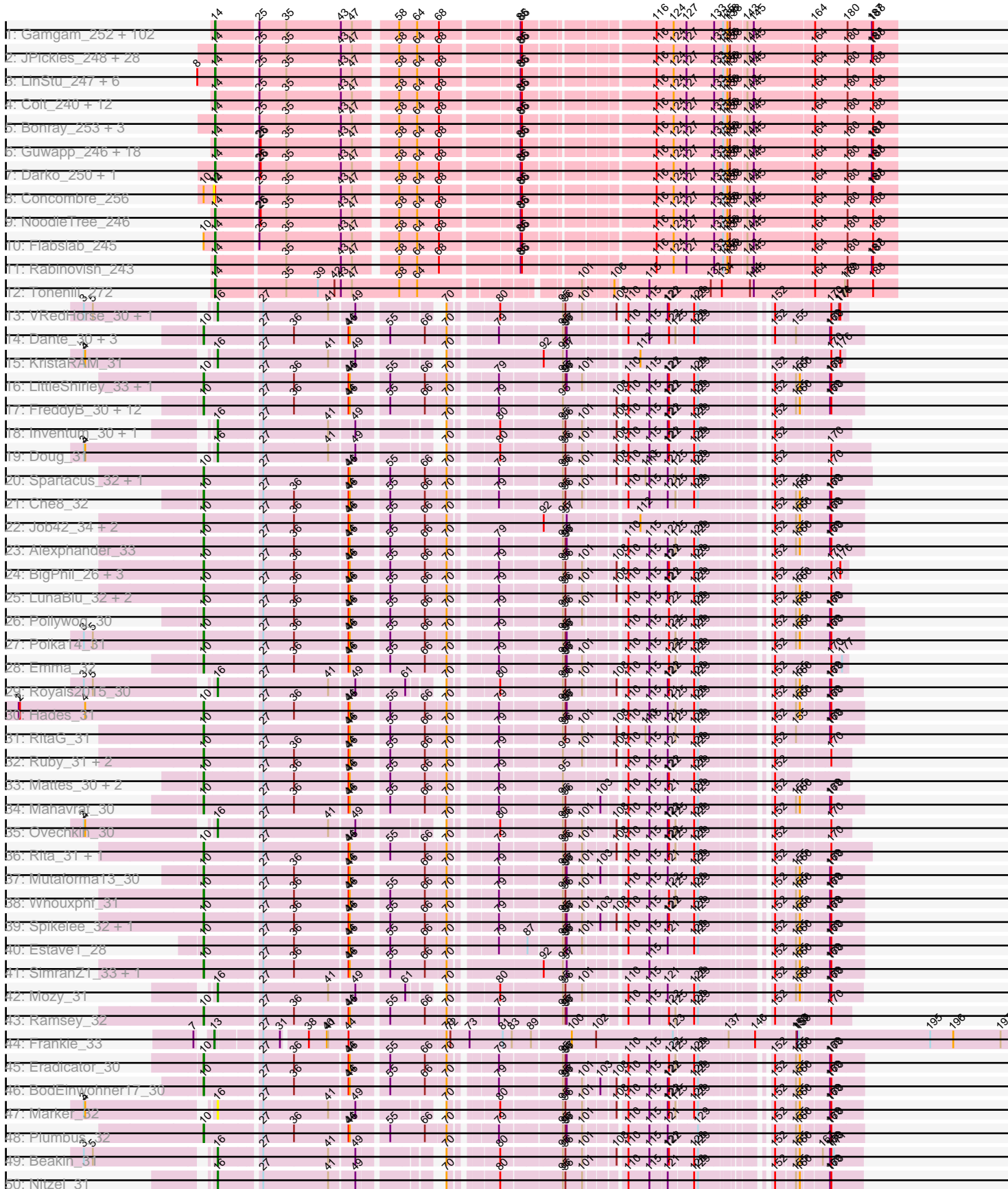
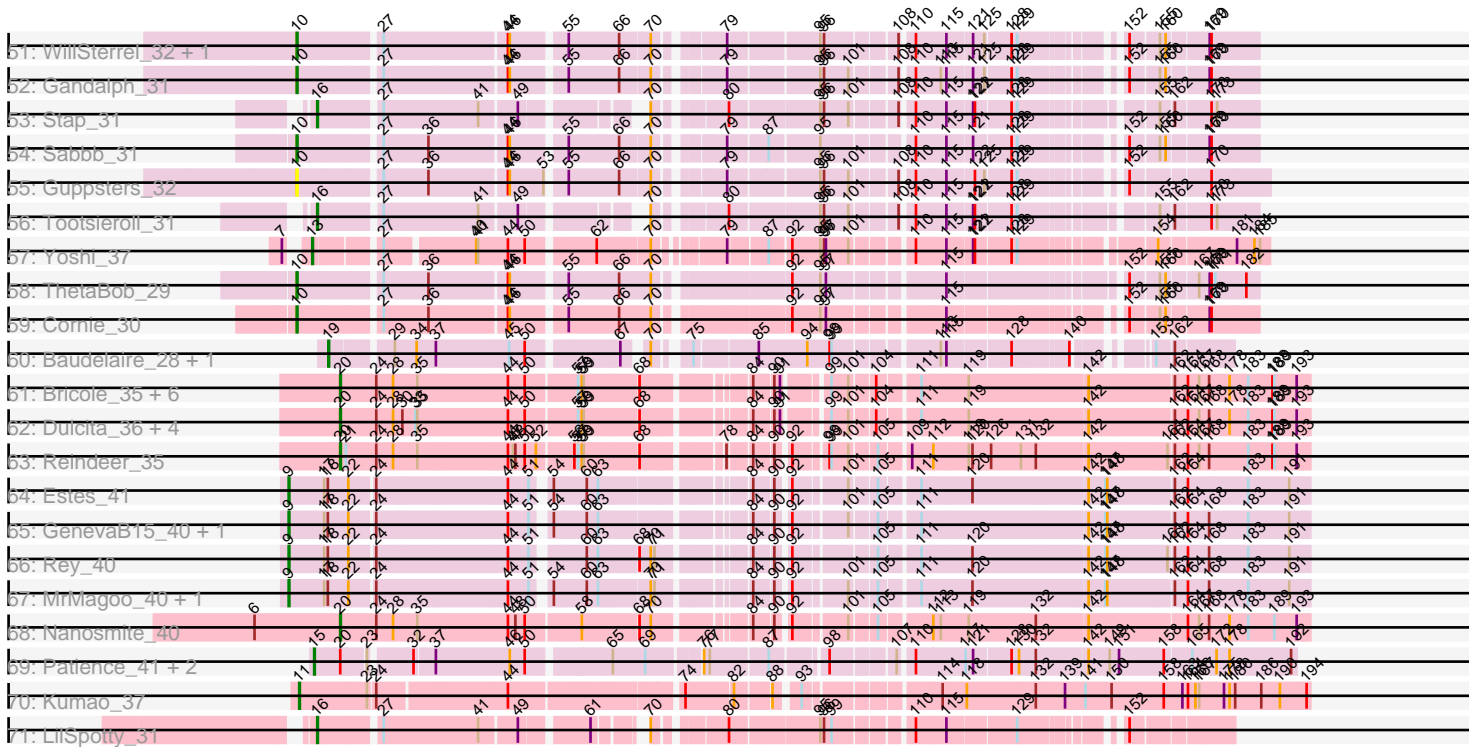


Pham 157528



Pham 157528



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 157528 Report

This analysis was run 04/13/24 on database version 558.

Pham number 157528 has 290 members, 20 are drafts.

Phages represented in each track:

- Track 1 : Gamgam\_252, Grungle\_232, BeanWater\_243, YemiJoy2021\_251, Pier\_249, Pivoine\_251, Ewok\_249, DTDevon\_251, Ghost\_250, ScottMcG\_242, Daffodil\_256, Koguma\_249, Chomp\_248, EmmaElysia\_255, Drazdys\_247, LRRHood\_242, Melpomini\_245, Loanshark\_247, Naija\_251, QBert\_242, Delylah\_252, Jedediah\_252, Dietrick\_239, Roots515\_253, EasyJones\_251, Grasshills\_257, Momo\_252, ParkTD\_249, Essence\_248, Catera\_239, Cali\_240, Izajani\_246, Burrough\_251, Sauce\_247, Quasimodo\_253, Shelob\_251, Kboogie\_254, Rahel\_252, NedWong\_249, LolaVinca\_246, Phusco\_249, Iota\_247, Pio\_257, Amataga\_251, Audrick\_253, Jaygup\_247, Atlantean\_250, Wally\_248, Sprinklers\_248, DrPhinkDaddy\_247, ArcherS7\_251, Turret\_241, Derek\_246, ChaylaJr\_249, Capablanca\_255, Tortoise16\_248, Adlitam\_250, ChickenPhender\_246, MikeLiesIn\_251, YoungMoneyMata\_250, Zeenon\_251, I3\_260, Delilah\_248, Spud\_242, Napoleon13\_247, Ngannou\_245, Latch\_250, Jemmno\_250, Breeniome\_250, DirtMonster\_239, Bipolarisk\_248, Fludd\_250, Pleione\_254, BigCity\_258, JustHall\_244, Ava3\_247, Gabriel\_253, BackyardAgain\_245, Babyland\_253, ValleyTerrace\_251, Spec\_244, InigoMontoya\_254, Zalkecks\_249, Tyke\_247, SilverDipper\_255, Caravan\_240, Phox\_251, Bangla1971\_251, NuevoMundo\_252, Rizal\_239, Bxz1\_236, LifeSavor\_251, Littleton\_254, Norm\_250, Megamind\_247, Mangeria\_250, Shnickers\_249, ShiaLabeouf\_248, EggyFarm\_258, Matsumoto\_248, Willis\_251, Phlegm\_255, SmallFry\_251
- Track 2 : JPickles\_248, StubbySaigey\_257, Blackbrain\_249, Basquiat\_248, TinyTim\_249, Janiyra\_254, Erdmann\_252, Cactojaque\_245, Gizmo\_256, ZygoTaiga\_247, Trinitium\_247, Chargie21\_248, Yucca\_251, Specks\_255, Bread\_247, Astraea\_246, Lee7\_251, ErnieJ\_244, EmToTheThree\_251, FoxtrotP1\_249, Morizzled23\_248, Maby2021\_251, Ading\_253, Shrimp\_253, FudgeTart\_246, Salacia\_252, SrishMeg2525\_248, Teardrop\_249, McGee\_252
- Track 3 : LinStu\_247, Stubby\_233, Yassified\_246, ET08\_236, Ronan\_246, Pinkcreek\_230, Alice\_236
- Track 4 : Colt\_240, Cane17\_239, CharlieB\_245, Jessibeth14\_250, Sebata\_250, JayJay\_246, JulietS\_242, McWolfish\_247, HyRo\_235, Shaqnato\_241, Blubba\_245, Shifa\_226, Khaleesi\_249
- Track 5 : Bonray\_253, Issimir\_247, PurduePete\_251, Asterius\_247
- Track 6 : Guwapp\_246, IkeLoa\_244, Patter\_252, LordLeafolot\_252, Mikro\_244, BadAgartude\_244, MoMoMixon\_246, Nappy\_249, Kamryn\_249, Bigswole\_255, Nidhogg\_251, Naval22\_255, FrayBell\_253, InterFolia\_252, CindyLou\_251, Dandelion\_256, Lukilu\_239, RoMag\_245, StephanieG\_244

- Track 7 : Darko\_250, BananaFence\_248
- Track 8 : Concombre\_256
- Track 9 : NoodleTree\_246
- Track 10 : Flabslab\_245
- Track 11 : Rabinovish\_243
- Track 12 : Tonenili\_272
- Track 13 : VRedHorse\_30, Cornucopia\_31
- Track 14 : Dante\_30, Empress\_31, Sandalphon\_31, OldBen\_30
- Track 15 : KristaRAM\_31
- Track 16 : LittleShirley\_33, Rialto\_34
- Track 17 : FreddyB\_30, Cabrinians\_30, OlympiaSaint\_30, DRBy19\_30, Philus\_30, Spoonbill\_30, Priscilla\_30, Sparkdehlily\_30, Gorge\_30, Radiance\_30, Saal\_30, Totinger\_34, TDanisky\_30
- Track 18 : Inventum\_30, Sassafras\_30
- Track 19 : Doug\_31
- Track 20 : Spartacus\_32, Bubbles123\_32
- Track 21 : Che8\_32
- Track 22 : Job42\_34, Minnie\_32, DosHalletts\_34
- Track 23 : Alexphander\_33
- Track 24 : BigPhil\_26, Cerasum\_26, Velveteen\_26, Sarma624\_26
- Track 25 : LunaBlu\_32, MinionDave\_32, Galactic\_31
- Track 26 : Pollywog\_30
- Track 27 : Polka14\_31
- Track 28 : Emma\_32
- Track 29 : Royals2015\_30
- Track 30 : Hades\_31
- Track 31 : RitaG\_31
- Track 32 : Ruby\_31, MisterCuddles\_31, Girr\_31
- Track 33 : Mattes\_30, James\_30, BobaPhett\_30
- Track 34 : Mahavrat\_30
- Track 35 : Ovechkin\_30
- Track 36 : Rita\_31, SuperGrey\_31
- Track 37 : Mutaforma13\_30
- Track 38 : Whouxphf\_31
- Track 39 : Spikelee\_32, BuzzLyseyear\_33
- Track 40 : Estave1\_28
- Track 41 : SimranZ1\_33, Boomer\_32
- Track 42 : Mozy\_31
- Track 43 : Ramsey\_32
- Track 44 : Frankie\_33
- Track 45 : Eradicator\_30
- Track 46 : BodEinwohner17\_30
- Track 47 : Marker\_32
- Track 48 : Plumbus\_32
- Track 49 : Beakin\_31
- Track 50 : Nitzel\_31
- Track 51 : WillSterrel\_32, IrishSherpFalk\_32
- Track 52 : Gandalph\_31
- Track 53 : Stap\_31
- Track 54 : Sabbb\_31
- Track 55 : Guppsters\_32
- Track 56 : Tootsieroll\_31
- Track 57 : Yoshi\_37

- Track 58 : ThetaBob\_29
- Track 59 : Cornie\_30
- Track 60 : Baudelaire\_28, Aegeus\_28
- Track 61 : Bricole\_35, IPhone7\_35, Skinny\_36, Bongo\_35, PegLeg\_35, LilhomieP\_34, TyDawg\_35
- Track 62 : Dulcita\_36, Auspice\_35, Glaske16\_36, SlimJimmy\_34, Diminimus\_36
- Track 63 : Reindeer\_35
- Track 64 : Estes\_41
- Track 65 : GenevaB15\_40, Aziz\_40
- Track 66 : Rey\_40
- Track 67 : MrMagoo\_40, GardenSalsa\_40
- Track 68 : Nanosmite\_40
- Track 69 : Patience\_41, Labelle\_40, Madrugua\_39
- Track 70 : Kumao\_37
- Track 71 : LilSpotty\_31

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

The start number called the most often in the published annotations is 14, it was called in 167 of the 270 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- Ading\_253, Adlitam\_250, Alice\_236, Amataga\_251, ArcherS7\_251, Asterius\_247, Astraea\_246, Atlantean\_250, Audrick\_253, Ava3\_247, Babyland\_253, BackyardAgain\_245, BadAgartude\_244, BananaFence\_248, Bangla1971\_251, Basquiat\_248, BeanWater\_243, BigCity\_258, Bigswole\_255, Bipolarisk\_248, Blackbrain\_249, Blubba\_245, Bonray\_253, Bread\_247, Breeniome\_250, Burrough\_251, Bxz1\_236, Cactojaque\_245, Cali\_240, Cane17\_239, Capablanca\_255, Caravan\_240, Catera\_239, Chargie21\_248, CharlieB\_245, ChaylaJr\_249, ChickenPhender\_246, Chomp\_248, CindyLou\_251, Colt\_240, DTDevon\_251, Daffodil\_256, Dandelion\_256, Darko\_250, Delilah\_248, Delylah\_252, Derek\_246, Dietrick\_239, DirtMonster\_239, DrPhinkDaddy\_247, Drazdys\_247, ET08\_236, EasyJones\_251, EggyFarm\_258, EmToTheThree\_251, EmmaElysia\_255, Erdmann\_252, ErnieJ\_244, Essence\_248, Ewok\_249, Flabslab\_245, Fludd\_250, FoxtrotP1\_249, FrayBell\_253, FudgeTart\_246, Gabriel\_253, Gamgam\_252, Ghost\_250, Gizmo\_256, Grasshills\_257, Grungle\_232, Guwapp\_246, HyRo\_235, I3\_260, IkeLoa\_244, InigoMontoya\_254, InterFolia\_252, Iota\_247, Issimir\_247, Izajani\_246, JPickles\_248, Janiyra\_254, JayJay\_246, Jaygup\_247, Jedediah\_252, Jemmno\_250, Jessibeth14\_250, JulietS\_242, JustHall\_244, Kamryn\_249, Kboogie\_254, Khaleesi\_249, Koguma\_249, LRRHood\_242, Latch\_250, Lee7\_251, LifeSavor\_251, LinStu\_247, Littleton\_254, Loanshark\_247, LolaVinca\_246, LordLeafolot\_252, Lukilu\_239, Maby2021\_251, Mangeria\_250, Matsumoto\_248, McGee\_252, McWolfish\_247, Megamind\_247, Melpomini\_245, MikeLiesIn\_251, Mikro\_244, MoMoMixon\_246, Momo\_252, Morizzled23\_248, Naija\_251, Napoleon13\_247, Nappy\_249, Naval22\_255, NedWong\_249, Ngannou\_245, Nidhogg\_251, NoodleTree\_246, Norm\_250, NuevoMundo\_252, ParkTD\_249, Patter\_252, Phlegm\_255, Phox\_251, Phusco\_249, Pier\_249, Pinkcreek\_230, Pio\_257, Pivoine\_251, Pleione\_254, PurduePete\_251, QBert\_242, Quasimodo\_253, Rabinovish\_243, Rahel\_252, Rizal\_239, RoMag\_245, Ronan\_246, Roots515\_253, Salacia\_252, Sauce\_247, ScottMcG\_242, Sebata\_250,

Shaqnato\_241, Shelob\_251, ShiaLabeouf\_248, Shifa\_226, Shnickers\_249, Shrimp\_253, SilverDipper\_255, SmallFry\_251, Spec\_244, Specks\_255, Sprinklers\_248, Spud\_242, SrishMeg2525\_248, StephanieG\_244, StubbySaigey\_257, Stubby\_233, Teardrop\_249, TinyTim\_249, Tonenili\_272, Tortoise16\_248, Trinitium\_247, Turret\_241, Tyke\_247, ValleyTerrace\_251, Wally\_248, Willis\_251, Yassified\_246, YemiJoy2021\_251, YoungMoneyMata\_250, Yucca\_251, Zalkecks\_249, Zeenon\_251, ZygoTaiga\_247,

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

- Concombre\_256,

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

- Aegeus\_28, Alexphander\_33, Auspice\_35, Aziz\_40, Baudelaire\_28, Beakin\_31, BigPhil\_26, BobaPhett\_30, BodEinwohner17\_30, Bongo\_35, Boomer\_32, Bricole\_35, Bubbles123\_32, BuzzLyseyear\_33, Cabrinians\_30, Cerasum\_26, Che8\_32, Cornie\_30, Cornucopia\_31, DRBy19\_30, Dante\_30, Diminimus\_36, DosHalletts\_34, Doug\_31, Dulcita\_36, Emma\_32, Empress\_31, Eradicator\_30, Estave1\_28, Estes\_41, Frankie\_33, FreddyB\_30, Galactic\_31, Gandolph\_31, GardenSalsa\_40, GenevaB15\_40, Girr\_31, Glaske16\_36, Gorge\_30, Guppsters\_32, Hades\_31, IPhane7\_35, Inventum\_30, IrishSherpFalk\_32, James\_30, Job42\_34, KristaRAM\_31, Kumao\_37, Labelle\_40, LilSpotty\_31, LilhomieP\_34, LittleShirley\_33, LunaBlu\_32, Madrugá\_39, Mahavrat\_30, Marker\_32, Mattes\_30, MinionDave\_32, Minnie\_32, MisterCuddles\_31, Mozy\_31, MrMagoo\_40, Mutaforma13\_30, Nanosmite\_40, Nitzel\_31, OldBen\_30, OlympiaSaint\_30, Ovechkin\_30, Patience\_41, PegLeg\_35, Philus\_30, Plumbus\_32, Polka14\_31, Pollywog\_30, Priscilla\_30, Radiance\_30, Ramsey\_32, Reindeer\_35, Rey\_40, Rialto\_34, RitaG\_31, Rita\_31, Royals2015\_30, Ruby\_31, Saal\_30, Sabbb\_31, Sandalphon\_31, Sarma624\_26, Sassafras\_30, SimranZ1\_33, Skinny\_36, SlimJimmy\_34, Sparkdehlily\_30, Spartacus\_32, Spikelee\_32, Spoonbill\_30, Stap\_31, SuperGrey\_31, TDanisky\_30, ThetaBob\_29, Tootsieroll\_31, Totinger\_34, TyDawg\_35, VRedHorse\_30, Velveteen\_26, Whouphf\_31, WillSterrel\_32, Yoshi\_37,

### Summary by start number:

Start 9:

- Found in 6 of 290 ( 2.1% ) of genes in pham
- Manual Annotations of this start: 6 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aziz\_40 (M2), Estes\_41 (M2), GardenSalsa\_40 (M2), GenevaB15\_40 (M2), MrMagoo\_40 (M2), Rey\_40 (M2),

Start 10:

- Found in 67 of 290 ( 23.1% ) of genes in pham
- Manual Annotations of this start: 61 of 270
- Called 97.0% of time when present
- Phage (with cluster) where this start called: Alexphander\_33 (F1), BigPhil\_26 (F1), BobaPhett\_30 (F1), BodEinwohner17\_30 (F1), Boomer\_32 (F1), Bubbles123\_32 (F1), BuzzLyseyear\_33 (F1), Cabrinians\_30 (F1), Cerasum\_26 (F1), Che8\_32 (F1), Cornie\_30 (F5), DRBy19\_30 (F1), Dante\_30 (F1), DosHalletts\_34 (F1), Emma\_32 (F1), Empress\_31 (F1), Eradicator\_30 (F1), Estave1\_28 (F1), FreddyB\_30 (F1), Galactic\_31 (F1), Gandolph\_31 (F1), Girr\_31 (F1), Gorge\_30 (F1), Guppsters\_32 (F1), Hades\_31 (F1), IrishSherpFalk\_32 (F1), James\_30 (F1), Job42\_34 (F1), LittleShirley\_33 (F1), LunaBlu\_32 (F1), Mahavrat\_30 (F1), Mattes\_30 (F1),

MinionDave\_32 (F1), Minnie\_32 (F1), MisterCuddles\_31 (F1), Mutaforma13\_30 (F1), OldBen\_30 (F1), OlympiaSaint\_30 (F1), Philus\_30 (F1), Plumbus\_32 (F1), Polka14\_31 (F1), Pollywog\_30 (F1), Priscilla\_30 (F1), Radiance\_30 (F1), Ramsey\_32 (F1), Rialto\_34 (F1), RitaG\_31 (F1), Rita\_31 (F1), Ruby\_31 (F1), Saal\_30 (F1), Sabbb\_31 (F1), Sandalphon\_31 (F1), Sarma624\_26 (F1), SimranZ1\_33 (F1), Sparkdehlily\_30 (F1), Spartacus\_32 (F1), Spikelee\_32 (F1), Spoonbill\_30 (F1), SuperGrey\_31 (F1), TDanisky\_30 (F1), ThetaBob\_29 (F4), Totinger\_34 (F1), Velveteen\_26 (F1), Whouxphf\_31 (F1), WillSterrel\_32 (F1),

Start 11:

- Found in 1 of 290 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Kumao\_37 (singleton),

Start 12:

- Found in 1 of 290 ( 0.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Concombre\_256 (C1),

Start 13:

- Found in 2 of 290 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Frankie\_33 (F1), Yoshi\_37 (F2),

Start 14:

- Found in 182 of 290 ( 62.8% ) of genes in pham
- Manual Annotations of this start: 167 of 270
- Called 99.5% of time when present
- Phage (with cluster) where this start called: Ading\_253 (C1), Adlitam\_250 (C1), Alice\_236 (C1), Amataga\_251 (C1), ArcherS7\_251 (C1), Asterius\_247 (C1), Astraea\_246 (C1), Atlantean\_250 (C1), Audrick\_253 (C1), Ava3\_247 (C1), Babyland\_253 (C1), BackyardAgain\_245 (C1), BadAgartude\_244 (C1), BananaFence\_248 (C1), Bangla1971\_251 (C1), Basquiat\_248 (C1), BeanWater\_243 (C1), BigCity\_258 (C1), Bigswole\_255 (C1), Bipolarisk\_248 (C1), Blackbrain\_249 (C1), Blubba\_245 (C1), Bonray\_253 (C1), Bread\_247 (C1), Breeniome\_250 (C1), Burrough\_251 (C1), Bxz1\_236 (C1), Cactojaque\_245 (C1), Cali\_240 (C1), Cane17\_239 (C1), Capablanca\_255 (C1), Caravan\_240 (C1), Catera\_239 (C1), Chargie21\_248 (C1), CharlieB\_245 (C1), ChaylaJr\_249 (C1), ChickenPhender\_246 (C1), Chomp\_248 (C1), CindyLou\_251 (C1), Colt\_240 (C1), DTDevon\_251 (C1), Daffodil\_256 (C1), Dandelion\_256 (C1), Darko\_250 (C1), Delilah\_248 (C1), Delylah\_252 (C1), Derek\_246 (C1), Dietrick\_239 (C1), DirtMonster\_239 (C1), DrPhinkDaddy\_247 (C1), Drazdys\_247 (C1), ET08\_236 (C1), EasyJones\_251 (C1), EggyFarm\_258 (C1), EmToTheThree\_251 (C1), EmmaElysia\_255 (C1), Erdmann\_252 (C1), ErnieJ\_244 (C1), Essence\_248 (C1), Ewok\_249 (C1), Flabslab\_245 (C1), Fludd\_250 (C1), FoxtrotP1\_249 (C1), FrayBell\_253 (C1), FudgeTart\_246 (C1), Gabriel\_253 (C1), Gamgam\_252 (C1), Ghost\_250 (C1), Gizmo\_256 (C1), Grasshills\_257 (C1), Grungle\_232 (C1), Guwapp\_246 (C1), HyRo\_235 (C1), I3\_260 (C1), IkeLoa\_244 (C1), InigoMontoya\_254 (C1), InterFolia\_252 (C1), Iota\_247 (C1), Issimir\_247 (C1), Izajani\_246 (C1), JPickles\_248 (C1), Janiyra\_254 (C1), JayJay\_246 (C1), Jaygup\_247 (C1), Jedediah\_252 (C1),

Jemmno\_250 (C1), Jessibeth14\_250 (C1), JulietS\_242 (C1), JustHall\_244 (C1), Kamryn\_249 (C1), Kboogie\_254 (C1), Khaleesi\_249 (C1), Koguma\_249 (C1), LRRHood\_242 (C1), Latch\_250 (C1), Lee7\_251 (C1), LifeSavor\_251 (C1), LinStu\_247 (C1), Littleton\_254 (C1), Loanshark\_247 (C1), LolaVinca\_246 (C1), LordLeafolot\_252 (C1), Lukilu\_239 (C1), Maby2021\_251 (C1), Mangeria\_250 (C1), Matsumoto\_248 (C1), McGee\_252 (C1), McWolfish\_247 (C1), Megamind\_247 (C1), Melpomini\_245 (C1), MikeLiesIn\_251 (C1), Mikro\_244 (C1), MoMoMixon\_246 (C1), Momo\_252 (C1), Morizzled23\_248 (C1), Naija\_251 (C1), Napoleon13\_247 (C1), Nappy\_249 (C1), Naval22\_255 (C1), NedWong\_249 (C1), Ngannou\_245 (C1), Nidhogg\_251 (C1), NoodleTree\_246 (C1), Norm\_250 (C1), NuevoMundo\_252 (C1), ParkTD\_249 (C1), Patter\_252 (C1), Phlegm\_255 (C1), Phox\_251 (C1), Phusco\_249 (C1), Pier\_249 (C1), Pinkcreek\_230 (C1), Pio\_257 (C1), Pivoine\_251 (C1), Pleione\_254 (C1), PurduePete\_251 (C1), QBert\_242 (C1), Quasimodo\_253 (C1), Rabinovich\_243 (C1), Rahel\_252 (C1), Rizal\_239 (C1), RoMag\_245 (C1), Ronan\_246 (C1), Roots515\_253 (C1), Salacia\_252 (C1), Sauce\_247 (C1), ScottMcG\_242 (C1), Sebata\_250 (C1), Shaqnato\_241 (C1), Shelob\_251 (C1), ShiaLabeouf\_248 (C1), Shifa\_226 (C1), Shnickers\_249 (C1), Shrimp\_253 (C1), SilverDipper\_255 (C1), SmallFry\_251 (C1), Spec\_244 (C1), Specks\_255 (C1), Sprinklers\_248 (C1), Spud\_242 (C1), SrishMeg2525\_248 (C1), StephanieG\_244 (C1), StubbySaigey\_257 (C1), Stubby\_233 (C1), Teardrop\_249 (C1), TinyTim\_249 (C1), Tonerili\_272 (C1), Tortoise16\_248 (C1), Trinitium\_247 (C1), Turret\_241 (C1), Tyke\_247 (C1), ValleyTerrace\_251 (C1), Wally\_248 (C1), Willis\_251 (C1), Yassified\_246 (C1), YemiJoy2021\_251 (C1), YoungMoneyMata\_250 (C1), Yucca\_251 (C1), Zalkecks\_249 (C1), Zeenon\_251 (C1), ZygoTaiga\_247 (C1),

#### Start 15:

- Found in 3 of 290 ( 1.0% ) of genes in pham
- Manual Annotations of this start: 3 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Labelle\_40 (U), Madruga\_39 (U), Patience\_41 (U),

#### Start 16:

- Found in 15 of 290 ( 5.2% ) of genes in pham
- Manual Annotations of this start: 14 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Beakin\_31 (F1), Cornucopia\_31 (F1), Doug\_31 (F1), Inventum\_30 (F1), KristaRAM\_31 (F1), LilSpotty\_31 (singleton), Marker\_32 (F1), Mozy\_31 (F1), Nitzel\_31 (F1), Ovechkin\_30 (F1), Royals2015\_30 (F1), Sassafras\_30 (F1), Stap\_31 (F1), Tootsieroll\_31 (F1), VRedHorse\_30 (F1),

#### Start 19:

- Found in 2 of 290 ( 0.7% ) of genes in pham
- Manual Annotations of this start: 2 of 270
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aegeus\_28 (L5), Baudelaire\_28 (L5),

#### Start 20:

- Found in 17 of 290 ( 5.9% ) of genes in pham
- Manual Annotations of this start: 14 of 270
- Called 82.4% of time when present
- Phage (with cluster) where this start called: Auspice\_35 (M1), Bongo\_35 (M1), Bricole\_35 (M1), Diminimus\_36 (M1), Dulcita\_36 (M1), Glaske16\_36 (M1),



IPhane7\_35 (M1), LilhomieP\_34 (M1), Nanosmite\_40 (M3), PegLeg\_35 (M1),  
Reindeer\_35 (M1), Skinny\_36 (M1), SlimJimmy\_34 (M1), TyDawg\_35 (M1),

### **Summary by clusters:**

There are 11 clusters represented in this pham: F1, F2, F4, F5, singleton, L5, M1, M3, M2, U, C1,

Info for manual annotations of cluster C1:

- Start number 14 was manually annotated 167 times for cluster C1.

Info for manual annotations of cluster F1:

- Start number 10 was manually annotated 59 times for cluster F1.
- Start number 13 was manually annotated 1 time for cluster F1.
- Start number 16 was manually annotated 13 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 13 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F4:

- Start number 10 was manually annotated 1 time for cluster F4.

Info for manual annotations of cluster F5:

- Start number 10 was manually annotated 1 time for cluster F5.

Info for manual annotations of cluster L5:

- Start number 19 was manually annotated 2 times for cluster L5.

Info for manual annotations of cluster M1:

- Start number 20 was manually annotated 13 times for cluster M1.

Info for manual annotations of cluster M2:

- Start number 9 was manually annotated 6 times for cluster M2.

Info for manual annotations of cluster M3:

- Start number 20 was manually annotated 1 time for cluster M3.

Info for manual annotations of cluster U:

- Start number 15 was manually annotated 3 times for cluster U.

### **Gene Information:**

Gene: Ading\_253 Start: 144805, Stop: 146235, Start Num: 14

Candidate Starts for Ading\_253:

(Start: 14 @144805 has 167 MA's), (25, 144895), (35, 144958), (43, 145081), (47, 145105), (58, 145189), (64, 145231), (68, 145273), (85, 145438), (86, 145441), (116, 145696), (124, 145735), (127, 145765), (133, 145828), (135, 145849), (136, 145858), (138, 145861), (143, 145894), (145, 145909), (164, 146044), (180, 146119), (187, 146176), (188, 146179),

Gene: Adlitam\_250 Start: 142960, Stop: 144390, Start Num: 14

Candidate Starts for Adlitam\_250:

(Start: 14 @142960 has 167 MA's), (25, 143050), (35, 143113), (43, 143236), (47, 143260), (58, 143344), (64, 143386), (68, 143428), (85, 143593), (86, 143596), (116, 143851), (124, 143890), (127, 143920), (133, 143983), (135, 144004), (136, 144013), (138, 144016), (143, 144049), (145, 144064), (164, 144199), (180, 144274), (187, 144331), (188, 144334),

Gene: Aegeus\_28 Start: 24440, Stop: 25621, Start Num: 19

Candidate Starts for Aegeus\_28:

(Start: 19 @24440 has 2 MA's), (29, 24524), (34, 24557), (37, 24587), (45, 24701), (50, 24725), (67, 24854), (70, 24881), (75, 24914), (85, 25004), (94, 25082), (98, 25118), (99, 25121), (113, 25262), (115, 25268), (128, 25358), (140, 25433), (153, 25511), (162, 25535),

Gene: Alexphander\_33 Start: 27007, Stop: 28281, Start Num: 10

Candidate Starts for Alexphander\_33:

(Start: 10 @27007 has 61 MA's), (27, 27127), (36, 27199), (44, 27316), (46, 27319), (55, 27397), (66, 27478), (70, 27520), (79, 27598), (95, 27724), (96, 27730), (97, 27733), (110, 27844), (115, 27886), (121, 27922), (125, 27940), (128, 27976), (129, 27985), (152, 28099), (155, 28141), (160, 28150), (169, 28207), (170, 28210),

Gene: Alice\_236 Start: 140036, Stop: 141466, Start Num: 14

Candidate Starts for Alice\_236:

(8, 139994), (Start: 14 @140036 has 167 MA's), (25, 140126), (35, 140189), (43, 140312), (47, 140336), (58, 140420), (64, 140462), (68, 140504), (85, 140669), (86, 140672), (116, 140927), (124, 140966), (127, 140996), (133, 141059), (135, 141080), (136, 141089), (138, 141092), (143, 141125), (145, 141140), (164, 141275), (180, 141350), (188, 141410),

Gene: Amataga\_251 Start: 141959, Stop: 143389, Start Num: 14

Candidate Starts for Amataga\_251:

(Start: 14 @141959 has 167 MA's), (25, 142049), (35, 142112), (43, 142235), (47, 142259), (58, 142343), (64, 142385), (68, 142427), (85, 142592), (86, 142595), (116, 142850), (124, 142889), (127, 142919), (133, 142982), (135, 143003), (136, 143012), (138, 143015), (143, 143048), (145, 143063), (164, 143198), (180, 143273), (187, 143330), (188, 143333),

Gene: ArcherS7\_251 Start: 143704, Stop: 145134, Start Num: 14

Candidate Starts for ArcherS7\_251:

(Start: 14 @143704 has 167 MA's), (25, 143794), (35, 143857), (43, 143980), (47, 144004), (58, 144088), (64, 144130), (68, 144172), (85, 144337), (86, 144340), (116, 144595), (124, 144634), (127, 144664), (133, 144727), (135, 144748), (136, 144757), (138, 144760), (143, 144793), (145, 144808), (164, 144943), (180, 145018), (187, 145075), (188, 145078),

Gene: Asterius\_247 Start: 142817, Stop: 144247, Start Num: 14

Candidate Starts for Asterius\_247:

(Start: 14 @142817 has 167 MA's), (25, 142907), (35, 142970), (43, 143093), (47, 143117), (58, 143201), (64, 143243), (68, 143285), (85, 143450), (86, 143453), (116, 143708), (124, 143747), (127, 143777), (133, 143840), (135, 143861), (136, 143870), (138, 143873), (143, 143906), (145, 143921), (164, 144056), (180, 144131), (188, 144191),

Gene: Astraea\_246 Start: 142012, Stop: 143442, Start Num: 14

Candidate Starts for Astraea\_246:

(Start: 14 @142012 has 167 MA's), (25, 142102), (35, 142165), (43, 142288), (47, 142312), (58, 142396), (64, 142438), (68, 142480), (85, 142645), (86, 142648), (116, 142903), (124, 142942), (127, 142972), (133, 143035), (135, 143056), (136, 143065), (138, 143068), (143, 143101), (145, 143116), (164, 143251), (180, 143326), (187, 143383), (188, 143386),

Gene: Atlantean\_250 Start: 141959, Stop: 143389, Start Num: 14

Candidate Starts for Atlantean\_250:

(Start: 14 @141959 has 167 MA's), (25, 142049), (35, 142112), (43, 142235), (47, 142259), (58, 142343), (64, 142385), (68, 142427), (85, 142592), (86, 142595), (116, 142850), (124, 142889), (127, 142919), (133, 142982), (135, 143003), (136, 143012), (138, 143015), (143, 143048), (145, 143063), (164, 143198), (180, 143273), (187, 143330), (188, 143333),

Gene: Audrick\_253 Start: 141849, Stop: 143279, Start Num: 14

Candidate Starts for Audrick\_253:

(Start: 14 @141849 has 167 MA's), (25, 141939), (35, 142002), (43, 142125), (47, 142149), (58, 142233), (64, 142275), (68, 142317), (85, 142482), (86, 142485), (116, 142740), (124, 142779), (127, 142809), (133, 142872), (135, 142893), (136, 142902), (138, 142905), (143, 142938), (145, 142953), (164, 143088), (180, 143163), (187, 143220), (188, 143223),

Gene: Auspice\_35 Start: 29799, Stop: 31166, Start Num: 20

Candidate Starts for Auspice\_35:

(Start: 20 @29799 has 14 MA's), (24, 29856), (28, 29883), (30, 29898), (33, 29919), (35, 29922), (44, 30060), (50, 30084), (57, 30162), (58, 30168), (59, 30171), (68, 30246), (84, 30378), (90, 30405), (91, 30414), (99, 30468), (101, 30495), (104, 30525), (111, 30579), (119, 30651), (142, 30837), (162, 30957), (164, 30978), (167, 30996), (168, 31011), (178, 31041), (183, 31071), (188, 31107), (189, 31110), (193, 31146),

Gene: Ava3\_247 Start: 142419, Stop: 143849, Start Num: 14

Candidate Starts for Ava3\_247:

(Start: 14 @142419 has 167 MA's), (25, 142509), (35, 142572), (43, 142695), (47, 142719), (58, 142803), (64, 142845), (68, 142887), (85, 143052), (86, 143055), (116, 143310), (124, 143349), (127, 143379), (133, 143442), (135, 143463), (136, 143472), (138, 143475), (143, 143508), (145, 143523), (164, 143658), (180, 143733), (187, 143790), (188, 143793),

Gene: Aziz\_40 Start: 30943, Stop: 32358, Start Num: 9

Candidate Starts for Aziz\_40:

(Start: 9 @30943 has 6 MA's), (17, 30997), (18, 31003), (22, 31033), (24, 31069), (44, 31270), (51, 31300), (54, 31318), (60, 31369), (63, 31384), (84, 31573), (90, 31600), (92, 31615), (101, 31690), (105, 31723), (111, 31774), (142, 32029), (147, 32053), (148, 32056), (162, 32149), (164, 32170), (168, 32203), (183, 32263), (191, 32326),

Gene: Babyland\_253 Start: 142736, Stop: 144166, Start Num: 14

Candidate Starts for Babyland\_253:

(Start: 14 @142736 has 167 MA's), (25, 142826), (35, 142889), (43, 143012), (47, 143036), (58, 143120), (64, 143162), (68, 143204), (85, 143369), (86, 143372), (116, 143627), (124, 143666), (127, 143696), (133, 143759), (135, 143780), (136, 143789), (138, 143792), (143, 143825), (145, 143840), (164, 143975), (180, 144050), (187, 144107), (188, 144110),

Gene: BackyardAgain\_245 Start: 140109, Stop: 141539, Start Num: 14

Candidate Starts for BackyardAgain\_245:

(Start: 14 @140109 has 167 MA's), (25, 140199), (35, 140262), (43, 140385), (47, 140409), (58, 140493), (64, 140535), (68, 140577), (85, 140742), (86, 140745), (116, 141000), (124, 141039), (127, 141069), (133, 141132), (135, 141153), (136, 141162), (138, 141165), (143, 141198), (145, 141213), (164, 141348), (180, 141423), (187, 141480), (188, 141483),

Gene: BadAgartude\_244 Start: 142021, Stop: 143451, Start Num: 14

Candidate Starts for BadAgartude\_244:

(Start: 14 @142021 has 167 MA's), (25, 142111), (26, 142114), (35, 142174), (43, 142297), (47, 142321), (58, 142405), (64, 142447), (68, 142489), (85, 142654), (86, 142657), (116, 142912), (124, 142951), (127, 142981), (133, 143044), (135, 143065), (136, 143074), (138, 143077), (143, 143110), (145, 143125), (164, 143260), (180, 143335), (187, 143392), (188, 143395),

Gene: BananaFence\_248 Start: 142641, Stop: 144071, Start Num: 14

Candidate Starts for BananaFence\_248:

(Start: 14 @142641 has 167 MA's), (25, 142731), (26, 142734), (35, 142794), (43, 142917), (47, 142941), (58, 143025), (64, 143067), (68, 143109), (85, 143274), (86, 143277), (116, 143532), (124, 143571), (127, 143601), (133, 143664), (135, 143685), (136, 143694), (138, 143697), (143, 143730), (145, 143745), (164, 143880), (180, 143955), (187, 144012), (188, 144015),

Gene: Bangla1971\_251 Start: 142668, Stop: 144098, Start Num: 14

Candidate Starts for Bangla1971\_251:

(Start: 14 @142668 has 167 MA's), (25, 142758), (35, 142821), (43, 142944), (47, 142968), (58, 143052), (64, 143094), (68, 143136), (85, 143301), (86, 143304), (116, 143559), (124, 143598), (127, 143628), (133, 143691), (135, 143712), (136, 143721), (138, 143724), (143, 143757), (145, 143772), (164, 143907), (180, 143982), (187, 144039), (188, 144042),

Gene: Basquiat\_248 Start: 140927, Stop: 142357, Start Num: 14

Candidate Starts for Basquiat\_248:

(Start: 14 @140927 has 167 MA's), (25, 141017), (35, 141080), (43, 141203), (47, 141227), (58, 141311), (64, 141353), (68, 141395), (85, 141560), (86, 141563), (116, 141818), (124, 141857), (127, 141887), (133, 141950), (135, 141971), (136, 141980), (138, 141983), (143, 142016), (145, 142031), (164, 142166), (180, 142241), (187, 142298), (188, 142301),

Gene: Baudelaire\_28 Start: 24440, Stop: 25621, Start Num: 19

Candidate Starts for Baudelaire\_28:

(Start: 19 @24440 has 2 MA's), (29, 24524), (34, 24557), (37, 24587), (45, 24701), (50, 24725), (67, 24854), (70, 24881), (75, 24914), (85, 25004), (94, 25082), (98, 25118), (99, 25121), (113, 25262), (115, 25268), (128, 25358), (140, 25433), (153, 25511), (162, 25535),

Gene: Beakin\_31 Start: 26224, Stop: 27414, Start Num: 16

Candidate Starts for Beakin\_31:

(3, 25951), (5, 25972), (Start: 16 @26224 has 14 MA's), (27, 26308), (41, 26458), (49, 26512), (70, 26653), (80, 26731), (95, 26857), (96, 26863), (101, 26902), (108, 26962), (110, 26977), (115, 27019), (121, 27055), (122, 27058), (128, 27109), (129, 27118), (152, 27232), (155, 27274), (160, 27283), (167, 27325), (169, 27340), (170, 27343), (171, 27349),

Gene: BeanWater\_243 Start: 141804, Stop: 143234, Start Num: 14

Candidate Starts for BeanWater\_243:

(Start: 14 @141804 has 167 MA's), (25, 141894), (35, 141957), (43, 142080), (47, 142104), (58, 142188), (64, 142230), (68, 142272), (85, 142437), (86, 142440), (116, 142695), (124, 142734), (127, 142764), (133, 142827), (135, 142848), (136, 142857), (138, 142860), (143, 142893), (145, 142908), (164, 143043), (180, 143118), (187, 143175), (188, 143178),

Gene: BigCity\_258 Start: 144559, Stop: 145989, Start Num: 14

Candidate Starts for BigCity\_258:

(Start: 14 @144559 has 167 MA's), (25, 144649), (35, 144712), (43, 144835), (47, 144859), (58, 144943), (64, 144985), (68, 145027), (85, 145192), (86, 145195), (116, 145450), (124, 145489), (127, 145519), (133, 145582), (135, 145603), (136, 145612), (138, 145615), (143, 145648), (145, 145663), (164, 145798), (180, 145873), (187, 145930), (188, 145933),

Gene: BigPhil\_26 Start: 22498, Stop: 23733, Start Num: 10

Candidate Starts for BigPhil\_26:

(Start: 10 @22498 has 61 MA's), (27, 22618), (36, 22690), (44, 22807), (46, 22810), (55, 22888), (66, 22969), (70, 23011), (79, 23089), (95, 23215), (96, 23221), (101, 23260), (108, 23320), (110, 23335), (115, 23377), (121, 23413), (122, 23416), (128, 23467), (129, 23476), (152, 23590), (170, 23701), (176, 23722),

Gene: Bigswole\_255 Start: 144470, Stop: 145900, Start Num: 14

Candidate Starts for Bigswole\_255:

(Start: 14 @144470 has 167 MA's), (25, 144560), (26, 144563), (35, 144623), (43, 144746), (47, 144770), (58, 144854), (64, 144896), (68, 144938), (85, 145103), (86, 145106), (116, 145361), (124, 145400), (127, 145430), (133, 145493), (135, 145514), (136, 145523), (138, 145526), (143, 145559), (145, 145574), (164, 145709), (180, 145784), (187, 145841), (188, 145844),

Gene: Bipolarisk\_248 Start: 142687, Stop: 144117, Start Num: 14

Candidate Starts for Bipolarisk\_248:

(Start: 14 @142687 has 167 MA's), (25, 142777), (35, 142840), (43, 142963), (47, 142987), (58, 143071), (64, 143113), (68, 143155), (85, 143320), (86, 143323), (116, 143578), (124, 143617), (127, 143647), (133, 143710), (135, 143731), (136, 143740), (138, 143743), (143, 143776), (145, 143791), (164, 143926), (180, 144001), (187, 144058), (188, 144061),

Gene: Blackbrain\_249 Start: 142704, Stop: 144134, Start Num: 14

Candidate Starts for Blackbrain\_249:

(Start: 14 @142704 has 167 MA's), (25, 142794), (35, 142857), (43, 142980), (47, 143004), (58, 143088), (64, 143130), (68, 143172), (85, 143337), (86, 143340), (116, 143595), (124, 143634), (127, 143664), (133, 143727), (135, 143748), (136, 143757), (138, 143760), (143, 143793), (145, 143808), (164, 143943), (180, 144018), (187, 144075), (188, 144078),

