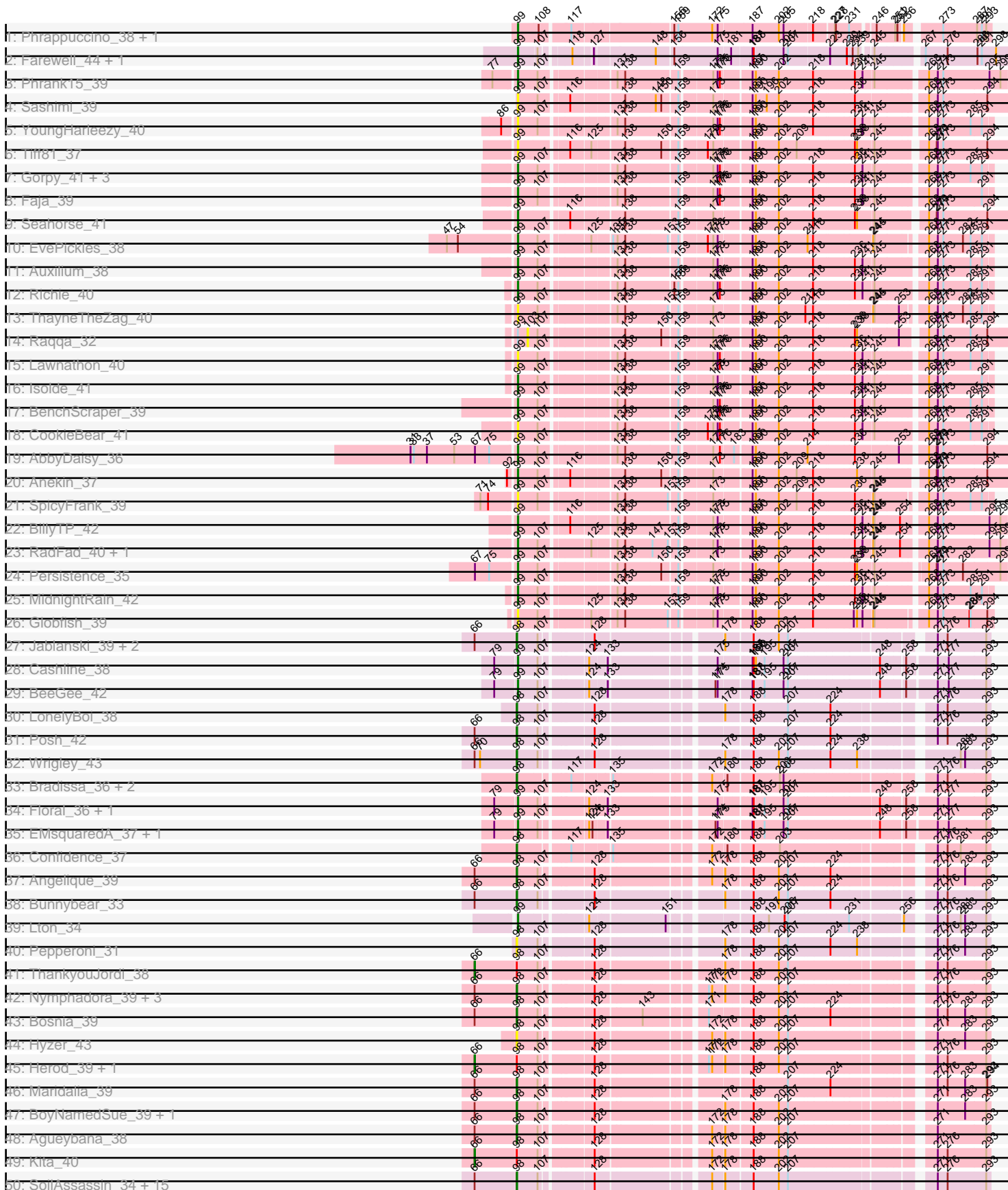
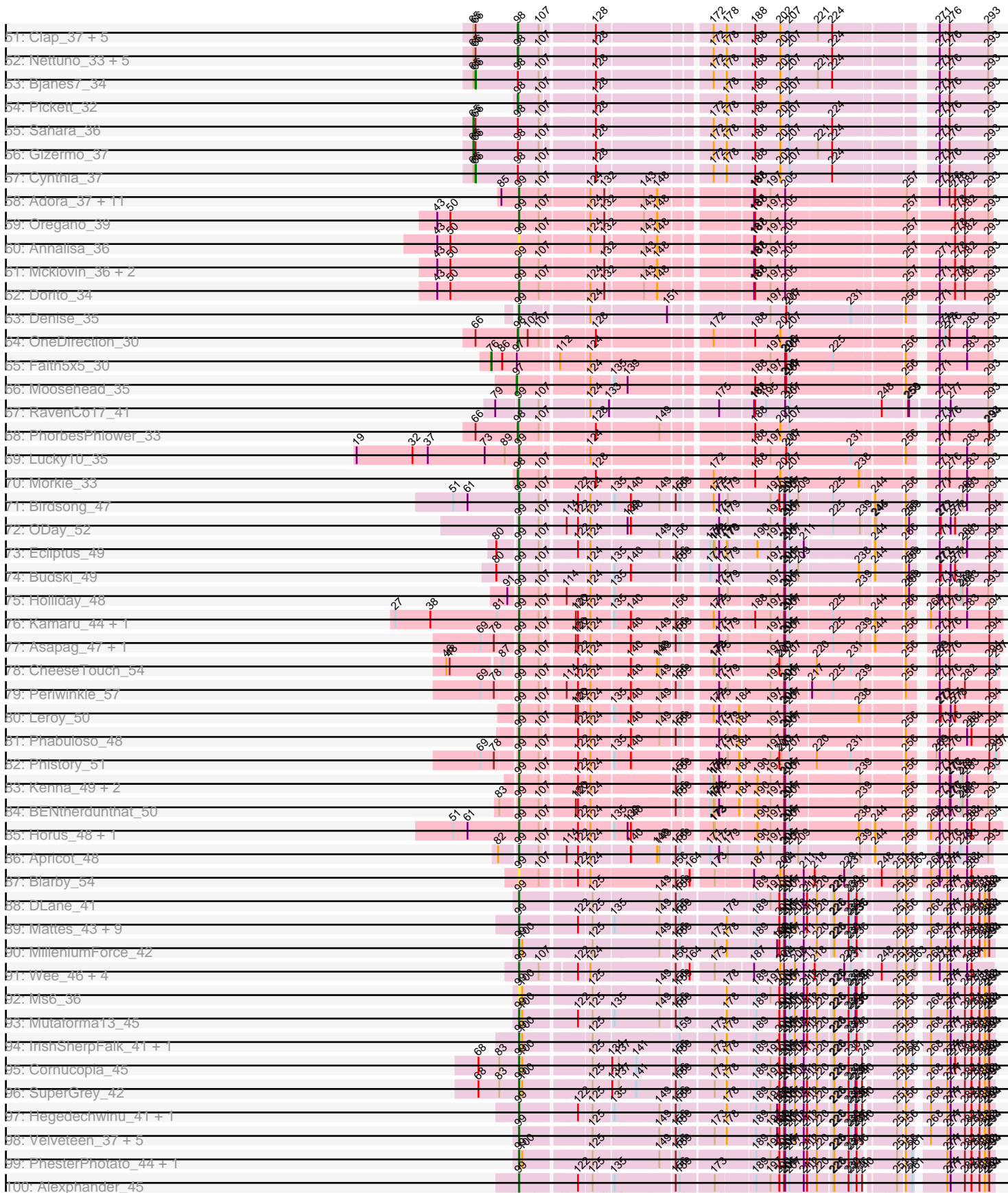


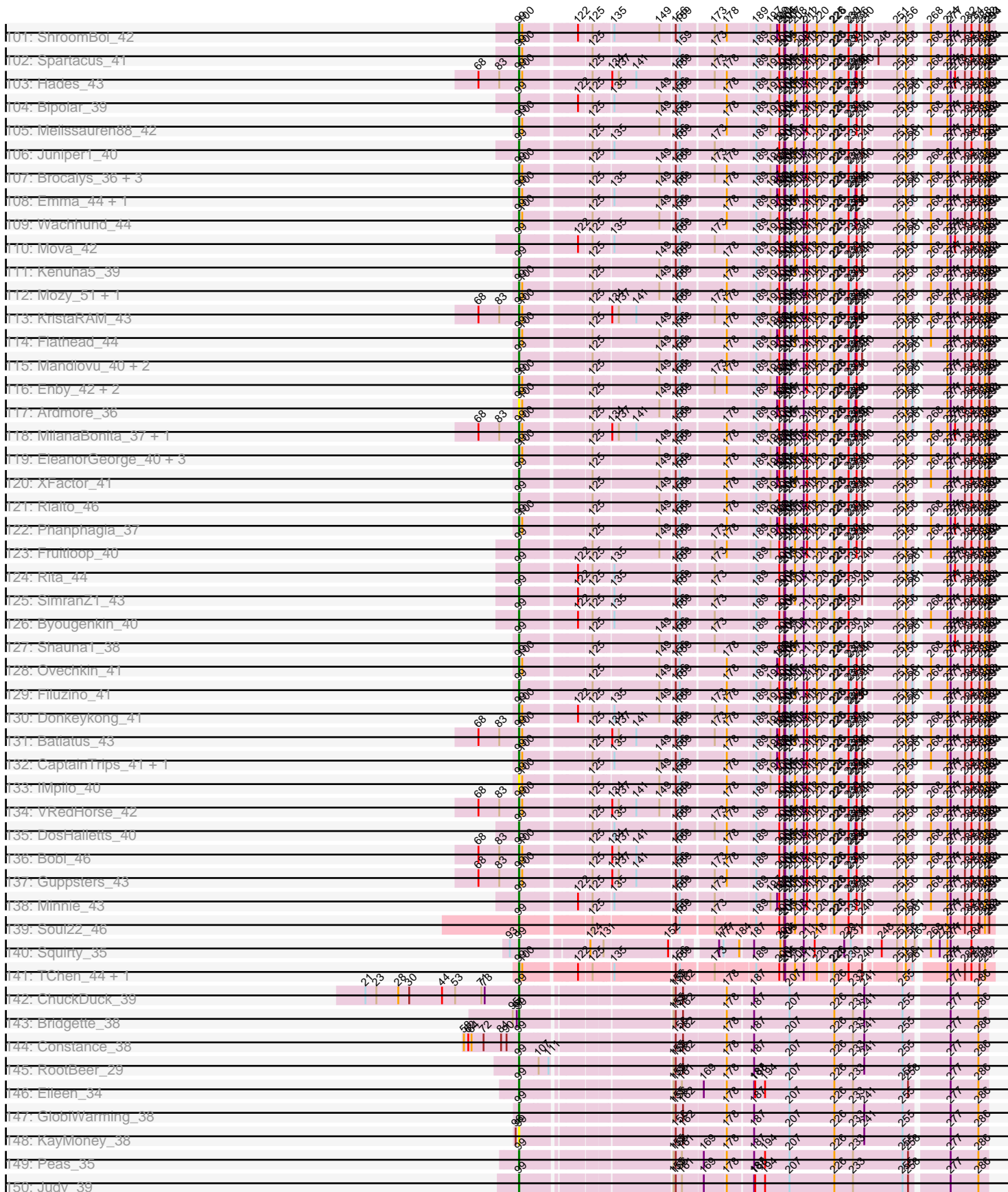
Pham 196210



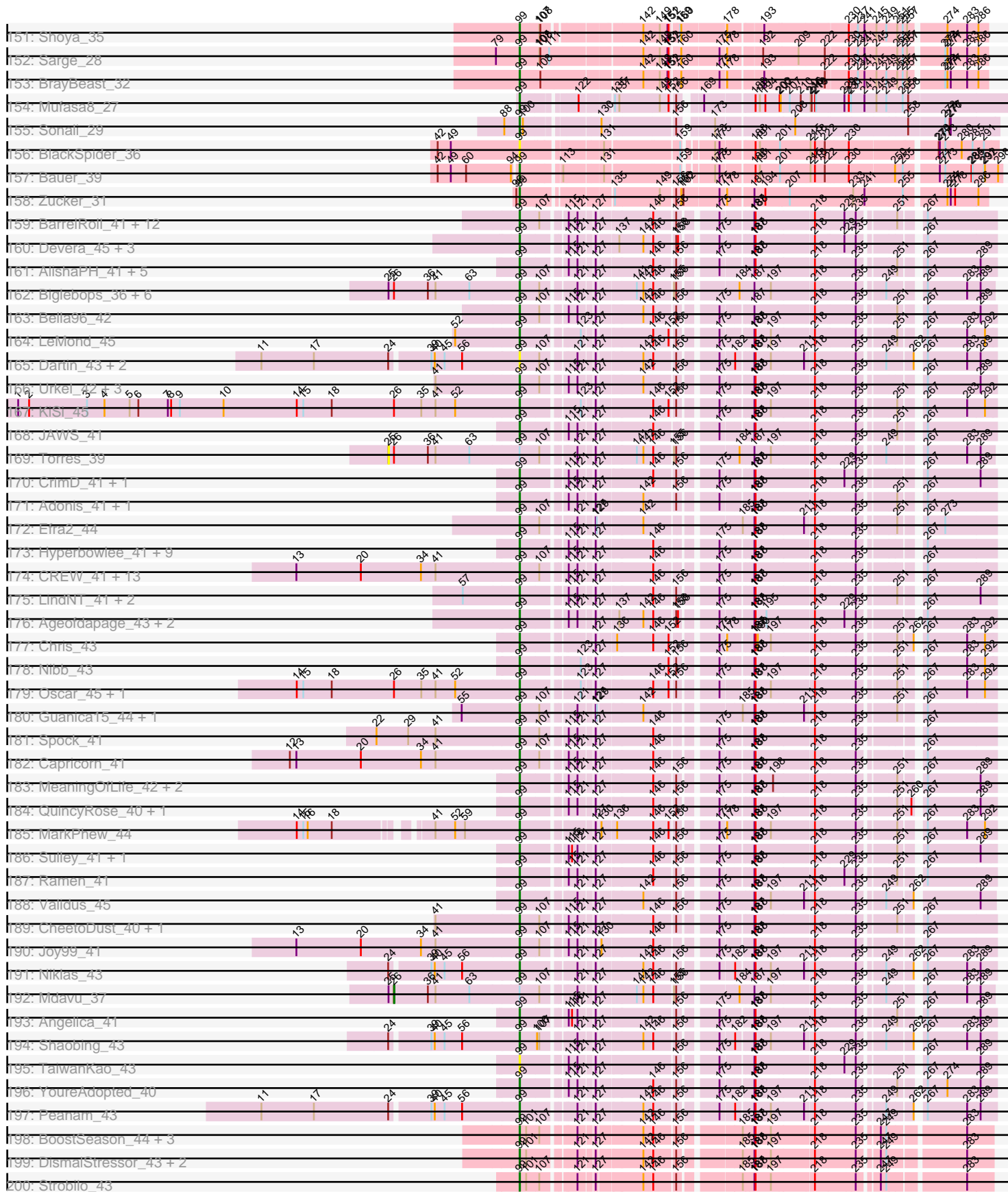
Pham 196210



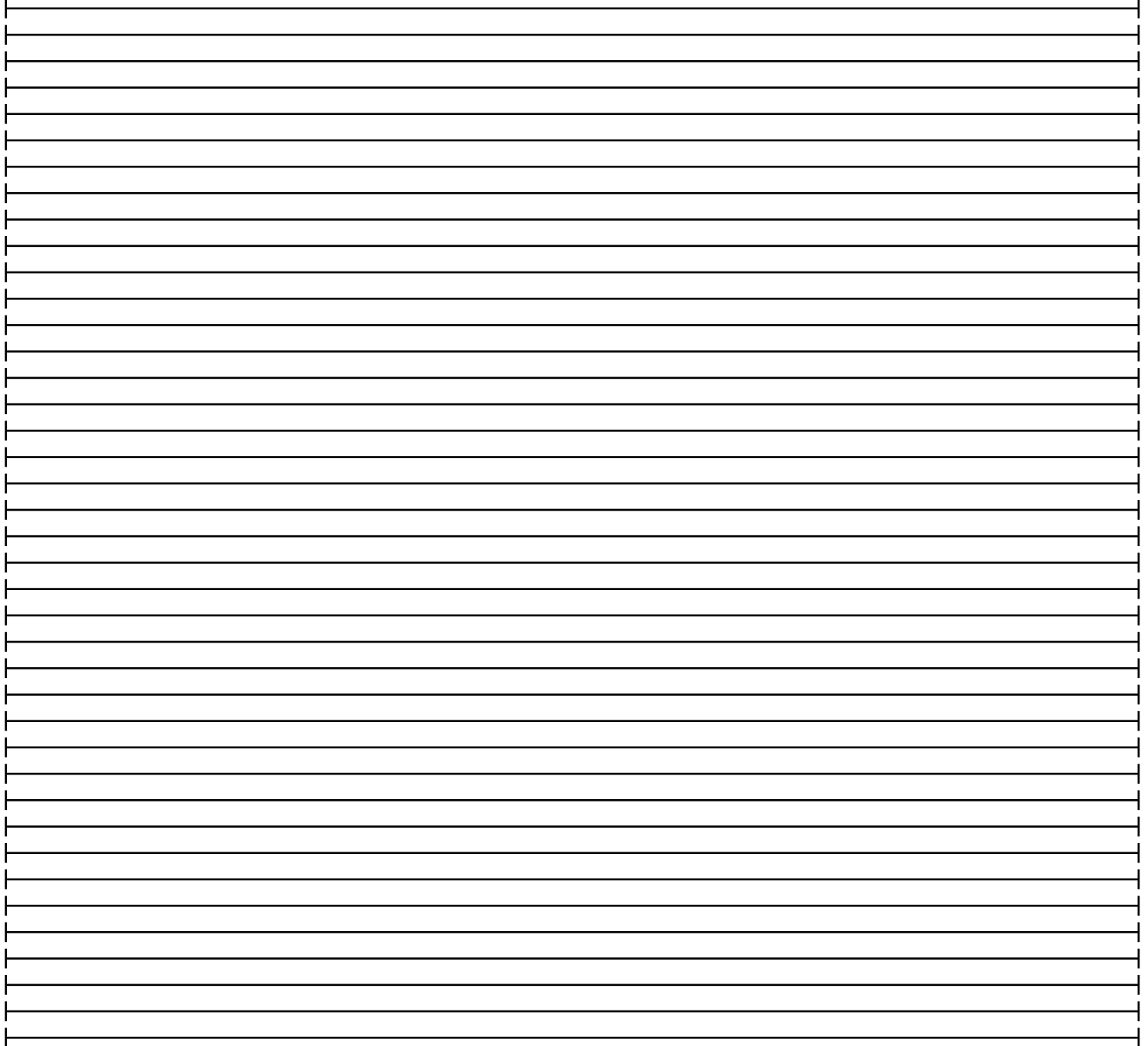
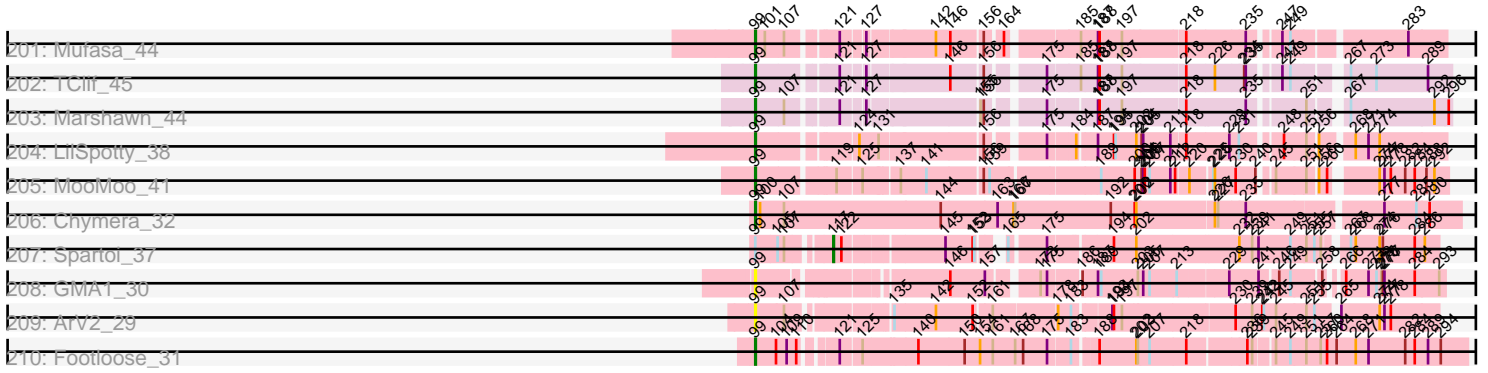
Pham 196210



Pham 196210



Pham 196210



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 196210 Report

This analysis was run 12/09/24 on database version 580.

Pham number 196210 has 377 members, 29 are drafts.

Phages represented in each track:

- Track 1 : Phrappuccino\_38, Settecandela\_38
- Track 2 : Farewell\_44, Sparky\_45
- Track 3 : Phrank15\_39
- Track 4 : Sashimi\_39
- Track 5 : YoungHarleezy\_40
- Track 6 : Tiff81\_37
- Track 7 : Gorpy\_41, Sakai\_40, Raphaella\_40, Aikyam\_37
- Track 8 : Faja\_39
- Track 9 : Seahorse\_41
- Track 10 : EvePickles\_38
- Track 11 : Auxilium\_38
- Track 12 : Richie\_40
- Track 13 : ThayneTheZag\_40
- Track 14 : Raqqa\_32
- Track 15 : Lawnathon\_40
- Track 16 : Isolde\_41
- Track 17 : BenchScraper\_39
- Track 18 : CookieBear\_41
- Track 19 : AbbyDaisy\_36
- Track 20 : Anekin\_37
- Track 21 : SpicyFrank\_39
- Track 22 : BillyTP\_42
- Track 23 : RadFad\_40, Hillester\_40
- Track 24 : Persistence\_35
- Track 25 : MidnightRain\_42
- Track 26 : Globfish\_39
- Track 27 : Jablanski\_39, WelcomeAyanna\_38, Pytheas\_39
- Track 28 : Cashline\_38
- Track 29 : BeeGee\_42
- Track 30 : LonelyBoi\_38
- Track 31 : Posh\_42
- Track 32 : Wrigley\_43
- Track 33 : Bradissa\_36, EnalisNailo\_35, Lilas\_38
- Track 34 : Floral\_36, Pollux\_38
- Track 35 : EMSquaredA\_37, Marteena\_36
- Track 36 : Confidence\_37
- Track 37 : Angelique\_39

- Track 38 : Bunnybear\_33
- Track 39 : Lton\_34
- Track 40 : Pepperoni\_31
- Track 41 : ThankyouJordi\_38
- Track 42 : Nymphadora\_39, Hugley\_36, Eviarto\_39, TimTam\_39
- Track 43 : Bosnia\_39
- Track 44 : Hyzer\_43
- Track 45 : Herod\_39, BatStarr\_39
- Track 46 : Maridalia\_39
- Track 47 : BoyNamedSue\_39, AlumE\_39
- Track 48 : Agueybana\_38
- Track 49 : Kita\_40
- Track 50 : SoilAssassin\_34, EdnaMode\_33, Eudoria\_39, Neobush\_39, Zirinka\_36, Manasvini\_39, Suscepit\_39, Bialota\_37, Zameen\_39, Yeet412\_34, Antonio\_39, Tayonia\_39, LordFarquaad\_35, Polly\_36, Attis\_34, Trumpet\_39
- Track 51 : Clap\_37, Haley23\_37, GemG\_37, Mocha12\_37, Ebert\_39, Lamberg\_33
- Track 52 : Nettuno\_33, Savage\_37, Matteo\_30, Sproutie\_37, TuertoX\_37, Whiteclaw\_37
- Track 53 : Bjanes7\_34
- Track 54 : Pickett\_32
- Track 55 : Sahara\_36
- Track 56 : Gizermo\_37
- Track 57 : Cynthia\_37
- Track 58 : Adora\_37, Samman98\_40, Dolores\_40, Twinkle\_39, WinkNick\_41, Howe\_40, Shlim410\_38, Hortense\_40, Clark\_39, Beenie\_33, Sekhmet\_40, MichaelScott\_40
- Track 59 : Oregano\_39
- Track 60 : Annalisa\_36
- Track 61 : Mcklovin\_36, Thimann\_36, DobbysSock\_31
- Track 62 : Dorito\_34
- Track 63 : Denise\_35
- Track 64 : OneDirection\_30
- Track 65 : Faith5x5\_30
- Track 66 : Moosehead\_35
- Track 67 : RavenCo17\_41
- Track 68 : PhorbesPhlower\_33
- Track 69 : Lucky10\_35
- Track 70 : Morkie\_33
- Track 71 : Birdsong\_47
- Track 72 : ODay\_52
- Track 73 : Ecliptus\_49
- Track 74 : Budski\_49
- Track 75 : Holliday\_48
- Track 76 : Kamaru\_44, LitninMcQueen\_43
- Track 77 : Asapag\_47, Frickyeah\_52
- Track 78 : CheeseTouch\_54
- Track 79 : Periwinkle\_57
- Track 80 : Leroy\_50
- Track 81 : Phabuloso\_48
- Track 82 : Phistory\_51
- Track 83 : Kenna\_49, Getalong\_53, Lutum\_50
- Track 84 : BENtherdunthat\_50
- Track 85 : Horus\_48, Crater\_49

- Track 86 : Apricot\_48
- Track 87 : Blarby\_54
- Track 88 : DLane\_41
- Track 89 : Mattes\_43, SwagPiggett\_45, Saal\_43, Gorge\_43, DRBy19\_43, BobaPhett\_43, Zizzle\_44, Philus\_43, Whatsapiecost\_41, James\_43
- Track 90 : MilleniumForce\_42
- Track 91 : Wee\_46, Estave1\_43, DeadP\_46, Renaud18\_46, Taj\_45
- Track 92 : Ms6\_36
- Track 93 : Mutaforma13\_45
- Track 94 : IrishSherpFalk\_41, WillSterrel\_41
- Track 95 : Cornucopia\_45
- Track 96 : SuperGrey\_42
- Track 97 : Hegedechwino\_41, Juice456\_44
- Track 98 : Velveteen\_37, Kingsley\_38, Sarma624\_38, Cerasum\_38, Coco12\_40, BigPhil\_38
- Track 99 : PhesterPhotato\_44, Phalconet\_41
- Track 100 : Alexphander\_45
- Track 101 : ShroomBoi\_42
- Track 102 : Spartacus\_41
- Track 103 : Hades\_43
- Track 104 : Bipolar\_39
- Track 105 : Melissauren88\_42
- Track 106 : Juniper1\_40
- Track 107 : Brocalys\_36, Clifton\_35, LastJedi\_34, Pippy\_38
- Track 108 : Emma\_44, Moonbeam\_41
- Track 109 : Wachhund\_44
- Track 110 : Mova\_42
- Track 111 : Kenuha5\_39
- Track 112 : Mozy\_51, StAnnes\_42
- Track 113 : KristaRAM\_43
- Track 114 : Flathead\_44
- Track 115 : Mandlovu\_40, Strokeseat\_41, Hlubikazi\_41
- Track 116 : Enby\_42, Lorde\_42, SG4\_40
- Track 117 : Ardmore\_36
- Track 118 : MilanaBonita\_37, Akhila\_37
- Track 119 : EleanorGeorge\_40, Beakin\_43, LunaBlu\_46, Galactic\_43
- Track 120 : XFactor\_41
- Track 121 : Rialto\_46
- Track 122 : Phanphagia\_37
- Track 123 : Fruitloop\_40
- Track 124 : Rita\_44
- Track 125 : SimranZ1\_43
- Track 126 : Byougenkin\_40
- Track 127 : Shauna1\_38
- Track 128 : Ovechkin\_41
- Track 129 : Filuzino\_41
- Track 130 : Donkeykong\_41
- Track 131 : Batiatus\_43
- Track 132 : CaptainTrips\_41, MinionDave\_43
- Track 133 : IMpilo\_40
- Track 134 : VRedHorse\_42
- Track 135 : DosHalletts\_40
- Track 136 : Bobi\_46



- Track 137 : Guppsters\_43
- Track 138 : Minnie\_43
- Track 139 : Soul22\_46
- Track 140 : Squirty\_35
- Track 141 : TChen\_44, LunaStella\_42
- Track 142 : ChuckDuck\_39
- Track 143 : Bridgette\_38
- Track 144 : Constance\_38
- Track 145 : RootBeer\_29
- Track 146 : Eileen\_34
- Track 147 : GlobiWarming\_38
- Track 148 : KayMoney\_38
- Track 149 : Peas\_35
- Track 150 : Judy\_39
- Track 151 : Shoya\_35
- Track 152 : Sarge\_28
- Track 153 : BrayBeast\_32
- Track 154 : Mufasa8\_27
- Track 155 : Sonali\_29
- Track 156 : BlackSpider\_36
- Track 157 : Bauer\_39
- Track 158 : Zucker\_31
- Track 159 : BarrelRoll\_41, TruffulaTree\_41, Adephegia\_41, ActinUp\_41, Slimphazie\_41, Atiba\_41, Tachez\_41, Padpat\_42, HedwigODU\_41, Jayhawk\_42, Rapunzel97\_41, Veliki\_41, Emerson\_42
- Track 160 : Devera\_45, Dole\_44, Illumine\_44, Stinson\_42
- Track 161 : AlishaPH\_41, Beezoo\_43, Tiri\_42, Pokerus\_40, Geraldini\_43, Apocalypse\_44
- Track 162 : Binglebops\_36, Nikao\_39, LilPharaoh\_36, SgtBeansprout\_36, Nutello\_36, Enkosi\_39, Amelie\_36
- Track 163 : Bella96\_42
- Track 164 : LeMond\_45
- Track 165 : Dartin\_43, McMater\_43, Richo\_43
- Track 166 : Urkel\_42, DrHayes\_42, TiniBug\_42, SamuelLPlaqson\_42
- Track 167 : KiSi\_45
- Track 168 : JAWS\_41
- Track 169 : Torres\_39
- Track 170 : CrimD\_41, Megsy\_42
- Track 171 : Adonis\_41, Anaya\_43
- Track 172 : Efra2\_44
- Track 173 : Hyperbowlee\_41, Durfee\_41, Asayake\_41, Blizzard\_41, ShiaSurprise\_42, Padfoot\_41, CaseJules\_42, Boiiii\_41, BEEST\_41, Piatt\_41
- Track 174 : CREW\_41, Peel\_41, Topper\_41, Dalmuri\_41, Rosmarinus\_41, Belladonna\_41, Homura\_41, Inky\_41, Lunahalos\_41, Llorens\_41, Jeckyll\_41, BGIlluviae\_41, Jarvi\_41, Twitch\_41
- Track 175 : LindNT\_41, Prithvi\_42, TreyKay\_42
- Track 176 : Ageofdapage\_43, LaterM\_42, Murucutumbu\_42
- Track 177 : Chris\_43
- Track 178 : Nibb\_43
- Track 179 : Oscar\_45, Scarlett\_45
- Track 180 : Guanica15\_44, Yunkel11\_44
- Track 181 : Spock\_41
- Track 182 : Capricorn\_41

