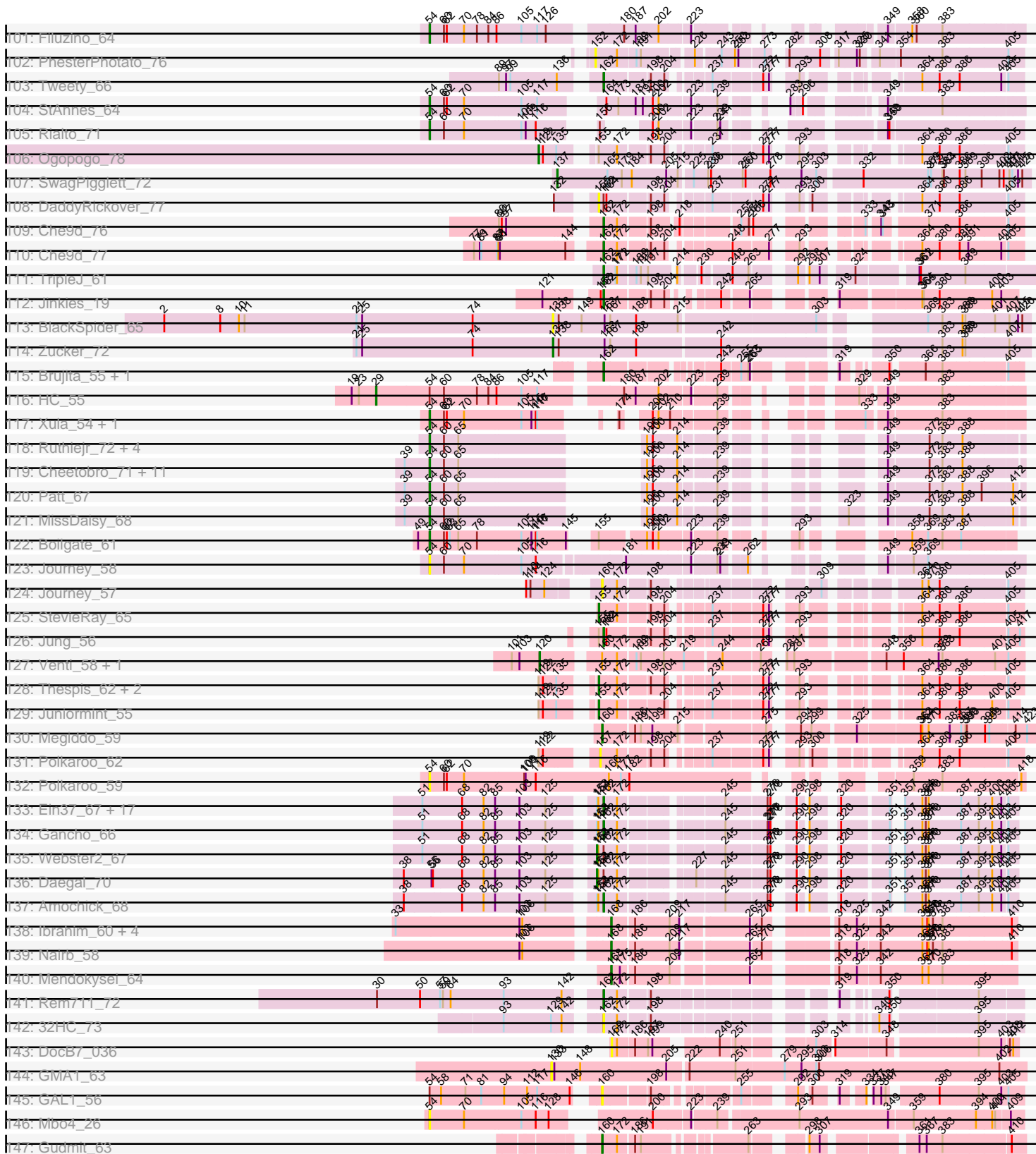


Pham 163284



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 163284 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163284 has 337 members, 53 are drafts.

Phages represented in each track:

- Track 1 : JuliaChild_70, Lamina13_71, Swole_68, PSullivan_66, Pita2_70, Tote_65
- Track 2 : Ashballer_72
- Track 3 : HarryOW_66
- Track 4 : Rhynn_57
- Track 5 : Fajezeel_69
- Track 6 : Wheeler_71, Watermelon_68, Trouble_68, KSSJEB_67, GrecoEtereo_68
- Track 7 : Acme_70, Payneful_64, Marchy_59, Greg_69
- Track 8 : Big3_68
- Track 9 : PattyP_61
- Track 10 : PFR2_41, PFR1_39
- Track 11 : HayZem_48, GTE7_37, Amore2_49
- Track 12 : GMA7_38, Austin_49
- Track 13 : Sombrero_47, FelixAlejandro_51, Butterball_50
- Track 14 : Beaver_50, Msay19_51, CathyBurgh_46, Adgers_48, John316_50, RemRem_47, GourdThymes_46, Gorko_46, Poland_53, Barbochs_47, Flakey_46, Exiguo_46, Hotorobo_46, BirksAndSocks_51, Lizzo_46, Ekhein_47, Breezic_46, Monty_45, Squibbles_46, Sam12_46
- Track 15 : Diabla_50, RoyalG_47, SteveFrench_46
- Track 16 : PokyPuppy_45
- Track 17 : Dakiti_47, Chelms_46
- Track 18 : BigShaq_46, PierreThree_46, BenoitCattle_48
- Track 19 : Eggsie_46, Jellybones_49
- Track 20 : Boneham_50
- Track 21 : Linetti_47
- Track 22 : Jams_46, Charianelly_45, Shelley_46, MrWormie_46, Newt_47, Kaseim_46, Nimi13_46, Teal_46, Lidong_46, Minos_47, Bianmat_46
- Track 23 : Lahirium_46, Anamika_46, Guillaume_46, Jormungandr_46, Hail2Pitt_45, Sticker17_46
- Track 24 : Harambe_46
- Track 25 : GalacticEye_46, Luker_47, Damp_44, Hello_46, Berries_46, Neevie_46, Woes_46
- Track 26 : Teech_43, Katyusha_42, Niagara_42, Benczkowski14_42, Tredge_43, Teatealatte_43, Kvothe_42
- Track 27 : Demosthenes_42
- Track 28 : ASerpRocky_43
- Track 29 : Philon9_44
- Track 30 : Hollow_43

- Track 31 : Utz_60
- Track 32 : Frokostdame_67
- Track 33 : Walrus_66
- Track 34 : UmaThurman_67
- Track 35 : Petra_69
- Track 36 : BritBrat_76
- Track 37 : Hyzer_73
- Track 38 : Vasanti_62
- Track 39 : DobbysSock_52
- Track 40 : Sidious_64
- Track 41 : Sidious_65
- Track 42 : RogerDodger_62
- Track 43 : Fugax_62, KimmyK_60, Barb_61, PinkCoffee_61, ClamChowder_61
- Track 44 : Danyall_60, PullumCavea_58
- Track 45 : Clown_9
- Track 46 : Sedona_83, Jabberwocky_84, Fitzgerald_83, Keitabear_83, BobBob_87
- Track 47 : Fosterous_87
- Track 48 : Thing3_10, Paries_10, MoontowerMania_8, Galadriel_11, Kamashten_10, Love_11
- Track 49 : Brandonk123_11
- Track 50 : Thing3_86, Galadriel_86, Rofo_85, Kamashten_86
- Track 51 : Lennon_85
- Track 52 : Sanjuju_83
- Track 53 : Ailee_83
- Track 54 : McKinley_88
- Track 55 : Sitar_84
- Track 56 : Love_91
- Track 57 : Bibwit_83
- Track 58 : JKSyngboy_82
- Track 59 : Brandonk123_89
- Track 60 : Stultus_80
- Track 61 : Tiamoceli_4
- Track 62 : Abblin_89, Natkenzie_89, Sampson_91, Scioto_89
- Track 63 : DoctorFroggo_89, Verity_88, Zipp_89, Delrey21_89
- Track 64 : ViaConlectus_88
- Track 65 : PhorbesPhlower_52
- Track 66 : DelRio_67, Ayotoya_67, GrandSlam_68, Hamood_68, Chop_68, Pimento_70
- Track 67 : BetterKatz_66, Nadeem_66, Brylie_66, Bock_68, Parada_66, NancyRae_65, Mulch_66, WheatThin_65
- Track 68 : Francois_66
- Track 69 : Malisha_72
- Track 70 : Asapag_64, Getalong_67
- Track 71 : Holliday_69
- Track 72 : Spooky_73
- Track 73 : Squiddly_65
- Track 74 : Bran_64
- Track 75 : lbhubesi_66
- Track 76 : ShowerHandel_68, Crumble_62, Zizzle_71, BobaPhett_71, Pippy_66, ByChance_60, Estave1_72
- Track 77 : Hegedechwinu_81, JalFarm20_88, Smooch_24
- Track 78 : Juice456_67, JalFarm20_79, KristaRAM_69
- Track 79 : Juniper1_69

- Track 80 : Juniper1_68
- Track 81 : Spikelee_74, Burwell21_65, Whouxphf_64, Ramsey_66, DaWorst_67, Yorick_66, Aubs_67, Blexus_65, Maravista_69, NormanBulbieJr_67, Fancypants_70, Koella_61, MinionDave_66, CaptainTrips_65, Cabrinians_68, Priscilla_67
- Track 82 : Flathead_72
- Track 83 : JoeyJr_74, Doomphist_77, KingMidas_73, Nimbo_66, OldBen_71, PHappiness_74, Leperchaun_72, Geralt_67, Poenanya_77, Daenerys_73, Inventum_72, Scottish_72, Polka14_78, RitaG_74, Sassafra_75, Empress_72
- Track 84 : Donkeykong_75
- Track 85 : Hamulus_73, LittleShirley_73
- Track 86 : PopTart_60, SassyB_60
- Track 87 : Ogopogo_72
- Track 88 : SimranZ1_67
- Track 89 : DillTech15_74
- Track 90 : Phalconet_64
- Track 91 : Fastidio_66
- Track 92 : Marker_73
- Track 93 : Bubbles123_63
- Track 94 : Mantra_63
- Track 95 : SG4_77
- Track 96 : Oksu_70
- Track 97 : Jarcob_66
- Track 98 : Moonbeam_66, Emma_69
- Track 99 : LittleShirley_67
- Track 100 : DLane_61
- Track 101 : Filuzino_64
- Track 102 : PhesterPhotato_76
- Track 103 : Tweety_66
- Track 104 : StAnnes_64
- Track 105 : Rialto_71
- Track 106 : Ogopogo_78
- Track 107 : SwagPigglett_72
- Track 108 : DaddyRickover_77
- Track 109 : Che9d_76
- Track 110 : Che9d_77
- Track 111 : TripleJ_61
- Track 112 : Jinkies_19
- Track 113 : BlackSpider_65
- Track 114 : Zucker_72
- Track 115 : Brujita_55, Island3_55
- Track 116 : HC_55
- Track 117 : Xula_54, QueenHazel_55
- Track 118 : Ruthiejr_72, Y2_68, Y10_68, JF1_71, OmniCritical_70
- Track 119 : Cheetobro_71, Chancellor_71, Reptar3000_68, Taquito_70, Fionnbharth_71, Eponine_73, Mitti_71, Juliette_73, Slarp_71, SamScheppers_69, Wintermute_71, Malthus_72
- Track 120 : Patt_67
- Track 121 : MissDaisy_68
- Track 122 : Boilgate_61
- Track 123 : Journey_58
- Track 124 : Journey_57
- Track 125 : StevieRay_65
- Track 126 : Jung_56

- Track 127 : Venti_58, Bartholomew_57
- Track 128 : Thespis_62, Brusacoram_62, Atcoo_62
- Track 129 : Juniormint_55
- Track 130 : Megiddo_59
- Track 131 : Polkaroo_62
- Track 132 : Polkaroo_59
- Track 133 : Ein37_67, HH92_66, Wishmaker_62, Kinbote_65, DeepSoil15_67, Amymech_67, OBUpride_67, Giles_62, Luke_66, Forge_62, LilHazelNut_67, Hail_62, Hadrien_66, Gravaillia_63, Ubuntu_67, Luna22_62, Dewey_62, Evanesce_66
- Track 134 : Gancho_66
- Track 135 : Webster2_67
- Track 136 : Daegal_70
- Track 137 : Amochick_68
- Track 138 : Ibrahim_60, ZenTime222_66, Bernal13_60, RonRayGun_60, Whitty_59
- Track 139 : Nairb_58
- Track 140 : Mendokysei_64
- Track 141 : Rem711_72
- Track 142 : 32HC_73
- Track 143 : DocB7_036
- Track 144 : GMA1_63
- Track 145 : GAL1_56
- Track 146 : Mbo4_26
- Track 147 : Gudmit_63

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 72 of the 284 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 32HC_73, Abblin_89, Ailee_83, Amochick_68, Amymech_67, Ayotoya_67, BetterKatz_66, Bibwit_83, BobBob_87, Bock_68, Brandonk123_89, Brujita_55, Brylie_66, Che9d_76, Che9d_77, Chop_68, DeepSoil15_67, DelRio_67, Delrey21_89, Dewey_62, DoctorFroggo_89, Donkeykong_75, Ein37_67, Evanesce_66, Fitzgerald_83, Forge_62, Fosterous_87, Francois_66, Galadriel_86, Gancho_66, Giles_62, GrandSlam_68, Gravaillia_63, HH92_66, Hadrien_66, Hail_62, Hamood_68, Hamulus_73, Hyzer_73, Ibhubes_i_66, Island3_55, Jabberwocky_84, JalFarm20_79, Jinkies_19, Juice456_67, Jung_56, Juniper1_69, Kamashten_86, Keitabear_83, Kinbote_65, KristaRAM_69, Lennon_85, LilHazelNut_67, LittleShirley_67, LittleShirley_73, Love_91, Luke_66, Luna22_62, Marker_73, McKinley_88, Mulch_66, Nadeem_66, NancyRae_65, Natkenzie_89, OBUpride_67, Ogopogo_72, PFR1_39, PFR2_41, Parada_66, Pimento_70, Rem711_72, Rofo_85, Sampson_91, Sanjuju_83, Scioto_89, Sedona_83, Sitar_84, Stultus_80, Thing3_86, TripleJ_61, Tweety_66, Ubuntu_67, Verity_88, ViaConlectus_88, WheatThin_65, Wishmaker_62, Zipp_89,

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

- DaddyRickover_77, Daegal_70, Webster2_67,

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

- ASerpRocky_43, Acme_70, Adgers_48, Amore2_49, Anamika_46, Asapag_64, Ashballer_72, Atcoo_62, Aubs_67, Austin_49, Barb_61, Barbochs_47, Bartholomew_57, Beaver_50, Benczkowski14_42, BenoitCattle_48, Bernal13_60, Berries_46, Bianmat_46, Big3_68, BigShaq_46, BirksAndSocks_51, BlackSpider_65, Blexus_65, BobaPhett_71, Boilgate_61, Boneham_50, Bran_64, Brandonk123_11, Breezic_46, BritBrat_76, Brusacoram_62, Bubbles123_63, Burwell21_65, Butterball_50, ByChance_60, Cabrinians_68, CaptainTrips_65, CathyBurgh_46, Chancellor_71, Charianelly_45, Cheetobro_71, Chelms_46, ClamChowder_61, Clown_9, Crumble_62, DLane_61, DaWorst_67, Daenerys_73, Dakiti_47, Damp_44, Danyall_60, Demosthenes_42, Diabla_50, DillTech15_74, DobbysSock_52, DocB7_036, Doomphist_77, Eggsie_46, Ekhein_47, Emma_69, Empress_72, Eponine_73, Estave1_72, Exiguo_46, Fajezeel_69, Fancypants_70, Fastidio_66, FelixAlejandro_51, Filuzino_64, Fionnbharth_71, Flakey_46, Flathead_72, Frokostdame_67, Fugax_62, GAL1_56, GMA1_63, GMA7_38, GTE7_37, GalacticEye_46, Galadriel_11, Geralt_67, Getalong_67, Gorko_46, GourdThymes_46, GrecoEtereo_68, Greg_69, Gudmit_63, Guillaume_46, HC_55, Hail2Pitt_45, Harambe_46, HarryOW_66, HayZem_48, Hegedechwinu_81, Hello_46, Holliday_69, Hollow_43, Hotorobo_46, Ibrahim_60, Inventum_72, JF1_71, JKSyngboy_82, JalFarm20_88, Jams_46, Jarcob_66, Jellybones_49, JoeyJr_74, John316_50, Jormungandr_46, Journey_57, Journey_58, JuliaChild_70, Juliette_73, Juniomint_55, Juniper1_68, KSSJEB_67, Kamashten_10, Kaseim_46, Katyusha_42, KimmyK_60, KingMidas_73, Koella_61, Kvothe_42, Lahirium_46, Lamina13_71, Leperchaun_72, Lidong_46, Linetti_47, Lizzo_46, Love_11, Luker_47, Malisha_72, Malthus_72, Mantra_63, Maravista_69, Marchy_59, Mbo4_26, Megiddo_59, Mendokyse_64, MinionDave_66, Minos_47, MissDaisy_68, Mitti_71, Monty_45, Moonbeam_66, MoontowerMania_8, MrWormie_46, Msay19_51, Nairb_58, Neevie_46, Newt_47, Niagara_42, Nimbo_66, Nimi13_46, NormanBulbieJr_67, Ogoopogo_78, Oksu_70, OldBen_71, OmniCritical_70, PHappiness_74, PSullivan_66, Paries_10, Patt_67, PattyP_61, Payneful_64, Petra_69, Phalconet_64, PhesterPhotato_76, Philon9_44, PhorbesPhlower_52, PierreThree_46, PinkCoffee_61, Pippy_66, Pita2_70, Poenanya_77, PokyPuppy_45, Poland_53, Polka14_78, Polkaroo_59, Polkaroo_62, PopTart_60, Priscilla_67, PullumCavea_58, QueenHazel_55, Ramsey_66, RemRem_47, Reptar3000_68, Rhynn_57, Rialto_71, RitaG_74, RogerDodger_62, RonRayGun_60, RoyalG_47, Ruthiejr_72, SG4_77, Sam12_46, SamScheppers_69, Sassafras_75, SassyB_60, Scottish_72, Shelley_46, ShowerHandel_68, Sidious_64, Sidious_65, SimranZ1_67, Slarp_71, Smooch_24, Sombrero_47, Spikelee_74, Spooky_73, Squibbles_46, Squiddly_65, StAnnes_64, SteveFrench_46, StevieRay_65, Sticker17_46, SwagPigglett_72, Swole_68, Taquito_70, Teal_46, Teatealatte_43, Teech_43, Thespis_62, Thing3_10, Tiamoceli_4, Tote_65, Tredge_43, Trouble_68, UmaThurman_67, Utz_60, Vasanti_62, Venti_58, Walrus_66, Watermelon_68, Wheeler_71, Whitty_59, Whouxphf_64, Wintermute_71, Woes_46, Xula_54, Y10_68, Y2_68, Yorick_66, ZenTime222_66, Zizzle_71, Zucker_72,

Summary by start number:

Start 29:

- Found in 1 of 337 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: HC_55 (I1),

Start 36:

- Found in 8 of 337 (2.4%) of genes in pham
- Manual Annotations of this start: 1 of 284
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Big3_68 (A1),

Start 41:

- Found in 11 of 337 (3.3%) of genes in pham
- Manual Annotations of this start: 1 of 284
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Fajezeel_69 (A1),

Start 44:

- Found in 7 of 337 (2.1%) of genes in pham
- Manual Annotations of this start: 5 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ashballer_72 (A1), JuliaChild_70 (A1), Lamina13_71 (A1), PSullivan_66 (A1), Pita2_70 (A1), Swole_68 (A1), Tote_65 (A1),

Start 48:

- Found in 11 of 337 (3.3%) of genes in pham
- Manual Annotations of this start: 5 of 284
- Called 45.5% of time when present
- Phage (with cluster) where this start called: GrecoEtereo_68 (A1), KSSJEB_67 (A1), Trouble_68 (A1), Watermelon_68 (A1), Wheeler_71 (A1),

Start 52:

- Found in 13 of 337 (3.9%) of genes in pham
- Manual Annotations of this start: 3 of 284
- Called 38.5% of time when present
- Phage (with cluster) where this start called: Acme_70 (A1), Frokostdame_67 (CV), Greg_69 (A1), Marchy_59 (A1), Payneful_64 (A1),

Start 53:

- Found in 2 of 337 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PattyP_61 (A1), Rhynn_57 (A1),

Start 54:

- Found in 51 of 337 (15.1%) of genes in pham
- Manual Annotations of this start: 44 of 284
- Called 94.1% of time when present
- Phage (with cluster) where this start called: Barb_61 (DC1), Boilgate_61 (K8), Chancellor_71 (K4), Cheetobro_71 (K4), ClamChowder_61 (DC1), DLane_61 (F1), Danyall_60 (DC1), Eponine_73 (K4), Filuzino_64 (F1), Fionnbharth_71 (K4), Fugax_62 (DC1), JF1_71 (K4), Journey_58 (N), Juliette_73 (K4), Juniper1_68 (F1), KimmyK_60 (DC1), Malthus_72 (K4), Mantra_63 (F1), Mbo4_26 (singleton), MissDaisy_68 (K4), Mitti_71 (K4), OmniCritical_70 (K4), Patt_67 (K4), Petra_69 (CV), Phalconet_64 (F1), PinkCoffee_61 (DC1), Polkaroo_59 (P1), PopTart_60 (F1), PullumCavea_58 (DC1), QueenHazel_55 (I1), Reptar3000_68 (K4), Rialto_71 (F1), RogerDodger_62 (DC1), Ruthiejr_72 (K4), SamScheppers_69 (K4), SassyB_60 (F1), SimranZ1_67 (F1), Slarp_71 (K4), StAnnes_64 (F1), Taquito_70 (K4), UmaThurman_67 (CV), Utz_60 (CV), Vasanti_62 (CZ2), Walrus_66 (CV),

