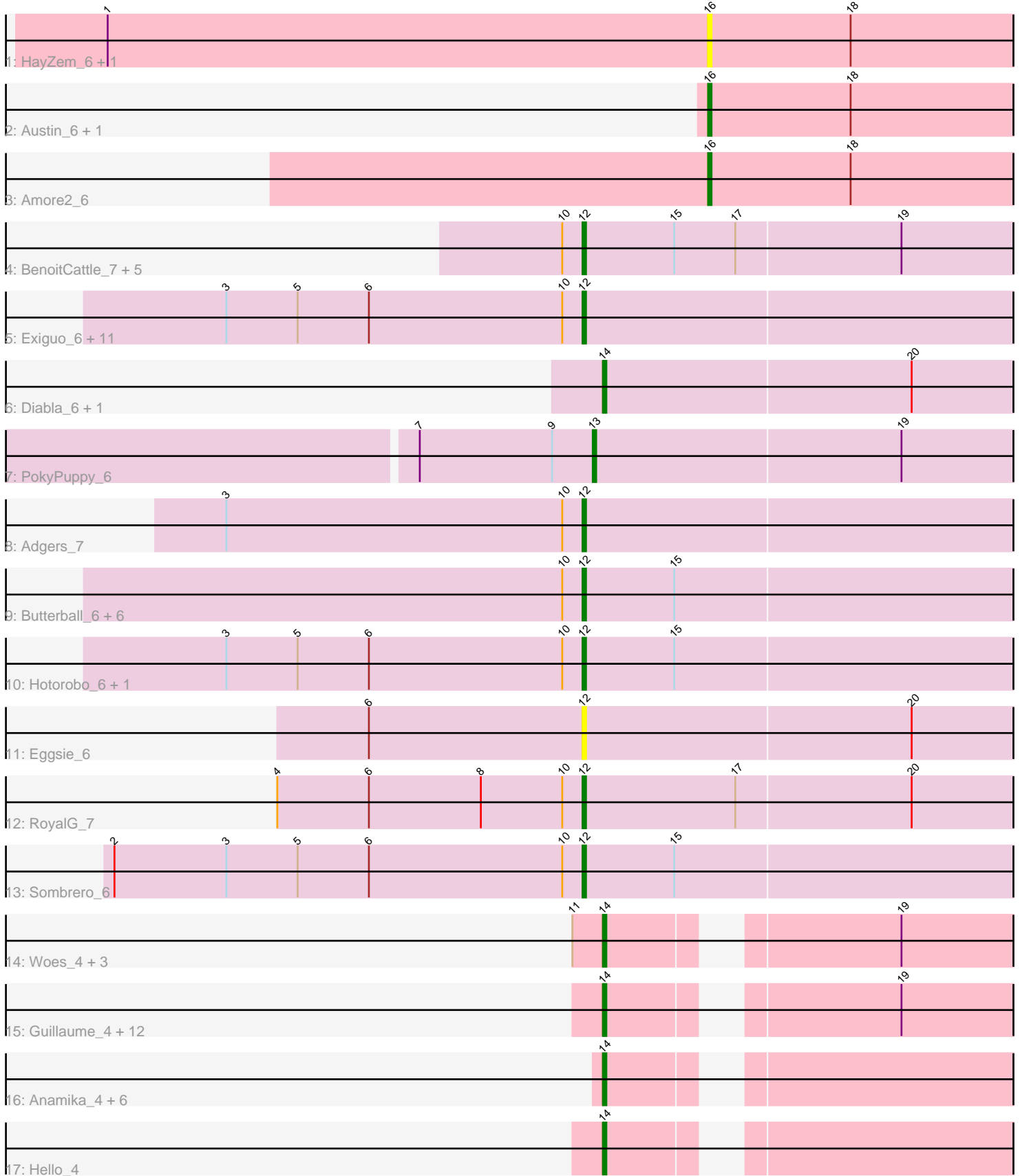


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Note: Tracks are now grouped by subcluster and scaled. Switching in subcluster is indicated by changes in track color. Track scale is now set by default to display the region 30 bp upstream of start 1 to 30 bp downstream of the last possible start. 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 160412 Report

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

Pham number 160412 has 64 members, 14 are drafts.

