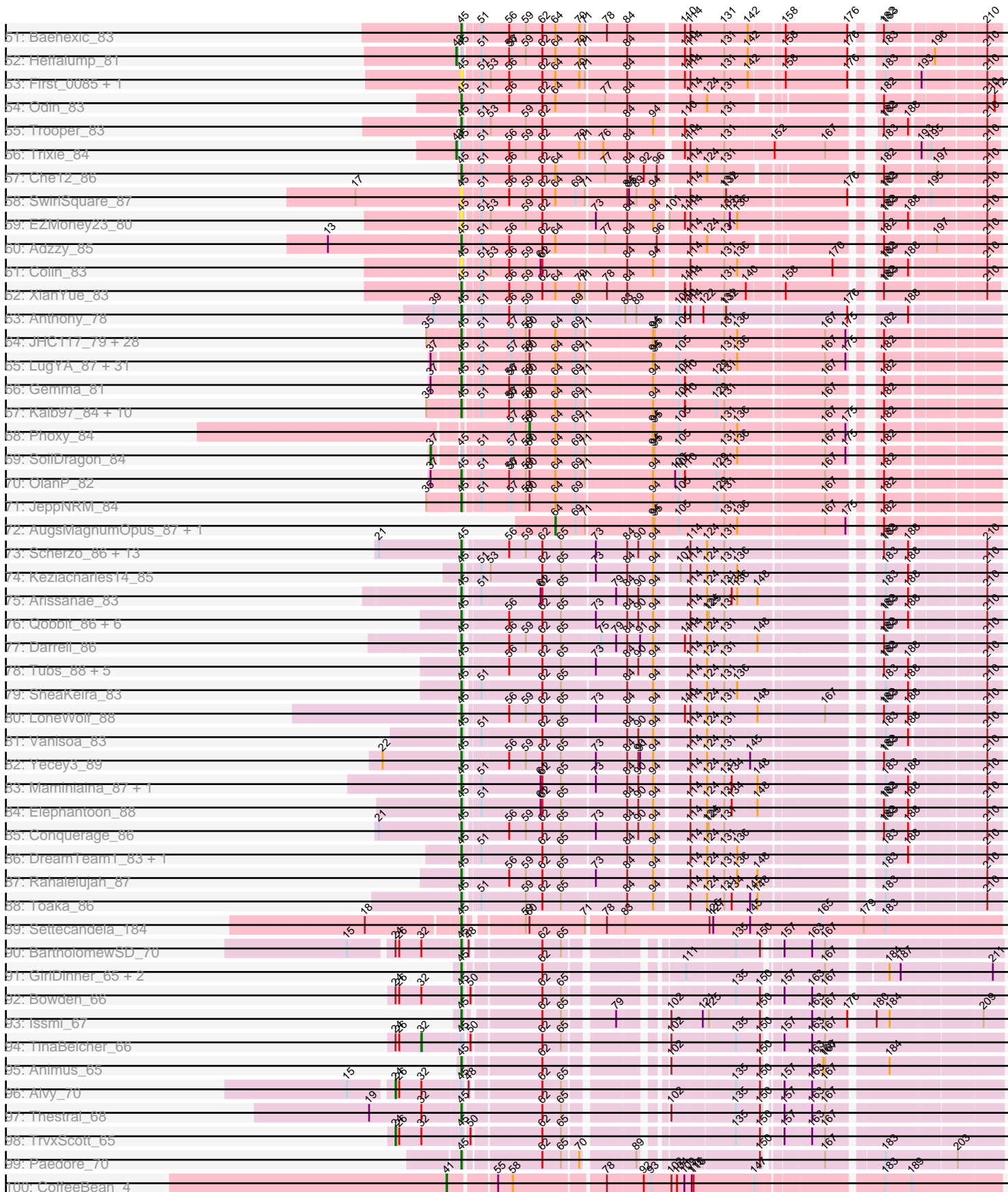
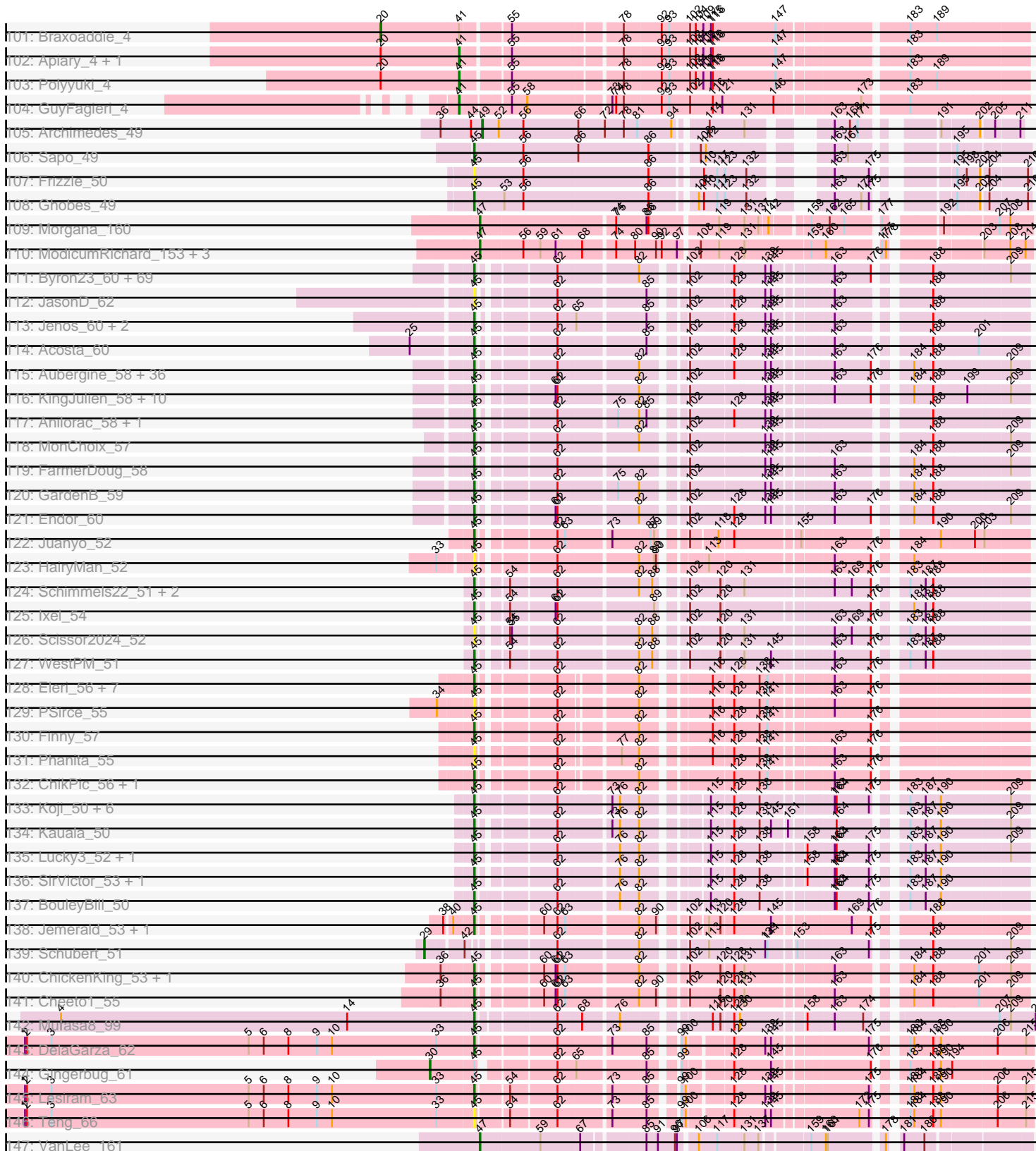




Pham 215689



Pham 215689



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 215689 Report

This analysis was run 02/22/25 on database version 588.

Pham number 215689 has 471 members, 53 are drafts.

Phages represented in each track:

- Track 1 : Chargerpower\_84
- Track 2 : Joselito\_85, Lucivia\_87, Orange\_86, Gilberta\_83, Petersenfast\_80, Timothy\_86, Aneem\_87, MaCh\_86, Bud\_81, Bowtie\_83, Mabel\_86, Munch\_86, Ebony\_86, TinyTimmy\_84, Flaverint\_87, Snape\_86
- Track 3 : Et2Brutus\_85, Fibonacci\_85, Salz\_81, Sham4\_82, Insomnia\_85, Jabith\_85, Mulciber\_84, Hutc2\_82
- Track 4 : Bachome\_84
- Track 5 : DarthPhader\_84
- Track 6 : Refuge\_86
- Track 7 : Zimmer\_85
- Track 8 : Steamy\_83
- Track 9 : Remus\_88, Epsocamisio\_85, Strosahl\_88
- Track 10 : Soups\_87
- Track 11 : Nedarya\_84
- Track 12 : Warrior24\_90, Oofda\_88
- Track 13 : PainterBoy\_83, Lucyedi\_83, EagleEye\_84
- Track 14 : 40AC\_79
- Track 15 : Superchunk\_84, Caraxes\_85
- Track 16 : Fameo\_82, QueenB2\_81
- Track 17 : LilTurb\_85, KingCyrus\_83, ChipMunk\_85, AbbyPaige\_86, Leviathan\_86, Jerm\_86, Turbido\_85, EvilGenius\_84, Agape74\_86, Whabigail7\_84, Dignity\_86, Smeagan\_87
- Track 18 : Piro94\_83, NaSiaTalie\_85, HarryHoudini\_84, Drake55\_85, Sknot\_84, Terrific\_85, Centaur\_84
- Track 19 : WeiHuaDA\_86
- Track 20 : MissWhite\_77
- Track 21 : Anselm\_85, DudeLittle\_82, Retro23\_84, Dalmatian\_84
- Track 22 : LionsBait\_83
- Track 23 : Changeling\_83
- Track 24 : Serenity\_87, TipsytheTRex\_83
- Track 25 : Pomar16\_84, StarStuff\_84, Duplo\_85, Tomathan\_84, Kerberos\_84, DBQu4n\_84
- Track 26 : WideWale\_85, Updawg\_85, MiculUcigas\_84, Gratitude\_82, Flare16\_84, Equemioh13\_84
- Track 27 : Kalpine\_86
- Track 28 : TarsusIV\_83
- Track 29 : BiancaTri92\_82

- Track 30 : AN3\_84, VA6\_84
- Track 31 : Malec\_83
- Track 32 : CRB1\_85, Deloris\_86, BengiVuitton\_86, LadyBird\_88
- Track 33 : Acolyte\_78
- Track 34 : Ph8s\_85
- Track 35 : JoshKayV\_86
- Track 36 : Quokka\_86, MajorMajor\_81, Bradman\_87
- Track 37 : ArcherNM\_79
- Track 38 : SnapTap\_84, Crucio\_84, QueenBeesly\_84, Georgie2\_86, SweetiePie\_84, SemperFi\_84, Power\_84, FiringLine\_84
- Track 39 : Benvolio\_83, Echild\_87
- Track 40 : BobSwaget\_78, Miko\_79
- Track 41 : GaugeLDP\_78
- Track 42 : NothingSpecial\_79
- Track 43 : VC3\_82, ANI8\_83, Travvers\_84, AN9\_83, C3\_76
- Track 44 : AnnaL29\_86, Loser\_87, RedRock\_84
- Track 45 : Larenn\_82
- Track 46 : Rachaly\_81, Lokk\_79
- Track 47 : Jsquared\_88
- Track 48 : BabyBack\_79
- Track 49 : NicoleTera\_82
- Track 50 : Koduck\_84, L5\_77
- Track 51 : Baehexic\_83
- Track 52 : Heffalump\_81
- Track 53 : First\_0085, 20ES\_86
- Track 54 : Odin\_83
- Track 55 : Trooper\_83
- Track 56 : Trixie\_84
- Track 57 : Che12\_86
- Track 58 : SwirlSquare\_87
- Track 59 : EZMoney23\_80
- Track 60 : Adzzy\_85
- Track 61 : Colin\_83
- Track 62 : XianYue\_83
- Track 63 : Anthony\_78
- Track 64 : JHC117\_79, Daishi\_83, Grum1\_84, Louie6\_83, Hercules11\_84, Colbster\_80, P28Green\_84, Phoebe\_85, Beauxregard13\_83, Tiffany\_83, Dieselweasel\_85, Rummer\_83, Sabinator\_82, LarryKay\_84, Bxz2\_79, Wooldri\_86, Grif\_82, SoYo\_81, Penny1\_84, Soshari\_86, Methuselah\_77, EpicPhail\_85, PotatoSplit\_85, MarQuardt\_84, Vix\_80, KADY\_81, BuzzBuzz\_78, TinyPebbles\_80, Anubis\_88
- Track 65 : LugYA\_87, Microwolf\_80, HashRod\_85, Mainiac\_83, Stagni\_81, PGHhamlin\_86, Pembroke\_84, Watson\_83, Lowa\_81, Bigflo\_81, BreSam8\_84, LBerry\_85, Jobu08\_80, Snickers\_80, Grub\_82, Malinsilva\_87, JenCasNa\_85, Lilith\_82, Sabia\_82, Taurus\_85, DaHudson\_83, StepMih\_84, GtownJaz\_84, Cullens\_85, Spike509\_84, Marie\_82, MoneyMay\_84, Ollie\_84, MadMarie\_82, Aglet\_85, GingkoMaracino\_84, Fernando\_85
- Track 66 : Gemma\_81
- Track 67 : Kalb97\_84, HaveUMetTed\_84, Groupthink\_84, Pawn\_82, Manu\_83, Kalnok\_84, Heliosoles\_81, PhishRPhriends\_80, Marius\_84, Reba\_79, Calvinny\_81
- Track 68 : Phoxy\_84
- Track 69 : SoilDragon\_84
- Track 70 : OlanP\_82

- Track 71 : JeppNRM\_84
- Track 72 : AugsMagnumOpus\_87, MuchMore\_87
- Track 73 : Scherzo\_86, Pioneer\_88, RyeScarlet\_89, Horex\_87, Ugenie5\_75, Lilleskat\_85, Phonnegut\_88, Beemo\_88, EdogawaKiddo\_87, Hanray\_86, Onglai\_86, Jiawan\_86, Alma\_86, Sachima\_84
- Track 74 : Keziacharles14\_85
- Track 75 : Arissanae\_83
- Track 76 : Qobbit\_86, Spouty\_86, ExplosioNervosa\_86, Eidsmoe\_86, Fayely\_86, EmyBug\_85, Priya\_86
- Track 77 : Darrell\_86
- Track 78 : Tubs\_88, Aliter\_81, Phaeder\_88, Myxus\_88, HortumSL17\_89, Catalina\_90
- Track 79 : SheaKeira\_83
- Track 80 : LoneWolf\_88
- Track 81 : Vanisoa\_83
- Track 82 : Yecey3\_89
- Track 83 : Maminiaina\_87, BogosyJay\_87
- Track 84 : Elephantoon\_88
- Track 85 : Conquerage\_86
- Track 86 : DreamTeam1\_83, Charm\_83
- Track 87 : Rahalelujah\_87
- Track 88 : Toaka\_86
- Track 89 : Settecandela\_184
- Track 90 : BartholomewSD\_70
- Track 91 : GirlDinner\_65, Janus\_66, SqueakyClean\_66
- Track 92 : Bowden\_66
- Track 93 : Issmi\_67
- Track 94 : TinaBelcher\_66
- Track 95 : Animus\_65
- Track 96 : Alvy\_70
- Track 97 : Thestral\_68
- Track 98 : TrvxScott\_65
- Track 99 : Paedore\_70
- Track 100 : CoffeeBean\_4
- Track 101 : Braxoaddie\_4
- Track 102 : Apiary\_4, Maselop\_4
- Track 103 : Polyuyuki\_4
- Track 104 : GuyFagieri\_4
- Track 105 : Archimedes\_49
- Track 106 : Sapo\_49
- Track 107 : Frizzle\_50
- Track 108 : Ghobes\_49
- Track 109 : Morgana\_160
- Track 110 : ModicumRichard\_153, ObLaDi\_153, Cafasso\_153, Aleemily\_151
- Track 111 : Byron23\_60, Den3\_59, TinSulphur\_60, Thompsone\_59, BonesMcCoy\_59, Stanktossa\_58, Blage\_59, ParleG\_59, Peep\_59, Velene\_59, Zada\_60, Sedgewig\_58, Ilzat\_58, Janus167\_58, Phiderman\_59, Inventa\_59, StingRay\_58, NickSell\_59, Martin\_60, Bandik\_59, Kurt1\_59, Thorongil\_59, Winzigespinne\_58, Superfresh\_59, JeriBeth\_60, MillyPhilly\_59, Symere\_60, Robinson\_59, KannH\_58, Knox\_59, MrWorldwide\_59, AlexAdler\_59, Riyhil\_59, OldNelly\_59, Chako\_58, Renzie\_59, Dothraki\_59, Delphidian\_58, Raptor\_59, Antoinette\_59, StirfryIV\_58, BeautPeep30\_59, Convict\_59, Baines\_58, Phireproof\_59, Dave\_59, HanSolo\_58, HankSprout\_59, Oxtober96\_60,

Papafritta\_58, Shee\_59, Etta\_58, JasperRussell\_58, MaeLinda\_59, TatarkaPM\_59, PhredFlintston\_59, Ioannes\_59, SoilGremlin\_59, Greys\_59, BigRedClifford\_59, Rappheph\_59, AranulaLuti\_58, WildNOut\_59, Clancy\_58, Phriends\_58, Lovelyunicorn\_59, Teagan\_59, Figueroism\_59, Pherferi\_59, Duocatuli\_58

- Track 112 : JasonD\_62
- Track 113 : Jenos\_60, McGalleon\_59, CarisSwetlik\_59
- Track 114 : Acosta\_60
- Track 115 : Aubergine\_58, Garey24\_59, Chamuel\_58, Gershwin\_58, ShaiHulud\_60, AxiPup\_59, Pocket\_58, Calix\_58, Nagem\_59, Jerbirus\_60, Ludgate\_59, SJay\_59, Espinosa\_58, RosieMae\_60, Oats\_58, Christoph\_58, Tenda\_58, Alyxandracam\_59, TeddyBear\_58, Rog141\_58, Gelo\_58, PuppyEggo\_59, Gubbabump\_58, Kale\_58, Benjalauen\_59, Klimt\_59, Erla\_58, Exploradora\_60, Bonino\_58, Nattles\_58, Asta\_58, ManRay\_58, HungryHenry\_58, SonOfLevi\_59, Strathdee\_59, Gargoyle\_59, Vispistious\_59
- Track 116 : KingJulien\_58, Balsa\_57, Peppino\_58, BeeBee8\_59, Leafus\_58, Stormbreaker8\_57, Hamlet\_58, Redfield\_58, Raccoon\_58, Etna\_58, Schnapsidee\_58
- Track 117 : Anilorac\_58, Agente005\_58
- Track 118 : MonChoix\_57
- Track 119 : FarmerDoug\_58
- Track 120 : GardenB\_59
- Track 121 : Endor\_60
- Track 122 : Juanyo\_52
- Track 123 : HairyMan\_52
- Track 124 : Schimmels22\_51, Tinyman4\_51, HerculesXL\_52
- Track 125 : Ixel\_54
- Track 126 : Scissor2024\_52
- Track 127 : WestPM\_51
- Track 128 : Eleri\_56, ColaCorta\_56, MCubed\_56, Glamour\_55, Zenitsu\_56, Andromedas\_56, Shamu\_56, Saratos\_56
- Track 129 : PSirce\_55
- Track 130 : Finny\_57
- Track 131 : Phanita\_55
- Track 132 : ChikPic\_56, Sansa\_54
- Track 133 : Koji\_50, Sinatra\_52, Pherbot\_51, Bustleton\_51, Jingles\_50, RenegadeRaider\_53, PrincePhergus\_51
- Track 134 : Kauala\_50
- Track 135 : Lucky3\_52, Golden\_52
- Track 136 : SirVictor\_53, Guetzie\_53
- Track 137 : BouleyBill\_50
- Track 138 : Jemerald\_53, Juicer\_53
- Track 139 : Schubert\_51
- Track 140 : ChickenKing\_53, GaeCeo\_55
- Track 141 : Cheeto1\_55
- Track 142 : Mufasa8\_99
- Track 143 : DelaGarza\_62
- Track 144 : Gingerbug\_61
- Track 145 : Lesiram\_63
- Track 146 : Teng\_66
- Track 147 : VanLee\_161

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

The start number called the most often in the published annotations is 45, it was called in 383 of the 418 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_86, 40AC\_79, AN3\_84, AbbyPaige\_86, Acolyte\_78, Acosta\_60, Adzzy\_85, Agape74\_86, Agente005\_58, Aglet\_85, AlexAdler\_59, Aliter\_81, Alma\_86, Alyxandracam\_59, Andromedas\_56, Aneem\_87, Anilorac\_58, Animus\_65, AnnaL29\_86, Anselm\_85, Anthony\_78, Antoinette\_59, Anubis\_88, AranulaLuti\_58, ArcherNM\_79, Arissanae\_83, Asta\_58, Aubergine\_58, AxiPup\_59, BabyBack\_79, Bachome\_84, Baehexic\_83, Baines\_58, Balsa\_57, Bandik\_59, BartholomewSD\_70, BeautPeep30\_59, Beauxregard13\_83, BeeBee8\_59, Beemo\_88, BengiVuitton\_86, Benjalauen\_59, Benvolio\_83, BiancaTri92\_82, BigRedClifford\_59, Bigflo\_81, Blage\_59, BobSwaget\_78, BogosyJay\_87, BonesMcCoy\_59, Bonino\_58, BouleyBill\_50, Bowden\_66, Bowtie\_83, Bradman\_87, BreSam8\_84, Bud\_81, Bustleton\_51, BuzzBuzz\_78, Bxz2\_79, Byron23\_60, CRB1\_85, Calix\_58, Calvinny\_81, Caraxes\_85, CarisSwetlik\_59, Catalina\_90, Centaur\_84, Chako\_58, Chamuel\_58, Changeling\_83, Chargerpower\_84, Charm\_83, Che12\_86, Cheeto1\_55, ChickenKing\_53, ChikPic\_56, ChipMunk\_85, Christoph\_58, Clancy\_58, ColaCorta\_56, Colbster\_80, Colin\_83, Conquerage\_86, Convict\_59, Crucio\_84, Cullens\_85, DaHudson\_83, Daishi\_83, Dalmatian\_84, Darrell\_86, DARTHPhader\_84, Dave\_59, DelaGarza\_62, Deloris\_86, Delphidian\_58, Den3\_59, Dieselweasel\_85, Dignity\_86, Dothraki\_59, Drake55\_85, DreamTeam1\_83, DudeLittle\_82, Duocatuli\_58, EZMoney23\_80, EagleEye\_84, Ebony\_86, Echild\_87, EdogawaKiddo\_87, Eidsmoe\_86, Elephantoon\_88, Eleri\_56, EmyBug\_85, Endor\_60, EpicPhail\_85, Epsocamisio\_85, Equemioh13\_84, Erla\_58, Espinosa\_58, Et2Brutus\_85, Etna\_58, Etta\_58, EvilGenius\_84, Exploradora\_60, ExplosioNervosa\_86, Fameo\_82, FarmerDoug\_58, Fayely\_86, Fernando\_85, Fibonacci\_85, Figueroism\_59, Finny\_57, FiringLine\_84, First\_0085, Flare16\_84, Flaverint\_87, Frizzle\_50, GaeCeo\_55, GardenB\_59, Garey24\_59, Gargoyle\_59, GaugeLDP\_78, Gelo\_58, Gemma\_81, Georgie2\_86, Gershwin\_58, Ghobes\_49, Gilberta\_83, GingkoMaracino\_84, GirlDinner\_65, Glamour\_55, Golden\_52, Gratitude\_82, Greys\_59, Grif\_82, Groupthink\_84, Grub\_82, Grum1\_84, GtownJaz\_84, Gubbabump\_58, Guetzie\_53, HairyMan\_52, Hamlet\_58, HanSolo\_58, HankSprout\_59, Hanray\_86, HarryHoudini\_84, HashRod\_85, HaveUMetTed\_84, Heliosoles\_81, Hercules11\_84, HerculesXL\_52, Halex\_87, HortumSL17\_89, HungryHenry\_58, Hutc2\_82, Ilzat\_58, Insomnia\_85, Inventa\_59, Ioannes\_59, Issmi\_67, Ixel\_54, JHC117\_79, Jabith\_85, Janus167\_58, Janus\_66, JasonD\_62, JasperRussell\_58, Jemerald\_53, JenCasNa\_85, Jenos\_60, JeppNRM\_84, Jerbirus\_60, JeriBeth\_60, Jerm\_86, Jiawan\_86, Jingles\_50, Jobu08\_80, Joselito\_85, JoshKayV\_86, Jsquared\_88, Juanyo\_52, Juicer\_53, KADY\_81, Kalb97\_84, Kale\_58, Kalnoky\_84, KannH\_58, Kauala\_50, Keziacharles14\_85, KingCyrus\_83, KingJulien\_58, Klimt\_59, Knox\_59, Koduck\_84, Koji\_50, Kurt1\_59, L5\_77, LBerry\_85, LadyBird\_88, Larenn\_82, LarryKay\_84, Leafus\_58, Lesiram\_63, Leviathan\_86, LilTurb\_85, Lilith\_82, Lilleskat\_85, LionsBait\_83, Loka\_79, LoneWolf\_88, Loser\_87, Louie6\_83, Lovelyunicorn\_59, Iowa\_81, Lucivia\_87, Lucky3\_52, Lucyedi\_83, Ludgate\_59, LugYA\_87, MCubed\_56, MaCh\_86, Mabel\_86, MadMarie\_82, MaeLinda\_59, Mainiac\_83, MajorMajor\_81, Malec\_83, Malinsilva\_87, Maminiaina\_87, ManRay\_58, Manu\_83, MarQuardt\_84, Marie\_82, Marius\_84, Martin\_60, McGalleon\_59, Methuselah\_77, Microwolf\_80, MiculUcigas\_84, Miko\_79, MillyPhilly\_59, MissWhite\_77, MonChoix\_57, MoneyMay\_84, MrWorldwide\_59, Mufasa8\_99, Mulciber\_84, Munch\_86, Myxus\_88, NaSiaTalie\_85, Nagem\_59, Nattles\_58, Nedarya\_84, NickSell\_59, NicoleTera\_82, NothingSpecial\_79, Oats\_58,



Odin\_83, OlanP\_82, OldNelly\_59, Ollie\_84, Onglai\_86, Oofda\_88, Orange\_86, Oxtober96\_60, P28Green\_84, PGHhamlin\_86, PSirce\_55, Paedore\_70, PainterBoy\_83, Papafritta\_58, ParleG\_59, Pawn\_82, Peep\_59, Pembroke\_84, Penny1\_84, Peppino\_58, Petersenfast\_80, Ph8s\_85, Phaeder\_88, Phanita\_55, Pherbot\_51, Pherferi\_59, Phiderman\_59, Phireproof\_59, PhishRPhriends\_80, Phoebe\_85, Phonnegut\_88, PhredFlintston\_59, Phriends\_58, Pioneer\_88, Piro94\_83, Pocket\_58, PotatoSplit\_85, Power\_84, PrincePhergus\_51, Priya\_86, PuppyEggo\_59, Qobbit\_86, QueenB2\_81, QueenBeesly\_84, Quokka\_86, Raccoon\_58, Rachaly\_81, Rahalelujah\_87, Rapheph\_59, Raptor\_59, Reba\_79, RedRock\_84, Redfield\_58, Refuge\_86, Remus\_88, RenegadeRaider\_53, Renzie\_59, Retro23\_84, Rihhil\_59, Robinson\_59, Rog141\_58, RosieMae\_60, Rummer\_83, RyeScarlet\_89, SJay\_59, Sabia\_82, Sabinator\_82, Sachima\_84, Salz\_81, Sansa\_54, Sapo\_49, Saratos\_56, Scherzo\_86, Schimmels22\_51, Schnapsidee\_58, Scissor2024\_52, Sedgewig\_58, SemperFi\_84, Serenity\_87, Settecandela\_184, ShaiHulud\_60, Sham4\_82, Shamu\_56, SheaKeira\_83, Shee\_59, Sinatra\_52, SirVictor\_53, Sknot\_84, Smeagan\_87, SnapTap\_84, Snape\_86, Snickers\_80, SoYo\_81, SoilGremlin\_59, SonOfLevi\_59, Soshari\_86, Spike509\_84, Spouty\_86, SqueakyClean\_66, Stagni\_81, Stanktossa\_58, Steamy\_83, StepMih\_84, StingRay\_58, StirfryIV\_58, Stormbreaker8\_57, Strathdee\_59, Strosahl\_88, Superchunk\_84, Superfresh\_59, SweetiePie\_84, SwirlSquare\_87, Symere\_60, TarsusIV\_83, TatarkaPM\_59, Taurus\_85, Teagan\_59, TeddyBear\_58, Tenda\_58, Teng\_66, Terrific\_85, Thestral\_68, Thompsone\_59, Thorongil\_59, Tiffany\_83, Timothy\_86, TinSulphur\_60, TinyPebbles\_80, TinyTimmy\_84, Tinyman4\_51, TipsytheTRex\_83, Toaka\_86, Trooper\_83, Tubs\_88, Turbido\_85, Ugenie5\_75, Updawg\_85, VA6\_84, Vanisoa\_83, Velene\_59, Vispistious\_59, Vix\_80, Warrior24\_90, Watson\_83, WeiHuaDA\_86, WestPM\_51, Whabigail7\_84, WideWale\_85, WildNOut\_59, Winzigespinne\_58, Wooldri\_86, XianYue\_83, Yecey3\_89, Zada\_60, Zenitsu\_56, Zimmer\_85,

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

- Alvy\_70, Gingerbug\_61, Heffalump\_81, Kalpine\_86, SoilDragon\_84, Soups\_87, TinaBelcher\_66, Trixie\_84, TrvxScott\_65,

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

- AN9\_83, ANI8\_83, Aleemily\_151, Apiary\_4, Archimedes\_49, AugsMagnumOpus\_87, Braxoaddie\_4, C3\_76, Cafasso\_153, CoffeeBean\_4, DBQu4n\_84, Duplo\_85, GuyFagieri\_4, Kerberos\_84, Maselop\_4, ModicumRichard\_153, Morgana\_160, MuchMore\_87, ObLaDi\_153, Phoxy\_84, Polyyuki\_4, Pomar16\_84, Schubert\_51, StarStuff\_84, Tomathan\_84, Travvers\_84, VC3\_82, VanLee\_161,

### Summary by start number:

Start 20:

- Found in 4 of 471 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 418
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Braxoaddie\_4 (CR),

Start 24:

- Found in 5 of 471 ( 1.1% ) of genes in pham
- Manual Annotations of this start: 2 of 418
- Called 40.0% of time when present

- Phage (with cluster) where this start called: Alvy\_70 (BD2), TrvxScott\_65 (BD2),

#### Start 29:

- Found in 1 of 471 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 418
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Schubert\_51 (EA8),

#### Start 30:

- Found in 1 of 471 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 418
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Gingerbug\_61 (GF),

#### Start 31:

- Found in 4 of 471 ( 0.8% ) of genes in pham
- Manual Annotations of this start: 1 of 418
- Called 25.0% of time when present
- Phage (with cluster) where this start called: Soups\_87 (A15),

#### Start 32:

- Found in 6 of 471 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 1 of 418
- Called 16.7% of time when present
- Phage (with cluster) where this start called: TinaBelcher\_66 (BD2),

