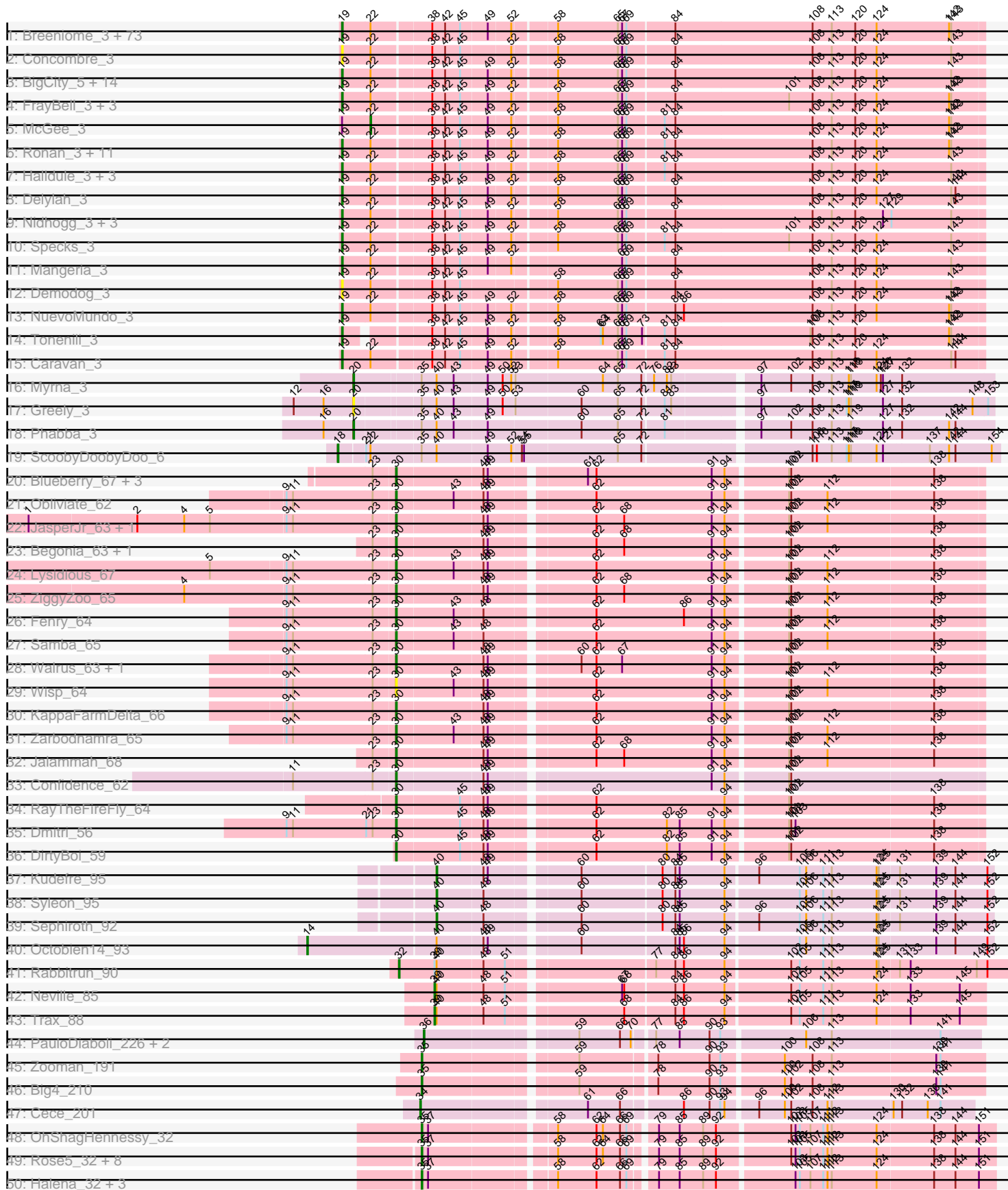
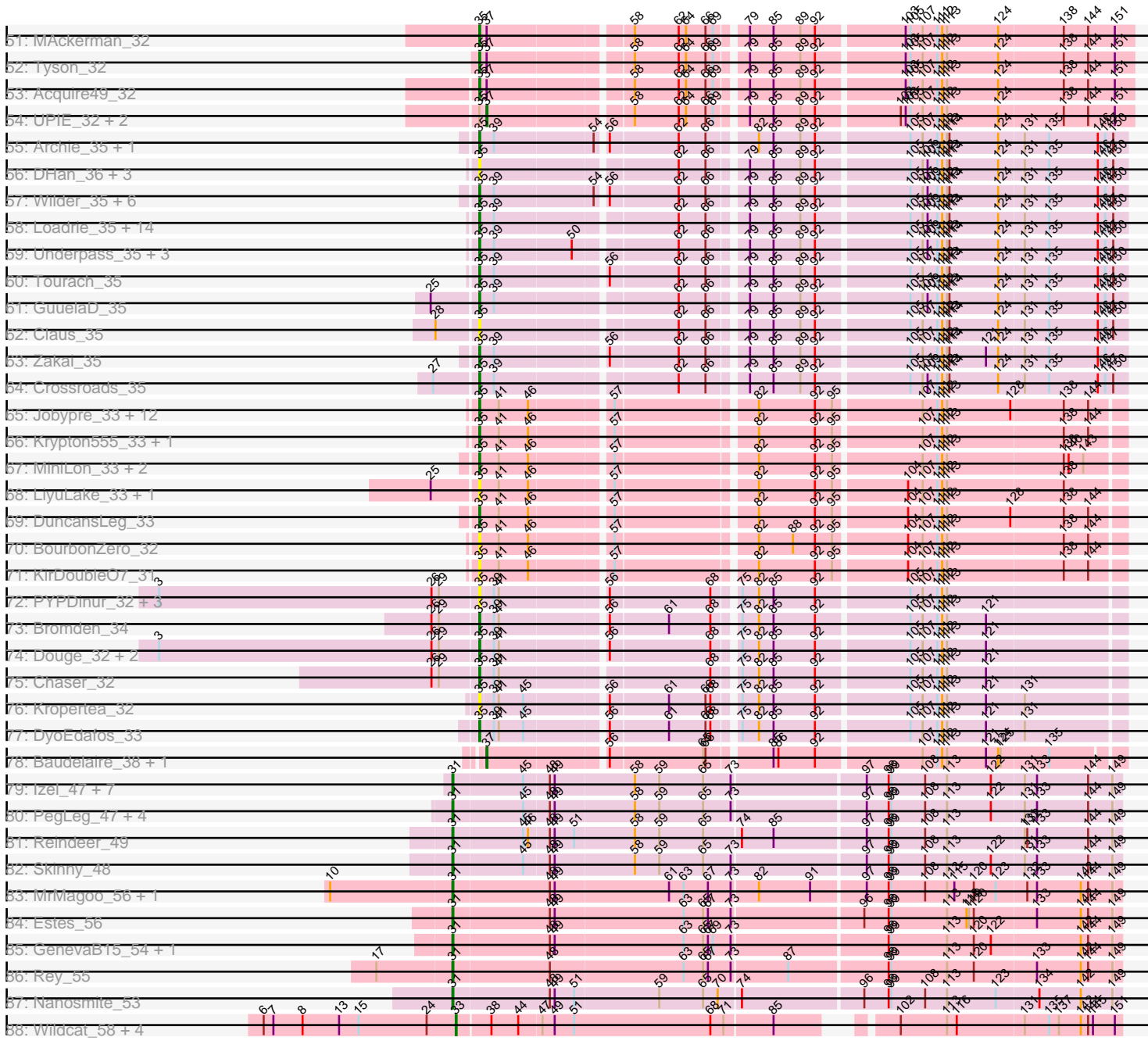


Pham 199922



Pham 199922



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 199922 Report

This analysis was run 01/18/25 on database version 583.

Pham number 199922 has 282 members, 49 are drafts.

Phages represented in each track:

- Track 1 : Breeniome\_3, GlutenPhree\_3, StubbySaigey\_3, Chomp\_3, ErnieJ\_3, Kboogie\_3, Jezreel\_3, Audrick\_3, Jedediah\_3, Matsumoto\_3, Spud\_3, Kamryn\_3, Babyland\_3, Cactojaque\_2, Ading\_3, Drazdys\_3, Ablatia\_3, Patter\_3, Adlitam\_3, Tainan\_3, Morizzled23\_3, Bangla1971\_3, Derek\_3, Janiyra\_3, Naija\_3, CindyLou\_3, Gabriel\_3, Basquiat\_3, Rahel\_3, ValleyTerrace\_3, Guwapp\_3, Phlegm\_3, Turret\_3, InigoMontoya\_3, ChickenPhender\_3, Phusco\_3, Wally\_3, ArcherS7\_3, Jaygup\_3, Pio\_3, Ngannou\_3, YoungMoneyMata\_3, Tortoise16\_2, Chargie21\_3, Gamgam\_3, DTDevon\_3, Belieber\_3, Amataga\_3, Napoleon13\_3, Momo\_3, Jemmno\_3, JPickles\_3, ChaylaJr\_3, Trinitium\_3, Dietrick\_3, Teardrop\_3, ShiaLabeouf\_3, EmmaElysia\_3, BackyardAgain\_3, Rizal\_3, Pier\_3, Atlantean\_3, Latch\_3, LifeSavor\_3, Ghost\_3, Spec\_3, Fludd\_3, Tyke\_3, Flabslab\_3, Pivoine\_3, SmallFry\_3, SilverDipper\_3, Essence\_3, Shnickers\_3
- Track 2 : Concombre\_3
- Track 3 : BigCity\_5, CharlieB\_3, EggyFarm\_5, Grasshills\_5, JayJay\_3, Lethe\_3, Bigswole\_3, Grungle\_3, StephanieG\_3, Dandelion\_2, JulietS\_3, I3\_3, Nappy\_3, NoodleTree\_3, Astraea\_3
- Track 4 : FrayBell\_3, InterFolia\_3, LordLeafolot\_3, LolaVinca\_3
- Track 5 : McGee\_3
- Track 6 : Ronan\_3, Koguma\_3, Littleton\_3, ScottMcG\_3, BadAgartude\_3, Blackbrain\_3, EasyJones\_3, Sauce\_3, Catera\_3, Sprinklers\_3, Melpomini\_3, Shaqnato\_3
- Track 7 : Halldule\_3, Yassified\_3, Blackdragon\_3, Bxz1\_3
- Track 8 : Delylah\_3
- Track 9 : Nidhogg\_3, MoMoMixon\_3, Naval22\_3, JigglyPuff\_3
- Track 10 : Specks\_3
- Track 11 : Mangeria\_3
- Track 12 : Demodog\_3
- Track 13 : NuevoMundo\_3
- Track 14 : Tonenili\_3
- Track 15 : Caravan\_3
- Track 16 : Myrna\_3
- Track 17 : Greely\_3
- Track 18 : Phabba\_3
- Track 19 : ScoobyDoobyDoo\_6
- Track 20 : Blueberry\_67, Gambino\_70, MissRona\_68, Azula\_68
- Track 21 : Obliviate\_62
- Track 22 : JasperJr\_63, Guacamole\_63

- Track 23 : Begonia\_63, Malachai\_63
- Track 24 : Lysidious\_67
- Track 25 : ZiggyZoo\_65
- Track 26 : Fenry\_64
- Track 27 : Samba\_65
- Track 28 : Walrus\_63, Pipp\_67
- Track 29 : Wisp\_64
- Track 30 : KappaFarmDelta\_66
- Track 31 : Zarbodnamra\_65
- Track 32 : Jalammah\_68
- Track 33 : Confidence\_62
- Track 34 : RayTheFireFly\_64
- Track 35 : Dmitri\_56
- Track 36 : DirtyBoi\_59
- Track 37 : Kudrefre\_95
- Track 38 : Syleon\_95
- Track 39 : Sephiroth\_92
- Track 40 : Octobien14\_93
- Track 41 : Rabbitrun\_90
- Track 42 : Neville\_85
- Track 43 : Trax\_88
- Track 44 : PauloDiaboli\_226, A3Wally\_226, Dodo\_225
- Track 45 : Zooman\_191
- Track 46 : Big4\_210
- Track 47 : Cece\_201
- Track 48 : OhShagHennessy\_32
- Track 49 : Rose5\_32, Calm\_32, CicholasNage\_32, Wyatt2\_32, Zaria\_32, Wamburgxpress\_32, DirkDirk\_32, Enceladus\_32, Appletree2\_32
- Track 50 : Halena\_32, Poochiewood\_32, Silverleaf\_32, AvadaKedavra\_32
- Track 51 : MAckerman\_32
- Track 52 : Tyson\_32
- Track 53 : Acquire49\_32
- Track 54 : UPIE\_32, JoeDirt\_32, LeBron\_32
- Track 55 : Archie\_35, Bazzle\_35
- Track 56 : DHan\_36, ZhongYanYuan\_34, Baoshan\_34, DanBing\_35
- Track 57 : Wilder\_35, Hafay\_35, Soap141\_35, Sarshaun\_35, Wigglewiggles\_35, Kahlid\_35, MkaliMitinis3\_35
- Track 58 : Loadrie\_35, Rumpelstiltskin\_35, Breezona\_35, Winky\_35, Vetrix\_35, Gabriela\_35, Itos\_35, BigCheese\_35, DrSeegs\_35, Netyap\_35, BobsGarage\_35, Miley16\_35, Lewan\_35, Finemlucis\_35, Faith1\_35
- Track 59 : Underpass\_35, Gardann\_35, LilDestine\_35, Nicholasp3\_35
- Track 60 : Tourach\_35
- Track 61 : GuuelaD\_35
- Track 62 : Claus\_35
- Track 63 : Zakai\_35
- Track 64 : Crossroads\_35
- Track 65 : Jobypre\_33, Nicholas\_33, Samty\_33, Lumos\_33, Jubie\_33, Finny\_33, Snenia\_33, Bellis\_33, Moostard\_33, Clautastrophe\_33, MsGreen\_33, Kingsolomon\_33, TriFive\_33
- Track 66 : Krypton555\_33, Whirlwind\_34
- Track 67 : MiniLon\_33, MiniMac\_33, Lolly9\_33
- Track 68 : LiyuLake\_33, Ellson\_33
- Track 69 : DuncansLeg\_33

- Track 70 : BourbonZero\_32
- Track 71 : KirDoubleO7\_31
- Track 72 : PYPDinur\_32, Douzhi\_32, BrainDrainer\_33, Sheng711\_32
- Track 73 : Bromden\_34
- Track 74 : Douge\_32, FarmResident\_32, Quby\_32
- Track 75 : Chaser\_32
- Track 76 : Kropertea\_32
- Track 77 : DyoEdafos\_33
- Track 78 : Baudelaire\_38, Aegeus\_38
- Track 79 : Izel\_47, Diminimus\_48, Auspice\_47, SlimJimmy\_46, Dulcita\_48, FreakyGoo\_48, Bricole\_47, Glaske16\_48
- Track 80 : PegLeg\_47, LilhomieP\_46, Bongo\_47, IPhane7\_47, TyDawg\_47
- Track 81 : Reindeer\_49
- Track 82 : Skinny\_48
- Track 83 : MrMagoo\_56, GardenSalsa\_56
- Track 84 : Estes\_56
- Track 85 : GenevaB15\_54, Aziz\_54
- Track 86 : Rey\_55
- Track 87 : Nanosmite\_53
- Track 88 : Wildcat\_58, MaryV\_58, Cosmo\_58, Azrael100\_57, EniyanLRS\_55

