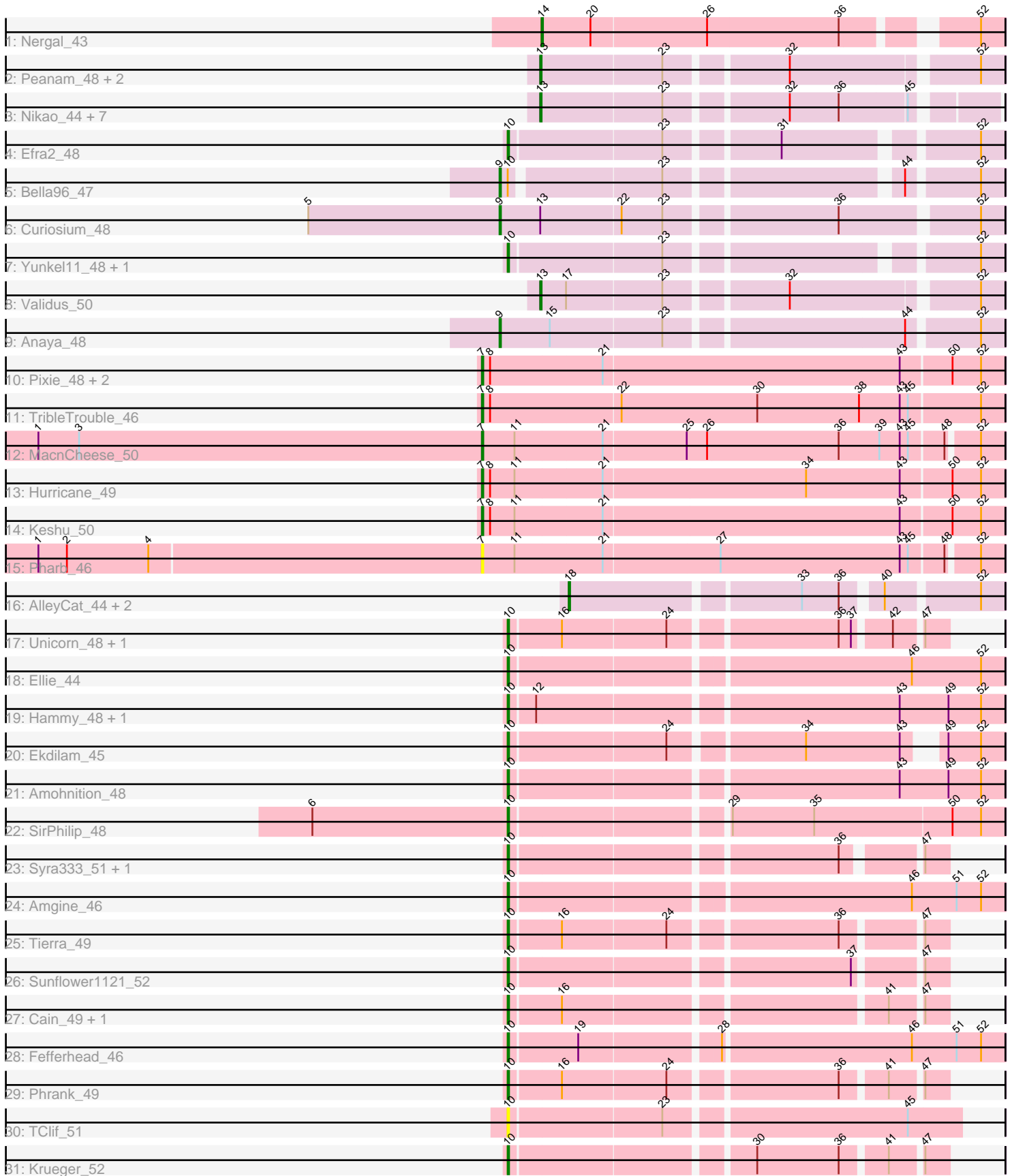


# Pham 157944



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 157944 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157944 has 49 members, 2 are drafts.