Phages represented in each track:

- Track 1 : HayZem\_6, GMA7\_99
- Track 2 : Austin\_6, GTE7\_99
- Track 3 : Amore2\_6
- Track 4 : BenoitCattle\_7, Dakiti\_6, BigShaq\_6, Linetti\_7, Chelms\_6, PierreThree\_6
- Track 5 : Exiguo\_6, Lizzo\_6, GourdThymes\_6, RemRem\_6, CathyBurgh\_6, Breezic\_6, Squibbles\_6, Gorko\_6, Flakey\_6, Sam12\_6, John316\_6, Barbochs\_6
- Track 6 : Diabla\_6, SteveFrench\_6
- Track 7 : PokyPuppy\_6
- Track 8 : Adgers\_7
- Track 9 : Butterball\_6, Boneham\_6, BirksAndSocks\_6, Jellybones\_6, Poland\_9, Msay19\_7, FelixAlejandro\_7
- Track 10 : Hotorobo\_6, Ekhein\_6
- Track 11 : Eggsie\_6
- Track 12 : RoyalG\_7
- Track 13 : Sombrero\_6
- Track 14 : Woes\_4, Minos\_4, Jams\_4, Damp\_4
- Track 15 : Guillaume\_4, MrWormie\_4, Sticker17\_4, Shelley\_4, Charianelly\_4, Nimi13\_4, Lidong\_4, Kaseim\_4, Teal\_4, Newt\_4, Bianmat\_4, Berries\_4, GalacticEye\_4
- Track 16 : Anamika\_4, Luker\_4, Harambe\_4, Jormungandr\_4, Hail2Pitt\_4, Lahirium\_4, Neoevie\_4
- Track 17 : Hello\_4

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

The start number called the most often in the published annotations is 12, it was called in 24 of the 50 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Adgers\_7, Barbochs\_6, BenoitCattle\_7, BigShaq\_6, BirksAndSocks\_6, Boneham\_6, Breezic\_6, Butterball\_6, CathyBurgh\_6, Chelms\_6, Dakiti\_6, Eggsie\_6, Ekhein\_6, Exiguo\_6, FelixAlejandro\_7, Flakey\_6, Gorko\_6, GourdThymes\_6, Hotorobo\_6, Jellybones\_6, John316\_6, Linetti\_7, Lizzo\_6, Msay19\_7, PierreThree\_6, Poland\_9, RemRem\_6, RoyalG\_7, Sam12\_6, Sombrero\_6, Squibbles\_6,

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

- 

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

- Amore2\_6, Anamika\_4, Austin\_6, Berries\_4, Bianmat\_4, Charianelly\_4, Damp\_4, Diabla\_6, GMA7\_99, GTE7\_99, GalacticEye\_4, Guillaume\_4, Hail2Pitt\_4, Harambe\_4, HayZem\_6, Hello\_4, Jams\_4, Jormungandr\_4, Kaseim\_4, Lahirium\_4, Lidong\_4, Luker\_4, Minos\_4, MrWormie\_4, Neoevie\_4, Newt\_4, Nimi13\_4, PokyPuppy\_6, Shelley\_4, SteveFrench\_6, Sticker17\_4, Teal\_4, Woes\_4,

### Summary by start number:

Start 12:

- Found in 31 of 64 ( 48.4% ) of genes in pham
- Manual Annotations of this start: 24 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Adgers\_7 (CS2), Barbochs\_6 (CS2), BenoitCattle\_7 (CS2), BigShaq\_6 (CS2), BirksAndSocks\_6 (CS2), Boneham\_6 (CS2), Breezic\_6 (CS2), Butterball\_6 (CS2), CathyBurgh\_6 (CS2), Chelms\_6 (CS2), Dakiti\_6 (CS2), Eggsie\_6 (CS2), Ekhein\_6 (CS2), Exiguo\_6 (CS2), FelixAlejandro\_7 (CS2), Flakey\_6 (CS2), Gorko\_6 (CS2), GourdThymes\_6 (CS2), Hotorobo\_6 (CS2), Jellybones\_6 (CS2), John316\_6 (CS2), Linetti\_7 (CS2), Lizzo\_6 (CS2), Msay19\_7 (CS2), PierreThree\_6 (CS2), Poland\_9 (CS2), RemRem\_6 (CS2), RoyalG\_7 (CS2), Sam12\_6 (CS2), Sombrero\_6 (CS2), Squibbles\_6 (CS2),

