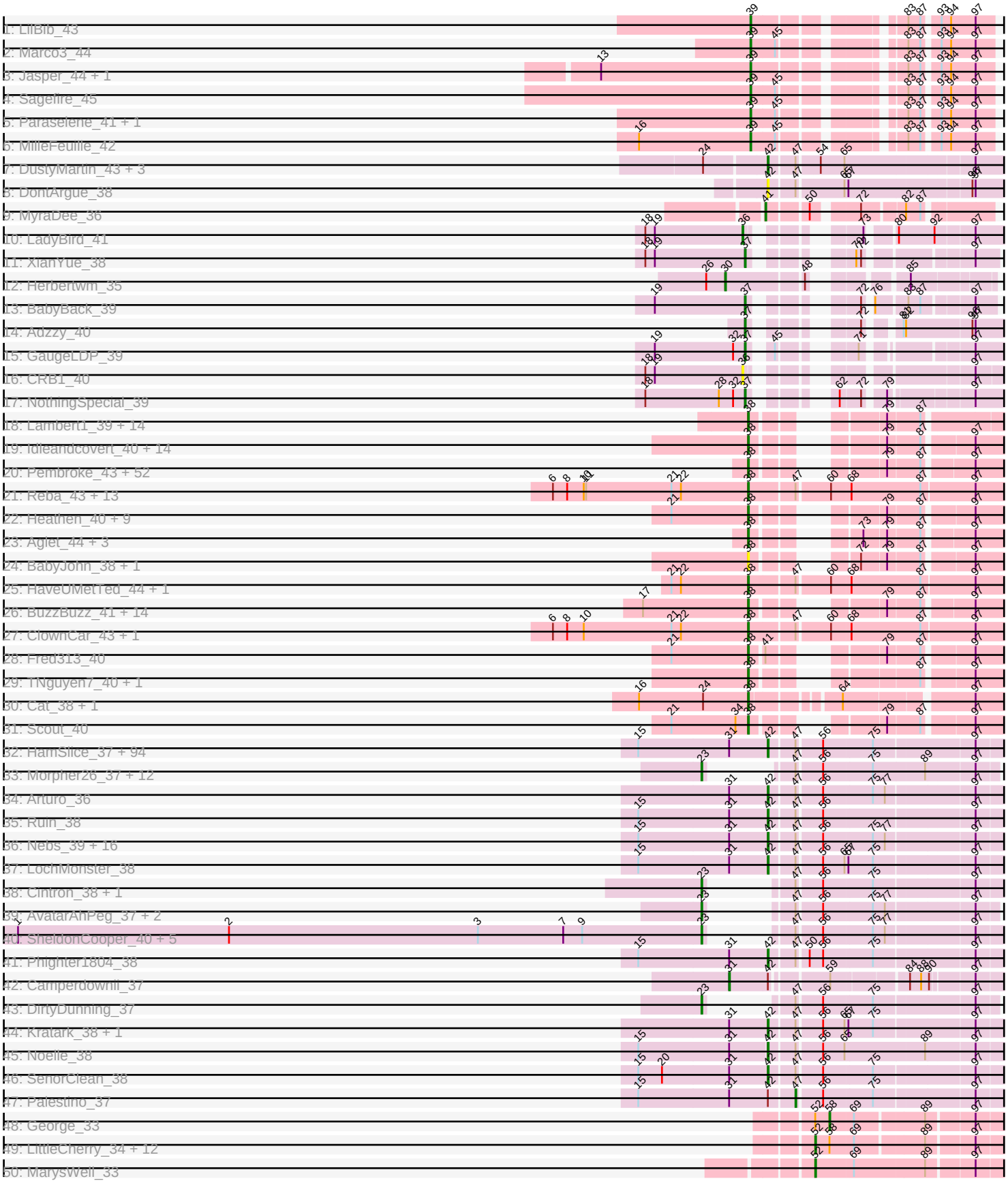
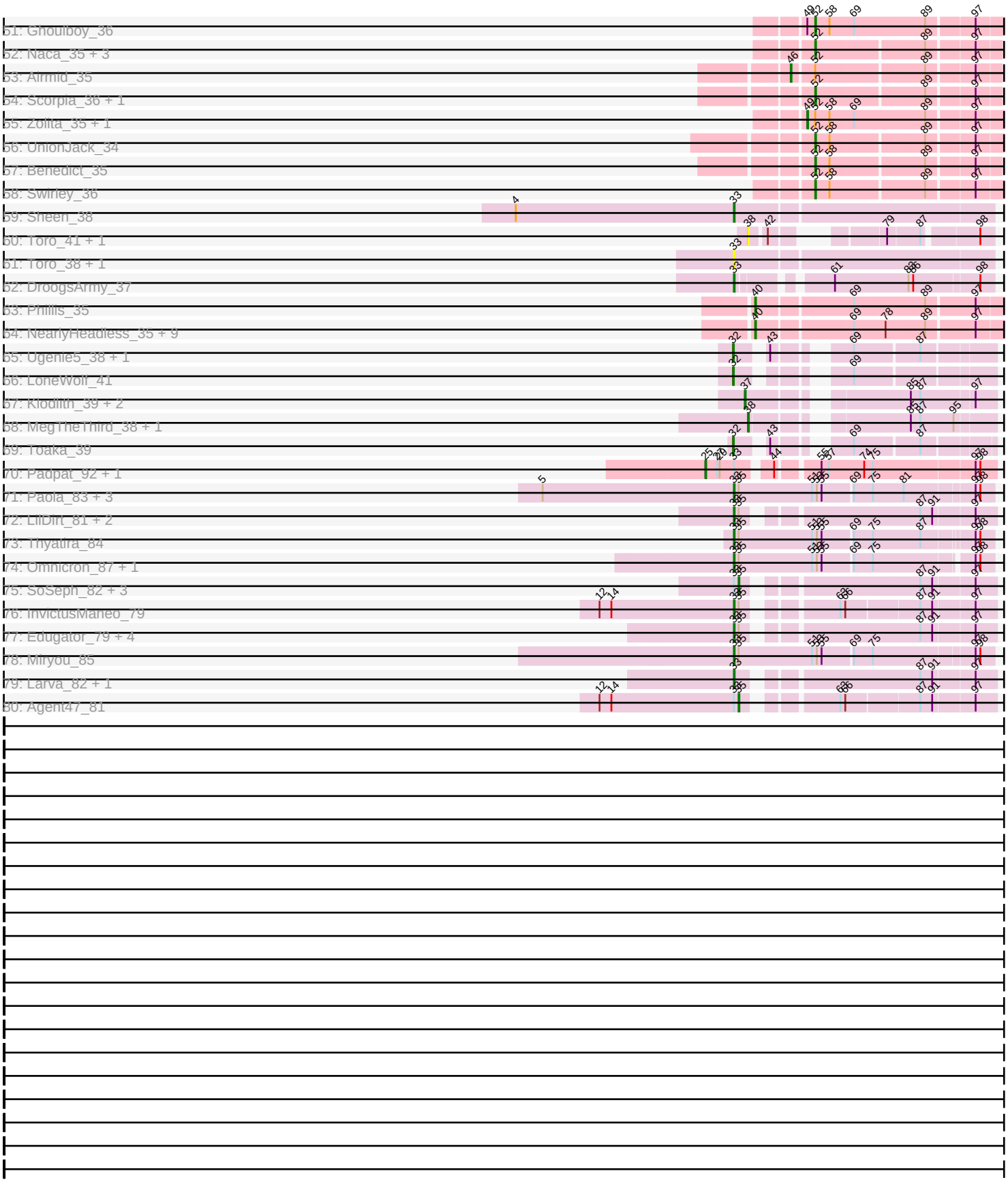
Pham 347120


1: LilBib_43
2: Marco3_44
3: Jasper_44 + 1
4: Sagefire_45
5: Paraselene_41 + 1
6: MilleFeuille_42
7: DustyMartin_43 + 3
8: DontArgue_38
9: MyraDee_36
10: LadyBird_41
11: XianYue_38
12: Herbertwm_35
13: BabyBack_39
14: Adzzy_40
15: GaugeLDP_39
16: CRB1_40
17: NothingSpecial_39
18: Lambert1_39 + 14
19: Idleandcovert_40 + 14
20: Pembroke_43 + 52
21: Reba_43 + 13
22: Heathen_40 + 9
23: Aglet_44 + 3
24: BabyJohn_38 + 1
25: HaveUMetTed_44 + 1
26: BuzzBuzz_41 + 14
27: ClownCar_43 + 1
28: Fred313_40
29: TNguyen7_40 + 1
30: Cat_38 + 1
31: Scout_40
32: HamSlice_37 + 94
33: Morpher26_37 + 12
34: Arturo_36
35: Ruin_38
36: Nebs_39 + 16
37: LochMonster_38
38: Cintron_38 + 1
39: AvatarAnPeg_37 + 2
40: SheldonCooper_40 + 5
41: Phigher1804_38
42: Camperdownii_37
43: DirtyDunning_37
44: Kratark_38 + 1
45: Noelle_38
46: SeniorClean_38
47: Palestino_37
48: George_33
49: LittleCherry_34 + 12
50: MarysWell_33

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51: Ghoulboy_36
52: Naca_35 + 3
53: Airmid_35
54: Scorpia_36 + 1
55: Zolita_35 + 1
56: UnionJack_34
57: Benedict_35
58: Swirley_36
59: Sheen_38
60: Toro_41 + 1
61: Toro_38 + 1
62: DroogsArmy_37
63: Phillis_35
64: NearlyHeadless_35 + 9
65: Ugenie5_38 + 1
66: LoneWolf_41
67: Klodilth_39 + 2
68: MegTheThird_38 + 1
69: Toaka_39
70: Padpat_92 + 1
71: Paola_83 + 3
72: LilDirt_81 + 2
73: Thyatira_84
74: Omnicron_87 + 1
75: SoSeph_82 + 3
76: InvictusMaheo_79
77: Edugator_79 + 4
78: Miryou_85
79: Larva_82 + 1
80: Agent47_81

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 347120 Report

This analysis was run 11/14/26 on database version 672.

Pham number 347120 has 387 members, 33 are drafts.

Phages represented in each track:
• Track 1 : LilBib_43
• Track 2 : Marco3_44
• Track 3 : Jasper_44, Dreamboat_44
• Track 4 : Sagefire_45
• Track 5 : Paraselene_41, Rutherferd_45
• Track 6 : MilleFeuille_42
• Track 7 : DustyMartin_43, Shapes_43, RhynO_40, Rowdy_43
• Track 8 : DontArgue_38
• Track 9 : MyraDee_36
• Track 10 : LadyBird_41
• Track 11 : XianYue_38
• Track 12 : Herbertwm_35
• Track 13 : BabyBack_39
• Track 14 : Adzzy_40
• Track 15 : GaugeLDP_39
• Track 16 : CRB1_40
• Track 17 : NothingSpecial_39
• Track 18 : Lambert1_39, Todacoro_39, Hookmount_39, EtoileNova_40, Caviar_39, Margo_39, QuinnKiro_38, Noella_39, ResDef_39, Norbert_38, Popcicle_39, Panamaxus_37, Texage_38, Pocahontas_39, Veracruz_38
• Track 19 : Idleandcovert_40, Pistachio_41, JF4_40, MA5_40, Clammy_41, JF2_40, SaturnRing_40, BlueBird_41, Giroux_41, MK4_40, Isca_39, Rockstar_40, Bugatti_41, Phantastic_40, B1_37
• Track 20 : Pembroke_43, MarQuardt_43, SoYo_43, DaHudson_43, StepMih_43, MadMarie_43, BreSam8_43, Marie_43, Tiffany_43, Farber_43, Lowa_43, JHC117_43, Bigflo_43, Hercules11_43, Microwolf_43, Montavir_42, Taurus_44, Colbster_43, Grif_43, Jobu08_42, JenCasNa_44, Grum1_43, PotatoSplit_45, AugsMagnumOpus_46, MuchMore_46, LBerry_44, P28Green_44, GtownJaz_43, Vix_43, Stagni_43, MoneyMay_43, Mainiac_43, Cullens_43, Gwennie_43, Malinsilva_45, Sabinator_42, Wooldri_45, SoilDragon_43, Croquant_44, Sabia_43, Lilith_44, Watson_43, Snickers_43, Phoebe_44, Grub_43, Dieselweasel_44, Beauxregard13_43, LugYA_46, Zetzy_42, Fernando_43, PGHhamlin_45, Penny1_44, EpicPhail_44
• Track 21 : Reba_43, Calvinny_43, Marius_44, Groupthink_44, PurpleHaze_43, Kalb97_44, JeppNRM_44, Pawn_43, Phranny_44, Heliosoles_42, Manu_43, PhishRPhriends_41, Kalnoky_44, Gemma_42

• Track 22 : Heathen_40, Roimos_40, Zarafa_40, DropBear_40, Goose1D_34, Goose1X_40, Kachowdy_40, HelDan_40, Marchesa_40, Shep_40
• Track 23 : Aglet_44, GingkoMaracino_43, Ollie_43, Anubis_46
• Track 24 : BabyJohn_38, Chiqui_38
• Track 25 : HaveUMetTed_44, OlanP_42
• Track 26 : BuzzBuzz_41, Soshari_45, Daishi_42, Misomonster_44, LarryKay_43, Rummer_42, KADY_43, HashRod_44, Methuselah_41, Louie6_42, Phoxy_43, Bxz2_39, Spike509_43, TinyPebbles_42, AgronaGT15_42
• Track 27 : ClownCar_43, ACFishhook_42
• Track 28 : Fred313_40
• Track 29 : TNguyen7_40, Puppy_41
• Track 30 : Cat_38, BabyRay_40
• Track 31 : Scout_40
• Track 32 : HamSlice_37, Pumbaa_38, Melvin_40, Bartimeaus_38, Wilbur_38, Bruiser_37, Koreni_37, Albee_38, TygerBlood_38, SteMason_38, RockieBear_38, Flux_38, Phontbonne_38, JoongJeon_38, Bombshell_38, Junimo_38, TiroTheta9_38, Sparxx_39, Sabertooth_38, KekoraPapaka_39, Druantia_38, OKaNui_39, Mazhar510_38, Millski_37, PeterPeter_38, Broseidon_38, Phelipe_39, Lorenzo_38, Avle17_38, Alberto7_39, Tinybot_37, Relief_37, TinaFeyge_39, CentreCat_38, Deano_38, Thanksgivukkah_38, Nemo27_38, Lemur_38, Eris_37, LittleB_38, Caelakin_38, Wander_38, Holli_37, Skipitt_37, Kingmustik0402_38, Romney_38, Skadoosh_40, Jaykayelowell_37, BubbleTrouble_38, Huxley_38, Spino_38, Roosevelt_37, Cocoaberry_38, TroyPia_39, Taquarus_38, Kyee_38, Baby16_38, Buckaroo_38, Scamp_38, Commander_38, Chaph_38, Nyxis_38, Ulysses_37, ICleared_38, Maverick_38, Iceman_39, Phacado_38, Koan_37, Peaches_38, Northrop_39, Eapen_38, Shaka_38, Mayonnaise_38, JetBlade_38, Connomayer_38, KFPoly_38, Florean_38, Dhanush_38, Gadost_38, Funston_38, LittleGuy_38, Wizard007_38, Lunsford_39, NotAPhaseMom_38, Sultana_38, MeeZee_38, Blackmoor_38, Rocksand_39, Houdini22_38, Happiness_37, Eros_38, Burger_36, Clarenza_38, YoSam321_38, LappelDuVide_38
• Track 33 : Morpher26_37, Datway_37, PetiteSangsue_37, Katalie136_37, Wile_37, AbbysRanger_37, Achebe_36, Perplexer_37, Backyardigan_36, Badger_36, Bumblebee11_36, Xena_36, Cici_37
• Track 34 : Arturo_36
• Track 35 : Ruin_38
• Track 36 : Nebs_39, Abdiel_38, Maxo_39, Mundrea_36, Kampy_38, Rosa24_38, BellusTerra_39, Eurydice_39, Eagle_38, NorthStar_37, Ohfah_39, LeoAvram_38, Polymorphads_39, Citius_38, Medusa_38, Morrow_39, Iracema64_39
• Track 37 : LochMonster_38
• Track 38 : Cintron_38, Shygu2_37
• Track 39 : AvatarAhPeg_37, Stink_38, Miramae_37
• Track 40 : SheldonCooper_40, LHTSCC_40, Obama12_39, ChampagnePapi_40, BangNhom_39, Cerulean_39
• Track 41 : Phighter1804_38
• Track 42 : Camperdownii_37
• Track 43 : DirtyDunning_37
• Track 44 : Kratark_38, Kremtemulon_38
• Track 45 : Noelle_38
• Track 46 : SenorClean_38
• Track 47 : Palestino_37
• Track 48 : George_33
• Track 49 : LittleCherry_34, Prinashe11_34, Coog_34, Bonamassa_34, HuhtaEnerson15_34, Micasa_36, Archetta_34, Cuco_34, Milcery_34, Twigg_34,

