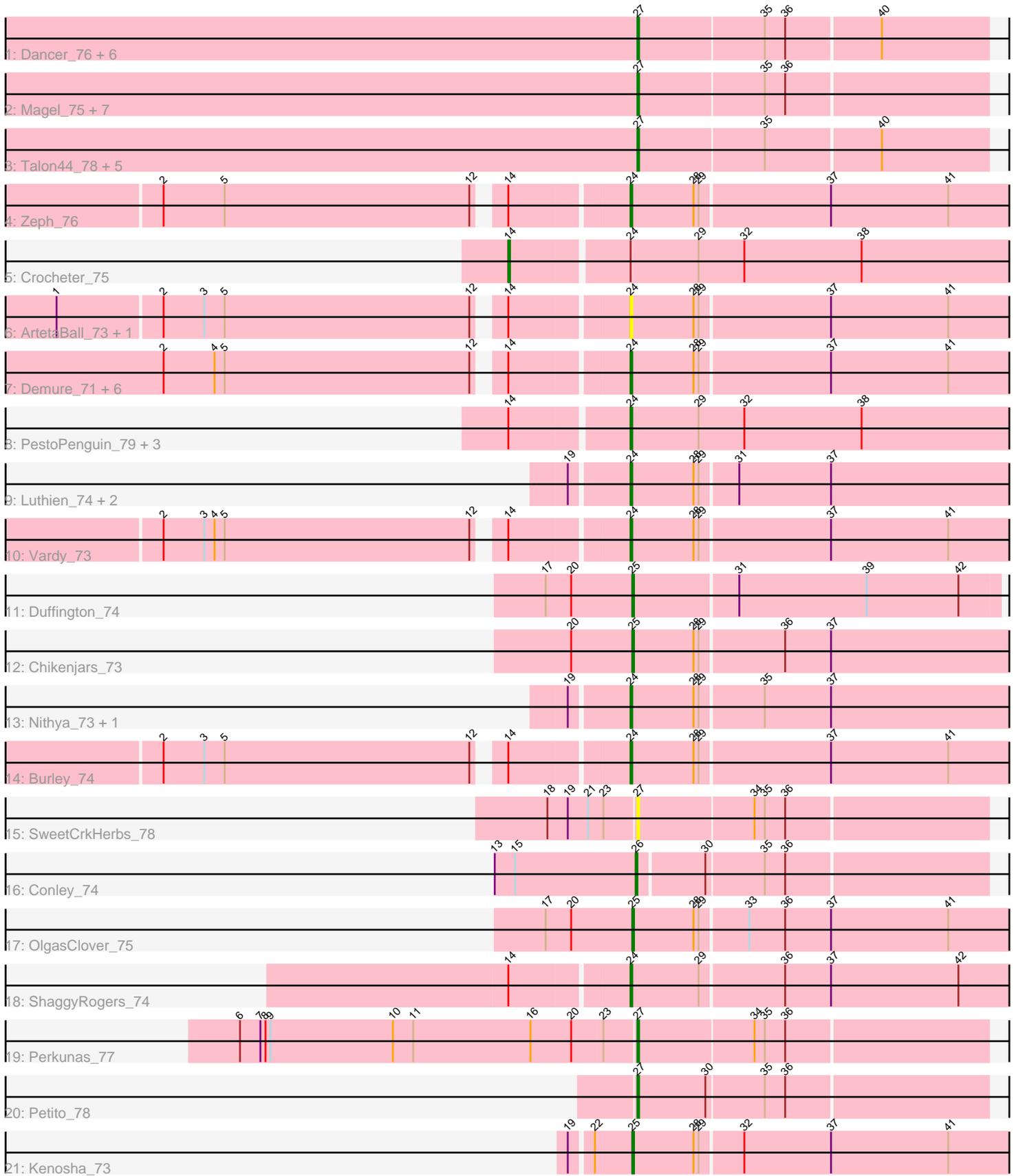


Pham 291235



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 291235 Report

This analysis was run 03/28/26 on database version 641.

Pham number 291235 has 52 members, 13 are drafts.

