Pham 289009

Pham 289009

51: Rebel_41 + 11
52: Pipsqueaks_45 + 21
53: Rupeeiu_48 + 3
54: Bosection6_43
55: Cubone_47
56: MooMoo_58
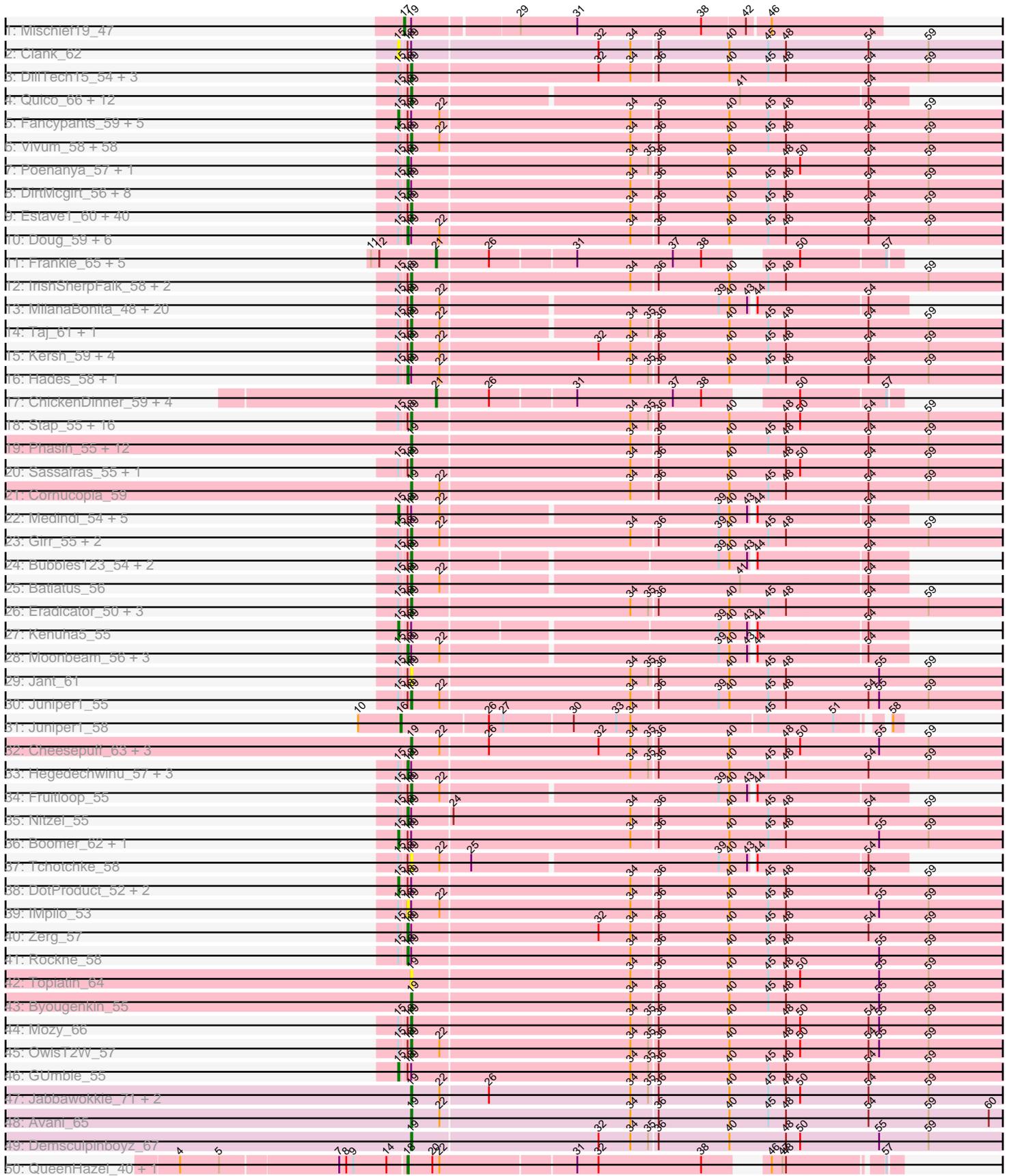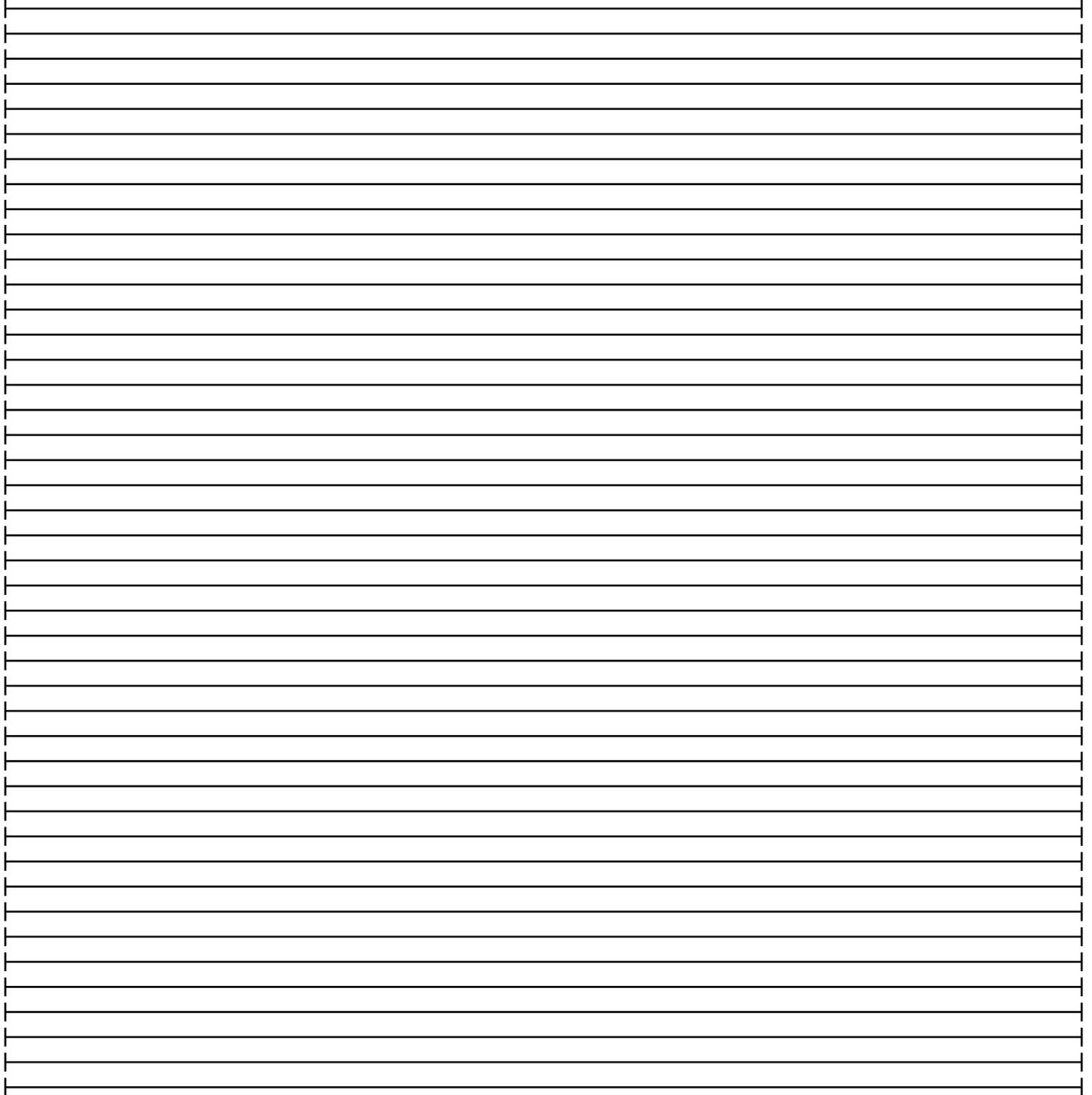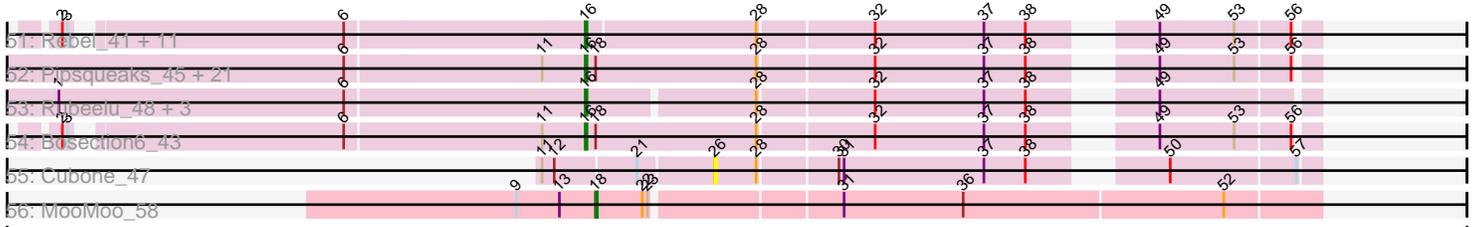
Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 289009 Report

This analysis was run 03/28/26 on database version 641.

Pham number 289009 has 317 members, 33 are drafts.

Phages represented in each track:
• Track 1 : Mischief19_47
• Track 2 : Clank_62
• Track 3 : DillTech15_54, RockyHorror_58, Marker_59, Fastidio_57
• Track 4 : Quico_66, Brushbloom_60, Sandalphon_59, Whatsapiecost_58, Minnie_61, Florinda_69, Veteran_54, Squirty_60, Chevrolet_63, ArcusAngelus_60, Girafales_67, MilleniumForce_61, Ramsey_57
• Track 5 : Fancypants_59, Enzomatic_63, Ochi17_60, BobaPhett_61, EmiMonkey_55, Polo2Bam_62
• Track 6 : Vivum_58, OlympiaSaint_59, Zizzle_61, Burwell21_55, ShowerHandel_60, Seabastian_62, Cabrinians_58, Jinglebell_62, Brocalys_52, Llama_62, OfUltron_62, Kimberlium_59, Oksu_61, Dante_58, Martik_57, DaWorst_58, Emmaloid_58, Lizziana_63, Starcevich_56, Latretium_59, KristaRAM_60, SeaLumen_61, AlpineSix_62, LunaBlu_59, MulchExplorer_63, Rita_58, ShiLan_56, NewHope4_58, Clifton_52, Saal_59, Radiance_56, Alexphander_61, Mwanjiwa_63, SiSi_55, Hlubikazi_53, MadMen_55, Galactic_56, Madiba_55, Gorge_61, Mattes_61, Slim_58, SwagPigglett_62, Pippy_55, FreddyB_58, Ibhubesi_57, Mantra_53, Strokeseat_53, Chuckly_60, QuickMath_58, PhlipPhlop_57, LastJedi_51, Koella_51, Priscilla_57, GigiOuiOui_53, Karhdo_54, Yorick_56, Rialto_63, Violac_59, Crumble_52
• Track 7 : Poenanya_57, Empress_55
• Track 8 : DirtMcgirt_56, Job42_59, Blexus_55, Firehouse51_58, BigPhil_53, BlueCrab_57, Totinger_56, Cerasum_53, Plumbus_59
• Track 9 : Estave1_60, Llij_53, Ovechkin_56, Drago_55, Scottish_55, Sabbb_61, DRBy19_60, Spikelee_64, Eish_61, OldBen_54, Whouxphf_54, Mova_58, SimranZ1_57, Nivrat_53, VRedHorse_57, Leozinho_56, Brookers_54, Velveteen_52, Renaud18_62, DosHalletts_59, LittleShirley_56, Nichirin_64, Peridot_58, Doomslug_66, Royals2015_60, Phatniss_55, Kingsley_54, LilMoolah_55, James_61, Coco12_56, Maravista_58, Sarma624_55, UncleRicky_56, Tootsieroll_58, Beanstalk_57, Lucia_57, Philus_60, Mutaforma13_61, Mahavrat_55, Lorde_57, ByChance_49
• Track 10 : Doug_59, Jarcob_57, Pollywog_58, Mandlovu_53, NormanBulbieJr_57, Modragons_61, Jennelsea_54
• Track 11 : Frankie_65, Misha28_57, LilSpotty_59, LordVader_56, TootsiePop_57, Awesomesauce_59
• Track 12 : IrishSherpFalk_58, WillSterrel_58, Spartacus_59
• Track 13 : MilanaBonita_48, Phanphagia_55, Ardmore_50, Shauna1_56, Hamulus_59, Donkeykong_61, Akhila_49, Bobi_63, Wachhund_59, Emma_59, DLane_53, Aubs_58, TDanisky_65, Phalconet_56, Tweety_57, SilverChicken_68,

XFactor_56, Filuzino_56, PhesterPhotato_58, Sparkdehlily_65, Flathead_58
- Track 14 : Taj_61, CaptainTrips_54
- Track 15 : Kersh_59, ShroomBoi_59, KingJulian_57, PatoPoderoso_54, Corium_54
- Track 16 : Hades_58, DeadP_63
- Track 17 : ChickenDinner_59, DocMcStuffins_59, MulchSalad_59, Piper2020_60, Aloeri_60
- Track 18 : Stap_55, Deb65_52, Leperchaun_49, Daenerys_51, JoeyJr_52, Spoonbill_54, RedBird_55, PHappiness_52, Dorothy_55, RitaG_52, Geralt_52, BodEinwohner17_57, KingMidas_56, Pacc40_51, Nimbo_51, Polka14_55, Doomphist_57
- Track 19 : Phasih_55, Soul22_63, JalFarm20_70, TChen_57, Harley_60, Gandalph_60, LunaStella_55, Che8_62, Yoshi_69, Seagreen_57, Juice456_58, EleanorGeorge_58, ThetaBob_61
- Track 20 : Sassafras_55, Inventum_52
- Track 21 : Cornucopia_59
- Track 22 : Medindi_54, Krakatau_55, Melissauren88_56, Beakin_59, Bipolar_56, Ms6_53
- Track 23 : Girr_55, Ruby_53, MisterCuddles_55
- Track 24 : Bubbles123_54, Ogopogo_63, SuperGrey_61
- Track 25 : Batiatus_56
- Track 26 : Eradicator_50, MinionDave_56, Guppsters_58, IbOuu_56
- Track 27 : Kenuha5_55
- Track 28 : Moonbeam_56, SassyB_52, StAnnes_56, PopTart_52
- Track 29 : Jant_61
- Track 30 : Juniper1_55
- Track 31 : Juniper1_58
- Track 32 : Cheesepuff_63, Che9d_65, Cornie_52, DoRead_59
- Track 33 : Hegedechwinu_57, SG4_54, BuzzLyseyear_63, Enby_58
- Track 34 : Fruitloop_55
- Track 35 : Nitzel_55
- Track 36 : Boomer_62, PMC_54
- Track 37 : Tchotchke_58
- Track 38 : DotProduct_52, DaddyRickover_56, Grimmer_67
- Track 39 : IMpilo_53
- Track 40 : Zerg_57
- Track 41 : Rockne_58
- Track 42 : Topiatin_64
- Track 43 : Byougenkin_55
- Track 44 : Mozy_66
- Track 45 : OwlsT2W_57
- Track 46 : GUmbie_55
- Track 47 : Jabbawokkie_71, Blarby_69, Zapner_70
- Track 48 : Avani_65
- Track 49 : Demsculpinboyz_67
- Track 50 : QueenHazel_40, Xula_39
- Track 51 : Rebel_41, Spinach_49, Aggie_43, Purgamenstris_49, Nenae_49, Redi_49, Raymond7_43, Impisi_50, BabeRuth_50, Silvy_43, PhancyPhin_49, ShrimpFriedEgg_49
- Track 52 : Pipsqueaks_45, Melville_48, Tortoise12_44, Fulbright_44, Jamie19_43, Duplicity_45, Panchino_42, Tessdabest_46, Parmesanjohn_45, Phloss_43, Schnauzer_46, SpongeBob_43, Gex_45, Magsby_45, Scitech_42, Chewbacca_47, Xerxes_45, Smurph_45, Snekmaggedon_43, Tapioca_47, Silvafighter_46, Carcharodon_45

- Track 53 : Rubeelu_48, Kevin1_47, Butters_48, MichelleMyBell_45
- Track 54 : Bosection6_43
- Track 55 : Cubone_47
- Track 56 : MooMoo_58

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

The start number called the most often in the published annotations is 19, it was called in 192 of the 284 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
- Akhila_49, Alexphander_61, AlpineSix_62, ArcusAngelus_60, Ardmore_50, Aubs_58, Avani_65, Batiatus_56, Beanstalk_57, Blarby_69, Bobi_63, BodEinwohner17_57, Brocalys_52, Brookers_54, Brushbloom_60, Bubbles123_54, Burwell21_55, ByChance_49, Byougenkin_55, Cabrinians_58, CaptainTrips_54, Che8_62, Che9d_65, Cheesepuff_63, Chevrolet_63, Chuckly_60, Clifton_52, Coco12_56, Corium_54, Cornie_52, Cornucopia_59, Crumble_52, DLane_53, DRBy19_60, DaWorst_58, Daenerys_51, Dante_58, Deb65_52, Demsculpinboyz_67, DillTech15_54, DoRead_59, Donkeykong_61, Doomphist_57, Doomslug_66, Dorothy_55, DosHalletts_59, Drago_55, Eish_61, EleanorGeorge_58, Emma_59, Emmaloid_58, Eradicator_50, Estave1_60, Fastidio_57, Filuzino_56, Flathead_58, Florinda_69, FreddyB_58, Fruitloop_55, Galactic_56, Gandalph_60, Geralt_52, GigiOuiOui_53, Girafales_67, Girr_55, Gorge_61, Guppsters_58, Hamulus_59, Harley_60, Hlubikazi_53, IbOuu_56, Ibhubesi_57, Inventum_52, IrishSherpFalk_58, Jabbawokkie_71, JalFarm20_70, James_61, Jant_61, Jinglebell_62, JoeyJr_52, Juice456_58, Juniper1_55, Karhdo_54, Kersh_59, Kimberlium_59, KingJulian_57, KingMidas_56, Kingsley_54, Koella_51, KristaRAM_60, LastJedi_51, Latretium_59, Leozinho_56, Leperchaun_49, LilMoolah_55, LittleShirley_56, Lizziana_63, Llama_62, Llij_53, Lorde_57, Lucia_57, LunaBlu_59, LunaStella_55, MadMen_55, Madiba_55, Mahavrat_55, Mantra_53, Maravista_58, Marker_59, Martik_57, Mattes_61, MilanaBonita_48, MilleniumForce_61, MinionDave_56, Minnie_61, MisterCuddles_55, Mova_58, Mozy_66, MulchExplorer_63, Mutaforma13_61, Mwanjiwa_63, NewHope4_58, Nichirin_64, Nimbo_51, Nivrat_53, OfUltron_62, Ogopogo_63, Oksu_61, OldBen_54, OlympiaSaint_59, Ovechkin_56, OwlsT2W_57, PHappiness_52, Pacc40_51, PatoPoderoso_54, Peridot_58, Phalconet_56, Phanphagia_55, Phasih_55, Phatniss_55, PhesterPhotato_58, Philus_60, PhlipPhlop_57, Pippy_55, Polka14_55, Priscilla_57, QuickMath_58, Quico_66, Radiance_56, Ramsey_57, RedBird_55, Renaud18_62, Rialto_63, RitaG_52, Rita_58, RockyHorror_58, Royals2015_60, Ruby_53, Saal_59, Sabbb_61, Sandalphon_59, Sarma624_55, Sassafras_55, Scottish_55, SeaLumen_61, Seabastian_62, Seagreen_57, Shauna1_56, ShiLan_56, ShowerHandel_60, ShroomBoi_59, SiSi_55, SilverChicken_68, SimranZ1_57, Slim_58, Soul22_63, Sparkdehlily_65, Spartacus_59, Spikelee_64, Spoonbill_54, Squirty_60, Stap_55, Starcevich_56, Strokeseat_53, SuperGrey_61, SwagPigglett_62, TChen_57, TDanisky_65, Taj_61, Tchotchke_58, ThetaBob_61, Tootsieroll_58, Topiatin_64, Tweety_57, UncleRicky_56, VRedHorse_57, Velveteen_52, Veteran_54, Violac_59, Vivum_58, Wachhund_59, Whatsapiecost_58, Whouxphf_54, WillSterrel_58, XFactor_56, Yorick_56, Yoshi_69, Zapner_70, Zizzle_61,

