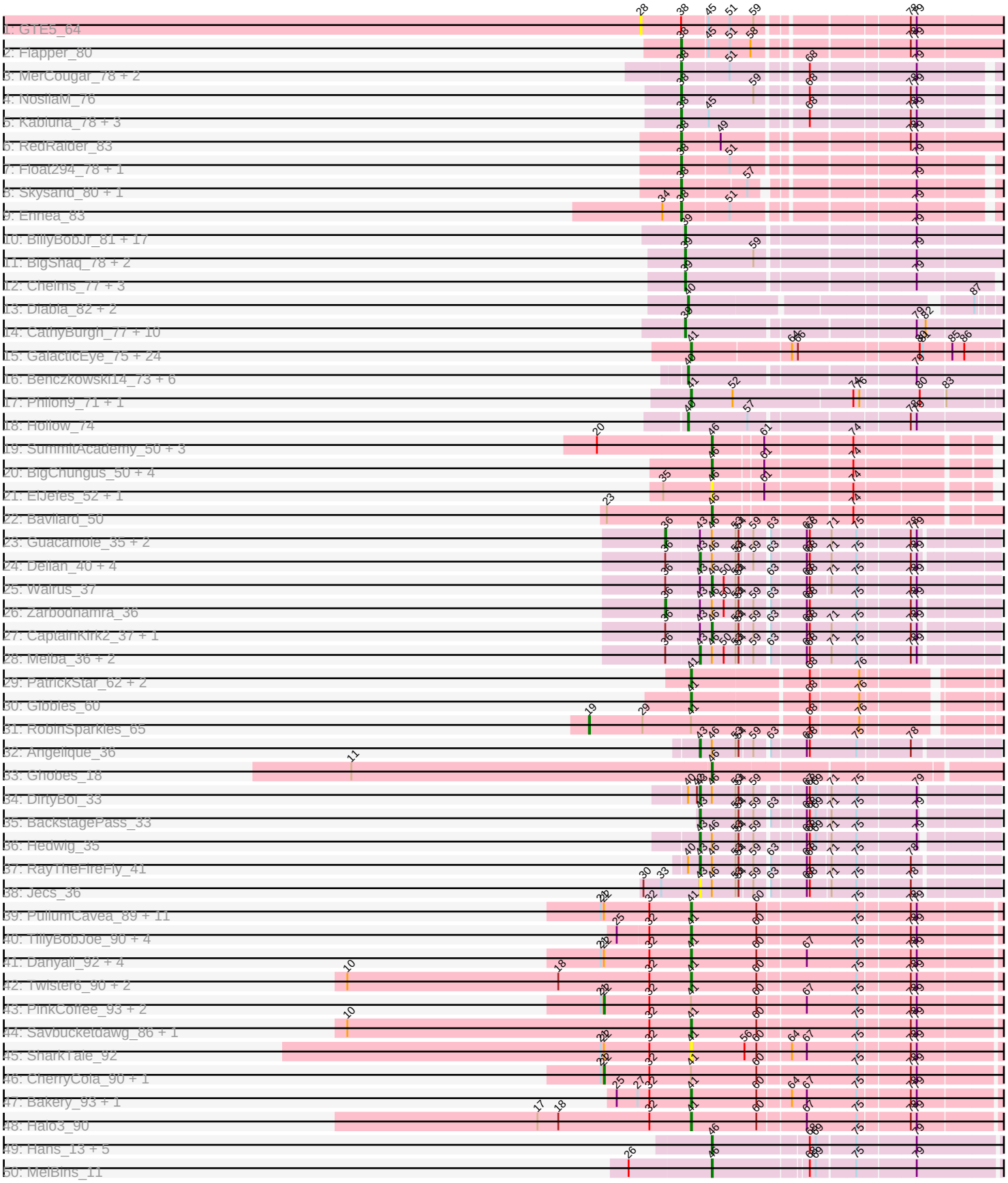
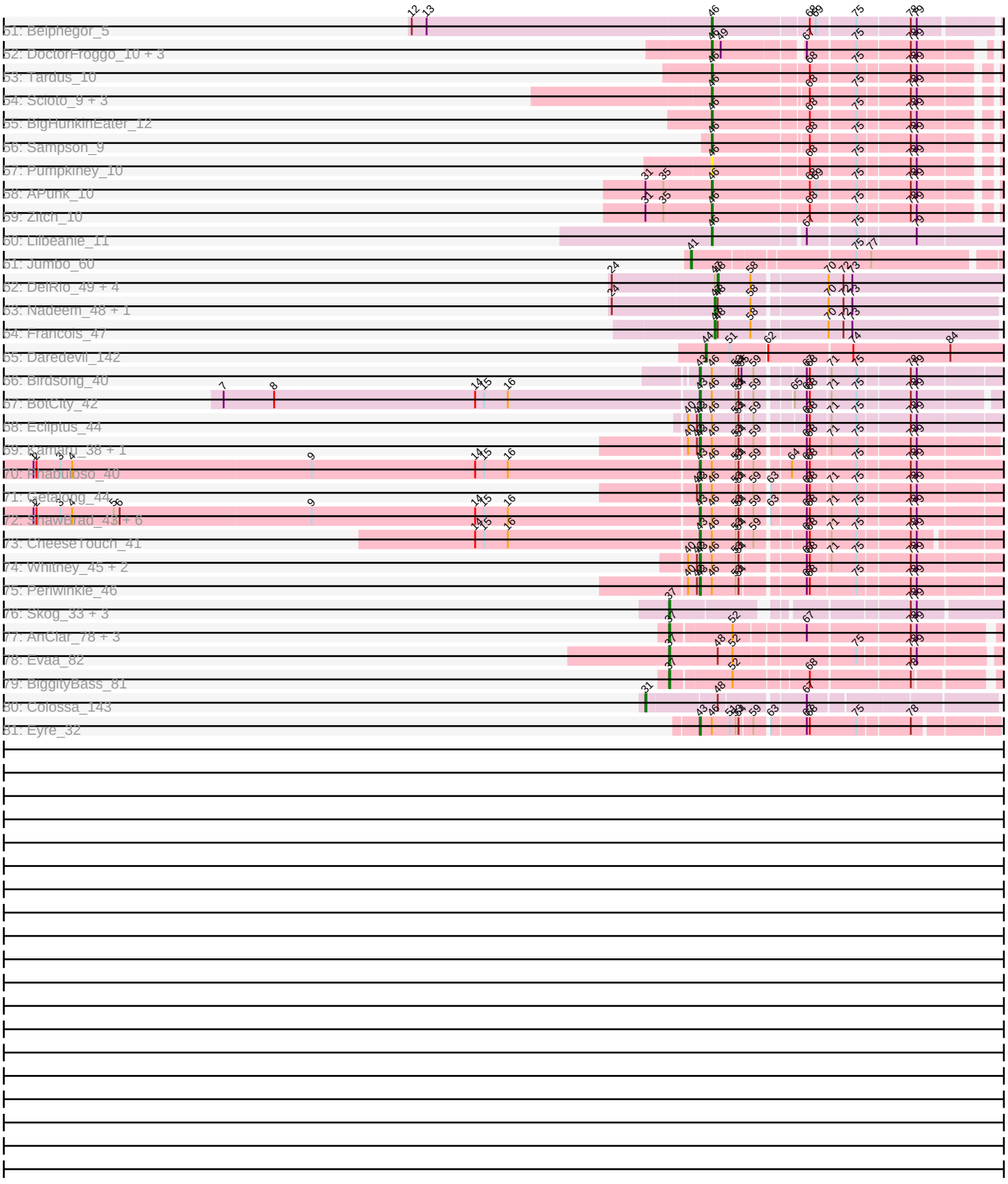
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1: GTE5_64
2: Flapper_80
3: MerCougar_78 + 2
4: NosliaM_76
5: Kabluna_78 + 3
6: RedRaider_83
7: Float294_78 + 1
8: Skysand_80 + 1
9: Ennea_83
10: BillyBobJr_81 + 17
11: BigShaq_78 + 2
12: Chelms_77 + 3
13: Diabla_82 + 2
14: CathyBurgh_77 + 10
15: GalacticEye_75 + 24
16: Benczkowski14_73 + 6
17: Phillon9_71 + 1
18: Hollow_74
19: SummitAcademy_50 + 3
20: BigChungus_50 + 4
21: Eljefes_52 + 1
22: Bavilard_50
23: Guacamole_35 + 2
24: Dellan_40 + 4
25: Walrus_37
26: Zarboonamra_36
27: CaptainKirk2_37 + 1
28: Melba_36 + 2
29: PatrickStar_62 + 2
30: Gibbles_60
31: RobinSparkles_65
32: Angelique_36
33: Ghobes_18
34: DirtyBoi_33
35: BackstagePass_33
36: Hedwig_35
37: RayTheFireFly_41
38: Jecs_36
39: PullumCavea_89 + 11
40: TillyBobJoe_90 + 4
41: Danyail_92 + 4
42: Twister6_90 + 2
43: PinkCoffee_93 + 2
44: Savbucketdawg_86 + 1
45: SharkTale_92
46: CherryCola_90 + 1
47: Bakery_93 + 1
48: Halo3_90
49: Hans_13 + 5
50: MelBins_11

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51: Belphegor_5
52: DoctorFroggo_10 + 3
53: Tardus_10
54: Scioto_9 + 3
55: BigHunkinEater_12
56: Sampson_9
57: Pumpkiney_10
58: APunk_10
59: Zitch_10
60: Lilbeanie_11
61: Jumbo_60
62: DelRio_49 + 4
63: Nadeem_48 + 1
64: Francois_47
65: Daredevil_142
66: Birdsong_40
67: BotCity_42
68: Ecliptus_44
69: Kamaru_38 + 1
70: Rinabulboso_40
71: Getalong_44
72: ShawBrad_43 + 6
73: CheeseTouch_41
74: Whitney_45 + 2
75: Periwinkle_46
76: Skog_33 + 3
77: AnClar_78 + 3
78: Evaa_82
79: BiggityBass_81
80: Colossa_143
81: Eyre_32

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 347237 Report

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

Pham number 347237 has 229 members, 16 are drafts.

Phages represented in each track:
• Track 1 : GTE5_64
• Track 2 : Flapper_80
• Track 3 : MerCougar_78, Outis_76, StarStruck_76
• Track 4 : NosilaM_76
• Track 5 : Kabluna_78, SuperSulley_77, Buggaboo_77, Bonum_79
• Track 6 : RedRaider_83
• Track 7 : Float294_78, Lollipop1437_79
• Track 8 : Skysand_80, Patio_78
• Track 9 : Ennea_83
• Track 10 : BillyBobJr_81, Sombrero_78, BirksAndSocks_81, Butterball_79, Sam12_76, Adgers_80, Exiguo_76, Gorko_76, Poland_81, Beaver_80, Jellybones_78, FelixAlejandro_81, Msay19_81, Worcestershire_76, Squibbles_76, Boneham_80, CinnamonToast_81, RemRem_78
• Track 11 : BigShaq_78, BenoitCattle_77, Crete_77
• Track 12 : Chelms_77, Dakiti_78, Linetti_77, PierreThree_76
• Track 13 : Diabla_82, RoyalG_77, SteveFrench_76
• Track 14 : CathyBurgh_77, Barbochs_74, GourdThymes_77, Kelzog_78, Monty_76, Hotorobo_77, Breezic_77, John316_80, Flakey_76, Ekhein_77, Lizzo_77
• Track 15 : GalacticEye_75, Berries_75, Hello_74, Guillaume_74, Damp_75, MrWormie_75, Minos_76, Hail2Pitt_73, Kaseim_75, Newt_76, Lidong_75, Charianelly_75, Teal_74, Luker_76, Jams_75, Jormungandr_74, Woes_74, Nimi13_74, Sticker17_75, Harambe_74, Anamika_74, Lahirium_74, Neoevie_74, Bianmat_75, Shelley_75
• Track 16 : Benczkowski14_73, Niagara_73, Kvothe_72, Tredge_73, Katyusha_72, Teech_74, Teatealatte_74
• Track 17 : Philon9_71, Vitaenoii_71
• Track 18 : Hollow_74
• Track 19 : SummitAcademy_50, CocoaPuff_51, PotPie_50, Balloona_50
• Track 20 : BigChungus_50, Yucky_53, Vine_53, Feastonyeet_50, SheckWes_54
• Track 21 : ElJefes_52, McDazzle_53
• Track 22 : Bavilard_50
• Track 23 : Guacamole_35, Hitter_38, MintFen_37
• Track 24 : Delian_40, Mellie_34, JasperJr_35, Obliviate_33, PhrostedPhlake_40
• Track 25 : Walrus_37
• Track 26 : Zarbodnamra_36
• Track 27 : CaptainKirk2_37, UmaThurman_32
• Track 28 : Melba_36, BlingBling_34, Archis_40

