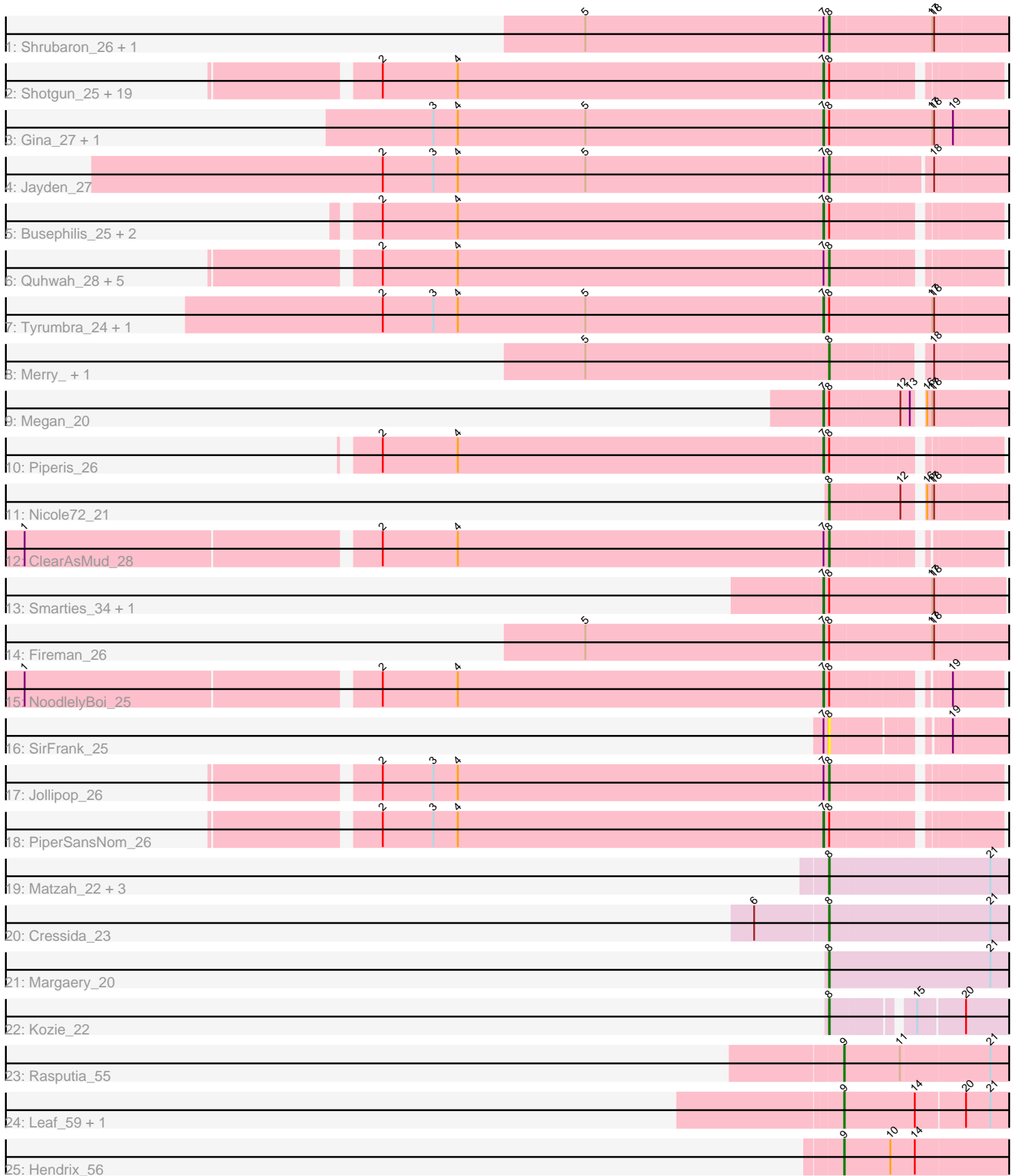


Pham 219753



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 219753 Report

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

Pham number 219753 has 60 members, 5 are drafts.

