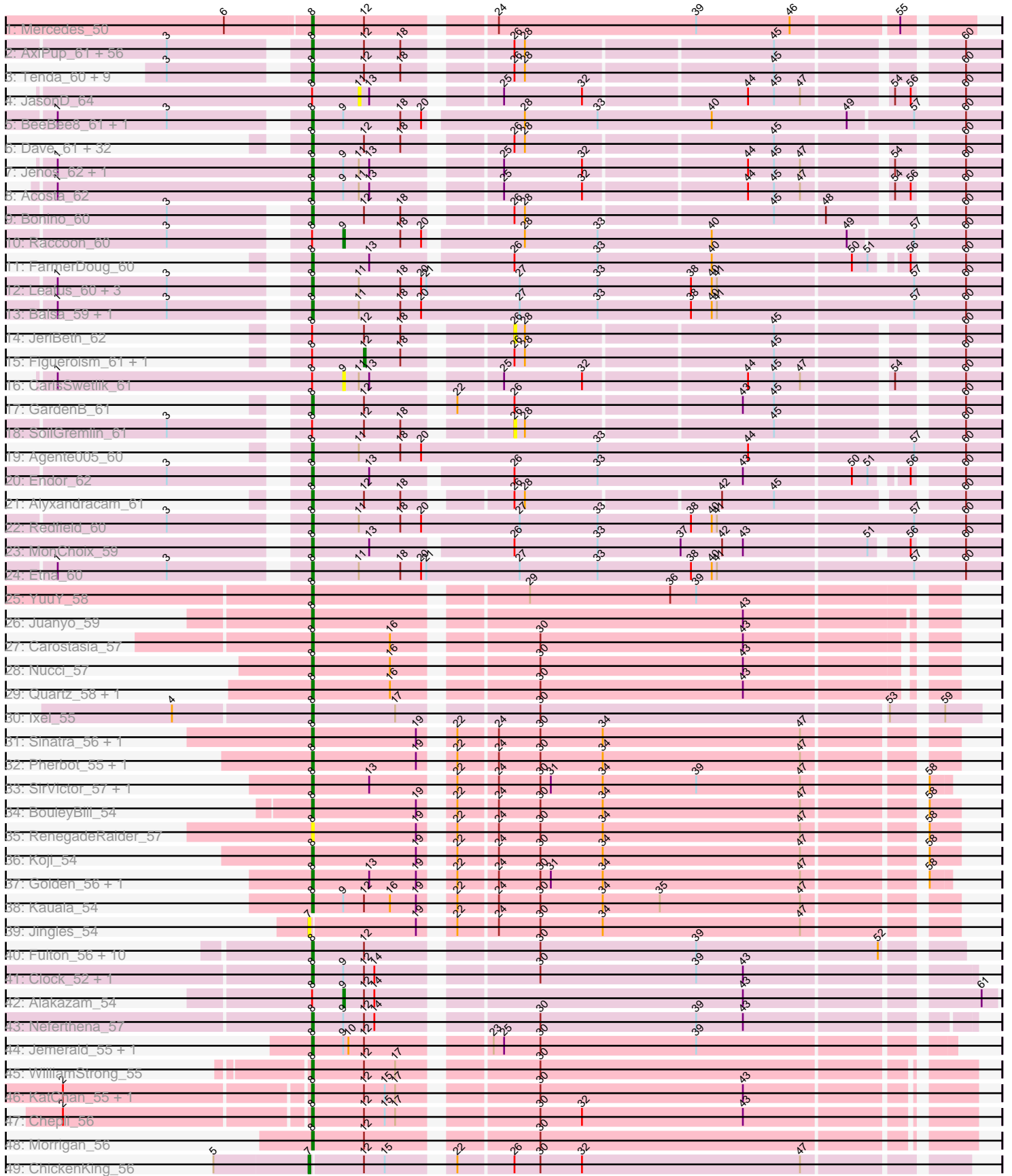


Pham 197878



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 197878 Report

This analysis was run 01/18/25 on database version 583.

Pham number 197878 has 171 members, 14 are drafts.

Phages represented in each track:

- Track 1 : Mercedes_50
- Track 2 : AxiPup_61, Convict_61, Baines_60, Phriends_60, Byron23_62, Stanktossa_60, Pherferi_61, Chako_60, ParleG_61, PhredFlintston_61, Dothraki_61, Raptor_61, NickSell_61, OldNelly_61, Martin_62, BonesMcCoy_61, HungryHenry_60, ShaiHulud_62, Kale_60, Bandik_61, Zada_62, MrWorldwide_61, Thorongil_61, StirfryIV_60, Ioannes_61, SJay_61, Gelo_60, Benjalauren_61, Duocatuli_60, BeautPeep30_61, Phiderman_61, StingRay_60, Inventa_61, Phireproof_61, Jerbirus_62, Robinson_61, HanSolo_60, Knox_61, Ilzat_60, HankSprout_61, JasperRussell_60, Shee_61, KannH_60, TinSulphur_62, Velene_61, Clancy_60, MillyPhilly_61, Delphidian_60, Kurt1_61, Gargoyle_61, TatarkaPM_61, Winzigespinne_60, Papafritta_60, Nagem_61, Vispistious_61, Rog141_60, PuppyEggo_61
- Track 3 : Tenda_60, Oats_60, Gershwin_60, Christoph_60, Espinosa_60, TeddyBear_60, Aubergine_60, Teagan_61, Asta_60, Janus167_60
- Track 4 : JasonD_64
- Track 5 : BeeBee8_61, Hamlet_60
- Track 6 : Dave_61, Calix_60, Den3_61, WildNOut_61, Blage_61, Superfresh_61, MaeLinda_61, Erla_60, Greys_61, Renzie_61, Sedgewig_60, Strathdee_61, Etta_60, Klimt_61, ManRay_60, BigRedClifford_61, Pocket_60, Oxtober96_62, Lovelyunicorn_61, Exploradora_62, Ludgate_61, Rappheph_61, AranulaLuti_60, SonOfLevi_61, Symere_62, Riyhil_61, Nattles_60, Garey24_61, Chamuel_60, AlexAdler_61, Antoinette_61, Thompsone_61, Peep_61
- Track 7 : Jenos_62, McGalleon_61
- Track 8 : Acosta_62
- Track 9 : Bonino_60
- Track 10 : Raccoon_60
- Track 11 : FarmerDoug_60
- Track 12 : Leafus_60, Stormbreaker8_59, KingJulien_60, Peppino_60
- Track 13 : Balsa_59, Schnapsidee_60
- Track 14 : JeriBeth_62
- Track 15 : Figueroism_61, Gubbabump_60
- Track 16 : CarisSwetlik_61
- Track 17 : GardenB_61
- Track 18 : SoilGremLin_61
- Track 19 : Agente005_60
- Track 20 : Endor_62
- Track 21 : Alyxandracam_61

- Track 22 : Redfield_60
- Track 23 : MonChoix_59
- Track 24 : Etna_60
- Track 25 : YuuY_58
- Track 26 : Juanyo_59
- Track 27 : Carostasia_57
- Track 28 : Nucci_57
- Track 29 : Quartz_58, Mandalorian_57
- Track 30 : Ixel_55
- Track 31 : Sinatra_56, PrincePhergus_55
- Track 32 : Pherbot_55, Bustleton_55
- Track 33 : SirVictor_57, Guetzie_57
- Track 34 : BouleyBill_54
- Track 35 : RenegadeRaider_57
- Track 36 : Koji_54
- Track 37 : Golden_56, Lucky3_56
- Track 38 : Kauala_54
- Track 39 : Jingles_54
- Track 40 : Fulton_56, Greenlvy_55, LilTerminator_56, BaronJohn_57, Hasitha_56, CaptainRex_56, Librie_56, Zepp_56, QuadZero_56, Zayuliv_56, Wardwill_57
- Track 41 : Clock_52, Nebulous_52
- Track 42 : Alakazam_54
- Track 43 : Neferthena_57
- Track 44 : Jemerald_55, Juicer_55
- Track 45 : WilliamStrong_55
- Track 46 : KatChan_55, Luna18_56
- Track 47 : Chepli_56
- Track 48 : Morigan_56
- Track 49 : ChickenKing_56

