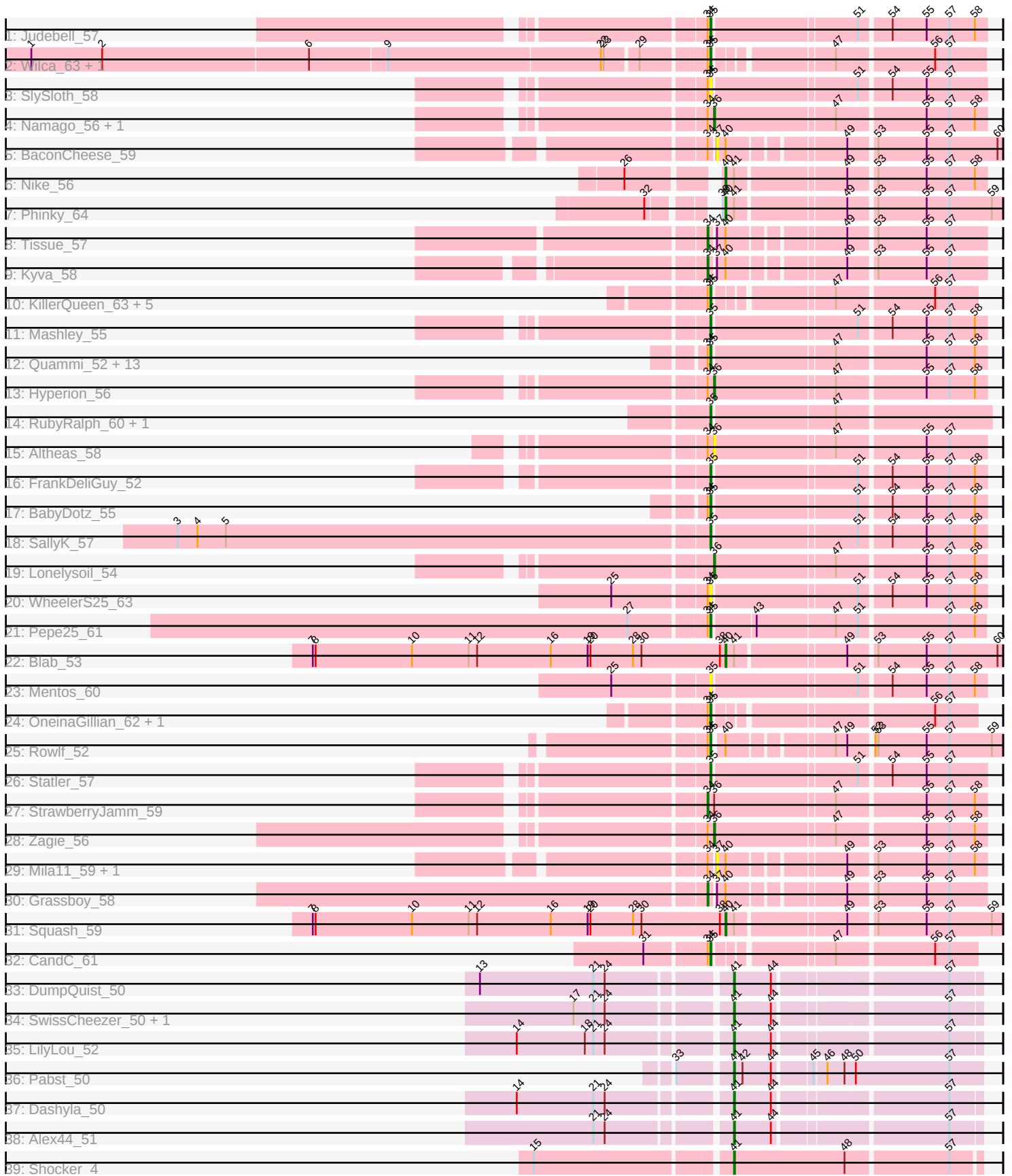




Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. If this default region is judged to be packed too tightly 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 280444 Report

This analysis was run 02/07/26 on database version 634.