Phages represented in each track:

- Track 1 : Shrubaron\_26, Metamorphoo\_26
- Track 2 : Shotgun\_25, Paschalis\_25, PhedwardCullen\_24, Hermeonysus\_25, LittleFortune\_27, CrazyRich\_25, Savannah\_25, Jefe\_26, BrazzalePHS\_25, PierreOrion\_26, Crisis\_27, Onika\_25, Yeti\_26, Selwyn23\_27, Cranjis\_27, Honeyfin\_27, Antares\_26, Pulchra\_27, Scumberland\_27, Phrancesco\_26
- Track 3 : Gina\_27, Teamocil\_27
- Track 4 : Jayden\_27
- Track 5 : Busephilis\_25, Ganandorf\_25, Phorgeous\_25
- Track 6 : Quhwah\_28, EarickHC\_26, KaiHaiDragon\_26, Ramiel05\_25, Glorp\_27, Kowalski\_25
- Track 7 : Tyumbra\_24, RobsFeet\_27
- Track 8 : Merry\_, Sunny\_
- Track 9 : Megan\_20
- Track 10 : Piperis\_26
- Track 11 : Nicole72\_21
- Track 12 : ClearAsMud\_28
- Track 13 : Smarties\_34, Ariadne\_34
- Track 14 : Fireman\_26
- Track 15 : NoodlelyBoi\_25
- Track 16 : SirFrank\_25
- Track 17 : Jollipop\_26
- Track 18 : PiperSansNom\_26
- Track 19 : Matzah\_22, MementoMori\_22, Terij\_21, Cinna\_21
- Track 20 : Cressida\_23
- Track 21 : Margaery\_20
- Track 22 : Kozie\_22
- Track 23 : Rasputia\_55
- Track 24 : Leaf\_59, Dewdrop\_59
- Track 25 : Hendrix\_56

### ***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 32 of the 55 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Antares\_26, Ariadne\_34, BrazzalePHS\_25, Busephilis\_25, Cranjis\_27, CrazyRich\_25, Crisis\_27, Fireman\_26, Ganandorf\_25, Gina\_27, Hermeonysus\_25, Honeyfin\_27, Jefe\_26, LittleFortune\_27, Megan\_20, NoodlelyBoi\_25, Onika\_25, Paschalis\_25, PhedwardCullen\_24, Phorgeous\_25, Phrancesco\_26, PierreOrion\_26, PiperSansNom\_26, Piperis\_26, Pulchra\_27, RobsFeet\_27, Savannah\_25, Scumberland\_27, Selwyn23\_27, Shotgun\_25, Smarties\_34, Teamocil\_27, Tyrumbra\_24, Yeti\_26,

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

- ClearAsMud\_28, EarickHC\_26, Glorp\_27, Jayden\_27, Jollipop\_26, KaiHaiDragon\_26, Kowalski\_25, Metamorphoo\_26, Quhwah\_28, Ramiel05\_25, Shrubaron\_26, SirFrank\_25,

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

- Cinna\_21, Cressida\_23, Dewdrop\_59, Hendrix\_56, Kozie\_22, Leaf\_59, Margaery\_20, Matzah\_22, MementoMori\_22, Merry\_, Nicole72\_21, Rasputia\_55, Sunny\_, Terij\_21,

### Summary by start number:

Start 7:

- Found in 46 of 60 ( 76.7% ) of genes in pham
- Manual Annotations of this start: 32 of 55
- Called 73.9% of time when present
- Phage (with cluster) where this start called: Antares\_26 (EC), Ariadne\_34 (EC), BrazzalePHS\_25 (EC), Busephilis\_25 (EC), Cranjis\_27 (EC), CrazyRich\_25 (EC), Crisis\_27 (EC), Fireman\_26 (EC), Ganandorf\_25 (EC), Gina\_27 (EC), Hermeonysus\_25 (EC), Honeyfin\_27 (EC), Jefe\_26 (EC), LittleFortune\_27 (EC), Megan\_20 (EC), NoodlelyBoi\_25 (EC), Onika\_25 (EC), Paschalis\_25 (EC), PhedwardCullen\_24 (EC), Phorgeous\_25 (EC), Phrancesco\_26 (EC), PierreOrion\_26 (EC), PiperSansNom\_26 (EC), Piperis\_26 (EC), Pulchra\_27 (EC), RobsFeet\_27 (EC), Savannah\_25 (EC), Scumberland\_27 (EC), Selwyn23\_27 (EC), Shotgun\_25 (EC), Smarties\_34 (EC), Teamocil\_27 (EC), Tyrumbra\_24 (EC), Yeti\_26 (EC),

Start 8:

- Found in 56 of 60 ( 93.3% ) of genes in pham
- Manual Annotations of this start: 19 of 55
- Called 39.3% of time when present
- Phage (with cluster) where this start called: Cinna\_21 (EI), ClearAsMud\_28 (EC), Cressida\_23 (EI), EarickHC\_26 (EC), Glorp\_27 (EC), Jayden\_27 (EC), Jollipop\_26 (EC), KaiHaiDragon\_26 (EC), Kowalski\_25 (EC), Kozie\_22 (EI), Margaery\_20 (EI), Matzah\_22 (EI), MementoMori\_22 (EI), Merry\_ (EC), Metamorphoo\_26 (EC), Nicole72\_21 (EC), Quhwah\_28 (EC), Ramiel05\_25 (EC), Shrubaron\_26 (EC), SirFrank\_25 (EC), Sunny\_ (EC), Terij\_21 (EI),

Start 9:

- Found in 4 of 60 ( 6.7% ) of genes in pham
- Manual Annotations of this start: 4 of 55
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Dewdrop\_59 (GC), Hendrix\_56 (GC), Leaf\_59 (GC), Rasputia\_55 (GC),

## Summary by clusters:

There are 3 clusters represented in this pham: GC, EI, EC,

Info for manual annotations of cluster EC:

- Start number 7 was manually annotated 32 times for cluster EC.
- Start number 8 was manually annotated 12 times for cluster EC.

Info for manual annotations of cluster EI:

- Start number 8 was manually annotated 7 times for cluster EI.

Info for manual annotations of cluster GC:

- Start number 9 was manually annotated 4 times for cluster GC.

## Gene Information:

Gene: Antares\_26 Start: 13622, Stop: 13864, Start Num: 7

Candidate Starts for Antares\_26:

(2, 12920), (4, 13040), (Start: 7 @13622 has 32 MA's), (Start: 8 @13628 has 19 MA's),

Gene: Ariadne\_34 Start: 15114, Stop: 15389, Start Num: 7

Candidate Starts for Ariadne\_34:

(Start: 7 @15114 has 32 MA's), (Start: 8 @15120 has 19 MA's), (17, 15279), (18, 15282),

Gene: BrazzalePHS\_25 Start: 13415, Stop: 13657, Start Num: 7

Candidate Starts for BrazzalePHS\_25:

(2, 12713), (4, 12833), (Start: 7 @13415 has 32 MA's), (Start: 8 @13421 has 19 MA's),

Gene: Busephilis\_25 Start: 13353, Stop: 13595, Start Num: 7

Candidate Starts for Busephilis\_25:

(2, 12651), (4, 12771), (Start: 7 @13353 has 32 MA's), (Start: 8 @13359 has 19 MA's),

Gene: Cinna\_21 Start: 12839, Stop: 13123, Start Num: 8

Candidate Starts for Cinna\_21:

(Start: 8 @12839 has 19 MA's), (21, 13088),

Gene: ClearAsMud\_28 Start: 14156, Stop: 14386, Start Num: 8

Candidate Starts for ClearAsMud\_28:

(1, 12902), (2, 13445), (4, 13565), (Start: 7 @14150 has 32 MA's), (Start: 8 @14156 has 19 MA's),

Gene: Cranjis\_27 Start: 13577, Stop: 13819, Start Num: 7

Candidate Starts for Cranjis\_27:

(2, 12875), (4, 12995), (Start: 7 @13577 has 32 MA's), (Start: 8 @13583 has 19 MA's),

Gene: CrazyRich\_25 Start: 13387, Stop: 13629, Start Num: 7

Candidate Starts for CrazyRich\_25:

(2, 12685), (4, 12805), (Start: 7 @13387 has 32 MA's), (Start: 8 @13393 has 19 MA's),

Gene: Cressida\_23 Start: 12873, Stop: 13157, Start Num: 8

Candidate Starts for Cressida\_23:

(6, 12762), (Start: 8 @12873 has 19 MA's), (21, 13122),

Gene: Crisis\_27 Start: 13372, Stop: 13614, Start Num: 7

Candidate Starts for Crisis\_27:

(2, 12670), (4, 12790), (Start: 7 @13372 has 32 MA's), (Start: 8 @13378 has 19 MA's),

Gene: Dewdrop\_59 Start: 29132, Stop: 29386, Start Num: 9

Candidate Starts for Dewdrop\_59:

(Start: 9 @29132 has 4 MA's), (14, 29243), (20, 29318), (21, 29357),

Gene: EarickHC\_26 Start: 13304, Stop: 13540, Start Num: 8

Candidate Starts for EarickHC\_26:

(2, 12596), (4, 12716), (Start: 7 @13298 has 32 MA's), (Start: 8 @13304 has 19 MA's),

Gene: Fireman\_26 Start: 13019, Stop: 13297, Start Num: 7

Candidate Starts for Fireman\_26:

(5, 12638), (Start: 7 @13019 has 32 MA's), (Start: 8 @13025 has 19 MA's), (17, 13181), (18, 13184),

Gene: Ganandorf\_25 Start: 13434, Stop: 13676, Start Num: 7

Candidate Starts for Ganandorf\_25:

(2, 12732), (4, 12852), (Start: 7 @13434 has 32 MA's), (Start: 8 @13440 has 19 MA's),

Gene: Gina\_27 Start: 12706, Stop: 12984, Start Num: 7

Candidate Starts for Gina\_27:

(3, 12085), (4, 12124), (5, 12328), (Start: 7 @12706 has 32 MA's), (Start: 8 @12712 has 19 MA's), (17, 12868), (18, 12871), (19, 12898),

Gene: Glorp\_27 Start: 13442, Stop: 13678, Start Num: 8

Candidate Starts for Glorp\_27:

(2, 12734), (4, 12854), (Start: 7 @13436 has 32 MA's), (Start: 8 @13442 has 19 MA's),

Gene: Hendrix\_56 Start: 29152, Stop: 29406, Start Num: 9

Candidate Starts for Hendrix\_56:

(Start: 9 @29152 has 4 MA's), (10, 29224), (14, 29260),

Gene: Hermeonysus\_25 Start: 13304, Stop: 13546, Start Num: 7

Candidate Starts for Hermeonysus\_25:

(2, 12602), (4, 12722), (Start: 7 @13304 has 32 MA's), (Start: 8 @13310 has 19 MA's),

Gene: Honeyfin\_27 Start: 13619, Stop: 13861, Start Num: 7

Candidate Starts for Honeyfin\_27:

(2, 12917), (4, 13037), (Start: 7 @13619 has 32 MA's), (Start: 8 @13625 has 19 MA's),

Gene: Jayden\_27 Start: 13098, Stop: 13352, Start Num: 8

Candidate Starts for Jayden\_27:

(2, 12390), (3, 12471), (4, 12510), (5, 12714), (Start: 7 @13092 has 32 MA's), (Start: 8 @13098 has 19 MA's), (18, 13239),

Gene: Jefe\_26 Start: 13357, Stop: 13599, Start Num: 7

Candidate Starts for Jefe\_26:

(2, 12655), (4, 12775), (Start: 7 @13357 has 32 MA's), (Start: 8 @13363 has 19 MA's),

Gene: Jollipop\_26 Start: 13711, Stop: 13947, Start Num: 8

Candidate Starts for Jollipop\_26:  
(2, 13003), (3, 13084), (4, 13123), (Start: 7 @13705 has 32 MA's), (Start: 8 @13711 has 19 MA's),

Gene: KaiHaiDragon\_26 Start: 13304, Stop: 13540, Start Num: 8  
Candidate Starts for KaiHaiDragon\_26:  
(2, 12596), (4, 12716), (Start: 7 @13298 has 32 MA's), (Start: 8 @13304 has 19 MA's),

Gene: Kowalski\_25 Start: 13420, Stop: 13656, Start Num: 8  
Candidate Starts for Kowalski\_25:  
(2, 12712), (4, 12832), (Start: 7 @13414 has 32 MA's), (Start: 8 @13420 has 19 MA's),

Gene: Kozie\_22 Start: 12878, Stop: 13129, Start Num: 8  
Candidate Starts for Kozie\_22:  
(Start: 8 @12878 has 19 MA's), (15, 12989), (20, 13061),

Gene: Leaf\_59 Start: 29132, Stop: 29386, Start Num: 9  
Candidate Starts for Leaf\_59:  
(Start: 9 @29132 has 4 MA's), (14, 29243), (20, 29318), (21, 29357),

Gene: LittleFortune\_27 Start: 13661, Stop: 13903, Start Num: 7  
Candidate Starts for LittleFortune\_27:  
(2, 12959), (4, 13079), (Start: 7 @13661 has 32 MA's), (Start: 8 @13667 has 19 MA's),

