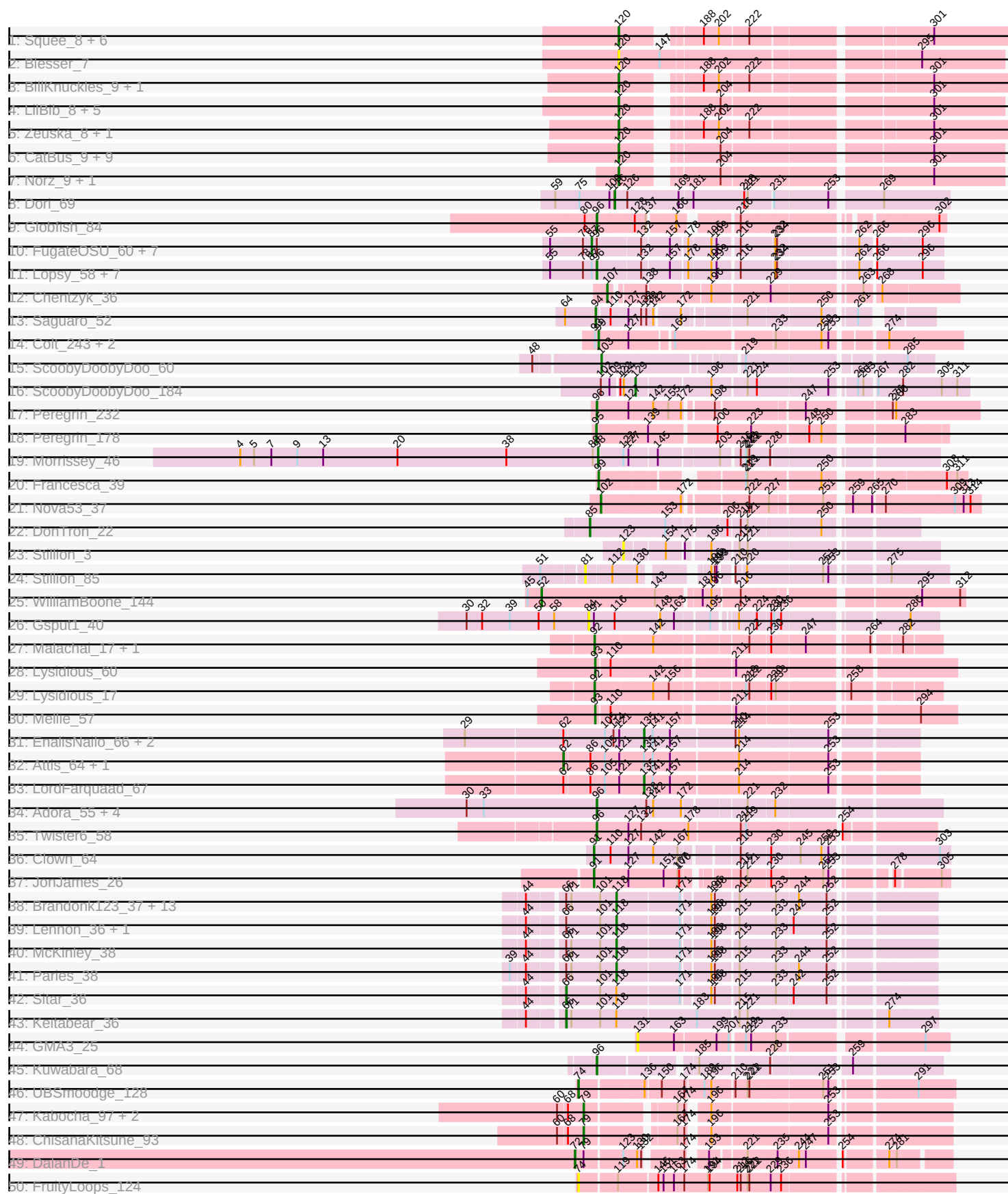
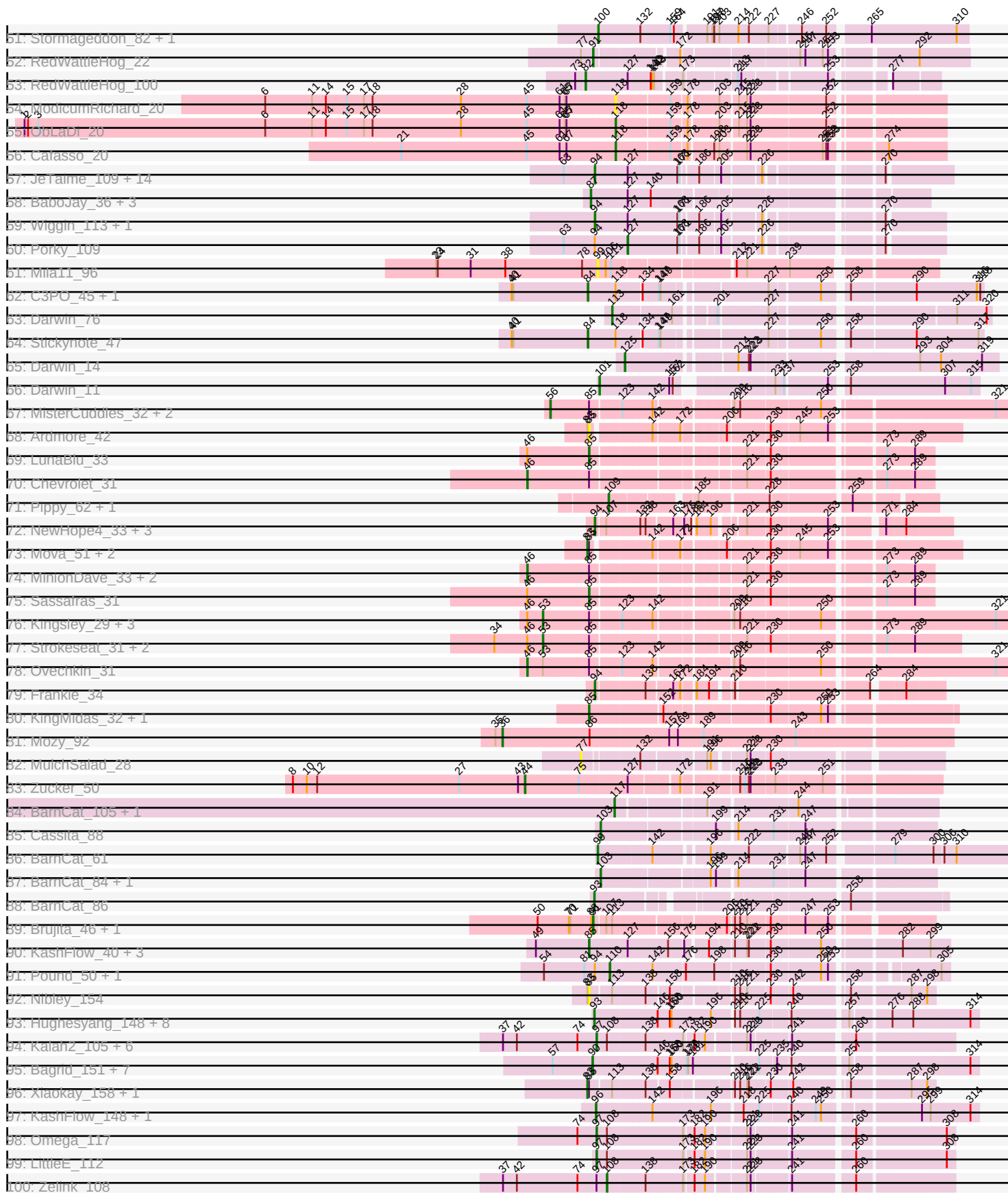


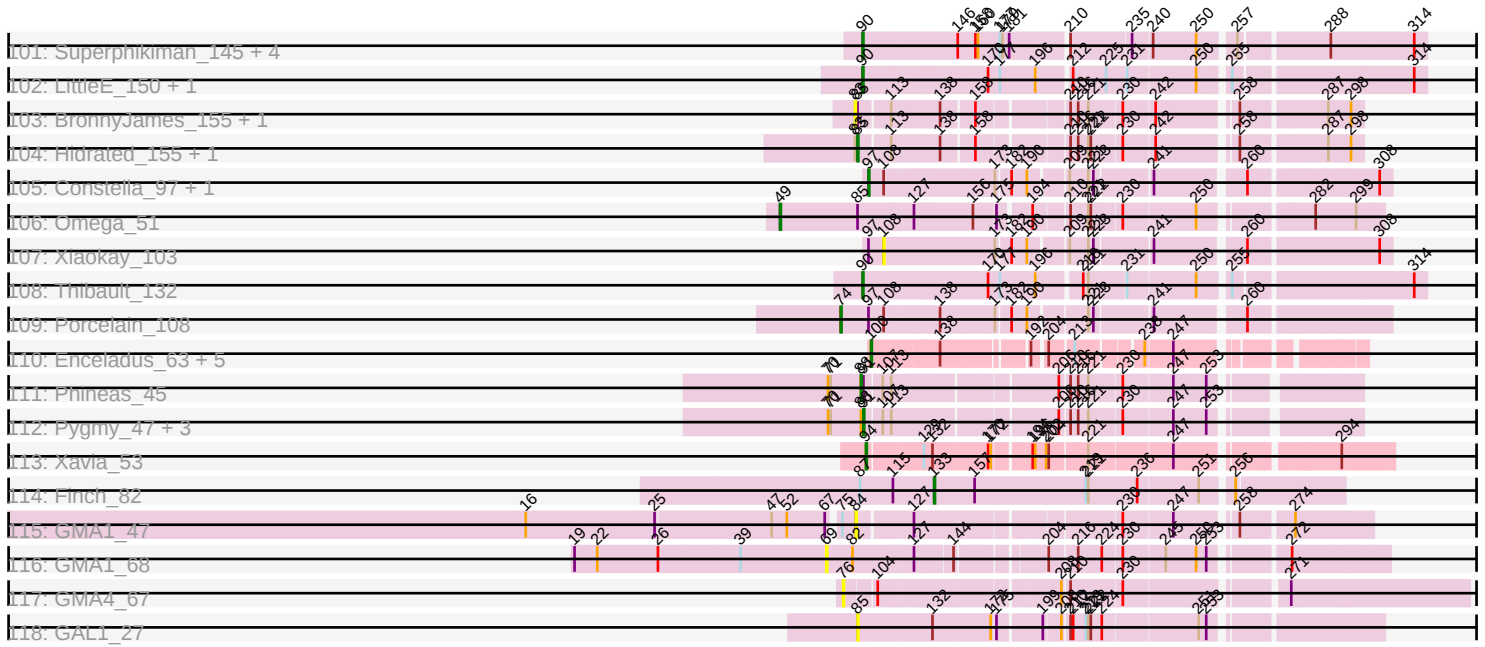
Pham 280049



Pham 280049



Pham 280049



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 280049 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280049 has 263 members, 38 are drafts.

Phages represented in each track:

- Track 1 : Squee_8, KBG_9, Solon_8, Gwendoluna_9, Nerujay_9, Whitspit_9, Graduation_10
- Track 2 : Blesser_7
- Track 3 : BillKnuckles_9, DD5_9
- Track 4 : LilBib_8, Papez_9, PowerRanger_8, Kenmech_10, CartmannCramer_8, TheloniousMonk_9
- Track 5 : Zeuska_8, QTRlifeCrisis_8
- Track 6 : CatBus_9, SpikeBT_9, KikiBouba_9, Hermia_10, Treddle_9, Aldrich_9, GroundGoblin_9, Buttons_9, Noxious_9, Edtherson_9
- Track 7 : Norz_9, Monet_9
- Track 8 : Dori_69
- Track 9 : Globfish_84
- Track 10 : FugateOSU_60, Placalicious_60, Coletti_62, Jesabah_61, Happabalu_60, Orfeu_58, Toni_59, LostAndPhound_60
- Track 11 : Lopsy_58, Buckeye_60, LeiMonet_62, Podrick_58, KingTut_52, Adriana_61, Mesmerelda_59, Matalotodo_59
- Track 12 : Chentzyk_36
- Track 13 : Saguaro_52
- Track 14 : Colt_243, Blubba_240, Cane17_242
- Track 15 : ScoobyDoobyDoo_60
- Track 16 : ScoobyDoobyDoo_184
- Track 17 : Peregrin_232
- Track 18 : Peregrin_178
- Track 19 : Morrissey_46
- Track 20 : Francesca_39
- Track 21 : Nova53_37
- Track 22 : DonTron_22
- Track 23 : Stillion_3
- Track 24 : Stillion_85
- Track 25 : WilliamBoone_144
- Track 26 : Gsput1_40
- Track 27 : Malachai_17, Begonia_17
- Track 28 : Lysidious_60
- Track 29 : Lysidious_17
- Track 30 : Mellie_57
- Track 31 : EnalisNailo_66, Bradissa_67, Lilas_67
- Track 32 : Attis_64, SoilAssassin_64

- Track 33 : LordFarquaad_67
- Track 34 : Adora_55, Shlim410_56, Hortense_58, Howe_58, Twinkle_57
- Track 35 : Twister6_58
- Track 36 : Clown_64
- Track 37 : JonJames_26
- Track 38 : Brandonk123_37, McCrothy_36, Love_39, Fosterous_34, Nordenberg_30, Sedona_36, Charming_36, Galadriel_36, BobBob_33, Angelicage_34, Vivi2_38, Rofo_36, Tangent_36, Bibwit_35
- Track 39 : Lennon_36, Affeca_34
- Track 40 : McKinley_38
- Track 41 : Paries_38
- Track 42 : Sitar_36
- Track 43 : Keitabear_36
- Track 44 : GMA3_25
- Track 45 : Kuwabara_68
- Track 46 : UBSmoodge_128
- Track 47 : Kabocha_97, Chidiebere_96, Schomber_94
- Track 48 : ChisanaKitsune_93
- Track 49 : DalanDe_1
- Track 50 : FruityLoops_124
- Track 51 : Stormageddon_82, RedWattleHog_85
- Track 52 : RedWattleHog_22
- Track 53 : RedWattleHog_100
- Track 54 : ModicumRichard_20
- Track 55 : ObLaDi_20
- Track 56 : Cafasso_20
- Track 57 : JeTaime_109, Goku_110, Nimrod_111, Kimchi_115, Teaspoon_111, 244_112, BaboJay_110, Stank_113, Icee_112, BigBubba_112, Filch_113, Goldilocks_114, TBrady12_114, Xandras_110, Holt_116
- Track 58 : BaboJay_36, Goku_37, Bogg_37, Eureka_37
- Track 59 : Wiggin_113, Marshmallow_109
- Track 60 : Porky_109
- Track 61 : Mila11_96
- Track 62 : C3PO_45, Cruella_45
- Track 63 : Darwin_76
- Track 64 : Stickynote_47
- Track 65 : Darwin_14
- Track 66 : Darwin_11
- Track 67 : MisterCuddles_32, Ruby_32, Girr_32
- Track 68 : Ardmore_42
- Track 69 : LunaBlu_33
- Track 70 : Chevrolet_31
- Track 71 : Pippy_62, Maravista_65
- Track 72 : NewHope4_33, Coco12_30, Starceovich_34, JalFarm20_33
- Track 73 : Mova_51, Bobi_53, Mutaforma13_54
- Track 74 : MinionDave_33, Galactic_32, Ramsey_33
- Track 75 : Sassafras_31
- Track 76 : Kingsley_29, StAnnes_29, Soul22_35, Hamulus_31
- Track 77 : Strokeseat_31, Mandlovu_31, Hlubikazi_31
- Track 78 : Ovechkin_31
- Track 79 : Frankie_34
- Track 80 : KingMidas_32, Leozinho_32
- Track 81 : Mozy_92

- Track 82 : MulchSalad_28
- Track 83 : Zucker_50
- Track 84 : BarnCat_105, LeeroyJenkins_114
- Track 85 : Cassita_88
- Track 86 : BarnCat_61
- Track 87 : BarnCat_84, LeeroyJenkins_94
- Track 88 : BarnCat_86
- Track 89 : Brujita_46, Island3_46
- Track 90 : KashFlow_40, Hannaconda_43, Shaboozey_39, BronnyJames_39
- Track 91 : Pound_50, Bombitas_45
- Track 92 : Nibley_154
- Track 93 : Hughesyang_148, Dove_135, Zelink_143, Kalah2_140, Wanda_148, Minerva_148, ThreeRngTarjay_144, Bobby_139, Phoebus_149
- Track 94 : Kalah2_105, Phoebus_113, Dallas_113, EricMillard_105, Hughesyang_111, ThreeRngTarjay_109, DmpstrDiver_113
- Track 95 : Bagrid_151, Optimus_141, Duke13_146, EricMillard_142, HokkenD_142, BAKA_150, Gonephishing_141, Klein_147
- Track 96 : Xiaokay_158, Minerva_162
- Track 97 : KashFlow_148, Nekros_146
- Track 98 : Omega_117
- Track 99 : LittleE_112
- Track 100 : Zelink_108
- Track 101 : Superphikiman_145, Ariel_147, Courthouse_143, Beem_151, Hannaconda_141
- Track 102 : LittleE_150, Omega_154
- Track 103 : BronnyJames_155, Shaboozey_158
- Track 104 : Hidrated_155, Constella_158
- Track 105 : Constella_97, Thibault_95
- Track 106 : Omega_51
- Track 107 : Xiaokay_103
- Track 108 : Thibault_132
- Track 109 : Porcelain_108
- Track 110 : Enceladus_63, UPIE_65, JoeDirt_64, Rose5_65, Poochiewood_65, Wamburgxpress_65
- Track 111 : Phineas_45
- Track 112 : Pygmy_47, Bogie_47, Shipwreck_47, HUHilltop_45
- Track 113 : Xavia_53
- Track 114 : Finch_82
- Track 115 : GMA1_47
- Track 116 : GMA1_68
- Track 117 : GMA4_67
- Track 118 : GAL1_27