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

The start number called the most often in the published annotations is 8, it was called in 152 of the 157 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Acosta_62, Agente005_60, AlexAdler_61, Alyxandracam_61, Antoinette_61, AranulaLuti_60, Asta_60, Aubergine_60, AxiPup_61, Baines_60, Balsa_59, Bandik_61, BaronJohn_57, BeautPeep30_61, BeeBee8_61, Benjalauren_61, BigRedClifford_61, Blage_61, BonesMcCoy_61, Bonino_60, BouleyBill_54, Bustleton_55, Byron23_62, Calix_60, CaptainRex_56, Carostasia_57, Chako_60, Chamuel_60, Chepli_56, Christoph_60, Clancy_60, Clock_52, Convict_61, Dave_61, Delphidian_60, Den3_61, Dothraki_61, Duocatuli_60, Endor_62, Erla_60, Espinosa_60, Etna_60, Etta_60, Exploradora_62, FarmerDoug_60, Fulton_56, GardenB_61, Garey24_61, Gargoyle_61, Gelo_60, Gershwin_60, Golden_56, Greenlvy_55, Greys_61, Guetzie_57, Hamlet_60, HanSolo_60, HankSprout_61, Hasitha_56, HungryHenry_60, Ilzat_60, Inventa_61, Ioannes_61, Ixel_55, Janus167_60, JasperRussell_60, Jemerald_55, Jenos_62, Jerbirus_62, Juanyo_59, Juicer_55, Kale_60, KannH_60, KatChan_55, Kauala_54, KingJulien_60, Klimt_61, Knox_61, Koji_54, Kurt1_61, Leafus_60, Librie_56, LilTerminator_56,

Lovelyunicorn_61, Lucky3_56, Ludgate_61, Luna18_56, MaeLinda_61, ManRay_60, Mandalorian_57, Martin_62, McGalleon_61, Mercedes_50, MillyPhilly_61, MonChoix_59, Morrigan_56, MrWorldwide_61, Nagem_61, Nattles_60, Nebulous_52, Neferthena_57, NickSell_61, Nucci_57, Oats_60, OldNelly_61, Oxtober96_62, Papafritta_60, ParleG_61, Peep_61, Peppino_60, Pherbot_55, Pherferi_61, Phiderman_61, Phireproof_61, PhredFlintston_61, Phriends_60, Pocket_60, PrincePhergus_55, PuppyEggo_61, QuadZero_56, Quartz_58, Rapheph_61, Raptor_61, Redfield_60, RenegadeRaider_57, Renzie_61, Riyhil_61, Robinson_61, Rog141_60, SJay_61, Schnapsidee_60, Sedgewig_60, ShaiHulud_62, Shee_61, Sinatra_56, SirVictor_57, SonOfLevi_61, Stanktossa_60, StingRay_60, StirfryIV_60, Stormbreaker8_59, Strathdee_61, Superfresh_61, Symere_62, TatarkaPM_61, Teagan_61, TeddyBear_60, Tenda_60, Thompsone_61, Thorongil_61, TinSulphur_62, Velene_61, Vispistious_61, Wardwill_57, WildNOut_61, WilliamStrong_55, Winzigespinne_60, YuuY_58, Zada_62, Zayuliv_56, Zepp_56,

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

- Alakazam_54, CarisSwetlik_61, Figueroism_61, Gubbabump_60, JasonD_64, JeriBeth_62, Raccoon_60, SoilGremlin_61,

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

- ChickenKing_56, Jingles_54,

Summary by start number:

Start 7:

- Found in 2 of 171 (1.2%) of genes in pham
- Manual Annotations of this start: 1 of 157
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ChickenKing_56 (EA9), Jingles_54 (EA4),

Start 8:

- Found in 169 of 171 (98.8%) of genes in pham
- Manual Annotations of this start: 152 of 157
- Called 95.3% of time when present
- Phage (with cluster) where this start called: Acosta_62 (EA1), Agente005_60 (EA1), AlexAdler_61 (EA1), Alyxandracam_61 (EA1), Antoinette_61 (EA1), AranulaLuti_60 (EA1), Asta_60 (EA1), Aubergine_60 (EA1), AxiPup_61 (EA1), Baines_60 (EA1), Balsa_59 (EA1), Bandik_61 (EA1), BaronJohn_57 (EA5), BeautPeep30_61 (EA1), BeeBee8_61 (EA1), Benjalauren_61 (EA1), BigRedClifford_61 (EA1), Blage_61 (EA1), BonesMcCoy_61 (EA1), Bonino_60 (EA1), BouleyBill_54 (EA4), Bustleton_55 (EA4), Byron23_62 (EA1), Calix_60 (EA1), CaptainRex_56 (EA5), Carostasia_57 (EA10), Chako_60 (EA1), Chamuel_60 (EA1), Chepli_56 (EA6), Christoph_60 (EA1), Clancy_60 (EA1), Clock_52 (EA5), Convict_61 (EA1), Dave_61 (EA1), Delphidian_60 (EA1), Den3_61 (EA1), Dothraki_61 (EA1), Duocatuli_60 (EA1), Endor_62 (EA1), Erla_60 (EA1), Espinosa_60 (EA1), Etna_60 (EA1), Etta_60 (EA1), Exploradora_62 (UNK), FarmerDoug_60 (EA1), Fulton_56 (EA5), GardenB_61 (EA1), Garey24_61 (EA1), Gargoyle_61 (EA1), Gelo_60 (EA1), Gershwin_60 (EA1), Golden_56 (EA4), Greenlvy_55 (EA5), Greys_61 (EA1), Guetzie_57 (EA4), Hamlet_60 (EA1), HanSolo_60 (EA1), HankSprout_61 (EA1), Hasitha_56 (EA5), HungryHenry_60 (EA1), Ilzat_60 (EA1), Inventa_61 (EA1), Ioannes_61 (EA1), Ixel_55 (EA11), Janus167_60 (EA1), JasperRussell_60 (EA1), Jemerald_55 (EA6), Jenos_62 (EA1), Jerbirus_62 (EA1), Juanyo_59 (EA10), Juicer_55 (EA6), Kale_60 (EA1), KannH_60

(EA1), KatChan_55 (EA6), Kauala_54 (EA4), KingJulien_60 (EA1), Klimt_61 (EA1), Knox_61 (EA1), Koji_54 (EA4), Kurt1_61 (EA1), Leafus_60 (EA1), Librie_56 (EA5), LilTerminator_56 (EA5), Lovelyunicorn_61 (EA1), Lucky3_56 (EA4), Ludgate_61 (EA1), Luna18_56 (EA6), MaeLinda_61 (EA1), ManRay_60 (EA1), Mandalorian_57 (EA10), Martin_62 (EA1), McGalleon_61 (EA1), Mercedes_50 (EA), MillyPhilly_61 (EA1), MonChoix_59 (EA1), Morrigan_56 (EA6), MrWorldwide_61 (EA1), Nagem_61 (EA1), Nattles_60 (EA1), Nebulous_52 (EA5), Neferthena_57 (EA5), NickSell_61 (EA1), Nucci_57 (EA10), Oats_60 (EA1), OldNelly_61 (EA1), Oxtober96_62 (EA1), Papafritta_60 (EA1), ParleG_61 (EA1), Peep_61 (EA1), Peppino_60 (EA1), Pherbot_55 (EA4), Pherferi_61 (EA1), Phiderman_61 (EA1), Phireproof_61 (EA1), PhredFlintston_61 (EA1), Phriends_60 (EA1), Pocket_60 (EA1), PrincePhergus_55 (EA4), PuppyEggo_61 (EA1), QuadZero_56 (EA5), Quartz_58 (EA10), Rapheph_61 (EA1), Raptor_61 (EA1), Redfield_60 (EA1), RenegadeRaider_57 (EA4), Renzie_61 (EA1), Riyhil_61 (EA1), Robinson_61 (EA1), Rog141_60 (EA1), SJay_61 (EA1), Schnapsidee_60 (EA1), Sedgewig_60 (EA1), ShaiHulud_62 (EA1), Shee_61 (EA1), Sinatra_56 (EA4), SirVictor_57 (EA4), SonOfLevi_61 (EA1), Stanktossa_60 (EA1), StingRay_60 (EA1), StirfryIV_60 (EA1), Stormbreaker8_59 (EA1), Strathdee_61 (EA1), Superfresh_61 (EA1), Symere_62 (EA1), TatarkaPM_61 (EA1), Teagan_61 (EA1), TeddyBear_60 (EA1), Tenda_60 (EA1), Thompsone_61 (EA1), Thorongil_61 (EA1), TinSulphur_62 (EA1), Velene_61 (EA1), Vispistious_61 (EA1), Wardwill_57 (EA5), WildNOut_61 (EA1), WilliamStrong_55 (EA6), Winzigespinne_60 (EA1), YuuY_58 (EA10), Zada_62 (EA1), Zayuliv_56 (EA5), Zepp_56 (EA5),

Start 9:

- Found in 14 of 171 (8.2%) of genes in pham
- Manual Annotations of this start: 2 of 157
- Called 21.4% of time when present
- Phage (with cluster) where this start called: Alakazam_54 (EA5), CarisSwetlik_61 (EA1), Raccoon_60 (EA1),

Start 11:

- Found in 14 of 171 (8.2%) of genes in pham
- No Manual Annotations of this start.
- Called 7.1% of time when present
- Phage (with cluster) where this start called: JasonD_64 (EA1),

Start 12:

- Found in 132 of 171 (77.2%) of genes in pham
- Manual Annotations of this start: 2 of 157
- Called 1.5% of time when present
- Phage (with cluster) where this start called: Figueroism_61 (EA1), Gubbabump_60 (EA1),

Start 26:

- Found in 111 of 171 (64.9%) of genes in pham
- No Manual Annotations of this start.
- Called 1.8% of time when present
- Phage (with cluster) where this start called: JeriBeth_62 (EA1), SoilGremlin_61 (EA1),

Summary by clusters:

There are 9 clusters represented in this pham: EA11, EA10, EA, EA9, EA1, UNK, EA5, EA4, EA6,

Info for manual annotations of cluster EA:

- Start number 8 was manually annotated 1 time for cluster EA.

