), (Start: 39 @49652 has 211 MA's), (54, 49763), (58, 49778),

Gene: Pacc40_84 Start: 51605, Stop: 51784, Start Num: 39
Candidate Starts for Pacc40_84:
(Start: 39 @51605 has 211 MA's), (46, 51680), (58, 51731),

Gene: PaddyBaddy_82 Start: 50855, Stop: 51043, Start Num: 40
Candidate Starts for PaddyBaddy_82:
(1, 50381), (7, 50546), (Start: 40 @50855 has 128 MA's), (43, 50885), (44, 50909), (49, 50939), (58, 50990),

Gene: Palpatine_84 Start: 52233, Stop: 52421, Start Num: 40
Candidate Starts for Palpatine_84:
(1, 51759), (7, 51924), (Start: 40 @52233 has 128 MA's), (43, 52263), (44, 52287), (49, 52317), (58, 52368),

Gene: Paperbeatsrock_81 Start: 51481, Stop: 51669, Start Num: 40
Candidate Starts for Paperbeatsrock_81:
(1, 51007), (7, 51172), (Start: 40 @51481 has 128 MA's), (43, 51511), (44, 51535), (47, 51559), (49, 51565), (58, 51616),

Gene: Pat3_80 Start: 50013, Stop: 50201, Start Num: 40
Candidate Starts for Pat3_80:
(7, 49704), (Start: 40 @50013 has 128 MA's), (47, 50091), (49, 50097), (55, 50133),

Gene: PatoPoderoso_84 Start: 51616, Stop: 51795, Start Num: 39
Candidate Starts for PatoPoderoso_84:
(Start: 39 @51616 has 211 MA's), (58, 51742),

Gene: Petra64142_86 Start: 52700, Stop: 52888, Start Num: 40
Candidate Starts for Petra64142_86:
(1, 52226), (7, 52391), (Start: 40 @52700 has 128 MA's), (43, 52730), (44, 52754), (47, 52778), (49, 52784), (58, 52835),

Gene: Phaja_80 Start: 51307, Stop: 51495, Start Num: 40
Candidate Starts for Phaja_80:
(1, 50833), (7, 50998), (Start: 40 @51307 has 128 MA's), (43, 51337), (44, 51361), (47, 51385), (49, 51391), (58, 51442),

Gene: Phalconet_86 Start: 49981, Stop: 50160, Start Num: 39
Candidate Starts for Phalconet_86:
(28, 49909), (Start: 38 @49966 has 8 MA's), (Start: 39 @49981 has 211 MA's), (46, 50056), (58, 50107),

Gene: Phanphagia_90 Start: 51883, Stop: 52062, Start Num: 39
Candidate Starts for Phanphagia_90:
(28, 51811), (Start: 38 @51868 has 8 MA's), (Start: 39 @51883 has 211 MA's), (54, 51994), (58, 52009),

Gene: Pharsalus_79 Start: 51281, Stop: 51469, Start Num: 40
Candidate Starts for Pharsalus_79:
(1, 50807), (7, 50972), (Start: 40 @51281 has 128 MA's), (43, 51311), (44, 51335), (47, 51359), (49, 51365), (58, 51416),

Gene: Phasih_84 Start: 49369, Stop: 49548, Start Num: 39
Candidate Starts for Phasih_84:
(Start: 39 @49369 has 211 MA's), (46, 49444), (58, 49495),

Gene: PhatBacter_86 Start: 52253, Stop: 52441, Start Num: 40
Candidate Starts for PhatBacter_86:
(1, 51779), (7, 51944), (Start: 40 @52253 has 128 MA's), (43, 52283), (44, 52307), (49, 52337), (58, 52388),

Gene: Phatniss_85 Start: 50038, Stop: 50217, Start Num: 39
Candidate Starts for Phatniss_85:
(Start: 39 @50038 has 211 MA's), (54, 50149), (58, 50164),

Gene: Phaux_84 Start: 52248, Stop: 52436, Start Num: 40
Candidate Starts for Phaux_84:
(1, 51774), (7, 51939), (Start: 40 @52248 has 128 MA's), (43, 52278), (44, 52302), (49, 52332), (58, 52383),

Gene: PhesterPhotato_92 Start: 50856, Stop: 51035, Start Num: 39
Candidate Starts for PhesterPhotato_92:
(17, 50682), (19, 50691), (22, 50715), (25, 50733), (35, 50826), (Start: 37 @50835 has 4 MA's), (Start: 39 @50856 has 211 MA's), (46, 50931), (58, 50982),

Gene: Philus_89 Start: 52370, Stop: 52549, Start Num: 39
Candidate Starts for Philus_89:
(35, 52340), (Start: 37 @52349 has 4 MA's), (Start: 39 @52370 has 211 MA's), (58, 52496),