• Track 29 : PatrickStar_62, Orchid_61, Kampe_62
• Track 30 : Gibbles_60
• Track 31 : RobinSparkles_65
• Track 32 : Angelique_36
• Track 33 : Ghobes_18
• Track 34 : DirtyBoi_33
• Track 35 : BackstagePass_33
• Track 36 : Hedwig_35
• Track 37 : RayTheFireFly_41
• Track 38 : Jecs_36
• Track 39 : PullumCavea_89, Wizard_86, Fireball_94, Arri_91, Gezellig_87, Phlop_88, KimmyK_89, Valary_92, Portcullis_91, Shinji_90, JohnPork_92, Sendy_93
• Track 40 : TillyBobJoe_90, SmokingBunny_92, Salvador_91, Evamon_91, Togo_91
• Track 41 : Danyall_92, YungMoney_91, Nubi_94, Mutzi_91, Barb_95
• Track 42 : Twister6_90, VanDeWege_93, RogerDodger_94
• Track 43 : PinkCoffee_93, CoveyB_93, ClamChowder_94
• Track 44 : Savbucketdawg_86, Jambalaya_88
• Track 45 : SharkTale_92
• Track 46 : CherryCola_90, Egi03_89
• Track 47 : Bakery_93, Sixsevenium_90
• Track 48 : Halo3_90
• Track 49 : Hans_13, Phauci_4, Phinally_11, Leonard_11, Inspectinfecti_12, Ali17_9
• Track 50 : MelBins_11
• Track 51 : Belphegor_5
• Track 52 : DoctorFroggo_10, Verity_10, Zipp_10, Delrey21_10
• Track 53 : Tardus_10
• Track 54 : Scioto_9, Natkenzie_9, Abblin_9, ViaConlectus_9
• Track 55 : BigHunkinEater_12
• Track 56 : Sampson_9
• Track 57 : Pumpkiney_10
• Track 58 : APunk_10
• Track 59 : Zitch_10
• Track 60 : Lilbeanie_11
• Track 61 : Jumbo_60
• Track 62 : DelRio_49, GrandSlam_48, Hamood_48, Chop_48, Parada_48
• Track 63 : Nadeem_48, Ayotoya_48
• Track 64 : Francois_47
• Track 65 : Daredevil_142
• Track 66 : Birdsong_40
• Track 67 : BotCity_42
• Track 68 : Ecliptus_44
• Track 69 : Kamaru_38, LitninMcQueen_37
• Track 70 : Phabuloso_40
• Track 71 : Getalong_44
• Track 72 : ShawBrad_43, Frickyeah_43, Holliday_42, Phistory_43, Crater_40, Lutum_43, Kenna_42
• Track 73 : CheeseTouch_41
• Track 74 : Whitney_45, BENtherdunthat_42, Budski_42
• Track 75 : Periwinkle_46
• Track 76 : Skog_33, CherryTomatoes_206, Pupper_204, SCentae_203
• Track 77 : AnClar_78, Sisko_81, LittleMunchkin_81, Yago84_80
• Track 78 : Evaa_82
• Track 79 : BiggityBass_81

• Track 80 : Colossa_143
• Track 81 : Eyre_32

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

The start number called the most often in the published annotations is 41, it was called in 58 of the 213 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Anamika_74, Arri_91, Bakery_93, Barb_95, Berries_75, Bianmat_75, Charianelly_75, Damp_75, Danyall_92, Evamon_91, Fireball_94, GalacticEye_75, Gezellig_87, Gibbles_60, Guillaume_74, Hail2Pitt_73, Halo3_90, Harambe_74, Hello_74, Jambalaya_88, Jams_75, JohnPork_92, Jormungandr_74, Jumbo_60, Kampe_62, Kaseim_75, KimmyK_89, Lahirium_74, Lidong_75, Luker_76, Minos_76, MrWormie_75, Mutzi_91, Neoevie_74, Newt_76, Nimi13_74, Nubi_94, Orchid_61, PatrickStar_62, Philon9_71, Phlop_88, Portcullis_91, PullumCavea_89, RogerDodger_94, Salvador_91, Savbucketdawg_86, Sendy_93, SharkTale_92, Shelley_75, Shinji_90, Sixsevenium_90, SmokingBunny_92, Sticker17_75, Teal_74, TillyBobJoe_90, Togo_91, Twister6_90, Valary_92, VanDeWege_93, Vitaenoii_71, Wizard_86, Woes_74, YungMoney_91,

Genes that have the "Most Annotated" start but do not call it:
• CherryCola_90, ClamChowder_94, CoveyB_93, Egi03_89, PinkCoffee_93, RobinSparkles_65,

Genes that do not have the "Most Annotated" start:
• APunk_10, Abblin_9, Adgers_80, Ali17_9, AnClar_78, Angelique_36, Archis_40, Ayotoya_48, BENtherdunthat_42, BackstagePass_33, Balloona_50, Barbochs_74, Bavilard_50, Beaver_80, Belphegor_5, Benczkowski14_73, BenoitCattle_77, BigChungus_50, BigHunkinEater_12, BigShaq_78, BiggityBass_81, BillyBobJr_81, Birdsong_40, BirksAndSocks_81, BlingBling_34, Boneham_80, Bonum_79, BotCity_42, Breezic_77, Budski_42, Buggaboo_77, Butterball_79, CaptainKirk2_37, CathyBurgh_77, CheeseTouch_41, Chelms_77, CherryTomatoes_206, Chop_48, CinnamonToast_81, CocoaPuff_51, Colossa_143, Crater_40, Crete_77, Dakiti_78, Daredevil_142, DelRio_49, Delian_40, Delrey21_10, Diabla_82, DirtyBoi_33, DoctorFroggo_10, Ecliptus_44, Ekhein_77, ElJefes_52, Ennea_83, Evaa_82, Exiguo_76, Eyre_32, Feastonyeet_50, FelixAlejandro_81, Flakey_76, Flapper_80, Float294_78, Francois_47, Frickyeah_43, GTE5_64, Getalong_44, Ghobes_18, Gorko_76, GourdThymes_77, GrandSlam_48, Guacamole_35, Hamood_48, Hans_13, Hedwig_35, Hitter_38, Holliday_42, Hollow_74, Hotorobo_77, Inspectinfecti_12, JasperJr_35, Jecs_36, Jellybones_78, John316_80, Kabluna_78, Kamaru_38, Katyusha_72, Kelzog_78, Kenna_42, Kvothe_72, Leonard_11, Lilbeanie_11, Linetti_77, LitninMcQueen_37, LittleMunchkin_81, Lizzo_77, Lollipop1437_79, Lutum_43, McDazzle_53, MelBins_11, Melba_36, Mellie_34, MerCougar_78, MintFen_37, Monty_76, Msay19_81, Nadeem_48, Natkenzie_9, Niagara_73, NosilaM_76, Obliviate_33, Outis_76, Parada_48, Patio_78, Periwinkle_46, Phabuloso_40, Phauci_4, Phinally_11, Phistory_43, PhrostedPhlake_40, PierreThree_76, Poland_81, PotPie_50, Pumpkiney_10, Pupper_204, RayTheFireFly_41, RedRaider_83, RemRem_78, RoyalG_77, SCentae_203, Sam12_76, Sampson_9, Scioto_9, ShawBrad_43, SheckWes_54,

Sisko_81, Skog_33, Skysand_80, Sombrero_78, Squibbles_76, StarStruck_76, SteveFrench_76, SummitAcademy_50, SuperSulley_77, Tardus_10, Teatealatte_74, Teech_74, Tredge_73, UmaThurman_32, Verity_10, ViaConlectus_9, Vine_53, Walrus_37, Whitney_45, Worcestershire_76, Yago84_80, Yucky_53, Zarbodnamra_36, Zipp_10, Zitch_10,

Summary by start number:

Start 19:
• Found in 1 of 229 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: RobinSparkles_65 (CX),

Start 22:
• Found in 23 of 229 (10.0%) of genes in pham
• Manual Annotations of this start: 5 of 213
• Called 21.7% of time when present
• Phage (with cluster) where this start called: CherryCola_90 (DC1), ClamChowder_94 (DC1), CoveyB_93 (DC1), Egi03_89 (DC1), PinkCoffee_93 (DC1),

Start 28:
• Found in 1 of 229 (0.4%) of genes in pham
• No Manual Annotations of this start.
• Called 100.0% of time when present
• Phage (with cluster) where this start called: GTE5_64 (CR1),

Start 31:
• Found in 3 of 229 (1.3%) of genes in pham
• Manual Annotations of this start: 1 of 213
• Called 33.3% of time when present
• Phage (with cluster) where this start called: Colossa_143 (KA),

Start 36:
• Found in 15 of 229 (6.6%) of genes in pham
• Manual Annotations of this start: 4 of 213
• Called 26.7% of time when present
• Phage (with cluster) where this start called: Guacamole_35 (CV), Hitter_38 (CV), MintFen_37 (CV), Zarbodnamra_36 (CV),

Start 37:
• Found in 10 of 229 (4.4%) of genes in pham
• Manual Annotations of this start: 10 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: AnClar_78 (DR), BiggityBass_81 (DR), CherryTomatoes_206 (DO), Evaa_82 (DR), LittleMunchkin_81 (DR), Pupper_204 (DO), SCentae_203 (DO), Sisko_81 (DR), Skog_33 (DO), Yago84_80 (DR),

Start 38:
• Found in 16 of 229 (7.0%) of genes in pham
• Manual Annotations of this start: 15 of 213
• Called 93.8% of time when present

• Phage (with cluster) where this start called: Bonum_79 (CR2), Buggaboo_77 (CR2), Ennea_83 (CR3), Flapper_80 (CR1), Float294_78 (CR3), Kabluna_78 (CR2), Lollipop1437_79 (CR3), MerCougar_78 (CR2), NosilaM_76 (CR2), Outis_76 (CR2), Patio_78 (CR3), RedRaider_83 (CR3), Skysand_80 (CR3), StarStruck_76 (CR2), SuperSulley_77 (CR2),

Start 39:
• Found in 36 of 229 (15.7%) of genes in pham
• Manual Annotations of this start: 33 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Adgers_80 (CS2), Barbochs_74 (CS2), Beaver_80 (CS2), BenoitCattle_77 (CS2), BigShaq_78 (CS2), BillyBobJr_81 (CS2), BirksAndSocks_81 (CS2), Boneham_80 (CS2), Breezic_77 (CS2), Butterball_79 (CS2), CathyBurgh_77 (CS2), Chelms_77 (CS2), CinnamonToast_81 (CS2), Crete_77 (CS2), Dakiti_78 (CS2), Ekhein_77 (CS2), Exiguo_76 (CS2), FelixAlejandro_81 (CS2), Flakey_76 (CS2), Gorko_76 (CS2), GourdThymes_77 (CS2), Hotorobo_77 (CS2), Jellybones_78 (CS2), John316_80 (CS2), Kelzog_78 (CS2), Linetti_77 (CS2), Lizzo_77 (CS2), Monty_76 (CS2), Msay19_81 (CS2), PierreThree_76 (CS2), Poland_81 (CS2), RemRem_78 (CS2), Sam12_76 (CS2), Sombrero_78 (CS2), Squibbles_76 (CS2), Worcestershire_76 (CS2),

Start 40:
• Found in 20 of 229 (8.7%) of genes in pham
• Manual Annotations of this start: 11 of 213
• Called 55.0% of time when present
• Phage (with cluster) where this start called: Benczkowski14_73 (CS4), Diabla_82 (CS2), Hollow_74 (CS4), Katyusha_72 (CS4), Kvothe_72 (CS4), Niagara_73 (CS4), RoyalG_77 (CS2), SteveFrench_76 (CS2), Teatealatte_74 (CS4), Teech_74 (CS4), Tredge_73 (CS4),