Info for manual annotations of cluster EA1:

- Start number 8 was manually annotated 115 times for cluster EA1.
- Start number 9 was manually annotated 1 time for cluster EA1.
- Start number 12 was manually annotated 2 times for cluster EA1.

Info for manual annotations of cluster EA10:

- Start number 8 was manually annotated 6 times for cluster EA10.

Info for manual annotations of cluster EA11:

- Start number 8 was manually annotated 1 time for cluster EA11.

Info for manual annotations of cluster EA4:

- Start number 8 was manually annotated 11 times for cluster EA4.

Info for manual annotations of cluster EA5:

- Start number 8 was manually annotated 11 times for cluster EA5.
- Start number 9 was manually annotated 1 time for cluster EA5.

Info for manual annotations of cluster EA6:

- Start number 8 was manually annotated 7 times for cluster EA6.

Info for manual annotations of cluster EA9:

- Start number 7 was manually annotated 1 time for cluster EA9.

Gene Information:

Gene: Acosta_62 Start: 40455, Stop: 40096, Start Num: 8

Candidate Starts for Acosta_62:

(1, 40602), (Start: 8 @40455 has 152 MA's), (Start: 9 @40437 has 2 MA's), (11, 40428), (13, 40422), (25, 40359), (32, 40314), (44, 40224), (45, 40209), (47, 40194), (54, 40149), (56, 40140), (60, 40116),

Gene: Agente005_60 Start: 40271, Stop: 39876, Start Num: 8

Candidate Starts for Agente005_60:

(Start: 8 @40271 has 152 MA's), (11, 40244), (18, 40220), (20, 40208), (33, 40106), (44, 40019), (57, 39926), (60, 39896),

Gene: Alakazam_54 Start: 38059, Stop: 37712, Start Num: 9

Candidate Starts for Alakazam_54:

(Start: 8 @38077 has 152 MA's), (Start: 9 @38059 has 2 MA's), (Start: 12 @38047 has 2 MA's), (14, 38041), (43, 37843), (61, 37720),

Gene: AlexAdler_61 Start: 40415, Stop: 40056, Start Num: 8

Candidate Starts for AlexAdler_61:

(Start: 8 @40415 has 152 MA's), (Start: 12 @40385 has 2 MA's), (18, 40364), (26, 40313), (28, 40307), (45, 40169), (60, 40076),

Gene: Alyxandracam_61 Start: 40352, Stop: 39993, Start Num: 8

Candidate Starts for Alyxandracam_61:

(Start: 8 @40352 has 152 MA's), (Start: 12 @40322 has 2 MA's), (18, 40301), (26, 40250), (28, 40244), (42, 40136), (45, 40106), (60, 40013),

Gene: Antoinette_61 Start: 40440, Stop: 40081, Start Num: 8

Candidate Starts for Antoinette_61:

(Start: 8 @40440 has 152 MA's), (Start: 12 @40410 has 2 MA's), (18, 40389), (26, 40338), (28, 40332), (45, 40194), (60, 40101),

Gene: AranulaLuti_60 Start: 40132, Stop: 39773, Start Num: 8

Candidate Starts for AranulaLuti_60:

(Start: 8 @40132 has 152 MA's), (Start: 12 @40102 has 2 MA's), (18, 40081), (26, 40030), (28, 40024), (45, 39886), (60, 39793),

Gene: Asta_60 Start: 40137, Stop: 39778, Start Num: 8

Candidate Starts for Asta_60:

(3, 40206), (Start: 8 @40137 has 152 MA's), (Start: 12 @40107 has 2 MA's), (18, 40086), (26, 40035), (28, 40029), (45, 39891), (60, 39798),

Gene: Aubergine_60 Start: 40137, Stop: 39778, Start Num: 8

Candidate Starts for Aubergine_60:

(3, 40206), (Start: 8 @40137 has 152 MA's), (Start: 12 @40107 has 2 MA's), (18, 40086), (26, 40035), (28, 40029), (45, 39891), (60, 39798),

Gene: AxiPup_61 Start: 40351, Stop: 39992, Start Num: 8

Candidate Starts for AxiPup_61:

(3, 40420), (Start: 8 @40351 has 152 MA's), (Start: 12 @40321 has 2 MA's), (18, 40300), (26, 40249), (28, 40243), (45, 40105), (60, 40012),

Gene: Baines_60 Start: 40136, Stop: 39777, Start Num: 8

Candidate Starts for Baines_60:

(3, 40205), (Start: 8 @40136 has 152 MA's), (Start: 12 @40106 has 2 MA's), (18, 40085), (26, 40034), (28, 40028), (45, 39890), (60, 39797),

Gene: Balsa_59 Start: 40302, Stop: 39907, Start Num: 8

Candidate Starts for Balsa_59:

(1, 40434), (3, 40371), (Start: 8 @40302 has 152 MA's), (11, 40275), (18, 40251), (20, 40239), (27, 40182), (33, 40137), (38, 40083), (40, 40071), (41, 40068), (57, 39957), (60, 39927),

Gene: Bandik_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for Bandik_61:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: BaronJohn_57 Start: 37587, Stop: 37240, Start Num: 8

Candidate Starts for BaronJohn_57:

(Start: 8 @37587 has 152 MA's), (Start: 12 @37557 has 2 MA's), (30, 37470), (39, 37380), (52, 37278),

Gene: BeautPeep30_61 Start: 40390, Stop: 40031, Start Num: 8

Candidate Starts for BeautPeep30_61:

(3, 40459), (Start: 8 @40390 has 152 MA's), (Start: 12 @40360 has 2 MA's), (18, 40339), (26, 40288), (28, 40282), (45, 40144), (60, 40051),

Gene: BeeBee8_61 Start: 40467, Stop: 40081, Start Num: 8

Candidate Starts for BeeBee8_61:

(1, 40599), (3, 40536), (Start: 8 @40467 has 152 MA's), (Start: 9 @40449 has 2 MA's), (18, 40416), (20, 40404), (28, 40353), (33, 40311), (40, 40245), (49, 40167), (57, 40131), (60, 40101),

Gene: Benjalauren_61 Start: 40143, Stop: 39784, Start Num: 8

Candidate Starts for Benjalauren_61:

(3, 40212), (Start: 8 @40143 has 152 MA's), (Start: 12 @40113 has 2 MA's), (18, 40092), (26, 40041), (28, 40035), (45, 39897), (60, 39804),

Gene: BigRedClifford_61 Start: 40378, Stop: 40019, Start Num: 8

Candidate Starts for BigRedClifford_61:

(Start: 8 @40378 has 152 MA's), (Start: 12 @40348 has 2 MA's), (18, 40327), (26, 40276), (28, 40270), (45, 40132), (60, 40039),

Gene: Blage_61 Start: 40378, Stop: 40019, Start Num: 8

Candidate Starts for Blage_61:

(Start: 8 @40378 has 152 MA's), (Start: 12 @40348 has 2 MA's), (18, 40327), (26, 40276), (28, 40270), (45, 40132), (60, 40039),

Gene: BonesMcCoy_61 Start: 40379, Stop: 40020, Start Num: 8

Candidate Starts for BonesMcCoy_61:

(3, 40448), (Start: 8 @40379 has 152 MA's), (Start: 12 @40349 has 2 MA's), (18, 40328), (26, 40277), (28, 40271), (45, 40133), (60, 40040),

Gene: Bonino_60 Start: 40116, Stop: 39757, Start Num: 8

Candidate Starts for Bonino_60:

(3, 40185), (Start: 8 @40116 has 152 MA's), (Start: 12 @40086 has 2 MA's), (18, 40065), (26, 40014), (28, 40008), (45, 39870), (48, 39843), (60, 39777),

Gene: BouleyBill_54 Start: 38200, Stop: 37856, Start Num: 8

Candidate Starts for BouleyBill_54:

(Start: 8 @38200 has 152 MA's), (19, 38140), (22, 38128), (24, 38107), (30, 38083), (34, 38047), (47, 37933), (58, 37873),

Gene: Bustleton_55 Start: 38162, Stop: 37818, Start Num: 8

Candidate Starts for Bustleton_55:

(Start: 8 @38162 has 152 MA's), (19, 38102), (22, 38090), (24, 38069), (30, 38045), (34, 38009), (47, 37895),

Gene: Byron23_62 Start: 40387, Stop: 40028, Start Num: 8

Candidate Starts for Byron23_62:

(3, 40456), (Start: 8 @40387 has 152 MA's), (Start: 12 @40357 has 2 MA's), (18, 40336), (26, 40285), (28, 40279), (45, 40141), (60, 40048),