Gene: Phrux_79 Start: 50841, Stop: 51029, Start Num: 40
Candidate Starts for Phrux_79:
(1, 50367), (7, 50532), (Start: 40 @50841 has 128 MA's), (43, 50871), (44, 50895), (49, 50925), (58, 50976),

Gene: Pippy_82 Start: 49069, Stop: 49248, Start Num: 39
Candidate Starts for Pippy_82:
(17, 48895), (19, 48904), (22, 48928), (25, 48946), (35, 49039), (Start: 37 @49048 has 4 MA's), (Start: 39 @49069 has 211 MA's), (46, 49144), (58, 49195),

Gene: Plumbus_88 Start: 48222, Stop: 48401, Start Num: 39

Candidate Starts for Plumbus_88:
(17, 48048), (19, 48057), (20, 48069), (22, 48081), (25, 48099), (35, 48192), (Start: 37 @48201 has 4 MA's), (Start: 39 @48222 has 211 MA's), (58, 48348),

Gene: Poenanya_91 Start: 51481, Stop: 51660, Start Num: 39
Candidate Starts for Poenanya_91:
(25, 51358), (35, 51451), (Start: 37 @51460 has 4 MA's), (Start: 39 @51481 has 211 MA's), (46, 51556), (58, 51607),

Gene: Policronamos_85 Start: 52248, Stop: 52436, Start Num: 40
Candidate Starts for Policronamos_85:
(1, 51774), (7, 51939), (Start: 40 @52248 has 128 MA's), (43, 52278), (44, 52302), (49, 52332), (58, 52383),

Gene: Polka14_92 Start: 52271, Stop: 52450, Start Num: 39
Candidate Starts for Polka14_92:
(25, 52148), (35, 52241), (Start: 37 @52250 has 4 MA's), (Start: 39 @52271 has 211 MA's), (46, 52346), (58, 52397),

Gene: Pollywog_89 Start: 52081, Stop: 52293, Start Num: 39
Candidate Starts for Pollywog_89:
(Start: 39 @52081 has 211 MA's), (42, 52105), (53, 52213), (55, 52225),

Gene: Polo2Bam_97 Start: 49594, Stop: 49773, Start Num: 39
Candidate Starts for Polo2Bam_97:
(Start: 39 @49594 has 211 MA's), (46, 49669), (54, 49705), (58, 49720),

Gene: PopTart_80 Start: 47838, Stop: 48050, Start Num: 39
Candidate Starts for PopTart_80:
(4, 47490), (8, 47541), (13, 47574), (17, 47661), (19, 47670), (22, 47694), (25, 47712), (35, 47805), (Start: 37 @47814 has 4 MA's), (Start: 39 @47838 has 211 MA's), (53, 47970), (55, 47982),

Gene: Porky_81 Start: 50671, Stop: 50859, Start Num: 40
Candidate Starts for Porky_81:
(1, 50197), (7, 50362), (Start: 40 @50671 has 128 MA's), (43, 50701), (44, 50725), (49, 50755), (58, 50806),

Gene: Priscilla_87 Start: 51284, Stop: 51463, Start Num: 39
Candidate Starts for Priscilla_87:
(Start: 39 @51284 has 211 MA's), (46, 51359), (54, 51395), (58, 51410),

Gene: Ptowny_79 Start: 50143, Stop: 50331, Start Num: 40
Candidate Starts for Ptowny_79:
(1, 49669), (7, 49834), (Start: 40 @50143 has 128 MA's), (43, 50173), (44, 50197), (49, 50227), (58, 50278),

Gene: Pumpkin_85 Start: 51899, Stop: 52087, Start Num: 40
Candidate Starts for Pumpkin_85:
(1, 51425), (7, 51590), (Start: 40 @51899 has 128 MA's), (43, 51929), (44, 51953), (49, 51983), (58, 52034),

Gene: Quallification_83 Start: 51889, Stop: 52077, Start Num: 40
Candidate Starts for Quallification_83:

(1, 51415), (7, 51580), (Start: 40 @51889 has 128 MA's), (43, 51919), (44, 51943), (49, 51973), (58, 52024),

Gene: QuickMath_89 Start: 51040, Stop: 51219, Start Num: 39
Candidate Starts for QuickMath_89:
(Start: 39 @51040 has 211 MA's), (58, 51166),

Gene: Quico_95 Start: 52283, Stop: 52477, Start Num: 38
Candidate Starts for Quico_95:
(28, 52226), (Start: 38 @52283 has 8 MA's), (Start: 39 @52298 has 211 MA's), (46, 52373), (58, 52424),

Gene: Radiance_84 Start: 50365, Stop: 50574, Start Num: 39
Candidate Starts for Radiance_84:
(30, 50317), (Start: 39 @50365 has 211 MA's), (47, 50449), (50, 50461), (57, 50512),

