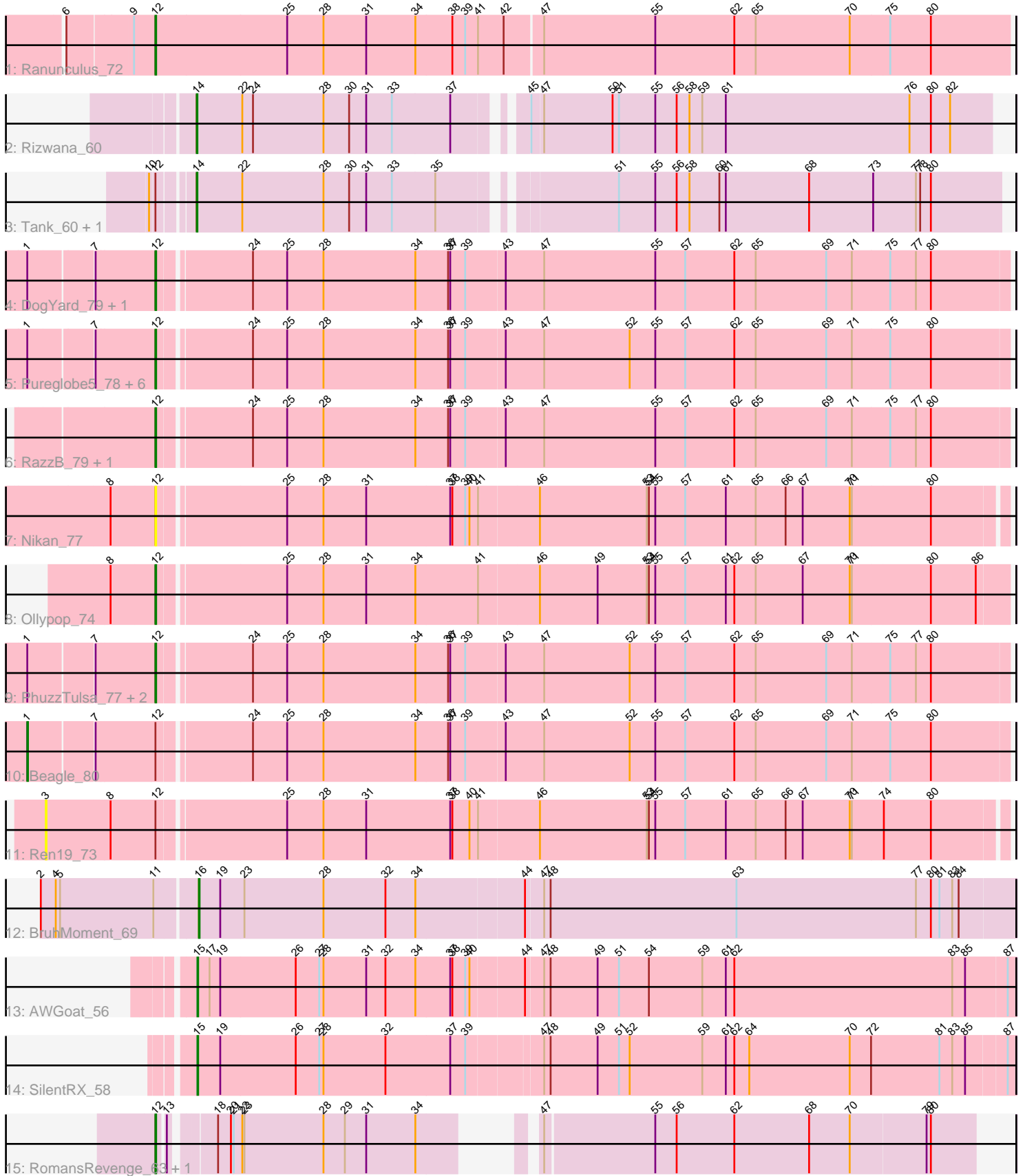


Pham 301658



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 301658 Report

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

Pham number 301658 has 27 members, 8 are drafts.

