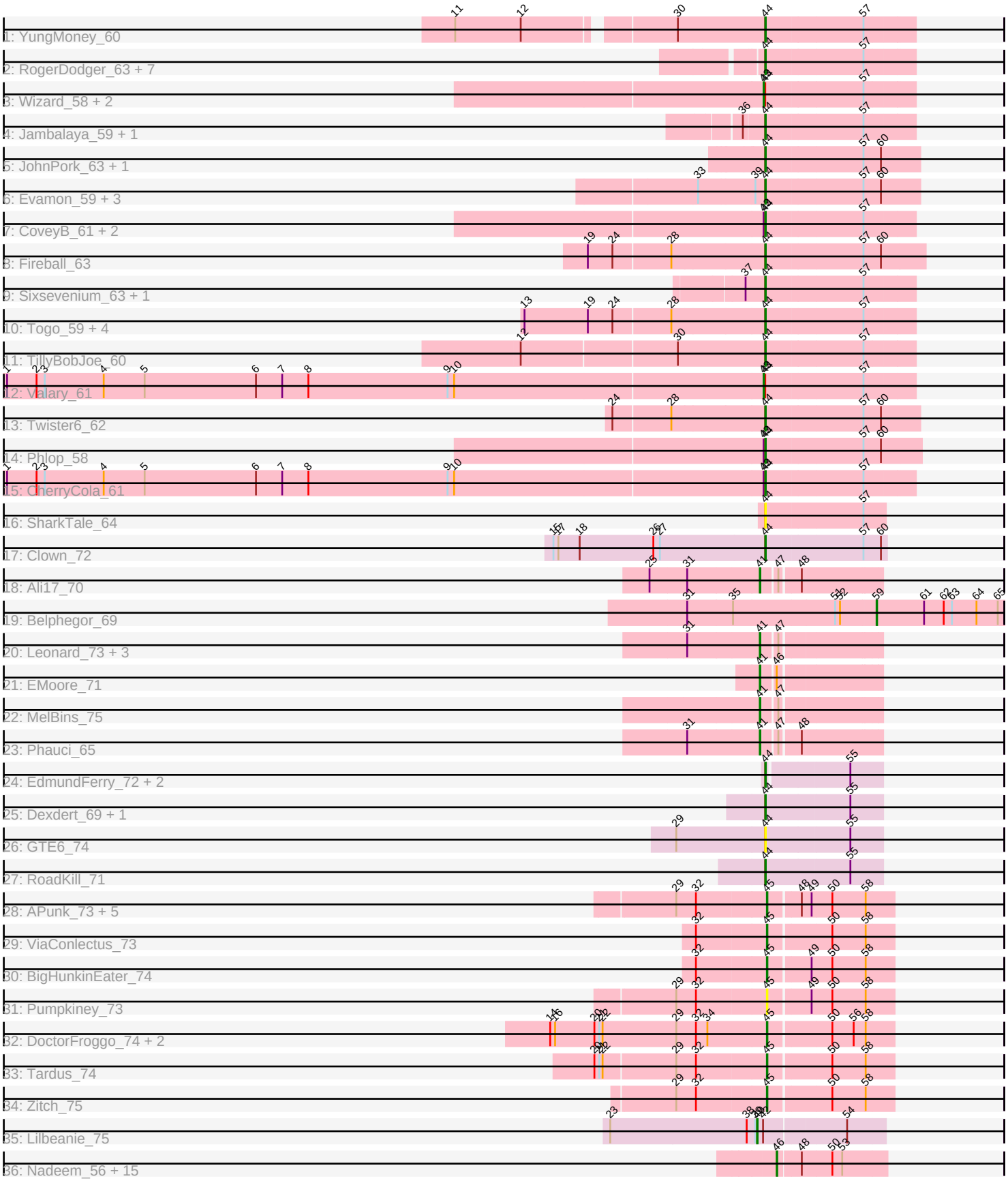
Pham 343900


1: YungMoney_60
2: RogerDodger_63 + 7
3: Wizard_58 + 2
4: Jambalaya_59 + 1
5: JohnPork_63 + 1
6: Evamon_59 + 3
7: CoveyB_61 + 2
8: Fireball_63
9: Sixsevenium_63 + 1
10: Togo_59 + 4
11: TillyBobJoe_60
12: Valary_61
13: Twister6_62
14: Phlop_58
15: CherryCola_61
16: SharkTale_64
17: Clown_72
18: Ali17_70
19: Belphegor_69
20: Leonard_73 + 3
21: EMoore_71
22: MelBins_75
23: Phauci_65
24: EdmundFerry_72 + 2
25: Dexdert_69 + 1
26: GTE6_74
27: RoadKill_71
28: APunk_73 + 5
29: ViaConlectus_73
30: BigHunkinEater_74
31: Pumpkiney_73
32: DoctorFroggo_74 + 2
33: Tardus_74
34: Zitch_75
35: Lilbeanie_75
36: Nadeem_56 + 15

