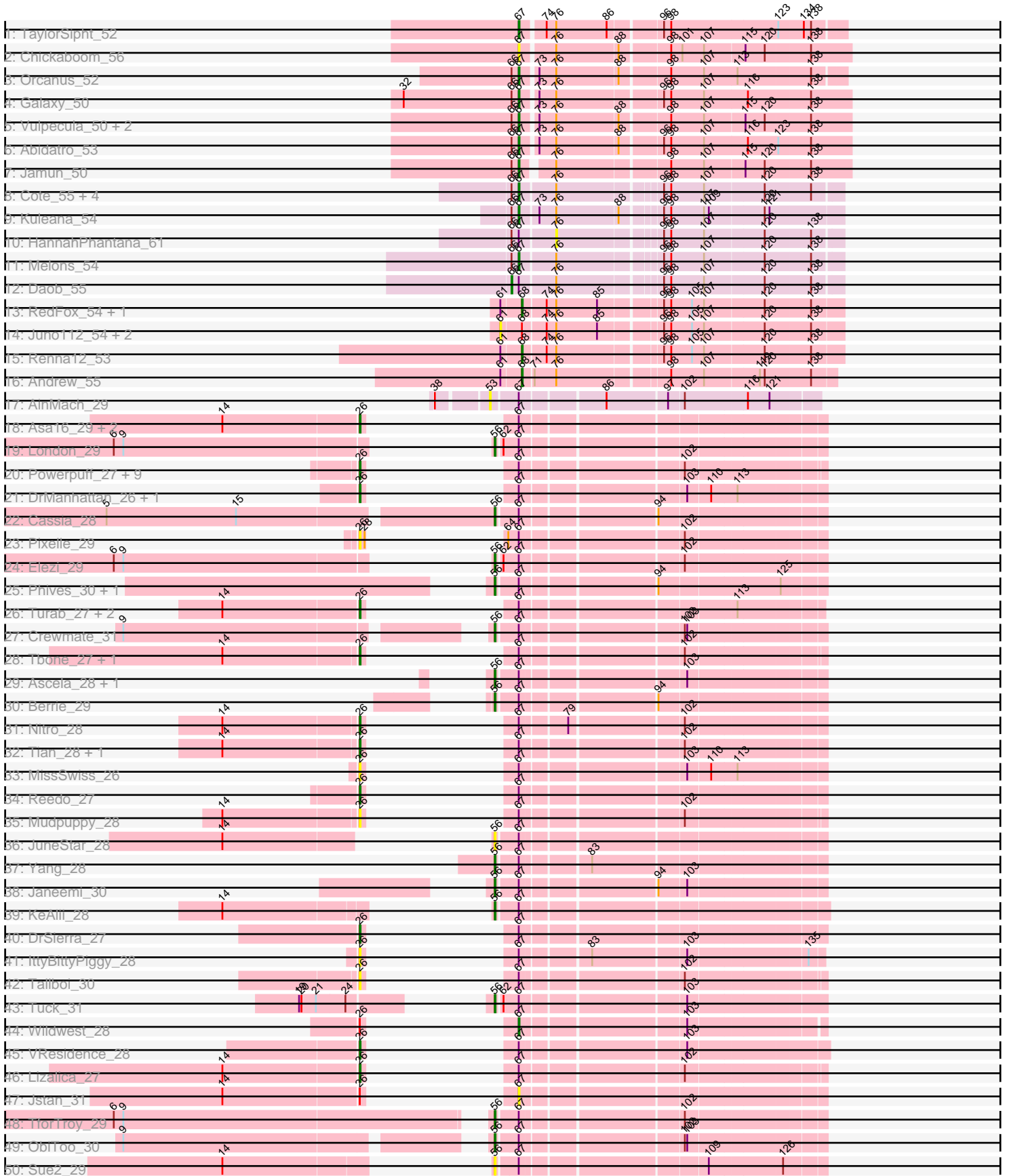
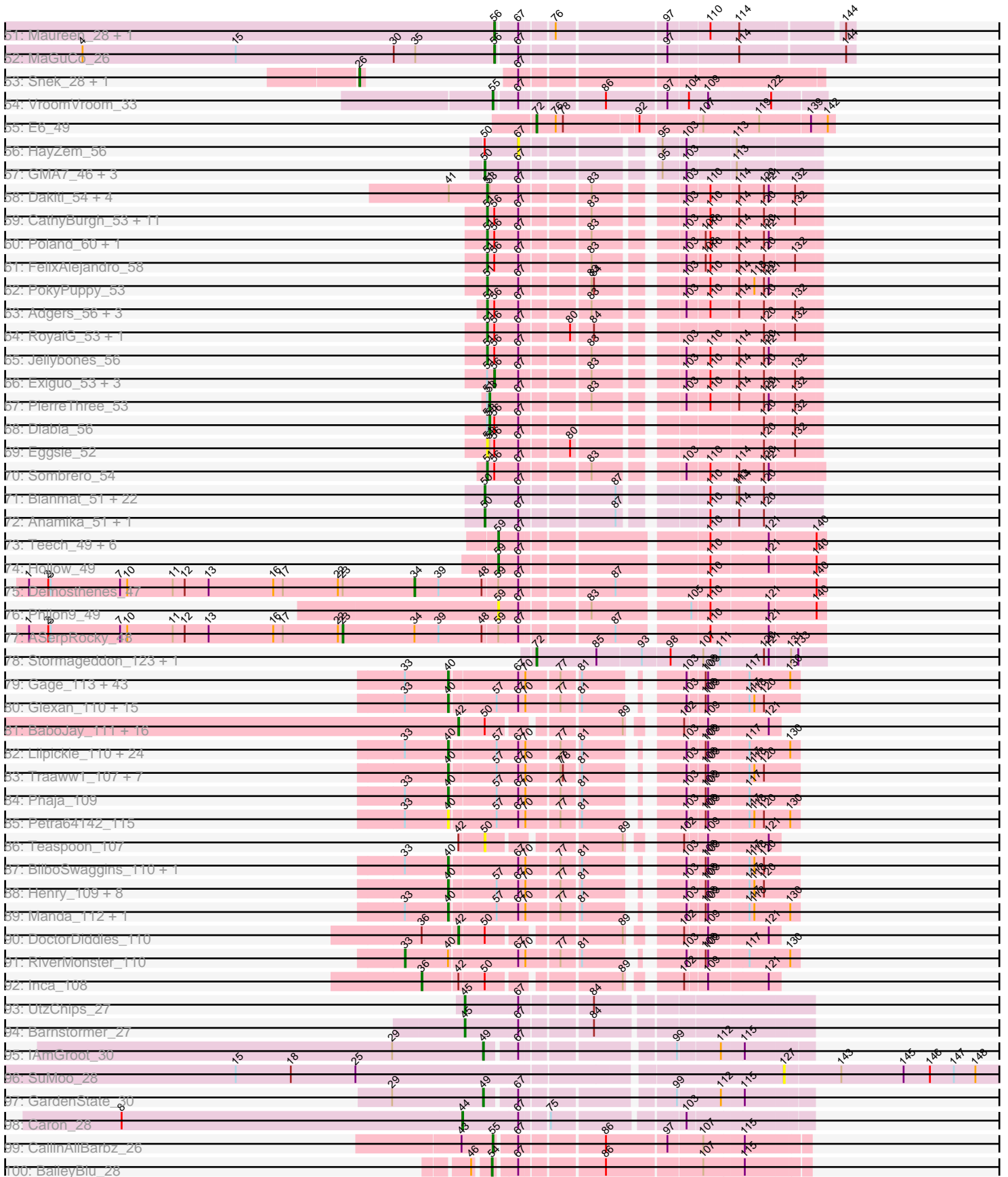


Pham 161501



Pham 161501



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 161501 Report

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

Pham number 161501 has 323 members, 53 are drafts.

Phages represented in each track:

- Track 1 : TaylorSipht_52
- Track 2 : Chickaboom_56
- Track 3 : Orcanus_52
- Track 4 : Galaxy_50
- Track 5 : Vulpecula_50, Ruchi_50, Basilisk_51
- Track 6 : Abidatro_53
- Track 7 : Jamun_50
- Track 8 : Cote_55, Kepler_54, Amelia_53, Polka_53, Lunar_54
- Track 9 : Kuleana_54
- Track 10 : HannahPhantana_61
- Track 11 : Melons_54
- Track 12 : Daob_55
- Track 13 : RedFox_54, Leona_53
- Track 14 : Juno112_54, PhluffyCoco_54, KHumphrey_53
- Track 15 : Renna12_53
- Track 16 : Andrew_55
- Track 17 : AinMach_29
- Track 18 : Asa16_29, Niobe_29, Eraser_29
- Track 19 : London_29
- Track 20 : Powerpuff_27, Cyan_27, Kaylissa_27, Tutumahutu_29, AGrandiflora_28, JohnDoe_27, Simpson_29, YesChef_27, Lego_27, Joemato_29
- Track 21 : DrManhattan_26, Adolin_26
- Track 22 : Cassia_28
- Track 23 : Pixelle_29
- Track 24 : Elezi_29
- Track 25 : Phives_30, Community_29
- Track 26 : Turab_27, Adumb2043_27, AEgle_27
- Track 27 : Crewmate_31
- Track 28 : Tbone_27, Warda_27
- Track 29 : Ascela_28, Iter_28
- Track 30 : Berrie_29
- Track 31 : Nitro_28
- Track 32 : Tian_28, Amyev_28
- Track 33 : MissSwiss_26
- Track 34 : Reedo_27
- Track 35 : Mudpuppy_28
- Track 36 : JuneStar_28

- Track 37 : Yang_28
- Track 38 : Janeemi_30
- Track 39 : KeAlii_28
- Track 40 : DrSierra_27
- Track 41 : IttyBittyPiggy_28
- Track 42 : Tallboi_30
- Track 43 : Tuck_31
- Track 44 : Wildwest_28
- Track 45 : VResidence_28
- Track 46 : Lizalica_27
- Track 47 : Jstan_31
- Track 48 : TforTroy_29
- Track 49 : ObiToo_30
- Track 50 : Sue2_29
- Track 51 : Maureen_28, Liebe_28
- Track 52 : MaGuCo_26
- Track 53 : Snek_28, Tweety19_28
- Track 54 : VroomVroom_33
- Track 55 : E6_49
- Track 56 : HayZem_56
- Track 57 : GMA7_46, Austin_56, GTE7_45, Amore2_57
- Track 58 : Dakiti_54, BigShaq_53, BenoitCattle_55, Chelms_53, Linetti_54
- Track 59 : CathyBurgh_53, John316_57, Butterball_57, Breezic_54, Sam12_53, Monty_53, Hotorobo_54, Barbochs_54, Boneham_58, Lizzo_54, RemRem_55, Beaver_57
- Track 60 : Poland_60, Msay19_58
- Track 61 : FelixAlejandro_58
- Track 62 : PokyPuppy_53
- Track 63 : Adgers_56, GourdThymes_54, BirksAndSocks_59, Squibbles_53
- Track 64 : RoyalG_53, SteveFrench_52
- Track 65 : Jellybones_56
- Track 66 : Exiguo_53, Flakey_53, Gorko_53, Ekhein_54
- Track 67 : PierreThree_53
- Track 68 : Diabla_56
- Track 69 : Eggsie_52
- Track 70 : Sombrero_54
- Track 71 : Bianmat_51, Kaseim_51, Jormungandr_51, GalacticEye_51, Charianelly_50, Luker_52, Sticker17_51, Shelley_51, MrWormie_51, Damp_49, Harambe_51, Lahirium_51, Neoevie_51, Lidong_51, Teal_51, Berries_51, Hello_51, Guillaume_51, Minos_52, Jams_51, Woes_51, Newt_52, Nimi13_51
- Track 72 : Anamika_51, Hail2Pitt_50
- Track 73 : Teech_49, Benczkowski14_48, Teatealatte_49, Tredge_49, Katyusha_48, Niagara_48, Kvothe_48
- Track 74 : Hollow_49
- Track 75 : Demosthenes_47
- Track 76 : Philon9_49
- Track 77 : ASerpRocky_48
- Track 78 : Stormageddon_123, RedWattleHog_124
- Track 79 : Gage_113, BugsBunny_110, Lilizi_111, Hopey_111, Tomaszewski_106, Stark_111, Paperbeatsrock_110, Contagion_108, Adnama_115, Pumpkin_112, Murica_115, Bruin_108, Bench_113, Sassay_106, Misfit_112, GooberAzure_114, xkcd_115, Argent26_115, StolenFromERC_113, Dumbo_111, GoldenSpark_115, Cjw1_111, MPhalcon_112, Qualification_112, YassJohnny_108,

AmericanBeauty_118, Hoonter_114, Youngblood_115, Miniwave_106, Tarkin_110, Policronamos_115, Thresher_112, Pharsalus_108, Terminus_114, Elph10_110, Czyszczo1_111, ShereKhan_109, Mosby_108, HufflyPuff_113, Gemini_116, MISSy_112, Willez_106, Phrux_107, Kanye_108

- Track 80 : Glexan_110, Daikon_112, DrDrey_111, Mindy_110, Cactus_115, Harella_112, Sotrice96_112, TeardropMSU_107, ABCat_108, Dusk_108, SophKB_109, Tuco_112, Kostya_111, Rakim_112, BadStone_108, IHOP_109
- Track 81 : BaboJay_111, JeTaime_110, Kimchi_116, Icee_113, Filch_114, TBrady12_115, 244_113, Stank_114, Wiggin_114, BigBubba_113, Goldilocks_115, Xandras_111, Marshmallow_110, Holt_117, Nimrod_112, Porky_110, Goku_111
- Track 82 : Lilpickle_110, Emmina_111, PhatBacter_114, Phaux_113, Moldemort_113, HanKaySha_111, Elite2014_110, NelitzaMV_108, ChosenOne_111, Buck_112, Easy2Say_111, Murphy_110, NoSleep_111, FireRed_114, Lilac_112, Rimmer_109, StellaBean_108, MadamMonkfish_110, Palpatine_112, Nala_113, Highbury_107, Maxxinsta_113, OrionPax_109, Saints25_107, Simpliphy_109
- Track 83 : Traaww1_107, Pat3_108, Amao_111, ChotaBhai_111, Barbarian_110, Flypotenuse_107, Asriel_109, Balomoji_111
- Track 84 : Phaja_109
- Track 85 : Petra64142_115
- Track 86 : Teaspoon_107
- Track 87 : BilboSwaggins_110, CrystalP_111
- Track 88 : Henry_109, Cookies_108, SirDuracell_111, Bask21_111, ShamWow_111, Command613_113, Gator_109, Myrale_111, Toto_109
- Track 89 : Manda_112, Eureka_111
- Track 90 : DoctorDiddles_110
- Track 91 : RiverMonster_110
- Track 92 : Inca_108
- Track 93 : UtzChips_27
- Track 94 : Barnstormer_27
- Track 95 : IAmGroot_30
- Track 96 : SuMoo_28
- Track 97 : GardenState_30
- Track 98 : Caron_28
- Track 99 : CallinAllBarbz_26
- Track 100 : BaileyBlu_28
- Track 101 : Brujita_56, Island3_56
- Track 102 : LittleE_170
- Track 103 : MiaZeal_166, Lucky2013_159, Porcelain_163
- Track 104 : Bobby_156
- Track 105 : Superphikiman_160, Courthouse_159, Ariel_162
- Track 106 : Optimus_161
- Track 107 : Gonephishing_156
- Track 108 : Squint_157
- Track 109 : EniyanLRS_84
- Track 110 : Azrael100_87, Cosmo_88
- Track 111 : Wildcat_88
- Track 112 : MaryV_88
- Track 113 : Nebkiss_126
- Track 114 : Gaia_125
- Track 115 : Shambre1_62
- Track 116 : BFK20_ORF42
- Track 117 : DS6A_81

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

The start number called the most often in the published annotations is 40, it was called in 98 of the 270 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- ABCat_108, Adnama_115, Amao_111, AmericanBeauty_118, Argent26_115, Asriel_109, BadStone_108, Balomoji_111, Barbarian_110, Bask21_111, Bench_113, BilboSwaggins_110, Bruin_108, Buck_112, BugsBunny_110, Cactus_115, ChosenOne_111, ChotaBhai_111, Cjw1_111, Command613_113, Contagion_108, Cookies_108, CrystalP_111, Czyszczonek_111, Daikon_112, DrDrey_111, Dumbo_111, Dusk_108, Easy2Say_111, Elite2014_110, Elph10_110, Emmina_111, Eureka_111, FireRed_114, Flypotenuse_107, Gage_113, Gator_109, Gemini_116, Glexan_110, GoldenSpark_115, GooberAzure_114, HanKaySha_111, Harella_112, Henry_109, Highbury_107, Hoonter_114, Hopey_111, HufflyPuff_113, IHOP_109, Kanye_108, Kostya_111, Lilac_112, Lilizi_111, Lilpickle_110, MISSy_112, MPhalcon_112, MadamMonkfish_110, Manda_112, Maxxinista_113, Mindy_110, Miniwave_106, Misfit_112, Moldemort_113, Mosby_108, Murica_115, Murphy_110, Myrale_111, Nala_113, NelitzaMV_108, NoSleep_111, OrionPax_109, Palpatine_112, Paperbeatsrock_110, Pat3_108, Petra64142_115, Phaja_109, Pharsalus_108, PhatBacter_114, Phaux_113, Phrux_107, Policronamos_115, Pumpkin_112, Quallification_112, Rakim_112, Rimmer_109, Saints25_107, Sassay_106, ShamWow_111, ShereKhan_109, Simpliphy_109, SirDuracell_111, SophKB_109, Sotrice96_112, Stark_111, StellaBean_108, StolenFromERC_113, Tarkin_110, TeardropMSU_107, Terminus_114, Thresher_112, Tomaszewski_106, Toto_109, Traaww1_107, Tuco_112, Willez_106, YassJohnny_108, Youngblood_115, xkcd_115,