Gene: Calix_60 Start: 40123, Stop: 39764, Start Num: 8

Candidate Starts for Calix_60:

(Start: 8 @40123 has 152 MA's), (Start: 12 @40093 has 2 MA's), (18, 40072), (26, 40021), (28, 40015), (45, 39877), (60, 39784),

Gene: CaptainRex_56 Start: 36985, Stop: 36638, Start Num: 8
Candidate Starts for CaptainRex_56:
(Start: 8 @36985 has 152 MA's), (Start: 12 @36955 has 2 MA's), (30, 36868), (39, 36778), (52, 36676),

Gene: CarisSwetlik_61 Start: 40704, Stop: 40363, Start Num: 9
Candidate Starts for CarisSwetlik_61:
(1, 40869), (Start: 8 @40722 has 152 MA's), (Start: 9 @40704 has 2 MA's), (11, 40695), (13, 40689),
(25, 40626), (32, 40581), (44, 40491), (45, 40476), (47, 40461), (54, 40416), (60, 40383),

Gene: Carostasia_57 Start: 38345, Stop: 38004, Start Num: 8
Candidate Starts for Carostasia_57:
(Start: 8 @38345 has 152 MA's), (16, 38300), (30, 38228), (43, 38111),

Gene: Chako_60 Start: 40132, Stop: 39773, Start Num: 8
Candidate Starts for Chako_60:
(3, 40201), (Start: 8 @40132 has 152 MA's), (Start: 12 @40102 has 2 MA's), (18, 40081), (26, 40030),
(28, 40024), (45, 39886), (60, 39793),

Gene: Chamuel_60 Start: 40149, Stop: 39790, Start Num: 8
Candidate Starts for Chamuel_60:
(Start: 8 @40149 has 152 MA's), (Start: 12 @40119 has 2 MA's), (18, 40098), (26, 40047), (28, 40041),
(45, 39903), (60, 39810),

Gene: Chepli_56 Start: 37092, Stop: 36742, Start Num: 8
Candidate Starts for Chepli_56:
(2, 37227), (Start: 8 @37092 has 152 MA's), (Start: 12 @37062 has 2 MA's), (15, 37050), (17, 37044),
(30, 36975), (32, 36951), (43, 36858),

Gene: ChickenKing_56 Start: 39024, Stop: 38674, Start Num: 7
Candidate Starts for ChickenKing_56:
(5, 39078), (Start: 7 @39024 has 1 MA's), (Start: 12 @38994 has 2 MA's), (15, 38982), (22, 38952),
(26, 38922), (30, 38907), (32, 38883), (47, 38757),

Gene: Christoph_60 Start: 40136, Stop: 39777, Start Num: 8
Candidate Starts for Christoph_60:
(3, 40205), (Start: 8 @40136 has 152 MA's), (Start: 12 @40106 has 2 MA's), (18, 40085), (26, 40034),
(28, 40028), (45, 39890), (60, 39797),

Gene: Clancy_60 Start: 40136, Stop: 39777, Start Num: 8
Candidate Starts for Clancy_60:
(3, 40205), (Start: 8 @40136 has 152 MA's), (Start: 12 @40106 has 2 MA's), (18, 40085), (26, 40034),
(28, 40028), (45, 39890), (60, 39797),

Gene: Clock_52 Start: 38493, Stop: 38140, Start Num: 8
Candidate Starts for Clock_52:
(Start: 8 @38493 has 152 MA's), (Start: 9 @38475 has 2 MA's), (Start: 12 @38463 has 2 MA's), (14,
38457), (30, 38376), (39, 38286), (43, 38259),

Gene: Convict_61 Start: 40379, Stop: 40020, Start Num: 8
Candidate Starts for Convict_61:
(3, 40448), (Start: 8 @40379 has 152 MA's), (Start: 12 @40349 has 2 MA's), (18, 40328), (26, 40277),
(28, 40271), (45, 40133), (60, 40040),

Gene: Dave_61 Start: 40440, Stop: 40081, Start Num: 8

Candidate Starts for Dave_61:

(Start: 8 @40440 has 152 MA's), (Start: 12 @40410 has 2 MA's), (18, 40389), (26, 40338), (28, 40332), (45, 40194), (60, 40101),

Gene: Delphidian_60 Start: 40177, Stop: 39818, Start Num: 8

Candidate Starts for Delphidian_60:

(3, 40246), (Start: 8 @40177 has 152 MA's), (Start: 12 @40147 has 2 MA's), (18, 40126), (26, 40075), (28, 40069), (45, 39931), (60, 39838),

Gene: Den3_61 Start: 40383, Stop: 40024, Start Num: 8

Candidate Starts for Den3_61:

(Start: 8 @40383 has 152 MA's), (Start: 12 @40353 has 2 MA's), (18, 40332), (26, 40281), (28, 40275), (45, 40137), (60, 40044),

Gene: Dothraki_61 Start: 40387, Stop: 40028, Start Num: 8

Candidate Starts for Dothraki_61:

(3, 40456), (Start: 8 @40387 has 152 MA's), (Start: 12 @40357 has 2 MA's), (18, 40336), (26, 40285), (28, 40279), (45, 40141), (60, 40048),

Gene: Duocatuli_60 Start: 40132, Stop: 39773, Start Num: 8

Candidate Starts for Duocatuli_60:

(3, 40201), (Start: 8 @40132 has 152 MA's), (Start: 12 @40102 has 2 MA's), (18, 40081), (26, 40030), (28, 40024), (45, 39886), (60, 39793),

Gene: Endor_62 Start: 40712, Stop: 40344, Start Num: 8

Candidate Starts for Endor_62:

(3, 40781), (Start: 8 @40712 has 152 MA's), (13, 40679), (26, 40604), (33, 40556), (43, 40472), (50, 40412), (51, 40403), (56, 40388), (60, 40364),

Gene: Erla_60 Start: 40120, Stop: 39761, Start Num: 8

Candidate Starts for Erla_60:

(Start: 8 @40120 has 152 MA's), (Start: 12 @40090 has 2 MA's), (18, 40069), (26, 40018), (28, 40012), (45, 39874), (60, 39781),

Gene: Espinosa_60 Start: 40135, Stop: 39776, Start Num: 8

Candidate Starts for Espinosa_60:

(3, 40204), (Start: 8 @40135 has 152 MA's), (Start: 12 @40105 has 2 MA's), (18, 40084), (26, 40033), (28, 40027), (45, 39889), (60, 39796),

Gene: Etna_60 Start: 40349, Stop: 39954, Start Num: 8

Candidate Starts for Etna_60:

(1, 40481), (3, 40418), (Start: 8 @40349 has 152 MA's), (11, 40322), (18, 40298), (20, 40286), (21, 40283), (27, 40229), (33, 40184), (38, 40130), (40, 40118), (41, 40115), (57, 40004), (60, 39974),

Gene: Etta_60 Start: 40124, Stop: 39765, Start Num: 8

Candidate Starts for Etta_60:

(Start: 8 @40124 has 152 MA's), (Start: 12 @40094 has 2 MA's), (18, 40073), (26, 40022), (28, 40016), (45, 39878), (60, 39785),

Gene: Exploradora_62 Start: 40085, Stop: 39726, Start Num: 8

Candidate Starts for Exploradora_62:

(Start: 8 @40085 has 152 MA's), (Start: 12 @40055 has 2 MA's), (18, 40034), (26, 39983), (28, 39977), (45, 39839), (60, 39746),

Gene: FarmerDoug_60 Start: 40145, Stop: 39777, Start Num: 8

Candidate Starts for FarmerDoug_60:

(Start: 8 @40145 has 152 MA's), (13, 40112), (26, 40037), (33, 39989), (40, 39923), (50, 39845), (51, 39836), (56, 39821), (60, 39797),

Gene: Figueroism_61 Start: 40399, Stop: 40070, Start Num: 12

Candidate Starts for Figueroism_61:

(Start: 8 @40429 has 152 MA's), (Start: 12 @40399 has 2 MA's), (18, 40378), (26, 40327), (28, 40321), (45, 40183), (60, 40090),

Gene: Fulton_56 Start: 36986, Stop: 36639, Start Num: 8

Candidate Starts for Fulton_56:

(Start: 8 @36986 has 152 MA's), (Start: 12 @36956 has 2 MA's), (30, 36869), (39, 36779), (52, 36677),

Gene: GardenB_61 Start: 40508, Stop: 40149, Start Num: 8

Candidate Starts for GardenB_61:

(Start: 8 @40508 has 152 MA's), (Start: 12 @40478 has 2 MA's), (22, 40436), (26, 40406), (43, 40280), (45, 40262), (60, 40169),

Gene: Garey24_61 Start: 40103, Stop: 39744, Start Num: 8

Candidate Starts for Garey24_61:

(Start: 8 @40103 has 152 MA's), (Start: 12 @40073 has 2 MA's), (18, 40052), (26, 40001), (28, 39995), (45, 39857), (60, 39764),