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

The start number called the most often in the published annotations is 94, it was called in 24 of the 225 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 244_112, BaboJay_110, BigBubba_112, Coco12_30, Filch_113, Frankie_34, Goku_110, Goldilocks_114, Holt_116, Icee_112, JalFarm20_33, JeTaime_109, Kimchi_115, Marshmallow_109, NewHope4_33, Nimrod_111, Saguaro_52, Stank_113, Starcevich_34, TBrady12_114, Teaspoon_111, Wiggin_113, Xandras_110, Xavia_53,

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

- Bombitas_45, Porky_109, Pound_50,

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

- Adora_55, Adriana_61, Affeca_34, Aldrich_9, Angelicage_34, Ardmore_42, Ariel_147, Attis_64, BAKA_150, BaboJay_36, Bagrid_151, BarnCat_105, BarnCat_61, BarnCat_84, BarnCat_86, Beem_151, Begonia_17, Bibwit_35, BillKnuckles_9, Blesser_7, Blubba_240, BobBob_33, Bobby_139, Bobi_53, Bogg_37, Bogie_47, Bradissa_67, Brandonk123_37, BronnyJames_155, BronnyJames_39, Brujita_46, Buckeye_60, Buttons_9, C3PO_45, Cafasso_20, Cane17_242, CartmannCramer_8, Cassita_88, CatBus_9, Charming_36, Chentzyk_36, Chevrolet_31, Chidiebere_96, ChisanaKitsune_93, Clown_64, Coletti_62, Colt_243, Constella_158, Constella_97, Courthouse_143, Cruella_45, DD5_9, DalanDe_1, Dallas_113, Darwin_11, Darwin_14, Darwin_76, DmpstrDiver_113, DonTron_22, Dori_69, Dove_135, Duke13_146, Edtherson_9, EnalisNailo_66, Enceladus_63, EricMillard_105, EricMillard_142, Eureka_37, Finch_82, Fosterous_34, Francesca_39, FruityLoops_124, FugateOSU_60, GAL1_27, GMA1_47, GMA1_68, GMA3_25, GMA4_67, Galactic_32, Galadriel_36, Girr_32, Globfish_84, Goku_37, Gonephishing_141, Graduation_10, GroundGoblin_9, Gsput1_40, Gwendoluna_9, HUHilltop_45, Hamulus_31, Hannaconda_141, Hannaconda_43, Happabalu_60, Hermia_10, Hidrated_155, Hlubikazi_31, HokkenD_142, Hortense_58, Howe_58, Hughesyang_111, Hughesyang_148, Island3_46, Jesabah_61, JoeDirt_64, JonJames_26, KBG_9, Kabocha_97, Kalah2_105, Kalah2_140, KashFlow_148, KashFlow_40, Keitabear_36, Kenmech_10, KikiBouba_9, KingMidas_32, KingTut_52, Kingsley_29, Klein_147, Kuwabara_68, LeeroyJenkins_114, LeeroyJenkins_94, LeiMonet_62, Lennon_36, Leozinho_32, LilBib_8, Lilas_67, LittleE_112, LittleE_150, Lopsy_58, LordFarquaad_67, LostAndPhound_60, Love_39, LunaBlu_33, Lysidious_17, Lysidious_60, Malachai_17, Mandlovu_31, Maravista_65, Matalotodo_59, McCrothy_36, McKinley_38, Mellie_57, Mesmerelda_59, Mila11_96, Minerva_148, Minerva_162, MinionDave_33, MisterCuddles_32, ModicumRichard_20, Monet_9, Morrissey_46, Mova_51, Mozy_92, MulchSalad_28, Mutaforma13_54, Nekros_146, Nerujay_9, Nibley_154, Nordenberg_30, Norz_9, Nova53_37, Noxious_9, ObLaDi_20, Omega_117, Omega_154, Omega_51, Optimus_141, Orfeu_58, Ovechkin_31, Papez_9, Paries_38, Peregrin_178, Peregrin_232, Phineas_45, Phoebus_113, Phoebus_149, Pippy_62, Placalicious_60, Podrick_58, Poochiewood_65, Porcelain_108, PowerRanger_8, Pygmy_47, QTRlifeCrisis_8, Ramsey_33, RedWattleHog_100, RedWattleHog_22, RedWattleHog_85, Rofo_36, Rose5_65, Ruby_32, Sassafras_31, Schomber_94, ScoobyDoobyDoo_184, ScoobyDoobyDoo_60, Sedona_36, Shaboozey_158, Shaboozey_39, Shipwreck_47, Shlim410_56, Sitar_36, SoilAssassin_64, Solon_8, Soul22_35, SpikeBT_9, Squee_8, StAnnes_29, Stickynote_47, Stillion_3, Stillion_85, Stormageddon_82, Strokeseat_31, Superphikiman_145, Tangent_36, TheloniousMonk_9, Thibault_132, Thibault_95, ThreeRngTarjay_109, ThreeRngTarjay_144, Toni_59, Treddle_9, Twinkle_57, Twister6_58, UBSmoodge_128, UPIE_65, Vivi2_38, Wamburggrxpress_65, Wanda_148, Whitspit_9, WilliamBoone_144, Xiaokay_103, Xiaokay_158, Zelink_108, Zelink_143, Zeuska_8, Zucker_50,

Summary by start number:

Start 36:

- Found in 1 of 263 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mozy_92 (F1),

Start 44:

- Found in 21 of 263 (8.0%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 4.8% of time when present
- Phage (with cluster) where this start called: Zucker_50 (FN),

Start 46:

- Found in 14 of 263 (5.3%) of genes in pham
- Manual Annotations of this start: 5 of 225
- Called 35.7% of time when present
- Phage (with cluster) where this start called: Chevrolet_31 (F1), Galactic_32 (F1), MinionDave_33 (F1), Ovechkin_31 (F1), Ramsey_33 (F1),

Start 49:

- Found in 5 of 263 (1.9%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 20.0% of time when present
- Phage (with cluster) where this start called: Omega_51 (J),

Start 52:

- Found in 2 of 263 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 50.0% of time when present
- Phage (with cluster) where this start called: WilliamBoone_144 (CQ1),

Start 53:

- Found in 8 of 263 (3.0%) of genes in pham
- Manual Annotations of this start: 7 of 225
- Called 87.5% of time when present
- Phage (with cluster) where this start called: Hamulus_31 (F1), Hlubikazi_31 (F1), Kingsley_29 (F1), Mandlovu_31 (F1), Soul22_35 (F2), StAnnes_29 (F1), Strokeseat_31 (F1),

Start 56:

- Found in 3 of 263 (1.1%) of genes in pham
- Manual Annotations of this start: 3 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Girr_32 (F1), MisterCuddles_32 (F1), Ruby_32 (F1),

Start 62:

- Found in 6 of 263 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 225
- Called 33.3% of time when present

- Phage (with cluster) where this start called: Attis_64 (CZ2), SoilAssassin_64 (CZ2),

Start 66:

- Found in 20 of 263 (7.6%) of genes in pham
- Manual Annotations of this start: 2 of 225
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Keitabear_36 (DE1), Sitar_36 (DE1),

Start 69:

- Found in 1 of 263 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA1_68 (singleton),

Start 72:

- Found in 1 of 263 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DalanDe_1 (DQ),

Start 74:

- Found in 12 of 263 (4.6%) of genes in pham
- Manual Annotations of this start: 2 of 225
- Called 25.0% of time when present
- Phage (with cluster) where this start called: FruityLoops_124 (DQ), Porcelain_108 (J), UBSmoodge_128 (DQ),

Start 76:

- Found in 1 of 263 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA4_67 (singleton),

Start 77:

- Found in 2 of 263 (0.8%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: MulchSalad_28 (F7),

Start 79:

- Found in 5 of 263 (1.9%) of genes in pham
- Manual Annotations of this start: 4 of 225
- Called 80.0% of time when present
- Phage (with cluster) where this start called: Chidiebere_96 (DQ), ChisanaKitsune_93 (DQ), Kabocha_97 (DQ), Schomber_94 (DQ),

Start 81:

- Found in 3 of 263 (1.1%) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Stillion_85 (CP),

Start 82:

- Found in 2 of 263 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 50.0% of time when present
- Phage (with cluster) where this start called: RedWattleHog_100 (DX),

Start 83:

- Found in 11 of 263 (4.2%) of genes in pham
- Manual Annotations of this start: 4 of 225
- Called 63.6% of time when present
- Phage (with cluster) where this start called: Bobi_53 (F1), BronnyJames_155 (J), Minerva_162 (J), Mova_51 (F1), Mutaforma13_54 (F1), Shaboozey_158 (J), Xiaokay_158 (J),

Start 84:

- Found in 5 of 263 (1.9%) of genes in pham
- Manual Annotations of this start: 3 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: C3PO_45 (EN), Cruella_45 (EN), GMA1_47 (singleton), Gsput1_40 (CU2), Stickynote_47 (EN),

Start 85:

- Found in 37 of 263 (14.1%) of genes in pham
- Manual Annotations of this start: 8 of 225
- Called 37.8% of time when present
- Phage (with cluster) where this start called: Ardmore_42 (F1), BronnyJames_39 (J), Constella_158 (J), DonTron_22 (CP), GAL1_27 (singleton), Hannaconda_43 (J), Hidrated_155 (J), KashFlow_40 (J), KingMidas_32 (F1), Leozinho_32 (F1), LunaBlu_33 (F1), Nibley_154 (J), Sassafras_31 (F1), Shaboozey_39 (J),

Start 87:

- Found in 21 of 263 (8.0%) of genes in pham
- Manual Annotations of this start: 10 of 225
- Called 57.1% of time when present
- Phage (with cluster) where this start called: BaboJay_36 (E), Bogg_37 (E), Coletti_62 (B1), Eureka_37 (E), FugateOSU_60 (B1), Goku_37 (E), Happabalu_60 (B1), Jesabah_61 (B1), LostAndPhound_60 (B1), Orfeu_58 (B1), Placalicious_60 (B1), Toni_59 (B1),

Start 88:

- Found in 7 of 263 (2.7%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Phineas_45 (P1),

Start 90:

- Found in 16 of 263 (6.1%) of genes in pham
- Manual Annotations of this start: 14 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ariel_147 (J), BAKA_150 (J), Bagrid_151 (J), Beem_151 (J), Courthouse_143 (J), Duke13_146 (J), EricMillard_142 (J), Gonephishing_141 (J), Hannaconda_141 (J), HokkenD_142 (J), Klein_147 (J), LittleE_150 (J), Omega_154 (J), Optimus_141 (J), Superphikiman_145 (J), Thibault_132 (J),

Start 91:

- Found in 11 of 263 (4.2%) of genes in pham
- Manual Annotations of this start: 9 of 225
- Called 81.8% of time when present
- Phage (with cluster) where this start called: Bogie_47 (P1), Brujita_46 (I1), Clown_64 (DC2), HUHilltop_45 (P1), Island3_46 (I1), JonJames_26 (DD), Pygmy_47 (P1), RedWattleHog_22 (DX), Shipwreck_47 (P1),

Start 92:

- Found in 3 of 263 (1.1%) of genes in pham
- Manual Annotations of this start: 3 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Begonia_17 (CV), Lysidious_17 (CV), Malachai_17 (CV),

Start 93:

- Found in 15 of 263 (5.7%) of genes in pham
- Manual Annotations of this start: 12 of 225
- Called 80.0% of time when present
- Phage (with cluster) where this start called: BarnCat_86 (GB), Bobby_139 (J), Dove_135 (J), Hughesyang_148 (J), Kalah2_140 (J), Lysidious_60 (CV), Mellie_57 (CV), Minerva_148 (J), Phoebus_149 (J), ThreeRngTarjay_144 (J), Wanda_148 (J), Zelink_143 (J),

Start 94:

- Found in 27 of 263 (10.3%) of genes in pham
- Manual Annotations of this start: 24 of 225
- Called 88.9% of time when present
- Phage (with cluster) where this start called: 244_112 (E), BaboJay_110 (E), BigBubba_112 (E), Coco12_30 (F1), Filch_113 (E), Frankie_34 (F1), Goku_110 (E), Goldilocks_114 (E), Holt_116 (E), Icee_112 (E), JalFarm20_33 (F1), JeTaime_109 (E), Kimchi_115 (E), Marshmallow_109 (E), NewHope4_33 (F1), Nimrod_111 (E), Saguaro_52 (B7), Stank_113 (E), Starceвич_34 (F1), TBrady12_114 (E), Teaspoon_111 (E), Wiggin_113 (E), Xandras_110 (E), Xavia_53 (P3),

Start 95:

- Found in 1 of 263 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Peregrin_178 (CB),

Start 96:

- Found in 27 of 263 (10.3%) of genes in pham
- Manual Annotations of this start: 17 of 225
- Called 70.4% of time when present
- Phage (with cluster) where this start called: Adora_55 (CZ4), Adriana_61 (B1), Buckeye_60 (B1), Globfish_84 (AY), Hortense_58 (CZ4), Howe_58 (CZ4), KashFlow_148 (J), KingTut_52 (B1), Kuwabara_68 (DN4), LeiMonet_62 (B1), Lopsy_58 (B1), Matalotodo_59 (B1), Mesmerelda_59 (B1), Nekros_146 (J), Peregrin_232 (CB), Podrick_58 (B1), Shlim410_56 (CZ4), Twinkle_57 (CZ4), Twister6_58 (DC1),

Start 97:

- Found in 14 of 263 (5.3%) of genes in pham
- Manual Annotations of this start: 11 of 225
- Called 78.6% of time when present
- Phage (with cluster) where this start called: Constella_97 (J), Dallas_113 (J), DmpstrDiver_113 (J), EricMillard_105 (J), Hughesyang_111 (J), Kalah2_105 (J), LittleE_112 (J), Omega_117 (J), Phoebus_113 (J), Thibault_95 (J), ThreeRngTarjay_109 (J),

Start 98:

- Found in 1 of 263 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Morrissey_46 (CD),

Start 99:

- Found in 6 of 263 (2.3%) of genes in pham
- Manual Annotations of this start: 5 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BarnCat_61 (GB), Blubba_240 (C1), Cane17_242 (C1), Colt_243 (C1), Francesca_39 (CG), Mila11_96 (EG),

Start 100:

- Found in 8 of 263 (3.0%) of genes in pham
- Manual Annotations of this start: 7 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Enceladus_63 (L1), JoeDirt_64 (L1), Poochiewood_65 (L1), RedWattleHog_85 (DX), Rose5_65 (L1), Stormageddon_82 (DX), UPIE_65 (L1), Wamburgxpress_65 (L1),

Start 101:

- Found in 21 of 263 (8.0%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 4.8% of time when present
- Phage (with cluster) where this start called: Darwin_11 (EN),

Start 102:

- Found in 2 of 263 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Nova53_37 (CG),

Start 103:

- Found in 4 of 263 (1.5%) of genes in pham
- Manual Annotations of this start: 4 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BarnCat_84 (GB), Cassita_88 (GB), LeeroyJenkins_94 (GB), ScoobyDoobyDoo_60 (C2),

Start 107:

- Found in 12 of 263 (4.6%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 8.3% of time when present

- Phage (with cluster) where this start called: Chentzyk_36 (B3),

Start 108:

- Found in 14 of 263 (5.3%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Xiaokay_103 (J), Zelink_108 (J),

Start 109:

- Found in 4 of 263 (1.5%) of genes in pham
- Manual Annotations of this start: 2 of 225
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Maravista_65 (F1), Pippy_62 (F1),

Start 110:

- Found in 6 of 263 (2.3%) of genes in pham
- Manual Annotations of this start: 2 of 225
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Bombitas_45 (J), Pound_50 (J),

Start 113:

- Found in 15 of 263 (5.7%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 6.7% of time when present
- Phage (with cluster) where this start called: Darwin_76 (EN),