#### Start 37:

- Found in 35 of 471 ( 7.4% ) of genes in pham
- Manual Annotations of this start: 1 of 418
- Called 2.9% of time when present
- Phage (with cluster) where this start called: SoilDragon\_84 (A3),

#### Start 41:

- Found in 6 of 471 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 5 of 418
- Called 83.3% of time when present
- Phage (with cluster) where this start called: Apiary\_4 (CR), CoffeeBean\_4 (CR), GuyFagieri\_4 (CR), Maselop\_4 (CR), Polyuyuki\_4 (CR),

#### Start 43:

- Found in 6 of 471 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 3 of 418
- Called 50.0% of time when present
- Phage (with cluster) where this start called: Heffalump\_81 (A2), Kalpine\_86 (A2), Trixie\_84 (A2),

#### Start 45:

- Found in 443 of 471 ( 94.1% ) of genes in pham
- Manual Annotations of this start: 383 of 418
- Called 98.0% of time when present
- Phage (with cluster) where this start called: 20ES\_86 (A2), 40AC\_79 (A17), AN3\_84 (A2), AbbyPaige\_86 (A2), Acolyte\_78 (A2), Acosta\_60 (EA1), Adzzy\_85 (A2), Agape74\_86 (A2), Agente005\_58 (EA1), Aglet\_85 (A3), AlexAdler\_59 (EA1),

Aliter\_81 (A9), Alma\_86 (A9), Alyxandracam\_59 (EA1), Andromedas\_56 (EA2), Aneem\_87 (A11), Anilorac\_58 (EA1), Animus\_65 (BD2), AnnaL29\_86 (A2), Anselm\_85 (A2), Anthony\_78 (A20), Antoinette\_59 (EA1), Anubis\_88 (A3), AranulaLuti\_58 (EA1), ArcherNM\_79 (A2), Arissanæ\_83 (A9), Asta\_58 (EA1), Aubergine\_58 (EA1), AxiPup\_59 (EA1), BabyBack\_79 (A2), Bachome\_84 (A11), Baehexic\_83 (A2), Baines\_58 (EA1), Balsa\_57 (EA1), Bandik\_59 (EA1), BartholomewSD\_70 (BD2), BeautPeep30\_59 (EA1), Beauxregard13\_83 (A3), BeeBee8\_59 (EA1), Beemo\_88 (A9), BengiVuitton\_86 (A2), Benjalauen\_59 (EA1), Benvolio\_83 (A2), BiancaTri92\_82 (A2), BigRedClifford\_59 (EA1), Bigflo\_81 (A3), Blage\_59 (EA1), BobSwaget\_78 (A2), BogosyJay\_87 (A9), BonesMcCoy\_59 (EA1), Bonino\_58 (EA1), BouleyBill\_50 (EA4), Bowden\_66 (BD2), Bowtie\_83 (A11), Bradman\_87 (A2), BreSam8\_84 (A3), Bud\_81 (A11), Bustleton\_51 (EA4), BuzzBuzz\_78 (A3), Bxz2\_79 (A3), Byron23\_60 (EA1), CRB1\_85 (A2), Calix\_58 (EA1), Calvinny\_81 (A3), Caraxes\_85 (A2), CarisSwetlik\_59 (EA1), Catalina\_90 (A9), Centaur\_84 (A2), Chako\_58 (EA1), Chamuel\_58 (EA1), Changeling\_83 (A2), Chargerpower\_84 (A), Charm\_83 (A9), Che12\_86 (A2), Cheeto1\_55 (EA9), ChickenKing\_53 (EA9), ChikPic\_56 (EA2), ChipMunk\_85 (A2), Christoph\_58 (EA1), Clancy\_58 (EA1), ColaCorta\_56 (EA2), Colbster\_80 (A3), Colin\_83 (A2), Conquerage\_86 (A9), Convict\_59 (EA1), Crucio\_84 (A2), Cullens\_85 (A3), DaHudson\_83 (A3), Daishi\_83 (A3), Dalmatian\_84 (A2), Darrell\_86 (A9), DARTHPhader\_84 (A12), Dave\_59 (EA1), DelaGarza\_62 (GF), Deloris\_86 (A2), Delphidian\_58 (EA1), Den3\_59 (EA1), Dieselweasel\_85 (A3), Dignity\_86 (A2), Dothraki\_59 (EA1), Drake55\_85 (A2), DreamTeam1\_83 (A9), DudeLittle\_82 (A2), Duocatuli\_58 (EA1), EZMoney23\_80 (A2), EagleEye\_84 (A16), Ebony\_86 (A11), Echild\_87 (A2), EdogawaKiddo\_87 (A9), Eidsmoe\_86 (A9), Elephantoon\_88 (A9), Eleri\_56 (EA2), EmyBug\_85 (A9), Endor\_60 (EA1), EpicPhail\_85 (A3), Epsocamisio\_85 (A15), Equemioh13\_84 (A2), Erla\_58 (EA1), Espinosa\_58 (EA1), Et2Brutus\_85 (A11), Etna\_58 (EA1), Etta\_58 (EA1), EvilGenius\_84 (A2), Exploradora\_60 (UNK), ExplosioNervosa\_86 (A9), Fameo\_82 (A2), FarmerDoug\_58 (EA1), Fayely\_86 (A9), Fernando\_85 (A3), Fibonacci\_85 (A11), Figueroism\_59 (EA1), Finny\_57 (EA2), FiringLine\_84 (A2), First\_0085 (A2), Flare16\_84 (A2), Flaverint\_87 (A11), Frizzle\_50 (DA), GaeCeo\_55 (EA9), GardenB\_59 (EA1), Garey24\_59 (EA1), Gargoyle\_59 (EA1), GaugeLDP\_78 (A2), Gelo\_58 (EA1), Gemma\_81 (A3), Georgie2\_86 (A2), Gershwin\_58 (EA1), Ghobes\_49 (DA), Gilberta\_83 (A11), GingkoMaracino\_84 (A3), GirlDinner\_65 (BD2), Glamour\_55 (EA2), Golden\_52 (EA4), Gratitude\_82 (A2), Greys\_59 (EA1), Grif\_82 (A3), Groupthink\_84 (A3), Grub\_82 (A3), Grum1\_84 (A3), GtownJaz\_84 (A3), Gubbabump\_58 (EA1), Guetzie\_53 (EA4), HairyMan\_52 (EA10), Hamlet\_58 (EA1), HanSolo\_58 (EA1), HankSprout\_59 (EA1), Hanray\_86 (A9), HarryHoudini\_84 (A2), HashRod\_85 (A3), HaveUMetTed\_84 (A3), Heliosoles\_81 (A3), Hercules11\_84 (A3), HerculesXL\_52 (EA11), Horex\_87 (A9), HortumSL17\_89 (A9), HungryHenry\_58 (EA1), Hutc2\_82 (A11), Ilzat\_58 (EA1), Insomnia\_85 (A11), Inventa\_59 (EA1), Ioannes\_59 (EA1), Issmi\_67 (BD2), Ixel\_54 (EA11), JHC117\_79 (A3), Jabith\_85 (A11), Janus167\_58 (EA1), Janus\_66 (BD2), JasonD\_62 (EA1), JasperRussell\_58 (EA1), Jemerald\_53 (EA6), JenCasNa\_85 (A3), Jenos\_60 (EA1), JeppNRM\_84 (A3), Jerbirus\_60 (EA1), JeriBeth\_60 (EA1), Jerm\_86 (A2), Jiawan\_86 (A9), Jingles\_50 (EA4), Jobu08\_80 (A3), Joselito\_85 (A11), JoshKayV\_86 (A2), Jsquared\_88 (A2), Juanyo\_52 (EA10), Juicer\_53 (EA6), KADY\_81 (A3), Kalb97\_84 (A3), Kale\_58 (EA1), Kalnoky\_84 (A3), KannH\_58 (EA1), Kauala\_50 (EA4), Keziacharles14\_85 (A9), KingCyrus\_83 (A2), KingJulien\_58 (EA1), Klimt\_59 (EA1), Knox\_59 (EA1), Koduck\_84 (A2), Koji\_50 (EA4), Kurt1\_59 (EA1), L5\_77 (A2), LBerry\_85 (A3), LadyBird\_88 (A2), Larenn\_82 (A2), LarryKay\_84 (A3), Leafus\_58 (EA1), Lesiram\_63 (GF), Leviathan\_86 (A2), LilTurb\_85 (A2), Lilith\_82 (A3), Lilleskat\_85 (A9), LionsBait\_83 (A2), Lokk\_79 (A2),

LoneWolf\_88 (A9), Loser\_87 (A2), Louie6\_83 (A3), Lovelyunicorn\_59 (EA1),  
 Lowa\_81 (A3), Lucivia\_87 (A11), Lucky3\_52 (EA4), Lucyedi\_83 (A16), Ludgate\_59  
 (EA1), LugYA\_87 (A3), MCubed\_56 (EA2), MaCh\_86 (A11), Mabel\_86 (A11),  
 MadMarie\_82 (A3), MaeLinda\_59 (EA1), Mainiac\_83 (A3), MajorMajor\_81 (A2),  
 Malec\_83 (A2), Malinsilva\_87 (A3), Maminiaina\_87 (A9), ManRay\_58 (EA1),  
 Manu\_83 (A3), MarQuardt\_84 (A3), Marie\_82 (A3), Marius\_84 (A3), Martin\_60 (EA1),  
 McGalleon\_59 (EA1), Methuselah\_77 (A3), Microwolf\_80 (A3), MiculUcigas\_84 (A2),  
 Miko\_79 (A2), MillyPhilly\_59 (EA1), MissWhite\_77 (A2), MonChoix\_57 (EA1),  
 MoneyMay\_84 (A3), MrWorldwide\_59 (EA1), Mufasa8\_99 (FG), Mulciber\_84 (A11),  
 Munch\_86 (A11), Myxus\_88 (A9), NaSiaTalie\_85 (A2), Nagem\_59 (EA1), Nattles\_58  
 (EA1), Nedarya\_84 (A15), NickSell\_59 (EA1), NicoleTera\_82 (A2),  
 NothingSpecial\_79 (A2), Oats\_58 (EA1), Odin\_83 (A2), OlanP\_82 (A3), OldNelly\_59  
 (EA1), Ollie\_84 (A3), Onglai\_86 (A9), Oofda\_88 (A15), Orange\_86 (A11),  
 Oxtober96\_60 (EA1), P28Green\_84 (A3), PGHhamlin\_86 (A3), PSirce\_55 (EA2),  
 Paedore\_70 (BD2), PainterBoy\_83 (A16), Papafritta\_58 (EA1), ParleG\_59 (EA1),  
 Pawn\_82 (A3), Peep\_59 (EA1), Pembroke\_84 (A3), Penny1\_84 (A3), Peppino\_58  
 (EA1), Petersenfast\_80 (A11), Ph8s\_85 (A2), Phaeder\_88 (A9), Phanita\_55 (EA2),  
 Pherbot\_51 (EA4), Pherferi\_59 (EA1), Phiderman\_59 (EA1), Phireproof\_59 (EA1),  
 PhishRPhriends\_80 (A3), Phoebe\_85 (A3), Phonnegut\_88 (A9), PhredFlintston\_59  
 (EA1), Phriends\_58 (EA1), Pioneer\_88 (A9), Piro94\_83 (A2), Pocket\_58 (EA1),  
 PotatoSplit\_85 (A3), Power\_84 (A2), PrincePhergus\_51 (EA4), Priya\_86 (A9),  
 PuppyEggo\_59 (EA1), Qobbit\_86 (A9), QueenB2\_81 (A2), QueenBeesly\_84 (A2),  
 Quokka\_86 (A2), Raccoon\_58 (EA1), Rachaly\_81 (A2), Rahalelujah\_87 (A9),  
 Rapheph\_59 (EA1), Raptor\_59 (EA1), Reba\_79 (A3), RedRock\_84 (A2), Redfield\_58  
 (EA1), Refuge\_86 (A12), Remus\_88 (A15), RenegadeRaider\_53 (EA4), Renzie\_59  
 (EA1), Retro23\_84 (A2), Riyhil\_59 (EA1), Robinson\_59 (EA1), Rog141\_58 (EA1),  
 RosieMae\_60 (EA1), Rummer\_83 (A3), RyeScarlet\_89 (A9), SJay\_59 (EA1),  
 Sabia\_82 (A3), Sabinator\_82 (A3), Sachima\_84 (A9), Salz\_81 (A11), Sansa\_54  
 (EA2), Sapo\_49 (DA), Saratos\_56 (EA2), Scherzo\_86 (A9), Schimmels22\_51 (EA11),  
 Schnapsidee\_58 (EA1), Scissor2024\_52 (EA11), Sedgewig\_58 (EA1), SemperFi\_84  
 (A2), Serenity\_87 (A2), Settecandela\_184 (AA), ShaiHulud\_60 (EA1), Sham4\_82  
 (A11), Shamu\_56 (EA2), SheaKeira\_83 (A9), Shee\_59 (EA1), Sinatra\_52 (EA4),  
 SirVictor\_53 (EA4), Sknot\_84 (A2), Smeagan\_87 (A2), SnapTap\_84 (A2), Snape\_86  
 (A11), Snickers\_80 (A3), SoYo\_81 (A3), SoilGremlin\_59 (EA1), SonOfLevi\_59 (EA1),  
 Soshari\_86 (A3), Spike509\_84 (A3), Spouty\_86 (A9), SqueakyClean\_66 (BD2),  
 Stagni\_81 (A3), Stanktossa\_58 (EA1), Steamy\_83 (A12), StepMih\_84 (A3),  
 StingRay\_58 (EA1), StirfryIV\_58 (EA1), Stormbreaker8\_57 (EA1), Strathdee\_59  
 (EA1), Strosahl\_88 (A15), Superchunk\_84 (A2), Superfresh\_59 (EA1), SweetiePie\_84  
 (A2), SwirlSquare\_87 (A2), Symere\_60 (EA1), TarsusIV\_83 (A2), TatarkaPM\_59  
 (EA1), Taurus\_85 (A3), Teagan\_59 (EA1), TeddyBear\_58 (EA1), Tenda\_58 (EA1),  
 Teng\_66 (GF), Terrific\_85 (A2), Thestral\_68 (BD2), Thompsone\_59 (EA1),  
 Thorongil\_59 (EA1), Tiffany\_83 (A3), Timothy\_86 (A11), TinSulphur\_60 (EA1),  
 TinyPebbles\_80 (A3), TinyTimmy\_84 (A11), Tinyman4\_51 (EA11), TopsytheTRex\_83  
 (A2), Toaka\_86 (A9), Trooper\_83 (A2), Tubs\_88 (A9), Turbido\_85 (A2), Ugenie5\_75  
 (A9), Updawg\_85 (A2), VA6\_84 (A2), Vanisoa\_83 (A9), Velene\_59 (EA1),  
 Vispistious\_59 (EA1), Vix\_80 (A3), Warrior24\_90 (A15), Watson\_83 (A3),  
 WeiHuaDA\_86 (A2), WestPM\_51 (EA11), Whabigail7\_84 (A2), WideWale\_85 (A2),  
 WildNOut\_59 (EA1), Winzigespinne\_58 (EA1), Wooldri\_86 (A3), XianYue\_83 (A2),  
 Yecey3\_89 (A9), Zada\_60 (EA1), Zenitsu\_56 (EA2), Zimmer\_85 (A12),

Start 46:

- Found in 11 of 471 ( 2.3% ) of genes in pham
- Manual Annotations of this start: 10 of 418

- Called 100.0% of time when present
- Phage (with cluster) where this start called: AN9\_83 (A2), ANI8\_83 (A2), C3\_76 (A2), DBQu4n\_84 (A2), Duplo\_85 (A2), Kerberos\_84 (A2), Pomar16\_84 (A2), StarStuff\_84 (A2), Tomathan\_84 (A2), Travvers\_84 (A2), VC3\_82 (A2),

Start 47:

- Found in 6 of 471 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 5 of 418
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Aleemily\_151 (DZ), Cafasso\_153 (DZ), ModicumRichard\_153 (DZ), Morgana\_160 (DZ), ObLaDi\_153 (DZ), VanLee\_161 (singleton),

Start 49:

- Found in 1 of 471 ( 0.2% ) of genes in pham
- Manual Annotations of this start: 1 of 418
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Archimedes\_49 (DA),

Start 60:

- Found in 83 of 471 ( 17.6% ) of genes in pham
- Manual Annotations of this start: 1 of 418
- Called 1.2% of time when present
- Phage (with cluster) where this start called: Phoxy\_84 (A3),

Start 64:

- Found in 198 of 471 ( 42.0% ) of genes in pham
- Manual Annotations of this start: 2 of 418
- Called 1.0% of time when present
- Phage (with cluster) where this start called: AugsMagnumOpus\_87 (A3), MuchMore\_87 (A3),

### **Summary by clusters:**

There are 27 clusters represented in this pham: AA, singleton, UNK, DA, DZ, FG, A15, A17, A16, A11, A12, A3, A2, BD2, A9, A, EA9, GF, EA1, CR, EA2, EA4, EA6, A20, EA11, EA10, EA8,

Info for manual annotations of cluster A:

- Start number 45 was manually annotated 1 time for cluster A.

Info for manual annotations of cluster A11:

- Start number 45 was manually annotated 24 times for cluster A11.

Info for manual annotations of cluster A12:

- Start number 45 was manually annotated 4 times for cluster A12.

Info for manual annotations of cluster A15:

- Start number 31 was manually annotated 1 time for cluster A15.
- Start number 45 was manually annotated 4 times for cluster A15.

Info for manual annotations of cluster A16:

- Start number 45 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 43 was manually annotated 3 times for cluster A2.
- Start number 45 was manually annotated 75 times for cluster A2.
- Start number 46 was manually annotated 10 times for cluster A2.

Info for manual annotations of cluster A20:

- Start number 45 was manually annotated 1 time for cluster A20.

Info for manual annotations of cluster A3:

- Start number 37 was manually annotated 1 time for cluster A3.
- Start number 45 was manually annotated 70 times for cluster A3.
- Start number 60 was manually annotated 1 time for cluster A3.
- Start number 64 was manually annotated 2 times for cluster A3.

Info for manual annotations of cluster A9:

- Start number 45 was manually annotated 34 times for cluster A9.

Info for manual annotations of cluster AA:

- Start number 45 was manually annotated 1 time for cluster AA.

Info for manual annotations of cluster BD2:

- Start number 24 was manually annotated 2 times for cluster BD2.
- Start number 32 was manually annotated 1 time for cluster BD2.
- Start number 45 was manually annotated 9 times for cluster BD2.

Info for manual annotations of cluster CR:

- Start number 20 was manually annotated 1 time for cluster CR.
- Start number 41 was manually annotated 5 times for cluster CR.

Info for manual annotations of cluster DA:

- Start number 45 was manually annotated 2 times for cluster DA.
- Start number 49 was manually annotated 1 time for cluster DA.

Info for manual annotations of cluster DZ:

- Start number 47 was manually annotated 4 times for cluster DZ.

Info for manual annotations of cluster EA1:

- Start number 45 was manually annotated 119 times for cluster EA1.

Info for manual annotations of cluster EA10:

- Start number 45 was manually annotated 1 time for cluster EA10.

Info for manual annotations of cluster EA11:

- Start number 45 was manually annotated 5 times for cluster EA11.

Info for manual annotations of cluster EA2:

- Start number 45 was manually annotated 11 times for cluster EA2.

Info for manual annotations of cluster EA4:

- Start number 45 was manually annotated 11 times for cluster EA4.

Info for manual annotations of cluster EA6:

- Start number 45 was manually annotated 2 times for cluster EA6.

Info for manual annotations of cluster EA8:

- Start number 29 was manually annotated 1 time for cluster EA8.

Info for manual annotations of cluster EA9:

- Start number 45 was manually annotated 3 times for cluster EA9.

Info for manual annotations of cluster FG:

- Start number 45 was manually annotated 1 time for cluster FG.

Info for manual annotations of cluster GF:

- Start number 30 was manually annotated 1 time for cluster GF.
- Start number 45 was manually annotated 2 times for cluster GF.

### **Gene Information:**

Gene: 20ES\_86 Start: 48476, Stop: 47718, Start Num: 45

Candidate Starts for 20ES\_86:

(Start: 45 @48476 has 383 MA's), (51, 48455), (53, 48443), (56, 48413), (62, 48362), (Start: 64 @48341 has 2 MA's), (70, 48305), (71, 48296), (84, 48236), (110, 48152), (114, 48143), (131, 48089), (142, 48053), (158, 48005), (176, 47906), (183, 47879), (193, 47831), (210, 47741),

Gene: 40AC\_79 Start: 47860, Stop: 47102, Start Num: 45

Candidate Starts for 40AC\_79:

(Start: 45 @47860 has 383 MA's), (51, 47839), (53, 47827), (Start: 64 @47725 has 2 MA's), (69, 47695), (84, 47620), (94, 47578), (131, 47473), (148, 47422), (182, 47263), (183, 47260), (188, 47227), (210, 47125),

Gene: AN3\_84 Start: 46734, Stop: 45979, Start Num: 45

Candidate Starts for AN3\_84:

(Start: 45 @46734 has 383 MA's), (51, 46713), (56, 46671), (62, 46620), (Start: 64 @46599 has 2 MA's), (70, 46563), (71, 46554), (78, 46524), (84, 46494), (114, 46401), (131, 46347), (142, 46311), (144, 46308), (158, 46263), (176, 46164), (183, 46137), (193, 46089), (210, 45999),

Gene: AN9\_83 Start: 46905, Stop: 46132, Start Num: 46

Candidate Starts for AN9\_83:

(Start: 46 @46905 has 10 MA's), (51, 46881), (56, 46839), (59, 46815), (Start: 64 @46767 has 2 MA's), (69, 46737), (70, 46731), (85, 46659), (92, 46635), (94, 46620), (98, 46608), (131, 46506), (136, 46485), (183, 46293), (210, 46155),

Gene: ANI8\_83 Start: 46905, Stop: 46132, Start Num: 46

Candidate Starts for ANI8\_83:

(Start: 46 @46905 has 10 MA's), (51, 46881), (56, 46839), (59, 46815), (Start: 64 @46767 has 2 MA's), (69, 46737), (70, 46731), (85, 46659), (92, 46635), (94, 46620), (98, 46608), (131, 46506), (136, 46485), (183, 46293), (210, 46155),

Gene: AbbyPaige\_86 Start: 48733, Stop: 47978, Start Num: 45

Candidate Starts for AbbyPaige\_86:

(Start: 45 @48733 has 383 MA's), (51, 48712), (56, 48670), (59, 48646), (Start: 64 @48598 has 2 MA's), (76, 48529), (84, 48493), (107, 48415), (131, 48346), (136, 48325), (182, 48139), (183, 48136), (210, 47998),

Gene: Acolyte\_78 Start: 47431, Stop: 46673, Start Num: 45

Candidate Starts for Acolyte\_78:

(Start: 45 @47431 has 383 MA's), (51, 47407), (56, 47365), (59, 47341), (Start: 64 @47293 has 2 MA's), (69, 47263), (84, 47188), (91, 47167), (110, 47107), (114, 47098), (131, 47044), (142, 47008), (158, 46960), (182, 46837), (183, 46834), (210, 46696),

Gene: Acosta\_60 Start: 39620, Stop: 38892, Start Num: 45

Candidate Starts for Acosta\_60:

(25, 39701), (Start: 45 @39620 has 383 MA's), (62, 39521), (85, 39395), (102, 39353), (128, 39290), (139, 39245), (145, 39236), (163, 39155), (188, 39032), (201, 38966),

Gene: Adzzy\_85 Start: 47246, Stop: 46503, Start Num: 45

Candidate Starts for Adzzy\_85:

(13, 47456), (Start: 45 @47246 has 383 MA's), (51, 47228), (56, 47186), (62, 47135), (Start: 64 @47114 has 2 MA's), (77, 47042), (84, 47009), (96, 46961), (114, 46916), (124, 46889), (131, 46862), (182, 46667), (197, 46595), (210, 46526),

Gene: Agape74\_86 Start: 48709, Stop: 47954, Start Num: 45

Candidate Starts for Agape74\_86:

(Start: 45 @48709 has 383 MA's), (51, 48688), (56, 48646), (59, 48622), (Start: 64 @48574 has 2 MA's), (76, 48505), (84, 48469), (107, 48391), (131, 48322), (136, 48301), (182, 48115), (183, 48112), (210, 47974),

Gene: Agente005\_58 Start: 39399, Stop: 38668, Start Num: 45

Candidate Starts for Agente005\_58:

(Start: 45 @39399 has 383 MA's), (62, 39300), (75, 39216), (82, 39183), (85, 39174), (102, 39132), (128, 39066), (139, 39021), (145, 39012), (188, 38808),

Gene: Aglet\_85 Start: 47041, Stop: 46274, Start Num: 45

Candidate Starts for Aglet\_85:

(Start: 37 @47074 has 1 MA's), (Start: 45 @47041 has 383 MA's), (51, 47020), (57, 46975), (59, 46954), (Start: 60 @46948 has 1 MA's), (Start: 64 @46906 has 2 MA's), (69, 46876), (71, 46861), (94, 46759), (95, 46756), (105, 46720), (131, 46648), (136, 46627), (167, 46498), (175, 46465), (182, 46438),

Gene: Aleemily\_151 Start: 79896, Stop: 79123, Start Num: 47

Candidate Starts for Aleemily\_151:

(Start: 47 @79896 has 5 MA's), (56, 79830), (59, 79806), (61, 79782), (68, 79743), (74, 79698), (80, 79668), (90, 79638), (92, 79629), (97, 79605), (108, 79578), (119, 79551), (131, 79512), (159, 79413), (160, 79392), (177, 79320), (178, 79314), (203, 79197), (208, 79158), (214, 79134),

Gene: AlexAdler\_59 Start: 39579, Stop: 38848, Start Num: 45

Candidate Starts for AlexAdler\_59:

(Start: 45 @39579 has 383 MA's), (62, 39477), (82, 39360), (102, 39309), (128, 39246), (139, 39201), (145, 39192), (163, 39111), (176, 39054), (188, 38988), (209, 38877),

Gene: Aliter\_81 Start: 45863, Stop: 45102, Start Num: 45

Candidate Starts for Aliter\_81:



(Start: 45 @45863 has 383 MA's), (56, 45803), (62, 45752), (65, 45725), (73, 45671), (84, 45623), (90, 45605), (94, 45581), (114, 45530), (124, 45503), (131, 45476), (182, 45263), (183, 45260), (188, 45227), (210, 45125),

Gene: Alma\_86 Start: 48703, Stop: 47942, Start Num: 45

Candidate Starts for Alma\_86:

(21, 48829), (Start: 45 @48703 has 383 MA's), (56, 48643), (59, 48619), (62, 48592), (65, 48565), (73, 48511), (84, 48463), (90, 48445), (94, 48421), (114, 48370), (124, 48343), (131, 48316), (182, 48103), (183, 48100), (188, 48067), (210, 47965),

Gene: Alvy\_70 Start: 45833, Stop: 45003, Start Num: 24

Candidate Starts for Alvy\_70:

(15, 45899), (Start: 24 @45833 has 2 MA's), (26, 45827), (Start: 32 @45791 has 1 MA's), (Start: 45 @45734 has 383 MA's), (48, 45728), (62, 45623), (65, 45596), (135, 45380), (150, 45341), (157, 45323), (163, 45284), (167, 45263),

Gene: Alyxandracam\_59 Start: 39516, Stop: 38785, Start Num: 45

Candidate Starts for Alyxandracam\_59:

(Start: 45 @39516 has 383 MA's), (62, 39414), (82, 39297), (102, 39246), (128, 39183), (139, 39138), (145, 39129), (163, 39048), (176, 38991), (184, 38955), (188, 38925), (209, 38814),

Gene: Andromedas\_56 Start: 37751, Stop: 37026, Start Num: 45

Candidate Starts for Andromedas\_56:

(Start: 45 @37751 has 383 MA's), (62, 37649), (82, 37541), (116, 37454), (128, 37424), (138, 37388), (141, 37376), (163, 37289), (176, 37232),

Gene: Aneem\_87 Start: 47779, Stop: 47021, Start Num: 45

Candidate Starts for Aneem\_87:

(Start: 45 @47779 has 383 MA's), (51, 47755), (56, 47713), (62, 47662), (Start: 64 @47641 has 2 MA's), (66, 47632), (69, 47611), (70, 47605), (71, 47596), (92, 47509), (94, 47494), (114, 47446), (124, 47419), (131, 47392), (202, 47089), (210, 47044),

Gene: Anilorac\_58 Start: 39306, Stop: 38575, Start Num: 45

Candidate Starts for Anilorac\_58:

(Start: 45 @39306 has 383 MA's), (62, 39207), (75, 39123), (82, 39090), (85, 39081), (102, 39039), (128, 38973), (139, 38928), (145, 38919), (188, 38715),

Gene: Animus\_65 Start: 44661, Stop: 43927, Start Num: 45

Candidate Starts for Animus\_65:

(Start: 45 @44661 has 383 MA's), (62, 44547), (102, 44394), (150, 44265), (163, 44208), (166, 44190), (167, 44187), (184, 44100),

Gene: AnnaL29\_86 Start: 48866, Stop: 48111, Start Num: 45

Candidate Starts for AnnaL29\_86:

(Start: 45 @48866 has 383 MA's), (51, 48845), (56, 48803), (59, 48779), (62, 48752), (Start: 64 @48731 has 2 MA's), (70, 48695), (71, 48686), (78, 48656), (84, 48626), (110, 48542), (114, 48533), (131, 48479), (142, 48443), (158, 48395), (183, 48269), (210, 48131),

Gene: Anselm\_85 Start: 48617, Stop: 47859, Start Num: 45

Candidate Starts for Anselm\_85:

(Start: 45 @48617 has 383 MA's), (51, 48596), (56, 48554), (59, 48530), (62, 48503), (Start: 64 @48482 has 2 MA's), (70, 48446), (77, 48410), (84, 48377), (110, 48293), (114, 48284), (131, 48230), (142, 48194), (158, 48146), (176, 48047), (182, 48023), (183, 48020), (210, 47882),

Gene: Anthony\_78 Start: 46673, Stop: 45921, Start Num: 45

Candidate Starts for Anthony\_78:

(39, 46715), (Start: 45 @46673 has 383 MA's), (51, 46652), (56, 46610), (59, 46586), (69, 46508), (83, 46436), (89, 46418), (105, 46361), (110, 46355), (114, 46346), (122, 46325), (131, 46292), (132, 46289), (176, 46106), (188, 46046),

Gene: Antoinette\_59 Start: 39604, Stop: 38873, Start Num: 45

Candidate Starts for Antoinette\_59:

(Start: 45 @39604 has 383 MA's), (62, 39502), (82, 39385), (102, 39334), (128, 39271), (139, 39226), (145, 39217), (163, 39136), (176, 39079), (188, 39013), (209, 38902),

Gene: Anubis\_88 Start: 46927, Stop: 46160, Start Num: 45

Candidate Starts for Anubis\_88:

(35, 46972), (Start: 45 @46927 has 383 MA's), (51, 46906), (57, 46861), (59, 46840), (Start: 60 @46834 has 1 MA's), (Start: 64 @46792 has 2 MA's), (69, 46762), (71, 46747), (94, 46645), (95, 46642), (105, 46606), (131, 46534), (136, 46513), (167, 46384), (175, 46351), (182, 46324),

Gene: Apiary\_4 Start: 2670, Stop: 3488, Start Num: 41

Candidate Starts for Apiary\_4:

(Start: 20 @2547 has 1 MA's), (Start: 41 @2670 has 5 MA's), (55, 2730), (78, 2889), (92, 2946), (93, 2958), (102, 2991), (104, 3000), (109, 3012), (115, 3024), (116, 3027), (147, 3126), (183, 3306),

Gene: AranulaLuti\_58 Start: 39296, Stop: 38565, Start Num: 45

Candidate Starts for AranulaLuti\_58:

(Start: 45 @39296 has 383 MA's), (62, 39194), (82, 39077), (102, 39026), (128, 38963), (139, 38918), (145, 38909), (163, 38828), (176, 38771), (188, 38705), (209, 38594),

Gene: ArcherNM\_79 Start: 48007, Stop: 47249, Start Num: 45

Candidate Starts for ArcherNM\_79:

(7, 48298), (11, 48220), (Start: 45 @48007 has 383 MA's), (51, 47986), (53, 47974), (59, 47920), (62, 47893), (69, 47842), (70, 47836), (84, 47767), (94, 47725), (101, 47707), (131, 47620), (136, 47599), (143, 47581), (182, 47410), (183, 47407), (188, 47374), (210, 47272),

Gene: Archimedes\_49 Start: 39781, Stop: 40470, Start Num: 49

Candidate Starts for Archimedes\_49:

(36, 39721), (44, 39766), (Start: 49 @39781 has 1 MA's), (52, 39805), (56, 39844), (66, 39925), (72, 39964), (78, 39994), (81, 40015), (94, 40066), (114, 40102), (131, 40156), (163, 40240), (168, 40264), (171, 40276), (191, 40357), (202, 40411), (205, 40429), (211, 40465),

Gene: Arissanae\_83 Start: 48580, Stop: 47822, Start Num: 45

Candidate Starts for Arissanae\_83:

(Start: 45 @48580 has 383 MA's), (51, 48562), (61, 48472), (62, 48469), (65, 48442), (79, 48358), (84, 48343), (90, 48325), (94, 48301), (114, 48250), (124, 48223), (131, 48196), (134, 48184), (136, 48175), (148, 48145), (183, 47980), (188, 47947), (210, 47845),

Gene: Asta\_58 Start: 39301, Stop: 38570, Start Num: 45

Candidate Starts for Asta\_58:

(Start: 45 @39301 has 383 MA's), (62, 39199), (82, 39082), (102, 39031), (128, 38968), (139, 38923), (145, 38914), (163, 38833), (176, 38776), (184, 38740), (188, 38710), (209, 38599),

Gene: Aubergine\_58 Start: 39301, Stop: 38570, Start Num: 45

Candidate Starts for Aubergine\_58:

(Start: 45 @39301 has 383 MA's), (62, 39199), (82, 39082), (102, 39031), (128, 38968), (139, 38923), (145, 38914), (163, 38833), (176, 38776), (184, 38740), (188, 38710), (209, 38599),

Gene: AugsMagnumOpus\_87 Start: 46894, Stop: 46262, Start Num: 64

Candidate Starts for AugsMagnumOpus\_87:

(Start: 64 @46894 has 2 MA's), (69, 46864), (71, 46849), (94, 46747), (95, 46744), (105, 46708), (131, 46636), (136, 46615), (167, 46486), (175, 46453), (182, 46426),

Gene: AxiPup\_59 Start: 39515, Stop: 38784, Start Num: 45

Candidate Starts for AxiPup\_59:

(Start: 45 @39515 has 383 MA's), (62, 39413), (82, 39296), (102, 39245), (128, 39182), (139, 39137), (145, 39128), (163, 39047), (176, 38990), (184, 38954), (188, 38924), (209, 38813),

Gene: BabyBack\_79 Start: 47854, Stop: 47102, Start Num: 45

Candidate Starts for BabyBack\_79:

(Start: 45 @47854 has 383 MA's), (51, 47833), (56, 47791), (59, 47767), (Start: 64 @47719 has 2 MA's), (69, 47689), (70, 47683), (83, 47617), (110, 47536), (131, 47473), (134, 47461), (136, 47452), (182, 47266), (183, 47263), (195, 47203), (210, 47125),

Gene: Bachome\_84 Start: 46659, Stop: 45901, Start Num: 45

Candidate Starts for Bachome\_84:

(Start: 45 @46659 has 383 MA's), (51, 46635), (56, 46593), (62, 46542), (Start: 64 @46521 has 2 MA's), (66, 46512), (69, 46491), (70, 46485), (71, 46476), (92, 46389), (94, 46374), (114, 46326), (124, 46299), (131, 46272), (202, 45969), (210, 45924),

Gene: Baehexic\_83 Start: 48100, Stop: 47342, Start Num: 45

Candidate Starts for Baehexic\_83:

(Start: 45 @48100 has 383 MA's), (51, 48079), (56, 48037), (59, 48013), (62, 47986), (Start: 64 @47965 has 2 MA's), (70, 47929), (71, 47920), (78, 47890), (84, 47860), (110, 47776), (114, 47767), (131, 47713), (142, 47677), (158, 47629), (176, 47530), (182, 47506), (183, 47503), (210, 47365),

Gene: Baines\_58 Start: 39300, Stop: 38569, Start Num: 45

Candidate Starts for Baines\_58:

(Start: 45 @39300 has 383 MA's), (62, 39198), (82, 39081), (102, 39030), (128, 38967), (139, 38922), (145, 38913), (163, 38832), (176, 38775), (188, 38709), (209, 38598),

Gene: Balsa\_57 Start: 39430, Stop: 38699, Start Num: 45

Candidate Starts for Balsa\_57:

(Start: 45 @39430 has 383 MA's), (61, 39331), (62, 39328), (82, 39211), (102, 39160), (139, 39052), (145, 39043), (163, 38962), (176, 38905), (184, 38869), (188, 38839), (199, 38791), (209, 38728),

Gene: Bandik\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for Bandik\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (188, 38957), (209, 38846),

Gene: BartholomewSD\_70 Start: 44853, Stop: 44122, Start Num: 45

Candidate Starts for BartholomewSD\_70:

(15, 45018), (Start: 24 @44952 has 2 MA's), (26, 44946), (Start: 32 @44910 has 1 MA's), (Start: 45 @44853 has 383 MA's), (48, 44847), (62, 44742), (65, 44715), (135, 44499), (150, 44460), (157, 44442), (163, 44403), (167, 44382),

Gene: BeautPeep30\_59 Start: 39554, Stop: 38823, Start Num: 45

Candidate Starts for BeautPeep30\_59:

(Start: 45 @39554 has 383 MA's), (62, 39452), (82, 39335), (102, 39284), (128, 39221), (139, 39176), (145, 39167), (163, 39086), (176, 39029), (188, 38963), (209, 38852),

Gene: Beauxregard13\_83 Start: 47044, Stop: 46277, Start Num: 45

Candidate Starts for Beauxregard13\_83:

(35, 47089), (Start: 45 @47044 has 383 MA's), (51, 47023), (57, 46978), (59, 46957), (Start: 60 @46951 has 1 MA's), (Start: 64 @46909 has 2 MA's), (69, 46879), (71, 46864), (94, 46762), (95, 46759), (105, 46723), (131, 46651), (136, 46630), (167, 46501), (175, 46468), (182, 46441),

Gene: BeeBee8\_59 Start: 39604, Stop: 38873, Start Num: 45

Candidate Starts for BeeBee8\_59:

(Start: 45 @39604 has 383 MA's), (61, 39505), (62, 39502), (82, 39385), (102, 39334), (139, 39226), (145, 39217), (163, 39136), (176, 39079), (184, 39043), (188, 39013), (199, 38965), (209, 38902),

Gene: Beemo\_88 Start: 48697, Stop: 47936, Start Num: 45

Candidate Starts for Beemo\_88:

(21, 48823), (Start: 45 @48697 has 383 MA's), (56, 48637), (59, 48613), (62, 48586), (65, 48559), (73, 48505), (84, 48457), (90, 48439), (94, 48415), (114, 48364), (124, 48337), (131, 48310), (182, 48097), (183, 48094), (188, 48061), (210, 47959),

Gene: BengiVuitton\_86 Start: 48581, Stop: 47823, Start Num: 45

Candidate Starts for BengiVuitton\_86:

(Start: 45 @48581 has 383 MA's), (51, 48560), (56, 48518), (62, 48467), (Start: 64 @48446 has 2 MA's), (70, 48410), (71, 48401), (78, 48371), (84, 48341), (114, 48248), (131, 48194), (142, 48158), (158, 48110), (176, 48011), (183, 47984), (193, 47936), (210, 47846),

Gene: Benjalauren\_59 Start: 39307, Stop: 38576, Start Num: 45

Candidate Starts for Benjalauren\_59:

(Start: 45 @39307 has 383 MA's), (62, 39205), (82, 39088), (102, 39037), (128, 38974), (139, 38929), (145, 38920), (163, 38839), (176, 38782), (184, 38746), (188, 38716), (209, 38605),

Gene: Benvolio\_83 Start: 48347, Stop: 47592, Start Num: 45

Candidate Starts for Benvolio\_83:

(Start: 45 @48347 has 383 MA's), (51, 48326), (56, 48284), (59, 48260), (Start: 64 @48212 has 2 MA's), (66, 48203), (69, 48182), (70, 48176), (94, 48065), (110, 48023), (131, 47960), (136, 47939), (182, 47753), (183, 47750), (195, 47690), (210, 47612),

Gene: BiancaTri92\_82 Start: 48189, Stop: 47455, Start Num: 45

Candidate Starts for BiancaTri92\_82:

(16, 48357), (Start: 45 @48189 has 383 MA's), (56, 48132), (62, 48081), (89, 47940), (91, 47934), (105, 47892), (131, 47820), (167, 47673), (182, 47613), (183, 47610), (197, 47541),

Gene: BigRedClifford\_59 Start: 39542, Stop: 38811, Start Num: 45

Candidate Starts for BigRedClifford\_59:

(Start: 45 @39542 has 383 MA's), (62, 39440), (82, 39323), (102, 39272), (128, 39209), (139, 39164), (145, 39155), (163, 39074), (176, 39017), (188, 38951), (209, 38840),

Gene: Bigflo\_81 Start: 47040, Stop: 46273, Start Num: 45

Candidate Starts for Bigflo\_81:

(Start: 37 @47073 has 1 MA's), (Start: 45 @47040 has 383 MA's), (51, 47019), (57, 46974), (59, 46953), (Start: 60 @46947 has 1 MA's), (Start: 64 @46905 has 2 MA's), (69, 46875), (71, 46860), (94, 46758), (95, 46755), (105, 46719), (131, 46647), (136, 46626), (167, 46497), (175, 46464), (182,

46437),

Gene: Blage\_59 Start: 39542, Stop: 38811, Start Num: 45

Candidate Starts for Blage\_59:

(Start: 45 @39542 has 383 MA's), (62, 39440), (82, 39323), (102, 39272), (128, 39209), (139, 39164), (145, 39155), (163, 39074), (176, 39017), (188, 38951), (209, 38840),

Gene: BobSwaget\_78 Start: 46119, Stop: 45361, Start Num: 45

Candidate Starts for BobSwaget\_78:

(Start: 45 @46119 has 383 MA's), (51, 46098), (53, 46086), (62, 46005), (84, 45879), (91, 45858), (94, 45837), (110, 45795), (131, 45732), (167, 45582), (183, 45519), (210, 45384),

Gene: BogosyJay\_87 Start: 48744, Stop: 47986, Start Num: 45

Candidate Starts for BogosyJay\_87:

(Start: 45 @48744 has 383 MA's), (51, 48726), (61, 48636), (62, 48633), (65, 48606), (73, 48555), (84, 48507), (90, 48489), (94, 48465), (114, 48414), (124, 48387), (131, 48360), (134, 48348), (148, 48309), (183, 48144), (188, 48111), (210, 48009),

Gene: BonesMcCoy\_59 Start: 39543, Stop: 38812, Start Num: 45

Candidate Starts for BonesMcCoy\_59:

(Start: 45 @39543 has 383 MA's), (62, 39441), (82, 39324), (102, 39273), (128, 39210), (139, 39165), (145, 39156), (163, 39075), (176, 39018), (188, 38952), (209, 38841),

Gene: Bonino\_58 Start: 39280, Stop: 38549, Start Num: 45

Candidate Starts for Bonino\_58:

(Start: 45 @39280 has 383 MA's), (62, 39178), (82, 39061), (102, 39010), (128, 38947), (139, 38902), (145, 38893), (163, 38812), (176, 38755), (184, 38719), (188, 38689), (209, 38578),

Gene: BouleyBill\_50 Start: 36149, Stop: 35412, Start Num: 45

Candidate Starts for BouleyBill\_50:

(Start: 45 @36149 has 383 MA's), (62, 36038), (76, 35951), (82, 35921), (115, 35843), (128, 35810), (138, 35774), (163, 35675), (164, 35672), (175, 35621), (183, 35588), (187, 35564), (190, 35543),

Gene: Bowden\_66 Start: 45374, Stop: 44640, Start Num: 45

Candidate Starts for Bowden\_66:

(Start: 24 @45473 has 2 MA's), (26, 45467), (Start: 32 @45431 has 1 MA's), (Start: 45 @45374 has 383 MA's), (50, 45365), (62, 45260), (65, 45233), (135, 45017), (150, 44978), (157, 44960), (163, 44921), (167, 44900),

Gene: Bowtie\_83 Start: 46386, Stop: 45628, Start Num: 45

Candidate Starts for Bowtie\_83:

(Start: 45 @46386 has 383 MA's), (51, 46362), (56, 46320), (62, 46269), (Start: 64 @46248 has 2 MA's), (66, 46239), (69, 46218), (70, 46212), (71, 46203), (92, 46116), (94, 46101), (114, 46053), (124, 46026), (131, 45999), (202, 45696), (210, 45651),

Gene: Bradman\_87 Start: 47575, Stop: 46814, Start Num: 45

Candidate Starts for Bradman\_87:

(Start: 45 @47575 has 383 MA's), (51, 47551), (56, 47509), (Start: 64 @47437 has 2 MA's), (69, 47407), (70, 47401), (84, 47332), (94, 47290), (114, 47242), (131, 47188), (156, 47104), (167, 47038), (182, 46978), (183, 46975), (202, 46882), (210, 46837),

Gene: Braxoaddie\_4 Start: 2547, Stop: 3488, Start Num: 20

Candidate Starts for Braxoaddie\_4:

(Start: 20 @2547 has 1 MA's), (Start: 41 @2670 has 5 MA's), (55, 2730), (78, 2889), (92, 2946), (93, 2958), (102, 2991), (104, 3000), (109, 3012), (115, 3024), (116, 3027), (147, 3126), (183, 3306), (189, 3348),

Gene: BreSam8\_84 Start: 47034, Stop: 46267, Start Num: 45

Candidate Starts for BreSam8\_84:

(Start: 37 @47067 has 1 MA's), (Start: 45 @47034 has 383 MA's), (51, 47013), (57, 46968), (59, 46947), (Start: 60 @46941 has 1 MA's), (Start: 64 @46899 has 2 MA's), (69, 46869), (71, 46854), (94, 46752), (95, 46749), (105, 46713), (131, 46641), (136, 46620), (167, 46491), (175, 46458), (182, 46431),

Gene: Bud\_81 Start: 46216, Stop: 45458, Start Num: 45

Candidate Starts for Bud\_81:

(Start: 45 @46216 has 383 MA's), (51, 46192), (56, 46150), (62, 46099), (Start: 64 @46078 has 2 MA's), (66, 46069), (69, 46048), (70, 46042), (71, 46033), (92, 45946), (94, 45931), (114, 45883), (124, 45856), (131, 45829), (202, 45526), (210, 45481),

Gene: Bustleton\_51 Start: 36138, Stop: 35401, Start Num: 45

Candidate Starts for Bustleton\_51:

(Start: 45 @36138 has 383 MA's), (62, 36027), (73, 35952), (76, 35940), (82, 35910), (115, 35832), (128, 35799), (138, 35763), (163, 35664), (164, 35661), (175, 35610), (183, 35577), (187, 35553), (190, 35532), (209, 35430),

Gene: BuzzBuzz\_78 Start: 47069, Stop: 46302, Start Num: 45

Candidate Starts for BuzzBuzz\_78:

(35, 47114), (Start: 45 @47069 has 383 MA's), (51, 47048), (57, 47003), (59, 46982), (Start: 60 @46976 has 1 MA's), (Start: 64 @46934 has 2 MA's), (69, 46904), (71, 46889), (94, 46787), (95, 46784), (105, 46748), (131, 46676), (136, 46655), (167, 46526), (175, 46493), (182, 46466),

Gene: Bxz2\_79 Start: 47076, Stop: 46309, Start Num: 45

Candidate Starts for Bxz2\_79:

(35, 47121), (Start: 45 @47076 has 383 MA's), (51, 47055), (57, 47010), (59, 46989), (Start: 60 @46983 has 1 MA's), (Start: 64 @46941 has 2 MA's), (69, 46911), (71, 46896), (94, 46794), (95, 46791), (105, 46755), (131, 46683), (136, 46662), (167, 46533), (175, 46500), (182, 46473),

Gene: Byron23\_60 Start: 39551, Stop: 38820, Start Num: 45

Candidate Starts for Byron23\_60:

(Start: 45 @39551 has 383 MA's), (62, 39449), (82, 39332), (102, 39281), (128, 39218), (139, 39173), (145, 39164), (163, 39083), (176, 39026), (188, 38960), (209, 38849),

Gene: C3\_76 Start: 46905, Stop: 46132, Start Num: 46

Candidate Starts for C3\_76:

(Start: 46 @46905 has 10 MA's), (51, 46881), (56, 46839), (59, 46815), (Start: 64 @46767 has 2 MA's), (69, 46737), (70, 46731), (85, 46659), (92, 46635), (94, 46620), (98, 46608), (131, 46506), (136, 46485), (183, 46293), (210, 46155),

Gene: CRB1\_85 Start: 48729, Stop: 47971, Start Num: 45

Candidate Starts for CRB1\_85:

(Start: 45 @48729 has 383 MA's), (51, 48708), (56, 48666), (62, 48615), (Start: 64 @48594 has 2 MA's), (70, 48558), (71, 48549), (78, 48519), (84, 48489), (114, 48396), (131, 48342), (142, 48306), (158, 48258), (176, 48159), (183, 48132), (193, 48084), (210, 47994),

Gene: Cafasso\_153 Start: 80306, Stop: 79533, Start Num: 47

Candidate Starts for Cafasso\_153:

(Start: 47 @80306 has 5 MA's), (56, 80240), (59, 80216), (61, 80192), (68, 80153), (74, 80108), (80, 80078), (90, 80048), (92, 80039), (97, 80015), (108, 79988), (119, 79961), (131, 79922), (159, 79823), (160, 79802), (177, 79730), (178, 79724), (203, 79607), (208, 79568), (214, 79544),

Gene: Calix\_58 Start: 39287, Stop: 38556, Start Num: 45

Candidate Starts for Calix\_58:

(Start: 45 @39287 has 383 MA's), (62, 39185), (82, 39068), (102, 39017), (128, 38954), (139, 38909), (145, 38900), (163, 38819), (176, 38762), (184, 38726), (188, 38696), (209, 38585),

Gene: Calvinny\_81 Start: 46852, Stop: 46085, Start Num: 45

Candidate Starts for Calvinny\_81:

(35, 46897), (Start: 45 @46852 has 383 MA's), (51, 46831), (56, 46789), (57, 46786), (59, 46765), (Start: 60 @46759 has 1 MA's), (Start: 64 @46717 has 2 MA's), (69, 46687), (71, 46672), (94, 46570), (105, 46531), (110, 46522), (129, 46471), (131, 46459), (167, 46309), (182, 46249),

Gene: Caraxes\_85 Start: 47204, Stop: 46461, Start Num: 45

Candidate Starts for Caraxes\_85:

(Start: 45 @47204 has 383 MA's), (51, 47186), (56, 47144), (62, 47093), (Start: 64 @47072 has 2 MA's), (77, 47000), (84, 46967), (94, 46925), (96, 46919), (114, 46874), (124, 46847), (131, 46820), (133, 46811), (182, 46625), (188, 46589), (197, 46553), (210, 46484),

Gene: CarisSwetlik\_59 Start: 39888, Stop: 39160, Start Num: 45

Candidate Starts for CarisSwetlik\_59:

(Start: 45 @39888 has 383 MA's), (62, 39789), (65, 39762), (85, 39663), (102, 39621), (128, 39558), (139, 39513), (145, 39504), (163, 39423), (188, 39300),

Gene: Catalina\_90 Start: 48810, Stop: 48049, Start Num: 45

Candidate Starts for Catalina\_90:

(Start: 45 @48810 has 383 MA's), (56, 48750), (62, 48699), (65, 48672), (73, 48618), (84, 48570), (90, 48552), (94, 48528), (114, 48477), (124, 48450), (131, 48423), (182, 48210), (183, 48207), (188, 48174), (210, 48072),

Gene: Centaur\_84 Start: 47978, Stop: 47220, Start Num: 45

Candidate Starts for Centaur\_84:

(Start: 45 @47978 has 383 MA's), (51, 47957), (53, 47945), (56, 47915), (59, 47891), (62, 47864), (Start: 64 @47843 has 2 MA's), (70, 47807), (71, 47798), (78, 47768), (84, 47738), (94, 47696), (110, 47654), (114, 47645), (131, 47591), (142, 47555), (158, 47507), (176, 47408), (182, 47384), (183, 47381), (210, 47243),

Gene: Chako\_58 Start: 39296, Stop: 38565, Start Num: 45

Candidate Starts for Chako\_58:

(Start: 45 @39296 has 383 MA's), (62, 39194), (82, 39077), (102, 39026), (128, 38963), (139, 38918), (145, 38909), (163, 38828), (176, 38771), (188, 38705), (209, 38594),

Gene: Chamuel\_58 Start: 39313, Stop: 38582, Start Num: 45

Candidate Starts for Chamuel\_58:

(Start: 45 @39313 has 383 MA's), (62, 39211), (82, 39094), (102, 39043), (128, 38980), (139, 38935), (145, 38926), (163, 38845), (176, 38788), (184, 38752), (188, 38722), (209, 38611),

Gene: Changeling\_83 Start: 48672, Stop: 47914, Start Num: 45

Candidate Starts for Changeling\_83:

(Start: 43 @48675 has 3 MA's), (Start: 45 @48672 has 383 MA's), (51, 48648), (56, 48606), (59, 48582), (62, 48555), (71, 48489), (76, 48465), (84, 48429), (107, 48351), (114, 48336), (131, 48282), (136, 48261), (182, 48075), (183, 48072), (210, 47934),

Gene: Chargerpower\_84 Start: 46758, Stop: 45994, Start Num: 45

Candidate Starts for Chargerpower\_84:

(23, 46863), (Start: 45 @46758 has 383 MA's), (51, 46731), (61, 46641), (62, 46638), (84, 46512), (94, 46470), (131, 46365), (136, 46344), (167, 46215), (182, 46155), (183, 46152), (210, 46017),

Gene: Charm\_83 Start: 48094, Stop: 47330, Start Num: 45

Candidate Starts for Charm\_83:

(Start: 45 @48094 has 383 MA's), (51, 48070), (62, 47977), (65, 47950), (84, 47851), (94, 47809), (114, 47758), (124, 47731), (131, 47704), (136, 47683), (183, 47488), (188, 47455), (210, 47353),

Gene: Che12\_86 Start: 47324, Stop: 46581, Start Num: 45

Candidate Starts for Che12\_86:

(Start: 45 @47324 has 383 MA's), (51, 47306), (56, 47264), (62, 47213), (Start: 64 @47192 has 2 MA's), (77, 47120), (84, 47087), (92, 47060), (96, 47039), (114, 46994), (124, 46967), (131, 46940), (182, 46745), (197, 46673), (210, 46604),

Gene: Cheeto1\_55 Start: 37748, Stop: 37017, Start Num: 45

Candidate Starts for Cheeto1\_55:

(36, 37787), (Start: 45 @37748 has 383 MA's), (Start: 60 @37667 has 1 MA's), (61, 37649), (62, 37646), (63, 37634), (82, 37529), (90, 37505), (102, 37478), (120, 37433), (128, 37415), (131, 37400), (163, 37280), (184, 37187), (188, 37157), (201, 37091), (209, 37046),

Gene: ChickenKing\_53 Start: 37901, Stop: 37170, Start Num: 45

Candidate Starts for ChickenKing\_53:

(36, 37940), (Start: 45 @37901 has 383 MA's), (Start: 60 @37820 has 1 MA's), (61, 37802), (62, 37799), (63, 37787), (82, 37682), (102, 37631), (120, 37586), (128, 37568), (131, 37553), (163, 37433), (184, 37340), (188, 37310), (201, 37244), (209, 37199),

Gene: ChikPic\_56 Start: 37560, Stop: 36835, Start Num: 45

Candidate Starts for ChikPic\_56:

(Start: 45 @37560 has 383 MA's), (62, 37458), (82, 37350), (128, 37233), (138, 37197), (141, 37185), (163, 37098), (176, 37041),

Gene: ChipMunk\_85 Start: 49636, Stop: 48881, Start Num: 45

Candidate Starts for ChipMunk\_85:

(Start: 45 @49636 has 383 MA's), (51, 49615), (56, 49573), (59, 49549), (Start: 64 @49501 has 2 MA's), (76, 49432), (84, 49396), (107, 49318), (131, 49249), (136, 49228), (182, 49042), (183, 49039), (210, 48901),

Gene: Christoph\_58 Start: 39300, Stop: 38569, Start Num: 45

Candidate Starts for Christoph\_58:

(Start: 45 @39300 has 383 MA's), (62, 39198), (82, 39081), (102, 39030), (128, 38967), (139, 38922), (145, 38913), (163, 38832), (176, 38775), (184, 38739), (188, 38709), (209, 38598),

Gene: Clancy\_58 Start: 39300, Stop: 38569, Start Num: 45

Candidate Starts for Clancy\_58:

(Start: 45 @39300 has 383 MA's), (62, 39198), (82, 39081), (102, 39030), (128, 38967), (139, 38922), (145, 38913), (163, 38832), (176, 38775), (188, 38709), (209, 38598),



Gene: CoffeeBean\_4 Start: 2679, Stop: 3497, Start Num: 41

Candidate Starts for CoffeeBean\_4:

(Start: 41 @2679 has 5 MA's), (55, 2739), (58, 2763), (78, 2898), (92, 2955), (93, 2967), (102, 3000), (104, 3009), (109, 3021), (115, 3033), (116, 3036), (147, 3135), (183, 3315), (189, 3357),

Gene: ColaCorta\_56 Start: 37751, Stop: 37026, Start Num: 45

Candidate Starts for ColaCorta\_56:

(Start: 45 @37751 has 383 MA's), (62, 37649), (82, 37541), (116, 37454), (128, 37424), (138, 37388), (141, 37376), (163, 37289), (176, 37232),

Gene: Colbster\_80 Start: 47044, Stop: 46277, Start Num: 45

Candidate Starts for Colbster\_80:

(35, 47089), (Start: 45 @47044 has 383 MA's), (51, 47023), (57, 46978), (59, 46957), (Start: 60 @46951 has 1 MA's), (Start: 64 @46909 has 2 MA's), (69, 46879), (71, 46864), (94, 46762), (95, 46759), (105, 46723), (131, 46651), (136, 46630), (167, 46501), (175, 46468), (182, 46441),

Gene: Colin\_83 Start: 49050, Stop: 48295, Start Num: 45

Candidate Starts for Colin\_83:

(Start: 45 @49050 has 383 MA's), (51, 49029), (53, 49017), (56, 48987), (59, 48963), (61, 48939), (62, 48936), (84, 48810), (94, 48768), (114, 48717), (131, 48663), (136, 48642), (170, 48501), (182, 48456), (183, 48453), (188, 48420), (210, 48318),

Gene: Conquerage\_86 Start: 48472, Stop: 47711, Start Num: 45

Candidate Starts for Conquerage\_86:

(21, 48598), (Start: 45 @48472 has 383 MA's), (56, 48412), (59, 48388), (62, 48361), (65, 48334), (73, 48280), (84, 48232), (90, 48214), (94, 48190), (114, 48139), (124, 48112), (125, 48109), (131, 48085), (182, 47872), (183, 47869), (188, 47836), (210, 47734),

Gene: Convict\_59 Start: 39543, Stop: 38812, Start Num: 45

Candidate Starts for Convict\_59:

(Start: 45 @39543 has 383 MA's), (62, 39441), (82, 39324), (102, 39273), (128, 39210), (139, 39165), (145, 39156), (163, 39075), (176, 39018), (188, 38952), (209, 38841),

Gene: Crucio\_84 Start: 48580, Stop: 47822, Start Num: 45

Candidate Starts for Crucio\_84:

(Start: 45 @48580 has 383 MA's), (51, 48559), (56, 48517), (59, 48493), (62, 48466), (Start: 64 @48445 has 2 MA's), (70, 48409), (71, 48400), (84, 48340), (110, 48256), (114, 48247), (131, 48193), (142, 48157), (158, 48109), (176, 48010), (183, 47983), (196, 47917), (210, 47845),

Gene: Cullens\_85 Start: 47043, Stop: 46276, Start Num: 45

Candidate Starts for Cullens\_85:

(Start: 37 @47076 has 1 MA's), (Start: 45 @47043 has 383 MA's), (51, 47022), (57, 46977), (59, 46956), (Start: 60 @46950 has 1 MA's), (Start: 64 @46908 has 2 MA's), (69, 46878), (71, 46863), (94, 46761), (95, 46758), (105, 46722), (131, 46650), (136, 46629), (167, 46500), (175, 46467), (182, 46440),

Gene: DBQu4n\_84 Start: 47950, Stop: 47177, Start Num: 46

Candidate Starts for DBQu4n\_84:

(Start: 46 @47950 has 10 MA's), (51, 47926), (56, 47884), (59, 47860), (Start: 64 @47812 has 2 MA's), (69, 47782), (70, 47776), (92, 47680), (94, 47665), (98, 47653), (131, 47551), (136, 47530), (183, 47338), (210, 47200),

Gene: DaHudson\_83 Start: 47033, Stop: 46266, Start Num: 45

Candidate Starts for DaHudson\_83:

(Start: 37 @47066 has 1 MA's), (Start: 45 @47033 has 383 MA's), (51, 47012), (57, 46967), (59, 46946), (Start: 60 @46940 has 1 MA's), (Start: 64 @46898 has 2 MA's), (69, 46868), (71, 46853), (94, 46751), (95, 46748), (105, 46712), (131, 46640), (136, 46619), (167, 46490), (175, 46457), (182, 46430),

Gene: Daishi\_83 Start: 45910, Stop: 45143, Start Num: 45

Candidate Starts for Daishi\_83:

(35, 45955), (Start: 45 @45910 has 383 MA's), (51, 45889), (57, 45844), (59, 45823), (Start: 60 @45817 has 1 MA's), (Start: 64 @45775 has 2 MA's), (69, 45745), (71, 45730), (94, 45628), (95, 45625), (105, 45589), (131, 45517), (136, 45496), (167, 45367), (175, 45334), (182, 45307),

Gene: Dalmatian\_84 Start: 48402, Stop: 47644, Start Num: 45

Candidate Starts for Dalmatian\_84:

(Start: 45 @48402 has 383 MA's), (51, 48381), (56, 48339), (59, 48315), (62, 48288), (Start: 64 @48267 has 2 MA's), (70, 48231), (77, 48195), (84, 48162), (110, 48078), (114, 48069), (131, 48015), (142, 47979), (158, 47931), (176, 47832), (182, 47808), (183, 47805), (210, 47667),

Gene: Darrell\_86 Start: 47900, Stop: 47139, Start Num: 45

Candidate Starts for Darrell\_86:

(Start: 45 @47900 has 383 MA's), (56, 47840), (59, 47816), (62, 47789), (65, 47762), (75, 47699), (79, 47675), (84, 47660), (91, 47639), (94, 47618), (110, 47576), (114, 47567), (124, 47540), (131, 47513), (148, 47462), (182, 47300), (183, 47297), (210, 47162),

Gene: DARTHPhader\_84 Start: 49603, Stop: 48851, Start Num: 45

Candidate Starts for DARTHPhader\_84:

(Start: 45 @49603 has 383 MA's), (51, 49582), (53, 49570), (61, 49492), (62, 49489), (69, 49438), (84, 49363), (90, 49345), (91, 49342), (94, 49321), (110, 49279), (114, 49270), (131, 49216), (136, 49195), (145, 49177), (148, 49165), (167, 49066), (183, 49006), (195, 48946),

Gene: Dave\_59 Start: 39604, Stop: 38873, Start Num: 45

Candidate Starts for Dave\_59:

(Start: 45 @39604 has 383 MA's), (62, 39502), (82, 39385), (102, 39334), (128, 39271), (139, 39226), (145, 39217), (163, 39136), (176, 39079), (188, 39013), (209, 38902),

Gene: DelaGarza\_62 Start: 35949, Stop: 36692, Start Num: 45

Candidate Starts for DelaGarza\_62:

(1, 35244), (2, 35247), (3, 35286), (5, 35598), (6, 35622), (8, 35661), (9, 35706), (10, 35730), (33, 35895), (Start: 45 @35949 has 383 MA's), (62, 36063), (73, 36138), (85, 36189), (99, 36222), (100, 36228), (128, 36288), (139, 36333), (145, 36342), (175, 36477), (183, 36510), (184, 36516), (188, 36546), (190, 36555), (206, 36639), (215, 36681),

Gene: Deloris\_86 Start: 48274, Stop: 47516, Start Num: 45

Candidate Starts for Deloris\_86:

(Start: 45 @48274 has 383 MA's), (51, 48253), (56, 48211), (62, 48160), (Start: 64 @48139 has 2 MA's), (70, 48103), (71, 48094), (78, 48064), (84, 48034), (114, 47941), (131, 47887), (142, 47851), (158, 47803), (176, 47704), (183, 47677), (193, 47629), (210, 47539),

Gene: Delphidian\_58 Start: 39340, Stop: 38609, Start Num: 45

Candidate Starts for Delphidian\_58:

(Start: 45 @39340 has 383 MA's), (62, 39238), (82, 39121), (102, 39070), (128, 39007), (139, 38962), (145, 38953), (163, 38872), (176, 38815), (188, 38749), (209, 38638),

Gene: Den3\_59 Start: 39547, Stop: 38816, Start Num: 45

Candidate Starts for Den3\_59:

(Start: 45 @39547 has 383 MA's), (62, 39445), (82, 39328), (102, 39277), (128, 39214), (139, 39169), (145, 39160), (163, 39079), (176, 39022), (188, 38956), (209, 38845),

Gene: Dieselweasel\_85 Start: 47042, Stop: 46275, Start Num: 45

Candidate Starts for Dieselweasel\_85:

(35, 47087), (Start: 45 @47042 has 383 MA's), (51, 47021), (57, 46976), (59, 46955), (Start: 60 @46949 has 1 MA's), (Start: 64 @46907 has 2 MA's), (69, 46877), (71, 46862), (94, 46760), (95, 46757), (105, 46721), (131, 46649), (136, 46628), (167, 46499), (175, 46466), (182, 46439),

Gene: Dignity\_86 Start: 48816, Stop: 48061, Start Num: 45

Candidate Starts for Dignity\_86:

(Start: 45 @48816 has 383 MA's), (51, 48795), (56, 48753), (59, 48729), (Start: 64 @48681 has 2 MA's), (76, 48612), (84, 48576), (107, 48498), (131, 48429), (136, 48408), (182, 48222), (183, 48219), (210, 48081),

Gene: Dothraki\_59 Start: 39551, Stop: 38820, Start Num: 45

Candidate Starts for Dothraki\_59:

(Start: 45 @39551 has 383 MA's), (62, 39449), (82, 39332), (102, 39281), (128, 39218), (139, 39173), (145, 39164), (163, 39083), (176, 39026), (188, 38960), (209, 38849),

Gene: Drake55\_85 Start: 48229, Stop: 47471, Start Num: 45

Candidate Starts for Drake55\_85:

(Start: 45 @48229 has 383 MA's), (51, 48208), (53, 48196), (56, 48166), (59, 48142), (62, 48115), (Start: 64 @48094 has 2 MA's), (70, 48058), (71, 48049), (78, 48019), (84, 47989), (94, 47947), (110, 47905), (114, 47896), (131, 47842), (142, 47806), (158, 47758), (176, 47659), (182, 47635), (183, 47632), (210, 47494),

Gene: DreamTeam1\_83 Start: 47942, Stop: 47178, Start Num: 45

Candidate Starts for DreamTeam1\_83:

(Start: 45 @47942 has 383 MA's), (51, 47918), (62, 47825), (65, 47798), (84, 47699), (94, 47657), (114, 47606), (124, 47579), (131, 47552), (136, 47531), (183, 47336), (188, 47303), (210, 47201),

Gene: DudeLittle\_82 Start: 48120, Stop: 47362, Start Num: 45

Candidate Starts for DudeLittle\_82:

(Start: 45 @48120 has 383 MA's), (51, 48099), (56, 48057), (59, 48033), (62, 48006), (Start: 64 @47985 has 2 MA's), (70, 47949), (77, 47913), (84, 47880), (110, 47796), (114, 47787), (131, 47733), (142, 47697), (158, 47649), (176, 47550), (182, 47526), (183, 47523), (210, 47385),

Gene: Duocatuli\_58 Start: 39296, Stop: 38565, Start Num: 45

Candidate Starts for Duocatuli\_58:

(Start: 45 @39296 has 383 MA's), (62, 39194), (82, 39077), (102, 39026), (128, 38963), (139, 38918), (145, 38909), (163, 38828), (176, 38771), (188, 38705), (209, 38594),

Gene: Duplo\_85 Start: 48007, Stop: 47234, Start Num: 46

Candidate Starts for Duplo\_85:

(Start: 46 @48007 has 10 MA's), (51, 47983), (56, 47941), (59, 47917), (Start: 64 @47869 has 2 MA's), (69, 47839), (70, 47833), (92, 47737), (94, 47722), (98, 47710), (131, 47608), (136, 47587), (183, 47395), (210, 47257),

Gene: EZMoney23\_80 Start: 47682, Stop: 46924, Start Num: 45

Candidate Starts for EZMoney23\_80:

(Start: 45 @47682 has 383 MA's), (51, 47661), (53, 47649), (59, 47595), (62, 47568), (73, 47490), (84, 47442), (94, 47400), (101, 47382), (110, 47358), (114, 47349), (131, 47295), (133, 47286), (136, 47274), (182, 47085), (183, 47082), (188, 47049), (210, 46947),

Gene: EagleEye\_84 Start: 47602, Stop: 46832, Start Num: 45

Candidate Starts for EagleEye\_84:

(28, 47695), (Start: 45 @47602 has 383 MA's), (51, 47581), (59, 47515), (Start: 64 @47467 has 2 MA's), (69, 47437), (83, 47365), (94, 47320), (110, 47269), (131, 47206), (136, 47185), (154, 47128), (182, 46996), (183, 46993), (202, 46900), (210, 46855),

Gene: Ebony\_86 Start: 47350, Stop: 46592, Start Num: 45

Candidate Starts for Ebony\_86:

(Start: 45 @47350 has 383 MA's), (51, 47326), (56, 47284), (62, 47233), (Start: 64 @47212 has 2 MA's), (66, 47203), (69, 47182), (70, 47176), (71, 47167), (92, 47080), (94, 47065), (114, 47017), (124, 46990), (131, 46963), (202, 46660), (210, 46615),

Gene: Echild\_87 Start: 48371, Stop: 47616, Start Num: 45

Candidate Starts for Echild\_87:

(Start: 45 @48371 has 383 MA's), (51, 48350), (56, 48308), (59, 48284), (Start: 64 @48236 has 2 MA's), (66, 48227), (69, 48206), (70, 48200), (94, 48089), (110, 48047), (131, 47984), (136, 47963), (182, 47777), (183, 47774), (195, 47714), (210, 47636),

Gene: EdogawaKiddo\_87 Start: 48774, Stop: 48013, Start Num: 45

Candidate Starts for EdogawaKiddo\_87:

(21, 48900), (Start: 45 @48774 has 383 MA's), (56, 48714), (59, 48690), (62, 48663), (65, 48636), (73, 48582), (84, 48534), (90, 48516), (94, 48492), (114, 48441), (124, 48414), (131, 48387), (182, 48174), (183, 48171), (188, 48138), (210, 48036),

Gene: Eidsmoe\_86 Start: 48464, Stop: 47703, Start Num: 45

Candidate Starts for Eidsmoe\_86:

(Start: 45 @48464 has 383 MA's), (56, 48404), (62, 48353), (65, 48326), (73, 48272), (84, 48224), (90, 48206), (94, 48182), (114, 48131), (124, 48104), (125, 48101), (131, 48077), (182, 47864), (183, 47861), (188, 47828), (210, 47726),

Gene: Elephantoon\_88 Start: 48624, Stop: 47866, Start Num: 45

Candidate Starts for Elephantoon\_88:

(Start: 45 @48624 has 383 MA's), (51, 48606), (61, 48516), (62, 48513), (65, 48486), (84, 48387), (90, 48369), (94, 48345), (114, 48294), (124, 48267), (131, 48240), (134, 48228), (148, 48189), (182, 48027), (183, 48024), (188, 47991), (210, 47889),

Gene: Eleri\_56 Start: 37596, Stop: 36871, Start Num: 45

Candidate Starts for Eleri\_56:

(Start: 45 @37596 has 383 MA's), (62, 37494), (82, 37386), (116, 37299), (128, 37269), (138, 37233), (141, 37221), (163, 37134), (176, 37077),

Gene: EmyBug\_85 Start: 48466, Stop: 47705, Start Num: 45

Candidate Starts for EmyBug\_85:

(Start: 45 @48466 has 383 MA's), (56, 48406), (62, 48355), (65, 48328), (73, 48274), (84, 48226), (90, 48208), (94, 48184), (114, 48133), (124, 48106), (125, 48103), (131, 48079), (182, 47866), (183, 47863), (188, 47830), (210, 47728),

Gene: Endor\_60 Start: 39867, Stop: 39136, Start Num: 45

Candidate Starts for Endor\_60:

(Start: 45 @39867 has 383 MA's), (61, 39768), (62, 39765), (82, 39648), (102, 39597), (128, 39534), (139, 39489), (145, 39480), (163, 39399), (176, 39342), (184, 39306), (188, 39276), (209, 39165),

Gene: EpicPhail\_85 Start: 47044, Stop: 46277, Start Num: 45

Candidate Starts for EpicPhail\_85:

(35, 47089), (Start: 45 @47044 has 383 MA's), (51, 47023), (57, 46978), (59, 46957), (Start: 60 @46951 has 1 MA's), (Start: 64 @46909 has 2 MA's), (69, 46879), (71, 46864), (94, 46762), (95, 46759), (105, 46723), (131, 46651), (136, 46630), (167, 46501), (175, 46468), (182, 46441),

Gene: Epsocamisio\_85 Start: 46956, Stop: 46240, Start Num: 45

Candidate Starts for Epsocamisio\_85:

(27, 47052), (Start: 31 @47022 has 1 MA's), (39, 47001), (Start: 45 @46956 has 383 MA's), (51, 46932), (62, 46839), (71, 46773), (83, 46716), (89, 46698), (94, 46671), (104, 46641), (107, 46635), (110, 46629), (114, 46620), (131, 46566), (134, 46554), (183, 46398),

Gene: Equemioh13\_84 Start: 48207, Stop: 47449, Start Num: 45

Candidate Starts for Equemioh13\_84:

(Start: 45 @48207 has 383 MA's), (51, 48186), (53, 48174), (56, 48144), (59, 48120), (62, 48093), (Start: 64 @48072 has 2 MA's), (70, 48036), (71, 48027), (78, 47997), (84, 47967), (110, 47883), (114, 47874), (131, 47820), (142, 47784), (158, 47736), (176, 47637), (182, 47613), (183, 47610), (210, 47472),

Gene: Erla\_58 Start: 39284, Stop: 38553, Start Num: 45

Candidate Starts for Erla\_58:

(Start: 45 @39284 has 383 MA's), (62, 39182), (82, 39065), (102, 39014), (128, 38951), (139, 38906), (145, 38897), (163, 38816), (176, 38759), (184, 38723), (188, 38693), (209, 38582),

Gene: Espinosa\_58 Start: 39299, Stop: 38568, Start Num: 45

Candidate Starts for Espinosa\_58:

(Start: 45 @39299 has 383 MA's), (62, 39197), (82, 39080), (102, 39029), (128, 38966), (139, 38921), (145, 38912), (163, 38831), (176, 38774), (184, 38738), (188, 38708), (209, 38597),

Gene: Et2Brutus\_85 Start: 47313, Stop: 46555, Start Num: 45

Candidate Starts for Et2Brutus\_85:

(Start: 45 @47313 has 383 MA's), (51, 47289), (56, 47247), (62, 47196), (Start: 64 @47175 has 2 MA's), (66, 47166), (69, 47145), (70, 47139), (71, 47130), (92, 47043), (94, 47028), (114, 46980), (124, 46953), (131, 46926), (202, 46623), (210, 46578),

Gene: Etna\_58 Start: 39477, Stop: 38746, Start Num: 45

Candidate Starts for Etna\_58:

(Start: 45 @39477 has 383 MA's), (61, 39378), (62, 39375), (82, 39258), (102, 39207), (139, 39099), (145, 39090), (163, 39009), (176, 38952), (184, 38916), (188, 38886), (199, 38838), (209, 38775),

Gene: Etta\_58 Start: 39288, Stop: 38557, Start Num: 45

Candidate Starts for Etta\_58:

(Start: 45 @39288 has 383 MA's), (62, 39186), (82, 39069), (102, 39018), (128, 38955), (139, 38910), (145, 38901), (163, 38820), (176, 38763), (188, 38697), (209, 38586),

Gene: EvilGenius\_84 Start: 49637, Stop: 48882, Start Num: 45

Candidate Starts for EvilGenius\_84:

(Start: 45 @49637 has 383 MA's), (51, 49616), (56, 49574), (59, 49550), (Start: 64 @49502 has 2 MA's), (76, 49433), (84, 49397), (107, 49319), (131, 49250), (136, 49229), (182, 49043), (183, 49040), (210, 48902),

Gene: Exploradora\_60 Start: 39249, Stop: 38518, Start Num: 45

Candidate Starts for Exploradora\_60:

(Start: 45 @39249 has 383 MA's), (62, 39147), (82, 39030), (102, 38979), (128, 38916), (139, 38871), (145, 38862), (163, 38781), (176, 38724), (184, 38688), (188, 38658), (209, 38547),

Gene: ExplosioNervosa\_86 Start: 48532, Stop: 47771, Start Num: 45

Candidate Starts for ExplosioNervosa\_86:

(Start: 45 @48532 has 383 MA's), (56, 48472), (62, 48421), (65, 48394), (73, 48340), (84, 48292), (90, 48274), (94, 48250), (114, 48199), (124, 48172), (125, 48169), (131, 48145), (182, 47932), (183, 47929), (188, 47896), (210, 47794),

Gene: Fameo\_82 Start: 48132, Stop: 47374, Start Num: 45

Candidate Starts for Fameo\_82:

(Start: 43 @48135 has 3 MA's), (Start: 45 @48132 has 383 MA's), (51, 48111), (56, 48069), (57, 48066), (59, 48045), (62, 48018), (Start: 64 @47997 has 2 MA's), (70, 47961), (71, 47952), (84, 47892), (110, 47808), (114, 47799), (131, 47745), (142, 47709), (158, 47661), (176, 47562), (183, 47535), (196, 47469), (210, 47397),

Gene: FarmerDoug\_58 Start: 39300, Stop: 38569, Start Num: 45

Candidate Starts for FarmerDoug\_58:

(Start: 45 @39300 has 383 MA's), (62, 39198), (102, 39030), (139, 38922), (145, 38913), (163, 38832), (184, 38739), (188, 38709), (209, 38598),

Gene: Fayely\_86 Start: 48440, Stop: 47679, Start Num: 45

Candidate Starts for Fayely\_86:

(Start: 45 @48440 has 383 MA's), (56, 48380), (62, 48329), (65, 48302), (73, 48248), (84, 48200), (90, 48182), (94, 48158), (114, 48107), (124, 48080), (125, 48077), (131, 48053), (182, 47840), (183, 47837), (188, 47804), (210, 47702),

Gene: Fernando\_85 Start: 47043, Stop: 46276, Start Num: 45

Candidate Starts for Fernando\_85:

(Start: 37 @47076 has 1 MA's), (Start: 45 @47043 has 383 MA's), (51, 47022), (57, 46977), (59, 46956), (Start: 60 @46950 has 1 MA's), (Start: 64 @46908 has 2 MA's), (69, 46878), (71, 46863), (94, 46761), (95, 46758), (105, 46722), (131, 46650), (136, 46629), (167, 46500), (175, 46467), (182, 46440),

Gene: Fibonacci\_85 Start: 47319, Stop: 46561, Start Num: 45

Candidate Starts for Fibonacci\_85:

(Start: 45 @47319 has 383 MA's), (51, 47295), (56, 47253), (62, 47202), (Start: 64 @47181 has 2 MA's), (66, 47172), (69, 47151), (70, 47145), (71, 47136), (92, 47049), (94, 47034), (114, 46986), (124, 46959), (131, 46932), (202, 46629), (210, 46584),

Gene: Figueroism\_59 Start: 39593, Stop: 38862, Start Num: 45

Candidate Starts for Figueroism\_59:

(Start: 45 @39593 has 383 MA's), (62, 39491), (82, 39374), (102, 39323), (128, 39260), (139, 39215), (145, 39206), (163, 39125), (176, 39068), (188, 39002), (209, 38891),

Gene: Finny\_57 Start: 37544, Stop: 36819, Start Num: 45

Candidate Starts for Finny\_57:

(Start: 45 @37544 has 383 MA's), (62, 37442), (82, 37334), (116, 37247), (128, 37217), (138, 37181), (141, 37169), (176, 37025),

Gene: FiringLine\_84 Start: 48520, Stop: 47762, Start Num: 45

Candidate Starts for FiringLine\_84:

(Start: 45 @48520 has 383 MA's), (51, 48499), (56, 48457), (59, 48433), (62, 48406), (Start: 64 @48385 has 2 MA's), (70, 48349), (71, 48340), (84, 48280), (110, 48196), (114, 48187), (131, 48133), (142, 48097), (158, 48049), (176, 47950), (183, 47923), (196, 47857), (210, 47785),

Gene: First\_0085 Start: 48376, Stop: 47618, Start Num: 45

Candidate Starts for First\_0085:

(Start: 45 @48376 has 383 MA's), (51, 48355), (53, 48343), (56, 48313), (62, 48262), (Start: 64 @48241 has 2 MA's), (70, 48205), (71, 48196), (84, 48136), (110, 48052), (114, 48043), (131, 47989), (142, 47953), (158, 47905), (176, 47806), (183, 47779), (193, 47731), (210, 47641),

Gene: Flare16\_84 Start: 48022, Stop: 47264, Start Num: 45

Candidate Starts for Flare16\_84:

(Start: 45 @48022 has 383 MA's), (51, 48001), (53, 47989), (56, 47959), (59, 47935), (62, 47908), (Start: 64 @47887 has 2 MA's), (70, 47851), (71, 47842), (78, 47812), (84, 47782), (110, 47698), (114, 47689), (131, 47635), (142, 47599), (158, 47551), (176, 47452), (182, 47428), (183, 47425), (210, 47287),

Gene: Flaverint\_87 Start: 47777, Stop: 47019, Start Num: 45

Candidate Starts for Flaverint\_87:

(Start: 45 @47777 has 383 MA's), (51, 47753), (56, 47711), (62, 47660), (Start: 64 @47639 has 2 MA's), (66, 47630), (69, 47609), (70, 47603), (71, 47594), (92, 47507), (94, 47492), (114, 47444), (124, 47417), (131, 47390), (202, 47087), (210, 47042),

Gene: Frizzle\_50 Start: 39896, Stop: 40612, Start Num: 45

Candidate Starts for Frizzle\_50:

(Start: 45 @39896 has 383 MA's), (56, 39971), (86, 40160), (110, 40226), (117, 40247), (123, 40259), (132, 40292), (163, 40373), (175, 40427), (195, 40511), (198, 40523), (202, 40541), (204, 40550), (216, 40607),

Gene: GaeCeo\_55 Start: 38134, Stop: 37403, Start Num: 45

Candidate Starts for GaeCeo\_55:

(36, 38173), (Start: 45 @38134 has 383 MA's), (Start: 60 @38053 has 1 MA's), (61, 38035), (62, 38032), (63, 38020), (82, 37915), (102, 37864), (120, 37819), (128, 37801), (131, 37786), (163, 37666), (184, 37573), (188, 37543), (201, 37477), (209, 37432),

Gene: GardenB\_59 Start: 39672, Stop: 38938, Start Num: 45

Candidate Starts for GardenB\_59:

(Start: 45 @39672 has 383 MA's), (62, 39570), (75, 39486), (82, 39453), (102, 39402), (139, 39291), (145, 39282), (163, 39201), (184, 39108), (188, 39078),

Gene: Garey24\_59 Start: 39267, Stop: 38536, Start Num: 45

Candidate Starts for Garey24\_59:

(Start: 45 @39267 has 383 MA's), (62, 39165), (82, 39048), (102, 38997), (128, 38934), (139, 38889), (145, 38880), (163, 38799), (176, 38742), (184, 38706), (188, 38676), (209, 38565),

Gene: Gargoyle\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for Gargoyle\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (184, 38987), (188, 38957), (209, 38846),

Gene: GaugeLDP\_78 Start: 47413, Stop: 46661, Start Num: 45

Candidate Starts for GaugeLDP\_78:

(Start: 45 @47413 has 383 MA's), (51, 47392), (53, 47380), (56, 47350), (59, 47326), (Start: 64 @47278 has 2 MA's), (69, 47248), (70, 47242), (110, 47095), (131, 47032), (136, 47011), (182, 46825), (183, 46822), (195, 46762), (210, 46684), (212, 46672),

Gene: Gelo\_58 Start: 39294, Stop: 38563, Start Num: 45

Candidate Starts for Gelo\_58:

(Start: 45 @39294 has 383 MA's), (62, 39192), (82, 39075), (102, 39024), (128, 38961), (139, 38916), (145, 38907), (163, 38826), (176, 38769), (184, 38733), (188, 38703), (209, 38592),

Gene: Gemma\_81 Start: 46850, Stop: 46083, Start Num: 45

Candidate Starts for Gemma\_81:

(Start: 37 @46889 has 1 MA's), (Start: 45 @46850 has 383 MA's), (51, 46829), (56, 46787), (57, 46784), (59, 46763), (Start: 60 @46757 has 1 MA's), (Start: 64 @46715 has 2 MA's), (69, 46685), (71, 46670), (94, 46568), (105, 46529), (110, 46520), (129, 46469), (131, 46457), (167, 46307), (182, 46247),

Gene: Georgie2\_86 Start: 48724, Stop: 47966, Start Num: 45

Candidate Starts for Georgie2\_86:

(Start: 45 @48724 has 383 MA's), (51, 48703), (56, 48661), (59, 48637), (62, 48610), (Start: 64 @48589 has 2 MA's), (70, 48553), (71, 48544), (84, 48484), (110, 48400), (114, 48391), (131, 48337), (142, 48301), (158, 48253), (176, 48154), (183, 48127), (196, 48061), (210, 47989),

Gene: Gershwin\_58 Start: 39301, Stop: 38570, Start Num: 45

Candidate Starts for Gershwin\_58:

(Start: 45 @39301 has 383 MA's), (62, 39199), (82, 39082), (102, 39031), (128, 38968), (139, 38923), (145, 38914), (163, 38833), (176, 38776), (184, 38740), (188, 38710), (209, 38599),

Gene: Ghobes\_49 Start: 39896, Stop: 40612, Start Num: 45

Candidate Starts for Ghobes\_49:

(Start: 45 @39896 has 383 MA's), (53, 39941), (56, 39971), (86, 40160), (106, 40220), (110, 40226), (117, 40247), (123, 40259), (132, 40292), (163, 40373), (173, 40415), (175, 40427), (195, 40511), (202, 40541), (204, 40550), (216, 40607),

Gene: Gilberta\_83 Start: 46653, Stop: 45895, Start Num: 45

Candidate Starts for Gilberta\_83:

(Start: 45 @46653 has 383 MA's), (51, 46629), (56, 46587), (62, 46536), (Start: 64 @46515 has 2 MA's), (66, 46506), (69, 46485), (70, 46479), (71, 46470), (92, 46383), (94, 46368), (114, 46320), (124, 46293), (131, 46266), (202, 45963), (210, 45918),

Gene: Gingerbug\_61 Start: 36388, Stop: 37182, Start Num: 30

Candidate Starts for Gingerbug\_61:

(Start: 30 @36388 has 1 MA's), (Start: 45 @36451 has 383 MA's), (62, 36553), (65, 36580), (85, 36679), (99, 36712), (128, 36778), (145, 36832), (176, 36970), (183, 37000), (188, 37036), (190, 37045), (194, 37060),

Gene: GingkoMaracino\_84 Start: 46926, Stop: 46159, Start Num: 45

Candidate Starts for GingkoMaracino\_84:

(Start: 37 @46959 has 1 MA's), (Start: 45 @46926 has 383 MA's), (51, 46905), (57, 46860), (59, 46839), (Start: 60 @46833 has 1 MA's), (Start: 64 @46791 has 2 MA's), (69, 46761), (71, 46746), (94, 46644), (95, 46641), (105, 46605), (131, 46533), (136, 46512), (167, 46383), (175, 46350), (182, 46323),



Gene: GirlDinner\_65 Start: 44150, Stop: 43422, Start Num: 45

Candidate Starts for GirlDinner\_65:

(Start: 45 @44150 has 383 MA's), (62, 44036), (111, 43859), (167, 43676), (184, 43595), (187, 43577), (211, 43439),

Gene: Glamour\_55 Start: 37454, Stop: 36729, Start Num: 45

Candidate Starts for Glamour\_55:

(Start: 45 @37454 has 383 MA's), (62, 37352), (82, 37244), (116, 37157), (128, 37127), (138, 37091), (141, 37079), (163, 36992), (176, 36935),

Gene: Golden\_52 Start: 36611, Stop: 35883, Start Num: 45

Candidate Starts for Golden\_52:

(Start: 45 @36611 has 383 MA's), (62, 36509), (76, 36422), (82, 36392), (115, 36314), (128, 36281), (138, 36245), (158, 36185), (163, 36146), (164, 36143), (175, 36092), (183, 36059), (187, 36035), (190, 36014), (209, 35912),

Gene: Gratitude\_82 Start: 48207, Stop: 47449, Start Num: 45

Candidate Starts for Gratitude\_82:

(Start: 45 @48207 has 383 MA's), (51, 48186), (53, 48174), (56, 48144), (59, 48120), (62, 48093), (Start: 64 @48072 has 2 MA's), (70, 48036), (71, 48027), (78, 47997), (84, 47967), (110, 47883), (114, 47874), (131, 47820), (142, 47784), (158, 47736), (176, 47637), (182, 47613), (183, 47610), (210, 47472),

Gene: Greys\_59 Start: 39543, Stop: 38812, Start Num: 45

Candidate Starts for Greys\_59:

(Start: 45 @39543 has 383 MA's), (62, 39441), (82, 39324), (102, 39273), (128, 39210), (139, 39165), (145, 39156), (163, 39075), (176, 39018), (188, 38952), (209, 38841),

Gene: Grif\_82 Start: 47117, Stop: 46350, Start Num: 45

Candidate Starts for Grif\_82:

(35, 47162), (Start: 45 @47117 has 383 MA's), (51, 47096), (57, 47051), (59, 47030), (Start: 60 @47024 has 1 MA's), (Start: 64 @46982 has 2 MA's), (69, 46952), (71, 46937), (94, 46835), (95, 46832), (105, 46796), (131, 46724), (136, 46703), (167, 46574), (175, 46541), (182, 46514),

Gene: Groupthink\_84 Start: 46851, Stop: 46084, Start Num: 45

Candidate Starts for Groupthink\_84:

(35, 46896), (Start: 45 @46851 has 383 MA's), (51, 46830), (56, 46788), (57, 46785), (59, 46764), (Start: 60 @46758 has 1 MA's), (Start: 64 @46716 has 2 MA's), (69, 46686), (71, 46671), (94, 46569), (105, 46530), (110, 46521), (129, 46470), (131, 46458), (167, 46308), (182, 46248),

Gene: Grub\_82 Start: 47033, Stop: 46266, Start Num: 45

Candidate Starts for Grub\_82:

(Start: 37 @47066 has 1 MA's), (Start: 45 @47033 has 383 MA's), (51, 47012), (57, 46967), (59, 46946), (Start: 60 @46940 has 1 MA's), (Start: 64 @46898 has 2 MA's), (69, 46868), (71, 46853), (94, 46751), (95, 46748), (105, 46712), (131, 46640), (136, 46619), (167, 46490), (175, 46457), (182, 46430),

Gene: Grum1\_84 Start: 47043, Stop: 46276, Start Num: 45

Candidate Starts for Grum1\_84:

(35, 47088), (Start: 45 @47043 has 383 MA's), (51, 47022), (57, 46977), (59, 46956), (Start: 60 @46950 has 1 MA's), (Start: 64 @46908 has 2 MA's), (69, 46878), (71, 46863), (94, 46761), (95, 46758), (105, 46722), (131, 46650), (136, 46629), (167, 46500), (175, 46467), (182, 46440),

Gene: GtownJaz\_84 Start: 47041, Stop: 46274, Start Num: 45

Candidate Starts for GtownJaz\_84:

(Start: 37 @47074 has 1 MA's), (Start: 45 @47041 has 383 MA's), (51, 47020), (57, 46975), (59, 46954), (Start: 60 @46948 has 1 MA's), (Start: 64 @46906 has 2 MA's), (69, 46876), (71, 46861), (94, 46759), (95, 46756), (105, 46720), (131, 46648), (136, 46627), (167, 46498), (175, 46465), (182, 46438),

Gene: Gubbabump\_58 Start: 39238, Stop: 38507, Start Num: 45

Candidate Starts for Gubbabump\_58:

(Start: 45 @39238 has 383 MA's), (62, 39136), (82, 39019), (102, 38968), (128, 38905), (139, 38860), (145, 38851), (163, 38770), (176, 38713), (184, 38677), (188, 38647), (209, 38536),

Gene: Guetzie\_53 Start: 36703, Stop: 35975, Start Num: 45

Candidate Starts for Guetzie\_53:

(Start: 45 @36703 has 383 MA's), (62, 36601), (76, 36514), (82, 36484), (115, 36406), (128, 36373), (138, 36337), (158, 36277), (163, 36238), (164, 36235), (175, 36184), (183, 36151), (187, 36127), (190, 36106),

Gene: GuyFagieri\_4 Start: 2567, Stop: 3388, Start Num: 41

Candidate Starts for GuyFagieri\_4:

(Start: 41 @2567 has 5 MA's), (55, 2630), (58, 2654), (73, 2771), (74, 2777), (78, 2789), (92, 2846), (93, 2858), (102, 2891), (116, 2927), (121, 2942), (146, 3023), (173, 3146), (183, 3206),

Gene: HairyMan\_52 Start: 37192, Stop: 36458, Start Num: 45

Candidate Starts for HairyMan\_52:

(33, 37234), (Start: 45 @37192 has 383 MA's), (62, 37090), (82, 36973), (89, 36952), (90, 36949), (113, 36895), (163, 36724), (176, 36667), (184, 36631),

Gene: Hamlet\_58 Start: 39523, Stop: 38792, Start Num: 45

Candidate Starts for Hamlet\_58:

(Start: 45 @39523 has 383 MA's), (61, 39424), (62, 39421), (82, 39304), (102, 39253), (139, 39145), (145, 39136), (163, 39055), (176, 38998), (184, 38962), (188, 38932), (199, 38884), (209, 38821),

Gene: HanSolo\_58 Start: 39248, Stop: 38517, Start Num: 45

Candidate Starts for HanSolo\_58:

(Start: 45 @39248 has 383 MA's), (62, 39146), (82, 39029), (102, 38978), (128, 38915), (139, 38870), (145, 38861), (163, 38780), (176, 38723), (188, 38657), (209, 38546),

Gene: HankSprout\_59 Start: 39167, Stop: 38436, Start Num: 45

Candidate Starts for HankSprout\_59:

(Start: 45 @39167 has 383 MA's), (62, 39065), (82, 38948), (102, 38897), (128, 38834), (139, 38789), (145, 38780), (163, 38699), (176, 38642), (188, 38576), (209, 38465),

Gene: Hanray\_86 Start: 48753, Stop: 47992, Start Num: 45

Candidate Starts for Hanray\_86:

(21, 48879), (Start: 45 @48753 has 383 MA's), (56, 48693), (59, 48669), (62, 48642), (65, 48615), (73, 48561), (84, 48513), (90, 48495), (94, 48471), (114, 48420), (124, 48393), (131, 48366), (182, 48153), (183, 48150), (188, 48117), (210, 48015),

Gene: HarryHoudini\_84 Start: 48232, Stop: 47474, Start Num: 45

Candidate Starts for HarryHoudini\_84:

(Start: 45 @48232 has 383 MA's), (51, 48211), (53, 48199), (56, 48169), (59, 48145), (62, 48118), (Start: 64 @48097 has 2 MA's), (70, 48061), (71, 48052), (78, 48022), (84, 47992), (94, 47950), (110,

47908), (114, 47899), (131, 47845), (142, 47809), (158, 47761), (176, 47662), (182, 47638), (183, 47635), (210, 47497),

Gene: HashRod\_85 Start: 47070, Stop: 46303, Start Num: 45

Candidate Starts for HashRod\_85:

(Start: 37 @47103 has 1 MA's), (Start: 45 @47070 has 383 MA's), (51, 47049), (57, 47004), (59, 46983), (Start: 60 @46977 has 1 MA's), (Start: 64 @46935 has 2 MA's), (69, 46905), (71, 46890), (94, 46788), (95, 46785), (105, 46749), (131, 46677), (136, 46656), (167, 46527), (175, 46494), (182, 46467),

Gene: HaveUMetTed\_84 Start: 46839, Stop: 46072, Start Num: 45

Candidate Starts for HaveUMetTed\_84:

(35, 46884), (Start: 45 @46839 has 383 MA's), (51, 46818), (56, 46776), (57, 46773), (59, 46752), (Start: 60 @46746 has 1 MA's), (Start: 64 @46704 has 2 MA's), (69, 46674), (71, 46659), (94, 46557), (105, 46518), (110, 46509), (129, 46458), (131, 46446), (167, 46296), (182, 46236),

Gene: Heffalump\_81 Start: 48603, Stop: 47842, Start Num: 43

Candidate Starts for Heffalump\_81:

(Start: 43 @48603 has 3 MA's), (Start: 45 @48600 has 383 MA's), (51, 48579), (56, 48537), (57, 48534), (59, 48513), (62, 48486), (Start: 64 @48465 has 2 MA's), (70, 48429), (71, 48420), (84, 48360), (110, 48276), (114, 48267), (131, 48213), (142, 48177), (158, 48129), (176, 48030), (183, 48003), (196, 47937), (210, 47865),

Gene: Heliosoles\_81 Start: 46855, Stop: 46088, Start Num: 45

Candidate Starts for Heliosoles\_81:

(35, 46900), (Start: 45 @46855 has 383 MA's), (51, 46834), (56, 46792), (57, 46789), (59, 46768), (Start: 60 @46762 has 1 MA's), (Start: 64 @46720 has 2 MA's), (69, 46690), (71, 46675), (94, 46573), (105, 46534), (110, 46525), (129, 46474), (131, 46462), (167, 46312), (182, 46252),

Gene: Hercules11\_84 Start: 47052, Stop: 46285, Start Num: 45

Candidate Starts for Hercules11\_84:

(35, 47097), (Start: 45 @47052 has 383 MA's), (51, 47031), (57, 46986), (59, 46965), (Start: 60 @46959 has 1 MA's), (Start: 64 @46917 has 2 MA's), (69, 46887), (71, 46872), (94, 46770), (95, 46767), (105, 46731), (131, 46659), (136, 46638), (167, 46509), (175, 46476), (182, 46449),

Gene: HerculesXL\_52 Start: 35965, Stop: 35231, Start Num: 45

Candidate Starts for HerculesXL\_52:

(Start: 45 @35965 has 383 MA's), (54, 35932), (62, 35863), (82, 35746), (88, 35728), (102, 35695), (120, 35650), (131, 35617), (163, 35494), (169, 35467), (176, 35437), (183, 35407), (187, 35383), (188, 35371),

Gene: Horex\_87 Start: 48766, Stop: 48005, Start Num: 45

Candidate Starts for Horex\_87:

(21, 48892), (Start: 45 @48766 has 383 MA's), (56, 48706), (59, 48682), (62, 48655), (65, 48628), (73, 48574), (84, 48526), (90, 48508), (94, 48484), (114, 48433), (124, 48406), (131, 48379), (182, 48166), (183, 48163), (188, 48130), (210, 48028),

Gene: HortumSL17\_89 Start: 48808, Stop: 48047, Start Num: 45

Candidate Starts for HortumSL17\_89:

(Start: 45 @48808 has 383 MA's), (56, 48748), (62, 48697), (65, 48670), (73, 48616), (84, 48568), (90, 48550), (94, 48526), (114, 48475), (124, 48448), (131, 48421), (182, 48208), (183, 48205), (188, 48172), (210, 48070),

Gene: HungryHenry\_58 Start: 39261, Stop: 38530, Start Num: 45

Candidate Starts for HungryHenry\_58:

(Start: 45 @39261 has 383 MA's), (62, 39159), (82, 39042), (102, 38991), (128, 38928), (139, 38883), (145, 38874), (163, 38793), (176, 38736), (184, 38700), (188, 38670), (209, 38559),

Gene: Hutc2\_82 Start: 46203, Stop: 45445, Start Num: 45

Candidate Starts for Hutc2\_82:

(Start: 45 @46203 has 383 MA's), (51, 46179), (56, 46137), (62, 46086), (Start: 64 @46065 has 2 MA's), (66, 46056), (69, 46035), (70, 46029), (71, 46020), (92, 45933), (94, 45918), (114, 45870), (124, 45843), (131, 45816), (202, 45513), (210, 45468),

Gene: Ilzat\_58 Start: 39271, Stop: 38540, Start Num: 45

Candidate Starts for Ilzat\_58:

(Start: 45 @39271 has 383 MA's), (62, 39169), (82, 39052), (102, 39001), (128, 38938), (139, 38893), (145, 38884), (163, 38803), (176, 38746), (188, 38680), (209, 38569),

Gene: Insomnia\_85 Start: 47497, Stop: 46739, Start Num: 45

Candidate Starts for Insomnia\_85:

(Start: 45 @47497 has 383 MA's), (51, 47473), (56, 47431), (62, 47380), (Start: 64 @47359 has 2 MA's), (66, 47350), (69, 47329), (70, 47323), (71, 47314), (92, 47227), (94, 47212), (114, 47164), (124, 47137), (131, 47110), (202, 46807), (210, 46762),

Gene: Inventa\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for Inventa\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (188, 38957), (209, 38846),

Gene: Ioannes\_59 Start: 39625, Stop: 38894, Start Num: 45

Candidate Starts for Ioannes\_59:

(Start: 45 @39625 has 383 MA's), (62, 39523), (82, 39406), (102, 39355), (128, 39292), (139, 39247), (145, 39238), (163, 39157), (176, 39100), (188, 39034), (209, 38923),

Gene: Issmi\_67 Start: 44348, Stop: 43623, Start Num: 45

Candidate Starts for Issmi\_67:

(Start: 45 @44348 has 383 MA's), (62, 44240), (65, 44213), (79, 44144), (102, 44087), (121, 44039), (125, 44033), (150, 43958), (163, 43901), (167, 43880), (176, 43844), (180, 43817), (184, 43796), (209, 43655),

Gene: Ixel\_54 Start: 37422, Stop: 36688, Start Num: 45

Candidate Starts for Ixel\_54:

(Start: 45 @37422 has 383 MA's), (54, 37389), (61, 37323), (62, 37320), (89, 37182), (102, 37152), (120, 37104), (176, 36894), (184, 36858), (187, 36840), (188, 36828),

Gene: JHC117\_79 Start: 47038, Stop: 46271, Start Num: 45

Candidate Starts for JHC117\_79:

(35, 47083), (Start: 45 @47038 has 383 MA's), (51, 47017), (57, 46972), (59, 46951), (Start: 60 @46945 has 1 MA's), (Start: 64 @46903 has 2 MA's), (69, 46873), (71, 46858), (94, 46756), (95, 46753), (105, 46717), (131, 46645), (136, 46624), (167, 46495), (175, 46462), (182, 46435),

Gene: Jabith\_85 Start: 47511, Stop: 46753, Start Num: 45

Candidate Starts for Jabith\_85:

(Start: 45 @47511 has 383 MA's), (51, 47487), (56, 47445), (62, 47394), (Start: 64 @47373 has 2 MA's), (66, 47364), (69, 47343), (70, 47337), (71, 47328), (92, 47241), (94, 47226), (114, 47178), (124,

47151), (131, 47124), (202, 46821), (210, 46776),

Gene: Janus\_66 Start: 44490, Stop: 43762, Start Num: 45

Candidate Starts for Janus\_66:

(Start: 45 @44490 has 383 MA's), (62, 44376), (111, 44199), (167, 44016), (184, 43935), (187, 43917), (211, 43779),

Gene: Janus167\_58 Start: 39276, Stop: 38545, Start Num: 45

Candidate Starts for Janus167\_58:

(Start: 45 @39276 has 383 MA's), (62, 39174), (82, 39057), (102, 39006), (128, 38943), (139, 38898), (145, 38889), (163, 38808), (176, 38751), (188, 38685), (209, 38574),

Gene: JasonD\_62 Start: 39835, Stop: 39107, Start Num: 45

Candidate Starts for JasonD\_62:

(Start: 45 @39835 has 383 MA's), (62, 39736), (85, 39610), (102, 39568), (128, 39505), (139, 39460), (145, 39451), (163, 39370), (188, 39247),

Gene: JasperRussell\_58 Start: 39296, Stop: 38565, Start Num: 45

Candidate Starts for JasperRussell\_58:

(Start: 45 @39296 has 383 MA's), (62, 39194), (82, 39077), (102, 39026), (128, 38963), (139, 38918), (145, 38909), (163, 38828), (176, 38771), (188, 38705), (209, 38594),

Gene: Jemerald\_53 Start: 37321, Stop: 36590, Start Num: 45

Candidate Starts for Jemerald\_53:

(38, 37357), (40, 37348), (Start: 45 @37321 has 383 MA's), (Start: 60 @37240 has 1 MA's), (62, 37219), (63, 37207), (82, 37102), (90, 37078), (102, 37051), (113, 37027), (120, 37009), (128, 36991), (145, 36937), (169, 36829), (176, 36799), (188, 36733),

Gene: JenCasNa\_85 Start: 47043, Stop: 46276, Start Num: 45

Candidate Starts for JenCasNa\_85:

(Start: 37 @47076 has 1 MA's), (Start: 45 @47043 has 383 MA's), (51, 47022), (57, 46977), (59, 46956), (Start: 60 @46950 has 1 MA's), (Start: 64 @46908 has 2 MA's), (69, 46878), (71, 46863), (94, 46761), (95, 46758), (105, 46722), (131, 46650), (136, 46629), (167, 46500), (175, 46467), (182, 46440),

Gene: Jenos\_60 Start: 40133, Stop: 39405, Start Num: 45

Candidate Starts for Jenos\_60:

(Start: 45 @40133 has 383 MA's), (62, 40034), (65, 40007), (85, 39908), (102, 39866), (128, 39803), (139, 39758), (145, 39749), (163, 39668), (188, 39545),

Gene: JeppNRM\_84 Start: 46853, Stop: 46086, Start Num: 45

Candidate Starts for JeppNRM\_84:

(35, 46898), (Start: 45 @46853 has 383 MA's), (51, 46832), (57, 46787), (59, 46766), (Start: 60 @46760 has 1 MA's), (Start: 64 @46718 has 2 MA's), (69, 46688), (94, 46571), (105, 46532), (129, 46472), (131, 46460), (167, 46310), (182, 46250),

Gene: Jerbirus\_60 Start: 39291, Stop: 38560, Start Num: 45

Candidate Starts for Jerbirus\_60:

(Start: 45 @39291 has 383 MA's), (62, 39189), (82, 39072), (102, 39021), (128, 38958), (139, 38913), (145, 38904), (163, 38823), (176, 38766), (184, 38730), (188, 38700), (209, 38589),

Gene: JeriBeth\_60 Start: 39179, Stop: 38448, Start Num: 45

Candidate Starts for JeriBeth\_60:

(Start: 45 @39179 has 383 MA's), (62, 39077), (82, 38960), (102, 38909), (128, 38846), (139, 38801), (145, 38792), (163, 38711), (176, 38654), (188, 38588), (209, 38477),

Gene: Jerm\_86 Start: 48784, Stop: 48029, Start Num: 45

Candidate Starts for Jerm\_86:

(Start: 45 @48784 has 383 MA's), (51, 48763), (56, 48721), (59, 48697), (Start: 64 @48649 has 2 MA's), (76, 48580), (84, 48544), (107, 48466), (131, 48397), (136, 48376), (182, 48190), (183, 48187), (210, 48049),

Gene: Jiawan\_86 Start: 48783, Stop: 48022, Start Num: 45

Candidate Starts for Jiawan\_86:

(21, 48909), (Start: 45 @48783 has 383 MA's), (56, 48723), (59, 48699), (62, 48672), (65, 48645), (73, 48591), (84, 48543), (90, 48525), (94, 48501), (114, 48450), (124, 48423), (131, 48396), (182, 48183), (183, 48180), (188, 48147), (210, 48045),

Gene: Jingles\_50 Start: 36236, Stop: 35499, Start Num: 45

Candidate Starts for Jingles\_50:

(Start: 45 @36236 has 383 MA's), (62, 36125), (73, 36050), (76, 36038), (82, 36008), (115, 35930), (128, 35897), (138, 35861), (163, 35762), (164, 35759), (175, 35708), (183, 35675), (187, 35651), (190, 35630), (209, 35528),

Gene: Jobu08\_80 Start: 46867, Stop: 46100, Start Num: 45

Candidate Starts for Jobu08\_80:

(Start: 37 @46900 has 1 MA's), (Start: 45 @46867 has 383 MA's), (51, 46846), (57, 46801), (59, 46780), (Start: 60 @46774 has 1 MA's), (Start: 64 @46732 has 2 MA's), (69, 46702), (71, 46687), (94, 46585), (95, 46582), (105, 46546), (131, 46474), (136, 46453), (167, 46324), (175, 46291), (182, 46264),

Gene: Joselito\_85 Start: 47531, Stop: 46773, Start Num: 45

Candidate Starts for Joselito\_85:

(Start: 45 @47531 has 383 MA's), (51, 47507), (56, 47465), (62, 47414), (Start: 64 @47393 has 2 MA's), (66, 47384), (69, 47363), (70, 47357), (71, 47348), (92, 47261), (94, 47246), (114, 47198), (124, 47171), (131, 47144), (202, 46841), (210, 46796),

Gene: JoshKayV\_86 Start: 48952, Stop: 48197, Start Num: 45

Candidate Starts for JoshKayV\_86:

(Start: 45 @48952 has 383 MA's), (51, 48931), (56, 48889), (59, 48865), (Start: 64 @48817 has 2 MA's), (76, 48748), (107, 48634), (131, 48565), (136, 48544), (182, 48358), (183, 48355), (188, 48322), (210, 48217),

Gene: Jsquared\_88 Start: 47818, Stop: 47057, Start Num: 45

Candidate Starts for Jsquared\_88:

(Start: 45 @47818 has 383 MA's), (51, 47794), (56, 47752), (Start: 64 @47680 has 2 MA's), (69, 47650), (70, 47644), (84, 47575), (94, 47533), (114, 47485), (131, 47431), (133, 47422), (156, 47347), (167, 47281), (182, 47221), (183, 47218), (202, 47125), (210, 47080),

Gene: Juanyo\_52 Start: 36366, Stop: 35638, Start Num: 45

Candidate Starts for Juanyo\_52:

(Start: 45 @36366 has 383 MA's), (62, 36264), (63, 36252), (73, 36189), (87, 36132), (89, 36126), (102, 36096), (118, 36057), (128, 36036), (155, 35946), (190, 35769), (200, 35718), (203, 35706),

Gene: Juicer\_53 Start: 37321, Stop: 36590, Start Num: 45

Candidate Starts for Juicer\_53:

(38, 37357), (40, 37348), (Start: 45 @37321 has 383 MA's), (Start: 60 @37240 has 1 MA's), (62, 37219), (63, 37207), (82, 37102), (90, 37078), (102, 37051), (113, 37027), (120, 37009), (128, 36991), (145, 36937), (169, 36829), (176, 36799), (188, 36733),

Gene: KADY\_81 Start: 47070, Stop: 46303, Start Num: 45

Candidate Starts for KADY\_81:

(35, 47115), (Start: 45 @47070 has 383 MA's), (51, 47049), (57, 47004), (59, 46983), (Start: 60 @46977 has 1 MA's), (Start: 64 @46935 has 2 MA's), (69, 46905), (71, 46890), (94, 46788), (95, 46785), (105, 46749), (131, 46677), (136, 46656), (167, 46527), (175, 46494), (182, 46467),

Gene: Kalb97\_84 Start: 46221, Stop: 45454, Start Num: 45

Candidate Starts for Kalb97\_84:

(35, 46266), (Start: 45 @46221 has 383 MA's), (51, 46200), (56, 46158), (57, 46155), (59, 46134), (Start: 60 @46128 has 1 MA's), (Start: 64 @46086 has 2 MA's), (69, 46056), (71, 46041), (94, 45939), (105, 45900), (110, 45891), (129, 45840), (131, 45828), (167, 45678), (182, 45618),

Gene: Kale\_58 Start: 39303, Stop: 38572, Start Num: 45

Candidate Starts for Kale\_58:

(Start: 45 @39303 has 383 MA's), (62, 39201), (82, 39084), (102, 39033), (128, 38970), (139, 38925), (145, 38916), (163, 38835), (176, 38778), (184, 38742), (188, 38712), (209, 38601),

Gene: Kalnoky\_84 Start: 46848, Stop: 46081, Start Num: 45

Candidate Starts for Kalnoky\_84:

(35, 46893), (Start: 45 @46848 has 383 MA's), (51, 46827), (56, 46785), (57, 46782), (59, 46761), (Start: 60 @46755 has 1 MA's), (Start: 64 @46713 has 2 MA's), (69, 46683), (71, 46668), (94, 46566), (105, 46527), (110, 46518), (129, 46467), (131, 46455), (167, 46305), (182, 46245),

Gene: Kalpine\_86 Start: 48951, Stop: 48190, Start Num: 43

Candidate Starts for Kalpine\_86:

(Start: 43 @48951 has 3 MA's), (Start: 45 @48948 has 383 MA's), (51, 48924), (56, 48882), (57, 48879), (59, 48858), (62, 48831), (Start: 64 @48810 has 2 MA's), (70, 48774), (71, 48765), (84, 48705), (110, 48627), (114, 48618), (131, 48564), (167, 48408), (183, 48348), (193, 48300), (195, 48288), (210, 48210),

Gene: KannH\_58 Start: 39296, Stop: 38565, Start Num: 45

Candidate Starts for KannH\_58:

(Start: 45 @39296 has 383 MA's), (62, 39194), (82, 39077), (102, 39026), (128, 38963), (139, 38918), (145, 38909), (163, 38828), (176, 38771), (188, 38705), (209, 38594),

Gene: Kauala\_50 Start: 36328, Stop: 35600, Start Num: 45

Candidate Starts for Kauala\_50:

(Start: 45 @36328 has 383 MA's), (62, 36226), (73, 36151), (76, 36139), (82, 36109), (115, 36031), (128, 35998), (138, 35962), (145, 35944), (151, 35923), (164, 35860), (183, 35776), (187, 35752), (190, 35731), (209, 35629),

Gene: Kerberos\_84 Start: 47970, Stop: 47197, Start Num: 46

Candidate Starts for Kerberos\_84:

(Start: 46 @47970 has 10 MA's), (51, 47946), (56, 47904), (59, 47880), (Start: 64 @47832 has 2 MA's), (69, 47802), (70, 47796), (92, 47700), (94, 47685), (98, 47673), (131, 47571), (136, 47550), (183, 47358), (210, 47220),

Gene: Keziacharles14\_85 Start: 49281, Stop: 48520, Start Num: 45

Candidate Starts for Keziacharles14\_85:

(Start: 45 @49281 has 383 MA's), (51, 49260), (53, 49248), (62, 49167), (65, 49140), (73, 49089), (84, 49041), (94, 48999), (107, 48963), (114, 48948), (124, 48921), (131, 48894), (136, 48873), (183, 48678), (188, 48645), (210, 48543),

Gene: KingCyrus\_83 Start: 49650, Stop: 48895, Start Num: 45

Candidate Starts for KingCyrus\_83:

(Start: 45 @49650 has 383 MA's), (51, 49629), (56, 49587), (59, 49563), (Start: 64 @49515 has 2 MA's), (76, 49446), (84, 49410), (107, 49332), (131, 49263), (136, 49242), (182, 49056), (183, 49053), (210, 48915),

Gene: KingJulien\_58 Start: 39318, Stop: 38587, Start Num: 45

Candidate Starts for KingJulien\_58:

(Start: 45 @39318 has 383 MA's), (61, 39219), (62, 39216), (82, 39099), (102, 39048), (139, 38940), (145, 38931), (163, 38850), (176, 38793), (184, 38757), (188, 38727), (199, 38679), (209, 38616),

Gene: Klimt\_59 Start: 39319, Stop: 38588, Start Num: 45

Candidate Starts for Klimt\_59:

(Start: 45 @39319 has 383 MA's), (62, 39217), (82, 39100), (102, 39049), (128, 38986), (139, 38941), (145, 38932), (163, 38851), (176, 38794), (184, 38758), (188, 38728), (209, 38617),

Gene: Knox\_59 Start: 39543, Stop: 38812, Start Num: 45

Candidate Starts for Knox\_59:

(Start: 45 @39543 has 383 MA's), (62, 39441), (82, 39324), (102, 39273), (128, 39210), (139, 39165), (145, 39156), (163, 39075), (176, 39018), (188, 38952), (209, 38841),

Gene: Koduck\_84 Start: 47157, Stop: 46399, Start Num: 45

Candidate Starts for Koduck\_84:

(Start: 45 @47157 has 383 MA's), (51, 47133), (56, 47091), (59, 47067), (62, 47040), (Start: 64 @47019 has 2 MA's), (69, 46989), (84, 46914), (85, 46911), (89, 46899), (94, 46872), (114, 46827), (129, 46785), (131, 46773), (132, 46770), (176, 46587), (182, 46563), (183, 46560), (210, 46422),

Gene: Koji\_50 Start: 36330, Stop: 35593, Start Num: 45

Candidate Starts for Koji\_50:

(Start: 45 @36330 has 383 MA's), (62, 36219), (73, 36144), (76, 36132), (82, 36102), (115, 36024), (128, 35991), (138, 35955), (163, 35856), (164, 35853), (175, 35802), (183, 35769), (187, 35745), (190, 35724), (209, 35622),

Gene: Kurt1\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for Kurt1\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (188, 38957), (209, 38846),

Gene: L5\_77 Start: 47048, Stop: 46290, Start Num: 45

Candidate Starts for L5\_77:

(Start: 45 @47048 has 383 MA's), (51, 47024), (56, 46982), (59, 46958), (62, 46931), (Start: 64 @46910 has 2 MA's), (69, 46880), (84, 46805), (85, 46802), (89, 46790), (94, 46763), (114, 46718), (129, 46676), (131, 46664), (132, 46661), (176, 46478), (182, 46454), (183, 46451), (210, 46313),

Gene: LBerry\_85 Start: 47044, Stop: 46277, Start Num: 45

Candidate Starts for LBerry\_85:

(Start: 37 @47077 has 1 MA's), (Start: 45 @47044 has 383 MA's), (51, 47023), (57, 46978), (59, 46957), (Start: 60 @46951 has 1 MA's), (Start: 64 @46909 has 2 MA's), (69, 46879), (71, 46864), (94, 46762), (95, 46759), (105, 46723), (131, 46651), (136, 46630), (167, 46501), (175, 46468), (182,



46441),

Gene: LadyBird\_88 Start: 48874, Stop: 48116, Start Num: 45

Candidate Starts for LadyBird\_88:

(Start: 45 @48874 has 383 MA's), (51, 48853), (56, 48811), (62, 48760), (Start: 64 @48739 has 2 MA's), (70, 48703), (71, 48694), (78, 48664), (84, 48634), (114, 48541), (131, 48487), (142, 48451), (158, 48403), (176, 48304), (183, 48277), (193, 48229), (210, 48139),

Gene: Larenn\_82 Start: 48228, Stop: 47470, Start Num: 45

Candidate Starts for Larenn\_82:

(Start: 45 @48228 has 383 MA's), (51, 48207), (56, 48165), (59, 48141), (62, 48114), (Start: 64 @48093 has 2 MA's), (70, 48057), (71, 48048), (78, 48018), (84, 47988), (94, 47946), (110, 47904), (114, 47895), (131, 47841), (142, 47805), (158, 47757), (182, 47634), (183, 47631), (193, 47583), (210, 47493),

Gene: LarryKay\_84 Start: 47074, Stop: 46307, Start Num: 45

Candidate Starts for LarryKay\_84:

(35, 47119), (Start: 45 @47074 has 383 MA's), (51, 47053), (57, 47008), (59, 46987), (Start: 60 @46981 has 1 MA's), (Start: 64 @46939 has 2 MA's), (69, 46909), (71, 46894), (94, 46792), (95, 46789), (105, 46753), (131, 46681), (136, 46660), (167, 46531), (175, 46498), (182, 46471),

Gene: Leafus\_58 Start: 39580, Stop: 38849, Start Num: 45

Candidate Starts for Leafus\_58:

(Start: 45 @39580 has 383 MA's), (61, 39481), (62, 39478), (82, 39361), (102, 39310), (139, 39202), (145, 39193), (163, 39112), (176, 39055), (184, 39019), (188, 38989), (199, 38941), (209, 38878),

Gene: Lesiram\_63 Start: 36202, Stop: 36945, Start Num: 45

Candidate Starts for Lesiram\_63:

(1, 35497), (2, 35500), (3, 35539), (5, 35851), (6, 35875), (8, 35914), (9, 35959), (10, 35983), (33, 36148), (Start: 45 @36202 has 383 MA's), (54, 36247), (62, 36316), (73, 36391), (85, 36442), (99, 36475), (100, 36481), (128, 36541), (139, 36586), (145, 36595), (175, 36730), (183, 36763), (184, 36769), (188, 36799), (190, 36808), (206, 36892), (215, 36934),

Gene: Leviathan\_86 Start: 48865, Stop: 48110, Start Num: 45

Candidate Starts for Leviathan\_86:

(Start: 45 @48865 has 383 MA's), (51, 48844), (56, 48802), (59, 48778), (Start: 64 @48730 has 2 MA's), (76, 48661), (84, 48625), (107, 48547), (131, 48478), (136, 48457), (182, 48271), (183, 48268), (210, 48130),

Gene: LilTurb\_85 Start: 48661, Stop: 47906, Start Num: 45

Candidate Starts for LilTurb\_85:

(Start: 45 @48661 has 383 MA's), (51, 48640), (56, 48598), (59, 48574), (Start: 64 @48526 has 2 MA's), (76, 48457), (84, 48421), (107, 48343), (131, 48274), (136, 48253), (182, 48067), (183, 48064), (210, 47926),

Gene: Lilith\_82 Start: 47033, Stop: 46266, Start Num: 45

Candidate Starts for Lilith\_82:

(Start: 37 @47066 has 1 MA's), (Start: 45 @47033 has 383 MA's), (51, 47012), (57, 46967), (59, 46946), (Start: 60 @46940 has 1 MA's), (Start: 64 @46898 has 2 MA's), (69, 46868), (71, 46853), (94, 46751), (95, 46748), (105, 46712), (131, 46640), (136, 46619), (167, 46490), (175, 46457), (182, 46430),

Gene: Lilleskat\_85 Start: 48763, Stop: 48002, Start Num: 45

Candidate Starts for Lilleskat\_85:

(21, 48889), (Start: 45 @48763 has 383 MA's), (56, 48703), (59, 48679), (62, 48652), (65, 48625), (73, 48571), (84, 48523), (90, 48505), (94, 48481), (114, 48430), (124, 48403), (131, 48376), (182, 48163), (183, 48160), (188, 48127), (210, 48025),

Gene: LionsBait\_83 Start: 49178, Stop: 48444, Start Num: 45

Candidate Starts for LionsBait\_83:

(Start: 45 @49178 has 383 MA's), (56, 49121), (59, 49097), (62, 49070), (89, 48929), (91, 48923), (129, 48821), (131, 48809), (143, 48776), (167, 48662), (182, 48602), (183, 48599), (195, 48539),

Gene: Lokk\_79 Start: 46740, Stop: 45985, Start Num: 45

Candidate Starts for Lokk\_79:

(Start: 45 @46740 has 383 MA's), (51, 46719), (53, 46707), (59, 46653), (62, 46626), (69, 46575), (79, 46515), (84, 46500), (94, 46458), (110, 46416), (131, 46353), (167, 46203), (210, 46008),

Gene: LoneWolf\_88 Start: 48806, Stop: 48045, Start Num: 45

Candidate Starts for LoneWolf\_88:

(Start: 45 @48806 has 383 MA's), (56, 48746), (59, 48722), (62, 48695), (65, 48668), (73, 48614), (84, 48566), (94, 48524), (110, 48482), (114, 48473), (124, 48446), (131, 48419), (148, 48368), (167, 48269), (182, 48206), (183, 48203), (188, 48170), (210, 48068),