Start 13:

- Found in 1 of 64 ( 1.6% ) of genes in pham
- Manual Annotations of this start: 1 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: PokyPuppy\_6 (CS2),

Start 14:

- Found in 27 of 64 ( 42.2% ) of genes in pham
- Manual Annotations of this start: 23 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Anamika\_4 (CS3), Berries\_4 (CS3), Bianmat\_4 (CS3), Charianelly\_4 (CS3), Damp\_4 (CS3), Diabla\_6 (CS2), GalacticEye\_4 (CS3), Guillaume\_4 (CS3), Hail2Pitt\_4 (CS3), Harambe\_4 (CS3), Hello\_4 (CS3), Jams\_4 (CS3), Jormungandr\_4 (CS3), Kaseim\_4 (CS3), Lahirium\_4 (CS3), Lidong\_4 (CS3), Luker\_4 (CS3), Minos\_4 (CS3), MrWormie\_4 (CS3), Neoevie\_4 (CS3), Newt\_4 (CS3), Nimi13\_4 (CS3), Shelley\_4 (CS3), SteveFrench\_6 (CS2), Sticker17\_4 (CS3), Teal\_4 (CS3), Woes\_4 (CS3),

Start 16:

- Found in 5 of 64 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 2 of 50
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Amore2\_6 (CS1), Austin\_6 (CS1), GMA7\_99 (CS1), GTE7\_99 (CS1), HayZem\_6 (CS1),

### Summary by clusters:

There are 3 clusters represented in this pham: CS1, CS3, CS2,

Info for manual annotations of cluster CS1:

- Start number 16 was manually annotated 2 times for cluster CS1.

Info for manual annotations of cluster CS2:

- Start number 12 was manually annotated 24 times for cluster CS2.
- Start number 13 was manually annotated 1 time for cluster CS2.
- Start number 14 was manually annotated 2 times for cluster CS2.

Info for manual annotations of cluster CS3:

- Start number 14 was manually annotated 21 times for cluster CS3.

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

Gene: Adgers\_7 Start: 4589, Stop: 4446, Start Num: 12

Candidate Starts for Adgers\_7:

(3, 4694), (10, 4595), (Start: 12 @4589 has 24 MA's),

Gene: Amore2\_6 Start: 4330, Stop: 4217, Start Num: 16

Candidate Starts for Amore2\_6:

(Start: 16 @4330 has 2 MA's), (18, 4288),

Gene: Anamika\_4 Start: 3734, Stop: 3615, Start Num: 14

Candidate Starts for Anamika\_4:

(Start: 14 @3734 has 23 MA's),

Gene: Austin\_6 Start: 4330, Stop: 4217, Start Num: 16

Candidate Starts for Austin\_6:

(Start: 16 @4330 has 2 MA's), (18, 4288),

Gene: Barbochs\_6 Start: 4424, Stop: 4281, Start Num: 12

Candidate Starts for Barbochs\_6:

(3, 4529), (5, 4508), (6, 4487), (10, 4430), (Start: 12 @4424 has 24 MA's),

Gene: BenoitCattle\_7 Start: 4413, Stop: 4270, Start Num: 12

Candidate Starts for BenoitCattle\_7:

(10, 4419), (Start: 12 @4413 has 24 MA's), (15, 4386), (17, 4368), (19, 4320),

Gene: Berries\_4 Start: 3723, Stop: 3598, Start Num: 14

Candidate Starts for Berries\_4:

(Start: 14 @3723 has 23 MA's), (19, 3651),

Gene: Bianmat\_4 Start: 3746, Stop: 3621, Start Num: 14

Candidate Starts for Bianmat\_4:

(Start: 14 @3746 has 23 MA's), (19, 3674),

Gene: BigShaq\_6 Start: 4415, Stop: 4272, Start Num: 12

Candidate Starts for BigShaq\_6:

(10, 4421), (Start: 12 @4415 has 24 MA's), (15, 4388), (17, 4370), (19, 4322),

Gene: BirksAndSocks\_6 Start: 4424, Stop: 4281, Start Num: 12  
Candidate Starts for BirksAndSocks\_6:  
(10, 4430), (Start: 12 @4424 has 24 MA's), (15, 4397),

Gene: Boneham\_6 Start: 4423, Stop: 4280, Start Num: 12  
Candidate Starts for Boneham\_6:  
(10, 4429), (Start: 12 @4423 has 24 MA's), (15, 4396),

Gene: Breezic\_6 Start: 4435, Stop: 4292, Start Num: 12  
Candidate Starts for Breezic\_6:  
(3, 4540), (5, 4519), (6, 4498), (10, 4441), (Start: 12 @4435 has 24 MA's),

Gene: Butterball\_6 Start: 4423, Stop: 4280, Start Num: 12  
Candidate Starts for Butterball\_6:  
(10, 4429), (Start: 12 @4423 has 24 MA's), (15, 4396),

Gene: CathyBurgh\_6 Start: 4423, Stop: 4280, Start Num: 12  
Candidate Starts for CathyBurgh\_6:  
(3, 4528), (5, 4507), (6, 4486), (10, 4429), (Start: 12 @4423 has 24 MA's),

Gene: Charianelly\_4 Start: 3734, Stop: 3609, Start Num: 14  
Candidate Starts for Charianelly\_4:  
(Start: 14 @3734 has 23 MA's), (19, 3662),

Gene: Chelms\_6 Start: 4415, Stop: 4272, Start Num: 12  
Candidate Starts for Chelms\_6:  
(10, 4421), (Start: 12 @4415 has 24 MA's), (15, 4388), (17, 4370), (19, 4322),

Gene: Dakiti\_6 Start: 4415, Stop: 4272, Start Num: 12  
Candidate Starts for Dakiti\_6:  
(10, 4421), (Start: 12 @4415 has 24 MA's), (15, 4388), (17, 4370), (19, 4322),

Gene: Damp\_4 Start: 3726, Stop: 3601, Start Num: 14  
Candidate Starts for Damp\_4:  
(11, 3735), (Start: 14 @3726 has 23 MA's), (19, 3654),

Gene: Diabla\_6 Start: 4440, Stop: 4303, Start Num: 14  
Candidate Starts for Diabla\_6:  
(Start: 14 @4440 has 23 MA's), (20, 4350),

Gene: Eggsie\_6 Start: 4435, Stop: 4292, Start Num: 12  
Candidate Starts for Eggsie\_6:  
(6, 4498), (Start: 12 @4435 has 24 MA's), (20, 4339),

Gene: Ekhein\_6 Start: 4423, Stop: 4280, Start Num: 12  
Candidate Starts for Ekhein\_6:  
(3, 4528), (5, 4507), (6, 4486), (10, 4429), (Start: 12 @4423 has 24 MA's), (15, 4396),

Gene: Exiguo\_6 Start: 4435, Stop: 4292, Start Num: 12  
Candidate Starts for Exiguo\_6:  
(3, 4540), (5, 4519), (6, 4498), (10, 4441), (Start: 12 @4435 has 24 MA's),

Gene: FelixAlejandro\_7 Start: 4621, Stop: 4478, Start Num: 12

Candidate Starts for FelixAlejandro\_7:  
(10, 4627), (Start: 12 @4621 has 24 MA's), (15, 4594),

Gene: Flakey\_6 Start: 4424, Stop: 4281, Start Num: 12  
Candidate Starts for Flakey\_6:  
(3, 4529), (5, 4508), (6, 4487), (10, 4430), (Start: 12 @4424 has 24 MA's),

Gene: GMA7\_99 Start: 71938, Stop: 71825, Start Num: 16  
Candidate Starts for GMA7\_99:  
(1, 72115), (Start: 16 @71938 has 2 MA's), (18, 71896),

Gene: GTE7\_99 Start: 72935, Stop: 72822, Start Num: 16  
Candidate Starts for GTE7\_99:  
(Start: 16 @72935 has 2 MA's), (18, 72893),