Wintermute_71 (K4), Xula_54 (I1), Y10_68 (K4), Y2_68 (K4),

Start 57:

- Found in 14 of 337 (4.2%) of genes in pham
- Manual Annotations of this start: 1 of 284
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Tiamoceli_4 (DE3),

Start 60:

- Found in 51 of 337 (15.1%) of genes in pham
- Manual Annotations of this start: 1 of 284
- Called 2.0% of time when present
- Phage (with cluster) where this start called: HarryOW_66 (A1),

Start 119:

- Found in 7 of 337 (2.1%) of genes in pham
- Manual Annotations of this start: 1 of 284
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Ogopogo_78 (F1),

Start 120:

- Found in 3 of 337 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bartholomew_57 (P1), Flathead_72 (F1), Venti_58 (P1),

Start 130:

- Found in 5 of 337 (1.5%) of genes in pham
- Manual Annotations of this start: 3 of 284
- Called 80.0% of time when present
- Phage (with cluster) where this start called: GMA1_63 (singleton), Holliday_69 (DN1), Malisha_72 (DN), Squiddly_65 (DN2),

Start 131:

- Found in 2 of 337 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BlackSpider_65 (FN), Zucker_72 (FN),

Start 137:

- Found in 29 of 337 (8.6%) of genes in pham
- Manual Annotations of this start: 26 of 284
- Called 96.6% of time when present
- Phage (with cluster) where this start called: Aubs_67 (F1), Blexus_65 (F1), BobaPhett_71 (F1), Bubbles123_63 (F1), Burwell21_65 (F1), ByChance_60 (F1), Cabrinians_68 (F1), CaptainTrips_65 (F1), Crumble_62 (F1), DaWorst_67 (F1), Emma_69 (F1), Estave1_72 (F1), Fancypants_70 (F1), Jarcob_66 (F1), Koella_61 (F1), Maravista_69 (F1), MinionDave_66 (F1), Moonbeam_66 (F1), NormanBulbieJr_67 (F1), Pippy_66 (F1), Priscilla_67 (F1), Ramsey_66 (F1), ShowerHandel_68 (F1), Spikelee_74 (F1), SwagPigglett_72 (F1), Whouxphf_64 (F1), Yorick_66 (F1), Zizzle_71 (F1),

Start 152:

- Found in 1 of 337 (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: PhesterPhotato_76 (F1),

Start 153:

- Found in 38 of 337 (11.3%) of genes in pham
- Manual Annotations of this start: 18 of 284
- Called 47.4% of time when present
- Phage (with cluster) where this start called: Daegal_70 (Q), Daenerys_73 (F1), Doomphist_77 (F1), Empress_72 (F1), Geralt_67 (F1), Inventum_72 (F1), JoeyJr_74 (F1), KingMidas_73 (F1), Leperchaun_72 (F1), Nimbo_66 (F1), OldBen_71 (F1), PHappiness_74 (F1), Poenanya_77 (F1), Polka14_78 (F1), RitaG_74 (F1), Sassafras_75 (F1), Scottish_72 (F1), Webster2_67 (Q),

Start 155:

- Found in 17 of 337 (5.0%) of genes in pham
- Manual Annotations of this start: 9 of 284
- Called 58.8% of time when present
- Phage (with cluster) where this start called: Atcoo_62 (P1), Brusacoram_62 (P1), DaddyRickover_77 (F1), DillTech15_74 (F1), Hegedechwinu_81 (F1), JalFarm20_88 (F1), Juniormint_55 (P1), Smooch_24 (O), StevieRay_65 (P1), Thespis_62 (P1),

Start 157:

- Found in 6 of 337 (1.8%) of genes in pham
- Manual Annotations of this start: 2 of 284
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Bran_64 (EP), Polkaroo_62 (P1), SG4_77 (F1),

Start 159:

- Found in 2 of 337 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Clown_9 (DC2), Spooky_73 (DN2),

Start 160:

- Found in 25 of 337 (7.4%) of genes in pham
- Manual Annotations of this start: 15 of 284
- Called 76.0% of time when present
- Phage (with cluster) where this start called: Asapag_64 (DN1), Brandonk123_11 (DE1), BritBrat_76 (CY2), DobbysSock_52 (CZ4), GAL1_56 (singleton), Galadriel_11 (DE1), Getalong_67 (DN1), Gudmit_63 (singleton), JKSyngboy_82 (DE1), Journey_57 (N), Kamashten_10 (DE1), Love_11 (DE1), Megiddo_59 (P1), MoontowerMania_8 (DE1), Paries_10 (DE1), PhorbesPhlower_52 (DH), Sidious_64 (CZ7), Sidious_65 (CZ7), Thing3_10 (DE1),

Start 161:

- Found in 2 of 337 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Fastidio_66 (F1), Oksu_70 (F1),

Start 162:

- Found in 90 of 337 (26.7%) of genes in pham
- Manual Annotations of this start: 72 of 284
- Called 96.7% of time when present
- Phage (with cluster) where this start called: 32HC_73 (Z), Abblin_89 (DE4), Ailee_83 (DE1), Amochick_68 (Q), Amymech_67 (Q), Ayotoya_67 (DI), BetterKatz_66 (DI), Bibwit_83 (DE1), BobBob_87 (DE1), Bock_68 (DI), Brandonk123_89 (DE1), Brujita_55 (I1), Brylie_66 (DI), Che9d_76 (F2), Che9d_77 (F2), Chop_68 (DI), DeepSoil15_67 (Q), DelRio_67 (DI), Delrey21_89 (DE4), Dewey_62 (Q), DoctorFroggo_89 (DE4), Donkeykong_75 (F1), Ein37_67 (Q), Evanesce_66 (Q), Fitzgerald_83 (DE1), Forge_62 (Q), Fosterous_87 (DE1), Francois_66 (DI), Galadriel_86 (DE1), Gancho_66 (Q), Giles_62 (Q), GrandSlam_68 (DI), Gravaillia_63 (Q), HH92_66 (Q), Hadrien_66 (Q), Hail_62 (Q), Hamood_68 (DI), Hamulus_73 (F1), Hyzer_73 (CZ1), Ibhubesi_66 (F1), Island3_55 (I1), Jabberwocky_84 (DE1), JalFarm20_79 (F1), Jinkies_19 (FL), Juice456_67 (F1), Jung_56 (P1), Juniper1_69 (F1), Kamashten_86 (DE1), Keitabear_83 (DE1), Kinbote_65 (Q), KristaRAM_69 (F1), Lennon_85 (DE1), LilHazelnut_67 (Q), LittleShirley_67 (F1), LittleShirley_73 (F1), Love_91 (DE1), Luke_66 (Q), Luna22_62 (Q), Marker_73 (F1), McKinley_88 (DE1), Mulch_66 (DI), Nadeem_66 (DI), NancyRae_65 (DI), Natkenzie_89 (DE4), OBUpride_67 (Q), Ogopogo_72 (F1), PFR1_39 (BX), PFR2_41 (BX), Parada_66 (DI), Pimento_70 (DI), Rem711_72 (Z), Rofo_85 (DE1), Sampson_91 (DE4), Sanjuju_83 (DE1), Scioto_89 (DE4), Sedona_83 (DE1), Sitar_84 (DE1), Stultus_80 (DE1), Thing3_86 (DE1), TripleJ_61 (FJ), Tweety_66 (F1), Ubuntu_67 (Q), Verity_88 (DE4), ViaConlectus_88 (DE4), WheatThin_65 (DI), Wishmaker_62 (Q), Zipp_89 (DE4),

Start 168:

- Found in 7 of 337 (2.1%) of genes in pham
- Manual Annotations of this start: 7 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bernal13_60 (T), Ibrahim_60 (T), Mendokysei_64 (T), Nairb_58 (T), RonRayGun_60 (T), Whitty_59 (T), ZenTime222_66 (T),

Start 169:

- Found in 2 of 337 (0.6%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: DocB7_036 (singleton),

Start 170:

- Found in 77 of 337 (22.8%) of genes in pham
- Manual Annotations of this start: 61 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ASerpRocky_43 (CS4), Adgers_48 (CS2), Amore2_49 (CS1), Anamika_46 (CS3), Austin_49 (CS1), Barbochs_47 (CS2), Beaver_50 (CS2), Benczkowski14_42 (CS4), BenoitCattle_48 (CS2), Berries_46 (CS3), Bianmat_46 (CS3), BigShaq_46 (CS2), BirksAndSocks_51 (CS2), Boneham_50 (CS2), Breezic_46 (CS2), Butterball_50 (CS2), CathyBurgh_46 (CS2), Charianelly_45 (CS3), Chelms_46 (CS2), Dakiti_47 (CS2), Damp_44 (CS3), Demosthenes_42 (CS4), Diabla_50 (CS2), Eggsie_46 (CS2), Ekhein_47 (CS2), Exiguo_46 (CS2), FelixAlejandro_51 (CS2), Flakey_46 (CS2), GMA7_38 (CS1),

GTE7_37 (CS1), GalacticEye_46 (CS3), Gorko_46 (CS2), GourdThymes_46 (CS2), Guillaume_46 (CS3), Hail2Pitt_45 (CS3), Harambe_46 (CS3), HayZem_48 (CS1), Hello_46 (CS3), Hollow_43 (CS4), Hotorobo_46 (CS2), Jams_46 (CS3), Jellybones_49 (CS2), John316_50 (CS2), Jormungandr_46 (CS3), Kaseim_46 (CS3), Katyusha_42 (CS4), Kvothe_42 (CS4), Lahirium_46 (CS3), Lidong_46 (CS3), Linetti_47 (CS2), Lizzo_46 (CS2), Luker_47 (CS3), Minos_47 (CS3), Monty_45 (CS2), MrWormie_46 (CS3), Msay19_51 (CS2), Neoevie_46 (CS3), Newt_47 (CS3), Niagara_42 (CS4), Nimi13_46 (CS3), Philon9_44 (CS4), PierreThree_46 (CS2), PokyPuppy_45 (CS2), Poland_53 (CS2), RemRem_47 (CS2), RoyalG_47 (CS2), Sam12_46 (CS2), Shelley_46 (CS3), Sombrero_47 (CS2), Squibbles_46 (CS2), SteveFrench_46 (CS2), Sticker17_46 (CS3), Teal_46 (CS3), Teatealatte_43 (CS4), Teech_43 (CS4), Tredge_43 (CS4), Woes_46 (CS3),

Summary by clusters:

There are 38 clusters represented in this pham: DN, singleton, DH, DI, CZ2, CZ1, CZ7, CZ4, K4, FJ, K8, BX, FN, I1, FL, EP, A1, DN1, DN2, CS4, CS1, CS3, CS2, CY2, P1, O, N, Q, T, Z, DC2, CV, DC1, F1, F2, DE1, DE3, DE4,

Info for manual annotations of cluster A1:

- Start number 36 was manually annotated 1 time for cluster A1.
- Start number 41 was manually annotated 1 time for cluster A1.
- Start number 44 was manually annotated 5 times for cluster A1.
- Start number 48 was manually annotated 5 times for cluster A1.
- Start number 52 was manually annotated 2 times for cluster A1.
- Start number 53 was manually annotated 2 times for cluster A1.
- Start number 60 was manually annotated 1 time for cluster A1.

Info for manual annotations of cluster CS1:

- Start number 170 was manually annotated 2 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 170 was manually annotated 29 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 170 was manually annotated 21 times for cluster CS3.

Info for manual annotations of cluster CS4:

- Start number 170 was manually annotated 9 times for cluster CS4.

Info for manual annotations of cluster CV:

- Start number 52 was manually annotated 1 time for cluster CV.
- Start number 54 was manually annotated 4 times for cluster CV.

Info for manual annotations of cluster CY2:

- Start number 160 was manually annotated 1 time for cluster CY2.

Info for manual annotations of cluster CZ2:

- Start number 54 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ4:

- Start number 160 was manually annotated 1 time for cluster CZ4.

Info for manual annotations of cluster CZ7:

- Start number 160 was manually annotated 2 times for cluster CZ7.

Info for manual annotations of cluster DC1:

- Start number 54 was manually annotated 8 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 159 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 160 was manually annotated 6 times for cluster DE1.
- Start number 162 was manually annotated 17 times for cluster DE1.

Info for manual annotations of cluster DE3:

- Start number 57 was manually annotated 1 time for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 162 was manually annotated 6 times for cluster DE4.

Info for manual annotations of cluster DH:

- Start number 160 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DI:

- Start number 162 was manually annotated 13 times for cluster DI.

Info for manual annotations of cluster DN:

- Start number 130 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 130 was manually annotated 1 time for cluster DN1.
- Start number 160 was manually annotated 2 times for cluster DN1.

Info for manual annotations of cluster DN2:

- Start number 130 was manually annotated 1 time for cluster DN2.
- Start number 159 was manually annotated 1 time for cluster DN2.

Info for manual annotations of cluster EP:

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

Info for manual annotations of cluster F1:

- Start number 54 was manually annotated 9 times for cluster F1.
- Start number 119 was manually annotated 1 time for cluster F1.
- Start number 120 was manually annotated 1 time for cluster F1.
- Start number 137 was manually annotated 26 times for cluster F1.
- Start number 153 was manually annotated 16 times for cluster F1.
- Start number 155 was manually annotated 3 times for cluster F1.
- Start number 157 was manually annotated 1 time for cluster F1.
- Start number 162 was manually annotated 8 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 162 was manually annotated 2 times for cluster F2.

Info for manual annotations of cluster FJ:

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

Info for manual annotations of cluster FL:

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

Info for manual annotations of cluster FN:

- Start number 131 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster I1:

- Start number 29 was manually annotated 1 time for cluster I1.
- Start number 54 was manually annotated 2 times for cluster I1.
- Start number 162 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster K4:

- Start number 54 was manually annotated 19 times for cluster K4.

Info for manual annotations of cluster K8:

- Start number 54 was manually annotated 1 time for cluster K8.

Info for manual annotations of cluster O:

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

Info for manual annotations of cluster P1:

- Start number 120 was manually annotated 2 times for cluster P1.
- Start number 155 was manually annotated 5 times for cluster P1.
- Start number 160 was manually annotated 1 time for cluster P1.
- Start number 162 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster Q:

- Start number 153 was manually annotated 2 times for cluster Q.
- Start number 162 was manually annotated 20 times for cluster Q.

Info for manual annotations of cluster T:

- Start number 168 was manually annotated 7 times for cluster T.

Info for manual annotations of cluster Z:

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

Gene Information:

Gene: 32HC_73 Start: 44576, Stop: 45244, Start Num: 162

Candidate Starts for 32HC_73:

(93, 44408), (129, 44507), (142, 44528), (Start: 162 @44576 has 72 MA's), (172, 44603), (198, 44657), (340, 44987), (350, 45008), (395, 45161),

Gene: ASerpRocky_43 Start: 45618, Stop: 44902, Start Num: 170

Candidate Starts for ASerpRocky_43:

(Start: 170 @45618 has 61 MA's), (178, 45603), (220, 45501), (251, 45411), (253, 45405), (314, 45252), (333, 45189), (344, 45159), (384, 45048), (403, 44937),

Gene: Abblin_89 Start: 59142, Stop: 59831, Start Num: 162

Candidate Starts for Abblin_89:

(56, 58827), (111, 59016), (127, 59061), (140, 59085), (Start: 162 @59142 has 72 MA's), (198, 59223), (211, 59274), (255, 59400), (273, 59439), (310, 59517), (320, 59529), (324, 59550), (342, 59586), (374, 59667),

Gene: Acme_70 Start: 44165, Stop: 43323, Start Num: 52

Candidate Starts for Acme_70:

(Start: 41 @44201 has 1 MA's), (Start: 48 @44186 has 5 MA's), (Start: 52 @44165 has 3 MA's), (Start: 60 @44135 has 1 MA's), (61, 44132), (66, 44102), (70, 44093), (107, 43973), (200, 43865), (223, 43796), (252, 43721), (358, 43535), (369, 43505), (406, 43346),

Gene: Adgers_48 Start: 44794, Stop: 44072, Start Num: 170

Candidate Starts for Adgers_48:

(Start: 170 @44794 has 61 MA's), (186, 44755), (197, 44728), (220, 44677), (245, 44602), (251, 44587), (286, 44503), (314, 44428), (362, 44272), (384, 44224), (386, 44194), (413, 44092),

Gene: Ailee_83 Start: 57588, Stop: 58286, Start Num: 162

Candidate Starts for Ailee_83:

(6, 57051), (9, 57105), (Start: 57 @57276 has 1 MA's), (132, 57513), (144, 57537), (Start: 162 @57588 has 72 MA's), (183, 57636), (186, 57645), (191, 57657), (233, 57765), (255, 57825), (292, 57906), (298, 57921), (307, 57942), (353, 58074), (362, 58107), (383, 58149), (389, 58194), (396, 58227), (401, 58254), (408, 58275),

Gene: Amochick_68 Start: 45397, Stop: 46059, Start Num: 162

Candidate Starts for Amochick_68:

(38, 45019), (68, 45136), (82, 45181), (85, 45205), (103, 45256), (125, 45310), (Start: 153 @45385 has 18 MA's), (154, 45388), (Start: 162 @45397 has 72 MA's), (172, 45424), (245, 45598), (276, 45676), (278, 45682), (290, 45706), (298, 45715), (320, 45757), (351, 45841), (357, 45844), (364, 45877), (366, 45883), (370, 45889), (387, 45952), (395, 45988), (400, 46015), (403, 46030), (405, 46039),

Gene: Amore2_49 Start: 45293, Stop: 44574, Start Num: 170

Candidate Starts for Amore2_49:

(Start: 170 @45293 has 61 MA's), (186, 45254), (197, 45227), (203, 45194), (220, 45176), (245, 45101), (251, 45086), (254, 45077), (286, 45002), (314, 44927),

Gene: Amymech_67 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Amymech_67:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Anamika_46 Start: 46699, Stop: 45980, Start Num: 170

Candidate Starts for Anamika_46:

(Start: 170 @46699 has 61 MA's), (197, 46633), (220, 46582), (224, 46576), (251, 46492), (268, 46447), (286, 46408), (314, 46333), (319, 46324), (384, 46129),

Gene: Asapag_64 Start: 39261, Stop: 39899, Start Num: 160

Candidate Starts for Asapag_64:

(147, 39240), (Start: 160 @39261 has 15 MA's), (172, 39291), (198, 39345), (204, 39372), (255, 39474), (292, 39552), (364, 39705), (405, 39870),

Gene: Ashballer_72 Start: 44821, Stop: 43955, Start Num: 44

Candidate Starts for Ashballer_72:

(Start: 36 @44848 has 1 MA's), (42, 44827), (Start: 44 @44821 has 5 MA's), (Start: 52 @44794 has 3 MA's), (Start: 60 @44764 has 1 MA's), (61, 44761), (66, 44731), (70, 44722), (107, 44602), (200, 44494), (223, 44425), (252, 44350), (358, 44164), (369, 44134), (406, 43975),

Gene: Atcoo_62 Start: 41875, Stop: 42537, Start Num: 155

Candidate Starts for Atcoo_62:

(Start: 119 @41794 has 1 MA's), (122, 41803), (135, 41830), (Start: 155 @41875 has 9 MA's), (172, 41908), (198, 41962), (204, 41989), (237, 42049), (272, 42139), (277, 42151), (293, 42184), (364, 42349), (380, 42382), (386, 42418), (405, 42508),

Gene: Aubs_67 Start: 44345, Stop: 45295, Start Num: 137

Candidate Starts for Aubs_67:

(Start: 137 @44345 has 26 MA's), (165, 44447), (179, 44477), (184, 44498), (205, 44570), (215, 44594), (225, 44618), (233, 44648), (236, 44654), (257, 44720), (260, 44726), (278, 44774), (295, 44837), (303, 44867), (369, 45086), (375, 45092), (383, 45116), (384, 45119), (386, 45149), (389, 45161), (396, 45194), (402, 45230), (404, 45239), (407, 45251), (411, 45257), (415, 45269), (420, 45278),

Gene: Austin_49 Start: 45293, Stop: 44574, Start Num: 170

Candidate Starts for Austin_49:

(Start: 170 @45293 has 61 MA's), (197, 45227), (203, 45194), (220, 45176), (245, 45101), (251, 45086), (254, 45077), (286, 45002), (314, 44927),

Gene: Ayotoya_67 Start: 43566, Stop: 44279, Start Num: 162

Candidate Starts for Ayotoya_67:

(75, 43332), (118, 43461), (Start: 162 @43566 has 72 MA's), (172, 43593), (199, 43659), (293, 43884), (307, 43917), (324, 43971), (347, 44028), (361, 44079), (362, 44082), (380, 44121), (386, 44157),

Gene: Barb_61 Start: 44265, Stop: 45221, Start Num: 54

Candidate Starts for Barb_61:

(Start: 54 @44265 has 44 MA's), (78, 44361), (105, 44451), (212, 44721), (223, 44745), (239, 44790), (241, 44796), (297, 44895), (359, 45006), (382, 45060),

Gene: Barbochs_47 Start: 44538, Stop: 43816, Start Num: 170

Candidate Starts for Barbochs_47:

(Start: 170 @44538 has 61 MA's), (186, 44499), (197, 44472), (220, 44421), (245, 44346), (251, 44331), (286, 44247), (314, 44172), (362, 44016), (384, 43968), (386, 43938), (413, 43836),

Gene: Bartholomew_57 Start: 37622, Stop: 38488, Start Num: 120

Candidate Starts for Bartholomew_57:

(101, 37571), (103, 37586), (Start: 120 @37622 has 3 MA's), (Start: 160 @37721 has 15 MA's), (172, 37751), (189, 37784), (191, 37793), (203, 37841), (219, 37874), (244, 37943), (269, 38015), (281, 38039), (287, 38054), (348, 38225), (356, 38261), (379, 38327), (383, 38333), (401, 38438), (405, 38456),