Gene: Loser\_87 Start: 49116, Stop: 48361, Start Num: 45

Candidate Starts for Loser\_87:

(Start: 45 @49116 has 383 MA's), (51, 49095), (56, 49053), (59, 49029), (62, 49002), (Start: 64 @48981 has 2 MA's), (70, 48945), (71, 48936), (78, 48906), (84, 48876), (110, 48792), (114, 48783), (131, 48729), (142, 48693), (158, 48645), (183, 48519), (210, 48381),

Gene: Louie6\_83 Start: 47071, Stop: 46304, Start Num: 45

Candidate Starts for Louie6\_83:

(35, 47116), (Start: 45 @47071 has 383 MA's), (51, 47050), (57, 47005), (59, 46984), (Start: 60 @46978 has 1 MA's), (Start: 64 @46936 has 2 MA's), (69, 46906), (71, 46891), (94, 46789), (95, 46786), (105, 46750), (131, 46678), (136, 46657), (167, 46528), (175, 46495), (182, 46468),

Gene: Lovelyunicorn\_59 Start: 39543, Stop: 38812, Start Num: 45

Candidate Starts for Lovelyunicorn\_59:

(Start: 45 @39543 has 383 MA's), (62, 39441), (82, 39324), (102, 39273), (128, 39210), (139, 39165), (145, 39156), (163, 39075), (176, 39018), (188, 38952), (209, 38841),

Gene: Lowa\_81 Start: 47032, Stop: 46265, Start Num: 45

Candidate Starts for Lowa\_81:

(Start: 37 @47065 has 1 MA's), (Start: 45 @47032 has 383 MA's), (51, 47011), (57, 46966), (59, 46945), (Start: 60 @46939 has 1 MA's), (Start: 64 @46897 has 2 MA's), (69, 46867), (71, 46852), (94, 46750), (95, 46747), (105, 46711), (131, 46639), (136, 46618), (167, 46489), (175, 46456), (182, 46429),

Gene: Lucivia\_87 Start: 47810, Stop: 47052, Start Num: 45

Candidate Starts for Lucivia\_87:

(Start: 45 @47810 has 383 MA's), (51, 47786), (56, 47744), (62, 47693), (Start: 64 @47672 has 2 MA's), (66, 47663), (69, 47642), (70, 47636), (71, 47627), (92, 47540), (94, 47525), (114, 47477), (124, 47450), (131, 47423), (202, 47120), (210, 47075),

Gene: Lucky3\_52 Start: 36611, Stop: 35883, Start Num: 45

Candidate Starts for Lucky3\_52:

(Start: 45 @36611 has 383 MA's), (62, 36509), (76, 36422), (82, 36392), (115, 36314), (128, 36281), (138, 36245), (158, 36185), (163, 36146), (164, 36143), (175, 36092), (183, 36059), (187, 36035), (190, 36014), (209, 35912),

Gene: Lucyedi\_83 Start: 47801, Stop: 47031, Start Num: 45

Candidate Starts for Lucyedi\_83:

(28, 47894), (Start: 45 @47801 has 383 MA's), (51, 47780), (59, 47714), (Start: 64 @47666 has 2 MA's), (69, 47636), (83, 47564), (94, 47519), (110, 47468), (131, 47405), (136, 47384), (154, 47327), (182, 47195), (183, 47192), (202, 47099), (210, 47054),

Gene: Ludgate\_59 Start: 39544, Stop: 38813, Start Num: 45

Candidate Starts for Ludgate\_59:

(Start: 45 @39544 has 383 MA's), (62, 39442), (82, 39325), (102, 39274), (128, 39211), (139, 39166), (145, 39157), (163, 39076), (176, 39019), (184, 38983), (188, 38953), (209, 38842),

Gene: LugYA\_87 Start: 47044, Stop: 46277, Start Num: 45

Candidate Starts for LugYA\_87:

(Start: 37 @47077 has 1 MA's), (Start: 45 @47044 has 383 MA's), (51, 47023), (57, 46978), (59, 46957), (Start: 60 @46951 has 1 MA's), (Start: 64 @46909 has 2 MA's), (69, 46879), (71, 46864), (94, 46762), (95, 46759), (105, 46723), (131, 46651), (136, 46630), (167, 46501), (175, 46468), (182, 46441),

Gene: MCubed\_56 Start: 37611, Stop: 36886, Start Num: 45

Candidate Starts for MCubed\_56:

(Start: 45 @37611 has 383 MA's), (62, 37509), (82, 37401), (116, 37314), (128, 37284), (138, 37248), (141, 37236), (163, 37149), (176, 37092),

Gene: MaCh\_86 Start: 47774, Stop: 47016, Start Num: 45

Candidate Starts for MaCh\_86:

(Start: 45 @47774 has 383 MA's), (51, 47750), (56, 47708), (62, 47657), (Start: 64 @47636 has 2 MA's), (66, 47627), (69, 47606), (70, 47600), (71, 47591), (92, 47504), (94, 47489), (114, 47441), (124, 47414), (131, 47387), (202, 47084), (210, 47039),

Gene: Mabel\_86 Start: 47775, Stop: 47017, Start Num: 45

Candidate Starts for Mabel\_86:

(Start: 45 @47775 has 383 MA's), (51, 47751), (56, 47709), (62, 47658), (Start: 64 @47637 has 2 MA's), (66, 47628), (69, 47607), (70, 47601), (71, 47592), (92, 47505), (94, 47490), (114, 47442), (124, 47415), (131, 47388), (202, 47085), (210, 47040),

Gene: MadMarie\_82 Start: 47041, Stop: 46274, Start Num: 45

Candidate Starts for MadMarie\_82:

(Start: 37 @47074 has 1 MA's), (Start: 45 @47041 has 383 MA's), (51, 47020), (57, 46975), (59, 46954), (Start: 60 @46948 has 1 MA's), (Start: 64 @46906 has 2 MA's), (69, 46876), (71, 46861), (94, 46759), (95, 46756), (105, 46720), (131, 46648), (136, 46627), (167, 46498), (175, 46465), (182, 46438),

Gene: MaeLinda\_59 Start: 39555, Stop: 38824, Start Num: 45

Candidate Starts for MaeLinda\_59:

(Start: 45 @39555 has 383 MA's), (62, 39453), (82, 39336), (102, 39285), (128, 39222), (139, 39177), (145, 39168), (163, 39087), (176, 39030), (188, 38964), (209, 38853),

Gene: Mainiac\_83 Start: 47033, Stop: 46266, Start Num: 45

Candidate Starts for Mainiac\_83:

(Start: 37 @47066 has 1 MA's), (Start: 45 @47033 has 383 MA's), (51, 47012), (57, 46967), (59, 46946), (Start: 60 @46940 has 1 MA's), (Start: 64 @46898 has 2 MA's), (69, 46868), (71, 46853), (94, 46751), (95, 46748), (105, 46712), (131, 46640), (136, 46619), (167, 46490), (175, 46457), (182, 46430),

Gene: MajorMajor\_81 Start: 45867, Stop: 45106, Start Num: 45

Candidate Starts for MajorMajor\_81:

(Start: 45 @45867 has 383 MA's), (51, 45843), (56, 45801), (Start: 64 @45729 has 2 MA's), (69, 45699), (70, 45693), (84, 45624), (94, 45582), (114, 45534), (131, 45480), (156, 45396), (167, 45330), (182, 45270), (183, 45267), (202, 45174), (210, 45129),

Gene: Malec\_83 Start: 48798, Stop: 48040, Start Num: 45

Candidate Starts for Malec\_83:

(Start: 45 @48798 has 383 MA's), (51, 48777), (56, 48735), (59, 48711), (62, 48684), (Start: 64 @48663 has 2 MA's), (70, 48627), (71, 48618), (84, 48558), (94, 48516), (110, 48474), (114, 48465), (131, 48411), (142, 48375), (158, 48327), (182, 48204), (183, 48201), (193, 48153), (210, 48063),

Gene: Malinsilva\_87 Start: 47032, Stop: 46265, Start Num: 45

Candidate Starts for Malinsilva\_87:

(Start: 37 @47065 has 1 MA's), (Start: 45 @47032 has 383 MA's), (51, 47011), (57, 46966), (59, 46945), (Start: 60 @46939 has 1 MA's), (Start: 64 @46897 has 2 MA's), (69, 46867), (71, 46852), (94, 46750), (95, 46747), (105, 46711), (131, 46639), (136, 46618), (167, 46489), (175, 46456), (182, 46429),

Gene: Maminiaina\_87 Start: 48726, Stop: 47968, Start Num: 45

Candidate Starts for Maminiaina\_87:

(Start: 45 @48726 has 383 MA's), (51, 48708), (61, 48618), (62, 48615), (65, 48588), (73, 48537), (84, 48489), (90, 48471), (94, 48447), (114, 48396), (124, 48369), (131, 48342), (134, 48330), (148, 48291), (183, 48126), (188, 48093), (210, 47991),

Gene: ManRay\_58 Start: 39301, Stop: 38570, Start Num: 45

Candidate Starts for ManRay\_58:

(Start: 45 @39301 has 383 MA's), (62, 39199), (82, 39082), (102, 39031), (128, 38968), (139, 38923), (145, 38914), (163, 38833), (176, 38776), (184, 38740), (188, 38710), (209, 38599),

Gene: Manu\_83 Start: 46855, Stop: 46088, Start Num: 45

Candidate Starts for Manu\_83:

(35, 46900), (Start: 45 @46855 has 383 MA's), (51, 46834), (56, 46792), (57, 46789), (59, 46768), (Start: 60 @46762 has 1 MA's), (Start: 64 @46720 has 2 MA's), (69, 46690), (71, 46675), (94, 46573), (105, 46534), (110, 46525), (129, 46474), (131, 46462), (167, 46312), (182, 46252),

Gene: MarQuardt\_84 Start: 47042, Stop: 46275, Start Num: 45

Candidate Starts for MarQuardt\_84:

(35, 47087), (Start: 45 @47042 has 383 MA's), (51, 47021), (57, 46976), (59, 46955), (Start: 60 @46949 has 1 MA's), (Start: 64 @46907 has 2 MA's), (69, 46877), (71, 46862), (94, 46760), (95, 46757), (105, 46721), (131, 46649), (136, 46628), (167, 46499), (175, 46466), (182, 46439),

Gene: Marie\_82 Start: 47043, Stop: 46276, Start Num: 45

Candidate Starts for Marie\_82:

(Start: 37 @47076 has 1 MA's), (Start: 45 @47043 has 383 MA's), (51, 47022), (57, 46977), (59, 46956), (Start: 60 @46950 has 1 MA's), (Start: 64 @46908 has 2 MA's), (69, 46878), (71, 46863), (94, 46761), (95, 46758), (105, 46722), (131, 46650), (136, 46629), (167, 46500), (175, 46467), (182, 46440),

Gene: Marius\_84 Start: 46848, Stop: 46081, Start Num: 45

Candidate Starts for Marius\_84:

(35, 46893), (Start: 45 @46848 has 383 MA's), (51, 46827), (56, 46785), (57, 46782), (59, 46761), (Start: 60 @46755 has 1 MA's), (Start: 64 @46713 has 2 MA's), (69, 46683), (71, 46668), (94, 46566), (105, 46527), (110, 46518), (129, 46467), (131, 46455), (167, 46305), (182, 46245),

Gene: Martin\_60 Start: 39557, Stop: 38826, Start Num: 45

Candidate Starts for Martin\_60:

(Start: 45 @39557 has 383 MA's), (62, 39455), (82, 39338), (102, 39287), (128, 39224), (139, 39179), (145, 39170), (163, 39089), (176, 39032), (188, 38966), (209, 38855),

Gene: Maselop\_4 Start: 2670, Stop: 3488, Start Num: 41

Candidate Starts for Maselop\_4:

(Start: 20 @2547 has 1 MA's), (Start: 41 @2670 has 5 MA's), (55, 2730), (78, 2889), (92, 2946), (93, 2958), (102, 2991), (104, 3000), (109, 3012), (115, 3024), (116, 3027), (147, 3126), (183, 3306),

Gene: McGalleon\_59 Start: 40271, Stop: 39543, Start Num: 45

Candidate Starts for McGalleon\_59:

(Start: 45 @40271 has 383 MA's), (62, 40172), (65, 40145), (85, 40046), (102, 40004), (128, 39941), (139, 39896), (145, 39887), (163, 39806), (188, 39683),

Gene: Methuselah\_77 Start: 47064, Stop: 46297, Start Num: 45

Candidate Starts for Methuselah\_77:

(35, 47109), (Start: 45 @47064 has 383 MA's), (51, 47043), (57, 46998), (59, 46977), (Start: 60 @46971 has 1 MA's), (Start: 64 @46929 has 2 MA's), (69, 46899), (71, 46884), (94, 46782), (95, 46779), (105, 46743), (131, 46671), (136, 46650), (167, 46521), (175, 46488), (182, 46461),

Gene: Microwolf\_80 Start: 47056, Stop: 46289, Start Num: 45

Candidate Starts for Microwolf\_80:

(Start: 37 @47089 has 1 MA's), (Start: 45 @47056 has 383 MA's), (51, 47035), (57, 46990), (59, 46969), (Start: 60 @46963 has 1 MA's), (Start: 64 @46921 has 2 MA's), (69, 46891), (71, 46876), (94, 46774), (95, 46771), (105, 46735), (131, 46663), (136, 46642), (167, 46513), (175, 46480), (182, 46453),

Gene: MiculUcigas\_84 Start: 47925, Stop: 47167, Start Num: 45

Candidate Starts for MiculUcigas\_84:

(Start: 45 @47925 has 383 MA's), (51, 47904), (53, 47892), (56, 47862), (59, 47838), (62, 47811), (Start: 64 @47790 has 2 MA's), (70, 47754), (71, 47745), (78, 47715), (84, 47685), (110, 47601), (114, 47592), (131, 47538), (142, 47502), (158, 47454), (176, 47355), (182, 47331), (183, 47328), (210, 47190),

Gene: Miko\_79 Start: 47505, Stop: 46747, Start Num: 45

Candidate Starts for Miko\_79:

(Start: 45 @47505 has 383 MA's), (51, 47484), (53, 47472), (62, 47391), (84, 47265), (91, 47244), (94, 47223), (110, 47181), (131, 47118), (167, 46968), (183, 46905), (210, 46770),

Gene: MillyPhilly\_59 Start: 39545, Stop: 38814, Start Num: 45

Candidate Starts for MillyPhilly\_59:

(Start: 45 @39545 has 383 MA's), (62, 39443), (82, 39326), (102, 39275), (128, 39212), (139, 39167), (145, 39158), (163, 39077), (176, 39020), (188, 38954), (209, 38843),

Gene: MissWhite\_77 Start: 44789, Stop: 44034, Start Num: 45

Candidate Starts for MissWhite\_77:

(Start: 45 @44789 has 383 MA's), (51, 44771), (56, 44729), (59, 44705), (Start: 64 @44657 has 2 MA's), (66, 44648), (69, 44627), (70, 44621), (76, 44588), (79, 44567), (84, 44552), (98, 44498), (107, 44474), (110, 44468), (131, 44405), (140, 44372), (149, 44354), (182, 44198), (183, 44195), (185, 44177), (197, 44126), (210, 44057),

Gene: ModicumRichard\_153 Start: 80567, Stop: 79794, Start Num: 47

Candidate Starts for ModicumRichard\_153:

(Start: 47 @80567 has 5 MA's), (56, 80501), (59, 80477), (61, 80453), (68, 80414), (74, 80369), (80, 80339), (90, 80309), (92, 80300), (97, 80276), (108, 80249), (119, 80222), (131, 80183), (159, 80084), (160, 80063), (177, 79991), (178, 79985), (203, 79868), (208, 79829), (214, 79805),

Gene: MonChoix\_57 Start: 39226, Stop: 38495, Start Num: 45

Candidate Starts for MonChoix\_57:

(Start: 45 @39226 has 383 MA's), (62, 39124), (82, 39007), (102, 38956), (139, 38848), (145, 38839), (188, 38635), (209, 38524),

Gene: MoneyMay\_84 Start: 47043, Stop: 46276, Start Num: 45

Candidate Starts for MoneyMay\_84:

(Start: 37 @47076 has 1 MA's), (Start: 45 @47043 has 383 MA's), (51, 47022), (57, 46977), (59, 46956), (Start: 60 @46950 has 1 MA's), (Start: 64 @46908 has 2 MA's), (69, 46878), (71, 46863), (94, 46761), (95, 46758), (105, 46722), (131, 46650), (136, 46629), (167, 46500), (175, 46467), (182, 46440),

Gene: Morgana\_160 Start: 81269, Stop: 80511, Start Num: 47

Candidate Starts for Morgana\_160:

(Start: 47 @81269 has 5 MA's), (74, 81071), (75, 81068), (85, 81026), (86, 81023), (119, 80924), (131, 80885), (137, 80864), (142, 80852), (159, 80801), (162, 80774), (165, 80753), (177, 80708), (192, 80639), (207, 80561), (208, 80546),

Gene: MrWorldwide\_59 Start: 39555, Stop: 38824, Start Num: 45

Candidate Starts for MrWorldwide\_59:

(Start: 45 @39555 has 383 MA's), (62, 39453), (82, 39336), (102, 39285), (128, 39222), (139, 39177), (145, 39168), (163, 39087), (176, 39030), (188, 38964), (209, 38853),

Gene: MuchMore\_87 Start: 46894, Stop: 46262, Start Num: 64

Candidate Starts for MuchMore\_87:

(Start: 64 @46894 has 2 MA's), (69, 46864), (71, 46849), (94, 46747), (95, 46744), (105, 46708), (131, 46636), (136, 46615), (167, 46486), (175, 46453), (182, 46426),

Gene: Mufasa8\_99 Start: 57992, Stop: 57228, Start Num: 45

Candidate Starts for Mufasa8\_99:

(4, 58640), (14, 58187), (Start: 45 @57992 has 383 MA's), (62, 57881), (68, 57845), (76, 57794), (116, 57680), (120, 57668), (128, 57650), (130, 57641), (158, 57554), (163, 57515), (174, 57470), (207, 57290), (209, 57275), (217, 57236),

Gene: Mulciber\_84 Start: 47316, Stop: 46558, Start Num: 45

Candidate Starts for Mulciber\_84:

(Start: 45 @47316 has 383 MA's), (51, 47292), (56, 47250), (62, 47199), (Start: 64 @47178 has 2 MA's), (66, 47169), (69, 47148), (70, 47142), (71, 47133), (92, 47046), (94, 47031), (114, 46983), (124, 46956), (131, 46929), (202, 46626), (210, 46581),

Gene: Munch\_86 Start: 47779, Stop: 47021, Start Num: 45

Candidate Starts for Munch\_86:

(Start: 45 @47779 has 383 MA's), (51, 47755), (56, 47713), (62, 47662), (Start: 64 @47641 has 2 MA's), (66, 47632), (69, 47611), (70, 47605), (71, 47596), (92, 47509), (94, 47494), (114, 47446), (124, 47419), (131, 47392), (202, 47089), (210, 47044),

Gene: Myxus\_88 Start: 48808, Stop: 48047, Start Num: 45

Candidate Starts for Myxus\_88:

(Start: 45 @48808 has 383 MA's), (56, 48748), (62, 48697), (65, 48670), (73, 48616), (84, 48568), (90, 48550), (94, 48526), (114, 48475), (124, 48448), (131, 48421), (182, 48208), (183, 48205), (188, 48172), (210, 48070),

Gene: NaSiaTalie\_85 Start: 48212, Stop: 47454, Start Num: 45

Candidate Starts for NaSiaTalie\_85:

(Start: 45 @48212 has 383 MA's), (51, 48191), (53, 48179), (56, 48149), (59, 48125), (62, 48098), (Start: 64 @48077 has 2 MA's), (70, 48041), (71, 48032), (78, 48002), (84, 47972), (94, 47930), (110, 47888), (114, 47879), (131, 47825), (142, 47789), (158, 47741), (176, 47642), (182, 47618), (183, 47615), (210, 47477),

Gene: Nagem\_59 Start: 39591, Stop: 38860, Start Num: 45

Candidate Starts for Nagem\_59:

(Start: 45 @39591 has 383 MA's), (62, 39489), (82, 39372), (102, 39321), (128, 39258), (139, 39213), (145, 39204), (163, 39123), (176, 39066), (184, 39030), (188, 39000), (209, 38889),

Gene: Nattles\_58 Start: 39288, Stop: 38557, Start Num: 45

Candidate Starts for Nattles\_58:

(Start: 45 @39288 has 383 MA's), (62, 39186), (82, 39069), (102, 39018), (128, 38955), (139, 38910), (145, 38901), (163, 38820), (176, 38763), (184, 38727), (188, 38697), (209, 38586),

Gene: Nedarya\_84 Start: 47378, Stop: 46665, Start Num: 45

Candidate Starts for Nedarya\_84:

(Start: 45 @47378 has 383 MA's), (51, 47354), (62, 47261), (73, 47183), (83, 47138), (94, 47093), (107, 47060), (110, 47054), (131, 46991), (134, 46979), (183, 46823), (191, 46784),

Gene: NickSell\_59 Start: 39558, Stop: 38827, Start Num: 45

Candidate Starts for NickSell\_59:

(Start: 45 @39558 has 383 MA's), (62, 39456), (82, 39339), (102, 39288), (128, 39225), (139, 39180), (145, 39171), (163, 39090), (176, 39033), (188, 38967), (209, 38856),

Gene: NicoleTera\_82 Start: 48143, Stop: 47388, Start Num: 45

Candidate Starts for NicoleTera\_82:

(Start: 45 @48143 has 383 MA's), (51, 48122), (53, 48110), (59, 48056), (62, 48029), (84, 47903), (94, 47861), (101, 47843), (110, 47819), (114, 47810), (131, 47756), (182, 47549), (183, 47546), (210, 47411), (213, 47396),

Gene: NothingSpecial\_79 Start: 48082, Stop: 47348, Start Num: 45

Candidate Starts for NothingSpecial\_79:

(Start: 45 @48082 has 383 MA's), (56, 48025), (62, 47974), (89, 47833), (91, 47827), (105, 47785), (131, 47713), (167, 47566), (182, 47506), (183, 47503),

Gene: Oats\_58 Start: 39301, Stop: 38570, Start Num: 45

Candidate Starts for Oats\_58:

(Start: 45 @39301 has 383 MA's), (62, 39199), (82, 39082), (102, 39031), (128, 38968), (139, 38923), (145, 38914), (163, 38833), (176, 38776), (184, 38740), (188, 38710), (209, 38599),

Gene: ObLaDi\_153 Start: 80566, Stop: 79793, Start Num: 47

Candidate Starts for ObLaDi\_153:

(Start: 47 @80566 has 5 MA's), (56, 80500), (59, 80476), (61, 80452), (68, 80413), (74, 80368), (80, 80338), (90, 80308), (92, 80299), (97, 80275), (108, 80248), (119, 80221), (131, 80182), (159, 80083), (160, 80062), (177, 79990), (178, 79984), (203, 79867), (208, 79828), (214, 79804),

Gene: Odin\_83 Start: 47677, Stop: 46934, Start Num: 45

Candidate Starts for Odin\_83:

(Start: 45 @47677 has 383 MA's), (51, 47659), (56, 47617), (62, 47566), (Start: 64 @47545 has 2 MA's), (77, 47473), (84, 47440), (114, 47347), (124, 47320), (131, 47293), (182, 47098), (210, 46957), (212, 46945),

Gene: OlanP\_82 Start: 47027, Stop: 46260, Start Num: 45

Candidate Starts for OlanP\_82:

(Start: 37 @47066 has 1 MA's), (Start: 45 @47027 has 383 MA's), (51, 47006), (56, 46964), (57, 46961), (59, 46940), (Start: 60 @46934 has 1 MA's), (Start: 64 @46892 has 2 MA's), (69, 46862), (71, 46847), (94, 46745), (103, 46712), (105, 46706), (110, 46697), (129, 46646), (131, 46634), (167, 46484), (182, 46424),

Gene: OldNelly\_59 Start: 39344, Stop: 38613, Start Num: 45

Candidate Starts for OldNelly\_59:

(Start: 45 @39344 has 383 MA's), (62, 39242), (82, 39125), (102, 39074), (128, 39011), (139, 38966), (145, 38957), (163, 38876), (176, 38819), (188, 38753), (209, 38642),

Gene: Ollie\_84 Start: 46911, Stop: 46144, Start Num: 45

Candidate Starts for Ollie\_84:

(Start: 37 @46944 has 1 MA's), (Start: 45 @46911 has 383 MA's), (51, 46890), (57, 46845), (59, 46824), (Start: 60 @46818 has 1 MA's), (Start: 64 @46776 has 2 MA's), (69, 46746), (71, 46731), (94, 46629), (95, 46626), (105, 46590), (131, 46518), (136, 46497), (167, 46368), (175, 46335), (182, 46308),

Gene: Onglai\_86 Start: 46955, Stop: 46194, Start Num: 45

Candidate Starts for Onglai\_86:

(21, 47081), (Start: 45 @46955 has 383 MA's), (56, 46895), (59, 46871), (62, 46844), (65, 46817), (73, 46763), (84, 46715), (90, 46697), (94, 46673), (114, 46622), (124, 46595), (131, 46568), (182, 46355), (183, 46352), (188, 46319), (210, 46217),

Gene: Oofda\_88 Start: 47536, Stop: 46820, Start Num: 45

Candidate Starts for Oofda\_88:

(27, 47632), (39, 47581), (Start: 45 @47536 has 383 MA's), (51, 47512), (71, 47353), (79, 47308), (83, 47296), (89, 47278), (94, 47251), (104, 47221), (107, 47215), (110, 47209), (114, 47200), (131, 47146), (134, 47134), (196, 46912),

Gene: Orange\_86 Start: 47329, Stop: 46571, Start Num: 45

Candidate Starts for Orange\_86:

(Start: 45 @47329 has 383 MA's), (51, 47305), (56, 47263), (62, 47212), (Start: 64 @47191 has 2 MA's), (66, 47182), (69, 47161), (70, 47155), (71, 47146), (92, 47059), (94, 47044), (114, 46996), (124, 46969), (131, 46942), (202, 46639), (210, 46594),

Gene: Oxtober96\_60 Start: 39543, Stop: 38812, Start Num: 45

Candidate Starts for Oxtober96\_60:



(Start: 45 @39543 has 383 MA's), (62, 39441), (82, 39324), (102, 39273), (128, 39210), (139, 39165), (145, 39156), (163, 39075), (176, 39018), (188, 38952), (209, 38841),

Gene: P28Green\_84 Start: 47046, Stop: 46279, Start Num: 45

Candidate Starts for P28Green\_84:

(35, 47091), (Start: 45 @47046 has 383 MA's), (51, 47025), (57, 46980), (59, 46959), (Start: 60 @46953 has 1 MA's), (Start: 64 @46911 has 2 MA's), (69, 46881), (71, 46866), (94, 46764), (95, 46761), (105, 46725), (131, 46653), (136, 46632), (167, 46503), (175, 46470), (182, 46443),

Gene: PGHhamlin\_86 Start: 47032, Stop: 46265, Start Num: 45

Candidate Starts for PGHhamlin\_86:

(Start: 37 @47065 has 1 MA's), (Start: 45 @47032 has 383 MA's), (51, 47011), (57, 46966), (59, 46945), (Start: 60 @46939 has 1 MA's), (Start: 64 @46897 has 2 MA's), (69, 46867), (71, 46852), (94, 46750), (95, 46747), (105, 46711), (131, 46639), (136, 46618), (167, 46489), (175, 46456), (182, 46429),

Gene: PSirce\_55 Start: 37750, Stop: 37025, Start Num: 45

Candidate Starts for PSirce\_55:

(34, 37798), (Start: 45 @37750 has 383 MA's), (62, 37648), (82, 37540), (116, 37453), (128, 37423), (138, 37387), (141, 37375), (163, 37288), (176, 37231),

Gene: Paedore\_70 Start: 45492, Stop: 44761, Start Num: 45

Candidate Starts for Paedore\_70:

(Start: 45 @45492 has 383 MA's), (62, 45378), (65, 45351), (70, 45327), (89, 45252), (150, 45096), (167, 45018), (183, 44940), (203, 44832),

Gene: PainterBoy\_83 Start: 47511, Stop: 46741, Start Num: 45

Candidate Starts for PainterBoy\_83:

(28, 47604), (Start: 45 @47511 has 383 MA's), (51, 47490), (59, 47424), (Start: 64 @47376 has 2 MA's), (69, 47346), (83, 47274), (94, 47229), (110, 47178), (131, 47115), (136, 47094), (154, 47037), (182, 46905), (183, 46902), (202, 46809), (210, 46764),

Gene: Papafritta\_58 Start: 39306, Stop: 38575, Start Num: 45

Candidate Starts for Papafritta\_58:

(Start: 45 @39306 has 383 MA's), (62, 39204), (82, 39087), (102, 39036), (128, 38973), (139, 38928), (145, 38919), (163, 38838), (176, 38781), (188, 38715), (209, 38604),

Gene: ParleG\_59 Start: 39555, Stop: 38824, Start Num: 45

Candidate Starts for ParleG\_59:

(Start: 45 @39555 has 383 MA's), (62, 39453), (82, 39336), (102, 39285), (128, 39222), (139, 39177), (145, 39168), (163, 39087), (176, 39030), (188, 38964), (209, 38853),

Gene: Pawn\_82 Start: 46855, Stop: 46088, Start Num: 45

Candidate Starts for Pawn\_82:

(35, 46900), (Start: 45 @46855 has 383 MA's), (51, 46834), (56, 46792), (57, 46789), (59, 46768), (Start: 60 @46762 has 1 MA's), (Start: 64 @46720 has 2 MA's), (69, 46690), (71, 46675), (94, 46573), (105, 46534), (110, 46525), (129, 46474), (131, 46462), (167, 46312), (182, 46252),

Gene: Peep\_59 Start: 39601, Stop: 38870, Start Num: 45

Candidate Starts for Peep\_59:

(Start: 45 @39601 has 383 MA's), (62, 39499), (82, 39382), (102, 39331), (128, 39268), (139, 39223), (145, 39214), (163, 39133), (176, 39076), (188, 39010), (209, 38899),

Gene: Pembroke\_84 Start: 47041, Stop: 46274, Start Num: 45

Candidate Starts for Pembroke\_84:

(Start: 37 @47074 has 1 MA's), (Start: 45 @47041 has 383 MA's), (51, 47020), (57, 46975), (59, 46954), (Start: 60 @46948 has 1 MA's), (Start: 64 @46906 has 2 MA's), (69, 46876), (71, 46861), (94, 46759), (95, 46756), (105, 46720), (131, 46648), (136, 46627), (167, 46498), (175, 46465), (182, 46438),

Gene: Penny1\_84 Start: 47044, Stop: 46277, Start Num: 45

Candidate Starts for Penny1\_84:

(35, 47089), (Start: 45 @47044 has 383 MA's), (51, 47023), (57, 46978), (59, 46957), (Start: 60 @46951 has 1 MA's), (Start: 64 @46909 has 2 MA's), (69, 46879), (71, 46864), (94, 46762), (95, 46759), (105, 46723), (131, 46651), (136, 46630), (167, 46501), (175, 46468), (182, 46441),

Gene: Peppino\_58 Start: 39500, Stop: 38769, Start Num: 45

Candidate Starts for Peppino\_58:

(Start: 45 @39500 has 383 MA's), (61, 39401), (62, 39398), (82, 39281), (102, 39230), (139, 39122), (145, 39113), (163, 39032), (176, 38975), (184, 38939), (188, 38909), (199, 38861), (209, 38798),

Gene: Petersenfast\_80 Start: 46210, Stop: 45452, Start Num: 45

Candidate Starts for Petersenfast\_80:

(Start: 45 @46210 has 383 MA's), (51, 46186), (56, 46144), (62, 46093), (Start: 64 @46072 has 2 MA's), (66, 46063), (69, 46042), (70, 46036), (71, 46027), (92, 45940), (94, 45925), (114, 45877), (124, 45850), (131, 45823), (202, 45520), (210, 45475),

Gene: Ph8s\_85 Start: 47459, Stop: 46716, Start Num: 45

Candidate Starts for Ph8s\_85:

(12, 47672), (13, 47669), (Start: 45 @47459 has 383 MA's), (51, 47441), (56, 47399), (62, 47348), (Start: 64 @47327 has 2 MA's), (77, 47255), (84, 47222), (114, 47129), (124, 47102), (131, 47075), (182, 46880), (197, 46808), (210, 46739),

Gene: Phaeder\_88 Start: 48683, Stop: 47922, Start Num: 45

Candidate Starts for Phaeder\_88:

(Start: 45 @48683 has 383 MA's), (56, 48623), (62, 48572), (65, 48545), (73, 48491), (84, 48443), (90, 48425), (94, 48401), (114, 48350), (124, 48323), (131, 48296), (182, 48083), (183, 48080), (188, 48047), (210, 47945),

Gene: Phanita\_55 Start: 37523, Stop: 36798, Start Num: 45

Candidate Starts for Phanita\_55:

(Start: 45 @37523 has 383 MA's), (62, 37421), (77, 37340), (82, 37313), (116, 37226), (128, 37196), (138, 37160), (141, 37148), (163, 37061), (176, 37004),

Gene: Pherbot\_51 Start: 36125, Stop: 35388, Start Num: 45

Candidate Starts for Pherbot\_51:

(Start: 45 @36125 has 383 MA's), (62, 36014), (73, 35939), (76, 35927), (82, 35897), (115, 35819), (128, 35786), (138, 35750), (163, 35651), (164, 35648), (175, 35597), (183, 35564), (187, 35540), (190, 35519), (209, 35417),

Gene: Pherferi\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for Pherferi\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (188, 38957), (209, 38846),

Gene: Phiderman\_59 Start: 39545, Stop: 38814, Start Num: 45

Candidate Starts for Phiderman\_59:

(Start: 45 @39545 has 383 MA's), (62, 39443), (82, 39326), (102, 39275), (128, 39212), (139, 39167), (145, 39158), (163, 39077), (176, 39020), (188, 38954), (209, 38843),

Gene: Phireproof\_59 Start: 39554, Stop: 38823, Start Num: 45

Candidate Starts for Phireproof\_59:

(Start: 45 @39554 has 383 MA's), (62, 39452), (82, 39335), (102, 39284), (128, 39221), (139, 39176), (145, 39167), (163, 39086), (176, 39029), (188, 38963), (209, 38852),

Gene: PhishRPhriends\_80 Start: 46035, Stop: 45268, Start Num: 45

Candidate Starts for PhishRPhriends\_80:

(35, 46080), (Start: 45 @46035 has 383 MA's), (51, 46014), (56, 45972), (57, 45969), (59, 45948), (Start: 60 @45942 has 1 MA's), (Start: 64 @45900 has 2 MA's), (69, 45870), (71, 45855), (94, 45753), (105, 45714), (110, 45705), (129, 45654), (131, 45642), (167, 45492), (182, 45432),

Gene: Phoebe\_85 Start: 47036, Stop: 46269, Start Num: 45

Candidate Starts for Phoebe\_85:

(35, 47081), (Start: 45 @47036 has 383 MA's), (51, 47015), (57, 46970), (59, 46949), (Start: 60 @46943 has 1 MA's), (Start: 64 @46901 has 2 MA's), (69, 46871), (71, 46856), (94, 46754), (95, 46751), (105, 46715), (131, 46643), (136, 46622), (167, 46493), (175, 46460), (182, 46433),

Gene: Phonnegut\_88 Start: 48696, Stop: 47935, Start Num: 45

Candidate Starts for Phonnegut\_88:

(21, 48822), (Start: 45 @48696 has 383 MA's), (56, 48636), (59, 48612), (62, 48585), (65, 48558), (73, 48504), (84, 48456), (90, 48438), (94, 48414), (114, 48363), (124, 48336), (131, 48309), (182, 48096), (183, 48093), (188, 48060), (210, 47958),

Gene: Phoxy\_84 Start: 46972, Stop: 46298, Start Num: 60

Candidate Starts for Phoxy\_84:

(57, 46999), (59, 46978), (Start: 60 @46972 has 1 MA's), (Start: 64 @46930 has 2 MA's), (69, 46900), (71, 46885), (94, 46783), (95, 46780), (105, 46744), (131, 46672), (136, 46651), (167, 46522), (175, 46489), (182, 46462),

Gene: PhredFlintston\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for PhredFlintston\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (188, 38957), (209, 38846),

Gene: Phriends\_58 Start: 39348, Stop: 38617, Start Num: 45

Candidate Starts for Phriends\_58:

(Start: 45 @39348 has 383 MA's), (62, 39246), (82, 39129), (102, 39078), (128, 39015), (139, 38970), (145, 38961), (163, 38880), (176, 38823), (188, 38757), (209, 38646),

Gene: Pioneer\_88 Start: 48696, Stop: 47935, Start Num: 45

Candidate Starts for Pioneer\_88:

(21, 48822), (Start: 45 @48696 has 383 MA's), (56, 48636), (59, 48612), (62, 48585), (65, 48558), (73, 48504), (84, 48456), (90, 48438), (94, 48414), (114, 48363), (124, 48336), (131, 48309), (182, 48096), (183, 48093), (188, 48060), (210, 47958),

Gene: Piro94\_83 Start: 48160, Stop: 47402, Start Num: 45

Candidate Starts for Piro94\_83:

(Start: 45 @48160 has 383 MA's), (51, 48139), (53, 48127), (56, 48097), (59, 48073), (62, 48046), (Start: 64 @48025 has 2 MA's), (70, 47989), (71, 47980), (78, 47950), (84, 47920), (94, 47878), (110,

47836), (114, 47827), (131, 47773), (142, 47737), (158, 47689), (176, 47590), (182, 47566), (183, 47563), (210, 47425),

Gene: Pocket\_58 Start: 39328, Stop: 38597, Start Num: 45

Candidate Starts for Pocket\_58:

(Start: 45 @39328 has 383 MA's), (62, 39226), (82, 39109), (102, 39058), (128, 38995), (139, 38950), (145, 38941), (163, 38860), (176, 38803), (184, 38767), (188, 38737), (209, 38626),

Gene: Polyuyki\_4 Start: 2672, Stop: 3490, Start Num: 41

Candidate Starts for Polyuyki\_4:

(Start: 20 @2549 has 1 MA's), (Start: 41 @2672 has 5 MA's), (55, 2732), (78, 2891), (92, 2948), (93, 2960), (102, 2993), (104, 3002), (109, 3014), (115, 3026), (116, 3029), (147, 3128), (183, 3308), (189, 3350),

Gene: Pomar16\_84 Start: 48043, Stop: 47270, Start Num: 46

Candidate Starts for Pomar16\_84:

(Start: 46 @48043 has 10 MA's), (51, 48019), (56, 47977), (59, 47953), (Start: 64 @47905 has 2 MA's), (69, 47875), (70, 47869), (92, 47773), (94, 47758), (98, 47746), (131, 47644), (136, 47623), (183, 47431), (210, 47293),

Gene: PotatoSplit\_85 Start: 47044, Stop: 46277, Start Num: 45

Candidate Starts for PotatoSplit\_85:

(35, 47089), (Start: 45 @47044 has 383 MA's), (51, 47023), (57, 46978), (59, 46957), (Start: 60 @46951 has 1 MA's), (Start: 64 @46909 has 2 MA's), (69, 46879), (71, 46864), (94, 46762), (95, 46759), (105, 46723), (131, 46651), (136, 46630), (167, 46501), (175, 46468), (182, 46441),

Gene: Power\_84 Start: 48723, Stop: 47965, Start Num: 45

Candidate Starts for Power\_84:

(Start: 45 @48723 has 383 MA's), (51, 48702), (56, 48660), (59, 48636), (62, 48609), (Start: 64 @48588 has 2 MA's), (70, 48552), (71, 48543), (84, 48483), (110, 48399), (114, 48390), (131, 48336), (142, 48300), (158, 48252), (176, 48153), (183, 48126), (196, 48060), (210, 47988),

Gene: PrincePhergus\_51 Start: 36141, Stop: 35404, Start Num: 45

Candidate Starts for PrincePhergus\_51:

(Start: 45 @36141 has 383 MA's), (62, 36030), (73, 35955), (76, 35943), (82, 35913), (115, 35835), (128, 35802), (138, 35766), (163, 35667), (164, 35664), (175, 35613), (183, 35580), (187, 35556), (190, 35535), (209, 35433),

Gene: Priya\_86 Start: 48467, Stop: 47706, Start Num: 45

Candidate Starts for Priya\_86:

(Start: 45 @48467 has 383 MA's), (56, 48407), (62, 48356), (65, 48329), (73, 48275), (84, 48227), (90, 48209), (94, 48185), (114, 48134), (124, 48107), (125, 48104), (131, 48080), (182, 47867), (183, 47864), (188, 47831), (210, 47729),

Gene: PuppyEggo\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for PuppyEggo\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (184, 38987), (188, 38957), (209, 38846),

Gene: Qobbit\_86 Start: 48429, Stop: 47668, Start Num: 45

Candidate Starts for Qobbit\_86:

(Start: 45 @48429 has 383 MA's), (56, 48369), (62, 48318), (65, 48291), (73, 48237), (84, 48189), (90, 48171), (94, 48147), (114, 48096), (124, 48069), (125, 48066), (131, 48042), (182, 47829), (183,

47826), (188, 47793), (210, 47691),

Gene: QueenB2\_81 Start: 47813, Stop: 47055, Start Num: 45

Candidate Starts for QueenB2\_81:

(Start: 43 @47816 has 3 MA's), (Start: 45 @47813 has 383 MA's), (51, 47792), (56, 47750), (57, 47747), (59, 47726), (62, 47699), (Start: 64 @47678 has 2 MA's), (70, 47642), (71, 47633), (84, 47573), (110, 47489), (114, 47480), (131, 47426), (142, 47390), (158, 47342), (176, 47243), (183, 47216), (196, 47150), (210, 47078),

Gene: QueenBeesly\_84 Start: 48520, Stop: 47762, Start Num: 45

Candidate Starts for QueenBeesly\_84:

(Start: 45 @48520 has 383 MA's), (51, 48499), (56, 48457), (59, 48433), (62, 48406), (Start: 64 @48385 has 2 MA's), (70, 48349), (71, 48340), (84, 48280), (110, 48196), (114, 48187), (131, 48133), (142, 48097), (158, 48049), (176, 47950), (183, 47923), (196, 47857), (210, 47785),

Gene: Quokka\_86 Start: 47576, Stop: 46815, Start Num: 45

Candidate Starts for Quokka\_86:

(Start: 45 @47576 has 383 MA's), (51, 47552), (56, 47510), (Start: 64 @47438 has 2 MA's), (69, 47408), (70, 47402), (84, 47333), (94, 47291), (114, 47243), (131, 47189), (156, 47105), (167, 47039), (182, 46979), (183, 46976), (202, 46883), (210, 46838),

Gene: Raccoon\_58 Start: 39471, Stop: 38740, Start Num: 45

Candidate Starts for Raccoon\_58:

(Start: 45 @39471 has 383 MA's), (61, 39372), (62, 39369), (82, 39252), (102, 39201), (139, 39093), (145, 39084), (163, 39003), (176, 38946), (184, 38910), (188, 38880), (199, 38832), (209, 38769),

Gene: Rachaly\_81 Start: 47648, Stop: 46893, Start Num: 45

Candidate Starts for Rachaly\_81:

(Start: 45 @47648 has 383 MA's), (51, 47627), (53, 47615), (59, 47561), (62, 47534), (69, 47483), (79, 47423), (84, 47408), (94, 47366), (110, 47324), (131, 47261), (167, 47111), (210, 46916),

Gene: Rahalelujah\_87 Start: 48224, Stop: 47463, Start Num: 45

Candidate Starts for Rahalelujah\_87:

(Start: 45 @48224 has 383 MA's), (56, 48164), (59, 48140), (62, 48113), (65, 48086), (73, 48032), (84, 47984), (94, 47942), (114, 47891), (124, 47864), (131, 47837), (136, 47816), (148, 47786), (183, 47621), (210, 47486),

Gene: Rapheph\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for Rapheph\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (188, 38957), (209, 38846),

Gene: Raptor\_59 Start: 39546, Stop: 38815, Start Num: 45

Candidate Starts for Raptor\_59:

(Start: 45 @39546 has 383 MA's), (62, 39444), (82, 39327), (102, 39276), (128, 39213), (139, 39168), (145, 39159), (163, 39078), (176, 39021), (188, 38955), (209, 38844),

Gene: Reba\_79 Start: 45691, Stop: 44924, Start Num: 45

Candidate Starts for Reba\_79:

(35, 45736), (Start: 45 @45691 has 383 MA's), (51, 45670), (56, 45628), (57, 45625), (59, 45604), (Start: 60 @45598 has 1 MA's), (Start: 64 @45556 has 2 MA's), (69, 45526), (71, 45511), (94, 45409), (105, 45370), (110, 45361), (129, 45310), (131, 45298), (167, 45148), (182, 45088),

Gene: RedRock\_84 Start: 48769, Stop: 48014, Start Num: 45

Candidate Starts for RedRock\_84:

(Start: 45 @48769 has 383 MA's), (51, 48748), (56, 48706), (59, 48682), (62, 48655), (Start: 64 @48634 has 2 MA's), (70, 48598), (71, 48589), (78, 48559), (84, 48529), (110, 48445), (114, 48436), (131, 48382), (142, 48346), (158, 48298), (183, 48172), (210, 48034),

Gene: Redfield\_58 Start: 39510, Stop: 38779, Start Num: 45

Candidate Starts for Redfield\_58:

(Start: 45 @39510 has 383 MA's), (61, 39411), (62, 39408), (82, 39291), (102, 39240), (139, 39132), (145, 39123), (163, 39042), (176, 38985), (184, 38949), (188, 38919), (199, 38871), (209, 38808),

Gene: Refuge\_86 Start: 50447, Stop: 49695, Start Num: 45

Candidate Starts for Refuge\_86:

(Start: 45 @50447 has 383 MA's), (51, 50426), (53, 50414), (61, 50336), (62, 50333), (66, 50303), (69, 50282), (84, 50207), (90, 50189), (91, 50186), (94, 50165), (110, 50123), (114, 50114), (131, 50060), (136, 50039), (145, 50021), (154, 49982), (183, 49850), (195, 49790),

Gene: Remus\_88 Start: 47411, Stop: 46695, Start Num: 45

Candidate Starts for Remus\_88:

(27, 47507), (Start: 31 @47477 has 1 MA's), (39, 47456), (Start: 45 @47411 has 383 MA's), (51, 47387), (62, 47294), (71, 47228), (83, 47171), (89, 47153), (94, 47126), (104, 47096), (107, 47090), (110, 47084), (114, 47075), (131, 47021), (134, 47009), (183, 46853),

Gene: RenegadeRaider\_53 Start: 36035, Stop: 35298, Start Num: 45

Candidate Starts for RenegadeRaider\_53:

(Start: 45 @36035 has 383 MA's), (62, 35924), (73, 35849), (76, 35837), (82, 35807), (115, 35729), (128, 35696), (138, 35660), (163, 35561), (164, 35558), (175, 35507), (183, 35474), (187, 35450), (190, 35429), (209, 35327),

Gene: Renzie\_59 Start: 39604, Stop: 38873, Start Num: 45

Candidate Starts for Renzie\_59:

(Start: 45 @39604 has 383 MA's), (62, 39502), (82, 39385), (102, 39334), (128, 39271), (139, 39226), (145, 39217), (163, 39136), (176, 39079), (188, 39013), (209, 38902),

Gene: Retro23\_84 Start: 48244, Stop: 47486, Start Num: 45

Candidate Starts for Retro23\_84:

(Start: 45 @48244 has 383 MA's), (51, 48223), (56, 48181), (59, 48157), (62, 48130), (Start: 64 @48109 has 2 MA's), (70, 48073), (77, 48037), (84, 48004), (110, 47920), (114, 47911), (131, 47857), (142, 47821), (158, 47773), (176, 47674), (182, 47650), (183, 47647), (210, 47509),

Gene: Riyhil\_59 Start: 39558, Stop: 38827, Start Num: 45

Candidate Starts for Riyhil\_59:

(Start: 45 @39558 has 383 MA's), (62, 39456), (82, 39339), (102, 39288), (128, 39225), (139, 39180), (145, 39171), (163, 39090), (176, 39033), (188, 38967), (209, 38856),

Gene: Robinson\_59 Start: 39620, Stop: 38889, Start Num: 45

Candidate Starts for Robinson\_59:

(Start: 45 @39620 has 383 MA's), (62, 39518), (82, 39401), (102, 39350), (128, 39287), (139, 39242), (145, 39233), (163, 39152), (176, 39095), (188, 39029), (209, 38918),

Gene: Rog141\_58 Start: 39291, Stop: 38560, Start Num: 45

Candidate Starts for Rog141\_58:

(Start: 45 @39291 has 383 MA's), (62, 39189), (82, 39072), (102, 39021), (128, 38958), (139, 38913), (145, 38904), (163, 38823), (176, 38766), (184, 38730), (188, 38700), (209, 38589),

Gene: RosieMae\_60 Start: 39352, Stop: 38621, Start Num: 45

Candidate Starts for RosieMae\_60:

(Start: 45 @39352 has 383 MA's), (62, 39250), (82, 39133), (102, 39082), (128, 39019), (139, 38974), (145, 38965), (163, 38884), (176, 38827), (184, 38791), (188, 38761), (209, 38650),

Gene: Rummer\_83 Start: 47068, Stop: 46301, Start Num: 45

Candidate Starts for Rummer\_83:

(35, 47113), (Start: 45 @47068 has 383 MA's), (51, 47047), (57, 47002), (59, 46981), (Start: 60 @46975 has 1 MA's), (Start: 64 @46933 has 2 MA's), (69, 46903), (71, 46888), (94, 46786), (95, 46783), (105, 46747), (131, 46675), (136, 46654), (167, 46525), (175, 46492), (182, 46465),

Gene: RyeScarlet\_89 Start: 48673, Stop: 47912, Start Num: 45

Candidate Starts for RyeScarlet\_89:

(21, 48799), (Start: 45 @48673 has 383 MA's), (56, 48613), (59, 48589), (62, 48562), (65, 48535), (73, 48481), (84, 48433), (90, 48415), (94, 48391), (114, 48340), (124, 48313), (131, 48286), (182, 48073), (183, 48070), (188, 48037), (210, 47935),

Gene: SJay\_59 Start: 39592, Stop: 38861, Start Num: 45

Candidate Starts for SJay\_59:

(Start: 45 @39592 has 383 MA's), (62, 39490), (82, 39373), (102, 39322), (128, 39259), (139, 39214), (145, 39205), (163, 39124), (176, 39067), (184, 39031), (188, 39001), (209, 38890),

Gene: Sabia\_82 Start: 47048, Stop: 46281, Start Num: 45

Candidate Starts for Sabia\_82:

(Start: 37 @47081 has 1 MA's), (Start: 45 @47048 has 383 MA's), (51, 47027), (57, 46982), (59, 46961), (Start: 60 @46955 has 1 MA's), (Start: 64 @46913 has 2 MA's), (69, 46883), (71, 46868), (94, 46766), (95, 46763), (105, 46727), (131, 46655), (136, 46634), (167, 46505), (175, 46472), (182, 46445),

Gene: Sabinator\_82 Start: 47042, Stop: 46275, Start Num: 45

Candidate Starts for Sabinator\_82:

(35, 47087), (Start: 45 @47042 has 383 MA's), (51, 47021), (57, 46976), (59, 46955), (Start: 60 @46949 has 1 MA's), (Start: 64 @46907 has 2 MA's), (69, 46877), (71, 46862), (94, 46760), (95, 46757), (105, 46721), (131, 46649), (136, 46628), (167, 46499), (175, 46466), (182, 46439),

Gene: Sachima\_84 Start: 48711, Stop: 47950, Start Num: 45

Candidate Starts for Sachima\_84:

(21, 48837), (Start: 45 @48711 has 383 MA's), (56, 48651), (59, 48627), (62, 48600), (65, 48573), (73, 48519), (84, 48471), (90, 48453), (94, 48429), (114, 48378), (124, 48351), (131, 48324), (182, 48111), (183, 48108), (188, 48075), (210, 47973),

Gene: Salz\_81 Start: 46125, Stop: 45367, Start Num: 45

Candidate Starts for Salz\_81:

(Start: 45 @46125 has 383 MA's), (51, 46101), (56, 46059), (62, 46008), (Start: 64 @45987 has 2 MA's), (66, 45978), (69, 45957), (70, 45951), (71, 45942), (92, 45855), (94, 45840), (114, 45792), (124, 45765), (131, 45738), (202, 45435), (210, 45390),

Gene: Sansa\_54 Start: 37536, Stop: 36811, Start Num: 45

Candidate Starts for Sansa\_54:

(Start: 45 @37536 has 383 MA's), (62, 37434), (82, 37326), (128, 37209), (138, 37173), (141, 37161), (163, 37074), (176, 37017),

Gene: Sapo\_49 Start: 39622, Stop: 40341, Start Num: 45

Candidate Starts for Sapo\_49:

(Start: 45 @39622 has 383 MA's), (56, 39697), (66, 39778), (86, 39886), (108, 39949), (112, 39955), (163, 40099), (167, 40120), (195, 40237),

Gene: Saratos\_56 Start: 37580, Stop: 36855, Start Num: 45

Candidate Starts for Saratos\_56:

(Start: 45 @37580 has 383 MA's), (62, 37478), (82, 37370), (116, 37283), (128, 37253), (138, 37217), (141, 37205), (163, 37118), (176, 37061),

Gene: Scherzo\_86 Start: 48728, Stop: 47967, Start Num: 45

Candidate Starts for Scherzo\_86:

(21, 48854), (Start: 45 @48728 has 383 MA's), (56, 48668), (59, 48644), (62, 48617), (65, 48590), (73, 48536), (84, 48488), (90, 48470), (94, 48446), (114, 48395), (124, 48368), (131, 48341), (182, 48128), (183, 48125), (188, 48092), (210, 47990),

Gene: Schimmels22\_51 Start: 36265, Stop: 35531, Start Num: 45

Candidate Starts for Schimmels22\_51:

(Start: 45 @36265 has 383 MA's), (54, 36232), (62, 36163), (82, 36046), (88, 36028), (102, 35995), (120, 35950), (131, 35917), (163, 35794), (169, 35767), (176, 35737), (183, 35707), (187, 35683), (188, 35671),

Gene: Schnapsidee\_58 Start: 39452, Stop: 38721, Start Num: 45

Candidate Starts for Schnapsidee\_58:

(Start: 45 @39452 has 383 MA's), (61, 39353), (62, 39350), (82, 39233), (102, 39182), (139, 39074), (145, 39065), (163, 38984), (176, 38927), (184, 38891), (188, 38861), (199, 38813), (209, 38750),

Gene: Schubert\_51 Start: 36743, Stop: 35955, Start Num: 29

Candidate Starts for Schubert\_51:

(Start: 29 @36743 has 1 MA's), (42, 36695), (62, 36584), (82, 36467), (102, 36416), (113, 36389), (139, 36308), (141, 36305), (153, 36269), (175, 36164), (188, 36095), (209, 35984),

Gene: Scissor2024\_52 Start: 35911, Stop: 35177, Start Num: 45

Candidate Starts for Scissor2024\_52:

(Start: 45 @35911 has 383 MA's), (54, 35878), (55, 35875), (62, 35809), (82, 35692), (88, 35674), (102, 35641), (120, 35596), (131, 35563), (163, 35440), (169, 35413), (176, 35383), (183, 35353), (187, 35329), (188, 35317),

Gene: Sedgewig\_58 Start: 39252, Stop: 38521, Start Num: 45

Candidate Starts for Sedgewig\_58:

(Start: 45 @39252 has 383 MA's), (62, 39150), (82, 39033), (102, 38982), (128, 38919), (139, 38874), (145, 38865), (163, 38784), (176, 38727), (188, 38661), (209, 38550),

Gene: SemperFi\_84 Start: 48408, Stop: 47650, Start Num: 45

Candidate Starts for SemperFi\_84:

(Start: 45 @48408 has 383 MA's), (51, 48387), (56, 48345), (59, 48321), (62, 48294), (Start: 64 @48273 has 2 MA's), (70, 48237), (71, 48228), (84, 48168), (110, 48084), (114, 48075), (131, 48021), (142, 47985), (158, 47937), (176, 47838), (183, 47811), (196, 47745), (210, 47673),

Gene: Serenity\_87 Start: 47616, Stop: 46855, Start Num: 45



Candidate Starts for Serenity\_87:

(Start: 45 @47616 has 383 MA's), (51, 47592), (56, 47550), (Start: 64 @47478 has 2 MA's), (69, 47448), (70, 47442), (84, 47373), (114, 47283), (131, 47229), (156, 47145), (167, 47079), (182, 47019), (183, 47016), (202, 46923), (210, 46878),

Gene: Settecandela\_184 Start: 119829, Stop: 120656, Start Num: 45

Candidate Starts for Settecandela\_184:

(18, 119691), (Start: 45 @119829 has 383 MA's), (59, 119907), (Start: 60 @119913 has 1 MA's), (71, 120003), (78, 120027), (83, 120057), (126, 120189), (127, 120195), (145, 120255), (165, 120366), (179, 120435), (183, 120471),

Gene: ShaiHulud\_60 Start: 39557, Stop: 38826, Start Num: 45

Candidate Starts for ShaiHulud\_60:

(Start: 45 @39557 has 383 MA's), (62, 39455), (82, 39338), (102, 39287), (128, 39224), (139, 39179), (145, 39170), (163, 39089), (176, 39032), (184, 38996), (188, 38966), (209, 38855),

Gene: Sham4\_82 Start: 46211, Stop: 45453, Start Num: 45

Candidate Starts for Sham4\_82:

(Start: 45 @46211 has 383 MA's), (51, 46187), (56, 46145), (62, 46094), (Start: 64 @46073 has 2 MA's), (66, 46064), (69, 46043), (70, 46037), (71, 46028), (92, 45941), (94, 45926), (114, 45878), (124, 45851), (131, 45824), (202, 45521), (210, 45476),

Gene: Shamu\_56 Start: 37469, Stop: 36744, Start Num: 45

Candidate Starts for Shamu\_56:

(Start: 45 @37469 has 383 MA's), (62, 37367), (82, 37259), (116, 37172), (128, 37142), (138, 37106), (141, 37094), (163, 37007), (176, 36950),

Gene: SheaKeira\_83 Start: 47967, Stop: 47209, Start Num: 45

Candidate Starts for SheaKeira\_83:

(Start: 45 @47967 has 383 MA's), (51, 47949), (62, 47856), (65, 47829), (84, 47730), (94, 47688), (114, 47637), (124, 47610), (131, 47583), (136, 47562), (183, 47367), (188, 47334), (210, 47232),

Gene: Shee\_59 Start: 39545, Stop: 38814, Start Num: 45

Candidate Starts for Shee\_59:

(Start: 45 @39545 has 383 MA's), (62, 39443), (82, 39326), (102, 39275), (128, 39212), (139, 39167), (145, 39158), (163, 39077), (176, 39020), (188, 38954), (209, 38843),

Gene: Sinatra\_52 Start: 36136, Stop: 35399, Start Num: 45

Candidate Starts for Sinatra\_52:

(Start: 45 @36136 has 383 MA's), (62, 36025), (73, 35950), (76, 35938), (82, 35908), (115, 35830), (128, 35797), (138, 35761), (163, 35662), (164, 35659), (175, 35608), (183, 35575), (187, 35551), (190, 35530), (209, 35428),

Gene: SirVictor\_53 Start: 36703, Stop: 35975, Start Num: 45

Candidate Starts for SirVictor\_53:

(Start: 45 @36703 has 383 MA's), (62, 36601), (76, 36514), (82, 36484), (115, 36406), (128, 36373), (138, 36337), (158, 36277), (163, 36238), (164, 36235), (175, 36184), (183, 36151), (187, 36127), (190, 36106),

Gene: Sknot\_84 Start: 48019, Stop: 47261, Start Num: 45

Candidate Starts for Sknot\_84:

(Start: 45 @48019 has 383 MA's), (51, 47998), (53, 47986), (56, 47956), (59, 47932), (62, 47905), (Start: 64 @47884 has 2 MA's), (70, 47848), (71, 47839), (78, 47809), (84, 47779), (94, 47737), (110,

47695), (114, 47686), (131, 47632), (142, 47596), (158, 47548), (176, 47449), (182, 47425), (183, 47422), (210, 47284),

Gene: Smeagan\_87 Start: 48956, Stop: 48201, Start Num: 45

Candidate Starts for Smeagan\_87:

(Start: 45 @48956 has 383 MA's), (51, 48935), (56, 48893), (59, 48869), (Start: 64 @48821 has 2 MA's), (76, 48752), (84, 48716), (107, 48638), (131, 48569), (136, 48548), (182, 48362), (183, 48359), (210, 48221),

Gene: SnapTap\_84 Start: 48379, Stop: 47621, Start Num: 45

Candidate Starts for SnapTap\_84:

(Start: 45 @48379 has 383 MA's), (51, 48358), (56, 48316), (59, 48292), (62, 48265), (Start: 64 @48244 has 2 MA's), (70, 48208), (71, 48199), (84, 48139), (110, 48055), (114, 48046), (131, 47992), (142, 47956), (158, 47908), (176, 47809), (183, 47782), (196, 47716), (210, 47644),

Gene: Snape\_86 Start: 47318, Stop: 46560, Start Num: 45

Candidate Starts for Snape\_86:

(Start: 45 @47318 has 383 MA's), (51, 47294), (56, 47252), (62, 47201), (Start: 64 @47180 has 2 MA's), (66, 47171), (69, 47150), (70, 47144), (71, 47135), (92, 47048), (94, 47033), (114, 46985), (124, 46958), (131, 46931), (202, 46628), (210, 46583),

Gene: Snickers\_80 Start: 47013, Stop: 46246, Start Num: 45

Candidate Starts for Snickers\_80:

(Start: 37 @47046 has 1 MA's), (Start: 45 @47013 has 383 MA's), (51, 46992), (57, 46947), (59, 46926), (Start: 60 @46920 has 1 MA's), (Start: 64 @46878 has 2 MA's), (69, 46848), (71, 46833), (94, 46731), (95, 46728), (105, 46692), (131, 46620), (136, 46599), (167, 46470), (175, 46437), (182, 46410),

Gene: SoYo\_81 Start: 46956, Stop: 46189, Start Num: 45

Candidate Starts for SoYo\_81:

(35, 47001), (Start: 45 @46956 has 383 MA's), (51, 46935), (57, 46890), (59, 46869), (Start: 60 @46863 has 1 MA's), (Start: 64 @46821 has 2 MA's), (69, 46791), (71, 46776), (94, 46674), (95, 46671), (105, 46635), (131, 46563), (136, 46542), (167, 46413), (175, 46380), (182, 46353),