Gene: Blubba\_245 Start: 145431, Stop: 146861, Start Num: 14

Candidate Starts for Blubba\_245:

(Start: 14 @145431 has 167 MA's), (25, 145521), (35, 145584), (43, 145707), (47, 145731), (58, 145815), (64, 145857), (68, 145899), (85, 146064), (86, 146067), (116, 146322), (124, 146361), (127, 146391), (133, 146454), (135, 146475), (136, 146484), (138, 146487), (143, 146520), (145, 146535), (164, 146670), (180, 146745), (188, 146805),

Gene: BobaPhett\_30 Start: 26476, Stop: 27711, Start Num: 10

Candidate Starts for BobaPhett\_30:

(Start: 10 @26476 has 61 MA's), (27, 26593), (36, 26665), (44, 26782), (46, 26785), (55, 26863), (66, 26944), (70, 26986), (79, 27064), (95, 27190), (110, 27310), (115, 27352), (121, 27388), (122, 27391), (128, 27442), (129, 27451), (152, 27565),

Gene: BodEinwohner17\_30 Start: 26635, Stop: 27906, Start Num: 10

Candidate Starts for BodEinwohner17\_30:

(Start: 10 @26635 has 61 MA's), (27, 26752), (36, 26824), (44, 26941), (46, 26944), (55, 27022), (66, 27103), (70, 27145), (79, 27223), (95, 27349), (96, 27355), (97, 27358), (101, 27394), (103, 27424), (108, 27454), (110, 27469), (115, 27511), (121, 27547), (122, 27550), (128, 27601), (129, 27610), (152, 27724), (155, 27766), (160, 27775), (169, 27832), (170, 27835),

Gene: Bongo\_35 Start: 29799, Stop: 31166, Start Num: 20

Candidate Starts for Bongo\_35:

(Start: 20 @29799 has 14 MA's), (24, 29856), (28, 29883), (35, 29922), (44, 30060), (50, 30084), (57, 30162), (58, 30168), (59, 30171), (68, 30246), (84, 30378), (90, 30405), (91, 30414), (99, 30468), (101, 30495), (104, 30525), (111, 30579), (119, 30651), (142, 30837), (162, 30957), (164, 30978),

(167, 30996), (168, 31011), (178, 31041), (183, 31071), (188, 31107), (189, 31110), (193, 31146),

Gene: Bonray\_253 Start: 144504, Stop: 145934, Start Num: 14

Candidate Starts for Bonray\_253:

(Start: 14 @144504 has 167 MA's), (25, 144594), (35, 144657), (43, 144780), (47, 144804), (58, 144888), (64, 144930), (68, 144972), (85, 145137), (86, 145140), (116, 145395), (124, 145434), (127, 145464), (133, 145527), (135, 145548), (136, 145557), (138, 145560), (143, 145593), (145, 145608), (164, 145743), (180, 145818), (188, 145878),

Gene: Boomer\_32 Start: 26275, Stop: 27576, Start Num: 10

Candidate Starts for Boomer\_32:

(Start: 10 @26275 has 61 MA's), (27, 26395), (36, 26467), (44, 26584), (46, 26587), (55, 26665), (66, 26746), (70, 26797), (92, 26974), (95, 27016), (97, 27025), (115, 27181), (152, 27394), (155, 27436), (160, 27445), (169, 27502), (170, 27505),

Gene: Bread\_247 Start: 142471, Stop: 143901, Start Num: 14

Candidate Starts for Bread\_247:

(Start: 14 @142471 has 167 MA's), (25, 142561), (35, 142624), (43, 142747), (47, 142771), (58, 142855), (64, 142897), (68, 142939), (85, 143104), (86, 143107), (116, 143362), (124, 143401), (127, 143431), (133, 143494), (135, 143515), (136, 143524), (138, 143527), (143, 143560), (145, 143575), (164, 143710), (180, 143785), (187, 143842), (188, 143845),

Gene: Breeniome\_250 Start: 141459, Stop: 142889, Start Num: 14

Candidate Starts for Breeniome\_250:

(Start: 14 @141459 has 167 MA's), (25, 141549), (35, 141612), (43, 141735), (47, 141759), (58, 141843), (64, 141885), (68, 141927), (85, 142092), (86, 142095), (116, 142350), (124, 142389), (127, 142419), (133, 142482), (135, 142503), (136, 142512), (138, 142515), (143, 142548), (145, 142563), (164, 142698), (180, 142773), (187, 142830), (188, 142833),

Gene: Bricole\_35 Start: 29785, Stop: 31152, Start Num: 20

Candidate Starts for Bricole\_35:

(Start: 20 @29785 has 14 MA's), (24, 29842), (28, 29869), (35, 29908), (44, 30046), (50, 30070), (57, 30148), (58, 30154), (59, 30157), (68, 30232), (84, 30364), (90, 30391), (91, 30400), (99, 30454), (101, 30481), (104, 30511), (111, 30565), (119, 30637), (142, 30823), (162, 30943), (164, 30964), (167, 30982), (168, 30997), (178, 31027), (183, 31057), (188, 31093), (189, 31096), (193, 31132),

Gene: Bubbles123\_32 Start: 27209, Stop: 28501, Start Num: 10

Candidate Starts for Bubbles123\_32:

(Start: 10 @27209 has 61 MA's), (27, 27329), (44, 27518), (46, 27521), (55, 27599), (66, 27680), (70, 27722), (79, 27800), (95, 27926), (96, 27932), (101, 27971), (108, 28031), (110, 28046), (113, 28082), (115, 28088), (121, 28124), (125, 28142), (128, 28178), (129, 28187), (152, 28301), (170, 28412),

Gene: Burrough\_251 Start: 143832, Stop: 145262, Start Num: 14

Candidate Starts for Burrough\_251:

(Start: 14 @143832 has 167 MA's), (25, 143922), (35, 143985), (43, 144108), (47, 144132), (58, 144216), (64, 144258), (68, 144300), (85, 144465), (86, 144468), (116, 144723), (124, 144762), (127, 144792), (133, 144855), (135, 144876), (136, 144885), (138, 144888), (143, 144921), (145, 144936), (164, 145071), (180, 145146), (187, 145203), (188, 145206),

Gene: BuzzLyseyear\_33 Start: 27038, Stop: 28312, Start Num: 10

Candidate Starts for BuzzLyseyear\_33:

(Start: 10 @27038 has 61 MA's), (27, 27158), (36, 27230), (44, 27347), (46, 27350), (55, 27428), (66, 27509), (70, 27551), (79, 27629), (95, 27755), (96, 27761), (97, 27764), (101, 27800), (103, 27830),

(108, 27860), (110, 27875), (115, 27917), (121, 27953), (122, 27956), (128, 28007), (129, 28016),  
(152, 28130), (155, 28172), (160, 28181), (169, 28238), (170, 28241),

Gene: Bxz1\_236 Start: 144036, Stop: 145466, Start Num: 14

Candidate Starts for Bxz1\_236:

(Start: 14 @144036 has 167 MA's), (25, 144126), (35, 144189), (43, 144312), (47, 144336), (58, 144420), (64, 144462), (68, 144504), (85, 144669), (86, 144672), (116, 144927), (124, 144966), (127, 144996), (133, 145059), (135, 145080), (136, 145089), (138, 145092), (143, 145125), (145, 145140), (164, 145275), (180, 145350), (187, 145407), (188, 145410),

Gene: Cabrinians\_30 Start: 26504, Stop: 27775, Start Num: 10

Candidate Starts for Cabrinians\_30:

(Start: 10 @26504 has 61 MA's), (27, 26621), (36, 26693), (44, 26810), (46, 26813), (55, 26891), (66, 26972), (70, 27014), (79, 27092), (95, 27218), (108, 27323), (110, 27338), (115, 27380), (121, 27416), (122, 27419), (128, 27470), (129, 27479), (152, 27593), (155, 27635), (160, 27644), (169, 27701), (170, 27704),

Gene: Cactojaque\_245 Start: 141650, Stop: 143080, Start Num: 14

Candidate Starts for Cactojaque\_245:

(Start: 14 @141650 has 167 MA's), (25, 141740), (35, 141803), (43, 141926), (47, 141950), (58, 142034), (64, 142076), (68, 142118), (85, 142283), (86, 142286), (116, 142541), (124, 142580), (127, 142610), (133, 142673), (135, 142694), (136, 142703), (138, 142706), (143, 142739), (145, 142754), (164, 142889), (180, 142964), (187, 143021), (188, 143024),

Gene: Cali\_240 Start: 142429, Stop: 143859, Start Num: 14

Candidate Starts for Cali\_240:

(Start: 14 @142429 has 167 MA's), (25, 142519), (35, 142582), (43, 142705), (47, 142729), (58, 142813), (64, 142855), (68, 142897), (85, 143062), (86, 143065), (116, 143320), (124, 143359), (127, 143389), (133, 143452), (135, 143473), (136, 143482), (138, 143485), (143, 143518), (145, 143533), (164, 143668), (180, 143743), (187, 143800), (188, 143803),

Gene: Cane17\_239 Start: 145840, Stop: 147270, Start Num: 14

Candidate Starts for Cane17\_239:

(Start: 14 @145840 has 167 MA's), (25, 145930), (35, 145993), (43, 146116), (47, 146140), (58, 146224), (64, 146266), (68, 146308), (85, 146473), (86, 146476), (116, 146731), (124, 146770), (127, 146800), (133, 146863), (135, 146884), (136, 146893), (138, 146896), (143, 146929), (145, 146944), (164, 147079), (180, 147154), (188, 147214),

Gene: Capablanca\_255 Start: 144683, Stop: 146113, Start Num: 14

Candidate Starts for Capablanca\_255:

(Start: 14 @144683 has 167 MA's), (25, 144773), (35, 144836), (43, 144959), (47, 144983), (58, 145067), (64, 145109), (68, 145151), (85, 145316), (86, 145319), (116, 145574), (124, 145613), (127, 145643), (133, 145706), (135, 145727), (136, 145736), (138, 145739), (143, 145772), (145, 145787), (164, 145922), (180, 145997), (187, 146054), (188, 146057),

Gene: Caravan\_240 Start: 142733, Stop: 144163, Start Num: 14

Candidate Starts for Caravan\_240:

(Start: 14 @142733 has 167 MA's), (25, 142823), (35, 142886), (43, 143009), (47, 143033), (58, 143117), (64, 143159), (68, 143201), (85, 143366), (86, 143369), (116, 143624), (124, 143663), (127, 143693), (133, 143756), (135, 143777), (136, 143786), (138, 143789), (143, 143822), (145, 143837), (164, 143972), (180, 144047), (187, 144104), (188, 144107),

Gene: Catera\_239 Start: 141172, Stop: 142602, Start Num: 14

Candidate Starts for Catera\_239:

(Start: 14 @141172 has 167 MA's), (25, 141262), (35, 141325), (43, 141448), (47, 141472), (58, 141556), (64, 141598), (68, 141640), (85, 141805), (86, 141808), (116, 142063), (124, 142102), (127, 142132), (133, 142195), (135, 142216), (136, 142225), (138, 142228), (143, 142261), (145, 142276), (164, 142411), (180, 142486), (187, 142543), (188, 142546),

Gene: Cerasum\_26 Start: 22498, Stop: 23733, Start Num: 10

Candidate Starts for Cerasum\_26:

(Start: 10 @22498 has 61 MA's), (27, 22618), (36, 22690), (44, 22807), (46, 22810), (55, 22888), (66, 22969), (70, 23011), (79, 23089), (95, 23215), (96, 23221), (101, 23260), (108, 23320), (110, 23335), (115, 23377), (121, 23413), (122, 23416), (128, 23467), (129, 23476), (152, 23590), (170, 23701), (176, 23722),

Gene: Chargie21\_248 Start: 140927, Stop: 142357, Start Num: 14

Candidate Starts for Chargie21\_248:

(Start: 14 @140927 has 167 MA's), (25, 141017), (35, 141080), (43, 141203), (47, 141227), (58, 141311), (64, 141353), (68, 141395), (85, 141560), (86, 141563), (116, 141818), (124, 141857), (127, 141887), (133, 141950), (135, 141971), (136, 141980), (138, 141983), (143, 142016), (145, 142031), (164, 142166), (180, 142241), (187, 142298), (188, 142301),

Gene: CharlieB\_245 Start: 142195, Stop: 143625, Start Num: 14

Candidate Starts for CharlieB\_245:

(Start: 14 @142195 has 167 MA's), (25, 142285), (35, 142348), (43, 142471), (47, 142495), (58, 142579), (64, 142621), (68, 142663), (85, 142828), (86, 142831), (116, 143086), (124, 143125), (127, 143155), (133, 143218), (135, 143239), (136, 143248), (138, 143251), (143, 143284), (145, 143299), (164, 143434), (180, 143509), (188, 143569),

Gene: ChaylaJr\_249 Start: 141869, Stop: 143299, Start Num: 14

Candidate Starts for ChaylaJr\_249:

(Start: 14 @141869 has 167 MA's), (25, 141959), (35, 142022), (43, 142145), (47, 142169), (58, 142253), (64, 142295), (68, 142337), (85, 142502), (86, 142505), (116, 142760), (124, 142799), (127, 142829), (133, 142892), (135, 142913), (136, 142922), (138, 142925), (143, 142958), (145, 142973), (164, 143108), (180, 143183), (187, 143240), (188, 143243),

Gene: Che8\_32 Start: 26683, Stop: 27957, Start Num: 10

Candidate Starts for Che8\_32:

(Start: 10 @26683 has 61 MA's), (27, 26803), (36, 26875), (44, 26992), (46, 26995), (55, 27073), (66, 27154), (70, 27196), (79, 27274), (95, 27400), (96, 27406), (101, 27445), (110, 27520), (115, 27562), (121, 27598), (125, 27616), (128, 27652), (129, 27661), (152, 27775), (155, 27817), (160, 27826), (169, 27883), (170, 27886),

Gene: ChickenPhender\_246 Start: 140625, Stop: 142055, Start Num: 14

Candidate Starts for ChickenPhender\_246:

(Start: 14 @140625 has 167 MA's), (25, 140715), (35, 140778), (43, 140901), (47, 140925), (58, 141009), (64, 141051), (68, 141093), (85, 141258), (86, 141261), (116, 141516), (124, 141555), (127, 141585), (133, 141648), (135, 141669), (136, 141678), (138, 141681), (143, 141714), (145, 141729), (164, 141864), (180, 141939), (187, 141996), (188, 141999),

Gene: Chomp\_248 Start: 144061, Stop: 145491, Start Num: 14

Candidate Starts for Chomp\_248:

(Start: 14 @144061 has 167 MA's), (25, 144151), (35, 144214), (43, 144337), (47, 144361), (58, 144445), (64, 144487), (68, 144529), (85, 144694), (86, 144697), (116, 144952), (124, 144991), (127, 145021), (133, 145084), (135, 145105), (136, 145114), (138, 145117), (143, 145150), (145, 145165),



(164, 145300), (180, 145375), (187, 145432), (188, 145435),

Gene: CindyLou\_251 Start: 144321, Stop: 145751, Start Num: 14

Candidate Starts for CindyLou\_251:

(Start: 14 @144321 has 167 MA's), (25, 144411), (26, 144414), (35, 144474), (43, 144597), (47, 144621), (58, 144705), (64, 144747), (68, 144789), (85, 144954), (86, 144957), (116, 145212), (124, 145251), (127, 145281), (133, 145344), (135, 145365), (136, 145374), (138, 145377), (143, 145410), (145, 145425), (164, 145560), (180, 145635), (187, 145692), (188, 145695),

Gene: Colt\_240 Start: 145032, Stop: 146462, Start Num: 14

Candidate Starts for Colt\_240:

(Start: 14 @145032 has 167 MA's), (25, 145122), (35, 145185), (43, 145308), (47, 145332), (58, 145416), (64, 145458), (68, 145500), (85, 145665), (86, 145668), (116, 145923), (124, 145962), (127, 145992), (133, 146055), (135, 146076), (136, 146085), (138, 146088), (143, 146121), (145, 146136), (164, 146271), (180, 146346), (188, 146406),

Gene: Concombres\_256 Start: 144663, Stop: 146096, Start Num: 12

Candidate Starts for Concombres\_256:

(Start: 10 @144639 has 61 MA's), (12, 144663), (Start: 14 @144666 has 167 MA's), (25, 144756), (35, 144819), (43, 144942), (47, 144966), (58, 145050), (64, 145092), (68, 145134), (85, 145299), (86, 145302), (116, 145557), (124, 145596), (127, 145626), (133, 145689), (135, 145710), (136, 145719), (138, 145722), (143, 145755), (145, 145770), (164, 145905), (180, 145980), (187, 146037), (188, 146040),

Gene: Cornie\_30 Start: 26720, Stop: 28018, Start Num: 10

Candidate Starts for Cornie\_30:

(Start: 10 @26720 has 61 MA's), (27, 26837), (36, 26909), (44, 27026), (46, 27029), (55, 27107), (66, 27188), (70, 27239), (92, 27416), (95, 27458), (97, 27467), (115, 27623), (152, 27836), (155, 27878), (160, 27887), (169, 27944), (170, 27947),

Gene: Cornucopia\_31 Start: 26383, Stop: 27534, Start Num: 16

Candidate Starts for Cornucopia\_31:

(3, 26110), (5, 26131), (Start: 16 @26383 has 14 MA's), (27, 26467), (41, 26617), (49, 26671), (70, 26812), (80, 26890), (95, 27016), (96, 27022), (101, 27061), (108, 27121), (110, 27136), (115, 27178), (121, 27214), (122, 27217), (128, 27268), (129, 27277), (152, 27391), (170, 27502), (174, 27520), (176, 27523),

Gene: DRBy19\_30 Start: 26346, Stop: 27617, Start Num: 10

Candidate Starts for DRBy19\_30:

(Start: 10 @26346 has 61 MA's), (27, 26463), (36, 26535), (44, 26652), (46, 26655), (55, 26733), (66, 26814), (70, 26856), (79, 26934), (95, 27060), (108, 27165), (110, 27180), (115, 27222), (121, 27258), (122, 27261), (128, 27312), (129, 27321), (152, 27435), (155, 27477), (160, 27486), (169, 27543), (170, 27546),

Gene: DTDevon\_251 Start: 144700, Stop: 146130, Start Num: 14

Candidate Starts for DTDevon\_251:

(Start: 14 @144700 has 167 MA's), (25, 144790), (35, 144853), (43, 144976), (47, 145000), (58, 145084), (64, 145126), (68, 145168), (85, 145333), (86, 145336), (116, 145591), (124, 145630), (127, 145660), (133, 145723), (135, 145744), (136, 145753), (138, 145756), (143, 145789), (145, 145804), (164, 145939), (180, 146014), (187, 146071), (188, 146074),

Gene: Daffodil\_256 Start: 142987, Stop: 144417, Start Num: 14

Candidate Starts for Daffodil\_256:

(Start: 14 @142987 has 167 MA's), (25, 143077), (35, 143140), (43, 143263), (47, 143287), (58, 143371), (64, 143413), (68, 143455), (85, 143620), (86, 143623), (116, 143878), (124, 143917), (127, 143947), (133, 144010), (135, 144031), (136, 144040), (138, 144043), (143, 144076), (145, 144091), (164, 144226), (180, 144301), (187, 144358), (188, 144361),

Gene: Dandelion\_256 Start: 145521, Stop: 146951, Start Num: 14

Candidate Starts for Dandelion\_256:

(Start: 14 @145521 has 167 MA's), (25, 145611), (26, 145614), (35, 145674), (43, 145797), (47, 145821), (58, 145905), (64, 145947), (68, 145989), (85, 146154), (86, 146157), (116, 146412), (124, 146451), (127, 146481), (133, 146544), (135, 146565), (136, 146574), (138, 146577), (143, 146610), (145, 146625), (164, 146760), (180, 146835), (187, 146892), (188, 146895),

Gene: Dante\_30 Start: 26366, Stop: 27637, Start Num: 10

Candidate Starts for Dante\_30:

(Start: 10 @26366 has 61 MA's), (27, 26483), (36, 26555), (44, 26672), (46, 26675), (55, 26753), (66, 26834), (70, 26876), (79, 26954), (95, 27080), (96, 27086), (97, 27089), (110, 27200), (115, 27242), (122, 27281), (125, 27296), (128, 27332), (129, 27341), (152, 27455), (155, 27497), (169, 27563), (170, 27566),

Gene: Darko\_250 Start: 142645, Stop: 144075, Start Num: 14

Candidate Starts for Darko\_250:

(Start: 14 @142645 has 167 MA's), (25, 142735), (26, 142738), (35, 142798), (43, 142921), (47, 142945), (58, 143029), (64, 143071), (68, 143113), (85, 143278), (86, 143281), (116, 143536), (124, 143575), (127, 143605), (133, 143668), (135, 143689), (136, 143698), (138, 143701), (143, 143734), (145, 143749), (164, 143884), (180, 143959), (187, 144016), (188, 144019),

Gene: Delilah\_248 Start: 143080, Stop: 144510, Start Num: 14

Candidate Starts for Delilah\_248:

(Start: 14 @143080 has 167 MA's), (25, 143170), (35, 143233), (43, 143356), (47, 143380), (58, 143464), (64, 143506), (68, 143548), (85, 143713), (86, 143716), (116, 143971), (124, 144010), (127, 144040), (133, 144103), (135, 144124), (136, 144133), (138, 144136), (143, 144169), (145, 144184), (164, 144319), (180, 144394), (187, 144451), (188, 144454),

Gene: Delylah\_252 Start: 143357, Stop: 144787, Start Num: 14

Candidate Starts for Delylah\_252:

(Start: 14 @143357 has 167 MA's), (25, 143447), (35, 143510), (43, 143633), (47, 143657), (58, 143741), (64, 143783), (68, 143825), (85, 143990), (86, 143993), (116, 144248), (124, 144287), (127, 144317), (133, 144380), (135, 144401), (136, 144410), (138, 144413), (143, 144446), (145, 144461), (164, 144596), (180, 144671), (187, 144728), (188, 144731),

Gene: Derek\_246 Start: 143338, Stop: 144768, Start Num: 14

Candidate Starts for Derek\_246:

(Start: 14 @143338 has 167 MA's), (25, 143428), (35, 143491), (43, 143614), (47, 143638), (58, 143722), (64, 143764), (68, 143806), (85, 143971), (86, 143974), (116, 144229), (124, 144268), (127, 144298), (133, 144361), (135, 144382), (136, 144391), (138, 144394), (143, 144427), (145, 144442), (164, 144577), (180, 144652), (187, 144709), (188, 144712),

Gene: Dietrick\_239 Start: 141201, Stop: 142631, Start Num: 14

Candidate Starts for Dietrick\_239:

(Start: 14 @141201 has 167 MA's), (25, 141291), (35, 141354), (43, 141477), (47, 141501), (58, 141585), (64, 141627), (68, 141669), (85, 141834), (86, 141837), (116, 142092), (124, 142131), (127, 142161), (133, 142224), (135, 142245), (136, 142254), (138, 142257), (143, 142290), (145, 142305), (164, 142440), (180, 142515), (187, 142572), (188, 142575),

Gene: Diminimus\_36 Start: 29798, Stop: 31165, Start Num: 20

Candidate Starts for Diminimus\_36:

(Start: 20 @29798 has 14 MA's), (24, 29855), (28, 29882), (30, 29897), (33, 29918), (35, 29921), (44, 30059), (50, 30083), (57, 30161), (58, 30167), (59, 30170), (68, 30245), (84, 30377), (90, 30404), (91, 30413), (99, 30467), (101, 30494), (104, 30524), (111, 30578), (119, 30650), (142, 30836), (162, 30956), (164, 30977), (167, 30995), (168, 31010), (178, 31040), (183, 31070), (188, 31106), (189, 31109), (193, 31145),

Gene: DirtMonster\_239 Start: 141933, Stop: 143363, Start Num: 14

Candidate Starts for DirtMonster\_239:

(Start: 14 @141933 has 167 MA's), (25, 142023), (35, 142086), (43, 142209), (47, 142233), (58, 142317), (64, 142359), (68, 142401), (85, 142566), (86, 142569), (116, 142824), (124, 142863), (127, 142893), (133, 142956), (135, 142977), (136, 142986), (138, 142989), (143, 143022), (145, 143037), (164, 143172), (180, 143247), (187, 143304), (188, 143307),