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

• Beakin_59, BigPhil_53, Bipolar_56, Blexus_55, BlueCrab_57, BobaPhett_61, Boomer_62, BuzzLyseyear_63, Cerasum_53, Clank_62, DaddyRickover_56, DeadP_63, DirtMcgirt_56, DotProduct_52, Doug_59, EmiMonkey_55, Empress_55, Enby_58, Enzomatic_63, Fancypants_59, Firehouse51_58, GUmbie_55, Grimmer_67, Hades_58, Hegedechwinu_57, IMpilo_53, Jarcob_57, Jennelsea_54, Job42_59, Kenuha5_55, Krakatau_55, Mandlovu_53, Medindi_54, Melissauren88_56, Mischief19_47, Modragons_61, Moonbeam_56, Ms6_53, Nitzel_55, NormanBulbieJr_57, Ochi17_60, PMC_54, Plumbus_59, Poenanya_57, Pollywog_58, Polo2Bam_62, PopTart_52, Rockne_58, SG4_54, SassyB_52, StAnnes_56, Totinger_56, Zerg_57,

Genes that do not have the "Most Annotated" start:
• Aggie_43, Aloeri_60, Awesomesauce_59, BabeRuth_50, Bosection6_43, Butters_48, Carcharodon_45, Chewbacca_47, ChickenDinner_59, Cubone_47, DocMcStuffins_59, Duplicity_45, Frankie_65, Fulbright_44, Gex_45, Impisi_50, Jamie19_43, Juniper1_58, Kevin1_47, LilSpotty_59, LordVader_56, Magsby_45, Melville_48, MichelleMyBell_45, Misha28_57, MooMoo_58, MulchSalad_59, Nenae_49, Panchino_42, Parmesanjohn_45, PhancyPhin_49, Phloss_43, Piper2020_60, Pipsqueaks_45, Purgamenstris_49, QueenHazel_40, Raymond7_43, Rebel_41, Redi_49, Rubeelu_48, Schnauzer_46, Scitech_42, ShrimpFriedEgg_49, Silvafighter_46, Silvy_43, Smurph_45, Snekmaggedon_43, Spinach_49, SpongeBob_43, Tapioca_47, Tessdabest_46, TootsiePop_57, Tortoise12_44, Xerxes_45, Xula_39,

Summary by start number:

Start 15:
• Found in 236 of 317 (74.4%) of genes in pham
• Manual Annotations of this start: 12 of 284
• Called 8.5% of time when present
• Phage (with cluster) where this start called: Beakin_59 (F1), Bipolar_56 (F1), BobaPhett_61 (F1), Boomer_62 (F1), Clank_62 (F), DaddyRickover_56 (F1), DotProduct_52 (F1), EmiMonkey_55 (F1), Enzomatic_63 (F1), Fancypants_59 (F1), GUmbie_55 (F1), Grimmer_67 (F1), Kenuha5_55 (F1), Krakatau_55 (F1), Medindi_54 (F1), Melissauren88_56 (F1), Ms6_53 (F1), Ochi17_60 (F1), PMC_54 (F1), Polo2Bam_62 (F1),

Start 16:
• Found in 40 of 317 (12.6%) of genes in pham
• Manual Annotations of this start: 37 of 284
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Aggie_43 (N), BabeRuth_50 (N), Bosection6_43 (N), Butters_48 (N), Carcharodon_45 (N), Chewbacca_47 (N), Duplicity_45 (N), Fulbright_44 (N), Gex_45 (N), Impisi_50 (N), Jamie19_43 (N), Juniper1_58 (F1), Kevin1_47 (N), Magsby_45 (N), Melville_48 (N), MichelleMyBell_45 (N), Nenae_49 (N), Panchino_42 (N), Parmesanjohn_45 (N), PhancyPhin_49 (N), Phloss_43 (N), Pipsqueaks_45 (N), Purgamenstris_49 (N), Raymond7_43 (N), Rebel_41 (N), Redi_49 (N), Rubeelu_48 (N), Schnauzer_46 (N), Scitech_42 (N), ShrimpFriedEgg_49 (N), Silvafighter_46 (N), Silvy_43 (N), Smurph_45 (N), Snekmaggedon_43 (N), Spinach_49 (N), SpongeBob_43 (N), Tapioca_47 (N), Tessdabest_46 (N), Tortoise12_44 (N), Xerxes_45 (N),

Start 17:

- Found in 1 of 317 (0.3%) of genes in pham
- Manual Annotations of this start: 1 of 284
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Mischief19_47 (BG),

Start 18:
- Found in 262 of 317 (82.6%) of genes in pham
- Manual Annotations of this start: 33 of 284
- Called 13.4% of time when present
- Phage (with cluster) where this start called: BigPhil_53 (F1), Blexus_55 (F1), BlueCrab_57 (F1), BuzzLyseyear_63 (F1), Cerasum_53 (F1), DeadP_63 (F1), DirtMcgirt_56 (F1), Doug_59 (F1), Empress_55 (F1), Enby_58 (F1), Firehouse51_58 (F1), Hades_58 (F1), Hegedechwinu_57 (F1), IMpilo_53 (F1), Jarcob_57 (F1), Jennelsea_54 (F1), Job42_59 (F1), Mandlovu_53 (F1), Modragons_61 (F1), MooMoo_58 (singleton), Moonbeam_56 (F1), Nitzel_55 (F1), NormanBulbieJr_57 (F1), Plumbus_59 (F1), Poenanya_57 (F1), Pollywog_58 (F1), PopTart_52 (F1), QueenHazel_40 (I1), Rockne_58 (F1), SG4_54 (F1), SassyB_52 (F1), StAnnes_56 (F1), Totinger_56 (F1), Xula_39 (I1), Zerg_57 (F1),

Start 19:
- Found in 262 of 317 (82.6%) of genes in pham
- Manual Annotations of this start: 192 of 284
- Called 79.8% of time when present
- Phage (with cluster) where this start called: Akhila_49 (F1), Alexphander_61 (F1), AlpineSix_62 (F1), ArcusAngelus_60 (F1), Ardmore_50 (F1), Aubs_58 (F1), Avani_65 (F2), Batiatus_56 (F1), Beanstalk_57 (F1), Blarby_69 (F), Bobi_63 (F1), BodEinwohner17_57 (F1), Brocalys_52 (F1), Brookers_54 (F1), Brushbloom_60 (F1), Bubbles123_54 (F1), Burwell21_55 (F1), ByChance_49 (F1), Byougenkin_55 (F1), Cabrinians_58 (F1), CaptainTrips_54 (F1), Che8_62 (F1), Che9d_65 (F2), Cheesepuff_63 (F1), Chevrolet_63 (F1), Chuckly_60 (F1), Clifton_52 (F1), Coco12_56 (F1), Corium_54 (F1), Cornie_52 (F5), Cornucopia_59 (F1), Crumble_52 (F1), DLane_53 (F1), DRBy19_60 (F1), DaWorst_58 (F1), Daenerys_51 (F1), Dante_58 (F1), Deb65_52 (F1), Demsculpinboyz_67 (F2), DillTech15_54 (F1), DoRead_59 (F1), Donkeykong_61 (F1), Doomphist_57 (F1), Doomslug_66 (F), Dorothy_55 (F1), DosHalletts_59 (F1), Drago_55 (F1), Eish_61 (F1), EleanorGeorge_58 (F1), Emma_59 (F1), Emmaloid_58 (F1), Eradicator_50 (F1), Estave1_60 (F1), Fastidio_57 (F1), Filuzino_56 (F1), Flathead_58 (F1), Florinda_69 (F1), FreddyB_58 (F1), Fruitloop_55 (F1), Galactic_56 (F1), Gandalph_60 (F1), Geralt_52 (F1), GigiOuiOui_53 (F1), Girafales_67 (F1), Girr_55 (F1), Gorge_61 (F1), Guppsters_58 (F1), Hamulus_59 (F1), Harley_60 (F1), Hlubikazi_53 (F1), IbOuu_56 (F1), Ibhubesi_57 (F1), Inventum_52 (F1), IrishSherpFalk_58 (F1), Jabbawokkie_71 (F2), JalFarm20_70 (F1), James_61 (F1), Jant_61 (F1), Jinglebell_62 (F1), JoeyJr_52 (F1), Juice456_58 (F1), Juniper1_55 (F1), Karhdo_54 (F1), Kersh_59 (F1), Kimberlium_59 (F1), KingJulian_57 (F1), KingMidas_56 (F1), Kingsley_54 (F1), Koella_51 (F1), KristaRAM_60 (F1), LastJedi_51 (F1), Latretium_59 (F1), Leozinho_56 (F1), Leperchaun_49 (F1), LilMoolah_55 (F1), LittleShirley_56 (F1), Lizziana_63 (F1), Llama_62 (F1), Llij_53 (F1), Lorde_57 (F1), Lucia_57 (F1), LunaBlu_59 (F1), LunaStella_55 (F4), MadMen_55 (F1), Madiba_55 (F1), Mahavrat_55 (F1), Mantra_53 (F1), Maravista_58 (F1), Marker_59 (F1), Martik_57 (F1), Mattes_61 (F1), MilanaBonita_48 (F1), MilleniumForce_61 (F1), MinionDave_56 (F1), Minnie_61 (F1), MisterCuddles_55 (F1), Mova_58 (F1), Mozy_66 (F1), MulchExplorer_63 (F1), Mutaforma13_61 (F1), Mwanjiwa_63 (F1), NewHope4_58 (F1), Nichirin_64 (F1), Nimbo_51 (F1), Nivrat_53 (F1), OfUltron_62 (F1), Ogopogo_63

(F1), Oksu_61 (F1), OldBen_54 (F1), OlympiaSaint_59 (F1), Ovechkin_56 (F1), OwlsT2W_57 (F1), PHappiness_52 (F1), Pacc40_51 (F1), PatoPoderoso_54 (F1), Peridot_58 (F1), Phalconet_56 (F1), Phanphagia_55 (F1), Phasih_55 (F1), Phatniss_55 (F1), PhesterPhotato_58 (F1), Philus_60 (F1), PhlipPhlop_57 (F1), Pippy_55 (F1), Polka14_55 (F1), Priscilla_57 (F1), QuickMath_58 (F1), Quico_66 (F1), Radiance_56 (F1), Ramsey_57 (F1), RedBird_55 (F1), Renaud18_62 (F4), Rialto_63 (F1), RitaG_52 (F1), Rita_58 (F1), RockyHorror_58 (F1), Royals2015_60 (F1), Ruby_53 (F1), Saal_59 (F1), Sabbb_61 (F1), Sandalphon_59 (F1), Sarma624_55 (F1), Sassafras_55 (F1), Scottish_55 (F1), SeaLumen_61 (F1), Seabastian_62 (F1), Seagreen_57 (F1), Shauna1_56 (F1), ShiLan_56 (F1), ShowerHandel_60 (F1), ShroomBoi_59 (F1), SiSi_55 (F1), SilverChicken_68 (F2), SimranZ1_57 (F1), Slim_58 (F1), Soul22_63 (F2), Sparkdehlily_65 (F1), Spartacus_59 (F1), Spikelee_64 (F1), Spoonbill_54 (F1), Squirty_60 (F3), Stap_55 (F1), Starcevich_56 (F1), Strokeseat_53 (F1), SuperGrey_61 (F1), SwagPigglett_62 (F1), TChen_57 (F4), TDanisky_65 (F1), Taj_61 (F1), Tchotchke_58 (F1), ThetaBob_61 (F4), Tootsieroll_58 (F1), Topiatin_64 (F1), Tweety_57 (F1), UncleRicky_56 (F1), VRedHorse_57 (F1), Velveteen_52 (F1), Veteran_54 (F1), Violac_59 (F1), Vivum_58 (F1), Wachhund_59 (F1), Whatsapiecost_58 (F1), Whouxphf_54 (F1), WillSterrel_58 (F1), XFactor_56 (F1), Yorick_56 (F1), Yoshi_69 (F2), Zapner_70 (F2), Zizzle_61 (F1),

Start 21:
• Found in 12 of 317 (3.8%) of genes in pham
• Manual Annotations of this start: 9 of 284
• Called 91.7% of time when present
• Phage (with cluster) where this start called: Aloeri_60 (F1), Awesomesauce_59 (F1), ChickenDinner_59 (F1), DocMcStuffins_59 (F1), Frankie_65 (F1), LilSpotty_59 (singleton), LordVader_56 (F), Misha28_57 (F1), MulchSalad_59 (F7), Piper2020_60 (F1), TootsiePop_57 (F1),

Start 26:
• Found in 20 of 317 (6.3%) of genes in pham
• No Manual Annotations of this start.
• Called 5.0% of time when present
• Phage (with cluster) where this start called: Cubone_47 (N),

Summary by clusters:

There are 11 clusters represented in this pham: F1, singleton, F3, F4, F5, F, I1, F7, F2, N, BG,

Info for manual annotations of cluster BG:
•Start number 17 was manually annotated 1 time for cluster BG.

Info for manual annotations of cluster F1:
•Start number 15 was manually annotated 12 times for cluster F1.
•Start number 16 was manually annotated 1 time for cluster F1.
•Start number 18 was manually annotated 30 times for cluster F1.
•Start number 19 was manually annotated 179 times for cluster F1.
•Start number 21 was manually annotated 8 times for cluster F1.

Info for manual annotations of cluster F2:

•Start number 19 was manually annotated 7 times for cluster F2.

Info for manual annotations of cluster F3:
•Start number 19 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:
•Start number 19 was manually annotated 4 times for cluster F4.

Info for manual annotations of cluster F5:
•Start number 19 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster I1:
•Start number 18 was manually annotated 2 times for cluster I1.

Info for manual annotations of cluster N:
•Start number 16 was manually annotated 36 times for cluster N.

Gene Information:

Gene: Aggie_43 Start: 30482, Stop: 30862, Start Num: 16
Candidate Starts for Aggie_43:
(2, 30200), (3, 30203), (6, 30347), (Start: 16 @30482 has 37 MA's), (28, 30578), (32, 30641), (37, 30704), (38, 30728), (49, 30779), (53, 30821), (56, 30851),

Gene: Akhila_49 Start: 35492, Stop: 35893, Start Num: 19
Candidate Starts for Akhila_49:
(Start: 15 @35483 has 12 MA's), (Start: 18 @35489 has 33 MA's), (Start: 19 @35492 has 192 MA's), (22, 35516), (39, 35744), (40, 35753), (43, 35768), (44, 35771), (54, 35861),

Gene: Alexphander_61 Start: 39449, Stop: 39943, Start Num: 19
Candidate Starts for Alexphander_61:
(Start: 15 @39440 has 12 MA's), (Start: 18 @39446 has 33 MA's), (Start: 19 @39449 has 192 MA's), (22, 39473), (34, 39632), (36, 39653), (40, 39713), (45, 39746), (48, 39761), (54, 39830), (59, 39881),

Gene: Aloeri_60 Start: 39346, Stop: 39699, Start Num: 21
Candidate Starts for Aloeri_60:
(Start: 21 @39346 has 9 MA's), (26, 39388), (31, 39457), (37, 39538), (38, 39562), (50, 39619), (57, 39688),

Gene: AlpineSix_62 Start: 41568, Stop: 42062, Start Num: 19
Candidate Starts for AlpineSix_62:
(Start: 15 @41559 has 12 MA's), (Start: 18 @41565 has 33 MA's), (Start: 19 @41568 has 192 MA's), (22, 41592), (34, 41751), (36, 41772), (40, 41832), (45, 41865), (48, 41880), (54, 41949), (59, 42000),

Gene: ArcusAngelus_60 Start: 40045, Stop: 40452, Start Num: 19
Candidate Starts for ArcusAngelus_60:
(Start: 15 @40036 has 12 MA's), (Start: 18 @40042 has 33 MA's), (Start: 19 @40045 has 192 MA's), (41, 40315), (54, 40420),

Gene: Ardmore_50 Start: 37578, Stop: 37979, Start Num: 19

Candidate Starts for Ardmore_50:
(Start: 15 @37569 has 12 MA's), (Start: 18 @37575 has 33 MA's), (Start: 19 @37578 has 192 MA's),
(22, 37602), (39, 37830), (40, 37839), (43, 37854), (44, 37857), (54, 37947),

Gene: Aubs_58 Start: 39742, Stop: 40143, Start Num: 19
Candidate Starts for Aubs_58:
(Start: 15 @39733 has 12 MA's), (Start: 18 @39739 has 33 MA's), (Start: 19 @39742 has 192 MA's),
(22, 39766), (39, 39994), (40, 40003), (43, 40018), (44, 40021), (54, 40111),

Gene: Avani_65 Start: 39767, Stop: 40261, Start Num: 19
Candidate Starts for Avani_65:
(Start: 19 @39767 has 192 MA's), (22, 39791), (34, 39950), (36, 39971), (40, 40031), (45, 40064), (48, 40079), (54, 40148), (59, 40199), (60, 40250),

Gene: Awesomesauce_59 Start: 38429, Stop: 38782, Start Num: 21
Candidate Starts for Awesomesauce_59:
(11, 38378), (12, 38384), (Start: 21 @38429 has 9 MA's), (26, 38471), (31, 38540), (37, 38621), (38, 38645), (50, 38702), (57, 38771),

Gene: BabeRuth_50 Start: 32627, Stop: 33007, Start Num: 16
Candidate Starts for BabeRuth_50:
(2, 32345), (3, 32348), (6, 32492), (Start: 16 @32627 has 37 MA's), (28, 32723), (32, 32786), (37, 32849), (38, 32873), (49, 32924), (53, 32966), (56, 32996),

Gene: Batiatus_56 Start: 39446, Stop: 39853, Start Num: 19
Candidate Starts for Batiatus_56:
(Start: 15 @39437 has 12 MA's), (Start: 18 @39443 has 33 MA's), (Start: 19 @39446 has 192 MA's),
(22, 39470), (41, 39716), (54, 39821),