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

- RiverMonster_110,

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

- 244_113, AEgle_27, AGrandiflora_28, ASerpRocky_48, Abidatro_53, Adgers_56, Adolin_26, Adumb2043_27, AinMach_29, Amelia_53, Amore2_57, Amyev_28, Anamika_51, Andrew_55, Ariel_162, Asa16_29, Ascela_28, Austin_56, Azrael100_87, BFK20_ORF42, BaboJay_111, BaileyBlu_28, Barbochs_54, Barnstormer_27, Basilisk_51, Beaver_57, Benczkowski14_48, BenoitCattle_55, Berrie_29, Berries_51, Bianmat_51, BigBubba_113, BigShaq_53, BirksAndSocks_59, Bobby_156, Boneham_58, Breezic_54, Brujita_56, Butterball_57, CallinAllBarbz_26, Caron_28, Cassia_28, CathyBurgh_53, Charianelly_50, Chelms_53, Chickaboom_56, Community_29, Cosmo_88, Cote_55, Courthouse_159, Crewmate_31, Cyan_27, DS6A_81, Dakiti_54, Damp_49, Daob_55, Demosthenes_47, Diabla_56, DoctorDiddles_110, DrManhattan_26, DrSierra_27, E6_49, Eggsie_52, Ekhein_54, Elezi_29, EniyanLRS_84, Eraser_29, Exiguo_53, FelixAlejandro_58, Filch_114, Flakey_53, GMA7_46, GTE7_45, Gaia_125, GalacticEye_51, Galaxy_50, GardenState_30, Goku_111, Goldilocks_115, Gonephishing_156, Gorko_53, GourdThymes_54, Guillaume_51, Hail2Pitt_50, HannahPhantana_61, Harambe_51, HayZem_56, Hello_51, Hollow_49, Holt_117, Hotorobo_54, IAmGroot_30, Icee_113, Inca_108, Island3_56, Iter_28, IttyBittyPiggy_28, Jams_51, Jamun_50, Janeemi_30, JeTaime_110, Jellybones_56,

Joemato_29, John316_57, JohnDoe_27, Jormungandr_51, Jstan_31, JuneStar_28, Juno112_54, KHumphrey_53, Kaseim_51, Katyusha_48, Kaylissa_27, KeAlii_28, Kepler_54, Kimchi_116, Kuleana_54, Kvothe_48, Lahirium_51, Lego_27, Leona_53, Lidong_51, Liebe_28, Linetti_54, LittleE_170, Lizalica_27, Lizzo_54, London_29, Lucky2013_159, Luker_52, Lunar_54, MaGuCo_26, Marshmallow_110, MaryV_88, Maureen_28, Melons_54, MiaZeal_166, Minos_52, MissSwiss_26, Monty_53, MrWormie_51, Msay19_58, Mudpuppy_28, Nebkiss_126, Neoevie_51, Newt_52, Niagara_48, Nimi13_51, Nimrod_112, Niobe_29, Nitro_28, ObiToo_30, Optimus_161, Orcanus_52, Philon9_49, Phives_30, PhluffyCoco_54, PierreThree_53, Pixelle_29, PokyPuppy_53, Poland_60, Polka_53, Porcelain_163, Porky_110, Powerpuff_27, RedFox_54, RedWattleHog_124, Reedo_27, RemRem_55, Renna12_53, RoyalG_53, Ruchi_50, Sam12_53, Shambre1_62, Shelley_51, Simpson_29, Snek_28, Sombrero_54, Squibbles_53, Squint_157, Stank_114, SteveFrench_52, Sticker17_51, Stormageddon_123, SuMoo_28, Sue2_29, Superphikiman_160, TBrady12_115, Tallboi_30, TaylorSipht_52, Tbone_27, Teal_51, Teaspoon_107, Teatealatte_49, Teech_49, TforTroy_29, Tian_28, Tredge_49, Tuck_31, Turab_27, Tutumahutu_29, Tweety19_28, UtzChips_27, VResidence_28, VroomVroom_33, Vulpecula_50, Warda_27, Wiggin_114, Wildcat_88, Wildwest_28, Woes_51, Xandras_111, Yang_28, YesChef_27,

Summary by start number:

Start 23:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ASerpRocky_48 (CS4),

Start 26:

- Found in 36 of 323 (11.1%) of genes in pham
- Manual Annotations of this start: 21 of 270
- Called 94.4% of time when present
- Phage (with cluster) where this start called: AEgle_27 (AZ1), AGrandiflora_28 (AZ1), Adolin_26 (AZ1), Adumb2043_27 (AZ1), Amyev_28 (AZ1), Asa16_29 (AZ1), Cyan_27 (AZ1), DrManhattan_26 (AZ1), DrSierra_27 (AZ1), Eraser_29 (AZ1), IttyBittyPiggy_28 (AZ1), Joemato_29 (AZ1), JohnDoe_27 (AZ1), Kaylissa_27 (AZ1), Lego_27 (AZ1), Lizalica_27 (AZ1), MissSwiss_26 (AZ1), Mudpuppy_28 (AZ1), Niobe_29 (AZ1), Nitro_28 (AZ1), Pixelle_29 (AZ1), Powerpuff_27 (AZ1), Reedo_27 (AZ1), Simpson_29 (AZ1), Snek_28 (AZ3), Tallboi_30 (AZ1), Tbone_27 (AZ1), Tian_28 (AZ1), Turab_27 (AZ1), Tutumahutu_29 (AZ1), Tweety19_28 (AZ3), VResidence_28 (AZ1), Warda_27 (AZ1), YesChef_27 (AZ1),

Start 33:

- Found in 92 of 323 (28.5%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 1.1% of time when present
- Phage (with cluster) where this start called: RiverMonster_110 (E),

Start 34:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Demosthenes_47 (CS4),

Start 36:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Inca_108 (E),

Start 39:

- Found in 3 of 323 (0.9%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 33.3% of time when present
- Phage (with cluster) where this start called: DS6A_81 (singleton),

Start 40:

- Found in 109 of 323 (33.7%) of genes in pham
- Manual Annotations of this start: 98 of 270
- Called 99.1% of time when present
- Phage (with cluster) where this start called: ABCat_108 (E), Adnama_115 (E), Amao_111 (E), AmericanBeauty_118 (E), Argent26_115 (E), Asriel_109 (E), BadStone_108 (E), Balomoji_111 (E), Barbarian_110 (E), Bask21_111 (E), Bench_113 (E), BilboSwaggins_110 (E), Bruin_108 (E), Buck_112 (E), BugsBunny_110 (E), Cactus_115 (E), ChosenOne_111 (E), ChotaBhai_111 (E), Cjw1_111 (E), Command613_113 (E), Contagion_108 (E), Cookies_108 (E), CrystalP_111 (E), Czyszczonek_111 (E), Daikon_112 (E), DrDrey_111 (E), Dumbo_111 (E), Dusk_108 (E), Easy2Say_111 (E), Elite2014_110 (E), Elph10_110 (E), Emmina_111 (E), Eureka_111 (E), FireRed_114 (E), Flypotenuse_107 (E), Gage_113 (E), Gator_109 (E), Gemini_116 (E), Glexan_110 (E), GoldenSpark_115 (E), GooberAzure_114 (E), HanKaySha_111 (E), Harella_112 (E), Henry_109 (E), Highbury_107 (E), Hoonter_114 (E), Hopey_111 (E), HufflyPuff_113 (E), IHOP_109 (E), Kanye_108 (E), Kostya_111 (E), Lilac_112 (E), Lilizi_111 (E), Lilpickle_110 (E), MISSy_112 (E), MPhalcon_112 (E), MadamMonkfish_110 (E), Manda_112 (E), Maxxinista_113 (E), Mindy_110 (E), Miniwave_106 (E), Misfit_112 (E), Moldemort_113 (E), Mosby_108 (E), Murica_115 (E), Murphy_110 (E), Myrale_111 (E), Nala_113 (E), NelitzaMV_108 (E), NoSleep_111 (E), OrionPax_109 (E), Palpatine_112 (E), Paperbeatsrock_110 (E), Pat3_108 (E), Petra64142_115 (E), Phaja_109 (E), Pharsalus_108 (E), PhatBacter_114 (E), Phaux_113 (E), Phrux_107 (E), Policronamos_115 (E), Pumpkin_112 (E), Qualification_112 (E), Rakim_112 (E), Rimmer_109 (E), Saints25_107 (E), Sassay_106 (E), ShamWow_111 (E), ShereKhan_109 (E), Simpliphy_109 (E), SirDuracell_111 (E), SophKB_109 (E), Sotrice96_112 (E), Stark_111 (E), StellaBean_108 (E), StolenFromERC_113 (E), Tarkin_110 (E), TeardropMSU_107 (E), Terminus_114 (E), Thresher_112 (E), Tomaszewski_106 (E), Toto_109 (E), Traaww1_107 (E), Tuco_112 (E), Willez_106 (E), YassJohnny_108 (E), Youngblood_115 (E), xkcd_115 (E),

Start 42:

- Found in 20 of 323 (6.2%) of genes in pham
- Manual Annotations of this start: 18 of 270
- Called 90.0% of time when present
- Phage (with cluster) where this start called: 244_113 (E), BaboJay_111 (E), BigBubba_113 (E), DoctorDiddles_110 (E), Filch_114 (E), Goku_111 (E), Goldilocks_115 (E), Holt_117 (E), Icee_113 (E), JeTaime_110 (E), Kimchi_116 (E), Marshmallow_110 (E), Nimrod_112 (E), Porky_110 (E), Stank_114 (E), TBrady12_115 (E), Wiggin_114 (E), Xandras_111 (E),

Start 44:

- Found in 1 of 323 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Caron_28 (EH),

Start 45:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Barnstormer_27 (EH), UtzChips_27 (EH),

Start 49:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GardenState_30 (EH), IAmGroot_30 (EH),

Start 50:

- Found in 60 of 323 (18.6%) of genes in pham
- Manual Annotations of this start: 32 of 270
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Amore2_57 (CS1), Anamika_51 (CS3), Ariel_162 (J), Austin_56 (CS1), Berries_51 (CS3), Bianmat_51 (CS3), Charianelly_50 (CS3), Courthouse_159 (J), Damp_49 (CS3), GMA7_46 (CS1), GTE7_45 (CS1), GalacticEye_51 (CS3), Gonephishing_156 (J), Guillaume_51 (CS3), Hail2Pitt_50 (CS3), Harambe_51 (CS3), Hello_51 (CS3), Jams_51 (CS3), Jormungandr_51 (CS3), Kaseim_51 (CS3), Lahirium_51 (CS3), Lidong_51 (CS3), LittleE_170 (J), Lucky2013_159 (J), Luker_52 (CS3), MiaZeal_166 (J), Minos_52 (CS3), MrWormie_51 (CS3), Neoevie_51 (CS3), Newt_52 (CS3), Nimi13_51 (CS3), Optimus_161 (J), Porcelain_163 (J), Shelley_51 (CS3), Squint_157 (J), Sticker17_51 (CS3), Superphikiman_160 (J), Teal_51 (CS3), Teaspoon_107 (E), Woes_51 (CS3),

Start 51:

- Found in 36 of 323 (11.1%) of genes in pham
- Manual Annotations of this start: 23 of 270
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Adgers_56 (CS2), Barbochs_54 (CS2), Beaver_57 (CS2), BenoitCattle_55 (CS2), BigShaq_53 (CS2), BirksAndSocks_59 (CS2), Boneham_58 (CS2), Breezic_54 (CS2), Butterball_57 (CS2), CathyBurgh_53 (CS2), Chelms_53 (CS2), Dakiti_54 (CS2), Eggsie_52 (CS2), FelixAlejandro_58 (CS2), GourdThymes_54 (CS2), Hotorobo_54 (CS2), Jellybones_56 (CS2), John316_57 (CS2), Linetti_54 (CS2), Lizzo_54 (CS2), Monty_53 (CS2), Msay19_58 (CS2), PokyPuppy_53 (CS2), Poland_60 (CS2), RemRem_55 (CS2), RoyalG_53 (CS2), Sam12_53 (CS2), Sombrero_54 (CS2), Squibbles_53 (CS2), SteveFrench_52 (CS2),

Start 52:

- Found in 1 of 323 (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: BFK20_ORF42 (singleton),

Start 53:

- Found in 14 of 323 (4.3%) of genes in pham
- Manual Annotations of this start: 3 of 270
- Called 28.6% of time when present
- Phage (with cluster) where this start called: AinMach_29 (AZ), Diabla_56 (CS2), PierreThree_53 (CS2), Wildcat_88 (V),

Start 54:

- Found in 6 of 323 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 16.7% of time when present
- Phage (with cluster) where this start called: BaileyBlu_28 (FP),

Start 55:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 2 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: CallinAllBarbz_26 (FP), VroomVroom_33 (AZ4),

Start 56:

- Found in 54 of 323 (16.7%) of genes in pham
- Manual Annotations of this start: 22 of 270
- Called 46.3% of time when present
- Phage (with cluster) where this start called: Ascela_28 (AZ1), Berrie_29 (AZ1), Cassia_28 (AZ1), Community_29 (AZ1), Crewmate_31 (AZ1), Ekhein_54 (CS2), Elezi_29 (AZ1), Exiguo_53 (CS2), Flakey_53 (CS2), Gorko_53 (CS2), Iter_28 (AZ1), Janeemi_30 (AZ1), JuneStar_28 (AZ1), KeAlii_28 (AZ1), Liebe_28 (AZ2), London_29 (AZ1), MaGuCo_26 (AZ2), MaryV_88 (V), Maureen_28 (AZ2), ObiToo_30 (AZ1), Phives_30 (AZ1), Sue2_29 (AZ1), TforTroy_29 (AZ1), Tuck_31 (AZ1), Yang_28 (AZ1),

Start 58:

- Found in 1 of 323 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bobby_156 (J),

Start 59:

- Found in 13 of 323 (4.0%) of genes in pham
- Manual Annotations of this start: 9 of 270
- Called 84.6% of time when present
- Phage (with cluster) where this start called: Benczkowski14_48 (CS4), Brujita_56 (I1), Hollow_49 (CS4), Island3_56 (I1), Katyusha_48 (CS4), Kvothe_48 (CS4), Niagara_48 (CS4), Philon9_49 (CS4), Teatealatte_49 (CS4), Teech_49 (CS4), Tredge_49 (CS4),

Start 60:

- Found in 7 of 323 (2.2%) of genes in pham
- Manual Annotations of this start: 4 of 270

- Called 57.1% of time when present
- Phage (with cluster) where this start called: Azrael100_87 (V), Cosmo_88 (V), EniyanLRS_84 (V), Gaia_125 (X),

Start 61:

- Found in 7 of 323 (2.2%) of genes in pham
- No Manual Annotations of this start.
- Called 42.9% of time when present
- Phage (with cluster) where this start called: Juno112_54 (AS3), KHumphrey_53 (AS3), PhluffyCoco_54 (AS3),

Start 63:

- Found in 2 of 323 (0.6%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Nebkiss_126 (X),

Start 66:

- Found in 16 of 323 (5.0%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 6.2% of time when present
- Phage (with cluster) where this start called: Daob_55 (AS2),

Start 67:

- Found in 291 of 323 (90.1%) of genes in pham
- Manual Annotations of this start: 16 of 270
- Called 6.5% of time when present
- Phage (with cluster) where this start called: Abidatro_53 (AS1), Amelia_53 (AS2), Basilisk_51 (AS1), Chickaboom_56 (AS1), Cote_55 (AS2), Galaxy_50 (AS1), HayZem_56 (CS1), Jamun_50 (AS1), Jstan_31 (AZ1), Kepler_54 (AS2), Kuleana_54 (AS2), Lunar_54 (AS2), Melons_54 (AS2), Orcanus_52 (AS1), Polka_53 (AS2), Ruchi_50 (AS1), TaylorSipht_52 (AS1), Vulpecula_50 (AS1), Wildwest_28 (AZ1),

Start 68:

- Found in 7 of 323 (2.2%) of genes in pham
- Manual Annotations of this start: 4 of 270
- Called 57.1% of time when present
- Phage (with cluster) where this start called: Andrew_55 (AS3), Leona_53 (AS3), RedFox_54 (AS3), Renna12_53 (AS3),

Start 69:

- Found in 1 of 323 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Shambre1_62 (singleton),

Start 72:

- Found in 3 of 323 (0.9%) of genes in pham
- Manual Annotations of this start: 3 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: E6_49 (BW), RedWattleHog_124 (DX), Stormageddon_123 (DX),

Start 76:

- Found in 30 of 323 (9.3%) of genes in pham
- No Manual Annotations of this start.
- Called 3.3% of time when present
- Phage (with cluster) where this start called: HannahPhantana_61 (AS2),

Start 127:

- Found in 1 of 323 (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: SuMoo_28 (EH),

Summary by clusters:

There are 22 clusters represented in this pham: FP, singleton, BW, DX, I1, CS4, CS1, CS3, CS2, AS3, AS2, AS1, E, EH, J, V, X, AZ, AZ1, AZ2, AZ3, AZ4,

Info for manual annotations of cluster AS1:

- Start number 67 was manually annotated 8 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 66 was manually annotated 1 time for cluster AS2.
- Start number 67 was manually annotated 7 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 68 was manually annotated 4 times for cluster AS3.

Info for manual annotations of cluster AZ1:

- Start number 26 was manually annotated 19 times for cluster AZ1.
- Start number 56 was manually annotated 14 times for cluster AZ1.
- Start number 67 was manually annotated 1 time for cluster AZ1.

Info for manual annotations of cluster AZ2:

- Start number 56 was manually annotated 3 times for cluster AZ2.

Info for manual annotations of cluster AZ3:

- Start number 26 was manually annotated 2 times for cluster AZ3.

Info for manual annotations of cluster AZ4:

- Start number 55 was manually annotated 1 time for cluster AZ4.

Info for manual annotations of cluster BW:

- Start number 72 was manually annotated 1 time for cluster BW.

Info for manual annotations of cluster CS1:

- Start number 50 was manually annotated 2 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 51 was manually annotated 23 times for cluster CS2.
- Start number 53 was manually annotated 2 times for cluster CS2.
- Start number 56 was manually annotated 4 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 50 was manually annotated 21 times for cluster CS3.

Info for manual annotations of cluster CS4:

- Start number 23 was manually annotated 1 time for cluster CS4.
- Start number 34 was manually annotated 1 time for cluster CS4.
- Start number 59 was manually annotated 7 times for cluster CS4.

Info for manual annotations of cluster DX:

- Start number 72 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster E:

- Start number 33 was manually annotated 1 time for cluster E.
- Start number 36 was manually annotated 1 time for cluster E.
- Start number 40 was manually annotated 98 times for cluster E.
- Start number 42 was manually annotated 18 times for cluster E.

Info for manual annotations of cluster EH:

- Start number 44 was manually annotated 1 time for cluster EH.
- Start number 45 was manually annotated 2 times for cluster EH.
- Start number 49 was manually annotated 2 times for cluster EH.

Info for manual annotations of cluster FP:

- Start number 54 was manually annotated 1 time for cluster FP.
- Start number 55 was manually annotated 1 time for cluster FP.

Info for manual annotations of cluster I1:

- Start number 59 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster J:

- Start number 50 was manually annotated 9 times for cluster J.
- Start number 58 was manually annotated 1 time for cluster J.

Info for manual annotations of cluster V:

- Start number 53 was manually annotated 1 time for cluster V.
- Start number 56 was manually annotated 1 time for cluster V.
- Start number 60 was manually annotated 3 times for cluster V.