Gene: DosHalletts\_34 Start: 26602, Stop: 27903, Start Num: 10

Candidate Starts for DosHalletts\_34:

(Start: 10 @26602 has 61 MA's), (27, 26722), (36, 26794), (44, 26911), (46, 26914), (55, 26992), (66, 27073), (70, 27124), (92, 27301), (95, 27343), (97, 27352), (112, 27490), (152, 27721), (155, 27763), (160, 27772), (169, 27829), (170, 27832),

Gene: Doug\_31 Start: 26879, Stop: 28087, Start Num: 16

Candidate Starts for Doug\_31:

(3, 26606), (4, 26609), (Start: 16 @26879 has 14 MA's), (27, 26963), (41, 27113), (49, 27167), (70, 27308), (80, 27386), (95, 27512), (96, 27518), (101, 27557), (108, 27617), (110, 27632), (115, 27674), (121, 27710), (122, 27713), (128, 27764), (129, 27773), (152, 27887), (170, 27998),

Gene: DrPhinkDaddy\_247 Start: 143765, Stop: 145195, Start Num: 14

Candidate Starts for DrPhinkDaddy\_247:

(Start: 14 @143765 has 167 MA's), (25, 143855), (35, 143918), (43, 144041), (47, 144065), (58, 144149), (64, 144191), (68, 144233), (85, 144398), (86, 144401), (116, 144656), (124, 144695), (127, 144725), (133, 144788), (135, 144809), (136, 144818), (138, 144821), (143, 144854), (145, 144869), (164, 145004), (180, 145079), (187, 145136), (188, 145139),

Gene: Drazdys\_247 Start: 143345, Stop: 144775, Start Num: 14

Candidate Starts for Drazdys\_247:

(Start: 14 @143345 has 167 MA's), (25, 143435), (35, 143498), (43, 143621), (47, 143645), (58, 143729), (64, 143771), (68, 143813), (85, 143978), (86, 143981), (116, 144236), (124, 144275), (127, 144305), (133, 144368), (135, 144389), (136, 144398), (138, 144401), (143, 144434), (145, 144449), (164, 144584), (180, 144659), (187, 144716), (188, 144719),

Gene: Dulcita\_36 Start: 29798, Stop: 31165, Start Num: 20

Candidate Starts for Dulcita\_36:

(Start: 20 @29798 has 14 MA's), (24, 29855), (28, 29882), (30, 29897), (33, 29918), (35, 29921), (44, 30059), (50, 30083), (57, 30161), (58, 30167), (59, 30170), (68, 30245), (84, 30377), (90, 30404), (91, 30413), (99, 30467), (101, 30494), (104, 30524), (111, 30578), (119, 30650), (142, 30836), (162, 30956), (164, 30977), (167, 30995), (168, 31010), (178, 31040), (183, 31070), (188, 31106), (189, 31109), (193, 31145),

Gene: ET08\_236 Start: 141669, Stop: 143099, Start Num: 14

Candidate Starts for ET08\_236:

(8, 141627), (Start: 14 @141669 has 167 MA's), (25, 141759), (35, 141822), (43, 141945), (47, 141969), (58, 142053), (64, 142095), (68, 142137), (85, 142302), (86, 142305), (116, 142560), (124, 142599), (127, 142629), (133, 142692), (135, 142713), (136, 142722), (138, 142725), (143, 142758), (145, 142773), (164, 142908), (180, 142983), (188, 143043),

Gene: EasyJones\_251 Start: 141721, Stop: 143151, Start Num: 14

Candidate Starts for EasyJones\_251:

(Start: 14 @141721 has 167 MA's), (25, 141811), (35, 141874), (43, 141997), (47, 142021), (58, 142105), (64, 142147), (68, 142189), (85, 142354), (86, 142357), (116, 142612), (124, 142651), (127, 142681), (133, 142744), (135, 142765), (136, 142774), (138, 142777), (143, 142810), (145, 142825), (164, 142960), (180, 143035), (187, 143092), (188, 143095),

Gene: EggyFarm\_258 Start: 144560, Stop: 145990, Start Num: 14

Candidate Starts for EggyFarm\_258:

(Start: 14 @144560 has 167 MA's), (25, 144650), (35, 144713), (43, 144836), (47, 144860), (58, 144944), (64, 144986), (68, 145028), (85, 145193), (86, 145196), (116, 145451), (124, 145490), (127, 145520), (133, 145583), (135, 145604), (136, 145613), (138, 145616), (143, 145649), (145, 145664), (164, 145799), (180, 145874), (187, 145931), (188, 145934),

Gene: EmToTheThree\_251 Start: 143553, Stop: 144983, Start Num: 14

Candidate Starts for EmToTheThree\_251:

(Start: 14 @143553 has 167 MA's), (25, 143643), (35, 143706), (43, 143829), (47, 143853), (58, 143937), (64, 143979), (68, 144021), (85, 144186), (86, 144189), (116, 144444), (124, 144483), (127, 144513), (133, 144576), (135, 144597), (136, 144606), (138, 144609), (143, 144642), (145, 144657), (164, 144792), (180, 144867), (187, 144924), (188, 144927),

Gene: Emma\_32 Start: 26896, Stop: 28128, Start Num: 10

Candidate Starts for Emma\_32:

(Start: 10 @26896 has 61 MA's), (27, 27013), (36, 27085), (44, 27202), (46, 27205), (55, 27283), (66, 27364), (70, 27406), (79, 27484), (95, 27610), (96, 27616), (97, 27619), (101, 27655), (110, 27730), (115, 27772), (122, 27811), (125, 27826), (128, 27862), (129, 27871), (152, 27985), (170, 28096), (177, 28117),

Gene: EmmaElysia\_255 Start: 144216, Stop: 145646, Start Num: 14

Candidate Starts for EmmaElysia\_255:

(Start: 14 @144216 has 167 MA's), (25, 144306), (35, 144369), (43, 144492), (47, 144516), (58, 144600), (64, 144642), (68, 144684), (85, 144849), (86, 144852), (116, 145107), (124, 145146), (127, 145176), (133, 145239), (135, 145260), (136, 145269), (138, 145272), (143, 145305), (145, 145320), (164, 145455), (180, 145530), (187, 145587), (188, 145590),

Gene: Empress\_31 Start: 27662, Stop: 28933, Start Num: 10

Candidate Starts for Empress\_31:

(Start: 10 @27662 has 61 MA's), (27, 27779), (36, 27851), (44, 27968), (46, 27971), (55, 28049), (66, 28130), (70, 28172), (79, 28250), (95, 28376), (96, 28382), (97, 28385), (110, 28496), (115, 28538), (122, 28577), (125, 28592), (128, 28628), (129, 28637), (152, 28751), (155, 28793), (169, 28859), (170, 28862),

Gene: Eradicator\_30 Start: 26355, Stop: 27626, Start Num: 10

Candidate Starts for Eradicator\_30:

(Start: 10 @26355 has 61 MA's), (27, 26472), (36, 26544), (44, 26661), (46, 26664), (55, 26742), (66, 26823), (70, 26865), (79, 26943), (95, 27069), (96, 27075), (97, 27078), (110, 27189), (115, 27231), (122, 27270), (125, 27285), (128, 27321), (129, 27330), (152, 27444), (155, 27486), (160, 27495), (169, 27552), (170, 27555),

Gene: Erdmann\_252 Start: 143521, Stop: 144951, Start Num: 14

Candidate Starts for Erdmann\_252:

(Start: 14 @143521 has 167 MA's), (25, 143611), (35, 143674), (43, 143797), (47, 143821), (58, 143905), (64, 143947), (68, 143989), (85, 144154), (86, 144157), (116, 144412), (124, 144451), (127, 144481), (133, 144544), (135, 144565), (136, 144574), (138, 144577), (143, 144610), (145, 144625), (164, 144760), (180, 144835), (187, 144892), (188, 144895),

Gene: ErnieJ\_244 Start: 140349, Stop: 141779, Start Num: 14

Candidate Starts for ErnieJ\_244:

(Start: 14 @140349 has 167 MA's), (25, 140439), (35, 140502), (43, 140625), (47, 140649), (58, 140733), (64, 140775), (68, 140817), (85, 140982), (86, 140985), (116, 141240), (124, 141279), (127, 141309), (133, 141372), (135, 141393), (136, 141402), (138, 141405), (143, 141438), (145, 141453), (164, 141588), (180, 141663), (187, 141720), (188, 141723),

Gene: Essence\_248 Start: 142557, Stop: 143987, Start Num: 14

Candidate Starts for Essence\_248:

(Start: 14 @142557 has 167 MA's), (25, 142647), (35, 142710), (43, 142833), (47, 142857), (58, 142941), (64, 142983), (68, 143025), (85, 143190), (86, 143193), (116, 143448), (124, 143487), (127, 143517), (133, 143580), (135, 143601), (136, 143610), (138, 143613), (143, 143646), (145, 143661), (164, 143796), (180, 143871), (187, 143928), (188, 143931),

Gene: Estave1\_28 Start: 25767, Stop: 27038, Start Num: 10

Candidate Starts for Estave1\_28:

(Start: 10 @25767 has 61 MA's), (27, 25884), (36, 25956), (44, 26073), (46, 26076), (55, 26154), (66, 26235), (70, 26277), (79, 26355), (87, 26409), (95, 26481), (96, 26487), (97, 26490), (101, 26526), (110, 26601), (115, 26643), (121, 26679), (128, 26733), (129, 26742), (152, 26856), (155, 26898), (160, 26907), (169, 26964), (170, 26967),

Gene: Estes\_41 Start: 31074, Stop: 32489, Start Num: 9

Candidate Starts for Estes\_41:

(Start: 9 @31074 has 6 MA's), (17, 31128), (18, 31134), (22, 31164), (24, 31200), (44, 31401), (51, 31431), (54, 31449), (60, 31500), (63, 31515), (84, 31704), (90, 31731), (92, 31746), (101, 31821), (105, 31854), (111, 31905), (120, 31983), (142, 32160), (147, 32184), (148, 32187), (162, 32280), (164, 32301), (183, 32394), (191, 32457),

Gene: Ewok\_249 Start: 143015, Stop: 144445, Start Num: 14

Candidate Starts for Ewok\_249:

(Start: 14 @143015 has 167 MA's), (25, 143105), (35, 143168), (43, 143291), (47, 143315), (58, 143399), (64, 143441), (68, 143483), (85, 143648), (86, 143651), (116, 143906), (124, 143945), (127, 143975), (133, 144038), (135, 144059), (136, 144068), (138, 144071), (143, 144104), (145, 144119), (164, 144254), (180, 144329), (187, 144386), (188, 144389),

Gene: Flabslab\_245 Start: 139614, Stop: 141044, Start Num: 14

Candidate Starts for Flabslab\_245:

(Start: 10 @139587 has 61 MA's), (Start: 14 @139614 has 167 MA's), (25, 139704), (35, 139767), (43, 139890), (47, 139914), (58, 139998), (64, 140040), (68, 140082), (85, 140247), (86, 140250), (116, 140505), (124, 140544), (127, 140574), (133, 140637), (135, 140658), (136, 140667), (138, 140670), (143, 140703), (145, 140718), (164, 140853), (180, 140928), (188, 140988),

Gene: Fludd\_250 Start: 141433, Stop: 142863, Start Num: 14

Candidate Starts for Fludd\_250:

(Start: 14 @141433 has 167 MA's), (25, 141523), (35, 141586), (43, 141709), (47, 141733), (58, 141817), (64, 141859), (68, 141901), (85, 142066), (86, 142069), (116, 142324), (124, 142363), (127, 142393), (133, 142456), (135, 142477), (136, 142486), (138, 142489), (143, 142522), (145, 142537), (164, 142672), (180, 142747), (187, 142804), (188, 142807),

Gene: FoxtrotP1\_249 Start: 144107, Stop: 145537, Start Num: 14

Candidate Starts for FoxtrotP1\_249:

(Start: 14 @144107 has 167 MA's), (25, 144197), (35, 144260), (43, 144383), (47, 144407), (58, 144491), (64, 144533), (68, 144575), (85, 144740), (86, 144743), (116, 144998), (124, 145037), (127, 145067), (133, 145130), (135, 145151), (136, 145160), (138, 145163), (143, 145196), (145, 145211), (164, 145346), (180, 145421), (187, 145478), (188, 145481),

Gene: Frankie\_33 Start: 26909, Stop: 28665, Start Num: 13

Candidate Starts for Frankie\_33:

(7, 26888), (Start: 13 @26909 has 2 MA's), (27, 26990), (31, 27029), (38, 27080), (40, 27122), (41, 27125), (44, 27170), (70, 27365), (72, 27374), (73, 27419), (81, 27497), (83, 27518), (89, 27563), (100, 27647), (102, 27704), (123, 27872), (137, 27992), (146, 28046), (156, 28133), (157, 28136), (159, 28139), (195, 28433), (196, 28487), (197, 28598),

Gene: FrayBell\_253 Start: 141564, Stop: 142994, Start Num: 14

Candidate Starts for FrayBell\_253:

(Start: 14 @141564 has 167 MA's), (25, 141654), (26, 141657), (35, 141717), (43, 141840), (47, 141864), (58, 141948), (64, 141990), (68, 142032), (85, 142197), (86, 142200), (116, 142455), (124, 142494), (127, 142524), (133, 142587), (135, 142608), (136, 142617), (138, 142620), (143, 142653), (145, 142668), (164, 142803), (180, 142878), (187, 142935), (188, 142938),

Gene: FreddyB\_30 Start: 26513, Stop: 27784, Start Num: 10

Candidate Starts for FreddyB\_30:

(Start: 10 @26513 has 61 MA's), (27, 26630), (36, 26702), (44, 26819), (46, 26822), (55, 26900), (66, 26981), (70, 27023), (79, 27101), (95, 27227), (108, 27332), (110, 27347), (115, 27389), (121, 27425), (122, 27428), (128, 27479), (129, 27488), (152, 27602), (155, 27644), (160, 27653), (169, 27710), (170, 27713),

Gene: FudgeTart\_246 Start: 142611, Stop: 144041, Start Num: 14

Candidate Starts for FudgeTart\_246:

(Start: 14 @142611 has 167 MA's), (25, 142701), (35, 142764), (43, 142887), (47, 142911), (58, 142995), (64, 143037), (68, 143079), (85, 143244), (86, 143247), (116, 143502), (124, 143541), (127, 143571), (133, 143634), (135, 143655), (136, 143664), (138, 143667), (143, 143700), (145, 143715), (164, 143850), (180, 143925), (187, 143982), (188, 143985),

Gene: Gabriel\_253 Start: 141592, Stop: 143022, Start Num: 14

Candidate Starts for Gabriel\_253:

(Start: 14 @141592 has 167 MA's), (25, 141682), (35, 141745), (43, 141868), (47, 141892), (58, 141976), (64, 142018), (68, 142060), (85, 142225), (86, 142228), (116, 142483), (124, 142522), (127, 142552), (133, 142615), (135, 142636), (136, 142645), (138, 142648), (143, 142681), (145, 142696), (164, 142831), (180, 142906), (187, 142963), (188, 142966),

Gene: Galactic\_31 Start: 26523, Stop: 27770, Start Num: 10

Candidate Starts for Galactic\_31:

(Start: 10 @26523 has 61 MA's), (27, 26643), (36, 26715), (44, 26832), (46, 26835), (55, 26913), (66, 26994), (70, 27036), (79, 27114), (95, 27240), (96, 27246), (101, 27285), (108, 27345), (110, 27360), (115, 27402), (121, 27438), (122, 27441), (128, 27492), (129, 27501), (152, 27615), (155, 27657), (160, 27666), (170, 27726),

Gene: Gamgam\_252 Start: 141949, Stop: 143379, Start Num: 14

Candidate Starts for Gamgam\_252:

(Start: 14 @141949 has 167 MA's), (25, 142039), (35, 142102), (43, 142225), (47, 142249), (58, 142333), (64, 142375), (68, 142417), (85, 142582), (86, 142585), (116, 142840), (124, 142879), (127, 142909), (133, 142972), (135, 142993), (136, 143002), (138, 143005), (143, 143038), (145, 143053), (164, 143188), (180, 143263), (187, 143320), (188, 143323),

Gene: Gandalph\_31 Start: 26586, Stop: 27860, Start Num: 10

Candidate Starts for Gandalph\_31:

(Start: 10 @26586 has 61 MA's), (27, 26706), (44, 26895), (46, 26898), (55, 26976), (66, 27057), (70, 27099), (79, 27177), (95, 27303), (96, 27309), (101, 27348), (108, 27408), (110, 27423), (113, 27459), (115, 27465), (121, 27501), (125, 27519), (128, 27555), (129, 27564), (152, 27678), (155, 27720), (160, 27729), (169, 27786), (170, 27789),

Gene: GardenSalsa\_40 Start: 30898, Stop: 32313, Start Num: 9

Candidate Starts for GardenSalsa\_40:

(Start: 9 @30898 has 6 MA's), (17, 30952), (18, 30958), (22, 30988), (24, 31024), (44, 31225), (51, 31255), (54, 31273), (60, 31324), (63, 31339), (70, 31411), (71, 31417), (84, 31528), (90, 31555), (92, 31570), (101, 31645), (105, 31678), (111, 31729), (120, 31807), (142, 31984), (147, 32008), (148, 32011), (162, 32104), (164, 32125), (168, 32158), (183, 32218), (191, 32281),

Gene: GenevaB15\_40 Start: 30943, Stop: 32358, Start Num: 9

Candidate Starts for GenevaB15\_40:

(Start: 9 @30943 has 6 MA's), (17, 30997), (18, 31003), (22, 31033), (24, 31069), (44, 31270), (51, 31300), (54, 31318), (60, 31369), (63, 31384), (84, 31573), (90, 31600), (92, 31615), (101, 31690), (105, 31723), (111, 31774), (142, 32029), (147, 32053), (148, 32056), (162, 32149), (164, 32170), (168, 32203), (183, 32263), (191, 32326),

Gene: Ghost\_250 Start: 142573, Stop: 144003, Start Num: 14

Candidate Starts for Ghost\_250:

(Start: 14 @142573 has 167 MA's), (25, 142663), (35, 142726), (43, 142849), (47, 142873), (58, 142957), (64, 142999), (68, 143041), (85, 143206), (86, 143209), (116, 143464), (124, 143503), (127, 143533), (133, 143596), (135, 143617), (136, 143626), (138, 143629), (143, 143662), (145, 143677), (164, 143812), (180, 143887), (187, 143944), (188, 143947),

Gene: Girr\_31 Start: 26444, Stop: 27691, Start Num: 10

Candidate Starts for Girr\_31:

(Start: 10 @26444 has 61 MA's), (27, 26564), (36, 26636), (44, 26753), (46, 26756), (55, 26834), (66, 26915), (70, 26957), (79, 27035), (95, 27161), (101, 27206), (108, 27266), (110, 27281), (115, 27323), (121, 27359), (128, 27413), (129, 27422), (152, 27536), (170, 27647),

Gene: Gizmo\_256 Start: 145438, Stop: 146868, Start Num: 14

Candidate Starts for Gizmo\_256:

(Start: 14 @145438 has 167 MA's), (25, 145528), (35, 145591), (43, 145714), (47, 145738), (58, 145822), (64, 145864), (68, 145906), (85, 146071), (86, 146074), (116, 146329), (124, 146368), (127, 146398), (133, 146461), (135, 146482), (136, 146491), (138, 146494), (143, 146527), (145, 146542), (164, 146677), (180, 146752), (187, 146809), (188, 146812),

Gene: Glaske16\_36 Start: 29798, Stop: 31165, Start Num: 20

Candidate Starts for Glaske16\_36:

(Start: 20 @29798 has 14 MA's), (24, 29855), (28, 29882), (30, 29897), (33, 29918), (35, 29921), (44, 30059), (50, 30083), (57, 30161), (58, 30167), (59, 30170), (68, 30245), (84, 30377), (90, 30404), (91,

30413), (99, 30467), (101, 30494), (104, 30524), (111, 30578), (119, 30650), (142, 30836), (162, 30956), (164, 30977), (167, 30995), (168, 31010), (178, 31040), (183, 31070), (188, 31106), (189, 31109), (193, 31145),

Gene: Gorge\_30 Start: 26480, Stop: 27751, Start Num: 10

Candidate Starts for Gorge\_30:

(Start: 10 @26480 has 61 MA's), (27, 26597), (36, 26669), (44, 26786), (46, 26789), (55, 26867), (66, 26948), (70, 26990), (79, 27068), (95, 27194), (108, 27299), (110, 27314), (115, 27356), (121, 27392), (122, 27395), (128, 27446), (129, 27455), (152, 27569), (155, 27611), (160, 27620), (169, 27677), (170, 27680),

Gene: Grasshills\_257 Start: 144559, Stop: 145989, Start Num: 14

Candidate Starts for Grasshills\_257:

(Start: 14 @144559 has 167 MA's), (25, 144649), (35, 144712), (43, 144835), (47, 144859), (58, 144943), (64, 144985), (68, 145027), (85, 145192), (86, 145195), (116, 145450), (124, 145489), (127, 145519), (133, 145582), (135, 145603), (136, 145612), (138, 145615), (143, 145648), (145, 145663), (164, 145798), (180, 145873), (187, 145930), (188, 145933),

Gene: Grungle\_232 Start: 139838, Stop: 141268, Start Num: 14

Candidate Starts for Grungle\_232:

(Start: 14 @139838 has 167 MA's), (25, 139928), (35, 139991), (43, 140114), (47, 140138), (58, 140222), (64, 140264), (68, 140306), (85, 140471), (86, 140474), (116, 140729), (124, 140768), (127, 140798), (133, 140861), (135, 140882), (136, 140891), (138, 140894), (143, 140927), (145, 140942), (164, 141077), (180, 141152), (187, 141209), (188, 141212),

Gene: Guppsters\_32 Start: 26753, Stop: 28045, Start Num: 10

Candidate Starts for Guppsters\_32:

(Start: 10 @26753 has 61 MA's), (27, 26873), (36, 26945), (44, 27062), (46, 27065), (53, 27119), (55, 27143), (66, 27224), (70, 27266), (79, 27344), (95, 27470), (96, 27476), (101, 27515), (108, 27575), (110, 27590), (115, 27632), (122, 27671), (125, 27686), (128, 27722), (129, 27731), (152, 27845), (170, 27956),

Gene: Guwapp\_246 Start: 141407, Stop: 142837, Start Num: 14

Candidate Starts for Guwapp\_246:

(Start: 14 @141407 has 167 MA's), (25, 141497), (26, 141500), (35, 141560), (43, 141683), (47, 141707), (58, 141791), (64, 141833), (68, 141875), (85, 142040), (86, 142043), (116, 142298), (124, 142337), (127, 142367), (133, 142430), (135, 142451), (136, 142460), (138, 142463), (143, 142496), (145, 142511), (164, 142646), (180, 142721), (187, 142778), (188, 142781),

Gene: Hades\_31 Start: 26579, Stop: 27853, Start Num: 10

Candidate Starts for Hades\_31:

(1, 26147), (2, 26150), (4, 26303), (Start: 10 @26579 has 61 MA's), (27, 26699), (36, 26771), (44, 26888), (46, 26891), (55, 26969), (66, 27050), (70, 27092), (79, 27170), (95, 27296), (96, 27302), (97, 27305), (110, 27416), (115, 27458), (121, 27494), (125, 27512), (128, 27548), (129, 27557), (152, 27671), (155, 27713), (160, 27722), (169, 27779), (170, 27782),

Gene: HyRo\_235 Start: 141924, Stop: 143354, Start Num: 14

Candidate Starts for HyRo\_235:

(Start: 14 @141924 has 167 MA's), (25, 142014), (35, 142077), (43, 142200), (47, 142224), (58, 142308), (64, 142350), (68, 142392), (85, 142557), (86, 142560), (116, 142815), (124, 142854), (127, 142884), (133, 142947), (135, 142968), (136, 142977), (138, 142980), (143, 143013), (145, 143028), (164, 143163), (180, 143238), (188, 143298),