Phages represented in each track:

- Track 1 : Ranunculus\_72
- Track 2 : Rizwana\_60
- Track 3 : Tank\_60, Wilde\_62
- Track 4 : DogYard\_79, NyleyClemson\_78
- Track 5 : Pureglobe5\_78, Pointis\_76, Popstraw\_75, Hive\_75, Kubulix\_79, BetaFish\_79, Odyssey395\_80
- Track 6 : RazzB\_79, Forrestell\_79
- Track 7 : Nikan\_77
- Track 8 : Ollypop\_74
- Track 9 : PhuzzTulsa\_77, MellowYellow\_80, RIPWilbur\_78
- Track 10 : Beagle\_80
- Track 11 : Ren19\_73
- Track 12 : BruhMoment\_69
- Track 13 : AWGoat\_56
- Track 14 : SilentRX\_58
- Track 15 : RomansRevenge\_63, Boise\_62

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

The start number called the most often in the published annotations is 12, it was called in 12 of the 19 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- BetaFish\_79, Boise\_62, DogYard\_79, Forrestell\_79, Hive\_75, Kubulix\_79, MellowYellow\_80, Nikan\_77, NyleyClemson\_78, Odyssey395\_80, Ollypop\_74, PhuzzTulsa\_77, Pointis\_76, Popstraw\_75, Pureglobe5\_78, RIPWilbur\_78, Ranunculus\_72, RazzB\_79, RomansRevenge\_63,

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

- Beagle\_80, Ren19\_73, Tank\_60, Wilde\_62,

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

- AWGoat\_56, BruhMoment\_69, Rizwana\_60, SilentRX\_58,

## Summary by start number:

### Start 1:

- Found in 13 of 27 ( 48.1% ) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 7.7% of time when present
- Phage (with cluster) where this start called: Beagle\_80 (AP2),

### Start 3:

- Found in 1 of 27 ( 3.7% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Ren19\_73 (AP2),

### Start 12:

- Found in 23 of 27 ( 85.2% ) of genes in pham
- Manual Annotations of this start: 12 of 19
- Called 82.6% of time when present
- Phage (with cluster) where this start called: BetaFish\_79 (AP2), Boise\_62 (FT), DogYard\_79 (AP2), Forrestell\_79 (AP2), Hive\_75 (AP2), Kubulix\_79 (AP2), MellowYellow\_80 (AP2), Nikan\_77 (AP2), NyleyClemson\_78 (AP2), Odyssey395\_80 (AP2), Ollypop\_74 (AP2), PhuzzTulsa\_77 (AP2), Pointis\_76 (AP2), Popstraw\_75 (AP2), Pureglobe5\_78 (AP2), RIPWilbur\_78 (AP2), Ranunculus\_72 (AP), RazzB\_79 (AP2), RomansRevenge\_63 (FT),

### Start 14:

- Found in 3 of 27 ( 11.1% ) of genes in pham
- Manual Annotations of this start: 3 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rizwana\_60 (AP1), Tank\_60 (AP1), Wilde\_62 (AP1),

### Start 15:

- Found in 2 of 27 ( 7.4% ) of genes in pham
- Manual Annotations of this start: 2 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AWGoat\_56 (AP4), SilentRX\_58 (AP4),

### Start 16:

- Found in 1 of 27 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 1 of 19
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BruhMoment\_69 (AP3),

## Summary by clusters:

There are 6 clusters represented in this pham: FT, AP2, AP3, AP1, AP4, AP,

Info for manual annotations of cluster AP:

- Start number 12 was manually annotated 1 time for cluster AP.

Info for manual annotations of cluster AP1:

- Start number 14 was manually annotated 3 times for cluster AP1.

Info for manual annotations of cluster AP2:

- Start number 1 was manually annotated 1 time for cluster AP2.
- Start number 12 was manually annotated 10 times for cluster AP2.

Info for manual annotations of cluster AP3:

- Start number 16 was manually annotated 1 time for cluster AP3.

Info for manual annotations of cluster AP4:

- Start number 15 was manually annotated 2 times for cluster AP4.

Info for manual annotations of cluster FT:

- Start number 12 was manually annotated 1 time for cluster FT.

### **Gene Information:**

Gene: AWGoat\_56 Start: 42055, Stop: 40922, Start Num: 15

Candidate Starts for AWGoat\_56:

(Start: 15 @42055 has 2 MA's), (17, 42040), (19, 42025), (26, 41920), (27, 41887), (28, 41881), (31, 41821), (32, 41794), (34, 41752), (37, 41704), (38, 41701), (39, 41683), (40, 41677), (44, 41605), (47, 41581), (48, 41572), (49, 41506), (51, 41476), (54, 41434), (59, 41359), (61, 41326), (62, 41314), (83, 41008), (85, 40990), (87, 40933),

Gene: Beagle\_80 Start: 47788, Stop: 46451, Start Num: 1

Candidate Starts for Beagle\_80:

(Start: 1 @47788 has 1 MA's), (7, 47704), (Start: 12 @47623 has 12 MA's), (24, 47503), (25, 47455), (28, 47404), (34, 47275), (36, 47230), (37, 47227), (39, 47206), (43, 47152), (47, 47098), (52, 46978), (55, 46942), (57, 46900), (62, 46831), (65, 46801), (69, 46702), (71, 46666), (75, 46615), (80, 46558),

