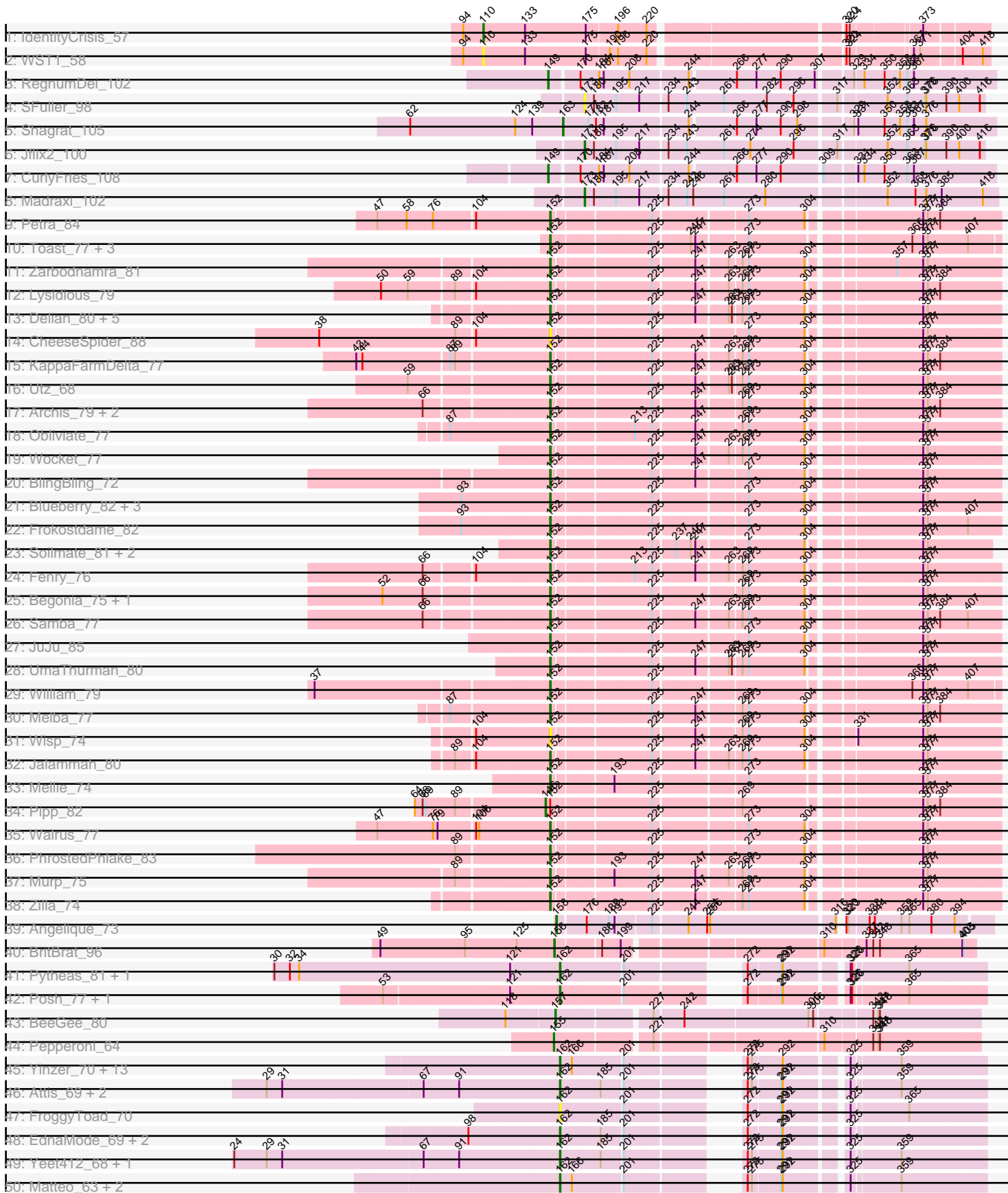
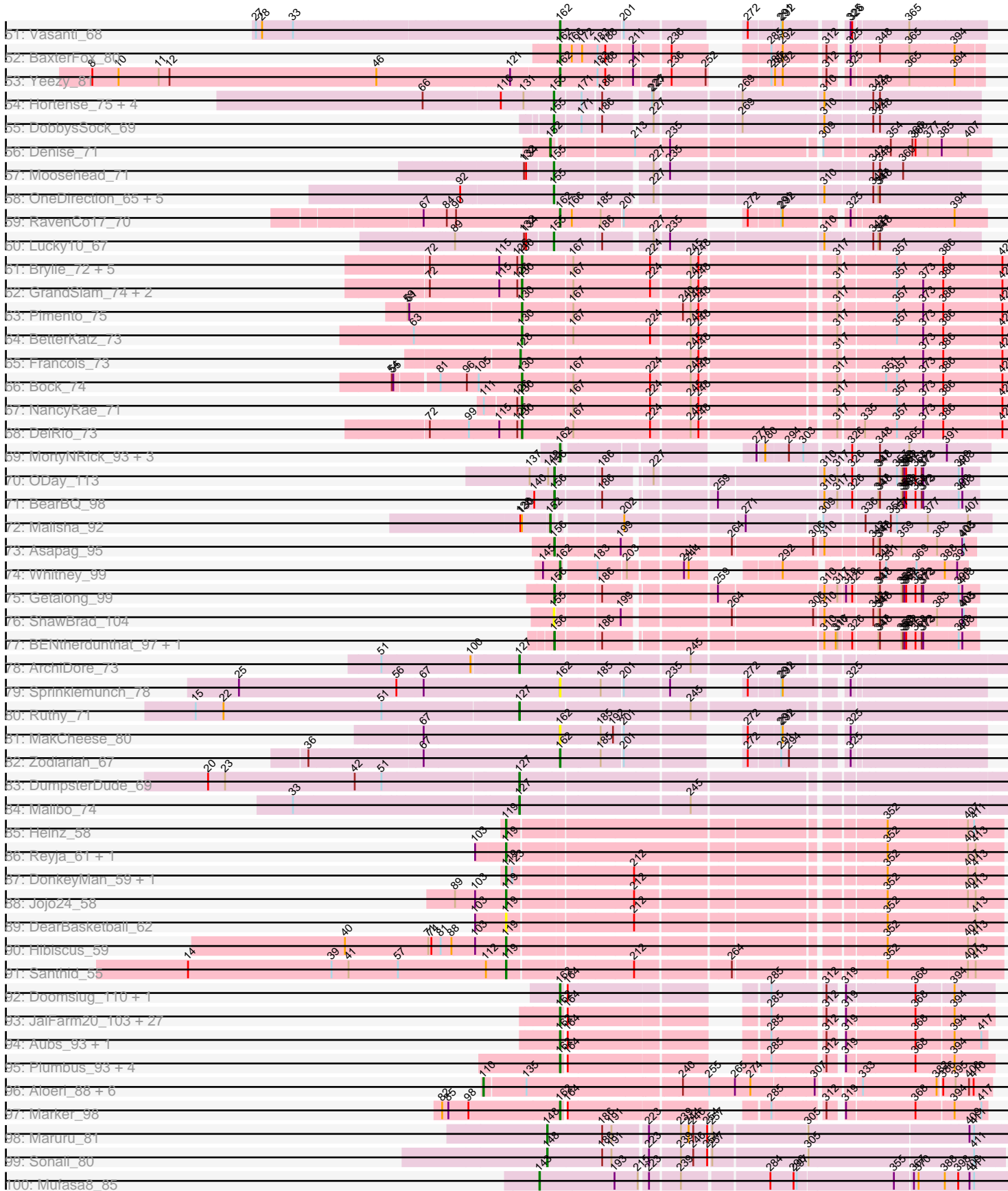


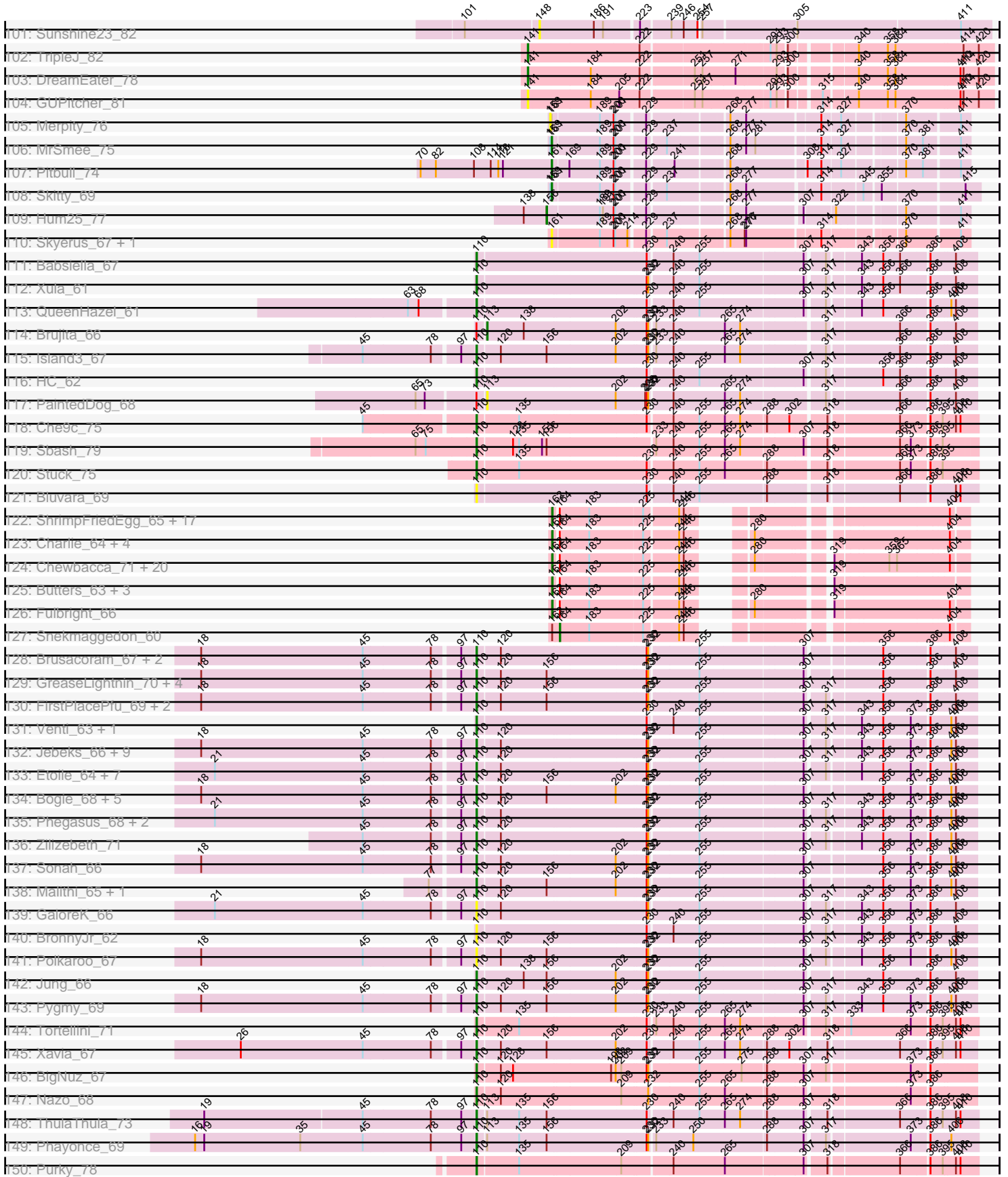
Pham 311127



Pham 311127



Pham 311127



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 311127 Report

This analysis was run 06/27/26 on database version 652.

Pham number 311127 has 339 members, 40 are drafts.

Phages represented in each track:

- Track 1 : IdentityCrisis_57
- Track 2 : WST1_58
- Track 3 : RegnumDei_102
- Track 4 : SFuller_98
- Track 5 : Shagrat_105
- Track 6 : Jflix2_100
- Track 7 : CurlyFries_108
- Track 8 : Madraxi_102
- Track 9 : Petra_84
- Track 10 : Toast_77, PrincePatrick_79, Fairfaxidum_80, PCoral7_76
- Track 11 : Zarbodnamra_81
- Track 12 : Lysidious_79
- Track 13 : Delian_80, Guacamole_75, MintFen_77, Barco_74, CaptainKirk2_77, JasperJr_75
- Track 14 : CheeseSpider_88
- Track 15 : KappaFarmDelta_77
- Track 16 : Utz_68
- Track 17 : Archis_79, Hitter_75, ZiggyZoo_78
- Track 18 : Obliviate_77
- Track 19 : Wocket_77
- Track 20 : BlingBling_72
- Track 21 : Blueberry_82, Gambino_85, MissRona_83, Azula_83
- Track 22 : Frokostdame_82
- Track 23 : Soilmate_81, Blino_79, CarolAnn_78
- Track 24 : Fenry_76
- Track 25 : Begonia_75, Malachai_75
- Track 26 : Samba_77
- Track 27 : JuJu_85
- Track 28 : UmaThurman_80
- Track 29 : William_79
- Track 30 : Melba_77
- Track 31 : Wisp_74
- Track 32 : Jalammah_80
- Track 33 : Mellie_74
- Track 34 : Pipp_82
- Track 35 : Walrus_77
- Track 36 : PhrostedPhlake_83

- Track 37 : Murp_75
- Track 38 : Zilla_74
- Track 39 : Angelique_73
- Track 40 : BritBrat_96
- Track 41 : Pytheas_81, Jablanski_80
- Track 42 : Posh_77, Wrigley_79
- Track 43 : BeeGee_80
- Track 44 : Pepperoni_64
- Track 45 : Yinzer_70, Haley23_70, GemG_70, Sproutie_70, Bjanes7_67, Ebert_73, Gizermo_70, Whiteclaw_70, Cynthia_70, Clap_70, Savage_70, Mocha12_70, TuertoX_70, Lamberg_66
- Track 46 : Attis_69, SoilAssassin_69, LordFarquaad_72
- Track 47 : FroggyToad_70
- Track 48 : EdnaMode_69, Pickett_67, JCole_67
- Track 49 : Yeet412_68, Nettuno_67
- Track 50 : Matteo_63, Jalleen_73, Sahara_68
- Track 51 : Vasanti_68
- Track 52 : BaxterFox_80
- Track 53 : Yeezy_81
- Track 54 : Hortense_75, Twinkle_74, Adora_72, Howe_75, Shlim410_73
- Track 55 : DobbysSock_69
- Track 56 : Denise_71
- Track 57 : Moosehead_71
- Track 58 : OneDirection_65, InLimbo_68, PhorbesPhlower_69, Kuwabara_89, Morkie_71, Lton_68
- Track 59 : RavenCo17_70
- Track 60 : Lucky10_67
- Track 61 : Brylie_72, Parada_72, Ayotoya_73, Nadeem_72, WheatThin_72, Mulch_72
- Track 62 : GrandSlam_74, Hamood_74, Chop_74
- Track 63 : Pimento_75
- Track 64 : BetterKatz_73
- Track 65 : Francois_73
- Track 66 : Bock_74
- Track 67 : NancyRae_71
- Track 68 : DelRio_73
- Track 69 : MortyNRick_93, Budski_103, Phabuloso_105, BotCity_100
- Track 70 : ODay_113
- Track 71 : BearBQ_98
- Track 72 : Malisha_92
- Track 73 : Asapag_95
- Track 74 : Whitney_99
- Track 75 : Getalong_99
- Track 76 : ShawBrad_104
- Track 77 : BENtherdunthat_97, CheeseTouch_105
- Track 78 : ArchiDore_73
- Track 79 : Sprinklemunch_78
- Track 80 : Ruthy_71
- Track 81 : MakCheese_80
- Track 82 : Zodiariah_67
- Track 83 : DumpsterDude_69
- Track 84 : Malibo_74
- Track 85 : Heinz_58

- Track 86 : Reyja_61, DinoNuggs_60
- Track 87 : DonkeyMan_59, Tarzan_59
- Track 88 : Jojo24_58
- Track 89 : DearBasketball_62
- Track 90 : Hibiscus_59
- Track 91 : Santhid_55
- Track 92 : Doomslug_110, Krakatau_86
- Track 93 : JalFarm20_103, Renaud18_102, Fancypants_99, DosHalletts_90, Zapner_100, Okabe_86, SuperGrey_94, Oksu_96, Jabbawokkie_100, Brushbloom_94, SG4_94, Clank_90, MisterCuddles_92, Blarby_101, Rialto_98, Phasih_90, Eradicator_86, Girr_91, Cornie_90, Bipolar_95, Llij_89, ShroomBoi_91, SilverChicken_101, Avani_99, Gandolph_93, Donkeykong_100, Ruby_89, Bobi_96
- Track 94 : Aubs_93, Spartacus_100
- Track 95 : Plumbus_93, Leozinho_90, Totinger_96, Alexphander_94, Karhdo_88
- Track 96 : Aloeri_88, TootsiePop_86, Awesomesauce_87, Misha28_86, ChickenDinner_87, Piper2020_91, DocMcStuffins_84
- Track 97 : Marker_98
- Track 98 : Maruru_81
- Track 99 : Sonali_80
- Track 100 : Mufasa8_85
- Track 101 : Sunshine23_82
- Track 102 : TripleJ_82
- Track 103 : DreamEater_78
- Track 104 : GUPitcher_81
- Track 105 : Merpity_76
- Track 106 : MrSmee_75
- Track 107 : Pitbull_74
- Track 108 : Skitty_69
- Track 109 : Hum25_77
- Track 110 : Skyerus_67, Raya_72
- Track 111 : Babsiella_67
- Track 112 : Xula_61
- Track 113 : QueenHazel_61
- Track 114 : Brujita_66
- Track 115 : Island3_67
- Track 116 : HC_62
- Track 117 : PaintedDog_68
- Track 118 : Che9c_75
- Track 119 : Sbash_79
- Track 120 : Stuck_75
- Track 121 : Bluvara_69
- Track 122 : ShrimpFriedEgg_65, Shweta_63, Impisi_66, Spinach_64, Raymond7_58, BabeRuth_65, SpongeBob_60, Philonius_68, Jamie19_60, SkinnyPete_64, Nenae_65, Purgamenstris_65, Redi_64, MichelleMyBell_65, Phrann_64, PhancyPhin_65, Panchino_61, Hanako_64
- Track 123 : Charlie_64, Bosection6_63, Journey_61, Tessdabest_69, Xeno_65
- Track 124 : Chewbacca_71, Smurph_68, Melville_73, Aggie_64, Carcharodon_67, EGunicorn_63, Magsby_67, Pipsqueaks_69, Silvy_64, Silvafighter_70, Xerxes_68, Scitech_63, Parmesanjohn_68, Gex_69, Tapioca_66, Andies_61, Schnauzer_69, Phloss_66, Tortoise12_68, Duplicity_66, Cubone_73
- Track 125 : Butters_63, Rebel_61, Rubeelu_63, Kevin1_66
- Track 126 : Fulbright_66
- Track 127 : Snekmaggedon_60

- Track 128 : Brusacoram_67, Vidya_64, Thespis_67
- Track 129 : GreaseLightnin_70, StevieRay_70, PeanutPie_70, Atcoo_67, Bhagsy_71
- Track 130 : FirstPlacePfu_69, Bunnies_71, Ksquared_69
- Track 131 : Venti_63, Bartholomew_61
- Track 132 : Jebeks_66, StressBall_65, Gavriela_65, CactusJack_66, Juniormint_63, Glaske_65, Phalm_66, KilKor_66, Willsammy_67, Megiddo_65
- Track 133 : Etoile_64, Chubbello_64, Donovan_65, Kari_65, Arib1_64, Fishburne_64, Techage_66, Langerak_65
- Track 134 : Bogie_68, Dynamo_65, HUHilltop_68, Camster_66, Shipwreck_68, Necropolis_63
- Track 135 : Phegasus_68, Majeke_68, Mangethe_68
- Track 136 : Zilizebeth_71
- Track 137 : Sonah_66
- Track 138 : Malithi_65, Phineas_66
- Track 139 : GaloreK_66
- Track 140 : BronnyJr_62
- Track 141 : Polkaroo_67
- Track 142 : Jung_66
- Track 143 : Pygmy_69
- Track 144 : Tortellini_71
- Track 145 : Xavia_67
- Track 146 : BigNuz_67
- Track 147 : Nazo_68
- Track 148 : ThulaThula_73
- Track 149 : Phayonce_69
- Track 150 : Purky_78
- Track 151 : GAL1_75
- Track 152 : Whack_70
- Track 153 : GMA4_62
- Track 154 : Jace_92
- Track 155 : REQ3_30
- Track 156 : DillyDally_66
- Track 157 : LilSpotty_82
- Track 158 : Eyre_61
- Track 159 : Gudmit_65
- Track 160 : P3MA_56
- Track 161 : Sleepyhead_65
- Track 162 : TinyDot_64

