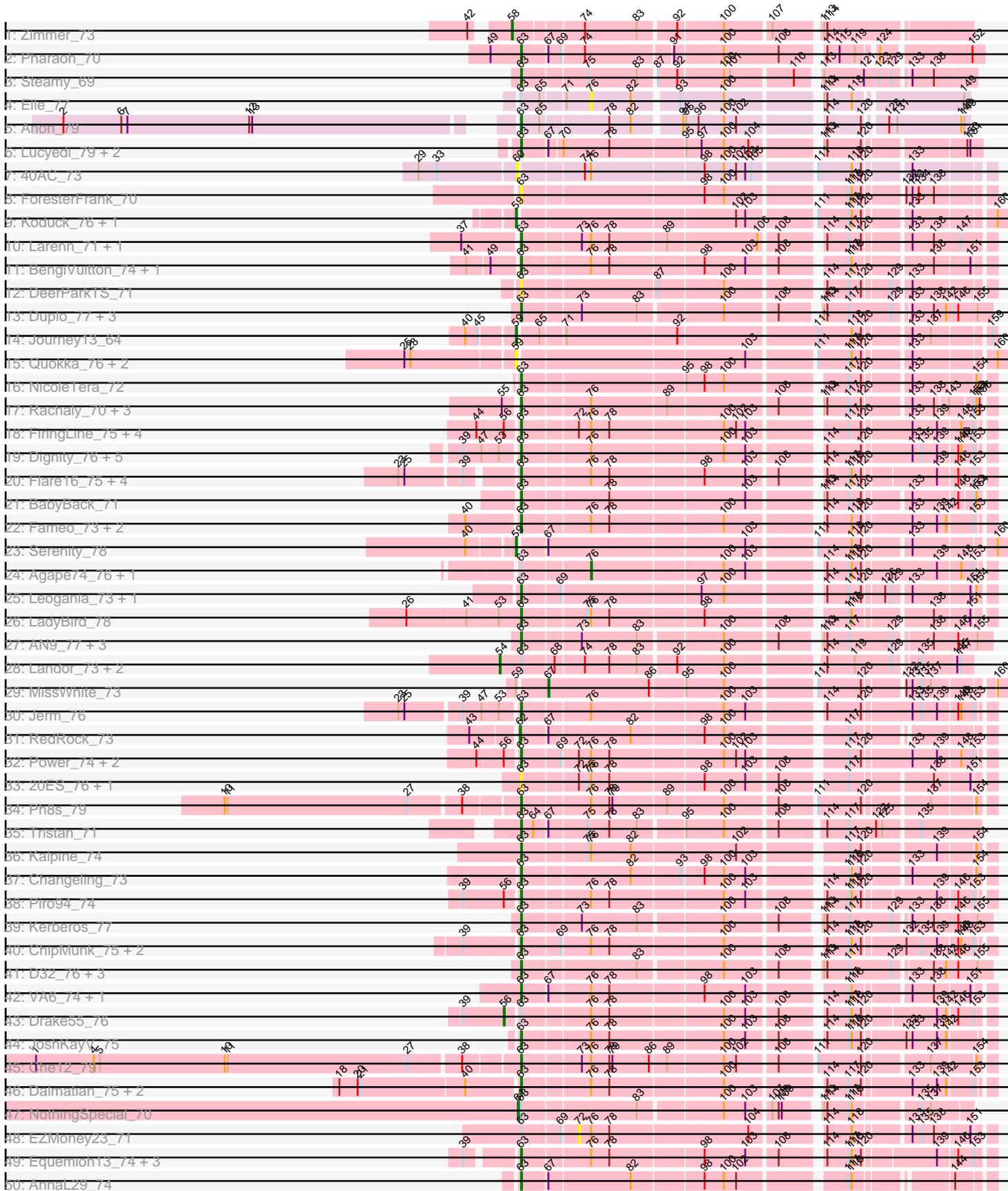
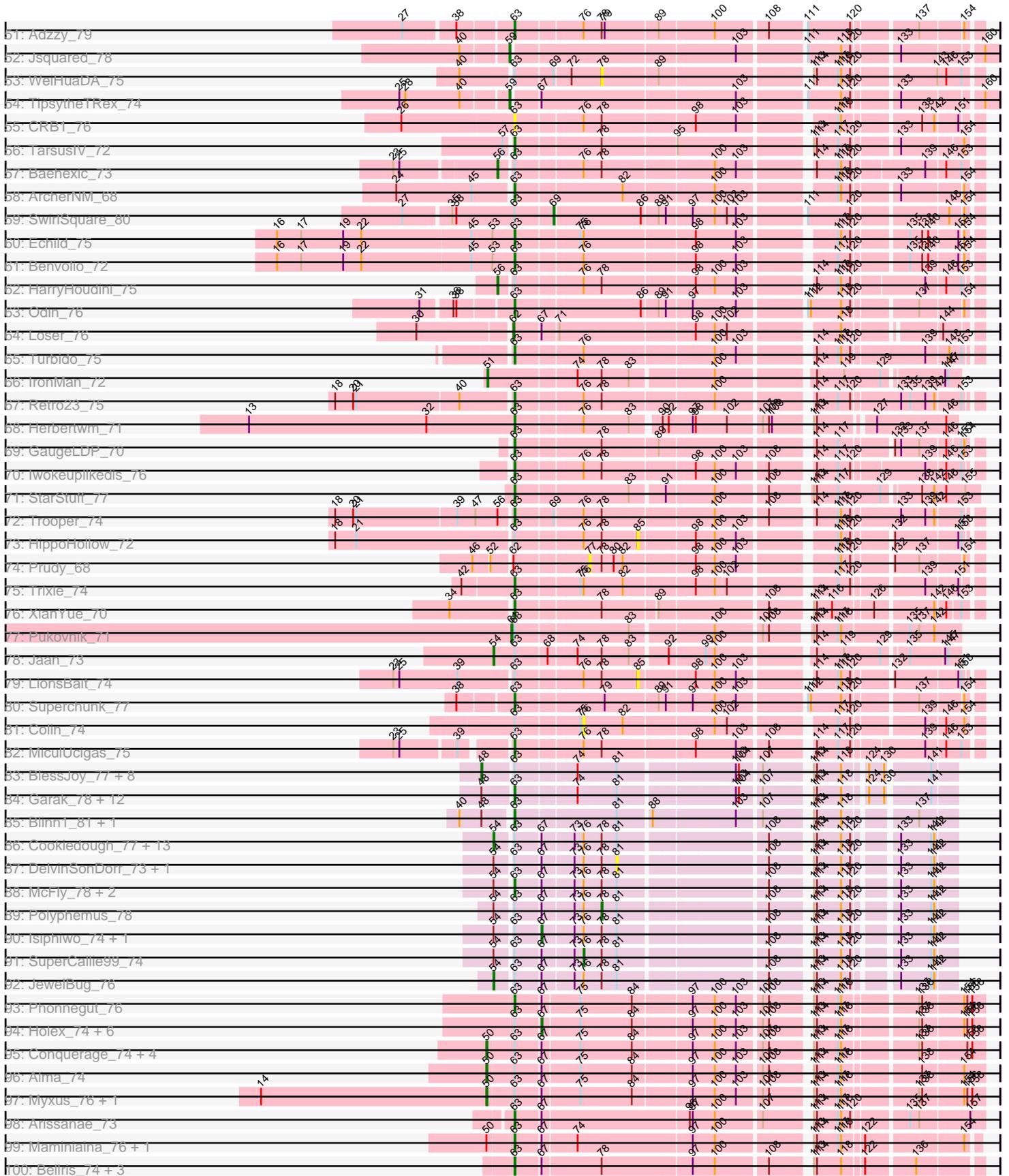


Pham 290828



Pham 290828





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 290828 Report

This analysis was run 03/28/26 on database version 641.

Pham number 290828 has 227 members, 38 are drafts.

Phages represented in each track:

- Track 1 : Zimmer\_73
- Track 2 : Pharaoh\_70
- Track 3 : Steamy\_69
- Track 4 : Elle\_77
- Track 5 : Anon\_79
- Track 6 : Lucyedi\_79, PainterBoy\_78, EagleEye\_80
- Track 7 : 40AC\_73
- Track 8 : ForesterFrank\_70
- Track 9 : Koduck\_76, L5\_70
- Track 10 : Larenn\_71, Malec\_72
- Track 11 : BengiVuitton\_74, Deloris\_74
- Track 12 : DeerParkTS\_71
- Track 13 : Duplo\_77, DBQu4n\_77, Pomar16\_77, Tomathan\_77
- Track 14 : Journey13\_64
- Track 15 : Quokka\_76, Bradman\_77, MajorMajor\_76
- Track 16 : NicoleTera\_72
- Track 17 : Rachaly\_70, Lokk\_68, BobSwaget\_67, Miko\_68
- Track 18 : FiringLine\_75, SemperFi\_75, SweetiePie\_74, QueenBeesly\_75, Crucio\_75
- Track 19 : Dignity\_76, Leviathan\_76, Smeagan\_77, Buggy\_76, LilTurb\_75, Whabigail7\_75
- Track 20 : Flare16\_75, Terrific\_75, NaSiaTalie\_75, Sknot\_75, Centaur\_75
- Track 21 : BabyBack\_71
- Track 22 : Fameo\_73, Heffalump\_72, QueenB2\_72
- Track 23 : Serenity\_78
- Track 24 : Agape74\_76, AbbyPaige\_76
- Track 25 : Leogania\_73, BiancaTri92\_73
- Track 26 : LadyBird\_78
- Track 27 : AN9\_77, C3\_70, VC3\_76, ANI8\_77
- Track 28 : Landor\_73, Phaded\_70, Bactobuster\_67
- Track 29 : MissWhite\_73
- Track 30 : Jerm\_76
- Track 31 : RedRock\_73
- Track 32 : Power\_74, SnapTap\_74, Georgie2\_76
- Track 33 : 20ES\_76, First\_0075
- Track 34 : Ph8s\_79
- Track 35 : Tristan\_71

- Track 36 : Kalpine\_74
- Track 37 : Changeling\_73
- Track 38 : Piro94\_74
- Track 39 : Kerberos\_77
- Track 40 : ChipMunk\_75, EvilGenius\_74, KingCyrus\_74
- Track 41 : D32\_76, Travvers\_76, D29\_70, Naji\_77
- Track 42 : VA6\_74, AN3\_76
- Track 43 : Drake55\_76
- Track 44 : JoshKayV\_75
- Track 45 : Che12\_79
- Track 46 : Dalmatian\_75, DudeLittle\_73, Anselm\_76
- Track 47 : NothingSpecial\_70
- Track 48 : EZMoney23\_71
- Track 49 : Equemioh13\_74, Gratitude\_72, Updawg\_75, WideWale\_75
- Track 50 : AnnaL29\_74
- Track 51 : Adzzy\_79
- Track 52 : Jsquared\_78
- Track 53 : WeiHuaDA\_75
- Track 54 : TipsytheTRex\_74
- Track 55 : CRB1\_76
- Track 56 : TarsusIV\_72
- Track 57 : Baehexic\_73
- Track 58 : ArcherNM\_68
- Track 59 : SwirlSquare\_80
- Track 60 : Echild\_75
- Track 61 : Benvolio\_72
- Track 62 : HarryHoudini\_75
- Track 63 : Odin\_76
- Track 64 : Loser\_76
- Track 65 : Turbido\_75
- Track 66 : IronMan\_72
- Track 67 : Retro23\_75
- Track 68 : Herbertwm\_71
- Track 69 : GaugeLDP\_70
- Track 70 : Iwokeuplikedis\_76
- Track 71 : StarStuff\_77
- Track 72 : Trooper\_74
- Track 73 : HippoHollow\_72
- Track 74 : Prudy\_68
- Track 75 : Trixie\_74
- Track 76 : XianYue\_70
- Track 77 : Pukovnik\_71
- Track 78 : Jaan\_73
- Track 79 : LionsBait\_74
- Track 80 : Superchunk\_77
- Track 81 : Colin\_74
- Track 82 : MiculUcigas\_75
- Track 83 : BlessJoy\_77, Gladiator\_74, Lilbunny\_76, Zaka\_77, Artemis2UCLA\_76, WunderPhul\_77, Helmet\_79, CloudWang3\_77, Blue7\_78
- Track 84 : Garak\_78, Rifter\_77, Tucker\_77, Hexamo\_76, ToneTone\_74, Yokurt\_76, Zulu\_78, Koko\_78, Hammer\_77, Temprado\_78, Roksolana\_77, Gruunaga\_76, Wiks\_76
- Track 85 : Blinn1\_81, Priamo\_78

- Track 86 : Cookiedough\_77, DaVinci\_75, Kazan\_78, Neeharika16\_76, Jordennis\_75, GreedyLawyer\_72, EricB\_76, Newrala\_76, VohminGhazi\_77, Kipper29\_77, Dorothea\_77, Pmask\_76, SuperAwesome\_77, Chartreuse\_76
- Track 87 : DelvinSonDorr\_73, Candra\_75
- Track 88 : McFly\_78, Hoot\_72, BABullseye\_70
- Track 89 : Polyphemus\_78
- Track 90 : Isiphiwo\_74, SmellyB\_77
- Track 91 : SuperCallie99\_74
- Track 92 : JewelBug\_76
- Track 93 : Phonnegut\_76
- Track 94 : Holes\_74, Beemo\_76, Jiawan\_73, Pioneer\_76, Hanray\_74, RyeScarlet\_77, Onglai\_74
- Track 95 : Conquerage\_74, Spouty\_74, Fayely\_74, Qobbit\_74, EmyBug\_73
- Track 96 : Alma\_74
- Track 97 : Myxus\_76, HortumSL17\_77
- Track 98 : Arissanae\_73
- Track 99 : Maminiaina\_76, BogosyJay\_76
- Track 100 : Bellris\_74, CogOmlette\_74, Rahalelujah\_76, Minispark\_74
- Track 101 : Tubs\_76, PackMan\_75, Catalina\_78, Phaeder\_76
- Track 102 : Celestiallunch\_71
- Track 103 : MegTheThird\_71
- Track 104 : Ayanochan\_74
- Track 105 : Priya\_74, ExplosioNervosa\_74, Eidsmoe\_74
- Track 106 : Sachima\_72, EdogawaKiddo\_74
- Track 107 : DreamTeam1\_70
- Track 108 : WorldCup\_74
- Track 109 : Scherzo\_75
- Track 110 : Klodlith\_71
- Track 111 : Elephantoon\_76
- Track 112 : Toaka\_76
- Track 113 : LoneWolf\_77
- Track 114 : Vanisoa\_73
- Track 115 : Ugenie5\_71
- Track 116 : Lilleskat\_73
- Track 117 : Charm\_70
- Track 118 : SheaKeira\_70
- Track 119 : Keziacharles14\_73

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

The start number called the most often in the published annotations is 63, it was called in 127 of the 189 non-draft genes in the pham.

