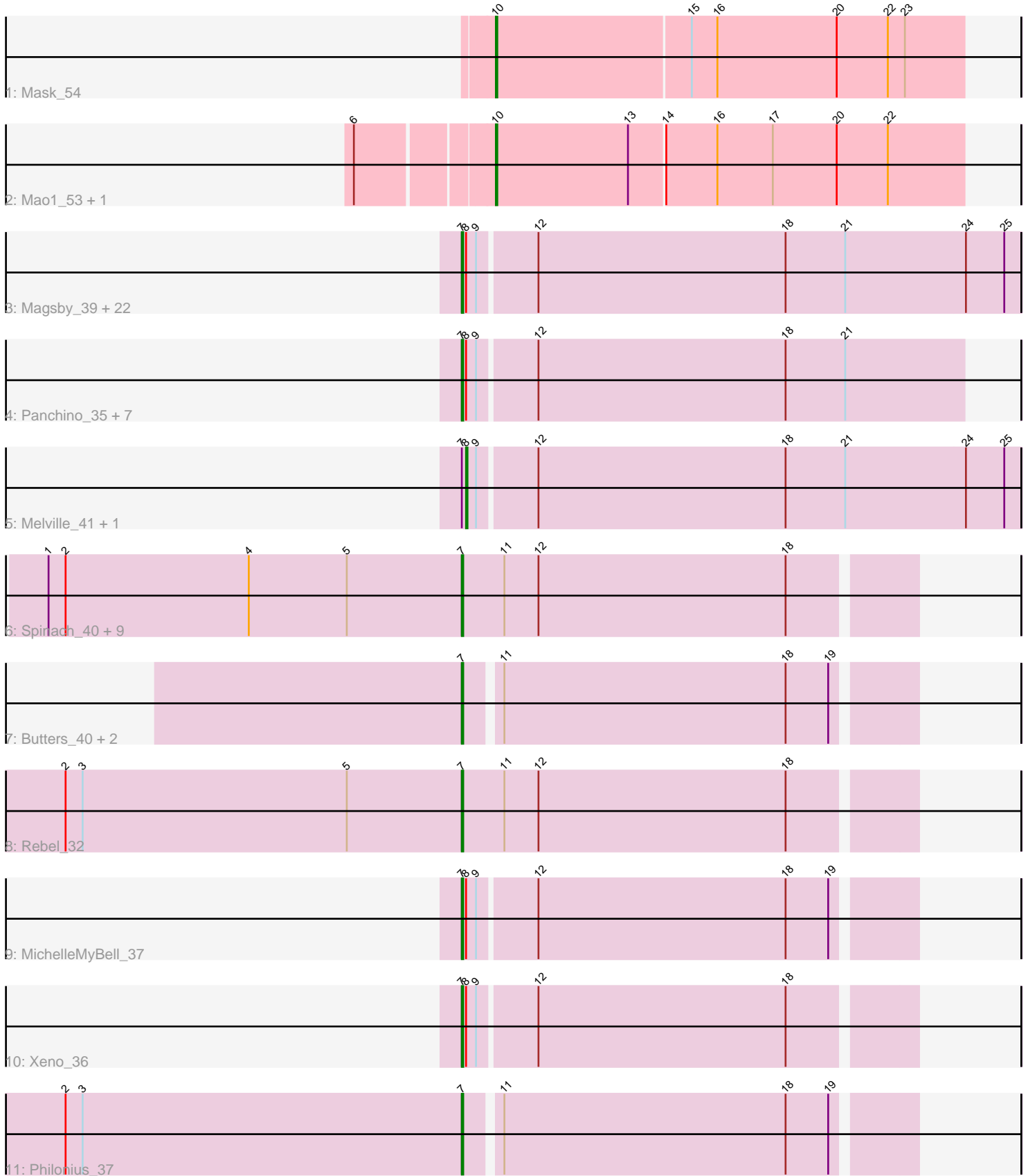


Pham 296632



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 296632 Report

This analysis was run 04/25/26 on database version 644.