Gene: Beaver_50 Start: 46308, Stop: 45586, Start Num: 170

Candidate Starts for Beaver_50:

(Start: 170 @46308 has 61 MA's), (186, 46269), (197, 46242), (220, 46191), (245, 46116), (251, 46101), (286, 46017), (314, 45942), (362, 45786), (384, 45738), (386, 45708), (413, 45606),

Gene: Benczkowski14_42 Start: 45651, Stop: 44935, Start Num: 170

Candidate Starts for Benczkowski14_42:

(Start: 170 @45651 has 61 MA's), (178, 45636), (220, 45534), (251, 45444), (253, 45438), (314, 45285), (333, 45222), (344, 45192), (403, 44970),

Gene: BenoitCattle_48 Start: 44738, Stop: 44016, Start Num: 170

Candidate Starts for BenoitCattle_48:

(Start: 170 @44738 has 61 MA's), (186, 44699), (197, 44672), (220, 44621), (245, 44546), (251, 44531), (286, 44447), (314, 44372), (362, 44216), (384, 44168), (386, 44138), (413, 44036),

Gene: Bernal13_60 Start: 41221, Stop: 41958, Start Num: 168

Candidate Starts for Bernal13_60:

(33, 40804), (103, 41062), (106, 41068), (Start: 168 @41221 has 7 MA's), (186, 41263), (209, 41335), (217, 41353), (265, 41479), (270, 41497), (318, 41611), (325, 41647), (342, 41692), (364, 41776), (368, 41785), (370, 41788), (378, 41797), (383, 41815), (410, 41947),

Gene: Berries_46 Start: 46670, Stop: 45951, Start Num: 170

Candidate Starts for Berries_46:

(Start: 170 @46670 has 61 MA's), (197, 46604), (220, 46553), (224, 46547), (251, 46463), (268, 46418), (286, 46379), (314, 46304), (384, 46100),

Gene: BetterKatz_66 Start: 42765, Stop: 43475, Start Num: 162

Candidate Starts for BetterKatz_66:

(75, 42531), (118, 42660), (Start: 162 @42765 has 72 MA's), (172, 42792), (199, 42858), (293, 43083), (307, 43116), (324, 43170), (347, 43227), (361, 43278), (362, 43281), (386, 43356),

Gene: Bianmat_46 Start: 46710, Stop: 45991, Start Num: 170

Candidate Starts for Bianmat_46:

(Start: 170 @46710 has 61 MA's), (197, 46644), (207, 46602), (220, 46593), (224, 46587), (251, 46503), (268, 46458), (284, 46425), (286, 46419), (314, 46344), (384, 46140),

Gene: Bibwit_83 Start: 56952, Stop: 57692, Start Num: 162

Candidate Starts for Bibwit_83:

(9, 56205), (40, 56574), (Start: 57 @56640 has 1 MA's), (132, 56877), (144, 56901), (Start: 162 @56952 has 72 MA's), (183, 57000), (186, 57009), (191, 57021), (255, 57213), (263, 57228), (288, 57288), (292, 57294), (293, 57297), (298, 57309), (300, 57315), (307, 57330), (347, 57441), (383, 57555), (386, 57588), (389, 57600), (396, 57633), (401, 57660), (408, 57681),

Gene: Big3_68 Start: 44998, Stop: 44108, Start Num: 36

Candidate Starts for Big3_68:

(13, 45160), (15, 45127), (31, 45037), (Start: 36 @44998 has 1 MA's), (46, 44968), (47, 44965), (61, 44911), (69, 44878), (76, 44857), (109, 44752), (116, 44731), (126, 44710), (128, 44704), (175, 44629), (186, 44599), (229, 44482), (239, 44449), (349, 44368), (362, 44302), (385, 44242), (395, 44185), (396, 44179), (400, 44158),

Gene: BigShaq_46 Start: 44743, Stop: 44021, Start Num: 170

Candidate Starts for BigShaq_46:

(Start: 170 @44743 has 61 MA's), (186, 44704), (197, 44677), (220, 44626), (245, 44551), (251, 44536), (286, 44452), (314, 44377), (362, 44221), (384, 44173), (386, 44143), (413, 44041),

Gene: BirksAndSocks_51 Start: 46658, Stop: 45936, Start Num: 170

Candidate Starts for BirksAndSocks_51:

(Start: 170 @46658 has 61 MA's), (186, 46619), (197, 46592), (220, 46541), (245, 46466), (251, 46451), (286, 46367), (314, 46292), (362, 46136), (384, 46088), (386, 46058), (413, 45956),

Gene: BlackSpider_65 Start: 37958, Stop: 38857, Start Num: 131

Candidate Starts for BlackSpider_65:

(2, 37145), (8, 37262), (10, 37301), (11, 37313), (21, 37547), (25, 37559), (74, 37790), (Start: 131 @37958 has 1 MA's), (138, 37967), (149, 38015), (163, 38063), (167, 38075), (188, 38129), (215, 38216), (303, 38489), (369, 38651), (383, 38681), (388, 38720), (389, 38726), (401, 38786), (407, 38816), (415, 38834), (420, 38843),

Gene: Blexus_65 Start: 44521, Stop: 45471, Start Num: 137

Candidate Starts for Blexus_65:

(Start: 137 @44521 has 26 MA's), (165, 44623), (179, 44653), (184, 44674), (205, 44746), (215, 44770), (225, 44794), (233, 44824), (236, 44830), (257, 44896), (260, 44902), (278, 44950), (295, 45013), (303, 45043), (369, 45262), (375, 45268), (383, 45292), (384, 45295), (386, 45325), (389, 45337), (396, 45370), (402, 45406), (404, 45415), (407, 45427), (411, 45433), (415, 45445), (420, 45454),

Gene: BobBob_87 Start: 57791, Stop: 58489, Start Num: 162

Candidate Starts for BobBob_87:

(9, 57044), (40, 57413), (Start: 57 @57479 has 1 MA's), (132, 57716), (144, 57740), (Start: 162 @57791 has 72 MA's), (183, 57839), (186, 57848), (191, 57860), (233, 57968), (255, 58028), (292, 58109), (298, 58124), (307, 58145), (353, 58277), (362, 58310), (383, 58352), (389, 58397), (396, 58430), (401, 58457), (408, 58478),

Gene: BobaPhett_71 Start: 46777, Stop: 47727, Start Num: 137

Candidate Starts for BobaPhett_71:

(Start: 137 @46777 has 26 MA's), (165, 46879), (179, 46909), (184, 46930), (205, 47002), (215, 47026), (225, 47050), (233, 47080), (236, 47086), (257, 47152), (260, 47158), (278, 47206), (295, 47269), (303, 47299), (369, 47518), (375, 47524), (383, 47548), (384, 47551), (386, 47581), (389, 47593), (396, 47626), (402, 47662), (404, 47671), (407, 47683), (411, 47689), (415, 47701), (420, 47710), (422, 47719),

Gene: Bock_68 Start: 43009, Stop: 43719, Start Num: 162

Candidate Starts for Bock_68:

(75, 42775), (118, 42904), (Start: 162 @43009 has 72 MA's), (172, 43036), (199, 43102), (293, 43327), (307, 43360), (324, 43414), (347, 43471), (361, 43522), (362, 43525), (386, 43600),

Gene: Boilgate_61 Start: 43556, Stop: 44494, Start Num: 54

Candidate Starts for Boilgate_61:

(49, 43532), (Start: 54 @43556 has 44 MA's), (Start: 60 @43583 has 1 MA's), (62, 43589), (63, 43595), (65, 43613), (78, 43652), (105, 43742), (115, 43763), (116, 43772), (117, 43775), (145, 43835), (Start: 155 @43853 has 9 MA's), (196, 43940), (200, 43952), (202, 43964), (223, 44021), (239, 44066), (293, 44141), (358, 44291), (369, 44321), (383, 44351), (387, 44387),

Gene: Boneham_50 Start: 46562, Stop: 45840, Start Num: 170

Candidate Starts for Boneham_50:

(Start: 170 @46562 has 61 MA's), (186, 46523), (197, 46496), (220, 46445), (245, 46370), (251, 46355), (286, 46271), (314, 46196), (383, 45995), (384, 45992), (413, 45860),

Gene: Bran_64 Start: 40159, Stop: 40923, Start Num: 157

Candidate Starts for Bran_64:

(Start: 157 @40159 has 2 MA's), (172, 40192), (191, 40234), (197, 40249), (201, 40261), (203, 40282), (219, 40315), (244, 40384), (265, 40441), (267, 40450), (269, 40456), (285, 40492), (315, 40573), (348, 40663), (352, 40672), (356, 40699), (360, 40726), (393, 40828), (396, 40849), (400, 40870), (416, 40915), (419, 40918),

Gene: Brandonk123_11 Start: 5315, Stop: 5971, Start Num: 160

Candidate Starts for Brandonk123_11:

(Start: 160 @5315 has 15 MA's), (192, 5387), (198, 5399), (204, 5426), (255, 5552), (292, 5627), (319, 5675), (343, 5732), (345, 5735), (360, 5780), (364, 5789),

Gene: Brandonk123_89 Start: 57956, Stop: 58654, Start Num: 162

Candidate Starts for Brandonk123_89:

(6, 57155), (9, 57209), (40, 57578), (Start: 57 @57644 has 1 MA's), (132, 57881), (144, 57905), (Start: 162 @57956 has 72 MA's), (175, 57989), (183, 58004), (191, 58025), (233, 58133), (255, 58193), (292, 58274), (298, 58289), (307, 58310), (353, 58442), (362, 58475), (383, 58517), (389, 58562), (396, 58595), (401, 58622), (408, 58643),

Gene: Breezic_46 Start: 44551, Stop: 43829, Start Num: 170

Candidate Starts for Breezic_46:

(Start: 170 @44551 has 61 MA's), (186, 44512), (197, 44485), (220, 44434), (245, 44359), (251, 44344), (286, 44260), (314, 44185), (362, 44029), (384, 43981), (386, 43951), (413, 43849),

Gene: BritBrat_76 Start: 47469, Stop: 48248, Start Num: 160

Candidate Starts for BritBrat_76:

(Start: 160 @47469 has 15 MA's), (175, 47505), (195, 47550), (201, 47562), (206, 47589), (244, 47703), (291, 47826), (313, 47892), (325, 47937), (328, 47940), (383, 48093), (408, 48222), (416, 48240),

Gene: Brujita_55 Start: 37346, Stop: 37996, Start Num: 162

Candidate Starts for Brujita_55:

(Start: 162 @37346 has 72 MA's), (242, 37532), (255, 37568), (263, 37583), (265, 37586), (319, 37694), (350, 37760), (366, 37814), (383, 37844), (405, 37967),

Gene: Brusacoram_62 Start: 40418, Stop: 41080, Start Num: 155

Candidate Starts for Brusacoram_62:

(Start: 119 @40337 has 1 MA's), (122, 40346), (135, 40373), (Start: 155 @40418 has 9 MA's), (172, 40451), (198, 40505), (204, 40532), (237, 40592), (272, 40682), (277, 40694), (293, 40727), (364, 40892), (380, 40925), (386, 40961), (405, 41051),

Gene: Brylie_66 Start: 42588, Stop: 43298, Start Num: 162

Candidate Starts for Brylie_66:

(75, 42354), (118, 42483), (Start: 162 @42588 has 72 MA's), (172, 42615), (199, 42681), (293, 42906), (307, 42939), (324, 42993), (347, 43050), (361, 43101), (362, 43104), (386, 43179),

Gene: Bubbles123_63 Start: 43534, Stop: 44484, Start Num: 137

Candidate Starts for Bubbles123_63:

(Start: 137 @43534 has 26 MA's), (165, 43636), (179, 43666), (184, 43687), (205, 43759), (215, 43783), (225, 43807), (233, 43837), (236, 43843), (257, 43909), (260, 43915), (278, 43963), (295,

44026), (303, 44056), (369, 44275), (375, 44281), (383, 44305), (384, 44308), (386, 44338), (389, 44350), (396, 44383), (402, 44419), (404, 44428), (407, 44440), (411, 44446), (415, 44458),

Gene: Burwell21_65 Start: 44099, Stop: 45049, Start Num: 137

Candidate Starts for Burwell21_65:

(Start: 137 @44099 has 26 MA's), (165, 44201), (179, 44231), (184, 44252), (205, 44324), (215, 44348), (225, 44372), (233, 44402), (236, 44408), (257, 44474), (260, 44480), (278, 44528), (295, 44591), (303, 44621), (369, 44840), (375, 44846), (383, 44870), (384, 44873), (386, 44903), (389, 44915), (396, 44948), (402, 44984), (404, 44993), (407, 45005), (411, 45011), (415, 45023), (420, 45032),

Gene: Butterball_50 Start: 46562, Stop: 45840, Start Num: 170

Candidate Starts for Butterball_50:

(Start: 170 @46562 has 61 MA's), (186, 46523), (197, 46496), (203, 46463), (220, 46445), (245, 46370), (251, 46355), (286, 46271), (314, 46196), (383, 45995), (384, 45992), (413, 45860),

Gene: ByChance_60 Start: 40119, Stop: 41069, Start Num: 137

Candidate Starts for ByChance_60:

(Start: 137 @40119 has 26 MA's), (165, 40221), (179, 40251), (184, 40272), (205, 40344), (215, 40368), (225, 40392), (233, 40422), (236, 40428), (257, 40494), (260, 40500), (278, 40548), (295, 40611), (303, 40641), (369, 40860), (375, 40866), (383, 40890), (384, 40893), (386, 40923), (389, 40935), (396, 40968), (402, 41004), (404, 41013), (407, 41025), (411, 41031), (415, 41043), (420, 41052), (422, 41061),

Gene: Cabrinians_68 Start: 44177, Stop: 45127, Start Num: 137

Candidate Starts for Cabrinians_68:

(Start: 137 @44177 has 26 MA's), (165, 44279), (179, 44309), (184, 44330), (205, 44402), (215, 44426), (225, 44450), (233, 44480), (236, 44486), (257, 44552), (260, 44558), (278, 44606), (295, 44669), (303, 44699), (369, 44918), (375, 44924), (383, 44948), (384, 44951), (386, 44981), (389, 44993), (396, 45026), (402, 45062), (404, 45071), (407, 45083), (411, 45089), (415, 45101), (420, 45110),

Gene: CaptainTrips_65 Start: 43912, Stop: 44862, Start Num: 137

Candidate Starts for CaptainTrips_65:

(Start: 137 @43912 has 26 MA's), (165, 44014), (179, 44044), (184, 44065), (205, 44137), (215, 44161), (225, 44185), (233, 44215), (236, 44221), (257, 44287), (260, 44293), (278, 44341), (295, 44404), (303, 44434), (369, 44653), (375, 44659), (383, 44683), (384, 44686), (386, 44716), (389, 44728), (396, 44761), (402, 44797), (404, 44806), (407, 44818), (411, 44824), (415, 44836), (420, 44845),

Gene: CathyBurgh_46 Start: 45128, Stop: 44406, Start Num: 170

Candidate Starts for CathyBurgh_46:

(Start: 170 @45128 has 61 MA's), (186, 45089), (197, 45062), (220, 45011), (245, 44936), (251, 44921), (286, 44837), (314, 44762), (362, 44606), (384, 44558), (386, 44528), (413, 44426),

Gene: Chancellor_71 Start: 43637, Stop: 44482, Start Num: 54

Candidate Starts for Chancellor_71:

(39, 43586), (Start: 54 @43637 has 44 MA's), (Start: 60 @43664 has 1 MA's), (65, 43694), (196, 43922), (200, 43934), (214, 43982), (239, 44048), (349, 44222), (372, 44300), (383, 44327), (388, 44366),

Gene: Charianelly_45 Start: 46420, Stop: 45701, Start Num: 170

Candidate Starts for Charianelly_45:

(Start: 170 @46420 has 61 MA's), (197, 46354), (207, 46312), (220, 46303), (224, 46297), (251, 46213), (268, 46168), (284, 46135), (286, 46129), (314, 46054), (384, 45850),

Gene: Che9d_76 Start: 43217, Stop: 43891, Start Num: 162

Candidate Starts for Che9d_76:

(89, 43040), (92, 43046), (97, 43055), (Start: 162 @43217 has 72 MA's), (172, 43244), (198, 43298), (218, 43346), (255, 43448), (264, 43463), (266, 43466), (333, 43619), (343, 43640), (345, 43643), (371, 43718), (386, 43772), (405, 43862),

Gene: Che9d_77 Start: 43923, Stop: 44576, Start Num: 162

Candidate Starts for Che9d_77:

(77, 43686), (79, 43698), (81, 43701), (87, 43734), (88, 43737), (91, 43740), (144, 43875), (Start: 162 @43923 has 72 MA's), (172, 43950), (198, 44004), (204, 44031), (248, 44124), (277, 44190), (293, 44223), (364, 44388), (380, 44421), (386, 44457), (391, 44475), (403, 44538), (405, 44547),

Gene: Cheetobro_71 Start: 43634, Stop: 44479, Start Num: 54

Candidate Starts for Cheetobro_71:

(39, 43583), (Start: 54 @43634 has 44 MA's), (Start: 60 @43661 has 1 MA's), (65, 43691), (196, 43919), (200, 43931), (214, 43979), (239, 44045), (349, 44219), (372, 44297), (383, 44324), (388, 44363),

Gene: Chelms_46 Start: 44743, Stop: 44021, Start Num: 170

Candidate Starts for Chelms_46:

(Start: 170 @44743 has 61 MA's), (197, 44677), (220, 44626), (245, 44551), (251, 44536), (286, 44452), (314, 44377), (362, 44221), (384, 44173), (386, 44143), (413, 44041),

Gene: Chop_68 Start: 43754, Stop: 44467, Start Num: 162

Candidate Starts for Chop_68:

(75, 43520), (118, 43649), (Start: 162 @43754 has 72 MA's), (172, 43781), (199, 43847), (293, 44072), (307, 44105), (324, 44159), (347, 44216), (361, 44267), (362, 44270), (380, 44309), (386, 44345),

Gene: ClamChowder_61 Start: 44265, Stop: 45221, Start Num: 54

Candidate Starts for ClamChowder_61:

(Start: 54 @44265 has 44 MA's), (78, 44361), (105, 44451), (212, 44721), (223, 44745), (239, 44790), (241, 44796), (297, 44895), (359, 45006), (382, 45060),

Gene: Clown_9 Start: 5559, Stop: 6242, Start Num: 159

Candidate Starts for Clown_9:

(139, 5499), (Start: 159 @5559 has 2 MA's), (190, 5628), (228, 5730), (235, 5751), (247, 5787), (274, 5847), (289, 5859), (298, 5883), (301, 5892), (331, 5964), (344, 6000), (346, 6003), (377, 6081), (392, 6162), (405, 6234),

Gene: Crumble_62 Start: 40074, Stop: 41024, Start Num: 137

Candidate Starts for Crumble_62:

(Start: 137 @40074 has 26 MA's), (165, 40176), (179, 40206), (184, 40227), (205, 40299), (215, 40323), (225, 40347), (233, 40377), (236, 40383), (257, 40449), (260, 40455), (278, 40503), (295, 40566), (303, 40596), (369, 40815), (375, 40821), (383, 40845), (384, 40848), (386, 40878), (389, 40890), (396, 40923), (402, 40959), (404, 40968), (407, 40980), (411, 40986), (415, 40998), (420, 41007), (422, 41016),

Gene: DLane_61 Start: 40914, Stop: 41870, Start Num: 54

Candidate Starts for DLane_61:

(Start: 54 @40914 has 44 MA's), (Start: 60 @40941 has 1 MA's), (70, 40983), (78, 41010), (84, 41034), (86, 41049), (105, 41100), (117, 41133), (164, 41211), (173, 41235), (187, 41271), (193, 41286), (200, 41307), (202, 41319), (223, 41376), (239, 41421), (283, 41484), (296, 41505), (349, 41607), (383, 41712),

Gene: DaWorst_67 Start: 43677, Stop: 44627, Start Num: 137

Candidate Starts for DaWorst_67:

(Start: 137 @43677 has 26 MA's), (165, 43779), (179, 43809), (184, 43830), (205, 43902), (215, 43926), (225, 43950), (233, 43980), (236, 43986), (257, 44052), (260, 44058), (278, 44106), (295, 44169), (303, 44199), (369, 44418), (375, 44424), (383, 44448), (384, 44451), (386, 44481), (389, 44493), (396, 44526), (402, 44562), (404, 44571), (407, 44583), (411, 44589), (415, 44601), (420, 44610),

Gene: DaddyRickover_77 Start: 47697, Stop: 48362, Start Num: 155

Candidate Starts for DaddyRickover_77:

(132, 47643), (Start: 155 @47697 has 9 MA's), (Start: 162 @47706 has 72 MA's), (164, 47712), (198, 47787), (204, 47814), (237, 47874), (272, 47964), (277, 47976), (293, 48009), (300, 48024), (364, 48174), (380, 48207), (386, 48243), (405, 48333),

Gene: Daegal_70 Start: 45947, Stop: 46621, Start Num: 153

Candidate Starts for Daegal_70:

(38, 45581), (55, 45638), (56, 45641), (68, 45698), (82, 45743), (85, 45767), (103, 45818), (125, 45872), (Start: 153 @45947 has 18 MA's), (154, 45950), (Start: 162 @45959 has 72 MA's), (172, 45986), (227, 46106), (245, 46160), (276, 46238), (278, 46244), (290, 46268), (298, 46277), (320, 46319), (351, 46403), (357, 46406), (364, 46439), (366, 46445), (370, 46451), (387, 46514), (395, 46550), (400, 46577), (403, 46592), (405, 46601),

Gene: Daenerys_73 Start: 47291, Stop: 47959, Start Num: 153

Candidate Starts for Daenerys_73:

(Start: 153 @47291 has 18 MA's), (172, 47330), (198, 47384), (204, 47411), (237, 47471), (272, 47561), (277, 47573), (293, 47606), (364, 47771), (380, 47804), (386, 47840), (405, 47930),

