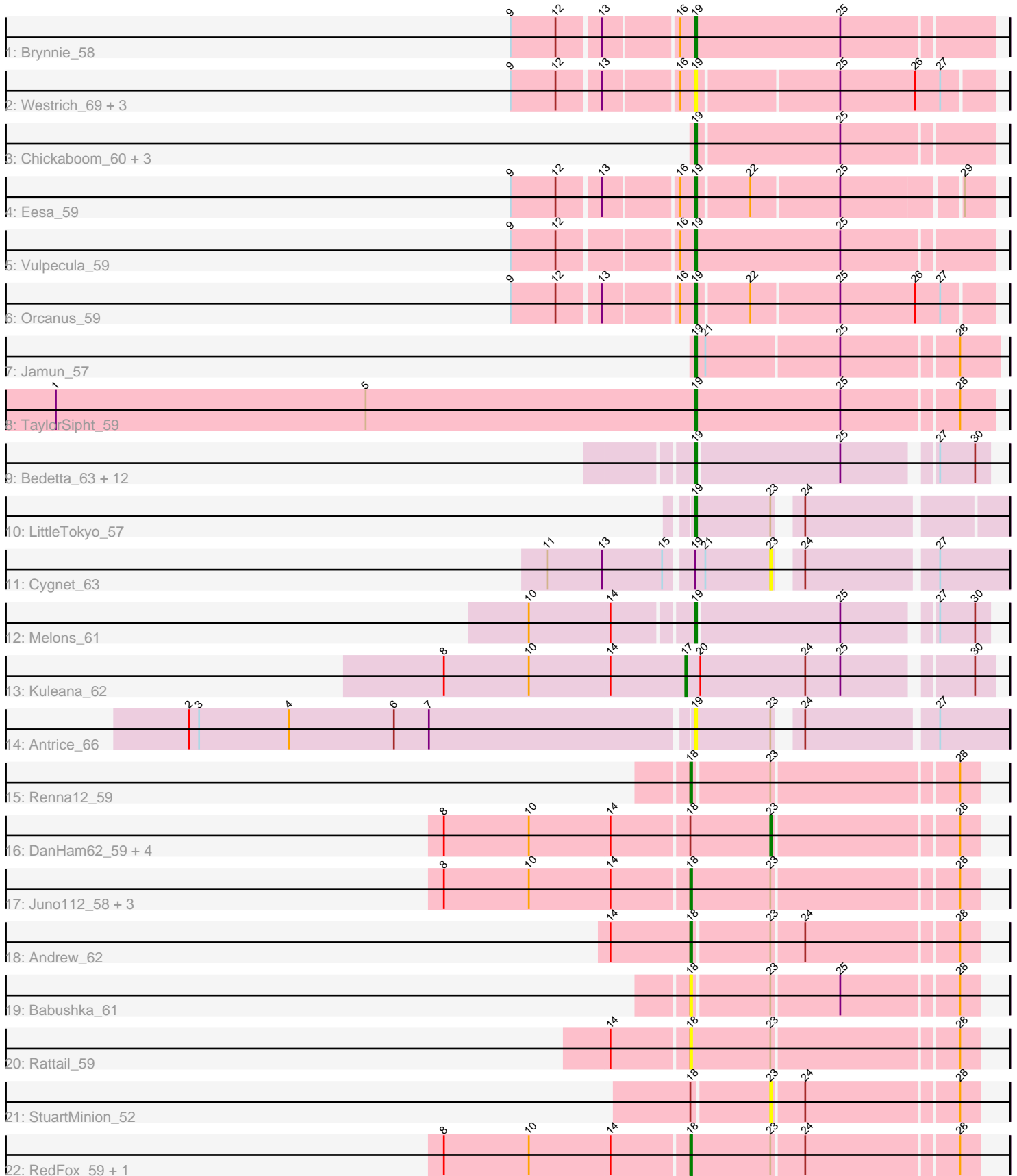


Pham 221523



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 221523 Report

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

Pham number 221523 has 48 members, 21 are drafts.