Tarynearal_33, Theia_32, Midas2_34
• Track 50 : MarysWell_33
• Track 51 : Ghoulboy_36
• Track 52 : Naca_35, ElTiger69_35, PetterN_36, Jabiru_35
• Track 53 : Airmid_35
• Track 54 : Scorpia_36, Chadwick_36
• Track 55 : Zolita_35, SydNat_36
• Track 56 : UnionJack_34
• Track 57 : Benedict_35
• Track 58 : Swirley_36
• Track 59 : Sheen_38
• Track 60 : Toro_41, FlyCatcher_43
• Track 61 : Toro_38, FlyCatcher_40
• Track 62 : DroogsArmy_37
• Track 63 : Phillis_35
• Track 64 : NearlyHeadless_35, Stephig9_35, Groundhog_34, Roary_35, Danforth_34, Astro_35, Dixon_35, Smeadley_35, Caitlin_35, Expelliarmus_34
• Track 65 : Ugenie5_38, Scherzo_41
• Track 66 : LoneWolf_41
• Track 67 : Klodlith_39, Charm_38, DreamTeam1_38
• Track 68 : MegTheThird_38, Celestialunch_37
• Track 69 : Toaka_39
• Track 70 : Padpat_92, Emerson_91
• Track 71 : Paola_83, Waterfoul_83, Guillsminger_84, Leston_83
• Track 72 : LilDirt_81, DoubleChamp_79, BananenDer11_82
• Track 73 : Thyatira_84
• Track 74 : Omnicron_87, Rando14_84
• Track 75 : SoSeph_82, Heftyboy_82, Collard_80, ViviJ_88
• Track 76 : InvictusManeo_79
• Track 77 : Edugator_79, AlleyCat_83, Kratio_83, Psycho_81, Dadosky_83
• Track 78 : Miryou_85
• Track 79 : Larva_82, Neighly_83
• Track 80 : Agent47_81

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

The start number called the most often in the published annotations is 38, it was called in 126 of the 354 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• ACFishhook_42, Aglet_44, AgronaGT15_42, Anubis_46, AugsMagnumOpus_46, B1_37, BabyJohn_38, BabyRay_40, Beauxregard13_43, Bigflo_43, BlueBird_41, BreSam8_43, Bugatti_41, BuzzBuzz_41, Bxz2_39, Calvinny_43, Cat_38, Caviar_39, Celestialunch_37, Chiqui_38, Clammy_41, ClownCar_43, Colbster_43, Croquant_44, Cullens_43, DaHudson_43, Daishi_42, Dieselweasel_44, DropBear_40, EpicPhail_44, EtoileNova_40, Farber_43, Fernando_43, FlyCatcher_43, Fred313_40, Gemma_42, GingkoMaracino_43, Giroux_41, Goose1D_34, Goose1X_40, Grif_43, Groupthink_44, Grub_43, Grum1_43, GtownJaz_43, Gwennie_43, HashRod_44, HaveUMetTed_44, Heathen_40, HelDan_40, Heliosoles_42, Hercules11_43, Hookmount_39, Idleandcovert_40, Isca_39, JF2_40, JF4_40, JHC117_43,

JenCasNa_44, JeppNRM_44, Jobu08_42, KADY_43, Kachowdy_40, Kalb97_44, Kalnoky_44, LBerry_44, Lambert1_39, LarryKay_43, Lilith_44, Louie6_42, Lowa_43, LugYA_46, MA5_40, MK4_40, MadMarie_43, Mainiac_43, Malinsilva_45, Manu_43, MarQuardt_43, Marchesa_40, Margo_39, Marie_43, Marius_44, MegTheThird_38, Methuselah_41, Microwolf_43, Misomonster_44, MoneyMay_43, Montavir_42, MuchMore_46, Noella_39, Norbert_38, OlanP_42, Ollie_43, P28Green_44, PGHhamlin_45, Panamaxus_37, Pawn_43, Pembroke_43, Penny1_44, Phantastic_40, PhishRPhriends_41, Phoebe_44, Phoxy_43, Phranny_44, Pistachio_41, Pocahontas_39, Popcicle_39, PotatoSplit_45, Puppy_41, PurpleHaze_43, QuinnKiro_38, Reba_43, ResDef_39, Rockstar_40, Roimos_40, Rummer_42, Sabia_43, Sabinator_42, SaturnRing_40, Scout_40, Shep_40, Snickers_43, SoYo_43, SoilDragon_43, Soshari_45, Spike509_43, Stagni_43, StepMih_43, TNguyen7_40, Taurus_44, Texage_38, Tiffany_43, TinyPebbles_42, Todacoro_39, Toro_41, Veracruz_38, Vix_43, Watson_43, Wooldri_45, Zarafa_40, Zetzy_42,

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

Genes that do not have the "Most Annotated" start:
• AbbysRanger_37, Abdiel_38, Achebe_36, Adzzy_40, Agent47_81, Airmid_35, Albee_38, Alberto7_39, AlleyCat_83, Archetta_34, Arturo_36, Astro_35, AvatarAhPeg_37, Avle17_38, Baby16_38, BabyBack_39, Backyardigan_36, Badger_36, BananenDer11_82, BangNhom_39, Bartimeaus_38, BellusTerra_39, Benedict_35, Blackmoor_38, Bombshell_38, Bonamassa_34, Broseidon_38, Bruiser_37, BubbleTrouble_38, Buckaroo_38, Bumblebee11_36, Burger_36, CRB1_40, Caelakin_38, Caitlin_35, Camperdownii_37, CentreCat_38, Cerulean_39, Chadwick_36, ChampagnePapi_40, Chaph_38, Charm_38, Cici_37, Cintron_38, Citius_38, Clarenza_38, Cocoaberry_38, Collard_80, Commander_38, Connomayer_38, Coog_34, Cuco_34, Dadosky_83, Danforth_34, Datway_37, Deano_38, Dhanush_38, DirtyDunning_37, Dixon_35, DontArgue_38, DoubleChamp_79, DreamTeam1_38, Dreamboat_44, DroogsArmy_37, Druantia_38, DustyMartin_43, Eagle_38, Eapen_38, Edugator_79, ElTiger69_35, Emerson_91, Eris_37, Eros_38, Eurydice_39, Expelliarmus_34, Florean_38, Flux_38, FlyCatcher_40, Funston_38, Gadost_38, GaugeLDP_39, George_33, Ghoulboy_36, Groundhog_34, Guillsminger_84, HamSlice_37, Happiness_37, Heftyboy_82, Herbertwm_35, Holli_37, Houdini22_38, HuhtaEnerson15_34, Huxley_38, ICleared_38, Iceman_39, InvictusManeo_79, Iracema64_39, Jabiru_35, Jasper_44, Jaykayelowell_37, JetBlade_38, JoongJeon_38, Junimo_38, KFPoly_38, Kampy_38, Katalie136_37, KekoraPapaka_39, Kingmustik0402_38, Klodlith_39, Koan_37, Koreni_37, Kratark_38, Kratio_83, Kremtemulon_38, Kyee_38, LHTSCC_40, LadyBird_41, LappelDuVide_38, Larva_82, Lemur_38, LeoAvram_38, Leston_83, LilBib_43, LilDirt_81, LittleB_38, LittleCherry_34, LittleGuy_38, LochMonster_38, LoneWolf_41, Lorenzo_38, Lunsford_39, Marco3_44, MarysWell_33, Maverick_38, Maxo_39, Mayonnaise_38, Mazhar510_38, Medusa_38, MeeZee_38, Melvin_40, Micasa_36, Midas2_34, Milcery_34, MilleFeuille_42, Millski_37, Miramae_37, Miryou_85, Morpher26_37, Morrow_39, Mundrea_36, MyraDee_36, Naca_35, NearlyHeadless_35, Nebs_39, Neighly_83, Nemo27_38, Noelle_38, NorthStar_37, Northrop_39, NotAPhaseMom_38, NothingSpecial_39, Nyxis_38, OKaNui_39, Obama12_39, Ohfah_39, Omnicron_87, Padpat_92, Palestino_37, Paola_83, Paraselene_41, Peaches_38, Perplexer_37, PeterPeter_38, PetiteSangsue_37, PetterN_36, Phacado_38, Phelipe_39, Phighter1804_38, Phillis_35, Phontbonne_38, Polymorphads_39, Prinashe11_34, Psycho_81, Pumbaa_38, Rando14_84,

Relief_37, RhynO_40, Roary_35, RockieBear_38, Rocksand_39, Romney_38, Roosevelt_37, Rosa24_38, Rowdy_43, Ruin_38, Rutherferd_45, Sabertooth_38, Sagefire_45, Scamp_38, Scherzo_41, Scorpia_36, SenorClean_38, Shaka_38, Shapes_43, Sheen_38, SheldonCooper_40, Shygu2_37, Skadoosh_40, Skipitt_37, Smeadley_35, SoSeph_82, Sparxx_39, Spino_38, SteMason_38, Stephig9_35, Stink_38, Sultana_38, Swirley_36, SydNat_36, Taquarus_38, Tarynearal_33, Thanksgivukkah_38, Theia_32, Thyatira_84, TinaFeyge_39, Tinybot_37, TiroTheta9_38, Toaka_39, Toro_38, TroyPia_39, Twigg_34, TygerBlood_38, Ugenie5_38, Ulysses_37, UnionJack_34, ViviJ_88, Wander_38, Waterfoul_83, Wilbur_38, Wile_37, Wizard007_38, Xena_36, XianYue_38, YoSam321_38, Zolita_35,

Summary by start number:

Start 23:
• Found in 25 of 387 (6.5%) of genes in pham
• Manual Annotations of this start: 25 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AbbysRanger_37 (A4), Achebe_36 (A4), AvatarAhPeg_37 (A4), Backyardigan_36 (A4), Badger_36 (A4), BangNhom_39 (A4), Bumblebee11_36 (A4), Cerulean_39 (A4), ChampagnePapi_40 (A4), Cici_37 (A4), Cintron_38 (A4), Datway_37 (A4), DirtyDunning_37 (A4), Katalie136_37 (A4), LHTSCC_40 (A4), Miramae_37 (A4), Morpher26_37 (A4), Obama12_39 (A4), Perplexer_37 (A4), PetiteSangsue_37 (A4), SheldonCooper_40 (A4), Shygu2_37 (A4), Stink_38 (A4), Wile_37 (A4), Xena_36 (A4),

Start 25:
• Found in 2 of 387 (0.5%) of genes in pham
• Manual Annotations of this start: 2 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Emerson_91 (K1), Padpat_92 (K1),

Start 30:
• Found in 1 of 387 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Herbertwm_35 (A2),

Start 31:
• Found in 122 of 387 (31.5%) of genes in pham
• Manual Annotations of this start: 1 of 354
• Called 0.8% of time when present
• Phage (with cluster) where this start called: Camperdownii_37 (A4),

Start 32:
• Found in 6 of 387 (1.6%) of genes in pham
• Manual Annotations of this start: 4 of 354
• Called 66.7% of time when present
• Phage (with cluster) where this start called: LoneWolf_41 (A9), Scherzo_41 (A9), Toaka_39 (A9), Ugenie5_38 (A9),

Start 33:
• Found in 30 of 387 (7.8%) of genes in pham

• Manual Annotations of this start: 19 of 354
• Called 76.7% of time when present
• Phage (with cluster) where this start called: AlleyCat_83 (K5), BananenDer11_82 (K5), Dadosky_83 (K5), DoubleChamp_79 (K5), DroogsArmy_37 (A7), Edugator_79 (K5), FlyCatcher_40 (A7), Guillsminger_84 (K5), InvictusManeo_79 (K5), Kratio_83 (K5), Larva_82 (K5), Leston_83 (K5), LilDirt_81 (K5), Miryou_85 (K5), Neighly_83 (K3), Omnicron_87 (K5), Paola_83 (K5), Psycho_81 (K5), Rando14_84 (K5), Sheen_38 (A7), Thyatira_84 (K5), Toro_38 (A7), Waterfoul_83 (K5),

Start 35:
• Found in 22 of 387 (5.7%) of genes in pham
• Manual Annotations of this start: 5 of 354
• Called 22.7% of time when present
• Phage (with cluster) where this start called: Agent47_81 (K5), Collard_80 (K5), Heftyboy_82 (K5), SoSeph_82 (K5), ViviJ_88 (K5),

Start 36:
• Found in 2 of 387 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: CRB1_40 (A2), LadyBird_41 (A2),

Start 37:
• Found in 8 of 387 (2.1%) of genes in pham
• Manual Annotations of this start: 7 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adzzy_40 (A2), BabyBack_39 (A2), Charm_38 (A9), DreamTeam1_38 (A9), GaugeLDP_39 (A2), Klodlith_39 (A9), NothingSpecial_39 (A2), XianYue_38 (A2),

Start 38:
• Found in 142 of 387 (36.7%) of genes in pham
• Manual Annotations of this start: 126 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: ACFishhook_42 (A3), Aglet_44 (A3), AgronaGT15_42 (A3), Anubis_46 (A3), AugsMagnumOpus_46 (A3), B1_37 (A3), BabyJohn_38 (A3), BabyRay_40 (A3), Beauxregard13_43 (A3), Bigflo_43 (A3), BlueBird_41 (A3), BreSam8_43 (A3), Bugatti_41 (A3), BuzzBuzz_41 (A3), Bxz2_39 (A3), Calvinny_43 (A3), Cat_38 (A3), Caviar_39 (A3), Celestialunch_37 (A9), Chiqui_38 (A3), Clammy_41 (A3), ClownCar_43 (A3), Colbster_43 (A3), Croquant_44 (A3), Cullens_43 (A3), DaHudson_43 (A3), Daishi_42 (A3), Dieselweasel_44 (A3), DropBear_40 (A3), EpicPhail_44 (A3), EtoileNova_40 (A3), Farber_43 (A3), Fernando_43 (A3), FlyCatcher_43 (A7), Fred313_40 (A3), Gemma_42 (A3), GingkoMaracino_43 (A3), Giroux_41 (A3), Goose1D_34 (A3), Goose1X_40 (A3), Grif_43 (A3), Groupthink_44 (A3), Grub_43 (A3), Grum1_43 (A3), GtownJaz_43 (A3), Gwennie_43 (A3), HashRod_44 (A3), HaveUMetTed_44 (A3), Heathen_40 (A3), HelDan_40 (A3), Heliosoles_42 (A3), Hercules11_43 (A3), Hookmount_39 (A3), Idleandcovert_40 (A3), Isca_39 (A3), JF2_40 (A3), JF4_40 (A3), JHC117_43 (A3), JenCasNa_44 (A3), JeppNRM_44 (A3), Jobu08_42 (A3), KADY_43 (A3), Kachowdy_40 (A3), Kalb97_44 (A3), Kalnoky_44 (A3), LBerry_44 (A3), Lambert1_39 (A3), LarryKay_43 (A3), Lilith_44 (A3), Louie6_42 (A3), Lowa_43 (A3), LugYA_46 (A3), MA5_40 (A3), MK4_40 (A3), MadMarie_43 (A3), Mainiac_43 (A3), Malinsilva_45 (A3), Manu_43 (A3), MarQuardt_43 (A3), Marchesa_40 (A3), Margo_39 (A3),

Marie_43 (A3), Marius_44 (A3), MegTheThird_38 (A9), Methuselah_41 (A3), Microwolf_43 (A3), Misomonster_44 (A3), MoneyMay_43 (A3), Montavir_42 (A3), MuchMore_46 (A3), Noella_39 (A3), Norbert_38 (A3), OlanP_42 (A3), Ollie_43 (A3), P28Green_44 (A3), PGHhamlin_45 (A3), Panamaxus_37 (A3), Pawn_43 (A3), Pembroke_43 (A3), Penny1_44 (A3), Phantastic_40 (A3), PhishRPhriends_41 (A3), Phoebe_44 (A3), Phoxy_43 (A3), Phranny_44 (A3), Pistachio_41 (A3), Pocahontas_39 (A3), Popcicle_39 (A3), PotatoSplit_45 (A3), Puppy_41 (A3), PurpleHaze_43 (A3), QuinnKiro_38 (A3), Reba_43 (A3), ResDef_39 (A3), Rockstar_40 (A3), Roimos_40 (A3), Rummer_42 (A3), Sabia_43 (A3), Sabinator_42 (A3), SaturnRing_40 (A3), Scout_40 (A3), Shep_40 (A3), Snickers_43 (A3), SoYo_43 (A3), SoilDragon_43 (A3), Soshari_45 (A3), Spike509_43 (A3), Stagni_43 (A3), StepMih_43 (A3), TNguyen7_40 (A3), Taurus_44 (A3), Texage_38 (A3), Tiffany_43 (A3), TinyPebbles_42 (A3), Todacoro_39 (A3), Toro_41 (A7), Veracruz_38 (A3), Vix_43 (A3), Watson_43 (A3), Wooldri_45 (A3), Zarafa_40 (A3), Zetzy_42 (A3),

Start 39:
• Found in 8 of 387 (2.1%) of genes in pham
• Manual Annotations of this start: 8 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Dreamboat_44 (A1), Jasper_44 (A1), LilBib_43 (A1), Marco3_44 (A1), MilleFeuille_42 (A1), Paraselene_41 (A1), Rutherferd_45 (A1), Sagefire_45 (A1),

Start 40:
• Found in 11 of 387 (2.8%) of genes in pham
• Manual Annotations of this start: 11 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Astro_35 (A8), Caitlin_35 (A8), Danforth_34 (A8), Dixon_35 (A8), Expelliarmus_34 (A8), Groundhog_34 (A8), NearlyHeadless_35 (A8), Phillis_35 (A8), Roary_35 (A8), Smeadley_35 (A8), Stephig9_35 (A8),