Start 116:

- Found in 2 of 263 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Dori_69 (AD),

Start 117:

- Found in 2 of 263 (0.8%) of genes in pham
- Manual Annotations of this start: 2 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BarnCat_105 (GB), LeeroyJenkins_114 (GB),

Start 118:

- Found in 26 of 263 (9.9%) of genes in pham
- Manual Annotations of this start: 19 of 225
- Called 80.8% of time when present
- Phage (with cluster) where this start called: Affeca_34 (DE1), Angelicage_34 (DE1), Bibwit_35 (DE1), BobBob_33 (DE1), Brandonk123_37 (DE1), Cafasso_20 (DZ), Charming_36 (DE1), Fosterous_34 (DE1), Galadriel_36 (DE1), Lennon_36 (DE1), Love_39 (DE1), McCrothy_36 (DE1), McKinley_38 (DE1), ModicumRichard_20 (DZ), Nordenberg_30 (DE1), ObLaDi_20 (DZ), Paries_38 (DE1), Rofo_36 (DE1), Sedona_36 (DE1), Tangent_36 (DE1), Vivi2_38 (DE1),

Start 120:

- Found in 30 of 263 (11.4%) of genes in pham
- Manual Annotations of this start: 21 of 225

- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aldrich_9 (A1), BillKnuckles_9 (A1), Blesser_7 (A1), Buttons_9 (A1), CartmannCramer_8 (A1), CatBus_9 (A1), DD5_9 (A1), Edtherson_9 (A1), Graduation_10 (A1), GroundGoblin_9 (A1), Gwendoluna_9 (A1), Hermia_10 (A1), KBG_9 (A1), Kenmech_10 (A1), KikiBouba_9 (A1), LilBib_8 (A1), Monet_9 (A1), Nerujay_9 (A1), Norz_9 (A1), Noxious_9 (A1), Papez_9 (A1), PowerRanger_8 (A1), QTRlifeCrisis_8 (A1), Solon_8 (A1), SpikeBT_9 (A1), Squee_8 (A1), TheloniousMonk_9 (A1), Treddie_9 (A1), Whitspit_9 (A1), Zeuska_8 (A1),

Start 123:

- Found in 11 of 263 (4.2%) of genes in pham
- No Manual Annotations of this start.
- Called 9.1% of time when present
- Phage (with cluster) where this start called: Stillion_3 (CP),

Start 125:

- Found in 1 of 263 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Darwin_14 (EN),

Start 127:

- Found in 40 of 263 (15.2%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 2.5% of time when present
- Phage (with cluster) where this start called: Porky_109 (E),

Start 129:

- Found in 2 of 263 (0.8%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 50.0% of time when present
- Phage (with cluster) where this start called: ScoobyDoobyDoo_184 (C2),

Start 131:

- Found in 1 of 263 (0.4%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: GMA3_25 (DF2),

Start 133:

- Found in 1 of 263 (0.4%) of genes in pham
- Manual Annotations of this start: 1 of 225
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Finch_82 (singleton),

Start 135:

- Found in 6 of 263 (2.3%) of genes in pham
- Manual Annotations of this start: 4 of 225
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Bradissa_67 (CY1), EnalisNailo_66 (CY1), Lilas_67 (CY1), LordFarquaad_67 (CZ2),

Summary by clusters:

There are 41 clusters represented in this pham: singleton, CQ1, CZ2, DD, CZ4, EN, DZ, DX, FN, DQ, CU2, I1, DF2, A1, DN4, C2, C1, P3, CY1, P1, E, AD, CB, EG, J, CG, CD, GB, L1, AY, CP, DC2, CV, DC1, F1, F2, F7, DE1, B7, B1, B3,

Info for manual annotations of cluster A1:

- Start number 120 was manually annotated 21 times for cluster A1.

Info for manual annotations of cluster AD:

- Start number 116 was manually annotated 1 time for cluster AD.

Info for manual annotations of cluster AY:

- Start number 96 was manually annotated 1 time for cluster AY.

Info for manual annotations of cluster B1:

- Start number 87 was manually annotated 7 times for cluster B1.
- Start number 96 was manually annotated 7 times for cluster B1.

Info for manual annotations of cluster B3:

- Start number 107 was manually annotated 1 time for cluster B3.

Info for manual annotations of cluster B7:

- Start number 94 was manually annotated 1 time for cluster B7.

Info for manual annotations of cluster C1:

- Start number 99 was manually annotated 3 times for cluster C1.

Info for manual annotations of cluster C2:

- Start number 103 was manually annotated 1 time for cluster C2.
- Start number 129 was manually annotated 1 time for cluster C2.

Info for manual annotations of cluster CB:

- Start number 95 was manually annotated 1 time for cluster CB.
- Start number 96 was manually annotated 1 time for cluster CB.

Info for manual annotations of cluster CD:

- Start number 98 was manually annotated 1 time for cluster CD.

Info for manual annotations of cluster CG:

- Start number 99 was manually annotated 1 time for cluster CG.
- Start number 102 was manually annotated 1 time for cluster CG.

Info for manual annotations of cluster CP:

- Start number 85 was manually annotated 1 time for cluster CP.

Info for manual annotations of cluster CQ1:

- Start number 52 was manually annotated 1 time for cluster CQ1.

Info for manual annotations of cluster CV:

- Start number 92 was manually annotated 3 times for cluster CV.
- Start number 93 was manually annotated 2 times for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 135 was manually annotated 3 times for cluster CY1.

Info for manual annotations of cluster CZ2:

- Start number 62 was manually annotated 2 times for cluster CZ2.
- Start number 135 was manually annotated 1 time for cluster CZ2.

Info for manual annotations of cluster CZ4:

- Start number 96 was manually annotated 5 times for cluster CZ4.

Info for manual annotations of cluster DC1:

- Start number 96 was manually annotated 1 time for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 91 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DD:

- Start number 91 was manually annotated 1 time for cluster DD.

Info for manual annotations of cluster DE1:

- Start number 66 was manually annotated 2 times for cluster DE1.
- Start number 118 was manually annotated 17 times for cluster DE1.

Info for manual annotations of cluster DN4:

- Start number 96 was manually annotated 1 time for cluster DN4.

Info for manual annotations of cluster DQ:

- Start number 72 was manually annotated 1 time for cluster DQ.
- Start number 74 was manually annotated 1 time for cluster DQ.
- Start number 79 was manually annotated 4 times for cluster DQ.

Info for manual annotations of cluster DX:

- Start number 82 was manually annotated 1 time for cluster DX.
- Start number 91 was manually annotated 1 time for cluster DX.
- Start number 100 was manually annotated 2 times for cluster DX.

Info for manual annotations of cluster DZ:

- Start number 118 was manually annotated 2 times for cluster DZ.

Info for manual annotations of cluster E:

- Start number 87 was manually annotated 3 times for cluster E.
- Start number 94 was manually annotated 17 times for cluster E.
- Start number 127 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster EN:

- Start number 84 was manually annotated 3 times for cluster EN.
- Start number 101 was manually annotated 1 time for cluster EN.
- Start number 113 was manually annotated 1 time for cluster EN.
- Start number 125 was manually annotated 1 time for cluster EN.

Info for manual annotations of cluster F1:

- Start number 36 was manually annotated 1 time for cluster F1.
- Start number 46 was manually annotated 5 times for cluster F1.
- Start number 53 was manually annotated 6 times for cluster F1.
- Start number 56 was manually annotated 3 times for cluster F1.
- Start number 83 was manually annotated 3 times for cluster F1.
- Start number 85 was manually annotated 4 times for cluster F1.
- Start number 94 was manually annotated 5 times for cluster F1.
- Start number 109 was manually annotated 2 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 53 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster FN:

- Start number 44 was manually annotated 1 time for cluster FN.

Info for manual annotations of cluster GB:

- Start number 93 was manually annotated 1 time for cluster GB.
- Start number 99 was manually annotated 1 time for cluster GB.
- Start number 103 was manually annotated 3 times for cluster GB.
- Start number 117 was manually annotated 2 times for cluster GB.

Info for manual annotations of cluster I1:

- Start number 91 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster J:

- Start number 49 was manually annotated 1 time for cluster J.
- Start number 74 was manually annotated 1 time for cluster J.
- Start number 83 was manually annotated 1 time for cluster J.
- Start number 85 was manually annotated 3 times for cluster J.
- Start number 90 was manually annotated 14 times for cluster J.
- Start number 93 was manually annotated 9 times for cluster J.
- Start number 96 was manually annotated 1 time for cluster J.
- Start number 97 was manually annotated 11 times for cluster J.
- Start number 108 was manually annotated 1 time for cluster J.
- Start number 110 was manually annotated 2 times for cluster J.

Info for manual annotations of cluster L1:

- Start number 100 was manually annotated 5 times for cluster L1.

Info for manual annotations of cluster P1:

- Start number 88 was manually annotated 1 time for cluster P1.
- Start number 91 was manually annotated 4 times for cluster P1.

Info for manual annotations of cluster P3:

- Start number 94 was manually annotated 1 time for cluster P3.

Gene Information:

Gene: 244_112 Start: 62827, Stop: 63327, Start Num: 94

Candidate Starts for 244_112:

(63, 62773), (Start: 94 @62827 has 24 MA's), (Start: 127 @62881 has 1 MA's), (168, 62962), (171, 62965), (186, 62989), (205, 63022), (226, 63079), (270, 63241),

Gene: Adora_55 Start: 40141, Stop: 40647, Start Num: 96

Candidate Starts for Adora_55:

(30, 39916), (33, 39946), (Start: 96 @40141 has 17 MA's), (138, 40216), (142, 40228), (172, 40270), (221, 40357), (232, 40396),

Gene: Adriana_61 Start: 53245, Stop: 52730, Start Num: 96

Candidate Starts for Adriana_61:

(55, 53323), (78, 53269), (Start: 87 @53254 has 10 MA's), (Start: 96 @53245 has 17 MA's), (132, 53179), (157, 53134), (178, 53110), (196, 53074), (199, 53068), (216, 53035), (232, 52981), (234, 52978), (262, 52861), (266, 52840), (296, 52765),

Gene: Affeca_34 Start: 32900, Stop: 32427, Start Num: 118

Candidate Starts for Affeca_34:

(Start: 44 @33038 has 1 MA's), (Start: 66 @32984 has 2 MA's), (Start: 101 @32927 has 1 MA's), (Start: 118 @32900 has 19 MA's), (171, 32801), (196, 32759), (198, 32756), (215, 32720), (233, 32663), (242, 32639), (252, 32582),

Gene: Aldrich_9 Start: 4591, Stop: 5169, Start Num: 120

Candidate Starts for Aldrich_9:

(Start: 120 @4591 has 21 MA's), (204, 4717), (301, 5050),

Gene: Angelicage_34 Start: 33318, Stop: 32845, Start Num: 118

Candidate Starts for Angelicage_34:

(Start: 44 @33456 has 1 MA's), (Start: 66 @33402 has 2 MA's), (71, 33393), (Start: 101 @33345 has 1 MA's), (Start: 118 @33318 has 19 MA's), (171, 33219), (196, 33177), (198, 33174), (215, 33138), (233, 33081), (244, 33048), (252, 33000),

Gene: Ardmore_42 Start: 34484, Stop: 35032, Start Num: 85

Candidate Starts for Ardmore_42:

(Start: 83 @34481 has 4 MA's), (Start: 85 @34484 has 8 MA's), (142, 34574), (172, 34616), (206, 34676), (230, 34742), (245, 34784), (253, 34832),

Gene: Ariel_147 Start: 75437, Stop: 76039, Start Num: 90

Candidate Starts for Ariel_147:

(Start: 90 @75437 has 14 MA's), (146, 75542), (158, 75563), (160, 75566), (177, 75590), (179, 75593), (181, 75599), (210, 75659), (235, 75728), (240, 75746), (250, 75797), (257, 75833), (288, 75929), (314, 76025),

Gene: Attis_64 Start: 43105, Stop: 43650, Start Num: 62

Candidate Starts for Attis_64:

(Start: 62 @43105 has 2 MA's), (86, 43147), (105, 43168), (121, 43192), (Start: 135 @43231 has 4 MA's), (141, 43243), (157, 43273), (214, 43378), (253, 43516),

Gene: BAKA_150 Start: 78761, Stop: 79363, Start Num: 90

Candidate Starts for BAKA_150:

(57, 78692), (Start: 90 @78761 has 14 MA's), (146, 78866), (158, 78887), (160, 78890), (177, 78914), (179, 78917), (181, 78923), (225, 79025), (235, 79052), (240, 79070), (257, 79157), (314, 79349),

Gene: BaboJay_36 Start: 33175, Stop: 32675, Start Num: 87

Candidate Starts for BaboJay_36:

(Start: 87 @33175 has 10 MA's), (Start: 127 @33118 has 1 MA's), (140, 33082),

Gene: BaboJay_110 Start: 64000, Stop: 64500, Start Num: 94

Candidate Starts for BaboJay_110:

(63, 63946), (Start: 94 @64000 has 24 MA's), (Start: 127 @64054 has 1 MA's), (168, 64135), (171, 64138), (186, 64162), (205, 64195), (226, 64252), (270, 64414),

Gene: Bagrid_151 Start: 79456, Stop: 80058, Start Num: 90

Candidate Starts for Bagrid_151:

(57, 79387), (Start: 90 @79456 has 14 MA's), (146, 79561), (158, 79582), (160, 79585), (177, 79609), (179, 79612), (181, 79618), (225, 79720), (235, 79747), (240, 79765), (257, 79852), (314, 80044),

Gene: BarnCat_105 Start: 54966, Stop: 54505, Start Num: 117

Candidate Starts for BarnCat_105:

(Start: 117 @54966 has 2 MA's), (191, 54837), (244, 54714),

Gene: BarnCat_61 Start: 35513, Stop: 34857, Start Num: 99

Candidate Starts for BarnCat_61:

(Start: 99 @35513 has 5 MA's), (142, 35426), (196, 35345), (222, 35288), (245, 35210), (247, 35201), (252, 35165), (279, 35069), (300, 35006), (306, 34991), (310, 34970),

Gene: BarnCat_84 Start: 47542, Stop: 47033, Start Num: 103

Candidate Starts for BarnCat_84:

(Start: 103 @47542 has 4 MA's), (196, 47371), (199, 47365), (214, 47335), (231, 47281), (247, 47233),

Gene: BarnCat_86 Start: 49536, Stop: 49024, Start Num: 93

Candidate Starts for BarnCat_86:

(Start: 93 @49536 has 12 MA's), (258, 49179),

Gene: Beem_151 Start: 80198, Stop: 80800, Start Num: 90

Candidate Starts for Beem_151:

(Start: 90 @80198 has 14 MA's), (146, 80303), (158, 80324), (160, 80327), (177, 80351), (179, 80354), (181, 80360), (210, 80420), (235, 80489), (240, 80507), (250, 80558), (257, 80594), (288, 80690), (314, 80786),

Gene: Begonia_17 Start: 10279, Stop: 10785, Start Num: 92

Candidate Starts for Begonia_17:

(Start: 92 @10279 has 3 MA's), (142, 10369), (222, 10504), (230, 10537), (247, 10588), (264, 10681), (282, 10723),

Gene: Bibwit_35 Start: 32719, Stop: 32246, Start Num: 118

Candidate Starts for Bibwit_35:

(Start: 44 @32857 has 1 MA's), (Start: 66 @32803 has 2 MA's), (71, 32794), (Start: 101 @32746 has 1 MA's), (Start: 118 @32719 has 19 MA's), (171, 32620), (196, 32578), (198, 32575), (215, 32539), (233, 32482), (244, 32449), (252, 32401),

Gene: BigBubba_112 Start: 62473, Stop: 62973, Start Num: 94

Candidate Starts for BigBubba_112:

(63, 62419), (Start: 94 @62473 has 24 MA's), (Start: 127 @62527 has 1 MA's), (168, 62608), (171, 62611), (186, 62635), (205, 62668), (226, 62725), (270, 62887),

Gene: BillKnuckles_9 Start: 4709, Stop: 5290, Start Num: 120

Candidate Starts for BillKnuckles_9:

(Start: 120 @4709 has 21 MA's), (188, 4811), (202, 4832), (222, 4880), (301, 5159),

Gene: Blesser_7 Start: 4048, Stop: 4662, Start Num: 120

Candidate Starts for Blesser_7:

(Start: 120 @4048 has 21 MA's), (147, 4117), (295, 4522),

Gene: Blubba_240 Start: 148292, Stop: 148846, Start Num: 99

Candidate Starts for Blubba_240:

(Start: 93 @148286 has 12 MA's), (Start: 99 @148292 has 5 MA's), (Start: 127 @148340 has 1 MA's), (165, 148403), (233, 148559), (250, 148631), (253, 148643), (274, 148721),

Gene: BobBob_33 Start: 31999, Stop: 31526, Start Num: 118

Candidate Starts for BobBob_33:

(Start: 44 @32137 has 1 MA's), (Start: 66 @32083 has 2 MA's), (71, 32074), (Start: 101 @32026 has 1 MA's), (Start: 118 @31999 has 19 MA's), (171, 31900), (196, 31858), (198, 31855), (215, 31819), (233, 31762), (244, 31729), (252, 31681),

Gene: Bobby_139 Start: 80254, Stop: 80853, Start Num: 93

Candidate Starts for Bobby_139:

(Start: 93 @80254 has 12 MA's), (146, 80356), (158, 80377), (160, 80380), (196, 80443), (210, 80473), (216, 80482), (225, 80515), (240, 80560), (257, 80647), (276, 80707), (288, 80743), (314, 80839),

Gene: Bobi_53 Start: 37484, Stop: 38035, Start Num: 83

Candidate Starts for Bobi_53:

(Start: 83 @37484 has 4 MA's), (Start: 85 @37487 has 8 MA's), (142, 37577), (172, 37619), (206, 37679), (230, 37745), (245, 37787), (253, 37835),

Gene: Bogg_37 Start: 32525, Stop: 32025, Start Num: 87

Candidate Starts for Bogg_37:

(Start: 87 @32525 has 10 MA's), (Start: 127 @32468 has 1 MA's), (140, 32432),

Gene: Bogie_47 Start: 33238, Stop: 33729, Start Num: 91

Candidate Starts for Bogie_47:

(70, 33199), (71, 33202), (Start: 88 @33235 has 1 MA's), (Start: 91 @33238 has 9 MA's), (Start: 107 @33256 has 1 MA's), (Start: 113 @33265 has 1 MA's), (206, 33430), (210, 33439), (216, 33445), (221, 33457), (230, 33493), (247, 33544), (253, 33583),

Gene: Bombitas_45 Start: 41655, Stop: 42164, Start Num: 110

Candidate Starts for Bombitas_45:

(54, 41544), (81, 41613), (Start: 94 @41631 has 24 MA's), (Start: 110 @41655 has 2 MA's), (142, 41721), (176, 41775), (198, 41820), (230, 41907), (250, 41985), (253, 41997), (305, 42150),

Gene: Bradissa_67 Start: 46915, Stop: 47334, Start Num: 135

Candidate Starts for Bradissa_67:

(29, 46627), (Start: 62 @46789 has 2 MA's), (105, 46852), (114, 46867), (121, 46876), (Start: 135 @46915 has 4 MA's), (141, 46927), (157, 46957), (210, 47056), (214, 47062), (253, 47200),

Gene: Brandonk123_37 Start: 33065, Stop: 32592, Start Num: 118

Candidate Starts for Brandonk123_37:

(Start: 44 @33203 has 1 MA's), (Start: 66 @33149 has 2 MA's), (71, 33140), (Start: 101 @33092 has 1 MA's), (Start: 118 @33065 has 19 MA's), (171, 32966), (196, 32924), (198, 32921), (215, 32885), (233, 32828), (244, 32795), (252, 32747),

Gene: BronnyJames_155 Start: 83033, Stop: 83545, Start Num: 83

Candidate Starts for BronnyJames_155:

(Start: 83 @83033 has 4 MA's), (Start: 85 @83036 has 8 MA's), (Start: 113 @83069 has 1 MA's), (138, 83120), (158, 83156), (210, 83246), (216, 83255), (221, 83267), (230, 83303), (242, 83333), (258, 83414), (287, 83507), (298, 83531),

Gene: BronnyJames_39 Start: 35483, Stop: 36025, Start Num: 85

Candidate Starts for BronnyJames_39:

(Start: 49 @35396 has 1 MA's), (Start: 85 @35483 has 8 MA's), (Start: 127 @35546 has 1 MA's), (156, 35612), (175, 35636), (194, 35669), (210, 35702), (221, 35723), (222, 35726), (230, 35759), (250, 35837), (282, 35948), (299, 35996),

Gene: Brujita_46 Start: 33137, Stop: 33628, Start Num: 91

Candidate Starts for Brujita_46:

(50, 33044), (70, 33098), (71, 33101), (Start: 88 @33134 has 1 MA's), (Start: 91 @33137 has 9 MA's), (Start: 107 @33155 has 1 MA's), (Start: 113 @33164 has 1 MA's), (206, 33329), (210, 33338), (216, 33344), (221, 33356), (230, 33392), (247, 33443), (253, 33482),

Gene: Buckeye_60 Start: 52975, Stop: 52460, Start Num: 96

Candidate Starts for Buckeye_60:

(55, 53053), (78, 52999), (Start: 87 @52984 has 10 MA's), (Start: 96 @52975 has 17 MA's), (132, 52909), (157, 52864), (178, 52840), (196, 52804), (199, 52798), (216, 52765), (232, 52711), (234, 52708), (262, 52591), (266, 52570), (296, 52495),

Gene: Buttons_9 Start: 4220, Stop: 4798, Start Num: 120

Candidate Starts for Buttons_9:

(Start: 120 @4220 has 21 MA's), (204, 4346), (301, 4679),

Gene: C3PO_45 Start: 42754, Stop: 42164, Start Num: 84

Candidate Starts for C3PO_45:

(40, 42886), (41, 42883), (Start: 84 @42754 has 3 MA's), (Start: 118 @42706 has 19 MA's), (134, 42667), (147, 42643), (149, 42640), (227, 42496), (250, 42418), (258, 42385), (290, 42277), (316, 42175), (318, 42169),

Gene: Cafasso_20 Start: 18713, Stop: 18225, Start Num: 118

Candidate Starts for Cafasso_20:

(21, 19079), (45, 18863), (61, 18806), (67, 18794), (Start: 118 @18713 has 19 MA's), (159, 18629), (178, 18605), (198, 18569), (203, 18560), (221, 18521), (223, 18515), (251, 18401), (252, 18395), (253, 18392), (274, 18314),

Gene: Cane17_242 Start: 148701, Stop: 149255, Start Num: 99

Candidate Starts for Cane17_242:

(Start: 93 @148695 has 12 MA's), (Start: 99 @148701 has 5 MA's), (Start: 127 @148749 has 1 MA's), (165, 148812), (233, 148968), (250, 149040), (253, 149052), (274, 149130),

Gene: CartmannCramer_8 Start: 4548, Stop: 5126, Start Num: 120

Candidate Starts for CartmannCramer_8:

(Start: 120 @4548 has 21 MA's), (204, 4674), (301, 5007),

Gene: Cassita_88 Start: 48685, Stop: 48176, Start Num: 103

Candidate Starts for Cassita_88:

(Start: 103 @48685 has 4 MA's), (199, 48508), (214, 48478), (231, 48424), (247, 48376),

Gene: CatBus_9 Start: 4783, Stop: 5361, Start Num: 120

Candidate Starts for CatBus_9:

(Start: 120 @4783 has 21 MA's), (204, 4909), (301, 5242),

Gene: Charming_36 Start: 32566, Stop: 32093, Start Num: 118

Candidate Starts for Charming_36:

(Start: 44 @32704 has 1 MA's), (Start: 66 @32650 has 2 MA's), (71, 32641), (Start: 101 @32593 has 1 MA's), (Start: 118 @32566 has 19 MA's), (171, 32467), (196, 32425), (198, 32422), (215, 32386), (233, 32329), (244, 32296), (252, 32248),

Gene: Chentzyk_36 Start: 34824, Stop: 35315, Start Num: 107

Candidate Starts for Chentzyk_36:

(Start: 107 @34824 has 1 MA's), (138, 34869), (196, 34959), (229, 35046), (263, 35178), (268, 35202),

Gene: Chevrolet_31 Start: 27455, Stop: 28054, Start Num: 46

Candidate Starts for Chevrolet_31:

(Start: 46 @27455 has 5 MA's), (Start: 85 @27557 has 8 MA's), (221, 27779), (230, 27815), (273, 27980), (289, 28025),

Gene: Chidiebere_96 Start: 69963, Stop: 70481, Start Num: 79

Candidate Starts for Chidiebere_96:

(60, 69921), (68, 69936), (Start: 79 @69963 has 4 MA's), (167, 70086), (174, 70095), (196, 70119), (253, 70299),

Gene: ChisanaKitsune_93 Start: 68907, Stop: 69425, Start Num: 79

Candidate Starts for ChisanaKitsune_93:

(60, 68865), (68, 68880), (Start: 79 @68907 has 4 MA's), (167, 69030), (174, 69039), (196, 69063), (253, 69243),

Gene: Clown_64 Start: 45007, Stop: 45525, Start Num: 91

Candidate Starts for Clown_64:

(Start: 91 @45007 has 9 MA's), (Start: 110 @45031 has 2 MA's), (Start: 127 @45058 has 1 MA's), (142, 45097), (167, 45136), (216, 45214), (230, 45262), (245, 45304), (250, 45340), (253, 45352), (303, 45511),

Gene: Coco12_30 Start: 26826, Stop: 26320, Start Num: 94

Candidate Starts for Coco12_30:

(Start: 94 @26826 has 24 MA's), (Start: 107 @26811 has 1 MA's), (132, 26760), (138, 26751), (163, 26709), (175, 26694), (180, 26682), (184, 26679), (196, 26658), (221, 26619), (230, 26583), (253, 26493), (271, 26427), (284, 26397),

Gene: Coletti_62 Start: 53249, Stop: 52725, Start Num: 87

Candidate Starts for Coletti_62:

(55, 53318), (78, 53264), (Start: 87 @53249 has 10 MA's), (Start: 96 @53240 has 17 MA's), (132, 53174), (157, 53129), (178, 53105), (196, 53069), (199, 53063), (216, 53030), (232, 52976), (234, 52973), (262, 52856), (266, 52835), (296, 52760),

Gene: Colt_243 Start: 147893, Stop: 148447, Start Num: 99

Candidate Starts for Colt_243:

(Start: 93 @147887 has 12 MA's), (Start: 99 @147893 has 5 MA's), (Start: 127 @147941 has 1 MA's), (165, 148004), (233, 148160), (250, 148232), (253, 148244), (274, 148322),

Gene: Constella_158 Start: 86054, Stop: 86563, Start Num: 85

Candidate Starts for Constella_158:

(Start: 83 @86051 has 4 MA's), (Start: 85 @86054 has 8 MA's), (Start: 113 @86087 has 1 MA's), (138, 86138), (158, 86174), (210, 86264), (216, 86273), (221, 86285), (222, 86288), (230, 86321), (242, 86351), (258, 86432), (287, 86525), (298, 86549),

Gene: Constella_97 Start: 58172, Stop: 58714, Start Num: 97

Candidate Starts for Constella_97:

(Start: 97 @58172 has 11 MA's), (Start: 108 @58190 has 1 MA's), (173, 58310), (182, 58325), (190, 58343), (209, 58382), (221, 58400), (223, 58406), (241, 58466), (260, 58559), (308, 58700),

Gene: Courthouse_143 Start: 75295, Stop: 75897, Start Num: 90

Candidate Starts for Courthouse_143:

(Start: 90 @75295 has 14 MA's), (146, 75400), (158, 75421), (160, 75424), (177, 75448), (179, 75451), (181, 75457), (210, 75517), (235, 75586), (240, 75604), (250, 75655), (257, 75691), (288, 75787), (314, 75883),

Gene: Cruella_45 Start: 42754, Stop: 42164, Start Num: 84

Candidate Starts for Cruella_45:

(40, 42886), (41, 42883), (Start: 84 @42754 has 3 MA's), (Start: 118 @42706 has 19 MA's), (134, 42667), (147, 42643), (149, 42640), (227, 42496), (250, 42418), (258, 42385), (290, 42277), (316, 42175), (318, 42169),

Gene: DD5_9 Start: 4751, Stop: 5332, Start Num: 120

Candidate Starts for DD5_9:

(Start: 120 @4751 has 21 MA's), (188, 4853), (202, 4874), (222, 4922), (301, 5201),

Gene: DalanDe_1 Start: 1, Stop: 522, Start Num: 72

Candidate Starts for DalanDe_1:

(Start: 72 @1 has 1 MA's), (Start: 79 @16 has 4 MA's), (123, 76), (130, 94), (132, 100), (174, 154), (193, 175), (221, 226), (235, 271), (244, 301), (247, 313), (254, 364), (274, 430), (281, 442),

Gene: Dallas_113 Start: 64402, Stop: 64944, Start Num: 97

Candidate Starts for Dallas_113:

(37, 64240), (42, 64264), (Start: 74 @64369 has 2 MA's), (Start: 97 @64402 has 11 MA's), (Start: 108 @64420 has 1 MA's), (138, 64477), (173, 64540), (182, 64555), (190, 64573), (221, 64630), (223, 64636), (241, 64696), (260, 64789),

Gene: Darwin_76 Start: 54919, Stop: 54362, Start Num: 113

Candidate Starts for Darwin_76:

(Start: 113 @54919 has 1 MA's), (161, 54829), (201, 54778), (227, 54700), (311, 54418), (320, 54370),

Gene: Darwin_14 Start: 7286, Stop: 7858, Start Num: 125

Candidate Starts for Darwin_14:

(Start: 125 @7286 has 1 MA's), (214, 7448), (222, 7466), (223, 7469), (293, 7727), (304, 7763), (319, 7832),

Gene: Darwin_11 Start: 6015, Stop: 6593, Start Num: 101

Candidate Starts for Darwin_11:

(Start: 101 @6015 has 1 MA's), (157, 6126), (162, 6132), (233, 6267), (237, 6282), (253, 6351), (258, 6372), (307, 6534), (315, 6579),

Gene: DmpstrDiver_113 Start: 63822, Stop: 64364, Start Num: 97

Candidate Starts for DmpstrDiver_113:

(37, 63660), (42, 63684), (Start: 74 @63789 has 2 MA's), (Start: 97 @63822 has 11 MA's), (Start: 108 @63840 has 1 MA's), (138, 63897), (173, 63960), (182, 63975), (190, 63993), (221, 64050), (223, 64056), (241, 64116), (260, 64209),

Gene: DonTron_22 Start: 10785, Stop: 11264, Start Num: 85

Candidate Starts for DonTron_22:

(Start: 85 @10785 has 8 MA's), (153, 10896), (206, 10980), (216, 10998), (221, 11010), (250, 11124),

Gene: Dori_69 Start: 53193, Stop: 53732, Start Num: 116

Candidate Starts for Dori_69:

(59, 53091), (75, 53133), (Start: 109 @53184 has 2 MA's), (Start: 116 @53193 has 1 MA's), (126, 53214), (169, 53301), (181, 53322), (218, 53409), (221, 53415), (231, 53454), (253, 53541), (269, 53619),

Gene: Dove_135 Start: 75231, Stop: 75830, Start Num: 93

Candidate Starts for Dove_135:

(Start: 93 @75231 has 12 MA's), (146, 75333), (158, 75354), (160, 75357), (196, 75420), (210, 75450), (216, 75459), (225, 75492), (240, 75537), (257, 75624), (276, 75684), (288, 75720), (314, 75816),

Gene: Duke13_146 Start: 77046, Stop: 77648, Start Num: 90

Candidate Starts for Duke13_146:

(57, 76977), (Start: 90 @77046 has 14 MA's), (146, 77151), (158, 77172), (160, 77175), (177, 77199), (179, 77202), (181, 77208), (225, 77310), (235, 77337), (240, 77355), (257, 77442), (314, 77634),

Gene: Edtherson_9 Start: 4530, Stop: 5108, Start Num: 120

Candidate Starts for Edtherson_9:

(Start: 120 @4530 has 21 MA's), (204, 4656), (301, 4989),

Gene: EnalisNailo_66 Start: 46449, Stop: 46868, Start Num: 135

Candidate Starts for EnalisNailo_66:

(29, 46161), (Start: 62 @46323 has 2 MA's), (105, 46386), (114, 46401), (121, 46410), (Start: 135 @46449 has 4 MA's), (141, 46461), (157, 46491), (210, 46590), (214, 46596), (253, 46734),

Gene: Enceladus_63 Start: 44580, Stop: 45038, Start Num: 100

Candidate Starts for Enceladus_63:

(Start: 100 @44580 has 7 MA's), (138, 44652), (192, 44742), (204, 44754), (213, 44775), (238, 44838), (247, 44865),

Gene: EricMillard_142 Start: 78398, Stop: 79000, Start Num: 90

Candidate Starts for EricMillard_142:

(57, 78329), (Start: 90 @78398 has 14 MA's), (146, 78503), (158, 78524), (160, 78527), (177, 78551), (179, 78554), (181, 78560), (225, 78662), (235, 78689), (240, 78707), (257, 78794), (314, 78986),

Gene: EricMillard_105 Start: 63462, Stop: 64004, Start Num: 97

Candidate Starts for EricMillard_105:

(37, 63300), (42, 63324), (Start: 74 @63429 has 2 MA's), (Start: 97 @63462 has 11 MA's), (Start: 108 @63480 has 1 MA's), (138, 63537), (173, 63600), (182, 63615), (190, 63633), (221, 63690), (223, 63696), (241, 63756), (260, 63849),

Gene: Eureka_37 Start: 33608, Stop: 33108, Start Num: 87

Candidate Starts for Eureka_37:

(Start: 87 @33608 has 10 MA's), (Start: 127 @33551 has 1 MA's), (140, 33515),

Gene: Filch_113 Start: 63036, Stop: 63536, Start Num: 94

Candidate Starts for Filch_113:

(63, 62982), (Start: 94 @63036 has 24 MA's), (Start: 127 @63090 has 1 MA's), (168, 63171), (171, 63174), (186, 63198), (205, 63231), (226, 63288), (270, 63450),

Gene: Finch_82 Start: 71334, Stop: 71777, Start Num: 133

Candidate Starts for Finch_82:

(Start: 87 @71253 has 10 MA's), (115, 71289), (Start: 133 @71334 has 1 MA's), (157, 71382), (219, 71505), (221, 71508), (236, 71559), (251, 71625), (256, 71655),

Gene: Fosterous_34 Start: 32991, Stop: 32518, Start Num: 118

Candidate Starts for Fosterous_34:

(Start: 44 @33129 has 1 MA's), (Start: 66 @33075 has 2 MA's), (71, 33066), (Start: 101 @33018 has 1 MA's), (Start: 118 @32991 has 19 MA's), (171, 32892), (196, 32850), (198, 32847), (215, 32811), (233, 32754), (244, 32721), (252, 32673),

Gene: Francesca_39 Start: 21303, Stop: 21839, Start Num: 99

Candidate Starts for Francesca_39:

(Start: 99 @21303 has 5 MA's), (219, 21498), (221, 21501), (250, 21618), (308, 21804), (311, 21822),

Gene: Frankie_34 Start: 27904, Stop: 27416, Start Num: 94

Candidate Starts for Frankie_34:

(Start: 94 @27904 has 24 MA's), (138, 27829), (163, 27787), (172, 27775), (184, 27757), (194, 27739), (210, 27712), (264, 27517), (284, 27478),

Gene: FruityLoops_124 Start: 91104, Stop: 91676, Start Num: 74

Candidate Starts for FruityLoops_124:

(Start: 74 @91104 has 2 MA's), (119, 91164), (146, 91221), (151, 91230), (163, 91248), (174, 91263), (191, 91302), (194, 91305), (212, 91347), (216, 91353), (221, 91365), (222, 91368), (229, 91401), (236, 91416),

Gene: FugateOSU_60 Start: 53224, Stop: 52700, Start Num: 87

Candidate Starts for FugateOSU_60:

(55, 53293), (78, 53239), (Start: 87 @53224 has 10 MA's), (Start: 96 @53215 has 17 MA's), (132, 53149), (157, 53104), (178, 53080), (196, 53044), (199, 53038), (216, 53005), (232, 52951), (234, 52948), (262, 52831), (266, 52810), (296, 52735),

Gene: GAL1_27 Start: 22156, Stop: 22695, Start Num: 85

Candidate Starts for GAL1_27:

(Start: 85 @22156 has 8 MA's), (132, 22234), (172, 22300), (175, 22303), (199, 22348), (208, 22366), (210, 22372), (212, 22375), (219, 22390), (221, 22393), (222, 22396), (224, 22408), (251, 22510), (253, 22519),

Gene: GMA1_47 Start: 30722, Stop: 31246, Start Num: 84

Candidate Starts for GMA1_47:

(16, 30347), (25, 30500), (47, 30635), (Start: 52 @30653 has 1 MA's), (67, 30698), (75, 30707), (Start: 84 @30722 has 3 MA's), (Start: 127 @30779 has 1 MA's), (230, 30986), (247, 31037), (258, 31097), (274, 31154),

Gene: GMA1_68 Start: 40382, Stop: 40945, Start Num: 69

Candidate Starts for GMA1_68:

(19, 40088), (22, 40115), (26, 40187), (39, 40280), (69, 40382), (Start: 82 @40412 has 1 MA's), (Start: 127 @40481 has 1 MA's), (144, 40520), (204, 40598), (216, 40628), (224, 40655), (230, 40676), (245,

40718), (250, 40754), (253, 40766), (272, 40838),

Gene: GMA3_25 Start: 35593, Stop: 36075, Start Num: 131

Candidate Starts for GMA3_25:

(131, 35593), (163, 35656), (199, 35722), (207, 35743), (219, 35764), (223, 35773), (233, 35809), (297, 36034),

Gene: GMA4_67 Start: 43840, Stop: 44490, Start Num: 76

Candidate Starts for GMA4_67:

(76, 43840), (104, 43870), (208, 44059), (210, 44065), (230, 44122), (271, 44284),

Gene: Galactic_32 Start: 27751, Stop: 28350, Start Num: 46

Candidate Starts for Galactic_32:

(Start: 46 @27751 has 5 MA's), (Start: 85 @27853 has 8 MA's), (221, 28075), (230, 28111), (273, 28276), (289, 28321),

Gene: Galadriel_36 Start: 33480, Stop: 33007, Start Num: 118

Candidate Starts for Galadriel_36:

(Start: 44 @33618 has 1 MA's), (Start: 66 @33564 has 2 MA's), (71, 33555), (Start: 101 @33507 has 1 MA's), (Start: 118 @33480 has 19 MA's), (171, 33381), (196, 33339), (198, 33336), (215, 33300), (233, 33243), (244, 33210), (252, 33162),

Gene: Girr_32 Start: 27712, Stop: 28464, Start Num: 56

Candidate Starts for Girr_32:

(Start: 56 @27712 has 3 MA's), (Start: 85 @27775 has 8 MA's), (123, 27823), (142, 27871), (209, 27982), (216, 27991), (250, 28117), (321, 28384),

Gene: Globfish_84 Start: 46529, Stop: 47017, Start Num: 96

Candidate Starts for Globfish_84:

(80, 46508), (Start: 96 @46529 has 17 MA's), (128, 46586), (137, 46604), (166, 46646), (216, 46721), (302, 47006),

Gene: Goku_110 Start: 63579, Stop: 64079, Start Num: 94

Candidate Starts for Goku_110:

(63, 63525), (Start: 94 @63579 has 24 MA's), (Start: 127 @63633 has 1 MA's), (168, 63714), (171, 63717), (186, 63741), (205, 63774), (226, 63831), (270, 63993),

Gene: Goku_37 Start: 33337, Stop: 32837, Start Num: 87

Candidate Starts for Goku_37:

(Start: 87 @33337 has 10 MA's), (Start: 127 @33280 has 1 MA's), (140, 33244),

Gene: Goldilocks_114 Start: 63260, Stop: 63760, Start Num: 94

Candidate Starts for Goldilocks_114:

(63, 63206), (Start: 94 @63260 has 24 MA's), (Start: 127 @63314 has 1 MA's), (168, 63395), (171, 63398), (186, 63422), (205, 63455), (226, 63512), (270, 63674),

Gene: Gonephishing_141 Start: 75522, Stop: 76124, Start Num: 90

Candidate Starts for Gonephishing_141:

(57, 75453), (Start: 90 @75522 has 14 MA's), (146, 75627), (158, 75648), (160, 75651), (177, 75675), (179, 75678), (181, 75684), (225, 75786), (235, 75813), (240, 75831), (257, 75918), (314, 76110),

Gene: Graduation_10 Start: 4816, Stop: 5397, Start Num: 120

Candidate Starts for Graduation_10:

(Start: 120 @4816 has 21 MA's), (188, 4918), (202, 4939), (222, 4987), (301, 5266),

Gene: GroundGoblin_9 Start: 4591, Stop: 5169, Start Num: 120

Candidate Starts for GroundGoblin_9:

(Start: 120 @4591 has 21 MA's), (204, 4717), (301, 5050),

Gene: Gspu1_40 Start: 30337, Stop: 30849, Start Num: 84

Candidate Starts for Gspu1_40:

(30, 30127), (32, 30154), (39, 30202), (50, 30250), (58, 30277), (Start: 84 @30337 has 3 MA's), (Start: 91 @30346 has 9 MA's), (Start: 116 @30382 has 1 MA's), (148, 30451), (163, 30475), (195, 30523), (214, 30550), (224, 30580), (230, 30601), (231, 30604), (236, 30616), (286, 30802),

Gene: Gwendoluna_9 Start: 4700, Stop: 5281, Start Num: 120

Candidate Starts for Gwendoluna_9:

(Start: 120 @4700 has 21 MA's), (188, 4802), (202, 4823), (222, 4871), (301, 5150),

Gene: HUHilltop_45 Start: 31495, Stop: 31986, Start Num: 91

Candidate Starts for HUHilltop_45:

(70, 31456), (71, 31459), (Start: 88 @31492 has 1 MA's), (Start: 91 @31495 has 9 MA's), (Start: 107 @31513 has 1 MA's), (Start: 113 @31522 has 1 MA's), (206, 31687), (210, 31696), (216, 31702), (221, 31714), (230, 31750), (247, 31801), (253, 31840),

Gene: Hamulus_31 Start: 27654, Stop: 28418, Start Num: 53

Candidate Starts for Hamulus_31:

(Start: 46 @27627 has 5 MA's), (Start: 53 @27654 has 7 MA's), (Start: 85 @27729 has 8 MA's), (123, 27777), (142, 27825), (209, 27936), (216, 27945), (250, 28071), (321, 28338),

Gene: Hannaconda_43 Start: 36122, Stop: 36664, Start Num: 85

Candidate Starts for Hannaconda_43:

(Start: 49 @36035 has 1 MA's), (Start: 85 @36122 has 8 MA's), (Start: 127 @36185 has 1 MA's), (156, 36251), (175, 36275), (194, 36308), (210, 36341), (221, 36362), (222, 36365), (230, 36398), (250, 36476), (282, 36587), (299, 36635),

Gene: Hannaconda_141 Start: 76044, Stop: 76646, Start Num: 90

Candidate Starts for Hannaconda_141:

(Start: 90 @76044 has 14 MA's), (146, 76149), (158, 76170), (160, 76173), (177, 76197), (179, 76200), (181, 76206), (210, 76266), (235, 76335), (240, 76353), (250, 76404), (257, 76440), (288, 76536), (314, 76632),

Gene: Happabalu_60 Start: 53248, Stop: 52724, Start Num: 87

Candidate Starts for Happabalu_60:

(55, 53317), (78, 53263), (Start: 87 @53248 has 10 MA's), (Start: 96 @53239 has 17 MA's), (132, 53173), (157, 53128), (178, 53104), (196, 53068), (199, 53062), (216, 53029), (232, 52975), (234, 52972), (262, 52855), (266, 52834), (296, 52759),

Gene: Hermia_10 Start: 4783, Stop: 5361, Start Num: 120

Candidate Starts for Hermia_10:

(Start: 120 @4783 has 21 MA's), (204, 4909), (301, 5242),

Gene: Hidrated_155 Start: 87549, Stop: 88058, Start Num: 85

Candidate Starts for Hidrated_155:

(Start: 83 @87546 has 4 MA's), (Start: 85 @87549 has 8 MA's), (Start: 113 @87582 has 1 MA's), (138, 87633), (158, 87669), (210, 87759), (216, 87768), (221, 87780), (222, 87783), (230, 87816), (242,

87846), (258, 87927), (287, 88020), (298, 88044),

Gene: Hlubikazi_31 Start: 27761, Stop: 28381, Start Num: 53

Candidate Starts for Hlubikazi_31:

(34, 27677), (Start: 46 @27734 has 5 MA's), (Start: 53 @27761 has 7 MA's), (Start: 85 @27836 has 8 MA's), (221, 28058), (230, 28094), (273, 28259), (289, 28304),

Gene: HokkenD_142 Start: 79202, Stop: 79804, Start Num: 90

Candidate Starts for HokkenD_142:

(57, 79133), (Start: 90 @79202 has 14 MA's), (146, 79307), (158, 79328), (160, 79331), (177, 79355), (179, 79358), (181, 79364), (225, 79466), (235, 79493), (240, 79511), (257, 79598), (314, 79790),

Gene: Holt_116 Start: 63658, Stop: 64158, Start Num: 94

Candidate Starts for Holt_116:

(63, 63604), (Start: 94 @63658 has 24 MA's), (Start: 127 @63712 has 1 MA's), (168, 63793), (171, 63796), (186, 63820), (205, 63853), (226, 63910), (270, 64072),

Gene: Hortense_58 Start: 41496, Stop: 42002, Start Num: 96

Candidate Starts for Hortense_58:

(30, 41271), (33, 41301), (Start: 96 @41496 has 17 MA's), (138, 41571), (142, 41583), (172, 41625), (221, 41712), (232, 41751),

Gene: Howe_58 Start: 41496, Stop: 42002, Start Num: 96

Candidate Starts for Howe_58:

(30, 41271), (33, 41301), (Start: 96 @41496 has 17 MA's), (138, 41571), (142, 41583), (172, 41625), (221, 41712), (232, 41751),

Gene: Hughesyang_148 Start: 79867, Stop: 80466, Start Num: 93

Candidate Starts for Hughesyang_148:

(Start: 93 @79867 has 12 MA's), (146, 79969), (158, 79990), (160, 79993), (196, 80056), (210, 80086), (216, 80095), (225, 80128), (240, 80173), (257, 80260), (276, 80320), (288, 80356), (314, 80452),

Gene: Hughesyang_111 Start: 64353, Stop: 64895, Start Num: 97

Candidate Starts for Hughesyang_111:

(37, 64191), (42, 64215), (Start: 74 @64320 has 2 MA's), (Start: 97 @64353 has 11 MA's), (Start: 108 @64371 has 1 MA's), (138, 64428), (173, 64491), (182, 64506), (190, 64524), (221, 64581), (223, 64587), (241, 64647), (260, 64740),

Gene: Icee_112 Start: 62768, Stop: 63268, Start Num: 94

Candidate Starts for Icee_112:

(63, 62714), (Start: 94 @62768 has 24 MA's), (Start: 127 @62822 has 1 MA's), (168, 62903), (171, 62906), (186, 62930), (205, 62963), (226, 63020), (270, 63182),

Gene: Island3_46 Start: 33137, Stop: 33628, Start Num: 91

Candidate Starts for Island3_46:

(50, 33044), (70, 33098), (71, 33101), (Start: 88 @33134 has 1 MA's), (Start: 91 @33137 has 9 MA's), (Start: 107 @33155 has 1 MA's), (Start: 113 @33164 has 1 MA's), (206, 33329), (210, 33338), (216, 33344), (221, 33356), (230, 33392), (247, 33443), (253, 33482),

Gene: JalFarm20_33 Start: 27847, Stop: 27341, Start Num: 94

Candidate Starts for JalFarm20_33:

(Start: 94 @27847 has 24 MA's), (Start: 107 @27832 has 1 MA's), (132, 27781), (138, 27772), (163, 27730), (175, 27715), (180, 27703), (184, 27700), (196, 27679), (221, 27640), (230, 27604), (253,

27514), (271, 27448), (284, 27418),

Gene: JeTaime_109 Start: 62868, Stop: 63383, Start Num: 94

Candidate Starts for JeTaime_109:

(63, 62814), (Start: 94 @62868 has 24 MA's), (Start: 127 @62922 has 1 MA's), (168, 63003), (171, 63006), (186, 63030), (205, 63063), (226, 63120), (270, 63282),

Gene: Jesabah_61 Start: 53289, Stop: 52765, Start Num: 87

Candidate Starts for Jesabah_61:

(55, 53358), (78, 53304), (Start: 87 @53289 has 10 MA's), (Start: 96 @53280 has 17 MA's), (132, 53214), (157, 53169), (178, 53145), (196, 53109), (199, 53103), (216, 53070), (232, 53016), (234, 53013), (262, 52896), (266, 52875), (296, 52800),

Gene: JoeDirt_64 Start: 45013, Stop: 45471, Start Num: 100

Candidate Starts for JoeDirt_64:

(Start: 100 @45013 has 7 MA's), (138, 45085), (192, 45175), (204, 45187), (213, 45208), (238, 45271), (247, 45298),

Gene: JonJames_26 Start: 9049, Stop: 9558, Start Num: 91

Candidate Starts for JonJames_26:

(Start: 91 @9049 has 9 MA's), (Start: 127 @9103 has 1 MA's), (151, 9160), (167, 9181), (170, 9184), (216, 9256), (221, 9268), (230, 9304), (251, 9385), (253, 9394), (278, 9472), (305, 9544),

Gene: KBG_9 Start: 4959, Stop: 5540, Start Num: 120

Candidate Starts for KBG_9:

(Start: 120 @4959 has 21 MA's), (188, 5061), (202, 5082), (222, 5130), (301, 5409),

Gene: Kabocha_97 Start: 70776, Stop: 71294, Start Num: 79

Candidate Starts for Kabocha_97:

(60, 70734), (68, 70749), (Start: 79 @70776 has 4 MA's), (167, 70899), (174, 70908), (196, 70932), (253, 71112),

Gene: Kalah2_105 Start: 63688, Stop: 64230, Start Num: 97

Candidate Starts for Kalah2_105:

(37, 63526), (42, 63550), (Start: 74 @63655 has 2 MA's), (Start: 97 @63688 has 11 MA's), (Start: 108 @63706 has 1 MA's), (138, 63763), (173, 63826), (182, 63841), (190, 63859), (221, 63916), (223, 63922), (241, 63982), (260, 64075),

Gene: Kalah2_140 Start: 78988, Stop: 79587, Start Num: 93

Candidate Starts for Kalah2_140:

(Start: 93 @78988 has 12 MA's), (146, 79090), (158, 79111), (160, 79114), (196, 79177), (210, 79207), (216, 79216), (225, 79249), (240, 79294), (257, 79381), (276, 79441), (288, 79477), (314, 79573),

Gene: KashFlow_40 Start: 35743, Stop: 36285, Start Num: 85

Candidate Starts for KashFlow_40:

(Start: 49 @35656 has 1 MA's), (Start: 85 @35743 has 8 MA's), (Start: 127 @35806 has 1 MA's), (156, 35872), (175, 35896), (194, 35929), (210, 35962), (221, 35983), (222, 35986), (230, 36019), (250, 36097), (282, 36208), (299, 36256),

Gene: KashFlow_148 Start: 78305, Stop: 78904, Start Num: 96

Candidate Starts for KashFlow_148:

(Start: 96 @78305 has 17 MA's), (142, 78395), (196, 78491), (218, 78536), (225, 78563), (240, 78608), (249, 78650), (250, 78659), (295, 78806), (299, 78821), (314, 78890),

Gene: Keitabear_36 Start: 34510, Stop: 33947, Start Num: 66

Candidate Starts for Keitabear_36:

(Start: 44 @34564 has 1 MA's), (Start: 66 @34510 has 2 MA's), (71, 34501), (Start: 101 @34453 has 1 MA's), (Start: 118 @34426 has 19 MA's), (183, 34306), (215, 34243), (221, 34231), (274, 34024),

Gene: Kenmech_10 Start: 4617, Stop: 5195, Start Num: 120

Candidate Starts for Kenmech_10:

(Start: 120 @4617 has 21 MA's), (204, 4743), (301, 5076),

Gene: KikiBouba_9 Start: 4592, Stop: 5170, Start Num: 120

Candidate Starts for KikiBouba_9:

(Start: 120 @4592 has 21 MA's), (204, 4718), (301, 5051),

Gene: Kimchi_115 Start: 63385, Stop: 63885, Start Num: 94

Candidate Starts for Kimchi_115:

(63, 63331), (Start: 94 @63385 has 24 MA's), (Start: 127 @63439 has 1 MA's), (168, 63520), (171, 63523), (186, 63547), (205, 63580), (226, 63637), (270, 63799),

Gene: KingMidas_32 Start: 28828, Stop: 29370, Start Num: 85

Candidate Starts for KingMidas_32:

(Start: 85 @28828 has 8 MA's), (152, 28942), (230, 29095), (250, 29173), (253, 29185),

Gene: KingTut_52 Start: 48894, Stop: 48379, Start Num: 96

Candidate Starts for KingTut_52:

(55, 48972), (78, 48918), (Start: 87 @48903 has 10 MA's), (Start: 96 @48894 has 17 MA's), (132, 48828), (157, 48783), (178, 48759), (196, 48723), (199, 48717), (216, 48684), (232, 48630), (234, 48627), (262, 48510), (266, 48489), (296, 48414),

Gene: Kingsley_29 Start: 26483, Stop: 27247, Start Num: 53

Candidate Starts for Kingsley_29:

(Start: 46 @26456 has 5 MA's), (Start: 53 @26483 has 7 MA's), (Start: 85 @26558 has 8 MA's), (123, 26606), (142, 26654), (209, 26765), (216, 26774), (250, 26900), (321, 27167),

Gene: Klein_147 Start: 77536, Stop: 78138, Start Num: 90

Candidate Starts for Klein_147:

(57, 77467), (Start: 90 @77536 has 14 MA's), (146, 77641), (158, 77662), (160, 77665), (177, 77689), (179, 77692), (181, 77698), (225, 77800), (235, 77827), (240, 77845), (257, 77932), (314, 78124),

Gene: Kuwabara_68 Start: 41993, Stop: 42493, Start Num: 96

Candidate Starts for Kuwabara_68:

(Start: 96 @41993 has 17 MA's), (185, 42122), (228, 42230), (259, 42350),

Gene: LeeroyJenkins_114 Start: 56842, Stop: 56381, Start Num: 117

Candidate Starts for LeeroyJenkins_114:

(Start: 117 @56842 has 2 MA's), (191, 56713), (244, 56590),

Gene: LeeroyJenkins_94 Start: 49860, Stop: 49351, Start Num: 103

Candidate Starts for LeeroyJenkins_94:

(Start: 103 @49860 has 4 MA's), (196, 49689), (199, 49683), (214, 49653), (231, 49599), (247, 49551),

Gene: LeiMonet_62 Start: 52626, Stop: 52111, Start Num: 96

Candidate Starts for LeiMonet_62:

(55, 52704), (78, 52650), (Start: 87 @52635 has 10 MA's), (Start: 96 @52626 has 17 MA's), (132, 52560), (157, 52515), (178, 52491), (196, 52455), (199, 52449), (216, 52416), (232, 52362), (234, 52359), (262, 52242), (266, 52221), (296, 52146),

Gene: Lennon_36 Start: 34213, Stop: 33740, Start Num: 118

Candidate Starts for Lennon_36:

(Start: 44 @34351 has 1 MA's), (Start: 66 @34297 has 2 MA's), (Start: 101 @34240 has 1 MA's), (Start: 118 @34213 has 19 MA's), (171, 34114), (196, 34072), (198, 34069), (215, 34033), (233, 33976), (242, 33952), (252, 33895),

Gene: Leozinho_32 Start: 27392, Stop: 27934, Start Num: 85

Candidate Starts for Leozinho_32:

(Start: 85 @27392 has 8 MA's), (152, 27506), (230, 27659), (250, 27737), (253, 27749),

Gene: LilBib_8 Start: 4381, Stop: 4959, Start Num: 120

Candidate Starts for LilBib_8:

(Start: 120 @4381 has 21 MA's), (204, 4507), (301, 4840),

Gene: Lilas_67 Start: 47987, Stop: 48406, Start Num: 135

Candidate Starts for Lilas_67:

(29, 47699), (Start: 62 @47861 has 2 MA's), (105, 47924), (114, 47939), (121, 47948), (Start: 135 @47987 has 4 MA's), (141, 47999), (157, 48029), (210, 48128), (214, 48134), (253, 48272),

Gene: LittleE_112 Start: 62894, Stop: 63436, Start Num: 97

Candidate Starts for LittleE_112:

(Start: 97 @62894 has 11 MA's), (Start: 108 @62912 has 1 MA's), (173, 63032), (182, 63047), (190, 63065), (221, 63122), (223, 63128), (241, 63188), (260, 63281), (308, 63422),

Gene: LittleE_150 Start: 78544, Stop: 79146, Start Num: 90

Candidate Starts for LittleE_150:

(Start: 90 @78544 has 14 MA's), (170, 78682), (177, 78694), (196, 78736), (212, 78769), (225, 78808), (231, 78829), (250, 78904), (255, 78934), (314, 79132),

Gene: Lopsy_58 Start: 51828, Stop: 51313, Start Num: 96

Candidate Starts for Lopsy_58:

(55, 51906), (78, 51852), (Start: 87 @51837 has 10 MA's), (Start: 96 @51828 has 17 MA's), (132, 51762), (157, 51717), (178, 51693), (196, 51657), (199, 51651), (216, 51618), (232, 51564), (234, 51561), (262, 51444), (266, 51423), (296, 51348),

Gene: LordFarquaad_67 Start: 43212, Stop: 43631, Start Num: 135

Candidate Starts for LordFarquaad_67:

(Start: 62 @43086 has 2 MA's), (86, 43128), (105, 43149), (121, 43173), (Start: 135 @43212 has 4 MA's), (141, 43224), (157, 43254), (214, 43359), (253, 43497),

Gene: LostAndPhound_60 Start: 52723, Stop: 52199, Start Num: 87

Candidate Starts for LostAndPhound_60:

(55, 52792), (78, 52738), (Start: 87 @52723 has 10 MA's), (Start: 96 @52714 has 17 MA's), (132, 52648), (157, 52603), (178, 52579), (196, 52543), (199, 52537), (216, 52504), (232, 52450), (234, 52447), (262, 52330), (266, 52309), (296, 52234),

Gene: Love_39 Start: 33996, Stop: 33523, Start Num: 118

Candidate Starts for Love_39:

(Start: 44 @34134 has 1 MA's), (Start: 66 @34080 has 2 MA's), (71, 34071), (Start: 101 @34023 has 1 MA's), (Start: 118 @33996 has 19 MA's), (171, 33897), (196, 33855), (198, 33852), (215, 33816), (233, 33759), (244, 33726), (252, 33678),

Gene: LunaBlu_33 Start: 28027, Stop: 28524, Start Num: 85

Candidate Starts for LunaBlu_33:

(Start: 46 @27925 has 5 MA's), (Start: 85 @28027 has 8 MA's), (221, 28249), (230, 28285), (273, 28450), (289, 28495),

Gene: Lysidious_60 Start: 40309, Stop: 40836, Start Num: 93

Candidate Starts for Lysidious_60:

(Start: 93 @40309 has 12 MA's), (Start: 110 @40330 has 2 MA's), (211, 40510),

Gene: Lysidious_17 Start: 10274, Stop: 10777, Start Num: 92

Candidate Starts for Lysidious_17:

(Start: 92 @10274 has 3 MA's), (142, 10364), (156, 10388), (219, 10493), (222, 10499), (230, 10532), (233, 10538), (258, 10643),

Gene: Malachai_17 Start: 10279, Stop: 10785, Start Num: 92

Candidate Starts for Malachai_17:

(Start: 92 @10279 has 3 MA's), (142, 10369), (222, 10504), (230, 10537), (247, 10588), (264, 10681), (282, 10723),

Gene: Mandlovu_31 Start: 27703, Stop: 28323, Start Num: 53

Candidate Starts for Mandlovu_31:

(34, 27619), (Start: 46 @27676 has 5 MA's), (Start: 53 @27703 has 7 MA's), (Start: 85 @27778 has 8 MA's), (221, 28000), (230, 28036), (273, 28201), (289, 28246),

Gene: Maravista_65 Start: 42918, Stop: 43388, Start Num: 109

Candidate Starts for Maravista_65:

(Start: 109 @42918 has 2 MA's), (185, 43035), (228, 43143), (259, 43263),

Gene: Marshmallow_109 Start: 63582, Stop: 64082, Start Num: 94

Candidate Starts for Marshmallow_109:

(Start: 94 @63582 has 24 MA's), (Start: 127 @63636 has 1 MA's), (168, 63717), (171, 63720), (186, 63744), (205, 63777), (226, 63834), (270, 63996),

Gene: Matalotodo_59 Start: 52707, Stop: 52192, Start Num: 96

Candidate Starts for Matalotodo_59:

(55, 52785), (78, 52731), (Start: 87 @52716 has 10 MA's), (Start: 96 @52707 has 17 MA's), (132, 52641), (157, 52596), (178, 52572), (196, 52536), (199, 52530), (216, 52497), (232, 52443), (234, 52440), (262, 52323), (266, 52302), (296, 52227),

Gene: McCrothy_36 Start: 33804, Stop: 33331, Start Num: 118

Candidate Starts for McCrothy_36:

(Start: 44 @33942 has 1 MA's), (Start: 66 @33888 has 2 MA's), (71, 33879), (Start: 101 @33831 has 1 MA's), (Start: 118 @33804 has 19 MA's), (171, 33705), (196, 33663), (198, 33660), (215, 33624), (233, 33567), (244, 33534), (252, 33486),

Gene: McKinley_38 Start: 34022, Stop: 33549, Start Num: 118

Candidate Starts for McKinley_38:

(Start: 44 @34160 has 1 MA's), (Start: 66 @34106 has 2 MA's), (71, 34097), (Start: 101 @34049 has 1 MA's), (Start: 118 @34022 has 19 MA's), (171, 33923), (196, 33881), (198, 33878), (215, 33842), (233,

33785), (252, 33704),

Gene: Mellie_57 Start: 38319, Stop: 38846, Start Num: 93

Candidate Starts for Mellie_57:

(Start: 93 @38319 has 12 MA's), (Start: 110 @38340 has 2 MA's), (211, 38520), (294, 38784),

Gene: Mesmerelda_59 Start: 52711, Stop: 52196, Start Num: 96

Candidate Starts for Mesmerelda_59:

(55, 52789), (78, 52735), (Start: 87 @52720 has 10 MA's), (Start: 96 @52711 has 17 MA's), (132, 52645), (157, 52600), (178, 52576), (196, 52540), (199, 52534), (216, 52501), (232, 52447), (234, 52444), (262, 52327), (266, 52306), (296, 52231),

Gene: Mila11_96 Start: 59511, Stop: 59011, Start Num: 99

Candidate Starts for Mila11_96:

(23, 59790), (24, 59787), (31, 59730), (38, 59670), (78, 59538), (Start: 99 @59511 has 5 MA's), (106, 59499), (111, 59490), (212, 59310), (221, 59292), (239, 59232),

Gene: Minerva_162 Start: 85665, Stop: 86177, Start Num: 83

Candidate Starts for Minerva_162:

(Start: 83 @85665 has 4 MA's), (Start: 85 @85668 has 8 MA's), (Start: 113 @85701 has 1 MA's), (138, 85752), (158, 85788), (210, 85878), (216, 85887), (221, 85899), (222, 85902), (230, 85935), (242, 85965), (258, 86046), (287, 86139), (298, 86163),

Gene: Minerva_148 Start: 78849, Stop: 79448, Start Num: 93

Candidate Starts for Minerva_148:

(Start: 93 @78849 has 12 MA's), (146, 78951), (158, 78972), (160, 78975), (196, 79038), (210, 79068), (216, 79077), (225, 79110), (240, 79155), (257, 79242), (276, 79302), (288, 79338), (314, 79434),

Gene: MinionDave_33 Start: 28083, Stop: 28682, Start Num: 46

Candidate Starts for MinionDave_33:

(Start: 46 @28083 has 5 MA's), (Start: 85 @28185 has 8 MA's), (221, 28407), (230, 28443), (273, 28608), (289, 28653),

Gene: MisterCuddles_32 Start: 27712, Stop: 28464, Start Num: 56

Candidate Starts for MisterCuddles_32:

(Start: 56 @27712 has 3 MA's), (Start: 85 @27775 has 8 MA's), (123, 27823), (142, 27871), (209, 27982), (216, 27991), (250, 28117), (321, 28384),

Gene: ModicumRichard_20 Start: 18713, Stop: 18225, Start Num: 118

Candidate Starts for ModicumRichard_20:

(6, 19316), (11, 19235), (14, 19211), (15, 19175), (17, 19145), (18, 19130), (28, 18977), (45, 18863), (61, 18806), (65, 18797), (67, 18794), (Start: 118 @18713 has 19 MA's), (159, 18629), (178, 18605), (203, 18560), (215, 18533), (221, 18521), (223, 18515), (252, 18395),

Gene: Monet_9 Start: 4498, Stop: 5076, Start Num: 120

Candidate Starts for Monet_9:

(Start: 120 @4498 has 21 MA's), (204, 4624), (301, 4957),

Gene: Morrissey_46 Start: 35134, Stop: 34631, Start Num: 98

Candidate Starts for Morrissey_46:

(4, 35755), (5, 35731), (7, 35701), (9, 35656), (13, 35611), (20, 35482), (38, 35293), (89, 35143), (Start: 98 @35134 has 1 MA's), (123, 35095), (Start: 127 @35086 has 1 MA's), (145, 35047), (203, 34954), (216, 34927), (219, 34918), (221, 34915), (222, 34912), (228, 34879),

Gene: Mova_51 Start: 35948, Stop: 36499, Start Num: 83

Candidate Starts for Mova_51:

(Start: 83 @35948 has 4 MA's), (Start: 85 @35951 has 8 MA's), (142, 36041), (172, 36083), (206, 36143), (230, 36209), (245, 36251), (253, 36299),

Gene: Mozy_92 Start: 49652, Stop: 50401, Start Num: 36

Candidate Starts for Mozy_92:

(35, 49640), (Start: 36 @49652 has 1 MA's), (86, 49799), (157, 49931), (169, 49946), (189, 49991), (243, 50144),