Phages represented in each track:

- Track 1 : Brynnie\_58
- Track 2 : Westrich\_69, Gravel\_70, KendraB23\_69, Pelletreau\_70
- Track 3 : Chickaboom\_60, Basilisk\_59, WileyE\_64, Ruchi\_58
- Track 4 : Eesa\_59
- Track 5 : Vulpecula\_59
- Track 6 : Orcanus\_59
- Track 7 : Jamun\_57
- Track 8 : TaylorSipht\_59
- Track 9 : Bedetta\_63, Amelia\_58, Lunar\_60, Coral\_58, Polka\_58, Colusalem\_61, Daob\_60, Kepler\_60, OtsoOtso\_67, Jerole\_68, Bibble12\_63, HannahPhantana\_60, Cote\_61
- Track 10 : LittleTokyo\_57
- Track 11 : Cygnet\_63
- Track 12 : Melons\_61
- Track 13 : Kuleana\_62
- Track 14 : Antrice\_66
- Track 15 : Renna12\_59
- Track 16 : DanHam62\_59, AmiCi24\_58, KHumphrey\_59, Camara\_59, Glotell\_62
- Track 17 : Juno112\_58, PhluffyCoco\_59, Atlantica\_59, HamCheese\_58
- Track 18 : Andrew\_62
- Track 19 : Babushka\_61
- Track 20 : Rattail\_59
- Track 21 : StuartMinion\_52
- Track 22 : RedFox\_59, Leona\_58

### ***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 19 of the 27 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Amelia\_58, Antrice\_66, Basilisk\_59, Bedetta\_63, Bibble12\_63, Brynnie\_58, Chickaboom\_60, Colusalem\_61, Coral\_58, Cote\_61, Daob\_60, Eesa\_59, Gravel\_70, HannahPhantana\_60, Jamun\_57, Jerole\_68, KendraB23\_69, Kepler\_60,

LittleTokyo\_57, Lunar\_60, Melons\_61, Orcanus\_59, OtsoOtso\_67, Pelletreau\_70, Polka\_58, Ruchi\_58, TaylorSipt\_59, Vulpecula\_59, Westrich\_69, WileyE\_64,

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

- Cygnet\_63,

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

- AmiCi24\_58, Andrew\_62, Atlantica\_59, Babushka\_61, Camara\_59, DanHam62\_59, Glotell\_62, HamCheese\_58, Juno112\_58, KHumphrey\_59, Kuleana\_62, Leona\_58, PhluffyCoco\_59, Rattail\_59, RedFox\_59, Renna12\_59, StuartMinion\_52,

### Summary by start number:

Start 17:

- Found in 1 of 48 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kuleana\_62 (AS2),

Start 18:

- Found in 16 of 48 ( 33.3% ) of genes in pham
- Manual Annotations of this start: 6 of 27
- Called 62.5% of time when present
- Phage (with cluster) where this start called: Andrew\_62 (AS3), Atlantica\_59 (AS3), Babushka\_61 (AS3), HamCheese\_58 (AS3), Juno112\_58 (AS3), Leona\_58 (AS3), PhluffyCoco\_59 (AS3), Rattail\_59 (AS3), RedFox\_59 (AS3), Renna12\_59 (AS3),

Start 19:

- Found in 31 of 48 ( 64.6% ) of genes in pham
- Manual Annotations of this start: 19 of 27
- Called 96.8% of time when present
- Phage (with cluster) where this start called: Amelia\_58 (AS2), Antrice\_66 (AS2), Basilisk\_59 (AS1), Bedetta\_63 (AS2), Bibble12\_63 (AS2), Brynnie\_58 (AS1), Chickaboom\_60 (AS1), Colusalem\_61 (AS2), Coral\_58 (AS2), Cote\_61 (AS2), Daob\_60 (AS2), Eesa\_59 (AS1), Gravel\_70 (AS1), HannahPhantana\_60 (AS2), Jamun\_57 (AS1), Jerole\_68 (AS2), KendraB23\_69 (AS1), Kepler\_60 (AS2), LittleTokyo\_57 (AS2), Lunar\_60 (AS2), Melons\_61 (AS2), Orcanus\_59 (AS1), OtsoOtso\_67 (AS2), Pelletreau\_70 (AS1), Polka\_58 (AS2), Ruchi\_58 (AS1), TaylorSipt\_59 (AS1), Vulpecula\_59 (AS1), Westrich\_69 (AS1), WileyE\_64 (AS1),

Start 23:

- Found in 19 of 48 ( 39.6% ) of genes in pham
- Manual Annotations of this start: 1 of 27
- Called 36.8% of time when present
- Phage (with cluster) where this start called: AmiCi24\_58 (AS3), Camara\_59 (AS3), Cygnet\_63 (AS2), DanHam62\_59 (AS3), Glotell\_62 (AS3), KHumphrey\_59 (AS3), StuartMinion\_52 (AS3),

### Summary by clusters:

There are 3 clusters represented in this pham: AS3, AS2, AS1,

Info for manual annotations of cluster AS1:

- Start number 19 was manually annotated 9 times for cluster AS1.