Gene: BetaFish\_79 Start: 48352, Stop: 47180, Start Num: 12

Candidate Starts for BetaFish\_79:

(Start: 1 @48517 has 1 MA's), (7, 48433), (Start: 12 @48352 has 12 MA's), (24, 48232), (25, 48184), (28, 48133), (34, 48004), (36, 47959), (37, 47956), (39, 47935), (43, 47881), (47, 47827), (52, 47707), (55, 47671), (57, 47629), (62, 47560), (65, 47530), (69, 47431), (71, 47395), (75, 47344), (80, 47287),

Gene: Boise\_62 Start: 44645, Stop: 43632, Start Num: 12

Candidate Starts for Boise\_62:

(Start: 12 @44645 has 12 MA's), (13, 44636), (18, 44585), (20, 44567), (21, 44564), (22, 44552), (23, 44549), (28, 44438), (29, 44408), (31, 44378), (34, 44309), (47, 44228), (55, 44078), (56, 44048), (62, 43967), (68, 43862), (70, 43805), (79, 43700), (80, 43694),

Gene: BruhMoment\_69 Start: 46840, Stop: 45707, Start Num: 16

Candidate Starts for BruhMoment\_69:

(2, 47047), (4, 47026), (5, 47020), (11, 46894), (Start: 16 @46840 has 1 MA's), (19, 46810), (23, 46777), (28, 46666), (32, 46579), (34, 46537), (44, 46390), (47, 46366), (48, 46357), (63, 46096), (77, 45844), (80, 45823), (81, 45811), (83, 45793), (84, 45784),

Gene: DogYard\_79 Start: 47839, Stop: 46667, Start Num: 12

Candidate Starts for DogYard\_79:

(Start: 1 @48004 has 1 MA's), (7, 47920), (Start: 12 @47839 has 12 MA's), (24, 47719), (25, 47671), (28, 47620), (34, 47491), (36, 47446), (37, 47443), (39, 47422), (43, 47368), (47, 47314), (55, 47158),

(57, 47116), (62, 47047), (65, 47017), (69, 46918), (71, 46882), (75, 46831), (77, 46795), (80, 46774),

Gene: Forrestell\_79 Start: 47078, Stop: 45906, Start Num: 12

Candidate Starts for Forrestell\_79:

(Start: 12 @47078 has 12 MA's), (24, 46958), (25, 46910), (28, 46859), (34, 46730), (36, 46685), (37, 46682), (39, 46661), (43, 46607), (47, 46553), (55, 46397), (57, 46355), (62, 46286), (65, 46256), (69, 46157), (71, 46121), (75, 46070), (77, 46034), (80, 46013),

Gene: Hive\_75 Start: 47619, Stop: 46447, Start Num: 12

Candidate Starts for Hive\_75:

(Start: 1 @47784 has 1 MA's), (7, 47700), (Start: 12 @47619 has 12 MA's), (24, 47499), (25, 47451), (28, 47400), (34, 47271), (36, 47226), (37, 47223), (39, 47202), (43, 47148), (47, 47094), (52, 46974), (55, 46938), (57, 46896), (62, 46827), (65, 46797), (69, 46698), (71, 46662), (75, 46611), (80, 46554),

Gene: Kubulix\_79 Start: 47509, Stop: 46337, Start Num: 12

Candidate Starts for Kubulix\_79:

(Start: 1 @47674 has 1 MA's), (7, 47590), (Start: 12 @47509 has 12 MA's), (24, 47389), (25, 47341), (28, 47290), (34, 47161), (36, 47116), (37, 47113), (39, 47092), (43, 47038), (47, 46984), (52, 46864), (55, 46828), (57, 46786), (62, 46717), (65, 46687), (69, 46588), (71, 46552), (75, 46501), (80, 46444),

Gene: MellowYellow\_80 Start: 47751, Stop: 46579, Start Num: 12

Candidate Starts for MellowYellow\_80:

(Start: 1 @47916 has 1 MA's), (7, 47832), (Start: 12 @47751 has 12 MA's), (24, 47631), (25, 47583), (28, 47532), (34, 47403), (36, 47358), (37, 47355), (39, 47334), (43, 47280), (47, 47226), (52, 47106), (55, 47070), (57, 47028), (62, 46959), (65, 46929), (69, 46830), (71, 46794), (75, 46743), (77, 46707), (80, 46686),

Gene: Nikan\_77 Start: 47639, Stop: 46479, Start Num: 12

Candidate Starts for Nikan\_77:

(8, 47699), (Start: 12 @47639 has 12 MA's), (25, 47471), (28, 47420), (31, 47360), (37, 47243), (38, 47240), (39, 47222), (40, 47216), (41, 47204), (46, 47123), (53, 46973), (54, 46970), (55, 46961), (57, 46919), (61, 46862), (65, 46820), (66, 46778), (67, 46754), (70, 46688), (71, 46685), (80, 46577),

Gene: NyleyClemson\_78 Start: 47366, Stop: 46194, Start Num: 12

Candidate Starts for NyleyClemson\_78:

(Start: 1 @47531 has 1 MA's), (7, 47447), (Start: 12 @47366 has 12 MA's), (24, 47246), (25, 47198), (28, 47147), (34, 47018), (36, 46973), (37, 46970), (39, 46949), (43, 46895), (47, 46841), (55, 46685), (57, 46643), (62, 46574), (65, 46544), (69, 46445), (71, 46409), (75, 46358), (77, 46322), (80, 46301),

Gene: Odyssey395\_80 Start: 47860, Stop: 46688, Start Num: 12

Candidate Starts for Odyssey395\_80:

(Start: 1 @48025 has 1 MA's), (7, 47941), (Start: 12 @47860 has 12 MA's), (24, 47740), (25, 47692), (28, 47641), (34, 47512), (36, 47467), (37, 47464), (39, 47443), (43, 47389), (47, 47335), (52, 47215), (55, 47179), (57, 47137), (62, 47068), (65, 47038), (69, 46939), (71, 46903), (75, 46852), (80, 46795),

Gene: Ollypop\_74 Start: 47872, Stop: 46703, Start Num: 12

Candidate Starts for Ollypop\_74:

(8, 47932), (Start: 12 @47872 has 12 MA's), (25, 47704), (28, 47653), (31, 47593), (34, 47524), (41, 47437), (46, 47356), (49, 47275), (53, 47206), (54, 47203), (55, 47194), (57, 47152), (61, 47095), (62, 47083), (65, 47053), (67, 46987), (70, 46921), (71, 46918), (80, 46810), (86, 46747),

Gene: PhuzzTulsa\_77 Start: 48054, Stop: 46882, Start Num: 12

Candidate Starts for PhuzzTulsa\_77:

(Start: 1 @48219 has 1 MA's), (7, 48135), (Start: 12 @48054 has 12 MA's), (24, 47934), (25, 47886), (28, 47835), (34, 47706), (36, 47661), (37, 47658), (39, 47637), (43, 47583), (47, 47529), (52, 47409), (55, 47373), (57, 47331), (62, 47262), (65, 47232), (69, 47133), (71, 47097), (75, 47046), (77, 47010), (80, 46989),

Gene: Pointis\_76 Start: 47436, Stop: 46264, Start Num: 12

Candidate Starts for Pointis\_76:

(Start: 1 @47601 has 1 MA's), (7, 47517), (Start: 12 @47436 has 12 MA's), (24, 47316), (25, 47268), (28, 47217), (34, 47088), (36, 47043), (37, 47040), (39, 47019), (43, 46965), (47, 46911), (52, 46791), (55, 46755), (57, 46713), (62, 46644), (65, 46614), (69, 46515), (71, 46479), (75, 46428), (80, 46371),

Gene: Popstraw\_75 Start: 47598, Stop: 46426, Start Num: 12

Candidate Starts for Popstraw\_75:

(Start: 1 @47763 has 1 MA's), (7, 47679), (Start: 12 @47598 has 12 MA's), (24, 47478), (25, 47430), (28, 47379), (34, 47250), (36, 47205), (37, 47202), (39, 47181), (43, 47127), (47, 47073), (52, 46953), (55, 46917), (57, 46875), (62, 46806), (65, 46776), (69, 46677), (71, 46641), (75, 46590), (80, 46533),

Gene: Pureglobe5\_78 Start: 47880, Stop: 46708, Start Num: 12

Candidate Starts for Pureglobe5\_78:

(Start: 1 @48045 has 1 MA's), (7, 47961), (Start: 12 @47880 has 12 MA's), (24, 47760), (25, 47712), (28, 47661), (34, 47532), (36, 47487), (37, 47484), (39, 47463), (43, 47409), (47, 47355), (52, 47235), (55, 47199), (57, 47157), (62, 47088), (65, 47058), (69, 46959), (71, 46923), (75, 46872), (80, 46815),

Gene: RIPWilbur\_78 Start: 47400, Stop: 46228, Start Num: 12

Candidate Starts for RIPWilbur\_78:

(Start: 1 @47565 has 1 MA's), (7, 47481), (Start: 12 @47400 has 12 MA's), (24, 47280), (25, 47232), (28, 47181), (34, 47052), (36, 47007), (37, 47004), (39, 46983), (43, 46929), (47, 46875), (52, 46755), (55, 46719), (57, 46677), (62, 46608), (65, 46578), (69, 46479), (71, 46443), (75, 46392), (77, 46356), (80, 46335),

Gene: Ranunculus\_72 Start: 50033, Stop: 48846, Start Num: 12

Candidate Starts for Ranunculus\_72:

(6, 50150), (9, 50063), (Start: 12 @50033 has 12 MA's), (25, 49850), (28, 49799), (31, 49739), (34, 49670), (38, 49619), (39, 49601), (41, 49583), (42, 49547), (47, 49496), (55, 49340), (62, 49229), (65, 49199), (70, 49067), (75, 49013), (80, 48956),

Gene: RazzB\_79 Start: 47488, Stop: 46316, Start Num: 12

Candidate Starts for RazzB\_79:

(Start: 12 @47488 has 12 MA's), (24, 47368), (25, 47320), (28, 47269), (34, 47140), (36, 47095), (37, 47092), (39, 47071), (43, 47017), (47, 46963), (55, 46807), (57, 46765), (62, 46696), (65, 46666), (69, 46567), (71, 46531), (75, 46480), (77, 46444), (80, 46423),

Gene: Ren19\_73 Start: 47381, Stop: 46074, Start Num: 3

Candidate Starts for Ren19\_73:

(3, 47381), (8, 47294), (Start: 12 @47234 has 12 MA's), (25, 47066), (28, 47015), (31, 46955), (37, 46838), (38, 46835), (40, 46811), (41, 46799), (46, 46718), (53, 46568), (54, 46565), (55, 46556), (57, 46514), (61, 46457), (65, 46415), (66, 46373), (67, 46349), (70, 46283), (71, 46280), (74, 46238), (80, 46172),

Gene: Rizwana\_60 Start: 44233, Stop: 43166, Start Num: 14

Candidate Starts for Rizwana\_60:

(Start: 14 @44233 has 3 MA's), (22, 44173), (24, 44158), (28, 44059), (30, 44023), (31, 43999), (33, 43963), (37, 43882), (45, 43807), (47, 43792), (50, 43696), (51, 43687), (55, 43636), (56, 43606), (58,

43588), (59, 43570), (61, 43537), (76, 43279), (80, 43249), (82, 43222),

Gene: RomansRevenge\_63 Start: 44645, Stop: 43632, Start Num: 12

Candidate Starts for RomansRevenge\_63:

(Start: 12 @44645 has 12 MA's), (13, 44636), (18, 44585), (20, 44567), (21, 44564), (22, 44552), (23, 44549), (28, 44438), (29, 44408), (31, 44378), (34, 44309), (47, 44228), (55, 44078), (56, 44048), (62, 43967), (68, 43862), (70, 43805), (79, 43700), (80, 43694),

Gene: SilentRX\_58 Start: 43297, Stop: 42170, Start Num: 15

Candidate Starts for SilentRX\_58:

(Start: 15 @43297 has 2 MA's), (19, 43267), (26, 43162), (27, 43129), (28, 43123), (32, 43036), (37, 42946), (39, 42925), (47, 42826), (48, 42817), (49, 42751), (51, 42721), (52, 42706), (59, 42604), (61, 42571), (62, 42559), (64, 42538), (70, 42397), (72, 42367), (81, 42271), (83, 42253), (85, 42235), (87, 42181),

Gene: Tank\_60 Start: 44325, Stop: 43243, Start Num: 14

Candidate Starts for Tank\_60:

(10, 44373), (Start: 12 @44367 has 12 MA's), (Start: 14 @44325 has 3 MA's), (22, 44265), (28, 44151), (30, 44115), (31, 44091), (33, 44055), (35, 43995), (51, 43779), (55, 43728), (56, 43698), (58, 43680), (60, 43638), (61, 43629), (68, 43512), (73, 43422), (77, 43362), (78, 43356), (80, 43341),

Gene: Wilde\_62 Start: 44624, Stop: 43542, Start Num: 14

Candidate Starts for Wilde\_62:

(10, 44672), (Start: 12 @44666 has 12 MA's), (Start: 14 @44624 has 3 MA's), (22, 44564), (28, 44450), (30, 44414), (31, 44390), (33, 44354), (35, 44294), (51, 44078), (55, 44027), (56, 43997), (58, 43979), (60, 43937), (61, 43928), (68, 43811), (73, 43721), (77, 43661), (78, 43655), (80, 43640),