Start 41:
• Found in 69 of 229 (30.1%) of genes in pham
• Manual Annotations of this start: 58 of 213
• Called 91.3% of time when present
• Phage (with cluster) where this start called: Anamika_74 (CS3), Arri_91 (DC1), Bakery_93 (DC1), Barb_95 (DC1), Berries_75 (CS3), Bianmat_75 (CS3), Charianelly_75 (CS3), Damp_75 (CS3), Danyall_92 (DC1), Evamon_91 (DC1), Fireball_94 (DC1), GalacticEye_75 (CS3), Gezellig_87 (DC1), Gibbles_60 (CX), Guillaume_74 (CS3), Hail2Pitt_73 (CS3), Halo3_90 (DC1), Harambe_74 (CS3), Hello_74 (CS3), Jambalaya_88 (DC1), Jams_75 (CS3), JohnPork_92 (DC1), Jormungandr_74 (CS3), Jumbo_60 (DF3), Kampe_62 (CX), Kaseim_75 (CS3), KimmyK_89 (DC1), Lahirium_74 (CS3), Lidong_75 (CS3), Luker_76 (CS3), Minos_76 (CS3), MrWormie_75 (CS3), Mutzi_91 (DC1), Neoevie_74 (CS3), Newt_76 (CS3), Nimi13_74 (CS3), Nubi_94 (DC1), Orchid_61 (CX), PatrickStar_62 (CX), Philon9_71 (CS4), Phlop_88 (DC1), Portcullis_91 (DC1), PullumCavea_89 (DC1), RogerDodger_94 (DC1), Salvador_91 (DC1), Savbucketdawg_86 (DC1), Sendy_93 (DC1), SharkTale_92 (DC1), Shelley_75 (CS3), Shinji_90 (DC1), Sixsevenium_90 (DC1), SmokingBunny_92 (DC1), Sticker17_75 (CS3), Teal_74 (CS3), TillyBobJoe_90 (DC1), Togo_91 (DC1), Twister6_90 (DC1), Valary_92 (DC1), VanDeWege_93 (DC1), Vitaenoii_71 (CS4), Wizard_86 (DC1), Woes_74 (CS3), YungMoney_91 (DC1),

Start 43:

• Found in 41 of 229 (17.9%) of genes in pham
• Manual Annotations of this start: 32 of 213
• Called 82.9% of time when present
• Phage (with cluster) where this start called: Angelique_36 (CY1), Archis_40 (CV), BENtherdunthat_42 (DN1), BackstagePass_33 (DB), Birdsong_40 (DN), BlingBling_34 (CV), BotCity_42 (DN), Budski_42 (DN), CheeseTouch_41 (DN1), Crater_40 (DN3), Delian_40 (CV), DirtyBoi_33 (DB), Ecliptus_44 (DN), Eyre_32 (singleton), Frickyeah_43 (DN1), Getalong_44 (DN1), Hedwig_35 (DB), Holliday_42 (DN1), JasperJr_35 (CV), Jecs_36 (DB), Kamaru_38 (DN1), Kenna_42 (DN1), LitninMcQueen_37 (DN1), Lutum_43 (DN1), Melba_36 (CV), Mellie_34 (CV), Obliviate_33 (CV), Periwinkle_46 (DN1), Phabuloso_40 (DN1), Phistory_43 (DN1), PhrostedPhlake_40 (CV), RayTheFireFly_41 (DB), ShawBrad_43 (DN1), Whitney_45 (DN1),

Start 44:
• Found in 1 of 229 (0.4%) of genes in pham
• Manual Annotations of this start: 1 of 213
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Daredevil_142 (DL),

Start 46:
• Found in 76 of 229 (33.2%) of genes in pham
• Manual Annotations of this start: 34 of 213
• Called 51.3% of time when present
• Phage (with cluster) where this start called: APunk_10 (DE4), Abblin_9 (DE4), Ali17_9 (DE2), Balloona_50 (CT), Bavilard_50 (CT), Belphegor_5 (DE2), BigChungus_50 (CT), BigHunkinEater_12 (DE4), CaptainKirk2_37 (CV), CocoaPuff_51 (CT), Delrey21_10 (DE4), DoctorFroggo_10 (DE4), ElJefes_52 (CT), Feastonyeet_50 (CT), Ghobes_18 (DA), Hans_13 (DE2), Inspectinfecti_12 (DE2), Leonard_11 (DE2), Lilbeanie_11 (DE5), McDazzle_53 (CT), MelBins_11 (DE2), Natkenzie_9 (DE4), Phauci_4 (DE2), Phinally_11 (DE2), PotPie_50 (CT), Pumpkiney_10 (DE4), Sampson_9 (DE4), Scioto_9 (DE4), SheckWes_54 (CT), SummitAcademy_50 (CT), Tardus_10 (DE4), UmaThurman_32 (CV), Verity_10 (DE4), ViaConlectus_9 (DE4), Vine_53 (CT), Walrus_37 (CV), Yucky_53 (CT), Zipp_10 (DE4), Zitch_10 (DE4),

Start 47:
• Found in 8 of 229 (3.5%) of genes in pham
• Manual Annotations of this start: 3 of 213
• Called 37.5% of time when present
• Phage (with cluster) where this start called: Ayotoya_48 (DI), Francois_47 (DI), Nadeem_48 (DI),

Start 48:
• Found in 10 of 229 (4.4%) of genes in pham
• Manual Annotations of this start: 5 of 213
• Called 50.0% of time when present
• Phage (with cluster) where this start called: Chop_48 (DI), DelRio_49 (DI), GrandSlam_48 (DI), Hamood_48 (DI), Parada_48 (DI),

Summary by clusters:

There are 26 clusters represented in this pham: DN, DO, singleton, DI, DB, DL, DA, DR, DF3, DN1, DN3, CS4, DC1, CS3, CS2, CY1, CX, CV, CT, CR2, CR3, KA, CR1, DE2, DE4, DE5,

Info for manual annotations of cluster CR1:
•Start number 38 was manually annotated 1 time for cluster CR1.

Info for manual annotations of cluster CR2:
•Start number 38 was manually annotated 8 times for cluster CR2.

Info for manual annotations of cluster CR3:
•Start number 38 was manually annotated 6 times for cluster CR3.

Info for manual annotations of cluster CS2:
•Start number 39 was manually annotated 33 times for cluster CS2.
•Start number 40 was manually annotated 3 times for cluster CS2.

Info for manual annotations of cluster CS3:
•Start number 41 was manually annotated 25 times for cluster CS3.

Info for manual annotations of cluster CS4:
•Start number 40 was manually annotated 8 times for cluster CS4.
•Start number 41 was manually annotated 2 times for cluster CS4.

Info for manual annotations of cluster CT:
•Start number 46 was manually annotated 8 times for cluster CT.

Info for manual annotations of cluster CV:
•Start number 36 was manually annotated 4 times for cluster CV.
•Start number 43 was manually annotated 8 times for cluster CV.
•Start number 46 was manually annotated 3 times for cluster CV.

Info for manual annotations of cluster CX:
•Start number 19 was manually annotated 1 time for cluster CX.
•Start number 41 was manually annotated 4 times for cluster CX.

Info for manual annotations of cluster CY1:
•Start number 43 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster DA:
•Start number 46 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DB:
•Start number 43 was manually annotated 4 times for cluster DB.

Info for manual annotations of cluster DC1:
•Start number 22 was manually annotated 5 times for cluster DC1.
•Start number 41 was manually annotated 26 times for cluster DC1.

Info for manual annotations of cluster DE2:
•Start number 46 was manually annotated 8 times for cluster DE2.

Info for manual annotations of cluster DE4:

•Start number 46 was manually annotated 13 times for cluster DE4.

Info for manual annotations of cluster DE5:
•Start number 46 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DF3:
•Start number 41 was manually annotated 1 time for cluster DF3.

Info for manual annotations of cluster DI:
•Start number 47 was manually annotated 3 times for cluster DI.
•Start number 48 was manually annotated 5 times for cluster DI.

Info for manual annotations of cluster DL:
•Start number 44 was manually annotated 1 time for cluster DL.

Info for manual annotations of cluster DN:
•Start number 43 was manually annotated 4 times for cluster DN.

Info for manual annotations of cluster DN1:
•Start number 43 was manually annotated 13 times for cluster DN1.

Info for manual annotations of cluster DN3:
•Start number 43 was manually annotated 1 time for cluster DN3.

Info for manual annotations of cluster DO:
•Start number 37 was manually annotated 4 times for cluster DO.

Info for manual annotations of cluster DR:
•Start number 37 was manually annotated 6 times for cluster DR.

Info for manual annotations of cluster KA:
•Start number 31 was manually annotated 1 time for cluster KA.

Gene Information:

Gene: APunk_10 Start: 5832, Stop: 6140, Start Num: 46
Candidate Starts for APunk_10:
(Start: 31 @5769 has 1 MA's), (35, 5787), (Start: 46 @5832 has 34 MA's), (68, 5928), (69, 5934), (75, 5970), (78, 6018), (79, 6024),

Gene: Abblin_9 Start: 5353, Stop: 5655, Start Num: 46
Candidate Starts for Abblin_9:
(Start: 46 @5353 has 34 MA's), (68, 5443), (75, 5485), (78, 5533), (79, 5539),

Gene: Adgers_80 Start: 60593, Stop: 60273, Start Num: 39
Candidate Starts for Adgers_80:
(Start: 39 @60593 has 33 MA's), (79, 60380),

Gene: Ali17_9 Start: 5663, Stop: 5983, Start Num: 46
Candidate Starts for Ali17_9:
(Start: 46 @5663 has 34 MA's), (68, 5753), (69, 5759), (75, 5795), (79, 5852),

Gene: AnClar_78 Start: 60612, Stop: 60265, Start Num: 37
Candidate Starts for AnClar_78:
(Start: 37 @60612 has 10 MA's), (52, 60555), (67, 60489), (78, 60393), (79, 60387),

Gene: Anamika_74 Start: 60867, Stop: 60544, Start Num: 41
Candidate Starts for Anamika_74:
(Start: 41 @60867 has 58 MA's), (64, 60771), (66, 60765), (80, 60651), (81, 60648), (85, 60621), (86, 60609),

Gene: Angelique_36 Start: 29622, Stop: 29323, Start Num: 43
Candidate Starts for Angelique_36:
(Start: 43 @29622 has 32 MA's), (Start: 46 @29610 has 34 MA's), (53, 29586), (54, 29583), (59, 29571), (63, 29559), (67, 29526), (68, 29523), (75, 29478), (78, 29430),

Gene: Archis_40 Start: 30536, Stop: 30222, Start Num: 43
Candidate Starts for Archis_40:
(Start: 36 @30569 has 4 MA's), (Start: 43 @30536 has 32 MA's), (Start: 46 @30524 has 34 MA's), (50, 30512), (53, 30500), (54, 30497), (59, 30485), (63, 30473), (67, 30440), (68, 30437), (71, 30416), (75, 30392), (78, 30344), (79, 30338),

Gene: Arri_91 Start: 57646, Stop: 57308, Start Num: 41
Candidate Starts for Arri_91:
(21, 57736), (Start: 22 @57733 has 5 MA's), (32, 57688), (Start: 41 @57646 has 58 MA's), (60, 57580), (75, 57487), (78, 57439), (79, 57433),

Gene: Ayotoya_48 Start: 35650, Stop: 35985, Start Num: 47
Candidate Starts for Ayotoya_48:
(24, 35548), (Start: 47 @35650 has 3 MA's), (Start: 48 @35653 has 5 MA's), (58, 35686), (70, 35755), (72, 35770), (73, 35779),

Gene: BENtherdunthat_42 Start: 29776, Stop: 29441, Start Num: 43
Candidate Starts for BENtherdunthat_42:
(Start: 40 @29788 has 11 MA's), (42, 29779), (Start: 43 @29776 has 32 MA's), (Start: 46 @29764 has 34 MA's), (53, 29740), (54, 29737), (67, 29680), (68, 29677), (71, 29659), (75, 29635), (78, 29587), (79, 29581),

Gene: BackstagePass_33 Start: 28562, Stop: 28269, Start Num: 43
Candidate Starts for BackstagePass_33:
(Start: 43 @28562 has 32 MA's), (53, 28526), (54, 28523), (59, 28511), (63, 28499), (67, 28469), (68, 28466), (69, 28460), (71, 28448), (75, 28424), (79, 28367),

Gene: Bakery_93 Start: 59467, Stop: 59129, Start Num: 41
Candidate Starts for Bakery_93:
(25, 59542), (27, 59521), (32, 59509), (Start: 41 @59467 has 58 MA's), (60, 59401), (64, 59371), (67, 59356), (75, 59308), (78, 59260), (79, 59254),