Genes that call this "Most Annotated" start:

- 20ES\_76, AN3\_76, AN9\_77, ANI8\_77, Adzzy\_79, AnnaL29\_74, Anon\_79, Anselm\_76, ArcherNM\_68, Arissanae\_73, BABullseye\_70, BabyBack\_71, Bellris\_74, BengiVuitton\_74, Benvolio\_72, BiancaTri92\_73, Blinn1\_81, BobSwaget\_67, BogosyJay\_76, Buggy\_76, C3\_70, CRB1\_76, Catalina\_78, Celestiallunch\_71, Centaur\_75, Changeling\_73, Charm\_70, Che12\_79, ChipMunk\_75, CogOmlette\_74, Crucio\_75, D29\_70, D32\_76, DBQu4n\_77, Dalmatian\_75, DeerParkTS\_71,

Deloris\_74, Dignity\_76, DreamTeam1\_70, DudeLittle\_73, Duplo\_77, EagleEye\_80, Echild\_75, Eidsmoe\_74, Elephantoon\_76, Equemioh13\_74, EvilGenius\_74, ExplosioNervosa\_74, Fameo\_73, FiringLine\_75, First\_0075, Flare16\_75, ForesterFrank\_70, Garak\_78, GaugeLDP\_70, Georgie2\_76, Gratitude\_72, Gruunaga\_76, Hammer\_77, Heffalump\_72, Herbertwm\_71, Hexamo\_76, Hoot\_72, Iwokeuplikedis\_76, Jerm\_76, JoshKayV\_75, Kalpine\_74, Kerberos\_77, Keziacharles14\_73, KingCyrus\_74, Koko\_78, LadyBird\_78, Larenn\_71, Leogania\_73, Leviathan\_76, LilTurb\_75, Lilleskat\_73, Lokk\_68, LoneWolf\_77, Lucyedi\_79, Malec\_72, Maminiaina\_76, McFly\_78, MegTheThird\_71, MiculUcigas\_75, Miko\_68, Minispark\_74, NaSiaTalie\_75, Naji\_77, NicoleTera\_72, Odin\_76, PackMan\_75, PainterBoy\_78, Ph8s\_79, Phaeder\_76, Pharaoh\_70, Phonnegut\_76, Piro94\_74, Pomar16\_77, Power\_74, Priamo\_78, Priya\_74, QueenB2\_72, QueenBeesly\_75, Rachaly\_70, Rahalelujah\_76, Retro23\_75, Rifter\_77, Roksolana\_77, SemperFi\_75, SheaKeira\_70, Sknot\_75, Smeagan\_77, SnapTap\_74, StarStuff\_77, Steamy\_69, Superchunk\_77, SweetiePie\_74, TarsusIV\_72, Temprado\_78, Terrific\_75, Toaka\_76, Tomathan\_77, ToneTone\_74, Travvers\_76, Tristan\_71, Trixie\_74, Trooper\_74, Tubs\_76, Tucker\_77, Turbido\_75, Ugenie5\_71, Updawg\_75, VA6\_74, VC3\_76, Vanisoa\_73, Whabigail7\_75, WideWale\_75, Wiks\_76, WorldCup\_74, XianYue\_70, Yokurt\_76, Zulu\_78,

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

- AbbyPaige\_76, Agape74\_76, Alma\_74, Artemis2UCLA\_76, Ayanochan\_74, Bactobuster\_67, Baehexic\_73, Beemo\_76, BlessJoy\_77, Blue7\_78, Candra\_75, Chartreuse\_76, CloudWang3\_77, Colin\_74, Conquerage\_74, Cookiedough\_77, DaVinci\_75, DelvinSonDorr\_73, Dorothea\_77, Drake55\_76, EZMoney23\_71, EdogawaKiddo\_74, Elle\_77, EmyBug\_73, EricB\_76, Fayely\_74, Gladiator\_74, GreedyLawyer\_72, Hanray\_74, HarryHoudini\_75, Helmet\_79, HippoHollow\_72, Horex\_74, HortumSL17\_77, Isiphiwo\_74, Jaan\_73, JewelBug\_76, Jiawan\_73, Jordennis\_75, Kazan\_78, Kipper29\_77, Klodlith\_71, Landor\_73, Lilbunny\_76, LionsBait\_74, Myxus\_76, Neeharika16\_76, Newrala\_76, NothingSpecial\_70, Onglai\_74, Phaded\_70, Pioneer\_76, Pmask\_76, Polyphemus\_78, Pukovnik\_71, Qobbit\_74, RyeScarlet\_77, Sachima\_72, Scherzo\_75, SmellyB\_77, Spouty\_74, SuperAwesome\_77, SuperCallie99\_74, SwirlSquare\_80, VohminGhazi\_77, WeiHuaDA\_75, WunderPhul\_77, Zaka\_77,

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

- 40AC\_73, Bradman\_77, IronMan\_72, Journey13\_64, Jsquared\_78, Koduck\_76, L5\_70, Loser\_76, MajorMajor\_76, MissWhite\_73, Prudy\_68, Quokka\_76, RedRock\_73, Serenity\_78, TipsytheTRex\_74, Zimmer\_73,

### Summary by start number:

Start 48:

- Found in 24 of 227 ( 10.6% ) of genes in pham
- Manual Annotations of this start: 9 of 189
- Called 37.5% of time when present
- Phage (with cluster) where this start called: Artemis2UCLA\_76 (A6), BlessJoy\_77 (A6), Blue7\_78 (A6), CloudWang3\_77 (A6), Gladiator\_74 (A6), Helmet\_79 (A6), Lilbunny\_76 (A6), WunderPhul\_77 (A6), Zaka\_77 (A6),

Start 50:

- Found in 20 of 227 ( 8.8% ) of genes in pham
- Manual Annotations of this start: 9 of 189

- Called 45.0% of time when present
- Phage (with cluster) where this start called: Alma\_74 (A9), Conquerage\_74 (A9), EmyBug\_73 (A9), Fayely\_74 (A9), HortumSL17\_77 (A9), Myxus\_76 (A9), Qobbit\_74 (A9), Scherzo\_75 (A9), Spouty\_74 (A9),

#### Start 51:

- Found in 1 of 227 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: IronMan\_72 (A2),

#### Start 54:

- Found in 28 of 227 ( 12.3% ) of genes in pham
- Manual Annotations of this start: 19 of 189
- Called 67.9% of time when present
- Phage (with cluster) where this start called: Bactobuster\_67 (A2), Chartreuse\_76 (A6), Cookiedough\_77 (A6), DaVinci\_75 (A6), Dorothea\_77 (A6), EricB\_76 (A6), GreedyLawyer\_72 (A6), Jaan\_73 (A2), JewelBug\_76 (A6), Jordennis\_75 (A6), Kazan\_78 (A6), Kipper29\_77 (A6), Landor\_73 (A2), Neeharika16\_76 (A6), Newrala\_76 (A6), Phaded\_70 (A2), Pmask\_76 (A6), SuperAwesome\_77 (A6), VohminGhazi\_77 (A6),

#### Start 56:

- Found in 13 of 227 ( 5.7% ) of genes in pham
- Manual Annotations of this start: 3 of 189
- Called 23.1% of time when present
- Phage (with cluster) where this start called: Baehexic\_73 (A2), Drake55\_76 (A2), HarryHoudini\_75 (A2),

#### Start 58:

- Found in 1 of 227 ( 0.4% ) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Zimmer\_73 (A12),

#### Start 59:

- Found in 10 of 227 ( 4.4% ) of genes in pham
- Manual Annotations of this start: 6 of 189
- Called 90.0% of time when present
- Phage (with cluster) where this start called: Bradman\_77 (A2), Journey13\_64 (A2), Jsquared\_78 (A2), Koduck\_76 (A2), L5\_70 (A2), MajorMajor\_76 (A2), Quokka\_76 (A2), Serenity\_78 (A2), TopsytheTRex\_74 (A2),

#### Start 60:

- Found in 1 of 227 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: 40AC\_73 (A17),

#### Start 61:

- Found in 2 of 227 ( 0.9% ) of genes in pham
- Manual Annotations of this start: 2 of 189
- Called 100.0% of time when present

- Phage (with cluster) where this start called: NothingSpecial\_70 (A2), Pukovnik\_71 (A2),

#### Start 62:

- Found in 3 of 227 ( 1.3% ) of genes in pham
- Manual Annotations of this start: 2 of 189
- Called 66.7% of time when present
- Phage (with cluster) where this start called: Loser\_76 (A2), RedRock\_73 (A2),

#### Start 63:

- Found in 211 of 227 ( 93.0% ) of genes in pham
- Manual Annotations of this start: 127 of 189
- Called 67.8% of time when present
- Phage (with cluster) where this start called: 20ES\_76 (A2), AN3\_76 (A2), AN9\_77 (A2), AN18\_77 (A2), Adzzy\_79 (A2), AnnaL29\_74 (A2), Anon\_79 (A15), Anselm\_76 (A2), ArcherNM\_68 (A2), Arissanae\_73 (A9), BABullseye\_70 (A6), BabyBack\_71 (A2), Bellris\_74 (A9), BengiVuitton\_74 (A2), Benvolio\_72 (A2), BiancaTri92\_73 (A2), Blinn1\_81 (A6), BobSwaget\_67 (A2), BogosyJay\_76 (A9), Buggy\_76 (A2), C3\_70 (A2), CRB1\_76 (A2), Catalina\_78 (A9), Celestialunch\_71 (A9), Centaur\_75 (A2), Changeling\_73 (A2), Charm\_70 (A9), Che12\_79 (A2), ChipMunk\_75 (A2), CogOmlette\_74 (A9), Crucio\_75 (A2), D29\_70 (A2), D32\_76 (A2), DBQu4n\_77 (A2), Dalmatian\_75 (A2), DeerParkTS\_71 (A2), Deloris\_74 (A2), Dignity\_76 (A2), DreamTeam1\_70 (A9), DudeLittle\_73 (A2), Duplo\_77 (A2), EagleEye\_80 (A16), Echild\_75 (A2), Eidsmoe\_74 (A9), Elephantoon\_76 (A9), Equemioh13\_74 (A2), EvilGenius\_74 (A2), ExplosioNervosa\_74 (A9), Fameo\_73 (A2), FiringLine\_75 (A2), First\_0075 (A2), Flare16\_75 (A2), ForesterFrank\_70 (A2), Garak\_78 (A6), GaugeLDP\_70 (A2), Georgie2\_76 (A2), Gratitude\_72 (A2), Gruunaga\_76 (A6), Hammer\_77 (A6), Heffalump\_72 (A2), Herbertwm\_71 (A2), Hexamo\_76 (A6), Hoot\_72 (A6), Iwokeuplikedis\_76 (A2), Jerm\_76 (A2), JoshKayV\_75 (A2), Kalpine\_74 (A2), Kerberos\_77 (A2), Keziacharles14\_73 (A9), KingCyrus\_74 (A2), Koko\_78 (A6), LadyBird\_78 (A2), Larenn\_71 (A2), Leogania\_73 (A2), Leviathan\_76 (A2), LilTurb\_75 (A2), Lilleskat\_73 (A9), Lokk\_68 (A2), LoneWolf\_77 (A9), Lucyedi\_79 (A16), Malec\_72 (A2), Maminina\_76 (A9), McFly\_78 (A6), MegTheThird\_71 (A9), MiculUcigas\_75 (A2), Miko\_68 (A2), Minispark\_74 (A9), NaSiaTalie\_75 (A2), Naji\_77 (A2), NicoleTera\_72 (A2), Odin\_76 (A2), PackMan\_75 (A9), PainterBoy\_78 (A16), Ph8s\_79 (A2), Phaeder\_76 (A9), Pharaoh\_70 (A12), Phonnegut\_76 (A9), Piro94\_74 (A2), Pomar16\_77 (A2), Power\_74 (A2), Priamo\_78 (A6), Priya\_74 (A9), QueenB2\_72 (A2), QueenBeesly\_75 (A2), Rachaly\_70 (A2), Rahalelujah\_76 (A9), Retro23\_75 (A2), Rifler\_77 (A6), Roksolana\_77 (A6), SemperFi\_75 (A2), SheaKeira\_70 (A9), Sknot\_75 (A2), Smeagan\_77 (A2), SnapTap\_74 (A2), StarStuff\_77 (A2), Steamy\_69 (A12), Superchunk\_77 (A2), SweetiePie\_74 (A2), TarsusIV\_72 (A2), Temprado\_78 (A6), Terrific\_75 (A2), Toaka\_76 (A9), Tomathan\_77 (A2), ToneTone\_74 (A6), Travvers\_76 (A2), Tristan\_71 (A2), Trixie\_74 (A2), Trooper\_74 (A2), Tubs\_76 (A9), Tucker\_77 (A6), Turbido\_75 (A2), Ugenie5\_71 (A9), Updawg\_75 (A2), VA6\_74 (A2), VC3\_76 (A2), Vanisoa\_73 (A9), Whabigail7\_75 (A2), WideWale\_75 (A2), Wiks\_76 (A6), WorldCup\_74 (A9), XianYue\_70 (A2), Yokurt\_76 (A6), Zulu\_78 (A6),

#### Start 66:

- Found in 3 of 227 ( 1.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 33.3% of time when present
- Phage (with cluster) where this start called: Klodlith\_71 (A9),

Start 67:

- Found in 85 of 227 ( 37.4% ) of genes in pham
- Manual Annotations of this start: 5 of 189
- Called 15.3% of time when present
- Phage (with cluster) where this start called: Ayanochan\_74 (A9), Beemo\_76 (A9), EdogawaKiddo\_74 (A9), Hanray\_74 (A9), Halex\_74 (A9), Isiphiwo\_74 (A6), Jiawan\_73 (A9), MissWhite\_73 (A2), Onglai\_74 (A9), Pioneer\_76 (A9), RyeScarlet\_77 (A9), Sachima\_72 (A9), SmellyB\_77 (A6),

Start 69:

- Found in 13 of 227 ( 5.7% ) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 7.7% of time when present
- Phage (with cluster) where this start called: SwirlSquare\_80 (A2),

Start 72:

- Found in 12 of 227 ( 5.3% ) of genes in pham
- No Manual Annotations of this start.
- Called 8.3% of time when present
- Phage (with cluster) where this start called: EZMoney23\_71 (A2),

Start 76:

- Found in 102 of 227 ( 44.9% ) of genes in pham
- Manual Annotations of this start: 3 of 189
- Called 4.9% of time when present
- Phage (with cluster) where this start called: AbbyPaige\_76 (A2), Agape74\_76 (A2), Colin\_74 (A2), Elle\_77 (A15), SuperCallie99\_74 (A6),

Start 77:

- Found in 1 of 227 ( 0.4% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present
- Phage (with cluster) where this start called: Prudy\_68 (A2),

Start 78:

- Found in 100 of 227 ( 44.1% ) of genes in pham
- Manual Annotations of this start: 1 of 189
- Called 2.0% of time when present
- Phage (with cluster) where this start called: Polyphemus\_78 (A6), WeiHuaDA\_75 (A2),

Start 81:

- Found in 48 of 227 ( 21.1% ) of genes in pham
- No Manual Annotations of this start.
- Called 4.2% of time when present
- Phage (with cluster) where this start called: Candra\_75 (A6), DelvinSonDorr\_73 (A6),

Start 85:

- Found in 2 of 227 ( 0.9% ) of genes in pham
- No Manual Annotations of this start.
- Called 100.0% of time when present

- Phage (with cluster) where this start called: HippoHollow\_72 (A2), LionsBait\_74 (A2),

### **Summary by clusters:**

There are 7 clusters represented in this pham: A15, A17, A16, A12, A2, A6, A9,

Info for manual annotations of cluster A12:

- Start number 58 was manually annotated 1 time for cluster A12.
- Start number 63 was manually annotated 2 times for cluster A12.

Info for manual annotations of cluster A15:

- Start number 63 was manually annotated 1 time for cluster A15.

Info for manual annotations of cluster A16:

- Start number 63 was manually annotated 3 times for cluster A16.

Info for manual annotations of cluster A2:

- Start number 51 was manually annotated 1 time for cluster A2.
- Start number 54 was manually annotated 4 times for cluster A2.
- Start number 56 was manually annotated 3 times for cluster A2.
- Start number 59 was manually annotated 6 times for cluster A2.
- Start number 61 was manually annotated 2 times for cluster A2.
- Start number 62 was manually annotated 2 times for cluster A2.
- Start number 63 was manually annotated 83 times for cluster A2.
- Start number 67 was manually annotated 1 time for cluster A2.
- Start number 69 was manually annotated 1 time for cluster A2.
- Start number 76 was manually annotated 2 times for cluster A2.

Info for manual annotations of cluster A6:

- Start number 48 was manually annotated 9 times for cluster A6.
- Start number 54 was manually annotated 15 times for cluster A6.
- Start number 63 was manually annotated 17 times for cluster A6.
- Start number 67 was manually annotated 2 times for cluster A6.
- Start number 76 was manually annotated 1 time for cluster A6.
- Start number 78 was manually annotated 1 time for cluster A6.

Info for manual annotations of cluster A9:

- Start number 50 was manually annotated 9 times for cluster A9.
- Start number 63 was manually annotated 21 times for cluster A9.
- Start number 67 was manually annotated 2 times for cluster A9.