Gene: Rakim_83 Start: 51355, Stop: 51543, Start Num: 40
Candidate Starts for Rakim_83:
(1, 50881), (7, 51046), (Start: 40 @51355 has 128 MA's), (47, 51433), (49, 51439), (55, 51475),

Gene: Ramsey_92 Start: 52536, Stop: 52715, Start Num: 39
Candidate Starts for Ramsey_92:
(Start: 39 @52536 has 211 MA's), (46, 52611), (58, 52662),

Gene: RedBird_88 Start: 52383, Stop: 52547, Start Num: 39
Candidate Starts for RedBird_88:
(30, 52335), (Start: 39 @52383 has 211 MA's), (47, 52467), (50, 52479),

Gene: Renaud18_96 Start: 51315, Stop: 51494, Start Num: 39
Candidate Starts for Renaud18_96:
(3, 50973), (5, 51006), (9, 51039), (17, 51141), (19, 51150), (23, 51183), (25, 51192), (35, 51285), (Start: 37 @51294 has 4 MA's), (Start: 39 @51315 has 211 MA's), (46, 51390), (58, 51441),

Gene: Rialto_93 Start: 51722, Stop: 51934, Start Num: 39
Candidate Starts for Rialto_93:
(Start: 39 @51722 has 211 MA's), (42, 51746), (53, 51854), (55, 51866),

Gene: Rimmer_83 Start: 51594, Stop: 51782, Start Num: 40
Candidate Starts for Rimmer_83:
(1, 51120), (7, 51285), (Start: 40 @51594 has 128 MA's), (47, 51672), (49, 51678), (55, 51714),

Gene: RitaG_88 Start: 51807, Stop: 51986, Start Num: 39
Candidate Starts for RitaG_88:
(Start: 39 @51807 has 211 MA's), (58, 51933),

Gene: RiverMonster_82 Start: 51419, Stop: 51607, Start Num: 40
Candidate Starts for RiverMonster_82:
(1, 50945), (7, 51110), (Start: 40 @51419 has 128 MA's), (43, 51449), (44, 51473), (49, 51503), (58, 51554),

Gene: Rockne_89 Start: 49664, Stop: 49843, Start Num: 39
Candidate Starts for Rockne_89:

(28, 49592), (Start: 38 @49649 has 8 MA's), (Start: 39 @49664 has 211 MA's), (54, 49775), (58, 49790),

Gene: Royals2015_93 Start: 50353, Stop: 50532, Start Num: 39
Candidate Starts for Royals2015_93:
(17, 50179), (19, 50188), (22, 50212), (25, 50230), (35, 50323), (Start: 37 @50332 has 4 MA's), (Start: 39 @50353 has 211 MA's), (46, 50428), (58, 50479),

Gene: Ruby_84 Start: 51180, Stop: 51359, Start Num: 39
Candidate Starts for Ruby_84:
(Start: 39 @51180 has 211 MA's), (58, 51306),

Gene: SG4_90 Start: 51986, Stop: 52195, Start Num: 39
Candidate Starts for SG4_90:
(30, 51938), (Start: 39 @51986 has 211 MA's), (47, 52070), (50, 52082), (57, 52133),

Gene: STLscum_67 Start: 42317, Stop: 42105, Start Num: 39
Candidate Starts for STLscum_67:
(26, 42389), (Start: 39 @42317 has 211 MA's), (42, 42293), (53, 42185), (55, 42173), (57, 42167),

Gene: Saal_83 Start: 50780, Stop: 50959, Start Num: 39
Candidate Starts for Saal_83:
(17, 50606), (19, 50615), (22, 50639), (25, 50657), (35, 50750), (Start: 37 @50759 has 4 MA's), (Start: 39 @50780 has 211 MA's), (46, 50855), (58, 50906),

Gene: Sabbb_92 Start: 49485, Stop: 49664, Start Num: 39
Candidate Starts for Sabbb_92:
(Start: 39 @49485 has 211 MA's), (46, 49560), (54, 49596), (58, 49611),

Gene: Saints25_81 Start: 50832, Stop: 51020, Start Num: 40
Candidate Starts for Saints25_81:
(1, 50358), (7, 50523), (Start: 40 @50832 has 128 MA's), (43, 50862), (44, 50886), (49, 50916), (58, 50967),

Gene: Sandalphon_87 Start: 51671, Stop: 51844, Start Num: 39
Candidate Starts for Sandalphon_87:
(Start: 39 @51671 has 211 MA's), (46, 51746), (54, 51782), (58, 51797),

Gene: Sarma624_88 Start: 47656, Stop: 47835, Start Num: 39
Candidate Starts for Sarma624_88:
(28, 47584), (Start: 38 @47641 has 8 MA's), (Start: 39 @47656 has 211 MA's), (54, 47767), (58, 47782),