Info for manual annotations of cluster AS2:

- Start number 17 was manually annotated 1 time for cluster AS2.
- Start number 19 was manually annotated 10 times for cluster AS2.

Info for manual annotations of cluster AS3:

- Start number 18 was manually annotated 6 times for cluster AS3.
- Start number 23 was manually annotated 1 time for cluster AS3.

### ***Gene Information:***

Gene: Amelia\_58 Start: 34705, Stop: 34866, Start Num: 19

Candidate Starts for Amelia\_58:

(Start: 19 @34705 has 19 MA's), (25, 34789), (27, 34837), (30, 34858),

Gene: AmiCi24\_58 Start: 35650, Stop: 35766, Start Num: 23

Candidate Starts for AmiCi24\_58:

(8, 35458), (10, 35509), (14, 35557), (Start: 18 @35602 has 6 MA's), (Start: 23 @35650 has 1 MA's), (28, 35755),

Gene: Andrew\_62 Start: 36132, Stop: 36293, Start Num: 18

Candidate Starts for Andrew\_62:

(14, 36084), (Start: 18 @36132 has 6 MA's), (Start: 23 @36177 has 1 MA's), (24, 36195), (28, 36282),

Gene: Antrice\_66 Start: 35734, Stop: 35904, Start Num: 19

Candidate Starts for Antrice\_66:

(2, 35437), (3, 35443), (4, 35497), (6, 35560), (7, 35581), (Start: 19 @35734 has 19 MA's), (Start: 23 @35779 has 1 MA's), (24, 35788), (27, 35863),

Gene: Atlantica\_59 Start: 35604, Stop: 35768, Start Num: 18

Candidate Starts for Atlantica\_59:

(8, 35460), (10, 35511), (14, 35559), (Start: 18 @35604 has 6 MA's), (Start: 23 @35652 has 1 MA's), (28, 35757),

Gene: Babushka\_61 Start: 35400, Stop: 35561, Start Num: 18

Candidate Starts for Babushka\_61:

(Start: 18 @35400 has 6 MA's), (Start: 23 @35445 has 1 MA's), (25, 35484), (28, 35550),

Gene: Basilisk\_59 Start: 36355, Stop: 36525, Start Num: 19

Candidate Starts for Basilisk\_59:

(Start: 19 @36355 has 19 MA's), (25, 36439),

Gene: Bedetta\_63 Start: 34865, Stop: 35026, Start Num: 19

Candidate Starts for Bedetta\_63:

(Start: 19 @34865 has 19 MA's), (25, 34949), (27, 34997), (30, 35018),

Gene: Bible12\_63 Start: 34700, Stop: 34861, Start Num: 19

Candidate Starts for Bible12\_63:

(Start: 19 @34700 has 19 MA's), (25, 34784), (27, 34832), (30, 34853),

Gene: Brynnie\_58 Start: 36288, Stop: 36461, Start Num: 19  
Candidate Starts for Brynnie\_58:  
(9, 36186), (12, 36213), (13, 36237), (16, 36279), (Start: 19 @36288 has 19 MA's), (25, 36375),

Gene: Camara\_59 Start: 35543, Stop: 35659, Start Num: 23  
Candidate Starts for Camara\_59:  
(8, 35351), (10, 35402), (14, 35450), (Start: 18 @35495 has 6 MA's), (Start: 23 @35543 has 1 MA's),  
(28, 35648),

Gene: Chickaboom\_60 Start: 36691, Stop: 36861, Start Num: 19  
Candidate Starts for Chickaboom\_60:  
(Start: 19 @36691 has 19 MA's), (25, 36775),

Gene: Colusalem\_61 Start: 34682, Stop: 34843, Start Num: 19  
Candidate Starts for Colusalem\_61:  
(Start: 19 @34682 has 19 MA's), (25, 34766), (27, 34814), (30, 34835),

Gene: Coral\_58 Start: 34610, Stop: 34771, Start Num: 19  
Candidate Starts for Coral\_58:  
(Start: 19 @34610 has 19 MA's), (25, 34694), (27, 34742), (30, 34763),

Gene: Cote\_61 Start: 35043, Stop: 35204, Start Num: 19  
Candidate Starts for Cote\_61:  
(Start: 19 @35043 has 19 MA's), (25, 35127), (27, 35175), (30, 35196),