Gene: Balloona_50 Start: 37250, Stop: 37002, Start Num: 46
Candidate Starts for Balloona_50:
(20, 37364), (Start: 46 @37250 has 34 MA's), (61, 37205), (74, 37124),

Gene: Barb_95 Start: 58510, Stop: 58172, Start Num: 41
Candidate Starts for Barb_95:

(21, 58600), (Start: 22 @58597 has 5 MA's), (32, 58552), (Start: 41 @58510 has 58 MA's), (60, 58444), (67, 58399), (75, 58351), (78, 58303), (79, 58297),

Gene: Barbochs_74 Start: 59970, Stop: 59629, Start Num: 39
Candidate Starts for Barbochs_74:
(Start: 39 @59970 has 33 MA's), (79, 59757), (82, 59748),

Gene: Bavilard_50 Start: 37060, Stop: 36800, Start Num: 46
Candidate Starts for Bavilard_50:
(23, 37162), (Start: 46 @37060 has 34 MA's), (74, 36934),

Gene: Beaver_80 Start: 61914, Stop: 61585, Start Num: 39
Candidate Starts for Beaver_80:
(Start: 39 @61914 has 33 MA's), (79, 61701),

Gene: Belphegor_5 Start: 2778, Stop: 3092, Start Num: 46
Candidate Starts for Belphegor_5:
(12, 2478), (13, 2493), (Start: 46 @2778 has 34 MA's), (68, 2871), (69, 2877), (75, 2913), (78, 2964), (79, 2970),

Gene: Benczkowski14_73 Start: 60661, Stop: 60341, Start Num: 40
Candidate Starts for Benczkowski14_73:
(Start: 40 @60661 has 11 MA's), (79, 60451),

Gene: BenoitCattle_77 Start: 60565, Stop: 60242, Start Num: 39
Candidate Starts for BenoitCattle_77:
(Start: 39 @60565 has 33 MA's), (59, 60496), (79, 60346),

Gene: Berries_75 Start: 60839, Stop: 60516, Start Num: 41
Candidate Starts for Berries_75:
(Start: 41 @60839 has 58 MA's), (64, 60743), (66, 60737), (80, 60623), (81, 60620), (85, 60593), (86, 60581),

Gene: Bianmat_75 Start: 60879, Stop: 60556, Start Num: 41
Candidate Starts for Bianmat_75:
(Start: 41 @60879 has 58 MA's), (64, 60783), (66, 60777), (80, 60663), (81, 60660), (85, 60633), (86, 60621),

Gene: BigChungus_50 Start: 37182, Stop: 36934, Start Num: 46
Candidate Starts for BigChungus_50:
(Start: 46 @37182 has 34 MA's), (61, 37137), (74, 37056),

Gene: BigHunkinEater_12 Start: 5283, Stop: 5588, Start Num: 46
Candidate Starts for BigHunkinEater_12:
(Start: 46 @5283 has 34 MA's), (68, 5376), (75, 5418), (78, 5466), (79, 5472),

Gene: BigShaq_78 Start: 60737, Stop: 60411, Start Num: 39
Candidate Starts for BigShaq_78:
(Start: 39 @60737 has 33 MA's), (59, 60668), (79, 60524),

Gene: BiggityBass_81 Start: 62080, Stop: 61751, Start Num: 37
Candidate Starts for BiggityBass_81:
(Start: 37 @62080 has 10 MA's), (52, 62023), (68, 61954), (78, 61861),

Gene: BillyBobJr_81 Start: 62041, Stop: 61709, Start Num: 39
Candidate Starts for BillyBobJr_81:
(Start: 39 @62041 has 33 MA's), (79, 61828),

Gene: Birdsong_40 Start: 30587, Stop: 30261, Start Num: 43
Candidate Starts for Birdsong_40:
(Start: 43 @30587 has 32 MA's), (Start: 46 @30575 has 34 MA's), (53, 30551), (54, 30548), (55, 30545), (59, 30533), (67, 30491), (68, 30488), (71, 30470), (75, 30446), (78, 30398), (79, 30392),

Gene: BirksAndSocks_81 Start: 62036, Stop: 61731, Start Num: 39
Candidate Starts for BirksAndSocks_81:
(Start: 39 @62036 has 33 MA's), (79, 61823),

Gene: BlingBling_34 Start: 30550, Stop: 30248, Start Num: 43
Candidate Starts for BlingBling_34:
(Start: 36 @30583 has 4 MA's), (Start: 43 @30550 has 32 MA's), (Start: 46 @30538 has 34 MA's), (50, 30526), (53, 30514), (54, 30511), (59, 30499), (63, 30487), (67, 30454), (68, 30451), (71, 30430), (75, 30406), (78, 30358), (79, 30352),

Gene: Boneham_80 Start: 61961, Stop: 61656, Start Num: 39
Candidate Starts for Boneham_80:
(Start: 39 @61961 has 33 MA's), (79, 61748),

Gene: Bonum_79 Start: 57724, Stop: 57392, Start Num: 38
Candidate Starts for Bonum_79:
(Start: 38 @57724 has 15 MA's), (45, 57697), (68, 57610), (78, 57520), (79, 57514),

Gene: BotCity_42 Start: 30361, Stop: 30053, Start Num: 43
Candidate Starts for BotCity_42:
(7, 30835), (8, 30784), (14, 30583), (15, 30574), (16, 30550), (Start: 43 @30361 has 32 MA's), (Start: 46 @30349 has 34 MA's), (53, 30325), (54, 30322), (59, 30310), (65, 30280), (67, 30268), (68, 30265), (71, 30247), (75, 30223), (78, 30175), (79, 30169),

Gene: Breezic_77 Start: 60181, Stop: 59828, Start Num: 39
Candidate Starts for Breezic_77:
(Start: 39 @60181 has 33 MA's), (79, 59968), (82, 59959),

Gene: Budski_42 Start: 31521, Stop: 31192, Start Num: 43
Candidate Starts for Budski_42:
(Start: 40 @31533 has 11 MA's), (42, 31524), (Start: 43 @31521 has 32 MA's), (Start: 46 @31509 has 34 MA's), (53, 31485), (54, 31482), (67, 31425), (68, 31422), (71, 31404), (75, 31380), (78, 31332), (79, 31326),

Gene: Buggaboo_77 Start: 58290, Stop: 57958, Start Num: 38
Candidate Starts for Buggaboo_77:
(Start: 38 @58290 has 15 MA's), (45, 58263), (68, 58176), (78, 58086), (79, 58080),

Gene: Butterball_79 Start: 61966, Stop: 61661, Start Num: 39
Candidate Starts for Butterball_79:
(Start: 39 @61966 has 33 MA's), (79, 61753),

Gene: CaptainKirk2_37 Start: 29823, Stop: 29527, Start Num: 46

Candidate Starts for CaptainKirk2_37:
(Start: 36 @29868 has 4 MA's), (Start: 43 @29835 has 32 MA's), (Start: 46 @29823 has 34 MA's), (53, 29799), (54, 29796), (59, 29784), (63, 29772), (67, 29739), (68, 29736), (71, 29715), (75, 29691), (78, 29643), (79, 29637),

Gene: CathyBurgh_77 Start: 60701, Stop: 60336, Start Num: 39
Candidate Starts for CathyBurgh_77:
(Start: 39 @60701 has 33 MA's), (79, 60488), (82, 60479),

Gene: Charianelly_75 Start: 60589, Stop: 60266, Start Num: 41
Candidate Starts for Charianelly_75:
(Start: 41 @60589 has 58 MA's), (64, 60493), (66, 60487), (80, 60373), (81, 60370), (85, 60343), (86, 60331),

Gene: CheeseTouch_41 Start: 28097, Stop: 27792, Start Num: 43
Candidate Starts for CheeseTouch_41:
(14, 28319), (15, 28310), (16, 28286), (Start: 43 @28097 has 32 MA's), (Start: 46 @28085 has 34 MA's), (53, 28061), (54, 28058), (59, 28046), (67, 28004), (68, 28001), (71, 27983), (75, 27959), (78, 27911), (79, 27905),

Gene: Chelms_77 Start: 60667, Stop: 60350, Start Num: 39
Candidate Starts for Chelms_77:
(Start: 39 @60667 has 33 MA's), (79, 60454),

Gene: CherryCola_90 Start: 58146, Stop: 57721, Start Num: 22
Candidate Starts for CherryCola_90:
(21, 58149), (Start: 22 @58146 has 5 MA's), (32, 58101), (Start: 41 @58059 has 58 MA's), (60, 57993), (75, 57900), (78, 57852), (79, 57846),

Gene: CherryTomatoes_206 Start: 140218, Stop: 140541, Start Num: 37
Candidate Starts for CherryTomatoes_206:
(Start: 37 @140218 has 10 MA's), (78, 140422), (79, 140428),

Gene: Chop_48 Start: 35400, Stop: 35738, Start Num: 48
Candidate Starts for Chop_48:
(24, 35295), (Start: 47 @35397 has 3 MA's), (Start: 48 @35400 has 5 MA's), (58, 35433), (70, 35502), (72, 35517), (73, 35526),

Gene: CinnamonToast_81 Start: 62041, Stop: 61709, Start Num: 39
Candidate Starts for CinnamonToast_81:
(Start: 39 @62041 has 33 MA's), (79, 61828),

Gene: ClamChowder_94 Start: 58597, Stop: 58172, Start Num: 22
Candidate Starts for ClamChowder_94:
(21, 58600), (Start: 22 @58597 has 5 MA's), (32, 58552), (Start: 41 @58510 has 58 MA's), (60, 58444), (67, 58399), (75, 58351), (78, 58303), (79, 58297),

Gene: CocoaPuff_51 Start: 37187, Stop: 36939, Start Num: 46
Candidate Starts for CocoaPuff_51:
(20, 37301), (Start: 46 @37187 has 34 MA's), (61, 37142), (74, 37061),

Gene: Colossa_143 Start: 76130, Stop: 75759, Start Num: 31
Candidate Starts for Colossa_143:

(Start: 31 @76130 has 1 MA's), (Start: 48 @76064 has 5 MA's), (67, 75989),

Gene: CoveyB_93 Start: 58084, Stop: 57659, Start Num: 22
Candidate Starts for CoveyB_93:
(21, 58087), (Start: 22 @58084 has 5 MA's), (32, 58039), (Start: 41 @57997 has 58 MA's), (60, 57931), (67, 57886), (75, 57838), (78, 57790), (79, 57784),

Gene: Crater_40 Start: 29695, Stop: 29378, Start Num: 43
Candidate Starts for Crater_40:
(1, 30361), (2, 30358), (3, 30334), (4, 30322), (5, 30280), (6, 30274), (9, 30082), (14, 29917), (15, 29908), (16, 29884), (Start: 43 @29695 has 32 MA's), (Start: 46 @29683 has 34 MA's), (53, 29659), (54, 29656), (59, 29644), (63, 29632), (67, 29599), (68, 29596), (71, 29578), (75, 29554), (78, 29506), (79, 29500),

Gene: Crete_77 Start: 60795, Stop: 60469, Start Num: 39
Candidate Starts for Crete_77:
(Start: 39 @60795 has 33 MA's), (59, 60726), (79, 60582),

Gene: Dakiti_78 Start: 61535, Stop: 61218, Start Num: 39
Candidate Starts for Dakiti_78:
(Start: 39 @61535 has 33 MA's), (79, 61322),

Gene: Damp_75 Start: 59753, Stop: 59430, Start Num: 41
Candidate Starts for Damp_75:
(Start: 41 @59753 has 58 MA's), (64, 59657), (66, 59651), (80, 59537), (81, 59534), (85, 59507), (86, 59495),

Gene: Danyall_92 Start: 57691, Stop: 57353, Start Num: 41
Candidate Starts for Danyall_92:
(21, 57781), (Start: 22 @57778 has 5 MA's), (32, 57733), (Start: 41 @57691 has 58 MA's), (60, 57625), (67, 57580), (75, 57532), (78, 57484), (79, 57478),

Gene: Daredevil_142 Start: 80942, Stop: 80583, Start Num: 44
Candidate Starts for Daredevil_142:
(Start: 44 @80942 has 1 MA's), (51, 80918), (62, 80882), (74, 80804), (84, 80708),