Gene: Sassafras_89 Start: 50697, Stop: 50861, Start Num: 39
Candidate Starts for Sassafras_89:
(30, 50649), (Start: 39 @50697 has 211 MA's), (47, 50781), (50, 50793),

Gene: Sassay_77 Start: 49522, Stop: 49710, Start Num: 40
Candidate Starts for Sassay_77:
(1, 49048), (7, 49213), (Start: 40 @49522 has 128 MA's), (43, 49552), (44, 49576), (49, 49606), (58, 49657),

Gene: SassyB_80 Start: 47838, Stop: 48050, Start Num: 39

Candidate Starts for SassyB_80:
(4, 47490), (8, 47541), (13, 47574), (17, 47661), (19, 47670), (22, 47694), (25, 47712), (35, 47805), (Start: 37 @47814 has 4 MA's), (Start: 39 @47838 has 211 MA's), (53, 47970), (55, 47982),

Gene: Scottish_87 Start: 50146, Stop: 50325, Start Num: 39
Candidate Starts for Scottish_87:
(35, 50116), (Start: 37 @50125 has 4 MA's), (Start: 39 @50146 has 211 MA's), (46, 50221), (58, 50272),

Gene: SeaLumen_94 Start: 49594, Stop: 49773, Start Num: 39
Candidate Starts for SeaLumen_94:
(Start: 39 @49594 has 211 MA's), (46, 49669), (54, 49705), (58, 49720),

Gene: Seabastian_96 Start: 52010, Stop: 52222, Start Num: 39
Candidate Starts for Seabastian_96:
(21, 51881), (27, 51950), (Start: 39 @52010 has 211 MA's), (42, 52034), (53, 52142), (55, 52154),

Gene: Seagreen_88 Start: 51351, Stop: 51530, Start Num: 39
Candidate Starts for Seagreen_88:
(Start: 38 @51339 has 8 MA's), (Start: 39 @51351 has 211 MA's), (42, 51375), (46, 51426), (52, 51444), (54, 51462), (58, 51477),

Gene: ShamWow_82 Start: 51741, Stop: 51929, Start Num: 40
Candidate Starts for ShamWow_82:
(1, 51267), (7, 51432), (Start: 40 @51741 has 128 MA's), (43, 51771), (44, 51795), (49, 51825), (58, 51876),

Gene: Shauna1_87 Start: 51499, Stop: 51678, Start Num: 39
Candidate Starts for Shauna1_87:
(28, 51427), (Start: 38 @51484 has 8 MA's), (Start: 39 @51499 has 211 MA's), (54, 51610), (58, 51625),

Gene: ShereKhan_80 Start: 51814, Stop: 52002, Start Num: 40
Candidate Starts for ShereKhan_80:
(1, 51340), (7, 51505), (Start: 40 @51814 has 128 MA's), (43, 51844), (44, 51868), (49, 51898), (58, 51949),

Gene: ShiLan_89 Start: 52933, Stop: 53112, Start Num: 39
Candidate Starts for ShiLan_89:
(25, 52810), (35, 52903), (Start: 37 @52912 has 4 MA's), (Start: 39 @52933 has 211 MA's), (58, 53059),

Gene: ShowerHandel_85 Start: 49616, Stop: 49795, Start Num: 39
Candidate Starts for ShowerHandel_85:
(Start: 39 @49616 has 211 MA's), (46, 49691), (54, 49727), (58, 49742),

Gene: ShroomBoi_86 Start: 50441, Stop: 50620, Start Num: 39
Candidate Starts for ShroomBoi_86:
(Start: 39 @50441 has 211 MA's), (58, 50567),

Gene: SiSi_85 Start: 50276, Stop: 50455, Start Num: 39
Candidate Starts for SiSi_85:
(Start: 39 @50276 has 211 MA's), (58, 50402),

Gene: SilverChicken_95 Start: 50656, Stop: 50835, Start Num: 39
Candidate Starts for SilverChicken_95:
(17, 50482), (19, 50491), (22, 50515), (25, 50533), (35, 50626), (Start: 37 @50635 has 4 MA's), (Start: 39 @50656 has 211 MA's), (58, 50782),

Gene: Simpliphy_81 Start: 50822, Stop: 51010, Start Num: 40
Candidate Starts for Simpliphy_81:
(1, 50348), (7, 50513), (Start: 40 @50822 has 128 MA's), (43, 50852), (44, 50876), (49, 50906), (58, 50957),

Gene: SimranZ1_86 Start: 49680, Stop: 49859, Start Num: 39
Candidate Starts for SimranZ1_86:
(35, 49650), (Start: 37 @49659 has 4 MA's), (Start: 39 @49680 has 211 MA's), (42, 49704), (46, 49755), (54, 49791), (58, 49806),