Start 41:
• Found in 2 of 387 (0.5%) of genes in pham
• Manual Annotations of this start: 1 of 354
• Called 50.0% of time when present
• Phage (with cluster) where this start called: MyraDee_36 (A18),

Start 42:
• Found in 129 of 387 (33.3%) of genes in pham
• Manual Annotations of this start: 114 of 354
• Called 96.9% of time when present
• Phage (with cluster) where this start called: Abdiel_38 (A4), Albee_38 (A4), Alberto7_39 (A4), Arturo_36 (A4), Avle17_38 (A4), Baby16_38 (A4), Bartimeaus_38 (A4), BellusTerra_39 (A4), Blackmoor_38 (A4), Bombshell_38 (A4), Broseidon_38 (A4), Bruiser_37 (A4), BubbleTrouble_38 (A4), Buckaroo_38 (A4), Burger_36 (A4), Caelakin_38 (A4), CentreCat_38 (A4), Chaph_38 (A4), Citius_38 (A4), Clarenza_38 (A4), Cocoaberry_38 (A4), Commander_38 (A4), Connomayer_38 (A4), Deano_38 (A4), Dhanush_38 (A4), DontArgue_38 (A10), Druantia_38 (A4), DustyMartin_43 (A10), Eagle_38 (A4), Eapen_38 (A4), Eris_37 (A4), Eros_38 (A4), Eurydice_39 (A4), Florean_38 (A4), Flux_38 (A4), Funston_38 (A4), Gadost_38 (A4), HamSlice_37 (A4), Happiness_37 (A4), Holli_37 (A4), Houdini22_38 (A4), Huxley_38 (A4), ICleared_38 (A4), Iceman_39 (A4), Iracema64_39 (A4), Jaykayelowell_37 (A4), JetBlade_38 (A4),

JoongJeon_38 (A4), Junimo_38 (A4), KFPoly_38 (A4), Kampy_38 (A4), KekoraPapaka_39 (A4), Kingmustik0402_38 (A4), Koan_37 (A4), Koreni_37 (A4), Kratark_38 (A4), Kremtemulon_38 (A4), Kyee_38 (A4), LappelDuVide_38 (A4), Lemur_38 (A4), LeoAvram_38 (A4), LittleB_38 (A4), LittleGuy_38 (A4), LochMonster_38 (A4), Lorenzo_38 (A4), Lunsford_39 (A4), Maverick_38 (A4), Maxo_39 (A4), Mayonnaise_38 (A4), Mazhar510_38 (A4), Medusa_38 (A4), MeeZee_38 (A4), Melvin_40 (A4), Millski_37 (A4), Morrow_39 (A4), Mundrea_36 (A4), Nebs_39 (A4), Nemo27_38 (A4), Noelle_38 (A4), NorthStar_37 (A4), Northrop_39 (A4), NotAPhaseMom_38 (A4), Nyxis_38 (A4), OKaNui_39 (A4), Ohfah_39 (A4), Peaches_38 (A4), PeterPeter_38 (A4), Phacado_38 (A4), Phelipe_39 (A4), Phighter1804_38 (A4), Phontbonne_38 (A4), Polymorphads_39 (A4), Pumbaa_38 (A4), Relief_37 (A4), RhynO_40 (A10), RockieBear_38 (A4), Rocksand_39 (A4), Romney_38 (A4), Roosevelt_37 (A4), Rosa24_38 (A4), Rowdy_43 (A10), Ruin_38 (A4), Sabertooth_38 (A4), Scamp_38 (A4), SenorClean_38 (A4), Shaka_38 (A4), Shapes_43 (A10), Skadoosh_40 (A4), Skipitt_37 (A4), Sparxx_39 (A4), Spino_38 (A4), SteMason_38 (A4), Sultana_38 (A4), Taquarus_38 (A4), Thanksgivukkah_38 (A4), TinaFeyge_39 (A4), Tinybot_37 (A4), TiroTheta9_38 (A4), TroyPia_39 (A4), TygerBlood_38 (A4), Ulysses_37 (A4), Wander_38 (A4), Wilbur_38 (A4), Wizard007_38 (A4), YoSam321_38 (A4),

Start 46:
• Found in 1 of 387 (0.3%) of genes in pham
• Manual Annotations of this start: 1 of 354
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Airmid_35 (A5),

Start 47:
• Found in 169 of 387 (43.7%) of genes in pham
• Manual Annotations of this start: 1 of 354
• Called 0.6% of time when present
• Phage (with cluster) where this start called: Palestino_37 (A4),

Start 49:
• Found in 3 of 387 (0.8%) of genes in pham
• Manual Annotations of this start: 2 of 354
• Called 66.7% of time when present
• Phage (with cluster) where this start called: SydNat_36 (A5), Zolita_35 (A5),

Start 52:
• Found in 28 of 387 (7.2%) of genes in pham
• Manual Annotations of this start: 24 of 354
• Called 85.7% of time when present
• Phage (with cluster) where this start called: Archetta_34 (A5), Benedict_35 (A5), Bonamassa_34 (A5), Chadwick_36 (A5), Coog_34 (A5), Cuco_34 (A5), ElTiger69_35 (A5), Ghoulboy_36 (A5), HuhtaEnerson15_34 (A5), Jabiru_35 (A5), LittleCherry_34 (A5), MarysWell_33 (A5), Micasa_36 (A5), Midas2_34 (A5), Milcery_34 (A5), Naca_35 (A5), PetterN_36 (A5), Prinashe11_34 (A5), Scorpia_36 (A5), Swirley_36 (A5), Tarynearal_33 (A5), Theia_32 (A5), Twigg_34 (A5), UnionJack_34 (A5),

Start 58:
• Found in 20 of 387 (5.2%) of genes in pham
• Manual Annotations of this start: 1 of 354
• Called 5.0% of time when present

• Phage (with cluster) where this start called: George_33 (A5),

Summary by clusters:

There are 13 clusters represented in this pham: K3, A10, K1, A18, A1, A3, A2, A5, A4, K5, A7, A9, A8,

Info for manual annotations of cluster A1:
•Start number 39 was manually annotated 8 times for cluster A1.

Info for manual annotations of cluster A10:
•Start number 42 was manually annotated 1 time for cluster A10.

Info for manual annotations of cluster A18:
•Start number 41 was manually annotated 1 time for cluster A18.

Info for manual annotations of cluster A2:
•Start number 30 was manually annotated 1 time for cluster A2.
•Start number 36 was manually annotated 1 time for cluster A2.
•Start number 37 was manually annotated 5 times for cluster A2.

Info for manual annotations of cluster A3:
•Start number 38 was manually annotated 125 times for cluster A3.

Info for manual annotations of cluster A4:
•Start number 23 was manually annotated 25 times for cluster A4.
•Start number 31 was manually annotated 1 time for cluster A4.
•Start number 42 was manually annotated 113 times for cluster A4.
•Start number 47 was manually annotated 1 time for cluster A4.

Info for manual annotations of cluster A5:
•Start number 46 was manually annotated 1 time for cluster A5.
•Start number 49 was manually annotated 2 times for cluster A5.
•Start number 52 was manually annotated 24 times for cluster A5.
•Start number 58 was manually annotated 1 time for cluster A5.

Info for manual annotations of cluster A7:
•Start number 33 was manually annotated 2 times for cluster A7.

Info for manual annotations of cluster A8:
•Start number 40 was manually annotated 11 times for cluster A8.

Info for manual annotations of cluster A9:
•Start number 32 was manually annotated 4 times for cluster A9.
•Start number 37 was manually annotated 2 times for cluster A9.
•Start number 38 was manually annotated 1 time for cluster A9.

Info for manual annotations of cluster K1:
•Start number 25 was manually annotated 2 times for cluster K1.

Info for manual annotations of cluster K5:
•Start number 33 was manually annotated 17 times for cluster K5.

•Start number 35 was manually annotated 5 times for cluster K5.

Gene Information:

Gene: ACFishhook_42 Start: 29061, Stop: 28756, Start Num: 38
Candidate Starts for ACFishhook_42:
(6, 29307), (8, 29289), (10, 29268), (21, 29157), (22, 29145), (Start: 38 @29061 has 126 MA's), (Start: 47 @29007 has 1 MA's), (60, 28968), (68, 28944), (87, 28857), (97, 28794),

Gene: AbbysRanger_37 Start: 28220, Stop: 27960, Start Num: 23
Candidate Starts for AbbysRanger_37:
(Start: 23 @28220 has 25 MA's), (Start: 47 @28193 has 1 MA's), (56, 28166), (75, 28106), (89, 28043), (97, 27986),

Gene: Abdiel_38 Start: 28375, Stop: 28109, Start Num: 42
Candidate Starts for Abdiel_38:
(15, 28537), (Start: 31 @28423 has 1 MA's), (Start: 42 @28375 has 114 MA's), (Start: 47 @28345 has 1 MA's), (56, 28318), (75, 28258), (77, 28243), (97, 28141),

Gene: Achebe_36 Start: 28203, Stop: 27943, Start Num: 23
Candidate Starts for Achebe_36:
(Start: 23 @28203 has 25 MA's), (Start: 47 @28176 has 1 MA's), (56, 28149), (75, 28089), (89, 28026), (97, 27969),

Gene: Adzzy_40 Start: 26940, Stop: 26704, Start Num: 37
Candidate Starts for Adzzy_40:
(Start: 37 @26940 has 7 MA's), (72, 26856), (81, 26826), (82, 26823), (96, 26742), (97, 26739),

Gene: Agent47_81 Start: 53059, Stop: 53331, Start Num: 35
Candidate Starts for Agent47_81:
(12, 52885), (14, 52900), (Start: 33 @53053 has 19 MA's), (Start: 35 @53059 has 5 MA's), (63, 53152), (66, 53158), (87, 53242), (91, 53257), (97, 53305),

Gene: Aglet_44 Start: 29103, Stop: 28864, Start Num: 38
Candidate Starts for Aglet_44:
(Start: 38 @29103 has 126 MA's), (73, 29022), (79, 28995), (87, 28956), (97, 28902),

Gene: AgronaGT15_42 Start: 28921, Stop: 28682, Start Num: 38
Candidate Starts for AgronaGT15_42:
(17, 29053), (Start: 38 @28921 has 126 MA's), (79, 28813), (87, 28774), (97, 28720),

Gene: Airmid_35 Start: 27047, Stop: 26814, Start Num: 46
Candidate Starts for Airmid_35:
(Start: 46 @27047 has 1 MA's), (Start: 52 @27023 has 24 MA's), (89, 26897), (97, 26843),

Gene: Albee_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Albee_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Alberto7_39 Start: 28714, Stop: 28448, Start Num: 42

Candidate Starts for Alberto7_39:
(15, 28876), (Start: 31 @28762 has 1 MA's), (Start: 42 @28714 has 114 MA's), (Start: 47 @28684 has 1 MA's), (56, 28657), (75, 28597), (97, 28480),

Gene: AlleyCat_83 Start: 54184, Stop: 54471, Start Num: 33
Candidate Starts for AlleyCat_83:
(Start: 33 @54184 has 19 MA's), (Start: 35 @54190 has 5 MA's), (87, 54382), (91, 54397), (97, 54445),

Gene: Anubis_46 Start: 28988, Stop: 28749, Start Num: 38
Candidate Starts for Anubis_46:
(Start: 38 @28988 has 126 MA's), (73, 28907), (79, 28880), (87, 28841), (97, 28787),

Gene: Archetta_34 Start: 27563, Stop: 27351, Start Num: 52
Candidate Starts for Archetta_34:
(Start: 52 @27563 has 24 MA's), (Start: 58 @27545 has 1 MA's), (69, 27518), (89, 27437), (97, 27383),

Gene: Arturo_36 Start: 28433, Stop: 28167, Start Num: 42
Candidate Starts for Arturo_36:
(Start: 31 @28481 has 1 MA's), (Start: 42 @28433 has 114 MA's), (Start: 47 @28403 has 1 MA's), (56, 28376), (75, 28316), (77, 28301), (97, 28199),

Gene: Astro_35 Start: 26960, Stop: 26682, Start Num: 40
Candidate Starts for Astro_35:
(Start: 40 @26960 has 11 MA's), (69, 26855), (78, 26816), (89, 26768), (97, 26714),

Gene: AugsMagnumOpus_46 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for AugsMagnumOpus_46:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: AvatarAhPeg_37 Start: 28735, Stop: 28475, Start Num: 23
Candidate Starts for AvatarAhPeg_37:
(Start: 23 @28735 has 25 MA's), (Start: 47 @28705 has 1 MA's), (56, 28678), (75, 28618), (77, 28603), (97, 28501),

Gene: Avle17_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Avle17_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: B1_37 Start: 27979, Stop: 27740, Start Num: 38
Candidate Starts for B1_37:
(Start: 38 @27979 has 126 MA's), (79, 27871), (87, 27832), (97, 27778),

Gene: Baby16_38 Start: 28385, Stop: 28119, Start Num: 42
Candidate Starts for Baby16_38:
(15, 28547), (Start: 31 @28433 has 1 MA's), (Start: 42 @28385 has 114 MA's), (Start: 47 @28355 has 1 MA's), (56, 28328), (75, 28268), (97, 28151),

Gene: BabyBack_39 Start: 29153, Stop: 28929, Start Num: 37
Candidate Starts for BabyBack_39:
(19, 29267), (Start: 37 @29153 has 7 MA's), (72, 29069), (76, 29063), (83, 29027), (87, 29012), (97, 28955),

Gene: BabyJohn_38 Start: 28749, Stop: 28510, Start Num: 38
Candidate Starts for BabyJohn_38:
(Start: 38 @28749 has 126 MA's), (72, 28671), (79, 28641), (87, 28602), (97, 28548),

Gene: BabyRay_40 Start: 28714, Stop: 28439, Start Num: 38
Candidate Starts for BabyRay_40:
(16, 28852), (24, 28771), (Start: 38 @28714 has 126 MA's), (64, 28621), (97, 28477),

Gene: Backyardigan_36 Start: 28236, Stop: 27976, Start Num: 23
Candidate Starts for Backyardigan_36:
(Start: 23 @28236 has 25 MA's), (Start: 47 @28209 has 1 MA's), (56, 28182), (75, 28122), (89, 28059), (97, 28002),

Gene: Badger_36 Start: 28204, Stop: 27944, Start Num: 23
Candidate Starts for Badger_36:
(Start: 23 @28204 has 25 MA's), (Start: 47 @28177 has 1 MA's), (56, 28150), (75, 28090), (89, 28027), (97, 27970),

Gene: BananenDer11_82 Start: 53294, Stop: 53581, Start Num: 33
Candidate Starts for BananenDer11_82:
(Start: 33 @53294 has 19 MA's), (Start: 35 @53300 has 5 MA's), (87, 53492), (91, 53507), (97, 53555),

Gene: BangNhom_39 Start: 28676, Stop: 28410, Start Num: 23
Candidate Starts for BangNhom_39:
(1, 29540), (2, 29273), (3, 28958), (7, 28850), (9, 28826), (Start: 23 @28676 has 25 MA's), (Start: 47 @28646 has 1 MA's), (56, 28619), (75, 28559), (77, 28544), (97, 28442),

Gene: Bartimeaus_38 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Bartimeaus_38:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (97, 28142),

Gene: Beauxregard13_43 Start: 29105, Stop: 28866, Start Num: 38
Candidate Starts for Beauxregard13_43:
(Start: 38 @29105 has 126 MA's), (79, 28997), (87, 28958), (97, 28904),

Gene: BellusTerra_39 Start: 28375, Stop: 28109, Start Num: 42
Candidate Starts for BellusTerra_39:
(15, 28537), (Start: 31 @28423 has 1 MA's), (Start: 42 @28375 has 114 MA's), (Start: 47 @28345 has 1 MA's), (56, 28318), (75, 28258), (77, 28243), (97, 28141),

Gene: Benedict_35 Start: 27023, Stop: 26814, Start Num: 52
Candidate Starts for Benedict_35:
(Start: 52 @27023 has 24 MA's), (Start: 58 @27005 has 1 MA's), (89, 26897), (97, 26843),

Gene: Bigflo_43 Start: 29101, Stop: 28862, Start Num: 38
Candidate Starts for Bigflo_43:
(Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: Blackmoor_38 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Blackmoor_38:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (97, 28142),

Gene: BlueBird_41 Start: 28604, Stop: 28365, Start Num: 38
Candidate Starts for BlueBird_41:
(Start: 38 @28604 has 126 MA's), (79, 28496), (87, 28457), (97, 28403),

Gene: Bombshell_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Bombshell_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Bonamassa_34 Start: 27357, Stop: 27145, Start Num: 52
Candidate Starts for Bonamassa_34:
(Start: 52 @27357 has 24 MA's), (Start: 58 @27339 has 1 MA's), (69, 27312), (89, 27231), (97, 27177),

Gene: BreSam8_43 Start: 29095, Stop: 28856, Start Num: 38
Candidate Starts for BreSam8_43:
(Start: 38 @29095 has 126 MA's), (79, 28987), (87, 28948), (97, 28894),

Gene: Broseidon_38 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Broseidon_38:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (97, 28142),