Gene: Beakin_59 Start: 38572, Stop: 38982, Start Num: 15
Candidate Starts for Beakin_59:
(Start: 15 @38572 has 12 MA's), (Start: 18 @38578 has 33 MA's), (Start: 19 @38581 has 192 MA's),
(22, 38605), (39, 38833), (40, 38842), (43, 38857), (44, 38860), (54, 38950),

Gene: Beanstalk_57 Start: 37768, Stop: 38262, Start Num: 19
Candidate Starts for Beanstalk_57:
(Start: 15 @37759 has 12 MA's), (Start: 18 @37765 has 33 MA's), (Start: 19 @37768 has 192 MA's),
(34, 37951), (36, 37972), (40, 38032), (45, 38065), (48, 38080), (54, 38149), (59, 38200),

Gene: BigPhil_53 Start: 35158, Stop: 35655, Start Num: 18
Candidate Starts for BigPhil_53:
(Start: 15 @35152 has 12 MA's), (Start: 18 @35158 has 33 MA's), (Start: 19 @35161 has 192 MA's),
(34, 35344), (36, 35365), (40, 35425), (45, 35458), (48, 35473), (54, 35542), (59, 35593),

Gene: Bipolar_56 Start: 39193, Stop: 39603, Start Num: 15
Candidate Starts for Bipolar_56:
(Start: 15 @39193 has 12 MA's), (Start: 18 @39199 has 33 MA's), (Start: 19 @39202 has 192 MA's),
(22, 39226), (39, 39454), (40, 39463), (43, 39478), (44, 39481), (54, 39571),

Gene: Blarby_69 Start: 40862, Stop: 41356, Start Num: 19
Candidate Starts for Blarby_69:
(Start: 19 @40862 has 192 MA's), (22, 40886), (26, 40925), (34, 41045), (35, 41060), (36, 41066), (40, 41126), (45, 41159), (48, 41174), (50, 41186), (54, 41243), (59, 41294),

Gene: Blexus_55 Start: 39416, Stop: 39913, Start Num: 18
Candidate Starts for Blexus_55:
(Start: 15 @39410 has 12 MA's), (Start: 18 @39416 has 33 MA's), (Start: 19 @39419 has 192 MA's),
(34, 39602), (36, 39623), (40, 39683), (45, 39716), (48, 39731), (54, 39800), (59, 39851),

Gene: BlueCrab_57 Start: 39724, Stop: 40221, Start Num: 18
Candidate Starts for BlueCrab_57:
(Start: 15 @39718 has 12 MA's), (Start: 18 @39724 has 33 MA's), (Start: 19 @39727 has 192 MA's),
(34, 39910), (36, 39931), (40, 39991), (45, 40024), (48, 40039), (54, 40108), (59, 40159),

Gene: BobaPhett_61 Start: 41669, Stop: 42172, Start Num: 15
Candidate Starts for BobaPhett_61:
(Start: 15 @41669 has 12 MA's), (Start: 18 @41675 has 33 MA's), (Start: 19 @41678 has 192 MA's),
(22, 41702), (34, 41861), (36, 41882), (40, 41942), (45, 41975), (48, 41990), (54, 42059), (59, 42110),

Gene: Bobi_63 Start: 41055, Stop: 41456, Start Num: 19
Candidate Starts for Bobi_63:
(Start: 15 @41046 has 12 MA's), (Start: 18 @41052 has 33 MA's), (Start: 19 @41055 has 192 MA's),
(22, 41079), (39, 41307), (40, 41316), (43, 41331), (44, 41334), (54, 41424),

Gene: BodEinwohner17_57 Start: 38489, Stop: 38983, Start Num: 19
Candidate Starts for BodEinwohner17_57:
(Start: 15 @38480 has 12 MA's), (Start: 18 @38486 has 33 MA's), (Start: 19 @38489 has 192 MA's),
(34, 38672), (35, 38687), (36, 38693), (40, 38753), (48, 38801), (50, 38813), (54, 38870), (59, 38921),

Gene: Boomer_62 Start: 41344, Stop: 41847, Start Num: 15
Candidate Starts for Boomer_62:
(Start: 15 @41344 has 12 MA's), (Start: 18 @41350 has 33 MA's), (Start: 19 @41353 has 192 MA's),
(34, 41536), (36, 41557), (40, 41617), (45, 41650), (48, 41665), (55, 41743), (59, 41785),

Gene: Bosection6_43 Start: 30372, Stop: 30755, Start Num: 16
Candidate Starts for Bosection6_43:
(2, 30090), (3, 30093), (6, 30237), (11, 30348), (Start: 16 @30372 has 37 MA's), (Start: 18 @30378
has 33 MA's), (28, 30471), (32, 30534), (37, 30597), (38, 30621), (49, 30672), (53, 30714), (56, 30744),

Gene: Brocalys_52 Start: 35863, Stop: 36357, Start Num: 19
Candidate Starts for Brocalys_52:
(Start: 15 @35854 has 12 MA's), (Start: 18 @35860 has 33 MA's), (Start: 19 @35863 has 192 MA's),
(22, 35887), (34, 36046), (36, 36067), (40, 36127), (45, 36160), (48, 36175), (54, 36244), (59, 36295),

Gene: Brookers_54 Start: 38112, Stop: 38606, Start Num: 19
Candidate Starts for Brookers_54:
(Start: 15 @38103 has 12 MA's), (Start: 18 @38109 has 33 MA's), (Start: 19 @38112 has 192 MA's),
(34, 38295), (36, 38316), (40, 38376), (45, 38409), (48, 38424), (54, 38493), (59, 38544),

Gene: Brushbloom_60 Start: 40378, Stop: 40785, Start Num: 19
Candidate Starts for Brushbloom_60:
(Start: 15 @40369 has 12 MA's), (Start: 18 @40375 has 33 MA's), (Start: 19 @40378 has 192 MA's),
(41, 40648), (54, 40753),

Gene: Bubbles123_54 Start: 39367, Stop: 39762, Start Num: 19
Candidate Starts for Bubbles123_54:

(Start: 15 @39358 has 12 MA's), (Start: 18 @39364 has 33 MA's), (Start: 19 @39367 has 192 MA's), (39, 39613), (40, 39622), (43, 39637), (44, 39640), (54, 39730),

Gene: Burwell21_55 Start: 38961, Stop: 39455, Start Num: 19
Candidate Starts for Burwell21_55:
(Start: 15 @38952 has 12 MA's), (Start: 18 @38958 has 33 MA's), (Start: 19 @38961 has 192 MA's), (22, 38985), (34, 39144), (36, 39165), (40, 39225), (45, 39258), (48, 39273), (54, 39342), (59, 39393),

Gene: Butters_48 Start: 32426, Stop: 32803, Start Num: 16
Candidate Starts for Butters_48:
(1, 32126), (6, 32291), (Start: 16 @32426 has 37 MA's), (28, 32519), (32, 32582), (37, 32645), (38, 32669), (49, 32720),

Gene: BuzzLyseyear_63 Start: 40382, Stop: 40879, Start Num: 18
Candidate Starts for BuzzLyseyear_63:
(Start: 15 @40376 has 12 MA's), (Start: 18 @40382 has 33 MA's), (Start: 19 @40385 has 192 MA's), (34, 40568), (35, 40583), (36, 40589), (40, 40649), (45, 40682), (48, 40697), (54, 40766), (59, 40817),

Gene: ByChance_49 Start: 34652, Stop: 35146, Start Num: 19
Candidate Starts for ByChance_49:
(Start: 15 @34643 has 12 MA's), (Start: 18 @34649 has 33 MA's), (Start: 19 @34652 has 192 MA's), (34, 34835), (36, 34856), (40, 34916), (45, 34949), (48, 34964), (54, 35033), (59, 35084),

Gene: Byougenkin_55 Start: 38728, Stop: 39222, Start Num: 19
Candidate Starts for Byougenkin_55:
(Start: 19 @38728 has 192 MA's), (34, 38911), (36, 38932), (40, 38992), (45, 39025), (48, 39040), (55, 39118), (59, 39160),

Gene: Cabrinians_58 Start: 39039, Stop: 39533, Start Num: 19
Candidate Starts for Cabrinians_58:
(Start: 15 @39030 has 12 MA's), (Start: 18 @39036 has 33 MA's), (Start: 19 @39039 has 192 MA's), (22, 39063), (34, 39222), (36, 39243), (40, 39303), (45, 39336), (48, 39351), (54, 39420), (59, 39471),

Gene: CaptainTrips_54 Start: 38535, Stop: 39029, Start Num: 19
Candidate Starts for CaptainTrips_54:
(Start: 15 @38526 has 12 MA's), (Start: 18 @38532 has 33 MA's), (Start: 19 @38535 has 192 MA's), (22, 38559), (34, 38718), (35, 38733), (36, 38739), (40, 38799), (45, 38832), (48, 38847), (54, 38916), (59, 38967),

Gene: Carcharodon_45 Start: 31721, Stop: 32104, Start Num: 16
Candidate Starts for Carcharodon_45:
(6, 31586), (11, 31697), (Start: 16 @31721 has 37 MA's), (Start: 18 @31727 has 33 MA's), (28, 31820), (32, 31883), (37, 31946), (38, 31970), (49, 32021), (53, 32063), (56, 32093),

Gene: Cerasum_53 Start: 35176, Stop: 35673, Start Num: 18
Candidate Starts for Cerasum_53:
(Start: 15 @35170 has 12 MA's), (Start: 18 @35176 has 33 MA's), (Start: 19 @35179 has 192 MA's), (34, 35362), (36, 35383), (40, 35443), (45, 35476), (48, 35491), (54, 35560), (59, 35611),

Gene: Che8_62 Start: 41668, Stop: 42162, Start Num: 19
Candidate Starts for Che8_62:
(Start: 19 @41668 has 192 MA's), (34, 41851), (36, 41872), (40, 41932), (45, 41965), (48, 41980), (54, 42049), (59, 42100),

Gene: Che9d_65 Start: 38750, Stop: 39244, Start Num: 19
Candidate Starts for Che9d_65:
(Start: 19 @38750 has 192 MA's), (22, 38774), (26, 38813), (32, 38906), (34, 38933), (35, 38948), (36, 38954), (40, 39014), (48, 39062), (50, 39074), (55, 39140), (59, 39182),

Gene: Cheesepuff_63 Start: 40792, Stop: 41286, Start Num: 19
Candidate Starts for Cheesepuff_63:
(Start: 19 @40792 has 192 MA's), (22, 40816), (26, 40855), (32, 40948), (34, 40975), (35, 40990), (36, 40996), (40, 41056), (48, 41104), (50, 41116), (55, 41182), (59, 41224),

Gene: Chevrolet_63 Start: 40046, Stop: 40453, Start Num: 19
Candidate Starts for Chevrolet_63:
(Start: 15 @40037 has 12 MA's), (Start: 18 @40043 has 33 MA's), (Start: 19 @40046 has 192 MA's), (41, 40316), (54, 40421),

Gene: Chewbacca_47 Start: 31721, Stop: 32104, Start Num: 16
Candidate Starts for Chewbacca_47:
(6, 31586), (11, 31697), (Start: 16 @31721 has 37 MA's), (Start: 18 @31727 has 33 MA's), (28, 31820), (32, 31883), (37, 31946), (38, 31970), (49, 32021), (53, 32063), (56, 32093),

Gene: ChickenDinner_59 Start: 39346, Stop: 39699, Start Num: 21
Candidate Starts for ChickenDinner_59:
(Start: 21 @39346 has 9 MA's), (26, 39388), (31, 39457), (37, 39538), (38, 39562), (50, 39619), (57, 39688),

Gene: Chuckly_60 Start: 39681, Stop: 40175, Start Num: 19
Candidate Starts for Chuckly_60:
(Start: 15 @39672 has 12 MA's), (Start: 18 @39678 has 33 MA's), (Start: 19 @39681 has 192 MA's), (22, 39705), (34, 39864), (36, 39885), (40, 39945), (45, 39978), (48, 39993), (54, 40062), (59, 40113),

Gene: Clank_62 Start: 40002, Stop: 40505, Start Num: 15
Candidate Starts for Clank_62:
(Start: 15 @40002 has 12 MA's), (Start: 18 @40008 has 33 MA's), (Start: 19 @40011 has 192 MA's), (32, 40167), (34, 40194), (36, 40215), (40, 40275), (45, 40308), (48, 40323), (54, 40392), (59, 40443),

Gene: Clifton_52 Start: 36214, Stop: 36708, Start Num: 19
Candidate Starts for Clifton_52:
(Start: 15 @36205 has 12 MA's), (Start: 18 @36211 has 33 MA's), (Start: 19 @36214 has 192 MA's), (22, 36238), (34, 36397), (36, 36418), (40, 36478), (45, 36511), (48, 36526), (54, 36595), (59, 36646),

Gene: Coco12_56 Start: 39236, Stop: 39730, Start Num: 19
Candidate Starts for Coco12_56:
(Start: 15 @39227 has 12 MA's), (Start: 18 @39233 has 33 MA's), (Start: 19 @39236 has 192 MA's), (34, 39419), (36, 39440), (40, 39500), (45, 39533), (48, 39548), (54, 39617), (59, 39668),

Gene: Corium_54 Start: 38078, Stop: 38572, Start Num: 19
Candidate Starts for Corium_54:
(Start: 15 @38069 has 12 MA's), (Start: 18 @38075 has 33 MA's), (Start: 19 @38078 has 192 MA's), (22, 38102), (32, 38234), (34, 38261), (36, 38282), (40, 38342), (45, 38375), (48, 38390), (54, 38459), (59, 38510),

Gene: Cornie_52 Start: 37254, Stop: 37748, Start Num: 19

Candidate Starts for Cornie_52:
(Start: 19 @37254 has 192 MA's), (22, 37278), (26, 37317), (32, 37410), (34, 37437), (35, 37452), (36, 37458), (40, 37518), (48, 37566), (50, 37578), (55, 37644), (59, 37686),

Gene: Cornucopia_59 Start: 39695, Stop: 40189, Start Num: 19
Candidate Starts for Cornucopia_59:
(Start: 19 @39695 has 192 MA's), (22, 39719), (34, 39878), (36, 39899), (40, 39959), (45, 39992), (48, 40007), (54, 40076), (59, 40127),

Gene: Crumble_52 Start: 34975, Stop: 35469, Start Num: 19
Candidate Starts for Crumble_52:
(Start: 15 @34966 has 12 MA's), (Start: 18 @34972 has 33 MA's), (Start: 19 @34975 has 192 MA's), (22, 34999), (34, 35158), (36, 35179), (40, 35239), (45, 35272), (48, 35287), (54, 35356), (59, 35407),

Gene: Cubone_47 Start: 30625, Stop: 30936, Start Num: 26
Candidate Starts for Cubone_47:
(11, 30532), (12, 30538), (Start: 21 @30583 has 9 MA's), (26, 30625), (28, 30649), (30, 30691), (31, 30694), (37, 30775), (38, 30799), (50, 30856), (57, 30925),

Gene: DLane_53 Start: 38102, Stop: 38503, Start Num: 19
Candidate Starts for DLane_53:
(Start: 15 @38093 has 12 MA's), (Start: 18 @38099 has 33 MA's), (Start: 19 @38102 has 192 MA's), (22, 38126), (39, 38354), (40, 38363), (43, 38378), (44, 38381), (54, 38471),

Gene: DRBy19_60 Start: 40139, Stop: 40633, Start Num: 19
Candidate Starts for DRBy19_60:
(Start: 15 @40130 has 12 MA's), (Start: 18 @40136 has 33 MA's), (Start: 19 @40139 has 192 MA's), (34, 40322), (36, 40343), (40, 40403), (45, 40436), (48, 40451), (54, 40520), (59, 40571),

Gene: DaWorst_58 Start: 39440, Stop: 39934, Start Num: 19
Candidate Starts for DaWorst_58:
(Start: 15 @39431 has 12 MA's), (Start: 18 @39437 has 33 MA's), (Start: 19 @39440 has 192 MA's), (22, 39464), (34, 39623), (36, 39644), (40, 39704), (45, 39737), (48, 39752), (54, 39821), (59, 39872),

Gene: DaddyRickover_56 Start: 39169, Stop: 39672, Start Num: 15
Candidate Starts for DaddyRickover_56:
(Start: 15 @39169 has 12 MA's), (Start: 18 @39175 has 33 MA's), (Start: 19 @39178 has 192 MA's), (34, 39361), (36, 39382), (40, 39442), (45, 39475), (48, 39490), (54, 39559), (59, 39610),

Gene: Daenerys_51 Start: 37294, Stop: 37788, Start Num: 19
Candidate Starts for Daenerys_51:
(Start: 15 @37285 has 12 MA's), (Start: 18 @37291 has 33 MA's), (Start: 19 @37294 has 192 MA's), (34, 37477), (35, 37492), (36, 37498), (40, 37558), (48, 37606), (50, 37618), (54, 37675), (59, 37726),

Gene: Dante_58 Start: 38963, Stop: 39457, Start Num: 19
Candidate Starts for Dante_58:
(Start: 15 @38954 has 12 MA's), (Start: 18 @38960 has 33 MA's), (Start: 19 @38963 has 192 MA's), (22, 38987), (34, 39146), (36, 39167), (40, 39227), (45, 39260), (48, 39275), (54, 39344), (59, 39395),

Gene: DeadP_63 Start: 41612, Stop: 42103, Start Num: 18
Candidate Starts for DeadP_63:
(Start: 15 @41606 has 12 MA's), (Start: 18 @41612 has 33 MA's), (Start: 19 @41615 has 192 MA's), (22, 41639), (34, 41792), (35, 41807), (36, 41813), (40, 41873), (45, 41906), (48, 41921), (54, 41990),

(59, 42041),

Gene: Deb65_52 Start: 37263, Stop: 37757, Start Num: 19
Candidate Starts for Deb65_52:
(Start: 15 @37254 has 12 MA's), (Start: 18 @37260 has 33 MA's), (Start: 19 @37263 has 192 MA's),
(34, 37446), (35, 37461), (36, 37467), (40, 37527), (48, 37575), (50, 37587), (54, 37644), (59, 37695),

Gene: Demsculpinboyz_67 Start: 38751, Stop: 39245, Start Num: 19
Candidate Starts for Demsculpinboyz_67:
(Start: 19 @38751 has 192 MA's), (32, 38907), (34, 38934), (35, 38949), (36, 38955), (40, 39015), (48,
39063), (50, 39075), (55, 39141), (59, 39183),

Gene: DillTech15_54 Start: 37628, Stop: 38122, Start Num: 19
Candidate Starts for DillTech15_54:
(Start: 15 @37619 has 12 MA's), (Start: 18 @37625 has 33 MA's), (Start: 19 @37628 has 192 MA's),
(32, 37784), (34, 37811), (36, 37832), (40, 37892), (45, 37925), (48, 37940), (54, 38009), (59, 38060),

Gene: DirtMcgirt_56 Start: 37700, Stop: 38197, Start Num: 18
Candidate Starts for DirtMcgirt_56:
(Start: 15 @37694 has 12 MA's), (Start: 18 @37700 has 33 MA's), (Start: 19 @37703 has 192 MA's),
(34, 37886), (36, 37907), (40, 37967), (45, 38000), (48, 38015), (54, 38084), (59, 38135),