Gene: Dakiti_47 Start: 45611, Stop: 44889, Start Num: 170

Candidate Starts for Dakiti_47:

(Start: 170 @45611 has 61 MA's), (197, 45545), (220, 45494), (245, 45419), (251, 45404), (286, 45320), (314, 45245), (362, 45089), (384, 45041), (386, 45011), (413, 44909),

Gene: Damp_44 Start: 45584, Stop: 44865, Start Num: 170

Candidate Starts for Damp_44:

(Start: 170 @45584 has 61 MA's), (197, 45518), (220, 45467), (224, 45461), (251, 45377), (268, 45332), (286, 45293), (314, 45218), (384, 45014),

Gene: Danyall_60 Start: 44369, Stop: 45325, Start Num: 54

Candidate Starts for Danyall_60:

(24, 44243), (34, 44309), (Start: 54 @44369 has 44 MA's), (78, 44465), (105, 44555), (212, 44825), (223, 44849), (239, 44894), (241, 44900), (297, 44999), (359, 45110), (382, 45164),

Gene: DeepSoil15_67 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for DeepSoil15_67:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405,

45558),

Gene: DelRio_67 Start: 43775, Stop: 44485, Start Num: 162

Candidate Starts for DelRio_67:

(75, 43541), (118, 43670), (Start: 162 @43775 has 72 MA's), (172, 43802), (199, 43868), (293, 44093), (307, 44126), (324, 44180), (347, 44237), (361, 44288), (362, 44291), (380, 44330), (386, 44366),

Gene: Delrey21_89 Start: 60618, Stop: 61307, Start Num: 162

Candidate Starts for Delrey21_89:

(140, 60561), (Start: 162 @60618 has 72 MA's), (198, 60699), (310, 60993), (320, 61005), (374, 61143), (380, 61161), (395, 61236), (396, 61242),

Gene: Demosthenes_42 Start: 45591, Stop: 44875, Start Num: 170

Candidate Starts for Demosthenes_42:

(Start: 170 @45591 has 61 MA's), (178, 45576), (220, 45474), (251, 45384), (253, 45378), (314, 45225), (333, 45162), (344, 45132), (403, 44910),

Gene: Dewey_62 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Dewey_62:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Diabla_50 Start: 46492, Stop: 45770, Start Num: 170

Candidate Starts for Diabla_50:

(Start: 170 @46492 has 61 MA's), (186, 46453), (220, 46375), (245, 46300), (251, 46285), (286, 46201), (314, 46126), (384, 45922), (386, 45892), (413, 45790),

Gene: DillTech15_74 Start: 44613, Stop: 45275, Start Num: 155

Candidate Starts for DillTech15_74:

(Start: 119 @44532 has 1 MA's), (122, 44541), (135, 44568), (Start: 155 @44613 has 9 MA's), (172, 44646), (198, 44700), (204, 44727), (237, 44787), (272, 44877), (277, 44889), (293, 44922), (347, 45039), (364, 45087), (380, 45120), (386, 45156), (405, 45246),

Gene: DobbysSock_52 Start: 38487, Stop: 39110, Start Num: 160

Candidate Starts for DobbysSock_52:

(150, 38466), (Start: 160 @38487 has 15 MA's), (172, 38517), (198, 38571), (233, 38640), (256, 38688), (271, 38721), (309, 38790), (312, 38799), (360, 38904), (364, 38913), (405, 39078),

Gene: DocB7_036 Start: 37520, Stop: 36810, Start Num: 169

Candidate Starts for DocB7_036:

(169, 37520), (172, 37511), (186, 37478), (197, 37451), (199, 37442), (240, 37337), (251, 37310), (303, 37184), (314, 37154), (348, 37052), (395, 36881), (403, 36839), (408, 36827), (412, 36821),

Gene: DoctorFroggo_89 Start: 60618, Stop: 61307, Start Num: 162

Candidate Starts for DoctorFroggo_89:

(140, 60561), (Start: 162 @60618 has 72 MA's), (198, 60699), (310, 60993), (320, 61005), (374, 61143), (380, 61161), (395, 61236), (396, 61242),

Gene: Donkeykong_75 Start: 46725, Stop: 47396, Start Num: 162

Candidate Starts for Donkeykong_75:

(125, 46662), (154, 46716), (Start: 162 @46725 has 72 MA's), (164, 46731), (198, 46806), (258, 46956), (259, 46959), (280, 47007), (326, 47109), (343, 47145), (347, 47154), (364, 47208), (391, 47295), (405, 47367),

Gene: Doomphist_77 Start: 47104, Stop: 47772, Start Num: 153

Candidate Starts for Doomphist_77:

(Start: 153 @47104 has 18 MA's), (172, 47143), (198, 47197), (204, 47224), (237, 47284), (272, 47374), (277, 47386), (293, 47419), (364, 47584), (380, 47617), (386, 47653), (405, 47743),

Gene: Eggsie_46 Start: 44453, Stop: 43731, Start Num: 170

Candidate Starts for Eggsie_46:

(Start: 170 @44453 has 61 MA's), (186, 44414), (197, 44387), (203, 44354), (220, 44336), (245, 44261), (251, 44246), (286, 44162), (314, 44087), (362, 43931), (384, 43883), (386, 43853), (413, 43751),

Gene: Ein37_67 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Ein37_67:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Ekhein_47 Start: 44256, Stop: 43534, Start Num: 170

Candidate Starts for Ekhein_47:

(Start: 170 @44256 has 61 MA's), (186, 44217), (197, 44190), (220, 44139), (245, 44064), (251, 44049), (286, 43965), (314, 43890), (362, 43734), (384, 43686), (386, 43656), (413, 43554),

Gene: Emma_69 Start: 43700, Stop: 44650, Start Num: 137

Candidate Starts for Emma_69:

(Start: 137 @43700 has 26 MA's), (165, 43802), (179, 43832), (184, 43853), (205, 43925), (215, 43949), (225, 43973), (233, 44003), (236, 44009), (257, 44075), (260, 44081), (278, 44129), (295, 44192), (303, 44222), (311, 44240), (332, 44306), (369, 44441), (375, 44447), (383, 44471), (384, 44474), (386, 44504), (389, 44516), (396, 44549), (402, 44585), (404, 44594), (407, 44606), (411, 44612), (415, 44624), (420, 44633),

Gene: Empress_72 Start: 45915, Stop: 46583, Start Num: 153

Candidate Starts for Empress_72:

(Start: 153 @45915 has 18 MA's), (172, 45954), (198, 46008), (204, 46035), (237, 46095), (272, 46185), (277, 46197), (293, 46230), (364, 46395), (380, 46428), (386, 46464), (405, 46554),

Gene: Eponine_73 Start: 44480, Stop: 45325, Start Num: 54

Candidate Starts for Eponine_73:

(39, 44429), (Start: 54 @44480 has 44 MA's), (Start: 60 @44507 has 1 MA's), (65, 44537), (196, 44765), (200, 44777), (214, 44825), (239, 44891), (349, 45065), (372, 45143), (383, 45170), (388, 45209),

Gene: Estave1_72 Start: 46536, Stop: 47486, Start Num: 137

Candidate Starts for Estave1_72:

(Start: 137 @46536 has 26 MA's), (165, 46638), (179, 46668), (184, 46689), (205, 46761), (215, 46785), (225, 46809), (233, 46839), (236, 46845), (257, 46911), (260, 46917), (278, 46965), (295, 47028), (303, 47058), (369, 47277), (375, 47283), (383, 47307), (384, 47310), (386, 47340), (389,

47352), (396, 47385), (402, 47421), (404, 47430), (407, 47442), (411, 47448), (415, 47460), (420, 47469), (422, 47478),

Gene: Evanesce_66 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Evanesce_66:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Exiguo_46 Start: 44268, Stop: 43546, Start Num: 170

Candidate Starts for Exiguo_46:

(Start: 170 @44268 has 61 MA's), (186, 44229), (197, 44202), (220, 44151), (245, 44076), (251, 44061), (286, 43977), (314, 43902), (362, 43746), (384, 43698), (386, 43668), (413, 43566),

Gene: Fajezeel_69 Start: 43491, Stop: 42613, Start Num: 41

Candidate Starts for Fajezeel_69:

(Start: 41 @43491 has 1 MA's), (Start: 48 @43476 has 5 MA's), (Start: 52 @43455 has 3 MA's), (Start: 60 @43425 has 1 MA's), (61, 43422), (66, 43392), (70, 43383), (107, 43263), (200, 43155), (223, 43086), (252, 43011), (358, 42825), (369, 42795), (406, 42636),

Gene: Fancypants_70 Start: 44712, Stop: 45662, Start Num: 137

Candidate Starts for Fancypants_70:

(Start: 137 @44712 has 26 MA's), (165, 44814), (179, 44844), (184, 44865), (205, 44937), (215, 44961), (225, 44985), (233, 45015), (236, 45021), (257, 45087), (260, 45093), (278, 45141), (295, 45204), (303, 45234), (369, 45453), (375, 45459), (383, 45483), (384, 45486), (386, 45516), (389, 45528), (396, 45561), (402, 45597), (404, 45606), (407, 45618), (411, 45624), (415, 45636), (420, 45645),

Gene: Fastidio_66 Start: 41425, Stop: 42081, Start Num: 161

Candidate Starts for Fastidio_66:

(113, 41311), (161, 41425), (172, 41452), (198, 41506), (204, 41533), (237, 41593), (272, 41683), (277, 41695), (293, 41728), (347, 41845), (364, 41893), (380, 41926), (386, 41962), (405, 42052),

Gene: FelixAlejandro_51 Start: 46760, Stop: 46038, Start Num: 170

Candidate Starts for FelixAlejandro_51:

(Start: 170 @46760 has 61 MA's), (186, 46721), (197, 46694), (203, 46661), (220, 46643), (245, 46568), (251, 46553), (286, 46469), (314, 46394), (383, 46193), (384, 46190), (413, 46058),

Gene: Filuzino_64 Start: 41219, Stop: 42205, Start Num: 54

Candidate Starts for Filuzino_64:

(Start: 54 @41219 has 44 MA's), (Start: 60 @41246 has 1 MA's), (62, 41252), (70, 41288), (78, 41315), (84, 41339), (86, 41354), (105, 41405), (117, 41438), (126, 41456), (180, 41585), (187, 41609), (202, 41657), (223, 41714), (349, 41942), (358, 41987), (360, 41996), (383, 42047),

Gene: Fionnbharth_71 Start: 43878, Stop: 44723, Start Num: 54

Candidate Starts for Fionnbharth_71:

(39, 43827), (Start: 54 @43878 has 44 MA's), (Start: 60 @43905 has 1 MA's), (65, 43935), (196, 44163), (200, 44175), (214, 44223), (239, 44289), (349, 44463), (372, 44541), (383, 44568), (388, 44607),

Gene: Fitzgerald_83 Start: 58102, Stop: 58800, Start Num: 162

Candidate Starts for Fitzgerald_83:

(9, 57355), (40, 57724), (Start: 57 @57790 has 1 MA's), (132, 58027), (144, 58051), (Start: 162 @58102 has 72 MA's), (183, 58150), (186, 58159), (191, 58171), (233, 58279), (255, 58339), (292, 58420), (298, 58435), (307, 58456), (353, 58588), (362, 58621), (383, 58663), (389, 58708), (396, 58741), (401, 58768), (408, 58789),

Gene: Flakey_46 Start: 45132, Stop: 44410, Start Num: 170

Candidate Starts for Flakey_46:

(Start: 170 @45132 has 61 MA's), (186, 45093), (197, 45066), (220, 45015), (245, 44940), (251, 44925), (286, 44841), (314, 44766), (362, 44610), (384, 44562), (386, 44532), (413, 44430),

Gene: Flathead_72 Start: 45157, Stop: 46023, Start Num: 120

Candidate Starts for Flathead_72:

(90, 45073), (95, 45085), (Start: 120 @45157 has 3 MA's), (Start: 160 @45256 has 15 MA's), (172, 45286), (189, 45319), (191, 45328), (203, 45376), (219, 45409), (244, 45478), (269, 45550), (281, 45574), (287, 45589), (348, 45760), (356, 45796), (379, 45862), (383, 45868), (401, 45973), (405, 45991),

Gene: Forge_62 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Forge_62:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Fosterous_87 Start: 58250, Stop: 58948, Start Num: 162

Candidate Starts for Fosterous_87:

(132, 58175), (144, 58199), (Start: 162 @58250 has 72 MA's), (183, 58298), (186, 58307), (191, 58319), (233, 58427), (255, 58487), (292, 58568), (298, 58583), (307, 58604), (353, 58736), (362, 58769), (383, 58811), (389, 58856), (396, 58889), (401, 58916), (408, 58937),

Gene: Francois_66 Start: 42774, Stop: 43487, Start Num: 162

Candidate Starts for Francois_66:

(75, 42540), (118, 42669), (Start: 162 @42774 has 72 MA's), (172, 42801), (199, 42867), (245, 42975), (307, 43125), (324, 43179), (347, 43236), (361, 43287), (362, 43290), (367, 43302), (380, 43329), (383, 43332), (386, 43365), (408, 43458),

Gene: Frokostdame_67 Start: 43587, Stop: 44648, Start Num: 52

Candidate Starts for Frokostdame_67:

(Start: 52 @43587 has 3 MA's), (Start: 54 @43590 has 44 MA's), (78, 43686), (96, 43743), (105, 43776), (158, 43920), (194, 44010), (196, 44016), (202, 44040), (212, 44073), (223, 44097), (239, 44142), (241, 44148), (349, 44388), (359, 44436), (383, 44493), (394, 44559),

Gene: Fugax_62 Start: 44257, Stop: 45213, Start Num: 54

Candidate Starts for Fugax_62:

(Start: 54 @44257 has 44 MA's), (78, 44353), (105, 44443), (212, 44713), (223, 44737), (239, 44782), (241, 44788), (297, 44887), (359, 44998), (382, 45052),

Gene: GAL1_56 Start: 38270, Stop: 38929, Start Num: 160

Candidate Starts for GAL1_56:

(Start: 54 @37952 has 44 MA's), (58, 37976), (71, 38027), (81, 38060), (94, 38108), (112, 38156), (117, 38177), (146, 38240), (Start: 160 @38270 has 15 MA's), (198, 38354), (255, 38495), (292,

38573), (300, 38588), (319, 38621), (334, 38660), (337, 38663), (343, 38678), (347, 38687), (380, 38768), (395, 38843), (403, 38885), (405, 38900),

Gene: GMA1_63 Start: 37160, Stop: 38131, Start Num: 130

Candidate Starts for GMA1_63:

(Start: 130 @37160 has 3 MA's), (133, 37166), (148, 37220), (205, 37400), (222, 37439), (251, 37535), (279, 37634), (295, 37667), (303, 37697), (306, 37703), (402, 38075),

Gene: GMA7_38 Start: 39507, Stop: 38788, Start Num: 170

Candidate Starts for GMA7_38:

(Start: 170 @39507 has 61 MA's), (197, 39441), (203, 39408), (220, 39390), (245, 39315), (251, 39300), (254, 39291), (286, 39216), (314, 39141),

Gene: GTE7_37 Start: 39538, Stop: 38819, Start Num: 170

Candidate Starts for GTE7_37:

(Start: 170 @39538 has 61 MA's), (186, 39499), (197, 39472), (203, 39439), (220, 39421), (245, 39346), (251, 39331), (254, 39322), (286, 39247), (314, 39172),

Gene: GalacticEye_46 Start: 46382, Stop: 45663, Start Num: 170

Candidate Starts for GalacticEye_46:

(Start: 170 @46382 has 61 MA's), (197, 46316), (220, 46265), (224, 46259), (251, 46175), (268, 46130), (286, 46091), (314, 46016), (384, 45812),

Gene: Galadriel_11 Start: 4990, Stop: 5733, Start Num: 160

Candidate Starts for Galadriel_11:

(Start: 160 @4990 has 15 MA's), (185, 5050), (186, 5053), (199, 5089), (226, 5155), (243, 5200), (247, 5218), (249, 5224), (282, 5302), (308, 5362), (317, 5386), (321, 5395), (330, 5428), (347, 5467), (351, 5476), (363, 5536), (376, 5557), (381, 5575), (383, 5578), (391, 5629), (400, 5677),

Gene: Galadriel_86 Start: 58466, Stop: 59212, Start Num: 162

Candidate Starts for Galadriel_86:

(132, 58391), (144, 58415), (Start: 162 @58466 has 72 MA's), (183, 58514), (186, 58523), (191, 58535), (255, 58733), (263, 58748), (288, 58808), (292, 58814), (293, 58817), (298, 58829), (300, 58835), (307, 58850), (347, 58961), (383, 59075), (389, 59120), (396, 59153), (401, 59180), (408, 59201),

Gene: Gancho_66 Start: 44643, Stop: 45305, Start Num: 162

Candidate Starts for Gancho_66:

(51, 44301), (68, 44382), (82, 44427), (85, 44451), (103, 44502), (125, 44556), (Start: 153 @44631 has 18 MA's), (154, 44634), (Start: 162 @44643 has 72 MA's), (172, 44670), (245, 44844), (276, 44922), (277, 44925), (278, 44928), (290, 44952), (298, 44961), (320, 45003), (351, 45087), (357, 45090), (364, 45123), (366, 45129), (370, 45135), (387, 45198), (395, 45234), (400, 45261), (403, 45276), (405, 45285),

Gene: Geralt_67 Start: 45011, Stop: 45679, Start Num: 153

Candidate Starts for Geralt_67:

(Start: 153 @45011 has 18 MA's), (172, 45050), (198, 45104), (204, 45131), (237, 45191), (272, 45281), (277, 45293), (293, 45326), (364, 45491), (380, 45524), (386, 45560), (405, 45650),

Gene: Getalong_67 Start: 41639, Stop: 42277, Start Num: 160

Candidate Starts for Getalong_67:

(147, 41618), (Start: 160 @41639 has 15 MA's), (172, 41669), (198, 41723), (204, 41750), (255, 41852), (292, 41930), (364, 42083), (405, 42248),

Gene: Giles_62 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Giles_62:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Gorko_46 Start: 44260, Stop: 43538, Start Num: 170

Candidate Starts for Gorko_46:

(Start: 170 @44260 has 61 MA's), (186, 44221), (197, 44194), (220, 44143), (245, 44068), (251, 44053), (286, 43969), (314, 43894), (362, 43738), (384, 43690), (386, 43660), (413, 43558),

Gene: GourdThymes_46 Start: 45134, Stop: 44412, Start Num: 170

Candidate Starts for GourdThymes_46:

(Start: 170 @45134 has 61 MA's), (186, 45095), (197, 45068), (220, 45017), (245, 44942), (251, 44927), (286, 44843), (314, 44768), (362, 44612), (384, 44564), (386, 44534), (413, 44432),

Gene: GrandSlam_68 Start: 43754, Stop: 44467, Start Num: 162

Candidate Starts for GrandSlam_68:

(75, 43520), (118, 43649), (Start: 162 @43754 has 72 MA's), (172, 43781), (199, 43847), (293, 44072), (307, 44105), (324, 44159), (347, 44216), (361, 44267), (362, 44270), (380, 44309), (386, 44345),

Gene: Gravaillia_63 Start: 44924, Stop: 45586, Start Num: 162

Candidate Starts for Gravaillia_63:

(51, 44582), (68, 44663), (82, 44708), (85, 44732), (103, 44783), (125, 44837), (Start: 153 @44912 has 18 MA's), (154, 44915), (Start: 162 @44924 has 72 MA's), (172, 44951), (245, 45125), (276, 45203), (278, 45209), (290, 45233), (298, 45242), (320, 45284), (351, 45368), (357, 45371), (364, 45404), (366, 45410), (370, 45416), (387, 45479), (395, 45515), (400, 45542), (403, 45557), (405, 45566),

Gene: GrecoEtereo_68 Start: 43047, Stop: 42184, Start Num: 48

Candidate Starts for GrecoEtereo_68:

(Start: 41 @43062 has 1 MA's), (Start: 48 @43047 has 5 MA's), (Start: 52 @43026 has 3 MA's), (Start: 60 @42996 has 1 MA's), (61, 42993), (66, 42963), (70, 42954), (107, 42834), (200, 42726), (223, 42657), (252, 42582), (358, 42396), (369, 42366), (406, 42207),

Gene: Greg_69 Start: 43455, Stop: 42613, Start Num: 52

Candidate Starts for Greg_69:

(Start: 41 @43491 has 1 MA's), (Start: 48 @43476 has 5 MA's), (Start: 52 @43455 has 3 MA's), (Start: 60 @43425 has 1 MA's), (61, 43422), (66, 43392), (70, 43383), (107, 43263), (200, 43155), (223, 43086), (252, 43011), (358, 42825), (369, 42795), (406, 42636),

Gene: Gudmit_63 Start: 37864, Stop: 38583, Start Num: 160

Candidate Starts for Gudmit_63:

(Start: 160 @37864 has 15 MA's), (172, 37894), (186, 37924), (191, 37936), (263, 38116), (298, 38197), (307, 38218), (361, 38380), (367, 38395), (383, 38425), (410, 38554),

Gene: Guillaume_46 Start: 46432, Stop: 45713, Start Num: 170

Candidate Starts for Guillaume_46:

(Start: 170 @46432 has 61 MA's), (197, 46366), (220, 46315), (224, 46309), (251, 46225), (268, 46180), (286, 46141), (314, 46066), (319, 46057), (384, 45862),

Gene: HC_55 Start: 36568, Stop: 37686, Start Num: 29

Candidate Starts for HC_55:

(19, 36517), (23, 36532), (Start: 29 @36568 has 1 MA's), (Start: 54 @36679 has 44 MA's), (Start: 60 @36709 has 1 MA's), (78, 36778), (84, 36802), (86, 36817), (105, 36868), (117, 36901), (180, 37048), (187, 37072), (202, 37120), (223, 37177), (239, 37222), (329, 37384), (349, 37423), (383, 37528),