Info for manual annotations of cluster X:

- Start number 60 was manually annotated 1 time for cluster X.
- Start number 63 was manually annotated 1 time for cluster X.

Gene Information:

Gene: 244_113 Start: 63341, Stop: 63673, Start Num: 42

Candidate Starts for 244_113:

(Start: 42 @63341 has 18 MA's), (Start: 50 @63371 has 32 MA's), (89, 63515), (102, 63563), (109, 63587), (121, 63659),

Gene: ABCat_108 Start: 64031, Stop: 64405, Start Num: 40

Candidate Starts for ABCat_108:

(Start: 33 @63977 has 1 MA's), (Start: 40 @64031 has 98 MA's), (57, 64085), (Start: 67 @64112 has 16 MA's), (70, 64121), (77, 64160), (81, 64181), (103, 64274), (108, 64292), (109, 64295), (117, 64343), (118, 64349), (120, 64361),

Gene: AEgle_27 Start: 22275, Stop: 22640, Start Num: 26

Candidate Starts for AEgle_27:

(14, 22110), (Start: 26 @22275 has 21 MA's), (Start: 67 @22299 has 16 MA's), (113, 22542),

Gene: AGrandiflora_28 Start: 22305, Stop: 22670, Start Num: 26

Candidate Starts for AGrandiflora_28:

(Start: 26 @22305 has 21 MA's), (Start: 67 @22329 has 16 MA's), (102, 22512),

Gene: ASerpRocky_48 Start: 48513, Stop: 47953, Start Num: 23

Candidate Starts for ASerpRocky_48:

(1, 48906), (2, 48882), (3, 48879), (7, 48792), (10, 48783), (11, 48726), (12, 48711), (13, 48681), (16, 48600), (17, 48588), (22, 48519), (Start: 23 @48513 has 1 MA's), (Start: 34 @48423 has 1 MA's), (Start: 39 @48393 has 1 MA's), (48, 48339), (Start: 59 @48321 has 9 MA's), (Start: 67 @48297 has 16 MA's), (87, 48192), (110, 48090), (121, 48021),

Gene: Abidatro_53 Start: 33792, Stop: 34178, Start Num: 67

Candidate Starts for Abidatro_53:

(Start: 66 @33783 has 1 MA's), (Start: 67 @33792 has 16 MA's), (73, 33810), (76, 33831), (88, 33906), (96, 33954), (98, 33963), (107, 34002), (116, 34053), (123, 34089), (138, 34128),

Gene: Adgers_56 Start: 47963, Stop: 47601, Start Num: 51

Candidate Starts for Adgers_56:

(Start: 51 @47963 has 23 MA's), (Start: 56 @47954 has 22 MA's), (Start: 67 @47924 has 16 MA's), (83, 47849), (103, 47759), (110, 47732), (114, 47699), (120, 47669), (132, 47633),

Gene: Adnama_115 Start: 63320, Stop: 63694, Start Num: 40

Candidate Starts for Adnama_115:

(Start: 33 @63266 has 1 MA's), (Start: 40 @63320 has 98 MA's), (Start: 67 @63401 has 16 MA's), (70, 63410), (77, 63449), (81, 63470), (103, 63563), (108, 63581), (109, 63584), (117, 63632), (130, 63683),

Gene: Adolin_26 Start: 20726, Stop: 21094, Start Num: 26

Candidate Starts for Adolin_26:

(Start: 26 @20726 has 21 MA's), (Start: 67 @20750 has 16 MA's), (103, 20936), (110, 20963), (113, 20993),

Gene: Adumb2043_27 Start: 22274, Stop: 22639, Start Num: 26

Candidate Starts for Adumb2043_27:

(14, 22109), (Start: 26 @22274 has 21 MA's), (Start: 67 @22298 has 16 MA's), (113, 22541),

Gene: AinMach_29 Start: 23247, Stop: 23618, Start Num: 53

Candidate Starts for AinMach_29:

(38, 23190), (Start: 53 @23247 has 3 MA's), (Start: 67 @23277 has 16 MA's), (86, 23370), (97, 23442), (102, 23460), (116, 23535), (121, 23562),

Gene: Amao_111 Start: 63594, Stop: 63968, Start Num: 40

Candidate Starts for Amao_111:

(Start: 40 @63594 has 98 MA's), (57, 63648), (Start: 67 @63675 has 16 MA's), (70, 63684), (77, 63723), (78, 63726), (81, 63744), (103, 63837), (108, 63855), (109, 63858), (117, 63906), (118,

63912), (120, 63924),

Gene: Amelia_53 Start: 32651, Stop: 33019, Start Num: 67

Candidate Starts for Amelia_53:

(Start: 66 @32642 has 1 MA's), (Start: 67 @32651 has 16 MA's), (76, 32693), (96, 32810), (98, 32819), (107, 32858), (120, 32930), (138, 32984),

Gene: AmericanBeauty_118 Start: 63362, Stop: 63736, Start Num: 40

Candidate Starts for AmericanBeauty_118:

(Start: 33 @63308 has 1 MA's), (Start: 40 @63362 has 98 MA's), (Start: 67 @63443 has 16 MA's), (70, 63452), (77, 63491), (81, 63512), (103, 63605), (108, 63623), (109, 63626), (117, 63674), (130, 63725),

Gene: Amore2_57 Start: 48420, Stop: 48055, Start Num: 50

Candidate Starts for Amore2_57:

(Start: 50 @48420 has 32 MA's), (Start: 67 @48378 has 16 MA's), (95, 48240), (103, 48213), (113, 48156),

Gene: Amyev_28 Start: 24196, Stop: 24564, Start Num: 26

Candidate Starts for Amyev_28:

(14, 24034), (Start: 26 @24196 has 21 MA's), (Start: 67 @24220 has 16 MA's), (102, 24403),

Gene: Anamika_51 Start: 48759, Stop: 48394, Start Num: 50

Candidate Starts for Anamika_51:

(Start: 50 @48759 has 32 MA's), (Start: 67 @48717 has 16 MA's), (87, 48612), (110, 48525), (114, 48492), (120, 48462),

Gene: Andrew_55 Start: 33040, Stop: 33402, Start Num: 68

Candidate Starts for Andrew_55:

(61, 33016), (Start: 68 @33040 has 4 MA's), (71, 33052), (76, 33079), (98, 33208), (107, 33247), (119, 33313), (120, 33319), (138, 33373),

Gene: Argent26_115 Start: 63244, Stop: 63618, Start Num: 40

Candidate Starts for Argent26_115:

(Start: 33 @63190 has 1 MA's), (Start: 40 @63244 has 98 MA's), (Start: 67 @63325 has 16 MA's), (70, 63334), (77, 63373), (81, 63394), (103, 63487), (108, 63505), (109, 63508), (117, 63556), (130, 63607),

Gene: Ariel_162 Start: 83313, Stop: 83693, Start Num: 50

Candidate Starts for Ariel_162:

(Start: 50 @83313 has 32 MA's), (Start: 67 @83355 has 16 MA's), (83, 83430), (120, 83604), (121, 83610), (122, 83613), (142, 83682),

Gene: Asa16_29 Start: 24444, Stop: 24812, Start Num: 26

Candidate Starts for Asa16_29:

(14, 24279), (Start: 26 @24444 has 21 MA's), (Start: 67 @24468 has 16 MA's),

Gene: Ascela_28 Start: 22439, Stop: 22807, Start Num: 56

Candidate Starts for Ascela_28:

(Start: 56 @22439 has 22 MA's), (Start: 67 @22463 has 16 MA's), (103, 22649),

Gene: Asriel_109 Start: 61777, Stop: 62151, Start Num: 40

Candidate Starts for Asriel_109:

(Start: 40 @61777 has 98 MA's), (57, 61831), (Start: 67 @61858 has 16 MA's), (70, 61867), (77, 61906), (78, 61909), (81, 61927), (103, 62020), (108, 62038), (109, 62041), (117, 62089), (118, 62095), (120, 62107),

Gene: Austin_56 Start: 48418, Stop: 48053, Start Num: 50

Candidate Starts for Austin_56:

(Start: 50 @48418 has 32 MA's), (Start: 67 @48376 has 16 MA's), (95, 48238), (103, 48211), (113, 48154),

Gene: Azrael100_87 Start: 53907, Stop: 54263, Start Num: 60

Candidate Starts for Azrael100_87:

(Start: 53 @53895 has 3 MA's), (Start: 54 @53898 has 1 MA's), (Start: 56 @53901 has 22 MA's), (Start: 60 @53907 has 4 MA's), (Start: 67 @53931 has 16 MA's), (77, 53973), (80, 53985), (90, 54048), (91, 54054), (101, 54093), (106, 54108), (107, 54117), (109, 54123), (114, 54159), (117, 54171), (120, 54189),

Gene: BFK20_ORF42 Start: 32596, Stop: 32249, Start Num: 52

Candidate Starts for BFK20_ORF42:

(52, 32596), (65, 32572), (Start: 67 @32560 has 16 MA's), (84, 32482), (113, 32314), (119, 32287), (120, 32281), (124, 32266),

Gene: BaboJay_111 Start: 64514, Stop: 64846, Start Num: 42

Candidate Starts for BaboJay_111:

(Start: 42 @64514 has 18 MA's), (Start: 50 @64544 has 32 MA's), (89, 64688), (102, 64736), (109, 64760), (121, 64832),

Gene: BadStone_108 Start: 63579, Stop: 63953, Start Num: 40

Candidate Starts for BadStone_108:

(Start: 33 @63525 has 1 MA's), (Start: 40 @63579 has 98 MA's), (57, 63633), (Start: 67 @63660 has 16 MA's), (70, 63669), (77, 63708), (81, 63729), (103, 63822), (108, 63840), (109, 63843), (117, 63891), (118, 63897), (120, 63909),

Gene: BaileyBlu_28 Start: 22070, Stop: 22423, Start Num: 54

Candidate Starts for BaileyBlu_28:

(46, 22052), (Start: 54 @22070 has 1 MA's), (Start: 67 @22094 has 16 MA's), (86, 22187), (107, 22301), (115, 22349),

Gene: Balomoji_111 Start: 63560, Stop: 63934, Start Num: 40

Candidate Starts for Balomoji_111:

(Start: 40 @63560 has 98 MA's), (57, 63614), (Start: 67 @63641 has 16 MA's), (70, 63650), (77, 63689), (78, 63692), (81, 63710), (103, 63803), (108, 63821), (109, 63824), (117, 63872), (118, 63878), (120, 63890),

Gene: Barbarian_110 Start: 61777, Stop: 62151, Start Num: 40

Candidate Starts for Barbarian_110:

(Start: 40 @61777 has 98 MA's), (57, 61831), (Start: 67 @61858 has 16 MA's), (70, 61867), (77, 61906), (78, 61909), (81, 61927), (103, 62020), (108, 62038), (109, 62041), (117, 62089), (118, 62095), (120, 62107),

Gene: Barbochs_54 Start: 47707, Stop: 47345, Start Num: 51

Candidate Starts for Barbochs_54:

(Start: 51 @47707 has 23 MA's), (Start: 56 @47698 has 22 MA's), (Start: 67 @47668 has 16 MA's), (83, 47593), (103, 47503), (110, 47476), (114, 47443), (120, 47413), (132, 47377),

Gene: Barnstormer_27 Start: 22061, Stop: 22453, Start Num: 45
Candidate Starts for Barnstormer_27:
(Start: 45 @22061 has 2 MA's), (Start: 67 @22127 has 16 MA's), (84, 22205),

Gene: Basilisk_51 Start: 33012, Stop: 33398, Start Num: 67
Candidate Starts for Basilisk_51:
(Start: 66 @33003 has 1 MA's), (Start: 67 @33012 has 16 MA's), (73, 33030), (76, 33051), (88, 33126), (98, 33183), (107, 33222), (115, 33270), (120, 33294), (138, 33348),

Gene: Bask21_111 Start: 62396, Stop: 62770, Start Num: 40
Candidate Starts for Bask21_111:
(Start: 40 @62396 has 98 MA's), (57, 62450), (Start: 67 @62477 has 16 MA's), (70, 62486), (77, 62525), (81, 62546), (103, 62639), (108, 62657), (109, 62660), (117, 62708), (118, 62714), (120, 62726),

Gene: Beaver_57 Start: 49477, Stop: 49115, Start Num: 51
Candidate Starts for Beaver_57:
(Start: 51 @49477 has 23 MA's), (Start: 56 @49468 has 22 MA's), (Start: 67 @49438 has 16 MA's), (83, 49363), (103, 49273), (110, 49246), (114, 49213), (120, 49183), (132, 49147),

Gene: Bench_113 Start: 64001, Stop: 64375, Start Num: 40
Candidate Starts for Bench_113:
(Start: 33 @63947 has 1 MA's), (Start: 40 @64001 has 98 MA's), (Start: 67 @64082 has 16 MA's), (70, 64091), (77, 64130), (81, 64151), (103, 64244), (108, 64262), (109, 64265), (117, 64313), (130, 64364),

Gene: Benczkowski14_48 Start: 48592, Stop: 48224, Start Num: 59
Candidate Starts for Benczkowski14_48:
(Start: 59 @48592 has 9 MA's), (Start: 67 @48568 has 16 MA's), (110, 48361), (121, 48292), (140, 48235),

Gene: BenoitCattle_55 Start: 48070, Stop: 47708, Start Num: 51
Candidate Starts for BenoitCattle_55:
(41, 48118), (Start: 51 @48070 has 23 MA's), (Start: 53 @48067 has 3 MA's), (Start: 67 @48031 has 16 MA's), (83, 47956), (103, 47866), (110, 47839), (114, 47806), (120, 47776), (121, 47770), (132, 47740),

Gene: Berrie_29 Start: 23499, Stop: 23867, Start Num: 56
Candidate Starts for Berrie_29:
(Start: 56 @23499 has 22 MA's), (Start: 67 @23523 has 16 MA's), (94, 23676),

Gene: Berries_51 Start: 48731, Stop: 48366, Start Num: 50
Candidate Starts for Berries_51:
(Start: 50 @48731 has 32 MA's), (Start: 67 @48689 has 16 MA's), (87, 48584), (110, 48497), (113, 48467), (114, 48464), (120, 48434),

Gene: Bianmat_51 Start: 48771, Stop: 48406, Start Num: 50
Candidate Starts for Bianmat_51:
(Start: 50 @48771 has 32 MA's), (Start: 67 @48729 has 16 MA's), (87, 48624), (110, 48537), (113, 48507), (114, 48504), (120, 48474),

Gene: BigBubba_113 Start: 62987, Stop: 63319, Start Num: 42

Candidate Starts for BigBubba_113:

(Start: 42 @62987 has 18 MA's), (Start: 50 @63017 has 32 MA's), (89, 63161), (102, 63209), (109, 63233), (121, 63305),

Gene: BigShaq_53 Start: 48075, Stop: 47713, Start Num: 51

Candidate Starts for BigShaq_53:

(41, 48123), (Start: 51 @48075 has 23 MA's), (Start: 53 @48072 has 3 MA's), (Start: 67 @48036 has 16 MA's), (83, 47961), (103, 47871), (110, 47844), (114, 47811), (120, 47781), (121, 47775), (132, 47745),

Gene: BilboSwaggins_110 Start: 64057, Stop: 64431, Start Num: 40

Candidate Starts for BilboSwaggins_110:

(Start: 33 @64003 has 1 MA's), (Start: 40 @64057 has 98 MA's), (Start: 67 @64138 has 16 MA's), (70, 64147), (77, 64186), (81, 64207), (103, 64300), (108, 64318), (109, 64321), (117, 64369), (118, 64375), (120, 64387),

Gene: BirksAndSocks_59 Start: 49827, Stop: 49465, Start Num: 51

Candidate Starts for BirksAndSocks_59:

(Start: 51 @49827 has 23 MA's), (Start: 56 @49818 has 22 MA's), (Start: 67 @49788 has 16 MA's), (83, 49713), (103, 49623), (110, 49596), (114, 49563), (120, 49533), (132, 49497),

Gene: Bobby_156 Start: 89177, Stop: 89539, Start Num: 58

Candidate Starts for Bobby_156:

(Start: 58 @89177 has 1 MA's), (Start: 67 @89201 has 16 MA's), (80, 89255), (83, 89276), (102, 89357), (119, 89444), (120, 89450), (128, 89477), (142, 89528),

Gene: Boneham_58 Start: 49728, Stop: 49366, Start Num: 51

Candidate Starts for Boneham_58:

(Start: 51 @49728 has 23 MA's), (Start: 56 @49719 has 22 MA's), (Start: 67 @49689 has 16 MA's), (83, 49614), (103, 49524), (110, 49497), (114, 49464), (120, 49434), (132, 49398),

Gene: Breezic_54 Start: 47720, Stop: 47358, Start Num: 51

Candidate Starts for Breezic_54:

(Start: 51 @47720 has 23 MA's), (Start: 56 @47711 has 22 MA's), (Start: 67 @47681 has 16 MA's), (83, 47606), (103, 47516), (110, 47489), (114, 47456), (120, 47426), (132, 47390),

Gene: Bruin_108 Start: 62685, Stop: 63059, Start Num: 40

Candidate Starts for Bruin_108:

(Start: 33 @62631 has 1 MA's), (Start: 40 @62685 has 98 MA's), (Start: 67 @62766 has 16 MA's), (70, 62775), (77, 62814), (81, 62835), (103, 62928), (108, 62946), (109, 62949), (117, 62997), (130, 63048),

Gene: Brujita_56 Start: 37993, Stop: 38289, Start Num: 59

Candidate Starts for Brujita_56:

(47, 37969), (Start: 59 @37993 has 9 MA's), (Start: 67 @38017 has 16 MA's), (75, 38047), (80, 38071), (97, 38149), (99, 38161), (103, 38170), (108, 38191), (120, 38260),

Gene: Buck_112 Start: 64501, Stop: 64875, Start Num: 40

Candidate Starts for Buck_112:

(Start: 33 @64447 has 1 MA's), (Start: 40 @64501 has 98 MA's), (57, 64555), (Start: 67 @64582 has 16 MA's), (70, 64591), (77, 64630), (81, 64651), (103, 64744), (108, 64762), (109, 64765), (117, 64813), (130, 64864),

Gene: BugsBunny_110 Start: 63999, Stop: 64373, Start Num: 40

Candidate Starts for BugsBunny_110:

(Start: 33 @63945 has 1 MA's), (Start: 40 @63999 has 98 MA's), (Start: 67 @64080 has 16 MA's), (70, 64089), (77, 64128), (81, 64149), (103, 64242), (108, 64260), (109, 64263), (117, 64311), (130, 64362),

Gene: Butterball_57 Start: 49733, Stop: 49371, Start Num: 51

Candidate Starts for Butterball_57:

(Start: 51 @49733 has 23 MA's), (Start: 56 @49724 has 22 MA's), (Start: 67 @49694 has 16 MA's), (83, 49619), (103, 49529), (110, 49502), (114, 49469), (120, 49439), (132, 49403),

Gene: Cactus_115 Start: 62939, Stop: 63313, Start Num: 40

Candidate Starts for Cactus_115:

(Start: 33 @62885 has 1 MA's), (Start: 40 @62939 has 98 MA's), (57, 62993), (Start: 67 @63020 has 16 MA's), (70, 63029), (77, 63068), (81, 63089), (103, 63182), (108, 63200), (109, 63203), (117, 63251), (118, 63257), (120, 63269),

Gene: CallinAllBarbz_26 Start: 21897, Stop: 22250, Start Num: 55

Candidate Starts for CallinAllBarbz_26:

(43, 21858), (Start: 55 @21897 has 2 MA's), (Start: 67 @21921 has 16 MA's), (86, 22014), (97, 22086), (107, 22128), (115, 22176),

Gene: Caron_28 Start: 22040, Stop: 22432, Start Num: 44

Candidate Starts for Caron_28:

(8, 21614), (Start: 44 @22040 has 1 MA's), (Start: 67 @22109 has 16 MA's), (75, 22139), (103, 22286),

Gene: Cassia_28 Start: 22891, Stop: 23259, Start Num: 56

Candidate Starts for Cassia_28:

(5, 22426), (15, 22588), (Start: 56 @22891 has 22 MA's), (Start: 67 @22915 has 16 MA's), (94, 23068),

Gene: CathyBurgh_53 Start: 48297, Stop: 47935, Start Num: 51

Candidate Starts for CathyBurgh_53:

(Start: 51 @48297 has 23 MA's), (Start: 56 @48288 has 22 MA's), (Start: 67 @48258 has 16 MA's), (83, 48183), (103, 48093), (110, 48066), (114, 48033), (120, 48003), (132, 47967),

Gene: Charianelly_50 Start: 48481, Stop: 48116, Start Num: 50

Candidate Starts for Charianelly_50:

(Start: 50 @48481 has 32 MA's), (Start: 67 @48439 has 16 MA's), (87, 48334), (110, 48247), (113, 48217), (114, 48214), (120, 48184),

Gene: Chelms_53 Start: 48063, Stop: 47701, Start Num: 51

Candidate Starts for Chelms_53:

(41, 48111), (Start: 51 @48063 has 23 MA's), (Start: 53 @48060 has 3 MA's), (Start: 67 @48024 has 16 MA's), (83, 47949), (103, 47859), (110, 47832), (114, 47799), (120, 47769), (121, 47763), (132, 47733),

Gene: Chickaboom_56 Start: 33345, Stop: 33731, Start Num: 67

Candidate Starts for Chickaboom_56:

(Start: 67 @33345 has 16 MA's), (76, 33384), (88, 33459), (98, 33516), (101, 33528), (107, 33555), (115, 33603), (120, 33627), (138, 33681),

Gene: ChosenOne_111 Start: 62885, Stop: 63259, Start Num: 40

Candidate Starts for ChosenOne_111:

(Start: 33 @62831 has 1 MA's), (Start: 40 @62885 has 98 MA's), (57, 62939), (Start: 67 @62966 has 16 MA's), (70, 62975), (77, 63014), (81, 63035), (103, 63128), (108, 63146), (109, 63149), (117, 63197), (130, 63248),

Gene: ChotaBhai_111 Start: 63338, Stop: 63712, Start Num: 40

Candidate Starts for ChotaBhai_111:

(Start: 40 @63338 has 98 MA's), (57, 63392), (Start: 67 @63419 has 16 MA's), (70, 63428), (77, 63467), (78, 63470), (81, 63488), (103, 63581), (108, 63599), (109, 63602), (117, 63650), (118, 63656), (120, 63668),

Gene: Cjw1_111 Start: 64694, Stop: 65068, Start Num: 40

Candidate Starts for Cjw1_111:

(Start: 33 @64640 has 1 MA's), (Start: 40 @64694 has 98 MA's), (Start: 67 @64775 has 16 MA's), (70, 64784), (77, 64823), (81, 64844), (103, 64937), (108, 64955), (109, 64958), (117, 65006), (130, 65057),

Gene: Command613_113 Start: 63553, Stop: 63927, Start Num: 40

Candidate Starts for Command613_113:

(Start: 40 @63553 has 98 MA's), (57, 63607), (Start: 67 @63634 has 16 MA's), (70, 63643), (77, 63682), (81, 63703), (103, 63796), (108, 63814), (109, 63817), (117, 63865), (118, 63871), (120, 63883),

Gene: Community_29 Start: 24629, Stop: 24997, Start Num: 56

Candidate Starts for Community_29:

(Start: 56 @24629 has 22 MA's), (Start: 67 @24653 has 16 MA's), (94, 24806), (125, 24947),

Gene: Contagion_108 Start: 63047, Stop: 63421, Start Num: 40

Candidate Starts for Contagion_108:

(Start: 33 @62993 has 1 MA's), (Start: 40 @63047 has 98 MA's), (Start: 67 @63128 has 16 MA's), (70, 63137), (77, 63176), (81, 63197), (103, 63290), (108, 63308), (109, 63311), (117, 63359), (130, 63410),

Gene: Cookies_108 Start: 63324, Stop: 63698, Start Num: 40

Candidate Starts for Cookies_108:

(Start: 40 @63324 has 98 MA's), (57, 63378), (Start: 67 @63405 has 16 MA's), (70, 63414), (77, 63453), (81, 63474), (103, 63567), (108, 63585), (109, 63588), (117, 63636), (118, 63642), (120, 63654),

Gene: Cosmo_88 Start: 53908, Stop: 54264, Start Num: 60

Candidate Starts for Cosmo_88:

(Start: 53 @53896 has 3 MA's), (Start: 54 @53899 has 1 MA's), (Start: 56 @53902 has 22 MA's), (Start: 60 @53908 has 4 MA's), (Start: 67 @53932 has 16 MA's), (77, 53974), (80, 53986), (90, 54049), (91, 54055), (101, 54094), (106, 54109), (107, 54118), (109, 54124), (114, 54160), (117, 54172), (120, 54190),

Gene: Cote_55 Start: 32989, Stop: 33357, Start Num: 67

Candidate Starts for Cote_55:

(Start: 66 @32980 has 1 MA's), (Start: 67 @32989 has 16 MA's), (76, 33031), (96, 33148), (98, 33157), (107, 33196), (120, 33268), (138, 33322),

Gene: Courthouse_159 Start: 83757, Stop: 84137, Start Num: 50

Candidate Starts for Courthouse_159:

(Start: 50 @83757 has 32 MA's), (Start: 67 @83799 has 16 MA's), (83, 83874), (120, 84048), (121, 84054), (122, 84057), (142, 84126),

Gene: Crewmate_31 Start: 23149, Stop: 23517, Start Num: 56

Candidate Starts for Crewmate_31:

(9, 22744), (Start: 56 @23149 has 22 MA's), (Start: 67 @23173 has 16 MA's), (102, 23356), (103, 23359),

Gene: CrystalP_111 Start: 64057, Stop: 64431, Start Num: 40

Candidate Starts for CrystalP_111:

(Start: 33 @64003 has 1 MA's), (Start: 40 @64057 has 98 MA's), (Start: 67 @64138 has 16 MA's), (70, 64147), (77, 64186), (81, 64207), (103, 64300), (108, 64318), (109, 64321), (117, 64369), (118, 64375), (120, 64387),

Gene: Cyan_27 Start: 22364, Stop: 22729, Start Num: 26

Candidate Starts for Cyan_27:

(Start: 26 @22364 has 21 MA's), (Start: 67 @22388 has 16 MA's), (102, 22571),

Gene: Czyszczone1_111 Start: 63040, Stop: 63414, Start Num: 40

Candidate Starts for Czyszczone1_111:

(Start: 33 @62986 has 1 MA's), (Start: 40 @63040 has 98 MA's), (Start: 67 @63121 has 16 MA's), (70, 63130), (77, 63169), (81, 63190), (103, 63283), (108, 63301), (109, 63304), (117, 63352), (130, 63403),

Gene: DS6A_81 Start: 51791, Stop: 52174, Start Num: 39

Candidate Starts for DS6A_81:

(27, 51698), (31, 51737), (37, 51776), (Start: 39 @51791 has 1 MA's), (Start: 67 @51890 has 16 MA's), (76, 51926), (82, 51959), (102, 52043), (103, 52046), (107, 52061), (108, 52064), (117, 52115), (122, 52142),

Gene: Daikon_112 Start: 62856, Stop: 63230, Start Num: 40

Candidate Starts for Daikon_112:

(Start: 33 @62802 has 1 MA's), (Start: 40 @62856 has 98 MA's), (57, 62910), (Start: 67 @62937 has 16 MA's), (70, 62946), (77, 62985), (81, 63006), (103, 63099), (108, 63117), (109, 63120), (117, 63168), (118, 63174), (120, 63186),

Gene: Dakiti_54 Start: 48931, Stop: 48569, Start Num: 51

Candidate Starts for Dakiti_54:

(41, 48979), (Start: 51 @48931 has 23 MA's), (Start: 53 @48928 has 3 MA's), (Start: 67 @48892 has 16 MA's), (83, 48817), (103, 48727), (110, 48700), (114, 48667), (120, 48637), (121, 48631), (132, 48601),

Gene: Damp_49 Start: 47645, Stop: 47280, Start Num: 50

Candidate Starts for Damp_49:

(Start: 50 @47645 has 32 MA's), (Start: 67 @47603 has 16 MA's), (87, 47498), (110, 47411), (113, 47381), (114, 47378), (120, 47348),

Gene: Daob_55 Start: 32991, Stop: 33368, Start Num: 66

Candidate Starts for Daob_55:

(Start: 66 @32991 has 1 MA's), (Start: 67 @33000 has 16 MA's), (76, 33042), (96, 33159), (98, 33168), (107, 33207), (120, 33279), (138, 33333),

Gene: Demosthenes_47 Start: 48399, Stop: 47929, Start Num: 34

Candidate Starts for Demosthenes_47:

(1, 48882), (2, 48858), (3, 48855), (7, 48768), (10, 48759), (11, 48702), (12, 48687), (13, 48657), (16, 48576), (17, 48564), (22, 48495), (Start: 23 @48489 has 1 MA's), (Start: 34 @48399 has 1 MA's), (Start: 39 @48369 has 1 MA's), (48, 48315), (Start: 59 @48297 has 9 MA's), (Start: 67 @48273 has 16 MA's), (87, 48168), (110, 48066), (140, 47940),

Gene: Diabla_56 Start: 49398, Stop: 49039, Start Num: 53

Candidate Starts for Diabla_56:

(Start: 51 @49401 has 23 MA's), (Start: 53 @49398 has 3 MA's), (Start: 56 @49392 has 22 MA's), (Start: 67 @49362 has 16 MA's), (120, 49107), (132, 49071),

Gene: DoctorDiddles_110 Start: 62868, Stop: 63200, Start Num: 42

Candidate Starts for DoctorDiddles_110:

(Start: 36 @62826 has 1 MA's), (Start: 42 @62868 has 18 MA's), (Start: 50 @62898 has 32 MA's), (89, 63042), (102, 63090), (109, 63114), (121, 63186),

Gene: DrDrey_111 Start: 64717, Stop: 65091, Start Num: 40

Candidate Starts for DrDrey_111:

(Start: 33 @64663 has 1 MA's), (Start: 40 @64717 has 98 MA's), (57, 64771), (Start: 67 @64798 has 16 MA's), (70, 64807), (77, 64846), (81, 64867), (103, 64960), (108, 64978), (109, 64981), (117, 65029), (118, 65035), (120, 65047),

Gene: DrManhattan_26 Start: 20716, Stop: 21084, Start Num: 26

Candidate Starts for DrManhattan_26:

(Start: 26 @20716 has 21 MA's), (Start: 67 @20740 has 16 MA's), (103, 20926), (110, 20953), (113, 20983),

Gene: DrSierra_27 Start: 21394, Stop: 21762, Start Num: 26

Candidate Starts for DrSierra_27:

(Start: 26 @21394 has 21 MA's), (Start: 67 @21418 has 16 MA's),

Gene: Dumbo_111 Start: 63077, Stop: 63451, Start Num: 40

Candidate Starts for Dumbo_111:

(Start: 33 @63023 has 1 MA's), (Start: 40 @63077 has 98 MA's), (Start: 67 @63158 has 16 MA's), (70, 63167), (77, 63206), (81, 63227), (103, 63320), (108, 63338), (109, 63341), (117, 63389), (130, 63440),

Gene: Dusk_108 Start: 63239, Stop: 63613, Start Num: 40

Candidate Starts for Dusk_108:

(Start: 33 @63185 has 1 MA's), (Start: 40 @63239 has 98 MA's), (57, 63293), (Start: 67 @63320 has 16 MA's), (70, 63329), (77, 63368), (81, 63389), (103, 63482), (108, 63500), (109, 63503), (117, 63551), (118, 63557), (120, 63569),

Gene: E6_49 Start: 32814, Stop: 33161, Start Num: 72

Candidate Starts for E6_49:

(Start: 72 @32814 has 3 MA's), (76, 32838), (78, 32847), (92, 32937), (107, 33006), (119, 33072), (139, 33132), (142, 33153),

Gene: Easy2Say_111 Start: 63711, Stop: 64085, Start Num: 40

Candidate Starts for Easy2Say_111:

(Start: 33 @63657 has 1 MA's), (Start: 40 @63711 has 98 MA's), (57, 63765), (Start: 67 @63792 has 16 MA's), (70, 63801), (77, 63840), (81, 63861), (103, 63954), (108, 63972), (109, 63975), (117,

64023), (130, 64074),

Gene: Eggsie_52 Start: 47363, Stop: 47001, Start Num: 51

Candidate Starts for Eggsie_52:

(Start: 51 @47363 has 23 MA's), (Start: 53 @47360 has 3 MA's), (Start: 56 @47354 has 22 MA's), (Start: 67 @47324 has 16 MA's), (80, 47270), (120, 47069), (132, 47033),

Gene: Ekhein_54 Start: 47416, Stop: 47060, Start Num: 56

Candidate Starts for Ekhein_54:

(Start: 51 @47425 has 23 MA's), (Start: 56 @47416 has 22 MA's), (Start: 67 @47386 has 16 MA's), (83, 47311), (103, 47221), (110, 47194), (114, 47161), (120, 47131), (132, 47095),

Gene: Elezi_29 Start: 24459, Stop: 24827, Start Num: 56

Candidate Starts for Elezi_29:

(6, 24144), (9, 24156), (Start: 56 @24459 has 22 MA's), (62, 24465), (Start: 67 @24483 has 16 MA's), (102, 24666),

Gene: Elite2014_110 Start: 62884, Stop: 63258, Start Num: 40

Candidate Starts for Elite2014_110:

(Start: 33 @62830 has 1 MA's), (Start: 40 @62884 has 98 MA's), (57, 62938), (Start: 67 @62965 has 16 MA's), (70, 62974), (77, 63013), (81, 63034), (103, 63127), (108, 63145), (109, 63148), (117, 63196), (130, 63247),

Gene: Elph10_110 Start: 62723, Stop: 63097, Start Num: 40

Candidate Starts for Elph10_110:

(Start: 33 @62669 has 1 MA's), (Start: 40 @62723 has 98 MA's), (Start: 67 @62804 has 16 MA's), (70, 62813), (77, 62852), (81, 62873), (103, 62966), (108, 62984), (109, 62987), (117, 63035), (130, 63086),

Gene: Emmina_111 Start: 62662, Stop: 63036, Start Num: 40

Candidate Starts for Emmina_111:

(Start: 33 @62608 has 1 MA's), (Start: 40 @62662 has 98 MA's), (57, 62716), (Start: 67 @62743 has 16 MA's), (70, 62752), (77, 62791), (81, 62812), (103, 62905), (108, 62923), (109, 62926), (117, 62974), (130, 63025),

Gene: EniyanLRS_84 Start: 53647, Stop: 54018, Start Num: 60

Candidate Starts for EniyanLRS_84:

(Start: 53 @53635 has 3 MA's), (Start: 54 @53638 has 1 MA's), (Start: 56 @53641 has 22 MA's), (Start: 60 @53647 has 4 MA's), (Start: 67 @53671 has 16 MA's), (77, 53713), (80, 53725), (90, 53788), (91, 53794), (101, 53833), (106, 53848), (107, 53857), (109, 53863), (114, 53899), (117, 53911), (119, 53923), (120, 53929), (137, 53986), (141, 54004),

Gene: Eraser_29 Start: 24451, Stop: 24819, Start Num: 26

Candidate Starts for Eraser_29:

(14, 24286), (Start: 26 @24451 has 21 MA's), (Start: 67 @24475 has 16 MA's),

Gene: Eureka_111 Start: 63850, Stop: 64224, Start Num: 40

Candidate Starts for Eureka_111:

(Start: 33 @63796 has 1 MA's), (Start: 40 @63850 has 98 MA's), (57, 63904), (Start: 67 @63931 has 16 MA's), (70, 63940), (77, 63979), (81, 64000), (103, 64093), (108, 64111), (109, 64114), (117, 64162), (118, 64168), (130, 64213),

Gene: Exiguo_53 Start: 47428, Stop: 47075, Start Num: 56

Candidate Starts for Exiguo_53:

(Start: 51 @47437 has 23 MA's), (Start: 56 @47428 has 22 MA's), (Start: 67 @47398 has 16 MA's), (83, 47323), (103, 47233), (110, 47206), (114, 47173), (120, 47143), (132, 47107),

Gene: FelixAlejandro_58 Start: 49931, Stop: 49569, Start Num: 51

Candidate Starts for FelixAlejandro_58:

(Start: 51 @49931 has 23 MA's), (Start: 56 @49922 has 22 MA's), (Start: 67 @49892 has 16 MA's), (83, 49817), (103, 49727), (108, 49706), (110, 49700), (114, 49667), (120, 49637), (132, 49601),

Gene: Filch_114 Start: 63550, Stop: 63882, Start Num: 42

Candidate Starts for Filch_114:

(Start: 42 @63550 has 18 MA's), (Start: 50 @63580 has 32 MA's), (89, 63724), (102, 63772), (109, 63796), (121, 63868),

Gene: FireRed_114 Start: 64126, Stop: 64500, Start Num: 40

Candidate Starts for FireRed_114:

(Start: 33 @64072 has 1 MA's), (Start: 40 @64126 has 98 MA's), (57, 64180), (Start: 67 @64207 has 16 MA's), (70, 64216), (77, 64255), (81, 64276), (103, 64369), (108, 64387), (109, 64390), (117, 64438), (130, 64489),