Phages represented in each track:

- Track 1 : Dancer\_76, Football\_79, Bugg\_80, Trufflozitus\_80, Artorias\_76, Tairn4Wing\_79, FortCran\_76
- Track 2 : Magel\_75, Roney\_74, Kerry\_73, Tanis\_74, Odesza\_73, Capybara\_74, Gill\_74, Gravy\_73
- Track 3 : Talon44\_78, JulesRay\_76, ChickyNuggy\_79, Captrips\_75, Avazak\_77, NoPickles\_75
- Track 4 : Zeph\_76
- Track 5 : Crocheter\_75
- Track 6 : ArtetaBall\_73, Dialga\_75
- Track 7 : Demure\_71, Runhaar\_73, Madvan\_74, Phepper\_75, CWormy\_72, Untouchable\_76, Arataki\_73
- Track 8 : PestoPenguin\_79, BetterYeti\_74, Aloe25\_78, Gusicorn\_76
- Track 9 : Luthien\_74, EndAve\_75, Citrus\_73
- Track 10 : Vardy\_73
- Track 11 : Duffington\_74
- Track 12 : Chikenjars\_73
- Track 13 : Nithya\_73, AlainaMarie\_73
- Track 14 : Burley\_74
- Track 15 : SweetCrkHerbs\_78
- Track 16 : Conley\_74
- Track 17 : OlgasClover\_75
- Track 18 : ShaggyRogers\_74
- Track 19 : Perkunas\_77
- Track 20 : Petite\_78
- Track 21 : Kenosha\_73

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

The start number called the most often in the published annotations is 27, it was called in 18 of the 39 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Artorias\_76, Avazak\_77, Bugg\_80, Captrips\_75, Capybara\_74, ChickyNuggy\_79, Dancer\_76, Football\_79, FortCran\_76, Gill\_74, Gravy\_73, JulesRay\_76, Kerry\_73,

Magel\_75, NoPickles\_75, Odesza\_73, Perkunas\_77, Petite\_78, Roney\_74, SweetCrkHerbs\_78, Tairn4Wing\_79, Talon44\_78, Tanis\_74, Trufflozitus\_80,

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

- 

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

• AlainaMarie\_73, Aloe25\_78, Arataki\_73, ArtetaBall\_73, BetterYeti\_74, Burley\_74, CWormy\_72, Chikenjars\_73, Citrus\_73, Conley\_74, Crocheter\_75, Demure\_71, Dialga\_75, Duffington\_74, EndAve\_75, Gusicorn\_76, Kenosha\_73, Luthien\_74, Madvan\_74, Nithya\_73, OlgasClover\_75, PestoPenguin\_79, Phepper\_75, Runhaar\_73, ShaggyRogers\_74, Untouchable\_76, Vardy\_73, Zeph\_76,

### Summary by start number:

Start 14:

- Found in 18 of 52 ( 34.6% ) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 5.6% of time when present
- Phage (with cluster) where this start called: Crocheter\_75 (DJ),

Start 24:

- Found in 23 of 52 ( 44.2% ) of genes in pham
- Manual Annotations of this start: 15 of 39
- Called 95.7% of time when present
- Phage (with cluster) where this start called: AlainaMarie\_73 (DJ), Aloe25\_78 (DJ), Arataki\_73 (DJ), ArtetaBall\_73 (DJ), BetterYeti\_74 (DJ), Burley\_74 (DJ), CWormy\_72 (DJ), Citrus\_73 (DJ), Demure\_71 (DJ), Dialga\_75 (DJ), EndAve\_75 (DJ), Gusicorn\_76 (DJ), Luthien\_74 (DJ), Madvan\_74 (DJ), Nithya\_73 (DJ), PestoPenguin\_79 (DJ), Phepper\_75 (DJ), Runhaar\_73 (DJ), ShaggyRogers\_74 (DJ), Untouchable\_76 (DJ), Vardy\_73 (DJ), Zeph\_76 (DJ),

Start 25:

- Found in 4 of 52 ( 7.7% ) of genes in pham
- Manual Annotations of this start: 4 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Chikenjars\_73 (DJ), Duffington\_74 (DJ), Kenosha\_73 (DJ), OlgasClover\_75 (DJ),