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 343900 Report

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

Pham number 343900 has 85 members, 8 are drafts.

Phages represented in each track:
• Track 1 : YungMoney_60
• Track 2 : RogerDodger_63, Danyall_61, Barb_62, PinkCoffee_62, ClamChowder_62, KimmyK_61, Fugax_63, PullumCavea_59
• Track 3 : Wizard_58, Arri_61, VanDeWege_62
• Track 4 : Jambalaya_59, Savbucketdawg_59
• Track 5 : JohnPork_63, Portcullis_62
• Track 6 : Evamon_59, Salvador_59, Nubi_60, Sendy_61
• Track 7 : CoveyB_61, Gezellig_58, Halo3_59
• Track 8 : Fireball_63
• Track 9 : Sixsevenium_63, Bakery_65
• Track 10 : Togo_59, Mutzi_59, Egi03_60, Shinji_59, SmokingBunny_60
• Track 11 : TillyBobJoe_60
• Track 12 : Valary_61
• Track 13 : Twister6_62
• Track 14 : Phlop_58
• Track 15 : CherryCola_61
• Track 16 : SharkTale_64
• Track 17 : Clown_72
• Track 18 : Ali17_70
• Track 19 : Belphegor_69
• Track 20 : Leonard_73, Hans_74, Phinally_73, Inspectinfecti_74
• Track 21 : EMoore_71
• Track 22 : MelBins_75
• Track 23 : Phauci_65
• Track 24 : EdmundFerry_72, Chickadee_74, Kwekel_74
• Track 25 : Dexdert_69, Twonlo_71
• Track 26 : GTE6_74
• Track 27 : RoadKill_71
• Track 28 : APunk_73, Scioto_74, Sampson_75, Zipp_74, Natkenzie_73, Abblin_73
• Track 29 : ViaConlectus_73
• Track 30 : BigHunkinEater_74
• Track 31 : Pumpkiney_73
• Track 32 : DoctorFroggo_74, Delrey21_74, Verity_74
• Track 33 : Tardus_74
• Track 34 : Zitch_75
• Track 35 : Lilbeanie_75

• Track 36 : Nadeem_56, Francois_56, SussRoloMann_56, Parada_56, Brylie_56, Chop_57, Bock_57, Hamood_57, Mulch_56, Ayotoya_57, Pimento_58, NancyRae_55, BetterKatz_56, GrandSlam_57, DelRio_57, WheatThin_55

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

The start number called the most often in the published annotations is 44, it was called in 35 of the 77 non-draft genes in the pham.

Genes that call this "Most Annotated" start:
• Bakery_65, Barb_62, CherryCola_61, Chickadee_74, ClamChowder_62, Clown_72, CoveyB_61, Danyall_61, Dexdert_69, EdmundFerry_72, Egi03_60, Evamon_59, Fireball_63, Fugax_63, GTE6_74, Gezellig_58, Halo3_59, Jambalaya_59, JohnPork_63, KimmyK_61, Kwekel_74, Mutzi_59, Nubi_60, Phlop_58, PinkCoffee_62, Portcullis_62, PullumCavea_59, RoadKill_71, RogerDodger_63, Salvador_59, Savbucketdawg_59, Sendy_61, SharkTale_64, Shinji_59, Sixsevenium_63, SmokingBunny_60, TillyBobJoe_60, Togo_59, Twister6_62, Twonlo_71, YungMoney_60,

Genes that have the "Most Annotated" start but do not call it:
• Arri_61, Valary_61, VanDeWege_62, Wizard_58,