Gene: DelRio_49 Start: 36105, Stop: 36449, Start Num: 48
Candidate Starts for DelRio_49:
(24, 36000), (Start: 47 @36102 has 3 MA's), (Start: 48 @36105 has 5 MA's), (58, 36138), (70, 36207), (72, 36222), (73, 36231),

Gene: Delian_40 Start: 29833, Stop: 29525, Start Num: 43
Candidate Starts for Delian_40:
(Start: 36 @29866 has 4 MA's), (Start: 43 @29833 has 32 MA's), (Start: 46 @29821 has 34 MA's), (53, 29797), (54, 29794), (59, 29782), (63, 29770), (67, 29737), (68, 29734), (71, 29713), (75, 29689), (78, 29641), (79, 29635),

Gene: Delrey21_10 Start: 5803, Stop: 6096, Start Num: 46
Candidate Starts for Delrey21_10:
(Start: 46 @5803 has 34 MA's), (49, 5812), (67, 5884), (75, 5929), (78, 5980), (79, 5986),

Gene: Diabla_82 Start: 62036, Stop: 61740, Start Num: 40
Candidate Starts for Diabla_82:

(Start: 40 @62036 has 11 MA's), (87, 61790),

Gene: DirtyBoi_33 Start: 28465, Stop: 28172, Start Num: 43
Candidate Starts for DirtyBoi_33:
(Start: 40 @28477 has 11 MA's), (42, 28468), (Start: 43 @28465 has 32 MA's), (Start: 46 @28453 has 34 MA's), (53, 28429), (54, 28426), (59, 28414), (67, 28372), (68, 28369), (69, 28363), (71, 28351), (75, 28327), (79, 28270),

Gene: DoctorFroggo_10 Start: 5803, Stop: 6096, Start Num: 46
Candidate Starts for DoctorFroggo_10:
(Start: 46 @5803 has 34 MA's), (49, 5812), (67, 5884), (75, 5929), (78, 5980), (79, 5986),

Gene: Ecliptus_44 Start: 32044, Stop: 31706, Start Num: 43
Candidate Starts for Ecliptus_44:
(Start: 40 @32056 has 11 MA's), (42, 32047), (Start: 43 @32044 has 32 MA's), (Start: 46 @32032 has 34 MA's), (53, 32008), (54, 32005), (59, 31993), (67, 31951), (68, 31948), (71, 31930), (75, 31906), (78, 31858), (79, 31852),

Gene: Egi03_89 Start: 57168, Stop: 56743, Start Num: 22
Candidate Starts for Egi03_89:
(21, 57171), (Start: 22 @57168 has 5 MA's), (32, 57123), (Start: 41 @57081 has 58 MA's), (60, 57015), (75, 56922), (78, 56874), (79, 56868),

Gene: Ekhein_77 Start: 59871, Stop: 59527, Start Num: 39
Candidate Starts for Ekhein_77:
(Start: 39 @59871 has 33 MA's), (79, 59658), (82, 59649),

Gene: ElJefes_52 Start: 37726, Stop: 37478, Start Num: 46
Candidate Starts for ElJefes_52:
(35, 37774), (Start: 46 @37726 has 34 MA's), (61, 37681), (74, 37600),

Gene: Ennea_83 Start: 59022, Stop: 58708, Start Num: 38
Candidate Starts for Ennea_83:
(34, 59040), (Start: 38 @59022 has 15 MA's), (51, 58977), (79, 58815),

Gene: Evaa_82 Start: 60219, Stop: 59869, Start Num: 37
Candidate Starts for Evaa_82:
(Start: 37 @60219 has 10 MA's), (Start: 48 @60171 has 5 MA's), (52, 60156), (75, 60045), (78, 59997), (79, 59991),

Gene: Evamon_91 Start: 57458, Stop: 57120, Start Num: 41
Candidate Starts for Evamon_91:
(25, 57530), (32, 57500), (Start: 41 @57458 has 58 MA's), (60, 57392), (75, 57299), (78, 57251), (79, 57245),

Gene: Exiguo_76 Start: 59877, Stop: 59545, Start Num: 39
Candidate Starts for Exiguo_76:
(Start: 39 @59877 has 33 MA's), (79, 59664),

Gene: Eyre_32 Start: 25507, Stop: 25208, Start Num: 43
Candidate Starts for Eyre_32:
(Start: 43 @25507 has 32 MA's), (Start: 46 @25495 has 34 MA's), (51, 25477), (53, 25471), (54, 25468), (59, 25456), (63, 25444), (67, 25411), (68, 25408), (75, 25363), (78, 25315),

Gene: Feastonyeet_50 Start: 37182, Stop: 36934, Start Num: 46
Candidate Starts for Feastonyeet_50:
(Start: 46 @37182 has 34 MA's), (61, 37137), (74, 37056),

Gene: FelixAlejandro_81 Start: 62391, Stop: 62059, Start Num: 39
Candidate Starts for FelixAlejandro_81:
(Start: 39 @62391 has 33 MA's), (79, 62178),

Gene: Fireball_94 Start: 57920, Stop: 57582, Start Num: 41
Candidate Starts for Fireball_94:
(21, 58010), (Start: 22 @58007 has 5 MA's), (32, 57962), (Start: 41 @57920 has 58 MA's), (60, 57854), (75, 57761), (78, 57713), (79, 57707),

Gene: Flakey_76 Start: 60687, Stop: 60322, Start Num: 39
Candidate Starts for Flakey_76:
(Start: 39 @60687 has 33 MA's), (79, 60474), (82, 60465),

Gene: Flapper_80 Start: 58306, Stop: 57980, Start Num: 38
Candidate Starts for Flapper_80:
(Start: 38 @58306 has 15 MA's), (45, 58282), (51, 58261), (58, 58240), (78, 58105), (79, 58099),

Gene: Float294_78 Start: 58928, Stop: 58614, Start Num: 38
Candidate Starts for Float294_78:
(Start: 38 @58928 has 15 MA's), (51, 58883), (79, 58721),

Gene: Francois_47 Start: 34916, Stop: 35251, Start Num: 47
Candidate Starts for Francois_47:
(Start: 47 @34916 has 3 MA's), (Start: 48 @34919 has 5 MA's), (58, 34952), (70, 35021), (72, 35036), (73, 35045),

Gene: Frickyeah_43 Start: 29647, Stop: 29330, Start Num: 43
Candidate Starts for Frickyeah_43:
(1, 30313), (2, 30310), (3, 30286), (4, 30274), (5, 30232), (6, 30226), (9, 30034), (14, 29869), (15, 29860), (16, 29836), (Start: 43 @29647 has 32 MA's), (Start: 46 @29635 has 34 MA's), (53, 29611), (54, 29608), (59, 29596), (63, 29584), (67, 29551), (68, 29548), (71, 29530), (75, 29506), (78, 29458), (79, 29452),

Gene: GTE5_64 Start: 50838, Stop: 50473, Start Num: 28
Candidate Starts for GTE5_64:
(28, 50838), (Start: 38 @50799 has 15 MA's), (45, 50775), (51, 50754), (59, 50730), (78, 50598), (79, 50592),

Gene: GalacticEye_75 Start: 60550, Stop: 60227, Start Num: 41
Candidate Starts for GalacticEye_75:
(Start: 41 @60550 has 58 MA's), (64, 60454), (66, 60448), (80, 60334), (81, 60331), (85, 60304), (86, 60292),

Gene: Getalong_44 Start: 32367, Stop: 32050, Start Num: 43
Candidate Starts for Getalong_44:
(42, 32370), (Start: 43 @32367 has 32 MA's), (Start: 46 @32355 has 34 MA's), (53, 32331), (54, 32328), (59, 32316), (63, 32304), (67, 32271), (68, 32268), (71, 32250), (75, 32226), (78, 32178), (79, 32172),

Gene: Gezellig_87 Start: 57304, Stop: 56966, Start Num: 41
Candidate Starts for Gezellig_87:
(21, 57394), (Start: 22 @57391 has 5 MA's), (32, 57346), (Start: 41 @57304 has 58 MA's), (60, 57238), (75, 57145), (78, 57097), (79, 57091),

Gene: Ghobes_18 Start: 16697, Stop: 16407, Start Num: 46
Candidate Starts for Ghobes_18:
(11, 17057), (Start: 46 @16697 has 34 MA's),

Gene: Gibbles_60 Start: 52361, Stop: 52059, Start Num: 41
Candidate Starts for Gibbles_60:
(Start: 41 @52361 has 58 MA's), (68, 52250), (76, 52205),

Gene: Gorko_76 Start: 59788, Stop: 59468, Start Num: 39
Candidate Starts for Gorko_76:
(Start: 39 @59788 has 33 MA's), (79, 59575),

Gene: GourdThymes_77 Start: 60728, Stop: 60423, Start Num: 39
Candidate Starts for GourdThymes_77:
(Start: 39 @60728 has 33 MA's), (79, 60515), (82, 60506),

Gene: GrandSlam_48 Start: 35400, Stop: 35738, Start Num: 48
Candidate Starts for GrandSlam_48:
(24, 35295), (Start: 47 @35397 has 3 MA's), (Start: 48 @35400 has 5 MA's), (58, 35433), (70, 35502), (72, 35517), (73, 35526),

Gene: Guacamole_35 Start: 30431, Stop: 30090, Start Num: 36
Candidate Starts for Guacamole_35:
(Start: 36 @30431 has 4 MA's), (Start: 43 @30398 has 32 MA's), (Start: 46 @30386 has 34 MA's), (53, 30362), (54, 30359), (59, 30347), (63, 30335), (67, 30302), (68, 30299), (71, 30278), (75, 30254), (78, 30206), (79, 30200),

Gene: Guillaume_74 Start: 60600, Stop: 60277, Start Num: 41
Candidate Starts for Guillaume_74:
(Start: 41 @60600 has 58 MA's), (64, 60504), (66, 60498), (80, 60384), (81, 60381), (85, 60354), (86, 60342),

Gene: Hail2Pitt_73 Start: 61076, Stop: 60753, Start Num: 41
Candidate Starts for Hail2Pitt_73:
(Start: 41 @61076 has 58 MA's), (64, 60980), (66, 60974), (80, 60860), (81, 60857), (85, 60830), (86, 60818),

Gene: Halo3_90 Start: 58179, Stop: 57841, Start Num: 41
Candidate Starts for Halo3_90:
(17, 58332), (18, 58311), (32, 58221), (Start: 41 @58179 has 58 MA's), (60, 58113), (67, 58068), (75, 58020), (78, 57972), (79, 57966),

Gene: Hamood_48 Start: 35400, Stop: 35738, Start Num: 48
Candidate Starts for Hamood_48:
(24, 35295), (Start: 47 @35397 has 3 MA's), (Start: 48 @35400 has 5 MA's), (58, 35433), (70, 35502), (72, 35517), (73, 35526),

Gene: Hans_13 Start: 6198, Stop: 6524, Start Num: 46
Candidate Starts for Hans_13:
(Start: 46 @6198 has 34 MA's), (68, 6291), (69, 6297), (75, 6333), (79, 6390),

Gene: Harambe_74 Start: 60867, Stop: 60544, Start Num: 41
Candidate Starts for Harambe_74:
(Start: 41 @60867 has 58 MA's), (64, 60771), (66, 60765), (80, 60651), (81, 60648), (85, 60621), (86, 60609),

Gene: Hedwig_35 Start: 28932, Stop: 28639, Start Num: 43
Candidate Starts for Hedwig_35:
(Start: 43 @28932 has 32 MA's), (Start: 46 @28920 has 34 MA's), (53, 28896), (54, 28893), (59, 28881), (67, 28839), (68, 28836), (69, 28830), (71, 28818), (75, 28794), (79, 28737),

Gene: Hello_74 Start: 60829, Stop: 60506, Start Num: 41
Candidate Starts for Hello_74:
(Start: 41 @60829 has 58 MA's), (64, 60733), (66, 60727), (80, 60613), (81, 60610), (85, 60583), (86, 60571),

Gene: Hitter_38 Start: 30165, Stop: 29812, Start Num: 36
Candidate Starts for Hitter_38:
(Start: 36 @30165 has 4 MA's), (Start: 43 @30132 has 32 MA's), (Start: 46 @30120 has 34 MA's), (53, 30096), (54, 30093), (59, 30081), (63, 30069), (67, 30036), (68, 30033), (71, 30012), (75, 29988), (78, 29940), (79, 29934),