Gene: I3\_260 Start: 143715, Stop: 145145, Start Num: 14

Candidate Starts for I3\_260:

(Start: 14 @143715 has 167 MA's), (25, 143805), (35, 143868), (43, 143991), (47, 144015), (58, 144099), (64, 144141), (68, 144183), (85, 144348), (86, 144351), (116, 144606), (124, 144645), (127, 144675), (133, 144738), (135, 144759), (136, 144768), (138, 144771), (143, 144804), (145, 144819), (164, 144954), (180, 145029), (187, 145086), (188, 145089),

Gene: IPhone7\_35 Start: 29799, Stop: 31166, Start Num: 20

Candidate Starts for IPhone7\_35:

(Start: 20 @29799 has 14 MA's), (24, 29856), (28, 29883), (35, 29922), (44, 30060), (50, 30084), (57, 30162), (58, 30168), (59, 30171), (68, 30246), (84, 30378), (90, 30405), (91, 30414), (99, 30468), (101, 30495), (104, 30525), (111, 30579), (119, 30651), (142, 30837), (162, 30957), (164, 30978), (167, 30996), (168, 31011), (178, 31041), (183, 31071), (188, 31107), (189, 31110), (193, 31146),

Gene: IkeLoa\_244 Start: 142305, Stop: 143735, Start Num: 14

Candidate Starts for IkeLoa\_244:

(Start: 14 @142305 has 167 MA's), (25, 142395), (26, 142398), (35, 142458), (43, 142581), (47, 142605), (58, 142689), (64, 142731), (68, 142773), (85, 142938), (86, 142941), (116, 143196), (124, 143235), (127, 143265), (133, 143328), (135, 143349), (136, 143358), (138, 143361), (143, 143394), (145, 143409), (164, 143544), (180, 143619), (187, 143676), (188, 143679),

Gene: InigoMontoya\_254 Start: 142623, Stop: 144053, Start Num: 14

Candidate Starts for InigoMontoya\_254:

(Start: 14 @142623 has 167 MA's), (25, 142713), (35, 142776), (43, 142899), (47, 142923), (58, 143007), (64, 143049), (68, 143091), (85, 143256), (86, 143259), (116, 143514), (124, 143553), (127, 143583), (133, 143646), (135, 143667), (136, 143676), (138, 143679), (143, 143712), (145, 143727), (164, 143862), (180, 143937), (187, 143994), (188, 143997),

Gene: InterFolia\_252 Start: 143369, Stop: 144799, Start Num: 14

Candidate Starts for InterFolia\_252:

(Start: 14 @143369 has 167 MA's), (25, 143459), (26, 143462), (35, 143522), (43, 143645), (47, 143669), (58, 143753), (64, 143795), (68, 143837), (85, 144002), (86, 144005), (116, 144260), (124, 144299), (127, 144329), (133, 144392), (135, 144413), (136, 144422), (138, 144425), (143, 144458), (145, 144473), (164, 144608), (180, 144683), (187, 144740), (188, 144743),

Gene: Inventum\_30 Start: 26444, Stop: 27607, Start Num: 16

Candidate Starts for Inventum\_30:

(Start: 16 @26444 has 14 MA's), (27, 26528), (41, 26678), (49, 26732), (70, 26873), (80, 26951), (95, 27077), (96, 27083), (101, 27122), (108, 27182), (110, 27197), (115, 27239), (121, 27275), (122, 27278), (128, 27329), (129, 27338), (152, 27452),

Gene: Iota\_247 Start: 142335, Stop: 143765, Start Num: 14

Candidate Starts for Iota\_247:

(Start: 14 @142335 has 167 MA's), (25, 142425), (35, 142488), (43, 142611), (47, 142635), (58, 142719), (64, 142761), (68, 142803), (85, 142968), (86, 142971), (116, 143226), (124, 143265), (127, 143295), (133, 143358), (135, 143379), (136, 143388), (138, 143391), (143, 143424), (145, 143439), (164, 143574), (180, 143649), (187, 143706), (188, 143709),

Gene: IrishSherpFalk\_32 Start: 27838, Stop: 29112, Start Num: 10

Candidate Starts for IrishSherpFalk\_32:

(Start: 10 @27838 has 61 MA's), (27, 27958), (44, 28147), (46, 28150), (55, 28228), (66, 28309), (70, 28351), (79, 28429), (95, 28555), (96, 28561), (108, 28660), (110, 28675), (115, 28717), (121, 28753), (125, 28771), (128, 28807), (129, 28816), (152, 28930), (155, 28972), (160, 28981), (169, 29038),

(170, 29041),

Gene: Issimir\_247 Start: 142710, Stop: 144140, Start Num: 14

Candidate Starts for Issimir\_247:

(Start: 14 @142710 has 167 MA's), (25, 142800), (35, 142863), (43, 142986), (47, 143010), (58, 143094), (64, 143136), (68, 143178), (85, 143343), (86, 143346), (116, 143601), (124, 143640), (127, 143670), (133, 143733), (135, 143754), (136, 143763), (138, 143766), (143, 143799), (145, 143814), (164, 143949), (180, 144024), (188, 144084),

Gene: Izajani\_246 Start: 143155, Stop: 144585, Start Num: 14

Candidate Starts for Izajani\_246:

(Start: 14 @143155 has 167 MA's), (25, 143245), (35, 143308), (43, 143431), (47, 143455), (58, 143539), (64, 143581), (68, 143623), (85, 143788), (86, 143791), (116, 144046), (124, 144085), (127, 144115), (133, 144178), (135, 144199), (136, 144208), (138, 144211), (143, 144244), (145, 144259), (164, 144394), (180, 144469), (187, 144526), (188, 144529),

Gene: JPickles\_248 Start: 141760, Stop: 143190, Start Num: 14

Candidate Starts for JPickles\_248:

(Start: 14 @141760 has 167 MA's), (25, 141850), (35, 141913), (43, 142036), (47, 142060), (58, 142144), (64, 142186), (68, 142228), (85, 142393), (86, 142396), (116, 142651), (124, 142690), (127, 142720), (133, 142783), (135, 142804), (136, 142813), (138, 142816), (143, 142849), (145, 142864), (164, 142999), (180, 143074), (187, 143131), (188, 143134),

Gene: James\_30 Start: 26476, Stop: 27711, Start Num: 10

Candidate Starts for James\_30:

(Start: 10 @26476 has 61 MA's), (27, 26593), (36, 26665), (44, 26782), (46, 26785), (55, 26863), (66, 26944), (70, 26986), (79, 27064), (95, 27190), (110, 27310), (115, 27352), (121, 27388), (122, 27391), (128, 27442), (129, 27451), (152, 27565),

Gene: Janiyra\_254 Start: 143297, Stop: 144727, Start Num: 14

Candidate Starts for Janiyra\_254:

(Start: 14 @143297 has 167 MA's), (25, 143387), (35, 143450), (43, 143573), (47, 143597), (58, 143681), (64, 143723), (68, 143765), (85, 143930), (86, 143933), (116, 144188), (124, 144227), (127, 144257), (133, 144320), (135, 144341), (136, 144350), (138, 144353), (143, 144386), (145, 144401), (164, 144536), (180, 144611), (187, 144668), (188, 144671),

Gene: JayJay\_246 Start: 142096, Stop: 143526, Start Num: 14

Candidate Starts for JayJay\_246:

(Start: 14 @142096 has 167 MA's), (25, 142186), (35, 142249), (43, 142372), (47, 142396), (58, 142480), (64, 142522), (68, 142564), (85, 142729), (86, 142732), (116, 142987), (124, 143026), (127, 143056), (133, 143119), (135, 143140), (136, 143149), (138, 143152), (143, 143185), (145, 143200), (164, 143335), (180, 143410), (188, 143470),

Gene: Jaygup\_247 Start: 142482, Stop: 143912, Start Num: 14

Candidate Starts for Jaygup\_247:

(Start: 14 @142482 has 167 MA's), (25, 142572), (35, 142635), (43, 142758), (47, 142782), (58, 142866), (64, 142908), (68, 142950), (85, 143115), (86, 143118), (116, 143373), (124, 143412), (127, 143442), (133, 143505), (135, 143526), (136, 143535), (138, 143538), (143, 143571), (145, 143586), (164, 143721), (180, 143796), (187, 143853), (188, 143856),

Gene: Jedediah\_252 Start: 143535, Stop: 144965, Start Num: 14

Candidate Starts for Jedediah\_252:

(Start: 14 @143535 has 167 MA's), (25, 143625), (35, 143688), (43, 143811), (47, 143835), (58, 143919), (64, 143961), (68, 144003), (85, 144168), (86, 144171), (116, 144426), (124, 144465), (127, 144495), (133, 144558), (135, 144579), (136, 144588), (138, 144591), (143, 144624), (145, 144639), (164, 144774), (180, 144849), (187, 144906), (188, 144909),

Gene: Jemmno\_250 Start: 142254, Stop: 143684, Start Num: 14

Candidate Starts for Jemmno\_250:

(Start: 14 @142254 has 167 MA's), (25, 142344), (35, 142407), (43, 142530), (47, 142554), (58, 142638), (64, 142680), (68, 142722), (85, 142887), (86, 142890), (116, 143145), (124, 143184), (127, 143214), (133, 143277), (135, 143298), (136, 143307), (138, 143310), (143, 143343), (145, 143358), (164, 143493), (180, 143568), (187, 143625), (188, 143628),

Gene: Jessibeth14\_250 Start: 143730, Stop: 145160, Start Num: 14

Candidate Starts for Jessibeth14\_250:

(Start: 14 @143730 has 167 MA's), (25, 143820), (35, 143883), (43, 144006), (47, 144030), (58, 144114), (64, 144156), (68, 144198), (85, 144363), (86, 144366), (116, 144621), (124, 144660), (127, 144690), (133, 144753), (135, 144774), (136, 144783), (138, 144786), (143, 144819), (145, 144834), (164, 144969), (180, 145044), (188, 145104),

Gene: Job42\_34 Start: 28216, Stop: 29517, Start Num: 10

Candidate Starts for Job42\_34:

(Start: 10 @28216 has 61 MA's), (27, 28336), (36, 28408), (44, 28525), (46, 28528), (55, 28606), (66, 28687), (70, 28738), (92, 28915), (95, 28957), (97, 28966), (112, 29104), (152, 29335), (155, 29377), (160, 29386), (169, 29443), (170, 29446),

Gene: JulietS\_242 Start: 139834, Stop: 141264, Start Num: 14

Candidate Starts for JulietS\_242:

(Start: 14 @139834 has 167 MA's), (25, 139924), (35, 139987), (43, 140110), (47, 140134), (58, 140218), (64, 140260), (68, 140302), (85, 140467), (86, 140470), (116, 140725), (124, 140764), (127, 140794), (133, 140857), (135, 140878), (136, 140887), (138, 140890), (143, 140923), (145, 140938), (164, 141073), (180, 141148), (188, 141208),

Gene: JustHall\_244 Start: 141784, Stop: 143214, Start Num: 14

Candidate Starts for JustHall\_244:

(Start: 14 @141784 has 167 MA's), (25, 141874), (35, 141937), (43, 142060), (47, 142084), (58, 142168), (64, 142210), (68, 142252), (85, 142417), (86, 142420), (116, 142675), (124, 142714), (127, 142744), (133, 142807), (135, 142828), (136, 142837), (138, 142840), (143, 142873), (145, 142888), (164, 143023), (180, 143098), (187, 143155), (188, 143158),

Gene: Kamryn\_249 Start: 143374, Stop: 144804, Start Num: 14

Candidate Starts for Kamryn\_249:

(Start: 14 @143374 has 167 MA's), (25, 143464), (26, 143467), (35, 143527), (43, 143650), (47, 143674), (58, 143758), (64, 143800), (68, 143842), (85, 144007), (86, 144010), (116, 144265), (124, 144304), (127, 144334), (133, 144397), (135, 144418), (136, 144427), (138, 144430), (143, 144463), (145, 144478), (164, 144613), (180, 144688), (187, 144745), (188, 144748),

Gene: Kboogie\_254 Start: 142413, Stop: 143843, Start Num: 14

Candidate Starts for Kboogie\_254:

(Start: 14 @142413 has 167 MA's), (25, 142503), (35, 142566), (43, 142689), (47, 142713), (58, 142797), (64, 142839), (68, 142881), (85, 143046), (86, 143049), (116, 143304), (124, 143343), (127, 143373), (133, 143436), (135, 143457), (136, 143466), (138, 143469), (143, 143502), (145, 143517), (164, 143652), (180, 143727), (187, 143784), (188, 143787),

Gene: Khaleesi\_249 Start: 143197, Stop: 144627, Start Num: 14

Candidate Starts for Khaleesi\_249:

(Start: 14 @143197 has 167 MA's), (25, 143287), (35, 143350), (43, 143473), (47, 143497), (58, 143581), (64, 143623), (68, 143665), (85, 143830), (86, 143833), (116, 144088), (124, 144127), (127, 144157), (133, 144220), (135, 144241), (136, 144250), (138, 144253), (143, 144286), (145, 144301), (164, 144436), (180, 144511), (188, 144571),

Gene: Koguma\_249 Start: 141996, Stop: 143426, Start Num: 14

Candidate Starts for Koguma\_249:

(Start: 14 @141996 has 167 MA's), (25, 142086), (35, 142149), (43, 142272), (47, 142296), (58, 142380), (64, 142422), (68, 142464), (85, 142629), (86, 142632), (116, 142887), (124, 142926), (127, 142956), (133, 143019), (135, 143040), (136, 143049), (138, 143052), (143, 143085), (145, 143100), (164, 143235), (180, 143310), (187, 143367), (188, 143370),

Gene: KristaRAM\_31 Start: 27175, Stop: 28344, Start Num: 16

Candidate Starts for KristaRAM\_31:

(3, 26902), (4, 26905), (Start: 16 @27175 has 14 MA's), (27, 27259), (41, 27409), (49, 27463), (70, 27604), (92, 27781), (95, 27823), (97, 27832), (112, 27970), (170, 28312), (176, 28333),

Gene: Kumao\_37 Start: 32402, Stop: 33853, Start Num: 11

Candidate Starts for Kumao\_37:

(Start: 11 @32402 has 1 MA's), (23, 32510), (24, 32519), (44, 32714), (74, 32951), (82, 33023), (88, 33071), (93, 33101), (114, 33278), (118, 33314), (132, 33422), (139, 33467), (141, 33500), (150, 33542), (158, 33626), (163, 33656), (164, 33665), (166, 33677), (167, 33683), (175, 33719), (178, 33728), (180, 33737), (186, 33776), (190, 33806), (194, 33848),

Gene: LRRHood\_242 Start: 141406, Stop: 142836, Start Num: 14

Candidate Starts for LRRHood\_242:

(Start: 14 @141406 has 167 MA's), (25, 141496), (35, 141559), (43, 141682), (47, 141706), (58, 141790), (64, 141832), (68, 141874), (85, 142039), (86, 142042), (116, 142297), (124, 142336), (127, 142366), (133, 142429), (135, 142450), (136, 142459), (138, 142462), (143, 142495), (145, 142510), (164, 142645), (180, 142720), (187, 142777), (188, 142780),

Gene: Labelle\_40 Start: 33850, Stop: 35241, Start Num: 15

Candidate Starts for Labelle\_40:

(Start: 15 @33850 has 3 MA's), (Start: 20 @33889 has 14 MA's), (23, 33925), (32, 33985), (37, 34015), (46, 34132), (50, 34156), (65, 34273), (69, 34318), (76, 34393), (77, 34402), (87, 34489), (98, 34561), (107, 34648), (110, 34666), (117, 34738), (121, 34750), (128, 34804), (130, 34816), (132, 34840), (142, 34918), (149, 34951), (151, 34966), (158, 35035), (165, 35074), (172, 35113), (178, 35134), (192, 35233),

Gene: Latch\_250 Start: 141959, Stop: 143389, Start Num: 14

Candidate Starts for Latch\_250:

(Start: 14 @141959 has 167 MA's), (25, 142049), (35, 142112), (43, 142235), (47, 142259), (58, 142343), (64, 142385), (68, 142427), (85, 142592), (86, 142595), (116, 142850), (124, 142889), (127, 142919), (133, 142982), (135, 143003), (136, 143012), (138, 143015), (143, 143048), (145, 143063), (164, 143198), (180, 143273), (187, 143330), (188, 143333),

Gene: Lee7\_251 Start: 145060, Stop: 146490, Start Num: 14

Candidate Starts for Lee7\_251:

(Start: 14 @145060 has 167 MA's), (25, 145150), (35, 145213), (43, 145336), (47, 145360), (58, 145444), (64, 145486), (68, 145528), (85, 145693), (86, 145696), (116, 145951), (124, 145990), (127, 146020), (133, 146083), (135, 146104), (136, 146113), (138, 146116), (143, 146149), (145, 146164),

(164, 146299), (180, 146374), (187, 146431), (188, 146434),

Gene: LifeSavor\_251 Start: 143187, Stop: 144617, Start Num: 14

Candidate Starts for LifeSavor\_251:

(Start: 14 @143187 has 167 MA's), (25, 143277), (35, 143340), (43, 143463), (47, 143487), (58, 143571), (64, 143613), (68, 143655), (85, 143820), (86, 143823), (116, 144078), (124, 144117), (127, 144147), (133, 144210), (135, 144231), (136, 144240), (138, 144243), (143, 144276), (145, 144291), (164, 144426), (180, 144501), (187, 144558), (188, 144561),

Gene: LilSpotty\_31 Start: 23805, Stop: 24962, Start Num: 16

Candidate Starts for LilSpotty\_31:

(Start: 16 @23805 has 14 MA's), (27, 23889), (41, 24039), (49, 24093), (61, 24186), (70, 24237), (80, 24315), (95, 24441), (96, 24447), (99, 24459), (110, 24561), (115, 24603), (129, 24702), (152, 24816),

Gene: LilhomieP\_34 Start: 29799, Stop: 31166, Start Num: 20

Candidate Starts for LilhomieP\_34:

(Start: 20 @29799 has 14 MA's), (24, 29856), (28, 29883), (35, 29922), (44, 30060), (50, 30084), (57, 30162), (58, 30168), (59, 30171), (68, 30246), (84, 30378), (90, 30405), (91, 30414), (99, 30468), (101, 30495), (104, 30525), (111, 30579), (119, 30651), (142, 30837), (162, 30957), (164, 30978), (167, 30996), (168, 31011), (178, 31041), (183, 31071), (188, 31107), (189, 31110), (193, 31146),

Gene: LinStu\_247 Start: 141288, Stop: 142718, Start Num: 14

Candidate Starts for LinStu\_247:

(8, 141246), (Start: 14 @141288 has 167 MA's), (25, 141378), (35, 141441), (43, 141564), (47, 141588), (58, 141672), (64, 141714), (68, 141756), (85, 141921), (86, 141924), (116, 142179), (124, 142218), (127, 142248), (133, 142311), (135, 142332), (136, 142341), (138, 142344), (143, 142377), (145, 142392), (164, 142527), (180, 142602), (188, 142662),

Gene: LittleShirley\_33 Start: 27885, Stop: 29159, Start Num: 10

Candidate Starts for LittleShirley\_33:

(Start: 10 @27885 has 61 MA's), (27, 28005), (36, 28077), (44, 28194), (46, 28197), (55, 28275), (66, 28356), (70, 28398), (79, 28476), (95, 28602), (96, 28608), (97, 28611), (101, 28647), (110, 28722), (115, 28764), (121, 28800), (122, 28803), (128, 28854), (129, 28863), (152, 28977), (155, 29019), (160, 29028), (169, 29085), (170, 29088),

Gene: Littleton\_254 Start: 143196, Stop: 144626, Start Num: 14

Candidate Starts for Littleton\_254:

(Start: 14 @143196 has 167 MA's), (25, 143286), (35, 143349), (43, 143472), (47, 143496), (58, 143580), (64, 143622), (68, 143664), (85, 143829), (86, 143832), (116, 144087), (124, 144126), (127, 144156), (133, 144219), (135, 144240), (136, 144249), (138, 144252), (143, 144285), (145, 144300), (164, 144435), (180, 144510), (187, 144567), (188, 144570),

Gene: Loanshark\_247 Start: 142546, Stop: 143976, Start Num: 14

Candidate Starts for Loanshark\_247:

(Start: 14 @142546 has 167 MA's), (25, 142636), (35, 142699), (43, 142822), (47, 142846), (58, 142930), (64, 142972), (68, 143014), (85, 143179), (86, 143182), (116, 143437), (124, 143476), (127, 143506), (133, 143569), (135, 143590), (136, 143599), (138, 143602), (143, 143635), (145, 143650), (164, 143785), (180, 143860), (187, 143917), (188, 143920),

Gene: LolaVinca\_246 Start: 142799, Stop: 144229, Start Num: 14

Candidate Starts for LolaVinca\_246:

(Start: 14 @142799 has 167 MA's), (25, 142889), (35, 142952), (43, 143075), (47, 143099), (58, 143183), (64, 143225), (68, 143267), (85, 143432), (86, 143435), (116, 143690), (124, 143729), (127,

143759), (133, 143822), (135, 143843), (136, 143852), (138, 143855), (143, 143888), (145, 143903), (164, 144038), (180, 144113), (187, 144170), (188, 144173),

Gene: LordLeafolot\_252 Start: 142412, Stop: 143842, Start Num: 14

Candidate Starts for LordLeafolot\_252:

(Start: 14 @142412 has 167 MA's), (25, 142502), (26, 142505), (35, 142565), (43, 142688), (47, 142712), (58, 142796), (64, 142838), (68, 142880), (85, 143045), (86, 143048), (116, 143303), (124, 143342), (127, 143372), (133, 143435), (135, 143456), (136, 143465), (138, 143468), (143, 143501), (145, 143516), (164, 143651), (180, 143726), (187, 143783), (188, 143786),

Gene: Lukilu\_239 Start: 143415, Stop: 144845, Start Num: 14

Candidate Starts for Lukilu\_239:

(Start: 14 @143415 has 167 MA's), (25, 143505), (26, 143508), (35, 143568), (43, 143691), (47, 143715), (58, 143799), (64, 143841), (68, 143883), (85, 144048), (86, 144051), (116, 144306), (124, 144345), (127, 144375), (133, 144438), (135, 144459), (136, 144468), (138, 144471), (143, 144504), (145, 144519), (164, 144654), (180, 144729), (187, 144786), (188, 144789),

Gene: LunaBlu\_32 Start: 26697, Stop: 27944, Start Num: 10

Candidate Starts for LunaBlu\_32:

(Start: 10 @26697 has 61 MA's), (27, 26817), (36, 26889), (44, 27006), (46, 27009), (55, 27087), (66, 27168), (70, 27210), (79, 27288), (95, 27414), (96, 27420), (101, 27459), (108, 27519), (110, 27534), (115, 27576), (121, 27612), (122, 27615), (128, 27666), (129, 27675), (152, 27789), (155, 27831), (160, 27840), (170, 27900),

Gene: Maby2021\_251 Start: 144099, Stop: 145529, Start Num: 14

Candidate Starts for Maby2021\_251:

(Start: 14 @144099 has 167 MA's), (25, 144189), (35, 144252), (43, 144375), (47, 144399), (58, 144483), (64, 144525), (68, 144567), (85, 144732), (86, 144735), (116, 144990), (124, 145029), (127, 145059), (133, 145122), (135, 145143), (136, 145152), (138, 145155), (143, 145188), (145, 145203), (164, 145338), (180, 145413), (187, 145470), (188, 145473),

Gene: Madruga\_39 Start: 33518, Stop: 34909, Start Num: 15

Candidate Starts for Madruga\_39:

(Start: 15 @33518 has 3 MA's), (Start: 20 @33557 has 14 MA's), (23, 33593), (32, 33653), (37, 33683), (46, 33800), (50, 33824), (65, 33941), (69, 33986), (76, 34061), (77, 34070), (87, 34157), (98, 34229), (107, 34316), (110, 34334), (117, 34406), (121, 34418), (128, 34472), (130, 34484), (132, 34508), (142, 34586), (149, 34619), (151, 34634), (158, 34703), (165, 34742), (172, 34781), (178, 34802), (192, 34901),