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

The start number called the most often in the published annotations is 162, it was called in 115 of the 299 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aggie_64, Alexphander_94, Andies_61, Attis_69, Aubs_93, Avani_99, BabeRuth_65, BaxterFox_80, Bipolar_95, Bjaner7_67, Blarby_101, Bobi_96, Bosection6_63, BotCity_100, Brushbloom_94, Budski_103, Butters_63, Carcharodon_67, Charlie_64, Chewbacca_71, Clank_90, Clap_70, Cornie_90,

Cubone_73, Cynthia_70, Donkeykong_100, Doomslug_110, DosHalletts_90, Duplicity_66, EGUnicorn_63, Ebert_73, EdnaMode_69, Eradicator_86, Fancypants_99, FroggyToad_70, Fulbright_66, Gandolph_93, GemG_70, Gex_69, Girr_91, Gizermo_70, Haley23_70, Hanako_64, Impisi_66, JCole_67, Jabbawokkie_100, Jablanski_80, JalFarm20_103, Jalleen_73, Jamie19_60, Journey_61, Karhdo_88, Kevin1_66, Krakatau_86, Lamberg_66, Leozinho_90, Llij_89, LordFarquaad_72, Magsby_67, MakCheese_80, Marker_98, Matteo_63, Melville_73, MichelleMyBell_65, MisterCuddles_92, Mocha12_70, MortyNRick_93, Nenae_65, Nettuno_67, Okabe_86, Oksu_96, Panchino_61, ParmesanJohn_68, Phabuloso_105, PhancyPhin_65, Phasih_90, Philonius_68, Phloss_66, Phrann_64, Pickett_67, Pipsqueaks_69, Plumbus_93, Posh_77, Purgamenstris_65, Pytheas_81, RavenCo17_70, Raymond7_58, Rebel_61, Redi_64, Renaud18_102, Rialto_98, Rubeelu_63, Ruby_89, SG4_94, Sahara_68, Savage_70, Schnauzer_69, Scitech_63, ShrimpFriedEgg_65, ShroomBoi_91, Shweta_63, Silvafighter_70, SilverChicken_101, Silvy_64, SkinnyPete_64, Smurph_68, SoilAssassin_69, Spartacus_100, Spinach_64, SpongeBob_60, Sprinklemunch_78, Sproutie_70, SuperGrey_94, Tapioca_66, Tessdabest_69, TinyDot_64, Tortoise12_68, Totinger_96, TuertoX_70, Vasanti_68, Whiteclaw_70, Whitney_99, Wrigley_79, Xeno_65, Xerxes_68, Yeet412_68, Yeezy_81, Yinzer_70, Zapner_100, Zodiariah_67,

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

- Snekmaggedon_60,

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

- Adora_72, Aloeri_88, Angelique_73, ArchiDore_73, Archis_79, Arib1_64, Asapag_95, Atcoo_67, Awesomesauce_87, Ayotoya_73, Azula_83, BENtherdunthat_97, Babsiella_67, Barco_74, Bartholomew_61, BearBQ_98, BeeGee_80, Begonia_75, BetterKatz_73, Bhagsy_71, BigNuz_67, BlingBling_72, Blino_79, Blueberry_82, Bluvara_69, Bock_74, Bogie_68, BritBrat_96, BronnyJr_62, Brujita_66, Brusacoram_67, Brylie_72, Bunnies_71, CactusJack_66, Camster_66, CaptainKirk2_77, CarolAnn_78, Che9c_75, CheeseSpider_88, CheeseTouch_105, ChickenDinner_87, Chop_74, Chubbello_64, CurlyFries_108, DearBasketball_62, DelRio_73, Delian_80, Denise_71, DillyDally_66, DinoNuggs_60, DobbysSock_69, DocMcStuffins_84, DonkeyMan_59, Donovan_65, DreamEater_78, DumpsterDude_69, Dynamo_65, Etoile_64, Eyre_61, Fairfaxidum_80, Fenry_76, FirstPlacePfu_69, Fishburne_64, Francois_73, Frokostdame_82, GAL1_75, GMA4_62, GUPitcher_81, GaloreK_66, Gambino_85, Gavriela_65, Getalong_99, Glaske_65, GrandSlam_74, GreaseLightnin_70, Guacamole_75, Gudmit_65, HC_62, HUHilltop_68, Hamood_74, Heinz_58, Hibiscus_59, Hitter_75, Hortense_75, Howe_75, Hum25_77, IdentityCrisis_57, InLimbo_68, Island3_67, Jace_92, Jalammah_80, JasperJr_75, Jebeks_66, Jflix2_100, Jojo24_58, JuJu_85, Jung_66, Juniormint_63, KappaFarmDelta_77, Kari_65, KilKor_66, Ksquared_69, Kuwabara_89, Langerak_65, LilSpotty_82, Lton_68, Lucky10_67, Lysidious_79, Madraxi_102, Majeke_68, Malachai_75, Malibo_74, Malisha_92, Malithi_65, Mangethe_68, Maruru_81, Megiddo_65, Melba_77, Mellie_74, Merpity_76, MintFen_77, Misha28_86, MissRona_83, Moosehead_71, Morkie_71, MrSmee_75, Mufasa8_85, Mulch_72, Murp_75, Nadeem_72, NancyRae_71, Nazo_68, Necropolis_63, ODay_113, Obliviate_77, OneDirection_65, P3MA_56, PCoral7_76, PaintedDog_68, Parada_72, PeanutPie_70, Pepperoni_64, Petra_84, Phalm_66, Phayonce_69, Phegasus_68, Phineas_66, PhorbPhlower_69, PhrostedPhlake_83, Pimento_75, Piper2020_91, Pipp_82, Pitbull_74, Polkaroo_67, PrincePatrick_79, Purky_78, Pygmy_69, QueenHazel_61, REQ3_30, Raya_72, RegnumDei_102, Reyja_61, Ruthy_71, SFuller_98, Samba_77, Santhid_55, Sbash_79, Shagratt_105,

ShawBrad_104, Shipwreck_68, Shlim410_73, Skitty_69, Skyerus_67, Sleepyhead_65, Soilmate_81, Sonah_66, Sonali_80, StevieRay_70, StressBall_65, Stuck_75, Sunshine23_82, Tarzan_59, Techage_66, Thespis_67, ThulaThula_73, Toast_77, TootsiePop_86, Tortellini_71, TripleJ_82, Twinkle_74, UmaThurman_80, Utz_68, Venti_63, Vidya_64, WST1_58, Walrus_77, Whack_70, WheatThin_72, William_79, Willsammy_67, Wisp_74, Wocket_77, Xavia_67, Xula_61, Zarbodnamra_81, ZiggyZoo_78, Zilizebeth_71, Zilla_74,

Summary by start number:

Start 102:

- Found in 2 of 339 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Sleepyhead_65 (singleton), Whack_70 (singleton),

Start 107:

- Found in 1 of 339 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gudmit_65 (singleton),

Start 108:

- Found in 2 of 339 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Eyre_61 (singleton),

Start 109:

- Found in 1 of 339 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: P3MA_56 (singleton),

Start 110:

- Found in 77 of 339 (22.7%) of genes in pham
- Manual Annotations of this start: 67 of 299
- Called 97.4% of time when present
- Phage (with cluster) where this start called: Aloeri_88 (F1), Arib1_64 (P1), Atcoo_67 (P1), Awesomesauce_87 (F1), Babsiella_67 (I1), Bartholomew_61 (P1), Bhagsy_71 (P1), BigNuz_67 (P4), Bluvara_69 (I3), Bogie_68 (P1), BronnyJr_62 (P1), Brusacoram_67 (P1), Bunnies_71 (P1), CactusJack_66 (P1), Camster_66 (P1), Che9c_75 (I2), ChickenDinner_87 (F1), Chubbello_64 (P1), DocMcStuffins_84 (F1), Donovan_65 (P1), Dynamo_65 (P1), Etoile_64 (P1), FirstPlacePfu_69 (P1), Fishburne_64 (P1), GaloreK_66 (P1), Gavriela_65 (P1), Glaske_65 (P1), GreaseLightnin_70 (P1), HC_62 (I1), HUHilltop_68 (P1), IdentityCrisis_57 (AJ), Island3_67 (I1), Jebeks_66 (P1), Jung_66 (P1), Juniormint_63 (P1), Kari_65 (P1), KilKor_66 (P1), Ksquared_69 (P1), Langerak_65 (P1), LilSpotty_82 (singleton), Majeke_68 (P1), Malithi_65 (P1), Mangethe_68 (P1), Megiddo_65 (P1), Misha28_86 (F1), Nazo_68 (P4), Necropolis_63 (P1), PeanutPie_70 (P1), Phalm_66 (P1), Phayonce_69 (P5), Phegasus_68 (P1), Phineas_66 (P1), Piper2020_91 (F1), Polkaroo_67 (P1), Purky_78 (P6), Pygmy_69 (P1), QueenHazel_61 (I1), Sbash_79

(I2), Shipwreck_68 (P1), Sonah_66 (P1), StevieRay_70 (P1), StressBall_65 (P1), Stuck_75 (I2), Techage_66 (P1), Thespis_67 (P1), ThulaThula_73 (P5), TootsiePop_86 (F1), Tortellini_71 (P2), Venti_63 (P1), Vidya_64 (P1), WST1_58 (AJ), Willsammy_67 (P1), Xavia_67 (P3), Xula_61 (I1), Zilizebeth_71 (P1),

Start 113:

- Found in 4 of 339 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Brujita_66 (I1), PaintedDog_68 (I1),

Start 119:

- Found in 10 of 339 (2.9%) of genes in pham
- Manual Annotations of this start: 7 of 299
- Called 90.0% of time when present
- Phage (with cluster) where this start called: DearBasketball_62 (DY), DinoNuggs_60 (DY), DonkeyMan_59 (DY), Heinz_58 (DY), Hibiscus_59 (DY), Jojo24_58 (DY), Reyja_61 (DY), Santhid_55 (DY), Tarzan_59 (DY),

Start 127:

- Found in 4 of 339 (1.2%) of genes in pham
- Manual Annotations of this start: 4 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArchiDore_73 (DW), DumpsterDude_69 (DW), Malibo_74 (DW), Ruthy_71 (DW),

Start 128:

- Found in 4 of 339 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Francois_73 (DI),

Start 130:

- Found in 15 of 339 (4.4%) of genes in pham
- Manual Annotations of this start: 14 of 299
- Called 93.3% of time when present
- Phage (with cluster) where this start called: Ayotoya_73 (DI), BetterKatz_73 (DI), Bock_74 (DI), Brylie_72 (DI), Chop_74 (DI), DelRio_73 (DI), GrandSlam_74 (DI), Hamood_74 (DI), Mulch_72 (DI), Nadeem_72 (DI), NancyRae_71 (DI), Parada_72 (DI), Pimento_75 (DI), WheatThin_72 (DI),

Start 141:

- Found in 3 of 339 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DreamEater_78 (FJ), GUPitcher_81 (FJ), TripleJ_82 (FJ),

Start 143:

- Found in 1 of 339 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mufasa8_85 (FG),

Start 144:

- Found in 1 of 339 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DillyDally_66 (singleton),

Start 146:

- Found in 1 of 339 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Pipp_82 (CV),

Start 147:

- Found in 1 of 339 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GAL1_75 (singleton),

Start 148:

- Found in 3 of 339 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Maruru_81 (FG), Sonali_80 (FG), Sunshine23_82 (FG),

Start 149:

- Found in 3 of 339 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 299
- Called 66.7% of time when present
- Phage (with cluster) where this start called: CurlyFries_108 (CF), RegnumDei_102 (CF),

Start 152:

- Found in 48 of 339 (14.2%) of genes in pham
- Manual Annotations of this start: 44 of 299
- Called 97.9% of time when present
- Phage (with cluster) where this start called: Archis_79 (CV), Azula_83 (CV), Barco_74 (CV), Begonia_75 (CV), BlingBling_72 (CV), Blino_79 (CV), Blueberry_82 (CV), CaptainKirk2_77 (CV), CarolAnn_78 (CV), CheeseSpider_88 (CV), Delian_80 (CV), Denise_71 (CZ5), Fairfaxidum_80 (CV), Fenry_76 (CV), Frokostdame_82 (CV), Gambino_85 (CV), Guacamole_75 (CV), Hitter_75 (CV), Jalammah_80 (CV), JasperJr_75 (CV), JuJu_85 (CV), KappaFarmDelta_77 (CV), Lysidious_79 (CV), Malachai_75 (CV), Malisha_92 (DN), Melba_77 (CV), Mellie_74 (CV), MintFen_77 (CV), MissRona_83 (CV), Murp_75 (CV), Obliviate_77 (CV), PCoral7_76 (CV), Petra_84 (CV), PhrostedPhlake_83 (CV), PrincePatrick_79 (CV), Samba_77 (CV), Soilmate_81 (CV), Toast_77 (CV), UmaThurman_80 (CV), Utz_68 (CV), Walrus_77 (CV), William_79 (CV), Wisp_74 (CV), Wocket_77 (CV), Zarbodnamra_81 (CV), ZiggyZoo_78 (CV), Zilla_74 (CV),

Start 154:

- Found in 1 of 339 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jace_92 (singleton),

Start 155:

- Found in 18 of 339 (5.3%) of genes in pham
- Manual Annotations of this start: 14 of 299
- Called 94.4% of time when present
- Phage (with cluster) where this start called: Adora_72 (CZ4), DobbysSock_69 (CZ4), GMA4_62 (singleton), Hortense_75 (CZ4), Howe_75 (CZ4), InLimbo_68 (DH), Kuwabara_89 (DN4), Lton_68 (CZ), Lucky10_67 (DH), Moosehead_71 (CZ6), Morkie_71 (DH), OneDirection_65 (CZ6), Pepperoni_64 (CZ), PhorbesPhlower_69 (DH), ShawBrad_104 (DN1), Shlim410_73 (CZ4), Twinkle_74 (CZ4),

Start 156:

- Found in 32 of 339 (9.4%) of genes in pham
- Manual Annotations of this start: 8 of 299
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Asapag_95 (DN1), BENtherdunthat_97 (DN1), BearBQ_98 (DN), BritBrat_96 (CY2), CheeseTouch_105 (DN1), Getalong_99 (DN1), Hum25_77 (FQ1), ODay_113 (DN),

Start 157:

- Found in 2 of 339 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BeeGee_80 (CY5),

Start 158:

- Found in 1 of 339 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Angelique_73 (CY1),

Start 159:

- Found in 3 of 339 (0.9%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Merpity_76 (FQ1),

Start 160:

- Found in 1 of 339 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: REQ3_30 (singleton),

Start 161:

- Found in 6 of 339 (1.8%) of genes in pham
- Manual Annotations of this start: 3 of 299
- Called 83.3% of time when present
- Phage (with cluster) where this start called: MrSmee_75 (FQ1), Pitbull_74 (FQ1), Raya_72 (FQ2), Skitty_69 (FQ1), Skyerus_67 (FQ2),

Start 162:

- Found in 131 of 339 (38.6%) of genes in pham
- Manual Annotations of this start: 115 of 299
- Called 99.2% of time when present
- Phage (with cluster) where this start called: Aggie_64 (N), Alexphander_94 (F1), Andies_61 (N), Attis_69 (CZ2), Aubs_93 (F1), Avani_99 (F2), BabeRuth_65 (N), BaxterFox_80 (CZ3), Bipolar_95 (F1), Bjaner7_67 (CZ2), Blarby_101 (F), Bobi_96 (F1), Bosection6_63 (N), BotCity_100 (DN), Brushbloom_94 (F1), Budski_103 (DN), Butters_63 (N), Carcharodon_67 (N), Charlie_64 (N), Chewbacca_71 (N), Clank_90 (F), Clap_70 (CZ2), Cornie_90 (F5), Cubone_73 (N), Cynthia_70 (CZ2), Donkeykong_100 (F1), Doomslug_110 (F), DosHalletts_90 (F1), Duplicity_66 (N), EGUnicorn_63 (N), Ebert_73 (CZ2), EdnaMode_69 (CZ2), Eradicator_86 (F1), Fancypants_99 (F1), FroggyToad_70 (CZ2), Fulbright_66 (N), Gandolph_93 (F1), GemG_70 (CZ2), Gex_69 (N), Girr_91 (F1), Gizermo_70 (CZ2), Haley23_70 (CZ2), Hanako_64 (N), Impisi_66 (N), JCole_67 (CZ2), Jabbawokkie_100 (F2), Jablanski_80 (CY3), JalFarm20_103 (F1), Jalleen_73 (CZ2), Jamie19_60 (N), Journey_61 (N), Karhdo_88 (F1), Kevin1_66 (N), Krakatau_86 (F1), Lamberg_66 (CZ2), Leozinho_90 (F1), Lij_89 (F1), LordFarquaad_72 (CZ2), Magsby_67 (N), MakCheese_80 (DW), Marker_98 (F1), Matteo_63 (CZ2), Melville_73 (N), MichelleMyBell_65 (N), MisterCuddles_92 (F1), Mocha12_70 (CZ2), MortyNRick_93 (DN), Nenae_65 (N), Nettuno_67 (CZ2), Okabe_86 (F8), Oksu_96 (F1), Panchino_61 (N), Parmesanjohn_68 (N), Phabuloso_105 (DN1), PhancyPhin_65 (N), Phasih_90 (F1), Philonius_68 (N), Phloss_66 (N), Phrann_64 (N), Pickett_67 (CZ2), Pipsqueaks_69 (N), Plumbus_93 (F1), Posh_77 (CY4), Purgamenstris_65 (N), Pytheas_81 (CY3), RavenCo17_70 (CZ8), Raymond7_58 (N), Rebel_61 (N), Redi_64 (N), Renaud18_102 (F4), Rialto_98 (F1), Rubeelu_63 (N), Ruby_89 (F1), SG4_94 (F1), Sahara_68 (CZ2), Savage_70 (CZ2), Schnauzer_69 (N), Scitech_63 (N), ShrimpFriedEgg_65 (N), ShroomBoi_91 (F1), Shweta_63 (N), Silvafighter_70 (N), SilverChicken_101 (F2), Silvy_64 (N), SkinnyPete_64 (N), Smurph_68 (N), SoilAssassin_69 (CZ2), Spartacus_100 (F1), Spinach_64 (N), SpongeBob_60 (N), Sprinklemunch_78 (DW), Sproutie_70 (CZ2), SuperGrey_94 (F1), Tapioca_66 (N), Tessdabest_69 (N), TinyDot_64 (singleton), Tortoise12_68 (N), Totinger_96 (F1), TuertoX_70 (CZ2), Vasanti_68 (CZ2), Whiteclaw_70 (CZ2), Whitney_99 (DN1), Wrigley_79 (CY4), Xeno_65 (N), Xerxes_68 (N), Yeet412_68 (CZ2), Yeezy_81 (CZ3), Yinzer_70 (CZ2), Zapner_100 (F2), Zodiariah_67 (DW),

Start 163:

- Found in 1 of 339 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shagrat_105 (CF),

Start 164:

- Found in 89 of 339 (26.3%) of genes in pham
- Manual Annotations of this start: 1 of 299
- Called 1.1% of time when present
- Phage (with cluster) where this start called: Snekmaggon_60 (N),

Start 173:

- Found in 3 of 339 (0.9%) of genes in pham
- Manual Annotations of this start: 2 of 299
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jflix2_100 (CF), Madraxi_102 (CF), SFuller_98 (CF),

Summary by clusters:

There are 43 clusters represented in this pham: DN, P2, singleton, DH, DI, CZ2, CZ3, FG, CZ6, CZ8, CZ4, CZ5, DY, DW, FJ, CY5, I1, I3, I2, DN4, DN1, P5, CY3, P3, CY2, P1, P6, P4, F, AJ, CF, N, CZ, CV, CY1, F1, F2, F4, F5, F8, CY4, FQ2, FQ1,

Info for manual annotations of cluster AJ:

- Start number 110 was manually annotated 1 time for cluster AJ.

Info for manual annotations of cluster CF:

- Start number 149 was manually annotated 2 times for cluster CF.
- Start number 163 was manually annotated 1 time for cluster CF.
- Start number 173 was manually annotated 2 times for cluster CF.

