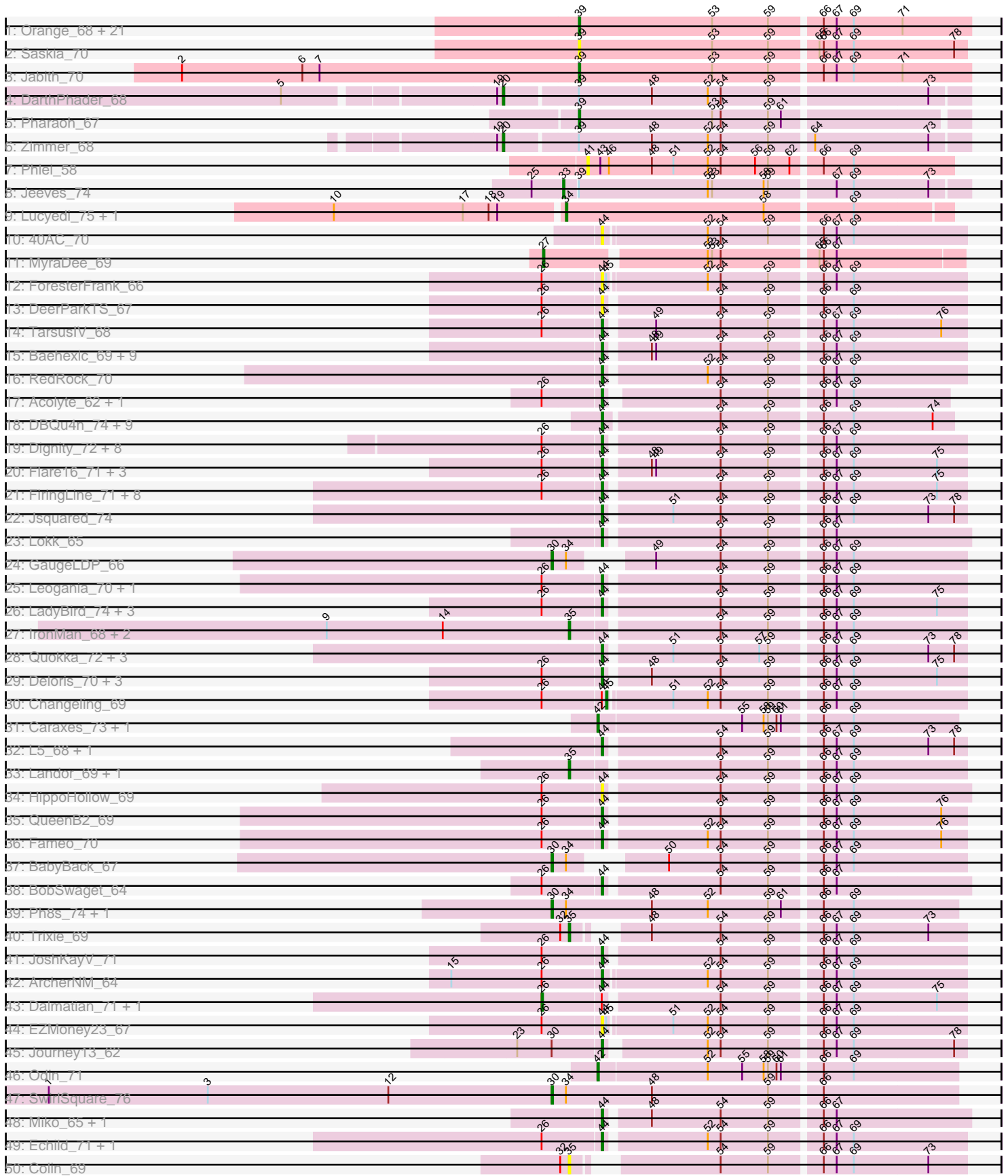
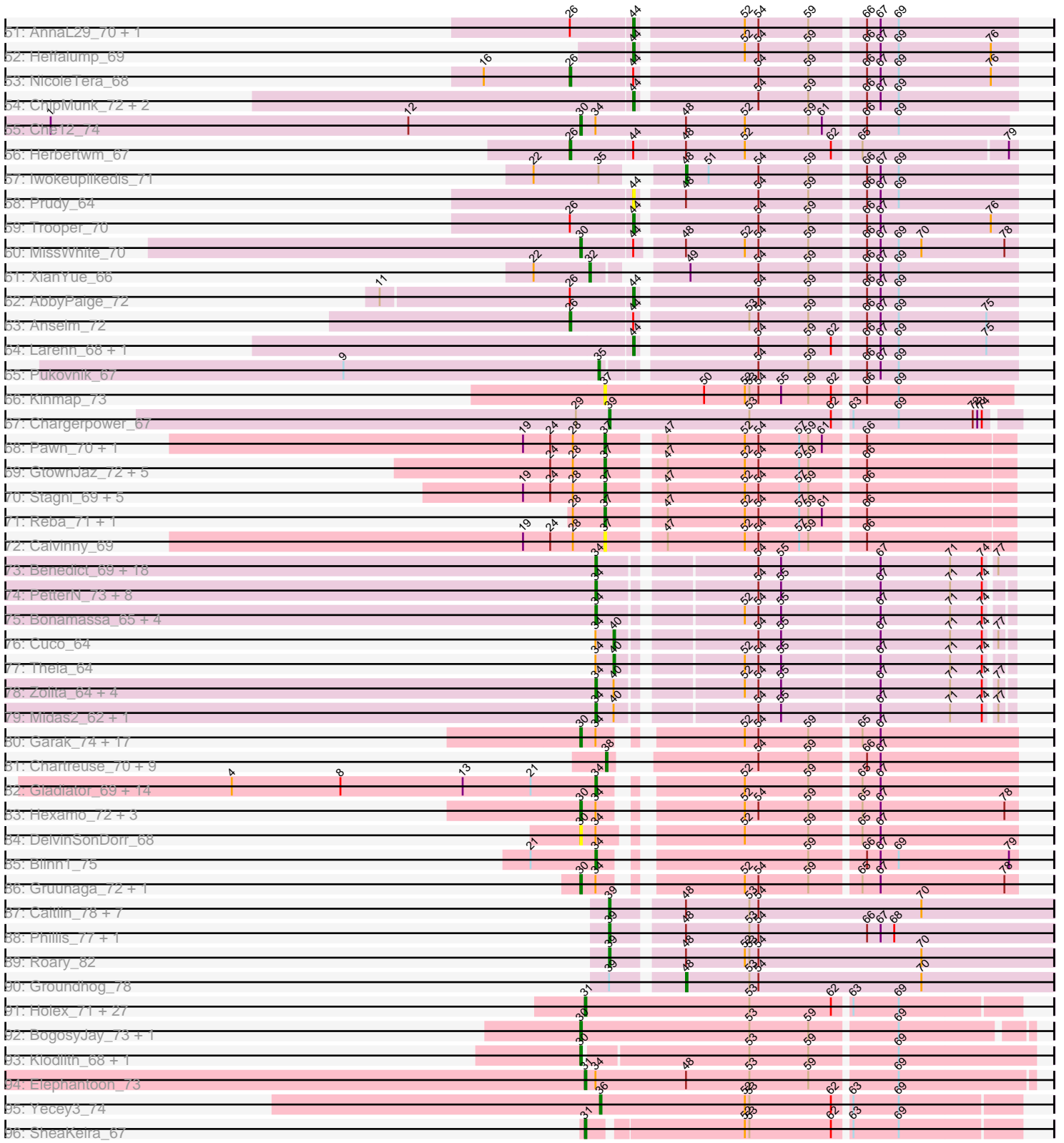


Pham 294373



Pham 294373



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 294373 Report

This analysis was run 04/18/26 on database version 643.

Pham number 294373 has 307 members, 46 are drafts.

Phages represented in each track:

- Track 1 : Orange_68, Bachome_71, Bowtie_70, Munch_69, Snape_69, Gilberta_70, Et2Brutus_68, Mabel_69, MaCh_69, Sham4_69, Bud_68, Salz_68, Hutc2_68, Flaverint_70, Timothy_69, Fibonacci_69, Wolpertinger_67, Mulciber_68, Lucivia_70, Petersenfast_67, Ebony_69, Aneem_70
- Track 2 : Saskia_70
- Track 3 : Jabith_70
- Track 4 : DarthPhader_68
- Track 5 : Pharaoh_67
- Track 6 : Zimmer_68
- Track 7 : Phlei_58
- Track 8 : Jeeves_74
- Track 9 : Lucyedi_75, EagleEye_76
- Track 10 : 40AC_70
- Track 11 : MyraDee_69
- Track 12 : ForesterFrank_66
- Track 13 : DeerParkTS_67
- Track 14 : TarsusIV_68
- Track 15 : Baehexic_69, Centaur_71, Gratitude_68, Terrific_71, Piro94_70, WideWale_71, Updawg_71, HarryHoudini_71, Equemioh13_70, Drake55_72
- Track 16 : RedRock_70
- Track 17 : Acolyte_62, BiancaTri92_70
- Track 18 : DBQu4n_74, D29_68, Pomar16_73, D32_73, Travvers_73, Duplo_74, Tomathan_74, StarStuff_74, Naji_74, Kerberos_74
- Track 19 : Dignity_72, Agape74_72, Jerm_72, Leviathan_72, LilTurb_71, Smeagan_73, Turbido_71, Whabigail7_71, Buggy_72
- Track 20 : Flare16_71, NaSiaTalie_71, Sknot_71, MiculUcigas_71
- Track 21 : FiringLine_71, Crucio_71, Power_70, SemperFi_71, SweetiePie_70, QueenBeesly_71, Georgie2_72, Retro23_71, SnapTap_70
- Track 22 : Jsquared_74
- Track 23 : Lokk_65
- Track 24 : GaugeLDP_66
- Track 25 : Leogania_70, LionsBait_71
- Track 26 : LadyBird_74, CRB1_72, First_0071, 20ES_72
- Track 27 : IronMan_68, Phaded_66, Jaan_69
- Track 28 : Quokka_72, Bradman_73, TipsytheTRex_70, MajorMajor_72
- Track 29 : Deloris_70, VA6_70, BengiVuitton_70, AN3_72
- Track 30 : Changeling_69

- Track 31 : Caraxes_73, Superchunk_72
- Track 32 : L5_68, Koduck_73
- Track 33 : Landor_69, Tristan_67
- Track 34 : HippoHollow_69
- Track 35 : QueenB2_69
- Track 36 : Fameo_70
- Track 37 : BabyBack_67
- Track 38 : BobSwaget_64
- Track 39 : Ph8s_74, Adzzy_74
- Track 40 : Trixie_69
- Track 41 : JoshKayV_71
- Track 42 : ArcherNM_64
- Track 43 : Dalmatian_71, DudeLittle_69
- Track 44 : EZMoney23_67
- Track 45 : Journey13_62
- Track 46 : Odin_71
- Track 47 : SwirlSquare_76
- Track 48 : Miko_65, Rachaly_67
- Track 49 : Echild_71, Benvolio_68
- Track 50 : Colin_69
- Track 51 : AnnaL29_70, Loser_72
- Track 52 : Heffalump_69
- Track 53 : NicoleTera_68
- Track 54 : ChipMunk_72, KingCyrus_71, EvilGenius_71
- Track 55 : Che12_74
- Track 56 : Herbertwm_67
- Track 57 : Iwokeuplikedis_71
- Track 58 : Prudy_64
- Track 59 : Trooper_70
- Track 60 : MissWhite_70
- Track 61 : XianYue_66
- Track 62 : AbbyPaige_72
- Track 63 : Anselm_72
- Track 64 : Larenn_68, Malec_69
- Track 65 : Pukovnik_67
- Track 66 : Kinmap_73
- Track 67 : Chargerpower_67
- Track 68 : Pawn_70, ClownCar_69
- Track 69 : GtownJaz_72, Grif_70, Snickers_72, Montavir_67, LarryKay_72, Croquant_69
- Track 70 : Stagni_69, HashRod_73, Bxz2_67, Lova_69, Bigflo_69, Phoebe_73
- Track 71 : Reba_71, Phranny_72
- Track 72 : Calvinny_69
- Track 73 : Benedict_69, Aragog_65, Phlorence_64, ElTiger69_71, ForGetIt_66, Jabiru_67, Airmid_68, Jovo_66, Florence4_64, Naca_68, PickleBack_66, Tiger_65, AgentM_65, UnionJack_69, Discoknowium_63, Tarynearl_64, Conspiracy_66, Florence1_62, Lev2_66
- Track 74 : PetterN_73, HuhtaEnerson15_63, Swirley_65, Prinasha11_63, George_62, Scorpia_69, LittleCherry_64, Milcery_65, Chadwick_69
- Track 75 : Bonamassa_65, Micasa_65, MarysWell_65, Twigg_62, Dublin_65
- Track 76 : Cuco_64
- Track 77 : Theia_64
- Track 78 : Zolita_64, Ghoulboy_65, Archetta_63, SydNat_65, Bluefalcon_61

- Track 79 : Midas2_62, Coog_62
- Track 80 : Garak_74, Rifter_73, Temprado_74, Zaka_73, Tucker_73, Jeffabunny_73, BennyP_72, ToneTone_70, Hammer_73, Blue7_74, Yokurt_72, WunderPhul_73, Zulu_74, Lilbunny_72, BlessJoy_73, Helmet_75, Wiks_72, Indra_76
- Track 81 : Chartreuse_70, SmellyB_71, Hoot_66, Candra_69, GreedyLawyer_68, Kazan_72, EricB_70, DaVinci_69, Kipper29_71, VohminGhazi_71
- Track 82 : Gladiator_69, BABullseye_64, Cookiedough_71, McFly_71, Isiphiwo_69, Polyphemus_73, Neeharika16_70, Priamo_73, SuperCallie99_68, Newrala_71, Dorothea_71, Pmask_70, SuperAwesome_71, JewelBug_71, Jordennis_70
- Track 83 : Hexamo_72, Koko_74, Artemis2UCLA_72, CloudWang3_73
- Track 84 : DelvinSonDorr_68
- Track 85 : Blinn1_75
- Track 86 : Gruunaga_72, Roksolana_73
- Track 87 : Caitlin_78, Saintus_76, Expelliarmus_77, Stephig9_79, Astro_80, Dixon_79, Danforth_81, Smeadley_80
- Track 88 : Phillis_77, NearlyHeadless_81
- Track 89 : Roary_82
- Track 90 : Groundhog_78
- Track 91 : Holes_71, Conquerage_71, Alma_71, Fayely_71, Phonnegut_73, Myxus_73, Sachima_69, EmyBug_70, Spouty_71, Tubs_73, Aliter_74, ExplosioNervosa_71, Priya_71, Ayanochan_71, Qobbit_71, HortumSL17_74, Scherzo_72, PackMan_72, Jiawan_70, Catalina_75, Ugenie5_68, Beemo_73, Phaeder_73, Hanray_71, Eidsmoe_71, RyeScarlet_74, Lilleskat_70, Pioneer_73
- Track 92 : BogosyJay_73, Maminiaina_73
- Track 93 : Klodlith_68, Charm_67
- Track 94 : Elephantoon_73
- Track 95 : Yecey3_74
- Track 96 : SheaKeira_67