Genes that do not have the "Most Annotated" start:
• APunk_73, Abblin_73, Ali17_70, Ayotoya_57, Belphegor_69, BetterKatz_56, BigHunkinEater_74, Bock_57, Brylie_56, Chop_57, DelRio_57, Delrey21_74, DoctorFroggo_74, EMoore_71, Francois_56, GrandSlam_57, Hamood_57, Hans_74, Inspectinfecti_74, Leonard_73, Lilbeanie_75, MelBins_75, Mulch_56, Nadeem_56, NancyRae_55, Natkenzie_73, Parada_56, Phauci_65, Phinally_73, Pimento_58, Pumpkiney_73, Sampson_75, Scioto_74, SussRoloMann_56, Tardus_74, Verity_74, ViaConlectus_73, WheatThin_55, Zipp_74, Zitch_75,

Summary by start number:

Start 40:
• Found in 1 of 85 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Lilbeanie_75 (DE5),

Start 41:
• Found in 8 of 85 (9.4%) of genes in pham
• Manual Annotations of this start: 8 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Ali17_70 (DE2), EMoore_71 (DE2), Hans_74 (DE2), Inspectinfecti_74 (DE2), Leonard_73 (DE2), MelBins_75 (DE2), Phauci_65 (DE2), Phinally_73 (DE2),

Start 43:
• Found in 9 of 85 (10.6%) of genes in pham
• Manual Annotations of this start: 4 of 77

• Called 44.4% of time when present
• Phage (with cluster) where this start called: Arri_61 (DC1), Valary_61 (DC1), VanDeWege_62 (DC1), Wizard_58 (DC1),

Start 44:
• Found in 45 of 85 (52.9%) of genes in pham
• Manual Annotations of this start: 35 of 77
• Called 91.1% of time when present
• Phage (with cluster) where this start called: Bakery_65 (DC1), Barb_62 (DC1), CherryCola_61 (DC1), Chickadee_74 (DE3), ClamChowder_62 (DC1), Clown_72 (DC2), CoveyB_61 (DC1), Danyall_61 (DC1), Dexdert_69 (DE3), EdmundFerry_72 (DE3), Egi03_60 (DC1), Evamon_59 (DC1), Fireball_63 (DC1), Fugax_63 (DC1), GTE6_74 (DE3), Gezellig_58 (DC1), Halo3_59 (DC1), Jambalaya_59 (DC1), JohnPork_63 (DC1), KimmyK_61 (DC1), Kwekel_74 (DE3), Mutzi_59 (DC1), Nubi_60 (DC1), Phlop_58 (DC1), PinkCoffee_62 (DC1), Portcullis_62 (DC1), PullumCavea_59 (DC1), RoadKill_71 (DE3), RogerDodger_63 (DC1), Salvador_59 (DC1), Savbucketdawg_59 (DC1), Sendy_61 (DC1), SharkTale_64 (DC1), Shinji_59 (DC1), Sixsevenium_63 (DC1), SmokingBunny_60 (DC1), TillyBobJoe_60 (DC1), Togo_59 (DC1), Twister6_62 (DC1), Twonlo_71 (DE3), YungMoney_60 (DC1),

Start 45:
• Found in 14 of 85 (16.5%) of genes in pham
• Manual Annotations of this start: 13 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: APunk_73 (DE4), Abblin_73 (DE4), BigHunkinEater_74 (DE4), Delrey21_74 (DE4), DoctorFroggo_74 (DE4), Natkenzie_73 (DE4), Pumpkiney_73 (DE4), Sampson_75 (DE4), Scioto_74 (DE4), Tardus_74 (DE4), Verity_74 (DE4), ViaConlectus_73 (DE4), Zipp_74 (DE4), Zitch_75 (DE4),

Start 46:
• Found in 17 of 85 (20.0%) of genes in pham
• Manual Annotations of this start: 15 of 77
• Called 94.1% of time when present
• Phage (with cluster) where this start called: Ayotoya_57 (DI), BetterKatz_56 (DI), Bock_57 (DI), Brylie_56 (DI), Chop_57 (DI), DelRio_57 (DI), Francois_56 (DI), GrandSlam_57 (DI), Hamood_57 (DI), Mulch_56 (DI), Nadeem_56 (DI), NancyRae_55 (DI), Parada_56 (DI), Pimento_58 (DI), SussRoloMann_56 (DI), WheatThin_55 (DI),

Start 59:
• Found in 1 of 85 (1.2%) of genes in pham
• Manual Annotations of this start: 1 of 77
• Called 100.0% of time when present
• Phage (with cluster) where this start called: Belphegor_69 (DE2),

Summary by clusters:

There are 7 clusters represented in this pham: DI, DE2, DE3, DE4, DE5, DC2, DC1,

Info for manual annotations of cluster DC1:
•Start number 43 was manually annotated 4 times for cluster DC1.
•Start number 44 was manually annotated 28 times for cluster DC1.