Gene: Holliday_42 Start: 30222, Stop: 29905, Start Num: 43
Candidate Starts for Holliday_42:
(1, 30888), (2, 30885), (3, 30861), (4, 30849), (5, 30807), (6, 30801), (9, 30609), (14, 30444), (15, 30435), (16, 30411), (Start: 43 @30222 has 32 MA's), (Start: 46 @30210 has 34 MA's), (53, 30186), (54, 30183), (59, 30171), (63, 30159), (67, 30126), (68, 30123), (71, 30105), (75, 30081), (78, 30033), (79, 30027),

Gene: Hollow_74 Start: 60832, Stop: 60512, Start Num: 40
Candidate Starts for Hollow_74:
(Start: 40 @60832 has 11 MA's), (57, 60772), (78, 60628), (79, 60622),

Gene: Hotorobo_77 Start: 60751, Stop: 60410, Start Num: 39
Candidate Starts for Hotorobo_77:
(Start: 39 @60751 has 33 MA's), (79, 60538), (82, 60529),

Gene: Inspectinfecti_12 Start: 6720, Stop: 7040, Start Num: 46
Candidate Starts for Inspectinfecti_12:
(Start: 46 @6720 has 34 MA's), (68, 6810), (69, 6816), (75, 6852), (79, 6909),

Gene: Jambalaya_88 Start: 56761, Stop: 56423, Start Num: 41
Candidate Starts for Jambalaya_88:
(10, 57106), (32, 56803), (Start: 41 @56761 has 58 MA's), (60, 56695), (75, 56602), (78, 56554), (79, 56548),

Gene: Jams_75 Start: 60039, Stop: 59716, Start Num: 41
Candidate Starts for Jams_75:
(Start: 41 @60039 has 58 MA's), (64, 59943), (66, 59937), (80, 59823), (81, 59820), (85, 59793), (86, 59781),

Gene: JasperJr_35 Start: 30398, Stop: 30090, Start Num: 43
Candidate Starts for JasperJr_35:
(Start: 36 @30431 has 4 MA's), (Start: 43 @30398 has 32 MA's), (Start: 46 @30386 has 34 MA's), (53, 30362), (54, 30359), (59, 30347), (63, 30335), (67, 30302), (68, 30299), (71, 30278), (75, 30254), (78, 30206), (79, 30200),

Gene: Jecs_36 Start: 29006, Stop: 28725, Start Num: 43
Candidate Starts for Jecs_36:
(30, 29063), (33, 29045), (Start: 43 @29006 has 32 MA's), (Start: 46 @28994 has 34 MA's), (53, 28970), (54, 28967), (59, 28955), (63, 28943), (67, 28910), (68, 28907), (71, 28889), (75, 28865), (78, 28817),

Gene: Jellybones_78 Start: 61675, Stop: 61343, Start Num: 39
Candidate Starts for Jellybones_78:
(Start: 39 @61675 has 33 MA's), (79, 61462),

Gene: John316_80 Start: 61839, Stop: 61486, Start Num: 39
Candidate Starts for John316_80:
(Start: 39 @61839 has 33 MA's), (79, 61626), (82, 61617),

Gene: JohnPork_92 Start: 57360, Stop: 57022, Start Num: 41
Candidate Starts for JohnPork_92:
(21, 57450), (Start: 22 @57447 has 5 MA's), (32, 57402), (Start: 41 @57360 has 58 MA's), (60, 57294), (75, 57201), (78, 57153), (79, 57147),

Gene: Jormungandr_74 Start: 60582, Stop: 60259, Start Num: 41
Candidate Starts for Jormungandr_74:
(Start: 41 @60582 has 58 MA's), (64, 60486), (66, 60480), (80, 60366), (81, 60363), (85, 60336), (86, 60324),

Gene: Jumbo_60 Start: 54431, Stop: 54102, Start Num: 41
Candidate Starts for Jumbo_60:
(Start: 41 @54431 has 58 MA's), (75, 54281), (77, 54266),

Gene: Kabluna_78 Start: 57062, Stop: 56721, Start Num: 38
Candidate Starts for Kabluna_78:
(Start: 38 @57062 has 15 MA's), (45, 57035), (68, 56948), (78, 56858), (79, 56852),

Gene: Kamaru_38 Start: 29300, Stop: 28986, Start Num: 43
Candidate Starts for Kamaru_38:
(Start: 40 @29312 has 11 MA's), (42, 29303), (Start: 43 @29300 has 32 MA's), (Start: 46 @29288 has 34 MA's), (53, 29264), (54, 29261), (59, 29249), (67, 29204), (68, 29201), (71, 29183), (75, 29159), (78, 29111), (79, 29105),

Gene: Kampe_62 Start: 52344, Stop: 52042, Start Num: 41
Candidate Starts for Kampe_62:
(Start: 41 @52344 has 58 MA's), (68, 52233), (76, 52188),

Gene: Kaseim_75 Start: 60024, Stop: 59701, Start Num: 41
Candidate Starts for Kaseim_75:
(Start: 41 @60024 has 58 MA's), (64, 59928), (66, 59922), (80, 59808), (81, 59805), (85, 59778), (86, 59766),

Gene: Katyusha_72 Start: 60661, Stop: 60341, Start Num: 40
Candidate Starts for Katyusha_72:
(Start: 40 @60661 has 11 MA's), (79, 60451),

Gene: Kelzog_78 Start: 60628, Stop: 60299, Start Num: 39
Candidate Starts for Kelzog_78:
(Start: 39 @60628 has 33 MA's), (79, 60415), (82, 60406),

Gene: Kenna_42 Start: 30558, Stop: 30241, Start Num: 43
Candidate Starts for Kenna_42:
(1, 31224), (2, 31221), (3, 31197), (4, 31185), (5, 31143), (6, 31137), (9, 30945), (14, 30780), (15, 30771), (16, 30747), (Start: 43 @30558 has 32 MA's), (Start: 46 @30546 has 34 MA's), (53, 30522), (54, 30519), (59, 30507), (63, 30495), (67, 30462), (68, 30459), (71, 30441), (75, 30417), (78, 30369), (79, 30363),

Gene: KimmyK_89 Start: 57751, Stop: 57413, Start Num: 41
Candidate Starts for KimmyK_89:
(21, 57841), (Start: 22 @57838 has 5 MA's), (32, 57793), (Start: 41 @57751 has 58 MA's), (60, 57685), (75, 57592), (78, 57544), (79, 57538),

Gene: Kvothe_72 Start: 60503, Stop: 60183, Start Num: 40
Candidate Starts for Kvothe_72:
(Start: 40 @60503 has 11 MA's), (79, 60293),

Gene: Lahirium_74 Start: 61104, Stop: 60781, Start Num: 41
Candidate Starts for Lahirium_74:
(Start: 41 @61104 has 58 MA's), (64, 61008), (66, 61002), (80, 60888), (81, 60885), (85, 60858), (86, 60846),

Gene: Leonard_11 Start: 6315, Stop: 6635, Start Num: 46
Candidate Starts for Leonard_11:
(Start: 46 @6315 has 34 MA's), (68, 6405), (69, 6411), (75, 6447), (79, 6504),

Gene: Lidong_75 Start: 60839, Stop: 60516, Start Num: 41
Candidate Starts for Lidong_75:
(Start: 41 @60839 has 58 MA's), (64, 60743), (66, 60737), (80, 60623), (81, 60620), (85, 60593), (86, 60581),

Gene: Lilbeanie_11 Start: 4525, Stop: 4851, Start Num: 46
Candidate Starts for Lilbeanie_11:
(Start: 46 @4525 has 34 MA's), (67, 4612), (75, 4657), (79, 4711),

Gene: Linetti_77 Start: 61689, Stop: 61372, Start Num: 39
Candidate Starts for Linetti_77:
(Start: 39 @61689 has 33 MA's), (79, 61476),

Gene: LitninMcQueen_37 Start: 29049, Stop: 28729, Start Num: 43
Candidate Starts for LitninMcQueen_37:
(Start: 40 @29061 has 11 MA's), (42, 29052), (Start: 43 @29049 has 32 MA's), (Start: 46 @29037 has 34 MA's), (53, 29013), (54, 29010), (59, 28998), (67, 28953), (68, 28950), (71, 28932), (75, 28908), (78, 28860), (79, 28854),

Gene: LittleMunchkin_81 Start: 61979, Stop: 61644, Start Num: 37
Candidate Starts for LittleMunchkin_81:
(Start: 37 @61979 has 10 MA's), (52, 61922), (67, 61856), (78, 61760), (79, 61754),

Gene: Lizzo_77 Start: 60701, Stop: 60336, Start Num: 39
Candidate Starts for Lizzo_77:
(Start: 39 @60701 has 33 MA's), (79, 60488), (82, 60479),

Gene: Lollipop1437_79 Start: 58702, Stop: 58388, Start Num: 38
Candidate Starts for Lollipop1437_79:
(Start: 38 @58702 has 15 MA's), (51, 58657), (79, 58495),

Gene: Luker_76 Start: 61057, Stop: 60734, Start Num: 41
Candidate Starts for Luker_76:
(Start: 41 @61057 has 58 MA's), (64, 60961), (66, 60955), (80, 60841), (81, 60838), (85, 60811), (86, 60799),

Gene: Lutum_43 Start: 30558, Stop: 30241, Start Num: 43
Candidate Starts for Lutum_43:
(1, 31224), (2, 31221), (3, 31197), (4, 31185), (5, 31143), (6, 31137), (9, 30945), (14, 30780), (15, 30771), (16, 30747), (Start: 43 @30558 has 32 MA's), (Start: 46 @30546 has 34 MA's), (53, 30522), (54, 30519), (59, 30507), (63, 30495), (67, 30462), (68, 30459), (71, 30441), (75, 30417), (78, 30369), (79, 30363),

Gene: McDazzle_53 Start: 37720, Stop: 37472, Start Num: 46
Candidate Starts for McDazzle_53:
(35, 37768), (Start: 46 @37720 has 34 MA's), (61, 37675), (74, 37594),

Gene: MelBins_11 Start: 6093, Stop: 6413, Start Num: 46
Candidate Starts for MelBins_11:
(26, 6012), (Start: 46 @6093 has 34 MA's), (68, 6183), (69, 6189), (75, 6225), (79, 6282),

Gene: Melba_36 Start: 30375, Stop: 30085, Start Num: 43
Candidate Starts for Melba_36:
(Start: 36 @30408 has 4 MA's), (Start: 43 @30375 has 32 MA's), (Start: 46 @30363 has 34 MA's), (50, 30351), (53, 30339), (54, 30336), (59, 30324), (63, 30312), (67, 30279), (68, 30276), (71, 30255), (75, 30231), (78, 30183), (79, 30177),

Gene: Mellie_34 Start: 28646, Stop: 28332, Start Num: 43
Candidate Starts for Mellie_34:
(Start: 36 @28679 has 4 MA's), (Start: 43 @28646 has 32 MA's), (Start: 46 @28634 has 34 MA's), (53, 28610), (54, 28607), (59, 28595), (63, 28583), (67, 28550), (68, 28547), (71, 28529), (75, 28505), (78, 28457), (79, 28451),

Gene: MerCougar_78 Start: 58752, Stop: 58420, Start Num: 38
Candidate Starts for MerCougar_78:
(Start: 38 @58752 has 15 MA's), (51, 58707), (68, 58641), (79, 58545),

Gene: Minos_76 Start: 60581, Stop: 60258, Start Num: 41
Candidate Starts for Minos_76:
(Start: 41 @60581 has 58 MA's), (64, 60485), (66, 60479), (80, 60365), (81, 60362), (85, 60335), (86, 60323),

Gene: MintFen_37 Start: 30482, Stop: 30147, Start Num: 36
Candidate Starts for MintFen_37:
(Start: 36 @30482 has 4 MA's), (Start: 43 @30449 has 32 MA's), (Start: 46 @30437 has 34 MA's), (53, 30413), (54, 30410), (59, 30398), (63, 30386), (67, 30353), (68, 30350), (71, 30329), (75, 30305), (78, 30257), (79, 30251),

Gene: Monty_76 Start: 59914, Stop: 59549, Start Num: 39
Candidate Starts for Monty_76:
(Start: 39 @59914 has 33 MA's), (79, 59701), (82, 59692),

Gene: MrWormie_75 Start: 59742, Stop: 59419, Start Num: 41
Candidate Starts for MrWormie_75:
(Start: 41 @59742 has 58 MA's), (64, 59646), (66, 59640), (80, 59526), (81, 59523), (85, 59496), (86, 59484),

