





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 193760 Report

This analysis was run 11/02/24 on database version 579.

Pham number 193760 has 189 members, 38 are drafts.

Phages represented in each track:

- Track 1 : Indlovu\_12
- Track 2 : LilMcDreamy\_13
- Track 3 : Zenteno07\_17
- Track 4 : BirdsNest\_17
- Track 5 : Hashim76\_17
- Track 6 : Jolie1\_010
- Track 7 : 39HC\_010, 40BC\_010, Hosp\_08
- Track 8 : KayaCho\_10
- Track 9 : PenguinLover67\_15
- Track 10 : Knocker\_17
- Track 11 : Clawz\_44
- Track 12 : Jambalaya\_19, TillyBobJoe\_19, Savbucketdawg\_19, Shinji\_19, Portcullis\_19
- Track 13 : Mutzi\_21
- Track 14 : Danyall\_21, CoveyB\_22, Twister6\_21, VanDeWege\_22, RogerDodger\_22, Valary\_22
- Track 15 : Bakery\_20
- Track 16 : KimmyK\_21, PinkCoffee\_21, ClamChowder\_21, Fugax\_21, Barb\_21
- Track 17 : Halo3\_20
- Track 18 : Gezellig\_20, Wizard\_19, Fireball\_20
- Track 19 : SmokingBunny\_19, Salvador\_19, Nubi\_19, Evamon\_19, Togo\_19
- Track 20 : Phlop\_19, PullumCavea\_19
- Track 21 : YungMoney\_21
- Track 22 : Arri\_22
- Track 23 : Clown\_23
- Track 24 : Belphegor\_18
- Track 25 : Baumdotcom\_20, Saronaya\_20, Gustavo\_20
- Track 26 : Keitabear\_22
- Track 27 : Lennon\_22, Bibwit\_21, Sedona\_22, Stultus\_20, Ailee\_20, Sitar\_22
- Track 28 : Fosterous\_18, Love\_22, Shivanishola\_20, Brandonk123\_22, Kamashten\_21, BobBob\_18, Sanjuju\_18, Charming\_18, MoontowerMania\_19, Tangent\_18, Thing3\_21, Paries\_21, Geodirt\_19, Jabberwocky\_18
- Track 29 : Gaea\_20, Tycho\_20, Kroos\_21, Kwobi\_21, Flatwoods\_21, Bizzy\_21
- Track 30 : McKinley\_21, Kewpiedoll\_21, ChadMasterC\_20, Vivi2\_20, Fitzgerald\_18, Galadriel\_22, Barsten\_21
- Track 31 : Ribeye\_21
- Track 32 : Derg\_18, LilHam\_18, SchottB\_19

- Track 33 : RiverRaider\_21
- Track 34 : Ashertheman\_21, StorminNorm\_20, Tangerine\_20
- Track 35 : Affeca\_20, Angelicage\_20
- Track 36 : JKSyngboy\_19
- Track 37 : Rofo\_20
- Track 38 : Baddon\_20
- Track 39 : YorkOnyx\_21
- Track 40 : Nordenberg\_15
- Track 41 : Inspectinfecti\_22
- Track 42 : Leonard\_21, Ali17\_19, Phinally\_21
- Track 43 : Hans\_23
- Track 44 : EMoore\_16
- Track 45 : MelBins\_22
- Track 46 : Phauci\_14
- Track 47 : Chickadee\_20, Tiamoceli\_21
- Track 48 : Kwekel\_20
- Track 49 : Twonlo\_18
- Track 50 : GTE6\_20
- Track 51 : RoadKill\_18, EdmundFerry\_19, Dexdert\_21
- Track 52 : Scioto\_21, Natkenzie\_21, Sampson\_21, Abblin\_21
- Track 53 : Delrey21\_21, DoctorFroggo\_21, Zipp\_21, Verity\_21
- Track 54 : Zitch\_23
- Track 55 : APunk\_23
- Track 56 : ViaConlectus\_22
- Track 57 : Tardus\_22
- Track 58 : Lilbeanie\_18
- Track 59 : Sillytadpoles\_25, Statler\_27, Llemily\_25, Phabia\_25, Quammi\_23, Zagie\_25, Rowlf\_21, Zhafia\_28, Wheelie\_24, Jehoshaphat\_27, Teehee\_26, Nike\_25, DonaldDuck\_25, Viceroy\_24, Squash\_27, Lonelysoil\_24, Wayne3\_26, Rudy\_23, Casend\_26
- Track 60 : Phinky\_31
- Track 61 : Gazebo\_24, Mashley\_23, Hyperion\_24, Tissue\_25
- Track 62 : MorillMayhem\_24, BabyDotz\_24
- Track 63 : Fizzles\_25
- Track 64 : EverythinBagel\_25
- Track 65 : StrawberryJamm\_27, Namago\_25, Kyva\_27, Grassboy\_26, SallyK\_26
- Track 66 : BirdInFrench\_24, Wilca\_24
- Track 67 : OneinaGillian\_24
- Track 68 : Kelcole\_23, RobinRose\_26, Romm\_26, Tempo\_24, CandC\_23, Fregley\_25
- Track 69 : SadLad\_29
- Track 70 : Pepe25\_23
- Track 71 : RubyRalph\_27, Fransoyer\_27
- Track 72 : Marcie\_29
- Track 73 : Altheas\_27
- Track 74 : Blab\_23
- Track 75 : AluminumJesus\_23
- Track 76 : Judebell\_27, FrankDeliGuy\_23
- Track 77 : Taptic\_9
- Track 78 : PR\_09
- Track 79 : Argie\_10
- Track 80 : Megabear\_9
- Track 81 : GodPhather\_10, Jeon\_9

- Track 82 : Cepens\_9
- Track 83 : StAugustine\_18
- Track 84 : Kithara\_25
- Track 85 : Sunfish\_32

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

The start number called the most often in the published annotations is 16, it was called in 98 of the 151 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- APunk\_23, Abblin\_21, Affeca\_20, Ailee\_20, Ali17\_19, Angelicage\_20, Arri\_22, Ashertheman\_21, Baddon\_20, Bakery\_20, Barb\_21, Barsten\_21, Baumdotcom\_20, Belphegor\_18, Bibwit\_21, Bizzy\_21, BobBob\_18, Brandonk123\_22, ChadMasterC\_20, Charming\_18, Chickadee\_20, ClamChowder\_21, Clown\_23, CoveyB\_22, Danyall\_21, Delrey21\_21, Derg\_18, Dexdert\_21, DoctorFroggo\_21, EMOore\_16, EdmundFerry\_19, Evamon\_19, Fireball\_20, Fitzgerald\_18, Flatwoods\_21, Fosterous\_18, Fugax\_21, GTE6\_20, Gaea\_20, Galadriel\_22, Geodirt\_19, Gezellig\_20, Gustavo\_20, Halo3\_20, Hans\_23, Inspectinfecti\_22, JKSyngboy\_19, Jabberwocky\_18, Jambalaya\_19, Kamashten\_21, Keitabear\_22, Kewpiedoll\_21, KimmyK\_21, Kroos\_21, Kwekel\_20, Kwobi\_21, Lennon\_22, Leonard\_21, LilHam\_18, Lilbeanie\_18, Love\_22, McKinley\_21, MelBins\_22, MoontowerMania\_19, Mutzi\_21, Natkenzie\_21, Nordenberg\_15, Nubi\_19, Paries\_21, Phauci\_14, Phinally\_21, Phlop\_19, PinkCoffee\_21, Portcullis\_19, PullumCavea\_19, Ribeye\_21, RiverRaider\_21, RoadKill\_18, Rofo\_20, RogerDodger\_22, Salvador\_19, Sampson\_21, Sanjuju\_18, Saronaya\_20, Savbucketdawg\_19, SchottB\_19, Scioto\_21, Sedona\_22, Shinji\_19, Shivanishola\_20, Sitar\_22, SmokingBunny\_19, StorminNorm\_20, Stultus\_20, Tangent\_18, Tangerine\_20, Tardus\_22, Thing3\_21, Tiamoceli\_21, TillyBobJoe\_19, Togo\_19, Twister6\_21, Twonlo\_18, Tycho\_20, Valary\_22, VanDeWege\_22, Verity\_21, ViaConlectus\_22, Vivi2\_20, Wizard\_19, YorkOnyx\_21, YungMoney\_21, Zipp\_21, Zitch\_23,

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

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

- 39HC\_010, 40BC\_010, Altheas\_27, AluminumJesus\_23, Argie\_10, BabyDotz\_24, BirdInFrench\_24, BirdsNest\_17, Blab\_23, CandC\_23, Casend\_26, Cepens\_9, Clawz\_44, DonaldDuck\_25, EverythinBagel\_25, Fizzles\_25, FrankDeliGuy\_23, Fransoyer\_27, Fregley\_25, Gazebo\_24, GodPhather\_10, Grassboy\_26, Hashim76\_17, Hosp\_08, Hyperion\_24, Indlovu\_12, Jehoshaphat\_27, Jeon\_9, Jolie1\_010, Judebell\_27, KayaCho\_10, Kelcole\_23, Kithara\_25, Knocker\_17, Kyva\_27, LilMcDreamy\_13, Llemily\_25, Lonelysoil\_24, Marcie\_29, Mashley\_23, Megabear\_9, MorillMayhem\_24, Namago\_25, Nike\_25, OneinaGillian\_24, PR\_09, PenguinLover67\_15, Pepe25\_23, Phabia\_25, Phinky\_31, Quammi\_23, RobinRose\_26, Romm\_26, Rowlf\_21, RubyRalph\_27, Rudy\_23, SadLad\_29, SallyK\_26, Sillytadpoles\_25, Squash\_27, StAugustine\_18, Statler\_27, StrawberryJamm\_27, Sunfish\_32, Taptic\_9, Teehee\_26, Tempo\_24, Tissue\_25, Viceroy\_24, Wayne3\_26, Wheelie\_24, Wilca\_24, Zagie\_25, Zenteno07\_17, Zhafia\_28,

## Summary by start number:

### Start 4:

- Found in 1 of 189 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Knocker\_17 (B9),

### Start 5:

- Found in 1 of 189 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: BirdsNest\_17 (B13),

### Start 12:

- Found in 5 of 189 ( 2.6% ) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 39HC\_010 (B6), 40BC\_010 (B6), Hosp\_08 (B6), Jolie1\_010 (B6), KayaCho\_10 (B6),

### Start 16:

- Found in 114 of 189 ( 60.3% ) of genes in pham
- Manual Annotations of this start: 98 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: APunk\_23 (DE4), Abblin\_21 (DE4), Affeca\_20 (DE1), Ailee\_20 (DE1), Ali17\_19 (DE2), Angelicage\_20 (DE1), Arri\_22 (DC1), Ashertheman\_21 (DE1), Baddon\_20 (DE1), Bakery\_20 (DC1), Barb\_21 (DC1), Barsten\_21 (DE1), Baumdotcom\_20 (DE1), Belphegor\_18 (DE), Bibwit\_21 (DE1), Bizzy\_21 (DE1), BobBob\_18 (DE1), Brandonk123\_22 (DE1), ChadMasterC\_20 (DE1), Charming\_18 (DE1), Chickadee\_20 (DE3), ClamChowder\_21 (DC1), Clown\_23 (DC2), CoveyB\_22 (DC1), Danyall\_21 (DC1), Delrey21\_21 (DE4), Derg\_18 (DE1), Dextert\_21 (DE3), DoctorFroggo\_21 (DE4), EMoore\_16 (DE2), EdmundFerry\_19 (DE3), Evamon\_19 (DC1), Fireball\_20 (DC1), Fitzgerald\_18 (DE1), Flatwoods\_21 (DE1), Fosterous\_18 (DE1), Fugax\_21 (DC1), GTE6\_20 (DE3), Gaea\_20 (DE1), Galadriel\_22 (DE1), Geodirt\_19 (DE1), Gezellig\_20 (DC1), Gustavo\_20 (DE1), Halo3\_20 (DC1), Hans\_23 (DE2), Inspectinfecti\_22 (DE2), JKSyngboy\_19 (DE1), Jabberwocky\_18 (DE1), Jambalaya\_19 (DC1), Kamashten\_21 (DE1), Keitabear\_22 (DE1), Kewpiedoll\_21 (DE1), KimmyK\_21 (DC1), Kroos\_21 (DE1), Kwekel\_20 (DE3), Kwobi\_21 (DE1), Lennon\_22 (DE1), Leonard\_21 (DE2), LilHam\_18 (DE1), Lilbeanie\_18 (DE5), Love\_22 (DE1), McKinley\_21 (DE1), MelBins\_22 (DE2), MoontowerMania\_19 (DE1), Mutzi\_21 (DC1), Natkenzie\_21 (DE4), Nordenberg\_15 (DE1), Nubi\_19 (DC1), Paries\_21 (DE1), Phauci\_14 (DE2), Phinally\_21 (DE2), Phlop\_19 (DC1), PinkCoffee\_21 (DC1), Portcullis\_19 (DC1), PullumCavea\_19 (DC1), Ribeye\_21 (DE1), RiverRaider\_21 (DE1), RoadKill\_18 (DE3), Rofo\_20 (DE1), RogerDodger\_22 (DC1), Salvador\_19 (DC1), Sampson\_21 (DE4), Sanjuju\_18 (DE1), Saronaya\_20 (DE1), Savbucketdawg\_19 (DC1), SchottB\_19 (DE1), Scioto\_21 (DE4), Sedona\_22 (DE1), Shinji\_19 (DC1), Shivanishola\_20 (DE1), Sitar\_22 (DE1), SmokingBunny\_19 (DC1), StorminNorm\_20 (DE1), Stultus\_20 (DE1), Tangent\_18 (DE1), Tangerine\_20 (DE1), Tardus\_22 (DE4), Thing3\_21 (DE1), Tiamoceli\_21 (DE3), TillyBobJoe\_19 (DC1), Togo\_19 (DC1), Twister6\_21 (DC1), Twonlo\_18 (DE3), Tycho\_20 (DE1),

Valary\_22 (DC1), VanDeWege\_22 (DC1), Verity\_21 (DE4), ViaConlectus\_22 (DE4), Vivi2\_20 (DE1), Wizard\_19 (DC1), YorkOnyx\_21 (DE1), YungMoney\_21 (DC1), Zipp\_21 (DE4), Zitch\_23 (DE4),

Start 17:

- Found in 1 of 189 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kithara\_25 (singleton),

Start 19:

- Found in 1 of 189 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: LilMcDreamy\_13 (B12),

Start 23:

- Found in 1 of 189 ( 0.5% ) of genes in pham
- Manual Annotations of this start: 1 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Clawz\_44 (CP),

Start 24:

- Found in 11 of 189 ( 5.8% ) of genes in pham
- Manual Annotations of this start: 3 of 151
- Called 36.4% of time when present
- Phage (with cluster) where this start called: Hashim76\_17 (B13), Indlovu\_12 (B11), PenguinLover67\_15 (B9), Zenteno07\_17 (B13),

Start 27:

- Found in 16 of 189 ( 8.5% ) of genes in pham
- Manual Annotations of this start: 12 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Altheas\_27 (EG), BirdInFrench\_24 (EG), CandC\_23 (EG), Fransoyer\_27 (EG), Fregley\_25 (EG), Kelcole\_23 (EG), Marcie\_29 (EG), OneinaGillian\_24 (EG), Pepe25\_23 (EG), Phinky\_31 (EG), RobinRose\_26 (EG), Romm\_26 (EG), RubyRalph\_27 (EG), SadLad\_29 (EG), Tempo\_24 (EG), Wilca\_24 (EG),

Start 28:

- Found in 37 of 189 ( 19.6% ) of genes in pham
- Manual Annotations of this start: 26 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: AluminumJesus\_23 (EG), BabyDotz\_24 (EG), Blab\_23 (EG), Casend\_26 (EG), DonaldDuck\_25 (EG), EverythinBagel\_25 (EG), Fizzles\_25 (EG), FrankDeliGuy\_23 (EG), Gazebo\_24 (EG), Grassboy\_26 (EG), Hyperion\_24 (EG), Jehoshaphat\_27 (EG), Judebell\_27 (EG), Kyva\_27 (EG), Llemily\_25 (EG), Lonelysoil\_24 (EG), Mashley\_23 (EG), MorillMayhem\_24 (EG), Namago\_25 (EG), Nike\_25 (EG), Phabia\_25 (EG), Quammi\_23 (EG), Rowlf\_21 (EG), Rudy\_23 (EG), SallyK\_26 (EG), Sillytadpoles\_25 (EG), Squash\_27 (EG), Statler\_27 (EG), StrawberryJamm\_27 (EG), Sunfish\_32 (singleton), Teehee\_26 (EG), Tissue\_25 (EG), Viceroy\_24 (EG), Wayne3\_26 (EG), Wheelie\_24 (EG), Zagie\_25 (EG), Zhafia\_28 (EG),

Start 33:

- Found in 1 of 189 ( 0.5% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: StAugustine\_18 (singleton),

Start 36:

- Found in 7 of 189 ( 3.7% ) of genes in pham
- Manual Annotations of this start: 7 of 151
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Argie\_10 (W), Cepens\_9 (W), GodPhather\_10 (W), Jeon\_9 (W), Megabear\_9 (W), PR\_09 (W), Taptic\_9 (W),

**Summary by clusters:**

There are 17 clusters represented in this pham: singleton, DE, DE1, EG, DE3, DE4, DE5, B9, B6, B12, B13, W, B11, CP, DC2, DE2, DC1,

Info for manual annotations of cluster B11:

- Start number 24 was manually annotated 1 time for cluster B11.