Gene: Margaery\_20 Start: 12616, Stop: 12906, Start Num: 8  
Candidate Starts for Margaery\_20:  
(Start: 8 @12616 has 19 MA's), (21, 12871),

Gene: Matzah\_22 Start: 12816, Stop: 13100, Start Num: 8  
Candidate Starts for Matzah\_22:  
(Start: 8 @12816 has 19 MA's), (21, 13065),

Gene: Megan\_20 Start: 14422, Stop: 14679, Start Num: 7  
Candidate Starts for Megan\_20:  
(Start: 7 @14422 has 32 MA's), (Start: 8 @14431 has 19 MA's), (12, 14533), (13, 14548), (16, 14557),  
(17, 14563), (18, 14566),

Gene: MementoMori\_22 Start: 12532, Stop: 12816, Start Num: 8  
Candidate Starts for MementoMori\_22:  
(Start: 8 @12532 has 19 MA's), (21, 12781),

Gene: Merry\_ Start: 13679, Stop: 13921, Start Num: 8  
Candidate Starts for Merry\_:  
(5, 13295), (Start: 8 @13679 has 19 MA's), (18, 13808),

Gene: Metamorphoo\_26 Start: 13011, Stop: 13283, Start Num: 8  
Candidate Starts for Metamorphoo\_26:  
(5, 12624), (Start: 7 @13005 has 32 MA's), (Start: 8 @13011 has 19 MA's), (17, 13167), (18, 13170),

Gene: Nicole72\_21 Start: 14824, Stop: 15069, Start Num: 8  
Candidate Starts for Nicole72\_21:  
(Start: 8 @14824 has 19 MA's), (12, 14926), (16, 14950), (17, 14956), (18, 14959),

Gene: NoodlelyBoi\_25 Start: 13455, Stop: 13691, Start Num: 7

Candidate Starts for NoodlelyBoi\_25:

(1, 12207), (2, 12750), (4, 12870), (Start: 7 @13455 has 32 MA's), (Start: 8 @13461 has 19 MA's), (19, 13614),

Gene: Onika\_25 Start: 13388, Stop: 13630, Start Num: 7

Candidate Starts for Onika\_25:

(2, 12686), (4, 12806), (Start: 7 @13388 has 32 MA's), (Start: 8 @13394 has 19 MA's),

Gene: Paschalis\_25 Start: 13403, Stop: 13645, Start Num: 7

Candidate Starts for Paschalis\_25:

(2, 12701), (4, 12821), (Start: 7 @13403 has 32 MA's), (Start: 8 @13409 has 19 MA's),

Gene: PhedwardCullen\_24 Start: 13147, Stop: 13389, Start Num: 7

Candidate Starts for PhedwardCullen\_24:

(2, 12445), (4, 12565), (Start: 7 @13147 has 32 MA's), (Start: 8 @13153 has 19 MA's),

Gene: Phorgeous\_25 Start: 13255, Stop: 13497, Start Num: 7

Candidate Starts for Phorgeous\_25:

(2, 12553), (4, 12673), (Start: 7 @13255 has 32 MA's), (Start: 8 @13261 has 19 MA's),

Gene: Phrancesco\_26 Start: 13534, Stop: 13776, Start Num: 7

Candidate Starts for Phrancesco\_26:

(2, 12832), (4, 12952), (Start: 7 @13534 has 32 MA's), (Start: 8 @13540 has 19 MA's),

Gene: PierreOrion\_26 Start: 13558, Stop: 13800, Start Num: 7

Candidate Starts for PierreOrion\_26:

(2, 12856), (4, 12976), (Start: 7 @13558 has 32 MA's), (Start: 8 @13564 has 19 MA's),

Gene: PiperSansNom\_26 Start: 13710, Stop: 13952, Start Num: 7

Candidate Starts for PiperSansNom\_26:

(2, 13008), (3, 13089), (4, 13128), (Start: 7 @13710 has 32 MA's), (Start: 8 @13716 has 19 MA's),

Gene: Piperis\_26 Start: 13380, Stop: 13622, Start Num: 7

Candidate Starts for Piperis\_26:

(2, 12678), (4, 12798), (Start: 7 @13380 has 32 MA's), (Start: 8 @13386 has 19 MA's),

Gene: Pulchra\_27 Start: 13779, Stop: 14021, Start Num: 7

Candidate Starts for Pulchra\_27:

(2, 13077), (4, 13197), (Start: 7 @13779 has 32 MA's), (Start: 8 @13785 has 19 MA's),