Phages represented in each track:

- Track 1 : Nergal\_43
- Track 2 : Peanam\_48, Shaobing\_48, Niklas\_48
- Track 3 : Nikao\_44, Binglebops\_41, LilPharaoh\_41, Nutello\_41, SgtBeansprout\_41, Enkosi\_43, Mdavu\_42, Amelie\_41
- Track 4 : Efra2\_48
- Track 5 : Bella96\_47
- Track 6 : Curiosium\_48
- Track 7 : Yunkel11\_48, Guanica15\_48
- Track 8 : Validus\_50
- Track 9 : Anaya\_48
- Track 10 : Pixie\_48, ShedlockHolmes\_49, TBond007\_48
- Track 11 : TribbleTrouble\_46
- Track 12 : MacnCheese\_50
- Track 13 : Hurricane\_49
- Track 14 : Keshu\_50
- Track 15 : Pharb\_46
- Track 16 : AlleyCat\_44, Larva\_44, Dadosky\_44
- Track 17 : Unicorn\_48, PhelpsODU\_48
- Track 18 : Ellie\_44
- Track 19 : Hammy\_48, DarthP\_48
- Track 20 : Ekdilam\_45
- Track 21 : Amohnition\_48
- Track 22 : SirPhilip\_48
- Track 23 : Syra333\_51, Ximenita\_52
- Track 24 : Amgine\_46
- Track 25 : Tierra\_49
- Track 26 : Sunflower1121\_52
- Track 27 : Cain\_49, Bryler\_49
- Track 28 : Fefferhead\_46
- Track 29 : Phrank\_49
- Track 30 : TClif\_51
- Track 31 : Krueger\_52

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

The start number called the most often in the published annotations is 10, it was called in 21 of the 47 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amgine\_46, Amohnition\_48, Bryler\_49, Cain\_49, DarthP\_48, Efra2\_48, Ekdilam\_45, Ellie\_44, Fefferhead\_46, Guanica15\_48, Hammy\_48, Krueger\_52, PhelpsODU\_48, Phrank\_49, SirPhilip\_48, Sunflower1121\_52, Syra333\_51, TClif\_51, Tierra\_49, Unicorn\_48, Ximenita\_52, Yunkel11\_48,

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

- Bella96\_47,

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

- AlleyCat\_44, Amelie\_41, Anaya\_48, Binglebops\_41, Curiosium\_48, Dadosky\_44, Enkosi\_43, Hurricane\_49, Keshu\_50, Larva\_44, LilPharaoh\_41, MacnCheese\_50, Mdavu\_42, Nergal\_43, Nikao\_44, Niklas\_48, Nutello\_41, Peanam\_48, Pharb\_46, Pixie\_48, SgtBeansprout\_41, Shaobing\_48, ShedlockHolmes\_49, TBond007\_48, TripleTrouble\_46, Validus\_50,

### Summary by start number:

Start 7:

- Found in 8 of 49 ( 16.3% ) of genes in pham
- Manual Annotations of this start: 7 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Hurricane\_49 (K3), Keshu\_50 (K3), MacnCheese\_50 (K3), Pharb\_46 (K3), Pixie\_48 (K3), ShedlockHolmes\_49 (K3), TBond007\_48 (K3), TripleTrouble\_46 (K3),

Start 9:

- Found in 3 of 49 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 3 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anaya\_48 (K1), Bella96\_47 (K1), Curiosium\_48 (K1),

Start 10:

- Found in 23 of 49 ( 46.9% ) of genes in pham
- Manual Annotations of this start: 21 of 47
- Called 95.7% of time when present
- Phage (with cluster) where this start called: Amgine\_46 (K6), Amohnition\_48 (K6), Bryler\_49 (K6), Cain\_49 (K6), DarthP\_48 (K6), Efra2\_48 (K1), Ekdilam\_45 (K6), Ellie\_44 (K6), Fefferhead\_46 (K6), Guanica15\_48 (K1), Hammy\_48 (K6), Krueger\_52 (K6), PhelpsODU\_48 (K6), Phrank\_49 (K6), SirPhilip\_48 (K6), Sunflower1121\_52 (K6), Syra333\_51 (K6), TClif\_51 (K6), Tierra\_49 (K6), Unicorn\_48 (K6), Ximenita\_52 (K6), Yunkel11\_48 (K1),

Start 13:

- Found in 13 of 49 ( 26.5% ) of genes in pham
- Manual Annotations of this start: 12 of 47
- Called 92.3% of time when present

- Phage (with cluster) where this start called: Amelie\_41 (K1), Binglebops\_41 (K1), Enkosi\_43 (K1), LilPharaoh\_41 (K1), Mdavu\_42 (K1), Nikao\_44 (K1), Niklas\_48 (K1), Nutello\_41 (K1), Peanam\_48 (K1), SgtBeansprout\_41 (K1), Shaobing\_48 (K1), Validus\_50 (K1),

Start 14:

- Found in 1 of 49 ( 2.0% ) of genes in pham
- Manual Annotations of this start: 1 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Nergal\_43 (AG),

Start 18:

- Found in 3 of 49 ( 6.1% ) of genes in pham
- Manual Annotations of this start: 3 of 47
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AlleyCat\_44 (K5), Dadosky\_44 (K5), Larva\_44 (K5),

### **Summary by clusters:**

There are 5 clusters represented in this pham: K3, K5, K1, K6, AG,

Info for manual annotations of cluster AG:

- Start number 14 was manually annotated 1 time for cluster AG.