Gene: DoRead_59 Start: 38163, Stop: 38657, Start Num: 19
Candidate Starts for DoRead_59:
(Start: 19 @38163 has 192 MA's), (22, 38187), (26, 38226), (32, 38319), (34, 38346), (35, 38361), (36,
38367), (40, 38427), (48, 38475), (50, 38487), (55, 38553), (59, 38595),

Gene: DocMcStuffins_59 Start: 39346, Stop: 39699, Start Num: 21
Candidate Starts for DocMcStuffins_59:
(Start: 21 @39346 has 9 MA's), (26, 39388), (31, 39457), (37, 39538), (38, 39562), (50, 39619), (57,
39688),

Gene: Donkeykong_61 Start: 41997, Stop: 42398, Start Num: 19
Candidate Starts for Donkeykong_61:
(Start: 15 @41988 has 12 MA's), (Start: 18 @41994 has 33 MA's), (Start: 19 @41997 has 192 MA's),
(22, 42021), (39, 42249), (40, 42258), (43, 42273), (44, 42276), (54, 42366),

Gene: Doomphist_57 Start: 40139, Stop: 40633, Start Num: 19
Candidate Starts for Doomphist_57:
(Start: 15 @40130 has 12 MA's), (Start: 18 @40136 has 33 MA's), (Start: 19 @40139 has 192 MA's),
(34, 40322), (35, 40337), (36, 40343), (40, 40403), (48, 40451), (50, 40463), (54, 40520), (59, 40571),

Gene: Doomslug_66 Start: 39559, Stop: 40053, Start Num: 19
Candidate Starts for Doomslug_66:
(Start: 15 @39550 has 12 MA's), (Start: 18 @39556 has 33 MA's), (Start: 19 @39559 has 192 MA's),
(34, 39742), (36, 39763), (40, 39823), (45, 39856), (48, 39871), (54, 39940), (59, 39991),

Gene: Dorothy_55 Start: 38358, Stop: 38852, Start Num: 19
Candidate Starts for Dorothy_55:
(Start: 15 @38349 has 12 MA's), (Start: 18 @38355 has 33 MA's), (Start: 19 @38358 has 192 MA's),
(34, 38541), (35, 38556), (36, 38562), (40, 38622), (48, 38670), (50, 38682), (54, 38739), (59, 38790),

Gene: DosHalletts_59 Start: 40494, Stop: 40988, Start Num: 19

Candidate Starts for DosHalletts_59:
(Start: 15 @40485 has 12 MA's), (Start: 18 @40491 has 33 MA's), (Start: 19 @40494 has 192 MA's),
(34, 40677), (36, 40698), (40, 40758), (45, 40791), (48, 40806), (54, 40875), (59, 40926),

Gene: DotProduct_52 Start: 37748, Stop: 38251, Start Num: 15
Candidate Starts for DotProduct_52:
(Start: 15 @37748 has 12 MA's), (Start: 18 @37754 has 33 MA's), (Start: 19 @37757 has 192 MA's),
(34, 37940), (36, 37961), (40, 38021), (45, 38054), (48, 38069), (54, 38138), (59, 38189),

Gene: Doug_59 Start: 39703, Stop: 40200, Start Num: 18
Candidate Starts for Doug_59:
(Start: 15 @39697 has 12 MA's), (Start: 18 @39703 has 33 MA's), (Start: 19 @39706 has 192 MA's),
(22, 39730), (34, 39889), (36, 39910), (40, 39970), (45, 40003), (48, 40018), (54, 40087), (59, 40138),

Gene: Drago_55 Start: 37706, Stop: 38200, Start Num: 19
Candidate Starts for Drago_55:
(Start: 15 @37697 has 12 MA's), (Start: 18 @37703 has 33 MA's), (Start: 19 @37706 has 192 MA's),
(34, 37889), (36, 37910), (40, 37970), (45, 38003), (48, 38018), (54, 38087), (59, 38138),

Gene: Duplicity_45 Start: 31730, Stop: 32113, Start Num: 16
Candidate Starts for Duplicity_45:
(6, 31595), (11, 31706), (Start: 16 @31730 has 37 MA's), (Start: 18 @31736 has 33 MA's), (28, 31829),
(32, 31892), (37, 31955), (38, 31979), (49, 32030), (53, 32072), (56, 32102),

Gene: Eish_61 Start: 39955, Stop: 40449, Start Num: 19
Candidate Starts for Eish_61:
(Start: 15 @39946 has 12 MA's), (Start: 18 @39952 has 33 MA's), (Start: 19 @39955 has 192 MA's),
(34, 40138), (36, 40159), (40, 40219), (45, 40252), (48, 40267), (54, 40336), (59, 40387),

Gene: EleanorGeorge_58 Start: 39822, Stop: 40316, Start Num: 19
Candidate Starts for EleanorGeorge_58:
(Start: 19 @39822 has 192 MA's), (34, 40005), (36, 40026), (40, 40086), (45, 40119), (48, 40134), (54,
40203), (59, 40254),

Gene: EmiMonkey_55 Start: 40660, Stop: 41163, Start Num: 15
Candidate Starts for EmiMonkey_55:
(Start: 15 @40660 has 12 MA's), (Start: 18 @40666 has 33 MA's), (Start: 19 @40669 has 192 MA's),
(22, 40693), (34, 40852), (36, 40873), (40, 40933), (45, 40966), (48, 40981), (54, 41050), (59, 41101),

Gene: Emma_59 Start: 39114, Stop: 39515, Start Num: 19
Candidate Starts for Emma_59:
(Start: 15 @39105 has 12 MA's), (Start: 18 @39111 has 33 MA's), (Start: 19 @39114 has 192 MA's),
(22, 39138), (39, 39366), (40, 39375), (43, 39390), (44, 39393), (54, 39483),

Gene: Emmaloid_58 Start: 39765, Stop: 40259, Start Num: 19
Candidate Starts for Emmaloid_58:
(Start: 15 @39756 has 12 MA's), (Start: 18 @39762 has 33 MA's), (Start: 19 @39765 has 192 MA's),
(22, 39789), (34, 39948), (36, 39969), (40, 40029), (45, 40062), (48, 40077), (54, 40146), (59, 40197),

Gene: Empress_55 Start: 38705, Stop: 39202, Start Num: 18
Candidate Starts for Empress_55:
(Start: 15 @38699 has 12 MA's), (Start: 18 @38705 has 33 MA's), (Start: 19 @38708 has 192 MA's),
(34, 38891), (35, 38906), (36, 38912), (40, 38972), (48, 39020), (50, 39032), (54, 39089), (59, 39140),

Gene: Enby_58 Start: 37979, Stop: 38476, Start Num: 18
Candidate Starts for Enby_58:
(Start: 15 @37973 has 12 MA's), (Start: 18 @37979 has 33 MA's), (Start: 19 @37982 has 192 MA's),
(34, 38165), (35, 38180), (36, 38186), (40, 38246), (45, 38279), (48, 38294), (54, 38363), (59, 38414),

Gene: Enzomatic_63 Start: 38803, Stop: 39306, Start Num: 15
Candidate Starts for Enzomatic_63:
(Start: 15 @38803 has 12 MA's), (Start: 18 @38809 has 33 MA's), (Start: 19 @38812 has 192 MA's),
(22, 38836), (34, 38995), (36, 39016), (40, 39076), (45, 39109), (48, 39124), (54, 39193), (59, 39244),

Gene: Eradicator_50 Start: 37235, Stop: 37729, Start Num: 19
Candidate Starts for Eradicator_50:
(Start: 15 @37226 has 12 MA's), (Start: 18 @37232 has 33 MA's), (Start: 19 @37235 has 192 MA's),
(34, 37418), (35, 37433), (36, 37439), (40, 37499), (45, 37532), (48, 37547), (54, 37616), (59, 37667),

Gene: Estave1_60 Start: 40159, Stop: 40653, Start Num: 19
Candidate Starts for Estave1_60:
(Start: 15 @40150 has 12 MA's), (Start: 18 @40156 has 33 MA's), (Start: 19 @40159 has 192 MA's),
(34, 40342), (36, 40363), (40, 40423), (45, 40456), (48, 40471), (54, 40540), (59, 40591),

Gene: Fancypants_59 Start: 39664, Stop: 40167, Start Num: 15
Candidate Starts for Fancypants_59:
(Start: 15 @39664 has 12 MA's), (Start: 18 @39670 has 33 MA's), (Start: 19 @39673 has 192 MA's),
(22, 39697), (34, 39856), (36, 39877), (40, 39937), (45, 39970), (48, 39985), (54, 40054), (59, 40105),

Gene: Fastidio_57 Start: 37775, Stop: 38269, Start Num: 19
Candidate Starts for Fastidio_57:
(Start: 15 @37766 has 12 MA's), (Start: 18 @37772 has 33 MA's), (Start: 19 @37775 has 192 MA's),
(32, 37931), (34, 37958), (36, 37979), (40, 38039), (45, 38072), (48, 38087), (54, 38156), (59, 38207),

Gene: Filuzino_56 Start: 38404, Stop: 38805, Start Num: 19
Candidate Starts for Filuzino_56:
(Start: 15 @38395 has 12 MA's), (Start: 18 @38401 has 33 MA's), (Start: 19 @38404 has 192 MA's),
(22, 38428), (39, 38656), (40, 38665), (43, 38680), (44, 38683), (54, 38773),

Gene: Firehouse51_58 Start: 42554, Stop: 43051, Start Num: 18
Candidate Starts for Firehouse51_58:
(Start: 15 @42548 has 12 MA's), (Start: 18 @42554 has 33 MA's), (Start: 19 @42557 has 192 MA's),
(34, 42740), (36, 42761), (40, 42821), (45, 42854), (48, 42869), (54, 42938), (59, 42989),

Gene: Flathead_58 Start: 39871, Stop: 40272, Start Num: 19
Candidate Starts for Flathead_58:
(Start: 15 @39862 has 12 MA's), (Start: 18 @39868 has 33 MA's), (Start: 19 @39871 has 192 MA's),
(22, 39895), (39, 40123), (40, 40132), (43, 40147), (44, 40150), (54, 40240),

Gene: Florinda_69 Start: 41495, Stop: 41902, Start Num: 19
Candidate Starts for Florinda_69:
(Start: 15 @41486 has 12 MA's), (Start: 18 @41492 has 33 MA's), (Start: 19 @41495 has 192 MA's),
(41, 41765), (54, 41870),

Gene: Frankie_65 Start: 41824, Stop: 42177, Start Num: 21
Candidate Starts for Frankie_65:

(11, 41773), (12, 41779), (Start: 21 @41824 has 9 MA's), (26, 41866), (31, 41935), (37, 42016), (38, 42040), (50, 42097), (57, 42166),

Gene: FreddyB_58 Start: 37887, Stop: 38381, Start Num: 19
Candidate Starts for FreddyB_58:
(Start: 15 @37878 has 12 MA's), (Start: 18 @37884 has 33 MA's), (Start: 19 @37887 has 192 MA's), (22, 37911), (34, 38070), (36, 38091), (40, 38151), (45, 38184), (48, 38199), (54, 38268), (59, 38319),

Gene: Fruitloop_55 Start: 39718, Stop: 40119, Start Num: 19
Candidate Starts for Fruitloop_55:
(Start: 15 @39709 has 12 MA's), (Start: 18 @39715 has 33 MA's), (Start: 19 @39718 has 192 MA's), (22, 39742), (39, 39970), (40, 39979), (43, 39994), (44, 39997),

Gene: Fulbright_44 Start: 30810, Stop: 31193, Start Num: 16
Candidate Starts for Fulbright_44:
(6, 30675), (11, 30786), (Start: 16 @30810 has 37 MA's), (Start: 18 @30816 has 33 MA's), (28, 30909), (32, 30972), (37, 31035), (38, 31059), (49, 31110), (53, 31152), (56, 31182),

Gene: GUmbie_55 Start: 38453, Stop: 38956, Start Num: 15
Candidate Starts for GUmbie_55:
(Start: 15 @38453 has 12 MA's), (Start: 18 @38459 has 33 MA's), (Start: 19 @38462 has 192 MA's), (34, 38645), (35, 38660), (36, 38666), (40, 38726), (45, 38759), (48, 38774), (54, 38843), (59, 38894),

Gene: Galactic_56 Start: 38928, Stop: 39422, Start Num: 19
Candidate Starts for Galactic_56:
(Start: 15 @38919 has 12 MA's), (Start: 18 @38925 has 33 MA's), (Start: 19 @38928 has 192 MA's), (22, 38952), (34, 39111), (36, 39132), (40, 39192), (45, 39225), (48, 39240), (54, 39309), (59, 39360),

Gene: Gandalph_60 Start: 39284, Stop: 39778, Start Num: 19
Candidate Starts for Gandalph_60:
(Start: 19 @39284 has 192 MA's), (34, 39467), (36, 39488), (40, 39548), (45, 39581), (48, 39596), (54, 39665), (59, 39716),

Gene: Geralt_52 Start: 37262, Stop: 37756, Start Num: 19
Candidate Starts for Geralt_52:
(Start: 15 @37253 has 12 MA's), (Start: 18 @37259 has 33 MA's), (Start: 19 @37262 has 192 MA's), (34, 37445), (35, 37460), (36, 37466), (40, 37526), (48, 37574), (50, 37586), (54, 37643), (59, 37694),

Gene: Gex_45 Start: 31737, Stop: 32120, Start Num: 16
Candidate Starts for Gex_45:
(6, 31602), (11, 31713), (Start: 16 @31737 has 37 MA's), (Start: 18 @31743 has 33 MA's), (28, 31836), (32, 31899), (37, 31962), (38, 31986), (49, 32037), (53, 32079), (56, 32109),

Gene: GigiOuiOui_53 Start: 37902, Stop: 38396, Start Num: 19
Candidate Starts for GigiOuiOui_53:
(Start: 15 @37893 has 12 MA's), (Start: 18 @37899 has 33 MA's), (Start: 19 @37902 has 192 MA's), (22, 37926), (34, 38085), (36, 38106), (40, 38166), (45, 38199), (48, 38214), (54, 38283), (59, 38334),

Gene: Girafales_67 Start: 41286, Stop: 41693, Start Num: 19
Candidate Starts for Girafales_67:
(Start: 15 @41277 has 12 MA's), (Start: 18 @41283 has 33 MA's), (Start: 19 @41286 has 192 MA's), (41, 41556), (54, 41661),

Gene: Girr_55 Start: 38769, Stop: 39263, Start Num: 19
Candidate Starts for Girr_55:
(Start: 15 @38760 has 12 MA's), (Start: 18 @38766 has 33 MA's), (Start: 19 @38769 has 192 MA's),
(22, 38793), (34, 38952), (36, 38973), (39, 39024), (40, 39033), (45, 39066), (48, 39081), (54, 39150),
(59, 39201),

Gene: Gorge_61 Start: 40404, Stop: 40898, Start Num: 19
Candidate Starts for Gorge_61:
(Start: 15 @40395 has 12 MA's), (Start: 18 @40401 has 33 MA's), (Start: 19 @40404 has 192 MA's),
(22, 40428), (34, 40587), (36, 40608), (40, 40668), (45, 40701), (48, 40716), (54, 40785), (59, 40836),

Gene: Grimmer_67 Start: 40555, Stop: 41058, Start Num: 15
Candidate Starts for Grimmer_67:
(Start: 15 @40555 has 12 MA's), (Start: 18 @40561 has 33 MA's), (Start: 19 @40564 has 192 MA's),
(34, 40747), (36, 40768), (40, 40828), (45, 40861), (48, 40876), (54, 40945), (59, 40996),

Gene: Guppsters_58 Start: 38592, Stop: 39086, Start Num: 19
Candidate Starts for Guppsters_58:
(Start: 15 @38583 has 12 MA's), (Start: 18 @38589 has 33 MA's), (Start: 19 @38592 has 192 MA's),
(34, 38775), (35, 38790), (36, 38796), (40, 38856), (45, 38889), (48, 38904), (54, 38973), (59, 39024),

Gene: Hades_58 Start: 39857, Stop: 40354, Start Num: 18
Candidate Starts for Hades_58:
(Start: 15 @39851 has 12 MA's), (Start: 18 @39857 has 33 MA's), (Start: 19 @39860 has 192 MA's),
(22, 39884), (34, 40043), (35, 40058), (36, 40064), (40, 40124), (45, 40157), (48, 40172), (54, 40241),
(59, 40292),

Gene: Hamulus_59 Start: 39858, Stop: 40259, Start Num: 19
Candidate Starts for Hamulus_59:
(Start: 15 @39849 has 12 MA's), (Start: 18 @39855 has 33 MA's), (Start: 19 @39858 has 192 MA's),
(22, 39882), (39, 40110), (40, 40119), (43, 40134), (44, 40137), (54, 40227),

Gene: Harley_60 Start: 39823, Stop: 40317, Start Num: 19
Candidate Starts for Harley_60:
(Start: 19 @39823 has 192 MA's), (34, 40006), (36, 40027), (40, 40087), (45, 40120), (48, 40135), (54,
40204), (59, 40255),

Gene: Hegedechwinu_57 Start: 38071, Stop: 38568, Start Num: 18
Candidate Starts for Hegedechwinu_57:
(Start: 15 @38065 has 12 MA's), (Start: 18 @38071 has 33 MA's), (Start: 19 @38074 has 192 MA's),
(34, 38257), (35, 38272), (36, 38278), (40, 38338), (45, 38371), (48, 38386), (54, 38455), (59, 38506),

Gene: Hlubikazi_53 Start: 37080, Stop: 37574, Start Num: 19
Candidate Starts for Hlubikazi_53:
(Start: 15 @37071 has 12 MA's), (Start: 18 @37077 has 33 MA's), (Start: 19 @37080 has 192 MA's),
(22, 37104), (34, 37263), (36, 37284), (40, 37344), (45, 37377), (48, 37392), (54, 37461), (59, 37512),

Gene: IMpilo_53 Start: 36915, Stop: 37412, Start Num: 18
Candidate Starts for IMpilo_53:
(Start: 15 @36909 has 12 MA's), (Start: 18 @36915 has 33 MA's), (Start: 19 @36918 has 192 MA's),
(22, 36942), (34, 37101), (36, 37122), (40, 37182), (45, 37215), (48, 37230), (55, 37308), (59, 37350),

Gene: IbOuu_56 Start: 39439, Stop: 39933, Start Num: 19

Candidate Starts for IbOuu_56:
(Start: 15 @39430 has 12 MA's), (Start: 18 @39436 has 33 MA's), (Start: 19 @39439 has 192 MA's),
(34, 39622), (35, 39637), (36, 39643), (40, 39703), (45, 39736), (48, 39751), (54, 39820), (59, 39871),

Gene: Ibhubesi_57 Start: 39052, Stop: 39546, Start Num: 19
Candidate Starts for Ibhubesi_57:
(Start: 15 @39043 has 12 MA's), (Start: 18 @39049 has 33 MA's), (Start: 19 @39052 has 192 MA's),
(22, 39076), (34, 39235), (36, 39256), (40, 39316), (45, 39349), (48, 39364), (54, 39433), (59, 39484),

Gene: Impisi_50 Start: 32424, Stop: 32804, Start Num: 16
Candidate Starts for Impisi_50:
(2, 32142), (3, 32145), (6, 32289), (Start: 16 @32424 has 37 MA's), (28, 32520), (32, 32583), (37,
32646), (38, 32670), (49, 32721), (53, 32763), (56, 32793),