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

The start number called the most often in the published annotations is 44, it was called in 74 of the 261 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES_72, 40AC_70, AN3_72, AbbyPaige_72, Acolyte_62, Agape74_72, AnnaL29_70, ArcherNM_64, Baehexic_69, BengiVuitton_70, Benvolio_68, BiancaTri92_70, BobSwaget_64, Bradman_73, Buggy_72, CRB1_72, Centaur_71, ChipMunk_72, Crucio_71, D29_68, D32_73, DBQu4n_74, DeerParkTS_67, Deloris_70, Dignity_72, Drake55_72, Duplo_74, EZMoney23_67, Echild_71, Equemioh13_70, EvilGenius_71, Fameo_70, FiringLine_71, First_0071, Flare16_71, ForesterFrank_66, Georgie2_72, Gratitude_68, HarryHoudini_71, Heffalump_69, HippoHollow_69, Jerm_72, JoshKayV_71, Journey13_62, Jsquared_74, Kerberos_74, KingCyrus_71, Koduck_73, L5_68, LadyBird_74, Larenn_68, Leogania_70, Leviathan_72, LiTurb_71, LionsBait_71, Lokk_65, Loser_72, MajorMajor_72, Malec_69, MiculUcigas_71, Miko_65, NaSiaTalie_71, Naji_74, Piro94_70, Pomar16_73, Power_70, Prudy_64, QueenB2_69, QueenBeesly_71, Quokka_72, Rachaly_67, RedRock_70, Retro23_71, SemperFi_71, Sknot_71, Smeagan_73, SnapTap_70, StarStuff_74, SweetiePie_70, TarsusIV_68, Terrific_71, TipsytheTRex_70, Tomathan_74, Travvers_73, Trooper_70, Turbido_71,

Updawg_71, VA6_70, Whabigail7_71, WideWale_71,

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

- Anselm_72, Changeling_69, Dalmatian_71, DudeLittle_69, Herbertwm_67, MissWhite_70, NicoleTera_68,

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

- Adzzy_74, AgentM_65, Airmid_68, Aliter_74, Alma_71, Aneem_70, Aragog_65, Archetta_63, Artemis2UCLA_72, Astro_80, Ayanochan_71, BABullseye_64, BabyBack_67, Bachome_71, Beemo_73, Benedict_69, BennyP_72, Bigflo_69, BlessJoy_73, Blinn1_75, Blue7_74, Bluefalcon_61, BogosyJay_73, Bonamassa_65, Bowtie_70, Bud_68, Bxz2_67, Caitlin_78, Calvinny_69, Candra_69, Caraxes_73, Catalina_75, Chadwick_69, Chargerpower_67, Charm_67, Chartreuse_70, Che12_74, CloudWang3_73, ClownCar_69, Colin_69, Conquerage_71, Conspiracy_66, Coog_62, Cookiedough_71, Croquant_69, Cuco_64, DaVinci_69, Danforth_81, DarthPhader_68, DelvinSonDorr_68, Discoknowium_63, Dixon_79, Dorothea_71, Dublin_65, EagleEye_76, Ebony_69, Eidsmoe_71, EITiger69_71, Elephantoon_73, EmyBug_70, EricB_70, Et2Brutus_68, Expelliarmus_77, ExplosioNervosa_71, Fayely_71, Fibonacci_69, Flaverint_70, Florence1_62, Florence4_64, ForGetIt_66, Garak_74, GaugeLDP_66, George_62, Ghoulyboy_65, Gilberta_70, Gladiator_69, GreedyLawyer_68, Grif_70, Groundhog_78, Gruunaga_72, GtownJaz_72, Hammer_73, Hanray_71, HashRod_73, Helmet_75, Hexamo_72, Horex_71, Hoot_66, HortumSL17_74, HuhtaEnerson15_63, Hutc2_68, Indra_76, IronMan_68, Isiphiwo_69, Iwokeuplikedis_71, Jaan_69, Jabiru_67, Jabith_70, Jeeves_74, Jeffabunny_73, JewelBug_71, Jiawan_70, Jordennis_70, Jovo_66, Kazan_72, Kinmap_73, Kipper29_71, Klodlith_68, Koko_74, Landor_69, LarryKay_72, Lev2_66, Lilbunny_72, Lilleskat_70, LittleCherry_64, Lowa_69, Lucivia_70, Lucyedi_75, MaCh_69, Mabel_69, Maminiaina_73, MarysWell_65, McFly_71, Micasa_65, Midas2_62, Milcery_65, Montavir_67, Mulciber_68, Munch_69, MyraDee_69, Myxus_73, Naca_68, NearlyHeadless_81, Neeharika16_70, Newrala_71, Odin_71, Orange_68, PackMan_72, Pawn_70, Petersenfast_67, PetterN_73, Ph8s_74, Phaded_66, Phaeder_73, Pharaoh_67, Phillis_77, Phlei_58, Phlorence_64, Phoebe_73, Phonnegut_73, Phranny_72, PickleBack_66, Pioneer_73, Pmask_70, Polyphemus_73, Priamo_73, Prinash11_63, Priya_71, Pukovnik_67, Qobbit_71, Reba_71, Rifter_73, Roary_82, Roksolana_73, RyeScarlet_74, Sachima_69, Saintus_76, Salz_68, Saskia_70, Scherzo_72, Scorpia_69, Sham4_69, SheaKeira_67, Smeadley_80, SmellyB_71, Snape_69, Snickers_72, Spouty_71, Stagni_69, Stephig9_79, SuperAwesome_71, SuperCallie99_68, Superchunk_72, SwirlSquare_76, Swirley_65, SydNat_65, Tarynearal_64, Temprado_74, Theia_64, Tiger_65, Timothy_69, ToneTone_70, Tristan_67, Trixie_69, Tubs_73, Tucker_73, Twigg_62, Ugenie5_68, UnionJack_69, VohminGhazi_71, Wiks_72, Wolpertinger_67, WunderPhul_73, XianYue_66, Yecey3_74, Yokurt_72, Zaka_73, Zimmer_68, Zolita_64, Zulu_74,

Summary by start number:

Start 20:

- Found in 2 of 307 (0.7%) of genes in pham
- Manual Annotations of this start: 2 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: DarthPhader_68 (A12), Zimmer_68 (A12),

Start 26:

- Found in 56 of 307 (18.2%) of genes in pham
- Manual Annotations of this start: 5 of 261
- Called 8.9% of time when present
- Phage (with cluster) where this start called: Anselm_72 (A2), Dalmatian_71 (A2), DudeLittle_69 (A2), Herbertwm_67 (A2), NicoleTera_68 (A2),

Start 27:

- Found in 1 of 307 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: MyraDee_69 (A18),

Start 30:

- Found in 37 of 307 (12.1%) of genes in pham
- Manual Annotations of this start: 32 of 261
- Called 97.3% of time when present
- Phage (with cluster) where this start called: Adzzy_74 (A2), Artemis2UCLA_72 (A6), BabyBack_67 (A2), BennyP_72 (A6), BlessJoy_73 (A6), Blue7_74 (A6), BogosyJay_73 (A9), Charm_67 (A9), Che12_74 (A2), CloudWang3_73 (A6), DelvinSonDorr_68 (A6), Garak_74 (A6), GaugeLDP_66 (A2), Gruunaga_72 (A6), Hammer_73 (A6), Helmet_75 (A6), Hexamo_72 (A6), Indra_76 (A6), Jeffabunny_73 (A6), Klodlith_68 (A9), Koko_74 (A6), Lilbunny_72 (A6), Maminaiaina_73 (A9), MissWhite_70 (A2), Ph8s_74 (A2), Rifter_73 (A6), Roksolana_73 (A6), SwirlSquare_76 (A2), Temprado_74 (A6), ToneTone_70 (A6), Tucker_73 (A6), Wiks_72 (A6), WunderPhul_73 (A6), Yokurt_72 (A6), Zaka_73 (A6), Zulu_74 (A6),

Start 31:

- Found in 30 of 307 (9.8%) of genes in pham
- Manual Annotations of this start: 23 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aliter_74 (A9), Alma_71 (A9), Ayanochan_71 (A9), Beemo_73 (A9), Catalina_75 (A9), Conquerage_71 (A9), Eidsmoe_71 (A9), Elephantoon_73 (A9), EmyBug_70 (A9), ExplosioNervosa_71 (A9), Fayely_71 (A9), Hanray_71 (A9), Horex_71 (A9), HortumSL17_74 (A9), Jiawan_70 (A9), Lilleskat_70 (A9), Myxus_73 (A9), PackMan_72 (A9), Phaeder_73 (A9), Phonnegut_73 (A9), Pioneer_73 (A9), Priya_71 (A9), Qobbit_71 (A9), RyeScarlet_74 (A9), Sachima_69 (A9), Scherzo_72 (A9), SheaKeira_67 (A9), Spouty_71 (A9), Tubs_73 (A9), Ugenie5_68 (A9),

Start 32:

- Found in 3 of 307 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 33.3% of time when present
- Phage (with cluster) where this start called: XianYue_66 (A2),

Start 33:

- Found in 1 of 307 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Jeeves_74 (A14),

Start 34:

- Found in 92 of 307 (30.0%) of genes in pham
- Manual Annotations of this start: 54 of 261
- Called 63.0% of time when present
- Phage (with cluster) where this start called: AgentM_65 (A5), Airmid_68 (A5), Aragog_65 (A5), Archetta_63 (A5), BABullseye_64 (A6), Benedict_69 (A5), Blinn1_75 (A6), Bluefalcon_61 (A5), Bonamassa_65 (A5), Chadwick_69 (A5), Conspiracy_66 (A5), Coog_62 (A5), Cookiedough_71 (A6), Discoknowium_63 (A5), Dorothea_71 (A6), Dublin_65 (A5), EagleEye_76 (A16), EITiger69_71 (A5), Florence1_62 (A5), Florence4_64 (A5), ForGetIt_66 (A5), George_62 (A5), Ghoulboy_65 (A5), Gladiator_69 (A6), HuhtaEnerson15_63 (A5), Isiphiwo_69 (A6), Jabiru_67 (A5), JewelBug_71 (A6), Jordennis_70 (A6), Jovo_66 (A5), Lev2_66 (A5), LittleCherry_64 (A5), Lucyedi_75 (A16), MarysWell_65 (A5), McFly_71 (A6), Micasa_65 (A5), Midas2_62 (A5), Milcery_65 (A5), Naca_68 (A5), Neeharika16_70 (A6), Newrala_71 (A6), PetterN_73 (A5), Phlorence_64 (A5), PickleBack_66 (A5), Pmask_70 (A6), Polyphemos_73 (A6), Priamo_73 (A6), Prinash11_63 (A5), Scorpia_69 (A5), SuperAwesome_71 (A6), SuperCallie99_68 (A6), Swirley_65 (A5), SydNat_65 (A5), Tarynearal_64 (A5), Tiger_65 (A5), Twigg_62 (A5), UnionJack_69 (A5), Zolita_64 (A5),

Start 35:

- Found in 9 of 307 (2.9%) of genes in pham
- Manual Annotations of this start: 7 of 261
- Called 88.9% of time when present
- Phage (with cluster) where this start called: Colin_69 (A2), IronMan_68 (A2), Jaan_69 (A2), Landor_69 (A2), Phaded_66 (A2), Pukovnik_67 (A2), Tristan_67 (A2), Trixie_69 (A2),

Start 36:

- Found in 1 of 307 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Yecey3_74 (A9),

Start 37:

- Found in 18 of 307 (5.9%) of genes in pham
- Manual Annotations of this start: 11 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Bigflo_69 (A3), Bxz2_67 (A3), Calvinny_69 (A3), ClownCar_69 (A3), Croquant_69 (A3), Grif_70 (A3), GtownJaz_72 (A3), HashRod_73 (A3), Kinmap_73 (A21), LarryKay_72 (A3), Lowa_69 (A3), Montavir_67 (A3), Pawn_70 (A3), Phoebe_73 (A3), Phranny_72 (A3), Reba_71 (A3), Snickers_72 (A3), Stagni_69 (A3),

Start 38:

- Found in 10 of 307 (3.3%) of genes in pham
- Manual Annotations of this start: 9 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Candra_69 (A6), Chartreuse_70 (A6), DaVinci_69 (A6), EricB_70 (A6), GreedyLawyer_68 (A6), Hoot_66 (A6), Kazan_72 (A6), Kipper29_71 (A6), SmellyB_71 (A6), VohminGhazi_71 (A6),

Start 39:

- Found in 41 of 307 (13.4%) of genes in pham

- Manual Annotations of this start: 33 of 261
- Called 90.2% of time when present
- Phage (with cluster) where this start called: Aneem_70 (A11), Astro_80 (A8), Bachome_71 (A11), Bowtie_70 (A11), Bud_68 (A11), Caitlin_78 (A8), Chargerpower_67 (A22), Danforth_81 (A8), Dixon_79 (A8), Ebony_69 (A11), Et2Brutus_68 (A11), Expelliarmus_77 (A8), Fibonacci_69 (A11), Flaverint_70 (A11), Gilberta_70 (A11), Hutc2_68 (A11), Jabith_70 (A11), Lucivia_70 (A11), MaCh_69 (A11), Mabel_69 (A11), Mulciber_68 (A11), Munch_69 (A11), NearlyHeadless_81 (A8), Orange_68 (A11), Petersenfast_67 (A11), Pharaoh_67 (A12), Phillis_77 (A8), Roary_82 (A8), Saintus_76 (A8), Salz_68 (A11), Saskia_70 (A11), Sham4_69 (A11), Smeadley_80 (A8), Snape_69 (A11), Stephig9_79 (A8), Timothy_69 (A11), Wolpertinger_67 (A11),

Start 40:

- Found in 9 of 307 (2.9%) of genes in pham
- Manual Annotations of this start: 2 of 261
- Called 22.2% of time when present
- Phage (with cluster) where this start called: Cuco_64 (A5), Theia_64 (A5),

Start 41:

- Found in 1 of 307 (0.3%) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Phlei_58 (A13),

Start 42:

- Found in 3 of 307 (1.0%) of genes in pham
- Manual Annotations of this start: 2 of 261
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Caraxes_73 (A2), Odin_71 (A2), Superchunk_72 (A2),

Start 44:

- Found in 97 of 307 (31.6%) of genes in pham
- Manual Annotations of this start: 74 of 261
- Called 92.8% of time when present
- Phage (with cluster) where this start called: 20ES_72 (A2), 40AC_70 (A17), AN3_72 (A2), AbbyPaige_72 (A2), Acolyte_62 (A2), Agape74_72 (A2), AnnaL29_70 (A2), ArcherNM_64 (A2), Baehexic_69 (A2), BengiVuitton_70 (A2), Benvolio_68 (A2), BiancaTri92_70 (A2), BobSwaget_64 (A2), Bradman_73 (A2), Buggy_72 (A2), CRB1_72 (A2), Centaur_71 (A2), ChipMunk_72 (A2), Crucio_71 (A2), D29_68 (A2), D32_73 (A2), DBQu4n_74 (A2), DeerParkTS_67 (A2), Deloris_70 (A2), Dignity_72 (A2), Drake55_72 (A2), Duplo_74 (A2), EZMoney23_67 (A2), Echild_71 (A2), Equemioh13_70 (A2), EvilGenius_71 (A2), Fameo_70 (A2), FiringLine_71 (A2), First_0071 (A2), Flare16_71 (A2), ForesterFrank_66 (A2), Georgie2_72 (A2), Gratitude_68 (A2), HarryHoudini_71 (A2), Heffalump_69 (A2), HippoHollow_69 (A2), Jerm_72 (A2), JoshKayV_71 (A2), Journey13_62 (A2), Jsquared_74 (A2), Kerberos_74 (A2), KingCyrus_71 (A2), Koduck_73 (A2), L5_68 (A2), LadyBird_74 (A2), Larenn_68 (A2), Leogania_70 (A2), Leviathan_72 (A2), LiITurb_71 (A2), LionsBait_71 (A2), Lokk_65 (A2), Loser_72 (A2), MajorMajor_72 (A2), Malec_69 (A2), MiculUcigas_71 (A2), Miko_65 (A2), NaSiaTalie_71 (A2), Naji_74 (A2), Piro94_70 (A2), Pomar16_73 (A2), Power_70 (A2), Prudy_64 (A2), QueenB2_69 (A2), QueenBeesly_71 (A2), Quokka_72 (A2), Rachaly_67 (A2), RedRock_70 (A2),

Retro23_71 (A2), SemperFi_71 (A2), Sknot_71 (A2), Smeagan_73 (A2), SnapTap_70 (A2), StarStuff_74 (A2), SweetiePie_70 (A2), TarsusIV_68 (A2), Terrific_71 (A2), TipsytheTRex_70 (A2), Tomathan_74 (A2), Travvers_73 (A2), Trooper_70 (A2), Turbido_71 (A2), Updawg_71 (A2), VA6_70 (A2), Whabigail7_71 (A2), WideWale_71 (A2),

Start 45:

- Found in 3 of 307 (1.0%) of genes in pham
- Manual Annotations of this start: 1 of 261
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Changeling_69 (A2),

Start 48:

- Found in 45 of 307 (14.7%) of genes in pham
- Manual Annotations of this start: 2 of 261
- Called 4.4% of time when present
- Phage (with cluster) where this start called: Groundhog_78 (A8), Iwokeuplikedis_71 (A2),

Summary by clusters:

There are 15 clusters represented in this pham: A14, A22, A16, A11, A13, A12, A18, A17, A21, A3, A2, A5, A6, A9, A8,

Info for manual annotations of cluster A11:

- Start number 39 was manually annotated 21 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 20 was manually annotated 2 times for cluster A12.
- Start number 39 was manually annotated 1 time for cluster A12.