Gene: HH92_66 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for HH92_66:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Hadrien_66 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Hadrien_66:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Hail_62 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Hail_62:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Hail2Pitt_45 Start: 46908, Stop: 46189, Start Num: 170

Candidate Starts for Hail2Pitt_45:

(Start: 170 @46908 has 61 MA's), (197, 46842), (220, 46791), (224, 46785), (251, 46701), (268, 46656), (286, 46617), (314, 46542), (319, 46533), (384, 46338),

Gene: Hamood_68 Start: 43754, Stop: 44467, Start Num: 162

Candidate Starts for Hamood_68:

(75, 43520), (118, 43649), (Start: 162 @43754 has 72 MA's), (172, 43781), (199, 43847), (293, 44072), (307, 44105), (324, 44159), (347, 44216), (361, 44267), (362, 44270), (380, 44309), (386, 44345),

Gene: Hamulus_73 Start: 46052, Stop: 46708, Start Num: 162

Candidate Starts for Hamulus_73:

(105, 45920), (Start: 155 @46043 has 9 MA's), (Start: 162 @46052 has 72 MA's), (164, 46058), (198, 46133), (204, 46160), (237, 46220), (272, 46310), (277, 46322), (293, 46355), (300, 46370), (364, 46520), (380, 46553), (386, 46589), (405, 46679),

Gene: Harambe_46 Start: 46699, Stop: 45980, Start Num: 170

Candidate Starts for Harambe_46:

(Start: 170 @46699 has 61 MA's), (197, 46633), (220, 46582), (224, 46576), (251, 46492), (268, 46447), (284, 46414), (286, 46408), (314, 46333), (384, 46129),

Gene: HarryOW_66 Start: 43503, Stop: 42691, Start Num: 60

Candidate Starts for HarryOW_66:

(Start: 41 @43569 has 1 MA's), (Start: 48 @43554 has 5 MA's), (Start: 52 @43533 has 3 MA's), (Start: 60 @43503 has 1 MA's), (61, 43500), (66, 43470), (70, 43461), (107, 43341), (200, 43233), (223, 43164), (252, 43089), (358, 42903), (369, 42873), (406, 42714),

Gene: HayZem_48 Start: 45290, Stop: 44571, Start Num: 170

Candidate Starts for HayZem_48:

(Start: 170 @45290 has 61 MA's), (186, 45251), (197, 45224), (203, 45191), (220, 45173), (245, 45098), (251, 45083), (254, 45074), (286, 44999), (314, 44924),

Gene: Hegedechwinu_81 Start: 47355, Stop: 48155, Start Num: 155

Candidate Starts for Hegedechwinu_81:

(Start: 155 @47355 has 9 MA's), (Start: 157 @47358 has 2 MA's), (172, 47391), (189, 47424), (191, 47433), (203, 47481), (219, 47514), (244, 47583), (269, 47655), (281, 47679), (287, 47694), (348, 47865), (356, 47901), (379, 47967), (383, 47973), (401, 48078), (405, 48096), (421, 48126),

Gene: Hello_46 Start: 46661, Stop: 45942, Start Num: 170

Candidate Starts for Hello_46:

(Start: 170 @46661 has 61 MA's), (197, 46595), (220, 46544), (224, 46538), (251, 46454), (268, 46409), (286, 46370), (314, 46295), (384, 46091),

Gene: Holliday_69 Start: 42905, Stop: 43861, Start Num: 130

Candidate Starts for Holliday_69:

(Start: 130 @42905 has 3 MA's), (149, 42965), (167, 43025), (184, 43070), (205, 43142), (225, 43190), (236, 43226), (257, 43292), (260, 43298), (303, 43439), (338, 43550), (389, 43733), (407, 43823), (411, 43829),

Gene: Hollow_43 Start: 45997, Stop: 45281, Start Num: 170

Candidate Starts for Hollow_43:

(Start: 170 @45997 has 61 MA's), (178, 45982), (220, 45880), (251, 45790), (253, 45784), (314, 45631), (333, 45568), (344, 45538), (362, 45475), (403, 45316),

Gene: Hotorobo_46 Start: 45139, Stop: 44417, Start Num: 170

Candidate Starts for Hotorobo_46:

(Start: 170 @45139 has 61 MA's), (186, 45100), (197, 45073), (220, 45022), (245, 44947), (251, 44932), (286, 44848), (314, 44773), (362, 44617), (384, 44569), (386, 44539), (413, 44437),

Gene: Hyzer_73 Start: 48832, Stop: 49506, Start Num: 162

Candidate Starts for Hyzer_73:

(Start: 160 @48829 has 15 MA's), (Start: 162 @48832 has 72 MA's), (172, 48859), (198, 48913), (204, 48940), (242, 49021), (245, 49030), (292, 49132), (327, 49216), (364, 49318), (383, 49354), (396, 49432), (405, 49477),

Gene: Ibhubesi_66 Start: 42310, Stop: 42972, Start Num: 162

Candidate Starts for Ibhubesi_66:

(89, 42133), (92, 42139), (97, 42148), (136, 42253), (Start: 162 @42310 has 72 MA's), (198, 42391), (280, 42583), (309, 42643), (362, 42781), (364, 42784), (395, 42892), (403, 42934), (405, 42943),

Gene: Ibrahim_60 Start: 41425, Stop: 42162, Start Num: 168

Candidate Starts for Ibrahim_60:

(33, 41008), (103, 41266), (106, 41272), (Start: 168 @41425 has 7 MA's), (186, 41467), (209, 41539), (217, 41557), (265, 41683), (270, 41701), (318, 41815), (325, 41851), (342, 41896), (364, 41980), (368, 41989), (370, 41992), (378, 42001), (383, 42019), (410, 42151),

Gene: Inventum_72 Start: 45927, Stop: 46595, Start Num: 153

Candidate Starts for Inventum_72:

(Start: 153 @45927 has 18 MA's), (172, 45966), (198, 46020), (204, 46047), (237, 46107), (272, 46197), (277, 46209), (293, 46242), (364, 46407), (380, 46440), (386, 46476), (405, 46566),

Gene: Island3_55 Start: 37346, Stop: 37996, Start Num: 162

Candidate Starts for Island3_55:

(Start: 162 @37346 has 72 MA's), (242, 37532), (255, 37568), (263, 37583), (265, 37586), (319, 37694), (350, 37760), (366, 37814), (383, 37844), (405, 37967),

Gene: JF1_71 Start: 43844, Stop: 44689, Start Num: 54

Candidate Starts for JF1_71:

(Start: 54 @43844 has 44 MA's), (Start: 60 @43871 has 1 MA's), (65, 43901), (196, 44129), (200, 44141), (214, 44189), (239, 44255), (349, 44429), (372, 44507), (383, 44534), (388, 44573),

Gene: JKSyngboy_82 Start: 57242, Stop: 57988, Start Num: 160

Candidate Starts for JKSyngboy_82:

(9, 56504), (35, 56852), (132, 57170), (144, 57194), (Start: 160 @57242 has 15 MA's), (175, 57275), (183, 57290), (186, 57299), (191, 57311), (246, 57479), (255, 57509), (263, 57524), (292, 57590), (293, 57593), (298, 57605), (300, 57611), (307, 57626), (335, 57704), (383, 57851), (389, 57896), (403, 57965),

Gene: Jabberwocky_84 Start: 58563, Stop: 59261, Start Num: 162

Candidate Starts for Jabberwocky_84:

(9, 57816), (40, 58185), (Start: 57 @58251 has 1 MA's), (132, 58488), (144, 58512), (Start: 162 @58563 has 72 MA's), (183, 58611), (186, 58620), (191, 58632), (233, 58740), (255, 58800), (292, 58881), (298, 58896), (307, 58917), (353, 59049), (362, 59082), (383, 59124), (389, 59169), (396, 59202), (401, 59229), (408, 59250),

Gene: JalFarm20_88 Start: 49372, Stop: 50172, Start Num: 155

Candidate Starts for JalFarm20_88:

(Start: 155 @49372 has 9 MA's), (Start: 157 @49375 has 2 MA's), (172, 49408), (189, 49441), (191, 49450), (203, 49498), (219, 49531), (244, 49600), (269, 49672), (281, 49696), (287, 49711), (348, 49882), (356, 49918), (379, 49984), (383, 49990), (401, 50095), (405, 50113), (421, 50143),

Gene: JalFarm20_79 Start: 46369, Stop: 47022, Start Num: 162

Candidate Starts for JalFarm20_79:

(109, 46255), (Start: 162 @46369 has 72 MA's), (198, 46450), (204, 46477), (229, 46516), (255, 46588), (272, 46624), (293, 46669), (322, 46732), (362, 46831), (364, 46834), (380, 46867), (405, 46993),

Gene: Jams_46 Start: 45870, Stop: 45151, Start Num: 170

Candidate Starts for Jams_46:

(Start: 170 @45870 has 61 MA's), (197, 45804), (207, 45762), (220, 45753), (224, 45747), (251, 45663), (268, 45618), (284, 45585), (286, 45579), (314, 45504), (384, 45300),

Gene: Jacob_66 Start: 44101, Stop: 45051, Start Num: 137

Candidate Starts for Jacob_66:

(Start: 137 @44101 has 26 MA's), (165, 44203), (179, 44233), (184, 44254), (205, 44326), (215, 44350), (225, 44374), (233, 44404), (236, 44410), (257, 44476), (260, 44482), (278, 44530), (295, 44593), (303, 44623), (311, 44641), (332, 44707), (369, 44842), (375, 44848), (383, 44872), (386, 44905), (389, 44917), (396, 44950), (402, 44986), (404, 44995), (407, 45007), (411, 45013), (415, 45025), (420, 45034),

Gene: Jellybones_49 Start: 46241, Stop: 45519, Start Num: 170

Candidate Starts for Jellybones_49:

(Start: 170 @46241 has 61 MA's), (186, 46202), (197, 46175), (203, 46142), (220, 46124), (245, 46049), (251, 46034), (286, 45950), (314, 45875), (362, 45719), (384, 45671), (386, 45641), (413, 45539),

Gene: Jinkies_19 Start: 14524, Stop: 15195, Start Num: 162

Candidate Starts for Jinkies_19:

(121, 14434), (158, 14518), (Start: 162 @14524 has 72 MA's), (198, 14608), (204, 14635), (242, 14701), (265, 14752), (319, 14863), (364, 15013), (365, 15016), (380, 15046), (400, 15148), (403, 15163),

Gene: JoeyJr_74 Start: 46916, Stop: 47584, Start Num: 153

Candidate Starts for JoeyJr_74:

(Start: 153 @46916 has 18 MA's), (172, 46955), (198, 47009), (204, 47036), (237, 47096), (272, 47186), (277, 47198), (293, 47231), (364, 47396), (380, 47429), (386, 47465), (405, 47555),

Gene: John316_50 Start: 46297, Stop: 45575, Start Num: 170

Candidate Starts for John316_50:

(Start: 170 @46297 has 61 MA's), (186, 46258), (197, 46231), (220, 46180), (245, 46105), (251, 46090), (286, 46006), (314, 45931), (362, 45775), (384, 45727), (386, 45697), (413, 45595),

Gene: Jormungandr_46 Start: 46414, Stop: 45695, Start Num: 170

Candidate Starts for Jormungandr_46:

(Start: 170 @46414 has 61 MA's), (197, 46348), (220, 46297), (224, 46291), (251, 46207), (268, 46162), (286, 46123), (314, 46048), (319, 46039), (384, 45844),

Gene: Journey_58 Start: 36648, Stop: 37631, Start Num: 54

Candidate Starts for Journey_58:

(Start: 54 @36648 has 44 MA's), (Start: 60 @36675 has 1 MA's), (70, 36717), (105, 36834), (116, 36864), (181, 37020), (223, 37143), (239, 37188), (241, 37194), (262, 37236), (349, 37362), (359, 37410), (369, 37437),

Gene: Journey_57 Start: 35945, Stop: 36610, Start Num: 160

Candidate Starts for Journey_57:

(110, 35843), (114, 35852), (124, 35879), (Start: 160 @35945 has 15 MA's), (172, 35975), (198, 36029), (309, 36281), (364, 36422), (370, 36434), (380, 36455), (405, 36581),

Gene: Juice456_67 Start: 44325, Stop: 44978, Start Num: 162

Candidate Starts for Juice456_67:

(109, 44211), (Start: 162 @44325 has 72 MA's), (198, 44406), (204, 44433), (229, 44472), (255, 44544), (272, 44580), (293, 44625), (322, 44688), (362, 44787), (364, 44790), (380, 44823), (405, 44949),

Gene: JuliaChild_70 Start: 44385, Stop: 43519, Start Num: 44

Candidate Starts for JuliaChild_70:

(Start: 36 @44412 has 1 MA's), (42, 44391), (Start: 44 @44385 has 5 MA's), (Start: 60 @44328 has 1 MA's), (61, 44325), (66, 44295), (70, 44286), (107, 44166), (200, 44058), (223, 43989), (252, 43914), (358, 43728), (369, 43698), (406, 43539),

Gene: Juliette_73 Start: 43942, Stop: 44787, Start Num: 54

Candidate Starts for Juliette_73:

(39, 43891), (Start: 54 @43942 has 44 MA's), (Start: 60 @43969 has 1 MA's), (65, 43999), (196, 44227), (200, 44239), (214, 44287), (239, 44353), (349, 44527), (372, 44605), (383, 44632), (388, 44671),

Gene: Jung_56 Start: 37454, Stop: 38110, Start Num: 162

Candidate Starts for Jung_56:

(Start: 155 @37445 has 9 MA's), (Start: 162 @37454 has 72 MA's), (164, 37460), (198, 37535), (204, 37562), (237, 37622), (272, 37712), (277, 37724), (293, 37757), (364, 37922), (380, 37955), (386, 37991), (405, 38081), (417, 38102),

Gene: Juniormint_55 Start: 36637, Stop: 37290, Start Num: 155

Candidate Starts for Juniormint_55:

(Start: 119 @36556 has 1 MA's), (122, 36565), (135, 36592), (Start: 155 @36637 has 9 MA's), (172, 36670), (204, 36751), (237, 36811), (272, 36901), (277, 36913), (293, 36946), (364, 37111), (380, 37144), (386, 37180), (400, 37246), (405, 37270),

Gene: Juniper1_69 Start: 44073, Stop: 44747, Start Num: 162

Candidate Starts for Juniper1_69:

(142, 44025), (Start: 162 @44073 has 72 MA's), (172, 44100), (198, 44154), (218, 44202), (245, 44280), (255, 44304), (264, 44319), (266, 44322), (333, 44475), (343, 44496), (345, 44499), (371, 44574), (386, 44628), (405, 44718),

Gene: Juniper1_68 Start: 43088, Stop: 44041, Start Num: 54

Candidate Starts for Juniper1_68:

(17, 42911), (19, 42926), (37, 43031), (Start: 54 @43088 has 44 MA's), (Start: 60 @43115 has 1 MA's), (62, 43121), (65, 43145), (105, 43274), (109, 43283), (116, 43304), (223, 43541), (229, 43553), (232, 43565), (241, 43592), (275, 43646), (319, 43712), (324, 43745), (349, 43781), (383, 43886),

Gene: KSSJEB_67 Start: 42872, Stop: 42006, Start Num: 48

Candidate Starts for KSSJEB_67:

(Start: 41 @42887 has 1 MA's), (Start: 48 @42872 has 5 MA's), (Start: 52 @42851 has 3 MA's), (Start: 60 @42818 has 1 MA's), (61, 42815), (66, 42785), (70, 42776), (107, 42656), (200, 42548), (223, 42479), (252, 42404), (358, 42218), (369, 42188), (406, 42029),

Gene: Kamashten_10 Start: 5311, Stop: 6054, Start Num: 160

Candidate Starts for Kamashten_10:

(Start: 160 @5311 has 15 MA's), (185, 5371), (186, 5374), (199, 5410), (226, 5476), (243, 5521), (247, 5539), (249, 5545), (282, 5623), (308, 5683), (317, 5707), (321, 5716), (330, 5749), (347, 5788), (351, 5797), (363, 5857), (376, 5878), (381, 5896), (383, 5899), (391, 5950), (400, 5998),

Gene: Kamashten_86 Start: 58360, Stop: 59106, Start Num: 162

Candidate Starts for Kamashten_86:

(132, 58285), (144, 58309), (Start: 162 @58360 has 72 MA's), (183, 58408), (186, 58417), (191, 58429), (255, 58627), (263, 58642), (288, 58702), (292, 58708), (293, 58711), (298, 58723), (300, 58729), (307, 58744), (347, 58855), (383, 58969), (389, 59014), (396, 59047), (401, 59074), (408, 59095),

Gene: Kaseim_46 Start: 45855, Stop: 45136, Start Num: 170

Candidate Starts for Kaseim_46:

(Start: 170 @45855 has 61 MA's), (197, 45789), (207, 45747), (220, 45738), (224, 45732), (251, 45648), (268, 45603), (284, 45570), (286, 45564), (314, 45489), (384, 45285),

Gene: Katyusha_42 Start: 45651, Stop: 44935, Start Num: 170

Candidate Starts for Katyusha_42:

(Start: 170 @45651 has 61 MA's), (178, 45636), (220, 45534), (251, 45444), (253, 45438), (314, 45285), (333, 45222), (344, 45192), (403, 44970),

Gene: Keitabear_83 Start: 58873, Stop: 59571, Start Num: 162

Candidate Starts for Keitabear_83:

(9, 58126), (40, 58495), (Start: 57 @58561 has 1 MA's), (132, 58798), (144, 58822), (Start: 162 @58873 has 72 MA's), (183, 58921), (186, 58930), (191, 58942), (233, 59050), (255, 59110), (292, 59191), (298, 59206), (307, 59227), (353, 59359), (362, 59392), (383, 59434), (389, 59479), (396, 59512), (401, 59539), (408, 59560),

Gene: KimmyK_60 Start: 44699, Stop: 45655, Start Num: 54

Candidate Starts for KimmyK_60:

(Start: 54 @44699 has 44 MA's), (78, 44795), (105, 44885), (212, 45155), (223, 45179), (239, 45224), (241, 45230), (297, 45329), (359, 45440), (382, 45494),

Gene: Kinbote_65 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Kinbote_65:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: KingMidas_73 Start: 46330, Stop: 46998, Start Num: 153

Candidate Starts for KingMidas_73:

(Start: 153 @46330 has 18 MA's), (172, 46369), (198, 46423), (204, 46450), (237, 46510), (272, 46600), (277, 46612), (293, 46645), (364, 46810), (380, 46843), (386, 46879), (405, 46969),

Gene: Koella_61 Start: 40075, Stop: 41025, Start Num: 137

Candidate Starts for Koella_61:

(Start: 137 @40075 has 26 MA's), (165, 40177), (179, 40207), (184, 40228), (205, 40300), (215, 40324), (225, 40348), (233, 40378), (236, 40384), (257, 40450), (260, 40456), (278, 40504), (295, 40567), (303, 40597), (369, 40816), (375, 40822), (383, 40846), (384, 40849), (386, 40879), (389, 40891), (396, 40924), (402, 40960), (404, 40969), (407, 40981), (411, 40987), (415, 40999), (420, 41008),

Gene: KristaRAM_69 Start: 44694, Stop: 45347, Start Num: 162

Candidate Starts for KristaRAM_69:

(109, 44580), (Start: 162 @44694 has 72 MA's), (198, 44775), (204, 44802), (229, 44841), (255, 44913), (272, 44949), (293, 44994), (322, 45057), (362, 45156), (364, 45159), (380, 45192), (405, 45318),

Gene: Kvothe_42 Start: 45550, Stop: 44834, Start Num: 170

Candidate Starts for Kvothe_42:

(Start: 170 @45550 has 61 MA's), (178, 45535), (220, 45433), (251, 45343), (253, 45337), (314, 45184), (333, 45121), (344, 45091), (403, 44869),

Gene: Lahirium_46 Start: 46936, Stop: 46217, Start Num: 170

Candidate Starts for Lahirium_46:

(Start: 170 @46936 has 61 MA's), (197, 46870), (220, 46819), (224, 46813), (251, 46729), (268, 46684), (286, 46645), (314, 46570), (319, 46561), (384, 46366),

Gene: Lamina13_71 Start: 44833, Stop: 43967, Start Num: 44

Candidate Starts for Lamina13_71:

(Start: 36 @44860 has 1 MA's), (42, 44839), (Start: 44 @44833 has 5 MA's), (Start: 60 @44776 has 1 MA's), (61, 44773), (66, 44743), (70, 44734), (107, 44614), (200, 44506), (223, 44437), (252, 44362), (358, 44176), (369, 44146), (406, 43987),

Gene: Lennon_85 Start: 59303, Stop: 60049, Start Num: 162

Candidate Starts for Lennon_85:

(9, 58556), (40, 58925), (Start: 57 @58991 has 1 MA's), (132, 59228), (144, 59252), (Start: 162 @59303 has 72 MA's), (183, 59351), (186, 59360), (191, 59372), (255, 59570), (263, 59585), (288, 59645), (292, 59651), (293, 59654), (298, 59666), (300, 59672), (307, 59687), (347, 59798), (383, 59912), (389, 59957), (396, 59990), (401, 60017), (408, 60038),

Gene: Leperchaun_72 Start: 46150, Stop: 46818, Start Num: 153

Candidate Starts for Leperchaun_72:

(Start: 153 @46150 has 18 MA's), (172, 46189), (198, 46243), (204, 46270), (237, 46330), (272, 46420), (277, 46432), (293, 46465), (364, 46630), (380, 46663), (386, 46699), (405, 46789),

Gene: Lidong_46 Start: 46670, Stop: 45951, Start Num: 170

Candidate Starts for Lidong_46:

(Start: 170 @46670 has 61 MA's), (197, 46604), (207, 46562), (220, 46553), (224, 46547), (251, 46463), (268, 46418), (284, 46385), (286, 46379), (314, 46304), (384, 46100),

Gene: LilHazelnut_67 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for LilHazelnut_67:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Linetti_47 Start: 45752, Stop: 45030, Start Num: 170

