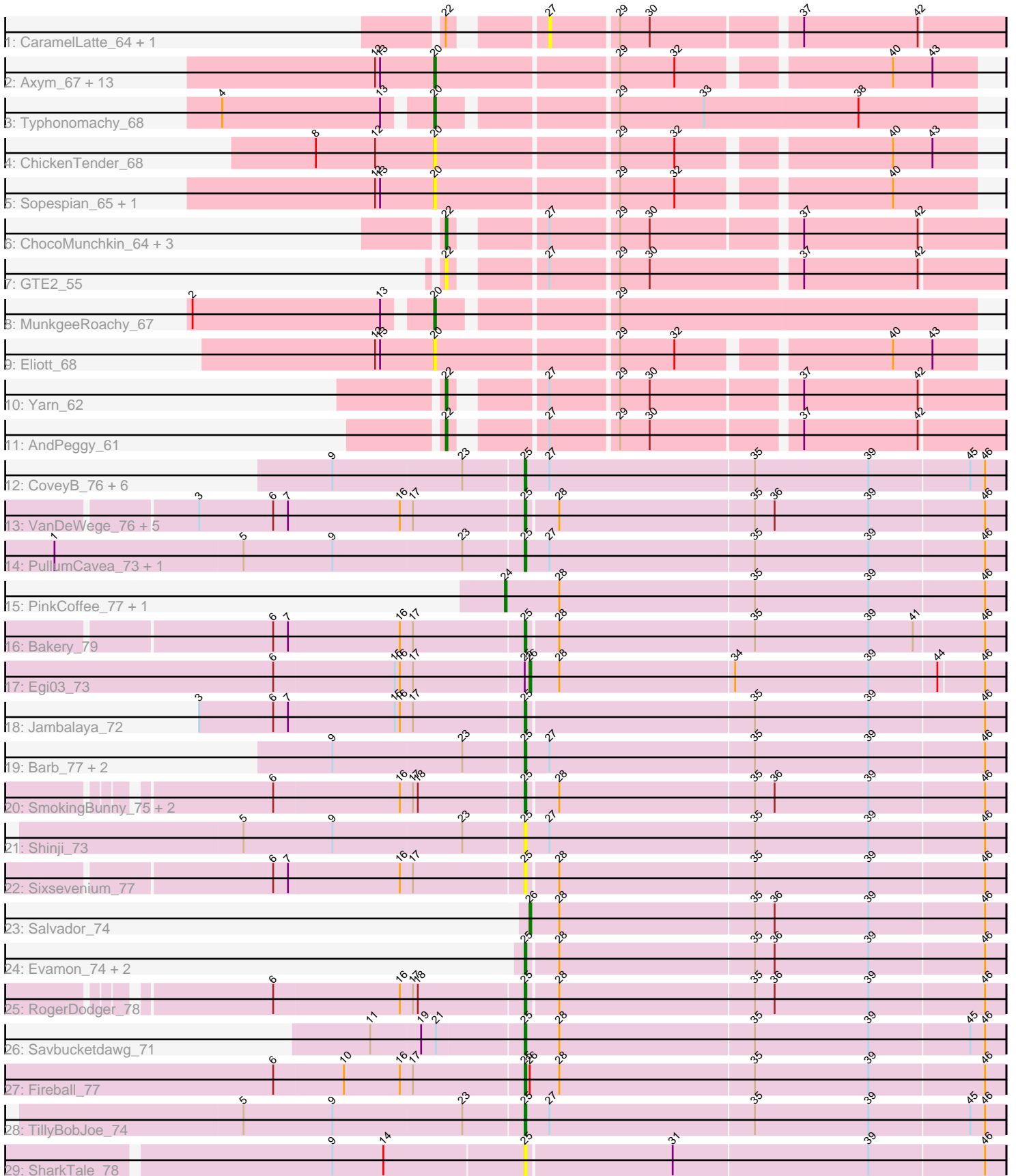


Pham 303361



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 303361 Report

This analysis was run 06/08/26 on database version 649.

Pham number 303361 has 66 members, 19 are drafts.