Gene: Mahavrat\_30 Start: 26287, Stop: 27558, Start Num: 10

Candidate Starts for Mahavrat\_30:

(Start: 10 @26287 has 61 MA's), (27, 26404), (36, 26476), (44, 26593), (46, 26596), (55, 26674), (66, 26755), (70, 26797), (79, 26875), (95, 27001), (96, 27007), (103, 27076), (110, 27121), (115, 27163), (121, 27199), (128, 27253), (129, 27262), (152, 27376), (155, 27418), (160, 27427), (169, 27484), (170, 27487),

Gene: Mangeria\_250 Start: 143310, Stop: 144740, Start Num: 14

Candidate Starts for Mangeria\_250:

(Start: 14 @143310 has 167 MA's), (25, 143400), (35, 143463), (43, 143586), (47, 143610), (58, 143694), (64, 143736), (68, 143778), (85, 143943), (86, 143946), (116, 144201), (124, 144240), (127, 144270), (133, 144333), (135, 144354), (136, 144363), (138, 144366), (143, 144399), (145, 144414), (164, 144549), (180, 144624), (187, 144681), (188, 144684),

Gene: Marker\_32 Start: 26193, Stop: 27383, Start Num: 16

Candidate Starts for Marker\_32:

(3, 25920), (4, 25923), (Start: 16 @26193 has 14 MA's), (27, 26277), (41, 26427), (49, 26481), (70, 26622), (80, 26700), (95, 26826), (96, 26832), (101, 26871), (108, 26931), (110, 26946), (115, 26988), (121, 27024), (122, 27027), (125, 27042), (128, 27078), (129, 27087), (152, 27201), (155, 27243), (160, 27252), (169, 27309), (170, 27312),

Gene: Matsumoto\_248 Start: 142401, Stop: 143831, Start Num: 14

Candidate Starts for Matsumoto\_248:

(Start: 14 @142401 has 167 MA's), (25, 142491), (35, 142554), (43, 142677), (47, 142701), (58, 142785), (64, 142827), (68, 142869), (85, 143034), (86, 143037), (116, 143292), (124, 143331), (127, 143361), (133, 143424), (135, 143445), (136, 143454), (138, 143457), (143, 143490), (145, 143505), (164, 143640), (180, 143715), (187, 143772), (188, 143775),

Gene: Mattes\_30 Start: 26476, Stop: 27711, Start Num: 10

Candidate Starts for Mattes\_30:

(Start: 10 @26476 has 61 MA's), (27, 26593), (36, 26665), (44, 26782), (46, 26785), (55, 26863), (66, 26944), (70, 26986), (79, 27064), (95, 27190), (110, 27310), (115, 27352), (121, 27388), (122, 27391), (128, 27442), (129, 27451), (152, 27565),

Gene: McGee\_252 Start: 142747, Stop: 144177, Start Num: 14

Candidate Starts for McGee\_252:

(Start: 14 @142747 has 167 MA's), (25, 142837), (35, 142900), (43, 143023), (47, 143047), (58, 143131), (64, 143173), (68, 143215), (85, 143380), (86, 143383), (116, 143638), (124, 143677), (127, 143707), (133, 143770), (135, 143791), (136, 143800), (138, 143803), (143, 143836), (145, 143851), (164, 143986), (180, 144061), (187, 144118), (188, 144121),

Gene: McWolfish\_247 Start: 142408, Stop: 143838, Start Num: 14

Candidate Starts for McWolfish\_247:

(Start: 14 @142408 has 167 MA's), (25, 142498), (35, 142561), (43, 142684), (47, 142708), (58, 142792), (64, 142834), (68, 142876), (85, 143041), (86, 143044), (116, 143299), (124, 143338), (127, 143368), (133, 143431), (135, 143452), (136, 143461), (138, 143464), (143, 143497), (145, 143512), (164, 143647), (180, 143722), (188, 143782),

Gene: Megamind\_247 Start: 142733, Stop: 144163, Start Num: 14

Candidate Starts for Megamind\_247:

(Start: 14 @142733 has 167 MA's), (25, 142823), (35, 142886), (43, 143009), (47, 143033), (58, 143117), (64, 143159), (68, 143201), (85, 143366), (86, 143369), (116, 143624), (124, 143663), (127, 143693), (133, 143756), (135, 143777), (136, 143786), (138, 143789), (143, 143822), (145, 143837), (164, 143972), (180, 144047), (187, 144104), (188, 144107),

Gene: Melpomini\_245 Start: 141493, Stop: 142923, Start Num: 14

Candidate Starts for Melpomini\_245:

(Start: 14 @141493 has 167 MA's), (25, 141583), (35, 141646), (43, 141769), (47, 141793), (58, 141877), (64, 141919), (68, 141961), (85, 142126), (86, 142129), (116, 142384), (124, 142423), (127, 142453), (133, 142516), (135, 142537), (136, 142546), (138, 142549), (143, 142582), (145, 142597), (164, 142732), (180, 142807), (187, 142864), (188, 142867),

Gene: MikeLiesIn\_251 Start: 143869, Stop: 145299, Start Num: 14

Candidate Starts for MikeLiesIn\_251:

(Start: 14 @143869 has 167 MA's), (25, 143959), (35, 144022), (43, 144145), (47, 144169), (58, 144253), (64, 144295), (68, 144337), (85, 144502), (86, 144505), (116, 144760), (124, 144799), (127, 144829), (133, 144892), (135, 144913), (136, 144922), (138, 144925), (143, 144958), (145, 144973),

(164, 145108), (180, 145183), (187, 145240), (188, 145243),

Gene: Mikro\_244 Start: 144312, Stop: 145742, Start Num: 14

Candidate Starts for Mikro\_244:

(Start: 14 @144312 has 167 MA's), (25, 144402), (26, 144405), (35, 144465), (43, 144588), (47, 144612), (58, 144696), (64, 144738), (68, 144780), (85, 144945), (86, 144948), (116, 145203), (124, 145242), (127, 145272), (133, 145335), (135, 145356), (136, 145365), (138, 145368), (143, 145401), (145, 145416), (164, 145551), (180, 145626), (187, 145683), (188, 145686),

Gene: MinionDave\_32 Start: 26855, Stop: 28102, Start Num: 10

Candidate Starts for MinionDave\_32:

(Start: 10 @26855 has 61 MA's), (27, 26975), (36, 27047), (44, 27164), (46, 27167), (55, 27245), (66, 27326), (70, 27368), (79, 27446), (95, 27572), (96, 27578), (101, 27617), (108, 27677), (110, 27692), (115, 27734), (121, 27770), (122, 27773), (128, 27824), (129, 27833), (152, 27947), (155, 27989), (160, 27998), (170, 28058),

Gene: Minnie\_32 Start: 27202, Stop: 28503, Start Num: 10

Candidate Starts for Minnie\_32:

(Start: 10 @27202 has 61 MA's), (27, 27322), (36, 27394), (44, 27511), (46, 27514), (55, 27592), (66, 27673), (70, 27724), (92, 27901), (95, 27943), (97, 27952), (112, 28090), (152, 28321), (155, 28363), (160, 28372), (169, 28429), (170, 28432),

Gene: MisterCuddles\_31 Start: 26444, Stop: 27691, Start Num: 10

Candidate Starts for MisterCuddles\_31:

(Start: 10 @26444 has 61 MA's), (27, 26564), (36, 26636), (44, 26753), (46, 26756), (55, 26834), (66, 26915), (70, 26957), (79, 27035), (95, 27161), (101, 27206), (108, 27266), (110, 27281), (115, 27323), (121, 27359), (128, 27413), (129, 27422), (152, 27536), (170, 27647),

Gene: MoMoMixon\_246 Start: 142828, Stop: 144258, Start Num: 14

Candidate Starts for MoMoMixon\_246:

(Start: 14 @142828 has 167 MA's), (25, 142918), (26, 142921), (35, 142981), (43, 143104), (47, 143128), (58, 143212), (64, 143254), (68, 143296), (85, 143461), (86, 143464), (116, 143719), (124, 143758), (127, 143788), (133, 143851), (135, 143872), (136, 143881), (138, 143884), (143, 143917), (145, 143932), (164, 144067), (180, 144142), (187, 144199), (188, 144202),

Gene: Momo\_252 Start: 141959, Stop: 143389, Start Num: 14

Candidate Starts for Momo\_252:

(Start: 14 @141959 has 167 MA's), (25, 142049), (35, 142112), (43, 142235), (47, 142259), (58, 142343), (64, 142385), (68, 142427), (85, 142592), (86, 142595), (116, 142850), (124, 142889), (127, 142919), (133, 142982), (135, 143003), (136, 143012), (138, 143015), (143, 143048), (145, 143063), (164, 143198), (180, 143273), (187, 143330), (188, 143333),

Gene: Morizzled23\_248 Start: 141775, Stop: 143205, Start Num: 14

Candidate Starts for Morizzled23\_248:

(Start: 14 @141775 has 167 MA's), (25, 141865), (35, 141928), (43, 142051), (47, 142075), (58, 142159), (64, 142201), (68, 142243), (85, 142408), (86, 142411), (116, 142666), (124, 142705), (127, 142735), (133, 142798), (135, 142819), (136, 142828), (138, 142831), (143, 142864), (145, 142879), (164, 143014), (180, 143089), (187, 143146), (188, 143149),

Gene: Mozy\_31 Start: 26391, Stop: 27581, Start Num: 16

Candidate Starts for Mozy\_31:

(Start: 16 @26391 has 14 MA's), (27, 26475), (41, 26625), (49, 26679), (61, 26772), (70, 26820), (80, 26898), (95, 27024), (96, 27030), (101, 27069), (110, 27144), (115, 27186), (121, 27222), (128,



27276), (129, 27285), (152, 27399), (155, 27441), (160, 27450), (169, 27507), (170, 27510),

Gene: MrMagoo\_40 Start: 30898, Stop: 32313, Start Num: 9

Candidate Starts for MrMagoo\_40:

(Start: 9 @30898 has 6 MA's), (17, 30952), (18, 30958), (22, 30988), (24, 31024), (44, 31225), (51, 31255), (54, 31273), (60, 31324), (63, 31339), (70, 31411), (71, 31417), (84, 31528), (90, 31555), (92, 31570), (101, 31645), (105, 31678), (111, 31729), (120, 31807), (142, 31984), (147, 32008), (148, 32011), (162, 32104), (164, 32125), (168, 32158), (183, 32218), (191, 32281),

Gene: Mutaforma13\_30 Start: 26510, Stop: 27781, Start Num: 10

Candidate Starts for Mutaforma13\_30:

(Start: 10 @26510 has 61 MA's), (27, 26627), (36, 26699), (44, 26816), (46, 26819), (66, 26978), (70, 27020), (79, 27098), (95, 27224), (96, 27230), (97, 27233), (101, 27269), (103, 27299), (110, 27344), (115, 27386), (121, 27422), (128, 27476), (129, 27485), (152, 27599), (155, 27641), (160, 27650), (169, 27707), (170, 27710),

Gene: Naija\_251 Start: 142662, Stop: 144092, Start Num: 14

Candidate Starts for Naija\_251:

(Start: 14 @142662 has 167 MA's), (25, 142752), (35, 142815), (43, 142938), (47, 142962), (58, 143046), (64, 143088), (68, 143130), (85, 143295), (86, 143298), (116, 143553), (124, 143592), (127, 143622), (133, 143685), (135, 143706), (136, 143715), (138, 143718), (143, 143751), (145, 143766), (164, 143901), (180, 143976), (187, 144033), (188, 144036),

Gene: Nanosmite\_40 Start: 30775, Stop: 32142, Start Num: 20

Candidate Starts for Nanosmite\_40:

(6, 30640), (Start: 20 @30775 has 14 MA's), (24, 30832), (28, 30859), (35, 30898), (44, 31036), (48, 31045), (50, 31060), (58, 31144), (68, 31222), (70, 31240), (84, 31354), (90, 31381), (92, 31396), (101, 31471), (105, 31504), (112, 31573), (113, 31585), (119, 31627), (132, 31735), (142, 31813), (164, 31954), (167, 31972), (168, 31987), (178, 32017), (183, 32047), (189, 32086), (193, 32122),

Gene: Napoleon13\_247 Start: 141691, Stop: 143121, Start Num: 14

Candidate Starts for Napoleon13\_247:

(Start: 14 @141691 has 167 MA's), (25, 141781), (35, 141844), (43, 141967), (47, 141991), (58, 142075), (64, 142117), (68, 142159), (85, 142324), (86, 142327), (116, 142582), (124, 142621), (127, 142651), (133, 142714), (135, 142735), (136, 142744), (138, 142747), (143, 142780), (145, 142795), (164, 142930), (180, 143005), (187, 143062), (188, 143065),

Gene: Nappy\_249 Start: 143768, Stop: 145198, Start Num: 14

Candidate Starts for Nappy\_249:

(Start: 14 @143768 has 167 MA's), (25, 143858), (26, 143861), (35, 143921), (43, 144044), (47, 144068), (58, 144152), (64, 144194), (68, 144236), (85, 144401), (86, 144404), (116, 144659), (124, 144698), (127, 144728), (133, 144791), (135, 144812), (136, 144821), (138, 144824), (143, 144857), (145, 144872), (164, 145007), (180, 145082), (187, 145139), (188, 145142),

Gene: Naval22\_255 Start: 144442, Stop: 145872, Start Num: 14

Candidate Starts for Naval22\_255:

(Start: 14 @144442 has 167 MA's), (25, 144532), (26, 144535), (35, 144595), (43, 144718), (47, 144742), (58, 144826), (64, 144868), (68, 144910), (85, 145075), (86, 145078), (116, 145333), (124, 145372), (127, 145402), (133, 145465), (135, 145486), (136, 145495), (138, 145498), (143, 145531), (145, 145546), (164, 145681), (180, 145756), (187, 145813), (188, 145816),

Gene: NedWong\_249 Start: 143120, Stop: 144550, Start Num: 14

Candidate Starts for NedWong\_249:

(Start: 14 @143120 has 167 MA's), (25, 143210), (35, 143273), (43, 143396), (47, 143420), (58, 143504), (64, 143546), (68, 143588), (85, 143753), (86, 143756), (116, 144011), (124, 144050), (127, 144080), (133, 144143), (135, 144164), (136, 144173), (138, 144176), (143, 144209), (145, 144224), (164, 144359), (180, 144434), (187, 144491), (188, 144494),

Gene: Ngannou\_245 Start: 141644, Stop: 143074, Start Num: 14

Candidate Starts for Ngannou\_245:

(Start: 14 @141644 has 167 MA's), (25, 141734), (35, 141797), (43, 141920), (47, 141944), (58, 142028), (64, 142070), (68, 142112), (85, 142277), (86, 142280), (116, 142535), (124, 142574), (127, 142604), (133, 142667), (135, 142688), (136, 142697), (138, 142700), (143, 142733), (145, 142748), (164, 142883), (180, 142958), (187, 143015), (188, 143018),

Gene: Nidhogg\_251 Start: 143488, Stop: 144918, Start Num: 14

Candidate Starts for Nidhogg\_251:

(Start: 14 @143488 has 167 MA's), (25, 143578), (26, 143581), (35, 143641), (43, 143764), (47, 143788), (58, 143872), (64, 143914), (68, 143956), (85, 144121), (86, 144124), (116, 144379), (124, 144418), (127, 144448), (133, 144511), (135, 144532), (136, 144541), (138, 144544), (143, 144577), (145, 144592), (164, 144727), (180, 144802), (187, 144859), (188, 144862),

Gene: Nitzel\_31 Start: 27046, Stop: 28239, Start Num: 16

Candidate Starts for Nitzel\_31:

(Start: 16 @27046 has 14 MA's), (27, 27130), (41, 27280), (49, 27334), (70, 27475), (80, 27556), (95, 27682), (96, 27688), (101, 27727), (110, 27802), (115, 27844), (121, 27880), (128, 27934), (129, 27943), (152, 28057), (155, 28099), (160, 28108), (169, 28165), (170, 28168),

Gene: NoodleTree\_246 Start: 138239, Stop: 139669, Start Num: 14

Candidate Starts for NoodleTree\_246:

(Start: 14 @138239 has 167 MA's), (25, 138329), (26, 138332), (35, 138392), (43, 138515), (47, 138539), (58, 138623), (64, 138665), (68, 138707), (85, 138872), (86, 138875), (116, 139130), (124, 139169), (127, 139199), (133, 139262), (135, 139283), (136, 139292), (138, 139295), (143, 139328), (145, 139343), (164, 139478), (180, 139553), (188, 139613),

Gene: Norm\_250 Start: 143389, Stop: 144819, Start Num: 14

Candidate Starts for Norm\_250:

(Start: 14 @143389 has 167 MA's), (25, 143479), (35, 143542), (43, 143665), (47, 143689), (58, 143773), (64, 143815), (68, 143857), (85, 144022), (86, 144025), (116, 144280), (124, 144319), (127, 144349), (133, 144412), (135, 144433), (136, 144442), (138, 144445), (143, 144478), (145, 144493), (164, 144628), (180, 144703), (187, 144760), (188, 144763),

Gene: NuevoMundo\_252 Start: 143875, Stop: 145305, Start Num: 14

Candidate Starts for NuevoMundo\_252:

(Start: 14 @143875 has 167 MA's), (25, 143965), (35, 144028), (43, 144151), (47, 144175), (58, 144259), (64, 144301), (68, 144343), (85, 144508), (86, 144511), (116, 144766), (124, 144805), (127, 144835), (133, 144898), (135, 144919), (136, 144928), (138, 144931), (143, 144964), (145, 144979), (164, 145114), (180, 145189), (187, 145246), (188, 145249),

Gene: OldBen\_30 Start: 26283, Stop: 27554, Start Num: 10

Candidate Starts for OldBen\_30:

(Start: 10 @26283 has 61 MA's), (27, 26400), (36, 26472), (44, 26589), (46, 26592), (55, 26670), (66, 26751), (70, 26793), (79, 26871), (95, 26997), (96, 27003), (97, 27006), (110, 27117), (115, 27159), (122, 27198), (125, 27213), (128, 27249), (129, 27258), (152, 27372), (155, 27414), (169, 27480), (170, 27483),

Gene: OlympiaSaint\_30 Start: 26699, Stop: 27970, Start Num: 10

Candidate Starts for OlympiaSaint\_30:

(Start: 10 @26699 has 61 MA's), (27, 26816), (36, 26888), (44, 27005), (46, 27008), (55, 27086), (66, 27167), (70, 27209), (79, 27287), (95, 27413), (108, 27518), (110, 27533), (115, 27575), (121, 27611), (122, 27614), (128, 27665), (129, 27674), (152, 27788), (155, 27830), (160, 27839), (169, 27896), (170, 27899),

Gene: Ovechkin\_30 Start: 26501, Stop: 27664, Start Num: 16

Candidate Starts for Ovechkin\_30:

(3, 26228), (4, 26231), (Start: 16 @26501 has 14 MA's), (27, 26585), (41, 26735), (49, 26789), (70, 26930), (80, 27008), (95, 27134), (96, 27140), (101, 27179), (108, 27239), (110, 27254), (115, 27296), (121, 27332), (122, 27335), (125, 27350), (128, 27386), (129, 27395), (152, 27509), (170, 27620),

Gene: ParkTD\_249 Start: 142959, Stop: 144389, Start Num: 14

Candidate Starts for ParkTD\_249:

(Start: 14 @142959 has 167 MA's), (25, 143049), (35, 143112), (43, 143235), (47, 143259), (58, 143343), (64, 143385), (68, 143427), (85, 143592), (86, 143595), (116, 143850), (124, 143889), (127, 143919), (133, 143982), (135, 144003), (136, 144012), (138, 144015), (143, 144048), (145, 144063), (164, 144198), (180, 144273), (187, 144330), (188, 144333),

Gene: Patience\_41 Start: 34399, Stop: 35790, Start Num: 15

Candidate Starts for Patience\_41:

(Start: 15 @34399 has 3 MA's), (Start: 20 @34438 has 14 MA's), (23, 34474), (32, 34534), (37, 34564), (46, 34681), (50, 34705), (65, 34822), (69, 34867), (76, 34942), (77, 34951), (87, 35038), (98, 35110), (107, 35197), (110, 35215), (117, 35287), (121, 35299), (128, 35353), (130, 35365), (132, 35389), (142, 35467), (149, 35500), (151, 35515), (158, 35584), (165, 35623), (172, 35662), (178, 35683), (192, 35782),

Gene: Patter\_252 Start: 142619, Stop: 144049, Start Num: 14

Candidate Starts for Patter\_252:

(Start: 14 @142619 has 167 MA's), (25, 142709), (26, 142712), (35, 142772), (43, 142895), (47, 142919), (58, 143003), (64, 143045), (68, 143087), (85, 143252), (86, 143255), (116, 143510), (124, 143549), (127, 143579), (133, 143642), (135, 143663), (136, 143672), (138, 143675), (143, 143708), (145, 143723), (164, 143858), (180, 143933), (187, 143990), (188, 143993),

Gene: PegLeg\_35 Start: 29798, Stop: 31165, Start Num: 20

Candidate Starts for PegLeg\_35:

(Start: 20 @29798 has 14 MA's), (24, 29855), (28, 29882), (35, 29921), (44, 30059), (50, 30083), (57, 30161), (58, 30167), (59, 30170), (68, 30245), (84, 30377), (90, 30404), (91, 30413), (99, 30467), (101, 30494), (104, 30524), (111, 30578), (119, 30650), (142, 30836), (162, 30956), (164, 30977), (167, 30995), (168, 31010), (178, 31040), (183, 31070), (188, 31106), (189, 31109), (193, 31145),

Gene: Philus\_30 Start: 26322, Stop: 27593, Start Num: 10

Candidate Starts for Philus\_30:

(Start: 10 @26322 has 61 MA's), (27, 26439), (36, 26511), (44, 26628), (46, 26631), (55, 26709), (66, 26790), (70, 26832), (79, 26910), (95, 27036), (108, 27141), (110, 27156), (115, 27198), (121, 27234), (122, 27237), (128, 27288), (129, 27297), (152, 27411), (155, 27453), (160, 27462), (169, 27519), (170, 27522),

Gene: Phlegm\_255 Start: 143365, Stop: 144795, Start Num: 14

Candidate Starts for Phlegm\_255:

(Start: 14 @143365 has 167 MA's), (25, 143455), (35, 143518), (43, 143641), (47, 143665), (58, 143749), (64, 143791), (68, 143833), (85, 143998), (86, 144001), (116, 144256), (124, 144295), (127,

144325), (133, 144388), (135, 144409), (136, 144418), (138, 144421), (143, 144454), (145, 144469), (164, 144604), (180, 144679), (187, 144736), (188, 144739),

Gene: Phox\_251 Start: 142614, Stop: 144044, Start Num: 14  
Candidate Starts for Phox\_251:

(Start: 14 @142614 has 167 MA's), (25, 142704), (35, 142767), (43, 142890), (47, 142914), (58, 142998), (64, 143040), (68, 143082), (85, 143247), (86, 143250), (116, 143505), (124, 143544), (127, 143574), (133, 143637), (135, 143658), (136, 143667), (138, 143670), (143, 143703), (145, 143718), (164, 143853), (180, 143928), (187, 143985), (188, 143988),

Gene: Phusco\_249 Start: 142197, Stop: 143627, Start Num: 14  
Candidate Starts for Phusco\_249:

(Start: 14 @142197 has 167 MA's), (25, 142287), (35, 142350), (43, 142473), (47, 142497), (58, 142581), (64, 142623), (68, 142665), (85, 142830), (86, 142833), (116, 143088), (124, 143127), (127, 143157), (133, 143220), (135, 143241), (136, 143250), (138, 143253), (143, 143286), (145, 143301), (164, 143436), (180, 143511), (187, 143568), (188, 143571),

Gene: Pier\_249 Start: 143490, Stop: 144920, Start Num: 14  
Candidate Starts for Pier\_249:

(Start: 14 @143490 has 167 MA's), (25, 143580), (35, 143643), (43, 143766), (47, 143790), (58, 143874), (64, 143916), (68, 143958), (85, 144123), (86, 144126), (116, 144381), (124, 144420), (127, 144450), (133, 144513), (135, 144534), (136, 144543), (138, 144546), (143, 144579), (145, 144594), (164, 144729), (180, 144804), (187, 144861), (188, 144864),

Gene: Pinkcreek\_230 Start: 139816, Stop: 141246, Start Num: 14  
Candidate Starts for Pinkcreek\_230:

(8, 139774), (Start: 14 @139816 has 167 MA's), (25, 139906), (35, 139969), (43, 140092), (47, 140116), (58, 140200), (64, 140242), (68, 140284), (85, 140449), (86, 140452), (116, 140707), (124, 140746), (127, 140776), (133, 140839), (135, 140860), (136, 140869), (138, 140872), (143, 140905), (145, 140920), (164, 141055), (180, 141130), (188, 141190),

Gene: Pio\_257 Start: 144693, Stop: 146123, Start Num: 14  
Candidate Starts for Pio\_257:

(Start: 14 @144693 has 167 MA's), (25, 144783), (35, 144846), (43, 144969), (47, 144993), (58, 145077), (64, 145119), (68, 145161), (85, 145326), (86, 145329), (116, 145584), (124, 145623), (127, 145653), (133, 145716), (135, 145737), (136, 145746), (138, 145749), (143, 145782), (145, 145797), (164, 145932), (180, 146007), (187, 146064), (188, 146067),

Gene: Pivoine\_251 Start: 142662, Stop: 144092, Start Num: 14  
Candidate Starts for Pivoine\_251:

(Start: 14 @142662 has 167 MA's), (25, 142752), (35, 142815), (43, 142938), (47, 142962), (58, 143046), (64, 143088), (68, 143130), (85, 143295), (86, 143298), (116, 143553), (124, 143592), (127, 143622), (133, 143685), (135, 143706), (136, 143715), (138, 143718), (143, 143751), (145, 143766), (164, 143901), (180, 143976), (187, 144033), (188, 144036),

Gene: Pleione\_254 Start: 143425, Stop: 144855, Start Num: 14  
Candidate Starts for Pleione\_254:

(Start: 14 @143425 has 167 MA's), (25, 143515), (35, 143578), (43, 143701), (47, 143725), (58, 143809), (64, 143851), (68, 143893), (85, 144058), (86, 144061), (116, 144316), (124, 144355), (127, 144385), (133, 144448), (135, 144469), (136, 144478), (138, 144481), (143, 144514), (145, 144529), (164, 144664), (180, 144739), (187, 144796), (188, 144799),

Gene: Plumbus\_32 Start: 26320, Stop: 27594, Start Num: 10

Candidate Starts for Plumbus\_32:

(Start: 10 @26320 has 61 MA's), (27, 26440), (36, 26512), (44, 26629), (46, 26632), (55, 26710), (66, 26791), (70, 26833), (79, 26911), (95, 27037), (96, 27043), (97, 27046), (101, 27082), (110, 27157), (115, 27199), (121, 27235), (129, 27298), (152, 27412), (155, 27454), (160, 27463), (169, 27520), (170, 27523),

Gene: Polka14\_31 Start: 26869, Stop: 28140, Start Num: 10

Candidate Starts for Polka14\_31:

(3, 26596), (5, 26617), (Start: 10 @26869 has 61 MA's), (27, 26986), (36, 27058), (44, 27175), (46, 27178), (55, 27256), (66, 27337), (70, 27379), (79, 27457), (95, 27583), (96, 27589), (97, 27592), (110, 27703), (115, 27745), (122, 27784), (125, 27799), (128, 27835), (129, 27844), (152, 27958), (155, 28000), (160, 28009), (169, 28066), (170, 28069),

Gene: Pollywog\_30 Start: 26566, Stop: 27849, Start Num: 10

Candidate Starts for Pollywog\_30:

(Start: 10 @26566 has 61 MA's), (27, 26683), (36, 26755), (44, 26872), (46, 26875), (55, 26953), (66, 27034), (70, 27085), (79, 27163), (95, 27289), (96, 27295), (101, 27334), (110, 27409), (115, 27451), (122, 27490), (128, 27541), (129, 27550), (152, 27667), (155, 27709), (160, 27718), (169, 27775), (170, 27778),

Gene: Priscilla\_30 Start: 26513, Stop: 27784, Start Num: 10

Candidate Starts for Priscilla\_30:

(Start: 10 @26513 has 61 MA's), (27, 26630), (36, 26702), (44, 26819), (46, 26822), (55, 26900), (66, 26981), (70, 27023), (79, 27101), (95, 27227), (108, 27332), (110, 27347), (115, 27389), (121, 27425), (122, 27428), (128, 27479), (129, 27488), (152, 27602), (155, 27644), (160, 27653), (169, 27710), (170, 27713),

Gene: PurduePete\_251 Start: 144139, Stop: 145569, Start Num: 14

Candidate Starts for PurduePete\_251:

(Start: 14 @144139 has 167 MA's), (25, 144229), (35, 144292), (43, 144415), (47, 144439), (58, 144523), (64, 144565), (68, 144607), (85, 144772), (86, 144775), (116, 145030), (124, 145069), (127, 145099), (133, 145162), (135, 145183), (136, 145192), (138, 145195), (143, 145228), (145, 145243), (164, 145378), (180, 145453), (188, 145513),

Gene: QBert\_242 Start: 141012, Stop: 142442, Start Num: 14

Candidate Starts for QBert\_242:

(Start: 14 @141012 has 167 MA's), (25, 141102), (35, 141165), (43, 141288), (47, 141312), (58, 141396), (64, 141438), (68, 141480), (85, 141645), (86, 141648), (116, 141903), (124, 141942), (127, 141972), (133, 142035), (135, 142056), (136, 142065), (138, 142068), (143, 142101), (145, 142116), (164, 142251), (180, 142326), (187, 142383), (188, 142386),

Gene: Quasimodo\_253 Start: 142998, Stop: 144428, Start Num: 14

Candidate Starts for Quasimodo\_253:

(Start: 14 @142998 has 167 MA's), (25, 143088), (35, 143151), (43, 143274), (47, 143298), (58, 143382), (64, 143424), (68, 143466), (85, 143631), (86, 143634), (116, 143889), (124, 143928), (127, 143958), (133, 144021), (135, 144042), (136, 144051), (138, 144054), (143, 144087), (145, 144102), (164, 144237), (180, 144312), (187, 144369), (188, 144372),

Gene: Rabinovish\_243 Start: 141502, Stop: 142932, Start Num: 14

Candidate Starts for Rabinovish\_243:

(Start: 14 @141502 has 167 MA's), (35, 141655), (43, 141778), (47, 141802), (58, 141886), (64, 141928), (68, 141970), (85, 142135), (86, 142138), (116, 142393), (124, 142432), (127, 142462), (133, 142525), (135, 142546), (136, 142555), (138, 142558), (143, 142591), (145, 142606), (164, 142741),

(180, 142816), (187, 142873), (188, 142876),

Gene: Radiance\_30 Start: 26421, Stop: 27692, Start Num: 10

Candidate Starts for Radiance\_30:

(Start: 10 @26421 has 61 MA's), (27, 26538), (36, 26610), (44, 26727), (46, 26730), (55, 26808), (66, 26889), (70, 26931), (79, 27009), (95, 27135), (108, 27240), (110, 27255), (115, 27297), (121, 27333), (122, 27336), (128, 27387), (129, 27396), (152, 27510), (155, 27552), (160, 27561), (169, 27618), (170, 27621),

Gene: Rahel\_252 Start: 143100, Stop: 144530, Start Num: 14

Candidate Starts for Rahel\_252:

(Start: 14 @143100 has 167 MA's), (25, 143190), (35, 143253), (43, 143376), (47, 143400), (58, 143484), (64, 143526), (68, 143568), (85, 143733), (86, 143736), (116, 143991), (124, 144030), (127, 144060), (133, 144123), (135, 144144), (136, 144153), (138, 144156), (143, 144189), (145, 144204), (164, 144339), (180, 144414), (187, 144471), (188, 144474),

Gene: Ramsey\_32 Start: 26518, Stop: 27765, Start Num: 10

Candidate Starts for Ramsey\_32:

(Start: 10 @26518 has 61 MA's), (27, 26638), (36, 26710), (44, 26827), (46, 26830), (55, 26908), (66, 26989), (70, 27031), (79, 27109), (95, 27235), (96, 27241), (97, 27244), (110, 27355), (115, 27397), (122, 27436), (125, 27451), (128, 27487), (129, 27496), (152, 27610), (170, 27721),

Gene: Reindeer\_35 Start: 30311, Stop: 31678, Start Num: 20

Candidate Starts for Reindeer\_35:

(Start: 20 @30311 has 14 MA's), (21, 30320), (24, 30368), (28, 30395), (35, 30434), (44, 30572), (47, 30578), (48, 30581), (50, 30596), (52, 30614), (56, 30668), (57, 30674), (58, 30680), (59, 30683), (68, 30758), (78, 30860), (84, 30890), (90, 30917), (92, 30932), (98, 30977), (99, 30980), (101, 31007), (105, 31040), (109, 31076), (112, 31109), (119, 31163), (120, 31169), (126, 31199), (131, 31247), (132, 31271), (142, 31349), (161, 31463), (162, 31469), (164, 31490), (167, 31508), (168, 31523), (183, 31583), (188, 31619), (189, 31622), (193, 31658),

Gene: Rey\_40 Start: 31173, Stop: 32588, Start Num: 9

Candidate Starts for Rey\_40:

(Start: 9 @31173 has 6 MA's), (17, 31227), (18, 31233), (22, 31263), (24, 31299), (44, 31500), (51, 31530), (60, 31599), (63, 31614), (68, 31668), (70, 31686), (71, 31692), (84, 31803), (90, 31830), (92, 31845), (105, 31953), (111, 32004), (120, 32082), (142, 32259), (147, 32283), (148, 32286), (161, 32373), (162, 32379), (164, 32400), (168, 32433), (183, 32493), (191, 32556),

Gene: Rialto\_34 Start: 28576, Stop: 29850, Start Num: 10

Candidate Starts for Rialto\_34:

(Start: 10 @28576 has 61 MA's), (27, 28696), (36, 28768), (44, 28885), (46, 28888), (55, 28966), (66, 29047), (70, 29089), (79, 29167), (95, 29293), (96, 29299), (97, 29302), (101, 29338), (110, 29413), (115, 29455), (121, 29491), (122, 29494), (128, 29545), (129, 29554), (152, 29668), (155, 29710), (160, 29719), (169, 29776), (170, 29779),

Gene: Rita\_31 Start: 26482, Stop: 27774, Start Num: 10

Candidate Starts for Rita\_31:

(Start: 10 @26482 has 61 MA's), (27, 26602), (44, 26791), (46, 26794), (55, 26872), (66, 26953), (70, 26995), (79, 27073), (95, 27199), (96, 27205), (101, 27244), (108, 27304), (110, 27319), (115, 27361), (121, 27397), (122, 27400), (125, 27415), (128, 27451), (129, 27460), (152, 27574), (170, 27685),

Gene: RitaG\_31 Start: 26686, Stop: 27960, Start Num: 10

Candidate Starts for RitaG\_31:

(Start: 10 @26686 has 61 MA's), (27, 26806), (44, 26995), (46, 26998), (55, 27076), (66, 27157), (70, 27199), (79, 27277), (95, 27403), (96, 27409), (101, 27448), (108, 27508), (110, 27523), (113, 27559), (115, 27565), (121, 27601), (125, 27619), (128, 27655), (129, 27664), (152, 27778), (155, 27820), (169, 27886), (170, 27889),

Gene: Rizal\_239 Start: 140915, Stop: 142345, Start Num: 14

Candidate Starts for Rizal\_239:

(Start: 14 @140915 has 167 MA's), (25, 141005), (35, 141068), (43, 141191), (47, 141215), (58, 141299), (64, 141341), (68, 141383), (85, 141548), (86, 141551), (116, 141806), (124, 141845), (127, 141875), (133, 141938), (135, 141959), (136, 141968), (138, 141971), (143, 142004), (145, 142019), (164, 142154), (180, 142229), (187, 142286), (188, 142289),

Gene: RoMag\_245 Start: 142696, Stop: 144126, Start Num: 14

Candidate Starts for RoMag\_245:

(Start: 14 @142696 has 167 MA's), (25, 142786), (26, 142789), (35, 142849), (43, 142972), (47, 142996), (58, 143080), (64, 143122), (68, 143164), (85, 143329), (86, 143332), (116, 143587), (124, 143626), (127, 143656), (133, 143719), (135, 143740), (136, 143749), (138, 143752), (143, 143785), (145, 143800), (164, 143935), (180, 144010), (187, 144067), (188, 144070),

Gene: Ronan\_246 Start: 141077, Stop: 142507, Start Num: 14

Candidate Starts for Ronan\_246:

(8, 141035), (Start: 14 @141077 has 167 MA's), (25, 141167), (35, 141230), (43, 141353), (47, 141377), (58, 141461), (64, 141503), (68, 141545), (85, 141710), (86, 141713), (116, 141968), (124, 142007), (127, 142037), (133, 142100), (135, 142121), (136, 142130), (138, 142133), (143, 142166), (145, 142181), (164, 142316), (180, 142391), (188, 142451),

Gene: Roots515\_253 Start: 144241, Stop: 145671, Start Num: 14

Candidate Starts for Roots515\_253:

(Start: 14 @144241 has 167 MA's), (25, 144331), (35, 144394), (43, 144517), (47, 144541), (58, 144625), (64, 144667), (68, 144709), (85, 144874), (86, 144877), (116, 145132), (124, 145171), (127, 145201), (133, 145264), (135, 145285), (136, 145294), (138, 145297), (143, 145330), (145, 145345), (164, 145480), (180, 145555), (187, 145612), (188, 145615),

Gene: Royals2015\_30 Start: 26424, Stop: 27614, Start Num: 16

Candidate Starts for Royals2015\_30:

(3, 26151), (5, 26172), (Start: 16 @26424 has 14 MA's), (27, 26508), (41, 26658), (49, 26712), (61, 26805), (70, 26853), (80, 26931), (95, 27057), (96, 27063), (101, 27102), (108, 27162), (110, 27177), (115, 27219), (121, 27255), (122, 27258), (128, 27309), (129, 27318), (152, 27432), (155, 27474), (160, 27483), (169, 27540), (170, 27543),

Gene: Ruby\_31 Start: 26444, Stop: 27691, Start Num: 10

Candidate Starts for Ruby\_31:

(Start: 10 @26444 has 61 MA's), (27, 26564), (36, 26636), (44, 26753), (46, 26756), (55, 26834), (66, 26915), (70, 26957), (79, 27035), (95, 27161), (101, 27206), (108, 27266), (110, 27281), (115, 27323), (121, 27359), (128, 27413), (129, 27422), (152, 27536), (170, 27647),

Gene: Saal\_30 Start: 26300, Stop: 27571, Start Num: 10

Candidate Starts for Saal\_30:

(Start: 10 @26300 has 61 MA's), (27, 26417), (36, 26489), (44, 26606), (46, 26609), (55, 26687), (66, 26768), (70, 26810), (79, 26888), (95, 27014), (108, 27119), (110, 27134), (115, 27176), (121, 27212), (122, 27215), (128, 27266), (129, 27275), (152, 27389), (155, 27431), (160, 27440), (169, 27497), (170, 27500),

Gene: Sabbb\_31 Start: 26645, Stop: 27916, Start Num: 10

Candidate Starts for Sabbb\_31:

(Start: 10 @26645 has 61 MA's), (27, 26762), (36, 26834), (44, 26951), (46, 26954), (55, 27032), (66, 27113), (70, 27155), (79, 27233), (87, 27287), (95, 27359), (110, 27479), (115, 27521), (121, 27557), (128, 27611), (129, 27620), (152, 27734), (155, 27776), (160, 27785), (169, 27842), (170, 27845),

Gene: Salacia\_252 Start: 144565, Stop: 145995, Start Num: 14

Candidate Starts for Salacia\_252:

(Start: 14 @144565 has 167 MA's), (25, 144655), (35, 144718), (43, 144841), (47, 144865), (58, 144949), (64, 144991), (68, 145033), (85, 145198), (86, 145201), (116, 145456), (124, 145495), (127, 145525), (133, 145588), (135, 145609), (136, 145618), (138, 145621), (143, 145654), (145, 145669), (164, 145804), (180, 145879), (187, 145936), (188, 145939),

Gene: Sandalphon\_31 Start: 27031, Stop: 28302, Start Num: 10

Candidate Starts for Sandalphon\_31:

(Start: 10 @27031 has 61 MA's), (27, 27148), (36, 27220), (44, 27337), (46, 27340), (55, 27418), (66, 27499), (70, 27541), (79, 27619), (95, 27745), (96, 27751), (97, 27754), (110, 27865), (115, 27907), (122, 27946), (125, 27961), (128, 27997), (129, 28006), (152, 28120), (155, 28162), (169, 28228), (170, 28231),

Gene: Sarma624\_26 Start: 22498, Stop: 23733, Start Num: 10

Candidate Starts for Sarma624\_26:

(Start: 10 @22498 has 61 MA's), (27, 22618), (36, 22690), (44, 22807), (46, 22810), (55, 22888), (66, 22969), (70, 23011), (79, 23089), (95, 23215), (96, 23221), (101, 23260), (108, 23320), (110, 23335), (115, 23377), (121, 23413), (122, 23416), (128, 23467), (129, 23476), (152, 23590), (170, 23701), (176, 23722),

Gene: Sassafras\_30 Start: 26444, Stop: 27607, Start Num: 16

Candidate Starts for Sassafras\_30:

(Start: 16 @26444 has 14 MA's), (27, 26528), (41, 26678), (49, 26732), (70, 26873), (80, 26951), (95, 27077), (96, 27083), (101, 27122), (108, 27182), (110, 27197), (115, 27239), (121, 27275), (122, 27278), (128, 27329), (129, 27338), (152, 27452),

Gene: Sauce\_247 Start: 142424, Stop: 143854, Start Num: 14

Candidate Starts for Sauce\_247:

(Start: 14 @142424 has 167 MA's), (25, 142514), (35, 142577), (43, 142700), (47, 142724), (58, 142808), (64, 142850), (68, 142892), (85, 143057), (86, 143060), (116, 143315), (124, 143354), (127, 143384), (133, 143447), (135, 143468), (136, 143477), (138, 143480), (143, 143513), (145, 143528), (164, 143663), (180, 143738), (187, 143795), (188, 143798),

Gene: ScottMcG\_242 Start: 141625, Stop: 143055, Start Num: 14

Candidate Starts for ScottMcG\_242:

(Start: 14 @141625 has 167 MA's), (25, 141715), (35, 141778), (43, 141901), (47, 141925), (58, 142009), (64, 142051), (68, 142093), (85, 142258), (86, 142261), (116, 142516), (124, 142555), (127, 142585), (133, 142648), (135, 142669), (136, 142678), (138, 142681), (143, 142714), (145, 142729), (164, 142864), (180, 142939), (187, 142996), (188, 142999),

Gene: Sebata\_250 Start: 143284, Stop: 144714, Start Num: 14

Candidate Starts for Sebata\_250:

(Start: 14 @143284 has 167 MA's), (25, 143374), (35, 143437), (43, 143560), (47, 143584), (58, 143668), (64, 143710), (68, 143752), (85, 143917), (86, 143920), (116, 144175), (124, 144214), (127, 144244), (133, 144307), (135, 144328), (136, 144337), (138, 144340), (143, 144373), (145, 144388), (164, 144523), (180, 144598), (188, 144658),



Gene: Shaqnato\_241 Start: 141833, Stop: 143263, Start Num: 14

Candidate Starts for Shaqnato\_241:

(Start: 14 @141833 has 167 MA's), (25, 141923), (35, 141986), (43, 142109), (47, 142133), (58, 142217), (64, 142259), (68, 142301), (85, 142466), (86, 142469), (116, 142724), (124, 142763), (127, 142793), (133, 142856), (135, 142877), (136, 142886), (138, 142889), (143, 142922), (145, 142937), (164, 143072), (180, 143147), (188, 143207),

Gene: Shelob\_251 Start: 144559, Stop: 145989, Start Num: 14

Candidate Starts for Shelob\_251:

(Start: 14 @144559 has 167 MA's), (25, 144649), (35, 144712), (43, 144835), (47, 144859), (58, 144943), (64, 144985), (68, 145027), (85, 145192), (86, 145195), (116, 145450), (124, 145489), (127, 145519), (133, 145582), (135, 145603), (136, 145612), (138, 145615), (143, 145648), (145, 145663), (164, 145798), (180, 145873), (187, 145930), (188, 145933),

Gene: ShiaLabeouf\_248 Start: 142418, Stop: 143848, Start Num: 14

Candidate Starts for ShiaLabeouf\_248:

(Start: 14 @142418 has 167 MA's), (25, 142508), (35, 142571), (43, 142694), (47, 142718), (58, 142802), (64, 142844), (68, 142886), (85, 143051), (86, 143054), (116, 143309), (124, 143348), (127, 143378), (133, 143441), (135, 143462), (136, 143471), (138, 143474), (143, 143507), (145, 143522), (164, 143657), (180, 143732), (187, 143789), (188, 143792),

Gene: Shifa\_226 Start: 141892, Stop: 143322, Start Num: 14

Candidate Starts for Shifa\_226:

(Start: 14 @141892 has 167 MA's), (25, 141982), (35, 142045), (43, 142168), (47, 142192), (58, 142276), (64, 142318), (68, 142360), (85, 142525), (86, 142528), (116, 142783), (124, 142822), (127, 142852), (133, 142915), (135, 142936), (136, 142945), (138, 142948), (143, 142981), (145, 142996), (164, 143131), (180, 143206), (188, 143266),

Gene: Shnickers\_249 Start: 142482, Stop: 143912, Start Num: 14

Candidate Starts for Shnickers\_249:

(Start: 14 @142482 has 167 MA's), (25, 142572), (35, 142635), (43, 142758), (47, 142782), (58, 142866), (64, 142908), (68, 142950), (85, 143115), (86, 143118), (116, 143373), (124, 143412), (127, 143442), (133, 143505), (135, 143526), (136, 143535), (138, 143538), (143, 143571), (145, 143586), (164, 143721), (180, 143796), (187, 143853), (188, 143856),

Gene: Shrimp\_253 Start: 144176, Stop: 145606, Start Num: 14

Candidate Starts for Shrimp\_253:

(Start: 14 @144176 has 167 MA's), (25, 144266), (35, 144329), (43, 144452), (47, 144476), (58, 144560), (64, 144602), (68, 144644), (85, 144809), (86, 144812), (116, 145067), (124, 145106), (127, 145136), (133, 145199), (135, 145220), (136, 145229), (138, 145232), (143, 145265), (145, 145280), (164, 145415), (180, 145490), (187, 145547), (188, 145550),

Gene: SilverDipper\_255 Start: 143218, Stop: 144648, Start Num: 14

Candidate Starts for SilverDipper\_255:

(Start: 14 @143218 has 167 MA's), (25, 143308), (35, 143371), (43, 143494), (47, 143518), (58, 143602), (64, 143644), (68, 143686), (85, 143851), (86, 143854), (116, 144109), (124, 144148), (127, 144178), (133, 144241), (135, 144262), (136, 144271), (138, 144274), (143, 144307), (145, 144322), (164, 144457), (180, 144532), (187, 144589), (188, 144592),

Gene: SimranZ1\_33 Start: 26526, Stop: 27818, Start Num: 10

Candidate Starts for SimranZ1\_33:

(Start: 10 @26526 has 61 MA's), (27, 26646), (36, 26718), (44, 26835), (46, 26838), (55, 26916), (66, 26997), (70, 27039), (92, 27216), (95, 27258), (97, 27267), (115, 27423), (152, 27636), (155, 27678), (160, 27687), (169, 27744), (170, 27747),

Gene: Skinny\_36 Start: 30228, Stop: 31595, Start Num: 20

Candidate Starts for Skinny\_36:

(Start: 20 @30228 has 14 MA's), (24, 30285), (28, 30312), (35, 30351), (44, 30489), (50, 30513), (57, 30591), (58, 30597), (59, 30600), (68, 30675), (84, 30807), (90, 30834), (91, 30843), (99, 30897), (101, 30924), (104, 30954), (111, 31008), (119, 31080), (142, 31266), (162, 31386), (164, 31407), (167, 31425), (168, 31440), (178, 31470), (183, 31500), (188, 31536), (189, 31539), (193, 31575),

Gene: SlimJimmy\_34 Start: 29782, Stop: 31149, Start Num: 20

Candidate Starts for SlimJimmy\_34:

(Start: 20 @29782 has 14 MA's), (24, 29839), (28, 29866), (30, 29881), (33, 29902), (35, 29905), (44, 30043), (50, 30067), (57, 30145), (58, 30151), (59, 30154), (68, 30229), (84, 30361), (90, 30388), (91, 30397), (99, 30451), (101, 30478), (104, 30508), (111, 30562), (119, 30634), (142, 30820), (162, 30940), (164, 30961), (167, 30979), (168, 30994), (178, 31024), (183, 31054), (188, 31090), (189, 31093), (193, 31129),

Gene: SmallFry\_251 Start: 142576, Stop: 144006, Start Num: 14

Candidate Starts for SmallFry\_251:

(Start: 14 @142576 has 167 MA's), (25, 142666), (35, 142729), (43, 142852), (47, 142876), (58, 142960), (64, 143002), (68, 143044), (85, 143209), (86, 143212), (116, 143467), (124, 143506), (127, 143536), (133, 143599), (135, 143620), (136, 143629), (138, 143632), (143, 143665), (145, 143680), (164, 143815), (180, 143890), (187, 143947), (188, 143950),

Gene: Sparkdehlily\_30 Start: 26346, Stop: 27617, Start Num: 10

Candidate Starts for Sparkdehlily\_30:

(Start: 10 @26346 has 61 MA's), (27, 26463), (36, 26535), (44, 26652), (46, 26655), (55, 26733), (66, 26814), (70, 26856), (79, 26934), (95, 27060), (108, 27165), (110, 27180), (115, 27222), (121, 27258), (122, 27261), (128, 27312), (129, 27321), (152, 27435), (155, 27477), (160, 27486), (169, 27543), (170, 27546),

Gene: Spartacus\_32 Start: 26738, Stop: 28030, Start Num: 10

Candidate Starts for Spartacus\_32:

(Start: 10 @26738 has 61 MA's), (27, 26858), (44, 27047), (46, 27050), (55, 27128), (66, 27209), (70, 27251), (79, 27329), (95, 27455), (96, 27461), (101, 27500), (108, 27560), (110, 27575), (113, 27611), (115, 27617), (121, 27653), (125, 27671), (128, 27707), (129, 27716), (152, 27830), (170, 27941),

Gene: Spec\_244 Start: 142588, Stop: 144018, Start Num: 14

Candidate Starts for Spec\_244:

(Start: 14 @142588 has 167 MA's), (25, 142678), (35, 142741), (43, 142864), (47, 142888), (58, 142972), (64, 143014), (68, 143056), (85, 143221), (86, 143224), (116, 143479), (124, 143518), (127, 143548), (133, 143611), (135, 143632), (136, 143641), (138, 143644), (143, 143677), (145, 143692), (164, 143827), (180, 143902), (187, 143959), (188, 143962),

Gene: Specks\_255 Start: 143516, Stop: 144946, Start Num: 14

Candidate Starts for Specks\_255:

(Start: 14 @143516 has 167 MA's), (25, 143606), (35, 143669), (43, 143792), (47, 143816), (58, 143900), (64, 143942), (68, 143984), (85, 144149), (86, 144152), (116, 144407), (124, 144446), (127, 144476), (133, 144539), (135, 144560), (136, 144569), (138, 144572), (143, 144605), (145, 144620), (164, 144755), (180, 144830), (187, 144887), (188, 144890),

Gene: Spikelee\_32 Start: 26496, Stop: 27770, Start Num: 10

Candidate Starts for Spikelee\_32:

(Start: 10 @26496 has 61 MA's), (27, 26616), (36, 26688), (44, 26805), (46, 26808), (55, 26886), (66, 26967), (70, 27009), (79, 27087), (95, 27213), (96, 27219), (97, 27222), (101, 27258), (103, 27288), (108, 27318), (110, 27333), (115, 27375), (121, 27411), (122, 27414), (128, 27465), (129, 27474), (152, 27588), (155, 27630), (160, 27639), (169, 27696), (170, 27699),

Gene: Spoonbill\_30 Start: 26510, Stop: 27781, Start Num: 10

Candidate Starts for Spoonbill\_30:

(Start: 10 @26510 has 61 MA's), (27, 26627), (36, 26699), (44, 26816), (46, 26819), (55, 26897), (66, 26978), (70, 27020), (79, 27098), (95, 27224), (108, 27329), (110, 27344), (115, 27386), (121, 27422), (122, 27425), (128, 27476), (129, 27485), (152, 27599), (155, 27641), (160, 27650), (169, 27707), (170, 27710),

Gene: Sprinklers\_248 Start: 142284, Stop: 143714, Start Num: 14

Candidate Starts for Sprinklers\_248:

(Start: 14 @142284 has 167 MA's), (25, 142374), (35, 142437), (43, 142560), (47, 142584), (58, 142668), (64, 142710), (68, 142752), (85, 142917), (86, 142920), (116, 143175), (124, 143214), (127, 143244), (133, 143307), (135, 143328), (136, 143337), (138, 143340), (143, 143373), (145, 143388), (164, 143523), (180, 143598), (187, 143655), (188, 143658),

Gene: Spud\_242 Start: 142033, Stop: 143463, Start Num: 14

Candidate Starts for Spud\_242:

(Start: 14 @142033 has 167 MA's), (25, 142123), (35, 142186), (43, 142309), (47, 142333), (58, 142417), (64, 142459), (68, 142501), (85, 142666), (86, 142669), (116, 142924), (124, 142963), (127, 142993), (133, 143056), (135, 143077), (136, 143086), (138, 143089), (143, 143122), (145, 143137), (164, 143272), (180, 143347), (187, 143404), (188, 143407),

Gene: SrishMeg2525\_248 Start: 143671, Stop: 145101, Start Num: 14

Candidate Starts for SrishMeg2525\_248:

(Start: 14 @143671 has 167 MA's), (25, 143761), (35, 143824), (43, 143947), (47, 143971), (58, 144055), (64, 144097), (68, 144139), (85, 144304), (86, 144307), (116, 144562), (124, 144601), (127, 144631), (133, 144694), (135, 144715), (136, 144724), (138, 144727), (143, 144760), (145, 144775), (164, 144910), (180, 144985), (187, 145042), (188, 145045),

Gene: Stap\_31 Start: 26476, Stop: 27678, Start Num: 16

Candidate Starts for Stap\_31:

(Start: 16 @26476 has 14 MA's), (27, 26560), (41, 26710), (49, 26764), (70, 26905), (80, 26983), (95, 27109), (96, 27115), (101, 27154), (108, 27214), (110, 27229), (115, 27271), (121, 27307), (122, 27310), (128, 27361), (129, 27370), (155, 27535), (162, 27553), (170, 27604), (173, 27613),

Gene: StephanieG\_244 Start: 143219, Stop: 144649, Start Num: 14

Candidate Starts for StephanieG\_244:

(Start: 14 @143219 has 167 MA's), (25, 143309), (26, 143312), (35, 143372), (43, 143495), (47, 143519), (58, 143603), (64, 143645), (68, 143687), (85, 143852), (86, 143855), (116, 144110), (124, 144149), (127, 144179), (133, 144242), (135, 144263), (136, 144272), (138, 144275), (143, 144308), (145, 144323), (164, 144458), (180, 144533), (187, 144590), (188, 144593),

Gene: Stubby\_233 Start: 140004, Stop: 141434, Start Num: 14

Candidate Starts for Stubby\_233:

(8, 139962), (Start: 14 @140004 has 167 MA's), (25, 140094), (35, 140157), (43, 140280), (47, 140304), (58, 140388), (64, 140430), (68, 140472), (85, 140637), (86, 140640), (116, 140895), (124, 140934), (127, 140964), (133, 141027), (135, 141048), (136, 141057), (138, 141060), (143, 141093),

(145, 141108), (164, 141243), (180, 141318), (188, 141378),

Gene: StubbySaigey\_257 Start: 143201, Stop: 144631, Start Num: 14

Candidate Starts for StubbySaigey\_257:

(Start: 14 @143201 has 167 MA's), (25, 143291), (35, 143354), (43, 143477), (47, 143501), (58, 143585), (64, 143627), (68, 143669), (85, 143834), (86, 143837), (116, 144092), (124, 144131), (127, 144161), (133, 144224), (135, 144245), (136, 144254), (138, 144257), (143, 144290), (145, 144305), (164, 144440), (180, 144515), (187, 144572), (188, 144575),

Gene: SuperGrey\_31 Start: 27204, Stop: 28496, Start Num: 10

Candidate Starts for SuperGrey\_31:

(Start: 10 @27204 has 61 MA's), (27, 27324), (44, 27513), (46, 27516), (55, 27594), (66, 27675), (70, 27717), (79, 27795), (95, 27921), (96, 27927), (101, 27966), (108, 28026), (110, 28041), (115, 28083), (121, 28119), (122, 28122), (125, 28137), (128, 28173), (129, 28182), (152, 28296), (170, 28407),

Gene: TDanisky\_30 Start: 26346, Stop: 27617, Start Num: 10

Candidate Starts for TDanisky\_30:

(Start: 10 @26346 has 61 MA's), (27, 26463), (36, 26535), (44, 26652), (46, 26655), (55, 26733), (66, 26814), (70, 26856), (79, 26934), (95, 27060), (108, 27165), (110, 27180), (115, 27222), (121, 27258), (122, 27261), (128, 27312), (129, 27321), (152, 27435), (155, 27477), (160, 27486), (169, 27543), (170, 27546),

Gene: Teardrop\_249 Start: 142528, Stop: 143958, Start Num: 14

Candidate Starts for Teardrop\_249:

(Start: 14 @142528 has 167 MA's), (25, 142618), (35, 142681), (43, 142804), (47, 142828), (58, 142912), (64, 142954), (68, 142996), (85, 143161), (86, 143164), (116, 143419), (124, 143458), (127, 143488), (133, 143551), (135, 143572), (136, 143581), (138, 143584), (143, 143617), (145, 143632), (164, 143767), (180, 143842), (187, 143899), (188, 143902),

Gene: ThetaBob\_29 Start: 25694, Stop: 27004, Start Num: 10

Candidate Starts for ThetaBob\_29:

(Start: 10 @25694 has 61 MA's), (27, 25811), (36, 25883), (44, 26000), (46, 26003), (55, 26081), (66, 26162), (70, 26213), (92, 26390), (95, 26432), (97, 26441), (115, 26597), (152, 26819), (155, 26861), (160, 26870), (167, 26912), (169, 26927), (170, 26930), (171, 26936), (182, 26984),

Gene: TinyTim\_249 Start: 142495, Stop: 143925, Start Num: 14

Candidate Starts for TinyTim\_249:

(Start: 14 @142495 has 167 MA's), (25, 142585), (35, 142648), (43, 142771), (47, 142795), (58, 142879), (64, 142921), (68, 142963), (85, 143128), (86, 143131), (116, 143386), (124, 143425), (127, 143455), (133, 143518), (135, 143539), (136, 143548), (138, 143551), (143, 143584), (145, 143599), (164, 143734), (180, 143809), (187, 143866), (188, 143869),

Gene: Tonenili\_272 Start: 147835, Stop: 149253, Start Num: 14

Candidate Starts for Tonenili\_272:

(Start: 14 @147835 has 167 MA's), (35, 147988), (39, 148060), (42, 148099), (43, 148111), (47, 148135), (58, 148246), (64, 148288), (101, 148585), (106, 148642), (115, 148702), (132, 148831), (134, 148855), (144, 148918), (145, 148927), (164, 149062), (179, 149131), (180, 149137), (188, 149197),

Gene: Tootsieroll\_31 Start: 26372, Stop: 27574, Start Num: 16

Candidate Starts for Tootsieroll\_31:

(Start: 16 @26372 has 14 MA's), (27, 26456), (41, 26606), (49, 26660), (70, 26801), (80, 26879), (95, 27005), (96, 27011), (101, 27050), (108, 27110), (110, 27125), (115, 27167), (121, 27203), (122,

27206), (128, 27257), (129, 27266), (155, 27431), (162, 27449), (170, 27500), (173, 27509),

Gene: Tortoise16\_248 Start: 142508, Stop: 143938, Start Num: 14

Candidate Starts for Tortoise16\_248:

(Start: 14 @142508 has 167 MA's), (25, 142598), (35, 142661), (43, 142784), (47, 142808), (58, 142892), (64, 142934), (68, 142976), (85, 143141), (86, 143144), (116, 143399), (124, 143438), (127, 143468), (133, 143531), (135, 143552), (136, 143561), (138, 143564), (143, 143597), (145, 143612), (164, 143747), (180, 143822), (187, 143879), (188, 143882),

Gene: Totinger\_34 Start: 26230, Stop: 27501, Start Num: 10

Candidate Starts for Totinger\_34:

(Start: 10 @26230 has 61 MA's), (27, 26347), (36, 26419), (44, 26536), (46, 26539), (55, 26617), (66, 26698), (70, 26740), (79, 26818), (95, 26944), (108, 27049), (110, 27064), (115, 27106), (121, 27142), (122, 27145), (128, 27196), (129, 27205), (152, 27319), (155, 27361), (160, 27370), (169, 27427), (170, 27430),

Gene: Trinitium\_247 Start: 141249, Stop: 142679, Start Num: 14

Candidate Starts for Trinitium\_247:

(Start: 14 @141249 has 167 MA's), (25, 141339), (35, 141402), (43, 141525), (47, 141549), (58, 141633), (64, 141675), (68, 141717), (85, 141882), (86, 141885), (116, 142140), (124, 142179), (127, 142209), (133, 142272), (135, 142293), (136, 142302), (138, 142305), (143, 142338), (145, 142353), (164, 142488), (180, 142563), (187, 142620), (188, 142623),

Gene: Turret\_241 Start: 140382, Stop: 141812, Start Num: 14

Candidate Starts for Turret\_241:

(Start: 14 @140382 has 167 MA's), (25, 140472), (35, 140535), (43, 140658), (47, 140682), (58, 140766), (64, 140808), (68, 140850), (85, 141015), (86, 141018), (116, 141273), (124, 141312), (127, 141342), (133, 141405), (135, 141426), (136, 141435), (138, 141438), (143, 141471), (145, 141486), (164, 141621), (180, 141696), (187, 141753), (188, 141756),

Gene: TyDawg\_35 Start: 29799, Stop: 31166, Start Num: 20

Candidate Starts for TyDawg\_35:

(Start: 20 @29799 has 14 MA's), (24, 29856), (28, 29883), (35, 29922), (44, 30060), (50, 30084), (57, 30162), (58, 30168), (59, 30171), (68, 30246), (84, 30378), (90, 30405), (91, 30414), (99, 30468), (101, 30495), (104, 30525), (111, 30579), (119, 30651), (142, 30837), (162, 30957), (164, 30978), (167, 30996), (168, 31011), (178, 31041), (183, 31071), (188, 31107), (189, 31110), (193, 31146),

Gene: Tyke\_247 Start: 144631, Stop: 146061, Start Num: 14

Candidate Starts for Tyke\_247:

(Start: 14 @144631 has 167 MA's), (25, 144721), (35, 144784), (43, 144907), (47, 144931), (58, 145015), (64, 145057), (68, 145099), (85, 145264), (86, 145267), (116, 145522), (124, 145561), (127, 145591), (133, 145654), (135, 145675), (136, 145684), (138, 145687), (143, 145720), (145, 145735), (164, 145870), (180, 145945), (187, 146002), (188, 146005),

Gene: VRedHorse\_30 Start: 26539, Stop: 27690, Start Num: 16

Candidate Starts for VRedHorse\_30:

(3, 26266), (5, 26287), (Start: 16 @26539 has 14 MA's), (27, 26623), (41, 26773), (49, 26827), (70, 26968), (80, 27046), (95, 27172), (96, 27178), (101, 27217), (108, 27277), (110, 27292), (115, 27334), (121, 27370), (122, 27373), (128, 27424), (129, 27433), (152, 27547), (170, 27658), (174, 27676), (176, 27679),

Gene: ValleyTerrace\_251 Start: 141959, Stop: 143389, Start Num: 14

Candidate Starts for ValleyTerrace\_251:

(Start: 14 @141959 has 167 MA's), (25, 142049), (35, 142112), (43, 142235), (47, 142259), (58, 142343), (64, 142385), (68, 142427), (85, 142592), (86, 142595), (116, 142850), (124, 142889), (127, 142919), (133, 142982), (135, 143003), (136, 143012), (138, 143015), (143, 143048), (145, 143063), (164, 143198), (180, 143273), (187, 143330), (188, 143333),

Gene: Velveteen\_26 Start: 22498, Stop: 23733, Start Num: 10

Candidate Starts for Velveteen\_26:

(Start: 10 @22498 has 61 MA's), (27, 22618), (36, 22690), (44, 22807), (46, 22810), (55, 22888), (66, 22969), (70, 23011), (79, 23089), (95, 23215), (96, 23221), (101, 23260), (108, 23320), (110, 23335), (115, 23377), (121, 23413), (122, 23416), (128, 23467), (129, 23476), (152, 23590), (170, 23701), (176, 23722),

Gene: Wally\_248 Start: 141943, Stop: 143373, Start Num: 14

Candidate Starts for Wally\_248:

(Start: 14 @141943 has 167 MA's), (25, 142033), (35, 142096), (43, 142219), (47, 142243), (58, 142327), (64, 142369), (68, 142411), (85, 142576), (86, 142579), (116, 142834), (124, 142873), (127, 142903), (133, 142966), (135, 142987), (136, 142996), (138, 142999), (143, 143032), (145, 143047), (164, 143182), (180, 143257), (187, 143314), (188, 143317),

Gene: Whouxphf\_31 Start: 26736, Stop: 28010, Start Num: 10

Candidate Starts for Whouxphf\_31:

(Start: 10 @26736 has 61 MA's), (27, 26856), (36, 26928), (44, 27045), (46, 27048), (55, 27126), (66, 27207), (70, 27249), (79, 27327), (95, 27453), (96, 27459), (101, 27498), (110, 27573), (115, 27615), (122, 27654), (125, 27669), (128, 27705), (129, 27714), (152, 27828), (155, 27870), (160, 27879), (169, 27936), (170, 27939),

Gene: WillSterrel\_32 Start: 27871, Stop: 29145, Start Num: 10

Candidate Starts for WillSterrel\_32:

(Start: 10 @27871 has 61 MA's), (27, 27991), (44, 28180), (46, 28183), (55, 28261), (66, 28342), (70, 28384), (79, 28462), (95, 28588), (96, 28594), (108, 28693), (110, 28708), (115, 28750), (121, 28786), (125, 28804), (128, 28840), (129, 28849), (152, 28963), (155, 29005), (160, 29014), (169, 29071), (170, 29074),

Gene: Willis\_251 Start: 142882, Stop: 144312, Start Num: 14

Candidate Starts for Willis\_251:

(Start: 14 @142882 has 167 MA's), (25, 142972), (35, 143035), (43, 143158), (47, 143182), (58, 143266), (64, 143308), (68, 143350), (85, 143515), (86, 143518), (116, 143773), (124, 143812), (127, 143842), (133, 143905), (135, 143926), (136, 143935), (138, 143938), (143, 143971), (145, 143986), (164, 144121), (180, 144196), (187, 144253), (188, 144256),

Gene: Yassified\_246 Start: 142078, Stop: 143508, Start Num: 14

Candidate Starts for Yassified\_246:

(8, 142036), (Start: 14 @142078 has 167 MA's), (25, 142168), (35, 142231), (43, 142354), (47, 142378), (58, 142462), (64, 142504), (68, 142546), (85, 142711), (86, 142714), (116, 142969), (124, 143008), (127, 143038), (133, 143101), (135, 143122), (136, 143131), (138, 143134), (143, 143167), (145, 143182), (164, 143317), (180, 143392), (188, 143452),

Gene: YemiJoy2021\_251 Start: 143613, Stop: 145043, Start Num: 14

Candidate Starts for YemiJoy2021\_251:

(Start: 14 @143613 has 167 MA's), (25, 143703), (35, 143766), (43, 143889), (47, 143913), (58, 143997), (64, 144039), (68, 144081), (85, 144246), (86, 144249), (116, 144504), (124, 144543), (127, 144573), (133, 144636), (135, 144657), (136, 144666), (138, 144669), (143, 144702), (145, 144717), (164, 144852), (180, 144927), (187, 144984), (188, 144987),

Gene: Yoshi\_37 Start: 25847, Stop: 27094, Start Num: 13

Candidate Starts for Yoshi\_37:

(7, 25826), (Start: 13 @25847 has 2 MA's), (27, 25928), (40, 26060), (41, 26063), (44, 26108), (50, 26132), (62, 26222), (70, 26303), (79, 26384), (87, 26438), (92, 26468), (95, 26510), (96, 26516), (97, 26519), (101, 26555), (110, 26630), (115, 26672), (121, 26708), (122, 26711), (128, 26762), (129, 26771), (154, 26933), (181, 27047), (184, 27071), (185, 27080),

Gene: YoungMoneyMata\_250 Start: 143074, Stop: 144504, Start Num: 14

Candidate Starts for YoungMoneyMata\_250:

(Start: 14 @143074 has 167 MA's), (25, 143164), (35, 143227), (43, 143350), (47, 143374), (58, 143458), (64, 143500), (68, 143542), (85, 143707), (86, 143710), (116, 143965), (124, 144004), (127, 144034), (133, 144097), (135, 144118), (136, 144127), (138, 144130), (143, 144163), (145, 144178), (164, 144313), (180, 144388), (187, 144445), (188, 144448),

Gene: Yucca\_251 Start: 144054, Stop: 145484, Start Num: 14

Candidate Starts for Yucca\_251:

(Start: 14 @144054 has 167 MA's), (25, 144144), (35, 144207), (43, 144330), (47, 144354), (58, 144438), (64, 144480), (68, 144522), (85, 144687), (86, 144690), (116, 144945), (124, 144984), (127, 145014), (133, 145077), (135, 145098), (136, 145107), (138, 145110), (143, 145143), (145, 145158), (164, 145293), (180, 145368), (187, 145425), (188, 145428),

Gene: Zalkecks\_249 Start: 142711, Stop: 144141, Start Num: 14

Candidate Starts for Zalkecks\_249:

(Start: 14 @142711 has 167 MA's), (25, 142801), (35, 142864), (43, 142987), (47, 143011), (58, 143095), (64, 143137), (68, 143179), (85, 143344), (86, 143347), (116, 143602), (124, 143641), (127, 143671), (133, 143734), (135, 143755), (136, 143764), (138, 143767), (143, 143800), (145, 143815), (164, 143950), (180, 144025), (187, 144082), (188, 144085),

Gene: Zeenon\_251 Start: 143245, Stop: 144675, Start Num: 14

Candidate Starts for Zeenon\_251:

(Start: 14 @143245 has 167 MA's), (25, 143335), (35, 143398), (43, 143521), (47, 143545), (58, 143629), (64, 143671), (68, 143713), (85, 143878), (86, 143881), (116, 144136), (124, 144175), (127, 144205), (133, 144268), (135, 144289), (136, 144298), (138, 144301), (143, 144334), (145, 144349), (164, 144484), (180, 144559), (187, 144616), (188, 144619),

Gene: ZygoTaiga\_247 Start: 144351, Stop: 145781, Start Num: 14

Candidate Starts for ZygoTaiga\_247:

(Start: 14 @144351 has 167 MA's), (25, 144441), (35, 144504), (43, 144627), (47, 144651), (58, 144735), (64, 144777), (68, 144819), (85, 144984), (86, 144987), (116, 145242), (124, 145281), (127, 145311), (133, 145374), (135, 145395), (136, 145404), (138, 145407), (143, 145440), (145, 145455), (164, 145590), (180, 145665), (187, 145722), (188, 145725),