Gene: Flakey_53 Start: 48292, Stop: 47939, Start Num: 56

Candidate Starts for Flakey_53:

(Start: 51 @48301 has 23 MA's), (Start: 56 @48292 has 22 MA's), (Start: 67 @48262 has 16 MA's), (83, 48187), (103, 48097), (110, 48070), (114, 48037), (120, 48007), (132, 47971),

Gene: Flypotenuse_107 Start: 62431, Stop: 62805, Start Num: 40

Candidate Starts for Flypotenuse_107:

(Start: 40 @62431 has 98 MA's), (57, 62485), (Start: 67 @62512 has 16 MA's), (70, 62521), (77, 62560), (78, 62563), (81, 62581), (103, 62674), (108, 62692), (109, 62695), (117, 62743), (118, 62749), (120, 62761),

Gene: GMA7_46 Start: 42634, Stop: 42269, Start Num: 50

Candidate Starts for GMA7_46:

(Start: 50 @42634 has 32 MA's), (Start: 67 @42592 has 16 MA's), (95, 42454), (103, 42427), (113, 42370),

Gene: GTE7_45 Start: 42665, Stop: 42300, Start Num: 50

Candidate Starts for GTE7_45:

(Start: 50 @42665 has 32 MA's), (Start: 67 @42623 has 16 MA's), (95, 42485), (103, 42458), (113, 42401),

Gene: Gage_113 Start: 63382, Stop: 63756, Start Num: 40

Candidate Starts for Gage_113:

(Start: 33 @63328 has 1 MA's), (Start: 40 @63382 has 98 MA's), (Start: 67 @63463 has 16 MA's), (70, 63472), (77, 63511), (81, 63532), (103, 63625), (108, 63643), (109, 63646), (117, 63694), (130, 63745),

Gene: Gaia_125 Start: 69310, Stop: 69603, Start Num: 60

Candidate Starts for Gaia_125:

(Start: 60 @69310 has 4 MA's), (Start: 63 @69316 has 1 MA's), (Start: 67 @69334 has 16 MA's), (83, 69409), (97, 69481), (100, 69490), (115, 69556), (119, 69574), (120, 69580), (121, 69586),

Gene: GalacticEye_51 Start: 48442, Stop: 48077, Start Num: 50

Candidate Starts for GalacticEye_51:

(Start: 50 @48442 has 32 MA's), (Start: 67 @48400 has 16 MA's), (87, 48295), (110, 48208), (113, 48178), (114, 48175), (120, 48145),

Gene: Galaxy_50 Start: 32207, Stop: 32593, Start Num: 67

Candidate Starts for Galaxy_50:

(32, 32063), (Start: 66 @32198 has 1 MA's), (Start: 67 @32207 has 16 MA's), (73, 32225), (76, 32246), (96, 32369), (98, 32378), (107, 32417), (116, 32468), (138, 32543),

Gene: GardenState_30 Start: 22984, Stop: 23337, Start Num: 49

Candidate Starts for GardenState_30:

(29, 22870), (Start: 49 @22984 has 2 MA's), (Start: 67 @23017 has 16 MA's), (99, 23182), (112, 23230), (115, 23257),

Gene: Gator_109 Start: 63291, Stop: 63665, Start Num: 40

Candidate Starts for Gator_109:

(Start: 40 @63291 has 98 MA's), (57, 63345), (Start: 67 @63372 has 16 MA's), (70, 63381), (77, 63420), (81, 63441), (103, 63534), (108, 63552), (109, 63555), (117, 63603), (118, 63609), (120, 63621),

Gene: Gemini_116 Start: 63761, Stop: 64135, Start Num: 40

Candidate Starts for Gemini_116:

(Start: 33 @63707 has 1 MA's), (Start: 40 @63761 has 98 MA's), (Start: 67 @63842 has 16 MA's), (70, 63851), (77, 63890), (81, 63911), (103, 64004), (108, 64022), (109, 64025), (117, 64073), (130, 64124),

Gene: Glexan_110 Start: 63441, Stop: 63815, Start Num: 40

Candidate Starts for Glexan_110:

(Start: 33 @63387 has 1 MA's), (Start: 40 @63441 has 98 MA's), (57, 63495), (Start: 67 @63522 has 16 MA's), (70, 63531), (77, 63570), (81, 63591), (103, 63684), (108, 63702), (109, 63705), (117, 63753), (118, 63759), (120, 63771),

Gene: Goku_111 Start: 64093, Stop: 64425, Start Num: 42

Candidate Starts for Goku_111:

(Start: 42 @64093 has 18 MA's), (Start: 50 @64123 has 32 MA's), (89, 64267), (102, 64315), (109, 64339), (121, 64411),

Gene: GoldenSpark_115 Start: 63244, Stop: 63618, Start Num: 40

Candidate Starts for GoldenSpark_115:

(Start: 33 @63190 has 1 MA's), (Start: 40 @63244 has 98 MA's), (Start: 67 @63325 has 16 MA's), (70, 63334), (77, 63373), (81, 63394), (103, 63487), (108, 63505), (109, 63508), (117, 63556), (130, 63607),

Gene: Goldilocks_115 Start: 63774, Stop: 64106, Start Num: 42

Candidate Starts for Goldilocks_115:

(Start: 42 @63774 has 18 MA's), (Start: 50 @63804 has 32 MA's), (89, 63948), (102, 63996), (109, 64020), (121, 64092),

Gene: Gonephishing_156 Start: 85217, Stop: 85597, Start Num: 50

Candidate Starts for Gonephishing_156:

(Start: 50 @85217 has 32 MA's), (Start: 67 @85259 has 16 MA's), (83, 85334), (102, 85415), (120, 85508), (121, 85514), (122, 85517), (142, 85586),

Gene: GooberAzure_114 Start: 63244, Stop: 63618, Start Num: 40

Candidate Starts for GooberAzure_114:

(Start: 33 @63190 has 1 MA's), (Start: 40 @63244 has 98 MA's), (Start: 67 @63325 has 16 MA's), (70, 63334), (77, 63373), (81, 63394), (103, 63487), (108, 63505), (109, 63508), (117, 63556), (130, 63607),

Gene: Gorko_53 Start: 47420, Stop: 47067, Start Num: 56

Candidate Starts for Gorko_53:

(Start: 51 @47429 has 23 MA's), (Start: 56 @47420 has 22 MA's), (Start: 67 @47390 has 16 MA's), (83, 47315), (103, 47225), (110, 47198), (114, 47165), (120, 47135), (132, 47099),

Gene: GourdThymes_54 Start: 48303, Stop: 47941, Start Num: 51

Candidate Starts for GourdThymes_54:

(Start: 51 @48303 has 23 MA's), (Start: 56 @48294 has 22 MA's), (Start: 67 @48264 has 16 MA's), (83, 48189), (103, 48099), (110, 48072), (114, 48039), (120, 48009), (132, 47973),

Gene: Guillaume_51 Start: 48492, Stop: 48127, Start Num: 50

Candidate Starts for Guillaume_51:

(Start: 50 @48492 has 32 MA's), (Start: 67 @48450 has 16 MA's), (87, 48345), (110, 48258), (113, 48228), (114, 48225), (120, 48195),

Gene: Hail2Pitt_50 Start: 48968, Stop: 48603, Start Num: 50

Candidate Starts for Hail2Pitt_50:

(Start: 50 @48968 has 32 MA's), (Start: 67 @48926 has 16 MA's), (87, 48821), (110, 48734), (114, 48701), (120, 48671),

Gene: HanKaySha_111 Start: 63432, Stop: 63806, Start Num: 40

Candidate Starts for HanKaySha_111:

(Start: 33 @63378 has 1 MA's), (Start: 40 @63432 has 98 MA's), (57, 63486), (Start: 67 @63513 has 16 MA's), (70, 63522), (77, 63561), (81, 63582), (103, 63675), (108, 63693), (109, 63696), (117, 63744), (130, 63795),

Gene: HannahPhantana_61 Start: 32688, Stop: 33014, Start Num: 76

Candidate Starts for HannahPhantana_61:

(Start: 66 @32637 has 1 MA's), (Start: 67 @32646 has 16 MA's), (76, 32688), (96, 32805), (98, 32814), (107, 32853), (120, 32925), (138, 32979),

Gene: Harambe_51 Start: 48759, Stop: 48394, Start Num: 50

Candidate Starts for Harambe_51:

(Start: 50 @48759 has 32 MA's), (Start: 67 @48717 has 16 MA's), (87, 48612), (110, 48525), (113, 48495), (114, 48492), (120, 48462),

Gene: Harella_112 Start: 63957, Stop: 64331, Start Num: 40

Candidate Starts for Harella_112:

(Start: 33 @63903 has 1 MA's), (Start: 40 @63957 has 98 MA's), (57, 64011), (Start: 67 @64038 has 16 MA's), (70, 64047), (77, 64086), (81, 64107), (103, 64200), (108, 64218), (109, 64221), (117, 64269), (118, 64275), (120, 64287),

Gene: HayZem_56 Start: 48375, Stop: 48052, Start Num: 67

Candidate Starts for HayZem_56:

(Start: 50 @48417 has 32 MA's), (Start: 67 @48375 has 16 MA's), (95, 48237), (103, 48210), (113, 48153),

Gene: Hello_51 Start: 48721, Stop: 48356, Start Num: 50

Candidate Starts for Hello_51:

(Start: 50 @48721 has 32 MA's), (Start: 67 @48679 has 16 MA's), (87, 48574), (110, 48487), (113, 48457), (114, 48454), (120, 48424),

Gene: Henry_109 Start: 63242, Stop: 63616, Start Num: 40

Candidate Starts for Henry_109:

(Start: 40 @63242 has 98 MA's), (57, 63296), (Start: 67 @63323 has 16 MA's), (70, 63332), (77, 63371), (81, 63392), (103, 63485), (108, 63503), (109, 63506), (117, 63554), (118, 63560), (120, 63572),

Gene: Highbury_107 Start: 61589, Stop: 61963, Start Num: 40

Candidate Starts for Highbury_107:

(Start: 33 @61535 has 1 MA's), (Start: 40 @61589 has 98 MA's), (57, 61643), (Start: 67 @61670 has 16 MA's), (70, 61679), (77, 61718), (81, 61739), (103, 61832), (108, 61850), (109, 61853), (117, 61901), (130, 61952),

Gene: Hollow_49 Start: 48928, Stop: 48560, Start Num: 59

Candidate Starts for Hollow_49:

(Start: 59 @48928 has 9 MA's), (Start: 67 @48904 has 16 MA's), (110, 48697), (121, 48628), (140, 48571),

Gene: Holt_117 Start: 64172, Stop: 64504, Start Num: 42

Candidate Starts for Holt_117:

(Start: 42 @64172 has 18 MA's), (Start: 50 @64202 has 32 MA's), (89, 64346), (102, 64394), (109, 64418), (121, 64490),

Gene: Hoonter_114 Start: 63737, Stop: 64111, Start Num: 40

Candidate Starts for Hoonter_114:

(Start: 33 @63683 has 1 MA's), (Start: 40 @63737 has 98 MA's), (Start: 67 @63818 has 16 MA's), (70, 63827), (77, 63866), (81, 63887), (103, 63980), (108, 63998), (109, 64001), (117, 64049), (130, 64100),

Gene: Hokey_111 Start: 64043, Stop: 64417, Start Num: 40

Candidate Starts for Hokey_111:

(Start: 33 @63989 has 1 MA's), (Start: 40 @64043 has 98 MA's), (Start: 67 @64124 has 16 MA's), (70, 64133), (77, 64172), (81, 64193), (103, 64286), (108, 64304), (109, 64307), (117, 64355), (130, 64406),

Gene: Hotorobo_54 Start: 48308, Stop: 47946, Start Num: 51

Candidate Starts for Hotorobo_54:

(Start: 51 @48308 has 23 MA's), (Start: 56 @48299 has 22 MA's), (Start: 67 @48269 has 16 MA's), (83, 48194), (103, 48104), (110, 48077), (114, 48044), (120, 48014), (132, 47978),

Gene: HufflyPuff_113 Start: 64352, Stop: 64726, Start Num: 40

Candidate Starts for HufflyPuff_113:

(Start: 33 @64298 has 1 MA's), (Start: 40 @64352 has 98 MA's), (Start: 67 @64433 has 16 MA's), (70, 64442), (77, 64481), (81, 64502), (103, 64595), (108, 64613), (109, 64616), (117, 64664), (130, 64715),

Gene: IAmGroot_30 Start: 23648, Stop: 24001, Start Num: 49

Candidate Starts for IAmGroot_30:

(29, 23534), (Start: 49 @23648 has 2 MA's), (Start: 67 @23681 has 16 MA's), (99, 23846), (112, 23894), (115, 23921),

Gene: IHOP_109 Start: 62960, Stop: 63334, Start Num: 40

Candidate Starts for IHOP_109:

(Start: 33 @62906 has 1 MA's), (Start: 40 @62960 has 98 MA's), (57, 63014), (Start: 67 @63041 has 16 MA's), (70, 63050), (77, 63089), (81, 63110), (103, 63203), (108, 63221), (109, 63224), (117, 63272), (118, 63278), (120, 63290),

Gene: Icee_113 Start: 63282, Stop: 63614, Start Num: 42

Candidate Starts for Icee_113:

(Start: 42 @63282 has 18 MA's), (Start: 50 @63312 has 32 MA's), (89, 63456), (102, 63504), (109, 63528), (121, 63600),

Gene: Inca_108 Start: 61449, Stop: 61823, Start Num: 36

Candidate Starts for Inca_108:

(Start: 36 @61449 has 1 MA's), (Start: 42 @61491 has 18 MA's), (Start: 50 @61521 has 32 MA's), (89, 61665), (102, 61713), (109, 61737), (121, 61809),

Gene: Island3_56 Start: 37993, Stop: 38289, Start Num: 59

Candidate Starts for Island3_56:

(47, 37969), (Start: 59 @37993 has 9 MA's), (Start: 67 @38017 has 16 MA's), (75, 38047), (80, 38071), (97, 38149), (99, 38161), (103, 38170), (108, 38191), (120, 38260),

Gene: Iter_28 Start: 22439, Stop: 22807, Start Num: 56

Candidate Starts for Iter_28:

(Start: 56 @22439 has 22 MA's), (Start: 67 @22463 has 16 MA's), (103, 22649),

Gene: IttyBittyPiggy_28 Start: 22679, Stop: 23044, Start Num: 26

Candidate Starts for IttyBittyPiggy_28:

(Start: 26 @22679 has 21 MA's), (Start: 67 @22703 has 16 MA's), (83, 22778), (103, 22889), (135, 23027),

Gene: Jams_51 Start: 47931, Stop: 47566, Start Num: 50

Candidate Starts for Jams_51:

(Start: 50 @47931 has 32 MA's), (Start: 67 @47889 has 16 MA's), (87, 47784), (110, 47697), (113, 47667), (114, 47664), (120, 47634),

Gene: Jamun_50 Start: 33451, Stop: 33831, Start Num: 67

Candidate Starts for Jamun_50:

(Start: 66 @33442 has 1 MA's), (Start: 67 @33451 has 16 MA's), (76, 33484), (98, 33616), (107, 33655), (115, 33703), (120, 33727), (138, 33781),

Gene: Janeemi_30 Start: 24658, Stop: 25026, Start Num: 56

Candidate Starts for Janeemi_30:

(Start: 56 @24658 has 22 MA's), (Start: 67 @24682 has 16 MA's), (94, 24835), (103, 24868),

Gene: JeTaime_110 Start: 63384, Stop: 63716, Start Num: 42

Candidate Starts for JeTaime_110:

(Start: 42 @63384 has 18 MA's), (Start: 50 @63414 has 32 MA's), (89, 63558), (102, 63606), (109, 63630), (121, 63702),

Gene: Jellybones_56 Start: 49403, Stop: 49041, Start Num: 51

Candidate Starts for Jellybones_56:

(Start: 51 @49403 has 23 MA's), (Start: 56 @49394 has 22 MA's), (Start: 67 @49364 has 16 MA's), (83, 49289), (103, 49199), (110, 49172), (114, 49139), (120, 49109), (121, 49103),

Gene: Joemato_29 Start: 22364, Stop: 22729, Start Num: 26

Candidate Starts for Joemato_29:

(Start: 26 @22364 has 21 MA's), (Start: 67 @22388 has 16 MA's), (102, 22571),

Gene: John316_57 Start: 49466, Stop: 49104, Start Num: 51

Candidate Starts for John316_57:

(Start: 51 @49466 has 23 MA's), (Start: 56 @49457 has 22 MA's), (Start: 67 @49427 has 16 MA's), (83, 49352), (103, 49262), (110, 49235), (114, 49202), (120, 49172), (132, 49136),

Gene: JohnDoe_27 Start: 22359, Stop: 22724, Start Num: 26

Candidate Starts for JohnDoe_27:

(Start: 26 @22359 has 21 MA's), (Start: 67 @22383 has 16 MA's), (102, 22566),

Gene: Jormungandr_51 Start: 48474, Stop: 48109, Start Num: 50

Candidate Starts for Jormungandr_51:

(Start: 50 @48474 has 32 MA's), (Start: 67 @48432 has 16 MA's), (87, 48327), (110, 48240), (113, 48210), (114, 48207), (120, 48177),

Gene: Jstan_31 Start: 24469, Stop: 24813, Start Num: 67

Candidate Starts for Jstan_31:

(14, 24280), (Start: 26 @24445 has 21 MA's), (Start: 67 @24469 has 16 MA's),

Gene: JuneStar_28 Start: 24589, Stop: 24957, Start Num: 56

Candidate Starts for JuneStar_28:

(14, 24424), (Start: 56 @24589 has 22 MA's), (Start: 67 @24613 has 16 MA's),

Gene: Juno112_54 Start: 33123, Stop: 33518, Start Num: 61

Candidate Starts for Juno112_54:

(61, 33123), (Start: 68 @33147 has 4 MA's), (74, 33174), (76, 33186), (85, 33237), (96, 33306), (98, 33315), (105, 33339), (107, 33354), (120, 33426), (138, 33480),

Gene: KHumphrey_53 Start: 33011, Stop: 33406, Start Num: 61

Candidate Starts for KHumphrey_53:

(61, 33011), (Start: 68 @33035 has 4 MA's), (74, 33062), (76, 33074), (85, 33125), (96, 33194), (98, 33203), (105, 33227), (107, 33242), (120, 33314), (138, 33368),

Gene: Kanye_108 Start: 63493, Stop: 63867, Start Num: 40

Candidate Starts for Kanye_108:

(Start: 33 @63439 has 1 MA's), (Start: 40 @63493 has 98 MA's), (Start: 67 @63574 has 16 MA's), (70, 63583), (77, 63622), (81, 63643), (103, 63736), (108, 63754), (109, 63757), (117, 63805), (130, 63856),