Gene: Gargoyle_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for Gargoyle_61:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: Gelo_60 Start: 40130, Stop: 39771, Start Num: 8

Candidate Starts for Gelo_60:

(3, 40199), (Start: 8 @40130 has 152 MA's), (Start: 12 @40100 has 2 MA's), (18, 40079), (26, 40028), (28, 40022), (45, 39884), (60, 39791),

Gene: Gershwin_60 Start: 40137, Stop: 39778, Start Num: 8

Candidate Starts for Gershwin_60:

(3, 40206), (Start: 8 @40137 has 152 MA's), (Start: 12 @40107 has 2 MA's), (18, 40086), (26, 40035), (28, 40029), (45, 39891), (60, 39798),

Gene: Golden_56 Start: 38623, Stop: 38285, Start Num: 8

Candidate Starts for Golden_56:

(Start: 8 @38623 has 152 MA's), (13, 38590), (19, 38563), (22, 38551), (24, 38530), (30, 38506), (31, 38500), (34, 38470), (47, 38356), (58, 38296),

Gene: Greenlvy_55 Start: 37328, Stop: 36981, Start Num: 8

Candidate Starts for Greenlvy_55:

(Start: 8 @37328 has 152 MA's), (Start: 12 @37298 has 2 MA's), (30, 37211), (39, 37121), (52, 37019),

Gene: Greys_61 Start: 40379, Stop: 40020, Start Num: 8

Candidate Starts for Greys_61:

(Start: 8 @40379 has 152 MA's), (Start: 12 @40349 has 2 MA's), (18, 40328), (26, 40277), (28, 40271), (45, 40133), (60, 40040),

Gene: Gubbabump_60 Start: 40044, Stop: 39715, Start Num: 12

Candidate Starts for Gubbabump_60:

(Start: 8 @40074 has 152 MA's), (Start: 12 @40044 has 2 MA's), (18, 40023), (26, 39972), (28, 39966), (45, 39828), (60, 39735),

Gene: Guetzie_57 Start: 38742, Stop: 38404, Start Num: 8

Candidate Starts for Guetzie_57:

(Start: 8 @38742 has 152 MA's), (13, 38709), (22, 38670), (24, 38649), (30, 38625), (31, 38619), (34, 38589), (39, 38535), (47, 38475), (58, 38415),

Gene: Hamlet_60 Start: 40386, Stop: 40000, Start Num: 8

Candidate Starts for Hamlet_60:

(1, 40518), (3, 40455), (Start: 8 @40386 has 152 MA's), (Start: 9 @40368 has 2 MA's), (18, 40335), (20, 40323), (28, 40272), (33, 40230), (40, 40164), (49, 40086), (57, 40050), (60, 40020),

Gene: HanSolo_60 Start: 40084, Stop: 39725, Start Num: 8

Candidate Starts for HanSolo_60:

(3, 40153), (Start: 8 @40084 has 152 MA's), (Start: 12 @40054 has 2 MA's), (18, 40033), (26, 39982), (28, 39976), (45, 39838), (60, 39745),

Gene: HankSprout_61 Start: 40003, Stop: 39644, Start Num: 8

Candidate Starts for HankSprout_61:

(3, 40072), (Start: 8 @40003 has 152 MA's), (Start: 12 @39973 has 2 MA's), (18, 39952), (26, 39901), (28, 39895), (45, 39757), (60, 39664),

Gene: Hasitha_56 Start: 36998, Stop: 36651, Start Num: 8

Candidate Starts for Hasitha_56:

(Start: 8 @36998 has 152 MA's), (Start: 12 @36968 has 2 MA's), (30, 36881), (39, 36791), (52, 36689),

Gene: HungryHenry_60 Start: 40097, Stop: 39738, Start Num: 8

Candidate Starts for HungryHenry_60:

(3, 40166), (Start: 8 @40097 has 152 MA's), (Start: 12 @40067 has 2 MA's), (18, 40046), (26, 39995), (28, 39989), (45, 39851), (60, 39758),

Gene: Ilzat_60 Start: 40107, Stop: 39748, Start Num: 8

Candidate Starts for Ilzat_60:

(3, 40176), (Start: 8 @40107 has 152 MA's), (Start: 12 @40077 has 2 MA's), (18, 40056), (26, 40005), (28, 39999), (45, 39861), (60, 39768),

Gene: Inventa_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for Inventa_61:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: loannes_61 Start: 40461, Stop: 40102, Start Num: 8

Candidate Starts for loannes_61:

(3, 40530), (Start: 8 @40461 has 152 MA's), (Start: 12 @40431 has 2 MA's), (18, 40410), (26, 40359), (28, 40353), (45, 40215), (60, 40122),

Gene: Ixel_55 Start: 37833, Stop: 37477, Start Num: 8

Candidate Starts for Ixel_55:

(4, 37911), (Start: 8 @37833 has 152 MA's), (17, 37785), (30, 37716), (53, 37521), (59, 37497),

Gene: Janus167_60 Start: 40112, Stop: 39753, Start Num: 8

Candidate Starts for Janus167_60:

(3, 40181), (Start: 8 @40112 has 152 MA's), (Start: 12 @40082 has 2 MA's), (18, 40061), (26, 40010), (28, 40004), (45, 39866), (60, 39773),

Gene: JasonD_64 Start: 40645, Stop: 40313, Start Num: 11

Candidate Starts for JasonD_64:

(Start: 8 @40672 has 152 MA's), (11, 40645), (13, 40639), (25, 40576), (32, 40531), (44, 40441), (45, 40426), (47, 40411), (54, 40366), (56, 40357), (60, 40333),

Gene: JasperRussell_60 Start: 40132, Stop: 39773, Start Num: 8

Candidate Starts for JasperRussell_60:

(3, 40201), (Start: 8 @40132 has 152 MA's), (Start: 12 @40102 has 2 MA's), (18, 40081), (26, 40030), (28, 40024), (45, 39886), (60, 39793),

Gene: Jemerald_55 Start: 37998, Stop: 37657, Start Num: 8

Candidate Starts for Jemerald_55:

(Start: 8 @37998 has 152 MA's), (Start: 9 @37980 has 2 MA's), (10, 37977), (Start: 12 @37968 has 2 MA's), (23, 37908), (25, 37902), (30, 37881), (39, 37791),

Gene: Jenos_62 Start: 40967, Stop: 40608, Start Num: 8

Candidate Starts for Jenos_62:

(1, 41114), (Start: 8 @40967 has 152 MA's), (Start: 9 @40949 has 2 MA's), (11, 40940), (13, 40934), (25, 40871), (32, 40826), (44, 40736), (45, 40721), (47, 40706), (54, 40661), (60, 40628),

Gene: Jerbirus_62 Start: 40127, Stop: 39768, Start Num: 8

Candidate Starts for Jerbirus_62:

(3, 40196), (Start: 8 @40127 has 152 MA's), (Start: 12 @40097 has 2 MA's), (18, 40076), (26, 40025), (28, 40019), (45, 39881), (60, 39788),

Gene: JeriBeth_62 Start: 39913, Stop: 39656, Start Num: 26

Candidate Starts for JeriBeth_62:

(Start: 8 @40015 has 152 MA's), (Start: 12 @39985 has 2 MA's), (18, 39964), (26, 39913), (28, 39907), (45, 39769), (60, 39676),

Gene: Jingles_54 Start: 38260, Stop: 37916, Start Num: 7

Candidate Starts for Jingles_54:

(Start: 7 @38260 has 1 MA's), (19, 38200), (22, 38188), (24, 38167), (30, 38143), (34, 38107), (47, 37993),

Gene: Juanyo_59 Start: 39028, Stop: 38684, Start Num: 8

Candidate Starts for Juanyo_59:

(Start: 8 @39028 has 152 MA's), (43, 38794),

Gene: Juicer_55 Start: 37998, Stop: 37657, Start Num: 8

Candidate Starts for Juicer_55:

(Start: 8 @37998 has 152 MA's), (Start: 9 @37980 has 2 MA's), (10, 37977), (Start: 12 @37968 has 2 MA's), (23, 37908), (25, 37902), (30, 37881), (39, 37791),

Gene: Kale_60 Start: 40139, Stop: 39780, Start Num: 8

Candidate Starts for Kale_60:

(3, 40208), (Start: 8 @40139 has 152 MA's), (Start: 12 @40109 has 2 MA's), (18, 40088), (26, 40037), (28, 40031), (45, 39893), (60, 39800),

Gene: KannH_60 Start: 40132, Stop: 39773, Start Num: 8

Candidate Starts for KannH_60:

(3, 40201), (Start: 8 @40132 has 152 MA's), (Start: 12 @40102 has 2 MA's), (18, 40081), (26, 40030), (28, 40024), (45, 39886), (60, 39793),

Gene: KatChan_55 Start: 37104, Stop: 36754, Start Num: 8

Candidate Starts for KatChan_55:

(2, 37239), (Start: 8 @37104 has 152 MA's), (Start: 12 @37074 has 2 MA's), (15, 37062), (17, 37056), (30, 36987), (43, 36870),