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

The start number called the most often in the published annotations is 19, it was called in 101 of the 233 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ablatia\_3, Ading\_3, Adlitam\_3, Amataga\_3, ArcherS7\_3, Astraea\_3, Atlantean\_3, Audrick\_3, Babyland\_3, BackyardAgain\_3, BadAgartude\_3, Bangla1971\_3, Basquiat\_3, Belieber\_3, BigCity\_5, Bigswole\_3, Blackbrain\_3, Blackdragon\_3, Breeniome\_3, Bxz1\_3, Cactojaque\_2, Caravan\_3, Catera\_3, Chargie21\_3, CharlieB\_3, ChaylaJr\_3, ChickenPhender\_3, Chomp\_3, CindyLou\_3, Concombre\_3, DTDevon\_3, Dandelion\_2, Delylah\_3, Demodog\_3, Derek\_3, Dietrick\_3, Drazdys\_3, EasyJones\_3, EggyFarm\_5, EmmaElysia\_3, ErnieJ\_3, Essence\_3, Flabslab\_3, Fludd\_3, FrayBell\_3, Gabriel\_3, Gamgam\_3, Ghost\_3, GlutenPhree\_3, Grasshills\_5, Grungle\_3, Guwapp\_3, Halldule\_3, I3\_3, InigoMontoya\_3, InterFolia\_3, JPickles\_3, Janiyra\_3, JayJay\_3, Jaygup\_3, Jedediah\_3, Jemmno\_3, Jezreel\_3, JigglyPuff\_3, JulietS\_3, Kamryn\_3, Kboogie\_3, Koguma\_3, Latch\_3, Lethe\_3, LifeSavor\_3, Littleton\_3, LolaVinca\_3, LordLeafolot\_3, Mangeria\_3, Matsumoto\_3, Melpomini\_3, MoMoMixon\_3, Momo\_3, Morizzled23\_3, Naija\_3, Napoleon13\_3, Nappy\_3, Naval22\_3, Ngannou\_3, Nidhogg\_3, NoodleTree\_3, NuevoMundo\_3, Patter\_3, Phlegm\_3, Phusco\_3, Pier\_3, Pio\_3, Pivoine\_3, Rahel\_3, Rizal\_3, Ronan\_3, Sauce\_3, ScottMcG\_3, Shaqnato\_3, ShiaLabeouf\_3, Shnickers\_3, SilverDipper\_3, SmallFry\_3, Spec\_3, Specks\_3, Sprinklers\_3, Spud\_3, StephanieG\_3, StubbySaigey\_3, Tainan\_3, Teardrop\_3, Tonenili\_3, Tortoise16\_2, Trinitium\_3, Turret\_3, Tyke\_3, ValleyTerrace\_3, Wally\_3, Yassified\_3, YoungMoneyMata\_3,

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

- McGee\_3,

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

- A3Wally\_226, Acquire49\_32, Aegeus\_38, Appletree2\_32, Archie\_35, Auspice\_47, AvadaKedavra\_32, Aziz\_54, Azrael100\_57, Azula\_68, Baoshan\_34, Baudelaire\_38, Bazzle\_35, Begonia\_63, Bellis\_33, Big4\_210, BigCheese\_35, Blueberry\_67, BobsGarage\_35, Bongo\_47, BourbonZero\_32, BrainDrainer\_33, Breezona\_35, Bricole\_47, Bromden\_34, Calm\_32, Cece\_201, Chaser\_32, CicholasNage\_32, Claus\_35, Clautastrophe\_33, Confidence\_62, Cosmo\_58, Crossroads\_35, DHan\_36, DanBing\_35, Diminimus\_48, DirkDirk\_32, DirtyBoi\_59, Dmitri\_56, Dodo\_225, Douge\_32, Douzhi\_32, DrSeegs\_35, Dulcita\_48, DuncansLeg\_33, DyoEdafos\_33, Ellson\_33, Enceladus\_32, EniyanLRS\_55, Estes\_56, Faith1\_35, FarmResident\_32, Ferry\_64, Finemlucis\_35, Finnry\_33, FreakyGoo\_48, Gabriela\_35, Gambino\_70, Gardann\_35, GardenSalsa\_56, GenevaB15\_54, Glaske16\_48, Greely\_3, Guacamole\_63, GuuelaD\_35, Hafay\_35, Halena\_32, IPhane7\_47, Itos\_35, Izel\_47, Jalammah\_68, JasperJr\_63, Jobypre\_33, JoeDirt\_32, Jubie\_33, Kahlid\_35, KappaFarmDelta\_66, Kingsolomon\_33, KirDoubleO7\_31, Kropertea\_32, Krypton555\_33, Kudrefre\_95, LeBron\_32, Lewan\_35, LilDestine\_35, LilhomieP\_46, LiyuLake\_33, Loadrie\_35, Lolly9\_33, Lumos\_33, Lysidious\_67, MAckerman\_32, Malachai\_63, MaryV\_58, Miley16\_35, MiniLon\_33, MiniMac\_33, MissRona\_68, MkaliMitinis3\_35, Moostard\_33, MrMagoo\_56, MsGreen\_33, Myrna\_3, Nanosmite\_53, Netyap\_35, Neville\_85, Nicholas\_33, Nicholasp3\_35, Obliviate\_62, Octobien14\_93, OhShagHennessy\_32, PYPDinur\_32, PauloDiaboli\_226, PegLeg\_47, Phabba\_3, Pipp\_67, Poochiewood\_32, Quby\_32, Rabbitrun\_90, RayTheFireFly\_64, Reindeer\_49, Rey\_55, Rose5\_32, Rumpelstiltskin\_35, Samba\_65, Samty\_33, Sarshaun\_35, ScoobyDoobyDoo\_6, Sephiroth\_92, Sheng711\_32, Silverleaf\_32, Skinny\_48, SlimJimmy\_46, Snenia\_33, Soap141\_35, Syleon\_95, Tourach\_35, Trax\_88, TriFive\_33, TyDawg\_47, Tyson\_32, UPIE\_32, Underpass\_35, Vetrix\_35, Walrus\_63, Wamburggrxpress\_32, Whirlwind\_34, Wigglewiggles\_35, Wildcat\_58, Wilder\_35, Winky\_35, Wisp\_64, Wyatt2\_32, Zakai\_35, Zarbodnamra\_65, Zaria\_32, ZhongYanYuan\_34, ZiggyZoo\_65, Zooman\_191,

### Summary by start number:

Start 14:

- Found in 1 of 282 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 233
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Octobien14\_93 (DU1),

Start 18:

- Found in 1 of 282 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 233
- Called 100.0% of time when present
- Phage (with cluster) where this start called: ScoobyDoobyDoo\_6 (C2),

Start 19:

- Found in 122 of 282 ( 43.3% ) of genes in pham
- Manual Annotations of this start: 101 of 233
- Called 99.2% of time when present
- Phage (with cluster) where this start called: Ablatia\_3 (C1), Ading\_3 (C1), Adlitam\_3 (C1), Amataga\_3 (C1), ArcherS7\_3 (C1), Astraea\_3 (C1), Atlantean\_3 (C1), Audrick\_3 (C1), Babyland\_3 (C1), BackyardAgain\_3 (C1), BadAgartude\_3 (C1), Bangla1971\_3 (C1), Basquiat\_3 (C1), Belieber\_3 (C1), BigCity\_5 (C1), Bigswole\_3 (C1), Blackbrain\_3 (C1), Blackdragon\_3 (C1), Breeniome\_3 (C1), Bxz1\_3 (C1),

Cactojaque\_2 (C1), Caravan\_3 (C1), Catera\_3 (C1), Chargie21\_3 (C1), CharlieB\_3 (C1), ChaylaJr\_3 (C1), ChickenPhender\_3 (C1), Chomp\_3 (C1), CindyLou\_3 (C1), Concombre\_3 (C1), DTDevon\_3 (C1), Dandelion\_2 (C1), Delylah\_3 (C1), Demodog\_3 (C1), Derek\_3 (C1), Dietrick\_3 (C1), Drazdys\_3 (C1), EasyJones\_3 (C1), EggyFarm\_5 (C1), EmmaElysia\_3 (C1), ErnieJ\_3 (C1), Essence\_3 (C1), Flabslab\_3 (C1), Fludd\_3 (C1), FrayBell\_3 (C1), Gabriel\_3 (C1), Gamgam\_3 (C1), Ghost\_3 (C1), GlutenPhree\_3 (C1), Grasshills\_5 (C1), Grungle\_3 (C1), Guwapp\_3 (C1), Halldule\_3 (C1), I3\_3 (C1), InigoMontoya\_3 (C1), InterFolia\_3 (C1), JPickles\_3 (C1), Janiyra\_3 (C1), JayJay\_3 (C1), Jaygup\_3 (C1), Jedediah\_3 (C1), Jemmno\_3 (C1), Jezreel\_3 (C1), JigglyPuff\_3 (C1), JulietS\_3 (C1), Kamryn\_3 (C1), Kboogie\_3 (C1), Koguma\_3 (C1), Latch\_3 (C1), Lethe\_3 (C1), LifeSavor\_3 (C1), Littleton\_3 (C1), LolaVinca\_3 (C1), LordLeafolot\_3 (C1), Mangeria\_3 (C1), Matsumoto\_3 (C1), Melpomini\_3 (C1), MoMoMixon\_3 (C1), Momo\_3 (C1), Morizzled23\_3 (C1), Naija\_3 (C1), Napoleon13\_3 (C1), Nappy\_3 (C1), Naval22\_3 (C1), Ngannou\_3 (C1), Nidhogg\_3 (C1), NoodleTree\_3 (C1), NuevoMundo\_3 (C1), Patter\_3 (C1), Phlegm\_3 (C1), Phusco\_3 (C1), Pier\_3 (C1), Pio\_3 (C1), Pivoine\_3 (C1), Rahel\_3 (C1), Rizal\_3 (C1), Ronan\_3 (C1), Sauce\_3 (C1), ScottMcG\_3 (C1), Shaqnato\_3 (C1), ShiaLabeouf\_3 (C1), Shnickers\_3 (C1), SilverDipper\_3 (C1), SmallFry\_3 (C1), Spec\_3 (C1), Specks\_3 (C1), Sprinklers\_3 (C1), Spud\_3 (C1), StephanieG\_3 (C1), StubbySaigey\_3 (C1), Tainan\_3 (C1), Teardrop\_3 (C1), Tonenili\_3 (C1), Tortoise16\_2 (C1), Trinitium\_3 (C1), Turret\_3 (C1), Tyke\_3 (C1), ValleyTerrace\_3 (C1), Wally\_3 (C1), Yassified\_3 (C1), YoungMoneyMata\_3 (C1),

#### Start 20:

- Found in 3 of 282 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 233
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Greely\_3 (C2), Myrna\_3 (C2), Phabba\_3 (C2),

#### Start 22:

- Found in 122 of 282 ( 43.3% ) of genes in pham
- Manual Annotations of this start: 1 of 233
- Called 0.8% of time when present
- Phage (with cluster) where this start called: McGee\_3 (C1),

#### Start 30:

- Found in 23 of 282 ( 8.2% ) of genes in pham
- Manual Annotations of this start: 22 of 233
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azula\_68 (CV), Begonia\_63 (CV), Blueberry\_67 (CV), Confidence\_62 (CY1), DirtyBoi\_59 (DB), Dmitri\_56 (DB), Ferry\_64 (CV), Gambino\_70 (CV), Guacamole\_63 (CV), Jalammah\_68 (CV), JasperJr\_63 (CV), KappaFarmDelta\_66 (CV), Lysidious\_67 (CV), Malachai\_63 (CV), MissRona\_68 (CV), Obliviate\_62 (CV), Pipp\_67 (CV), RayTheFireFly\_64 (DB), Samba\_65 (CV), Walrus\_63 (CV), Wisp\_64 (CV), Zarbodnamra\_65 (CV), ZiggyZoo\_65 (CV),

#### Start 31:

- Found in 22 of 282 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 20 of 233
- Called 100.0% of time when present

- Phage (with cluster) where this start called: Auspice\_47 (M1), Aziz\_54 (M2), Bongo\_47 (M1), Bricole\_47 (M1), Diminimus\_48 (M1), Dulcita\_48 (M1), Estes\_56 (M2), FreakyGoo\_48 (M1), GardenSalsa\_56 (M2), GenevaB15\_54 (M2), Glaske16\_48 (M1), IPhane7\_47 (M1), Izel\_47 (M1), LilhomieP\_46 (M1), MrMagoo\_56 (M2), Nanosmite\_53 (M3), PegLeg\_47 (M1), Reindeer\_49 (M1), Rey\_55 (M2), Skinny\_48 (M1), SlimJimmy\_46 (M1), TyDawg\_47 (M1),

#### Start 32:

- Found in 1 of 282 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 233
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Rabbitrun\_90 (DU2),

#### Start 33:

- Found in 5 of 282 ( 1.8% ) of genes in pham
- Manual Annotations of this start: 5 of 233
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Azrael100\_57 (V), Cosmo\_58 (V), EniyanLRS\_55 (V), MaryV\_58 (V), Wildcat\_58 (V),

#### Start 34:

- Found in 1 of 282 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 233
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Cece\_201 (GD3),