Gene: SoilDragon\_84 Start: 46516, Stop: 45716, Start Num: 37

Candidate Starts for SoilDragon\_84:

(Start: 37 @46516 has 1 MA's), (Start: 45 @46483 has 383 MA's), (51, 46462), (57, 46417), (59, 46396), (Start: 60 @46390 has 1 MA's), (Start: 64 @46348 has 2 MA's), (69, 46318), (71, 46303), (94, 46201), (95, 46198), (105, 46162), (131, 46090), (136, 46069), (167, 45940), (175, 45907), (182, 45880),

Gene: SoilGremlin\_59 Start: 39341, Stop: 38610, Start Num: 45

Candidate Starts for SoilGremlin\_59:

(Start: 45 @39341 has 383 MA's), (62, 39239), (82, 39122), (102, 39071), (128, 39008), (139, 38963), (145, 38954), (163, 38873), (176, 38816), (188, 38750), (209, 38639),

Gene: SonOfLevi\_59 Start: 39319, Stop: 38588, Start Num: 45

Candidate Starts for SonOfLevi\_59:

(Start: 45 @39319 has 383 MA's), (62, 39217), (82, 39100), (102, 39049), (128, 38986), (139, 38941), (145, 38932), (163, 38851), (176, 38794), (184, 38758), (188, 38728), (209, 38617),

Gene: Soshari\_86 Start: 47064, Stop: 46297, Start Num: 45

Candidate Starts for Soshari\_86:

(35, 47109), (Start: 45 @47064 has 383 MA's), (51, 47043), (57, 46998), (59, 46977), (Start: 60 @46971 has 1 MA's), (Start: 64 @46929 has 2 MA's), (69, 46899), (71, 46884), (94, 46782), (95, 46779), (105, 46743), (131, 46671), (136, 46650), (167, 46521), (175, 46488), (182, 46461),

Gene: Soups\_87 Start: 47266, Stop: 46484, Start Num: 31

Candidate Starts for Soups\_87:

(27, 47296), (Start: 31 @47266 has 1 MA's), (39, 47245), (Start: 45 @47200 has 383 MA's), (51, 47176), (62, 47083), (71, 47017), (83, 46960), (89, 46942), (94, 46915), (104, 46885), (107, 46879), (110, 46873), (114, 46864), (131, 46810), (134, 46798), (183, 46642),

Gene: Spike509\_84 Start: 47065, Stop: 46298, Start Num: 45

Candidate Starts for Spike509\_84:

(Start: 37 @47098 has 1 MA's), (Start: 45 @47065 has 383 MA's), (51, 47044), (57, 46999), (59, 46978), (Start: 60 @46972 has 1 MA's), (Start: 64 @46930 has 2 MA's), (69, 46900), (71, 46885), (94, 46783), (95, 46780), (105, 46744), (131, 46672), (136, 46651), (167, 46522), (175, 46489), (182, 46462),

Gene: Spouty\_86 Start: 48466, Stop: 47705, Start Num: 45

Candidate Starts for Spouty\_86:

(Start: 45 @48466 has 383 MA's), (56, 48406), (62, 48355), (65, 48328), (73, 48274), (84, 48226), (90, 48208), (94, 48184), (114, 48133), (124, 48106), (125, 48103), (131, 48079), (182, 47866), (183, 47863), (188, 47830), (210, 47728),

Gene: SqueakyClean\_66 Start: 44668, Stop: 43940, Start Num: 45

Candidate Starts for SqueakyClean\_66:

(Start: 45 @44668 has 383 MA's), (62, 44554), (111, 44377), (167, 44194), (184, 44113), (187, 44095), (211, 43957),

Gene: Stagni\_81 Start: 47043, Stop: 46276, Start Num: 45

Candidate Starts for Stagni\_81:

(Start: 37 @47076 has 1 MA's), (Start: 45 @47043 has 383 MA's), (51, 47022), (57, 46977), (59, 46956), (Start: 60 @46950 has 1 MA's), (Start: 64 @46908 has 2 MA's), (69, 46878), (71, 46863), (94, 46761), (95, 46758), (105, 46722), (131, 46650), (136, 46629), (167, 46500), (175, 46467), (182, 46440),

Gene: Stanktossa\_58 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for Stanktossa\_58:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (188, 38957), (209, 38846),

Gene: StarStuff\_84 Start: 48005, Stop: 47232, Start Num: 46

Candidate Starts for StarStuff\_84:

(Start: 46 @48005 has 10 MA's), (51, 47981), (56, 47939), (59, 47915), (Start: 64 @47867 has 2 MA's), (69, 47837), (70, 47831), (92, 47735), (94, 47720), (98, 47708), (131, 47606), (136, 47585), (183, 47393), (210, 47255),

Gene: Steamy\_83 Start: 49417, Stop: 48665, Start Num: 45

Candidate Starts for Steamy\_83:

(Start: 45 @49417 has 383 MA's), (51, 49399), (62, 49306), (69, 49255), (84, 49180), (90, 49162), (94, 49138), (107, 49102), (114, 49087), (131, 49033), (136, 49012), (145, 48994), (167, 48883), (169, 48877),

Gene: StepMih\_84 Start: 47034, Stop: 46267, Start Num: 45

Candidate Starts for StepMih\_84:

(Start: 37 @47067 has 1 MA's), (Start: 45 @47034 has 383 MA's), (51, 47013), (57, 46968), (59, 46947), (Start: 60 @46941 has 1 MA's), (Start: 64 @46899 has 2 MA's), (69, 46869), (71, 46854), (94, 46752), (95, 46749), (105, 46713), (131, 46641), (136, 46620), (167, 46491), (175, 46458), (182, 46431),

Gene: StingRay\_58 Start: 39342, Stop: 38611, Start Num: 45

Candidate Starts for StingRay\_58:

(Start: 45 @39342 has 383 MA's), (62, 39240), (82, 39123), (102, 39072), (128, 39009), (139, 38964), (145, 38955), (163, 38874), (176, 38817), (188, 38751), (209, 38640),

Gene: StirfryIV\_58 Start: 39264, Stop: 38533, Start Num: 45

Candidate Starts for StirfryIV\_58:

(Start: 45 @39264 has 383 MA's), (62, 39162), (82, 39045), (102, 38994), (128, 38931), (139, 38886), (145, 38877), (163, 38796), (176, 38739), (188, 38673), (209, 38562),

Gene: Stormbreaker8\_57 Start: 39319, Stop: 38588, Start Num: 45

Candidate Starts for Stormbreaker8\_57:

(Start: 45 @39319 has 383 MA's), (61, 39220), (62, 39217), (82, 39100), (102, 39049), (139, 38941), (145, 38932), (163, 38851), (176, 38794), (184, 38758), (188, 38728), (199, 38680), (209, 38617),

Gene: Strathdee\_59 Start: 39547, Stop: 38816, Start Num: 45

Candidate Starts for Strathdee\_59:

(Start: 45 @39547 has 383 MA's), (62, 39445), (82, 39328), (102, 39277), (128, 39214), (139, 39169), (145, 39160), (163, 39079), (176, 39022), (184, 38986), (188, 38956), (209, 38845),

Gene: Strosahl\_88 Start: 47411, Stop: 46695, Start Num: 45

Candidate Starts for Strosahl\_88:

(27, 47507), (Start: 31 @47477 has 1 MA's), (39, 47456), (Start: 45 @47411 has 383 MA's), (51, 47387), (62, 47294), (71, 47228), (83, 47171), (89, 47153), (94, 47126), (104, 47096), (107, 47090), (110, 47084), (114, 47075), (131, 47021), (134, 47009), (183, 46853),

Gene: Superchunk\_84 Start: 47204, Stop: 46461, Start Num: 45

Candidate Starts for Superchunk\_84:

(Start: 45 @47204 has 383 MA's), (51, 47186), (56, 47144), (62, 47093), (Start: 64 @47072 has 2 MA's), (77, 47000), (84, 46967), (94, 46925), (96, 46919), (114, 46874), (124, 46847), (131, 46820), (133, 46811), (182, 46625), (188, 46589), (197, 46553), (210, 46484),

Gene: Superfresh\_59 Start: 39604, Stop: 38873, Start Num: 45

Candidate Starts for Superfresh\_59:

(Start: 45 @39604 has 383 MA's), (62, 39502), (82, 39385), (102, 39334), (128, 39271), (139, 39226), (145, 39217), (163, 39136), (176, 39079), (188, 39013), (209, 38902),

Gene: SweetiePie\_84 Start: 48512, Stop: 47754, Start Num: 45

Candidate Starts for SweetiePie\_84:

(Start: 45 @48512 has 383 MA's), (51, 48491), (56, 48449), (59, 48425), (62, 48398), (Start: 64 @48377 has 2 MA's), (70, 48341), (71, 48332), (84, 48272), (110, 48188), (114, 48179), (131, 48125), (142, 48089), (158, 48041), (176, 47942), (183, 47915), (196, 47849), (210, 47777),

Gene: SwirlSquare\_87 Start: 46934, Stop: 46176, Start Num: 45

Candidate Starts for SwirlSquare\_87:

(17, 47099), (Start: 45 @46934 has 383 MA's), (51, 46910), (56, 46868), (59, 46844), (62, 46817), (Start: 64 @46796 has 2 MA's), (69, 46766), (71, 46751), (84, 46691), (85, 46688), (89, 46676), (94,

46649), (114, 46604), (131, 46550), (132, 46547), (176, 46364), (182, 46340), (183, 46337), (195, 46277), (210, 46199),

Gene: Symere\_60 Start: 39262, Stop: 38531, Start Num: 45

Candidate Starts for Symere\_60:

(Start: 45 @39262 has 383 MA's), (62, 39160), (82, 39043), (102, 38992), (128, 38929), (139, 38884), (145, 38875), (163, 38794), (176, 38737), (188, 38671), (209, 38560),

Gene: TarsusIV\_83 Start: 48405, Stop: 47653, Start Num: 45

Candidate Starts for TarsusIV\_83:

(Start: 45 @48405 has 383 MA's), (51, 48384), (53, 48372), (59, 48318), (62, 48291), (79, 48180), (84, 48165), (94, 48123), (110, 48081), (131, 48018), (167, 47868), (182, 47811), (183, 47808), (188, 47775), (210, 47673),

Gene: TatarkaPM\_59 Start: 39558, Stop: 38827, Start Num: 45

Candidate Starts for TatarkaPM\_59:

(Start: 45 @39558 has 383 MA's), (62, 39456), (82, 39339), (102, 39288), (128, 39225), (139, 39180), (145, 39171), (163, 39090), (176, 39033), (188, 38967), (209, 38856),

Gene: Taurus\_85 Start: 47043, Stop: 46276, Start Num: 45

Candidate Starts for Taurus\_85:

(Start: 37 @47076 has 1 MA's), (Start: 45 @47043 has 383 MA's), (51, 47022), (57, 46977), (59, 46956), (Start: 60 @46950 has 1 MA's), (Start: 64 @46908 has 2 MA's), (69, 46878), (71, 46863), (94, 46761), (95, 46758), (105, 46722), (131, 46650), (136, 46629), (167, 46500), (175, 46467), (182, 46440),

Gene: Teagan\_59 Start: 39538, Stop: 38807, Start Num: 45

Candidate Starts for Teagan\_59:

(Start: 45 @39538 has 383 MA's), (62, 39436), (82, 39319), (102, 39268), (128, 39205), (139, 39160), (145, 39151), (163, 39070), (176, 39013), (188, 38947), (209, 38836),

Gene: TeddyBear\_58 Start: 39301, Stop: 38570, Start Num: 45

Candidate Starts for TeddyBear\_58:

(Start: 45 @39301 has 383 MA's), (62, 39199), (82, 39082), (102, 39031), (128, 38968), (139, 38923), (145, 38914), (163, 38833), (176, 38776), (184, 38740), (188, 38710), (209, 38599),

Gene: Tenda\_58 Start: 39299, Stop: 38568, Start Num: 45

Candidate Starts for Tenda\_58:

(Start: 45 @39299 has 383 MA's), (62, 39197), (82, 39080), (102, 39029), (128, 38966), (139, 38921), (145, 38912), (163, 38831), (176, 38774), (184, 38738), (188, 38708), (209, 38597),

Gene: Teng\_66 Start: 35741, Stop: 36484, Start Num: 45

Candidate Starts for Teng\_66:

(1, 35036), (2, 35039), (3, 35078), (5, 35390), (6, 35414), (8, 35453), (9, 35498), (10, 35522), (33, 35687), (Start: 45 @35741 has 383 MA's), (54, 35786), (62, 35855), (73, 35930), (85, 35981), (99, 36014), (100, 36020), (128, 36080), (139, 36125), (145, 36134), (172, 36254), (175, 36269), (183, 36302), (184, 36308), (188, 36338), (190, 36347), (206, 36431), (215, 36473),

Gene: Terrific\_85 Start: 47993, Stop: 47235, Start Num: 45

Candidate Starts for Terrific\_85:

(Start: 45 @47993 has 383 MA's), (51, 47972), (53, 47960), (56, 47930), (59, 47906), (62, 47879), (Start: 64 @47858 has 2 MA's), (70, 47822), (71, 47813), (78, 47783), (84, 47753), (94, 47711), (110, 47669), (114, 47660), (131, 47606), (142, 47570), (158, 47522), (176, 47423), (182, 47399), (183,

47396), (210, 47258),

Gene: Thestral\_68 Start: 45402, Stop: 44662, Start Num: 45

Candidate Starts for Thestral\_68:

(19, 45543), (Start: 32 @45459 has 1 MA's), (Start: 45 @45402 has 383 MA's), (62, 45282), (65, 45255), (102, 45129), (135, 45039), (150, 45000), (157, 44982), (163, 44943), (167, 44922),

Gene: Thompsone\_59 Start: 39545, Stop: 38814, Start Num: 45

Candidate Starts for Thompsone\_59:

(Start: 45 @39545 has 383 MA's), (62, 39443), (82, 39326), (102, 39275), (128, 39212), (139, 39167), (145, 39158), (163, 39077), (176, 39020), (188, 38954), (209, 38843),

Gene: Thorongil\_59 Start: 39062, Stop: 38331, Start Num: 45

Candidate Starts for Thorongil\_59:

(Start: 45 @39062 has 383 MA's), (62, 38960), (82, 38843), (102, 38792), (128, 38729), (139, 38684), (145, 38675), (163, 38594), (176, 38537), (188, 38471), (209, 38360),

Gene: Tiffany\_83 Start: 46928, Stop: 46161, Start Num: 45

Candidate Starts for Tiffany\_83:

(35, 46973), (Start: 45 @46928 has 383 MA's), (51, 46907), (57, 46862), (59, 46841), (Start: 60 @46835 has 1 MA's), (Start: 64 @46793 has 2 MA's), (69, 46763), (71, 46748), (94, 46646), (95, 46643), (105, 46607), (131, 46535), (136, 46514), (167, 46385), (175, 46352), (182, 46325),

Gene: Timothy\_86 Start: 47295, Stop: 46537, Start Num: 45

Candidate Starts for Timothy\_86:

(Start: 45 @47295 has 383 MA's), (51, 47271), (56, 47229), (62, 47178), (Start: 64 @47157 has 2 MA's), (66, 47148), (69, 47127), (70, 47121), (71, 47112), (92, 47025), (94, 47010), (114, 46962), (124, 46935), (131, 46908), (202, 46605), (210, 46560),

Gene: TinSulphur\_60 Start: 39554, Stop: 38823, Start Num: 45

Candidate Starts for TinSulphur\_60:

(Start: 45 @39554 has 383 MA's), (62, 39452), (82, 39335), (102, 39284), (128, 39221), (139, 39176), (145, 39167), (163, 39086), (176, 39029), (188, 38963), (209, 38852),

Gene: TinaBelcher\_66 Start: 45320, Stop: 44529, Start Num: 32

Candidate Starts for TinaBelcher\_66:

(Start: 24 @45362 has 2 MA's), (26, 45356), (Start: 32 @45320 has 1 MA's), (Start: 45 @45263 has 383 MA's), (50, 45254), (62, 45149), (65, 45122), (102, 44996), (135, 44906), (150, 44867), (157, 44849), (163, 44810), (167, 44789),

Gene: TinyPebbles\_80 Start: 47072, Stop: 46305, Start Num: 45

Candidate Starts for TinyPebbles\_80:

(35, 47117), (Start: 45 @47072 has 383 MA's), (51, 47051), (57, 47006), (59, 46985), (Start: 60 @46979 has 1 MA's), (Start: 64 @46937 has 2 MA's), (69, 46907), (71, 46892), (94, 46790), (95, 46787), (105, 46751), (131, 46679), (136, 46658), (167, 46529), (175, 46496), (182, 46469),

Gene: TinyTimmy\_84 Start: 47024, Stop: 46266, Start Num: 45

Candidate Starts for TinyTimmy\_84:

(Start: 45 @47024 has 383 MA's), (51, 47000), (56, 46958), (62, 46907), (Start: 64 @46886 has 2 MA's), (66, 46877), (69, 46856), (70, 46850), (71, 46841), (92, 46754), (94, 46739), (114, 46691), (124, 46664), (131, 46637), (202, 46334), (210, 46289),

Gene: Tinyman4\_51 Start: 35961, Stop: 35227, Start Num: 45

Candidate Starts for Tinyman4\_51:

(Start: 45 @35961 has 383 MA's), (54, 35928), (62, 35859), (82, 35742), (88, 35724), (102, 35691), (120, 35646), (131, 35613), (163, 35490), (169, 35463), (176, 35433), (183, 35403), (187, 35379), (188, 35367),

Gene: TopsytheTRex\_83 Start: 47618, Stop: 46857, Start Num: 45

Candidate Starts for TopsytheTRex\_83:

(Start: 45 @47618 has 383 MA's), (51, 47594), (56, 47552), (Start: 64 @47480 has 2 MA's), (69, 47450), (70, 47444), (84, 47375), (114, 47285), (131, 47231), (156, 47147), (167, 47081), (182, 47021), (183, 47018), (202, 46925), (210, 46880),

Gene: Toaka\_86 Start: 48570, Stop: 47812, Start Num: 45

Candidate Starts for Toaka\_86:

(Start: 45 @48570 has 383 MA's), (51, 48552), (59, 48486), (62, 48459), (65, 48432), (84, 48333), (94, 48291), (114, 48240), (124, 48213), (131, 48186), (134, 48174), (145, 48147), (148, 48135), (183, 47970), (210, 47835),

Gene: Tomathan\_84 Start: 48083, Stop: 47310, Start Num: 46

Candidate Starts for Tomathan\_84:

(Start: 46 @48083 has 10 MA's), (51, 48059), (56, 48017), (59, 47993), (Start: 64 @47945 has 2 MA's), (69, 47915), (70, 47909), (92, 47813), (94, 47798), (98, 47786), (131, 47684), (136, 47663), (183, 47471), (210, 47333),

Gene: Travvers\_84 Start: 48000, Stop: 47227, Start Num: 46

Candidate Starts for Travvers\_84:

(Start: 46 @48000 has 10 MA's), (51, 47976), (56, 47934), (59, 47910), (Start: 64 @47862 has 2 MA's), (69, 47832), (70, 47826), (85, 47754), (92, 47730), (94, 47715), (98, 47703), (131, 47601), (136, 47580), (183, 47388), (210, 47250),

Gene: Trixie\_84 Start: 48979, Stop: 48218, Start Num: 43

Candidate Starts for Trixie\_84:

(Start: 43 @48979 has 3 MA's), (Start: 45 @48976 has 383 MA's), (51, 48952), (56, 48910), (59, 48886), (62, 48859), (70, 48802), (71, 48793), (76, 48769), (84, 48733), (110, 48655), (114, 48646), (131, 48592), (152, 48517), (167, 48436), (183, 48376), (193, 48328), (195, 48316), (210, 48238),

Gene: Trooper\_83 Start: 47964, Stop: 47212, Start Num: 45

Candidate Starts for Trooper\_83:

(Start: 45 @47964 has 383 MA's), (51, 47943), (53, 47931), (59, 47877), (62, 47850), (84, 47724), (94, 47682), (110, 47640), (131, 47577), (182, 47370), (183, 47367), (188, 47334), (210, 47232),

Gene: TrvxScott\_65 Start: 45467, Stop: 44634, Start Num: 24

Candidate Starts for TrvxScott\_65:

(Start: 24 @45467 has 2 MA's), (26, 45461), (Start: 32 @45425 has 1 MA's), (Start: 45 @45368 has 383 MA's), (50, 45359), (62, 45254), (65, 45227), (135, 45011), (150, 44972), (157, 44954), (163, 44915), (167, 44894),

Gene: Tubs\_88 Start: 48683, Stop: 47922, Start Num: 45

Candidate Starts for Tubs\_88:

(Start: 45 @48683 has 383 MA's), (56, 48623), (62, 48572), (65, 48545), (73, 48491), (84, 48443), (90, 48425), (94, 48401), (114, 48350), (124, 48323), (131, 48296), (182, 48083), (183, 48080), (188, 48047), (210, 47945),

Gene: Turbido\_85 Start: 48677, Stop: 47922, Start Num: 45

Candidate Starts for Turbido\_85:

(Start: 45 @48677 has 383 MA's), (51, 48656), (56, 48614), (59, 48590), (Start: 64 @48542 has 2 MA's), (76, 48473), (84, 48437), (107, 48359), (131, 48290), (136, 48269), (182, 48083), (183, 48080), (210, 47942),

Gene: Ugenie5\_75 Start: 46172, Stop: 45411, Start Num: 45

Candidate Starts for Ugenie5\_75:

(21, 46298), (Start: 45 @46172 has 383 MA's), (56, 46112), (59, 46088), (62, 46061), (65, 46034), (73, 45980), (84, 45932), (90, 45914), (94, 45890), (114, 45839), (124, 45812), (131, 45785), (182, 45572), (183, 45569), (188, 45536), (210, 45434),

Gene: Updawg\_85 Start: 48207, Stop: 47449, Start Num: 45

Candidate Starts for Updawg\_85:

(Start: 45 @48207 has 383 MA's), (51, 48186), (53, 48174), (56, 48144), (59, 48120), (62, 48093), (Start: 64 @48072 has 2 MA's), (70, 48036), (71, 48027), (78, 47997), (84, 47967), (110, 47883), (114, 47874), (131, 47820), (142, 47784), (158, 47736), (176, 47637), (182, 47613), (183, 47610), (210, 47472),

Gene: VA6\_84 Start: 48305, Stop: 47550, Start Num: 45

Candidate Starts for VA6\_84:

(Start: 45 @48305 has 383 MA's), (51, 48284), (56, 48242), (62, 48191), (Start: 64 @48170 has 2 MA's), (70, 48134), (71, 48125), (78, 48095), (84, 48065), (114, 47972), (131, 47918), (142, 47882), (144, 47879), (158, 47834), (176, 47735), (183, 47708), (193, 47660), (210, 47570),

Gene: VC3\_82 Start: 46905, Stop: 46132, Start Num: 46

Candidate Starts for VC3\_82:

(Start: 46 @46905 has 10 MA's), (51, 46881), (56, 46839), (59, 46815), (Start: 64 @46767 has 2 MA's), (69, 46737), (70, 46731), (85, 46659), (92, 46635), (94, 46620), (98, 46608), (131, 46506), (136, 46485), (183, 46293), (210, 46155),

Gene: VanLee\_161 Start: 81358, Stop: 80615, Start Num: 47

Candidate Starts for VanLee\_161:

(Start: 47 @81358 has 5 MA's), (59, 81268), (67, 81208), (85, 81124), (91, 81106), (96, 81079), (97, 81076), (106, 81052), (117, 81025), (131, 80983), (137, 80962), (159, 80896), (160, 80875), (161, 80872), (178, 80797), (181, 80788), (186, 80758),

Gene: Vanisoa\_83 Start: 48902, Stop: 48144, Start Num: 45

Candidate Starts for Vanisoa\_83:

(Start: 45 @48902 has 383 MA's), (51, 48884), (62, 48791), (65, 48764), (84, 48665), (90, 48647), (94, 48623), (114, 48572), (124, 48545), (131, 48518), (183, 48302), (188, 48269), (210, 48167),

Gene: Velene\_59 Start: 39544, Stop: 38813, Start Num: 45

Candidate Starts for Velene\_59:

(Start: 45 @39544 has 383 MA's), (62, 39442), (82, 39325), (102, 39274), (128, 39211), (139, 39166), (145, 39157), (163, 39076), (176, 39019), (188, 38953), (209, 38842),

Gene: Vispitious\_59 Start: 39548, Stop: 38817, Start Num: 45

Candidate Starts for Vispitious\_59:

(Start: 45 @39548 has 383 MA's), (62, 39446), (82, 39329), (102, 39278), (128, 39215), (139, 39170), (145, 39161), (163, 39080), (176, 39023), (184, 38987), (188, 38957), (209, 38846),

Gene: Vix\_80 Start: 47123, Stop: 46356, Start Num: 45

Candidate Starts for Vix\_80:



(35, 47168), (Start: 45 @47123 has 383 MA's), (51, 47102), (57, 47057), (59, 47036), (Start: 60 @47030 has 1 MA's), (Start: 64 @46988 has 2 MA's), (69, 46958), (71, 46943), (94, 46841), (95, 46838), (105, 46802), (131, 46730), (136, 46709), (167, 46580), (175, 46547), (182, 46520),

Gene: Warrior24\_90 Start: 47992, Stop: 47276, Start Num: 45

Candidate Starts for Warrior24\_90:

(27, 48088), (39, 48037), (Start: 45 @47992 has 383 MA's), (51, 47968), (71, 47809), (79, 47764), (83, 47752), (89, 47734), (94, 47707), (104, 47677), (107, 47671), (110, 47665), (114, 47656), (131, 47602), (134, 47590), (196, 47368),

Gene: Watson\_83 Start: 47032, Stop: 46265, Start Num: 45

Candidate Starts for Watson\_83:

(Start: 37 @47065 has 1 MA's), (Start: 45 @47032 has 383 MA's), (51, 47011), (57, 46966), (59, 46945), (Start: 60 @46939 has 1 MA's), (Start: 64 @46897 has 2 MA's), (69, 46867), (71, 46852), (94, 46750), (95, 46747), (105, 46711), (131, 46639), (136, 46618), (167, 46489), (175, 46456), (182, 46429),

Gene: WeiHuaDA\_86 Start: 49232, Stop: 48477, Start Num: 45

Candidate Starts for WeiHuaDA\_86:

(Start: 45 @49232 has 383 MA's), (51, 49211), (56, 49169), (59, 49145), (62, 49118), (Start: 64 @49097 has 2 MA's), (70, 49061), (71, 49052), (76, 49028), (84, 48992), (110, 48914), (114, 48905), (131, 48851), (182, 48638), (183, 48635), (193, 48587), (195, 48575), (210, 48497),

Gene: WestPM\_51 Start: 36179, Stop: 35445, Start Num: 45

Candidate Starts for WestPM\_51:

(Start: 45 @36179 has 383 MA's), (54, 36146), (62, 36077), (82, 35960), (88, 35942), (102, 35909), (120, 35864), (131, 35831), (145, 35792), (163, 35708), (176, 35651), (183, 35621), (187, 35597), (188, 35585),

Gene: Whabigail7\_84 Start: 48675, Stop: 47920, Start Num: 45

Candidate Starts for Whabigail7\_84:

(Start: 45 @48675 has 383 MA's), (51, 48654), (56, 48612), (59, 48588), (Start: 64 @48540 has 2 MA's), (76, 48471), (84, 48435), (107, 48357), (131, 48288), (136, 48267), (182, 48081), (183, 48078), (210, 47940),

Gene: WideWale\_85 Start: 48207, Stop: 47449, Start Num: 45

Candidate Starts for WideWale\_85:

(Start: 45 @48207 has 383 MA's), (51, 48186), (53, 48174), (56, 48144), (59, 48120), (62, 48093), (Start: 64 @48072 has 2 MA's), (70, 48036), (71, 48027), (78, 47997), (84, 47967), (110, 47883), (114, 47874), (131, 47820), (142, 47784), (158, 47736), (176, 47637), (182, 47613), (183, 47610), (210, 47472),

Gene: WildNOut\_59 Start: 39541, Stop: 38810, Start Num: 45

Candidate Starts for WildNOut\_59:

(Start: 45 @39541 has 383 MA's), (62, 39439), (82, 39322), (102, 39271), (128, 39208), (139, 39163), (145, 39154), (163, 39073), (176, 39016), (188, 38950), (209, 38839),

Gene: Winzigespinne\_58 Start: 39287, Stop: 38556, Start Num: 45

Candidate Starts for Winzigespinne\_58:

(Start: 45 @39287 has 383 MA's), (62, 39185), (82, 39068), (102, 39017), (128, 38954), (139, 38909), (145, 38900), (163, 38819), (176, 38762), (188, 38696), (209, 38585),

Gene: Wooldri\_86 Start: 46949, Stop: 46182, Start Num: 45

Candidate Starts for Wooldri\_86:

(35, 46994), (Start: 45 @46949 has 383 MA's), (51, 46928), (57, 46883), (59, 46862), (Start: 60 @46856 has 1 MA's), (Start: 64 @46814 has 2 MA's), (69, 46784), (71, 46769), (94, 46667), (95, 46664), (105, 46628), (131, 46556), (136, 46535), (167, 46406), (175, 46373), (182, 46346),

Gene: XianYue\_83 Start: 48459, Stop: 47704, Start Num: 45

Candidate Starts for XianYue\_83:

(Start: 45 @48459 has 383 MA's), (51, 48438), (56, 48396), (59, 48372), (62, 48345), (Start: 64 @48324 has 2 MA's), (70, 48288), (71, 48279), (78, 48249), (84, 48219), (110, 48135), (114, 48126), (131, 48072), (140, 48039), (158, 47988), (182, 47865), (183, 47862), (210, 47724),

Gene: Yecey3\_89 Start: 48441, Stop: 47680, Start Num: 45

Candidate Starts for Yecey3\_89:

(22, 48561), (Start: 45 @48441 has 383 MA's), (56, 48381), (59, 48357), (62, 48330), (65, 48303), (73, 48249), (84, 48201), (90, 48183), (91, 48180), (94, 48159), (114, 48108), (124, 48081), (131, 48054), (145, 48015), (182, 47841), (183, 47838), (210, 47703),

Gene: Zada\_60 Start: 39560, Stop: 38829, Start Num: 45

Candidate Starts for Zada\_60:

(Start: 45 @39560 has 383 MA's), (62, 39458), (82, 39341), (102, 39290), (128, 39227), (139, 39182), (145, 39173), (163, 39092), (176, 39035), (188, 38969), (209, 38858),

Gene: Zenitsu\_56 Start: 37616, Stop: 36891, Start Num: 45

Candidate Starts for Zenitsu\_56:

(Start: 45 @37616 has 383 MA's), (62, 37514), (82, 37406), (116, 37319), (128, 37289), (138, 37253), (141, 37241), (163, 37154), (176, 37097),

Gene: Zimmer\_85 Start: 49879, Stop: 49121, Start Num: 45

Candidate Starts for Zimmer\_85:

(Start: 45 @49879 has 383 MA's), (51, 49858), (53, 49846), (59, 49792), (62, 49765), (69, 49714), (79, 49654), (84, 49639), (131, 49492), (136, 49471), (145, 49453), (154, 49414), (167, 49342), (210, 49144),