Info for manual annotations of cluster CV:

- Start number 146 was manually annotated 1 time for cluster CV.
- Start number 152 was manually annotated 42 times for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 158 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster CY2:

- Start number 156 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CY3:

- Start number 162 was manually annotated 2 times for cluster CY3.

Info for manual annotations of cluster CY4:

- Start number 162 was manually annotated 2 times for cluster CY4.

Info for manual annotations of cluster CY5:

- Start number 157 was manually annotated 1 time for cluster CY5.

Info for manual annotations of cluster CZ:

- Start number 155 was manually annotated 2 times for cluster CZ.

Info for manual annotations of cluster CZ2:

- Start number 162 was manually annotated 24 times for cluster CZ2.

Info for manual annotations of cluster CZ3:

- Start number 162 was manually annotated 2 times for cluster CZ3.

Info for manual annotations of cluster CZ4:

- Start number 155 was manually annotated 6 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 152 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 155 was manually annotated 2 times for cluster CZ6.

Info for manual annotations of cluster CZ8:

- Start number 162 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DH:

- Start number 155 was manually annotated 3 times for cluster DH.

Info for manual annotations of cluster DI:

- Start number 128 was manually annotated 1 time for cluster DI.
- Start number 130 was manually annotated 14 times for cluster DI.

Info for manual annotations of cluster DN:

- Start number 152 was manually annotated 1 time for cluster DN.
- Start number 156 was manually annotated 2 times for cluster DN.
- Start number 162 was manually annotated 3 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 156 was manually annotated 4 times for cluster DN1.
- Start number 162 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DN4:

- Start number 155 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DW:

- Start number 127 was manually annotated 4 times for cluster DW.
- Start number 162 was manually annotated 1 time for cluster DW.

Info for manual annotations of cluster DY:

- Start number 119 was manually annotated 7 times for cluster DY.

Info for manual annotations of cluster F1:

- Start number 110 was manually annotated 7 times for cluster F1.
- Start number 162 was manually annotated 27 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 162 was manually annotated 3 times for cluster F2.

Info for manual annotations of cluster F4:

- Start number 162 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster F5:

- Start number 162 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster FG:

- Start number 143 was manually annotated 1 time for cluster FG.
- Start number 148 was manually annotated 2 times for cluster FG.

Info for manual annotations of cluster FJ:

- Start number 141 was manually annotated 2 times for cluster FJ.

Info for manual annotations of cluster FQ1:

- Start number 156 was manually annotated 1 time for cluster FQ1.
- Start number 161 was manually annotated 3 times for cluster FQ1.

Info for manual annotations of cluster I1:

- Start number 110 was manually annotated 5 times for cluster I1.
- Start number 113 was manually annotated 1 time for cluster I1.

Info for manual annotations of cluster I2:

- Start number 110 was manually annotated 3 times for cluster I2.

Info for manual annotations of cluster N:

- Start number 162 was manually annotated 45 times for cluster N.
- Start number 164 was manually annotated 1 time for cluster N.

Info for manual annotations of cluster P1:

- Start number 110 was manually annotated 43 times for cluster P1.

Info for manual annotations of cluster P2:

- Start number 110 was manually annotated 1 time for cluster P2.

Info for manual annotations of cluster P3:

- Start number 110 was manually annotated 1 time for cluster P3.

Info for manual annotations of cluster P4:

- Start number 110 was manually annotated 2 times for cluster P4.

Info for manual annotations of cluster P5:

- Start number 110 was manually annotated 2 times for cluster P5.

Info for manual annotations of cluster P6:

- Start number 110 was manually annotated 1 time for cluster P6.

Gene Information:

Gene: Adora_72 Start: 48969, Stop: 49706, Start Num: 155

Candidate Starts for Adora_72:

(66, 48723), (116, 48870), (131, 48912), (Start: 155 @48969 has 14 MA's), (171, 49011), (186, 49044), (225, 49125), (227, 49128), (269, 49275), (310, 49425), (342, 49506), (348, 49518),

Gene: Aggie_64 Start: 42220, Stop: 42885, Start Num: 162

Candidate Starts for Aggie_64:

(Start: 162 @42220 has 115 MA's), (Start: 164 @42226 has 1 MA's), (183, 42283), (225, 42385), (244, 42448), (246, 42457), (280, 42520), (319, 42640), (359, 42739), (365, 42754), (404, 42853),

Gene: Alexphander_94 Start: 52500, Stop: 53186, Start Num: 162

Candidate Starts for Alexphander_94:

(Start: 162 @52500 has 115 MA's), (Start: 164 @52506 has 1 MA's), (285, 52812), (312, 52899), (319, 52920), (368, 53046), (394, 53112),

Gene: Aloeri_88 Start: 51883, Stop: 52788, Start Num: 110

Candidate Starts for Aloeri_88:

(Start: 110 @51883 has 67 MA's), (135, 51961), (240, 52246), (255, 52297), (265, 52345), (274, 52375), (307, 52489), (333, 52555), (382, 52693), (386, 52699), (395, 52723), (408, 52747), (410, 52756),

Gene: Andies_61 Start: 41666, Stop: 42331, Start Num: 162

Candidate Starts for Andies_61:

(Start: 162 @41666 has 115 MA's), (Start: 164 @41672 has 1 MA's), (183, 41729), (225, 41831), (244, 41894), (246, 41903), (280, 41966), (319, 42086), (359, 42185), (365, 42200), (404, 42299),

Gene: Angelique_73 Start: 49381, Stop: 50136, Start Num: 158

Candidate Starts for Angelique_73:

(Start: 158 @49381 has 1 MA's), (176, 49429), (189, 49471), (193, 49483), (225, 49549), (244, 49612), (254, 49648), (256, 49654), (316, 49870), (320, 49873), (323, 49876), (338, 49912), (344, 49921), (359, 49972), (365, 49987), (380, 50029), (394, 50071),

Gene: ArchiDore_73 Start: 49910, Stop: 50791, Start Num: 127

Candidate Starts for ArchiDore_73:

(51, 49658), (100, 49826), (Start: 127 @49910 has 4 MA's), (245, 50222),

Gene: Archis_79 Start: 46629, Stop: 47405, Start Num: 152

Candidate Starts for Archis_79:

(66, 46410), (Start: 152 @46629 has 44 MA's), (225, 46806), (247, 46878), (269, 46956), (273, 46968), (304, 47076), (373, 47262), (377, 47271), (384, 47295),

Gene: Arib1_64 Start: 41089, Stop: 41991, Start Num: 110

Candidate Starts for Arib1_64:

(21, 40597), (45, 40885), (78, 41014), (97, 41059), (Start: 110 @41089 has 67 MA's), (120, 41131), (230, 41410), (232, 41413), (255, 41503), (307, 41695), (317, 41728), (343, 41782), (356, 41824), (373, 41875), (386, 41905), (406, 41944), (408, 41953),

Gene: Asapag_95 Start: 52545, Stop: 53270, Start Num: 156

Candidate Starts for Asapag_95:

(Start: 156 @52545 has 8 MA's), (199, 52656), (264, 52833), (306, 52983), (310, 52998), (342, 53079), (347, 53088), (348, 53091), (359, 53133), (383, 53199), (403, 53244), (405, 53247),

Gene: Atcoo_67 Start: 44457, Stop: 45359, Start Num: 110

Candidate Starts for Atcoo_67:

(18, 43938), (45, 44253), (78, 44382), (97, 44427), (Start: 110 @44457 has 67 MA's), (120, 44499), (Start: 156 @44589 has 8 MA's), (230, 44778), (232, 44781), (255, 44871), (307, 45063), (356, 45192), (386, 45273), (408, 45321),

Gene: Attis_69 Start: 45645, Stop: 46316, Start Num: 162

Candidate Starts for Attis_69:

(29, 45099), (31, 45129), (67, 45387), (91, 45453), (Start: 162 @45645 has 115 MA's), (185, 45720), (201, 45759), (272, 45918), (275, 45924), (291, 45972), (292, 45975), (325, 46077), (359, 46161),

Gene: Aubs_93 Start: 53106, Stop: 53780, Start Num: 162

Candidate Starts for Aubs_93:

(Start: 162 @53106 has 115 MA's), (Start: 164 @53112 has 1 MA's), (285, 53418), (312, 53505), (319, 53526), (368, 53652), (394, 53718), (417, 53769),

Gene: Avani_99 Start: 49320, Stop: 50006, Start Num: 162

Candidate Starts for Avani_99:

(Start: 162 @49320 has 115 MA's), (Start: 164 @49326 has 1 MA's), (285, 49632), (312, 49719), (319, 49740), (368, 49866), (394, 49932),

Gene: Awesomesauce_87 Start: 52119, Stop: 53024, Start Num: 110

Candidate Starts for Awesomesauce_87:

(Start: 110 @52119 has 67 MA's), (135, 52197), (240, 52482), (255, 52533), (265, 52581), (274, 52611), (307, 52725), (333, 52791), (382, 52929), (386, 52935), (395, 52959), (408, 52983), (410, 52992),

Gene: Ayotoya_73 Start: 49136, Stop: 50011, Start Num: 130

Candidate Starts for Ayotoya_73:

(72, 48965), (115, 49097), (126, 49130), (Start: 130 @49136 has 14 MA's), (167, 49229), (224, 49376), (245, 49445), (248, 49460), (317, 49700), (357, 49799), (386, 49886), (422, 49994),

Gene: Azula_83 Start: 51089, Stop: 51874, Start Num: 152

Candidate Starts for Azula_83:

(93, 50924), (Start: 152 @51089 has 44 MA's), (225, 51272), (273, 51434), (304, 51542), (373, 51728), (377, 51737),

Gene: BENtherdunthat_97 Start: 52077, Stop: 52805, Start Num: 156

Candidate Starts for BENtherdunthat_97:

(Start: 156 @52077 has 8 MA's), (186, 52152), (310, 52527), (316, 52548), (317, 52551), (326, 52575), (347, 52617), (348, 52620), (359, 52662), (360, 52665), (361, 52668), (362, 52671), (368, 52686), (372, 52698), (373, 52701), (399, 52767), (403, 52773),

Gene: BabeRuth_65 Start: 40184, Stop: 40849, Start Num: 162

Candidate Starts for BabeRuth_65:

(Start: 162 @40184 has 115 MA's), (Start: 164 @40190 has 1 MA's), (183, 40247), (225, 40349), (244, 40412), (246, 40421), (404, 40817),

Gene: Babsiella_67 Start: 42425, Stop: 43327, Start Num: 110

Candidate Starts for Babsiella_67:

(Start: 110 @42425 has 67 MA's), (230, 42746), (240, 42788), (255, 42839), (307, 43031), (317, 43064), (343, 43118), (356, 43160), (366, 43190), (386, 43241), (408, 43289),

Gene: Barco_74 Start: 46443, Stop: 47219, Start Num: 152

Candidate Starts for Barco_74:

(Start: 152 @46443 has 44 MA's), (225, 46620), (247, 46692), (263, 46749), (264, 46755), (269, 46770), (273, 46782), (304, 46890), (373, 47076), (377, 47085),

Gene: Bartholomew_61 Start: 40452, Stop: 41354, Start Num: 110

Candidate Starts for Bartholomew_61:

(Start: 110 @40452 has 67 MA's), (230, 40773), (240, 40815), (255, 40866), (307, 41058), (317, 41091), (343, 41145), (356, 41187), (373, 41238), (386, 41268), (406, 41307), (408, 41316),

Gene: BaxterFox_80 Start: 51485, Stop: 52147, Start Num: 162

Candidate Starts for BaxterFox_80:

(Start: 162 @51485 has 115 MA's), (166, 51506), (172, 51524), (183, 51554), (188, 51569), (211, 51617), (236, 51677), (285, 51797), (292, 51815), (312, 51887), (325, 51917), (348, 51959), (365, 52016), (394, 52097),

Gene: BearBQ_98 Start: 53192, Stop: 53920, Start Num: 156

Candidate Starts for BearBQ_98:

(140, 53159), (Start: 156 @53192 has 8 MA's), (186, 53267), (259, 53450), (310, 53642), (317, 53666), (326, 53690), (347, 53732), (348, 53735), (359, 53777), (360, 53780), (361, 53783), (362, 53786), (368, 53801), (372, 53813), (373, 53816), (399, 53882), (403, 53888),

Gene: BeeGee_80 Start: 50088, Stop: 50837, Start Num: 157

Candidate Starts for BeeGee_80:

(118, 49998), (Start: 157 @50088 has 1 MA's), (227, 50253), (242, 50301), (305, 50532), (306, 50541), (342, 50637), (347, 50646), (348, 50649),

Gene: Begonia_75 Start: 49240, Stop: 50016, Start Num: 152

Candidate Starts for Begonia_75:

(52, 48943), (66, 49021), (Start: 152 @49240 has 44 MA's), (225, 49417), (269, 49567), (273, 49579), (304, 49687), (373, 49873), (377, 49882),

Gene: BetterKatz_73 Start: 48918, Stop: 49793, Start Num: 130

Candidate Starts for BetterKatz_73:

(63, 48711), (Start: 130 @48918 has 14 MA's), (167, 49011), (224, 49158), (245, 49227), (248, 49242), (317, 49482), (357, 49581), (373, 49629), (386, 49668), (422, 49776),

Gene: Bhagsy_71 Start: 43574, Stop: 44476, Start Num: 110

Candidate Starts for Bhagsy_71:

(18, 43055), (45, 43370), (78, 43499), (97, 43544), (Start: 110 @43574 has 67 MA's), (120, 43616), (Start: 156 @43706 has 8 MA's), (230, 43895), (232, 43898), (255, 43988), (307, 44180), (356, 44309), (386, 44390), (408, 44438),

Gene: BigNuz_67 Start: 43296, Stop: 44198, Start Num: 110

Candidate Starts for BigNuz_67:

(Start: 110 @43296 has 67 MA's), (120, 43338), (Start: 128 @43362 has 1 MA's), (198, 43551), (202, 43560), (209, 43569), (230, 43617), (232, 43620), (255, 43710), (275, 43791), (288, 43836), (307, 43902), (317, 43935), (373, 44082), (386, 44112),

Gene: Bipolar_95 Start: 53583, Stop: 54269, Start Num: 162

Candidate Starts for Bipolar_95:

(Start: 162 @53583 has 115 MA's), (Start: 164 @53589 has 1 MA's), (285, 53895), (312, 53982), (319, 54003), (368, 54129), (394, 54195),

Gene: Bjaner7_67 Start: 43806, Stop: 44477, Start Num: 162

Candidate Starts for Bjaner7_67:

(Start: 162 @43806 has 115 MA's), (166, 43827), (201, 43920), (272, 44079), (275, 44085), (292, 44136), (325, 44238), (359, 44322),

Gene: Blarby_101 Start: 50147, Stop: 50833, Start Num: 162

Candidate Starts for Blarby_101:

(Start: 162 @50147 has 115 MA's), (Start: 164 @50153 has 1 MA's), (285, 50459), (312, 50546), (319, 50567), (368, 50693), (394, 50759),

Gene: BlingBling_72 Start: 46215, Stop: 46991, Start Num: 152

Candidate Starts for BlingBling_72:

(Start: 152 @46215 has 44 MA's), (225, 46392), (247, 46464), (273, 46554), (304, 46662), (373, 46848), (377, 46857),

Gene: Blino_79 Start: 52044, Stop: 52805, Start Num: 152

Candidate Starts for Blino_79:

(Start: 152 @52044 has 44 MA's), (225, 52221), (237, 52260), (245, 52284), (247, 52293), (273, 52383), (304, 52491), (373, 52677), (377, 52686),

Gene: Blueberry_82 Start: 51089, Stop: 51874, Start Num: 152

Candidate Starts for Blueberry_82:

(93, 50924), (Start: 152 @51089 has 44 MA's), (225, 51272), (273, 51434), (304, 51542), (373, 51728), (377, 51737),

Gene: Bluvara_69 Start: 45132, Stop: 46037, Start Num: 110

Candidate Starts for Bluvara_69:

(Start: 110 @45132 has 67 MA's), (230, 45453), (240, 45495), (255, 45546), (288, 45672), (318, 45774), (366, 45897), (386, 45948), (408, 45996), (410, 46005),

Gene: Bobi_96 Start: 53291, Stop: 53977, Start Num: 162

Candidate Starts for Bobi_96:

(Start: 162 @53291 has 115 MA's), (Start: 164 @53297 has 1 MA's), (285, 53603), (312, 53690), (319, 53711), (368, 53837), (394, 53903),

Gene: Bock_74 Start: 48502, Stop: 49377, Start Num: 130

Candidate Starts for Bock_74:

(54, 48271), (55, 48274), (81, 48349), (96, 48400), (105, 48421), (Start: 130 @48502 has 14 MA's), (167, 48595), (224, 48742), (245, 48811), (248, 48826), (317, 49066), (351, 49144), (357, 49165), (373, 49213), (386, 49252), (422, 49360),

Gene: Bogie_68 Start: 43439, Stop: 44341, Start Num: 110

Candidate Starts for Bogie_68:

(18, 42920), (45, 43235), (78, 43364), (97, 43409), (Start: 110 @43439 has 67 MA's), (120, 43481), (Start: 156 @43571 has 8 MA's), (202, 43703), (230, 43760), (232, 43763), (255, 43853), (307, 44045), (356, 44174), (373, 44225), (386, 44255), (406, 44294), (408, 44303),

Gene: Bosection6_63 Start: 41269, Stop: 41934, Start Num: 162

Candidate Starts for Bosection6_63:

(Start: 162 @41269 has 115 MA's), (Start: 164 @41275 has 1 MA's), (183, 41332), (225, 41434), (244, 41497), (246, 41506), (280, 41569), (404, 41902),

Gene: BotCity_100 Start: 52998, Stop: 53675, Start Num: 162

Candidate Starts for BotCity_100:

(Start: 162 @52998 has 115 MA's), (277, 53271), (280, 53283), (294, 53325), (303, 53352), (326, 53427), (348, 53469), (365, 53526), (391, 53595),

Gene: BritBrat_96 Start: 54041, Stop: 54766, Start Num: 156

Candidate Starts for BritBrat_96:

(49, 53711), (95, 53873), (125, 53969), (Start: 156 @54041 has 8 MA's), (186, 54116), (199, 54152), (310, 54494), (337, 54563), (342, 54575), (348, 54587), (403, 54740), (405, 54743),

Gene: BronnyJr_62 Start: 42377, Stop: 43279, Start Num: 110

Candidate Starts for BronnyJr_62:

(Start: 110 @42377 has 67 MA's), (230, 42698), (240, 42740), (255, 42791), (307, 42983), (317, 43016), (343, 43070), (356, 43112), (373, 43163), (386, 43193), (408, 43241),

Gene: Brujita_66 Start: 42486, Stop: 43373, Start Num: 113

Candidate Starts for Brujita_66:

(Start: 110 @42471 has 67 MA's), (Start: 113 @42486 has 1 MA's), (138, 42558), (202, 42735), (230, 42792), (232, 42795), (233, 42801), (240, 42834), (265, 42933), (274, 42963), (317, 43110), (366, 43236), (386, 43287), (408, 43335),

Gene: Brusacoram_67 Start: 43000, Stop: 43902, Start Num: 110

Candidate Starts for Brusacoram_67:

(18, 42481), (45, 42796), (78, 42925), (97, 42970), (Start: 110 @43000 has 67 MA's), (120, 43042), (230, 43321), (232, 43324), (255, 43414), (307, 43606), (356, 43735), (386, 43816), (408, 43864),

Gene: Brushbloom_94 Start: 52861, Stop: 53547, Start Num: 162

Candidate Starts for Brushbloom_94:

(Start: 162 @52861 has 115 MA's), (Start: 164 @52867 has 1 MA's), (285, 53173), (312, 53260), (319, 53281), (368, 53407), (394, 53473),

Gene: Brylie_72 Start: 48152, Stop: 49027, Start Num: 130

Candidate Starts for Brylie_72:

(72, 47981), (115, 48113), (126, 48146), (Start: 130 @48152 has 14 MA's), (167, 48245), (224, 48392), (245, 48461), (248, 48476), (317, 48716), (357, 48815), (386, 48902), (422, 49010),

Gene: Budski_103 Start: 54022, Stop: 54699, Start Num: 162

Candidate Starts for Budski_103:

(Start: 162 @54022 has 115 MA's), (277, 54295), (280, 54307), (294, 54349), (303, 54376), (326, 54451), (348, 54493), (365, 54550), (391, 54619),