Gene: Msay19_81 Start: 62277, Stop: 61945, Start Num: 39
Candidate Starts for Msay19_81:
(Start: 39 @62277 has 33 MA's), (79, 62064),

Gene: Mutzi_91 Start: 58651, Stop: 58313, Start Num: 41
Candidate Starts for Mutzi_91:
(21, 58741), (Start: 22 @58738 has 5 MA's), (32, 58693), (Start: 41 @58651 has 58 MA's), (60, 58585), (67, 58540), (75, 58492), (78, 58444), (79, 58438),

Gene: Nadeem_48 Start: 34920, Stop: 35255, Start Num: 47
Candidate Starts for Nadeem_48:
(24, 34818), (Start: 47 @34920 has 3 MA's), (Start: 48 @34923 has 5 MA's), (58, 34956), (70, 35025), (72, 35040), (73, 35049),

Gene: Natkenzie_9 Start: 5353, Stop: 5655, Start Num: 46
Candidate Starts for Natkenzie_9:
(Start: 46 @5353 has 34 MA's), (68, 5443), (75, 5485), (78, 5533), (79, 5539),

Gene: Neoevie_74 Start: 60843, Stop: 60520, Start Num: 41
Candidate Starts for Neoevie_74:
(Start: 41 @60843 has 58 MA's), (64, 60747), (66, 60741), (80, 60627), (81, 60624), (85, 60597), (86, 60585),

Gene: Newt_76 Start: 61071, Stop: 60748, Start Num: 41
Candidate Starts for Newt_76:
(Start: 41 @61071 has 58 MA's), (64, 60975), (66, 60969), (80, 60855), (81, 60852), (85, 60825), (86, 60813),

Gene: Niagara_73 Start: 60594, Stop: 60274, Start Num: 40
Candidate Starts for Niagara_73:
(Start: 40 @60594 has 11 MA's), (79, 60384),

Gene: Nimi13_74 Start: 60590, Stop: 60267, Start Num: 41
Candidate Starts for Nimi13_74:
(Start: 41 @60590 has 58 MA's), (64, 60494), (66, 60488), (80, 60374), (81, 60371), (85, 60344), (86, 60332),

Gene: NosilaM_76 Start: 57364, Stop: 57035, Start Num: 38

Candidate Starts for NosilaM_76:
(Start: 38 @57364 has 15 MA's), (59, 57295), (68, 57253), (78, 57163), (79, 57157),

Gene: Nubi_94 Start: 57714, Stop: 57376, Start Num: 41
Candidate Starts for Nubi_94:
(21, 57804), (Start: 22 @57801 has 5 MA's), (32, 57756), (Start: 41 @57714 has 58 MA's), (60, 57648), (67, 57603), (75, 57555), (78, 57507), (79, 57501),

Gene: Obliviate_33 Start: 28822, Stop: 28514, Start Num: 43
Candidate Starts for Obliviate_33:
(Start: 36 @28855 has 4 MA's), (Start: 43 @28822 has 32 MA's), (Start: 46 @28810 has 34 MA's), (53, 28786), (54, 28783), (59, 28771), (63, 28759), (67, 28726), (68, 28723), (71, 28702), (75, 28678), (78, 28630), (79, 28624),

Gene: Orchid_61 Start: 52345, Stop: 52043, Start Num: 41
Candidate Starts for Orchid_61:
(Start: 41 @52345 has 58 MA's), (68, 52234), (76, 52189),

Gene: Outis_76 Start: 57844, Stop: 57512, Start Num: 38
Candidate Starts for Outis_76:
(Start: 38 @57844 has 15 MA's), (51, 57799), (68, 57733), (79, 57637),

Gene: Parada_48 Start: 34923, Stop: 35255, Start Num: 48
Candidate Starts for Parada_48:
(24, 34818), (Start: 47 @34920 has 3 MA's), (Start: 48 @34923 has 5 MA's), (58, 34956), (70, 35025), (72, 35040), (73, 35049),

Gene: Patio_78 Start: 57925, Stop: 57620, Start Num: 38
Candidate Starts for Patio_78:
(Start: 38 @57925 has 15 MA's), (57, 57865), (79, 57727),

Gene: PatrickStar_62 Start: 52344, Stop: 52042, Start Num: 41
Candidate Starts for PatrickStar_62:
(Start: 41 @52344 has 58 MA's), (68, 52233), (76, 52188),

Gene: Periwinkle_46 Start: 32013, Stop: 31696, Start Num: 43
Candidate Starts for Periwinkle_46:
(Start: 40 @32025 has 11 MA's), (42, 32016), (Start: 43 @32013 has 32 MA's), (Start: 46 @32001 has 34 MA's), (53, 31977), (54, 31974), (67, 31917), (68, 31914), (75, 31872), (78, 31824), (79, 31818),

Gene: Phabuloso_40 Start: 30274, Stop: 29954, Start Num: 43
Candidate Starts for Phabuloso_40:
(1, 30940), (2, 30937), (3, 30913), (4, 30901), (9, 30661), (14, 30496), (15, 30487), (16, 30463), (Start: 43 @30274 has 32 MA's), (Start: 46 @30262 has 34 MA's), (53, 30238), (54, 30235), (59, 30223), (64, 30193), (67, 30178), (68, 30175), (75, 30133), (78, 30085), (79, 30079),

Gene: Phauci_4 Start: 2839, Stop: 3165, Start Num: 46
Candidate Starts for Phauci_4:
(Start: 46 @2839 has 34 MA's), (68, 2932), (69, 2938), (75, 2974), (79, 3031),

Gene: Philon9_71 Start: 61064, Stop: 60738, Start Num: 41
Candidate Starts for Philon9_71:
(Start: 41 @61064 has 58 MA's), (52, 61022), (74, 60905), (76, 60899), (80, 60845), (83, 60821),

Gene: Phinally_11 Start: 6312, Stop: 6632, Start Num: 46
Candidate Starts for Phinally_11:
(Start: 46 @6312 has 34 MA's), (68, 6402), (69, 6408), (75, 6444), (79, 6501),

Gene: Phistory_43 Start: 30909, Stop: 30592, Start Num: 43
Candidate Starts for Phistory_43:
(1, 31575), (2, 31572), (3, 31548), (4, 31536), (5, 31494), (6, 31488), (9, 31296), (14, 31131), (15, 31122), (16, 31098), (Start: 43 @30909 has 32 MA's), (Start: 46 @30897 has 34 MA's), (53, 30873), (54, 30870), (59, 30858), (63, 30846), (67, 30813), (68, 30810), (71, 30792), (75, 30768), (78, 30720), (79, 30714),

Gene: Phlop_88 Start: 57354, Stop: 57016, Start Num: 41
Candidate Starts for Phlop_88:
(21, 57444), (Start: 22 @57441 has 5 MA's), (32, 57396), (Start: 41 @57354 has 58 MA's), (60, 57288), (75, 57195), (78, 57147), (79, 57141),

Gene: PhrostedPhlake_40 Start: 30630, Stop: 30334, Start Num: 43
Candidate Starts for PhrostedPhlake_40:
(Start: 36 @30663 has 4 MA's), (Start: 43 @30630 has 32 MA's), (Start: 46 @30618 has 34 MA's), (53, 30594), (54, 30591), (59, 30579), (63, 30567), (67, 30534), (68, 30531), (71, 30510), (75, 30486), (78, 30438), (79, 30432),

Gene: PierreThree_76 Start: 61166, Stop: 60849, Start Num: 39
Candidate Starts for PierreThree_76:
(Start: 39 @61166 has 33 MA's), (79, 60953),

Gene: PinkCoffee_93 Start: 57642, Stop: 57217, Start Num: 22
Candidate Starts for PinkCoffee_93:
(21, 57645), (Start: 22 @57642 has 5 MA's), (32, 57597), (Start: 41 @57555 has 58 MA's), (60, 57489), (67, 57444), (75, 57396), (78, 57348), (79, 57342),

Gene: Poland_81 Start: 62256, Stop: 61924, Start Num: 39
Candidate Starts for Poland_81:
(Start: 39 @62256 has 33 MA's), (79, 62043),

Gene: Portcullis_91 Start: 57360, Stop: 57022, Start Num: 41
Candidate Starts for Portcullis_91:
(21, 57450), (Start: 22 @57447 has 5 MA's), (32, 57402), (Start: 41 @57360 has 58 MA's), (60, 57294), (75, 57201), (78, 57153), (79, 57147),

Gene: PotPie_50 Start: 38217, Stop: 37969, Start Num: 46
Candidate Starts for PotPie_50:
(20, 38331), (Start: 46 @38217 has 34 MA's), (61, 38172), (74, 38091),

Gene: PullumCavea_89 Start: 57531, Stop: 57193, Start Num: 41
Candidate Starts for PullumCavea_89:
(21, 57621), (Start: 22 @57618 has 5 MA's), (32, 57573), (Start: 41 @57531 has 58 MA's), (60, 57465), (75, 57372), (78, 57324), (79, 57318),

Gene: Pumpkiney_10 Start: 4586, Stop: 4891, Start Num: 46
Candidate Starts for Pumpkiney_10:
(Start: 46 @4586 has 34 MA's), (68, 4679), (75, 4721), (78, 4769), (79, 4775),

Gene: Pupper_204 Start: 140080, Stop: 140403, Start Num: 37
Candidate Starts for Pupper_204:
(Start: 37 @140080 has 10 MA's), (78, 140284), (79, 140290),

Gene: RayTheFireFly_41 Start: 30859, Stop: 30572, Start Num: 43
Candidate Starts for RayTheFireFly_41:
(Start: 40 @30871 has 11 MA's), (Start: 43 @30859 has 32 MA's), (Start: 46 @30847 has 34 MA's), (53, 30823), (54, 30820), (59, 30808), (63, 30796), (67, 30763), (68, 30760), (71, 30742), (75, 30718), (78, 30670),

Gene: RedRaider_83 Start: 60073, Stop: 59747, Start Num: 38
Candidate Starts for RedRaider_83:
(Start: 38 @60073 has 15 MA's), (49, 60037), (78, 59872), (79, 59866),

Gene: RemRem_78 Start: 59853, Stop: 59521, Start Num: 39
Candidate Starts for RemRem_78:
(Start: 39 @59853 has 33 MA's), (79, 59640),

Gene: RobinSparkles_65 Start: 52999, Stop: 52595, Start Num: 19
Candidate Starts for RobinSparkles_65:
(Start: 19 @52999 has 1 MA's), (29, 52945), (Start: 41 @52897 has 58 MA's), (68, 52786), (76, 52741),

Gene: RogerDodger_94 Start: 58119, Stop: 57781, Start Num: 41
Candidate Starts for RogerDodger_94:
(10, 58464), (18, 58251), (32, 58161), (Start: 41 @58119 has 58 MA's), (60, 58053), (75, 57960), (78, 57912), (79, 57906),

Gene: RoyalG_77 Start: 60476, Stop: 60180, Start Num: 40
Candidate Starts for RoyalG_77:
(Start: 40 @60476 has 11 MA's), (87, 60230),

Gene: SCentae_203 Start: 140271, Stop: 140594, Start Num: 37
Candidate Starts for SCentae_203:
(Start: 37 @140271 has 10 MA's), (78, 140475), (79, 140481),

Gene: Salvador_91 Start: 57456, Stop: 57118, Start Num: 41
Candidate Starts for Salvador_91:
(25, 57528), (32, 57498), (Start: 41 @57456 has 58 MA's), (60, 57390), (75, 57297), (78, 57249), (79, 57243),

Gene: Sam12_76 Start: 59877, Stop: 59545, Start Num: 39
Candidate Starts for Sam12_76:
(Start: 39 @59877 has 33 MA's), (79, 59664),

Gene: Sampson_9 Start: 5298, Stop: 5600, Start Num: 46
Candidate Starts for Sampson_9:
(Start: 46 @5298 has 34 MA's), (68, 5388), (75, 5430), (78, 5478), (79, 5484),

Gene: Savbucketdawg_86 Start: 56798, Stop: 56460, Start Num: 41
Candidate Starts for Savbucketdawg_86:
(10, 57143), (32, 56840), (Start: 41 @56798 has 58 MA's), (60, 56732), (75, 56639), (78, 56591), (79, 56585),

Gene: Scioto_9 Start: 5353, Stop: 5655, Start Num: 46
Candidate Starts for Scioto_9:
(Start: 46 @5353 has 34 MA's), (68, 5443), (75, 5485), (78, 5533), (79, 5539),