Info for manual annotations of cluster DC2:
•Start number 44 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE2:
•Start number 41 was manually annotated 8 times for cluster DE2.
•Start number 59 was manually annotated 1 time for cluster DE2.

Info for manual annotations of cluster DE3:
•Start number 44 was manually annotated 6 times for cluster DE3.

Info for manual annotations of cluster DE4:
•Start number 45 was manually annotated 13 times for cluster DE4.

Info for manual annotations of cluster DE5:
•Start number 40 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster DI:
•Start number 46 was manually annotated 15 times for cluster DI.

Gene Information:

Gene: APunk_73 Start: 53717, Stop: 53935, Start Num: 45
Candidate Starts for APunk_73:
(29, 53558), (32, 53594), (Start: 45 @53717 has 13 MA's), (48, 53771), (49, 53789), (50, 53825), (58, 53885),

Gene: Abblin_73 Start: 53875, Stop: 54093, Start Num: 45
Candidate Starts for Abblin_73:
(29, 53716), (32, 53752), (Start: 45 @53875 has 13 MA's), (48, 53929), (49, 53947), (50, 53983), (58, 54043),

Gene: Ali17_70 Start: 52881, Stop: 53075, Start Num: 41
Candidate Starts for Ali17_70:
(25, 52686), (31, 52752), (Start: 41 @52881 has 8 MA's), (47, 52905), (48, 52938),

Gene: Arri_61 Start: 45398, Stop: 45661, Start Num: 43
Candidate Starts for Arri_61:
(Start: 43 @45398 has 4 MA's), (Start: 44 @45401 has 35 MA's), (57, 45575),

Gene: Ayotoya_57 Start: 39666, Stop: 39851, Start Num: 46
Candidate Starts for Ayotoya_57:
(Start: 46 @39666 has 15 MA's), (48, 39705), (50, 39756), (53, 39774),

Gene: Bakery_65 Start: 47562, Stop: 47822, Start Num: 44
Candidate Starts for Bakery_65:
(37, 47526), (Start: 44 @47562 has 35 MA's), (57, 47736),

Gene: Barb_62 Start: 45218, Stop: 45478, Start Num: 44
Candidate Starts for Barb_62:
(Start: 44 @45218 has 35 MA's), (57, 45392),

Gene: Belphegor_69 Start: 54091, Stop: 54324, Start Num: 59
Candidate Starts for Belphegor_69:
(31, 53758), (35, 53839), (51, 54022), (52, 54031), (Start: 59 @54091 has 1 MA's), (61, 54178), (62, 54214), (63, 54229), (64, 54274), (65, 54313),

Gene: BetterKatz_56 Start: 38865, Stop: 39053, Start Num: 46
Candidate Starts for BetterKatz_56:
(Start: 46 @38865 has 15 MA's), (48, 38904), (50, 38955), (53, 38973),

Gene: BigHunkinEater_74 Start: 53522, Stop: 53740, Start Num: 45
Candidate Starts for BigHunkinEater_74:
(32, 53399), (Start: 45 @53522 has 13 MA's), (49, 53594), (50, 53630), (58, 53690),

Gene: Bock_57 Start: 38898, Stop: 39083, Start Num: 46
Candidate Starts for Bock_57:
(Start: 46 @38898 has 15 MA's), (48, 38937), (50, 38988), (53, 39006),

Gene: Brylie_56 Start: 38646, Stop: 38834, Start Num: 46
Candidate Starts for Brylie_56:
(Start: 46 @38646 has 15 MA's), (48, 38685), (50, 38736), (53, 38754),

Gene: CherryCola_61 Start: 46023, Stop: 46283, Start Num: 44
Candidate Starts for CherryCola_61:
(1, 44643), (2, 44697), (3, 44712), (4, 44820), (5, 44895), (6, 45099), (7, 45147), (8, 45195), (9, 45450), (10, 45462), (Start: 43 @46020 has 4 MA's), (Start: 44 @46023 has 35 MA's), (57, 46197),

