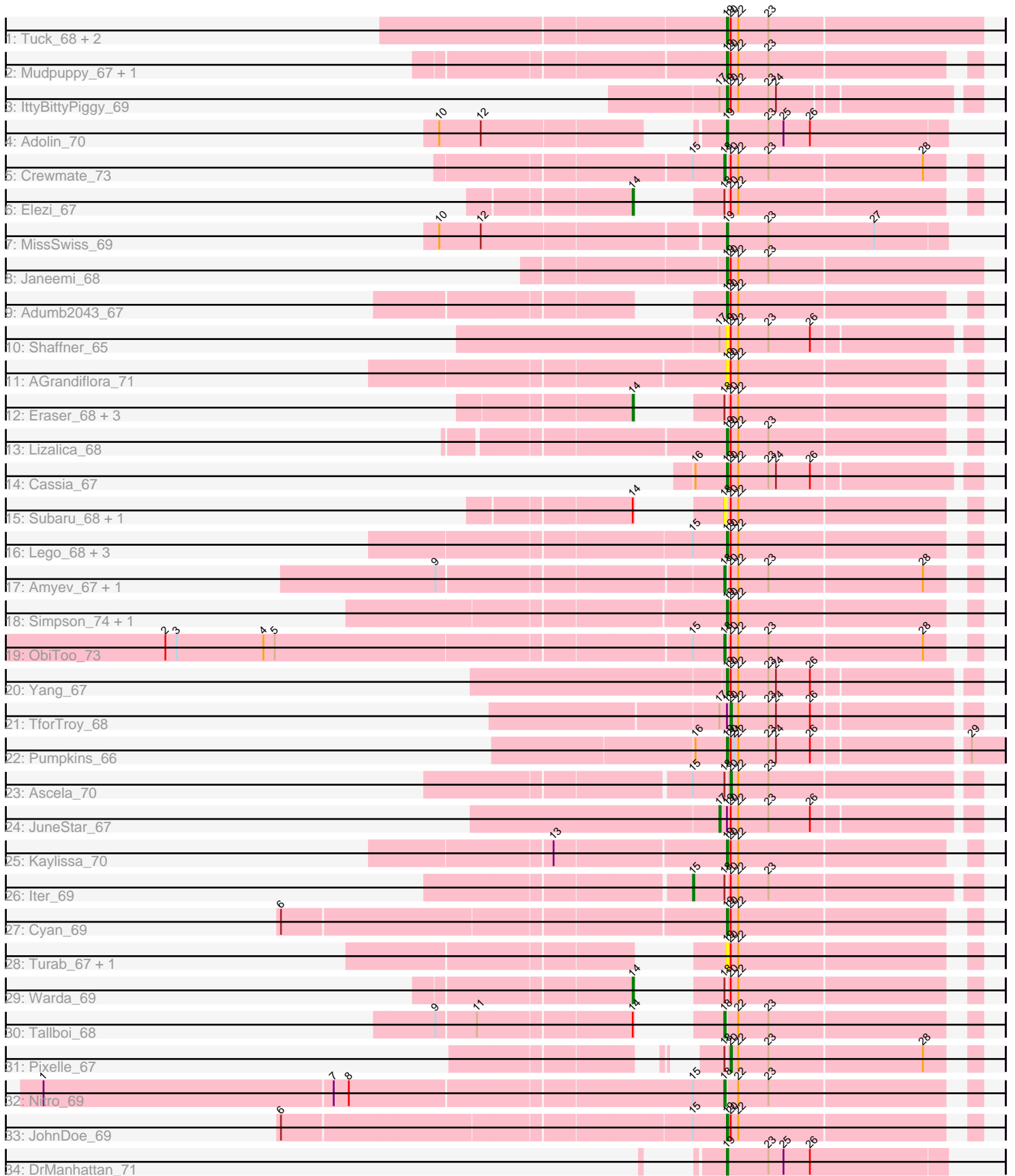


Pham 224674



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 224674 Report

This analysis was run 03/28/25 on database version 593.