Pham number 280444 has 63 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Judebell_57
- Track 2 : Wilca_63, BirdInFrench_63
- Track 3 : SlySloth_58
- Track 4 : Namago_56, Gazebo_55
- Track 5 : BaconCheese_59
- Track 6 : Nike_56
- Track 7 : Phinky_64
- Track 8 : Tissue_57
- Track 9 : Kyva_58
- Track 10 : KillerQueen_63, Fregley_62, Romm_64, Kelcole_60, Tempo_62, RobinRose_64
- Track 11 : Mashley_55
- Track 12 : Quammi_52, DonaldDuck_54, Wheelie_54, Viceroy_53, Rudy_52, EverythinBagel_53, Casend_55, Wayne3_56, Jehoshaphat_56, Llemily_54, Phabia_54, Sillytadpoles_55, Zhafia_57, Teehee_55
- Track 13 : Hyperion_56
- Track 14 : RubyRalph_60, Fransoyer_58
- Track 15 : Altheas_58
- Track 16 : FrankDeliGuy_52
- Track 17 : BabyDotz_55
- Track 18 : SallyK_57
- Track 19 : Lonelysoil_54
- Track 20 : WheelerS25_63
- Track 21 : Pepe25_61
- Track 22 : Blab_53
- Track 23 : Mentos_60
- Track 24 : OneinaGillian_62, Marcie_67
- Track 25 : Rowlf_52
- Track 26 : Statler_57
- Track 27 : StrawberryJamm_59
- Track 28 : Zagie_56
- Track 29 : Mila11_59, MorillMayhem_57
- Track 30 : Grassboy_58
- Track 31 : Squash_59
- Track 32 : CandC_61
- Track 33 : DumpQuist_50
- Track 34 : SwissCheezer_50, ArMaWen_50

- Track 35 : LilyLou_52
- Track 36 : Pabst_50
- Track 37 : Dashyla_50
- Track 38 : Alex44_51
- Track 39 : Shocker_4

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

The start number called the most often in the published annotations is 35, it was called in 34 of the 55 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BabyDotz_55, BirdInFrench_63, CandC_61, Casend_55, DonaldDuck_54, EverythinBagel_53, FrankDeliGuy_52, Fransoyer_58, Fregley_62, Jehoshaphat_56, Judebell_57, Kelcole_60, KillerQueen_63, Llemily_54, Marcie_67, Mashley_55, Mentos_60, OneinaGillian_62, Pepe25_61, Phabia_54, Quammi_52, RobinRose_64, Romm_64, Rowlf_52, RubyRalph_60, Rudy_52, SallyK_57, Sillytadpoles_55, SlySloth_58, Statler_57, Teehee_55, Tempo_62, Viceroy_53, Wayne3_56, WheelerS25_63, Wheelie_54, Wilca_63, Zhafia_57,

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

-

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

- Alex44_51, Altheas_58, ArMaWen_50, BaconCheese_59, Blab_53, Dashyla_50, DumpQuist_50, Gazebo_55, Grassboy_58, Hyperion_56, Kyva_58, LilyLou_52, Lonelysoil_54, Mila11_59, MorillMayhem_57, Namago_56, Nike_56, Pabst_50, Phinky_64, Shocker_4, Squash_59, StrawberryJamm_59, SwissCheezer_50, Tissue_57, Zagie_56,

Summary by start number:

Start 34:

- Found in 43 of 63 (68.3%) of genes in pham
- Manual Annotations of this start: 4 of 55
- Called 9.3% of time when present
- Phage (with cluster) where this start called: Grassboy_58 (EG), Kyva_58 (EG), StrawberryJamm_59 (EG), Tissue_57 (EG),

Start 35:

- Found in 38 of 63 (60.3%) of genes in pham
- Manual Annotations of this start: 34 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BabyDotz_55 (EG), BirdInFrench_63 (EG), CandC_61 (EG), Casend_55 (EG), DonaldDuck_54 (EG), EverythinBagel_53 (EG), FrankDeliGuy_52 (EG), Fransoyer_58 (EG), Fregley_62 (EG), Jehoshaphat_56 (EG), Judebell_57 (EG), Kelcole_60 (EG), KillerQueen_63 (EG), Llemily_54 (EG), Marcie_67 (EG), Mashley_55 (EG), Mentos_60 (EG), OneinaGillian_62 (EG), Pepe25_61 (EG), Phabia_54 (EG), Quammi_52 (EG), RobinRose_64 (EG), Romm_64 (EG), Rowlf_52 (EG), RubyRalph_60 (EG), Rudy_52 (EG), SallyK_57