Info for manual annotations of cluster B12:

- Start number 19 was manually annotated 1 time for cluster B12.

Info for manual annotations of cluster B13:

- Start number 5 was manually annotated 1 time for cluster B13.
- Start number 24 was manually annotated 1 time for cluster B13.

Info for manual annotations of cluster B6:

- Start number 12 was manually annotated 1 time for cluster B6.

Info for manual annotations of cluster B9:

- Start number 4 was manually annotated 1 time for cluster B9.
- Start number 24 was manually annotated 1 time for cluster B9.

Info for manual annotations of cluster CP:

- Start number 23 was manually annotated 1 time for cluster CP.

Info for manual annotations of cluster DC1:

- Start number 16 was manually annotated 28 times for cluster DC1.

Info for manual annotations of cluster DC2:

- Start number 16 was manually annotated 1 time for cluster DC2.

Info for manual annotations of cluster DE1:

- Start number 16 was manually annotated 44 times for cluster DE1.

Info for manual annotations of cluster DE2:

- Start number 16 was manually annotated 8 times for cluster DE2.

Info for manual annotations of cluster DE3:



- Start number 16 was manually annotated 7 times for cluster DE3.

Info for manual annotations of cluster DE4:

- Start number 16 was manually annotated 9 times for cluster DE4.

Info for manual annotations of cluster DE5:

- Start number 16 was manually annotated 1 time for cluster DE5.

Info for manual annotations of cluster EG:

- Start number 27 was manually annotated 12 times for cluster EG.
- Start number 28 was manually annotated 26 times for cluster EG.

Info for manual annotations of cluster W:

- Start number 36 was manually annotated 7 times for cluster W.

### **Gene Information:**

Gene: 39HC\_010 Start: 9835, Stop: 11733, Start Num: 12

Candidate Starts for 39HC\_010:

(1, 9730), (10, 9832), (Start: 12 @9835 has 1 MA's), (18, 9865), (Start: 24 @9898 has 3 MA's), (31, 9931), (35, 9952), (67, 10183), (79, 10366), (101, 10513), (117, 10606), (126, 10636), (132, 10666), (148, 10807), (152, 10834), (181, 11101), (188, 11161), (191, 11185), (195, 11206), (201, 11245), (215, 11326), (222, 11374), (228, 11455), (231, 11473), (239, 11509), (240, 11512), (242, 11542), (246, 11566), (247, 11569), (250, 11593), (251, 11611), (260, 11671), (262, 11683), (264, 11707),

Gene: 40BC\_010 Start: 9835, Stop: 11733, Start Num: 12

Candidate Starts for 40BC\_010:

(1, 9730), (10, 9832), (Start: 12 @9835 has 1 MA's), (18, 9865), (Start: 24 @9898 has 3 MA's), (31, 9931), (35, 9952), (67, 10183), (79, 10366), (101, 10513), (117, 10606), (126, 10636), (132, 10666), (148, 10807), (152, 10834), (181, 11101), (188, 11161), (191, 11185), (195, 11206), (201, 11245), (215, 11326), (222, 11374), (228, 11455), (231, 11473), (239, 11509), (240, 11512), (242, 11542), (246, 11566), (247, 11569), (250, 11593), (251, 11611), (260, 11671), (262, 11683), (264, 11707),

Gene: APunk\_23 Start: 16314, Stop: 18233, Start Num: 16

Candidate Starts for APunk\_23:

(Start: 16 @16314 has 98 MA's), (53, 16530), (57, 16545), (71, 16719), (90, 16866), (98, 16935), (100, 16941), (108, 16995), (113, 17019), (150, 17271), (153, 17289), (154, 17295), (159, 17358), (162, 17370), (163, 17373), (165, 17385), (175, 17475), (177, 17502), (197, 17661), (208, 17739), (223, 17835), (252, 18105), (257, 18150),

Gene: Abblin\_21 Start: 15527, Stop: 17449, Start Num: 16

Candidate Starts for Abblin\_21:

(Start: 16 @15527 has 98 MA's), (53, 15743), (57, 15758), (71, 15932), (88, 16070), (90, 16079), (98, 16148), (100, 16154), (108, 16208), (113, 16232), (150, 16484), (153, 16502), (154, 16508), (159, 16571), (162, 16583), (163, 16586), (165, 16598), (175, 16688), (177, 16715), (197, 16874), (208, 16952), (223, 17048), (226, 17084), (237, 17204), (241, 17237), (252, 17321), (257, 17366),

Gene: Affeca\_20 Start: 15348, Stop: 17258, Start Num: 16

Candidate Starts for Affeca\_20:

(Start: 16 @15348 has 98 MA's), (57, 15579), (60, 15597), (82, 15867), (103, 16005), (114, 16074), (123, 16107), (153, 16332), (154, 16338), (162, 16413), (163, 16416), (165, 16428), (168, 16464),

(175, 16515), (187, 16638), (190, 16674), (215, 16818), (222, 16869), (238, 17013), (239, 17016), (240, 17019), (245, 17067), (252, 17124),

Gene: Ailee\_20 Start: 15256, Stop: 17172, Start Num: 16

Candidate Starts for Ailee\_20:

(Start: 16 @15256 has 98 MA's), (57, 15487), (60, 15505), (82, 15781), (103, 15919), (114, 15988), (123, 16021), (153, 16246), (154, 16252), (159, 16315), (162, 16327), (163, 16330), (165, 16342), (175, 16429), (187, 16552), (190, 16588), (215, 16732), (222, 16783), (238, 16927), (239, 16930), (240, 16933), (245, 16981), (252, 17038), (267, 17155),

Gene: Ali17\_19 Start: 14661, Stop: 16580, Start Num: 16

Candidate Starts for Ali17\_19:

(Start: 16 @14661 has 98 MA's), (50, 14862), (66, 14985), (82, 15156), (90, 15201), (93, 15222), (103, 15279), (129, 15405), (138, 15456), (141, 15465), (144, 15516), (146, 15567), (153, 15630), (154, 15636), (159, 15699), (165, 15726), (175, 15813), (196, 15996), (206, 16071), (210, 16086), (215, 16110), (218, 16143), (222, 16161), (227, 16218), (237, 16329), (247, 16398), (248, 16410), (252, 16446), (262, 16512),

Gene: Altheas\_27 Start: 14496, Stop: 16319, Start Num: 27

Candidate Starts for Altheas\_27:

(Start: 27 @14496 has 12 MA's), (30, 14508), (42, 14568), (49, 14607), (106, 15129), (125, 15204), (135, 15252), (139, 15276), (141, 15282), (151, 15399), (163, 15498), (173, 15579), (184, 15672), (185, 15687), (189, 15735), (194, 15759), (199, 15792), (203, 15807), (205, 15831), (214, 15879), (220, 15921), (236, 16056), (237, 16068), (239, 16077), (247, 16137), (261, 16239),

Gene: AluminumJesus\_23 Start: 13874, Stop: 15679, Start Num: 28

Candidate Starts for AluminumJesus\_23:

(Start: 28 @13874 has 26 MA's), (30, 13883), (49, 13982), (78, 14288), (106, 14489), (110, 14504), (125, 14564), (135, 14612), (141, 14642), (150, 14756), (151, 14759), (152, 14765), (163, 14858), (173, 14939), (184, 15032), (185, 15047), (189, 15095), (194, 15119), (203, 15167), (205, 15191), (214, 15239), (220, 15281), (236, 15416), (237, 15428), (239, 15437), (247, 15497), (255, 15566), (261, 15599),

Gene: Angelicage\_20 Start: 15771, Stop: 17681, Start Num: 16

Candidate Starts for Angelicage\_20:

(Start: 16 @15771 has 98 MA's), (57, 16002), (60, 16020), (82, 16290), (103, 16428), (114, 16497), (123, 16530), (153, 16755), (154, 16761), (162, 16836), (163, 16839), (165, 16851), (168, 16887), (175, 16938), (187, 17061), (190, 17097), (215, 17241), (222, 17292), (238, 17436), (239, 17439), (240, 17442), (245, 17490), (252, 17547),

Gene: Argie\_10 Start: 10843, Stop: 12906, Start Num: 36

Candidate Starts for Argie\_10:

(Start: 36 @10843 has 7 MA's), (39, 10855), (44, 10882), (51, 10936), (61, 10984), (70, 11089), (75, 11206), (87, 11278), (105, 11413), (107, 11428), (112, 11452), (120, 11482), (131, 11527), (135, 11548), (147, 11656), (148, 11674), (155, 11743), (156, 11749), (167, 11842), (185, 12001), (187, 12025), (192, 12055), (198, 12091), (203, 12118), (215, 12193), (220, 12232), (224, 12268), (227, 12298), (238, 12373), (246, 12433), (258, 12532), (260, 12538), (267, 12601), (269, 12757), (271, 12808), (272, 12814), (273, 12898),

Gene: Arri\_22 Start: 12537, Stop: 14423, Start Num: 16

Candidate Starts for Arri\_22:

(Start: 16 @12537 has 98 MA's), (58, 12774), (60, 12786), (63, 12840), (84, 13062), (110, 13224), (116, 13257), (154, 13509), (161, 13581), (168, 13638), (171, 13650), (183, 13767), (187, 13812),

(188, 13815), (206, 13938), (209, 13950), (218, 14010), (229, 14112), (237, 14163), (239, 14172), (248, 14244), (251, 14274), (262, 14346), (264, 14370),

Gene: Ashertheman\_21 Start: 14855, Stop: 16762, Start Num: 16

Candidate Starts for Ashertheman\_21:

(Start: 16 @14855 has 98 MA's), (41, 14990), (57, 15086), (82, 15368), (93, 15437), (99, 15485), (103, 15509), (108, 15545), (114, 15578), (121, 15602), (141, 15695), (153, 15836), (154, 15842), (159, 15905), (162, 15917), (163, 15920), (165, 15932), (175, 16019), (187, 16142), (190, 16178), (206, 16283), (215, 16322), (222, 16373), (237, 16511), (238, 16517), (239, 16520), (245, 16571), (252, 16628), (253, 16640), (255, 16649), (268, 16748),

Gene: BabyDotz\_24 Start: 14116, Stop: 15948, Start Num: 28

Candidate Starts for BabyDotz\_24:

(Start: 28 @14116 has 26 MA's), (30, 14125), (49, 14224), (84, 14590), (106, 14758), (110, 14773), (125, 14833), (135, 14881), (136, 14887), (141, 14911), (150, 15025), (151, 15028), (152, 15034), (163, 15127), (173, 15208), (184, 15301), (185, 15316), (189, 15364), (194, 15388), (203, 15436), (205, 15460), (214, 15508), (220, 15550), (236, 15685), (237, 15697), (239, 15706), (247, 15766), (255, 15835), (261, 15868),

Gene: Baddon\_20 Start: 15702, Stop: 17609, Start Num: 16

Candidate Starts for Baddon\_20:

(Start: 16 @15702 has 98 MA's), (41, 15837), (47, 15870), (57, 15933), (82, 16215), (93, 16284), (99, 16332), (103, 16356), (114, 16425), (121, 16449), (141, 16542), (153, 16683), (154, 16689), (159, 16752), (162, 16764), (163, 16767), (165, 16779), (175, 16866), (187, 16989), (190, 17025), (197, 17058), (201, 17088), (206, 17130), (215, 17169), (222, 17220), (238, 17364), (239, 17367), (245, 17418), (252, 17475), (253, 17487), (255, 17496), (257, 17520),

Gene: Bakery\_20 Start: 11735, Stop: 13636, Start Num: 16

Candidate Starts for Bakery\_20:

(Start: 16 @11735 has 98 MA's), (58, 11972), (60, 11984), (63, 12038), (110, 12425), (116, 12458), (123, 12482), (141, 12563), (143, 12590), (154, 12728), (168, 12857), (171, 12869), (175, 12908), (183, 12986), (187, 13031), (188, 13034), (190, 13055), (198, 13097), (201, 13118), (206, 13160), (209, 13172), (248, 13466), (251, 13496), (254, 13520), (258, 13550),

Gene: Barb\_21 Start: 12512, Stop: 14410, Start Num: 16

Candidate Starts for Barb\_21:

(Start: 16 @12512 has 98 MA's), (58, 12749), (60, 12761), (63, 12815), (110, 13208), (116, 13241), (123, 13265), (154, 13505), (168, 13634), (171, 13646), (183, 13763), (187, 13808), (188, 13811), (198, 13871), (200, 13889), (206, 13934), (209, 13946), (210, 13949), (214, 13970), (226, 14069), (229, 14108), (239, 14168), (248, 14240), (251, 14270), (254, 14294), (257, 14321), (258, 14324), (263, 14351),

Gene: Barsten\_21 Start: 15284, Stop: 17188, Start Num: 16

Candidate Starts for Barsten\_21:

(Start: 16 @15284 has 98 MA's), (57, 15515), (60, 15533), (82, 15800), (103, 15938), (114, 16007), (123, 16040), (153, 16265), (154, 16271), (159, 16334), (162, 16346), (163, 16349), (165, 16361), (175, 16448), (187, 16571), (190, 16607), (215, 16751), (222, 16802), (238, 16946), (239, 16949), (240, 16952), (245, 17000), (252, 17057),

Gene: Baumdotcom\_20 Start: 14471, Stop: 16378, Start Num: 16

Candidate Starts for Baumdotcom\_20:

(Start: 16 @14471 has 98 MA's), (41, 14606), (57, 14702), (82, 14984), (93, 15053), (99, 15101), (103, 15125), (108, 15161), (114, 15194), (121, 15218), (141, 15311), (153, 15452), (154, 15458), (159,

15521), (162, 15533), (163, 15536), (165, 15548), (175, 15635), (187, 15758), (190, 15794), (206, 15899), (215, 15938), (222, 15989), (237, 16127), (238, 16133), (239, 16136), (245, 16187), (252, 16244), (253, 16256), (255, 16265),

Gene: Belphegor\_18 Start: 13765, Stop: 15693, Start Num: 16

Candidate Starts for Belphegor\_18:

(Start: 16 @13765 has 98 MA's), (50, 13969), (59, 14008), (66, 14092), (83, 14272), (103, 14392), (121, 14485), (138, 14569), (141, 14578), (144, 14629), (146, 14680), (153, 14743), (154, 14749), (159, 14812), (165, 14839), (175, 14926), (206, 15184), (210, 15199), (215, 15223), (222, 15274), (227, 15331), (235, 15427), (237, 15442), (247, 15511), (248, 15523), (252, 15559), (259, 15610),

Gene: Bibwit\_21 Start: 15528, Stop: 17423, Start Num: 16

Candidate Starts for Bibwit\_21:

(Start: 16 @15528 has 98 MA's), (57, 15759), (60, 15777), (82, 16032), (103, 16170), (114, 16239), (123, 16272), (153, 16497), (154, 16503), (159, 16566), (162, 16578), (163, 16581), (165, 16593), (175, 16680), (187, 16803), (190, 16839), (215, 16983), (222, 17034), (238, 17178), (239, 17181), (240, 17184), (245, 17232), (252, 17289), (267, 17406),

Gene: BirdInFrench\_24 Start: 12993, Stop: 14771, Start Num: 27

Candidate Starts for BirdInFrench\_24:

(Start: 27 @12993 has 12 MA's), (30, 13005), (73, 13350), (89, 13464), (109, 13590), (125, 13656), (135, 13704), (141, 13734), (163, 13947), (173, 14028), (175, 14037), (183, 14115), (184, 14121), (185, 14136), (205, 14280), (212, 14322), (220, 14373), (237, 14520), (239, 14529), (256, 14679), (261, 14691), (266, 14751),

Gene: BirdsNest\_17 Start: 10414, Stop: 12351, Start Num: 5

Candidate Starts for BirdsNest\_17:

(Start: 5 @10414 has 1 MA's), (6, 10432), (13, 10465), (20, 10501), (Start: 24 @10525 has 3 MA's), (31, 10555), (40, 10597), (81, 10984), (87, 11017), (93, 11062), (101, 11122), (118, 11218), (126, 11245), (148, 11425), (171, 11608), (175, 11650), (181, 11716), (187, 11773), (188, 11776), (201, 11860), (217, 11962), (220, 11983), (233, 12103), (237, 12118), (242, 12160), (247, 12187), (250, 12211), (251, 12229), (257, 12280), (258, 12283), (262, 12301), (264, 12325),

Gene: Bizzy\_21 Start: 14750, Stop: 16663, Start Num: 16

Candidate Starts for Bizzy\_21:

(Start: 16 @14750 has 98 MA's), (41, 14885), (57, 14981), (82, 15269), (93, 15338), (99, 15386), (103, 15410), (108, 15446), (114, 15479), (121, 15503), (141, 15596), (153, 15737), (154, 15743), (159, 15806), (162, 15818), (163, 15821), (165, 15833), (175, 15920), (187, 16043), (190, 16079), (197, 16112), (206, 16184), (215, 16223), (222, 16274), (237, 16412), (238, 16418), (239, 16421), (245, 16472), (252, 16529), (253, 16541), (255, 16550),