Pham number 224674 has 47 members, 9 are drafts.

Phages represented in each track:

- Track 1 : Tuck\_68, Phives\_69, Community\_69
- Track 2 : Mudpuppy\_67, Tbone\_68
- Track 3 : IttyBittyPiggy\_69
- Track 4 : Adolin\_70
- Track 5 : Crewmate\_73
- Track 6 : Elezi\_67
- Track 7 : MissSwiss\_69
- Track 8 : Janeemi\_68
- Track 9 : Adumb2043\_67
- Track 10 : Shaffner\_65
- Track 11 : AGrandiflora\_71
- Track 12 : Eraser\_68, Asa16\_68, London\_68, Niobe\_68
- Track 13 : Lizalica\_68
- Track 14 : Cassia\_67
- Track 15 : Subaru\_68, Jstan\_69
- Track 16 : Lego\_68, Tutumahutu\_70, YesChef\_68, Powerpuff\_70
- Track 17 : Amyev\_67, Tian\_66
- Track 18 : Simpson\_74, Joemato\_70
- Track 19 : ObiToo\_73
- Track 20 : Yang\_67
- Track 21 : TforTroy\_68
- Track 22 : Pumpkins\_66
- Track 23 : Ascela\_70
- Track 24 : JuneStar\_67
- Track 25 : Kaylissa\_70
- Track 26 : lter\_69
- Track 27 : Cyan\_69
- Track 28 : Turab\_67, AEgle\_66
- Track 29 : Warda\_69
- Track 30 : Tallboi\_68
- Track 31 : Pixelle\_67
- Track 32 : Nitro\_69
- Track 33 : JohnDoe\_69
- Track 34 : DrManhattan\_71

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

The start number called the most often in the published annotations is 19, it was called in 22 of the 38 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- AEgle\_66, AGrandiflora\_71, Adolin\_70, Adumb2043\_67, Cassia\_67, Community\_69, Cyan\_69, DrManhattan\_71, IttyBittyPiggy\_69, Janeemi\_68, Joemato\_70, JohnDoe\_69, Kaylissa\_70, Lego\_68, Lizalica\_68, MissSwiss\_69, Mudpuppy\_67, Phives\_69, Powerpuff\_70, Pumpkins\_66, Shaffner\_65, Simpson\_74, Tbone\_68, Tuck\_68, Turab\_67, Tutumahutu\_70, Yang\_67, YesChef\_68,

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

- JuneStar\_67, TforTroy\_68,

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

- Amyev\_67, Asa16\_68, Ascela\_70, Crewmate\_73, Elezi\_67, Eraser\_68, Iter\_69, Jstan\_69, London\_68, Niobe\_68, Nitro\_69, ObiToo\_73, Pixelle\_67, Subaru\_68, Tallboi\_68, Tian\_66, Warda\_69,

### **Summary by start number:**

Start 14:

- Found in 9 of 47 ( 19.1% ) of genes in pham
- Manual Annotations of this start: 6 of 38
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Asa16\_68 (AZ1), Elezi\_67 (AZ1), Eraser\_68 (AZ1), London\_68 (AZ1), Niobe\_68 (AZ1), Warda\_69 (AZ1),

Start 15:

- Found in 10 of 47 ( 21.3% ) of genes in pham
- Manual Annotations of this start: 1 of 38
- Called 10.0% of time when present
- Phage (with cluster) where this start called: Iter\_69 (AZ1),

Start 17:

- Found in 4 of 47 ( 8.5% ) of genes in pham
- Manual Annotations of this start: 1 of 38
- Called 25.0% of time when present
- Phage (with cluster) where this start called: JuneStar\_67 (AZ1),

Start 18:

- Found in 17 of 47 ( 36.2% ) of genes in pham
- Manual Annotations of this start: 5 of 38
- Called 47.1% of time when present
- Phage (with cluster) where this start called: Amyev\_67 (AZ1), Crewmate\_73 (AZ1), Jstan\_69 (AZ1), Nitro\_69 (AZ1), ObiToo\_73 (AZ1), Subaru\_68 (AZ1), Tallboi\_68 (AZ1), Tian\_66 (AZ1),