Info for manual annotations of cluster A14:

- Start number 33 was manually annotated 1 time for cluster A14.

Info for manual annotations of cluster A16:

- Start number 34 was manually annotated 2 times for cluster A16.

Info for manual annotations of cluster A18:

- Start number 27 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:

- Start number 26 was manually annotated 5 times for cluster A2.
- Start number 30 was manually annotated 7 times for cluster A2.
- Start number 32 was manually annotated 1 time for cluster A2.
- Start number 35 was manually annotated 7 times for cluster A2.
- Start number 42 was manually annotated 2 times for cluster A2.
- Start number 44 was manually annotated 74 times for cluster A2.
- Start number 45 was manually annotated 1 time for cluster A2.
- Start number 48 was manually annotated 1 time for cluster A2.

Info for manual annotations of cluster A22:

- Start number 39 was manually annotated 1 time for cluster A22.

Info for manual annotations of cluster A3:

- Start number 37 was manually annotated 11 times for cluster A3.

Info for manual annotations of cluster A5:

- Start number 34 was manually annotated 36 times for cluster A5.
- Start number 40 was manually annotated 2 times for cluster A5.

Info for manual annotations of cluster A6:

- Start number 30 was manually annotated 22 times for cluster A6.
- Start number 34 was manually annotated 16 times for cluster A6.
- Start number 38 was manually annotated 9 times for cluster A6.

Info for manual annotations of cluster A8:

- Start number 39 was manually annotated 10 times for cluster A8.
- Start number 48 was manually annotated 1 time for cluster A8.

Info for manual annotations of cluster A9:

- Start number 30 was manually annotated 3 times for cluster A9.
- Start number 31 was manually annotated 23 times for cluster A9.
- Start number 36 was manually annotated 1 time for cluster A9.

Gene Information:

Gene: 20ES_72 Start: 43073, Stop: 42834, Start Num: 44

Candidate Starts for 20ES_72:

(Start: 26 @43112 has 5 MA's), (Start: 44 @43073 has 74 MA's), (54, 42998), (59, 42965), (66, 42932), (67, 42923), (69, 42911), (75, 42854),

Gene: 40AC_70 Start: 43765, Stop: 43523, Start Num: 44

Candidate Starts for 40AC_70:

(Start: 44 @43765 has 74 MA's), (52, 43696), (54, 43687), (59, 43654), (66, 43621), (67, 43612), (69, 43600),

Gene: AN3_72 Start: 41788, Stop: 41549, Start Num: 44

Candidate Starts for AN3_72:

(Start: 26 @41827 has 5 MA's), (Start: 44 @41788 has 74 MA's), (Start: 48 @41761 has 2 MA's), (54, 41713), (59, 41680), (66, 41647), (67, 41638), (69, 41626), (75, 41569),

Gene: AbbyPaige_72 Start: 43323, Stop: 43084, Start Num: 44

Candidate Starts for AbbyPaige_72:

(11, 43485), (Start: 26 @43362 has 5 MA's), (Start: 44 @43323 has 74 MA's), (54, 43248), (59, 43215), (66, 43182), (67, 43173), (69, 43161),

Gene: Acolyte_62 Start: 41272, Stop: 41048, Start Num: 44

Candidate Starts for Acolyte_62:

(Start: 26 @41311 has 5 MA's), (Start: 44 @41272 has 74 MA's), (54, 41200), (59, 41167), (66, 41134), (67, 41125), (69, 41113),

Gene: Adzzy_74 Start: 41977, Stop: 41702, Start Num: 30

Candidate Starts for Adzzy_74:

(Start: 30 @41977 has 32 MA's), (Start: 34 @41968 has 54 MA's), (Start: 48 @41908 has 2 MA's), (52, 41869), (59, 41827), (61, 41818), (66, 41794), (69, 41773),

Gene: Agape74_72 Start: 43317, Stop: 43078, Start Num: 44

Candidate Starts for Agape74_72:

(Start: 26 @43356 has 5 MA's), (Start: 44 @43317 has 74 MA's), (54, 43242), (59, 43209), (66, 43176), (67, 43167), (69, 43155),

Gene: AgentM_65 Start: 41621, Stop: 41370, Start Num: 34

Candidate Starts for AgentM_65:

(Start: 34 @41621 has 54 MA's), (54, 41528), (55, 41513), (67, 41450), (71, 41405), (74, 41384), (77, 41378),

Gene: Airmid_68 Start: 42454, Stop: 42200, Start Num: 34

Candidate Starts for Airmid_68:

(Start: 34 @42454 has 54 MA's), (54, 42361), (55, 42346), (67, 42283), (71, 42238), (74, 42217), (77, 42211),

Gene: Aliter_74 Start: 42621, Stop: 42343, Start Num: 31

Candidate Starts for Aliter_74:

(Start: 31 @42621 has 23 MA's), (53, 42513), (62, 42459), (63, 42450), (69, 42420),

Gene: Alma_71 Start: 42598, Stop: 42323, Start Num: 31

Candidate Starts for Alma_71:

(Start: 31 @42598 has 23 MA's), (53, 42490), (62, 42436), (63, 42427), (69, 42397),

Gene: Aneem_70 Start: 42035, Stop: 41769, Start Num: 39

Candidate Starts for Aneem_70:

(Start: 39 @42035 has 33 MA's), (53, 41942), (59, 41903), (66, 41870), (67, 41861), (69, 41849), (71, 41816),

Gene: AnnaL29_70 Start: 43273, Stop: 43034, Start Num: 44

Candidate Starts for AnnaL29_70:

(Start: 26 @43312 has 5 MA's), (Start: 44 @43273 has 74 MA's), (52, 43207), (54, 43198), (59, 43165), (66, 43132), (67, 43123), (69, 43111),

Gene: Anselm_72 Start: 43506, Stop: 43228, Start Num: 26

Candidate Starts for Anselm_72:

(Start: 26 @43506 has 5 MA's), (Start: 44 @43467 has 74 MA's), (53, 43398), (54, 43392), (59, 43359), (66, 43326), (67, 43317), (69, 43305), (75, 43248),

Gene: Aragog_65 Start: 41641, Stop: 41390, Start Num: 34

Candidate Starts for Aragog_65:

(Start: 34 @41641 has 54 MA's), (54, 41548), (55, 41533), (67, 41470), (71, 41425), (74, 41404), (77, 41398),

Gene: ArcherNM_64 Start: 42544, Stop: 42302, Start Num: 44

Candidate Starts for ArcherNM_64:

(15, 42646), (Start: 26 @42583 has 5 MA's), (Start: 44 @42544 has 74 MA's), (52, 42475), (54, 42466), (59, 42433), (66, 42400), (67, 42391), (69, 42379),

Gene: Archetta_63 Start: 41587, Stop: 41336, Start Num: 34

Candidate Starts for Archetta_63:

(Start: 34 @41587 has 54 MA's), (Start: 40 @41575 has 2 MA's), (52, 41503), (54, 41494), (55, 41479), (67, 41416), (71, 41371), (74, 41350), (77, 41344),

Gene: Artemis2UCLA_72 Start: 41385, Stop: 41128, Start Num: 30

Candidate Starts for Artemis2UCLA_72:

(Start: 30 @41385 has 32 MA's), (Start: 34 @41376 has 54 MA's), (52, 41301), (54, 41292), (59, 41259), (65, 41229), (67, 41217), (78, 41136),

Gene: Astro_80 Start: 44089, Stop: 43805, Start Num: 39

Candidate Starts for Astro_80:

(Start: 39 @44089 has 33 MA's), (Start: 48 @44047 has 2 MA's), (53, 44005), (54, 43999), (70, 43891),

Gene: Ayanochan_71 Start: 42384, Stop: 42106, Start Num: 31

Candidate Starts for Ayanochan_71:

(Start: 31 @42384 has 23 MA's), (53, 42276), (62, 42222), (63, 42213), (69, 42183),

Gene: BABullseye_64 Start: 38991, Stop: 38743, Start Num: 34

Candidate Starts for BABullseye_64:

(4, 39231), (8, 39159), (13, 39078), (21, 39033), (Start: 34 @38991 has 54 MA's), (52, 38916), (59, 38874), (65, 38844), (67, 38832),

Gene: BabyBack_67 Start: 43084, Stop: 42833, Start Num: 30

Candidate Starts for BabyBack_67:

(Start: 30 @43084 has 32 MA's), (Start: 34 @43075 has 54 MA's), (50, 43033), (54, 42997), (59, 42964), (66, 42931), (67, 42922), (69, 42910),

Gene: Bachome_71 Start: 42031, Stop: 41765, Start Num: 39

Candidate Starts for Bachome_71:

(Start: 39 @42031 has 33 MA's), (53, 41938), (59, 41899), (66, 41866), (67, 41857), (69, 41845), (71, 41812),

Gene: Baehexic_69 Start: 42795, Stop: 42556, Start Num: 44

Candidate Starts for Baehexic_69:

(Start: 44 @42795 has 74 MA's), (Start: 48 @42768 has 2 MA's), (49, 42765), (54, 42720), (59, 42687), (66, 42654), (67, 42645), (69, 42633),

Gene: Beemo_73 Start: 42639, Stop: 42361, Start Num: 31

Candidate Starts for Beemo_73:

(Start: 31 @42639 has 23 MA's), (53, 42531), (62, 42477), (63, 42468), (69, 42438),

Gene: Benedict_69 Start: 42186, Stop: 41932, Start Num: 34

Candidate Starts for Benedict_69:

(Start: 34 @42186 has 54 MA's), (54, 42093), (55, 42078), (67, 42015), (71, 41970), (74, 41949), (77, 41943),

Gene: BengiVuitton_70 Start: 43050, Stop: 42811, Start Num: 44

Candidate Starts for BengiVuitton_70:

(Start: 26 @43089 has 5 MA's), (Start: 44 @43050 has 74 MA's), (Start: 48 @43023 has 2 MA's), (54, 42975), (59, 42942), (66, 42909), (67, 42900), (69, 42888), (75, 42831),

Gene: BennyP_72 Start: 41551, Stop: 41294, Start Num: 30

Candidate Starts for BennyP_72:

(Start: 30 @41551 has 32 MA's), (Start: 34 @41542 has 54 MA's), (52, 41467), (54, 41458), (59, 41425), (65, 41395), (67, 41383),

Gene: Benvolio_68 Start: 42707, Stop: 42468, Start Num: 44

Candidate Starts for Benvolio_68:

(Start: 26 @42746 has 5 MA's), (Start: 44 @42707 has 74 MA's), (52, 42641), (54, 42632), (59, 42599), (66, 42566), (67, 42557), (69, 42545),

Gene: BiancaTri92_70 Start: 43252, Stop: 43013, Start Num: 44

Candidate Starts for BiancaTri92_70:

(Start: 26 @43291 has 5 MA's), (Start: 44 @43252 has 74 MA's), (54, 43177), (59, 43144), (66, 43111), (67, 43102), (69, 43090),

Gene: Bigflo_69 Start: 42387, Stop: 42133, Start Num: 37

Candidate Starts for Bigflo_69:

(19, 42441), (24, 42423), (28, 42408), (Start: 37 @42387 has 11 MA's), (47, 42354), (52, 42303), (54, 42294), (57, 42267), (59, 42261), (66, 42228),

Gene: BlessJoy_73 Start: 41907, Stop: 41650, Start Num: 30

Candidate Starts for BlessJoy_73:

(Start: 30 @41907 has 32 MA's), (Start: 34 @41898 has 54 MA's), (52, 41823), (54, 41814), (59, 41781), (65, 41751), (67, 41739),

Gene: Blinn1_75 Start: 41595, Stop: 41347, Start Num: 34

Candidate Starts for Blinn1_75:

(21, 41637), (Start: 34 @41595 has 54 MA's), (59, 41478), (66, 41445), (67, 41436), (69, 41424), (79, 41352),

Gene: Blue7_74 Start: 41605, Stop: 41348, Start Num: 30

Candidate Starts for Blue7_74:

(Start: 30 @41605 has 32 MA's), (Start: 34 @41596 has 54 MA's), (52, 41521), (54, 41512), (59, 41479), (65, 41449), (67, 41437),

Gene: Bluefalcon_61 Start: 41607, Stop: 41356, Start Num: 34

Candidate Starts for Bluefalcon_61:

(Start: 34 @41607 has 54 MA's), (Start: 40 @41595 has 2 MA's), (52, 41523), (54, 41514), (55, 41499), (67, 41436), (71, 41391), (74, 41370), (77, 41364),

Gene: BobSwaget_64 Start: 41129, Stop: 40887, Start Num: 44

Candidate Starts for BobSwaget_64:

(Start: 26 @41168 has 5 MA's), (Start: 44 @41129 has 74 MA's), (54, 41054), (59, 41021), (66, 40988), (67, 40979),

Gene: BogosyJay_73 Start: 42852, Stop: 42568, Start Num: 30

Candidate Starts for BogosyJay_73:

(Start: 30 @42852 has 32 MA's), (53, 42741), (59, 42702), (69, 42648),

Gene: Bonamassa_65 Start: 41816, Stop: 41565, Start Num: 34

Candidate Starts for Bonamassa_65:

(Start: 34 @41816 has 54 MA's), (52, 41732), (54, 41723), (55, 41708), (67, 41645), (71, 41600), (74, 41579),

Gene: Bowtie_70 Start: 42042, Stop: 41776, Start Num: 39
Candidate Starts for Bowtie_70:
(Start: 39 @42042 has 33 MA's), (53, 41949), (59, 41910), (66, 41877), (67, 41868), (69, 41856), (71, 41823),

Gene: Bradman_73 Start: 42401, Stop: 42162, Start Num: 44
Candidate Starts for Bradman_73:
(Start: 44 @42401 has 74 MA's), (51, 42359), (54, 42326), (57, 42299), (59, 42293), (66, 42260), (67, 42251), (69, 42239), (73, 42188), (78, 42170),

Gene: Bud_68 Start: 41589, Stop: 41323, Start Num: 39
Candidate Starts for Bud_68:
(Start: 39 @41589 has 33 MA's), (53, 41496), (59, 41457), (66, 41424), (67, 41415), (69, 41403), (71, 41370),

Gene: Buggy_72 Start: 43370, Stop: 43131, Start Num: 44
Candidate Starts for Buggy_72:
(Start: 26 @43409 has 5 MA's), (Start: 44 @43370 has 74 MA's), (54, 43295), (59, 43262), (66, 43229), (67, 43220), (69, 43208),