Candidate Starts for Linetti_47:

(151, 45794), (Start: 170 @45752 has 61 MA's), (186, 45713), (197, 45686), (220, 45635), (245, 45560), (251, 45545), (286, 45461), (314, 45386), (362, 45230), (384, 45182), (386, 45152), (413, 45050),

Gene: LittleShirley_67 Start: 43146, Stop: 43808, Start Num: 162

Candidate Starts for LittleShirley_67:

(89, 42969), (Start: 162 @43146 has 72 MA's), (172, 43173), (198, 43227), (309, 43479), (364, 43620), (370, 43632), (380, 43653), (405, 43779),

Gene: LittleShirley_73 Start: 45098, Stop: 45754, Start Num: 162

Candidate Starts for LittleShirley_73:

(105, 44966), (Start: 155 @45089 has 9 MA's), (Start: 162 @45098 has 72 MA's), (164, 45104), (198, 45179), (204, 45206), (237, 45266), (272, 45356), (277, 45368), (293, 45401), (300, 45416), (364, 45566), (380, 45599), (386, 45635), (405, 45725),

Gene: Lizzo_46 Start: 45128, Stop: 44406, Start Num: 170

Candidate Starts for Lizzo_46:

(Start: 170 @45128 has 61 MA's), (186, 45089), (197, 45062), (220, 45011), (245, 44936), (251, 44921), (286, 44837), (314, 44762), (362, 44606), (384, 44558), (386, 44528), (413, 44426),

Gene: Love_91 Start: 59114, Stop: 59854, Start Num: 162

Candidate Starts for Love_91:

(132, 59039), (144, 59063), (Start: 162 @59114 has 72 MA's), (175, 59147), (183, 59162), (186, 59171), (191, 59183), (213, 59249), (255, 59375), (263, 59390), (292, 59456), (293, 59459), (298, 59471), (307, 59492), (347, 59603), (383, 59717), (389, 59762), (396, 59795), (401, 59822), (408, 59843),

Gene: Love_11 Start: 5310, Stop: 6053, Start Num: 160

Candidate Starts for Love_11:

(Start: 160 @5310 has 15 MA's), (185, 5370), (186, 5373), (199, 5409), (226, 5475), (243, 5520), (247, 5538), (249, 5544), (282, 5622), (308, 5682), (317, 5706), (321, 5715), (330, 5748), (347, 5787), (351, 5796), (363, 5856), (376, 5877), (381, 5895), (383, 5898), (391, 5949), (400, 5997),

Gene: Luke_66 Start: 44871, Stop: 45533, Start Num: 162

Candidate Starts for Luke_66:

(51, 44529), (68, 44610), (82, 44655), (85, 44679), (103, 44730), (125, 44784), (Start: 153 @44859 has 18 MA's), (154, 44862), (Start: 162 @44871 has 72 MA's), (172, 44898), (245, 45072), (276, 45150), (278, 45156), (290, 45180), (298, 45189), (320, 45231), (351, 45315), (357, 45318), (364, 45351), (366, 45357), (370, 45363), (387, 45426), (395, 45462), (400, 45489), (403, 45504), (405, 45513),

Gene: Luker_47 Start: 46889, Stop: 46170, Start Num: 170

Candidate Starts for Luker_47:

(Start: 170 @46889 has 61 MA's), (197, 46823), (220, 46772), (224, 46766), (251, 46682), (268, 46637), (286, 46598), (314, 46523), (384, 46319),

Gene: Luna22_62 Start: 44900, Stop: 45562, Start Num: 162

Candidate Starts for Luna22_62:

(51, 44558), (68, 44639), (82, 44684), (85, 44708), (103, 44759), (125, 44813), (Start: 153 @44888 has 18 MA's), (154, 44891), (Start: 162 @44900 has 72 MA's), (172, 44927), (245, 45101), (276, 45179), (278, 45185), (290, 45209), (298, 45218), (320, 45260), (351, 45344), (357, 45347), (364, 45380), (366, 45386), (370, 45392), (387, 45455), (395, 45491), (400, 45518), (403, 45533), (405, 45542),

Gene: Malisha_72 Start: 44709, Stop: 45665, Start Num: 130

Candidate Starts for Malisha_72:

(Start: 130 @44709 has 3 MA's), (205, 44946), (225, 44994), (233, 45024), (236, 45030), (242, 45051), (311, 45261), (386, 45525), (388, 45531), (389, 45537), (407, 45627),

Gene: Malthus_72 Start: 43630, Stop: 44475, Start Num: 54

Candidate Starts for Malthus_72:

(39, 43579), (Start: 54 @43630 has 44 MA's), (Start: 60 @43657 has 1 MA's), (65, 43687), (196, 43915), (200, 43927), (214, 43975), (239, 44041), (349, 44215), (372, 44293), (383, 44320), (388, 44359),

Gene: Mantra_63 Start: 41560, Stop: 42504, Start Num: 54

Candidate Starts for Mantra_63:

(Start: 54 @41560 has 44 MA's), (102, 41737), (105, 41746), (117, 41779), (156, 41854), (223, 42025), (239, 42070), (241, 42076), (282, 42133), (319, 42184), (349, 42244), (358, 42289), (362, 42304), (383, 42349),

Gene: Maravista_69 Start: 46025, Stop: 46975, Start Num: 137

Candidate Starts for Maravista_69:

(Start: 137 @46025 has 26 MA's), (165, 46127), (179, 46157), (184, 46178), (205, 46250), (215, 46274), (225, 46298), (233, 46328), (236, 46334), (257, 46400), (260, 46406), (278, 46454), (295, 46517), (303, 46547), (369, 46766), (375, 46772), (383, 46796), (384, 46799), (386, 46829), (389, 46841), (396, 46874), (402, 46910), (404, 46919), (407, 46931), (411, 46937), (415, 46949), (420, 46958),

Gene: Marchy_59 Start: 40436, Stop: 39594, Start Num: 52

Candidate Starts for Marchy_59:

(Start: 41 @40472 has 1 MA's), (Start: 48 @40457 has 5 MA's), (Start: 52 @40436 has 3 MA's), (Start: 60 @40406 has 1 MA's), (61, 40403), (66, 40373), (70, 40364), (107, 40244), (200, 40136), (223, 40067), (252, 39992), (358, 39806), (369, 39776), (406, 39617),

Gene: Marker_73 Start: 42811, Stop: 43545, Start Num: 162

Candidate Starts for Marker_73:

(93, 42634), (98, 42640), (100, 42649), (141, 42754), (Start: 162 @42811 has 72 MA's), (186, 42868), (189, 42871), (191, 42880), (199, 42904), (226, 42970), (243, 43015), (250, 43042), (253, 43048), (273, 43096), (282, 43117), (305, 43174), (308, 43177), (317, 43201), (325, 43237), (330, 43243), (341, 43270), (373, 43369), (383, 43393), (386, 43426), (405, 43516),

Gene: Mbo4_26 Start: 25859, Stop: 26965, Start Num: 54

Candidate Starts for Mbo4_26:

(Start: 54 @25859 has 44 MA's), (70, 25931), (105, 26048), (116, 26078), (128, 26105), (200, 26255), (223, 26324), (239, 26369), (293, 26525), (349, 26705), (359, 26753), (394, 26876), (400, 26909), (401, 26915), (409, 26942),

Gene: McKinley_88 Start: 58094, Stop: 58834, Start Num: 162

Candidate Starts for McKinley_88:

(6, 57293), (9, 57347), (40, 57716), (Start: 57 @57782 has 1 MA's), (132, 58019), (144, 58043), (Start: 162 @58094 has 72 MA's), (175, 58127), (183, 58142), (186, 58151), (191, 58163), (255, 58355), (263, 58370), (292, 58436), (293, 58439), (298, 58451), (307, 58472), (347, 58583), (383, 58697), (389, 58742), (396, 58775), (401, 58802), (408, 58823),

Gene: Megiddo_59 Start: 40265, Stop: 41059, Start Num: 160

Candidate Starts for Megiddo_59:

(Start: 160 @40265 has 15 MA's), (186, 40325), (191, 40337), (199, 40361), (215, 40412), (275, 40568), (294, 40610), (299, 40628), (325, 40709), (362, 40829), (364, 40832), (370, 40844), (385, 40886), (387, 40907), (389, 40916), (390, 40919), (398, 40955), (399, 40964), (414, 41009), (423, 41033),

Gene: Mendokysei_64 Start: 42338, Stop: 43075, Start Num: 168

Candidate Starts for Mendokysei_64:

(Start: 168 @42338 has 7 MA's), (175, 42356), (186, 42380), (209, 42452), (265, 42596), (318, 42728), (325, 42764), (342, 42809), (364, 42893), (370, 42905), (383, 42932),

Gene: MinionDave_66 Start: 44448, Stop: 45398, Start Num: 137

Candidate Starts for MinionDave_66:

(Start: 137 @44448 has 26 MA's), (165, 44550), (179, 44580), (184, 44601), (205, 44673), (215, 44697), (225, 44721), (233, 44751), (236, 44757), (257, 44823), (260, 44829), (278, 44877), (295, 44940), (303, 44970), (369, 45189), (375, 45195), (383, 45219), (384, 45222), (386, 45252), (389, 45264), (396, 45297), (402, 45333), (404, 45342), (407, 45354), (411, 45360), (415, 45372), (420, 45381),

Gene: Minos_47 Start: 46412, Stop: 45693, Start Num: 170

Candidate Starts for Minos_47:

(Start: 170 @46412 has 61 MA's), (197, 46346), (207, 46304), (220, 46295), (224, 46289), (251, 46205), (268, 46160), (284, 46127), (286, 46121), (314, 46046), (384, 45842),

Gene: MissDaisy_68 Start: 42544, Stop: 43389, Start Num: 54

Candidate Starts for MissDaisy_68:

(39, 42493), (Start: 54 @42544 has 44 MA's), (Start: 60 @42571 has 1 MA's), (65, 42601), (196, 42829), (200, 42841), (214, 42889), (239, 42955), (323, 43078), (349, 43129), (372, 43207), (383, 43234), (388, 43273), (412, 43372),

Gene: Mitti_71 Start: 43785, Stop: 44630, Start Num: 54

Candidate Starts for Mitti_71:

(39, 43734), (Start: 54 @43785 has 44 MA's), (Start: 60 @43812 has 1 MA's), (65, 43842), (196, 44070), (200, 44082), (214, 44130), (239, 44196), (349, 44370), (372, 44448), (383, 44475), (388, 44514),

Gene: Monty_45 Start: 44278, Stop: 43556, Start Num: 170

Candidate Starts for Monty_45:

(Start: 170 @44278 has 61 MA's), (186, 44239), (197, 44212), (220, 44161), (245, 44086), (251, 44071), (286, 43987), (314, 43912), (362, 43756), (384, 43708), (386, 43678), (413, 43576),

Gene: Moonbeam_66 Start: 43629, Stop: 44579, Start Num: 137

Candidate Starts for Moonbeam_66:

(Start: 137 @43629 has 26 MA's), (165, 43731), (179, 43761), (184, 43782), (205, 43854), (215, 43878), (225, 43902), (233, 43932), (236, 43938), (257, 44004), (260, 44010), (278, 44058), (295, 44121), (303, 44151), (311, 44169), (332, 44235), (369, 44370), (375, 44376), (383, 44400), (384, 44403), (386, 44433), (389, 44445), (396, 44478), (402, 44514), (404, 44523), (407, 44535), (411, 44541), (415, 44553), (420, 44562),

Gene: MoontowerMania_8 Start: 4709, Stop: 5452, Start Num: 160

Candidate Starts for MoontowerMania_8:

(Start: 160 @4709 has 15 MA's), (185, 4769), (186, 4772), (199, 4808), (226, 4874), (243, 4919), (247, 4937), (249, 4943), (282, 5021), (308, 5081), (317, 5105), (321, 5114), (330, 5147), (347, 5186), (351, 5195), (363, 5255), (376, 5276), (381, 5294), (383, 5297), (391, 5348), (400, 5396),

Gene: MrWormie_46 Start: 45573, Stop: 44854, Start Num: 170

Candidate Starts for MrWormie_46:

(Start: 170 @45573 has 61 MA's), (197, 45507), (207, 45465), (220, 45456), (224, 45450), (251, 45366), (268, 45321), (284, 45288), (286, 45282), (314, 45207), (384, 45003),

Gene: Msay19_51 Start: 46751, Stop: 46029, Start Num: 170

Candidate Starts for Msay19_51:

(Start: 170 @46751 has 61 MA's), (186, 46712), (197, 46685), (220, 46634), (245, 46559), (251, 46544), (286, 46460), (314, 46385), (362, 46229), (384, 46181), (386, 46151), (413, 46049),

Gene: Mulch_66 Start: 42588, Stop: 43298, Start Num: 162

Candidate Starts for Mulch_66:

(75, 42354), (118, 42483), (Start: 162 @42588 has 72 MA's), (172, 42615), (199, 42681), (293, 42906), (307, 42939), (324, 42993), (347, 43050), (361, 43101), (362, 43104), (386, 43179),

Gene: Nadeem_66 Start: 42576, Stop: 43286, Start Num: 162

Candidate Starts for Nadeem_66:

(75, 42342), (118, 42471), (Start: 162 @42576 has 72 MA's), (172, 42603), (199, 42669), (293, 42894), (307, 42927), (324, 42981), (347, 43038), (361, 43089), (362, 43092), (386, 43167),

Gene: Nairb_58 Start: 41222, Stop: 41959, Start Num: 168

Candidate Starts for Nairb_58:

(103, 41063), (106, 41069), (Start: 168 @41222 has 7 MA's), (186, 41264), (209, 41336), (217, 41354), (265, 41480), (270, 41498), (318, 41612), (325, 41648), (342, 41693), (364, 41777), (368, 41786), (370, 41789), (378, 41798), (383, 41816), (410, 41948),

Gene: NancyRae_65 Start: 42526, Stop: 43239, Start Num: 162

Candidate Starts for NancyRae_65:

(75, 42292), (118, 42421), (Start: 162 @42526 has 72 MA's), (172, 42553), (199, 42619), (293, 42844), (307, 42877), (324, 42931), (347, 42988), (361, 43039), (362, 43042), (386, 43117),

Gene: Natkenzie_89 Start: 59142, Stop: 59831, Start Num: 162

Candidate Starts for Natkenzie_89:

(56, 58827), (111, 59016), (127, 59061), (140, 59085), (Start: 162 @59142 has 72 MA's), (198, 59223), (211, 59274), (255, 59400), (273, 59439), (310, 59517), (320, 59529), (324, 59550), (342, 59586), (374, 59667),

Gene: Neoevie_46 Start: 46675, Stop: 45956, Start Num: 170

Candidate Starts for Neoevie_46:

(Start: 170 @46675 has 61 MA's), (197, 46609), (220, 46558), (224, 46552), (251, 46468), (268, 46423), (286, 46384), (314, 46309), (384, 46105),

Gene: Newt_47 Start: 46903, Stop: 46184, Start Num: 170

Candidate Starts for Newt_47:

(Start: 170 @46903 has 61 MA's), (197, 46837), (207, 46795), (220, 46786), (224, 46780), (251, 46696), (268, 46651), (284, 46618), (286, 46612), (314, 46537), (384, 46333),

Gene: Niagara_42 Start: 45629, Stop: 44913, Start Num: 170

Candidate Starts for Niagara_42:

(Start: 170 @45629 has 61 MA's), (178, 45614), (220, 45512), (251, 45422), (253, 45416), (314, 45263), (333, 45200), (344, 45170), (403, 44948),

Gene: Nimbo_66 Start: 45014, Stop: 45682, Start Num: 153

Candidate Starts for Nimbo_66:

(Start: 153 @45014 has 18 MA's), (172, 45053), (198, 45107), (204, 45134), (237, 45194), (272, 45284), (277, 45296), (293, 45329), (364, 45494), (380, 45527), (386, 45563), (405, 45653),

Gene: Nimi13_46 Start: 46421, Stop: 45702, Start Num: 170

Candidate Starts for Nimi13_46:

(Start: 170 @46421 has 61 MA's), (197, 46355), (207, 46313), (220, 46304), (224, 46298), (251, 46214), (268, 46169), (284, 46136), (286, 46130), (314, 46055), (384, 45851),

Gene: NormanBulbieJr_67 Start: 44088, Stop: 45038, Start Num: 137

Candidate Starts for NormanBulbieJr_67:

(Start: 137 @44088 has 26 MA's), (165, 44190), (179, 44220), (184, 44241), (205, 44313), (215, 44337), (225, 44361), (233, 44391), (236, 44397), (257, 44463), (260, 44469), (278, 44517), (295, 44580), (303, 44610), (369, 44829), (375, 44835), (383, 44859), (384, 44862), (386, 44892), (389, 44904), (396, 44937), (402, 44973), (404, 44982), (407, 44994), (411, 45000), (415, 45012), (420, 45021),

Gene: OBUpride_67 Start: 44912, Stop: 45574, Start Num: 162

Candidate Starts for OBUpride_67:

(51, 44570), (68, 44651), (82, 44696), (85, 44720), (103, 44771), (125, 44825), (Start: 153 @44900 has 18 MA's), (154, 44903), (Start: 162 @44912 has 72 MA's), (172, 44939), (245, 45113), (276, 45191), (278, 45197), (290, 45221), (298, 45230), (320, 45272), (351, 45356), (357, 45359), (364, 45392), (366, 45398), (370, 45404), (387, 45467), (395, 45503), (400, 45530), (403, 45545), (405, 45554),

Gene: Ogotogo_72 Start: 43150, Stop: 43812, Start Num: 162

Candidate Starts for Ogotogo_72:

(113, 43036), (Start: 162 @43150 has 72 MA's), (172, 43177), (198, 43231), (309, 43483), (364, 43624), (380, 43657), (405, 43783),

Gene: Ogotogo_78 Start: 45456, Stop: 46199, Start Num: 119

Candidate Starts for Ogotogo_78:

(Start: 119 @45456 has 1 MA's), (122, 45465), (135, 45492), (Start: 155 @45537 has 9 MA's), (172, 45570), (198, 45624), (204, 45651), (237, 45711), (272, 45801), (277, 45813), (293, 45846), (364, 46011), (380, 46044), (386, 46080), (405, 46170),

Gene: Oksu_70 Start: 45599, Stop: 46261, Start Num: 161

Candidate Starts for Oksu_70:

(45, 45245), (Start: 137 @45542 has 26 MA's), (161, 45599), (172, 45626), (198, 45680), (201, 45686), (204, 45707), (208, 45716), (216, 45725), (292, 45911), (300, 45926), (334, 45998), (339, 46007), (341, 46013), (345, 46019), (362, 46070), (364, 46073), (395, 46181), (405, 46232),

Gene: OldBen_71 Start: 46406, Stop: 47074, Start Num: 153

Candidate Starts for OldBen_71:

(Start: 153 @46406 has 18 MA's), (172, 46445), (198, 46499), (204, 46526), (237, 46586), (272, 46676), (277, 46688), (293, 46721), (364, 46886), (380, 46919), (386, 46955), (405, 47045),

Gene: OmniCritical_70 Start: 43718, Stop: 44563, Start Num: 54

Candidate Starts for OmniCritical_70:

(Start: 54 @43718 has 44 MA's), (Start: 60 @43745 has 1 MA's), (65, 43775), (196, 44003), (200, 44015), (214, 44063), (239, 44129), (349, 44303), (372, 44381), (383, 44408), (388, 44447),

Gene: PFR1_39 Start: 29215, Stop: 30003, Start Num: 162

Candidate Starts for PFR1_39:

(27, 28762), (32, 28789), (67, 28948), (Start: 160 @29212 has 15 MA's), (Start: 162 @29215 has 72 MA's), (172, 29242), (186, 29272), (191, 29284), (207, 29341), (209, 29344), (221, 29371), (272, 29515), (294, 29563), (299, 29581), (304, 29593), (325, 29662), (336, 29683), (352, 29722), (364, 29779), (385, 29833), (396, 29896), (397, 29899), (400, 29917),

Gene: PFR2_41 Start: 30784, Stop: 31572, Start Num: 162

Candidate Starts for PFR2_41:

(27, 30331), (32, 30358), (67, 30517), (Start: 160 @30781 has 15 MA's), (Start: 162 @30784 has 72 MA's), (172, 30811), (186, 30841), (191, 30853), (207, 30910), (209, 30913), (221, 30940), (272, 31084), (294, 31132), (299, 31150), (304, 31162), (325, 31231), (336, 31252), (352, 31291), (364,

31348), (385, 31402), (396, 31465), (397, 31468), (400, 31486),

Gene: PHappiness_74 Start: 47235, Stop: 47903, Start Num: 153

Candidate Starts for PHappiness_74:

(Start: 153 @47235 has 18 MA's), (172, 47274), (198, 47328), (204, 47355), (237, 47415), (272, 47505), (277, 47517), (293, 47550), (364, 47715), (380, 47748), (386, 47784), (405, 47874),

Gene: PSullivan_66 Start: 42452, Stop: 41586, Start Num: 44

Candidate Starts for PSullivan_66:

(Start: 36 @42479 has 1 MA's), (42, 42458), (Start: 44 @42452 has 5 MA's), (Start: 60 @42395 has 1 MA's), (61, 42392), (66, 42362), (70, 42353), (107, 42233), (200, 42125), (223, 42056), (252, 41981), (358, 41795), (369, 41765), (406, 41606),

Gene: Parada_66 Start: 42588, Stop: 43298, Start Num: 162

Candidate Starts for Parada_66:

(75, 42354), (118, 42483), (Start: 162 @42588 has 72 MA's), (172, 42615), (199, 42681), (293, 42906), (307, 42939), (324, 42993), (347, 43050), (361, 43101), (362, 43104), (386, 43179),

Gene: Paries_10 Start: 4991, Stop: 5734, Start Num: 160

Candidate Starts for Paries_10:

(Start: 160 @4991 has 15 MA's), (185, 5051), (186, 5054), (199, 5090), (226, 5156), (243, 5201), (247, 5219), (249, 5225), (282, 5303), (308, 5363), (317, 5387), (321, 5396), (330, 5429), (347, 5468), (351, 5477), (363, 5537), (376, 5558), (381, 5576), (383, 5579), (391, 5630), (400, 5678),

Gene: Patt_67 Start: 42268, Stop: 43113, Start Num: 54

Candidate Starts for Patt_67:

(39, 42217), (Start: 54 @42268 has 44 MA's), (Start: 60 @42295 has 1 MA's), (65, 42325), (196, 42553), (200, 42565), (214, 42613), (239, 42679), (349, 42853), (372, 42931), (383, 42958), (388, 42997), (396, 43036), (412, 43096),

Gene: PattyP_61 Start: 41484, Stop: 40504, Start Num: 53

Candidate Starts for PattyP_61:

(Start: 53 @41484 has 2 MA's), (72, 41406), (80, 41376), (200, 41055), (218, 41013), (231, 40959), (239, 40938), (243, 40929), (254, 40893), (333, 40782), (358, 40698), (360, 40689), (364, 40680), (377, 40659), (382, 40641), (386, 40605),

Gene: Payneful_64 Start: 43153, Stop: 42311, Start Num: 52

Candidate Starts for Payneful_64:

(Start: 41 @43189 has 1 MA's), (Start: 48 @43174 has 5 MA's), (Start: 52 @43153 has 3 MA's), (Start: 60 @43123 has 1 MA's), (61, 43120), (66, 43090), (70, 43081), (107, 42961), (200, 42853), (223, 42784), (252, 42709), (358, 42523), (369, 42493), (406, 42334),

Gene: Petra_69 Start: 42660, Stop: 43718, Start Num: 54

Candidate Starts for Petra_69:

(1, 41811), (7, 42207), (12, 42426), (14, 42438), (16, 42486), (26, 42534), (Start: 54 @42660 has 44 MA's), (78, 42756), (96, 42813), (105, 42846), (116, 42876), (158, 42990), (194, 43080), (212, 43143), (223, 43167), (232, 43191), (239, 43212), (241, 43218), (297, 43317), (359, 43506), (362, 43518),

Gene: Phalconet_64 Start: 40982, Stop: 41998, Start Num: 54

Candidate Starts for Phalconet_64:

(Start: 54 @40982 has 44 MA's), (Start: 60 @41009 has 1 MA's), (70, 41051), (78, 41078), (105, 41168), (109, 41177), (115, 41189), (116, 41198), (143, 41258), (187, 41354), (200, 41390), (202, 41402), (223, 41459), (239, 41504), (241, 41510), (349, 41735), (358, 41780), (383, 41840),

Gene: PhesterPhotato_76 Start: 45973, Stop: 46719, Start Num: 152

Candidate Starts for PhesterPhotato_76:

(152, 45973), (172, 46012), (189, 46045), (191, 46054), (226, 46144), (243, 46189), (250, 46216), (253, 46222), (273, 46270), (282, 46291), (308, 46351), (317, 46375), (325, 46411), (330, 46417), (341, 46444), (354, 46483), (383, 46567), (405, 46690),

Gene: Philon9_44 Start: 46927, Stop: 46214, Start Num: 170

Candidate Starts for Philon9_44:

(83, 47170), (Start: 170 @46927 has 61 MA's), (178, 46912), (220, 46810), (251, 46720), (314, 46561), (333, 46498), (344, 46468), (384, 46357), (386, 46327), (403, 46246),

Gene: PhorbesPhlower_52 Start: 33687, Stop: 34304, Start Num: 160

Candidate Starts for PhorbesPhlower_52:

(Start: 160 @33687 has 15 MA's), (186, 33747), (198, 33771), (233, 33840), (256, 33888), (271, 33921), (309, 33990), (312, 33999), (360, 34104), (364, 34113), (405, 34278),

Gene: PierreThree_46 Start: 45620, Stop: 44898, Start Num: 170

Candidate Starts for PierreThree_46:

(Start: 170 @45620 has 61 MA's), (186, 45581), (197, 45554), (220, 45503), (245, 45428), (251, 45413), (286, 45329), (314, 45254), (362, 45098), (384, 45050), (386, 45020), (413, 44918),

Gene: Pimento_70 Start: 42707, Stop: 43417, Start Num: 162

Candidate Starts for Pimento_70:

(75, 42473), (118, 42602), (Start: 162 @42707 has 72 MA's), (172, 42734), (199, 42800), (293, 43025), (307, 43058), (324, 43112), (347, 43169), (361, 43220), (362, 43223), (380, 43262), (386, 43298),

Gene: PinkCoffee_61 Start: 44274, Stop: 45227, Start Num: 54

Candidate Starts for PinkCoffee_61:

(Start: 54 @44274 has 44 MA's), (78, 44370), (105, 44460), (212, 44727), (223, 44751), (239, 44796), (241, 44802), (297, 44901), (359, 45012), (382, 45066),

Gene: Pippy_66 Start: 43387, Stop: 44337, Start Num: 137

Candidate Starts for Pippy_66:

(Start: 137 @43387 has 26 MA's), (165, 43489), (179, 43519), (184, 43540), (205, 43612), (215, 43636), (225, 43660), (233, 43690), (236, 43696), (257, 43762), (260, 43768), (278, 43816), (295, 43879), (303, 43909), (369, 44128), (375, 44134), (383, 44158), (384, 44161), (386, 44191), (389, 44203), (396, 44236), (402, 44272), (404, 44281), (407, 44293), (411, 44299), (415, 44311), (420, 44320), (422, 44329),

Gene: Pita2_70 Start: 43949, Stop: 43083, Start Num: 44

Candidate Starts for Pita2_70:

(Start: 36 @43976 has 1 MA's), (42, 43955), (Start: 44 @43949 has 5 MA's), (Start: 60 @43892 has 1 MA's), (61, 43889), (66, 43859), (70, 43850), (107, 43730), (200, 43622), (223, 43553), (252, 43478), (358, 43292), (369, 43262), (406, 43103),

Gene: Poenanya_77 Start: 47104, Stop: 47772, Start Num: 153

Candidate Starts for Poenanya_77:

(Start: 153 @47104 has 18 MA's), (172, 47143), (198, 47197), (204, 47224), (237, 47284), (272, 47374), (277, 47386), (293, 47419), (364, 47584), (380, 47617), (386, 47653), (405, 47743),

Gene: PokyPuppy_45 Start: 45563, Stop: 44841, Start Num: 170

Candidate Starts for PokyPuppy_45:

(Start: 170 @45563 has 61 MA's), (186, 45524), (203, 45464), (220, 45446), (245, 45371), (251, 45356), (286, 45272), (314, 45197), (362, 45041), (384, 44993), (386, 44963), (413, 44861),

Gene: Poland_53 Start: 46730, Stop: 46008, Start Num: 170

Candidate Starts for Poland_53:

(Start: 170 @46730 has 61 MA's), (186, 46691), (197, 46664), (220, 46613), (245, 46538), (251, 46523), (286, 46439), (314, 46364), (362, 46208), (384, 46160), (386, 46130), (413, 46028),

Gene: Polka14_78 Start: 47894, Stop: 48562, Start Num: 153

Candidate Starts for Polka14_78:

(Start: 153 @47894 has 18 MA's), (172, 47933), (198, 47987), (204, 48014), (237, 48074), (272, 48164), (277, 48176), (293, 48209), (364, 48374), (380, 48407), (386, 48443), (405, 48533),

Gene: Polkaroo_62 Start: 41192, Stop: 41851, Start Num: 157

Candidate Starts for Polkaroo_62:

(Start: 119 @41102 has 1 MA's), (122, 41111), (Start: 157 @41192 has 2 MA's), (172, 41222), (198, 41276), (204, 41303), (237, 41363), (272, 41453), (277, 41465), (293, 41498), (300, 41513), (364, 41663), (380, 41696), (386, 41732), (405, 41822),

Gene: Polkaroo_59 Start: 38517, Stop: 39569, Start Num: 54

Candidate Starts for Polkaroo_59:

(Start: 54 @38517 has 44 MA's), (Start: 60 @38544 has 1 MA's), (62, 38550), (70, 38586), (108, 38709), (109, 38712), (116, 38733), (166, 38886), (177, 38910), (182, 38928), (359, 39351), (383, 39408), (418, 39561),

Gene: PopTart_60 Start: 40607, Stop: 41515, Start Num: 54

Candidate Starts for PopTart_60:

(Start: 54 @40607 has 44 MA's), (Start: 60 @40634 has 1 MA's), (70, 40676), (78, 40703), (105, 40793), (109, 40802), (116, 40823), (223, 40976), (239, 41021), (241, 41027), (283, 41090), (349, 41252), (358, 41297), (383, 41357),

Gene: Priscilla_67 Start: 44187, Stop: 45137, Start Num: 137

Candidate Starts for Priscilla_67:

(Start: 137 @44187 has 26 MA's), (165, 44289), (179, 44319), (184, 44340), (205, 44412), (215, 44436), (225, 44460), (233, 44490), (236, 44496), (257, 44562), (260, 44568), (278, 44616), (295, 44679), (303, 44709), (369, 44928), (375, 44934), (383, 44958), (384, 44961), (386, 44991), (389, 45003), (396, 45036), (402, 45072), (404, 45081), (407, 45093), (411, 45099), (415, 45111), (420, 45120),

Gene: PullumCavea_58 Start: 44450, Stop: 45406, Start Num: 54

Candidate Starts for PullumCavea_58:

(24, 44324), (34, 44390), (Start: 54 @44450 has 44 MA's), (78, 44546), (105, 44636), (212, 44906), (223, 44930), (239, 44975), (241, 44981), (297, 45080), (359, 45191), (382, 45245),

Gene: QueenHazel_55 Start: 38490, Stop: 39401, Start Num: 54

Candidate Starts for QueenHazel_55:

(Start: 54 @38490 has 44 MA's), (Start: 60 @38517 has 1 MA's), (62, 38523), (70, 38559), (105, 38676), (115, 38697), (116, 38706), (117, 38709), (174, 38772), (200, 38808), (202, 38820), (210, 38841), (239, 38922), (333, 39108), (349, 39138), (383, 39243),

Gene: Ramsey_66 Start: 43916, Stop: 44866, Start Num: 137

Candidate Starts for Ramsey_66:

(Start: 137 @43916 has 26 MA's), (165, 44018), (179, 44048), (184, 44069), (205, 44141), (215, 44165), (225, 44189), (233, 44219), (236, 44225), (257, 44291), (260, 44297), (278, 44345), (295, 44408), (303, 44438), (369, 44657), (375, 44663), (383, 44687), (384, 44690), (386, 44720), (389, 44732), (396, 44765), (402, 44801), (404, 44810), (407, 44822), (411, 44828), (415, 44840), (420, 44849),

Gene: Rem711_72 Start: 44535, Stop: 45203, Start Num: 162

Candidate Starts for Rem711_72:

(30, 44103), (50, 44193), (Start: 57 @44235 has 1 MA's), (59, 44241), (64, 44256), (93, 44367), (142, 44487), (Start: 162 @44535 has 72 MA's), (172, 44562), (198, 44616), (319, 44898), (350, 44967), (395, 45120),

Gene: RemRem_47 Start: 44268, Stop: 43546, Start Num: 170

Candidate Starts for RemRem_47:

(Start: 170 @44268 has 61 MA's), (186, 44229), (197, 44202), (220, 44151), (245, 44076), (251, 44061), (286, 43977), (314, 43902), (362, 43746), (384, 43698), (386, 43668), (413, 43566),

Gene: Reptar3000_68 Start: 42257, Stop: 43102, Start Num: 54

Candidate Starts for Reptar3000_68:

(39, 42206), (Start: 54 @42257 has 44 MA's), (Start: 60 @42284 has 1 MA's), (65, 42314), (196, 42542), (200, 42554), (214, 42602), (239, 42668), (349, 42842), (372, 42920), (383, 42947), (388, 42986),

Gene: Rhynn_57 Start: 39880, Stop: 38906, Start Num: 53

Candidate Starts for Rhynn_57:

(Start: 53 @39880 has 2 MA's), (80, 39772), (114, 39727), (169, 39643), (218, 39520), (231, 39466), (243, 39436), (254, 39400), (316, 39241), (319, 39238), (333, 39184), (364, 39082), (383, 39040), (386, 39007),

Gene: Rialto_71 Start: 44794, Stop: 45717, Start Num: 54

Candidate Starts for Rialto_71:

(Start: 54 @44794 has 44 MA's), (Start: 60 @44821 has 1 MA's), (70, 44863), (105, 44980), (109, 44989), (116, 45010), (156, 45076), (200, 45112), (202, 45124), (223, 45181), (239, 45226), (241, 45232), (349, 45457), (350, 45460),

Gene: RitaG_74 Start: 47037, Stop: 47705, Start Num: 153

Candidate Starts for RitaG_74:

(Start: 153 @47037 has 18 MA's), (172, 47076), (198, 47130), (204, 47157), (237, 47217), (272, 47307), (277, 47319), (293, 47352), (364, 47517), (380, 47550), (386, 47586), (405, 47676),

Gene: Rofo_85 Start: 57833, Stop: 58579, Start Num: 162

Candidate Starts for Rofo_85:

(132, 57758), (144, 57782), (Start: 162 @57833 has 72 MA's), (183, 57881), (186, 57890), (191, 57902), (255, 58100), (263, 58115), (288, 58175), (292, 58181), (293, 58184), (298, 58196), (300, 58202), (307, 58217), (347, 58328), (383, 58442), (389, 58487), (396, 58520), (401, 58547), (408, 58568),

Gene: RogerDodger_62 Start: 44572, Stop: 45528, Start Num: 54

Candidate Starts for RogerDodger_62:

(24, 44446), (Start: 54 @44572 has 44 MA's), (78, 44668), (105, 44758), (212, 45028), (223, 45052), (239, 45097), (241, 45103), (297, 45202), (359, 45313), (382, 45367),

Gene: RonRayGun_60 Start: 41425, Stop: 42162, Start Num: 168

Candidate Starts for RonRayGun_60:

(33, 41008), (103, 41266), (106, 41272), (Start: 168 @41425 has 7 MA's), (186, 41467), (209, 41539), (217, 41557), (265, 41683), (270, 41701), (318, 41815), (325, 41851), (342, 41896), (364, 41980), (368, 41989), (370, 41992), (378, 42001), (383, 42019), (410, 42151),

Gene: RoyalG_47 Start: 45104, Stop: 44382, Start Num: 170

Candidate Starts for RoyalG_47:

(Start: 170 @45104 has 61 MA's), (186, 45065), (220, 44987), (245, 44912), (251, 44897), (286, 44813), (314, 44738), (384, 44534), (386, 44504), (413, 44402),

Gene: Ruthiejr_72 Start: 43729, Stop: 44574, Start Num: 54

Candidate Starts for Ruthiejr_72:

(Start: 54 @43729 has 44 MA's), (Start: 60 @43756 has 1 MA's), (65, 43786), (196, 44014), (200, 44026), (214, 44074), (239, 44140), (349, 44314), (372, 44392), (383, 44419), (388, 44458),

Gene: SG4_77 Start: 47569, Stop: 48366, Start Num: 157

Candidate Starts for SG4_77:

(Start: 155 @47566 has 9 MA's), (Start: 157 @47569 has 2 MA's), (172, 47602), (189, 47635), (191, 47644), (203, 47692), (219, 47725), (244, 47794), (269, 47866), (281, 47890), (287, 47905), (348, 48076), (356, 48112), (379, 48178), (383, 48184), (401, 48289), (405, 48307),

Gene: Sam12_46 Start: 44268, Stop: 43546, Start Num: 170

Candidate Starts for Sam12_46:

(Start: 170 @44268 has 61 MA's), (186, 44229), (197, 44202), (220, 44151), (245, 44076), (251, 44061), (286, 43977), (314, 43902), (362, 43746), (384, 43698), (386, 43668), (413, 43566),

Gene: SamScheppers_69 Start: 44109, Stop: 44954, Start Num: 54

Candidate Starts for SamScheppers_69:

(39, 44058), (Start: 54 @44109 has 44 MA's), (Start: 60 @44136 has 1 MA's), (65, 44166), (196, 44394), (200, 44406), (214, 44454), (239, 44520), (349, 44694), (372, 44772), (383, 44799), (388, 44838),

Gene: Sampson_91 Start: 59293, Stop: 59982, Start Num: 162

Candidate Starts for Sampson_91:

(56, 58978), (111, 59167), (127, 59212), (140, 59236), (Start: 162 @59293 has 72 MA's), (198, 59374), (211, 59425), (255, 59551), (273, 59590), (310, 59668), (320, 59680), (324, 59701), (342, 59737), (374, 59818),

Gene: Sanjuju_83 Start: 58188, Stop: 58886, Start Num: 162

Candidate Starts for Sanjuju_83:

(9, 57441), (40, 57810), (Start: 57 @57876 has 1 MA's), (132, 58113), (144, 58137), (Start: 162 @58188 has 72 MA's), (175, 58221), (183, 58236), (191, 58257), (233, 58365), (255, 58425), (292, 58506), (298, 58521), (307, 58542), (353, 58674), (362, 58707), (383, 58749), (389, 58794), (396, 58827), (401, 58854), (408, 58875),

Gene: Sassafras_75 Start: 45926, Stop: 46594, Start Num: 153

Candidate Starts for Sassafras_75:

(Start: 153 @45926 has 18 MA's), (172, 45965), (198, 46019), (204, 46046), (237, 46106), (272, 46196), (277, 46208), (293, 46241), (364, 46406), (380, 46439), (386, 46475), (405, 46565),

Gene: SassyB_60 Start: 40607, Stop: 41515, Start Num: 54

Candidate Starts for SassyB_60:

(Start: 54 @40607 has 44 MA's), (Start: 60 @40634 has 1 MA's), (70, 40676), (78, 40703), (105, 40793), (109, 40802), (116, 40823), (223, 40976), (239, 41021), (241, 41027), (283, 41090), (349, 41252), (358, 41297), (383, 41357),

Gene: Scioto_89 Start: 59143, Stop: 59832, Start Num: 162

Candidate Starts for Scioto_89:

(56, 58828), (111, 59017), (127, 59062), (140, 59086), (Start: 162 @59143 has 72 MA's), (198, 59224), (211, 59275), (255, 59401), (273, 59440), (310, 59518), (320, 59530), (324, 59551), (342, 59587), (374, 59668),

Gene: Scottish_72 Start: 45585, Stop: 46253, Start Num: 153

Candidate Starts for Scottish_72:

(Start: 153 @45585 has 18 MA's), (172, 45624), (198, 45678), (204, 45705), (237, 45765), (272, 45855), (277, 45867), (293, 45900), (364, 46065), (380, 46098), (386, 46134), (405, 46224),

Gene: Sedona_83 Start: 58685, Stop: 59383, Start Num: 162

Candidate Starts for Sedona_83:

(9, 57938), (40, 58307), (Start: 57 @58373 has 1 MA's), (132, 58610), (144, 58634), (Start: 162 @58685 has 72 MA's), (183, 58733), (186, 58742), (191, 58754), (233, 58862), (255, 58922), (292, 59003), (298, 59018), (307, 59039), (353, 59171), (362, 59204), (383, 59246), (389, 59291), (396, 59324), (401, 59351), (408, 59372),

Gene: Shelley_46 Start: 45897, Stop: 45178, Start Num: 170

Candidate Starts for Shelley_46:

(Start: 170 @45897 has 61 MA's), (197, 45831), (207, 45789), (220, 45780), (224, 45774), (251, 45690), (268, 45645), (284, 45612), (286, 45606), (314, 45531), (384, 45327),

Gene: ShowerHandel_68 Start: 44059, Stop: 45009, Start Num: 137

Candidate Starts for ShowerHandel_68:

(Start: 137 @44059 has 26 MA's), (165, 44161), (179, 44191), (184, 44212), (205, 44284), (215, 44308), (225, 44332), (233, 44362), (236, 44368), (257, 44434), (260, 44440), (278, 44488), (295, 44551), (303, 44581), (369, 44800), (375, 44806), (383, 44830), (384, 44833), (386, 44863), (389, 44875), (396, 44908), (402, 44944), (404, 44953), (407, 44965), (411, 44971), (415, 44983), (420, 44992), (422, 45001),

Gene: Sidious_64 Start: 44887, Stop: 45681, Start Num: 160

Candidate Starts for Sidious_64:

(Start: 155 @44884 has 9 MA's), (Start: 160 @44887 has 15 MA's), (207, 45019), (209, 45022), (221, 45049), (261, 45166), (325, 45340), (336, 45361), (364, 45457), (387, 45532), (396, 45574),

Gene: Sidious_65 Start: 45678, Stop: 46337, Start Num: 160

Candidate Starts for Sidious_65:

(Start: 160 @45678 has 15 MA's), (198, 45762), (244, 45873), (255, 45903), (292, 45981), (300, 45996), (343, 46086), (347, 46095), (405, 46308),

Gene: SimranZ1_67 Start: 43613, Stop: 44584, Start Num: 54

Candidate Starts for SimranZ1_67:

(17, 43436), (18, 43442), (19, 43451), (20, 43460), (28, 43499), (Start: 54 @43613 has 44 MA's), (73, 43697), (78, 43709), (105, 43799), (115, 43820), (116, 43829), (117, 43832), (143, 43889), (187, 43985), (200, 44021), (202, 44033), (214, 44069), (223, 44090), (232, 44114), (241, 44141), (305, 44249), (349, 44324),

Gene: Sitar_84 Start: 58707, Stop: 59453, Start Num: 162

Candidate Starts for Sitar_84:

(22, 58224), (Start: 57 @58395 has 1 MA's), (132, 58632), (144, 58656), (Start: 162 @58707 has 72 MA's), (183, 58755), (186, 58764), (191, 58776), (255, 58974), (263, 58989), (288, 59049), (292, 59055), (293, 59058), (298, 59070), (300, 59076), (307, 59091), (347, 59202), (383, 59316), (389, 59361), (396, 59394), (401, 59421), (408, 59442),

