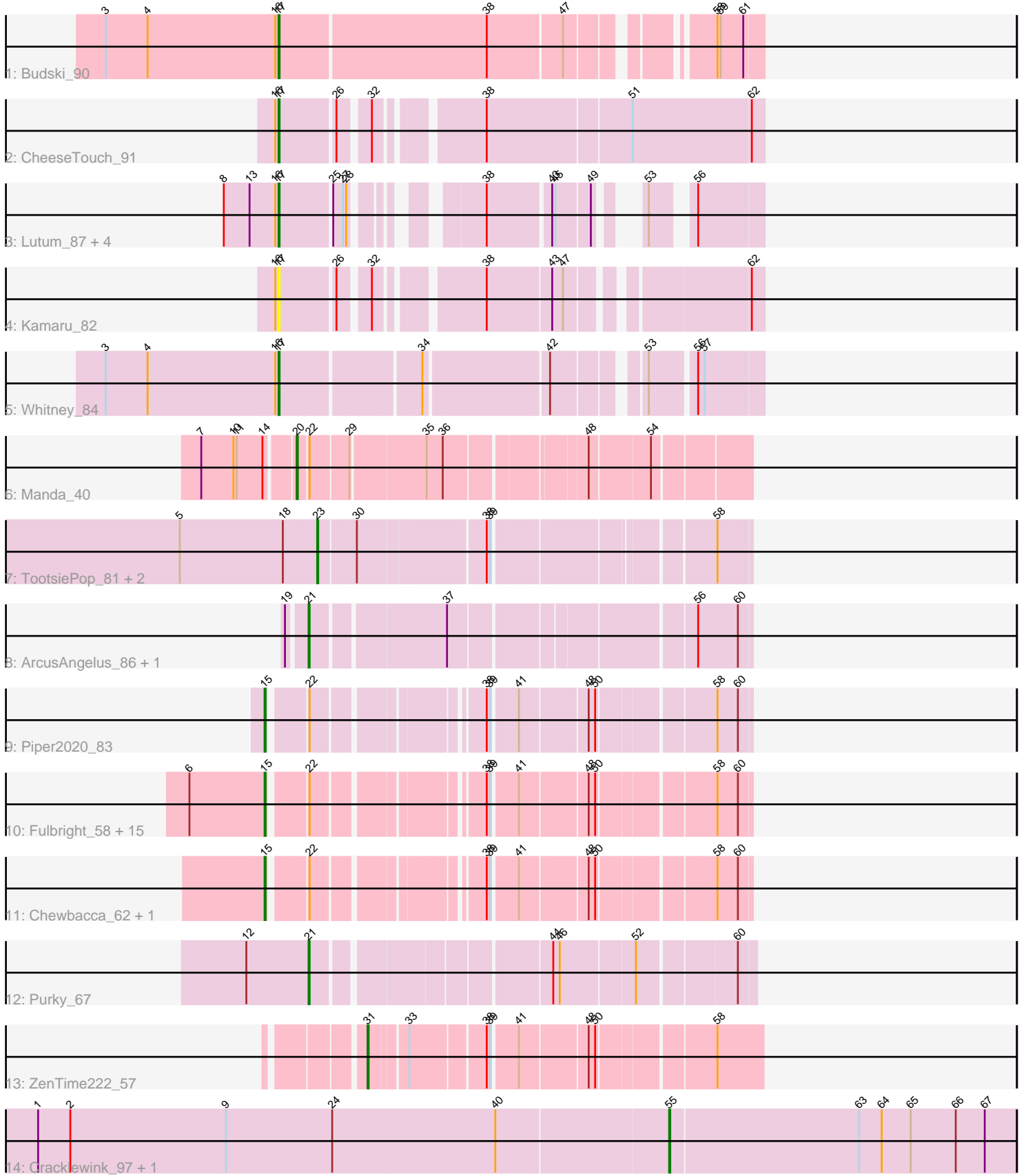


Pham 163751



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 163751 Report

This analysis was run 04/28/24 on database version 559.

Pham number 163751 has 38 members, 4 are drafts.