Start 19:

- Found in 30 of 47 ( 63.8% ) of genes in pham
- Manual Annotations of this start: 22 of 38

- Called 93.3% of time when present
- Phage (with cluster) where this start called: AEgle\_66 (AZ1), AGrandiflora\_71 (AZ1), Adolin\_70 (AZ1), Adumb2043\_67 (AZ1), Cassia\_67 (AZ1), Community\_69 (AZ1), Cyan\_69 (AZ1), DrManhattan\_71 (AZ1), IttyBittyPiggy\_69 (AZ1), Janeemi\_68 (AZ1), Joemato\_70 (AZ1), JohnDoe\_69 (AZ1), Kaylissa\_70 (AZ1), Lego\_68 (AZ1), Lizalica\_68 (AZ1), MissSwiss\_69 (AZ1), Mudpuppy\_67 (AZ1), Phives\_69 (AZ1), Powerpuff\_70 (AZ1), Pumpkins\_66 (AZ1), Shaffner\_65 (AZ1), Simpson\_74 (AZ1), Tbone\_68 (AZ1), Tuck\_68 (AZ1), Turab\_67 (AZ1), Tutumahutu\_70 (AZ1), Yang\_67 (AZ1), YesChef\_68 (AZ1),

Start 20:

- Found in 42 of 47 ( 89.4% ) of genes in pham
- Manual Annotations of this start: 3 of 38
- Called 7.1% of time when present
- Phage (with cluster) where this start called: Ascela\_70 (AZ1), Pixelle\_67 (AZ1), TforTroy\_68 (AZ1),

### Summary by clusters:

There is one cluster represented in this pham: AZ1

Info for manual annotations of cluster AZ1:

- Start number 14 was manually annotated 6 times for cluster AZ1.
- Start number 15 was manually annotated 1 time for cluster AZ1.
- Start number 17 was manually annotated 1 time for cluster AZ1.
- Start number 18 was manually annotated 5 times for cluster AZ1.
- Start number 19 was manually annotated 22 times for cluster AZ1.
- Start number 20 was manually annotated 3 times for cluster AZ1.

### Gene Information:

Gene: AEgle\_66 Start: 42524, Stop: 42706, Start Num: 19

Candidate Starts for AEgle\_66:

(Start: 19 @42524 has 22 MA's), (Start: 20 @42527 has 3 MA's), (22, 42533),

Gene: AGrandiflora\_71 Start: 43376, Stop: 43558, Start Num: 19

Candidate Starts for AGrandiflora\_71:

(Start: 19 @43376 has 22 MA's), (Start: 20 @43379 has 3 MA's), (22, 43385),

Gene: Adolin\_70 Start: 42481, Stop: 42654, Start Num: 19

Candidate Starts for Adolin\_70:

(10, 42310), (12, 42343), (Start: 19 @42481 has 22 MA's), (23, 42514), (25, 42526), (26, 42547),

Gene: Adumb2043\_67 Start: 42549, Stop: 42731, Start Num: 19

Candidate Starts for Adumb2043\_67:

(Start: 19 @42549 has 22 MA's), (Start: 20 @42552 has 3 MA's), (22, 42558),

Gene: Amyev\_67 Start: 43734, Stop: 43916, Start Num: 18

Candidate Starts for Amyev\_67:

(9, 43524), (Start: 18 @43734 has 5 MA's), (Start: 20 @43737 has 3 MA's), (22, 43743), (23, 43767), (28, 43887),

Gene: Asa16\_68 Start: 43027, Stop: 43233, Start Num: 14  
Candidate Starts for Asa16\_68:  
(Start: 14 @43027 has 6 MA's), (Start: 18 @43051 has 5 MA's), (Start: 20 @43054 has 3 MA's), (22, 43060),

Gene: Ascela\_70 Start: 43634, Stop: 43822, Start Num: 20  
Candidate Starts for Ascela\_70:  
(Start: 15 @43607 has 1 MA's), (Start: 18 @43631 has 5 MA's), (Start: 20 @43634 has 3 MA's), (22, 43640), (23, 43664),