Gene: Bruiser_37 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Bruiser_37:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: BubbleTrouble_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for BubbleTrouble_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Buckaroo_38 Start: 28378, Stop: 28112, Start Num: 42
Candidate Starts for Buckaroo_38:
(15, 28540), (Start: 31 @28426 has 1 MA's), (Start: 42 @28378 has 114 MA's), (Start: 47 @28348 has 1 MA's), (56, 28321), (75, 28261), (97, 28144),

Gene: Bugatti_41 Start: 28604, Stop: 28365, Start Num: 38
Candidate Starts for Bugatti_41:
(Start: 38 @28604 has 126 MA's), (79, 28496), (87, 28457), (97, 28403),

Gene: Bumblebee11_36 Start: 28206, Stop: 27946, Start Num: 23
Candidate Starts for Bumblebee11_36:
(Start: 23 @28206 has 25 MA's), (Start: 47 @28179 has 1 MA's), (56, 28152), (75, 28092), (89, 28029), (97, 27972),

Gene: Burger_36 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Burger_36:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: BuzzBuzz_41 Start: 29100, Stop: 28861, Start Num: 38

Candidate Starts for BuzzBuzz_41:
(17, 29232), (Start: 38 @29100 has 126 MA's), (79, 28992), (87, 28953), (97, 28899),

Gene: Bxz2_39 Start: 29107, Stop: 28868, Start Num: 38
Candidate Starts for Bxz2_39:
(17, 29239), (Start: 38 @29107 has 126 MA's), (79, 28999), (87, 28960), (97, 28906),

Gene: CRB1_40 Start: 28593, Stop: 28357, Start Num: 36
Candidate Starts for CRB1_40:
(18, 28716), (19, 28704), (Start: 36 @28593 has 1 MA's), (97, 28389),

Gene: Caelakin_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Caelakin_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Caitlin_35 Start: 26953, Stop: 26675, Start Num: 40
Candidate Starts for Caitlin_35:
(Start: 40 @26953 has 11 MA's), (69, 26848), (78, 26809), (89, 26761), (97, 26707),

Gene: Calvinny_43 Start: 28989, Stop: 28684, Start Num: 38
Candidate Starts for Calvinny_43:
(6, 29235), (8, 29217), (10, 29196), (11, 29193), (21, 29085), (22, 29073), (Start: 38 @28989 has 126 MA's), (Start: 47 @28935 has 1 MA's), (60, 28896), (68, 28872), (87, 28785), (97, 28722),

Gene: Camperdownii_37 Start: 28095, Stop: 27802, Start Num: 31
Candidate Starts for Camperdownii_37:
(Start: 31 @28095 has 1 MA's), (Start: 42 @28047 has 114 MA's), (59, 27987), (84, 27903), (88, 27891), (90, 27882), (97, 27834),

Gene: Cat_38 Start: 28327, Stop: 28052, Start Num: 38
Candidate Starts for Cat_38:
(16, 28465), (24, 28384), (Start: 38 @28327 has 126 MA's), (64, 28234), (97, 28090),

Gene: Caviar_39 Start: 28759, Stop: 28520, Start Num: 38
Candidate Starts for Caviar_39:
(Start: 38 @28759 has 126 MA's), (79, 28651), (87, 28612),

Gene: Celestialunch_37 Start: 28004, Stop: 27747, Start Num: 38
Candidate Starts for Celestialunch_37:
(Start: 38 @28004 has 126 MA's), (85, 27848), (87, 27836), (95, 27794),

Gene: CentreCat_38 Start: 28377, Stop: 28111, Start Num: 42
Candidate Starts for CentreCat_38:
(15, 28539), (Start: 31 @28425 has 1 MA's), (Start: 42 @28377 has 114 MA's), (Start: 47 @28347 has 1 MA's), (56, 28320), (75, 28260), (97, 28143),

Gene: Cerulean_39 Start: 28677, Stop: 28411, Start Num: 23
Candidate Starts for Cerulean_39:
(1, 29541), (2, 29274), (3, 28959), (7, 28851), (9, 28827), (Start: 23 @28677 has 25 MA's), (Start: 47 @28647 has 1 MA's), (56, 28620), (75, 28560), (77, 28545), (97, 28443),

Gene: Chadwick_36 Start: 26926, Stop: 26717, Start Num: 52

Candidate Starts for Chadwick_36:
(Start: 52 @26926 has 24 MA's), (89, 26800), (97, 26746),

Gene: ChampagnePapi_40 Start: 28676, Stop: 28410, Start Num: 23
Candidate Starts for ChampagnePapi_40:
(1, 29540), (2, 29273), (3, 28958), (7, 28850), (9, 28826), (Start: 23 @28676 has 25 MA's), (Start: 47 @28646 has 1 MA's), (56, 28619), (75, 28559), (77, 28544), (97, 28442),

Gene: Chaph_38 Start: 28385, Stop: 28119, Start Num: 42
Candidate Starts for Chaph_38:
(15, 28547), (Start: 31 @28433 has 1 MA's), (Start: 42 @28385 has 114 MA's), (Start: 47 @28355 has 1 MA's), (56, 28328), (75, 28268), (97, 28151),

Gene: Charm_38 Start: 28141, Stop: 27875, Start Num: 37
Candidate Starts for Charm_38:
(Start: 37 @28141 has 7 MA's), (85, 27976), (87, 27964), (97, 27901),

Gene: Chiqui_38 Start: 28758, Stop: 28519, Start Num: 38
Candidate Starts for Chiqui_38:
(Start: 38 @28758 has 126 MA's), (72, 28680), (79, 28650), (87, 28611), (97, 28557),

Gene: Cici_37 Start: 28221, Stop: 27961, Start Num: 23
Candidate Starts for Cici_37:
(Start: 23 @28221 has 25 MA's), (Start: 47 @28194 has 1 MA's), (56, 28167), (75, 28107), (89, 28044), (97, 27987),

Gene: Cintron_38 Start: 28440, Stop: 28174, Start Num: 23
Candidate Starts for Cintron_38:
(Start: 23 @28440 has 25 MA's), (Start: 47 @28410 has 1 MA's), (56, 28383), (75, 28323), (97, 28206),

Gene: Citius_38 Start: 28395, Stop: 28129, Start Num: 42
Candidate Starts for Citius_38:
(15, 28557), (Start: 31 @28443 has 1 MA's), (Start: 42 @28395 has 114 MA's), (Start: 47 @28365 has 1 MA's), (56, 28338), (75, 28278), (77, 28263), (97, 28161),

Gene: Clammy_41 Start: 28604, Stop: 28365, Start Num: 38
Candidate Starts for Clammy_41:
(Start: 38 @28604 has 126 MA's), (79, 28496), (87, 28457), (97, 28403),

Gene: Clarenza_38 Start: 28371, Stop: 28105, Start Num: 42
Candidate Starts for Clarenza_38:
(15, 28533), (Start: 31 @28419 has 1 MA's), (Start: 42 @28371 has 114 MA's), (Start: 47 @28341 has 1 MA's), (56, 28314), (75, 28254), (97, 28137),

Gene: ClownCar_43 Start: 28982, Stop: 28677, Start Num: 38
Candidate Starts for ClownCar_43:
(6, 29228), (8, 29210), (10, 29189), (21, 29078), (22, 29066), (Start: 38 @28982 has 126 MA's), (Start: 47 @28928 has 1 MA's), (60, 28889), (68, 28865), (87, 28778), (97, 28715),

Gene: Cocoaberry_38 Start: 28378, Stop: 28112, Start Num: 42
Candidate Starts for Cocoaberry_38:
(15, 28540), (Start: 31 @28426 has 1 MA's), (Start: 42 @28378 has 114 MA's), (Start: 47 @28348 has 1 MA's), (56, 28321), (75, 28261), (97, 28144),

Gene: Colbster_43 Start: 29105, Stop: 28866, Start Num: 38
Candidate Starts for Colbster_43:
(Start: 38 @29105 has 126 MA's), (79, 28997), (87, 28958), (97, 28904),

Gene: Collard_80 Start: 53300, Stop: 53581, Start Num: 35
Candidate Starts for Collard_80:
(Start: 33 @53294 has 19 MA's), (Start: 35 @53300 has 5 MA's), (87, 53492), (91, 53507), (97, 53555),

Gene: Commander_38 Start: 28373, Stop: 28107, Start Num: 42
Candidate Starts for Commander_38:
(15, 28535), (Start: 31 @28421 has 1 MA's), (Start: 42 @28373 has 114 MA's), (Start: 47 @28343 has 1 MA's), (56, 28316), (75, 28256), (97, 28139),

Gene: Connomayer_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Connomayer_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Coog_34 Start: 27403, Stop: 27185, Start Num: 52
Candidate Starts for Coog_34:
(Start: 52 @27403 has 24 MA's), (Start: 58 @27385 has 1 MA's), (69, 27358), (89, 27271), (97, 27217),

Gene: Croquant_44 Start: 29100, Stop: 28861, Start Num: 38
Candidate Starts for Croquant_44:
(Start: 38 @29100 has 126 MA's), (79, 28992), (87, 28953), (97, 28899),

Gene: Cuco_34 Start: 27356, Stop: 27144, Start Num: 52
Candidate Starts for Cuco_34:
(Start: 52 @27356 has 24 MA's), (Start: 58 @27338 has 1 MA's), (69, 27311), (89, 27230), (97, 27176),

Gene: Cullens_43 Start: 29101, Stop: 28862, Start Num: 38
Candidate Starts for Cullens_43:
(Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: DaHudson_43 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for DaHudson_43:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: Dadosky_83 Start: 54185, Stop: 54472, Start Num: 33
Candidate Starts for Dadosky_83:
(Start: 33 @54185 has 19 MA's), (Start: 35 @54191 has 5 MA's), (87, 54383), (91, 54398), (97, 54446),

Gene: Daishi_42 Start: 27941, Stop: 27702, Start Num: 38
Candidate Starts for Daishi_42:
(17, 28073), (Start: 38 @27941 has 126 MA's), (79, 27833), (87, 27794), (97, 27740),

Gene: Danforth_34 Start: 26845, Stop: 26567, Start Num: 40
Candidate Starts for Danforth_34:
(Start: 40 @26845 has 11 MA's), (69, 26740), (78, 26701), (89, 26653), (97, 26599),

Gene: Datway_37 Start: 28192, Stop: 27932, Start Num: 23
Candidate Starts for Datway_37:

(Start: 23 @28192 has 25 MA's), (Start: 47 @28165 has 1 MA's), (56, 28138), (75, 28078), (89, 28015), (97, 27958),

Gene: Deano_38 Start: 28382, Stop: 28116, Start Num: 42
Candidate Starts for Deano_38:
(15, 28544), (Start: 31 @28430 has 1 MA's), (Start: 42 @28382 has 114 MA's), (Start: 47 @28352 has 1 MA's), (56, 28325), (75, 28265), (97, 28148),

Gene: Dhanush_38 Start: 28377, Stop: 28111, Start Num: 42
Candidate Starts for Dhanush_38:
(15, 28539), (Start: 31 @28425 has 1 MA's), (Start: 42 @28377 has 114 MA's), (Start: 47 @28347 has 1 MA's), (56, 28320), (75, 28260), (97, 28143),

Gene: Dieselweasel_44 Start: 29104, Stop: 28865, Start Num: 38
Candidate Starts for Dieselweasel_44:
(Start: 38 @29104 has 126 MA's), (79, 28996), (87, 28957), (97, 28903),

Gene: DirtyDunning_37 Start: 28251, Stop: 27991, Start Num: 23
Candidate Starts for DirtyDunning_37:
(Start: 23 @28251 has 25 MA's), (Start: 47 @28221 has 1 MA's), (56, 28194), (75, 28134), (97, 28017),

Gene: Dixon_35 Start: 26954, Stop: 26676, Start Num: 40
Candidate Starts for Dixon_35:
(Start: 40 @26954 has 11 MA's), (69, 26849), (78, 26810), (89, 26762), (97, 26708),

Gene: DontArgue_38 Start: 27488, Stop: 27219, Start Num: 42
Candidate Starts for DontArgue_38:
(Start: 42 @27488 has 114 MA's), (Start: 47 @27458 has 1 MA's), (65, 27404), (67, 27401), (96, 27257), (97, 27254),

Gene: DoubleChamp_79 Start: 53294, Stop: 53581, Start Num: 33
Candidate Starts for DoubleChamp_79:
(Start: 33 @53294 has 19 MA's), (Start: 35 @53300 has 5 MA's), (87, 53492), (91, 53507), (97, 53555),

Gene: DreamTeam1_38 Start: 28024, Stop: 27758, Start Num: 37
Candidate Starts for DreamTeam1_38:
(Start: 37 @28024 has 7 MA's), (85, 27859), (87, 27847), (97, 27784),

Gene: Dreamboat_44 Start: 32205, Stop: 31960, Start Num: 39
Candidate Starts for Dreamboat_44:
(13, 32394), (Start: 39 @32205 has 8 MA's), (83, 32055), (87, 32040), (93, 32025), (94, 32013), (97, 31983),

Gene: DroogsArmy_37 Start: 30255, Stop: 29989, Start Num: 33
Candidate Starts for DroogsArmy_37:
(Start: 33 @30255 has 19 MA's), (61, 30168), (83, 30084), (86, 30078), (98, 30006),

Gene: DropBear_40 Start: 28671, Stop: 28432, Start Num: 38
Candidate Starts for DropBear_40:
(21, 28767), (Start: 38 @28671 has 126 MA's), (79, 28563), (87, 28524), (97, 28470),

Gene: Druantia_38 Start: 28377, Stop: 28111, Start Num: 42
Candidate Starts for Druantia_38:

(15, 28539), (Start: 31 @28425 has 1 MA's), (Start: 42 @28377 has 114 MA's), (Start: 47 @28347 has 1 MA's), (56, 28320), (75, 28260), (97, 28143),

Gene: DustyMartin_43 Start: 28322, Stop: 28053, Start Num: 42
Candidate Starts for DustyMartin_43:
(24, 28382), (Start: 42 @28322 has 114 MA's), (Start: 47 @28292 has 1 MA's), (54, 28268), (65, 28238), (97, 28088),

Gene: Eagle_38 Start: 28399, Stop: 28133, Start Num: 42
Candidate Starts for Eagle_38:
(15, 28561), (Start: 31 @28447 has 1 MA's), (Start: 42 @28399 has 114 MA's), (Start: 47 @28369 has 1 MA's), (56, 28342), (75, 28282), (77, 28267), (97, 28165),

Gene: Eapen_38 Start: 28372, Stop: 28106, Start Num: 42
Candidate Starts for Eapen_38:
(15, 28534), (Start: 31 @28420 has 1 MA's), (Start: 42 @28372 has 114 MA's), (Start: 47 @28342 has 1 MA's), (56, 28315), (75, 28255), (97, 28138),

Gene: Edugator_79 Start: 55356, Stop: 55643, Start Num: 33
Candidate Starts for Edugator_79:
(Start: 33 @55356 has 19 MA's), (Start: 35 @55362 has 5 MA's), (87, 55554), (91, 55569), (97, 55617),

Gene: ElTiger69_35 Start: 27021, Stop: 26812, Start Num: 52
Candidate Starts for ElTiger69_35:
(Start: 52 @27021 has 24 MA's), (89, 26895), (97, 26841),

Gene: Emerson_91 Start: 56890, Stop: 57219, Start Num: 25
Candidate Starts for Emerson_91:
(Start: 25 @56890 has 2 MA's), (27, 56905), (29, 56908), (Start: 33 @56926 has 19 MA's), (44, 56962), (55, 57007), (57, 57016), (74, 57061), (75, 57070), (97, 57193), (98, 57199),

Gene: EpicPhail_44 Start: 29105, Stop: 28866, Start Num: 38
Candidate Starts for EpicPhail_44:
(Start: 38 @29105 has 126 MA's), (79, 28997), (87, 28958), (97, 28904),

Gene: Eris_37 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Eris_37:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Eros_38 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Eros_38:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (97, 28142),

Gene: EtoileNova_40 Start: 28763, Stop: 28524, Start Num: 38
Candidate Starts for EtoileNova_40:
(Start: 38 @28763 has 126 MA's), (79, 28655), (87, 28616),

Gene: Eurydice_39 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Eurydice_39:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (77, 28242), (97, 28140),

Gene: Expelliarmus_34 Start: 26831, Stop: 26553, Start Num: 40
Candidate Starts for Expelliarmus_34:
(Start: 40 @26831 has 11 MA's), (69, 26726), (78, 26687), (89, 26639), (97, 26585),

Gene: Farber_43 Start: 29095, Stop: 28856, Start Num: 38
Candidate Starts for Farber_43:
(Start: 38 @29095 has 126 MA's), (79, 28987), (87, 28948), (97, 28894),

Gene: Fernando_43 Start: 29101, Stop: 28862, Start Num: 38
Candidate Starts for Fernando_43:
(Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: Florean_38 Start: 28373, Stop: 28107, Start Num: 42
Candidate Starts for Florean_38:
(15, 28535), (Start: 31 @28421 has 1 MA's), (Start: 42 @28373 has 114 MA's), (Start: 47 @28343 has 1 MA's), (56, 28316), (75, 28256), (97, 28139),

Gene: Flux_38 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Flux_38:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (97, 28142),