Gene: Chickadee_74 Start: 51369, Stop: 51575, Start Num: 44
Candidate Starts for Chickadee_74:
(Start: 44 @51369 has 35 MA's), (55, 51516),

Gene: Chop_57 Start: 39417, Stop: 39602, Start Num: 46
Candidate Starts for Chop_57:
(Start: 46 @39417 has 15 MA's), (48, 39456), (50, 39507), (53, 39525),

Gene: ClamChowder_62 Start: 45218, Stop: 45478, Start Num: 44
Candidate Starts for ClamChowder_62:
(Start: 44 @45218 has 35 MA's), (57, 45392),

Gene: Clown_72 Start: 49056, Stop: 49268, Start Num: 44
Candidate Starts for Clown_72:
(15, 48669), (17, 48678), (18, 48717), (26, 48852), (27, 48864), (Start: 44 @49056 has 35 MA's), (57, 49230), (60, 49260),

Gene: CoveyB_61 Start: 45116, Stop: 45376, Start Num: 44
Candidate Starts for CoveyB_61:
(Start: 43 @45113 has 4 MA's), (Start: 44 @45116 has 35 MA's), (57, 45290),

Gene: Danyall_61 Start: 45322, Stop: 45582, Start Num: 44
Candidate Starts for Danyall_61:
(Start: 44 @45322 has 35 MA's), (57, 45496),

Gene: DelRio_57 Start: 39828, Stop: 40013, Start Num: 46

Candidate Starts for DelRio_57:
(Start: 46 @39828 has 15 MA's), (48, 39867), (50, 39918), (53, 39936),

Gene: Delrey21_74 Start: 55666, Stop: 55884, Start Num: 45
Candidate Starts for Delrey21_74:
(14, 55273), (16, 55282), (20, 55354), (21, 55363), (22, 55369), (29, 55504), (32, 55540), (34, 55561),
(Start: 45 @55666 has 13 MA's), (50, 55774), (56, 55813), (58, 55834),

Gene: Dexdert_69 Start: 49827, Stop: 50033, Start Num: 44
Candidate Starts for Dexdert_69:
(Start: 44 @49827 has 35 MA's), (55, 49974),

Gene: DoctorFroggo_74 Start: 55666, Stop: 55884, Start Num: 45
Candidate Starts for DoctorFroggo_74:
(14, 55273), (16, 55282), (20, 55354), (21, 55363), (22, 55369), (29, 55504), (32, 55540), (34, 55561),
(Start: 45 @55666 has 13 MA's), (50, 55774), (56, 55813), (58, 55834),

Gene: EMoore_71 Start: 54322, Stop: 54513, Start Num: 41
Candidate Starts for EMoore_71:
(Start: 41 @54322 has 8 MA's), (Start: 46 @54340 has 15 MA's),

Gene: EdmundFerry_72 Start: 50915, Stop: 51115, Start Num: 44
Candidate Starts for EdmundFerry_72:
(Start: 44 @50915 has 35 MA's), (55, 51056),

Gene: Egi03_60 Start: 45087, Stop: 45347, Start Num: 44
Candidate Starts for Egi03_60:
(13, 44661), (19, 44775), (24, 44820), (28, 44922), (Start: 44 @45087 has 35 MA's), (57, 45261),

Gene: Evamon_59 Start: 44897, Stop: 45172, Start Num: 44
Candidate Starts for Evamon_59:
(33, 44777), (39, 44879), (Start: 44 @44897 has 35 MA's), (57, 45071), (60, 45101),

Gene: Fireball_63 Start: 45773, Stop: 46057, Start Num: 44
Candidate Starts for Fireball_63:
(19, 45461), (24, 45506), (28, 45608), (Start: 44 @45773 has 35 MA's), (57, 45947), (60, 45977),

Gene: Francois_56 Start: 38904, Stop: 39092, Start Num: 46
Candidate Starts for Francois_56:
(Start: 46 @38904 has 15 MA's), (48, 38943), (50, 38994), (53, 39012),

Gene: Fugax_63 Start: 45210, Stop: 45470, Start Num: 44
Candidate Starts for Fugax_63:
(Start: 44 @45210 has 35 MA's), (57, 45384),

Gene: GTE6_74 Start: 52172, Stop: 52378, Start Num: 44
Candidate Starts for GTE6_74:
(29, 52010), (Start: 44 @52172 has 35 MA's), (55, 52319),