Gene: Cassia\_67 Start: 42929, Stop: 43117, Start Num: 19  
Candidate Starts for Cassia\_67:  
(16, 42905), (Start: 19 @42929 has 22 MA's), (Start: 20 @42932 has 3 MA's), (22, 42938), (23, 42962), (24, 42968), (26, 42995),

Gene: Community\_69 Start: 43520, Stop: 43720, Start Num: 19  
Candidate Starts for Community\_69:  
(Start: 19 @43520 has 22 MA's), (Start: 20 @43523 has 3 MA's), (22, 43529), (23, 43553),

Gene: Crewmate\_73 Start: 43796, Stop: 43978, Start Num: 18  
Candidate Starts for Crewmate\_73:  
(Start: 15 @43772 has 1 MA's), (Start: 18 @43796 has 5 MA's), (Start: 20 @43799 has 3 MA's), (22, 43805), (23, 43829), (28, 43949),

Gene: Cyan\_69 Start: 43119, Stop: 43301, Start Num: 19  
Candidate Starts for Cyan\_69:  
(6, 42786), (Start: 19 @43119 has 22 MA's), (Start: 20 @43122 has 3 MA's), (22, 43128),

Gene: DrManhattan\_71 Start: 42035, Stop: 42208, Start Num: 19  
Candidate Starts for DrManhattan\_71:  
(Start: 19 @42035 has 22 MA's), (23, 42068), (25, 42080), (26, 42101),

Gene: Elezi\_67 Start: 42897, Stop: 43103, Start Num: 14  
Candidate Starts for Elezi\_67:  
(Start: 14 @42897 has 6 MA's), (Start: 18 @42921 has 5 MA's), (Start: 20 @42924 has 3 MA's), (22, 42930),

Gene: Eraser\_68 Start: 43034, Stop: 43240, Start Num: 14  
Candidate Starts for Eraser\_68:  
(Start: 14 @43034 has 6 MA's), (Start: 18 @43058 has 5 MA's), (Start: 20 @43061 has 3 MA's), (22, 43067),

Gene: Iter\_69 Start: 43378, Stop: 43593, Start Num: 15  
Candidate Starts for Iter\_69:  
(Start: 15 @43378 has 1 MA's), (Start: 18 @43402 has 5 MA's), (Start: 20 @43405 has 3 MA's), (22, 43411), (23, 43435),

Gene: IttyBittyPiggy\_69 Start: 41649, Stop: 41834, Start Num: 19  
Candidate Starts for IttyBittyPiggy\_69:  
(Start: 17 @41643 has 1 MA's), (Start: 19 @41649 has 22 MA's), (Start: 20 @41652 has 3 MA's), (22, 41658), (23, 41682), (24, 41688),

Gene: Janeemi\_68 Start: 43309, Stop: 43509, Start Num: 19  
Candidate Starts for Janeemi\_68:  
(Start: 19 @43309 has 22 MA's), (Start: 20 @43312 has 3 MA's), (22, 43318), (23, 43342),

Gene: Joemato\_70 Start: 43297, Stop: 43479, Start Num: 19  
Candidate Starts for Joemato\_70:  
(Start: 19 @43297 has 22 MA's), (Start: 20 @43300 has 3 MA's), (22, 43306),

Gene: JohnDoe\_69 Start: 43213, Stop: 43395, Start Num: 19  
Candidate Starts for JohnDoe\_69:  
(6, 42880), (Start: 15 @43189 has 1 MA's), (Start: 19 @43213 has 22 MA's), (Start: 20 @43216 has 3 MA's), (22, 43222),

Gene: Jstan\_69 Start: 42925, Stop: 43107, Start Num: 18  
Candidate Starts for Jstan\_69:  
(Start: 14 @42901 has 6 MA's), (Start: 18 @42925 has 5 MA's), (Start: 20 @42928 has 3 MA's), (22, 42934),