Gene: Bunnies_71 Start: 44201, Stop: 45103, Start Num: 110

Candidate Starts for Bunnies_71:

(18, 43682), (45, 43997), (78, 44126), (97, 44171), (Start: 110 @44201 has 67 MA's), (120, 44243), (Start: 156 @44333 has 8 MA's), (230, 44522), (232, 44525), (255, 44615), (307, 44807), (317, 44840), (356, 44936), (386, 45017), (408, 45065),

Gene: Butters_63 Start: 39341, Stop: 40006, Start Num: 162

Candidate Starts for Butters_63:

(Start: 162 @39341 has 115 MA's), (Start: 164 @39347 has 1 MA's), (183, 39404), (225, 39506), (244, 39569), (246, 39578), (319, 39761),

Gene: CactusJack_66 Start: 43072, Stop: 43974, Start Num: 110

Candidate Starts for CactusJack_66:

(18, 42553), (45, 42868), (78, 42997), (97, 43042), (Start: 110 @43072 has 67 MA's), (120, 43114), (230, 43393), (232, 43396), (255, 43486), (307, 43678), (317, 43711), (343, 43765), (356, 43807), (373, 43858), (386, 43888), (406, 43927), (408, 43936),

Gene: Camster_66 Start: 41900, Stop: 42802, Start Num: 110

Candidate Starts for Camster_66:

(18, 41381), (45, 41696), (78, 41825), (97, 41870), (Start: 110 @41900 has 67 MA's), (120, 41942), (Start: 156 @42032 has 8 MA's), (202, 42164), (230, 42221), (232, 42224), (255, 42314), (307, 42506), (356, 42635), (373, 42686), (386, 42716), (406, 42755), (408, 42764),

Gene: CaptainKirk2_77 Start: 46000, Stop: 46776, Start Num: 152

Candidate Starts for CaptainKirk2_77:

(Start: 152 @46000 has 44 MA's), (225, 46177), (247, 46249), (263, 46306), (264, 46312), (269, 46327), (273, 46339), (304, 46447), (373, 46633), (377, 46642),

Gene: Carcharodon_67 Start: 41567, Stop: 42232, Start Num: 162

Candidate Starts for Carcharodon_67:

(Start: 162 @41567 has 115 MA's), (Start: 164 @41573 has 1 MA's), (183, 41630), (225, 41732), (244, 41795), (246, 41804), (280, 41867), (319, 41987), (359, 42086), (365, 42101), (404, 42200),

Gene: CarolAnn_78 Start: 52043, Stop: 52804, Start Num: 152

Candidate Starts for CarolAnn_78:

(Start: 152 @52043 has 44 MA's), (225, 52220), (237, 52259), (245, 52283), (247, 52292), (273, 52382), (304, 52490), (373, 52676), (377, 52685),

Gene: Charlie_64 Start: 40893, Stop: 41558, Start Num: 162

Candidate Starts for Charlie_64:

(Start: 162 @40893 has 115 MA's), (Start: 164 @40899 has 1 MA's), (183, 40956), (225, 41058), (244, 41121), (246, 41130), (280, 41193), (404, 41526),

Gene: Che9c_75 Start: 52152, Stop: 53057, Start Num: 110

Candidate Starts for Che9c_75:

(45, 51948), (Start: 110 @52152 has 67 MA's), (135, 52230), (230, 52473), (240, 52515), (255, 52566), (265, 52614), (274, 52644), (288, 52692), (302, 52734), (318, 52794), (366, 52917), (386, 52968), (395, 52992), (408, 53016), (410, 53025),

Gene: CheeseSpider_88 Start: 50655, Stop: 51434, Start Num: 152

Candidate Starts for CheeseSpider_88:

(38, 50226), (89, 50490), (104, 50523), (Start: 152 @50655 has 44 MA's), (225, 50832), (273, 50994), (304, 51102), (373, 51288), (377, 51297),

Gene: CheeseTouch_105 Start: 51190, Stop: 51918, Start Num: 156

Candidate Starts for CheeseTouch_105:

(Start: 156 @51190 has 8 MA's), (186, 51265), (310, 51640), (316, 51661), (317, 51664), (326, 51688), (347, 51730), (348, 51733), (359, 51775), (360, 51778), (361, 51781), (362, 51784), (368, 51799), (372, 51811), (373, 51814), (399, 51880), (403, 51886),

Gene: Chewbacca_71 Start: 41462, Stop: 42127, Start Num: 162

Candidate Starts for Chewbacca_71:

(Start: 162 @41462 has 115 MA's), (Start: 164 @41468 has 1 MA's), (183, 41525), (225, 41627), (244, 41690), (246, 41699), (280, 41762), (319, 41882), (359, 41981), (365, 41996), (404, 42095),

Gene: ChickenDinner_87 Start: 51883, Stop: 52788, Start Num: 110

Candidate Starts for ChickenDinner_87:

(Start: 110 @51883 has 67 MA's), (135, 51961), (240, 52246), (255, 52297), (265, 52345), (274, 52375), (307, 52489), (333, 52555), (382, 52693), (386, 52699), (395, 52723), (408, 52747), (410, 52756),

Gene: Chop_74 Start: 49201, Stop: 50076, Start Num: 130

Candidate Starts for Chop_74:

(72, 49030), (115, 49162), (126, 49195), (Start: 130 @49201 has 14 MA's), (167, 49294), (224, 49441), (245, 49510), (248, 49525), (317, 49765), (357, 49864), (373, 49912), (386, 49951), (422, 50059),

Gene: Chubbello_64 Start: 41094, Stop: 41996, Start Num: 110

Candidate Starts for Chubbello_64:

(21, 40602), (45, 40890), (78, 41019), (97, 41064), (Start: 110 @41094 has 67 MA's), (120, 41136), (230, 41415), (232, 41418), (255, 41508), (307, 41700), (317, 41733), (343, 41787), (356, 41829), (373, 41880), (386, 41910), (406, 41949), (408, 41958),

Gene: Clank_90 Start: 49185, Stop: 49871, Start Num: 162

Candidate Starts for Clank_90:

(Start: 162 @49185 has 115 MA's), (Start: 164 @49191 has 1 MA's), (285, 49497), (312, 49584), (319, 49605), (368, 49731), (394, 49797),

Gene: Clap_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for Clap_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: Cornie_90 Start: 50883, Stop: 51569, Start Num: 162

Candidate Starts for Cornie_90:

(Start: 162 @50883 has 115 MA's), (Start: 164 @50889 has 1 MA's), (285, 51195), (312, 51282), (319, 51303), (368, 51429), (394, 51495),

Gene: Cubone_73 Start: 42189, Stop: 42854, Start Num: 162

Candidate Starts for Cubone_73:

(Start: 162 @42189 has 115 MA's), (Start: 164 @42195 has 1 MA's), (183, 42252), (225, 42354), (244, 42417), (246, 42426), (280, 42489), (319, 42609), (359, 42708), (365, 42723), (404, 42822),

Gene: CurlyFries_108 Start: 55209, Stop: 55973, Start Num: 149

Candidate Starts for CurlyFries_108:

(Start: 149 @55209 has 2 MA's), (170, 55257), (184, 55293), (187, 55302), (208, 55350), (244, 55452), (266, 55533), (277, 55569), (290, 55605), (309, 55668), (331, 55719), (334, 55728), (350, 55767), (363, 55809), (367, 55821),

Gene: Cynthia_70 Start: 43983, Stop: 44654, Start Num: 162

Candidate Starts for Cynthia_70:

(Start: 162 @43983 has 115 MA's), (166, 44004), (201, 44097), (272, 44256), (275, 44262), (292, 44313), (325, 44415), (359, 44499),

Gene: DearBasketball_62 Start: 39454, Stop: 40326, Start Num: 119

Candidate Starts for DearBasketball_62:

(103, 39400), (Start: 119 @39454 has 7 MA's), (212, 39679), (352, 40108), (413, 40273),

Gene: DelRio_73 Start: 49243, Stop: 50118, Start Num: 130

Candidate Starts for DelRio_73:

(72, 49072), (99, 49147), (115, 49204), (126, 49237), (Start: 130 @49243 has 14 MA's), (167, 49336), (224, 49483), (245, 49552), (248, 49567), (317, 49807), (335, 49846), (357, 49906), (373, 49954), (386, 49993), (422, 50101),

Gene: Delian_80 Start: 45998, Stop: 46774, Start Num: 152

Candidate Starts for Delian_80:

(Start: 152 @45998 has 44 MA's), (225, 46175), (247, 46247), (263, 46304), (264, 46310), (269, 46325), (273, 46337), (304, 46445), (373, 46631), (377, 46640),

Gene: Denise_71 Start: 41520, Stop: 42272, Start Num: 152

Candidate Starts for Denise_71:

(Start: 152 @41520 has 44 MA's), (213, 41658), (235, 41715), (309, 41973), (354, 42087), (366, 42126), (368, 42132), (377, 42156), (385, 42183), (407, 42234),

Gene: DillyDally_66 Start: 38700, Stop: 39482, Start Num: 144

Candidate Starts for DillyDally_66:

(Start: 144 @38700 has 1 MA's), (195, 38838), (205, 38859), (251, 38985), (257, 39000), (260, 39015), (279, 39093), (291, 39117), (312, 39180), (358, 39306), (402, 39420),

Gene: DinoNuggs_60 Start: 39095, Stop: 39976, Start Num: 119

Candidate Starts for DinoNuggs_60:

(103, 39041), (Start: 119 @39095 has 7 MA's), (352, 39758), (407, 39908), (413, 39923),

Gene: DobbysSock_69 Start: 45937, Stop: 46674, Start Num: 155

Candidate Starts for DobbysSock_69:

(Start: 155 @45937 has 14 MA's), (171, 45979), (186, 46012), (227, 46096), (269, 46243), (310, 46393), (342, 46474), (348, 46486),

Gene: DocMcStuffins_84 Start: 53513, Stop: 54418, Start Num: 110

Candidate Starts for DocMcStuffins_84:

(Start: 110 @53513 has 67 MA's), (135, 53591), (240, 53876), (255, 53927), (265, 53975), (274, 54005), (307, 54119), (333, 54185), (382, 54323), (386, 54329), (395, 54353), (408, 54377), (410, 54386),

Gene: DonkeyMan_59 Start: 38622, Stop: 39494, Start Num: 119

Candidate Starts for DonkeyMan_59:

(Start: 119 @38622 has 7 MA's), (123, 38634), (212, 38847), (352, 39276), (407, 39426), (413, 39441),

Gene: Donkeykong_100 Start: 54073, Stop: 54759, Start Num: 162

Candidate Starts for Donkeykong_100:

(Start: 162 @54073 has 115 MA's), (Start: 164 @54079 has 1 MA's), (285, 54385), (312, 54472), (319, 54493), (368, 54619), (394, 54685),

Gene: Donovan_65 Start: 42034, Stop: 42936, Start Num: 110

Candidate Starts for Donovan_65:

(21, 41542), (45, 41830), (78, 41959), (97, 42004), (Start: 110 @42034 has 67 MA's), (120, 42076), (230, 42355), (232, 42358), (255, 42448), (307, 42640), (317, 42673), (343, 42727), (356, 42769), (373, 42820), (386, 42850), (406, 42889), (408, 42898),

Gene: Doomslug_110 Start: 54561, Stop: 55247, Start Num: 162

Candidate Starts for Doomslug_110:

(Start: 162 @54561 has 115 MA's), (Start: 164 @54567 has 1 MA's), (285, 54873), (312, 54960), (319, 54981), (368, 55107), (394, 55173),

Gene: DosHalletts_90 Start: 52077, Stop: 52763, Start Num: 162

Candidate Starts for DosHalletts_90:

(Start: 162 @52077 has 115 MA's), (Start: 164 @52083 has 1 MA's), (285, 52389), (312, 52476), (319, 52497), (368, 52623), (394, 52689),

Gene: DreamEater_78 Start: 44664, Stop: 45494, Start Num: 141

Candidate Starts for DreamEater_78:

(Start: 141 @44664 has 2 MA's), (184, 44778), (222, 44868), (251, 44964), (257, 44979), (271, 45042), (293, 45114), (300, 45129), (340, 45231), (358, 45288), (364, 45303), (410, 45429), (414, 45435), (420, 45465),

Gene: DumpsterDude_69 Start: 50376, Stop: 51257, Start Num: 127

Candidate Starts for DumpsterDude_69:

(20, 49788), (23, 49821), (42, 50073), (51, 50124), (Start: 127 @50376 has 4 MA's),

Gene: Duplicity_66 Start: 40824, Stop: 41489, Start Num: 162

Candidate Starts for Duplicity_66:

(Start: 162 @40824 has 115 MA's), (Start: 164 @40830 has 1 MA's), (183, 40887), (225, 40989), (244, 41052), (246, 41061), (280, 41124), (319, 41244), (359, 41343), (365, 41358), (404, 41457),

Gene: Dynamo_65 Start: 41473, Stop: 42375, Start Num: 110

Candidate Starts for Dynamo_65:

(18, 40954), (45, 41269), (78, 41398), (97, 41443), (Start: 110 @41473 has 67 MA's), (120, 41515), (Start: 156 @41605 has 8 MA's), (202, 41737), (230, 41794), (232, 41797), (255, 41887), (307, 42079), (356, 42208), (373, 42259), (386, 42289), (406, 42328), (408, 42337),

Gene: EGUunicorn_63 Start: 39890, Stop: 40555, Start Num: 162

Candidate Starts for EGUunicorn_63:

(Start: 162 @39890 has 115 MA's), (Start: 164 @39896 has 1 MA's), (183, 39953), (225, 40055), (244, 40118), (246, 40127), (280, 40190), (319, 40310), (359, 40409), (365, 40424), (404, 40523),

Gene: Ebert_73 Start: 44417, Stop: 45088, Start Num: 162

Candidate Starts for Ebert_73:

(Start: 162 @44417 has 115 MA's), (166, 44438), (201, 44531), (272, 44690), (275, 44696), (292, 44747), (325, 44849), (359, 44933),

Gene: EdnaMode_69 Start: 44093, Stop: 44764, Start Num: 162

Candidate Starts for EdnaMode_69:

(98, 43922), (Start: 162 @44093 has 115 MA's), (185, 44168), (201, 44207), (272, 44366), (291, 44420), (292, 44423), (325, 44525),

Gene: Eradicator_86 Start: 50294, Stop: 50980, Start Num: 162

Candidate Starts for Eradicator_86:

(Start: 162 @50294 has 115 MA's), (Start: 164 @50300 has 1 MA's), (285, 50606), (312, 50693), (319, 50714), (368, 50840), (394, 50906),

Gene: Etoile_64 Start: 41860, Stop: 42762, Start Num: 110

Candidate Starts for Etoile_64:

(21, 41368), (45, 41656), (78, 41785), (97, 41830), (Start: 110 @41860 has 67 MA's), (120, 41902), (230, 42181), (232, 42184), (255, 42274), (307, 42466), (317, 42499), (343, 42553), (356, 42595), (373, 42646), (386, 42676), (406, 42715), (408, 42724),

Gene: Eyre_61 Start: 39340, Stop: 40278, Start Num: 108

Candidate Starts for Eyre_61:

(Start: 108 @39340 has 1 MA's), (181, 39550), (194, 39589), (198, 39598), (210, 39622), (221, 39652), (238, 39703), (278, 39862), (293, 39910), (332, 40030), (392, 40198), (401, 40219), (408, 40237), (410, 40246), (419, 40267),

Gene: Fairfaxidum_80 Start: 48694, Stop: 49470, Start Num: 152

Candidate Starts for Fairfaxidum_80:

(Start: 152 @48694 has 44 MA's), (225, 48874), (245, 48937), (247, 48946), (273, 49036), (366, 49309), (373, 49330), (377, 49339), (407, 49417),

Gene: Fancypants_99 Start: 54397, Stop: 55083, Start Num: 162

Candidate Starts for Fancypants_99:

(Start: 162 @54397 has 115 MA's), (Start: 164 @54403 has 1 MA's), (285, 54709), (312, 54796), (319, 54817), (368, 54943), (394, 55009),

Gene: Fenry_76 Start: 48068, Stop: 48844, Start Num: 152

Candidate Starts for Fenry_76:

(66, 47849), (104, 47936), (Start: 152 @48068 has 44 MA's), (213, 48212), (225, 48245), (247, 48317), (263, 48374), (269, 48395), (273, 48407), (304, 48515), (373, 48701), (377, 48710),

Gene: FirstPlacePfu_69 Start: 41066, Stop: 41968, Start Num: 110

Candidate Starts for FirstPlacePfu_69:

(18, 40547), (45, 40862), (78, 40991), (97, 41036), (Start: 110 @41066 has 67 MA's), (120, 41108), (Start: 156 @41198 has 8 MA's), (230, 41387), (232, 41390), (255, 41480), (307, 41672), (317, 41705), (356, 41801), (386, 41882), (408, 41930),

Gene: Fishburne_64 Start: 41860, Stop: 42762, Start Num: 110

Candidate Starts for Fishburne_64:

(21, 41368), (45, 41656), (78, 41785), (97, 41830), (Start: 110 @41860 has 67 MA's), (120, 41902), (230, 42181), (232, 42184), (255, 42274), (307, 42466), (317, 42499), (343, 42553), (356, 42595), (373, 42646), (386, 42676), (406, 42715), (408, 42724),

Gene: Francois_73 Start: 48813, Stop: 49691, Start Num: 128

Candidate Starts for Francois_73:

(Start: 128 @48813 has 1 MA's), (245, 49125), (248, 49140), (317, 49380), (373, 49527), (386, 49566), (422, 49674),

Gene: FroggyToad_70 Start: 44725, Stop: 45396, Start Num: 162

Candidate Starts for FroggyToad_70:

(Start: 162 @44725 has 115 MA's), (201, 44839), (272, 44998), (291, 45052), (292, 45055), (325, 45157), (365, 45256),

Gene: Frokostdame_82 Start: 50554, Stop: 51336, Start Num: 152

Candidate Starts for Frokostdame_82:

(93, 50389), (Start: 152 @50554 has 44 MA's), (225, 50737), (273, 50899), (304, 51007), (373, 51193), (377, 51202), (407, 51280),

Gene: Fulbright_66 Start: 40261, Stop: 40926, Start Num: 162

Candidate Starts for Fulbright_66:

(Start: 162 @40261 has 115 MA's), (Start: 164 @40267 has 1 MA's), (183, 40324), (225, 40426), (244, 40489), (246, 40498), (280, 40561), (319, 40681), (404, 40894),

Gene: GAL1_75 Start: 46097, Stop: 46876, Start Num: 147

Candidate Starts for GAL1_75:

(122, 46028), (136, 46061), (142, 46082), (147, 46097), (153, 46106), (Start: 155 @46112 has 14 MA's), (219, 46280), (254, 46391), (277, 46487), (283, 46508), (291, 46529), (309, 46595), (322, 46625), (331, 46640), (349, 46685), (350, 46688), (354, 46700), (365, 46736), (380, 46778), (394, 46820),

Gene: GMA4_62 Start: 40731, Stop: 41486, Start Num: 155

Candidate Starts for GMA4_62:

(52, 40401), (Start: 155 @40731 has 14 MA's), (289, 41109), (339, 41280), (348, 41298), (361, 41346),

Gene: GUPitcher_81 Start: 44933, Stop: 45763, Start Num: 141

Candidate Starts for GUPitcher_81:

(Start: 141 @44933 has 2 MA's), (184, 45047), (205, 45101), (222, 45137), (251, 45233), (257, 45248), (291, 45371), (293, 45383), (300, 45398), (315, 45446), (340, 45500), (358, 45557), (364, 45572), (410, 45698), (414, 45704), (420, 45734),

Gene: GaloreK_66 Start: 42546, Stop: 43448, Start Num: 110

Candidate Starts for GaloreK_66:

(21, 42054), (45, 42342), (78, 42471), (97, 42516), (Start: 110 @42546 has 67 MA's), (120, 42588), (230, 42867), (232, 42870), (255, 42960), (307, 43152), (317, 43185), (343, 43239), (356, 43281), (373, 43332), (386, 43362), (408, 43410),

Gene: Gambino_85 Start: 51089, Stop: 51874, Start Num: 152

Candidate Starts for Gambino_85:

(93, 50924), (Start: 152 @51089 has 44 MA's), (225, 51272), (273, 51434), (304, 51542), (373, 51728), (377, 51737),