Gene: Kaseim_51 Start: 47916, Stop: 47551, Start Num: 50

Candidate Starts for Kaseim_51:

(Start: 50 @47916 has 32 MA's), (Start: 67 @47874 has 16 MA's), (87, 47769), (110, 47682), (113, 47652), (114, 47649), (120, 47619),

Gene: Katyusha_48 Start: 48592, Stop: 48224, Start Num: 59

Candidate Starts for Katyusha_48:

(Start: 59 @48592 has 9 MA's), (Start: 67 @48568 has 16 MA's), (110, 48361), (121, 48292), (140, 48235),

Gene: Kaylissa_27 Start: 22354, Stop: 22719, Start Num: 26

Candidate Starts for Kaylissa_27:

(Start: 26 @22354 has 21 MA's), (Start: 67 @22378 has 16 MA's), (102, 22561),

Gene: KeAlii_28 Start: 22518, Stop: 22889, Start Num: 56

Candidate Starts for KeAlii_28:

(14, 22341), (Start: 56 @22518 has 22 MA's), (Start: 67 @22542 has 16 MA's),

Gene: Kepler_54 Start: 32767, Stop: 33135, Start Num: 67

Candidate Starts for Kepler_54:

(Start: 66 @32758 has 1 MA's), (Start: 67 @32767 has 16 MA's), (76, 32809), (96, 32926), (98, 32935), (107, 32974), (120, 33046), (138, 33100),

Gene: Kimchi_116 Start: 63899, Stop: 64231, Start Num: 42

Candidate Starts for Kimchi_116:

(Start: 42 @63899 has 18 MA's), (Start: 50 @63929 has 32 MA's), (89, 64073), (102, 64121), (109, 64145), (121, 64217),

Gene: Kostya_111 Start: 63062, Stop: 63436, Start Num: 40

Candidate Starts for Kostya_111:

(Start: 33 @63008 has 1 MA's), (Start: 40 @63062 has 98 MA's), (57, 63116), (Start: 67 @63143 has 16 MA's), (70, 63152), (77, 63191), (81, 63212), (103, 63305), (108, 63323), (109, 63326), (117, 63374), (118, 63380), (120, 63392),

Gene: Kuleana_54 Start: 32362, Stop: 32733, Start Num: 67

Candidate Starts for Kuleana_54:

(Start: 66 @32353 has 1 MA's), (Start: 67 @32362 has 16 MA's), (73, 32383), (76, 32404), (88, 32479), (96, 32521), (98, 32530), (107, 32569), (109, 32575), (120, 32641), (121, 32647),

Gene: Kvothe_48 Start: 48491, Stop: 48123, Start Num: 59

Candidate Starts for Kvothe_48:

(Start: 59 @48491 has 9 MA's), (Start: 67 @48467 has 16 MA's), (110, 48260), (121, 48191), (140, 48134),

Gene: Lahirium_51 Start: 48996, Stop: 48631, Start Num: 50

Candidate Starts for Lahirium_51:

(Start: 50 @48996 has 32 MA's), (Start: 67 @48954 has 16 MA's), (87, 48849), (110, 48762), (113, 48732), (114, 48729), (120, 48699),

Gene: Lego_27 Start: 22308, Stop: 22673, Start Num: 26

Candidate Starts for Lego_27:

(Start: 26 @22308 has 21 MA's), (Start: 67 @22332 has 16 MA's), (102, 22515),

Gene: Leona_53 Start: 33226, Stop: 33597, Start Num: 68

Candidate Starts for Leona_53:

(61, 33202), (Start: 68 @33226 has 4 MA's), (74, 33253), (76, 33265), (85, 33316), (96, 33385), (98, 33394), (105, 33418), (107, 33433), (120, 33505), (138, 33559),

Gene: Lidong_51 Start: 48731, Stop: 48366, Start Num: 50

Candidate Starts for Lidong_51:

(Start: 50 @48731 has 32 MA's), (Start: 67 @48689 has 16 MA's), (87, 48584), (110, 48497), (113, 48467), (114, 48464), (120, 48434),

Gene: Liebe_28 Start: 23243, Stop: 23641, Start Num: 56

Candidate Starts for Liebe_28:

(Start: 56 @23243 has 22 MA's), (Start: 67 @23267 has 16 MA's), (76, 23303), (97, 23432), (110, 23480), (114, 23513), (144, 23630),

Gene: Lilac_112 Start: 64186, Stop: 64560, Start Num: 40

Candidate Starts for Lilac_112:

(Start: 33 @64132 has 1 MA's), (Start: 40 @64186 has 98 MA's), (57, 64240), (Start: 67 @64267 has 16 MA's), (70, 64276), (77, 64315), (81, 64336), (103, 64429), (108, 64447), (109, 64450), (117, 64498), (130, 64549),

Gene: Lilizi_111 Start: 63472, Stop: 63846, Start Num: 40

Candidate Starts for Lilizi_111:

(Start: 33 @63418 has 1 MA's), (Start: 40 @63472 has 98 MA's), (Start: 67 @63553 has 16 MA's), (70, 63562), (77, 63601), (81, 63622), (103, 63715), (108, 63733), (109, 63736), (117, 63784), (130, 63835),

Gene: Lilpickle_110 Start: 62884, Stop: 63258, Start Num: 40

Candidate Starts for Lilpickle_110:

(Start: 33 @62830 has 1 MA's), (Start: 40 @62884 has 98 MA's), (57, 62938), (Start: 67 @62965 has 16 MA's), (70, 62974), (77, 63013), (81, 63034), (103, 63127), (108, 63145), (109, 63148), (117, 63196), (130, 63247),

Gene: Linetti_54 Start: 49072, Stop: 48710, Start Num: 51

Candidate Starts for Linetti_54:

(41, 49120), (Start: 51 @49072 has 23 MA's), (Start: 53 @49069 has 3 MA's), (Start: 67 @49033 has 16 MA's), (83, 48958), (103, 48868), (110, 48841), (114, 48808), (120, 48778), (121, 48772), (132, 48742),

Gene: LittleE_170 Start: 88113, Stop: 88469, Start Num: 50

Candidate Starts for LittleE_170:

(Start: 50 @88113 has 32 MA's), (Start: 67 @88155 has 16 MA's), (83, 88230), (102, 88311), (120, 88404), (121, 88410), (122, 88413), (129, 88434), (136, 88458),

Gene: Lizalica_27 Start: 22357, Stop: 22722, Start Num: 26

Candidate Starts for Lizalica_27:

(14, 22192), (Start: 26 @22357 has 21 MA's), (Start: 67 @22381 has 16 MA's), (102, 22564),

Gene: Lizzo_54 Start: 48297, Stop: 47935, Start Num: 51

Candidate Starts for Lizzo_54:

(Start: 51 @48297 has 23 MA's), (Start: 56 @48288 has 22 MA's), (Start: 67 @48258 has 16 MA's), (83, 48183), (103, 48093), (110, 48066), (114, 48033), (120, 48003), (132, 47967),

Gene: London_29 Start: 24459, Stop: 24827, Start Num: 56

Candidate Starts for London_29:

(6, 24144), (9, 24156), (Start: 56 @24459 has 22 MA's), (62, 24465), (Start: 67 @24483 has 16 MA's),

Gene: Lucky2013_159 Start: 83586, Stop: 83966, Start Num: 50

Candidate Starts for Lucky2013_159:

(Start: 50 @83586 has 32 MA's), (Start: 67 @83628 has 16 MA's), (83, 83703), (102, 83784), (120, 83877), (121, 83883), (122, 83886), (129, 83907), (136, 83931), (142, 83955),

Gene: Luker_52 Start: 48949, Stop: 48584, Start Num: 50

Candidate Starts for Luker_52:

(Start: 50 @48949 has 32 MA's), (Start: 67 @48907 has 16 MA's), (87, 48802), (110, 48715), (113, 48685), (114, 48682), (120, 48652),

Gene: Lunar_54 Start: 32679, Stop: 33047, Start Num: 67

Candidate Starts for Lunar_54:

(Start: 66 @32670 has 1 MA's), (Start: 67 @32679 has 16 MA's), (76, 32721), (96, 32838), (98, 32847), (107, 32886), (120, 32958), (138, 33012),

Gene: MISSy_112 Start: 64169, Stop: 64543, Start Num: 40

Candidate Starts for MISSy_112:

(Start: 33 @64115 has 1 MA's), (Start: 40 @64169 has 98 MA's), (Start: 67 @64250 has 16 MA's), (70, 64259), (77, 64298), (81, 64319), (103, 64412), (108, 64430), (109, 64433), (117, 64481), (130, 64532),

Gene: MPhalcon_112 Start: 63587, Stop: 63961, Start Num: 40

Candidate Starts for MPhalcon_112:

(Start: 33 @63533 has 1 MA's), (Start: 40 @63587 has 98 MA's), (Start: 67 @63668 has 16 MA's), (70, 63677), (77, 63716), (81, 63737), (103, 63830), (108, 63848), (109, 63851), (117, 63899), (130, 63950),

Gene: MaGuCo_26 Start: 22035, Stop: 22442, Start Num: 56

Candidate Starts for MaGuCo_26:

(4, 21519), (15, 21711), (30, 21909), (35, 21936), (Start: 56 @22035 has 22 MA's), (Start: 67 @22059 has 16 MA's), (97, 22224), (114, 22305), (144, 22431),

Gene: MadamMonkfish_110 Start: 62894, Stop: 63268, Start Num: 40

Candidate Starts for MadamMonkfish_110:

(Start: 33 @62840 has 1 MA's), (Start: 40 @62894 has 98 MA's), (57, 62948), (Start: 67 @62975 has 16 MA's), (70, 62984), (77, 63023), (81, 63044), (103, 63137), (108, 63155), (109, 63158), (117, 63206), (130, 63257),

Gene: Manda_112 Start: 63624, Stop: 63998, Start Num: 40

Candidate Starts for Manda_112:

(Start: 33 @63570 has 1 MA's), (Start: 40 @63624 has 98 MA's), (57, 63678), (Start: 67 @63705 has 16 MA's), (70, 63714), (77, 63753), (81, 63774), (103, 63867), (108, 63885), (109, 63888), (117, 63936), (118, 63942), (130, 63987),

Gene: Marshmallow_110 Start: 64096, Stop: 64428, Start Num: 42

Candidate Starts for Marshmallow_110:

(Start: 42 @64096 has 18 MA's), (Start: 50 @64126 has 32 MA's), (89, 64270), (102, 64318), (109, 64342), (121, 64414),

Gene: MaryV_88 Start: 53723, Stop: 54085, Start Num: 56

Candidate Starts for MaryV_88:

(Start: 53 @53717 has 3 MA's), (Start: 54 @53720 has 1 MA's), (Start: 56 @53723 has 22 MA's), (Start: 60 @53729 has 4 MA's), (Start: 67 @53753 has 16 MA's), (77, 53795), (80, 53807), (90, 53870), (91, 53876), (101, 53915), (106, 53930), (107, 53939), (108, 53942), (109, 53945), (114, 53981), (117, 53993), (119, 54005), (120, 54011),

Gene: Maureen_28 Start: 23243, Stop: 23641, Start Num: 56

Candidate Starts for Maureen_28:

(Start: 56 @23243 has 22 MA's), (Start: 67 @23267 has 16 MA's), (76, 23303), (97, 23432), (110, 23480), (114, 23513), (144, 23630),

Gene: Maxxinista_113 Start: 63371, Stop: 63745, Start Num: 40

Candidate Starts for Maxxinista_113:

(Start: 33 @63317 has 1 MA's), (Start: 40 @63371 has 98 MA's), (57, 63425), (Start: 67 @63452 has 16 MA's), (70, 63461), (77, 63500), (81, 63521), (103, 63614), (108, 63632), (109, 63635), (117, 63683), (130, 63734),

Gene: Melons_54 Start: 32493, Stop: 32861, Start Num: 67

Candidate Starts for Melons_54:

(Start: 66 @32484 has 1 MA's), (Start: 67 @32493 has 16 MA's), (76, 32535), (96, 32652), (98, 32661), (107, 32700), (120, 32772), (138, 32826),

Gene: MiaZeal_166 Start: 84733, Stop: 85113, Start Num: 50

Candidate Starts for MiaZeal_166:

(Start: 50 @84733 has 32 MA's), (Start: 67 @84775 has 16 MA's), (83, 84850), (102, 84931), (120, 85024), (121, 85030), (122, 85033), (129, 85054), (136, 85078), (142, 85102),

Gene: Mindy_110 Start: 62903, Stop: 63277, Start Num: 40

Candidate Starts for Mindy_110:

(Start: 33 @62849 has 1 MA's), (Start: 40 @62903 has 98 MA's), (57, 62957), (Start: 67 @62984 has 16 MA's), (70, 62993), (77, 63032), (81, 63053), (103, 63146), (108, 63164), (109, 63167), (117, 63215), (118, 63221), (120, 63233),

Gene: Miniwave_106 Start: 63080, Stop: 63454, Start Num: 40

Candidate Starts for Miniwave_106:

(Start: 33 @63026 has 1 MA's), (Start: 40 @63080 has 98 MA's), (Start: 67 @63161 has 16 MA's), (70, 63170), (77, 63209), (81, 63230), (103, 63323), (108, 63341), (109, 63344), (117, 63392), (130, 63443),

Gene: Minos_52 Start: 48473, Stop: 48108, Start Num: 50

Candidate Starts for Minos_52:

(Start: 50 @48473 has 32 MA's), (Start: 67 @48431 has 16 MA's), (87, 48326), (110, 48239), (113, 48209), (114, 48206), (120, 48176),

Gene: Misfit_112 Start: 64683, Stop: 65057, Start Num: 40

Candidate Starts for Misfit_112:

(Start: 33 @64629 has 1 MA's), (Start: 40 @64683 has 98 MA's), (Start: 67 @64764 has 16 MA's), (70, 64773), (77, 64812), (81, 64833), (103, 64926), (108, 64944), (109, 64947), (117, 64995), (130, 65046),

Gene: MissSwiss_26 Start: 20779, Stop: 21147, Start Num: 26

Candidate Starts for MissSwiss_26:

(Start: 26 @20779 has 21 MA's), (Start: 67 @20803 has 16 MA's), (103, 20989), (110, 21016), (113, 21046),

Gene: Moldemort_113 Start: 63352, Stop: 63726, Start Num: 40

Candidate Starts for Moldemort_113:

(Start: 33 @63298 has 1 MA's), (Start: 40 @63352 has 98 MA's), (57, 63406), (Start: 67 @63433 has 16 MA's), (70, 63442), (77, 63481), (81, 63502), (103, 63595), (108, 63613), (109, 63616), (117, 63664), (130, 63715),

Gene: Monty_53 Start: 47447, Stop: 47085, Start Num: 51

Candidate Starts for Monty_53:

(Start: 51 @47447 has 23 MA's), (Start: 56 @47438 has 22 MA's), (Start: 67 @47408 has 16 MA's), (83, 47333), (103, 47243), (110, 47216), (114, 47183), (120, 47153), (132, 47117),

Gene: Mosby_108 Start: 63047, Stop: 63421, Start Num: 40

Candidate Starts for Mosby_108:

(Start: 33 @62993 has 1 MA's), (Start: 40 @63047 has 98 MA's), (Start: 67 @63128 has 16 MA's), (70, 63137), (77, 63176), (81, 63197), (103, 63290), (108, 63308), (109, 63311), (117, 63359), (130, 63410),

Gene: MrWormie_51 Start: 47634, Stop: 47269, Start Num: 50

Candidate Starts for MrWormie_51:

(Start: 50 @47634 has 32 MA's), (Start: 67 @47592 has 16 MA's), (87, 47487), (110, 47400), (113, 47370), (114, 47367), (120, 47337),

Gene: Msay19_58 Start: 49817, Stop: 49455, Start Num: 51

Candidate Starts for Msay19_58:

(Start: 51 @49817 has 23 MA's), (Start: 56 @49808 has 22 MA's), (Start: 67 @49778 has 16 MA's), (83, 49703), (103, 49613), (108, 49592), (110, 49586), (114, 49553), (120, 49523), (121, 49517),

Gene: Mudpuppy_28 Start: 22359, Stop: 22724, Start Num: 26

Candidate Starts for Mudpuppy_28:

(14, 22197), (Start: 26 @22359 has 21 MA's), (Start: 67 @22383 has 16 MA's), (102, 22566),

Gene: Murica_115 Start: 65386, Stop: 65760, Start Num: 40

Candidate Starts for Murica_115:

(Start: 33 @65332 has 1 MA's), (Start: 40 @65386 has 98 MA's), (Start: 67 @65467 has 16 MA's), (70, 65476), (77, 65515), (81, 65536), (103, 65629), (108, 65647), (109, 65650), (117, 65698), (130, 65749),

Gene: Murphy_110 Start: 63744, Stop: 64118, Start Num: 40

Candidate Starts for Murphy_110:

(Start: 33 @63690 has 1 MA's), (Start: 40 @63744 has 98 MA's), (57, 63798), (Start: 67 @63825 has 16 MA's), (70, 63834), (77, 63873), (81, 63894), (103, 63987), (108, 64005), (109, 64008), (117, 64056), (130, 64107),

Gene: Myrale_111 Start: 63841, Stop: 64215, Start Num: 40

Candidate Starts for Myrale_111:

(Start: 40 @63841 has 98 MA's), (57, 63895), (Start: 67 @63922 has 16 MA's), (70, 63931), (77, 63970), (81, 63991), (103, 64084), (108, 64102), (109, 64105), (117, 64153), (118, 64159), (120, 64171),

Gene: Nala_113 Start: 64096, Stop: 64470, Start Num: 40

Candidate Starts for Nala_113:

(Start: 33 @64042 has 1 MA's), (Start: 40 @64096 has 98 MA's), (57, 64150), (Start: 67 @64177 has 16 MA's), (70, 64186), (77, 64225), (81, 64246), (103, 64339), (108, 64357), (109, 64360), (117, 64408), (130, 64459),

Gene: Nebkiss_126 Start: 68242, Stop: 68529, Start Num: 63

Candidate Starts for Nebkiss_126:

(Start: 60 @68236 has 4 MA's), (Start: 63 @68242 has 1 MA's), (Start: 67 @68260 has 16 MA's), (83, 68335), (97, 68407), (100, 68416), (115, 68482), (119, 68500), (120, 68506), (121, 68512),

Gene: NelitzaMV_108 Start: 62069, Stop: 62443, Start Num: 40

Candidate Starts for NelitzaMV_108:

(Start: 33 @62015 has 1 MA's), (Start: 40 @62069 has 98 MA's), (57, 62123), (Start: 67 @62150 has 16 MA's), (70, 62159), (77, 62198), (81, 62219), (103, 62312), (108, 62330), (109, 62333), (117, 62381), (130, 62432),