Gene: Sendy_93 Start: 57536, Stop: 57198, Start Num: 41
Candidate Starts for Sendy_93:
(21, 57626), (Start: 22 @57623 has 5 MA's), (32, 57578), (Start: 41 @57536 has 58 MA's), (60, 57470), (75, 57377), (78, 57329), (79, 57323),

Gene: SharkTale_92 Start: 58266, Stop: 57928, Start Num: 41
Candidate Starts for SharkTale_92:
(21, 58356), (Start: 22 @58353 has 5 MA's), (32, 58308), (Start: 41 @58266 has 58 MA's), (56, 58212), (60, 58200), (64, 58170), (67, 58155), (75, 58107), (78, 58059), (79, 58053),

Gene: ShawBrad_43 Start: 30132, Stop: 29815, Start Num: 43
Candidate Starts for ShawBrad_43:
(1, 30798), (2, 30795), (3, 30771), (4, 30759), (5, 30717), (6, 30711), (9, 30519), (14, 30354), (15, 30345), (16, 30321), (Start: 43 @30132 has 32 MA's), (Start: 46 @30120 has 34 MA's), (53, 30096), (54, 30093), (59, 30081), (63, 30069), (67, 30036), (68, 30033), (71, 30015), (75, 29991), (78, 29943), (79, 29937),

Gene: SheckWes_54 Start: 37265, Stop: 37017, Start Num: 46
Candidate Starts for SheckWes_54:
(Start: 46 @37265 has 34 MA's), (61, 37220), (74, 37139),

Gene: Shelley_75 Start: 60066, Stop: 59743, Start Num: 41
Candidate Starts for Shelley_75:
(Start: 41 @60066 has 58 MA's), (64, 59970), (66, 59964), (80, 59850), (81, 59847), (85, 59820), (86, 59808),

Gene: Shinji_90 Start: 57537, Stop: 57199, Start Num: 41
Candidate Starts for Shinji_90:
(21, 57627), (Start: 22 @57624 has 5 MA's), (32, 57579), (Start: 41 @57537 has 58 MA's), (60, 57471), (75, 57378), (78, 57330), (79, 57324),

Gene: Sisko_81 Start: 60938, Stop: 60591, Start Num: 37
Candidate Starts for Sisko_81:
(Start: 37 @60938 has 10 MA's), (52, 60881), (67, 60815), (78, 60719), (79, 60713),

Gene: Sixsevenium_90 Start: 58448, Stop: 58110, Start Num: 41
Candidate Starts for Sixsevenium_90:
(25, 58523), (27, 58502), (32, 58490), (Start: 41 @58448 has 58 MA's), (60, 58382), (64, 58352), (67, 58337), (75, 58289), (78, 58241), (79, 58235),

Gene: Skog_33 Start: 15580, Stop: 15906, Start Num: 37
Candidate Starts for Skog_33:
(Start: 37 @15580 has 10 MA's), (78, 15784), (79, 15790),

Gene: Skysand_80 Start: 58588, Stop: 58283, Start Num: 38
Candidate Starts for Skysand_80:
(Start: 38 @58588 has 15 MA's), (57, 58528), (79, 58390),

Gene: SmokingBunny_92 Start: 58452, Stop: 58114, Start Num: 41
Candidate Starts for SmokingBunny_92:
(25, 58524), (32, 58494), (Start: 41 @58452 has 58 MA's), (60, 58386), (75, 58293), (78, 58245), (79, 58239),

Gene: Sombrero_78 Start: 60468, Stop: 60136, Start Num: 39
Candidate Starts for Sombrero_78:
(Start: 39 @60468 has 33 MA's), (79, 60255),

Gene: Squibbles_76 Start: 60731, Stop: 60402, Start Num: 39
Candidate Starts for Squibbles_76:
(Start: 39 @60731 has 33 MA's), (79, 60518),

Gene: StarStruck_76 Start: 57844, Stop: 57512, Start Num: 38
Candidate Starts for StarStruck_76:
(Start: 38 @57844 has 15 MA's), (51, 57799), (68, 57733), (79, 57637),

Gene: SteveFrench_76 Start: 60716, Stop: 60420, Start Num: 40
Candidate Starts for SteveFrench_76:
(Start: 40 @60716 has 11 MA's), (87, 60470),

Gene: Sticker17_75 Start: 60554, Stop: 60231, Start Num: 41
Candidate Starts for Sticker17_75:
(Start: 41 @60554 has 58 MA's), (64, 60458), (66, 60452), (80, 60338), (81, 60335), (85, 60308), (86, 60296),

Gene: SummitAcademy_50 Start: 37363, Stop: 37115, Start Num: 46
Candidate Starts for SummitAcademy_50:
(20, 37477), (Start: 46 @37363 has 34 MA's), (61, 37318), (74, 37237),

Gene: SuperSulley_77 Start: 58290, Stop: 57958, Start Num: 38
Candidate Starts for SuperSulley_77:
(Start: 38 @58290 has 15 MA's), (45, 58263), (68, 58176), (78, 58086), (79, 58080),

Gene: Tardus_10 Start: 4552, Stop: 4857, Start Num: 46
Candidate Starts for Tardus_10:
(Start: 46 @4552 has 34 MA's), (68, 4645), (75, 4687), (78, 4735), (79, 4741),

Gene: Teal_74 Start: 61048, Stop: 60725, Start Num: 41
Candidate Starts for Teal_74:
(Start: 41 @61048 has 58 MA's), (64, 60952), (66, 60946), (80, 60832), (81, 60829), (85, 60802), (86, 60790),

Gene: Teatealatte_74 Start: 60491, Stop: 60171, Start Num: 40
Candidate Starts for Teatealatte_74:
(Start: 40 @60491 has 11 MA's), (79, 60281),

Gene: Teech_74 Start: 60307, Stop: 59987, Start Num: 40
Candidate Starts for Teech_74:
(Start: 40 @60307 has 11 MA's), (79, 60097),

Gene: TillyBobJoe_90 Start: 57675, Stop: 57337, Start Num: 41
Candidate Starts for TillyBobJoe_90:

(25, 57747), (32, 57717), (Start: 41 @57675 has 58 MA's), (60, 57609), (75, 57516), (78, 57468), (79, 57462),

Gene: Togo_91 Start: 58452, Stop: 58114, Start Num: 41
Candidate Starts for Togo_91:
(25, 58524), (32, 58494), (Start: 41 @58452 has 58 MA's), (60, 58386), (75, 58293), (78, 58245), (79, 58239),

Gene: Tredge_73 Start: 60491, Stop: 60171, Start Num: 40
Candidate Starts for Tredge_73:
(Start: 40 @60491 has 11 MA's), (79, 60281),

Gene: Twister6_90 Start: 56801, Stop: 56463, Start Num: 41
Candidate Starts for Twister6_90:
(10, 57146), (18, 56933), (32, 56843), (Start: 41 @56801 has 58 MA's), (60, 56735), (75, 56642), (78, 56594), (79, 56588),

Gene: UmaThurman_32 Start: 29419, Stop: 29123, Start Num: 46
Candidate Starts for UmaThurman_32:
(Start: 36 @29464 has 4 MA's), (Start: 43 @29431 has 32 MA's), (Start: 46 @29419 has 34 MA's), (53, 29395), (54, 29392), (59, 29380), (63, 29368), (67, 29335), (68, 29332), (71, 29311), (75, 29287), (78, 29239), (79, 29233),

Gene: Valary_92 Start: 58444, Stop: 58106, Start Num: 41
Candidate Starts for Valary_92:
(21, 58534), (Start: 22 @58531 has 5 MA's), (32, 58486), (Start: 41 @58444 has 58 MA's), (60, 58378), (75, 58285), (78, 58237), (79, 58231),

Gene: VanDeWege_93 Start: 57969, Stop: 57631, Start Num: 41
Candidate Starts for VanDeWege_93:
(10, 58314), (18, 58101), (32, 58011), (Start: 41 @57969 has 58 MA's), (60, 57903), (75, 57810), (78, 57762), (79, 57756),

Gene: Verity_10 Start: 5803, Stop: 6096, Start Num: 46
Candidate Starts for Verity_10:
(Start: 46 @5803 has 34 MA's), (49, 5812), (67, 5884), (75, 5929), (78, 5980), (79, 5986),

Gene: ViaConlectus_9 Start: 5353, Stop: 5655, Start Num: 46
Candidate Starts for ViaConlectus_9:
(Start: 46 @5353 has 34 MA's), (68, 5443), (75, 5485), (78, 5533), (79, 5539),

Gene: Vine_53 Start: 37983, Stop: 37735, Start Num: 46
Candidate Starts for Vine_53:
(Start: 46 @37983 has 34 MA's), (61, 37938), (74, 37857),

Gene: Vitaenoii_71 Start: 61048, Stop: 60722, Start Num: 41
Candidate Starts for Vitaenoii_71:
(Start: 41 @61048 has 58 MA's), (52, 61006), (74, 60889), (76, 60883), (80, 60829), (83, 60805),

Gene: Walrus_37 Start: 30012, Stop: 29710, Start Num: 46
Candidate Starts for Walrus_37:
(Start: 36 @30057 has 4 MA's), (Start: 43 @30024 has 32 MA's), (Start: 46 @30012 has 34 MA's), (50, 30000), (53, 29988), (54, 29985), (63, 29961), (67, 29928), (68, 29925), (71, 29907), (75, 29883), (78,

29835), (79, 29829),

Gene: Whitney_45 Start: 33551, Stop: 33234, Start Num: 43
Candidate Starts for Whitney_45:
(Start: 40 @33563 has 11 MA's), (42, 33554), (Start: 43 @33551 has 32 MA's), (Start: 46 @33539 has 34 MA's), (53, 33515), (54, 33512), (67, 33455), (68, 33452), (71, 33434), (75, 33410), (78, 33362), (79, 33356),

Gene: Wizard_86 Start: 57304, Stop: 56966, Start Num: 41
Candidate Starts for Wizard_86:
(21, 57394), (Start: 22 @57391 has 5 MA's), (32, 57346), (Start: 41 @57304 has 58 MA's), (60, 57238), (75, 57145), (78, 57097), (79, 57091),

Gene: Woes_74 Start: 61099, Stop: 60776, Start Num: 41
Candidate Starts for Woes_74:
(Start: 41 @61099 has 58 MA's), (64, 61003), (66, 60997), (80, 60883), (81, 60880), (85, 60853), (86, 60841),

Gene: Worcestershire_76 Start: 59861, Stop: 59529, Start Num: 39
Candidate Starts for Worcestershire_76:
(Start: 39 @59861 has 33 MA's), (79, 59648),

Gene: Yago84_80 Start: 60646, Stop: 60299, Start Num: 37
Candidate Starts for Yago84_80:
(Start: 37 @60646 has 10 MA's), (52, 60589), (67, 60523), (78, 60427), (79, 60421),

Gene: Yucky_53 Start: 37775, Stop: 37527, Start Num: 46
Candidate Starts for Yucky_53:
(Start: 46 @37775 has 34 MA's), (61, 37730), (74, 37649),

Gene: YungMoney_91 Start: 59491, Stop: 59153, Start Num: 41
Candidate Starts for YungMoney_91:
(21, 59581), (Start: 22 @59578 has 5 MA's), (32, 59533), (Start: 41 @59491 has 58 MA's), (60, 59425), (67, 59380), (75, 59332), (78, 59284), (79, 59278),

Gene: Zarbodnamra_36 Start: 29888, Stop: 29547, Start Num: 36
Candidate Starts for Zarbodnamra_36:
(Start: 36 @29888 has 4 MA's), (Start: 43 @29855 has 32 MA's), (Start: 46 @29843 has 34 MA's), (50, 29831), (53, 29819), (54, 29816), (59, 29804), (63, 29792), (67, 29759), (68, 29756), (75, 29711), (78, 29663), (79, 29657),

Gene: Zipp_10 Start: 5948, Stop: 6241, Start Num: 46
Candidate Starts for Zipp_10:
(Start: 46 @5948 has 34 MA's), (49, 5957), (67, 6029), (75, 6074), (78, 6125), (79, 6131),

Gene: Zitch_10 Start: 5089, Stop: 5394, Start Num: 46
Candidate Starts for Zitch_10:
(Start: 31 @5026 has 1 MA's), (35, 5044), (Start: 46 @5089 has 34 MA's), (68, 5182), (75, 5224), (78, 5272), (79, 5278),