Gene: SirDuracell_81 Start: 50108, Stop: 50296, Start Num: 40
Candidate Starts for SirDuracell_81:
(1, 49634), (7, 49799), (Start: 40 @50108 has 128 MA's), (47, 50186), (49, 50192), (55, 50228),

Gene: SophKB_79 Start: 50500, Stop: 50688, Start Num: 40
Candidate Starts for SophKB_79:
(1, 50026), (7, 50191), (Start: 40 @50500 has 128 MA's), (43, 50530), (44, 50554), (49, 50584), (58, 50635),

Gene: Sotrice96_83 Start: 51503, Stop: 51691, Start Num: 40
Candidate Starts for Sotrice96_83:
(1, 51029), (7, 51194), (Start: 40 @51503 has 128 MA's), (47, 51581), (49, 51587), (55, 51623),

Gene: Soul22_88 Start: 48698, Stop: 48877, Start Num: 39
Candidate Starts for Soul22_88:
(17, 48524), (19, 48533), (22, 48557), (25, 48575), (35, 48668), (Start: 37 @48677 has 4 MA's), (Start: 39 @48698 has 211 MA's), (46, 48773), (58, 48824),

Gene: Sparkdehlily_96 Start: 49993, Stop: 50205, Start Num: 39
Candidate Starts for Sparkdehlily_96:
(Start: 39 @49993 has 211 MA's), (42, 50017), (53, 50125), (55, 50137),

Gene: Spartacus_94 Start: 53310, Stop: 53501, Start Num: 38
Candidate Starts for Spartacus_94:
(Start: 38 @53310 has 8 MA's), (42, 53346), (46, 53397), (58, 53448),

Gene: Spoonbill_85 Start: 48846, Stop: 49025, Start Num: 39
Candidate Starts for Spoonbill_85:
(25, 48723), (35, 48816), (Start: 37 @48825 has 4 MA's), (Start: 39 @48846 has 211 MA's), (58, 48972),

Gene: Squirty_88 Start: 54631, Stop: 54840, Start Num: 39
Candidate Starts for Squirty_88:
(30, 54583), (Start: 39 @54631 has 211 MA's), (47, 54715), (50, 54727), (57, 54778),

Gene: StAnnes_92 Start: 52364, Stop: 52543, Start Num: 39
Candidate Starts for StAnnes_92:

(17, 52190), (19, 52199), (22, 52223), (25, 52241), (35, 52334), (Start: 37 @52343 has 4 MA's), (Start: 39 @52364 has 211 MA's), (46, 52439), (58, 52490),

Gene: Stank_85 Start: 51761, Stop: 51949, Start Num: 40
Candidate Starts for Stank_85:
(1, 51287), (7, 51452), (Start: 40 @51761 has 128 MA's), (43, 51791), (44, 51815), (49, 51845), (58, 51896),

Gene: Stap_84 Start: 48346, Stop: 48555, Start Num: 39
Candidate Starts for Stap_84:
(30, 48298), (Start: 39 @48346 has 211 MA's), (47, 48430), (50, 48442), (57, 48493),

Gene: Starcevich_88 Start: 51870, Stop: 52049, Start Num: 39
Candidate Starts for Starcevich_88:
(6, 51576), (11, 51609), (17, 51696), (19, 51705), (20, 51717), (23, 51738), (25, 51747), (35, 51840), (Start: 37 @51849 has 4 MA's), (Start: 39 @51870 has 211 MA's), (46, 51945), (58, 51996),

Gene: Stark_83 Start: 51302, Stop: 51490, Start Num: 40
Candidate Starts for Stark_83:
(1, 50828), (7, 50993), (Start: 40 @51302 has 128 MA's), (43, 51332), (44, 51356), (49, 51386), (58, 51437),

Gene: StellaBean_80 Start: 51065, Stop: 51253, Start Num: 40
Candidate Starts for StellaBean_80:
(1, 50591), (7, 50756), (Start: 40 @51065 has 128 MA's), (43, 51095), (44, 51119), (49, 51149), (58, 51200),

Gene: StolenFromERC_85 Start: 51543, Stop: 51731, Start Num: 40
Candidate Starts for StolenFromERC_85:
(1, 51069), (7, 51234), (Start: 40 @51543 has 128 MA's), (47, 51621), (49, 51627), (55, 51663),

Gene: StormChicken_84 Start: 52201, Stop: 52389, Start Num: 40
Candidate Starts for StormChicken_84:
(1, 51727), (7, 51892), (Start: 40 @52201 has 128 MA's), (47, 52279), (49, 52285), (55, 52321),

Gene: Strobilo_71 Start: 46313, Stop: 46480, Start Num: 41
Candidate Starts for Strobilo_71:
(31, 46253), (Start: 41 @46313 has 11 MA's), (43, 46337), (45, 46373),