- Track 183 : MeaningOfLife\_42, Zavala\_42, Mynx\_42
- Track 184 : QuincyRose\_40, Ganymede\_42
- Track 185 : MarkPheW\_44
- Track 186 : Sulley\_41, Deby\_41
- Track 187 : Ramen\_41
- Track 188 : Validus\_45
- Track 189 : CheetoDust\_40, BaghaKamala\_40
- Track 190 : Joy99\_41
- Track 191 : Niklas\_43
- Track 192 : Mdavu\_37
- Track 193 : Angelica\_41
- Track 194 : Shaobing\_43
- Track 195 : TaiwanKao\_43
- Track 196 : YoureAdopted\_40
- Track 197 : Peanam\_43
- Track 198 : BoostSeason\_44, Findley\_43, Milly\_43, ZoeJ\_43
- Track 199 : DismalStressor\_43, Marcoliusprime\_43, DismalFunk\_43
- Track 200 : Strobilo\_43
- Track 201 : Mufasa\_44
- Track 202 : TClif\_45
- Track 203 : Marshawn\_44
- Track 204 : LilSpotty\_38
- Track 205 : MooMoo\_41
- Track 206 : Chymera\_32
- Track 207 : Spartoi\_37
- Track 208 : GMA1\_30
- Track 209 : ArV2\_29
- Track 210 : Footloose\_31

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

The start number called the most often in the published annotations is 99, it was called in 284 of the 348 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

• AbbyDaisy\_36, ActinUp\_41, AdepHagia\_41, Adonis\_41, Adora\_37, Ageofdapage\_43, Aikyam\_37, Akhila\_37, Alexphander\_45, AlishaPH\_41, Amelie\_36, Anaya\_43, Anekin\_37, Angelica\_41, Annalisa\_36, Apocalypse\_44, Apricot\_48, ArV2\_29, Ardmore\_36, Asapag\_47, Asayake\_41, Atiba\_41, Auxilium\_38, BEEST\_41, BENtherdunthat\_50, BGlluviae\_41, BaghaKamala\_40, BarrelRoll\_41, Batiatus\_43, Bauer\_39, Beakin\_43, BeeGee\_42, Beenie\_33, Beezoo\_43, Bella96\_42, Belladonna\_41, BenchScraper\_39, BigPhil\_38, Biglebops\_36, BillyTP\_42, Bipolar\_39, Birdsong\_47, BlackSpider\_36, Blarby\_54, Blizzard\_41, BobaPhett\_43, Bobi\_46, Boiiii\_41, BoostSeason\_44, BrayBeast\_32, Bridgette\_38, Brocalys\_36, Budski\_49, Byougenkin\_40, CREW\_41, Capricorn\_41, CaptainTrips\_41, CaseJules\_42, Cashline\_38, Cerasum\_38, CheeseTouch\_54, CheetoDust\_40, Chris\_43, ChuckDuck\_39, Chymera\_32, Clark\_39, Clifton\_35, Coco12\_40, Constance\_38, CookieBear\_41, Cornucopia\_45, Crater\_49, CrimD\_41, DLane\_41, DRBy19\_43, Dalmuri\_41, Dartin\_43, DeadP\_46, Deby\_41, Denise\_35, Devera\_45, DismalFunk\_43, DismalStressor\_43, DobbysSock\_31, Dole\_44, Dolores\_40,

Donkeykong\_41, Dorito\_34, DosHalletts\_40, DrHayes\_42, Durfee\_41, EMSquaredA\_37, Ecliptus\_49, Efra2\_44, Eileen\_34, EleanorGeorge\_40, Emerson\_42, Emma\_44, Enby\_42, Enkosi\_39, Estave1\_43, EvePickles\_38, Faja\_39, Farewell\_44, Filuzino\_41, Findley\_43, Flathead\_44, Floral\_36, Footloose\_31, Frickyeah\_52, Fruitloop\_40, GMA1\_30, Galactic\_43, Ganymede\_42, Geraldini\_43, Getalong\_53, Globfish\_39, GlobiWarming\_38, Gorge\_43, Gorpy\_41, Guanica15\_44, Guppsters\_43, Hades\_43, HedwigODU\_41, Hegedechwinu\_41, Hillester\_40, Hlubikazi\_41, Holliday\_48, Homura\_41, Hortense\_40, Horus\_48, Howe\_40, Hyperbowlee\_41, IMpilo\_40, Illumine\_44, Inky\_41, IrishSherpFalk\_41, Isolde\_41, JAWS\_41, James\_43, Jarvi\_41, Jayhawk\_42, Jeckyll\_41, Joy99\_41, Judy\_39, Juice456\_44, Juniper1\_40, Kamaru\_44, KayMoney\_38, Kenna\_49, Kenuha5\_39, KiSi\_45, Kingsley\_38, KristaRAM\_43, LastJedi\_34, LaterM\_42, Lawnathon\_40, LeMond\_45, Leroy\_50, LilPharaoh\_36, LilSpotty\_38, LindNT\_41, LitninMcQueen\_43, Llorens\_41, Lorde\_42, Lton\_34, Lucky10\_35, LunaBlu\_46, LunaStella\_42, Lunahalos\_41, Lutum\_50, Mandlovu\_40, Marcoliusprime\_43, MarkPheW\_44, Marshawn\_44, Marteena\_36, Mattes\_43, McMater\_43, Mcklovin\_36, MeaningOfLife\_42, Megsy\_42, Melissauren88\_42, MichaelScott\_40, MidnightRain\_42, MilanaBonita\_37, MilleniumForce\_42, Milly\_43, MinionDave\_43, Minnie\_43, MooMoo\_41, Moonbeam\_41, Mova\_42, Mozy\_51, Ms6\_36, Mufasa8\_27, Mufasa\_44, Murucutumbu\_42, Mutaforma13\_45, Mynx\_42, Nibb\_43, Nikao\_39, Niklas\_43, Nutello\_36, ODay\_52, Oregano\_39, Oscar\_45, Ovechkin\_41, Padfoot\_41, Padpat\_42, Peanam\_43, Peas\_35, Peel\_41, Periwinkle\_57, Persistence\_35, Phabuloso\_48, Phalconet\_41, Phanphagia\_37, PhesterPotato\_44, Philus\_43, Phistory\_51, Phrank15\_39, Phrappuccino\_38, Piatt\_41, Pippy\_38, Pokerus\_40, Pollux\_38, Prithvi\_42, QuincyRose\_40, RadFad\_40, Ramen\_41, Raphaella\_40, Rapunzel97\_41, RavenCo17\_41, Renaud18\_46, Rialto\_46, Richie\_40, Richo\_43, Rita\_44, RootBeer\_29, Rosmarinus\_41, SG4\_40, Saal\_43, Sakai\_40, Samman98\_40, SamuelLPlaqson\_42, Sarge\_28, Sarma624\_38, Sashimi\_39, Scarlett\_45, Seahorse\_41, Sekhmet\_40, Settecandela\_38, SgtBeansprout\_36, Shaobing\_43, Shauna1\_38, ShiaSurprise\_42, Shlim410\_38, Shoya\_35, ShroomBoi\_42, SimranZ1\_43, Slimphazie\_41, Sonali\_29, Soul22\_46, Sparky\_45, Spartacus\_41, SpicyFrank\_39, Spock\_41, Squirty\_35, StAnnes\_42, Stinson\_42, Strobilo\_43, Strokeseat\_41, Sulley\_41, SuperGrey\_42, SwagPiggett\_45, TChen\_44, TClif\_45, Tachez\_41, TaiwanKao\_43, Taj\_45, ThayneTheZag\_40, Thimann\_36, Tiff81\_37, TiniBug\_42, Tiri\_42, Topper\_41, TreyKay\_42, TruffulaTree\_41, Twinkle\_39, Twitch\_41, Urkel\_42, VRedHorse\_42, Validus\_45, Veliki\_41, Velveteen\_37, Wachhund\_44, Wee\_46, Whatsapiecost\_41, WillSterrel\_41, WinkNick\_41, XFactor\_41, YoungHarleezy\_40, YoureAdopted\_40, Yunkel11\_44, Zavala\_42, Zizzle\_44, ZoeJ\_43, Zucker\_31,

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

- Mdavu\_37, Raqqa\_32, Spartoi\_37, Torres\_39,

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

- Agueybana\_38, AlumE\_39, Angelique\_39, Antonio\_39, Attis\_34, BatStarr\_39, Bialota\_37, Bjaner7\_34, Bosnia\_39, BoyNamedSue\_39, Bradissa\_36, Bunnybear\_33, Clap\_37, Confidence\_37, Cynthia\_37, Ebert\_39, EdnaMode\_33, EnalisNailo\_35, Eudoria\_39, Eviarto\_39, Faith5x5\_30, GemG\_37, Gizermo\_37, Haley23\_37, Herod\_39, Hugley\_36, Hyzer\_43, Jablanski\_39, Kita\_40, Lamberg\_33, Lilas\_38, LonelyBoi\_38, LordFarquaad\_35, Manasvini\_39, Maridalia\_39, Matteo\_30, Mocha12\_37, Moosehead\_35, Morkie\_33, Neobush\_39, Nettuno\_33, Nymphadora\_39, OneDirection\_30, Pepperoni\_31, PhorbesPhlower\_33, Pickett\_32, Polly\_36, Posh\_42, Pytheas\_39, Sahara\_36, Savage\_37, SoilAssassin\_34,

Sproutie\_37, Suscepit\_39, Tayonia\_39, ThankyouJordi\_38, TimTam\_39, Trumpet\_39, TuertoX\_37, WelcomeAyanna\_38, Whiteclaw\_37, Wrigley\_43, Yeet412\_34, Zameen\_39, Zirinka\_36,

### Summary by start number:

#### Start 25:

- Found in 9 of 377 ( 2.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 11.1% of time when present
- Phage (with cluster) where this start called: Torres\_39 (K1),

#### Start 26:

- Found in 12 of 377 ( 3.2% ) of genes in pham
- Manual Annotations of this start: 1 of 348
- Called 8.3% of time when present
- Phage (with cluster) where this start called: Mdavu\_37 (K1),

#### Start 65:

- Found in 16 of 377 ( 4.2% ) of genes in pham
- Manual Annotations of this start: 2 of 348
- Called 12.5% of time when present
- Phage (with cluster) where this start called: Gizermo\_37 (CZ2), Sahara\_36 (CZ2),

#### Start 66:

- Found in 54 of 377 ( 14.3% ) of genes in pham
- Manual Annotations of this start: 6 of 348
- Called 11.1% of time when present
- Phage (with cluster) where this start called: BatStarr\_39 (CZ1), Bjanes7\_34 (CZ2), Cynthia\_37 (CZ2), Herod\_39 (CZ1), Kita\_40 (CZ1), ThankyouJordi\_38 (CZ1),

#### Start 76:

- Found in 1 of 377 ( 0.3% ) of genes in pham
- Manual Annotations of this start: 1 of 348
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Faith5x5\_30 (CZ6),

#### Start 97:

- Found in 3 of 377 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 348
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Moosehead\_35 (CZ6),

#### Start 98:

- Found in 63 of 377 ( 16.7% ) of genes in pham
- Manual Annotations of this start: 52 of 348
- Called 87.3% of time when present
- Phage (with cluster) where this start called: Agueybana\_38 (CZ1), AlumE\_39 (CZ1), Angelique\_39 (CY1), Antonio\_39 (CZ1), Attis\_34 (CZ2), Bialota\_37 (CZ1), Bosnia\_39 (CZ1), BoyNamedSue\_39 (CZ1), Bradissa\_36 (CY1), Bunnybear\_33 (CZ), Clap\_37 (CZ2), Confidence\_37 (CY1), Ebert\_39 (CZ2), EdnaMode\_33 (CZ2), EnalisNailo\_35 (CY1), Eudoria\_39 (CZ1), Eviarto\_39 (CZ1), GemG\_37 (CZ2), Haley23\_37 (CZ2), Hugley\_36 (CZ1), Hyzer\_43 (CZ1), Jablanski\_39 (CY), Lamberg\_33 (CZ2), Lilas\_38

(CY1), LonelyBoi\_38 (CY), LordFarquaad\_35 (CZ2), Manasvini\_39 (CZ1), Maridalia\_39 (CZ1), Matteo\_30 (CZ2), Mocha12\_37 (CZ2), Morkie\_33 (DH), Neobush\_39 (CZ1), Nettuno\_33 (CZ2), Nymphadora\_39 (CZ1), OneDirection\_30 (CZ6), Pepperoni\_31 (CZ), PhorbessPhlower\_33 (DH), Pickett\_32 (CZ2), Polly\_36 (CZ1), Posh\_42 (CY), Pytheas\_39 (CY), Savage\_37 (CZ2), SoilAssassin\_34 (CZ2), Sproutie\_37 (CZ2), Suscepit\_39 (CZ1), Tayonia\_39 (CZ1), TimTam\_39 (CZ1), Trumpet\_39 (CZ1), TuertoX\_37 (CZ2), WelcomeAyanna\_38 (CZ1), Whiteclaw\_37 (CZ2), Wrigley\_43 (CY), Yeet412\_34 (CZ2), Zameen\_39 (CZ1), Zirinka\_36 (CZ1),

Start 99:

- Found in 312 of 377 ( 82.8% ) of genes in pham
- Manual Annotations of this start: 284 of 348
- Called 98.7% of time when present
- Phage (with cluster) where this start called: AbbyDaisy\_36 (AY), ActinUp\_41 (K1), Adephagia\_41 (K1), Adonis\_41 (K1), Adora\_37 (CZ4), Ageofdapage\_43 (K1), Aikyam\_37 (AY), Akhila\_37 (F1), Alexphander\_45 (F1), AlishaPH\_41 (K1), Amelie\_36 (K1), Anaya\_43 (K1), Anekin\_37 (AY), Angelica\_41 (K1), Annalisa\_36 (CZ4), Apocalypse\_44 (K1), Apricot\_48 (DN3), ArV2\_29 (singleton), Ardmore\_36 (F1), Asapag\_47 (DN1), Asayake\_41 (K1), Atiba\_41 (K1), Auxilium\_38 (AY), BEEST\_41 (K1), BENtherdunthat\_50 (DN1), BGIlluviae\_41 (K1), BaghaKamala\_40 (K1), BarrelRoll\_41 (K1), Batiatus\_43 (F1), Bauer\_39 (FN), Beakin\_43 (F1), BeeGee\_42 (CY), Beenie\_33 (CZ4), Beezoo\_43 (K1), Bella96\_42 (K1), Belladonna\_41 (K1), BenchScraper\_39 (AY), BigPhil\_38 (F1), Binglebops\_36 (K1), BillyTP\_42 (AY), Bipolar\_39 (F1), Birdsong\_47 (DN), BlackSpider\_36 (FN), Blarby\_54 (F), Blizzard\_41 (K1), BobaPhett\_43 (F1), Bobi\_46 (F1), Boiiii\_41 (K1), BoostSeason\_44 (K2), BrayBeast\_32 (FB), Bridgette\_38 (FA), Brocalys\_36 (F1), Budski\_49 (DN), Byougenkin\_40 (F1), CREW\_41 (K1), Capricorn\_41 (K1), CaptainTrips\_41 (F1), CaseJules\_42 (K1), Cashline\_38 (CY), Cerasum\_38 (F1), CheeseTouch\_54 (DN1), CheetoDust\_40 (K1), Chris\_43 (K1), ChuckDuck\_39 (FA), Chymera\_32 (singleton), Clark\_39 (CZ4), Clifton\_35 (F1), Coco12\_40 (F1), Constance\_38 (FA), CookieBear\_41 (AY), Cornucopia\_45 (F1), Crater\_49 (DN3), CrimD\_41 (K1), DLane\_41 (F1), DRBy19\_43 (F1), Dalmuri\_41 (K1), Dartin\_43 (K1), DeadP\_46 (F1), Deby\_41 (K1), Denise\_35 (CZ5), Devera\_45 (K1), DismalFunk\_43 (K2), DismalStressor\_43 (K2), DobbysSock\_31 (CZ4), Dole\_44 (K1), Dolores\_40 (CZ4), Donkeykong\_41 (F1), Dorito\_34 (CZ4), DosHalletts\_40 (F1), DrHayes\_42 (K1), Durfee\_41 (K1), EMSquaredA\_37 (CY1), Ecliptus\_49 (DN), Efra2\_44 (K1), Eileen\_34 (FA), EleanorGeorge\_40 (F1), Emerson\_42 (K1), Emma\_44 (F1), Enby\_42 (F1), Enkosi\_39 (K1), Estave1\_43 (F1), EvePickles\_38 (AY), Faja\_39 (AY), Farewell\_44 (AF), Filuzino\_41 (F1), Findley\_43 (K2), Flathead\_44 (F1), Floral\_36 (CY1), Footloose\_31 (singleton), Frickyeah\_52 (DN1), Fruitloop\_40 (F1), GMA1\_30 (singleton), Galactic\_43 (F1), Ganymede\_42 (K1), Geraldini\_43 (K1), Getalong\_53 (DN1), Globfish\_39 (AY), GlobiWarming\_38 (FA), Gorge\_43 (F1), Gorpy\_41 (AY), Guanica15\_44 (K1), Guppsters\_43 (F1), Hades\_43 (F1), HedwigODU\_41 (K1), Hegedechwinu\_41 (F1), Hillester\_40 (AY), Hlubikazi\_41 (F1), Holliday\_48 (DN1), Homura\_41 (K1), Hortense\_40 (CZ4), Horus\_48 (DN1), Howe\_40 (CZ4), Hyperbowlee\_41 (K1), IMpilo\_40 (F1), Illumine\_44 (K1), Inky\_41 (K1), IrishSherpFalk\_41 (F1), Isolde\_41 (AY), JAWS\_41 (K1), James\_43 (F1), Jarvi\_41 (K1), Jayhawk\_42 (K1), Jeckyll\_41 (K1), Joy99\_41 (K1), Judy\_39 (FA), Juice456\_44 (F1), Juniper1\_40 (F1), Kamaru\_44 (DN1), KayMoney\_38 (FA), Kenna\_49 (DN1), Kenuha5\_39 (F1), KiSi\_45 (K1), Kingsley\_38 (F1), KristaRAM\_43 (F1), LastJedi\_34 (F1), LaterM\_42 (K1), Lawnathon\_40 (AY), LeMond\_45 (K1), Leroy\_50 (DN1), LilPharaoh\_36 (K1), LilSpotty\_38 (singleton), LindNT\_41 (K1), LitninMcQueen\_43 (DN1), Llorens\_41 (K1), Lorde\_42 (F1), Lton\_34 (CZ), Lucky10\_35 (DH), LunaBlu\_46

(F1), LunaStella\_42 (F4), Lunahalos\_41 (K1), Lutum\_50 (DN1), Mandlovu\_40 (F1), Marcoliusprime\_43 (K2), MarkPhew\_44 (K1), Marshawn\_44 (K6), Marteena\_36 (CY1), Mattes\_43 (F1), McMater\_43 (K1), Mcklovin\_36 (CZ4), MeaningOfLife\_42 (K1), Megsy\_42 (K1), Melissauren88\_42 (F1), MichaelScott\_40 (CZ4), MidnightRain\_42 (AY), MilanaBonita\_37 (F1), MilleniumForce\_42 (F1), Milly\_43 (K2), MinionDave\_43 (F1), Minnie\_43 (F1), MooMoo\_41 (singleton), Moonbeam\_41 (F1), Mova\_42 (F1), Mozy\_51 (F1), Ms6\_36 (F1), Mufasa8\_27 (FG), Mufasa\_44 (K2), Murucutumbu\_42 (K1), Mutaforma13\_45 (F1), Mynx\_42 (K1), Nibb\_43 (K1), Nikao\_39 (K1), Niklas\_43 (K1), Nutello\_36 (K1), ODay\_52 (DN), Oregano\_39 (CZ4), Oscar\_45 (K1), Ovechkin\_41 (F1), Padfoot\_41 (K1), Padpat\_42 (K1), Peanam\_43 (K1), Peas\_35 (FA), Peel\_41 (K1), Periwinkle\_57 (DN1), Persistence\_35 (AY), Phabuloso\_48 (DN1), Phalconet\_41 (F1), Phanphagia\_37 (F1), PhesterPhotato\_44 (F1), Philus\_43 (F1), Phistory\_51 (DN1), Phrank15\_39 (AY), Phrappuccino\_38 (AA), Piatt\_41 (K1), Pippy\_38 (F1), Pokerus\_40 (K1), Pollux\_38 (CY1), Prithvi\_42 (K1), QuincyRose\_40 (K1), RadFad\_40 (AY), Ramen\_41 (K1), Raphaella\_40 (AY), Rapunzel97\_41 (K1), RavenCo17\_41 (CZ8), Renaud18\_46 (F4), Rialto\_46 (F1), Richie\_40 (AY), Richo\_43 (K1), Rita\_44 (F1), RootBeer\_29 (FA), Rosmarinus\_41 (K1), SG4\_40 (F1), Saal\_43 (F1), Sakai\_40 (AY), Samman98\_40 (CZ4), SamuelLPlaqson\_42 (K1), Sarge\_28 (FB), Sarma624\_38 (F1), Sashimi\_39 (AY), Scarlett\_45 (K1), Seahorse\_41 (AY), Sekhmet\_40 (CZ4), Settecandela\_38 (AA), SgtBeansprout\_36 (K1), Shaobing\_43 (K1), Shauna1\_38 (F1), ShiaSurprise\_42 (K1), Shlim410\_38 (CZ4), Shoya\_35 (FB), ShroomBoi\_42 (F1), SimranZ1\_43 (F1), Slimphazie\_41 (K1), Sonali\_29 (FG), Soul22\_46 (F2), Sparky\_45 (AF), Spartacus\_41 (F1), SpicyFrank\_39 (AY), Spock\_41 (K1), Squirty\_35 (F3), StAnnes\_42 (F1), Stinson\_42 (K1), Strobilo\_43 (K2), Strokeseat\_41 (F1), Sulley\_41 (K1), SuperGrey\_42 (F1), SwagPiggett\_45 (F1), TChen\_44 (F4), TClif\_45 (K6), Tachez\_41 (K1), TaiwanKao\_43 (K1), Taj\_45 (F1), ThayneTheZag\_40 (AY), Thimann\_36 (CZ4), Tiff81\_37 (AY), TiniBug\_42 (K1), Tiri\_42 (K1), Topper\_41 (K1), TreyKay\_42 (K1), TruffulaTree\_41 (K1), Twinkle\_39 (CZ4), Twitch\_41 (K1), Urkel\_42 (K1), VRedHorse\_42 (F1), Validus\_45 (K1), Veliki\_41 (K1), Velveteen\_37 (F1), Wachhund\_44 (F1), Wee\_46 (F1), Whatsapiecost\_41 (F1), WillSterrel\_41 (F1), WinkNick\_41 (CZ4), XFactor\_41 (F1), YoungHarleezy\_40 (AY), YoureAdopted\_40 (K1), Yunkel11\_44 (K1), Zavala\_42 (K1), Zizzle\_44 (F1), ZoeJ\_43 (K2), Zucker\_31 (FN),

#### Start 103:

- Found in 1 of 377 ( 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: Raqqa\_32 (AY),

#### Start 117:

- Found in 7 of 377 ( 1.9% ) of genes in pham
- Manual Annotations of this start: 1 of 348
- Called 14.3% of time when present
- Phage (with cluster) where this start called: Spartoi\_37 (singleton),

#### Summary by clusters:

There are 29 clusters represented in this pham: DN, singleton, DH, CZ2, CZ1, CZ6, CZ8, CZ4, CZ5, K2, FB, K6, FG, FN, F, DN1, DN3, AA, CY1, AF, CZ, CY, AY, F1, F2, F3, F4, FA, K1,

Info for manual annotations of cluster AA:

- Start number 99 was manually annotated 2 times for cluster AA.

Info for manual annotations of cluster AF:

- Start number 99 was manually annotated 2 times for cluster AF.

Info for manual annotations of cluster AY:

- Start number 99 was manually annotated 17 times for cluster AY.

Info for manual annotations of cluster CY:

- Start number 98 was manually annotated 5 times for cluster CY.
- Start number 99 was manually annotated 2 times for cluster CY.

Info for manual annotations of cluster CY1:

- Start number 98 was manually annotated 5 times for cluster CY1.
- Start number 99 was manually annotated 4 times for cluster CY1.

Info for manual annotations of cluster CZ:

- Start number 98 was manually annotated 1 time for cluster CZ.
- Start number 99 was manually annotated 1 time for cluster CZ.

Info for manual annotations of cluster CZ1:

- Start number 66 was manually annotated 4 times for cluster CZ1.
- Start number 98 was manually annotated 20 times for cluster CZ1.

Info for manual annotations of cluster CZ2:

- Start number 65 was manually annotated 2 times for cluster CZ2.
- Start number 66 was manually annotated 2 times for cluster CZ2.
- Start number 98 was manually annotated 18 times for cluster CZ2.

Info for manual annotations of cluster CZ4:

- Start number 99 was manually annotated 17 times for cluster CZ4.

Info for manual annotations of cluster CZ5:

- Start number 99 was manually annotated 1 time for cluster CZ5.

Info for manual annotations of cluster CZ6:

- Start number 76 was manually annotated 1 time for cluster CZ6.
- Start number 97 was manually annotated 1 time for cluster CZ6.
- Start number 98 was manually annotated 1 time for cluster CZ6.

Info for manual annotations of cluster CZ8:

- Start number 99 was manually annotated 1 time for cluster CZ8.

Info for manual annotations of cluster DH:

- Start number 98 was manually annotated 2 times for cluster DH.
- Start number 99 was manually annotated 1 time for cluster DH.

Info for manual annotations of cluster DN:

- Start number 99 was manually annotated 4 times for cluster DN.

Info for manual annotations of cluster DN1:

- Start number 99 was manually annotated 14 times for cluster DN1.

Info for manual annotations of cluster DN3:

- Start number 99 was manually annotated 2 times for cluster DN3.

Info for manual annotations of cluster F1:

- Start number 99 was manually annotated 82 times for cluster F1.

Info for manual annotations of cluster F2:

- Start number 99 was manually annotated 1 time for cluster F2.

Info for manual annotations of cluster F3:

- Start number 99 was manually annotated 1 time for cluster F3.

Info for manual annotations of cluster F4:

- Start number 99 was manually annotated 3 times for cluster F4.

Info for manual annotations of cluster FA:

- Start number 99 was manually annotated 8 times for cluster FA.

Info for manual annotations of cluster FB:

- Start number 99 was manually annotated 3 times for cluster FB.

Info for manual annotations of cluster FG:

- Start number 99 was manually annotated 2 times for cluster FG.

Info for manual annotations of cluster FN:

- Start number 99 was manually annotated 2 times for cluster FN.

Info for manual annotations of cluster K1:

- Start number 26 was manually annotated 1 time for cluster K1.
- Start number 99 was manually annotated 99 times for cluster K1.

Info for manual annotations of cluster K2:

- Start number 99 was manually annotated 9 times for cluster K2.

Info for manual annotations of cluster K6:

- Start number 99 was manually annotated 2 times for cluster K6.