Gene: Cygnet\_63 Start: 36263, Stop: 36388, Start Num: 23  
Candidate Starts for Cygnet\_63:  
(11, 36134), (13, 36167), (15, 36203), (Start: 19 @36218 has 19 MA's), (21, 36224), (Start: 23 @36263  
has 1 MA's), (24, 36272), (27, 36347),

Gene: DanHam62\_59 Start: 35651, Stop: 35767, Start Num: 23  
Candidate Starts for DanHam62\_59:  
(8, 35459), (10, 35510), (14, 35558), (Start: 18 @35603 has 6 MA's), (Start: 23 @35651 has 1 MA's),  
(28, 35756),

Gene: Daob\_60 Start: 35054, Stop: 35215, Start Num: 19  
Candidate Starts for Daob\_60:  
(Start: 19 @35054 has 19 MA's), (25, 35138), (27, 35186), (30, 35207),

Gene: Eesa\_59 Start: 37502, Stop: 37666, Start Num: 19  
Candidate Starts for Eesa\_59:  
(9, 37400), (12, 37427), (13, 37451), (16, 37493), (Start: 19 @37502 has 19 MA's), (22, 37532), (25,  
37583), (29, 37649),

Gene: Glotell\_62 Start: 35698, Stop: 35814, Start Num: 23  
Candidate Starts for Glotell\_62:  
(8, 35506), (10, 35557), (14, 35605), (Start: 18 @35650 has 6 MA's), (Start: 23 @35698 has 1 MA's),  
(28, 35803),

Gene: Gravel\_70 Start: 37719, Stop: 37889, Start Num: 19  
Candidate Starts for Gravel\_70:  
(9, 37617), (12, 37644), (13, 37668), (16, 37710), (Start: 19 @37719 has 19 MA's), (25, 37800), (26,  
37845), (27, 37860),

Gene: HamCheese\_58 Start: 35590, Stop: 35754, Start Num: 18  
Candidate Starts for HamCheese\_58:  
(8, 35446), (10, 35497), (14, 35545), (Start: 18 @35590 has 6 MA's), (Start: 23 @35638 has 1 MA's),  
(28, 35743),

Gene: HannahPhantana\_60 Start: 34700, Stop: 34861, Start Num: 19  
Candidate Starts for HannahPhantana\_60:  
(Start: 19 @34700 has 19 MA's), (25, 34784), (27, 34832), (30, 34853),

Gene: Jamun\_57 Start: 36628, Stop: 36801, Start Num: 19  
Candidate Starts for Jamun\_57:  
(Start: 19 @36628 has 19 MA's), (21, 36634), (25, 36712), (28, 36778),

Gene: Jerole\_68 Start: 34824, Stop: 34985, Start Num: 19  
Candidate Starts for Jerole\_68:  
(Start: 19 @34824 has 19 MA's), (25, 34908), (27, 34956), (30, 34977),

Gene: Juno112\_58 Start: 35606, Stop: 35770, Start Num: 18  
Candidate Starts for Juno112\_58:  
(8, 35462), (10, 35513), (14, 35561), (Start: 18 @35606 has 6 MA's), (Start: 23 @35654 has 1 MA's),  
(28, 35759),

Gene: KHumphrey\_59 Start: 35542, Stop: 35658, Start Num: 23  
Candidate Starts for KHumphrey\_59:  
(8, 35350), (10, 35401), (14, 35449), (Start: 18 @35494 has 6 MA's), (Start: 23 @35542 has 1 MA's),  
(28, 35647),

Gene: KendraB23\_69 Start: 37407, Stop: 37577, Start Num: 19  
Candidate Starts for KendraB23\_69:  
(9, 37305), (12, 37332), (13, 37356), (16, 37398), (Start: 19 @37407 has 19 MA's), (25, 37488), (26,  
37533), (27, 37548),

Gene: Kepler\_60 Start: 34821, Stop: 34982, Start Num: 19  
Candidate Starts for Kepler\_60:  
(Start: 19 @34821 has 19 MA's), (25, 34905), (27, 34953), (30, 34974),

Gene: Kuleana\_62 Start: 35611, Stop: 35784, Start Num: 17  
Candidate Starts for Kuleana\_62:  
(8, 35467), (10, 35518), (14, 35566), (Start: 17 @35611 has 1 MA's), (20, 35620), (24, 35683), (25,  
35704), (30, 35773),

Gene: Leona\_58 Start: 35698, Stop: 35859, Start Num: 18  
Candidate Starts for Leona\_58:  
(8, 35554), (10, 35605), (14, 35653), (Start: 18 @35698 has 6 MA's), (Start: 23 @35743 has 1 MA's),  
(24, 35761), (28, 35848),