Gene: Bxz2_67 Start: 42422, Stop: 42168, Start Num: 37
Candidate Starts for Bxz2_67:
(19, 42476), (24, 42458), (28, 42443), (Start: 37 @42422 has 11 MA's), (47, 42389), (52, 42338), (54, 42329), (57, 42302), (59, 42296), (66, 42263),

Gene: CRB1_72 Start: 43596, Stop: 43357, Start Num: 44
Candidate Starts for CRB1_72:
(Start: 26 @43635 has 5 MA's), (Start: 44 @43596 has 74 MA's), (54, 43521), (59, 43488), (66, 43455), (67, 43446), (69, 43434), (75, 43377),

Gene: Caitlin_78 Start: 43781, Stop: 43497, Start Num: 39
Candidate Starts for Caitlin_78:
(Start: 39 @43781 has 33 MA's), (Start: 48 @43739 has 2 MA's), (53, 43697), (54, 43691), (70, 43583),

Gene: Calvinny_69 Start: 42204, Stop: 41950, Start Num: 37
Candidate Starts for Calvinny_69:
(19, 42258), (24, 42240), (28, 42225), (Start: 37 @42204 has 11 MA's), (47, 42171), (52, 42120), (54, 42111), (57, 42084), (59, 42078), (66, 42045),

Gene: Candra_69 Start: 41351, Stop: 41112, Start Num: 38
Candidate Starts for Candra_69:
(Start: 38 @41351 has 9 MA's), (54, 41276), (59, 41243), (66, 41210), (67, 41201),

Gene: Caraxes_73 Start: 41714, Stop: 41472, Start Num: 42
Candidate Starts for Caraxes_73:
(Start: 42 @41714 has 2 MA's), (55, 41615), (58, 41600), (59, 41597), (60, 41591), (61, 41588), (66, 41564), (69, 41543),

Gene: Catalina_75 Start: 42695, Stop: 42417, Start Num: 31
Candidate Starts for Catalina_75:
(Start: 31 @42695 has 23 MA's), (53, 42587), (62, 42533), (63, 42524), (69, 42494),

Gene: Centaur_71 Start: 43010, Stop: 42771, Start Num: 44

Candidate Starts for Centaur_71:

(Start: 44 @43010 has 74 MA's), (Start: 48 @42983 has 2 MA's), (49, 42980), (54, 42935), (59, 42902), (66, 42869), (67, 42860), (69, 42848),

Gene: Chadwick_69 Start: 41930, Stop: 41679, Start Num: 34

Candidate Starts for Chadwick_69:

(Start: 34 @41930 has 54 MA's), (54, 41837), (55, 41822), (67, 41759), (71, 41714), (74, 41693),

Gene: Changeling_69 Start: 43249, Stop: 43010, Start Num: 45

Candidate Starts for Changeling_69:

(Start: 26 @43291 has 5 MA's), (Start: 44 @43252 has 74 MA's), (Start: 45 @43249 has 1 MA's), (51, 43207), (52, 43183), (54, 43174), (59, 43141), (66, 43108), (67, 43099), (69, 43087),

Gene: Chargerpower_67 Start: 40705, Stop: 40445, Start Num: 39

Candidate Starts for Chargerpower_67:

(29, 40726), (Start: 39 @40705 has 33 MA's), (53, 40612), (62, 40558), (63, 40549), (69, 40519), (72, 40471), (73, 40468), (74, 40465),

Gene: Charm_67 Start: 41703, Stop: 41416, Start Num: 30

Candidate Starts for Charm_67:

(Start: 30 @41703 has 32 MA's), (53, 41598), (59, 41559), (69, 41505),

Gene: Chartreuse_70 Start: 40662, Stop: 40423, Start Num: 38

Candidate Starts for Chartreuse_70:

(Start: 38 @40662 has 9 MA's), (54, 40587), (59, 40554), (66, 40521), (67, 40512),

Gene: Che12_74 Start: 41861, Stop: 41586, Start Num: 30

Candidate Starts for Che12_74:

(1, 42212), (12, 41975), (Start: 30 @41861 has 32 MA's), (Start: 34 @41852 has 54 MA's), (Start: 48 @41792 has 2 MA's), (52, 41753), (59, 41711), (61, 41702), (66, 41678), (69, 41657),

Gene: ChipMunk_72 Start: 44601, Stop: 44362, Start Num: 44

Candidate Starts for ChipMunk_72:

(Start: 44 @44601 has 74 MA's), (54, 44526), (59, 44493), (66, 44460), (67, 44451), (69, 44439),

Gene: CloudWang3_73 Start: 41897, Stop: 41640, Start Num: 30

Candidate Starts for CloudWang3_73:

(Start: 30 @41897 has 32 MA's), (Start: 34 @41888 has 54 MA's), (52, 41813), (54, 41804), (59, 41771), (65, 41741), (67, 41729), (78, 41648),

Gene: ClownCar_69 Start: 42197, Stop: 41943, Start Num: 37

Candidate Starts for ClownCar_69:

(19, 42251), (24, 42233), (28, 42218), (Start: 37 @42197 has 11 MA's), (47, 42164), (52, 42113), (54, 42104), (57, 42077), (59, 42071), (61, 42062), (66, 42038),

Gene: Colin_69 Start: 43242, Stop: 42997, Start Num: 35

Candidate Starts for Colin_69:

(Start: 32 @43248 has 1 MA's), (Start: 35 @43242 has 7 MA's), (54, 43161), (59, 43128), (66, 43095), (67, 43086), (69, 43074), (73, 43023),

Gene: Conquerage_71 Start: 42370, Stop: 42092, Start Num: 31

Candidate Starts for Conquerage_71:

(Start: 31 @42370 has 23 MA's), (53, 42262), (62, 42208), (63, 42199), (69, 42169),

Gene: Conspiracy_66 Start: 41863, Stop: 41612, Start Num: 34

Candidate Starts for Conspiracy_66:

(Start: 34 @41863 has 54 MA's), (54, 41770), (55, 41755), (67, 41692), (71, 41647), (74, 41626), (77, 41620),

Gene: Coog_62 Start: 41634, Stop: 41383, Start Num: 34

Candidate Starts for Coog_62:

(Start: 34 @41634 has 54 MA's), (Start: 40 @41622 has 2 MA's), (54, 41541), (55, 41526), (67, 41463), (71, 41418), (74, 41397), (77, 41391),

Gene: Cookiedough_71 Start: 41299, Stop: 41051, Start Num: 34

Candidate Starts for Cookiedough_71:

(4, 41539), (8, 41467), (13, 41386), (21, 41341), (Start: 34 @41299 has 54 MA's), (52, 41224), (59, 41182), (65, 41152), (67, 41140),

Gene: Croquant_69 Start: 42386, Stop: 42132, Start Num: 37

Candidate Starts for Croquant_69:

(24, 42422), (28, 42407), (Start: 37 @42386 has 11 MA's), (47, 42353), (52, 42302), (54, 42293), (57, 42266), (59, 42260), (66, 42227),

Gene: Crucio_71 Start: 43367, Stop: 43128, Start Num: 44

Candidate Starts for Crucio_71:

(Start: 26 @43406 has 5 MA's), (Start: 44 @43367 has 74 MA's), (54, 43292), (59, 43259), (66, 43226), (67, 43217), (69, 43205), (75, 43148),

Gene: Cuco_64 Start: 41482, Stop: 41243, Start Num: 40

Candidate Starts for Cuco_64:

(Start: 34 @41494 has 54 MA's), (Start: 40 @41482 has 2 MA's), (54, 41401), (55, 41386), (67, 41323), (71, 41278), (74, 41257), (77, 41251),

Gene: D29_68 Start: 43721, Stop: 43488, Start Num: 44

Candidate Starts for D29_68:

(Start: 44 @43721 has 74 MA's), (54, 43643), (59, 43610), (66, 43577), (69, 43556), (74, 43502),

Gene: D32_73 Start: 43721, Stop: 43488, Start Num: 44

Candidate Starts for D32_73:

(Start: 44 @43721 has 74 MA's), (54, 43643), (59, 43610), (66, 43577), (69, 43556), (74, 43502),

Gene: DBQu4n_74 Start: 43701, Stop: 43468, Start Num: 44

Candidate Starts for DBQu4n_74:

(Start: 44 @43701 has 74 MA's), (54, 43623), (59, 43590), (66, 43557), (69, 43536), (74, 43482),

Gene: DaVinci_69 Start: 40716, Stop: 40477, Start Num: 38

Candidate Starts for DaVinci_69:

(Start: 38 @40716 has 9 MA's), (54, 40641), (59, 40608), (66, 40575), (67, 40566),

Gene: Dalmatian_71 Start: 43225, Stop: 42947, Start Num: 26

Candidate Starts for Dalmatian_71:

(Start: 26 @43225 has 5 MA's), (Start: 44 @43186 has 74 MA's), (54, 43111), (59, 43078), (66, 43045), (67, 43036), (69, 43024), (75, 42967),

Gene: Danforth_81 Start: 44166, Stop: 43882, Start Num: 39

Candidate Starts for Danforth_81:

(Start: 39 @44166 has 33 MA's), (Start: 48 @44124 has 2 MA's), (53, 44082), (54, 44076), (70, 43968),

Gene: DARTHPhader_68 Start: 43667, Stop: 43356, Start Num: 20

Candidate Starts for DARTHPhader_68:

(5, 43808), (19, 43670), (Start: 20 @43667 has 2 MA's), (Start: 39 @43619 has 33 MA's), (Start: 48 @43568 has 2 MA's), (52, 43529), (54, 43520), (59, 43487), (73, 43382),

Gene: DeerParkTS_67 Start: 42018, Stop: 41779, Start Num: 44

Candidate Starts for DeerParkTS_67:

(Start: 26 @42057 has 5 MA's), (Start: 44 @42018 has 74 MA's), (54, 41943), (59, 41910), (66, 41877), (69, 41856),

Gene: Deloris_70 Start: 42746, Stop: 42507, Start Num: 44

Candidate Starts for Deloris_70:

(Start: 26 @42785 has 5 MA's), (Start: 44 @42746 has 74 MA's), (Start: 48 @42719 has 2 MA's), (54, 42671), (59, 42638), (66, 42605), (67, 42596), (69, 42584), (75, 42527),

Gene: DelvinSonDorr_68 Start: 41542, Stop: 41282, Start Num: 30

Candidate Starts for DelvinSonDorr_68:

(Start: 30 @41542 has 32 MA's), (Start: 34 @41533 has 54 MA's), (52, 41455), (59, 41413), (65, 41383), (67, 41371),

Gene: Dignity_72 Start: 43408, Stop: 43169, Start Num: 44

Candidate Starts for Dignity_72:

(Start: 26 @43447 has 5 MA's), (Start: 44 @43408 has 74 MA's), (54, 43333), (59, 43300), (66, 43267), (67, 43258), (69, 43246),

Gene: Discoknowium_63 Start: 41380, Stop: 41129, Start Num: 34

Candidate Starts for Discoknowium_63:

(Start: 34 @41380 has 54 MA's), (54, 41287), (55, 41272), (67, 41209), (71, 41164), (74, 41143), (77, 41137),

Gene: Dixon_79 Start: 43648, Stop: 43364, Start Num: 39

Candidate Starts for Dixon_79:

(Start: 39 @43648 has 33 MA's), (Start: 48 @43606 has 2 MA's), (53, 43564), (54, 43558), (70, 43450),

Gene: Dorothea_71 Start: 41297, Stop: 41049, Start Num: 34

Candidate Starts for Dorothea_71:

(4, 41537), (8, 41465), (13, 41384), (21, 41339), (Start: 34 @41297 has 54 MA's), (52, 41222), (59, 41180), (65, 41150), (67, 41138),

Gene: Drake55_72 Start: 43111, Stop: 42872, Start Num: 44

Candidate Starts for Drake55_72:

(Start: 44 @43111 has 74 MA's), (Start: 48 @43084 has 2 MA's), (49, 43081), (54, 43036), (59, 43003), (66, 42970), (67, 42961), (69, 42949),

Gene: Dublin_65 Start: 41773, Stop: 41522, Start Num: 34

Candidate Starts for Dublin_65:

(Start: 34 @41773 has 54 MA's), (52, 41689), (54, 41680), (55, 41665), (67, 41602), (71, 41557), (74, 41536),

Gene: DudeLittle_69 Start: 42991, Stop: 42713, Start Num: 26

Candidate Starts for DudeLittle_69:

(Start: 26 @42991 has 5 MA's), (Start: 44 @42952 has 74 MA's), (54, 42877), (59, 42844), (66, 42811), (67, 42802), (69, 42790), (75, 42733),

Gene: Duplo_74 Start: 43758, Stop: 43525, Start Num: 44

Candidate Starts for Duplo_74:

(Start: 44 @43758 has 74 MA's), (54, 43680), (59, 43647), (66, 43614), (69, 43593), (74, 43539),

Gene: EZMoney23_67 Start: 42794, Stop: 42552, Start Num: 44

Candidate Starts for EZMoney23_67:

(Start: 26 @42833 has 5 MA's), (Start: 44 @42794 has 74 MA's), (Start: 45 @42791 has 1 MA's), (51, 42749), (52, 42725), (54, 42716), (59, 42683), (66, 42650), (67, 42641), (69, 42629),

Gene: EagleEye_76 Start: 43298, Stop: 43038, Start Num: 34

Candidate Starts for EagleEye_76:

(10, 43454), (17, 43364), (18, 43346), (19, 43340), (Start: 34 @43298 has 54 MA's), (58, 43160), (69, 43103),

Gene: Ebony_69 Start: 41606, Stop: 41340, Start Num: 39

Candidate Starts for Ebony_69:

(Start: 39 @41606 has 33 MA's), (53, 41513), (59, 41474), (66, 41441), (67, 41432), (69, 41420), (71, 41387),

Gene: Echild_71 Start: 42731, Stop: 42492, Start Num: 44

Candidate Starts for Echild_71:

(Start: 26 @42770 has 5 MA's), (Start: 44 @42731 has 74 MA's), (52, 42665), (54, 42656), (59, 42623), (66, 42590), (67, 42581), (69, 42569),

Gene: Eidsmoe_71 Start: 42362, Stop: 42084, Start Num: 31

Candidate Starts for Eidsmoe_71:

(Start: 31 @42362 has 23 MA's), (53, 42254), (62, 42200), (63, 42191), (69, 42161),

Gene: EITiger69_71 Start: 42857, Stop: 42603, Start Num: 34

Candidate Starts for EITiger69_71:

(Start: 34 @42857 has 54 MA's), (54, 42764), (55, 42749), (67, 42686), (71, 42641), (74, 42620), (77, 42614),

Gene: Elephantoon_73 Start: 42479, Stop: 42192, Start Num: 31

Candidate Starts for Elephantoon_73:

(Start: 31 @42479 has 23 MA's), (Start: 34 @42473 has 54 MA's), (Start: 48 @42413 has 2 MA's), (53, 42371), (59, 42332), (69, 42278),

Gene: EmyBug_70 Start: 42364, Stop: 42086, Start Num: 31

Candidate Starts for EmyBug_70:

(Start: 31 @42364 has 23 MA's), (53, 42256), (62, 42202), (63, 42193), (69, 42163),

Gene: Equemioh13_70 Start: 42915, Stop: 42676, Start Num: 44

Candidate Starts for Equemioh13_70:

(Start: 44 @42915 has 74 MA's), (Start: 48 @42888 has 2 MA's), (49, 42885), (54, 42840), (59, 42807), (66, 42774), (67, 42765), (69, 42753),

Gene: EricB_70 Start: 41308, Stop: 41069, Start Num: 38

Candidate Starts for EricB_70:

(Start: 38 @41308 has 9 MA's), (54, 41233), (59, 41200), (66, 41167), (67, 41158),

Gene: Et2Brutus_68 Start: 41569, Stop: 41303, Start Num: 39

Candidate Starts for Et2Brutus_68:

(Start: 39 @41569 has 33 MA's), (53, 41476), (59, 41437), (66, 41404), (67, 41395), (69, 41383), (71, 41350),

Gene: EvilGenius_71 Start: 44602, Stop: 44363, Start Num: 44

Candidate Starts for EvilGenius_71:

(Start: 44 @44602 has 74 MA's), (54, 44527), (59, 44494), (66, 44461), (67, 44452), (69, 44440),

Gene: Expelliarmus_77 Start: 43862, Stop: 43578, Start Num: 39

Candidate Starts for Expelliarmus_77:

(Start: 39 @43862 has 33 MA's), (Start: 48 @43820 has 2 MA's), (53, 43778), (54, 43772), (70, 43664),

Gene: ExplosioNervosa_71 Start: 42430, Stop: 42152, Start Num: 31

Candidate Starts for ExplosioNervosa_71:

(Start: 31 @42430 has 23 MA's), (53, 42322), (62, 42268), (63, 42259), (69, 42229),

Gene: Fameo_70 Start: 43185, Stop: 42946, Start Num: 44

Candidate Starts for Fameo_70:

(Start: 26 @43224 has 5 MA's), (Start: 44 @43185 has 74 MA's), (52, 43119), (54, 43110), (59, 43077), (66, 43044), (67, 43035), (69, 43023), (76, 42963),

Gene: Fayely_71 Start: 42331, Stop: 42053, Start Num: 31

Candidate Starts for Fayely_71:

(Start: 31 @42331 has 23 MA's), (53, 42223), (62, 42169), (63, 42160), (69, 42130),

Gene: Fibonacci_69 Start: 41575, Stop: 41309, Start Num: 39

Candidate Starts for Fibonacci_69:

(Start: 39 @41575 has 33 MA's), (53, 41482), (59, 41443), (66, 41410), (67, 41401), (69, 41389), (71, 41356),

Gene: FiringLine_71 Start: 43349, Stop: 43110, Start Num: 44

Candidate Starts for FiringLine_71:

(Start: 26 @43388 has 5 MA's), (Start: 44 @43349 has 74 MA's), (54, 43274), (59, 43241), (66, 43208), (67, 43199), (69, 43187), (75, 43130),

Gene: First_0071 Start: 42973, Stop: 42734, Start Num: 44

Candidate Starts for First_0071:

(Start: 26 @43012 has 5 MA's), (Start: 44 @42973 has 74 MA's), (54, 42898), (59, 42865), (66, 42832), (67, 42823), (69, 42811), (75, 42754),

Gene: Flare16_71 Start: 43054, Stop: 42815, Start Num: 44

Candidate Starts for Flare16_71:

(Start: 26 @43093 has 5 MA's), (Start: 44 @43054 has 74 MA's), (Start: 48 @43027 has 2 MA's), (49, 43024), (54, 42979), (59, 42946), (66, 42913), (67, 42904), (69, 42892), (75, 42835),

Gene: Flaverint_70 Start: 42033, Stop: 41767, Start Num: 39

Candidate Starts for Flaverint_70:

(Start: 39 @42033 has 33 MA's), (53, 41940), (59, 41901), (66, 41868), (67, 41859), (69, 41847), (71, 41814),

Gene: Florence1_62 Start: 41328, Stop: 41077, Start Num: 34
Candidate Starts for Florence1_62:
(Start: 34 @41328 has 54 MA's), (54, 41235), (55, 41220), (67, 41157), (71, 41112), (74, 41091), (77, 41085),

Gene: Florence4_64 Start: 41328, Stop: 41077, Start Num: 34
Candidate Starts for Florence4_64:
(Start: 34 @41328 has 54 MA's), (54, 41235), (55, 41220), (67, 41157), (71, 41112), (74, 41091), (77, 41085),

Gene: ForGetIt_66 Start: 41888, Stop: 41637, Start Num: 34
Candidate Starts for ForGetIt_66:
(Start: 34 @41888 has 54 MA's), (54, 41795), (55, 41780), (67, 41717), (71, 41672), (74, 41651), (77, 41645),

Gene: ForesterFrank_66 Start: 43066, Stop: 42824, Start Num: 44
Candidate Starts for ForesterFrank_66:
(Start: 26 @43105 has 5 MA's), (Start: 44 @43066 has 74 MA's), (Start: 45 @43063 has 1 MA's), (52, 42997), (54, 42988), (59, 42955), (66, 42922), (67, 42913), (69, 42901),

Gene: Garak_74 Start: 41848, Stop: 41591, Start Num: 30
Candidate Starts for Garak_74:
(Start: 30 @41848 has 32 MA's), (Start: 34 @41839 has 54 MA's), (52, 41764), (54, 41755), (59, 41722), (65, 41692), (67, 41680),

Gene: GaugeLDP_66 Start: 42652, Stop: 42401, Start Num: 30
Candidate Starts for GaugeLDP_66:
(Start: 30 @42652 has 32 MA's), (Start: 34 @42643 has 54 MA's), (49, 42610), (54, 42565), (59, 42532), (66, 42499), (67, 42490), (69, 42478),

Gene: George_62 Start: 41560, Stop: 41309, Start Num: 34
Candidate Starts for George_62:
(Start: 34 @41560 has 54 MA's), (54, 41467), (55, 41452), (67, 41389), (71, 41344), (74, 41323),

Gene: Georgie2_72 Start: 43394, Stop: 43155, Start Num: 44
Candidate Starts for Georgie2_72:
(Start: 26 @43433 has 5 MA's), (Start: 44 @43394 has 74 MA's), (54, 43319), (59, 43286), (66, 43253), (67, 43244), (69, 43232), (75, 43175),

Gene: Ghouboy_65 Start: 41861, Stop: 41610, Start Num: 34
Candidate Starts for Ghouboy_65:
(Start: 34 @41861 has 54 MA's), (Start: 40 @41849 has 2 MA's), (52, 41777), (54, 41768), (55, 41753), (67, 41690), (71, 41645), (74, 41624), (77, 41618),

Gene: Gilberta_70 Start: 42026, Stop: 41760, Start Num: 39
Candidate Starts for Gilberta_70:
(Start: 39 @42026 has 33 MA's), (53, 41933), (59, 41894), (66, 41861), (67, 41852), (69, 41840), (71, 41807),

Gene: Gladiator_69 Start: 40925, Stop: 40677, Start Num: 34
Candidate Starts for Gladiator_69:
(4, 41165), (8, 41093), (13, 41012), (21, 40967), (Start: 34 @40925 has 54 MA's), (52, 40850), (59, 40808), (65, 40778), (67, 40766),

Gene: Gratitude_68 Start: 42915, Stop: 42676, Start Num: 44

Candidate Starts for Gratitude_68:

(Start: 44 @42915 has 74 MA's), (Start: 48 @42888 has 2 MA's), (49, 42885), (54, 42840), (59, 42807), (66, 42774), (67, 42765), (69, 42753),

Gene: GreedyLawyer_68 Start: 41281, Stop: 41042, Start Num: 38

Candidate Starts for GreedyLawyer_68:

(Start: 38 @41281 has 9 MA's), (54, 41206), (59, 41173), (66, 41140), (67, 41131),

Gene: Grif_70 Start: 42462, Stop: 42208, Start Num: 37

Candidate Starts for Grif_70:

(24, 42498), (28, 42483), (Start: 37 @42462 has 11 MA's), (47, 42429), (52, 42378), (54, 42369), (57, 42342), (59, 42336), (66, 42303),

Gene: Groundhog_78 Start: 43876, Stop: 43634, Start Num: 48

Candidate Starts for Groundhog_78:

(Start: 39 @43918 has 33 MA's), (Start: 48 @43876 has 2 MA's), (53, 43834), (54, 43828), (70, 43720),

Gene: Gruunaga_72 Start: 41706, Stop: 41449, Start Num: 30

Candidate Starts for Gruunaga_72:

(Start: 30 @41706 has 32 MA's), (Start: 34 @41697 has 54 MA's), (52, 41622), (54, 41613), (59, 41580), (65, 41550), (67, 41538), (78, 41457),

Gene: GtownJaz_72 Start: 42389, Stop: 42135, Start Num: 37

Candidate Starts for GtownJaz_72:

(24, 42425), (28, 42410), (Start: 37 @42389 has 11 MA's), (47, 42356), (52, 42305), (54, 42296), (57, 42269), (59, 42263), (66, 42230),

Gene: Hammer_73 Start: 41413, Stop: 41156, Start Num: 30

Candidate Starts for Hammer_73:

(Start: 30 @41413 has 32 MA's), (Start: 34 @41404 has 54 MA's), (52, 41329), (54, 41320), (59, 41287), (65, 41257), (67, 41245),

Gene: Hanray_71 Start: 42693, Stop: 42415, Start Num: 31

Candidate Starts for Hanray_71:

(Start: 31 @42693 has 23 MA's), (53, 42585), (62, 42531), (63, 42522), (69, 42492),

Gene: HarryHoudini_71 Start: 43112, Stop: 42873, Start Num: 44

Candidate Starts for HarryHoudini_71:

(Start: 44 @43112 has 74 MA's), (Start: 48 @43085 has 2 MA's), (49, 43082), (54, 43037), (59, 43004), (66, 42971), (67, 42962), (69, 42950),

Gene: HashRod_73 Start: 42415, Stop: 42161, Start Num: 37

Candidate Starts for HashRod_73:

(19, 42469), (24, 42451), (28, 42436), (Start: 37 @42415 has 11 MA's), (47, 42382), (52, 42331), (54, 42322), (57, 42295), (59, 42289), (66, 42256),

Gene: Heffalump_69 Start: 43653, Stop: 43414, Start Num: 44

Candidate Starts for Heffalump_69:

(Start: 44 @43653 has 74 MA's), (52, 43587), (54, 43578), (59, 43545), (66, 43512), (67, 43503), (69, 43491), (76, 43431),

Gene: Helmet_75 Start: 41848, Stop: 41591, Start Num: 30

Candidate Starts for Helmet_75:

(Start: 30 @41848 has 32 MA's), (Start: 34 @41839 has 54 MA's), (52, 41764), (54, 41755), (59, 41722), (65, 41692), (67, 41680),

Gene: Herbertwm_67 Start: 42568, Stop: 42287, Start Num: 26

Candidate Starts for Herbertwm_67:

(Start: 26 @42568 has 5 MA's), (Start: 44 @42529 has 74 MA's), (Start: 48 @42496 has 2 MA's), (52, 42457), (62, 42400), (65, 42385), (79, 42292),

Gene: Hexamo_72 Start: 41382, Stop: 41125, Start Num: 30

Candidate Starts for Hexamo_72:

(Start: 30 @41382 has 32 MA's), (Start: 34 @41373 has 54 MA's), (52, 41298), (54, 41289), (59, 41256), (65, 41226), (67, 41214), (78, 41133),

Gene: HippoHollow_69 Start: 44278, Stop: 44036, Start Num: 44

Candidate Starts for HippoHollow_69:

(Start: 26 @44317 has 5 MA's), (Start: 44 @44278 has 74 MA's), (54, 44203), (59, 44170), (66, 44137), (67, 44128), (69, 44116),

Gene: Holec_71 Start: 42709, Stop: 42431, Start Num: 31

Candidate Starts for Holec_71:

(Start: 31 @42709 has 23 MA's), (53, 42601), (62, 42547), (63, 42538), (69, 42508),

Gene: Hoot_66 Start: 39166, Stop: 38927, Start Num: 38

Candidate Starts for Hoot_66:

(Start: 38 @39166 has 9 MA's), (54, 39091), (59, 39058), (66, 39025), (67, 39016),

Gene: HortumSL17_74 Start: 42693, Stop: 42415, Start Num: 31

Candidate Starts for HortumSL17_74:

(Start: 31 @42693 has 23 MA's), (53, 42585), (62, 42531), (63, 42522), (69, 42492),

Gene: HuhtaEnerson15_63 Start: 41469, Stop: 41218, Start Num: 34

Candidate Starts for HuhtaEnerson15_63:

(Start: 34 @41469 has 54 MA's), (54, 41376), (55, 41361), (67, 41298), (71, 41253), (74, 41232),

Gene: Hutc2_68 Start: 41575, Stop: 41309, Start Num: 39

Candidate Starts for Hutc2_68:

(Start: 39 @41575 has 33 MA's), (53, 41482), (59, 41443), (66, 41410), (67, 41401), (69, 41389), (71, 41356),

Gene: Indra_76 Start: 41849, Stop: 41592, Start Num: 30

Candidate Starts for Indra_76:

(Start: 30 @41849 has 32 MA's), (Start: 34 @41840 has 54 MA's), (52, 41765), (54, 41756), (59, 41723), (65, 41693), (67, 41681),

Gene: IronMan_68 Start: 43620, Stop: 43360, Start Num: 35

Candidate Starts for IronMan_68:

(9, 43788), (14, 43707), (Start: 35 @43620 has 7 MA's), (54, 43524), (59, 43491), (66, 43458), (67, 43449), (69, 43437),

Gene: Isiphiwo_69 Start: 40857, Stop: 40609, Start Num: 34

Candidate Starts for Isiphiwo_69:

(4, 41097), (8, 41025), (13, 40944), (21, 40899), (Start: 34 @40857 has 54 MA's), (52, 40782), (59, 40740), (65, 40710), (67, 40698),

Gene: Iwokeuplikedis_71 Start: 42572, Stop: 42360, Start Num: 48

Candidate Starts for Iwokeuplikedis_71:

(22, 42650), (Start: 35 @42608 has 7 MA's), (Start: 48 @42572 has 2 MA's), (51, 42557), (54, 42524), (59, 42491), (66, 42458), (67, 42449), (69, 42437),

Gene: Jaan_69 Start: 43788, Stop: 43528, Start Num: 35

Candidate Starts for Jaan_69:

(9, 43956), (14, 43875), (Start: 35 @43788 has 7 MA's), (54, 43692), (59, 43659), (66, 43626), (67, 43617), (69, 43605),

Gene: Jabiru_67 Start: 42041, Stop: 41787, Start Num: 34

Candidate Starts for Jabiru_67:

(Start: 34 @42041 has 54 MA's), (54, 41948), (55, 41933), (67, 41870), (71, 41825), (74, 41804), (77, 41798),

Gene: Jabith_70 Start: 42031, Stop: 41765, Start Num: 39

Candidate Starts for Jabith_70:

(2, 42307), (6, 42223), (7, 42211), (Start: 39 @42031 has 33 MA's), (53, 41938), (59, 41899), (66, 41866), (67, 41857), (69, 41845), (71, 41812),

Gene: Jeeves_74 Start: 42446, Stop: 42174, Start Num: 33

Candidate Starts for Jeeves_74:

(25, 42467), (Start: 33 @42446 has 1 MA's), (Start: 39 @42437 has 33 MA's), (52, 42347), (53, 42344), (58, 42308), (59, 42305), (67, 42263), (69, 42251), (73, 42200),

Gene: Jeffabunny_73 Start: 41475, Stop: 41218, Start Num: 30

Candidate Starts for Jeffabunny_73:

(Start: 30 @41475 has 32 MA's), (Start: 34 @41466 has 54 MA's), (52, 41391), (54, 41382), (59, 41349), (65, 41319), (67, 41307),

Gene: Jerm_72 Start: 43390, Stop: 43151, Start Num: 44

Candidate Starts for Jerm_72:

(Start: 26 @43429 has 5 MA's), (Start: 44 @43390 has 74 MA's), (54, 43315), (59, 43282), (66, 43249), (67, 43240), (69, 43228),