Gene: FlyCatcher_43 Start: 30738, Stop: 30514, Start Num: 38
Candidate Starts for FlyCatcher_43:
(Start: 38 @30738 has 126 MA's), (Start: 42 @30720 has 114 MA's), (79, 30630), (87, 30591), (98, 30531),

Gene: FlyCatcher_40 Start: 30159, Stop: 29860, Start Num: 33
Candidate Starts for FlyCatcher_40:
(Start: 33 @30159 has 19 MA's),

Gene: Fred313_40 Start: 28356, Stop: 28117, Start Num: 38
Candidate Starts for Fred313_40:
(21, 28452), (Start: 38 @28356 has 126 MA's), (Start: 41 @28341 has 1 MA's), (79, 28248), (87, 28209), (97, 28155),

Gene: Funston_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Funston_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Gadost_38 Start: 28378, Stop: 28112, Start Num: 42
Candidate Starts for Gadost_38:
(15, 28540), (Start: 31 @28426 has 1 MA's), (Start: 42 @28378 has 114 MA's), (Start: 47 @28348 has 1 MA's), (56, 28321), (75, 28261), (97, 28144),

Gene: GaugeLDP_39 Start: 29059, Stop: 28823, Start Num: 37
Candidate Starts for GaugeLDP_39:
(19, 29173), (Start: 32 @29074 has 4 MA's), (Start: 37 @29059 has 7 MA's), (45, 29041), (71, 28978), (97, 28867),

Gene: Gemma_42 Start: 28985, Stop: 28680, Start Num: 38

Candidate Starts for Gemma_42:
(6, 29231), (8, 29213), (10, 29192), (11, 29189), (21, 29081), (22, 29069), (Start: 38 @28985 has 126 MA's), (Start: 47 @28931 has 1 MA's), (60, 28892), (68, 28868), (87, 28781), (97, 28718),

Gene: George_33 Start: 27339, Stop: 27145, Start Num: 58
Candidate Starts for George_33:
(Start: 52 @27357 has 24 MA's), (Start: 58 @27339 has 1 MA's), (69, 27312), (89, 27231), (97, 27177),

Gene: Ghoulboy_36 Start: 27962, Stop: 27744, Start Num: 52
Candidate Starts for Ghoulboy_36:
(Start: 49 @27971 has 2 MA's), (Start: 52 @27962 has 24 MA's), (Start: 58 @27944 has 1 MA's), (69, 27917), (89, 27830), (97, 27776),

Gene: GingkoMaracino_43 Start: 28988, Stop: 28749, Start Num: 38
Candidate Starts for GingkoMaracino_43:
(Start: 38 @28988 has 126 MA's), (73, 28907), (79, 28880), (87, 28841), (97, 28787),

Gene: Giroux_41 Start: 28603, Stop: 28364, Start Num: 38
Candidate Starts for Giroux_41:
(Start: 38 @28603 has 126 MA's), (79, 28495), (87, 28456), (97, 28402),

Gene: Goose1D_34 Start: 24804, Stop: 24565, Start Num: 38
Candidate Starts for Goose1D_34:
(21, 24900), (Start: 38 @24804 has 126 MA's), (79, 24696), (87, 24657), (97, 24603),

Gene: Goose1X_40 Start: 27946, Stop: 27707, Start Num: 38
Candidate Starts for Goose1X_40:
(21, 28042), (Start: 38 @27946 has 126 MA's), (79, 27838), (87, 27799), (97, 27745),

Gene: Grif_43 Start: 29176, Stop: 28937, Start Num: 38
Candidate Starts for Grif_43:
(Start: 38 @29176 has 126 MA's), (79, 29068), (87, 29029), (97, 28975),

Gene: Groundhog_34 Start: 26925, Stop: 26647, Start Num: 40
Candidate Starts for Groundhog_34:
(Start: 40 @26925 has 11 MA's), (69, 26820), (78, 26781), (89, 26733), (97, 26679),

Gene: Groupthink_44 Start: 28989, Stop: 28684, Start Num: 38
Candidate Starts for Groupthink_44:
(6, 29235), (8, 29217), (10, 29196), (11, 29193), (21, 29085), (22, 29073), (Start: 38 @28989 has 126 MA's), (Start: 47 @28935 has 1 MA's), (60, 28896), (68, 28872), (87, 28785), (97, 28722),

Gene: Grub_43 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for Grub_43:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: Grum1_43 Start: 29101, Stop: 28862, Start Num: 38
Candidate Starts for Grum1_43:
(Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: GtownJaz_43 Start: 29103, Stop: 28864, Start Num: 38
Candidate Starts for GtownJaz_43:
(Start: 38 @29103 has 126 MA's), (79, 28995), (87, 28956), (97, 28902),

Gene: Guillsminger_84 Start: 55380, Stop: 55694, Start Num: 33
Candidate Starts for Guillsminger_84:
(5, 55140), (Start: 33 @55380 has 19 MA's), (Start: 35 @55386 has 5 MA's), (51, 55479), (53, 55485), (55, 55491), (69, 55527), (75, 55551), (81, 55590), (97, 55671), (98, 55677),

Gene: Gwennie_43 Start: 29105, Stop: 28866, Start Num: 38
Candidate Starts for Gwennie_43:
(Start: 38 @29105 has 126 MA's), (79, 28997), (87, 28958), (97, 28904),

Gene: HamSlice_37 Start: 28372, Stop: 28106, Start Num: 42
Candidate Starts for HamSlice_37:
(15, 28534), (Start: 31 @28420 has 1 MA's), (Start: 42 @28372 has 114 MA's), (Start: 47 @28342 has 1 MA's), (56, 28315), (75, 28255), (97, 28138),

Gene: Happiness_37 Start: 28379, Stop: 28113, Start Num: 42
Candidate Starts for Happiness_37:
(15, 28541), (Start: 31 @28427 has 1 MA's), (Start: 42 @28379 has 114 MA's), (Start: 47 @28349 has 1 MA's), (56, 28322), (75, 28262), (97, 28145),

Gene: HashRod_44 Start: 29100, Stop: 28861, Start Num: 38
Candidate Starts for HashRod_44:
(17, 29232), (Start: 38 @29100 has 126 MA's), (79, 28992), (87, 28953), (97, 28899),

Gene: HaveUMetTed_44 Start: 28983, Stop: 28678, Start Num: 38
Candidate Starts for HaveUMetTed_44:
(21, 29079), (22, 29067), (Start: 38 @28983 has 126 MA's), (Start: 47 @28929 has 1 MA's), (60, 28890), (68, 28866), (87, 28779), (97, 28716),

Gene: Heathen_40 Start: 28412, Stop: 28173, Start Num: 38
Candidate Starts for Heathen_40:
(21, 28508), (Start: 38 @28412 has 126 MA's), (79, 28304), (87, 28265), (97, 28211),

Gene: Heftyboy_82 Start: 55027, Stop: 55308, Start Num: 35
Candidate Starts for Heftyboy_82:
(Start: 33 @55021 has 19 MA's), (Start: 35 @55027 has 5 MA's), (87, 55219), (91, 55234), (97, 55282),

Gene: HelDan_40 Start: 28664, Stop: 28425, Start Num: 38
Candidate Starts for HelDan_40:
(21, 28760), (Start: 38 @28664 has 126 MA's), (79, 28556), (87, 28517), (97, 28463),

Gene: Heliosoles_42 Start: 28992, Stop: 28687, Start Num: 38
Candidate Starts for Heliosoles_42:
(6, 29238), (8, 29220), (10, 29199), (11, 29196), (21, 29088), (22, 29076), (Start: 38 @28992 has 126 MA's), (Start: 47 @28938 has 1 MA's), (60, 28899), (68, 28875), (87, 28788), (97, 28725),

Gene: Herbertwm_35 Start: 26820, Stop: 26551, Start Num: 30
Candidate Starts for Herbertwm_35:
(26, 26844), (Start: 30 @26820 has 1 MA's), (48, 26730), (85, 26646),

Gene: Hercules11_43 Start: 29110, Stop: 28871, Start Num: 38
Candidate Starts for Hercules11_43:
(Start: 38 @29110 has 126 MA's), (79, 29002), (87, 28963), (97, 28909),

Gene: Holli_37 Start: 28164, Stop: 27898, Start Num: 42
Candidate Starts for Holli_37:
(15, 28326), (Start: 31 @28212 has 1 MA's), (Start: 42 @28164 has 114 MA's), (Start: 47 @28134 has 1 MA's), (56, 28107), (75, 28047), (97, 27930),

Gene: Hookmount_39 Start: 28760, Stop: 28521, Start Num: 38
Candidate Starts for Hookmount_39:
(Start: 38 @28760 has 126 MA's), (79, 28652), (87, 28613),

Gene: Houdini22_38 Start: 28378, Stop: 28112, Start Num: 42
Candidate Starts for Houdini22_38:
(15, 28540), (Start: 31 @28426 has 1 MA's), (Start: 42 @28378 has 114 MA's), (Start: 47 @28348 has 1 MA's), (56, 28321), (75, 28261), (97, 28144),

Gene: HuhtaEnerson15_34 Start: 27348, Stop: 27136, Start Num: 52
Candidate Starts for HuhtaEnerson15_34:
(Start: 52 @27348 has 24 MA's), (Start: 58 @27330 has 1 MA's), (69, 27303), (89, 27222), (97, 27168),

Gene: Huxley_38 Start: 28435, Stop: 28169, Start Num: 42
Candidate Starts for Huxley_38:
(15, 28597), (Start: 31 @28483 has 1 MA's), (Start: 42 @28435 has 114 MA's), (Start: 47 @28405 has 1 MA's), (56, 28378), (75, 28318), (97, 28201),

Gene: ICleared_38 Start: 28406, Stop: 28140, Start Num: 42
Candidate Starts for ICleared_38:
(15, 28568), (Start: 31 @28454 has 1 MA's), (Start: 42 @28406 has 114 MA's), (Start: 47 @28376 has 1 MA's), (56, 28349), (75, 28289), (97, 28172),

Gene: Iceman_39 Start: 28663, Stop: 28397, Start Num: 42
Candidate Starts for Iceman_39:
(15, 28825), (Start: 31 @28711 has 1 MA's), (Start: 42 @28663 has 114 MA's), (Start: 47 @28633 has 1 MA's), (56, 28606), (75, 28546), (97, 28429),

Gene: Idleandcovert_40 Start: 28604, Stop: 28365, Start Num: 38
Candidate Starts for Idleandcovert_40:
(Start: 38 @28604 has 126 MA's), (79, 28496), (87, 28457), (97, 28403),

Gene: InvictusManeo_79 Start: 53057, Stop: 53335, Start Num: 33
Candidate Starts for InvictusManeo_79:
(12, 52889), (14, 52904), (Start: 33 @53057 has 19 MA's), (Start: 35 @53063 has 5 MA's), (63, 53156), (66, 53162), (87, 53246), (91, 53261), (97, 53309),

Gene: Iracema64_39 Start: 28638, Stop: 28372, Start Num: 42
Candidate Starts for Iracema64_39:
(15, 28800), (Start: 31 @28686 has 1 MA's), (Start: 42 @28638 has 114 MA's), (Start: 47 @28608 has 1 MA's), (56, 28581), (75, 28521), (77, 28506), (97, 28404),

Gene: Isca_39 Start: 28228, Stop: 27989, Start Num: 38
Candidate Starts for Isca_39:
(Start: 38 @28228 has 126 MA's), (79, 28120), (87, 28081), (97, 28027),

Gene: JF2_40 Start: 27979, Stop: 27740, Start Num: 38

Candidate Starts for JF2_40:
(Start: 38 @27979 has 126 MA's), (79, 27871), (87, 27832), (97, 27778),

Gene: JF4_40 Start: 27979, Stop: 27740, Start Num: 38
Candidate Starts for JF4_40:
(Start: 38 @27979 has 126 MA's), (79, 27871), (87, 27832), (97, 27778),

Gene: JHC117_43 Start: 29100, Stop: 28861, Start Num: 38
Candidate Starts for JHC117_43:
(Start: 38 @29100 has 126 MA's), (79, 28992), (87, 28953), (97, 28899),

Gene: Jabiru_35 Start: 27070, Stop: 26861, Start Num: 52
Candidate Starts for Jabiru_35:
(Start: 52 @27070 has 24 MA's), (89, 26944), (97, 26890),

Gene: Jasper_44 Start: 32091, Stop: 31846, Start Num: 39
Candidate Starts for Jasper_44:
(13, 32280), (Start: 39 @32091 has 8 MA's), (83, 31941), (87, 31926), (93, 31911), (94, 31899), (97, 31869),

Gene: Jaykayelowell_37 Start: 28370, Stop: 28104, Start Num: 42
Candidate Starts for Jaykayelowell_37:
(15, 28532), (Start: 31 @28418 has 1 MA's), (Start: 42 @28370 has 114 MA's), (Start: 47 @28340 has 1 MA's), (56, 28313), (75, 28253), (97, 28136),

Gene: JenCasNa_44 Start: 29101, Stop: 28862, Start Num: 38
Candidate Starts for JenCasNa_44:
(Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: JeppNRM_44 Start: 28990, Stop: 28685, Start Num: 38
Candidate Starts for JeppNRM_44:
(6, 29236), (8, 29218), (10, 29197), (11, 29194), (21, 29086), (22, 29074), (Start: 38 @28990 has 126 MA's), (Start: 47 @28936 has 1 MA's), (60, 28897), (68, 28873), (87, 28786), (97, 28723),

Gene: JetBlade_38 Start: 28371, Stop: 28105, Start Num: 42
Candidate Starts for JetBlade_38:
(15, 28533), (Start: 31 @28419 has 1 MA's), (Start: 42 @28371 has 114 MA's), (Start: 47 @28341 has 1 MA's), (56, 28314), (75, 28254), (97, 28137),

Gene: Jobu08_42 Start: 28934, Stop: 28692, Start Num: 38
Candidate Starts for Jobu08_42:
(Start: 38 @28934 has 126 MA's), (79, 28826), (87, 28787), (97, 28730),

Gene: JoongJeon_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for JoongJeon_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Junimo_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Junimo_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: KADY_43 Start: 29100, Stop: 28861, Start Num: 38
Candidate Starts for KADY_43:
(17, 29232), (Start: 38 @29100 has 126 MA's), (79, 28992), (87, 28953), (97, 28899),

Gene: KFPoly_38 Start: 28371, Stop: 28105, Start Num: 42
Candidate Starts for KFPoly_38:
(15, 28533), (Start: 31 @28419 has 1 MA's), (Start: 42 @28371 has 114 MA's), (Start: 47 @28341 has 1 MA's), (56, 28314), (75, 28254), (97, 28137),

Gene: Kachowdy_40 Start: 28664, Stop: 28425, Start Num: 38
Candidate Starts for Kachowdy_40:
(21, 28760), (Start: 38 @28664 has 126 MA's), (79, 28556), (87, 28517), (97, 28463),

Gene: Kalb97_44 Start: 28988, Stop: 28683, Start Num: 38
Candidate Starts for Kalb97_44:
(6, 29234), (8, 29216), (10, 29195), (11, 29192), (21, 29084), (22, 29072), (Start: 38 @28988 has 126 MA's), (Start: 47 @28934 has 1 MA's), (60, 28895), (68, 28871), (87, 28784), (97, 28721),

Gene: Kalnoky_44 Start: 28986, Stop: 28681, Start Num: 38
Candidate Starts for Kalnoky_44:
(6, 29232), (8, 29214), (10, 29193), (11, 29190), (21, 29082), (22, 29070), (Start: 38 @28986 has 126 MA's), (Start: 47 @28932 has 1 MA's), (60, 28893), (68, 28869), (87, 28782), (97, 28719),

Gene: Kampy_38 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Kampy_38:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (77, 28244), (97, 28142),

Gene: Katalie136_37 Start: 28206, Stop: 27946, Start Num: 23
Candidate Starts for Katalie136_37:
(Start: 23 @28206 has 25 MA's), (Start: 47 @28179 has 1 MA's), (56, 28152), (75, 28092), (89, 28029), (97, 27972),

Gene: KekoraPapaka_39 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for KekoraPapaka_39:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Kingmustik0402_38 Start: 28366, Stop: 28100, Start Num: 42
Candidate Starts for Kingmustik0402_38:
(15, 28528), (Start: 31 @28414 has 1 MA's), (Start: 42 @28366 has 114 MA's), (Start: 47 @28336 has 1 MA's), (56, 28309), (75, 28249), (97, 28132),

Gene: Klodlith_39 Start: 28041, Stop: 27775, Start Num: 37
Candidate Starts for Klodlith_39:
(Start: 37 @28041 has 7 MA's), (85, 27876), (87, 27864), (97, 27801),

Gene: Koan_37 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Koan_37:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Koreni_37 Start: 28055, Stop: 27789, Start Num: 42

Candidate Starts for Koreni_37:
(15, 28217), (Start: 31 @28103 has 1 MA's), (Start: 42 @28055 has 114 MA's), (Start: 47 @28025 has 1 MA's), (56, 27998), (75, 27938), (97, 27821),

Gene: Kratark_38 Start: 28316, Stop: 28050, Start Num: 42
Candidate Starts for Kratark_38:
(Start: 31 @28364 has 1 MA's), (Start: 42 @28316 has 114 MA's), (Start: 47 @28286 has 1 MA's), (56, 28259), (65, 28232), (67, 28229), (75, 28199), (97, 28082),