Gene: Gandalph_93 Start: 49364, Stop: 50050, Start Num: 162

Candidate Starts for Gandalph_93:

(Start: 162 @49364 has 115 MA's), (Start: 164 @49370 has 1 MA's), (285, 49676), (312, 49763), (319, 49784), (368, 49910), (394, 49976),

Gene: Gavriela_65 Start: 42765, Stop: 43667, Start Num: 110

Candidate Starts for Gavriela_65:

(18, 42246), (45, 42561), (78, 42690), (97, 42735), (Start: 110 @42765 has 67 MA's), (120, 42807), (230, 43086), (232, 43089), (255, 43179), (307, 43371), (317, 43404), (343, 43458), (356, 43500), (373, 43551), (386, 43581), (406, 43620), (408, 43629),

Gene: GemG_70 Start: 43989, Stop: 44660, Start Num: 162

Candidate Starts for GemG_70:

(Start: 162 @43989 has 115 MA's), (166, 44010), (201, 44103), (272, 44262), (275, 44268), (292, 44319), (325, 44421), (359, 44505),

Gene: Getalong_99 Start: 53422, Stop: 54150, Start Num: 156

Candidate Starts for Getalong_99:

(Start: 156 @53422 has 8 MA's), (186, 53497), (259, 53680), (310, 53872), (317, 53896), (319, 53908), (326, 53920), (347, 53962), (348, 53965), (359, 54007), (360, 54010), (361, 54013), (362, 54016), (368, 54031), (372, 54043), (373, 54046), (399, 54112), (403, 54118),

Gene: Gex_69 Start: 41583, Stop: 42248, Start Num: 162

Candidate Starts for Gex_69:

(Start: 162 @41583 has 115 MA's), (Start: 164 @41589 has 1 MA's), (183, 41646), (225, 41748), (244, 41811), (246, 41820), (280, 41883), (319, 42003), (359, 42102), (365, 42117), (404, 42216),

Gene: Girr_91 Start: 52108, Stop: 52794, Start Num: 162

Candidate Starts for Girr_91:

(Start: 162 @52108 has 115 MA's), (Start: 164 @52114 has 1 MA's), (285, 52420), (312, 52507), (319, 52528), (368, 52654), (394, 52720),

Gene: Gizermo_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for Gizermo_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: Glaske_65 Start: 43072, Stop: 43974, Start Num: 110

Candidate Starts for Glaske_65:

(18, 42553), (45, 42868), (78, 42997), (97, 43042), (Start: 110 @43072 has 67 MA's), (120, 43114), (230, 43393), (232, 43396), (255, 43486), (307, 43678), (317, 43711), (343, 43765), (356, 43807),

(373, 43858), (386, 43888), (406, 43927), (408, 43936),

Gene: GrandSlam_74 Start: 49201, Stop: 50076, Start Num: 130

Candidate Starts for GrandSlam_74:

(72, 49030), (115, 49162), (126, 49195), (Start: 130 @49201 has 14 MA's), (167, 49294), (224, 49441), (245, 49510), (248, 49525), (317, 49765), (357, 49864), (373, 49912), (386, 49951), (422, 50059),

Gene: GreaseLightnin_70 Start: 43854, Stop: 44756, Start Num: 110

Candidate Starts for GreaseLightnin_70:

(18, 43335), (45, 43650), (78, 43779), (97, 43824), (Start: 110 @43854 has 67 MA's), (120, 43896), (Start: 156 @43986 has 8 MA's), (230, 44175), (232, 44178), (255, 44268), (307, 44460), (356, 44589), (386, 44670), (408, 44718),

Gene: Guacamole_75 Start: 47418, Stop: 48194, Start Num: 152

Candidate Starts for Guacamole_75:

(Start: 152 @47418 has 44 MA's), (225, 47595), (247, 47667), (263, 47724), (264, 47730), (269, 47745), (273, 47757), (304, 47865), (373, 48051), (377, 48060),

Gene: Gudmit_65 Start: 38909, Stop: 39847, Start Num: 107

Candidate Starts for Gudmit_65:

(48, 38729), (83, 38858), (Start: 107 @38909 has 1 MA's), (133, 38990), (178, 39113), (181, 39125), (198, 39173), (204, 39188), (232, 39245), (258, 39347), (330, 39596), (353, 39659), (354, 39662), (392, 39770), (401, 39791), (408, 39809), (410, 39818),

Gene: HC_62 Start: 39977, Stop: 40879, Start Num: 110

Candidate Starts for HC_62:

(Start: 110 @39977 has 67 MA's), (230, 40298), (240, 40340), (255, 40391), (307, 40583), (317, 40616), (356, 40712), (366, 40742), (386, 40793), (408, 40841),

Gene: HUHilltop_68 Start: 41696, Stop: 42598, Start Num: 110

Candidate Starts for HUHilltop_68:

(18, 41177), (45, 41492), (78, 41621), (97, 41666), (Start: 110 @41696 has 67 MA's), (120, 41738), (Start: 156 @41828 has 8 MA's), (202, 41960), (230, 42017), (232, 42020), (255, 42110), (307, 42302), (356, 42431), (373, 42482), (386, 42512), (406, 42551), (408, 42560),

Gene: Haley23_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for Haley23_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: Hamood_74 Start: 49201, Stop: 50076, Start Num: 130

Candidate Starts for Hamood_74:

(72, 49030), (115, 49162), (126, 49195), (Start: 130 @49201 has 14 MA's), (167, 49294), (224, 49441), (245, 49510), (248, 49525), (317, 49765), (357, 49864), (373, 49912), (386, 49951), (422, 50059),

Gene: Hanako_64 Start: 40184, Stop: 40849, Start Num: 162

Candidate Starts for Hanako_64:

(Start: 162 @40184 has 115 MA's), (Start: 164 @40190 has 1 MA's), (183, 40247), (225, 40349), (244, 40412), (246, 40421), (404, 40817),

Gene: Heinz_58 Start: 37588, Stop: 38469, Start Num: 119

Candidate Starts for Heinz_58:

(Start: 119 @37588 has 7 MA's), (352, 38251), (407, 38401), (411, 38413),

Gene: Hibiscus_59 Start: 37479, Stop: 38351, Start Num: 119

Candidate Starts for Hibiscus_59:

(40, 37173), (71, 37335), (74, 37341), (81, 37359), (88, 37380), (103, 37425), (Start: 119 @37479 has 7 MA's), (352, 38133), (407, 38283), (413, 38298),

Gene: Hitter_75 Start: 45674, Stop: 46450, Start Num: 152

Candidate Starts for Hitter_75:

(66, 45455), (Start: 152 @45674 has 44 MA's), (225, 45851), (247, 45923), (269, 46001), (273, 46013), (304, 46121), (373, 46307), (377, 46316), (384, 46340),

Gene: Hortense_75 Start: 50324, Stop: 51061, Start Num: 155

Candidate Starts for Hortense_75:

(66, 50078), (116, 50225), (131, 50267), (Start: 155 @50324 has 14 MA's), (171, 50366), (186, 50399), (225, 50480), (227, 50483), (269, 50630), (310, 50780), (342, 50861), (348, 50873),

Gene: Howe_75 Start: 50324, Stop: 51061, Start Num: 155

Candidate Starts for Howe_75:

(66, 50078), (116, 50225), (131, 50267), (Start: 155 @50324 has 14 MA's), (171, 50366), (186, 50399), (225, 50480), (227, 50483), (269, 50630), (310, 50780), (342, 50861), (348, 50873),

Gene: Hum25_77 Start: 39455, Stop: 40183, Start Num: 156

Candidate Starts for Hum25_77:

(138, 39410), (Start: 156 @39455 has 8 MA's), (189, 39554), (191, 39560), (200, 39581), (201, 39584), (229, 39635), (268, 39773), (277, 39803), (307, 39905), (322, 39959), (370, 40070), (411, 40166),

Gene: IdentityCrisis_57 Start: 35089, Stop: 35964, Start Num: 110

Candidate Starts for IdentityCrisis_57:

(94, 35053), (Start: 110 @35089 has 67 MA's), (133, 35170), (175, 35284), (196, 35341), (220, 35395), (320, 35725), (324, 35731), (373, 35851),

Gene: Impisi_66 Start: 39909, Stop: 40574, Start Num: 162

Candidate Starts for Impisi_66:

(Start: 162 @39909 has 115 MA's), (Start: 164 @39915 has 1 MA's), (183, 39972), (225, 40074), (244, 40137), (246, 40146), (404, 40542),

Gene: InLimbo_68 Start: 39899, Stop: 40642, Start Num: 155

Candidate Starts for InLimbo_68:

(92, 39728), (Start: 155 @39899 has 14 MA's), (227, 40064), (310, 40361), (342, 40442), (347, 40451), (348, 40454),

Gene: Island3_67 Start: 42444, Stop: 43346, Start Num: 110

Candidate Starts for Island3_67:

(45, 42237), (78, 42366), (97, 42414), (Start: 110 @42444 has 67 MA's), (120, 42486), (Start: 156 @42576 has 8 MA's), (202, 42708), (230, 42765), (232, 42768), (233, 42774), (240, 42807), (265, 42906), (274, 42936), (317, 43083), (366, 43209), (386, 43260), (408, 43308),

Gene: JCole_67 Start: 42655, Stop: 43326, Start Num: 162

Candidate Starts for JCole_67:

(98, 42484), (Start: 162 @42655 has 115 MA's), (185, 42730), (201, 42769), (272, 42928), (291, 42982), (292, 42985), (325, 43087),

Gene: Jabbawokkie_100 Start: 50067, Stop: 50753, Start Num: 162

Candidate Starts for Jabbawokkie_100:

(Start: 162 @50067 has 115 MA's), (Start: 164 @50073 has 1 MA's), (285, 50379), (312, 50466), (319, 50487), (368, 50613), (394, 50679),

Gene: Jablanski_80 Start: 52205, Stop: 52876, Start Num: 162

Candidate Starts for Jablanski_80:

(30, 51665), (32, 51695), (34, 51713), (121, 52112), (Start: 162 @52205 has 115 MA's), (201, 52319), (272, 52478), (291, 52532), (292, 52535), (325, 52637), (326, 52640), (365, 52736),

Gene: Jace_92 Start: 51606, Stop: 52397, Start Num: 154

Candidate Starts for Jace_92:

(117, 51519), (Start: 154 @51606 has 1 MA's), (Start: 164 @51627 has 1 MA's), (216, 51756), (218, 51765), (329, 52119), (360, 52203), (361, 52206), (379, 52257), (406, 52320), (408, 52329), (421, 52377),

Gene: JalFarm20_103 Start: 53760, Stop: 54446, Start Num: 162

Candidate Starts for JalFarm20_103:

(Start: 162 @53760 has 115 MA's), (Start: 164 @53766 has 1 MA's), (285, 54072), (312, 54159), (319, 54180), (368, 54306), (394, 54372),

Gene: Jalammah_80 Start: 49580, Stop: 50356, Start Num: 152

Candidate Starts for Jalammah_80:

(89, 49415), (104, 49448), (Start: 152 @49580 has 44 MA's), (225, 49757), (247, 49829), (263, 49886), (269, 49907), (273, 49919), (304, 50027), (373, 50213), (377, 50222),

Gene: Jalleen_73 Start: 43925, Stop: 44596, Start Num: 162

Candidate Starts for Jalleen_73:

(Start: 162 @43925 has 115 MA's), (166, 43946), (201, 44039), (272, 44198), (275, 44204), (291, 44252), (292, 44255), (325, 44357), (359, 44441),

Gene: Jamie19_60 Start: 38864, Stop: 39529, Start Num: 162

Candidate Starts for Jamie19_60:

(Start: 162 @38864 has 115 MA's), (Start: 164 @38870 has 1 MA's), (183, 38927), (225, 39029), (244, 39092), (246, 39101), (404, 39497),

Gene: JasperJr_75 Start: 47418, Stop: 48194, Start Num: 152

Candidate Starts for JasperJr_75:

(Start: 152 @47418 has 44 MA's), (225, 47595), (247, 47667), (263, 47724), (264, 47730), (269, 47745), (273, 47757), (304, 47865), (373, 48051), (377, 48060),

Gene: Jebeks_66 Start: 40993, Stop: 41895, Start Num: 110

Candidate Starts for Jebeks_66:

(18, 40474), (45, 40789), (78, 40918), (97, 40963), (Start: 110 @40993 has 67 MA's), (120, 41035), (230, 41314), (232, 41317), (255, 41407), (307, 41599), (317, 41632), (343, 41686), (356, 41728), (373, 41779), (386, 41809), (406, 41848), (408, 41857),

Gene: Jflix2_100 Start: 57187, Stop: 57882, Start Num: 173

Candidate Starts for Jflix2_100:

(Start: 173 @57187 has 2 MA's), (180, 57205), (195, 57244), (217, 57286), (234, 57328), (243, 57364), (261, 57436), (274, 57484), (296, 57559), (317, 57625), (352, 57706), (363, 57742), (375, 57775), (376, 57778), (390, 57814), (400, 57835), (416, 57874),

Gene: Jojo24_58 Start: 37912, Stop: 38784, Start Num: 119

Candidate Starts for Jojo24_58:

(89, 37819), (103, 37858), (Start: 119 @37912 has 7 MA's), (212, 38137), (352, 38566), (407, 38716), (413, 38731),

Gene: Journey_61 Start: 39852, Stop: 40517, Start Num: 162

Candidate Starts for Journey_61:

(Start: 162 @39852 has 115 MA's), (Start: 164 @39858 has 1 MA's), (183, 39915), (225, 40017), (244, 40080), (246, 40089), (280, 40152), (404, 40485),

Gene: JuJu_85 Start: 51321, Stop: 52103, Start Num: 152

Candidate Starts for JuJu_85:

(Start: 152 @51321 has 44 MA's), (225, 51504), (273, 51666), (304, 51774), (373, 51960), (377, 51969),

Gene: Jung_66 Start: 41978, Stop: 42880, Start Num: 110

Candidate Starts for Jung_66:

(Start: 110 @41978 has 67 MA's), (138, 42065), (Start: 156 @42110 has 8 MA's), (202, 42242), (230, 42299), (232, 42302), (255, 42392), (307, 42584), (356, 42713), (386, 42794), (408, 42842),

Gene: Juniormint_63 Start: 40449, Stop: 41351, Start Num: 110

Candidate Starts for Juniormint_63:

(18, 39930), (45, 40245), (78, 40374), (97, 40419), (Start: 110 @40449 has 67 MA's), (120, 40491), (230, 40770), (232, 40773), (255, 40863), (307, 41055), (317, 41088), (343, 41142), (356, 41184), (373, 41235), (386, 41265), (406, 41304), (408, 41313),

Gene: KappaFarmDelta_77 Start: 47260, Stop: 48036, Start Num: 152

Candidate Starts for KappaFarmDelta_77:

(43, 46912), (44, 46924), (87, 47086), (89, 47095), (Start: 152 @47260 has 44 MA's), (225, 47437), (247, 47509), (263, 47566), (269, 47587), (273, 47599), (304, 47707), (373, 47893), (377, 47902), (384, 47926),

Gene: Karhdo_88 Start: 49495, Stop: 50181, Start Num: 162

Candidate Starts for Karhdo_88:

(Start: 162 @49495 has 115 MA's), (Start: 164 @49501 has 1 MA's), (285, 49807), (312, 49894), (319, 49915), (368, 50041), (394, 50107),

Gene: Kari_65 Start: 41857, Stop: 42759, Start Num: 110

Candidate Starts for Kari_65:

(21, 41365), (45, 41653), (78, 41782), (97, 41827), (Start: 110 @41857 has 67 MA's), (120, 41899), (230, 42178), (232, 42181), (255, 42271), (307, 42463), (317, 42496), (343, 42550), (356, 42592), (373, 42643), (386, 42673), (406, 42712), (408, 42721),

Gene: Kevin1_66 Start: 39850, Stop: 40515, Start Num: 162

Candidate Starts for Kevin1_66:

(Start: 162 @39850 has 115 MA's), (Start: 164 @39856 has 1 MA's), (183, 39913), (225, 40015), (244, 40078), (246, 40087), (319, 40270),

Gene: KilKor_66 Start: 43765, Stop: 44667, Start Num: 110

Candidate Starts for KilKor_66:

(18, 43246), (45, 43561), (78, 43690), (97, 43735), (Start: 110 @43765 has 67 MA's), (120, 43807), (230, 44086), (232, 44089), (255, 44179), (307, 44371), (317, 44404), (343, 44458), (356, 44500), (373, 44551), (386, 44581), (406, 44620), (408, 44629),

Gene: Krakatau_86 Start: 47453, Stop: 48139, Start Num: 162

Candidate Starts for Krakatau_86:

(Start: 162 @47453 has 115 MA's), (Start: 164 @47459 has 1 MA's), (285, 47765), (312, 47852), (319, 47873), (368, 47999), (394, 48065),

Gene: Ksquared_69 Start: 44078, Stop: 44980, Start Num: 110

Candidate Starts for Ksquared_69:

(18, 43559), (45, 43874), (78, 44003), (97, 44048), (Start: 110 @44078 has 67 MA's), (120, 44120), (Start: 156 @44210 has 8 MA's), (230, 44399), (232, 44402), (255, 44492), (307, 44684), (317, 44717), (356, 44813), (386, 44894), (408, 44942),

Gene: Kuwabara_89 Start: 52072, Stop: 52815, Start Num: 155

Candidate Starts for Kuwabara_89:

(92, 51901), (Start: 155 @52072 has 14 MA's), (227, 52237), (310, 52534), (342, 52615), (347, 52624), (348, 52627),

Gene: Lamberg_66 Start: 42494, Stop: 43165, Start Num: 162

Candidate Starts for Lamberg_66:

(Start: 162 @42494 has 115 MA's), (166, 42515), (201, 42608), (272, 42767), (275, 42773), (292, 42824), (325, 42926), (359, 43010),

Gene: Langerak_65 Start: 41837, Stop: 42739, Start Num: 110

Candidate Starts for Langerak_65:

(21, 41345), (45, 41633), (78, 41762), (97, 41807), (Start: 110 @41837 has 67 MA's), (120, 41879), (230, 42158), (232, 42161), (255, 42251), (307, 42443), (317, 42476), (343, 42530), (356, 42572), (373, 42623), (386, 42653), (406, 42692), (408, 42701),

Gene: Leozinho_90 Start: 49140, Stop: 49826, Start Num: 162

Candidate Starts for Leozinho_90:

(Start: 162 @49140 has 115 MA's), (Start: 164 @49146 has 1 MA's), (285, 49452), (312, 49539), (319, 49560), (368, 49686), (394, 49752),

Gene: LilSpotty_82 Start: 47559, Stop: 48464, Start Num: 110

Candidate Starts for LilSpotty_82:

(Start: 110 @47559 has 67 MA's), (135, 47637), (230, 47880), (233, 47889), (240, 47922), (255, 47973), (265, 48021), (274, 48051), (307, 48165), (317, 48198), (333, 48231), (382, 48369), (386, 48375), (395, 48399), (408, 48423), (410, 48432),

Gene: Llij_89 Start: 50685, Stop: 51371, Start Num: 162

Candidate Starts for Llij_89:

(Start: 162 @50685 has 115 MA's), (Start: 164 @50691 has 1 MA's), (285, 50997), (312, 51084), (319, 51105), (368, 51231), (394, 51297),

Gene: LordFarquaad_72 Start: 45626, Stop: 46297, Start Num: 162

Candidate Starts for LordFarquaad_72:

(29, 45080), (31, 45110), (67, 45368), (91, 45434), (Start: 162 @45626 has 115 MA's), (185, 45701), (201, 45740), (272, 45899), (275, 45905), (291, 45953), (292, 45956), (325, 46058), (359, 46142),

Gene: Lton_68 Start: 39225, Stop: 39968, Start Num: 155

Candidate Starts for Lton_68:

(92, 39054), (Start: 155 @39225 has 14 MA's), (227, 39390), (310, 39687), (342, 39768), (347, 39777), (348, 39780),

Gene: Lucky10_67 Start: 41325, Stop: 42068, Start Num: 155

Candidate Starts for Lucky10_67:

(89, 41145), (132, 41274), (134, 41277), (Start: 155 @41325 has 14 MA's), (186, 41406), (227, 41490), (235, 41514), (310, 41787), (342, 41868), (347, 41877), (348, 41880),

Gene: Lysidious_79 Start: 48328, Stop: 49104, Start Num: 152

Candidate Starts for Lysidious_79:

(50, 48028), (59, 48079), (89, 48163), (104, 48196), (Start: 152 @48328 has 44 MA's), (225, 48505), (247, 48577), (263, 48634), (269, 48655), (273, 48667), (304, 48775), (373, 48961), (377, 48970), (384, 48994),

Gene: Madraxi_102 Start: 59347, Stop: 60069, Start Num: 173

Candidate Starts for Madraxi_102:

(Start: 173 @59347 has 2 MA's), (180, 59365), (195, 59404), (217, 59446), (234, 59488), (243, 59524), (246, 59536), (261, 59596), (280, 59671), (352, 59866), (368, 59917), (376, 59938), (385, 59968), (418, 60040),

Gene: Magsby_67 Start: 41529, Stop: 42194, Start Num: 162

Candidate Starts for Magsby_67:

(Start: 162 @41529 has 115 MA's), (Start: 164 @41535 has 1 MA's), (183, 41592), (225, 41694), (244, 41757), (246, 41766), (280, 41829), (319, 41949), (359, 42048), (365, 42063), (404, 42162),

Gene: Majeke_68 Start: 42487, Stop: 43389, Start Num: 110

Candidate Starts for Majeke_68:

(21, 41992), (45, 42283), (78, 42412), (97, 42457), (Start: 110 @42487 has 67 MA's), (120, 42529), (230, 42808), (232, 42811), (255, 42901), (307, 43093), (317, 43126), (343, 43180), (356, 43222), (373, 43273), (386, 43303), (406, 43342), (408, 43351),

Gene: MakCheese_80 Start: 49832, Stop: 50503, Start Num: 162

Candidate Starts for MakCheese_80:

(67, 49574), (Start: 162 @49832 has 115 MA's), (185, 49907), (192, 49931), (201, 49946), (272, 50105), (291, 50159), (292, 50162), (325, 50264),

Gene: Malachai_75 Start: 49240, Stop: 50016, Start Num: 152

Candidate Starts for Malachai_75:

(52, 48943), (66, 49021), (Start: 152 @49240 has 44 MA's), (225, 49417), (269, 49567), (273, 49579), (304, 49687), (373, 49873), (377, 49882),

Gene: Malibo_74 Start: 48036, Stop: 48914, Start Num: 127

Candidate Starts for Malibo_74:

(33, 47619), (Start: 127 @48036 has 4 MA's), (245, 48348),

Gene: Malisha_92 Start: 53316, Stop: 54062, Start Num: 152

Candidate Starts for Malisha_92:

(Start: 128 @53265 has 1 MA's), (Start: 130 @53268 has 14 MA's), (Start: 152 @53316 has 44 MA's), (202, 53430), (271, 53634), (309, 53763), (336, 53829), (354, 53877), (357, 53889), (377, 53946), (407, 54024),

Gene: Malithi_65 Start: 41622, Stop: 42524, Start Num: 110

Candidate Starts for Malithi_65:

(77, 41544), (Start: 110 @41622 has 67 MA's), (120, 41664), (Start: 156 @41754 has 8 MA's), (202, 41886), (230, 41943), (232, 41946), (255, 42036), (307, 42228), (356, 42357), (373, 42408), (386, 42438), (406, 42477), (408, 42486),

Gene: Mangethe_68 Start: 42487, Stop: 43389, Start Num: 110

Candidate Starts for Mangethe_68:

(21, 41992), (45, 42283), (78, 42412), (97, 42457), (Start: 110 @42487 has 67 MA's), (120, 42529), (230, 42808), (232, 42811), (255, 42901), (307, 43093), (317, 43126), (343, 43180), (356, 43222), (373, 43273), (386, 43303), (406, 43342), (408, 43351),

Gene: Marker_98 Start: 52855, Stop: 53529, Start Num: 162

Candidate Starts for Marker_98:

(82, 52630), (85, 52642), (98, 52681), (Start: 162 @52855 has 115 MA's), (Start: 164 @52861 has 1 MA's), (285, 53167), (312, 53254), (319, 53275), (368, 53401), (394, 53467), (417, 53518),

Gene: Maruru_81 Start: 50216, Stop: 51058, Start Num: 148

Candidate Starts for Maruru_81:

(Start: 148 @50216 has 2 MA's), (186, 50321), (191, 50339), (223, 50402), (239, 50456), (244, 50471), (246, 50480), (254, 50507), (257, 50510), (305, 50684), (409, 50987), (411, 50996),

Gene: Matteo_63 Start: 41739, Stop: 42410, Start Num: 162

Candidate Starts for Matteo_63:

(Start: 162 @41739 has 115 MA's), (166, 41760), (201, 41853), (272, 42012), (275, 42018), (291, 42066), (292, 42069), (325, 42171), (359, 42255),

Gene: Megiddo_65 Start: 43633, Stop: 44535, Start Num: 110

Candidate Starts for Megiddo_65:

(18, 43114), (45, 43429), (78, 43558), (97, 43603), (Start: 110 @43633 has 67 MA's), (120, 43675), (230, 43954), (232, 43957), (255, 44047), (307, 44239), (317, 44272), (343, 44326), (356, 44368), (373, 44419), (386, 44449), (406, 44488), (408, 44497),

Gene: Melba_77 Start: 46375, Stop: 47151, Start Num: 152

Candidate Starts for Melba_77:

(87, 46201), (Start: 152 @46375 has 44 MA's), (225, 46552), (247, 46624), (269, 46702), (273, 46714), (304, 46822), (373, 47008), (377, 47017), (384, 47041),

Gene: Mellie_74 Start: 46392, Stop: 47168, Start Num: 152

Candidate Starts for Mellie_74:

(Start: 152 @46392 has 44 MA's), (193, 46497), (225, 46569), (273, 46731), (373, 47025), (377, 47034),

Gene: Melville_73 Start: 41138, Stop: 41803, Start Num: 162

Candidate Starts for Melville_73:

(Start: 162 @41138 has 115 MA's), (Start: 164 @41144 has 1 MA's), (183, 41201), (225, 41303), (244, 41366), (246, 41375), (280, 41438), (319, 41558), (359, 41657), (365, 41672), (404, 41771),

Gene: Merpity_76 Start: 39442, Stop: 40167, Start Num: 159

Candidate Starts for Merpity_76:

(159, 39442), (Start: 161 @39445 has 3 MA's), (189, 39535), (200, 39562), (201, 39565), (229, 39616), (268, 39754), (277, 39784), (314, 39919), (327, 39952), (370, 40054), (411, 40150),

Gene: MichelleMyBell_65 Start: 39827, Stop: 40492, Start Num: 162

Candidate Starts for MichelleMyBell_65:

(Start: 162 @39827 has 115 MA's), (Start: 164 @39833 has 1 MA's), (183, 39890), (225, 39992), (244, 40055), (246, 40064), (404, 40460),

Gene: MintFen_77 Start: 46614, Stop: 47390, Start Num: 152

Candidate Starts for MintFen_77:

(Start: 152 @46614 has 44 MA's), (225, 46791), (247, 46863), (263, 46920), (264, 46926), (269, 46941), (273, 46953), (304, 47061), (373, 47247), (377, 47256),

Gene: Misha28_86 Start: 52818, Stop: 53723, Start Num: 110

Candidate Starts for Misha28_86:

(Start: 110 @52818 has 67 MA's), (135, 52896), (240, 53181), (255, 53232), (265, 53280), (274, 53310), (307, 53424), (333, 53490), (382, 53628), (386, 53634), (395, 53658), (408, 53682), (410, 53691),

Gene: MissRona_83 Start: 51090, Stop: 51875, Start Num: 152

Candidate Starts for MissRona_83:

(93, 50925), (Start: 152 @51090 has 44 MA's), (225, 51273), (273, 51435), (304, 51543), (373, 51729), (377, 51738),

Gene: MisterCuddles_92 Start: 52108, Stop: 52794, Start Num: 162

Candidate Starts for MisterCuddles_92:

(Start: 162 @52108 has 115 MA's), (Start: 164 @52114 has 1 MA's), (285, 52420), (312, 52507), (319, 52528), (368, 52654), (394, 52720),

Gene: Mocha12_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for Mocha12_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: Moosehead_71 Start: 39747, Stop: 40490, Start Num: 155

Candidate Starts for Moosehead_71:

(132, 39696), (134, 39699), (Start: 155 @39747 has 14 MA's), (227, 39912), (235, 39936), (342, 40290), (348, 40302), (360, 40347),

Gene: Morkie_71 Start: 40373, Stop: 41116, Start Num: 155

Candidate Starts for Morkie_71:

(92, 40202), (Start: 155 @40373 has 14 MA's), (227, 40538), (310, 40835), (342, 40916), (347, 40925), (348, 40928),

Gene: MortyNRick_93 Start: 52169, Stop: 52846, Start Num: 162

Candidate Starts for MortyNRick_93:

(Start: 162 @52169 has 115 MA's), (277, 52442), (280, 52454), (294, 52496), (303, 52523), (326, 52598), (348, 52640), (365, 52697), (391, 52766),

Gene: MrSmee_75 Start: 39017, Stop: 39739, Start Num: 161

Candidate Starts for MrSmee_75:

(159, 39014), (Start: 161 @39017 has 3 MA's), (189, 39107), (200, 39134), (201, 39137), (229, 39188), (237, 39221), (268, 39326), (277, 39356), (281, 39374), (314, 39491), (327, 39524), (370, 39626), (381, 39659), (411, 39722),

Gene: Mufasa8_85 Start: 50444, Stop: 51298, Start Num: 143

Candidate Starts for Mufasa8_85:

(Start: 143 @50444 has 1 MA's), (193, 50588), (215, 50633), (223, 50642), (239, 50696), (284, 50852), (296, 50897), (297, 50903), (355, 51086), (367, 51119), (370, 51128), (388, 51179), (398, 51203), (409, 51224), (411, 51233),

Gene: Mulch_72 Start: 48191, Stop: 49066, Start Num: 130

Candidate Starts for Mulch_72:

(72, 48020), (115, 48152), (126, 48185), (Start: 130 @48191 has 14 MA's), (167, 48284), (224, 48431), (245, 48500), (248, 48515), (317, 48755), (357, 48854), (386, 48941), (422, 49049),

Gene: Murp_75 Start: 49491, Stop: 50267, Start Num: 152

Candidate Starts for Murp_75:

(89, 49326), (Start: 152 @49491 has 44 MA's), (193, 49596), (225, 49668), (247, 49740), (263, 49797), (269, 49818), (273, 49830), (304, 49938), (373, 50124), (377, 50133),

Gene: Nadeem_72 Start: 48179, Stop: 49054, Start Num: 130

Candidate Starts for Nadeem_72:

(72, 48008), (115, 48140), (126, 48173), (Start: 130 @48179 has 14 MA's), (167, 48272), (224, 48419), (245, 48488), (248, 48503), (317, 48743), (357, 48842), (386, 48929), (422, 49037),

Gene: NancyRae_71 Start: 48057, Stop: 48932, Start Num: 130

Candidate Starts for NancyRae_71:

(111, 47997), (126, 48051), (Start: 130 @48057 has 14 MA's), (167, 48150), (224, 48297), (245, 48366), (248, 48381), (317, 48621), (357, 48720), (373, 48768), (386, 48807), (422, 48915),

Gene: Nazo_68 Start: 43481, Stop: 44383, Start Num: 110

Candidate Starts for Nazo_68:

(Start: 110 @43481 has 67 MA's), (120, 43523), (209, 43754), (232, 43805), (255, 43895), (265, 43943), (288, 44021), (307, 44087), (373, 44267), (386, 44297),

Gene: Necropolis_63 Start: 41062, Stop: 41964, Start Num: 110

Candidate Starts for Necropolis_63:

(18, 40543), (45, 40858), (78, 40987), (97, 41032), (Start: 110 @41062 has 67 MA's), (120, 41104), (Start: 156 @41194 has 8 MA's), (202, 41326), (230, 41383), (232, 41386), (255, 41476), (307, 41668), (356, 41797), (373, 41848), (386, 41878), (406, 41917), (408, 41926),

Gene: Nenae_65 Start: 40186, Stop: 40851, Start Num: 162

Candidate Starts for Nenae_65:

(Start: 162 @40186 has 115 MA's), (Start: 164 @40192 has 1 MA's), (183, 40249), (225, 40351), (244, 40414), (246, 40423), (404, 40819),

Gene: Nettuno_67 Start: 42403, Stop: 43074, Start Num: 162

Candidate Starts for Nettuno_67:

(24, 41794), (29, 41857), (31, 41887), (67, 42145), (91, 42211), (Start: 162 @42403 has 115 MA's), (185, 42478), (201, 42517), (272, 42676), (275, 42682), (291, 42730), (292, 42733), (325, 42835), (359, 42919),

Gene: ODay_113 Start: 56624, Stop: 57352, Start Num: 156

Candidate Starts for ODay_113:

(137, 56576), (Start: 149 @56612 has 2 MA's), (Start: 156 @56624 has 8 MA's), (186, 56699), (227, 56777), (310, 57074), (317, 57098), (326, 57122), (347, 57164), (348, 57167), (357, 57200), (359, 57209), (360, 57212), (361, 57215), (362, 57218), (368, 57233), (372, 57245), (373, 57248), (399, 57314), (403, 57320),

Gene: Obliviate_77 Start: 46932, Stop: 47708, Start Num: 152

Candidate Starts for Obliviate_77:

(87, 46752), (Start: 152 @46932 has 44 MA's), (213, 47076), (225, 47109), (247, 47181), (269, 47259), (273, 47271), (304, 47379), (373, 47565), (377, 47574),

Gene: Okabe_86 Start: 48165, Stop: 48851, Start Num: 162

Candidate Starts for Okabe_86:

(Start: 162 @48165 has 115 MA's), (Start: 164 @48171 has 1 MA's), (285, 48477), (312, 48564), (319, 48585), (368, 48711), (394, 48777),

Gene: Oksu_96 Start: 53862, Stop: 54548, Start Num: 162

Candidate Starts for Oksu_96:

(Start: 162 @53862 has 115 MA's), (Start: 164 @53868 has 1 MA's), (285, 54174), (312, 54261), (319, 54282), (368, 54408), (394, 54474),

Gene: OneDirection_65 Start: 37787, Stop: 38530, Start Num: 155

Candidate Starts for OneDirection_65:

(92, 37616), (Start: 155 @37787 has 14 MA's), (227, 37952), (310, 38249), (342, 38330), (347, 38339), (348, 38342),

Gene: P3MA_56 Start: 37816, Stop: 38691, Start Num: 109

Candidate Starts for P3MA_56:

(Start: 109 @37816 has 1 MA's), (133, 37900), (175, 38014), (190, 38056), (220, 38125), (226, 38137), (320, 38455), (346, 38503), (367, 38563), (378, 38593),

Gene: PCoral7_76 Start: 47524, Stop: 48300, Start Num: 152

Candidate Starts for PCoral7_76:

(Start: 152 @47524 has 44 MA's), (225, 47704), (245, 47767), (247, 47776), (273, 47866), (366, 48139), (373, 48160), (377, 48169), (407, 48247),

Gene: PaintedDog_68 Start: 43905, Stop: 44792, Start Num: 113

Candidate Starts for PaintedDog_68:

(65, 43779), (73, 43797), (Start: 110 @43890 has 67 MA's), (Start: 113 @43905 has 1 MA's), (202, 44154), (228, 44208), (230, 44211), (232, 44214), (240, 44253), (265, 44352), (274, 44382), (317, 44529), (366, 44655), (386, 44706), (408, 44754),

Gene: Panchino_61 Start: 41092, Stop: 41757, Start Num: 162

Candidate Starts for Panchino_61:

(Start: 162 @41092 has 115 MA's), (Start: 164 @41098 has 1 MA's), (183, 41155), (225, 41257), (244, 41320), (246, 41329), (404, 41725),

Gene: Parada_72 Start: 48191, Stop: 49066, Start Num: 130

Candidate Starts for Parada_72:

(72, 48020), (115, 48152), (126, 48185), (Start: 130 @48191 has 14 MA's), (167, 48284), (224, 48431), (245, 48500), (248, 48515), (317, 48755), (357, 48854), (386, 48941), (422, 49049),

Gene: Parmesanjohn_68 Start: 41587, Stop: 42252, Start Num: 162

Candidate Starts for Parmesanjohn_68:

(Start: 162 @41587 has 115 MA's), (Start: 164 @41593 has 1 MA's), (183, 41650), (225, 41752), (244, 41815), (246, 41824), (280, 41887), (319, 42007), (359, 42106), (365, 42121), (404, 42220),

Gene: PeanutPie_70 Start: 43577, Stop: 44479, Start Num: 110

Candidate Starts for PeanutPie_70:

(18, 43058), (45, 43373), (78, 43502), (97, 43547), (Start: 110 @43577 has 67 MA's), (120, 43619), (Start: 156 @43709 has 8 MA's), (230, 43898), (232, 43901), (255, 43991), (307, 44183), (356, 44312), (386, 44393), (408, 44441),

Gene: Pepperoni_64 Start: 38913, Stop: 39656, Start Num: 155

Candidate Starts for Pepperoni_64:

(Start: 155 @38913 has 14 MA's), (227, 39078), (310, 39375), (342, 39456), (347, 39465), (348, 39468),

Gene: Petra_84 Start: 49488, Stop: 50267, Start Num: 152

Candidate Starts for Petra_84:

(47, 49173), (58, 49230), (76, 49281), (104, 49356), (Start: 152 @49488 has 44 MA's), (225, 49665), (273, 49827), (304, 49935), (373, 50121), (377, 50130), (384, 50154),

Gene: Phabuloso_105 Start: 53390, Stop: 54067, Start Num: 162

Candidate Starts for Phabuloso_105:

(Start: 162 @53390 has 115 MA's), (277, 53663), (280, 53675), (294, 53717), (303, 53744), (326, 53819), (348, 53861), (365, 53918), (391, 53987),

Gene: Phalm_66 Start: 43063, Stop: 43965, Start Num: 110

Candidate Starts for Phalm_66:

(18, 42544), (45, 42859), (78, 42988), (97, 43033), (Start: 110 @43063 has 67 MA's), (120, 43105), (230, 43384), (232, 43387), (255, 43477), (307, 43669), (317, 43702), (343, 43756), (356, 43798), (373, 43849), (386, 43879), (406, 43918), (408, 43927),

Gene: PhancyPhin_65 Start: 40312, Stop: 40977, Start Num: 162

Candidate Starts for PhancyPhin_65:

(Start: 162 @40312 has 115 MA's), (Start: 164 @40318 has 1 MA's), (183, 40375), (225, 40477), (244, 40540), (246, 40549), (404, 40945),

Gene: Phasih_90 Start: 50463, Stop: 51149, Start Num: 162

Candidate Starts for Phasih_90:

(Start: 162 @50463 has 115 MA's), (Start: 164 @50469 has 1 MA's), (285, 50775), (312, 50862), (319, 50883), (368, 51009), (394, 51075),

Gene: Phayonce_69 Start: 45605, Stop: 46513, Start Num: 110

Candidate Starts for Phayonce_69:

(16, 45062), (19, 45080), (35, 45269), (45, 45386), (78, 45518), (97, 45575), (Start: 110 @45605 has 67 MA's), (Start: 113 @45620 has 1 MA's), (135, 45683), (Start: 156 @45737 has 8 MA's), (230, 45926), (232, 45929), (233, 45935), (250, 46007), (288, 46145), (307, 46211), (317, 46244), (373, 46391), (386, 46421), (406, 46460),

Gene: Phegasus_68 Start: 42454, Stop: 43356, Start Num: 110

Candidate Starts for Phegasus_68:

(21, 41959), (45, 42250), (78, 42379), (97, 42424), (Start: 110 @42454 has 67 MA's), (120, 42496), (230, 42775), (232, 42778), (255, 42868), (307, 43060), (317, 43093), (343, 43147), (356, 43189), (373, 43240), (386, 43270), (406, 43309), (408, 43318),

Gene: Philonius_68 Start: 41752, Stop: 42417, Start Num: 162

Candidate Starts for Philonius_68:

(Start: 162 @41752 has 115 MA's), (Start: 164 @41758 has 1 MA's), (183, 41815), (225, 41917), (244, 41980), (246, 41989), (404, 42385),

Gene: Phineas_66 Start: 42030, Stop: 42932, Start Num: 110

Candidate Starts for Phineas_66:

(77, 41952), (Start: 110 @42030 has 67 MA's), (120, 42072), (Start: 156 @42162 has 8 MA's), (202, 42294), (230, 42351), (232, 42354), (255, 42444), (307, 42636), (356, 42765), (373, 42816), (386,

42846), (406, 42885), (408, 42894),

Gene: Phloss_66 Start: 40994, Stop: 41659, Start Num: 162

Candidate Starts for Phloss_66:

(Start: 162 @40994 has 115 MA's), (Start: 164 @41000 has 1 MA's), (183, 41057), (225, 41159), (244, 41222), (246, 41231), (280, 41294), (319, 41414), (359, 41513), (365, 41528), (404, 41627),

Gene: PhorbesPhlower_69 Start: 39768, Stop: 40511, Start Num: 155

Candidate Starts for PhorbesPhlower_69:

(92, 39597), (Start: 155 @39768 has 14 MA's), (227, 39933), (310, 40230), (342, 40311), (347, 40320), (348, 40323),

Gene: Phrann_64 Start: 42729, Stop: 43394, Start Num: 162

Candidate Starts for Phrann_64:

(Start: 162 @42729 has 115 MA's), (Start: 164 @42735 has 1 MA's), (183, 42792), (225, 42894), (244, 42957), (246, 42966), (404, 43362),

Gene: PhrostedPhlake_83 Start: 49071, Stop: 49847, Start Num: 152

Candidate Starts for PhrostedPhlake_83:

(89, 48906), (Start: 152 @49071 has 44 MA's), (225, 49248), (273, 49410), (304, 49518), (373, 49704), (377, 49713),

Gene: Pickett_67 Start: 42698, Stop: 43369, Start Num: 162

Candidate Starts for Pickett_67:

(98, 42527), (Start: 162 @42698 has 115 MA's), (185, 42773), (201, 42812), (272, 42971), (291, 43025), (292, 43028), (325, 43130),

Gene: Pimento_75 Start: 48276, Stop: 49151, Start Num: 130

Candidate Starts for Pimento_75:

(59, 48075), (61, 48078), (Start: 130 @48276 has 14 MA's), (167, 48369), (240, 48570), (245, 48585), (248, 48600), (317, 48840), (357, 48939), (373, 48987), (386, 49026), (422, 49134),

Gene: Piper2020_91 Start: 53066, Stop: 53971, Start Num: 110

Candidate Starts for Piper2020_91:

(Start: 110 @53066 has 67 MA's), (135, 53144), (240, 53429), (255, 53480), (265, 53528), (274, 53558), (307, 53672), (333, 53738), (382, 53876), (386, 53882), (395, 53906), (408, 53930), (410, 53939),

Gene: Pipp_82 Start: 48884, Stop: 49675, Start Num: 146

Candidate Starts for Pipp_82:

(64, 48650), (66, 48665), (69, 48671), (89, 48728), (Start: 146 @48884 has 1 MA's), (Start: 152 @48893 has 44 MA's), (225, 49076), (269, 49226), (373, 49532), (377, 49541), (384, 49565),

Gene: Pipsqueaks_69 Start: 41565, Stop: 42230, Start Num: 162

Candidate Starts for Pipsqueaks_69:

(Start: 162 @41565 has 115 MA's), (Start: 164 @41571 has 1 MA's), (183, 41628), (225, 41730), (244, 41793), (246, 41802), (280, 41865), (319, 41985), (359, 42084), (365, 42099), (404, 42198),

Gene: Pitbull_74 Start: 38878, Stop: 39600, Start Num: 161

Candidate Starts for Pitbull_74:

(70, 38620), (82, 38650), (Start: 108 @38725 has 1 MA's), (114, 38758), (118, 38773), (121, 38782), (Start: 161 @38878 has 3 MA's), (169, 38908), (189, 38968), (200, 38995), (201, 38998), (229, 39049), (241, 39097), (268, 39187), (308, 39325), (314, 39352), (327, 39385), (370, 39487), (381, 39520),

(411, 39583),

Gene: Plumbus_93 Start: 49449, Stop: 50135, Start Num: 162

Candidate Starts for Plumbus_93:

(Start: 162 @49449 has 115 MA's), (Start: 164 @49455 has 1 MA's), (285, 49761), (312, 49848), (319, 49869), (368, 49995), (394, 50061),

Gene: Polkaroo_67 Start: 43777, Stop: 44679, Start Num: 110

Candidate Starts for Polkaroo_67:

(18, 43258), (45, 43573), (78, 43702), (97, 43747), (Start: 110 @43777 has 67 MA's), (120, 43819), (Start: 156 @43909 has 8 MA's), (230, 44098), (232, 44101), (255, 44191), (307, 44383), (317, 44416), (343, 44470), (356, 44512), (373, 44563), (386, 44593), (406, 44632), (408, 44641),

Gene: Posh_77 Start: 50978, Stop: 51649, Start Num: 162

Candidate Starts for Posh_77:

(53, 50663), (121, 50885), (Start: 162 @50978 has 115 MA's), (201, 51092), (272, 51251), (291, 51305), (292, 51308), (325, 51410), (326, 51413), (365, 51509),

Gene: PrincePatrick_79 Start: 47344, Stop: 48120, Start Num: 152

Candidate Starts for PrincePatrick_79:

(Start: 152 @47344 has 44 MA's), (225, 47524), (245, 47587), (247, 47596), (273, 47686), (366, 47959), (373, 47980), (377, 47989), (407, 48067),

Gene: Purgamenstris_65 Start: 40184, Stop: 40849, Start Num: 162

Candidate Starts for Purgamenstris_65:

(Start: 162 @40184 has 115 MA's), (Start: 164 @40190 has 1 MA's), (183, 40247), (225, 40349), (244, 40412), (246, 40421), (404, 40817),

Gene: Purky_78 Start: 47557, Stop: 48462, Start Num: 110

Candidate Starts for Purky_78:

(Start: 110 @47557 has 67 MA's), (135, 47635), (209, 47830), (240, 47920), (265, 48019), (307, 48163), (318, 48199), (366, 48322), (386, 48373), (395, 48397), (408, 48421), (410, 48430),

Gene: Pygmy_69 Start: 43495, Stop: 44397, Start Num: 110

Candidate Starts for Pygmy_69:

(18, 42976), (45, 43291), (78, 43420), (97, 43465), (Start: 110 @43495 has 67 MA's), (120, 43537), (Start: 156 @43627 has 8 MA's), (202, 43759), (230, 43816), (232, 43819), (255, 43909), (307, 44101), (317, 44134), (343, 44188), (356, 44230), (373, 44281), (386, 44311), (406, 44350), (408, 44359),

Gene: Pytheas_81 Start: 52204, Stop: 52875, Start Num: 162

Candidate Starts for Pytheas_81:

(30, 51664), (32, 51694), (34, 51712), (121, 52111), (Start: 162 @52204 has 115 MA's), (201, 52318), (272, 52477), (291, 52531), (292, 52534), (325, 52636), (326, 52639), (365, 52735),

Gene: QueenHazel_61 Start: 41353, Stop: 42255, Start Num: 110

Candidate Starts for QueenHazel_61:

(63, 41236), (68, 41254), (Start: 110 @41353 has 67 MA's), (230, 41674), (240, 41716), (255, 41767), (307, 41959), (317, 41992), (343, 42046), (356, 42088), (386, 42169), (406, 42208), (408, 42217),

Gene: REQ3_30 Start: 13527, Stop: 14201, Start Num: 160

Candidate Starts for REQ3_30:

(Start: 157 @13521 has 1 MA's), (160, 13527), (168, 13548), (177, 13575), (244, 13755), (249, 13782), (291, 13854), (321, 13947), (328, 13959), (350, 14007), (365, 14055), (377, 14091), (387, 14121),

(389, 14124),

Gene: RavenCo17_70 Start: 47726, Stop: 48397, Start Num: 162

Candidate Starts for RavenCo17_70:

(67, 47468), (84, 47510), (90, 47528), (Start: 162 @47726 has 115 MA's), (166, 47747), (185, 47801), (201, 47840), (272, 47999), (291, 48053), (292, 48056), (325, 48158), (394, 48338),

Gene: Raya_72 Start: 38145, Stop: 38867, Start Num: 161

Candidate Starts for Raya_72:

(Start: 161 @38145 has 3 MA's), (189, 38235), (200, 38262), (201, 38265), (214, 38289), (229, 38316), (237, 38349), (268, 38454), (276, 38481), (277, 38484), (314, 38619), (370, 38754), (411, 38850),

Gene: Raymond7_58 Start: 39972, Stop: 40637, Start Num: 162

Candidate Starts for Raymond7_58:

(Start: 162 @39972 has 115 MA's), (Start: 164 @39978 has 1 MA's), (183, 40035), (225, 40137), (244, 40200), (246, 40209), (404, 40605),

Gene: Rebel_61 Start: 38160, Stop: 38825, Start Num: 162

Candidate Starts for Rebel_61:

(Start: 162 @38160 has 115 MA's), (Start: 164 @38166 has 1 MA's), (183, 38223), (225, 38325), (244, 38388), (246, 38397), (319, 38580),

Gene: Redi_64 Start: 40183, Stop: 40848, Start Num: 162

Candidate Starts for Redi_64:

(Start: 162 @40183 has 115 MA's), (Start: 164 @40189 has 1 MA's), (183, 40246), (225, 40348), (244, 40411), (246, 40420), (404, 40816),

Gene: RegnumDei_102 Start: 55850, Stop: 56620, Start Num: 149

Candidate Starts for RegnumDei_102:

(Start: 149 @55850 has 2 MA's), (170, 55898), (184, 55934), (187, 55943), (208, 55991), (244, 56093), (266, 56174), (277, 56210), (290, 56246), (307, 56306), (329, 56363), (334, 56375), (350, 56414), (358, 56444), (363, 56456), (367, 56468),

Gene: Renaud18_102 Start: 52412, Stop: 53098, Start Num: 162

Candidate Starts for Renaud18_102:

(Start: 162 @52412 has 115 MA's), (Start: 164 @52418 has 1 MA's), (285, 52724), (312, 52811), (319, 52832), (368, 52958), (394, 53024),

Gene: Reyja_61 Start: 39095, Stop: 39976, Start Num: 119

Candidate Starts for Reyja_61:

(103, 39041), (Start: 119 @39095 has 7 MA's), (352, 39758), (407, 39908), (413, 39923),

Gene: Rialto_98 Start: 52702, Stop: 53388, Start Num: 162

Candidate Starts for Rialto_98:

(Start: 162 @52702 has 115 MA's), (Start: 164 @52708 has 1 MA's), (285, 53014), (312, 53101), (319, 53122), (368, 53248), (394, 53314),

Gene: Rubeelu_63 Start: 39341, Stop: 40006, Start Num: 162

Candidate Starts for Rubeelu_63:

(Start: 162 @39341 has 115 MA's), (Start: 164 @39347 has 1 MA's), (183, 39404), (225, 39506), (244, 39569), (246, 39578), (319, 39761),

Gene: Ruby_89 Start: 52109, Stop: 52795, Start Num: 162

Candidate Starts for Ruby_89:

(Start: 162 @52109 has 115 MA's), (Start: 164 @52115 has 1 MA's), (285, 52421), (312, 52508), (319, 52529), (368, 52655), (394, 52721),

Gene: Ruthy_71 Start: 49474, Stop: 50355, Start Num: 127

Candidate Starts for Ruthy_71:

(15, 48862), (22, 48916), (51, 49222), (Start: 127 @49474 has 4 MA's), (245, 49786),

Gene: SFuller_98 Start: 57309, Stop: 58004, Start Num: 173

Candidate Starts for SFuller_98:

(Start: 173 @57309 has 2 MA's), (180, 57327), (195, 57366), (217, 57408), (234, 57450), (243, 57486), (261, 57558), (282, 57636), (296, 57681), (317, 57747), (352, 57828), (363, 57864), (375, 57897), (376, 57900), (390, 57936), (400, 57957), (416, 57996),

Gene: SG4_94 Start: 52945, Stop: 53631, Start Num: 162

Candidate Starts for SG4_94:

(Start: 162 @52945 has 115 MA's), (Start: 164 @52951 has 1 MA's), (285, 53257), (312, 53344), (319, 53365), (368, 53491), (394, 53557),

Gene: Sahara_68 Start: 43019, Stop: 43690, Start Num: 162

Candidate Starts for Sahara_68:

(Start: 162 @43019 has 115 MA's), (166, 43040), (201, 43133), (272, 43292), (275, 43298), (291, 43346), (292, 43349), (325, 43451), (359, 43535),

Gene: Samba_77 Start: 49525, Stop: 50301, Start Num: 152

Candidate Starts for Samba_77:

(66, 49306), (Start: 152 @49525 has 44 MA's), (225, 49702), (247, 49774), (263, 49831), (269, 49852), (273, 49864), (304, 49972), (373, 50158), (377, 50167), (384, 50191), (407, 50245),

Gene: Santhid_55 Start: 36515, Stop: 37387, Start Num: 119

Candidate Starts for Santhid_55:

(14, 35897), (39, 36176), (41, 36209), (57, 36305), (112, 36476), (Start: 119 @36515 has 7 MA's), (212, 36740), (264, 36911), (352, 37169), (407, 37319), (413, 37334),

Gene: Savage_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for Savage_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: Sbash_79 Start: 50602, Stop: 51504, Start Num: 110

Candidate Starts for Sbash_79:

(65, 50491), (75, 50509), (Start: 110 @50602 has 67 MA's), (Start: 128 @50668 has 1 MA's), (135, 50680), (151, 50725), (Start: 156 @50734 has 8 MA's), (233, 50932), (240, 50965), (255, 51016), (265, 51064), (274, 51094), (307, 51208), (318, 51244), (366, 51367), (373, 51388), (386, 51418), (395, 51442),

Gene: Schnauzer_69 Start: 41587, Stop: 42252, Start Num: 162

Candidate Starts for Schnauzer_69:

(Start: 162 @41587 has 115 MA's), (Start: 164 @41593 has 1 MA's), (183, 41650), (225, 41752), (244, 41815), (246, 41824), (280, 41887), (319, 42007), (359, 42106), (365, 42121), (404, 42220),

Gene: Scitech_63 Start: 40990, Stop: 41655, Start Num: 162

Candidate Starts for Scitech_63:

(Start: 162 @40990 has 115 MA's), (Start: 164 @40996 has 1 MA's), (183, 41053), (225, 41155), (244, 41218), (246, 41227), (280, 41290), (319, 41410), (359, 41509), (365, 41524), (404, 41623),

Gene: Shagrat_105 Start: 54894, Stop: 55640, Start Num: 163

Candidate Starts for Shagrat_105:

(62, 54600), (124, 54804), (139, 54837), (Start: 163 @54894 has 1 MA's), (177, 54939), (182, 54954), (187, 54969), (244, 55119), (266, 55200), (277, 55236), (290, 55272), (298, 55299), (329, 55386), (331, 55389), (350, 55437), (358, 55467), (363, 55479), (367, 55491), (376, 55515),

Gene: ShawBrad_104 Start: 52546, Stop: 53271, Start Num: 155

Candidate Starts for ShawBrad_104:

(Start: 155 @52546 has 14 MA's), (199, 52657), (264, 52834), (306, 52984), (310, 52999), (342, 53080), (347, 53089), (348, 53092), (383, 53200), (403, 53245), (405, 53248),

Gene: Shipwreck_68 Start: 43470, Stop: 44372, Start Num: 110

Candidate Starts for Shipwreck_68:

(18, 42951), (45, 43266), (78, 43395), (97, 43440), (Start: 110 @43470 has 67 MA's), (120, 43512), (Start: 156 @43602 has 8 MA's), (202, 43734), (230, 43791), (232, 43794), (255, 43884), (307, 44076), (356, 44205), (373, 44256), (386, 44286), (406, 44325), (408, 44334),

Gene: Shlim410_73 Start: 50324, Stop: 51061, Start Num: 155

Candidate Starts for Shlim410_73:

(66, 50078), (116, 50225), (131, 50267), (Start: 155 @50324 has 14 MA's), (171, 50366), (186, 50399), (225, 50480), (227, 50483), (269, 50630), (310, 50780), (342, 50861), (348, 50873),

Gene: ShrimpFriedEgg_65 Start: 40183, Stop: 40848, Start Num: 162

Candidate Starts for ShrimpFriedEgg_65:

(Start: 162 @40183 has 115 MA's), (Start: 164 @40189 has 1 MA's), (183, 40246), (225, 40348), (244, 40411), (246, 40420), (404, 40816),

Gene: ShroomBoi_91 Start: 51496, Stop: 52182, Start Num: 162

Candidate Starts for ShroomBoi_91:

(Start: 162 @51496 has 115 MA's), (Start: 164 @51502 has 1 MA's), (285, 51808), (312, 51895), (319, 51916), (368, 52042), (394, 52108),

Gene: Shweta_63 Start: 40547, Stop: 41212, Start Num: 162

Candidate Starts for Shweta_63:

(Start: 162 @40547 has 115 MA's), (Start: 164 @40553 has 1 MA's), (183, 40610), (225, 40712), (244, 40775), (246, 40784), (404, 41180),

Gene: Silvafighter_70 Start: 41130, Stop: 41795, Start Num: 162

Candidate Starts for Silvafighter_70:

(Start: 162 @41130 has 115 MA's), (Start: 164 @41136 has 1 MA's), (183, 41193), (225, 41295), (244, 41358), (246, 41367), (280, 41430), (319, 41550), (359, 41649), (365, 41664), (404, 41763),

Gene: SilverChicken_101 Start: 52299, Stop: 52985, Start Num: 162

Candidate Starts for SilverChicken_101:

(Start: 162 @52299 has 115 MA's), (Start: 164 @52305 has 1 MA's), (285, 52611), (312, 52698), (319, 52719), (368, 52845), (394, 52911),

Gene: Silvy_64 Start: 42220, Stop: 42885, Start Num: 162

Candidate Starts for Silvy_64:

(Start: 162 @42220 has 115 MA's), (Start: 164 @42226 has 1 MA's), (183, 42283), (225, 42385), (244, 42448), (246, 42457), (280, 42520), (319, 42640), (359, 42739), (365, 42754), (404, 42853),

Gene: SkinnyPete_64 Start: 41335, Stop: 42000, Start Num: 162

Candidate Starts for SkinnyPete_64:

(Start: 162 @41335 has 115 MA's), (Start: 164 @41341 has 1 MA's), (183, 41398), (225, 41500), (244, 41563), (246, 41572), (404, 41968),

Gene: Skitty_69 Start: 37268, Stop: 38008, Start Num: 161

Candidate Starts for Skitty_69:

(159, 37265), (Start: 161 @37268 has 3 MA's), (189, 37358), (200, 37385), (201, 37388), (229, 37439), (237, 37472), (268, 37577), (277, 37607), (314, 37739), (345, 37808), (355, 37832), (415, 37979),

Gene: Skyerus_67 Start: 36263, Stop: 36985, Start Num: 161

Candidate Starts for Skyerus_67:

(Start: 161 @36263 has 3 MA's), (189, 36353), (200, 36380), (201, 36383), (214, 36407), (229, 36434), (237, 36467), (268, 36572), (276, 36599), (277, 36602), (314, 36737), (370, 36872), (411, 36968),

Gene: Sleepyhead_65 Start: 41971, Stop: 42924, Start Num: 102

Candidate Starts for Sleepyhead_65:

(Start: 102 @41971 has 2 MA's), (139, 42088), (150, 42118), (197, 42250), (207, 42268), (253, 42391), (267, 42454), (275, 42478), (317, 42616), (342, 42670), (345, 42673),

Gene: Smurph_68 Start: 41587, Stop: 42252, Start Num: 162

Candidate Starts for Smurph_68:

(Start: 162 @41587 has 115 MA's), (Start: 164 @41593 has 1 MA's), (183, 41650), (225, 41752), (244, 41815), (246, 41824), (280, 41887), (319, 42007), (359, 42106), (365, 42121), (404, 42220),

Gene: Snekmaggedon_60 Start: 38870, Stop: 39529, Start Num: 164

Candidate Starts for Snekmaggedon_60:

(Start: 162 @38864 has 115 MA's), (Start: 164 @38870 has 1 MA's), (183, 38927), (225, 39029), (244, 39092), (246, 39101), (404, 39497),

Gene: SoilAssassin_69 Start: 45644, Stop: 46315, Start Num: 162

Candidate Starts for SoilAssassin_69:

(29, 45098), (31, 45128), (67, 45386), (91, 45452), (Start: 162 @45644 has 115 MA's), (185, 45719), (201, 45758), (272, 45917), (275, 45923), (291, 45971), (292, 45974), (325, 46076), (359, 46160),

Gene: Soilmate_81 Start: 52043, Stop: 52804, Start Num: 152

Candidate Starts for Soilmate_81:

(Start: 152 @52043 has 44 MA's), (225, 52220), (237, 52259), (245, 52283), (247, 52292), (273, 52382), (304, 52490), (373, 52676), (377, 52685),

Gene: Sonah_66 Start: 41167, Stop: 42069, Start Num: 110

Candidate Starts for Sonah_66:

(18, 40648), (45, 40963), (78, 41092), (97, 41137), (Start: 110 @41167 has 67 MA's), (120, 41209), (202, 41431), (230, 41488), (232, 41491), (255, 41581), (307, 41773), (356, 41902), (373, 41953), (386, 41983), (406, 42022), (408, 42031),

Gene: Sonali_80 Start: 50220, Stop: 51053, Start Num: 148

Candidate Starts for Sonali_80:

(Start: 148 @50220 has 2 MA's), (186, 50325), (191, 50343), (223, 50406), (239, 50460), (246, 50484), (254, 50511), (257, 50514), (305, 50688), (411, 51000),

Gene: Spartacus_100 Start: 54815, Stop: 55489, Start Num: 162

Candidate Starts for Spartacus_100:

(Start: 162 @54815 has 115 MA's), (Start: 164 @54821 has 1 MA's), (285, 55127), (312, 55214), (319, 55235), (368, 55361), (394, 55427), (417, 55478),

Gene: Spinach_64 Start: 40183, Stop: 40848, Start Num: 162

Candidate Starts for Spinach_64:

(Start: 162 @40183 has 115 MA's), (Start: 164 @40189 has 1 MA's), (183, 40246), (225, 40348), (244, 40411), (246, 40420), (404, 40816),

Gene: SpongeBob_60 Start: 38864, Stop: 39529, Start Num: 162

Candidate Starts for SpongeBob_60:

(Start: 162 @38864 has 115 MA's), (Start: 164 @38870 has 1 MA's), (183, 38927), (225, 39029), (244, 39092), (246, 39101), (404, 39497),

Gene: Sprinklemunch_78 Start: 49691, Stop: 50362, Start Num: 162

Candidate Starts for Sprinklemunch_78:

(25, 49082), (56, 49388), (67, 49439), (Start: 162 @49691 has 115 MA's), (185, 49766), (201, 49805), (235, 49886), (272, 49964), (291, 50018), (292, 50021), (325, 50123),

Gene: Sproutie_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for Sproutie_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: StevieRay_70 Start: 44234, Stop: 45136, Start Num: 110

Candidate Starts for StevieRay_70:

(18, 43715), (45, 44030), (78, 44159), (97, 44204), (Start: 110 @44234 has 67 MA's), (120, 44276), (Start: 156 @44366 has 8 MA's), (230, 44555), (232, 44558), (255, 44648), (307, 44840), (356, 44969), (386, 45050), (408, 45098),

Gene: StressBall_65 Start: 42765, Stop: 43667, Start Num: 110

Candidate Starts for StressBall_65:

(18, 42246), (45, 42561), (78, 42690), (97, 42735), (Start: 110 @42765 has 67 MA's), (120, 42807), (230, 43086), (232, 43089), (255, 43179), (307, 43371), (317, 43404), (343, 43458), (356, 43500), (373, 43551), (386, 43581), (406, 43620), (408, 43629),

Gene: Stuck_75 Start: 49856, Stop: 50758, Start Num: 110

Candidate Starts for Stuck_75:

(Start: 110 @49856 has 67 MA's), (135, 49934), (230, 50177), (240, 50219), (255, 50270), (265, 50318), (288, 50396), (318, 50498), (366, 50621), (373, 50642), (386, 50672), (395, 50696),

Gene: Sunshine23_82 Start: 50194, Stop: 51027, Start Num: 148

Candidate Starts for Sunshine23_82:

(101, 50056), (Start: 148 @50194 has 2 MA's), (186, 50299), (191, 50317), (223, 50380), (239, 50434), (246, 50458), (254, 50485), (257, 50488), (305, 50662), (411, 50974),

Gene: SuperGrey_94 Start: 53947, Stop: 54633, Start Num: 162

Candidate Starts for SuperGrey_94:

(Start: 162 @53947 has 115 MA's), (Start: 164 @53953 has 1 MA's), (285, 54259), (312, 54346), (319, 54367), (368, 54493), (394, 54559),

Gene: Tapioca_66 Start: 42092, Stop: 42757, Start Num: 162

Candidate Starts for Tapioca_66:

(Start: 162 @42092 has 115 MA's), (Start: 164 @42098 has 1 MA's), (183, 42155), (225, 42257), (244, 42320), (246, 42329), (280, 42392), (319, 42512), (359, 42611), (365, 42626), (404, 42725),

Gene: Tarzan_59 Start: 37877, Stop: 38749, Start Num: 119

Candidate Starts for Tarzan_59:

(Start: 119 @37877 has 7 MA's), (123, 37889), (212, 38102), (352, 38531), (407, 38681), (413, 38696),

Gene: Techage_66 Start: 42044, Stop: 42946, Start Num: 110

Candidate Starts for Techage_66:

(21, 41552), (45, 41840), (78, 41969), (97, 42014), (Start: 110 @42044 has 67 MA's), (120, 42086), (230, 42365), (232, 42368), (255, 42458), (307, 42650), (317, 42683), (343, 42737), (356, 42779), (373, 42830), (386, 42860), (406, 42899), (408, 42908),

Gene: Tessdabest_69 Start: 41721, Stop: 42386, Start Num: 162

Candidate Starts for Tessdabest_69:

(Start: 162 @41721 has 115 MA's), (Start: 164 @41727 has 1 MA's), (183, 41784), (225, 41886), (244, 41949), (246, 41958), (280, 42021), (404, 42354),

Gene: Thespis_67 Start: 43000, Stop: 43902, Start Num: 110

Candidate Starts for Thespis_67:

(18, 42481), (45, 42796), (78, 42925), (97, 42970), (Start: 110 @43000 has 67 MA's), (120, 43042), (230, 43321), (232, 43324), (255, 43414), (307, 43606), (356, 43735), (386, 43816), (408, 43864),

Gene: ThulaThula_73 Start: 47020, Stop: 47925, Start Num: 110

Candidate Starts for ThulaThula_73:

(19, 46501), (45, 46804), (78, 46933), (97, 46990), (Start: 110 @47020 has 67 MA's), (Start: 113 @47035 has 1 MA's), (135, 47098), (Start: 156 @47152 has 8 MA's), (230, 47341), (240, 47383), (255, 47434), (265, 47482), (274, 47512), (288, 47560), (307, 47626), (318, 47662), (366, 47785), (386, 47836), (395, 47860), (408, 47884), (410, 47893),

Gene: TinyDot_64 Start: 39132, Stop: 39797, Start Num: 162

Candidate Starts for TinyDot_64:

(Start: 162 @39132 has 115 MA's), (165, 39150), (174, 39177), (176, 39180), (179, 39192), (187, 39213), (201, 39240), (206, 39249), (235, 39321), (244, 39357), (270, 39390), (272, 39399), (291, 39453), (292, 39456), (299, 39486), (301, 39489), (303, 39495), (311, 39525), (313, 39531), (325, 39558), (326, 39561), (341, 39585), (346, 39594), (354, 39621), (359, 39642), (374, 39684), (387, 39720), (393, 39729), (394, 39738), (396, 39741),

Gene: Toast_77 Start: 47524, Stop: 48300, Start Num: 152

Candidate Starts for Toast_77:

(Start: 152 @47524 has 44 MA's), (225, 47704), (245, 47767), (247, 47776), (273, 47866), (366, 48139), (373, 48160), (377, 48169), (407, 48247),

Gene: TootsiePop_86 Start: 52818, Stop: 53723, Start Num: 110

Candidate Starts for TootsiePop_86:

(Start: 110 @52818 has 67 MA's), (135, 52896), (240, 53181), (255, 53232), (265, 53280), (274, 53310), (307, 53424), (333, 53490), (382, 53628), (386, 53634), (395, 53658), (408, 53682), (410, 53691),

Gene: Tortellini_71 Start: 46722, Stop: 47627, Start Num: 110

Candidate Starts for Tortellini_71:

(Start: 110 @46722 has 67 MA's), (135, 46800), (230, 47043), (233, 47052), (240, 47085), (255, 47136), (265, 47184), (274, 47214), (307, 47328), (317, 47361), (333, 47394), (373, 47508), (386, 47538), (395, 47562), (408, 47586), (410, 47595),

Gene: Tortoise12_68 Start: 40576, Stop: 41241, Start Num: 162

Candidate Starts for Tortoise12_68:

(Start: 162 @40576 has 115 MA's), (Start: 164 @40582 has 1 MA's), (183, 40639), (225, 40741), (244, 40804), (246, 40813), (280, 40876), (319, 40996), (359, 41095), (365, 41110), (404, 41209),

Gene: Totinger_96 Start: 52215, Stop: 52901, Start Num: 162

Candidate Starts for Totinger_96:

(Start: 162 @52215 has 115 MA's), (Start: 164 @52221 has 1 MA's), (285, 52527), (312, 52614), (319, 52635), (368, 52761), (394, 52827),

Gene: TripleJ_82 Start: 43869, Stop: 44699, Start Num: 141

Candidate Starts for TripleJ_82:

(Start: 141 @43869 has 2 MA's), (222, 44073), (291, 44307), (293, 44319), (300, 44334), (340, 44436), (358, 44493), (364, 44508), (414, 44640), (420, 44670),

Gene: TuertoX_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for TuertoX_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: Twinkle_74 Start: 51383, Stop: 52120, Start Num: 155

Candidate Starts for Twinkle_74:

(66, 51137), (116, 51284), (131, 51326), (Start: 155 @51383 has 14 MA's), (171, 51425), (186, 51458), (225, 51539), (227, 51542), (269, 51689), (310, 51839), (342, 51920), (348, 51932),

Gene: UmaThurman_80 Start: 47661, Stop: 48437, Start Num: 152

Candidate Starts for UmaThurman_80:

(Start: 152 @47661 has 44 MA's), (225, 47838), (247, 47910), (263, 47967), (264, 47973), (269, 47988), (273, 48000), (304, 48108), (373, 48294), (377, 48303),

Gene: Utz_68 Start: 47303, Stop: 48079, Start Num: 152

Candidate Starts for Utz_68:

(59, 47054), (Start: 152 @47303 has 44 MA's), (225, 47480), (247, 47552), (263, 47609), (264, 47615), (269, 47630), (273, 47642), (304, 47750), (373, 47936), (377, 47945),

Gene: Vasanti_68 Start: 44621, Stop: 45292, Start Num: 162

Candidate Starts for Vasanti_68:

(27, 44054), (28, 44066), (33, 44126), (Start: 162 @44621 has 115 MA's), (201, 44735), (272, 44894), (291, 44948), (292, 44951), (325, 45053), (326, 45056), (365, 45152),

Gene: Venti_63 Start: 40452, Stop: 41354, Start Num: 110

Candidate Starts for Venti_63:

(Start: 110 @40452 has 67 MA's), (230, 40773), (240, 40815), (255, 40866), (307, 41058), (317, 41091), (343, 41145), (356, 41187), (373, 41238), (386, 41268), (406, 41307), (408, 41316),

Gene: Vidya_64 Start: 41288, Stop: 42190, Start Num: 110

Candidate Starts for Vidya_64:

(18, 40769), (45, 41084), (78, 41213), (97, 41258), (Start: 110 @41288 has 67 MA's), (120, 41330), (230, 41609), (232, 41612), (255, 41702), (307, 41894), (356, 42023), (386, 42104), (408, 42152),

Gene: WST1_58 Start: 34901, Stop: 35776, Start Num: 110

Candidate Starts for WST1_58:

(94, 34865), (Start: 110 @34901 has 67 MA's), (133, 34982), (175, 35096), (190, 35138), (196, 35153), (220, 35207), (320, 35537), (324, 35543), (367, 35645), (371, 35657), (404, 35723), (418, 35762),

Gene: Walrus_77 Start: 48349, Stop: 49125, Start Num: 152

Candidate Starts for Walrus_77:

(47, 48034), (76, 48142), (79, 48151), (104, 48217), (106, 48223), (Start: 152 @48349 has 44 MA's), (225, 48526), (273, 48688), (304, 48796), (373, 48982), (377, 48991),

Gene: Whack_70 Start: 45809, Stop: 46741, Start Num: 102

Candidate Starts for Whack_70:

(1, 44903), (2, 44915), (3, 44963), (4, 44984), (5, 45032), (6, 45044), (7, 45050), (9, 45080), (13, 45239), (17, 45278), (32, 45455), (60, 45686), (80, 45746), (86, 45764), (Start: 102 @45809 has 2 MA's), (Start: 119 @45875 has 7 MA's), (129, 45905), (150, 45956), (189, 46067), (231, 46148), (262, 46259), (267, 46286), (287, 46349), (295, 46376), (317, 46448), (342, 46502), (345, 46505), (381, 46616), (406, 46670), (412, 46691),

Gene: WheatThin_72 Start: 48179, Stop: 49054, Start Num: 130

Candidate Starts for WheatThin_72:

(72, 48008), (115, 48140), (126, 48173), (Start: 130 @48179 has 14 MA's), (167, 48272), (224, 48419), (245, 48488), (248, 48503), (317, 48743), (357, 48842), (386, 48929), (422, 49037),

Gene: Whiteclaw_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for Whiteclaw_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: Whitney_99 Start: 53822, Stop: 54451, Start Num: 162

Candidate Starts for Whitney_99:

(145, 53789), (Start: 162 @53822 has 115 MA's), (183, 53882), (203, 53933), (241, 54026), (244, 54035), (292, 54137), (348, 54287), (351, 54299), (369, 54356), (388, 54410), (397, 54431),

Gene: William_79 Start: 48596, Stop: 49372, Start Num: 152

Candidate Starts for William_79:

(37, 48164), (Start: 152 @48596 has 44 MA's), (225, 48776), (366, 49211), (373, 49232), (377, 49241), (407, 49319),

Gene: Willsammy_67 Start: 43249, Stop: 44151, Start Num: 110

Candidate Starts for Willsammy_67:

(18, 42730), (45, 43045), (78, 43174), (97, 43219), (Start: 110 @43249 has 67 MA's), (120, 43291), (230, 43570), (232, 43573), (255, 43663), (307, 43855), (317, 43888), (343, 43942), (356, 43984), (373, 44035), (386, 44065), (406, 44104), (408, 44113),

Gene: Wisp_74 Start: 47248, Stop: 48024, Start Num: 152

Candidate Starts for Wisp_74:

(104, 47116), (Start: 152 @47248 has 44 MA's), (225, 47425), (247, 47497), (269, 47575), (273, 47587), (304, 47695), (331, 47761), (373, 47881), (377, 47890),

Gene: Wocket_77 Start: 47897, Stop: 48673, Start Num: 152

Candidate Starts for Wocket_77:

(Start: 152 @47897 has 44 MA's), (225, 48074), (247, 48146), (263, 48203), (269, 48224), (273, 48236), (304, 48344), (373, 48530), (377, 48539),

Gene: Wrigley_79 Start: 50561, Stop: 51232, Start Num: 162

Candidate Starts for Wrigley_79:

(53, 50246), (121, 50468), (Start: 162 @50561 has 115 MA's), (201, 50675), (272, 50834), (291, 50888), (292, 50891), (325, 50993), (326, 50996), (365, 51092),

Gene: Xavia_67 Start: 47327, Stop: 48229, Start Num: 110

Candidate Starts for Xavia_67:

(26, 46886), (45, 47123), (78, 47252), (97, 47297), (Start: 110 @47327 has 67 MA's), (120, 47369), (Start: 156 @47459 has 8 MA's), (202, 47591), (230, 47648), (240, 47690), (255, 47741), (265, 47789), (274, 47819), (288, 47867), (302, 47909), (318, 47969), (366, 48092), (386, 48143), (395, 48167), (408, 48191), (410, 48200),

Gene: Xeno_65 Start: 40252, Stop: 40917, Start Num: 162

Candidate Starts for Xeno_65:

(Start: 162 @40252 has 115 MA's), (Start: 164 @40258 has 1 MA's), (183, 40315), (225, 40417), (244, 40480), (246, 40489), (280, 40552), (404, 40885),

Gene: Xerxes_68 Start: 41584, Stop: 42249, Start Num: 162

Candidate Starts for Xerxes_68:

(Start: 162 @41584 has 115 MA's), (Start: 164 @41590 has 1 MA's), (183, 41647), (225, 41749), (244, 41812), (246, 41821), (280, 41884), (319, 42004), (359, 42103), (365, 42118), (404, 42217),

Gene: Xula_61 Start: 41279, Stop: 42181, Start Num: 110

Candidate Starts for Xula_61:

(Start: 110 @41279 has 67 MA's), (230, 41600), (232, 41603), (240, 41642), (255, 41693), (307, 41885), (317, 41918), (343, 41972), (356, 42014), (366, 42044), (386, 42095), (408, 42143),

Gene: Yeet412_68 Start: 44448, Stop: 45119, Start Num: 162

Candidate Starts for Yeet412_68:

(24, 43839), (29, 43902), (31, 43932), (67, 44190), (91, 44256), (Start: 162 @44448 has 115 MA's), (185, 44523), (201, 44562), (272, 44721), (275, 44727), (291, 44775), (292, 44778), (325, 44880), (359, 44964),

Gene: Yeezy_81 Start: 49176, Stop: 49838, Start Num: 162

Candidate Starts for Yeezy_81:

(8, 48276), (10, 48327), (11, 48405), (12, 48426), (46, 48828), (121, 49083), (Start: 162 @49176 has 115 MA's), (183, 49245), (188, 49260), (211, 49308), (236, 49368), (252, 49434), (285, 49488), (286, 49491), (292, 49506), (312, 49578), (325, 49608), (365, 49707), (394, 49788),

Gene: Yinzer_70 Start: 43985, Stop: 44656, Start Num: 162

Candidate Starts for Yinzer_70:

(Start: 162 @43985 has 115 MA's), (166, 44006), (201, 44099), (272, 44258), (275, 44264), (292, 44315), (325, 44417), (359, 44501),

Gene: Zapner_100 Start: 50161, Stop: 50847, Start Num: 162

Candidate Starts for Zapner_100:

(Start: 162 @50161 has 115 MA's), (Start: 164 @50167 has 1 MA's), (285, 50473), (312, 50560), (319, 50581), (368, 50707), (394, 50773),

Gene: Zarbodnamra_81 Start: 47607, Stop: 48383, Start Num: 152

Candidate Starts for Zarbodnamra_81:

(Start: 152 @47607 has 44 MA's), (225, 47784), (247, 47856), (263, 47913), (269, 47934), (273, 47946), (304, 48054), (357, 48192), (373, 48240), (377, 48249),

Gene: ZiggyZoo_78 Start: 49093, Stop: 49869, Start Num: 152

Candidate Starts for ZiggyZoo_78:

(66, 48874), (Start: 152 @49093 has 44 MA's), (225, 49270), (247, 49342), (269, 49420), (273, 49432), (304, 49540), (373, 49726), (377, 49735), (384, 49759),

Gene: Zilizebeth_71 Start: 42809, Stop: 43711, Start Num: 110

Candidate Starts for Zilizebeth_71:

(45, 42605), (78, 42734), (97, 42779), (Start: 110 @42809 has 67 MA's), (120, 42851), (230, 43130), (232, 43133), (255, 43223), (307, 43415), (317, 43448), (343, 43502), (356, 43544), (373, 43595), (386, 43625), (406, 43664), (408, 43673),

Gene: Zilla_74 Start: 46460, Stop: 47236, Start Num: 152

Candidate Starts for Zilla_74:

(Start: 152 @46460 has 44 MA's), (225, 46637), (247, 46709), (269, 46787), (273, 46799), (304, 46907), (373, 47093), (377, 47102),

Gene: Zodiariah_67 Start: 49214, Stop: 49885, Start Num: 162

Candidate Starts for Zodiariah_67:

(36, 48749), (67, 48959), (Start: 162 @49214 has 115 MA's), (185, 49289), (201, 49328), (272, 49487), (291, 49541), (294, 49556), (325, 49646),