(EG), Sillytadpoles_55 (EG), SlySloth_58 (EG), Statler_57 (EG), Teehee_55 (EG), Tempo_62 (EG), Viceroy_53 (EG), Wayne3_56 (EG), WheelerS25_63 (EG), Wheelie_54 (EG), Wilca_63 (EG), Zhafia_57 (EG),

Start 36:

- Found in 7 of 63 (11.1%) of genes in pham
- Manual Annotations of this start: 5 of 55
- Called 85.7% of time when present
- Phage (with cluster) where this start called: Altheas_58 (EG), Gazebo_55 (EG), Hyperion_56 (EG), Lonelysoil_54 (EG), Namago_56 (EG), Zagie_56 (EG),

Start 37:

- Found in 6 of 63 (9.5%) of genes in pham
- No Manual Annotations of this start.
- Called 50.0% of time when present
- Phage (with cluster) where this start called: BaconCheese_59 (EG), Mila11_59 (EG), MorillMayhem_57 (EG),

Start 40:

- Found in 11 of 63 (17.5%) of genes in pham
- Manual Annotations of this start: 4 of 55
- Called 36.4% of time when present
- Phage (with cluster) where this start called: Blab_53 (EG), Nike_56 (EG), Phinky_64 (EG), Squash_59 (EG),

Start 41:

- Found in 12 of 63 (19.0%) of genes in pham
- Manual Annotations of this start: 8 of 55
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Alex44_51 (EK1), ArMaWen_50 (EK1), Dashyla_50 (EK1), DumpQuist_50 (EK1), LilyLou_52 (EK1), Pabst_50 (EK1), Shocker_4 (singleton), SwissCheezer_50 (EK1),

Summary by clusters:

There are 3 clusters represented in this pham: EG, singleton, EK1,

Info for manual annotations of cluster EG:

- Start number 34 was manually annotated 4 times for cluster EG.
- Start number 35 was manually annotated 34 times for cluster EG.
- Start number 36 was manually annotated 5 times for cluster EG.
- Start number 40 was manually annotated 4 times for cluster EG.

Info for manual annotations of cluster EK1:

- Start number 41 was manually annotated 7 times for cluster EK1.

Gene Information:

Gene: Alex44_51 Start: 51379, Stop: 51618, Start Num: 41

Candidate Starts for Alex44_51:

(21, 51250), (24, 51262), (Start: 41 @51379 has 8 MA's), (44, 51418), (57, 51586),

Gene: Altheas_58 Start: 42617, Stop: 42345, Start Num: 36

Candidate Starts for Altheas_58:

(Start: 34 @42623 has 4 MA's), (Start: 36 @42617 has 5 MA's), (47, 42494), (55, 42407), (57, 42383),

Gene: ArMaWen_50 Start: 50919, Stop: 51158, Start Num: 41

Candidate Starts for ArMaWen_50:

(17, 50769), (21, 50790), (24, 50802), (Start: 41 @50919 has 8 MA's), (44, 50958), (57, 51126),

Gene: BabyDotz_55 Start: 42840, Stop: 42568, Start Num: 35

Candidate Starts for BabyDotz_55:

(Start: 34 @42843 has 4 MA's), (Start: 35 @42840 has 34 MA's), (51, 42696), (54, 42666), (55, 42630), (57, 42606), (58, 42579),

Gene: BaconCheese_59 Start: 43496, Stop: 43224, Start Num: 37

Candidate Starts for BaconCheese_59:

(Start: 34 @43502 has 4 MA's), (37, 43496), (Start: 40 @43487 has 4 MA's), (49, 43379), (53, 43355), (55, 43304), (57, 43280), (60, 43229),

Gene: BirdInFrench_63 Start: 42918, Stop: 42661, Start Num: 35

Candidate Starts for BirdInFrench_63:

(1, 43611), (2, 43536), (6, 43320), (9, 43239), (22, 43017), (23, 43014), (29, 42984), (Start: 34 @42921 has 4 MA's), (Start: 35 @42918 has 34 MA's), (47, 42810), (56, 42714), (57, 42699),

Gene: Blab_53 Start: 41667, Stop: 41395, Start Num: 40

Candidate Starts for Blab_53:

(7, 42102), (8, 42099), (10, 41997), (11, 41937), (12, 41928), (16, 41850), (19, 41811), (20, 41808), (28, 41763), (30, 41754), (38, 41673), (Start: 40 @41667 has 4 MA's), (Start: 41 @41658 has 8 MA's), (49, 41550), (53, 41526), (55, 41475), (57, 41451), (60, 41400),

Gene: CandC_61 Start: 42136, Stop: 41888, Start Num: 35

Candidate Starts for CandC_61:

(31, 42196), (Start: 34 @42139 has 4 MA's), (Start: 35 @42136 has 34 MA's), (47, 42028), (56, 41932), (57, 41917),

Gene: Casend_55 Start: 42251, Stop: 41979, Start Num: 35

Candidate Starts for Casend_55:

(Start: 34 @42254 has 4 MA's), (Start: 35 @42251 has 34 MA's), (47, 42128), (55, 42041), (57, 42017), (58, 41990),

Gene: Dashyla_50 Start: 51053, Stop: 51292, Start Num: 41

Candidate Starts for Dashyla_50:

(14, 50843), (21, 50924), (24, 50936), (Start: 41 @51053 has 8 MA's), (44, 51092), (57, 51260),

Gene: DonaldDuck_54 Start: 41600, Stop: 41328, Start Num: 35

Candidate Starts for DonaldDuck_54:

(Start: 34 @41603 has 4 MA's), (Start: 35 @41600 has 34 MA's), (47, 41477), (55, 41390), (57, 41366), (58, 41339),

Gene: DumpQuist_50 Start: 50907, Stop: 51146, Start Num: 41

Candidate Starts for DumpQuist_50:

(13, 50658), (21, 50778), (24, 50790), (Start: 41 @50907 has 8 MA's), (44, 50946), (57, 51114),

Gene: EverythinBagel_53 Start: 41961, Stop: 41689, Start Num: 35
Candidate Starts for EverythinBagel_53:
(Start: 34 @41964 has 4 MA's), (Start: 35 @41961 has 34 MA's), (47, 41838), (55, 41751), (57, 41727), (58, 41700),

Gene: FrankDeliGuy_52 Start: 41773, Stop: 41501, Start Num: 35
Candidate Starts for FrankDeliGuy_52:
(Start: 35 @41773 has 34 MA's), (51, 41629), (54, 41599), (55, 41563), (57, 41539), (58, 41512),

Gene: Fransoyer_58 Start: 44153, Stop: 43872, Start Num: 35
Candidate Starts for Fransoyer_58:
(Start: 35 @44153 has 34 MA's), (47, 44027),

Gene: Fregley_62 Start: 42305, Stop: 42057, Start Num: 35
Candidate Starts for Fregley_62:
(Start: 34 @42308 has 4 MA's), (Start: 35 @42305 has 34 MA's), (47, 42197), (56, 42101), (57, 42086),

Gene: Gazebo_55 Start: 42275, Stop: 42003, Start Num: 36
Candidate Starts for Gazebo_55:
(Start: 34 @42281 has 4 MA's), (Start: 36 @42275 has 5 MA's), (47, 42152), (55, 42065), (57, 42041), (58, 42014),

Gene: Grassboy_58 Start: 42646, Stop: 42386, Start Num: 34
Candidate Starts for Grassboy_58:
(Start: 34 @42646 has 4 MA's), (37, 42640), (Start: 40 @42631 has 4 MA's), (49, 42523), (53, 42499), (55, 42448), (57, 42424),

Gene: Hyperion_56 Start: 42456, Stop: 42184, Start Num: 36
Candidate Starts for Hyperion_56:
(Start: 34 @42459 has 4 MA's), (Start: 36 @42456 has 5 MA's), (47, 42333), (55, 42246), (57, 42222), (58, 42195),

Gene: Jehoshaphat_56 Start: 42519, Stop: 42247, Start Num: 35
Candidate Starts for Jehoshaphat_56:
(Start: 34 @42522 has 4 MA's), (Start: 35 @42519 has 34 MA's), (47, 42396), (55, 42309), (57, 42285), (58, 42258),

Gene: Judebell_57 Start: 42165, Stop: 41893, Start Num: 35
Candidate Starts for Judebell_57:
(Start: 34 @42168 has 4 MA's), (Start: 35 @42165 has 34 MA's), (51, 42021), (54, 41991), (55, 41955), (57, 41931), (58, 41904),