Gene: Gezellig_58 Start: 45269, Stop: 45529, Start Num: 44
Candidate Starts for Gezellig_58:
(Start: 43 @45266 has 4 MA's), (Start: 44 @45269 has 35 MA's), (57, 45443),

Gene: GrandSlam_57 Start: 39417, Stop: 39602, Start Num: 46
Candidate Starts for GrandSlam_57:
(Start: 46 @39417 has 15 MA's), (48, 39456), (50, 39507), (53, 39525),

Gene: Halo3_59 Start: 45854, Stop: 46114, Start Num: 44
Candidate Starts for Halo3_59:
(Start: 43 @45851 has 4 MA's), (Start: 44 @45854 has 35 MA's), (57, 46028),

Gene: Hamood_57 Start: 39417, Stop: 39602, Start Num: 46
Candidate Starts for Hamood_57:
(Start: 46 @39417 has 15 MA's), (48, 39456), (50, 39507), (53, 39525),

Gene: Hans_74 Start: 53754, Stop: 53948, Start Num: 41
Candidate Starts for Hans_74:
(31, 53625), (Start: 41 @53754 has 8 MA's), (47, 53778),

Gene: Inspectinfecti_74 Start: 53728, Stop: 53922, Start Num: 41
Candidate Starts for Inspectinfecti_74:
(31, 53599), (Start: 41 @53728 has 8 MA's), (47, 53752),

Gene: Jambalaya_59 Start: 45057, Stop: 45317, Start Num: 44
Candidate Starts for Jambalaya_59:
(36, 45021), (Start: 44 @45057 has 35 MA's), (57, 45231),

Gene: JohnPork_63 Start: 45472, Stop: 45747, Start Num: 44
Candidate Starts for JohnPork_63:
(Start: 44 @45472 has 35 MA's), (57, 45646), (60, 45676),

Gene: KimmyK_61 Start: 45652, Stop: 45912, Start Num: 44
Candidate Starts for KimmyK_61:
(Start: 44 @45652 has 35 MA's), (57, 45826),

Gene: Kwekel_74 Start: 51282, Stop: 51488, Start Num: 44
Candidate Starts for Kwekel_74:
(Start: 44 @51282 has 35 MA's), (55, 51429),

Gene: Leonard_73 Start: 53791, Stop: 53985, Start Num: 41
Candidate Starts for Leonard_73:
(31, 53662), (Start: 41 @53791 has 8 MA's), (47, 53815),

Gene: Lilbeanie_75 Start: 49588, Stop: 49806, Start Num: 40
Candidate Starts for Lilbeanie_75:
(23, 49321), (38, 49570), (39, 49585), (Start: 40 @49588 has 1 MA's), (42, 49597), (54, 49738),

Gene: MelBins_75 Start: 53996, Stop: 54190, Start Num: 41
Candidate Starts for MelBins_75:
(Start: 41 @53996 has 8 MA's), (47, 54020),

Gene: Mulch_56 Start: 38646, Stop: 38834, Start Num: 46
Candidate Starts for Mulch_56:
(Start: 46 @38646 has 15 MA's), (48, 38685), (50, 38736), (53, 38754),

Gene: Mutzi_59 Start: 46569, Stop: 46829, Start Num: 44

Candidate Starts for Mutzi_59:
(13, 46143), (19, 46257), (24, 46302), (28, 46404), (Start: 44 @46569 has 35 MA's), (57, 46743),

Gene: Nadeem_56 Start: 38634, Stop: 38822, Start Num: 46
Candidate Starts for Nadeem_56:
(Start: 46 @38634 has 15 MA's), (48, 38673), (50, 38724), (53, 38742),

Gene: NancyRae_55 Start: 38632, Stop: 38817, Start Num: 46
Candidate Starts for NancyRae_55:
(Start: 46 @38632 has 15 MA's), (48, 38671), (50, 38722), (53, 38740),

Gene: Natkenzie_73 Start: 53875, Stop: 54093, Start Num: 45
Candidate Starts for Natkenzie_73:
(29, 53716), (32, 53752), (Start: 45 @53875 has 13 MA's), (48, 53929), (49, 53947), (50, 53983), (58, 54043),

Gene: Nubi_60 Start: 45002, Stop: 45277, Start Num: 44
Candidate Starts for Nubi_60:
(33, 44882), (39, 44984), (Start: 44 @45002 has 35 MA's), (57, 45176), (60, 45206),