Pham number 296632 has 53 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Mask\_54
- Track 2 : Mao1\_53, JohnLord\_57
- Track 3 : Magsby\_39, Duplicity\_39, SkinnyPete\_34, Cubone\_39, Carcharodon\_39, Bosection6\_37, Gex\_39, Phloss\_37, Fulbright\_38, Journey\_37, Aggie\_37, Pipsqueaks\_39, Silvy\_37, Xerxes\_39, Silvafighter\_40, Charlie\_37, Chewbacca\_40, Scitech\_36, Parmesanjohn\_39, Smurph\_39, Tortoise12\_37, Schnauzer\_39, Tessdabest\_40
- Track 4 : Panchino\_35, Jamie19\_36, Shweta\_36, EGUunicorn\_37, Phrann\_40, Andies\_36, Snekmaggedon\_36, SpongeBob\_36
- Track 5 : Melville\_41, Tapioca\_40
- Track 6 : Spinach\_40, BabeRuth\_41, Purgamenstris\_40, Impisi\_42, Hanako\_40, ShrimpFriedEgg\_40, Raymond7\_34, Nenae\_40, PhancyPhin\_40, Redi\_40
- Track 7 : Butters\_40, Kevin1\_38, Rubeelu\_40
- Track 8 : Rebel\_32
- Track 9 : MichelleMyBell\_37
- Track 10 : Xeno\_36
- Track 11 : Philonius\_37

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

The start number called the most often in the published annotations is 7, it was called in 44 of the 48 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Aggie\_37, Andies\_36, BabeRuth\_41, Bosection6\_37, Butters\_40, Carcharodon\_39, Charlie\_37, Chewbacca\_40, Cubone\_39, Duplicity\_39, EGUunicorn\_37, Fulbright\_38, Gex\_39, Hanako\_40, Impisi\_42, Jamie19\_36, Journey\_37, Kevin1\_38, Magsby\_39, MichelleMyBell\_37, Nenae\_40, Panchino\_35, Parmesanjohn\_39, PhancyPhin\_40, Philonius\_37, Phloss\_37, Phrann\_40, Pipsqueaks\_39, Purgamenstris\_40, Raymond7\_34, Rebel\_32, Redi\_40, Rubeelu\_40, Schnauzer\_39, Scitech\_36, ShrimpFriedEgg\_40, Shweta\_36, Silvafighter\_40, Silvy\_37, SkinnyPete\_34, Smurph\_39, Snekmaggedon\_36, Spinach\_40, SpongeBob\_36, Tessdabest\_40, Tortoise12\_37, Xeno\_36, Xerxes\_39,

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

- Melville\_41, Tapioca\_40,

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

- JohnLord\_57, Mao1\_53, Mask\_54,

### Summary by start number:

Start 7:

- Found in 50 of 53 ( 94.3% ) of genes in pham
- Manual Annotations of this start: 44 of 48
- Called 96.0% of time when present
- Phage (with cluster) where this start called: Aggie\_37 (N), Andies\_36 (N), BabeRuth\_41 (N), Bosection6\_37 (N), Butters\_40 (N), Carcharodon\_39 (N), Charlie\_37 (N), Chewbacca\_40 (N), Cubone\_39 (N), Duplicity\_39 (N), EGUicorn\_37 (N), Fulbright\_38 (N), Gex\_39 (N), Hanako\_40 (N), Impisi\_42 (N), Jamie19\_36 (N), Journey\_37 (N), Kevin1\_38 (N), Magsby\_39 (N), MichelleMyBell\_37 (N), Nенаe\_40 (N), Panchino\_35 (N), Parmesanjohn\_39 (N), PhancyPhin\_40 (N), Philonius\_37 (N), Phloss\_37 (N), Phrann\_40 (N), Pipsqueaks\_39 (N), Purgamenstris\_40 (N), Raymond7\_34 (N), Rebel\_32 (N), Redi\_40 (N), Rubeelu\_40 (N), Schnauzer\_39 (N), Scitech\_36 (N), ShrimpFriedEgg\_40 (N), Shweta\_36 (N), Silvafighter\_40 (N), Silvy\_37 (N), SkinnyPete\_34 (N), Smurph\_39 (N), Snekmaggedon\_36 (N), Spinach\_40 (N), SpongeBob\_36 (N), Tessdabest\_40 (N), Tortoise12\_37 (N), Xeno\_36 (N), Xerxes\_39 (N),

Start 8:

- Found in 35 of 53 ( 66.0% ) of genes in pham
- Manual Annotations of this start: 2 of 48
- Called 5.7% of time when present
- Phage (with cluster) where this start called: Melville\_41 (N), Tapioca\_40 (N),

Start 10:

- Found in 3 of 53 ( 5.7% ) of genes in pham
- Manual Annotations of this start: 2 of 48
- Called 100.0% of time when present
- Phage (with cluster) where this start called: JohnLord\_57 (AD), Mao1\_53 (AD), Mask\_54 (AD),

### Summary by clusters:

There are 2 clusters represented in this pham: AD, N,

Info for manual annotations of cluster AD:

- Start number 10 was manually annotated 2 times for cluster AD.