Gene: Blab\_23 Start: 13751, Stop: 15577, Start Num: 28

Candidate Starts for Blab\_23:

(Start: 28 @13751 has 26 MA's), (30, 13760), (49, 13859), (78, 14186), (106, 14387), (110, 14402), (125, 14462), (135, 14510), (141, 14540), (150, 14654), (151, 14657), (152, 14663), (163, 14756), (173, 14837), (184, 14930), (185, 14945), (189, 14993), (194, 15017), (203, 15065), (205, 15089), (214, 15137), (220, 15179), (236, 15314), (239, 15335), (247, 15395), (255, 15464), (261, 15497),

Gene: BobBob\_18 Start: 14138, Stop: 16045, Start Num: 16

Candidate Starts for BobBob\_18:

(Start: 16 @14138 has 98 MA's), (57, 14369), (60, 14387), (82, 14654), (103, 14792), (114, 14861), (123, 14894), (153, 15119), (154, 15125), (159, 15188), (162, 15200), (163, 15203), (165, 15215), (175, 15302), (180, 15356), (187, 15425), (190, 15461), (215, 15605), (222, 15656), (238, 15800),

(239, 15803), (240, 15806), (245, 15854), (252, 15911),

Gene: Brandonk123\_22 Start: 14830, Stop: 16737, Start Num: 16

Candidate Starts for Brandonk123\_22:

(Start: 16 @14830 has 98 MA's), (57, 15061), (60, 15079), (82, 15346), (103, 15484), (114, 15553), (123, 15586), (153, 15811), (154, 15817), (159, 15880), (162, 15892), (163, 15895), (165, 15907), (175, 15994), (180, 16048), (187, 16117), (190, 16153), (215, 16297), (222, 16348), (238, 16492), (239, 16495), (240, 16498), (245, 16546), (252, 16603),

Gene: CandC\_23 Start: 12598, Stop: 14376, Start Num: 27

Candidate Starts for CandC\_23:

(Start: 27 @12598 has 12 MA's), (30, 12610), (73, 12952), (89, 13069), (109, 13195), (135, 13309), (141, 13339), (163, 13552), (173, 13633), (175, 13642), (183, 13720), (184, 13726), (185, 13741), (205, 13885), (212, 13927), (220, 13978), (237, 14125), (239, 14134), (256, 14284), (261, 14296),

Gene: Casend\_26 Start: 14462, Stop: 16294, Start Num: 28

Candidate Starts for Casend\_26:

(Start: 28 @14462 has 26 MA's), (30, 14471), (49, 14570), (84, 14936), (106, 15104), (110, 15119), (125, 15179), (135, 15227), (136, 15233), (141, 15257), (151, 15374), (152, 15380), (163, 15473), (173, 15554), (184, 15647), (185, 15662), (189, 15710), (194, 15734), (203, 15782), (205, 15806), (214, 15854), (220, 15896), (236, 16031), (237, 16043), (239, 16052), (247, 16112), (255, 16181), (261, 16214),

Gene: Cepens\_9 Start: 10582, Stop: 12645, Start Num: 36

Candidate Starts for Cepens\_9:

(Start: 36 @10582 has 7 MA's), (39, 10594), (44, 10621), (51, 10675), (61, 10723), (70, 10828), (75, 10945), (87, 11017), (105, 11152), (107, 11167), (112, 11191), (120, 11221), (131, 11266), (135, 11287), (147, 11395), (148, 11413), (155, 11482), (156, 11488), (167, 11581), (181, 11707), (185, 11740), (187, 11764), (192, 11794), (198, 11830), (203, 11857), (215, 11932), (220, 11971), (224, 12007), (227, 12037), (238, 12112), (246, 12172), (258, 12271), (260, 12277), (267, 12340), (269, 12496), (271, 12547), (272, 12553), (273, 12637),

Gene: ChadMasterC\_20 Start: 15249, Stop: 17144, Start Num: 16

Candidate Starts for ChadMasterC\_20:

(Start: 16 @15249 has 98 MA's), (57, 15480), (60, 15498), (82, 15753), (103, 15891), (114, 15960), (123, 15993), (153, 16218), (154, 16224), (159, 16287), (162, 16299), (163, 16302), (165, 16314), (175, 16401), (187, 16524), (190, 16560), (215, 16704), (222, 16755), (238, 16899), (239, 16902), (240, 16905), (245, 16953), (252, 17010),

Gene: Charming\_18 Start: 14140, Stop: 16047, Start Num: 16

Candidate Starts for Charming\_18:

(Start: 16 @14140 has 98 MA's), (57, 14371), (60, 14389), (82, 14656), (103, 14794), (114, 14863), (123, 14896), (153, 15121), (154, 15127), (159, 15190), (162, 15202), (163, 15205), (165, 15217), (175, 15304), (180, 15358), (187, 15427), (190, 15463), (215, 15607), (222, 15658), (238, 15802), (239, 15805), (240, 15808), (245, 15856), (252, 15913),

Gene: Chickadee\_20 Start: 13744, Stop: 15633, Start Num: 16

Candidate Starts for Chickadee\_20:

(15, 13735), (Start: 16 @13744 has 98 MA's), (26, 13810), (57, 13978), (60, 13996), (84, 14269), (99, 14365), (137, 14557), (140, 14572), (146, 14650), (154, 14719), (159, 14782), (162, 14794), (163, 14797), (172, 14881), (175, 14896), (185, 14995), (190, 15049), (206, 15154), (222, 15244), (228, 15325), (237, 15382), (248, 15463), (252, 15499), (262, 15565),

Gene: ClamChowder\_21 Start: 12512, Stop: 14410, Start Num: 16

Candidate Starts for ClamChowder\_21:

(Start: 16 @12512 has 98 MA's), (58, 12749), (60, 12761), (63, 12815), (110, 13208), (116, 13241), (123, 13265), (154, 13505), (168, 13634), (171, 13646), (183, 13763), (187, 13808), (188, 13811), (198, 13871), (200, 13889), (206, 13934), (209, 13946), (210, 13949), (214, 13970), (226, 14069), (229, 14108), (239, 14168), (248, 14240), (251, 14270), (254, 14294), (257, 14321), (258, 14324), (263, 14351),

Gene: Clawz\_44 Start: 23098, Stop: 24915, Start Num: 23

Candidate Starts for Clawz\_44:

(8, 23038), (22, 23092), (Start: 23 @23098 has 1 MA's), (40, 23191), (92, 23647), (95, 23680), (97, 23692), (102, 23716), (119, 23812), (120, 23815), (134, 23872), (153, 24025), (154, 24031), (156, 24058), (160, 24100), (171, 24154), (194, 24358), (195, 24361), (202, 24403), (203, 24406), (210, 24457), (211, 24460), (219, 24514), (222, 24529), (225, 24562), (227, 24586), (243, 24727), (261, 24847), (262, 24859),

Gene: Clown\_23 Start: 14522, Stop: 16378, Start Num: 16

Candidate Starts for Clown\_23:

(9, 14495), (Start: 16 @14522 has 98 MA's), (21, 14543), (34, 14624), (57, 14756), (60, 14774), (65, 14840), (104, 15146), (116, 15212), (121, 15227), (124, 15239), (154, 15479), (161, 15551), (168, 15608), (171, 15620), (175, 15659), (183, 15737), (186, 15767), (187, 15782), (206, 15908), (209, 15920), (210, 15923), (226, 16043), (227, 16052), (237, 16133), (244, 16187), (248, 16214), (257, 16295), (258, 16298),

Gene: CoveyB\_22 Start: 12369, Stop: 14255, Start Num: 16

Candidate Starts for CoveyB\_22:

(Start: 16 @12369 has 98 MA's), (58, 12606), (60, 12618), (63, 12672), (84, 12894), (110, 13056), (116, 13089), (154, 13341), (161, 13413), (168, 13470), (171, 13482), (183, 13599), (187, 13644), (188, 13647), (206, 13770), (209, 13782), (218, 13842), (237, 13995), (239, 14004), (248, 14076), (251, 14106), (262, 14178), (264, 14202),

Gene: Danyall\_21 Start: 12369, Stop: 14255, Start Num: 16

Candidate Starts for Danyall\_21:

(Start: 16 @12369 has 98 MA's), (58, 12606), (60, 12618), (63, 12672), (84, 12894), (110, 13056), (116, 13089), (154, 13341), (161, 13413), (168, 13470), (171, 13482), (183, 13599), (187, 13644), (188, 13647), (206, 13770), (209, 13782), (218, 13842), (237, 13995), (239, 14004), (248, 14076), (251, 14106), (262, 14178), (264, 14202),

Gene: Delrey21\_21 Start: 14990, Stop: 16909, Start Num: 16

Candidate Starts for Delrey21\_21:

(Start: 16 @14990 has 98 MA's), (34, 15089), (53, 15206), (56, 15218), (57, 15221), (71, 15395), (85, 15509), (90, 15542), (98, 15608), (100, 15614), (108, 15668), (113, 15692), (122, 15728), (150, 15944), (153, 15962), (154, 15968), (159, 16031), (162, 16043), (163, 16046), (165, 16058), (175, 16148), (177, 16175), (197, 16334), (208, 16412), (216, 16448), (223, 16508), (227, 16553), (237, 16664), (241, 16697), (252, 16781), (254, 16799), (258, 16829),

Gene: Derg\_18 Start: 14345, Stop: 16255, Start Num: 16

Candidate Starts for Derg\_18:

(Start: 16 @14345 has 98 MA's), (41, 14480), (57, 14576), (82, 14861), (93, 14930), (99, 14978), (103, 15002), (108, 15038), (114, 15071), (121, 15095), (141, 15188), (153, 15329), (154, 15335), (159, 15398), (162, 15410), (163, 15413), (165, 15425), (175, 15512), (187, 15635), (190, 15671), (197, 15704), (206, 15776), (215, 15815), (222, 15866), (238, 16010), (239, 16013), (245, 16064), (252, 16121), (253, 16133), (255, 16142),

Gene: Dextrert\_21 Start: 14191, Stop: 16077, Start Num: 16

Candidate Starts for Dextrert\_21:

(15, 14182), (Start: 16 @14191 has 98 MA's), (26, 14257), (57, 14425), (60, 14443), (84, 14713), (99, 14809), (140, 15016), (146, 15094), (154, 15163), (159, 15226), (162, 15238), (163, 15241), (172, 15325), (175, 15340), (185, 15439), (190, 15493), (206, 15598), (222, 15688), (228, 15769), (237, 15826), (240, 15838), (247, 15895), (248, 15907), (252, 15943), (262, 16009),

Gene: DoctorFroggo\_21 Start: 14990, Stop: 16909, Start Num: 16

Candidate Starts for DoctorFroggo\_21:

(Start: 16 @14990 has 98 MA's), (34, 15089), (53, 15206), (56, 15218), (57, 15221), (71, 15395), (85, 15509), (90, 15542), (98, 15608), (100, 15614), (108, 15668), (113, 15692), (122, 15728), (150, 15944), (153, 15962), (154, 15968), (159, 16031), (162, 16043), (163, 16046), (165, 16058), (175, 16148), (177, 16175), (197, 16334), (208, 16412), (216, 16448), (223, 16508), (227, 16553), (237, 16664), (241, 16697), (252, 16781), (254, 16799), (258, 16829),

Gene: DonaldDuck\_25 Start: 13808, Stop: 15640, Start Num: 28

Candidate Starts for DonaldDuck\_25:

(Start: 28 @13808 has 26 MA's), (30, 13817), (49, 13916), (84, 14282), (106, 14450), (110, 14465), (125, 14525), (135, 14573), (136, 14579), (141, 14603), (151, 14720), (152, 14726), (163, 14819), (173, 14900), (184, 14993), (185, 15008), (189, 15056), (194, 15080), (203, 15128), (205, 15152), (214, 15200), (220, 15242), (236, 15377), (237, 15389), (239, 15398), (247, 15458), (255, 15527), (261, 15560),

Gene: EMoore\_16 Start: 13023, Stop: 14942, Start Num: 16

Candidate Starts for EMoore\_16:

(Start: 16 @13023 has 98 MA's), (59, 13263), (86, 13551), (138, 13818), (141, 13827), (142, 13845), (144, 13878), (153, 13992), (154, 13998), (159, 14061), (165, 14088), (175, 14175), (196, 14358), (206, 14433), (209, 14445), (215, 14472), (222, 14523), (227, 14580), (237, 14691), (247, 14760), (248, 14772), (252, 14808), (253, 14820), (254, 14826),

Gene: EdmundFerry\_19 Start: 13775, Stop: 15661, Start Num: 16

Candidate Starts for EdmundFerry\_19:

(15, 13766), (Start: 16 @13775 has 98 MA's), (26, 13841), (57, 14009), (60, 14027), (84, 14297), (99, 14393), (140, 14600), (146, 14678), (154, 14747), (159, 14810), (162, 14822), (163, 14825), (172, 14909), (175, 14924), (185, 15023), (190, 15077), (206, 15182), (222, 15272), (228, 15353), (237, 15410), (240, 15422), (247, 15479), (248, 15491), (252, 15527), (262, 15593),

Gene: Evamon\_19 Start: 11844, Stop: 13742, Start Num: 16

Candidate Starts for Evamon\_19:

(Start: 16 @11844 has 98 MA's), (58, 12081), (60, 12093), (63, 12147), (84, 12378), (110, 12540), (116, 12573), (154, 12837), (168, 12966), (171, 12978), (183, 13095), (187, 13140), (188, 13143), (198, 13203), (200, 13221), (204, 13236), (206, 13266), (209, 13278), (210, 13281), (226, 13401), (229, 13440), (239, 13500), (248, 13572), (251, 13602), (254, 13626), (257, 13653), (258, 13656), (263, 13683),

Gene: EverythinBagel\_25 Start: 14211, Stop: 16028, Start Num: 28

Candidate Starts for EverythinBagel\_25:

(Start: 28 @14211 has 26 MA's), (30, 14220), (49, 14319), (78, 14637), (106, 14838), (110, 14853), (125, 14913), (135, 14961), (141, 14991), (150, 15105), (151, 15108), (152, 15114), (157, 15168), (163, 15207), (173, 15288), (184, 15381), (185, 15396), (189, 15444), (194, 15468), (203, 15516), (205, 15540), (214, 15588), (220, 15630), (236, 15765), (239, 15786), (244, 15831), (247, 15846), (255, 15915), (261, 15948),

Gene: Fireball\_20 Start: 11982, Stop: 13874, Start Num: 16

Candidate Starts for Fireball\_20:

(Start: 16 @11982 has 98 MA's), (58, 12219), (60, 12231), (63, 12285), (84, 12510), (110, 12672), (116, 12705), (124, 12732), (168, 13098), (171, 13110), (183, 13227), (187, 13272), (188, 13275), (198, 13335), (200, 13353), (206, 13398), (209, 13410), (210, 13413), (226, 13533), (229, 13572), (239, 13632), (248, 13704), (251, 13734), (254, 13758), (257, 13785), (258, 13788), (263, 13815),

Gene: Fitzgerald\_18 Start: 14566, Stop: 16473, Start Num: 16

Candidate Starts for Fitzgerald\_18:

(Start: 16 @14566 has 98 MA's), (57, 14797), (60, 14815), (82, 15082), (103, 15220), (114, 15289), (123, 15322), (153, 15547), (154, 15553), (159, 15616), (162, 15628), (163, 15631), (165, 15643), (175, 15730), (187, 15853), (190, 15889), (215, 16033), (222, 16084), (238, 16228), (239, 16231), (240, 16234), (245, 16282), (252, 16339),

Gene: Fizzles\_25 Start: 13768, Stop: 15600, Start Num: 28

Candidate Starts for Fizzles\_25:

(Start: 28 @13768 has 26 MA's), (29, 13774), (30, 13777), (54, 13915), (106, 14410), (115, 14449), (121, 14470), (135, 14533), (139, 14557), (141, 14563), (151, 14680), (163, 14779), (169, 14821), (173, 14860), (184, 14953), (185, 14968), (189, 15016), (193, 15031), (203, 15088), (205, 15112), (214, 15160), (218, 15196), (222, 15211), (236, 15337), (237, 15349), (239, 15358), (261, 15520),

Gene: Flatwoods\_21 Start: 14757, Stop: 16682, Start Num: 16

Candidate Starts for Flatwoods\_21:

(Start: 16 @14757 has 98 MA's), (41, 14892), (57, 14988), (82, 15288), (93, 15357), (99, 15405), (103, 15429), (108, 15465), (114, 15498), (121, 15522), (141, 15615), (153, 15756), (154, 15762), (159, 15825), (162, 15837), (163, 15840), (165, 15852), (175, 15939), (187, 16062), (190, 16098), (197, 16131), (206, 16203), (215, 16242), (222, 16293), (237, 16431), (238, 16437), (239, 16440), (245, 16491), (252, 16548), (253, 16560), (255, 16569),