Gene: JuneStar\_67 Start: 43955, Stop: 44149, Start Num: 17  
Candidate Starts for JuneStar\_67:  
(Start: 17 @43955 has 1 MA's), (Start: 19 @43961 has 22 MA's), (Start: 20 @43964 has 3 MA's), (22, 43970), (23, 43994), (26, 44027),

Gene: Kaylissa\_70 Start: 43573, Stop: 43755, Start Num: 19  
Candidate Starts for Kaylissa\_70:  
(13, 43444), (Start: 19 @43573 has 22 MA's), (Start: 20 @43576 has 3 MA's), (22, 43582),

Gene: Lego\_68 Start: 42895, Stop: 43077, Start Num: 19  
Candidate Starts for Lego\_68:  
(Start: 15 @42871 has 1 MA's), (Start: 19 @42895 has 22 MA's), (Start: 20 @42898 has 3 MA's), (22, 42904),

Gene: Lizalica\_68 Start: 42505, Stop: 42687, Start Num: 19  
Candidate Starts for Lizalica\_68:  
(Start: 19 @42505 has 22 MA's), (Start: 20 @42508 has 3 MA's), (22, 42514), (23, 42538),

Gene: London\_68 Start: 43025, Stop: 43231, Start Num: 14  
Candidate Starts for London\_68:  
(Start: 14 @43025 has 6 MA's), (Start: 18 @43049 has 5 MA's), (Start: 20 @43052 has 3 MA's), (22, 43058),

Gene: MissSwiss\_69 Start: 42073, Stop: 42246, Start Num: 19  
Candidate Starts for MissSwiss\_69:  
(10, 41860), (12, 41893), (Start: 19 @42073 has 22 MA's), (23, 42106), (27, 42190),

Gene: Mudpuppy\_67 Start: 43273, Stop: 43455, Start Num: 19  
Candidate Starts for Mudpuppy\_67:  
(Start: 19 @43273 has 22 MA's), (Start: 20 @43276 has 3 MA's), (22, 43282), (23, 43306),

Gene: Niobe\_68 Start: 43028, Stop: 43234, Start Num: 14  
Candidate Starts for Niobe\_68:  
(Start: 14 @43028 has 6 MA's), (Start: 18 @43052 has 5 MA's), (Start: 20 @43055 has 3 MA's), (22, 43061),

Gene: Nitro\_69 Start: 43827, Stop: 44009, Start Num: 18

Candidate Starts for Nitro\_69:

(1, 43305), (7, 43533), (8, 43545), (Start: 15 @43803 has 1 MA's), (Start: 18 @43827 has 5 MA's), (22, 43836), (23, 43860),

Gene: ObiToo\_73 Start: 43411, Stop: 43593, Start Num: 18

Candidate Starts for ObiToo\_73:

(2, 42982), (3, 42991), (4, 43060), (5, 43069), (Start: 15 @43387 has 1 MA's), (Start: 18 @43411 has 5 MA's), (Start: 20 @43414 has 3 MA's), (22, 43420), (23, 43444), (28, 43564),

Gene: Phives\_69 Start: 43635, Stop: 43835, Start Num: 19

Candidate Starts for Phives\_69:

(Start: 19 @43635 has 22 MA's), (Start: 20 @43638 has 3 MA's), (22, 43644), (23, 43668),

Gene: Pixelle\_67 Start: 43801, Stop: 43980, Start Num: 20

Candidate Starts for Pixelle\_67:

(Start: 18 @43798 has 5 MA's), (Start: 20 @43801 has 3 MA's), (22, 43807), (23, 43831), (28, 43951),

Gene: Powerpuff\_70 Start: 44099, Stop: 44281, Start Num: 19

Candidate Starts for Powerpuff\_70:

(Start: 15 @44075 has 1 MA's), (Start: 19 @44099 has 22 MA's), (Start: 20 @44102 has 3 MA's), (22, 44108),

Gene: Pumpkins\_66 Start: 43401, Stop: 43607, Start Num: 19

Candidate Starts for Pumpkins\_66:

(16, 43377), (Start: 19 @43401 has 22 MA's), (Start: 20 @43404 has 3 MA's), (21, 43407), (22, 43410), (23, 43434), (24, 43440), (26, 43467), (29, 43581),

Gene: Shaffner\_65 Start: 43052, Stop: 43240, Start Num: 19

Candidate Starts for Shaffner\_65:

(Start: 17 @43046 has 1 MA's), (Start: 19 @43052 has 22 MA's), (Start: 20 @43055 has 3 MA's), (22, 43061), (23, 43085), (26, 43118),

Gene: Simpson\_74 Start: 43301, Stop: 43483, Start Num: 19

Candidate Starts for Simpson\_74:

(Start: 19 @43301 has 22 MA's), (Start: 20 @43304 has 3 MA's), (22, 43310),

Gene: Subaru\_68 Start: 42921, Stop: 43103, Start Num: 18

Candidate Starts for Subaru\_68:

(Start: 14 @42897 has 6 MA's), (Start: 18 @42921 has 5 MA's), (Start: 20 @42924 has 3 MA's), (22, 42930),

Gene: Tallboi\_68 Start: 43038, Stop: 43220, Start Num: 18

Candidate Starts for Tallboi\_68:

(9, 42870), (11, 42900), (Start: 14 @43014 has 6 MA's), (Start: 18 @43038 has 5 MA's), (22, 43047), (23, 43071),

Gene: Tbone\_68 Start: 43560, Stop: 43742, Start Num: 19

Candidate Starts for Tbone\_68:

(Start: 19 @43560 has 22 MA's), (Start: 20 @43563 has 3 MA's), (22, 43569), (23, 43593),

Gene: TforTroy\_68 Start: 43098, Stop: 43283, Start Num: 20

Candidate Starts for TforTroy\_68:

(Start: 17 @43089 has 1 MA's), (Start: 19 @43095 has 22 MA's), (Start: 20 @43098 has 3 MA's), (22, 43104), (23, 43128), (24, 43134), (26, 43161),

Gene: Tian\_66 Start: 43733, Stop: 43915, Start Num: 18

Candidate Starts for Tian\_66:

(9, 43523), (Start: 18 @43733 has 5 MA's), (Start: 20 @43736 has 3 MA's), (22, 43742), (23, 43766), (28, 43886),

Gene: Tuck\_68 Start: 43423, Stop: 43623, Start Num: 19

Candidate Starts for Tuck\_68:

(Start: 19 @43423 has 22 MA's), (Start: 20 @43426 has 3 MA's), (22, 43432), (23, 43456),

Gene: Turab\_67 Start: 42568, Stop: 42750, Start Num: 19

Candidate Starts for Turab\_67:

(Start: 19 @42568 has 22 MA's), (Start: 20 @42571 has 3 MA's), (22, 42577),

Gene: Tutumahutu\_70 Start: 43142, Stop: 43324, Start Num: 19

Candidate Starts for Tutumahutu\_70:

(Start: 15 @43118 has 1 MA's), (Start: 19 @43142 has 22 MA's), (Start: 20 @43145 has 3 MA's), (22, 43151),

Gene: Warda\_69 Start: 43217, Stop: 43423, Start Num: 14

Candidate Starts for Warda\_69:

(Start: 14 @43217 has 6 MA's), (Start: 18 @43241 has 5 MA's), (Start: 20 @43244 has 3 MA's), (22, 43250),

Gene: Yang\_67 Start: 42648, Stop: 42836, Start Num: 19

Candidate Starts for Yang\_67:

(Start: 19 @42648 has 22 MA's), (Start: 20 @42651 has 3 MA's), (22, 42657), (23, 42681), (24, 42687), (26, 42714),

Gene: YesChef\_68 Start: 42958, Stop: 43140, Start Num: 19

Candidate Starts for YesChef\_68:

(Start: 15 @42934 has 1 MA's), (Start: 19 @42958 has 22 MA's), (Start: 20 @42961 has 3 MA's), (22, 42967),