Phages represented in each track:

- Track 1 : CaramelLatte_64, CanesSauce_64
- Track 2 : Axym_67, Cozz_68, GoldHunter_70, Socotra_70, Carsonalex_72, Burnsey_68, Bubble_68, Starburst_70, Quasar_69, RADical_70, Nina_68, Agatha_69, RSchmailzl_69, RedBaron_76
- Track 3 : Typhonmachy_68
- Track 4 : ChickenTender_68
- Track 5 : Sopespian_65, PsychoKiller_67
- Track 6 : ChocoMunchkin_64, BillDoor_68, Tolls_67, SteamedHams_66
- Track 7 : GTE2_55
- Track 8 : MunkgeeRoachy_67
- Track 9 : Elliott_68
- Track 10 : Yarn_62
- Track 11 : AndPeggy_61
- Track 12 : CoveyB_76, CherryCola_75, KimmyK_75, Halo3_73, Valary_76, Gezellig_72, Wizard_72
- Track 13 : VanDeWege_76, Nubi_74, Sendy_75, JohnPork_76, Arri_75, Portcullis_75
- Track 14 : PullumCavea_73, Phlop_72
- Track 15 : PinkCoffee_77, Danyall_76
- Track 16 : Bakery_79
- Track 17 : Egi03_73
- Track 18 : Jambalaya_72
- Track 19 : Barb_77, ClamChowder_77, Fugax_78
- Track 20 : SmokingBunny_75, Togo_74, Twister6_75
- Track 21 : Shinji_73
- Track 22 : Sixsevenium_77
- Track 23 : Salvador_74
- Track 24 : Evamon_74, Mutzi_73, YungMoney_74
- Track 25 : RogerDodger_78
- Track 26 : Savbucketdawg_71
- Track 27 : Fireball_77
- Track 28 : TillyBobJoe_74
- Track 29 : SharkTale_78

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

The start number called the most often in the published annotations is 25, it was called in 28 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Arri_75, Bakery_79, Barb_77, CherryCola_75, ClamChowder_77, CoveyB_76, Evamon_74, Fireball_77, Fugax_78, Gezellig_72, Halo3_73, Jambalaya_72, JohnPork_76, KimmyK_75, Mutzi_73, Nubi_74, Phlop_72, Portcullis_75, PullumCavea_73, RogerDodger_78, Savbucketdawg_71, Sendy_75, SharkTale_78, Shinji_73, Sixsevenium_77, SmokingBunny_75, TillyBobJoe_74, Togo_74, Twister6_75, Valary_76, VanDeWege_76, Wizard_72, YungMoney_74,

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

- Egi03_73,

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

- Agatha_69, AndPeggy_61, Axym_67, BillDoor_68, Bubble_68, Burnsey_68, CanesSauce_64, CaramellLatte_64, Carsonalex_72, ChickenTender_68, ChocoMunchkin_64, Cozz_68, Danyall_76, Elliott_68, GTE2_55, GoldHunter_70, MunkgeeRoachy_67, Nina_68, PinkCoffee_77, PsychoKiller_67, Quasar_69, RADical_70, RSchmailzl_69, RedBaron_76, Salvador_74, Socotra_70, Sopespian_65, Starburst_70, SteamedHams_66, Tolls_67, Typhonomachy_68, Yarn_62,

Summary by start number:

Start 20:

- Found in 20 of 66 (30.3%) of genes in pham
- Manual Annotations of this start: 10 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Agatha_69 (CT), Axym_67 (CT), Bubble_68 (CT), Burnsey_68 (CT), Carsonalex_72 (CT), ChickenTender_68 (CT), Cozz_68 (CT), Elliott_68 (CT), GoldHunter_70 (CT), MunkgeeRoachy_67 (CT), Nina_68 (CT), PsychoKiller_67 (CT), Quasar_69 (CT), RADical_70 (CT), RSchmailzl_69 (CT), RedBaron_76 (CT), Socotra_70 (CT), Sopespian_65 (CT), Starburst_70 (CT), Typhonomachy_68 (CT),

Start 22:

- Found in 9 of 66 (13.6%) of genes in pham
- Manual Annotations of this start: 5 of 47
- Called 77.8% of time when present
- Phage (with cluster) where this start called: AndPeggy_61 (CT), BillDoor_68 (CT), ChocoMunchkin_64 (CT), GTE2_55 (CT), SteamedHams_66 (CT), Tolls_67 (CT), Yarn_62 (CT),

Start 24:

- Found in 2 of 66 (3.0%) of genes in pham
- Manual Annotations of this start: 2 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Danyall_76 (DC1), PinkCoffee_77 (DC1),

Start 25:

- Found in 34 of 66 (51.5%) of genes in pham
- Manual Annotations of this start: 28 of 47
- Called 97.1% of time when present
- Phage (with cluster) where this start called: Arri_75 (DC1), Bakery_79 (DC1), Barb_77 (DC1), CherryCola_75 (DC1), ClamChowder_77 (DC1), CoveyB_76 (DC1), Evamon_74 (DC1), Fireball_77 (DC1), Fugax_78 (DC1), Gezellig_72 (DC1), Halo3_73 (DC1), Jambalaya_72 (DC1), JohnPork_76 (DC1), KimmyK_75 (DC1), Mutzi_73 (DC1), Nubi_74 (DC1), Phlop_72 (DC1), Portcullis_75 (DC1), PullumCavea_73 (DC1), RogerDodger_78 (DC1), Savbucketdawg_71 (DC1), Sendy_75 (DC1), SharkTale_78 (DC1), Shinji_73 (DC1), Sixsevenium_77 (DC1), SmokingBunny_75 (DC1), TillyBobJoe_74 (DC1), Togo_74 (DC1), Twister6_75 (DC1), Valary_76 (DC1), VanDeWege_76 (DC1), Wizard_72 (DC1), YungMoney_74 (DC1),

Start 26:

- Found in 3 of 66 (4.5%) of genes in pham
- Manual Annotations of this start: 2 of 47
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Egi03_73 (DC1), Salvador_74 (DC1),

Start 27:

- Found in 23 of 66 (34.8%) of genes in pham
- No Manual Annotations of this start.
- Called 8.7% of time when present
- Phage (with cluster) where this start called: CanesSauce_64 (CT), CaramelLatte_64 (CT),

Summary by clusters:

There are 2 clusters represented in this pham: DC1, CT,

Info for manual annotations of cluster CT:

- Start number 20 was manually annotated 10 times for cluster CT.
- Start number 22 was manually annotated 5 times for cluster CT.

Info for manual annotations of cluster DC1:

- Start number 24 was manually annotated 2 times for cluster DC1.
- Start number 25 was manually annotated 28 times for cluster DC1.
- Start number 26 was manually annotated 2 times for cluster DC1.

Gene Information:

Gene: Agatha_69 Start: 45486, Stop: 45791, Start Num: 20

Candidate Starts for Agatha_69:

(12, 45450), (13, 45453), (Start: 20 @45486 has 10 MA's), (29, 45591), (32, 45624), (40, 45741), (43, 45765),

Gene: AndPeggy_61 Start: 43446, Stop: 43751, Start Num: 22

Candidate Starts for AndPeggy_61:

(Start: 22 @43446 has 5 MA's), (27, 43491), (29, 43530), (30, 43548), (37, 43632), (42, 43701),

Gene: Arri_75 Start: 50960, Stop: 51244, Start Num: 25

Candidate Starts for Arri_75:

(3, 50768), (6, 50813), (7, 50822), (16, 50888), (17, 50894), (Start: 25 @50960 has 28 MA's), (28, 50978), (35, 51095), (36, 51107), (39, 51164), (46, 51233),

Gene: Axym_67 Start: 45361, Stop: 45666, Start Num: 20

Candidate Starts for Axym_67:

(12, 45325), (13, 45328), (Start: 20 @45361 has 10 MA's), (29, 45466), (32, 45499), (40, 45616), (43, 45640),

Gene: Bakery_79 Start: 53229, Stop: 53513, Start Num: 25

Candidate Starts for Bakery_79:

(6, 53082), (7, 53091), (16, 53157), (17, 53163), (Start: 25 @53229 has 28 MA's), (28, 53247), (35, 53364), (39, 53433), (41, 53460), (46, 53502),

Gene: Barb_77 Start: 51072, Stop: 51359, Start Num: 25

Candidate Starts for Barb_77:

(9, 50958), (23, 51036), (Start: 25 @51072 has 28 MA's), (27, 51087), (35, 51210), (39, 51279), (46, 51348),

Gene: BillDoor_68 Start: 43719, Stop: 44024, Start Num: 22

Candidate Starts for BillDoor_68:

(Start: 22 @43719 has 5 MA's), (27, 43764), (29, 43803), (30, 43821), (37, 43905), (42, 43974),

Gene: Bubble_68 Start: 45416, Stop: 45721, Start Num: 20

Candidate Starts for Bubble_68:

(12, 45380), (13, 45383), (Start: 20 @45416 has 10 MA's), (29, 45521), (32, 45554), (40, 45671), (43, 45695),

Gene: Burnsey_68 Start: 45073, Stop: 45378, Start Num: 20

Candidate Starts for Burnsey_68:

(12, 45037), (13, 45040), (Start: 20 @45073 has 10 MA's), (29, 45178), (32, 45211), (40, 45328), (43, 45352),

Gene: CanesSauce_64 Start: 43658, Stop: 43918, Start Num: 27

Candidate Starts for CanesSauce_64:

(Start: 22 @43613 has 5 MA's), (27, 43658), (29, 43697), (30, 43715), (37, 43799), (42, 43868),

Gene: CaramellLatte_64 Start: 43658, Stop: 43918, Start Num: 27

Candidate Starts for CaramellLatte_64:

(Start: 22 @43613 has 5 MA's), (27, 43658), (29, 43697), (30, 43715), (37, 43799), (42, 43868),

Gene: Carsonalex_72 Start: 45531, Stop: 45836, Start Num: 20

Candidate Starts for Carsonalex_72:

(12, 45495), (13, 45498), (Start: 20 @45531 has 10 MA's), (29, 45636), (32, 45669), (40, 45786), (43, 45810),

Gene: CherryCola_75 Start: 51462, Stop: 51749, Start Num: 25

Candidate Starts for CherryCola_75:

(9, 51348), (23, 51426), (Start: 25 @51462 has 28 MA's), (27, 51477), (35, 51600), (39, 51669), (45, 51729), (46, 51738),

Gene: ChickenTender_68 Start: 44151, Stop: 44456, Start Num: 20

Candidate Starts for ChickenTender_68:

(8, 44079), (12, 44115), (Start: 20 @44151 has 10 MA's), (29, 44256), (32, 44289), (40, 44406), (43, 44430),

Gene: ChocoMunchkin_64 Start: 43613, Stop: 43918, Start Num: 22

Candidate Starts for ChocoMunchkin_64:

(Start: 22 @43613 has 5 MA's), (27, 43658), (29, 43697), (30, 43715), (37, 43799), (42, 43868),

Gene: ClamChowder_77 Start: 51072, Stop: 51359, Start Num: 25

Candidate Starts for ClamChowder_77:

(9, 50958), (23, 51036), (Start: 25 @51072 has 28 MA's), (27, 51087), (35, 51210), (39, 51279), (46, 51348),

Gene: CoveyB_76 Start: 50955, Stop: 51242, Start Num: 25

Candidate Starts for CoveyB_76:

(9, 50841), (23, 50919), (Start: 25 @50955 has 28 MA's), (27, 50970), (35, 51093), (39, 51162), (45, 51222), (46, 51231),

Gene: Cozz_68 Start: 45488, Stop: 45793, Start Num: 20

Candidate Starts for Cozz_68:

(12, 45452), (13, 45455), (Start: 20 @45488 has 10 MA's), (29, 45593), (32, 45626), (40, 45743), (43, 45767),

Gene: Danyall_76 Start: 51149, Stop: 51448, Start Num: 24

Candidate Starts for Danyall_76:

(Start: 24 @51149 has 2 MA's), (28, 51182), (35, 51299), (39, 51368), (46, 51437),

Gene: Egi03_73 Start: 50319, Stop: 50600, Start Num: 26

Candidate Starts for Egi03_73:

(6, 50169), (15, 50241), (16, 50244), (17, 50250), (Start: 25 @50316 has 28 MA's), (Start: 26 @50319 has 2 MA's), (28, 50337), (34, 50442), (39, 50523), (44, 50562), (46, 50589),

Gene: Elliott_68 Start: 44957, Stop: 45262, Start Num: 20

Candidate Starts for Elliott_68:

(12, 44921), (13, 44924), (Start: 20 @44957 has 10 MA's), (29, 45062), (32, 45095), (40, 45212), (43, 45236),

Gene: Evamon_74 Start: 50696, Stop: 50980, Start Num: 25

Candidate Starts for Evamon_74:

(Start: 25 @50696 has 28 MA's), (28, 50714), (35, 50831), (36, 50843), (39, 50900), (46, 50969),

Gene: Fireball_77 Start: 51365, Stop: 51652, Start Num: 25

Candidate Starts for Fireball_77:

(6, 51218), (10, 51260), (16, 51293), (17, 51299), (Start: 25 @51365 has 28 MA's), (Start: 26 @51368 has 2 MA's), (28, 51386), (35, 51503), (39, 51572), (46, 51641),

Gene: Fugax_78 Start: 51064, Stop: 51351, Start Num: 25

Candidate Starts for Fugax_78:

(9, 50950), (23, 51028), (Start: 25 @51064 has 28 MA's), (27, 51079), (35, 51202), (39, 51271), (46, 51340),

Gene: GTE2_55 Start: 44385, Stop: 44693, Start Num: 22

Candidate Starts for GTE2_55:

(Start: 22 @44385 has 5 MA's), (27, 44430), (29, 44469), (30, 44487), (37, 44574), (42, 44643),

Gene: Gezellig_72 Start: 50708, Stop: 50995, Start Num: 25

Candidate Starts for Gezellig_72:

(9, 50594), (23, 50672), (Start: 25 @50708 has 28 MA's), (27, 50723), (35, 50846), (39, 50915), (45, 50975), (46, 50984),

Gene: GoldHunter_70 Start: 45477, Stop: 45782, Start Num: 20

Candidate Starts for GoldHunter_70:

(12, 45441), (13, 45444), (Start: 20 @45477 has 10 MA's), (29, 45582), (32, 45615), (40, 45732), (43, 45756),

Gene: Halo3_73 Start: 51293, Stop: 51580, Start Num: 25

Candidate Starts for Halo3_73:

(9, 51179), (23, 51257), (Start: 25 @51293 has 28 MA's), (27, 51308), (35, 51431), (39, 51500), (45, 51560), (46, 51569),

Gene: Jambalaya_72 Start: 50263, Stop: 50547, Start Num: 25

Candidate Starts for Jambalaya_72:

(3, 50071), (6, 50116), (7, 50125), (15, 50188), (16, 50191), (17, 50197), (Start: 25 @50263 has 28 MA's), (35, 50398), (39, 50467), (46, 50536),

Gene: JohnPork_76 Start: 50666, Stop: 50950, Start Num: 25

Candidate Starts for JohnPork_76:

(3, 50474), (6, 50519), (7, 50528), (16, 50594), (17, 50600), (Start: 25 @50666 has 28 MA's), (28, 50684), (35, 50801), (36, 50813), (39, 50870), (46, 50939),

Gene: KimmyK_75 Start: 51155, Stop: 51442, Start Num: 25

Candidate Starts for KimmyK_75:

(9, 51041), (23, 51119), (Start: 25 @51155 has 28 MA's), (27, 51170), (35, 51293), (39, 51362), (45, 51422), (46, 51431),

Gene: MunkgeeRoachy_67 Start: 44793, Stop: 45104, Start Num: 20

Candidate Starts for MunkgeeRoachy_67:

(2, 44655), (13, 44769), (Start: 20 @44793 has 10 MA's), (29, 44889),

Gene: Mutzi_73 Start: 51788, Stop: 52072, Start Num: 25

Candidate Starts for Mutzi_73:

(Start: 25 @51788 has 28 MA's), (28, 51806), (35, 51923), (36, 51935), (39, 51992), (46, 52061),

Gene: Nina_68 Start: 45560, Stop: 45865, Start Num: 20

Candidate Starts for Nina_68:

(12, 45524), (13, 45527), (Start: 20 @45560 has 10 MA's), (29, 45665), (32, 45698), (40, 45815), (43, 45839),

Gene: Nubi_74 Start: 50588, Stop: 50872, Start Num: 25

Candidate Starts for Nubi_74:

(3, 50396), (6, 50441), (7, 50450), (16, 50516), (17, 50522), (Start: 25 @50588 has 28 MA's), (28, 50606), (35, 50723), (36, 50735), (39, 50792), (46, 50861),

Gene: Phlop_72 Start: 50577, Stop: 50864, Start Num: 25

Candidate Starts for Phlop_72:

(1, 50295), (5, 50409), (9, 50463), (23, 50541), (Start: 25 @50577 has 28 MA's), (27, 50592), (35, 50715), (39, 50784), (46, 50853),

Gene: PinkCoffee_77 Start: 51190, Stop: 51489, Start Num: 24

Candidate Starts for PinkCoffee_77:

(Start: 24 @51190 has 2 MA's), (28, 51223), (35, 51340), (39, 51409), (46, 51478),