Gene: Fosterous\_18 Start: 15029, Stop: 16936, Start Num: 16

Candidate Starts for Fosterous\_18:

(Start: 16 @15029 has 98 MA's), (57, 15260), (60, 15278), (82, 15545), (103, 15683), (114, 15752), (123, 15785), (153, 16010), (154, 16016), (159, 16079), (162, 16091), (163, 16094), (165, 16106), (175, 16193), (180, 16247), (187, 16316), (190, 16352), (215, 16496), (222, 16547), (238, 16691), (239, 16694), (240, 16697), (245, 16745), (252, 16802),

Gene: FrankDeliGuy\_23 Start: 13770, Stop: 15602, Start Num: 28

Candidate Starts for FrankDeliGuy\_23:

(Start: 28 @13770 has 26 MA's), (30, 13779), (49, 13878), (84, 14244), (106, 14412), (110, 14427), (125, 14487), (135, 14535), (136, 14541), (141, 14565), (150, 14679), (151, 14682), (152, 14688), (163, 14781), (173, 14862), (184, 14955), (185, 14970), (189, 15018), (194, 15042), (203, 15090), (205, 15114), (214, 15162), (220, 15204), (236, 15339), (239, 15360), (247, 15420), (255, 15489), (261, 15522),

Gene: Fransoyer\_27 Start: 13833, Stop: 15662, Start Num: 27

Candidate Starts for Fransoyer\_27:

(Start: 27 @13833 has 12 MA's), (30, 13845), (52, 13974), (73, 14202), (74, 14220), (94, 14379), (106, 14463), (125, 14541), (135, 14589), (141, 14619), (150, 14733), (163, 14835), (169, 14877), (173, 14916), (175, 14925), (184, 15009), (185, 15024), (203, 15144), (205, 15168), (212, 15210), (214, 15216), (220, 15258), (236, 15393), (239, 15414), (241, 15438), (243, 15456), (247, 15474), (261, 15576),



Gene: Fregley\_25 Start: 13171, Stop: 14949, Start Num: 27

Candidate Starts for Fregley\_25:

(Start: 27 @13171 has 12 MA's), (30, 13183), (73, 13525), (89, 13642), (109, 13768), (135, 13882), (141, 13912), (163, 14125), (173, 14206), (175, 14215), (183, 14293), (184, 14299), (185, 14314), (205, 14458), (212, 14500), (220, 14551), (237, 14698), (239, 14707), (256, 14857), (261, 14869),

Gene: Fugax\_21 Start: 12512, Stop: 14410, Start Num: 16

Candidate Starts for Fugax\_21:

(Start: 16 @12512 has 98 MA's), (58, 12749), (60, 12761), (63, 12815), (110, 13208), (116, 13241), (123, 13265), (154, 13505), (168, 13634), (171, 13646), (183, 13763), (187, 13808), (188, 13811), (198, 13871), (200, 13889), (206, 13934), (209, 13946), (210, 13949), (214, 13970), (226, 14069), (229, 14108), (239, 14168), (248, 14240), (251, 14270), (254, 14294), (257, 14321), (258, 14324), (263, 14351),

Gene: GTE6\_20 Start: 14261, Stop: 16150, Start Num: 16

Candidate Starts for GTE6\_20:

(15, 14252), (Start: 16 @14261 has 98 MA's), (26, 14327), (57, 14495), (60, 14513), (84, 14786), (99, 14882), (140, 15089), (146, 15167), (154, 15236), (159, 15299), (162, 15311), (163, 15314), (172, 15398), (175, 15413), (185, 15512), (190, 15566), (206, 15671), (222, 15761), (228, 15842), (237, 15899), (241, 15932), (248, 15980), (252, 16016), (262, 16082),

Gene: Gaea\_20 Start: 14451, Stop: 16370, Start Num: 16

Candidate Starts for Gaea\_20:

(Start: 16 @14451 has 98 MA's), (41, 14586), (57, 14682), (82, 14976), (93, 15045), (99, 15093), (103, 15117), (108, 15153), (114, 15186), (121, 15210), (141, 15303), (153, 15444), (154, 15450), (159, 15513), (162, 15525), (163, 15528), (165, 15540), (175, 15627), (187, 15750), (190, 15786), (197, 15819), (206, 15891), (215, 15930), (222, 15981), (237, 16119), (238, 16125), (239, 16128), (245, 16179), (252, 16236), (253, 16248), (255, 16257),

Gene: Galadriel\_22 Start: 14888, Stop: 16786, Start Num: 16

Candidate Starts for Galadriel\_22:

(Start: 16 @14888 has 98 MA's), (57, 15119), (60, 15137), (82, 15395), (103, 15533), (114, 15602), (123, 15635), (153, 15860), (154, 15866), (159, 15929), (162, 15941), (163, 15944), (165, 15956), (175, 16043), (187, 16166), (190, 16202), (215, 16346), (222, 16397), (238, 16541), (239, 16544), (240, 16547), (245, 16595), (252, 16652),

Gene: Gazebo\_24 Start: 14317, Stop: 16143, Start Num: 28

Candidate Starts for Gazebo\_24:

(Start: 28 @14317 has 26 MA's), (30, 14326), (49, 14425), (78, 14752), (106, 14953), (110, 14968), (125, 15028), (135, 15076), (141, 15106), (151, 15223), (152, 15229), (163, 15322), (173, 15403), (184, 15496), (185, 15511), (189, 15559), (194, 15583), (203, 15631), (205, 15655), (214, 15703), (220, 15745), (236, 15880), (239, 15901), (247, 15961), (255, 16030), (261, 16063),

Gene: Geodirt\_19 Start: 15093, Stop: 17003, Start Num: 16

Candidate Starts for Geodirt\_19:

(Start: 16 @15093 has 98 MA's), (57, 15324), (60, 15342), (82, 15612), (103, 15750), (114, 15819), (123, 15852), (153, 16077), (154, 16083), (159, 16146), (162, 16158), (163, 16161), (165, 16173), (175, 16260), (180, 16314), (187, 16383), (190, 16419), (215, 16563), (222, 16614), (238, 16758), (239, 16761), (240, 16764), (245, 16812), (252, 16869),

Gene: Gezellig\_20 Start: 11982, Stop: 13874, Start Num: 16

Candidate Starts for Gezellig\_20:

(Start: 16 @11982 has 98 MA's), (58, 12219), (60, 12231), (63, 12285), (84, 12510), (110, 12672), (116, 12705), (124, 12732), (168, 13098), (171, 13110), (183, 13227), (187, 13272), (188, 13275), (198, 13335), (200, 13353), (206, 13398), (209, 13410), (210, 13413), (226, 13533), (229, 13572), (239, 13632), (248, 13704), (251, 13734), (254, 13758), (257, 13785), (258, 13788), (263, 13815),

Gene: GodPhather\_10 Start: 10840, Stop: 12903, Start Num: 36

Candidate Starts for GodPhather\_10:

(Start: 36 @10840 has 7 MA's), (39, 10852), (44, 10879), (51, 10933), (61, 10981), (70, 11086), (75, 11203), (87, 11275), (105, 11410), (107, 11425), (112, 11449), (120, 11479), (131, 11524), (135, 11545), (147, 11653), (148, 11671), (155, 11740), (156, 11746), (167, 11839), (187, 12022), (192, 12052), (198, 12088), (203, 12115), (220, 12229), (227, 12295), (238, 12370), (246, 12430), (258, 12529), (260, 12535), (267, 12598), (269, 12754), (271, 12805), (272, 12811), (273, 12895),

Gene: Grassboy\_26 Start: 14484, Stop: 16316, Start Num: 28

Candidate Starts for Grassboy\_26:

(Start: 28 @14484 has 26 MA's), (30, 14493), (49, 14592), (78, 14925), (106, 15126), (110, 15141), (125, 15201), (135, 15249), (141, 15279), (151, 15396), (152, 15402), (163, 15495), (173, 15576), (184, 15669), (185, 15684), (189, 15732), (194, 15756), (203, 15804), (205, 15828), (214, 15876), (220, 15918), (236, 16053), (239, 16074), (244, 16119), (247, 16134), (255, 16203), (261, 16236),

Gene: Gustavo\_20 Start: 14562, Stop: 16469, Start Num: 16

Candidate Starts for Gustavo\_20:

(Start: 16 @14562 has 98 MA's), (41, 14697), (57, 14793), (82, 15075), (93, 15144), (99, 15192), (103, 15216), (108, 15252), (114, 15285), (121, 15309), (141, 15402), (153, 15543), (154, 15549), (159, 15612), (162, 15624), (163, 15627), (165, 15639), (175, 15726), (187, 15849), (190, 15885), (206, 15990), (215, 16029), (222, 16080), (237, 16218), (238, 16224), (239, 16227), (245, 16278), (252, 16335), (253, 16347), (255, 16356),

Gene: Halo3\_20 Start: 12297, Stop: 14195, Start Num: 16

Candidate Starts for Halo3\_20:

(Start: 16 @12297 has 98 MA's), (58, 12534), (60, 12546), (63, 12600), (110, 12993), (116, 13026), (154, 13290), (168, 13419), (171, 13431), (174, 13467), (183, 13548), (187, 13593), (188, 13596), (198, 13656), (206, 13719), (209, 13731), (210, 13734), (229, 13893), (239, 13953), (248, 14025), (251, 14055), (254, 14079), (257, 14106), (258, 14109),

Gene: Hans\_23 Start: 15322, Stop: 17238, Start Num: 16

Candidate Starts for Hans\_23:

(Start: 16 @15322 has 98 MA's), (50, 15523), (66, 15646), (82, 15814), (93, 15880), (103, 15937), (138, 16114), (141, 16123), (144, 16174), (146, 16225), (153, 16288), (154, 16294), (159, 16357), (165, 16384), (175, 16471), (177, 16498), (196, 16654), (206, 16729), (210, 16744), (215, 16768), (218, 16801), (222, 16819), (227, 16876), (237, 16987), (247, 17056), (248, 17068), (252, 17104), (262, 17170),

Gene: Hashim76\_17 Start: 10808, Stop: 12628, Start Num: 24

Candidate Starts for Hashim76\_17:

(20, 10784), (Start: 24 @10808 has 3 MA's), (31, 10838), (40, 10880), (51, 10952), (81, 11261), (87, 11294), (93, 11339), (101, 11399), (118, 11495), (126, 11522), (148, 11702), (171, 11885), (175, 11927), (181, 11993), (187, 12050), (188, 12053), (201, 12137), (217, 12239), (219, 12254), (220, 12260), (233, 12380), (237, 12395), (242, 12437), (247, 12464), (250, 12488), (251, 12506), (257, 12557), (258, 12560), (262, 12578),

Gene: Hosp\_08 Start: 8037, Stop: 9935, Start Num: 12

Candidate Starts for Hosp\_08:

(1, 7932), (10, 8034), (Start: 12 @8037 has 1 MA's), (18, 8067), (Start: 24 @8100 has 3 MA's), (31, 8133), (35, 8154), (67, 8385), (79, 8568), (101, 8715), (117, 8808), (126, 8838), (132, 8868), (148, 9009), (152, 9036), (181, 9303), (188, 9363), (191, 9387), (195, 9408), (201, 9447), (215, 9528), (222, 9576), (228, 9657), (231, 9675), (239, 9711), (240, 9714), (242, 9744), (246, 9768), (247, 9771), (250, 9795), (251, 9813), (260, 9873), (262, 9885), (264, 9909),

Gene: Hyperion\_24 Start: 14277, Stop: 16103, Start Num: 28

Candidate Starts for Hyperion\_24:

(Start: 28 @14277 has 26 MA's), (30, 14286), (49, 14385), (78, 14712), (106, 14913), (110, 14928), (125, 14988), (135, 15036), (141, 15066), (151, 15183), (152, 15189), (163, 15282), (173, 15363), (184, 15456), (185, 15471), (189, 15519), (194, 15543), (203, 15591), (205, 15615), (214, 15663), (220, 15705), (236, 15840), (239, 15861), (247, 15921), (255, 15990), (261, 16023),

Gene: Indlovu\_12 Start: 11120, Stop: 12970, Start Num: 24

Candidate Starts for Indlovu\_12:

(14, 11063), (Start: 24 @11120 has 3 MA's), (32, 11174), (46, 11234), (69, 11441), (87, 11651), (95, 11723), (101, 11756), (117, 11849), (126, 11879), (136, 11933), (148, 12050), (151, 12071), (166, 12197), (170, 12230), (181, 12344), (187, 12401), (188, 12404), (194, 12446), (198, 12467), (201, 12488), (215, 12569), (237, 12743), (242, 12785), (243, 12794), (246, 12809), (247, 12812), (249, 12830), (251, 12854), (254, 12878),

Gene: Inspectinfecti\_22 Start: 15744, Stop: 17663, Start Num: 16

Candidate Starts for Inspectinfecti\_22:

(Start: 16 @15744 has 98 MA's), (50, 15945), (66, 16068), (82, 16239), (90, 16284), (93, 16305), (103, 16362), (138, 16539), (141, 16548), (144, 16599), (146, 16650), (153, 16713), (154, 16719), (159, 16782), (165, 16809), (175, 16896), (177, 16923), (182, 16971), (196, 17079), (206, 17154), (210, 17169), (215, 17193), (218, 17226), (222, 17244), (227, 17301), (237, 17412), (247, 17481), (248, 17493), (252, 17529), (262, 17595),

Gene: JKSyngboy\_19 Start: 15221, Stop: 17128, Start Num: 16

Candidate Starts for JKSyngboy\_19:

(Start: 16 @15221 has 98 MA's), (41, 15356), (47, 15389), (57, 15452), (82, 15734), (93, 15803), (99, 15851), (103, 15875), (114, 15944), (121, 15968), (141, 16061), (153, 16202), (154, 16208), (159, 16271), (162, 16283), (163, 16286), (165, 16298), (175, 16385), (187, 16508), (190, 16544), (197, 16577), (206, 16649), (215, 16688), (222, 16739), (238, 16883), (239, 16886), (245, 16937), (252, 16994), (253, 17006), (255, 17015),

Gene: Jabberwocky\_18 Start: 15000, Stop: 16907, Start Num: 16

Candidate Starts for Jabberwocky\_18:

(Start: 16 @15000 has 98 MA's), (57, 15231), (60, 15249), (82, 15516), (103, 15654), (114, 15723), (123, 15756), (153, 15981), (154, 15987), (159, 16050), (162, 16062), (163, 16065), (165, 16077), (175, 16164), (180, 16218), (187, 16287), (190, 16323), (215, 16467), (222, 16518), (238, 16662), (239, 16665), (240, 16668), (245, 16716), (252, 16773),

Gene: Jambalaya\_19 Start: 11635, Stop: 13521, Start Num: 16

Candidate Starts for Jambalaya\_19:

(Start: 16 @11635 has 98 MA's), (58, 11872), (60, 11884), (63, 11938), (110, 12319), (116, 12352), (124, 12379), (168, 12745), (171, 12757), (183, 12874), (187, 12919), (188, 12922), (198, 12982), (200, 13000), (206, 13045), (209, 13057), (210, 13060), (226, 13180), (229, 13219), (239, 13279), (248, 13351), (251, 13381), (254, 13405), (257, 13432), (258, 13435), (263, 13462),

Gene: Jehoshaphat\_27 Start: 14727, Stop: 16559, Start Num: 28

Candidate Starts for Jehoshaphat\_27:

(Start: 28 @14727 has 26 MA's), (30, 14736), (49, 14835), (84, 15201), (106, 15369), (110, 15384), (125, 15444), (135, 15492), (136, 15498), (141, 15522), (151, 15639), (152, 15645), (163, 15738), (173, 15819), (184, 15912), (185, 15927), (189, 15975), (194, 15999), (203, 16047), (205, 16071), (214, 16119), (220, 16161), (236, 16296), (237, 16308), (239, 16317), (247, 16377), (255, 16446), (261, 16479),

Gene: Jeon\_9 Start: 10570, Stop: 12633, Start Num: 36

Candidate Starts for Jeon\_9:

(Start: 36 @10570 has 7 MA's), (39, 10582), (44, 10609), (51, 10663), (61, 10711), (70, 10816), (75, 10933), (87, 11005), (105, 11140), (107, 11155), (112, 11179), (120, 11209), (131, 11254), (135, 11275), (147, 11383), (148, 11401), (155, 11470), (156, 11476), (167, 11569), (187, 11752), (192, 11782), (198, 11818), (203, 11845), (220, 11959), (227, 12025), (238, 12100), (246, 12160), (258, 12259), (260, 12265), (267, 12328), (269, 12484), (271, 12535), (272, 12541), (273, 12625),

Gene: Jolie1\_010 Start: 9835, Stop: 11718, Start Num: 12

Candidate Starts for Jolie1\_010:

(1, 9730), (10, 9832), (Start: 12 @9835 has 1 MA's), (18, 9865), (Start: 24 @9898 has 3 MA's), (31, 9931), (35, 9952), (67, 10183), (72, 10270), (79, 10360), (101, 10507), (117, 10600), (126, 10630), (132, 10660), (133, 10663), (148, 10801), (152, 10828), (181, 11095), (188, 11155), (195, 11200), (198, 11218), (201, 11239), (215, 11320), (222, 11368), (231, 11467), (239, 11503), (240, 11506), (242, 11536), (246, 11560), (247, 11563), (251, 11605), (260, 11665),