Gene: Strokeseat_85 Start: 48621, Stop: 48800, Start Num: 39
Candidate Starts for Strokeseat_85:
(Start: 38 @48609 has 8 MA's), (Start: 39 @48621 has 211 MA's), (42, 48645), (46, 48696), (52, 48714), (54, 48732), (58, 48747),

Gene: SuperGrey_88 Start: 52853, Stop: 53032, Start Num: 39
Candidate Starts for SuperGrey_88:
(29, 52805), (Start: 39 @52853 has 211 MA's), (58, 52979),

Gene: SwagPigglett_88 Start: 51916, Stop: 52095, Start Num: 39
Candidate Starts for SwagPigglett_88:
(17, 51742), (19, 51751), (22, 51775), (25, 51793), (35, 51886), (Start: 37 @51895 has 4 MA's), (Start: 39 @51916 has 211 MA's), (46, 51991), (58, 52042),

Gene: TBrady12_85 Start: 51242, Stop: 51430, Start Num: 40
Candidate Starts for TBrady12_85:
(1, 50768), (7, 50933), (Start: 40 @51242 has 128 MA's), (43, 51272), (44, 51296), (49, 51326), (58, 51377),

Gene: TChen_85 Start: 51170, Stop: 51349, Start Num: 39
Candidate Starts for TChen_85:
(9, 50891), (17, 50996), (19, 51005), (22, 51029), (35, 51140), (Start: 37 @51149 has 4 MA's), (Start: 39 @51170 has 211 MA's), (42, 51194), (46, 51245), (58, 51296),

Gene: TDanisky_97 Start: 49993, Stop: 50205, Start Num: 39
Candidate Starts for TDanisky_97:
(Start: 39 @49993 has 211 MA's), (42, 50017), (53, 50125), (55, 50137),

Gene: TM4_68 Start: 40975, Stop: 41142, Start Num: 41
Candidate Starts for TM4_68:
(14, 40759), (16, 40768), (31, 40915), (Start: 41 @40975 has 11 MA's), (43, 40999),

Gene: Taj_96 Start: 52898, Stop: 53077, Start Num: 39
Candidate Starts for Taj_96:
(28, 52826), (Start: 38 @52883 has 8 MA's), (Start: 39 @52898 has 211 MA's), (54, 53009), (58, 53024),

Gene: Tarkin_81 Start: 51490, Stop: 51678, Start Num: 40
Candidate Starts for Tarkin_81:
(1, 51016), (7, 51181), (Start: 40 @51490 has 128 MA's), (43, 51520), (44, 51544), (47, 51568), (49, 51574), (58, 51625),

Gene: Tchotchke_82 Start: 49481, Stop: 49660, Start Num: 39
Candidate Starts for Tchotchke_82:
(Start: 39 @49481 has 211 MA's), (58, 49607),

Gene: TeamEdward_84 Start: 52195, Stop: 52383, Start Num: 40
Candidate Starts for TeamEdward_84:
(1, 51721), (7, 51886), (Start: 40 @52195 has 128 MA's), (47, 52273), (49, 52279), (55, 52315),

Gene: TeardropMSU_78 Start: 50490, Stop: 50678, Start Num: 40
Candidate Starts for TeardropMSU_78:
(1, 50016), (7, 50181), (Start: 40 @50490 has 128 MA's), (43, 50520), (44, 50544), (49, 50574), (58, 50625),

Gene: Teaspoon_83 Start: 51384, Stop: 51572, Start Num: 40
Candidate Starts for Teaspoon_83:
(1, 50910), (7, 51075), (Start: 40 @51384 has 128 MA's), (43, 51414), (44, 51438), (49, 51468), (58, 51519),

Gene: Terminus_85 Start: 52277, Stop: 52465, Start Num: 40
Candidate Starts for Terminus_85:
(1, 51803), (7, 51968), (Start: 40 @52277 has 128 MA's), (43, 52307), (44, 52331), (49, 52361), (58, 52412),

Gene: ThetaBob_89 Start: 49960, Stop: 50169, Start Num: 39
Candidate Starts for ThetaBob_89:

(30, 49912), (Start: 39 @49960 has 211 MA's), (47, 50044), (50, 50056), (57, 50107),

Gene: Thimble_83 Start: 50722, Stop: 50910, Start Num: 40
Candidate Starts for Thimble_83:
(1, 50248), (7, 50413), (Start: 40 @50722 has 128 MA's), (43, 50752), (44, 50776), (49, 50806), (58, 50857),

Gene: Thresher_84 Start: 52361, Stop: 52549, Start Num: 40
Candidate Starts for Thresher_84:
(1, 51887), (7, 52052), (Start: 40 @52361 has 128 MA's), (43, 52391), (44, 52415), (49, 52445), (58, 52496),