**Gene Information:**

Gene: AbbyDaisy\_36 Start: 27417, Stop: 26233, Start Num: 99

Candidate Starts for AbbyDaisy\_36:

(31, 27699), (33, 27690), (37, 27654), (53, 27579), (67, 27522), (75, 27483), (Start: 99 @27417 has 284 MA's), (107, 27366), (137, 27198), (138, 27180), (159, 27048), (173, 26970), (176, 26952), (183, 26919), (187, 26883), (190, 26874), (202, 26814), (214, 26739), (236, 26619), (253, 26505), (268, 26448), (270, 26427), (271, 26424), (273, 26409), (294, 26289),

Gene: ActinUp\_41 Start: 32479, Stop: 33567, Start Num: 99

Candidate Starts for ActinUp\_41:



(Start: 99 @32479 has 284 MA's), (107, 32530), (115, 32581), (121, 32605), (127, 32641), (146, 32779), (156, 32833), (175, 32917), (187, 32986), (188, 32989), (218, 33139), (229, 33217), (235, 33244), (251, 33331), (267, 33379),

Gene: Adephagia\_41 Start: 32476, Stop: 33564, Start Num: 99

Candidate Starts for Adephagia\_41:

(Start: 99 @32476 has 284 MA's), (107, 32527), (115, 32578), (121, 32602), (127, 32638), (146, 32776), (156, 32830), (175, 32914), (187, 32983), (188, 32986), (218, 33136), (229, 33214), (235, 33241), (251, 33328), (267, 33376),

Gene: Adonis\_41 Start: 32777, Stop: 33865, Start Num: 99

Candidate Starts for Adonis\_41:

(Start: 99 @32777 has 284 MA's), (115, 32879), (121, 32903), (127, 32939), (142, 33053), (156, 33131), (175, 33215), (187, 33284), (188, 33287), (218, 33437), (235, 33542), (251, 33629), (267, 33677),

Gene: Adora\_37 Start: 31194, Stop: 32321, Start Num: 99

Candidate Starts for Adora\_37:

(85, 31155), (Start: 99 @31194 has 284 MA's), (107, 31248), (124, 31371), (132, 31404), (143, 31494), (148, 31527), (187, 31722), (188, 31725), (197, 31767), (205, 31803), (257, 32100), (271, 32178), (276, 32205), (278, 32220), (282, 32247), (293, 32310),

Gene: Ageofdapage\_43 Start: 33453, Stop: 34541, Start Num: 99

Candidate Starts for Ageofdapage\_43:

(Start: 99 @33453 has 284 MA's), (115, 33555), (121, 33579), (127, 33615), (137, 33666), (142, 33729), (146, 33753), (156, 33807), (158, 33810), (175, 33891), (187, 33960), (188, 33963), (195, 33993), (218, 34113), (229, 34191), (235, 34218), (267, 34353),

Gene: Agueybana\_38 Start: 30381, Stop: 31463, Start Num: 98

Candidate Starts for Agueybana\_38:

(Start: 66 @30270 has 6 MA's), (Start: 98 @30381 has 52 MA's), (107, 30435), (128, 30555), (172, 30810), (178, 30840), (188, 30900), (202, 30966), (207, 30990), (271, 31320), (293, 31452),

Gene: Aikyam\_37 Start: 25607, Stop: 24468, Start Num: 99

Candidate Starts for Aikyam\_37:

(Start: 99 @25607 has 284 MA's), (107, 25556), (137, 25388), (138, 25370), (159, 25238), (173, 25160), (175, 25148), (176, 25142), (187, 25073), (190, 25064), (202, 25004), (218, 24914), (236, 24809), (241, 24788), (245, 24761), (268, 24638), (271, 24614), (273, 24599), (285, 24524), (291, 24494),

Gene: Akhila\_37 Start: 29110, Stop: 30237, Start Num: 99

Candidate Starts for Akhila\_37:

(68, 29008), (83, 29065), (Start: 99 @29110 has 284 MA's), (100, 29119), (125, 29281), (134, 29332), (137, 29350), (141, 29395), (156, 29491), (159, 29500), (178, 29605), (189, 29674), (197, 29713), (200, 29734), (204, 29746), (205, 29749), (207, 29761), (211, 29800), (212, 29806), (220, 29827), (225, 29863), (226, 29866), (230, 29902), (231, 29908), (235, 29920), (236, 29923), (240, 29938), (251, 30007), (256, 30022), (261, 30040), (268, 30064), (274, 30109), (277, 30118), (278, 30130), (282, 30157), (284, 30175), (288, 30196), (292, 30211), (293, 30220), (294, 30223),

Gene: Alexphander\_45 Start: 32418, Stop: 33536, Start Num: 99

Candidate Starts for Alexphander\_45:

(Start: 99 @32418 has 284 MA's), (122, 32556), (125, 32589), (135, 32637), (156, 32790), (159, 32799), (173, 32880), (189, 32973), (197, 33012), (200, 33033), (204, 33045), (205, 33048), (207,

33060), (211, 33099), (212, 33105), (220, 33126), (225, 33162), (226, 33165), (230, 33201), (231, 33207), (236, 33222), (240, 33237), (251, 33306), (256, 33321), (261, 33339), (274, 33408), (277, 33417), (282, 33456), (284, 33474), (288, 33495), (292, 33510), (293, 33519), (294, 33522),

Gene: AlishaPH\_41 Start: 32751, Stop: 33839, Start Num: 99

Candidate Starts for AlishaPH\_41:

(Start: 99 @32751 has 284 MA's), (115, 32853), (121, 32877), (127, 32913), (146, 33051), (156, 33105), (175, 33189), (187, 33258), (188, 33261), (218, 33411), (235, 33516), (251, 33603), (267, 33651), (289, 33795),

Gene: AlumE\_39 Start: 31289, Stop: 32371, Start Num: 98

Candidate Starts for AlumE\_39:

(Start: 66 @31178 has 6 MA's), (Start: 98 @31289 has 52 MA's), (107, 31343), (128, 31463), (178, 31748), (188, 31808), (202, 31874), (207, 31898), (271, 32228), (283, 32303), (293, 32360),

Gene: Amelie\_36 Start: 31976, Stop: 33070, Start Num: 99

Candidate Starts for Amelie\_36:

(25, 31625), (Start: 26 @31640 has 1 MA's), (36, 31733), (41, 31754), (63, 31847), (Start: 99 @31976 has 284 MA's), (107, 32027), (121, 32102), (127, 32138), (141, 32234), (142, 32252), (146, 32276), (155, 32324), (156, 32330), (184, 32462), (187, 32495), (197, 32540), (218, 32648), (235, 32753), (249, 32813), (267, 32888), (283, 32996), (289, 33032),

Gene: Anaya\_43 Start: 33089, Stop: 34177, Start Num: 99

Candidate Starts for Anaya\_43:

(Start: 99 @33089 has 284 MA's), (115, 33191), (121, 33215), (127, 33251), (142, 33365), (156, 33443), (175, 33527), (187, 33596), (188, 33599), (218, 33749), (235, 33854), (251, 33941), (267, 33989),

Gene: Anekin\_37 Start: 26993, Stop: 25815, Start Num: 99

Candidate Starts for Anekin\_37:

(92, 27011), (Start: 99 @26993 has 284 MA's), (107, 26942), (116, 26876), (138, 26756), (150, 26660), (159, 26624), (173, 26546), (187, 26459), (190, 26450), (202, 26390), (209, 26342), (218, 26300), (238, 26189), (245, 26147), (268, 26030), (270, 26009), (271, 26006), (273, 25991), (294, 25871),

Gene: Angelica\_41 Start: 32708, Stop: 33796, Start Num: 99

Candidate Starts for Angelica\_41:

(Start: 99 @32708 has 284 MA's), (115, 32810), (116, 32819), (121, 32834), (127, 32870), (156, 33062), (175, 33146), (187, 33215), (188, 33218), (218, 33368), (235, 33473), (251, 33560), (267, 33608), (289, 33752),

Gene: Angelique\_39 Start: 30954, Stop: 32036, Start Num: 98

Candidate Starts for Angelique\_39:

(Start: 66 @30843 has 6 MA's), (Start: 98 @30954 has 52 MA's), (107, 31008), (128, 31128), (172, 31383), (178, 31413), (188, 31473), (202, 31539), (207, 31563), (224, 31668), (271, 31893), (276, 31920), (283, 31968), (293, 32025),

Gene: Annalisa\_36 Start: 28551, Stop: 29678, Start Num: 99

Candidate Starts for Annalisa\_36:

(43, 28332), (50, 28368), (Start: 99 @28551 has 284 MA's), (107, 28605), (124, 28728), (132, 28761), (143, 28851), (148, 28884), (187, 29079), (188, 29082), (197, 29124), (205, 29160), (257, 29457), (278, 29577), (282, 29604), (293, 29667),

Gene: Antonio\_39 Start: 30563, Stop: 31645, Start Num: 98

Candidate Starts for Antonio\_39:

(Start: 66 @30452 has 6 MA's), (Start: 98 @30563 has 52 MA's), (107, 30617), (128, 30737), (172, 30992), (178, 31022), (188, 31082), (202, 31148), (207, 31172), (271, 31502), (276, 31529), (293, 31634),

Gene: Apocalypse\_44 Start: 33493, Stop: 34581, Start Num: 99

Candidate Starts for Apocalypse\_44:

(Start: 99 @33493 has 284 MA's), (115, 33595), (121, 33619), (127, 33655), (146, 33793), (156, 33847), (175, 33931), (187, 34000), (188, 34003), (218, 34153), (235, 34258), (251, 34345), (267, 34393), (289, 34537),

Gene: Apricot\_48 Start: 31405, Stop: 32475, Start Num: 99

Candidate Starts for Apricot\_48:

(82, 31360), (Start: 99 @31405 has 284 MA's), (107, 31456), (114, 31504), (122, 31534), (124, 31561), (140, 31648), (148, 31714), (149, 31720), (156, 31756), (159, 31765), (171, 31816), (175, 31840), (179, 31858), (190, 31921), (197, 31957), (204, 31990), (205, 31993), (207, 32005), (209, 32029), (239, 32173), (244, 32200), (256, 32272), (271, 32332), (276, 32359), (279, 32389), (283, 32407), (293, 32464),

Gene: ArV2\_29 Start: 22829, Stop: 21699, Start Num: 99

Candidate Starts for ArV2\_29:

(Start: 99 @22829 has 284 MA's), (107, 22778), (135, 22625), (142, 22550), (152, 22481), (161, 22454), (178, 22343), (183, 22319), (193, 22259), (194, 22256), (197, 22241), (230, 22046), (239, 22016), (242, 21998), (243, 21995), (245, 21977), (251, 21923), (255, 21908), (265, 21881), (274, 21809), (277, 21800), (278, 21788),

Gene: Ardmore\_36 Start: 30890, Stop: 32008, Start Num: 99

Candidate Starts for Ardmore\_36:

(Start: 99 @30890 has 284 MA's), (100, 30899), (125, 31061), (149, 31226), (156, 31262), (159, 31271), (189, 31445), (199, 31502), (200, 31505), (204, 31517), (205, 31520), (207, 31532), (211, 31571), (220, 31598), (225, 31634), (226, 31637), (230, 31673), (231, 31679), (235, 31691), (236, 31694), (251, 31778), (256, 31793), (261, 31811), (274, 31880), (277, 31889), (282, 31928), (284, 31946), (288, 31967), (292, 31982), (293, 31991), (294, 31994),

Gene: Asapag\_47 Start: 32537, Stop: 33631, Start Num: 99

Candidate Starts for Asapag\_47:

(69, 32450), (78, 32486), (Start: 99 @32537 has 284 MA's), (107, 32588), (120, 32660), (122, 32666), (124, 32693), (140, 32780), (149, 32852), (156, 32888), (159, 32897), (175, 32972), (179, 32990), (197, 33089), (204, 33122), (205, 33125), (207, 33137), (225, 33239), (239, 33305), (244, 33332), (256, 33404), (271, 33464), (276, 33491), (294, 33599),

Gene: Asayake\_41 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for Asayake\_41:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: Atiba\_41 Start: 32439, Stop: 33527, Start Num: 99

Candidate Starts for Atiba\_41:

(Start: 99 @32439 has 284 MA's), (107, 32490), (115, 32541), (121, 32565), (127, 32601), (146, 32739), (156, 32793), (175, 32877), (187, 32946), (188, 32949), (218, 33099), (229, 33177), (235, 33204), (251, 33291), (267, 33339),

Gene: Attis\_34 Start: 27696, Stop: 28778, Start Num: 98

Candidate Starts for Attis\_34:

(Start: 66 @27585 has 6 MA's), (Start: 98 @27696 has 52 MA's), (107, 27750), (128, 27870), (172, 28125), (178, 28155), (188, 28215), (202, 28281), (207, 28305), (271, 28635), (276, 28662), (293, 28767),

Gene: Auxilium\_38 Start: 25309, Stop: 24170, Start Num: 99

Candidate Starts for Auxilium\_38:

(Start: 99 @25309 has 284 MA's), (107, 25258), (137, 25090), (138, 25072), (159, 24940), (173, 24862), (175, 24850), (187, 24775), (190, 24766), (202, 24706), (218, 24616), (236, 24511), (241, 24490), (245, 24463), (268, 24340), (271, 24316), (273, 24301), (285, 24226), (291, 24196),

Gene: BEEST\_41 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for BEEST\_41:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: BENtherdunthat\_50 Start: 31782, Stop: 32852, Start Num: 99

Candidate Starts for BENtherdunthat\_50:

(83, 31740), (Start: 99 @31782 has 284 MA's), (107, 31833), (120, 31905), (122, 31911), (124, 31938), (156, 32133), (159, 32142), (171, 32193), (172, 32202), (173, 32205), (175, 32217), (184, 32262), (190, 32298), (197, 32334), (204, 32367), (205, 32370), (207, 32382), (239, 32550), (256, 32649), (271, 32709), (276, 32736), (277, 32739), (279, 32766), (281, 32772), (283, 32784), (293, 32841),

Gene: BGlluviae\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for BGlluviae\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: BaghaKamala\_40 Start: 31917, Stop: 33005, Start Num: 99

Candidate Starts for BaghaKamala\_40:

(41, 31695), (Start: 99 @31917 has 284 MA's), (107, 31968), (115, 32019), (121, 32043), (127, 32079), (146, 32217), (156, 32271), (175, 32355), (187, 32424), (188, 32427), (218, 32577), (235, 32682), (251, 32769), (267, 32817),

Gene: BarrelRoll\_41 Start: 32462, Stop: 33550, Start Num: 99

Candidate Starts for BarrelRoll\_41:

(Start: 99 @32462 has 284 MA's), (107, 32513), (115, 32564), (121, 32588), (127, 32624), (146, 32762), (156, 32816), (175, 32900), (187, 32969), (188, 32972), (218, 33122), (229, 33200), (235, 33227), (251, 33314), (267, 33362),

Gene: BatStarr\_39 Start: 31901, Stop: 33094, Start Num: 66

Candidate Starts for BatStarr\_39:

(Start: 66 @31901 has 6 MA's), (Start: 98 @32012 has 52 MA's), (107, 32066), (128, 32186), (171, 32432), (172, 32441), (178, 32471), (188, 32531), (202, 32597), (207, 32621), (271, 32951), (276, 32978), (293, 33083),

Gene: Batiatus\_43 Start: 33150, Stop: 34277, Start Num: 99

Candidate Starts for Batiatus\_43:

(68, 33048), (83, 33105), (Start: 99 @33150 has 284 MA's), (100, 33159), (125, 33321), (134, 33372), (137, 33390), (141, 33435), (156, 33531), (159, 33540), (173, 33621), (178, 33645), (189, 33714),

(197, 33753), (199, 33771), (200, 33774), (204, 33786), (205, 33789), (207, 33801), (208, 33816), (211, 33840), (212, 33846), (220, 33867), (225, 33903), (226, 33906), (230, 33942), (231, 33948), (236, 33963), (240, 33978), (251, 34047), (256, 34062), (268, 34104), (274, 34149), (277, 34158), (282, 34197), (284, 34215), (288, 34236), (292, 34251), (293, 34260), (294, 34263),

Gene: Bauer\_39 Start: 26996, Stop: 28129, Start Num: 99

Candidate Starts for Bauer\_39:

(42, 26783), (49, 26819), (60, 26861), (94, 26984), (Start: 99 @26996 has 284 MA's), (113, 27089), (131, 27182), (159, 27359), (173, 27422), (175, 27434), (188, 27512), (191, 27524), (201, 27575), (215, 27656), (218, 27668), (222, 27695), (230, 27749), (250, 27869), (255, 27890), (271, 27962), (273, 27977), (284, 28049), (285, 28052), (291, 28082), (292, 28085), (298, 28118),

Gene: Beakin\_43 Start: 31583, Stop: 32701, Start Num: 99

Candidate Starts for Beakin\_43:

(Start: 99 @31583 has 284 MA's), (100, 31592), (125, 31754), (149, 31919), (156, 31955), (159, 31964), (178, 32069), (189, 32138), (197, 32177), (199, 32195), (200, 32198), (204, 32210), (205, 32213), (207, 32225), (208, 32240), (211, 32264), (212, 32270), (220, 32291), (225, 32327), (226, 32330), (230, 32366), (231, 32372), (236, 32387), (240, 32402), (251, 32471), (256, 32486), (268, 32528), (274, 32573), (277, 32582), (282, 32621), (284, 32639), (288, 32660), (292, 32675), (293, 32684), (294, 32687),

Gene: BeeGee\_42 Start: 31829, Stop: 32935, Start Num: 99

Candidate Starts for BeeGee\_42:

(79, 31772), (Start: 99 @31829 has 284 MA's), (107, 31880), (124, 31985), (133, 32024), (174, 32258), (175, 32264), (187, 32333), (188, 32336), (195, 32366), (205, 32417), (207, 32429), (248, 32657), (258, 32717), (271, 32792), (277, 32822), (293, 32924),

Gene: Beenie\_33 Start: 29179, Stop: 30306, Start Num: 99

Candidate Starts for Beenie\_33:

(85, 29140), (Start: 99 @29179 has 284 MA's), (107, 29233), (124, 29356), (132, 29389), (143, 29479), (148, 29512), (187, 29707), (188, 29710), (197, 29752), (205, 29788), (257, 30085), (271, 30163), (276, 30190), (278, 30205), (282, 30232), (293, 30295),

Gene: Beezoo\_43 Start: 33442, Stop: 34530, Start Num: 99

Candidate Starts for Beezoo\_43:

(Start: 99 @33442 has 284 MA's), (115, 33544), (121, 33568), (127, 33604), (146, 33742), (156, 33796), (175, 33880), (187, 33949), (188, 33952), (218, 34102), (235, 34207), (251, 34294), (267, 34342), (289, 34486),

Gene: Bella96\_42 Start: 33333, Stop: 34421, Start Num: 99

Candidate Starts for Bella96\_42:

(Start: 99 @33333 has 284 MA's), (107, 33384), (115, 33435), (121, 33459), (127, 33495), (142, 33609), (146, 33633), (156, 33687), (175, 33771), (187, 33840), (218, 33993), (235, 34098), (251, 34185), (267, 34233), (289, 34377),

Gene: Belladonna\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Belladonna\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: BenchScraper\_39 Start: 27267, Stop: 26128, Start Num: 99

Candidate Starts for BenchScraper\_39:

(Start: 99 @27267 has 284 MA's), (107, 27216), (137, 27048), (138, 27030), (159, 26898), (173, 26820), (175, 26808), (176, 26802), (187, 26733), (190, 26724), (202, 26664), (218, 26574), (236, 26469), (241, 26448), (245, 26421), (268, 26298), (271, 26274), (273, 26259), (285, 26184), (291, 26154),

Gene: Bialota\_37 Start: 31315, Stop: 32397, Start Num: 98

Candidate Starts for Bialota\_37:

(Start: 66 @31204 has 6 MA's), (Start: 98 @31315 has 52 MA's), (107, 31369), (128, 31489), (172, 31744), (178, 31774), (188, 31834), (202, 31900), (207, 31924), (271, 32254), (276, 32281), (293, 32386),

Gene: BigPhil\_38 Start: 27903, Stop: 29021, Start Num: 99

Candidate Starts for BigPhil\_38:

(Start: 99 @27903 has 284 MA's), (125, 28074), (149, 28239), (156, 28275), (159, 28284), (173, 28365), (178, 28389), (189, 28458), (197, 28497), (199, 28515), (200, 28518), (204, 28530), (205, 28533), (207, 28545), (208, 28560), (211, 28584), (212, 28590), (220, 28611), (225, 28647), (226, 28650), (230, 28686), (231, 28692), (235, 28704), (236, 28707), (240, 28722), (251, 28791), (256, 28806), (268, 28848), (274, 28893), (277, 28902), (282, 28941), (284, 28959), (288, 28980), (292, 28995), (293, 29004), (294, 29007),

Gene: Biglebops\_36 Start: 31976, Stop: 33070, Start Num: 99

Candidate Starts for Biglebops\_36:

(25, 31625), (Start: 26 @31640 has 1 MA's), (36, 31733), (41, 31754), (63, 31847), (Start: 99 @31976 has 284 MA's), (107, 32027), (121, 32102), (127, 32138), (141, 32234), (142, 32252), (146, 32276), (155, 32324), (156, 32330), (184, 32462), (187, 32495), (197, 32540), (218, 32648), (235, 32753), (249, 32813), (267, 32888), (283, 32996), (289, 33032),

Gene: BillyTP\_42 Start: 29080, Stop: 27908, Start Num: 99

Candidate Starts for BillyTP\_42:

(Start: 99 @29080 has 284 MA's), (116, 28963), (137, 28861), (138, 28843), (159, 28711), (173, 28633), (175, 28621), (187, 28546), (190, 28537), (202, 28477), (218, 28387), (236, 28282), (241, 28261), (244, 28237), (245, 28234), (254, 28165), (268, 28111), (271, 28087), (273, 28072), (295, 27952), (299, 27925),

Gene: Bipolar\_39 Start: 31381, Stop: 32499, Start Num: 99

Candidate Starts for Bipolar\_39:

(Start: 99 @31381 has 284 MA's), (122, 31519), (125, 31552), (135, 31600), (149, 31717), (156, 31753), (159, 31762), (178, 31867), (189, 31936), (197, 31975), (200, 31996), (204, 32008), (205, 32011), (207, 32023), (208, 32038), (211, 32062), (212, 32068), (220, 32089), (225, 32125), (226, 32128), (230, 32164), (231, 32170), (236, 32185), (251, 32269), (256, 32284), (261, 32302), (268, 32326), (274, 32371), (277, 32380), (282, 32419), (284, 32437), (288, 32458), (292, 32473), (293, 32482), (294, 32485),

Gene: Birdsong\_47 Start: 32758, Stop: 33852, Start Num: 99

Candidate Starts for Birdsong\_47:

(51, 32578), (61, 32617), (Start: 99 @32758 has 284 MA's), (107, 32809), (122, 32887), (124, 32914), (135, 32959), (140, 33001), (149, 33073), (156, 33109), (159, 33118), (172, 33178), (175, 33193), (179, 33211), (197, 33310), (200, 33331), (204, 33343), (205, 33346), (207, 33358), (209, 33382), (225, 33460), (244, 33553), (256, 33625), (271, 33685), (281, 33748), (283, 33760), (294, 33820),

Gene: Bjan7\_34 Start: 27585, Stop: 28778, Start Num: 66

Candidate Starts for Bjan7\_34:

(Start: 65 @27579 has 2 MA's), (Start: 66 @27585 has 6 MA's), (Start: 98 @27696 has 52 MA's), (107, 27750), (128, 27870), (172, 28125), (178, 28155), (188, 28215), (202, 28281), (207, 28305), (221, 28374), (224, 28410), (271, 28635), (276, 28662), (293, 28767),

Gene: BlackSpider\_36 Start: 26664, Stop: 27788, Start Num: 99

Candidate Starts for BlackSpider\_36:

(42, 26439), (49, 26475), (Start: 99 @26664 has 284 MA's), (131, 26850), (159, 27027), (173, 27090), (175, 27102), (188, 27180), (191, 27192), (201, 27243), (215, 27324), (218, 27336), (222, 27363), (230, 27417), (270, 27627), (271, 27630), (273, 27645), (280, 27690), (285, 27720), (291, 27750),

Gene: Blarby\_54 Start: 32907, Stop: 34010, Start Num: 99

Candidate Starts for Blarby\_54:

(Start: 99 @32907 has 284 MA's), (107, 32955), (122, 33036), (124, 33063), (156, 33276), (164, 33300), (173, 33348), (187, 33429), (202, 33498), (204, 33507), (211, 33561), (218, 33582), (229, 33660), (231, 33675), (248, 33735), (251, 33774), (256, 33789), (263, 33813), (268, 33840), (271, 33864), (274, 33885), (277, 33894), (283, 33939), (284, 33951),

Gene: Blizzard\_41 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for Blizzard\_41:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: BobaPhett\_43 Start: 33216, Stop: 34334, Start Num: 99

Candidate Starts for BobaPhett\_43:

(Start: 99 @33216 has 284 MA's), (122, 33354), (125, 33387), (135, 33435), (149, 33552), (156, 33588), (159, 33597), (178, 33702), (189, 33771), (200, 33831), (204, 33843), (205, 33846), (207, 33858), (208, 33873), (211, 33897), (212, 33903), (220, 33924), (225, 33960), (226, 33963), (230, 33999), (231, 34005), (235, 34017), (236, 34020), (251, 34104), (256, 34119), (268, 34161), (274, 34206), (277, 34215), (282, 34254), (284, 34272), (288, 34293), (292, 34308), (293, 34317), (294, 34320),

Gene: Bobi\_46 Start: 33890, Stop: 35017, Start Num: 99

Candidate Starts for Bobi\_46:

(68, 33788), (83, 33845), (Start: 99 @33890 has 284 MA's), (100, 33899), (125, 34061), (134, 34112), (137, 34130), (141, 34175), (156, 34271), (159, 34280), (178, 34385), (189, 34454), (200, 34514), (204, 34526), (205, 34529), (207, 34541), (208, 34556), (211, 34580), (212, 34586), (220, 34607), (225, 34643), (226, 34646), (230, 34682), (231, 34688), (235, 34700), (236, 34703), (251, 34787), (256, 34802), (268, 34844), (274, 34889), (277, 34898), (282, 34937), (284, 34955), (288, 34976), (292, 34991), (293, 35000), (294, 35003),

Gene: Boiiii\_41 Start: 32794, Stop: 33882, Start Num: 99

Candidate Starts for Boiiii\_41:

(Start: 99 @32794 has 284 MA's), (115, 32896), (121, 32920), (127, 32956), (146, 33094), (175, 33232), (187, 33301), (188, 33304), (218, 33454), (235, 33559), (267, 33694),

Gene: BoostSeason\_44 Start: 34144, Stop: 35244, Start Num: 99

Candidate Starts for BoostSeason\_44:

(Start: 99 @34144 has 284 MA's), (101, 34162), (107, 34195), (121, 34270), (127, 34306), (142, 34420), (146, 34444), (156, 34498), (185, 34639), (187, 34663), (188, 34666), (197, 34708), (218, 34816), (235, 34921), (247, 34966), (249, 34981), (283, 35173),

Gene: Bosnia\_39 Start: 32012, Stop: 33094, Start Num: 98

Candidate Starts for Bosnia\_39:

(Start: 66 @31901 has 6 MA's), (Start: 98 @32012 has 52 MA's), (107, 32066), (128, 32186), (143, 32297), (171, 32432), (188, 32531), (202, 32597), (207, 32621), (224, 32726), (271, 32951), (276, 32978), (283, 33026), (293, 33083),

Gene: BoyNamedSue\_39 Start: 31289, Stop: 32371, Start Num: 98

Candidate Starts for BoyNamedSue\_39:

(Start: 66 @31178 has 6 MA's), (Start: 98 @31289 has 52 MA's), (107, 31343), (128, 31463), (178, 31748), (188, 31808), (202, 31874), (207, 31898), (271, 32228), (283, 32303), (293, 32360),

Gene: Bradissa\_36 Start: 31469, Stop: 32551, Start Num: 98

Candidate Starts for Bradissa\_36:

(Start: 98 @31469 has 52 MA's), (Start: 117 @31586 has 1 MA's), (135, 31679), (172, 31901), (180, 31937), (188, 31991), (203, 32060), (205, 32069), (271, 32408), (276, 32435), (293, 32540),

Gene: BrayBeast\_32 Start: 24672, Stop: 23518, Start Num: 99

Candidate Starts for BrayBeast\_32:

(Start: 99 @24672 has 284 MA's), (108, 24618), (142, 24369), (149, 24324), (151, 24303), (152, 24300), (160, 24276), (175, 24177), (178, 24162), (193, 24078), (222, 23919), (230, 23865), (237, 23841), (241, 23823), (245, 23796), (249, 23769), (251, 23742), (255, 23727), (257, 23718), (273, 23634), (274, 23628), (277, 23619), (283, 23574), (286, 23544),

Gene: Bridgette\_38 Start: 26661, Stop: 27803, Start Num: 99

Candidate Starts for Bridgette\_38:

(95, 26646), (Start: 97 @26655 has 1 MA's), (Start: 99 @26661 has 284 MA's), (155, 27015), (156, 27021), (162, 27039), (178, 27147), (187, 27207), (207, 27300), (226, 27420), (233, 27468), (241, 27498), (255, 27594), (277, 27702), (286, 27777),

Gene: Brocalys\_36 Start: 27204, Stop: 28322, Start Num: 99

Candidate Starts for Brocalys\_36:

(Start: 99 @27204 has 284 MA's), (100, 27213), (125, 27375), (149, 27540), (156, 27576), (159, 27585), (173, 27666), (178, 27690), (189, 27759), (197, 27798), (199, 27816), (200, 27819), (204, 27831), (205, 27834), (207, 27846), (208, 27861), (211, 27885), (212, 27891), (220, 27912), (225, 27948), (226, 27951), (230, 27987), (231, 27993), (236, 28008), (240, 28023), (251, 28092), (256, 28107), (268, 28149), (274, 28194), (277, 28203), (282, 28242), (284, 28260), (288, 28281), (292, 28296), (293, 28305), (294, 28308),

Gene: Budski\_49 Start: 33439, Stop: 34533, Start Num: 99

Candidate Starts for Budski\_49:

(80, 33394), (Start: 99 @33439 has 284 MA's), (107, 33490), (124, 33595), (135, 33640), (140, 33682), (156, 33790), (159, 33799), (171, 33850), (175, 33874), (179, 33892), (197, 33991), (204, 34024), (205, 34027), (207, 34039), (209, 34063), (238, 34204), (244, 34234), (256, 34306), (259, 34315), (271, 34366), (272, 34369), (277, 34396), (278, 34408), (294, 34501),

Gene: Bunnybear\_33 Start: 29696, Stop: 30778, Start Num: 98

Candidate Starts for Bunnybear\_33:

(Start: 66 @29585 has 6 MA's), (Start: 98 @29696 has 52 MA's), (107, 29750), (128, 29870), (178, 30155), (188, 30215), (202, 30281), (207, 30305), (224, 30410), (271, 30635), (276, 30662), (293, 30767),

Gene: Byougenkin\_40 Start: 32001, Stop: 33119, Start Num: 99

Candidate Starts for Byougenkin\_40:

(Start: 99 @32001 has 284 MA's), (122, 32139), (125, 32172), (135, 32220), (156, 32373), (159, 32382), (173, 32463), (189, 32556), (200, 32616), (204, 32628), (205, 32631), (211, 32682), (220,



32709), (225, 32745), (226, 32748), (230, 32784), (251, 32889), (256, 32904), (268, 32946), (274, 32991), (277, 33000), (282, 33039), (284, 33057), (288, 33078), (292, 33093), (293, 33102), (294, 33105),

Gene: CREW\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for CREW\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: Capricorn\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Capricorn\_41:

(12, 31974), (13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: CaptainTrips\_41 Start: 32330, Stop: 33448, Start Num: 99

Candidate Starts for CaptainTrips\_41:

(Start: 99 @32330 has 284 MA's), (100, 32339), (125, 32501), (135, 32549), (149, 32666), (156, 32702), (159, 32711), (178, 32816), (189, 32885), (197, 32924), (199, 32942), (200, 32945), (204, 32957), (205, 32960), (207, 32972), (211, 33011), (212, 33017), (220, 33038), (225, 33074), (226, 33077), (230, 33113), (231, 33119), (235, 33131), (236, 33134), (240, 33149), (251, 33218), (256, 33233), (261, 33251), (268, 33275), (274, 33320), (277, 33329), (282, 33368), (284, 33386), (288, 33407), (292, 33422), (293, 33431), (294, 33434),

Gene: CaseJules\_42 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for CaseJules\_42:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: Cashline\_38 Start: 32110, Stop: 33216, Start Num: 99

Candidate Starts for Cashline\_38:

(79, 32053), (Start: 99 @32110 has 284 MA's), (107, 32161), (124, 32266), (133, 32305), (175, 32545), (187, 32614), (188, 32617), (190, 32623), (195, 32647), (205, 32698), (207, 32710), (248, 32938), (258, 32998), (271, 33073), (277, 33103), (293, 33205),

Gene: Cerasum\_38 Start: 27921, Stop: 29039, Start Num: 99

Candidate Starts for Cerasum\_38:

(Start: 99 @27921 has 284 MA's), (125, 28092), (149, 28257), (156, 28293), (159, 28302), (173, 28383), (178, 28407), (189, 28476), (197, 28515), (199, 28533), (200, 28536), (204, 28548), (205, 28551), (207, 28563), (208, 28578), (211, 28602), (212, 28608), (220, 28629), (225, 28665), (226, 28668), (230, 28704), (231, 28710), (235, 28722), (236, 28725), (240, 28740), (251, 28809), (256, 28824), (268, 28866), (274, 28911), (277, 28920), (282, 28959), (284, 28977), (288, 28998), (292, 29013), (293, 29022), (294, 29025),

Gene: CheeseTouch\_54 Start: 30887, Stop: 31984, Start Num: 99

Candidate Starts for CheeseTouch\_54:

(46, 30722), (48, 30731), (87, 30857), (Start: 99 @30887 has 284 MA's), (107, 30938), (122, 31016), (124, 31043), (140, 31130), (148, 31196), (149, 31202), (172, 31307), (173, 31310), (175, 31322), (197, 31439), (200, 31460), (203, 31466), (207, 31487), (220, 31559), (231, 31643), (256, 31766), (269, 31817), (271, 31826), (276, 31853), (294, 31961), (297, 31976),

Gene: CheetoDust\_40 Start: 31967, Stop: 33055, Start Num: 99

Candidate Starts for CheetoDust\_40:

(41, 31745), (Start: 99 @31967 has 284 MA's), (107, 32018), (115, 32069), (121, 32093), (127, 32129), (146, 32267), (156, 32321), (175, 32405), (187, 32474), (188, 32477), (218, 32627), (235, 32732), (251, 32819), (267, 32867),

Gene: Chris\_43 Start: 33288, Stop: 34373, Start Num: 99

Candidate Starts for Chris\_43:

(Start: 99 @33288 has 284 MA's), (127, 33450), (136, 33495), (146, 33588), (152, 33630), (175, 33726), (178, 33741), (187, 33795), (188, 33798), (190, 33804), (197, 33840), (218, 33948), (235, 34053), (251, 34140), (262, 34176), (267, 34188), (283, 34296), (292, 34344),

Gene: ChuckDuck\_39 Start: 26485, Stop: 27627, Start Num: 99

Candidate Starts for ChuckDuck\_39:

(21, 26068), (23, 26098), (28, 26158), (30, 26188), (44, 26278), (53, 26314), (71, 26386), (73, 26395), (Start: 99 @26485 has 284 MA's), (155, 26839), (156, 26845), (162, 26863), (178, 26971), (187, 27031), (207, 27124), (226, 27244), (233, 27292), (241, 27322), (255, 27418), (277, 27526), (286, 27601),

Gene: Chymera\_32 Start: 24210, Stop: 22924, Start Num: 99

Candidate Starts for Chymera\_32:

(Start: 99 @24210 has 284 MA's), (100, 24201), (107, 24156), (144, 23862), (163, 23760), (166, 23730), (167, 23727), (192, 23547), (200, 23502), (202, 23499), (226, 23358), (227, 23352), (235, 23304), (277, 23067), (285, 23007), (290, 22983),

Gene: Clap\_37 Start: 27875, Stop: 28957, Start Num: 98

Candidate Starts for Clap\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (221, 28553), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: Clark\_39 Start: 28996, Stop: 30123, Start Num: 99

Candidate Starts for Clark\_39:

(85, 28957), (Start: 99 @28996 has 284 MA's), (107, 29050), (124, 29173), (132, 29206), (143, 29296), (148, 29329), (187, 29524), (188, 29527), (197, 29569), (205, 29605), (257, 29902), (271, 29980), (276, 30007), (278, 30022), (282, 30049), (293, 30112),

Gene: Clifton\_35 Start: 27555, Stop: 28673, Start Num: 99

Candidate Starts for Clifton\_35:

(Start: 99 @27555 has 284 MA's), (100, 27564), (125, 27726), (149, 27891), (156, 27927), (159, 27936), (173, 28017), (178, 28041), (189, 28110), (197, 28149), (199, 28167), (200, 28170), (204, 28182), (205, 28185), (207, 28197), (208, 28212), (211, 28236), (212, 28242), (220, 28263), (225, 28299), (226, 28302), (230, 28338), (231, 28344), (236, 28359), (240, 28374), (251, 28443), (256, 28458), (268, 28500), (274, 28545), (277, 28554), (282, 28593), (284, 28611), (288, 28632), (292, 28647), (293, 28656), (294, 28659),

Gene: Coco12\_40 Start: 31978, Stop: 33096, Start Num: 99

Candidate Starts for Coco12\_40:

(Start: 99 @31978 has 284 MA's), (125, 32149), (149, 32314), (156, 32350), (159, 32359), (173, 32440), (178, 32464), (189, 32533), (197, 32572), (199, 32590), (200, 32593), (204, 32605), (205, 32608), (207, 32620), (208, 32635), (211, 32659), (212, 32665), (220, 32686), (225, 32722), (226, 32725), (230, 32761), (231, 32767), (235, 32779), (236, 32782), (240, 32797), (251, 32866), (256, 32881), (268, 32923), (274, 32968), (277, 32977), (282, 33016), (284, 33034), (288, 33055), (292, 33070), (293, 33079), (294, 33082),

Gene: Confidence\_37 Start: 29321, Stop: 30403, Start Num: 98

Candidate Starts for Confidence\_37:

(Start: 98 @29321 has 52 MA's), (Start: 117 @29438 has 1 MA's), (135, 29531), (172, 29753), (180, 29789), (188, 29843), (203, 29912), (271, 30260), (276, 30287), (281, 30323), (293, 30392),

Gene: Constance\_38 Start: 26814, Stop: 27956, Start Num: 99

Candidate Starts for Constance\_38:

(58, 26667), (62, 26679), (64, 26688), (72, 26721), (84, 26769), (90, 26784), (Start: 99 @26814 has 284 MA's), (156, 27174), (162, 27192), (178, 27300), (187, 27360), (207, 27453), (226, 27573), (233, 27621), (241, 27651), (255, 27747), (277, 27855), (286, 27930),

Gene: CookieBear\_41 Start: 27769, Stop: 26630, Start Num: 99

Candidate Starts for CookieBear\_41:

(Start: 99 @27769 has 284 MA's), (107, 27718), (137, 27550), (138, 27532), (159, 27400), (170, 27337), (173, 27322), (175, 27310), (176, 27304), (187, 27235), (190, 27226), (202, 27166), (218, 27076), (236, 26971), (241, 26950), (245, 26923), (268, 26800), (271, 26776), (273, 26761), (285, 26686), (291, 26656),

Gene: Cornucopia\_45 Start: 32843, Stop: 33970, Start Num: 99

Candidate Starts for Cornucopia\_45:

(68, 32741), (83, 32798), (Start: 99 @32843 has 284 MA's), (100, 32852), (125, 33014), (134, 33065), (137, 33083), (141, 33128), (156, 33224), (159, 33233), (173, 33314), (178, 33338), (189, 33407), (197, 33446), (200, 33467), (204, 33479), (205, 33482), (207, 33494), (208, 33509), (211, 33533), (220, 33560), (225, 33596), (226, 33599), (230, 33635), (240, 33671), (251, 33740), (256, 33755), (261, 33773), (268, 33797), (274, 33842), (277, 33851), (278, 33863), (282, 33890), (284, 33908), (288, 33929), (292, 33944), (293, 33953), (294, 33956),

Gene: Crater\_49 Start: 32565, Stop: 33662, Start Num: 99

Candidate Starts for Crater\_49:

(51, 32385), (61, 32424), (Start: 99 @32565 has 284 MA's), (107, 32616), (122, 32694), (124, 32721), (135, 32766), (139, 32799), (140, 32808), (172, 32985), (173, 32988), (190, 33081), (197, 33117), (204, 33150), (205, 33153), (207, 33165), (238, 33330), (244, 33360), (256, 33432), (268, 33468), (271, 33492), (276, 33519), (283, 33567), (284, 33579), (294, 33627),

Gene: CrimD\_41 Start: 32723, Stop: 33811, Start Num: 99

Candidate Starts for CrimD\_41:

(Start: 99 @32723 has 284 MA's), (115, 32825), (121, 32849), (127, 32885), (146, 33023), (156, 33077), (175, 33161), (187, 33230), (188, 33233), (218, 33383), (229, 33461), (235, 33488), (267, 33623), (289, 33767),

Gene: Cynthia\_37 Start: 27764, Stop: 28957, Start Num: 66

Candidate Starts for Cynthia\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: DLane\_41 Start: 32255, Stop: 33373, Start Num: 99

Candidate Starts for DLane\_41:

(Start: 99 @32255 has 284 MA's), (125, 32426), (149, 32591), (156, 32627), (159, 32636), (189, 32810), (197, 32849), (200, 32870), (204, 32882), (205, 32885), (207, 32897), (211, 32936), (212, 32942), (220, 32963), (225, 32999), (226, 33002), (230, 33038), (231, 33044), (236, 33059), (251, 33143), (256, 33158), (268, 33200), (274, 33245), (277, 33254), (282, 33293), (284, 33311), (288,

33332), (292, 33347), (293, 33356), (294, 33359),

Gene: DRBy19\_43 Start: 32003, Stop: 33121, Start Num: 99

Candidate Starts for DRBy19\_43:

(Start: 99 @32003 has 284 MA's), (122, 32141), (125, 32174), (135, 32222), (149, 32339), (156, 32375), (159, 32384), (178, 32489), (189, 32558), (200, 32618), (204, 32630), (205, 32633), (207, 32645), (208, 32660), (211, 32684), (212, 32690), (220, 32711), (225, 32747), (226, 32750), (230, 32786), (231, 32792), (235, 32804), (236, 32807), (251, 32891), (256, 32906), (268, 32948), (274, 32993), (277, 33002), (282, 33041), (284, 33059), (288, 33080), (292, 33095), (293, 33104), (294, 33107),

Gene: Dalmuri\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Dalmuri\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: Dartin\_43 Start: 33014, Stop: 34105, Start Num: 99

Candidate Starts for Dartin\_43:

(11, 32333), (17, 32477), (24, 32681), (39, 32780), (40, 32789), (45, 32816), (56, 32864), (Start: 99 @33014 has 284 MA's), (107, 33065), (121, 33140), (127, 33176), (142, 33290), (146, 33314), (156, 33368), (175, 33452), (182, 33485), (187, 33521), (188, 33524), (197, 33566), (211, 33653), (218, 33674), (235, 33782), (249, 33842), (262, 33905), (267, 33917), (283, 34025), (289, 34061),

Gene: DeadP\_46 Start: 32604, Stop: 33707, Start Num: 99

Candidate Starts for DeadP\_46:

(Start: 99 @32604 has 284 MA's), (107, 32652), (122, 32733), (124, 32760), (156, 32973), (164, 32997), (173, 33045), (187, 33126), (202, 33195), (204, 33204), (208, 33234), (211, 33258), (218, 33279), (229, 33357), (231, 33372), (248, 33432), (251, 33471), (256, 33486), (263, 33510), (268, 33537), (271, 33561), (274, 33582), (277, 33591), (283, 33636), (284, 33648),

Gene: Deby\_41 Start: 32726, Stop: 33811, Start Num: 99

Candidate Starts for Deby\_41:

(Start: 99 @32726 has 284 MA's), (115, 32828), (116, 32837), (121, 32852), (127, 32888), (146, 33026), (156, 33080), (175, 33164), (187, 33233), (188, 33236), (218, 33386), (235, 33491), (251, 33578), (267, 33626), (289, 33770),

Gene: Denise\_35 Start: 27272, Stop: 28351, Start Num: 99

Candidate Starts for Denise\_35:

(Start: 99 @27272 has 284 MA's), (124, 27428), (151, 27608), (197, 27821), (206, 27860), (207, 27869), (231, 28025), (256, 28148), (271, 28208), (293, 28340),

Gene: Devera\_45 Start: 33261, Stop: 34349, Start Num: 99

Candidate Starts for Devera\_45:

(Start: 99 @33261 has 284 MA's), (115, 33363), (121, 33387), (127, 33423), (137, 33474), (142, 33537), (146, 33561), (156, 33615), (158, 33618), (175, 33699), (187, 33768), (188, 33771), (218, 33921), (229, 33999), (235, 34026), (267, 34161),

Gene: DismalFunk\_43 Start: 34317, Stop: 35417, Start Num: 99

Candidate Starts for DismalFunk\_43:

(Start: 99 @34317 has 284 MA's), (101, 34335), (121, 34443), (127, 34479), (142, 34593), (146, 34617), (156, 34671), (185, 34812), (187, 34836), (188, 34839), (197, 34881), (218, 34989), (235, 35094), (247, 35139), (249, 35154), (283, 35346),

Gene: DismalStressor\_43 Start: 34317, Stop: 35417, Start Num: 99

Candidate Starts for DismalStressor\_43:

(Start: 99 @34317 has 284 MA's), (101, 34335), (121, 34443), (127, 34479), (142, 34593), (146, 34617), (156, 34671), (185, 34812), (187, 34836), (188, 34839), (197, 34881), (218, 34989), (235, 35094), (247, 35139), (249, 35154), (283, 35346),

Gene: DobbysSock\_31 Start: 27501, Stop: 28628, Start Num: 99

Candidate Starts for DobbysSock\_31:

(43, 27282), (50, 27318), (Start: 99 @27501 has 284 MA's), (107, 27555), (132, 27711), (143, 27801), (148, 27834), (187, 28029), (188, 28032), (197, 28074), (205, 28110), (257, 28407), (271, 28485), (278, 28527), (282, 28554), (293, 28617),

Gene: Dole\_44 Start: 33263, Stop: 34351, Start Num: 99

Candidate Starts for Dole\_44:

(Start: 99 @33263 has 284 MA's), (115, 33365), (121, 33389), (127, 33425), (137, 33476), (142, 33539), (146, 33563), (156, 33617), (158, 33620), (175, 33701), (187, 33770), (188, 33773), (218, 33923), (229, 34001), (235, 34028), (267, 34163),

Gene: Dolores\_40 Start: 29868, Stop: 30995, Start Num: 99

Candidate Starts for Dolores\_40:

(85, 29829), (Start: 99 @29868 has 284 MA's), (107, 29922), (124, 30045), (132, 30078), (143, 30168), (148, 30201), (187, 30396), (188, 30399), (197, 30441), (205, 30477), (257, 30774), (271, 30852), (276, 30879), (278, 30894), (282, 30921), (293, 30984),

Gene: Donkeykong\_41 Start: 32106, Stop: 33224, Start Num: 99

Candidate Starts for Donkeykong\_41:

(Start: 99 @32106 has 284 MA's), (100, 32115), (122, 32244), (125, 32277), (135, 32325), (149, 32442), (156, 32478), (159, 32487), (173, 32568), (178, 32592), (189, 32661), (197, 32700), (200, 32721), (204, 32733), (205, 32736), (207, 32748), (211, 32787), (212, 32793), (220, 32814), (225, 32850), (226, 32853), (230, 32889), (231, 32895), (235, 32907), (236, 32910), (251, 32994), (256, 33009), (261, 33027), (274, 33096), (277, 33105), (282, 33144), (284, 33162), (288, 33183), (292, 33198), (293, 33207), (294, 33210),

Gene: Dorito\_34 Start: 27145, Stop: 28272, Start Num: 99

Candidate Starts for Dorito\_34:

(43, 26926), (50, 26962), (Start: 99 @27145 has 284 MA's), (107, 27199), (124, 27322), (132, 27355), (143, 27445), (148, 27478), (187, 27673), (188, 27676), (197, 27718), (205, 27754), (257, 28051), (271, 28129), (278, 28171), (282, 28198), (293, 28261),

Gene: DosHalletts\_40 Start: 31274, Stop: 32392, Start Num: 99

Candidate Starts for DosHalletts\_40:

(Start: 99 @31274 has 284 MA's), (125, 31445), (135, 31493), (156, 31646), (159, 31655), (173, 31736), (178, 31760), (189, 31829), (200, 31889), (204, 31901), (205, 31904), (207, 31916), (208, 31931), (211, 31955), (212, 31961), (220, 31982), (225, 32018), (226, 32021), (230, 32057), (231, 32063), (235, 32075), (236, 32078), (240, 32093), (251, 32162), (256, 32177), (268, 32219), (274, 32264), (277, 32273), (282, 32312), (284, 32330), (288, 32351), (292, 32366), (293, 32375), (294, 32378),

Gene: DrHayes\_42 Start: 33376, Stop: 34464, Start Num: 99

Candidate Starts for DrHayes\_42:

(41, 33154), (Start: 99 @33376 has 284 MA's), (107, 33427), (115, 33478), (121, 33502), (127, 33538), (142, 33652), (156, 33730), (175, 33814), (187, 33883), (188, 33886), (218, 34036), (235,

34141), (267, 34276), (289, 34420),

Gene: Durfee\_41 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for Durfee\_41:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: EMSquaredA\_37 Start: 30030, Stop: 31136, Start Num: 99

Candidate Starts for EMSquaredA\_37:

(79, 29973), (Start: 99 @30030 has 284 MA's), (107, 30081), (124, 30186), (126, 30195), (133, 30225), (174, 30459), (175, 30465), (187, 30534), (188, 30537), (195, 30567), (205, 30618), (207, 30630), (248, 30858), (258, 30918), (271, 30993), (277, 31023), (293, 31125),

Gene: Ebert\_39 Start: 27799, Stop: 28881, Start Num: 98

Candidate Starts for Ebert\_39:

(Start: 65 @27682 has 2 MA's), (Start: 66 @27688 has 6 MA's), (Start: 98 @27799 has 52 MA's), (107, 27853), (128, 27973), (172, 28228), (178, 28258), (188, 28318), (202, 28384), (207, 28408), (221, 28477), (224, 28513), (271, 28738), (276, 28765), (293, 28870),

Gene: Ecliptus\_49 Start: 33668, Stop: 34762, Start Num: 99

Candidate Starts for Ecliptus\_49:

(80, 33623), (Start: 99 @33668 has 284 MA's), (107, 33719), (122, 33797), (124, 33824), (149, 33983), (156, 34019), (171, 34079), (172, 34088), (173, 34091), (175, 34103), (178, 34118), (179, 34121), (190, 34184), (197, 34220), (204, 34253), (205, 34256), (207, 34268), (211, 34307), (244, 34463), (256, 34535), (271, 34595), (281, 34658), (283, 34670), (294, 34730),

Gene: EdnaMode\_33 Start: 26384, Stop: 27466, Start Num: 98

Candidate Starts for EdnaMode\_33:

(Start: 66 @26273 has 6 MA's), (Start: 98 @26384 has 52 MA's), (107, 26438), (128, 26558), (172, 26813), (178, 26843), (188, 26903), (202, 26969), (207, 26993), (271, 27323), (276, 27350), (293, 27455),

Gene: Efra2\_44 Start: 32569, Stop: 33669, Start Num: 99

Candidate Starts for Efra2\_44:

(Start: 99 @32569 has 284 MA's), (107, 32620), (121, 32695), (127, 32731), (129, 32734), (142, 32845), (185, 33064), (187, 33088), (188, 33091), (211, 33220), (218, 33241), (235, 33346), (251, 33433), (267, 33481), (273, 33529),

Gene: Eileen\_34 Start: 24892, Stop: 26034, Start Num: 99

Candidate Starts for Eileen\_34:

(Start: 99 @24892 has 284 MA's), (155, 25246), (156, 25252), (161, 25267), (169, 25321), (178, 25378), (187, 25438), (188, 25441), (194, 25468), (207, 25531), (226, 25651), (233, 25699), (255, 25825), (258, 25837), (277, 25933), (286, 26008),

Gene: EleanorGeorge\_40 Start: 31639, Stop: 32757, Start Num: 99

Candidate Starts for EleanorGeorge\_40:

(Start: 99 @31639 has 284 MA's), (100, 31648), (125, 31810), (149, 31975), (156, 32011), (159, 32020), (178, 32125), (189, 32194), (197, 32233), (199, 32251), (200, 32254), (204, 32266), (205, 32269), (207, 32281), (208, 32296), (211, 32320), (212, 32326), (220, 32347), (225, 32383), (226, 32386), (230, 32422), (231, 32428), (236, 32443), (240, 32458), (251, 32527), (256, 32542), (268, 32584), (274, 32629), (277, 32638), (282, 32677), (284, 32695), (288, 32716), (292, 32731), (293, 32740), (294, 32743),

Gene: Emerson\_42 Start: 32470, Stop: 33558, Start Num: 99

Candidate Starts for Emerson\_42:

(Start: 99 @32470 has 284 MA's), (107, 32521), (115, 32572), (121, 32596), (127, 32632), (146, 32770), (156, 32824), (175, 32908), (187, 32977), (188, 32980), (218, 33130), (229, 33208), (235, 33235), (251, 33322), (267, 33370),

Gene: Emma\_44 Start: 32666, Stop: 33784, Start Num: 99

Candidate Starts for Emma\_44:

(Start: 99 @32666 has 284 MA's), (100, 32675), (125, 32837), (135, 32885), (149, 33002), (156, 33038), (159, 33047), (178, 33152), (189, 33221), (197, 33260), (199, 33278), (200, 33281), (204, 33293), (205, 33296), (207, 33308), (208, 33323), (211, 33347), (212, 33353), (220, 33374), (225, 33410), (226, 33413), (230, 33449), (231, 33455), (235, 33467), (236, 33470), (240, 33485), (251, 33554), (256, 33569), (261, 33587), (268, 33611), (274, 33656), (277, 33665), (282, 33704), (284, 33722), (288, 33743), (292, 33758), (293, 33767), (294, 33770),

Gene: EnalisNailo\_35 Start: 31003, Stop: 32085, Start Num: 98

Candidate Starts for EnalisNailo\_35:

(Start: 98 @31003 has 52 MA's), (Start: 117 @31120 has 1 MA's), (135, 31213), (172, 31435), (180, 31471), (188, 31525), (203, 31594), (205, 31603), (271, 31942), (276, 31969), (293, 32074),

Gene: Enby\_42 Start: 31168, Stop: 32286, Start Num: 99

Candidate Starts for Enby\_42:

(Start: 99 @31168 has 284 MA's), (100, 31177), (125, 31339), (149, 31504), (156, 31540), (159, 31549), (173, 31630), (178, 31654), (189, 31723), (197, 31762), (199, 31780), (200, 31783), (204, 31795), (205, 31798), (207, 31810), (211, 31849), (212, 31855), (220, 31876), (225, 31912), (226, 31915), (230, 31951), (231, 31957), (236, 31972), (251, 32056), (256, 32071), (261, 32089), (274, 32158), (277, 32167), (282, 32206), (284, 32224), (288, 32245), (292, 32260), (293, 32269), (294, 32272),

Gene: Enkosi\_39 Start: 34589, Stop: 35683, Start Num: 99

Candidate Starts for Enkosi\_39:

(25, 34238), (Start: 26 @34253 has 1 MA's), (36, 34346), (41, 34367), (63, 34460), (Start: 99 @34589 has 284 MA's), (107, 34640), (121, 34715), (127, 34751), (141, 34847), (142, 34865), (146, 34889), (155, 34937), (156, 34943), (184, 35075), (187, 35108), (197, 35153), (218, 35261), (235, 35366), (249, 35426), (267, 35501), (283, 35609), (289, 35645),

Gene: Estave1\_43 Start: 31907, Stop: 33010, Start Num: 99

Candidate Starts for Estave1\_43:

(Start: 99 @31907 has 284 MA's), (107, 31955), (122, 32036), (124, 32063), (156, 32276), (164, 32300), (173, 32348), (187, 32429), (202, 32498), (204, 32507), (208, 32537), (211, 32561), (218, 32582), (229, 32660), (231, 32675), (248, 32735), (251, 32774), (256, 32789), (263, 32813), (268, 32840), (271, 32864), (274, 32885), (277, 32894), (283, 32939), (284, 32951),

Gene: Eudoria\_39 Start: 30563, Stop: 31645, Start Num: 98

Candidate Starts for Eudoria\_39:

(Start: 66 @30452 has 6 MA's), (Start: 98 @30563 has 52 MA's), (107, 30617), (128, 30737), (172, 30992), (178, 31022), (188, 31082), (202, 31148), (207, 31172), (271, 31502), (276, 31529), (293, 31634),

Gene: EvePickles\_38 Start: 28599, Stop: 27466, Start Num: 99

Candidate Starts for EvePickles\_38:

(47, 28782), (54, 28752), (Start: 99 @28599 has 284 MA's), (107, 28548), (125, 28434), (135, 28392), (137, 28380), (138, 28362), (153, 28248), (159, 28230), (170, 28167), (173, 28152), (175, 28140),

(187, 28065), (190, 28056), (202, 27996), (214, 27921), (218, 27906), (244, 27756), (245, 27753), (268, 27636), (271, 27612), (273, 27597), (282, 27543), (285, 27522), (291, 27492),

Gene: Eviarto\_39 Start: 31988, Stop: 33070, Start Num: 98

Candidate Starts for Eviarto\_39:

(Start: 66 @31877 has 6 MA's), (Start: 98 @31988 has 52 MA's), (107, 32042), (128, 32162), (171, 32408), (172, 32417), (178, 32447), (188, 32507), (202, 32573), (207, 32597), (271, 32927), (276, 32954), (293, 33059),

Gene: Faith5x5\_30 Start: 24997, Stop: 26145, Start Num: 76

Candidate Starts for Faith5x5\_30:

(Start: 76 @24997 has 1 MA's), (86, 25027), (Start: 97 @25060 has 1 MA's), (112, 25147), (124, 25219), (197, 25615), (205, 25651), (206, 25654), (207, 25663), (225, 25777), (256, 25942), (271, 26002), (283, 26077), (293, 26134),

Gene: Faja\_39 Start: 29043, Stop: 27904, Start Num: 99

Candidate Starts for Faja\_39:

(Start: 99 @29043 has 284 MA's), (107, 28992), (137, 28824), (138, 28806), (159, 28674), (173, 28596), (175, 28584), (176, 28578), (187, 28509), (190, 28500), (202, 28440), (218, 28350), (236, 28245), (241, 28224), (245, 28197), (268, 28074), (271, 28050), (273, 28035), (291, 27930),

Gene: Farewell\_44 Start: 33396, Stop: 34574, Start Num: 99

Candidate Starts for Farewell\_44:

(Start: 99 @33396 has 284 MA's), (107, 33444), (118, 33510), (127, 33555), (148, 33705), (156, 33747), (175, 33861), (181, 33888), (187, 33936), (188, 33939), (205, 34020), (207, 34032), (223, 34137), (230, 34179), (234, 34194), (239, 34209), (245, 34233), (267, 34344), (276, 34404), (288, 34485), (291, 34497), (298, 34536),

Gene: Filuzino\_41 Start: 31324, Stop: 32442, Start Num: 99

Candidate Starts for Filuzino\_41:

(Start: 99 @31324 has 284 MA's), (125, 31495), (149, 31660), (156, 31696), (159, 31705), (178, 31810), (189, 31879), (197, 31918), (200, 31939), (204, 31951), (205, 31954), (207, 31966), (208, 31981), (211, 32005), (212, 32011), (220, 32032), (225, 32068), (226, 32071), (230, 32107), (231, 32113), (236, 32128), (240, 32143), (251, 32212), (256, 32227), (261, 32245), (268, 32269), (274, 32314), (277, 32323), (282, 32362), (284, 32380), (288, 32401), (292, 32416), (293, 32425), (294, 32428),

Gene: Findley\_43 Start: 34310, Stop: 35410, Start Num: 99

Candidate Starts for Findley\_43:

(Start: 99 @34310 has 284 MA's), (101, 34328), (107, 34361), (121, 34436), (127, 34472), (142, 34586), (146, 34610), (156, 34664), (185, 34805), (187, 34829), (188, 34832), (197, 34874), (218, 34982), (235, 35087), (247, 35132), (249, 35147), (283, 35339),

Gene: Flathead\_44 Start: 33580, Stop: 34698, Start Num: 99

Candidate Starts for Flathead\_44:

(Start: 99 @33580 has 284 MA's), (100, 33589), (125, 33751), (149, 33916), (156, 33952), (159, 33961), (178, 34066), (189, 34135), (197, 34174), (199, 34192), (200, 34195), (204, 34207), (205, 34210), (207, 34222), (208, 34237), (211, 34261), (212, 34267), (220, 34288), (225, 34324), (226, 34327), (230, 34363), (231, 34369), (235, 34381), (236, 34384), (251, 34468), (256, 34483), (261, 34501), (268, 34525), (274, 34570), (277, 34579), (282, 34618), (284, 34636), (288, 34657), (292, 34672), (293, 34681), (294, 34684),

Gene: Floral\_36 Start: 32103, Stop: 33209, Start Num: 99



Candidate Starts for Floral\_36:

(79, 32046), (Start: 99 @32103 has 284 MA's), (107, 32154), (124, 32259), (133, 32298), (175, 32538), (187, 32607), (188, 32610), (195, 32640), (205, 32691), (207, 32703), (248, 32931), (258, 32991), (271, 33066), (277, 33096), (293, 33198),

Gene: Footloose\_31 Start: 22512, Stop: 21292, Start Num: 99

Candidate Starts for Footloose\_31:

(Start: 99 @22512 has 284 MA's), (104, 22473), (109, 22455), (110, 22437), (121, 22386), (125, 22350), (140, 22254), (150, 22170), (154, 22143), (161, 22119), (167, 22077), (168, 22062), (175, 22017), (183, 21978), (188, 21945), (202, 21879), (203, 21876), (207, 21855), (218, 21789), (236, 21687), (239, 21678), (245, 21648), (249, 21621), (251, 21594), (257, 21567), (260, 21555), (264, 21537), (268, 21501), (271, 21477), (282, 21408), (284, 21390), (289, 21366), (294, 21342),

Gene: Frickyeah\_52 Start: 32012, Stop: 33106, Start Num: 99

Candidate Starts for Frickyeah\_52:

(69, 31925), (78, 31961), (Start: 99 @32012 has 284 MA's), (107, 32063), (120, 32135), (122, 32141), (124, 32168), (140, 32255), (149, 32327), (156, 32363), (159, 32372), (175, 32447), (179, 32465), (197, 32564), (204, 32597), (205, 32600), (207, 32612), (225, 32714), (239, 32780), (244, 32807), (256, 32879), (271, 32939), (276, 32966), (294, 33074),

Gene: Fruitloop\_40 Start: 32560, Stop: 33678, Start Num: 99

Candidate Starts for Fruitloop\_40:

(Start: 99 @32560 has 284 MA's), (125, 32731), (149, 32896), (156, 32932), (159, 32941), (173, 33022), (178, 33046), (189, 33115), (197, 33154), (200, 33175), (204, 33187), (205, 33190), (207, 33202), (208, 33217), (211, 33241), (212, 33247), (220, 33268), (225, 33304), (226, 33307), (230, 33343), (231, 33349), (236, 33364), (240, 33379), (251, 33448), (256, 33463), (268, 33505), (274, 33550), (277, 33559), (282, 33598), (284, 33616), (288, 33637), (292, 33652), (293, 33661), (294, 33664),

Gene: GMA1\_30 Start: 24152, Stop: 23064, Start Num: 99

Candidate Starts for GMA1\_30:

(Start: 99 @24152 has 284 MA's), (146, 23858), (157, 23798), (173, 23723), (175, 23711), (186, 23663), (187, 23642), (189, 23636), (203, 23567), (205, 23558), (207, 23546), (213, 23498), (229, 23414), (241, 23363), (246, 23336), (249, 23315), (258, 23267), (266, 23249), (271, 23207), (273, 23192), (275, 23183), (276, 23180), (277, 23177), (284, 23120), (293, 23075),