Start 26:

- Found in 1 of 52 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Conley\_74 (DJ),

Start 27:

- Found in 24 of 52 ( 46.2% ) of genes in pham
- Manual Annotations of this start: 18 of 39
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Artorias\_76 (DJ), Avazak\_77 (DJ), Bugg\_80 (DJ), Captrips\_75 (DJ), Cappybara\_74 (DJ), ChickyNuggy\_79 (DJ), Dancer\_76 (DJ), Football\_79 (DJ), FortCran\_76 (DJ), Gill\_74 (DJ), Gravy\_73 (DJ), JulesRay\_76 (DJ), Kerry\_73 (DJ), Magel\_75 (DJ), NoPickles\_75 (DJ), Odesza\_73

(DJ), Perkunas\_77 (DJ), Petito\_78 (DJ), Roney\_74 (DJ), SweetCrkHerbs\_78 (DJ), Tairn4Wing\_79 (DJ), Talon44\_78 (DJ), Tanis\_74 (DJ), Trufflozitus\_80 (DJ),

### Summary by clusters:

There is one cluster represented in this pham: DJ

Info for manual annotations of cluster DJ:

- Start number 14 was manually annotated 1 time for cluster DJ.
- Start number 24 was manually annotated 15 times for cluster DJ.
- Start number 25 was manually annotated 4 times for cluster DJ.
- Start number 26 was manually annotated 1 time for cluster DJ.
- Start number 27 was manually annotated 18 times for cluster DJ.

### Gene Information:

Gene: AlainaMarie\_73 Start: 50890, Stop: 51117, Start Num: 24

Candidate Starts for AlainaMarie\_73:

(19, 50857), (Start: 24 @50890 has 15 MA's), (28, 50926), (29, 50929), (35, 50965), (37, 51004),

Gene: Aloe25\_78 Start: 50705, Stop: 50938, Start Num: 24

Candidate Starts for Aloe25\_78:

(Start: 14 @50639 has 1 MA's), (Start: 24 @50705 has 15 MA's), (29, 50744), (32, 50771), (38, 50840),

Gene: Arataki\_73 Start: 50324, Stop: 50554, Start Num: 24

Candidate Starts for Arataki\_73:

(2, 50066), (4, 50096), (5, 50102), (12, 50246), (Start: 14 @50258 has 1 MA's), (Start: 24 @50324 has 15 MA's), (28, 50360), (29, 50363), (37, 50438), (41, 50507),

Gene: ArtetaBall\_73 Start: 50884, Stop: 51114, Start Num: 24

Candidate Starts for ArtetaBall\_73:

(1, 50566), (2, 50626), (3, 50650), (5, 50662), (12, 50806), (Start: 14 @50818 has 1 MA's), (Start: 24 @50884 has 15 MA's), (28, 50920), (29, 50923), (37, 50998), (41, 51067),

Gene: Artorias\_76 Start: 50584, Stop: 50784, Start Num: 27

Candidate Starts for Artorias\_76:

(Start: 27 @50584 has 18 MA's), (35, 50656), (36, 50668), (40, 50722),

Gene: Avazak\_77 Start: 51266, Stop: 51466, Start Num: 27

Candidate Starts for Avazak\_77:

(Start: 27 @51266 has 18 MA's), (35, 51338), (40, 51404),

Gene: BetterYeti\_74 Start: 50704, Stop: 50937, Start Num: 24

Candidate Starts for BetterYeti\_74:

(Start: 14 @50638 has 1 MA's), (Start: 24 @50704 has 15 MA's), (29, 50743), (32, 50770), (38, 50839),

Gene: Bugg\_80 Start: 50629, Stop: 50829, Start Num: 27

Candidate Starts for Bugg\_80:

(Start: 27 @50629 has 18 MA's), (35, 50701), (36, 50713), (40, 50767),

Gene: Burley\_74 Start: 50340, Stop: 50570, Start Num: 24

Candidate Starts for Burley\_74:

(2, 50082), (3, 50106), (5, 50118), (12, 50262), (Start: 14 @50274 has 1 MA's), (Start: 24 @50340 has 15 MA's), (28, 50376), (29, 50379), (37, 50454), (41, 50523),

Gene: CWormy\_72 Start: 50301, Stop: 50531, Start Num: 24

Candidate Starts for CWormy\_72:

(2, 50043), (4, 50073), (5, 50079), (12, 50223), (Start: 14 @50235 has 1 MA's), (Start: 24 @50301 has 15 MA's), (28, 50337), (29, 50340), (37, 50415), (41, 50484),

Gene: Captrips\_75 Start: 50414, Stop: 50614, Start Num: 27

Candidate Starts for Captrips\_75:

(Start: 27 @50414 has 18 MA's), (35, 50486), (40, 50552),

Gene: Capybara\_74 Start: 50251, Stop: 50451, Start Num: 27

Candidate Starts for Capybara\_74:

(Start: 27 @50251 has 18 MA's), (35, 50323), (36, 50335),

Gene: ChickyNuggy\_79 Start: 51008, Stop: 51208, Start Num: 27

Candidate Starts for ChickyNuggy\_79:

(Start: 27 @51008 has 18 MA's), (35, 51080), (40, 51146),

Gene: Chikenjars\_73 Start: 51135, Stop: 51365, Start Num: 25

Candidate Starts for Chikenjars\_73:

(20, 51099), (Start: 25 @51135 has 4 MA's), (28, 51171), (29, 51174), (36, 51222), (37, 51249),

Gene: Citrus\_73 Start: 51186, Stop: 51413, Start Num: 24

Candidate Starts for Citrus\_73:

(19, 51153), (Start: 24 @51186 has 15 MA's), (28, 51222), (29, 51225), (31, 51246), (37, 51300),

Gene: Conley\_74 Start: 50831, Stop: 51028, Start Num: 26

Candidate Starts for Conley\_74:

(13, 50750), (15, 50762), (Start: 26 @50831 has 1 MA's), (30, 50867), (35, 50900), (36, 50912),

Gene: Crocheter\_75 Start: 50732, Stop: 51031, Start Num: 14

Candidate Starts for Crocheter\_75:

(Start: 14 @50732 has 1 MA's), (Start: 24 @50798 has 15 MA's), (29, 50837), (32, 50864), (38, 50933),

Gene: Dancer\_76 Start: 50321, Stop: 50521, Start Num: 27

Candidate Starts for Dancer\_76:

(Start: 27 @50321 has 18 MA's), (35, 50393), (36, 50405), (40, 50459),

Gene: Demure\_71 Start: 50324, Stop: 50554, Start Num: 24

Candidate Starts for Demure\_71:

(2, 50066), (4, 50096), (5, 50102), (12, 50246), (Start: 14 @50258 has 1 MA's), (Start: 24 @50324 has 15 MA's), (28, 50360), (29, 50363), (37, 50438), (41, 50507),

Gene: Dialga\_75 Start: 50903, Stop: 51133, Start Num: 24

Candidate Starts for Dialga\_75:

(1, 50585), (2, 50645), (3, 50669), (5, 50681), (12, 50825), (Start: 14 @50837 has 1 MA's), (Start: 24 @50903 has 15 MA's), (28, 50939), (29, 50942), (37, 51017), (41, 51086),

Gene: Duffington\_74 Start: 51067, Stop: 51279, Start Num: 25

Candidate Starts for Duffington\_74:

(17, 51016), (20, 51031), (Start: 25 @51067 has 4 MA's), (31, 51127), (39, 51202), (42, 51256),

Gene: EndAve\_75 Start: 51080, Stop: 51307, Start Num: 24

Candidate Starts for EndAve\_75:

(19, 51047), (Start: 24 @51080 has 15 MA's), (28, 51116), (29, 51119), (31, 51140), (37, 51194),

Gene: Football\_79 Start: 50211, Stop: 50411, Start Num: 27

Candidate Starts for Football\_79:

(Start: 27 @50211 has 18 MA's), (35, 50283), (36, 50295), (40, 50349),

Gene: FortCran\_76 Start: 50584, Stop: 50784, Start Num: 27

Candidate Starts for FortCran\_76:

(Start: 27 @50584 has 18 MA's), (35, 50656), (36, 50668), (40, 50722),

Gene: Gill\_74 Start: 50263, Stop: 50463, Start Num: 27

Candidate Starts for Gill\_74:

(Start: 27 @50263 has 18 MA's), (35, 50335), (36, 50347),

Gene: Gravy\_73 Start: 49941, Stop: 50141, Start Num: 27

Candidate Starts for Gravy\_73:

(Start: 27 @49941 has 18 MA's), (35, 50013), (36, 50025),

Gene: Gusicorn\_76 Start: 50705, Stop: 50938, Start Num: 24

Candidate Starts for Gusicorn\_76:

(Start: 14 @50639 has 1 MA's), (Start: 24 @50705 has 15 MA's), (29, 50744), (32, 50771), (38, 50840),

Gene: JulesRay\_76 Start: 50933, Stop: 51133, Start Num: 27

Candidate Starts for JulesRay\_76:

(Start: 27 @50933 has 18 MA's), (35, 51005), (40, 51071),

Gene: Kenosha\_73 Start: 50932, Stop: 51162, Start Num: 25

Candidate Starts for Kenosha\_73:

(19, 50899), (22, 50911), (Start: 25 @50932 has 4 MA's), (28, 50968), (29, 50971), (32, 50995), (37, 51046), (41, 51115),

Gene: Kerry\_73 Start: 50004, Stop: 50204, Start Num: 27

Candidate Starts for Kerry\_73:

(Start: 27 @50004 has 18 MA's), (35, 50076), (36, 50088),

Gene: Luthien\_74 Start: 51075, Stop: 51302, Start Num: 24

Candidate Starts for Luthien\_74:

(19, 51042), (Start: 24 @51075 has 15 MA's), (28, 51111), (29, 51114), (31, 51135), (37, 51189),

Gene: Madvan\_74 Start: 50396, Stop: 50626, Start Num: 24

Candidate Starts for Madvan\_74:

(2, 50138), (4, 50168), (5, 50174), (12, 50318), (Start: 14 @50330 has 1 MA's), (Start: 24 @50396 has 15 MA's), (28, 50432), (29, 50435), (37, 50510), (41, 50579),

Gene: Magel\_75 Start: 50178, Stop: 50378, Start Num: 27

Candidate Starts for Magel\_75:

(Start: 27 @50178 has 18 MA's), (35, 50250), (36, 50262),

Gene: Nithya\_73 Start: 50778, Stop: 51005, Start Num: 24

Candidate Starts for Nithya\_73:

(19, 50745), (Start: 24 @50778 has 15 MA's), (28, 50814), (29, 50817), (35, 50853), (37, 50892),

Gene: NoPickles\_75 Start: 50100, Stop: 50300, Start Num: 27

Candidate Starts for NoPickles\_75:

(Start: 27 @50100 has 18 MA's), (35, 50172), (40, 50238),

Gene: Odesza\_73 Start: 50122, Stop: 50322, Start Num: 27

Candidate Starts for Odesza\_73:

(Start: 27 @50122 has 18 MA's), (35, 50194), (36, 50206),

Gene: OlgasClover\_75 Start: 51639, Stop: 51869, Start Num: 25

Candidate Starts for OlgasClover\_75:

(17, 51588), (20, 51603), (Start: 25 @51639 has 4 MA's), (28, 51675), (29, 51678), (33, 51705), (36, 51726), (37, 51753), (41, 51822),

Gene: Perkunas\_77 Start: 50320, Stop: 50520, Start Num: 27

Candidate Starts for Perkunas\_77:

(6, 50089), (7, 50101), (8, 50104), (9, 50107), (10, 50179), (11, 50191), (16, 50260), (20, 50284), (23, 50302), (Start: 27 @50320 has 18 MA's), (34, 50386), (35, 50392), (36, 50404),

Gene: PestoPenguin\_79 Start: 50705, Stop: 50938, Start Num: 24

Candidate Starts for PestoPenguin\_79:

(Start: 14 @50639 has 1 MA's), (Start: 24 @50705 has 15 MA's), (29, 50744), (32, 50771), (38, 50840),

Gene: Petite\_78 Start: 51778, Stop: 51978, Start Num: 27

Candidate Starts for Petite\_78:

(Start: 27 @51778 has 18 MA's), (30, 51817), (35, 51850), (36, 51862),

Gene: Phepper\_75 Start: 50638, Stop: 50868, Start Num: 24

Candidate Starts for Phepper\_75:

(2, 50380), (4, 50410), (5, 50416), (12, 50560), (Start: 14 @50572 has 1 MA's), (Start: 24 @50638 has 15 MA's), (28, 50674), (29, 50677), (37, 50752), (41, 50821),

Gene: Roney\_74 Start: 50288, Stop: 50488, Start Num: 27

Candidate Starts for Roney\_74:

(Start: 27 @50288 has 18 MA's), (35, 50360), (36, 50372),

Gene: Runhaar\_73 Start: 50447, Stop: 50677, Start Num: 24

Candidate Starts for Runhaar\_73:

(2, 50189), (4, 50219), (5, 50225), (12, 50369), (Start: 14 @50381 has 1 MA's), (Start: 24 @50447 has 15 MA's), (28, 50483), (29, 50486), (37, 50561), (41, 50630),

Gene: ShaggyRogers\_74 Start: 50438, Stop: 50668, Start Num: 24

Candidate Starts for ShaggyRogers\_74:

(Start: 14 @50372 has 1 MA's), (Start: 24 @50438 has 15 MA's), (29, 50477), (36, 50525), (37, 50552), (42, 50627),

Gene: SweetCrkHerbs\_78 Start: 50333, Stop: 50533, Start Num: 27

Candidate Starts for SweetCrkHerbs\_78:

(18, 50282), (19, 50294), (21, 50306), (23, 50315), (Start: 27 @50333 has 18 MA's), (34, 50399), (35, 50405), (36, 50417),

Gene: Tairn4Wing\_79 Start: 50422, Stop: 50622, Start Num: 27  
Candidate Starts for Tairn4Wing\_79:  
(Start: 27 @50422 has 18 MA's), (35, 50494), (36, 50506), (40, 50560),

Gene: Talon44\_78 Start: 51052, Stop: 51252, Start Num: 27  
Candidate Starts for Talon44\_78:  
(Start: 27 @51052 has 18 MA's), (35, 51124), (40, 51190),

Gene: Tanis\_74 Start: 50108, Stop: 50308, Start Num: 27  
Candidate Starts for Tanis\_74:  
(Start: 27 @50108 has 18 MA's), (35, 50180), (36, 50192),

Gene: Trufflozitus\_80 Start: 50937, Stop: 51137, Start Num: 27  
Candidate Starts for Trufflozitus\_80:  
(Start: 27 @50937 has 18 MA's), (35, 51009), (36, 51021), (40, 51075),

Gene: Untouchable\_76 Start: 51635, Stop: 51865, Start Num: 24  
Candidate Starts for Untouchable\_76:  
(2, 51377), (4, 51407), (5, 51413), (12, 51557), (Start: 14 @51569 has 1 MA's), (Start: 24 @51635 has 15 MA's), (28, 51671), (29, 51674), (37, 51749), (41, 51818),

Gene: Vardy\_73 Start: 50334, Stop: 50564, Start Num: 24  
Candidate Starts for Vardy\_73:  
(2, 50076), (3, 50100), (4, 50106), (5, 50112), (12, 50256), (Start: 14 @50268 has 1 MA's), (Start: 24 @50334 has 15 MA's), (28, 50370), (29, 50373), (37, 50448), (41, 50517),

Gene: Zeph\_76 Start: 51472, Stop: 51702, Start Num: 24  
Candidate Starts for Zeph\_76:  
(2, 51214), (5, 51250), (12, 51394), (Start: 14 @51406 has 1 MA's), (Start: 24 @51472 has 15 MA's), (28, 51508), (29, 51511), (37, 51586), (41, 51655),