Gene: Inventum_52 Start: 38556, Stop: 39050, Start Num: 19
Candidate Starts for Inventum_52:
(Start: 15 @38547 has 12 MA's), (Start: 18 @38553 has 33 MA's), (Start: 19 @38556 has 192 MA's),
(34, 38739), (36, 38760), (40, 38820), (48, 38868), (50, 38880), (54, 38937), (59, 38988),

Gene: IrishSherpFalk_58 Start: 40717, Stop: 41211, Start Num: 19
Candidate Starts for IrishSherpFalk_58:
(Start: 15 @40708 has 12 MA's), (Start: 18 @40714 has 33 MA's), (Start: 19 @40717 has 192 MA's),
(34, 40900), (36, 40921), (40, 40981), (45, 41014), (48, 41029), (59, 41149),

Gene: Jabbawokkie_71 Start: 40782, Stop: 41276, Start Num: 19
Candidate Starts for Jabbawokkie_71:
(Start: 19 @40782 has 192 MA's), (22, 40806), (26, 40845), (34, 40965), (35, 40980), (36, 40986), (40,
41046), (45, 41079), (48, 41094), (50, 41106), (54, 41163), (59, 41214),

Gene: JalFarm20_70 Start: 42971, Stop: 43465, Start Num: 19
Candidate Starts for JalFarm20_70:
(Start: 19 @42971 has 192 MA's), (34, 43154), (36, 43175), (40, 43235), (45, 43268), (48, 43283), (54,
43352), (59, 43403),

Gene: James_61 Start: 40529, Stop: 41023, Start Num: 19
Candidate Starts for James_61:
(Start: 15 @40520 has 12 MA's), (Start: 18 @40526 has 33 MA's), (Start: 19 @40529 has 192 MA's),
(34, 40712), (36, 40733), (40, 40793), (45, 40826), (48, 40841), (54, 40910), (59, 40961),

Gene: Jamie19_43 Start: 30918, Stop: 31301, Start Num: 16
Candidate Starts for Jamie19_43:
(6, 30783), (11, 30894), (Start: 16 @30918 has 37 MA's), (Start: 18 @30924 has 33 MA's), (28, 31017),
(32, 31080), (37, 31143), (38, 31167), (49, 31218), (53, 31260), (56, 31290),

Gene: Jant_61 Start: 40549, Stop: 41043, Start Num: 19
Candidate Starts for Jant_61:
(Start: 15 @40540 has 12 MA's), (Start: 18 @40546 has 33 MA's), (Start: 19 @40549 has 192 MA's),
(34, 40732), (35, 40747), (36, 40753), (40, 40813), (45, 40846), (48, 40861), (55, 40939), (59, 40981),

Gene: Jarcob_57 Start: 39004, Stop: 39501, Start Num: 18
Candidate Starts for Jarcob_57:
(Start: 15 @38998 has 12 MA's), (Start: 18 @39004 has 33 MA's), (Start: 19 @39007 has 192 MA's),
(22, 39031), (34, 39190), (36, 39211), (40, 39271), (45, 39304), (48, 39319), (54, 39388), (59, 39439),

Gene: Jennelsea_54 Start: 37689, Stop: 38186, Start Num: 18
Candidate Starts for Jennelsea_54:
(Start: 15 @37683 has 12 MA's), (Start: 18 @37689 has 33 MA's), (Start: 19 @37692 has 192 MA's), (22, 37716), (34, 37875), (36, 37896), (40, 37956), (45, 37989), (48, 38004), (54, 38073), (59, 38124),

Gene: Jinglebell_62 Start: 41567, Stop: 42061, Start Num: 19
Candidate Starts for Jinglebell_62:
(Start: 15 @41558 has 12 MA's), (Start: 18 @41564 has 33 MA's), (Start: 19 @41567 has 192 MA's), (22, 41591), (34, 41750), (36, 41771), (40, 41831), (45, 41864), (48, 41879), (54, 41948), (59, 41999),

Gene: Job42_59 Start: 40944, Stop: 41441, Start Num: 18
Candidate Starts for Job42_59:
(Start: 15 @40938 has 12 MA's), (Start: 18 @40944 has 33 MA's), (Start: 19 @40947 has 192 MA's), (34, 41130), (36, 41151), (40, 41211), (45, 41244), (48, 41259), (54, 41328), (59, 41379),

Gene: JoeyJr_52 Start: 37462, Stop: 37956, Start Num: 19
Candidate Starts for JoeyJr_52:
(Start: 15 @37453 has 12 MA's), (Start: 18 @37459 has 33 MA's), (Start: 19 @37462 has 192 MA's), (34, 37645), (35, 37660), (36, 37666), (40, 37726), (48, 37774), (50, 37786), (54, 37843), (59, 37894),

Gene: Juice456_58 Start: 40927, Stop: 41421, Start Num: 19
Candidate Starts for Juice456_58:
(Start: 19 @40927 has 192 MA's), (34, 41110), (36, 41131), (40, 41191), (45, 41224), (48, 41239), (54, 41308), (59, 41359),

Gene: Juniper1_55 Start: 38863, Stop: 39357, Start Num: 19
Candidate Starts for Juniper1_55:
(Start: 15 @38854 has 12 MA's), (Start: 18 @38860 has 33 MA's), (Start: 19 @38863 has 192 MA's), (22, 38887), (34, 39046), (36, 39067), (39, 39118), (40, 39127), (45, 39160), (48, 39175), (54, 39244), (55, 39253), (59, 39295),

Gene: Juniper1_58 Start: 40048, Stop: 40446, Start Num: 16
Candidate Starts for Juniper1_58:
(10, 40012), (Start: 16 @40048 has 37 MA's), (26, 40120), (27, 40132), (30, 40189), (33, 40225), (34, 40237), (45, 40351), (51, 40405), (58, 40438),

Gene: Karhdo_54 Start: 38552, Stop: 39046, Start Num: 19
Candidate Starts for Karhdo_54:
(Start: 15 @38543 has 12 MA's), (Start: 18 @38549 has 33 MA's), (Start: 19 @38552 has 192 MA's), (22, 38576), (34, 38735), (36, 38756), (40, 38816), (45, 38849), (48, 38864), (54, 38933), (59, 38984),

Gene: Kenuha5_55 Start: 37976, Stop: 38380, Start Num: 15
Candidate Starts for Kenuha5_55:
(Start: 15 @37976 has 12 MA's), (Start: 18 @37982 has 33 MA's), (Start: 19 @37985 has 192 MA's), (39, 38231), (40, 38240), (43, 38255), (44, 38258), (54, 38348),

Gene: Kersh_59 Start: 41305, Stop: 41799, Start Num: 19
Candidate Starts for Kersh_59:
(Start: 15 @41296 has 12 MA's), (Start: 18 @41302 has 33 MA's), (Start: 19 @41305 has 192 MA's), (22, 41329), (32, 41461), (34, 41488), (36, 41509), (40, 41569), (45, 41602), (48, 41617), (54, 41686), (59, 41737),

Gene: Kevin1_47 Start: 31862, Stop: 32239, Start Num: 16
Candidate Starts for Kevin1_47:
(1, 31562), (6, 31727), (Start: 16 @31862 has 37 MA's), (28, 31955), (32, 32018), (37, 32081), (38, 32105), (49, 32156),

Gene: Kimberlium_59 Start: 40626, Stop: 41120, Start Num: 19
Candidate Starts for Kimberlium_59:
(Start: 15 @40617 has 12 MA's), (Start: 18 @40623 has 33 MA's), (Start: 19 @40626 has 192 MA's), (22, 40650), (34, 40809), (36, 40830), (40, 40890), (45, 40923), (48, 40938), (54, 41007), (59, 41058),

Gene: KingJulian_57 Start: 38078, Stop: 38572, Start Num: 19
Candidate Starts for KingJulian_57:
(Start: 15 @38069 has 12 MA's), (Start: 18 @38075 has 33 MA's), (Start: 19 @38078 has 192 MA's), (22, 38102), (32, 38234), (34, 38261), (36, 38282), (40, 38342), (45, 38375), (48, 38390), (54, 38459), (59, 38510),

Gene: KingMidas_56 Start: 39124, Stop: 39618, Start Num: 19
Candidate Starts for KingMidas_56:
(Start: 15 @39115 has 12 MA's), (Start: 18 @39121 has 33 MA's), (Start: 19 @39124 has 192 MA's), (34, 39307), (35, 39322), (36, 39328), (40, 39388), (48, 39436), (50, 39448), (54, 39505), (59, 39556),

Gene: Kingsley_54 Start: 37969, Stop: 38463, Start Num: 19
Candidate Starts for Kingsley_54:
(Start: 15 @37960 has 12 MA's), (Start: 18 @37966 has 33 MA's), (Start: 19 @37969 has 192 MA's), (34, 38152), (36, 38173), (40, 38233), (45, 38266), (48, 38281), (54, 38350), (59, 38401),

Gene: Koella_51 Start: 34937, Stop: 35431, Start Num: 19
Candidate Starts for Koella_51:
(Start: 15 @34928 has 12 MA's), (Start: 18 @34934 has 33 MA's), (Start: 19 @34937 has 192 MA's), (22, 34961), (34, 35120), (36, 35141), (40, 35201), (45, 35234), (48, 35249), (54, 35318), (59, 35369),

Gene: Krakatau_55 Start: 38665, Stop: 39075, Start Num: 15
Candidate Starts for Krakatau_55:
(Start: 15 @38665 has 12 MA's), (Start: 18 @38671 has 33 MA's), (Start: 19 @38674 has 192 MA's), (22, 38698), (39, 38926), (40, 38935), (43, 38950), (44, 38953), (54, 39043),

Gene: KristaRAM_60 Start: 41509, Stop: 42003, Start Num: 19
Candidate Starts for KristaRAM_60:
(Start: 15 @41500 has 12 MA's), (Start: 18 @41506 has 33 MA's), (Start: 19 @41509 has 192 MA's), (22, 41533), (34, 41692), (36, 41713), (40, 41773), (45, 41806), (48, 41821), (54, 41890), (59, 41941),

Gene: LastJedi_51 Start: 36257, Stop: 36751, Start Num: 19
Candidate Starts for LastJedi_51:
(Start: 15 @36248 has 12 MA's), (Start: 18 @36254 has 33 MA's), (Start: 19 @36257 has 192 MA's), (22, 36281), (34, 36440), (36, 36461), (40, 36521), (45, 36554), (48, 36569), (54, 36638), (59, 36689),

Gene: Latretium_59 Start: 39583, Stop: 40077, Start Num: 19
Candidate Starts for Latretium_59:
(Start: 15 @39574 has 12 MA's), (Start: 18 @39580 has 33 MA's), (Start: 19 @39583 has 192 MA's), (22, 39607), (34, 39766), (36, 39787), (40, 39847), (45, 39880), (48, 39895), (54, 39964), (59, 40015),

Gene: Leozinho_56 Start: 38342, Stop: 38836, Start Num: 19
Candidate Starts for Leozinho_56:

(Start: 15 @38333 has 12 MA's), (Start: 18 @38339 has 33 MA's), (Start: 19 @38342 has 192 MA's), (34, 38525), (36, 38546), (40, 38606), (45, 38639), (48, 38654), (54, 38723), (59, 38774),

Gene: Leperchaun_49 Start: 36692, Stop: 37186, Start Num: 19
Candidate Starts for Leperchaun_49:
(Start: 15 @36683 has 12 MA's), (Start: 18 @36689 has 33 MA's), (Start: 19 @36692 has 192 MA's), (34, 36875), (35, 36890), (36, 36896), (40, 36956), (48, 37004), (50, 37016), (54, 37073), (59, 37124),

Gene: LilMoolah_55 Start: 38452, Stop: 38946, Start Num: 19
Candidate Starts for LilMoolah_55:
(Start: 15 @38443 has 12 MA's), (Start: 18 @38449 has 33 MA's), (Start: 19 @38452 has 192 MA's), (34, 38635), (36, 38656), (40, 38716), (45, 38749), (48, 38764), (54, 38833), (59, 38884),

Gene: LilSpotty_59 Start: 37743, Stop: 38096, Start Num: 21
Candidate Starts for LilSpotty_59:
(11, 37692), (12, 37698), (Start: 21 @37743 has 9 MA's), (26, 37785), (31, 37854), (37, 37935), (38, 37959), (50, 38016), (57, 38085),

Gene: LittleShirley_56 Start: 39496, Stop: 39990, Start Num: 19
Candidate Starts for LittleShirley_56:
(Start: 15 @39487 has 12 MA's), (Start: 18 @39493 has 33 MA's), (Start: 19 @39496 has 192 MA's), (34, 39679), (36, 39700), (40, 39760), (45, 39793), (48, 39808), (54, 39877), (59, 39928),

Gene: Lizziana_63 Start: 40010, Stop: 40504, Start Num: 19
Candidate Starts for Lizziana_63:
(Start: 15 @40001 has 12 MA's), (Start: 18 @40007 has 33 MA's), (Start: 19 @40010 has 192 MA's), (22, 40034), (34, 40193), (36, 40214), (40, 40274), (45, 40307), (48, 40322), (54, 40391), (59, 40442),

Gene: Llama_62 Start: 41421, Stop: 41915, Start Num: 19
Candidate Starts for Llama_62:
(Start: 15 @41412 has 12 MA's), (Start: 18 @41418 has 33 MA's), (Start: 19 @41421 has 192 MA's), (22, 41445), (34, 41604), (36, 41625), (40, 41685), (45, 41718), (48, 41733), (54, 41802), (59, 41853),

Gene: Llij_53 Start: 37860, Stop: 38354, Start Num: 19
Candidate Starts for Llij_53:
(Start: 15 @37851 has 12 MA's), (Start: 18 @37857 has 33 MA's), (Start: 19 @37860 has 192 MA's), (34, 38043), (36, 38064), (40, 38124), (45, 38157), (48, 38172), (54, 38241), (59, 38292),

Gene: LordVader_56 Start: 35185, Stop: 35538, Start Num: 21
Candidate Starts for LordVader_56:
(11, 35134), (12, 35140), (Start: 21 @35185 has 9 MA's), (26, 35227), (31, 35296), (37, 35377), (38, 35401), (50, 35458), (57, 35527),

Gene: Lorde_57 Start: 37147, Stop: 37641, Start Num: 19
Candidate Starts for Lorde_57:
(Start: 15 @37138 has 12 MA's), (Start: 18 @37144 has 33 MA's), (Start: 19 @37147 has 192 MA's), (34, 37330), (36, 37351), (40, 37411), (45, 37444), (48, 37459), (54, 37528), (59, 37579),

Gene: Lucia_57 Start: 38004, Stop: 38498, Start Num: 19
Candidate Starts for Lucia_57:
(Start: 15 @37995 has 12 MA's), (Start: 18 @38001 has 33 MA's), (Start: 19 @38004 has 192 MA's), (34, 38187), (36, 38208), (40, 38268), (45, 38301), (48, 38316), (54, 38385), (59, 38436),

Gene: LunaBlu_59 Start: 39587, Stop: 40081, Start Num: 19
Candidate Starts for LunaBlu_59:
(Start: 15 @39578 has 12 MA's), (Start: 18 @39584 has 33 MA's), (Start: 19 @39587 has 192 MA's),
(22, 39611), (34, 39770), (36, 39791), (40, 39851), (45, 39884), (48, 39899), (54, 39968), (59, 40019),

Gene: LunaStella_55 Start: 38222, Stop: 38716, Start Num: 19
Candidate Starts for LunaStella_55:
(Start: 19 @38222 has 192 MA's), (34, 38405), (36, 38426), (40, 38486), (45, 38519), (48, 38534), (54,
38603), (59, 38654),

Gene: MadMen_55 Start: 38784, Stop: 39278, Start Num: 19
Candidate Starts for MadMen_55:
(Start: 15 @38775 has 12 MA's), (Start: 18 @38781 has 33 MA's), (Start: 19 @38784 has 192 MA's),
(22, 38808), (34, 38967), (36, 38988), (40, 39048), (45, 39081), (48, 39096), (54, 39165), (59, 39216),

Gene: Madiba_55 Start: 38033, Stop: 38527, Start Num: 19
Candidate Starts for Madiba_55:
(Start: 15 @38024 has 12 MA's), (Start: 18 @38030 has 33 MA's), (Start: 19 @38033 has 192 MA's),
(22, 38057), (34, 38216), (36, 38237), (40, 38297), (45, 38330), (48, 38345), (54, 38414), (59, 38465),

Gene: Magsby_45 Start: 31738, Stop: 32121, Start Num: 16
Candidate Starts for Magsby_45:
(6, 31603), (11, 31714), (Start: 16 @31738 has 37 MA's), (Start: 18 @31744 has 33 MA's), (28, 31837),
(32, 31900), (37, 31963), (38, 31987), (49, 32038), (53, 32080), (56, 32110),

Gene: Mahavrat_55 Start: 38412, Stop: 38906, Start Num: 19
Candidate Starts for Mahavrat_55:
(Start: 15 @38403 has 12 MA's), (Start: 18 @38409 has 33 MA's), (Start: 19 @38412 has 192 MA's),
(34, 38595), (36, 38616), (40, 38676), (45, 38709), (48, 38724), (54, 38793), (59, 38844),

Gene: Mandlovu_53 Start: 37019, Stop: 37516, Start Num: 18
Candidate Starts for Mandlovu_53:
(Start: 15 @37013 has 12 MA's), (Start: 18 @37019 has 33 MA's), (Start: 19 @37022 has 192 MA's),
(22, 37046), (34, 37205), (36, 37226), (40, 37286), (45, 37319), (48, 37334), (54, 37403), (59, 37454),

Gene: Mantra_53 Start: 37905, Stop: 38399, Start Num: 19
Candidate Starts for Mantra_53:
(Start: 15 @37896 has 12 MA's), (Start: 18 @37902 has 33 MA's), (Start: 19 @37905 has 192 MA's),
(22, 37929), (34, 38088), (36, 38109), (40, 38169), (45, 38202), (48, 38217), (54, 38286), (59, 38337),

Gene: Maravista_58 Start: 40459, Stop: 40953, Start Num: 19
Candidate Starts for Maravista_58:
(Start: 15 @40450 has 12 MA's), (Start: 18 @40456 has 33 MA's), (Start: 19 @40459 has 192 MA's),
(34, 40642), (36, 40663), (40, 40723), (45, 40756), (48, 40771), (54, 40840), (59, 40891),

Gene: Marker_59 Start: 39127, Stop: 39621, Start Num: 19
Candidate Starts for Marker_59:
(Start: 15 @39118 has 12 MA's), (Start: 18 @39124 has 33 MA's), (Start: 19 @39127 has 192 MA's),
(32, 39283), (34, 39310), (36, 39331), (40, 39391), (45, 39424), (48, 39439), (54, 39508), (59, 39559),

Gene: Martik_57 Start: 38963, Stop: 39457, Start Num: 19
Candidate Starts for Martik_57:

(Start: 15 @38954 has 12 MA's), (Start: 18 @38960 has 33 MA's), (Start: 19 @38963 has 192 MA's), (22, 38987), (34, 39146), (36, 39167), (40, 39227), (45, 39260), (48, 39275), (54, 39344), (59, 39395),