Phages represented in each track:

- Track 1 : Budski\_90
- Track 2 : CheeseTouch\_91
- Track 3 : Lutum\_87, Getalong\_89, BENtherdunthat\_86, Phabuloso\_93, Kenna\_81
- Track 4 : Kamaru\_82
- Track 5 : Whitney\_84
- Track 6 : Manda\_40
- Track 7 : TootsiePop\_81, Misha28\_81, Awesomesauce\_81
- Track 8 : ArcusAngelus\_86, Chevrolet\_92
- Track 9 : Piper2020\_83
- Track 10 : Fulbright\_58, Xerxes\_60, Melville\_65, Duplicity\_58, Philonius\_60, Schnauzer\_61, Pipsqueaks\_61, Parmesanjohn\_60, Smurph\_60, Aggie\_56, Gex\_61, Silvafighter\_61, Phloss\_58, Frankie\_78, Carcharodon\_60, Silvy\_61
- Track 11 : Chewbacca\_62, FirstPlacePfu\_61
- Track 12 : Purky\_67
- Track 13 : ZenTime222\_57
- Track 14 : Cracklewink\_97, Bipper\_97

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

The start number called the most often in the published annotations is 15, it was called in 17 of the 34 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aggie\_56, Carcharodon\_60, Chewbacca\_62, Duplicity\_58, FirstPlacePfu\_61, Frankie\_78, Fulbright\_58, Gex\_61, Melville\_65, Parmesanjohn\_60, Philonius\_60, Phloss\_58, Piper2020\_83, Pipsqueaks\_61, Schnauzer\_61, Silvafighter\_61, Silvy\_61, Smurph\_60, Xerxes\_60,

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

- 

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

- ArcusAngelus\_86, Awesomesauce\_81, BENtherdunthat\_86, Bipper\_97, Budski\_90, CheeseTouch\_91, Chevrolet\_92, Cracklewink\_97, Getalong\_89, Kamaru\_82,

Kenna\_81, Lutum\_87, Manda\_40, Misha28\_81, Phabuloso\_93, Purky\_67, TootsiePop\_81, Whitney\_84, ZenTime222\_57,

### Summary by start number:

#### Start 15:

- Found in 19 of 38 ( 50.0% ) of genes in pham
- Manual Annotations of this start: 17 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aggie\_56 (N), Carcharodon\_60 (N), Chewbacca\_62 (N), Duplicity\_58 (N), FirstPlacePfu\_61 (P1), Frankie\_78 (F1), Fulbright\_58 (N), Gex\_61 (N), Melville\_65 (N), Parmesanjohn\_60 (N), Philonius\_60 (N), Phloss\_58 (N), Piper2020\_83 (F1), Pipsqueaks\_61 (N), Schnauzer\_61 (N), Silvafighter\_61 (N), Silvy\_61 (N), Smurph\_60 (N), Xerxes\_60 (N),

#### Start 17:

- Found in 9 of 38 ( 23.7% ) of genes in pham
- Manual Annotations of this start: 8 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BENTherdunthat\_86 (DN1), Budski\_90 (DN), CheeseTouch\_91 (DN1), Getalong\_89 (DN1), Kamaru\_82 (DN1), Kenna\_81 (DN1), Lutum\_87 (DN1), Phabuloso\_93 (DN1), Whitney\_84 (DN1),

#### Start 20:

- Found in 1 of 38 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Manda\_40 (E),

#### Start 21:

- Found in 3 of 38 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ArcusAngelus\_86 (F1), Chevrolet\_92 (F1), Purky\_67 (P6),

#### Start 23:

- Found in 3 of 38 ( 7.9% ) of genes in pham
- Manual Annotations of this start: 3 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Awesomesauce\_81 (F1), Misha28\_81 (F1), TootsiePop\_81 (F1),

#### Start 31:

- Found in 1 of 38 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 34
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ZenTime222\_57 (T),

#### Start 55:

- Found in 2 of 38 ( 5.3% ) of genes in pham
- Manual Annotations of this start: 2 of 34
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Bipper\_97 (Y), Cracklewink\_97 (Y),

### **Summary by clusters:**

There are 9 clusters represented in this pham: DN, F1, P1, P6, N, DN1, T, Y, E,

Info for manual annotations of cluster DN:

- Start number 17 was manually annotated 1 time for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 17 was manually annotated 7 times for cluster DN1.

Info for manual annotations of cluster E:

- Start number 20 was manually annotated 1 time for cluster E.

Info for manual annotations of cluster F1:

- Start number 15 was manually annotated 2 times for cluster F1.
- Start number 21 was manually annotated 1 time for cluster F1.
- Start number 23 was manually annotated 3 times for cluster F1.

Info for manual annotations of cluster N:

- Start number 15 was manually annotated 14 times for cluster N.