Gene: Kauala_54 Start: 38352, Stop: 38008, Start Num: 8

Candidate Starts for Kauala_54:

(Start: 8 @38352 has 152 MA's), (Start: 9 @38334 has 2 MA's), (Start: 12 @38322 has 2 MA's), (16, 38307), (19, 38292), (22, 38280), (24, 38259), (30, 38235), (34, 38199), (35, 38166), (47, 38085),

Gene: KingJulien_60 Start: 40190, Stop: 39795, Start Num: 8

Candidate Starts for KingJulien_60:

(1, 40322), (3, 40259), (Start: 8 @40190 has 152 MA's), (11, 40163), (18, 40139), (20, 40127), (21, 40124), (27, 40070), (33, 40025), (38, 39971), (40, 39959), (41, 39956), (57, 39845), (60, 39815),

Gene: Klimt_61 Start: 40155, Stop: 39796, Start Num: 8

Candidate Starts for Klimt_61:

(Start: 8 @40155 has 152 MA's), (Start: 12 @40125 has 2 MA's), (18, 40104), (26, 40053), (28, 40047), (45, 39909), (60, 39816),

Gene: Knox_61 Start: 40379, Stop: 40020, Start Num: 8

Candidate Starts for Knox_61:

(3, 40448), (Start: 8 @40379 has 152 MA's), (Start: 12 @40349 has 2 MA's), (18, 40328), (26, 40277), (28, 40271), (45, 40133), (60, 40040),

Gene: Koji_54 Start: 38381, Stop: 38037, Start Num: 8

Candidate Starts for Koji_54:

(Start: 8 @38381 has 152 MA's), (19, 38321), (22, 38309), (24, 38288), (30, 38264), (34, 38228), (47, 38114), (58, 38054),

Gene: Kurt1_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for Kurt1_61:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: Leafus_60 Start: 40452, Stop: 40057, Start Num: 8

Candidate Starts for Leafus_60:

(1, 40584), (3, 40521), (Start: 8 @40452 has 152 MA's), (11, 40425), (18, 40401), (20, 40389), (21, 40386), (27, 40332), (33, 40287), (38, 40233), (40, 40221), (41, 40218), (57, 40107), (60, 40077),

Gene: Librie_56 Start: 36985, Stop: 36638, Start Num: 8

Candidate Starts for Librie_56:

(Start: 8 @36985 has 152 MA's), (Start: 12 @36955 has 2 MA's), (30, 36868), (39, 36778), (52, 36676),

Gene: LilTerminator_56 Start: 36994, Stop: 36647, Start Num: 8
Candidate Starts for LilTerminator_56:
(Start: 8 @36994 has 152 MA's), (Start: 12 @36964 has 2 MA's), (30, 36877), (39, 36787), (52, 36685),

Gene: Lovelyunicorn_61 Start: 40379, Stop: 40020, Start Num: 8
Candidate Starts for Lovelyunicorn_61:
(Start: 8 @40379 has 152 MA's), (Start: 12 @40349 has 2 MA's), (18, 40328), (26, 40277), (28, 40271),
(45, 40133), (60, 40040),

Gene: Lucky3_56 Start: 38623, Stop: 38285, Start Num: 8
Candidate Starts for Lucky3_56:
(Start: 8 @38623 has 152 MA's), (13, 38590), (19, 38563), (22, 38551), (24, 38530), (30, 38506), (31,
38500), (34, 38470), (47, 38356), (58, 38296),

Gene: Ludgate_61 Start: 40380, Stop: 40021, Start Num: 8
Candidate Starts for Ludgate_61:
(Start: 8 @40380 has 152 MA's), (Start: 12 @40350 has 2 MA's), (18, 40329), (26, 40278), (28, 40272),
(45, 40134), (60, 40041),

Gene: Luna18_56 Start: 37104, Stop: 36754, Start Num: 8
Candidate Starts for Luna18_56:
(2, 37239), (Start: 8 @37104 has 152 MA's), (Start: 12 @37074 has 2 MA's), (15, 37062), (17, 37056),
(30, 36987), (43, 36870),

Gene: MaeLinda_61 Start: 40391, Stop: 40032, Start Num: 8
Candidate Starts for MaeLinda_61:
(Start: 8 @40391 has 152 MA's), (Start: 12 @40361 has 2 MA's), (18, 40340), (26, 40289), (28, 40283),
(45, 40145), (60, 40052),

Gene: ManRay_60 Start: 40137, Stop: 39778, Start Num: 8
Candidate Starts for ManRay_60:
(Start: 8 @40137 has 152 MA's), (Start: 12 @40107 has 2 MA's), (18, 40086), (26, 40035), (28, 40029),
(45, 39891), (60, 39798),

Gene: Mandalorian_57 Start: 38356, Stop: 38015, Start Num: 8
Candidate Starts for Mandalorian_57:
(Start: 8 @38356 has 152 MA's), (16, 38311), (30, 38239), (43, 38122),

Gene: Martin_62 Start: 40393, Stop: 40034, Start Num: 8
Candidate Starts for Martin_62:
(3, 40462), (Start: 8 @40393 has 152 MA's), (Start: 12 @40363 has 2 MA's), (18, 40342), (26, 40291),
(28, 40285), (45, 40147), (60, 40054),

Gene: McGalleon_61 Start: 41108, Stop: 40749, Start Num: 8
Candidate Starts for McGalleon_61:
(1, 41255), (Start: 8 @41108 has 152 MA's), (Start: 9 @41090 has 2 MA's), (11, 41081), (13, 41075),
(25, 41012), (32, 40967), (44, 40877), (45, 40862), (47, 40847), (54, 40802), (60, 40769),

Gene: Mercedes_50 Start: 37148, Stop: 36795, Start Num: 8
Candidate Starts for Mercedes_50:
(6, 37196), (Start: 8 @37148 has 152 MA's), (Start: 12 @37118 has 2 MA's), (24, 37055), (39, 36941),
(46, 36887), (55, 36830),

Gene: MillyPhilly_61 Start: 40381, Stop: 40022, Start Num: 8
Candidate Starts for MillyPhilly_61:
(3, 40450), (Start: 8 @40381 has 152 MA's), (Start: 12 @40351 has 2 MA's), (18, 40330), (26, 40279),
(28, 40273), (45, 40135), (60, 40042),

Gene: MonChoix_59 Start: 40074, Stop: 39703, Start Num: 8
Candidate Starts for MonChoix_59:
(Start: 8 @40074 has 152 MA's), (13, 40041), (26, 39966), (33, 39918), (37, 39870), (42, 39846), (43,
39834), (51, 39765), (56, 39747), (60, 39723),

Gene: Morrigan_56 Start: 36925, Stop: 36575, Start Num: 8
Candidate Starts for Morrigan_56:
(Start: 8 @36925 has 152 MA's), (Start: 12 @36895 has 2 MA's), (30, 36808),

Gene: MrWorldwide_61 Start: 40391, Stop: 40032, Start Num: 8
Candidate Starts for MrWorldwide_61:
(3, 40460), (Start: 8 @40391 has 152 MA's), (Start: 12 @40361 has 2 MA's), (18, 40340), (26, 40289),
(28, 40283), (45, 40145), (60, 40052),

Gene: Nagem_61 Start: 40427, Stop: 40068, Start Num: 8
Candidate Starts for Nagem_61:
(3, 40496), (Start: 8 @40427 has 152 MA's), (Start: 12 @40397 has 2 MA's), (18, 40376), (26, 40325),
(28, 40319), (45, 40181), (60, 40088),

Gene: Nattles_60 Start: 40124, Stop: 39765, Start Num: 8
Candidate Starts for Nattles_60:
(Start: 8 @40124 has 152 MA's), (Start: 12 @40094 has 2 MA's), (18, 40073), (26, 40022), (28, 40016),
(45, 39878), (60, 39785),

Gene: Nebulous_52 Start: 38837, Stop: 38487, Start Num: 8
Candidate Starts for Nebulous_52:
(Start: 8 @38837 has 152 MA's), (Start: 9 @38819 has 2 MA's), (Start: 12 @38807 has 2 MA's), (14,
38801), (30, 38720), (39, 38630), (43, 38603),

Gene: Neferthema_57 Start: 38578, Stop: 38228, Start Num: 8
Candidate Starts for Neferthema_57:
(Start: 8 @38578 has 152 MA's), (Start: 9 @38560 has 2 MA's), (Start: 12 @38548 has 2 MA's), (14,
38542), (30, 38461), (39, 38371), (43, 38344),

Gene: NickSell_61 Start: 40394, Stop: 40035, Start Num: 8
Candidate Starts for NickSell_61:
(3, 40463), (Start: 8 @40394 has 152 MA's), (Start: 12 @40364 has 2 MA's), (18, 40343), (26, 40292),
(28, 40286), (45, 40148), (60, 40055),