Gene: Mattes_61 Start: 40529, Stop: 41023, Start Num: 19
Candidate Starts for Mattes_61:
(Start: 15 @40520 has 12 MA's), (Start: 18 @40526 has 33 MA's), (Start: 19 @40529 has 192 MA's), (22, 40553), (34, 40712), (36, 40733), (40, 40793), (45, 40826), (48, 40841), (54, 40910), (59, 40961),

Gene: Medindi_54 Start: 36747, Stop: 37157, Start Num: 15
Candidate Starts for Medindi_54:
(Start: 15 @36747 has 12 MA's), (Start: 18 @36753 has 33 MA's), (Start: 19 @36756 has 192 MA's), (22, 36780), (39, 37008), (40, 37017), (43, 37032), (44, 37035), (54, 37125),

Gene: Melissauren88_56 Start: 38890, Stop: 39300, Start Num: 15
Candidate Starts for Melissauren88_56:
(Start: 15 @38890 has 12 MA's), (Start: 18 @38896 has 33 MA's), (Start: 19 @38899 has 192 MA's), (22, 38923), (39, 39151), (40, 39160), (43, 39175), (44, 39178), (54, 39268),

Gene: Melville_48 Start: 31722, Stop: 32105, Start Num: 16
Candidate Starts for Melville_48:
(6, 31587), (11, 31698), (Start: 16 @31722 has 37 MA's), (Start: 18 @31728 has 33 MA's), (28, 31821), (32, 31884), (37, 31947), (38, 31971), (49, 32022), (53, 32064), (56, 32094),

Gene: MichelleMyBell_45 Start: 30673, Stop: 31050, Start Num: 16
Candidate Starts for MichelleMyBell_45:
(1, 30373), (6, 30538), (Start: 16 @30673 has 37 MA's), (28, 30766), (32, 30829), (37, 30892), (38, 30916), (49, 30967),

Gene: MilanaBonita_48 Start: 35492, Stop: 35893, Start Num: 19
Candidate Starts for MilanaBonita_48:
(Start: 15 @35483 has 12 MA's), (Start: 18 @35489 has 33 MA's), (Start: 19 @35492 has 192 MA's), (22, 35516), (39, 35744), (40, 35753), (43, 35768), (44, 35771), (54, 35861),

Gene: MilleniumForce_61 Start: 41581, Stop: 41988, Start Num: 19
Candidate Starts for MilleniumForce_61:
(Start: 15 @41572 has 12 MA's), (Start: 18 @41578 has 33 MA's), (Start: 19 @41581 has 192 MA's), (41, 41851), (54, 41956),

Gene: MinionDave_56 Start: 39310, Stop: 39804, Start Num: 19
Candidate Starts for MinionDave_56:
(Start: 15 @39301 has 12 MA's), (Start: 18 @39307 has 33 MA's), (Start: 19 @39310 has 192 MA's), (34, 39493), (35, 39508), (36, 39514), (40, 39574), (45, 39607), (48, 39622), (54, 39691), (59, 39742),

Gene: Minnie_61 Start: 40883, Stop: 41290, Start Num: 19
Candidate Starts for Minnie_61:
(Start: 15 @40874 has 12 MA's), (Start: 18 @40880 has 33 MA's), (Start: 19 @40883 has 192 MA's), (41, 41153), (54, 41258),

Gene: Mischief19_47 Start: 42321, Stop: 41932, Start Num: 17
Candidate Starts for Mischief19_47:
(Start: 17 @42321 has 1 MA's), (Start: 19 @42315 has 192 MA's), (29, 42231), (31, 42183), (38, 42078), (42, 42042), (46, 42024),

Gene: Misha28_57 Start: 38434, Stop: 38787, Start Num: 21
Candidate Starts for Misha28_57:
(11, 38383), (12, 38389), (Start: 21 @38434 has 9 MA's), (26, 38476), (31, 38545), (37, 38626), (38, 38650), (50, 38707), (57, 38776),

Gene: MisterCuddles_55 Start: 38769, Stop: 39263, Start Num: 19
Candidate Starts for MisterCuddles_55:
(Start: 15 @38760 has 12 MA's), (Start: 18 @38766 has 33 MA's), (Start: 19 @38769 has 192 MA's), (22, 38793), (34, 38952), (36, 38973), (39, 39024), (40, 39033), (45, 39066), (48, 39081), (54, 39150), (59, 39201),

Gene: Modragons_61 Start: 41408, Stop: 41905, Start Num: 18
Candidate Starts for Modragons_61:
(Start: 15 @41402 has 12 MA's), (Start: 18 @41408 has 33 MA's), (Start: 19 @41411 has 192 MA's), (22, 41435), (34, 41594), (36, 41615), (40, 41675), (45, 41708), (48, 41723), (54, 41792), (59, 41843),

Gene: MooMoo_58 Start: 39220, Stop: 39621, Start Num: 18
Candidate Starts for MooMoo_58:
(9, 39175), (13, 39199), (Start: 18 @39220 has 33 MA's), (22, 39247), (23, 39250), (31, 39352), (36, 39421), (52, 39568),

Gene: Moonbeam_56 Start: 39040, Stop: 39444, Start Num: 18
Candidate Starts for Moonbeam_56:
(Start: 15 @39034 has 12 MA's), (Start: 18 @39040 has 33 MA's), (Start: 19 @39043 has 192 MA's), (22, 39067), (39, 39295), (40, 39304), (43, 39319), (44, 39322), (54, 39412),

Gene: Mova_58 Start: 38537, Stop: 39031, Start Num: 19
Candidate Starts for Mova_58:
(Start: 15 @38528 has 12 MA's), (Start: 18 @38534 has 33 MA's), (Start: 19 @38537 has 192 MA's), (34, 38720), (36, 38741), (40, 38801), (45, 38834), (48, 38849), (54, 38918), (59, 38969),

Gene: Mozy_66 Start: 41544, Stop: 42038, Start Num: 19
Candidate Starts for Mozy_66:
(Start: 15 @41535 has 12 MA's), (Start: 18 @41541 has 33 MA's), (Start: 19 @41544 has 192 MA's), (34, 41727), (35, 41742), (36, 41748), (40, 41808), (48, 41856), (50, 41868), (54, 41925), (55, 41934), (59, 41976),

Gene: Ms6_53 Start: 34621, Stop: 35031, Start Num: 15
Candidate Starts for Ms6_53:
(Start: 15 @34621 has 12 MA's), (Start: 18 @34627 has 33 MA's), (Start: 19 @34630 has 192 MA's), (22, 34654), (39, 34882), (40, 34891), (43, 34906), (44, 34909), (54, 34999),

Gene: MulchExplorer_63 Start: 40625, Stop: 41119, Start Num: 19
Candidate Starts for MulchExplorer_63:
(Start: 15 @40616 has 12 MA's), (Start: 18 @40622 has 33 MA's), (Start: 19 @40625 has 192 MA's), (22, 40649), (34, 40808), (36, 40829), (40, 40889), (45, 40922), (48, 40937), (54, 41006), (59, 41057),

Gene: MulchSalad_59 Start: 37668, Stop: 38021, Start Num: 21
Candidate Starts for MulchSalad_59:
(Start: 21 @37668 has 9 MA's), (26, 37710), (31, 37779), (37, 37860), (38, 37884), (50, 37941), (57, 38010),

Gene: Mutaforma13_61 Start: 41867, Stop: 42361, Start Num: 19

Candidate Starts for Mutaforma13_61:
(Start: 15 @41858 has 12 MA's), (Start: 18 @41864 has 33 MA's), (Start: 19 @41867 has 192 MA's),
(34, 42050), (36, 42071), (40, 42131), (45, 42164), (48, 42179), (54, 42248), (59, 42299),

Gene: Mwanjiwa_63 Start: 39644, Stop: 40138, Start Num: 19
Candidate Starts for Mwanjiwa_63:
(Start: 15 @39635 has 12 MA's), (Start: 18 @39641 has 33 MA's), (Start: 19 @39644 has 192 MA's),
(22, 39668), (34, 39827), (36, 39848), (40, 39908), (45, 39941), (48, 39956), (54, 40025), (59, 40076),

Gene: Nenae_49 Start: 32629, Stop: 33009, Start Num: 16
Candidate Starts for Nenae_49:
(2, 32347), (3, 32350), (6, 32494), (Start: 16 @32629 has 37 MA's), (28, 32725), (32, 32788), (37,
32851), (38, 32875), (49, 32926), (53, 32968), (56, 32998),

Gene: NewHope4_58 Start: 38958, Stop: 39452, Start Num: 19
Candidate Starts for NewHope4_58:
(Start: 15 @38949 has 12 MA's), (Start: 18 @38955 has 33 MA's), (Start: 19 @38958 has 192 MA's),
(22, 38982), (34, 39141), (36, 39162), (40, 39222), (45, 39255), (48, 39270), (54, 39339), (59, 39390),

Gene: Nichirin_64 Start: 42952, Stop: 43446, Start Num: 19
Candidate Starts for Nichirin_64:
(Start: 15 @42943 has 12 MA's), (Start: 18 @42949 has 33 MA's), (Start: 19 @42952 has 192 MA's),
(34, 43135), (36, 43156), (40, 43216), (45, 43249), (48, 43264), (54, 43333), (59, 43384),

Gene: Nimbo_51 Start: 37265, Stop: 37759, Start Num: 19
Candidate Starts for Nimbo_51:
(Start: 15 @37256 has 12 MA's), (Start: 18 @37262 has 33 MA's), (Start: 19 @37265 has 192 MA's),
(34, 37448), (35, 37463), (36, 37469), (40, 37529), (48, 37577), (50, 37589), (54, 37646), (59, 37697),

Gene: Nitzel_55 Start: 38315, Stop: 38812, Start Num: 18
Candidate Starts for Nitzel_55:
(Start: 15 @38309 has 12 MA's), (Start: 18 @38315 has 33 MA's), (Start: 19 @38318 has 192 MA's),
(24, 38351), (34, 38501), (36, 38522), (40, 38582), (45, 38615), (48, 38630), (54, 38699), (59, 38750),

Gene: Nivrat_53 Start: 38325, Stop: 38819, Start Num: 19
Candidate Starts for Nivrat_53:
(Start: 15 @38316 has 12 MA's), (Start: 18 @38322 has 33 MA's), (Start: 19 @38325 has 192 MA's),
(34, 38508), (36, 38529), (40, 38589), (45, 38622), (48, 38637), (54, 38706), (59, 38757),

Gene: NormanBulbieJr_57 Start: 38947, Stop: 39444, Start Num: 18
Candidate Starts for NormanBulbieJr_57:
(Start: 15 @38941 has 12 MA's), (Start: 18 @38947 has 33 MA's), (Start: 19 @38950 has 192 MA's),
(22, 38974), (34, 39133), (36, 39154), (40, 39214), (45, 39247), (48, 39262), (54, 39331), (59, 39382),

Gene: Ochi17_60 Start: 41009, Stop: 41512, Start Num: 15
Candidate Starts for Ochi17_60:
(Start: 15 @41009 has 12 MA's), (Start: 18 @41015 has 33 MA's), (Start: 19 @41018 has 192 MA's),
(22, 41042), (34, 41201), (36, 41222), (40, 41282), (45, 41315), (48, 41330), (54, 41399), (59, 41450),

Gene: OfUltron_62 Start: 41567, Stop: 42061, Start Num: 19
Candidate Starts for OfUltron_62:
(Start: 15 @41558 has 12 MA's), (Start: 18 @41564 has 33 MA's), (Start: 19 @41567 has 192 MA's),
(22, 41591), (34, 41750), (36, 41771), (40, 41831), (45, 41864), (48, 41879), (54, 41948), (59, 41999),

Gene: Ogopogo_63 Start: 39889, Stop: 40284, Start Num: 19
Candidate Starts for Ogopogo_63:
(Start: 15 @39880 has 12 MA's), (Start: 18 @39886 has 33 MA's), (Start: 19 @39889 has 192 MA's),
(39, 40135), (40, 40144), (43, 40159), (44, 40162), (54, 40252),

Gene: Oksu_61 Start: 41830, Stop: 42324, Start Num: 19
Candidate Starts for Oksu_61:
(Start: 15 @41821 has 12 MA's), (Start: 18 @41827 has 33 MA's), (Start: 19 @41830 has 192 MA's),
(22, 41854), (34, 42013), (36, 42034), (40, 42094), (45, 42127), (48, 42142), (54, 42211), (59, 42262),

Gene: OldBen_54 Start: 38875, Stop: 39369, Start Num: 19
Candidate Starts for OldBen_54:
(Start: 15 @38866 has 12 MA's), (Start: 18 @38872 has 33 MA's), (Start: 19 @38875 has 192 MA's),
(34, 39058), (36, 39079), (40, 39139), (45, 39172), (48, 39187), (54, 39256), (59, 39307),

Gene: OlympiaSaint_59 Start: 39471, Stop: 39965, Start Num: 19
Candidate Starts for OlympiaSaint_59:
(Start: 15 @39462 has 12 MA's), (Start: 18 @39468 has 33 MA's), (Start: 19 @39471 has 192 MA's),
(22, 39495), (34, 39654), (36, 39675), (40, 39735), (45, 39768), (48, 39783), (54, 39852), (59, 39903),

Gene: Ovechkin_56 Start: 39471, Stop: 39965, Start Num: 19
Candidate Starts for Ovechkin_56:
(Start: 15 @39462 has 12 MA's), (Start: 18 @39468 has 33 MA's), (Start: 19 @39471 has 192 MA's),
(34, 39654), (36, 39675), (40, 39735), (45, 39768), (48, 39783), (54, 39852), (59, 39903),

Gene: OwlsT2W_57 Start: 39193, Stop: 39687, Start Num: 19
Candidate Starts for OwlsT2W_57:
(Start: 15 @39184 has 12 MA's), (Start: 18 @39190 has 33 MA's), (Start: 19 @39193 has 192 MA's),
(22, 39217), (34, 39376), (35, 39391), (36, 39397), (40, 39457), (48, 39505), (50, 39517), (54, 39574),
(55, 39583), (59, 39625),

Gene: PHappiness_52 Start: 37238, Stop: 37732, Start Num: 19
Candidate Starts for PHappiness_52:
(Start: 15 @37229 has 12 MA's), (Start: 18 @37235 has 33 MA's), (Start: 19 @37238 has 192 MA's),
(34, 37421), (35, 37436), (36, 37442), (40, 37502), (48, 37550), (50, 37562), (54, 37619), (59, 37670),

Gene: PMC_54 Start: 39568, Stop: 40071, Start Num: 15
Candidate Starts for PMC_54:
(Start: 15 @39568 has 12 MA's), (Start: 18 @39574 has 33 MA's), (Start: 19 @39577 has 192 MA's),
(34, 39760), (36, 39781), (40, 39841), (45, 39874), (48, 39889), (55, 39967), (59, 40009),

Gene: Pacc40_51 Start: 37312, Stop: 37806, Start Num: 19
Candidate Starts for Pacc40_51:
(Start: 15 @37303 has 12 MA's), (Start: 18 @37309 has 33 MA's), (Start: 19 @37312 has 192 MA's),
(34, 37495), (35, 37510), (36, 37516), (40, 37576), (48, 37624), (50, 37636), (54, 37693), (59, 37744),

Gene: Panchino_42 Start: 32264, Stop: 32647, Start Num: 16
Candidate Starts for Panchino_42:
(6, 32129), (11, 32240), (Start: 16 @32264 has 37 MA's), (Start: 18 @32270 has 33 MA's), (28, 32363),
(32, 32426), (37, 32489), (38, 32513), (49, 32564), (53, 32606), (56, 32636),

Gene: Parmesanjohn_45 Start: 31741, Stop: 32124, Start Num: 16

Candidate Starts for Parmesanjohn_45:
(6, 31606), (11, 31717), (Start: 16 @31741 has 37 MA's), (Start: 18 @31747 has 33 MA's), (28, 31840), (32, 31903), (37, 31966), (38, 31990), (49, 32041), (53, 32083), (56, 32113),

Gene: PatoPoderoso_54 Start: 38078, Stop: 38572, Start Num: 19
Candidate Starts for PatoPoderoso_54:
(Start: 15 @38069 has 12 MA's), (Start: 18 @38075 has 33 MA's), (Start: 19 @38078 has 192 MA's), (22, 38102), (32, 38234), (34, 38261), (36, 38282), (40, 38342), (45, 38375), (48, 38390), (54, 38459), (59, 38510),

Gene: Peridot_58 Start: 38415, Stop: 38909, Start Num: 19
Candidate Starts for Peridot_58:
(Start: 15 @38406 has 12 MA's), (Start: 18 @38412 has 33 MA's), (Start: 19 @38415 has 192 MA's), (34, 38598), (36, 38619), (40, 38679), (45, 38712), (48, 38727), (54, 38796), (59, 38847),

Gene: Phalconet_56 Start: 38170, Stop: 38571, Start Num: 19
Candidate Starts for Phalconet_56:
(Start: 15 @38161 has 12 MA's), (Start: 18 @38167 has 33 MA's), (Start: 19 @38170 has 192 MA's), (22, 38194), (39, 38422), (40, 38431), (43, 38446), (44, 38449), (54, 38539),

Gene: PhancyPhin_49 Start: 32623, Stop: 33003, Start Num: 16
Candidate Starts for PhancyPhin_49:
(2, 32341), (3, 32344), (6, 32488), (Start: 16 @32623 has 37 MA's), (28, 32719), (32, 32782), (37, 32845), (38, 32869), (49, 32920), (53, 32962), (56, 32992),

Gene: Phanphagia_55 Start: 39761, Stop: 40162, Start Num: 19
Candidate Starts for Phanphagia_55:
(Start: 15 @39752 has 12 MA's), (Start: 18 @39758 has 33 MA's), (Start: 19 @39761 has 192 MA's), (22, 39785), (39, 40013), (40, 40022), (43, 40037), (44, 40040), (54, 40130),

Gene: Phasih_55 Start: 39382, Stop: 39876, Start Num: 19
Candidate Starts for Phasih_55:
(Start: 19 @39382 has 192 MA's), (34, 39565), (36, 39586), (40, 39646), (45, 39679), (48, 39694), (54, 39763), (59, 39814),

Gene: Phatniss_55 Start: 38955, Stop: 39449, Start Num: 19
Candidate Starts for Phatniss_55:
(Start: 15 @38946 has 12 MA's), (Start: 18 @38952 has 33 MA's), (Start: 19 @38955 has 192 MA's), (34, 39138), (36, 39159), (40, 39219), (45, 39252), (48, 39267), (54, 39336), (59, 39387),

Gene: PhesterPhotato_58 Start: 38987, Stop: 39388, Start Num: 19
Candidate Starts for PhesterPhotato_58:
(Start: 15 @38978 has 12 MA's), (Start: 18 @38984 has 33 MA's), (Start: 19 @38987 has 192 MA's), (22, 39011), (39, 39239), (40, 39248), (43, 39263), (44, 39266), (54, 39356),

Gene: Philus_60 Start: 40115, Stop: 40609, Start Num: 19
Candidate Starts for Philus_60:
(Start: 15 @40106 has 12 MA's), (Start: 18 @40112 has 33 MA's), (Start: 19 @40115 has 192 MA's), (34, 40298), (36, 40319), (40, 40379), (45, 40412), (48, 40427), (54, 40496), (59, 40547),