Gene: LittleTokyo\_57 Start: 34219, Stop: 34386, Start Num: 19  
Candidate Starts for LittleTokyo\_57:  
(Start: 19 @34219 has 19 MA's), (Start: 23 @34264 has 1 MA's), (24, 34273),

Gene: Lunar\_60 Start: 34733, Stop: 34894, Start Num: 19  
Candidate Starts for Lunar\_60:

(Start: 19 @34733 has 19 MA's), (25, 34817), (27, 34865), (30, 34886),

Gene: Melons\_61 Start: 34888, Stop: 35049, Start Num: 19

Candidate Starts for Melons\_61:

(10, 34795), (14, 34843), (Start: 19 @34888 has 19 MA's), (25, 34972), (27, 35020), (30, 35041),

Gene: Orcanus\_59 Start: 36837, Stop: 37007, Start Num: 19

Candidate Starts for Orcanus\_59:

(9, 36735), (12, 36762), (13, 36786), (16, 36828), (Start: 19 @36837 has 19 MA's), (22, 36867), (25, 36918), (26, 36963), (27, 36978),

Gene: OtsoOtso\_67 Start: 34555, Stop: 34716, Start Num: 19

Candidate Starts for OtsoOtso\_67:

(Start: 19 @34555 has 19 MA's), (25, 34639), (27, 34687), (30, 34708),

Gene: Pelletreau\_70 Start: 37719, Stop: 37889, Start Num: 19

Candidate Starts for Pelletreau\_70:

(9, 37617), (12, 37644), (13, 37668), (16, 37710), (Start: 19 @37719 has 19 MA's), (25, 37800), (26, 37845), (27, 37860),

Gene: PhluffyCoco\_59 Start: 35705, Stop: 35869, Start Num: 18

Candidate Starts for PhluffyCoco\_59:

(8, 35561), (10, 35612), (14, 35660), (Start: 18 @35705 has 6 MA's), (Start: 23 @35753 has 1 MA's), (28, 35858),

Gene: Polka\_58 Start: 34555, Stop: 34716, Start Num: 19

Candidate Starts for Polka\_58:

(Start: 19 @34555 has 19 MA's), (25, 34639), (27, 34687), (30, 34708),

Gene: Rattail\_59 Start: 35790, Stop: 35954, Start Num: 18

Candidate Starts for Rattail\_59:

(14, 35745), (Start: 18 @35790 has 6 MA's), (Start: 23 @35838 has 1 MA's), (28, 35943),

Gene: RedFox\_59 Start: 35703, Stop: 35867, Start Num: 18

Candidate Starts for RedFox\_59:

(8, 35559), (10, 35610), (14, 35658), (Start: 18 @35703 has 6 MA's), (Start: 23 @35751 has 1 MA's), (24, 35769), (28, 35856),

Gene: Renna12\_59 Start: 35816, Stop: 35977, Start Num: 18

Candidate Starts for Renna12\_59:

(Start: 18 @35816 has 6 MA's), (Start: 23 @35861 has 1 MA's), (28, 35966),

Gene: Ruchi\_58 Start: 36277, Stop: 36447, Start Num: 19

Candidate Starts for Ruchi\_58:

(Start: 19 @36277 has 19 MA's), (25, 36361),

Gene: StuartMinion\_52 Start: 32109, Stop: 32225, Start Num: 23

Candidate Starts for StuartMinion\_52:

(Start: 18 @32064 has 6 MA's), (Start: 23 @32109 has 1 MA's), (24, 32127), (28, 32214),

Gene: TaylorSipht\_59 Start: 36450, Stop: 36623, Start Num: 19

Candidate Starts for TaylorSipht\_59:

(1, 36066), (5, 36252), (Start: 19 @36450 has 19 MA's), (25, 36537), (28, 36603),

Gene: Vulpecula\_59 Start: 36124, Stop: 36297, Start Num: 19

Candidate Starts for Vulpecula\_59:

(9, 36022), (12, 36049), (16, 36115), (Start: 19 @36124 has 19 MA's), (25, 36211),

Gene: Westrich\_69 Start: 37643, Stop: 37813, Start Num: 19

Candidate Starts for Westrich\_69:

(9, 37541), (12, 37568), (13, 37592), (16, 37634), (Start: 19 @37643 has 19 MA's), (25, 37724), (26, 37769), (27, 37784),

Gene: WileyE\_64 Start: 36691, Stop: 36861, Start Num: 19

Candidate Starts for WileyE\_64:

(Start: 19 @36691 has 19 MA's), (25, 36775),