Gene: Galactic\_43 Start: 32779, Stop: 33897, Start Num: 99

Candidate Starts for Galactic\_43:

(Start: 99 @32779 has 284 MA's), (100, 32788), (125, 32950), (149, 33115), (156, 33151), (159, 33160), (178, 33265), (189, 33334), (197, 33373), (199, 33391), (200, 33394), (204, 33406), (205, 33409), (207, 33421), (208, 33436), (211, 33460), (212, 33466), (220, 33487), (225, 33523), (226, 33526), (230, 33562), (231, 33568), (236, 33583), (240, 33598), (251, 33667), (256, 33682), (268, 33724), (274, 33769), (277, 33778), (282, 33817), (284, 33835), (288, 33856), (292, 33871), (293, 33880), (294, 33883),

Gene: Ganymede\_42 Start: 32781, Stop: 33869, Start Num: 99

Candidate Starts for Ganymede\_42:

(Start: 99 @32781 has 284 MA's), (115, 32883), (121, 32907), (127, 32943), (146, 33081), (156, 33135), (175, 33219), (187, 33288), (188, 33291), (218, 33441), (235, 33546), (251, 33633), (260, 33663), (267, 33681), (289, 33825),

Gene: GemG\_37 Start: 27875, Stop: 28957, Start Num: 98

Candidate Starts for GemG\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (221, 28553), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: Geraldini\_43 Start: 33527, Stop: 34615, Start Num: 99

Candidate Starts for Geraldini\_43:

(Start: 99 @33527 has 284 MA's), (115, 33629), (121, 33653), (127, 33689), (146, 33827), (156, 33881), (175, 33965), (187, 34034), (188, 34037), (218, 34187), (235, 34292), (251, 34379), (267, 34427), (289, 34571),

Gene: Getalong\_53 Start: 34783, Stop: 35853, Start Num: 99

Candidate Starts for Getalong\_53:

(Start: 99 @34783 has 284 MA's), (107, 34834), (122, 34912), (124, 34939), (156, 35134), (159, 35143), (171, 35194), (172, 35203), (173, 35206), (175, 35218), (184, 35263), (190, 35299), (197, 35335), (204, 35368), (205, 35371), (207, 35383), (239, 35551), (256, 35650), (271, 35710), (276, 35737), (277, 35740), (279, 35767), (281, 35773), (283, 35785), (293, 35842),

Gene: Gizermo\_37 Start: 27758, Stop: 28957, Start Num: 65

Candidate Starts for Gizermo\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (221, 28553), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: Globfish\_39 Start: 27492, Stop: 26353, Start Num: 99

Candidate Starts for Globfish\_39:

(Start: 99 @27492 has 284 MA's), (107, 27441), (125, 27327), (137, 27273), (138, 27255), (153, 27141), (159, 27123), (173, 27045), (175, 27033), (187, 26958), (190, 26949), (202, 26889), (218, 26799), (235, 26697), (238, 26688), (241, 26673), (244, 26649), (245, 26646), (268, 26529), (271, 26505), (273, 26490), (284, 26418), (285, 26415), (294, 26370),

Gene: GlobiWarming\_38 Start: 26068, Stop: 27210, Start Num: 99

Candidate Starts for GlobiWarming\_38:

(Start: 99 @26068 has 284 MA's), (155, 26422), (156, 26428), (162, 26446), (178, 26554), (187, 26614), (207, 26707), (226, 26827), (233, 26875), (241, 26905), (255, 27001), (277, 27109), (286, 27184),

Gene: Gorge\_43 Start: 32137, Stop: 33255, Start Num: 99

Candidate Starts for Gorge\_43:

(Start: 99 @32137 has 284 MA's), (122, 32275), (125, 32308), (135, 32356), (149, 32473), (156, 32509), (159, 32518), (178, 32623), (189, 32692), (200, 32752), (204, 32764), (205, 32767), (207, 32779), (208, 32794), (211, 32818), (212, 32824), (220, 32845), (225, 32881), (226, 32884), (230, 32920), (231, 32926), (235, 32938), (236, 32941), (251, 33025), (256, 33040), (268, 33082), (274, 33127), (277, 33136), (282, 33175), (284, 33193), (288, 33214), (292, 33229), (293, 33238), (294, 33241),

Gene: Gorpy\_41 Start: 29001, Stop: 27862, Start Num: 99

Candidate Starts for Gorpy\_41:

(Start: 99 @29001 has 284 MA's), (107, 28950), (137, 28782), (138, 28764), (159, 28632), (173, 28554), (175, 28542), (176, 28536), (187, 28467), (190, 28458), (202, 28398), (218, 28308), (236, 28203), (241, 28182), (245, 28155), (268, 28032), (271, 28008), (273, 27993), (285, 27918), (291, 27888),

Gene: Guanica15\_44 Start: 32526, Stop: 33626, Start Num: 99

Candidate Starts for Guanica15\_44:

(55, 32376), (Start: 99 @32526 has 284 MA's), (107, 32577), (121, 32652), (127, 32688), (129, 32691), (142, 32802), (185, 33021), (187, 33045), (188, 33048), (211, 33177), (218, 33198), (235, 33303), (251, 33390), (267, 33438),

Gene: Guppsters\_43 Start: 32537, Stop: 33664, Start Num: 99

Candidate Starts for Guppsters\_43:

(68, 32435), (83, 32492), (Start: 99 @32537 has 284 MA's), (100, 32546), (125, 32708), (134, 32759), (137, 32777), (141, 32822), (156, 32918), (159, 32927), (173, 33008), (178, 33032), (189, 33101), (200, 33161), (204, 33173), (205, 33176), (207, 33188), (208, 33203), (211, 33227), (212, 33233), (220, 33254), (225, 33290), (226, 33293), (230, 33329), (231, 33335), (236, 33350), (251, 33434), (256, 33449), (268, 33491), (274, 33536), (277, 33545), (282, 33584), (284, 33602), (288, 33623), (292, 33638), (293, 33647), (294, 33650),

Gene: Hades\_43 Start: 31946, Stop: 33073, Start Num: 99

Candidate Starts for Hades\_43:

(68, 31844), (83, 31901), (Start: 99 @31946 has 284 MA's), (100, 31955), (125, 32117), (134, 32168), (137, 32186), (141, 32231), (156, 32327), (159, 32336), (173, 32417), (178, 32441), (189, 32510), (197, 32549), (200, 32570), (204, 32582), (205, 32585), (207, 32597), (208, 32612), (211, 32636), (212, 32642), (220, 32663), (225, 32699), (226, 32702), (230, 32738), (231, 32744), (235, 32756), (236, 32759), (240, 32774), (251, 32843), (256, 32858), (268, 32900), (274, 32945), (277, 32954), (278, 32966), (282, 32993), (284, 33011), (288, 33032), (292, 33047), (293, 33056), (294, 33059),

Gene: Haley23\_37 Start: 27875, Stop: 28957, Start Num: 98

Candidate Starts for Haley23\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (221, 28553), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: HedwigODU\_41 Start: 32479, Stop: 33567, Start Num: 99

Candidate Starts for HedwigODU\_41:

(Start: 99 @32479 has 284 MA's), (107, 32530), (115, 32581), (121, 32605), (127, 32641), (146, 32779), (156, 32833), (175, 32917), (187, 32986), (188, 32989), (218, 33139), (229, 33217), (235, 33244), (251, 33331), (267, 33379),

Gene: Hegedechwinu\_41 Start: 30918, Stop: 32036, Start Num: 99

Candidate Starts for Hegedechwinu\_41:

(Start: 99 @30918 has 284 MA's), (122, 31056), (125, 31089), (135, 31137), (149, 31254), (156, 31290), (159, 31299), (178, 31404), (189, 31473), (197, 31512), (199, 31530), (200, 31533), (204, 31545), (205, 31548), (207, 31560), (208, 31575), (211, 31599), (212, 31605), (220, 31626), (225, 31662), (226, 31665), (230, 31701), (231, 31707), (235, 31719), (236, 31722), (240, 31737), (251, 31806), (256, 31821), (268, 31863), (274, 31908), (277, 31917), (282, 31956), (284, 31974), (288, 31995), (292, 32010), (293, 32019), (294, 32022),

Gene: Herod\_39 Start: 31901, Stop: 33094, Start Num: 66

Candidate Starts for Herod\_39:

(Start: 66 @31901 has 6 MA's), (Start: 98 @32012 has 52 MA's), (107, 32066), (128, 32186), (171, 32432), (172, 32441), (178, 32471), (188, 32531), (202, 32597), (207, 32621), (271, 32951), (276, 32978), (293, 33083),

Gene: Hillester\_40 Start: 27831, Stop: 26659, Start Num: 99

Candidate Starts for Hillester\_40:

(Start: 99 @27831 has 284 MA's), (107, 27780), (125, 27666), (137, 27612), (138, 27594), (147, 27522), (153, 27480), (159, 27462), (173, 27384), (175, 27372), (187, 27297), (190, 27288), (202, 27228), (218, 27138), (236, 27033), (241, 27012), (244, 26988), (245, 26985), (254, 26916), (268, 26862), (271, 26838), (273, 26823), (295, 26703), (299, 26676),

Gene: Hlubikazi\_41 Start: 31787, Stop: 32905, Start Num: 99

Candidate Starts for Hlubikazi\_41:

(Start: 99 @31787 has 284 MA's), (125, 31958), (149, 32123), (156, 32159), (159, 32168), (178, 32273), (189, 32342), (197, 32381), (200, 32402), (204, 32414), (205, 32417), (207, 32429), (211, 32468), (212, 32474), (220, 32495), (225, 32531), (226, 32534), (230, 32570), (231, 32576), (235, 32588), (236, 32591), (240, 32606), (251, 32675), (256, 32690), (261, 32708), (274, 32777), (277, 32786), (282, 32825), (284, 32843), (288, 32864), (292, 32879), (293, 32888), (294, 32891),

Gene: Holliday\_48 Start: 32014, Stop: 33084, Start Num: 99

Candidate Starts for Holliday\_48:

(91, 31993), (Start: 99 @32014 has 284 MA's), (107, 32065), (114, 32113), (124, 32170), (135, 32215), (175, 32449), (179, 32467), (197, 32566), (204, 32599), (205, 32602), (207, 32614), (239, 32782), (256, 32881), (259, 32890), (271, 32941), (276, 32968), (279, 32998), (281, 33004), (283, 33016), (293, 33073),

Gene: Homura\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Homura\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: Hortense\_40 Start: 32549, Stop: 33676, Start Num: 99

Candidate Starts for Hortense\_40:

(85, 32510), (Start: 99 @32549 has 284 MA's), (107, 32603), (124, 32726), (132, 32759), (143, 32849), (148, 32882), (187, 33077), (188, 33080), (197, 33122), (205, 33158), (257, 33455), (271, 33533), (276, 33560), (278, 33575), (282, 33602), (293, 33665),

Gene: Horus\_48 Start: 33163, Stop: 34260, Start Num: 99

Candidate Starts for Horus\_48:

(51, 32983), (61, 33022), (Start: 99 @33163 has 284 MA's), (107, 33214), (122, 33292), (124, 33319), (135, 33364), (139, 33397), (140, 33406), (172, 33583), (173, 33586), (190, 33679), (197, 33715), (204, 33748), (205, 33751), (207, 33763), (238, 33928), (244, 33958), (256, 34030), (268, 34066), (271, 34090), (276, 34117), (283, 34165), (284, 34177), (294, 34225),

Gene: Howe\_40 Start: 32549, Stop: 33676, Start Num: 99

Candidate Starts for Howe\_40:

(85, 32510), (Start: 99 @32549 has 284 MA's), (107, 32603), (124, 32726), (132, 32759), (143, 32849), (148, 32882), (187, 33077), (188, 33080), (197, 33122), (205, 33158), (257, 33455), (271, 33533), (276, 33560), (278, 33575), (282, 33602), (293, 33665),

Gene: Hugley\_36 Start: 32011, Stop: 33093, Start Num: 98

Candidate Starts for Hugley\_36:

(Start: 66 @31900 has 6 MA's), (Start: 98 @32011 has 52 MA's), (107, 32065), (128, 32185), (171, 32431), (172, 32440), (178, 32470), (188, 32530), (202, 32596), (207, 32620), (271, 32950), (276, 32977), (293, 33082),

Gene: Hyperbowlee\_41 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for Hyperbowlee\_41:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: Hyzer\_43 Start: 33426, Stop: 34508, Start Num: 98

Candidate Starts for Hyzer\_43:

(Start: 98 @33426 has 52 MA's), (107, 33480), (128, 33600), (172, 33855), (178, 33885), (188, 33945), (202, 34011), (207, 34035), (271, 34365), (283, 34440), (293, 34497),

Gene: IMPilo\_40 Start: 31720, Stop: 32838, Start Num: 99

Candidate Starts for IMPilo\_40:

(Start: 99 @31720 has 284 MA's), (100, 31729), (125, 31891), (149, 32056), (156, 32092), (159, 32101), (178, 32206), (189, 32275), (197, 32314), (200, 32335), (204, 32347), (205, 32350), (207, 32362), (208, 32377), (211, 32401), (212, 32407), (220, 32428), (225, 32464), (226, 32467), (230, 32503), (231, 32509), (235, 32521), (236, 32524), (240, 32539), (251, 32608), (256, 32623), (274, 32710), (277, 32719), (282, 32758), (284, 32776), (288, 32797), (292, 32812), (293, 32821), (294, 32824),

Gene: Illumine\_44 Start: 33263, Stop: 34351, Start Num: 99

Candidate Starts for Illumine\_44:

(Start: 99 @33263 has 284 MA's), (115, 33365), (121, 33389), (127, 33425), (137, 33476), (142, 33539), (146, 33563), (156, 33617), (158, 33620), (175, 33701), (187, 33770), (188, 33773), (218, 33923), (229, 34001), (235, 34028), (267, 34163),

Gene: Inky\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Inky\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: IrishSherpFalk\_41 Start: 32488, Stop: 33606, Start Num: 99

Candidate Starts for IrishSherpFalk\_41:

(Start: 99 @32488 has 284 MA's), (100, 32497), (125, 32659), (159, 32869), (173, 32950), (178, 32974), (189, 33043), (200, 33103), (204, 33115), (205, 33118), (207, 33130), (208, 33145), (211, 33169), (212, 33175), (220, 33196), (225, 33232), (226, 33235), (230, 33271), (231, 33277), (236, 33292), (251, 33376), (256, 33391), (268, 33433), (274, 33478), (277, 33487), (282, 33526), (284, 33544), (288, 33565), (292, 33580), (293, 33589), (294, 33592),

Gene: Isolde\_41 Start: 27878, Stop: 26739, Start Num: 99

Candidate Starts for Isolde\_41:

(Start: 99 @27878 has 284 MA's), (107, 27827), (137, 27659), (138, 27641), (159, 27509), (173, 27431), (175, 27419), (187, 27344), (190, 27335), (202, 27275), (218, 27185), (236, 27080), (241, 27059), (245, 27032), (268, 26909), (271, 26885), (273, 26870), (291, 26765),

Gene: JAWS\_41 Start: 32469, Stop: 33557, Start Num: 99

Candidate Starts for JAWS\_41:

(Start: 99 @32469 has 284 MA's), (115, 32571), (121, 32595), (127, 32631), (146, 32769), (175, 32907), (187, 32976), (188, 32979), (218, 33129), (235, 33234), (251, 33321), (267, 33369),

Gene: Jablanski\_39 Start: 31311, Stop: 32393, Start Num: 98

Candidate Starts for Jablanski\_39:

(Start: 66 @31200 has 6 MA's), (Start: 98 @31311 has 52 MA's), (107, 31365), (128, 31485), (178, 31770), (188, 31830), (202, 31896), (207, 31920), (271, 32250), (276, 32277), (293, 32382),

Gene: James\_43 Start: 32094, Stop: 33212, Start Num: 99

Candidate Starts for James\_43:

(Start: 99 @32094 has 284 MA's), (122, 32232), (125, 32265), (135, 32313), (149, 32430), (156, 32466), (159, 32475), (178, 32580), (189, 32649), (200, 32709), (204, 32721), (205, 32724), (207, 32736), (208, 32751), (211, 32775), (212, 32781), (220, 32802), (225, 32838), (226, 32841), (230, 32877), (231, 32883), (235, 32895), (236, 32898), (251, 32982), (256, 32997), (268, 33039), (274, 33084), (277, 33093), (282, 33132), (284, 33150), (288, 33171), (292, 33186), (293, 33195), (294, 33198),

Gene: Jarvi\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Jarvi\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: Jayhawk\_42 Start: 32477, Stop: 33565, Start Num: 99

Candidate Starts for Jayhawk\_42:

(Start: 99 @32477 has 284 MA's), (107, 32528), (115, 32579), (121, 32603), (127, 32639), (146, 32777), (156, 32831), (175, 32915), (187, 32984), (188, 32987), (218, 33137), (229, 33215), (235, 33242), (251, 33329), (267, 33377),

Gene: Jeckyll\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Jeckyll\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: Joy99\_41 Start: 32524, Stop: 33612, Start Num: 99

Candidate Starts for Joy99\_41:

(13, 31921), (20, 32098), (34, 32263), (41, 32302), (Start: 99 @32524 has 284 MA's), (107, 32575), (115, 32626), (121, 32650), (127, 32686), (130, 32695), (146, 32824), (175, 32962), (187, 33031), (188, 33034), (218, 33184), (235, 33289), (267, 33424),

Gene: Judy\_39 Start: 26980, Stop: 28122, Start Num: 99

Candidate Starts for Judy\_39:

(Start: 99 @26980 has 284 MA's), (155, 27334), (156, 27340), (161, 27355), (169, 27409), (178, 27466), (187, 27526), (188, 27529), (194, 27556), (207, 27619), (226, 27739), (233, 27787), (255, 27913), (258, 27925), (277, 28021), (286, 28096),

Gene: Juice456\_44 Start: 33520, Stop: 34638, Start Num: 99

Candidate Starts for Juice456\_44:

(Start: 99 @33520 has 284 MA's), (122, 33658), (125, 33691), (135, 33739), (149, 33856), (156, 33892), (159, 33901), (178, 34006), (189, 34075), (197, 34114), (199, 34132), (200, 34135), (204, 34147), (205, 34150), (207, 34162), (208, 34177), (211, 34201), (212, 34207), (220, 34228), (225, 34264), (226, 34267), (230, 34303), (231, 34309), (235, 34321), (236, 34324), (240, 34339), (251, 34408), (256, 34423), (268, 34465), (274, 34510), (277, 34519), (282, 34558), (284, 34576), (288, 34597), (292, 34612), (293, 34621), (294, 34624),

Gene: Juniper1\_40 Start: 31679, Stop: 32797, Start Num: 99

Candidate Starts for Juniper1\_40:

(Start: 99 @31679 has 284 MA's), (125, 31850), (135, 31898), (156, 32051), (159, 32060), (173, 32141), (189, 32234), (200, 32294), (204, 32306), (205, 32309), (208, 32336), (211, 32360), (220, 32387), (225, 32423), (226, 32426), (230, 32462), (240, 32498), (251, 32567), (256, 32582), (261,

32600), (274, 32669), (277, 32678), (282, 32717), (284, 32735), (292, 32771), (293, 32780), (294, 32783),

Gene: Kamaru\_44 Start: 31555, Stop: 32652, Start Num: 99

Candidate Starts for Kamaru\_44:

(27, 31219), (38, 31315), (81, 31498), (Start: 99 @31555 has 284 MA's), (107, 31606), (120, 31678), (122, 31684), (124, 31711), (135, 31756), (140, 31798), (156, 31906), (172, 31975), (175, 31990), (188, 32065), (197, 32107), (204, 32140), (205, 32143), (207, 32155), (225, 32257), (244, 32350), (256, 32422), (268, 32458), (271, 32482), (276, 32509), (283, 32557), (294, 32617),

Gene: KayMoney\_38 Start: 26157, Stop: 27299, Start Num: 99

Candidate Starts for KayMoney\_38:

(96, 26148), (Start: 99 @26157 has 284 MA's), (156, 26517), (162, 26535), (178, 26643), (187, 26703), (207, 26796), (226, 26916), (233, 26964), (241, 26994), (255, 27090), (277, 27198), (286, 27273),

Gene: Kenna\_49 Start: 32526, Stop: 33596, Start Num: 99

Candidate Starts for Kenna\_49:

(Start: 99 @32526 has 284 MA's), (107, 32577), (122, 32655), (124, 32682), (156, 32877), (159, 32886), (171, 32937), (172, 32946), (173, 32949), (175, 32961), (184, 33006), (190, 33042), (197, 33078), (204, 33111), (205, 33114), (207, 33126), (239, 33294), (256, 33393), (271, 33453), (276, 33480), (277, 33483), (279, 33510), (281, 33516), (283, 33528), (293, 33585),

Gene: Kenuha5\_39 Start: 31177, Stop: 32295, Start Num: 99

Candidate Starts for Kenuha5\_39:

(Start: 99 @31177 has 284 MA's), (125, 31348), (149, 31513), (156, 31549), (159, 31558), (178, 31663), (189, 31732), (197, 31771), (200, 31792), (204, 31804), (205, 31807), (207, 31819), (208, 31834), (211, 31858), (212, 31864), (220, 31885), (225, 31921), (226, 31924), (230, 31960), (231, 31966), (236, 31981), (240, 31996), (251, 32065), (256, 32080), (268, 32122), (274, 32167), (277, 32176), (282, 32215), (284, 32233), (288, 32254), (292, 32269), (293, 32278), (294, 32281),

Gene: KiSi\_45 Start: 33691, Stop: 34776, Start Num: 99

Candidate Starts for KiSi\_45:

(1, 32323), (2, 32353), (3, 32512), (4, 32560), (5, 32629), (6, 32653), (7, 32734), (8, 32743), (9, 32767), (10, 32887), (14, 33088), (15, 33106), (18, 33184), (Start: 26 @33355 has 1 MA's), (35, 33430), (41, 33469), (52, 33523), (Start: 99 @33691 has 284 MA's), (123, 33826), (127, 33853), (146, 33991), (152, 34033), (156, 34045), (175, 34129), (187, 34198), (188, 34201), (197, 34243), (218, 34351), (235, 34456), (251, 34543), (267, 34591), (283, 34699), (292, 34747),

Gene: Kingsley\_38 Start: 30711, Stop: 31829, Start Num: 99

Candidate Starts for Kingsley\_38:

(Start: 99 @30711 has 284 MA's), (125, 30882), (149, 31047), (156, 31083), (159, 31092), (173, 31173), (178, 31197), (189, 31266), (197, 31305), (199, 31323), (200, 31326), (204, 31338), (205, 31341), (207, 31353), (208, 31368), (211, 31392), (212, 31398), (220, 31419), (225, 31455), (226, 31458), (230, 31494), (231, 31500), (235, 31512), (236, 31515), (240, 31530), (251, 31599), (256, 31614), (268, 31656), (274, 31701), (277, 31710), (282, 31749), (284, 31767), (288, 31788), (292, 31803), (293, 31812), (294, 31815),

Gene: Kita\_40 Start: 30461, Stop: 31654, Start Num: 66

Candidate Starts for Kita\_40:

(Start: 66 @30461 has 6 MA's), (Start: 98 @30572 has 52 MA's), (107, 30626), (128, 30746), (172, 31001), (178, 31031), (188, 31091), (202, 31157), (207, 31181), (271, 31511), (276, 31538), (293, 31643),

Gene: KristaRAM\_43 Start: 33503, Stop: 34630, Start Num: 99

Candidate Starts for KristaRAM\_43:

(68, 33401), (83, 33458), (Start: 99 @33503 has 284 MA's), (100, 33512), (125, 33674), (134, 33725), (137, 33743), (141, 33788), (156, 33884), (159, 33893), (173, 33974), (178, 33998), (189, 34067), (197, 34106), (200, 34127), (204, 34139), (205, 34142), (207, 34154), (208, 34169), (211, 34193), (212, 34199), (220, 34220), (225, 34256), (226, 34259), (230, 34295), (231, 34301), (235, 34313), (236, 34316), (240, 34331), (251, 34400), (256, 34415), (268, 34457), (274, 34502), (277, 34511), (282, 34550), (284, 34568), (288, 34589), (292, 34604), (293, 34613), (294, 34616),

Gene: Lamberg\_33 Start: 26384, Stop: 27466, Start Num: 98

Candidate Starts for Lamberg\_33:

(Start: 65 @26267 has 2 MA's), (Start: 66 @26273 has 6 MA's), (Start: 98 @26384 has 52 MA's), (107, 26438), (128, 26558), (172, 26813), (178, 26843), (188, 26903), (202, 26969), (207, 26993), (221, 27062), (224, 27098), (271, 27323), (276, 27350), (293, 27455),

Gene: LastJedi\_34 Start: 27598, Stop: 28716, Start Num: 99

Candidate Starts for LastJedi\_34:

(Start: 99 @27598 has 284 MA's), (100, 27607), (125, 27769), (149, 27934), (156, 27970), (159, 27979), (173, 28060), (178, 28084), (189, 28153), (197, 28192), (199, 28210), (200, 28213), (204, 28225), (205, 28228), (207, 28240), (208, 28255), (211, 28279), (212, 28285), (220, 28306), (225, 28342), (226, 28345), (230, 28381), (231, 28387), (236, 28402), (240, 28417), (251, 28486), (256, 28501), (268, 28543), (274, 28588), (277, 28597), (282, 28636), (284, 28654), (288, 28675), (292, 28690), (293, 28699), (294, 28702),

Gene: LaterM\_42 Start: 33376, Stop: 34464, Start Num: 99

Candidate Starts for LaterM\_42:

(Start: 99 @33376 has 284 MA's), (115, 33478), (121, 33502), (127, 33538), (137, 33589), (142, 33652), (146, 33676), (156, 33730), (158, 33733), (175, 33814), (187, 33883), (188, 33886), (195, 33916), (218, 34036), (229, 34114), (235, 34141), (267, 34276),

Gene: Lawnathon\_40 Start: 27623, Stop: 26484, Start Num: 99

Candidate Starts for Lawnathon\_40:

(Start: 99 @27623 has 284 MA's), (107, 27572), (137, 27404), (138, 27386), (159, 27254), (173, 27176), (175, 27164), (176, 27158), (187, 27089), (190, 27080), (202, 27020), (218, 26930), (236, 26825), (241, 26804), (245, 26777), (268, 26654), (271, 26630), (273, 26615), (285, 26540), (291, 26510),

Gene: LeMond\_45 Start: 33694, Stop: 34779, Start Num: 99

Candidate Starts for LeMond\_45:

(52, 33526), (Start: 99 @33694 has 284 MA's), (123, 33829), (127, 33856), (146, 33994), (152, 34036), (156, 34048), (175, 34132), (187, 34201), (188, 34204), (197, 34246), (218, 34354), (235, 34459), (251, 34546), (267, 34594), (283, 34702), (292, 34750),

Gene: Leroy\_50 Start: 33450, Stop: 34544, Start Num: 99

Candidate Starts for Leroy\_50:

(Start: 99 @33450 has 284 MA's), (107, 33501), (120, 33573), (122, 33579), (124, 33606), (135, 33651), (140, 33693), (149, 33765), (172, 33870), (175, 33885), (184, 33930), (197, 34002), (204, 34035), (205, 34038), (207, 34050), (238, 34215), (271, 34377), (272, 34380), (277, 34407), (278, 34419), (294, 34512),

Gene: LilPharaoh\_36 Start: 31976, Stop: 33070, Start Num: 99

Candidate Starts for LilPharaoh\_36:



(25, 31625), (Start: 26 @31640 has 1 MA's), (36, 31733), (41, 31754), (63, 31847), (Start: 99 @31976 has 284 MA's), (107, 32027), (121, 32102), (127, 32138), (141, 32234), (142, 32252), (146, 32276), (155, 32324), (156, 32330), (184, 32462), (187, 32495), (197, 32540), (218, 32648), (235, 32753), (249, 32813), (267, 32888), (283, 32996), (289, 33032),

Gene: LilSpotty\_38 Start: 27607, Stop: 28713, Start Num: 99

Candidate Starts for LilSpotty\_38:

(Start: 99 @27607 has 284 MA's), (124, 27766), (131, 27802), (156, 27979), (175, 28063), (184, 28108), (187, 28132), (194, 28162), (195, 28165), (202, 28201), (204, 28210), (205, 28213), (211, 28264), (218, 28285), (229, 28363), (231, 28378), (248, 28438), (251, 28477), (256, 28492), (268, 28543), (271, 28567), (274, 28588),

Gene: Lilas\_38 Start: 32714, Stop: 33796, Start Num: 98

Candidate Starts for Lilas\_38:

(Start: 98 @32714 has 52 MA's), (Start: 117 @32831 has 1 MA's), (135, 32924), (172, 33146), (180, 33182), (188, 33236), (203, 33305), (205, 33314), (271, 33653), (276, 33680), (293, 33785),

Gene: LindNT\_41 Start: 32665, Stop: 33753, Start Num: 99

Candidate Starts for LindNT\_41:

(57, 32518), (Start: 99 @32665 has 284 MA's), (115, 32767), (121, 32791), (127, 32827), (146, 32965), (156, 33019), (175, 33103), (187, 33172), (188, 33175), (218, 33325), (235, 33430), (251, 33517), (267, 33565), (289, 33709),

Gene: LitninMcQueen\_43 Start: 31304, Stop: 32401, Start Num: 99

Candidate Starts for LitninMcQueen\_43:

(27, 30968), (38, 31064), (81, 31247), (Start: 99 @31304 has 284 MA's), (107, 31355), (120, 31427), (122, 31433), (124, 31460), (135, 31505), (140, 31547), (156, 31655), (172, 31724), (175, 31739), (188, 31814), (197, 31856), (204, 31889), (205, 31892), (207, 31904), (225, 32006), (244, 32099), (256, 32171), (268, 32207), (271, 32231), (276, 32258), (283, 32306), (294, 32366),

Gene: Llorens\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Llorens\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: LonelyBoi\_38 Start: 32508, Stop: 33590, Start Num: 98

Candidate Starts for LonelyBoi\_38:

(Start: 98 @32508 has 52 MA's), (107, 32562), (128, 32682), (178, 32967), (188, 33027), (207, 33117), (224, 33222), (271, 33447), (276, 33474), (293, 33579),

Gene: LordFarquaad\_35 Start: 27696, Stop: 28778, Start Num: 98

Candidate Starts for LordFarquaad\_35:

(Start: 66 @27585 has 6 MA's), (Start: 98 @27696 has 52 MA's), (107, 27750), (128, 27870), (172, 28125), (178, 28155), (188, 28215), (202, 28281), (207, 28305), (271, 28635), (276, 28662), (293, 28767),

Gene: Lorde\_42 Start: 31143, Stop: 32261, Start Num: 99

Candidate Starts for Lorde\_42:

(Start: 99 @31143 has 284 MA's), (100, 31152), (125, 31314), (149, 31479), (156, 31515), (159, 31524), (173, 31605), (178, 31629), (189, 31698), (197, 31737), (199, 31755), (200, 31758), (204, 31770), (205, 31773), (207, 31785), (211, 31824), (212, 31830), (220, 31851), (225, 31887), (226, 31890), (230, 31926), (231, 31932), (236, 31947), (251, 32031), (256, 32046), (261, 32064), (274,

32133), (277, 32142), (282, 32181), (284, 32199), (288, 32220), (292, 32235), (293, 32244), (294, 32247),

Gene: Lton\_34 Start: 25220, Stop: 26299, Start Num: 99

Candidate Starts for Lton\_34:

(Start: 99 @25220 has 284 MA's), (124, 25376), (151, 25556), (188, 25727), (197, 25769), (206, 25808), (207, 25817), (231, 25973), (256, 26096), (271, 26156), (276, 26183), (281, 26219), (283, 26231), (293, 26288),

Gene: Lucky10\_35 Start: 28235, Stop: 29314, Start Num: 99

Candidate Starts for Lucky10\_35:

(19, 27794), (32, 27947), (37, 27989), (73, 28145), (89, 28199), (Start: 99 @28235 has 284 MA's), (124, 28391), (188, 28742), (197, 28784), (206, 28823), (207, 28832), (231, 28988), (256, 29111), (271, 29171), (283, 29246), (293, 29303),

Gene: LunaBlu\_46 Start: 33438, Stop: 34556, Start Num: 99

Candidate Starts for LunaBlu\_46:

(Start: 99 @33438 has 284 MA's), (100, 33447), (125, 33609), (149, 33774), (156, 33810), (159, 33819), (178, 33924), (189, 33993), (197, 34032), (199, 34050), (200, 34053), (204, 34065), (205, 34068), (207, 34080), (208, 34095), (211, 34119), (212, 34125), (220, 34146), (225, 34182), (226, 34185), (230, 34221), (231, 34227), (236, 34242), (240, 34257), (251, 34326), (256, 34341), (268, 34383), (274, 34428), (277, 34437), (282, 34476), (284, 34494), (288, 34515), (292, 34530), (293, 34539), (294, 34542),

Gene: LunaStella\_42 Start: 31631, Stop: 32749, Start Num: 99

Candidate Starts for LunaStella\_42:

(Start: 99 @31631 has 284 MA's), (100, 31640), (122, 31769), (125, 31802), (135, 31850), (156, 32003), (159, 32012), (173, 32093), (189, 32186), (200, 32246), (204, 32258), (205, 32261), (208, 32288), (211, 32312), (220, 32339), (225, 32375), (226, 32378), (230, 32414), (240, 32450), (251, 32519), (256, 32534), (261, 32552), (274, 32621), (277, 32630), (282, 32669), (284, 32687), (288, 32708), (292, 32723),

Gene: Lunahalos\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Lunahalos\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: Lutum\_50 Start: 32526, Stop: 33596, Start Num: 99

Candidate Starts for Lutum\_50:

(Start: 99 @32526 has 284 MA's), (107, 32577), (122, 32655), (124, 32682), (156, 32877), (159, 32886), (171, 32937), (172, 32946), (173, 32949), (175, 32961), (184, 33006), (190, 33042), (197, 33078), (204, 33111), (205, 33114), (207, 33126), (239, 33294), (256, 33393), (271, 33453), (276, 33480), (277, 33483), (279, 33510), (281, 33516), (283, 33528), (293, 33585),

Gene: Manasvini\_39 Start: 30564, Stop: 31646, Start Num: 98

Candidate Starts for Manasvini\_39:

(Start: 66 @30453 has 6 MA's), (Start: 98 @30564 has 52 MA's), (107, 30618), (128, 30738), (172, 30993), (178, 31023), (188, 31083), (202, 31149), (207, 31173), (271, 31503), (276, 31530), (293, 31635),

Gene: Mandlovu\_40 Start: 31729, Stop: 32847, Start Num: 99

Candidate Starts for Mandlovu\_40:

(Start: 99 @31729 has 284 MA's), (125, 31900), (149, 32065), (156, 32101), (159, 32110), (178, 32215), (189, 32284), (197, 32323), (200, 32344), (204, 32356), (205, 32359), (207, 32371), (211, 32410), (212, 32416), (220, 32437), (225, 32473), (226, 32476), (230, 32512), (231, 32518), (235, 32530), (236, 32533), (240, 32548), (251, 32617), (256, 32632), (261, 32650), (274, 32719), (277, 32728), (282, 32767), (284, 32785), (288, 32806), (292, 32821), (293, 32830), (294, 32833),

Gene: Marcoliusprime\_43 Start: 34317, Stop: 35417, Start Num: 99

Candidate Starts for Marcoliusprime\_43:

(Start: 99 @34317 has 284 MA's), (101, 34335), (121, 34443), (127, 34479), (142, 34593), (146, 34617), (156, 34671), (185, 34812), (187, 34836), (188, 34839), (197, 34881), (218, 34989), (235, 35094), (247, 35139), (249, 35154), (283, 35346),

Gene: Maridalia\_39 Start: 30563, Stop: 31645, Start Num: 98

Candidate Starts for Maridalia\_39:

(Start: 66 @30452 has 6 MA's), (Start: 98 @30563 has 52 MA's), (107, 30617), (128, 30737), (188, 31082), (207, 31172), (224, 31277), (271, 31502), (276, 31529), (283, 31577), (293, 31634), (294, 31637),

Gene: MarkPhew\_44 Start: 33135, Stop: 34214, Start Num: 99

Candidate Starts for MarkPhew\_44:

(14, 32601), (15, 32619), (16, 32631), (18, 32697), (41, 32913), (52, 32967), (59, 32994), (Start: 99 @33135 has 284 MA's), (127, 33297), (130, 33306), (136, 33339), (146, 33432), (152, 33474), (156, 33486), (175, 33570), (178, 33585), (187, 33639), (188, 33642), (197, 33684), (218, 33792), (235, 33897), (251, 33984), (267, 34032), (283, 34140), (292, 34188),

Gene: Marshawn\_44 Start: 33433, Stop: 34515, Start Num: 99

Candidate Starts for Marshawn\_44:

(Start: 99 @33433 has 284 MA's), (107, 33484), (121, 33559), (127, 33595), (155, 33781), (156, 33787), (175, 33871), (187, 33940), (188, 33943), (197, 33985), (218, 34093), (235, 34198), (251, 34285), (267, 34333), (292, 34489), (296, 34510),

Gene: Marteena\_36 Start: 30030, Stop: 31136, Start Num: 99

Candidate Starts for Marteena\_36:

(79, 29973), (Start: 99 @30030 has 284 MA's), (107, 30081), (124, 30186), (126, 30195), (133, 30225), (174, 30459), (175, 30465), (187, 30534), (188, 30537), (195, 30567), (205, 30618), (207, 30630), (248, 30858), (258, 30918), (271, 30993), (277, 31023), (293, 31125),

Gene: Matteo\_30 Start: 25426, Stop: 26508, Start Num: 98

Candidate Starts for Matteo\_30:

(Start: 65 @25309 has 2 MA's), (Start: 66 @25315 has 6 MA's), (Start: 98 @25426 has 52 MA's), (107, 25480), (128, 25600), (172, 25855), (178, 25885), (188, 25945), (202, 26011), (207, 26035), (224, 26140), (271, 26365), (276, 26392), (293, 26497),

Gene: Mattes\_43 Start: 32094, Stop: 33212, Start Num: 99

Candidate Starts for Mattes\_43:

(Start: 99 @32094 has 284 MA's), (122, 32232), (125, 32265), (135, 32313), (149, 32430), (156, 32466), (159, 32475), (178, 32580), (189, 32649), (200, 32709), (204, 32721), (205, 32724), (207, 32736), (208, 32751), (211, 32775), (212, 32781), (220, 32802), (225, 32838), (226, 32841), (230, 32877), (231, 32883), (235, 32895), (236, 32898), (251, 32982), (256, 32997), (268, 33039), (274, 33084), (277, 33093), (282, 33132), (284, 33150), (288, 33171), (292, 33186), (293, 33195), (294, 33198),

Gene: McMater\_43 Start: 33014, Stop: 34105, Start Num: 99

Candidate Starts for McMater\_43:

(11, 32333), (17, 32477), (24, 32681), (39, 32780), (40, 32789), (45, 32816), (56, 32864), (Start: 99 @33014 has 284 MA's), (107, 33065), (121, 33140), (127, 33176), (142, 33290), (146, 33314), (156, 33368), (175, 33452), (182, 33485), (187, 33521), (188, 33524), (197, 33566), (211, 33653), (218, 33674), (235, 33782), (249, 33842), (262, 33905), (267, 33917), (283, 34025), (289, 34061),

Gene: Mcklovin\_36 Start: 33917, Stop: 35044, Start Num: 99

Candidate Starts for Mcklovin\_36:

(43, 33698), (50, 33734), (Start: 99 @33917 has 284 MA's), (107, 33971), (132, 34127), (143, 34217), (148, 34250), (187, 34445), (188, 34448), (197, 34490), (205, 34526), (257, 34823), (271, 34901), (278, 34943), (282, 34970), (293, 35033),

Gene: Mdavu\_37 Start: 31629, Stop: 33059, Start Num: 26

Candidate Starts for Mdavu\_37:

(25, 31614), (Start: 26 @31629 has 1 MA's), (36, 31722), (41, 31743), (63, 31836), (Start: 99 @31965 has 284 MA's), (107, 32016), (121, 32091), (127, 32127), (141, 32223), (142, 32241), (146, 32265), (155, 32313), (156, 32319), (184, 32451), (187, 32484), (197, 32529), (218, 32637), (235, 32742), (249, 32802), (267, 32877), (283, 32985), (289, 33021),

Gene: MeaningOfLife\_42 Start: 33409, Stop: 34497, Start Num: 99

Candidate Starts for MeaningOfLife\_42:

(Start: 99 @33409 has 284 MA's), (115, 33511), (121, 33535), (127, 33571), (146, 33709), (156, 33763), (175, 33847), (187, 33916), (188, 33919), (198, 33967), (218, 34069), (235, 34174), (251, 34261), (267, 34309), (289, 34453),

Gene: Megsy\_42 Start: 32724, Stop: 33812, Start Num: 99

Candidate Starts for Megsy\_42:

(Start: 99 @32724 has 284 MA's), (115, 32826), (121, 32850), (127, 32886), (146, 33024), (156, 33078), (175, 33162), (187, 33231), (188, 33234), (218, 33384), (229, 33462), (235, 33489), (267, 33624), (289, 33768),

Gene: Melissauren88\_42 Start: 32565, Stop: 33683, Start Num: 99

Candidate Starts for Melissauren88\_42:

(Start: 99 @32565 has 284 MA's), (100, 32574), (125, 32736), (149, 32901), (156, 32937), (159, 32946), (178, 33051), (189, 33120), (197, 33159), (200, 33180), (204, 33192), (205, 33195), (207, 33207), (211, 33246), (212, 33252), (220, 33273), (225, 33309), (226, 33312), (230, 33348), (231, 33354), (236, 33369), (240, 33384), (251, 33453), (256, 33468), (268, 33510), (274, 33555), (277, 33564), (282, 33603), (284, 33621), (288, 33642), (292, 33657), (293, 33666), (294, 33669),

Gene: MichaelScott\_40 Start: 30472, Stop: 31599, Start Num: 99

Candidate Starts for MichaelScott\_40:

(85, 30433), (Start: 99 @30472 has 284 MA's), (107, 30526), (124, 30649), (132, 30682), (143, 30772), (148, 30805), (187, 31000), (188, 31003), (197, 31045), (205, 31081), (257, 31378), (271, 31456), (276, 31483), (278, 31498), (282, 31525), (293, 31588),

Gene: MidnightRain\_42 Start: 28565, Stop: 27426, Start Num: 99

Candidate Starts for MidnightRain\_42:

(Start: 99 @28565 has 284 MA's), (107, 28514), (137, 28346), (138, 28328), (159, 28196), (173, 28118), (175, 28106), (187, 28031), (190, 28022), (202, 27962), (218, 27872), (236, 27767), (241, 27746), (245, 27719), (268, 27596), (271, 27572), (273, 27557), (285, 27482), (291, 27452),

Gene: MilanaBonita\_37 Start: 29110, Stop: 30237, Start Num: 99

Candidate Starts for MilanaBonita\_37:

(68, 29008), (83, 29065), (Start: 99 @29110 has 284 MA's), (100, 29119), (125, 29281), (134, 29332), (137, 29350), (141, 29395), (156, 29491), (159, 29500), (178, 29605), (189, 29674), (197, 29713), (200, 29734), (204, 29746), (205, 29749), (207, 29761), (211, 29800), (212, 29806), (220, 29827), (225, 29863), (226, 29866), (230, 29902), (231, 29908), (235, 29920), (236, 29923), (240, 29938), (251, 30007), (256, 30022), (261, 30040), (268, 30064), (274, 30109), (277, 30118), (278, 30130), (282, 30157), (284, 30175), (288, 30196), (292, 30211), (293, 30220), (294, 30223),

Gene: MilleniumForce\_42 Start: 32868, Stop: 33986, Start Num: 99

Candidate Starts for MilleniumForce\_42:

(Start: 99 @32868 has 284 MA's), (100, 32877), (125, 33039), (149, 33204), (156, 33240), (159, 33249), (173, 33330), (178, 33354), (189, 33423), (199, 33480), (200, 33483), (204, 33495), (205, 33498), (207, 33510), (211, 33549), (220, 33576), (225, 33612), (226, 33615), (230, 33651), (231, 33657), (236, 33672), (251, 33756), (256, 33771), (268, 33813), (274, 33858), (277, 33867), (282, 33906), (284, 33924), (288, 33945), (292, 33960), (293, 33969), (294, 33972),

Gene: Milly\_43 Start: 34290, Stop: 35390, Start Num: 99

Candidate Starts for Milly\_43:

(Start: 99 @34290 has 284 MA's), (101, 34308), (107, 34341), (121, 34416), (127, 34452), (142, 34566), (146, 34590), (156, 34644), (185, 34785), (187, 34809), (188, 34812), (197, 34854), (218, 34962), (235, 35067), (247, 35112), (249, 35127), (283, 35319),

Gene: MinionDave\_43 Start: 33105, Stop: 34223, Start Num: 99

Candidate Starts for MinionDave\_43:

(Start: 99 @33105 has 284 MA's), (100, 33114), (125, 33276), (135, 33324), (149, 33441), (156, 33477), (159, 33486), (178, 33591), (189, 33660), (197, 33699), (199, 33717), (200, 33720), (204, 33732), (205, 33735), (207, 33747), (211, 33786), (212, 33792), (220, 33813), (225, 33849), (226, 33852), (230, 33888), (231, 33894), (235, 33906), (236, 33909), (240, 33924), (251, 33993), (256, 34008), (261, 34026), (268, 34050), (274, 34095), (277, 34104), (282, 34143), (284, 34161), (288, 34182), (292, 34197), (293, 34206), (294, 34209),

Gene: Minnie\_43 Start: 32650, Stop: 33768, Start Num: 99

Candidate Starts for Minnie\_43:

(Start: 99 @32650 has 284 MA's), (122, 32788), (125, 32821), (135, 32869), (156, 33022), (159, 33031), (173, 33112), (189, 33205), (197, 33244), (199, 33262), (200, 33265), (204, 33277), (205, 33280), (207, 33292), (208, 33307), (211, 33331), (212, 33337), (220, 33358), (225, 33394), (226, 33397), (230, 33433), (231, 33439), (236, 33454), (240, 33469), (251, 33538), (256, 33553), (268, 33595), (274, 33640), (277, 33649), (282, 33688), (284, 33706), (288, 33727), (292, 33742), (293, 33751), (294, 33754),

Gene: Mocha12\_37 Start: 27875, Stop: 28957, Start Num: 98

Candidate Starts for Mocha12\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (221, 28553), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: MooMoo\_41 Start: 31904, Stop: 33025, Start Num: 99

Candidate Starts for MooMoo\_41:

(Start: 99 @31904 has 284 MA's), (119, 32033), (125, 32075), (137, 32135), (141, 32180), (156, 32276), (159, 32285), (189, 32462), (200, 32522), (204, 32534), (205, 32537), (206, 32540), (207, 32549), (211, 32588), (212, 32594), (220, 32615), (225, 32651), (226, 32654), (230, 32690), (240, 32726), (245, 32741), (251, 32795), (256, 32810), (260, 32825), (274, 32897), (277, 32906), (278, 32918), (282, 32945), (284, 32963), (288, 32984), (292, 32999),

Gene: Moonbeam\_41 Start: 32622, Stop: 33740, Start Num: 99

Candidate Starts for Moonbeam\_41:

(Start: 99 @32622 has 284 MA's), (100, 32631), (125, 32793), (135, 32841), (149, 32958), (156, 32994), (159, 33003), (178, 33108), (189, 33177), (197, 33216), (199, 33234), (200, 33237), (204, 33249), (205, 33252), (207, 33264), (208, 33279), (211, 33303), (212, 33309), (220, 33330), (225, 33366), (226, 33369), (230, 33405), (231, 33411), (235, 33423), (236, 33426), (240, 33441), (251, 33510), (256, 33525), (261, 33543), (268, 33567), (274, 33612), (277, 33621), (282, 33660), (284, 33678), (288, 33699), (292, 33714), (293, 33723), (294, 33726),

Gene: Moosehead\_35 Start: 25354, Stop: 26436, Start Num: 97

Candidate Starts for Moosehead\_35:

(Start: 97 @25354 has 1 MA's), (124, 25513), (135, 25558), (139, 25591), (188, 25864), (197, 25906), (205, 25942), (206, 25945), (207, 25954), (256, 26233), (271, 26293), (293, 26425),

Gene: Morkie\_33 Start: 26172, Stop: 27254, Start Num: 98

Candidate Starts for Morkie\_33:

(Start: 98 @26172 has 52 MA's), (107, 26226), (128, 26346), (172, 26601), (188, 26691), (202, 26757), (207, 26781), (238, 26952), (271, 27111), (276, 27138), (283, 27186), (293, 27243),

Gene: Mova\_42 Start: 31760, Stop: 32878, Start Num: 99

Candidate Starts for Mova\_42:

(Start: 99 @31760 has 284 MA's), (122, 31898), (125, 31931), (135, 31979), (156, 32132), (159, 32141), (173, 32222), (189, 32315), (197, 32354), (200, 32375), (204, 32387), (205, 32390), (207, 32402), (208, 32417), (211, 32441), (212, 32447), (220, 32468), (225, 32504), (226, 32507), (230, 32543), (236, 32564), (240, 32579), (251, 32648), (256, 32663), (261, 32681), (268, 32705), (274, 32750), (277, 32759), (278, 32771), (282, 32798), (284, 32816), (288, 32837), (292, 32852), (293, 32861), (294, 32864),

Gene: Mozy\_51 Start: 34630, Stop: 35748, Start Num: 99

Candidate Starts for Mozy\_51:

(Start: 99 @34630 has 284 MA's), (100, 34639), (125, 34801), (149, 34966), (156, 35002), (159, 35011), (178, 35116), (189, 35185), (197, 35224), (200, 35245), (204, 35257), (205, 35260), (207, 35272), (211, 35311), (212, 35317), (220, 35338), (225, 35374), (226, 35377), (230, 35413), (231, 35419), (236, 35434), (251, 35518), (256, 35533), (268, 35575), (274, 35620), (277, 35629), (282, 35668), (284, 35686), (288, 35707), (292, 35722), (293, 35731), (294, 35734),

Gene: Ms6\_36 Start: 27630, Stop: 28748, Start Num: 99

Candidate Starts for Ms6\_36:

(Start: 99 @27630 has 284 MA's), (100, 27639), (125, 27801), (149, 27966), (156, 28002), (159, 28011), (178, 28116), (189, 28185), (197, 28224), (200, 28245), (204, 28257), (205, 28260), (207, 28272), (211, 28311), (212, 28317), (220, 28338), (225, 28374), (226, 28377), (230, 28413), (231, 28419), (235, 28431), (236, 28434), (240, 28449), (251, 28518), (256, 28533), (274, 28620), (277, 28629), (282, 28668), (284, 28686), (288, 28707), (292, 28722), (293, 28731), (294, 28734),

Gene: Mufasa\_44 Start: 34136, Stop: 35236, Start Num: 99

Candidate Starts for Mufasa\_44:

(Start: 99 @34136 has 284 MA's), (101, 34154), (107, 34187), (121, 34262), (127, 34298), (142, 34412), (146, 34436), (156, 34490), (164, 34514), (185, 34631), (187, 34655), (188, 34658), (197, 34700), (218, 34808), (235, 34913), (247, 34958), (249, 34973), (283, 35165),

Gene: Mufasa8\_27 Start: 25316, Stop: 26536, Start Num: 99

Candidate Starts for Mufasa8\_27:

(Start: 99 @25316 has 284 MA's), (122, 25445), (135, 25517), (137, 25529), (149, 25634), (152, 25658), (156, 25670), (169, 25712), (188, 25832), (191, 25844), (194, 25859), (200, 25895), (202, 25898), (207, 25922), (210, 25952), (215, 25976), (216, 25979), (218, 25988), (219, 25991), (229, 26063), (230, 26072), (231, 26078), (241, 26114), (245, 26144), (249, 26171), (255, 26213), (258, 26225),

Gene: Murucutumbu\_42 Start: 33469, Stop: 34557, Start Num: 99

Candidate Starts for Murucutumbu\_42:

(Start: 99 @33469 has 284 MA's), (115, 33571), (121, 33595), (127, 33631), (137, 33682), (142, 33745), (146, 33769), (156, 33823), (158, 33826), (175, 33907), (187, 33976), (188, 33979), (195, 34009), (218, 34129), (229, 34207), (235, 34234), (267, 34369),

Gene: Mutaforma13\_45 Start: 33170, Stop: 34288, Start Num: 99

Candidate Starts for Mutaforma13\_45:

(Start: 99 @33170 has 284 MA's), (100, 33179), (122, 33308), (125, 33341), (135, 33389), (149, 33506), (156, 33542), (159, 33551), (178, 33656), (189, 33725), (200, 33785), (204, 33797), (205, 33800), (207, 33812), (208, 33827), (211, 33851), (212, 33857), (220, 33878), (225, 33914), (226, 33917), (230, 33953), (231, 33959), (235, 33971), (236, 33974), (251, 34058), (256, 34073), (268, 34115), (274, 34160), (277, 34169), (282, 34208), (284, 34226), (288, 34247), (292, 34262), (293, 34271), (294, 34274),

Gene: Mynx\_42 Start: 32799, Stop: 33887, Start Num: 99

Candidate Starts for Mynx\_42:

(Start: 99 @32799 has 284 MA's), (115, 32901), (121, 32925), (127, 32961), (146, 33099), (156, 33153), (175, 33237), (187, 33306), (188, 33309), (198, 33357), (218, 33459), (235, 33564), (251, 33651), (267, 33699), (289, 33843),

Gene: Neobush\_39 Start: 30557, Stop: 31639, Start Num: 98

Candidate Starts for Neobush\_39:

(Start: 66 @30446 has 6 MA's), (Start: 98 @30557 has 52 MA's), (107, 30611), (128, 30731), (172, 30986), (178, 31016), (188, 31076), (202, 31142), (207, 31166), (271, 31496), (276, 31523), (293, 31628),

Gene: Nettuno\_33 Start: 26384, Stop: 27466, Start Num: 98

Candidate Starts for Nettuno\_33:

(Start: 65 @26267 has 2 MA's), (Start: 66 @26273 has 6 MA's), (Start: 98 @26384 has 52 MA's), (107, 26438), (128, 26558), (172, 26813), (178, 26843), (188, 26903), (202, 26969), (207, 26993), (224, 27098), (271, 27323), (276, 27350), (293, 27455),

Gene: Nibb\_43 Start: 32855, Stop: 33940, Start Num: 99

Candidate Starts for Nibb\_43:

(Start: 99 @32855 has 284 MA's), (123, 32990), (127, 33017), (152, 33197), (156, 33209), (175, 33293), (187, 33362), (188, 33365), (218, 33515), (235, 33620), (251, 33707), (267, 33755), (283, 33863), (292, 33911),

Gene: Nikao\_39 Start: 34589, Stop: 35683, Start Num: 99

Candidate Starts for Nikao\_39:

(25, 34238), (Start: 26 @34253 has 1 MA's), (36, 34346), (41, 34367), (63, 34460), (Start: 99 @34589 has 284 MA's), (107, 34640), (121, 34715), (127, 34751), (141, 34847), (142, 34865), (146, 34889), (155, 34937), (156, 34943), (184, 35075), (187, 35108), (197, 35153), (218, 35261), (235, 35366), (249, 35426), (267, 35501), (283, 35609), (289, 35645),

Gene: Niklas\_43 Start: 33040, Stop: 34131, Start Num: 99

Candidate Starts for Niklas\_43:

(24, 32707), (39, 32806), (40, 32815), (45, 32842), (56, 32890), (Start: 99 @33040 has 284 MA's), (121, 33166), (127, 33202), (142, 33316), (146, 33340), (156, 33394), (175, 33478), (182, 33511), (187, 33547), (188, 33550), (197, 33592), (211, 33679), (218, 33700), (235, 33808), (249, 33868), (262, 33931), (267, 33943), (283, 34051), (289, 34087),

Gene: Nutello\_36 Start: 31976, Stop: 33070, Start Num: 99

Candidate Starts for Nutello\_36:

(25, 31625), (Start: 26 @31640 has 1 MA's), (36, 31733), (41, 31754), (63, 31847), (Start: 99 @31976 has 284 MA's), (107, 32027), (121, 32102), (127, 32138), (141, 32234), (142, 32252), (146, 32276), (155, 32324), (156, 32330), (184, 32462), (187, 32495), (197, 32540), (218, 32648), (235, 32753), (249, 32813), (267, 32888), (283, 32996), (289, 33032),

Gene: Nymphadora\_39 Start: 32012, Stop: 33094, Start Num: 98

Candidate Starts for Nymphadora\_39:

(Start: 66 @31901 has 6 MA's), (Start: 98 @32012 has 52 MA's), (107, 32066), (128, 32186), (171, 32432), (172, 32441), (178, 32471), (188, 32531), (202, 32597), (207, 32621), (271, 32951), (276, 32978), (293, 33083),

Gene: ODay\_52 Start: 33934, Stop: 35028, Start Num: 99

Candidate Starts for ODay\_52:

(Start: 99 @33934 has 284 MA's), (107, 33985), (114, 34033), (122, 34063), (124, 34090), (139, 34168), (140, 34177), (175, 34369), (179, 34387), (197, 34486), (204, 34519), (205, 34522), (207, 34534), (225, 34636), (239, 34702), (244, 34729), (245, 34732), (256, 34801), (259, 34810), (271, 34861), (272, 34864), (277, 34891), (278, 34903), (294, 34996),

Gene: OneDirection\_30 Start: 24794, Stop: 25876, Start Num: 98

Candidate Starts for OneDirection\_30:

(Start: 66 @24683 has 6 MA's), (Start: 98 @24794 has 52 MA's), (102, 24821), (107, 24848), (128, 24968), (172, 25223), (188, 25313), (202, 25379), (207, 25403), (271, 25733), (273, 25748), (276, 25760), (283, 25808), (293, 25865),

Gene: Oregano\_39 Start: 29184, Stop: 30311, Start Num: 99

Candidate Starts for Oregano\_39:

(43, 28965), (50, 29001), (Start: 99 @29184 has 284 MA's), (107, 29238), (124, 29361), (132, 29394), (143, 29484), (148, 29517), (187, 29712), (188, 29715), (197, 29757), (205, 29793), (257, 30090), (278, 30210), (282, 30237), (293, 30300),

Gene: Oscar\_45 Start: 33597, Stop: 34682, Start Num: 99

Candidate Starts for Oscar\_45:

(14, 32994), (15, 33012), (18, 33090), (Start: 26 @33261 has 1 MA's), (35, 33336), (41, 33375), (52, 33429), (Start: 99 @33597 has 284 MA's), (123, 33732), (127, 33759), (146, 33897), (152, 33939), (156, 33951), (175, 34035), (187, 34104), (188, 34107), (197, 34149), (218, 34257), (235, 34362), (251, 34449), (267, 34497), (283, 34605), (292, 34653),

Gene: Ovechkin\_41 Start: 32949, Stop: 34067, Start Num: 99

Candidate Starts for Ovechkin\_41:

(Start: 99 @32949 has 284 MA's), (100, 32958), (125, 33120), (149, 33285), (156, 33321), (159, 33330), (178, 33435), (189, 33504), (199, 33561), (200, 33564), (204, 33576), (205, 33579), (207, 33591), (211, 33630), (220, 33657), (225, 33693), (226, 33696), (230, 33732), (231, 33738), (236, 33753), (240, 33768), (251, 33837), (256, 33852), (268, 33894), (274, 33939), (277, 33948), (282, 33987), (284, 34005), (288, 34026), (292, 34041), (293, 34050), (294, 34053),



Gene: Padfoot\_41 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for Padfoot\_41:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: Padpat\_42 Start: 32470, Stop: 33558, Start Num: 99

Candidate Starts for Padpat\_42:

(Start: 99 @32470 has 284 MA's), (107, 32521), (115, 32572), (121, 32596), (127, 32632), (146, 32770), (156, 32824), (175, 32908), (187, 32977), (188, 32980), (218, 33130), (229, 33208), (235, 33235), (251, 33322), (267, 33370),

Gene: Peanam\_43 Start: 33014, Stop: 34105, Start Num: 99

Candidate Starts for Peanam\_43:

(11, 32333), (17, 32477), (24, 32681), (39, 32780), (40, 32789), (45, 32816), (56, 32864), (Start: 99 @33014 has 284 MA's), (121, 33140), (127, 33176), (142, 33290), (146, 33314), (156, 33368), (175, 33452), (182, 33485), (187, 33521), (188, 33524), (197, 33566), (211, 33653), (218, 33674), (235, 33782), (249, 33842), (262, 33905), (267, 33917), (283, 34025), (289, 34061),

Gene: Peas\_35 Start: 27040, Stop: 28182, Start Num: 99

Candidate Starts for Peas\_35:

(Start: 99 @27040 has 284 MA's), (155, 27394), (156, 27400), (161, 27415), (169, 27469), (178, 27526), (187, 27586), (194, 27616), (207, 27679), (226, 27799), (233, 27847), (255, 27973), (258, 27985), (277, 28081), (286, 28156),

Gene: Peel\_41 Start: 32597, Stop: 33685, Start Num: 99

Candidate Starts for Peel\_41:

(13, 31994), (20, 32171), (34, 32336), (41, 32375), (Start: 99 @32597 has 284 MA's), (107, 32648), (115, 32699), (121, 32723), (127, 32759), (146, 32897), (175, 33035), (187, 33104), (188, 33107), (218, 33257), (235, 33362), (267, 33497),

Gene: Pepperoni\_31 Start: 25939, Stop: 27021, Start Num: 98

Candidate Starts for Pepperoni\_31:

(Start: 98 @25939 has 52 MA's), (107, 25993), (128, 26113), (178, 26398), (188, 26458), (202, 26524), (207, 26548), (224, 26653), (238, 26719), (271, 26878), (276, 26905), (283, 26953), (293, 27010),

Gene: Periwinkle\_57 Start: 34837, Stop: 35922, Start Num: 99

Candidate Starts for Periwinkle\_57:

(69, 34750), (78, 34786), (Start: 99 @34837 has 284 MA's), (107, 34888), (114, 34936), (122, 34966), (124, 34993), (140, 35080), (149, 35152), (156, 35188), (159, 35197), (175, 35272), (179, 35290), (197, 35389), (204, 35422), (205, 35425), (207, 35437), (217, 35488), (225, 35539), (239, 35605), (256, 35704), (271, 35764), (276, 35791), (282, 35833), (294, 35899),

Gene: Persistence\_35 Start: 26237, Stop: 25068, Start Num: 99

Candidate Starts for Persistence\_35:

(67, 26342), (75, 26303), (Start: 99 @26237 has 284 MA's), (107, 26186), (137, 26018), (138, 26000), (150, 25904), (159, 25868), (173, 25790), (187, 25703), (190, 25694), (202, 25634), (218, 25544), (236, 25439), (238, 25433), (245, 25391), (268, 25274), (270, 25253), (271, 25250), (273, 25235), (282, 25181), (299, 25085),

Gene: Phabuloso\_48 Start: 32389, Stop: 33486, Start Num: 99

Candidate Starts for Phabuloso\_48:

(Start: 99 @32389 has 284 MA's), (107, 32440), (122, 32518), (124, 32545), (140, 32632), (149, 32704), (156, 32740), (159, 32749), (175, 32824), (179, 32842), (184, 32869), (197, 32941), (204, 32974), (205, 32977), (207, 32989), (256, 33256), (271, 33316), (276, 33343), (283, 33391), (284, 33403), (294, 33451),

Gene: Phalconet\_41 Start: 31939, Stop: 33057, Start Num: 99

Candidate Starts for Phalconet\_41:

(Start: 99 @31939 has 284 MA's), (100, 31948), (125, 32110), (149, 32275), (156, 32311), (159, 32320), (189, 32494), (197, 32533), (200, 32554), (204, 32566), (205, 32569), (207, 32581), (211, 32620), (212, 32626), (220, 32647), (225, 32683), (226, 32686), (230, 32722), (231, 32728), (236, 32743), (251, 32827), (256, 32842), (261, 32860), (274, 32929), (277, 32938), (282, 32977), (284, 32995), (288, 33016), (292, 33031), (293, 33040), (294, 33043),

Gene: Phanphagia\_37 Start: 31053, Stop: 32171, Start Num: 99

Candidate Starts for Phanphagia\_37:

(Start: 99 @31053 has 284 MA's), (100, 31062), (125, 31224), (149, 31389), (156, 31425), (159, 31434), (178, 31539), (189, 31608), (197, 31647), (199, 31665), (200, 31668), (204, 31680), (205, 31683), (207, 31695), (208, 31710), (211, 31734), (212, 31740), (220, 31761), (225, 31797), (226, 31800), (230, 31836), (231, 31842), (236, 31857), (240, 31872), (251, 31941), (256, 31956), (268, 31998), (274, 32043), (277, 32052), (278, 32064), (282, 32091), (284, 32109), (288, 32130), (292, 32145), (293, 32154), (294, 32157),

Gene: PhesterPhotato\_44 Start: 32894, Stop: 34012, Start Num: 99

Candidate Starts for PhesterPhotato\_44:

(Start: 99 @32894 has 284 MA's), (100, 32903), (125, 33065), (149, 33230), (156, 33266), (159, 33275), (189, 33449), (197, 33488), (200, 33509), (204, 33521), (205, 33524), (207, 33536), (211, 33575), (212, 33581), (220, 33602), (225, 33638), (226, 33641), (230, 33677), (231, 33683), (236, 33698), (251, 33782), (256, 33797), (261, 33815), (274, 33884), (277, 33893), (282, 33932), (284, 33950), (288, 33971), (292, 33986), (293, 33995), (294, 33998),

Gene: Philus\_43 Start: 31979, Stop: 33097, Start Num: 99

Candidate Starts for Philus\_43:

(Start: 99 @31979 has 284 MA's), (122, 32117), (125, 32150), (135, 32198), (149, 32315), (156, 32351), (159, 32360), (178, 32465), (189, 32534), (200, 32594), (204, 32606), (205, 32609), (207, 32621), (208, 32636), (211, 32660), (212, 32666), (220, 32687), (225, 32723), (226, 32726), (230, 32762), (231, 32768), (235, 32780), (236, 32783), (251, 32867), (256, 32882), (268, 32924), (274, 32969), (277, 32978), (282, 33017), (284, 33035), (288, 33056), (292, 33071), (293, 33080), (294, 33083),

Gene: Phistory\_51 Start: 33096, Stop: 34193, Start Num: 99

Candidate Starts for Phistory\_51:

(69, 33009), (78, 33045), (Start: 99 @33096 has 284 MA's), (107, 33147), (122, 33225), (124, 33252), (135, 33297), (140, 33339), (175, 33531), (179, 33549), (184, 33576), (197, 33648), (200, 33669), (203, 33675), (207, 33696), (220, 33768), (231, 33852), (256, 33975), (269, 34026), (271, 34035), (276, 34062), (294, 34170), (297, 34185),

Gene: PhorbesPhlower\_33 Start: 25600, Stop: 26682, Start Num: 98

Candidate Starts for PhorbesPhlower\_33:

(Start: 66 @25489 has 6 MA's), (Start: 98 @25600 has 52 MA's), (107, 25654), (128, 25774), (149, 25921), (188, 26119), (202, 26185), (207, 26209), (271, 26539), (276, 26566), (293, 26671), (294, 26674),

Gene: Phrank15\_39 Start: 27192, Stop: 26020, Start Num: 99

Candidate Starts for Phrank15\_39:

(77, 27249), (Start: 99 @27192 has 284 MA's), (107, 27141), (137, 26973), (138, 26955), (159, 26823), (173, 26745), (175, 26733), (176, 26727), (187, 26658), (190, 26649), (202, 26589), (218, 26499), (236, 26394), (241, 26373), (245, 26346), (268, 26223), (271, 26199), (273, 26184), (295, 26064), (299, 26037),

Gene: Phrappuccino\_38 Start: 20588, Stop: 21727, Start Num: 99

Candidate Starts for Phrappuccino\_38:

(Start: 99 @20588 has 284 MA's), (108, 20642), (Start: 117 @20714 has 1 MA's), (156, 20966), (159, 20975), (172, 21065), (175, 21080), (187, 21158), (202, 21227), (205, 21239), (218, 21311), (227, 21362), (228, 21365), (231, 21401), (246, 21452), (251, 21500), (252, 21506), (256, 21515), (273, 21596), (287, 21689), (291, 21701), (293, 21713),

Gene: Piatt\_41 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for Piatt\_41:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: Pickett\_32 Start: 24860, Stop: 25942, Start Num: 98

Candidate Starts for Pickett\_32:

(Start: 98 @24860 has 52 MA's), (107, 24914), (128, 25034), (178, 25319), (188, 25379), (202, 25445), (207, 25469), (271, 25799), (276, 25826), (293, 25931),

Gene: Pippy\_38 Start: 29161, Stop: 30279, Start Num: 99

Candidate Starts for Pippy\_38:

(Start: 99 @29161 has 284 MA's), (100, 29170), (125, 29332), (149, 29497), (156, 29533), (159, 29542), (173, 29623), (178, 29647), (189, 29716), (197, 29755), (199, 29773), (200, 29776), (204, 29788), (205, 29791), (207, 29803), (208, 29818), (211, 29842), (212, 29848), (220, 29869), (225, 29905), (226, 29908), (230, 29944), (231, 29950), (236, 29965), (240, 29980), (251, 30049), (256, 30064), (268, 30106), (274, 30151), (277, 30160), (282, 30199), (284, 30217), (288, 30238), (292, 30253), (293, 30262), (294, 30265),

Gene: Pokerus\_40 Start: 32516, Stop: 33604, Start Num: 99

Candidate Starts for Pokerus\_40:

(Start: 99 @32516 has 284 MA's), (115, 32618), (121, 32642), (127, 32678), (146, 32816), (156, 32870), (175, 32954), (187, 33023), (188, 33026), (218, 33176), (235, 33281), (251, 33368), (267, 33416), (289, 33560),

Gene: Pollux\_38 Start: 32103, Stop: 33209, Start Num: 99

Candidate Starts for Pollux\_38:

(79, 32046), (Start: 99 @32103 has 284 MA's), (107, 32154), (124, 32259), (133, 32298), (175, 32538), (187, 32607), (188, 32610), (195, 32640), (205, 32691), (207, 32703), (248, 32931), (258, 32991), (271, 33066), (277, 33096), (293, 33198),

Gene: Polly\_36 Start: 30006, Stop: 31088, Start Num: 98

Candidate Starts for Polly\_36:

(Start: 66 @29895 has 6 MA's), (Start: 98 @30006 has 52 MA's), (107, 30060), (128, 30180), (172, 30435), (178, 30465), (188, 30525), (202, 30591), (207, 30615), (271, 30945), (276, 30972), (293, 31077),

Gene: Posh\_42 Start: 32975, Stop: 34057, Start Num: 98

Candidate Starts for Posh\_42:

(Start: 66 @32864 has 6 MA's), (Start: 98 @32975 has 52 MA's), (107, 33029), (128, 33149), (188, 33494), (207, 33584), (224, 33689), (271, 33914), (276, 33941), (293, 34046),

Gene: Prithvi\_42 Start: 32665, Stop: 33753, Start Num: 99

Candidate Starts for Prithvi\_42:

(57, 32518), (Start: 99 @32665 has 284 MA's), (115, 32767), (121, 32791), (127, 32827), (146, 32965), (156, 33019), (175, 33103), (187, 33172), (188, 33175), (218, 33325), (235, 33430), (251, 33517), (267, 33565), (289, 33709),

Gene: Pytheas\_39 Start: 31310, Stop: 32392, Start Num: 98

Candidate Starts for Pytheas\_39:

(Start: 66 @31199 has 6 MA's), (Start: 98 @31310 has 52 MA's), (107, 31364), (128, 31484), (178, 31769), (188, 31829), (202, 31895), (207, 31919), (271, 32249), (276, 32276), (293, 32381),

Gene: QuincyRose\_40 Start: 32781, Stop: 33869, Start Num: 99

Candidate Starts for QuincyRose\_40:

(Start: 99 @32781 has 284 MA's), (115, 32883), (121, 32907), (127, 32943), (146, 33081), (156, 33135), (175, 33219), (187, 33288), (188, 33291), (218, 33441), (235, 33546), (251, 33633), (260, 33663), (267, 33681), (289, 33825),

Gene: RadFad\_40 Start: 27831, Stop: 26659, Start Num: 99

Candidate Starts for RadFad\_40:

(Start: 99 @27831 has 284 MA's), (107, 27780), (125, 27666), (137, 27612), (138, 27594), (147, 27522), (153, 27480), (159, 27462), (173, 27384), (175, 27372), (187, 27297), (190, 27288), (202, 27228), (218, 27138), (236, 27033), (241, 27012), (244, 26988), (245, 26985), (254, 26916), (268, 26862), (271, 26838), (273, 26823), (295, 26703), (299, 26676),

Gene: Ramen\_41 Start: 32481, Stop: 33569, Start Num: 99

Candidate Starts for Ramen\_41:

(Start: 99 @32481 has 284 MA's), (115, 32583), (121, 32607), (127, 32643), (146, 32781), (156, 32835), (175, 32919), (187, 32988), (188, 32991), (218, 33141), (229, 33219), (235, 33246), (251, 33333), (267, 33381),

Gene: Raphaella\_40 Start: 27703, Stop: 26564, Start Num: 99

Candidate Starts for Raphaella\_40:

(Start: 99 @27703 has 284 MA's), (107, 27652), (137, 27484), (138, 27466), (159, 27334), (173, 27256), (175, 27244), (176, 27238), (187, 27169), (190, 27160), (202, 27100), (218, 27010), (236, 26905), (241, 26884), (245, 26857), (268, 26734), (271, 26710), (273, 26695), (285, 26620), (291, 26590),

Gene: Rapunzel97\_41 Start: 32477, Stop: 33565, Start Num: 99

Candidate Starts for Rapunzel97\_41:

(Start: 99 @32477 has 284 MA's), (107, 32528), (115, 32579), (121, 32603), (127, 32639), (146, 32777), (156, 32831), (175, 32915), (187, 32984), (188, 32987), (218, 33137), (229, 33215), (235, 33242), (251, 33329), (267, 33377),

Gene: Raqqa\_32 Start: 24809, Stop: 23658, Start Num: 103

Candidate Starts for Raqqa\_32:

(Start: 99 @24836 has 284 MA's), (103, 24809), (107, 24785), (138, 24599), (150, 24503), (159, 24467), (173, 24389), (187, 24302), (190, 24293), (202, 24233), (218, 24143), (236, 24038), (238, 24032), (253, 23924), (268, 23873), (271, 23849), (273, 23834), (285, 23759), (294, 23714),

Gene: RavenCo17\_41 Start: 31793, Stop: 32899, Start Num: 99

Candidate Starts for RavenCo17\_41:

(79, 31736), (Start: 99 @31793 has 284 MA's), (107, 31844), (124, 31949), (133, 31988), (175, 32228), (187, 32297), (188, 32300), (195, 32330), (205, 32381), (207, 32393), (248, 32621), (258, 32681), (259, 32684), (271, 32756), (277, 32786), (293, 32888),

Gene: Renaud18\_46 Start: 32683, Stop: 33786, Start Num: 99

Candidate Starts for Renaud18\_46:

(Start: 99 @32683 has 284 MA's), (107, 32731), (122, 32812), (124, 32839), (156, 33052), (164, 33076), (173, 33124), (187, 33205), (202, 33274), (204, 33283), (208, 33313), (211, 33337), (218, 33358), (229, 33436), (231, 33451), (248, 33511), (251, 33550), (256, 33565), (263, 33589), (268, 33616), (271, 33640), (274, 33661), (277, 33670), (283, 33715), (284, 33727),

Gene: Rialto\_46 Start: 34385, Stop: 35503, Start Num: 99

Candidate Starts for Rialto\_46:

(Start: 99 @34385 has 284 MA's), (125, 34556), (149, 34721), (156, 34757), (159, 34766), (178, 34871), (189, 34940), (197, 34979), (200, 35000), (204, 35012), (205, 35015), (207, 35027), (211, 35066), (212, 35072), (220, 35093), (225, 35129), (226, 35132), (230, 35168), (231, 35174), (236, 35189), (240, 35204), (251, 35273), (256, 35288), (274, 35375), (277, 35384), (282, 35423), (284, 35441), (288, 35462), (292, 35477), (293, 35486), (294, 35489),

Gene: Richie\_40 Start: 27784, Stop: 26645, Start Num: 99

Candidate Starts for Richie\_40:

(Start: 99 @27784 has 284 MA's), (107, 27733), (137, 27565), (138, 27547), (156, 27424), (159, 27415), (173, 27337), (175, 27325), (176, 27319), (187, 27250), (190, 27241), (202, 27181), (218, 27091), (236, 26986), (241, 26965), (245, 26938), (268, 26815), (271, 26791), (273, 26776), (285, 26701), (291, 26671),

Gene: Richo\_43 Start: 33014, Stop: 34105, Start Num: 99

Candidate Starts for Richo\_43:

(11, 32333), (17, 32477), (24, 32681), (39, 32780), (40, 32789), (45, 32816), (56, 32864), (Start: 99 @33014 has 284 MA's), (107, 33065), (121, 33140), (127, 33176), (142, 33290), (146, 33314), (156, 33368), (175, 33452), (182, 33485), (187, 33521), (188, 33524), (197, 33566), (211, 33653), (218, 33674), (235, 33782), (249, 33842), (262, 33905), (267, 33917), (283, 34025), (289, 34061),

Gene: Rita\_44 Start: 31945, Stop: 33063, Start Num: 99

Candidate Starts for Rita\_44:

(Start: 99 @31945 has 284 MA's), (122, 32083), (125, 32116), (135, 32164), (156, 32317), (159, 32326), (173, 32407), (189, 32500), (200, 32560), (204, 32572), (205, 32575), (208, 32602), (211, 32626), (220, 32653), (225, 32689), (226, 32692), (230, 32728), (240, 32764), (251, 32833), (256, 32848), (261, 32866), (274, 32935), (277, 32944), (278, 32956), (282, 32983), (284, 33001), (288, 33022), (292, 33037), (293, 33046), (294, 33049),

Gene: RootBeer\_29 Start: 22941, Stop: 24083, Start Num: 99

Candidate Starts for RootBeer\_29:

(Start: 99 @22941 has 284 MA's), (107, 22992), (111, 23019), (155, 23295), (156, 23301), (162, 23319), (178, 23427), (187, 23487), (207, 23580), (226, 23700), (233, 23748), (241, 23778), (255, 23874), (277, 23982), (286, 24057),

Gene: Rosmarinus\_41 Start: 32583, Stop: 33671, Start Num: 99

Candidate Starts for Rosmarinus\_41:

(13, 31980), (20, 32157), (34, 32322), (41, 32361), (Start: 99 @32583 has 284 MA's), (107, 32634), (115, 32685), (121, 32709), (127, 32745), (146, 32883), (175, 33021), (187, 33090), (188, 33093), (218, 33243), (235, 33348), (267, 33483),

Gene: SG4\_40 Start: 31653, Stop: 32771, Start Num: 99

Candidate Starts for SG4\_40:

(Start: 99 @31653 has 284 MA's), (100, 31662), (125, 31824), (149, 31989), (156, 32025), (159, 32034), (173, 32115), (178, 32139), (189, 32208), (197, 32247), (199, 32265), (200, 32268), (204, 32280), (205, 32283), (207, 32295), (211, 32334), (212, 32340), (220, 32361), (225, 32397), (226, 32400), (230, 32436), (231, 32442), (236, 32457), (251, 32541), (256, 32556), (261, 32574), (274, 32643), (277, 32652), (282, 32691), (284, 32709), (288, 32730), (292, 32745), (293, 32754), (294, 32757),

Gene: Saal\_43 Start: 31957, Stop: 33075, Start Num: 99

Candidate Starts for Saal\_43:

(Start: 99 @31957 has 284 MA's), (122, 32095), (125, 32128), (135, 32176), (149, 32293), (156, 32329), (159, 32338), (178, 32443), (189, 32512), (200, 32572), (204, 32584), (205, 32587), (207, 32599), (208, 32614), (211, 32638), (212, 32644), (220, 32665), (225, 32701), (226, 32704), (230, 32740), (231, 32746), (235, 32758), (236, 32761), (251, 32845), (256, 32860), (268, 32902), (274, 32947), (277, 32956), (282, 32995), (284, 33013), (288, 33034), (292, 33049), (293, 33058), (294, 33061),

Gene: Sahara\_36 Start: 27505, Stop: 28704, Start Num: 65

Candidate Starts for Sahara\_36:

(Start: 65 @27505 has 2 MA's), (Start: 66 @27511 has 6 MA's), (Start: 98 @27622 has 52 MA's), (107, 27676), (128, 27796), (172, 28051), (178, 28081), (188, 28141), (202, 28207), (207, 28231), (224, 28336), (271, 28561), (276, 28588), (293, 28693),

Gene: Sakai\_40 Start: 27712, Stop: 26573, Start Num: 99

Candidate Starts for Sakai\_40:

(Start: 99 @27712 has 284 MA's), (107, 27661), (137, 27493), (138, 27475), (159, 27343), (173, 27265), (175, 27253), (176, 27247), (187, 27178), (190, 27169), (202, 27109), (218, 27019), (236, 26914), (241, 26893), (245, 26866), (268, 26743), (271, 26719), (273, 26704), (285, 26629), (291, 26599),

Gene: Samman98\_40 Start: 29099, Stop: 30226, Start Num: 99

Candidate Starts for Samman98\_40:

(85, 29060), (Start: 99 @29099 has 284 MA's), (107, 29153), (124, 29276), (132, 29309), (143, 29399), (148, 29432), (187, 29627), (188, 29630), (197, 29672), (205, 29708), (257, 30005), (271, 30083), (276, 30110), (278, 30125), (282, 30152), (293, 30215),

Gene: SamuelLPlaqson\_42 Start: 33376, Stop: 34464, Start Num: 99

Candidate Starts for SamuelLPlaqson\_42:

(41, 33154), (Start: 99 @33376 has 284 MA's), (107, 33427), (115, 33478), (121, 33502), (127, 33538), (142, 33652), (156, 33730), (175, 33814), (187, 33883), (188, 33886), (218, 34036), (235, 34141), (267, 34276), (289, 34420),

Gene: Sarge\_28 Start: 22501, Stop: 21347, Start Num: 99

Candidate Starts for Sarge\_28:

(79, 22564), (Start: 99 @22501 has 284 MA's), (107, 22450), (108, 22447), (111, 22423), (142, 22198), (149, 22153), (151, 22132), (152, 22129), (160, 22105), (175, 22006), (178, 21991), (192, 21910), (209, 21817), (222, 21748), (230, 21694), (237, 21670), (241, 21652), (245, 21625), (251, 21571), (255, 21556), (257, 21547), (273, 21463), (274, 21457), (277, 21448), (283, 21403), (286, 21373),

Gene: Sarma624\_38 Start: 27903, Stop: 29021, Start Num: 99

Candidate Starts for Sarma624\_38:

(Start: 99 @27903 has 284 MA's), (125, 28074), (149, 28239), (156, 28275), (159, 28284), (173, 28365), (178, 28389), (189, 28458), (197, 28497), (199, 28515), (200, 28518), (204, 28530), (205, 28533), (207, 28545), (208, 28560), (211, 28584), (212, 28590), (220, 28611), (225, 28647), (226, 28650), (230, 28686), (231, 28692), (235, 28704), (236, 28707), (240, 28722), (251, 28791), (256, 28806), (268, 28848), (274, 28893), (277, 28902), (282, 28941), (284, 28959), (288, 28980), (292, 28995), (293, 29004), (294, 29007),

Gene: Sashimi\_39 Start: 28789, Stop: 27602, Start Num: 99

Candidate Starts for Sashimi\_39:

(Start: 99 @28789 has 284 MA's), (107, 28738), (116, 28672), (138, 28552), (148, 28471), (150, 28456), (159, 28420), (173, 28342), (187, 28255), (190, 28246), (196, 28216), (202, 28186), (218, 28096), (236, 27991), (268, 27820), (271, 27796), (273, 27781), (294, 27661),

Gene: Savage\_37 Start: 27875, Stop: 28957, Start Num: 98

Candidate Starts for Savage\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: Scarlett\_45 Start: 33589, Stop: 34674, Start Num: 99

Candidate Starts for Scarlett\_45:

(14, 32986), (15, 33004), (18, 33082), (Start: 26 @33253 has 1 MA's), (35, 33328), (41, 33367), (52, 33421), (Start: 99 @33589 has 284 MA's), (123, 33724), (127, 33751), (146, 33889), (152, 33931), (156, 33943), (175, 34027), (187, 34096), (188, 34099), (197, 34141), (218, 34249), (235, 34354), (251, 34441), (267, 34489), (283, 34597), (292, 34645),

Gene: Seahorse\_41 Start: 29287, Stop: 28109, Start Num: 99

Candidate Starts for Seahorse\_41:

(Start: 99 @29287 has 284 MA's), (116, 29170), (138, 29050), (159, 28918), (173, 28840), (187, 28753), (190, 28744), (202, 28684), (218, 28594), (236, 28489), (238, 28483), (245, 28441), (268, 28324), (270, 28303), (271, 28300), (273, 28285), (294, 28165),

Gene: Sekhmet\_40 Start: 29999, Stop: 31126, Start Num: 99

Candidate Starts for Sekhmet\_40:

(85, 29960), (Start: 99 @29999 has 284 MA's), (107, 30053), (124, 30176), (132, 30209), (143, 30299), (148, 30332), (187, 30527), (188, 30530), (197, 30572), (205, 30608), (257, 30905), (271, 30983), (276, 31010), (278, 31025), (282, 31052), (293, 31115),

Gene: Settecandela\_38 Start: 20588, Stop: 21727, Start Num: 99

Candidate Starts for Settecandela\_38:

(Start: 99 @20588 has 284 MA's), (108, 20642), (Start: 117 @20714 has 1 MA's), (156, 20966), (159, 20975), (172, 21065), (175, 21080), (187, 21158), (202, 21227), (205, 21239), (218, 21311), (227, 21362), (228, 21365), (231, 21401), (246, 21452), (251, 21500), (252, 21506), (256, 21515), (273, 21596), (287, 21689), (291, 21701), (293, 21713),

Gene: SgtBeansprout\_36 Start: 31976, Stop: 33070, Start Num: 99

Candidate Starts for SgtBeansprout\_36:

(25, 31625), (Start: 26 @31640 has 1 MA's), (36, 31733), (41, 31754), (63, 31847), (Start: 99 @31976 has 284 MA's), (107, 32027), (121, 32102), (127, 32138), (141, 32234), (142, 32252), (146, 32276), (155, 32324), (156, 32330), (184, 32462), (187, 32495), (197, 32540), (218, 32648), (235, 32753), (249, 32813), (267, 32888), (283, 32996), (289, 33032),

Gene: Shaobing\_43 Start: 33037, Stop: 34128, Start Num: 99

Candidate Starts for Shaobing\_43:

(24, 32704), (39, 32803), (40, 32812), (45, 32839), (56, 32887), (Start: 99 @33037 has 284 MA's), (106, 33082), (107, 33088), (121, 33163), (127, 33199), (142, 33313), (146, 33337), (156, 33391), (175, 33475), (182, 33508), (187, 33544), (188, 33547), (197, 33589), (211, 33676), (218, 33697), (235, 33805), (249, 33865), (262, 33928), (267, 33940), (283, 34048), (289, 34084),

Gene: Shauna1\_38 Start: 31056, Stop: 32174, Start Num: 99

Candidate Starts for Shauna1\_38:

(Start: 99 @31056 has 284 MA's), (125, 31227), (149, 31392), (156, 31428), (159, 31437), (173, 31518), (189, 31611), (200, 31671), (204, 31683), (205, 31686), (208, 31713), (211, 31737), (220, 31764), (225, 31800), (226, 31803), (230, 31839), (240, 31875), (251, 31944), (256, 31959), (261, 31977), (274, 32046), (277, 32055), (278, 32067), (282, 32094), (284, 32112), (288, 32133), (292, 32148), (293, 32157), (294, 32160),

Gene: ShiaSurprise\_42 Start: 32792, Stop: 33880, Start Num: 99

Candidate Starts for ShiaSurprise\_42:

(Start: 99 @32792 has 284 MA's), (115, 32894), (121, 32918), (127, 32954), (146, 33092), (175, 33230), (187, 33299), (188, 33302), (218, 33452), (235, 33557), (267, 33692),

Gene: Shlim410\_38 Start: 32549, Stop: 33676, Start Num: 99

Candidate Starts for Shlim410\_38:

(85, 32510), (Start: 99 @32549 has 284 MA's), (107, 32603), (124, 32726), (132, 32759), (143, 32849), (148, 32882), (187, 33077), (188, 33080), (197, 33122), (205, 33158), (257, 33455), (271, 33533), (276, 33560), (278, 33575), (282, 33602), (293, 33665),

Gene: Shoya\_35 Start: 24881, Stop: 23751, Start Num: 99

Candidate Starts for Shoya\_35:

(Start: 99 @24881 has 284 MA's), (107, 24830), (108, 24827), (142, 24602), (149, 24557), (151, 24536), (152, 24533), (159, 24512), (160, 24509), (178, 24395), (193, 24311), (230, 24098), (237, 24074), (241, 24056), (245, 24029), (249, 24002), (251, 23975), (255, 23960), (257, 23951), (274, 23861), (283, 23807), (286, 23777),

Gene: ShroomBoi\_42 Start: 32032, Stop: 33150, Start Num: 99

Candidate Starts for ShroomBoi\_42:

(Start: 99 @32032 has 284 MA's), (100, 32041), (122, 32170), (125, 32203), (135, 32251), (149, 32368), (156, 32404), (159, 32413), (173, 32494), (178, 32518), (189, 32587), (197, 32626), (199, 32644), (200, 32647), (204, 32659), (205, 32662), (207, 32674), (208, 32689), (211, 32713), (212, 32719), (220, 32740), (225, 32776), (226, 32779), (230, 32815), (231, 32821), (236, 32836), (240, 32851), (251, 32920), (256, 32935), (268, 32977), (274, 33022), (277, 33031), (282, 33070), (284, 33088), (288, 33109), (292, 33124), (293, 33133), (294, 33136),

Gene: SimranZ1\_43 Start: 31600, Stop: 32718, Start Num: 99

Candidate Starts for SimranZ1\_43:

(Start: 99 @31600 has 284 MA's), (122, 31738), (125, 31771), (135, 31819), (156, 31972), (159, 31981), (173, 32062), (189, 32155), (200, 32215), (204, 32227), (205, 32230), (208, 32257), (211, 32281), (220, 32308), (225, 32344), (226, 32347), (230, 32383), (240, 32419), (251, 32488), (256, 32503), (261, 32521), (274, 32590), (277, 32599), (282, 32638), (284, 32656), (288, 32677), (292, 32692), (293, 32701), (294, 32704),

Gene: Slimphazie\_41 Start: 32477, Stop: 33565, Start Num: 99

Candidate Starts for Slimphazie\_41:



(Start: 99 @32477 has 284 MA's), (107, 32528), (115, 32579), (121, 32603), (127, 32639), (146, 32777), (156, 32831), (175, 32915), (187, 32984), (188, 32987), (218, 33137), (229, 33215), (235, 33242), (251, 33329), (267, 33377),

Gene: SoilAssassin\_34 Start: 27695, Stop: 28777, Start Num: 98

Candidate Starts for SoilAssassin\_34:

(Start: 66 @27584 has 6 MA's), (Start: 98 @27695 has 52 MA's), (107, 27749), (128, 27869), (172, 28124), (178, 28154), (188, 28214), (202, 28280), (207, 28304), (271, 28634), (276, 28661), (293, 28766),

Gene: Sonali\_29 Start: 28564, Stop: 29715, Start Num: 99

Candidate Starts for Sonali\_29:

(88, 28522), (Start: 99 @28564 has 284 MA's), (100, 28573), (130, 28741), (156, 28918), (173, 28990), (208, 29185), (258, 29473), (273, 29569), (276, 29581), (277, 29584),

Gene: Soul22\_46 Start: 32314, Stop: 33432, Start Num: 99

Candidate Starts for Soul22\_46:

(Start: 99 @32314 has 284 MA's), (125, 32485), (156, 32686), (159, 32695), (173, 32776), (189, 32869), (200, 32929), (204, 32941), (205, 32944), (208, 32971), (211, 32995), (220, 33022), (225, 33058), (226, 33061), (230, 33097), (240, 33133), (251, 33202), (256, 33217), (261, 33235), (274, 33304), (277, 33313), (282, 33352), (284, 33370), (288, 33391), (292, 33406), (293, 33415), (294, 33418),

Gene: Sparky\_45 Start: 33811, Stop: 34989, Start Num: 99

Candidate Starts for Sparky\_45:

(Start: 99 @33811 has 284 MA's), (107, 33859), (118, 33925), (127, 33970), (148, 34120), (156, 34162), (175, 34276), (181, 34303), (187, 34351), (188, 34354), (205, 34435), (207, 34447), (223, 34552), (230, 34594), (234, 34609), (239, 34624), (245, 34648), (267, 34759), (276, 34819), (288, 34900), (291, 34912), (298, 34951),

Gene: Spartacus\_41 Start: 31407, Stop: 32525, Start Num: 99

Candidate Starts for Spartacus\_41:

(Start: 99 @31407 has 284 MA's), (100, 31416), (125, 31578), (159, 31788), (173, 31869), (189, 31962), (197, 32001), (200, 32022), (204, 32034), (205, 32037), (209, 32073), (211, 32088), (212, 32094), (220, 32115), (225, 32151), (226, 32154), (230, 32190), (231, 32196), (240, 32226), (246, 32247), (251, 32295), (256, 32310), (268, 32352), (274, 32397), (277, 32406), (282, 32445), (284, 32463), (288, 32484), (292, 32499), (293, 32508), (294, 32511),

Gene: Spartoi\_37 Start: 25898, Stop: 24921, Start Num: 117

Candidate Starts for Spartoi\_37:

(Start: 99 @26012 has 284 MA's), (105, 25973), (107, 25961), (Start: 117 @25898 has 1 MA's), (122, 25883), (145, 25718), (152, 25670), (153, 25667), (165, 25643), (175, 25583), (194, 25481), (202, 25442), (232, 25262), (239, 25238), (241, 25226), (249, 25166), (251, 25139), (255, 25124), (257, 25115), (267, 25085), (268, 25076), (274, 25031), (276, 25025), (284, 24965), (286, 24947),

Gene: SpicyFrank\_39 Start: 27481, Stop: 26348, Start Num: 99

Candidate Starts for SpicyFrank\_39:

(71, 27571), (74, 27550), (Start: 99 @27481 has 284 MA's), (107, 27430), (137, 27262), (138, 27244), (153, 27130), (159, 27112), (173, 27034), (187, 26947), (190, 26938), (202, 26878), (209, 26830), (218, 26788), (236, 26683), (244, 26638), (245, 26635), (268, 26518), (271, 26494), (273, 26479), (285, 26404), (291, 26374),

Gene: Spock\_41 Start: 32596, Stop: 33684, Start Num: 99

Candidate Starts for Spock\_41:

(22, 32212), (29, 32299), (41, 32374), (Start: 99 @32596 has 284 MA's), (107, 32647), (115, 32698), (121, 32722), (127, 32758), (146, 32896), (175, 33034), (187, 33103), (188, 33106), (218, 33256), (235, 33361), (267, 33496),

Gene: Sproutie\_37 Start: 27875, Stop: 28957, Start Num: 98

Candidate Starts for Sproutie\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: Squirty\_35 Start: 28972, Stop: 30078, Start Num: 99

Candidate Starts for Squirty\_35:

(93, 28951), (Start: 99 @28972 has 284 MA's), (124, 29131), (131, 29167), (152, 29332), (175, 29428), (177, 29440), (184, 29473), (187, 29497), (202, 29566), (204, 29575), (205, 29578), (211, 29629), (218, 29650), (229, 29728), (231, 29743), (248, 29803), (251, 29842), (256, 29857), (263, 29881), (268, 29908), (271, 29932), (274, 29953), (277, 29962), (284, 30019),

Gene: StAnnes\_42 Start: 33543, Stop: 34661, Start Num: 99

Candidate Starts for StAnnes\_42:

(Start: 99 @33543 has 284 MA's), (100, 33552), (125, 33714), (149, 33879), (156, 33915), (159, 33924), (178, 34029), (189, 34098), (197, 34137), (200, 34158), (204, 34170), (205, 34173), (207, 34185), (211, 34224), (212, 34230), (220, 34251), (225, 34287), (226, 34290), (230, 34326), (231, 34332), (236, 34347), (251, 34431), (256, 34446), (268, 34488), (274, 34533), (277, 34542), (282, 34581), (284, 34599), (288, 34620), (292, 34635), (293, 34644), (294, 34647),

Gene: Stinson\_42 Start: 32990, Stop: 34078, Start Num: 99

Candidate Starts for Stinson\_42:

(Start: 99 @32990 has 284 MA's), (115, 33092), (121, 33116), (127, 33152), (137, 33203), (142, 33266), (146, 33290), (156, 33344), (158, 33347), (175, 33428), (187, 33497), (188, 33500), (218, 33650), (229, 33728), (235, 33755), (267, 33890),

Gene: Strobilo\_43 Start: 34292, Stop: 35392, Start Num: 99

Candidate Starts for Strobilo\_43:

(Start: 99 @34292 has 284 MA's), (101, 34310), (107, 34343), (121, 34418), (127, 34454), (142, 34568), (146, 34592), (156, 34646), (185, 34787), (187, 34811), (188, 34814), (197, 34856), (218, 34964), (235, 35069), (247, 35114), (249, 35129), (283, 35321),

Gene: Strokeseat\_41 Start: 31786, Stop: 32904, Start Num: 99

Candidate Starts for Strokeseat\_41:

(Start: 99 @31786 has 284 MA's), (125, 31957), (149, 32122), (156, 32158), (159, 32167), (178, 32272), (189, 32341), (197, 32380), (200, 32401), (204, 32413), (205, 32416), (207, 32428), (211, 32467), (212, 32473), (220, 32494), (225, 32530), (226, 32533), (230, 32569), (231, 32575), (235, 32587), (236, 32590), (240, 32605), (251, 32674), (256, 32689), (261, 32707), (274, 32776), (277, 32785), (282, 32824), (284, 32842), (288, 32863), (292, 32878), (293, 32887), (294, 32890),

Gene: Sulley\_41 Start: 32725, Stop: 33810, Start Num: 99

Candidate Starts for Sulley\_41:

(Start: 99 @32725 has 284 MA's), (115, 32827), (116, 32836), (121, 32851), (127, 32887), (146, 33025), (156, 33079), (175, 33163), (187, 33232), (188, 33235), (218, 33385), (235, 33490), (251, 33577), (267, 33625), (289, 33769),

Gene: SuperGrey\_42 Start: 32615, Stop: 33742, Start Num: 99

Candidate Starts for SuperGrey\_42:

(68, 32513), (83, 32570), (Start: 99 @32615 has 284 MA's), (100, 32624), (125, 32786), (134, 32837), (137, 32855), (141, 32900), (156, 32996), (159, 33005), (173, 33086), (178, 33110), (189, 33179), (197, 33218), (200, 33239), (204, 33251), (205, 33254), (208, 33281), (211, 33305), (212, 33311), (220, 33332), (225, 33368), (226, 33371), (230, 33407), (231, 33413), (235, 33425), (236, 33428), (240, 33443), (251, 33512), (256, 33527), (268, 33569), (274, 33614), (277, 33623), (282, 33662), (284, 33680), (288, 33701), (292, 33716), (293, 33725), (294, 33728),

Gene: Suscepit\_39 Start: 30564, Stop: 31646, Start Num: 98

Candidate Starts for Suscepit\_39:

(Start: 66 @30453 has 6 MA's), (Start: 98 @30564 has 52 MA's), (107, 30618), (128, 30738), (172, 30993), (178, 31023), (188, 31083), (202, 31149), (207, 31173), (271, 31503), (276, 31530), (293, 31635),

Gene: SwagPiggett\_45 Start: 33012, Stop: 34130, Start Num: 99

Candidate Starts for SwagPiggett\_45:

(Start: 99 @33012 has 284 MA's), (122, 33150), (125, 33183), (135, 33231), (149, 33348), (156, 33384), (159, 33393), (178, 33498), (189, 33567), (200, 33627), (204, 33639), (205, 33642), (207, 33654), (208, 33669), (211, 33693), (212, 33699), (220, 33720), (225, 33756), (226, 33759), (230, 33795), (231, 33801), (235, 33813), (236, 33816), (251, 33900), (256, 33915), (268, 33957), (274, 34002), (277, 34011), (282, 34050), (284, 34068), (288, 34089), (292, 34104), (293, 34113), (294, 34116),

Gene: TChen\_44 Start: 33582, Stop: 34700, Start Num: 99

Candidate Starts for TChen\_44:

(Start: 99 @33582 has 284 MA's), (100, 33591), (122, 33720), (125, 33753), (135, 33801), (156, 33954), (159, 33963), (173, 34044), (189, 34137), (200, 34197), (204, 34209), (205, 34212), (208, 34239), (211, 34263), (220, 34290), (225, 34326), (226, 34329), (230, 34365), (240, 34401), (251, 34470), (256, 34485), (261, 34503), (274, 34572), (277, 34581), (282, 34620), (284, 34638), (288, 34659), (292, 34674),

Gene: TClif\_45 Start: 33489, Stop: 34589, Start Num: 99

Candidate Starts for TClif\_45:

(Start: 99 @33489 has 284 MA's), (121, 33615), (127, 33651), (146, 33789), (156, 33843), (175, 33927), (185, 33984), (187, 34008), (188, 34011), (197, 34053), (218, 34161), (226, 34212), (234, 34263), (235, 34266), (247, 34311), (249, 34326), (267, 34401), (273, 34449), (289, 34545),

Gene: Tachez\_41 Start: 32439, Stop: 33527, Start Num: 99

Candidate Starts for Tachez\_41:

(Start: 99 @32439 has 284 MA's), (107, 32490), (115, 32541), (121, 32565), (127, 32601), (146, 32739), (156, 32793), (175, 32877), (187, 32946), (188, 32949), (218, 33099), (229, 33177), (235, 33204), (251, 33291), (267, 33339),

Gene: TaiwanKao\_43 Start: 32721, Stop: 33809, Start Num: 99

Candidate Starts for TaiwanKao\_43:

(Start: 99 @32721 has 284 MA's), (115, 32823), (121, 32847), (127, 32883), (156, 33075), (175, 33159), (187, 33228), (188, 33231), (218, 33381), (229, 33459), (235, 33486), (267, 33621), (289, 33765),

Gene: Taj\_45 Start: 32606, Stop: 33709, Start Num: 99

Candidate Starts for Taj\_45:

(Start: 99 @32606 has 284 MA's), (107, 32654), (122, 32735), (124, 32762), (156, 32975), (164, 32999), (173, 33047), (187, 33128), (202, 33197), (204, 33206), (208, 33236), (211, 33260), (218,

33281), (229, 33359), (231, 33374), (248, 33434), (251, 33473), (256, 33488), (263, 33512), (268, 33539), (271, 33563), (274, 33584), (277, 33593), (283, 33638), (284, 33650),

Gene: Tayonia\_39 Start: 30563, Stop: 31645, Start Num: 98

Candidate Starts for Tayonia\_39:

(Start: 66 @30452 has 6 MA's), (Start: 98 @30563 has 52 MA's), (107, 30617), (128, 30737), (172, 30992), (178, 31022), (188, 31082), (202, 31148), (207, 31172), (271, 31502), (276, 31529), (293, 31634),

Gene: ThankyouJordi\_38 Start: 31428, Stop: 32621, Start Num: 66

Candidate Starts for ThankyouJordi\_38:

(Start: 66 @31428 has 6 MA's), (Start: 98 @31539 has 52 MA's), (107, 31593), (128, 31713), (178, 31998), (188, 32058), (202, 32124), (207, 32148), (271, 32478), (276, 32505), (293, 32610),

Gene: ThayneTheZag\_40 Start: 27570, Stop: 26437, Start Num: 99

Candidate Starts for ThayneTheZag\_40:

(Start: 99 @27570 has 284 MA's), (107, 27519), (137, 27351), (138, 27333), (153, 27219), (159, 27201), (173, 27123), (187, 27036), (190, 27027), (202, 26967), (212, 26898), (218, 26877), (244, 26727), (245, 26724), (253, 26658), (268, 26607), (271, 26583), (273, 26568), (282, 26514), (285, 26493), (291, 26463),

Gene: Thimann\_36 Start: 28027, Stop: 29154, Start Num: 99

Candidate Starts for Thimann\_36:

(43, 27808), (50, 27844), (Start: 99 @28027 has 284 MA's), (107, 28081), (132, 28237), (143, 28327), (148, 28360), (187, 28555), (188, 28558), (197, 28600), (205, 28636), (257, 28933), (271, 29011), (278, 29053), (282, 29080), (293, 29143),

Gene: Tiff81\_37 Start: 24880, Stop: 23702, Start Num: 99

Candidate Starts for Tiff81\_37:

(Start: 99 @24880 has 284 MA's), (116, 24763), (125, 24715), (138, 24643), (150, 24547), (159, 24511), (170, 24448), (173, 24433), (187, 24346), (190, 24337), (202, 24277), (209, 24229), (236, 24082), (238, 24076), (245, 24034), (268, 23917), (270, 23896), (271, 23893), (273, 23878), (294, 23758),

Gene: TimTam\_39 Start: 32012, Stop: 33094, Start Num: 98

Candidate Starts for TimTam\_39:

(Start: 66 @31901 has 6 MA's), (Start: 98 @32012 has 52 MA's), (107, 32066), (128, 32186), (171, 32432), (172, 32441), (178, 32471), (188, 32531), (202, 32597), (207, 32621), (271, 32951), (276, 32978), (293, 33083),

Gene: TiniBug\_42 Start: 33372, Stop: 34460, Start Num: 99

Candidate Starts for TiniBug\_42:

(41, 33150), (Start: 99 @33372 has 284 MA's), (107, 33423), (115, 33474), (121, 33498), (127, 33534), (142, 33648), (156, 33726), (175, 33810), (187, 33879), (188, 33882), (218, 34032), (235, 34137), (267, 34272), (289, 34416),

Gene: Tiri\_42 Start: 32775, Stop: 33863, Start Num: 99

Candidate Starts for Tiri\_42:

(Start: 99 @32775 has 284 MA's), (115, 32877), (121, 32901), (127, 32937), (146, 33075), (156, 33129), (175, 33213), (187, 33282), (188, 33285), (218, 33435), (235, 33540), (251, 33627), (267, 33675), (289, 33819),

Gene: Topper\_41 Start: 32595, Stop: 33683, Start Num: 99

Candidate Starts for Topper\_41:

(13, 31992), (20, 32169), (34, 32334), (41, 32373), (Start: 99 @32595 has 284 MA's), (107, 32646), (115, 32697), (121, 32721), (127, 32757), (146, 32895), (175, 33033), (187, 33102), (188, 33105), (218, 33255), (235, 33360), (267, 33495),

Gene: Torres\_39 Start: 34239, Stop: 35684, Start Num: 25

Candidate Starts for Torres\_39:

(25, 34239), (Start: 26 @34254 has 1 MA's), (36, 34347), (41, 34368), (63, 34461), (Start: 99 @34590 has 284 MA's), (107, 34641), (121, 34716), (127, 34752), (141, 34848), (142, 34866), (146, 34890), (155, 34938), (156, 34944), (184, 35076), (187, 35109), (197, 35154), (218, 35262), (235, 35367), (249, 35427), (267, 35502), (283, 35610), (289, 35646),

Gene: TreyKay\_42 Start: 32665, Stop: 33753, Start Num: 99

Candidate Starts for TreyKay\_42:

(57, 32518), (Start: 99 @32665 has 284 MA's), (115, 32767), (121, 32791), (127, 32827), (146, 32965), (156, 33019), (175, 33103), (187, 33172), (188, 33175), (218, 33325), (235, 33430), (251, 33517), (267, 33565), (289, 33709),

Gene: TruffulaTree\_41 Start: 32473, Stop: 33561, Start Num: 99

Candidate Starts for TruffulaTree\_41:

(Start: 99 @32473 has 284 MA's), (107, 32524), (115, 32575), (121, 32599), (127, 32635), (146, 32773), (156, 32827), (175, 32911), (187, 32980), (188, 32983), (218, 33133), (229, 33211), (235, 33238), (251, 33325), (267, 33373),

Gene: Trumpet\_39 Start: 30564, Stop: 31646, Start Num: 98

Candidate Starts for Trumpet\_39:

(Start: 66 @30453 has 6 MA's), (Start: 98 @30564 has 52 MA's), (107, 30618), (128, 30738), (172, 30993), (178, 31023), (188, 31083), (202, 31149), (207, 31173), (271, 31503), (276, 31530), (293, 31635),

Gene: TuertoX\_37 Start: 27875, Stop: 28957, Start Num: 98

Candidate Starts for TuertoX\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: Twinkle\_39 Start: 33608, Stop: 34735, Start Num: 99

Candidate Starts for Twinkle\_39:

(85, 33569), (Start: 99 @33608 has 284 MA's), (107, 33662), (124, 33785), (132, 33818), (143, 33908), (148, 33941), (187, 34136), (188, 34139), (197, 34181), (205, 34217), (257, 34514), (271, 34592), (276, 34619), (278, 34634), (282, 34661), (293, 34724),

Gene: Twitch\_41 Start: 32597, Stop: 33685, Start Num: 99

Candidate Starts for Twitch\_41:

(13, 31994), (20, 32171), (34, 32336), (41, 32375), (Start: 99 @32597 has 284 MA's), (107, 32648), (115, 32699), (121, 32723), (127, 32759), (146, 32897), (175, 33035), (187, 33104), (188, 33107), (218, 33257), (235, 33362), (267, 33497),

Gene: Urkel\_42 Start: 33376, Stop: 34464, Start Num: 99

Candidate Starts for Urkel\_42:

(41, 33154), (Start: 99 @33376 has 284 MA's), (107, 33427), (115, 33478), (121, 33502), (127, 33538), (142, 33652), (156, 33730), (175, 33814), (187, 33883), (188, 33886), (218, 34036), (235, 34141), (267, 34276), (289, 34420),

Gene: VRedHorse\_42 Start: 32159, Stop: 33286, Start Num: 99

Candidate Starts for VRedHorse\_42:

(68, 32057), (83, 32114), (Start: 99 @32159 has 284 MA's), (100, 32168), (125, 32330), (134, 32381), (137, 32399), (141, 32444), (149, 32504), (156, 32540), (159, 32549), (178, 32654), (189, 32723), (200, 32783), (204, 32795), (205, 32798), (207, 32810), (208, 32825), (211, 32849), (212, 32855), (220, 32876), (225, 32912), (226, 32915), (230, 32951), (231, 32957), (236, 32972), (240, 32987), (251, 33056), (256, 33071), (268, 33113), (274, 33158), (277, 33167), (282, 33206), (284, 33224), (288, 33245), (292, 33260), (293, 33269), (294, 33272),

Gene: Validus\_45 Start: 33099, Stop: 34196, Start Num: 99

Candidate Starts for Validus\_45:

(Start: 99 @33099 has 284 MA's), (121, 33225), (127, 33261), (142, 33375), (156, 33453), (175, 33537), (187, 33618), (188, 33621), (197, 33663), (211, 33750), (218, 33771), (235, 33876), (249, 33936), (262, 33999), (289, 34155),

Gene: Veliki\_41 Start: 32513, Stop: 33601, Start Num: 99

Candidate Starts for Veliki\_41:

(Start: 99 @32513 has 284 MA's), (107, 32564), (115, 32615), (121, 32639), (127, 32675), (146, 32813), (156, 32867), (175, 32951), (187, 33020), (188, 33023), (218, 33173), (229, 33251), (235, 33278), (251, 33365), (267, 33413),

Gene: Velveteen\_37 Start: 27903, Stop: 29021, Start Num: 99

Candidate Starts for Velveteen\_37:

(Start: 99 @27903 has 284 MA's), (125, 28074), (149, 28239), (156, 28275), (159, 28284), (173, 28365), (178, 28389), (189, 28458), (197, 28497), (199, 28515), (200, 28518), (204, 28530), (205, 28533), (207, 28545), (208, 28560), (211, 28584), (212, 28590), (220, 28611), (225, 28647), (226, 28650), (230, 28686), (231, 28692), (235, 28704), (236, 28707), (240, 28722), (251, 28791), (256, 28806), (268, 28848), (274, 28893), (277, 28902), (282, 28941), (284, 28959), (288, 28980), (292, 28995), (293, 29004), (294, 29007),

Gene: Wachhund\_44 Start: 32077, Stop: 33195, Start Num: 99

Candidate Starts for Wachhund\_44:

(Start: 99 @32077 has 284 MA's), (100, 32086), (125, 32248), (149, 32413), (156, 32449), (159, 32458), (178, 32563), (189, 32632), (197, 32671), (200, 32692), (204, 32704), (205, 32707), (207, 32719), (211, 32758), (212, 32764), (220, 32785), (225, 32821), (226, 32824), (230, 32860), (231, 32866), (235, 32878), (236, 32881), (251, 32965), (256, 32980), (268, 33022), (274, 33067), (277, 33076), (282, 33115), (284, 33133), (288, 33154), (292, 33169), (293, 33178), (294, 33181),

Gene: Wee\_46 Start: 33180, Stop: 34283, Start Num: 99

Candidate Starts for Wee\_46:

(Start: 99 @33180 has 284 MA's), (107, 33228), (122, 33309), (124, 33336), (156, 33549), (164, 33573), (173, 33621), (187, 33702), (202, 33771), (204, 33780), (208, 33810), (211, 33834), (218, 33855), (229, 33933), (231, 33948), (248, 34008), (251, 34047), (256, 34062), (263, 34086), (268, 34113), (271, 34137), (274, 34158), (277, 34167), (283, 34212), (284, 34224),

Gene: WelcomeAyanna\_38 Start: 31686, Stop: 32768, Start Num: 98

Candidate Starts for WelcomeAyanna\_38:

(Start: 66 @31575 has 6 MA's), (Start: 98 @31686 has 52 MA's), (107, 31740), (128, 31860), (178, 32145), (188, 32205), (202, 32271), (207, 32295), (271, 32625), (276, 32652), (293, 32757),

Gene: Whatsapiecost\_41 Start: 31324, Stop: 32442, Start Num: 99

Candidate Starts for Whatsapiecost\_41:

(Start: 99 @31324 has 284 MA's), (122, 31462), (125, 31495), (135, 31543), (149, 31660), (156, 31696), (159, 31705), (178, 31810), (189, 31879), (200, 31939), (204, 31951), (205, 31954), (207, 31966), (208, 31981), (211, 32005), (212, 32011), (220, 32032), (225, 32068), (226, 32071), (230, 32107), (231, 32113), (235, 32125), (236, 32128), (251, 32212), (256, 32227), (268, 32269), (274, 32314), (277, 32323), (282, 32362), (284, 32380), (288, 32401), (292, 32416), (293, 32425), (294, 32428),

Gene: Whiteclaw\_37 Start: 27875, Stop: 28957, Start Num: 98

Candidate Starts for Whiteclaw\_37:

(Start: 65 @27758 has 2 MA's), (Start: 66 @27764 has 6 MA's), (Start: 98 @27875 has 52 MA's), (107, 27929), (128, 28049), (172, 28304), (178, 28334), (188, 28394), (202, 28460), (207, 28484), (224, 28589), (271, 28814), (276, 28841), (293, 28946),

Gene: WillSterrel\_41 Start: 32521, Stop: 33639, Start Num: 99

Candidate Starts for WillSterrel\_41:

(Start: 99 @32521 has 284 MA's), (100, 32530), (125, 32692), (159, 32902), (173, 32983), (178, 33007), (189, 33076), (200, 33136), (204, 33148), (205, 33151), (207, 33163), (208, 33178), (211, 33202), (212, 33208), (220, 33229), (225, 33265), (226, 33268), (230, 33304), (231, 33310), (236, 33325), (251, 33409), (256, 33424), (268, 33466), (274, 33511), (277, 33520), (282, 33559), (284, 33577), (288, 33598), (292, 33613), (293, 33622), (294, 33625),

Gene: WinkNick\_41 Start: 29791, Stop: 30918, Start Num: 99

Candidate Starts for WinkNick\_41:

(85, 29752), (Start: 99 @29791 has 284 MA's), (107, 29845), (124, 29968), (132, 30001), (143, 30091), (148, 30124), (187, 30319), (188, 30322), (197, 30364), (205, 30400), (257, 30697), (271, 30775), (276, 30802), (278, 30817), (282, 30844), (293, 30907),

Gene: Wrigley\_43 Start: 31922, Stop: 33004, Start Num: 98

Candidate Starts for Wrigley\_43:

(Start: 66 @31811 has 6 MA's), (70, 31826), (Start: 98 @31922 has 52 MA's), (107, 31976), (128, 32096), (178, 32381), (188, 32441), (202, 32507), (207, 32531), (224, 32636), (238, 32702), (281, 32924), (283, 32936), (293, 32993),

Gene: XFactor\_41 Start: 32278, Stop: 33396, Start Num: 99

Candidate Starts for XFactor\_41:

(Start: 99 @32278 has 284 MA's), (125, 32449), (149, 32614), (156, 32650), (159, 32659), (178, 32764), (189, 32833), (197, 32872), (199, 32890), (200, 32893), (204, 32905), (205, 32908), (207, 32920), (208, 32935), (211, 32959), (212, 32965), (220, 32986), (225, 33022), (226, 33025), (230, 33061), (231, 33067), (236, 33082), (240, 33097), (251, 33166), (256, 33181), (268, 33223), (274, 33268), (277, 33277), (282, 33316), (284, 33334), (288, 33355), (292, 33370), (293, 33379), (294, 33382),

Gene: Yeet412\_34 Start: 27696, Stop: 28778, Start Num: 98

Candidate Starts for Yeet412\_34:

(Start: 66 @27585 has 6 MA's), (Start: 98 @27696 has 52 MA's), (107, 27750), (128, 27870), (172, 28125), (178, 28155), (188, 28215), (202, 28281), (207, 28305), (271, 28635), (276, 28662), (293, 28767),

Gene: YoungHarleezy\_40 Start: 27782, Stop: 26643, Start Num: 99

Candidate Starts for YoungHarleezy\_40:

(86, 27815), (Start: 99 @27782 has 284 MA's), (107, 27731), (137, 27563), (138, 27545), (159, 27413), (173, 27335), (175, 27323), (176, 27317), (187, 27248), (190, 27239), (202, 27179), (218, 27089), (236, 26984), (241, 26963), (245, 26936), (268, 26813), (271, 26789), (273, 26774), (285,

26699), (291, 26669),

Gene: YoureAdopted\_40 Start: 32682, Stop: 33770, Start Num: 99

Candidate Starts for YoureAdopted\_40:

(Start: 99 @32682 has 284 MA's), (115, 32784), (121, 32808), (127, 32844), (146, 32982), (156, 33036), (175, 33120), (187, 33189), (188, 33192), (218, 33342), (235, 33447), (251, 33534), (267, 33582), (274, 33636), (289, 33726),

Gene: Yunkel11\_44 Start: 32525, Stop: 33625, Start Num: 99

Candidate Starts for Yunkel11\_44:

(55, 32375), (Start: 99 @32525 has 284 MA's), (107, 32576), (121, 32651), (127, 32687), (129, 32690), (142, 32801), (185, 33020), (187, 33044), (188, 33047), (211, 33176), (218, 33197), (235, 33302), (251, 33389), (267, 33437),

Gene: Zameen\_39 Start: 30563, Stop: 31645, Start Num: 98

Candidate Starts for Zameen\_39:

(Start: 66 @30452 has 6 MA's), (Start: 98 @30563 has 52 MA's), (107, 30617), (128, 30737), (172, 30992), (178, 31022), (188, 31082), (202, 31148), (207, 31172), (271, 31502), (276, 31529), (293, 31634),

Gene: Zavala\_42 Start: 32759, Stop: 33847, Start Num: 99

Candidate Starts for Zavala\_42:

(Start: 99 @32759 has 284 MA's), (115, 32861), (121, 32885), (127, 32921), (146, 33059), (156, 33113), (175, 33197), (187, 33266), (188, 33269), (198, 33317), (218, 33419), (235, 33524), (251, 33611), (267, 33659), (289, 33803),

Gene: Zirinka\_36 Start: 31303, Stop: 32385, Start Num: 98

Candidate Starts for Zirinka\_36:

(Start: 66 @31192 has 6 MA's), (Start: 98 @31303 has 52 MA's), (107, 31357), (128, 31477), (172, 31732), (178, 31762), (188, 31822), (202, 31888), (207, 31912), (271, 32242), (276, 32269), (293, 32374),

Gene: Zizzle\_44 Start: 32003, Stop: 33121, Start Num: 99

Candidate Starts for Zizzle\_44:

(Start: 99 @32003 has 284 MA's), (122, 32141), (125, 32174), (135, 32222), (149, 32339), (156, 32375), (159, 32384), (178, 32489), (189, 32558), (200, 32618), (204, 32630), (205, 32633), (207, 32645), (208, 32660), (211, 32684), (212, 32690), (220, 32711), (225, 32747), (226, 32750), (230, 32786), (231, 32792), (235, 32804), (236, 32807), (251, 32891), (256, 32906), (268, 32948), (274, 32993), (277, 33002), (282, 33041), (284, 33059), (288, 33080), (292, 33095), (293, 33104), (294, 33107),

Gene: ZoeJ\_43 Start: 33972, Stop: 35072, Start Num: 99

Candidate Starts for ZoeJ\_43:

(Start: 99 @33972 has 284 MA's), (101, 33990), (107, 34023), (121, 34098), (127, 34134), (142, 34248), (146, 34272), (156, 34326), (185, 34467), (187, 34491), (188, 34494), (197, 34536), (218, 34644), (235, 34749), (247, 34794), (249, 34809), (283, 35001),

Gene: Zucker\_31 Start: 26379, Stop: 25240, Start Num: 99

Candidate Starts for Zucker\_31:

(96, 26388), (Start: 99 @26379 has 284 MA's), (135, 26178), (149, 26058), (156, 26022), (160, 26010), (162, 26004), (175, 25911), (178, 25896), (187, 25836), (194, 25806), (207, 25743), (233, 25575), (241, 25545), (255, 25449), (274, 25350), (277, 25341), (278, 25329), (286, 25266),