Gene: Tomaszewski_77 Start: 50653, Stop: 50841, Start Num: 40
Candidate Starts for Tomaszewski_77:
(1, 50179), (7, 50344), (Start: 40 @50653 has 128 MA's), (43, 50683), (44, 50707), (49, 50737), (58, 50788),

Gene: Tootsieroll_83 Start: 50956, Stop: 51135, Start Num: 39
Candidate Starts for Tootsieroll_83:
(25, 50833), (35, 50926), (Start: 37 @50935 has 4 MA's), (Start: 39 @50956 has 211 MA's), (46, 51031), (58, 51082),

Gene: Topiatin_91 Start: 51725, Stop: 51904, Start Num: 39
Candidate Starts for Topiatin_91:
(Start: 39 @51725 has 211 MA's), (42, 51749), (46, 51800), (52, 51818), (54, 51836), (58, 51851),

Gene: Toron_94 Start: 53658, Stop: 53861, Start Num: 39
Candidate Starts for Toron_94:
(10, 53376), (12, 53394), (15, 53460), (17, 53484), (19, 53493), (22, 53517), (35, 53628), (Start: 37 @53637 has 4 MA's), (Start: 39 @53658 has 211 MA's), (44, 53718), (51, 53772), (57, 53799),

Gene: Totinger_89 Start: 50419, Stop: 50598, Start Num: 39
Candidate Starts for Totinger_89:
(Start: 39 @50419 has 211 MA's), (58, 50545),

Gene: Toto_80 Start: 51741, Stop: 51929, Start Num: 40
Candidate Starts for Toto_80:
(1, 51267), (7, 51432), (Start: 40 @51741 has 128 MA's), (43, 51771), (44, 51795), (49, 51825), (58, 51876),

Gene: Traaww1_78 Start: 50925, Stop: 51113, Start Num: 40
Candidate Starts for Traaww1_78:
(1, 50451), (7, 50616), (Start: 40 @50925 has 128 MA's), (43, 50955), (44, 50979), (49, 51009), (58, 51060),

Gene: Tuco_83 Start: 52249, Stop: 52437, Start Num: 40
Candidate Starts for Tuco_83:
(1, 51775), (7, 51940), (Start: 40 @52249 has 128 MA's), (43, 52279), (44, 52303), (49, 52333), (58, 52384),

Gene: Tweety_89 Start: 51948, Stop: 52127, Start Num: 39
Candidate Starts for Tweety_89:
(Start: 39 @51948 has 211 MA's), (58, 52074),

Gene: Ukulele_77 Start: 50635, Stop: 50823, Start Num: 40
Candidate Starts for Ukulele_77:
(1, 50161), (7, 50326), (Start: 40 @50635 has 128 MA's), (43, 50665), (44, 50689), (49, 50719), (58, 50770),

Gene: UncleRicky_87 Start: 49523, Stop: 49717, Start Num: 38
Candidate Starts for UncleRicky_87:
(28, 49466), (Start: 38 @49523 has 8 MA's), (Start: 39 @49538 has 211 MA's), (54, 49649), (58, 49664),

Gene: VRedHorse_89 Start: 48720, Stop: 48899, Start Num: 39
Candidate Starts for VRedHorse_89:
(Start: 39 @48720 has 211 MA's), (46, 48795), (54, 48831), (58, 48846),

Gene: Velveteen_83 Start: 47656, Stop: 47835, Start Num: 39
Candidate Starts for Velveteen_83:
(28, 47584), (Start: 38 @47641 has 8 MA's), (Start: 39 @47656 has 211 MA's), (54, 47767), (58, 47782),

Gene: Veteran_81 Start: 50144, Stop: 50323, Start Num: 39
Candidate Starts for Veteran_81:
(Start: 39 @50144 has 211 MA's), (58, 50270),

Gene: Violac_91 Start: 52565, Stop: 52744, Start Num: 39
Candidate Starts for Violac_91:
(Start: 38 @52553 has 8 MA's), (Start: 39 @52565 has 211 MA's), (42, 52589), (46, 52640), (52, 52658), (54, 52676), (58, 52691),

Gene: Vivum_89 Start: 52959, Stop: 53138, Start Num: 39
Candidate Starts for Vivum_89:
(6, 52665), (11, 52698), (17, 52785), (19, 52794), (20, 52806), (23, 52827), (25, 52836), (35, 52929), (Start: 37 @52938 has 4 MA's), (Start: 39 @52959 has 211 MA's), (42, 52983), (46, 53034), (52, 53052), (54, 53070), (58, 53085),

Gene: Wachhund_85 Start: 47819, Stop: 48001, Start Num: 39
Candidate Starts for Wachhund_85:
(Start: 39 @47819 has 211 MA's), (46, 47897), (58, 47948),