Gene: Neoevie_51 Start: 48735, Stop: 48370, Start Num: 50

Candidate Starts for Neoevie_51:

(Start: 50 @48735 has 32 MA's), (Start: 67 @48693 has 16 MA's), (87, 48588), (110, 48501), (113, 48471), (114, 48468), (120, 48438),

Gene: Newt_52 Start: 48963, Stop: 48598, Start Num: 50

Candidate Starts for Newt_52:

(Start: 50 @48963 has 32 MA's), (Start: 67 @48921 has 16 MA's), (87, 48816), (110, 48729), (113, 48699), (114, 48696), (120, 48666),

Gene: Niagara_48 Start: 48582, Stop: 48214, Start Num: 59

Candidate Starts for Niagara_48:

(Start: 59 @48582 has 9 MA's), (Start: 67 @48558 has 16 MA's), (110, 48351), (121, 48282), (140, 48225),

Gene: Nimi13_51 Start: 48482, Stop: 48117, Start Num: 50

Candidate Starts for Nimi13_51:

(Start: 50 @48482 has 32 MA's), (Start: 67 @48440 has 16 MA's), (87, 48335), (110, 48248), (113, 48218), (114, 48215), (120, 48185),

Gene: Nimrod_112 Start: 64244, Stop: 64576, Start Num: 42

Candidate Starts for Nimrod_112:

(Start: 42 @64244 has 18 MA's), (Start: 50 @64274 has 32 MA's), (89, 64418), (102, 64466), (109, 64490), (121, 64562),

Gene: Niobe_29 Start: 24445, Stop: 24813, Start Num: 26

Candidate Starts for Niobe_29:

(14, 24280), (Start: 26 @24445 has 21 MA's), (Start: 67 @24469 has 16 MA's),

Gene: Nitro_28 Start: 23769, Stop: 24137, Start Num: 26

Candidate Starts for Nitro_28:

(14, 23607), (Start: 26 @23769 has 21 MA's), (Start: 67 @23793 has 16 MA's), (79, 23844), (102, 23976),

Gene: NoSleep_111 Start: 62904, Stop: 63278, Start Num: 40

Candidate Starts for NoSleep_111:

(Start: 33 @62850 has 1 MA's), (Start: 40 @62904 has 98 MA's), (57, 62958), (Start: 67 @62985 has 16 MA's), (70, 62994), (77, 63033), (81, 63054), (103, 63147), (108, 63165), (109, 63168), (117, 63216), (130, 63267),

Gene: ObiToo_30 Start: 22889, Stop: 23257, Start Num: 56

Candidate Starts for ObiToo_30:

(9, 22481), (Start: 56 @22889 has 22 MA's), (Start: 67 @22913 has 16 MA's), (102, 23096), (103, 23099),

Gene: Optimus_161 Start: 87411, Stop: 87791, Start Num: 50

Candidate Starts for Optimus_161:

(Start: 50 @87411 has 32 MA's), (Start: 67 @87453 has 16 MA's), (83, 87528), (102, 87609), (120, 87702), (121, 87708), (122, 87711), (142, 87780),

Gene: Orcanus_52 Start: 34039, Stop: 34413, Start Num: 67

Candidate Starts for Orcanus_52:

(Start: 66 @34030 has 1 MA's), (Start: 67 @34039 has 16 MA's), (73, 34057), (76, 34078), (88, 34153), (98, 34210), (107, 34249), (113, 34288), (138, 34375),

Gene: OrionPax_109 Start: 62977, Stop: 63351, Start Num: 40

Candidate Starts for OrionPax_109:

(Start: 33 @62923 has 1 MA's), (Start: 40 @62977 has 98 MA's), (57, 63031), (Start: 67 @63058 has 16 MA's), (70, 63067), (77, 63106), (81, 63127), (103, 63220), (108, 63238), (109, 63241), (117, 63289), (130, 63340),

Gene: Palpatine_112 Start: 64381, Stop: 64755, Start Num: 40

Candidate Starts for Palpatine_112:

(Start: 33 @64327 has 1 MA's), (Start: 40 @64381 has 98 MA's), (57, 64435), (Start: 67 @64462 has 16 MA's), (70, 64471), (77, 64510), (81, 64531), (103, 64624), (108, 64642), (109, 64645), (117, 64693), (130, 64744),

Gene: Paperbeatsrock_110 Start: 63758, Stop: 64132, Start Num: 40

Candidate Starts for Paperbeatsrock_110:

(Start: 33 @63704 has 1 MA's), (Start: 40 @63758 has 98 MA's), (Start: 67 @63839 has 16 MA's), (70, 63848), (77, 63887), (81, 63908), (103, 64001), (108, 64019), (109, 64022), (117, 64070), (130, 64121),

Gene: Pat3_108 Start: 62397, Stop: 62771, Start Num: 40

Candidate Starts for Pat3_108:

(Start: 40 @62397 has 98 MA's), (57, 62451), (Start: 67 @62478 has 16 MA's), (70, 62487), (77, 62526), (78, 62529), (81, 62547), (103, 62640), (108, 62658), (109, 62661), (117, 62709), (118, 62715), (120, 62727),

Gene: Petra64142_115 Start: 64226, Stop: 64600, Start Num: 40

Candidate Starts for Petra64142_115:

(Start: 33 @64172 has 1 MA's), (Start: 40 @64226 has 98 MA's), (57, 64280), (Start: 67 @64307 has 16 MA's), (70, 64316), (77, 64355), (81, 64376), (103, 64469), (108, 64487), (109, 64490), (117, 64538), (118, 64544), (120, 64556), (130, 64589),

Gene: Phaja_109 Start: 62962, Stop: 63336, Start Num: 40

Candidate Starts for Phaja_109:

(Start: 33 @62908 has 1 MA's), (Start: 40 @62962 has 98 MA's), (57, 63016), (Start: 67 @63043 has 16 MA's), (70, 63052), (77, 63091), (81, 63112), (103, 63205), (108, 63223), (109, 63226), (117, 63274),

Gene: Pharsalus_108 Start: 63457, Stop: 63831, Start Num: 40

Candidate Starts for Pharsalus_108:

(Start: 33 @63403 has 1 MA's), (Start: 40 @63457 has 98 MA's), (Start: 67 @63538 has 16 MA's), (70, 63547), (77, 63586), (81, 63607), (103, 63700), (108, 63718), (109, 63721), (117, 63769), (130,

63820),

Gene: PhatBacter_114 Start: 64126, Stop: 64500, Start Num: 40

Candidate Starts for PhatBacter_114:

(Start: 33 @64072 has 1 MA's), (Start: 40 @64126 has 98 MA's), (57, 64180), (Start: 67 @64207 has 16 MA's), (70, 64216), (77, 64255), (81, 64276), (103, 64369), (108, 64387), (109, 64390), (117, 64438), (130, 64489),

Gene: Phaux_113 Start: 64686, Stop: 65060, Start Num: 40

Candidate Starts for Phaux_113:

(Start: 33 @64632 has 1 MA's), (Start: 40 @64686 has 98 MA's), (57, 64740), (Start: 67 @64767 has 16 MA's), (70, 64776), (77, 64815), (81, 64836), (103, 64929), (108, 64947), (109, 64950), (117, 64998), (130, 65049),

Gene: Philon9_49 Start: 49613, Stop: 49245, Start Num: 59

Candidate Starts for Philon9_49:

(Start: 59 @49613 has 9 MA's), (Start: 67 @49589 has 16 MA's), (83, 49514), (105, 49403), (110, 49382), (121, 49313), (140, 49256),

Gene: Phives_30 Start: 24466, Stop: 24834, Start Num: 56

Candidate Starts for Phives_30:

(Start: 56 @24466 has 22 MA's), (Start: 67 @24490 has 16 MA's), (94, 24643), (125, 24784),

Gene: PhluffyCoco_54 Start: 33221, Stop: 33616, Start Num: 61

Candidate Starts for PhluffyCoco_54:

(61, 33221), (Start: 68 @33245 has 4 MA's), (74, 33272), (76, 33284), (85, 33335), (96, 33404), (98, 33413), (105, 33437), (107, 33452), (120, 33524), (138, 33578),

Gene: Phrux_107 Start: 62764, Stop: 63138, Start Num: 40

Candidate Starts for Phrux_107:

(Start: 33 @62710 has 1 MA's), (Start: 40 @62764 has 98 MA's), (Start: 67 @62845 has 16 MA's), (70, 62854), (77, 62893), (81, 62914), (103, 63007), (108, 63025), (109, 63028), (117, 63076), (130, 63127),

Gene: PierreThree_53 Start: 48715, Stop: 48356, Start Num: 53

Candidate Starts for PierreThree_53:

(Start: 51 @48718 has 23 MA's), (Start: 53 @48715 has 3 MA's), (Start: 67 @48679 has 16 MA's), (83, 48604), (103, 48514), (110, 48487), (114, 48454), (120, 48424), (121, 48418), (132, 48388),

Gene: Pixelle_29 Start: 24216, Stop: 24584, Start Num: 26

Candidate Starts for Pixelle_29:

(Start: 26 @24216 has 21 MA's), (28, 24222), (64, 24228), (Start: 67 @24240 has 16 MA's), (102, 24423),

Gene: PokyPuppy_53 Start: 48755, Stop: 48393, Start Num: 51

Candidate Starts for PokyPuppy_53:

(Start: 51 @48755 has 23 MA's), (Start: 67 @48716 has 16 MA's), (83, 48641), (84, 48638), (103, 48551), (110, 48524), (114, 48491), (118, 48473), (120, 48461), (121, 48455),

Gene: Poland_60 Start: 49796, Stop: 49434, Start Num: 51

Candidate Starts for Poland_60:

(Start: 51 @49796 has 23 MA's), (Start: 56 @49787 has 22 MA's), (Start: 67 @49757 has 16 MA's), (83, 49682), (103, 49592), (108, 49571), (110, 49565), (114, 49532), (120, 49502), (121, 49496),

Gene: Policronamos_115 Start: 64390, Stop: 64764, Start Num: 40

Candidate Starts for Policronamos_115:

(Start: 33 @64336 has 1 MA's), (Start: 40 @64390 has 98 MA's), (Start: 67 @64471 has 16 MA's), (70, 64480), (77, 64519), (81, 64540), (103, 64633), (108, 64651), (109, 64654), (117, 64702), (130, 64753),

Gene: Polka_53 Start: 32500, Stop: 32868, Start Num: 67

Candidate Starts for Polka_53:

(Start: 66 @32491 has 1 MA's), (Start: 67 @32500 has 16 MA's), (76, 32542), (96, 32659), (98, 32668), (107, 32707), (120, 32779), (138, 32833),

Gene: Porcelain_163 Start: 84532, Stop: 84912, Start Num: 50

Candidate Starts for Porcelain_163:

(Start: 50 @84532 has 32 MA's), (Start: 67 @84574 has 16 MA's), (83, 84649), (102, 84730), (120, 84823), (121, 84829), (122, 84832), (129, 84853), (136, 84877), (142, 84901),

Gene: Porky_110 Start: 63022, Stop: 63354, Start Num: 42

Candidate Starts for Porky_110:

(Start: 42 @63022 has 18 MA's), (Start: 50 @63052 has 32 MA's), (89, 63196), (102, 63244), (109, 63268), (121, 63340),

Gene: Powerpuff_27 Start: 22359, Stop: 22724, Start Num: 26

Candidate Starts for Powerpuff_27:

(Start: 26 @22359 has 21 MA's), (Start: 67 @22383 has 16 MA's), (102, 22566),

Gene: Pumpkin_112 Start: 63104, Stop: 63478, Start Num: 40

Candidate Starts for Pumpkin_112:

(Start: 33 @63050 has 1 MA's), (Start: 40 @63104 has 98 MA's), (Start: 67 @63185 has 16 MA's), (70, 63194), (77, 63233), (81, 63254), (103, 63347), (108, 63365), (109, 63368), (117, 63416), (130, 63467),

Gene: Quallification_112 Start: 64172, Stop: 64546, Start Num: 40

Candidate Starts for Quallification_112:

(Start: 33 @64118 has 1 MA's), (Start: 40 @64172 has 98 MA's), (Start: 67 @64253 has 16 MA's), (70, 64262), (77, 64301), (81, 64322), (103, 64415), (108, 64433), (109, 64436), (117, 64484), (130, 64535),

Gene: Rakim_112 Start: 63174, Stop: 63548, Start Num: 40

Candidate Starts for Rakim_112:

(Start: 33 @63120 has 1 MA's), (Start: 40 @63174 has 98 MA's), (57, 63228), (Start: 67 @63255 has 16 MA's), (70, 63264), (77, 63303), (81, 63324), (103, 63417), (108, 63435), (109, 63438), (117, 63486), (118, 63492), (120, 63504),

Gene: RedFox_54 Start: 33244, Stop: 33615, Start Num: 68

Candidate Starts for RedFox_54:

(61, 33220), (Start: 68 @33244 has 4 MA's), (74, 33271), (76, 33283), (85, 33334), (96, 33403), (98, 33412), (105, 33436), (107, 33451), (120, 33523), (138, 33577),

Gene: RedWattleHog_124 Start: 92547, Stop: 92891, Start Num: 72

Candidate Starts for RedWattleHog_124:

(Start: 72 @92547 has 3 MA's), (85, 92622), (93, 92676), (98, 92709), (107, 92748), (111, 92769), (120, 92820), (121, 92826), (131, 92850), (133, 92859),

Gene: Reedo_27 Start: 20942, Stop: 21310, Start Num: 26
Candidate Starts for Reedo_27:
(Start: 26 @20942 has 21 MA's), (Start: 67 @20966 has 16 MA's),

Gene: RemRem_55 Start: 47437, Stop: 47075, Start Num: 51
Candidate Starts for RemRem_55:
(Start: 51 @47437 has 23 MA's), (Start: 56 @47428 has 22 MA's), (Start: 67 @47398 has 16 MA's),
(83, 47323), (103, 47233), (110, 47206), (114, 47173), (120, 47143), (132, 47107),

Gene: Renna12_53 Start: 33097, Stop: 33468, Start Num: 68
Candidate Starts for Renna12_53:
(61, 33073), (Start: 68 @33097 has 4 MA's), (74, 33124), (76, 33136), (96, 33256), (98, 33265), (105,
33289), (107, 33304), (120, 33376), (138, 33430),

Gene: Rimmer_109 Start: 63563, Stop: 63937, Start Num: 40
Candidate Starts for Rimmer_109:
(Start: 33 @63509 has 1 MA's), (Start: 40 @63563 has 98 MA's), (57, 63617), (Start: 67 @63644 has
16 MA's), (70, 63653), (77, 63692), (81, 63713), (103, 63806), (108, 63824), (109, 63827), (117,
63875), (130, 63926),

Gene: RiverMonster_110 Start: 63605, Stop: 64033, Start Num: 33
Candidate Starts for RiverMonster_110:
(Start: 33 @63605 has 1 MA's), (Start: 40 @63659 has 98 MA's), (Start: 67 @63740 has 16 MA's),
(70, 63749), (77, 63788), (81, 63809), (103, 63902), (108, 63920), (109, 63923), (117, 63971), (130,
64022),

Gene: RoyalG_53 Start: 48012, Stop: 47650, Start Num: 51
Candidate Starts for RoyalG_53:
(Start: 51 @48012 has 23 MA's), (Start: 56 @48003 has 22 MA's), (Start: 67 @47973 has 16 MA's),
(80, 47919), (84, 47895), (120, 47718), (132, 47682),

Gene: Ruchi_50 Start: 32934, Stop: 33320, Start Num: 67
Candidate Starts for Ruchi_50:
(Start: 66 @32925 has 1 MA's), (Start: 67 @32934 has 16 MA's), (73, 32952), (76, 32973), (88,
33048), (98, 33105), (107, 33144), (115, 33192), (120, 33216), (138, 33270),

Gene: Saints25_107 Start: 61589, Stop: 61963, Start Num: 40
Candidate Starts for Saints25_107:
(Start: 33 @61535 has 1 MA's), (Start: 40 @61589 has 98 MA's), (57, 61643), (Start: 67 @61670 has
16 MA's), (70, 61679), (77, 61718), (81, 61739), (103, 61832), (108, 61850), (109, 61853), (117,
61901), (130, 61952),

Gene: Sam12_53 Start: 47437, Stop: 47075, Start Num: 51
Candidate Starts for Sam12_53:
(Start: 51 @47437 has 23 MA's), (Start: 56 @47428 has 22 MA's), (Start: 67 @47398 has 16 MA's),
(83, 47323), (103, 47233), (110, 47206), (114, 47173), (120, 47143), (132, 47107),

Gene: Sassay_106 Start: 62009, Stop: 62383, Start Num: 40
Candidate Starts for Sassay_106:
(Start: 33 @61955 has 1 MA's), (Start: 40 @62009 has 98 MA's), (Start: 67 @62090 has 16 MA's),
(70, 62099), (77, 62138), (81, 62159), (103, 62252), (108, 62270), (109, 62273), (117, 62321), (130,
62372),

Gene: ShamWow_111 Start: 64057, Stop: 64431, Start Num: 40

Candidate Starts for ShamWow_111:

(Start: 40 @64057 has 98 MA's), (57, 64111), (Start: 67 @64138 has 16 MA's), (70, 64147), (77, 64186), (81, 64207), (103, 64300), (108, 64318), (109, 64321), (117, 64369), (118, 64375), (120, 64387),

Gene: Shambre1_62 Start: 40086, Stop: 40415, Start Num: 69

Candidate Starts for Shambre1_62:

(Start: 69 @40086 has 1 MA's), (76, 40113), (98, 40245),

Gene: Shelley_51 Start: 47958, Stop: 47593, Start Num: 50

Candidate Starts for Shelley_51:

(Start: 50 @47958 has 32 MA's), (Start: 67 @47916 has 16 MA's), (87, 47811), (110, 47724), (113, 47694), (114, 47691), (120, 47661),

Gene: ShereKhan_109 Start: 64418, Stop: 64792, Start Num: 40

Candidate Starts for ShereKhan_109:

(Start: 33 @64364 has 1 MA's), (Start: 40 @64418 has 98 MA's), (Start: 67 @64499 has 16 MA's), (70, 64508), (77, 64547), (81, 64568), (103, 64661), (108, 64679), (109, 64682), (117, 64730), (130, 64781),

Gene: Simpliphy_109 Start: 63230, Stop: 63604, Start Num: 40

Candidate Starts for Simpliphy_109:

(Start: 33 @63176 has 1 MA's), (Start: 40 @63230 has 98 MA's), (57, 63284), (Start: 67 @63311 has 16 MA's), (70, 63320), (77, 63359), (81, 63380), (103, 63473), (108, 63491), (109, 63494), (117, 63542), (130, 63593),