Gene: PhlipPhlop_57 Start: 40669, Stop: 41163, Start Num: 19
Candidate Starts for PhlipPhlop_57:

(Start: 15 @40660 has 12 MA's), (Start: 18 @40666 has 33 MA's), (Start: 19 @40669 has 192 MA's), (22, 40693), (34, 40852), (36, 40873), (40, 40933), (45, 40966), (48, 40981), (54, 41050), (59, 41101),

Gene: Phloss_43 Start: 31148, Stop: 31531, Start Num: 16
Candidate Starts for Phloss_43:
(6, 31013), (11, 31124), (Start: 16 @31148 has 37 MA's), (Start: 18 @31154 has 33 MA's), (28, 31247), (32, 31310), (37, 31373), (38, 31397), (49, 31448), (53, 31490), (56, 31520),

Gene: Piper2020_60 Start: 39329, Stop: 39682, Start Num: 21
Candidate Starts for Piper2020_60:
(Start: 21 @39329 has 9 MA's), (26, 39371), (31, 39440), (37, 39521), (38, 39545), (50, 39602), (57, 39671),

Gene: Pippy_55 Start: 37821, Stop: 38315, Start Num: 19
Candidate Starts for Pippy_55:
(Start: 15 @37812 has 12 MA's), (Start: 18 @37818 has 33 MA's), (Start: 19 @37821 has 192 MA's), (22, 37845), (34, 38004), (36, 38025), (40, 38085), (45, 38118), (48, 38133), (54, 38202), (59, 38253),

Gene: Pipsqueaks_45 Start: 31718, Stop: 32101, Start Num: 16
Candidate Starts for Pipsqueaks_45:
(6, 31583), (11, 31694), (Start: 16 @31718 has 37 MA's), (Start: 18 @31724 has 33 MA's), (28, 31817), (32, 31880), (37, 31943), (38, 31967), (49, 32018), (53, 32060), (56, 32090),

Gene: Plumbus_59 Start: 39279, Stop: 39776, Start Num: 18
Candidate Starts for Plumbus_59:
(Start: 15 @39273 has 12 MA's), (Start: 18 @39279 has 33 MA's), (Start: 19 @39282 has 192 MA's), (34, 39465), (36, 39486), (40, 39546), (45, 39579), (48, 39594), (54, 39663), (59, 39714),

Gene: Poenanya_57 Start: 40136, Stop: 40633, Start Num: 18
Candidate Starts for Poenanya_57:
(Start: 15 @40130 has 12 MA's), (Start: 18 @40136 has 33 MA's), (Start: 19 @40139 has 192 MA's), (34, 40322), (35, 40337), (36, 40343), (40, 40403), (48, 40451), (50, 40463), (54, 40520), (59, 40571),

Gene: Polka14_55 Start: 38335, Stop: 38829, Start Num: 19
Candidate Starts for Polka14_55:
(Start: 15 @38326 has 12 MA's), (Start: 18 @38332 has 33 MA's), (Start: 19 @38335 has 192 MA's), (34, 38518), (35, 38533), (36, 38539), (40, 38599), (48, 38647), (50, 38659), (54, 38716), (59, 38767),

Gene: Pollywog_58 Start: 39783, Stop: 40280, Start Num: 18
Candidate Starts for Pollywog_58:
(Start: 15 @39777 has 12 MA's), (Start: 18 @39783 has 33 MA's), (Start: 19 @39786 has 192 MA's), (22, 39810), (34, 39969), (36, 39990), (40, 40050), (45, 40083), (48, 40098), (54, 40167), (59, 40218),

Gene: Polo2Bam_62 Start: 38803, Stop: 39306, Start Num: 15
Candidate Starts for Polo2Bam_62:
(Start: 15 @38803 has 12 MA's), (Start: 18 @38809 has 33 MA's), (Start: 19 @38812 has 192 MA's), (22, 38836), (34, 38995), (36, 39016), (40, 39076), (45, 39109), (48, 39124), (54, 39193), (59, 39244),

Gene: PopTart_52 Start: 37792, Stop: 38196, Start Num: 18
Candidate Starts for PopTart_52:
(Start: 15 @37786 has 12 MA's), (Start: 18 @37792 has 33 MA's), (Start: 19 @37795 has 192 MA's), (22, 37819), (39, 38047), (40, 38056), (43, 38071), (44, 38074), (54, 38164),

Gene: Priscilla_57 Start: 39049, Stop: 39543, Start Num: 19
Candidate Starts for Priscilla_57:
(Start: 15 @39040 has 12 MA's), (Start: 18 @39046 has 33 MA's), (Start: 19 @39049 has 192 MA's),
(22, 39073), (34, 39232), (36, 39253), (40, 39313), (45, 39346), (48, 39361), (54, 39430), (59, 39481),

Gene: Purgamenstris_49 Start: 32627, Stop: 33007, Start Num: 16
Candidate Starts for Purgamenstris_49:
(2, 32345), (3, 32348), (6, 32492), (Start: 16 @32627 has 37 MA's), (28, 32723), (32, 32786), (37, 32849), (38, 32873), (49, 32924), (53, 32966), (56, 32996),

Gene: QueenHazel_40 Start: 31055, Stop: 31426, Start Num: 18
Candidate Starts for QueenHazel_40:
(4, 30872), (5, 30905), (7, 31001), (8, 31007), (9, 31013), (14, 31040), (Start: 18 @31055 has 33 MA's), (20, 31076), (22, 31082), (31, 31193), (32, 31211), (38, 31298), (46, 31331), (47, 31340), (48, 31343), (57, 31415),

Gene: QuickMath_58 Start: 40849, Stop: 41343, Start Num: 19
Candidate Starts for QuickMath_58:
(Start: 15 @40840 has 12 MA's), (Start: 18 @40846 has 33 MA's), (Start: 19 @40849 has 192 MA's), (22, 40873), (34, 41032), (36, 41053), (40, 41113), (45, 41146), (48, 41161), (54, 41230), (59, 41281),

Gene: Quico_66 Start: 41315, Stop: 41722, Start Num: 19
Candidate Starts for Quico_66:
(Start: 15 @41306 has 12 MA's), (Start: 18 @41312 has 33 MA's), (Start: 19 @41315 has 192 MA's), (41, 41585), (54, 41690),

Gene: Radiance_56 Start: 39074, Stop: 39568, Start Num: 19
Candidate Starts for Radiance_56:
(Start: 15 @39065 has 12 MA's), (Start: 18 @39071 has 33 MA's), (Start: 19 @39074 has 192 MA's), (22, 39098), (34, 39257), (36, 39278), (40, 39338), (45, 39371), (48, 39386), (54, 39455), (59, 39506),

Gene: Ramsey_57 Start: 39737, Stop: 40144, Start Num: 19
Candidate Starts for Ramsey_57:
(Start: 15 @39728 has 12 MA's), (Start: 18 @39734 has 33 MA's), (Start: 19 @39737 has 192 MA's), (41, 40007), (54, 40112),

Gene: Raymond7_43 Start: 32415, Stop: 32795, Start Num: 16
Candidate Starts for Raymond7_43:
(2, 32133), (3, 32136), (6, 32280), (Start: 16 @32415 has 37 MA's), (28, 32511), (32, 32574), (37, 32637), (38, 32661), (49, 32712), (53, 32754), (56, 32784),

Gene: Rebel_41 Start: 28757, Stop: 29137, Start Num: 16
Candidate Starts for Rebel_41:
(2, 28475), (3, 28478), (6, 28622), (Start: 16 @28757 has 37 MA's), (28, 28853), (32, 28916), (37, 28979), (38, 29003), (49, 29054), (53, 29096), (56, 29126),

Gene: RedBird_55 Start: 38370, Stop: 38864, Start Num: 19
Candidate Starts for RedBird_55:
(Start: 15 @38361 has 12 MA's), (Start: 18 @38367 has 33 MA's), (Start: 19 @38370 has 192 MA's), (34, 38553), (35, 38568), (36, 38574), (40, 38634), (48, 38682), (50, 38694), (54, 38751), (59, 38802),

Gene: Redi_49 Start: 32626, Stop: 33006, Start Num: 16
Candidate Starts for Redi_49:

(2, 32344), (3, 32347), (6, 32491), (Start: 16 @32626 has 37 MA's), (28, 32722), (32, 32785), (37, 32848), (38, 32872), (49, 32923), (53, 32965), (56, 32995),

Gene: Renaud18_62 Start: 39627, Stop: 40121, Start Num: 19
Candidate Starts for Renaud18_62:
(Start: 15 @39618 has 12 MA's), (Start: 18 @39624 has 33 MA's), (Start: 19 @39627 has 192 MA's), (34, 39810), (36, 39831), (40, 39891), (45, 39924), (48, 39939), (54, 40008), (59, 40059),

Gene: Rialto_63 Start: 41853, Stop: 42347, Start Num: 19
Candidate Starts for Rialto_63:
(Start: 15 @41844 has 12 MA's), (Start: 18 @41850 has 33 MA's), (Start: 19 @41853 has 192 MA's), (22, 41877), (34, 42036), (36, 42057), (40, 42117), (45, 42150), (48, 42165), (54, 42234), (59, 42285),

Gene: Rita_58 Start: 37680, Stop: 38174, Start Num: 19
Candidate Starts for Rita_58:
(Start: 15 @37671 has 12 MA's), (Start: 18 @37677 has 33 MA's), (Start: 19 @37680 has 192 MA's), (22, 37704), (34, 37863), (36, 37884), (40, 37944), (45, 37977), (48, 37992), (54, 38061), (59, 38112),

Gene: RitaG_52 Start: 37583, Stop: 38077, Start Num: 19
Candidate Starts for RitaG_52:
(Start: 15 @37574 has 12 MA's), (Start: 18 @37580 has 33 MA's), (Start: 19 @37583 has 192 MA's), (34, 37766), (35, 37781), (36, 37787), (40, 37847), (48, 37895), (50, 37907), (54, 37964), (59, 38015),

Gene: Rockne_58 Start: 39586, Stop: 40083, Start Num: 18
Candidate Starts for Rockne_58:
(Start: 15 @39580 has 12 MA's), (Start: 18 @39586 has 33 MA's), (Start: 19 @39589 has 192 MA's), (34, 39772), (36, 39793), (40, 39853), (45, 39886), (48, 39901), (55, 39979), (59, 40021),

Gene: RockyHorror_58 Start: 38638, Stop: 39132, Start Num: 19
Candidate Starts for RockyHorror_58:
(Start: 15 @38629 has 12 MA's), (Start: 18 @38635 has 33 MA's), (Start: 19 @38638 has 192 MA's), (32, 38794), (34, 38821), (36, 38842), (40, 38902), (45, 38935), (48, 38950), (54, 39019), (59, 39070),

Gene: Royals2015_60 Start: 38991, Stop: 39485, Start Num: 19
Candidate Starts for Royals2015_60:
(Start: 15 @38982 has 12 MA's), (Start: 18 @38988 has 33 MA's), (Start: 19 @38991 has 192 MA's), (34, 39174), (36, 39195), (40, 39255), (45, 39288), (48, 39303), (54, 39372), (59, 39423),

Gene: Rubeelu_48 Start: 32426, Stop: 32803, Start Num: 16
Candidate Starts for Rubeelu_48:
(1, 32126), (6, 32291), (Start: 16 @32426 has 37 MA's), (28, 32519), (32, 32582), (37, 32645), (38, 32669), (49, 32720),

Gene: Ruby_53 Start: 38770, Stop: 39264, Start Num: 19
Candidate Starts for Ruby_53:
(Start: 15 @38761 has 12 MA's), (Start: 18 @38767 has 33 MA's), (Start: 19 @38770 has 192 MA's), (22, 38794), (34, 38953), (36, 38974), (39, 39025), (40, 39034), (45, 39067), (48, 39082), (54, 39151), (59, 39202),

Gene: SG4_54 Start: 38464, Stop: 38961, Start Num: 18
Candidate Starts for SG4_54:
(Start: 15 @38458 has 12 MA's), (Start: 18 @38464 has 33 MA's), (Start: 19 @38467 has 192 MA's), (34, 38650), (35, 38665), (36, 38671), (40, 38731), (45, 38764), (48, 38779), (54, 38848), (59, 38899),

Gene: Saal_59 Start: 40223, Stop: 40717, Start Num: 19
Candidate Starts for Saal_59:
(Start: 15 @40214 has 12 MA's), (Start: 18 @40220 has 33 MA's), (Start: 19 @40223 has 192 MA's),
(22, 40247), (34, 40406), (36, 40427), (40, 40487), (45, 40520), (48, 40535), (54, 40604), (59, 40655),

Gene: Sabbb_61 Start: 39911, Stop: 40405, Start Num: 19
Candidate Starts for Sabbb_61:
(Start: 15 @39902 has 12 MA's), (Start: 18 @39908 has 33 MA's), (Start: 19 @39911 has 192 MA's),
(34, 40094), (36, 40115), (40, 40175), (45, 40208), (48, 40223), (54, 40292), (59, 40343),

Gene: Sandalphon_59 Start: 39861, Stop: 40268, Start Num: 19
Candidate Starts for Sandalphon_59:
(Start: 15 @39852 has 12 MA's), (Start: 18 @39858 has 33 MA's), (Start: 19 @39861 has 192 MA's),
(41, 40131), (54, 40236),

Gene: Sarma624_55 Start: 35161, Stop: 35655, Start Num: 19
Candidate Starts for Sarma624_55:
(Start: 15 @35152 has 12 MA's), (Start: 18 @35158 has 33 MA's), (Start: 19 @35161 has 192 MA's),
(34, 35344), (36, 35365), (40, 35425), (45, 35458), (48, 35473), (54, 35542), (59, 35593),

Gene: Sassafras_55 Start: 38555, Stop: 39049, Start Num: 19
Candidate Starts for Sassafras_55:
(Start: 15 @38546 has 12 MA's), (Start: 18 @38552 has 33 MA's), (Start: 19 @38555 has 192 MA's),
(34, 38738), (36, 38759), (40, 38819), (48, 38867), (50, 38879), (54, 38936), (59, 38987),

Gene: SassyB_52 Start: 37792, Stop: 38196, Start Num: 18
Candidate Starts for SassyB_52:
(Start: 15 @37786 has 12 MA's), (Start: 18 @37792 has 33 MA's), (Start: 19 @37795 has 192 MA's),
(22, 37819), (39, 38047), (40, 38056), (43, 38071), (44, 38074), (54, 38164),

Gene: Schnauzer_46 Start: 31741, Stop: 32124, Start Num: 16
Candidate Starts for Schnauzer_46:
(6, 31606), (11, 31717), (Start: 16 @31741 has 37 MA's), (Start: 18 @31747 has 33 MA's), (28, 31840),
(32, 31903), (37, 31966), (38, 31990), (49, 32041), (53, 32083), (56, 32113),

Gene: Scitech_42 Start: 29757, Stop: 30140, Start Num: 16
Candidate Starts for Scitech_42:
(6, 29622), (11, 29733), (Start: 16 @29757 has 37 MA's), (Start: 18 @29763 has 33 MA's), (28, 29856),
(32, 29919), (37, 29982), (38, 30006), (49, 30057), (53, 30099), (56, 30129),

Gene: Scottish_55 Start: 38595, Stop: 39089, Start Num: 19
Candidate Starts for Scottish_55:
(Start: 15 @38586 has 12 MA's), (Start: 18 @38592 has 33 MA's), (Start: 19 @38595 has 192 MA's),
(34, 38778), (36, 38799), (40, 38859), (45, 38892), (48, 38907), (54, 38976), (59, 39027),

Gene: SeaLumen_61 Start: 38812, Stop: 39306, Start Num: 19
Candidate Starts for SeaLumen_61:
(Start: 15 @38803 has 12 MA's), (Start: 18 @38809 has 33 MA's), (Start: 19 @38812 has 192 MA's),
(22, 38836), (34, 38995), (36, 39016), (40, 39076), (45, 39109), (48, 39124), (54, 39193), (59, 39244),

Gene: Seabastian_62 Start: 41568, Stop: 42062, Start Num: 19
Candidate Starts for Seabastian_62:

(Start: 15 @41559 has 12 MA's), (Start: 18 @41565 has 33 MA's), (Start: 19 @41568 has 192 MA's), (22, 41592), (34, 41751), (36, 41772), (40, 41832), (45, 41865), (48, 41880), (54, 41949), (59, 42000),

Gene: Seagreen_57 Start: 38560, Stop: 39054, Start Num: 19
Candidate Starts for Seagreen_57:
(Start: 19 @38560 has 192 MA's), (34, 38743), (36, 38764), (40, 38824), (45, 38857), (48, 38872), (54, 38941), (59, 38992),

Gene: Shauna1_56 Start: 39670, Stop: 40071, Start Num: 19
Candidate Starts for Shauna1_56:
(Start: 15 @39661 has 12 MA's), (Start: 18 @39667 has 33 MA's), (Start: 19 @39670 has 192 MA's), (22, 39694), (39, 39922), (40, 39931), (43, 39946), (44, 39949), (54, 40039),

Gene: ShiLan_56 Start: 38996, Stop: 39490, Start Num: 19
Candidate Starts for ShiLan_56:
(Start: 15 @38987 has 12 MA's), (Start: 18 @38993 has 33 MA's), (Start: 19 @38996 has 192 MA's), (22, 39020), (34, 39179), (36, 39200), (40, 39260), (45, 39293), (48, 39308), (54, 39377), (59, 39428),

Gene: ShowerHandel_60 Start: 38963, Stop: 39457, Start Num: 19
Candidate Starts for ShowerHandel_60:
(Start: 15 @38954 has 12 MA's), (Start: 18 @38960 has 33 MA's), (Start: 19 @38963 has 192 MA's), (22, 38987), (34, 39146), (36, 39167), (40, 39227), (45, 39260), (48, 39275), (54, 39344), (59, 39395),

Gene: ShrimpFriedEgg_49 Start: 32626, Stop: 33006, Start Num: 16
Candidate Starts for ShrimpFriedEgg_49:
(2, 32344), (3, 32347), (6, 32491), (Start: 16 @32626 has 37 MA's), (28, 32722), (32, 32785), (37, 32848), (38, 32872), (49, 32923), (53, 32965), (56, 32995),

Gene: ShroomBoi_59 Start: 39923, Stop: 40417, Start Num: 19
Candidate Starts for ShroomBoi_59:
(Start: 15 @39914 has 12 MA's), (Start: 18 @39920 has 33 MA's), (Start: 19 @39923 has 192 MA's), (22, 39947), (32, 40079), (34, 40106), (36, 40127), (40, 40187), (45, 40220), (48, 40235), (54, 40304), (59, 40355),

Gene: SiSi_55 Start: 38369, Stop: 38863, Start Num: 19
Candidate Starts for SiSi_55:
(Start: 15 @38360 has 12 MA's), (Start: 18 @38366 has 33 MA's), (Start: 19 @38369 has 192 MA's), (22, 38393), (34, 38552), (36, 38573), (40, 38633), (45, 38666), (48, 38681), (54, 38750), (59, 38801),