Gene: Judebell\_27 Start: 14268, Stop: 16100, Start Num: 28

Candidate Starts for Judebell\_27:

(Start: 28 @14268 has 26 MA's), (30, 14277), (49, 14376), (84, 14742), (106, 14910), (110, 14925), (125, 14985), (135, 15033), (136, 15039), (141, 15063), (150, 15177), (151, 15180), (152, 15186), (163, 15279), (173, 15360), (184, 15453), (185, 15468), (189, 15516), (194, 15540), (203, 15588), (205, 15612), (214, 15660), (220, 15702), (236, 15837), (239, 15858), (247, 15918), (255, 15987), (261, 16020),

Gene: Kamashten\_21 Start: 15684, Stop: 17591, Start Num: 16

Candidate Starts for Kamashten\_21:

(Start: 16 @15684 has 98 MA's), (57, 15915), (60, 15933), (82, 16200), (103, 16338), (114, 16407), (123, 16440), (153, 16665), (154, 16671), (159, 16734), (162, 16746), (163, 16749), (165, 16761), (175, 16848), (180, 16902), (187, 16971), (190, 17007), (215, 17151), (222, 17202), (238, 17346), (239, 17349), (240, 17352), (245, 17400), (252, 17457),

Gene: KayaCho\_10 Start: 9838, Stop: 11730, Start Num: 12

Candidate Starts for KayaCho\_10:

(1, 9733), (10, 9835), (Start: 12 @9838 has 1 MA's), (18, 9868), (Start: 24 @9901 has 3 MA's), (31, 9934), (35, 9955), (67, 10186), (79, 10369), (101, 10516), (117, 10609), (126, 10639), (132, 10669), (133, 10672), (148, 10810), (152, 10837), (181, 11104), (188, 11164), (195, 11209), (201, 11248), (215, 11329), (222, 11377), (231, 11476), (239, 11512), (240, 11515), (242, 11545), (246, 11569), (247, 11572), (251, 11614), (260, 11674),

Gene: Keitabear\_22 Start: 17233, Stop: 19128, Start Num: 16

Candidate Starts for Keitabear\_22:

(Start: 16 @17233 has 98 MA's), (57, 17464), (60, 17482), (82, 17737), (103, 17875), (114, 17944), (123, 17977), (153, 18202), (154, 18208), (162, 18283), (163, 18286), (165, 18298), (168, 18334), (175, 18385), (187, 18508), (190, 18544), (215, 18688), (222, 18739), (238, 18883), (239, 18886), (240, 18889), (245, 18937), (252, 18994), (267, 19111),

Gene: Kelcole\_23 Start: 13023, Stop: 14801, Start Num: 27

Candidate Starts for Kelcole\_23:

(Start: 27 @13023 has 12 MA's), (30, 13035), (73, 13377), (89, 13494), (109, 13620), (135, 13734), (141, 13764), (163, 13977), (173, 14058), (175, 14067), (183, 14145), (184, 14151), (185, 14166), (205, 14310), (212, 14352), (220, 14403), (237, 14550), (239, 14559), (256, 14709), (261, 14721),

Gene: Kewpiedoll\_21 Start: 15069, Stop: 16979, Start Num: 16

Candidate Starts for Kewpiedoll\_21:

(Start: 16 @15069 has 98 MA's), (57, 15300), (60, 15318), (82, 15588), (103, 15726), (114, 15795), (123, 15828), (153, 16053), (154, 16059), (159, 16122), (162, 16134), (163, 16137), (165, 16149), (175, 16236), (187, 16359), (190, 16395), (215, 16539), (222, 16590), (238, 16734), (239, 16737), (240, 16740), (245, 16788), (252, 16845),

Gene: KimmyK\_21 Start: 12512, Stop: 14410, Start Num: 16

Candidate Starts for KimmyK\_21:

(Start: 16 @12512 has 98 MA's), (58, 12749), (60, 12761), (63, 12815), (110, 13208), (116, 13241), (123, 13265), (154, 13505), (168, 13634), (171, 13646), (183, 13763), (187, 13808), (188, 13811), (198, 13871), (200, 13889), (206, 13934), (209, 13946), (210, 13949), (214, 13970), (226, 14069), (229, 14108), (239, 14168), (248, 14240), (251, 14270), (254, 14294), (257, 14321), (258, 14324), (263, 14351),

Gene: Kithara\_25 Start: 14623, Stop: 16431, Start Num: 17

Candidate Starts for Kithara\_25:

(11, 14593), (17, 14623), (55, 14836), (77, 15118), (135, 15439), (149, 15559), (162, 15661), (185, 15850), (199, 15946), (202, 15958), (223, 16096), (227, 16141), (244, 16249), (251, 16306), (252, 16312), (255, 16333),

Gene: Knocker\_17 Start: 13813, Stop: 15774, Start Num: 4

Candidate Starts for Knocker\_17:

(2, 13765), (Start: 4 @13813 has 1 MA's), (13, 13861), (Start: 24 @13918 has 3 MA's), (32, 13966), (45, 14026), (47, 14041), (58, 14113), (68, 14230), (118, 14641), (121, 14650), (128, 14671), (130, 14692), (132, 14698), (148, 14848), (152, 14875), (164, 14977), (166, 14995), (171, 15034), (177, 15103), (179, 15127), (181, 15142), (194, 15244), (201, 15286), (215, 15367), (217, 15388), (222, 15415), (226, 15463), (227, 15472), (228, 15496), (231, 15514), (233, 15526), (237, 15541), (239, 15550), (240, 15553), (242, 15583), (245, 15601), (247, 15610), (249, 15628), (251, 15652), (260, 15712), (262, 15724),

Gene: Kroos\_21 Start: 15314, Stop: 17227, Start Num: 16

Candidate Starts for Kroos\_21:

(Start: 16 @15314 has 98 MA's), (41, 15449), (57, 15545), (82, 15833), (93, 15902), (99, 15950), (103, 15974), (108, 16010), (114, 16043), (121, 16067), (141, 16160), (153, 16301), (154, 16307), (159, 16370), (162, 16382), (163, 16385), (165, 16397), (175, 16484), (187, 16607), (190, 16643), (197, 16676), (206, 16748), (215, 16787), (222, 16838), (237, 16976), (238, 16982), (239, 16985), (245, 17036), (252, 17093), (253, 17105), (255, 17114),

Gene: Kwekel\_20 Start: 13711, Stop: 15594, Start Num: 16

Candidate Starts for Kwekel\_20:

(15, 13702), (Start: 16 @13711 has 98 MA's), (57, 13945), (60, 13963), (84, 14233), (99, 14329), (140, 14536), (146, 14614), (153, 14677), (154, 14683), (159, 14746), (162, 14758), (163, 14761), (172, 14845), (175, 14860), (190, 15013), (206, 15118), (222, 15208), (228, 15289), (237, 15346), (247, 15415), (248, 15427), (252, 15463), (262, 15529),

Gene: Kwobi\_21 Start: 15290, Stop: 17209, Start Num: 16

Candidate Starts for Kwobi\_21:

(Start: 16 @15290 has 98 MA's), (41, 15425), (57, 15521), (82, 15815), (93, 15884), (99, 15932), (103, 15956), (108, 15992), (114, 16025), (121, 16049), (141, 16142), (153, 16283), (154, 16289), (159, 16352), (162, 16364), (163, 16367), (165, 16379), (175, 16466), (187, 16589), (190, 16625), (197, 16658), (206, 16730), (215, 16769), (222, 16820), (237, 16958), (238, 16964), (239, 16967), (245, 17018), (252, 17075), (253, 17087), (255, 17096),

Gene: Kyva\_27 Start: 14519, Stop: 16351, Start Num: 28

Candidate Starts for Kyva\_27:

(Start: 28 @14519 has 26 MA's), (30, 14528), (49, 14627), (78, 14960), (106, 15161), (110, 15176), (125, 15236), (135, 15284), (141, 15314), (151, 15431), (152, 15437), (163, 15530), (173, 15611), (184, 15704), (185, 15719), (189, 15767), (194, 15791), (203, 15839), (205, 15863), (214, 15911), (220, 15953), (236, 16088), (239, 16109), (244, 16154), (247, 16169), (255, 16238), (261, 16271),

Gene: Lennon\_22 Start: 16336, Stop: 18231, Start Num: 16

Candidate Starts for Lennon\_22:

(Start: 16 @16336 has 98 MA's), (57, 16567), (60, 16585), (82, 16840), (103, 16978), (114, 17047), (123, 17080), (153, 17305), (154, 17311), (159, 17374), (162, 17386), (163, 17389), (165, 17401), (175, 17488), (187, 17611), (190, 17647), (215, 17791), (222, 17842), (238, 17986), (239, 17989), (240, 17992), (245, 18040), (252, 18097), (267, 18214),

Gene: Leonard\_21 Start: 15339, Stop: 17258, Start Num: 16

Candidate Starts for Leonard\_21:

(Start: 16 @15339 has 98 MA's), (50, 15540), (66, 15663), (82, 15834), (90, 15879), (93, 15900), (103, 15957), (129, 16083), (138, 16134), (141, 16143), (144, 16194), (146, 16245), (153, 16308), (154, 16314), (159, 16377), (165, 16404), (175, 16491), (196, 16674), (206, 16749), (210, 16764), (215, 16788), (218, 16821), (222, 16839), (227, 16896), (237, 17007), (247, 17076), (248, 17088), (252, 17124), (262, 17190),

Gene: LilHam\_18 Start: 13869, Stop: 15788, Start Num: 16

Candidate Starts for LilHam\_18:

(Start: 16 @13869 has 98 MA's), (41, 14004), (57, 14100), (82, 14394), (93, 14463), (99, 14511), (103, 14535), (108, 14571), (114, 14604), (121, 14628), (141, 14721), (153, 14862), (154, 14868), (159, 14931), (162, 14943), (163, 14946), (165, 14958), (175, 15045), (187, 15168), (190, 15204), (197, 15237), (206, 15309), (215, 15348), (222, 15399), (238, 15543), (239, 15546), (245, 15597), (252, 15654), (253, 15666), (255, 15675),

Gene: LilMcDreamy\_13 Start: 12145, Stop: 13986, Start Num: 19

Candidate Starts for LilMcDreamy\_13:

(Start: 19 @12145 has 1 MA's), (25, 12181), (31, 12199), (40, 12232), (48, 12271), (50, 12298), (80, 12613), (87, 12649), (95, 12724), (101, 12757), (111, 12826), (117, 12850), (118, 12853), (121, 12862), (126, 12880), (130, 12904), (148, 13063), (151, 13084), (171, 13246), (178, 13321), (181, 13354), (187, 13411), (188, 13414), (197, 13465), (198, 13474), (207, 13540), (217, 13597), (227, 13684), (238, 13759), (240, 13765), (242, 13795), (247, 13822), (251, 13864), (254, 13888), (262, 13936),

Gene: Lilbeanie\_18 Start: 10655, Stop: 12583, Start Num: 16

Candidate Starts for Lilbeanie\_18:

(7, 10613), (Start: 16 @10655 has 98 MA's), (34, 10754), (53, 10871), (57, 10886), (82, 11204), (124, 11441), (134, 11489), (154, 11672), (174, 11846), (185, 11948), (187, 11972), (209, 12107), (221, 12179), (222, 12185), (232, 12287), (234, 12299), (243, 12377), (252, 12443), (254, 12461), (257, 12488),

Gene: Llemily\_25 Start: 13503, Stop: 15335, Start Num: 28

Candidate Starts for Llemily\_25:

(Start: 28 @13503 has 26 MA's), (30, 13512), (49, 13611), (84, 13977), (106, 14145), (110, 14160), (125, 14220), (135, 14268), (136, 14274), (141, 14298), (151, 14415), (152, 14421), (163, 14514), (173, 14595), (184, 14688), (185, 14703), (189, 14751), (194, 14775), (203, 14823), (205, 14847), (214, 14895), (220, 14937), (236, 15072), (237, 15084), (239, 15093), (247, 15153), (255, 15222), (261, 15255),

Gene: Lonelysoil\_24 Start: 13748, Stop: 15580, Start Num: 28

Candidate Starts for Lonelysoil\_24:

(Start: 28 @13748 has 26 MA's), (30, 13757), (49, 13856), (84, 14222), (106, 14390), (110, 14405), (125, 14465), (135, 14513), (136, 14519), (141, 14543), (151, 14660), (152, 14666), (163, 14759), (173, 14840), (184, 14933), (185, 14948), (189, 14996), (194, 15020), (203, 15068), (205, 15092), (214, 15140), (220, 15182), (236, 15317), (237, 15329), (239, 15338), (247, 15398), (255, 15467), (261, 15500),

Gene: Love\_22 Start: 15199, Stop: 17106, Start Num: 16

Candidate Starts for Love\_22:

(Start: 16 @15199 has 98 MA's), (57, 15430), (60, 15448), (82, 15715), (103, 15853), (114, 15922), (123, 15955), (153, 16180), (154, 16186), (159, 16249), (162, 16261), (163, 16264), (165, 16276), (175, 16363), (180, 16417), (187, 16486), (190, 16522), (215, 16666), (222, 16717), (238, 16861), (239, 16864), (240, 16867), (245, 16915), (252, 16972),

Gene: Marcie\_29 Start: 13698, Stop: 15482, Start Num: 27

Candidate Starts for Marcie\_29:

(Start: 27 @13698 has 12 MA's), (30, 13710), (73, 14058), (89, 14175), (109, 14301), (125, 14367), (135, 14415), (141, 14445), (163, 14658), (173, 14739), (175, 14748), (183, 14826), (184, 14832), (185, 14847), (205, 14991), (212, 15033), (220, 15084), (237, 15231), (239, 15240), (261, 15402),

Gene: Mashley\_23 Start: 14088, Stop: 15914, Start Num: 28

Candidate Starts for Mashley\_23:

(Start: 28 @14088 has 26 MA's), (30, 14097), (49, 14196), (78, 14523), (106, 14724), (110, 14739), (125, 14799), (135, 14847), (141, 14877), (151, 14994), (152, 15000), (163, 15093), (173, 15174), (184, 15267), (185, 15282), (189, 15330), (194, 15354), (203, 15402), (205, 15426), (214, 15474), (220, 15516), (236, 15651), (239, 15672), (247, 15732), (255, 15801), (261, 15834),

Gene: McKinley\_21 Start: 15222, Stop: 17132, Start Num: 16

Candidate Starts for McKinley\_21:

(Start: 16 @15222 has 98 MA's), (57, 15453), (60, 15471), (82, 15741), (103, 15879), (114, 15948), (123, 15981), (153, 16206), (154, 16212), (159, 16275), (162, 16287), (163, 16290), (165, 16302), (175, 16389), (187, 16512), (190, 16548), (215, 16692), (222, 16743), (238, 16887), (239, 16890), (240, 16893), (245, 16941), (252, 16998),

Gene: Megabear\_9 Start: 10537, Stop: 12588, Start Num: 36

Candidate Starts for Megabear\_9:

(Start: 36 @10537 has 7 MA's), (39, 10549), (44, 10576), (51, 10630), (61, 10678), (70, 10783), (75, 10888), (87, 10960), (105, 11095), (107, 11110), (112, 11134), (120, 11164), (131, 11209), (135, 11230), (147, 11338), (148, 11356), (155, 11425), (156, 11431), (158, 11455), (167, 11524), (181, 11650), (185, 11683), (187, 11707), (192, 11737), (198, 11773), (203, 11800), (215, 11875), (220, 11914), (227, 11980), (238, 12055), (246, 12115), (258, 12214), (260, 12220), (267, 12283), (269, 12439), (271, 12490), (272, 12496), (273, 12580),

Gene: MelBins\_22 Start: 15543, Stop: 17459, Start Num: 16

Candidate Starts for MelBins\_22:

(Start: 16 @15543 has 98 MA's), (50, 15744), (66, 15867), (82, 16035), (93, 16101), (103, 16158), (138, 16335), (141, 16344), (144, 16395), (146, 16446), (153, 16509), (154, 16515), (159, 16578), (165, 16605), (175, 16692), (196, 16875), (206, 16950), (210, 16965), (215, 16989), (218, 17022), (222, 17040), (227, 17097), (237, 17208), (247, 17277), (248, 17289), (252, 17325), (262, 17391),

Gene: MoontowerMania\_19 Start: 14205, Stop: 16112, Start Num: 16

Candidate Starts for MoontowerMania\_19:

(Start: 16 @14205 has 98 MA's), (57, 14436), (60, 14454), (82, 14721), (103, 14859), (114, 14928), (123, 14961), (153, 15186), (154, 15192), (159, 15255), (162, 15267), (163, 15270), (165, 15282), (175, 15369), (180, 15423), (187, 15492), (190, 15528), (215, 15672), (222, 15723), (238, 15867), (239, 15870), (240, 15873), (245, 15921), (252, 15978),

Gene: MorillMayhem\_24 Start: 14081, Stop: 15913, Start Num: 28

Candidate Starts for MorillMayhem\_24:

(Start: 28 @14081 has 26 MA's), (30, 14090), (49, 14189), (84, 14555), (106, 14723), (110, 14738), (125, 14798), (135, 14846), (136, 14852), (141, 14876), (150, 14990), (151, 14993), (152, 14999), (163, 15092), (173, 15173), (184, 15266), (185, 15281), (189, 15329), (194, 15353), (203, 15401), (205, 15425), (214, 15473), (220, 15515), (236, 15650), (237, 15662), (239, 15671), (247, 15731), (255, 15800), (261, 15833),

Gene: Mutzi\_21 Start: 12236, Stop: 14134, Start Num: 16

Candidate Starts for Mutzi\_21:

(Start: 16 @12236 has 98 MA's), (58, 12473), (60, 12485), (63, 12539), (110, 12932), (116, 12965), (123, 12989), (154, 13229), (171, 13370), (183, 13487), (187, 13532), (188, 13535), (198, 13595), (206, 13658), (229, 13832), (239, 13892), (240, 13895), (248, 13964), (251, 13994), (254, 14018), (257, 14045), (258, 14048),

Gene: Namago\_25 Start: 13649, Stop: 15481, Start Num: 28

Candidate Starts for Namago\_25:

(Start: 28 @13649 has 26 MA's), (30, 13658), (49, 13757), (78, 14090), (106, 14291), (110, 14306), (125, 14366), (135, 14414), (141, 14444), (151, 14561), (152, 14567), (163, 14660), (173, 14741), (184, 14834), (185, 14849), (189, 14897), (194, 14921), (203, 14969), (205, 14993), (214, 15041), (220, 15083), (236, 15218), (239, 15239), (244, 15284), (247, 15299), (255, 15368), (261, 15401),

Gene: Natkenzie\_21 Start: 15527, Stop: 17449, Start Num: 16

Candidate Starts for Natkenzie\_21:

(Start: 16 @15527 has 98 MA's), (53, 15743), (57, 15758), (71, 15932), (88, 16070), (90, 16079), (98, 16148), (100, 16154), (108, 16208), (113, 16232), (150, 16484), (153, 16502), (154, 16508), (159, 16571), (162, 16583), (163, 16586), (165, 16598), (175, 16688), (177, 16715), (197, 16874), (208, 16952), (223, 17048), (226, 17084), (237, 17204), (241, 17237), (252, 17321), (257, 17366),

Gene: Nike\_25 Start: 14547, Stop: 16379, Start Num: 28

Candidate Starts for Nike\_25:

(Start: 28 @14547 has 26 MA's), (30, 14556), (49, 14655), (84, 15021), (106, 15189), (110, 15204), (125, 15264), (135, 15312), (136, 15318), (141, 15342), (151, 15459), (152, 15465), (163, 15558), (173, 15639), (184, 15732), (185, 15747), (189, 15795), (194, 15819), (203, 15867), (205, 15891), (214, 15939), (220, 15981), (236, 16116), (237, 16128), (239, 16137), (247, 16197), (255, 16266), (261, 16299),

Gene: Nordenberg\_15 Start: 13519, Stop: 15426, Start Num: 16

Candidate Starts for Nordenberg\_15:

(Start: 16 @13519 has 98 MA's), (57, 13750), (60, 13768), (82, 14035), (103, 14173), (114, 14242), (123, 14275), (153, 14500), (154, 14506), (159, 14569), (162, 14581), (163, 14584), (165, 14596),



(175, 14683), (187, 14806), (190, 14842), (215, 14986), (222, 15037), (237, 15175), (238, 15181), (239, 15184), (240, 15187), (245, 15235), (252, 15292),

Gene: Nubi\_19 Start: 11864, Stop: 13762, Start Num: 16

Candidate Starts for Nubi\_19:

(Start: 16 @11864 has 98 MA's), (58, 12101), (60, 12113), (63, 12167), (84, 12398), (110, 12560), (116, 12593), (154, 12857), (168, 12986), (171, 12998), (183, 13115), (187, 13160), (188, 13163), (198, 13223), (200, 13241), (204, 13256), (206, 13286), (209, 13298), (210, 13301), (226, 13421), (229, 13460), (239, 13520), (248, 13592), (251, 13622), (254, 13646), (257, 13673), (258, 13676), (263, 13703),

Gene: OneinaGillian\_24 Start: 12673, Stop: 14451, Start Num: 27

Candidate Starts for OneinaGillian\_24:

(Start: 27 @12673 has 12 MA's), (30, 12685), (73, 13027), (89, 13144), (109, 13270), (135, 13384), (141, 13414), (163, 13627), (173, 13708), (175, 13717), (183, 13795), (184, 13801), (185, 13816), (205, 13960), (212, 14002), (220, 14053), (237, 14200), (239, 14209), (256, 14359), (261, 14371), (266, 14431),

Gene: PR\_09 Start: 10537, Stop: 12600, Start Num: 36

Candidate Starts for PR\_09:

(Start: 36 @10537 has 7 MA's), (39, 10549), (44, 10576), (51, 10630), (61, 10678), (70, 10783), (75, 10900), (87, 10972), (105, 11107), (112, 11146), (120, 11176), (131, 11221), (135, 11242), (147, 11350), (148, 11368), (155, 11437), (156, 11443), (158, 11467), (167, 11536), (185, 11695), (187, 11719), (192, 11749), (198, 11785), (203, 11812), (215, 11887), (220, 11926), (224, 11962), (227, 11992), (238, 12067), (246, 12127), (258, 12226), (260, 12232), (267, 12295), (269, 12451), (271, 12502), (272, 12508), (273, 12592),

Gene: Paries\_21 Start: 14887, Stop: 16794, Start Num: 16

Candidate Starts for Paries\_21:

(Start: 16 @14887 has 98 MA's), (57, 15118), (60, 15136), (82, 15403), (103, 15541), (114, 15610), (123, 15643), (153, 15868), (154, 15874), (159, 15937), (162, 15949), (163, 15952), (165, 15964), (175, 16051), (180, 16105), (187, 16174), (190, 16210), (215, 16354), (222, 16405), (238, 16549), (239, 16552), (240, 16555), (245, 16603), (252, 16660),

Gene: PenguinLover67\_15 Start: 12281, Stop: 14140, Start Num: 24

Candidate Starts for PenguinLover67\_15:

(13, 12224), (Start: 24 @12281 has 3 MA's), (43, 12374), (46, 12386), (62, 12518), (81, 12770), (87, 12806), (95, 12875), (118, 13004), (121, 13013), (128, 13034), (133, 13064), (145, 13154), (148, 13211), (152, 13238), (175, 13436), (176, 13448), (181, 13502), (187, 13559), (197, 13616), (198, 13625), (201, 13646), (215, 13727), (217, 13748), (220, 13766), (237, 13901), (242, 13943), (243, 13952), (247, 13970), (251, 14012), (258, 14066), (264, 14108), (265, 14123),

Gene: Pepe25\_23 Start: 13010, Stop: 14788, Start Num: 27

Candidate Starts for Pepe25\_23:

(Start: 27 @13010 has 12 MA's), (30, 13022), (73, 13367), (89, 13481), (109, 13607), (125, 13673), (135, 13721), (141, 13751), (163, 13964), (173, 14045), (175, 14054), (183, 14132), (184, 14138), (185, 14153), (205, 14297), (212, 14339), (220, 14390), (237, 14537), (239, 14546), (256, 14696), (261, 14708),

Gene: Phabia\_25 Start: 13921, Stop: 15753, Start Num: 28

Candidate Starts for Phabia\_25:

(Start: 28 @13921 has 26 MA's), (30, 13930), (49, 14029), (84, 14395), (106, 14563), (110, 14578), (125, 14638), (135, 14686), (136, 14692), (141, 14716), (151, 14833), (152, 14839), (163, 14932),

(173, 15013), (184, 15106), (185, 15121), (189, 15169), (194, 15193), (203, 15241), (205, 15265), (214, 15313), (220, 15355), (236, 15490), (237, 15502), (239, 15511), (247, 15571), (255, 15640), (261, 15673),

Gene: Phauci\_14 Start: 11906, Stop: 13825, Start Num: 16

Candidate Starts for Phauci\_14:

(Start: 16 @11906 has 98 MA's), (50, 12107), (66, 12230), (82, 12401), (90, 12446), (93, 12467), (103, 12524), (138, 12701), (141, 12710), (144, 12761), (146, 12812), (153, 12875), (154, 12881), (159, 12944), (165, 12971), (175, 13058), (196, 13241), (206, 13316), (210, 13331), (215, 13355), (218, 13388), (222, 13406), (227, 13463), (237, 13574), (247, 13643), (248, 13655), (252, 13691), (262, 13757),

Gene: Phinally\_21 Start: 15336, Stop: 17255, Start Num: 16

Candidate Starts for Phinally\_21:

(Start: 16 @15336 has 98 MA's), (50, 15537), (66, 15660), (82, 15831), (90, 15876), (93, 15897), (103, 15954), (129, 16080), (138, 16131), (141, 16140), (144, 16191), (146, 16242), (153, 16305), (154, 16311), (159, 16374), (165, 16401), (175, 16488), (196, 16671), (206, 16746), (210, 16761), (215, 16785), (218, 16818), (222, 16836), (227, 16893), (237, 17004), (247, 17073), (248, 17085), (252, 17121), (262, 17187),

Gene: Phinky\_31 Start: 14788, Stop: 16635, Start Num: 27

Candidate Starts for Phinky\_31:

(Start: 27 @14788 has 12 MA's), (30, 14797), (38, 14833), (64, 15022), (106, 15442), (113, 15469), (135, 15565), (141, 15595), (163, 15811), (169, 15853), (172, 15886), (173, 15892), (175, 15901), (179, 15952), (184, 15985), (185, 16000), (205, 16144), (212, 16186), (214, 16192), (220, 16237), (227, 16303), (236, 16372), (237, 16384), (239, 16393), (247, 16453), (258, 16549), (261, 16555),

Gene: Phlop\_19 Start: 11937, Stop: 13826, Start Num: 16

Candidate Starts for Phlop\_19:

(Start: 16 @11937 has 98 MA's), (58, 12174), (60, 12186), (63, 12240), (84, 12465), (110, 12627), (116, 12660), (123, 12684), (154, 12912), (161, 12984), (168, 13041), (183, 13170), (187, 13215), (188, 13218), (206, 13341), (209, 13353), (218, 13413), (237, 13566), (239, 13575), (248, 13647), (251, 13677), (257, 13728), (262, 13749), (264, 13773),

Gene: PinkCoffee\_21 Start: 12521, Stop: 14419, Start Num: 16

Candidate Starts for PinkCoffee\_21:

(Start: 16 @12521 has 98 MA's), (58, 12758), (60, 12770), (63, 12824), (110, 13217), (116, 13250), (123, 13274), (154, 13514), (168, 13643), (171, 13655), (183, 13772), (187, 13817), (188, 13820), (198, 13880), (200, 13898), (206, 13943), (209, 13955), (210, 13958), (214, 13979), (226, 14078), (229, 14117), (239, 14177), (248, 14249), (251, 14279), (254, 14303), (257, 14330), (258, 14333), (263, 14360),

Gene: Portcullis\_19 Start: 11883, Stop: 13769, Start Num: 16

Candidate Starts for Portcullis\_19:

(Start: 16 @11883 has 98 MA's), (58, 12120), (60, 12132), (63, 12186), (110, 12567), (116, 12600), (124, 12627), (168, 12993), (171, 13005), (183, 13122), (187, 13167), (188, 13170), (198, 13230), (200, 13248), (206, 13293), (209, 13305), (210, 13308), (226, 13428), (229, 13467), (239, 13527), (248, 13599), (251, 13629), (254, 13653), (257, 13680), (258, 13683), (263, 13710),

Gene: PullumCavea\_19 Start: 11937, Stop: 13826, Start Num: 16

Candidate Starts for PullumCavea\_19:

(Start: 16 @11937 has 98 MA's), (58, 12174), (60, 12186), (63, 12240), (84, 12465), (110, 12627), (116, 12660), (123, 12684), (154, 12912), (161, 12984), (168, 13041), (183, 13170), (187, 13215),

(188, 13218), (206, 13341), (209, 13353), (218, 13413), (237, 13566), (239, 13575), (248, 13647), (251, 13677), (257, 13728), (262, 13749), (264, 13773),

Gene: Quammi\_23 Start: 13492, Stop: 15324, Start Num: 28

Candidate Starts for Quammi\_23:

(Start: 28 @13492 has 26 MA's), (30, 13501), (49, 13600), (84, 13966), (106, 14134), (110, 14149), (125, 14209), (135, 14257), (136, 14263), (141, 14287), (151, 14404), (152, 14410), (163, 14503), (173, 14584), (184, 14677), (185, 14692), (189, 14740), (194, 14764), (203, 14812), (205, 14836), (214, 14884), (220, 14926), (236, 15061), (237, 15073), (239, 15082), (247, 15142), (255, 15211), (261, 15244),

Gene: Ribeye\_21 Start: 15768, Stop: 17690, Start Num: 16

Candidate Starts for Ribeye\_21:

(Start: 16 @15768 has 98 MA's), (57, 15999), (82, 16296), (93, 16365), (99, 16413), (103, 16437), (114, 16506), (121, 16530), (141, 16623), (153, 16764), (154, 16770), (159, 16833), (162, 16845), (163, 16848), (165, 16860), (175, 16947), (187, 17070), (190, 17106), (197, 17139), (206, 17211), (215, 17250), (222, 17301), (237, 17439), (238, 17445), (239, 17448), (245, 17499), (252, 17556), (253, 17568), (255, 17577),

Gene: RiverRaider\_21 Start: 14172, Stop: 16070, Start Num: 16

Candidate Starts for RiverRaider\_21:

(3, 14094), (Start: 16 @14172 has 98 MA's), (57, 14403), (60, 14421), (66, 14496), (82, 14670), (93, 14751), (103, 14817), (114, 14886), (153, 15144), (154, 15150), (159, 15213), (162, 15225), (163, 15228), (165, 15240), (175, 15327), (187, 15450), (190, 15486), (206, 15591), (215, 15630), (222, 15681), (225, 15714), (238, 15825), (239, 15828), (240, 15831), (241, 15852), (245, 15879), (249, 15906), (252, 15936), (253, 15948),

Gene: RoadKill\_18 Start: 13249, Stop: 15138, Start Num: 16

Candidate Starts for RoadKill\_18:

(15, 13240), (Start: 16 @13249 has 98 MA's), (26, 13315), (57, 13483), (60, 13501), (84, 13774), (99, 13870), (140, 14077), (146, 14155), (154, 14224), (159, 14287), (162, 14299), (163, 14302), (172, 14386), (175, 14401), (185, 14500), (190, 14554), (206, 14659), (222, 14749), (228, 14830), (237, 14887), (240, 14899), (247, 14956), (248, 14968), (252, 15004), (262, 15070),

Gene: RobinRose\_26 Start: 13174, Stop: 14952, Start Num: 27

Candidate Starts for RobinRose\_26:

(Start: 27 @13174 has 12 MA's), (30, 13186), (73, 13528), (89, 13645), (109, 13771), (135, 13885), (141, 13915), (163, 14128), (173, 14209), (175, 14218), (183, 14296), (184, 14302), (185, 14317), (205, 14461), (212, 14503), (220, 14554), (237, 14701), (239, 14710), (256, 14860), (261, 14872),

Gene: Rofo\_20 Start: 15139, Stop: 17046, Start Num: 16

Candidate Starts for Rofo\_20:

(Start: 16 @15139 has 98 MA's), (57, 15370), (60, 15388), (82, 15655), (103, 15793), (114, 15862), (123, 15895), (153, 16120), (154, 16126), (159, 16189), (162, 16201), (163, 16204), (165, 16216), (187, 16426), (190, 16462), (215, 16606), (222, 16657), (238, 16801), (239, 16804), (240, 16807), (245, 16855), (252, 16912),

Gene: RogerDodger\_22 Start: 12733, Stop: 14619, Start Num: 16

Candidate Starts for RogerDodger\_22:

(Start: 16 @12733 has 98 MA's), (58, 12970), (60, 12982), (63, 13036), (84, 13258), (110, 13420), (116, 13453), (154, 13705), (161, 13777), (168, 13834), (171, 13846), (183, 13963), (187, 14008), (188, 14011), (206, 14134), (209, 14146), (218, 14206), (237, 14359), (239, 14368), (248, 14440), (251, 14470), (262, 14542), (264, 14566),

Gene: Romm\_26 Start: 13174, Stop: 14952, Start Num: 27

Candidate Starts for Romm\_26:

(Start: 27 @13174 has 12 MA's), (30, 13186), (73, 13528), (89, 13645), (109, 13771), (135, 13885), (141, 13915), (163, 14128), (173, 14209), (175, 14218), (183, 14296), (184, 14302), (185, 14317), (205, 14461), (212, 14503), (220, 14554), (237, 14701), (239, 14710), (256, 14860), (261, 14872),

Gene: Rowlf\_21 Start: 13250, Stop: 15082, Start Num: 28

Candidate Starts for Rowlf\_21:

(Start: 28 @13250 has 26 MA's), (30, 13259), (49, 13358), (84, 13724), (106, 13892), (110, 13907), (125, 13967), (135, 14015), (136, 14021), (141, 14045), (151, 14162), (152, 14168), (163, 14261), (173, 14342), (184, 14435), (185, 14450), (189, 14498), (194, 14522), (203, 14570), (205, 14594), (214, 14642), (220, 14684), (236, 14819), (237, 14831), (239, 14840), (247, 14900), (255, 14969), (261, 15002),

Gene: RubyRalph\_27 Start: 13767, Stop: 15596, Start Num: 27

Candidate Starts for RubyRalph\_27:

(Start: 27 @13767 has 12 MA's), (30, 13779), (52, 13908), (73, 14136), (74, 14154), (94, 14313), (106, 14397), (125, 14475), (135, 14523), (141, 14553), (150, 14667), (163, 14769), (169, 14811), (173, 14850), (175, 14859), (184, 14943), (185, 14958), (203, 15078), (205, 15102), (212, 15144), (214, 15150), (220, 15192), (236, 15327), (239, 15348), (241, 15372), (243, 15390), (247, 15408), (261, 15510),

Gene: Rudy\_23 Start: 13492, Stop: 15324, Start Num: 28

Candidate Starts for Rudy\_23:

(Start: 28 @13492 has 26 MA's), (30, 13501), (49, 13600), (84, 13966), (106, 14134), (110, 14149), (125, 14209), (135, 14257), (136, 14263), (141, 14287), (151, 14404), (152, 14410), (163, 14503), (173, 14584), (184, 14677), (185, 14692), (189, 14740), (194, 14764), (203, 14812), (205, 14836), (214, 14884), (220, 14926), (236, 15061), (237, 15073), (239, 15082), (247, 15142), (255, 15211), (261, 15244),

Gene: SadLad\_29 Start: 14704, Stop: 16533, Start Num: 27

Candidate Starts for SadLad\_29:

(Start: 27 @14704 has 12 MA's), (30, 14716), (52, 14845), (73, 15073), (74, 15091), (94, 15250), (106, 15334), (125, 15412), (135, 15460), (141, 15490), (150, 15604), (163, 15706), (169, 15748), (173, 15787), (184, 15880), (185, 15895), (203, 16015), (205, 16039), (212, 16081), (214, 16087), (220, 16129), (236, 16264), (239, 16285), (241, 16309), (243, 16327), (247, 16345), (261, 16447),

Gene: SallyK\_26 Start: 14644, Stop: 16470, Start Num: 28

Candidate Starts for SallyK\_26:

(Start: 28 @14644 has 26 MA's), (30, 14653), (49, 14752), (78, 15079), (106, 15280), (110, 15295), (125, 15355), (135, 15403), (141, 15433), (151, 15550), (152, 15556), (163, 15649), (173, 15730), (184, 15823), (185, 15838), (189, 15886), (194, 15910), (203, 15958), (205, 15982), (214, 16030), (220, 16072), (236, 16207), (239, 16228), (244, 16273), (247, 16288), (255, 16357), (261, 16390),

Gene: Salvador\_19 Start: 11842, Stop: 13740, Start Num: 16

Candidate Starts for Salvador\_19:

(Start: 16 @11842 has 98 MA's), (58, 12079), (60, 12091), (63, 12145), (84, 12376), (110, 12538), (116, 12571), (154, 12835), (168, 12964), (171, 12976), (183, 13093), (187, 13138), (188, 13141), (198, 13201), (200, 13219), (204, 13234), (206, 13264), (209, 13276), (210, 13279), (226, 13399), (229, 13438), (239, 13498), (248, 13570), (251, 13600), (254, 13624), (257, 13651), (258, 13654), (263, 13681),

Gene: Sampson\_21 Start: 15472, Stop: 17394, Start Num: 16

Candidate Starts for Sampson\_21:

(Start: 16 @15472 has 98 MA's), (53, 15688), (57, 15703), (71, 15877), (88, 16015), (90, 16024), (98, 16093), (100, 16099), (108, 16153), (113, 16177), (150, 16429), (153, 16447), (154, 16453), (159, 16516), (162, 16528), (163, 16531), (165, 16543), (175, 16633), (177, 16660), (197, 16819), (208, 16897), (223, 16993), (226, 17029), (237, 17149), (241, 17182), (252, 17266), (257, 17311),

Gene: Sanjuju\_18 Start: 14651, Stop: 16558, Start Num: 16

Candidate Starts for Sanjuju\_18:

(Start: 16 @14651 has 98 MA's), (57, 14882), (60, 14900), (82, 15167), (103, 15305), (114, 15374), (123, 15407), (153, 15632), (154, 15638), (159, 15701), (162, 15713), (163, 15716), (165, 15728), (175, 15815), (180, 15869), (187, 15938), (190, 15974), (215, 16118), (222, 16169), (238, 16313), (239, 16316), (240, 16319), (245, 16367), (252, 16424),

Gene: Saronaya\_20 Start: 14562, Stop: 16469, Start Num: 16

Candidate Starts for Saronaya\_20:

(Start: 16 @14562 has 98 MA's), (41, 14697), (57, 14793), (82, 15075), (93, 15144), (99, 15192), (103, 15216), (108, 15252), (114, 15285), (121, 15309), (141, 15402), (153, 15543), (154, 15549), (159, 15612), (162, 15624), (163, 15627), (165, 15639), (175, 15726), (187, 15849), (190, 15885), (206, 15990), (215, 16029), (222, 16080), (237, 16218), (238, 16224), (239, 16227), (245, 16278), (252, 16335), (253, 16347), (255, 16356),

Gene: Savbucketdawg\_19 Start: 11635, Stop: 13521, Start Num: 16

Candidate Starts for Savbucketdawg\_19:

(Start: 16 @11635 has 98 MA's), (58, 11872), (60, 11884), (63, 11938), (110, 12319), (116, 12352), (124, 12379), (168, 12745), (171, 12757), (183, 12874), (187, 12919), (188, 12922), (198, 12982), (200, 13000), (206, 13045), (209, 13057), (210, 13060), (226, 13180), (229, 13219), (239, 13279), (248, 13351), (251, 13381), (254, 13405), (257, 13432), (258, 13435), (263, 13462),

Gene: SchottB\_19 Start: 15551, Stop: 17470, Start Num: 16

Candidate Starts for SchottB\_19:

(Start: 16 @15551 has 98 MA's), (41, 15686), (57, 15782), (82, 16076), (93, 16145), (99, 16193), (103, 16217), (108, 16253), (114, 16286), (121, 16310), (141, 16403), (153, 16544), (154, 16550), (159, 16613), (162, 16625), (163, 16628), (165, 16640), (175, 16727), (187, 16850), (190, 16886), (197, 16919), (206, 16991), (215, 17030), (222, 17081), (238, 17225), (239, 17228), (245, 17279), (252, 17336), (253, 17348), (255, 17357),

Gene: Scioto\_21 Start: 15527, Stop: 17449, Start Num: 16

Candidate Starts for Scioto\_21:

(Start: 16 @15527 has 98 MA's), (53, 15743), (57, 15758), (71, 15932), (88, 16070), (90, 16079), (98, 16148), (100, 16154), (108, 16208), (113, 16232), (150, 16484), (153, 16502), (154, 16508), (159, 16571), (162, 16583), (163, 16586), (165, 16598), (175, 16688), (177, 16715), (197, 16874), (208, 16952), (223, 17048), (226, 17084), (237, 17204), (241, 17237), (252, 17321), (257, 17366),

Gene: Sedona\_22 Start: 16968, Stop: 18863, Start Num: 16

Candidate Starts for Sedona\_22:

(Start: 16 @16968 has 98 MA's), (57, 17199), (60, 17217), (82, 17472), (103, 17610), (114, 17679), (123, 17712), (153, 17937), (154, 17943), (159, 18006), (162, 18018), (163, 18021), (165, 18033), (175, 18120), (187, 18243), (190, 18279), (215, 18423), (222, 18474), (238, 18618), (239, 18621), (240, 18624), (245, 18672), (252, 18729), (267, 18846),

Gene: Shinji\_19 Start: 11824, Stop: 13710, Start Num: 16

Candidate Starts for Shinji\_19:

(Start: 16 @11824 has 98 MA's), (58, 12061), (60, 12073), (63, 12127), (110, 12508), (116, 12541), (124, 12568), (168, 12934), (171, 12946), (183, 13063), (187, 13108), (188, 13111), (198, 13171), (200, 13189), (206, 13234), (209, 13246), (210, 13249), (226, 13369), (229, 13408), (239, 13468), (248, 13540), (251, 13570), (254, 13594), (257, 13621), (258, 13624), (263, 13651),

Gene: Shivanishola\_20 Start: 14945, Stop: 16852, Start Num: 16

Candidate Starts for Shivanishola\_20:

(Start: 16 @14945 has 98 MA's), (57, 15176), (60, 15194), (82, 15461), (103, 15599), (114, 15668), (123, 15701), (153, 15926), (154, 15932), (159, 15995), (162, 16007), (163, 16010), (165, 16022), (175, 16109), (180, 16163), (187, 16232), (190, 16268), (215, 16412), (222, 16463), (238, 16607), (239, 16610), (240, 16613), (245, 16661), (252, 16718),

Gene: Sillytadpoles\_25 Start: 13490, Stop: 15322, Start Num: 28

Candidate Starts for Sillytadpoles\_25:

(Start: 28 @13490 has 26 MA's), (30, 13499), (49, 13598), (84, 13964), (106, 14132), (110, 14147), (125, 14207), (135, 14255), (136, 14261), (141, 14285), (151, 14402), (152, 14408), (163, 14501), (173, 14582), (184, 14675), (185, 14690), (189, 14738), (194, 14762), (203, 14810), (205, 14834), (214, 14882), (220, 14924), (236, 15059), (237, 15071), (239, 15080), (247, 15140), (255, 15209), (261, 15242),

Gene: Sitar\_22 Start: 16336, Stop: 18231, Start Num: 16

Candidate Starts for Sitar\_22:

(Start: 16 @16336 has 98 MA's), (57, 16567), (60, 16585), (82, 16840), (103, 16978), (114, 17047), (123, 17080), (153, 17305), (154, 17311), (159, 17374), (162, 17386), (163, 17389), (165, 17401), (175, 17488), (187, 17611), (190, 17647), (215, 17791), (222, 17842), (238, 17986), (239, 17989), (240, 17992), (245, 18040), (252, 18097), (267, 18214),

Gene: SmokingBunny\_19 Start: 11842, Stop: 13740, Start Num: 16

Candidate Starts for SmokingBunny\_19:

(Start: 16 @11842 has 98 MA's), (58, 12079), (60, 12091), (63, 12145), (84, 12376), (110, 12538), (116, 12571), (154, 12835), (168, 12964), (171, 12976), (183, 13093), (187, 13138), (188, 13141), (198, 13201), (200, 13219), (204, 13234), (206, 13264), (209, 13276), (210, 13279), (226, 13399), (229, 13438), (239, 13498), (248, 13570), (251, 13600), (254, 13624), (257, 13651), (258, 13654), (263, 13681),

Gene: Squash\_27 Start: 14560, Stop: 16392, Start Num: 28

Candidate Starts for Squash\_27:

(Start: 28 @14560 has 26 MA's), (30, 14569), (49, 14668), (84, 15034), (106, 15202), (110, 15217), (125, 15277), (135, 15325), (136, 15331), (141, 15355), (151, 15472), (152, 15478), (163, 15571), (173, 15652), (184, 15745), (185, 15760), (189, 15808), (194, 15832), (203, 15880), (205, 15904), (214, 15952), (220, 15994), (236, 16129), (237, 16141), (239, 16150), (247, 16210), (255, 16279), (261, 16312),

Gene: StAugustine\_18 Start: 13254, Stop: 15374, Start Num: 33

Candidate Starts for StAugustine\_18:

(33, 13254), (37, 13269), (87, 13719), (95, 13782), (103, 13818), (126, 13920), (148, 14112), (157, 14193), (172, 14307), (181, 14388), (187, 14445), (198, 14508), (201, 14529), (223, 14673), (237, 14787), (242, 14829), (247, 14856), (251, 14898), (258, 14952), (270, 15204),

Gene: Statler\_27 Start: 14472, Stop: 16304, Start Num: 28

Candidate Starts for Statler\_27:

(Start: 28 @14472 has 26 MA's), (30, 14481), (49, 14580), (84, 14946), (106, 15114), (110, 15129), (125, 15189), (135, 15237), (136, 15243), (141, 15267), (151, 15384), (152, 15390), (163, 15483),

(173, 15564), (184, 15657), (185, 15672), (189, 15720), (194, 15744), (203, 15792), (205, 15816), (214, 15864), (220, 15906), (236, 16041), (237, 16053), (239, 16062), (247, 16122), (255, 16191), (261, 16224),

Gene: StorminNorm\_20 Start: 14442, Stop: 16349, Start Num: 16

Candidate Starts for StorminNorm\_20:

(Start: 16 @14442 has 98 MA's), (41, 14577), (57, 14673), (82, 14955), (93, 15024), (99, 15072), (103, 15096), (108, 15132), (114, 15165), (121, 15189), (141, 15282), (153, 15423), (154, 15429), (159, 15492), (162, 15504), (163, 15507), (165, 15519), (175, 15606), (187, 15729), (190, 15765), (206, 15870), (215, 15909), (222, 15960), (237, 16098), (238, 16104), (239, 16107), (245, 16158), (252, 16215), (253, 16227), (255, 16236), (268, 16335),

Gene: StrawberryJamm\_27 Start: 13792, Stop: 15624, Start Num: 28

Candidate Starts for StrawberryJamm\_27:

(Start: 28 @13792 has 26 MA's), (30, 13801), (49, 13900), (78, 14233), (106, 14434), (110, 14449), (125, 14509), (135, 14557), (141, 14587), (151, 14704), (152, 14710), (163, 14803), (173, 14884), (184, 14977), (185, 14992), (189, 15040), (194, 15064), (203, 15112), (205, 15136), (214, 15184), (220, 15226), (236, 15361), (239, 15382), (244, 15427), (247, 15442), (255, 15511), (261, 15544),

Gene: Stultus\_20 Start: 14947, Stop: 16842, Start Num: 16

Candidate Starts for Stultus\_20:

(Start: 16 @14947 has 98 MA's), (57, 15178), (60, 15196), (82, 15451), (103, 15589), (114, 15658), (123, 15691), (153, 15916), (154, 15922), (159, 15985), (162, 15997), (163, 16000), (165, 16012), (175, 16099), (187, 16222), (190, 16258), (215, 16402), (222, 16453), (238, 16597), (239, 16600), (240, 16603), (245, 16651), (252, 16708), (267, 16825),

Gene: Sunfish\_32 Start: 15117, Stop: 16874, Start Num: 28

Candidate Starts for Sunfish\_32:

(Start: 28 @15117 has 26 MA's), (74, 15489), (76, 15534), (96, 15681), (127, 15807), (210, 16431), (212, 16446), (213, 16449), (215, 16455), (247, 16695), (254, 16761), (257, 16788),

Gene: Tangent\_18 Start: 14140, Stop: 16047, Start Num: 16

Candidate Starts for Tangent\_18:

(Start: 16 @14140 has 98 MA's), (57, 14371), (60, 14389), (82, 14656), (103, 14794), (114, 14863), (123, 14896), (153, 15121), (154, 15127), (159, 15190), (162, 15202), (163, 15205), (165, 15217), (175, 15304), (180, 15358), (187, 15427), (190, 15463), (215, 15607), (222, 15658), (238, 15802), (239, 15805), (240, 15808), (245, 15856), (252, 15913),

Gene: Tangerine\_20 Start: 14448, Stop: 16355, Start Num: 16

Candidate Starts for Tangerine\_20:

(Start: 16 @14448 has 98 MA's), (41, 14583), (57, 14679), (82, 14961), (93, 15030), (99, 15078), (103, 15102), (108, 15138), (114, 15171), (121, 15195), (141, 15288), (153, 15429), (154, 15435), (159, 15498), (162, 15510), (163, 15513), (165, 15525), (175, 15612), (187, 15735), (190, 15771), (206, 15876), (215, 15915), (222, 15966), (237, 16104), (238, 16110), (239, 16113), (245, 16164), (252, 16221), (253, 16233), (255, 16242), (268, 16341),

Gene: Taptic\_9 Start: 10537, Stop: 12588, Start Num: 36

Candidate Starts for Taptic\_9:

(Start: 36 @10537 has 7 MA's), (39, 10549), (44, 10576), (51, 10630), (61, 10678), (70, 10783), (75, 10888), (87, 10960), (105, 11095), (112, 11134), (120, 11164), (131, 11209), (135, 11230), (147, 11338), (148, 11356), (155, 11425), (156, 11431), (167, 11524), (185, 11683), (187, 11707), (192, 11737), (198, 11773), (203, 11800), (215, 11875), (220, 11914), (227, 11980), (238, 12055), (246, 12115), (258, 12214), (260, 12220), (267, 12283), (269, 12439), (271, 12490), (272, 12496), (273,

12580),

Gene: Tardus\_22 Start: 14807, Stop: 16726, Start Num: 16

Candidate Starts for Tardus\_22:

(Start: 16 @14807 has 98 MA's), (53, 15023), (56, 15035), (57, 15038), (71, 15212), (85, 15326), (88, 15350), (90, 15359), (98, 15425), (100, 15431), (108, 15485), (113, 15509), (150, 15761), (153, 15779), (154, 15785), (159, 15848), (162, 15860), (163, 15863), (165, 15875), (175, 15965), (177, 15992), (197, 16151), (208, 16229), (223, 16325), (241, 16514), (252, 16598), (254, 16616), (258, 16646),

Gene: Teehee\_26 Start: 14727, Stop: 16559, Start Num: 28

Candidate Starts for Teehee\_26:

(Start: 28 @14727 has 26 MA's), (30, 14736), (49, 14835), (84, 15201), (106, 15369), (110, 15384), (125, 15444), (135, 15492), (136, 15498), (141, 15522), (151, 15639), (152, 15645), (163, 15738), (173, 15819), (184, 15912), (185, 15927), (189, 15975), (194, 15999), (203, 16047), (205, 16071), (214, 16119), (220, 16161), (236, 16296), (237, 16308), (239, 16317), (247, 16377), (255, 16446), (261, 16479),

Gene: Tempo\_24 Start: 13050, Stop: 14828, Start Num: 27

Candidate Starts for Tempo\_24:

(Start: 27 @13050 has 12 MA's), (30, 13062), (73, 13404), (89, 13521), (109, 13647), (135, 13761), (141, 13791), (163, 14004), (173, 14085), (175, 14094), (183, 14172), (184, 14178), (185, 14193), (205, 14337), (212, 14379), (220, 14430), (237, 14577), (239, 14586), (256, 14736), (261, 14748),

Gene: Thing3\_21 Start: 15684, Stop: 17591, Start Num: 16

Candidate Starts for Thing3\_21:

(Start: 16 @15684 has 98 MA's), (57, 15915), (60, 15933), (82, 16200), (103, 16338), (114, 16407), (123, 16440), (153, 16665), (154, 16671), (159, 16734), (162, 16746), (163, 16749), (165, 16761), (175, 16848), (180, 16902), (187, 16971), (190, 17007), (215, 17151), (222, 17202), (238, 17346), (239, 17349), (240, 17352), (245, 17400), (252, 17457),

Gene: Tiamoceli\_21 Start: 14601, Stop: 16490, Start Num: 16

Candidate Starts for Tiamoceli\_21:

(15, 14592), (Start: 16 @14601 has 98 MA's), (26, 14667), (57, 14835), (60, 14853), (84, 15126), (99, 15222), (137, 15414), (140, 15429), (146, 15507), (154, 15576), (159, 15639), (162, 15651), (163, 15654), (172, 15738), (175, 15753), (185, 15852), (190, 15906), (206, 16011), (222, 16101), (228, 16182), (237, 16239), (248, 16320), (252, 16356), (262, 16422),

Gene: TillyBobJoe\_19 Start: 11638, Stop: 13524, Start Num: 16

Candidate Starts for TillyBobJoe\_19:

(Start: 16 @11638 has 98 MA's), (58, 11875), (60, 11887), (63, 11941), (110, 12322), (116, 12355), (124, 12382), (168, 12748), (171, 12760), (183, 12877), (187, 12922), (188, 12925), (198, 12985), (200, 13003), (206, 13048), (209, 13060), (210, 13063), (226, 13183), (229, 13222), (239, 13282), (248, 13354), (251, 13384), (254, 13408), (257, 13435), (258, 13438), (263, 13465),

Gene: Tissue\_25 Start: 14292, Stop: 16115, Start Num: 28

Candidate Starts for Tissue\_25:

(Start: 28 @14292 has 26 MA's), (30, 14301), (49, 14400), (78, 14724), (106, 14925), (110, 14940), (125, 15000), (135, 15048), (141, 15078), (151, 15195), (152, 15201), (163, 15294), (173, 15375), (184, 15468), (185, 15483), (189, 15531), (194, 15555), (203, 15603), (205, 15627), (214, 15675), (220, 15717), (236, 15852), (239, 15873), (247, 15933), (255, 16002), (261, 16035),

Gene: Togo\_19 Start: 11842, Stop: 13740, Start Num: 16



Candidate Starts for Togo\_19:

(Start: 16 @11842 has 98 MA's), (58, 12079), (60, 12091), (63, 12145), (84, 12376), (110, 12538), (116, 12571), (154, 12835), (168, 12964), (171, 12976), (183, 13093), (187, 13138), (188, 13141), (198, 13201), (200, 13219), (204, 13234), (206, 13264), (209, 13276), (210, 13279), (226, 13399), (229, 13438), (239, 13498), (248, 13570), (251, 13600), (254, 13624), (257, 13651), (258, 13654), (263, 13681),

Gene: Twister6\_21 Start: 12280, Stop: 14166, Start Num: 16

Candidate Starts for Twister6\_21:

(Start: 16 @12280 has 98 MA's), (58, 12517), (60, 12529), (63, 12583), (84, 12805), (110, 12967), (116, 13000), (154, 13252), (161, 13324), (168, 13381), (171, 13393), (183, 13510), (187, 13555), (188, 13558), (206, 13681), (209, 13693), (218, 13753), (237, 13906), (239, 13915), (248, 13987), (251, 14017), (262, 14089), (264, 14113),

Gene: Twonlo\_18 Start: 13218, Stop: 15107, Start Num: 16

Candidate Starts for Twonlo\_18:

(15, 13209), (Start: 16 @13218 has 98 MA's), (26, 13284), (57, 13452), (60, 13470), (84, 13743), (99, 13839), (137, 14031), (140, 14046), (146, 14124), (154, 14193), (159, 14256), (162, 14268), (163, 14271), (172, 14355), (175, 14370), (185, 14469), (190, 14523), (206, 14628), (222, 14718), (228, 14799), (237, 14856), (247, 14925), (248, 14937), (252, 14973), (262, 15039),

Gene: Tycho\_20 Start: 14565, Stop: 16484, Start Num: 16

Candidate Starts for Tycho\_20:

(Start: 16 @14565 has 98 MA's), (41, 14700), (57, 14796), (82, 15090), (93, 15159), (99, 15207), (103, 15231), (108, 15267), (114, 15300), (121, 15324), (141, 15417), (153, 15558), (154, 15564), (159, 15627), (162, 15639), (163, 15642), (165, 15654), (175, 15741), (187, 15864), (190, 15900), (197, 15933), (206, 16005), (215, 16044), (222, 16095), (237, 16233), (238, 16239), (239, 16242), (245, 16293), (252, 16350), (253, 16362), (255, 16371),

Gene: Valary\_22 Start: 12733, Stop: 14619, Start Num: 16

Candidate Starts for Valary\_22:

(Start: 16 @12733 has 98 MA's), (58, 12970), (60, 12982), (63, 13036), (84, 13258), (110, 13420), (116, 13453), (154, 13705), (161, 13777), (168, 13834), (171, 13846), (183, 13963), (187, 14008), (188, 14011), (206, 14134), (209, 14146), (218, 14206), (237, 14359), (239, 14368), (248, 14440), (251, 14470), (262, 14542), (264, 14566),

Gene: VanDeWege\_22 Start: 12661, Stop: 14547, Start Num: 16

Candidate Starts for VanDeWege\_22:

(Start: 16 @12661 has 98 MA's), (58, 12898), (60, 12910), (63, 12964), (84, 13186), (110, 13348), (116, 13381), (154, 13633), (161, 13705), (168, 13762), (171, 13774), (183, 13891), (187, 13936), (188, 13939), (206, 14062), (209, 14074), (218, 14134), (237, 14287), (239, 14296), (248, 14368), (251, 14398), (262, 14470), (264, 14494),

Gene: Verity\_21 Start: 14990, Stop: 16909, Start Num: 16

Candidate Starts for Verity\_21:

(Start: 16 @14990 has 98 MA's), (34, 15089), (53, 15206), (56, 15218), (57, 15221), (71, 15395), (85, 15509), (90, 15542), (98, 15608), (100, 15614), (108, 15668), (113, 15692), (122, 15728), (150, 15944), (153, 15962), (154, 15968), (159, 16031), (162, 16043), (163, 16046), (165, 16058), (175, 16148), (177, 16175), (197, 16334), (208, 16412), (216, 16448), (223, 16508), (227, 16553), (237, 16664), (241, 16697), (252, 16781), (254, 16799), (258, 16829),

Gene: ViaConlectus\_22 Start: 15542, Stop: 17461, Start Num: 16

Candidate Starts for ViaConlectus\_22:

(Start: 16 @15542 has 98 MA's), (53, 15758), (57, 15773), (71, 15947), (90, 16094), (98, 16160), (100, 16166), (108, 16220), (113, 16244), (118, 16268), (150, 16496), (153, 16514), (154, 16520), (159, 16583), (162, 16595), (163, 16598), (165, 16610), (175, 16700), (177, 16727), (197, 16886), (208, 16964), (223, 17060), (226, 17096), (230, 17159), (234, 17189), (237, 17216), (241, 17249), (252, 17333), (257, 17378),

Gene: Viceroy\_24 Start: 13492, Stop: 15324, Start Num: 28

Candidate Starts for Viceroy\_24:

(Start: 28 @13492 has 26 MA's), (30, 13501), (49, 13600), (84, 13966), (106, 14134), (110, 14149), (125, 14209), (135, 14257), (136, 14263), (141, 14287), (151, 14404), (152, 14410), (163, 14503), (173, 14584), (184, 14677), (185, 14692), (189, 14740), (194, 14764), (203, 14812), (205, 14836), (214, 14884), (220, 14926), (236, 15061), (237, 15073), (239, 15082), (247, 15142), (255, 15211), (261, 15244),

Gene: Vivi2\_20 Start: 15311, Stop: 17209, Start Num: 16

Candidate Starts for Vivi2\_20:

(Start: 16 @15311 has 98 MA's), (57, 15542), (60, 15560), (82, 15818), (103, 15956), (114, 16025), (123, 16058), (153, 16283), (154, 16289), (159, 16352), (162, 16364), (163, 16367), (165, 16379), (175, 16466), (187, 16589), (190, 16625), (215, 16769), (222, 16820), (238, 16964), (239, 16967), (240, 16970), (245, 17018), (252, 17075),

Gene: Wayne3\_26 Start: 14457, Stop: 16289, Start Num: 28

Candidate Starts for Wayne3\_26:

(Start: 28 @14457 has 26 MA's), (30, 14466), (49, 14565), (84, 14931), (106, 15099), (110, 15114), (125, 15174), (135, 15222), (136, 15228), (141, 15252), (151, 15369), (152, 15375), (163, 15468), (173, 15549), (184, 15642), (185, 15657), (189, 15705), (194, 15729), (203, 15777), (205, 15801), (214, 15849), (220, 15891), (236, 16026), (237, 16038), (239, 16047), (247, 16107), (255, 16176), (261, 16209),

Gene: Wheelie\_24 Start: 13808, Stop: 15640, Start Num: 28

Candidate Starts for Wheelie\_24:

(Start: 28 @13808 has 26 MA's), (30, 13817), (49, 13916), (84, 14282), (106, 14450), (110, 14465), (125, 14525), (135, 14573), (136, 14579), (141, 14603), (151, 14720), (152, 14726), (163, 14819), (173, 14900), (184, 14993), (185, 15008), (189, 15056), (194, 15080), (203, 15128), (205, 15152), (214, 15200), (220, 15242), (236, 15377), (237, 15389), (239, 15398), (247, 15458), (255, 15527), (261, 15560),

Gene: Wilca\_24 Start: 12993, Stop: 14771, Start Num: 27

Candidate Starts for Wilca\_24:

(Start: 27 @12993 has 12 MA's), (30, 13005), (73, 13350), (89, 13464), (109, 13590), (125, 13656), (135, 13704), (141, 13734), (163, 13947), (173, 14028), (175, 14037), (183, 14115), (184, 14121), (185, 14136), (205, 14280), (212, 14322), (220, 14373), (237, 14520), (239, 14529), (256, 14679), (261, 14691), (266, 14751),

Gene: Wizard\_19 Start: 11982, Stop: 13874, Start Num: 16

Candidate Starts for Wizard\_19:

(Start: 16 @11982 has 98 MA's), (58, 12219), (60, 12231), (63, 12285), (84, 12510), (110, 12672), (116, 12705), (124, 12732), (168, 13098), (171, 13110), (183, 13227), (187, 13272), (188, 13275), (198, 13335), (200, 13353), (206, 13398), (209, 13410), (210, 13413), (226, 13533), (229, 13572), (239, 13632), (248, 13704), (251, 13734), (254, 13758), (257, 13785), (258, 13788), (263, 13815),

Gene: YorkOnyx\_21 Start: 14834, Stop: 16753, Start Num: 16

Candidate Starts for YorkOnyx\_21:

(Start: 16 @14834 has 98 MA's), (41, 14969), (57, 15065), (82, 15359), (93, 15428), (99, 15476), (103, 15500), (108, 15536), (114, 15569), (121, 15593), (141, 15686), (153, 15827), (154, 15833), (159, 15896), (162, 15908), (163, 15911), (165, 15923), (168, 15959), (172, 15995), (175, 16010), (180, 16064), (187, 16133), (190, 16169), (197, 16202), (206, 16274), (215, 16313), (222, 16364), (237, 16502), (238, 16508), (239, 16511), (245, 16562), (252, 16619), (253, 16631), (255, 16640),

Gene: YungMoney\_21 Start: 13292, Stop: 15184, Start Num: 16

Candidate Starts for YungMoney\_21:

(Start: 16 @13292 has 98 MA's), (58, 13529), (60, 13541), (63, 13595), (110, 13982), (116, 14015), (123, 14039), (154, 14279), (168, 14408), (171, 14420), (174, 14456), (183, 14537), (187, 14582), (188, 14585), (198, 14645), (206, 14708), (209, 14720), (239, 14942), (248, 15014), (251, 15044), (254, 15068), (257, 15095), (258, 15098),

Gene: Zagie\_25 Start: 13996, Stop: 15828, Start Num: 28

Candidate Starts for Zagie\_25:

(Start: 28 @13996 has 26 MA's), (30, 14005), (49, 14104), (84, 14470), (106, 14638), (110, 14653), (125, 14713), (135, 14761), (136, 14767), (141, 14791), (151, 14908), (152, 14914), (163, 15007), (173, 15088), (184, 15181), (185, 15196), (189, 15244), (194, 15268), (203, 15316), (205, 15340), (214, 15388), (220, 15430), (236, 15565), (237, 15577), (239, 15586), (247, 15646), (255, 15715), (261, 15748),

Gene: Zenteno07\_17 Start: 10822, Stop: 12648, Start Num: 24

Candidate Starts for Zenteno07\_17:

(20, 10798), (Start: 24 @10822 has 3 MA's), (31, 10852), (40, 10894), (51, 10966), (87, 11314), (91, 11344), (93, 11359), (101, 11419), (118, 11515), (126, 11542), (148, 11722), (171, 11905), (175, 11947), (181, 12013), (187, 12070), (188, 12073), (201, 12157), (217, 12259), (219, 12274), (220, 12280), (233, 12400), (237, 12415), (242, 12457), (247, 12484), (250, 12508), (251, 12526), (257, 12577), (258, 12580), (262, 12598),

Gene: Zhafia\_28 Start: 14319, Stop: 16151, Start Num: 28

Candidate Starts for Zhafia\_28:

(Start: 28 @14319 has 26 MA's), (30, 14328), (49, 14427), (84, 14793), (106, 14961), (110, 14976), (125, 15036), (135, 15084), (136, 15090), (141, 15114), (151, 15231), (152, 15237), (163, 15330), (173, 15411), (184, 15504), (185, 15519), (189, 15567), (194, 15591), (203, 15639), (205, 15663), (214, 15711), (220, 15753), (236, 15888), (237, 15900), (239, 15909), (247, 15969), (255, 16038), (261, 16071),

Gene: Zipp\_21 Start: 15639, Stop: 17558, Start Num: 16

Candidate Starts for Zipp\_21:

(Start: 16 @15639 has 98 MA's), (34, 15738), (53, 15855), (56, 15867), (57, 15870), (71, 16044), (85, 16158), (90, 16191), (98, 16257), (100, 16263), (108, 16317), (113, 16341), (122, 16377), (150, 16593), (153, 16611), (154, 16617), (159, 16680), (162, 16692), (163, 16695), (165, 16707), (175, 16797), (177, 16824), (197, 16983), (208, 17061), (216, 17097), (223, 17157), (227, 17202), (237, 17313), (241, 17346), (252, 17430), (254, 17448), (258, 17478),

Gene: Zitch\_23 Start: 14769, Stop: 16688, Start Num: 16

Candidate Starts for Zitch\_23:

(Start: 16 @14769 has 98 MA's), (53, 14988), (56, 15000), (57, 15003), (63, 15075), (71, 15177), (90, 15324), (98, 15390), (100, 15396), (108, 15450), (113, 15474), (118, 15498), (150, 15726), (153, 15744), (154, 15750), (159, 15813), (162, 15825), (163, 15828), (165, 15840), (175, 15930), (177, 15957), (197, 16116), (208, 16194), (223, 16290), (252, 16560), (254, 16578), (258, 16608),