Gene: Simpson_29 Start: 22364, Stop: 22729, Start Num: 26

Candidate Starts for Simpson_29:

(Start: 26 @22364 has 21 MA's), (Start: 67 @22388 has 16 MA's), (102, 22571),

Gene: SirDuracell_111 Start: 62896, Stop: 63270, Start Num: 40

Candidate Starts for SirDuracell_111:

(Start: 40 @62896 has 98 MA's), (57, 62950), (Start: 67 @62977 has 16 MA's), (70, 62986), (77, 63025), (81, 63046), (103, 63139), (108, 63157), (109, 63160), (117, 63208), (118, 63214), (120, 63226),

Gene: Snek_28 Start: 21512, Stop: 21880, Start Num: 26

Candidate Starts for Snek_28:

(Start: 26 @21512 has 21 MA's), (Start: 67 @21536 has 16 MA's),

Gene: Sombrero_54 Start: 47804, Stop: 47439, Start Num: 51

Candidate Starts for Sombrero_54:

(Start: 51 @47804 has 23 MA's), (Start: 56 @47795 has 22 MA's), (Start: 67 @47765 has 16 MA's), (83, 47690), (103, 47600), (110, 47573), (114, 47540), (120, 47510), (121, 47504),

Gene: SophKB_109 Start: 63219, Stop: 63593, Start Num: 40

Candidate Starts for SophKB_109:

(Start: 33 @63165 has 1 MA's), (Start: 40 @63219 has 98 MA's), (57, 63273), (Start: 67 @63300 has 16 MA's), (70, 63309), (77, 63348), (81, 63369), (103, 63462), (108, 63480), (109, 63483), (117, 63531), (118, 63537), (120, 63549),

Gene: Sotrice96_112 Start: 63683, Stop: 64057, Start Num: 40

Candidate Starts for Sotrice96_112:

(Start: 33 @63629 has 1 MA's), (Start: 40 @63683 has 98 MA's), (57, 63737), (Start: 67 @63764 has 16 MA's), (70, 63773), (77, 63812), (81, 63833), (103, 63926), (108, 63944), (109, 63947), (117, 63995), (118, 64001), (120, 64013),

Gene: Squibbles_53 Start: 48300, Stop: 47935, Start Num: 51

Candidate Starts for Squibbles_53:

(Start: 51 @48300 has 23 MA's), (Start: 56 @48291 has 22 MA's), (Start: 67 @48261 has 16 MA's), (83, 48186), (103, 48096), (110, 48069), (114, 48036), (120, 48006), (132, 47970),

Gene: Squint_157 Start: 84398, Stop: 84778, Start Num: 50

Candidate Starts for Squint_157:

(Start: 50 @84398 has 32 MA's), (Start: 67 @84440 has 16 MA's), (83, 84515), (120, 84689), (121, 84695), (122, 84698), (142, 84767),

Gene: Stank_114 Start: 63971, Stop: 64303, Start Num: 42

Candidate Starts for Stank_114:

(Start: 42 @63971 has 18 MA's), (Start: 50 @64001 has 32 MA's), (89, 64145), (102, 64193), (109, 64217), (121, 64289),

Gene: Stark_111 Start: 63543, Stop: 63917, Start Num: 40

Candidate Starts for Stark_111:

(Start: 33 @63489 has 1 MA's), (Start: 40 @63543 has 98 MA's), (Start: 67 @63624 has 16 MA's), (70, 63633), (77, 63672), (81, 63693), (103, 63786), (108, 63804), (109, 63807), (117, 63855), (130, 63906),

Gene: StellaBean_108 Start: 63840, Stop: 64214, Start Num: 40

Candidate Starts for StellaBean_108:

(Start: 33 @63786 has 1 MA's), (Start: 40 @63840 has 98 MA's), (57, 63894), (Start: 67 @63921 has 16 MA's), (70, 63930), (77, 63969), (81, 63990), (103, 64083), (108, 64101), (109, 64104), (117, 64152), (130, 64203),

Gene: SteveFrench_52 Start: 48252, Stop: 47890, Start Num: 51

Candidate Starts for SteveFrench_52:

(Start: 51 @48252 has 23 MA's), (Start: 56 @48243 has 22 MA's), (Start: 67 @48213 has 16 MA's), (80, 48159), (84, 48135), (120, 47958), (132, 47922),

Gene: Sticker17_51 Start: 48473, Stop: 48108, Start Num: 50

Candidate Starts for Sticker17_51:

(Start: 50 @48473 has 32 MA's), (Start: 67 @48431 has 16 MA's), (87, 48326), (110, 48239), (113, 48209), (114, 48206), (120, 48176),

Gene: StolenFromERC_113 Start: 63382, Stop: 63756, Start Num: 40

Candidate Starts for StolenFromERC_113:

(Start: 33 @63328 has 1 MA's), (Start: 40 @63382 has 98 MA's), (Start: 67 @63463 has 16 MA's), (70, 63472), (77, 63511), (81, 63532), (103, 63625), (108, 63643), (109, 63646), (117, 63694), (130, 63745),

Gene: Stormageddon_123 Start: 92481, Stop: 92825, Start Num: 72

Candidate Starts for Stormageddon_123:

(Start: 72 @92481 has 3 MA's), (85, 92556), (93, 92610), (98, 92643), (107, 92682), (111, 92703), (120, 92754), (121, 92760), (131, 92784), (133, 92793),

Gene: SuMoo_28 Start: 21704, Stop: 22096, Start Num: 127

Candidate Starts for SuMoo_28:

(15, 21047), (18, 21116), (25, 21197), (127, 21704), (143, 21773), (145, 21851), (146, 21884), (147, 21914), (148, 21941),

Gene: Sue2_29 Start: 23242, Stop: 23610, Start Num: 56

Candidate Starts for Sue2_29:

(14, 23062), (Start: 56 @23242 has 22 MA's), (Start: 67 @23266 has 16 MA's), (109, 23476), (126, 23563),

Gene: Superphikiman_160 Start: 83453, Stop: 83833, Start Num: 50

Candidate Starts for Superphikiman_160:

(Start: 50 @83453 has 32 MA's), (Start: 67 @83495 has 16 MA's), (83, 83570), (120, 83744), (121, 83750), (122, 83753), (142, 83822),

Gene: TBrady12_115 Start: 63408, Stop: 63740, Start Num: 42

Candidate Starts for TBrady12_115:

(Start: 42 @63408 has 18 MA's), (Start: 50 @63438 has 32 MA's), (89, 63582), (102, 63630), (109, 63654), (121, 63726),

Gene: Tallboi_30 Start: 23797, Stop: 24162, Start Num: 26

Candidate Starts for Tallboi_30:

(Start: 26 @23797 has 21 MA's), (Start: 67 @23821 has 16 MA's), (102, 24004),

Gene: Tarkin_110 Start: 64283, Stop: 64657, Start Num: 40

Candidate Starts for Tarkin_110:

(Start: 33 @64229 has 1 MA's), (Start: 40 @64283 has 98 MA's), (Start: 67 @64364 has 16 MA's), (70, 64373), (77, 64412), (81, 64433), (103, 64526), (108, 64544), (109, 64547), (117, 64595), (130, 64646),

Gene: TaylorSipht_52 Start: 33579, Stop: 33953, Start Num: 67

Candidate Starts for TaylorSipht_52:

(Start: 67 @33579 has 16 MA's), (74, 33606), (76, 33618), (86, 33681), (96, 33741), (98, 33750), (123, 33876), (134, 33906), (138, 33915),

Gene: Tbone_27 Start: 22383, Stop: 22748, Start Num: 26

Candidate Starts for Tbone_27:

(14, 22221), (Start: 26 @22383 has 21 MA's), (Start: 67 @22407 has 16 MA's), (102, 22590),

Gene: Teal_51 Start: 48940, Stop: 48575, Start Num: 50

Candidate Starts for Teal_51:

(Start: 50 @48940 has 32 MA's), (Start: 67 @48898 has 16 MA's), (87, 48793), (110, 48706), (113, 48676), (114, 48673), (120, 48643),

Gene: TeardropMSU_107 Start: 62785, Stop: 63159, Start Num: 40

Candidate Starts for TeardropMSU_107:

(Start: 33 @62731 has 1 MA's), (Start: 40 @62785 has 98 MA's), (57, 62839), (Start: 67 @62866 has 16 MA's), (70, 62875), (77, 62914), (81, 62935), (103, 63028), (108, 63046), (109, 63049), (117, 63097), (118, 63103), (120, 63115),

Gene: Teaspoon_107 Start: 63986, Stop: 64288, Start Num: 50

Candidate Starts for Teaspoon_107:

(Start: 42 @63956 has 18 MA's), (Start: 50 @63986 has 32 MA's), (89, 64130), (102, 64178), (109, 64202), (121, 64274),

Gene: Teatealatte_49 Start: 48494, Stop: 48126, Start Num: 59

Candidate Starts for Teatealatte_49:

(Start: 59 @48494 has 9 MA's), (Start: 67 @48470 has 16 MA's), (110, 48263), (121, 48194), (140, 48137),

Gene: Teech_49 Start: 48295, Stop: 47927, Start Num: 59

Candidate Starts for Teech_49:

(Start: 59 @48295 has 9 MA's), (Start: 67 @48271 has 16 MA's), (110, 48064), (121, 47995), (140, 47938),

Gene: Terminus_114 Start: 64683, Stop: 65057, Start Num: 40

Candidate Starts for Terminus_114:

(Start: 33 @64629 has 1 MA's), (Start: 40 @64683 has 98 MA's), (Start: 67 @64764 has 16 MA's), (70, 64773), (77, 64812), (81, 64833), (103, 64926), (108, 64944), (109, 64947), (117, 64995), (130, 65046),

Gene: TforTroy_29 Start: 23185, Stop: 23553, Start Num: 56

Candidate Starts for TforTroy_29:

(6, 22750), (9, 22762), (Start: 56 @23185 has 22 MA's), (Start: 67 @23209 has 16 MA's), (102, 23392),

Gene: Thresher_112 Start: 64323, Stop: 64697, Start Num: 40

Candidate Starts for Thresher_112:

(Start: 33 @64269 has 1 MA's), (Start: 40 @64323 has 98 MA's), (Start: 67 @64404 has 16 MA's), (70, 64413), (77, 64452), (81, 64473), (103, 64566), (108, 64584), (109, 64587), (117, 64635), (130, 64686),

Gene: Tian_28 Start: 24196, Stop: 24564, Start Num: 26

Candidate Starts for Tian_28:

(14, 24034), (Start: 26 @24196 has 21 MA's), (Start: 67 @24220 has 16 MA's), (102, 24403),

Gene: Tomaszewski_106 Start: 63221, Stop: 63595, Start Num: 40

Candidate Starts for Tomaszewski_106:

(Start: 33 @63167 has 1 MA's), (Start: 40 @63221 has 98 MA's), (Start: 67 @63302 has 16 MA's), (70, 63311), (77, 63350), (81, 63371), (103, 63464), (108, 63482), (109, 63485), (117, 63533), (130, 63584),

Gene: Toto_109 Start: 64057, Stop: 64431, Start Num: 40

Candidate Starts for Toto_109:

(Start: 40 @64057 has 98 MA's), (57, 64111), (Start: 67 @64138 has 16 MA's), (70, 64147), (77, 64186), (81, 64207), (103, 64300), (108, 64318), (109, 64321), (117, 64369), (118, 64375), (120, 64387),

Gene: Traaww1_107 Start: 62606, Stop: 62980, Start Num: 40

Candidate Starts for Traaww1_107:

(Start: 40 @62606 has 98 MA's), (57, 62660), (Start: 67 @62687 has 16 MA's), (70, 62696), (77, 62735), (78, 62738), (81, 62756), (103, 62849), (108, 62867), (109, 62870), (117, 62918), (118, 62924), (120, 62936),

Gene: Tredge_49 Start: 48494, Stop: 48126, Start Num: 59

Candidate Starts for Tredge_49:

(Start: 59 @48494 has 9 MA's), (Start: 67 @48470 has 16 MA's), (110, 48263), (121, 48194), (140, 48137),

Gene: Tuck_31 Start: 25007, Stop: 25378, Start Num: 56

Candidate Starts for Tuck_31:

(19, 24872), (20, 24875), (21, 24893), (24, 24929), (Start: 56 @25007 has 22 MA's), (62, 25013), (Start: 67 @25031 has 16 MA's), (103, 25217),

Gene: Tuco_112 Start: 64844, Stop: 65218, Start Num: 40

Candidate Starts for Tuco_112:

(Start: 33 @64790 has 1 MA's), (Start: 40 @64844 has 98 MA's), (57, 64898), (Start: 67 @64925 has 16 MA's), (70, 64934), (77, 64973), (81, 64994), (103, 65087), (108, 65105), (109, 65108), (117, 65156), (118, 65162), (120, 65174),

Gene: Turab_27 Start: 22274, Stop: 22639, Start Num: 26

Candidate Starts for Turab_27:

(14, 22109), (Start: 26 @22274 has 21 MA's), (Start: 67 @22298 has 16 MA's), (113, 22541),

Gene: Tutumahutu_29 Start: 22358, Stop: 22723, Start Num: 26

Candidate Starts for Tutumahutu_29:

(Start: 26 @22358 has 21 MA's), (Start: 67 @22382 has 16 MA's), (102, 22565),

Gene: Tweety19_28 Start: 21511, Stop: 21879, Start Num: 26

Candidate Starts for Tweety19_28:

(Start: 26 @21511 has 21 MA's), (Start: 67 @21535 has 16 MA's),

Gene: UtzChips_27 Start: 22046, Stop: 22438, Start Num: 45

Candidate Starts for UtzChips_27:

(Start: 45 @22046 has 2 MA's), (Start: 67 @22112 has 16 MA's), (84, 22190),

Gene: VResidence_28 Start: 22506, Stop: 22880, Start Num: 26

Candidate Starts for VResidence_28:

(Start: 26 @22506 has 21 MA's), (Start: 67 @22530 has 16 MA's), (103, 22716),

Gene: VroomVroom_33 Start: 23804, Stop: 24178, Start Num: 55

Candidate Starts for VroomVroom_33:

(Start: 55 @23804 has 2 MA's), (Start: 67 @23828 has 16 MA's), (86, 23921), (97, 23993), (104, 24017), (109, 24041), (122, 24116),

Gene: Vulpecula_50 Start: 32594, Stop: 32980, Start Num: 67

Candidate Starts for Vulpecula_50:

(Start: 66 @32585 has 1 MA's), (Start: 67 @32594 has 16 MA's), (73, 32612), (76, 32633), (88, 32708), (98, 32765), (107, 32804), (115, 32852), (120, 32876), (138, 32930),

Gene: Warda_27 Start: 22358, Stop: 22723, Start Num: 26

Candidate Starts for Warda_27:

(14, 22196), (Start: 26 @22358 has 21 MA's), (Start: 67 @22382 has 16 MA's), (102, 22565),

Gene: Wiggin_114 Start: 63401, Stop: 63733, Start Num: 42

Candidate Starts for Wiggin_114:

(Start: 42 @63401 has 18 MA's), (Start: 50 @63431 has 32 MA's), (89, 63575), (102, 63623), (109, 63647), (121, 63719),

Gene: Wildcat_88 Start: 53727, Stop: 54095, Start Num: 53

Candidate Starts for Wildcat_88:

(Start: 53 @53727 has 3 MA's), (Start: 54 @53730 has 1 MA's), (Start: 56 @53733 has 22 MA's), (Start: 60 @53739 has 4 MA's), (Start: 67 @53763 has 16 MA's), (77, 53805), (80, 53817), (90, 53880), (91, 53886), (101, 53925), (106, 53940), (107, 53949), (108, 53952), (109, 53955), (114, 53991), (117, 54003), (119, 54015), (120, 54021),

Gene: Wildwest_28 Start: 22362, Stop: 22703, Start Num: 67

Candidate Starts for Wildwest_28:

(Start: 26 @22338 has 21 MA's), (Start: 67 @22362 has 16 MA's), (103, 22548),

Gene: Willez_106 Start: 62009, Stop: 62383, Start Num: 40

Candidate Starts for Willez_106:

(Start: 33 @61955 has 1 MA's), (Start: 40 @62009 has 98 MA's), (Start: 67 @62090 has 16 MA's), (70, 62099), (77, 62138), (81, 62159), (103, 62252), (108, 62270), (109, 62273), (117, 62321), (130, 62372),

Gene: Woes_51 Start: 48991, Stop: 48626, Start Num: 50

Candidate Starts for Woes_51:

(Start: 50 @48991 has 32 MA's), (Start: 67 @48949 has 16 MA's), (87, 48844), (110, 48757), (113, 48727), (114, 48724), (120, 48694),

Gene: Xandras_111 Start: 63224, Stop: 63556, Start Num: 42

Candidate Starts for Xandras_111:

(Start: 42 @63224 has 18 MA's), (Start: 50 @63254 has 32 MA's), (89, 63398), (102, 63446), (109, 63470), (121, 63542),

Gene: Yang_28 Start: 22698, Stop: 23066, Start Num: 56

Candidate Starts for Yang_28:

(Start: 56 @22698 has 22 MA's), (Start: 67 @22722 has 16 MA's), (83, 22797),

Gene: YassJohnny_108 Start: 62030, Stop: 62404, Start Num: 40

Candidate Starts for YassJohnny_108:

(Start: 33 @61976 has 1 MA's), (Start: 40 @62030 has 98 MA's), (Start: 67 @62111 has 16 MA's), (70, 62120), (77, 62159), (81, 62180), (103, 62273), (108, 62291), (109, 62294), (117, 62342), (130, 62393),

Gene: YesChef_27 Start: 22359, Stop: 22724, Start Num: 26

Candidate Starts for YesChef_27:

(Start: 26 @22359 has 21 MA's), (Start: 67 @22383 has 16 MA's), (102, 22566),

Gene: Youngblood_115 Start: 64179, Stop: 64553, Start Num: 40

Candidate Starts for Youngblood_115:

(Start: 33 @64125 has 1 MA's), (Start: 40 @64179 has 98 MA's), (Start: 67 @64260 has 16 MA's), (70, 64269), (77, 64308), (81, 64329), (103, 64422), (108, 64440), (109, 64443), (117, 64491), (130, 64542),

Gene: xkcd_115 Start: 64364, Stop: 64738, Start Num: 40

Candidate Starts for xkcd_115:

(Start: 33 @64310 has 1 MA's), (Start: 40 @64364 has 98 MA's), (Start: 67 @64445 has 16 MA's), (70, 64454), (77, 64493), (81, 64514), (103, 64607), (108, 64625), (109, 64628), (117, 64676), (130, 64727),