### **Gene Information:**

Gene: 20ES\_76 Start: 44872, Stop: 44459, Start Num: 63

Candidate Starts for 20ES\_76:

(Start: 63 @44872 has 127 MA's), (72, 44821), (75, 44812), (Start: 76 @44809 has 3 MA's), (Start: 78 @44791 has 1 MA's), (98, 44704), (103, 44665), (108, 44638), (117, 44581), (138, 44509), (151, 44476),

Gene: 40AC\_73 Start: 45297, Stop: 44878, Start Num: 60

Candidate Starts for 40AC\_73:

(29, 45390), (33, 45372), (60, 45297), (74, 45240), (Start: 76 @45234 has 3 MA's), (98, 45129), (100, 45111), (102, 45099), (103, 45090), (105, 45084), (111, 45030), (118, 44997), (120, 44988), (133, 44949),

Gene: AN3\_76 Start: 43653, Stop: 43240, Start Num: 63

Candidate Starts for AN3\_76:

(Start: 63 @43653 has 127 MA's), (Start: 67 @43629 has 5 MA's), (Start: 76 @43590 has 3 MA's), (Start: 78 @43572 has 1 MA's), (98, 43485), (103, 43446), (117, 43362), (118, 43359), (133, 43311), (138, 43290), (151, 43257),

Gene: AN9\_77 Start: 44797, Stop: 44378, Start Num: 63

Candidate Starts for AN9\_77:

(Start: 63 @44797 has 127 MA's), (73, 44743), (83, 44689), (100, 44614), (108, 44566), (113, 44533), (114, 44530), (117, 44509), (129, 44467), (138, 44434), (146, 44410), (155, 44392),

Gene: ANI8\_77 Start: 44797, Stop: 44378, Start Num: 63

Candidate Starts for ANI8\_77:

(Start: 63 @44797 has 127 MA's), (73, 44743), (83, 44689), (100, 44614), (108, 44566), (113, 44533), (114, 44530), (117, 44509), (129, 44467), (138, 44434), (146, 44410), (155, 44392),

Gene: AbbyPaige\_76 Start: 45068, Stop: 44712, Start Num: 76

Candidate Starts for AbbyPaige\_76:

(Start: 63 @45131 has 127 MA's), (Start: 76 @45068 has 3 MA's), (100, 44945), (103, 44924), (114, 44861), (117, 44840), (118, 44837), (120, 44828), (139, 44759), (148, 44738), (153, 44726),

Gene: Adzzy\_79 Start: 44582, Stop: 44163, Start Num: 63

Candidate Starts for Adzzy\_79:

(27, 44675), (38, 44630), (Start: 63 @44582 has 127 MA's), (Start: 76 @44519 has 3 MA's), (Start: 78 @44501 has 1 MA's), (79, 44498), (89, 44447), (100, 44396), (108, 44348), (111, 44315), (120, 44273), (137, 44216), (154, 44177),

Gene: Agape74\_76 Start: 45063, Stop: 44707, Start Num: 76

Candidate Starts for Agape74\_76:

(Start: 63 @45126 has 127 MA's), (Start: 76 @45063 has 3 MA's), (100, 44940), (103, 44919), (114, 44856), (117, 44835), (118, 44832), (120, 44823), (139, 44754), (148, 44733), (153, 44721),

Gene: Alma\_74 Start: 44144, Stop: 43698, Start Num: 50

Candidate Starts for Alma\_74:

(Start: 50 @44144 has 9 MA's), (Start: 63 @44120 has 127 MA's), (Start: 67 @44096 has 5 MA's), (75, 44060), (84, 44009), (97, 43955), (100, 43934), (103, 43913), (107, 43892), (108, 43886), (113, 43853), (114, 43850), (117, 43829), (118, 43826), (138, 43757), (154, 43718),

Gene: AnnaL29\_74 Start: 45079, Stop: 44672, Start Num: 63

Candidate Starts for AnnaL29\_74:

(Start: 63 @45079 has 127 MA's), (Start: 67 @45055 has 5 MA's), (82, 44977), (98, 44911), (100, 44893), (102, 44881), (117, 44788), (118, 44785), (144, 44704),

Gene: Anon\_79 Start: 44695, Stop: 44303, Start Num: 63

Candidate Starts for Anon\_79:

(2, 45103), (6, 45046), (7, 45040), (12, 44920), (13, 44917), (Start: 63 @44695 has 127 MA's), (65, 44677), (Start: 78 @44614 has 1 MA's), (82, 44593), (94, 44551), (95, 44548), (96, 44536), (100,

44512), (102, 44500), (114, 44428), (120, 44395), (128, 44380), (131, 44374), (148, 44311), (149, 44308),

Gene: Anselm\_76 Start: 45193, Stop: 44774, Start Num: 63

Candidate Starts for Anselm\_76:

(18, 45361), (20, 45343), (21, 45340), (40, 45241), (Start: 63 @45193 has 127 MA's), (Start: 76 @45130 has 3 MA's), (Start: 78 @45112 has 1 MA's), (100, 45007), (114, 44923), (117, 44902), (120, 44890), (133, 44845), (139, 44821), (142, 44812), (153, 44788),

Gene: ArcherNM\_68 Start: 44346, Stop: 43933, Start Num: 63

Candidate Starts for ArcherNM\_68:

(24, 44457), (45, 44382), (Start: 63 @44346 has 127 MA's), (82, 44244), (100, 44160), (117, 44055), (118, 44052), (120, 44043), (133, 44004), (154, 43947),

Gene: Arissanae\_73 Start: 44444, Stop: 44019, Start Num: 63

Candidate Starts for Arissanae\_73:

(Start: 63 @44444 has 127 MA's), (Start: 67 @44420 has 5 MA's), (96, 44279), (97, 44276), (100, 44255), (107, 44213), (113, 44174), (114, 44171), (117, 44150), (118, 44147), (120, 44138), (135, 44090), (137, 44081), (157, 44033),

Gene: Artemis2UCLA\_76 Start: 43341, Stop: 42928, Start Num: 48

Candidate Starts for Artemis2UCLA\_76:

(Start: 48 @43341 has 9 MA's), (Start: 63 @43314 has 127 MA's), (74, 43257), (81, 43218), (103, 43110), (104, 43107), (107, 43089), (113, 43050), (114, 43047), (118, 43023), (124, 43005), (130, 42990), (141, 42951),

Gene: Ayanochan\_74 Start: 43879, Stop: 43484, Start Num: 67

Candidate Starts for Ayanochan\_74:

(Start: 50 @43927 has 9 MA's), (Start: 63 @43903 has 127 MA's), (Start: 67 @43879 has 5 MA's), (75, 43843), (84, 43792), (97, 43738), (100, 43717), (103, 43696), (107, 43675), (108, 43669), (113, 43636), (114, 43633), (117, 43612), (118, 43609), (137, 43543), (138, 43540), (156, 43498), (158, 43495),

Gene: BABullseye\_70 Start: 41954, Stop: 41568, Start Num: 63

Candidate Starts for BABullseye\_70:

(Start: 54 @41969 has 19 MA's), (Start: 63 @41954 has 127 MA's), (Start: 67 @41930 has 5 MA's), (73, 41900), (Start: 76 @41891 has 3 MA's), (Start: 78 @41873 has 1 MA's), (81, 41858), (108, 41723), (113, 41690), (114, 41687), (118, 41663), (120, 41654), (133, 41621), (141, 41591), (142, 41588),

Gene: BabyBack\_71 Start: 44781, Stop: 44368, Start Num: 63

Candidate Starts for BabyBack\_71:

(Start: 63 @44781 has 127 MA's), (Start: 78 @44700 has 1 MA's), (103, 44574), (113, 44514), (114, 44511), (117, 44490), (120, 44478), (133, 44439), (146, 44397), (153, 44385), (154, 44382),

Gene: Bactobuster\_67 Start: 44476, Stop: 44054, Start Num: 54

Candidate Starts for Bactobuster\_67:

(Start: 54 @44476 has 19 MA's), (Start: 63 @44455 has 127 MA's), (68, 44425), (74, 44398), (Start: 78 @44374 has 1 MA's), (83, 44347), (92, 44314), (100, 44272), (114, 44185), (119, 44158), (129, 44122), (135, 44101), (145, 44068), (147, 44065),

Gene: Baehexic\_73 Start: 44533, Stop: 44102, Start Num: 56

Candidate Starts for Baehexic\_73:

(23, 44629), (25, 44623), (Start: 56 @44533 has 3 MA's), (Start: 63 @44521 has 127 MA's), (Start: 76 @44458 has 3 MA's), (Start: 78 @44440 has 1 MA's), (100, 44335), (103, 44314), (114, 44251), (117, 44230), (118, 44227), (120, 44218), (139, 44152), (146, 44134), (153, 44119),

Gene: Beemo\_76 Start: 44134, Stop: 43739, Start Num: 67

Candidate Starts for Beemo\_76:

(Start: 63 @44158 has 127 MA's), (Start: 67 @44134 has 5 MA's), (75, 44098), (84, 44047), (97, 43993), (100, 43972), (103, 43951), (107, 43930), (108, 43924), (113, 43891), (114, 43888), (117, 43867), (118, 43864), (137, 43798), (138, 43795), (154, 43756), (156, 43753), (158, 43750),

Gene: Bellris\_74 Start: 44011, Stop: 43592, Start Num: 63

Candidate Starts for Bellris\_74:

(Start: 63 @44011 has 127 MA's), (Start: 67 @43987 has 5 MA's), (Start: 78 @43930 has 1 MA's), (97, 43843), (100, 43822), (108, 43774), (113, 43741), (114, 43738), (118, 43714), (122, 43696), (136, 43651),

Gene: BengiVuitton\_74 Start: 44822, Stop: 44409, Start Num: 63

Candidate Starts for BengiVuitton\_74:

(41, 44867), (49, 44846), (Start: 63 @44822 has 127 MA's), (Start: 76 @44759 has 3 MA's), (Start: 78 @44741 has 1 MA's), (98, 44654), (103, 44615), (108, 44588), (117, 44531), (118, 44528), (138, 44459), (151, 44426),

Gene: Benvolio\_72 Start: 44419, Stop: 44006, Start Num: 63

Candidate Starts for Benvolio\_72:

(16, 44644), (17, 44620), (19, 44578), (22, 44560), (45, 44452), (53, 44431), (Start: 63 @44419 has 127 MA's), (Start: 76 @44356 has 3 MA's), (98, 44251), (103, 44212), (117, 44128), (120, 44116), (135, 44068), (138, 44056), (140, 44050), (151, 44023), (154, 44020),

Gene: BiancaTri92\_73 Start: 44785, Stop: 44372, Start Num: 63

Candidate Starts for BiancaTri92\_73:

(Start: 63 @44785 has 127 MA's), (Start: 69 @44749 has 1 MA's), (97, 44620), (100, 44599), (114, 44515), (117, 44494), (120, 44482), (126, 44464), (129, 44458), (133, 44443), (151, 44389), (154, 44386),

Gene: BlessJoy\_77 Start: 43863, Stop: 43450, Start Num: 48

Candidate Starts for BlessJoy\_77:

(Start: 48 @43863 has 9 MA's), (Start: 63 @43836 has 127 MA's), (74, 43779), (81, 43740), (103, 43632), (104, 43629), (107, 43611), (113, 43572), (114, 43569), (118, 43545), (124, 43527), (130, 43512), (141, 43473),

Gene: Blinn1\_81 Start: 44565, Stop: 44179, Start Num: 63

Candidate Starts for Blinn1\_81:

(40, 44610), (Start: 48 @44589 has 9 MA's), (Start: 63 @44565 has 127 MA's), (81, 44469), (88, 44439), (103, 44361), (107, 44340), (113, 44301), (114, 44298), (118, 44274), (137, 44214),

Gene: Blue7\_78 Start: 43561, Stop: 43148, Start Num: 48

Candidate Starts for Blue7\_78:

(Start: 48 @43561 has 9 MA's), (Start: 63 @43534 has 127 MA's), (74, 43477), (81, 43438), (103, 43330), (104, 43327), (107, 43309), (113, 43270), (114, 43267), (118, 43243), (124, 43225), (130, 43210), (141, 43171),

Gene: BobSwaget\_67 Start: 42656, Stop: 42240, Start Num: 63

Candidate Starts for BobSwaget\_67:

(55, 42668), (Start: 63 @42656 has 127 MA's), (Start: 76 @42593 has 3 MA's), (89, 42521), (108, 42422), (113, 42389), (114, 42386), (117, 42365), (120, 42353), (133, 42311), (138, 42290), (143, 42278), (153, 42257), (154, 42254), (156, 42251),

Gene: BogosyJay\_76 Start: 44392, Stop: 43976, Start Num: 63

Candidate Starts for BogosyJay\_76:

(Start: 50 @44416 has 9 MA's), (Start: 63 @44392 has 127 MA's), (Start: 67 @44368 has 5 MA's), (74, 44335), (97, 44224), (100, 44203), (113, 44122), (114, 44119), (117, 44098), (118, 44095), (122, 44077), (154, 43987),

Gene: Bradman\_77 Start: 44213, Stop: 43776, Start Num: 59

Candidate Starts for Bradman\_77:

(25, 44315), (28, 44309), (Start: 59 @44213 has 6 MA's), (103, 44003), (111, 43943), (117, 43913), (118, 43910), (120, 43901), (133, 43862), (160, 43790),

Gene: Buggy\_76 Start: 45178, Stop: 44759, Start Num: 63

Candidate Starts for Buggy\_76:

(39, 45226), (47, 45208), (53, 45193), (Start: 63 @45178 has 127 MA's), (Start: 76 @45115 has 3 MA's), (100, 44992), (103, 44971), (114, 44908), (120, 44875), (133, 44830), (135, 44821), (139, 44806), (146, 44788), (148, 44785), (153, 44773),

Gene: C3\_70 Start: 44797, Stop: 44378, Start Num: 63

Candidate Starts for C3\_70:

(Start: 63 @44797 has 127 MA's), (73, 44743), (83, 44689), (100, 44614), (108, 44566), (113, 44533), (114, 44530), (117, 44509), (129, 44467), (138, 44434), (146, 44410), (155, 44392),

Gene: CRB1\_76 Start: 45367, Stop: 44954, Start Num: 63

Candidate Starts for CRB1\_76:

(26, 45469), (Start: 63 @45367 has 127 MA's), (Start: 76 @45304 has 3 MA's), (Start: 78 @45286 has 1 MA's), (98, 45199), (103, 45160), (117, 45076), (118, 45073), (138, 45004), (142, 44992), (151, 44971),

Gene: Candra\_75 Start: 43553, Stop: 43263, Start Num: 81

Candidate Starts for Candra\_75:

(Start: 54 @43664 has 19 MA's), (Start: 63 @43649 has 127 MA's), (Start: 67 @43625 has 5 MA's), (73, 43595), (Start: 76 @43586 has 3 MA's), (Start: 78 @43568 has 1 MA's), (81, 43553), (108, 43418), (113, 43385), (114, 43382), (118, 43358), (120, 43349), (133, 43316), (141, 43286), (142, 43283),

Gene: Catalina\_78 Start: 44214, Stop: 43795, Start Num: 63

Candidate Starts for Catalina\_78:

(14, 44463), (Start: 50 @44238 has 9 MA's), (Start: 63 @44214 has 127 MA's), (Start: 67 @44190 has 5 MA's), (75, 44154), (84, 44103), (97, 44049), (100, 44028), (103, 44007), (107, 43986), (108, 43980), (113, 43947), (114, 43944), (117, 43923), (118, 43920), (137, 43854), (138, 43851), (154, 43812), (156, 43809), (158, 43806),

Gene: Celestiallunch\_71 Start: 43395, Stop: 42979, Start Num: 63

Candidate Starts for Celestiallunch\_71:

(Start: 63 @43395 has 127 MA's), (Start: 67 @43371 has 5 MA's), (73, 43341), (74, 43338), (Start: 76 @43332 has 3 MA's), (96, 43230), (100, 43206), (103, 43185), (108, 43158), (113, 43125), (114, 43122), (117, 43101), (118, 43098),

Gene: Centaur\_75 Start: 44736, Stop: 44317, Start Num: 63

Candidate Starts for Centaur\_75:

(23, 44835), (25, 44829), (39, 44778), (Start: 63 @44736 has 127 MA's), (Start: 76 @44673 has 3 MA's), (Start: 78 @44655 has 1 MA's), (98, 44568), (103, 44529), (108, 44502), (114, 44466), (117, 44445), (118, 44442), (120, 44433), (139, 44367), (146, 44349), (153, 44334),

Gene: Changeling\_73 Start: 45069, Stop: 44656, Start Num: 63

Candidate Starts for Changeling\_73:

(Start: 63 @45069 has 127 MA's), (82, 44967), (93, 44922), (98, 44901), (100, 44883), (103, 44862), (117, 44778), (118, 44775), (120, 44766), (133, 44727), (154, 44670),

Gene: Charm\_70 Start: 43332, Stop: 42913, Start Num: 63

Candidate Starts for Charm\_70:

(Start: 63 @43332 has 127 MA's), (66, 43311), (Start: 67 @43308 has 5 MA's), (74, 43275), (96, 43167), (97, 43164), (100, 43143), (103, 43122), (113, 43062), (114, 43059), (117, 43038), (122, 43017), (133, 42987),

Gene: Chartreuse\_76 Start: 42975, Stop: 42574, Start Num: 54

Candidate Starts for Chartreuse\_76:

(Start: 54 @42975 has 19 MA's), (Start: 63 @42960 has 127 MA's), (Start: 67 @42936 has 5 MA's), (73, 42906), (Start: 76 @42897 has 3 MA's), (Start: 78 @42879 has 1 MA's), (81, 42864), (108, 42729), (113, 42696), (114, 42693), (118, 42669), (120, 42660), (133, 42627), (141, 42597), (142, 42594),

Gene: Che12\_79 Start: 44481, Stop: 44062, Start Num: 63

Candidate Starts for Che12\_79:

(1, 44940), (4, 44883), (5, 44877), (10, 44754), (11, 44751), (27, 44574), (38, 44529), (Start: 63 @44481 has 127 MA's), (73, 44427), (Start: 76 @44418 has 3 MA's), (Start: 78 @44400 has 1 MA's), (79, 44397), (86, 44361), (89, 44346), (100, 44295), (102, 44283), (108, 44247), (111, 44214), (120, 44172), (137, 44115), (154, 44076),