Gene: Wee_94 Start: 52974, Stop: 53153, Start Num: 39
Candidate Starts for Wee_94:
(28, 52902), (Start: 38 @52959 has 8 MA's), (Start: 39 @52974 has 211 MA's), (54, 53085), (58, 53100),

Gene: Whatsapiecost_80 Start: 45661, Stop: 45843, Start Num: 39
Candidate Starts for Whatsapiecost_80:
(Start: 39 @45661 has 211 MA's), (46, 45739), (56, 45778), (58, 45790),

Gene: Whouxphf_88 Start: 51159, Stop: 51338, Start Num: 39
Candidate Starts for Whouxphf_88:
(Start: 39 @51159 has 211 MA's), (46, 51234), (58, 51285),

Gene: Wiggin_84 Start: 51326, Stop: 51514, Start Num: 40

Candidate Starts for Wiggin_84:
(1, 50852), (7, 51017), (Start: 40 @51326 has 128 MA's), (43, 51356), (44, 51380), (49, 51410), (58, 51461),

Gene: WillSterrel_86 Start: 51094, Stop: 51273, Start Num: 39
Candidate Starts for WillSterrel_86:
(29, 51046), (Start: 39 @51094 has 211 MA's), (58, 51220),

Gene: Willez_77 Start: 49522, Stop: 49710, Start Num: 40
Candidate Starts for Willez_77:
(1, 49048), (7, 49213), (Start: 40 @49522 has 128 MA's), (43, 49552), (44, 49576), (49, 49606), (58, 49657),

Gene: XFactor_80 Start: 49287, Stop: 49466, Start Num: 39
Candidate Starts for XFactor_80:
(17, 49113), (19, 49122), (22, 49146), (25, 49164), (35, 49257), (Start: 37 @49266 has 4 MA's), (Start: 39 @49287 has 211 MA's), (46, 49362), (58, 49413),

Gene: Xandras_81 Start: 50734, Stop: 50922, Start Num: 40
Candidate Starts for Xandras_81:
(1, 50260), (7, 50425), (Start: 40 @50734 has 128 MA's), (43, 50764), (44, 50788), (49, 50818), (58, 50869),

Gene: Xiaokay_65 Start: 47175, Stop: 46996, Start Num: 39
Candidate Starts for Xiaokay_65:
(18, 47346), (Start: 39 @47175 has 211 MA's), (46, 47100), (54, 47064), (58, 47049),

Gene: YassJohnny_79 Start: 50692, Stop: 50880, Start Num: 40
Candidate Starts for YassJohnny_79:
(1, 50218), (7, 50383), (Start: 40 @50692 has 128 MA's), (43, 50722), (44, 50746), (47, 50770), (49, 50776), (58, 50827),

Gene: Yorick_80 Start: 50663, Stop: 50842, Start Num: 39
Candidate Starts for Yorick_80:
(Start: 39 @50663 has 211 MA's), (46, 50738), (58, 50789),

Gene: Yoshi_99 Start: 51375, Stop: 51554, Start Num: 39
Candidate Starts for Yoshi_99:
(Start: 39 @51375 has 211 MA's), (42, 51399), (46, 51450), (54, 51486), (58, 51501),

Gene: Youngblood_85 Start: 52204, Stop: 52392, Start Num: 40
Candidate Starts for Youngblood_85:
(1, 51730), (7, 51895), (Start: 40 @52204 has 128 MA's), (43, 52234), (44, 52258), (49, 52288), (58, 52339),

Gene: Zapner_94 Start: 49004, Stop: 49183, Start Num: 39
Candidate Starts for Zapner_94:
(28, 48932), (Start: 38 @48989 has 8 MA's), (Start: 39 @49004 has 211 MA's), (54, 49115), (58, 49130),

Gene: Zerg_88 Start: 50607, Stop: 50786, Start Num: 39
Candidate Starts for Zerg_88:
(Start: 39 @50607 has 211 MA's), (58, 50733),

Gene: Zizzle_90 Start: 52056, Stop: 52235, Start Num: 39
Candidate Starts for Zizzle_90:
(25, 51933), (35, 52026), (Start: 37 @52035 has 4 MA's), (Start: 39 @52056 has 211 MA's), (46, 52131), (58, 52182),

Gene: ZoeJ_69 Start: 45716, Stop: 45883, Start Num: 41
Candidate Starts for ZoeJ_69:
(31, 45656), (Start: 41 @45716 has 11 MA's), (43, 45740), (45, 45776),

Gene: xkcd_85 Start: 52391, Stop: 52579, Start Num: 40
Candidate Starts for xkcd_85:
(1, 51917), (7, 52082), (Start: 40 @52391 has 128 MA's), (43, 52421), (44, 52445), (49, 52475), (58, 52526),