Gene: JewelBug_71 Start: 41591, Stop: 41343, Start Num: 34

Candidate Starts for JewelBug_71:

(4, 41831), (8, 41759), (13, 41678), (21, 41633), (Start: 34 @41591 has 54 MA's), (52, 41516), (59, 41474), (65, 41444), (67, 41432),

Gene: Jiawan_70 Start: 42725, Stop: 42447, Start Num: 31

Candidate Starts for Jiawan_70:

(Start: 31 @42725 has 23 MA's), (53, 42617), (62, 42563), (63, 42554), (69, 42524),

Gene: Jordennis_70 Start: 41072, Stop: 40824, Start Num: 34

Candidate Starts for Jordennis_70:

(4, 41312), (8, 41240), (13, 41159), (21, 41114), (Start: 34 @41072 has 54 MA's), (52, 40997), (59, 40955), (65, 40925), (67, 40913),

Gene: JoshKayV_71 Start: 43441, Stop: 43202, Start Num: 44

Candidate Starts for JoshKayV_71:

(Start: 26 @43480 has 5 MA's), (Start: 44 @43441 has 74 MA's), (54, 43366), (59, 43333), (66, 43300), (67, 43291), (69, 43279),

Gene: Journey13_62 Start: 40039, Stop: 39803, Start Num: 44

Candidate Starts for Journey13_62:

(23, 40096), (Start: 30 @40072 has 32 MA's), (Start: 44 @40039 has 74 MA's), (52, 39976), (54, 39967), (59, 39934), (66, 39901), (67, 39892), (69, 39880), (78, 39811),

Gene: Jovo_66 Start: 42144, Stop: 41893, Start Num: 34

Candidate Starts for Jovo_66:

(Start: 34 @42144 has 54 MA's), (54, 42051), (55, 42036), (67, 41973), (71, 41928), (74, 41907), (77, 41901),

Gene: Jsquared_74 Start: 42531, Stop: 42292, Start Num: 44

Candidate Starts for Jsquared_74:

(Start: 44 @42531 has 74 MA's), (51, 42489), (54, 42456), (59, 42423), (66, 42390), (67, 42381), (69, 42369), (73, 42318), (78, 42300),

Gene: Kazan_72 Start: 41321, Stop: 41082, Start Num: 38

Candidate Starts for Kazan_72:

(Start: 38 @41321 has 9 MA's), (54, 41246), (59, 41213), (66, 41180), (67, 41171),

Gene: Kerberos_74 Start: 43720, Stop: 43487, Start Num: 44

Candidate Starts for Kerberos_74:

(Start: 44 @43720 has 74 MA's), (54, 43642), (59, 43609), (66, 43576), (69, 43555), (74, 43501),

Gene: KingCyrus_71 Start: 44597, Stop: 44358, Start Num: 44

Candidate Starts for KingCyrus_71:

(Start: 44 @44597 has 74 MA's), (54, 44522), (59, 44489), (66, 44456), (67, 44447), (69, 44435),

Gene: Kinmap_73 Start: 41794, Stop: 41531, Start Num: 37

Candidate Starts for Kinmap_73:

(Start: 37 @41794 has 11 MA's), (50, 41728), (52, 41701), (53, 41698), (54, 41692), (55, 41677), (59, 41659), (62, 41644), (66, 41626), (69, 41605),

Gene: Kipper29_71 Start: 41334, Stop: 41095, Start Num: 38

Candidate Starts for Kipper29_71:

(Start: 38 @41334 has 9 MA's), (54, 41259), (59, 41226), (66, 41193), (67, 41184),

Gene: Klodlith_68 Start: 41770, Stop: 41483, Start Num: 30

Candidate Starts for Klodlith_68:

(Start: 30 @41770 has 32 MA's), (53, 41665), (59, 41626), (69, 41572),

Gene: Koduck_73 Start: 42427, Stop: 42188, Start Num: 44

Candidate Starts for Koduck_73:

(Start: 44 @42427 has 74 MA's), (54, 42352), (59, 42319), (66, 42286), (67, 42277), (69, 42265), (73, 42214), (78, 42196),

Gene: Koko_74 Start: 42237, Stop: 41980, Start Num: 30

Candidate Starts for Koko_74:

(Start: 30 @42237 has 32 MA's), (Start: 34 @42228 has 54 MA's), (52, 42153), (54, 42144), (59, 42111), (65, 42081), (67, 42069), (78, 41988),

Gene: L5_68 Start: 42580, Stop: 42341, Start Num: 44

Candidate Starts for L5_68:

(Start: 44 @42580 has 74 MA's), (54, 42505), (59, 42472), (66, 42439), (67, 42430), (69, 42418), (73, 42367), (78, 42349),

Gene: LadyBird_74 Start: 43662, Stop: 43423, Start Num: 44

Candidate Starts for LadyBird_74:

(Start: 26 @43701 has 5 MA's), (Start: 44 @43662 has 74 MA's), (54, 43587), (59, 43554), (66, 43521), (67, 43512), (69, 43500), (75, 43443),

Gene: Landor_69 Start: 43695, Stop: 43435, Start Num: 35

Candidate Starts for Landor_69:

(Start: 35 @43695 has 7 MA's), (54, 43599), (59, 43566), (66, 43533), (67, 43524), (69, 43512),

Gene: Larenn_68 Start: 42943, Stop: 42704, Start Num: 44

Candidate Starts for Larenn_68:

(Start: 44 @42943 has 74 MA's), (54, 42868), (59, 42835), (62, 42820), (66, 42802), (67, 42793), (69, 42781), (75, 42724),

Gene: LarryKay_72 Start: 42417, Stop: 42163, Start Num: 37

Candidate Starts for LarryKay_72:

(24, 42453), (28, 42438), (Start: 37 @42417 has 11 MA's), (47, 42384), (52, 42333), (54, 42324), (57, 42297), (59, 42291), (66, 42258),

Gene: Leogania_70 Start: 43630, Stop: 43391, Start Num: 44

Candidate Starts for Leogania_70:

(Start: 26 @43669 has 5 MA's), (Start: 44 @43630 has 74 MA's), (54, 43555), (59, 43522), (66, 43489), (67, 43480), (69, 43468),

Gene: Lev2_66 Start: 41776, Stop: 41525, Start Num: 34

Candidate Starts for Lev2_66:

(Start: 34 @41776 has 54 MA's), (54, 41683), (55, 41668), (67, 41605), (71, 41560), (74, 41539), (77, 41533),

Gene: Leviathan_72 Start: 43457, Stop: 43218, Start Num: 44

Candidate Starts for Leviathan_72:

(Start: 26 @43496 has 5 MA's), (Start: 44 @43457 has 74 MA's), (54, 43382), (59, 43349), (66, 43316), (67, 43307), (69, 43295),

Gene: LilTurb_71 Start: 43271, Stop: 43032, Start Num: 44

Candidate Starts for LilTurb_71:

(Start: 26 @43310 has 5 MA's), (Start: 44 @43271 has 74 MA's), (54, 43196), (59, 43163), (66, 43130), (67, 43121), (69, 43109),

Gene: Lilbunny_72 Start: 41479, Stop: 41222, Start Num: 30

Candidate Starts for Lilbunny_72:

(Start: 30 @41479 has 32 MA's), (Start: 34 @41470 has 54 MA's), (52, 41395), (54, 41386), (59, 41353), (65, 41323), (67, 41311),

Gene: Lilleskat_70 Start: 42650, Stop: 42372, Start Num: 31

Candidate Starts for Lilleskat_70:

(Start: 31 @42650 has 23 MA's), (53, 42542), (62, 42488), (63, 42479), (69, 42449),

Gene: LionsBait_71 Start: 44279, Stop: 44037, Start Num: 44

Candidate Starts for LionsBait_71:

(Start: 26 @44318 has 5 MA's), (Start: 44 @44279 has 74 MA's), (54, 44204), (59, 44171), (66, 44138), (67, 44129), (69, 44117),

Gene: LittleCherry_64 Start: 41339, Stop: 41088, Start Num: 34

Candidate Starts for LittleCherry_64:

(Start: 34 @41339 has 54 MA's), (54, 41246), (55, 41231), (67, 41168), (71, 41123), (74, 41102),

Gene: Lokk_65 Start: 41753, Stop: 41511, Start Num: 44

Candidate Starts for Lokk_65:

(Start: 44 @41753 has 74 MA's), (54, 41678), (59, 41645), (66, 41612), (67, 41603),

Gene: Loser_72 Start: 43514, Stop: 43275, Start Num: 44

Candidate Starts for Loser_72:

(Start: 26 @43553 has 5 MA's), (Start: 44 @43514 has 74 MA's), (52, 43448), (54, 43439), (59, 43406), (66, 43373), (67, 43364), (69, 43352),

Gene: Lowa_69 Start: 42379, Stop: 42125, Start Num: 37

Candidate Starts for Lowa_69:

(19, 42433), (24, 42415), (28, 42400), (Start: 37 @42379 has 11 MA's), (47, 42346), (52, 42295), (54, 42286), (57, 42259), (59, 42253), (66, 42220),

Gene: Lucivia_70 Start: 42084, Stop: 41818, Start Num: 39

Candidate Starts for Lucivia_70:

(Start: 39 @42084 has 33 MA's), (53, 41991), (59, 41952), (66, 41919), (67, 41910), (69, 41898), (71, 41865),

Gene: Lucyedi_75 Start: 43494, Stop: 43234, Start Num: 34

Candidate Starts for Lucyedi_75:

(10, 43650), (17, 43560), (18, 43542), (19, 43536), (Start: 34 @43494 has 54 MA's), (58, 43356), (69, 43299),

Gene: MaCh_69 Start: 42030, Stop: 41764, Start Num: 39

Candidate Starts for MaCh_69:

(Start: 39 @42030 has 33 MA's), (53, 41937), (59, 41898), (66, 41865), (67, 41856), (69, 41844), (71, 41811),

Gene: Mabel_69 Start: 42031, Stop: 41765, Start Num: 39

Candidate Starts for Mabel_69:

(Start: 39 @42031 has 33 MA's), (53, 41938), (59, 41899), (66, 41866), (67, 41857), (69, 41845), (71, 41812),

Gene: MajorMajor_72 Start: 42401, Stop: 42162, Start Num: 44

Candidate Starts for MajorMajor_72:

(Start: 44 @42401 has 74 MA's), (51, 42359), (54, 42326), (57, 42299), (59, 42293), (66, 42260), (67, 42251), (69, 42239), (73, 42188), (78, 42170),

Gene: Malec_69 Start: 43510, Stop: 43271, Start Num: 44

Candidate Starts for Malec_69:

(Start: 44 @43510 has 74 MA's), (54, 43435), (59, 43402), (62, 43387), (66, 43369), (67, 43360), (69, 43348), (75, 43291),

Gene: Maminaiaina_73 Start: 42834, Stop: 42550, Start Num: 30
Candidate Starts for Maminaiaina_73:
(Start: 30 @42834 has 32 MA's), (53, 42723), (59, 42684), (69, 42630),

Gene: MarysWell_65 Start: 42016, Stop: 41765, Start Num: 34
Candidate Starts for MarysWell_65:
(Start: 34 @42016 has 54 MA's), (52, 41932), (54, 41923), (55, 41908), (67, 41845), (71, 41800), (74, 41779),

Gene: McFly_71 Start: 41284, Stop: 41036, Start Num: 34
Candidate Starts for McFly_71:
(4, 41524), (8, 41452), (13, 41371), (21, 41326), (Start: 34 @41284 has 54 MA's), (52, 41209), (59, 41167), (65, 41137), (67, 41125),

Gene: Micasa_65 Start: 41738, Stop: 41487, Start Num: 34
Candidate Starts for Micasa_65:
(Start: 34 @41738 has 54 MA's), (52, 41654), (54, 41645), (55, 41630), (67, 41567), (71, 41522), (74, 41501),

Gene: MiculUcigas_71 Start: 42957, Stop: 42718, Start Num: 44
Candidate Starts for MiculUcigas_71:
(Start: 26 @42996 has 5 MA's), (Start: 44 @42957 has 74 MA's), (Start: 48 @42930 has 2 MA's), (49, 42927), (54, 42882), (59, 42849), (66, 42816), (67, 42807), (69, 42795), (75, 42738),

Gene: Midas2_62 Start: 41634, Stop: 41383, Start Num: 34
Candidate Starts for Midas2_62:
(Start: 34 @41634 has 54 MA's), (Start: 40 @41622 has 2 MA's), (54, 41541), (55, 41526), (67, 41463), (71, 41418), (74, 41397), (77, 41391),

Gene: Miko_65 Start: 42531, Stop: 42289, Start Num: 44
Candidate Starts for Miko_65:
(Start: 44 @42531 has 74 MA's), (Start: 48 @42504 has 2 MA's), (54, 42456), (59, 42423), (66, 42390), (67, 42381),

Gene: Milcery_65 Start: 41528, Stop: 41277, Start Num: 34
Candidate Starts for Milcery_65:
(Start: 34 @41528 has 54 MA's), (54, 41435), (55, 41420), (67, 41357), (71, 41312), (74, 41291),

Gene: MissWhite_70 Start: 41650, Stop: 41378, Start Num: 30
Candidate Starts for MissWhite_70:
(Start: 30 @41650 has 32 MA's), (Start: 44 @41617 has 74 MA's), (Start: 48 @41590 has 2 MA's), (52, 41551), (54, 41542), (59, 41509), (66, 41476), (67, 41467), (69, 41455), (70, 41440), (78, 41386),

Gene: Montavir_67 Start: 42388, Stop: 42134, Start Num: 37
Candidate Starts for Montavir_67:
(24, 42424), (28, 42409), (Start: 37 @42388 has 11 MA's), (47, 42355), (52, 42304), (54, 42295), (57, 42268), (59, 42262), (66, 42229),

Gene: Mulciber_68 Start: 41572, Stop: 41306, Start Num: 39
Candidate Starts for Mulciber_68:
(Start: 39 @41572 has 33 MA's), (53, 41479), (59, 41440), (66, 41407), (67, 41398), (69, 41386), (71, 41353),

Gene: Munch_69 Start: 42035, Stop: 41769, Start Num: 39

Candidate Starts for Munch_69:

(Start: 39 @42035 has 33 MA's), (53, 41942), (59, 41903), (66, 41870), (67, 41861), (69, 41849), (71, 41816),

Gene: MyraDee_69 Start: 40422, Stop: 40147, Start Num: 27

Candidate Starts for MyraDee_69:

(Start: 27 @40422 has 1 MA's), (52, 40317), (53, 40314), (54, 40308), (65, 40245), (66, 40242), (67, 40233),

Gene: Myxus_73 Start: 42693, Stop: 42415, Start Num: 31

Candidate Starts for Myxus_73:

(Start: 31 @42693 has 23 MA's), (53, 42585), (62, 42531), (63, 42522), (69, 42492),

Gene: NaSiaTalie_71 Start: 43051, Stop: 42812, Start Num: 44

Candidate Starts for NaSiaTalie_71:

(Start: 26 @43090 has 5 MA's), (Start: 44 @43051 has 74 MA's), (Start: 48 @43024 has 2 MA's), (49, 43021), (54, 42976), (59, 42943), (66, 42910), (67, 42901), (69, 42889), (75, 42832),

Gene: Naca_68 Start: 42929, Stop: 42675, Start Num: 34

Candidate Starts for Naca_68:

(Start: 34 @42929 has 54 MA's), (54, 42836), (55, 42821), (67, 42758), (71, 42713), (74, 42692), (77, 42686),

Gene: Naji_74 Start: 43721, Stop: 43488, Start Num: 44

Candidate Starts for Naji_74:

(Start: 44 @43721 has 74 MA's), (54, 43643), (59, 43610), (66, 43577), (69, 43556), (74, 43502),

Gene: NearlyHeadless_81 Start: 43932, Stop: 43648, Start Num: 39

Candidate Starts for NearlyHeadless_81:

(Start: 39 @43932 has 33 MA's), (Start: 48 @43890 has 2 MA's), (53, 43848), (54, 43842), (66, 43770), (67, 43761), (68, 43752),

Gene: Neeharika16_70 Start: 40751, Stop: 40503, Start Num: 34

Candidate Starts for Neeharika16_70:

(4, 40991), (8, 40919), (13, 40838), (21, 40793), (Start: 34 @40751 has 54 MA's), (52, 40676), (59, 40634), (65, 40604), (67, 40592),

Gene: Newrala_71 Start: 41291, Stop: 41043, Start Num: 34

Candidate Starts for Newrala_71:

(4, 41531), (8, 41459), (13, 41378), (21, 41333), (Start: 34 @41291 has 54 MA's), (52, 41216), (59, 41174), (65, 41144), (67, 41132),

Gene: NicoleTera_68 Start: 43116, Stop: 42838, Start Num: 26

Candidate Starts for NicoleTera_68:

(16, 43173), (Start: 26 @43116 has 5 MA's), (Start: 44 @43077 has 74 MA's), (54, 43002), (59, 42969), (66, 42936), (67, 42927), (69, 42915), (76, 42855),

Gene: Odin_71 Start: 42102, Stop: 41860, Start Num: 42

Candidate Starts for Odin_71:

(Start: 42 @42102 has 2 MA's), (52, 42027), (55, 42003), (58, 41988), (59, 41985), (60, 41979), (61, 41976), (66, 41952), (69, 41931),

Gene: Orange_68 Start: 41584, Stop: 41318, Start Num: 39

Candidate Starts for Orange_68:

(Start: 39 @41584 has 33 MA's), (53, 41491), (59, 41452), (66, 41419), (67, 41410), (69, 41398), (71, 41365),

Gene: PackMan_72 Start: 42568, Stop: 42290, Start Num: 31

Candidate Starts for PackMan_72:

(Start: 31 @42568 has 23 MA's), (53, 42460), (62, 42406), (63, 42397), (69, 42367),

Gene: Pawn_70 Start: 42208, Stop: 41954, Start Num: 37

Candidate Starts for Pawn_70:

(19, 42262), (24, 42244), (28, 42229), (Start: 37 @42208 has 11 MA's), (47, 42175), (52, 42124), (54, 42115), (57, 42088), (59, 42082), (61, 42073), (66, 42049),

Gene: Petersenfast_67 Start: 41583, Stop: 41317, Start Num: 39

Candidate Starts for Petersenfast_67:

(Start: 39 @41583 has 33 MA's), (53, 41490), (59, 41451), (66, 41418), (67, 41409), (69, 41397), (71, 41364),

Gene: PetterN_73 Start: 42716, Stop: 42465, Start Num: 34

Candidate Starts for PetterN_73:

(Start: 34 @42716 has 54 MA's), (54, 42623), (55, 42608), (67, 42545), (71, 42500), (74, 42479),

Gene: Ph8s_74 Start: 42194, Stop: 41919, Start Num: 30

Candidate Starts for Ph8s_74:

(Start: 30 @42194 has 32 MA's), (Start: 34 @42185 has 54 MA's), (Start: 48 @42125 has 2 MA's), (52, 42086), (59, 42044), (61, 42035), (66, 42011), (69, 41990),

Gene: Phaded_66 Start: 43672, Stop: 43412, Start Num: 35

Candidate Starts for Phaded_66:

(9, 43840), (14, 43759), (Start: 35 @43672 has 7 MA's), (54, 43576), (59, 43543), (66, 43510), (67, 43501), (69, 43489),

Gene: Phaeder_73 Start: 42568, Stop: 42290, Start Num: 31

Candidate Starts for Phaeder_73:

(Start: 31 @42568 has 23 MA's), (53, 42460), (62, 42406), (63, 42397), (69, 42367),

Gene: Pharaoh_67 Start: 42614, Stop: 42354, Start Num: 39

Candidate Starts for Pharaoh_67:

(Start: 39 @42614 has 33 MA's), (53, 42521), (54, 42515), (59, 42482), (61, 42473),

Gene: Phillis_77 Start: 42884, Stop: 42600, Start Num: 39

Candidate Starts for Phillis_77:

(Start: 39 @42884 has 33 MA's), (Start: 48 @42842 has 2 MA's), (53, 42800), (54, 42794), (66, 42722), (67, 42713), (68, 42704),

Gene: Phlei_58 Start: 41698, Stop: 41450, Start Num: 41

Candidate Starts for Phlei_58:

(41, 41698), (43, 41689), (46, 41683), (Start: 48 @41653 has 2 MA's), (51, 41638), (52, 41614), (54, 41605), (56, 41581), (59, 41572), (62, 41557), (66, 41539), (69, 41518),

Gene: Phlorence_64 Start: 41521, Stop: 41270, Start Num: 34

Candidate Starts for Phlorence_64:

(Start: 34 @41521 has 54 MA's), (54, 41428), (55, 41413), (67, 41350), (71, 41305), (74, 41284), (77, 41278),

Gene: Phoebe_73 Start: 42380, Stop: 42126, Start Num: 37

Candidate Starts for Phoebe_73:

(19, 42434), (24, 42416), (28, 42401), (Start: 37 @42380 has 11 MA's), (47, 42347), (52, 42296), (54, 42287), (57, 42260), (59, 42254), (66, 42221),

Gene: Phonnegut_73 Start: 42638, Stop: 42360, Start Num: 31

Candidate Starts for Phonnegut_73:

(Start: 31 @42638 has 23 MA's), (53, 42530), (62, 42476), (63, 42467), (69, 42437),

Gene: Phranny_72 Start: 42190, Stop: 41936, Start Num: 37

Candidate Starts for Phranny_72:

(28, 42211), (Start: 37 @42190 has 11 MA's), (47, 42157), (52, 42106), (54, 42097), (57, 42070), (59, 42064), (61, 42055), (66, 42031),

Gene: PickleBack_66 Start: 41698, Stop: 41447, Start Num: 34

Candidate Starts for PickleBack_66:

(Start: 34 @41698 has 54 MA's), (54, 41605), (55, 41590), (67, 41527), (71, 41482), (74, 41461), (77, 41455),

Gene: Pioneer_73 Start: 42638, Stop: 42360, Start Num: 31

Candidate Starts for Pioneer_73:

(Start: 31 @42638 has 23 MA's), (53, 42530), (62, 42476), (63, 42467), (69, 42437),

Gene: Piro94_70 Start: 43019, Stop: 42780, Start Num: 44

Candidate Starts for Piro94_70:

(Start: 44 @43019 has 74 MA's), (Start: 48 @42992 has 2 MA's), (49, 42989), (54, 42944), (59, 42911), (66, 42878), (67, 42869), (69, 42857),

Gene: Pmask_70 Start: 41287, Stop: 41039, Start Num: 34

Candidate Starts for Pmask_70:

(4, 41527), (8, 41455), (13, 41374), (21, 41329), (Start: 34 @41287 has 54 MA's), (52, 41212), (59, 41170), (65, 41140), (67, 41128),

Gene: Polyphemus_73 Start: 41677, Stop: 41429, Start Num: 34

Candidate Starts for Polyphemus_73:

(4, 41917), (8, 41845), (13, 41764), (21, 41719), (Start: 34 @41677 has 54 MA's), (52, 41602), (59, 41560), (65, 41530), (67, 41518),

Gene: Pomar16_73 Start: 43761, Stop: 43528, Start Num: 44

Candidate Starts for Pomar16_73:

(Start: 44 @43761 has 74 MA's), (54, 43683), (59, 43650), (66, 43617), (69, 43596), (74, 43542),

Gene: Power_70 Start: 43392, Stop: 43153, Start Num: 44

Candidate Starts for Power_70:

(Start: 26 @43431 has 5 MA's), (Start: 44 @43392 has 74 MA's), (54, 43317), (59, 43284), (66, 43251), (67, 43242), (69, 43230), (75, 43173),

Gene: Priamo_73 Start: 41142, Stop: 40894, Start Num: 34

Candidate Starts for Priamo_73:

(4, 41382), (8, 41310), (13, 41229), (21, 41184), (Start: 34 @41142 has 54 MA's), (52, 41067), (59, 41025), (65, 40995), (67, 40983),

Gene: Prin Ashe11_63 Start: 41348, Stop: 41097, Start Num: 34

Candidate Starts for Prin Ashe11_63:

(Start: 34 @41348 has 54 MA's), (54, 41255), (55, 41240), (67, 41177), (71, 41132), (74, 41111),

Gene: Priya_71 Start: 42365, Stop: 42087, Start Num: 31

Candidate Starts for Priya_71:

(Start: 31 @42365 has 23 MA's), (53, 42257), (62, 42203), (63, 42194), (69, 42164),

Gene: Prudy_64 Start: 43039, Stop: 42800, Start Num: 44

Candidate Starts for Prudy_64:

(Start: 44 @43039 has 74 MA's), (Start: 48 @43012 has 2 MA's), (54, 42964), (59, 42931), (66, 42898), (67, 42889), (69, 42877),

Gene: Pukovnik_67 Start: 43337, Stop: 43080, Start Num: 35

Candidate Starts for Pukovnik_67:

(9, 43505), (Start: 35 @43337 has 7 MA's), (54, 43244), (59, 43211), (66, 43178), (67, 43169), (69, 43157),

Gene: Qobbit_71 Start: 42327, Stop: 42049, Start Num: 31

Candidate Starts for Qobbit_71:

(Start: 31 @42327 has 23 MA's), (53, 42219), (62, 42165), (63, 42156), (69, 42126),

Gene: QueenB2_69 Start: 42866, Stop: 42627, Start Num: 44

Candidate Starts for QueenB2_69:

(Start: 26 @42905 has 5 MA's), (Start: 44 @42866 has 74 MA's), (54, 42791), (59, 42758), (66, 42725), (67, 42716), (69, 42704), (76, 42644),

Gene: QueenBeesly_71 Start: 43349, Stop: 43110, Start Num: 44

Candidate Starts for QueenBeesly_71:

(Start: 26 @43388 has 5 MA's), (Start: 44 @43349 has 74 MA's), (54, 43274), (59, 43241), (66, 43208), (67, 43199), (69, 43187), (75, 43130),

Gene: Quokka_72 Start: 42401, Stop: 42162, Start Num: 44

Candidate Starts for Quokka_72:

(Start: 44 @42401 has 74 MA's), (51, 42359), (54, 42326), (57, 42299), (59, 42293), (66, 42260), (67, 42251), (69, 42239), (73, 42188), (78, 42170),

Gene: Rachaly_67 Start: 42676, Stop: 42434, Start Num: 44

Candidate Starts for Rachaly_67:

(Start: 44 @42676 has 74 MA's), (Start: 48 @42649 has 2 MA's), (54, 42601), (59, 42568), (66, 42535), (67, 42526),

Gene: Reba_71 Start: 41863, Stop: 41609, Start Num: 37

Candidate Starts for Reba_71:

(28, 41884), (Start: 37 @41863 has 11 MA's), (47, 41830), (52, 41779), (54, 41770), (57, 41743), (59, 41737), (61, 41728), (66, 41704),

Gene: RedRock_70 Start: 43508, Stop: 43269, Start Num: 44

Candidate Starts for RedRock_70:

(Start: 44 @43508 has 74 MA's), (52, 43442), (54, 43433), (59, 43400), (66, 43367), (67, 43358), (69, 43346),

Gene: Retro23_71 Start: 43080, Stop: 42841, Start Num: 44

Candidate Starts for Retro23_71:

(Start: 26 @43119 has 5 MA's), (Start: 44 @43080 has 74 MA's), (54, 43005), (59, 42972), (66, 42939), (67, 42930), (69, 42918), (75, 42861),

Gene: Rifter_73 Start: 41009, Stop: 40752, Start Num: 30

Candidate Starts for Rifter_73:

(Start: 30 @41009 has 32 MA's), (Start: 34 @41000 has 54 MA's), (52, 40925), (54, 40916), (59, 40883), (65, 40853), (67, 40841),

Gene: Roary_82 Start: 44168, Stop: 43884, Start Num: 39

Candidate Starts for Roary_82:

(Start: 39 @44168 has 33 MA's), (Start: 48 @44126 has 2 MA's), (52, 44087), (53, 44084), (54, 44078), (70, 43970),

Gene: Roksolana_73 Start: 41743, Stop: 41486, Start Num: 30

Candidate Starts for Roksolana_73:

(Start: 30 @41743 has 32 MA's), (Start: 34 @41734 has 54 MA's), (52, 41659), (54, 41650), (59, 41617), (65, 41587), (67, 41575), (78, 41494),

Gene: RyeScarlet_74 Start: 42613, Stop: 42335, Start Num: 31

Candidate Starts for RyeScarlet_74:

(Start: 31 @42613 has 23 MA's), (53, 42505), (62, 42451), (63, 42442), (69, 42412),

Gene: Sachima_69 Start: 42594, Stop: 42316, Start Num: 31

Candidate Starts for Sachima_69:

(Start: 31 @42594 has 23 MA's), (53, 42486), (62, 42432), (63, 42423), (69, 42393),

Gene: Saintus_76 Start: 40816, Stop: 40532, Start Num: 39

Candidate Starts for Saintus_76:

(Start: 39 @40816 has 33 MA's), (Start: 48 @40774 has 2 MA's), (53, 40732), (54, 40726), (70, 40618),

Gene: Salz_68 Start: 41498, Stop: 41232, Start Num: 39

Candidate Starts for Salz_68:

(Start: 39 @41498 has 33 MA's), (53, 41405), (59, 41366), (66, 41333), (67, 41324), (69, 41312), (71, 41279),

Gene: Saskia_70 Start: 42046, Stop: 41783, Start Num: 39

Candidate Starts for Saskia_70:

(Start: 39 @42046 has 33 MA's), (53, 41953), (59, 41914), (65, 41884), (66, 41881), (67, 41872), (69, 41860), (78, 41791),

Gene: Scherzo_72 Start: 42857, Stop: 42579, Start Num: 31

Candidate Starts for Scherzo_72:

(Start: 31 @42857 has 23 MA's), (53, 42749), (62, 42695), (63, 42686), (69, 42656),

Gene: Scorpia_69 Start: 42287, Stop: 42036, Start Num: 34

Candidate Starts for Scorpia_69:

(Start: 34 @42287 has 54 MA's), (54, 42194), (55, 42179), (67, 42116), (71, 42071), (74, 42050),

Gene: SemperFi_71 Start: 43237, Stop: 42998, Start Num: 44

Candidate Starts for SemperFi_71:

(Start: 26 @43276 has 5 MA's), (Start: 44 @43237 has 74 MA's), (54, 43162), (59, 43129), (66, 43096), (67, 43087), (69, 43075), (75, 43018),

Gene: Sham4_69 Start: 41582, Stop: 41316, Start Num: 39

Candidate Starts for Sham4_69:

(Start: 39 @41582 has 33 MA's), (53, 41489), (59, 41450), (66, 41417), (67, 41408), (69, 41396), (71, 41363),

Gene: SheaKeira_67 Start: 41628, Stop: 41359, Start Num: 31

Candidate Starts for SheaKeira_67:

(Start: 31 @41628 has 23 MA's), (52, 41532), (53, 41529), (62, 41475), (63, 41466), (69, 41436),

Gene: Sknot_71 Start: 43051, Stop: 42812, Start Num: 44

Candidate Starts for Sknot_71:

(Start: 26 @43090 has 5 MA's), (Start: 44 @43051 has 74 MA's), (Start: 48 @43024 has 2 MA's), (49, 43021), (54, 42976), (59, 42943), (66, 42910), (67, 42901), (69, 42889), (75, 42832),

Gene: Smeadley_80 Start: 43984, Stop: 43700, Start Num: 39

Candidate Starts for Smeadley_80:

(Start: 39 @43984 has 33 MA's), (Start: 48 @43942 has 2 MA's), (53, 43900), (54, 43894), (70, 43786),

Gene: Smeagan_73 Start: 43548, Stop: 43309, Start Num: 44

Candidate Starts for Smeagan_73:

(Start: 26 @43587 has 5 MA's), (Start: 44 @43548 has 74 MA's), (54, 43473), (59, 43440), (66, 43407), (67, 43398), (69, 43386),

Gene: SmellyB_71 Start: 41315, Stop: 41076, Start Num: 38

Candidate Starts for SmellyB_71:

(Start: 38 @41315 has 9 MA's), (54, 41240), (59, 41207), (66, 41174), (67, 41165),

Gene: SnapTap_70 Start: 43048, Stop: 42809, Start Num: 44

Candidate Starts for SnapTap_70:

(Start: 26 @43087 has 5 MA's), (Start: 44 @43048 has 74 MA's), (54, 42973), (59, 42940), (66, 42907), (67, 42898), (69, 42886), (75, 42829),

Gene: Snape_69 Start: 41574, Stop: 41308, Start Num: 39

Candidate Starts for Snape_69:

(Start: 39 @41574 has 33 MA's), (53, 41481), (59, 41442), (66, 41409), (67, 41400), (69, 41388), (71, 41355),

Gene: Snickers_72 Start: 42361, Stop: 42107, Start Num: 37

Candidate Starts for Snickers_72:

(24, 42397), (28, 42382), (Start: 37 @42361 has 11 MA's), (47, 42328), (52, 42277), (54, 42268), (57, 42241), (59, 42235), (66, 42202),

Gene: Spouty_71 Start: 42364, Stop: 42086, Start Num: 31

Candidate Starts for Spouty_71:

(Start: 31 @42364 has 23 MA's), (53, 42256), (62, 42202), (63, 42193), (69, 42163),

Gene: Stagni_69 Start: 42390, Stop: 42136, Start Num: 37

Candidate Starts for Stagni_69:

(19, 42444), (24, 42426), (28, 42411), (Start: 37 @42390 has 11 MA's), (47, 42357), (52, 42306), (54, 42297), (57, 42270), (59, 42264), (66, 42231),

Gene: StarStuff_74 Start: 43723, Stop: 43490, Start Num: 44

Candidate Starts for StarStuff_74:

(Start: 44 @43723 has 74 MA's), (54, 43645), (59, 43612), (66, 43579), (69, 43558), (74, 43504),

Gene: Stephig9_79 Start: 43923, Stop: 43639, Start Num: 39

Candidate Starts for Stephig9_79:

(Start: 39 @43923 has 33 MA's), (Start: 48 @43881 has 2 MA's), (53, 43839), (54, 43833), (70, 43725),

Gene: SuperAwesome_71 Start: 41329, Stop: 41081, Start Num: 34

Candidate Starts for SuperAwesome_71:

(4, 41569), (8, 41497), (13, 41416), (21, 41371), (Start: 34 @41329 has 54 MA's), (52, 41254), (59, 41212), (65, 41182), (67, 41170),

Gene: SuperCallie99_68 Start: 41171, Stop: 40923, Start Num: 34

Candidate Starts for SuperCallie99_68:

(4, 41411), (8, 41339), (13, 41258), (21, 41213), (Start: 34 @41171 has 54 MA's), (52, 41096), (59, 41054), (65, 41024), (67, 41012),

Gene: Superchunk_72 Start: 41714, Stop: 41472, Start Num: 42

Candidate Starts for Superchunk_72:

(Start: 42 @41714 has 2 MA's), (55, 41615), (58, 41600), (59, 41597), (60, 41591), (61, 41588), (66, 41564), (69, 41543),

Gene: SweetiePie_70 Start: 43180, Stop: 42941, Start Num: 44

Candidate Starts for SweetiePie_70:

(Start: 26 @43219 has 5 MA's), (Start: 44 @43180 has 74 MA's), (54, 43105), (59, 43072), (66, 43039), (67, 43030), (69, 43018), (75, 42961),

Gene: SwirlSquare_76 Start: 42463, Stop: 42188, Start Num: 30

Candidate Starts for SwirlSquare_76:

(1, 42814), (3, 42703), (12, 42577), (Start: 30 @42463 has 32 MA's), (Start: 34 @42454 has 54 MA's), (Start: 48 @42394 has 2 MA's), (59, 42313), (66, 42280),

Gene: Swirley_65 Start: 41678, Stop: 41427, Start Num: 34

Candidate Starts for Swirley_65:

(Start: 34 @41678 has 54 MA's), (54, 41585), (55, 41570), (67, 41507), (71, 41462), (74, 41441),

Gene: SydNat_65 Start: 41870, Stop: 41619, Start Num: 34

Candidate Starts for SydNat_65:

(Start: 34 @41870 has 54 MA's), (Start: 40 @41858 has 2 MA's), (52, 41786), (54, 41777), (55, 41762), (67, 41699), (71, 41654), (74, 41633), (77, 41627),

Gene: TarsusIV_68 Start: 43024, Stop: 42785, Start Num: 44

Candidate Starts for TarsusIV_68:

(Start: 26 @43063 has 5 MA's), (Start: 44 @43024 has 74 MA's), (49, 42994), (54, 42949), (59, 42916), (66, 42883), (67, 42874), (69, 42862), (76, 42802),

Gene: Tarynearal_64 Start: 41514, Stop: 41263, Start Num: 34

Candidate Starts for Tarynearal_64:

(Start: 34 @41514 has 54 MA's), (54, 41421), (55, 41406), (67, 41343), (71, 41298), (74, 41277), (77, 41271),

Gene: Temprado_74 Start: 41848, Stop: 41591, Start Num: 30

Candidate Starts for Temprado_74:

(Start: 30 @41848 has 32 MA's), (Start: 34 @41839 has 54 MA's), (52, 41764), (54, 41755), (59, 41722), (65, 41692), (67, 41680),

Gene: Terrific_71 Start: 43025, Stop: 42786, Start Num: 44

Candidate Starts for Terrific_71:

(Start: 44 @43025 has 74 MA's), (Start: 48 @42998 has 2 MA's), (49, 42995), (54, 42950), (59, 42917), (66, 42884), (67, 42875), (69, 42863),

Gene: Theia_64 Start: 41988, Stop: 41749, Start Num: 40

Candidate Starts for Theia_64:

(Start: 34 @42000 has 54 MA's), (Start: 40 @41988 has 2 MA's), (52, 41916), (54, 41907), (55, 41892), (67, 41829), (71, 41784), (74, 41763),

Gene: Tiger_65 Start: 41442, Stop: 41191, Start Num: 34

Candidate Starts for Tiger_65:

(Start: 34 @41442 has 54 MA's), (54, 41349), (55, 41334), (67, 41271), (71, 41226), (74, 41205), (77, 41199),

Gene: Timothy_69 Start: 41551, Stop: 41285, Start Num: 39

Candidate Starts for Timothy_69:

(Start: 39 @41551 has 33 MA's), (53, 41458), (59, 41419), (66, 41386), (67, 41377), (69, 41365), (71, 41332),

Gene: TipsytheTRex_70 Start: 42600, Stop: 42361, Start Num: 44

Candidate Starts for TipsytheTRex_70:

(Start: 44 @42600 has 74 MA's), (51, 42558), (54, 42525), (57, 42498), (59, 42492), (66, 42459), (67, 42450), (69, 42438), (73, 42387), (78, 42369),

Gene: Tomathan_74 Start: 43834, Stop: 43601, Start Num: 44

Candidate Starts for Tomathan_74:

(Start: 44 @43834 has 74 MA's), (54, 43756), (59, 43723), (66, 43690), (69, 43669), (74, 43615),

Gene: ToneTone_70 Start: 41408, Stop: 41151, Start Num: 30

Candidate Starts for ToneTone_70:

(Start: 30 @41408 has 32 MA's), (Start: 34 @41399 has 54 MA's), (52, 41324), (54, 41315), (59, 41282), (65, 41252), (67, 41240),

Gene: Travvers_73 Start: 43720, Stop: 43487, Start Num: 44

Candidate Starts for Travvers_73:

(Start: 44 @43720 has 74 MA's), (54, 43642), (59, 43609), (66, 43576), (69, 43555), (74, 43501),

Gene: Tristan_67 Start: 43510, Stop: 43250, Start Num: 35

Candidate Starts for Tristan_67:

(Start: 35 @43510 has 7 MA's), (54, 43414), (59, 43381), (66, 43348), (67, 43339), (69, 43327),

Gene: Trixie_69 Start: 43058, Stop: 42813, Start Num: 35

Candidate Starts for Trixie_69:

(Start: 32 @43064 has 1 MA's), (Start: 35 @43058 has 7 MA's), (Start: 48 @43025 has 2 MA's), (54, 42977), (59, 42944), (66, 42911), (67, 42902), (69, 42890), (73, 42839),

Gene: Trooper_70 Start: 42983, Stop: 42744, Start Num: 44

Candidate Starts for Trooper_70:

(Start: 26 @43022 has 5 MA's), (Start: 44 @42983 has 74 MA's), (54, 42908), (59, 42875), (66, 42842), (67, 42833), (76, 42761),

Gene: Tubs_73 Start: 42568, Stop: 42290, Start Num: 31

Candidate Starts for Tubs_73:

(Start: 31 @42568 has 23 MA's), (53, 42460), (62, 42406), (63, 42397), (69, 42367),

Gene: Tucker_73 Start: 41611, Stop: 41354, Start Num: 30

Candidate Starts for Tucker_73:

(Start: 30 @41611 has 32 MA's), (Start: 34 @41602 has 54 MA's), (52, 41527), (54, 41518), (59, 41485), (65, 41455), (67, 41443),

Gene: Turbido_71 Start: 43267, Stop: 43028, Start Num: 44

Candidate Starts for Turbido_71:

(Start: 26 @43306 has 5 MA's), (Start: 44 @43267 has 74 MA's), (54, 43192), (59, 43159), (66, 43126), (67, 43117), (69, 43105),

Gene: Twigg_62 Start: 41326, Stop: 41075, Start Num: 34

Candidate Starts for Twigg_62:

(Start: 34 @41326 has 54 MA's), (52, 41242), (54, 41233), (55, 41218), (67, 41155), (71, 41110), (74, 41089),

Gene: Ugenie5_68 Start: 42856, Stop: 42578, Start Num: 31

Candidate Starts for Ugenie5_68:

(Start: 31 @42856 has 23 MA's), (53, 42748), (62, 42694), (63, 42685), (69, 42655),

Gene: UnionJack_69 Start: 41951, Stop: 41700, Start Num: 34

Candidate Starts for UnionJack_69:

(Start: 34 @41951 has 54 MA's), (54, 41858), (55, 41843), (67, 41780), (71, 41735), (74, 41714), (77, 41708),

Gene: Updawg_71 Start: 42915, Stop: 42676, Start Num: 44

Candidate Starts for Updawg_71:

(Start: 44 @42915 has 74 MA's), (Start: 48 @42888 has 2 MA's), (49, 42885), (54, 42840), (59, 42807), (66, 42774), (67, 42765), (69, 42753),

Gene: VA6_70 Start: 42966, Stop: 42727, Start Num: 44

Candidate Starts for VA6_70:

(Start: 26 @43005 has 5 MA's), (Start: 44 @42966 has 74 MA's), (Start: 48 @42939 has 2 MA's), (54, 42891), (59, 42858), (66, 42825), (67, 42816), (69, 42804), (75, 42747),

Gene: VohminGhazi_71 Start: 41316, Stop: 41077, Start Num: 38

Candidate Starts for VohminGhazi_71:

(Start: 38 @41316 has 9 MA's), (54, 41241), (59, 41208), (66, 41175), (67, 41166),

Gene: Whabigail7_71 Start: 43267, Stop: 43028, Start Num: 44

Candidate Starts for Whabigail7_71:

(Start: 26 @43306 has 5 MA's), (Start: 44 @43267 has 74 MA's), (54, 43192), (59, 43159), (66, 43126), (67, 43117), (69, 43105),

Gene: WideWale_71 Start: 42915, Stop: 42676, Start Num: 44

Candidate Starts for WideWale_71:

(Start: 44 @42915 has 74 MA's), (Start: 48 @42888 has 2 MA's), (49, 42885), (54, 42840), (59, 42807), (66, 42774), (67, 42765), (69, 42753),

Gene: Wiks_72 Start: 41479, Stop: 41222, Start Num: 30

Candidate Starts for Wiks_72:

(Start: 30 @41479 has 32 MA's), (Start: 34 @41470 has 54 MA's), (52, 41395), (54, 41386), (59, 41353), (65, 41323), (67, 41311),

Gene: Wolpertinger_67 Start: 41583, Stop: 41317, Start Num: 39

Candidate Starts for Wolpertinger_67:

(Start: 39 @41583 has 33 MA's), (53, 41490), (59, 41451), (66, 41418), (67, 41409), (69, 41397), (71, 41364),

Gene: WunderPhul_73 Start: 41477, Stop: 41220, Start Num: 30

Candidate Starts for WunderPhul_73:

(Start: 30 @41477 has 32 MA's), (Start: 34 @41468 has 54 MA's), (52, 41393), (54, 41384), (59, 41351), (65, 41321), (67, 41309),

Gene: XianYue_66 Start: 42239, Stop: 41988, Start Num: 32

Candidate Starts for XianYue_66:

(22, 42275), (Start: 32 @42239 has 1 MA's), (49, 42197), (54, 42152), (59, 42119), (66, 42086), (67, 42077), (69, 42065),

Gene: Yecey3_74 Start: 42420, Stop: 42151, Start Num: 36

Candidate Starts for Yecey3_74:

(Start: 36 @42420 has 1 MA's), (52, 42324), (53, 42321), (62, 42267), (63, 42258), (69, 42228),

Gene: Yokurt_72 Start: 41479, Stop: 41222, Start Num: 30

Candidate Starts for Yokurt_72:

(Start: 30 @41479 has 32 MA's), (Start: 34 @41470 has 54 MA's), (52, 41395), (54, 41386), (59, 41353), (65, 41323), (67, 41311),

Gene: Zaka_73 Start: 41479, Stop: 41222, Start Num: 30

Candidate Starts for Zaka_73:

(Start: 30 @41479 has 32 MA's), (Start: 34 @41470 has 54 MA's), (52, 41395), (54, 41386), (59, 41353), (65, 41323), (67, 41311),

Gene: Zimmer_68 Start: 43433, Stop: 43122, Start Num: 20

Candidate Starts for Zimmer_68:

(19, 43436), (Start: 20 @43433 has 2 MA's), (Start: 39 @43385 has 33 MA's), (Start: 48 @43334 has 2 MA's), (52, 43295), (54, 43286), (59, 43253), (64, 43226), (73, 43148),

Gene: Zolita_64 Start: 41874, Stop: 41623, Start Num: 34

Candidate Starts for Zolita_64:

(Start: 34 @41874 has 54 MA's), (Start: 40 @41862 has 2 MA's), (52, 41790), (54, 41781), (55, 41766), (67, 41703), (71, 41658), (74, 41637), (77, 41631),

Gene: Zulu_74 Start: 41857, Stop: 41600, Start Num: 30

Candidate Starts for Zulu_74:

(Start: 30 @41857 has 32 MA's), (Start: 34 @41848 has 54 MA's), (52, 41773), (54, 41764), (59, 41731), (65, 41701), (67, 41689),