Gene: Nucci_57 Start: 38325, Stop: 37984, Start Num: 8
Candidate Starts for Nucci_57:
(Start: 8 @38325 has 152 MA's), (16, 38280), (30, 38208), (43, 38091),

Gene: Oats_60 Start: 40137, Stop: 39778, Start Num: 8
Candidate Starts for Oats_60:
(3, 40206), (Start: 8 @40137 has 152 MA's), (Start: 12 @40107 has 2 MA's), (18, 40086), (26, 40035),
(28, 40029), (45, 39891), (60, 39798),

Gene: OldNelly_61 Start: 40181, Stop: 39822, Start Num: 8

Candidate Starts for OldNelly_61:

(3, 40250), (Start: 8 @40181 has 152 MA's), (Start: 12 @40151 has 2 MA's), (18, 40130), (26, 40079), (28, 40073), (45, 39935), (60, 39842),

Gene: Oxtober96_62 Start: 40379, Stop: 40020, Start Num: 8

Candidate Starts for Oxtober96_62:

(Start: 8 @40379 has 152 MA's), (Start: 12 @40349 has 2 MA's), (18, 40328), (26, 40277), (28, 40271), (45, 40133), (60, 40040),

Gene: Papafritta_60 Start: 40142, Stop: 39783, Start Num: 8

Candidate Starts for Papafritta_60:

(3, 40211), (Start: 8 @40142 has 152 MA's), (Start: 12 @40112 has 2 MA's), (18, 40091), (26, 40040), (28, 40034), (45, 39896), (60, 39803),

Gene: ParleG_61 Start: 40391, Stop: 40032, Start Num: 8

Candidate Starts for ParleG_61:

(3, 40460), (Start: 8 @40391 has 152 MA's), (Start: 12 @40361 has 2 MA's), (18, 40340), (26, 40289), (28, 40283), (45, 40145), (60, 40052),

Gene: Peep_61 Start: 40437, Stop: 40078, Start Num: 8

Candidate Starts for Peep_61:

(Start: 8 @40437 has 152 MA's), (Start: 12 @40407 has 2 MA's), (18, 40386), (26, 40335), (28, 40329), (45, 40191), (60, 40098),

Gene: Peppino_60 Start: 40372, Stop: 39977, Start Num: 8

Candidate Starts for Peppino_60:

(1, 40504), (3, 40441), (Start: 8 @40372 has 152 MA's), (11, 40345), (18, 40321), (20, 40309), (21, 40306), (27, 40252), (33, 40207), (38, 40153), (40, 40141), (41, 40138), (57, 40027), (60, 39997),

Gene: Pherbot_55 Start: 38149, Stop: 37805, Start Num: 8

Candidate Starts for Pherbot_55:

(Start: 8 @38149 has 152 MA's), (19, 38089), (22, 38077), (24, 38056), (30, 38032), (34, 37996), (47, 37882),

Gene: Pherferi_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for Pherferi_61:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: Phiderman_61 Start: 40381, Stop: 40022, Start Num: 8

Candidate Starts for Phiderman_61:

(3, 40450), (Start: 8 @40381 has 152 MA's), (Start: 12 @40351 has 2 MA's), (18, 40330), (26, 40279), (28, 40273), (45, 40135), (60, 40042),

Gene: Phireproof_61 Start: 40390, Stop: 40031, Start Num: 8

Candidate Starts for Phireproof_61:

(3, 40459), (Start: 8 @40390 has 152 MA's), (Start: 12 @40360 has 2 MA's), (18, 40339), (26, 40288), (28, 40282), (45, 40144), (60, 40051),

Gene: PhredFlintston_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for PhredFlintston_61:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: Phriends_60 Start: 40185, Stop: 39826, Start Num: 8

Candidate Starts for Phriends_60:

(3, 40254), (Start: 8 @40185 has 152 MA's), (Start: 12 @40155 has 2 MA's), (18, 40134), (26, 40083), (28, 40077), (45, 39939), (60, 39846),

Gene: Pocket_60 Start: 40164, Stop: 39805, Start Num: 8

Candidate Starts for Pocket_60:

(Start: 8 @40164 has 152 MA's), (Start: 12 @40134 has 2 MA's), (18, 40113), (26, 40062), (28, 40056), (45, 39918), (60, 39825),

Gene: PrincePhergus_55 Start: 38165, Stop: 37821, Start Num: 8

Candidate Starts for PrincePhergus_55:

(Start: 8 @38165 has 152 MA's), (19, 38105), (22, 38093), (24, 38072), (30, 38048), (34, 38012), (47, 37898),

Gene: PuppyEggo_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for PuppyEggo_61:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: QuadZero_56 Start: 37089, Stop: 36742, Start Num: 8

Candidate Starts for QuadZero_56:

(Start: 8 @37089 has 152 MA's), (Start: 12 @37059 has 2 MA's), (30, 36972), (39, 36882), (52, 36780),

Gene: Quartz_58 Start: 38469, Stop: 38128, Start Num: 8

Candidate Starts for Quartz_58:

(Start: 8 @38469 has 152 MA's), (16, 38424), (30, 38352), (43, 38235),

Gene: Raccoon_60 Start: 40316, Stop: 39948, Start Num: 9

Candidate Starts for Raccoon_60:

(3, 40403), (Start: 8 @40334 has 152 MA's), (Start: 9 @40316 has 2 MA's), (18, 40283), (20, 40271), (28, 40220), (33, 40178), (40, 40112), (49, 40034), (57, 39998), (60, 39968),

Gene: Rapheph_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for Rapheph_61:

(Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: Raptor_61 Start: 40382, Stop: 40023, Start Num: 8

Candidate Starts for Raptor_61:

(3, 40451), (Start: 8 @40382 has 152 MA's), (Start: 12 @40352 has 2 MA's), (18, 40331), (26, 40280), (28, 40274), (45, 40136), (60, 40043),

Gene: Redfield_60 Start: 40382, Stop: 39987, Start Num: 8

Candidate Starts for Redfield_60:

(3, 40451), (Start: 8 @40382 has 152 MA's), (11, 40355), (18, 40331), (20, 40319), (27, 40262), (33, 40217), (38, 40163), (40, 40151), (41, 40148), (57, 40037), (60, 40007),

Gene: RenegadeRaider_57 Start: 38086, Stop: 37742, Start Num: 8

Candidate Starts for RenegadeRaider_57:

(Start: 8 @38086 has 152 MA's), (19, 38026), (22, 38014), (24, 37993), (30, 37969), (34, 37933), (47, 37819), (58, 37759),

Gene: Renzie_61 Start: 40440, Stop: 40081, Start Num: 8

Candidate Starts for Renzie_61:

(Start: 8 @40440 has 152 MA's), (Start: 12 @40410 has 2 MA's), (18, 40389), (26, 40338), (28, 40332), (45, 40194), (60, 40101),

Gene: Riyhil_61 Start: 40394, Stop: 40035, Start Num: 8

Candidate Starts for Riyhil_61:

(Start: 8 @40394 has 152 MA's), (Start: 12 @40364 has 2 MA's), (18, 40343), (26, 40292), (28, 40286), (45, 40148), (60, 40055),

Gene: Robinson_61 Start: 40456, Stop: 40097, Start Num: 8

Candidate Starts for Robinson_61:

(3, 40525), (Start: 8 @40456 has 152 MA's), (Start: 12 @40426 has 2 MA's), (18, 40405), (26, 40354), (28, 40348), (45, 40210), (60, 40117),

Gene: Rog141_60 Start: 40127, Stop: 39768, Start Num: 8

Candidate Starts for Rog141_60:

(3, 40196), (Start: 8 @40127 has 152 MA's), (Start: 12 @40097 has 2 MA's), (18, 40076), (26, 40025), (28, 40019), (45, 39881), (60, 39788),

Gene: SJay_61 Start: 40428, Stop: 40069, Start Num: 8

Candidate Starts for SJay_61:

(3, 40497), (Start: 8 @40428 has 152 MA's), (Start: 12 @40398 has 2 MA's), (18, 40377), (26, 40326), (28, 40320), (45, 40182), (60, 40089),

Gene: Schnapsidee_60 Start: 40324, Stop: 39929, Start Num: 8

Candidate Starts for Schnapsidee_60:

(1, 40456), (3, 40393), (Start: 8 @40324 has 152 MA's), (11, 40297), (18, 40273), (20, 40261), (27, 40204), (33, 40159), (38, 40105), (40, 40093), (41, 40090), (57, 39979), (60, 39949),

Gene: Sedgewig_60 Start: 40088, Stop: 39729, Start Num: 8

Candidate Starts for Sedgewig_60:

(Start: 8 @40088 has 152 MA's), (Start: 12 @40058 has 2 MA's), (18, 40037), (26, 39986), (28, 39980), (45, 39842), (60, 39749),

Gene: ShaiHulud_62 Start: 40393, Stop: 40034, Start Num: 8

Candidate Starts for ShaiHulud_62:

(3, 40462), (Start: 8 @40393 has 152 MA's), (Start: 12 @40363 has 2 MA's), (18, 40342), (26, 40291), (28, 40285), (45, 40147), (60, 40054),