Gene: Portcullis_75 Start: 50666, Stop: 50950, Start Num: 25

Candidate Starts for Portcullis_75:

(3, 50474), (6, 50519), (7, 50528), (16, 50594), (17, 50600), (Start: 25 @50666 has 28 MA's), (28, 50684), (35, 50801), (36, 50813), (39, 50870), (46, 50939),

Gene: PsychoKiller_67 Start: 44958, Stop: 45263, Start Num: 20

Candidate Starts for PsychoKiller_67:

(12, 44922), (13, 44925), (Start: 20 @44958 has 10 MA's), (29, 45063), (32, 45096), (40, 45213),

Gene: PullumCavea_73 Start: 50754, Stop: 51041, Start Num: 25

Candidate Starts for PullumCavea_73:

(1, 50472), (5, 50586), (9, 50640), (23, 50718), (Start: 25 @50754 has 28 MA's), (27, 50769), (35, 50892), (39, 50961), (46, 51030),

Gene: Quasar_69 Start: 45847, Stop: 46152, Start Num: 20

Candidate Starts for Quasar_69:

(12, 45811), (13, 45814), (Start: 20 @45847 has 10 MA's), (29, 45952), (32, 45985), (40, 46102), (43, 46126),

Gene: RADical_70 Start: 45364, Stop: 45669, Start Num: 20

Candidate Starts for RADical_70:

(12, 45328), (13, 45331), (Start: 20 @45364 has 10 MA's), (29, 45469), (32, 45502), (40, 45619), (43, 45643),

Gene: RSchmailzl_69 Start: 45380, Stop: 45685, Start Num: 20

Candidate Starts for RSchmailzl_69:

(12, 45344), (13, 45347), (Start: 20 @45380 has 10 MA's), (29, 45485), (32, 45518), (40, 45635), (43, 45659),

Gene: RedBaron_76 Start: 46384, Stop: 46689, Start Num: 20

Candidate Starts for RedBaron_76:

(12, 46348), (13, 46351), (Start: 20 @46384 has 10 MA's), (29, 46489), (32, 46522), (40, 46639), (43, 46663),

Gene: RogerDodger_78 Start: 51852, Stop: 52136, Start Num: 25

Candidate Starts for RogerDodger_78:

(6, 51705), (16, 51780), (17, 51786), (18, 51789), (Start: 25 @51852 has 28 MA's), (28, 51870), (35, 51987), (36, 51999), (39, 52056), (46, 52125),

Gene: Salvador_74 Start: 50694, Stop: 50978, Start Num: 26

Candidate Starts for Salvador_74:

(Start: 26 @50694 has 2 MA's), (28, 50712), (35, 50829), (36, 50841), (39, 50898), (46, 50967),

Gene: Savbucketdawg_71 Start: 50270, Stop: 50557, Start Num: 25

Candidate Starts for Savbucketdawg_71:

(11, 50180), (19, 50210), (21, 50219), (Start: 25 @50270 has 28 MA's), (28, 50291), (35, 50408), (39, 50477), (45, 50537), (46, 50546),

Gene: Sendy_75 Start: 50789, Stop: 51073, Start Num: 25

Candidate Starts for Sendy_75:

(3, 50597), (6, 50642), (7, 50651), (16, 50717), (17, 50723), (Start: 25 @50789 has 28 MA's), (28, 50807), (35, 50924), (36, 50936), (39, 50993), (46, 51062),

Gene: SharkTale_78 Start: 53300, Stop: 53584, Start Num: 25

Candidate Starts for SharkTale_78:

(9, 53186), (14, 53216), (Start: 25 @53300 has 28 MA's), (31, 53387), (39, 53504), (46, 53573),

Gene: Shinji_73 Start: 50358, Stop: 50645, Start Num: 25

Candidate Starts for Shinji_73:

(5, 50190), (9, 50244), (23, 50322), (Start: 25 @50358 has 28 MA's), (27, 50373), (35, 50496), (39, 50565), (46, 50634),

Gene: Sixsevenium_77 Start: 52458, Stop: 52742, Start Num: 25

Candidate Starts for Sixsevenium_77:

(6, 52311), (7, 52320), (16, 52386), (17, 52392), (Start: 25 @52458 has 28 MA's), (28, 52476), (35, 52593), (39, 52662), (46, 52731),

Gene: SmokingBunny_75 Start: 51690, Stop: 51974, Start Num: 25

Candidate Starts for SmokingBunny_75:

(6, 51543), (16, 51618), (17, 51624), (18, 51627), (Start: 25 @51690 has 28 MA's), (28, 51708), (35, 51825), (36, 51837), (39, 51894), (46, 51963),

Gene: Socotra_70 Start: 45470, Stop: 45775, Start Num: 20

Candidate Starts for Socotra_70:

(12, 45434), (13, 45437), (Start: 20 @45470 has 10 MA's), (29, 45575), (32, 45608), (40, 45725), (43, 45749),

Gene: Sopespian_65 Start: 44959, Stop: 45264, Start Num: 20

Candidate Starts for Sopespian_65:

(12, 44923), (13, 44926), (Start: 20 @44959 has 10 MA's), (29, 45064), (32, 45097), (40, 45214),

Gene: Starburst_70 Start: 45366, Stop: 45671, Start Num: 20

Candidate Starts for Starburst_70:

(12, 45330), (13, 45333), (Start: 20 @45366 has 10 MA's), (29, 45471), (32, 45504), (40, 45621), (43, 45645),

Gene: SteamedHams_66 Start: 43429, Stop: 43728, Start Num: 22

Candidate Starts for SteamedHams_66:

(Start: 22 @43429 has 5 MA's), (27, 43474), (29, 43513), (30, 43531), (37, 43615), (42, 43684),

Gene: TillyBobJoe_74 Start: 50884, Stop: 51171, Start Num: 25

Candidate Starts for TillyBobJoe_74:

(5, 50716), (9, 50770), (23, 50848), (Start: 25 @50884 has 28 MA's), (27, 50899), (35, 51022), (39, 51091), (45, 51151), (46, 51160),

Gene: Togo_74 Start: 51690, Stop: 51974, Start Num: 25

Candidate Starts for Togo_74:

(6, 51543), (16, 51618), (17, 51624), (18, 51627), (Start: 25 @51690 has 28 MA's), (28, 51708), (35, 51825), (36, 51837), (39, 51894), (46, 51963),

Gene: Tolls_67 Start: 43700, Stop: 44008, Start Num: 22

Candidate Starts for Tolls_67:

(Start: 22 @43700 has 5 MA's), (27, 43745), (29, 43784), (30, 43802), (37, 43889), (42, 43958),

Gene: Twister6_75 Start: 50039, Stop: 50323, Start Num: 25

Candidate Starts for Twister6_75:

(6, 49892), (16, 49967), (17, 49973), (18, 49976), (Start: 25 @50039 has 28 MA's), (28, 50057), (35, 50174), (36, 50186), (39, 50243), (46, 50312),

Gene: Typhonomachy_68 Start: 45176, Stop: 45487, Start Num: 20

Candidate Starts for Typhonomachy_68:

(4, 45056), (13, 45152), (Start: 20 @45176 has 10 MA's), (29, 45272), (33, 45323), (38, 45416),

Gene: Valary_76 Start: 51530, Stop: 51817, Start Num: 25

Candidate Starts for Valary_76:

(9, 51416), (23, 51494), (Start: 25 @51530 has 28 MA's), (27, 51545), (35, 51668), (39, 51737), (45, 51797), (46, 51806),

Gene: VanDeWege_76 Start: 51023, Stop: 51307, Start Num: 25

Candidate Starts for VanDeWege_76:

(3, 50831), (6, 50876), (7, 50885), (16, 50951), (17, 50957), (Start: 25 @51023 has 28 MA's), (28, 51041), (35, 51158), (36, 51170), (39, 51227), (46, 51296),

Gene: Wizard_72 Start: 50708, Stop: 50995, Start Num: 25

Candidate Starts for Wizard_72:

(9, 50594), (23, 50672), (Start: 25 @50708 has 28 MA's), (27, 50723), (35, 50846), (39, 50915), (45, 50975), (46, 50984),

Gene: Yarn_62 Start: 43457, Stop: 43762, Start Num: 22

Candidate Starts for Yarn_62:

(Start: 22 @43457 has 5 MA's), (27, 43502), (29, 43541), (30, 43559), (37, 43643), (42, 43712),

Gene: YungMoney_74 Start: 52628, Stop: 52912, Start Num: 25

Candidate Starts for YungMoney_74:

(Start: 25 @52628 has 28 MA's), (28, 52646), (35, 52763), (36, 52775), (39, 52832), (46, 52901),