Gene: Kratio_83 Start: 54079, Stop: 54366, Start Num: 33
Candidate Starts for Kratio_83:
(Start: 33 @54079 has 19 MA's), (Start: 35 @54085 has 5 MA's), (87, 54277), (91, 54292), (97, 54340),

Gene: Kremtemulon_38 Start: 28328, Stop: 28062, Start Num: 42
Candidate Starts for Kremtemulon_38:
(Start: 31 @28376 has 1 MA's), (Start: 42 @28328 has 114 MA's), (Start: 47 @28298 has 1 MA's), (56, 28271), (65, 28244), (67, 28241), (75, 28211), (97, 28094),

Gene: Kyee_38 Start: 28372, Stop: 28106, Start Num: 42
Candidate Starts for Kyee_38:
(15, 28534), (Start: 31 @28420 has 1 MA's), (Start: 42 @28372 has 114 MA's), (Start: 47 @28342 has 1 MA's), (56, 28315), (75, 28255), (97, 28138),

Gene: LBerry_44 Start: 29105, Stop: 28866, Start Num: 38
Candidate Starts for LBerry_44:
(Start: 38 @29105 has 126 MA's), (79, 28997), (87, 28958), (97, 28904),

Gene: LHTSCC_40 Start: 28676, Stop: 28410, Start Num: 23
Candidate Starts for LHTSCC_40:
(1, 29540), (2, 29273), (3, 28958), (7, 28850), (9, 28826), (Start: 23 @28676 has 25 MA's), (Start: 47 @28646 has 1 MA's), (56, 28619), (75, 28559), (77, 28544), (97, 28442),

Gene: LadyBird_41 Start: 28555, Stop: 28316, Start Num: 36
Candidate Starts for LadyBird_41:
(18, 28678), (19, 28666), (Start: 36 @28555 has 1 MA's), (73, 28468), (80, 28441), (92, 28396), (97, 28351),

Gene: Lambert1_39 Start: 28759, Stop: 28520, Start Num: 38
Candidate Starts for Lambert1_39:
(Start: 38 @28759 has 126 MA's), (79, 28651), (87, 28612),

Gene: LappelDuVide_38 Start: 28373, Stop: 28107, Start Num: 42
Candidate Starts for LappelDuVide_38:
(15, 28535), (Start: 31 @28421 has 1 MA's), (Start: 42 @28373 has 114 MA's), (Start: 47 @28343 has 1 MA's), (56, 28316), (75, 28256), (97, 28139),

Gene: LarryKay_43 Start: 29102, Stop: 28863, Start Num: 38
Candidate Starts for LarryKay_43:
(17, 29234), (Start: 38 @29102 has 126 MA's), (79, 28994), (87, 28955), (97, 28901),

Gene: Larva_82 Start: 55057, Stop: 55344, Start Num: 33
Candidate Starts for Larva_82:
(Start: 33 @55057 has 19 MA's), (87, 55255), (91, 55270), (97, 55318),

Gene: Lemur_38 Start: 28371, Stop: 28105, Start Num: 42
Candidate Starts for Lemur_38:
(15, 28533), (Start: 31 @28419 has 1 MA's), (Start: 42 @28371 has 114 MA's), (Start: 47 @28341 has 1 MA's), (56, 28314), (75, 28254), (97, 28137),

Gene: LeoAvram_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for LeoAvram_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (77, 28242), (97, 28140),

Gene: Leston_83 Start: 55497, Stop: 55811, Start Num: 33
Candidate Starts for Leston_83:
(5, 55257), (Start: 33 @55497 has 19 MA's), (Start: 35 @55503 has 5 MA's), (51, 55596), (53, 55602), (55, 55608), (69, 55644), (75, 55668), (81, 55707), (97, 55788), (98, 55794),

Gene: LilBib_43 Start: 33080, Stop: 32835, Start Num: 39
Candidate Starts for LilBib_43:
(Start: 39 @33080 has 8 MA's), (83, 32930), (87, 32915), (93, 32900), (94, 32888), (97, 32858),

Gene: LilDirt_81 Start: 53095, Stop: 53382, Start Num: 33
Candidate Starts for LilDirt_81:
(Start: 33 @53095 has 19 MA's), (Start: 35 @53101 has 5 MA's), (87, 53293), (91, 53308), (97, 53356),

Gene: Lilith_44 Start: 29095, Stop: 28856, Start Num: 38
Candidate Starts for Lilith_44:
(Start: 38 @29095 has 126 MA's), (79, 28987), (87, 28948), (97, 28894),

Gene: LittleB_38 Start: 28375, Stop: 28109, Start Num: 42
Candidate Starts for LittleB_38:
(15, 28537), (Start: 31 @28423 has 1 MA's), (Start: 42 @28375 has 114 MA's), (Start: 47 @28345 has 1 MA's), (56, 28318), (75, 28258), (97, 28141),

Gene: LittleCherry_34 Start: 27358, Stop: 27146, Start Num: 52
Candidate Starts for LittleCherry_34:
(Start: 52 @27358 has 24 MA's), (Start: 58 @27340 has 1 MA's), (69, 27313), (89, 27232), (97, 27178),

Gene: LittleGuy_38 Start: 28273, Stop: 28007, Start Num: 42
Candidate Starts for LittleGuy_38:
(15, 28435), (Start: 31 @28321 has 1 MA's), (Start: 42 @28273 has 114 MA's), (Start: 47 @28243 has 1 MA's), (56, 28216), (75, 28156), (97, 28039),

Gene: LochMonster_38 Start: 28413, Stop: 28147, Start Num: 42
Candidate Starts for LochMonster_38:
(15, 28575), (Start: 31 @28461 has 1 MA's), (Start: 42 @28413 has 114 MA's), (Start: 47 @28383 has 1 MA's), (56, 28356), (65, 28329), (67, 28326), (75, 28296), (97, 28179),

Gene: LoneWolf_41 Start: 28735, Stop: 28481, Start Num: 32
Candidate Starts for LoneWolf_41:
(Start: 32 @28735 has 4 MA's), (69, 28642),

Gene: Lorenzo_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Lorenzo_38:

(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Louie6_42 Start: 29101, Stop: 28862, Start Num: 38
Candidate Starts for Louie6_42:
(17, 29233), (Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: Lowa_43 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for Lowa_43:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: LugYA_46 Start: 29102, Stop: 28863, Start Num: 38
Candidate Starts for LugYA_46:
(Start: 38 @29102 has 126 MA's), (79, 28994), (87, 28955), (97, 28901),

Gene: Lunsford_39 Start: 28371, Stop: 28105, Start Num: 42
Candidate Starts for Lunsford_39:
(15, 28533), (Start: 31 @28419 has 1 MA's), (Start: 42 @28371 has 114 MA's), (Start: 47 @28341 has 1 MA's), (56, 28314), (75, 28254), (97, 28137),

Gene: MA5_40 Start: 28108, Stop: 27869, Start Num: 38
Candidate Starts for MA5_40:
(Start: 38 @28108 has 126 MA's), (79, 28000), (87, 27961), (97, 27907),

Gene: MK4_40 Start: 28213, Stop: 27974, Start Num: 38
Candidate Starts for MK4_40:
(Start: 38 @28213 has 126 MA's), (79, 28105), (87, 28066), (97, 28012),

Gene: MadMarie_43 Start: 29104, Stop: 28865, Start Num: 38
Candidate Starts for MadMarie_43:
(Start: 38 @29104 has 126 MA's), (79, 28996), (87, 28957), (97, 28903),

Gene: Mainiac_43 Start: 29095, Stop: 28856, Start Num: 38
Candidate Starts for Mainiac_43:
(Start: 38 @29095 has 126 MA's), (79, 28987), (87, 28948), (97, 28894),

Gene: Malinsilva_45 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for Malinsilva_45:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: Manu_43 Start: 28989, Stop: 28684, Start Num: 38
Candidate Starts for Manu_43:
(6, 29235), (8, 29217), (10, 29196), (11, 29193), (21, 29085), (22, 29073), (Start: 38 @28989 has 126 MA's), (Start: 47 @28935 has 1 MA's), (60, 28896), (68, 28872), (87, 28785), (97, 28722),

Gene: MarQuardt_43 Start: 29103, Stop: 28864, Start Num: 38
Candidate Starts for MarQuardt_43:
(Start: 38 @29103 has 126 MA's), (79, 28995), (87, 28956), (97, 28902),

Gene: Marchesa_40 Start: 28662, Stop: 28423, Start Num: 38
Candidate Starts for Marchesa_40:
(21, 28758), (Start: 38 @28662 has 126 MA's), (79, 28554), (87, 28515), (97, 28461),

Gene: Marco3_44 Start: 32839, Stop: 32594, Start Num: 39
Candidate Starts for Marco3_44:
(Start: 39 @32839 has 8 MA's), (45, 32809), (83, 32689), (87, 32674), (93, 32659), (94, 32647), (97, 32617),

Gene: Margo_39 Start: 28785, Stop: 28546, Start Num: 38
Candidate Starts for Margo_39:
(Start: 38 @28785 has 126 MA's), (79, 28677), (87, 28638),

Gene: Marie_43 Start: 29101, Stop: 28862, Start Num: 38
Candidate Starts for Marie_43:
(Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: Marius_44 Start: 28986, Stop: 28681, Start Num: 38
Candidate Starts for Marius_44:
(6, 29232), (8, 29214), (10, 29193), (11, 29190), (21, 29082), (22, 29070), (Start: 38 @28986 has 126 MA's), (Start: 47 @28932 has 1 MA's), (60, 28893), (68, 28869), (87, 28782), (97, 28719),

Gene: MarysWell_33 Start: 27412, Stop: 27194, Start Num: 52
Candidate Starts for MarysWell_33:
(Start: 52 @27412 has 24 MA's), (69, 27367), (89, 27280), (97, 27226),

Gene: Maverick_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Maverick_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Maxo_39 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Maxo_39:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (77, 28244), (97, 28142),

Gene: Mayonnaise_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Mayonnaise_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Mazhar510_38 Start: 28375, Stop: 28109, Start Num: 42
Candidate Starts for Mazhar510_38:
(15, 28537), (Start: 31 @28423 has 1 MA's), (Start: 42 @28375 has 114 MA's), (Start: 47 @28345 has 1 MA's), (56, 28318), (75, 28258), (97, 28141),

Gene: Medusa_38 Start: 28373, Stop: 28107, Start Num: 42
Candidate Starts for Medusa_38:
(15, 28535), (Start: 31 @28421 has 1 MA's), (Start: 42 @28373 has 114 MA's), (Start: 47 @28343 has 1 MA's), (56, 28316), (75, 28256), (77, 28241), (97, 28139),

Gene: MeeZee_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for MeeZee_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: MegTheThird_38 Start: 28003, Stop: 27746, Start Num: 38

Candidate Starts for MegTheThird_38:
(Start: 38 @28003 has 126 MA's), (85, 27847), (87, 27835), (95, 27793),

Gene: Melvin_40 Start: 28372, Stop: 28106, Start Num: 42
Candidate Starts for Melvin_40:
(15, 28534), (Start: 31 @28420 has 1 MA's), (Start: 42 @28372 has 114 MA's), (Start: 47 @28342 has 1 MA's), (56, 28315), (75, 28255), (97, 28138),

Gene: Methuselah_41 Start: 29096, Stop: 28857, Start Num: 38
Candidate Starts for Methuselah_41:
(17, 29228), (Start: 38 @29096 has 126 MA's), (79, 28988), (87, 28949), (97, 28895),

Gene: Micasa_36 Start: 27685, Stop: 27467, Start Num: 52
Candidate Starts for Micasa_36:
(Start: 52 @27685 has 24 MA's), (Start: 58 @27667 has 1 MA's), (69, 27640), (89, 27553), (97, 27499),

Gene: Microwolf_43 Start: 29103, Stop: 28864, Start Num: 38
Candidate Starts for Microwolf_43:
(Start: 38 @29103 has 126 MA's), (79, 28995), (87, 28956), (97, 28902),

Gene: Midas2_34 Start: 27403, Stop: 27185, Start Num: 52
Candidate Starts for Midas2_34:
(Start: 52 @27403 has 24 MA's), (Start: 58 @27385 has 1 MA's), (69, 27358), (89, 27271), (97, 27217),

Gene: Milcery_34 Start: 27362, Stop: 27150, Start Num: 52
Candidate Starts for Milcery_34:
(Start: 52 @27362 has 24 MA's), (Start: 58 @27344 has 1 MA's), (69, 27317), (89, 27236), (97, 27182),

Gene: MilleFeuille_42 Start: 32461, Stop: 32216, Start Num: 39
Candidate Starts for MilleFeuille_42:
(16, 32602), (Start: 39 @32461 has 8 MA's), (45, 32431), (83, 32311), (87, 32296), (93, 32281), (94, 32269), (97, 32239),

Gene: Millski_37 Start: 28378, Stop: 28112, Start Num: 42
Candidate Starts for Millski_37:
(15, 28540), (Start: 31 @28426 has 1 MA's), (Start: 42 @28378 has 114 MA's), (Start: 47 @28348 has 1 MA's), (56, 28321), (75, 28261), (97, 28144),

Gene: Miramae_37 Start: 28397, Stop: 28137, Start Num: 23
Candidate Starts for Miramae_37:
(Start: 23 @28397 has 25 MA's), (Start: 47 @28367 has 1 MA's), (56, 28340), (75, 28280), (77, 28265), (97, 28163),

Gene: Miryou_85 Start: 57355, Stop: 57669, Start Num: 33
Candidate Starts for Miryou_85:
(Start: 33 @57355 has 19 MA's), (Start: 35 @57361 has 5 MA's), (51, 57454), (53, 57460), (55, 57466), (69, 57502), (75, 57526), (97, 57646), (98, 57652),

Gene: Misomonster_44 Start: 29099, Stop: 28860, Start Num: 38
Candidate Starts for Misomonster_44:
(17, 29231), (Start: 38 @29099 has 126 MA's), (79, 28991), (87, 28952), (97, 28898),

Gene: MoneyMay_43 Start: 29101, Stop: 28862, Start Num: 38

Candidate Starts for MoneyMay_43:
(Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: Montavir_42 Start: 29102, Stop: 28863, Start Num: 38
Candidate Starts for Montavir_42:
(Start: 38 @29102 has 126 MA's), (79, 28994), (87, 28955), (97, 28901),

Gene: Morpher26_37 Start: 28227, Stop: 27967, Start Num: 23
Candidate Starts for Morpher26_37:
(Start: 23 @28227 has 25 MA's), (Start: 47 @28200 has 1 MA's), (56, 28173), (75, 28113), (89, 28050), (97, 27993),

Gene: Morrow_39 Start: 28380, Stop: 28114, Start Num: 42
Candidate Starts for Morrow_39:
(15, 28542), (Start: 31 @28428 has 1 MA's), (Start: 42 @28380 has 114 MA's), (Start: 47 @28350 has 1 MA's), (56, 28323), (75, 28263), (77, 28248), (97, 28146),

Gene: MuchMore_46 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for MuchMore_46:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: Mundrea_36 Start: 28134, Stop: 27874, Start Num: 42
Candidate Starts for Mundrea_36:
(15, 28296), (Start: 31 @28182 has 1 MA's), (Start: 42 @28134 has 114 MA's), (Start: 47 @28104 has 1 MA's), (56, 28077), (75, 28017), (77, 28002), (97, 27900),

Gene: MyraDee_36 Start: 26293, Stop: 26057, Start Num: 41
Candidate Starts for MyraDee_36:
(Start: 41 @26293 has 1 MA's), (50, 26248), (72, 26200), (82, 26152), (87, 26134),

Gene: Naca_35 Start: 27563, Stop: 27354, Start Num: 52
Candidate Starts for Naca_35:
(Start: 52 @27563 has 24 MA's), (89, 27437), (97, 27383),

Gene: NearlyHeadless_35 Start: 26884, Stop: 26606, Start Num: 40
Candidate Starts for NearlyHeadless_35:
(Start: 40 @26884 has 11 MA's), (69, 26779), (78, 26740), (89, 26692), (97, 26638),

Gene: Nebs_39 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Nebs_39:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (77, 28242), (97, 28140),

Gene: Neighly_83 Start: 55056, Stop: 55343, Start Num: 33
Candidate Starts for Neighly_83:
(Start: 33 @55056 has 19 MA's), (87, 55254), (91, 55269), (97, 55317),

Gene: Nemo27_38 Start: 28373, Stop: 28107, Start Num: 42
Candidate Starts for Nemo27_38:
(15, 28535), (Start: 31 @28421 has 1 MA's), (Start: 42 @28373 has 114 MA's), (Start: 47 @28343 has 1 MA's), (56, 28316), (75, 28256), (97, 28139),

Gene: Noella_39 Start: 28760, Stop: 28521, Start Num: 38

Candidate Starts for Noella_39:
(Start: 38 @28760 has 126 MA's), (79, 28652), (87, 28613),

Gene: Noelle_38 Start: 28436, Stop: 28167, Start Num: 42
Candidate Starts for Noelle_38:
(15, 28595), (Start: 31 @28481 has 1 MA's), (Start: 42 @28436 has 114 MA's), (Start: 47 @28406 has 1 MA's), (56, 28379), (65, 28352), (89, 28256), (97, 28199),