Info for manual annotations of cluster P1:

- Start number 15 was manually annotated 1 time for cluster P1.

Info for manual annotations of cluster P6:

- Start number 21 was manually annotated 1 time for cluster P6.

Info for manual annotations of cluster T:

- Start number 31 was manually annotated 1 time for cluster T.

Info for manual annotations of cluster Y:

- Start number 55 was manually annotated 2 times for cluster Y.

### **Gene Information:**

Gene: Aggie\_56 Start: 38873, Stop: 39247, Start Num: 15

Candidate Starts for Aggie\_56:

(6, 38804), (Start: 15 @38873 has 17 MA's), (22, 38903), (38, 39035), (39, 39038), (41, 39059), (48, 39116), (50, 39122), (58, 39218), (60, 39236),

Gene: ArcusAngelus\_86 Start: 50829, Stop: 51188, Start Num: 21

Candidate Starts for ArcusAngelus\_86:

(19, 50814), (Start: 21 @50829 has 2 MA's), (37, 50943), (56, 51141), (60, 51177),

Gene: Awesomesauce\_81 Start: 49905, Stop: 50261, Start Num: 23

Candidate Starts for Awesomesauce\_81:

(5, 49779), (18, 49875), (Start: 23 @49905 has 3 MA's), (30, 49938), (38, 50049), (39, 50052), (58, 50232),

Gene: BENtherdunthat\_86 Start: 47569, Stop: 47898, Start Num: 17

Candidate Starts for BENtherdunthat\_86:

(8, 47518), (13, 47542), (16, 47566), (Start: 17 @47569 has 8 MA's), (25, 47614), (27, 47623), (28, 47626), (38, 47707), (43, 47761), (45, 47764), (49, 47794), (53, 47812), (56, 47839),

Gene: Bipper\_97 Start: 61646, Stop: 61966, Start Num: 55

Candidate Starts for Bipper\_97:

(1, 61067), (2, 61097), (9, 61241), (24, 61340), (40, 61490), (Start: 55 @61646 has 2 MA's), (63, 61820), (64, 61841), (65, 61868), (66, 61910), (67, 61937),

Gene: Budski\_90 Start: 49904, Stop: 50302, Start Num: 17

Candidate Starts for Budski\_90:

(3, 49745), (4, 49784), (16, 49901), (Start: 17 @49904 has 8 MA's), (38, 50090), (47, 50156), (58, 50261), (59, 50264), (61, 50285),

Gene: Carcharodon\_60 Start: 38217, Stop: 38591, Start Num: 15

Candidate Starts for Carcharodon\_60:

(6, 38148), (Start: 15 @38217 has 17 MA's), (22, 38247), (38, 38379), (39, 38382), (41, 38403), (48, 38460), (50, 38466), (58, 38562), (60, 38580),

Gene: CheeseTouch\_91 Start: 45223, Stop: 45627, Start Num: 17

Candidate Starts for CheeseTouch\_91:

(16, 45220), (Start: 17 @45223 has 8 MA's), (26, 45271), (32, 45295), (38, 45379), (51, 45508), (62, 45616),

Gene: Chevrolet\_92 Start: 50830, Stop: 51189, Start Num: 21

Candidate Starts for Chevrolet\_92:

(19, 50815), (Start: 21 @50830 has 2 MA's), (37, 50944), (56, 51142), (60, 51178),

Gene: Chewbacca\_62 Start: 38112, Stop: 38486, Start Num: 15

Candidate Starts for Chewbacca\_62:

(Start: 15 @38112 has 17 MA's), (22, 38142), (38, 38274), (39, 38277), (41, 38298), (48, 38355), (50, 38361), (58, 38457), (60, 38475),

Gene: Cracklewink\_97 Start: 60881, Stop: 61201, Start Num: 55

Candidate Starts for Cracklewink\_97:

(1, 60302), (2, 60332), (9, 60476), (24, 60575), (40, 60725), (Start: 55 @60881 has 2 MA's), (63, 61055), (64, 61076), (65, 61103), (66, 61145), (67, 61172),

Gene: Duplicity\_58 Start: 37474, Stop: 37848, Start Num: 15

Candidate Starts for Duplicity\_58:

(6, 37405), (Start: 15 @37474 has 17 MA's), (22, 37504), (38, 37636), (39, 37639), (41, 37660), (48, 37717), (50, 37723), (58, 37819), (60, 37837),