Gene: ChipMunk\_75 Start: 46219, Stop: 45800, Start Num: 63

Candidate Starts for ChipMunk\_75:

(39, 46267), (Start: 63 @46219 has 127 MA's), (Start: 69 @46183 has 1 MA's), (Start: 76 @46156 has 3 MA's), (Start: 78 @46138 has 1 MA's), (100, 46033), (114, 45949), (117, 45928), (118, 45925), (120, 45916), (132, 45877), (135, 45862), (139, 45847), (146, 45829), (148, 45826), (153, 45814),

Gene: CloudWang3\_77 Start: 43853, Stop: 43440, Start Num: 48

Candidate Starts for CloudWang3\_77:

(Start: 48 @43853 has 9 MA's), (Start: 63 @43826 has 127 MA's), (74, 43769), (81, 43730), (103, 43622), (104, 43619), (107, 43601), (113, 43562), (114, 43559), (118, 43535), (124, 43517), (130, 43502), (141, 43463),

Gene: CogOmlette\_74 Start: 44008, Stop: 43589, Start Num: 63

Candidate Starts for CogOmlette\_74:

(Start: 63 @44008 has 127 MA's), (Start: 67 @43984 has 5 MA's), (Start: 78 @43927 has 1 MA's), (97, 43840), (100, 43819), (108, 43771), (113, 43738), (114, 43735), (118, 43711), (122, 43693), (136, 43648),

Gene: Colin\_74 Start: 45728, Stop: 45375, Start Num: 76

Candidate Starts for Colin\_74:

(Start: 63 @45791 has 127 MA's), (75, 45731), (Start: 76 @45728 has 3 MA's), (82, 45689), (100, 45605), (102, 45593), (117, 45500), (120, 45488), (139, 45425), (146, 45407), (154, 45389),

Gene: Conquerage\_74 Start: 43913, Stop: 43470, Start Num: 50

Candidate Starts for Conquerage\_74:

(Start: 50 @43913 has 9 MA's), (Start: 63 @43889 has 127 MA's), (Start: 67 @43865 has 5 MA's), (75, 43829), (84, 43778), (97, 43724), (100, 43703), (103, 43682), (107, 43661), (108, 43655), (113, 43622), (114, 43619), (117, 43598), (118, 43595), (137, 43529), (138, 43526), (156, 43484), (158, 43481),

Gene: Cookiedough\_77 Start: 44279, Stop: 43878, Start Num: 54

Candidate Starts for Cookiedough\_77:

(Start: 54 @44279 has 19 MA's), (Start: 63 @44264 has 127 MA's), (Start: 67 @44240 has 5 MA's), (73, 44210), (Start: 76 @44201 has 3 MA's), (Start: 78 @44183 has 1 MA's), (81, 44168), (108, 44033), (113, 44000), (114, 43997), (118, 43973), (120, 43964), (133, 43931), (141, 43901), (142, 43898),

Gene: Crucio\_75 Start: 45094, Stop: 44675, Start Num: 63

Candidate Starts for Crucio\_75:

(44, 45133), (Start: 56 @45106 has 3 MA's), (Start: 63 @45094 has 127 MA's), (72, 45043), (Start: 76 @45031 has 3 MA's), (Start: 78 @45013 has 1 MA's), (100, 44908), (102, 44896), (103, 44887), (117, 44803), (120, 44791), (133, 44746), (139, 44722), (148, 44701), (153, 44689),

Gene: D29\_70 Start: 45277, Stop: 44858, Start Num: 63

Candidate Starts for D29\_70:

(Start: 63 @45277 has 127 MA's), (83, 45169), (100, 45094), (108, 45046), (113, 45013), (114, 45010), (117, 44989), (129, 44947), (138, 44914), (142, 44902), (146, 44890), (155, 44872),

Gene: D32\_76 Start: 45277, Stop: 44858, Start Num: 63

Candidate Starts for D32\_76:

(Start: 63 @45277 has 127 MA's), (83, 45169), (100, 45094), (108, 45046), (113, 45013), (114, 45010), (117, 44989), (129, 44947), (138, 44914), (142, 44902), (146, 44890), (155, 44872),

Gene: DBQu4n\_77 Start: 45257, Stop: 44838, Start Num: 63

Candidate Starts for DBQu4n\_77:

(Start: 63 @45257 has 127 MA's), (73, 45203), (83, 45149), (100, 45074), (108, 45026), (113, 44993), (114, 44990), (117, 44969), (129, 44927), (133, 44915), (138, 44894), (142, 44882), (146, 44870), (155, 44852),

Gene: DaVinci\_75 Start: 43029, Stop: 42628, Start Num: 54

Candidate Starts for DaVinci\_75:

(Start: 54 @43029 has 19 MA's), (Start: 63 @43014 has 127 MA's), (Start: 67 @42990 has 5 MA's), (73, 42960), (Start: 76 @42951 has 3 MA's), (Start: 78 @42933 has 1 MA's), (81, 42918), (108, 42783), (113, 42750), (114, 42747), (118, 42723), (120, 42714), (133, 42681), (141, 42651), (142, 42648),

Gene: Dalmatian\_75 Start: 44912, Stop: 44493, Start Num: 63

Candidate Starts for Dalmatian\_75:

(18, 45080), (20, 45062), (21, 45059), (40, 44960), (Start: 63 @44912 has 127 MA's), (Start: 76 @44849 has 3 MA's), (Start: 78 @44831 has 1 MA's), (100, 44726), (114, 44642), (117, 44621), (120, 44609), (133, 44564), (139, 44540), (142, 44531), (153, 44507),

Gene: DeerParkTS\_71 Start: 43815, Stop: 43402, Start Num: 63

Candidate Starts for DeerParkTS\_71:

(Start: 63 @43815 has 127 MA's), (87, 43689), (100, 43629), (114, 43545), (117, 43524), (120, 43512), (129, 43488), (133, 43473),

Gene: Deloris\_74 Start: 44518, Stop: 44105, Start Num: 63

Candidate Starts for Deloris\_74:

(41, 44563), (49, 44542), (Start: 63 @44518 has 127 MA's), (Start: 76 @44455 has 3 MA's), (Start: 78 @44437 has 1 MA's), (98, 44350), (103, 44311), (108, 44284), (117, 44227), (118, 44224), (138, 44155), (151, 44122),

Gene: DelvinSonDorr\_73 Start: 43573, Stop: 43283, Start Num: 81

Candidate Starts for DelvinSonDorr\_73:

(Start: 54 @43684 has 19 MA's), (Start: 63 @43669 has 127 MA's), (Start: 67 @43645 has 5 MA's), (73, 43615), (Start: 76 @43606 has 3 MA's), (Start: 78 @43588 has 1 MA's), (81, 43573), (108, 43438), (113, 43405), (114, 43402), (118, 43378), (120, 43369), (133, 43336), (141, 43306), (142, 43303),

Gene: Dignity\_76 Start: 45216, Stop: 44797, Start Num: 63

Candidate Starts for Dignity\_76:

(39, 45264), (47, 45246), (53, 45231), (Start: 63 @45216 has 127 MA's), (Start: 76 @45153 has 3 MA's), (100, 45030), (103, 45009), (114, 44946), (120, 44913), (133, 44868), (135, 44859), (139, 44844), (146, 44826), (148, 44823), (153, 44811),

Gene: Dorothea\_77 Start: 44275, Stop: 43874, Start Num: 54

Candidate Starts for Dorothea\_77:

(Start: 54 @44275 has 19 MA's), (Start: 63 @44260 has 127 MA's), (Start: 67 @44236 has 5 MA's), (73, 44206), (Start: 76 @44197 has 3 MA's), (Start: 78 @44179 has 1 MA's), (81, 44164), (108, 44029), (113, 43996), (114, 43993), (118, 43969), (120, 43960), (133, 43927), (141, 43897), (142, 43894),

Gene: Drake55\_76 Start: 44822, Stop: 44391, Start Num: 56

Candidate Starts for Drake55\_76:

(39, 44861), (Start: 56 @44822 has 3 MA's), (Start: 63 @44810 has 127 MA's), (Start: 76 @44747 has 3 MA's), (Start: 78 @44729 has 1 MA's), (100, 44624), (103, 44603), (108, 44576), (114, 44540), (117, 44519), (118, 44516), (120, 44507), (139, 44441), (142, 44432), (146, 44423), (153, 44408),

Gene: DreamTeam1\_70 Start: 43179, Stop: 42760, Start Num: 63

Candidate Starts for DreamTeam1\_70:

(Start: 63 @43179 has 127 MA's), (66, 43158), (Start: 67 @43155 has 5 MA's), (74, 43122), (96, 43014), (97, 43011), (100, 42990), (103, 42969), (113, 42909), (114, 42906), (117, 42885), (122, 42864), (133, 42834),

Gene: DudeLittle\_73 Start: 44678, Stop: 44259, Start Num: 63

Candidate Starts for DudeLittle\_73:

(18, 44846), (20, 44828), (21, 44825), (40, 44726), (Start: 63 @44678 has 127 MA's), (Start: 76 @44615 has 3 MA's), (Start: 78 @44597 has 1 MA's), (100, 44492), (114, 44408), (117, 44387), (120, 44375), (133, 44330), (139, 44306), (142, 44297), (153, 44273),

Gene: Duplo\_77 Start: 45314, Stop: 44895, Start Num: 63

Candidate Starts for Duplo\_77:

(Start: 63 @45314 has 127 MA's), (73, 45260), (83, 45206), (100, 45131), (108, 45083), (113, 45050), (114, 45047), (117, 45026), (129, 44984), (133, 44972), (138, 44951), (142, 44939), (146, 44927), (155, 44909),

Gene: EZMoney23\_71 Start: 44532, Stop: 44167, Start Num: 72

Candidate Starts for EZMoney23\_71:

(Start: 63 @44583 has 127 MA's), (Start: 69 @44547 has 1 MA's), (72, 44532), (Start: 76 @44520 has 3 MA's), (Start: 78 @44502 has 1 MA's), (104, 44370), (114, 44310), (118, 44286), (133, 44238), (135, 44229), (138, 44217), (151, 44184),

Gene: EagleEye\_80 Start: 45356, Stop: 44949, Start Num: 63

Candidate Starts for EagleEye\_80:

(Start: 63 @45356 has 127 MA's), (Start: 67 @45332 has 5 MA's), (70, 45320), (Start: 78 @45275 has 1 MA's), (95, 45206), (97, 45191), (100, 45170), (104, 45146), (113, 45089), (114, 45086), (120, 45053), (150, 44963), (151, 44960),

Gene: Echild\_75 Start: 44443, Stop: 44030, Start Num: 63

Candidate Starts for Echild\_75:

(16, 44668), (17, 44644), (19, 44602), (22, 44584), (45, 44476), (53, 44455), (Start: 63 @44443 has 127 MA's), (75, 44383), (Start: 76 @44380 has 3 MA's), (98, 44275), (103, 44236), (117, 44152), (118, 44149), (120, 44140), (135, 44092), (138, 44080), (140, 44074), (151, 44047), (154, 44044),

Gene: EdogawaKiddo\_74 Start: 44156, Stop: 43761, Start Num: 67

Candidate Starts for EdogawaKiddo\_74:

(Start: 63 @44180 has 127 MA's), (Start: 67 @44156 has 5 MA's), (75, 44120), (84, 44069), (97, 44015), (100, 43994), (103, 43973), (107, 43952), (108, 43946), (113, 43913), (114, 43910), (117, 43889), (118, 43886), (137, 43820), (138, 43817), (154, 43778), (156, 43775), (158, 43772),

Gene: Eidsmoe\_74 Start: 43881, Stop: 43462, Start Num: 63

Candidate Starts for Eidsmoe\_74:

(Start: 50 @43905 has 9 MA's), (Start: 63 @43881 has 127 MA's), (Start: 67 @43857 has 5 MA's), (75, 43821), (84, 43770), (97, 43716), (100, 43695), (103, 43674), (107, 43653), (108, 43647), (113, 43614), (114, 43611), (117, 43590), (118, 43587), (137, 43521), (138, 43518), (156, 43476), (158, 43473),

Gene: Elephantoon\_76 Start: 44034, Stop: 43615, Start Num: 63

Candidate Starts for Elephantoon\_76:

(Start: 63 @44034 has 127 MA's), (Start: 67 @44010 has 5 MA's), (74, 43977), (Start: 78 @43953 has 1 MA's), (96, 43869), (97, 43866), (100, 43845), (113, 43764), (114, 43761), (118, 43737), (122, 43719),

Gene: Elle\_77 Start: 43986, Stop: 43657, Start Num: 76

Candidate Starts for Elle\_77:

(Start: 63 @44049 has 127 MA's), (65, 44031), (71, 44010), (Start: 76 @43986 has 3 MA's), (82, 43947), (93, 43908), (100, 43866), (113, 43785), (114, 43782), (118, 43758), (149, 43662),

Gene: EmyBug\_73 Start: 43907, Stop: 43464, Start Num: 50

Candidate Starts for EmyBug\_73:

(Start: 50 @43907 has 9 MA's), (Start: 63 @43883 has 127 MA's), (Start: 67 @43859 has 5 MA's), (75, 43823), (84, 43772), (97, 43718), (100, 43697), (103, 43676), (107, 43655), (108, 43649), (113, 43616), (114, 43613), (117, 43592), (118, 43589), (137, 43523), (138, 43520), (156, 43478), (158, 43475),

Gene: Equemioh13\_74 Start: 44641, Stop: 44222, Start Num: 63

Candidate Starts for Equemioh13\_74:

(39, 44683), (Start: 63 @44641 has 127 MA's), (Start: 76 @44578 has 3 MA's), (Start: 78 @44560 has 1 MA's), (98, 44473), (103, 44434), (108, 44407), (114, 44371), (117, 44350), (118, 44347), (120, 44338), (139, 44272), (146, 44254), (153, 44239),

Gene: EricB\_76 Start: 43621, Stop: 43220, Start Num: 54

Candidate Starts for EricB\_76:

(Start: 54 @43621 has 19 MA's), (Start: 63 @43606 has 127 MA's), (Start: 67 @43582 has 5 MA's), (73, 43552), (Start: 76 @43543 has 3 MA's), (Start: 78 @43525 has 1 MA's), (81, 43510), (108, 43375), (113, 43342), (114, 43339), (118, 43315), (120, 43306), (133, 43273), (141, 43243), (142, 43240),

Gene: EvilGenius\_74 Start: 46220, Stop: 45801, Start Num: 63

Candidate Starts for EvilGenius\_74:

(39, 46268), (Start: 63 @46220 has 127 MA's), (Start: 69 @46184 has 1 MA's), (Start: 76 @46157 has 3 MA's), (Start: 78 @46139 has 1 MA's), (100, 46034), (114, 45950), (117, 45929), (118, 45926), (120, 45917), (132, 45878), (135, 45863), (139, 45848), (146, 45830), (148, 45827), (153, 45815),

Gene: ExplosioNervosa\_74 Start: 43949, Stop: 43530, Start Num: 63

Candidate Starts for ExplosioNervosa\_74:

(Start: 50 @43973 has 9 MA's), (Start: 63 @43949 has 127 MA's), (Start: 67 @43925 has 5 MA's), (75, 43889), (84, 43838), (97, 43784), (100, 43763), (103, 43742), (107, 43721), (108, 43715), (113, 43682), (114, 43679), (117, 43658), (118, 43655), (137, 43589), (138, 43586), (156, 43544), (158, 43541),

Gene: Fameo\_73 Start: 44721, Stop: 44302, Start Num: 63

Candidate Starts for Fameo\_73:

(40, 44769), (Start: 63 @44721 has 127 MA's), (Start: 76 @44658 has 3 MA's), (Start: 78 @44640 has 1 MA's), (100, 44535), (114, 44451), (118, 44427), (120, 44418), (133, 44373), (139, 44349), (142, 44340), (153, 44316),

Gene: Fayely\_74 Start: 43874, Stop: 43431, Start Num: 50

Candidate Starts for Fayely\_74:

(Start: 50 @43874 has 9 MA's), (Start: 63 @43850 has 127 MA's), (Start: 67 @43826 has 5 MA's), (75, 43790), (84, 43739), (97, 43685), (100, 43664), (103, 43643), (107, 43622), (108, 43616), (113, 43583), (114, 43580), (117, 43559), (118, 43556), (137, 43490), (138, 43487), (156, 43445), (158, 43442),

Gene: FiringLine\_75 Start: 45076, Stop: 44657, Start Num: 63

Candidate Starts for FiringLine\_75:

(44, 45115), (Start: 56 @45088 has 3 MA's), (Start: 63 @45076 has 127 MA's), (72, 45025), (Start: 76 @45013 has 3 MA's), (Start: 78 @44995 has 1 MA's), (100, 44890), (102, 44878), (103, 44869), (117, 44785), (120, 44773), (133, 44728), (139, 44704), (148, 44683), (153, 44671),