Gene: Norbert_38 Start: 28759, Stop: 28520, Start Num: 38
Candidate Starts for Norbert_38:
(Start: 38 @28759 has 126 MA's), (79, 28651), (87, 28612),

Gene: NorthStar_37 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for NorthStar_37:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (77, 28242), (97, 28140),

Gene: Northrop_39 Start: 28370, Stop: 28104, Start Num: 42
Candidate Starts for Northrop_39:
(15, 28532), (Start: 31 @28418 has 1 MA's), (Start: 42 @28370 has 114 MA's), (Start: 47 @28340 has 1 MA's), (56, 28313), (75, 28253), (97, 28136),

Gene: NotAPhaseMom_38 Start: 28378, Stop: 28112, Start Num: 42
Candidate Starts for NotAPhaseMom_38:
(15, 28540), (Start: 31 @28426 has 1 MA's), (Start: 42 @28378 has 114 MA's), (Start: 47 @28348 has 1 MA's), (56, 28321), (75, 28261), (97, 28144),

Gene: NothingSpecial_39 Start: 29386, Stop: 29153, Start Num: 37
Candidate Starts for NothingSpecial_39:
(18, 29512), (28, 29419), (Start: 32 @29401 has 4 MA's), (Start: 37 @29386 has 7 MA's), (62, 29326), (72, 29302), (79, 29281), (97, 29188),

Gene: Nyxis_38 Start: 28267, Stop: 28001, Start Num: 42
Candidate Starts for Nyxis_38:
(15, 28429), (Start: 31 @28315 has 1 MA's), (Start: 42 @28267 has 114 MA's), (Start: 47 @28237 has 1 MA's), (56, 28210), (75, 28150), (97, 28033),

Gene: OKaNui_39 Start: 28427, Stop: 28161, Start Num: 42
Candidate Starts for OKaNui_39:
(15, 28589), (Start: 31 @28475 has 1 MA's), (Start: 42 @28427 has 114 MA's), (Start: 47 @28397 has 1 MA's), (56, 28370), (75, 28310), (97, 28193),

Gene: Obama12_39 Start: 28678, Stop: 28412, Start Num: 23
Candidate Starts for Obama12_39:
(1, 29542), (2, 29275), (3, 28960), (7, 28852), (9, 28828), (Start: 23 @28678 has 25 MA's), (Start: 47 @28648 has 1 MA's), (56, 28621), (75, 28561), (77, 28546), (97, 28444),

Gene: Ohfah_39 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Ohfah_39:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (77, 28242), (97, 28140),

Gene: OlanP_42 Start: 29171, Stop: 28866, Start Num: 38

Candidate Starts for OlanP_42:
(21, 29267), (22, 29255), (Start: 38 @29171 has 126 MA's), (Start: 47 @29117 has 1 MA's), (60, 29078), (68, 29054), (87, 28967), (97, 28904),

Gene: Ollie_43 Start: 28973, Stop: 28734, Start Num: 38
Candidate Starts for Ollie_43:
(Start: 38 @28973 has 126 MA's), (73, 28892), (79, 28865), (87, 28826), (97, 28772),

Gene: Omnicron_87 Start: 57578, Stop: 57886, Start Num: 33
Candidate Starts for Omnicron_87:
(Start: 33 @57578 has 19 MA's), (Start: 35 @57584 has 5 MA's), (51, 57677), (53, 57683), (55, 57689), (69, 57725), (75, 57749), (97, 57863), (98, 57869),

Gene: P28Green_44 Start: 29104, Stop: 28865, Start Num: 38
Candidate Starts for P28Green_44:
(Start: 38 @29104 has 126 MA's), (79, 28996), (87, 28957), (97, 28903),

Gene: PGHhamlin_45 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for PGHhamlin_45:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: Padpat_92 Start: 56890, Stop: 57219, Start Num: 25
Candidate Starts for Padpat_92:
(Start: 25 @56890 has 2 MA's), (27, 56905), (29, 56908), (Start: 33 @56926 has 19 MA's), (44, 56962), (55, 57007), (57, 57016), (74, 57061), (75, 57070), (97, 57193), (98, 57199),

Gene: Palestino_37 Start: 28344, Stop: 28108, Start Num: 47
Candidate Starts for Palestino_37:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Panamaxus_37 Start: 28759, Stop: 28520, Start Num: 38
Candidate Starts for Panamaxus_37:
(Start: 38 @28759 has 126 MA's), (79, 28651), (87, 28612),

Gene: Paola_83 Start: 55380, Stop: 55694, Start Num: 33
Candidate Starts for Paola_83:
(5, 55140), (Start: 33 @55380 has 19 MA's), (Start: 35 @55386 has 5 MA's), (51, 55479), (53, 55485), (55, 55491), (69, 55527), (75, 55551), (81, 55590), (97, 55671), (98, 55677),

Gene: Paraselene_41 Start: 32492, Stop: 32247, Start Num: 39
Candidate Starts for Paraselene_41:
(Start: 39 @32492 has 8 MA's), (45, 32462), (83, 32342), (87, 32327), (93, 32312), (94, 32300), (97, 32270),

Gene: Pawn_43 Start: 28993, Stop: 28688, Start Num: 38
Candidate Starts for Pawn_43:
(6, 29239), (8, 29221), (10, 29200), (11, 29197), (21, 29089), (22, 29077), (Start: 38 @28993 has 126 MA's), (Start: 47 @28939 has 1 MA's), (60, 28900), (68, 28876), (87, 28789), (97, 28726),

Gene: Peaches_38 Start: 28373, Stop: 28107, Start Num: 42
Candidate Starts for Peaches_38:

(15, 28535), (Start: 31 @28421 has 1 MA's), (Start: 42 @28373 has 114 MA's), (Start: 47 @28343 has 1 MA's), (56, 28316), (75, 28256), (97, 28139),

Gene: Pembroke_43 Start: 29103, Stop: 28864, Start Num: 38
Candidate Starts for Pembroke_43:
(Start: 38 @29103 has 126 MA's), (79, 28995), (87, 28956), (97, 28902),

Gene: Penny1_44 Start: 29105, Stop: 28866, Start Num: 38
Candidate Starts for Penny1_44:
(Start: 38 @29105 has 126 MA's), (79, 28997), (87, 28958), (97, 28904),

Gene: Perplexer_37 Start: 28203, Stop: 27943, Start Num: 23
Candidate Starts for Perplexer_37:
(Start: 23 @28203 has 25 MA's), (Start: 47 @28176 has 1 MA's), (56, 28149), (75, 28089), (89, 28026), (97, 27969),

Gene: PeterPeter_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for PeterPeter_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: PetiteSangsue_37 Start: 28206, Stop: 27946, Start Num: 23
Candidate Starts for PetiteSangsue_37:
(Start: 23 @28206 has 25 MA's), (Start: 47 @28179 has 1 MA's), (56, 28152), (75, 28092), (89, 28029), (97, 27972),

Gene: PetterN_36 Start: 26926, Stop: 26717, Start Num: 52
Candidate Starts for PetterN_36:
(Start: 52 @26926 has 24 MA's), (89, 26800), (97, 26746),

Gene: Phacado_38 Start: 28373, Stop: 28107, Start Num: 42
Candidate Starts for Phacado_38:
(15, 28535), (Start: 31 @28421 has 1 MA's), (Start: 42 @28373 has 114 MA's), (Start: 47 @28343 has 1 MA's), (56, 28316), (75, 28256), (97, 28139),

Gene: Phantastic_40 Start: 28244, Stop: 28005, Start Num: 38
Candidate Starts for Phantastic_40:
(Start: 38 @28244 has 126 MA's), (79, 28136), (87, 28097), (97, 28043),

Gene: Phelipe_39 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Phelipe_39:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Phighter1804_38 Start: 28416, Stop: 28150, Start Num: 42
Candidate Starts for Phighter1804_38:
(15, 28578), (Start: 31 @28464 has 1 MA's), (Start: 42 @28416 has 114 MA's), (Start: 47 @28386 has 1 MA's), (50, 28374), (56, 28359), (75, 28299), (97, 28182),

Gene: Phillis_35 Start: 26910, Stop: 26632, Start Num: 40
Candidate Starts for Phillis_35:
(Start: 40 @26910 has 11 MA's), (69, 26805), (89, 26718), (97, 26664),

Gene: PhishRPhriends_41 Start: 28167, Stop: 27862, Start Num: 38
Candidate Starts for PhishRPhriends_41:
(6, 28413), (8, 28395), (10, 28374), (11, 28371), (21, 28263), (22, 28251), (Start: 38 @28167 has 126 MA's), (Start: 47 @28113 has 1 MA's), (60, 28074), (68, 28050), (87, 27963), (97, 27900),

Gene: Phoebe_44 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for Phoebe_44:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: Phontbonne_38 Start: 28268, Stop: 28002, Start Num: 42
Candidate Starts for Phontbonne_38:
(15, 28430), (Start: 31 @28316 has 1 MA's), (Start: 42 @28268 has 114 MA's), (Start: 47 @28238 has 1 MA's), (56, 28211), (75, 28151), (97, 28034),

Gene: Phoxy_43 Start: 29097, Stop: 28858, Start Num: 38
Candidate Starts for Phoxy_43:
(17, 29229), (Start: 38 @29097 has 126 MA's), (79, 28989), (87, 28950), (97, 28896),

Gene: Phranny_44 Start: 28975, Stop: 28670, Start Num: 38
Candidate Starts for Phranny_44:
(6, 29221), (8, 29203), (10, 29182), (11, 29179), (21, 29071), (22, 29059), (Start: 38 @28975 has 126 MA's), (Start: 47 @28921 has 1 MA's), (60, 28882), (68, 28858), (87, 28771), (97, 28708),

Gene: Pistachio_41 Start: 28151, Stop: 27912, Start Num: 38
Candidate Starts for Pistachio_41:
(Start: 38 @28151 has 126 MA's), (79, 28043), (87, 28004), (97, 27950),

Gene: Pocahontas_39 Start: 28756, Stop: 28517, Start Num: 38
Candidate Starts for Pocahontas_39:
(Start: 38 @28756 has 126 MA's), (79, 28648), (87, 28609),

Gene: Polymorphads_39 Start: 28367, Stop: 28101, Start Num: 42
Candidate Starts for Polymorphads_39:
(15, 28529), (Start: 31 @28415 has 1 MA's), (Start: 42 @28367 has 114 MA's), (Start: 47 @28337 has 1 MA's), (56, 28310), (75, 28250), (77, 28235), (97, 28133),

Gene: Popcicle_39 Start: 28756, Stop: 28517, Start Num: 38
Candidate Starts for Popcicle_39:
(Start: 38 @28756 has 126 MA's), (79, 28648), (87, 28609),

Gene: PotatoSplit_45 Start: 29105, Stop: 28866, Start Num: 38
Candidate Starts for PotatoSplit_45:
(Start: 38 @29105 has 126 MA's), (79, 28997), (87, 28958), (97, 28904),

Gene: Prinashe11_34 Start: 27325, Stop: 27113, Start Num: 52
Candidate Starts for Prinashe11_34:
(Start: 52 @27325 has 24 MA's), (Start: 58 @27307 has 1 MA's), (69, 27280), (89, 27199), (97, 27145),

Gene: Psycho_81 Start: 54182, Stop: 54469, Start Num: 33
Candidate Starts for Psycho_81:
(Start: 33 @54182 has 19 MA's), (Start: 35 @54188 has 5 MA's), (87, 54380), (91, 54395), (97, 54443),

Gene: Pumbaa_38 Start: 28319, Stop: 28053, Start Num: 42

Candidate Starts for Pumbaa_38:
(15, 28481), (Start: 31 @28367 has 1 MA's), (Start: 42 @28319 has 114 MA's), (Start: 47 @28289 has 1 MA's), (56, 28262), (75, 28202), (97, 28085),

Gene: Puppy_41 Start: 28224, Stop: 27985, Start Num: 38
Candidate Starts for Puppy_41:
(Start: 38 @28224 has 126 MA's), (87, 28077), (97, 28023),

Gene: PurpleHaze_43 Start: 28988, Stop: 28683, Start Num: 38
Candidate Starts for PurpleHaze_43:
(6, 29234), (8, 29216), (10, 29195), (11, 29192), (21, 29084), (22, 29072), (Start: 38 @28988 has 126 MA's), (Start: 47 @28934 has 1 MA's), (60, 28895), (68, 28871), (87, 28784), (97, 28721),

Gene: QuinnKiro_38 Start: 28759, Stop: 28520, Start Num: 38
Candidate Starts for QuinnKiro_38:
(Start: 38 @28759 has 126 MA's), (79, 28651), (87, 28612),

Gene: Rando14_84 Start: 55989, Stop: 56297, Start Num: 33
Candidate Starts for Rando14_84:
(Start: 33 @55989 has 19 MA's), (Start: 35 @55995 has 5 MA's), (51, 56088), (53, 56094), (55, 56100), (69, 56136), (75, 56160), (97, 56274), (98, 56280),

Gene: Reba_43 Start: 28648, Stop: 28343, Start Num: 38
Candidate Starts for Reba_43:
(6, 28894), (8, 28876), (10, 28855), (11, 28852), (21, 28744), (22, 28732), (Start: 38 @28648 has 126 MA's), (Start: 47 @28594 has 1 MA's), (60, 28555), (68, 28531), (87, 28444), (97, 28381),

Gene: Relief_37 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Relief_37:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: ResDef_39 Start: 28759, Stop: 28520, Start Num: 38
Candidate Starts for ResDef_39:
(Start: 38 @28759 has 126 MA's), (79, 28651), (87, 28612),

Gene: RhynO_40 Start: 28414, Stop: 28145, Start Num: 42
Candidate Starts for RhynO_40:
(24, 28474), (Start: 42 @28414 has 114 MA's), (Start: 47 @28384 has 1 MA's), (54, 28360), (65, 28330), (97, 28180),

Gene: Roary_35 Start: 26830, Stop: 26552, Start Num: 40
Candidate Starts for Roary_35:
(Start: 40 @26830 has 11 MA's), (69, 26725), (78, 26686), (89, 26638), (97, 26584),

Gene: RockieBear_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for RockieBear_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Rocksand_39 Start: 28370, Stop: 28104, Start Num: 42
Candidate Starts for Rocksand_39:

(15, 28532), (Start: 31 @28418 has 1 MA's), (Start: 42 @28370 has 114 MA's), (Start: 47 @28340 has 1 MA's), (56, 28313), (75, 28253), (97, 28136),

Gene: Rockstar_40 Start: 28220, Stop: 27981, Start Num: 38
Candidate Starts for Rockstar_40:
(Start: 38 @28220 has 126 MA's), (79, 28112), (87, 28073), (97, 28019),

Gene: Roimos_40 Start: 28580, Stop: 28341, Start Num: 38
Candidate Starts for Roimos_40:
(21, 28676), (Start: 38 @28580 has 126 MA's), (79, 28472), (87, 28433), (97, 28379),

Gene: Romney_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Romney_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Roosevelt_37 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Roosevelt_37:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (97, 28142),

Gene: Rosa24_38 Start: 28408, Stop: 28142, Start Num: 42
Candidate Starts for Rosa24_38:
(15, 28570), (Start: 31 @28456 has 1 MA's), (Start: 42 @28408 has 114 MA's), (Start: 47 @28378 has 1 MA's), (56, 28351), (75, 28291), (77, 28276), (97, 28174),

Gene: Rowdy_43 Start: 28322, Stop: 28053, Start Num: 42
Candidate Starts for Rowdy_43:
(24, 28382), (Start: 42 @28322 has 114 MA's), (Start: 47 @28292 has 1 MA's), (54, 28268), (65, 28238), (97, 28088),

Gene: Ruin_38 Start: 28370, Stop: 28104, Start Num: 42
Candidate Starts for Ruin_38:
(15, 28532), (Start: 31 @28418 has 1 MA's), (Start: 42 @28370 has 114 MA's), (Start: 47 @28340 has 1 MA's), (56, 28313), (97, 28136),

Gene: Rummer_42 Start: 29100, Stop: 28861, Start Num: 38
Candidate Starts for Rummer_42:
(17, 29232), (Start: 38 @29100 has 126 MA's), (79, 28992), (87, 28953), (97, 28899),

Gene: Rutherferd_45 Start: 33535, Stop: 33290, Start Num: 39
Candidate Starts for Rutherferd_45:
(Start: 39 @33535 has 8 MA's), (45, 33505), (83, 33385), (87, 33370), (93, 33355), (94, 33343), (97, 33313),

Gene: Sabertooth_38 Start: 28373, Stop: 28107, Start Num: 42
Candidate Starts for Sabertooth_38:
(15, 28535), (Start: 31 @28421 has 1 MA's), (Start: 42 @28373 has 114 MA's), (Start: 47 @28343 has 1 MA's), (56, 28316), (75, 28256), (97, 28139),

Gene: Sabia_43 Start: 29095, Stop: 28856, Start Num: 38
Candidate Starts for Sabia_43:
(Start: 38 @29095 has 126 MA's), (79, 28987), (87, 28948), (97, 28894),

Gene: Sabinator_42 Start: 29100, Stop: 28861, Start Num: 38
Candidate Starts for Sabinator_42:
(Start: 38 @29100 has 126 MA's), (79, 28992), (87, 28953), (97, 28899),