Gene: GalacticEye\_4 Start: 3723, Stop: 3598, Start Num: 14  
Candidate Starts for GalacticEye\_4:  
(Start: 14 @3723 has 23 MA's), (19, 3651),

Gene: Gorko\_6 Start: 4424, Stop: 4281, Start Num: 12  
Candidate Starts for Gorko\_6:  
(3, 4529), (5, 4508), (6, 4487), (10, 4430), (Start: 12 @4424 has 24 MA's),

Gene: GourdThymes\_6 Start: 4423, Stop: 4280, Start Num: 12  
Candidate Starts for GourdThymes\_6:  
(3, 4528), (5, 4507), (6, 4486), (10, 4429), (Start: 12 @4423 has 24 MA's),

Gene: Guillaume\_4 Start: 3734, Stop: 3609, Start Num: 14  
Candidate Starts for Guillaume\_4:  
(Start: 14 @3734 has 23 MA's), (19, 3662),

Gene: Hail2Pitt\_4 Start: 3712, Stop: 3593, Start Num: 14  
Candidate Starts for Hail2Pitt\_4:  
(Start: 14 @3712 has 23 MA's),

Gene: Harambe\_4 Start: 3733, Stop: 3614, Start Num: 14  
Candidate Starts for Harambe\_4:  
(Start: 14 @3733 has 23 MA's),

Gene: HayZem\_6 Start: 4330, Stop: 4217, Start Num: 16  
Candidate Starts for HayZem\_6:  
(1, 4507), (Start: 16 @4330 has 2 MA's), (18, 4288),

Gene: Hello\_4 Start: 3723, Stop: 3598, Start Num: 14  
Candidate Starts for Hello\_4:  
(Start: 14 @3723 has 23 MA's),

Gene: Hotorobo\_6 Start: 4434, Stop: 4291, Start Num: 12  
Candidate Starts for Hotorobo\_6:  
(3, 4539), (5, 4518), (6, 4497), (10, 4440), (Start: 12 @4434 has 24 MA's), (15, 4407),

Gene: Jams\_4 Start: 3746, Stop: 3621, Start Num: 14  
Candidate Starts for Jams\_4:

(11, 3755), (Start: 14 @3746 has 23 MA's), (19, 3674),

Gene: Jellybones\_6 Start: 4458, Stop: 4315, Start Num: 12

Candidate Starts for Jellybones\_6:

(10, 4464), (Start: 12 @4458 has 24 MA's), (15, 4431),

Gene: John316\_6 Start: 4423, Stop: 4280, Start Num: 12

Candidate Starts for John316\_6:

(3, 4528), (5, 4507), (6, 4486), (10, 4429), (Start: 12 @4423 has 24 MA's),

Gene: Jormungandr\_4 Start: 3732, Stop: 3613, Start Num: 14

Candidate Starts for Jormungandr\_4:

(Start: 14 @3732 has 23 MA's),

Gene: Kaseim\_4 Start: 3734, Stop: 3609, Start Num: 14

Candidate Starts for Kaseim\_4:

(Start: 14 @3734 has 23 MA's), (19, 3662),

Gene: Lahirium\_4 Start: 3733, Stop: 3614, Start Num: 14

Candidate Starts for Lahirium\_4:

(Start: 14 @3733 has 23 MA's),

Gene: Lidong\_4 Start: 3723, Stop: 3598, Start Num: 14

Candidate Starts for Lidong\_4:

(Start: 14 @3723 has 23 MA's), (19, 3651),

Gene: Linetti\_7 Start: 4568, Stop: 4425, Start Num: 12

Candidate Starts for Linetti\_7:

(10, 4574), (Start: 12 @4568 has 24 MA's), (15, 4541), (17, 4523), (19, 4475),

Gene: Lizzo\_6 Start: 4423, Stop: 4280, Start Num: 12

Candidate Starts for Lizzo\_6:

(3, 4528), (5, 4507), (6, 4486), (10, 4429), (Start: 12 @4423 has 24 MA's),

Gene: Luker\_4 Start: 3712, Stop: 3593, Start Num: 14

Candidate Starts for Luker\_4:

(Start: 14 @3712 has 23 MA's),

Gene: Minos\_4 Start: 3726, Stop: 3601, Start Num: 14

Candidate Starts for Minos\_4:

(11, 3735), (Start: 14 @3726 has 23 MA's), (19, 3654),

Gene: MrWormie\_4 Start: 3712, Stop: 3587, Start Num: 14

Candidate Starts for MrWormie\_4:

(Start: 14 @3712 has 23 MA's), (19, 3640),

Gene: Msay19\_7 Start: 4613, Stop: 4470, Start Num: 12

Candidate Starts for Msay19\_7:

(10, 4619), (Start: 12 @4613 has 24 MA's), (15, 4586),

Gene: Neoevie\_4 Start: 3710, Stop: 3591, Start Num: 14

Candidate Starts for Neoevie\_4:

(Start: 14 @3710 has 23 MA's),

Gene: Newt\_4 Start: 3734, Stop: 3609, Start Num: 14

Candidate Starts for Newt\_4:

(Start: 14 @3734 has 23 MA's), (19, 3662),

Gene: Nimi13\_4 Start: 3735, Stop: 3610, Start Num: 14

Candidate Starts for Nimi13\_4:

(Start: 14 @3735 has 23 MA's), (19, 3663),

Gene: PierreThree\_6 Start: 4415, Stop: 4272, Start Num: 12

Candidate Starts for PierreThree\_6:

(10, 4421), (Start: 12 @4415 has 24 MA's), (15, 4388), (17, 4370), (19, 4322),

Gene: PokyPuppy\_6 Start: 4498, Stop: 4358, Start Num: 13

Candidate Starts for PokyPuppy\_6:

(7, 4549), (9, 4510), (Start: 13 @4498 has 1 MA's), (19, 4408),

Gene: Poland\_9 Start: 4589, Stop: 4446, Start Num: 12

Candidate Starts for Poland\_9:

(10, 4595), (Start: 12 @4589 has 24 MA's), (15, 4562),

Gene: RemRem\_6 Start: 4435, Stop: 4292, Start Num: 12

Candidate Starts for RemRem\_6:

(3, 4540), (5, 4519), (6, 4498), (10, 4441), (Start: 12 @4435 has 24 MA's),

Gene: RoyalG\_7 Start: 4630, Stop: 4487, Start Num: 12

Candidate Starts for RoyalG\_7:

(4, 4720), (6, 4693), (8, 4660), (10, 4636), (Start: 12 @4630 has 24 MA's), (17, 4585), (20, 4534),

Gene: Sam12\_6 Start: 4435, Stop: 4292, Start Num: 12

Candidate Starts for Sam12\_6:

(3, 4540), (5, 4519), (6, 4498), (10, 4441), (Start: 12 @4435 has 24 MA's),

Gene: Shelley\_4 Start: 3757, Stop: 3632, Start Num: 14

Candidate Starts for Shelley\_4:

(Start: 14 @3757 has 23 MA's), (19, 3685),

Gene: Sombrero\_6 Start: 4469, Stop: 4326, Start Num: 12

Candidate Starts for Sombrero\_6:

(2, 4607), (3, 4574), (5, 4553), (6, 4532), (10, 4475), (Start: 12 @4469 has 24 MA's), (15, 4442),

Gene: Squibbles\_6 Start: 4423, Stop: 4280, Start Num: 12

Candidate Starts for Squibbles\_6:

(3, 4528), (5, 4507), (6, 4486), (10, 4429), (Start: 12 @4423 has 24 MA's),

Gene: SteveFrench\_6 Start: 4429, Stop: 4292, Start Num: 14

Candidate Starts for SteveFrench\_6:

(Start: 14 @4429 has 23 MA's), (20, 4339),

Gene: Sticker17\_4 Start: 3734, Stop: 3609, Start Num: 14

Candidate Starts for Sticker17\_4:

(Start: 14 @3734 has 23 MA's), (19, 3662),



Gene: Teal\_4 Start: 3711, Stop: 3586, Start Num: 14  
Candidate Starts for Teal\_4:  
(Start: 14 @3711 has 23 MA's), (19, 3639),

Gene: Woes\_4 Start: 3750, Stop: 3625, Start Num: 14  
Candidate Starts for Woes\_4:  
(11, 3759), (Start: 14 @3750 has 23 MA's), (19, 3678),