Gene: First\_0075 Start: 44772, Stop: 44359, Start Num: 63

Candidate Starts for First\_0075:

(Start: 63 @44772 has 127 MA's), (72, 44721), (75, 44712), (Start: 76 @44709 has 3 MA's), (Start: 78 @44691 has 1 MA's), (98, 44604), (103, 44565), (108, 44538), (117, 44481), (138, 44409), (151, 44376),

Gene: Flare16\_75 Start: 44780, Stop: 44361, Start Num: 63

Candidate Starts for Flare16\_75:

(23, 44879), (25, 44873), (39, 44822), (Start: 63 @44780 has 127 MA's), (Start: 76 @44717 has 3 MA's), (Start: 78 @44699 has 1 MA's), (98, 44612), (103, 44573), (108, 44546), (114, 44510), (117, 44489), (118, 44486), (120, 44477), (139, 44411), (146, 44393), (153, 44378),

Gene: ForesterFrank\_70 Start: 44873, Stop: 44457, Start Num: 63

Candidate Starts for ForesterFrank\_70:

(Start: 63 @44873 has 127 MA's), (98, 44702), (100, 44684), (117, 44579), (118, 44576), (120, 44567), (132, 44534), (133, 44528), (134, 44522), (138, 44507),

Gene: Garak\_78 Start: 43777, Stop: 43391, Start Num: 63

Candidate Starts for Garak\_78:

(Start: 48 @43804 has 9 MA's), (Start: 63 @43777 has 127 MA's), (74, 43720), (81, 43681), (103, 43573), (104, 43570), (107, 43552), (113, 43513), (114, 43510), (118, 43486), (124, 43468), (130, 43453), (141, 43414),

Gene: GaugeLDP\_70 Start: 44348, Stop: 43935, Start Num: 63

Candidate Starts for GaugeLDP\_70:

(Start: 63 @44348 has 127 MA's), (Start: 78 @44267 has 1 MA's), (89, 44213), (114, 44078), (117, 44057), (132, 44012), (133, 44006), (137, 43988), (146, 43964), (153, 43952), (154, 43949),

Gene: Georgie2\_76 Start: 45121, Stop: 44702, Start Num: 63

Candidate Starts for Georgie2\_76:

(44, 45160), (Start: 56 @45133 has 3 MA's), (Start: 63 @45121 has 127 MA's), (Start: 69 @45085 has 1 MA's), (72, 45070), (Start: 76 @45058 has 3 MA's), (Start: 78 @45040 has 1 MA's), (100, 44935), (102, 44923), (103, 44914), (117, 44830), (120, 44818), (133, 44773), (139, 44749), (148, 44728), (153, 44716),

Gene: Gladiator\_74 Start: 43707, Stop: 43294, Start Num: 48

Candidate Starts for Gladiator\_74:

(Start: 48 @43707 has 9 MA's), (Start: 63 @43680 has 127 MA's), (74, 43623), (81, 43584), (103, 43476), (104, 43473), (107, 43455), (113, 43416), (114, 43413), (118, 43389), (124, 43371), (130, 43356), (141, 43317),

Gene: Gratitude\_72 Start: 44641, Stop: 44222, Start Num: 63

Candidate Starts for Gratitude\_72:

(39, 44683), (Start: 63 @44641 has 127 MA's), (Start: 76 @44578 has 3 MA's), (Start: 78 @44560 has 1 MA's), (98, 44473), (103, 44434), (108, 44407), (114, 44371), (117, 44350), (118, 44347), (120, 44338), (139, 44272), (146, 44254), (153, 44239),

Gene: GreedyLawyer\_72 Start: 43594, Stop: 43193, Start Num: 54

Candidate Starts for GreedyLawyer\_72:

(Start: 54 @43594 has 19 MA's), (Start: 63 @43579 has 127 MA's), (Start: 67 @43555 has 5 MA's), (73, 43525), (Start: 76 @43516 has 3 MA's), (Start: 78 @43498 has 1 MA's), (81, 43483), (108, 43348), (113, 43315), (114, 43312), (118, 43288), (120, 43279), (133, 43246), (141, 43216), (142, 43213),

Gene: Gruunaga\_76 Start: 43635, Stop: 43249, Start Num: 63

Candidate Starts for Gruunaga\_76:

(Start: 48 @43662 has 9 MA's), (Start: 63 @43635 has 127 MA's), (74, 43578), (81, 43539), (103, 43431), (104, 43428), (107, 43410), (113, 43371), (114, 43368), (118, 43344), (124, 43326), (130, 43311), (141, 43272),

Gene: Hammer\_77 Start: 43342, Stop: 42956, Start Num: 63

Candidate Starts for Hammer\_77:

(Start: 48 @43369 has 9 MA's), (Start: 63 @43342 has 127 MA's), (74, 43285), (81, 43246), (103, 43138), (104, 43135), (107, 43117), (113, 43078), (114, 43075), (118, 43051), (124, 43033), (130, 43018), (141, 42979),

Gene: Hanray\_74 Start: 44188, Stop: 43793, Start Num: 67

Candidate Starts for Hanray\_74:

(Start: 63 @44212 has 127 MA's), (Start: 67 @44188 has 5 MA's), (75, 44152), (84, 44101), (97, 44047), (100, 44026), (103, 44005), (107, 43984), (108, 43978), (113, 43945), (114, 43942), (117, 43921), (118, 43918), (137, 43852), (138, 43849), (154, 43810), (156, 43807), (158, 43804),

Gene: HarryHoudini\_75 Start: 44820, Stop: 44392, Start Num: 56

Candidate Starts for HarryHoudini\_75:

(Start: 56 @44820 has 3 MA's), (Start: 63 @44808 has 127 MA's), (Start: 76 @44745 has 3 MA's), (Start: 78 @44727 has 1 MA's), (98, 44640), (100, 44622), (103, 44601), (114, 44538), (117, 44517), (118, 44514), (120, 44505), (139, 44439), (146, 44421), (153, 44406),

Gene: Heffalump\_72 Start: 45189, Stop: 44770, Start Num: 63

Candidate Starts for Heffalump\_72:

(40, 45237), (Start: 63 @45189 has 127 MA's), (Start: 76 @45126 has 3 MA's), (Start: 78 @45108 has 1 MA's), (100, 45003), (114, 44919), (118, 44895), (120, 44886), (133, 44841), (139, 44817), (142, 44808), (153, 44784),

Gene: Helmet\_79 Start: 43804, Stop: 43391, Start Num: 48

Candidate Starts for Helmet\_79:

(Start: 48 @43804 has 9 MA's), (Start: 63 @43777 has 127 MA's), (74, 43720), (81, 43681), (103, 43573), (104, 43570), (107, 43552), (113, 43513), (114, 43510), (118, 43486), (124, 43468), (130, 43453), (141, 43414),

Gene: Herbertwm\_71 Start: 44474, Stop: 44079, Start Num: 63

Candidate Starts for Herbertwm\_71:

(13, 44738), (32, 44561), (Start: 63 @44474 has 127 MA's), (Start: 76 @44411 has 3 MA's), (83, 44366), (90, 44342), (92, 44336), (97, 44312), (98, 44309), (102, 44279), (107, 44249), (108, 44243), (109, 44240), (113, 44210), (114, 44207), (127, 44159), (146, 44090),

Gene: Hexamo\_76 Start: 43311, Stop: 42925, Start Num: 63

Candidate Starts for Hexamo\_76:

(Start: 48 @43338 has 9 MA's), (Start: 63 @43311 has 127 MA's), (74, 43254), (81, 43215), (103, 43107), (104, 43104), (107, 43086), (113, 43047), (114, 43044), (118, 43020), (124, 43002), (130, 42987), (141, 42948),

Gene: HippoHollow\_72 Start: 45776, Stop: 45480, Start Num: 85

Candidate Starts for HippoHollow\_72:

(18, 46067), (21, 46046), (Start: 63 @45893 has 127 MA's), (Start: 76 @45830 has 3 MA's), (Start: 78 @45812 has 1 MA's), (85, 45776), (98, 45725), (100, 45707), (103, 45686), (117, 45602), (118, 45599), (120, 45590), (132, 45557), (151, 45497), (153, 45494),

Gene: Horex\_74 Start: 44204, Stop: 43809, Start Num: 67

Candidate Starts for Horex\_74:

(Start: 63 @44228 has 127 MA's), (Start: 67 @44204 has 5 MA's), (75, 44168), (84, 44117), (97, 44063), (100, 44042), (103, 44021), (107, 44000), (108, 43994), (113, 43961), (114, 43958), (117, 43937), (118, 43934), (137, 43868), (138, 43865), (154, 43826), (156, 43823), (158, 43820),

Gene: Hoot\_72 Start: 41464, Stop: 41078, Start Num: 63

Candidate Starts for Hoot\_72:

(Start: 54 @41479 has 19 MA's), (Start: 63 @41464 has 127 MA's), (Start: 67 @41440 has 5 MA's), (73, 41410), (Start: 76 @41401 has 3 MA's), (Start: 78 @41383 has 1 MA's), (81, 41368), (108, 41233), (113, 41200), (114, 41197), (118, 41173), (120, 41164), (133, 41131), (141, 41101), (142, 41098),

Gene: HortumSL17\_77 Start: 44236, Stop: 43793, Start Num: 50

Candidate Starts for HortumSL17\_77:

(14, 44461), (Start: 50 @44236 has 9 MA's), (Start: 63 @44212 has 127 MA's), (Start: 67 @44188 has 5 MA's), (75, 44152), (84, 44101), (97, 44047), (100, 44026), (103, 44005), (107, 43984), (108, 43978), (113, 43945), (114, 43942), (117, 43921), (118, 43918), (137, 43852), (138, 43849), (154, 43810), (156, 43807), (158, 43804),

Gene: IronMan\_72 Start: 45946, Stop: 45518, Start Num: 51

Candidate Starts for IronMan\_72:

(Start: 51 @45946 has 1 MA's), (74, 45862), (Start: 78 @45838 has 1 MA's), (83, 45811), (100, 45736), (114, 45649), (119, 45622), (129, 45586), (145, 45532), (147, 45529),

Gene: Isiphiwo\_74 Start: 43606, Stop: 43244, Start Num: 67

Candidate Starts for Isiphiwo\_74:

(Start: 54 @43645 has 19 MA's), (Start: 63 @43630 has 127 MA's), (Start: 67 @43606 has 5 MA's), (73, 43576), (Start: 76 @43567 has 3 MA's), (Start: 78 @43549 has 1 MA's), (81, 43534), (108, 43399), (113, 43366), (114, 43363), (118, 43339), (120, 43330), (133, 43297), (141, 43267), (142, 43264),

Gene: Iwokeuplikedis\_76 Start: 45258, Stop: 44842, Start Num: 63

Candidate Starts for Iwokeuplikedis\_76:

(Start: 63 @45258 has 127 MA's), (Start: 76 @45195 has 3 MA's), (Start: 78 @45177 has 1 MA's), (98, 45090), (100, 45072), (103, 45051), (108, 45024), (114, 44988), (117, 44967), (120, 44955), (139, 44889), (146, 44871), (153, 44856),

Gene: Jaan\_73 Start: 46110, Stop: 45688, Start Num: 54

Candidate Starts for Jaan\_73:

(Start: 54 @46110 has 19 MA's), (Start: 63 @46089 has 127 MA's), (68, 46059), (74, 46032), (Start: 78 @46008 has 1 MA's), (83, 45981), (92, 45948), (99, 45915), (100, 45906), (114, 45819), (119, 45792), (129, 45756), (135, 45735), (145, 45702), (147, 45699),

Gene: Jerm\_76 Start: 45198, Stop: 44779, Start Num: 63

Candidate Starts for Jerm\_76:

(23, 45303), (25, 45297), (39, 45246), (47, 45228), (53, 45213), (Start: 63 @45198 has 127 MA's), (Start: 76 @45135 has 3 MA's), (100, 45012), (103, 44991), (114, 44928), (120, 44895), (133, 44850), (135, 44841), (139, 44826), (146, 44808), (148, 44805), (153, 44793),

Gene: JewelBug\_76 Start: 44366, Stop: 43965, Start Num: 54

Candidate Starts for JewelBug\_76:

(Start: 54 @44366 has 19 MA's), (Start: 63 @44351 has 127 MA's), (Start: 67 @44327 has 5 MA's), (73, 44297), (Start: 76 @44288 has 3 MA's), (Start: 78 @44270 has 1 MA's), (81, 44255), (108, 44120), (113, 44087), (114, 44084), (118, 44060), (120, 44051), (133, 44018), (141, 43988), (142, 43985),

Gene: Jiawan\_73 Start: 44220, Stop: 43825, Start Num: 67

Candidate Starts for Jiawan\_73:

(Start: 63 @44244 has 127 MA's), (Start: 67 @44220 has 5 MA's), (75, 44184), (84, 44133), (97, 44079), (100, 44058), (103, 44037), (107, 44016), (108, 44010), (113, 43977), (114, 43974), (117, 43953), (118, 43950), (137, 43884), (138, 43881), (154, 43842), (156, 43839), (158, 43836),

Gene: Jordennis\_75 Start: 43860, Stop: 43459, Start Num: 54

Candidate Starts for Jordennis\_75:

(Start: 54 @43860 has 19 MA's), (Start: 63 @43845 has 127 MA's), (Start: 67 @43821 has 5 MA's), (73, 43791), (Start: 76 @43782 has 3 MA's), (Start: 78 @43764 has 1 MA's), (81, 43749), (108, 43614), (113, 43581), (114, 43578), (118, 43554), (120, 43545), (133, 43512), (141, 43482), (142, 43479),

Gene: JoshKayV\_75 Start: 45230, Stop: 44811, Start Num: 63

Candidate Starts for JoshKayV\_75:

(Start: 63 @45230 has 127 MA's), (Start: 76 @45167 has 3 MA's), (Start: 78 @45149 has 1 MA's), (100, 45044), (103, 45023), (108, 44996), (114, 44960), (117, 44939), (118, 44936), (120, 44927), (132, 44888), (133, 44882), (139, 44858), (142, 44849),

Gene: Journey13\_64 Start: 41400, Stop: 40975, Start Num: 59

Candidate Starts for Journey13\_64:

(40, 41442), (45, 41430), (Start: 59 @41400 has 6 MA's), (65, 41382), (71, 41361), (92, 41256), (111, 41127), (118, 41094), (120, 41085), (133, 41046), (137, 41028), (159, 40980),

Gene: Jsquared\_78 Start: 44346, Stop: 43909, Start Num: 59

Candidate Starts for Jsquared\_78:

(40, 44388), (Start: 59 @44346 has 6 MA's), (103, 44136), (111, 44076), (118, 44043), (120, 44034), (133, 43995), (160, 43923),

Gene: Kalpine\_74 Start: 45137, Stop: 44724, Start Num: 63

Candidate Starts for Kalpine\_74:

(Start: 63 @45137 has 127 MA's), (75, 45077), (Start: 76 @45074 has 3 MA's), (82, 45035), (102, 44939), (117, 44846), (120, 44834), (139, 44771), (154, 44738),

Gene: Kazan\_78 Start: 43634, Stop: 43233, Start Num: 54

Candidate Starts for Kazan\_78:

(Start: 54 @43634 has 19 MA's), (Start: 63 @43619 has 127 MA's), (Start: 67 @43595 has 5 MA's), (73, 43565), (Start: 76 @43556 has 3 MA's), (Start: 78 @43538 has 1 MA's), (81, 43523), (108, 43388), (113, 43355), (114, 43352), (118, 43328), (120, 43319), (133, 43286), (141, 43256), (142, 43253),

Gene: Kerberos\_77 Start: 45276, Stop: 44857, Start Num: 63

Candidate Starts for Kerberos\_77:

(Start: 63 @45276 has 127 MA's), (73, 45222), (83, 45168), (100, 45093), (108, 45045), (113, 45012), (114, 45009), (117, 44988), (129, 44946), (133, 44934), (138, 44913), (146, 44889), (155, 44871),

Gene: Keziacharles14\_73 Start: 44835, Stop: 44419, Start Num: 63

Candidate Starts for Keziacharles14\_73:

(Start: 63 @44835 has 127 MA's), (Start: 67 @44811 has 5 MA's), (Start: 76 @44772 has 3 MA's), (Start: 78 @44754 has 1 MA's), (97, 44667), (100, 44646), (113, 44565), (114, 44562), (117, 44541), (122, 44520),

Gene: KingCyrus\_74 Start: 46215, Stop: 45796, Start Num: 63

Candidate Starts for KingCyrus\_74:

(39, 46263), (Start: 63 @46215 has 127 MA's), (Start: 69 @46179 has 1 MA's), (Start: 76 @46152 has 3 MA's), (Start: 78 @46134 has 1 MA's), (100, 46029), (114, 45945), (117, 45924), (118, 45921), (120, 45912), (132, 45873), (135, 45858), (139, 45843), (146, 45825), (148, 45822), (153, 45810),