Gene: Parada_56 Start: 38646, Stop: 38834, Start Num: 46
Candidate Starts for Parada_56:
(Start: 46 @38646 has 15 MA's), (48, 38685), (50, 38736), (53, 38754),

Gene: Phauci_65 Start: 50831, Stop: 51025, Start Num: 41
Candidate Starts for Phauci_65:
(31, 50702), (Start: 41 @50831 has 8 MA's), (47, 50855), (48, 50888),

Gene: Phinally_73 Start: 53788, Stop: 53982, Start Num: 41
Candidate Starts for Phinally_73:
(31, 53659), (Start: 41 @53788 has 8 MA's), (47, 53812),

Gene: Phlop_58 Start: 45344, Stop: 45619, Start Num: 44
Candidate Starts for Phlop_58:
(Start: 43 @45341 has 4 MA's), (Start: 44 @45344 has 35 MA's), (57, 45518), (60, 45548),

Gene: Pimento_58 Start: 38545, Stop: 38730, Start Num: 46
Candidate Starts for Pimento_58:
(Start: 46 @38545 has 15 MA's), (48, 38584), (50, 38635), (53, 38653),

Gene: PinkCoffee_62 Start: 45224, Stop: 45484, Start Num: 44
Candidate Starts for PinkCoffee_62:
(Start: 44 @45224 has 35 MA's), (57, 45398),

Gene: Portcullis_62 Start: 45472, Stop: 45747, Start Num: 44
Candidate Starts for Portcullis_62:
(Start: 44 @45472 has 35 MA's), (57, 45646), (60, 45676),

Gene: PullumCavea_59 Start: 45403, Stop: 45663, Start Num: 44
Candidate Starts for PullumCavea_59:
(Start: 44 @45403 has 35 MA's), (57, 45577),

Gene: Pumpkiney_73 Start: 52482, Stop: 52700, Start Num: 45

Candidate Starts for Pumpkiney_73:
(29, 52323), (32, 52359), (Start: 45 @52482 has 13 MA's), (49, 52554), (50, 52590), (58, 52650),

Gene: RoadKill_71 Start: 50811, Stop: 51017, Start Num: 44
Candidate Starts for RoadKill_71:
(Start: 44 @50811 has 35 MA's), (55, 50958),

Gene: RogerDodger_63 Start: 45525, Stop: 45785, Start Num: 44
Candidate Starts for RogerDodger_63:
(Start: 44 @45525 has 35 MA's), (57, 45699),

Gene: Salvador_59 Start: 44895, Stop: 45170, Start Num: 44
Candidate Starts for Salvador_59:
(33, 44775), (39, 44877), (Start: 44 @44895 has 35 MA's), (57, 45069), (60, 45099),

Gene: Sampson_75 Start: 54026, Stop: 54244, Start Num: 45
Candidate Starts for Sampson_75:
(29, 53867), (32, 53903), (Start: 45 @54026 has 13 MA's), (48, 54080), (49, 54098), (50, 54134), (58, 54194),

Gene: Savbucketdawg_59 Start: 45057, Stop: 45317, Start Num: 44
Candidate Starts for Savbucketdawg_59:
(36, 45021), (Start: 44 @45057 has 35 MA's), (57, 45231),

Gene: Scioto_74 Start: 53876, Stop: 54094, Start Num: 45
Candidate Starts for Scioto_74:
(29, 53717), (32, 53753), (Start: 45 @53876 has 13 MA's), (48, 53930), (49, 53948), (50, 53984), (58, 54044),

Gene: Sendy_61 Start: 45203, Stop: 45478, Start Num: 44
Candidate Starts for Sendy_61:
(33, 45083), (39, 45185), (Start: 44 @45203 has 35 MA's), (57, 45377), (60, 45407),

Gene: SharkTale_64 Start: 47721, Stop: 47933, Start Num: 44
Candidate Starts for SharkTale_64:
(Start: 44 @47721 has 35 MA's), (57, 47895),

Gene: Shinji_59 Start: 45003, Stop: 45263, Start Num: 44
Candidate Starts for Shinji_59:
(13, 44577), (19, 44691), (24, 44736), (28, 44838), (Start: 44 @45003 has 35 MA's), (57, 45177),

Gene: Sixsevenium_63 Start: 46791, Stop: 47051, Start Num: 44
Candidate Starts for Sixsevenium_63:
(37, 46755), (Start: 44 @46791 has 35 MA's), (57, 46965),