Gene: Slarp_71 Start: 43637, Stop: 44482, Start Num: 54

Candidate Starts for Slarp_71:

(39, 43586), (Start: 54 @43637 has 44 MA's), (Start: 60 @43664 has 1 MA's), (65, 43694), (196, 43922), (200, 43934), (214, 43982), (239, 44048), (349, 44222), (372, 44300), (383, 44327), (388, 44366),

Gene: Smooch_24 Start: 10992, Stop: 11792, Start Num: 155

Candidate Starts for Smooch_24:

(Start: 155 @10992 has 9 MA's), (Start: 157 @10995 has 2 MA's), (172, 11028), (189, 11061), (191, 11070), (203, 11118), (219, 11151), (244, 11220), (269, 11292), (281, 11316), (287, 11331), (348, 11502), (356, 11538), (379, 11604), (383, 11610), (401, 11715), (405, 11733), (421, 11763),

Gene: Sombrero_47 Start: 44639, Stop: 43917, Start Num: 170

Candidate Starts for Sombrero_47:

(Start: 170 @44639 has 61 MA's), (186, 44600), (197, 44573), (203, 44540), (220, 44522), (245, 44447), (251, 44432), (286, 44348), (314, 44273), (383, 44072), (384, 44069), (413, 43937),

Gene: Spikelee_74 Start: 45764, Stop: 46714, Start Num: 137

Candidate Starts for Spikelee_74:

(Start: 137 @45764 has 26 MA's), (165, 45866), (179, 45896), (184, 45917), (205, 45989), (215, 46013), (225, 46037), (233, 46067), (236, 46073), (257, 46139), (260, 46145), (278, 46193), (295, 46256), (303, 46286), (369, 46505), (375, 46511), (383, 46535), (384, 46538), (386, 46568), (389, 46580), (396, 46613), (402, 46649), (404, 46658), (407, 46670), (411, 46676), (415, 46688), (420, 46697),

Gene: Spooky_73 Start: 43405, Stop: 44088, Start Num: 159

Candidate Starts for Spooky_73:

(139, 43345), (Start: 159 @43405 has 2 MA's), (190, 43474), (228, 43576), (235, 43597), (247, 43633), (274, 43693), (289, 43705), (298, 43729), (301, 43738), (331, 43810), (344, 43846), (346, 43849), (377, 43927), (392, 44008), (405, 44080),

Gene: Squibbles_46 Start: 45131, Stop: 44409, Start Num: 170

Candidate Starts for Squibbles_46:

(Start: 170 @45131 has 61 MA's), (186, 45092), (197, 45065), (220, 45014), (245, 44939), (251, 44924), (286, 44840), (314, 44765), (362, 44609), (384, 44561), (386, 44531), (413, 44429),

Gene: Squiddly_65 Start: 43028, Stop: 43984, Start Num: 130

Candidate Starts for Squiddly_65:

(Start: 130 @43028 has 3 MA's), (149, 43088), (167, 43148), (184, 43193), (205, 43265), (225, 43313), (236, 43349), (257, 43415), (260, 43421), (302, 43559), (338, 43673), (375, 43787), (389, 43856), (407, 43946), (409, 43949), (422, 43976),

Gene: StAnnes_64 Start: 42680, Stop: 43636, Start Num: 54

Candidate Starts for StAnnes_64:

(Start: 54 @42680 has 44 MA's), (Start: 60 @42707 has 1 MA's), (62, 42713), (70, 42749), (105, 42866), (117, 42899), (164, 42977), (173, 43001), (187, 43037), (193, 43052), (200, 43073), (202, 43085), (223, 43142), (239, 43187), (283, 43250), (296, 43271), (349, 43373), (383, 43478),

Gene: SteveFrench_46 Start: 45344, Stop: 44622, Start Num: 170

Candidate Starts for SteveFrench_46:

(Start: 170 @45344 has 61 MA's), (186, 45305), (220, 45227), (245, 45152), (251, 45137), (286, 45053), (314, 44978), (384, 44774), (386, 44744), (413, 44642),

Gene: StevieRay_65 Start: 41652, Stop: 42314, Start Num: 155

Candidate Starts for StevieRay_65:

(Start: 155 @41652 has 9 MA's), (172, 41685), (198, 41739), (204, 41766), (237, 41826), (272, 41916), (277, 41928), (293, 41961), (364, 42126), (380, 42159), (386, 42195), (405, 42285),

Gene: Sticker17_46 Start: 46412, Stop: 45693, Start Num: 170

Candidate Starts for Sticker17_46:

(Start: 170 @46412 has 61 MA's), (197, 46346), (220, 46295), (224, 46289), (251, 46205), (268, 46160), (286, 46121), (314, 46046), (319, 46037), (384, 45842),

Gene: Stultus_80 Start: 56979, Stop: 57725, Start Num: 162

Candidate Starts for Stultus_80:

(Start: 162 @56979 has 72 MA's), (183, 57027), (186, 57036), (191, 57048), (255, 57246), (263, 57261), (288, 57321), (292, 57327), (293, 57330), (298, 57342), (300, 57348), (307, 57363), (347, 57474), (383, 57588), (386, 57621), (389, 57633), (396, 57666), (401, 57693), (408, 57714),

Gene: SwagPigglett_72 Start: 46406, Stop: 47356, Start Num: 137

Candidate Starts for SwagPigglett_72:

(Start: 137 @46406 has 26 MA's), (165, 46508), (179, 46538), (184, 46559), (205, 46631), (215, 46655), (225, 46679), (233, 46709), (236, 46715), (257, 46781), (260, 46787), (278, 46835), (295, 46898), (303, 46928), (332, 47012), (369, 47147), (375, 47153), (383, 47177), (384, 47180), (386, 47210), (389, 47222), (396, 47255), (402, 47291), (404, 47300), (407, 47312), (411, 47318), (415, 47330), (420, 47339),

Gene: Swole_68 Start: 43859, Stop: 42993, Start Num: 44

Candidate Starts for Swole_68:

(Start: 36 @43886 has 1 MA's), (42, 43865), (Start: 44 @43859 has 5 MA's), (Start: 60 @43802 has 1 MA's), (61, 43799), (66, 43769), (70, 43760), (107, 43640), (200, 43532), (223, 43463), (252, 43388), (358, 43202), (369, 43172), (406, 43013),

Gene: Taquito_70 Start: 43842, Stop: 44687, Start Num: 54

Candidate Starts for Taquito_70:

(39, 43791), (Start: 54 @43842 has 44 MA's), (Start: 60 @43869 has 1 MA's), (65, 43899), (196, 44127), (200, 44139), (214, 44187), (239, 44253), (349, 44427), (372, 44505), (383, 44532), (388, 44571),

Gene: Teal_46 Start: 46880, Stop: 46161, Start Num: 170

Candidate Starts for Teal_46:

(Start: 170 @46880 has 61 MA's), (197, 46814), (207, 46772), (220, 46763), (224, 46757), (251, 46673), (268, 46628), (284, 46595), (286, 46589), (314, 46514), (384, 46310),

Gene: Teatealatte_43 Start: 45553, Stop: 44837, Start Num: 170

Candidate Starts for Teatealatte_43:

(Start: 170 @45553 has 61 MA's), (178, 45538), (220, 45436), (251, 45346), (253, 45340), (314, 45187), (333, 45124), (344, 45094), (403, 44872),

Gene: Teech_43 Start: 45354, Stop: 44638, Start Num: 170

Candidate Starts for Teech_43:

(Start: 170 @45354 has 61 MA's), (178, 45339), (220, 45237), (251, 45147), (253, 45141), (314, 44988), (333, 44925), (344, 44895), (403, 44673),

Gene: Thespis_62 Start: 40418, Stop: 41080, Start Num: 155

Candidate Starts for Thespis_62:

(Start: 119 @40337 has 1 MA's), (122, 40346), (135, 40373), (Start: 155 @40418 has 9 MA's), (172, 40451), (198, 40505), (204, 40532), (237, 40592), (272, 40682), (277, 40694), (293, 40727), (364, 40892), (380, 40925), (386, 40961), (405, 41051),

Gene: Thing3_10 Start: 5311, Stop: 6054, Start Num: 160

Candidate Starts for Thing3_10:

(Start: 160 @5311 has 15 MA's), (185, 5371), (186, 5374), (199, 5410), (226, 5476), (243, 5521), (247, 5539), (249, 5545), (282, 5623), (308, 5683), (317, 5707), (321, 5716), (330, 5749), (347, 5788), (351, 5797), (363, 5857), (376, 5878), (381, 5896), (383, 5899), (391, 5950), (400, 5998),

Gene: Thing3_86 Start: 58360, Stop: 59106, Start Num: 162

Candidate Starts for Thing3_86:

(132, 58285), (144, 58309), (Start: 162 @58360 has 72 MA's), (183, 58408), (186, 58417), (191, 58429), (255, 58627), (263, 58642), (288, 58702), (292, 58708), (293, 58711), (298, 58723), (300, 58729), (307, 58744), (347, 58855), (383, 58969), (389, 59014), (396, 59047), (401, 59074), (408, 59095),

Gene: Tiamoceli_4 Start: 2479, Stop: 3267, Start Num: 57

Candidate Starts for Tiamoceli_4:

(Start: 57 @2479 has 1 MA's), (105, 2644), (178, 2791), (193, 2833), (229, 2935), (234, 2950), (349, 3043), (355, 3067), (402, 3259),

Gene: Tote_65 Start: 41126, Stop: 40260, Start Num: 44

Candidate Starts for Tote_65:

(Start: 36 @41153 has 1 MA's), (42, 41132), (Start: 44 @41126 has 5 MA's), (Start: 60 @41069 has 1 MA's), (61, 41066), (66, 41036), (70, 41027), (107, 40907), (200, 40799), (223, 40730), (252, 40655), (358, 40469), (369, 40439), (406, 40280),

Gene: Tredge_43 Start: 45553, Stop: 44837, Start Num: 170

Candidate Starts for Tredge_43:

(Start: 170 @45553 has 61 MA's), (178, 45538), (220, 45436), (251, 45346), (253, 45340), (314, 45187), (333, 45124), (344, 45094), (403, 44872),

Gene: TripleJ_61 Start: 37250, Stop: 37999, Start Num: 162

Candidate Starts for TripleJ_61:

(Start: 162 @37250 has 72 MA's), (171, 37274), (172, 37277), (189, 37310), (191, 37319), (197, 37334), (214, 37382), (230, 37415), (248, 37466), (263, 37499), (292, 37565), (298, 37580), (307, 37601), (324, 37655), (361, 37763), (362, 37766), (389, 37853),

Gene: Trouble_68 Start: 43948, Stop: 43082, Start Num: 48

Candidate Starts for Trouble_68:

(Start: 41 @43963 has 1 MA's), (Start: 48 @43948 has 5 MA's), (Start: 52 @43927 has 3 MA's), (Start: 60 @43894 has 1 MA's), (61, 43891), (66, 43861), (70, 43852), (107, 43732), (200, 43624), (223, 43555), (252, 43480), (358, 43294), (369, 43264), (406, 43105),

Gene: Tweety_66 Start: 43468, Stop: 44124, Start Num: 162

Candidate Starts for Tweety_66:

(89, 43291), (97, 43306), (99, 43315), (136, 43411), (Start: 162 @43468 has 72 MA's), (198, 43549), (204, 43576), (237, 43636), (272, 43726), (277, 43738), (293, 43771), (364, 43936), (380, 43969), (386, 44005), (403, 44086), (405, 44095),

Gene: Ubuntu_67 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Ubuntu_67:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: UmaThurman_67 Start: 42612, Stop: 43637, Start Num: 54

Candidate Starts for UmaThurman_67:

(4, 42123), (5, 42144), (7, 42156), (12, 42375), (14, 42387), (16, 42435), (Start: 54 @42612 has 44 MA's), (78, 42708), (96, 42765), (105, 42798), (116, 42828), (Start: 130 @42861 has 3 MA's), (158, 42942), (194, 43032), (196, 43038), (223, 43119), (241, 43170), (327, 43326), (359, 43425),

Gene: Utz_60 Start: 42126, Stop: 43184, Start Num: 54

Candidate Starts for Utz_60:

(12, 41889), (14, 41901), (16, 41949), (Start: 54 @42126 has 44 MA's), (78, 42222), (96, 42279), (105, 42312), (116, 42342), (158, 42456), (194, 42546), (210, 42597), (212, 42609), (223, 42633), (232, 42657), (239, 42678), (241, 42684), (359, 42972),

Gene: Vasanti_62 Start: 41618, Stop: 42619, Start Num: 54

Candidate Starts for Vasanti_62:

(3, 41102), (30, 41525), (43, 41585), (Start: 54 @41618 has 44 MA's), (73, 41702), (78, 41714), (96, 41771), (105, 41804), (116, 41834), (176, 41948), (212, 42044), (223, 42068), (239, 42113), (241, 42119), (297, 42218), (349, 42359), (359, 42407),

Gene: Venti_58 Start: 37622, Stop: 38488, Start Num: 120

Candidate Starts for Venti_58:

(101, 37571), (103, 37586), (Start: 120 @37622 has 3 MA's), (Start: 160 @37721 has 15 MA's), (172, 37751), (189, 37784), (191, 37793), (203, 37841), (219, 37874), (244, 37943), (269, 38015), (281, 38039), (287, 38054), (348, 38225), (356, 38261), (379, 38327), (383, 38333), (401, 38438), (405, 38456),

Gene: Verity_88 Start: 60390, Stop: 61079, Start Num: 162

Candidate Starts for Verity_88:

(140, 60333), (Start: 162 @60390 has 72 MA's), (198, 60471), (310, 60765), (320, 60777), (374, 60915), (380, 60933), (395, 61008), (396, 61014),

Gene: ViaConlectus_88 Start: 58070, Stop: 58717, Start Num: 162

Candidate Starts for ViaConlectus_88:

(104, 57944), (123, 57989), (134, 58013), (Start: 162 @58070 has 72 MA's), (198, 58151), (238, 58247), (255, 58292), (292, 58370), (300, 58385), (337, 58460), (347, 58484), (405, 58697),

Gene: Walrus_66 Start: 42197, Stop: 43261, Start Num: 54

Candidate Starts for Walrus_66:

(7, 41744), (12, 41963), (14, 41975), (16, 42023), (Start: 54 @42197 has 44 MA's), (78, 42293), (96, 42350), (105, 42383), (116, 42413), (158, 42527), (194, 42617), (212, 42680), (223, 42704), (239, 42749), (241, 42755), (297, 42854), (359, 43043),

Gene: Watermelon_68 Start: 43252, Stop: 42389, Start Num: 48

Candidate Starts for Watermelon_68:

(Start: 41 @43267 has 1 MA's), (Start: 48 @43252 has 5 MA's), (Start: 52 @43231 has 3 MA's), (Start: 60 @43201 has 1 MA's), (61, 43198), (66, 43168), (70, 43159), (107, 43039), (200, 42931), (223, 42862), (252, 42787), (358, 42601), (369, 42571), (406, 42412),

Gene: Webster2_67 Start: 44904, Stop: 45578, Start Num: 153

Candidate Starts for Webster2_67:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: WheatThin_65 Start: 42576, Stop: 43286, Start Num: 162

Candidate Starts for WheatThin_65:

(75, 42342), (118, 42471), (Start: 162 @42576 has 72 MA's), (172, 42603), (199, 42669), (293, 42894), (307, 42927), (324, 42981), (347, 43038), (361, 43089), (362, 43092), (386, 43167),

Gene: Wheeler_71 Start: 44519, Stop: 43659, Start Num: 48

Candidate Starts for Wheeler_71:

(Start: 41 @44534 has 1 MA's), (Start: 48 @44519 has 5 MA's), (Start: 52 @44498 has 3 MA's), (Start: 60 @44468 has 1 MA's), (61, 44465), (66, 44435), (70, 44426), (107, 44306), (200, 44198), (223, 44129), (252, 44054), (358, 43868), (369, 43838), (406, 43679),

Gene: Whitty_59 Start: 41222, Stop: 41959, Start Num: 168

Candidate Starts for Whitty_59:

(33, 40805), (103, 41063), (106, 41069), (Start: 168 @41222 has 7 MA's), (186, 41264), (209, 41336), (217, 41354), (265, 41480), (270, 41498), (318, 41612), (325, 41648), (342, 41693), (364, 41777), (368, 41786), (370, 41789), (378, 41798), (383, 41816), (410, 41948),

Gene: Whouxphf_64 Start: 43966, Stop: 44916, Start Num: 137

Candidate Starts for Whouxphf_64:

(Start: 137 @43966 has 26 MA's), (165, 44068), (179, 44098), (184, 44119), (205, 44191), (215, 44215), (225, 44239), (233, 44269), (236, 44275), (257, 44341), (260, 44347), (278, 44395), (295, 44458), (303, 44488), (369, 44707), (375, 44713), (383, 44737), (384, 44740), (386, 44770), (389, 44782), (396, 44815), (402, 44851), (404, 44860), (407, 44872), (411, 44878), (415, 44890), (420, 44899),

Gene: Wintermute_71 Start: 43867, Stop: 44712, Start Num: 54

Candidate Starts for Wintermute_71:

(39, 43816), (Start: 54 @43867 has 44 MA's), (Start: 60 @43894 has 1 MA's), (65, 43924), (196, 44152), (200, 44164), (214, 44212), (239, 44278), (349, 44452), (372, 44530), (383, 44557), (388, 44596),

Gene: Wishmaker_62 Start: 44916, Stop: 45578, Start Num: 162

Candidate Starts for Wishmaker_62:

(51, 44574), (68, 44655), (82, 44700), (85, 44724), (103, 44775), (125, 44829), (Start: 153 @44904 has 18 MA's), (154, 44907), (Start: 162 @44916 has 72 MA's), (172, 44943), (245, 45117), (276, 45195), (278, 45201), (290, 45225), (298, 45234), (320, 45276), (351, 45360), (357, 45363), (364, 45396), (366, 45402), (370, 45408), (387, 45471), (395, 45507), (400, 45534), (403, 45549), (405, 45558),

Gene: Woes_46 Start: 46931, Stop: 46212, Start Num: 170

Candidate Starts for Woes_46:

(Start: 170 @46931 has 61 MA's), (197, 46865), (220, 46814), (224, 46808), (251, 46724), (268, 46679), (286, 46640), (314, 46565), (384, 46361),

Gene: Xula_54 Start: 38111, Stop: 39022, Start Num: 54

Candidate Starts for Xula_54:

(Start: 54 @38111 has 44 MA's), (Start: 60 @38138 has 1 MA's), (62, 38144), (70, 38180), (105, 38297), (115, 38318), (116, 38327), (117, 38330), (174, 38393), (200, 38429), (202, 38441), (210, 38462), (239, 38543), (333, 38729), (349, 38759), (383, 38864),

Gene: Y10_68 Start: 43844, Stop: 44689, Start Num: 54

Candidate Starts for Y10_68:

(Start: 54 @43844 has 44 MA's), (Start: 60 @43871 has 1 MA's), (65, 43901), (196, 44129), (200, 44141), (214, 44189), (239, 44255), (349, 44429), (372, 44507), (383, 44534), (388, 44573),

Gene: Y2_68 Start: 43844, Stop: 44689, Start Num: 54

Candidate Starts for Y2_68:

(Start: 54 @43844 has 44 MA's), (Start: 60 @43871 has 1 MA's), (65, 43901), (196, 44129), (200, 44141), (214, 44189), (239, 44255), (349, 44429), (372, 44507), (383, 44534), (388, 44573),

Gene: Yorick_66 Start: 44206, Stop: 45156, Start Num: 137

Candidate Starts for Yorick_66:

(Start: 137 @44206 has 26 MA's), (165, 44308), (179, 44338), (184, 44359), (205, 44431), (215, 44455), (225, 44479), (233, 44509), (236, 44515), (257, 44581), (260, 44587), (278, 44635), (295, 44698), (303, 44728), (369, 44947), (375, 44953), (383, 44977), (384, 44980), (386, 45010), (389, 45022), (396, 45055), (402, 45091), (404, 45100), (407, 45112), (411, 45118), (415, 45130), (420, 45139),

Gene: ZenTime222_66 Start: 42173, Stop: 42910, Start Num: 168

Candidate Starts for ZenTime222_66:

(33, 41756), (103, 42014), (106, 42020), (Start: 168 @42173 has 7 MA's), (186, 42215), (209, 42287), (217, 42305), (265, 42431), (270, 42449), (318, 42563), (325, 42599), (342, 42644), (364, 42728), (368, 42737), (370, 42740), (378, 42749), (383, 42767), (410, 42899),

Gene: Zipp_89 Start: 60361, Stop: 61050, Start Num: 162

Candidate Starts for Zipp_89:

(140, 60304), (Start: 162 @60361 has 72 MA's), (198, 60442), (310, 60736), (320, 60748), (374, 60886), (380, 60904), (395, 60979), (396, 60985),

Gene: Zizzle_71 Start: 45692, Stop: 46642, Start Num: 137

Candidate Starts for Zizzle_71:

(Start: 137 @45692 has 26 MA's), (165, 45794), (179, 45824), (184, 45845), (205, 45917), (215, 45941), (225, 45965), (233, 45995), (236, 46001), (257, 46067), (260, 46073), (278, 46121), (295, 46184), (303, 46214), (369, 46433), (375, 46439), (383, 46463), (384, 46466), (386, 46496), (389, 46508), (396, 46541), (402, 46577), (404, 46586), (407, 46598), (411, 46604), (415, 46616), (420, 46625), (422, 46634),

Gene: Zucker_72 Start: 42192, Stop: 43091, Start Num: 131

Candidate Starts for Zucker_72:

(21, 41781), (25, 41793), (74, 42024), (Start: 131 @42192 has 1 MA's), (138, 42201), (163, 42297), (167, 42309), (188, 42363), (242, 42531), (383, 42915), (388, 42954), (389, 42960), (407, 43050),