Gene: Kipper29\_77 Start: 43647, Stop: 43246, Start Num: 54

Candidate Starts for Kipper29\_77:

(Start: 54 @43647 has 19 MA's), (Start: 63 @43632 has 127 MA's), (Start: 67 @43608 has 5 MA's), (73, 43578), (Start: 76 @43569 has 3 MA's), (Start: 78 @43551 has 1 MA's), (81, 43536), (108, 43401), (113, 43368), (114, 43365), (118, 43341), (120, 43332), (133, 43299), (141, 43269), (142, 43266),

Gene: Klodlith\_71 Start: 43378, Stop: 42980, Start Num: 66

Candidate Starts for Klodlith\_71:

(Start: 63 @43399 has 127 MA's), (66, 43378), (Start: 67 @43375 has 5 MA's), (74, 43342), (96, 43234), (97, 43231), (100, 43210), (103, 43189), (113, 43129), (114, 43126), (117, 43105), (122, 43084), (133, 43054),

Gene: Koduck\_76 Start: 44123, Stop: 43686, Start Num: 59

Candidate Starts for Koduck\_76:

(Start: 59 @44123 has 6 MA's), (102, 43922), (103, 43913), (111, 43853), (117, 43823), (118, 43820), (120, 43811), (133, 43772), (160, 43700),

Gene: Koko\_78 Start: 44166, Stop: 43780, Start Num: 63

Candidate Starts for Koko\_78:

(Start: 48 @44193 has 9 MA's), (Start: 63 @44166 has 127 MA's), (74, 44109), (81, 44070), (103, 43962), (104, 43959), (107, 43941), (113, 43902), (114, 43899), (118, 43875), (124, 43857), (130, 43842), (141, 43803),

Gene: L5\_70 Start: 44276, Stop: 43839, Start Num: 59

Candidate Starts for L5\_70:

(Start: 59 @44276 has 6 MA's), (102, 44075), (103, 44066), (111, 44006), (117, 43976), (118, 43973), (120, 43964), (133, 43925), (160, 43853),

Gene: LadyBird\_78 Start: 45434, Stop: 45021, Start Num: 63

Candidate Starts for LadyBird\_78:

(26, 45533), (41, 45476), (53, 45446), (Start: 63 @45434 has 127 MA's), (75, 45374), (Start: 76 @45371 has 3 MA's), (Start: 78 @45353 has 1 MA's), (98, 45266), (117, 45143), (118, 45140), (138, 45071), (151, 45038),

Gene: Landor\_73 Start: 46033, Stop: 45611, Start Num: 54

Candidate Starts for Landor\_73:

(Start: 54 @46033 has 19 MA's), (Start: 63 @46012 has 127 MA's), (68, 45982), (74, 45955), (Start: 78 @45931 has 1 MA's), (83, 45904), (92, 45871), (100, 45829), (114, 45742), (119, 45715), (129, 45679), (135, 45658), (145, 45625), (147, 45622),

Gene: Larenn\_71 Start: 44473, Stop: 44057, Start Num: 63

Candidate Starts for Larenn\_71:

(37, 44524), (Start: 63 @44473 has 127 MA's), (73, 44419), (Start: 76 @44410 has 3 MA's), (Start: 78 @44392 has 1 MA's), (89, 44338), (106, 44254), (108, 44239), (114, 44203), (117, 44182), (120, 44170), (133, 44131), (138, 44110), (147, 44086),

Gene: Leogania\_73 Start: 45163, Stop: 44750, Start Num: 63

Candidate Starts for Leogania\_73:

(Start: 63 @45163 has 127 MA's), (Start: 69 @45127 has 1 MA's), (97, 44998), (100, 44977), (114, 44893), (117, 44872), (120, 44860), (126, 44842), (129, 44836), (133, 44821), (151, 44767), (154, 44764),

Gene: Leviathan\_76 Start: 45265, Stop: 44846, Start Num: 63

Candidate Starts for Leviathan\_76:

(39, 45313), (47, 45295), (53, 45280), (Start: 63 @45265 has 127 MA's), (Start: 76 @45202 has 3 MA's), (100, 45079), (103, 45058), (114, 44995), (120, 44962), (133, 44917), (135, 44908), (139, 44893), (146, 44875), (148, 44872), (153, 44860),

Gene: LilTurb\_75 Start: 45079, Stop: 44660, Start Num: 63

Candidate Starts for LilTurb\_75:

(39, 45127), (47, 45109), (53, 45094), (Start: 63 @45079 has 127 MA's), (Start: 76 @45016 has 3 MA's), (100, 44893), (103, 44872), (114, 44809), (120, 44776), (133, 44731), (135, 44722), (139, 44707), (146, 44689), (148, 44686), (153, 44674),

Gene: Lilbunny\_76 Start: 43435, Stop: 43022, Start Num: 48

Candidate Starts for Lilbunny\_76:

(Start: 48 @43435 has 9 MA's), (Start: 63 @43408 has 127 MA's), (74, 43351), (81, 43312), (103, 43204), (104, 43201), (107, 43183), (113, 43144), (114, 43141), (118, 43117), (124, 43099), (130, 43084), (141, 43045),

Gene: Lilleskat\_73 Start: 44169, Stop: 43750, Start Num: 63

Candidate Starts for Lilleskat\_73:

(Start: 63 @44169 has 127 MA's), (Start: 67 @44145 has 5 MA's), (75, 44109), (84, 44058), (97, 44004), (100, 43983), (103, 43962), (107, 43941), (108, 43935), (113, 43902), (114, 43899), (117, 43878), (118, 43875), (137, 43809), (138, 43806), (154, 43767), (156, 43764), (158, 43761),

Gene: LionsBait\_74 Start: 45777, Stop: 45481, Start Num: 85

Candidate Starts for LionsBait\_74:

(23, 46008), (25, 46002), (39, 45945), (Start: 63 @45894 has 127 MA's), (Start: 76 @45831 has 3 MA's), (Start: 78 @45813 has 1 MA's), (85, 45777), (98, 45726), (100, 45708), (103, 45687), (114, 45624), (117, 45603), (118, 45600), (120, 45591), (132, 45558), (151, 45498), (153, 45495),

Gene: Lokk\_68 Start: 43280, Stop: 42864, Start Num: 63

Candidate Starts for Lokk\_68:

(55, 43292), (Start: 63 @43280 has 127 MA's), (Start: 76 @43217 has 3 MA's), (89, 43145), (108, 43046), (113, 43013), (114, 43010), (117, 42989), (120, 42977), (133, 42935), (138, 42914), (143, 42902), (153, 42881), (154, 42878), (156, 42875),

Gene: LoneWolf\_77 Start: 44460, Stop: 44041, Start Num: 63

Candidate Starts for LoneWolf\_77:

(3, 44889), (8, 44832), (9, 44763), (14, 44706), (15, 44703), (Start: 63 @44460 has 127 MA's), (Start: 67 @44436 has 5 MA's), (74, 44403), (Start: 78 @44379 has 1 MA's), (96, 44295), (97, 44292), (100, 44271), (113, 44190), (114, 44187), (117, 44166), (118, 44163), (122, 44145), (149, 44067), (154, 44055),

Gene: Loser\_76 Start: 45354, Stop: 44947, Start Num: 62

Candidate Starts for Loser\_76:

(30, 45441), (Start: 62 @45354 has 2 MA's), (Start: 67 @45330 has 5 MA's), (71, 45315), (98, 45186), (100, 45168), (102, 45156), (118, 45060), (144, 44979),

Gene: Lucyedi\_79 Start: 45552, Stop: 45145, Start Num: 63

Candidate Starts for Lucyedi\_79:

(Start: 63 @45552 has 127 MA's), (Start: 67 @45528 has 5 MA's), (70, 45516), (Start: 78 @45471 has 1 MA's), (95, 45402), (97, 45387), (100, 45366), (104, 45342), (113, 45285), (114, 45282), (120, 45249), (150, 45159), (151, 45156),

Gene: MajorMajor\_76 Start: 44213, Stop: 43776, Start Num: 59

Candidate Starts for MajorMajor\_76:

(25, 44315), (28, 44309), (Start: 59 @44213 has 6 MA's), (103, 44003), (111, 43943), (117, 43913), (118, 43910), (120, 43901), (133, 43862), (160, 43790),

Gene: Malec\_72 Start: 45040, Stop: 44624, Start Num: 63

Candidate Starts for Malec\_72:

(37, 45091), (Start: 63 @45040 has 127 MA's), (73, 44986), (Start: 76 @44977 has 3 MA's), (Start: 78 @44959 has 1 MA's), (89, 44905), (106, 44821), (108, 44806), (114, 44770), (117, 44749), (120, 44737), (133, 44698), (138, 44677), (147, 44653),

Gene: Maminiaina\_76 Start: 44374, Stop: 43958, Start Num: 63

Candidate Starts for Maminiaina\_76:

(Start: 50 @44398 has 9 MA's), (Start: 63 @44374 has 127 MA's), (Start: 67 @44350 has 5 MA's), (74, 44317), (97, 44206), (100, 44185), (113, 44104), (114, 44101), (117, 44080), (118, 44077), (122, 44059), (154, 43969),

Gene: McFly\_78 Start: 44248, Stop: 43862, Start Num: 63

Candidate Starts for McFly\_78:

(Start: 54 @44263 has 19 MA's), (Start: 63 @44248 has 127 MA's), (Start: 67 @44224 has 5 MA's), (73, 44194), (Start: 76 @44185 has 3 MA's), (Start: 78 @44167 has 1 MA's), (81, 44152), (108, 44017), (113, 43984), (114, 43981), (118, 43957), (120, 43948), (133, 43915), (141, 43885), (142, 43882),

Gene: MegTheThird\_71 Start: 43394, Stop: 42978, Start Num: 63

Candidate Starts for MegTheThird\_71:

(Start: 63 @43394 has 127 MA's), (Start: 67 @43370 has 5 MA's), (73, 43340), (74, 43337), (Start: 76 @43331 has 3 MA's), (96, 43229), (100, 43205), (103, 43184), (108, 43157), (113, 43124), (114, 43121), (117, 43100), (118, 43097),

Gene: MiculUcigas\_75 Start: 44683, Stop: 44264, Start Num: 63

Candidate Starts for MiculUcigas\_75:

(23, 44782), (25, 44776), (39, 44725), (Start: 63 @44683 has 127 MA's), (Start: 76 @44620 has 3 MA's), (Start: 78 @44602 has 1 MA's), (98, 44515), (103, 44476), (108, 44449), (114, 44413), (117, 44392), (120, 44380), (139, 44314), (146, 44296), (153, 44281),

Gene: Miko\_68 Start: 44058, Stop: 43642, Start Num: 63

Candidate Starts for Miko\_68:

(55, 44070), (Start: 63 @44058 has 127 MA's), (Start: 76 @43995 has 3 MA's), (89, 43923), (108, 43824), (113, 43791), (114, 43788), (117, 43767), (120, 43755), (133, 43713), (138, 43692), (143, 43680), (153, 43659), (154, 43656), (156, 43653),

Gene: Minispark\_74 Start: 44005, Stop: 43586, Start Num: 63

Candidate Starts for Minispark\_74:

(Start: 63 @44005 has 127 MA's), (Start: 67 @43981 has 5 MA's), (Start: 78 @43924 has 1 MA's), (97, 43837), (100, 43816), (108, 43768), (113, 43735), (114, 43732), (118, 43708), (122, 43690), (136, 43645),

Gene: MissWhite\_73 Start: 43236, Stop: 42826, Start Num: 67

Candidate Starts for MissWhite\_73:

(Start: 59 @43263 has 6 MA's), (Start: 67 @43236 has 5 MA's), (86, 43137), (95, 43107), (100, 43071), (111, 42990), (120, 42948), (132, 42915), (133, 42909), (135, 42900), (137, 42891), (160, 42840),

Gene: Myxus\_76 Start: 44236, Stop: 43793, Start Num: 50

Candidate Starts for Myxus\_76:

(14, 44461), (Start: 50 @44236 has 9 MA's), (Start: 63 @44212 has 127 MA's), (Start: 67 @44188 has 5 MA's), (75, 44152), (84, 44101), (97, 44047), (100, 44026), (103, 44005), (107, 43984), (108, 43978), (113, 43945), (114, 43942), (117, 43921), (118, 43918), (137, 43852), (138, 43849), (154, 43810), (156, 43807), (158, 43804),

Gene: NaSiaTalie\_75 Start: 44777, Stop: 44358, Start Num: 63

Candidate Starts for NaSiaTalie\_75:

(23, 44876), (25, 44870), (39, 44819), (Start: 63 @44777 has 127 MA's), (Start: 76 @44714 has 3 MA's), (Start: 78 @44696 has 1 MA's), (98, 44609), (103, 44570), (108, 44543), (114, 44507), (117, 44486), (118, 44483), (120, 44474), (139, 44408), (146, 44390), (153, 44375),

Gene: Naji\_77 Start: 45277, Stop: 44858, Start Num: 63

Candidate Starts for Naji\_77:

(Start: 63 @45277 has 127 MA's), (83, 45169), (100, 45094), (108, 45046), (113, 45013), (114, 45010), (117, 44989), (129, 44947), (138, 44914), (142, 44902), (146, 44890), (155, 44872),

Gene: Neeharika16\_76 Start: 43730, Stop: 43329, Start Num: 54

Candidate Starts for Neeharika16\_76:

(Start: 54 @43730 has 19 MA's), (Start: 63 @43715 has 127 MA's), (Start: 67 @43691 has 5 MA's), (73, 43661), (Start: 76 @43652 has 3 MA's), (Start: 78 @43634 has 1 MA's), (81, 43619), (108, 43484), (113, 43451), (114, 43448), (118, 43424), (120, 43415), (133, 43382), (141, 43352), (142, 43349),

Gene: Newrala\_76 Start: 44069, Stop: 43668, Start Num: 54

Candidate Starts for Newrala\_76:

(Start: 54 @44069 has 19 MA's), (Start: 63 @44054 has 127 MA's), (Start: 67 @44030 has 5 MA's), (73, 44000), (Start: 76 @43991 has 3 MA's), (Start: 78 @43973 has 1 MA's), (81, 43958), (108, 43823), (113, 43790), (114, 43787), (118, 43763), (120, 43754), (133, 43721), (141, 43691), (142, 43688),

Gene: NicoleTera\_72 Start: 44794, Stop: 44381, Start Num: 63

Candidate Starts for NicoleTera\_72:

(Start: 63 @44794 has 127 MA's), (95, 44644), (98, 44626), (100, 44608), (117, 44503), (120, 44491), (133, 44452), (154, 44395),

Gene: NothingSpecial\_70 Start: 44782, Stop: 44381, Start Num: 61

Candidate Starts for NothingSpecial\_70:

(Start: 61 @44782 has 2 MA's), (Start: 63 @44779 has 127 MA's), (83, 44671), (100, 44596), (103, 44575), (107, 44554), (108, 44548), (109, 44545), (113, 44515), (114, 44512), (117, 44491), (118, 44488), (135, 44428), (137, 44419),

Gene: Odin\_76 Start: 44758, Stop: 44339, Start Num: 63

Candidate Starts for Odin\_76:

(31, 44836), (36, 44809), (38, 44806), (Start: 63 @44758 has 127 MA's), (86, 44638), (89, 44623), (91, 44617), (97, 44593), (103, 44551), (111, 44491), (112, 44488), (118, 44458), (120, 44449), (137, 44392), (154, 44353),

Gene: Onglai\_74 Start: 42392, Stop: 41997, Start Num: 67

Candidate Starts for Onglai\_74:

(Start: 63 @42416 has 127 MA's), (Start: 67 @42392 has 5 MA's), (75, 42356), (84, 42305), (97, 42251), (100, 42230), (103, 42209), (107, 42188), (108, 42182), (113, 42149), (114, 42146), (117, 42125), (118, 42122), (137, 42056), (138, 42053), (154, 42014), (156, 42011), (158, 42008),

Gene: PackMan\_75 Start: 44087, Stop: 43668, Start Num: 63

Candidate Starts for PackMan\_75:

(14, 44336), (Start: 50 @44111 has 9 MA's), (Start: 63 @44087 has 127 MA's), (Start: 67 @44063 has 5 MA's), (75, 44027), (84, 43976), (97, 43922), (100, 43901), (103, 43880), (107, 43859), (108, 43853), (113, 43820), (114, 43817), (117, 43796), (118, 43793), (137, 43727), (138, 43724), (154, 43685), (156, 43682), (158, 43679),

Gene: PainterBoy\_78 Start: 45261, Stop: 44854, Start Num: 63

Candidate Starts for PainterBoy\_78:

(Start: 63 @45261 has 127 MA's), (Start: 67 @45237 has 5 MA's), (70, 45225), (Start: 78 @45180 has 1 MA's), (95, 45111), (97, 45096), (100, 45075), (104, 45051), (113, 44994), (114, 44991), (120, 44958), (150, 44868), (151, 44865),

Gene: Ph8s\_79 Start: 44796, Stop: 44377, Start Num: 63

Candidate Starts for Ph8s\_79:

(10, 45069), (11, 45066), (27, 44889), (38, 44844), (Start: 63 @44796 has 127 MA's), (Start: 76 @44733 has 3 MA's), (Start: 78 @44715 has 1 MA's), (79, 44712), (89, 44661), (100, 44610), (108, 44562), (111, 44529), (120, 44487), (137, 44430), (154, 44391),

Gene: Phaded\_70 Start: 45992, Stop: 45570, Start Num: 54

Candidate Starts for Phaded\_70:

(Start: 54 @45992 has 19 MA's), (Start: 63 @45971 has 127 MA's), (68, 45941), (74, 45914), (Start: 78 @45890 has 1 MA's), (83, 45863), (92, 45830), (100, 45788), (114, 45701), (119, 45674), (129, 45638), (135, 45617), (145, 45584), (147, 45581),

Gene: Phaeder\_76 Start: 44087, Stop: 43668, Start Num: 63

Candidate Starts for Phaeder\_76:

(14, 44336), (Start: 50 @44111 has 9 MA's), (Start: 63 @44087 has 127 MA's), (Start: 67 @44063 has 5 MA's), (75, 44027), (84, 43976), (97, 43922), (100, 43901), (103, 43880), (107, 43859), (108, 43853), (113, 43820), (114, 43817), (117, 43796), (118, 43793), (137, 43727), (138, 43724), (154, 43685), (156, 43682), (158, 43679),

Gene: Pharaoh\_70 Start: 44179, Stop: 43772, Start Num: 63

Candidate Starts for Pharaoh\_70:

(49, 44209), (Start: 63 @44179 has 127 MA's), (Start: 67 @44155 has 5 MA's), (Start: 69 @44143 has 1 MA's), (74, 44122), (91, 44041), (100, 43996), (108, 43942), (114, 43906), (115, 43894), (119, 43879), (124, 43864), (152, 43783),

Gene: Phonnegut\_76 Start: 44157, Stop: 43738, Start Num: 63

Candidate Starts for Phonnegut\_76:

(Start: 63 @44157 has 127 MA's), (Start: 67 @44133 has 5 MA's), (75, 44097), (84, 44046), (97, 43992), (100, 43971), (103, 43950), (107, 43929), (108, 43923), (113, 43890), (114, 43887), (117, 43866), (118, 43863), (137, 43797), (138, 43794), (154, 43755), (156, 43752), (158, 43749),

Gene: Pioneer\_76 Start: 44133, Stop: 43738, Start Num: 67

Candidate Starts for Pioneer\_76:

(Start: 63 @44157 has 127 MA's), (Start: 67 @44133 has 5 MA's), (75, 44097), (84, 44046), (97, 43992), (100, 43971), (103, 43950), (107, 43929), (108, 43923), (113, 43890), (114, 43887), (117, 43866), (118, 43863), (137, 43797), (138, 43794), (154, 43755), (156, 43752), (158, 43749),

Gene: Piro94\_74 Start: 44742, Stop: 44326, Start Num: 63

Candidate Starts for Piro94\_74:

(39, 44793), (Start: 56 @44754 has 3 MA's), (Start: 63 @44742 has 127 MA's), (Start: 76 @44679 has 3 MA's), (Start: 78 @44661 has 1 MA's), (100, 44556), (103, 44535), (114, 44472), (117, 44451), (118, 44448), (120, 44439), (139, 44373), (146, 44355), (153, 44340),

Gene: Pmask\_76 Start: 44267, Stop: 43866, Start Num: 54

Candidate Starts for Pmask\_76:

(Start: 54 @44267 has 19 MA's), (Start: 63 @44252 has 127 MA's), (Start: 67 @44228 has 5 MA's), (73, 44198), (Start: 76 @44189 has 3 MA's), (Start: 78 @44171 has 1 MA's), (81, 44156), (108, 44021), (113, 43988), (114, 43985), (118, 43961), (120, 43952), (133, 43919), (141, 43889), (142, 43886),

Gene: Polyphemus\_78 Start: 44355, Stop: 44050, Start Num: 78

Candidate Starts for Polyphemus\_78:

(Start: 54 @44451 has 19 MA's), (Start: 63 @44436 has 127 MA's), (Start: 67 @44412 has 5 MA's), (73, 44382), (Start: 76 @44373 has 3 MA's), (Start: 78 @44355 has 1 MA's), (81, 44340), (108, 44205), (113, 44172), (114, 44169), (118, 44145), (120, 44136), (133, 44103), (141, 44073), (142, 44070),

Gene: Pomar16\_77 Start: 45317, Stop: 44898, Start Num: 63

Candidate Starts for Pomar16\_77:

(Start: 63 @45317 has 127 MA's), (73, 45263), (83, 45209), (100, 45134), (108, 45086), (113, 45053), (114, 45050), (117, 45029), (129, 44987), (133, 44975), (138, 44954), (142, 44942), (146, 44930), (155, 44912),

Gene: Power\_74 Start: 45119, Stop: 44700, Start Num: 63

Candidate Starts for Power\_74:

(44, 45158), (Start: 56 @45131 has 3 MA's), (Start: 63 @45119 has 127 MA's), (Start: 69 @45083 has 1 MA's), (72, 45068), (Start: 76 @45056 has 3 MA's), (Start: 78 @45038 has 1 MA's), (100, 44933), (102, 44921), (103, 44912), (117, 44828), (120, 44816), (133, 44771), (139, 44747), (148, 44726), (153, 44714),

Gene: Priamo\_78 Start: 43907, Stop: 43521, Start Num: 63

Candidate Starts for Priamo\_78:

(40, 43952), (Start: 48 @43931 has 9 MA's), (Start: 63 @43907 has 127 MA's), (81, 43811), (88, 43781), (103, 43703), (107, 43682), (113, 43643), (114, 43640), (118, 43616), (137, 43556),

Gene: Priya\_74 Start: 43884, Stop: 43465, Start Num: 63

Candidate Starts for Priya\_74:

(Start: 50 @43908 has 9 MA's), (Start: 63 @43884 has 127 MA's), (Start: 67 @43860 has 5 MA's), (75, 43824), (84, 43773), (97, 43719), (100, 43698), (103, 43677), (107, 43656), (108, 43650), (113, 43617), (114, 43614), (117, 43593), (118, 43590), (137, 43524), (138, 43521), (156, 43479), (158, 43476),

Gene: Prudy\_68 Start: 44804, Stop: 44460, Start Num: 77

Candidate Starts for Prudy\_68:

(46, 44906), (52, 44891), (Start: 62 @44873 has 2 MA's), (77, 44804), (Start: 78 @44792 has 1 MA's), (80, 44780), (82, 44771), (98, 44705), (100, 44687), (103, 44666), (117, 44582), (118, 44579), (120, 44570), (132, 44537), (137, 44513), (154, 44474),

Gene: Pukovnik\_71 Start: 45610, Stop: 45206, Start Num: 61

Candidate Starts for Pukovnik\_71:

(Start: 61 @45610 has 2 MA's), (Start: 63 @45607 has 127 MA's), (83, 45499), (100, 45424), (107, 45382), (108, 45376), (113, 45343), (114, 45340), (117, 45319), (118, 45316), (135, 45256), (137,

45247), (142, 45232),

Gene: Qobbit\_74 Start: 43870, Stop: 43427, Start Num: 50

Candidate Starts for Qobbit\_74:

(Start: 50 @43870 has 9 MA's), (Start: 63 @43846 has 127 MA's), (Start: 67 @43822 has 5 MA's), (75, 43786), (84, 43735), (97, 43681), (100, 43660), (103, 43639), (107, 43618), (108, 43612), (113, 43579), (114, 43576), (117, 43555), (118, 43552), (137, 43486), (138, 43483), (156, 43441), (158, 43438),

Gene: QueenB2\_72 Start: 44402, Stop: 43983, Start Num: 63

Candidate Starts for QueenB2\_72:

(40, 44450), (Start: 63 @44402 has 127 MA's), (Start: 76 @44339 has 3 MA's), (Start: 78 @44321 has 1 MA's), (100, 44216), (114, 44132), (118, 44108), (120, 44099), (133, 44054), (139, 44030), (142, 44021), (153, 43997),

Gene: QueenBeesly\_75 Start: 45076, Stop: 44657, Start Num: 63

Candidate Starts for QueenBeesly\_75:

(44, 45115), (Start: 56 @45088 has 3 MA's), (Start: 63 @45076 has 127 MA's), (72, 45025), (Start: 76 @45013 has 3 MA's), (Start: 78 @44995 has 1 MA's), (100, 44890), (102, 44878), (103, 44869), (117, 44785), (120, 44773), (133, 44728), (139, 44704), (148, 44683), (153, 44671),

Gene: Quokka\_76 Start: 44213, Stop: 43776, Start Num: 59

Candidate Starts for Quokka\_76:

(25, 44315), (28, 44309), (Start: 59 @44213 has 6 MA's), (103, 44003), (111, 43943), (117, 43913), (118, 43910), (120, 43901), (133, 43862), (160, 43790),

Gene: Rachaly\_70 Start: 44203, Stop: 43787, Start Num: 63

Candidate Starts for Rachaly\_70:

(55, 44215), (Start: 63 @44203 has 127 MA's), (Start: 76 @44140 has 3 MA's), (89, 44068), (108, 43969), (113, 43936), (114, 43933), (117, 43912), (120, 43900), (133, 43858), (138, 43837), (143, 43825), (153, 43804), (154, 43801), (156, 43798),

Gene: Rahalelujah\_76 Start: 44020, Stop: 43601, Start Num: 63

Candidate Starts for Rahalelujah\_76:

(Start: 63 @44020 has 127 MA's), (Start: 67 @43996 has 5 MA's), (Start: 78 @43939 has 1 MA's), (97, 43852), (100, 43831), (108, 43783), (113, 43750), (114, 43747), (118, 43723), (122, 43705), (136, 43660),

Gene: RedRock\_73 Start: 45123, Stop: 44716, Start Num: 62

Candidate Starts for RedRock\_73:

(43, 45162), (Start: 62 @45123 has 2 MA's), (Start: 67 @45099 has 5 MA's), (82, 45021), (98, 44955), (100, 44937), (117, 44832),

Gene: Retro23\_75 Start: 44806, Stop: 44387, Start Num: 63

Candidate Starts for Retro23\_75:

(18, 44974), (20, 44956), (21, 44953), (40, 44854), (Start: 63 @44806 has 127 MA's), (Start: 76 @44743 has 3 MA's), (Start: 78 @44725 has 1 MA's), (100, 44620), (114, 44536), (117, 44515), (120, 44503), (133, 44458), (135, 44449), (139, 44434), (142, 44425), (153, 44401),

Gene: Rifter\_77 Start: 42938, Stop: 42552, Start Num: 63

Candidate Starts for Rifter\_77:

(Start: 48 @42965 has 9 MA's), (Start: 63 @42938 has 127 MA's), (74, 42881), (81, 42842), (103, 42734), (104, 42731), (107, 42713), (113, 42674), (114, 42671), (118, 42647), (124, 42629), (130,

42614), (141, 42575),

Gene: Roksolana\_77 Start: 43672, Stop: 43286, Start Num: 63

Candidate Starts for Roksolana\_77:

(Start: 48 @43699 has 9 MA's), (Start: 63 @43672 has 127 MA's), (74, 43615), (81, 43576), (103, 43468), (104, 43465), (107, 43447), (113, 43408), (114, 43405), (118, 43381), (124, 43363), (130, 43348), (141, 43309),

Gene: RyeScarlet\_77 Start: 44108, Stop: 43713, Start Num: 67

Candidate Starts for RyeScarlet\_77:

(Start: 63 @44132 has 127 MA's), (Start: 67 @44108 has 5 MA's), (75, 44072), (84, 44021), (97, 43967), (100, 43946), (103, 43925), (107, 43904), (108, 43898), (113, 43865), (114, 43862), (117, 43841), (118, 43838), (137, 43772), (138, 43769), (154, 43730), (156, 43727), (158, 43724),

Gene: Sachima\_72 Start: 44089, Stop: 43694, Start Num: 67

Candidate Starts for Sachima\_72:

(Start: 63 @44113 has 127 MA's), (Start: 67 @44089 has 5 MA's), (75, 44053), (84, 44002), (97, 43948), (100, 43927), (103, 43906), (107, 43885), (108, 43879), (113, 43846), (114, 43843), (117, 43822), (118, 43819), (137, 43753), (138, 43750), (154, 43711), (156, 43708), (158, 43705),

Gene: Scherzo\_75 Start: 44403, Stop: 43957, Start Num: 50

Candidate Starts for Scherzo\_75:

(Start: 50 @44403 has 9 MA's), (Start: 63 @44379 has 127 MA's), (Start: 67 @44355 has 5 MA's), (75, 44319), (84, 44268), (97, 44214), (100, 44193), (103, 44172), (107, 44151), (108, 44145), (113, 44112), (114, 44109), (117, 44088), (118, 44085), (137, 44019), (138, 44016), (154, 43977),

Gene: SemperFi\_75 Start: 44964, Stop: 44545, Start Num: 63

Candidate Starts for SemperFi\_75:

(44, 45003), (Start: 56 @44976 has 3 MA's), (Start: 63 @44964 has 127 MA's), (72, 44913), (Start: 76 @44901 has 3 MA's), (Start: 78 @44883 has 1 MA's), (100, 44778), (102, 44766), (103, 44757), (117, 44673), (120, 44661), (133, 44616), (139, 44592), (148, 44571), (153, 44559),

Gene: Serenity\_78 Start: 44410, Stop: 43973, Start Num: 59

Candidate Starts for Serenity\_78:

(40, 44452), (Start: 59 @44410 has 6 MA's), (Start: 67 @44386 has 5 MA's), (103, 44200), (111, 44140), (118, 44107), (120, 44098), (133, 44059), (160, 43987),

Gene: SheaKeira\_70 Start: 43202, Stop: 42783, Start Num: 63

Candidate Starts for SheaKeira\_70:

(Start: 63 @43202 has 127 MA's), (Start: 67 @43178 has 5 MA's), (Start: 76 @43139 has 3 MA's), (96, 43037), (97, 43034), (100, 43013), (103, 42992), (113, 42932), (114, 42929), (122, 42887),

Gene: Sknot\_75 Start: 44777, Stop: 44358, Start Num: 63

Candidate Starts for Sknot\_75:

(23, 44876), (25, 44870), (39, 44819), (Start: 63 @44777 has 127 MA's), (Start: 76 @44714 has 3 MA's), (Start: 78 @44696 has 1 MA's), (98, 44609), (103, 44570), (108, 44543), (114, 44507), (117, 44486), (118, 44483), (120, 44474), (139, 44408), (146, 44390), (153, 44375),

Gene: Smeagan\_77 Start: 45356, Stop: 44937, Start Num: 63

Candidate Starts for Smeagan\_77:

(39, 45404), (47, 45386), (53, 45371), (Start: 63 @45356 has 127 MA's), (Start: 76 @45293 has 3 MA's), (100, 45170), (103, 45149), (114, 45086), (120, 45053), (133, 45008), (135, 44999), (139, 44984), (146, 44966), (148, 44963), (153, 44951),

Gene: SmellyB\_77 Start: 43589, Stop: 43227, Start Num: 67

Candidate Starts for SmellyB\_77:

(Start: 54 @43628 has 19 MA's), (Start: 63 @43613 has 127 MA's), (Start: 67 @43589 has 5 MA's), (73, 43559), (Start: 76 @43550 has 3 MA's), (Start: 78 @43532 has 1 MA's), (81, 43517), (108, 43382), (113, 43349), (114, 43346), (118, 43322), (120, 43313), (133, 43280), (141, 43250), (142, 43247),

Gene: SnapTap\_74 Start: 44775, Stop: 44356, Start Num: 63

Candidate Starts for SnapTap\_74:

(44, 44814), (Start: 56 @44787 has 3 MA's), (Start: 63 @44775 has 127 MA's), (Start: 69 @44739 has 1 MA's), (72, 44724), (Start: 76 @44712 has 3 MA's), (Start: 78 @44694 has 1 MA's), (100, 44589), (102, 44577), (103, 44568), (117, 44484), (120, 44472), (133, 44427), (139, 44403), (148, 44382), (153, 44370),

Gene: Spouty\_74 Start: 43907, Stop: 43464, Start Num: 50

Candidate Starts for Spouty\_74:

(Start: 50 @43907 has 9 MA's), (Start: 63 @43883 has 127 MA's), (Start: 67 @43859 has 5 MA's), (75, 43823), (84, 43772), (97, 43718), (100, 43697), (103, 43676), (107, 43655), (108, 43649), (113, 43616), (114, 43613), (117, 43592), (118, 43589), (137, 43523), (138, 43520), (156, 43478), (158, 43475),

Gene: StarStuff\_77 Start: 45279, Stop: 44860, Start Num: 63

Candidate Starts for StarStuff\_77:

(Start: 63 @45279 has 127 MA's), (83, 45171), (91, 45141), (100, 45096), (108, 45048), (113, 45015), (114, 45012), (117, 44991), (129, 44949), (138, 44916), (142, 44904), (146, 44892), (155, 44874),

Gene: Steamy\_69 Start: 43627, Stop: 43226, Start Num: 63

Candidate Starts for Steamy\_69:

(Start: 63 @43627 has 127 MA's), (75, 43567), (83, 43519), (87, 43504), (92, 43486), (100, 43444), (101, 43438), (110, 43381), (113, 43363), (121, 43324), (123, 43309), (129, 43297), (133, 43285), (138, 43264),

Gene: SuperAwesome\_77 Start: 44306, Stop: 43905, Start Num: 54

Candidate Starts for SuperAwesome\_77:

(Start: 54 @44306 has 19 MA's), (Start: 63 @44291 has 127 MA's), (Start: 67 @44267 has 5 MA's), (73, 44237), (Start: 76 @44228 has 3 MA's), (Start: 78 @44210 has 1 MA's), (81, 44195), (108, 44060), (113, 44027), (114, 44024), (118, 44000), (120, 43991), (133, 43958), (141, 43928), (142, 43925),

Gene: SuperCallie99\_74 Start: 44072, Stop: 43749, Start Num: 76

Candidate Starts for SuperCallie99\_74:

(Start: 54 @44150 has 19 MA's), (Start: 63 @44135 has 127 MA's), (Start: 67 @44111 has 5 MA's), (73, 44081), (Start: 76 @44072 has 3 MA's), (Start: 78 @44054 has 1 MA's), (81, 44039), (108, 43904), (113, 43871), (114, 43868), (118, 43844), (120, 43835), (133, 43802), (141, 43772), (142, 43769),

Gene: Superchunk\_77 Start: 44436, Stop: 44017, Start Num: 63

Candidate Starts for Superchunk\_77:

(38, 44484), (Start: 63 @44436 has 127 MA's), (79, 44352), (89, 44301), (91, 44295), (97, 44271), (100, 44250), (103, 44229), (111, 44169), (112, 44166), (118, 44136), (120, 44127), (137, 44070), (154, 44031),

Gene: SweetiePie\_74 Start: 44907, Stop: 44488, Start Num: 63

Candidate Starts for SweetiePie\_74:

(44, 44946), (Start: 56 @44919 has 3 MA's), (Start: 63 @44907 has 127 MA's), (72, 44856), (Start: 76 @44844 has 3 MA's), (Start: 78 @44826 has 1 MA's), (100, 44721), (102, 44709), (103, 44700), (117, 44616), (120, 44604), (133, 44559), (139, 44535), (148, 44514), (153, 44502),

Gene: SwirlSquare\_80 Start: 44189, Stop: 43806, Start Num: 69

Candidate Starts for SwirlSquare\_80:

(27, 44327), (35, 44285), (38, 44282), (Start: 63 @44225 has 127 MA's), (Start: 69 @44189 has 1 MA's), (86, 44105), (89, 44090), (91, 44084), (97, 44060), (100, 44039), (102, 44027), (103, 44018), (111, 43958), (120, 43916), (148, 43832), (154, 43820),

Gene: TarsusIV\_72 Start: 44821, Stop: 44408, Start Num: 63

Candidate Starts for TarsusIV\_72:

(57, 44827), (Start: 63 @44821 has 127 MA's), (Start: 78 @44740 has 1 MA's), (95, 44671), (113, 44554), (114, 44551), (117, 44530), (120, 44518), (133, 44479), (154, 44422),

Gene: Temprado\_78 Start: 43777, Stop: 43391, Start Num: 63

Candidate Starts for Temprado\_78:

(Start: 48 @43804 has 9 MA's), (Start: 63 @43777 has 127 MA's), (74, 43720), (81, 43681), (103, 43573), (104, 43570), (107, 43552), (113, 43513), (114, 43510), (118, 43486), (124, 43468), (130, 43453), (141, 43414),

Gene: Terrific\_75 Start: 44751, Stop: 44332, Start Num: 63

Candidate Starts for Terrific\_75:

(23, 44850), (25, 44844), (39, 44793), (Start: 63 @44751 has 127 MA's), (Start: 76 @44688 has 3 MA's), (Start: 78 @44670 has 1 MA's), (98, 44583), (103, 44544), (108, 44517), (114, 44481), (117, 44460), (118, 44457), (120, 44448), (139, 44382), (146, 44364), (153, 44349),

Gene: TopsytheTRex\_74 Start: 44412, Stop: 43975, Start Num: 59

Candidate Starts for TopsytheTRex\_74:

(25, 44514), (28, 44508), (40, 44454), (Start: 59 @44412 has 6 MA's), (Start: 67 @44388 has 5 MA's), (103, 44202), (111, 44142), (118, 44109), (120, 44100), (133, 44061), (160, 43989),

Gene: Toaka\_76 Start: 44412, Stop: 43990, Start Num: 63

Candidate Starts for Toaka\_76:

(Start: 63 @44412 has 127 MA's), (Start: 67 @44388 has 5 MA's), (Start: 78 @44331 has 1 MA's), (96, 44247), (97, 44244), (100, 44223), (103, 44202), (105, 44196), (107, 44181), (108, 44175), (113, 44142), (114, 44139), (136, 44052), (154, 44007), (156, 44004), (158, 44001),

Gene: Tomathan\_77 Start: 45390, Stop: 44971, Start Num: 63

Candidate Starts for Tomathan\_77:

(Start: 63 @45390 has 127 MA's), (73, 45336), (83, 45282), (100, 45207), (108, 45159), (113, 45126), (114, 45123), (117, 45102), (129, 45060), (133, 45048), (138, 45027), (142, 45015), (146, 45003), (155, 44985),

Gene: ToneTone\_74 Start: 43337, Stop: 42951, Start Num: 63

Candidate Starts for ToneTone\_74:

(Start: 48 @43364 has 9 MA's), (Start: 63 @43337 has 127 MA's), (74, 43280), (81, 43241), (103, 43133), (104, 43130), (107, 43112), (113, 43073), (114, 43070), (118, 43046), (124, 43028), (130, 43013), (141, 42974),

Gene: Travvers\_76 Start: 45276, Stop: 44857, Start Num: 63

Candidate Starts for Travvers\_76:

(Start: 63 @45276 has 127 MA's), (83, 45168), (100, 45093), (108, 45045), (113, 45012), (114, 45009), (117, 44988), (129, 44946), (138, 44913), (142, 44901), (146, 44889), (155, 44871),

Gene: Tristan\_71 Start: 45843, Stop: 45430, Start Num: 63

Candidate Starts for Tristan\_71:

(Start: 63 @45843 has 127 MA's), (64, 45831), (Start: 67 @45819 has 5 MA's), (75, 45783), (Start: 78 @45762 has 1 MA's), (83, 45735), (95, 45696), (100, 45660), (108, 45612), (114, 45573), (117, 45552), (122, 45525), (125, 45519), (135, 45486),

Gene: Trixie\_74 Start: 45538, Stop: 45125, Start Num: 63

Candidate Starts for Trixie\_74:

(42, 45586), (Start: 63 @45538 has 127 MA's), (75, 45478), (Start: 76 @45475 has 3 MA's), (82, 45436), (98, 45370), (100, 45352), (102, 45340), (117, 45247), (120, 45235), (139, 45172), (151, 45142),

Gene: Trooper\_74 Start: 44793, Stop: 44374, Start Num: 63

Candidate Starts for Trooper\_74:

(18, 44961), (20, 44943), (21, 44940), (39, 44844), (47, 44826), (Start: 56 @44805 has 3 MA's), (Start: 63 @44793 has 127 MA's), (Start: 69 @44757 has 1 MA's), (Start: 76 @44730 has 3 MA's), (Start: 78 @44712 has 1 MA's), (100, 44607), (108, 44559), (114, 44523), (117, 44502), (118, 44499), (120, 44490), (133, 44445), (139, 44421), (142, 44412), (153, 44388),

Gene: Tubs\_76 Start: 44087, Stop: 43668, Start Num: 63

Candidate Starts for Tubs\_76:

(14, 44336), (Start: 50 @44111 has 9 MA's), (Start: 63 @44087 has 127 MA's), (Start: 67 @44063 has 5 MA's), (75, 44027), (84, 43976), (97, 43922), (100, 43901), (103, 43880), (107, 43859), (108, 43853), (113, 43820), (114, 43817), (117, 43796), (118, 43793), (137, 43727), (138, 43724), (154, 43685), (156, 43682), (158, 43679),

Gene: Tucker\_77 Start: 43540, Stop: 43154, Start Num: 63

Candidate Starts for Tucker\_77:

(Start: 48 @43567 has 9 MA's), (Start: 63 @43540 has 127 MA's), (74, 43483), (81, 43444), (103, 43336), (104, 43333), (107, 43315), (113, 43276), (114, 43273), (118, 43249), (124, 43231), (130, 43216), (141, 43177),

Gene: Turbido\_75 Start: 45075, Stop: 44656, Start Num: 63

Candidate Starts for Turbido\_75:

(Start: 63 @45075 has 127 MA's), (Start: 76 @45012 has 3 MA's), (100, 44889), (103, 44868), (114, 44805), (117, 44784), (118, 44781), (120, 44772), (139, 44703), (148, 44682), (153, 44670),

Gene: Ugenie5\_71 Start: 44378, Stop: 43956, Start Num: 63

Candidate Starts for Ugenie5\_71:

(Start: 50 @44402 has 9 MA's), (Start: 63 @44378 has 127 MA's), (Start: 67 @44354 has 5 MA's), (75, 44318), (84, 44267), (97, 44213), (100, 44192), (103, 44171), (107, 44150), (108, 44144), (113, 44111), (114, 44108), (117, 44087), (118, 44084), (137, 44018), (138, 44015), (154, 43976),

Gene: Updawg\_75 Start: 44641, Stop: 44222, Start Num: 63

Candidate Starts for Updawg\_75:

(39, 44683), (Start: 63 @44641 has 127 MA's), (Start: 76 @44578 has 3 MA's), (Start: 78 @44560 has 1 MA's), (98, 44473), (103, 44434), (108, 44407), (114, 44371), (117, 44350), (118, 44347), (120, 44338), (139, 44272), (146, 44254), (153, 44239),

Gene: VA6\_74 Start: 44831, Stop: 44418, Start Num: 63

Candidate Starts for VA6\_74:

(Start: 63 @44831 has 127 MA's), (Start: 67 @44807 has 5 MA's), (Start: 76 @44768 has 3 MA's), (Start: 78 @44750 has 1 MA's), (98, 44663), (103, 44624), (117, 44540), (118, 44537), (133, 44489), (138, 44468), (151, 44435),

Gene: VC3\_76 Start: 44797, Stop: 44378, Start Num: 63

Candidate Starts for VC3\_76:

(Start: 63 @44797 has 127 MA's), (73, 44743), (83, 44689), (100, 44614), (108, 44566), (113, 44533), (114, 44530), (117, 44509), (129, 44467), (138, 44434), (146, 44410), (155, 44392),

Gene: Vanisoa\_73 Start: 44752, Stop: 44333, Start Num: 63

Candidate Starts for Vanisoa\_73:

(Start: 63 @44752 has 127 MA's), (Start: 67 @44728 has 5 MA's), (Start: 78 @44671 has 1 MA's), (96, 44587), (113, 44482), (114, 44479), (122, 44437),

Gene: VohminGhazi\_77 Start: 43629, Stop: 43228, Start Num: 54

Candidate Starts for VohminGhazi\_77:

(Start: 54 @43629 has 19 MA's), (Start: 63 @43614 has 127 MA's), (Start: 67 @43590 has 5 MA's), (73, 43560), (Start: 76 @43551 has 3 MA's), (Start: 78 @43533 has 1 MA's), (81, 43518), (108, 43383), (113, 43350), (114, 43347), (118, 43323), (120, 43314), (133, 43281), (141, 43251), (142, 43248),

Gene: WeiHuaDA\_75 Start: 45500, Stop: 45162, Start Num: 78

Candidate Starts for WeiHuaDA\_75:

(40, 45629), (Start: 63 @45581 has 127 MA's), (Start: 69 @45545 has 1 MA's), (72, 45530), (Start: 78 @45500 has 1 MA's), (89, 45446), (113, 45314), (114, 45311), (117, 45290), (118, 45287), (120, 45278), (143, 45203), (146, 45194), (153, 45179),

Gene: Whabigail7\_75 Start: 45075, Stop: 44656, Start Num: 63

Candidate Starts for Whabigail7\_75:

(39, 45123), (47, 45105), (53, 45090), (Start: 63 @45075 has 127 MA's), (Start: 76 @45012 has 3 MA's), (100, 44889), (103, 44868), (114, 44805), (120, 44772), (133, 44727), (135, 44718), (139, 44703), (146, 44685), (148, 44682), (153, 44670),

Gene: WideWale\_75 Start: 44641, Stop: 44222, Start Num: 63

Candidate Starts for WideWale\_75:

(39, 44683), (Start: 63 @44641 has 127 MA's), (Start: 76 @44578 has 3 MA's), (Start: 78 @44560 has 1 MA's), (98, 44473), (103, 44434), (108, 44407), (114, 44371), (117, 44350), (118, 44347), (120, 44338), (139, 44272), (146, 44254), (153, 44239),

Gene: Wiks\_76 Start: 43408, Stop: 43022, Start Num: 63

Candidate Starts for Wiks\_76:

(Start: 48 @43435 has 9 MA's), (Start: 63 @43408 has 127 MA's), (74, 43351), (81, 43312), (103, 43204), (104, 43201), (107, 43183), (113, 43144), (114, 43141), (118, 43117), (124, 43099), (130, 43084), (141, 43045),

Gene: WorldCup\_74 Start: 44017, Stop: 43595, Start Num: 63

Candidate Starts for WorldCup\_74:

(Start: 63 @44017 has 127 MA's), (Start: 67 @43993 has 5 MA's), (Start: 76 @43951 has 3 MA's), (96, 43849), (98, 43843), (113, 43744), (114, 43741), (122, 43699),

Gene: WunderPhul\_77 Start: 43433, Stop: 43020, Start Num: 48

Candidate Starts for WunderPhul\_77:

(Start: 48 @43433 has 9 MA's), (Start: 63 @43406 has 127 MA's), (74, 43349), (81, 43310), (103, 43202), (104, 43199), (107, 43181), (113, 43142), (114, 43139), (118, 43115), (124, 43097), (130, 43082), (141, 43043),

Gene: XianYue\_70 Start: 44566, Stop: 44156, Start Num: 63

Candidate Starts for XianYue\_70:

(34, 44623), (Start: 63 @44566 has 127 MA's), (Start: 78 @44485 has 1 MA's), (89, 44434), (108, 44335), (113, 44302), (114, 44299), (116, 44284), (126, 44248), (142, 44194), (146, 44185), (153, 44173),

Gene: Yokurt\_76 Start: 43408, Stop: 43022, Start Num: 63

Candidate Starts for Yokurt\_76:

(Start: 48 @43435 has 9 MA's), (Start: 63 @43408 has 127 MA's), (74, 43351), (81, 43312), (103, 43204), (104, 43201), (107, 43183), (113, 43144), (114, 43141), (118, 43117), (124, 43099), (130, 43084), (141, 43045),

Gene: Zaka\_77 Start: 43435, Stop: 43022, Start Num: 48

Candidate Starts for Zaka\_77:

(Start: 48 @43435 has 9 MA's), (Start: 63 @43408 has 127 MA's), (74, 43351), (81, 43312), (103, 43204), (104, 43201), (107, 43183), (113, 43144), (114, 43141), (118, 43117), (124, 43099), (130, 43084), (141, 43045),

Gene: Zimmer\_73 Start: 45201, Stop: 44794, Start Num: 58

Candidate Starts for Zimmer\_73:

(42, 45228), (Start: 58 @45201 has 1 MA's), (74, 45138), (83, 45087), (92, 45054), (100, 45012), (107, 44970), (113, 44928), (114, 44925),

Gene: Zulu\_78 Start: 43786, Stop: 43400, Start Num: 63

Candidate Starts for Zulu\_78:

(Start: 48 @43813 has 9 MA's), (Start: 63 @43786 has 127 MA's), (74, 43729), (81, 43690), (103, 43582), (104, 43579), (107, 43561), (113, 43522), (114, 43519), (118, 43495), (124, 43477), (130, 43462), (141, 43423),