Gene: SmokingBunny_60 Start: 45435, Stop: 45695, Start Num: 44
Candidate Starts for SmokingBunny_60:
(13, 45009), (19, 45123), (24, 45168), (28, 45270), (Start: 44 @45435 has 35 MA's), (57, 45609),

Gene: SussRoloMann_56 Start: 38646, Stop: 38834, Start Num: 46
Candidate Starts for SussRoloMann_56:
(Start: 46 @38646 has 15 MA's), (48, 38685), (50, 38736), (53, 38754),

Gene: Tardus_74 Start: 54330, Stop: 54548, Start Num: 45
Candidate Starts for Tardus_74:
(20, 54027), (21, 54036), (22, 54042), (29, 54171), (32, 54207), (Start: 45 @54330 has 13 MA's), (50, 54438), (58, 54498),

Gene: TillyBobJoe_60 Start: 45222, Stop: 45482, Start Num: 44
Candidate Starts for TillyBobJoe_60:
(12, 44787), (30, 45063), (Start: 44 @45222 has 35 MA's), (57, 45396),

Gene: Togo_59 Start: 45435, Stop: 45695, Start Num: 44
Candidate Starts for Togo_59:
(13, 45009), (19, 45123), (24, 45168), (28, 45270), (Start: 44 @45435 has 35 MA's), (57, 45609),

Gene: Twister6_62 Start: 45174, Stop: 45449, Start Num: 44
Candidate Starts for Twister6_62:
(24, 44907), (28, 45009), (Start: 44 @45174 has 35 MA's), (57, 45348), (60, 45378),

Gene: Twonlo_71 Start: 51351, Stop: 51557, Start Num: 44
Candidate Starts for Twonlo_71:
(Start: 44 @51351 has 35 MA's), (55, 51498),

Gene: Valary_61 Start: 46020, Stop: 46283, Start Num: 43
Candidate Starts for Valary_61:
(1, 44643), (2, 44697), (3, 44712), (4, 44820), (5, 44895), (6, 45099), (7, 45147), (8, 45195), (9, 45450), (10, 45462), (Start: 43 @46020 has 4 MA's), (Start: 44 @46023 has 35 MA's), (57, 46197),

Gene: VanDeWege_62 Start: 45360, Stop: 45623, Start Num: 43
Candidate Starts for VanDeWege_62:
(Start: 43 @45360 has 4 MA's), (Start: 44 @45363 has 35 MA's), (57, 45537),

Gene: Verity_74 Start: 55666, Stop: 55884, Start Num: 45
Candidate Starts for Verity_74:
(14, 55273), (16, 55282), (20, 55354), (21, 55363), (22, 55369), (29, 55504), (32, 55540), (34, 55561), (Start: 45 @55666 has 13 MA's), (50, 55774), (56, 55813), (58, 55834),

Gene: ViaConlectus_73 Start: 52827, Stop: 53045, Start Num: 45
Candidate Starts for ViaConlectus_73:
(32, 52704), (Start: 45 @52827 has 13 MA's), (50, 52935), (58, 52995),

Gene: WheatThin_55 Start: 38634, Stop: 38822, Start Num: 46
Candidate Starts for WheatThin_55:
(Start: 46 @38634 has 15 MA's), (48, 38673), (50, 38724), (53, 38742),

Gene: Wizard_58 Start: 45266, Stop: 45529, Start Num: 43
Candidate Starts for Wizard_58:
(Start: 43 @45266 has 4 MA's), (Start: 44 @45269 has 35 MA's), (57, 45443),

Gene: YungMoney_60 Start: 47352, Stop: 47612, Start Num: 44
Candidate Starts for YungMoney_60:
(11, 46824), (12, 46944), (30, 47193), (Start: 44 @47352 has 35 MA's), (57, 47526),

Gene: Zipp_74 Start: 55254, Stop: 55472, Start Num: 45
Candidate Starts for Zipp_74:

(29, 55095), (32, 55131), (Start: 45 @55254 has 13 MA's), (48, 55308), (49, 55326), (50, 55362), (58, 55422),

Gene: Zitch_75 Start: 53704, Stop: 53922, Start Num: 45
Candidate Starts for Zitch_75:
(29, 53545), (32, 53581), (Start: 45 @53704 has 13 MA's), (50, 53812), (58, 53872),