Gene: Kelcole_60 Start: 42364, Stop: 42116, Start Num: 35
Candidate Starts for Kelcole_60:
(Start: 34 @42367 has 4 MA's), (Start: 35 @42364 has 34 MA's), (47, 42256), (56, 42160), (57, 42145),

Gene: KillerQueen_63 Start: 42614, Stop: 42366, Start Num: 35
Candidate Starts for KillerQueen_63:
(Start: 34 @42617 has 4 MA's), (Start: 35 @42614 has 34 MA's), (47, 42506), (56, 42410), (57, 42395),

Gene: Kyva_58 Start: 42703, Stop: 42443, Start Num: 34
Candidate Starts for Kyva_58:

(Start: 34 @42703 has 4 MA's), (37, 42697), (Start: 40 @42688 has 4 MA's), (49, 42580), (53, 42556), (55, 42505), (57, 42481),

Gene: LilyLou_52 Start: 51371, Stop: 51610, Start Num: 41

Candidate Starts for LilyLou_52:

(14, 51161), (18, 51233), (21, 51242), (24, 51254), (Start: 41 @51371 has 8 MA's), (44, 51410), (57, 51578),

Gene: Llemily_54 Start: 41295, Stop: 41023, Start Num: 35

Candidate Starts for Llemily_54:

(Start: 34 @41298 has 4 MA's), (Start: 35 @41295 has 34 MA's), (47, 41172), (55, 41085), (57, 41061), (58, 41034),

Gene: Lonelysoil_54 Start: 41648, Stop: 41376, Start Num: 36

Candidate Starts for Lonelysoil_54:

(Start: 36 @41648 has 5 MA's), (47, 41525), (55, 41438), (57, 41414), (58, 41387),

Gene: Marcie_67 Start: 43263, Stop: 43015, Start Num: 35

Candidate Starts for Marcie_67:

(Start: 34 @43266 has 4 MA's), (Start: 35 @43263 has 34 MA's), (56, 43059), (57, 43044),

Gene: Mashley_55 Start: 42232, Stop: 41960, Start Num: 35

Candidate Starts for Mashley_55:

(Start: 35 @42232 has 34 MA's), (51, 42088), (54, 42058), (55, 42022), (57, 41998), (58, 41971),

Gene: Mentos_60 Start: 43466, Stop: 43194, Start Num: 35

Candidate Starts for Mentos_60:

(25, 43562), (Start: 35 @43466 has 34 MA's), (51, 43322), (54, 43292), (55, 43256), (57, 43232), (58, 43205),

Gene: Mila11_59 Start: 43685, Stop: 43431, Start Num: 37

Candidate Starts for Mila11_59:

(Start: 34 @43691 has 4 MA's), (37, 43685), (Start: 40 @43676 has 4 MA's), (49, 43568), (53, 43544), (55, 43493), (57, 43469), (58, 43442),

Gene: MorillMayhem_57 Start: 42562, Stop: 42308, Start Num: 37

Candidate Starts for MorillMayhem_57:

(Start: 34 @42568 has 4 MA's), (37, 42562), (Start: 40 @42553 has 4 MA's), (49, 42445), (53, 42421), (55, 42370), (57, 42346), (58, 42319),

Gene: Namago_56 Start: 41635, Stop: 41363, Start Num: 36

Candidate Starts for Namago_56:

(Start: 34 @41641 has 4 MA's), (Start: 36 @41635 has 5 MA's), (47, 41512), (55, 41425), (57, 41401), (58, 41374),

Gene: Nike_56 Start: 42603, Stop: 42349, Start Num: 40

Candidate Starts for Nike_56:

(26, 42684), (Start: 40 @42603 has 4 MA's), (Start: 41 @42594 has 8 MA's), (49, 42486), (53, 42462), (55, 42411), (57, 42387), (58, 42360),

Gene: OneinaGillian_62 Start: 42266, Stop: 42018, Start Num: 35

Candidate Starts for OneinaGillian_62:

(Start: 34 @42269 has 4 MA's), (Start: 35 @42266 has 34 MA's), (56, 42062), (57, 42047),

Gene: Pabst_50 Start: 50450, Stop: 50701, Start Num: 41

Candidate Starts for Pabst_50:

(33, 50399), (Start: 41 @50450 has 8 MA's), (42, 50459), (44, 50489), (45, 50525), (46, 50537), (48, 50555), (50, 50567), (57, 50666),

Gene: Pepe25_61 Start: 41821, Stop: 41549, Start Num: 35

Candidate Starts for Pepe25_61:

(27, 41899), (Start: 34 @41824 has 4 MA's), (Start: 35 @41821 has 34 MA's), (43, 41779), (47, 41698), (51, 41677), (57, 41587), (58, 41560),

Gene: Phabia_54 Start: 41710, Stop: 41438, Start Num: 35

Candidate Starts for Phabia_54:

(Start: 34 @41713 has 4 MA's), (Start: 35 @41710 has 34 MA's), (47, 41587), (55, 41500), (57, 41476), (58, 41449),

Gene: Phinky_64 Start: 44342, Stop: 44070, Start Num: 40

Candidate Starts for Phinky_64:

(32, 44396), (39, 44345), (Start: 40 @44342 has 4 MA's), (Start: 41 @44333 has 8 MA's), (49, 44225), (53, 44201), (55, 44150), (57, 44126), (59, 44081),

Gene: Quammi_52 Start: 41410, Stop: 41138, Start Num: 35

Candidate Starts for Quammi_52:

(Start: 34 @41413 has 4 MA's), (Start: 35 @41410 has 34 MA's), (47, 41287), (55, 41200), (57, 41176), (58, 41149),

Gene: RobinRose_64 Start: 42778, Stop: 42530, Start Num: 35

Candidate Starts for RobinRose_64:

(Start: 34 @42781 has 4 MA's), (Start: 35 @42778 has 34 MA's), (47, 42670), (56, 42574), (57, 42559),

Gene: Romm_64 Start: 42775, Stop: 42527, Start Num: 35

Candidate Starts for Romm_64:

(Start: 34 @42778 has 4 MA's), (Start: 35 @42775 has 34 MA's), (47, 42667), (56, 42571), (57, 42556),

Gene: Rowlf_52 Start: 41508, Stop: 41236, Start Num: 35

Candidate Starts for Rowlf_52:

(Start: 34 @41511 has 4 MA's), (Start: 35 @41508 has 34 MA's), (Start: 40 @41499 has 4 MA's), (47, 41403), (49, 41391), (52, 41370), (53, 41367), (55, 41316), (57, 41292), (59, 41247),

Gene: RubyRalph_60 Start: 44491, Stop: 44210, Start Num: 35

Candidate Starts for RubyRalph_60:

(Start: 35 @44491 has 34 MA's), (47, 44365),

Gene: Rudy_52 Start: 41446, Stop: 41174, Start Num: 35

Candidate Starts for Rudy_52:

(Start: 34 @41449 has 4 MA's), (Start: 35 @41446 has 34 MA's), (47, 41323), (55, 41236), (57, 41212), (58, 41185),

Gene: SallyK_57 Start: 42760, Stop: 42488, Start Num: 35

Candidate Starts for SallyK_57:

(3, 43315), (4, 43294), (5, 43264), (Start: 35 @42760 has 34 MA's), (51, 42616), (54, 42586), (55, 42550), (57, 42526), (58, 42499),

Gene: Shocker_4 Start: 1170, Stop: 1418, Start Num: 41

Candidate Starts for Shocker_4:

(15, 975), (Start: 41 @1170 has 8 MA's), (48, 1287), (57, 1389),

Gene: Sillytadpoles_55 Start: 41283, Stop: 41011, Start Num: 35

Candidate Starts for Sillytadpoles_55:

(Start: 34 @41286 has 4 MA's), (Start: 35 @41283 has 34 MA's), (47, 41160), (55, 41073), (57, 41049), (58, 41022),

Gene: SlySloth_58 Start: 42152, Stop: 41880, Start Num: 35

Candidate Starts for SlySloth_58:

(Start: 34 @42155 has 4 MA's), (Start: 35 @42152 has 34 MA's), (51, 42008), (54, 41978), (55, 41942), (57, 41918),

Gene: Squash_59 Start: 42626, Stop: 42354, Start Num: 40

Candidate Starts for Squash_59:

(7, 43061), (8, 43058), (10, 42956), (11, 42896), (12, 42887), (16, 42809), (19, 42770), (20, 42767), (28, 42722), (30, 42713), (38, 42632), (Start: 40 @42626 has 4 MA's), (Start: 41 @42617 has 8 MA's), (49, 42509), (53, 42485), (55, 42434), (57, 42410), (59, 42365),

Gene: Statler_57 Start: 42227, Stop: 41955, Start Num: 35

Candidate Starts for Statler_57:

(Start: 35 @42227 has 34 MA's), (51, 42083), (54, 42053), (55, 42017), (57, 41993),

Gene: StrawberryJamm_59 Start: 41944, Stop: 41666, Start Num: 34

Candidate Starts for StrawberryJamm_59:

(Start: 34 @41944 has 4 MA's), (Start: 36 @41938 has 5 MA's), (47, 41815), (55, 41728), (57, 41704), (58, 41677),

Gene: SwissCheezer_50 Start: 50936, Stop: 51175, Start Num: 41

Candidate Starts for SwissCheezer_50:

(17, 50786), (21, 50807), (24, 50819), (Start: 41 @50936 has 8 MA's), (44, 50975), (57, 51143),

Gene: Teehee_55 Start: 42516, Stop: 42244, Start Num: 35

Candidate Starts for Teehee_55:

(Start: 34 @42519 has 4 MA's), (Start: 35 @42516 has 34 MA's), (47, 42393), (55, 42306), (57, 42282), (58, 42255),

Gene: Tempo_62 Start: 42643, Stop: 42395, Start Num: 35

Candidate Starts for Tempo_62:

(Start: 34 @42646 has 4 MA's), (Start: 35 @42643 has 34 MA's), (47, 42535), (56, 42439), (57, 42424),

Gene: Tissue_57 Start: 42542, Stop: 42282, Start Num: 34

Candidate Starts for Tissue_57:

(Start: 34 @42542 has 4 MA's), (37, 42536), (Start: 40 @42527 has 4 MA's), (49, 42419), (53, 42395), (55, 42344), (57, 42320),

Gene: Viceroy_53 Start: 41416, Stop: 41144, Start Num: 35

Candidate Starts for Viceroy_53:

(Start: 34 @41419 has 4 MA's), (Start: 35 @41416 has 34 MA's), (47, 41293), (55, 41206), (57, 41182), (58, 41155),

Gene: Wayne3_56 Start: 42279, Stop: 42007, Start Num: 35

Candidate Starts for Wayne3_56:

(Start: 34 @42282 has 4 MA's), (Start: 35 @42279 has 34 MA's), (47, 42156), (55, 42069), (57, 42045), (58, 42018),

Gene: WheelerS25_63 Start: 43635, Stop: 43363, Start Num: 35

Candidate Starts for WheelerS25_63:

(25, 43731), (Start: 34 @43638 has 4 MA's), (Start: 35 @43635 has 34 MA's), (51, 43491), (54, 43461), (55, 43425), (57, 43401), (58, 43374),

Gene: Wheelie_54 Start: 41600, Stop: 41328, Start Num: 35

Candidate Starts for Wheelie_54:

(Start: 34 @41603 has 4 MA's), (Start: 35 @41600 has 34 MA's), (47, 41477), (55, 41390), (57, 41366), (58, 41339),

Gene: Wilca_63 Start: 42918, Stop: 42661, Start Num: 35

Candidate Starts for Wilca_63:

(1, 43611), (2, 43536), (6, 43320), (9, 43239), (22, 43017), (23, 43014), (29, 42984), (Start: 34 @42921 has 4 MA's), (Start: 35 @42918 has 34 MA's), (47, 42810), (56, 42714), (57, 42699),

Gene: Zagie_56 Start: 42135, Stop: 41863, Start Num: 36

Candidate Starts for Zagie_56:

(Start: 34 @42141 has 4 MA's), (Start: 36 @42135 has 5 MA's), (47, 42012), (55, 41925), (57, 41901), (58, 41874),

Gene: Zhafia_57 Start: 42080, Stop: 41808, Start Num: 35

Candidate Starts for Zhafia_57:

(Start: 34 @42083 has 4 MA's), (Start: 35 @42080 has 34 MA's), (47, 41957), (55, 41870), (57, 41846), (58, 41819),