Info for manual annotations of cluster K1:

- Start number 9 was manually annotated 3 times for cluster K1.
- Start number 10 was manually annotated 3 times for cluster K1.
- Start number 13 was manually annotated 12 times for cluster K1.

Info for manual annotations of cluster K3:

- Start number 7 was manually annotated 7 times for cluster K3.

Info for manual annotations of cluster K5:

- Start number 18 was manually annotated 3 times for cluster K5.

Info for manual annotations of cluster K6:

- Start number 10 was manually annotated 18 times for cluster K6.

### **Gene Information:**

Gene: AlleyCat\_44 Start: 34871, Stop: 35161, Start Num: 18

Candidate Starts for AlleyCat\_44:

(Start: 18 @34871 has 3 MA's), (33, 35030), (36, 35057), (40, 35081), (52, 35144),

Gene: Amelie\_41 Start: 35256, Stop: 35561, Start Num: 13

Candidate Starts for Amelie\_41:

(Start: 13 @35256 has 12 MA's), (23, 35343), (32, 35424), (36, 35460), (45, 35508),

Gene: Amgine\_46 Start: 36691, Stop: 37038, Start Num: 10

Candidate Starts for Amgine\_46:

(Start: 10 @36691 has 21 MA's), (46, 36970), (51, 37003), (52, 37021),

Gene: Amohnition\_48 Start: 36704, Stop: 37051, Start Num: 10

Candidate Starts for Amohnition\_48:

(Start: 10 @36704 has 21 MA's), (43, 36974), (49, 37010), (52, 37034),

Gene: Anaya\_48 Start: 36273, Stop: 36620, Start Num: 9

Candidate Starts for Anaya\_48:

(Start: 9 @36273 has 3 MA's), (15, 36309), (23, 36390), (44, 36555), (52, 36603),

Gene: Bella96\_47 Start: 36515, Stop: 36841, Start Num: 9

Candidate Starts for Bella96\_47:

(Start: 9 @36515 has 3 MA's), (Start: 10 @36521 has 21 MA's), (23, 36623), (44, 36776), (52, 36824),

Gene: Biglebops\_41 Start: 35256, Stop: 35561, Start Num: 13

Candidate Starts for Biglebops\_41:

(Start: 13 @35256 has 12 MA's), (23, 35343), (32, 35424), (36, 35460), (45, 35508),

Gene: Bryler\_49 Start: 35565, Stop: 35858, Start Num: 10

Candidate Starts for Bryler\_49:

(Start: 10 @35565 has 21 MA's), (16, 35601), (41, 35820), (47, 35841),

Gene: Cain\_49 Start: 35553, Stop: 35846, Start Num: 10

Candidate Starts for Cain\_49:

(Start: 10 @35553 has 21 MA's), (16, 35589), (41, 35808), (47, 35829),

Gene: Curiosium\_48 Start: 34631, Stop: 34975, Start Num: 9

Candidate Starts for Curiosium\_48:

(5, 34490), (Start: 9 @34631 has 3 MA's), (Start: 13 @34661 has 12 MA's), (22, 34718), (23, 34748), (36, 34865), (52, 34958),

Gene: Dadosky\_44 Start: 34873, Stop: 35163, Start Num: 18

Candidate Starts for Dadosky\_44:

(Start: 18 @34873 has 3 MA's), (33, 35032), (36, 35059), (40, 35083), (52, 35146),

Gene: DarthP\_48 Start: 36588, Stop: 36935, Start Num: 10

Candidate Starts for DarthP\_48:

(Start: 10 @36588 has 21 MA's), (12, 36606), (43, 36858), (49, 36894), (52, 36918),

Gene: Efra2\_48 Start: 35532, Stop: 35858, Start Num: 10

Candidate Starts for Efra2\_48:

(Start: 10 @35532 has 21 MA's), (23, 35640), (31, 35715), (52, 35841),

Gene: Ekdilam\_45 Start: 36153, Stop: 36479, Start Num: 10

Candidate Starts for Ekdilam\_45:

(Start: 10 @36153 has 21 MA's), (24, 36264), (34, 36354), (43, 36423), (49, 36438), (52, 36462),

Gene: Ellie\_44 Start: 35879, Stop: 36226, Start Num: 10

Candidate Starts for Ellie\_44:

(Start: 10 @35879 has 21 MA's), (46, 36158), (52, 36209),

Gene: Enkosi\_43 Start: 37869, Stop: 38174, Start Num: 13

Candidate Starts for Enkosi\_43:

(Start: 13 @37869 has 12 MA's), (23, 37956), (32, 38037), (36, 38073), (45, 38121),

Gene: Fefferhead\_46 Start: 35830, Stop: 36177, Start Num: 10

Candidate Starts for Fefferhead\_46:

(Start: 10 @35830 has 21 MA's), (19, 35878), (28, 35974), (46, 36109), (51, 36142), (52, 36160),

Gene: Guanica15\_48 Start: 35489, Stop: 35815, Start Num: 10

Candidate Starts for Guanica15\_48:

(Start: 10 @35489 has 21 MA's), (23, 35597), (52, 35798),

Gene: Hammy\_48 Start: 36576, Stop: 36923, Start Num: 10

Candidate Starts for Hammy\_48:

(Start: 10 @36576 has 21 MA's), (12, 36594), (43, 36846), (49, 36882), (52, 36906),

Gene: Hurricane\_49 Start: 36312, Stop: 36689, Start Num: 7

Candidate Starts for Hurricane\_49:

(Start: 7 @36312 has 7 MA's), (8, 36318), (11, 36336), (21, 36399), (34, 36546), (43, 36615), (50, 36651), (52, 36672),

Gene: Keshu\_50 Start: 36370, Stop: 36747, Start Num: 7

Candidate Starts for Keshu\_50:

(Start: 7 @36370 has 7 MA's), (8, 36376), (11, 36394), (21, 36457), (43, 36673), (50, 36709), (52, 36730),

Gene: Krueger\_52 Start: 36559, Stop: 36852, Start Num: 10

Candidate Starts for Krueger\_52:

(Start: 10 @36559 has 21 MA's), (30, 36724), (36, 36784), (41, 36814), (47, 36835),

Gene: Larva\_44 Start: 34740, Stop: 35030, Start Num: 18

Candidate Starts for Larva\_44:

(Start: 18 @34740 has 3 MA's), (33, 34899), (36, 34926), (40, 34950), (52, 35013),

Gene: LilPharaoh\_41 Start: 34984, Stop: 35289, Start Num: 13

Candidate Starts for LilPharaoh\_41:

(Start: 13 @34984 has 12 MA's), (23, 35071), (32, 35152), (36, 35188), (45, 35236),

Gene: MacnCheese\_50 Start: 37267, Stop: 37638, Start Num: 7

Candidate Starts for MacnCheese\_50:

(1, 36940), (3, 36970), (Start: 7 @37267 has 7 MA's), (11, 37291), (21, 37354), (25, 37414), (26, 37429), (36, 37525), (39, 37555), (43, 37570), (45, 37576), (48, 37600), (52, 37621),

Gene: Mdavu\_42 Start: 35245, Stop: 35550, Start Num: 13

Candidate Starts for Mdavu\_42:

(Start: 13 @35245 has 12 MA's), (23, 35332), (32, 35413), (36, 35449), (45, 35497),

Gene: Nergal\_43 Start: 34330, Stop: 34641, Start Num: 14

Candidate Starts for Nergal\_43:

(Start: 14 @34330 has 1 MA's), (20, 34366), (26, 34450), (36, 34546), (52, 34624),

Gene: Nikao\_44 Start: 37869, Stop: 38174, Start Num: 13

Candidate Starts for Nikao\_44:

(Start: 13 @37869 has 12 MA's), (23, 37956), (32, 38037), (36, 38073), (45, 38121),

Gene: Niklas\_48 Start: 36438, Stop: 36749, Start Num: 13  
Candidate Starts for Niklas\_48:  
(Start: 13 @36438 has 12 MA's), (23, 36525), (32, 36606), (52, 36732),

Gene: Nutello\_41 Start: 35256, Stop: 35561, Start Num: 13  
Candidate Starts for Nutello\_41:  
(Start: 13 @35256 has 12 MA's), (23, 35343), (32, 35424), (36, 35460), (45, 35508),

Gene: Peanam\_48 Start: 36396, Stop: 36707, Start Num: 13  
Candidate Starts for Peanam\_48:  
(Start: 13 @36396 has 12 MA's), (23, 36483), (32, 36564), (52, 36690),

Gene: Pharb\_46 Start: 35070, Stop: 35441, Start Num: 7  
Candidate Starts for Pharb\_46:  
(1, 34746), (2, 34767), (4, 34827), (Start: 7 @35070 has 7 MA's), (11, 35094), (21, 35157), (27, 35241), (43, 35373), (45, 35379), (48, 35403), (52, 35424),