Gene: Silvafighter_46 Start: 31714, Stop: 32097, Start Num: 16
Candidate Starts for Silvafighter_46:
(6, 31579), (11, 31690), (Start: 16 @31714 has 37 MA's), (Start: 18 @31720 has 33 MA's), (28, 31813), (32, 31876), (37, 31939), (38, 31963), (49, 32014), (53, 32056), (56, 32086),

Gene: SilverChicken_68 Start: 39450, Stop: 39851, Start Num: 19
Candidate Starts for SilverChicken_68:
(Start: 15 @39441 has 12 MA's), (Start: 18 @39447 has 33 MA's), (Start: 19 @39450 has 192 MA's), (22, 39474), (39, 39702), (40, 39711), (43, 39726), (44, 39729), (54, 39819),

Gene: Silvy_43 Start: 30482, Stop: 30862, Start Num: 16
Candidate Starts for Silvy_43:
(2, 30200), (3, 30203), (6, 30347), (Start: 16 @30482 has 37 MA's), (28, 30578), (32, 30641), (37, 30704), (38, 30728), (49, 30779), (53, 30821), (56, 30851),

Gene: SimranZ1_57 Start: 39149, Stop: 39643, Start Num: 19
Candidate Starts for SimranZ1_57:
(Start: 15 @39140 has 12 MA's), (Start: 18 @39146 has 33 MA's), (Start: 19 @39149 has 192 MA's),
(34, 39332), (36, 39353), (40, 39413), (45, 39446), (48, 39461), (54, 39530), (59, 39581),

Gene: Slim_58 Start: 39756, Stop: 40250, Start Num: 19
Candidate Starts for Slim_58:
(Start: 15 @39747 has 12 MA's), (Start: 18 @39753 has 33 MA's), (Start: 19 @39756 has 192 MA's),
(22, 39780), (34, 39939), (36, 39960), (40, 40020), (45, 40053), (48, 40068), (54, 40137), (59, 40188),

Gene: Smurph_45 Start: 31741, Stop: 32124, Start Num: 16
Candidate Starts for Smurph_45:
(6, 31606), (11, 31717), (Start: 16 @31741 has 37 MA's), (Start: 18 @31747 has 33 MA's), (28, 31840),
(32, 31903), (37, 31966), (38, 31990), (49, 32041), (53, 32083), (56, 32113),

Gene: Snekmaggedon_43 Start: 30918, Stop: 31301, Start Num: 16
Candidate Starts for Snekmaggedon_43:
(6, 30783), (11, 30894), (Start: 16 @30918 has 37 MA's), (Start: 18 @30924 has 33 MA's), (28, 31017),
(32, 31080), (37, 31143), (38, 31167), (49, 31218), (53, 31260), (56, 31290),

Gene: Soul22_63 Start: 40554, Stop: 41048, Start Num: 19
Candidate Starts for Soul22_63:
(Start: 19 @40554 has 192 MA's), (34, 40737), (36, 40758), (40, 40818), (45, 40851), (48, 40866), (54,
40935), (59, 40986),

Gene: Sparkdehlily_65 Start: 40681, Stop: 41082, Start Num: 19
Candidate Starts for Sparkdehlily_65:
(Start: 15 @40672 has 12 MA's), (Start: 18 @40678 has 33 MA's), (Start: 19 @40681 has 192 MA's),
(22, 40705), (39, 40933), (40, 40942), (43, 40957), (44, 40960), (54, 41050),

Gene: Spartacus_59 Start: 39633, Stop: 40127, Start Num: 19
Candidate Starts for Spartacus_59:
(Start: 15 @39624 has 12 MA's), (Start: 18 @39630 has 33 MA's), (Start: 19 @39633 has 192 MA's),
(34, 39816), (36, 39837), (40, 39897), (45, 39930), (48, 39945), (59, 40065),

Gene: Spikelee_64 Start: 41253, Stop: 41747, Start Num: 19
Candidate Starts for Spikelee_64:
(Start: 15 @41244 has 12 MA's), (Start: 18 @41250 has 33 MA's), (Start: 19 @41253 has 192 MA's),
(34, 41436), (36, 41457), (40, 41517), (45, 41550), (48, 41565), (54, 41634), (59, 41685),

Gene: Spinach_49 Start: 32626, Stop: 33006, Start Num: 16
Candidate Starts for Spinach_49:
(2, 32344), (3, 32347), (6, 32491), (Start: 16 @32626 has 37 MA's), (28, 32722), (32, 32785), (37,
32848), (38, 32872), (49, 32923), (53, 32965), (56, 32995),

Gene: SpongeBob_43 Start: 30918, Stop: 31301, Start Num: 16
Candidate Starts for SpongeBob_43:
(6, 30783), (11, 30894), (Start: 16 @30918 has 37 MA's), (Start: 18 @30924 has 33 MA's), (28, 31017),
(32, 31080), (37, 31143), (38, 31167), (49, 31218), (53, 31260), (56, 31290),

Gene: Spoonbill_54 Start: 37543, Stop: 38037, Start Num: 19
Candidate Starts for Spoonbill_54:

(Start: 15 @37534 has 12 MA's), (Start: 18 @37540 has 33 MA's), (Start: 19 @37543 has 192 MA's), (34, 37726), (35, 37741), (36, 37747), (40, 37807), (48, 37855), (50, 37867), (54, 37924), (59, 37975),

Gene: Squirty_60 Start: 40442, Stop: 40849, Start Num: 19
Candidate Starts for Squirty_60:
(Start: 15 @40433 has 12 MA's), (Start: 18 @40439 has 33 MA's), (Start: 19 @40442 has 192 MA's), (41, 40712), (54, 40817),

Gene: StAnnes_56 Start: 39845, Stop: 40249, Start Num: 18
Candidate Starts for StAnnes_56:
(Start: 15 @39839 has 12 MA's), (Start: 18 @39845 has 33 MA's), (Start: 19 @39848 has 192 MA's), (22, 39872), (39, 40100), (40, 40109), (43, 40124), (44, 40127), (54, 40217),

Gene: Stap_55 Start: 38344, Stop: 38838, Start Num: 19
Candidate Starts for Stap_55:
(Start: 15 @38335 has 12 MA's), (Start: 18 @38341 has 33 MA's), (Start: 19 @38344 has 192 MA's), (34, 38527), (35, 38542), (36, 38548), (40, 38608), (48, 38656), (50, 38668), (54, 38725), (59, 38776),

Gene: Starcevich_56 Start: 38920, Stop: 39414, Start Num: 19
Candidate Starts for Starcevich_56:
(Start: 15 @38911 has 12 MA's), (Start: 18 @38917 has 33 MA's), (Start: 19 @38920 has 192 MA's), (22, 38944), (34, 39103), (36, 39124), (40, 39184), (45, 39217), (48, 39232), (54, 39301), (59, 39352),

Gene: Strokeseat_53 Start: 37079, Stop: 37573, Start Num: 19
Candidate Starts for Strokeseat_53:
(Start: 15 @37070 has 12 MA's), (Start: 18 @37076 has 33 MA's), (Start: 19 @37079 has 192 MA's), (22, 37103), (34, 37262), (36, 37283), (40, 37343), (45, 37376), (48, 37391), (54, 37460), (59, 37511),

Gene: SuperGrey_61 Start: 41156, Stop: 41557, Start Num: 19
Candidate Starts for SuperGrey_61:
(Start: 15 @41147 has 12 MA's), (Start: 18 @41153 has 33 MA's), (Start: 19 @41156 has 192 MA's), (39, 41408), (40, 41417), (43, 41432), (44, 41435), (54, 41525),

Gene: SwagPigglett_62 Start: 41271, Stop: 41765, Start Num: 19
Candidate Starts for SwagPigglett_62:
(Start: 15 @41262 has 12 MA's), (Start: 18 @41268 has 33 MA's), (Start: 19 @41271 has 192 MA's), (22, 41295), (34, 41454), (36, 41475), (40, 41535), (45, 41568), (48, 41583), (54, 41652), (59, 41703),

Gene: TChen_57 Start: 40173, Stop: 40667, Start Num: 19
Candidate Starts for TChen_57:
(Start: 19 @40173 has 192 MA's), (34, 40356), (36, 40377), (40, 40437), (45, 40470), (48, 40485), (54, 40554), (59, 40605),

Gene: TDanisky_65 Start: 40681, Stop: 41082, Start Num: 19
Candidate Starts for TDanisky_65:
(Start: 15 @40672 has 12 MA's), (Start: 18 @40678 has 33 MA's), (Start: 19 @40681 has 192 MA's), (22, 40705), (39, 40933), (40, 40942), (43, 40957), (44, 40960), (54, 41050),

Gene: Taj_61 Start: 40729, Stop: 41217, Start Num: 19
Candidate Starts for Taj_61:
(Start: 15 @40720 has 12 MA's), (Start: 18 @40726 has 33 MA's), (Start: 19 @40729 has 192 MA's), (22, 40753), (34, 40906), (35, 40921), (36, 40927), (40, 40987), (45, 41020), (48, 41035), (54, 41104), (59, 41155),

Gene: Tapioca_47 Start: 31707, Stop: 32090, Start Num: 16
Candidate Starts for Tapioca_47:
(6, 31572), (11, 31683), (Start: 16 @31707 has 37 MA's), (Start: 18 @31713 has 33 MA's), (28, 31806), (32, 31869), (37, 31932), (38, 31956), (49, 32007), (53, 32049), (56, 32079),

Gene: Tchotchke_58 Start: 39073, Stop: 39474, Start Num: 19
Candidate Starts for Tchotchke_58:
(Start: 15 @39064 has 12 MA's), (Start: 18 @39070 has 33 MA's), (Start: 19 @39073 has 192 MA's), (22, 39097), (25, 39121), (39, 39325), (40, 39334), (43, 39349), (44, 39352), (54, 39442),

Gene: Tessdabest_46 Start: 31738, Stop: 32121, Start Num: 16
Candidate Starts for Tessdabest_46:
(6, 31603), (11, 31714), (Start: 16 @31738 has 37 MA's), (Start: 18 @31744 has 33 MA's), (28, 31837), (32, 31900), (37, 31963), (38, 31987), (49, 32038), (53, 32080), (56, 32110),

Gene: ThetaBob_61 Start: 40247, Stop: 40741, Start Num: 19
Candidate Starts for ThetaBob_61:
(Start: 19 @40247 has 192 MA's), (34, 40430), (36, 40451), (40, 40511), (45, 40544), (48, 40559), (54, 40628), (59, 40679),

Gene: TootsiePop_57 Start: 38434, Stop: 38787, Start Num: 21
Candidate Starts for TootsiePop_57:
(11, 38383), (12, 38389), (Start: 21 @38434 has 9 MA's), (26, 38476), (31, 38545), (37, 38626), (38, 38650), (50, 38707), (57, 38776),

Gene: Tootsieroll_58 Start: 38292, Stop: 38786, Start Num: 19
Candidate Starts for Tootsieroll_58:
(Start: 15 @38283 has 12 MA's), (Start: 18 @38289 has 33 MA's), (Start: 19 @38292 has 192 MA's), (34, 38475), (36, 38496), (40, 38556), (45, 38589), (48, 38604), (54, 38673), (59, 38724),

Gene: Topiatin_64 Start: 41412, Stop: 41906, Start Num: 19
Candidate Starts for Topiatin_64:
(Start: 19 @41412 has 192 MA's), (34, 41595), (36, 41616), (40, 41676), (45, 41709), (48, 41724), (50, 41736), (55, 41802), (59, 41844),

Gene: Tortoise12_44 Start: 30424, Stop: 30807, Start Num: 16
Candidate Starts for Tortoise12_44:
(6, 30289), (11, 30400), (Start: 16 @30424 has 37 MA's), (Start: 18 @30430 has 33 MA's), (28, 30523), (32, 30586), (37, 30649), (38, 30673), (49, 30724), (53, 30766), (56, 30796),

Gene: Totinger_56 Start: 38219, Stop: 38716, Start Num: 18
Candidate Starts for Totinger_56:
(Start: 15 @38213 has 12 MA's), (Start: 18 @38219 has 33 MA's), (Start: 19 @38222 has 192 MA's), (34, 38405), (36, 38426), (40, 38486), (45, 38519), (48, 38534), (54, 38603), (59, 38654),

Gene: Tweety_57 Start: 40472, Stop: 40873, Start Num: 19
Candidate Starts for Tweety_57:
(Start: 15 @40463 has 12 MA's), (Start: 18 @40469 has 33 MA's), (Start: 19 @40472 has 192 MA's), (22, 40496), (39, 40724), (40, 40733), (43, 40748), (44, 40751), (54, 40841),

Gene: UncleRicky_56 Start: 39203, Stop: 39697, Start Num: 19
Candidate Starts for UncleRicky_56:

(Start: 15 @39194 has 12 MA's), (Start: 18 @39200 has 33 MA's), (Start: 19 @39203 has 192 MA's),
(34, 39386), (36, 39407), (40, 39467), (45, 39500), (48, 39515), (54, 39584), (59, 39635),

Gene: VRedHorse_57 Start: 38279, Stop: 38773, Start Num: 19
Candidate Starts for VRedHorse_57:
(Start: 15 @38270 has 12 MA's), (Start: 18 @38276 has 33 MA's), (Start: 19 @38279 has 192 MA's),
(34, 38462), (36, 38483), (40, 38543), (45, 38576), (48, 38591), (54, 38660), (59, 38711),

Gene: Velveteen_52 Start: 35161, Stop: 35655, Start Num: 19
Candidate Starts for Velveteen_52:
(Start: 15 @35152 has 12 MA's), (Start: 18 @35158 has 33 MA's), (Start: 19 @35161 has 192 MA's),
(34, 35344), (36, 35365), (40, 35425), (45, 35458), (48, 35473), (54, 35542), (59, 35593),

Gene: Veteran_54 Start: 38058, Stop: 38465, Start Num: 19
Candidate Starts for Veteran_54:
(Start: 15 @38049 has 12 MA's), (Start: 18 @38055 has 33 MA's), (Start: 19 @38058 has 192 MA's),
(41, 38328), (54, 38433),

Gene: Violac_59 Start: 40349, Stop: 40843, Start Num: 19
Candidate Starts for Violac_59:
(Start: 15 @40340 has 12 MA's), (Start: 18 @40346 has 33 MA's), (Start: 19 @40349 has 192 MA's),
(22, 40373), (34, 40532), (36, 40553), (40, 40613), (45, 40646), (48, 40661), (54, 40730), (59, 40781),

Gene: Vivum_58 Start: 39281, Stop: 39775, Start Num: 19
Candidate Starts for Vivum_58:
(Start: 15 @39272 has 12 MA's), (Start: 18 @39278 has 33 MA's), (Start: 19 @39281 has 192 MA's),
(22, 39305), (34, 39464), (36, 39485), (40, 39545), (45, 39578), (48, 39593), (54, 39662), (59, 39713),

Gene: Wachhund_59 Start: 39272, Stop: 39673, Start Num: 19
Candidate Starts for Wachhund_59:
(Start: 15 @39263 has 12 MA's), (Start: 18 @39269 has 33 MA's), (Start: 19 @39272 has 192 MA's),
(22, 39296), (39, 39524), (40, 39533), (43, 39548), (44, 39551), (54, 39641),

Gene: Whatsapiecost_58 Start: 38556, Stop: 38963, Start Num: 19
Candidate Starts for Whatsapiecost_58:
(Start: 15 @38547 has 12 MA's), (Start: 18 @38553 has 33 MA's), (Start: 19 @38556 has 192 MA's),
(41, 38826), (54, 38931),

Gene: Whouxphf_54 Start: 38875, Stop: 39369, Start Num: 19
Candidate Starts for Whouxphf_54:
(Start: 15 @38866 has 12 MA's), (Start: 18 @38872 has 33 MA's), (Start: 19 @38875 has 192 MA's),
(34, 39058), (36, 39079), (40, 39139), (45, 39172), (48, 39187), (54, 39256), (59, 39307),

Gene: WillSterrel_58 Start: 40750, Stop: 41244, Start Num: 19
Candidate Starts for WillSterrel_58:
(Start: 15 @40741 has 12 MA's), (Start: 18 @40747 has 33 MA's), (Start: 19 @40750 has 192 MA's),
(34, 40933), (36, 40954), (40, 41014), (45, 41047), (48, 41062), (59, 41182),

Gene: XFactor_56 Start: 38361, Stop: 38762, Start Num: 19
Candidate Starts for XFactor_56:
(Start: 15 @38352 has 12 MA's), (Start: 18 @38358 has 33 MA's), (Start: 19 @38361 has 192 MA's),
(22, 38385), (39, 38613), (40, 38622), (43, 38637), (44, 38640), (54, 38730),

Gene: Xerxes_45 Start: 31738, Stop: 32121, Start Num: 16
Candidate Starts for Xerxes_45:
(6, 31603), (11, 31714), (Start: 16 @31738 has 37 MA's), (Start: 18 @31744 has 33 MA's), (28, 31837), (32, 31900), (37, 31963), (38, 31987), (49, 32038), (53, 32080), (56, 32110),

Gene: Xula_39 Start: 30657, Stop: 31028, Start Num: 18
Candidate Starts for Xula_39:
(4, 30474), (5, 30507), (7, 30603), (8, 30609), (9, 30615), (14, 30642), (Start: 18 @30657 has 33 MA's), (20, 30678), (22, 30684), (31, 30795), (32, 30813), (38, 30900), (46, 30933), (47, 30942), (48, 30945), (57, 31017),

Gene: Yorick_56 Start: 39337, Stop: 39831, Start Num: 19
Candidate Starts for Yorick_56:
(Start: 15 @39328 has 12 MA's), (Start: 18 @39334 has 33 MA's), (Start: 19 @39337 has 192 MA's), (22, 39361), (34, 39520), (36, 39541), (40, 39601), (45, 39634), (48, 39649), (54, 39718), (59, 39769),

Gene: Yoshi_69 Start: 40511, Stop: 41005, Start Num: 19
Candidate Starts for Yoshi_69:
(Start: 19 @40511 has 192 MA's), (34, 40694), (36, 40715), (40, 40775), (45, 40808), (48, 40823), (54, 40892), (59, 40943),

Gene: Zapner_70 Start: 40876, Stop: 41370, Start Num: 19
Candidate Starts for Zapner_70:
(Start: 19 @40876 has 192 MA's), (22, 40900), (26, 40939), (34, 41059), (35, 41074), (36, 41080), (40, 41140), (45, 41173), (48, 41188), (50, 41200), (54, 41257), (59, 41308),

Gene: Zerg_57 Start: 38744, Stop: 39241, Start Num: 18
Candidate Starts for Zerg_57:
(Start: 15 @38738 has 12 MA's), (Start: 18 @38744 has 33 MA's), (Start: 19 @38747 has 192 MA's), (32, 38903), (34, 38930), (36, 38951), (40, 39011), (45, 39044), (48, 39059), (54, 39128), (59, 39179),

Gene: Zizzle_61 Start: 40590, Stop: 41084, Start Num: 19
Candidate Starts for Zizzle_61:
(Start: 15 @40581 has 12 MA's), (Start: 18 @40587 has 33 MA's), (Start: 19 @40590 has 192 MA's), (22, 40614), (34, 40773), (36, 40794), (40, 40854), (45, 40887), (48, 40902), (54, 40971), (59, 41022),