Info for manual annotations of cluster N:

- Start number 7 was manually annotated 44 times for cluster N.
- Start number 8 was manually annotated 2 times for cluster N.

### Gene Information:

Gene: Aggie\_37 Start: 28130, Stop: 28516, Start Num: 7  
Candidate Starts for Aggie\_37:  
(Start: 7 @28130 has 44 MA's), (Start: 8 @28133 has 2 MA's), (9, 28139), (12, 28178), (18, 28352),  
(21, 28394), (24, 28478), (25, 28505),

Gene: Andies\_36 Start: 28648, Stop: 28995, Start Num: 7  
Candidate Starts for Andies\_36:  
(Start: 7 @28648 has 44 MA's), (Start: 8 @28651 has 2 MA's), (9, 28657), (12, 28696), (18, 28870),  
(21, 28912),

Gene: BabeRuth\_41 Start: 29773, Stop: 30084, Start Num: 7  
Candidate Starts for BabeRuth\_41:  
(1, 29482), (2, 29494), (4, 29623), (5, 29692), (Start: 7 @29773 has 44 MA's), (11, 29803), (12, 29827),  
(18, 30001),

Gene: Bosection6\_37 Start: 28151, Stop: 28537, Start Num: 7  
Candidate Starts for Bosection6\_37:  
(Start: 7 @28151 has 44 MA's), (Start: 8 @28154 has 2 MA's), (9, 28160), (12, 28199), (18, 28373),  
(21, 28415), (24, 28499), (25, 28526),

Gene: Butters\_40 Start: 30199, Stop: 30501, Start Num: 7  
Candidate Starts for Butters\_40:  
(Start: 7 @30199 has 44 MA's), (11, 30220), (18, 30418), (19, 30448),

Gene: Carcharodon\_39 Start: 29459, Stop: 29845, Start Num: 7  
Candidate Starts for Carcharodon\_39:  
(Start: 7 @29459 has 44 MA's), (Start: 8 @29462 has 2 MA's), (9, 29468), (12, 29507), (18, 29681),  
(21, 29723), (24, 29807), (25, 29834),

Gene: Charlie\_37 Start: 28150, Stop: 28536, Start Num: 7  
Candidate Starts for Charlie\_37:  
(Start: 7 @28150 has 44 MA's), (Start: 8 @28153 has 2 MA's), (9, 28159), (12, 28198), (18, 28372),  
(21, 28414), (24, 28498), (25, 28525),

Gene: Chewbacca\_40 Start: 29459, Stop: 29845, Start Num: 7  
Candidate Starts for Chewbacca\_40:  
(Start: 7 @29459 has 44 MA's), (Start: 8 @29462 has 2 MA's), (9, 29468), (12, 29507), (18, 29681),  
(21, 29723), (24, 29807), (25, 29834),

Gene: Cubone\_39 Start: 28172, Stop: 28558, Start Num: 7  
Candidate Starts for Cubone\_39:  
(Start: 7 @28172 has 44 MA's), (Start: 8 @28175 has 2 MA's), (9, 28181), (12, 28220), (18, 28394),  
(21, 28436), (24, 28520), (25, 28547),

Gene: Duplicity\_39 Start: 29468, Stop: 29854, Start Num: 7  
Candidate Starts for Duplicity\_39:  
(Start: 7 @29468 has 44 MA's), (Start: 8 @29471 has 2 MA's), (9, 29477), (12, 29516), (18, 29690),  
(21, 29732), (24, 29816), (25, 29843),

Gene: EGUunicorn\_37 Start: 28151, Stop: 28498, Start Num: 7  
Candidate Starts for EGUunicorn\_37:  
(Start: 7 @28151 has 44 MA's), (Start: 8 @28154 has 2 MA's), (9, 28160), (12, 28199), (18, 28373),  
(21, 28415),

Gene: Fulbright\_38 Start: 28548, Stop: 28934, Start Num: 7

Candidate Starts for Fulbright\_38:

(Start: 7 @28548 has 44 MA's), (Start: 8 @28551 has 2 MA's), (9, 28557), (12, 28596), (18, 28770), (21, 28812), (24, 28896), (25, 28923),

Gene: Gex\_39 Start: 29475, Stop: 29861, Start Num: 7

Candidate Starts for Gex\_39:

(Start: 7 @29475 has 44 MA's), (Start: 8 @29478 has 2 MA's), (9, 29484), (12, 29523), (18, 29697), (21, 29739), (24, 29823), (25, 29850),

Gene: Hanako\_40 Start: 29772, Stop: 30083, Start Num: 7

Candidate Starts for Hanako\_40:

(1, 29481), (2, 29493), (4, 29622), (5, 29691), (Start: 7 @29772 has 44 MA's), (11, 29802), (12, 29826), (18, 30000),

Gene: Impisi\_42 Start: 30328, Stop: 30639, Start Num: 7

Candidate Starts for Impisi\_42:

(1, 30037), (2, 30049), (4, 30178), (5, 30247), (Start: 7 @30328 has 44 MA's), (11, 30358), (12, 30382), (18, 30556),

Gene: Jamie19\_36 Start: 28529, Stop: 28876, Start Num: 7

Candidate Starts for Jamie19\_36:

(Start: 7 @28529 has 44 MA's), (Start: 8 @28532 has 2 MA's), (9, 28538), (12, 28577), (18, 28751), (21, 28793),

Gene: JohnLord\_57 Start: 45472, Stop: 45798, Start Num: 10

Candidate Starts for JohnLord\_57:

(6, 45388), (Start: 10 @45472 has 2 MA's), (13, 45565), (14, 45589), (16, 45625), (17, 45664), (20, 45709), (22, 45745),

Gene: Journey\_37 Start: 28150, Stop: 28536, Start Num: 7

Candidate Starts for Journey\_37:

(Start: 7 @28150 has 44 MA's), (Start: 8 @28153 has 2 MA's), (9, 28159), (12, 28198), (18, 28372), (21, 28414), (24, 28498), (25, 28525),

Gene: Kevin1\_38 Start: 29378, Stop: 29680, Start Num: 7

Candidate Starts for Kevin1\_38:

(Start: 7 @29378 has 44 MA's), (11, 29399), (18, 29597), (19, 29627),

Gene: Magsby\_39 Start: 29476, Stop: 29862, Start Num: 7

Candidate Starts for Magsby\_39:

(Start: 7 @29476 has 44 MA's), (Start: 8 @29479 has 2 MA's), (9, 29485), (12, 29524), (18, 29698), (21, 29740), (24, 29824), (25, 29851),

Gene: Mao1\_53 Start: 44475, Stop: 44801, Start Num: 10

Candidate Starts for Mao1\_53:

(6, 44391), (Start: 10 @44475 has 2 MA's), (13, 44568), (14, 44592), (16, 44628), (17, 44667), (20, 44712), (22, 44748),

Gene: Mask\_54 Start: 47033, Stop: 47359, Start Num: 10

Candidate Starts for Mask\_54:

(Start: 10 @47033 has 2 MA's), (15, 47168), (16, 47186), (20, 47270), (22, 47306), (23, 47318),

Gene: Melville\_41 Start: 29463, Stop: 29846, Start Num: 8

Candidate Starts for Melville\_41:

(Start: 7 @29460 has 44 MA's), (Start: 8 @29463 has 2 MA's), (9, 29469), (12, 29508), (18, 29682), (21, 29724), (24, 29808), (25, 29835),

Gene: MichelleMyBell\_37 Start: 28467, Stop: 28772, Start Num: 7

Candidate Starts for MichelleMyBell\_37:

(Start: 7 @28467 has 44 MA's), (Start: 8 @28470 has 2 MA's), (9, 28476), (12, 28515), (18, 28689), (19, 28719),

Gene: Nenae\_40 Start: 29775, Stop: 30086, Start Num: 7

Candidate Starts for Nenae\_40:

(1, 29484), (2, 29496), (4, 29625), (5, 29694), (Start: 7 @29775 has 44 MA's), (11, 29805), (12, 29829), (18, 30003),

Gene: Panchino\_35 Start: 29875, Stop: 30222, Start Num: 7

Candidate Starts for Panchino\_35:

(Start: 7 @29875 has 44 MA's), (Start: 8 @29878 has 2 MA's), (9, 29884), (12, 29923), (18, 30097), (21, 30139),

Gene: Parmesanjohn\_39 Start: 29479, Stop: 29865, Start Num: 7

Candidate Starts for Parmesanjohn\_39:

(Start: 7 @29479 has 44 MA's), (Start: 8 @29482 has 2 MA's), (9, 29488), (12, 29527), (18, 29701), (21, 29743), (24, 29827), (25, 29854),

Gene: PhancyPhin\_40 Start: 29769, Stop: 30080, Start Num: 7

Candidate Starts for PhancyPhin\_40:

(1, 29478), (2, 29490), (4, 29619), (5, 29688), (Start: 7 @29769 has 44 MA's), (11, 29799), (12, 29823), (18, 29997),

Gene: Philonius\_37 Start: 28138, Stop: 28440, Start Num: 7

Candidate Starts for Philonius\_37:

(2, 27859), (3, 27871), (Start: 7 @28138 has 44 MA's), (11, 28159), (18, 28357), (19, 28387),

Gene: Phloss\_37 Start: 28886, Stop: 29272, Start Num: 7

Candidate Starts for Phloss\_37:

(Start: 7 @28886 has 44 MA's), (Start: 8 @28889 has 2 MA's), (9, 28895), (12, 28934), (18, 29108), (21, 29150), (24, 29234), (25, 29261),

Gene: Phrann\_40 Start: 30555, Stop: 30902, Start Num: 7

Candidate Starts for Phrann\_40:

(Start: 7 @30555 has 44 MA's), (Start: 8 @30558 has 2 MA's), (9, 30564), (12, 30603), (18, 30777), (21, 30819),

Gene: Pipsqueaks\_39 Start: 29456, Stop: 29842, Start Num: 7

Candidate Starts for Pipsqueaks\_39:

(Start: 7 @29456 has 44 MA's), (Start: 8 @29459 has 2 MA's), (9, 29465), (12, 29504), (18, 29678), (21, 29720), (24, 29804), (25, 29831),

Gene: Purgamenstris\_40 Start: 29773, Stop: 30084, Start Num: 7

Candidate Starts for Purgamenstris\_40:

(1, 29482), (2, 29494), (4, 29623), (5, 29692), (Start: 7 @29773 has 44 MA's), (11, 29803), (12, 29827), (18, 30001),

Gene: Raymond7\_34 Start: 29585, Stop: 29896, Start Num: 7

Candidate Starts for Raymond7\_34:

(1, 29294), (2, 29306), (4, 29435), (5, 29504), (Start: 7 @29585 has 44 MA's), (11, 29615), (12, 29639), (18, 29813),

Gene: Rebel\_32 Start: 25903, Stop: 26214, Start Num: 7

Candidate Starts for Rebel\_32:

(2, 25624), (3, 25636), (5, 25822), (Start: 7 @25903 has 44 MA's), (11, 25933), (12, 25957), (18, 26131),

Gene: Redi\_40 Start: 29772, Stop: 30083, Start Num: 7

Candidate Starts for Redi\_40:

(1, 29481), (2, 29493), (4, 29622), (5, 29691), (Start: 7 @29772 has 44 MA's), (11, 29802), (12, 29826), (18, 30000),

Gene: Rubeelu\_40 Start: 30199, Stop: 30501, Start Num: 7

Candidate Starts for Rubeelu\_40:

(Start: 7 @30199 has 44 MA's), (11, 30220), (18, 30418), (19, 30448),

Gene: Schnauzer\_39 Start: 29479, Stop: 29865, Start Num: 7

Candidate Starts for Schnauzer\_39:

(Start: 7 @29479 has 44 MA's), (Start: 8 @29482 has 2 MA's), (9, 29488), (12, 29527), (18, 29701), (21, 29743), (24, 29827), (25, 29854),

Gene: Scitech\_36 Start: 27327, Stop: 27713, Start Num: 7

Candidate Starts for Scitech\_36:

(Start: 7 @27327 has 44 MA's), (Start: 8 @27330 has 2 MA's), (9, 27336), (12, 27375), (18, 27549), (21, 27591), (24, 27675), (25, 27702),

Gene: ShrimpFriedEgg\_40 Start: 29772, Stop: 30083, Start Num: 7

Candidate Starts for ShrimpFriedEgg\_40:

(1, 29481), (2, 29493), (4, 29622), (5, 29691), (Start: 7 @29772 has 44 MA's), (11, 29802), (12, 29826), (18, 30000),

Gene: Shweta\_36 Start: 28659, Stop: 29006, Start Num: 7

Candidate Starts for Shweta\_36:

(Start: 7 @28659 has 44 MA's), (Start: 8 @28662 has 2 MA's), (9, 28668), (12, 28707), (18, 28881), (21, 28923),

Gene: Silvafighter\_40 Start: 29452, Stop: 29838, Start Num: 7

Candidate Starts for Silvafighter\_40:

(Start: 7 @29452 has 44 MA's), (Start: 8 @29455 has 2 MA's), (9, 29461), (12, 29500), (18, 29674), (21, 29716), (24, 29800), (25, 29827),

Gene: Silvy\_37 Start: 28130, Stop: 28516, Start Num: 7

Candidate Starts for Silvy\_37:

(Start: 7 @28130 has 44 MA's), (Start: 8 @28133 has 2 MA's), (9, 28139), (12, 28178), (18, 28352), (21, 28394), (24, 28478), (25, 28505),

Gene: SkinnyPete\_34 Start: 27190, Stop: 27576, Start Num: 7

Candidate Starts for SkinnyPete\_34:

(Start: 7 @27190 has 44 MA's), (Start: 8 @27193 has 2 MA's), (9, 27199), (12, 27238), (18, 27412), (21, 27454), (24, 27538), (25, 27565),

Gene: Smurph\_39 Start: 29479, Stop: 29865, Start Num: 7

Candidate Starts for Smurph\_39:

(Start: 7 @29479 has 44 MA's), (Start: 8 @29482 has 2 MA's), (9, 29488), (12, 29527), (18, 29701), (21, 29743), (24, 29827), (25, 29854),

Gene: Snekmaggedon\_36 Start: 28529, Stop: 28876, Start Num: 7

Candidate Starts for Snekmaggedon\_36:

(Start: 7 @28529 has 44 MA's), (Start: 8 @28532 has 2 MA's), (9, 28538), (12, 28577), (18, 28751), (21, 28793),

Gene: Spinach\_40 Start: 29772, Stop: 30083, Start Num: 7

Candidate Starts for Spinach\_40:

(1, 29481), (2, 29493), (4, 29622), (5, 29691), (Start: 7 @29772 has 44 MA's), (11, 29802), (12, 29826), (18, 30000),

Gene: SpongeBob\_36 Start: 28529, Stop: 28876, Start Num: 7

Candidate Starts for SpongeBob\_36:

(Start: 7 @28529 has 44 MA's), (Start: 8 @28532 has 2 MA's), (9, 28538), (12, 28577), (18, 28751), (21, 28793),

Gene: Tapioca\_40 Start: 29448, Stop: 29831, Start Num: 8

Candidate Starts for Tapioca\_40:

(Start: 7 @29445 has 44 MA's), (Start: 8 @29448 has 2 MA's), (9, 29454), (12, 29493), (18, 29667), (21, 29709), (24, 29793), (25, 29820),

Gene: Tessdabest\_40 Start: 29476, Stop: 29862, Start Num: 7

Candidate Starts for Tessdabest\_40:

(Start: 7 @29476 has 44 MA's), (Start: 8 @29479 has 2 MA's), (9, 29485), (12, 29524), (18, 29698), (21, 29740), (24, 29824), (25, 29851),

Gene: Tortoise12\_37 Start: 28162, Stop: 28548, Start Num: 7

Candidate Starts for Tortoise12\_37:

(Start: 7 @28162 has 44 MA's), (Start: 8 @28165 has 2 MA's), (9, 28171), (12, 28210), (18, 28384), (21, 28426), (24, 28510), (25, 28537),

Gene: Xeno\_36 Start: 27916, Stop: 28221, Start Num: 7

Candidate Starts for Xeno\_36:

(Start: 7 @27916 has 44 MA's), (Start: 8 @27919 has 2 MA's), (9, 27925), (12, 27964), (18, 28138),

Gene: Xerxes\_39 Start: 29476, Stop: 29862, Start Num: 7

Candidate Starts for Xerxes\_39:

(Start: 7 @29476 has 44 MA's), (Start: 8 @29479 has 2 MA's), (9, 29485), (12, 29524), (18, 29698), (21, 29740), (24, 29824), (25, 29851),