Gene: MulchSalad_28 Start: 23891, Stop: 24409, Start Num: 77

Candidate Starts for MulchSalad_28:

(77, 23891), (132, 23975), (191, 24071), (196, 24077), (221, 24119), (223, 24125), (230, 24155),

Gene: Mutaforma13_54 Start: 38739, Stop: 39290, Start Num: 83

Candidate Starts for Mutaforma13_54:

(Start: 83 @38739 has 4 MA's), (Start: 85 @38742 has 8 MA's), (142, 38832), (172, 38874), (206, 38934), (230, 39000), (245, 39042), (253, 39090),

Gene: Nekros_146 Start: 78699, Stop: 79298, Start Num: 96

Candidate Starts for Nekros_146:

(Start: 96 @78699 has 17 MA's), (142, 78789), (196, 78885), (218, 78930), (225, 78957), (240, 79002), (249, 79044), (250, 79053), (295, 79200), (299, 79215), (314, 79284),

Gene: Nerujay_9 Start: 4453, Stop: 5034, Start Num: 120

Candidate Starts for Nerujay_9:

(Start: 120 @4453 has 21 MA's), (188, 4555), (202, 4576), (222, 4624), (301, 4903),

Gene: NewHope4_33 Start: 27527, Stop: 27021, Start Num: 94

Candidate Starts for NewHope4_33:

(Start: 94 @27527 has 24 MA's), (Start: 107 @27512 has 1 MA's), (132, 27461), (138, 27452), (163, 27410), (175, 27395), (180, 27383), (184, 27380), (196, 27359), (221, 27320), (230, 27284), (253, 27194), (271, 27128), (284, 27098),

Gene: Nibley_154 Start: 82613, Stop: 83122, Start Num: 85

Candidate Starts for Nibley_154:

(Start: 83 @82610 has 4 MA's), (Start: 85 @82613 has 8 MA's), (Start: 113 @82646 has 1 MA's), (138, 82697), (158, 82733), (210, 82823), (216, 82832), (221, 82844), (230, 82880), (242, 82910), (258, 82991), (287, 83084), (298, 83108),

Gene: Nimrod_111 Start: 63730, Stop: 64230, Start Num: 94

Candidate Starts for Nimrod_111:

(63, 63676), (Start: 94 @63730 has 24 MA's), (Start: 127 @63784 has 1 MA's), (168, 63865), (171, 63868), (186, 63892), (205, 63925), (226, 63982), (270, 64144),

Gene: Nordenberg_30 Start: 32192, Stop: 31719, Start Num: 118

Candidate Starts for Nordenberg_30:

(Start: 44 @32330 has 1 MA's), (Start: 66 @32276 has 2 MA's), (71, 32267), (Start: 101 @32219 has 1 MA's), (Start: 118 @32192 has 19 MA's), (171, 32093), (196, 32051), (198, 32048), (215, 32012), (233, 31955), (244, 31922), (252, 31874),

Gene: Norz_9 Start: 4534, Stop: 5112, Start Num: 120

Candidate Starts for Norz_9:

(Start: 120 @4534 has 21 MA's), (204, 4660), (301, 4993),

Gene: Nova53_37 Start: 21310, Stop: 21888, Start Num: 102

Candidate Starts for Nova53_37:

(Start: 102 @21310 has 1 MA's), (172, 21442), (222, 21532), (227, 21565), (251, 21646), (259, 21679), (265, 21712), (270, 21730), (309, 21844), (313, 21859), (314, 21871),

Gene: Noxious_9 Start: 4783, Stop: 5361, Start Num: 120

Candidate Starts for Noxious_9:

(Start: 120 @4783 has 21 MA's), (204, 4909), (301, 5242),

Gene: ObLaDi_20 Start: 18692, Stop: 18204, Start Num: 118

Candidate Starts for ObLaDi_20:

(1, 19712), (2, 19706), (3, 19688), (6, 19295), (11, 19214), (14, 19190), (15, 19154), (17, 19124), (18, 19109), (28, 18956), (45, 18842), (61, 18785), (65, 18776), (67, 18773), (Start: 118 @18692 has 19 MA's), (159, 18608), (178, 18584), (203, 18539), (215, 18512), (221, 18500), (223, 18494), (252, 18374),

Gene: Omega_117 Start: 63909, Stop: 64451, Start Num: 97

Candidate Starts for Omega_117:

(Start: 74 @63876 has 2 MA's), (Start: 97 @63909 has 11 MA's), (Start: 108 @63927 has 1 MA's), (173, 64047), (182, 64062), (190, 64080), (221, 64137), (223, 64143), (241, 64203), (260, 64296), (308, 64437),

Gene: Omega_154 Start: 79628, Stop: 80230, Start Num: 90

Candidate Starts for Omega_154:

(Start: 90 @79628 has 14 MA's), (170, 79766), (177, 79778), (196, 79820), (212, 79853), (225, 79892), (231, 79913), (250, 79988), (255, 80018), (314, 80216),

Gene: Omega_51 Start: 42659, Stop: 43288, Start Num: 49

Candidate Starts for Omega_51:

(Start: 49 @42659 has 1 MA's), (Start: 85 @42746 has 8 MA's), (Start: 127 @42809 has 1 MA's), (156, 42875), (175, 42899), (194, 42932), (210, 42965), (221, 42986), (222, 42989), (230, 43022), (250, 43100), (282, 43211), (299, 43259),

Gene: Optimus_141 Start: 76720, Stop: 77322, Start Num: 90

Candidate Starts for Optimus_141:

(57, 76651), (Start: 90 @76720 has 14 MA's), (146, 76825), (158, 76846), (160, 76849), (177, 76873), (179, 76876), (181, 76882), (225, 76984), (235, 77011), (240, 77029), (257, 77116), (314, 77308),

Gene: Orfeu_58 Start: 52711, Stop: 52187, Start Num: 87

Candidate Starts for Orfeu_58:

(55, 52780), (78, 52726), (Start: 87 @52711 has 10 MA's), (Start: 96 @52702 has 17 MA's), (132, 52636), (157, 52591), (178, 52567), (196, 52531), (199, 52525), (216, 52492), (232, 52438), (234, 52435), (262, 52318), (266, 52297), (296, 52222),

Gene: Ovechkin_31 Start: 27645, Stop: 28436, Start Num: 46

Candidate Starts for Ovechkin_31:

(Start: 46 @27645 has 5 MA's), (Start: 53 @27672 has 7 MA's), (Start: 85 @27747 has 8 MA's), (123, 27795), (142, 27843), (209, 27954), (216, 27963), (250, 28089), (321, 28356),

Gene: Papez_9 Start: 5271, Stop: 5849, Start Num: 120

Candidate Starts for Papez_9:

(Start: 120 @5271 has 21 MA's), (204, 5397), (301, 5730),

Gene: Paries_38 Start: 33658, Stop: 33185, Start Num: 118

Candidate Starts for Paries_38:

(39, 33820), (Start: 44 @33796 has 1 MA's), (Start: 66 @33742 has 2 MA's), (71, 33733), (Start: 101 @33685 has 1 MA's), (Start: 118 @33658 has 19 MA's), (171, 33559), (196, 33517), (198, 33514), (215, 33478), (233, 33421), (244, 33388), (252, 33340),

Gene: Peregrin_232 Start: 114891, Stop: 115472, Start Num: 96

Candidate Starts for Peregrin_232:

(Start: 96 @114891 has 17 MA's), (Start: 127 @114942 has 1 MA's), (142, 114978), (155, 115002), (172, 115023), (198, 115062), (247, 115197), (276, 115323), (280, 115329),

Gene: Peregrin_178 Start: 94313, Stop: 94846, Start Num: 95

Candidate Starts for Peregrin_178:

(Start: 95 @94313 has 1 MA's), (139, 94391), (200, 94499), (223, 94553), (248, 94640), (250, 94661), (283, 94781),

Gene: Phineas_45 Start: 31827, Stop: 32321, Start Num: 88

Candidate Starts for Phineas_45:

(70, 31791), (71, 31794), (Start: 88 @31827 has 1 MA's), (Start: 91 @31830 has 9 MA's), (Start: 107 @31848 has 1 MA's), (Start: 113 @31857 has 1 MA's), (206, 32022), (210, 32031), (216, 32037), (221, 32049), (230, 32085), (247, 32136), (253, 32175),

Gene: Phoebus_113 Start: 65664, Stop: 66206, Start Num: 97

Candidate Starts for Phoebus_113:

(37, 65502), (42, 65526), (Start: 74 @65631 has 2 MA's), (Start: 97 @65664 has 11 MA's), (Start: 108 @65682 has 1 MA's), (138, 65739), (173, 65802), (182, 65817), (190, 65835), (221, 65892), (223, 65898), (241, 65958), (260, 66051),

Gene: Phoebus_149 Start: 81221, Stop: 81820, Start Num: 93

Candidate Starts for Phoebus_149:

(Start: 93 @81221 has 12 MA's), (146, 81323), (158, 81344), (160, 81347), (196, 81410), (210, 81440), (216, 81449), (225, 81482), (240, 81527), (257, 81614), (276, 81674), (288, 81710), (314, 81806),

Gene: Pippy_62 Start: 40280, Stop: 40750, Start Num: 109

Candidate Starts for Pippy_62:

(Start: 109 @40280 has 2 MA's), (185, 40397), (228, 40505), (259, 40625),

Gene: Placalicious_60 Start: 53221, Stop: 52697, Start Num: 87

Candidate Starts for Placalicious_60:

(55, 53290), (78, 53236), (Start: 87 @53221 has 10 MA's), (Start: 96 @53212 has 17 MA's), (132, 53146), (157, 53101), (178, 53077), (196, 53041), (199, 53035), (216, 53002), (232, 52948), (234, 52945), (262, 52828), (266, 52807), (296, 52732),

Gene: Podrick_58 Start: 51964, Stop: 51449, Start Num: 96

Candidate Starts for Podrick_58:

(55, 52042), (78, 51988), (Start: 87 @51973 has 10 MA's), (Start: 96 @51964 has 17 MA's), (132, 51898), (157, 51853), (178, 51829), (196, 51793), (199, 51787), (216, 51754), (232, 51700), (234, 51697), (262, 51580), (266, 51559), (296, 51484),

Gene: Poochiewood_65 Start: 45021, Stop: 45479, Start Num: 100

Candidate Starts for Poochiewood_65:

(Start: 100 @45021 has 7 MA's), (138, 45093), (192, 45183), (204, 45195), (213, 45216), (238, 45279), (247, 45306),

Gene: Porcelain_108 Start: 60257, Stop: 60832, Start Num: 74

Candidate Starts for Porcelain_108:

(Start: 74 @60257 has 2 MA's), (Start: 97 @60290 has 11 MA's), (Start: 108 @60308 has 1 MA's), (138, 60365), (173, 60428), (182, 60443), (190, 60461), (221, 60518), (223, 60524), (241, 60584), (260, 60677),

Gene: Porky_109 Start: 62562, Stop: 63008, Start Num: 127

Candidate Starts for Porky_109:

(63, 62454), (Start: 94 @62508 has 24 MA's), (Start: 127 @62562 has 1 MA's), (168, 62643), (171, 62646), (186, 62670), (205, 62703), (226, 62760), (270, 62922),

Gene: Pound_50 Start: 43906, Stop: 44415, Start Num: 110

Candidate Starts for Pound_50:

(54, 43795), (81, 43864), (Start: 94 @43882 has 24 MA's), (Start: 110 @43906 has 2 MA's), (142, 43972), (176, 44026), (198, 44071), (230, 44158), (250, 44236), (253, 44248), (305, 44401),

Gene: PowerRanger_8 Start: 4332, Stop: 4910, Start Num: 120

Candidate Starts for PowerRanger_8:

(Start: 120 @4332 has 21 MA's), (204, 4458), (301, 4791),

Gene: Pygmy_47 Start: 33294, Stop: 33785, Start Num: 91

Candidate Starts for Pygmy_47:

(70, 33255), (71, 33258), (Start: 88 @33291 has 1 MA's), (Start: 91 @33294 has 9 MA's), (Start: 107 @33312 has 1 MA's), (Start: 113 @33321 has 1 MA's), (206, 33486), (210, 33495), (216, 33501), (221, 33513), (230, 33549), (247, 33600), (253, 33639),

Gene: QTRLifeCrisis_8 Start: 4494, Stop: 5075, Start Num: 120

Candidate Starts for QTRLifeCrisis_8:

(Start: 120 @4494 has 21 MA's), (188, 4596), (202, 4617), (222, 4665), (301, 4944),

Gene: Ramsey_33 Start: 27746, Stop: 28345, Start Num: 46

Candidate Starts for Ramsey_33:

(Start: 46 @27746 has 5 MA's), (Start: 85 @27848 has 8 MA's), (221, 28070), (230, 28106), (273, 28271), (289, 28316),

Gene: RedWattleHog_22 Start: 25760, Stop: 26308, Start Num: 91

Candidate Starts for RedWattleHog_22:

(77, 25739), (Start: 91 @25760 has 9 MA's), (172, 25880), (245, 26048), (247, 26057), (251, 26087), (253, 26096), (292, 26222),

Gene: RedWattleHog_85 Start: 77917, Stop: 78504, Start Num: 100

Candidate Starts for RedWattleHog_85:

(Start: 100 @77917 has 7 MA's), (132, 77989), (159, 78037), (164, 78043), (191, 78091), (197, 78100), (198, 78103), (203, 78112), (214, 78142), (222, 78160), (227, 78193), (246, 78238), (252, 78280), (265, 78340), (310, 78484),

Gene: RedWattleHog_100 Start: 85618, Stop: 86124, Start Num: 82

Candidate Starts for RedWattleHog_100:

(73, 85600), (Start: 82 @85618 has 1 MA's), (Start: 127 @85687 has 1 MA's), (140, 85723), (142, 85726), (143, 85729), (173, 85768), (213, 85846), (217, 85852), (253, 85981), (277, 86056),

Gene: Rofo_36 Start: 33056, Stop: 32583, Start Num: 118

Candidate Starts for Rofo_36:

(Start: 44 @33194 has 1 MA's), (Start: 66 @33140 has 2 MA's), (71, 33131), (Start: 101 @33083 has 1 MA's), (Start: 118 @33056 has 19 MA's), (171, 32957), (196, 32915), (198, 32912), (215, 32876), (233, 32819), (244, 32786), (252, 32738),

Gene: Rose5_65 Start: 45033, Stop: 45491, Start Num: 100

Candidate Starts for Rose5_65:

(Start: 100 @45033 has 7 MA's), (138, 45105), (192, 45195), (204, 45207), (213, 45228), (238, 45291), (247, 45318),

Gene: Ruby_32 Start: 27712, Stop: 28464, Start Num: 56

Candidate Starts for Ruby_32:

(Start: 56 @27712 has 3 MA's), (Start: 85 @27775 has 8 MA's), (123, 27823), (142, 27871), (209, 27982), (216, 27991), (250, 28117), (321, 28384),

Gene: Saguaro_52 Start: 46118, Stop: 45648, Start Num: 94

Candidate Starts for Saguaro_52:

(64, 46169), (Start: 94 @46118 has 24 MA's), (Start: 110 @46097 has 2 MA's), (Start: 127 @46070 has 1 MA's), (132, 46052), (138, 46043), (142, 46031), (172, 45992), (221, 45905), (250, 45791), (261, 45746),

Gene: Sassafras_31 Start: 27690, Stop: 28187, Start Num: 85

Candidate Starts for Sassafras_31:

(Start: 46 @27588 has 5 MA's), (Start: 85 @27690 has 8 MA's), (221, 27912), (230, 27948), (273, 28113), (289, 28158),

Gene: Schomber_94 Start: 69164, Stop: 69682, Start Num: 79

Candidate Starts for Schomber_94:

(60, 69122), (68, 69137), (Start: 79 @69164 has 4 MA's), (167, 69287), (174, 69296), (196, 69320), (253, 69500),

Gene: ScoobyDoobyDoo_60 Start: 22027, Stop: 22503, Start Num: 103

Candidate Starts for ScoobyDoobyDoo_60:

(48, 21928), (Start: 103 @22027 has 4 MA's), (219, 22225), (285, 22462),

Gene: ScoobyDoobyDoo_184 Start: 103006, Stop: 103509, Start Num: 129

Candidate Starts for ScoobyDoobyDoo_184:

(Start: 102 @102958 has 1 MA's), (Start: 109 @102973 has 2 MA's), (122, 102985), (124, 102991), (Start: 129 @103006 has 1 MA's), (196, 103123), (221, 103174), (224, 103189), (253, 103300), (261, 103333), (263, 103342), (267, 103357), (282, 103399), (305, 103462), (311, 103489),

Gene: Sedona_36 Start: 34162, Stop: 33689, Start Num: 118

Candidate Starts for Sedona_36:

(Start: 44 @34300 has 1 MA's), (Start: 66 @34246 has 2 MA's), (71, 34237), (Start: 101 @34189 has 1 MA's), (Start: 118 @34162 has 19 MA's), (171, 34063), (196, 34021), (198, 34018), (215, 33982), (233, 33925), (244, 33892), (252, 33844),

Gene: Shaboozey_39 Start: 35483, Stop: 36025, Start Num: 85

Candidate Starts for Shaboozey_39:

(Start: 49 @35396 has 1 MA's), (Start: 85 @35483 has 8 MA's), (Start: 127 @35546 has 1 MA's), (156, 35612), (175, 35636), (194, 35669), (210, 35702), (221, 35723), (222, 35726), (230, 35759), (250, 35837), (282, 35948), (299, 35996),

Gene: Shaboozey_158 Start: 83054, Stop: 83566, Start Num: 83

Candidate Starts for Shaboozey_158:

(Start: 83 @83054 has 4 MA's), (Start: 85 @83057 has 8 MA's), (Start: 113 @83090 has 1 MA's), (138, 83141), (158, 83177), (210, 83267), (216, 83276), (221, 83288), (230, 83324), (242, 83354), (258, 83435), (287, 83528), (298, 83552),

Gene: Shipwreck_47 Start: 33269, Stop: 33760, Start Num: 91

Candidate Starts for Shipwreck_47:

(70, 33230), (71, 33233), (Start: 88 @33266 has 1 MA's), (Start: 91 @33269 has 9 MA's), (Start: 107 @33287 has 1 MA's), (Start: 113 @33296 has 1 MA's), (206, 33461), (210, 33470), (216, 33476), (221, 33488), (230, 33524), (247, 33575), (253, 33614),

Gene: Shlim410_56 Start: 41496, Stop: 42002, Start Num: 96

Candidate Starts for Shlim410_56:

(30, 41271), (33, 41301), (Start: 96 @41496 has 17 MA's), (138, 41571), (142, 41583), (172, 41625), (221, 41712), (232, 41751),

Gene: Sitar_36 Start: 34297, Stop: 33740, Start Num: 66

Candidate Starts for Sitar_36:

(Start: 44 @34351 has 1 MA's), (Start: 66 @34297 has 2 MA's), (Start: 101 @34240 has 1 MA's), (Start: 118 @34213 has 19 MA's), (171, 34114), (196, 34072), (198, 34069), (215, 34033), (233, 33976), (242, 33952), (252, 33895),

Gene: SoilAssassin_64 Start: 43104, Stop: 43649, Start Num: 62

Candidate Starts for SoilAssassin_64:

(Start: 62 @43104 has 2 MA's), (86, 43146), (105, 43167), (121, 43191), (Start: 135 @43230 has 4 MA's), (141, 43242), (157, 43272), (214, 43377), (253, 43515),

Gene: Solon_8 Start: 4653, Stop: 5234, Start Num: 120

Candidate Starts for Solon_8:

(Start: 120 @4653 has 21 MA's), (188, 4755), (202, 4776), (222, 4824), (301, 5103),

Gene: Soul22_35 Start: 27040, Stop: 27804, Start Num: 53

Candidate Starts for Soul22_35:

(Start: 46 @27013 has 5 MA's), (Start: 53 @27040 has 7 MA's), (Start: 85 @27115 has 8 MA's), (123, 27163), (142, 27211), (209, 27322), (216, 27331), (250, 27457), (321, 27724),

Gene: SpikeBT_9 Start: 4433, Stop: 5011, Start Num: 120

Candidate Starts for SpikeBT_9:

(Start: 120 @4433 has 21 MA's), (204, 4559), (301, 4892),

Gene: Squee_8 Start: 4160, Stop: 4741, Start Num: 120

Candidate Starts for Squee_8:

(Start: 120 @4160 has 21 MA's), (188, 4262), (202, 4283), (222, 4331), (301, 4610),

Gene: StAnnes_29 Start: 27239, Stop: 28003, Start Num: 53

Candidate Starts for StAnnes_29:

(Start: 46 @27212 has 5 MA's), (Start: 53 @27239 has 7 MA's), (Start: 85 @27314 has 8 MA's), (123, 27362), (142, 27410), (209, 27521), (216, 27530), (250, 27656), (321, 27923),

Gene: Stank_113 Start: 63457, Stop: 63957, Start Num: 94

Candidate Starts for Stank_113:

(63, 63403), (Start: 94 @63457 has 24 MA's), (Start: 127 @63511 has 1 MA's), (168, 63592), (171, 63595), (186, 63619), (205, 63652), (226, 63709), (270, 63871),

Gene: Starcevich_34 Start: 27605, Stop: 27099, Start Num: 94

Candidate Starts for Starcevich_34:

(Start: 94 @27605 has 24 MA's), (Start: 107 @27590 has 1 MA's), (132, 27539), (138, 27530), (163, 27488), (175, 27473), (180, 27461), (184, 27458), (196, 27437), (221, 27398), (230, 27362), (253, 27272), (271, 27206), (284, 27176),

Gene: Stickynote_47 Start: 43021, Stop: 42431, Start Num: 84

Candidate Starts for Stickynote_47:

(40, 43153), (41, 43150), (Start: 84 @43021 has 3 MA's), (Start: 118 @42973 has 19 MA's), (134, 42934), (147, 42910), (149, 42907), (227, 42763), (250, 42685), (258, 42652), (290, 42544), (317, 42439),

Gene: Stillion_3 Start: 2875, Stop: 3330, Start Num: 123

Candidate Starts for Stillion_3:

(123, 2875), (154, 2935), (175, 2959), (196, 2995), (215, 3034), (221, 3046),

Gene: Stillion_85 Start: 53972, Stop: 54460, Start Num: 81

Candidate Starts for Stillion_85:

(51, 53909), (81, 53972), (112, 54011), (130, 54047), (196, 54125), (198, 54128), (199, 54131), (210, 54149), (220, 54164), (251, 54281), (253, 54290), (275, 54368),

Gene: Stormageddon_82 Start: 77898, Stop: 78485, Start Num: 100

Candidate Starts for Stormageddon_82:

(Start: 100 @77898 has 7 MA's), (132, 77970), (159, 78018), (164, 78024), (191, 78072), (197, 78081), (198, 78084), (203, 78093), (214, 78123), (222, 78141), (227, 78174), (246, 78219), (252, 78261), (265, 78321), (310, 78465),

Gene: Strokeseat_31 Start: 27760, Stop: 28380, Start Num: 53

Candidate Starts for Strokeseat_31:

(34, 27676), (Start: 46 @27733 has 5 MA's), (Start: 53 @27760 has 7 MA's), (Start: 85 @27835 has 8 MA's), (221, 28057), (230, 28093), (273, 28258), (289, 28303),

Gene: Superphikiman_145 Start: 75577, Stop: 76179, Start Num: 90

Candidate Starts for Superphikiman_145:

(Start: 90 @75577 has 14 MA's), (146, 75682), (158, 75703), (160, 75706), (177, 75730), (179, 75733), (181, 75739), (210, 75799), (235, 75868), (240, 75886), (250, 75937), (257, 75973), (288, 76069), (314, 76165),

Gene: TBrady12_114 Start: 62894, Stop: 63394, Start Num: 94

Candidate Starts for TBrady12_114:

(63, 62840), (Start: 94 @62894 has 24 MA's), (Start: 127 @62948 has 1 MA's), (168, 63029), (171, 63032), (186, 63056), (205, 63089), (226, 63146), (270, 63308),

Gene: Tangent_36 Start: 32578, Stop: 32105, Start Num: 118

Candidate Starts for Tangent_36:

(Start: 44 @32716 has 1 MA's), (Start: 66 @32662 has 2 MA's), (71, 32653), (Start: 101 @32605 has 1 MA's), (Start: 118 @32578 has 19 MA's), (171, 32479), (196, 32437), (198, 32434), (215, 32398), (233,

32341), (244, 32308), (252, 32260),

Gene: Teaspoon_111 Start: 63442, Stop: 63942, Start Num: 94

Candidate Starts for Teaspoon_111:

(63, 63388), (Start: 94 @63442 has 24 MA's), (Start: 127 @63496 has 1 MA's), (168, 63577), (171, 63580), (186, 63604), (205, 63637), (226, 63694), (270, 63856),

Gene: TheloniousMonk_9 Start: 4484, Stop: 5062, Start Num: 120

Candidate Starts for TheloniousMonk_9:

(Start: 120 @4484 has 21 MA's), (204, 4610), (301, 4943),

Gene: Thibault_95 Start: 58448, Stop: 58990, Start Num: 97

Candidate Starts for Thibault_95:

(Start: 97 @58448 has 11 MA's), (Start: 108 @58466 has 1 MA's), (173, 58586), (182, 58601), (190, 58619), (209, 58658), (221, 58676), (223, 58682), (241, 58742), (260, 58835), (308, 58976),

Gene: Thibault_132 Start: 76186, Stop: 76788, Start Num: 90

Candidate Starts for Thibault_132:

(Start: 90 @76186 has 14 MA's), (170, 76324), (177, 76336), (196, 76378), (218, 76423), (221, 76429), (231, 76471), (250, 76546), (255, 76576), (314, 76774),

Gene: ThreeRngTarjay_109 Start: 64920, Stop: 65462, Start Num: 97

Candidate Starts for ThreeRngTarjay_109:

(37, 64758), (42, 64782), (Start: 74 @64887 has 2 MA's), (Start: 97 @64920 has 11 MA's), (Start: 108 @64938 has 1 MA's), (138, 64995), (173, 65058), (182, 65073), (190, 65091), (221, 65148), (223, 65154), (241, 65214), (260, 65307),

Gene: ThreeRngTarjay_144 Start: 79812, Stop: 80411, Start Num: 93

Candidate Starts for ThreeRngTarjay_144:

(Start: 93 @79812 has 12 MA's), (146, 79914), (158, 79935), (160, 79938), (196, 80001), (210, 80031), (216, 80040), (225, 80073), (240, 80118), (257, 80205), (276, 80265), (288, 80301), (314, 80397),

Gene: Toni_59 Start: 52612, Stop: 52088, Start Num: 87

Candidate Starts for Toni_59:

(55, 52681), (78, 52627), (Start: 87 @52612 has 10 MA's), (Start: 96 @52603 has 17 MA's), (132, 52537), (157, 52492), (178, 52468), (196, 52432), (199, 52426), (216, 52393), (232, 52339), (234, 52336), (262, 52219), (266, 52198), (296, 52123),

Gene: Treddle_9 Start: 4499, Stop: 5077, Start Num: 120

Candidate Starts for Treddle_9:

(Start: 120 @4499 has 21 MA's), (204, 4625), (301, 4958),

Gene: Twinkle_57 Start: 42555, Stop: 43061, Start Num: 96

Candidate Starts for Twinkle_57:

(30, 42330), (33, 42360), (Start: 96 @42555 has 17 MA's), (138, 42630), (142, 42642), (172, 42684), (221, 42771), (232, 42810),

Gene: Twister6_58 Start: 42736, Stop: 43260, Start Num: 96

Candidate Starts for Twister6_58:

(Start: 96 @42736 has 17 MA's), (Start: 127 @42787 has 1 MA's), (132, 42805), (178, 42883), (216, 42964), (219, 42973), (254, 43114),

Gene: UBSmoodge_128 Start: 91385, Stop: 91951, Start Num: 74

Candidate Starts for UBSmoodge_128:

(Start: 74 @91385 has 2 MA's), (136, 91484), (150, 91508), (174, 91541), (189, 91571), (196, 91583), (210, 91616), (221, 91637), (222, 91640), (251, 91754), (253, 91763), (291, 91889),

Gene: UPIE_65 Start: 44559, Stop: 45017, Start Num: 100

Candidate Starts for UPIE_65:

(Start: 100 @44559 has 7 MA's), (138, 44631), (192, 44721), (204, 44733), (213, 44754), (238, 44817), (247, 44844),

Gene: Vivi2_38 Start: 33736, Stop: 33263, Start Num: 118

Candidate Starts for Vivi2_38:

(Start: 44 @33874 has 1 MA's), (Start: 66 @33820 has 2 MA's), (71, 33811), (Start: 101 @33763 has 1 MA's), (Start: 118 @33736 has 19 MA's), (171, 33637), (196, 33595), (198, 33592), (215, 33556), (233, 33499), (244, 33466), (252, 33418),

Gene: Wamburgrxpress_65 Start: 44589, Stop: 45047, Start Num: 100

Candidate Starts for Wamburgrxpress_65:

(Start: 100 @44589 has 7 MA's), (138, 44661), (192, 44751), (204, 44763), (213, 44784), (238, 44847), (247, 44874),

Gene: Wanda_148 Start: 77329, Stop: 77928, Start Num: 93

Candidate Starts for Wanda_148:

(Start: 93 @77329 has 12 MA's), (146, 77431), (158, 77452), (160, 77455), (196, 77518), (210, 77548), (216, 77557), (225, 77590), (240, 77635), (257, 77722), (276, 77782), (288, 77818), (314, 77914),

Gene: Whitspit_9 Start: 4658, Stop: 5239, Start Num: 120

Candidate Starts for Whitspit_9:

(Start: 120 @4658 has 21 MA's), (188, 4760), (202, 4781), (222, 4829), (301, 5108),

Gene: Wiggin_113 Start: 62887, Stop: 63387, Start Num: 94

Candidate Starts for Wiggin_113:

(Start: 94 @62887 has 24 MA's), (Start: 127 @62941 has 1 MA's), (168, 63022), (171, 63025), (186, 63049), (205, 63082), (226, 63139), (270, 63301),

Gene: WilliamBoone_144 Start: 75606, Stop: 76268, Start Num: 52

Candidate Starts for WilliamBoone_144:

(45, 75582), (Start: 52 @75606 has 1 MA's), (143, 75792), (187, 75861), (196, 75876), (216, 75918), (295, 76194), (312, 76260),

Gene: Xandras_110 Start: 62710, Stop: 63210, Start Num: 94

Candidate Starts for Xandras_110:

(63, 62656), (Start: 94 @62710 has 24 MA's), (Start: 127 @62764 has 1 MA's), (168, 62845), (171, 62848), (186, 62872), (205, 62905), (226, 62962), (270, 63124),

Gene: Xavia_53 Start: 39307, Stop: 39837, Start Num: 94

Candidate Starts for Xavia_53:

(Start: 94 @39307 has 24 MA's), (Start: 129 @39364 has 1 MA's), (132, 39373), (170, 39436), (172, 39439), (194, 39475), (196, 39478), (202, 39487), (204, 39490), (221, 39532), (247, 39619), (294, 39781),

Gene: Xiaokay_158 Start: 87015, Stop: 87527, Start Num: 83

Candidate Starts for Xiaokay_158:

(Start: 83 @87015 has 4 MA's), (Start: 85 @87018 has 8 MA's), (Start: 113 @87051 has 1 MA's), (138, 87102), (158, 87138), (210, 87228), (216, 87237), (221, 87249), (222, 87252), (230, 87285), (242, 87315), (258, 87396), (287, 87489), (298, 87513),

Gene: Xiaokay_103 Start: 61376, Stop: 61900, Start Num: 108

Candidate Starts for Xiaokay_103:

(Start: 97 @61358 has 11 MA's), (Start: 108 @61376 has 1 MA's), (173, 61496), (182, 61511), (190, 61529), (209, 61568), (221, 61586), (223, 61592), (241, 61652), (260, 61745), (308, 61886),

Gene: Zelink_108 Start: 64885, Stop: 65409, Start Num: 108

Candidate Starts for Zelink_108:

(37, 64705), (42, 64729), (Start: 74 @64834 has 2 MA's), (Start: 97 @64867 has 11 MA's), (Start: 108 @64885 has 1 MA's), (138, 64942), (173, 65005), (182, 65020), (190, 65038), (221, 65095), (223, 65101), (241, 65161), (260, 65254),

Gene: Zelink_143 Start: 80141, Stop: 80740, Start Num: 93

Candidate Starts for Zelink_143:

(Start: 93 @80141 has 12 MA's), (146, 80243), (158, 80264), (160, 80267), (196, 80330), (210, 80360), (216, 80369), (225, 80402), (240, 80447), (257, 80534), (276, 80594), (288, 80630), (314, 80726),

Gene: Zeuska_8 Start: 4378, Stop: 4959, Start Num: 120

Candidate Starts for Zeuska_8:

(Start: 120 @4378 has 21 MA's), (188, 4480), (202, 4501), (222, 4549), (301, 4828),

Gene: Zucker_50 Start: 32261, Stop: 32884, Start Num: 44

Candidate Starts for Zucker_50:

(8, 31859), (10, 31883), (12, 31901), (27, 32147), (43, 32249), (Start: 44 @32261 has 1 MA's), (75, 32354), (Start: 127 @32432 has 1 MA's), (172, 32501), (216, 32579), (219, 32588), (222, 32594), (223, 32597), (233, 32633), (251, 32708),