Gene: FirstPlacePfu\_61 Start: 38017, Stop: 38391, Start Num: 15

Candidate Starts for FirstPlacePfu\_61:

(Start: 15 @38017 has 17 MA's), (22, 38047), (38, 38179), (39, 38182), (41, 38203), (48, 38260), (50, 38266), (58, 38362), (60, 38380),

Gene: Frankie\_78 Start: 46606, Stop: 46980, Start Num: 15

Candidate Starts for Frankie\_78:

(6, 46537), (Start: 15 @46606 has 17 MA's), (22, 46636), (38, 46768), (39, 46771), (41, 46792), (48, 46849), (50, 46855), (58, 46951), (60, 46969),

Gene: Fulbright\_58 Start: 36911, Stop: 37285, Start Num: 15

Candidate Starts for Fulbright\_58:

(6, 36842), (Start: 15 @36911 has 17 MA's), (22, 36941), (38, 37073), (39, 37076), (41, 37097), (48, 37154), (50, 37160), (58, 37256), (60, 37274),

Gene: Getalong\_89 Start: 50024, Stop: 50353, Start Num: 17

Candidate Starts for Getalong\_89:

(8, 49973), (13, 49997), (16, 50021), (Start: 17 @50024 has 8 MA's), (25, 50069), (27, 50078), (28, 50081), (38, 50162), (43, 50216), (45, 50219), (49, 50249), (53, 50267), (56, 50294),

Gene: Gex\_61 Start: 38233, Stop: 38607, Start Num: 15

Candidate Starts for Gex\_61:

(6, 38164), (Start: 15 @38233 has 17 MA's), (22, 38263), (38, 38395), (39, 38398), (41, 38419), (48, 38476), (50, 38482), (58, 38578), (60, 38596),

Gene: Kamaru\_82 Start: 46524, Stop: 46901, Start Num: 17

Candidate Starts for Kamaru\_82:

(16, 46521), (Start: 17 @46524 has 8 MA's), (26, 46572), (32, 46596), (38, 46680), (43, 46737), (47, 46746), (62, 46890),

Gene: Kenna\_81 Start: 46842, Stop: 47171, Start Num: 17

Candidate Starts for Kenna\_81:

(8, 46791), (13, 46815), (16, 46839), (Start: 17 @46842 has 8 MA's), (25, 46887), (27, 46896), (28, 46899), (38, 46980), (43, 47034), (45, 47037), (49, 47067), (53, 47085), (56, 47112),

Gene: Lutum\_87 Start: 48004, Stop: 48333, Start Num: 17

Candidate Starts for Lutum\_87:

(8, 47953), (13, 47977), (16, 48001), (Start: 17 @48004 has 8 MA's), (25, 48049), (27, 48058), (28, 48061), (38, 48142), (43, 48196), (45, 48199), (49, 48229), (53, 48247), (56, 48274),

Gene: Manda\_40 Start: 34836, Stop: 34465, Start Num: 20

Candidate Starts for Manda\_40:

(7, 34917), (10, 34887), (11, 34884), (14, 34860), (Start: 20 @34836 has 1 MA's), (22, 34827), (29, 34794), (35, 34728), (36, 34713), (48, 34599), (54, 34548),

Gene: Melville\_65 Start: 37788, Stop: 38162, Start Num: 15

Candidate Starts for Melville\_65:

(6, 37719), (Start: 15 @37788 has 17 MA's), (22, 37818), (38, 37950), (39, 37953), (41, 37974), (48, 38031), (50, 38037), (58, 38133), (60, 38151),

Gene: Misha28\_81 Start: 50604, Stop: 50960, Start Num: 23

Candidate Starts for Misha28\_81:

(5, 50478), (18, 50574), (Start: 23 @50604 has 3 MA's), (30, 50637), (38, 50748), (39, 50751), (58, 50931),

Gene: Parmesanjohn\_60 Start: 38237, Stop: 38611, Start Num: 15

Candidate Starts for Parmesanjohn\_60:

(6, 38168), (Start: 15 @38237 has 17 MA's), (22, 38267), (38, 38399), (39, 38402), (41, 38423), (48, 38480), (50, 38486), (58, 38582), (60, 38600),

Gene: Phabuloso\_93 Start: 49496, Stop: 49825, Start Num: 17

Candidate Starts for Phabuloso\_93:

(8, 49445), (13, 49469), (16, 49493), (Start: 17 @49496 has 8 MA's), (25, 49541), (27, 49550), (28, 49553), (38, 49634), (43, 49688), (45, 49691), (49, 49721), (53, 49739), (56, 49766),

Gene: Philonius\_60 Start: 38402, Stop: 38776, Start Num: 15

Candidate Starts for Philonius\_60:

(6, 38333), (Start: 15 @38402 has 17 MA's), (22, 38432), (38, 38564), (39, 38567), (41, 38588), (48, 38645), (50, 38651), (58, 38747), (60, 38765),

Gene: Phloss\_58 Start: 37644, Stop: 38018, Start Num: 15

Candidate Starts for Phloss\_58:

(6, 37575), (Start: 15 @37644 has 17 MA's), (22, 37674), (38, 37806), (39, 37809), (41, 37830), (48, 37887), (50, 37893), (58, 37989), (60, 38007),

Gene: Piper2020\_83 Start: 51001, Stop: 51375, Start Num: 15

Candidate Starts for Piper2020\_83:

(Start: 15 @51001 has 17 MA's), (22, 51031), (38, 51163), (39, 51166), (41, 51187), (48, 51244), (50, 51250), (58, 51346), (60, 51364),

Gene: Pipsqueaks\_61 Start: 38215, Stop: 38589, Start Num: 15

Candidate Starts for Pipsqueaks\_61:

(6, 38146), (Start: 15 @38215 has 17 MA's), (22, 38245), (38, 38377), (39, 38380), (41, 38401), (48, 38458), (50, 38464), (58, 38560), (60, 38578),

Gene: Purky\_67 Start: 42925, Stop: 43284, Start Num: 21

Candidate Starts for Purky\_67:

(12, 42868), (Start: 21 @42925 has 2 MA's), (44, 43117), (46, 43123), (52, 43189), (60, 43270),

Gene: Schnauzer\_61 Start: 38237, Stop: 38611, Start Num: 15

Candidate Starts for Schnauzer\_61:

(6, 38168), (Start: 15 @38237 has 17 MA's), (22, 38267), (38, 38399), (39, 38402), (41, 38423), (48, 38480), (50, 38486), (58, 38582), (60, 38600),

Gene: Silvafighter\_61 Start: 37780, Stop: 38154, Start Num: 15

Candidate Starts for Silvafighter\_61:

(6, 37711), (Start: 15 @37780 has 17 MA's), (22, 37810), (38, 37942), (39, 37945), (41, 37966), (48, 38023), (50, 38029), (58, 38125), (60, 38143),

Gene: Silvy\_61 Start: 38873, Stop: 39247, Start Num: 15

Candidate Starts for Silvy\_61:

(6, 38804), (Start: 15 @38873 has 17 MA's), (22, 38903), (38, 39035), (39, 39038), (41, 39059), (48, 39116), (50, 39122), (58, 39218), (60, 39236),

Gene: Smurph\_60 Start: 38237, Stop: 38611, Start Num: 15

Candidate Starts for Smurph\_60:

(6, 38168), (Start: 15 @38237 has 17 MA's), (22, 38267), (38, 38399), (39, 38402), (41, 38423), (48, 38480), (50, 38486), (58, 38582), (60, 38600),

Gene: TootsiePop\_81 Start: 50604, Stop: 50960, Start Num: 23

Candidate Starts for TootsiePop\_81:

(5, 50478), (18, 50574), (Start: 23 @50604 has 3 MA's), (30, 50637), (38, 50748), (39, 50751), (58, 50931),

Gene: Whitney\_84 Start: 49207, Stop: 49602, Start Num: 17

Candidate Starts for Whitney\_84:

(3, 49048), (4, 49087), (16, 49204), (Start: 17 @49207 has 8 MA's), (34, 49327), (42, 49435), (53, 49504), (56, 49543), (57, 49549),

Gene: Xerxes\_60 Start: 38234, Stop: 38608, Start Num: 15

Candidate Starts for Xerxes\_60:

(6, 38165), (Start: 15 @38234 has 17 MA's), (22, 38264), (38, 38396), (39, 38399), (41, 38420), (48, 38477), (50, 38483), (58, 38579), (60, 38597),

Gene: ZenTime222\_57 Start: 39491, Stop: 39808, Start Num: 31

Candidate Starts for ZenTime222\_57:

(Start: 31 @39491 has 1 MA's), (33, 39521), (38, 39584), (39, 39587), (41, 39608), (48, 39665), (50, 39671), (58, 39767),