Gene: Sagefire_45 Start: 33468, Stop: 33223, Start Num: 39
Candidate Starts for Sagefire_45:
(Start: 39 @33468 has 8 MA's), (45, 33438), (83, 33318), (87, 33303), (93, 33288), (94, 33276), (97, 33246),

Gene: SaturnRing_40 Start: 28604, Stop: 28365, Start Num: 38
Candidate Starts for SaturnRing_40:
(Start: 38 @28604 has 126 MA's), (79, 28496), (87, 28457), (97, 28403),

Gene: Scamp_38 Start: 28376, Stop: 28110, Start Num: 42
Candidate Starts for Scamp_38:
(15, 28538), (Start: 31 @28424 has 1 MA's), (Start: 42 @28376 has 114 MA's), (Start: 47 @28346 has 1 MA's), (56, 28319), (75, 28259), (97, 28142),

Gene: Scherzo_41 Start: 29158, Stop: 28904, Start Num: 32
Candidate Starts for Scherzo_41:
(Start: 32 @29158 has 4 MA's), (43, 29131), (69, 29065), (87, 28987),

Gene: Scorpia_36 Start: 27003, Stop: 26794, Start Num: 52
Candidate Starts for Scorpia_36:
(Start: 52 @27003 has 24 MA's), (89, 26877), (97, 26823),

Gene: Scout_40 Start: 27911, Stop: 27672, Start Num: 38
Candidate Starts for Scout_40:
(21, 28007), (34, 27926), (Start: 38 @27911 has 126 MA's), (79, 27803), (87, 27764), (97, 27710),

Gene: SenorClean_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for SenorClean_38:
(15, 28536), (20, 28506), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Shaka_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Shaka_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Shapes_43 Start: 28322, Stop: 28053, Start Num: 42
Candidate Starts for Shapes_43:
(24, 28382), (Start: 42 @28322 has 114 MA's), (Start: 47 @28292 has 1 MA's), (54, 28268), (65, 28238), (97, 28088),

Gene: Sheen_38 Start: 30232, Stop: 29933, Start Num: 33
Candidate Starts for Sheen_38:
(4, 30508), (Start: 33 @30232 has 19 MA's),

Gene: SheldonCooper_40 Start: 28677, Stop: 28411, Start Num: 23
Candidate Starts for SheldonCooper_40:

(1, 29541), (2, 29274), (3, 28959), (7, 28851), (9, 28827), (Start: 23 @28677 has 25 MA's), (Start: 47 @28647 has 1 MA's), (56, 28620), (75, 28560), (77, 28545), (97, 28443),

Gene: Shep_40 Start: 27625, Stop: 27386, Start Num: 38
Candidate Starts for Shep_40:
(21, 27721), (Start: 38 @27625 has 126 MA's), (79, 27517), (87, 27478), (97, 27424),

Gene: Shygu2_37 Start: 28206, Stop: 27946, Start Num: 23
Candidate Starts for Shygu2_37:
(Start: 23 @28206 has 25 MA's), (Start: 47 @28176 has 1 MA's), (56, 28149), (75, 28089), (97, 27972),

Gene: Skadoosh_40 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Skadoosh_40:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Skipitt_37 Start: 28371, Stop: 28105, Start Num: 42
Candidate Starts for Skipitt_37:
(15, 28533), (Start: 31 @28419 has 1 MA's), (Start: 42 @28371 has 114 MA's), (Start: 47 @28341 has 1 MA's), (56, 28314), (75, 28254), (97, 28137),

Gene: Smeadley_35 Start: 26953, Stop: 26675, Start Num: 40
Candidate Starts for Smeadley_35:
(Start: 40 @26953 has 11 MA's), (69, 26848), (78, 26809), (89, 26761), (97, 26707),

Gene: Snickers_43 Start: 29075, Stop: 28836, Start Num: 38
Candidate Starts for Snickers_43:
(Start: 38 @29075 has 126 MA's), (79, 28967), (87, 28928), (97, 28874),

Gene: SoSeph_82 Start: 55027, Stop: 55308, Start Num: 35
Candidate Starts for SoSeph_82:
(Start: 33 @55021 has 19 MA's), (Start: 35 @55027 has 5 MA's), (87, 55219), (91, 55234), (97, 55282),

Gene: SoYo_43 Start: 29013, Stop: 28774, Start Num: 38
Candidate Starts for SoYo_43:
(Start: 38 @29013 has 126 MA's), (79, 28905), (87, 28866), (97, 28812),

Gene: SoilDragon_43 Start: 28550, Stop: 28308, Start Num: 38
Candidate Starts for SoilDragon_43:
(Start: 38 @28550 has 126 MA's), (79, 28442), (87, 28403), (97, 28346),

Gene: Soshari_45 Start: 29096, Stop: 28857, Start Num: 38
Candidate Starts for Soshari_45:
(17, 29228), (Start: 38 @29096 has 126 MA's), (79, 28988), (87, 28949), (97, 28895),

Gene: Sparxx_39 Start: 28369, Stop: 28103, Start Num: 42
Candidate Starts for Sparxx_39:
(15, 28531), (Start: 31 @28417 has 1 MA's), (Start: 42 @28369 has 114 MA's), (Start: 47 @28339 has 1 MA's), (56, 28312), (75, 28252), (97, 28135),

Gene: Spike509_43 Start: 29097, Stop: 28858, Start Num: 38
Candidate Starts for Spike509_43:
(17, 29229), (Start: 38 @29097 has 126 MA's), (79, 28989), (87, 28950), (97, 28896),

Gene: Spino_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Spino_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Stagni_43 Start: 29104, Stop: 28865, Start Num: 38
Candidate Starts for Stagni_43:
(Start: 38 @29104 has 126 MA's), (79, 28996), (87, 28957), (97, 28903),

Gene: SteMason_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for SteMason_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: StepMih_43 Start: 29095, Stop: 28856, Start Num: 38
Candidate Starts for StepMih_43:
(Start: 38 @29095 has 126 MA's), (79, 28987), (87, 28948), (97, 28894),

Gene: Stephig9_35 Start: 26858, Stop: 26580, Start Num: 40
Candidate Starts for Stephig9_35:
(Start: 40 @26858 has 11 MA's), (69, 26753), (78, 26714), (89, 26666), (97, 26612),

Gene: Stink_38 Start: 28677, Stop: 28417, Start Num: 23
Candidate Starts for Stink_38:
(Start: 23 @28677 has 25 MA's), (Start: 47 @28647 has 1 MA's), (56, 28620), (75, 28560), (77, 28545), (97, 28443),

Gene: Sultana_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Sultana_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Swirley_36 Start: 27689, Stop: 27477, Start Num: 52
Candidate Starts for Swirley_36:
(Start: 52 @27689 has 24 MA's), (Start: 58 @27671 has 1 MA's), (89, 27563), (97, 27509),

Gene: SydNat_36 Start: 27980, Stop: 27753, Start Num: 49
Candidate Starts for SydNat_36:
(Start: 49 @27980 has 2 MA's), (Start: 52 @27971 has 24 MA's), (Start: 58 @27953 has 1 MA's), (69, 27926), (89, 27839), (97, 27785),

Gene: TNguyen7_40 Start: 28571, Stop: 28332, Start Num: 38
Candidate Starts for TNguyen7_40:
(Start: 38 @28571 has 126 MA's), (87, 28424), (97, 28370),

Gene: Taquarus_38 Start: 28377, Stop: 28111, Start Num: 42
Candidate Starts for Taquarus_38:
(15, 28539), (Start: 31 @28425 has 1 MA's), (Start: 42 @28377 has 114 MA's), (Start: 47 @28347 has 1 MA's), (56, 28320), (75, 28260), (97, 28143),

Gene: Tarynearal_33 Start: 27355, Stop: 27143, Start Num: 52
Candidate Starts for Tarynearal_33:

(Start: 52 @27355 has 24 MA's), (Start: 58 @27337 has 1 MA's), (69, 27310), (89, 27229), (97, 27175),

Gene: Taurus_44 Start: 29101, Stop: 28862, Start Num: 38
Candidate Starts for Taurus_44:
(Start: 38 @29101 has 126 MA's), (79, 28993), (87, 28954), (97, 28900),

Gene: Texage_38 Start: 28760, Stop: 28521, Start Num: 38
Candidate Starts for Texage_38:
(Start: 38 @28760 has 126 MA's), (79, 28652), (87, 28613),

Gene: Thanksgivukkah_38 Start: 28375, Stop: 28109, Start Num: 42
Candidate Starts for Thanksgivukkah_38:
(15, 28537), (Start: 31 @28423 has 1 MA's), (Start: 42 @28375 has 114 MA's), (Start: 47 @28345 has 1 MA's), (56, 28318), (75, 28258), (97, 28141),

Gene: Theia_32 Start: 27379, Stop: 27167, Start Num: 52
Candidate Starts for Theia_32:
(Start: 52 @27379 has 24 MA's), (Start: 58 @27361 has 1 MA's), (69, 27334), (89, 27253), (97, 27199),

Gene: Thyatira_84 Start: 57092, Stop: 57403, Start Num: 33
Candidate Starts for Thyatira_84:
(Start: 33 @57092 has 19 MA's), (Start: 35 @57098 has 5 MA's), (51, 57191), (53, 57197), (55, 57203), (69, 57239), (75, 57263), (87, 57323), (97, 57380), (98, 57386),

Gene: Tiffany_43 Start: 28987, Stop: 28748, Start Num: 38
Candidate Starts for Tiffany_43:
(Start: 38 @28987 has 126 MA's), (79, 28879), (87, 28840), (97, 28786),

Gene: TinaFeyge_39 Start: 28369, Stop: 28103, Start Num: 42
Candidate Starts for TinaFeyge_39:
(15, 28531), (Start: 31 @28417 has 1 MA's), (Start: 42 @28369 has 114 MA's), (Start: 47 @28339 has 1 MA's), (56, 28312), (75, 28252), (97, 28135),

Gene: TinyPebbles_42 Start: 29102, Stop: 28863, Start Num: 38
Candidate Starts for TinyPebbles_42:
(17, 29234), (Start: 38 @29102 has 126 MA's), (79, 28994), (87, 28955), (97, 28901),

Gene: Tinybot_37 Start: 28404, Stop: 28138, Start Num: 42
Candidate Starts for Tinybot_37:
(15, 28566), (Start: 31 @28452 has 1 MA's), (Start: 42 @28404 has 114 MA's), (Start: 47 @28374 has 1 MA's), (56, 28347), (75, 28287), (97, 28170),

Gene: TiroTheta9_38 Start: 28371, Stop: 28105, Start Num: 42
Candidate Starts for TiroTheta9_38:
(15, 28533), (Start: 31 @28419 has 1 MA's), (Start: 42 @28371 has 114 MA's), (Start: 47 @28341 has 1 MA's), (56, 28314), (75, 28254), (97, 28137),

Gene: Toaka_39 Start: 28247, Stop: 27996, Start Num: 32
Candidate Starts for Toaka_39:
(Start: 32 @28247 has 4 MA's), (43, 28220), (69, 28154), (87, 28076),

Gene: Todacoro_39 Start: 28759, Stop: 28520, Start Num: 38
Candidate Starts for Todacoro_39:

(Start: 38 @28759 has 126 MA's), (79, 28651), (87, 28612),

Gene: Toro_41 Start: 30738, Stop: 30514, Start Num: 38
Candidate Starts for Toro_41:
(Start: 38 @30738 has 126 MA's), (Start: 42 @30720 has 114 MA's), (79, 30630), (87, 30591), (98, 30531),

Gene: Toro_38 Start: 30159, Stop: 29860, Start Num: 33
Candidate Starts for Toro_38:
(Start: 33 @30159 has 19 MA's),

Gene: TroyPia_39 Start: 28372, Stop: 28106, Start Num: 42
Candidate Starts for TroyPia_39:
(15, 28534), (Start: 31 @28420 has 1 MA's), (Start: 42 @28372 has 114 MA's), (Start: 47 @28342 has 1 MA's), (56, 28315), (75, 28255), (97, 28138),

Gene: Twigg_34 Start: 27328, Stop: 27116, Start Num: 52
Candidate Starts for Twigg_34:
(Start: 52 @27328 has 24 MA's), (Start: 58 @27310 has 1 MA's), (69, 27283), (89, 27202), (97, 27148),

Gene: TygerBlood_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for TygerBlood_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Ugenie5_38 Start: 29157, Stop: 28903, Start Num: 32
Candidate Starts for Ugenie5_38:
(Start: 32 @29157 has 4 MA's), (43, 29130), (69, 29064), (87, 28986),

Gene: Ulysses_37 Start: 28054, Stop: 27788, Start Num: 42
Candidate Starts for Ulysses_37:
(15, 28216), (Start: 31 @28102 has 1 MA's), (Start: 42 @28054 has 114 MA's), (Start: 47 @28024 has 1 MA's), (56, 27997), (75, 27937), (97, 27820),

Gene: UnionJack_34 Start: 26537, Stop: 26325, Start Num: 52
Candidate Starts for UnionJack_34:
(Start: 52 @26537 has 24 MA's), (Start: 58 @26519 has 1 MA's), (89, 26411), (97, 26357),

Gene: Veracruz_38 Start: 28759, Stop: 28520, Start Num: 38
Candidate Starts for Veracruz_38:
(Start: 38 @28759 has 126 MA's), (79, 28651), (87, 28612),

Gene: ViviJ_88 Start: 55389, Stop: 55670, Start Num: 35
Candidate Starts for ViviJ_88:
(Start: 33 @55383 has 19 MA's), (Start: 35 @55389 has 5 MA's), (87, 55581), (91, 55596), (97, 55644),

Gene: Vix_43 Start: 29184, Stop: 28945, Start Num: 38
Candidate Starts for Vix_43:
(Start: 38 @29184 has 126 MA's), (79, 29076), (87, 29037), (97, 28983),

Gene: Wander_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Wander_38:

(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Waterfoul_83 Start: 55162, Stop: 55473, Start Num: 33
Candidate Starts for Waterfoul_83:
(5, 54922), (Start: 33 @55162 has 19 MA's), (Start: 35 @55168 has 5 MA's), (51, 55261), (53, 55267), (55, 55273), (69, 55309), (75, 55333), (81, 55372), (97, 55450), (98, 55456),

Gene: Watson_43 Start: 29094, Stop: 28855, Start Num: 38
Candidate Starts for Watson_43:
(Start: 38 @29094 has 126 MA's), (79, 28986), (87, 28947), (97, 28893),

Gene: Wilbur_38 Start: 28374, Stop: 28108, Start Num: 42
Candidate Starts for Wilbur_38:
(15, 28536), (Start: 31 @28422 has 1 MA's), (Start: 42 @28374 has 114 MA's), (Start: 47 @28344 has 1 MA's), (56, 28317), (75, 28257), (97, 28140),

Gene: Wile_37 Start: 28237, Stop: 27977, Start Num: 23
Candidate Starts for Wile_37:
(Start: 23 @28237 has 25 MA's), (Start: 47 @28210 has 1 MA's), (56, 28183), (75, 28123), (89, 28060), (97, 28003),

Gene: Wizard007_38 Start: 28379, Stop: 28113, Start Num: 42
Candidate Starts for Wizard007_38:
(15, 28541), (Start: 31 @28427 has 1 MA's), (Start: 42 @28379 has 114 MA's), (Start: 47 @28349 has 1 MA's), (56, 28322), (75, 28262), (97, 28145),

Gene: Wooldri_45 Start: 29013, Stop: 28774, Start Num: 38
Candidate Starts for Wooldri_45:
(Start: 38 @29013 has 126 MA's), (79, 28905), (87, 28866), (97, 28812),

Gene: Xena_36 Start: 28203, Stop: 27943, Start Num: 23
Candidate Starts for Xena_36:
(Start: 23 @28203 has 25 MA's), (Start: 47 @28176 has 1 MA's), (56, 28149), (75, 28089), (89, 28026), (97, 27969),

Gene: XianYue_38 Start: 28104, Stop: 27877, Start Num: 37
Candidate Starts for XianYue_38:
(18, 28230), (19, 28218), (Start: 37 @28104 has 7 MA's), (70, 28026), (72, 28020), (97, 27906),

Gene: YoSam321_38 Start: 28371, Stop: 28105, Start Num: 42
Candidate Starts for YoSam321_38:
(15, 28533), (Start: 31 @28419 has 1 MA's), (Start: 42 @28371 has 114 MA's), (Start: 47 @28341 has 1 MA's), (56, 28314), (75, 28254), (97, 28137),

Gene: Zarafa_40 Start: 28673, Stop: 28434, Start Num: 38
Candidate Starts for Zarafa_40:
(21, 28769), (Start: 38 @28673 has 126 MA's), (79, 28565), (87, 28526), (97, 28472),

Gene: Zetzy_42 Start: 28665, Stop: 28426, Start Num: 38
Candidate Starts for Zetzy_42:
(Start: 38 @28665 has 126 MA's), (79, 28557), (87, 28518), (97, 28464),

Gene: Zolita_35 Start: 27984, Stop: 27757, Start Num: 49
Candidate Starts for Zolita_35:
(Start: 49 @27984 has 2 MA's), (Start: 52 @27975 has 24 MA's), (Start: 58 @27957 has 1 MA's), (69, 27930), (89, 27843), (97, 27789),