Gene: PhelpsODU\_48 Start: 35586, Stop: 35879, Start Num: 10  
Candidate Starts for PhelpsODU\_48:  
(Start: 10 @35586 has 21 MA's), (16, 35622), (24, 35697), (36, 35811), (37, 35820), (42, 35844), (47, 35862),

Gene: Phrank\_49 Start: 35543, Stop: 35836, Start Num: 10  
Candidate Starts for Phrank\_49:  
(Start: 10 @35543 has 21 MA's), (16, 35579), (24, 35654), (36, 35768), (41, 35798), (47, 35819),

Gene: Pixie\_48 Start: 35823, Stop: 36200, Start Num: 7  
Candidate Starts for Pixie\_48:  
(Start: 7 @35823 has 7 MA's), (8, 35829), (21, 35910), (43, 36126), (50, 36162), (52, 36183),

Gene: SgtBeansprout\_41 Start: 35256, Stop: 35561, Start Num: 13  
Candidate Starts for SgtBeansprout\_41:  
(Start: 13 @35256 has 12 MA's), (23, 35343), (32, 35424), (36, 35460), (45, 35508),

Gene: Shaobing\_48 Start: 36413, Stop: 36724, Start Num: 13  
Candidate Starts for Shaobing\_48:  
(Start: 13 @36413 has 12 MA's), (23, 36500), (32, 36581), (52, 36707),

Gene: ShedlockHolmes\_49 Start: 36348, Stop: 36725, Start Num: 7  
Candidate Starts for ShedlockHolmes\_49:  
(Start: 7 @36348 has 7 MA's), (8, 36354), (21, 36435), (43, 36651), (50, 36687), (52, 36708),

Gene: SirPhilip\_48 Start: 36922, Stop: 37266, Start Num: 10  
Candidate Starts for SirPhilip\_48:  
(6, 36778), (Start: 10 @36922 has 21 MA's), (29, 37069), (35, 37129), (50, 37228), (52, 37249),

Gene: Sunflower1121\_52 Start: 36805, Stop: 37098, Start Num: 10  
Candidate Starts for Sunflower1121\_52:  
(Start: 10 @36805 has 21 MA's), (37, 37039), (47, 37081),

Gene: Syra333\_51 Start: 36472, Stop: 36762, Start Num: 10  
Candidate Starts for Syra333\_51:  
(Start: 10 @36472 has 21 MA's), (36, 36697), (47, 36745),

Gene: TBond007\_48 Start: 35822, Stop: 36199, Start Num: 7

Candidate Starts for TBond007\_48:

(Start: 7 @35822 has 7 MA's), (8, 35828), (21, 35909), (43, 36125), (50, 36161), (52, 36182),

Gene: TClif\_51 Start: 36845, Stop: 37159, Start Num: 10

Candidate Starts for TClif\_51:

(Start: 10 @36845 has 21 MA's), (23, 36953), (45, 37121),

Gene: Tierra\_49 Start: 36354, Stop: 36647, Start Num: 10

Candidate Starts for Tierra\_49:

(Start: 10 @36354 has 21 MA's), (16, 36390), (24, 36465), (36, 36579), (47, 36630),

Gene: TribelTrouble\_46 Start: 35713, Stop: 36090, Start Num: 7

Candidate Starts for TribelTrouble\_46:

(Start: 7 @35713 has 7 MA's), (8, 35719), (22, 35812), (30, 35911), (38, 35986), (43, 36016), (45, 36022), (52, 36073),

Gene: Unicorn\_48 Start: 35586, Stop: 35879, Start Num: 10

Candidate Starts for Unicorn\_48:

(Start: 10 @35586 has 21 MA's), (16, 35622), (24, 35697), (36, 35811), (37, 35820), (42, 35844), (47, 35862),

Gene: Validus\_50 Start: 36462, Stop: 36773, Start Num: 13

Candidate Starts for Validus\_50:

(Start: 13 @36462 has 12 MA's), (17, 36480), (23, 36549), (32, 36630), (52, 36756),

Gene: Ximenita\_52 Start: 36658, Stop: 36951, Start Num: 10

Candidate Starts for Ximenita\_52:

(Start: 10 @36658 has 21 MA's), (36, 36883), (47, 36934),

Gene: Yunkel11\_48 Start: 35488, Stop: 35814, Start Num: 10

Candidate Starts for Yunkel11\_48:

(Start: 10 @35488 has 21 MA's), (23, 35596), (52, 35797),