Gene: Shee_61 Start: 40381, Stop: 40022, Start Num: 8

Candidate Starts for Shee_61:

(3, 40450), (Start: 8 @40381 has 152 MA's), (Start: 12 @40351 has 2 MA's), (18, 40330), (26, 40279), (28, 40273), (45, 40135), (60, 40042),

Gene: Sinatra_56 Start: 38160, Stop: 37816, Start Num: 8

Candidate Starts for Sinatra_56:

(Start: 8 @38160 has 152 MA's), (19, 38100), (22, 38088), (24, 38067), (30, 38043), (34, 38007), (47, 37893),

Gene: SirVictor_57 Start: 38742, Stop: 38404, Start Num: 8

Candidate Starts for SirVictor_57:

(Start: 8 @38742 has 152 MA's), (13, 38709), (22, 38670), (24, 38649), (30, 38625), (31, 38619), (34, 38589), (39, 38535), (47, 38475), (58, 38415),

Gene: SoilGremlin_61 Start: 40076, Stop: 39819, Start Num: 26

Candidate Starts for SoilGremlin_61:

(3, 40247), (Start: 8 @40178 has 152 MA's), (Start: 12 @40148 has 2 MA's), (18, 40127), (26, 40076), (28, 40070), (45, 39932), (60, 39839),

Gene: SonOfLevi_61 Start: 40155, Stop: 39796, Start Num: 8

Candidate Starts for SonOfLevi_61:

(Start: 8 @40155 has 152 MA's), (Start: 12 @40125 has 2 MA's), (18, 40104), (26, 40053), (28, 40047), (45, 39909), (60, 39816),

Gene: Stanktossa_60 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for Stanktossa_60:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: StingRay_60 Start: 40178, Stop: 39819, Start Num: 8

Candidate Starts for StingRay_60:

(3, 40247), (Start: 8 @40178 has 152 MA's), (Start: 12 @40148 has 2 MA's), (18, 40127), (26, 40076), (28, 40070), (45, 39932), (60, 39839),

Gene: StirfryIV_60 Start: 40100, Stop: 39741, Start Num: 8

Candidate Starts for StirfryIV_60:

(3, 40169), (Start: 8 @40100 has 152 MA's), (Start: 12 @40070 has 2 MA's), (18, 40049), (26, 39998), (28, 39992), (45, 39854), (60, 39761),

Gene: Stormbreaker8_59 Start: 40191, Stop: 39796, Start Num: 8

Candidate Starts for Stormbreaker8_59:

(1, 40323), (3, 40260), (Start: 8 @40191 has 152 MA's), (11, 40164), (18, 40140), (20, 40128), (21, 40125), (27, 40071), (33, 40026), (38, 39972), (40, 39960), (41, 39957), (57, 39846), (60, 39816),

Gene: Strathdee_61 Start: 40383, Stop: 40024, Start Num: 8

Candidate Starts for Strathdee_61:

(Start: 8 @40383 has 152 MA's), (Start: 12 @40353 has 2 MA's), (18, 40332), (26, 40281), (28, 40275), (45, 40137), (60, 40044),

Gene: Superfresh_61 Start: 40440, Stop: 40081, Start Num: 8

Candidate Starts for Superfresh_61:

(Start: 8 @40440 has 152 MA's), (Start: 12 @40410 has 2 MA's), (18, 40389), (26, 40338), (28, 40332), (45, 40194), (60, 40101),

Gene: Symere_62 Start: 40098, Stop: 39739, Start Num: 8

Candidate Starts for Symere_62:

(Start: 8 @40098 has 152 MA's), (Start: 12 @40068 has 2 MA's), (18, 40047), (26, 39996), (28, 39990), (45, 39852), (60, 39759),

Gene: TatarkaPM_61 Start: 40394, Stop: 40035, Start Num: 8

Candidate Starts for TatarkaPM_61:

(3, 40463), (Start: 8 @40394 has 152 MA's), (Start: 12 @40364 has 2 MA's), (18, 40343), (26, 40292), (28, 40286), (45, 40148), (60, 40055),

Gene: Teagan_61 Start: 40374, Stop: 40015, Start Num: 8

Candidate Starts for Teagan_61:

(3, 40443), (Start: 8 @40374 has 152 MA's), (Start: 12 @40344 has 2 MA's), (18, 40323), (26, 40272), (28, 40266), (45, 40128), (60, 40035),

Gene: TeddyBear_60 Start: 40137, Stop: 39778, Start Num: 8

Candidate Starts for TeddyBear_60:

(3, 40206), (Start: 8 @40137 has 152 MA's), (Start: 12 @40107 has 2 MA's), (18, 40086), (26, 40035), (28, 40029), (45, 39891), (60, 39798),

Gene: Tenda_60 Start: 40135, Stop: 39776, Start Num: 8

Candidate Starts for Tenda_60:

(3, 40204), (Start: 8 @40135 has 152 MA's), (Start: 12 @40105 has 2 MA's), (18, 40084), (26, 40033), (28, 40027), (45, 39889), (60, 39796),

Gene: Thompsone_61 Start: 40381, Stop: 40022, Start Num: 8

Candidate Starts for Thompsone_61:

(Start: 8 @40381 has 152 MA's), (Start: 12 @40351 has 2 MA's), (18, 40330), (26, 40279), (28, 40273), (45, 40135), (60, 40042),

Gene: Thorongil_61 Start: 39898, Stop: 39539, Start Num: 8

Candidate Starts for Thorongil_61:

(3, 39967), (Start: 8 @39898 has 152 MA's), (Start: 12 @39868 has 2 MA's), (18, 39847), (26, 39796), (28, 39790), (45, 39652), (60, 39559),

Gene: TinSulphur_62 Start: 40390, Stop: 40031, Start Num: 8

Candidate Starts for TinSulphur_62:

(3, 40459), (Start: 8 @40390 has 152 MA's), (Start: 12 @40360 has 2 MA's), (18, 40339), (26, 40288), (28, 40282), (45, 40144), (60, 40051),

Gene: Velene_61 Start: 40380, Stop: 40021, Start Num: 8

Candidate Starts for Velene_61:

(3, 40449), (Start: 8 @40380 has 152 MA's), (Start: 12 @40350 has 2 MA's), (18, 40329), (26, 40278), (28, 40272), (45, 40134), (60, 40041),

Gene: Vispitious_61 Start: 40384, Stop: 40025, Start Num: 8

Candidate Starts for Vispitious_61:

(3, 40453), (Start: 8 @40384 has 152 MA's), (Start: 12 @40354 has 2 MA's), (18, 40333), (26, 40282), (28, 40276), (45, 40138), (60, 40045),

Gene: Wardwill_57 Start: 37127, Stop: 36780, Start Num: 8

Candidate Starts for Wardwill_57:

(Start: 8 @37127 has 152 MA's), (Start: 12 @37097 has 2 MA's), (30, 37010), (39, 36920), (52, 36818),

Gene: WildNOut_61 Start: 40377, Stop: 40018, Start Num: 8

Candidate Starts for WildNOut_61:

(Start: 8 @40377 has 152 MA's), (Start: 12 @40347 has 2 MA's), (18, 40326), (26, 40275), (28, 40269), (45, 40131), (60, 40038),

Gene: WilliamStrong_55 Start: 37542, Stop: 37192, Start Num: 8

Candidate Starts for WilliamStrong_55:

(Start: 8 @37542 has 152 MA's), (Start: 12 @37512 has 2 MA's), (17, 37494), (30, 37425),

Gene: Winzigespinne_60 Start: 40123, Stop: 39764, Start Num: 8

Candidate Starts for Winzigespinne_60:

(3, 40192), (Start: 8 @40123 has 152 MA's), (Start: 12 @40093 has 2 MA's), (18, 40072), (26, 40021), (28, 40015), (45, 39877), (60, 39784),

Gene: YuuY_58 Start: 38898, Stop: 38551, Start Num: 8

Candidate Starts for YuuY_58:

(Start: 8 @38898 has 152 MA's), (29, 38787), (36, 38706), (39, 38691),

Gene: Zada_62 Start: 40396, Stop: 40037, Start Num: 8

Candidate Starts for Zada_62:

(3, 40465), (Start: 8 @40396 has 152 MA's), (Start: 12 @40366 has 2 MA's), (18, 40345), (26, 40294), (28, 40288), (45, 40150), (60, 40057),

Gene: Zayuliv_56 Start: 37658, Stop: 37311, Start Num: 8

Candidate Starts for Zayuliv_56:

(Start: 8 @37658 has 152 MA's), (Start: 12 @37628 has 2 MA's), (30, 37541), (39, 37451), (52, 37349),

Gene: Zepp_56 Start: 37045, Stop: 36698, Start Num: 8

Candidate Starts for Zepp_56:

(Start: 8 @37045 has 152 MA's), (Start: 12 @37015 has 2 MA's), (30, 36928), (39, 36838), (52, 36736),