Gene: Quhwah\_28 Start: 13776, Stop: 14012, Start Num: 8

Candidate Starts for Quhwah\_28:

(2, 13068), (4, 13188), (Start: 7 @13770 has 32 MA's), (Start: 8 @13776 has 19 MA's),

Gene: Ramiel05\_25 Start: 13420, Stop: 13656, Start Num: 8

Candidate Starts for Ramiel05\_25:

(2, 12712), (4, 12832), (Start: 7 @13414 has 32 MA's), (Start: 8 @13420 has 19 MA's),

Gene: Rasputia\_55 Start: 28838, Stop: 29092, Start Num: 9

Candidate Starts for Rasputia\_55:

(Start: 9 @28838 has 4 MA's), (11, 28925), (21, 29063),

Gene: RobsFeet\_27 Start: 13286, Stop: 13564, Start Num: 7

Candidate Starts for RobsFeet\_27:

(2, 12581), (3, 12662), (4, 12701), (5, 12905), (Start: 7 @13286 has 32 MA's), (Start: 8 @13292 has 19 MA's), (17, 13448), (18, 13451),

Gene: Savannah\_25 Start: 13438, Stop: 13680, Start Num: 7

Candidate Starts for Savannah\_25:

(2, 12736), (4, 12856), (Start: 7 @13438 has 32 MA's), (Start: 8 @13444 has 19 MA's),

Gene: Scumberland\_27 Start: 13629, Stop: 13871, Start Num: 7

Candidate Starts for Scumberland\_27:

(2, 12927), (4, 13047), (Start: 7 @13629 has 32 MA's), (Start: 8 @13635 has 19 MA's),

Gene: Selwyn23\_27 Start: 13607, Stop: 13849, Start Num: 7

Candidate Starts for Selwyn23\_27:

(2, 12905), (4, 13025), (Start: 7 @13607 has 32 MA's), (Start: 8 @13613 has 19 MA's),

Gene: Shotgun\_25 Start: 13236, Stop: 13478, Start Num: 7

Candidate Starts for Shotgun\_25:

(2, 12534), (4, 12654), (Start: 7 @13236 has 32 MA's), (Start: 8 @13242 has 19 MA's),

Gene: Shrubaron\_26 Start: 12924, Stop: 13196, Start Num: 8

Candidate Starts for Shrubaron\_26:

(5, 12537), (Start: 7 @12918 has 32 MA's), (Start: 8 @12924 has 19 MA's), (17, 13080), (18, 13083),

Gene: SirFrank\_25 Start: 13311, Stop: 13550, Start Num: 8

Candidate Starts for SirFrank\_25:

(Start: 7 @13305 has 32 MA's), (Start: 8 @13311 has 19 MA's), (19, 13464),

Gene: Smarties\_34 Start: 15114, Stop: 15389, Start Num: 7

Candidate Starts for Smarties\_34:

(Start: 7 @15114 has 32 MA's), (Start: 8 @15120 has 19 MA's), (17, 15279), (18, 15282),

Gene: Sunny\_ Start: 13679, Stop: 13921, Start Num: 8

Candidate Starts for Sunny\_:

(5, 13295), (Start: 8 @13679 has 19 MA's), (18, 13808),

Gene: Teamocil\_27 Start: 12805, Stop: 13083, Start Num: 7

Candidate Starts for Teamocil\_27:

(3, 12184), (4, 12223), (5, 12427), (Start: 7 @12805 has 32 MA's), (Start: 8 @12811 has 19 MA's), (17, 12967), (18, 12970), (19, 12997),

Gene: Terij\_21 Start: 12677, Stop: 12964, Start Num: 8

Candidate Starts for Terij\_21:

(Start: 8 @12677 has 19 MA's), (21, 12929),

Gene: Tyumbra\_24 Start: 12362, Stop: 12640, Start Num: 7

Candidate Starts for Tyumbra\_24:

(2, 11657), (3, 11738), (4, 11777), (5, 11981), (Start: 7 @12362 has 32 MA's), (Start: 8 @12368 has 19 MA's), (17, 12524), (18, 12527),

Gene: Yeti\_26 Start: 13410, Stop: 13652, Start Num: 7

Candidate Starts for Yeti\_26:

(2, 12708), (4, 12828), (Start: 7 @13410 has 32 MA's), (Start: 8 @13416 has 19 MA's),