#### Start 35:

- Found in 97 of 282 ( 34.4% ) of genes in pham
- Manual Annotations of this start: 66 of 233
- Called 92.8% of time when present
- Phage (with cluster) where this start called: Acquire49\_32 (L1), Appletree2\_32 (L1), Archie\_35 (L2), AvadaKedavra\_32 (L1), Baoshan\_34 (L2), Bazzle\_35 (L2), Bellis\_33 (L3), Big4\_210 (GD2), BigCheese\_35 (L2), BobsGarage\_35 (L2), BourbonZero\_32 (L3), BrainDrainer\_33 (L4), Breezona\_35 (L2), Bromden\_34 (L4), Calm\_32 (L1), Chaser\_32 (L4), CicholasNage\_32 (L1), Claus\_35 (L2), Clautastrophe\_33 (L3), Crossroads\_35 (L2), DHan\_36 (L2), DanBing\_35 (L2), DirkDirk\_32 (L1), Douge\_32 (L4), Douzhi\_32 (L4), DrSeegs\_35 (L2), DuncansLeg\_33 (L3), DyoEdafos\_33 (L4), Ellson\_33 (L3), Enceladus\_32 (L1), Faith1\_35 (L2), FarmResident\_32 (L4), Finemlucis\_35 (L2), Finnry\_33 (L3), Gabriela\_35 (L2), Gardann\_35 (L2), GuuelaD\_35 (L2), Hafay\_35 (L2), Halena\_32 (L1), Itos\_35 (L2), Jobypre\_33 (L3), Jubie\_33 (L3), Kahlid\_35 (L2), Kingsolomon\_33 (L3), KirDoubleO7\_31 (L3), Kropertea\_32 (L4), Krypton555\_33 (L3), Lewan\_35 (L2), LilDestine\_35 (L2), LiyuLake\_33 (L3), Loadrie\_35 (L2), Lolly9\_33 (L3), Lumos\_33 (L3), MAckerman\_32 (L1), Miley16\_35 (L2), MiniLon\_33 (L3), MiniMac\_33 (L3), MkaliMitinis3\_35 (L2), Moostard\_33 (L3), MsGreen\_33 (L3), Netyap\_35 (L2), Nicholas\_33 (L3), Nicholasp3\_35 (L2), OhShagHennessy\_32 (L1), PYPDinur\_32 (L4), Poochiewood\_32 (L1), Quby\_32 (L4), Rose5\_32 (L1), Rumpelstiltskin\_35 (L2), Samty\_33 (L3), Sarshaun\_35 (L2), Sheng711\_32 (L4), Silverleaf\_32 (L1), Snenia\_33 (L3), Soap141\_35 (L2), Tourach\_35 (L2), TriFive\_33 (L3), Tyson\_32 (L1), Underpass\_35 (L2), Vetrix\_35 (L2), Wamburgrxpress\_32 (L1), Whirlwind\_34 (L3), Wigglewiggle\_35 (L2), Wilder\_35 (L2), Winky\_35 (L2), Wyatt2\_32 (L1), Zakai\_35 (L2), Zaria\_32 (L1), ZhongYanYuan\_34 (L2), Zooman\_191 (GD2),



Start 36:

- Found in 3 of 282 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 233
- Called 100.0% of time when present
- Phage (with cluster) where this start called: A3Wally\_226 (GD1), Dodo\_225 (GD1), PauloDiaboli\_226 (GD1),

Start 37:

- Found in 22 of 282 ( 7.8% ) of genes in pham
- Manual Annotations of this start: 5 of 233
- Called 22.7% of time when present
- Phage (with cluster) where this start called: Aegeus\_38 (L5), Baudelaire\_38 (L5), JoeDirt\_32 (L1), LeBron\_32 (L1), UPIE\_32 (L1),

Start 39:

- Found in 46 of 282 ( 16.3% ) of genes in pham
- Manual Annotations of this start: 2 of 233
- Called 4.3% of time when present
- Phage (with cluster) where this start called: Neville\_85 (DU2), Trax\_88 (DU2),

Start 40:

- Found in 11 of 282 ( 3.9% ) of genes in pham
- Manual Annotations of this start: 3 of 233
- Called 27.3% of time when present
- Phage (with cluster) where this start called: Kudrefre\_95 (DU1), Sephiroth\_92 (DU1), Syleon\_95 (DU1),

**Summary by clusters:**

There are 19 clusters represented in this pham: GD1, CY1, GD3, DU2, C2, GD2, V, DB, DU1, L4, L5, L2, L3, M3, L1, M1, C1, M2, CV,

Info for manual annotations of cluster C1:

- Start number 19 was manually annotated 101 times for cluster C1.
- Start number 22 was manually annotated 1 time for cluster C1.

Info for manual annotations of cluster C2:

- Start number 18 was manually annotated 1 time for cluster C2.
- Start number 20 was manually annotated 2 times for cluster C2.

Info for manual annotations of cluster CV:

- Start number 30 was manually annotated 18 times for cluster CV.

Info for manual annotations of cluster CY1:

- Start number 30 was manually annotated 1 time for cluster CY1.

Info for manual annotations of cluster DB:

- Start number 30 was manually annotated 3 times for cluster DB.

Info for manual annotations of cluster DU1:

- Start number 14 was manually annotated 1 time for cluster DU1.
- Start number 40 was manually annotated 3 times for cluster DU1.

Info for manual annotations of cluster DU2:

- Start number 32 was manually annotated 1 time for cluster DU2.
- Start number 39 was manually annotated 2 times for cluster DU2.

Info for manual annotations of cluster GD1:

- Start number 36 was manually annotated 2 times for cluster GD1.

Info for manual annotations of cluster GD2:

- Start number 35 was manually annotated 2 times for cluster GD2.

Info for manual annotations of cluster GD3:

- Start number 34 was manually annotated 1 time for cluster GD3.

Info for manual annotations of cluster L1:

- Start number 35 was manually annotated 16 times for cluster L1.
- Start number 37 was manually annotated 3 times for cluster L1.

Info for manual annotations of cluster L2:

- Start number 35 was manually annotated 28 times for cluster L2.

Info for manual annotations of cluster L3:

- Start number 35 was manually annotated 16 times for cluster L3.

Info for manual annotations of cluster L4:

- Start number 35 was manually annotated 4 times for cluster L4.

Info for manual annotations of cluster L5:

- Start number 37 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 31 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 31 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 31 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster V:

- Start number 33 was manually annotated 5 times for cluster V.

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

Gene: A3Wally\_226 Start: 120716, Stop: 121450, Start Num: 36

Candidate Starts for A3Wally\_226:

(Start: 36 @120716 has 2 MA's), (59, 120911), (66, 120968), (70, 120983), (77, 121007), (85, 121040), (90, 121082), (93, 121097), (106, 121208), (113, 121244), (141, 121394),

Gene: Ablatia\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Ablatia\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Acquire49\_32 Start: 28983, Stop: 28231, Start Num: 35

Candidate Starts for Acquire49\_32:

(Start: 35 @28983 has 66 MA's), (Start: 37 @28977 has 5 MA's), (58, 28815), (62, 28761), (64, 28752), (66, 28728), (69, 28719), (79, 28689), (85, 28662), (89, 28629), (92, 28611), (103, 28509), (105, 28503), (107, 28488), (111, 28470), (112, 28464), (113, 28458), (124, 28395), (138, 28317), (144, 28287), (151, 28254),

Gene: Ading\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Ading\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: Adlitam\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Adlitam\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Aegeus\_38 Start: 32914, Stop: 32189, Start Num: 37

Candidate Starts for Aegeus\_38:

(Start: 37 @32914 has 5 MA's), (56, 32779), (65, 32668), (66, 32665), (85, 32599), (86, 32593), (92, 32548), (107, 32425), (111, 32407), (112, 32401), (113, 32395), (121, 32347), (124, 32332), (125, 32329), (135, 32272),

Gene: Amataga\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Amataga\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Appletree2\_32 Start: 28926, Stop: 28174, Start Num: 35

Candidate Starts for Appletree2\_32:

(Start: 35 @28926 has 66 MA's), (Start: 37 @28920 has 5 MA's), (58, 28758), (62, 28704), (64, 28695), (66, 28671), (69, 28662), (79, 28632), (85, 28605), (89, 28572), (92, 28554), (102, 28458), (103, 28452), (105, 28446), (107, 28431), (111, 28413), (112, 28407), (113, 28401), (124, 28338), (138, 28260), (144, 28230), (151, 28197),

Gene: ArcherS7\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for ArcherS7\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Archie\_35 Start: 30615, Stop: 29869, Start Num: 35

Candidate Starts for Archie\_35:

(Start: 35 @30615 has 66 MA's), (Start: 39 @30597 has 2 MA's), (54, 30480), (56, 30471), (62, 30390), (66, 30357), (82, 30309), (85, 30291), (89, 30258), (92, 30240), (105, 30132), (107, 30117), (111, 30099), (112, 30093), (113, 30087), (114, 30084), (124, 30024), (131, 29994), (135, 29964), (146,

29904), (147, 29895), (150, 29886),

Gene: Astraea\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Astraea\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Atlantean\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Atlantean\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Audrick\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Audrick\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: Auspice\_47 Start: 35928, Stop: 35131, Start Num: 31

Candidate Starts for Auspice\_47:

(Start: 31 @35928 has 20 MA's), (45, 35844), (48, 35814), (49, 35808), (58, 35712), (59, 35682), (65, 35628), (73, 35595), (97, 35439), (98, 35412), (99, 35409), (108, 35367), (113, 35340), (122, 35286), (131, 35247), (133, 35232), (144, 35169), (149, 35139),

Gene: AvadaKedavra\_32 Start: 28993, Stop: 28241, Start Num: 35

Candidate Starts for AvadaKedavra\_32:

(Start: 35 @28993 has 66 MA's), (Start: 37 @28987 has 5 MA's), (58, 28825), (62, 28771), (66, 28738), (69, 28729), (79, 28699), (85, 28672), (89, 28639), (92, 28621), (103, 28519), (105, 28513), (107, 28498), (111, 28480), (112, 28474), (113, 28468), (124, 28405), (138, 28327), (144, 28297), (151, 28264),

Gene: Aziz\_54 Start: 37868, Stop: 37068, Start Num: 31

Candidate Starts for Aziz\_54:

(Start: 31 @37868 has 20 MA's), (48, 37751), (49, 37745), (63, 37589), (65, 37565), (67, 37559), (69, 37553), (73, 37532), (98, 37349), (99, 37346), (113, 37277), (120, 37244), (122, 37223), (142, 37115), (144, 37106), (149, 37076),

Gene: Azrael100\_57 Start: 41517, Stop: 40768, Start Num: 33

Candidate Starts for Azrael100\_57:

(6, 41754), (7, 41742), (8, 41706), (13, 41661), (15, 41637), (24, 41553), (Start: 33 @41517 has 5 MA's), (38, 41478), (44, 41445), (47, 41418), (49, 41403), (51, 41379), (68, 41211), (71, 41196), (85, 41139), (102, 41037), (113, 40980), (116, 40968), (131, 40887), (135, 40857), (137, 40845), (142, 40818), (144, 40809), (145, 40803), (151, 40776),

Gene: Azula\_68 Start: 44110, Stop: 44895, Start Num: 30

Candidate Starts for Azula\_68:

(23, 44080), (Start: 30 @44110 has 22 MA's), (48, 44227), (49, 44233), (61, 44353), (62, 44365), (91, 44527), (94, 44545), (101, 44626), (102, 44629), (138, 44827),

Gene: Babyland\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Babyland\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: BackyardAgain\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for BackyardAgain\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: BadAgartude\_3 Start: 494, Stop: 1360, Start Num: 19

Candidate Starts for BadAgartude\_3:

(Start: 19 @494 has 101 MA's), (Start: 22 @533 has 1 MA's), (38, 611), (42, 629), (45, 650), (49, 686), (52, 716), (58, 770), (65, 854), (67, 860), (69, 866), (81, 914), (84, 929), (108, 1121), (113, 1148), (120, 1181), (124, 1211), (142, 1313), (143, 1316),

Gene: Bangla1971\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Bangla1971\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Baoshan\_34 Start: 29947, Stop: 29201, Start Num: 35

Candidate Starts for Baoshan\_34:

(Start: 35 @29947 has 66 MA's), (62, 29722), (66, 29689), (79, 29650), (85, 29623), (89, 29590), (92, 29572), (105, 29464), (107, 29449), (109, 29443), (111, 29431), (112, 29425), (113, 29419), (114, 29416), (124, 29356), (131, 29326), (135, 29296), (146, 29236), (147, 29227), (150, 29218),

Gene: Basquiat\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Basquiat\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: Baudelaire\_38 Start: 32914, Stop: 32189, Start Num: 37

Candidate Starts for Baudelaire\_38:

(Start: 37 @32914 has 5 MA's), (56, 32779), (65, 32668), (66, 32665), (85, 32599), (86, 32593), (92, 32548), (107, 32425), (111, 32407), (112, 32401), (113, 32395), (121, 32347), (124, 32332), (125, 32329), (135, 32272),

Gene: Bazzle\_35 Start: 30364, Stop: 29618, Start Num: 35

Candidate Starts for Bazzle\_35:

(Start: 35 @30364 has 66 MA's), (Start: 39 @30346 has 2 MA's), (54, 30229), (56, 30220), (62, 30139), (66, 30106), (82, 30058), (85, 30040), (89, 30007), (92, 29989), (105, 29881), (107, 29866), (111, 29848), (112, 29842), (113, 29836), (114, 29833), (124, 29773), (131, 29743), (135, 29713), (146, 29653), (147, 29644), (150, 29635),

Gene: Begonia\_63 Start: 42626, Stop: 43411, Start Num: 30

Candidate Starts for Begonia\_63:

(23, 42596), (Start: 30 @42626 has 22 MA's), (48, 42743), (49, 42749), (62, 42881), (68, 42920), (91, 43043), (94, 43061), (101, 43142), (102, 43145), (138, 43343),

Gene: Belieber\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Belieber\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Bellis\_33 Start: 30388, Stop: 29648, Start Num: 35

Candidate Starts for Bellis\_33:

(Start: 35 @30388 has 66 MA's), (41, 30364), (46, 30328), (57, 30238), (82, 30082), (92, 30013), (95, 29992), (107, 29890), (111, 29872), (112, 29866), (113, 29860), (128, 29782), (138, 29719), (144, 29689),

Gene: Big4\_210 Start: 117042, Stop: 117785, Start Num: 35

Candidate Starts for Big4\_210:

(Start: 35 @117042 has 66 MA's), (59, 117240), (78, 117339), (90, 117411), (93, 117426), (100, 117507), (102, 117516), (108, 117546), (113, 117573), (139, 117717), (141, 117723),

Gene: BigCheese\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for BigCheese\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: BigCity\_5 Start: 1066, Stop: 1932, Start Num: 19

Candidate Starts for BigCity\_5:

(Start: 19 @1066 has 101 MA's), (Start: 22 @1105 has 1 MA's), (38, 1183), (42, 1201), (45, 1222), (49, 1258), (52, 1288), (58, 1342), (65, 1426), (67, 1432), (69, 1438), (84, 1501), (108, 1693), (113, 1720), (120, 1753), (124, 1783), (143, 1888),

Gene: Bigswole\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Bigswole\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Blackbrain\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Blackbrain\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Blackdragon\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Blackdragon\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (81, 897), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (143, 1299),

Gene: Blueberry\_67 Start: 44110, Stop: 44895, Start Num: 30

Candidate Starts for Blueberry\_67:

(23, 44080), (Start: 30 @44110 has 22 MA's), (48, 44227), (49, 44233), (61, 44353), (62, 44365), (91, 44527), (94, 44545), (101, 44626), (102, 44629), (138, 44827),

Gene: BobsGarage\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for BobsGarage\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: Bongo\_47 Start: 35928, Stop: 35131, Start Num: 31

Candidate Starts for Bongo\_47:

(Start: 31 @35928 has 20 MA's), (45, 35844), (48, 35814), (49, 35808), (58, 35712), (59, 35682), (65, 35628), (73, 35595), (97, 35439), (98, 35412), (99, 35409), (108, 35367), (113, 35340), (122, 35286), (131, 35247), (133, 35232), (144, 35169), (149, 35139),

Gene: BourbonZero\_32 Start: 30339, Stop: 29599, Start Num: 35

Candidate Starts for BourbonZero\_32:

(Start: 35 @30339 has 66 MA's), (41, 30315), (46, 30279), (57, 30189), (82, 30033), (88, 29991), (92, 29964), (95, 29943), (104, 29859), (107, 29841), (111, 29823), (112, 29817), (113, 29811), (138, 29670), (144, 29640),

Gene: BrainDrainer\_33 Start: 29227, Stop: 28490, Start Num: 35

Candidate Starts for BrainDrainer\_33:

(3, 29617), (26, 29281), (29, 29272), (Start: 35 @29227 has 66 MA's), (Start: 39 @29212 has 2 MA's), (41, 29206), (56, 29086), (68, 28966), (75, 28942), (82, 28924), (85, 28906), (92, 28855), (105, 28747), (107, 28732), (111, 28714), (112, 28708), (113, 28702),

Gene: Breeniome\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Breeniome\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Breezona\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for Breezona\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: Bricole\_47 Start: 35914, Stop: 35117, Start Num: 31

Candidate Starts for Bricole\_47:

(Start: 31 @35914 has 20 MA's), (45, 35830), (48, 35800), (49, 35794), (58, 35698), (59, 35668), (65, 35614), (73, 35581), (97, 35425), (98, 35398), (99, 35395), (108, 35353), (113, 35326), (122, 35272), (131, 35233), (133, 35218), (144, 35155), (149, 35125),

Gene: Bromden\_34 Start: 29644, Stop: 28907, Start Num: 35

Candidate Starts for Bromden\_34:

(26, 29698), (29, 29689), (Start: 35 @29644 has 66 MA's), (Start: 39 @29629 has 2 MA's), (41, 29623), (56, 29503), (61, 29434), (68, 29383), (75, 29359), (82, 29341), (85, 29323), (92, 29272), (105, 29164), (107, 29149), (111, 29131), (112, 29125), (113, 29119), (121, 29071),

Gene: Bxz1\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Bxz1\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (108, 1100), (113, 1127), (120,

1160), (124, 1190), (143, 1295),

Gene: Cactojaque\_2 Start: 407, Stop: 1273, Start Num: 19

Candidate Starts for Cactojaque\_2:

(Start: 19 @407 has 101 MA's), (Start: 22 @446 has 1 MA's), (38, 524), (42, 542), (45, 563), (49, 599), (52, 629), (58, 683), (65, 767), (67, 773), (69, 779), (84, 842), (108, 1034), (113, 1061), (120, 1094), (124, 1124), (142, 1226), (143, 1229),

Gene: Calm\_32 Start: 28998, Stop: 28246, Start Num: 35

Candidate Starts for Calm\_32:

(Start: 35 @28998 has 66 MA's), (Start: 37 @28992 has 5 MA's), (58, 28830), (62, 28776), (64, 28767), (66, 28743), (69, 28734), (79, 28704), (85, 28677), (89, 28644), (92, 28626), (102, 28530), (103, 28524), (105, 28518), (107, 28503), (111, 28485), (112, 28479), (113, 28473), (124, 28410), (138, 28332), (144, 28302), (151, 28269),

Gene: Caravan\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Caravan\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295), (144, 1301),

Gene: Catera\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Catera\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (81, 897), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Cece\_201 Start: 121407, Stop: 122135, Start Num: 34

Candidate Starts for Cece\_201:

(Start: 34 @121407 has 1 MA's), (61, 121617), (66, 121662), (86, 121740), (90, 121776), (93, 121791), (94, 121797), (96, 121836), (100, 121872), (102, 121881), (108, 121911), (112, 121932), (113, 121938), (130, 122022), (132, 122034), (136, 122070), (141, 122088),

Gene: Chargie21\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Chargie21\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: CharlieB\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for CharlieB\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Chaser\_32 Start: 29045, Stop: 28308, Start Num: 35

Candidate Starts for Chaser\_32:

(26, 29099), (29, 29090), (Start: 35 @29045 has 66 MA's), (Start: 39 @29030 has 2 MA's), (41, 29024), (68, 28784), (75, 28760), (82, 28742), (85, 28724), (92, 28673), (105, 28565), (107, 28550), (111, 28532), (112, 28526), (113, 28520), (121, 28472),

Gene: ChaylaJr\_3 Start: 498, Stop: 1364, Start Num: 19

Candidate Starts for ChaylaJr\_3:



(Start: 19 @498 has 101 MA's), (Start: 22 @537 has 1 MA's), (38, 615), (42, 633), (45, 654), (49, 690), (52, 720), (58, 774), (65, 858), (67, 864), (69, 870), (84, 933), (108, 1125), (113, 1152), (120, 1185), (124, 1215), (142, 1317), (143, 1320),

Gene: ChickenPhender\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for ChickenPhender\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: Chomp\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Chomp\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: CicholasNage\_32 Start: 28985, Stop: 28233, Start Num: 35

Candidate Starts for CicholasNage\_32:

(Start: 35 @28985 has 66 MA's), (Start: 37 @28979 has 5 MA's), (58, 28817), (62, 28763), (64, 28754), (66, 28730), (69, 28721), (79, 28691), (85, 28664), (89, 28631), (92, 28613), (102, 28517), (103, 28511), (105, 28505), (107, 28490), (111, 28472), (112, 28466), (113, 28460), (124, 28397), (138, 28319), (144, 28289), (151, 28256),

Gene: CindyLou\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for CindyLou\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Claus\_35 Start: 30103, Stop: 29357, Start Num: 35

Candidate Starts for Claus\_35:

(28, 30151), (Start: 35 @30103 has 66 MA's), (62, 29878), (66, 29845), (79, 29806), (85, 29779), (89, 29746), (92, 29728), (105, 29620), (107, 29605), (111, 29587), (112, 29581), (113, 29575), (114, 29572), (124, 29512), (131, 29482), (135, 29452), (146, 29392), (147, 29383), (150, 29374),

Gene: Clautastrophe\_33 Start: 30387, Stop: 29647, Start Num: 35

Candidate Starts for Clautastrophe\_33:

(Start: 35 @30387 has 66 MA's), (41, 30363), (46, 30327), (57, 30237), (82, 30081), (92, 30012), (95, 29991), (107, 29889), (111, 29871), (112, 29865), (113, 29859), (128, 29781), (138, 29718), (144, 29688),

Gene: Concombres\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Concombres\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Confidence\_62 Start: 41352, Stop: 42137, Start Num: 30

Candidate Starts for Confidence\_62:

(11, 41211), (23, 41322), (Start: 30 @41352 has 22 MA's), (48, 41469), (49, 41475), (91, 41769), (94, 41787), (101, 41868), (102, 41871),

Gene: Cosmo\_58 Start: 41518, Stop: 40769, Start Num: 33

Candidate Starts for Cosmo\_58:

(6, 41755), (7, 41743), (8, 41707), (13, 41662), (15, 41638), (24, 41554), (Start: 33 @41518 has 5 MA's), (38, 41479), (44, 41446), (47, 41419), (49, 41404), (51, 41380), (68, 41212), (71, 41197), (85, 41140), (102, 41038), (113, 40981), (116, 40969), (131, 40888), (135, 40858), (137, 40846), (142, 40819), (144, 40810), (145, 40804), (151, 40777),

Gene: Crossroads\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for Crossroads\_35:

(27, 30177), (Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: DHan\_36 Start: 30039, Stop: 29293, Start Num: 35

Candidate Starts for DHan\_36:

(Start: 35 @30039 has 66 MA's), (62, 29814), (66, 29781), (79, 29742), (85, 29715), (89, 29682), (92, 29664), (105, 29556), (107, 29541), (109, 29535), (111, 29523), (112, 29517), (113, 29511), (114, 29508), (124, 29448), (131, 29418), (135, 29388), (146, 29328), (147, 29319), (150, 29310),

Gene: DTDevon\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for DTDevon\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: DanBing\_35 Start: 29943, Stop: 29197, Start Num: 35

Candidate Starts for DanBing\_35:

(Start: 35 @29943 has 66 MA's), (62, 29718), (66, 29685), (79, 29646), (85, 29619), (89, 29586), (92, 29568), (105, 29460), (107, 29445), (109, 29439), (111, 29427), (112, 29421), (113, 29415), (114, 29412), (124, 29352), (131, 29322), (135, 29292), (146, 29232), (147, 29223), (150, 29214),

Gene: Dandelion\_2 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Dandelion\_2:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Delylah\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Delylah\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295), (144, 1301),

Gene: Demodog\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Demodog\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Derek\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Derek\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160),

(124, 1190), (142, 1292), (143, 1295),

Gene: Dietrick\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Dietrick\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Diminimus\_48 Start: 35927, Stop: 35130, Start Num: 31

Candidate Starts for Diminimus\_48:

(Start: 31 @35927 has 20 MA's), (45, 35843), (48, 35813), (49, 35807), (58, 35711), (59, 35681), (65, 35627), (73, 35594), (97, 35438), (98, 35411), (99, 35408), (108, 35366), (113, 35339), (122, 35285), (131, 35246), (133, 35231), (144, 35168), (149, 35138),

Gene: DirkDirk\_32 Start: 28983, Stop: 28231, Start Num: 35

Candidate Starts for DirkDirk\_32:

(Start: 35 @28983 has 66 MA's), (Start: 37 @28977 has 5 MA's), (58, 28815), (62, 28761), (64, 28752), (66, 28728), (69, 28719), (79, 28689), (85, 28662), (89, 28629), (92, 28611), (102, 28515), (103, 28509), (105, 28503), (107, 28488), (111, 28470), (112, 28464), (113, 28458), (124, 28395), (138, 28317), (144, 28287), (151, 28254),

Gene: DirtyBoi\_59 Start: 38234, Stop: 39019, Start Num: 30

Candidate Starts for DirtyBoi\_59:

(Start: 30 @38234 has 22 MA's), (45, 38321), (48, 38351), (49, 38357), (62, 38489), (82, 38588), (85, 38606), (91, 38651), (94, 38669), (101, 38750), (102, 38753), (138, 38951),

Gene: Dmitri\_56 Start: 40718, Stop: 41503, Start Num: 30

Candidate Starts for Dmitri\_56:

(9, 40565), (11, 40574), (21, 40676), (23, 40685), (Start: 30 @40718 has 22 MA's), (45, 40805), (48, 40835), (49, 40841), (62, 40973), (82, 41072), (85, 41090), (91, 41135), (94, 41153), (101, 41234), (102, 41237), (103, 41243), (138, 41435),

Gene: Dodo\_225 Start: 120518, Stop: 121252, Start Num: 36

Candidate Starts for Dodo\_225:

(Start: 36 @120518 has 2 MA's), (59, 120713), (66, 120770), (70, 120785), (77, 120809), (85, 120842), (90, 120884), (93, 120899), (106, 121010), (113, 121046), (141, 121196),

Gene: Douge\_32 Start: 28983, Stop: 28246, Start Num: 35

Candidate Starts for Douge\_32:

(3, 29373), (26, 29037), (29, 29028), (Start: 35 @28983 has 66 MA's), (Start: 39 @28968 has 2 MA's), (41, 28962), (56, 28842), (68, 28722), (75, 28698), (82, 28680), (85, 28662), (92, 28611), (105, 28503), (107, 28488), (111, 28470), (112, 28464), (113, 28458), (121, 28410),

Gene: Douzhi\_32 Start: 29088, Stop: 28351, Start Num: 35

Candidate Starts for Douzhi\_32:

(3, 29478), (26, 29142), (29, 29133), (Start: 35 @29088 has 66 MA's), (Start: 39 @29073 has 2 MA's), (41, 29067), (56, 28947), (68, 28827), (75, 28803), (82, 28785), (85, 28767), (92, 28716), (105, 28608), (107, 28593), (111, 28575), (112, 28569), (113, 28563),

Gene: DrSeegs\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for DrSeegs\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112,

29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: Drazdys\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Drazdys\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Dulcita\_48 Start: 35928, Stop: 35131, Start Num: 31

Candidate Starts for Dulcita\_48:

(Start: 31 @35928 has 20 MA's), (45, 35844), (48, 35814), (49, 35808), (58, 35712), (59, 35682), (65, 35628), (73, 35595), (97, 35439), (98, 35412), (99, 35409), (108, 35367), (113, 35340), (122, 35286), (131, 35247), (133, 35232), (144, 35169), (149, 35139),

Gene: DuncansLeg\_33 Start: 30374, Stop: 29634, Start Num: 35

Candidate Starts for DuncansLeg\_33:

(Start: 35 @30374 has 66 MA's), (41, 30350), (46, 30314), (57, 30224), (82, 30068), (92, 29999), (95, 29978), (104, 29894), (107, 29876), (111, 29858), (112, 29852), (113, 29846), (128, 29768), (138, 29705), (144, 29675),

Gene: DyoEdafos\_33 Start: 29180, Stop: 28443, Start Num: 35

Candidate Starts for DyoEdafos\_33:

(Start: 35 @29180 has 66 MA's), (Start: 39 @29165 has 2 MA's), (41, 29159), (45, 29129), (56, 29039), (61, 28970), (66, 28925), (68, 28919), (75, 28895), (82, 28877), (85, 28859), (92, 28808), (105, 28700), (107, 28685), (111, 28667), (112, 28661), (113, 28655), (121, 28607), (131, 28562),

Gene: EasyJones\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for EasyJones\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (81, 876), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: EggyFarm\_5 Start: 1066, Stop: 1932, Start Num: 19

Candidate Starts for EggyFarm\_5:

(Start: 19 @1066 has 101 MA's), (Start: 22 @1105 has 1 MA's), (38, 1183), (42, 1201), (45, 1222), (49, 1258), (52, 1288), (58, 1342), (65, 1426), (67, 1432), (69, 1438), (84, 1501), (108, 1693), (113, 1720), (120, 1753), (124, 1783), (143, 1888),

Gene: Ellson\_33 Start: 30351, Stop: 29611, Start Num: 35

Candidate Starts for Ellson\_33:

(25, 30405), (Start: 35 @30351 has 66 MA's), (41, 30327), (46, 30291), (57, 30201), (82, 30045), (92, 29976), (95, 29955), (104, 29871), (107, 29853), (111, 29835), (112, 29829), (113, 29823), (138, 29682),

Gene: EmmaElysia\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for EmmaElysia\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Enceladus\_32 Start: 28967, Stop: 28215, Start Num: 35

Candidate Starts for Enceladus\_32:

(Start: 35 @28967 has 66 MA's), (Start: 37 @28961 has 5 MA's), (58, 28799), (62, 28745), (64, 28736), (66, 28712), (69, 28703), (79, 28673), (85, 28646), (89, 28613), (92, 28595), (102, 28499), (103, 28493), (105, 28487), (107, 28472), (111, 28454), (112, 28448), (113, 28442), (124, 28379), (138, 28301), (144, 28271), (151, 28238),

Gene: EniyanLRS\_55 Start: 41216, Stop: 40467, Start Num: 33

Candidate Starts for EniyanLRS\_55:

(6, 41453), (7, 41441), (8, 41405), (13, 41360), (15, 41336), (24, 41252), (Start: 33 @41216 has 5 MA's), (38, 41177), (44, 41144), (47, 41117), (49, 41102), (51, 41078), (68, 40910), (71, 40895), (85, 40838), (102, 40736), (113, 40679), (116, 40667), (131, 40586), (135, 40556), (137, 40544), (142, 40517), (144, 40508), (145, 40502), (151, 40475),

Gene: ErnieJ\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for ErnieJ\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Essence\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Essence\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Estes\_56 Start: 38134, Stop: 37334, Start Num: 31

Candidate Starts for Estes\_56:

(Start: 31 @38134 has 20 MA's), (48, 38017), (49, 38011), (63, 37855), (65, 37831), (67, 37825), (73, 37798), (96, 37645), (98, 37615), (99, 37612), (113, 37543), (118, 37519), (119, 37516), (120, 37510), (133, 37435), (142, 37381), (144, 37372), (149, 37342),

Gene: Faith1\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for Faith1\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: FarmResident\_32 Start: 29027, Stop: 28290, Start Num: 35

Candidate Starts for FarmResident\_32:

(3, 29417), (26, 29081), (29, 29072), (Start: 35 @29027 has 66 MA's), (Start: 39 @29012 has 2 MA's), (41, 29006), (56, 28886), (68, 28766), (75, 28742), (82, 28724), (85, 28706), (92, 28655), (105, 28547), (107, 28532), (111, 28514), (112, 28508), (113, 28502), (121, 28454),

Gene: Fenry\_64 Start: 42529, Stop: 43314, Start Num: 30

Candidate Starts for Fenry\_64:

(9, 42379), (11, 42388), (23, 42499), (Start: 30 @42529 has 22 MA's), (43, 42607), (48, 42646), (62, 42784), (86, 42907), (91, 42946), (94, 42964), (101, 43045), (102, 43048), (112, 43099), (138, 43246),

Gene: Finemlucis\_35 Start: 30402, Stop: 29656, Start Num: 35

Candidate Starts for Finemlucis\_35:

(Start: 35 @30402 has 66 MA's), (Start: 39 @30384 has 2 MA's), (62, 30177), (66, 30144), (79, 30105), (85, 30078), (89, 30045), (92, 30027), (105, 29919), (107, 29904), (109, 29898), (111, 29886), (112, 29880), (113, 29874), (114, 29871), (124, 29811), (131, 29781), (135, 29751), (146, 29691), (147,

29682), (150, 29673),

Gene: Finnry\_33 Start: 30390, Stop: 29650, Start Num: 35

Candidate Starts for Finnry\_33:

(Start: 35 @30390 has 66 MA's), (41, 30366), (46, 30330), (57, 30240), (82, 30084), (92, 30015), (95, 29994), (107, 29892), (111, 29874), (112, 29868), (113, 29862), (128, 29784), (138, 29721), (144, 29691),

Gene: Flabslab\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Flabslab\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Fludd\_3 Start: 459, Stop: 1325, Start Num: 19

Candidate Starts for Fludd\_3:

(Start: 19 @459 has 101 MA's), (Start: 22 @498 has 1 MA's), (38, 576), (42, 594), (45, 615), (49, 651), (52, 681), (58, 735), (65, 819), (67, 825), (69, 831), (84, 894), (108, 1086), (113, 1113), (120, 1146), (124, 1176), (142, 1278), (143, 1281),

Gene: FrayBell\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for FrayBell\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (101, 1067), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: FreakyGoo\_48 Start: 35928, Stop: 35131, Start Num: 31

Candidate Starts for FreakyGoo\_48:

(Start: 31 @35928 has 20 MA's), (45, 35844), (48, 35814), (49, 35808), (58, 35712), (59, 35682), (65, 35628), (73, 35595), (97, 35439), (98, 35412), (99, 35409), (108, 35367), (113, 35340), (122, 35286), (131, 35247), (133, 35232), (144, 35169), (149, 35139),

Gene: Gabriel\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Gabriel\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Gabriela\_35 Start: 30388, Stop: 29642, Start Num: 35

Candidate Starts for Gabriela\_35:

(Start: 35 @30388 has 66 MA's), (Start: 39 @30370 has 2 MA's), (62, 30163), (66, 30130), (79, 30091), (85, 30064), (89, 30031), (92, 30013), (105, 29905), (107, 29890), (109, 29884), (111, 29872), (112, 29866), (113, 29860), (114, 29857), (124, 29797), (131, 29767), (135, 29737), (146, 29677), (147, 29668), (150, 29659),

Gene: Gambino\_70 Start: 44110, Stop: 44895, Start Num: 30

Candidate Starts for Gambino\_70:

(23, 44080), (Start: 30 @44110 has 22 MA's), (48, 44227), (49, 44233), (61, 44353), (62, 44365), (91, 44527), (94, 44545), (101, 44626), (102, 44629), (138, 44827),

Gene: Gamgam\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Gamgam\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Gardann\_35 Start: 30128, Stop: 29382, Start Num: 35

Candidate Starts for Gardann\_35:

(Start: 35 @30128 has 66 MA's), (Start: 39 @30110 has 2 MA's), (50, 30017), (62, 29903), (66, 29870), (79, 29831), (85, 29804), (89, 29771), (92, 29753), (105, 29645), (107, 29630), (109, 29624), (111, 29612), (112, 29606), (113, 29600), (114, 29597), (124, 29537), (131, 29507), (135, 29477), (146, 29417), (147, 29408), (150, 29399),

Gene: GardenSalsa\_56 Start: 38232, Stop: 37432, Start Num: 31

Candidate Starts for GardenSalsa\_56:

(10, 38379), (Start: 31 @38232 has 20 MA's), (48, 38115), (49, 38109), (61, 37971), (63, 37953), (67, 37923), (73, 37896), (82, 37866), (91, 37803), (97, 37740), (98, 37713), (99, 37710), (108, 37668), (113, 37641), (115, 37632), (120, 37608), (123, 37581), (132, 37545), (133, 37533), (142, 37479), (144, 37470), (149, 37440),

Gene: GenevaB15\_54 Start: 37868, Stop: 37068, Start Num: 31

Candidate Starts for GenevaB15\_54:

(Start: 31 @37868 has 20 MA's), (48, 37751), (49, 37745), (63, 37589), (65, 37565), (67, 37559), (69, 37553), (73, 37532), (98, 37349), (99, 37346), (113, 37277), (120, 37244), (122, 37223), (142, 37115), (144, 37106), (149, 37076),

Gene: Ghost\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Ghost\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Glaske16\_48 Start: 35927, Stop: 35130, Start Num: 31

Candidate Starts for Glaske16\_48:

(Start: 31 @35927 has 20 MA's), (45, 35843), (48, 35813), (49, 35807), (58, 35711), (59, 35681), (65, 35627), (73, 35594), (97, 35438), (98, 35411), (99, 35408), (108, 35366), (113, 35339), (122, 35285), (131, 35246), (133, 35231), (144, 35168), (149, 35138),

Gene: GlutenPhree\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for GlutenPhree\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Grasshills\_5 Start: 1066, Stop: 1932, Start Num: 19

Candidate Starts for Grasshills\_5:

(Start: 19 @1066 has 101 MA's), (Start: 22 @1105 has 1 MA's), (38, 1183), (42, 1201), (45, 1222), (49, 1258), (52, 1288), (58, 1342), (65, 1426), (67, 1432), (69, 1438), (84, 1501), (108, 1693), (113, 1720), (120, 1753), (124, 1783), (143, 1888),

Gene: Greely\_3 Start: 1065, Stop: 1916, Start Num: 20

Candidate Starts for Greely\_3:

(12, 984), (16, 1026), (Start: 20 @1065 has 2 MA's), (Start: 35 @1149 has 66 MA's), (Start: 40 @1170 has 3 MA's), (43, 1194), (49, 1239), (50, 1260), (53, 1275), (60, 1365), (65, 1416), (72, 1449), (81, 1476), (83, 1485), (97, 1593), (108, 1665), (113, 1692), (117, 1713), (118, 1716), (119, 1719), (127,

1764), (132, 1788), (148, 1887), (153, 1908),

Gene: Grungle\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Grungle\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (143, 1299),

Gene: Guacamole\_63 Start: 41500, Stop: 42285, Start Num: 30

Candidate Starts for Guacamole\_63:

(1, 40993), (2, 41143), (4, 41209), (5, 41245), (9, 41350), (11, 41359), (23, 41470), (Start: 30 @41500 has 22 MA's), (48, 41617), (49, 41623), (62, 41755), (68, 41794), (91, 41917), (94, 41935), (101, 42016), (102, 42019), (112, 42070), (138, 42217),

Gene: GuuelaD\_35 Start: 30160, Stop: 29414, Start Num: 35

Candidate Starts for GuuelaD\_35:

(25, 30214), (Start: 35 @30160 has 66 MA's), (Start: 39 @30142 has 2 MA's), (62, 29935), (66, 29902), (79, 29863), (85, 29836), (89, 29803), (92, 29785), (105, 29677), (107, 29662), (109, 29656), (111, 29644), (112, 29638), (113, 29632), (114, 29629), (124, 29569), (131, 29539), (135, 29509), (146, 29449), (147, 29440), (150, 29431),

Gene: Guwapp\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Guwapp\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Hafay\_35 Start: 30159, Stop: 29413, Start Num: 35

Candidate Starts for Hafay\_35:

(Start: 35 @30159 has 66 MA's), (Start: 39 @30141 has 2 MA's), (54, 30024), (56, 30015), (62, 29934), (66, 29901), (79, 29862), (85, 29835), (89, 29802), (92, 29784), (105, 29676), (107, 29661), (109, 29655), (111, 29643), (112, 29637), (113, 29631), (114, 29628), (124, 29568), (131, 29538), (135, 29508), (146, 29448), (147, 29439), (150, 29430),

Gene: Halena\_32 Start: 28994, Stop: 28242, Start Num: 35

Candidate Starts for Halena\_32:

(Start: 35 @28994 has 66 MA's), (Start: 37 @28988 has 5 MA's), (58, 28826), (62, 28772), (66, 28739), (69, 28730), (79, 28700), (85, 28673), (89, 28640), (92, 28622), (103, 28520), (105, 28514), (107, 28499), (111, 28481), (112, 28475), (113, 28469), (124, 28406), (138, 28328), (144, 28298), (151, 28265),

Gene: Halldule\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Halldule\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: I3\_3 Start: 475, Stop: 1341, Start Num: 19

Candidate Starts for I3\_3:

(Start: 19 @475 has 101 MA's), (Start: 22 @514 has 1 MA's), (38, 592), (42, 610), (45, 631), (49, 667), (52, 697), (58, 751), (65, 835), (67, 841), (69, 847), (84, 910), (108, 1102), (113, 1129), (120, 1162), (124, 1192), (143, 1297),



Gene: IPhone7\_47 Start: 35928, Stop: 35131, Start Num: 31

Candidate Starts for IPhone7\_47:

(Start: 31 @35928 has 20 MA's), (45, 35844), (48, 35814), (49, 35808), (58, 35712), (59, 35682), (65, 35628), (73, 35595), (97, 35439), (98, 35412), (99, 35409), (108, 35367), (113, 35340), (122, 35286), (131, 35247), (133, 35232), (144, 35169), (149, 35139),

Gene: InigoMontoya\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for InigoMontoya\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: InterFolia\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for InterFolia\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (101, 1067), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Itos\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for Itos\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: Izel\_47 Start: 35927, Stop: 35130, Start Num: 31

Candidate Starts for Izel\_47:

(Start: 31 @35927 has 20 MA's), (45, 35843), (48, 35813), (49, 35807), (58, 35711), (59, 35681), (65, 35627), (73, 35594), (97, 35438), (98, 35411), (99, 35408), (108, 35366), (113, 35339), (122, 35285), (131, 35246), (133, 35231), (144, 35168), (149, 35138),

Gene: JPickles\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for JPickles\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Jalammah\_68 Start: 43432, Stop: 44217, Start Num: 30

Candidate Starts for Jalammah\_68:

(23, 43402), (Start: 30 @43432 has 22 MA's), (48, 43549), (49, 43555), (62, 43687), (68, 43726), (91, 43849), (94, 43867), (101, 43948), (102, 43951), (112, 44002), (138, 44149),

Gene: Janiyra\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Janiyra\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: JasperJr\_63 Start: 41500, Stop: 42285, Start Num: 30

Candidate Starts for JasperJr\_63:

(1, 40993), (2, 41143), (4, 41209), (5, 41245), (9, 41350), (11, 41359), (23, 41470), (Start: 30 @41500 has 22 MA's), (48, 41617), (49, 41623), (62, 41755), (68, 41794), (91, 41917), (94, 41935), (101, 42016), (102, 42019), (112, 42070), (138, 42217),

Gene: JayJay\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for JayJay\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (143, 1299),

Gene: Jaygup\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Jaygup\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Jedediah\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Jedediah\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Jemmno\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Jemmno\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Jezreel\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Jezreel\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: JigglyPuff\_3 Start: 470, Stop: 1336, Start Num: 19

Candidate Starts for JigglyPuff\_3:

(Start: 19 @470 has 101 MA's), (Start: 22 @509 has 1 MA's), (38, 587), (42, 605), (45, 626), (49, 662), (52, 692), (58, 746), (65, 830), (67, 836), (69, 842), (84, 905), (108, 1097), (113, 1124), (120, 1157), (127, 1196), (129, 1208), (143, 1292),

Gene: Jobypre\_33 Start: 30387, Stop: 29647, Start Num: 35

Candidate Starts for Jobypre\_33:

(Start: 35 @30387 has 66 MA's), (41, 30363), (46, 30327), (57, 30237), (82, 30081), (92, 30012), (95, 29991), (107, 29889), (111, 29871), (112, 29865), (113, 29859), (128, 29781), (138, 29718), (144, 29688),

Gene: JoeDirt\_32 Start: 28959, Stop: 28213, Start Num: 37

Candidate Starts for JoeDirt\_32:

(Start: 35 @28965 has 66 MA's), (Start: 37 @28959 has 5 MA's), (58, 28797), (62, 28743), (64, 28734), (66, 28710), (69, 28701), (79, 28671), (85, 28644), (89, 28611), (92, 28593), (102, 28497), (103, 28491), (105, 28485), (107, 28470), (111, 28452), (112, 28446), (113, 28440), (124, 28377), (138, 28299), (144, 28269), (151, 28236),

Gene: Jubie\_33 Start: 30388, Stop: 29648, Start Num: 35

Candidate Starts for Jubie\_33:

(Start: 35 @30388 has 66 MA's), (41, 30364), (46, 30328), (57, 30238), (82, 30082), (92, 30013), (95, 29992), (107, 29890), (111, 29872), (112, 29866), (113, 29860), (128, 29782), (138, 29719), (144, 29689),

Gene: JulietS\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for JulietS\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Kahlid\_35 Start: 30131, Stop: 29385, Start Num: 35

Candidate Starts for Kahlid\_35:

(Start: 35 @30131 has 66 MA's), (Start: 39 @30113 has 2 MA's), (54, 29996), (56, 29987), (62, 29906), (66, 29873), (79, 29834), (85, 29807), (89, 29774), (92, 29756), (105, 29648), (107, 29633), (109, 29627), (111, 29615), (112, 29609), (113, 29603), (114, 29600), (124, 29540), (131, 29510), (135, 29480), (146, 29420), (147, 29411), (150, 29402),

Gene: Kamryn\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Kamryn\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: KappaFarmDelta\_66 Start: 40666, Stop: 41451, Start Num: 30

Candidate Starts for KappaFarmDelta\_66:

(9, 40516), (11, 40525), (23, 40636), (Start: 30 @40666 has 22 MA's), (48, 40783), (49, 40789), (62, 40921), (91, 41083), (94, 41101), (101, 41182), (102, 41185), (138, 41383),

Gene: Kboogie\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Kboogie\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Kingsolomon\_33 Start: 30387, Stop: 29647, Start Num: 35

Candidate Starts for Kingsolomon\_33:

(Start: 35 @30387 has 66 MA's), (41, 30363), (46, 30327), (57, 30237), (82, 30081), (92, 30012), (95, 29991), (107, 29889), (111, 29871), (112, 29865), (113, 29859), (128, 29781), (138, 29718), (144, 29688),

Gene: KirDoubleO7\_31 Start: 30384, Stop: 29644, Start Num: 35

Candidate Starts for KirDoubleO7\_31:

(Start: 35 @30384 has 66 MA's), (41, 30360), (46, 30324), (57, 30234), (82, 30078), (92, 30009), (95, 29988), (104, 29904), (107, 29886), (111, 29868), (112, 29862), (113, 29856), (138, 29715), (144, 29685),

Gene: Koguma\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Koguma\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Kropertea\_32 Start: 28987, Stop: 28250, Start Num: 35

Candidate Starts for Kropertea\_32:

(Start: 35 @28987 has 66 MA's), (Start: 39 @28972 has 2 MA's), (41, 28966), (45, 28936), (56, 28846), (61, 28777), (66, 28732), (68, 28726), (75, 28702), (82, 28684), (85, 28666), (92, 28615), (105, 28507), (107, 28492), (111, 28474), (112, 28468), (113, 28462), (121, 28414), (131, 28369),

Gene: Krypton555\_33 Start: 30293, Stop: 29553, Start Num: 35

Candidate Starts for Krypton555\_33:

(Start: 35 @30293 has 66 MA's), (41, 30269), (46, 30233), (57, 30143), (82, 29987), (92, 29918), (95, 29897), (107, 29795), (111, 29777), (112, 29771), (113, 29765), (138, 29624), (144, 29594),

Gene: Kudrefre\_95 Start: 56708, Stop: 57451, Start Num: 40

Candidate Starts for Kudrefre\_95:

(Start: 40 @56708 has 3 MA's), (48, 56771), (49, 56777), (60, 56888), (80, 56996), (84, 57014), (85, 57020), (94, 57083), (96, 57125), (105, 57182), (106, 57191), (111, 57215), (113, 57227), (124, 57290), (125, 57293), (131, 57320), (139, 57371), (144, 57398), (152, 57443),

Gene: Latch\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Latch\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: LeBron\_32 Start: 29003, Stop: 28257, Start Num: 37

Candidate Starts for LeBron\_32:

(Start: 35 @29009 has 66 MA's), (Start: 37 @29003 has 5 MA's), (58, 28841), (62, 28787), (64, 28778), (66, 28754), (69, 28745), (79, 28715), (85, 28688), (89, 28655), (92, 28637), (102, 28541), (103, 28535), (105, 28529), (107, 28514), (111, 28496), (112, 28490), (113, 28484), (124, 28421), (138, 28343), (144, 28313), (151, 28280),

Gene: Lethe\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Lethe\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Lewan\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for Lewan\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: LifeSavor\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for LifeSavor\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: LilDestine\_35 Start: 30125, Stop: 29379, Start Num: 35

Candidate Starts for LilDestine\_35:

(Start: 35 @30125 has 66 MA's), (Start: 39 @30107 has 2 MA's), (50, 30014), (62, 29900), (66, 29867), (79, 29828), (85, 29801), (89, 29768), (92, 29750), (105, 29642), (107, 29627), (109, 29621), (111, 29609), (112, 29603), (113, 29597), (114, 29594), (124, 29534), (131, 29504), (135, 29474), (146,

29414), (147, 29405), (150, 29396),

Gene: LilhomieP\_46 Start: 35928, Stop: 35131, Start Num: 31

Candidate Starts for LilhomieP\_46:

(Start: 31 @35928 has 20 MA's), (45, 35844), (48, 35814), (49, 35808), (58, 35712), (59, 35682), (65, 35628), (73, 35595), (97, 35439), (98, 35412), (99, 35409), (108, 35367), (113, 35340), (122, 35286), (131, 35247), (133, 35232), (144, 35169), (149, 35139),

Gene: Littleton\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Littleton\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (81, 897), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: LiyuLake\_33 Start: 30342, Stop: 29602, Start Num: 35

Candidate Starts for LiyuLake\_33:

(25, 30396), (Start: 35 @30342 has 66 MA's), (41, 30318), (46, 30282), (57, 30192), (82, 30036), (92, 29967), (95, 29946), (104, 29862), (107, 29844), (111, 29826), (112, 29820), (113, 29814), (138, 29673),

Gene: Loadrie\_35 Start: 30158, Stop: 29412, Start Num: 35

Candidate Starts for Loadrie\_35:

(Start: 35 @30158 has 66 MA's), (Start: 39 @30140 has 2 MA's), (62, 29933), (66, 29900), (79, 29861), (85, 29834), (89, 29801), (92, 29783), (105, 29675), (107, 29660), (109, 29654), (111, 29642), (112, 29636), (113, 29630), (114, 29627), (124, 29567), (131, 29537), (135, 29507), (146, 29447), (147, 29438), (150, 29429),

Gene: LolaVinca\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for LolaVinca\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (101, 1067), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Lolly9\_33 Start: 30157, Stop: 29417, Start Num: 35

Candidate Starts for Lolly9\_33:

(Start: 35 @30157 has 66 MA's), (41, 30133), (46, 30097), (57, 30007), (82, 29851), (92, 29782), (95, 29761), (107, 29659), (111, 29641), (112, 29635), (113, 29629), (138, 29488), (140, 29482), (143, 29464),

Gene: LordLeafolot\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for LordLeafolot\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (101, 1067), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Lumos\_33 Start: 30384, Stop: 29644, Start Num: 35

Candidate Starts for Lumos\_33:

(Start: 35 @30384 has 66 MA's), (41, 30360), (46, 30324), (57, 30234), (82, 30078), (92, 30009), (95, 29988), (107, 29886), (111, 29868), (112, 29862), (113, 29856), (128, 29778), (138, 29715), (144, 29685),

Gene: Lysidious\_67 Start: 43158, Stop: 43943, Start Num: 30

Candidate Starts for Lysidious\_67:

(5, 42906), (9, 43008), (11, 43017), (23, 43128), (Start: 30 @43158 has 22 MA's), (43, 43236), (48, 43275), (49, 43281), (62, 43413), (91, 43575), (94, 43593), (101, 43674), (102, 43677), (112, 43728), (138, 43875),

Gene: MAckerman\_32 Start: 28983, Stop: 28231, Start Num: 35

Candidate Starts for MAckerman\_32:

(Start: 35 @28983 has 66 MA's), (Start: 37 @28977 has 5 MA's), (58, 28815), (62, 28761), (64, 28752), (66, 28728), (69, 28719), (79, 28689), (85, 28662), (89, 28629), (92, 28611), (103, 28509), (105, 28503), (107, 28488), (111, 28470), (112, 28464), (113, 28458), (124, 28395), (138, 28317), (144, 28287), (151, 28254),

Gene: Malachai\_63 Start: 42626, Stop: 43411, Start Num: 30

Candidate Starts for Malachai\_63:

(23, 42596), (Start: 30 @42626 has 22 MA's), (48, 42743), (49, 42749), (62, 42881), (68, 42920), (91, 43043), (94, 43061), (101, 43142), (102, 43145), (138, 43343),

Gene: Mangeria\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Mangeria\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: MaryV\_58 Start: 41503, Stop: 40754, Start Num: 33

Candidate Starts for MaryV\_58:

(6, 41740), (7, 41728), (8, 41692), (13, 41647), (15, 41623), (24, 41539), (Start: 33 @41503 has 5 MA's), (38, 41464), (44, 41431), (47, 41404), (49, 41389), (51, 41365), (68, 41197), (71, 41182), (85, 41125), (102, 41023), (113, 40966), (116, 40954), (131, 40873), (135, 40843), (137, 40831), (142, 40804), (144, 40795), (145, 40789), (151, 40762),

Gene: Matsumoto\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Matsumoto\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: McGee\_3 Start: 512, Stop: 1339, Start Num: 22

Candidate Starts for McGee\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Melpomini\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Melpomini\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (81, 876), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: Miley16\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for Miley16\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: MiniLon\_33 Start: 30158, Stop: 29418, Start Num: 35

Candidate Starts for MiniLon\_33:

(Start: 35 @30158 has 66 MA's), (41, 30134), (46, 30098), (57, 30008), (82, 29852), (92, 29783), (95, 29762), (107, 29660), (111, 29642), (112, 29636), (113, 29630), (138, 29489), (140, 29483), (143, 29465),

Gene: MiniMac\_33 Start: 30158, Stop: 29418, Start Num: 35

Candidate Starts for MiniMac\_33:

(Start: 35 @30158 has 66 MA's), (41, 30134), (46, 30098), (57, 30008), (82, 29852), (92, 29783), (95, 29762), (107, 29660), (111, 29642), (112, 29636), (113, 29630), (138, 29489), (140, 29483), (143, 29465),

Gene: MissRona\_68 Start: 44111, Stop: 44896, Start Num: 30

Candidate Starts for MissRona\_68:

(23, 44081), (Start: 30 @44111 has 22 MA's), (48, 44228), (49, 44234), (61, 44354), (62, 44366), (91, 44528), (94, 44546), (101, 44627), (102, 44630), (138, 44828),

Gene: MkaliMitinis3\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for MkaliMitinis3\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (54, 29991), (56, 29982), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: MoMoMixon\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for MoMoMixon\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (127, 1199), (129, 1211), (143, 1295),

Gene: Momo\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Momo\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Moostard\_33 Start: 30389, Stop: 29649, Start Num: 35

Candidate Starts for Moostard\_33:

(Start: 35 @30389 has 66 MA's), (41, 30365), (46, 30329), (57, 30239), (82, 30083), (92, 30014), (95, 29993), (107, 29891), (111, 29873), (112, 29867), (113, 29861), (128, 29783), (138, 29720), (144, 29690),

Gene: Morizzled23\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Morizzled23\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: MrMagoo\_56 Start: 38232, Stop: 37432, Start Num: 31

Candidate Starts for MrMagoo\_56:

(10, 38379), (Start: 31 @38232 has 20 MA's), (48, 38115), (49, 38109), (61, 37971), (63, 37953), (67, 37923), (73, 37896), (82, 37866), (91, 37803), (97, 37740), (98, 37713), (99, 37710), (108, 37668),

(113, 37641), (115, 37632), (120, 37608), (123, 37581), (132, 37545), (133, 37533), (142, 37479), (144, 37470), (149, 37440),

Gene: MsGreen\_33 Start: 30387, Stop: 29647, Start Num: 35

Candidate Starts for MsGreen\_33:

(Start: 35 @30387 has 66 MA's), (41, 30363), (46, 30327), (57, 30237), (82, 30081), (92, 30012), (95, 29991), (107, 29889), (111, 29871), (112, 29865), (113, 29859), (128, 29781), (138, 29718), (144, 29688),

Gene: Myrna\_3 Start: 913, Stop: 1767, Start Num: 20

Candidate Starts for Myrna\_3:

(Start: 20 @913 has 2 MA's), (Start: 35 @1000 has 66 MA's), (Start: 40 @1021 has 3 MA's), (43, 1045), (49, 1090), (50, 1111), (52, 1123), (53, 1126), (64, 1246), (65, 1267), (72, 1300), (76, 1312), (82, 1330), (83, 1336), (97, 1444), (102, 1486), (108, 1516), (113, 1543), (118, 1567), (119, 1570), (124, 1606), (126, 1612), (127, 1615), (132, 1639),

Gene: Naija\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Naija\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Nanosmite\_53 Start: 37550, Stop: 36750, Start Num: 31

Candidate Starts for Nanosmite\_53:

(Start: 31 @37550 has 20 MA's), (48, 37433), (49, 37427), (51, 37403), (59, 37301), (65, 37247), (70, 37229), (74, 37205), (96, 37061), (98, 37031), (99, 37028), (108, 36986), (113, 36959), (123, 36899), (134, 36848), (142, 36797), (149, 36758),

Gene: Napoleon13\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Napoleon13\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Nappy\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Nappy\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Naval22\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Naval22\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (127, 1199), (129, 1211), (143, 1295),

Gene: Netyap\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for Netyap\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),



Gene: Neville\_85 Start: 54863, Stop: 55597, Start Num: 39

Candidate Starts for Neville\_85:

(Start: 39 @54863 has 2 MA's), (Start: 40 @54866 has 3 MA's), (48, 54929), (51, 54959), (67, 55103), (68, 55106), (84, 55172), (86, 55184), (94, 55241), (102, 55328), (105, 55340), (111, 55373), (113, 55385), (124, 55448), (133, 55493), (145, 55562),

Gene: Ngannou\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Ngannou\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: Nicholas\_33 Start: 30387, Stop: 29647, Start Num: 35

Candidate Starts for Nicholas\_33:

(Start: 35 @30387 has 66 MA's), (41, 30363), (46, 30327), (57, 30237), (82, 30081), (92, 30012), (95, 29991), (107, 29889), (111, 29871), (112, 29865), (113, 29859), (128, 29781), (138, 29718), (144, 29688),

Gene: Nicholasp3\_35 Start: 30128, Stop: 29382, Start Num: 35

Candidate Starts for Nicholasp3\_35:

(Start: 35 @30128 has 66 MA's), (Start: 39 @30110 has 2 MA's), (50, 30017), (62, 29903), (66, 29870), (79, 29831), (85, 29804), (89, 29771), (92, 29753), (105, 29645), (107, 29630), (109, 29624), (111, 29612), (112, 29606), (113, 29600), (114, 29597), (124, 29537), (131, 29507), (135, 29477), (146, 29417), (147, 29408), (150, 29399),

Gene: Nidhogg\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Nidhogg\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (127, 1199), (129, 1211), (143, 1295),

Gene: NoodleTree\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for NoodleTree\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: NuevoMundo\_3 Start: 470, Stop: 1336, Start Num: 19

Candidate Starts for NuevoMundo\_3:

(Start: 19 @470 has 101 MA's), (Start: 22 @509 has 1 MA's), (38, 587), (42, 605), (45, 626), (49, 662), (52, 692), (58, 746), (65, 830), (67, 836), (69, 842), (84, 905), (86, 917), (108, 1097), (113, 1124), (120, 1157), (124, 1187), (142, 1289), (143, 1292),

Gene: Obliviate\_62 Start: 39884, Stop: 40669, Start Num: 30

Candidate Starts for Obliviate\_62:

(9, 39734), (11, 39743), (23, 39854), (Start: 30 @39884 has 22 MA's), (43, 39962), (48, 40001), (49, 40007), (62, 40139), (91, 40301), (94, 40319), (101, 40400), (102, 40403), (112, 40454), (138, 40601),

Gene: Octobien14\_93 Start: 55909, Stop: 56829, Start Num: 14

Candidate Starts for Octobien14\_93:

(Start: 14 @55909 has 1 MA's), (Start: 40 @56086 has 3 MA's), (48, 56149), (49, 56155), (60, 56266), (84, 56392), (85, 56398), (86, 56404), (94, 56461), (105, 56560), (106, 56569), (111, 56593), (113, 56605), (124, 56668), (125, 56671), (139, 56749), (144, 56776), (152, 56821),

Gene: OhShagHennessey\_32 Start: 28948, Stop: 28196, Start Num: 35

Candidate Starts for OhShagHennessey\_32:

(Start: 35 @28948 has 66 MA's), (Start: 37 @28942 has 5 MA's), (58, 28780), (62, 28726), (64, 28717), (66, 28693), (69, 28684), (79, 28654), (85, 28627), (89, 28594), (92, 28576), (102, 28480), (103, 28474), (105, 28468), (107, 28453), (111, 28435), (112, 28429), (113, 28423), (124, 28360), (138, 28282), (144, 28252), (151, 28219),

Gene: PYPDinur\_32 Start: 29088, Stop: 28351, Start Num: 35

Candidate Starts for PYPDinur\_32:

(3, 29478), (26, 29142), (29, 29133), (Start: 35 @29088 has 66 MA's), (Start: 39 @29073 has 2 MA's), (41, 29067), (56, 28947), (68, 28827), (75, 28803), (82, 28785), (85, 28767), (92, 28716), (105, 28608), (107, 28593), (111, 28575), (112, 28569), (113, 28563),

Gene: Patter\_3 Start: 494, Stop: 1360, Start Num: 19

Candidate Starts for Patter\_3:

(Start: 19 @494 has 101 MA's), (Start: 22 @533 has 1 MA's), (38, 611), (42, 629), (45, 650), (49, 686), (52, 716), (58, 770), (65, 854), (67, 860), (69, 866), (84, 929), (108, 1121), (113, 1148), (120, 1181), (124, 1211), (142, 1313), (143, 1316),

Gene: PauloDiaboli\_226 Start: 118929, Stop: 119663, Start Num: 36

Candidate Starts for PauloDiaboli\_226:

(Start: 36 @118929 has 2 MA's), (59, 119124), (66, 119181), (70, 119196), (77, 119220), (85, 119253), (90, 119295), (93, 119310), (106, 119421), (113, 119457), (141, 119607),

Gene: PegLeg\_47 Start: 35927, Stop: 35130, Start Num: 31

Candidate Starts for PegLeg\_47:

(Start: 31 @35927 has 20 MA's), (45, 35843), (48, 35813), (49, 35807), (58, 35711), (59, 35681), (65, 35627), (73, 35594), (97, 35438), (98, 35411), (99, 35408), (108, 35366), (113, 35339), (122, 35285), (131, 35246), (133, 35231), (144, 35168), (149, 35138),

Gene: Phabba\_3 Start: 1059, Stop: 1910, Start Num: 20

Candidate Starts for Phabba\_3:

(16, 1020), (Start: 20 @1059 has 2 MA's), (Start: 35 @1143 has 66 MA's), (Start: 40 @1164 has 3 MA's), (43, 1188), (49, 1233), (60, 1359), (65, 1410), (72, 1443), (81, 1470), (97, 1587), (102, 1629), (108, 1659), (113, 1686), (119, 1713), (127, 1758), (132, 1782), (142, 1848), (144, 1857),

Gene: Phlegm\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Phlegm\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Phusco\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Phusco\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Pier\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Pier\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160),

(124, 1190), (142, 1292), (143, 1295),

Gene: Pio\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Pio\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Pipp\_67 Start: 41988, Stop: 42773, Start Num: 30

Candidate Starts for Pipp\_67:

(9, 41838), (11, 41847), (23, 41958), (Start: 30 @41988 has 22 MA's), (48, 42105), (49, 42111), (60, 42222), (62, 42243), (67, 42279), (91, 42405), (94, 42423), (101, 42504), (102, 42507), (138, 42705),

Gene: Pivoine\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Pivoine\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Pochiewood\_32 Start: 28984, Stop: 28232, Start Num: 35

Candidate Starts for Pochiewood\_32:

(Start: 35 @28984 has 66 MA's), (Start: 37 @28978 has 5 MA's), (58, 28816), (62, 28762), (66, 28729), (69, 28720), (79, 28690), (85, 28663), (89, 28630), (92, 28612), (103, 28510), (105, 28504), (107, 28489), (111, 28471), (112, 28465), (113, 28459), (124, 28396), (138, 28318), (144, 28288), (151, 28255),

Gene: Quby\_32 Start: 28982, Stop: 28245, Start Num: 35

Candidate Starts for Quby\_32:

(3, 29372), (26, 29036), (29, 29027), (Start: 35 @28982 has 66 MA's), (Start: 39 @28967 has 2 MA's), (41, 28961), (56, 28841), (68, 28721), (75, 28697), (82, 28679), (85, 28661), (92, 28610), (105, 28502), (107, 28487), (111, 28469), (112, 28463), (113, 28457), (121, 28409),

Gene: Rabbitrun\_90 Start: 55546, Stop: 56391, Start Num: 32

Candidate Starts for Rabbitrun\_90:

(Start: 32 @55546 has 1 MA's), (Start: 39 @55594 has 2 MA's), (Start: 40 @55597 has 3 MA's), (48, 55660), (51, 55690), (77, 55876), (84, 55903), (86, 55915), (94, 55972), (102, 56059), (105, 56071), (111, 56104), (113, 56116), (124, 56179), (125, 56182), (131, 56209), (133, 56224), (149, 56317), (152, 56332),

Gene: Rahel\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Rahel\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: RayTheFireFly\_64 Start: 40609, Stop: 41394, Start Num: 30

Candidate Starts for RayTheFireFly\_64:

(Start: 30 @40609 has 22 MA's), (45, 40696), (48, 40726), (49, 40732), (62, 40864), (94, 41044), (101, 41125), (102, 41128), (138, 41326),

Gene: Reindeer\_49 Start: 37136, Stop: 36339, Start Num: 31

Candidate Starts for Reindeer\_49:

(Start: 31 @37136 has 20 MA's), (45, 37052), (46, 37046), (48, 37022), (49, 37016), (51, 36992), (58, 36920), (59, 36890), (65, 36836), (74, 36794), (85, 36755), (97, 36647), (98, 36620), (99, 36617), (108, 36575), (113, 36548), (131, 36455), (132, 36452), (133, 36440), (144, 36377), (149, 36347),

Gene: Rey\_55 Start: 38168, Stop: 37368, Start Num: 31

Candidate Starts for Rey\_55:

(17, 38258), (Start: 31 @38168 has 20 MA's), (48, 38051), (63, 37889), (65, 37865), (67, 37859), (73, 37832), (87, 37766), (98, 37649), (99, 37646), (113, 37577), (120, 37544), (133, 37469), (142, 37415), (144, 37406), (149, 37376),

Gene: Rizal\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Rizal\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Ronan\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Ronan\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (81, 876), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: Rose5\_32 Start: 28983, Stop: 28231, Start Num: 35

Candidate Starts for Rose5\_32:

(Start: 35 @28983 has 66 MA's), (Start: 37 @28977 has 5 MA's), (58, 28815), (62, 28761), (64, 28752), (66, 28728), (69, 28719), (79, 28689), (85, 28662), (89, 28629), (92, 28611), (102, 28515), (103, 28509), (105, 28503), (107, 28488), (111, 28470), (112, 28464), (113, 28458), (124, 28395), (138, 28317), (144, 28287), (151, 28254),

Gene: Rumpelstiltskin\_35 Start: 30394, Stop: 29648, Start Num: 35

Candidate Starts for Rumpelstiltskin\_35:

(Start: 35 @30394 has 66 MA's), (Start: 39 @30376 has 2 MA's), (62, 30169), (66, 30136), (79, 30097), (85, 30070), (89, 30037), (92, 30019), (105, 29911), (107, 29896), (109, 29890), (111, 29878), (112, 29872), (113, 29866), (114, 29863), (124, 29803), (131, 29773), (135, 29743), (146, 29683), (147, 29674), (150, 29665),

Gene: Samba\_65 Start: 43857, Stop: 44642, Start Num: 30

Candidate Starts for Samba\_65:

(9, 43707), (11, 43716), (23, 43827), (Start: 30 @43857 has 22 MA's), (43, 43935), (48, 43974), (62, 44112), (91, 44274), (94, 44292), (101, 44373), (102, 44376), (112, 44427), (138, 44574),

Gene: Samty\_33 Start: 30388, Stop: 29648, Start Num: 35

Candidate Starts for Samty\_33:

(Start: 35 @30388 has 66 MA's), (41, 30364), (46, 30328), (57, 30238), (82, 30082), (92, 30013), (95, 29992), (107, 29890), (111, 29872), (112, 29866), (113, 29860), (128, 29782), (138, 29719), (144, 29689),

Gene: Sarshaun\_35 Start: 30159, Stop: 29413, Start Num: 35

Candidate Starts for Sarshaun\_35:

(Start: 35 @30159 has 66 MA's), (Start: 39 @30141 has 2 MA's), (54, 30024), (56, 30015), (62, 29934), (66, 29901), (79, 29862), (85, 29835), (89, 29802), (92, 29784), (105, 29676), (107, 29661), (109, 29655), (111, 29643), (112, 29637), (113, 29631), (114, 29628), (124, 29568), (131, 29538), (135, 29508), (146, 29448), (147, 29439), (150, 29430),

Gene: Sauce\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Sauce\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (81, 897), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: ScoobyDoobyDoo\_6 Start: 1594, Stop: 2481, Start Num: 18

Candidate Starts for ScoobyDoobyDoo\_6:

(Start: 18 @1594 has 1 MA's), (21, 1627), (Start: 22 @1633 has 1 MA's), (Start: 35 @1702 has 66 MA's), (Start: 40 @1723 has 3 MA's), (49, 1792), (52, 1825), (54, 1837), (55, 1840), (65, 1969), (72, 2002), (108, 2221), (110, 2227), (113, 2248), (117, 2269), (118, 2272), (119, 2275), (124, 2311), (127, 2320), (137, 2383), (142, 2410), (144, 2419), (154, 2470),

Gene: ScottMcG\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for ScottMcG\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Sephiroth\_92 Start: 56677, Stop: 57420, Start Num: 40

Candidate Starts for Sephiroth\_92:

(Start: 40 @56677 has 3 MA's), (48, 56740), (60, 56857), (80, 56965), (84, 56983), (85, 56989), (94, 57052), (96, 57094), (105, 57151), (106, 57160), (111, 57184), (113, 57196), (124, 57259), (125, 57262), (131, 57289), (139, 57340), (144, 57367), (152, 57412),

Gene: Shaqnato\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Shaqnato\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Sheng711\_32 Start: 29088, Stop: 28351, Start Num: 35

Candidate Starts for Sheng711\_32:

(3, 29478), (26, 29142), (29, 29133), (Start: 35 @29088 has 66 MA's), (Start: 39 @29073 has 2 MA's), (41, 29067), (56, 28947), (68, 28827), (75, 28803), (82, 28785), (85, 28767), (92, 28716), (105, 28608), (107, 28593), (111, 28575), (112, 28569), (113, 28563),

Gene: ShiaLabeouf\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for ShiaLabeouf\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Shnickers\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Shnickers\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: SilverDipper\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for SilverDipper\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Silverleaf\_32 Start: 28983, Stop: 28231, Start Num: 35

Candidate Starts for Silverleaf\_32:

(Start: 35 @28983 has 66 MA's), (Start: 37 @28977 has 5 MA's), (58, 28815), (62, 28761), (66, 28728), (69, 28719), (79, 28689), (85, 28662), (89, 28629), (92, 28611), (103, 28509), (105, 28503), (107, 28488), (111, 28470), (112, 28464), (113, 28458), (124, 28395), (138, 28317), (144, 28287), (151, 28254),

Gene: Skinny\_48 Start: 36357, Stop: 35560, Start Num: 31

Candidate Starts for Skinny\_48:

(Start: 31 @36357 has 20 MA's), (45, 36273), (48, 36243), (49, 36237), (58, 36141), (59, 36111), (65, 36057), (73, 36024), (97, 35868), (98, 35841), (99, 35838), (108, 35796), (113, 35769), (122, 35715), (131, 35676), (133, 35661), (144, 35598), (149, 35568),

Gene: SlimJimmy\_46 Start: 35911, Stop: 35114, Start Num: 31

Candidate Starts for SlimJimmy\_46:

(Start: 31 @35911 has 20 MA's), (45, 35827), (48, 35797), (49, 35791), (58, 35695), (59, 35665), (65, 35611), (73, 35578), (97, 35422), (98, 35395), (99, 35392), (108, 35350), (113, 35323), (122, 35269), (131, 35230), (133, 35215), (144, 35152), (149, 35122),

Gene: SmallFry\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for SmallFry\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Snenia\_33 Start: 30388, Stop: 29648, Start Num: 35

Candidate Starts for Snenia\_33:

(Start: 35 @30388 has 66 MA's), (41, 30364), (46, 30328), (57, 30238), (82, 30082), (92, 30013), (95, 29992), (107, 29890), (111, 29872), (112, 29866), (113, 29860), (128, 29782), (138, 29719), (144, 29689),

Gene: Soap141\_35 Start: 30159, Stop: 29413, Start Num: 35

Candidate Starts for Soap141\_35:

(Start: 35 @30159 has 66 MA's), (Start: 39 @30141 has 2 MA's), (54, 30024), (56, 30015), (62, 29934), (66, 29901), (79, 29862), (85, 29835), (89, 29802), (92, 29784), (105, 29676), (107, 29661), (109, 29655), (111, 29643), (112, 29637), (113, 29631), (114, 29628), (124, 29568), (131, 29538), (135, 29508), (146, 29448), (147, 29439), (150, 29430),

Gene: Spec\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Spec\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Specks\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Specks\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (81, 893), (84, 908), (101, 1067), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: Sprinklers\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Sprinklers\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (81, 876), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: Spud\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Spud\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: StephanieG\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for StephanieG\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (143, 1295),

Gene: StubbySaigey\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for StubbySaigey\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Syleon\_95 Start: 56627, Stop: 57370, Start Num: 40

Candidate Starts for Syleon\_95:

(Start: 40 @56627 has 3 MA's), (48, 56690), (60, 56807), (80, 56915), (84, 56933), (85, 56939), (94, 57002), (105, 57101), (106, 57110), (111, 57134), (113, 57146), (124, 57209), (125, 57212), (131, 57239), (139, 57290), (144, 57317), (152, 57362),

Gene: Tainan\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Tainan\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Teardrop\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Teardrop\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Tonenili\_3 Start: 467, Stop: 1318, Start Num: 19

Candidate Starts for Tonenili\_3:

(Start: 19 @467 has 101 MA's), (38, 569), (42, 587), (45, 608), (49, 644), (52, 674), (58, 728), (63, 788), (64, 791), (65, 812), (67, 818), (69, 824), (73, 845), (81, 872), (84, 887), (107, 1076), (108, 1079), (113, 1106), (120, 1139), (142, 1271), (143, 1274),

Gene: Tortoise16\_2 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Tortoise16\_2:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160),

(124, 1190), (142, 1292), (143, 1295),

Gene: Tourach\_35 Start: 30120, Stop: 29374, Start Num: 35

Candidate Starts for Tourach\_35:

(Start: 35 @30120 has 66 MA's), (Start: 39 @30102 has 2 MA's), (56, 29976), (62, 29895), (66, 29862), (79, 29823), (85, 29796), (89, 29763), (92, 29745), (105, 29637), (107, 29622), (111, 29604), (112, 29598), (113, 29592), (114, 29589), (124, 29529), (131, 29499), (135, 29469), (146, 29409), (147, 29400), (150, 29391),

Gene: Trax\_88 Start: 55858, Stop: 56592, Start Num: 39

Candidate Starts for Trax\_88:

(Start: 39 @55858 has 2 MA's), (Start: 40 @55861 has 3 MA's), (48, 55924), (51, 55954), (68, 56101), (84, 56167), (86, 56179), (94, 56236), (102, 56323), (105, 56335), (111, 56368), (113, 56380), (124, 56443), (133, 56488), (145, 56557),

Gene: TriFive\_33 Start: 30387, Stop: 29647, Start Num: 35

Candidate Starts for TriFive\_33:

(Start: 35 @30387 has 66 MA's), (41, 30363), (46, 30327), (57, 30237), (82, 30081), (92, 30012), (95, 29991), (107, 29889), (111, 29871), (112, 29865), (113, 29859), (128, 29781), (138, 29718), (144, 29688),

Gene: Trinitium\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Trinitium\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Turret\_3 Start: 456, Stop: 1322, Start Num: 19

Candidate Starts for Turret\_3:

(Start: 19 @456 has 101 MA's), (Start: 22 @495 has 1 MA's), (38, 573), (42, 591), (45, 612), (49, 648), (52, 678), (58, 732), (65, 816), (67, 822), (69, 828), (84, 891), (108, 1083), (113, 1110), (120, 1143), (124, 1173), (142, 1275), (143, 1278),

Gene: TyDawg\_47 Start: 35928, Stop: 35131, Start Num: 31

Candidate Starts for TyDawg\_47:

(Start: 31 @35928 has 20 MA's), (45, 35844), (48, 35814), (49, 35808), (58, 35712), (59, 35682), (65, 35628), (73, 35595), (97, 35439), (98, 35412), (99, 35409), (108, 35367), (113, 35340), (122, 35286), (131, 35247), (133, 35232), (144, 35169), (149, 35139),

Gene: Tyke\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for Tyke\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Tyson\_32 Start: 28983, Stop: 28231, Start Num: 35

Candidate Starts for Tyson\_32:

(Start: 35 @28983 has 66 MA's), (Start: 37 @28977 has 5 MA's), (58, 28815), (62, 28761), (64, 28752), (66, 28728), (69, 28719), (79, 28689), (85, 28662), (89, 28629), (92, 28611), (103, 28509), (105, 28503), (107, 28488), (111, 28470), (112, 28464), (113, 28458), (124, 28395), (138, 28317), (144, 28287), (151, 28254),

Gene: UPIE\_32 Start: 28975, Stop: 28229, Start Num: 37



Candidate Starts for UPIE\_32:

(Start: 35 @28981 has 66 MA's), (Start: 37 @28975 has 5 MA's), (58, 28813), (62, 28759), (64, 28750), (66, 28726), (69, 28717), (79, 28687), (85, 28660), (89, 28627), (92, 28609), (102, 28513), (103, 28507), (105, 28501), (107, 28486), (111, 28468), (112, 28462), (113, 28456), (124, 28393), (138, 28315), (144, 28285), (151, 28252),

Gene: Underpass\_35 Start: 30128, Stop: 29382, Start Num: 35

Candidate Starts for Underpass\_35:

(Start: 35 @30128 has 66 MA's), (Start: 39 @30110 has 2 MA's), (50, 30017), (62, 29903), (66, 29870), (79, 29831), (85, 29804), (89, 29771), (92, 29753), (105, 29645), (107, 29630), (109, 29624), (111, 29612), (112, 29606), (113, 29600), (114, 29597), (124, 29537), (131, 29507), (135, 29477), (146, 29417), (147, 29408), (150, 29399),

Gene: ValleyTerrace\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for ValleyTerrace\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Vetric\_35 Start: 30132, Stop: 29386, Start Num: 35

Candidate Starts for Vetric\_35:

(Start: 35 @30132 has 66 MA's), (Start: 39 @30114 has 2 MA's), (62, 29907), (66, 29874), (79, 29835), (85, 29808), (89, 29775), (92, 29757), (105, 29649), (107, 29634), (109, 29628), (111, 29616), (112, 29610), (113, 29604), (114, 29601), (124, 29541), (131, 29511), (135, 29481), (146, 29421), (147, 29412), (150, 29403),

Gene: Wally\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Wally\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (142, 1296), (143, 1299),

Gene: Walrus\_63 Start: 40796, Stop: 41581, Start Num: 30

Candidate Starts for Walrus\_63:

(9, 40646), (11, 40655), (23, 40766), (Start: 30 @40796 has 22 MA's), (48, 40913), (49, 40919), (60, 41030), (62, 41051), (67, 41087), (91, 41213), (94, 41231), (101, 41312), (102, 41315), (138, 41513),

Gene: Wamburgxpress\_32 Start: 28996, Stop: 28244, Start Num: 35

Candidate Starts for Wamburgxpress\_32:

(Start: 35 @28996 has 66 MA's), (Start: 37 @28990 has 5 MA's), (58, 28828), (62, 28774), (64, 28765), (66, 28741), (69, 28732), (79, 28702), (85, 28675), (89, 28642), (92, 28624), (102, 28528), (103, 28522), (105, 28516), (107, 28501), (111, 28483), (112, 28477), (113, 28471), (124, 28408), (138, 28330), (144, 28300), (151, 28267),

Gene: Whirlwind\_34 Start: 30135, Stop: 29395, Start Num: 35

Candidate Starts for Whirlwind\_34:

(Start: 35 @30135 has 66 MA's), (41, 30111), (46, 30075), (57, 29985), (82, 29829), (92, 29760), (95, 29739), (107, 29637), (111, 29619), (112, 29613), (113, 29607), (138, 29466), (144, 29436),

Gene: Wigglewigggle\_35 Start: 30158, Stop: 29412, Start Num: 35

Candidate Starts for Wigglewigggle\_35:

(Start: 35 @30158 has 66 MA's), (Start: 39 @30140 has 2 MA's), (54, 30023), (56, 30014), (62, 29933), (66, 29900), (79, 29861), (85, 29834), (89, 29801), (92, 29783), (105, 29675), (107, 29660), (109,

29654), (111, 29642), (112, 29636), (113, 29630), (114, 29627), (124, 29567), (131, 29537), (135, 29507), (146, 29447), (147, 29438), (150, 29429),

Gene: Wildcat\_58 Start: 41513, Stop: 40764, Start Num: 33

Candidate Starts for Wildcat\_58:

(6, 41750), (7, 41738), (8, 41702), (13, 41657), (15, 41633), (24, 41549), (Start: 33 @41513 has 5 MA's), (38, 41474), (44, 41441), (47, 41414), (49, 41399), (51, 41375), (68, 41207), (71, 41192), (85, 41135), (102, 41033), (113, 40976), (116, 40964), (131, 40883), (135, 40853), (137, 40841), (142, 40814), (144, 40805), (145, 40799), (151, 40772),

Gene: Wilder\_35 Start: 30131, Stop: 29385, Start Num: 35

Candidate Starts for Wilder\_35:

(Start: 35 @30131 has 66 MA's), (Start: 39 @30113 has 2 MA's), (54, 29996), (56, 29987), (62, 29906), (66, 29873), (79, 29834), (85, 29807), (89, 29774), (92, 29756), (105, 29648), (107, 29633), (109, 29627), (111, 29615), (112, 29609), (113, 29603), (114, 29600), (124, 29540), (131, 29510), (135, 29480), (146, 29420), (147, 29411), (150, 29402),

Gene: Winky\_35 Start: 30126, Stop: 29380, Start Num: 35

Candidate Starts for Winky\_35:

(Start: 35 @30126 has 66 MA's), (Start: 39 @30108 has 2 MA's), (62, 29901), (66, 29868), (79, 29829), (85, 29802), (89, 29769), (92, 29751), (105, 29643), (107, 29628), (109, 29622), (111, 29610), (112, 29604), (113, 29598), (114, 29595), (124, 29535), (131, 29505), (135, 29475), (146, 29415), (147, 29406), (150, 29397),

Gene: Wisp\_64 Start: 41649, Stop: 42434, Start Num: 30

Candidate Starts for Wisp\_64:

(9, 41499), (11, 41508), (23, 41619), (Start: 30 @41649 has 22 MA's), (43, 41727), (48, 41766), (49, 41772), (62, 41904), (91, 42066), (94, 42084), (101, 42165), (102, 42168), (112, 42219), (138, 42366),

Gene: Wyatt2\_32 Start: 28983, Stop: 28231, Start Num: 35

Candidate Starts for Wyatt2\_32:

(Start: 35 @28983 has 66 MA's), (Start: 37 @28977 has 5 MA's), (58, 28815), (62, 28761), (64, 28752), (66, 28728), (69, 28719), (79, 28689), (85, 28662), (89, 28629), (92, 28611), (102, 28515), (103, 28509), (105, 28503), (107, 28488), (111, 28470), (112, 28464), (113, 28458), (124, 28395), (138, 28317), (144, 28287), (151, 28254),

Gene: Yassified\_3 Start: 477, Stop: 1343, Start Num: 19

Candidate Starts for Yassified\_3:

(Start: 19 @477 has 101 MA's), (Start: 22 @516 has 1 MA's), (38, 594), (42, 612), (45, 633), (49, 669), (52, 699), (58, 753), (65, 837), (67, 843), (69, 849), (81, 897), (84, 912), (108, 1104), (113, 1131), (120, 1164), (124, 1194), (143, 1299),

Gene: YoungMoneyMata\_3 Start: 473, Stop: 1339, Start Num: 19

Candidate Starts for YoungMoneyMata\_3:

(Start: 19 @473 has 101 MA's), (Start: 22 @512 has 1 MA's), (38, 590), (42, 608), (45, 629), (49, 665), (52, 695), (58, 749), (65, 833), (67, 839), (69, 845), (84, 908), (108, 1100), (113, 1127), (120, 1160), (124, 1190), (142, 1292), (143, 1295),

Gene: Zakai\_35 Start: 30382, Stop: 29636, Start Num: 35

Candidate Starts for Zakai\_35:

(Start: 35 @30382 has 66 MA's), (Start: 39 @30364 has 2 MA's), (56, 30238), (62, 30157), (66, 30124), (79, 30085), (85, 30058), (89, 30025), (92, 30007), (105, 29899), (107, 29884), (111, 29866), (112, 29860), (113, 29854), (114, 29851), (121, 29806), (124, 29791), (131, 29761), (135, 29731), (146,

29671), (147, 29662),

Gene: Zarbodnamra\_65 Start: 41043, Stop: 41828, Start Num: 30

Candidate Starts for Zarbodnamra\_65:

(9, 40893), (11, 40902), (23, 41013), (Start: 30 @41043 has 22 MA's), (43, 41121), (48, 41160), (49, 41166), (62, 41298), (91, 41460), (94, 41478), (101, 41559), (102, 41562), (112, 41613), (138, 41760),

Gene: Zaria\_32 Start: 28998, Stop: 28246, Start Num: 35

Candidate Starts for Zaria\_32:

(Start: 35 @28998 has 66 MA's), (Start: 37 @28992 has 5 MA's), (58, 28830), (62, 28776), (64, 28767), (66, 28743), (69, 28734), (79, 28704), (85, 28677), (89, 28644), (92, 28626), (102, 28530), (103, 28524), (105, 28518), (107, 28503), (111, 28485), (112, 28479), (113, 28473), (124, 28410), (138, 28332), (144, 28302), (151, 28269),

Gene: ZhongYanYuan\_34 Start: 29947, Stop: 29201, Start Num: 35

Candidate Starts for ZhongYanYuan\_34:

(Start: 35 @29947 has 66 MA's), (62, 29722), (66, 29689), (79, 29650), (85, 29623), (89, 29590), (92, 29572), (105, 29464), (107, 29449), (109, 29443), (111, 29431), (112, 29425), (113, 29419), (114, 29416), (124, 29356), (131, 29326), (135, 29296), (146, 29236), (147, 29227), (150, 29218),

Gene: ZiggyZoo\_65 Start: 42702, Stop: 43487, Start Num: 30

Candidate Starts for ZiggyZoo\_65:

(4, 42411), (9, 42552), (11, 42561), (23, 42672), (Start: 30 @42702 has 22 MA's), (48, 42819), (49, 42825), (62, 42957), (68, 42996), (91, 43119), (94, 43137), (101, 43218), (102, 43221), (112, 43272), (138, 43419),

Gene: Zooman\_191 Start: 113275, Stop: 114018, Start Num: 35

Candidate Starts for Zooman\_191:

(Start: 35 @113275 has 66 MA's), (59, 113473), (78, 113572), (90, 113644), (93, 113659), (100, 113740), (108, 113779), (113, 113806), (139, 113950), (141, 113956),